SUPPLEMENTAL PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

121 - 123 REYNOLDS STREET
ROCHESTER, NEW YORK

NYSDEC SPILL #1103833

Prepared for:	City of Rochester Division of Environmental Quality 30 Church Street, Room 300B Rochester, New York, 14614-1278
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1.0 INTRODUCTION

On behalf of the City of Rochester (City), Day Environmental, Inc. (DAY) prepared this report to summarize the findings of a Supplemental Phase II Environmental Site Assessment (Supplemental Phase II ESA) conducted at 121 - 123 Reynolds, Rochester, New York (Site). The scope of work was completed in general accordance with the Supplemental Phase II ESA Work Plan dated October 2016, which was accepted by the New York State Department of Environmental Conservation (NYSDEC) via an email dated October 4, 2016. The general location of the Site is shown on the Project Locus Map included as Figure 1.

1.1 Background

The subject property was formerly two separate parcels containing a single family house located on the southern portion of the Site. Subsequent to the City acquiring the parcels via foreclosure, the parcels were combined into its current single approximate 0.2-acre parcel addressed as 121-123 Reynolds Street, Rochester, New York, and the single family house was demolished by the City. The Site is classified as residential vacant land and is relatively level and covered with low vegetation.

In June 2011, petroleum-type contaminated soil was encountered during excavation of the basement foundation of a new residential house on the adjoining 125 Reynolds Street Parcel located south of the Site. Historical information indicated that the northern portion of the Site was formerly used as a gasoline station, and an auto repair facility that included a "spray paint" operation. As an environmental engineering control, an active sub-slab depressurization system (SSDS) was installed in the new residential house at 125 Reynolds Street to prevent petroleum vapors from entering the house. On behalf of the City, DAY was retained in 2011 to perform investigative work and remedial actions at the Site. The investigation included the field screening and analytical laboratory testing of soil samples from test pits TP-1 through TP-9 (refer to Figure 2). A Data Package report dated December 21, 2011 (DAY File #4576S-11) summarized the following conditions and remedial actions associated with the Site:

1. Contamination (primarily petroleum-related) was documented at the Site that appeared attributable to past uses of the Site. The NYSDEC was notified, and it assigned Spill #1103833 to the Site.
2. Four underground storage tanks (USTs) encountered during the limited investigation were decommissioned by removal in accordance with applicable regulations (refer to Figure 2). Sanborn maps and other historical public records indicated that these USTs were former gasoline and kerosene tanks.
3. Two limited source areas of soil (refer to Figure 2) were removed and disposed in accordance with applicable regulations; however, the analytical laboratory results for post-excavation soil samples indicated that contamination beyond the limits of the excavations remained above regulatory criteria.

On behalf of the City, DAY completed a Phase I Environmental Site Assessment (Phase I ESA) in April 2015 (DAY File #5045E-15) under the City's Brownfield Assistance Program (BAP) that is funded under a Brownfields Grant from the United States Environmental Protection Agency (USEPA). The Phase I ESA identified the following recognized environmental condition (REC) at the Site:

- Active NYSDEC Spill Incident/Former Leaking USTs, and the presence of contaminants in urban fill on the Site.

In August 2015, the City executed a Stipulation Agreement with the NYSDEC for investigation of Spill #1103833. In accordance with the Stipulation Agreement, the NYSDEC reviews and approves work plans, data packages, and reports. Should the City proceed with the environmental cleanup of the Site, it is anticipated that the City will execute a new Stipulation Agreement with the NYSDEC, and that the NYSDEC will provide regulatory oversight for the cleanup.

On behalf of the City, DAY completed a Phase II Environmental Site Assessment (Phase II ESA) in January 2016 (DAY File #5136S-15) under the City's BAP that is funded under a Brownfields Grant from the USEPA. As requested by the City, DAY's scope of work for the Phase II ESA further evaluated the Phase I ESA REC. The Phase II ESA included the following scope of work:

- Procurement of public right-of way (ROW) permit and general Site preparation activities.
- Advancement of test borings TB-1 to TB-16 (refer to Figure 2) and field screening of associated soil/fill samples.
- Laboratory analysis of select soil/fill samples collected from test borings.
- Installation, development, and sampling of groundwater monitoring wells (MW-1 through MW-4 (refer to Figure 2), including collection of static water levels and other field measurements.
- Laboratory analysis of groundwater samples collected from monitoring wells.
- Preparation of a Phase II ESA report.

The findings of the Phase II ESA are summarized below.

- Field evidence of petroleum-type contamination was encountered in nine test borings and four monitoring wells located in proximity to, and down-gradient of, the former UST systems area. Soil samples from four of nineteen test locations (i.e., TB-5, TB-12, TB-13, and MW-2 shown on Figure 2) exceeded applicable NYSDEC Part 375 soil cleanup objectives (SCOs) and NYSDEC Commissioner's Policy 51 (CP-51) soil cleanup levels (SCLs) for volatile organic compounds (VOCs). The groundwater samples from each of the four monitoring wells (MW-1 through MW-4 shown on Figure 2) exceeded NYSDEC Technical and Operational Guidance Series (TOGS 1.1.1) groundwater standards and guidance values for VOCs. With the exception of TB-12, soil samples collected from test borings advanced in proximity to the perimeter of the Site, including within the adjacent public ROWs, did not contain VOCs above applicable SCOs and SCLs. With the exception of an area along the east side of the Site in proximity to test location TB-12, the extent of petroleum impact was generally delineated by the Phase II ESA and previous studies, and appeared limited primarily to the Site.
- Urban fill was encountered at 12 of 20 Phase II ESA test borings from the ground surface to depths up to approximately 6.0 feet below the ground surface. The urban fill material primarily consists of reworked soil with trace amounts of cinders, ash and brick. Two samples of urban fill material at test borings TB-7 and TB-8, shown on Figure 4, contained elevated concentrations of the metal Lead that exceeded applicable SCOs, but did not exceed characteristic hazardous waste toxicity regulatory levels. Elevated semi-volatile organic compounds (SVOCs) exceeding applicable SCOs and SCLs were detected in urban fill material at test boring TB-8 shown on Figure 4. Test borings TB-7 and TB-8 are located on the northern portion of the Site in proximity to the former gasoline station and auto repair facility with a former "paint spraying" operation.

1.2 Purpose

The purpose of the Supplemental Phase II ESA was to further define the extent of petroleum contamination in the overburden to assist in design of a remedy that assists in preparing the Site for its intended future residential use.

1.3 Limitations

The findings and conclusions presented in this report are based upon an evaluation of a limited number of samples collected during this study and DAY's interpretation of this data. Conditions between sample locations may vary and, as such, the findings and conclusions presented herein should be considered as a professional opinion. If additional data becomes available in the future, it may be necessary to re-evaluate the opinions expressed in this report.

2.0 FIELDWORK AND ANALYTICAL LABORATORY TESTING

As part of this Supplemental Phase II ESA, various tasks were performed on the Site, including a subsurface study and analytical laboratory testing of selected soil samples. These work items are further discussed below.

2.1 Site Preparation

On October 5, 2016, a utility stakeout was requested so that buried utilities were cleared and/or marked out. On October 11, 2016, Supplemental Phase II ESA test locations were marked out in the field using measurements from existing monitoring wells.

2.2 Subsurface Evaluation

On October 13, 2016, nine test borings (designated as TB-17 through TB-25 on Figure 2) were advanced to equipment refusal through overburden at locations on the Site using a direct-push drill-rig. Direct-push equipment refusal occurred at depths ranging between 8.6 feet (ft.) below the ground surface (bgs) at TB-22 and TB-25 and 10.1 ft. bgs at TB-17.

DAY retained Nothnagle Drilling, Inc. (Nothnagle) to provide the drilling equipment and operator to advance the direct-push test borings. Continuous soil samples were collected in four-foot intervals or less using a Geoprobe Macro-core sampling system at each test boring advanced on October 13, 2016. An on-site DAY or City representative logged subsurface conditions and screened soil samples with a photoionization detector (PID) at each test location. The field screening included recording observations of suspect petroleum impact, such as petroleum odors and staining. Other portions of the soil samples were containerized for possible analytical laboratory testing. Pertinent information for each test boring is provided on test boring logs that are included in Appendix A. Upon completion, test borings were backfilled with cuttings.

2.3 Analytical Laboratory Testing

Select samples from test borings completed during this Supplemental Phase II ESA were submitted to Chemtech Consulting Group, Inc. (Chemtech) for analytical laboratory testing. Chemtech is a New York State Department of Health Environmental Laboratory Approval Program (ELAP) certified analytical laboratory (ELAP #11376). Based on field screening results and input from the City, one soil sample from each of the nine test borings was selected for analytical laboratory testing (refer to Sample Log included as Table 1).

Chemtech analyzed the nine soil samples for NYSDEC Spill Technology and Remediation Series (STARS)-list/NYSDEC CP-51-list VOCs using USEPA Method 8260.

3.0 FINDINGS

The findings of the Supplemental Phase II ESA are presented in this section of the report.

3.1 Subsurface Soil Conditions

Subsurface soil conditions encountered, as well as peak PID readings measured on the soil samples collected from the test borings are provided on the test boring logs included in Appendix A. A summary of subsurface soil conditions is provided below.

An approximate half-foot thick layer of topsoil with grass was present at each test boring. Urban fill was encountered at three of nine Supplemental Phase II ESA test borings (i.e., TB-17, TB-23 and TB-24 located within the footprints of former buildings) from the ground surface to depths up to approximately 4.5 feet bgs (i.e., at TB-23). The urban fill material primarily consists of reworked soil with trace amounts of cinders, ash and brick, which is similar to that encountered during the previous Phase II ESA. Indigenous soil beneath the topsoil and/or urban fill generally consisted of tan silt with a trace to some sand and/or gravel. The direct-push equipment refusals encountered between 8.6 ft. bgs and 10.1 ft. bgs are indicative of the top of bedrock.

Peak PID readings measured at each of the nine test boring locations are summarized below:

- A peak PID reading of 1,096 parts per million (ppm) was measured on a headspace sample collected approximately 8.0 to 9.0 ft. bgs at test boring TB-18, which is located east of the former UST soil removal areas. This sample consisted of an indigenous silt soil, and a petroleum-type odor was noted on the sample. PID readings on soil samples between the ground surface and a depth of approximately 8.0 feet ranged between 0.0 ppm and 2.0 ppm.
- A peak PID reading of 7.5 ppm was measured on a headspace sample collected approximately 8.0 to 9.0 ft. bgs at test boring TB-19, which is located southeast of the former UST soil removal areas. This sample consisted of an indigenous sand and silt soil that was gray in color, but was not noted to exhibit a petroleum-type odor. PID readings measured on soil samples between the ground surface and a depth of approximately 8.0 feet were 0.0 ppm.
- A peak PID reading of 270 ppm was measured on a headspace sample collected approximately 7.0 to 8.0 ft. bgs at test boring TB-20, which is located southwest of the former UST soil removal areas within the apparent plume area. This sample consisted of an indigenous silt soil, and a petroleum-type odor was noted on the sample. PID readings measured on soil samples between the ground surface and a depth of approximately 7.0 feet were 0.0 ppm.
- A peak PID reading of 792 ppm was measured on the portion of the macro-core sample collected approximately 8.0 to 8.6 ft. bgs at test boring TB-22, which is located southeast of the former UST soil removal areas within the apparent plume area. This sample consisted of an indigenous silt soil, and a petroleum-type odor and gray/black staining were noted on the sample. PID readings on soil samples between the ground surface and a depth of approximately 8.0 feet ranged between 0.0 ppm and 0.5.0 ppm.
- A peak PID reading of 67.8 ppm was measured on a headspace sample collected approximately 8.0 to 9.5 ft. bgs at test boring TB-23, which is located hydraulically downgradient and southwest of the former UST soil removal areas within the apparent plume area. This sample consisted of an indigenous silt soil that was not noted to exhibit a petroleum-type odor. PID readings on soil samples between the ground surface and a depth of approximately 8.0 feet were 0.0 ppm.

- No unusual odors or staining, and peak PID readings between 0.0 ppm and 5.0 ppm, were documented on the Macro-core soil samples at the four remaining test boring locations (i.e. TB-17, TB-21, TB-24 and TB-25).

The peak PID readings measured on soil samples at the nine Supplemental Phase II ESA test borings and also previous test locations are shown on Figure 3. ArcGIS Spatial Analyst was used to model the peak PID reading gradient across the study area on the Site and adjoining public ROWs. As shown, a source area "hot spot" of highest PID readings is located on the northeast portion of the Site in proximity to the former UST locations (includes TP-1, TK1/2-EXC-N,S,E,W, TK3/4-EXC-N,S,E, TP-4, MW-1, TB-5 and TB-18). Figure 3 also shows a plume of elevated PID readings that extends southward from the hot spot (plume includes test locations MW-2, TB-13, MW-3, TB-12, TP-8, TB-20, TB-22, and TB-23).

3.2 Analytical Laboratory Test Results for Soil Samples

Chemtech's NYSDEC Analytical Services Protocol Category B deliverable report for the soil samples is included in Appendix B. The results are summarized on Table 2. Table 2 (VOCs and Naphthalene) includes a comparison to Residential Use SCOs, Restricted Residential Use SCOs and Protection of Groundwater SCOs referenced in the NYSDEC document titled "6 NYCRR Part 375, Environmental Remediation Programs" dated December 14, 2006. The results and comparison to regulatory criteria referenced above are summarized below.

- VOCs and Naphthalene: As shown on Table 2, one or more VOCs were detected in six of the nine soil samples that were tested. Specific VOCs detected in at least one sample included: Benzene, Toluene, Ethylbenzene, mixed Xylenes (i.e., sum of m,p-Xylene and o-Xylene concentrations), Isopropylbenzene, n-Propylbenzene, 1,3,5-Trimethylbenzene, tert-Butylbenzene, 1,2,4-Trimethylbenzene, sec-Butylbenzene, p-Isopropyltoluene and n-Butylbenzene. Detected concentrations of these constituents ranged between 0.0011 and 5.1 milligram/kilogram (mg/kg) or ppm. The detected concentrations of two VOCs in sample 034-TB-20(8-9.3) exceeded one or more of their available Protection of Groundwater SCOs and/or SCLs, but did not exceed their available Residential Use SCOs or Restricted Residential Use SCOs. The remaining eight samples tested either did not contain VOCs, or contained VOCs at concentrations below their applicable SCOs and SCLs listed on Table 2.

  Naphthalene was detected in six of the nine soil samples that were tested. Detected concentrations of Naphthalene ranged between 0.0014 and 6.0 mg/kg or ppm. The detected concentrations of Naphthalene in the six samples were below its applicable SCOs and SCL listed on Table 2.

  The total VOC concentrations detected by the analytical laboratory for soil samples at the nine Supplemental Phase II ESA test borings and also previous test locations are shown on Figure 4. Figure 4 shows which of these samples exceeded Part 375 Residential Use SCOs and/or CP-51 SCLs for petroleum-related VOCs. ArcGIS Spatial Analyst was used to model the total VOC in soil concentration gradient across the study area on the Site and adjoining public ROWs. Similar to that shown on Figure 3 for peak PID readings, Figure 4 shows a source area "hot spot" of highest total VOCs in soil on the northeast portion of the Site in proximity to the former UST locations (includes TP-1, TK1/2-EXC-N,S,E,W, TK3/4-EXC-N,S,E, TP-4, MW-1, and TB-5). Figure 4 also shows a plume of elevated total VOCs in soil that extends southward from the hot spot (plume includes test locations MW-2, TB-13, MW-3, TB-12, TP-8 and TB-20).

4.0 CONCLUSIONS AND RECOMMENDATIONS

An April 2015 Phase I ESA identified the following REC:

- Active NYSDEC Spill Incident/Former Leaking USTs, and the presence of contaminants in urban fill on the Site.

The January 2016 Phase II ESA report identified the following environmental conditions as they relate to the REC.

- Petroleum-type contamination was encountered at test locations in proximity to, and down-gradient of, the former UST systems area. Some soil samples exceeded applicable SCOs and SCLs for VOCs. The groundwater samples from the four monitoring wells exceeded TOGS 1.1.1 Standards and Guidance Values for VOCs. With the exception of TB-12, soil samples collected from test borings advanced in proximity to the perimeter of the Site, including within the adjacent public ROWs, did not contain VOCs above applicable SCOs and SCLs.
- Two samples of urban fill material contained elevated concentrations of the metal Lead that exceeded applicable SCOs, but did not exceed characteristic hazardous waste toxicity regulatory levels. One sample of urban fill contained elevated SVOCs exceeding applicable SCOs and SCLs.

As requested by the City, DAY's scope of work for the Supplemental Phase II ESA further defined the extent of petroleum contamination in the overburden. The Supplemental Phase II ESA was completed in October 2016, and the following scope of work was included as part of the project:

- General Site preparation activities.
- Advancement of nine overburden test borings including field screening of soil samples.
- Laboratory analysis of a select soil sample from each of the nine test borings.
- Geographic Information System (GIS) modeling of peak PID readings and total VOCs detected in soil samples from the nine test borings.
- Preparation of this report.

4.1 Summary of Supplemental Phase II ESA Findings

The findings of the Supplemental Phase II ESA are summarized below.

- Field evidence of petroleum-type contamination (e.g., odors, staining, PID readings greater than 5.0 ppm) was encountered in five of the nine test borings in proximity to, and down-gradient of, the former UST systems area. Figure 3 shows the interpolated PID readings measured at the previous test locations and the nine Supplemental Phase II ESA test boring locations. Figure 4 shows the interpolated VOCs measured in soil samples collected at the previous test locations and the nine Supplemental Phase II ESA test boring locations. Figure 4 also shows the cumulative soil samples that exceeded applicable NYSDEC Part 375 Residential Use SCOs and NYSDEC CP-51 SCLs for VOCs. The Supplemental Phase II ESA further defined the extent of petroleum-impacted soil at the Site. With the exception of TB-12 advanced during the initial Phase II ESA, soil samples collected from cumulative test borings advanced in proximity to the perimeter of the Site, including within the adjacent public ROWs, did not contain VOCs above applicable SCOs and SCLs.

- Urban fill material consisting of reworked soil with trace amounts of cinders, ash and brick is present at many previous and Supplemental Phase II ESA test locations from near the ground surface to depths up to approximately 10.1 ft. bgs. As part of the previous Phase II ESA, two samples of urban fill material contained elevated concentrations of the metal Lead that exceeded applicable SCOs, but did not exceed characteristic hazardous waste toxicity regulatory levels, and one sample of urban fill material contained SVOCs exceeding applicable SCOs and SCLs. The samples containing concentrations of Lead or SVOCs exceeding SCOs and/or SCLs were located on the northern portion of the Site in proximity to the former gasoline station and auto repair facility with former "paint spraying" operation.

4.2 Conclusions

Based on the work completed to date, petroleum contamination associated with the former UST systems continues to be considered a REC; however, the extent of impact appears limited (refer to Figure 3 and Figure 4). Given the additional subsurface work conducted during the Supplemental Phase II ESA, and assuming some of the backfill in the two 2011 excavation areas may be contaminated near the top of bedrock, it is estimated that approximately 127 cubic yards (190 tons) of petroleum-contaminated soil exceeding applicable SCOs and SCLs, that is $\geq$1.0 ft. thick, is present in the petroleum source area.

A hydraulically downgradient petroleum plume with lower constituent concentrations is present on the southern portion of the Site. Based on cumulative subsurface test location information, soil/fill from the ground surface to depths of at least 6.5 feet on the southern portion of the Site do not appear to be adversely impacted with petroleum. The cumulative studies also indicate that the on-site plume dimensions appear to cover an approximate 40 ft. by 45 ft. (i.e., 1,800 square foot) area. Given the additional subsurface work conducted during the Supplemental Phase II ESA, it is estimated that approximately 79 cubic yards (118 tons) of petroleum-contaminated soil exceeding applicable SCOs and SCLs, that is $\geq$1.0 ft. thick, is present in the petroleum plume area.

With the exception of an area along the east side of the Site in proximity to test location TB-12, the extent of petroleum impact exceeding applicable SCOs and SCLs was generally delineated by the Supplemental Phase II ESA and previous studies, and appears limited primarily to the Site. The concentrations of petroleum-related VOCs present in soil and groundwater continue to warrant further remediation.

Soil samples collected from test borings TB-18, TB-22, and TB-23 exhibited peak PID readings of 1,046 ppm, 792 ppm, and 67.9 ppm respectively. However, analytical laboratory analysis of soil samples that corresponded with these peak PID readings did not detect target VOC concentrations above applicable Part 375 SCOs and CP-51 SCLs. In contrast, a soil sample collected from TB-20 exhibited a peak PID reading of 210 ppm, and analytical laboratory analysis of the corresponding soil sample detected target VOC concentrations above applicable Part 375 SCOs and CP-51 SCLs. The above findings suggest peak PID readings on soil samples from this Site do not always correlate well with VOC concentrations detected in these samples via analytical laboratory testing. In addition, even though soil samples from locations such as TB-18, TB-22, and TB-23 contained target VOCs at concentrations below Part 375 Protection of Groundwater SCOs, it is possible that the petroleum-contaminated soils at these test boring locations could be a source of VOCs leaching to groundwater as demonstrated by the previous groundwater monitoring results on this portion of the Site. Given the intended future residential use of the Site, and the existing residential use of the adjacent off-site property to the south, remedial measures should consider an aggressive source removal to the extent deemed practical

and feasible in order to minimize reliance on future environmental institutional controls and engineering controls. As a result, PID readings in soil and SCO exceedances in soil samples should not be the sole criteria to define source removal remedial measures. Nuisance characteristics criteria such as odors, staining, and vapors should also be considered when defining the extent of remediation.

Urban fill material at the Site continues to be a REC. Based on the work performed during Supplemental Phase II ESA and previous studies, the urban fill material primarily consists of reworked soil, and trace to little amounts of brick, cinders, wood, coal and/or ash are sporadically present in the reworked soil. The urban fill material is not considered a characteristic hazardous waste based on its metals content; however, since some fill has been found to contain metals and SVOCs at concentrations exceeding applicable SCOs and SCLs, and given the Site may be redeveloped for residential use, select fill removal, special handling requirements, and on-site or off-site re-use/disposal restrictions appear warranted.

4.3 Recommendations

Based on the work completed to date, it is recommended that additional soil removal, upper fractured bedrock removal and in-situ remediation be conducted at the petroleum source area on the northeast portion of the Site in proximity to the former UST locations, and also at the petroleum plume area on the southeast portion of the Site. The removal work can effectively address the impacted media in the unsaturated zone, and the in-situ remediation will assist with remediation of impacted media in the saturated zone. Prior to backfilling the excavations, the in-situ remediation would include placement of remediation amendment in the excavations as well as installation of subsurface remediation delivery system components in the excavations for possible future in-situ treatments.

In-situ remediation (i.e., bioremediation, oxygen injection, chemical oxidation, barrier systems, etc.) can address the saturated zone contamination effectively and provide a widespread treatment area. The specific in-situ remedial alternative(s) selected, Site characteristics, and the quantities of remedial amendments used, will dictate the process in which contaminants are destroyed (chemical reaction, aerobic respiration, etc.), the associated timeframe to completion (i.e., quick chemical reactions, aerobic respiration rates, etc.) and the subsurface injection method (i.e., excavation amendment, temporary direct-push points, subsurface infiltration gallery, permanent injection points, etc.).

In order to assist in preparing the Site for residential redevelopment, it is recommended that select areas and/or types of fill material (e.g., fill containing ash layers, fill containing elevated concentrations of Lead and/or SVOCs, etc. generally located on the northern half of the Site in proximity to the former gasoline station and auto repair facility with former “paint spraying” operation) be removed, transported off-site, and disposed at a regulated landfill facility in accordance with applicable regulations.

Subsequent to the corrective actions outlined above, it is anticipated that residual concentrations of petroleum will remain in soil and groundwater at the Site. In addition, it is anticipated that some areas of urban fill material may remain on the Site. As such, it is recommended that a Soil and Groundwater Management Plan (SGMP) be prepared in accordance with NYSDEC Region 8 Spills Unit guidance, and that the SGMP be implemented to address future disturbances, handling, re-use, disposal and exposures presented by these impacted media. In addition, the SGMP will require that the potential for soil vapor intrusion from residual petroleum impacts into any buildings to be constructed at the Site be evaluated, and that a vapor mitigation system (e.g., SSDS) be installed on

any new structure if a potential complete soil vapor intrusion exposure pathway is identified. Deed restrictions or other institutional controls (e.g., flagging parcel in City Building Information System) may also be warranted.

It is recommended that this Supplemental Phase II ESA report be provided to the NYSDEC for its use in relation to NYSDEC Spill File #1103833. It is also recommended that the NYSDEC confirm that the SSDS associated with the residential house at the adjoining 125 Reynolds Street parcel is operating within its design parameters.

5.0 ABBREVIATIONS

BAP	Brownfield Assistance Program
BGS	Below the Ground Surface
Chemtech	Chemtech Consulting Group, Inc.
City	City of Rochester
CP-51	NYSDEC Commissioner's Policy 51
DAY	Day Environmental, Inc.
ELAP	Environmental Laboratory Approval Program
ESA	Environmental Site Assessment
Ft.	Feet
GIS	Geographic Information System
mg/kg	Milligram per Kilogram
Nothnagle	Nothnagle Drilling, Inc.
NYCRR	New York Codes, Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
Phase I ESA	Phase I Environmental Site Assessment
Phase II ESA	Phase II Environmental Site Assessment
PID	Photoionization Detector
ppm	Parts Per Million
REC	Recognized Environmental Condition
ROW	Right-Of-Way
SCL	Soil Cleanup Level
SCO	Soil Cleanup Objective
SGMP	Soil and Groundwater Management Plan
SSDS	Sub-Slab Depressurization System
STARS	Spill Technology and Remediation Series
SVOC	Semi-Volatile Organic Compound
TOGs	Technical and Operational Guidance Series
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOC	Volatile Organic Compound

FIGURES

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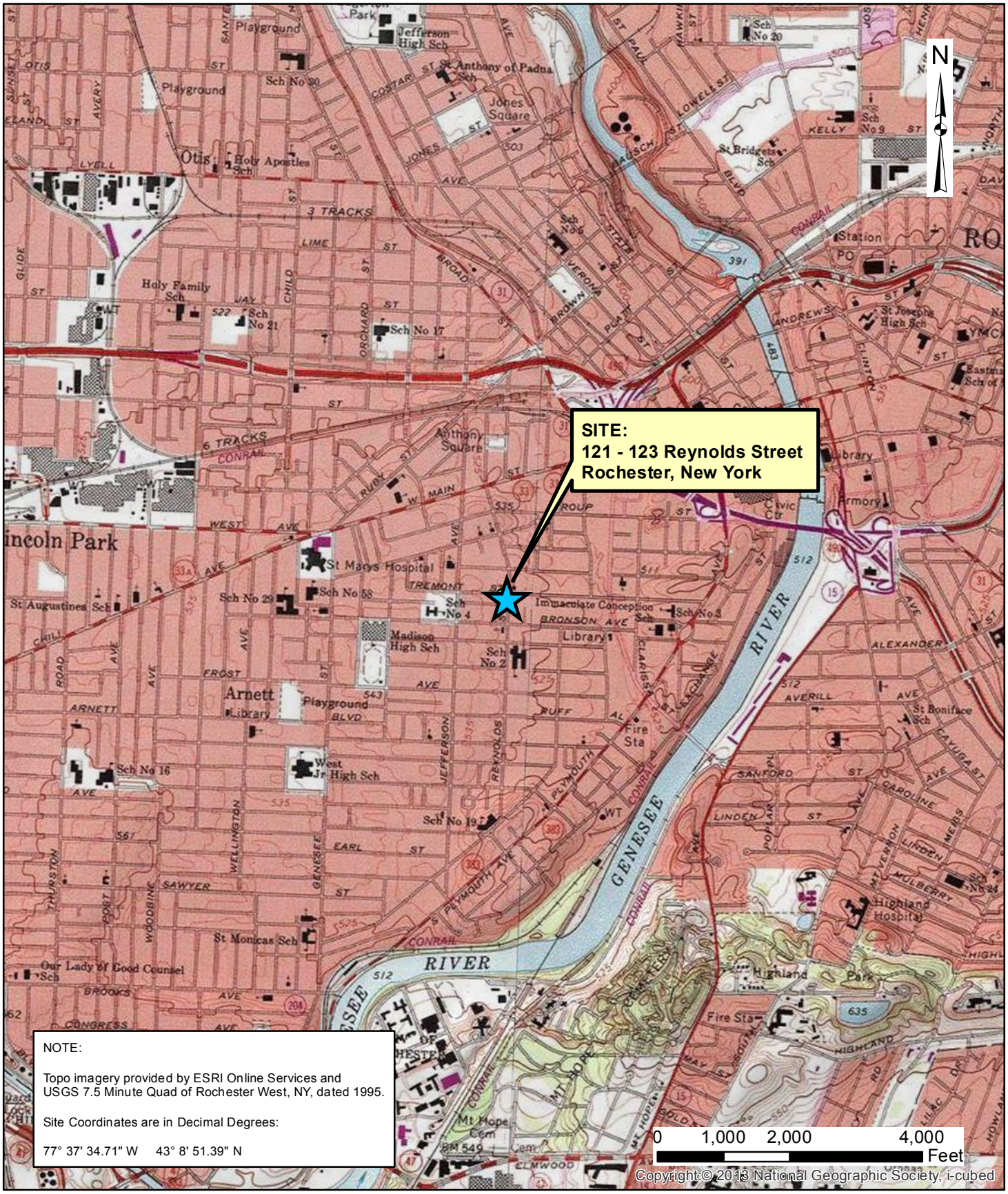


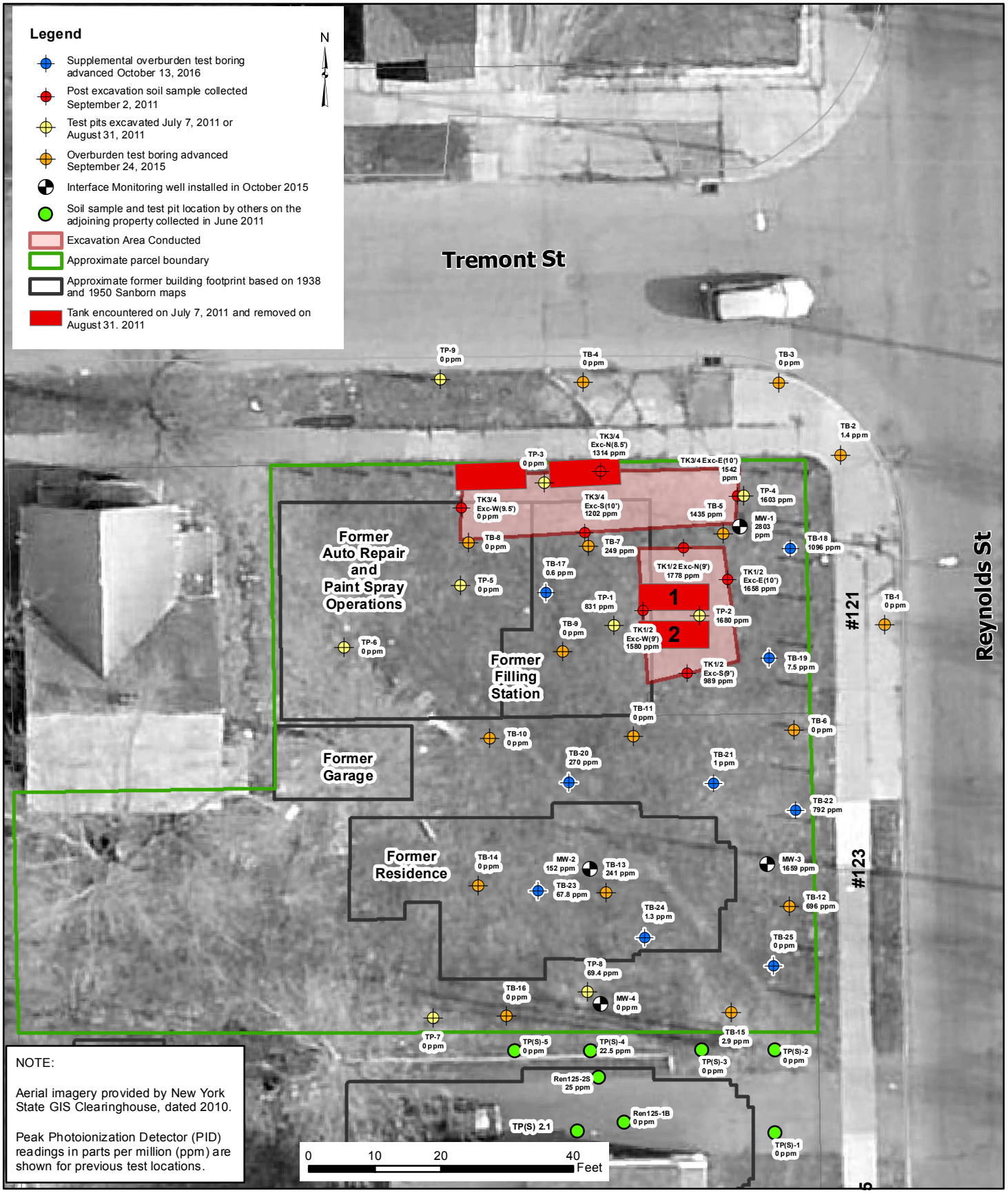
NOTE:

Topo imagery provided by ESRI Online Services and USGS 7.5 Minute Quad of Rochester West, NY, dated 1995.

Site Coordinates are in Decimal Degrees:

77° 37' 34.71" W 43° 8' 51.39" N

Date: 08-14-2015 Drawn By: ANM Scale: AS NOTED	**DAY ENVIRONMENTAL, INC.** Environmental Consultants Rochester, New York 14614-1008 New York, New York 10016-0710	Project Title: 121 - 123 REYNOLDS STREET ROCHESTER, NEW YORK PHASE II ENVIRONMENTAL SITE ASSESSMENT Drawing Title: Project Locus Map	Project No.: 5136S-15 FIGURE 1



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Last Date Saved: 04 Nov 2016

Date: 11-04-2016 Drawn By: CCD/CPS Scale: AS NOTED	**DAY ENVIRONMENTAL, INC.** Environmental Consultants Rochester, New York 14606 New York, New York 10170	Project Title: 121 - 123 REYNOLDS STREET ROCHESTER, NEW YORK SUPPLEMENTAL PHASE II ENVIRONMENTAL SITE ASSESSMENT Drawing Title: Site Plan with Previous and Supplemental Test Locations	Project No.: 5136S-15 FIGURE 2

Legend

- Supplemental overburden test boring advanced October 13, 2016
- Post excavation sample collected September 2, 2011
- Test pit sample collected July 7, 2011
- Overburden test boring advanced September 24, 2015
- Interface Monitoring well installed in October 2015
- Soil sample and test pit location by others on the adjoining property collected in June 2011

Peak PID in parts per million (ppm)

- 0 - 25
- 25 - 100
- 100 - 200
- 200 - 500
- 500 - 1,000
- 1,000 - 3,000

- Excavation Area
- Approximate parcel boundary
- Approximate former building footprint based on 1938 and 1950 Sanborn maps

N

Tremont Street

TP-9 0 ppm
TB-4 0 ppm
TB-3 0 ppm
TB-2 1.4 ppm
TK3/4 Exc-N(8.5') 1314 ppm
TP-3 0 ppm
TK3/4 Exc-W(9.5') 0 ppm
TK3/4 Exc-E(10') 1542 ppm
TP-4 1603 ppm
TK3/4 Exc-S(10') 1202 ppm
TB-5 1435 ppm
MW-1 2803 ppm
TB-8 0 ppm
TK1/2 Exc-N(9') 1778 ppm
TB-7 249 ppm
TB-18 1096 ppm
TK1/2 Exc-E(10') 1658 ppm
TP-5 0 ppm
TB-17 0.6 ppm
TK1/2 Exc-W(9') 1580 ppm
TP-2 1680 ppm
TP-1 831 ppm
TB-1 0 ppm
TP-6 0 ppm
TB-9 0 ppm
TB-19 7.5 ppm
TK1/2 Exc-S(9') 989 ppm
Former Auto Repair and Paint Spray Operations
Former Filling Station
Former Garage
Former Residence
TB-10 0 ppm
TB-11 0 ppm
TB-6 0 ppm
TB-20 270 ppm
TB-21 1 ppm
TB-22 792 ppm
MW-3 1659 ppm
MW-2 152 ppm
TB-14 0 ppm
TB-23 67.8 ppm
TB-13 241 ppm
TB-12 696 ppm
TB-24 1.3 ppm
TB-25 0 ppm
TP-8 69.4 ppm
MW-4 0 ppm
TP-7 0 ppm
TB-16 0 ppm
TB-15 2.9 ppm
TP(S)-5 0 ppm
TP(S)-4 22.5 ppm
TP(S)-3 0 ppm
TP(S)-2 0 ppm
Ren125-2S 25 ppm
Ren125-1B 0 ppm
TP(S)-1 0 ppm
#121
#123
Reynolds Street

0 5 10 20 Feet

NOTES:

The Peak PID interpolation is a 2-D model that does not account for the depth where the Peak PID concentration was measured.

Building footprints were derived from Sanborn maps, dated 1938, 1950 and 1959.

Parcel and Edge of Pavement GIS data provided by Monroe County, dated 2008.

Overburden test boring and interface well locations are considered to be approximate.

Aerial imagery provided by the City of Rochester Department of Environmental Quality, dated 2015.

Project No. 5136S-15

FIGURE 3

Project Title
121 - 123 REYNOLDS STREET
ROCHESTER, NEW YORK

SUPPLEMENTAL PHASE II ENVIRONMENTAL SITE ASSESSMENT

Drawing Title
Site Plan with Interpolated Peak PID Readings Measured at Previous Test Locations, and Supplemental Overburden Test Boring Locations

day
DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

DESIGNED BY	DATE
JAD	01-2017
DRAWN BY	DATE DRAWN
CPS	01-2017
SCALE	DATE ISSUED
AS NOTED	01-02-2017

Tremont Street

Legend

- Supplemental overburden test boring advanced October 13, 2016
- Post excavation sample collected September 2, 2011
- Test pit sample collected July 7, 2011 or August 31, 2011
- Overburden test boring advanced September 24, 2015
- Interface Monitoring well installed in October 2015
- Exceeds CP-51 Soil Cleanup Level and/or Part 375 Residential Use Soil Cleanup Objective for Petroleum-Related VOCs

VOCs in Soil measured in parts per million (ppm)

- 0 - 0.5
- 0.5 - 2
- 2 - 5
- 5 - 100
- 100 - 500
- 500 - 1,000
- 1,000 - 2,000

- Excavation area conducted September 2, 2011
- Approximate parcel boundary
- Approximate former building footprint based on 1938 and 1950 Sanborn maps

N

TP-9 0 ppm
TB-4 0 ppm
TB-3 0 ppm
TB-2 0.0019 ppm
TK3/4 Exc-N(8.5') 3.46 ppm
TK3/4 Exc-E(10') 55.17 ppm
TP-4 188.42 ppm
TP-3
TK3/4 Exc-W(9.5') 0.0107 ppm
TK3/4 Exc-S(10') 0.0468 ppm
TB-5 98.359 ppm
MW-1
TB-8 0 ppm
TB-7 0.219 ppm
TK1/2 Exc-N(9') 27.55 ppm
TB-18 4.2746 ppm
Former Auto Repair and Paint Spray Operations
TP-5 0 ppm
TB-17 0 ppm
TK1/2 Exc-W(9') 1800.9 ppm
TK1/2 Exc-E(10') 30.72 ppm
TP-1 5.26 ppm
TP-2
TB-1 0 ppm
TP-6 0.0229 ppm
TB-9 0 ppm
#121
TK1/2 Exc-S(9') 19.83 ppm
TB-19 0.0052 ppm
Reynolds Street
Former Filling Station
TB-10 0 ppm
TB-11 0 ppm
TB-6 0 ppm
TB-20 12.5595 ppm
TB-21 0.0011 ppm
Former Garage
TB-22 0.0562 ppm
MW-2 55.3297 ppm
TB-23 0.2753 ppm
TB-13 45.03 ppm
MW-3 6.0865 ppm
Former Residence
TB-14 0 ppm
#123
TB-12 24.99 ppm
TB-24 0 ppm
TB-25 0 ppm
TP-8 0.22 ppm
MW-4 0 ppm
TP-7 0 ppm
TB-16 0 ppm
TB-15 0 ppm

0 5 10 20 Feet

NOTES:

The VOC in Soil interpolation is a 2-D model that does not account for the depth of the soil samples.

Building footprints were derived from Sanborn maps, dated 1938, 1950 and 1959.

Parcel and Edge of Pavement GIS data provided by Monroe County, dated 2008.

Overburden test boring and interface well locations are considered to be approximate.

Aerial imagery provided by the City of Rochester Department of Environmental Quality, dated 2015.

Project No. 5136S-15

FIGURE 4

Project Title
121 - 123 REYNOLDS STREET
ROCHESTER, NEW YORK

SUPPLEMENTAL PHASE II ENVIRONMENTAL SITE ASSESSMENT

Drawing Title
Site Plan with Interpolated Total VOCs Measured in Soil Samples from Previous Test Locations, and Supplemental Overburden Test Boring Locations

day
DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

DESIGNED BY	DATE
JAD	01-2017
DRAWN BY	DATE DRAWN
CPS	01-2017
SCALE	DATE ISSUED
AS NOTED	01-02-2017

TABLES

Table 1

121 - 123 Reynolds Street
Rochester, New York

NYSDEC Spill #1103833

Sample Log

Sample ID	Collection Date	Depth (ft)	Composite or Grab	PID Reading (PPM)	Matrix	Analytical Test Parameters
031-TB-17(7-8)	10/13/2016	7-8	Grab	0.0	Soil	STARS/CP-51 VOC
032-TB-18(8-9)	10/13/2016	8-9	Grab	1046.0	Soil	STARS/CP-51 VOC
033-TB-19(8-9)	10/13/2016	8-9	Grab	7.5	Soil	STARS/CP-51 VOC
034-TB-20(8-9.3)	10/13/2016	8-9.3	Grab	210.0	Soil	STARS/CP-51 VOC
035-TB-21(8-9)	10/13/2016	8-9	Grab	0.4	Soil	STARS/CP-51 VOC
036-TB-22(8-8.6)	10/13/2016	8-8.6	Grab	792.0	Soil	STARS/CP-51 VOC
037-TB-23(9-9.5)	10/13/2016	9-9.5	Grab	67.8	Soil	STARS/CP-51 VOC
038-TB-24(8.8-9.3)	10/13/2016	8.8-9.3	Grab	1.3	Soil	STARS/CP-51 VOC
039-TB-25(8-8.5)	10/13/2016	8-8.5	Grab	0.0	Soil	STARS/CP-51 VOC

VOC = Volatile Organic Compounds via USEPA Method 8260
USEPA = United States Environmental Protection Agency
NYSDEC - New York State Department of Environmental Conservation
STARS= NYSDEC Spill Technology and Remediation Series list
CP-51 = NYSDEC Commissioner's Policy 51 list

Table 2

121 - 123 Reynolds Street, Rochester, New York
NYSDEC Spill #1103833

Summary of Detected VOC and Naphthalene Results in mg/Kg or Parts per Million (ppm)

Soil Samples

Detected Compound	A Protection of Groundwater SCO (1)	B Residential SCO (1)	C Restricted Residential SCO(1)	D SCL(2)	031 TB-17 7-8 10/13/2016	032 TB-18 8-9 10/13/2016	033 TB-19 8-9 10/13/2016	034 TB-20 8-9.3 10/13/2016	035 TB-21 8-9 10/13/2016	036 TB-22 8-8.6 10/13/2016	037 TB-23 9-9.5 10/13/2016	038 TB-24 8.8-9.3 10/13/2016	039 TB-25 8-8.5 10/13/2016
Benzene	0.06	2.9	4.8	0.06	U	U	U	0.0017 J	U	U	U	U	U
Toluene	0.7	100	100	0.7	U	U	U	0.0180	U	U	U	U	U
Ethylbenzene	1	30	41	1	U	0.1400 JD	U	0.6100 D	U	U	0.0016 J	U	U
Xylene (mixed)	1.6	100	100	0.26	U	0.1581 JD	U	**1.2900** JD **D**	U	U	0.0438 J	U	U
Isopropylbenzene	2.3	100	NA	2.3	U	0.2200 JD	U	0.3300 JD	U	0.0020 J	0.0014 J	U	U
n-Propylbenzene	3.9	100	100	3.9	U	0.4600 JD	U	0.8600 D	U	0.0045 J	0.0015 J	U	U
1,3,5- Trimethylbenzene	8.4	47	52	8.4	U	0.1800 JD	U	1.6000 D	U	0.0049 J	0.0938	U	U
tert-Butylbenzene	5.9	100	100	5.9	U	0.0165	U	0.0198	U	U	0.0030 J	U	U
1,2,4-Trimethylbenzene	3.6	47	52	3.6	U	2.1000 D	0.0014 J	**5.1000** D **AD**	0.0011 J	0.0213	0.0448	U	U
sec-Butylbenzene	11	100	100	11	U	0.2800 JD	0.0018 J	0.9100 D	U	0.0064	0.0135	U	U
p-Isopropyltoluene	10	NA	NA	10	U	0.5800 D	0.0020 J	0.6200 D	U	0.0141	0.0429	U	U
n-Butylbenzene	12	100	100	12	U	0.1400 JD	U	1.2000 D	U	0.0030 J	0.0290	U	U
TOTAL VOCs	NA	NA	NA	NA	0.0	4.2746	0.0052	12.5595	0.0011	0.0562	0.2753	0.0000	0.0000
Naphthalene	12	100	100	12	U	0.3000 JD	0.0017 J	6.0000 D	0.0014 J	0.0019 J	0.0298	U	U

U = Not detected J = Estimated Value D = Compound Identified in an analysis at a secondary dilution factor NA = Not available VOC = Volatile Organic Compound

(1) = Soil Cleanup Objectives (SCO) referenced in 6 NYCRR Part 375 dated 12/14/06

(2) = Soil Cleanup Level (SCL) as referenced in NYSDEC CP-51 / Soil Cleanup Guidance Table 1 dated 10/21/10

A = Exceeds Protection of Groundwater SCO

B = Exceeds Residential Use SCO

C = Exceeds Restricted Residential Use SCO

D = Exceeds SCL

APPENDIX A

Test Boring Logs

day

ENVIRONMENTAL CONSULTANTS

DAY ENVIRONMENTAL, INC.

AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5136S-15
Project Address: 121 - 123 Reynolds Street
Rochester, New York
DAY Representative: D. Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Geoprobe Direct-Push

Test Boring TB-17

Ground Elevation: NA Datum: NA
Date Started: 10/13/2016 Date Ended: 10/13/2016
Borehole Depth: 10.1' Borehole Diameter: 2.25"
Completion Method: ☐ Well Installed ☐ Backfilled with Grout ■ Backfilled with Cuttings
Water Level (Date): Not Encountered

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1							0.0	GRASS and TOPSOIL	
								Tan, Silt, Cinders/Ash, trace Brick, damp (FILL)	
2	NA	S-1	0-4	70	NA	0.0	0.0		
3							0.0		
4							0.0		
5							0.0	Red, Brown Silty SAND, with Clay and Gravel, moist	
6	NA	S-2	4-8	100	NA	0.6	0.2		
7							0.2		
8							0.0		
9	NA	S-3	8-10.1	100	NA	0.0	0.0		
10								Refusal @ 10.1'	
11									
12									
13									
14									
15									
16									

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to an isobutylene standard measured in the headspace above the sample using a MiniRae 2000 or PPB RAE equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring TB-17

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DAY ENVIRONMENTAL, INC.

AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5136S-15
Project Address: 121 - 123 Reynolds Street
Rochester, New York
DAY Representative: D. Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Geoprobe Direct-Push

Test Boring TB-18

Ground Elevation: NA Datum: NA
Date Started: 10/13/2016 Date Ended: 10/13/2016
Borehole Depth: 9.0' Borehole Diameter: 2.25"
Completion Method: ☐ Well Installed ☐ Backfilled with Grout ■ Backfilled with Cuttings
Water Level (Date): Not Encountered

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
0							0.0	GRASS and TOPSOIL	
1							0.0	Tan, SILT, trace Gravel, damp	
2	NA	S-1	0-4	90	NA	0.1	0.0		
3							0.0		
4							0.0	...little Gravel	
5							0.0		
6	NA	S-2	4-8	80	NA	2.0	0.0		
7							463	... little Sand, trace Gravel, moist	Petroleum-Type Odor @ 7.5'
8	NA	S-3	8-9	100	NA	1096	673		
9								Refusal @ 9.0'	
10									
11									
12									
13									
14									
15									
16									

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to an isobutylene standard measured in the headspace above the sample using a MiniRae 2000 or PPB RAE equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring TB-18

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AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5136S-15
Project Address: 121 - 123 Reynolds Street
Rochester, New York
DAY Representative: D. Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Geoprobe Direct-Push

Test Boring TB-19

Ground Elevation: NA Datum: NA
Date Started: 10/13/2016 Date Ended: 10/13/2016
Borehole Depth: 9.0' Borehole Diameter: 2.25"
Completion Method: ☐ Well Installed ☐ Backfilled with Grout ■ Backfilled with Cuttings
Water Level (Date): Wet Soil @ 8.0' (10-13-16)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1							0.0	GRASS and TOPSOIL	
								Tan, SILT, little Gravel, damp	
2	NA	S-1	0-4	70	NA	0.0	0.0		
3							0.0		
4							0.0		
								Tan, SILT, little Sand, trace Gravel, moist	
5							0.0		
6	NA	S-2	4-8	90	NA	0.0	0.0		
7							0.1		
8	NA	S-3	8-9	90	NA	7.5	1.0	Gray, SAND and SILT, little Gravel, wet	
9								Refusal @ 9.0'	
10									
11									
12									
13									
14									
15									
16									

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to an isobutylene standard measured in the headspace above the sample using a MiniRae 2000 or PPB RAE equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring TB-19

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Project #:	5136S-15		
Project Address:	121 - 123 Reynolds Street		
	Rochester, New York		
DAY Representative:	D. Peck		
Drilling Contractor:	Nothnagle Drilling		
Sampling Method:	Geoprobe Direct-Push		

Test Boring TB-20

Ground Elevation:	NA	Datum:	NA
Date Started:	10/13/2016	Date Ended:	10/13/2016
Borehole Depth:	9.3'	Borehole Diameter:	2.25"

Completion Method: ☐ Well Installed ☐ Backfilled with Grout ■ Backfilled with Cuttings

Water Level (Date): Not Encountered

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1							0.0	GRASS and TOPSOIL	
							0.0	Tan, SILT, trace Gravel, damp	
2	NA	S-1	0-4	90	NA	0.0			
3							0.0		
4							0.0		
5							0.0	... little Sand, trace Gravel	
6	NA	S-2	4-8	100	NA		0.0		
7						270	15.3	...moist	
8	NA	S-3	8-9.3	100	NA	210	150		Petroleum-Type Odor
9									
10								Refusal @ 9.3'	
11									
12									
13									
14									
15									
16									

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to an isobutylene standard measured in the headspace above the sample using a MiniRae 2000 or PPB RAE equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring TB-20

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ENVIRONMENTAL CONSULTANTS

DAY ENVIRONMENTAL, INC.

AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #:	5136S-15
Project Address:	121 - 123 Reynolds Street
	Rochester, New York
DAY Representative:	D. Peck
Drilling Contractor:	Nothnagle Drilling
Sampling Method:	Geoprobe Direct-Push

Test Boring TB-21

Ground Elevation:	NA	Datum:	NA
Date Started:	10/13/2016	Date Ended:	10/13/2016
Borehole Depth:	9.0'	Borehole Diameter:	2.25"

Completion Method: ☐ Well Installed ☐ Backfilled with Grout ■ Backfilled with Cuttings

Water Level (Date): Not Encountered

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
0							0.0	GRASS and TOPSOIL	
1							0.0	Tan, SILT, trace Gravel, damp	1
2	NA	S-1	0-4	90	NA	0.0	0.0		2
3							0.0		3
4							0.0		4
5							0.0		5
6	NA	S-2	4-8	90	NA	1.0	0.0	... little Sand, trace Gravel	6
7							1.0	...moist	7
8	NA	S-3	8-9	100	NA	0.4	0.0		8
9								Refusal @ 9.0'	9
10									10
11									11
12									12
13									13
14									14
15									15
16									16

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.

2) Stratification lines represent approximate boundaries. Transitions may be gradual.

3) PID readings are referenced to an isobutylene standard measured in the headspace above the sample using a MiniRae 2000 or PPB RAE equipped with a 10.6 eV lamp.

4) NA = Not Available or Not Applicable

5) Headspace PID readings may be influenced by moisture

Test Boring TB-21

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Project #:	5136S-15
Project Address:	121 - 123 Reynolds Street
	Rochester, New York
DAY Representative:	D. Peck
Drilling Contractor:	Nothnagle Drilling
Sampling Method:	Geoprobe Direct-Push

Test Boring TB-22

Ground Elevation:	NA	Datum:	NA
Date Started:	10/13/2016	Date Ended:	10/13/2016
Borehole Depth:	8.6'	Borehole Diameter:	2.25"

Completion Method: ☐ Well Installed ☐ Backfilled with Grout ■ Backfilled with Cuttings

Water Level (Date): Not Encountered

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1							0.0	GRASS and TOPSOIL	
							0.0	Tan, SILT, trace Gravel, damp	
2	NA	S-1	0-4	80	NA	0.0			
3							0.0		
4							0.0		
5							0.0	... little Sand, trace Gravel	
6	NA	S-2	4-8	80	NA		0.0		
7						0.5	0.5	...moist	
8	NA	S-3	8-8.6	100	NA	67	792		Gray/Black stain, strong petroleum -type odor at bottom
9								Refusal @ 8.6'	
10									
11									
12									
13									
14									
15									
16									

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.

2) Stratification lines represent approximate boundaries. Transitions may be gradual.

3) PID readings are referenced to an isobutylene standard measured in the headspace above the sample using a MiniRae 2000 or PPB RAE equipped with a 10.6 eV lamp.

4) NA = Not Available or Not Applicable

5) Headspace PID readings may be influenced by moisture

Test Boring TB-22

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ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5136S-15
Project Address: 121 - 123 Reynolds Street
Rochester, New York
DAY Representative: D. Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Geoprobe Direct-Push

Test Boring TB-23

Ground Elevation: NA
Datum: NA
Date Started: 10/13/2016
Date Ended: 10/13/2016
Borehole Depth: 9.5'
Borehole Diameter: 2.25"
Completion Method: ☐ Well Installed ☐ Backfilled with Grout ■ Backfilled with Cuttings
Water Level (Date): Wet Soil @ 8.0' (10-13-16)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1							0.0	GRASS and TOPSOIL	
							0.0	Brown, Sandy Silt, moist (FILL)	
2	NA	S-1	0-4	70	NA	0.0	0.0		
3							0.0		
4							0.0	...6" crushed Rock layer ...Wood	
5							0.0	Brown, SILT, some Sand, trace Gravel	
6	NA	S-2	4-8	90	NA	0.0	0.0		
7							0.0		
8								...wet	
9	NA	S-3	8-9.5	40	NA	67.8	16 58 55		
10								Refusal @ 9.5'	
11									
12									
13									
14									
15									
16									

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to an isobutylene standard measured in the headspace above the sample using a MiniRae 2000 or PPB RAE equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring TB-23

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825
www.dayenvironmental.com
420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day

ENVIRONMENTAL CONSULTANTS

DAY ENVIRONMENTAL, INC.

AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5136S-15
Project Address: 121 - 123 Reynolds Street
Rochester, New York
DAY Representative: D. Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Geoprobe Direct-Push

Test Boring TB-24

Ground Elevation: NA Datum: NA
Date Started: 10/13/2016 Date Ended: 10/13/2016
Borehole Depth: 9.3' Borehole Diameter: 2.25"
Completion Method: ☐ Well Installed ☐ Backfilled with Grout ■ Backfilled with Cuttings
Water Level (Date): Not Encountered

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1							0.0	GRASS and TOPSOIL	
								Brown, Sand, some Gravel, moist (FILL)	
2	NA	S-1	0-4	90	NA	0.0	0.0		
3							0.0		
4							0.0		
5							0.0	Brown, SILT, little Sand, trace Gravel, moist	
6	NA	S-2	4-8	100	NA	0.0	0.0		
7							0.0		
8							0.0		
9	NA	S-3	8-9.3	100	NA	0.2	0.8		
							1.3		
10								Refusal @ 9.3'	
11									
12									
13									
14									
15									
16									

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to an isobutylene standard measured in the headspace above the sample using a MiniRae 2000 or PPB RAE equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring TB-24

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day

ENVIRONMENTAL CONSULTANTS

DAY ENVIRONMENTAL, INC.

AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5136S-15
Project Address: 121 - 123 Reynolds Street
Rochester, New York
DAY Representative: D. Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Geoprobe Direct-Push

Test Boring TB-25

Ground Elevation: NA Datum: NA
Date Started: 10/13/2016 Date Ended: 10/13/2016
Borehole Depth: 8.6' Borehole Diameter: 2.25"
Completion Method: ☐ Well Installed ☐ Backfilled with Grout ■ Backfilled with Cuttings
Water Level (Date): Not Encountered

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1							0.0	GRASS and TOPSOIL	
								Tan, SILT, trace Gravel, damp	
2	NA	S-1	0-4	70	NA	NA	0.0		
3							0.0		
4							0.0	... little Sand, trace Gravel	
5							0.0		
6	NA	S-2	4-8	NA	NA	NA	0.0		
7							0.0	...moist	
8	NA	S-3	8-8.8	NA	NA	NA	0.0		
9								Refusal @ 8.6'	
10									
11									
12									
13									
14									
15									
16									

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to an isobutylene standard measured in the headspace above the sample using a MiniRae 2000 or PPB RAE equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring TB-25

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APPENDIX B

Analytical Laboratory Report

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

DATA PACKAGE

VOLATILE ORGANICS

PROJECT NAME : 121 AND 123 REYNOLDS ST.

DAY ENVIRONMENTAL, INC.

Canalside Business Center, 1563 Lyell Avenue

Rochester, NY - 14606

Phone No: 585-454-0210

ORDER ID : H5282

ATTENTION : Jeff Danzinger

ACCREDITED IN ACCORDANCE WITH nelac

DoD ELAP

CHEMTECH

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8.5) 034-TB-20(8-9.3) 81

8.6) 034-TB-20(8-9.3)ME 97

8.7) 035-TB-21(8-9) 111

8.8) 036-TB-22(8-8.6) 120

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Cover Page

Order ID : H5282

Project ID : 121 and 123 Reynolds St.

Client : Day Environmental, Inc.

Lab Sample Number	Client Sample Number
H5282-01	031-TB-17(7-8)
H5282-02	032-TB-18(8-9)
H5282-03	033-TB-19(8-9)
H5282-04	034-TB-20(8-9.3)
H5282-05	035-TB-21(8-9)
H5282-06	036-TB-22(8-8.6)
H5282-07	037-TB-23(9-9.5)
H5282-08	038-TB-24(8.8-9.3)
H5282-09	039-TB-25(8-8.5)

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : Mildred V Reyes

APPROVED

Date: 10/25/2016

By Mildred V Reyes, QAQC Supervisor at 5:31 pm, Oct 31, 2016

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CASE NARRATIVE

Day Environmental, Inc.
Project Name: 121 and 123 Reynolds St.
Project # N/A
Chemtech Project # H5282
Test Name: VOCMS Group1

A. Number of Samples and Date of Receipt:
9 Solid samples were received on 10/14/2016.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: VOCMS Group1. This data package contains results for VOCMS Group1.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_F were done using GC column RTX-VMS, which is 20 meters, 0.18 mm id, 1.0 um df, Restek Cat. #49914. The Trap was supplied by Supelco, VOCARB 3000, Tekmar 2000 Concentrator.The analysis performed on instrument MSVOA_N were done using GC column RXI-624SIL MS 30m 0.25mm 1.4 um. Cat#13868.The analysis of VOCMS Group1 was based on method 8260C.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria except for 032-TB-18(8-9) [4-Bromofluorobenzene – 295%].

The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The RPD recoveries met criteria .

The Blank Spike met requirements for all samples .
The Blank Spike Duplicate met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements .
The Continuous Calibration File ID VF051147.D met the requirements except for Naphthalene but it is not present in associate samples therefore no corrective action required.
The Tuning criteria met requirements.

Samples 032-TB-18(8-9), 034-TB-20(8-9.3) were diluted due to high concentrations.

E. Additional Comments:
Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_ Mildred V Reyes

APPROVED
By Mildred V Reyes, QAQC Supervisor at 5:30 pm, Oct 31, 2016

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: H5282 MATRIX: Solid

METHOD: 8260C

		NA	NO	YES
1.	Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)			✓
2.	GC/MS Tuning Specifications BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)			✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series.			✓
4.	GC/MS Calibration - Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series.			✓
5.	GC/MS Calibration Requirements. The Initial Calibration met the requirements . The Continuous Calibration File ID VF051147.D met the requirements except for Naphthalenebut it is not present in associate samples therefore no corrective action required.		✓	
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
7.	Surrogate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable ranges. The Surrogate recoveries met the acceptable criteria except for 032-TB-18(8-9) [4-Bromofluorobenzene - 295%].		✓	
8.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range.			✓
9.	Internal Standard Area/Retention Time Shift Meet Criteria Comments:			✓
10.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:			✓

CHEMTECH
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GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

NA NO YES

ADDITIONAL COMMENTS:

Samples 032-TB-18(8-9), 034-TB-20(8-9.3) were diluted due to high concentrations.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

REVIEWED
By kalpana, Data Reviewer at 3:14 pm, Oct 31, 2016

QA REVIEW Date

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: H5282

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

1st Level QA Review Signature: SHREENA PATEL **Date:** 10/25/2016

REVIEWED
By kalpana, Data Reviewer at 3:14 pm, Oct 31, 2016

2nd Level QA Review Signature: **Date:** _____

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey - 07092

Phone: (908) 789 8900 Fax: (908) 789 8922

LAB CHRONICLE

OrderID:	H5282	**OrderDate:**	10/14/2016 11:49:00 AM
Client:	Day Environmental, Inc.	**Project:**	121 and 123 Reynolds St.
Contact:	Jeff Danzinger	**Location:**	F51

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
H5282-01	**031-TB-17(7-8)**	**SOIL**			**10/13/16**			**10/14/16**
			VOCMS Group1	8260C			10/17/16	
H5282-02	**032-TB-18(8-9)**	**SOIL**			**10/13/16**			**10/14/16**
			VOCMS Group1	8260C			10/17/16	
H5282-02ME	**032-TB-18(8-9)ME**	**SOIL**			**10/13/16**			**10/14/16**
			VOCMS Group1	8260C			10/21/16	
H5282-03	**033-TB-19(8-9)**	**SOIL**			**10/13/16**			**10/14/16**
			VOCMS Group1	8260C			10/18/16	
H5282-04	**034-TB-20(8-9.3)**	**SOIL**			**10/13/16**			**10/14/16**
			VOCMS Group1	8260C			10/17/16	
H5282-04ME	**034-TB-20(8-9.3)ME**	**SOIL**			**10/13/16**			**10/14/16**
			VOCMS Group1	8260C			10/21/16	
H5282-05	**035-TB-21(8-9)**	**SOIL**			**10/13/16**			**10/14/16**
			VOCMS Group1	8260C			10/17/16	
H5282-06	**036-TB-22(8-8.6)**	**SOIL**			**10/13/16**			**10/14/16**
			VOCMS Group1	8260C			10/17/16	
H5282-07	**037-TB-23(9-9.5)**	**SOIL**			**10/13/16**			**10/14/16**
			VOCMS Group1	8260C			10/17/16	
H5282-08	**038-TB-24(8.8-9.3)**	**SOIL**			**10/13/16**			**10/14/16**
			VOCMS Group1	8260C			10/18/16	
H5282-09	**039-TB-25(8-8.5)**	**SOIL**			**10/13/16**			**10/14/16**
			VOCMS Group1	8260C			10/18/16	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: H5282

Client: Day Environmental, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID:	**032-TB-18(8-9)**								
H5282-02	032-TB-18(8-9)	SOIL	Ethyl Benzene	200.00	E	0.56	0.56	5.6	ug/Kg
H5282-02	032-TB-18(8-9)	SOIL	m/p-Xylenes	260.00	E	0.81	1.1	11.3	ug/Kg
H5282-02	032-TB-18(8-9)	SOIL	o-Xylene	8.10		0.56	0.56	5.6	ug/Kg
H5282-02	032-TB-18(8-9)	SOIL	Isopropylbenzene	190.00	E	0.54	0.56	5.6	ug/Kg
H5282-02	032-TB-18(8-9)	SOIL	n-propylbenzene	280.00	E	0.41	0.56	5.6	ug/Kg
H5282-02	032-TB-18(8-9)	SOIL	1,3,5-Trimethylbenzene	220.00	E	0.51	0.56	5.6	ug/Kg
H5282-02	032-TB-18(8-9)	SOIL	tert-Butylbenzene	16.50		0.56	0.56	5.6	ug/Kg
H5282-02	032-TB-18(8-9)	SOIL	1,2,4-Trimethylbenzene	730.00	E	0.56	0.56	5.6	ug/Kg
H5282-02	032-TB-18(8-9)	SOIL	sec-Butylbenzene	140.00	E	0.56	0.56	5.6	ug/Kg
H5282-02	032-TB-18(8-9)	SOIL	p-Isopropyltoluene	200.00	E	0.33	0.56	5.6	ug/Kg
H5282-02	032-TB-18(8-9)	SOIL	n-Butylbenzene	110.00	E	0.52	0.56	5.6	ug/Kg
H5282-02	032-TB-18(8-9)	SOIL	Naphthalene	460.00	E	0.51	0.56	5.6	ug/Kg
			Total Voc :	2814.6					
			Total Concentration:	2814.6					
Client ID:	**032-TB-18(8-9)ME**								
H5282-02ME	032-TB-18(8-9)ME	SOIL	Ethyl Benzene	140.00	JD	56.3	56.3	560	ug/Kg
H5282-02ME	032-TB-18(8-9)ME	SOIL	m/p-Xylenes	150.00	JD	81.1	110	1100	ug/Kg
H5282-02ME	032-TB-18(8-9)ME	SOIL	Isopropylbenzene	220.00	JD	54.1	56.3	560	ug/Kg
H5282-02ME	032-TB-18(8-9)ME	SOIL	n-propylbenzene	460.00	JD	40.6	56.3	560	ug/Kg
H5282-02ME	032-TB-18(8-9)ME	SOIL	1,3,5-Trimethylbenzene	180.00	JD	50.7	56.3	560	ug/Kg
H5282-02ME	032-TB-18(8-9)ME	SOIL	1,2,4-Trimethylbenzene	2,100.00	D	56.3	56.3	560	ug/Kg
H5282-02ME	032-TB-18(8-9)ME	SOIL	sec-Butylbenzene	280.00	JD	56.3	56.3	560	ug/Kg
H5282-02ME	032-TB-18(8-9)ME	SOIL	p-Isopropyltoluene	580.00	D	32.7	56.3	560	ug/Kg
H5282-02ME	032-TB-18(8-9)ME	SOIL	n-Butylbenzene	140.00	JD	51.8	56.3	560	ug/Kg
H5282-02ME	032-TB-18(8-9)ME	SOIL	Naphthalene	300.00	JD	50.7	56.3	560	ug/Kg
			Total Voc :	4550					
			Total Concentration:	4550					
Client ID:	**033-TB-19(8-9)**								
H5282-03	033-TB-19(8-9)	SOIL	1,2,4-Trimethylbenzene	1.40	J	0.56	0.56	5.6	ug/Kg
H5282-03	033-TB-19(8-9)	SOIL	sec-Butylbenzene	1.80	J	0.56	0.56	5.6	ug/Kg
H5282-03	033-TB-19(8-9)	SOIL	p-Isopropyltoluene	2.00	J	0.32	0.56	5.6	ug/Kg
H5282-03	033-TB-19(8-9)	SOIL	Naphthalene	1.70	J	0.5	0.56	5.6	ug/Kg
			Total Voc :	6.9					
			Total Concentration:	6.9					
Client ID:	**034-TB-20(8-9.3)**								
H5282-04	034-TB-20(8-9.3)	SOIL	Benzene	1.70	J	0.43	0.56	5.6	ug/Kg
H5282-04	034-TB-20(8-9.3)	SOIL	Toluene	18.00		0.56	0.56	5.6	ug/Kg
H5282-04	034-TB-20(8-9.3)	SOIL	Ethyl Benzene	370.00	E	0.56	0.56	5.6	ug/Kg

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: H5282

Client: Day Environmental, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
H5282-04	034-TB-20(8-9.3)	SOIL	m/p-Xylenes	470.00	E	0.81	1.1	11.2	ug/Kg
H5282-04	034-TB-20(8-9.3)	SOIL	o-Xylene	440.00	E	0.56	0.56	5.6	ug/Kg
H5282-04	034-TB-20(8-9.3)	SOIL	Isopropylbenzene	280.00	E	0.54	0.56	5.6	ug/Kg
H5282-04	034-TB-20(8-9.3)	SOIL	n-propylbenzene	480.00	E	0.4	0.56	5.6	ug/Kg
H5282-04	034-TB-20(8-9.3)	SOIL	1,3,5-Trimethylbenzene	780.00	E	0.5	0.56	5.6	ug/Kg
H5282-04	034-TB-20(8-9.3)	SOIL	tert-Butylbenzene	19.80		0.56	0.56	5.6	ug/Kg
H5282-04	034-TB-20(8-9.3)	SOIL	1,2,4-Trimethylbenzene	1,200.00	E	0.56	0.56	5.6	ug/Kg
H5282-04	034-TB-20(8-9.3)	SOIL	sec-Butylbenzene	380.00	E	0.56	0.56	5.6	ug/Kg
H5282-04	034-TB-20(8-9.3)	SOIL	p-Isopropyltoluene	670.00	E	0.32	0.56	5.6	ug/Kg
H5282-04	034-TB-20(8-9.3)	SOIL	n-Butylbenzene	260.00	E	0.51	0.56	5.6	ug/Kg
H5282-04	034-TB-20(8-9.3)	SOIL	Naphthalene	1,000.00	E	0.5	0.56	5.6	ug/Kg
			Total Voc :	6369.5					
			Total Concentration:	6369.5					
Client ID:	**034-TB-20(8-9.3)ME**								
H5282-04ME	034-TB-20(8-9.3)ME	SOIL	Ethyl Benzene	610.00	D	56.2	56.2	560	ug/Kg
H5282-04ME	034-TB-20(8-9.3)ME	SOIL	m/p-Xylenes	630.00	JD	80.9	110	1100	ug/Kg
H5282-04ME	034-TB-20(8-9.3)ME	SOIL	o-Xylene	660.00	D	56.2	56.2	560	ug/Kg
H5282-04ME	034-TB-20(8-9.3)ME	SOIL	Isopropylbenzene	330.00	JD	54	56.2	560	ug/Kg
H5282-04ME	034-TB-20(8-9.3)ME	SOIL	n-propylbenzene	860.00	D	40.5	56.2	560	ug/Kg
H5282-04ME	034-TB-20(8-9.3)ME	SOIL	1,3,5-Trimethylbenzene	1,600.00	D	50.6	56.2	560	ug/Kg
H5282-04ME	034-TB-20(8-9.3)ME	SOIL	1,2,4-Trimethylbenzene	5,100.00	D	56.2	56.2	560	ug/Kg
H5282-04ME	034-TB-20(8-9.3)ME	SOIL	sec-Butylbenzene	910.00	D	56.2	56.2	560	ug/Kg
H5282-04ME	034-TB-20(8-9.3)ME	SOIL	p-Isopropyltoluene	620.00	D	32.6	56.2	560	ug/Kg
H5282-04ME	034-TB-20(8-9.3)ME	SOIL	n-Butylbenzene	1,200.00	D	51.7	56.2	560	ug/Kg
H5282-04ME	034-TB-20(8-9.3)ME	SOIL	Naphthalene	6,000.00	D	50.6	56.2	560	ug/Kg
			Total Voc :	18520					
			Total Concentration:	18520					
Client ID:	**035-TB-21(8-9)**								
H5282-05	035-TB-21(8-9)	SOIL	1,2,4-Trimethylbenzene	1.10	J	0.54	0.54	5.4	ug/Kg
H5282-05	035-TB-21(8-9)	SOIL	Naphthalene	1.40	J	0.49	0.54	5.4	ug/Kg
			Total Voc :	2.5					
			Total Concentration:	2.5					
Client ID:	**036-TB-22(8-8.6)**								
H5282-06	036-TB-22(8-8.6)	SOIL	Isopropylbenzene	2.00	J	0.53	0.55	5.5	ug/Kg
H5282-06	036-TB-22(8-8.6)	SOIL	n-propylbenzene	4.50	J	0.4	0.55	5.5	ug/Kg
H5282-06	036-TB-22(8-8.6)	SOIL	1,3,5-Trimethylbenzene	4.90	J	0.5	0.55	5.5	ug/Kg
H5282-06	036-TB-22(8-8.6)	SOIL	1,2,4-Trimethylbenzene	21.30		0.55	0.55	5.5	ug/Kg
H5282-06	036-TB-22(8-8.6)	SOIL	sec-Butylbenzene	6.40		0.55	0.55	5.5	ug/Kg
H5282-06	036-TB-22(8-8.6)	SOIL	p-Isopropyltoluene	14.10		0.32	0.55	5.5	ug/Kg

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Hit Summary Sheet
SW-846

SDG No.: H5282

Client: Day Environmental, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
H5282-06	036-TB-22(8-8.6)	SOIL	n-Butylbenzene	3.00	J	0.51	0.55	5.5	ug/Kg
H5282-06	036-TB-22(8-8.6)	SOIL	Naphthalene	1.90	J	0.5	0.55	5.5	ug/Kg
			Total Voc :	58.1					
			Total Concentration:	58.1					
Client ID:	**037-TB-23(9-9.5)**								
H5282-07	037-TB-23(9-9.5)	SOIL	Ethyl Benzene	1.60	J	0.56	0.56	5.6	ug/Kg
H5282-07	037-TB-23(9-9.5)	SOIL	m/p-Xylenes	3.00	J	0.8	1.1	11.1	ug/Kg
H5282-07	037-TB-23(9-9.5)	SOIL	o-Xylene	40.80		0.56	0.56	5.6	ug/Kg
H5282-07	037-TB-23(9-9.5)	SOIL	Isopropylbenzene	1.40	J	0.53	0.56	5.6	ug/Kg
H5282-07	037-TB-23(9-9.5)	SOIL	n-propylbenzene	1.50	J	0.4	0.56	5.6	ug/Kg
H5282-07	037-TB-23(9-9.5)	SOIL	1,3,5-Trimethylbenzene	93.80		0.5	0.56	5.6	ug/Kg
H5282-07	037-TB-23(9-9.5)	SOIL	tert-Butylbenzene	3.00	J	0.56	0.56	5.6	ug/Kg
H5282-07	037-TB-23(9-9.5)	SOIL	1,2,4-Trimethylbenzene	44.80		0.56	0.56	5.6	ug/Kg
H5282-07	037-TB-23(9-9.5)	SOIL	sec-Butylbenzene	13.50		0.56	0.56	5.6	ug/Kg
H5282-07	037-TB-23(9-9.5)	SOIL	p-Isopropyltoluene	42.90		0.32	0.56	5.6	ug/Kg
H5282-07	037-TB-23(9-9.5)	SOIL	n-Butylbenzene	29.00		0.51	0.56	5.6	ug/Kg
H5282-07	037-TB-23(9-9.5)	SOIL	Naphthalene	29.80		0.5	0.56	5.6	ug/Kg
			Total Voc :	305.1					
			Total Concentration:	305.1					

QC SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Surrogate Summary

SDG No.: H5282

Client: Day Environmental, Inc.

Analytical Method: SW8260C

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
H5282-01	031-TB-17(7-8)	1,2-Dichloroethane-d4	50	43.88	88	56	120
		Dibromofluoromethane	50	42.8	86	57	135
		Toluene-d8	50	41.29	83	67	123
		4-Bromofluorobenzene	50	39.1	78	33	141
H5282-02	032-TB-18(8-9)	1,2-Dichloroethane-d4	50	52.86	106	56	120
		Dibromofluoromethane	50	48.94	98	57	135
		Toluene-d8	50	52.88	106	67	123
		4-Bromofluorobenzene	50	147.34	295 *	33	141
H5282-02ME	032-TB-18(8-9)ME	1,2-Dichloroethane-d4	50	48.73	97	56	120
		Dibromofluoromethane	50	46.67	93	57	135
		Toluene-d8	50	52.04	104	67	123
		4-Bromofluorobenzene	50	58.52	117	33	141
H5282-03	033-TB-19(8-9)	1,2-Dichloroethane-d4	50	42.29	85	56	120
		Dibromofluoromethane	50	46.68	93	57	135
		Toluene-d8	50	46.86	94	67	123
		4-Bromofluorobenzene	50	43.74	87	33	141
H5282-04	034-TB-20(8-9.3)	1,2-Dichloroethane-d4	50	48.17	96	56	120
		Dibromofluoromethane	50	46.66	93	57	135
		Toluene-d8	50	42.15	84	67	123
		4-Bromofluorobenzene	50	46.3	93	33	141
H5282-04ME	034-TB-20(8-9.3)ME	1,2-Dichloroethane-d4	50	49.85	100	56	120
		Dibromofluoromethane	50	46.55	93	57	135
		Toluene-d8	50	49.86	100	67	123
		4-Bromofluorobenzene	50	57.73	115	33	141
H5282-05	035-TB-21(8-9)	1,2-Dichloroethane-d4	50	46.28	93	56	120
		Dibromofluoromethane	50	46.76	94	57	135
		Toluene-d8	50	45.07	90	67	123
		4-Bromofluorobenzene	50	40.68	81	33	141
H5282-06	036-TB-22(8-8.6)	1,2-Dichloroethane-d4	50	41.6	83	56	120
		Dibromofluoromethane	50	45.03	90	57	135
		Toluene-d8	50	46.92	94	67	123
		4-Bromofluorobenzene	50	53.61	107	33	141
H5282-07	037-TB-23(9-9.5)	1,2-Dichloroethane-d4	50	37.42	75	56	120
		Dibromofluoromethane	50	36.48	73	57	135
		Toluene-d8	50	35.32	71	67	123
		4-Bromofluorobenzene	50	36.26	73	33	141
H5282-08	038-TB-24(8.8-9.3)	1,2-Dichloroethane-d4	50	50.33	101	56	120
		Dibromofluoromethane	50	54.03	108	57	135
		Toluene-d8	50	51.91	104	67	123
		4-Bromofluorobenzene	50	47.34	95	33	141
H5282-09	039-TB-25(8-8.5)	1,2-Dichloroethane-d4	50	47.74	95	56	120
		Dibromofluoromethane	50	50.23	100	57	135
		Toluene-d8	50	49.18	98	67	123
		4-Bromofluorobenzene	50	45.17	90	33	141
VF1017SBL01	VF1017SBL01	1,2-Dichloroethane-d4	50	50.87	102	56	120
		Dibromofluoromethane	50	47.33	95	57	135
		Toluene-d8	50	45.79	92	67	123
		4-Bromofluorobenzene	50	44.09	88	33	141
VF1017SBS01	VF1017SBS01	1,2-Dichloroethane-d4	50	51.06	102	56	120
		Dibromofluoromethane	50	48.03	96	57	135
		Toluene-d8	50	50.21	100	67	123
		4-Bromofluorobenzene	50	48.58	97	33	141

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Surrogate Summary

SDG No.: H5282

Client: Day Environmental, Inc.

Analytical Method: SW8260C

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
VF1017SBSD01	VF1017SBSD01	1,2-Dichloroethane-d4	50	53.5	107	56	120
		Dibromofluoromethane	50	48.89	98	57	135
		Toluene-d8	50	51.61	103	67	123
		4-Bromofluorobenzene	50	51.67	103	33	141
VF1018SBL01	VF1018SBL01	1,2-Dichloroethane-d4	50	52.73	105	56	120
		Dibromofluoromethane	50	53.38	107	57	135
		Toluene-d8	50	50.91	102	67	123
		4-Bromofluorobenzene	50	49.98	100	33	141
VF1018SBS01	VF1018SBS01	1,2-Dichloroethane-d4	50	53.08	106	56	120
		Dibromofluoromethane	50	52.16	104	57	135
		Toluene-d8	50	52.89	106	67	123
		4-Bromofluorobenzene	50	53.17	106	33	141
VN1021MBL01	VN1021MBL01	1,2-Dichloroethane-d4	50	51.3	103	56	120
		Dibromofluoromethane	50	49.14	98	57	135
		Toluene-d8	50	49.03	98	67	123
		4-Bromofluorobenzene	50	47.71	95	33	141
VN1021MBS01	VN1021MBS01	1,2-Dichloroethane-d4	50	41.34	83	56	120
		Dibromofluoromethane	50	41.32	83	57	135
		Toluene-d8	50	41.2	82	67	123
		4-Bromofluorobenzene	50	37.87	76	33	141

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: H5282

Client: Day Environmental, Inc.

Analytical Method: SW8260C **Datafile :** VF051127.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VF1017SBS01	Methyl tert-butyl Ether	20	20	ug/Kg	100			76	123	
	Benzene	20	20.8	ug/Kg	104			79	124	
	Toluene	20	21.5	ug/Kg	108			78	124	
	Ethyl Benzene	20	21	ug/Kg	105			80	123	
	m/p-Xylenes	40	42.3	ug/Kg	106			79	126	
	o-Xylene	20	20.9	ug/Kg	104			80	122	
	Isopropylbenzene	20	22.2	ug/Kg	111			79	123	
	N-propylbenzene	20	22.5	ug/Kg	113			80	125	
	1,3,5-Trimethylbenzene	20	21.7	ug/Kg	109			81	123	
	tert-Butylbenzene	20	22.2	ug/Kg	111			81	123	
	1,2,4-Trimethylbenzene	20	22	ug/Kg	110			81	122	
	Sec-butylbenzene	20	21.6	ug/Kg	108			81	126	
	p-Isopropyltoluene	20	22.8	ug/Kg	114			81	124	
	n-Butylbenzene	20	22.4	ug/Kg	112			75	129	
	Naphthalene	20	20.9	ug/Kg	104			71	126	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: H5282

Client: Day Environmental, Inc.

Analytical Method: SW8260C **Datafile :** VF051128.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VF1017SBSD01	Methyl tert-butyl Ether	20	22	ug/Kg	110	10		76	123	20
	Benzene	20	21	ug/Kg	105	1		79	124	20
	Toluene	20	21.3	ug/Kg	106	2		78	124	20
	Ethyl Benzene	20	21.9	ug/Kg	110	5		80	123	20
	m/p-Xylenes	40	43.7	ug/Kg	109	3		79	126	20
	o-Xylene	20	22.3	ug/Kg	112	7		80	122	20
	Isopropylbenzene	20	22.9	ug/Kg	115	4		79	123	20
	N-propylbenzene	20	22.4	ug/Kg	112	1		80	125	20
	1,3,5-Trimethylbenzene	20	22.2	ug/Kg	111	2		81	123	20
	tert-Butylbenzene	20	22.4	ug/Kg	112	1		81	123	20
	1,2,4-Trimethylbenzene	20	22.3	ug/Kg	112	2		81	122	20
	Sec-butylbenzene	20	22.6	ug/Kg	113	5		81	126	20
	p-Isopropyltoluene	20	22.4	ug/Kg	112	2		81	124	20
	n-Butylbenzene	20	22.1	ug/Kg	111	1		75	129	20
	Naphthalene	20	22.6	ug/Kg	113	8		71	126	20

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: H5282

Client: Day Environmental, Inc.

Analytical Method: SW8260C **Datafile :** VF051149.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VF1018SBS01	Methyl tert-butyl Ether	20	21	ug/Kg	105			76	123	
	Benzene	20	22.1	ug/Kg	111			79	124	
	Toluene	20	21.4	ug/Kg	107			78	124	
	Ethyl Benzene	20	22	ug/Kg	110			80	123	
	m/p-Xylenes	40	44.7	ug/Kg	112			79	126	
	o-Xylene	20	22.5	ug/Kg	113			80	122	
	Isopropylbenzene	20	21.4	ug/Kg	107			79	123	
	N-propylbenzene	20	21	ug/Kg	105			80	125	
	1,3,5-Trimethylbenzene	20	21.9	ug/Kg	110			81	123	
	tert-Butylbenzene	20	21.6	ug/Kg	108			81	123	
	1,2,4-Trimethylbenzene	20	21.5	ug/Kg	108			81	122	
	Sec-butylbenzene	20	21.5	ug/Kg	108			81	126	
	p-Isopropyltoluene	20	21.9	ug/Kg	110			81	124	
	n-Butylbenzene	20	22.3	ug/Kg	112			75	129	
	Naphthalene	20	22.6	ug/Kg	113			71	126	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: H5282

Client: Day Environmental, Inc.

Analytical Method: SW8260C **Datafile :** VN036700.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN1021MBS01	Methyl tert-butyl Ether	2000	1800	ug/Kg	90			76	123	
	Benzene	2000	1900	ug/Kg	95			79	124	
	Toluene	2000	1800	ug/Kg	90			78	124	
	Ethyl Benzene	2000	1700	ug/Kg	85			80	123	
	m/p-Xylenes	4000	3400	ug/Kg	85			79	126	
	o-Xylene	2000	1700	ug/Kg	85			80	122	
	Isopropylbenzene	2000	1800	ug/Kg	90			79	123	
	N-propylbenzene	2000	1800	ug/Kg	90			80	125	
	1,3,5-Trimethylbenzene	2000	1800	ug/Kg	90			81	123	
	tert-Butylbenzene	2000	1700	ug/Kg	85			81	123	
	1,2,4-Trimethylbenzene	2000	1800	ug/Kg	90			81	122	
	Sec-butylbenzene	2000	1800	ug/Kg	90			81	126	
	p-Isopropyltoluene	2000	1700	ug/Kg	85			81	124	
	n-Butylbenzene	2000	1600	ug/Kg	80			75	129	
	Naphthalene	2000	1600	ug/Kg	80			71	126	

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VF1017SBL01

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG NO.: H5282

Lab File ID: VF051126.D Lab Sample ID: VF1017SBL01

Date Analyzed: 10/17/2016 Time Analyzed: 13:32

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSVOA_F

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VF1017SBS01	VF1017SBS01	VF051127.D	10/17/2016
VF1017SBSD01	VF1017SBSD01	VF051128.D	10/17/2016
031-TB-17(7-8)	H5282-01	VF051138.D	10/17/2016
032-TB-18(8-9)	H5282-02	VF051139.D	10/17/2016
035-TB-21(8-9)	H5282-05	VF051141.D	10/17/2016
036-TB-22(8-8.6)	H5282-06	VF051142.D	10/17/2016
037-TB-23(9-9.5)	H5282-07	VF051143.D	10/17/2016
034-TB-20(8-9.3)	H5282-04	VF051144.D	10/17/2016

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VF1018SBL01

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG NO.: H5282

Lab File ID: VF051148.D Lab Sample ID: VF1018SBL01

Date Analyzed: 10/18/2016 Time Analyzed: 14:19

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: MSVOA_F

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VF1018SBS01	VF1018SBS01	VF051149.D	10/18/2016
039-TB-25(8-8.5)	H5282-09	VF051152.D	10/18/2016
033-TB-19(8-9)	H5282-03	VF051153.D	10/18/2016
038-TB-24(8.8-9.3)	H5282-08	VF051162.D	10/18/2016

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1021MBL01

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG NO.: H5282

Lab File ID: VN036699.D Lab Sample ID: VN1021MBL01

Date Analyzed: 10/21/2016 Time Analyzed: 12:18

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN1021MBS01	VN1021MBS01	VN036700.D	10/21/2016
032-TB-18(8-9)ME	H5282-02ME	VN036705.D	10/21/2016
034-TB-20(8-9.3)ME	H5282-04ME	VN036706.D	10/21/2016

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG NO.: H5282

Lab File ID: VF051019.D BFB Injection Date: 10/06/2016

Instrument ID: MSVOA_F BFB Injection Time: 09:50

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.5
75	30.0 - 60.0% of mass 95	43.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	86.9
175	5.0 - 9.0% of mass 174	6.4 (7.4) 1
176	95.0 - 101.0% of mass 174	85.6 (98.5) 1
177	5.0 - 9.0% of mass 176	5.6 (6.5) 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
VSTDICC005	VSTDICC005	VF051020.D	10/06/2016	10:22
VSTDICC010	VSTDICC010	VF051021.D	10/06/2016	10:51
VSTDICC020	VSTDICC020	VF051022.D	10/06/2016	11:20
VSTDICCC050	VSTDICCC050	VF051023.D	10/06/2016	11:49
VSTDICC075	VSTDICC075	VF051024.D	10/06/2016	12:18
VSTDICC100	VSTDICC100	VF051025.D	10/06/2016	12:46

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG NO.: H5282

Lab File ID: VF051124.D BFB Injection Date: 10/17/2016

Instrument ID: MSVOA_F BFB Injection Time: 11:43

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.5
75	30.0 - 60.0% of mass 95	43.8
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	86.6
175	5.0 - 9.0% of mass 174	6.7 (7.8) 1
176	95.0 - 101.0% of mass 174	84.6 (97.7) 1
177	5.0 - 9.0% of mass 176	5.6 (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
VSTDCCC050	VSTDCCC050	VF051125.D	10/17/2016	12:12
VF1017SBL01	VF1017SBL01	VF051126.D	10/17/2016	13:32
VF1017SBS01	VF1017SBS01	VF051127.D	10/17/2016	14:01
VF1017SBSD01	VF1017SBSD01	VF051128.D	10/17/2016	14:30
031-TB-17(7-8)	H5282-01	VF051138.D	10/17/2016	19:24
032-TB-18(8-9)	H5282-02	VF051139.D	10/17/2016	19:52
035-TB-21(8-9)	H5282-05	VF051141.D	10/17/2016	20:49
036-TB-22(8-8.6)	H5282-06	VF051142.D	10/17/2016	21:17
037-TB-23(9-9.5)	H5282-07	VF051143.D	10/17/2016	21:45
034-TB-20(8-9.3)	H5282-04	VF051144.D	10/17/2016	22:14

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG NO.: H5282

Lab File ID: VF051146.D BFB Injection Date: 10/18/2016

Instrument ID: MSVOA_F BFB Injection Time: 11:16

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.4
75	30.0 - 60.0% of mass 95	42.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	92.3
175	5.0 - 9.0% of mass 174	6.4 (7) 1
176	95.0 - 101.0% of mass 174	90.9 (98.5) 1
177	5.0 - 9.0% of mass 176	5.9 (6.5) 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
VSTDCCC050	VSTDCCC050	VF051147.D	10/18/2016	12:45
VF1018SBL01	VF1018SBL01	VF051148.D	10/18/2016	14:19
VF1018SBS01	VF1018SBS01	VF051149.D	10/18/2016	14:48
039-TB-25(8-8.5)	H5282-09	VF051152.D	10/18/2016	16:16
033-TB-19(8-9)	H5282-03	VF051153.D	10/18/2016	16:45
038-TB-24(8.8-9.3)	H5282-08	VF051162.D	10/18/2016	21:09

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG NO.: H5282

Lab File ID: VN036256.D BFB Injection Date: 10/05/2016

Instrument ID: MSVOA_N BFB Injection Time: 13:10

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.7
75	30.0 - 60.0% of mass 95	53.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.9 (1) 1
174	50.0 - 100.0% of mass 95	92.2
175	5.0 - 9.0% of mass 174	6.6 (7.2) 1
176	95.0 - 101.0% of mass 174	88.5 (96) 1
177	5.0 - 9.0% of mass 176	6.1 (6.9) 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
VSTDICC001	VSTDICC001	VN036257.D	10/05/2016	13:47
VSTDICC005	VSTDICC005	VN036258.D	10/05/2016	14:25
VSTDICC020	VSTDICC020	VN036259.D	10/05/2016	14:57
VSTDICCC050	VSTDICCC050	VN036260.D	10/05/2016	15:24
VSTDICC100	VSTDICC100	VN036261.D	10/05/2016	15:50
VSTDICC200	VSTDICC200	VN036262.D	10/05/2016	16:17

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG NO.: H5282

Lab File ID: VN036696.D BFB Injection Date: 10/21/2016

Instrument ID: MSVOA_N BFB Injection Time: 10:27

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.4
75	30.0 - 60.0% of mass 95	47.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.9 (1) 1
174	50.0 - 100.0% of mass 95	92.4
175	5.0 - 9.0% of mass 174	6.5 (7) 1
176	95.0 - 101.0% of mass 174	89.2 (96.6) 1
177	5.0 - 9.0% of mass 176	6.4 (7.2) 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
VSTDCCC050	VSTDCCC050	VN036697.D	10/21/2016	11:05
VN1021MBL01	VN1021MBL01	VN036699.D	10/21/2016	12:18
VN1021MBS01	VN1021MBS01	VN036700.D	10/21/2016	13:12
032-TB-18(8-9)ME	H5282-02ME	VN036705.D	10/21/2016	15:55
034-TB-20(8-9.3)ME	H5282-04ME	VN036706.D	10/21/2016	16:22

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG NO.: H5282

Lab File ID: VF051125.D Date Analyzed: 10/17/2016

Instrument ID: MSVOA_F Time Analyzed: 12:12

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	552229	4.79	865844	5.52	798037	9.69
UPPER LIMIT	1104460	5.29	1731690	6.02	1596070	10.19
LOWER LIMIT	276115	4.29	432922	5.02	399019	9.19
EPA SAMPLE NO.						
031-TB-17(7-8)	612456	4.79	970888	5.52	852100	9.68
032-TB-18(8-9)	515688	4.80	809793	5.53	585275	9.70
034-TB-20(8-9.3)	558195	4.79	894541	5.52	673027	9.69
035-TB-21(8-9)	608776	4.79	984065	5.52	791086	9.68
036-TB-22(8-8.6)	400841	4.79	605600	5.52	490241	9.68
037-TB-23(9-9.5)	639569	4.79	1027324	5.52	890102	9.68
VF1017SBL01	630246	4.80	1011258	5.53	872740	9.69
VF1017SBS01	617077	4.79	942861	5.52	880881	9.69
VF1017SBSD01	574696	4.79	934713	5.51	831474	9.68

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% 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 used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG NO.: H5282

Lab File ID: VF051125.D Date Analyzed: 10/17/2016

Instrument ID: MSVOA_F Time Analyzed: 12:12

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	420018	12.48				
UPPER LIMIT	840036	12.98				
LOWER LIMIT	210009	11.98				
EPA SAMPLE NO.						
031-TB-17(7-8)	343492	12.48				
032-TB-18(8-9)	348748	12.50				
034-TB-20(8-9.3)	237427	12.50				
035-TB-21(8-9)	303177	12.48				
036-TB-22(8-8.6)	213605	12.48				
037-TB-23(9-9.5)	393393	12.48				
VF1017SBL01	373737	12.49				
VF1017SBS01	397061	12.48				
VF1017SBSD01	387606	12.48				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% 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 used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG NO.: H5282

Lab File ID: VF051147.D Date Analyzed: 10/18/2016

Instrument ID: MSVOA_F Time Analyzed: 12:45

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	545267	4.80	844437	5.52	790240	9.69
UPPER LIMIT	1090530	5.3	1688870	6.02	1580480	10.19
LOWER LIMIT	272634	4.3	422219	5.02	395120	9.19
EPA SAMPLE NO.						
033-TB-19(8-9)	685911	4.79	1031364	5.52	895835	9.68
038-TB-24(8.8-9.3)	553316	4.79	824957	5.52	756753	9.68
039-TB-25(8-8.5)	619081	4.79	936837	5.52	789661	9.68
VF1018SBL01	566339	4.79	860626	5.52	754559	9.68
VF1018SBS01	551205	4.80	864306	5.52	774642	9.69

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% 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 used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG NO.: H5282

Lab File ID: VF051147.D Date Analyzed: 10/18/2016

Instrument ID: MSVOA_F Time Analyzed: 12:45

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	406741	12.48				
UPPER LIMIT	813482	12.98				
LOWER LIMIT	203371	11.98				
EPA SAMPLE NO.						
033-TB-19(8-9)	407969	12.48				
038-TB-24(8.8-9.3)	303643	12.48				
039-TB-25(8-8.5)	328812	12.48				
VF1018SBL01	344382	12.48				
VF1018SBS01	386300	12.48				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% 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 used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG NO.: H5282

Lab File ID: VN036697.D Date Analyzed: 10/21/2016

Instrument ID: MSVOA_N Time Analyzed: 11:05

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	334674	7.86	498871	8.78	465846	11.58
UPPER LIMIT	669348	8.36	997742	9.28	931692	12.08
LOWER LIMIT	167337	7.36	249436	8.28	232923	11.08
EPA SAMPLE NO.						
032-TB-18(8-9)ME	338124	7.86	579342	8.78	612585	11.58
034-TB-20(8-9.3)ME	332148	7.86	568688	8.78	606191	11.58
VN1021MBL01	348154	7.87	594612	8.78	602161	11.58
VN1021MBS01	281643	7.87	434948	8.78	396983	11.58

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% 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 used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG NO.: H5282

Lab File ID: VN036697.D Date Analyzed: 10/21/2016

Instrument ID: MSVOA_N Time Analyzed: 11:05

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	235065	13.52				
UPPER LIMIT	470130	14.02				
LOWER LIMIT	117533	13.02				
EPA SAMPLE NO.						
032-TB-18(8-9)ME	321436	13.52				
034-TB-20(8-9.3)ME	342276	13.52				
VN1021MBL01	265660	13.52				
VN1021MBS01	187174	13.52				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% 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 used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	10/13/16
Project:	121 and 123 Reynolds St.	Date Received:	10/14/16
Client Sample ID:	031-TB-17(7-8)	SDG No.:	H5282
Lab Sample ID:	H5282-01	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	14.9
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF051138.D	1		10/17/16 19:24	VF101716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	5.9	U	0.59	0.59	5.9	ug/Kg
71-43-2	Benzene	5.9	U	0.45	0.59	5.9	ug/Kg
108-88-3	Toluene	5.9	U	0.59	0.59	5.9	ug/Kg
100-41-4	Ethyl Benzene	5.9	U	0.59	0.59	5.9	ug/Kg
179601-23-1	m/p-Xylenes	11.8	U	0.85	1.2	11.8	ug/Kg
95-47-6	o-Xylene	5.9	U	0.59	0.59	5.9	ug/Kg
98-82-8	Isopropylbenzene	5.9	U	0.56	0.59	5.9	ug/Kg
103-65-1	n-propylbenzene	5.9	U	0.42	0.59	5.9	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	5.9	U	0.53	0.59	5.9	ug/Kg
98-06-6	tert-Butylbenzene	5.9	U	0.59	0.59	5.9	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	5.9	U	0.59	0.59	5.9	ug/Kg
135-98-8	sec-Butylbenzene	5.9	U	0.59	0.59	5.9	ug/Kg
99-87-6	p-Isopropyltoluene	5.9	U	0.34	0.59	5.9	ug/Kg
104-51-8	n-Butylbenzene	5.9	U	0.54	0.59	5.9	ug/Kg
91-20-3	Naphthalene	5.9	U	0.53	0.59	5.9	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	43.9		56 - 120		88%	SPK: 50
1868-53-7	Dibromofluoromethane	42.8		57 - 135		86%	SPK: 50
2037-26-5	Toluene-d8	41.3		67 - 123		83%	SPK: 50
460-00-4	4-Bromofluorobenzene	39.1		33 - 141		78%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	612456	4.79				
540-36-3	1,4-Difluorobenzene	970888	5.52				
3114-55-4	Chlorobenzene-d5	852100	9.68				
3855-82-1	1,4-Dichlorobenzene-d4	343492	12.48				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101716\
Data File : VF051138.D
Acq On : 17 Oct 2016 19:24
Operator : FY/SY
Sample : H5282-01
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 16 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : 031-TB-17(7-8)

Quant Time: Oct 18 07:18:45 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.79	168	612456	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	5.52	114	970888	50.00	ug/l	0.00
63) Chlorobenzene-d5	9.68	117	852100	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.48	152	343492	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	4.76	65	251879	43.88	ug/l	0.00
Spiked Amount 50.000			Recovery =	87.76%		
35) Dibromofluoromethane	4.03	113	298464	42.80	ug/l	0.00
Spiked Amount 50.000			Recovery =	85.60%		
50) Toluene-d8	7.47	98	868529	41.29	ug/l	0.00
Spiked Amount 50.000			Recovery =	82.58%		
62) 4-Bromofluorobenzene	11.33	95	333799	39.10	ug/l	0.00
Spiked Amount 50.000			Recovery =	78.20%		
Target Compounds						Qvalue
20) Methylene Chloride	2.16	84	10145	2.33	ug/l #	82

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

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Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	10/13/16
Project:	121 and 123 Reynolds St.	Date Received:	10/14/16
Client Sample ID:	032-TB-18(8-9)	SDG No.:	H5282
Lab Sample ID:	H5282-02	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	11.4
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF051139.D	1		10/17/16 19:52	VF101716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	5.6	U	0.56	0.56	5.6	ug/Kg
71-43-2	Benzene	5.6	U	0.43	0.56	5.6	ug/Kg
108-88-3	Toluene	5.6	U	0.56	0.56	5.6	ug/Kg
100-41-4	Ethyl Benzene	200	E	0.56	0.56	5.6	ug/Kg
179601-23-1	m/p-Xylenes	260	E	0.81	1.1	11.3	ug/Kg
95-47-6	o-Xylene	8.1		0.56	0.56	5.6	ug/Kg
98-82-8	Isopropylbenzene	190	E	0.54	0.56	5.6	ug/Kg
103-65-1	n-propylbenzene	280	E	0.41	0.56	5.6	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	220	E	0.51	0.56	5.6	ug/Kg
98-06-6	tert-Butylbenzene	16.5		0.56	0.56	5.6	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	730	E	0.56	0.56	5.6	ug/Kg
135-98-8	sec-Butylbenzene	140	E	0.56	0.56	5.6	ug/Kg
99-87-6	p-Isopropyltoluene	200	E	0.33	0.56	5.6	ug/Kg
104-51-8	n-Butylbenzene	110	E	0.52	0.56	5.6	ug/Kg
91-20-3	Naphthalene	460	E	0.51	0.56	5.6	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	52.9		56 - 120		106%	SPK: 50
1868-53-7	Dibromofluoromethane	48.9		57 - 135		98%	SPK: 50
2037-26-5	Toluene-d8	52.9		67 - 123		106%	SPK: 50
460-00-4	4-Bromofluorobenzene	150	*	33 - 141		295%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	515688	4.8				
540-36-3	1,4-Difluorobenzene	809793	5.53				
3114-55-4	Chlorobenzene-d5	585275	9.7				
3855-82-1	1,4-Dichlorobenzene-d4	348748	12.5				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Quantitation Report (QT/LSC Reviewed)

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101716\
Data File : VF051139.D
Acq On : 17 Oct 2016 19:52
Operator : FY/SY
Sample : H5282-02
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 18 07:29:28 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Instrument : MSVOA_F
ClientSampleId : 032-TB-18(8-9)

Manual Integrations APPROVED
MMDadoda
10/18/2016 4:06:14 PM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.80	168	515688	50.00	ug/l		0.02
34) 1,4-Difluorobenzene	5.53	114	809793	50.00	ug/l		0.02
63) Chlorobenzene-d5	9.70	117	585275	50.00	ug/l		0.02
72) 1,4-Dichlorobenzene-d4	12.50	152	348748	50.00	ug/l		0.03
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	4.77	65	255488	52.86	ug/l		0.02
Spiked Amount 50.000			Recovery =	105.72%			
35) Dibromofluoromethane	4.04	113	284665	48.94	ug/l		0.02
Spiked Amount 50.000			Recovery =	97.88%			
50) Toluene-d8	7.48	98	927764	52.88	ug/l		0.02
Spiked Amount 50.000			Recovery =	105.76%			
62) 4-Bromofluorobenzene	11.34	95	1049180	147.34	ug/l		0.02
Spiked Amount 50.000			Recovery =	294.68%			
Target Compounds							Qvalue
17) Carbon Disulfide	1.75	76	15184	1.52	ug/l		95
39) Methylcyclohexane	5.40	83	3992880	483.06	ug/l		98
67) Ethyl Benzene	9.83	91	3703091	180.55	ug/l		94
68) m/p-Xylenes	10.05	106	1731509	229.37	ug/l		99
69) o-Xylene	10.65	106	54621	7.21	ug/l		57
73) Isopropylbenzene	11.07	105	4097970	166.62	ug/l		92
78) n-propylbenzene	11.54	91	7519082	250.43	ug/l		84
80) 1,3,5-Trimethylbenzene	11.78	105	3704869	193.22	ug/l		91
83) tert-Butylbenzene	12.07	119	274820	14.63	ug/l	#	72
84) 1,2,4-Trimethylbenzene	12.17	105	12447054	642.76	ug/l		79
85) sec-Butylbenzene	12.26	105	3054975	122.82	ug/l	#	73
86) p-Isopropyltoluene	12.41	119	3586425m	180.73	ug/l		
89) n-Butylbenzene	12.79	91	1941393m	100.44	ug/l		
95) Naphthalene	14.38	128	5558195	405.16	ug/l	#	90

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

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Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	10/13/16
Project:	121 and 123 Reynolds St.	Date Received:	10/14/16
Client Sample ID:	032-TB-18(8-9)ME	SDG No.:	H5282
Lab Sample ID:	H5282-02ME	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	11.4
Sample Wt/Vol:	5.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	MED

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN036705.D	1		10/21/16 15:55	VN102116

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	560	UD	56.3	56.3	560	ug/Kg
71-43-2	Benzene	560	UD	42.8	56.3	560	ug/Kg
108-88-3	Toluene	560	UD	56.3	56.3	560	ug/Kg
100-41-4	Ethyl Benzene	140	JD	56.3	56.3	560	ug/Kg
179601-23-1	m/p-Xylenes	150	JD	81.1	110	1100	ug/Kg
95-47-6	o-Xylene	560	UD	56.3	56.3	560	ug/Kg
98-82-8	Isopropylbenzene	220	JD	54.1	56.3	560	ug/Kg
103-65-1	n-propylbenzene	460	JD	40.6	56.3	560	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	180	JD	50.7	56.3	560	ug/Kg
98-06-6	tert-Butylbenzene	560	UD	56.3	56.3	560	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	2100	D	56.3	56.3	560	ug/Kg
135-98-8	sec-Butylbenzene	280	JD	56.3	56.3	560	ug/Kg
99-87-6	p-Isopropyltoluene	580	D	32.7	56.3	560	ug/Kg
104-51-8	n-Butylbenzene	140	JD	51.8	56.3	560	ug/Kg
91-20-3	Naphthalene	300	JD	50.7	56.3	560	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.7		56 - 120		97%	SPK: 50
1868-53-7	Dibromofluoromethane	46.7		57 - 135		93%	SPK: 50
2037-26-5	Toluene-d8	52		67 - 123		104%	SPK: 50
460-00-4	4-Bromofluorobenzene	58.5		33 - 141		117%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	338124	7.86				
540-36-3	1,4-Difluorobenzene	579342	8.78				
3114-55-4	Chlorobenzene-d5	612585	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	321436	13.52				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Quantitation Report (QT Reviewed)

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN102116\
Data File : VN036705.D
Acq On : 21 Oct 2016 15:55
Operator : MD\SY
Sample : H5282-02ME
Misc : 5.01g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 22 01:41:57 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Instrument : MSVOA_N
ClientSampleId : 032-TB-18(8-9)ME

Manual Integrations APPROVED
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10/24/2016 11:02:25 AM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.86	168	338124	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	8.78	114	579342	50.00	ug/l		0.00
63) Chlorobenzene-d5	11.58	117	612585	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.52	152	321436	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.23	65	205512	48.73	ug/l		0.00
Spiked Amount 50.000			Recovery =	97.46%			
35) Dibromofluoromethane	7.80	113	183914	46.67	ug/l		0.00
Spiked Amount 50.000			Recovery =	93.34%			
50) Toluene-d8	10.27	98	759855	52.04	ug/l		0.00
Spiked Amount 50.000			Recovery =	104.08%			
62) 4-Bromofluorobenzene	12.57	95	314135	58.52	ug/l		0.00
Spiked Amount 50.000			Recovery =	117.04%			
Target Compounds							Qvalue
39) Methylcyclohexane	9.28	83	25569	3.72	ug/l		99
67) Ethyl Benzene	11.68	91	28589	1.21	ug/l		92
68) m/p-Xylenes	11.80	106	11996	1.31	ug/l		99
73) Isopropylbenzene	12.42	105	49622	1.95	ug/l		97
78) n-propylbenzene	12.76	91	115073	4.11	ug/l		96
80) 1,3,5-Trimethylbenzene	12.90	105	33665	1.59	ug/l		96
84) 1,2,4-Trimethylbenzene	13.21	105	408885	18.96	ug/l		98
85) sec-Butylbenzene	13.34	105	63247	2.52	ug/l	#	62
86) p-Isopropyltoluene	13.46	119	114133	5.16	ug/l		96
89) n-Butylbenzene	13.78	91	22011m	1.22	ug/l		
95) Naphthalene	15.34	128	41467	2.64	ug/l	#	95

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

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Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	10/13/16
Project:	121 and 123 Reynolds St.	Date Received:	10/14/16
Client Sample ID:	033-TB-19(8-9)	SDG No.:	H5282
Lab Sample ID:	H5282-03	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	10.7
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF051153.D	1		10/18/16 16:45	VF101816

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	5.6	U	0.56	0.56	5.6	ug/Kg
71-43-2	Benzene	5.6	U	0.43	0.56	5.6	ug/Kg
108-88-3	Toluene	5.6	U	0.56	0.56	5.6	ug/Kg
100-41-4	Ethyl Benzene	5.6	U	0.56	0.56	5.6	ug/Kg
179601-23-1	m/p-Xylenes	11.2	U	0.81	1.1	11.2	ug/Kg
95-47-6	o-Xylene	5.6	U	0.56	0.56	5.6	ug/Kg
98-82-8	Isopropylbenzene	5.6	U	0.54	0.56	5.6	ug/Kg
103-65-1	n-propylbenzene	5.6	U	0.4	0.56	5.6	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	5.6	U	0.5	0.56	5.6	ug/Kg
98-06-6	tert-Butylbenzene	5.6	U	0.56	0.56	5.6	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	1.4	J	0.56	0.56	5.6	ug/Kg
135-98-8	sec-Butylbenzene	1.8	J	0.56	0.56	5.6	ug/Kg
99-87-6	p-Isopropyltoluene	2	J	0.32	0.56	5.6	ug/Kg
104-51-8	n-Butylbenzene	5.6	U	0.52	0.56	5.6	ug/Kg
91-20-3	Naphthalene	1.7	J	0.5	0.56	5.6	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	42.3		56 - 120		85%	SPK: 50
1868-53-7	Dibromofluoromethane	46.7		57 - 135		93%	SPK: 50
2037-26-5	Toluene-d8	46.9		67 - 123		94%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.7		33 - 141		87%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	685911	4.79				
540-36-3	1,4-Difluorobenzene	1031360	5.52				
3114-55-4	Chlorobenzene-d5	895835	9.68				
3855-82-1	1,4-Dichlorobenzene-d4	407969	12.48				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Quantitation Report (QT/LSC Reviewed)

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101816\
Data File : VF051153.D
Acq On : 18 Oct 2016 16:45
Operator : FY/SY
Sample : H5282-03
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : 033-TB-19(8-9)

Quant Time: Oct 19 04:30:00 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.79	168	685911	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	5.52	114	1031364	50.00	ug/l		0.00
63) Chlorobenzene-d5	9.68	117	895835	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	12.48	152	407969	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	4.76	65	271840	42.29	ug/l		0.00
Spiked Amount 50.000			Recovery = 84.58%				
35) Dibromofluoromethane	4.03	113	345831	46.68	ug/l		0.00
Spiked Amount 50.000			Recovery = 93.36%				
50) Toluene-d8	7.47	98	1047203	46.86	ug/l		0.00
Spiked Amount 50.000			Recovery = 93.72%				
62) 4-Bromofluorobenzene	11.33	95	396737	43.74	ug/l		0.00
Spiked Amount 50.000			Recovery = 87.48%				
Target Compounds							Qvalue
84) 1,2,4-Trimethylbenzene	12.13	105	28669	1.27	ug/l		94
85) sec-Butylbenzene	12.24	105	47681	1.64	ug/l		92
86) p-Isopropyltoluene	12.39	119	42328	1.82	ug/l		97
95) Naphthalene	14.38	128	24922	1.55	ug/l	#	88

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

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Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	10/13/16
Project:	121 and 123 Reynolds St.	Date Received:	10/14/16
Client Sample ID:	034-TB-20(8-9.3)	SDG No.:	H5282
Lab Sample ID:	H5282-04	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	10.5
Sample Wt/Vol:	4.99 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF051144.D	1		10/17/16 22:14	VF101716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	5.6	U	0.56	0.56	5.6	ug/Kg
71-43-2	Benzene	1.7	J	0.43	0.56	5.6	ug/Kg
108-88-3	Toluene	18		0.56	0.56	5.6	ug/Kg
100-41-4	Ethyl Benzene	370	E	0.56	0.56	5.6	ug/Kg
179601-23-1	m/p-Xylenes	470	E	0.81	1.1	11.2	ug/Kg
95-47-6	o-Xylene	440	E	0.56	0.56	5.6	ug/Kg
98-82-8	Isopropylbenzene	280	E	0.54	0.56	5.6	ug/Kg
103-65-1	n-propylbenzene	480	E	0.4	0.56	5.6	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	780	E	0.5	0.56	5.6	ug/Kg
98-06-6	tert-Butylbenzene	19.8		0.56	0.56	5.6	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	1200	E	0.56	0.56	5.6	ug/Kg
135-98-8	sec-Butylbenzene	380	E	0.56	0.56	5.6	ug/Kg
99-87-6	p-Isopropyltoluene	670	E	0.32	0.56	5.6	ug/Kg
104-51-8	n-Butylbenzene	260	E	0.51	0.56	5.6	ug/Kg
91-20-3	Naphthalene	1000	E	0.5	0.56	5.6	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.2		56 - 120		96%	SPK: 50
1868-53-7	Dibromofluoromethane	46.7		57 - 135		93%	SPK: 50
2037-26-5	Toluene-d8	42.2		67 - 123		84%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.3		33 - 141		93%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	558195	4.79				
540-36-3	1,4-Difluorobenzene	894541	5.52				
3114-55-4	Chlorobenzene-d5	673027	9.69				
3855-82-1	1,4-Dichlorobenzene-d4	237427	12.5				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Quantitation Report (LSC Reviewed)

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101716\
Data File : VF051144.D
Acq On : 17 Oct 2016 22:14
Operator : FY/SY
Sample : H5282-04
Misc : 4.99g/5mL/MSVOA_F/SOIL
ALS Vial : 22 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : 034-TB-20(8-9.3)

Manual Integrations APPROVED
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10/18/2016 4:06:18 PM

Quant Time: Oct 18 08:05:55 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.79	168	558195	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	5.52	114	894541	50.00	ug/l		0.00
63) Chlorobenzene-d5	9.69	117	673027	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	12.50	152	237427	50.00	ug/l		0.03
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	4.77	65	251992	48.17	ug/l		0.02
Spiked Amount 50.000			Recovery =	96.34%			
35) Dibromofluoromethane	4.03	113	299802	46.66	ug/l		0.00
Spiked Amount 50.000			Recovery =	93.32%			
50) Toluene-d8	7.48	98	816890	42.15	ug/l		0.02
Spiked Amount 50.000			Recovery =	84.30%			
62) 4-Bromofluorobenzene	11.34	95	364222	46.30	ug/l		0.02
Spiked Amount 50.000			Recovery =	92.60%			
Target Compounds							Qvalue
20) Methylene Chloride	2.17	84	10016	2.52	ug/l	#	82
28) Bromochloromethane	3.66	49	6549	1.19	ug/l		100
31) Cyclohexane	3.67	56	99533	11.73	ug/l	#	74
39) Methylcyclohexane	5.39	83	687815	75.33	ug/l		98
40) Benzene	4.56	78	34819	1.49	ug/l		98
52) Toluene	7.55	92	241006	16.10	ug/l		92
67) Ethyl Benzene	9.83	91	7755641	328.84	ug/l		92
68) m/p-Xylenes	10.06	106	3655833	421.13	ug/l		89
69) o-Xylene	10.65	106	3398825	389.96	ug/l		84
73) Isopropylbenzene	11.07	105	4125980	246.42	ug/l		96
78) n-propylbenzene	11.54	91	8754265	428.28	ug/l		87
80) 1,3,5-Trimethylbenzene	11.79	105	9084707	695.93	ug/l		83
83) tert-Butylbenzene	12.08	119	226456	17.71	ug/l		79
84) 1,2,4-Trimethylbenzene	12.17	105	13726964	1041.21	ug/l		82
85) sec-Butylbenzene	12.26	105	5678977	335.37	ug/l		80
86) p-Isopropyltoluene	12.39	119	8089895	598.83	ug/l		90
89) n-Butylbenzene	12.80	91	3018534m	229.39	ug/l		
95) Naphthalene	14.39	128	8579955	918.67	ug/l	#	78

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

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	10/13/16
Project:	121 and 123 Reynolds St.	Date Received:	10/14/16
Client Sample ID:	034-TB-20(8-9.3)ME	SDG No.:	H5282
Lab Sample ID:	H5282-04ME	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	10.5
Sample Wt/Vol:	4.97 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	MED

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN036706.D	1		10/21/16 16:22	VN102116

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	560	UD	56.2	56.2	560	ug/Kg
71-43-2	Benzene	560	UD	42.7	56.2	560	ug/Kg
108-88-3	Toluene	560	UD	56.2	56.2	560	ug/Kg
100-41-4	Ethyl Benzene	610	D	56.2	56.2	560	ug/Kg
179601-23-1	m/p-Xylenes	630	JD	80.9	110	1100	ug/Kg
95-47-6	o-Xylene	660	D	56.2	56.2	560	ug/Kg
98-82-8	Isopropylbenzene	330	JD	54	56.2	560	ug/Kg
103-65-1	n-propylbenzene	860	D	40.5	56.2	560	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	1600	D	50.6	56.2	560	ug/Kg
98-06-6	tert-Butylbenzene	560	UD	56.2	56.2	560	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	5100	D	56.2	56.2	560	ug/Kg
135-98-8	sec-Butylbenzene	910	D	56.2	56.2	560	ug/Kg
99-87-6	p-Isopropyltoluene	620	D	32.6	56.2	560	ug/Kg
104-51-8	n-Butylbenzene	1200	D	51.7	56.2	560	ug/Kg
91-20-3	Naphthalene	6000	D	50.6	56.2	560	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49.9		56 - 120		100%	SPK: 50
1868-53-7	Dibromofluoromethane	46.6		57 - 135		93%	SPK: 50
2037-26-5	Toluene-d8	49.9		67 - 123		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	57.7		33 - 141		115%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	332148	7.86				
540-36-3	1,4-Difluorobenzene	568688	8.78				
3114-55-4	Chlorobenzene-d5	606191	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	342276	13.52				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Quantitation Report (QT Reviewed)

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN102116\
Data File : VN036706.D
Acq On : 21 Oct 2016 16:22
Operator : MD\SY
Sample : H5282-04ME
Misc : 4.97g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 22 01:45:42 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Instrument : MSVOA_N
ClientSampleId : 034-TB-20(8-9.3)ME

Manual Integrations APPROVED
feifei
10/24/2016 11:02:28 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.86	168	332148	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	8.78	114	568688	50.00	ug/l	0.00
63) Chlorobenzene-d5	11.58	117	606191	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.52	152	342276	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.23	65	206523	49.85	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.70%			
35) Dibromofluoromethane	7.79	113	180050	46.55	ug/l	0.00
Spiked Amount 50.000			Recovery = 93.10%			
50) Toluene-d8	10.27	98	714668	49.86	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.72%			
62) 4-Bromofluorobenzene	12.58	95	304167	57.73	ug/l	0.00
Spiked Amount 50.000			Recovery = 115.46%			
Target Compounds						Qvalue
39) Methylcyclohexane	9.28	83	19224	2.85	ug/l	93
52) Toluene	10.34	92	2752	0.26	ug/l	99
67) Ethyl Benzene	11.68	91	127765	5.46	ug/l	94
68) m/p-Xylenes	11.80	106	51098	5.63	ug/l	90
69) o-Xylene	12.12	106	52427	5.84	ug/l	100
73) Isopropylbenzene	12.42	105	80216	2.95	ug/l	99
78) n-propylbenzene	12.76	91	227378	7.63	ug/l	97
80) 1,3,5-Trimethylbenzene	12.90	105	312365	13.86	ug/l	99
83) tert-Butylbenzene	13.17	119	5572m	0.28	ug/l	
84) 1,2,4-Trimethylbenzene	13.21	105	1041041	45.34	ug/l	97
85) sec-Butylbenzene	13.34	105	216873	8.11	ug/l	84
86) p-Isopropyltoluene	13.46	119	130784	5.56	ug/l	98
89) n-Butylbenzene	13.79	91	210107	10.91	ug/l #	79
95) Naphthalene	15.34	128	888177	53.14	ug/l	99

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

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Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	10/13/16
Project:	121 and 123 Reynolds St.	Date Received:	10/14/16
Client Sample ID:	035-TB-21(8-9)	SDG No.:	H5282
Lab Sample ID:	H5282-05	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	8.1
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF051141.D	1		10/17/16 20:49	VF101716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	5.4	U	0.54	0.54	5.4	ug/Kg
71-43-2	Benzene	5.4	U	0.41	0.54	5.4	ug/Kg
108-88-3	Toluene	5.4	U	0.54	0.54	5.4	ug/Kg
100-41-4	Ethyl Benzene	5.4	U	0.54	0.54	5.4	ug/Kg
179601-23-1	m/p-Xylenes	10.8	U	0.78	1.1	10.8	ug/Kg
95-47-6	o-Xylene	5.4	U	0.54	0.54	5.4	ug/Kg
98-82-8	Isopropylbenzene	5.4	U	0.52	0.54	5.4	ug/Kg
103-65-1	n-propylbenzene	5.4	U	0.39	0.54	5.4	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	5.4	U	0.49	0.54	5.4	ug/Kg
98-06-6	tert-Butylbenzene	5.4	U	0.54	0.54	5.4	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	1.1	J	0.54	0.54	5.4	ug/Kg
135-98-8	sec-Butylbenzene	5.4	U	0.54	0.54	5.4	ug/Kg
99-87-6	p-Isopropyltoluene	5.4	U	0.31	0.54	5.4	ug/Kg
104-51-8	n-Butylbenzene	5.4	U	0.5	0.54	5.4	ug/Kg
91-20-3	Naphthalene	1.4	J	0.49	0.54	5.4	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	46.3		56 - 120		93%	SPK: 50
1868-53-7	Dibromofluoromethane	46.8		57 - 135		94%	SPK: 50
2037-26-5	Toluene-d8	45.1		67 - 123		90%	SPK: 50
460-00-4	4-Bromofluorobenzene	40.7		33 - 141		81%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	608776	4.79				
540-36-3	1,4-Difluorobenzene	984065	5.52				
3114-55-4	Chlorobenzene-d5	791086	9.68				
3855-82-1	1,4-Dichlorobenzene-d4	303177	12.48				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101716\
Data File : VF051141.D
Acq On : 17 Oct 2016 20:49
Operator : FY/SY
Sample : H5282-05
Misc : 5.03g/5mL/MSVOA_F/SOIL
ALS Vial : 19 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : 035-TB-21(8-9)

Quant Time: Oct 18 07:51:04 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.79	168	608776	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	5.52	114	984065	50.00	ug/l	0.00
63) Chlorobenzene-d5	9.68	117	791086	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.48	152	303177	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	4.76	65	264064	46.28	ug/l	0.00
Spiked Amount 50.000			Recovery = 92.56%			
35) Dibromofluoromethane	4.03	113	330528	46.76	ug/l	0.00
Spiked Amount 50.000			Recovery = 93.52%			
50) Toluene-d8	7.47	98	960900	45.07	ug/l	0.00
Spiked Amount 50.000			Recovery = 90.14%			
62) 4-Bromofluorobenzene	11.33	95	352002	40.68	ug/l	0.00
Spiked Amount 50.000			Recovery = 81.36%			
Target Compounds						Qvalue
20) Methylene Chloride	2.15	84	9986	2.31	ug/l	90
84) 1,2,4-Trimethylbenzene	12.13	105	16902	1.00	ug/l	86
95) Naphthalene	14.38	128	15270	1.28	ug/l	98

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

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Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	10/13/16
Project:	121 and 123 Reynolds St.	Date Received:	10/14/16
Client Sample ID:	036-TB-22(8-8.6)	SDG No.:	H5282
Lab Sample ID:	H5282-06	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	9.8
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF051142.D	1		10/17/16 21:17	VF101716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	5.5	U	0.55	0.55	5.5	ug/Kg
71-43-2	Benzene	5.5	U	0.42	0.55	5.5	ug/Kg
108-88-3	Toluene	5.5	U	0.55	0.55	5.5	ug/Kg
100-41-4	Ethyl Benzene	5.5	U	0.55	0.55	5.5	ug/Kg
179601-23-1	m/p-Xylenes	11.1	U	0.8	1.1	11.1	ug/Kg
95-47-6	o-Xylene	5.5	U	0.55	0.55	5.5	ug/Kg
98-82-8	Isopropylbenzene	2	J	0.53	0.55	5.5	ug/Kg
103-65-1	n-propylbenzene	4.5	J	0.4	0.55	5.5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	4.9	J	0.5	0.55	5.5	ug/Kg
98-06-6	tert-Butylbenzene	5.5	U	0.55	0.55	5.5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	21.3		0.55	0.55	5.5	ug/Kg
135-98-8	sec-Butylbenzene	6.4		0.55	0.55	5.5	ug/Kg
99-87-6	p-Isopropyltoluene	14.1		0.32	0.55	5.5	ug/Kg
104-51-8	n-Butylbenzene	3	J	0.51	0.55	5.5	ug/Kg
91-20-3	Naphthalene	1.9	J	0.5	0.55	5.5	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	41.6		56 - 120		83%	SPK: 50
1868-53-7	Dibromofluoromethane	45		57 - 135		90%	SPK: 50
2037-26-5	Toluene-d8	46.9		67 - 123		94%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.6		33 - 141		107%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	400841	4.79				
540-36-3	1,4-Difluorobenzene	605600	5.52				
3114-55-4	Chlorobenzene-d5	490241	9.68				
3855-82-1	1,4-Dichlorobenzene-d4	213605	12.48				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Quantitation Report (QT/LSC Reviewed)

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101716\
Data File : VF051142.D
Acq On : 17 Oct 2016 21:17
Operator : FY/SY
Sample : H5282-06
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 18 07:54:57 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Instrument : MSVOA_F
ClientSampleId : 036-TB-22(8-8.6)

Manual Integrations APPROVED
MMDadoda
10/18/2016 4:06:16 PM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.79	168	400841	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	5.52	114	605600	50.00	ug/l		0.00
63) Chlorobenzene-d5	9.68	117	490241	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	12.48	152	213605	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	4.76	65	156283	41.60	ug/l		0.00
Spiked Amount 50.000			Recovery = 83.20%				
35) Dibromofluoromethane	4.03	113	195880	45.03	ug/l		0.00
Spiked Amount 50.000			Recovery = 90.06%				
50) Toluene-d8	7.47	98	615637	46.92	ug/l		0.00
Spiked Amount 50.000			Recovery = 93.84%				
62) 4-Bromofluorobenzene	11.33	95	285498	53.61	ug/l		0.00
Spiked Amount 50.000			Recovery = 107.22%				
Target Compounds							Qvalue
16) Acetone	2.20	43	16984	11.97	ug/l		97
20) Methylene Chloride	2.16	84	6338m	2.22	ug/l		
25) 2-Butanone	4.26	43	11436	3.18	ug/l	#	80
73) Isopropylbenzene	11.05	105	27706	1.84	ug/l		97
78) n-propylbenzene	11.52	91	75271	4.09	ug/l		90
80) 1,3,5-Trimethylbenzene	11.76	105	51821	4.41	ug/l		99
84) 1,2,4-Trimethylbenzene	12.13	105	227754	19.20	ug/l		95
85) sec-Butylbenzene	12.24	105	88539	5.81	ug/l		81
86) p-Isopropyltoluene	12.39	119	154738m	12.73	ug/l		
89) n-Butylbenzene	12.76	91	31892m	2.69	ug/l		
95) Naphthalene	14.38	128	14043	1.67	ug/l	#	63

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

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Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	10/13/16
Project:	121 and 123 Reynolds St.	Date Received:	10/14/16
Client Sample ID:	037-TB-23(9-9.5)	SDG No.:	H5282
Lab Sample ID:	H5282-07	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	9.8
Sample Wt/Vol:	4.99 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF051143.D	1		10/17/16 21:45	VF101716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	5.6	U	0.56	0.56	5.6	ug/Kg
71-43-2	Benzene	5.6	U	0.42	0.56	5.6	ug/Kg
108-88-3	Toluene	5.6	U	0.56	0.56	5.6	ug/Kg
100-41-4	Ethyl Benzene	1.6	J	0.56	0.56	5.6	ug/Kg
179601-23-1	m/p-Xylenes	3	J	0.8	1.1	11.1	ug/Kg
95-47-6	o-Xylene	40.8		0.56	0.56	5.6	ug/Kg
98-82-8	Isopropylbenzene	1.4	J	0.53	0.56	5.6	ug/Kg
103-65-1	n-propylbenzene	1.5	J	0.4	0.56	5.6	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	93.8		0.5	0.56	5.6	ug/Kg
98-06-6	tert-Butylbenzene	3	J	0.56	0.56	5.6	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	44.8		0.56	0.56	5.6	ug/Kg
135-98-8	sec-Butylbenzene	13.5		0.56	0.56	5.6	ug/Kg
99-87-6	p-Isopropyltoluene	42.9		0.32	0.56	5.6	ug/Kg
104-51-8	n-Butylbenzene	29		0.51	0.56	5.6	ug/Kg
91-20-3	Naphthalene	29.8		0.5	0.56	5.6	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	37.4		56 - 120		75%	SPK: 50
1868-53-7	Dibromofluoromethane	36.5		57 - 135		73%	SPK: 50
2037-26-5	Toluene-d8	35.3		67 - 123		71%	SPK: 50
460-00-4	4-Bromofluorobenzene	36.3		33 - 141		73%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	639569	4.79				
540-36-3	1,4-Difluorobenzene	1027320	5.52				
3114-55-4	Chlorobenzene-d5	890102	9.68				
3855-82-1	1,4-Dichlorobenzene-d4	393393	12.48				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Quantitation Report (LSC Reviewed)

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101716\
Data File : VF051143.D
Acq On : 17 Oct 2016 21:45
Operator : FY/SY
Sample : H5282-07
Misc : 4.99g/5mL/MSVOA_F/SOIL
ALS Vial : 21 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : 037-TB-23(9-9.5)

Manual Integrations APPROVED
MMDadoda
10/18/2016 4:06:17 PM

Quant Time: Oct 18 07:58:00 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.79	168	639569	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	5.52	114	1027324	50.00	ug/l		0.00
63) Chlorobenzene-d5	9.68	117	890102	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	12.48	152	393393	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	4.76	65	224282	37.42	ug/l		0.00
Spiked Amount 50.000			Recovery =	74.84%			
35) Dibromofluoromethane	4.03	113	269173	36.48	ug/l		0.00
Spiked Amount 50.000			Recovery =	72.96%			
50) Toluene-d8	7.47	98	786165	35.32	ug/l		0.00
Spiked Amount 50.000			Recovery =	70.64%			
62) 4-Bromofluorobenzene	11.34	95	327551	36.26	ug/l		0.00
Spiked Amount 50.000			Recovery =	72.52%			
Target Compounds							Qvalue
20) Methylene Chloride	2.17	84	10351	2.28	ug/l		97
39) Methylcyclohexane	5.38	83	30448	2.90	ug/l		97
67) Ethyl Benzene	9.81	91	45096	1.45	ug/l		96
68) m/p-Xylenes	10.04	106	30787	2.68	ug/l		93
69) o-Xylene	10.63	106	423172	36.71	ug/l		99
73) Isopropylbenzene	11.05	105	35582	1.28	ug/l		99
78) n-propylbenzene	11.52	91	45086	1.33	ug/l		93
80) 1,3,5-Trimethylbenzene	11.76	105	1826390	84.44	ug/l		97
83) tert-Butylbenzene	12.07	119	56607	2.67	ug/l		91
84) 1,2,4-Trimethylbenzene	12.14	105	880153	40.29	ug/l		95
85) sec-Butylbenzene	12.24	105	340633	12.14	ug/l		96
86) p-Isopropyltoluene	12.39	119	865033m	38.65	ug/l		
89) n-Butylbenzene	12.77	91	569335m	26.11	ug/l		
95) Naphthalene	14.38	128	415703	26.86	ug/l	#	69

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

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	10/13/16
Project:	121 and 123 Reynolds St.	Date Received:	10/14/16
Client Sample ID:	038-TB-24(8.8-9.3)	SDG No.:	H5282
Lab Sample ID:	H5282-08	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	11.3
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF051162.D	1		10/18/16 21:09	VF101816

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	5.6	U	0.56	0.56	5.6	ug/Kg
71-43-2	Benzene	5.6	U	0.43	0.56	5.6	ug/Kg
108-88-3	Toluene	5.6	U	0.56	0.56	5.6	ug/Kg
100-41-4	Ethyl Benzene	5.6	U	0.56	0.56	5.6	ug/Kg
179601-23-1	m/p-Xylenes	11.3	U	0.81	1.1	11.3	ug/Kg
95-47-6	o-Xylene	5.6	U	0.56	0.56	5.6	ug/Kg
98-82-8	Isopropylbenzene	5.6	U	0.54	0.56	5.6	ug/Kg
103-65-1	n-propylbenzene	5.6	U	0.41	0.56	5.6	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	5.6	U	0.51	0.56	5.6	ug/Kg
98-06-6	tert-Butylbenzene	5.6	U	0.56	0.56	5.6	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	5.6	U	0.56	0.56	5.6	ug/Kg
135-98-8	sec-Butylbenzene	5.6	U	0.56	0.56	5.6	ug/Kg
99-87-6	p-Isopropyltoluene	5.6	U	0.33	0.56	5.6	ug/Kg
104-51-8	n-Butylbenzene	5.6	U	0.52	0.56	5.6	ug/Kg
91-20-3	Naphthalene	5.6	U	0.51	0.56	5.6	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	50.3		56 - 120		101%	SPK: 50
1868-53-7	Dibromofluoromethane	54		57 - 135		108%	SPK: 50
2037-26-5	Toluene-d8	51.9		67 - 123		104%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.3		33 - 141		95%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	553316	4.79				
540-36-3	1,4-Difluorobenzene	824957	5.52				
3114-55-4	Chlorobenzene-d5	756753	9.68				
3855-82-1	1,4-Dichlorobenzene-d4	303643	12.48				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Quantitation Report (QT Reviewed)

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101816\
Data File : VF051162.D
Acq On : 18 Oct 2016 21:09
Operator : FY/SY
Sample : H5282-08
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 17 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : 038-TB-24(8.8-9.3)

Quant Time: Oct 19 04:52:10 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.79	168	553316	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	5.52	114	824957	50.00	ug/l	0.00
63) Chlorobenzene-d5	9.68	117	756753	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.48	152	303643	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	4.76	65	261016	50.33	ug/l	0.00
Spiked Amount 50.000			Recovery =	100.66%		
35) Dibromofluoromethane	4.03	113	320157	54.03	ug/l	0.00
Spiked Amount 50.000			Recovery =	108.06%		
50) Toluene-d8	7.47	98	927877	51.91	ug/l	0.00
Spiked Amount 50.000			Recovery =	103.82%		
62) 4-Bromofluorobenzene	11.34	95	343399	47.34	ug/l	0.00
Spiked Amount 50.000			Recovery =	94.68%		
Target Compounds						Qvalue
20) Methylene Chloride	2.18	84	5416	1.38	ug/l	# 67

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

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	10/13/16
Project:	121 and 123 Reynolds St.	Date Received:	10/14/16
Client Sample ID:	039-TB-25(8-8.5)	SDG No.:	H5282
Lab Sample ID:	H5282-09	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	8.6
Sample Wt/Vol:	5.02 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF051152.D	1		10/18/16 16:16	VF101816

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	5.4	U	0.54	0.54	5.4	ug/Kg
71-43-2	Benzene	5.4	U	0.41	0.54	5.4	ug/Kg
108-88-3	Toluene	5.4	U	0.54	0.54	5.4	ug/Kg
100-41-4	Ethyl Benzene	5.4	U	0.54	0.54	5.4	ug/Kg
179601-23-1	m/p-Xylenes	10.9	U	0.78	1.1	10.9	ug/Kg
95-47-6	o-Xylene	5.4	U	0.54	0.54	5.4	ug/Kg
98-82-8	Isopropylbenzene	5.4	U	0.52	0.54	5.4	ug/Kg
103-65-1	n-propylbenzene	5.4	U	0.39	0.54	5.4	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	5.4	U	0.49	0.54	5.4	ug/Kg
98-06-6	tert-Butylbenzene	5.4	U	0.54	0.54	5.4	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	5.4	U	0.54	0.54	5.4	ug/Kg
135-98-8	sec-Butylbenzene	5.4	U	0.54	0.54	5.4	ug/Kg
99-87-6	p-Isopropyltoluene	5.4	U	0.32	0.54	5.4	ug/Kg
104-51-8	n-Butylbenzene	5.4	U	0.5	0.54	5.4	ug/Kg
91-20-3	Naphthalene	5.4	U	0.49	0.54	5.4	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	47.7		56 - 120		95%	SPK: 50
1868-53-7	Dibromofluoromethane	50.2		57 - 135		100%	SPK: 50
2037-26-5	Toluene-d8	49.2		67 - 123		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.2		33 - 141		90%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	619081	4.79				
540-36-3	1,4-Difluorobenzene	936837	5.52				
3114-55-4	Chlorobenzene-d5	789661	9.68				
3855-82-1	1,4-Dichlorobenzene-d4	328812	12.48				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Quantitation Report (QT Reviewed)

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101816\
Data File : VF051152.D
Acq On : 18 Oct 2016 16:16
Operator : FY/SY
Sample : H5282-09
Misc : 5.02g/5mL/MSVOA_F/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : 039-TB-25(8-8.5)

Quant Time: Oct 19 04:26:00 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.79	168	619081	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	5.52	114	936837	50.00	ug/l	0.00
63) Chlorobenzene-d5	9.68	117	789661	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.48	152	328812	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	4.76	65	277009	47.74	ug/l	0.00
Spiked Amount 50.000			Recovery = 95.48%			
35) Dibromofluoromethane	4.03	113	337984	50.23	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.46%			
50) Toluene-d8	7.47	98	998221	49.18	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.36%			
62) 4-Bromofluorobenzene	11.34	95	372145	45.17	ug/l	0.00
Spiked Amount 50.000			Recovery = 90.34%			
Target Compounds						Qvalue
59) 2-Hexanone	9.42	43	9012	1.15	ug/l	99

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

CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG No.: H5282

Instrument ID: MSVOA_F Calibration Date(s): 10/06/2016 10/06/2016

Heated Purge: (Y/N) Y Calibration Time(s): 10:22 12:46

GC Column: RTX-VMS ID: 0.18 (mm)

LAB FILE ID: RRF005 = VF051020.D RRF010 = VF051021.D RRF020 = VF051022.D
RRF050 = VF051023.D RRF075 = VF051024.D RRF100 = VF051025.D

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF075	RRF100	$\overline{RRF}$	% RSD
Methyl tert-butyl Ether	0.906	0.868	0.808	0.809	0.873	0.789	0.842	5.5
Benzene	1.424	1.360	1.280	1.152	1.339	1.265	1.303	7.2
Toluene	0.892	0.850	0.841	0.781	0.859	0.796	0.837	4.9
Ethyl Benzene	1.955	1.868	1.750	1.652	1.736	1.553	1.752	8.2
m/p-Xylenes	0.701	0.682	0.630	0.616	0.650	0.590	0.645	6.4
o-Xylene	0.679	0.661	0.652	0.626	0.671	0.596	0.648	4.8
Isopropylbenzene	4.057	3.826	3.600	3.208	3.414	3.052	3.526	10.7
n-propylbenzene	4.997	4.725	4.380	4.008	4.062	3.656	4.305	11.5
1,3,5-Trimethylbenzene	3.066	3.060	2.755	2.547	2.658	2.409	2.749	9.8
tert-Butylbenzene	3.103	2.844	2.702	2.523	2.651	2.330	2.692	9.9
1,2,4-Trimethylbenzene	3.121	3.021	2.771	2.588	2.714	2.442	2.776	9.3
sec-Butylbenzene	4.104	3.853	3.615	3.312	3.419	3.093	3.566	10.4
p-Isopropyltoluene	3.237	3.129	2.813	2.674	2.796	2.420	2.845	10.5
n-Butylbenzene	3.047	2.965	2.806	2.666	2.678	2.465	2.771	7.7
Naphthalene	1.891	1.772	1.871	2.023	2.233	2.011	1.967	8.2
1,2-Dichloroethane-d4	0.470	0.450	0.420	0.491	0.501	0.480	0.469	6.3
Dibromofluoromethane	0.345	0.350	0.337	0.368	0.385	0.370	0.359	5
Toluene-d8	1.056	1.063	1.021	1.125	1.145	1.091	1.083	4.3
4-Bromofluorobenzene	0.435	0.432	0.408	0.451	0.468	0.444	0.440	4.6

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Response Factor Report GC/MS Ins

Method Path : W:\HPCHEM1\MSVOA_F\METHODS\
Method File : 82F100616S.M
Title : SW846 8260
Last Update : Fri Oct 07 01:59:13 2016
Response Via : Initial Calibration

Calibration Files
5 =VF051020.D 20 =VF051022.D 50 =VF051023.D
100 =VF051025.D 75 =VF051024.D 10 =VF051021.D

		Compound	5	20	50	100	75	10	Avg	%RSD
1)	I	Pentafluorobenzene	----------	ISTD	----------					
2)	T	Dichlorodifluorom	0.495	0.426	0.405	0.405	0.441	0.408	0.430	8.17
3)	P	Chloromethane	0.813	0.697	0.714	0.679	0.783	0.697	0.731	7.43
4)	C	Vinyl Chloride	0.558	0.476	0.492	0.468	0.557	0.478	0.505	8.22#
5)	T	Bromomethane	0.260	0.196	0.266	0.194	0.261	0.218	0.232	14.56
6)	T	Chloroethane	0.137	0.117	0.138	0.113	0.139	0.114	0.126	10.33
7)	T	Trichlorofluorome	0.350	0.314	0.363	0.323	0.391	0.301	0.340	9.88
8)	T	Diethyl Ether	0.183	0.165	0.171	0.170	0.185	0.191	0.177	5.80
9)	T	1,1,2-Trichlorotr	0.258	0.178	0.169	0.221	0.202	0.224	0.209	15.87
10)	T	Methyl Iodide	0.715	0.602	0.666	0.645	0.720	0.652	0.667	6.72
11)	T	Tert butyl alcoho	0.045	0.038	0.034	0.037	0.037	0.036	0.038	9.33
12)	CM	1,1-Dichloroethen	0.289	0.233	0.255	0.246	0.268	0.270	0.260	7.58#
13)	T	Acrolein	0.054	0.050	0.052	0.049	0.058	0.053	0.052	5.96
14)	T	Allyl chloride	0.675	0.618	0.637	0.623	0.677	0.695	0.654	4.95
15)	T	Acrylonitrile	0.164	0.150	0.150	0.146	0.157	0.158	0.154	4.38
16)	T	Acetone	0.163	0.148	0.191	0.186	0.213	0.161	0.177	13.53
17)	T	Carbon Disulfide	1.075	0.885	0.975	0.919	1.022	0.945	0.970	7.15
18)	T	Methyl Acetate	0.749	0.607	0.545	0.557	0.544	0.676	0.613	13.64
19)	T	Methyl tert-butyl	0.906	0.808	0.809	0.789	0.873	0.868	0.842	5.51
20)	T	Methylene Chlorid	0.442	0.330	0.329	0.320	0.351	0.361	0.355	12.65
21)	T	trans-1,2-Dichlor	0.413	0.352	0.357	0.351	0.371	0.392	0.373	6.74
22)	T	Diisopropyl ether	1.700	1.469	1.460	1.442	1.590	1.547	1.535	6.46
23)	T	Vinyl Acetate	1.349	1.268	1.182	1.098	1.238	1.340	1.246	7.70
24)	P	1,1-Dichloroethan	0.766	0.662	0.668	0.672	0.738	0.703	0.702	6.07
25)	T	2-Butanone	0.447	0.442	0.449	0.436	0.483	0.435	0.449	3.94
26)	T	2,2-Dichloropropa	0.556	0.426	0.415	0.373	0.438	0.481	0.448	14.15
27)	T	cis-1,2-Dichloroe	0.638	0.585	0.580	0.582	0.638	0.593	0.603	4.61
28)	T	Bromochloromethan	0.537	0.497	0.448	0.481	0.491	0.492	0.491	5.84
29)		Tetrahydrofuran	0.244	0.227	0.199	0.195	0.220	0.224	0.218	8.47
30)	C	Chloroform	0.955	0.869	0.860	0.877	0.948	0.898	0.901	4.53#
31)	T	Cyclohexane	0.877	0.722	0.617	0.564	0.656	0.803	0.706	16.71
32)	T	1,1,1-Trichloroet	0.602	0.479	0.466	0.446	0.503	0.521	0.503	11.05
33)	S	1,2-Dichloroethan	0.470	0.420	0.491	0.480	0.501	0.450	0.469	6.31
34)	I	1,4-Difluorobenzene	----------	ISTD	----------					
35)	S	Dibromofluorometh	0.345	0.337	0.368	0.370	0.385	0.350	0.359	5.01
36)	T	1,1-Dichloroprope	0.524	0.447	0.437	0.435	0.468	0.484	0.466	7.36
37)	T	Ethyl Acetate	0.656	0.619	0.552	0.537	0.598	0.638	0.600	7.89
38)	T	Carbon Tetrachlor	0.313	0.263	0.251	0.248	0.264	0.293	0.272	9.43
39)	T	Methylcyclohexane	0.574	0.495	0.457	0.485	0.512	0.540	0.510	8.14
40)	TM	Benzene	1.424	1.280	1.152	1.265	1.339	1.360	1.303	7.19
41)	T	Methacrylonitrile	0.324	0.292	0.264	0.275	0.304	0.294	0.292	7.28
42)	TM	1,2-Dichloroethan	0.412	0.393	0.400	0.396	0.424	0.438	0.410	4.27
43)	T	Isopropyl Acetate	0.856	0.837	0.740	0.764	0.818	0.805	0.803	5.47
44)	TM	Trichloroethene	0.419	0.366	0.346	0.359	0.384	0.389	0.377	6.85
45)	C	1,2-Dichloropropa	0.439	0.398	0.385	0.394	0.418	0.424	0.410	4.98#
46)	T	Dibromomethane	0.278	0.262	0.247	0.265	0.285	0.283	0.270	5.42
47)	T	Bromodichlorometh	0.498	0.467	0.454	0.488	0.515	0.480	0.484	4.53
48)	T	Methyl methacryla	0.434	0.444	0.398	0.414	0.460	0.438	0.431	5.15
49)	T	1,4-Dioxane	0.003	0.002	0.002	0.003	0.003	0.003	0.003	13.02
50)	S	Toluene-d8	1.056	1.021	1.125	1.091	1.145	1.063	1.083	4.27
51)	T	4-Methyl-2-Pentan	0.609	0.553	0.475	0.432	0.496	0.568	0.522	12.62
52)	CM	Toluene	0.892	0.841	0.781	0.796	0.859	0.850	0.837	4.93#

Method Path : W:\HPCHEM1\MSVOA_F\METHODS\
Method File : 82F100616S.M
Title : SW846 8260
Last Update : Fri Oct 07 01:59:13 2016
Response Via : Initial Calibration

Calibration Files
5 =VF051020.D 20 =VF051022.D 50 =VF051023.D
100 =VF051025.D 75 =VF051024.D 10 =VF051021.D

		Compound	5	20	50	100	75	10	Avg	%RSD
53)	T	t-1,3-Dichloropro	0.565	0.507	0.497	0.513	0.552	0.511	0.524	5.27
54)	T	cis-1,3-Dichlorop	0.635	0.614	0.603	0.627	0.672	0.611	0.627	3.94
55)	T	1,1,2-Trichloroet	0.375	0.341	0.328	0.339	0.365	0.353	0.350	4.97
56)	T	Ethyl methacrylat	0.528	0.537	0.494	0.524	0.558	0.512	0.526	4.17
57)	T	1,3-Dichloropropa	0.644	0.595	0.557	0.581	0.620	0.611	0.601	5.08
58)	T	2-Chloroethyl Vin							0.000	-1.00
59)	T	2-Hexanone	0.446	0.437	0.392	0.359	0.423	0.448	0.417	8.43
60)	T	Dibromochlorometh	0.412	0.390	0.394	0.414	0.450	0.400	0.410	5.26
61)	T	1,2-Dibromoethane	0.398	0.392	0.378	0.385	0.419	0.394	0.394	3.56
62)	S	4-Bromofluorobenz	0.435	0.408	0.451	0.444	0.468	0.432	0.440	4.60
63)	I	Chlorobenzene-d5	----------	----------	ISTD	----------	----------	----------		
64)	T	Tetrachloroethene	0.440	0.365	0.363	0.363	0.397	0.404	0.389	7.94
65)	PM	Chlorobenzene	1.096	1.015	1.008	0.979	1.077	1.069	1.041	4.46
66)	T	1,1,1,2-Tetrachlo	0.389	0.361	0.366	0.359	0.390	0.381	0.374	3.74
67)	C	Ethyl Benzene	1.955	1.750	1.652	1.553	1.736	1.868	1.752	8.25#
68)	T	m/p-Xylenes	0.701	0.630	0.616	0.590	0.650	0.682	0.645	6.41
69)	T	o-Xylene	0.679	0.652	0.626	0.596	0.671	0.661	0.648	4.79
70)	T	Styrene	1.128	0.889	1.023	1.006	1.094	1.080	1.037	8.23
71)	P	Bromoform	0.312	0.310	0.322	0.327	0.362	0.313	0.324	6.11
72)	I	1,4-Dichlorobenzene-d	----------	----------	ISTD	----------	----------	----------		
73)	T	Isopropylbenzene	4.057	3.600	3.208	3.052	3.414	3.826	3.526	10.73
74)	T	N-amyl acetate	2.348	2.241	2.111	1.882	2.168	2.146	2.149	7.24
75)	P	1,1,2,2-Tetrachlo	1.392	1.236	1.125	1.073	1.211	1.312	1.225	9.61
76)	T	1,2,3-Trichloropr	1.048	0.917	0.836	0.800	0.917	0.965	0.914	9.74
77)	T	Bromobenzene	1.160	1.037	0.983	0.950	1.047	1.098	1.046	7.27
78)	T	n-propylbenzene	4.997	4.380	4.008	3.656	4.062	4.725	4.305	11.52
79)	T	2-Chlorotoluene	2.758	2.400	2.180	2.109	2.355	2.622	2.404	10.40
80)	T	1,3,5-Trimethylbe	3.066	2.755	2.547	2.409	2.658	3.060	2.749	9.80
81)	T	trans-1,4-Dichlor	0.450	0.395	0.429	0.436	0.493	0.384	0.431	9.11
82)	T	4-Chlorotoluene	2.950	2.628	2.498	2.324	2.538	2.853	2.632	8.86
83)	T	tert-Butylbenzene	3.103	2.702	2.523	2.330	2.651	2.844	2.692	9.88
84)	T	1,2,4-Trimethylbe	3.121	2.771	2.588	2.442	2.714	3.021	2.776	9.26
85)	T	sec-Butylbenzene	4.104	3.615	3.312	3.093	3.419	3.853	3.566	10.37
86)	T	p-Isopropyltoluen	3.237	2.813	2.675	2.420	2.796	3.129	2.845	10.52
87)	T	1,3-Dichlorobenze	1.830	1.631	1.580	1.518	1.703	1.762	1.671	6.98
88)	T	1,4-Dichlorobenze	1.708	1.585	1.568	1.562	1.685	1.649	1.626	3.89
89)	T	n-Butylbenzene	3.047	2.806	2.666	2.465	2.678	2.965	2.771	7.71
90)	T	Hexachloroethane	0.591	0.558	0.574	0.587	0.616	0.577	0.584	3.33
91)	T	1,2-Dichlorobenze	1.665	1.491	1.460	1.462	1.558	1.583	1.537	5.25
92)	T	1,2-Dibromo-3-Chl	0.199	0.184	0.187	0.183	0.205	0.178	0.189	5.54
93)	T	1,2,4-Trichlorobe	0.729	0.724	0.738	0.802	0.863	0.731	0.765	7.37
94)	T	Hexachlorobutadie	0.478	0.404	0.396	0.422	0.453	0.457	0.435	7.52
95)	T	Naphthalene	1.891	1.871	2.023	2.011	2.233	1.772	1.967	8.16
96)	T	1,2,3-Trichlorobe	0.608	0.632	0.658	0.712	0.763	0.629	0.667	8.87

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051020.D
Acq On : 6 Oct 2016 10:22
Operator : FY/SY
Sample : VSTDICC005
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 07 01:49:58 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Instrument : MSVOA_F
ClientSampleId : VSTDICC005

Manual Integrations APPROVED
MMDadoda
10/7/2016 1:59:58 PM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.79	168	746067	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	5.52	114	1120712	50.00	ug/l		0.00
63) Chlorobenzene-d5	9.68	117	970417	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	12.48	152	433007	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	4.76	65	35060	5.02	ug/l		0.00
Spiked Amount 50.000			Recovery = 10.04%				
35) Dibromofluoromethane	4.03	113	38711	4.81	ug/l		0.00
Spiked Amount 50.000			Recovery = 9.62%				
50) Toluene-d8	7.47	98	118393	4.88	ug/l		0.00
Spiked Amount 50.000			Recovery = 9.76%				
62) 4-Bromofluorobenzene	11.34	95	48769	4.95	ug/l		0.00
Spiked Amount 50.000			Recovery = 9.90%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.94	85	36958	5.74	ug/l		93
3) Chloromethane	1.07	50	60653	5.61	ug/l		98
4) Vinyl Chloride	1.08	62	41622	5.48	ug/l		97
5) Bromomethane	1.27	94	19420	5.62	ug/l		93
6) Chloroethane	1.35	64	10241m	5.95	ug/l		
7) Trichlorofluoromethane	1.41	101	26133	5.13	ug/l		96
8) Diethyl Ether	1.61	74	13633	5.15	ug/l		94
9) 1,1,2-Trichlorotrifluoroet	1.77	101	19284m	6.25	ug/l		
10) Methyl Iodide	1.83	142	53380	5.29	ug/l		96
11) Tert butyl alcohol	2.51	59	16647	31.73	ug/l	#	76
12) 1,1-Dichloroethene	1.74	96	21559	5.82	ug/l		93
13) Acrolein	1.96	56	20106	25.70	ug/l		99
14) Allyl chloride	2.06	41	50393	5.18	ug/l		92
15) Acrylonitrile	2.88	53	61229	26.65	ug/l		97
16) Acetone	2.19	43	60792	23.04	ug/l		100
17) Carbon Disulfide	1.76	76	80185	5.53	ug/l	#	95
18) Methyl Acetate	2.30	43	55860	6.84	ug/l		97
19) Methyl tert-butyl Ether	2.39	73	67590	5.38	ug/l		97
20) Methylene Chloride	2.14	84	32955	6.26	ug/l		97
21) trans-1,2-Dichloroethene	2.27	96	30806	5.55	ug/l		91
22) Diisopropyl ether	2.75	45	126839	5.54	ug/l	#	96
23) Vinyl Acetate	3.13	43	503065	27.11	ug/l		99
24) 1,1-Dichloroethane	2.82	63	57150	5.46	ug/l		97
25) 2-Butanone	4.25	43	166724	24.93	ug/l		99
26) 2,2-Dichloropropane	3.54	77	41462	6.21	ug/l		100
27) cis-1,2-Dichloroethene	3.40	96	47588	5.30	ug/l		95
28) Bromochloromethane	3.64	49	40097	5.48	ug/l		93
29) Tetrahydrofuran	4.00	42	91062	30.68	ug/l		99
30) Chloroform	3.78	83	71250	5.30	ug/l		98
31) Cyclohexane	3.63	56	65445	6.22	ug/l		97
32) 1,1,1-Trichloroethane	4.02	97	44938	6.00	ug/l		93
36) 1,1-Dichloropropene	4.20	75	58710	5.63	ug/l		91
37) Ethyl Acetate	4.02	43	73484	5.47	ug/l		97
38) Carbon Tetrachloride	3.91	117	35103	5.76	ug/l		95

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051020.D
Acq On : 6 Oct 2016 10:22
Operator : FY/SY
Sample : VSTDICC005
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : VSTDICC005

Manual Integrations APPROVED
MMDadoda
10/7/2016 1:59:58 PM

Quant Time: Oct 07 01:49:58 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	5.38	83	64293	5.62	ug/l		93
40) Benzene	4.55	78	159545	5.46	ug/l		99
41) Methacrylonitrile	4.66	41	36366	5.56	ug/l		94
42) 1,2-Dichloroethane	4.86	62	46156	5.02	ug/l		95
43) Isopropyl Acetate	6.88	43	95920	5.33	ug/l	#	98
44) Trichloroethene	5.42	130	46909	5.55	ug/l		93
45) 1,2-Dichloropropane	6.15	63	49182	5.36	ug/l		98
46) Dibromomethane	6.00	93	31156	5.15	ug/l		93
47) Bromodichloromethane	6.30	83	55856	5.15	ug/l		97
48) Methyl methacrylate	6.64	41	48675	5.04	ug/l		97
49) 1,4-Dioxane	6.62	88	6523	112.10	ug/l	#	89
51) 4-Methyl-2-Pentanone	8.17	43	341079	29.16	ug/l		94
52) Toluene	7.54	92	99978	5.33	ug/l		94
53) t-1,3-Dichloropropene	8.19	75	63344	5.39	ug/l		97
54) cis-1,3-Dichloropropene	7.22	75	71198	5.07	ug/l		97
55) 1,1,2-Trichloroethane	8.40	97	41994	5.35	ug/l		95
56) Ethyl methacrylate	8.54	69	59212	5.03	ug/l		92
57) 1,3-Dichloropropane	8.76	76	72207	5.36	ug/l		98
59) 2-Hexanone	9.40	43	249914	26.73	ug/l		96
60) Dibromochloromethane	8.63	129	46157	5.02	ug/l		99
61) 1,2-Dibromoethane	8.89	107	44645	5.06	ug/l		100
64) Tetrachloroethene	8.07	164	42653	5.65	ug/l		97
65) Chlorobenzene	9.71	112	106345	5.26	ug/l		100
66) 1,1,1,2-Tetrachloroethane	9.84	131	37710	5.19	ug/l		95
67) Ethyl Benzene	9.81	91	189680	5.58	ug/l		95
68) m/p-Xylenes	10.05	106	136026	10.86	ug/l		88
69) o-Xylene	10.64	106	65846	5.24	ug/l		93
70) Styrene	10.71	104	109428	5.44	ug/l		96
71) Bromoform	10.69	173	30234	4.80	ug/l		98
73) Isopropylbenzene	11.05	105	175650	5.75	ug/l		99
74) N-amyl acetate	11.31	43	101676	5.46	ug/l		98
75) 1,1,2,2-Tetrachloroethane	11.62	83	60296	5.69	ug/l		96
76) 1,2,3-Trichloropropane	11.72	75	45363	5.73	ug/l		98
77) Bromobenzene	11.43	156	50213	5.54	ug/l		97
78) n-propylbenzene	11.52	91	216393	5.80	ug/l		94
79) 2-Chlorotoluene	11.65	91	119406	5.74	ug/l		98
80) 1,3,5-Trimethylbenzene	11.76	105	132771	5.58	ug/l		99
81) trans-1,4-Dichloro-2-buten	11.80	75	19484m	4.33	ug/l		
82) 4-Chlorotoluene	11.83	91	127758	5.61	ug/l		97
83) tert-Butylbenzene	12.07	119	134370	5.76	ug/l		99
84) 1,2,4-Trimethylbenzene	12.13	105	135155	5.62	ug/l		98
85) sec-Butylbenzene	12.23	105	177723	5.75	ug/l		94
86) p-Isopropyltoluene	12.39	119	140163	5.69	ug/l		94
87) 1,3-Dichlorobenzene	12.40	146	79242	5.48	ug/l		96
88) 1,4-Dichlorobenzene	12.49	146	73977	5.25	ug/l		96
89) n-Butylbenzene	12.78	91	131934	5.50	ug/l		98
90) Hexachloroethane	12.84	117	25605	5.06	ug/l		87
91) 1,2-Dichlorobenzene	12.86	146	72090	5.42	ug/l		96
92) 1,2-Dibromo-3-Chloropropan	13.56	75	8615	5.25	ug/l		63
93) 1,2,4-Trichlorobenzene	14.13	180	31565	4.77	ug/l		94

Quantitation Report (QT Reviewed)

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051020.D
Acq On : 6 Oct 2016 10:22
Operator : FY/SY
Sample : VSTDICC005
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 07 01:49:58 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Instrument :
MSVOA_F
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
MMDadoda
10/7/2016 1:59:58 PM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Hexachlorobutadiene	14.12	225	20697	5.49	ug/l	92
95) Naphthalene	14.37	128	81884	4.81	ug/l	99
96) 1,2,3-Trichlorobenzene	14.52	180	26325	4.56	ug/l	97

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

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051021.D
Acq On : 6 Oct 2016 10:51
Operator : FY/SY
Sample : VSTDICC010
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : VSTDICC010

Manual Integrations APPROVED
MMDadoda
10/7/2016 1:59:59 PM

Quant Time: Oct 07 01:49:28 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.79	168	801041	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	5.52	114	1185836	50.00	ug/l		0.00
63) Chlorobenzene-d5	9.68	117	1027366	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	12.48	152	466196	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	4.76	65	72166	9.62	ug/l		0.00
Spiked Amount 50.000			Recovery = 19.24%				
35) Dibromofluoromethane	4.03	113	82926	9.74	ug/l		0.00
Spiked Amount 50.000			Recovery = 19.48%				
50) Toluene-d8	7.47	98	251994	9.81	ug/l		0.00
Spiked Amount 50.000			Recovery = 19.62%				
62) 4-Bromofluorobenzene	11.34	95	102523	9.83	ug/l		0.00
Spiked Amount 50.000			Recovery = 19.66%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.94	85	65291	9.44	ug/l		95
3) Chloromethane	1.07	50	111706	9.62	ug/l		99
4) Vinyl Chloride	1.11	62	76634	9.40	ug/l		100
5) Bromomethane	1.29	94	34905	9.42	ug/l		96
6) Chloroethane	1.35	64	18227m	9.86	ug/l		
7) Trichlorofluoromethane	1.42	101	48273	8.83	ug/l		97
8) Diethyl Ether	1.61	74	30631	10.79	ug/l		100
9) 1,1,2-Trichlorotrifluoroet	1.76	101	35946m	10.86	ug/l		
10) Methyl Iodide	1.84	142	104463	9.65	ug/l		97
11) Tert butyl alcohol	2.51	59	29034	51.54	ug/l		95
12) 1,1-Dichloroethene	1.73	96	43291m	10.89	ug/l		
13) Acrolein	1.96	56	42161	50.19	ug/l		89
14) Allyl chloride	2.06	41	111385	10.67	ug/l		96
15) Acrylonitrile	2.88	53	126252	51.17	ug/l		97
16) Acetone	2.19	43	128785	45.47	ug/l		99
17) Carbon Disulfide	1.76	76	151433	9.73	ug/l		98
18) Methyl Acetate	2.30	43	108329	12.35	ug/l		95
19) Methyl tert-butyl Ether	2.38	73	139079	10.31	ug/l		99
20) Methylene Chloride	2.15	84	57757	10.22	ug/l	#	96
21) trans-1,2-Dichloroethene	2.27	96	62783	10.53	ug/l		95
22) Diisopropyl ether	2.75	45	247871	10.09	ug/l		99
23) Vinyl Acetate	3.12	43	1073525	53.89	ug/l		98
24) 1,1-Dichloroethane	2.82	63	112672	10.02	ug/l		98
25) 2-Butanone	4.24	43	348840	48.58	ug/l		99
26) 2,2-Dichloropropane	3.53	77	77105	10.75	ug/l		95
27) cis-1,2-Dichloroethene	3.41	96	95067	9.85	ug/l		93
28) Bromochloromethane	3.64	49	78776	10.02	ug/l		99
29) Tetrahydrofuran	3.99	42	179629	56.36	ug/l		98
30) Chloroform	3.77	83	143838	9.97	ug/l		98
31) Cyclohexane	3.63	56	128629	11.38	ug/l		98
32) 1,1,1-Trichloroethane	4.01	97	83500	10.38	ug/l		99
36) 1,1-Dichloropropene	4.20	75	114708	10.39	ug/l		96
37) Ethyl Acetate	4.03	43	151273	10.63	ug/l		100
38) Carbon Tetrachloride	3.91	117	69428	10.76	ug/l		94

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051021.D
Acq On : 6 Oct 2016 10:51
Operator : FY/SY
Sample : VSTDICC010
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED
MMDadoda
10/7/2016 1:59:59 PM

Quant Time: Oct 07 01:49:28 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	5.38	83	128017	10.58	ug/l		99
40) Benzene	4.55	78	322563	10.44	ug/l		99
41) Methacrylonitrile	4.66	41	69623	10.06	ug/l		97
42) 1,2-Dichloroethane	4.86	62	103783	10.66	ug/l		96
43) Isopropyl Acetate	6.88	43	190929	10.02	ug/l	#	97
44) Trichloroethene	5.42	130	92237	10.32	ug/l		99
45) 1,2-Dichloropropane	6.15	63	100613	10.37	ug/l		98
46) Dibromomethane	6.00	93	67076	10.47	ug/l		99
47) Bromodichloromethane	6.30	83	113848	9.92	ug/l		98
48) Methyl methacrylate	6.63	41	103784	10.15	ug/l		96
49) 1,4-Dioxane	6.62	88	12995	211.06	ug/l		93
51) 4-Methyl-2-Pentanone	8.17	43	674031	54.47	ug/l		94
52) Toluene	7.54	92	201545	10.16	ug/l		98
53) t-1,3-Dichloropropene	8.19	75	121135	9.75	ug/l		96
54) cis-1,3-Dichloropropene	7.21	75	144982	9.75	ug/l		99
55) 1,1,2-Trichloroethane	8.40	97	83668	10.08	ug/l		98
56) Ethyl methacrylate	8.54	69	121312	9.73	ug/l		95
57) 1,3-Dichloropropane	8.76	76	144851	10.16	ug/l		98
59) 2-Hexanone	9.40	43	531256	53.71	ug/l		96
60) Dibromochloromethane	8.62	129	94895	9.76	ug/l		97
61) 1,2-Dibromoethane	8.89	107	93413	10.00	ug/l		98
64) Tetrachloroethene	8.07	164	83034	10.40	ug/l		95
65) Chlorobenzene	9.70	112	219696	10.27	ug/l		98
66) 1,1,1,2-Tetrachloroethane	9.84	131	78222	10.18	ug/l		98
67) Ethyl Benzene	9.81	91	383745	10.66	ug/l		99
68) m/p-Xylenes	10.04	106	280313	21.15	ug/l		96
69) o-Xylene	10.63	106	135891	10.21	ug/l		95
70) Styrene	10.70	104	221928	10.42	ug/l		97
71) Bromoform	10.68	173	64318	9.65	ug/l		97
73) Isopropylbenzene	11.05	105	356758	10.85	ug/l		98
74) N-amyl acetate	11.31	43	200061	9.98	ug/l		94
75) 1,1,2,2-Tetrachloroethane	11.62	83	122303	10.71	ug/l		100
76) 1,2,3-Trichloropropane	11.72	75	90010	10.55	ug/l		93
77) Bromobenzene	11.41	156	102375	10.50	ug/l		85
78) n-propylbenzene	11.52	91	440541	10.98	ug/l		94
79) 2-Chlorotoluene	11.64	91	244456	10.91	ug/l		95
80) 1,3,5-Trimethylbenzene	11.75	105	285357	11.13	ug/l		96
81) trans-1,4-Dichloro-2-buten	11.79	75	35764m	7.38	ug/l		
82) 4-Chlorotoluene	11.83	91	266044	10.84	ug/l		99
83) tert-Butylbenzene	12.05	119	265216	10.57	ug/l		97
84) 1,2,4-Trimethylbenzene	12.13	105	281719	10.88	ug/l		94
85) sec-Butylbenzene	12.23	105	359205	10.80	ug/l		96
86) p-Isopropyltoluene	12.39	119	291784	11.00	ug/l		96
87) 1,3-Dichlorobenzene	12.40	146	164281	10.55	ug/l		97
88) 1,4-Dichlorobenzene	12.49	146	153784	10.14	ug/l		97
89) n-Butylbenzene	12.77	91	276442	10.70	ug/l		96
90) Hexachloroethane	12.84	117	53791	9.88	ug/l		80
91) 1,2-Dichlorobenzene	12.86	146	147606	10.30	ug/l		97
92) 1,2-Dibromo-3-Chloropropan	13.56	75	16585	9.39	ug/l		84
93) 1,2,4-Trichlorobenzene	14.11	180	68118	9.56	ug/l		95

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051021.D
Acq On : 6 Oct 2016 10:51
Operator : FY/SY
Sample : VSTDICC010
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED
MMDadoda
10/7/2016 1:59:59 PM

Quant Time: Oct 07 01:49:28 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
94) Hexachlorobutadiene	14.11	225	42639	10.51 ug/l	97
95) Naphthalene	14.37	128	165212	9.01 ug/l	99
96) 1,2,3-Trichlorobenzene	14.52	180	58636	9.43 ug/l	97

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

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051022.D
Acq On : 6 Oct 2016 11:20
Operator : FY/SY
Sample : VSTDICC020
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : VSTDICC020

Manual Integrations APPROVED
MMDadoda
10/7/2016 2:00:00 PM

Quant Time: Oct 07 01:24:48 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.79	168	845577	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	5.52	114	1296916	50.00	ug/l	0.00
63) Chlorobenzene-d5	9.68	117	1157833	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.48	152	529320	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	4.76	65	142024	17.94	ug/l	0.00
Spiked Amount 50.000			Recovery = 35.88%			
35) Dibromofluoromethane	4.02	113	174881	18.77	ug/l	0.00
Spiked Amount 50.000			Recovery = 37.54%			
50) Toluene-d8	7.47	98	529471	18.85	ug/l	0.00
Spiked Amount 50.000			Recovery = 37.70%			
62) 4-Bromofluorobenzene	11.33	95	211491	18.55	ug/l	0.00
Spiked Amount 50.000			Recovery = 37.10%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.93	85	143998	19.73	ug/l	97
3) Chloromethane	1.07	50	235759	19.24	ug/l	97
4) Vinyl Chloride	1.10	62	160879	18.69	ug/l	98
5) Bromomethane	1.28	94	66292m	16.94	ug/l	
6) Chloroethane	1.34	64	39640m	20.31	ug/l	
7) Trichlorofluoromethane	1.42	101	106149	18.40	ug/l	96
8) Diethyl Ether	1.61	74	55661	18.57	ug/l	95
9) 1,1,2-Trichlorotrifluoroet	1.76	101	60114	17.20	ug/l	93
10) Methyl Iodide	1.84	142	203757	17.82	ug/l	97
11) Tert butyl alcohol	2.51	59	64219m	108.00	ug/l	
12) 1,1-Dichloroethene	1.73	96	78831	18.78	ug/l	92
13) Acrolein	1.96	56	83893	94.60	ug/l	91
14) Allyl chloride	2.06	41	209005	18.96	ug/l	99
15) Acrylonitrile	2.89	53	253977	97.52	ug/l	96
16) Acetone	2.20	43	250745	83.86	ug/l	95
17) Carbon Disulfide	1.76	76	299488	18.23	ug/l	96
18) Methyl Acetate	2.30	43	205390	22.18	ug/l	98
19) Methyl tert-butyl Ether	2.38	73	273379	19.21	ug/l	97
20) Methylene Chloride	2.15	84	111593	18.70	ug/l	97
21) trans-1,2-Dichloroethene	2.27	96	118889	18.89	ug/l	99
22) Diisopropyl ether	2.75	45	496870	19.16	ug/l	98
23) Vinyl Acetate	3.12	43	2143607	101.93	ug/l	98
24) 1,1-Dichloroethane	2.82	63	223864	18.87	ug/l	98
25) 2-Butanone	4.25	43	747545	98.62	ug/l	98
26) 2,2-Dichloropropane	3.53	77	143933	19.02	ug/l	99
27) cis-1,2-Dichloroethene	3.40	96	198028	19.44	ug/l	98
28) Bromochloromethane	3.64	49	168253	20.27	ug/l	98
29) Tetrahydrofuran	3.99	42	383529	114.01	ug/l	98
30) Chloroform	3.77	83	293906	19.30	ug/l	100
31) Cyclohexane	3.63	56	244038	20.45	ug/l	98
32) 1,1,1-Trichloroethane	4.01	97	161917	19.06	ug/l	98
36) 1,1-Dichloropropene	4.20	75	231648	19.18	ug/l	98
37) Ethyl Acetate	4.03	43	321103	20.64	ug/l	96
38) Carbon Tetrachloride	3.91	117	136467	19.34	ug/l	99

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051022.D
Acq On : 6 Oct 2016 11:20
Operator : FY/SY
Sample : VSTDICC020
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
MMDadoda
10/7/2016 2:00:00 PM

Quant Time: Oct 07 01:24:48 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methylcyclohexane	5.38	83	256765	19.40	ug/l	97
40) Benzene	4.55	78	664004	19.64	ug/l	97
41) Methacrylonitrile	4.66	41	151432	20.01	ug/l	94
42) 1,2-Dichloroethane	4.86	62	204072	19.17	ug/l	98
43) Isopropyl Acetate	6.88	43	434263	20.84	ug/l	99
44) Trichloroethene	5.42	130	189910	19.42	ug/l	95
45) 1,2-Dichloropropane	6.15	63	206613	19.46	ug/l	98
46) Dibromomethane	6.00	93	135964	19.41	ug/l	99
47) Bromodichloromethane	6.30	83	242334	19.31	ug/l	98
48) Methyl methacrylate	6.63	41	230554	20.62	ug/l	99
49) 1,4-Dioxane	6.62	88	23712	352.14	ug/l	94
51) 4-Methyl-2-Pentanone	8.17	43	1435300	106.05	ug/l	97
52) Toluene	7.54	92	436202	20.11	ug/l	99
53) t-1,3-Dichloropropene	8.19	75	263000	19.36	ug/l	97
54) cis-1,3-Dichloropropene	7.21	75	318426	19.58	ug/l	99
55) 1,1,2-Trichloroethane	8.40	97	176655	19.45	ug/l	98
56) Ethyl methacrylate	8.53	69	278565	20.44	ug/l	97
57) 1,3-Dichloropropane	8.76	76	308620	19.78	ug/l	100
59) 2-Hexanone	9.40	43	1133247	104.75	ug/l	98
60) Dibromochloromethane	8.62	129	202358	19.02	ug/l	100
61) 1,2-Dibromoethane	8.89	107	203480	19.91	ug/l	99
64) Tetrachloroethene	8.07	164	169083	18.79	ug/l	98
65) Chlorobenzene	9.70	112	470050	19.49	ug/l	98
66) 1,1,1,2-Tetrachloroethane	9.84	131	167064	19.29	ug/l	99
67) Ethyl Benzene	9.81	91	810526	19.98	ug/l	99
68) m/p-Xylenes	10.03	106	583372	39.05	ug/l	92
69) o-Xylene	10.62	106	301988	20.14	ug/l	97
70) Styrene	10.70	104	411770	17.15	ug/l	98
71) Bromoform	10.68	173	143561	19.12	ug/l	100
73) Isopropylbenzene	11.05	105	762323	20.41	ug/l	100
74) N-amyl acetate	11.30	43	474486	20.85	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.62	83	261598	20.18	ug/l	99
76) 1,2,3-Trichloropropane	11.72	75	194231	20.06	ug/l	100
77) Bromobenzene	11.41	156	219505	19.83	ug/l	89
78) n-propylbenzene	11.52	91	927314	20.35	ug/l	96
79) 2-Chlorotoluene	11.64	91	508101	19.97	ug/l	93
80) 1,3,5-Trimethylbenzene	11.75	105	583225	20.04	ug/l	96
81) trans-1,4-Dichloro-2-buten	11.79	75	83660m	15.21	ug/l	
82) 4-Chlorotoluene	11.83	91	556327	19.97	ug/l	97
83) tert-Butylbenzene	12.05	119	572146	20.07	ug/l	98
84) 1,2,4-Trimethylbenzene	12.13	105	586728	19.96	ug/l	96
85) sec-Butylbenzene	12.23	105	765476	20.28	ug/l	96
86) p-Isopropyltoluene	12.39	119	595613	19.78	ug/l	96
87) 1,3-Dichlorobenzene	12.40	146	345356	19.53	ug/l	97
88) 1,4-Dichlorobenzene	12.49	146	335620	19.49	ug/l	98
89) n-Butylbenzene	12.77	91	594159	20.25	ug/l	98
90) Hexachloroethane	12.84	117	118169	19.11	ug/l	82
91) 1,2-Dichlorobenzene	12.86	146	315628	19.40	ug/l	97
92) 1,2-Dibromo-3-Chloropropan	13.56	75	38951	19.43	ug/l	81
93) 1,2,4-Trichlorobenzene	14.11	180	153357	18.95	ug/l	97

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051022.D
Acq On : 6 Oct 2016 11:20
Operator : FY/SY
Sample : VSTDICC020
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
MMDadoda
10/7/2016 2:00:00 PM

Quant Time: Oct 07 01:24:48 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Hexachlorobutadiene	14.11	225	85460	18.56	ug/l	97
95) Naphthalene	14.37	128	396231	19.03	ug/l	99
96) 1,2,3-Trichlorobenzene	14.52	180	133794	18.95	ug/l	99

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

Quantitation Report (QT Reviewed)

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051023.D
Acq On : 6 Oct 2016 11:49
Operator : FY/SY
Sample : VSTDICCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
MMDadoda
10/7/2016 2:00:00 PM

Quant Time: Oct 07 01:54:09 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.78	168	727938	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	5.51	114	1140654	50.00	ug/l	0.00
63) Chlorobenzene-d5	9.68	117	992903	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.47	152	484931	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	4.75	65	357224	52.41	ug/l	0.00
Spiked Amount 50.000			Recovery =	104.82%		
35) Dibromofluoromethane	4.02	113	419987	51.26	ug/l	0.00
Spiked Amount 50.000			Recovery =	102.52%		
50) Toluene-d8	7.46	98	1283221	51.94	ug/l	0.00
Spiked Amount 50.000			Recovery =	103.88%		
62) 4-Bromofluorobenzene	11.33	95	514653	51.31	ug/l	0.00
Spiked Amount 50.000			Recovery =	102.62%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.93	85	294684	46.90	ug/l	100
3) Chloromethane	1.07	50	520039	49.29	ug/l	100
4) Vinyl Chloride	1.09	62	358204	48.35	ug/l	100
5) Bromomethane	1.27	94	193430m	57.42	ug/l	
6) Chloroethane	1.34	64	100771m	59.97	ug/l	
7) Trichlorofluoromethane	1.41	101	264134	53.18	ug/l	100
8) Diethyl Ether	1.61	74	124517	48.25	ug/l	100
9) 1,1,2-Trichlorotrifluoroet	1.77	101	122677	40.77	ug/l	100
10) Methyl Iodide	1.84	142	484543	49.23	ug/l	100
11) Tert butyl alcohol	2.52	59	124750	243.71	ug/l	100
12) 1,1-Dichloroethene	1.74	96	185453	51.32	ug/l	100
13) Acrolein	1.96	56	188205	246.53	ug/l	100
14) Allyl chloride	2.06	41	463955	48.90	ug/l	100
15) Acrylonitrile	2.88	53	545918	243.50	ug/l	100
16) Acetone	2.19	43	693774	269.53	ug/l	100
17) Carbon Disulfide	1.76	76	709863	50.20	ug/l	100
18) Methyl Acetate	2.30	43	396859	49.78	ug/l	100
19) Methyl tert-butyl Ether	2.38	73	589072	48.07	ug/l	100
20) Methylene Chloride	2.15	84	239232	46.56	ug/l	100
21) trans-1,2-Dichloroethene	2.27	96	259996	48.00	ug/l	100
22) Diisopropyl ether	2.74	45	1062860	47.61	ug/l	100
23) Vinyl Acetate	3.13	43	4300917	237.56	ug/l	100
24) 1,1-Dichloroethane	2.81	63	486542	47.63	ug/l	100
25) 2-Butanone	4.24	43	1633594	250.34	ug/l	100
26) 2,2-Dichloropropane	3.53	77	301898	46.33	ug/l	100
27) cis-1,2-Dichloroethene	3.40	96	422013	48.13	ug/l	100
28) Bromochloromethane	3.64	49	326352	45.68	ug/l	100
29) Tetrahydrofuran	3.98	42	724023	250.00	ug/l	100
30) Chloroform	3.78	83	626241	47.78	ug/l	100
31) Cyclohexane	3.63	56	449030	43.70	ug/l	100
32) 1,1,1-Trichloroethane	4.01	97	339167	46.37	ug/l	100
36) 1,1-Dichloropropene	4.20	75	497905	46.88	ug/l	100
37) Ethyl Acetate	4.02	43	629342	45.99	ug/l	100
38) Carbon Tetrachloride	3.92	117	286689	46.19	ug/l	100

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051023.D
Acq On : 6 Oct 2016 11:49
Operator : FY/SY
Sample : VSTDICCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
MMDadoda
10/7/2016 2:00:00 PM

Quant Time: Oct 07 01:54:09 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methylcyclohexane	5.37	83	520759	44.73	ug/l	100
40) Benzene	4.55	78	1313908	44.19	ug/l	100
41) Methacrylonitrile	4.66	41	301112	45.25	ug/l	100
42) 1,2-Dichloroethane	4.85	62	456556	48.76	ug/l	100
43) Isopropyl Acetate	6.87	43	844134	46.06	ug/l	100
44) Trichloroethene	5.42	130	394718	45.90	ug/l	100
45) 1,2-Dichloropropane	6.15	63	439509	47.07	ug/l	100
46) Dibromomethane	6.00	93	281955	45.76	ug/l	100
47) Bromodichloromethane	6.29	83	517695	46.90	ug/l	100
48) Methyl methacrylate	6.64	41	453498	46.12	ug/l	100
49) 1,4-Dioxane	6.62	88	47612	803.93	ug/l	100
51) 4-Methyl-2-Pentanone	8.17	43	2709291	227.60	ug/l	100
52) Toluene	7.54	92	890822	46.70	ug/l	100
53) t-1,3-Dichloropropene	8.18	75	566919	47.44	ug/l	100
54) cis-1,3-Dichloropropene	7.21	75	688326	48.12	ug/l	100
55) 1,1,2-Trichloroethane	8.39	97	374449	46.89	ug/l	100
56) Ethyl methacrylate	8.54	69	563684	47.02	ug/l	100
57) 1,3-Dichloropropane	8.76	76	635542	46.32	ug/l	100
59) 2-Hexanone	9.40	43	2238262	235.24	ug/l	100
60) Dibromochloromethane	8.62	129	449820	48.08	ug/l	100
61) 1,2-Dibromoethane	8.88	107	430867	47.94	ug/l	100
64) Tetrachloroethene	8.07	164	360697	46.73	ug/l	100
65) Chlorobenzene	9.70	112	1000532	48.38	ug/l	100
66) 1,1,1,2-Tetrachloroethane	9.83	131	363421	48.93	ug/l	100
67) Ethyl Benzene	9.81	91	1640655	47.15	ug/l	100
68) m/p-Xylenes	10.04	106	1224196	95.56	ug/l	100
69) o-Xylene	10.63	106	621244	48.31	ug/l	100
70) Styrene	10.71	104	1015295	49.32	ug/l	100
71) Bromoform	10.68	173	319229	49.58	ug/l	100
73) Isopropylbenzene	11.04	105	1555507	45.46	ug/l	100
74) N-amyl acetate	11.30	43	1023708	49.11	ug/l	100
75) 1,1,2,2-Tetrachloroethane	11.61	83	545373	45.92	ug/l	100
76) 1,2,3-Trichloropropane	11.71	75	405271	45.69	ug/l	100
77) Bromobenzene	11.42	156	476534	46.98	ug/l	100
78) n-propylbenzene	11.53	91	1943554	46.55	ug/l	100
79) 2-Chlorotoluene	11.64	91	1057056	45.34	ug/l	100
80) 1,3,5-Trimethylbenzene	11.75	105	1234946	46.32	ug/l	100
81) trans-1,4-Dichloro-2-buten	11.79	75	207898m	41.27	ug/l	
82) 4-Chlorotoluene	11.82	91	1211357	47.47	ug/l	100
83) tert-Butylbenzene	12.06	119	1223506	46.86	ug/l	100
84) 1,2,4-Trimethylbenzene	12.14	105	1255125	46.61	ug/l	100
85) sec-Butylbenzene	12.24	105	1606253	46.44	ug/l	100
86) p-Isopropyltoluene	12.39	119	1296950	47.00	ug/l	100
87) 1,3-Dichlorobenzene	12.40	146	765992	47.27	ug/l	100
88) 1,4-Dichlorobenzene	12.49	146	760572	48.22	ug/l	100
89) n-Butylbenzene	12.77	91	1292983	48.11	ug/l	100
90) Hexachloroethane	12.84	117	278354	49.14	ug/l	100
91) 1,2-Dichlorobenzene	12.87	146	707930	47.50	ug/l	100
92) 1,2-Dibromo-3-Chloropropan	13.57	75	90524	49.29	ug/l	100
93) 1,2,4-Trichlorobenzene	14.12	180	357919	48.27	ug/l	100

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051023.D
Acq On : 6 Oct 2016 11:49
Operator : FY/SY
Sample : VSTDICCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
MMDadoda
10/7/2016 2:00:00 PM

Quant Time: Oct 07 01:54:09 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Hexachlorobutadiene	14.11	225	192129	45.54	ug/l	100
95) Naphthalene	14.37	128	980906	51.42	ug/l	100
96) 1,2,3-Trichlorobenzene	14.51	180	319008	49.31	ug/l	100

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

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051024.D
Acq On : 6 Oct 2016 12:18
Operator : FY/SY
Sample : VSTDICC075
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : VSTDICC075

Manual Integrations APPROVED
MMDadoda
10/7/2016 2:00:02 PM

Quant Time: Oct 07 01:53:09 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.78	168	679716	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	5.51	114	1069030	50.00	ug/l	0.00
63) Chlorobenzene-d5	9.67	117	965350	50.00	ug/l	-0.01
72) 1,4-Dichlorobenzene-d4	12.47	152	475449	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	4.75	65	510917	80.27	ug/l	0.00
Spiked Amount 50.000			Recovery =	160.54%		
35) Dibromofluoromethane	4.02	113	617120	80.37	ug/l	0.00
Spiked Amount 50.000			Recovery =	160.74%		
50) Toluene-d8	7.46	98	1836017	79.29	ug/l	0.00
Spiked Amount 50.000			Recovery =	158.58%		
62) 4-Bromofluorobenzene	11.33	95	750245	79.81	ug/l	0.00
Spiked Amount 50.000			Recovery =	159.62%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.92	85	449888	76.67	ug/l	99
3) Chloromethane	1.07	50	798300	81.04	ug/l	96
4) Vinyl Chloride	1.08	62	568099	82.13	ug/l	100
5) Bromomethane	1.26	94	266041m	84.57	ug/l	
6) Chloroethane	1.33	64	141409m	90.12	ug/l	
7) Trichlorofluoromethane	1.41	101	398214	85.86	ug/l	99
8) Diethyl Ether	1.60	74	188360	78.17	ug/l	98
9) 1,1,2-Trichlorotrifluoroet	1.77	101	206393	73.47	ug/l	99
10) Methyl Iodide	1.83	142	734391	79.91	ug/l	99
11) Tert butyl alcohol	2.52	59	188753	394.90	ug/l	100
12) 1,1-Dichloroethene	1.73	96	273496	81.05	ug/l	97
13) Acrolein	1.96	56	294470	413.08	ug/l	95
14) Allyl chloride	2.06	41	690736	77.97	ug/l	98
15) Acrylonitrile	2.88	53	801849	383.03	ug/l	97
16) Acetone	2.19	43	1087211	452.35	ug/l	97
17) Carbon Disulfide	1.75	76	1042107	78.92	ug/l	98
18) Methyl Acetate	2.30	43	554736	74.52	ug/l	97
19) Methyl tert-butyl Ether	2.39	73	890254	77.80	ug/l	96
20) Methylene Chloride	2.15	84	358028	74.63	ug/l	98
21) trans-1,2-Dichloroethene	2.27	96	378207	74.77	ug/l	96
22) Diisopropyl ether	2.74	45	1620880	77.75	ug/l	99
23) Vinyl Acetate	3.12	43	6311990	373.38	ug/l	99
24) 1,1-Dichloroethane	2.81	63	752923	78.94	ug/l	98
25) 2-Butanone	4.24	43	2461670	404.01	ug/l	100
26) 2,2-Dichloropropane	3.53	77	446198	73.34	ug/l	99
27) cis-1,2-Dichloroethene	3.40	96	650703	79.47	ug/l	100
28) Bromochloromethane	3.64	49	500956	75.09	ug/l	96
29) Tetrahydrofuran	3.98	42	1119246	413.89	ug/l	100
30) Chloroform	3.78	83	966165	78.94	ug/l	98
31) Cyclohexane	3.62	56	669118	69.75	ug/l	98
32) 1,1,1-Trichloroethane	4.01	97	512926	75.11	ug/l	98
36) 1,1-Dichloropropene	4.19	75	750634	75.40	ug/l	100
37) Ethyl Acetate	4.02	43	958716	74.75	ug/l	97
38) Carbon Tetrachloride	3.91	117	423860	72.87	ug/l	99

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051024.D
Acq On : 6 Oct 2016 12:18
Operator : FY/SY
Sample : VSTDICC075
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : VSTDICC075

Manual Integrations APPROVED
MMDadoda
10/7/2016 2:00:02 PM

Quant Time: Oct 07 01:53:09 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	5.37	83	820727	75.21	ug/l		98
40) Benzene	4.55	78	2147248	77.06	ug/l		99
41) Methacrylonitrile	4.65	41	487137	78.11	ug/l		98
42) 1,2-Dichloroethane	4.85	62	679858	77.47	ug/l		100
43) Isopropyl Acetate	6.87	43	1310967	76.33	ug/l	#	100
44) Trichloroethene	5.42	130	615134	76.32	ug/l		99
45) 1,2-Dichloropropane	6.14	63	669606	76.52	ug/l		98
46) Dibromomethane	5.99	93	457597	79.24	ug/l		97
47) Bromodichloromethane	6.29	83	826080	79.86	ug/l		97
48) Methyl methacrylate	6.63	41	737127	79.99	ug/l		99
49) 1,4-Dioxane	6.62	88	85091	1533.02	ug/l		95
51) 4-Methyl-2-Pentanone	8.17	43	3976730	356.46	ug/l		97
52) Toluene	7.53	92	1377643	77.06	ug/l		98
53) t-1,3-Dichloropropene	8.18	75	885835	79.09	ug/l		98
54) cis-1,3-Dichloropropene	7.21	75	1077323	80.36	ug/l		99
55) 1,1,2-Trichloroethane	8.39	97	585067	78.17	ug/l		99
56) Ethyl methacrylate	8.53	69	895390	79.70	ug/l		98
57) 1,3-Dichloropropane	8.75	76	993810	77.29	ug/l		99
59) 2-Hexanone	9.40	43	3387707	379.90	ug/l		97
60) Dibromochloromethane	8.62	129	720865	82.22	ug/l		98
61) 1,2-Dibromoethane	8.88	107	671714	79.74	ug/l		100
64) Tetrachloroethene	8.06	164	575026	76.63	ug/l		96
65) Chlorobenzene	9.70	112	1559822	77.57	ug/l		99
66) 1,1,1,2-Tetrachloroethane	9.83	131	564215	78.13	ug/l		98
67) Ethyl Benzene	9.81	91	2513235	74.29	ug/l		97
68) m/p-Xylenes	10.04	106	1881921	151.10	ug/l		94
69) o-Xylene	10.63	106	971562	77.72	ug/l		94
70) Styrene	10.70	104	1584810	79.18	ug/l		97
71) Bromoform	10.68	173	524758	83.83	ug/l		100
73) Isopropylbenzene	11.04	105	2434763	72.58	ug/l		97
74) N-amyl acetate	11.30	43	1546065	75.65	ug/l		98
75) 1,1,2,2-Tetrachloroethane	11.61	83	863590	74.16	ug/l		100
76) 1,2,3-Trichloropropane	11.71	75	654083	75.21	ug/l		99
77) Bromobenzene	11.42	156	746520	75.06	ug/l		96
78) n-propylbenzene	11.51	91	2896945	70.77	ug/l		98
79) 2-Chlorotoluene	11.64	91	1679587	73.48	ug/l		98
80) 1,3,5-Trimethylbenzene	11.75	105	1895559	72.51	ug/l		97
81) trans-1,4-Dichloro-2-buten	11.79	75	351240m	71.11	ug/l		
82) 4-Chlorotoluene	11.82	91	1809878	72.34	ug/l		96
83) tert-Butylbenzene	12.06	119	1890545	73.85	ug/l		97
84) 1,2,4-Trimethylbenzene	12.14	105	1935721	73.32	ug/l		96
85) sec-Butylbenzene	12.23	105	2438040	71.90	ug/l		98
86) p-Isopropyltoluene	12.39	119	1994030	73.71	ug/l		99
87) 1,3-Dichlorobenzene	12.40	146	1214642	76.46	ug/l		99
88) 1,4-Dichlorobenzene	12.49	146	1201729	77.71	ug/l		99
89) n-Butylbenzene	12.77	91	1909804	72.47	ug/l		98
90) Hexachloroethane	12.84	117	439175	79.08	ug/l		89
91) 1,2-Dichlorobenzene	12.87	146	1111417	76.07	ug/l		99
92) 1,2-Dibromo-3-Chloropropan	13.56	75	146443	81.32	ug/l		72
93) 1,2,4-Trichlorobenzene	14.12	180	615490	84.66	ug/l		97

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051024.D
Acq On : 6 Oct 2016 12:18
Operator : FY/SY
Sample : VSTDICC075
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
VSTDICC075

Manual Integrations APPROVED
MMDadoda
10/7/2016 2:00:02 PM

Quant Time: Oct 07 01:53:09 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Hexachlorobutadiene	14.11	225	323194	78.13	ug/l	99
95) Naphthalene	14.37	128	1592498	85.15	ug/l	99
96) 1,2,3-Trichlorobenzene	14.51	180	544202	85.79	ug/l	99

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

Quantitation Report (QT Reviewed)

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051025.D
Acq On : 6 Oct 2016 12:46
Operator : FY/SY
Sample : VSTDICC100
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 07 01:47:45 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Instrument : MSVOA_F
ClientSampleId : VSTDICC100

Manual Integrations APPROVED
MMDadoda
10/7/2016 2:00:02 PM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.79	168	738002	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	5.51	114	1142767	50.00	ug/l	0.00
63) Chlorobenzene-d5	9.68	117	1045271	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.48	152	518268	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	4.76	65	707806	102.43	ug/l	0.00
Spiked Amount 50.000			Recovery =	204.86%		
35) Dibromofluoromethane	4.02	113	844691	102.91	ug/l	0.00
Spiked Amount 50.000			Recovery =	205.82%		
50) Toluene-d8	7.47	98	2492516	100.70	ug/l	0.00
Spiked Amount 50.000			Recovery =	201.40%		
62) 4-Bromofluorobenzene	11.34	95	1014516	100.96	ug/l	0.00
Spiked Amount 50.000			Recovery =	201.92%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.93	85	597923	93.86	ug/l	99
3) Chloromethane	1.07	50	1001672	93.65	ug/l	96
4) Vinyl Chloride	1.09	62	691077	92.01	ug/l	97
5) Bromomethane	1.27	94	286156m	83.78	ug/l	
6) Chloroethane	1.34	64	166064m	97.47	ug/l	
7) Trichlorofluoromethane	1.41	101	476805	94.69	ug/l	98
8) Diethyl Ether	1.61	74	251137	96.00	ug/l	86
9) 1,1,2-Trichlorotrifluoroet	1.77	101	326121m	106.92	ug/l	
10) Methyl Iodide	1.84	142	952758	95.49	ug/l	97
11) Tert butyl alcohol	2.52	59	273924	527.83	ug/l	99
12) 1,1-Dichloroethene	1.74	96	363804	99.30	ug/l	96
13) Acrolein	1.96	56	363884	470.14	ug/l	98
14) Allyl chloride	2.05	41	919752	95.62	ug/l	98
15) Acrylonitrile	2.88	53	1074619	472.79	ug/l	99
16) Acetone	2.19	43	1371703	525.64	ug/l	98
17) Carbon Disulfide	1.76	76	1356995	94.65	ug/l	99
18) Methyl Acetate	2.30	43	821722	101.67	ug/l	98
19) Methyl tert-butyl Ether	2.38	73	1164599	93.74	ug/l	96
20) Methylene Chloride	2.16	84	472474	90.70	ug/l	97
21) trans-1,2-Dichloroethene	2.27	96	517854	94.29	ug/l	99
22) Diisopropyl ether	2.74	45	2127722	94.01	ug/l	100
23) Vinyl Acetate	3.13	43	8101355	441.38	ug/l	97
24) 1,1-Dichloroethane	2.81	63	992190	95.81	ug/l	98
25) 2-Butanone	4.25	43	3214768	485.94	ug/l	97
26) 2,2-Dichloropropane	3.53	77	550294	83.31	ug/l	98
27) cis-1,2-Dichloroethene	3.40	96	858366	96.56	ug/l	99
28) Bromochloromethane	3.64	49	709873	98.00	ug/l	97
29) Tetrahydrofuran	3.98	42	1437078	489.45	ug/l	99
30) Chloroform	3.78	83	1295132	97.46	ug/l	100
31) Cyclohexane	3.62	56	831773	79.85	ug/l	98
32) 1,1,1-Trichloroethane	4.01	97	657868	88.72	ug/l	99
36) 1,1-Dichloropropene	4.20	75	994070	93.41	ug/l	98
37) Ethyl Acetate	4.02	43	1227340	89.52	ug/l	97
38) Carbon Tetrachloride	3.91	117	565794	91.00	ug/l	98

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051025.D
Acq On : 6 Oct 2016 12:46
Operator : FY/SY
Sample : VSTDICC100
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
MMDadoda
10/7/2016 2:00:02 PM

Quant Time: Oct 07 01:47:45 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
39) Methylcyclohexane	5.38	83	1109422	95.11 ug/l	95
40) Benzene	4.56	78	2890762	97.05 ug/l	99
41) Methacrylonitrile	4.66	41	628989	94.34 ug/l	97
42) 1,2-Dichloroethane	4.85	62	904373	96.40 ug/l	99
43) Isopropyl Acetate	6.88	43	1746313	95.12 ug/l	97
44) Trichloroethene	5.42	130	819391	95.11 ug/l	99
45) 1,2-Dichloropropane	6.15	63	901142	96.34 ug/l	98
46) Dibromomethane	6.00	93	606000	98.17 ug/l	96
47) Bromodichloromethane	6.30	83	1116086	100.93 ug/l	98
48) Methyl methacrylate	6.64	41	945768	96.01 ug/l	99
49) 1,4-Dioxane	6.62	88	132601	2234.82 ug/l	96
51) 4-Methyl-2-Pentanone	8.17	43	4931611	413.53 ug/l	95
52) Toluene	7.54	92	1820191	95.24 ug/l	96
53) t-1,3-Dichloropropene	8.19	75	1173286	98.00 ug/l	99
54) cis-1,3-Dichloropropene	7.22	75	1434152	100.08 ug/l	97
55) 1,1,2-Trichloroethane	8.40	97	775502	96.92 ug/l	99
56) Ethyl methacrylate	8.54	69	1197521	99.71 ug/l	99
57) 1,3-Dichloropropane	8.76	76	1328743	96.67 ug/l	97
59) 2-Hexanone	9.41	43	4102496	430.37 ug/l	93
60) Dibromochloromethane	8.63	129	947265	101.07 ug/l	99
61) 1,2-Dibromoethane	8.89	107	879840	97.71 ug/l	100
64) Tetrachloroethene	8.07	164	758624	93.37 ug/l	97
65) Chlorobenzene	9.70	112	2046016	93.97 ug/l	99
66) 1,1,1,2-Tetrachloroethane	9.84	131	749800	95.88 ug/l	98
67) Ethyl Benzene	9.81	91	3245883	88.61 ug/l	97
68) m/p-Xylenes	10.05	106	2468569	183.04 ug/l	88
69) o-Xylene	10.63	106	1247001	92.12 ug/l	95
70) Styrene	10.71	104	2103569	97.06 ug/l	99
71) Bromoform	10.69	173	683101	100.78 ug/l	99
73) Isopropylbenzene	11.05	105	3162998	86.50 ug/l	94
74) N-amyl acetate	11.31	43	1951017	87.57 ug/l	94
75) 1,1,2,2-Tetrachloroethane	11.62	83	1111756	87.58 ug/l	99
76) 1,2,3-Trichloropropane	11.72	75	829189	87.46 ug/l	97
77) Bromobenzene	11.42	156	985033	90.86 ug/l	96
78) n-propylbenzene	11.52	91	3789106	84.92 ug/l	95
79) 2-Chlorotoluene	11.64	91	2185631	87.72 ug/l	99
80) 1,3,5-Trimethylbenzene	11.75	105	2496615	87.61 ug/l	98
81) trans-1,4-Dichloro-2-buten	11.79	75	452289m	84.01 ug/l	
82) 4-Chlorotoluene	11.83	91	2409072	88.34 ug/l	92
83) tert-Butylbenzene	12.06	119	2414819	86.53 ug/l	99
84) 1,2,4-Trimethylbenzene	12.14	105	2530910	87.95 ug/l	95
85) sec-Butylbenzene	12.23	105	3206127	86.74 ug/l	98
86) p-Isopropyltoluene	12.39	119	2508412	85.06 ug/l	95
87) 1,3-Dichlorobenzene	12.40	146	1573464	90.86 ug/l	96
88) 1,4-Dichlorobenzene	12.49	146	1618569	96.02 ug/l	96
89) n-Butylbenzene	12.78	91	2555015	88.95 ug/l	91
90) Hexachloroethane	12.85	117	608735	100.56 ug/l	66
91) 1,2-Dichlorobenzene	12.87	146	1515782	95.17 ug/l	96
92) 1,2-Dibromo-3-Chloropropan	13.57	75	190150	96.87 ug/l	91
93) 1,2,4-Trichlorobenzene	14.12	180	831498	104.93 ug/l	97

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051025.D
Acq On : 6 Oct 2016 12:46
Operator : FY/SY
Sample : VSTDICC100
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
MMDadoda
10/7/2016 2:00:02 PM

Quant Time: Oct 07 01:47:45 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:14:38 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Hexachlorobutadiene	14.12	225	437005	96.91	ug/l	98
95) Naphthalene	14.37	128	2084220	102.23	ug/l	100
96) 1,2,3-Trichlorobenzene	14.52	180	737779	106.70	ug/l	97

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

Quantitation Report (QT Reviewed)

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051026.D
Acq On : 6 Oct 2016 13:33
Operator : FY/SY
Sample : VSTDICV050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
ICVVF100616

Manual Integrations APPROVED
MMDadoda
10/7/2016 2:00:03 PM

Quant Time: Oct 07 08:29:02 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.78	168	697091	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	5.51	114	1050077	50.00	ug/l	0.00
63) Chlorobenzene-d5	9.67	117	983829	50.00	ug/l	-0.01
72) 1,4-Dichlorobenzene-d4	12.47	152	489326	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	4.75	65	344284	52.70	ug/l	0.00
Spiked Amount 50.000			Recovery =	105.40%		
35) Dibromofluoromethane	4.02	113	412650	54.71	ug/l	0.00
Spiked Amount 50.000			Recovery =	109.42%		
50) Toluene-d8	7.46	98	1277952	56.17	ug/l	0.00
Spiked Amount 50.000			Recovery =	112.34%		
62) 4-Bromofluorobenzene	11.33	95	525888	56.95	ug/l	0.00
Spiked Amount 50.000			Recovery =	113.90%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.93	85	303591	50.64	ug/l	99
3) Chloromethane	1.07	50	539653	52.98	ug/l	98
4) Vinyl Chloride	1.09	62	373965	53.13	ug/l	99
5) Bromomethane	1.27	94	184866m	57.04	ug/l	
6) Chloroethane	1.33	64	112852	64.08	ug/l	99
7) Trichlorofluoromethane	1.41	101	274291	57.81	ug/l	99
8) Diethyl Ether	1.60	74	132411	53.53	ug/l	96
9) 1,1,2-Trichlorotrifluoroet	1.77	101	136340	54.43	ug/l	97
10) Methyl Iodide	1.83	142	515240	55.42	ug/l	99
11) Tert butyl alcohol	2.52	59	141971	268.85	ug/l	97
12) 1,1-Dichloroethene	1.73	96	189769	52.29	ug/l	99
13) Acrolein	1.96	56	188232	257.23	ug/l	98
14) Allyl chloride	2.06	41	468400	51.34	ug/l	98
15) Acrylonitrile	2.88	53	563981	262.45	ug/l	99
16) Acetone	2.19	43	707762	286.88	ug/l	100
17) Carbon Disulfide	1.75	76	740530	54.74	ug/l	100
18) Methyl Acetate	2.30	43	390394	45.68	ug/l	99
19) Methyl tert-butyl Ether	2.38	73	606229	51.62	ug/l	96
20) Methylene Chloride	2.15	84	246710	49.80	ug/l	98
21) trans-1,2-Dichloroethene	2.27	96	249335	48.01	ug/l	97
22) Diisopropyl ether	2.74	45	1089741	50.93	ug/l	98
23) Vinyl Acetate	3.12	43	4476788	257.78	ug/l	100
24) 1,1-Dichloroethane	2.81	63	495135	50.61	ug/l	98
25) 2-Butanone	4.24	43	1707690	273.03	ug/l	99
26) 2,2-Dichloropropane	3.52	77	291136	46.62	ug/l	99
27) cis-1,2-Dichloroethene	3.40	96	437965	52.12	ug/l	99
28) Bromochloromethane	3.64	49	374630	54.70	ug/l	94
29) Tetrahydrofuran	3.98	42	792163	260.57	ug/l	100
30) Chloroform	3.78	83	624887	49.74	ug/l	100
31) Cyclohexane	3.62	56	454910	49.16	ug/l	99
32) 1,1,1-Trichloroethane	4.01	97	340703	48.60	ug/l	95
36) 1,1-Dichloropropene	4.19	75	503362	51.48	ug/l	100
37) Ethyl Acetate	4.02	43	660847	52.46	ug/l	93
38) Carbon Tetrachloride	3.92	117	280745	49.14	ug/l	99

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051026.D
Acq On : 6 Oct 2016 13:33
Operator : FY/SY
Sample : VSTDICV050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
ICVVF100616

Manual Integrations APPROVED
MMDadoda
10/7/2016 2:00:03 PM

Quant Time: Oct 07 08:29:02 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	5.37	83	539275	50.31	ug/l		98
40) Benzene	4.55	78	1441998	52.69	ug/l		99
41) Methacrylonitrile	4.65	41	331456	54.02	ug/l		99
42) 1,2-Dichloroethane	4.85	62	462188	53.62	ug/l		99
43) Isopropyl Acetate	6.87	43	913819	54.17	ug/l	#	98
44) Trichloroethene	5.41	130	400947	50.65	ug/l		97
45) 1,2-Dichloropropane	6.14	63	456864	53.09	ug/l		99
46) Dibromomethane	5.99	93	312473	55.08	ug/l		98
47) Bromodichloromethane	6.29	83	530613	52.22	ug/l		99
48) Methyl methacrylate	6.63	41	485237	53.58	ug/l		98
49) 1,4-Dioxane	6.62	88	52440	961.82	ug/l		95
51) 4-Methyl-2-Pentanone	8.17	43	2910328	265.39	ug/l		99
52) Toluene	7.53	92	932227	53.06	ug/l		100
53) t-1,3-Dichloropropene	8.18	75	601450	54.62	ug/l		98
54) cis-1,3-Dichloropropene	7.21	75	730725	55.48	ug/l		99
55) 1,1,2-Trichloroethane	8.39	97	399636	54.36	ug/l		99
56) Ethyl methacrylate	8.53	69	633995	57.44	ug/l		97
57) 1,3-Dichloropropane	8.75	76	681939	53.99	ug/l		98
59) 2-Hexanone	9.40	43	2391784	272.80	ug/l		98
60) Dibromochloromethane	8.62	129	476394	55.32	ug/l		98
61) 1,2-Dibromoethane	8.88	107	451151	54.47	ug/l		99
64) Tetrachloroethene	8.06	164	387798	50.71	ug/l		97
65) Chlorobenzene	9.70	112	1042494	50.91	ug/l		99
66) 1,1,1,2-Tetrachloroethane	9.83	131	383525	52.11	ug/l		98
67) Ethyl Benzene	9.81	91	1722311	49.96	ug/l		99
68) m/p-Xylenes	10.04	106	1298371	102.32	ug/l		99
69) o-Xylene	10.63	106	635346	49.87	ug/l		98
70) Styrene	10.71	104	1096096	53.73	ug/l		99
71) Bromoform	10.68	173	346655	54.34	ug/l		99
73) Isopropylbenzene	11.04	105	1608097	46.60	ug/l		98
74) N-amyl acetate	11.30	43	1079337	51.31	ug/l		98
75) 1,1,2,2-Tetrachloroethane	11.61	83	603558	50.36	ug/l		99
76) 1,2,3-Trichloropropane	11.71	75	429589	48.03	ug/l		100
77) Bromobenzene	11.42	156	503847	49.23	ug/l		98
78) n-propylbenzene	11.51	91	1974811	46.88	ug/l		95
79) 2-Chlorotoluene	11.64	91	1140711	48.49	ug/l		98
80) 1,3,5-Trimethylbenzene	11.75	105	1264738	47.01	ug/l		100
81) trans-1,4-Dichloro-2-buten	11.79	75	229686m	54.45	ug/l		
82) 4-Chlorotoluene	11.82	91	1273074	49.43	ug/l		100
83) tert-Butylbenzene	12.06	119	1303091	49.46	ug/l		99
84) 1,2,4-Trimethylbenzene	12.14	105	1319669	48.57	ug/l		99
85) sec-Butylbenzene	12.23	105	1686283	48.32	ug/l		98
86) p-Isopropyltoluene	12.39	119	1356347	48.71	ug/l		99
87) 1,3-Dichlorobenzene	12.40	146	817351	49.99	ug/l		99
88) 1,4-Dichlorobenzene	12.49	146	826780	51.95	ug/l		99
89) n-Butylbenzene	12.77	91	1324128	48.82	ug/l		100
90) Hexachloroethane	12.84	117	296419	51.87	ug/l		96
91) 1,2-Dichlorobenzene	12.87	146	772853	51.40	ug/l		99
92) 1,2-Dibromo-3-Chloropropan	13.57	75	100882	54.43	ug/l		98
93) 1,2,4-Trichlorobenzene	14.12	180	383730	51.29	ug/l		97

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051026.D
Acq On : 6 Oct 2016 13:33
Operator : FY/SY
Sample : VSTDICV050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
ICVVF100616

Manual Integrations APPROVED
MMDadoda
10/7/2016 2:00:03 PM

Quant Time: Oct 07 08:29:02 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Hexachlorobutadiene	14.11	225	194424	45.67	ug/l	98
95) Naphthalene	14.37	128	1095342	56.91	ug/l	100
96) 1,2,3-Trichlorobenzene	14.51	180	344218	52.74	ug/l	98

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

Evaluate Continuing Calibration Report

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051026.D
Acq On : 6 Oct 2016 13:33
Operator : FY/SY
Sample : VSTDICV050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : ICVVF100616

Quant Time: Oct 07 08:29:02 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	96	0.00
2	T	Dichlorodifluoromethane	0.430	0.436	-1.4	103	0.00
3	P	Chloromethane	0.731	0.774	-5.9	104	0.00
4	C	Vinyl Chloride	0.505	0.536	-6.1#	104	0.00
5	T	Bromomethane	0.232	0.265	-14.2	96	0.00
6	T	Chloroethane	0.126	0.162	-28.6#	112	-0.01
7	T	Trichlorofluoromethane	0.340	0.393	-15.6	104	0.00
8	T	Diethyl Ether	0.177	0.190	-7.3	106	-0.01
9	T	1,1,2-Trichlorotrifluoroeth	0.209	0.196	6.2	111	0.00
10	T	Methyl Iodide	0.667	0.739	-10.8	106	-0.01
11	T	Tert butyl alcohol	0.038	0.041	-7.9	114	0.00
12	CM	1,1-Dichloroethene	0.260	0.272	-4.6#	102	-0.01
13	T	Acrolein	0.052	0.054	-3.8	100	0.00
14	T	Allyl chloride	0.654	0.672	-2.8	101	0.00
15	T	Acrylonitrile	0.154	0.162	-5.2	103	0.00
16	T	Acetone	0.177	0.203	-14.7	102	0.00
17	T	Carbon Disulfide	0.970	1.062	-9.5	104	-0.01
18	T	Methyl Acetate	0.613	0.560	8.6	98	0.00
19	T	Methyl tert-butyl Ether	0.842	0.870	-3.3	103	0.00
20	T	Methylene Chloride	0.355	0.354	0.3	103	0.00
21	T	trans-1,2-Dichloroethene	0.373	0.358	4.0	96	0.00
22	T	Diisopropyl ether	1.535	1.563	-1.8	103	0.00
23	T	Vinyl Acetate	1.246	1.284	-3.0	104	-0.01
24	P	1,1-Dichloroethane	0.702	0.710	-1.1	102	0.00
25	T	2-Butanone	0.449	0.490	-9.1	105	0.00
26	T	2,2-Dichloropropane	0.448	0.418	6.7	96	-0.01
27	T	cis-1,2-Dichloroethene	0.603	0.628	-4.1	104	0.00
28	T	Bromochloromethane	0.491	0.537	-9.4	115	0.00
29		Tetrahydrofuran	0.218	0.227	-4.1	109	0.00
30	C	Chloroform	0.901	0.896	0.6#	100	0.00
31	T	Cyclohexane	0.706	0.653	7.5	101	0.00
32	T	1,1,1-Trichloroethane	0.503	0.489	2.8	100	0.00
33	S	1,2-Dichloroethane-d4	0.469	0.494	-5.3	96	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	92	0.00
35	S	Dibromofluoromethane	0.359	0.393	-9.5	98	0.00
36	T	1,1-Dichloropropene	0.466	0.479	-2.8	101	-0.01
37	T	Ethyl Acetate	0.600	0.629	-4.8	105	0.00
38	T	Carbon Tetrachloride	0.272	0.267	1.8	98	0.00
39	T	Methylcyclohexane	0.510	0.514	-0.8	104	0.00
40	TM	Benzene	1.303	1.373	-5.4	110	0.00
41	T	Methacrylonitrile	0.292	0.316	-8.2	110	-0.01
42	TM	1,2-Dichloroethane	0.410	0.440	-7.3	101	0.00
43	T	Isopropyl Acetate	0.803	0.870	-8.3	108	0.00
44	TM	Trichloroethene	0.377	0.382	-1.3	102	-0.01
45	C	1,2-Dichloropropane	0.410	0.435	-6.1#	104	-0.01

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA F\DATA\VF100616\
Data File : VF051026.D
Acq On : 6 Oct 2016 13:33
Operator : FY/SY
Sample : VSTDICV050
Misc : 5.00g/5mL/MSVOA F/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : ICVVF100616

Quant Time: Oct 07 08:29:02 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	Dibromomethane	0.270	0.298	-10.4	111	0.00
47	T	Bromodichloromethane	0.484	0.505	-4.3	102	0.00
48	T	Methyl methacrylate	0.431	0.462	-7.2	107	-0.01
49	T	1,4-Dioxane	0.003	0.002	33.3#	110	0.00
50	S	Toluene-d8	1.083	1.217	-12.4	100	0.00
51	T	4-Methyl-2-Pentanone	0.522	0.554	-6.1	107	0.00
52	CM	Toluene	0.837	0.888	-6.1#	105	-0.01
53	T	t-1,3-Dichloropropene	0.524	0.573	-9.4	106	0.00
54	T	cis-1,3-Dichloropropene	0.627	0.696	-11.0	106	0.00
55	T	1,1,2-Trichloroethane	0.350	0.381	-8.9	107	0.00
56	T	Ethyl methacrylate	0.526	0.604	-14.8	112	-0.01
57	T	1,3-Dichloropropane	0.601	0.649	-8.0	107	0.00
58	T	2-Chloroethyl Vinyl ether	0.000	0.000	0.0	100	0.00
59	T	2-Hexanone	0.417	0.456	-9.4	107	0.00
60	T	Dibromochloromethane	0.410	0.454	-10.7	106	0.00
61	T	1,2-Dibromoethane	0.394	0.430	-9.1	105	0.00
62	S	4-Bromofluorobenzene	0.440	0.501	-13.9	102	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	99	-0.01
64	T	Tetrachloroethene	0.389	0.394	-1.3	108	0.00
65	PM	Chlorobenzene	1.041	1.060	-1.8	104	0.00
66	T	1,1,1,2-Tetrachloroethane	0.374	0.390	-4.3	106	0.00
67	C	Ethyl Benzene	1.752	1.751	0.1#	105	0.00
68	T	m/p-Xylenes	0.645	0.660	-2.3	106	0.00
69	T	o-Xylene	0.648	0.646	0.3	102	0.00
70	T	Styrene	1.037	1.114	-7.4	108	0.00
71	P	Bromoform	0.324	0.352	-8.6	109	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	0.00
73	T	Isopropylbenzene	3.526	3.286	6.8	103	0.00
74	T	N-amyl acetate	2.149	2.206	-2.7	105	0.00
75	P	1,1,2,2-Tetrachloroethane	1.225	1.233	-0.7	111	0.00
76	T	1,2,3-Trichloropropane	0.914	0.878	3.9	106	0.00
77	T	Bromobenzene	1.046	1.030	1.5	106	0.00
78	T	n-propylbenzene	4.305	4.036	6.2	102	-0.01
79	T	2-Chlorotoluene	2.404	2.331	3.0	108	0.00
80	T	1,3,5-Trimethylbenzene	2.749	2.585	6.0	102	0.00
81	T	trans-1,4-Dichloro-2-butene	0.431	0.469	-8.8	110	0.00
82	T	4-Chlorotoluene	2.632	2.602	1.1	105	0.00
83	T	tert-Butylbenzene	2.692	2.663	1.1	107	0.00
84	T	1,2,4-Trimethylbenzene	2.776	2.697	2.8	105	0.00
85	T	sec-Butylbenzene	3.566	3.446	3.4	105	0.00
86	T	p-Isopropyltoluene	2.845	2.772	2.6	105	0.00
87	T	1,3-Dichlorobenzene	1.671	1.670	0.1	107	0.00
88	T	1,4-Dichlorobenzene	1.626	1.690	-3.9	109	0.00
89	T	n-Butylbenzene	2.771	2.706	2.3	102	0.00

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051026.D
Acq On : 6 Oct 2016 13:33
Operator : FY/SY
Sample : VSTDICV050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : ICVVF100616

Quant Time: Oct 07 08:29:02 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	0.584	0.606	-3.8	106	0.00
91 T	1,2-Dichlorobenzene	1.537	1.579	-2.7	109	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.189	0.206	-9.0	111	0.00
93 T	1,2,4-Trichlorobenzene	0.765	0.784	-2.5	107	0.00
94 T	Hexachlorobutadiene	0.435	0.397	8.7	101	0.00
95 T	Naphthalene	1.967	2.238	-13.8	112	0.00
96 T	1,2,3-Trichlorobenzene	0.667	0.703	-5.4	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051026.D
Acq On : 6 Oct 2016 13:33
Operator : FY/SY
Sample : VSTDICV050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : ICVVF100616

Quant Time: Oct 07 08:29:02 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	96	0.00
2	T	Dichlorodifluoromethane	50.000	50.644	-1.3	103	0.00
3	P	Chloromethane	50.000	52.984	-6.0	104	0.00
4	C	Vinyl Chloride	50.000	53.127	-6.3#	104	0.00
5	T	Bromomethane	50.000	57.044	-14.1	96	0.00
6	T	Chloroethane	50.000	64.083	-28.2#	112	-0.01
7	T	Trichlorofluoromethane	50.000	57.811	-15.6	104	0.00
8	T	Diethyl Ether	50.000	53.535	-7.1	106	-0.01
9	T	1,1,2-Trichlorotrifluoroeth	50.000	54.434	-8.9	111	0.00
10	T	Methyl Iodide	50.000	55.416	-10.8	106	-0.01
11	T	Tert butyl alcohol	250.000	268.846	-7.5	114	0.00
12	CM	1,1-Dichloroethene	50.000	52.293	-4.6#	102	-0.01
13	T	Acrolein	250.000	257.234	-2.9	100	0.00
14	T	Allyl chloride	50.000	51.337	-2.7	101	0.00
15	T	Acrylonitrile	250.000	262.445	-5.0	103	0.00
16	T	Acetone	250.000	286.876	-14.8	102	0.00
17	T	Carbon Disulfide	50.000	54.739	-9.5	104	-0.01
18	T	Methyl Acetate	50.000	45.678	8.6	98	0.00
19	T	Methyl tert-butyl Ether	50.000	51.624	-3.2	103	0.00
20	T	Methylene Chloride	50.000	49.799	0.4	103	0.00
21	T	trans-1,2-Dichloroethene	50.000	48.005	4.0	96	0.00
22	T	Diisopropyl ether	50.000	50.933	-1.9	103	0.00
23	T	Vinyl Acetate	250.000	257.783	-3.1	104	-0.01
24	P	1,1-Dichloroethane	50.000	50.611	-1.2	102	0.00
25	T	2-Butanone	250.000	273.025	-9.2	105	0.00
26	T	2,2-Dichloropropane	50.000	46.616	6.8	96	-0.01
27	T	cis-1,2-Dichloroethene	50.000	52.121	-4.2	104	0.00
28	T	Bromochloromethane	50.000	54.705	-9.4	115	0.00
29		Tetrahydrofuran	250.000	260.570	-4.2	109	0.00
30	C	Chloroform	50.000	49.735	0.5#	100	0.00
31	T	Cyclohexane	50.000	49.156	1.7	101	0.00
32	T	1,1,1-Trichloroethane	50.000	48.600	2.8	100	0.00
33	S	1,2-Dichloroethane-d4	50.000	52.697	-5.4	96	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	92	0.00
35	S	Dibromofluoromethane	50.000	54.711	-9.4	98	0.00
36	T	1,1-Dichloropropene	50.000	51.477	-3.0	101	-0.01
37	T	Ethyl Acetate	50.000	52.457	-4.9	105	0.00
38	T	Carbon Tetrachloride	50.000	49.139	1.7	98	0.00
39	T	Methylcyclohexane	50.000	50.313	-0.6	104	0.00
40	TM	Benzene	50.000	52.686	-5.4	110	0.00
41	T	Methacrylonitrile	50.000	54.021	-8.0	110	-0.01
42	TM	1,2-Dichloroethane	50.000	53.617	-7.2	101	0.00
43	T	Isopropyl Acetate	50.000	54.168	-8.3	108	0.00
44	TM	Trichloroethene	50.000	50.646	-1.3	102	-0.01
45	C	1,2-Dichloropropane	50.000	53.090	-6.2#	104	-0.01

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051026.D
Acq On : 6 Oct 2016 13:33
Operator : FY/SY
Sample : VSTDICV050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : ICVVF100616

Quant Time: Oct 07 08:29:02 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46	T	Dibromomethane	50.000	55.085	-10.2	111	0.00
47	T	Bromodichloromethane	50.000	52.221	-4.4	102	0.00
48	T	Methyl methacrylate	50.000	53.578	-7.2	107	-0.01
49	T	1,4-Dioxane	1000.000	961.825	3.8	110	0.00
50	S	Toluene-d8	50.000	56.169	-12.3	100	0.00
51	T	4-Methyl-2-Pentanone	250.000	265.387	-6.2	107	0.00
52	CM	Toluene	50.000	53.062	-6.1#	105	-0.01
53	T	t-1,3-Dichloropropene	50.000	54.623	-9.2	106	0.00
54	T	cis-1,3-Dichloropropene	50.000	55.475	-11.0	106	0.00
55	T	1,1,2-Trichloroethane	50.000	54.356	-8.7	107	0.00
56	T	Ethyl methacrylate	50.000	57.440	-14.9	112	-0.01
57	T	1,3-Dichloropropane	50.000	53.994	-8.0	107	0.00
58	T	2-Chloroethyl Vinyl ether	-1.000	0.000	0.0	100	0.00
59	T	2-Hexanone	250.000	272.795	-9.1	107	0.00
60	T	Dibromochloromethane	50.000	55.317	-10.6	106	0.00
61	T	1,2-Dibromoethane	50.000	54.475	-9.0	105	0.00
62	S	4-Bromofluorobenzene	50.000	56.952	-13.9	102	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	99	-0.01
64	T	Tetrachloroethene	50.000	50.708	-1.4	108	0.00
65	PM	Chlorobenzene	50.000	50.914	-1.8	104	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	52.108	-4.2	106	0.00
67	C	Ethyl Benzene	50.000	49.956	0.1#	105	0.00
68	T	m/p-Xylenes	100.000	102.316	-2.3	106	0.00
69	T	o-Xylene	50.000	49.867	0.3	102	0.00
70	T	Styrene	50.000	53.735	-7.5	108	0.00
71	P	Bromoform	50.000	54.341	-8.7	109	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	101	0.00
73	T	Isopropylbenzene	50.000	46.601	6.8	103	0.00
74	T	N-amyl acetate	50.000	51.313	-2.6	105	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	50.359	-0.7	111	0.00
76	T	1,2,3-Trichloropropane	50.000	48.033	3.9	106	0.00
77	T	Bromobenzene	50.000	49.235	1.5	106	0.00
78	T	n-propylbenzene	50.000	46.878	6.2	102	-0.01
79	T	2-Chlorotoluene	50.000	48.490	3.0	108	0.00
80	T	1,3,5-Trimethylbenzene	50.000	47.009	6.0	102	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	54.449	-8.9	110	0.00
82	T	4-Chlorotoluene	50.000	49.426	1.1	105	0.00
83	T	tert-Butylbenzene	50.000	49.457	1.1	107	0.00
84	T	1,2,4-Trimethylbenzene	50.000	48.569	2.9	105	0.00
85	T	sec-Butylbenzene	50.000	48.319	3.4	105	0.00
86	T	p-Isopropyltoluene	50.000	48.715	2.6	105	0.00
87	T	1,3-Dichlorobenzene	50.000	49.992	0.0	107	0.00
88	T	1,4-Dichlorobenzene	50.000	51.946	-3.9	109	0.00
89	T	n-Butylbenzene	50.000	48.824	2.4	102	0.00

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF100616\
Data File : VF051026.D
Acq On : 6 Oct 2016 13:33
Operator : FY/SY
Sample : VSTDICV050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : ICVVF100616

Quant Time: Oct 07 08:29:02 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	50.000	51.872	-3.7	106	0.00
91 T	1,2-Dichlorobenzene	50.000	51.395	-2.8	109	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	54.432	-8.9	111	0.00
93 T	1,2,4-Trichlorobenzene	50.000	51.287	-2.6	107	0.00
94 T	Hexachlorobutadiene	50.000	45.672	8.7	101	0.00
95 T	Naphthalene	50.000	56.906	-13.8	112	0.00
96 T	1,2,3-Trichlorobenzene	50.000	52.740	-5.5	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG No.: H5282

Instrument ID: MSVOA_N Calibration Date(s): 10/05/2016 10/05/2016

Heated Purge: (Y/N) N Calibration Time(s): 13:47 16:17

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF001 = VN036257.D RRF005 = VN036258.D RRF020 = VN036259.D
RRF050 = VN036260.D RRF100 = VN036261.D RRF200 = VN036262.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	% RSD
Methyl tert-butyl Ether	1.604	1.438	1.462	1.431	1.413	1.451	1.467	4.7
Benzene	1.441	1.415	1.470	1.370	1.362	1.369	1.405	3.2
Toluene	0.964	0.898	0.943	0.894	0.906	0.947	0.925	3.2
Ethyl Benzene	1.942	1.910	2.013	1.909	1.884	1.918	1.929	2.3
m/p-Xylenes	0.750	0.724	0.773	0.737	0.740	0.765	0.748	2.5
o-Xylene	0.718	0.715	0.780	0.734	0.731	0.767	0.741	3.6
Isopropylbenzene	4.417	4.150	4.140	3.746	3.631	3.714	3.966	7.9
n-propylbenzene	4.606	4.467	4.551	4.177	4.100	4.206	4.351	5
1,3,5-Trimethylbenzene	3.499	3.464	3.433	3.151	3.063	3.144	3.292	5.9
tert-Butylbenzene	3.372	3.085	3.023	2.761	2.671	2.743	2.943	9.1
1,2,4-Trimethylbenzene	3.544	3.478	3.478	3.244	3.158	3.224	3.354	4.9
sec-Butylbenzene	4.108	4.012	4.133	3.773	3.669	3.738	3.905	5.2
p-Isopropyltoluene	3.519	3.476	3.581	3.345	3.321	3.382	3.437	3
n-Butylbenzene	2.727	2.808	2.951	2.781	2.784	2.830	2.813	2.7
Naphthalene	2.017	2.128	2.514	2.529	2.763	2.697	2.442	12.4
1,2-Dichloroethane-d4		0.646	0.615	0.614	0.628	0.615	0.624	2.2
Dibromofluoromethane		0.347	0.337	0.336	0.341	0.340	0.340	1.3
Toluene-d8		1.265	1.240	1.240	1.276	1.281	1.260	1.5
4-Bromofluorobenzene		0.421	0.434	0.451	0.489	0.521	0.463	8.9

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Response Factor Report 7890

Method Path : W:\HPCHEM1\MSVOA_N\METHODS\
Method File : 82N100516W.M
Title : SW846 8260
Last Update : Wed Oct 05 16:52:43 2016
Response Via : Initial Calibration

Calibration Files
1 =VN036257.D 5 =VN036258.D 20 =VN036259.D
50 =VN036260.D 100 =VN036261.D 200 =VN036262.D

		Compound	1	5	20	50	100	200	Avg	%RSD
1)	I	Pentafluorobenzene	----------	----------	ISTD	----------	----------	----------		
2)	T	Dichlorodifluorom	0.620	0.549	0.522	0.486	0.468	0.479	0.521	11.01
3)	P	Chloromethane	0.850	0.682	0.657	0.598	0.569	0.581	0.656	15.96
4)	C	Vinyl Chloride	0.586	0.563	0.564	0.532	0.525	0.513	0.547	5.16#
5)	T	Bromomethane	0.279	0.220	0.231	0.240	0.301	0.322	0.266	15.63
6)	T	Chloroethane	0.425	0.384	0.391	0.360	0.344	0.330	0.372	9.31
7)	T	Trichlorofluorome	1.125	1.060	1.053	0.989	0.925	0.904	1.009	8.45
8)	T	Diethyl Ether	0.343	0.273	0.285	0.273	0.339	0.273	0.298	11.45
9)	T	1,1,2-Trichlorotr	0.499	0.490	0.488	0.448	0.425	0.441	0.465	6.63
10)	T	Methyl Iodide		0.117	0.199	0.258	0.305	0.313	0.238	34.37
11)	T	Tert butyl alcoho		0.050	0.049	0.050	0.049	0.055	0.051	4.93
12)	CM	1,1-Dichloroethen	0.450	0.439	0.446	0.416	0.400	0.415	0.427	4.70#
13)	T	Acrolein		0.049	0.022	0.010	0.023	0.024	0.025	56.31
14)	T	Allyl chloride	0.768	0.753	0.718	0.687	0.672	0.582	0.697	9.64
15)	T	Acrylonitrile	0.172	0.182	0.181	0.187	0.188	0.196	0.184	4.35
16)	T	Acetone	0.243	0.205	0.195	0.180	0.174	0.175	0.195	13.43
17)	T	Carbon Disulfide	1.318	1.168	1.240	1.162	1.142	1.178	1.201	5.50
18)	T	Methyl Acetate	0.624	0.515	0.559	0.544	0.537	0.548	0.555	6.65
19)	T	Methyl tert-butyl	1.604	1.438	1.462	1.431	1.413	1.451	1.467	4.72
20)	T	Methylene Chlorid	0.569	0.527	0.512	0.491	0.474	0.487	0.510	6.78
21)	T	trans-1,2-Dichlor	0.458	0.465	0.481	0.470	0.462	0.469	0.467	1.70
22)	T	Diisopropyl ether	1.717	1.595	1.614	1.556	1.560	1.615	1.609	3.64
23)	T	Vinyl Acetate	0.923	0.974	1.022	1.040	1.066	1.122	1.024	6.82
24)	P	1,1-Dichloroethan	0.958	0.900	0.931	0.889	0.865	0.874	0.903	3.92
25)	T	2-Butanone	0.228	0.241	0.244	0.244	0.245	0.257	0.243	3.82
26)	T	2,2-Dichloropropa	0.928	0.869	0.877	0.835	0.819	0.817	0.857	4.99
27)	T	cis-1,2-Dichloroe	0.582	0.573	0.596	0.567	0.565	0.572	0.576	2.00
28)	T	Bromochloromethan	0.387	0.392	0.375	0.413	0.382	0.359	0.385	4.72
29)	T	Tetrahydrofuran	0.145	0.145	0.140	0.147	0.148	0.154	0.147	3.09
30)	C	Chloroform	1.018	0.955	1.003	0.948	0.941	0.953	0.969	3.33#
31)	T	Cyclohexane	1.895	0.993	0.872	0.796	0.759	0.773	1.015	43.37
32)	T	1,1,1-Trichloroet	0.868	0.869	0.901	0.868	0.861	0.878	0.874	1.64
33)	S	1,2-Dichloroethan		0.646	0.615	0.614	0.628	0.615	0.624	2.23
34)	I	1,4-Difluorobenzene	----------	----------	ISTD	----------	----------	----------		
35)	S	Dibromofluorometh		0.347	0.337	0.336	0.341	0.340	0.340	1.28
36)	T	1,1-Dichloroprope	0.497	0.466	0.493	0.464	0.457	0.463	0.473	3.59
37)	T	Ethyl Acetate	0.339	0.306	0.356	0.353	0.352	0.361	0.345	5.87
38)	T	Carbon Tetrachlor	0.466	0.461	0.503	0.494	0.496	0.501	0.487	3.79
39)	T	Methylcyclohexane	0.619	0.611	0.625	0.567	0.558	0.578	0.593	4.83
40)	TM	Benzene	1.441	1.415	1.470	1.370	1.362	1.369	1.405	3.17
41)	T	Methacrylonitrile	0.206	0.200	0.209	0.210	0.210	0.225	0.210	3.84
42)	TM	1,2-Dichloroethan	0.501	0.521	0.540	0.515	0.511	0.516	0.517	2.51
43)	T	Isopropyl Acetate	0.646	0.617	0.643	0.642	0.656	0.686	0.648	3.47
44)	TM	Trichloroethene	0.403	0.392	0.415	0.384	0.383	0.392	0.395	3.05
45)	C	1,2-Dichloropropa	0.358	0.354	0.380	0.351	0.350	0.356	0.358	3.08#
46)	T	Dibromomethane	0.226	0.242	0.257	0.243	0.245	0.252	0.244	4.37
47)	T	Bromodichlorometh	0.516	0.481	0.529	0.499	0.509	0.523	0.509	3.38
48)	T	Methyl methacryla	0.357	0.303	0.324	0.326	0.335	0.359	0.334	6.33
49)	T	1,4-Dioxane		0.004	0.005	0.005	0.005	0.005	0.005	7.09
50)	S	Toluene-d8		1.265	1.240	1.240	1.276	1.281	1.260	1.54
51)	T	4-Methyl-2-Pentan	0.333	0.326	0.348	0.342	0.353	0.390	0.349	6.43
52)	CM	Toluene	0.964	0.898	0.943	0.894	0.906	0.947	0.925	3.21#

Response Factor Report 7890

Method Path : W:\HPCHEM1\MSVOA_N\METHODS\
Method File : 82N100516W.M
Title : SW846 8260
Last Update : Wed Oct 05 16:52:43 2016
Response Via : Initial Calibration

Calibration Files
1 =VN036257.D 5 =VN036258.D 20 =VN036259.D
50 =VN036260.D 100 =VN036261.D 200 =VN036262.D

		Compound	1	5	20	50	100	200	Avg	%RSD
53)	T	t-1,3-Dichloropro	0.407	0.457	0.506	0.508	0.547	0.587	0.502	12.75
54)	T	cis-1,3-Dichlorop	0.491	0.531	0.569	0.555	0.578	0.604	0.555	7.15
55)	T	1,1,2-Trichloroet	0.352	0.343	0.361	0.352	0.354	0.372	0.356	2.80
56)	T	Ethyl methacrylat	0.401	0.426	0.470	0.478	0.499	0.550	0.471	11.23
57)	T	1,3-Dichloropropa	0.554	0.564	0.589	0.566	0.577	0.599	0.575	2.92
58)	T	2-Chloroethyl Vin					0.004	0.004	0.004	2.71
59)	T	2-Hexanone	0.216	0.223	0.236	0.234	0.244	0.268	0.237	7.64
60)	T	Dibromochlorometh	0.382	0.374	0.409	0.415	0.437	0.472	0.415	8.72
61)	T	1,2-Dibromoethane	0.308	0.337	0.359	0.349	0.367	0.384	0.351	7.53
62)	S	4-Bromofluorobenz		0.421	0.434	0.451	0.489	0.521	0.463	8.92
63)	I	Chlorobenzene-d5	----------ISTD----------							
64)	T	Tetrachloroethene	0.440	0.432	0.428	0.396	0.387	0.380	0.410	6.32
65)	PM	Chlorobenzene	1.151	1.138	1.160	1.093	1.085	1.116	1.124	2.75
66)	T	1,1,1,2-Tetrachlo	0.425	0.423	0.439	0.414	0.420	0.445	0.428	2.75
67)	C	Ethyl Benzene	1.942	1.910	2.013	1.909	1.884	1.918	1.929	2.33#
68)	T	m/p-Xylenes	0.750	0.724	0.773	0.737	0.740	0.765	0.748	2.47
69)	T	o-Xylene	0.718	0.715	0.780	0.734	0.731	0.767	0.741	3.58
70)	T	Styrene	1.073	1.099	1.198	1.189	1.224	1.326	1.185	7.70
71)	P	Bromoform	0.252	0.271	0.306	0.330	0.349	0.383	0.315	15.53
72)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
73)	T	Isopropylbenzene	4.417	4.150	4.140	3.746	3.631	3.714	3.966	7.91
74)	T	N-amyl acetate	1.113	1.117	1.213	1.185	1.171	1.208	1.168	3.73
75)	P	1,1,2,2-Tetrachlo	1.140	1.017	1.018	0.943	0.893	0.895	0.985	9.56
76)	T	1,2,3-Trichloropr	0.735	0.922	0.910	0.781	0.813	0.824	0.831	8.77
77)	T	Bromobenzene	1.036	1.078	1.063	0.976	0.966	1.000	1.020	4.55
78)	T	n-propylbenzene	4.606	4.467	4.551	4.177	4.100	4.206	4.351	4.96
79)	T	2-Chlorotoluene	2.969	2.714	2.722	2.489	2.411	2.498	2.634	7.88
80)	T	1,3,5-Trimethylbe	3.499	3.464	3.433	3.151	3.063	3.144	3.292	5.86
81)	T	trans-1,4-Dichlor	0.185	0.238	0.251	0.254	0.270	0.296	0.249	14.94
82)	T	4-Chlorotoluene	2.817	2.568	2.703	2.530	2.509	2.607	2.622	4.48
83)	T	tert-Butylbenzene	3.372	3.085	3.023	2.761	2.671	2.743	2.943	9.08
84)	T	1,2,4-Trimethylbe	3.544	3.478	3.478	3.244	3.158	3.224	3.354	4.89
85)	T	sec-Butylbenzene	4.108	4.012	4.133	3.773	3.669	3.738	3.905	5.19
86)	T	p-Isopropyltoluen	3.519	3.476	3.581	3.345	3.321	3.382	3.437	3.03
87)	T	1,3-Dichlorobenze	1.857	1.801	1.870	1.770	1.759	1.814	1.812	2.47
88)	T	1,4-Dichlorobenze	1.927	1.823	1.843	1.740	1.721	1.747	1.800	4.38
89)	T	n-Butylbenzene	2.727	2.808	2.951	2.781	2.784	2.830	2.813	2.69
90)	T	Hexachloroethane	0.562	0.539	0.593	0.585	0.574	0.595	0.574	3.75
91)	T	1,2-Dichlorobenze	1.932	1.809	1.863	1.760	1.687	1.687	1.790	5.47
92)	T	1,2-Dibromo-3-Chl	0.145	0.148	0.175	0.179	0.175	0.168	0.165	8.99
93)	T	1,2,4-Trichlorobe	0.852	0.931	1.108	1.050	1.111	1.106	1.027	10.70
94)	T	Hexachlorobutadie	0.636	0.644	0.649	0.597	0.582	0.559	0.611	6.09
95)	T	Naphthalene	2.017	2.129	2.514	2.529	2.763	2.697	2.442	12.42
96)	T	1,2,3-Trichlorobe	0.968	0.940	1.098	1.026	1.080	1.063	1.029	6.19

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036257.D
Acq On : 5 Oct 2016 13:47
Operator : MD\SY
Sample : VSTDICC001
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
Feifei
10/6/2016 1:29:56 PM

Quant Time: Oct 05 16:48:50 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.86	168	249701	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	8.78	114	379559	50.00	ug/l		0.00
63) Chlorobenzene-d5	11.58	117	328207	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.52	152	142823	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	0.00	65	0d	0.00	ug/l		
Spiked Amount 50.000			Recovery =	0.00%			
35) Dibromofluoromethane	0.00	113	0d	0.00	ug/l		
Spiked Amount 50.000			Recovery =	0.00%			
50) Toluene-d8	0.00	98	0d	0.00	ug/l		
Spiked Amount 50.000			Recovery =	0.00%			
62) 4-Bromofluorobenzene	0.00	95	0d	0.00	ug/l		
Spiked Amount 50.000			Recovery =	0.00%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.88	85	3096	1.22	ug/l		96
3) Chloromethane	2.10	50	4246	1.28	ug/l		97
4) Vinyl Chloride	2.23	62	2927	1.04	ug/l	#	85
5) Bromomethane	2.64	94	1395	0.93	ug/l	#	79
6) Chloroethane	2.79	64	2121	1.14	ug/l	#	81
7) Trichlorofluoromethane	3.13	101	5620	1.41	ug/l		96
8) Diethyl Ether	3.55	74	1712	1.22	ug/l		49
9) 1,1,2-Trichlorotrifluoroet	3.91	101	2490	1.06	ug/l	#	76
12) 1,1-Dichloroethene	3.89	96	2245	1.04	ug/l		94
14) Allyl chloride	4.52	41	3835	1.08	ug/l	#	74
15) Acrylonitrile	5.22	53	4295	4.69	ug/l	#	88
16) Acetone	3.98	43	6056	6.06	ug/l		94
17) Carbon Disulfide	4.24	76	6580	1.06	ug/l		97
18) Methyl Acetate	4.54	43	3115	1.06	ug/l	#	69
19) Methyl tert-butyl Ether	5.30	73	8008	1.08	ug/l		97
20) Methylene Chloride	4.76	84	2841	1.09	ug/l		96
21) trans-1,2-Dichloroethene	5.30	96	2287m	0.97	ug/l		
22) Diisopropyl ether	6.19	45	8576	1.08	ug/l	#	74
23) Vinyl Acetate	6.14	43	23035m	4.54	ug/l		
24) 1,1-Dichloroethane	6.09	63	4782	1.05	ug/l	#	85
25) 2-Butanone	7.08	43	5687	4.53	ug/l		98
26) 2,2-Dichloropropane	7.07	77	4633	1.08	ug/l		94
27) cis-1,2-Dichloroethene	7.06	96	2905	1.01	ug/l		94
28) Bromochloromethane	7.42	49	1933	0.99	ug/l	#	63
29) Tetrahydrofuran	7.48	42	3617	4.65	ug/l		98
30) Chloroform	7.58	83	5083	1.04	ug/l		96
31) Cyclohexane	7.87	56	9465	1.84	ug/l	#	54
32) 1,1,1-Trichloroethane	7.79	97	4333	0.97	ug/l	#	53
36) 1,1-Dichloropropene	8.00	75	3770	1.05	ug/l		96
37) Ethyl Acetate	7.18	43	2572	0.93	ug/l	#	70
38) Carbon Tetrachloride	7.99	117	3536	0.96	ug/l		93
39) Methylcyclohexane	9.28	83	4698	1.06	ug/l		87
40) Benzene	8.25	78	10936	1.02	ug/l		92
41) Methacrylonitrile	7.38	41	1566m	0.95	ug/l		

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036257.D
Acq On : 5 Oct 2016 13:47
Operator : MD\SY
Sample : VSTDICC001
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
Feifei
10/6/2016 1:29:56 PM

Quant Time: Oct 05 16:48:50 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
42) 1,2-Dichloroethane	8.33	62	3804	0.96 ug/l		81
43) Isopropyl Acetate	8.35	43	4906	0.96 ug/l		93
44) Trichloroethene	9.03	130	3056	1.02 ug/l		92
45) 1,2-Dichloropropane	9.30	63	2718	1.01 ug/l		97
46) Dibromomethane	9.40	93	1712	0.93 ug/l	#	80
47) Bromodichloromethane	9.58	83	3914	1.03 ug/l		88
48) Methyl methacrylate	9.38	41	2710	1.08 ug/l	#	82
51) 4-Methyl-2-Pentanone	10.15	43	12647	4.73 ug/l		98
52) Toluene	10.34	92	7318	1.07 ug/l		94
53) t-1,3-Dichloropropene	10.55	75	3087	0.83 ug/l		91
54) cis-1,3-Dichloropropene	10.02	75	3725	0.90 ug/l	#	83
55) 1,1,2-Trichloroethane	10.73	97	2674	1.01 ug/l		96
56) Ethyl methacrylate	10.59	69	3046	0.89 ug/l	#	73
57) 1,3-Dichloropropane	10.88	76	4207	0.98 ug/l		95
59) 2-Hexanone	10.92	43	8186	4.64 ug/l		92
60) Dibromochloromethane	11.08	129	2903	0.96 ug/l		88
61) 1,2-Dibromoethane	11.19	107	2337	0.88 ug/l		96
64) Tetrachloroethene	10.81	164	2886	1.07 ug/l	#	86
65) Chlorobenzene	11.61	112	7553	1.02 ug/l		94
66) 1,1,1,2-Tetrachloroethane	11.68	131	2789	1.01 ug/l	#	63
67) Ethyl Benzene	11.68	91	12749	1.02 ug/l		94
68) m/p-Xylenes	11.79	106	9843	2.07 ug/l		94
69) o-Xylene	12.12	106	4713	1.02 ug/l		99
70) Styrene	12.14	104	7042	0.97 ug/l		95
71) Bromoform	12.30	173	1655	0.83 ug/l	#	92
73) Isopropylbenzene	12.42	105	12617	1.10 ug/l		98
74) N-amyl acetate	12.23	43	3180	0.94 ug/l	#	91
75) 1,1,2,2-Tetrachloroethane	12.66	83	3256	1.09 ug/l		96
76) 1,2,3-Trichloropropane	12.72	75	2099m	0.85 ug/l		
77) Bromobenzene	12.71	156	2958	0.99 ug/l		77
78) n-propylbenzene	12.76	91	13157	1.06 ug/l		94
79) 2-Chlorotoluene	12.85	91	8480	1.11 ug/l		90
80) 1,3,5-Trimethylbenzene	12.90	105	9994	1.06 ug/l		98
81) trans-1,4-Dichloro-2-buten	12.47	75	528	0.72 ug/l	#	74
82) 4-Chlorotoluene	12.95	91	8048	1.08 ug/l		97
83) tert-Butylbenzene	13.16	119	9631	1.16 ug/l		96
84) 1,2,4-Trimethylbenzene	13.21	105	10124	1.07 ug/l		98
85) sec-Butylbenzene	13.34	105	11734	1.06 ug/l		95
86) p-Isopropyltoluene	13.46	119	10053	1.06 ug/l		98
87) 1,3-Dichlorobenzene	13.46	146	5304	1.04 ug/l		95
88) 1,4-Dichlorobenzene	13.54	146	5505m	1.06 ug/l		
89) n-Butylbenzene	13.79	91	7789	1.00 ug/l		93
90) Hexachloroethane	14.06	117	1605	0.99 ug/l		74
91) 1,2-Dichlorobenzene	13.83	146	5518	1.11 ug/l		94
92) 1,2-Dibromo-3-Chloropropan	14.45	75	414	0.86 ug/l		97
93) 1,2,4-Trichlorobenzene	15.10	180	2435	0.88 ug/l		97
94) Hexachlorobutadiene	15.21	225	1816	1.07 ug/l		95
95) Naphthalene	15.35	128	5762	0.85 ug/l	#	89
96) 1,2,3-Trichlorobenzene	15.53	180	2765	0.98 ug/l		94

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036257.D
Acq On : 5 Oct 2016 13:47
Operator : MD\SY
Sample : VSTDICC001
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
Feifei
10/6/2016 1:29:56 PM

Quant Time: Oct 05 16:48:50 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036258.D
Acq On : 5 Oct 2016 14:25
Operator : MD\SY
Sample : VSTDICC005
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
Feifei
10/6/2016 1:29:57 PM

Quant Time: Oct 05 16:16:39 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.86	168	257706	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	8.78	114	383286	50.00	ug/l		0.00
63) Chlorobenzene-d5	11.58	117	343160	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.52	152	157115	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.23	65	16651	5.07	ug/l		0.00
Spiked Amount 50.000			Recovery = 10.14%				
35) Dibromofluoromethane	7.80	113	13290	5.05	ug/l		0.00
Spiked Amount 50.000			Recovery = 10.10%				
50) Toluene-d8	10.27	98	48471	5.07	ug/l		0.00
Spiked Amount 50.000			Recovery = 10.14%				
62) 4-Bromofluorobenzene	12.57	95	16126	4.79	ug/l		0.00
Spiked Amount 50.000			Recovery = 9.58%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.88	85	14138	5.40	ug/l		98
3) Chloromethane	2.09	50	17572	5.12	ug/l		99
4) Vinyl Chloride	2.23	62	14517	5.02	ug/l		98
5) Bromomethane	2.63	94	5662	3.65	ug/l		100
6) Chloroethane	2.78	64	9903	5.14	ug/l		93
7) Trichlorofluoromethane	3.12	101	27310	6.66	ug/l		98
8) Diethyl Ether	3.54	74	7031	4.84	ug/l		94
9) 1,1,2-Trichlorotrifluoroet	3.91	101	12623	5.21	ug/l	#	87
10) Methyl Iodide	4.13	142	3010	1.96	ug/l	#	90
11) Tert butyl alcohol	5.00	59	6429m	24.69	ug/l		
12) 1,1-Dichloroethene	3.89	96	11309	5.09	ug/l		94
13) Acrolein	3.75	56	6273	36.79	ug/l		99
14) Allyl chloride	4.52	41	19399	5.28	ug/l	#	82
15) Acrylonitrile	5.21	53	23403	24.76	ug/l		96
16) Acetone	3.98	43	26369	25.58	ug/l		95
17) Carbon Disulfide	4.24	76	30088	4.68	ug/l		99
18) Methyl Acetate	4.53	43	13281	4.37	ug/l		98
19) Methyl tert-butyl Ether	5.29	73	37065	4.85	ug/l		99
20) Methylene Chloride	4.75	84	13575	5.05	ug/l		96
21) trans-1,2-Dichloroethene	5.29	96	11976	4.93	ug/l		94
22) Diisopropyl ether	6.20	45	41097	5.02	ug/l	#	87
23) Vinyl Acetate	6.13	43	125547m	23.98	ug/l		
24) 1,1-Dichloroethane	6.09	63	23206	4.93	ug/l		98
25) 2-Butanone	7.08	43	31020	23.92	ug/l		92
26) 2,2-Dichloropropane	7.06	77	22403	5.07	ug/l		94
27) cis-1,2-Dichloroethene	7.06	96	14762	4.99	ug/l		99
28) Bromochloromethane	7.42	49	10095	5.01	ug/l	#	66
29) Tetrahydrofuran	7.46	42	18654	23.26	ug/l		98
30) Chloroform	7.58	83	24600	4.89	ug/l		97
31) Cyclohexane	7.88	56	25595	4.82	ug/l	#	81
32) 1,1,1-Trichloroethane	7.79	97	22392	4.88	ug/l		97
36) 1,1-Dichloropropene	8.00	75	17878	4.95	ug/l		97
37) Ethyl Acetate	7.17	43	11736	4.19	ug/l		97
38) Carbon Tetrachloride	8.00	117	17670	4.77	ug/l		93

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036258.D
Acq On : 5 Oct 2016 14:25
Operator : MD\SY
Sample : VSTDICC005
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
Feifei
10/6/2016 1:29:57 PM

Quant Time: Oct 05 16:16:39 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	9.28	83	23427	5.26	ug/l		89
40) Benzene	8.25	78	54232	5.03	ug/l		97
41) Methacrylonitrile	7.38	41	7671	4.59	ug/l		95
42) 1,2-Dichloroethane	8.33	62	19988	4.98	ug/l		97
43) Isopropyl Acetate	8.36	43	23665	4.59	ug/l		98
44) Trichloroethene	9.03	130	15018	4.98	ug/l		90
45) 1,2-Dichloropropane	9.31	63	13553	4.98	ug/l		97
46) Dibromomethane	9.40	93	9270	4.97	ug/l	#	81
47) Bromodichloromethane	9.58	83	18451	4.80	ug/l		99
48) Methyl methacrylate	9.37	41	11630	4.57	ug/l	#	89
49) 1,4-Dioxane	9.40	88	3274	95.03	ug/l		89
51) 4-Methyl-2-Pentanone	10.15	43	62488	23.17	ug/l		99
52) Toluene	10.33	92	34417	5.00	ug/l		100
53) t-1,3-Dichloropropene	10.55	75	17512	4.69	ug/l		97
54) cis-1,3-Dichloropropene	10.01	75	20335	4.88	ug/l	#	88
55) 1,1,2-Trichloroethane	10.73	97	13148	4.92	ug/l		97
56) Ethyl methacrylate	10.59	69	16321	4.70	ug/l	#	85
57) 1,3-Dichloropropane	10.88	76	21626	4.99	ug/l		99
59) 2-Hexanone	10.91	43	42810	24.05	ug/l		98
60) Dibromochloromethane	11.08	129	14343	4.72	ug/l		95
61) 1,2-Dibromoethane	11.18	107	12919	4.80	ug/l		99
64) Tetrachloroethene	10.81	164	14838	5.24	ug/l		92
65) Chlorobenzene	11.61	112	39052	5.07	ug/l		99
66) 1,1,1,2-Tetrachloroethane	11.68	131	14526	5.02	ug/l		97
67) Ethyl Benzene	11.68	91	65536	5.00	ug/l		97
68) m/p-Xylenes	11.79	106	49660	9.98	ug/l		93
69) o-Xylene	12.12	106	24548	5.07	ug/l		99
70) Styrene	12.13	104	37719	4.97	ug/l		98
71) Bromoform	12.30	173	9310	4.49	ug/l	#	100
73) Isopropylbenzene	12.42	105	65209	5.17	ug/l		98
74) N-amyl acetate	12.23	43	17555	4.71	ug/l		98
75) 1,1,2,2-Tetrachloroethane	12.66	83	15974	4.86	ug/l		97
76) 1,2,3-Trichloropropane	12.72	75	14479m	5.34	ug/l		
77) Bromobenzene	12.70	156	16940	5.15	ug/l		70
78) n-propylbenzene	12.76	91	70177	5.15	ug/l		95
79) 2-Chlorotoluene	12.85	91	42636	5.06	ug/l		91
80) 1,3,5-Trimethylbenzene	12.90	105	54432	5.25	ug/l		99
81) trans-1,4-Dichloro-2-buten	12.46	75	3741	4.61	ug/l		92
82) 4-Chlorotoluene	12.95	91	40347	4.90	ug/l		90
83) tert-Butylbenzene	13.16	119	48467	5.32	ug/l		95
84) 1,2,4-Trimethylbenzene	13.21	105	54638	5.26	ug/l		98
85) sec-Butylbenzene	13.34	105	63029	5.20	ug/l		96
86) p-Isopropyltoluene	13.46	119	54611	5.23	ug/l		99
87) 1,3-Dichlorobenzene	13.46	146	28296	5.06	ug/l		95
88) 1,4-Dichlorobenzene	13.54	146	28639	5.04	ug/l		97
89) n-Butylbenzene	13.79	91	44123	5.17	ug/l		97
90) Hexachloroethane	14.06	117	8462	4.76	ug/l		61
91) 1,2-Dichlorobenzene	13.83	146	28426	5.19	ug/l		94
92) 1,2-Dibromo-3-Chloropropan	14.45	75	2333	4.41	ug/l		79
93) 1,2,4-Trichlorobenzene	15.10	180	14622	4.79	ug/l		94

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036258.D
Acq On : 5 Oct 2016 14:25
Operator : MD\SY
Sample : VSTDICC005
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
Feifei
10/6/2016 1:29:57 PM

Quant Time: Oct 05 16:16:39 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Hexachlorobutadiene	15.21	225	10118	5.43	ug/l	96
95) Naphthalene	15.34	128	33442	4.46	ug/l	99
96) 1,2,3-Trichlorobenzene	15.53	180	14761	4.76	ug/l	94

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

Quantitation Report (QT Reviewed)

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036259.D
Acq On : 5 Oct 2016 14:57
Operator : MD\SY
Sample : VSTDICC020
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
Feifei
10/6/2016 1:29:59 PM

Quant Time: Oct 05 16:18:21 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.86	168	262187	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	8.78	114	387307	50.00	ug/l		0.00
63) Chlorobenzene-d5	11.58	117	353014	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.52	152	175203	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.23	65	64474	19.29	ug/l		0.00
Spiked Amount 50.000			Recovery = 38.58%				
35) Dibromofluoromethane	7.80	113	52203	19.63	ug/l		0.00
Spiked Amount 50.000			Recovery = 39.26%				
50) Toluene-d8	10.27	98	192138	19.88	ug/l		0.00
Spiked Amount 50.000			Recovery = 39.76%				
62) 4-Bromofluorobenzene	12.57	95	67210	19.74	ug/l		0.00
Spiked Amount 50.000			Recovery = 39.48%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.88	85	54785	20.56	ug/l		99
3) Chloromethane	2.09	50	68867	19.73	ug/l		100
4) Vinyl Chloride	2.23	62	59147	20.08	ug/l		98
5) Bromomethane	2.64	94	24236	15.36	ug/l		94
6) Chloroethane	2.79	64	40976	20.91	ug/l		99
7) Trichlorofluoromethane	3.13	101	110385	26.46	ug/l		100
8) Diethyl Ether	3.55	74	29875	20.23	ug/l		86
9) 1,1,2-Trichlorotrifluoroet	3.91	101	51181	20.76	ug/l	#	89
10) Methyl Iodide	4.12	142	20818	13.30	ug/l		96
11) Tert butyl alcohol	5.01	59	25889	97.71	ug/l		96
12) 1,1-Dichloroethene	3.89	96	46768	20.68	ug/l		98
13) Acrolein	3.75	56	11561	66.64	ug/l		98
14) Allyl chloride	4.52	41	75304	20.14	ug/l	#	79
15) Acrylonitrile	5.20	53	95165	98.96	ug/l		94
16) Acetone	3.98	43	102021	97.28	ug/l		94
17) Carbon Disulfide	4.25	76	130059	19.87	ug/l		99
18) Methyl Acetate	4.53	43	58674	18.97	ug/l		95
19) Methyl tert-butyl Ether	5.30	73	153363	19.72	ug/l		99
20) Methylene Chloride	4.75	84	53694	19.63	ug/l		97
21) trans-1,2-Dichloroethene	5.29	96	50409	20.39	ug/l		93
22) Diisopropyl ether	6.20	45	169237	20.30	ug/l		95
23) Vinyl Acetate	6.13	43	535801m	100.59	ug/l		
24) 1,1-Dichloroethane	6.09	63	97669	20.41	ug/l		98
25) 2-Butanone	7.07	43	128043	97.05	ug/l		92
26) 2,2-Dichloropropane	7.06	77	91990	20.46	ug/l		97
27) cis-1,2-Dichloroethene	7.06	96	62500	20.78	ug/l		95
28) Bromochloromethane	7.42	49	39289	19.18	ug/l	#	70
29) Tetrahydrofuran	7.46	42	73562	90.14	ug/l		89
30) Chloroform	7.58	83	105174	20.57	ug/l		98
31) Cyclohexane	7.88	56	91457	16.93	ug/l		90
32) 1,1,1-Trichloroethane	7.79	97	94508	20.23	ug/l		97
36) 1,1-Dichloropropene	8.01	75	76341	20.90	ug/l		96
37) Ethyl Acetate	7.16	43	55152	19.48	ug/l		96
38) Carbon Tetrachloride	8.00	117	77918	20.81	ug/l		95

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036259.D
Acq On : 5 Oct 2016 14:57
Operator : MD\SY
Sample : VSTDICC020
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
Feifei
10/6/2016 1:29:59 PM

Quant Time: Oct 05 16:18:21 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	9.28	83	96763	21.49	ug/l		92
40) Benzene	8.25	78	227792	20.92	ug/l		96
41) Methacrylonitrile	7.38	41	32313	19.12	ug/l		95
42) 1,2-Dichloroethane	8.33	62	83673	20.62	ug/l		97
43) Isopropyl Acetate	8.36	43	99572	19.12	ug/l		97
44) Trichloroethene	9.03	130	64277	21.10	ug/l		88
45) 1,2-Dichloropropane	9.31	63	58858	21.42	ug/l		99
46) Dibromomethane	9.40	93	39782	21.11	ug/l	#	81
47) Bromodichloromethane	9.58	83	81912	21.10	ug/l		97
48) Methyl methacrylate	9.38	41	50243	19.55	ug/l	#	90
49) 1,4-Dioxane	9.39	88	14160	406.76	ug/l		89
51) 4-Methyl-2-Pentanone	10.15	43	269714	98.95	ug/l		100
52) Toluene	10.33	92	146080	20.99	ug/l		99
53) t-1,3-Dichloropropene	10.55	75	78381	20.77	ug/l		99
54) cis-1,3-Dichloropropene	10.01	75	88138	20.95	ug/l	#	88
55) 1,1,2-Trichloroethane	10.73	97	55987	20.75	ug/l		97
56) Ethyl methacrylate	10.59	69	72744	20.72	ug/l	#	91
57) 1,3-Dichloropropane	10.88	76	91233	20.84	ug/l		100
59) 2-Hexanone	10.91	43	182607	101.51	ug/l		99
60) Dibromochloromethane	11.07	129	63363	20.64	ug/l		98
61) 1,2-Dibromoethane	11.18	107	55558	20.44	ug/l		95
64) Tetrachloroethene	10.81	164	60475	20.76	ug/l		91
65) Chlorobenzene	11.61	112	163869	20.67	ug/l		100
66) 1,1,1,2-Tetrachloroethane	11.68	131	61967	20.82	ug/l		98
67) Ethyl Benzene	11.68	91	284232	21.08	ug/l		96
68) m/p-Xylenes	11.79	106	218329	42.66	ug/l		93
69) o-Xylene	12.12	106	110085	22.10	ug/l		94
70) Styrene	12.13	104	169202	21.69	ug/l		98
71) Bromoform	12.30	173	43255	20.28	ug/l	#	99
73) Isopropylbenzene	12.42	105	290106	20.63	ug/l		99
74) N-amyl acetate	12.22	43	85033	20.47	ug/l		98
75) 1,1,2,2-Tetrachloroethane	12.66	83	71373	19.48	ug/l		96
76) 1,2,3-Trichloropropane	12.72	75	63760m	21.10	ug/l		
77) Bromobenzene	12.70	156	74514	20.32	ug/l		69
78) n-propylbenzene	12.76	91	318971	20.99	ug/l		95
79) 2-Chlorotoluene	12.85	91	190783	20.29	ug/l		92
80) 1,3,5-Trimethylbenzene	12.90	105	240573	20.82	ug/l		97
81) trans-1,4-Dichloro-2-buten	12.46	75	17579	19.41	ug/l		97
82) 4-Chlorotoluene	12.94	91	189408	20.64	ug/l		92
83) tert-Butylbenzene	13.16	119	211885	20.86	ug/l		96
84) 1,2,4-Trimethylbenzene	13.21	105	243746	21.05	ug/l		97
85) sec-Butylbenzene	13.34	105	289635	21.41	ug/l		96
86) p-Isopropyltoluene	13.46	119	250995	21.54	ug/l		98
87) 1,3-Dichlorobenzene	13.46	146	131077	21.03	ug/l		95
88) 1,4-Dichlorobenzene	13.54	146	129152	20.36	ug/l		95
89) n-Butylbenzene	13.79	91	206792	21.73	ug/l		97
90) Hexachloroethane	14.06	117	41593	21.00	ug/l		62
91) 1,2-Dichlorobenzene	13.83	146	130542	21.36	ug/l		96
92) 1,2-Dibromo-3-Chloropropan	14.45	75	12288	20.82	ug/l		77
93) 1,2,4-Trichlorobenzene	15.10	180	77670	22.82	ug/l		98

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036259.D
Acq On : 5 Oct 2016 14:57
Operator : MD\SY
Sample : VSTDICC020
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
Feifei
10/6/2016 1:29:59 PM

Quant Time: Oct 05 16:18:21 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Hexachlorobutadiene	15.20	225	45512	21.92	ug/l	97
95) Naphthalene	15.34	128	176195	21.09	ug/l	99
96) 1,2,3-Trichlorobenzene	15.53	180	76938	22.26	ug/l	97

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

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036260.D
Acq On : 5 Oct 2016 15:24
Operator : MD\SY
Sample : VSTDICCC050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument : MSVOA_N
ClientSampleId : VSTDICCC050

Manual Integrations APPROVED
Feifei
10/6/2016 1:30:00 PM

Quant Time: Oct 05 16:18:07 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.87	168	266245	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	8.78	114	401869	50.00	ug/l		0.00
63) Chlorobenzene-d5	11.58	117	370147	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.52	152	193944	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.23	65	163566	48.20	ug/l		0.00
Spiked Amount 50.000			Recovery = 96.40%				
35) Dibromofluoromethane	7.80	113	134846	48.87	ug/l		0.00
Spiked Amount 50.000			Recovery = 97.74%				
50) Toluene-d8	10.27	98	498162	49.69	ug/l		0.00
Spiked Amount 50.000			Recovery = 99.38%				
62) 4-Bromofluorobenzene	12.57	95	181388	51.35	ug/l		0.00
Spiked Amount 50.000			Recovery = 102.70%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.88	85	129269	47.77	ug/l		99
3) Chloromethane	2.09	50	159317	44.95	ug/l		96
4) Vinyl Chloride	2.23	62	141572	47.34	ug/l		98
5) Bromomethane	2.64	94	63873	39.86	ug/l		95
6) Chloroethane	2.79	64	95764	48.12	ug/l		96
7) Trichlorofluoromethane	3.12	101	263324	62.16	ug/l		98
8) Diethyl Ether	3.55	74	72572	48.40	ug/l		86
9) 1,1,2-Trichlorotrifluoroet	3.92	101	119375	47.68	ug/l	#	88
10) Methyl Iodide	4.13	142	68642	43.19	ug/l		96
11) Tert butyl alcohol	5.01	59	66167	245.92	ug/l	#	92
12) 1,1-Dichloroethene	3.90	96	110658	48.19	ug/l		98
13) Acrolein	3.75	56	12652	71.82	ug/l		100
14) Allyl chloride	4.52	41	182869	48.17	ug/l	#	79
15) Acrylonitrile	5.20	53	248761	254.74	ug/l		96
16) Acetone	3.98	43	239909	225.27	ug/l		94
17) Carbon Disulfide	4.25	76	309346	46.54	ug/l		100
18) Methyl Acetate	4.53	43	144914	46.14	ug/l		94
19) Methyl tert-butyl Ether	5.30	73	381016	48.25	ug/l		98
20) Methylene Chloride	4.76	84	130698	47.04	ug/l		97
21) trans-1,2-Dichloroethene	5.29	96	125257	49.90	ug/l		91
22) Diisopropyl ether	6.20	45	414272	48.94	ug/l		97
23) Vinyl Acetate	6.13	43	1384620m	255.99	ug/l		
24) 1,1-Dichloroethane	6.09	63	236682	48.72	ug/l		97
25) 2-Butanone	7.07	43	324995	242.57	ug/l		94
26) 2,2-Dichloropropane	7.07	77	222255	48.67	ug/l		97
27) cis-1,2-Dichloroethene	7.06	96	150939	49.42	ug/l		96
28) Bromochloromethane	7.42	49	110076	52.91	ug/l	#	69
29) Tetrahydrofuran	7.46	42	195786	236.26	ug/l		92
30) Chloroform	7.58	83	252357	48.60	ug/l		99
31) Cyclohexane	7.89	56	211814	38.61	ug/l		92
32) 1,1,1-Trichloroethane	7.79	97	231177	48.73	ug/l		97
36) 1,1-Dichloropropene	8.01	75	186354	49.16	ug/l		96
37) Ethyl Acetate	7.16	43	141971	48.32	ug/l		98
38) Carbon Tetrachloride	8.00	117	198565	51.11	ug/l		95

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036260.D
Acq On : 5 Oct 2016 15:24
Operator : MD\SY
Sample : VSTDICCC050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 05 16:18:07 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Instrument : MSVOA_N
ClientSampleId : VSTDICCC050

Manual Integrations APPROVED
Feifei
10/6/2016 1:30:00 PM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	9.28	83	227858	48.77	ug/l		92
40) Benzene	8.25	78	550547	48.73	ug/l		97
41) Methacrylonitrile	7.38	41	84240	48.03	ug/l		95
42) 1,2-Dichloroethane	8.33	62	206946	49.15	ug/l		97
43) Isopropyl Acetate	8.35	43	257803	47.70	ug/l		99
44) Trichloroethene	9.03	130	154454	48.86	ug/l		90
45) 1,2-Dichloropropane	9.31	63	141240	49.54	ug/l		99
46) Dibromomethane	9.40	93	97734	49.98	ug/l	#	79
47) Bromodichloromethane	9.58	83	200701	49.82	ug/l		99
48) Methyl methacrylate	9.38	41	130837	49.07	ug/l	#	91
49) 1,4-Dioxane	9.39	88	36617	1013.73	ug/l		94
51) 4-Methyl-2-Pentanone	10.15	43	686338	242.68	ug/l		99
52) Toluene	10.33	92	359146	49.73	ug/l		99
53) t-1,3-Dichloropropene	10.55	75	204174	52.13	ug/l		99
54) cis-1,3-Dichloropropene	10.01	75	223181	51.13	ug/l	#	89
55) 1,1,2-Trichloroethane	10.73	97	141602	50.59	ug/l		97
56) Ethyl methacrylate	10.59	69	192012	52.71	ug/l	#	92
57) 1,3-Dichloropropane	10.88	76	227304	50.05	ug/l		99
59) 2-Hexanone	10.91	43	471137	252.42	ug/l		100
60) Dibromochloromethane	11.08	129	166941	52.41	ug/l		99
61) 1,2-Dibromoethane	11.18	107	140378	49.78	ug/l		97
64) Tetrachloroethene	10.81	164	146436	47.95	ug/l		90
65) Chlorobenzene	11.61	112	404434	48.66	ug/l		99
66) 1,1,1,2-Tetrachloroethane	11.68	131	153304	49.13	ug/l		98
67) Ethyl Benzene	11.68	91	706683	49.98	ug/l		97
68) m/p-Xylenes	11.79	106	545679	101.69	ug/l		93
69) o-Xylene	12.12	106	271692	52.02	ug/l		96
70) Styrene	12.13	104	440134	53.81	ug/l		98
71) Bromoform	12.30	173	122294	54.68	ug/l	#	99
73) Isopropylbenzene	12.42	105	726556	46.68	ug/l		99
74) N-amyl acetate	12.22	43	229905	49.99	ug/l		99
75) 1,1,2,2-Tetrachloroethane	12.66	83	182931	45.09	ug/l		96
76) 1,2,3-Trichloropropane	12.71	75	151480m	45.28	ug/l		
77) Bromobenzene	12.70	156	189308	46.63	ug/l		71
78) n-propylbenzene	12.76	91	810039	48.15	ug/l		95
79) 2-Chlorotoluene	12.85	91	482692	46.38	ug/l		92
80) 1,3,5-Trimethylbenzene	12.90	105	611097	47.79	ug/l		98
81) trans-1,4-Dichloro-2-buten	12.46	75	49254	49.14	ug/l		100
82) 4-Chlorotoluene	12.94	91	490702	48.31	ug/l		93
83) tert-Butylbenzene	13.16	119	535574	47.62	ug/l		97
84) 1,2,4-Trimethylbenzene	13.21	105	629077	49.08	ug/l		98
85) sec-Butylbenzene	13.34	105	731732	48.87	ug/l		96
86) p-Isopropyltoluene	13.46	119	648711	50.28	ug/l		99
87) 1,3-Dichlorobenzene	13.46	146	343375	49.77	ug/l		95
88) 1,4-Dichlorobenzene	13.54	146	337554	48.08	ug/l		95
89) n-Butylbenzene	13.79	91	539290	51.20	ug/l		97
90) Hexachloroethane	14.06	117	113415	51.72	ug/l		62
91) 1,2-Dichlorobenzene	13.83	146	341255	50.43	ug/l		95
92) 1,2-Dibromo-3-Chloropropan	14.45	75	34811	53.29	ug/l		80
93) 1,2,4-Trichlorobenzene	15.10	180	203648	54.05	ug/l		98

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036260.D
Acq On : 5 Oct 2016 15:24
Operator : MD\SY
Sample : VSTDICCC050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
Feifei
10/6/2016 1:30:00 PM

Quant Time: Oct 05 16:18:07 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Hexachlorobutadiene	15.20	225	115771	50.36	ug/l	98
95) Naphthalene	15.34	128	490568	53.03	ug/l	100
96) 1,2,3-Trichlorobenzene	15.53	180	199009	52.02	ug/l	97

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

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036261.D
Acq On : 5 Oct 2016 15:50
Operator : MD\SY
Sample : VSTDICC100
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument : MSVOA_N
ClientSampleId : VSTDICC100

Manual Integrations APPROVED
Feifei
10/6/2016 1:30:02 PM

Quant Time: Oct 05 16:19:03 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.87	168	277182	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	8.78	114	416033	50.00	ug/l		0.00
63) Chlorobenzene-d5	11.58	117	396253	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.52	152	213874	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.23	65	348214	98.56	ug/l		0.00
Spiked Amount 50.000			Recovery =	197.12%			
35) Dibromofluoromethane	7.80	113	283915	99.38	ug/l		0.00
Spiked Amount 50.000			Recovery =	198.76%			
50) Toluene-d8	10.27	98	1061643	102.28	ug/l		0.00
Spiked Amount 50.000			Recovery =	204.56%			
62) 4-Bromofluorobenzene	12.57	95	407163	111.35	ug/l		0.00
Spiked Amount 50.000			Recovery =	222.70%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.88	85	259312	92.05	ug/l		100
3) Chloromethane	2.09	50	315609	85.54	ug/l		98
4) Vinyl Chloride	2.23	62	290890	93.43	ug/l		99
5) Bromomethane	2.62	94	167073	100.15	ug/l		93
6) Chloroethane	2.78	64	190671	92.03	ug/l		97
7) Trichlorofluoromethane	3.12	101	512983	116.31	ug/l		99
8) Diethyl Ether	3.54	74	188196	120.56	ug/l		79
9) 1,1,2-Trichlorotrifluoroet	3.91	101	235571	90.38	ug/l	#	88
10) Methyl Iodide	4.12	142	169271	102.30	ug/l		97
11) Tert butyl alcohol	5.02	59	135736	484.58	ug/l	#	92
12) 1,1-Dichloroethene	3.88	96	221588	92.69	ug/l		97
13) Acrolein	3.74	56	62525	340.93	ug/l		98
14) Allyl chloride	4.51	41	372297	94.21	ug/l	#	79
15) Acrylonitrile	5.20	53	522203	513.66	ug/l		98
16) Acetone	3.97	43	481997	434.73	ug/l		94
17) Carbon Disulfide	4.24	76	632931	91.47	ug/l		99
18) Methyl Acetate	4.52	43	297909	91.11	ug/l		94
19) Methyl tert-butyl Ether	5.30	73	783459	95.30	ug/l		98
20) Methylene Chloride	4.75	84	262632	90.80	ug/l		98
21) trans-1,2-Dichloroethene	5.28	96	255975	97.96	ug/l		90
22) Diisopropyl ether	6.20	45	864769	98.13	ug/l		95
23) Vinyl Acetate	6.13	43	2954257	524.64	ug/l	#	94
24) 1,1-Dichloroethane	6.08	63	479735	94.85	ug/l		98
25) 2-Butanone	7.07	43	678834	486.68	ug/l		94
26) 2,2-Dichloropropane	7.06	77	453818	95.46	ug/l		97
27) cis-1,2-Dichloroethene	7.06	96	313093	98.47	ug/l		95
28) Bromochloromethane	7.42	49	211926	97.84	ug/l	#	68
29) Tetrahydrofuran	7.46	42	410474	475.79	ug/l		92
30) Chloroform	7.58	83	521763	96.52	ug/l		97
31) Cyclohexane	7.88	56	420569	73.64	ug/l		93
32) 1,1,1-Trichloroethane	7.79	97	477088	96.60	ug/l		96
36) 1,1-Dichloropropene	8.00	75	379857	96.80	ug/l		96
37) Ethyl Acetate	7.16	43	292722	96.23	ug/l		97
38) Carbon Tetrachloride	7.99	117	412420	102.53	ug/l		96

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036261.D
Acq On : 5 Oct 2016 15:50
Operator : MD\SY
Sample : VSTDICC100
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument : MSVOA_N
ClientSampleId : VSTDICC100

Manual Integrations APPROVED
Feifei
10/6/2016 1:30:02 PM

Quant Time: Oct 05 16:19:03 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	9.28	83	464555	96.05	ug/l		93
40) Benzene	8.25	78	1133618	96.93	ug/l		96
41) Methacrylonitrile	7.38	41	174545	96.13	ug/l		95
42) 1,2-Dichloroethane	8.33	62	425522	97.61	ug/l		97
43) Isopropyl Acetate	8.35	43	545498	97.50	ug/l		99
44) Trichloroethene	9.03	130	318765	97.41	ug/l		89
45) 1,2-Dichloropropane	9.31	63	291154	98.65	ug/l		98
46) Dibromomethane	9.40	93	203460	100.50	ug/l	#	78
47) Bromodichloromethane	9.58	83	423145	101.46	ug/l		99
48) Methyl methacrylate	9.38	41	278349	100.84	ug/l	#	92
49) 1,4-Dioxane	9.39	88	80203	2144.81	ug/l		92
51) 4-Methyl-2-Pentanone	10.15	43	1470093	502.10	ug/l		99
52) Toluene	10.33	92	754234	100.89	ug/l		99
53) t-1,3-Dichloropropene	10.55	75	455241	112.28	ug/l		98
54) cis-1,3-Dichloropropene	10.01	75	480982	106.44	ug/l	#	88
55) 1,1,2-Trichloroethane	10.73	97	294235	101.54	ug/l		97
56) Ethyl methacrylate	10.59	69	415139	110.07	ug/l	#	92
57) 1,3-Dichloropropane	10.88	76	480236	102.14	ug/l		100
58) 2-Chloroethyl Vinyl ether	9.87	63	17033	558.18	ug/l	#	51
59) 2-Hexanone	10.91	43	1014620	525.10	ug/l		99
60) Dibromochloromethane	11.07	129	363834	110.32	ug/l		99
61) 1,2-Dibromoethane	11.18	107	305617	104.69	ug/l		97
64) Tetrachloroethene	10.81	164	306462	93.73	ug/l		89
65) Chlorobenzene	11.61	112	860077	96.66	ug/l		100
66) 1,1,1,2-Tetrachloroethane	11.68	131	332463	99.53	ug/l		98
67) Ethyl Benzene	11.68	91	1493355	98.66	ug/l		95
68) m/p-Xylenes	11.79	106	1173073	204.21	ug/l		92
69) o-Xylene	12.12	106	579666	103.67	ug/l		95
70) Styrene	12.13	104	970148	110.79	ug/l		99
71) Bromoform	12.30	173	276276	115.39	ug/l	#	100
73) Isopropylbenzene	12.42	105	1553139	90.49	ug/l		99
74) N-amyl acetate	12.22	43	500904	98.76	ug/l		98
75) 1,1,2,2-Tetrachloroethane	12.66	83	382161	85.43	ug/l		96
76) 1,2,3-Trichloropropane	12.72	75	347562m	94.21	ug/l		
77) Bromobenzene	12.70	156	413059	92.27	ug/l		70
78) n-propylbenzene	12.76	91	1753944	94.55	ug/l		95
79) 2-Chlorotoluene	12.85	91	1031188	89.85	ug/l		92
80) 1,3,5-Trimethylbenzene	12.90	105	1310340	92.92	ug/l		98
81) trans-1,4-Dichloro-2-buten	12.46	75	115623	104.61	ug/l		97
82) 4-Chlorotoluene	12.94	91	1073424	95.84	ug/l		93
83) tert-Butylbenzene	13.16	119	1142580	92.13	ug/l		96
84) 1,2,4-Trimethylbenzene	13.21	105	1350798	95.56	ug/l		97
85) sec-Butylbenzene	13.34	105	1569603	95.07	ug/l		95
86) p-Isopropyltoluene	13.46	119	1420383	99.84	ug/l		99
87) 1,3-Dichlorobenzene	13.46	146	752600	98.93	ug/l		95
88) 1,4-Dichlorobenzene	13.54	146	736161	95.09	ug/l		94
89) n-Butylbenzene	13.79	91	1190768	102.51	ug/l		97
90) Hexachloroethane	14.06	117	245336	101.45	ug/l	#	58
91) 1,2-Dichlorobenzene	13.83	146	721718	96.72	ug/l		96
92) 1,2-Dibromo-3-Chloropropan	14.45	75	74883	103.95	ug/l		80

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036261.D
Acq On : 5 Oct 2016 15:50
Operator : MD\SY
Sample : VSTDICC100
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
Feifei
10/6/2016 1:30:02 PM

Quant Time: Oct 05 16:19:03 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	15.10	180	475384	114.41 ug/l	98
94) Hexachlorobutadiene	15.21	225	248903	98.19 ug/l	98
95) Naphthalene	15.34	128	1182012	115.88 ug/l	100
96) 1,2,3-Trichlorobenzene	15.53	180	462120	109.54 ug/l	98

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

Quantitation Report (QT Reviewed)

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036262.D
Acq On : 5 Oct 2016 16:17
Operator : MD\SY
Sample : VSTDICC200
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC200

Manual Integrations APPROVED
Feifei
10/6/2016 1:30:04 PM

Quant Time: Oct 05 16:38:17 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.87	168	289376	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	8.78	114	434087	50.00	ug/l		0.00
63) Chlorobenzene-d5	11.58	117	427941	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.52	152	234507	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.23	65	711426	192.87	ug/l		0.00
Spiked Amount 50.000			Recovery =	385.74%			
35) Dibromofluoromethane	7.80	113	590412	198.07	ug/l		0.00
Spiked Amount 50.000			Recovery =	396.14%			
50) Toluene-d8	10.27	98	2223615	205.32	ug/l		0.00
Spiked Amount 50.000			Recovery =	410.64%			
62) 4-Bromofluorobenzene	12.57	95	904639	237.10	ug/l		0.00
Spiked Amount 50.000			Recovery =	474.20%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.87	85	554362	188.50	ug/l		99
3) Chloromethane	2.09	50	672647	174.63	ug/l		98
4) Vinyl Chloride	2.23	62	593471	182.59	ug/l		98
5) Bromomethane	2.60	94	372771	214.05	ug/l		94
6) Chloroethane	2.76	64	381701	176.47	ug/l		97
7) Trichlorofluoromethane	3.11	101	1046769	227.34	ug/l		98
8) Diethyl Ether	3.55	74	315947	193.87	ug/l		84
9) 1,1,2-Trichlorotrifluoroet	3.91	101	510035	187.44	ug/l	#	88
10) Methyl Iodide	4.12	142	362674	209.95	ug/l		96
11) Tert butyl alcohol	5.02	59	318361	1088.66	ug/l	#	93
12) 1,1-Dichloroethene	3.89	96	480677	192.59	ug/l		97
13) Acrolein	3.75	56	139031	726.16	ug/l		96
14) Allyl chloride	4.52	41	673785	163.31	ug/l	#	80
15) Acrylonitrile	5.20	53	1133039	1067.53	ug/l		98
16) Acetone	3.97	43	1010286	872.82	ug/l		94
17) Carbon Disulfide	4.24	76	1363768	188.79	ug/l		100
18) Methyl Acetate	4.52	43	633757	185.66	ug/l		94
19) Methyl tert-butyl Ether	5.29	73	1679129	195.63	ug/l		98
20) Methylene Chloride	4.75	84	563205	186.51	ug/l		97
21) trans-1,2-Dichloroethene	5.28	96	542623	198.90	ug/l		92
22) Diisopropyl ether	6.20	45	1869786	203.23	ug/l	#	93
23) Vinyl Acetate	6.13	43	6493680	1104.60	ug/l	#	94
24) 1,1-Dichloroethane	6.09	63	1011168	191.49	ug/l		97
25) 2-Butanone	7.07	43	1485481	1020.13	ug/l		93
26) 2,2-Dichloropropane	7.06	77	945218	190.46	ug/l		97
27) cis-1,2-Dichloroethene	7.06	96	662225	199.51	ug/l		95
28) Bromochloromethane	7.42	49	415533	183.76	ug/l	#	66
29) Tetrahydrofuran	7.45	42	891019	989.28	ug/l		91
30) Chloroform	7.58	83	1102752	195.39	ug/l		97
31) Cyclohexane	7.88	56	894690	150.05	ug/l		92
32) 1,1,1-Trichloroethane	7.79	97	1016400	197.13	ug/l		96
36) 1,1-Dichloropropene	8.00	75	804326	196.45	ug/l		95
37) Ethyl Acetate	7.16	43	627478	197.70	ug/l		97
38) Carbon Tetrachloride	8.00	117	870186	207.34	ug/l		96

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036262.D
Acq On : 5 Oct 2016 16:17
Operator : MD\SY
Sample : VSTDICC200
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument : MSVOA_N
ClientSampleId : VSTDICC200

Manual Integrations APPROVED
Feifei
10/6/2016 1:30:04 PM

Quant Time: Oct 05 16:38:17 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	9.28	83	1003763	198.91	ug/l		92
40) Benzene	8.25	78	2377889	194.86	ug/l		97
41) Methacrylonitrile	7.37	41	389898	205.81	ug/l		96
42) 1,2-Dichloroethane	8.33	62	895816	196.95	ug/l		97
43) Isopropyl Acetate	8.35	43	1191711	204.15	ug/l		99
44) Trichloroethene	9.03	130	680739	199.38	ug/l		89
45) 1,2-Dichloropropane	9.31	63	618655	200.89	ug/l		99
46) Dibromomethane	9.40	93	437016	206.89	ug/l	#	77
47) Bromodichloromethane	9.58	83	908436	208.76	ug/l		99
48) Methyl methacrylate	9.37	41	622738	216.22	ug/l	#	92
49) 1,4-Dioxane	9.39	88	179007	4587.95	ug/l		93
51) 4-Methyl-2-Pentanone	10.15	43	3384071	1107.74	ug/l		98
52) Toluene	10.33	92	1645023	210.89	ug/l		98
53) t-1,3-Dichloropropene	10.55	75	1019619	241.02	ug/l		99
54) cis-1,3-Dichloropropene	10.01	75	1048710	222.42	ug/l	#	90
55) 1,1,2-Trichloroethane	10.73	97	646396	213.79	ug/l		97
56) Ethyl methacrylate	10.59	69	954876	242.65	ug/l	#	93
57) 1,3-Dichloropropane	10.88	76	1040147	212.02	ug/l		100
58) 2-Chloroethyl Vinyl ether	9.87	63	36932	1159.94	ug/l	#	63
59) 2-Hexanone	10.91	43	2323611	1152.53	ug/l		98
60) Dibromochloromethane	11.08	129	820173	238.35	ug/l		99
61) 1,2-Dibromoethane	11.18	107	667249	219.06	ug/l		96
64) Tetrachloroethene	10.81	164	650447	184.22	ug/l		89
65) Chlorobenzene	11.61	112	1910432	198.81	ug/l		100
66) 1,1,1,2-Tetrachloroethane	11.68	131	761338	211.05	ug/l		98
67) Ethyl Benzene	11.68	91	3282446	200.80	ug/l		95
68) m/p-Xylenes	11.79	106	2619578	422.25	ug/l		92
69) o-Xylene	12.12	106	1313753	217.57	ug/l		95
70) Styrene	12.13	104	2269884	240.02	ug/l		98
71) Bromoform	12.30	173	656348	253.84	ug/l	#	100
73) Isopropylbenzene	12.42	105	3483404	185.10	ug/l		99
74) N-amyl acetate	12.23	43	1132827	203.70	ug/l		97
75) 1,1,2,2-Tetrachloroethane	12.66	83	839920	171.23	ug/l		96
76) 1,2,3-Trichloropropane	12.72	75	772480m	190.97	ug/l		
77) Bromobenzene	12.70	156	938381	191.17	ug/l		69
78) n-propylbenzene	12.76	91	3945247	193.97	ug/l		94
79) 2-Chlorotoluene	12.85	91	2343283	186.20	ug/l		91
80) 1,3,5-Trimethylbenzene	12.90	105	2949208	190.73	ug/l		98
81) trans-1,4-Dichloro-2-buten	12.46	75	277586	229.04	ug/l		99
82) 4-Chlorotoluene	12.94	91	2444984	199.09	ug/l		92
83) tert-Butylbenzene	13.17	119	2572858	189.20	ug/l		96
84) 1,2,4-Trimethylbenzene	13.21	105	3023738	195.09	ug/l		97
85) sec-Butylbenzene	13.34	105	3506289	193.68	ug/l		95
86) p-Isopropyltoluene	13.46	119	3172361	203.36	ug/l		98
87) 1,3-Dichlorobenzene	13.46	146	1701391	203.97	ug/l		95
88) 1,4-Dichlorobenzene	13.54	146	1638635	193.03	ug/l		94
89) n-Butylbenzene	13.79	91	2654541	208.42	ug/l		96
90) Hexachloroethane	14.06	117	557690	210.33	ug/l	#	59
91) 1,2-Dichlorobenzene	13.83	146	1582271	193.40	ug/l		95
92) 1,2-Dibromo-3-Chloropropan	14.45	75	157799	199.78	ug/l		77

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036262.D
Acq On : 5 Oct 2016 16:17
Operator : MD\SY
Sample : VSTDICC200
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC200

Manual Integrations APPROVED
Feifei
10/6/2016 1:30:04 PM

Quant Time: Oct 05 16:38:17 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 15:53:11 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	15.10	180	1037752	227.77 ug/l	98
94) Hexachlorobutadiene	15.21	225	524387	188.66 ug/l	97
95) Naphthalene	15.34	128	2529696	226.18 ug/l	99
96) 1,2,3-Trichlorobenzene	15.53	180	997298	215.60 ug/l	97

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

Quantitation Report (QT Reviewed)

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036263.D
Acq On : 5 Oct 2016 16:52
Operator : MD\SY
Sample : VSTDICV050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN100516

Manual Integrations APPROVED
Feifei
10/6/2016 1:30:05 PM

Quant Time: Oct 06 07:29:27 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.87	168	280984	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	8.78	114	416593	50.00	ug/l		0.00
63) Chlorobenzene-d5	11.58	117	387930	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.52	152	205516	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.23	65	178168	50.84	ug/l		0.00
Spiked Amount 50.000			Recovery =	101.68%			
35) Dibromofluoromethane	7.80	113	146851	51.82	ug/l		0.00
Spiked Amount 50.000			Recovery =	103.64%			
50) Toluene-d8	10.27	98	535045	50.96	ug/l		0.00
Spiked Amount 50.000			Recovery =	101.92%			
62) 4-Bromofluorobenzene	12.57	95	202306	52.41	ug/l		0.00
Spiked Amount 50.000			Recovery =	104.82%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.88	85	146837	50.20	ug/l		99
3) Chloromethane	2.09	50	201267	61.05	ug/l		99
4) Vinyl Chloride	2.23	62	158842	51.66	ug/l		97
5) Bromomethane	2.64	94	65124	40.61	ug/l		91
6) Chloroethane	2.79	64	102738	49.12	ug/l		98
7) Trichlorofluoromethane	3.12	101	278614	49.12	ug/l		99
8) Diethyl Ether	3.55	74	81756	48.89	ug/l		86
9) 1,1,2-Trichlorotrifluoroet	3.91	101	135696	51.92	ug/l	#	87
10) Methyl Iodide	4.13	142	72935	46.69	ug/l		96
11) Tert butyl alcohol	5.00	59	75073	264.07	ug/l	#	93
12) 1,1-Dichloroethene	3.89	96	125358	52.18	ug/l		98
13) Acrolein	3.75	56	31305	219.64	ug/l		98
14) Allyl chloride	4.52	41	202722	51.79	ug/l	#	80
15) Acrylonitrile	5.20	53	277778	268.12	ug/l		98
16) Acetone	3.98	43	285698	260.62	ug/l		94
17) Carbon Disulfide	4.25	76	348933	51.69	ug/l		100
18) Methyl Acetate	4.53	43	160664	51.55	ug/l		93
19) Methyl tert-butyl Ether	5.30	73	422644	51.28	ug/l		99
20) Methylene Chloride	4.75	84	143243	50.00	ug/l		97
21) trans-1,2-Dichloroethene	5.29	96	137062	52.18	ug/l		93
22) Diisopropyl ether	6.20	45	454432	50.24	ug/l		97
23) Vinyl Acetate	6.13	43	1545920	268.53	ug/l		95
24) 1,1-Dichloroethane	6.09	63	257636	50.78	ug/l		97
25) 2-Butanone	7.07	43	365945	267.91	ug/l		94
26) 2,2-Dichloropropane	7.06	77	246232	51.11	ug/l		97
27) cis-1,2-Dichloroethene	7.06	96	165002	51.00	ug/l		95
28) Bromochloromethane	7.42	49	114214	52.83	ug/l	#	66
29) Tetrahydrofuran	7.45	42	213900	259.81	ug/l		91
30) Chloroform	7.58	83	272432	50.00	ug/l		97
31) Cyclohexane	7.88	56	230764	52.15	ug/l		91
32) 1,1,1-Trichloroethane	7.79	97	249830	50.86	ug/l		96
36) 1,1-Dichloropropene	8.00	75	203431	51.60	ug/l		96
37) Ethyl Acetate	7.16	43	152872	53.25	ug/l		96
38) Carbon Tetrachloride	8.00	117	218710	53.93	ug/l		96

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036263.D
Acq On : 5 Oct 2016 16:52
Operator : MD\SY
Sample : VSTDICV050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_N
ClientSampleId : ICVVN100516

Manual Integrations APPROVED
Feifei
10/6/2016 1:30:05 PM

Quant Time: Oct 06 07:29:27 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	9.28	83	251731	50.95	ug/l		93
40) Benzene	8.25	78	596240	50.95	ug/l		96
41) Methacrylonitrile	7.37	41	92654	53.00	ug/l		95
42) 1,2-Dichloroethane	8.33	62	222686	51.65	ug/l		97
43) Isopropyl Acetate	8.36	43	278000	51.47	ug/l		97
44) Trichloroethene	9.03	130	172019	52.30	ug/l		89
45) 1,2-Dichloropropane	9.31	63	152271	51.02	ug/l		100
46) Dibromomethane	9.40	93	105887	52.10	ug/l	#	78
47) Bromodichloromethane	9.58	83	218679	51.52	ug/l		100
48) Methyl methacrylate	9.37	41	143663	51.64	ug/l	#	91
49) 1,4-Dioxane	9.39	88	40007	1027.27	ug/l		93
51) 4-Methyl-2-Pentanone	10.15	43	746760	257.03	ug/l		99
52) Toluene	10.33	92	388036	50.33	ug/l		99
53) t-1,3-Dichloropropene	10.55	75	224791	53.75	ug/l		99
54) cis-1,3-Dichloropropene	10.01	75	245935	53.22	ug/l	#	88
55) 1,1,2-Trichloroethane	10.73	97	152033	51.28	ug/l		98
56) Ethyl methacrylate	10.59	69	209307	53.39	ug/l	#	92
57) 1,3-Dichloropropane	10.88	76	247092	51.59	ug/l		99
58) 2-Chloroethyl Vinyl ether	9.91	63	2461	70.76	ug/l	#	75
59) 2-Hexanone	10.91	43	522671	264.92	ug/l		100
60) Dibromochloromethane	11.08	129	184463	53.33	ug/l		99
61) 1,2-Dibromoethane	11.18	107	153378	52.49	ug/l		97
64) Tetrachloroethene	10.81	164	161287	50.65	ug/l		88
65) Chlorobenzene	11.61	112	441661	50.65	ug/l		98
66) 1,1,1,2-Tetrachloroethane	11.68	131	166841	50.29	ug/l		98
67) Ethyl Benzene	11.68	91	767515	51.27	ug/l		95
68) m/p-Xylenes	11.79	106	598254	103.07	ug/l		93
69) o-Xylene	12.12	106	294906	51.30	ug/l		97
70) Styrene	12.13	104	479084	52.11	ug/l		98
71) Bromoform	12.30	173	135352	49.15	ug/l	#	100
73) Isopropylbenzene	12.42	105	794259	48.72	ug/l		99
74) N-amyl acetate	12.22	43	249830	52.04	ug/l		98
75) 1,1,2,2-Tetrachloroethane	12.66	83	200133	49.46	ug/l		96
76) 1,2,3-Trichloropropane	12.72	75	178169m	52.19	ug/l		
77) Bromobenzene	12.70	156	209930	50.08	ug/l		69
78) n-propylbenzene	12.76	91	890108	49.77	ug/l		95
79) 2-Chlorotoluene	12.85	91	529938	48.95	ug/l		92
80) 1,3,5-Trimethylbenzene	12.90	105	669558	49.48	ug/l		98
81) trans-1,4-Dichloro-2-buten	12.46	75	54968	53.71	ug/l		98
82) 4-Chlorotoluene	12.94	91	539313	50.03	ug/l		93
83) tert-Butylbenzene	13.16	119	584018	48.29	ug/l		96
84) 1,2,4-Trimethylbenzene	13.21	105	688713	49.96	ug/l		98
85) sec-Butylbenzene	13.34	105	805697	50.19	ug/l		95
86) p-Isopropyltoluene	13.46	119	718396	50.85	ug/l		99
87) 1,3-Dichlorobenzene	13.46	146	377259	50.65	ug/l		95
88) 1,4-Dichlorobenzene	13.54	146	372842	50.39	ug/l		94
89) n-Butylbenzene	13.79	91	603884	52.22	ug/l		97
90) Hexachloroethane	14.06	117	123705	52.39	ug/l	#	60
91) 1,2-Dichlorobenzene	13.83	146	372493	50.64	ug/l		95
92) 1,2-Dibromo-3-Chloropropan	14.45	75	37407	55.07	ug/l		78

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036263.D
Acq On : 5 Oct 2016 16:52
Operator : MD\SY
Sample : VSTDICV050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN100516

Manual Integrations APPROVED
Feifei
10/6/2016 1:30:05 PM

Quant Time: Oct 06 07:29:27 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	15.10	180	232437	55.09	ug/l	98
94) Hexachlorobutadiene	15.21	225	131142	52.20	ug/l	97
95) Naphthalene	15.34	128	553156	55.12	ug/l	100
96) 1,2,3-Trichlorobenzene	15.53	180	227028	53.67	ug/l	97

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

Evaluate Continuing Calibration Report

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036263.D
Acq On : 5 Oct 2016 16:52
Operator : MD\SY
Sample : VSTDICV050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_N
ClientSampleId : ICVVN100516

Quant Time: Oct 06 07:29:27 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	106	0.00
2	T	Dichlorodifluoromethane	0.521	0.523	-0.4	114	0.00
3	P	Chloromethane	0.656	0.716	-9.1	126	0.00
4	C	Vinyl Chloride	0.547	0.565	-3.3#	112	0.00
5	T	Bromomethane	0.266	0.232	12.8	102	0.00
6	T	Chloroethane	0.372	0.366	1.6	107	0.00
7	T	Trichlorofluoromethane	1.009	0.992	1.7	106	0.00
8	T	Diethyl Ether	0.298	0.291	2.3	113	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.465	0.483	-3.9	114	0.00
10	T	Methyl Iodide	0.238	0.260	-9.2	106	0.00
11	T	Tert butyl alcohol	0.051	0.053	-3.9	113	0.00
12	CM	1,1-Dichloroethene	0.427	0.446	-4.4#	113	0.00
13	T	Acrolein	0.025	0.022	12.0	247#	0.00
14	T	Allyl chloride	0.697	0.721	-3.4	111	0.00
15	T	Acrylonitrile	0.184	0.198	-7.6	112	0.00
16	T	Acetone	0.195	0.203	-4.1	119	0.00
17	T	Carbon Disulfide	1.201	1.242	-3.4	113	0.00
18	T	Methyl Acetate	0.555	0.572	-3.1	111	0.00
19	T	Methyl tert-butyl Ether	1.467	1.504	-2.5	111	0.00
20	T	Methylene Chloride	0.510	0.510	0.0	110	0.00
21	T	trans-1,2-Dichloroethene	0.467	0.488	-4.5	109	0.00
22	T	Diisopropyl ether	1.609	1.617	-0.5	110	0.00
23	T	Vinyl Acetate	1.024	1.100	-7.4	112	0.00
24	P	1,1-Dichloroethane	0.903	0.917	-1.6	109	0.00
25	T	2-Butanone	0.243	0.260	-7.0	113	0.00
26	T	2,2-Dichloropropane	0.857	0.876	-2.2	111	0.00
27	T	cis-1,2-Dichloroethene	0.576	0.587	-1.9	109	0.00
28	T	Bromochloromethane	0.385	0.406	-5.5	104	0.00
29	T	Tetrahydrofuran	0.147	0.152	-3.4	109	0.00
30	C	Chloroform	0.969	0.970	-0.1#	108	0.00
31	T	Cyclohexane	1.015	0.821	19.1	109	0.00
32	T	1,1,1-Trichloroethane	0.874	0.889	-1.7	108	0.00
33	S	1,2-Dichloroethane-d4	0.624	0.634	-1.6	109	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	104	0.00
35	S	Dibromofluoromethane	0.340	0.353	-3.8	109	0.00
36	T	1,1-Dichloropropene	0.473	0.488	-3.2	109	0.00
37	T	Ethyl Acetate	0.345	0.367	-6.4	108	0.00
38	T	Carbon Tetrachloride	0.487	0.525	-7.8	110	0.00
39	T	Methylcyclohexane	0.593	0.604	-1.9	110	0.00
40	TM	Benzene	1.405	1.431	-1.9	108	0.00
41	T	Methacrylonitrile	0.210	0.222	-5.7	110	0.00
42	TM	1,2-Dichloroethane	0.517	0.535	-3.5	108	0.00
43	T	Isopropyl Acetate	0.648	0.667	-2.9	108	0.00
44	TM	Trichloroethene	0.395	0.413	-4.6	111	0.00
45	C	1,2-Dichloropropane	0.358	0.366	-2.2#	108	0.00

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036263.D
Acq On : 5 Oct 2016 16:52
Operator : MD\SY
Sample : VSTDICV050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_N
ClientSampleId : ICVVN100516

Quant Time: Oct 06 07:29:27 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	Dibromomethane	0.244	0.254	-4.1	108	0.00
47	T	Bromodichloromethane	0.509	0.525	-3.1	109	0.00
48	T	Methyl methacrylate	0.334	0.345	-3.3	110	0.00
49	T	1,4-Dioxane	0.005	0.005	0.0	109	0.00
50	S	Toluene-d8	1.260	1.284	-1.9	107	0.00
51	T	4-Methyl-2-Pentanone	0.349	0.359	-2.9	109	0.00
52	CM	Toluene	0.925	0.931	-0.6#	108	0.00
53	T	t-1,3-Dichloropropene	0.502	0.540	-7.6	110	0.00
54	T	cis-1,3-Dichloropropene	0.555	0.590	-6.3	110	0.00
55	T	1,1,2-Trichloroethane	0.356	0.365	-2.5	107	0.00
56	T	Ethyl methacrylate	0.471	0.502	-6.6	109	0.00
57	T	1,3-Dichloropropane	0.575	0.593	-3.1	109	0.00
58	T	2-Chloroethyl Vinyl ether	0.004	0.001	75.0#	0#	0.04
59	T	2-Hexanone	0.237	0.251	-5.9	111	0.00
60	T	Dibromochloromethane	0.415	0.443	-6.7	110	0.00
61	T	1,2-Dibromoethane	0.351	0.368	-4.8	109	0.00
62	S	4-Bromofluorobenzene	0.463	0.486	-5.0	112	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	105	0.00
64	T	Tetrachloroethene	0.410	0.416	-1.5	110	0.00
65	PM	Chlorobenzene	1.124	1.139	-1.3	109	0.00
66	T	1,1,1,2-Tetrachloroethane	0.428	0.430	-0.5	109	0.00
67	C	Ethyl Benzene	1.929	1.978	-2.5#	109	0.00
68	T	m/p-Xylenes	0.748	0.771	-3.1	110	0.00
69	T	o-Xylene	0.741	0.760	-2.6	109	0.00
70	T	Styrene	1.185	1.235	-4.2	109	0.00
71	P	Bromoform	0.315	0.349	-10.8	111	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	106	0.00
73	T	Isopropylbenzene	3.966	3.865	2.5	109	0.00
74	T	N-amyl acetate	1.168	1.216	-4.1	109	0.00
75	P	1,1,2,2-Tetrachloroethane	0.985	0.974	1.1	109	0.00
76	T	1,2,3-Trichloropropane	0.831	0.867	-4.3	118	0.00
77	T	Bromobenzene	1.020	1.021	-0.1	111	0.00
78	T	n-propylbenzene	4.351	4.331	0.5	110	0.00
79	T	2-Chlorotoluene	2.634	2.579	2.1	110	0.00
80	T	1,3,5-Trimethylbenzene	3.292	3.258	1.0	110	0.00
81	T	trans-1,4-Dichloro-2-butene	0.249	0.267	-7.2	112	0.00
82	T	4-Chlorotoluene	2.622	2.624	-0.1	110	0.00
83	T	tert-Butylbenzene	2.943	2.842	3.4	109	0.00
84	T	1,2,4-Trimethylbenzene	3.354	3.351	0.1	109	0.00
85	T	sec-Butylbenzene	3.905	3.920	-0.4	110	0.00
86	T	p-Isopropyltoluene	3.437	3.496	-1.7	111	0.00
87	T	1,3-Dichlorobenzene	1.812	1.836	-1.3	110	0.00
88	T	1,4-Dichlorobenzene	1.800	1.814	-0.8	110	0.00
89	T	n-Butylbenzene	2.813	2.938	-4.4	112	0.00

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036263.D
Acq On : 5 Oct 2016 16:52
Operator : MD\SY
Sample : VSTDICV050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_N
ClientSampleId : ICVVN100516

Quant Time: Oct 06 07:29:27 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	0.574	0.602	-4.9	109	0.00
91 T	1,2-Dichlorobenzene	1.790	1.812	-1.2	109	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.165	0.182	-10.3	107	0.00
93 T	1,2,4-Trichlorobenzene	1.027	1.131	-10.1	114	0.00
94 T	Hexachlorobutadiene	0.611	0.638	-4.4	113	0.00
95 T	Naphthalene	2.442	2.692	-10.2	113	0.00
96 T	1,2,3-Trichlorobenzene	1.029	1.105	-7.4	114	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

ICAL Form

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036263.D
Acq On : 5 Oct 2016 16:52
Operator : MD\SY
Sample : VSTDICV050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_N
ClientSampleId : ICVVN100516

Quant Time: Oct 06 07:29:27 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	106	0.00
2	T	Dichlorodifluoromethane	50.000	50.197	-0.4	114	0.00
3	P	Chloromethane	50.000	61.051	-22.1#	126	0.00
4	C	Vinyl Chloride	50.000	51.664	-3.3#	112	0.00
5	T	Bromomethane	50.000	40.605	18.8	102	0.00
6	T	Chloroethane	50.000	49.121	1.8	107	0.00
7	T	Trichlorofluoromethane	50.000	49.117	1.8	106	0.00
8	T	Diethyl Ether	50.000	48.887	2.2	113	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	51.921	-3.8	114	0.00
10	T	Methyl Iodide	50.000	46.687	6.6	106	0.00
11	T	Tert butyl alcohol	250.000	264.066	-5.6	113	0.00
12	CM	1,1-Dichloroethene	50.000	52.182	-4.4#	113	0.00
13	T	Acrolein	250.000	219.636	12.1	247	0.00
14	T	Allyl chloride	50.000	51.790	-3.6	111	0.00
15	T	Acrylonitrile	250.000	268.116	-7.2	112	0.00
16	T	Acetone	250.000	260.622	-4.2	119	0.00
17	T	Carbon Disulfide	50.000	51.692	-3.4	113	0.00
18	T	Methyl Acetate	50.000	51.547	-3.1	111	0.00
19	T	Methyl tert-butyl Ether	50.000	51.283	-2.6	111	0.00
20	T	Methylene Chloride	50.000	49.998	0.0	110	0.00
21	T	trans-1,2-Dichloroethene	50.000	52.183	-4.4	109	0.00
22	T	Diisopropyl ether	50.000	50.242	-0.5	110	0.00
23	T	Vinyl Acetate	250.000	268.530	-7.4	112	0.00
24	P	1,1-Dichloroethane	50.000	50.777	-1.6	109	0.00
25	T	2-Butanone	250.000	267.907	-7.2	113	0.00
26	T	2,2-Dichloropropane	50.000	51.106	-2.2	111	0.00
27	T	cis-1,2-Dichloroethene	50.000	51.000	-2.0	109	0.00
28	T	Bromochloromethane	50.000	52.832	-5.7	104	0.00
29	T	Tetrahydrofuran	250.000	259.806	-3.9	109	0.00
30	C	Chloroform	50.000	50.004	-0.0#	108	0.00
31	T	Cyclohexane	50.000	52.151	-4.3	109	0.00
32	T	1,1,1-Trichloroethane	50.000	50.859	-1.7	108	0.00
33	S	1,2-Dichloroethane-d4	50.000	50.841	-1.7	109	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	104	0.00
35	S	Dibromofluoromethane	50.000	51.824	-3.6	109	0.00
36	T	1,1-Dichloropropene	50.000	51.596	-3.2	109	0.00
37	T	Ethyl Acetate	50.000	53.248	-6.5	108	0.00
38	T	Carbon Tetrachloride	50.000	53.925	-7.8	110	0.00
39	T	Methylcyclohexane	50.000	50.948	-1.9	110	0.00
40	TM	Benzene	50.000	50.947	-1.9	108	0.00
41	T	Methacrylonitrile	50.000	52.999	-6.0	110	0.00
42	TM	1,2-Dichloroethane	50.000	51.647	-3.3	108	0.00
43	T	Isopropyl Acetate	50.000	51.466	-2.9	108	0.00
44	TM	Trichloroethene	50.000	52.295	-4.6	111	0.00
45	C	1,2-Dichloropropane	50.000	51.020	-2.0#	108	0.00

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036263.D
Acq On : 5 Oct 2016 16:52
Operator : MD\SY
Sample : VSTDICV050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_N
ClientSampleId : ICVVN100516

Quant Time: Oct 06 07:29:27 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46	T	Dibromomethane	50.000	52.100	-4.2	108	0.00
47	T	Bromodichloromethane	50.000	51.516	-3.0	109	0.00
48	T	Methyl methacrylate	50.000	51.638	-3.3	110	0.00
49	T	1,4-Dioxane	1000.000	1027.274	-2.7	109	0.00
50	S	Toluene-d8	50.000	50.958	-1.9	107	0.00
51	T	4-Methyl-2-Pentanone	250.000	257.034	-2.8	109	0.00
52	CM	Toluene	50.000	50.327	-0.7#	108	0.00
53	T	t-1,3-Dichloropropene	50.000	53.746	-7.5	110	0.00
54	T	cis-1,3-Dichloropropene	50.000	53.224	-6.4	110	0.00
55	T	1,1,2-Trichloroethane	50.000	51.282	-2.6	107	0.00
56	T	Ethyl methacrylate	50.000	53.387	-6.8	109	0.00
57	T	1,3-Dichloropropane	50.000	51.589	-3.2	109	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	70.764	71.7#	0	0.04
59	T	2-Hexanone	250.000	264.916	-6.0	111	0.00
60	T	Dibromochloromethane	50.000	53.334	-6.7	110	0.00
61	T	1,2-Dibromoethane	50.000	52.485	-5.0	109	0.00
62	S	4-Bromofluorobenzene	50.000	52.414	-4.8	112	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	105	0.00
64	T	Tetrachloroethene	50.000	50.649	-1.3	110	0.00
65	PM	Chlorobenzene	50.000	50.652	-1.3	109	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	50.292	-0.6	109	0.00
67	C	Ethyl Benzene	50.000	51.274	-2.5#	109	0.00
68	T	m/p-Xylenes	100.000	103.068	-3.1	110	0.00
69	T	o-Xylene	50.000	51.297	-2.6	109	0.00
70	T	Styrene	50.000	52.112	-4.2	109	0.00
71	P	Bromoform	50.000	49.147	1.7	111	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	106	0.00
73	T	Isopropylbenzene	50.000	48.720	2.6	109	0.00
74	T	N-amyl acetate	50.000	52.038	-4.1	109	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	49.456	1.1	109	0.00
76	T	1,2,3-Trichloropropane	50.000	52.191	-4.4	118	0.00
77	T	Bromobenzene	50.000	50.080	-0.2	111	0.00
78	T	n-propylbenzene	50.000	49.769	0.5	110	0.00
79	T	2-Chlorotoluene	50.000	48.953	2.1	110	0.00
80	T	1,3,5-Trimethylbenzene	50.000	49.477	1.0	110	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	53.708	-7.4	112	0.00
82	T	4-Chlorotoluene	50.000	50.035	-0.1	110	0.00
83	T	tert-Butylbenzene	50.000	48.286	3.4	109	0.00
84	T	1,2,4-Trimethylbenzene	50.000	49.955	0.1	109	0.00
85	T	sec-Butylbenzene	50.000	50.191	-0.4	110	0.00
86	T	p-Isopropyltoluene	50.000	50.847	-1.7	111	0.00
87	T	1,3-Dichlorobenzene	50.000	50.654	-1.3	110	0.00
88	T	1,4-Dichlorobenzene	50.000	50.388	-0.8	110	0.00
89	T	n-Butylbenzene	50.000	52.222	-4.4	112	0.00

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN100516\
Data File : VN036263.D
Acq On : 5 Oct 2016 16:52
Operator : MD\SY
Sample : VSTDICV050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_N
ClientSampleId : ICVVN100516

Quant Time: Oct 06 07:29:27 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	50.000	52.389	-4.8	109	0.00
91 T	1,2-Dichlorobenzene	50.000	50.640	-1.3	109	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	55.070	-10.1	107	0.00
93 T	1,2,4-Trichlorobenzene	50.000	55.089	-10.2	114	0.00
94 T	Hexachlorobutadiene	50.000	52.204	-4.4	113	0.00
95 T	Naphthalene	50.000	55.119	-10.2	113	0.00
96 T	1,2,3-Trichlorobenzene	50.000	53.668	-7.3	114	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG No.: H5282

Instrument ID: MSVOA_F Calibration Date/Time: 10/17/2016 12:12

Lab File ID: VF051125.D Init. Calib. Date(s): 10/06/2016 10/06/2016

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:22 12:46

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Methyl tert-butyl Ether	0.842	0.774		-8.09	20
Benzene	1.303	1.116		-14.33	20
Toluene	0.837	0.753		-9.95	20
Ethyl Benzene	1.752	1.588		-9.34	20
m/p-Xylenes	0.645	0.599		-7.12	20
o-Xylene	0.648	0.612		-5.45	20
Isopropylbenzene	3.526	3.005		-14.77	20
n-propylbenzene	4.305	3.663		-14.9	20
1,3,5-Trimethylbenzene	2.749	2.404		-12.54	20
tert-Butylbenzene	2.692	2.354		-12.55	20
1,2,4-Trimethylbenzene	2.776	2.440		-12.1	20
sec-Butylbenzene	3.566	3.085		-13.49	20
p-Isopropyltoluene	2.845	2.560		-10	20
n-Butylbenzene	2.771	2.609		-5.85	20
Naphthalene	1.967	1.982		0.76	20
1,2-Dichloroethane-d4	0.469	0.479		2.31	20
Dibromofluoromethane	0.359	0.376		4.73	20
Toluene-d8	1.083	1.143		5.54	20
4-Bromofluorobenzene	0.440	0.490		11.35	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101716\
Data File : VF051125.D
Acq On : 17 Oct 2016 12:12
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
10/18/2016 4:06:07 PM

Quant Time: Oct 18 06:38:20 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.79	168	552229	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	5.52	114	865844	50.00	ug/l	0.00
63) Chlorobenzene-d5	9.69	117	798037	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.48	152	420018	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	4.76	65	264749	51.15	ug/l	0.00
Spiked Amount 50.000			Recovery =	102.30%		
35) Dibromofluoromethane	4.03	113	325605	52.36	ug/l	0.00
Spiked Amount 50.000			Recovery =	104.72%		
50) Toluene-d8	7.47	98	990004	52.77	ug/l	0.00
Spiked Amount 50.000			Recovery =	105.54%		
62) 4-Bromofluorobenzene	11.33	95	423932	55.68	ug/l	0.00
Spiked Amount 50.000			Recovery =	111.36%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.92	85	203169	42.78	ug/l	96
3) Chloromethane	1.07	50	349829	43.36	ug/l	100
4) Vinyl Chloride	1.08	62	260554	46.73	ug/l	97
5) Bromomethane	1.27	94	130883m	50.98	ug/l	
6) Chloroethane	1.34	64	75393	54.04	ug/l	99
7) Trichlorofluoromethane	1.42	101	203270	54.08	ug/l	99
8) Diethyl Ether	1.61	74	90007	45.94	ug/l	90
9) 1,1,2-Trichlorotrifluoroet	1.77	101	111157	55.71	ug/l	99
10) Methyl Iodide	1.83	142	398081m	54.05	ug/l	
11) Tert butyl alcohol	2.52	59	104143	248.95	ug/l	99
12) 1,1-Dichloroethene	1.73	96	141127	49.09	ug/l	98
13) Acrolein	1.97	56	158646	273.67	ug/l	96
14) Allyl chloride	2.07	41	298112	41.24	ug/l	98
15) Acrylonitrile	2.88	53	409043	240.28	ug/l	97
16) Acetone	2.19	43	496292	253.93	ug/l	99
17) Carbon Disulfide	1.75	76	497960	46.46	ug/l	99
18) Methyl Acetate	2.30	43	293571	43.36	ug/l	98
19) Methyl tert-butyl Ether	2.38	73	427515	45.96	ug/l	98
20) Methylene Chloride	2.15	84	187556m	47.79	ug/l	
21) trans-1,2-Dichloroethene	2.27	96	178443	43.37	ug/l	99
22) Diisopropyl ether	2.75	45	754158	44.50	ug/l	99
23) Vinyl Acetate	3.13	43	3284542	238.74	ug/l	100
24) 1,1-Dichloroethane	2.82	63	343292	44.30	ug/l	99
25) 2-Butanone	4.24	43	1164932	235.11	ug/l	98
26) 2,2-Dichloropropane	3.53	77	224805	45.44	ug/l	94
27) cis-1,2-Dichloroethene	3.41	96	297053	44.63	ug/l	99
28) Bromochloromethane	3.64	49	275450	50.77	ug/l	99
29) Tetrahydrofuran	3.99	42	575950	239.15	ug/l	100
30) Chloroform	3.78	83	466013	46.82	ug/l	98
31) Cyclohexane	3.62	56	309816	41.33	ug/l	99
32) 1,1,1-Trichloroethane	4.02	97	253933	45.72	ug/l	99
36) 1,1-Dichloropropene	4.20	75	356285	44.19	ug/l	98
37) Ethyl Acetate	4.03	43	489840	47.16	ug/l	97
38) Carbon Tetrachloride	3.92	117	218585	46.40	ug/l	97

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101716\
Data File : VF051125.D
Acq On : 17 Oct 2016 12:12
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 18 06:38:20 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Instrument :
MSVOA_F
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
10/18/2016 4:06:07 PM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methylcyclohexane	5.38	83	388635	43.97	ug/l	98
40) Benzene	4.55	78	966588	42.83	ug/l	99
41) Methacrylonitrile	4.67	41	218427	43.17	ug/l	98
42) 1,2-Dichloroethane	4.86	62	322151	45.32	ug/l	99
43) Isopropyl Acetate	6.88	43	646327	46.46	ug/l	100
44) Trichloroethene	5.43	130	291594	44.67	ug/l	99
45) 1,2-Dichloropropane	6.15	63	339338	47.82	ug/l	98
46) Dibromomethane	6.00	93	219711	46.97	ug/l	97
47) Bromodichloromethane	6.29	83	396799	47.36	ug/l	99
48) Methyl methacrylate	6.64	41	353279	47.31	ug/l	96
49) 1,4-Dioxane	6.63	88	45785	1018.45	ug/l	93
51) 4-Methyl-2-Pentanone	8.18	43	2071903	229.13	ug/l	99
52) Toluene	7.54	92	652227	45.02	ug/l	98
53) t-1,3-Dichloropropene	8.19	75	428644	47.21	ug/l	97
54) cis-1,3-Dichloropropene	7.21	75	534975	49.26	ug/l	97
55) 1,1,2-Trichloroethane	8.39	97	282598	46.62	ug/l	97
56) Ethyl methacrylate	8.54	69	444523	48.84	ug/l	95
57) 1,3-Dichloropropane	8.76	76	478911	45.99	ug/l	99
59) 2-Hexanone	9.40	43	1707301	236.16	ug/l	100
60) Dibromochloromethane	8.62	129	346093	48.74	ug/l	98
61) 1,2-Dibromoethane	8.90	107	329681	48.28	ug/l	99
64) Tetrachloroethene	8.07	164	272400	43.91	ug/l	97
65) Chlorobenzene	9.71	112	747553	45.01	ug/l	98
66) 1,1,1,2-Tetrachloroethane	9.83	131	283316	47.45	ug/l	98
67) Ethyl Benzene	9.81	91	1267658	45.33	ug/l	99
68) m/p-Xylenes	10.04	106	956097	92.88	ug/l	99
69) o-Xylene	10.63	106	488560	47.27	ug/l	99
70) Styrene	10.71	104	759063	45.88	ug/l	98
71) Bromoform	10.68	173	262173	50.67	ug/l	100
73) Isopropylbenzene	11.05	105	1262283	42.62	ug/l	99
74) N-amyl acetate	11.30	43	789776	43.74	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.62	83	442096	42.97	ug/l	98
76) 1,2,3-Trichloropropane	11.72	75	317997	41.42	ug/l	99
77) Bromobenzene	11.42	156	366873	41.77	ug/l	97
78) n-propylbenzene	11.52	91	1538558	42.55	ug/l	94
79) 2-Chlorotoluene	11.65	91	877254	43.44	ug/l	99
80) 1,3,5-Trimethylbenzene	11.76	105	1009905	43.73	ug/l	99
81) trans-1,4-Dichloro-2-buten	11.80	75	176936m	48.87	ug/l	
82) 4-Chlorotoluene	11.82	91	959088	43.38	ug/l	99
83) tert-Butylbenzene	12.06	119	988851	43.72	ug/l	98
84) 1,2,4-Trimethylbenzene	12.14	105	1025050	43.95	ug/l	99
85) sec-Butylbenzene	12.24	105	1295795	43.26	ug/l	99
86) p-Isopropyltoluene	12.39	119	1075427	45.00	ug/l	96
87) 1,3-Dichlorobenzene	12.41	146	629546	44.86	ug/l	98
88) 1,4-Dichlorobenzene	12.49	146	643483	47.10	ug/l	99
89) n-Butylbenzene	12.77	91	1095903	47.08	ug/l	99
90) Hexachloroethane	12.84	117	246653	50.29	ug/l	93
91) 1,2-Dichlorobenzene	12.87	146	582641	45.14	ug/l	99
92) 1,2-Dibromo-3-Chloropropan	13.57	75	72256	45.42	ug/l	95
93) 1,2,4-Trichlorobenzene	14.12	180	331427	51.61	ug/l	98

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101716\
Data File : VF051125.D
Acq On : 17 Oct 2016 12:12
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
10/18/2016 4:06:07 PM

Quant Time: Oct 18 06:38:20 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Hexachlorobutadiene	14.11	225	175471	48.02	ug/l	99
95) Naphthalene	14.38	128	832353	50.38	ug/l	99
96) 1,2,3-Trichlorobenzene	14.52	180	290241	51.81	ug/l	97

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

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_F\Data\VF101716\
Data File : VF051125.D
Acq On : 17 Oct 2016 12:12
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_F
LabSampleId : VSTDCCC050

Quant Time: Oct 18 06:38:20 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	76	0.00
2	T	Dichlorodifluoromethane	0.430	0.368	14.4	69	0.00
3	P	Chloromethane	0.731	0.633	13.4	67	0.00
4	C	Vinyl Chloride	0.505	0.472	6.5#	73	0.00
5	T	Bromomethane	0.232	0.237	-2.2	68	0.00
6	T	Chloroethane	0.126	0.137	-8.7	75	0.00
7	T	Trichlorofluoromethane	0.340	0.368	-8.2	77	0.00
8	T	Diethyl Ether	0.177	0.163	7.9	72	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.209	0.201	3.8	91	0.00
10	T	Methyl Iodide	0.667	0.721	-8.1	82	0.00
11	T	Tert butyl alcohol	0.038	0.038	0.0	83	0.00
12	CM	1,1-Dichloroethene	0.260	0.256	1.5#	76	0.00
13	T	Acrolein	0.052	0.057	-9.6	84	0.00
14	T	Allyl chloride	0.654	0.540	17.4	64	0.00
15	T	Acrylonitrile	0.154	0.148	3.9	75	0.00
16	T	Acetone	0.177	0.180	-1.7	72	0.00
17	T	Carbon Disulfide	0.970	0.902	7.0	70	0.00
18	T	Methyl Acetate	0.613	0.532	13.2	74	0.00
19	T	Methyl tert-butyl Ether	0.842	0.774	8.1	73	0.00
20	T	Methylene Chloride	0.355	0.340	4.2	78	0.00
21	T	trans-1,2-Dichloroethene	0.373	0.323	13.4	69	0.00
22	T	Diisopropyl ether	1.535	1.366	11.0	71	0.00
23	T	Vinyl Acetate	1.246	1.190	4.5	76	0.00
24	P	1,1-Dichloroethane	0.702	0.622	11.4	71	0.00
25	T	2-Butanone	0.449	0.422	6.0	71	0.00
26	T	2,2-Dichloropropane	0.448	0.407	9.2	74	0.00
27	T	cis-1,2-Dichloroethene	0.603	0.538	10.8	70	0.00
28	T	Bromochloromethane	0.491	0.499	-1.6	84	0.00
29		Tetrahydrofuran	0.218	0.209	4.1	80	0.00
30	C	Chloroform	0.901	0.844	6.3#	74	0.00
31	T	Cyclohexane	0.706	0.561	20.5	69	0.00
32	T	1,1,1-Trichloroethane	0.503	0.460	8.5	75	0.00
33	S	1,2-Dichloroethane-d4	0.469	0.479	-2.1	74	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	76	0.00
35	S	Dibromofluoromethane	0.359	0.376	-4.7	78	0.00
36	T	1,1-Dichloropropene	0.466	0.411	11.8	72	0.00
37	T	Ethyl Acetate	0.600	0.566	5.7	78	0.00
38	T	Carbon Tetrachloride	0.272	0.252	7.4	76	0.00
39	T	Methylcyclohexane	0.510	0.449	12.0	75	0.00
40	TM	Benzene	1.303	1.116	14.4	74	0.00
41	T	Methacrylonitrile	0.292	0.252	13.7	73	0.00
42	TM	1,2-Dichloroethane	0.410	0.372	9.3	71	0.00
43	T	Isopropyl Acetate	0.803	0.746	7.1	77	0.00
44	TM	Trichloroethene	0.377	0.337	10.6	74	0.00
45	C	1,2-Dichloropropane	0.410	0.392	4.4#	77	0.00

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_F\Data\VF101716\
Data File : VF051125.D
Acq On : 17 Oct 2016 12:12
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_F
LabSampleId : VSTDCCC050

Quant Time: Oct 18 06:38:20 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	Dibromomethane	0.270	0.254	5.9	78	0.00
47	T	Bromodichloromethane	0.484	0.458	5.4	77	0.00
48	T	Methyl methacrylate	0.431	0.408	5.3	78	0.00
49	T	1,4-Dioxane	0.003	0.003	0.0	96	0.01
50	S	Toluene-d8	1.083	1.143	-5.5	77	0.00
51	T	4-Methyl-2-Pentanone	0.522	0.479	8.2	76	0.00
52	CM	Toluene	0.837	0.753	10.0#	73	0.00
53	T	t-1,3-Dichloropropene	0.524	0.495	5.5	76	0.00
54	T	cis-1,3-Dichloropropene	0.627	0.618	1.4	78	0.00
55	T	1,1,2-Trichloroethane	0.350	0.326	6.9	75	0.00
56	T	Ethyl methacrylate	0.526	0.513	2.5	79	0.00
57	T	1,3-Dichloropropane	0.601	0.553	8.0	75	0.00
58	T	2-Chloroethyl Vinyl ether	0.000	0.000	0.0	73	0.00
59	T	2-Hexanone	0.417	0.394	5.5	76	0.00
60	T	Dibromochloromethane	0.410	0.400	2.4	77	0.00
61	T	1,2-Dibromoethane	0.394	0.381	3.3	77	0.01
62	S	4-Bromofluorobenzene	0.440	0.490	-11.4	82	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	80	0.00
64	T	Tetrachloroethene	0.389	0.341	12.3	76	0.00
65	PM	Chlorobenzene	1.041	0.937	10.0	75	0.00
66	T	1,1,1,2-Tetrachloroethane	0.374	0.355	5.1	78	0.00
67	C	Ethyl Benzene	1.752	1.588	9.4#	77	0.00
68	T	m/p-Xylenes	0.645	0.599	7.1	78	0.00
69	T	o-Xylene	0.648	0.612	5.6	79	0.00
70	T	Styrene	1.037	0.951	8.3	75	0.00
71	P	Bromoform	0.324	0.329	-1.5	82	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	87	0.00
73	T	Isopropylbenzene	3.526	3.005	14.8	81	0.00
74	T	N-amyl acetate	2.149	1.880	12.5	77	0.00
75	P	1,1,2,2-Tetrachloroethane	1.225	1.053	14.0	81	0.00
76	T	1,2,3-Trichloropropane	0.914	0.757	17.2	78	0.00
77	T	Bromobenzene	1.046	0.873	16.5	77	0.00
78	T	n-propylbenzene	4.305	3.663	14.9	79	0.00
79	T	2-Chlorotoluene	2.404	2.089	13.1	83	0.00
80	T	1,3,5-Trimethylbenzene	2.749	2.404	12.6	82	0.00
81	T	trans-1,4-Dichloro-2-butene	0.431	0.421	2.3	85	0.00
82	T	4-Chlorotoluene	2.632	2.283	13.3	79	0.00
83	T	tert-Butylbenzene	2.692	2.354	12.6	81	0.00
84	T	1,2,4-Trimethylbenzene	2.776	2.440	12.1	82	0.00
85	T	sec-Butylbenzene	3.566	3.085	13.5	81	0.00
86	T	p-Isopropyltoluene	2.845	2.560	10.0	83	0.00
87	T	1,3-Dichlorobenzene	1.671	1.499	10.3	82	0.00
88	T	1,4-Dichlorobenzene	1.626	1.532	5.8	85	0.00
89	T	n-Butylbenzene	2.771	2.609	5.8	85	0.00

Data Path : W:\HPCHEM1\MSVOA_F\Data\VF101716\
Data File : VF051125.D
Acq On : 17 Oct 2016 12:12
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_F
LabSampleId : VSTDCCC050

Quant Time: Oct 18 06:38:20 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	0.584	0.587	-0.5	89	0.00
91 T	1,2-Dichlorobenzene	1.537	1.387	9.8	82	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.189	0.172	9.0	80	0.00
93 T	1,2,4-Trichlorobenzene	0.765	0.789	-3.1	93	0.00
94 T	Hexachlorobutadiene	0.435	0.418	3.9	91	0.00
95 T	Naphthalene	1.967	1.982	-0.8	85	0.00
96 T	1,2,3-Trichlorobenzene	0.667	0.691	-3.6	91	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_F\Data\VF101716\
Data File : VF051125.D
Acq On : 17 Oct 2016 12:12
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_F
LabSampleId : VSTDCCC050

Quant Time: Oct 18 06:38:20 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	76	0.00
2	T	Dichlorodifluoromethane	50.000	42.783	14.4	69	0.00
3	P	Chloromethane	50.000	43.357	13.3	67	0.00
4	C	Vinyl Chloride	50.000	46.725	6.5#	73	0.00
5	T	Bromomethane	50.000	50.981	-2.0	68	0.00
6	T	Chloroethane	50.000	54.043	-8.1	75	0.00
7	T	Trichlorofluoromethane	50.000	54.081	-8.2	77	0.00
8	T	Diethyl Ether	50.000	45.937	8.1	72	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	55.707	-11.4	91	0.00
10	T	Methyl Iodide	50.000	54.046	-8.1	82	0.00
11	T	Tert butyl alcohol	250.000	248.945	0.4	83	0.00
12	CM	1,1-Dichloroethene	50.000	49.091	1.8#	76	0.00
13	T	Acrolein	250.000	273.675	-9.5	84	0.00
14	T	Allyl chloride	50.000	41.244	17.5	64	0.00
15	T	Acrylonitrile	250.000	240.278	3.9	75	0.00
16	T	Acetone	250.000	253.930	-1.6	72	0.00
17	T	Carbon Disulfide	50.000	46.464	7.1	70	0.00
18	T	Methyl Acetate	50.000	43.360	13.3	74	0.00
19	T	Methyl tert-butyl Ether	50.000	45.956	8.1	73	0.00
20	T	Methylene Chloride	50.000	47.790	4.4	78	0.00
21	T	trans-1,2-Dichloroethene	50.000	43.368	13.3	69	0.00
22	T	Diisopropyl ether	50.000	44.495	11.0	71	0.00
23	T	Vinyl Acetate	250.000	238.744	4.5	76	0.00
24	P	1,1-Dichloroethane	50.000	44.295	11.4	71	0.00
25	T	2-Butanone	250.000	235.106	6.0	71	0.00
26	T	2,2-Dichloropropane	50.000	45.438	9.1	74	0.00
27	T	cis-1,2-Dichloroethene	50.000	44.625	10.8	70	0.00
28	T	Bromochloromethane	50.000	50.773	-1.5	84	0.00
29		Tetrahydrofuran	250.000	239.147	4.3	80	0.00
30	C	Chloroform	50.000	46.820	6.4#	74	0.00
31	T	Cyclohexane	50.000	41.326	17.3	69	0.00
32	T	1,1,1-Trichloroethane	50.000	45.725	8.5	75	0.00
33	S	1,2-Dichloroethane-d4	50.000	51.153	-2.3	74	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	76	0.00
35	S	Dibromofluoromethane	50.000	52.356	-4.7	78	0.00
36	T	1,1-Dichloropropene	50.000	44.189	11.6	72	0.00
37	T	Ethyl Acetate	50.000	47.156	5.7	78	0.00
38	T	Carbon Tetrachloride	50.000	46.400	7.2	76	0.00
39	T	Methylcyclohexane	50.000	43.974	12.1	75	0.00
40	TM	Benzene	50.000	42.830	14.3	74	0.00
41	T	Methacrylonitrile	50.000	43.174	13.7	73	0.00
42	TM	1,2-Dichloroethane	50.000	45.323	9.4	71	0.00
43	T	Isopropyl Acetate	50.000	46.464	7.1	77	0.00
44	TM	Trichloroethene	50.000	44.671	10.7	74	0.00
45	C	1,2-Dichloropropane	50.000	47.823	4.4#	77	0.00

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_F\Data\VF101716\
Data File : VF051125.D
Acq On : 17 Oct 2016 12:12
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_F
LabSampleId : VSTDCCC050

Quant Time: Oct 18 06:38:20 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46	T	Dibromomethane	50.000	46.974	6.1	78	0.00
47	T	Bromodichloromethane	50.000	47.361	5.3	77	0.00
48	T	Methyl methacrylate	50.000	47.308	5.4	78	0.00
49	T	1,4-Dioxane	1000.000	1018.446	-1.8	96	0.01
50	S	Toluene-d8	50.000	52.772	-5.5	77	0.00
51	T	4-Methyl-2-Pentanone	250.000	229.133	8.3	76	0.00
52	CM	Toluene	50.000	45.024	10.0#	73	0.00
53	T	t-1,3-Dichloropropene	50.000	47.212	5.6	76	0.00
54	T	cis-1,3-Dichloropropene	50.000	49.256	1.5	78	0.00
55	T	1,1,2-Trichloroethane	50.000	46.616	6.8	75	0.00
56	T	Ethyl methacrylate	50.000	48.843	2.3	79	0.00
57	T	1,3-Dichloropropane	50.000	45.987	8.0	75	0.00
58	T	2-Chloroethyl Vinyl ether	-1.000	0.000	0.0	73	0.00
59	T	2-Hexanone	250.000	236.160	5.5	76	0.00
60	T	Dibromochloromethane	50.000	48.738	2.5	77	0.00
61	T	1,2-Dibromoethane	50.000	48.278	3.4	77	0.01
62	S	4-Bromofluorobenzene	50.000	55.679	-11.4	82	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	80	0.00
64	T	Tetrachloroethene	50.000	43.911	12.2	76	0.00
65	PM	Chlorobenzene	50.000	45.009	10.0	75	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	47.455	5.1	78	0.00
67	C	Ethyl Benzene	50.000	45.329	9.3#	77	0.00
68	T	m/p-Xylenes	100.000	92.885	7.1	78	0.00
69	T	o-Xylene	50.000	47.273	5.5	79	0.00
70	T	Styrene	50.000	45.876	8.2	75	0.00
71	P	Bromoform	50.000	50.666	-1.3	82	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	87	0.00
73	T	Isopropylbenzene	50.000	42.615	14.8	81	0.00
74	T	N-amyl acetate	50.000	43.742	12.5	77	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	42.974	14.1	81	0.00
76	T	1,2,3-Trichloropropane	50.000	41.423	17.2	78	0.00
77	T	Bromobenzene	50.000	41.765	16.5	77	0.00
78	T	n-propylbenzene	50.000	42.549	14.9	79	0.00
79	T	2-Chlorotoluene	50.000	43.444	13.1	83	0.00
80	T	1,3,5-Trimethylbenzene	50.000	43.732	12.5	82	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	48.865	2.3	85	0.00
82	T	4-Chlorotoluene	50.000	43.380	13.2	79	0.00
83	T	tert-Butylbenzene	50.000	43.724	12.6	81	0.00
84	T	1,2,4-Trimethylbenzene	50.000	43.951	12.1	82	0.00
85	T	sec-Butylbenzene	50.000	43.256	13.5	81	0.00
86	T	p-Isopropyltoluene	50.000	44.999	10.0	83	0.00
87	T	1,3-Dichlorobenzene	50.000	44.859	10.3	82	0.00
88	T	1,4-Dichlorobenzene	50.000	47.101	5.8	85	0.00
89	T	n-Butylbenzene	50.000	47.077	5.8	85	0.00

Data Path : W:\HPCHEM1\MSVOA_F\Data\VF101716\
Data File : VF051125.D
Acq On : 17 Oct 2016 12:12
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_F
LabSampleId : VSTDCCC050

Quant Time: Oct 18 06:38:20 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	50.000	50.286	-0.6	89	0.00
91 T	1,2-Dichlorobenzene	50.000	45.139	9.7	82	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	45.420	9.2	80	0.00
93 T	1,2,4-Trichlorobenzene	50.000	51.606	-3.2	93	0.00
94 T	Hexachlorobutadiene	50.000	48.021	4.0	91	0.00
95 T	Naphthalene	50.000	50.379	-0.8	85	0.00
96 T	1,2,3-Trichlorobenzene	50.000	51.808	-3.6	91	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG No.: H5282

Instrument ID: MSVOA_F Calibration Date/Time: 10/18/2016 12:45

Lab File ID: VF051147.D Init. Calib. Date(s): 10/06/2016 10/06/2016

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:22 12:46

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Methyl tert-butyl Ether	0.842	0.918		9.03	20
Benzene	1.303	1.329		1.96	20
Toluene	0.837	0.889		6.32	20
Ethyl Benzene	1.752	1.778		1.5	20
m/p-Xylenes	0.645	0.657		1.86	20
o-Xylene	0.648	0.699		7.91	20
Isopropylbenzene	3.526	3.480		-1.32	20
n-propylbenzene	4.305	4.200		-2.42	20
1,3,5-Trimethylbenzene	2.749	2.735		-0.52	20
tert-Butylbenzene	2.692	2.724		1.19	20
1,2,4-Trimethylbenzene	2.776	2.716		-2.18	20
sec-Butylbenzene	3.566	3.677		3.12	20
p-Isopropyltoluene	2.845	2.970		4.39	20
n-Butylbenzene	2.771	3.012		8.68	20
Naphthalene	1.967	2.372		20.61	20
1,2-Dichloroethane-d4	0.469	0.454		-3.03	20
Dibromofluoromethane	0.359	0.337		-6.07	20
Toluene-d8	1.083	1.078		-0.53	20
4-Bromofluorobenzene	0.440	0.456		3.8	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101816\
Data File : VF051147.D
Acq On : 18 Oct 2016 12:45
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 19 04:07:01 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Instrument :
MSVOA_F
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
10/19/2016 1:55:37 PM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.80	168	545267	50.00	ug/l	0.02
34) 1,4-Difluorobenzene	5.52	114	844437	50.00	ug/l	0.00
63) Chlorobenzene-d5	9.69	117	790240	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.48	152	406741	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	4.77	65	247761	48.48	ug/l	0.02
Spiked Amount 50.000			Recovery = 96.96%			
35) Dibromofluoromethane	4.03	113	284813	46.96	ug/l	0.00
Spiked Amount 50.000			Recovery = 93.92%			
50) Toluene-d8	7.48	98	910026	49.74	ug/l	0.02
Spiked Amount 50.000			Recovery = 99.48%			
62) 4-Bromofluorobenzene	11.33	95	385390	51.90	ug/l	0.00
Spiked Amount 50.000			Recovery = 103.80%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.92	85	220647	47.06	ug/l	99
3) Chloromethane	1.07	50	375640	47.15	ug/l	99
4) Vinyl Chloride	1.08	62	286056	51.95	ug/l	98
5) Bromomethane	1.27	94	144929m	57.17	ug/l	
6) Chloroethane	1.34	64	90392	65.62	ug/l	91
7) Trichlorofluoromethane	1.42	101	225518	60.77	ug/l	99
8) Diethyl Ether	1.61	74	100270	51.83	ug/l	89
9) 1,1,2-Trichlorotrifluoroet	1.77	101	120234	59.89	ug/l	99
10) Methyl Iodide	1.83	142	429587m	59.07	ug/l	
11) Tert butyl alcohol	2.52	59	117545	284.57	ug/l	98
12) 1,1-Dichloroethene	1.73	96	154736	54.51	ug/l	97
13) Acrolein	1.97	56	131014	228.89	ug/l	91
14) Allyl chloride	2.07	41	365747	51.25	ug/l	99
15) Acrylonitrile	2.89	53	435008	258.79	ug/l	97
16) Acetone	2.20	43	512361	265.50	ug/l	98
17) Carbon Disulfide	1.75	76	562939	53.20	ug/l	98
18) Methyl Acetate	2.30	43	313184	46.85	ug/l	100
19) Methyl tert-butyl Ether	2.39	73	500752	54.52	ug/l	98
20) Methylene Chloride	2.16	84	206836m	53.38	ug/l	
21) trans-1,2-Dichloroethene	2.27	96	195821	48.20	ug/l	97
22) Diisopropyl ether	2.75	45	845685	50.53	ug/l	99
23) Vinyl Acetate	3.13	43	3518325	259.00	ug/l	100
24) 1,1-Dichloroethane	2.83	63	386784	50.54	ug/l	99
25) 2-Butanone	4.26	43	1250075	255.51	ug/l	98
26) 2,2-Dichloropropane	3.54	77	243603	49.87	ug/l	99
27) cis-1,2-Dichloroethene	3.41	96	336185	51.15	ug/l	97
28) Bromochloromethane	3.64	49	260657	48.66	ug/l	98
29) Tetrahydrofuran	4.00	42	626298	263.37	ug/l	100
30) Chloroform	3.78	83	515642	52.47	ug/l	97
31) Cyclohexane	3.64	56	339709	46.59	ug/l	99
32) 1,1,1-Trichloroethane	4.03	97	274546	50.07	ug/l	96
36) 1,1-Dichloropropene	4.21	75	400151	50.89	ug/l	98
37) Ethyl Acetate	4.03	43	518166	51.15	ug/l	99
38) Carbon Tetrachloride	3.92	117	232468	50.60	ug/l	97

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101816\
Data File : VF051147.D
Acq On : 18 Oct 2016 12:45
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 19 04:07:01 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Instrument :
MSVOA_F
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
10/19/2016 1:55:37 PM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methylcyclohexane	5.39	83	426356	49.46	ug/l	97
40) Benzene	4.56	78	1122012	50.98	ug/l	100
41) Methacrylonitrile	4.67	41	249931	50.65	ug/l	99
42) 1,2-Dichloroethane	4.87	62	359403	51.85	ug/l	99
43) Isopropyl Acetate	6.88	43	712997	52.56	ug/l	97
44) Trichloroethene	5.43	130	326911	51.35	ug/l	99
45) 1,2-Dichloropropane	6.16	63	367302	53.08	ug/l	99
46) Dibromomethane	6.00	93	244458	53.59	ug/l	95
47) Bromodichloromethane	6.31	83	431722	52.84	ug/l	98
48) Methyl methacrylate	6.64	41	382415	52.51	ug/l	97
49) 1,4-Dioxane	6.62	88	46932	1070.42	ug/l	94
51) 4-Methyl-2-Pentanone	8.18	43	2279296	258.46	ug/l	99
52) Toluene	7.55	92	751012	53.16	ug/l	100
53) t-1,3-Dichloropropene	8.20	75	481316	54.36	ug/l	98
54) cis-1,3-Dichloropropene	7.22	75	578184	54.58	ug/l	94
55) 1,1,2-Trichloroethane	8.41	97	328077	55.49	ug/l	98
56) Ethyl methacrylate	8.54	69	516060	58.14	ug/l	97
57) 1,3-Dichloropropane	8.77	76	553876	54.53	ug/l	98
59) 2-Hexanone	9.41	43	1889515	267.99	ug/l	97
60) Dibromochloromethane	8.62	129	396924	57.31	ug/l	96
61) 1,2-Dibromoethane	8.90	107	368681	55.36	ug/l	100
64) Tetrachloroethene	8.07	164	310293	50.51	ug/l	97
65) Chlorobenzene	9.71	112	845629	51.42	ug/l	100
66) 1,1,1,2-Tetrachloroethane	9.85	131	315125	53.30	ug/l	97
67) Ethyl Benzene	9.82	91	1405444	50.75	ug/l	99
68) m/p-Xylenes	10.05	106	1038283	101.86	ug/l	98
69) o-Xylene	10.63	106	552132	53.95	ug/l	100
70) Styrene	10.71	104	868641	53.02	ug/l	99
71) Bromoform	10.69	173	291225	56.84	ug/l	98
73) Isopropylbenzene	11.06	105	1415324	49.34	ug/l	98
74) N-amyl acetate	11.30	43	870993	49.82	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.62	83	506209	50.81	ug/l	98
76) 1,2,3-Trichloropropane	11.72	75	351210	47.24	ug/l	99
77) Bromobenzene	11.42	156	428991	50.43	ug/l	98
78) n-propylbenzene	11.53	91	1708428	48.79	ug/l	99
79) 2-Chlorotoluene	11.65	91	983496	50.30	ug/l	100
80) 1,3,5-Trimethylbenzene	11.76	105	1112403	49.74	ug/l	100
81) trans-1,4-Dichloro-2-buten	11.80	75	190191m	54.24	ug/l	
82) 4-Chlorotoluene	11.83	91	1071321	50.04	ug/l	99
83) tert-Butylbenzene	12.06	119	1108135	50.60	ug/l	98
84) 1,2,4-Trimethylbenzene	12.14	105	1104621	48.91	ug/l	100
85) sec-Butylbenzene	12.24	105	1495784	51.56	ug/l	100
86) p-Isopropyltoluene	12.40	119	1208035	52.20	ug/l	100
87) 1,3-Dichlorobenzene	12.41	146	715225	52.63	ug/l	99
88) 1,4-Dichlorobenzene	12.50	146	726262	54.90	ug/l	99
89) n-Butylbenzene	12.77	91	1225007	54.34	ug/l	99
90) Hexachloroethane	12.85	117	257444	54.20	ug/l	61
91) 1,2-Dichlorobenzene	12.87	146	675894	54.07	ug/l	99
92) 1,2-Dibromo-3-Chloropropan	13.57	75	81568	52.95	ug/l	94
93) 1,2,4-Trichlorobenzene	14.12	180	363306	58.42	ug/l	95

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101816\
Data File : VF051147.D
Acq On : 18 Oct 2016 12:45
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 19 04:07:01 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Instrument :
MSVOA_F
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
10/19/2016 1:55:37 PM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Hexachlorobutadiene	14.11	225	196388	55.50	ug/l	100
95) Naphthalene	14.38	128	964812	60.30	ug/l	99
96) 1,2,3-Trichlorobenzene	14.53	180	319701	58.93	ug/l	98

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

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_F\Data\VF101816\
Data File : VF051147.D
Acq On : 18 Oct 2016 12:45
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_F
LabSampleId : VSTDCCC050

Quant Time: Oct 19 04:07:01 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	75	0.02
2	T	Dichlorodifluoromethane	0.430	0.405	5.8	75	0.00
3	P	Chloromethane	0.731	0.689	5.7	72	0.00
4	C	Vinyl Chloride	0.505	0.525	-4.0#	80	0.00
5	T	Bromomethane	0.232	0.266	-14.7	75	0.00
6	T	Chloroethane	0.126	0.166	-31.7#	90	0.00
7	T	Trichlorofluoromethane	0.340	0.414	-21.8	85	0.00
8	T	Diethyl Ether	0.177	0.184	-4.0	81	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.209	0.221	-5.7	98	0.00
10	T	Methyl Iodide	0.667	0.788	-18.1	89	0.00
11	T	Tert butyl alcohol	0.038	0.043	-13.2	94	0.00
12	CM	1,1-Dichloroethene	0.260	0.284	-9.2#	83	0.00
13	T	Acrolein	0.052	0.048	7.7	70	0.00
14	T	Allyl chloride	0.654	0.671	-2.6	79	0.00
15	T	Acrylonitrile	0.154	0.160	-3.9	80	0.00
16	T	Acetone	0.177	0.188	-6.2	74	0.00
17	T	Carbon Disulfide	0.970	1.032	-6.4	79	0.00
18	T	Methyl Acetate	0.613	0.574	6.4	79	0.00
19	T	Methyl tert-butyl Ether	0.842	0.918	-9.0	85	0.02
20	T	Methylene Chloride	0.355	0.379	-6.8	86	0.00
21	T	trans-1,2-Dichloroethene	0.373	0.359	3.8	75	0.00
22	T	Diisopropyl ether	1.535	1.551	-1.0	80	0.00
23	T	Vinyl Acetate	1.246	1.290	-3.5	82	0.00
24	P	1,1-Dichloroethane	0.702	0.709	-1.0	79	0.02
25	T	2-Butanone	0.449	0.459	-2.2	77	0.02
26	T	2,2-Dichloropropane	0.448	0.447	0.2	81	0.00
27	T	cis-1,2-Dichloroethene	0.603	0.617	-2.3	80	0.00
28	T	Bromochloromethane	0.491	0.478	2.6	80	0.00
29		Tetrahydrofuran	0.218	0.230	-5.5	87	0.02
30	C	Chloroform	0.901	0.946	-5.0#	82	0.00
31	T	Cyclohexane	0.706	0.623	11.8	76	0.00
32	T	1,1,1-Trichloroethane	0.503	0.504	-0.2	81	0.02
33	S	1,2-Dichloroethane-d4	0.469	0.454	3.2	69	0.02
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	74	0.00
35	S	Dibromofluoromethane	0.359	0.337	6.1	68	0.00
36	T	1,1-Dichloropropene	0.466	0.474	-1.7	80	0.00
37	T	Ethyl Acetate	0.600	0.614	-2.3	82	0.00
38	T	Carbon Tetrachloride	0.272	0.275	-1.1	81	0.00
39	T	Methylcyclohexane	0.510	0.505	1.0	82	0.02
40	TM	Benzene	1.303	1.329	-2.0	85	0.02
41	T	Methacrylonitrile	0.292	0.296	-1.4	83	0.00
42	TM	1,2-Dichloroethane	0.410	0.426	-3.9	79	0.02
43	T	Isopropyl Acetate	0.803	0.844	-5.1	84	0.00
44	TM	Trichloroethene	0.377	0.387	-2.7	83	0.00
45	C	1,2-Dichloropropane	0.410	0.435	-6.1#	84	0.00

Data Path : W:\HPCHEM1\MSVOA_F\Data\VF101816\
Data File : VF051147.D
Acq On : 18 Oct 2016 12:45
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_F
LabSampleId : VSTDCCC050

Quant Time: Oct 19 04:07:01 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	Dibromomethane	0.270	0.289	-7.0	87	0.00
47	T	Bromodichloromethane	0.484	0.511	-5.6	83	0.02
48	T	Methyl methacrylate	0.431	0.453	-5.1	84	0.00
49	T	1,4-Dioxane	0.003	0.003	0.0	99	0.00
50	S	Toluene-d8	1.083	1.078	0.5	71	0.02
51	T	4-Methyl-2-Pentanone	0.522	0.540	-3.4	84	0.00
52	CM	Toluene	0.837	0.889	-6.2#	84	0.00
53	T	t-1,3-Dichloropropene	0.524	0.570	-8.8	85	0.02
54	T	cis-1,3-Dichloropropene	0.627	0.685	-9.3	84	0.02
55	T	1,1,2-Trichloroethane	0.350	0.389	-11.1	88	0.02
56	T	Ethyl methacrylate	0.526	0.611	-16.2	92	0.00
57	T	1,3-Dichloropropane	0.601	0.656	-9.2	87	0.02
58	T	2-Chloroethyl Vinyl ether	0.000	0.000	0.0	82	0.02
59	T	2-Hexanone	0.417	0.448	-7.4	84	0.02
60	T	Dibromochloromethane	0.410	0.470	-14.6	88	0.00
61	T	1,2-Dibromoethane	0.394	0.437	-10.9	86	0.02
62	S	4-Bromofluorobenzene	0.440	0.456	-3.6	75	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	80	0.00
64	T	Tetrachloroethene	0.389	0.393	-1.0	86	0.00
65	PM	Chlorobenzene	1.041	1.070	-2.8	85	0.00
66	T	1,1,1,2-Tetrachloroethane	0.374	0.399	-6.7	87	0.02
67	C	Ethyl Benzene	1.752	1.779	-1.5#	86	0.00
68	T	m/p-Xylenes	0.645	0.657	-1.9	85	0.02
69	T	o-Xylene	0.648	0.699	-7.9	89	0.00
70	T	Styrene	1.037	1.099	-6.0	86	0.00
71	P	Bromoform	0.324	0.369	-13.9	91	0.02
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	84	0.00
73	T	Isopropylbenzene	3.526	3.480	1.3	91	0.02
74	T	N-amyl acetate	2.149	2.141	0.4	85	0.00
75	P	1,1,2,2-Tetrachloroethane	1.225	1.245	-1.6	93	0.00
76	T	1,2,3-Trichloropropane	0.914	0.863	5.6	87	0.00
77	T	Bromobenzene	1.046	1.055	-0.9	90	0.00
78	T	n-propylbenzene	4.305	4.200	2.4	88	0.00
79	T	2-Chlorotoluene	2.404	2.418	-0.6	93	0.00
80	T	1,3,5-Trimethylbenzene	2.749	2.735	0.5	90	0.00
81	T	trans-1,4-Dichloro-2-butene	0.431	0.468	-8.6	91	0.00
82	T	4-Chlorotoluene	2.632	2.634	-0.1	88	0.00
83	T	tert-Butylbenzene	2.692	2.724	-1.2	91	0.00
84	T	1,2,4-Trimethylbenzene	2.776	2.716	2.2	88	0.00
85	T	sec-Butylbenzene	3.566	3.677	-3.1	93	0.00
86	T	p-Isopropyltoluene	2.845	2.970	-4.4	93	0.00
87	T	1,3-Dichlorobenzene	1.671	1.758	-5.2	93	0.00
88	T	1,4-Dichlorobenzene	1.626	1.786	-9.8	95	0.00
89	T	n-Butylbenzene	2.771	3.012	-8.7	95	0.00

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_F\Data\VF101816\
Data File : VF051147.D
Acq On : 18 Oct 2016 12:45
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_F
LabSampleId : VSTDCCC050

Quant Time: Oct 19 04:07:01 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	0.584	0.633	-8.4	92	0.02
91 T	1,2-Dichlorobenzene	1.537	1.662	-8.1	95	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.189	0.201	-6.3	90	0.00
93 T	1,2,4-Trichlorobenzene	0.765	0.893	-16.7	102	0.00
94 T	Hexachlorobutadiene	0.435	0.483	-11.0	102	0.00
95 T	Naphthalene	1.967	2.372	-20.6	98	0.00
96 T	1,2,3-Trichlorobenzene	0.667	0.786	-17.8	100	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_F\Data\VF101816\
Data File : VF051147.D
Acq On : 18 Oct 2016 12:45
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_F
LabSampleId : VSTDCCC050

Quant Time: Oct 19 04:07:01 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	75	0.02
2	T	Dichlorodifluoromethane	50.000	47.057	5.9	75	0.00
3	P	Chloromethane	50.000	47.150	5.7	72	0.00
4	C	Vinyl Chloride	50.000	51.953	-3.9#	80	0.00
5	T	Bromomethane	50.000	57.173	-14.3	75	0.00
6	T	Chloroethane	50.000	65.621	-31.2#	90	0.00
7	T	Trichlorofluoromethane	50.000	60.766	-21.5	85	0.00
8	T	Diethyl Ether	50.000	51.828	-3.7	81	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	59.885	-19.8	98	0.00
10	T	Methyl Iodide	50.000	59.068	-18.1	89	0.00
11	T	Tert butyl alcohol	250.000	284.569	-13.8	94	0.00
12	CM	1,1-Dichloroethene	50.000	54.512	-9.0#	83	0.00
13	T	Acrolein	250.000	228.893	8.4	70	0.00
14	T	Allyl chloride	50.000	51.248	-2.5	79	0.00
15	T	Acrylonitrile	250.000	258.792	-3.5	80	0.00
16	T	Acetone	250.000	265.499	-6.2	74	0.00
17	T	Carbon Disulfide	50.000	53.198	-6.4	79	0.00
18	T	Methyl Acetate	50.000	46.847	6.3	79	0.00
19	T	Methyl tert-butyl Ether	50.000	54.516	-9.0	85	0.02
20	T	Methylene Chloride	50.000	53.375	-6.8	86	0.00
21	T	trans-1,2-Dichloroethene	50.000	48.200	3.6	75	0.00
22	T	Diisopropyl ether	50.000	50.532	-1.1	80	0.00
23	T	Vinyl Acetate	250.000	259.002	-3.6	82	0.00
24	P	1,1-Dichloroethane	50.000	50.545	-1.1	79	0.02
25	T	2-Butanone	250.000	255.511	-2.2	77	0.02
26	T	2,2-Dichloropropane	50.000	49.866	0.3	81	0.00
27	T	cis-1,2-Dichloroethene	50.000	51.149	-2.3	80	0.00
28	T	Bromochloromethane	50.000	48.660	2.7	80	0.00
29		Tetrahydrofuran	250.000	263.373	-5.3	87	0.02
30	C	Chloroform	50.000	52.468	-4.9#	82	0.00
31	T	Cyclohexane	50.000	46.589	6.8	76	0.00
32	T	1,1,1-Trichloroethane	50.000	50.068	-0.1	81	0.02
33	S	1,2-Dichloroethane-d4	50.000	48.482	3.0	69	0.02
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	74	0.00
35	S	Dibromofluoromethane	50.000	46.958	6.1	68	0.00
36	T	1,1-Dichloropropene	50.000	50.888	-1.8	80	0.00
37	T	Ethyl Acetate	50.000	51.148	-2.3	82	0.00
38	T	Carbon Tetrachloride	50.000	50.598	-1.2	81	0.00
39	T	Methylcyclohexane	50.000	49.465	1.1	82	0.02
40	TM	Benzene	50.000	50.977	-2.0	85	0.02
41	T	Methacrylonitrile	50.000	50.653	-1.3	83	0.00
42	TM	1,2-Dichloroethane	50.000	51.846	-3.7	79	0.02
43	T	Isopropyl Acetate	50.000	52.556	-5.1	84	0.00
44	TM	Trichloroethene	50.000	51.350	-2.7	83	0.00
45	C	1,2-Dichloropropane	50.000	53.077	-6.2#	84	0.00

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_F\Data\VF101816\
Data File : VF051147.D
Acq On : 18 Oct 2016 12:45
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_F
LabSampleId : VSTDCCC050

Quant Time: Oct 19 04:07:01 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46	T	Dibromomethane	50.000	53.589	-7.2	87	0.00
47	T	Bromodichloromethane	50.000	52.835	-5.7	83	0.02
48	T	Methyl methacrylate	50.000	52.508	-5.0	84	0.00
49	T	1,4-Dioxane	1000.000	1070.425	-7.0	99	0.00
50	S	Toluene-d8	50.000	49.738	0.5	71	0.02
51	T	4-Methyl-2-Pentanone	250.000	258.459	-3.4	84	0.00
52	CM	Toluene	50.000	53.157	-6.3#	84	0.00
53	T	t-1,3-Dichloropropene	50.000	54.358	-8.7	85	0.02
54	T	cis-1,3-Dichloropropene	50.000	54.584	-9.2	84	0.02
55	T	1,1,2-Trichloroethane	50.000	55.490	-11.0	88	0.02
56	T	Ethyl methacrylate	50.000	58.141	-16.3	92	0.00
57	T	1,3-Dichloropropane	50.000	54.534	-9.1	87	0.02
58	T	2-Chloroethyl Vinyl ether	-1.000	0.000	0.0	82	0.02
59	T	2-Hexanone	250.000	267.990	-7.2	84	0.02
60	T	Dibromochloromethane	50.000	57.313	-14.6	88	0.00
61	T	1,2-Dibromoethane	50.000	55.358	-10.7	86	0.02
62	S	4-Bromofluorobenzene	50.000	51.900	-3.8	75	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	80	0.00
64	T	Tetrachloroethene	50.000	50.513	-1.0	86	0.00
65	PM	Chlorobenzene	50.000	51.417	-2.8	85	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	53.304	-6.6	87	0.02
67	C	Ethyl Benzene	50.000	50.752	-1.5#	86	0.00
68	T	m/p-Xylenes	100.000	101.865	-1.9	85	0.02
69	T	o-Xylene	50.000	53.952	-7.9	89	0.00
70	T	Styrene	50.000	53.016	-6.0	86	0.00
71	P	Bromoform	50.000	56.836	-13.7	91	0.02
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	84	0.00
73	T	Isopropylbenzene	50.000	49.342	1.3	91	0.02
74	T	N-amyl acetate	50.000	49.815	0.4	85	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	50.813	-1.6	93	0.00
76	T	1,2,3-Trichloropropane	50.000	47.243	5.5	87	0.00
77	T	Bromobenzene	50.000	50.431	-0.9	90	0.00
78	T	n-propylbenzene	50.000	48.788	2.4	88	0.00
79	T	2-Chlorotoluene	50.000	50.296	-0.6	93	0.00
80	T	1,3,5-Trimethylbenzene	50.000	49.742	0.5	90	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	54.241	-8.5	91	0.00
82	T	4-Chlorotoluene	50.000	50.039	-0.1	88	0.00
83	T	tert-Butylbenzene	50.000	50.597	-1.2	91	0.00
84	T	1,2,4-Trimethylbenzene	50.000	48.909	2.2	88	0.00
85	T	sec-Butylbenzene	50.000	51.562	-3.1	93	0.00
86	T	p-Isopropyltoluene	50.000	52.198	-4.4	93	0.00
87	T	1,3-Dichlorobenzene	50.000	52.627	-5.3	93	0.00
88	T	1,4-Dichlorobenzene	50.000	54.896	-9.8	95	0.00
89	T	n-Butylbenzene	50.000	54.340	-8.7	95	0.00

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_F\Data\VF101816\
Data File : VF051147.D
Acq On : 18 Oct 2016 12:45
Operator : FY/SY
Sample : VSTDCCC050
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_F
LabSampleId : VSTDCCC050

Quant Time: Oct 19 04:07:01 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	50.000	54.199	-8.4	92	0.02
91 T	1,2-Dichlorobenzene	50.000	54.073	-8.1	95	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	52.947	-5.9	90	0.00
93 T	1,2,4-Trichlorobenzene	50.000	58.416	-16.8	102	0.00
94 T	Hexachlorobutadiene	50.000	55.500	-11.0	102	0.00
95 T	Naphthalene	50.000	60.302	-20.6	98	0.00
96 T	1,2,3-Trichlorobenzene	50.000	58.929	-17.9	100	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: H5282 SAS No.: H5282 SDG No.: H5282

Instrument ID: MSVOA_N Calibration Date/Time: 10/21/2016 11:05

Lab File ID: VN036697.D Init. Calib. Date(s): 10/05/2016 10/05/2016

Heated Purge: (Y/N) N Init. Calib. Time(s): 13:47 16:17

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Methyl tert-butyl Ether	1.467	1.476		0.66	20
Benzene	1.405	1.457		3.72	20
Toluene	0.925	0.952		2.88	20
Ethyl Benzene	1.929	1.975		2.35	20
m/p-Xylenes	0.748	0.768		2.61	20
o-Xylene	0.741	0.750		1.25	20
Isopropylbenzene	3.966	3.993		0.67	20
n-propylbenzene	4.351	4.517		3.8	20
1,3,5-Trimethylbenzene	3.292	3.323		0.94	20
tert-Butylbenzene	2.943	2.850		-3.16	20
1,2,4-Trimethylbenzene	3.354	3.398		1.32	20
sec-Butylbenzene	3.905	4.023		3	20
p-Isopropyltoluene	3.437	3.533		2.79	20
n-Butylbenzene	2.813	3.016		7.2	20
Naphthalene	2.442	2.816		15.35	20
1,2-Dichloroethane-d4	0.624	0.616		-1.28	20
Dibromofluoromethane	0.340	0.363		6.64	20
Toluene-d8	1.260	1.368		8.53	20
4-Bromofluorobenzene	0.463	0.488		5.29	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN102116\
Data File : VN036697.D
Acq On : 21 Oct 2016 11:05
Operator : MD\SY
Sample : VSTDCCC050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 22 01:13:32 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
feifei
10/24/2016 11:02:18 AM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.86	168	334674	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	8.78	114	498871	50.00	ug/l		0.00
63) Chlorobenzene-d5	11.58	117	465846	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.52	152	235065	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.23	65	206038	49.36	ug/l		0.00
Spiked Amount 50.000			Recovery = 98.72%				
35) Dibromofluoromethane	7.80	113	180947	53.32	ug/l		0.00
Spiked Amount 50.000			Recovery = 106.64%				
50) Toluene-d8	10.27	98	682329	54.27	ug/l		0.00
Spiked Amount 50.000			Recovery = 108.54%				
62) 4-Bromofluorobenzene	12.57	95	243337	52.65	ug/l		0.00
Spiked Amount 50.000			Recovery = 105.30%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.88	85	160946	46.19	ug/l		100
3) Chloromethane	2.09	50	166835	42.13	ug/l		97
4) Vinyl Chloride	2.23	62	168927	46.13	ug/l		98
5) Bromomethane	2.63	94	84318	43.71	ug/l		91
6) Chloroethane	2.78	64	109637	44.01	ug/l		96
7) Trichlorofluoromethane	3.12	101	261944	38.77	ug/l		98
8) Diethyl Ether	3.54	74	104513	52.47	ug/l		82
9) 1,1,2-Trichlorotrifluoroet	3.90	101	164532	52.86	ug/l	#	88
10) Methyl Iodide	4.12	142	114269	59.35	ug/l		95
11) Tert butyl alcohol	5.02	59	83019	245.17	ug/l	#	93
12) 1,1-Dichloroethene	3.88	96	145932	51.00	ug/l		94
13) Acrolein	3.75	56	27689	163.10	ug/l		98
14) Allyl chloride	4.51	41	210622	45.18	ug/l	#	82
15) Acrylonitrile	5.20	53	346961	281.17	ug/l		98
16) Acetone	3.97	43	339673	260.15	ug/l		98
17) Carbon Disulfide	4.24	76	387131	48.15	ug/l		99
18) Methyl Acetate	4.52	43	203080	54.70	ug/l	#	91
19) Methyl tert-butyl Ether	5.30	73	494053	50.33	ug/l		100
20) Methylene Chloride	4.75	84	174367	51.10	ug/l		91
21) trans-1,2-Dichloroethene	5.28	96	164545	52.60	ug/l		90
22) Diisopropyl ether	6.20	45	515009	47.81	ug/l	#	92
23) Vinyl Acetate	6.13	43	1615544	235.61	ug/l	#	92
24) 1,1-Dichloroethane	6.09	63	301579	49.90	ug/l		96
25) 2-Butanone	7.07	43	433905	266.70	ug/l	#	90
26) 2,2-Dichloropropane	7.06	77	266036	46.36	ug/l		98
27) cis-1,2-Dichloroethene	7.06	96	196218	50.92	ug/l		92
28) Bromochloromethane	7.42	49	129683	50.36	ug/l	#	63
29) Tetrahydrofuran	7.46	42	257078	262.16	ug/l	#	87
30) Chloroform	7.58	83	326265	50.28	ug/l		97
31) Cyclohexane	7.88	56	264935	50.21	ug/l		91
32) 1,1,1-Trichloroethane	7.79	97	279734	47.81	ug/l		96
36) 1,1-Dichloropropene	8.00	75	237241	50.25	ug/l		95
37) Ethyl Acetate	7.16	43	172834	50.27	ug/l	#	95
38) Carbon Tetrachloride	7.99	117	231582	47.68	ug/l		96

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN102116\
Data File : VN036697.D
Acq On : 21 Oct 2016 11:05
Operator : MD\SY
Sample : VSTDCCC050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 22 01:13:32 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
feifei
10/24/2016 11:02:18 AM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	9.28	83	299909	50.69	ug/l		90
40) Benzene	8.25	78	726794	51.86	ug/l		98
41) Methacrylonitrile	7.37	41	102611	49.01	ug/l		92
42) 1,2-Dichloroethane	8.33	62	253676	49.13	ug/l		100
43) Isopropyl Acetate	8.35	43	304077	47.01	ug/l	#	93
44) Trichloroethene	9.03	130	197277	50.08	ug/l		89
45) 1,2-Dichloropropane	9.31	63	187823	52.55	ug/l		99
46) Dibromomethane	9.40	93	124987	51.35	ug/l	#	79
47) Bromodichloromethane	9.58	83	255331	50.23	ug/l		99
48) Methyl methacrylate	9.38	41	158739	47.65	ug/l		90
49) 1,4-Dioxane	9.39	88	54314	1164.62	ug/l		91
51) 4-Methyl-2-Pentanone	10.15	43	913105	262.45	ug/l		93
52) Toluene	10.33	92	474965	51.44	ug/l		98
53) t-1,3-Dichloropropene	10.55	75	258496	51.61	ug/l		100
54) cis-1,3-Dichloropropene	10.01	75	284234	51.37	ug/l		99
55) 1,1,2-Trichloroethane	10.73	97	189556	53.39	ug/l		97
56) Ethyl methacrylate	10.59	69	254718	54.25	ug/l		93
57) 1,3-Dichloropropane	10.88	76	301629	52.59	ug/l		100
58) 2-Chloroethyl Vinyl ether	9.86	63	34735	834.05	ug/l	#	49
59) 2-Hexanone	10.91	43	656086	277.69	ug/l		93
60) Dibromochloromethane	11.08	129	205647	49.65	ug/l		99
61) 1,2-Dibromoethane	11.18	107	187993	53.72	ug/l		97
64) Tetrachloroethene	10.81	164	186250	48.71	ug/l		90
65) Chlorobenzene	11.61	112	541231	51.69	ug/l		100
66) 1,1,1,2-Tetrachloroethane	11.68	131	191503	48.07	ug/l		99
67) Ethyl Benzene	11.68	91	919870	51.17	ug/l		95
68) m/p-Xylenes	11.79	106	715200	102.61	ug/l		92
69) o-Xylene	12.12	106	349510	50.63	ug/l		94
70) Styrene	12.13	104	574400	52.03	ug/l		97
71) Bromoform	12.30	173	147452	44.93	ug/l	#	99
73) Isopropylbenzene	12.42	105	938588	50.34	ug/l		99
74) N-amyl acetate	12.23	43	268803	48.95	ug/l		93
75) 1,1,2,2-Tetrachloroethane	12.66	83	255031	55.10	ug/l		96
76) 1,2,3-Trichloropropane	12.72	75	193962m	49.67	ug/l		
77) Bromobenzene	12.70	156	243429	50.77	ug/l		73
78) n-propylbenzene	12.76	91	1061715	51.90	ug/l		95
79) 2-Chlorotoluene	12.85	91	625360	50.51	ug/l		93
80) 1,3,5-Trimethylbenzene	12.90	105	781235	50.47	ug/l		98
81) trans-1,4-Dichloro-2-buten	12.46	75	70357	60.10	ug/l		99
82) 4-Chlorotoluene	12.94	91	637230	51.69	ug/l		93
83) tert-Butylbenzene	13.16	119	669863	48.42	ug/l		95
84) 1,2,4-Trimethylbenzene	13.21	105	798847	50.66	ug/l		97
85) sec-Butylbenzene	13.34	105	945559	51.50	ug/l		96
86) p-Isopropyltoluene	13.46	119	830542	51.39	ug/l		98
87) 1,3-Dichlorobenzene	13.46	146	437946	51.41	ug/l		95
88) 1,4-Dichlorobenzene	13.54	146	430905	50.91	ug/l		95
89) n-Butylbenzene	13.79	91	708952	53.60	ug/l		97
90) Hexachloroethane	14.06	117	131941	48.85	ug/l		64
91) 1,2-Dichlorobenzene	13.83	146	429648	51.07	ug/l		96
92) 1,2-Dibromo-3-Chloropropan	14.45	75	42609	54.84	ug/l		75

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN102116\
Data File : VN036697.D
Acq On : 21 Oct 2016 11:05
Operator : MD\SY
Sample : VSTDCCC050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 22 01:13:32 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
feifei
10/24/2016 11:02:18 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	15.10	180	260806	54.04	ug/l	97
94) Hexachlorobutadiene	15.21	225	144576	50.32	ug/l	96
95) Naphthalene	15.34	128	662029	57.68	ug/l	99
96) 1,2,3-Trichlorobenzene	15.53	180	260142	53.77	ug/l	97

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

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_N\Data\VN102116\
Data File : VN036697.D
Acq On : 21 Oct 2016 11:05
Operator : MD\SY
Sample : VSTDCCC050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_N
LabSampleId : VSTDCCC050

Quant Time: Oct 22 01:13:32 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	126	0.00
2	T	Dichlorodifluoromethane	50.000	46.194	7.6	125	0.00
3	P	Chloromethane	50.000	42.129	15.7	105	0.00
4	C	Vinyl Chloride	50.000	46.130	7.7#	119	0.00
5	T	Bromomethane	50.000	43.709	12.6	132	-0.01
6	T	Chloroethane	50.000	44.010	12.0	114	0.00
7	T	Trichlorofluoromethane	50.000	38.770	22.5#	99	0.00
8	T	Diethyl Ether	50.000	52.469	-4.9	144	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	52.855	-5.7	138	-0.01
10	T	Methyl Iodide	50.000	59.352	-18.7	166	0.00
11	T	Tert butyl alcohol	250.000	245.169	1.9	125	0.00
12	CM	1,1-Dichloroethene	50.000	51.001	-2.0#	132	-0.01
13	T	Acrolein	250.000	163.101	34.8#	219	0.00
14	T	Allyl chloride	50.000	45.176	9.6	115	0.00
15	T	Acrylonitrile	250.000	281.168	-12.5	139	0.00
16	T	Acetone	250.000	260.151	-4.1	142	0.00
17	T	Carbon Disulfide	50.000	48.150	3.7	125	-0.01
18	T	Methyl Acetate	50.000	54.703	-9.4	140	0.00
19	T	Methyl tert-butyl Ether	50.000	50.331	-0.7	130	0.00
20	T	Methylene Chloride	50.000	51.098	-2.2	133	0.00
21	T	trans-1,2-Dichloroethene	50.000	52.597	-5.2	131	0.00
22	T	Diisopropyl ether	50.000	47.805	4.4	124	0.00
23	T	Vinyl Acetate	250.000	235.605	5.8	117	0.00
24	P	1,1-Dichloroethane	50.000	49.903	0.2	127	0.00
25	T	2-Butanone	250.000	266.700	-6.7	134	0.00
26	T	2,2-Dichloropropane	50.000	46.358	7.3	120	0.00
27	T	cis-1,2-Dichloroethene	50.000	50.919	-1.8	130	0.00
28	T	Bromochloromethane	50.000	50.364	-0.7	118	0.00
29	T	Tetrahydrofuran	250.000	262.158	-4.9	131	0.00
30	C	Chloroform	50.000	50.277	-0.6#	129	0.00
31	T	Cyclohexane	50.000	50.209	-0.4	125	0.00
32	T	1,1,1-Trichloroethane	50.000	47.811	4.4	121	0.00
33	S	1,2-Dichloroethane-d4	50.000	49.362	1.3	126	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	124	0.00
35	S	Dibromofluoromethane	50.000	53.325	-6.7	134	0.00
36	T	1,1-Dichloropropene	50.000	50.247	-0.5	127	0.00
37	T	Ethyl Acetate	50.000	50.272	-0.5	122	0.00
38	T	Carbon Tetrachloride	50.000	47.682	4.6	117	0.00
39	T	Methylcyclohexane	50.000	50.688	-1.4	132	0.00
40	TM	Benzene	50.000	51.860	-3.7	132	0.00
41	T	Methacrylonitrile	50.000	49.014	2.0	122	0.00
42	TM	1,2-Dichloroethane	50.000	49.131	1.7	123	0.00
43	T	Isopropyl Acetate	50.000	47.009	6.0	118	0.00
44	TM	Trichloroethene	50.000	50.082	-0.2	128	0.00
45	C	1,2-Dichloropropane	50.000	52.553	-5.1#	133	0.00

Evaluate Continuing Calibration Report

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Data Path : W:\HPCHEM1\MSVOA_N\Data\VN102116\
Data File : VN036697.D
Acq On : 21 Oct 2016 11:05
Operator : MD\SY
Sample : VSTDCCC050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 22 01:13:32 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46	T	Dibromomethane	50.000	51.355	-2.7	128	0.00
47	T	Bromodichloromethane	50.000	50.230	-0.5	127	0.00
48	T	Methyl methacrylate	50.000	47.647	4.7	121	0.00
49	T	1,4-Dioxane	1000.000	1164.624	-16.5	148	0.00
50	S	Toluene-d8	50.000	54.267	-8.5	137	0.00
51	T	4-Methyl-2-Pentanone	250.000	262.455	-5.0	133	0.00
52	CM	Toluene	50.000	51.441	-2.9#	132	0.00
53	T	t-1,3-Dichloropropene	50.000	51.612	-3.2	127	0.00
54	T	cis-1,3-Dichloropropene	50.000	51.367	-2.7	127	0.00
55	T	1,1,2-Trichloroethane	50.000	53.393	-6.8	134	0.00
56	T	Ethyl methacrylate	50.000	54.255	-8.5	133	0.00
57	T	1,3-Dichloropropane	50.000	52.589	-5.2	133	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	834.045	-233.6#	0	0.00
59	T	2-Hexanone	250.000	277.692	-11.1	139	0.00
60	T	Dibromochloromethane	50.000	49.653	0.7	123	0.00
61	T	1,2-Dibromoethane	50.000	53.721	-7.4	134	0.00
62	S	4-Bromofluorobenzene	50.000	52.647	-5.3	134	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	126	0.00
64	T	Tetrachloroethene	50.000	48.705	2.6	127	0.00
65	PM	Chlorobenzene	50.000	51.689	-3.4	134	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	48.071	3.9	125	0.00
67	C	Ethyl Benzene	50.000	51.174	-2.3#	130	0.00
68	T	m/p-Xylenes	100.000	102.607	-2.6	131	0.00
69	T	o-Xylene	50.000	50.627	-1.3	129	0.00
70	T	Styrene	50.000	52.030	-4.1	131	0.00
71	P	Bromoform	50.000	44.928	10.1	121	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	121	0.00
73	T	Isopropylbenzene	50.000	50.335	-0.7	129	0.00
74	T	N-amyl acetate	50.000	48.952	2.1	117	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	55.100	-10.2	139	0.00
76	T	1,2,3-Trichloropropane	50.000	49.675	0.7	128	0.00
77	T	Bromobenzene	50.000	50.771	-1.5	129	0.00
78	T	n-propylbenzene	50.000	51.902	-3.8	131	0.00
79	T	2-Chlorotoluene	50.000	50.506	-1.0	130	0.00
80	T	1,3,5-Trimethylbenzene	50.000	50.472	-0.9	128	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	60.103	-20.2#	143	0.00
82	T	4-Chlorotoluene	50.000	51.687	-3.4	130	0.00
83	T	tert-Butylbenzene	50.000	48.422	3.2	125	0.00
84	T	1,2,4-Trimethylbenzene	50.000	50.660	-1.3	127	0.00
85	T	sec-Butylbenzene	50.000	51.499	-3.0	129	0.00
86	T	p-Isopropyltoluene	50.000	51.395	-2.8	128	0.00
87	T	1,3-Dichlorobenzene	50.000	51.410	-2.8	128	0.00
88	T	1,4-Dichlorobenzene	50.000	50.914	-1.8	128	0.00
89	T	n-Butylbenzene	50.000	53.601	-7.2	131	0.00

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_N\Data\VN102116\
Data File : VN036697.D
Acq On : 21 Oct 2016 11:05
Operator : MD\SY
Sample : VSTDCCC050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_N
LabSampleId : VSTDCCC050

Quant Time: Oct 22 01:13:32 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	50.000	48.853	2.3	116	0.00
91 T	1,2-Dichlorobenzene	50.000	51.068	-2.1	126	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	54.843	-9.7	122	0.00
93 T	1,2,4-Trichlorobenzene	50.000	54.042	-8.1	128	0.00
94 T	Hexachlorobutadiene	50.000	50.317	-0.6	125	0.00
95 T	Naphthalene	50.000	57.675	-15.3	135	0.00
96 T	1,2,3-Trichlorobenzene	50.000	53.766	-7.5	131	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Data Path : W:\HPCHEM1\MSVOA_N\Data\VN102116\
Data File : VN036697.D
Acq On : 21 Oct 2016 11:05
Operator : MD\SY
Sample : VSTDCCC050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 22 01:13:32 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	126	0.00
2	T	Dichlorodifluoromethane	0.521	0.481	7.7	125	0.00
3	P	Chloromethane	0.656	0.499	23.9#	105	0.00
4	C	Vinyl Chloride	0.547	0.505	7.7#	119	0.00
5	T	Bromomethane	0.266	0.252	5.3	132	-0.01
6	T	Chloroethane	0.372	0.328	11.8	114	0.00
7	T	Trichlorofluoromethane	1.009	0.783	22.4#	99	0.00
8	T	Diethyl Ether	0.298	0.312	-4.7	144	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.465	0.492	-5.8	138	-0.01
10	T	Methyl Iodide	0.238	0.341	-43.3#	166#	0.00
11	T	Tert butyl alcohol	0.051	0.050	2.0	125	0.00
12	CM	1,1-Dichloroethene	0.427	0.436	-2.1#	132	-0.01
13	T	Acrolein	0.025	0.017	32.0#	219#	0.00
14	T	Allyl chloride	0.697	0.629	9.8	115	0.00
15	T	Acrylonitrile	0.184	0.207	-12.5	139	0.00
16	T	Acetone	0.195	0.203	-4.1	142	0.00
17	T	Carbon Disulfide	1.201	1.157	3.7	125	-0.01
18	T	Methyl Acetate	0.555	0.607	-9.4	140	0.00
19	T	Methyl tert-butyl Ether	1.467	1.476	-0.6	130	0.00
20	T	Methylene Chloride	0.510	0.521	-2.2	133	0.00
21	T	trans-1,2-Dichloroethene	0.467	0.492	-5.4	131	0.00
22	T	Diisopropyl ether	1.609	1.539	4.4	124	0.00
23	T	Vinyl Acetate	1.024	0.965	5.8	117	0.00
24	P	1,1-Dichloroethane	0.903	0.901	0.2	127	0.00
25	T	2-Butanone	0.243	0.259	-6.6	134	0.00
26	T	2,2-Dichloropropane	0.857	0.795	7.2	120	0.00
27	T	cis-1,2-Dichloroethene	0.576	0.586	-1.7	130	0.00
28	T	Bromochloromethane	0.385	0.387	-0.5	118	0.00
29	T	Tetrahydrofuran	0.147	0.154	-4.8	131	0.00
30	C	Chloroform	0.969	0.975	-0.6#	129	0.00
31	T	Cyclohexane	1.015	0.792	22.0#	125	0.00
32	T	1,1,1-Trichloroethane	0.874	0.836	4.3	121	0.00
33	S	1,2-Dichloroethane-d4	0.624	0.616	1.3	126	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	124	0.00
35	S	Dibromofluoromethane	0.340	0.363	-6.8	134	0.00
36	T	1,1-Dichloropropene	0.473	0.476	-0.6	127	0.00
37	T	Ethyl Acetate	0.345	0.346	-0.3	122	0.00
38	T	Carbon Tetrachloride	0.487	0.464	4.7	117	0.00
39	T	Methylcyclohexane	0.593	0.601	-1.3	132	0.00
40	TM	Benzene	1.405	1.457	-3.7	132	0.00
41	T	Methacrylonitrile	0.210	0.206	1.9	122	0.00
42	TM	1,2-Dichloroethane	0.517	0.509	1.5	123	0.00
43	T	Isopropyl Acetate	0.648	0.610	5.9	118	0.00
44	TM	Trichloroethene	0.395	0.395	0.0	128	0.00
45	C	1,2-Dichloropropane	0.358	0.376	-5.0#	133	0.00

Data Path : W:\HPCHEM1\MSVOA_N\Data\VN102116\
Data File : VN036697.D
Acq On : 21 Oct 2016 11:05
Operator : MD\SY
Sample : VSTDCCC050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_N
LabSampleId : VSTDCCC050

Quant Time: Oct 22 01:13:32 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	Dibromomethane	0.244	0.251	-2.9	128	0.00
47	T	Bromodichloromethane	0.509	0.512	-0.6	127	0.00
48	T	Methyl methacrylate	0.334	0.318	4.8	121	0.00
49	T	1,4-Dioxane	0.005	0.005	0.0	148	0.00
50	S	Toluene-d8	1.260	1.368	-8.6	137	0.00
51	T	4-Methyl-2-Pentanone	0.349	0.366	-4.9	133	0.00
52	CM	Toluene	0.925	0.952	-2.9#	132	0.00
53	T	t-1,3-Dichloropropene	0.502	0.518	-3.2	127	0.00
54	T	cis-1,3-Dichloropropene	0.555	0.570	-2.7	127	0.00
55	T	1,1,2-Trichloroethane	0.356	0.380	-6.7	134	0.00
56	T	Ethyl methacrylate	0.471	0.511	-8.5	133	0.00
57	T	1,3-Dichloropropane	0.575	0.605	-5.2	133	0.00
58	T	2-Chloroethyl Vinyl ether	0.004	0.014	-250.0#	0#	0.00
59	T	2-Hexanone	0.237	0.263	-11.0	139	0.00
60	T	Dibromochloromethane	0.415	0.412	0.7	123	0.00
61	T	1,2-Dibromoethane	0.351	0.377	-7.4	134	0.00
62	S	4-Bromofluorobenzene	0.463	0.488	-5.4	134	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	126	0.00
64	T	Tetrachloroethene	0.410	0.400	2.4	127	0.00
65	PM	Chlorobenzene	1.124	1.162	-3.4	134	0.00
66	T	1,1,1,2-Tetrachloroethane	0.428	0.411	4.0	125	0.00
67	C	Ethyl Benzene	1.929	1.975	-2.4#	130	0.00
68	T	m/p-Xylenes	0.748	0.768	-2.7	131	0.00
69	T	o-Xylene	0.741	0.750	-1.2	129	0.00
70	T	Styrene	1.185	1.233	-4.1	131	0.00
71	P	Bromoform	0.315	0.317	-0.6	121	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	121	0.00
73	T	Isopropylbenzene	3.966	3.993	-0.7	129	0.00
74	T	N-amyl acetate	1.168	1.144	2.1	117	0.00
75	P	1,1,2,2-Tetrachloroethane	0.985	1.085	-10.2	139	0.00
76	T	1,2,3-Trichloropropane	0.831	0.825	0.7	128	0.00
77	T	Bromobenzene	1.020	1.036	-1.6	129	0.00
78	T	n-propylbenzene	4.351	4.517	-3.8	131	0.00
79	T	2-Chlorotoluene	2.634	2.660	-1.0	130	0.00
80	T	1,3,5-Trimethylbenzene	3.292	3.323	-0.9	128	0.00
81	T	trans-1,4-Dichloro-2-butene	0.249	0.299	-20.1#	143	0.00
82	T	4-Chlorotoluene	2.622	2.711	-3.4	130	0.00
83	T	tert-Butylbenzene	2.943	2.850	3.2	125	0.00
84	T	1,2,4-Trimethylbenzene	3.354	3.398	-1.3	127	0.00
85	T	sec-Butylbenzene	3.905	4.023	-3.0	129	0.00
86	T	p-Isopropyltoluene	3.437	3.533	-2.8	128	0.00
87	T	1,3-Dichlorobenzene	1.812	1.863	-2.8	128	0.00
88	T	1,4-Dichlorobenzene	1.800	1.833	-1.8	128	0.00
89	T	n-Butylbenzene	2.813	3.016	-7.2	131	0.00

Evaluate Continuing Calibration Report

Data Path : W:\HPCHEM1\MSVOA_N\Data\VN102116\
Data File : VN036697.D
Acq On : 21 Oct 2016 11:05
Operator : MD\SY
Sample : VSTDCCC050
Misc : 5.00mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_N
LabSampleId : VSTDCCC050

Quant Time: Oct 22 01:13:32 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	0.574	0.561	2.3	116	0.00
91 T	1,2-Dichlorobenzene	1.790	1.828	-2.1	126	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.165	0.181	-9.7	122	0.00
93 T	1,2,4-Trichlorobenzene	1.027	1.110	-8.1	128	0.00
94 T	Hexachlorobutadiene	0.611	0.615	-0.7	125	0.00
95 T	Naphthalene	2.442	2.816	-15.3	135	0.00
96 T	1,2,3-Trichlorobenzene	1.029	1.107	-7.6	131	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CHEMTECH

QC SAMPLE DATA

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Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	121 and 123 Reynolds St.	Date Received:	
Client Sample ID:	VF1017SBL01	SDG No.:	H5282
Lab Sample ID:	VF1017SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF051126.D	1		10/17/16 13:32	VF101716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	5	U	0.5	0.5	5	ug/Kg
71-43-2	Benzene	5	U	0.38	0.5	5	ug/Kg
108-88-3	Toluene	5	U	0.5	0.5	5	ug/Kg
100-41-4	Ethyl Benzene	5	U	0.5	0.5	5	ug/Kg
179601-23-1	m/p-Xylenes	10	U	0.72	1	10	ug/Kg
95-47-6	o-Xylene	5	U	0.5	0.5	5	ug/Kg
98-82-8	Isopropylbenzene	5	U	0.48	0.5	5	ug/Kg
103-65-1	n-propylbenzene	5	U	0.36	0.5	5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	5	U	0.45	0.5	5	ug/Kg
98-06-6	tert-Butylbenzene	5	U	0.5	0.5	5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	5	U	0.5	0.5	5	ug/Kg
135-98-8	sec-Butylbenzene	5	U	0.5	0.5	5	ug/Kg
99-87-6	p-Isopropyltoluene	5	U	0.29	0.5	5	ug/Kg
104-51-8	n-Butylbenzene	5	U	0.46	0.5	5	ug/Kg
91-20-3	Naphthalene	5	U	0.45	0.5	5	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	50.9		56 - 120		102%	SPK: 50
1868-53-7	Dibromofluoromethane	47.3		57 - 135		95%	SPK: 50
2037-26-5	Toluene-d8	45.8		67 - 123		92%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.1		33 - 141		88%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	630246	4.8				
540-36-3	1,4-Difluorobenzene	1011260	5.53				
3114-55-4	Chlorobenzene-d5	872740	9.69				
3855-82-1	1,4-Dichlorobenzene-d4	373737	12.49				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Quantitation Report (QT/LSC Reviewed)

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101716\
Data File : VF051126.D
Acq On : 17 Oct 2016 13:32
Operator : FY/SY
Sample : VF1017SBL01
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : VF1017SBL01

Quant Time: Oct 18 06:41:31 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.80	168	630246	50.00	ug/l	0.01
34) 1,4-Difluorobenzene	5.53	114	1011258	50.00	ug/l	0.01
63) Chlorobenzene-d5	9.69	117	872740	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.49	152	373737	50.00	ug/l	0.01
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	4.77	65	300465	50.87	ug/l	0.01
Spiked Amount 50.000			Recovery = 101.74%			
35) Dibromofluoromethane	4.04	113	343803	47.33	ug/l	0.01
Spiked Amount 50.000			Recovery = 94.66%			
50) Toluene-d8	7.49	98	1003394	45.79	ug/l	0.02
Spiked Amount 50.000			Recovery = 91.58%			
62) 4-Bromofluorobenzene	11.34	95	392089	44.09	ug/l	0.01
Spiked Amount 50.000			Recovery = 88.18%			
Target Compounds						Qvalue

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

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Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	121 and 123 Reynolds St.	Date Received:	
Client Sample ID:	VF1018SBL01	SDG No.:	H5282
Lab Sample ID:	VF1018SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF051148.D	1		10/18/16 14:19	VF101816

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	5	U	0.5	0.5	5	ug/Kg
71-43-2	Benzene	5	U	0.38	0.5	5	ug/Kg
108-88-3	Toluene	5	U	0.5	0.5	5	ug/Kg
100-41-4	Ethyl Benzene	5	U	0.5	0.5	5	ug/Kg
179601-23-1	m/p-Xylenes	10	U	0.72	1	10	ug/Kg
95-47-6	o-Xylene	5	U	0.5	0.5	5	ug/Kg
98-82-8	Isopropylbenzene	5	U	0.48	0.5	5	ug/Kg
103-65-1	n-propylbenzene	5	U	0.36	0.5	5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	5	U	0.45	0.5	5	ug/Kg
98-06-6	tert-Butylbenzene	5	U	0.5	0.5	5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	5	U	0.5	0.5	5	ug/Kg
135-98-8	sec-Butylbenzene	5	U	0.5	0.5	5	ug/Kg
99-87-6	p-Isopropyltoluene	5	U	0.29	0.5	5	ug/Kg
104-51-8	n-Butylbenzene	5	U	0.46	0.5	5	ug/Kg
91-20-3	Naphthalene	5	U	0.45	0.5	5	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	52.7		56 - 120		105%	SPK: 50
1868-53-7	Dibromofluoromethane	53.4		57 - 135		107%	SPK: 50
2037-26-5	Toluene-d8	50.9		67 - 123		102%	SPK: 50
460-00-4	4-Bromofluorobenzene	50		33 - 141		100%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	566339	4.79				
540-36-3	1,4-Difluorobenzene	860626	5.52				
3114-55-4	Chlorobenzene-d5	754559	9.68				
3855-82-1	1,4-Dichlorobenzene-d4	344382	12.48				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Quantitation Report (QT/LSC Reviewed)

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101816\
Data File : VF051148.D
Acq On : 18 Oct 2016 14:19
Operator : FY/SY
Sample : VF1018SBL01
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 3 Sample Multiplier: 1

Instrument : MSVOA_F
ClientSampleId : VF1018SBL01

Quant Time: Oct 19 04:09:45 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.79	168	566339	50.00	ug/l	0.01
34) 1,4-Difluorobenzene	5.52	114	860626	50.00	ug/l	0.01
63) Chlorobenzene-d5	9.68	117	754559	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.48	152	344382	50.00	ug/l	0.01
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	4.76	65	279875	52.73	ug/l	0.01
Spiked Amount 50.000			Recovery = 105.46%			
35) Dibromofluoromethane	4.02	113	329987	53.38	ug/l	0.00
Spiked Amount 50.000			Recovery = 106.76%			
50) Toluene-d8	7.47	98	949391	50.91	ug/l	0.01
Spiked Amount 50.000			Recovery = 101.82%			
62) 4-Bromofluorobenzene	11.34	95	378258	49.98	ug/l	0.01
Spiked Amount 50.000			Recovery = 99.96%			

Target Compounds	Qvalue

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

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Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	121 and 123 Reynolds St.	Date Received:	
Client Sample ID:	VN1021MBL01	SDG No.:	H5282
Lab Sample ID:	VN1021MBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	MED

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN036699.D	1		10/21/16 12:18	VN102116

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	500	U	50	50	500	ug/Kg
71-43-2	Benzene	500	U	38	50	500	ug/Kg
108-88-3	Toluene	500	U	50	50	500	ug/Kg
100-41-4	Ethyl Benzene	500	U	50	50	500	ug/Kg
179601-23-1	m/p-Xylenes	1000	U	72	100	1000	ug/Kg
95-47-6	o-Xylene	500	U	50	50	500	ug/Kg
98-82-8	Isopropylbenzene	500	U	48	50	500	ug/Kg
103-65-1	n-propylbenzene	500	U	36	50	500	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	500	U	45	50	500	ug/Kg
98-06-6	tert-Butylbenzene	500	U	50	50	500	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	500	U	50	50	500	ug/Kg
135-98-8	sec-Butylbenzene	500	U	50	50	500	ug/Kg
99-87-6	p-Isopropyltoluene	500	U	29	50	500	ug/Kg
104-51-8	n-Butylbenzene	500	U	46	50	500	ug/Kg
91-20-3	Naphthalene	500	U	45	50	500	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	51.3		56 - 120		103%	SPK: 50
1868-53-7	Dibromofluoromethane	49.1		57 - 135		98%	SPK: 50
2037-26-5	Toluene-d8	49		67 - 123		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.7		33 - 141		95%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	348154	7.87				
540-36-3	1,4-Difluorobenzene	594612	8.78				
3114-55-4	Chlorobenzene-d5	602161	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	265660	13.52				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Quantitation Report (QT/LSC Reviewed)

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN102116\
Data File : VN036699.D
Acq On : 21 Oct 2016 12:18
Operator : MD\SY
Sample : VN1021MBL01
Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 4 Sample Multiplier: 1

Instrument : MSVOA_N
ClientSampleId : VN1021MBL01

Quant Time: Oct 22 01:19:01 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.87	168	348154	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	8.78	114	594612	50.00	ug/l	0.00
63) Chlorobenzene-d5	11.58	117	602161	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.52	152	265660	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.23	65	222744	51.30	ug/l	0.00
Spiked Amount 50.000			Recovery = 102.60%			
35) Dibromofluoromethane	7.80	113	198749	49.14	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.28%			
50) Toluene-d8	10.27	98	734763	49.03	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.06%			
62) 4-Bromofluorobenzene	12.58	95	262844	47.71	ug/l	0.00
Spiked Amount 50.000			Recovery = 95.42%			

Target Compounds Qvalue

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

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Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	121 and 123 Reynolds St.	Date Received:	
Client Sample ID:	VF1017SBS01	SDG No.:	H5282
Lab Sample ID:	VF1017SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF051127.D	1		10/17/16 14:01	VF101716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	20		0.5	0.5	5	ug/Kg
71-43-2	Benzene	20.8		0.38	0.5	5	ug/Kg
108-88-3	Toluene	21.5		0.5	0.5	5	ug/Kg
100-41-4	Ethyl Benzene	21		0.5	0.5	5	ug/Kg
179601-23-1	m/p-Xylenes	42.3		0.72	1	10	ug/Kg
95-47-6	o-Xylene	20.9		0.5	0.5	5	ug/Kg
98-82-8	Isopropylbenzene	22.2		0.48	0.5	5	ug/Kg
103-65-1	n-propylbenzene	22.5		0.36	0.5	5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	21.7		0.45	0.5	5	ug/Kg
98-06-6	tert-Butylbenzene	22.2		0.5	0.5	5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	22		0.5	0.5	5	ug/Kg
135-98-8	sec-Butylbenzene	21.6		0.5	0.5	5	ug/Kg
99-87-6	p-Isopropyltoluene	22.8		0.29	0.5	5	ug/Kg
104-51-8	n-Butylbenzene	22.4		0.46	0.5	5	ug/Kg
91-20-3	Naphthalene	20.9		0.45	0.5	5	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	51.1		56 - 120		102%	SPK: 50
1868-53-7	Dibromofluoromethane	48		57 - 135		96%	SPK: 50
2037-26-5	Toluene-d8	50.2		67 - 123		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.6		33 - 141		97%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	617077	4.79				
540-36-3	1,4-Difluorobenzene	942861	5.52				
3114-55-4	Chlorobenzene-d5	880881	9.69				
3855-82-1	1,4-Dichlorobenzene-d4	397061	12.48				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101716\
Data File : VF051127.D
Acq On : 17 Oct 2016 14:01
Operator : FY/SY
Sample : VF1017SBS01
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
VF1017SBS01

Manual Integrations APPROVED
MMDadoda
10/18/2016 4:06:08 PM

Quant Time: Oct 18 06:43:49 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.79	168	617077	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	5.52	114	942861	50.00	ug/l		0.00
63) Chlorobenzene-d5	9.69	117	880881	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	12.48	152	397061	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	4.76	65	295278	51.06	ug/l		0.00
Spiked Amount 50.000			Recovery = 102.12%				
35) Dibromofluoromethane	4.03	113	325269	48.03	ug/l		0.00
Spiked Amount 50.000			Recovery = 96.06%				
50) Toluene-d8	7.47	98	1025748	50.21	ug/l		0.00
Spiked Amount 50.000			Recovery = 100.42%				
62) 4-Bromofluorobenzene	11.33	95	402782	48.58	ug/l		0.00
Spiked Amount 50.000			Recovery = 97.16%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.93	85	102443	19.31	ug/l		96
3) Chloromethane	1.07	50	167871	18.62	ug/l		98
4) Vinyl Chloride	1.09	62	123201	19.77	ug/l		98
5) Bromomethane	1.29	94	62469m	21.78	ug/l		
6) Chloroethane	1.35	64	36289m	23.28	ug/l		
7) Trichlorofluoromethane	1.42	101	88622	21.10	ug/l		98
8) Diethyl Ether	1.61	74	43058	19.67	ug/l		90
9) 1,1,2-Trichlorotrifluoroet	1.77	101	50232	24.29	ug/l		98
10) Methyl Iodide	1.84	142	168628m	20.49	ug/l		
11) Tert butyl alcohol	2.52	59	40454	86.54	ug/l	#	93
12) 1,1-Dichloroethene	1.74	96	59581	18.55	ug/l		98
13) Acrolein	1.97	56	36224	55.92	ug/l		95
14) Allyl chloride	2.06	41	150343	18.61	ug/l		98
15) Acrylonitrile	2.89	53	179390	94.30	ug/l		90
16) Acetone	2.20	43	178246	81.62	ug/l		99
17) Carbon Disulfide	1.75	76	223030	18.62	ug/l		100
18) Methyl Acetate	2.30	43	125614	16.60	ug/l		98
19) Methyl tert-butyl Ether	2.38	73	208138	20.02	ug/l		98
20) Methylene Chloride	2.17	84	89546m	20.42	ug/l		
21) trans-1,2-Dichloroethene	2.27	96	86298	18.77	ug/l		99
22) Diisopropyl ether	2.75	45	367509	19.40	ug/l		98
23) Vinyl Acetate	3.13	43	1668623	108.54	ug/l		100
24) 1,1-Dichloroethane	2.82	63	163968	18.93	ug/l		99
25) 2-Butanone	4.26	43	531111	95.92	ug/l		100
26) 2,2-Dichloropropane	3.54	77	110873	20.05	ug/l		94
27) cis-1,2-Dichloroethene	3.41	96	152250	20.47	ug/l		99
28) Bromochloromethane	3.64	49	121670	20.07	ug/l		91
29) Tetrahydrofuran	3.99	42	259883	96.57	ug/l		98
30) Chloroform	3.78	83	227171	20.43	ug/l		99
31) Cyclohexane	3.62	56	177617	19.76	ug/l		98
32) 1,1,1-Trichloroethane	4.02	97	123085	19.83	ug/l		94
36) 1,1-Dichloropropene	4.21	75	176644	20.12	ug/l		100
37) Ethyl Acetate	4.03	43	228396	20.19	ug/l		96
38) Carbon Tetrachloride	3.91	117	104671	20.40	ug/l		95

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101716\
Data File : VF051127.D
Acq On : 17 Oct 2016 14:01
Operator : FY/SY
Sample : VF1017SBS01
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 18 06:43:49 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Instrument :
MSVOA_F
ClientSampleId :
VF1017SBS01

Manual Integrations APPROVED
MMDadoda
10/18/2016 4:06:08 PM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
39) Methylcyclohexane	5.38	83	209373	21.76 ug/l	98
40) Benzene	4.55	78	511898	20.83 ug/l	100
41) Methacrylonitrile	4.66	41	113773	20.65 ug/l	97
42) 1,2-Dichloroethane	4.86	62	170923	22.08 ug/l	99
43) Isopropyl Acetate	6.88	43	314753	20.78 ug/l	99
44) Trichloroethene	5.42	130	156536	22.02 ug/l	97
45) 1,2-Dichloropropane	6.15	63	168098	21.76 ug/l	98
46) Dibromomethane	6.00	93	112259	22.04 ug/l	96
47) Bromodichloromethane	6.30	83	199527	21.87 ug/l	99
48) Methyl methacrylate	6.64	41	168648	20.74 ug/l	97
49) 1,4-Dioxane	6.62	88	16203	330.98 ug/l	95
51) 4-Methyl-2-Pentanone	8.18	43	1037156	105.33 ug/l	98
52) Toluene	7.54	92	339824	21.54 ug/l	93
53) t-1,3-Dichloropropene	8.19	75	211504	21.39 ug/l	99
54) cis-1,3-Dichloropropene	7.21	75	256877	21.72 ug/l	97
55) 1,1,2-Trichloroethane	8.40	97	141725	21.47 ug/l	94
56) Ethyl methacrylate	8.53	69	217105	21.91 ug/l	96
57) 1,3-Dichloropropane	8.76	76	251844	22.21 ug/l	95
59) 2-Hexanone	9.40	43	842761	107.05 ug/l	97
60) Dibromochloromethane	8.62	129	174584	22.58 ug/l	98
61) 1,2-Dibromoethane	8.89	107	156506	21.05 ug/l	99
64) Tetrachloroethene	8.07	164	142963	20.88 ug/l	98
65) Chlorobenzene	9.71	112	384932	21.00 ug/l	99
66) 1,1,1,2-Tetrachloroethane	9.83	131	141489	21.47 ug/l	96
67) Ethyl Benzene	9.81	91	646970	20.96 ug/l	99
68) m/p-Xylenes	10.04	106	480738	42.31 ug/l	94
69) o-Xylene	10.63	106	238475	20.90 ug/l	99
70) Styrene	10.70	104	383103	20.98 ug/l	96
71) Bromoform	10.68	173	124235	21.75 ug/l	95
73) Isopropylbenzene	11.05	105	621442	22.19 ug/l	98
74) N-amyl acetate	11.30	43	354684	20.78 ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.62	83	211141	21.71 ug/l	96
76) 1,2,3-Trichloropropane	11.72	75	150549	20.74 ug/l	100
77) Bromobenzene	11.42	156	176905	21.30 ug/l	99
78) n-propylbenzene	11.52	91	769941	22.52 ug/l	95
79) 2-Chlorotoluene	11.65	91	425288	22.28 ug/l	99
80) 1,3,5-Trimethylbenzene	11.76	105	472761	21.66 ug/l	99
81) trans-1,4-Dichloro-2-buten	11.80	75	74935m	21.89 ug/l	
82) 4-Chlorotoluene	11.83	91	453241	21.69 ug/l	99
83) tert-Butylbenzene	12.06	119	474756	22.21 ug/l	98
84) 1,2,4-Trimethylbenzene	12.13	105	484045	21.95 ug/l	94
85) sec-Butylbenzene	12.24	105	611286	21.59 ug/l	99
86) p-Isopropyltoluene	12.39	119	514098	22.76 ug/l	95
87) 1,3-Dichlorobenzene	12.40	146	298197	22.48 ug/l	95
88) 1,4-Dichlorobenzene	12.50	146	281434	21.79 ug/l	98
89) n-Butylbenzene	12.77	91	493288	22.42 ug/l	97
90) Hexachloroethane	12.84	117	106768	23.03 ug/l	92
91) 1,2-Dichlorobenzene	12.87	146	269208	22.06 ug/l	98
92) 1,2-Dibromo-3-Chloropropan	13.57	75	29709	19.75 ug/l	98
93) 1,2,4-Trichlorobenzene	14.12	180	130985	21.57 ug/l	97

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101716\
Data File : VF051127.D
Acq On : 17 Oct 2016 14:01
Operator : FY/SY
Sample : VF1017SBS01
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 18 06:43:49 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Instrument :
MSVOA_F
ClientSampleId :
VF1017SBS01

Manual Integrations APPROVED
MMDadoda
10/18/2016 4:06:08 PM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Hexachlorobutadiene	14.11	225	74587	21.59	ug/l	93
95) Naphthalene	14.38	128	327028	20.94	ug/l	100
96) 1,2,3-Trichlorobenzene	14.52	180	108189	20.43	ug/l	99

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

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	121 and 123 Reynolds St.	Date Received:	
Client Sample ID:	VF1018SBS01	SDG No.:	H5282
Lab Sample ID:	VF1018SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF051149.D	1		10/18/16 14:48	VF101816

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	21		0.5	0.5	5	ug/Kg
71-43-2	Benzene	22.1		0.38	0.5	5	ug/Kg
108-88-3	Toluene	21.4		0.5	0.5	5	ug/Kg
100-41-4	Ethyl Benzene	22		0.5	0.5	5	ug/Kg
179601-23-1	m/p-Xylenes	44.7		0.72	1	10	ug/Kg
95-47-6	o-Xylene	22.5		0.5	0.5	5	ug/Kg
98-82-8	Isopropylbenzene	21.4		0.48	0.5	5	ug/Kg
103-65-1	n-propylbenzene	21		0.36	0.5	5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	21.9		0.45	0.5	5	ug/Kg
98-06-6	tert-Butylbenzene	21.6		0.5	0.5	5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	21.5		0.5	0.5	5	ug/Kg
135-98-8	sec-Butylbenzene	21.5		0.5	0.5	5	ug/Kg
99-87-6	p-Isopropyltoluene	21.9		0.29	0.5	5	ug/Kg
104-51-8	n-Butylbenzene	22.3		0.46	0.5	5	ug/Kg
91-20-3	Naphthalene	22.6		0.45	0.5	5	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	53.1		56 - 120		106%	SPK: 50
1868-53-7	Dibromofluoromethane	52.2		57 - 135		104%	SPK: 50
2037-26-5	Toluene-d8	52.9		67 - 123		106%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.2		33 - 141		106%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	551205	4.8				
540-36-3	1,4-Difluorobenzene	864306	5.52				
3114-55-4	Chlorobenzene-d5	774642	9.69				
3855-82-1	1,4-Dichlorobenzene-d4	386300	12.48				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101816\
Data File : VF051149.D
Acq On : 18 Oct 2016 14:48
Operator : FY/SY
Sample : VF1018SBS01
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
VF1018SBS01

Manual Integrations APPROVED
MMDadoda
10/19/2016 1:55:38 PM

Quant Time: Oct 19 04:12:39 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	4.80	168	551205	50.00	ug/l		0.01
34) 1,4-Difluorobenzene	5.52	114	864306	50.00	ug/l		0.00
63) Chlorobenzene-d5	9.69	117	774642	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	12.48	152	386300	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	4.76	65	274197	53.08	ug/l		0.00
Spiked Amount 50.000			Recovery =	106.16%			
35) Dibromofluoromethane	4.03	113	323791	52.16	ug/l		0.00
Spiked Amount 50.000			Recovery =	104.32%			
50) Toluene-d8	7.47	98	990414	52.89	ug/l		0.00
Spiked Amount 50.000			Recovery =	105.78%			
62) 4-Bromofluorobenzene	11.33	95	404094	53.17	ug/l		0.00
Spiked Amount 50.000			Recovery =	106.34%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	0.93	85	97960	20.67	ug/l		97
3) Chloromethane	1.07	50	153477	19.06	ug/l		94
4) Vinyl Chloride	1.09	62	115056	20.67	ug/l		98
5) Bromomethane	1.28	94	62758m	24.49	ug/l		
6) Chloroethane	1.36	64	36319	26.08	ug/l		89
7) Trichlorofluoromethane	1.42	101	85147	22.70	ug/l		95
8) Diethyl Ether	1.61	74	39321	20.11	ug/l		96
9) 1,1,2-Trichlorotrifluoroet	1.78	101	43081	23.24	ug/l		92
10) Methyl Iodide	1.84	142	159473m	21.69	ug/l		
11) Tert butyl alcohol	2.52	59	35720	85.54	ug/l	#	92
12) 1,1-Dichloroethene	1.73	96	50548	17.62	ug/l		97
13) Acrolein	1.97	56	34709	59.99	ug/l		84
14) Allyl chloride	2.07	41	135874	18.83	ug/l		99
15) Acrylonitrile	2.88	53	162261	95.49	ug/l		98
16) Acetone	2.20	43	172015	88.18	ug/l		96
17) Carbon Disulfide	1.75	76	204660	19.13	ug/l		98
18) Methyl Acetate	2.30	43	125262	18.54	ug/l		99
19) Methyl tert-butyl Ether	2.38	73	195291	21.03	ug/l		95
20) Methylene Chloride	2.17	84	81936m	20.92	ug/l		
21) trans-1,2-Dichloroethene	2.27	96	79467	19.35	ug/l		100
22) Diisopropyl ether	2.76	45	343498	20.30	ug/l		99
23) Vinyl Acetate	3.13	43	1483014	108.00	ug/l		100
24) 1,1-Dichloroethane	2.82	63	153607	19.86	ug/l		99
25) 2-Butanone	4.26	43	504319	101.97	ug/l		98
26) 2,2-Dichloropropane	3.53	77	101835	20.62	ug/l		96
27) cis-1,2-Dichloroethene	3.41	96	141576	21.31	ug/l		92
28) Bromochloromethane	3.64	49	105665	19.51	ug/l		92
29) Tetrahydrofuran	4.00	42	246360	102.48	ug/l		98
30) Chloroform	3.78	83	209736	21.11	ug/l		98
31) Cyclohexane	3.62	56	166215	20.78	ug/l		99
32) 1,1,1-Trichloroethane	4.02	97	115615	20.86	ug/l		94
36) 1,1-Dichloropropene	4.21	75	178513	22.18	ug/l		99
37) Ethyl Acetate	4.04	43	217701	21.00	ug/l		93
38) Carbon Tetrachloride	3.92	117	96586	20.54	ug/l		100

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101816\
Data File : VF051149.D
Acq On : 18 Oct 2016 14:48
Operator : FY/SY
Sample : VF1018SBS01
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 19 04:12:39 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Instrument :
MSVOA_F
ClientSampleId :
VF1018SBS01

Manual Integrations APPROVED
MMDadoda
10/19/2016 1:55:38 PM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	5.38	83	184930	20.96	ug/l		99
40) Benzene	4.55	78	496724	22.05	ug/l		99
41) Methacrylonitrile	4.67	41	104906	20.77	ug/l		96
42) 1,2-Dichloroethane	4.86	62	144862	20.42	ug/l		98
43) Isopropyl Acetate	6.89	43	279664	20.14	ug/l	#	98
44) Trichloroethene	5.43	130	141440	21.71	ug/l		98
45) 1,2-Dichloropropane	6.15	63	151024	21.32	ug/l		97
46) Dibromomethane	6.00	93	99384	21.29	ug/l		97
47) Bromodichloromethane	6.30	83	178276	21.32	ug/l		100
48) Methyl methacrylate	6.64	41	158560	21.27	ug/l		96
49) 1,4-Dioxane	6.62	88	13690	305.06	ug/l		92
51) 4-Methyl-2-Pentanone	8.18	43	1015747	112.53	ug/l		98
52) Toluene	7.55	92	309124	21.38	ug/l		100
53) t-1,3-Dichloropropene	8.19	75	190823	21.06	ug/l		98
54) cis-1,3-Dichloropropene	7.22	75	232068	21.40	ug/l		99
55) 1,1,2-Trichloroethane	8.40	97	132639	21.92	ug/l		99
56) Ethyl methacrylate	8.54	69	207433	22.83	ug/l		98
57) 1,3-Dichloropropane	8.76	76	225607	21.70	ug/l		97
59) 2-Hexanone	9.41	43	803259	111.31	ug/l		99
60) Dibromochloromethane	8.62	129	134555	18.98	ug/l		100
61) 1,2-Dibromoethane	8.90	107	149500	21.93	ug/l		99
64) Tetrachloroethene	8.07	164	134402	22.32	ug/l		96
65) Chlorobenzene	9.71	112	353896	21.95	ug/l		97
66) 1,1,1,2-Tetrachloroethane	9.83	131	121767	21.01	ug/l		98
67) Ethyl Benzene	9.81	91	596640	21.98	ug/l		98
68) m/p-Xylenes	10.04	106	446988	44.74	ug/l		94
69) o-Xylene	10.63	106	225985	22.53	ug/l		100
70) Styrene	10.71	104	356457	22.19	ug/l		99
71) Bromoform	10.68	173	110519	22.00	ug/l	#	92
73) Isopropylbenzene	11.05	105	582389	21.38	ug/l		98
74) N-amyl acetate	11.30	43	337824	20.34	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.62	83	200767	21.22	ug/l		98
76) 1,2,3-Trichloropropane	11.72	75	144250	20.43	ug/l		99
77) Bromobenzene	11.42	156	169999	21.04	ug/l		96
78) n-propylbenzene	11.52	91	699404	21.03	ug/l		93
79) 2-Chlorotoluene	11.65	91	393410	21.18	ug/l		99
80) 1,3,5-Trimethylbenzene	11.76	105	465400	21.91	ug/l		98
81) trans-1,4-Dichloro-2-buten	11.80	75	63969m	19.21	ug/l		
82) 4-Chlorotoluene	11.83	91	433999	21.34	ug/l		99
83) tert-Butylbenzene	12.06	119	449042	21.59	ug/l		98
84) 1,2,4-Trimethylbenzene	12.14	105	460137	21.45	ug/l		97
85) sec-Butylbenzene	12.24	105	592535	21.51	ug/l		98
86) p-Isopropyltoluene	12.40	119	481200	21.89	ug/l		99
87) 1,3-Dichlorobenzene	12.41	146	274302	21.25	ug/l		99
88) 1,4-Dichlorobenzene	12.50	146	279651	22.26	ug/l		98
89) n-Butylbenzene	12.77	91	477778	22.32	ug/l		95
90) Hexachloroethane	12.85	117	91141	20.20	ug/l	#	57
91) 1,2-Dichlorobenzene	12.87	146	262090	22.08	ug/l		98
92) 1,2-Dibromo-3-Chloropropan	13.57	75	29990	20.50	ug/l		98
93) 1,2,4-Trichlorobenzene	14.12	180	130060	22.02	ug/l		98

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101816\
Data File : VF051149.D
Acq On : 18 Oct 2016 14:48
Operator : FY/SY
Sample : VF1018SBS01
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_F
ClientSampleId :
VF1018SBS01

Manual Integrations APPROVED
MMDadoda
10/19/2016 1:55:38 PM

Quant Time: Oct 19 04:12:39 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
94) Hexachlorobutadiene	14.11	225	70662	21.03 ug/l	96
95) Naphthalene	14.38	128	342830	22.56 ug/l	99
96) 1,2,3-Trichlorobenzene	14.53	180	111306	21.60 ug/l	96

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

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	121 and 123 Reynolds St.	Date Received:	
Client Sample ID:	VN1021MBS01	SDG No.:	H5282
Lab Sample ID:	VN1021MBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	100 uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	MED

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN036700.D	1		10/21/16 13:12	VN102116

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	1800		50	50	500	ug/Kg
71-43-2	Benzene	1900		38	50	500	ug/Kg
108-88-3	Toluene	1800		50	50	500	ug/Kg
100-41-4	Ethyl Benzene	1700		50	50	500	ug/Kg
179601-23-1	m/p-Xylenes	3400		72	100	1000	ug/Kg
95-47-6	o-Xylene	1700		50	50	500	ug/Kg
98-82-8	Isopropylbenzene	1800		48	50	500	ug/Kg
103-65-1	n-propylbenzene	1800		36	50	500	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	1800		45	50	500	ug/Kg
98-06-6	tert-Butylbenzene	1700		50	50	500	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	1800		50	50	500	ug/Kg
135-98-8	sec-Butylbenzene	1800		50	50	500	ug/Kg
99-87-6	p-Isopropyltoluene	1700		29	50	500	ug/Kg
104-51-8	n-Butylbenzene	1600		46	50	500	ug/Kg
91-20-3	Naphthalene	1600		45	50	500	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	41.3		56 - 120		83%	SPK: 50
1868-53-7	Dibromofluoromethane	41.3		57 - 135		83%	SPK: 50
2037-26-5	Toluene-d8	41.2		67 - 123		82%	SPK: 50
460-00-4	4-Bromofluorobenzene	37.9		33 - 141		76%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	281643	7.87				
540-36-3	1,4-Difluorobenzene	434948	8.78				
3114-55-4	Chlorobenzene-d5	396983	11.58				
3855-82-1	1,4-Dichlorobenzene-d4	187174	13.52				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN102116\
Data File : VN036700.D
Acq On : 21 Oct 2016 13:12
Operator : MD\SY
Sample : VN1021MBS01
Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 22 01:20:43 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN1021MBS01

Manual Integrations APPROVED
feifei
10/24/2016 11:02:19 AM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.87	168	281643	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	8.78	114	434948	50.00	ug/l		0.00
63) Chlorobenzene-d5	11.58	117	396983	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.52	152	187174	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.23	65	145223	41.34	ug/l		0.00
Spiked Amount 50.000			Recovery =	82.68%			
35) Dibromofluoromethane	7.80	113	122237	41.32	ug/l		0.00
Spiked Amount 50.000			Recovery =	82.64%			
50) Toluene-d8	10.27	98	451624	41.20	ug/l		0.00
Spiked Amount 50.000			Recovery =	82.40%			
62) 4-Bromofluorobenzene	12.58	95	152600	37.87	ug/l		0.00
Spiked Amount 50.000			Recovery =	75.74%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.88	85	50345	17.17	ug/l		99
3) Chloromethane	2.09	50	63503	18.41	ug/l		99
4) Vinyl Chloride	2.23	62	55059	17.87	ug/l		100
5) Bromomethane	2.64	94	20575	16.18	ug/l		91
6) Chloroethane	2.78	64	37808	18.03	ug/l		97
7) Trichlorofluoromethane	3.12	101	80815	14.21	ug/l		99
8) Diethyl Ether	3.55	74	30830	18.39	ug/l		81
9) 1,1,2-Trichlorotrifluoroet	3.92	101	50646	19.33	ug/l	#	87
10) Methyl Iodide	4.13	142	20484	17.78	ug/l		94
11) Tert butyl alcohol	5.00	59	26368	92.53	ug/l	#	93
12) 1,1-Dichloroethene	3.90	96	45644	18.96	ug/l		95
13) Acrolein	3.76	56	5551	38.85	ug/l		97
14) Allyl chloride	4.52	41	67021	17.08	ug/l	#	83
15) Acrylonitrile	5.21	53	110196	106.11	ug/l		99
16) Acetone	3.98	43	101299	92.19	ug/l		97
17) Carbon Disulfide	4.25	76	121109	17.90	ug/l		99
18) Methyl Acetate	4.53	43	65512	20.97	ug/l		91
19) Methyl tert-butyl Ether	5.30	73	149010	18.04	ug/l		99
20) Methylene Chloride	4.76	84	57974	20.19	ug/l		90
21) trans-1,2-Dichloroethene	5.29	96	50665	19.24	ug/l		88
22) Diisopropyl ether	6.20	45	162530	17.93	ug/l	#	95
23) Vinyl Acetate	6.14	43	464368m	80.47	ug/l		
24) 1,1-Dichloroethane	6.09	63	97674	19.21	ug/l		97
25) 2-Butanone	7.07	43	130027	94.97	ug/l		91
26) 2,2-Dichloropropane	7.06	77	78900	16.34	ug/l		99
27) cis-1,2-Dichloroethene	7.07	96	61241	18.88	ug/l		92
28) Bromochloromethane	7.42	49	29258	13.50	ug/l	#	64
29) Tetrahydrofuran	7.46	42	79939	96.87	ug/l	#	87
30) Chloroform	7.58	83	103629	18.98	ug/l		98
31) Cyclohexane	7.89	56	82611	17.57	ug/l	#	88
32) 1,1,1-Trichloroethane	7.79	97	87815	17.83	ug/l		96
36) 1,1-Dichloropropene	8.01	75	71539	17.38	ug/l		97
37) Ethyl Acetate	7.17	43	56390	18.81	ug/l		97
38) Carbon Tetrachloride	8.00	117	69900	16.51	ug/l		97

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN102116\
Data File : VN036700.D
Acq On : 21 Oct 2016 13:12
Operator : MD\SY
Sample : VN1021MBS01
Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 22 01:20:43 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN1021MBS01

Manual Integrations APPROVED
feifei
10/24/2016 11:02:19 AM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	9.28	83	83546	16.20	ug/l		92
40) Benzene	8.25	78	230021	18.83	ug/l		97
41) Methacrylonitrile	7.38	41	30986	16.98	ug/l	#	90
42) 1,2-Dichloroethane	8.33	62	79827	17.73	ug/l		98
43) Isopropyl Acetate	8.36	43	95818	16.99	ug/l		94
44) Trichloroethene	9.03	130	59578	17.35	ug/l		89
45) 1,2-Dichloropropane	9.31	63	58372	18.73	ug/l		98
46) Dibromomethane	9.40	93	39439	18.59	ug/l	#	79
47) Bromodichloromethane	9.58	83	77642	17.52	ug/l		99
48) Methyl methacrylate	9.38	41	47564	16.37	ug/l		91
49) 1,4-Dioxane	9.40	88	15619	384.13	ug/l		94
51) 4-Methyl-2-Pentanone	10.15	43	282082	93.00	ug/l		96
52) Toluene	10.34	92	145106	18.03	ug/l		97
53) t-1,3-Dichloropropene	10.55	75	71959	16.48	ug/l		97
54) cis-1,3-Dichloropropene	10.01	75	79981	16.58	ug/l		98
55) 1,1,2-Trichloroethane	10.73	97	59039	19.07	ug/l		97
56) Ethyl methacrylate	10.59	69	71444	17.45	ug/l		94
57) 1,3-Dichloropropane	10.88	76	94718	18.94	ug/l		99
58) 2-Chloroethyl Vinyl ether	9.88	63	1714	47.20	ug/l		97
59) 2-Hexanone	10.91	43	190243	92.36	ug/l		94
60) Dibromochloromethane	11.08	129	60899	16.86	ug/l		99
61) 1,2-Dibromoethane	11.18	107	58260	19.10	ug/l		97
64) Tetrachloroethene	10.81	164	57191	17.55	ug/l		90
65) Chlorobenzene	11.61	112	162313	18.19	ug/l		100
66) 1,1,1,2-Tetrachloroethane	11.68	131	58314	17.18	ug/l		98
67) Ethyl Benzene	11.68	91	264599	17.27	ug/l		96
68) m/p-Xylenes	11.79	106	204444	34.42	ug/l		92
69) o-Xylene	12.12	106	99956	16.99	ug/l		96
70) Styrene	12.14	104	160879	17.10	ug/l		98
71) Bromoform	12.30	173	43062	17.82	ug/l	#	99
73) Isopropylbenzene	12.42	105	264600	17.82	ug/l		99
74) N-amyl acetate	12.23	43	71802	16.42	ug/l		94
75) 1,1,2,2-Tetrachloroethane	12.66	83	79588	21.59	ug/l		95
76) 1,2,3-Trichloropropane	12.72	75	67198m	21.61	ug/l		
77) Bromobenzene	12.70	156	71510	18.73	ug/l		73
78) n-propylbenzene	12.76	91	289993	17.80	ug/l		95
79) 2-Chlorotoluene	12.85	91	179462	18.20	ug/l		92
80) 1,3,5-Trimethylbenzene	12.90	105	217127	17.62	ug/l		97
81) trans-1,4-Dichloro-2-buten	12.46	75	18587	19.94	ug/l		96
82) 4-Chlorotoluene	12.95	91	177122	18.04	ug/l		93
83) tert-Butylbenzene	13.17	119	191894	17.42	ug/l		95
84) 1,2,4-Trimethylbenzene	13.21	105	220149	17.53	ug/l		96
85) sec-Butylbenzene	13.34	105	257698	17.63	ug/l		96
86) p-Isopropyltoluene	13.46	119	220211	17.11	ug/l		98
87) 1,3-Dichlorobenzene	13.46	146	121613	17.93	ug/l		95
88) 1,4-Dichlorobenzene	13.54	146	118852	17.64	ug/l		95
89) n-Butylbenzene	13.79	91	171214	16.26	ug/l		98
90) Hexachloroethane	14.07	117	37911	17.63	ug/l		65
91) 1,2-Dichlorobenzene	13.83	146	124235	18.54	ug/l		95
92) 1,2-Dibromo-3-Chloropropan	14.45	75	12270	19.83	ug/l		78

Data Path : W:\HPCHEM1\MSVOA_N\DATA\VN102116\
Data File : VN036700.D
Acq On : 21 Oct 2016 13:12
Operator : MD\SY
Sample : VN1021MBS01
Misc : 5.00g/10mL/100uL/5.00mL/MSVOA_N/MEOH
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 22 01:20:43 2016
Quant Method : W:\HPCHEM1\MSVOA_N\METHODS\82N100516W.M
Quant Title : SW846 8260
QLast Update : Wed Oct 05 16:52:43 2016
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN1021MBS01

Manual Integrations APPROVED
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10/24/2016 11:02:19 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	15.10	180	62519	16.27	ug/l	97
94) Hexachlorobutadiene	15.21	225	39200	17.13	ug/l	95
95) Naphthalene	15.34	128	148070	16.20	ug/l	99
96) 1,2,3-Trichlorobenzene	15.53	180	64497	16.74	ug/l	96

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

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	121 and 123 Reynolds St.	Date Received:	
Client Sample ID:	VF1017SBSD01	SDG No.:	H5282
Lab Sample ID:	VF1017SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Moisture:	0
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF051128.D	1		10/17/16 14:30	VF101716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
1634-04-4	Methyl tert-butyl Ether	22		0.5	0.5	5	ug/Kg
71-43-2	Benzene	21		0.38	0.5	5	ug/Kg
108-88-3	Toluene	21.3		0.5	0.5	5	ug/Kg
100-41-4	Ethyl Benzene	21.9		0.5	0.5	5	ug/Kg
179601-23-1	m/p-Xylenes	43.7		0.72	1	10	ug/Kg
95-47-6	o-Xylene	22.3		0.5	0.5	5	ug/Kg
98-82-8	Isopropylbenzene	22.9		0.48	0.5	5	ug/Kg
103-65-1	n-propylbenzene	22.4		0.36	0.5	5	ug/Kg
108-67-8	1,3,5-Trimethylbenzene	22.2		0.45	0.5	5	ug/Kg
98-06-6	tert-Butylbenzene	22.4		0.5	0.5	5	ug/Kg
95-63-6	1,2,4-Trimethylbenzene	22.3		0.5	0.5	5	ug/Kg
135-98-8	sec-Butylbenzene	22.6		0.5	0.5	5	ug/Kg
99-87-6	p-Isopropyltoluene	22.4		0.29	0.5	5	ug/Kg
104-51-8	n-Butylbenzene	22.1		0.46	0.5	5	ug/Kg
91-20-3	Naphthalene	22.6		0.45	0.5	5	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	53.5		56 - 120		107%	SPK: 50
1868-53-7	Dibromofluoromethane	48.9		57 - 135		98%	SPK: 50
2037-26-5	Toluene-d8	51.6		67 - 123		103%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.7		33 - 141		103%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	574696	4.79				
540-36-3	1,4-Difluorobenzene	934713	5.51				
3114-55-4	Chlorobenzene-d5	831474	9.68				
3855-82-1	1,4-Dichlorobenzene-d4	387606	12.48				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101716\
Data File : VF051128.D
Acq On : 17 Oct 2016 14:30
Operator : FY/SY
Sample : VF1017SBSD01
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 18 06:46:09 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Instrument :
MSVOA_F
ClientSampleId :
VF1017SBSD01

Manual Integrations APPROVED
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10/18/2016 4:06:09 PM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.79	168	574696	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	5.51	114	934713	50.00	ug/l	0.00
63) Chlorobenzene-d5	9.68	117	831474	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.48	152	387606	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	4.76	65	288185	53.50	ug/l	0.00
Spiked Amount 50.000			Recovery =	107.00%		
35) Dibromofluoromethane	4.02	113	328245	48.89	ug/l	0.00
Spiked Amount 50.000			Recovery =	97.78%		
50) Toluene-d8	7.47	98	1045251	51.61	ug/l	0.00
Spiked Amount 50.000			Recovery =	103.22%		
62) 4-Bromofluorobenzene	11.34	95	424662	51.67	ug/l	0.00
Spiked Amount 50.000			Recovery =	103.34%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.93	85	102363	20.71	ug/l	92
3) Chloromethane	1.06	50	167367	19.93	ug/l	100
4) Vinyl Chloride	1.08	62	119832	20.65	ug/l	93
5) Bromomethane	1.27	94	58273m	21.81	ug/l	
6) Chloroethane	1.34	64	32395	22.31	ug/l	98
7) Trichlorofluoromethane	1.42	101	88670	22.67	ug/l	98
8) Diethyl Ether	1.61	74	44183	21.67	ug/l	87
9) 1,1,2-Trichlorotrifluoroet	1.76	101	49226	25.64	ug/l	96
10) Methyl Iodide	1.83	142	166618m	21.74	ug/l	
11) Tert butyl alcohol	2.51	59	54119	124.31	ug/l	98
12) 1,1-Dichloroethene	1.74	96	62985	21.05	ug/l	98
13) Acrolein	1.96	56	44009	72.95	ug/l	98
14) Allyl chloride	2.06	41	142980	19.01	ug/l	97
15) Acrylonitrile	2.88	53	200070	112.93	ug/l	97
16) Acetone	2.20	43	211617	104.04	ug/l	95
17) Carbon Disulfide	1.75	76	228222	20.46	ug/l	97
18) Methyl Acetate	2.30	43	132446	18.80	ug/l	100
19) Methyl tert-butyl Ether	2.39	73	213115	22.01	ug/l	96
20) Methylene Chloride	2.16	84	87446m	21.41	ug/l	
21) trans-1,2-Dichloroethene	2.27	96	82695	19.31	ug/l	92
22) Diisopropyl ether	2.75	45	368736	20.90	ug/l	98
23) Vinyl Acetate	3.13	43	1667501	116.47	ug/l	98
24) 1,1-Dichloroethane	2.82	63	167214	20.73	ug/l	99
25) 2-Butanone	4.25	43	571078	110.75	ug/l	100
26) 2,2-Dichloropropane	3.53	77	107287	20.84	ug/l	97
27) cis-1,2-Dichloroethene	3.40	96	151926	21.93	ug/l	99
28) Bromochloromethane	3.64	49	131526	23.30	ug/l	99
29) Tetrahydrofuran	3.99	42	285164	113.78	ug/l	99
30) Chloroform	3.78	83	231309	22.33	ug/l	98
31) Cyclohexane	3.63	56	175973	21.13	ug/l	100
32) 1,1,1-Trichloroethane	4.02	97	119976	20.76	ug/l	95
36) 1,1-Dichloropropene	4.20	75	174637	20.06	ug/l	95
37) Ethyl Acetate	4.03	43	242030	21.58	ug/l	92
38) Carbon Tetrachloride	3.91	117	103734	20.40	ug/l	94

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101716\
Data File : VF051128.D
Acq On : 17 Oct 2016 14:30
Operator : FY/SY
Sample : VF1017SBSD01
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 18 06:46:09 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Instrument :
MSVOA_F
ClientSampleId :
VF1017SBSD01

Manual Integrations APPROVED
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10/18/2016 4:06:09 PM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	5.38	83	208332	21.84	ug/l		100
40) Benzene	4.55	78	510545	20.96	ug/l		99
41) Methacrylonitrile	4.66	41	107964	19.77	ug/l		97
42) 1,2-Dichloroethane	4.86	62	160447	20.91	ug/l		100
43) Isopropyl Acetate	6.88	43	349515	23.27	ug/l		97
44) Trichloroethene	5.42	130	145991	20.72	ug/l		99
45) 1,2-Dichloropropane	6.15	63	171386	22.37	ug/l		99
46) Dibromomethane	6.00	93	112955	22.37	ug/l		96
47) Bromodichloromethane	6.30	83	199840	22.09	ug/l		99
48) Methyl methacrylate	6.63	41	180640	22.41	ug/l		99
49) 1,4-Dioxane	6.62	88	19306	397.80	ug/l		95
51) 4-Methyl-2-Pentanone	8.17	43	1179093	120.79	ug/l		97
52) Toluene	7.54	92	332288	21.25	ug/l		98
53) t-1,3-Dichloropropene	8.19	75	216915	22.13	ug/l		97
54) cis-1,3-Dichloropropene	7.22	75	256205	21.85	ug/l		97
55) 1,1,2-Trichloroethane	8.40	97	145313	22.20	ug/l		98
56) Ethyl methacrylate	8.54	69	226691	23.07	ug/l		98
57) 1,3-Dichloropropane	8.76	76	247263	21.99	ug/l		100
59) 2-Hexanone	9.40	43	911227	116.76	ug/l		100
60) Dibromochloromethane	8.63	129	173682	22.66	ug/l		99
61) 1,2-Dibromoethane	8.89	107	161669	21.93	ug/l		98
64) Tetrachloroethene	8.06	164	145860	22.57	ug/l		99
65) Chlorobenzene	9.70	112	375959	21.73	ug/l		100
66) 1,1,1,2-Tetrachloroethane	9.84	131	136123	21.88	ug/l		99
67) Ethyl Benzene	9.81	91	636855	21.86	ug/l		99
68) m/p-Xylenes	10.04	106	468529	43.69	ug/l		97
69) o-Xylene	10.63	106	239604	22.25	ug/l		97
70) Styrene	10.71	104	384848	22.32	ug/l		99
71) Bromoform	10.69	173	123843	22.97	ug/l	#	94
73) Isopropylbenzene	11.05	105	626518	22.92	ug/l		100
74) N-amyl acetate	11.30	43	384244	23.06	ug/l		97
75) 1,1,2,2-Tetrachloroethane	11.62	83	217692	22.93	ug/l		96
76) 1,2,3-Trichloropropane	11.72	75	156540	22.10	ug/l		99
77) Bromobenzene	11.41	156	172283	21.25	ug/l		92
78) n-propylbenzene	11.52	91	746713	22.38	ug/l		97
79) 2-Chlorotoluene	11.64	91	415615	22.30	ug/l		98
80) 1,3,5-Trimethylbenzene	11.75	105	473714	22.23	ug/l		96
81) trans-1,4-Dichloro-2-buten	11.79	75	79299m	23.73	ug/l		
82) 4-Chlorotoluene	11.83	91	455951	22.35	ug/l		97
83) tert-Butylbenzene	12.06	119	467401	22.40	ug/l		98
84) 1,2,4-Trimethylbenzene	12.13	105	480643	22.33	ug/l		98
85) sec-Butylbenzene	12.23	105	624054	22.57	ug/l		98
86) p-Isopropyltoluene	12.39	119	494774	22.43	ug/l		97
87) 1,3-Dichlorobenzene	12.40	146	288228	22.26	ug/l		98
88) 1,4-Dichlorobenzene	12.49	146	286400	22.72	ug/l		96
89) n-Butylbenzene	12.78	91	474802	22.10	ug/l		97
90) Hexachloroethane	12.84	117	105112	23.22	ug/l		79
91) 1,2-Dichlorobenzene	12.86	146	265015	22.25	ug/l		97
92) 1,2-Dibromo-3-Chloropropan	13.56	75	31491	21.45	ug/l		80
93) 1,2,4-Trichlorobenzene	14.13	180	124405	20.99	ug/l		99

Data Path : W:\HPCHEM1\MSVOA_F\DATA\VF101716\
Data File : VF051128.D
Acq On : 17 Oct 2016 14:30
Operator : FY/SY
Sample : VF1017SBSD01
Misc : 5.00g/5mL/MSVOA_F/SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 18 06:46:09 2016
Quant Method : W:\HPCHEM1\MSVOA_F\METHODS\82F100616S.M
Quant Title : SW846 8260
QLast Update : Fri Oct 07 01:59:13 2016
Response via : Initial Calibration

Instrument :
MSVOA_F
ClientSampleId :
VF1017SBSD01

Manual Integrations APPROVED
MMDadoda
10/18/2016 4:06:09 PM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Hexachlorobutadiene	14.12	225	70583	20.93	ug/l	99
95) Naphthalene	14.37	128	345086	22.63	ug/l	100
96) 1,2,3-Trichlorobenzene	14.52	180	106407	20.58	ug/l	98

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

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Manual Integration Report

Sequence:	VF100616	Instrument	MSVOA_f

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC005	VF051020.D	1,1,2-Trichlorotrifluoroethane	lisa	10/7/2016 9:59:57 AM	MMDadoda	10/7/2016 1:59:58 PM	Peak Integrated by Software incorrectly
VSTDICC005	VF051020.D	Chloroethane	lisa	10/7/2016 9:59:57 AM	MMDadoda	10/7/2016 1:59:58 PM	Peak Integrated by Software incorrectly
VSTDICC005	VF051020.D	trans-1,4-Dichloro-2-butene	lisa	10/7/2016 9:59:57 AM	MMDadoda	10/7/2016 1:59:58 PM	Peak Integrated by Software incorrectly
VSTDICC010	VF051021.D	1,1,2-Trichlorotrifluoroethane	lisa	10/7/2016 9:59:59 AM	MMDadoda	10/7/2016 1:59:59 PM	Peak Integrated by Software incorrectly
VSTDICC010	VF051021.D	1,1-Dichloroethene	lisa	10/7/2016 9:59:59 AM	MMDadoda	10/7/2016 1:59:59 PM	Peak Integrated by Software incorrectly
VSTDICC010	VF051021.D	Chloroethane	lisa	10/7/2016 9:59:59 AM	MMDadoda	10/7/2016 1:59:59 PM	Peak Integrated by Software incorrectly
VSTDICC010	VF051021.D	trans-1,4-Dichloro-2-butene	lisa	10/7/2016 9:59:59 AM	MMDadoda	10/7/2016 1:59:59 PM	Peak Integrated by Software incorrectly
VSTDICC020	VF051022.D	Bromomethane	lisa	10/7/2016 10:00:00 AM	MMDadoda	10/7/2016 2:00:00 PM	Peak Integrated by Software incorrectly
VSTDICC020	VF051022.D	Chloroethane	lisa	10/7/2016 10:00:00 AM	MMDadoda	10/7/2016 2:00:00 PM	Peak Integrated by Software incorrectly
VSTDICC020	VF051022.D	Tert butyl alcohol	lisa	10/7/2016 10:00:00 AM	MMDadoda	10/7/2016 2:00:00 PM	Peak Integrated by Software incorrectly
VSTDICC020	VF051022.D	trans-1,4-Dichloro-2-butene	lisa	10/7/2016 10:00:00 AM	MMDadoda	10/7/2016 2:00:00 PM	Peak Integrated by Software incorrectly
VSTDICCC050	VF051023.D	Bromomethane	lisa	10/7/2016 10:00:02 AM	MMDadoda	10/7/2016 2:00:00 PM	Peak Integrated by Software incorrectly
VSTDICCC050	VF051023.D	Chloroethane	lisa	10/7/2016 10:00:02 AM	MMDadoda	10/7/2016 2:00:00 PM	Peak Integrated by Software incorrectly

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Manual Integration Report

Sequence:	VF100616	Instrument	MSVOA_f

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICCC050	VF051023.D	trans-1,4-Dichloro-2-butene	lisa	10/7/2016 10:00:02 AM	MMDadoda	10/7/2016 2:00:00 PM	Peak Integrated by Software incorrectly
VSTDICC075	VF051024.D	Bromomethane	lisa	10/7/2016 10:00:04 AM	MMDadoda	10/7/2016 2:00:02 PM	Peak Integrated by Software incorrectly
VSTDICC075	VF051024.D	Chloroethane	lisa	10/7/2016 10:00:04 AM	MMDadoda	10/7/2016 2:00:02 PM	Peak Integrated by Software incorrectly
VSTDICC075	VF051024.D	trans-1,4-Dichloro-2-butene	lisa	10/7/2016 10:00:04 AM	MMDadoda	10/7/2016 2:00:02 PM	Peak Integrated by Software incorrectly
VSTDICC100	VF051025.D	1,1,2-Trichlorotrifluoroethane	lisa	10/7/2016 10:00:06 AM	MMDadoda	10/7/2016 2:00:02 PM	Peak Integrated by Software incorrectly
VSTDICC100	VF051025.D	Bromomethane	lisa	10/7/2016 10:00:06 AM	MMDadoda	10/7/2016 2:00:02 PM	Peak Integrated by Software incorrectly
VSTDICC100	VF051025.D	Chloroethane	lisa	10/7/2016 10:00:06 AM	MMDadoda	10/7/2016 2:00:02 PM	Peak Integrated by Software incorrectly
VSTDICC100	VF051025.D	trans-1,4-Dichloro-2-butene	lisa	10/7/2016 10:00:06 AM	MMDadoda	10/7/2016 2:00:02 PM	Peak Integrated by Software incorrectly
VSTDICV050	VF051026.D	Bromomethane	lisa	10/7/2016 10:00:07 AM	MMDadoda	10/7/2016 2:00:03 PM	Peak Integrated by Software incorrectly
VSTDICV050	VF051026.D	trans-1,4-Dichloro-2-butene	lisa	10/7/2016 10:00:07 AM	MMDadoda	10/7/2016 2:00:03 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VF051036.D	Bromomethane	lisa	10/7/2016 10:00:18 AM	MMDadoda	10/7/2016 2:00:09 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VF051036.D	trans-1,4-Dichloro-2-butene	lisa	10/7/2016 10:00:18 AM	MMDadoda	10/7/2016 2:00:09 PM	Peak Integrated by Software incorrectly

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Manual Integration Report

Sequence:	vf101716	Instrument	MSVOA_f

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VF051125.D	Bromomethane	lisa	10/18/2016 9:05:58 AM	MMDadoda	10/18/2016 4:06:07 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VF051125.D	Methyl Iodide	lisa	10/18/2016 9:05:58 AM	MMDadoda	10/18/2016 4:06:07 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VF051125.D	Methylene Chloride	lisa	10/18/2016 9:05:58 AM	MMDadoda	10/18/2016 4:06:07 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VF051125.D	trans-1,4-Dichloro-2-butene	lisa	10/18/2016 9:05:58 AM	MMDadoda	10/18/2016 4:06:07 PM	Peak Integrated by Software incorrectly
VF1017SBS01	VF051127.D	Bromomethane	lisa	10/18/2016 9:05:59 AM	MMDadoda	10/18/2016 4:06:08 PM	Peak Integrated by Software incorrectly
VF1017SBS01	VF051127.D	Chloroethane	lisa	10/18/2016 9:05:59 AM	MMDadoda	10/18/2016 4:06:08 PM	Peak Integrated by Software incorrectly
VF1017SBS01	VF051127.D	Methyl Iodide	lisa	10/18/2016 9:05:59 AM	MMDadoda	10/18/2016 4:06:08 PM	Peak Integrated by Software incorrectly
VF1017SBS01	VF051127.D	Methylene Chloride	lisa	10/18/2016 9:05:59 AM	MMDadoda	10/18/2016 4:06:08 PM	Peak Integrated by Software incorrectly
VF1017SBS01	VF051127.D	trans-1,4-Dichloro-2-butene	lisa	10/18/2016 9:05:59 AM	MMDadoda	10/18/2016 4:06:08 PM	Peak Integrated by Software incorrectly
VF1017SBSD01	VF051128.D	Bromomethane	lisa	10/18/2016 9:06:01 AM	MMDadoda	10/18/2016 4:06:09 PM	Peak Integrated by Software incorrectly
VF1017SBSD01	VF051128.D	Methyl Iodide	lisa	10/18/2016 9:06:01 AM	MMDadoda	10/18/2016 4:06:09 PM	Peak Integrated by Software incorrectly
VF1017SBSD01	VF051128.D	Methylene Chloride	lisa	10/18/2016 9:06:01 AM	MMDadoda	10/18/2016 4:06:09 PM	Peak Integrated by Software incorrectly
VF1017SBSD01	VF051128.D	trans-1,4-Dichloro-2-butene	lisa	10/18/2016 9:06:01 AM	MMDadoda	10/18/2016 4:06:09 PM	Peak Integrated by Software incorrectly

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Manual Integration Report

Sequence:	vf101716	Instrument	MSVOA_f

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
H5282-02	VF051139.D	n-Butylbenzene	lisa	10/18/2016 9:06:10 AM	MMDadoda	10/18/2016 4:06:14 PM	Peak Integrated by Software incorrectly
H5282-02	VF051139.D	p-Isopropyltoluene	lisa	10/18/2016 9:06:10 AM	MMDadoda	10/18/2016 4:06:14 PM	Peak Integrated by Software incorrectly
H5282-06	VF051142.D	Methylene Chloride	lisa	10/18/2016 9:06:12 AM	MMDadoda	10/18/2016 4:06:16 PM	Peak Integrated by Software incorrectly
H5282-06	VF051142.D	n-Butylbenzene	lisa	10/18/2016 9:06:12 AM	MMDadoda	10/18/2016 4:06:16 PM	Peak Integrated by Software incorrectly
H5282-06	VF051142.D	p-Isopropyltoluene	lisa	10/18/2016 9:06:12 AM	MMDadoda	10/18/2016 4:06:16 PM	Peak Integrated by Software incorrectly
H5282-07	VF051143.D	n-Butylbenzene	lisa	10/18/2016 9:06:14 AM	MMDadoda	10/18/2016 4:06:17 PM	Peak Integrated by Software incorrectly
H5282-07	VF051143.D	p-Isopropyltoluene	lisa	10/18/2016 9:06:14 AM	MMDadoda	10/18/2016 4:06:17 PM	Peak Integrated by Software incorrectly
H5282-04	VF051144.D	n-Butylbenzene	lisa	10/18/2016 9:06:16 AM	MMDadoda	10/18/2016 4:06:18 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VF051145.D	Bromomethane	lisa	10/18/2016 9:06:18 AM	MMDadoda	10/18/2016 4:06:19 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VF051145.D	Methyl Iodide	lisa	10/18/2016 9:06:18 AM	MMDadoda	10/18/2016 4:06:19 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VF051145.D	Methylene Chloride	lisa	10/18/2016 9:06:18 AM	MMDadoda	10/18/2016 4:06:19 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VF051145.D	trans-1,4-Dichloro-2-butene	lisa	10/18/2016 9:06:18 AM	MMDadoda	10/18/2016 4:06:19 PM	Peak Integrated by Software incorrectly

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Manual Integration Report

Sequence:	vf101816	Instrument	MSVOA_f

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VF051147.D	Bromomethane	lisa	10/19/2016 9:19:03 AM	MMDadoda	10/19/2016 1:55:37 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VF051147.D	Methyl Iodide	lisa	10/19/2016 9:19:03 AM	MMDadoda	10/19/2016 1:55:37 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VF051147.D	Methylene Chloride	lisa	10/19/2016 9:19:03 AM	MMDadoda	10/19/2016 1:55:37 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VF051147.D	trans-1,4-Dichloro-2-butene	lisa	10/19/2016 9:19:03 AM	MMDadoda	10/19/2016 1:55:37 PM	Coelution Of the peak
VF1018SBS01	VF051149.D	Bromomethane	lisa	10/19/2016 9:19:05 AM	MMDadoda	10/19/2016 1:55:38 PM	Peak Integrated by Software incorrectly
VF1018SBS01	VF051149.D	Methyl Iodide	lisa	10/19/2016 9:19:05 AM	MMDadoda	10/19/2016 1:55:38 PM	Peak Integrated by Software incorrectly
VF1018SBS01	VF051149.D	Methylene Chloride	lisa	10/19/2016 9:19:05 AM	MMDadoda	10/19/2016 1:55:38 PM	Peak Integrated by Software incorrectly
VF1018SBS01	VF051149.D	trans-1,4-Dichloro-2-butene	lisa	10/19/2016 9:19:05 AM	MMDadoda	10/19/2016 1:55:38 PM	Coelution Of the peak
VSTDCCC050	VF051168.D	Bromomethane	lisa	10/19/2016 9:19:11 AM	MMDadoda	10/19/2016 1:55:42 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VF051168.D	Methyl Iodide	lisa	10/19/2016 9:19:11 AM	MMDadoda	10/19/2016 1:55:42 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VF051168.D	Methylene Chloride	lisa	10/19/2016 9:19:11 AM	MMDadoda	10/19/2016 1:55:42 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VF051168.D	trans-1,4-Dichloro-2-butene	lisa	10/19/2016 9:19:11 AM	MMDadoda	10/19/2016 1:55:42 PM	Coelution Of the peak

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Manual Integration Report

Sequence:	VN100516	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC001	VN036257.D	1,2,3-Trichloropropane	MMDadoda	10/6/2016 9:31:18 AM	Feifei	10/6/2016 1:29:56 PM	Coelution Of the peak
VSTDICC001	VN036257.D	1,4-Dichlorobenzene	MMDadoda	10/6/2016 9:31:18 AM	Feifei	10/6/2016 1:29:56 PM	Peak Integrated by Software incorrectly
VSTDICC001	VN036257.D	Methacrylonitrile	MMDadoda	10/6/2016 9:31:18 AM	Feifei	10/6/2016 1:29:56 PM	Peak Integrated by Software incorrectly
VSTDICC001	VN036257.D	trans-1,2-Dichloroethene	MMDadoda	10/6/2016 9:31:18 AM	Feifei	10/6/2016 1:29:56 PM	Peak Integrated by Software incorrectly
VSTDICC001	VN036257.D	Vinyl Acetate	MMDadoda	10/6/2016 9:31:18 AM	Feifei	10/6/2016 1:29:56 PM	Coelution Of the peak
VSTDICC005	VN036258.D	1,2,3-Trichloropropane	MMDadoda	10/6/2016 9:31:26 AM	Feifei	10/6/2016 1:29:57 PM	Coelution Of the peak
VSTDICC005	VN036258.D	Tert butyl alcohol	MMDadoda	10/6/2016 9:31:26 AM	Feifei	10/6/2016 1:29:57 PM	Peak Integrated by Software incorrectly
VSTDICC005	VN036258.D	Vinyl Acetate	MMDadoda	10/6/2016 9:31:26 AM	Feifei	10/6/2016 1:29:57 PM	Coelution Of the peak
VSTDICC020	VN036259.D	1,2,3-Trichloropropane	MMDadoda	10/6/2016 9:31:34 AM	Feifei	10/6/2016 1:29:59 PM	Coelution Of the peak
VSTDICC020	VN036259.D	Vinyl Acetate	MMDadoda	10/6/2016 9:31:34 AM	Feifei	10/6/2016 1:29:59 PM	Coelution Of the peak
VSTDICCC050	VN036260.D	1,2,3-Trichloropropane	MMDadoda	10/6/2016 9:31:42 AM	Feifei	10/6/2016 1:30:00 PM	Coelution Of the peak
VSTDICCC050	VN036260.D	Vinyl Acetate	MMDadoda	10/6/2016 9:31:42 AM	Feifei	10/6/2016 1:30:00 PM	Coelution Of the peak
VSTDICC100	VN036261.D	1,2,3-Trichloropropane	MMDadoda	10/6/2016 9:31:48 AM	Feifei	10/6/2016 1:30:02 PM	Coelution Of the peak

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Manual Integration Report

Sequence:	VN100516	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC200	VN036262.D	1,2,3-Trichloropropane	MMDadoda	10/6/2016 9:31:55 AM	Feifei	10/6/2016 1:30:04 PM	Coelution Of the peak
VSTDICV050	VN036263.D	1,2,3-Trichloropropane	MMDadoda	10/6/2016 9:32:09 AM	Feifei	10/6/2016 1:30:05 PM	Coelution Of the peak
VSTDCCC050	VN036265.D	1,2,3-Trichloropropane	MMDadoda	10/6/2016 9:32:19 AM	Feifei	10/6/2016 1:30:07 PM	Coelution Of the peak
VSTDCCC050	VN036265.D	Vinyl Acetate	MMDadoda	10/6/2016 9:32:19 AM	Feifei	10/6/2016 1:30:07 PM	Coelution Of the peak
VSTDCCC050	VN036286.D	1,2,3-Trichloropropane	MMDadoda	10/6/2016 10:50:13 AM	Feifei	10/6/2016 1:30:26 PM	Peak Integrated by Software incorrectly

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Manual Integration Report

Sequence:	vn102116	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VN036697.D	1,2,3-Trichloropropane	MMDadoda	10/24/2016 9:17:48 AM	feifei	10/24/2016 11:02:18 AM	Coelution Of the peak
VN1021MBS01	VN036700.D	1,2,3-Trichloropropane	MMDadoda	10/24/2016 9:17:58 AM	feifei	10/24/2016 11:02:19 AM	Coelution Of the peak
VN1021MBS01	VN036700.D	Vinyl Acetate	MMDadoda	10/24/2016 9:17:58 AM	feifei	10/24/2016 11:02:19 AM	Coelution Of the peak
H5282-02ME	VN036705.D	n-Butylbenzene	MMDadoda	10/24/2016 9:18:15 AM	feifei	10/24/2016 11:02:25 AM	Peak Integrated by Software incorrectly
H5282-04ME	VN036706.D	tert-Butylbenzene	MMDadoda	10/24/2016 9:18:21 AM	feifei	10/24/2016 11:02:28 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VN036719.D	1,2,3-Trichloropropane	MMDadoda	10/24/2016 9:19:36 AM	feifei	10/24/2016 11:02:45 AM	Coelution Of the peak
VSTDCCC050	VN036719.D	Vinyl Acetate	MMDadoda	10/24/2016 9:19:36 AM	feifei	10/24/2016 11:02:45 AM	Coelution Of the peak

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Instrument ID: MSVOA_F

Daily Analysis Runlog For Sequence/QCBatch ID # VF100616

Review By	lisa	Review On	10/7/2016 1:53:46 PM		
SubDirectory	VF100616	HP Acquire Method	MOONMOON	HP Processing Method	82F100616S.M

STD. NAME	STD REF.#
Tune/Reschk	VP56925
Initial Calibration Stds	VP56934,VP56935,VP56936,VP56937,VP56938,VP56939
CCC	VP56930
Internal Standard/PEM	VP51631
ICV/I.BLK	VP56932

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VF051019.D	6 Oct 2016 9:50	FY/SY	Ok
2	VSTDICC005	VF051020.D	6 Oct 2016 10:22	FY/SY	Ok,M
3	VSTDICC010	VF051021.D	6 Oct 2016 10:51	FY/SY	Ok,M
4	VSTDICC020	VF051022.D	6 Oct 2016 11:20	FY/SY	Ok,M
5	VSTDICCC050	VF051023.D	6 Oct 2016 11:49	FY/SY	Ok,M
6	VSTDICC075	VF051024.D	6 Oct 2016 12:18	FY/SY	Ok,M
7	VSTDICC100	VF051025.D	6 Oct 2016 12:46	FY/SY	Ok,M
8	VSTDICV050	VF051026.D	6 Oct 2016 13:33	FY/SY	Ok,M
9	VF1006SBL01	VF051027.D	6 Oct 2016 14:05	FY/SY	Ok
10	VF1006SBS01	VF051028.D	6 Oct 2016 14:47	FY/SY	Ok,M
11	VF1006SBSD01	VF051029.D	6 Oct 2016 15:15	FY/SY	Ok,M
12	H4818-01LOD 1ppb	VF051030.D	6 Oct 2016 16:13	FY/SY	Ok,M
13	H4818-01LOD 2ppb	VF051031.D	6 Oct 2016 16:41	FY/SY	Ok
14	H4818-01LOD 3ppb	VF051032.D	6 Oct 2016 17:09	FY/SY	Ok
15	H4818-01LOD 4ppb	VF051033.D	6 Oct 2016 17:38	FY/SY	Not Ok
16	H4818-02LOQ 10ppb	VF051034.D	6 Oct 2016 18:06	FY/SY	Ok,M
17	H5060-10RE	VF051035.D	6 Oct 2016 18:34	FY/SY	Confirms
18	VSTDCCC050	VF051036.D	6 Oct 2016 19:03	FY/SY	Ok,M

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Instrument ID: MSVOA_F

Daily Analysis Runlog For Sequence/QCBatch ID # VF101716

Review By	lisa	Review On	10/18/2016 9:27:18 AM		
SubDirectory	VF101716	HP Acquire Method	MOONMOON	HP Processing Method	82F100616S.M

STD. NAME	STD REF.#
Tune/Reschk	VP57170
Initial Calibration Stds	VP56934,VP56935,VP56936,VP56937,VP56938,VP56939
CCC	VP57171,VP57172
Internal Standard/PEM	VP51631
ICV/I.BLK	VP56932

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VF051124.D	17 Oct 2016 11:43	FY/SY	Ok
2	VSTDCCC050	VF051125.D	17 Oct 2016 12:12	FY/SY	Ok,M
3	VF1017SBL01	VF051126.D	17 Oct 2016 13:32	FY/SY	Ok
4	VF1017SBS01	VF051127.D	17 Oct 2016 14:01	FY/SY	Ok,M
5	VF1017SBSD01	VF051128.D	17 Oct 2016 14:30	FY/SY	Ok,M
6	H5289-01	VF051129.D	17 Oct 2016 15:05	FY/SY	ReRun
7	H5289-02	VF051130.D	17 Oct 2016 15:34	FY/SY	ReRun
8	H5289-03	VF051131.D	17 Oct 2016 16:03	FY/SY	Not Ok
9	H5289-04	VF051132.D	17 Oct 2016 16:32	FY/SY	Not Ok
10	H5289-06	VF051133.D	17 Oct 2016 17:00	FY/SY	ReRun
11	H5289-07	VF051134.D	17 Oct 2016 17:29	FY/SY	ReRun
12	H5289-08	VF051135.D	17 Oct 2016 17:58	FY/SY	ReRun
13	H5304-06	VF051136.D	17 Oct 2016 18:27	FY/SY	Ok,M
14	H5304-07	VF051137.D	17 Oct 2016 18:55	FY/SY	ReRun
15	H5282-01	VF051138.D	17 Oct 2016 19:24	FY/SY	Ok
16	H5282-02	VF051139.D	17 Oct 2016 19:52	FY/SY	Dilution
17	H5282-03	VF051140.D	17 Oct 2016 20:20	FY/SY	ReRun
18	H5282-05	VF051141.D	17 Oct 2016 20:49	FY/SY	Ok
19	H5282-06	VF051142.D	17 Oct 2016 21:17	FY/SY	Ok,M
20	H5282-07	VF051143.D	17 Oct 2016 21:45	FY/SY	Ok,M
21	H5282-04	VF051144.D	17 Oct 2016 22:14	FY/SY	Dilution
22	VSTDCCC050	VF051145.D	17 Oct 2016 22:42	FY/SY	Ok,M

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Instrument ID: MSVOA_F

Daily Analysis Runlog For Sequence/QCBatch ID # VF101816

Review By	lisa	Review On	10/18/2016 2:30:49 PM		
SubDirectory	VF101816	HP Acquire Method	MOONMOON	HP Processing Method	82F100616S.M

STD. NAME	STD REF.#
Tune/Reschk	VP57187
Initial Calibration Stds	VP56934,VP56935,VP56936,VP56937,VP56938,VP56939
CCC	VP57188,VP57189
Internal Standard/PEM	VP51631
ICV/I.BLK	VP56932

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VF051146.D	18 Oct 2016 11:16	FY/SY	Ok
2	VSTDCCC050	VF051147.D	18 Oct 2016 12:45	FY/SY	Ok,M
3	VF1018SBL01	VF051148.D	18 Oct 2016 14:19	FY/SY	Ok
4	VF1018SBS01	VF051149.D	18 Oct 2016 14:48	FY/SY	Ok,M
5	VF1018SBSD01	VF051150.D	18 Oct 2016 15:18	FY/SY	Ok,M
6	H5282-08	VF051151.D	18 Oct 2016 15:47	FY/SY	ReRun
7	H5282-09	VF051152.D	18 Oct 2016 16:16	FY/SY	Ok
8	H5282-03	VF051153.D	18 Oct 2016 16:45	FY/SY	Ok
9	H5289-01RE	VF051154.D	18 Oct 2016 17:14	FY/SY	Confirms
10	H5289-02RE	VF051155.D	18 Oct 2016 17:44	FY/SY	Confirms
11	H5289-03	VF051156.D	18 Oct 2016 18:14	FY/SY	Ok
12	H5289-04	VF051157.D	18 Oct 2016 18:43	FY/SY	Ok
13	H5289-06RE	VF051158.D	18 Oct 2016 19:13	FY/SY	Confirms
14	H5289-07RE	VF051159.D	18 Oct 2016 19:42	FY/SY	Confirms
15	H5289-08RE	VF051160.D	18 Oct 2016 20:11	FY/SY	Confirms
16	H5304-07RE	VF051161.D	18 Oct 2016 20:40	FY/SY	Confirms
17	H5282-08	VF051162.D	18 Oct 2016 21:09	FY/SY	Ok
18	H5315-01	VF051163.D	18 Oct 2016 21:38	FY/SY	Ok
19	H5315-02	VF051164.D	18 Oct 2016 22:07	FY/SY	Ok
20	H5315-03	VF051165.D	18 Oct 2016 22:35	FY/SY	Ok
21	H5315-04	VF051166.D	18 Oct 2016 23:04	FY/SY	ReRun
22	H5315-05	VF051167.D	18 Oct 2016 23:32	FY/SY	Not Ok
23	VSTDCCC050	VF051168.D	19 Oct 2016 00:01	FY/SY	Not Ok

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Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN100516

Review By	MMDadoda	Review On	10/6/2016 4:16:39 PM		
SubDirectory	VN100516	HP Acquire Method	MSVOA_N	HP Processing Method	82N100516W.M

STD. NAME	STD REF.#
Tune/Reschk	VP56893,VP56901
Initial Calibration Stds	VP56894,VP56895,VP56896,VP56897,VP56898,VP56899
CCC	VP56904,VP56903
Internal Standard/PEM	VP53523
ICV/I.BLK	VP56900

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN036256.D	5 Oct 2016 13:10	MD\SY	Ok
2	VSTDICC001	VN036257.D	5 Oct 2016 13:47	MD\SY	Ok,M
3	VSTDICC005	VN036258.D	5 Oct 2016 14:25	MD\SY	Ok,M
4	VSTDICC020	VN036259.D	5 Oct 2016 14:57	MD\SY	Ok,M
5	VSTDICCC050	VN036260.D	5 Oct 2016 15:24	MD\SY	Ok,M
6	VSTDICC100	VN036261.D	5 Oct 2016 15:50	MD\SY	Ok,M
7	VSTDICC200	VN036262.D	5 Oct 2016 16:17	MD\SY	Ok,M
8	VSTDICV050	VN036263.D	5 Oct 2016 16:52	MD\SY	Ok,M
9	BFB	VN036264.D	5 Oct 2016 17:22	MD\SY	Ok
10	VSTDCCC050	VN036265.D	5 Oct 2016 17:57	MD\SY	Ok,M
11	VN1005WBL01	VN036266.D	5 Oct 2016 18:55	MD\SY	Ok
12	H4818-05 0.2PPB	VN036267.D	5 Oct 2016 19:22	MD\SY	Not Ok
13	H4818-05 0.5PPB	VN036268.D	5 Oct 2016 19:49	MD\SY	Not Ok
14	H4818-05 0.75PPB	VN036269.D	5 Oct 2016 20:15	MD\SY	Not Ok
15	VN1005WBS01	VN036270.D	5 Oct 2016 20:42	MD\SY	Not Ok
16	VN1005WBSD01	VN036271.D	5 Oct 2016 21:09	MD\SY	Not Ok
17	H5095-01	VN036272.D	5 Oct 2016 22:03	MD\SY	Not Ok
18	H5047-10	VN036273.D	5 Oct 2016 22:29	MD\SY	Not Ok
19	H5095-02	VN036274.D	5 Oct 2016 22:56	MD\SY	Not Ok
20	H5066-01	VN036275.D	5 Oct 2016 23:23	MD\SY	Not Ok
21	H5066-02	VN036276.D	5 Oct 2016 23:50	MD\SY	Not Ok
22	H5066-03	VN036277.D	6 Oct 2016 00:16	MD\SY	Not Ok
23	H5047-01	VN036278.D	6 Oct 2016 00:43	MD\SY	Not Ok
24	H5047-02	VN036279.D	6 Oct 2016 1:09	MD\SY	Not Ok
25	H5047-03	VN036280.D	6 Oct 2016 1:36	MD\SY	Not Ok
26	H5047-04	VN036281.D	6 Oct 2016 2:03	MD\SY	Not Ok

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Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN100516

Review By	MMDadoda	Review On	10/6/2016 4:16:39 PM		
SubDirectory	VN100516	HP Acquire Method	MSVOA_N	HP Processing Method	82N100516W.M

STD. NAME	STD REF.#
Tune/Reschk	VP56893,VP56901
Initial Calibration Stds	VP56894,VP56895,VP56896,VP56897,VP56898,VP56899
CCC	VP56904,VP56903
Internal Standard/PEM	VP53523
ICV/I.BLK	VP56900

27	H5047-05	VN036282.D	6 Oct 2016 2:29	MD\SY	Not Ok
28	H5047-06	VN036283.D	6 Oct 2016 2:56	MD\SY	Not Ok
29	H5047-11	VN036284.D	6 Oct 2016 3:23	MD\SY	Not Ok
30	H5030-11	VN036285.D	6 Oct 2016 3:49	MD\SY	Not Ok
31	VSTDCCC050	VN036286.D	6 Oct 2016 4:16	MD\SY	Ok,M

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Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN102116

Review By	MMDadoda	Review On	10/24/2016 11:22:00 AM		
SubDirectory	VN102116	HP Acquire Method	MSVOA_N	HP Processing Method	82N100516W.M

STD. NAME	STD REF.#
Tune/Reschk	VP57305
Initial Calibration Stds	VP56894,VP56895,VP56896,VP56897,VP56898,VP56899
CCC	VP57308,VP57309
Internal Standard/PEM	VP53523
ICV/I.BLK	VP56900

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN036696.D	21 Oct 2016 10:27	MD\SY	Ok
2	VSTDCCC050	VN036697.D	21 Oct 2016 11:05	MD\SY	Ok,M
3	VN1021WBL01	VN036698.D	21 Oct 2016 11:51	MD\SY	Ok
4	VN1021MBL01	VN036699.D	21 Oct 2016 12:18	MD\SY	Ok
5	VN1021MBS01	VN036700.D	21 Oct 2016 13:12	MD\SY	Ok,M
6	H5320-11	VN036701.D	21 Oct 2016 14:06	MD\SY	Ok
7	H5312-06	VN036702.D	21 Oct 2016 14:33	MD\SY	Ok
8	H5312-07	VN036703.D	21 Oct 2016 15:00	MD\SY	Ok
9	VN1021WBS01	VN036704.D	21 Oct 2016 15:27	MD\SY	Ok,M
10	H5282-02ME	VN036705.D	21 Oct 2016 15:55	MD\SY	Ok,M
11	H5282-04ME	VN036706.D	21 Oct 2016 16:22	MD\SY	Ok,M
12	H5312-04DL	VN036707.D	21 Oct 2016 16:49	MD\SY	Ok,M
13	H5312-05DL	VN036708.D	21 Oct 2016 17:16	MD\SY	Ok,M
14	H5312-11DL	VN036709.D	21 Oct 2016 17:43	MD\SY	Ok,M
15	H5312-12DL	VN036710.D	21 Oct 2016 18:10	MD\SY	Ok,M
16	H5320-08DL	VN036711.D	21 Oct 2016 18:37	MD\SY	Ok
17	H5320-09DL	VN036712.D	21 Oct 2016 19:04	MD\SY	Ok
18	H5308-19	VN036713.D	21 Oct 2016 19:31	MD\SY	Ok
19	H5308-20	VN036714.D	21 Oct 2016 19:58	MD\SY	Ok
20	H5308-21	VN036715.D	21 Oct 2016 20:26	MD\SY	Ok
21	H5312-08	VN036716.D	21 Oct 2016 20:53	MD\SY	Dilution
22	H5312-09MS	VN036717.D	21 Oct 2016 21:20	MD\SY	Ok,M
23	H5312-10MSD	VN036718.D	21 Oct 2016 21:47	MD\SY	Ok,M
24	VSTDCCC050	VN036719.D	21 Oct 2016 22:14	MD\SY	Ok,M

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Instrument ID: MSVOA_F

Daily Analysis Runlog For Sequence/QCBatch ID # VF100616

Review By	lisa	Review On	10/7/2016 1:53:46 PM		
SubDirectory	VF100616	HP Acquire Method	MOONMOON	HP Processing Method	82F100616S.M

STD. NAME	STD REF.#
Tune/Reschk	VP56925
Initial Calibration Stds	VP56934,VP56935,VP56936,VP56937,VP56938,VP56939
CCC	VP56930
Internal Standard/PEM	VP51631
ICV/I.BLK	VP56932

Sr#	SampleId	ClientID	Data File Name	Comment	Status
1	BFB	BFB	VF051019.D		Ok
2	VSTDICC005	VSTDICC005	VF051020.D	Method pass for DOD	Ok,M
3	VSTDICC010	VSTDICC010	VF051021.D	Quadratic regression used for comp # 9,31	Ok,M
4	VSTDICC020	VSTDICC020	VF051022.D		Ok,M
5	VSTDICCC050	VSTDICCC050	VF051023.D	Method fail for comp # 58	Ok,M
6	VSTDICC075	VSTDICC075	VF051024.D		Ok,M
7	VSTDICC100	VSTDICC100	VF051025.D		Ok,M
8	VSTDICV050	ICVVF100616	VF051026.D		Ok,M
9	VF1006SBL01	VF1006SBL01	VF051027.D		Ok
10	VF1006SBS01	VF1006SBS01	VF051028.D		Ok,M
11	VF1006SBSD01	VF1006SBSD01	VF051029.D		Ok,M
12	H4818-01LOD 1ppb	LOD-SOIL2016-01-QT4	VF051030.D	Not used for Compound # 11,16,18,36,37,49,58	Ok,M
13	H4818-01LOD 2ppb	LOD-SOIL2016-01-QT4	VF051031.D	Used for compound # 11,16,36,37	Ok
14	H4818-01LOD 3ppb	LOD-SOIL2016-01-QT4	VF051032.D	Used for Comnpound # 18	Ok
15	H4818-01LOD 4ppb	LOD-SOIL2016-01-QT4	VF051033.D	Not Used for compound # 49,58	Not Ok
16	H4818-02LOQ 10ppb	LOQ-SOIL2016--02-QT4	VF051034.D		Ok,M
17	H5060-10RE	SUP-B050-19RE	VF051035.D	vial B Surrogate fail	Confirms
18	VSTDCCC050	VSTDCCC050EC	VF051036.D		Ok,M

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Instrument ID: MSVOA_F

Daily Analysis Runlog For Sequence/QCBatch ID # VF101716

Review By	lisa	Review On	10/18/2016 9:27:18 AM		
SubDirectory	VF101716	HP Acquire Method	MOONMOON	HP Processing Method	82F100616S.M

STD. NAME	STD REF.#
Tune/Reschk	VP57170
Initial Calibration Stds	VP56934,VP56935,VP56936,VP56937,VP56938,VP56939
CCC	VP57171,VP57172
Internal Standard/PEM	VP51631
ICV/I.BLK	VP56932

Sr#	SampleId	ClientID	Data File Name	Comment	Status
1	BFB	BFB	VF051124.D		Ok
2	VSTDCCC050	VSTDCCC050	VF051125.D		Ok,M
3	VF1017SBL01	VF1017SBL01	VF051126.D		Ok
4	VF1017SBS01	VF1017SBS01	VF051127.D		Ok,M
5	VF1017SBSD01	VF1017SBSD01	VF051128.D		Ok,M
6	H5289-01	SP-3-1	VF051129.D	vial A Internal std fail	ReRun
7	H5289-02	SP-3-2	VF051130.D	vial A Internal std fail	ReRun
8	H5289-03	SP-3-3	VF051131.D	vial A wrong spike	Not Ok
9	H5289-04	SP-3-4	VF051132.D	vial A not purge	Not Ok
10	H5289-06	SP-2-1	VF051133.D	vial A Surrogate fail & Internal std fail	ReRun
11	H5289-07	SP-2-2	VF051134.D	vial A Internal std fail	ReRun
12	H5289-08	SP-1-1	VF051135.D	vial A Internal std fail	ReRun
13	H5304-06	TP-2	VF051136.D	vial A	Ok,M
14	H5304-07	TP-4	VF051137.D	vial A Internal std fail & surroagate fail	ReRun
15	H5282-01	031-TB-17(7-8)	VF051138.D	vial A	Ok
16	H5282-02	032-TB-18(8-9)	VF051139.D	vial A, surrogate fail , Need Meoh	Dilution
17	H5282-03	033-TB-19(8-9)	VF051140.D	vial A E flag in previous sample	ReRun
18	H5282-05	035-TB-21(8-9)	VF051141.D	vial A	Ok
19	H5282-06	036-TB-22(8-8.6)	VF051142.D	vial A	Ok,M
20	H5282-07	037-TB-23(9-9.5)	VF051143.D	vial A	Ok,M
21	H5282-04	034-TB-20(8-9.3)	VF051144.D	vial A Need Meoh	Dilution
22	VSTDCCC050	VSTDCCC050EC	VF051145.D		Ok,M

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Instrument ID: MSVOA_F

Daily Analysis Runlog For Sequence/QCBatch ID # VF101816

Review By	lisa	Review On	10/18/2016 2:30:49 PM		
SubDirectory	VF101816	HP Acquire Method	MOONMOON	HP Processing Method	82F100616S.M

STD. NAME	STD REF.#
Tune/Reschk	VP57187
Initial Calibration Stds	VP56934,VP56935,VP56936,VP56937,VP56938,VP56939
CCC	VP57188,VP57189
Internal Standard/PEM	VP51631
ICV/I.BLK	VP56932

Sr#	SampleId	ClientID	Data File Name	Comment	Status
1	BFB	BFB	VF051146.D		Ok
2	VSTDCCC050	VSTDCCC050	VF051147.D		Ok,M
3	VF1018SBL01	VF1018SBL01	VF051148.D		Ok
4	VF1018SBS01	VF1018SBS01	VF051149.D		Ok,M
5	VF1018SBSD01	VF1018SBSD01	VF051150.D		Ok,M
6	H5282-08	038-TB-24(8.8-9.3)	VF051151.D	vial A Surrogate fail & Internal std fail	ReRun
7	H5282-09	039-TB-25(8-8.5)	VF051152.D	vial A	Ok
8	H5282-03	033-TB-19(8-9)	VF051153.D	vial B	Ok
9	H5289-01RE	SP-3-1RE	VF051154.D	vial B Internal std fail	Confirms
10	H5289-02RE	SP-3-2RE	VF051155.D	vial B Internal std fail	Confirms
11	H5289-03	SP-3-3	VF051156.D	vial B Internal standard fail	Ok
12	H5289-04	SP-3-4	VF051157.D	vial B	Ok
13	H5289-06RE	SP-2-1RE	VF051158.D	vial B Surrogate fail & Internal std fail	Confirms
14	H5289-07RE	SP-2-2RE	VF051159.D	vial B Internal std fail	Confirms
15	H5289-08RE	SP-1-1RE	VF051160.D	vial B Internal std fail	Confirms
16	H5304-07RE	TP-4RE	VF051161.D	vial B Internal std fail	Confirms
17	H5282-08	038-TB-24(8.8-9.3)	VF051162.D	vial B	Ok
18	H5315-01	FO-TANK-BOTTOM	VF051163.D	vial A	Ok
19	H5315-02	FO-TANK-END-WEST	VF051164.D	vial A	Ok
20	H5315-03	FO-TANK-SIDEWALL-NOF	VF051165.D	vial A	Ok
21	H5315-04	FO-TANK-SIDEWALL-SOU	VF051166.D	vial A Surrogate fail & Internal std fail	ReRun
22	H5315-05	FO-TANK-END-EAST	VF051167.D	vial A out of tune time	Not Ok

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Instrument ID: MSVOA_F

Daily Analysis Runlog For Sequence/QCBatch ID # VF101816

Review By	lisa	Review On	10/18/2016 2:30:49 PM		
SubDirectory	VF101816	HP Acquire Method	MOONMOON	HP Processing Method	82F100616S.M

STD. NAME	STD REF.#
Tune/Reschk	VP57187
Initial Calibration Stds	VP56934,VP56935,VP56936,VP56937,VP56938,VP56939
CCC	VP57188,VP57189
Internal Standard/PEM	VP51631
ICV/I.BLK	VP56932

23	VSTDCCC050	VSTDCCC050EC	VF051168.D	out of tune time	Not Ok

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Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN100516

Review By	MMDadoda	Review On	10/6/2016 4:16:39 PM		
SubDirectory	VN100516	HP Acquire Method	MSVOA_N	HP Processing Method	82N100516W.M

STD. NAME	STD REF.#
Tune/Reschk	VP56893,VP56901
Initial Calibration Stds	VP56894,VP56895,VP56896,VP56897,VP56898,VP56899
CCC	VP56904,VP56903
Internal Standard/PEM	VP53523
ICV/I.BLK	VP56900

Sr#	SampleId	ClientID	Data File Name	Comment	Status
1	BFB	BFB	VN036256.D		Ok
2	VSTDICC001	VSTDICC001	VN036257.D		Ok,M
3	VSTDICC005	VSTDICC005	VN036258.D		Ok,M
4	VSTDICC020	VSTDICC020	VN036259.D	Method fail for Compound # 13,58	Ok,M
5	VSTDICCC050	VSTDICCC050	VN036260.D	Linear Regration used for compound # 3,5,10,31,71	Ok,M
6	VSTDICC100	VSTDICC100	VN036261.D	Method pass for DOD projects	Ok,M
7	VSTDICC200	VSTDICC200	VN036262.D		Ok,M
8	VSTDICV050	ICVVN100516	VN036263.D		Ok,M
9	BFB	BFB	VN036264.D		Ok
10	VSTDCCC050	VSTDCCC050	VN036265.D		Ok,M
11	VN1005WBL01	VN1005WBL01	VN036266.D		Ok
12	H4818-05 0.2PPB	LOD-WATER2016-05-QT4	VN036267.D	bs failed	Not Ok
13	H4818-05 0.5PPB	LOD-WATER2016-05-QT4	VN036268.D	bs failed	Not Ok
14	H4818-05 0.75PPB	LOD-WATER2016-05-QT4	VN036269.D	bs failed	Not Ok
15	VN1005WBS01	VN1005WBS01	VN036270.D	Many Compounds fail for recovery	Not Ok
16	VN1005WBSD01	VN1005WBSD01	VN036271.D	Many Compounds fail for recovery & RPD	Not Ok
17	H5095-01	TB-01-161004	VN036272.D	BS failed	Not Ok
18	H5047-10	FL-TB-2016-2	VN036273.D	BS failed	Not Ok
19	H5095-02	OUTFALL001-161004	VN036274.D	BS failed	Not Ok
20	H5066-01	MW2	VN036275.D	BS failed	Not Ok
21	H5066-02	MW11	VN036276.D	BS failed	Not Ok
22	H5066-03	MW12	VN036277.D	BS failed	Not Ok

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Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN100516

Review By	MMDadoda	Review On	10/6/2016 4:16:39 PM		
SubDirectory	VN100516	HP Acquire Method	MSVOA_N	HP Processing Method	82N100516W.M

STD. NAME	STD REF.#
Tune/Reschk	VP56893,VP56901
Initial Calibration Stds	VP56894,VP56895,VP56896,VP56897,VP56898,VP56899
CCC	VP56904,VP56903
Internal Standard/PEM	VP53523
ICV/I.BLK	VP56900

23	H5047-01	FL-0382	VN036278.D	BS failed	Not Ok
24	H5047-02	FL-0383	VN036279.D	BS failed	Not Ok
25	H5047-03	FL-0384	VN036280.D	BS failed	Not Ok
26	H5047-04	FL-0385	VN036281.D	Need 5X ,BS failed	Not Ok
27	H5047-05	FL-0392	VN036282.D	Need 5X ,BS failed	Not Ok
28	H5047-06	FL-0393	VN036283.D	Need 5X ,BS failed	Not Ok
29	H5047-11	FL-0387	VN036284.D	BS failed	Not Ok
30	H5030-11	FL-0376	VN036285.D	Need 5X,BS failed	Not Ok
31	VSTDCCC050	VSTDCCC050EC	VN036286.D		Ok,M

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Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN102116

Review By	MMDadoda	Review On	10/24/2016 11:22:00 AM		
SubDirectory	VN102116	HP Acquire Method	MSVOA_N	HP Processing Method	82N100516W.M

STD. NAME	STD REF.#
Tune/Reschk	VP57305
Initial Calibration Stds	VP56894,VP56895,VP56896,VP56897,VP56898,VP56899
CCC	VP57308,VP57309
Internal Standard/PEM	VP53523
ICV/I.BLK	VP56900

Sr#	SampleId	ClientID	Data File Name	Comment	Status
1	BFB	BFB	VN036696.D		Ok
2	VSTDCCC050	VSTDCCC050	VN036697.D		Ok,M
3	VN1021WBL01	VN1021WBL01	VN036698.D		Ok
4	VN1021MBL01	VN1021MBL01	VN036699.D		Ok
5	VN1021MBS01	VN1021MBS01	VN036700.D		Ok,M
6	H5320-11	DUP-0375-161018	VN036701.D	pH<2B	Ok
7	H5312-06	FL-0410	VN036702.D	pH<2B	Ok
8	H5312-07	FL-0417	VN036703.D	pH<2B	Ok
9	VN1021WBS01	VN1021WBS01	VN036704.D		Ok,M
10	H5282-02ME	032-TB-18(8-9)ME	VN036705.D		Ok,M
11	H5282-04ME	034-TB-20(8-9.3)ME	VN036706.D		Ok,M
12	H5312-04DL	FL-0414DL	VN036707.D		Ok,M
13	H5312-05DL	FL-0412DL	VN036708.D		Ok,M
14	H5312-11DL	FL-0418DL	VN036709.D		Ok,M
15	H5312-12DL	FL-0419DL	VN036710.D		Ok,M
16	H5320-08DL	KY001MW031-161018DL	VN036711.D		Ok
17	H5320-09DL	KY001MW079-161018DL	VN036712.D		Ok
18	H5308-19	MW-104I	VN036713.D	pH<2A	Ok
19	H5308-20	MW-103S	VN036714.D	pH<2A	Ok
20	H5308-21	MW-104D	VN036715.D	pH<2A	Ok
21	H5312-08	FL-0416	VN036716.D	pH<2A ,Need 50X	Dilution
22	H5312-09MS	FL-0416MS	VN036717.D	pH<2A	Ok,M

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Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN102116

Review By	MMDadoda	Review On	10/24/2016 11:22:00 AM		
SubDirectory	VN102116	HP Acquire Method	MSVOA_N	HP Processing Method	82N100516W.M

STD. NAME	STD REF.#
Tune/Reschk	VP57305
Initial Calibration Stds	VP56894,VP56895,VP56896,VP56897,VP56898,VP56899
CCC	VP57308,VP57309
Internal Standard/PEM	VP53523
ICV/I.BLK	VP56900

23	H5312-10MSD	FL-0416MSD	VN036718.D	pH<2A	Ok,M
24	VSTDCCC050	VSTDCCC050EC	VN036719.D		Ok,M

CHEMTECH

PERCENT SOLIDS

Analyst Name: JIGNESH

Date: 10/17/2016

OVEN TEMP IN Celsius (°C) :	108	OVEN TEMP OUT Celsius (°C):	105
Time IN	17:30	Time OUT:	08:30
In Date:	10/14/2016	Out Date:	10/15/2016
Weight Check 1.0g=	1.00 g	Weight Check 1.0g=	1.00 g
Weight Check 10g=	10.00 g	Weight Check 10g=	10.00 g

QC: LB83981

Lab ID	Client Sample ID	Dish#	Dish Weight (g) (A)	Dish + Sample Wt. (g) (B)	Dish + Dry Sample Wt. (g) (C)	% Solid
H5269-05	SVOC-GPC-BLANK	1	1.00	2.00	2.00	100
H5269-06	PEST-GPC-BLANK	2	1.00	2.00	2.00	100
H5269-07	PEST-GPC-BLANK-SF	3	1.00	2.00	2.00	100
H5269-08	PCB-GPC-BLANK	4	1.00	2.00	2.00	100
H5269-09	PCB-GPC-BLANK-SPI	5	1.00	2.00	2.00	100
H5269-10	SVOC-GPC2-BLANK	6	1.00	2.00	2.00	100
H5269-11	PEST-GPC2-BLANK	7	1.00	2.00	2.00	100
H5269-12	PEST-GPC2-BLANK-S	8	1.00	2.00	2.00	100
H5269-13	PCB-GPC2-BLANK	9	1.00	2.00	2.00	100
H5269-14	PCB-GPC2-BLANK-SF	10	1.00	2.00	2.00	100
H5282-01	031-TB-17(7-8)	11	1.14	9.68	8.41	85.1
H5282-02	032-TB-18(8-9)	12	1.13	9.58	8.62	88.6
H5282-03	033-TB-19(8-9)	13	1.19	9.82	8.9	89.3
H5282-04	034-TB-20(8-9.3)	14	1.12	9.76	8.85	89.5
H5282-05	035-TB-21(8-9)	15	1.17	9.98	9.27	91.9
H5282-06	036-TB-22(8-8.6)	16	1.15	9.72	8.88	90.2
H5282-07	037-TB-23(9-9.5)	17	1.14	9.84	8.99	90.2
H5282-08	038-TB-24(8.8-9.3)	18	1.13	9.9	8.91	88.7
H5282-09	039-TB-25(8-8.5)	19	1.15	9.85	9.1	91.4
H5283-01	P035-PCS-02	20	1.13	9.96	9.41	93.8
H5283-02	P035-SS001-1824-01	21	1.17	9.94	8.88	87.9
H5283-03	P035-SS002-1824-01	22	1.16	9.93	9.56	95.8
H5283-04	P035-SS003-3036-01	23	1.18	9.54	8.84	91.6
H5283-05	P035-SS003-4248-01	24	1.12	9.97	9.23	91.6
H5283-06	P035-SS004-2430-01	25	1.15	9.64	8.94	91.8
H5283-07	H5283-06MS	26	1.15	9.64	8.94	91.8
H5283-08	H5283-06MSD	27	1.15	9.64	8.94	91.8

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PERCENT SOLIDS

Analyst Name: JIGNESH

Date: 10/17/2016

OVEN TEMP IN Celsius (°C) :	108	OVEN TEMP OUT Celsius (°C):	105
Time IN	17:30	Time OUT:	08:30
In Date:	10/14/2016	Out Date:	10/15/2016
Weight Check 1.0g=	1.00 g	Weight Check 1.0g=	1.00 g
Weight Check 10g=	10.00 g	Weight Check 10g=	10.00 g

QC: LB83981

Lab ID	Client Sample ID	Dish#	Dish Weight (g) (A)	Dish + Sample Wt. (g) (B)	Dish + Dry Sample Wt. (g) (C)	% Solid
H5283-09	P035-SS004-2430-02	28	1.2	9.71	9.03	92
H5283-10	P035-SS005-4248-01	29	1.11	9.93	9.6	96.3
H5283-11	P035-SS005-4854-01	30	1.15	9.98	9.05	89.5
H5283-12	P035-SS012-0001-01	31	1.17	9.85	8.13	80.2
H5283-13	P035-SS014-0001-01	32	1.13	9.56	8.4	86.2
H5284-01	P001-PEBS69-1214-0´	33	1.18	9.96	9.45	94.2
H5284-02	P001-PEBS73-3638-0´	34	1.14	9.64	9.32	96.2
H5284-03	P001-PESW68-0612-0	35	1.12	9.89	9.13	91.3
H5284-04	P001-PESW69-0612-0	36	1.19	9.92	9.09	90.5
H5284-05	P001-PESW72-0612-0	37	1.17	9.58	9.12	94.5
H5284-06	P001-PESW73-4854-0	38	1.14	9.71	8.27	83.2
H5284-07	H5284-06MS	39	1.14	9.71	8.27	83.2
H5284-08	H5284-06MSD	40	1.14	9.71	8.27	83.2
H5284-09	P001-PESW73-4854-0	41	1.17	9.97	8.53	83.6
H5284-10	P001-PESW86B-0612-	42	1.15	9.66	8.84	90.4
H5284-11	P001-PESW87-0612-0	43	1.2	9.98	9.25	91.7
H5284-12	P003-PESW08-1218-0	44	1.15	9.85	9.12	91.6
H5284-13	P003-PESW10-0006-0	45	1.17	9.68	9.36	96.2
H5284-14	P003-PESW11-0006-0	46	1.14	9.62	9.16	94.6
H5284-15	P003-PESW12-0006-0	47	1.17	9.97	9.28	92.2
H5284-16	P003-PESW15-3036-0	48	1.14	9.68	8.56	86.9
H5284-17	P003-PESW17-3036-0	49	1.15	9.97	8.59	84.4
H5289-01	SP-3-1	50	1.17	9.96	8.9	87.9
H5289-02	SP-3-2	51	1.2	9.67	8.45	85.6
H5289-03	SP-3-3	52	1.13	9.7	8.79	89.4
H5289-04	SP-3-4	53	1.14	9.54	8.87	92
H5289-04DUP	SP-3-4DUP	54	1.18	9.57	8.9	92

CHEMTECH

PERCENT SOLIDS

Analyst Name: JIGNESH

Date: 10/17/2016

OVEN TEMP IN Celsius (°C) :	108	OVEN TEMP OUT Celsius (°C):	105
Time IN	17:30	Time OUT:	08:30
In Date:	10/14/2016	Out Date:	10/15/2016
Weight Check 1.0g=	1.00 g	Weight Check 1.0g=	1.00 g
Weight Check 10g=	10.00 g	Weight Check 10g=	10.00 g

QC: LB83981

Lab ID	Client Sample ID	Dish#	Dish Weight (g) (A)	Dish + Sample Wt. (g) (B)	Dish + Dry Sample Wt. (g) (C)	% Solid
H5289-06	SP-2-1	55	1.14	9.85	8.76	87.5
H5289-07	SP-2-2	56	1.11	9.95	8.93	88.5
H5289-08	SP-1-1	57	1.16	9.66	8.2	82.8

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

WORKLIST(Hardcopy Internal Chain) JR 83981

WorkList Name : %1-101416 WorkList ID : 91786 Date : 10/14/2016 8:24:01 AM

Due Date	Matrix	Sample	Test	Preservative	Customer	Storage Location	Customer Sample	Collect Date	Method
	Solid	H5269-05	Percent Solids	Cool 4 deg C	CHEM02	N52	SVOC-GPC-BLANK	10/07/2016	Chemtech -SO
	Solid	H5269-06	Percent Solids	Cool 4 deg C	CHEM02	N52	PEST-GPC-BLANK	10/07/2016	Chemtech -SO
	Solid	H5269-07	Percent Solids	Cool 4 deg C	CHEM02	N52	PEST-GPC-BLANK-SPIKE	10/07/2016	Chemtech -SO
	Solid	H5269-08	Percent Solids	Cool 4 deg C	CHEM02	N52	PCB-GPC-BLANK	10/07/2016	Chemtech -SO
	Solid	H5269-09	Percent Solids	Cool 4 deg C	CHEM02	N52	PCB-GPC-BLANK-SPIKE	10/07/2016	Chemtech -SO
	Solid	H5269-10	Percent Solids	Cool 4 deg C	CHEM02	N52	SVOC-GPC2-BLANK	10/07/2016	Chemtech -SO
	Solid	H5269-11	Percent Solids	Cool 4 deg C	CHEM02	N52	PEST-GPC2-BLANK	10/07/2016	Chemtech -SO
	Solid	H5269-12	Percent Solids	Cool 4 deg C	CHEM02	N52	PEST-GPC2-BLANK-SPIKE	10/07/2016	Chemtech -SO
	Solid	H5269-13	Percent Solids	Cool 4 deg C	CHEM02	N52	PCB-GPC2-BLANK	10/07/2016	Chemtech -SO
	Solid	H5269-14	Percent Solids	Cool 4 deg C	CHEM02	N52	PCB-GPC2-BLANK-SPIKE	10/07/2016	Chemtech -SO
	Solid	H5282-01	Percent Solids	Cool 4 deg C	DAYE01	F51	031-TB-17(7-8)	10/13/2016	Chemtech -SO
	Solid	H5282-02	Percent Solids	Cool 4 deg C	DAYE01	F51	032-TB-18(8-9)	10/13/2016	Chemtech -SO
	Solid	H5282-03	Percent Solids	Cool 4 deg C	DAYE01	F51	033-TB-19(8-9)	10/13/2016	Chemtech -SO
	Solid	H5282-04	Percent Solids	Cool 4 deg C	DAYE01	F51	034-TB-20(8-9.3)	10/13/2016	Chemtech -SO
	Solid	H5282-05	Percent Solids	Cool 4 deg C	DAYE01	F51	035-TB-21(8-9)	10/13/2016	Chemtech -SO
	Solid	H5282-06	Percent Solids	Cool 4 deg C	DAYE01	F51	036-TB-22(8-8.6)	10/13/2016	Chemtech -SO
	Solid	H5282-07	Percent Solids	Cool 4 deg C	DAYE01	F51	037-TB-23(9-9.5)	10/13/2016	Chemtech -SO
	Solid	H5282-08	Percent Solids	Cool 4 deg C	DAYE01	F51	038-TB-24(8.8-9.3)	10/13/2016	Chemtech -SO
	Solid	H5282-09	Percent Solids	Cool 4 deg C	DAYE01	F51	039-TB-25(8-8.5)	10/13/2016	Chemtech -SO
10/23/2016	Solid	H5283-01	Percent Solids	Cool 4 deg C	ROYF02	E31	P035-PCS-02	10/13/2016	Chemtech -SO
10/21/2016	Solid	H5283-02	Percent Solids	Cool 4 deg C	ROYF02	E31	P035-SS001-1824-01	10/11/2016	Chemtech -SO

Date/Time 10-14-16 3:50 PM
Received by: JJ
Relinquished by:

Date/Time 10-14-16 5:25 PM
Received by:
Relinquished by: JR

WORKLIST(Hardcopy Internal Chain)

HB83981

WorkList Name : %1-101416 WorkList ID : 91786 Date : 10/14/2016 8:24:01 AM

Due Date	Matrix	Sample	Test	Preservative	Customer	Storage Location	Customer Sample	Collect Date	Method
10/21/2016	Solid	H5283-03	Percent Solids	Cool 4 deg C	ROYF02	E31	P035-SS002-1824-01	10/11/2016	Chemtech -SO
10/21/2016	Solid	H5283-04	Percent Solids	Cool 4 deg C	ROYF02	E31	P035-SS003-3036-01	10/11/2016	Chemtech -SO
10/21/2016	Solid	H5283-05	Percent Solids	Cool 4 deg C	ROYF02	E31	P035-SS003-4248-01	10/11/2016	Chemtech -SO
10/21/2016	Solid	H5283-06	Percent Solids	Cool 4 deg C	ROYF02	E31	P035-SS004-2430-01	10/11/2016	Chemtech -SO
10/21/2016	Solid	H5283-07	Percent Solids	Cool 4 deg C	ROYF02	E31	H5283-06MS	10/11/2016	Chemtech -SO
10/21/2016	Solid	H5283-08	Percent Solids	Cool 4 deg C	ROYF02	E31	H5283-06MSD	10/11/2016	Chemtech -SO
10/21/2016	Solid	H5283-09	Percent Solids	Cool 4 deg C	ROYF02	E31	P035-SS004-2430-02	10/11/2016	Chemtech -SO
10/21/2016	Solid	H5283-10	Percent Solids	Cool 4 deg C	ROYF02	E31	P035-SS005-4248-01	10/11/2016	Chemtech -SO
10/21/2016	Solid	H5283-11	Percent Solids	Cool 4 deg C	ROYF02	E31	P035-SS005-4854-01	10/11/2016	Chemtech -SO
10/22/2016	Solid	H5283-12	Percent Solids	Cool 4 deg C	ROYF02	E31	P035-SS012-0001-01	10/12/2016	Chemtech -SO
10/22/2016	Solid	H5283-13	Percent Solids	Cool 4 deg C	ROYF02	E31	P035-SS014-0001-01	10/12/2016	Chemtech -SO
10/15/2016	Solid	H5284-01	Percent Solids	Cool 4 deg C	ROYF02	E32	P001-PEBS69-1214-01	10/05/2016	Chemtech -SO
10/16/2016	Solid	H5284-02	Percent Solids	Cool 4 deg C	ROYF02	E32	P001-PEBS73-3638-01	10/06/2016	Chemtech -SO
10/14/2016	Solid	H5284-03	Percent Solids	Cool 4 deg C	ROYF02	E32	P001-PESW68-0612-01	10/04/2016	Chemtech -SO
10/14/2016	Solid	H5284-04	Percent Solids	Cool 4 deg C	ROYF02	E32	P001-PESW69-0612-01	10/04/2016	Chemtech -SO
10/15/2016	Solid	H5284-05	Percent Solids	Cool 4 deg C	ROYF02	E32	P001-PESW72-0612-01	10/05/2016	Chemtech -SO
10/15/2016	Solid	H5284-06	Percent Solids	Cool 4 deg C	ROYF02	E32	P001-PESW73-4854-01	10/05/2016	Chemtech -SO
10/15/2016	Solid	H5284-07	Percent Solids	Cool 4 deg C	ROYF02	E32	H5284-06MS	10/05/2016	Chemtech -SO
10/15/2016	Solid	H5284-08	Percent Solids	Cool 4 deg C	ROYF02	E32	H5284-06MSD	10/05/2016	Chemtech -SO
10/15/2016	Solid	H5284-09	Percent Solids	Cool 4 deg C	ROYF02	E32	P001-PESW73-4854-02	10/05/2016	Chemtech -SO
10/18/2016	Solid	H5284-10	Percent Solids	Cool 4 deg C	ROYF02	E32	P001-PESW86B-0612-01	10/12/2016	Chemtech -SO

Date/Time 10.14.16 3:50 PM
Received by: TH
Relinquished by:

Date/Time 10.14.16 5:25 PM
Received by:
Relinquished by: JP

(183981)

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-101416 WorkList ID : 91786 Date : 10/14/2016 8:24:01 AM

Due Date	Matrix	Sample	Test	Preservative	Customer	Storage Location	Customer Sample	Collect Date	Method
10/18/2016	Solid	H5284-11	Percent Solids	Cool 4 deg C	ROYF02	E32	P001-PESW87-0612-01	10/12/2016	Chemtech -SO
10/06/2016	Solid	H5284-12	Percent Solids	Cool 4 deg C	ROYF02	E32	P003-PESW08-1218-01	09/26/2016	Chemtech -SO
10/06/2016	Solid	H5284-13	Percent Solids	Cool 4 deg C	ROYF02	E32	P003-PESW10-0006-01	09/26/2016	Chemtech -SO
10/06/2016	Solid	H5284-14	Percent Solids	Cool 4 deg C	ROYF02	E32	P003-PESW11-0006-01	09/26/2016	Chemtech -SO
10/08/2016	Solid	H5284-15	Percent Solids	Cool 4 deg C	ROYF02	E32	P003-PESW12-0006-01	09/28/2016	Chemtech -SO
10/08/2016	Solid	H5284-16	Percent Solids	Cool 4 deg C	ROYF02	E32	P003-PESW15-3036-01	09/28/2016	Chemtech -SO
10/08/2016	Solid	H5284-17	Percent Solids	Cool 4 deg C	ROYF02	E32	P003-PESW17-3036-01	09/28/2016	Chemtech -SO
10/19/2016	Solid	H5289-01	Percent Solids	Cool 4 deg C	BEMS01	E21	SP-3-1	10/14/2016	Chemtech -SO
10/19/2016	Solid	H5289-02	Percent Solids	Cool 4 deg C	BEMS01	E21	SP-3-2	10/14/2016	Chemtech -SO
10/19/2016	Solid	H5289-03	Percent Solids	Cool 4 deg C	BEMS01	E21	SP-3-3	10/14/2016	Chemtech -SO
10/19/2016	Solid	H5289-04	Percent Solids	Cool 4 deg C	BEMS01	E21	SP-3-4	10/14/2016	Chemtech -SO
10/19/2016	Solid	H5289-06	Percent Solids	Cool 4 deg C	BEMS01	E21	SP-2-1	10/14/2016	Chemtech -SO
10/19/2016	Solid	H5289-07	Percent Solids	Cool 4 deg C	BEMS01	E21	SP-2-2	10/14/2016	Chemtech -SO
10/19/2016	Solid	H5289-08	Percent Solids	Cool 4 deg C	BEMS01	E21	SP-1-1	10/14/2016	Chemtech -SO

Date/Time 10-14-16 3:30pm
Received by: TD
Relinquished by:

Date/Time 10-14-16 5:25pm
Received by:
Relinquished by: TD

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Prep Standard - Chemical Standard Summary

Order ID : H5282

Test : VOCMS Group1

Prepbatch ID :

Sequence ID/Qc Batch ID: vf101716,vf101816,vn102116,

Standard ID :
VP51631,VP52208,VP52754,VP53523,VP53524,VP54362,VP55415,VP55416,VP55598,VP55599,VP55726,VP55727,VP55728,VP55729,VP55839,VP55840,VP55841,VP55842,VP55910,VP55955,VP55956,VP55957,VP55959,VP55961,VP55963,VP56428,VP56429,VP56432,VP56433,VP56434,VP56435,VP56693,VP56894,VP56895,VP56896,VP56897,VP56898,VP56899,VP56900,VP56932,VP56934,VP56935,VP56936,VP56937,VP56938,VP56939,VP57012,VP57013,VP57170,VP57171,VP57172,VP57187,VP57188,VP57189,VP57256,VP57305,VP57308,VP57309,

Chemical ID :
V1456,V3459,V5218,V5219,V6021,V6347,V6490,V6492,V6514,V6519,V6529,V6530,V6531,V6537,V6557,V6561,V6562,V6563,V6633,V6638,V6641,V6660,V6661,V6663,V6664,V6666,V6674,V6676,V6679,V6680,V6689,V6690,V6691,V6753,V6761,V6762,V6765,V6766,V6769,V6775,V6779,V6784,V6785,V6786,V6961,V6962,V6963,V6968,V6972,V6973,V6974,V6976,V6981,V6982,V7043,V7061,V7063,V7064,V7067,V7068,V7069,V7070,V7071,V7073,V7074,V7137,V7138,V7139,V7140,

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
1917	8260 Internal standard 50 ppm	VP51631	03/30/2016	09/30/2016	sam

FROM 0.050ml of V6633 + 24.950ml of V6492 = Final Quantity: 25.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
249	8260 Surrogate, 100PPM	VP52208	04/20/2016	10/20/2016	sam

FROM 0.100ml of V6641 + 24.900ml of V6490 = Final Quantity: 25.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
250	8260 Surrogate, 10PPM	VP52754	05/06/2016	10/20/2016	sam

FROM 9.000ml of V6674 + 1.000ml of VP52208 = Final Quantity: 10.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
247	8260 Internal Standard, 250PPM	VP53523	06/02/2016	12/02/2016	sam

FROM 0.250ml of V6633 + 24.750ml of V6676 = Final Quantity: 25.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
1917	8260 Internal standard 50 ppm	VP53524	06/02/2016	12/02/2016	sam

FROM 0.100ml of V6633 + 49.900ml of V6676 = Final Quantity: 50.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
249	8260 Surrogate, 100PPM	VP54362	06/28/2016	12/17/2016	sam

FROM 0.200ml of V6638 + 49.800ml of V6680 = Final Quantity: 50.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
1817	8260 Working Std(2-CVE)-SS, 800ppm	VP55415	08/05/2016	02/05/2017	sam

FROM 1.200ml of V6557 + 13.800ml of V6679 = Final Quantity: 15.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
1819	8260 Working Std(2-CVE)-SS, 500ppm	VP55416	08/05/2016	02/05/2017	sam

FROM 1.875ml of V6679 + 3.125ml of VP55415 = Final Quantity: 5.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
617	8260 Surrogate, 400PPM	VP55598	08/16/2016	02/16/2017	Sam

FROM 0.800ml of V6638 + 49.200ml of V6972 = Final Quantity: 50.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
1738	8260 surrogate 20 ppm	VP55599	08/16/2016	02/16/2017	Sam

FROM 0.020ml of V6638 + 24.980ml of V6972 = Final Quantity: 25.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
719	8260 Working STD (BCM)-First source, 400PPM	VP55726	08/23/2016	02/23/2017	Sam

FROM 1.000ml of V6664 + 1.500ml of V6660 + 1.500ml of V6663 + 16.000ml of V6973 = Final Quantity: 20.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
252	8260 Working STD (BCM)-First source, 100PPM	VP55727	08/23/2016	02/23/2017	Sam

FROM 1.250ml of V6661 + 23.750ml of V6973 = Final Quantity: 25.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
253	8260 Working STD (BCM)-First source, 20PPM	VP55728	08/23/2016	02/23/2017	Sam

FROM 0.250ml of V6666 + 24.750ml of V6973 = Final Quantity: 25.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
254	8260 Working STD (BCM)-First source, 10PPM	VP55729	08/23/2016	02/23/2017	Sam

FROM 0.100ml of V6666 + 19.900ml of V6973 = Final Quantity: 20.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
1810	8260 Working Std(2-CVE)-800ppm	VP55839	08/26/2016	02/26/2017	Sam

FROM 1.200ml of V6561 + 1.400ml of V6562 + 1.400ml of V6563 + 46.000ml of V6974 = Final Quantity: 50.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
1811	8260 Working Std(2-CVE)-500ppm	VP55840	08/26/2016	02/26/2017	Sam

FROM 7.500ml of V6974 + 12.500ml of VP55839 = Final Quantity: 20.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
1812	8260 Working Std(2-CVE)-100ppm	VP55841	08/26/2016	02/26/2017	Sam

FROM 17.500ml of V6974 + 2.500ml of VP55839 = Final Quantity: 20.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
1813	8260 Working Std(2-CVE)-50ppm	VP55842	08/26/2016	02/26/2017	Sam

FROM 9.375ml of V6974 + 0.625ml of VP55839 = Final Quantity: 10.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
262	8260 Working STD (BCM)-Second source, 100PPM	VP55910	08/30/2016	01/26/2017	Sam

FROM 1.000ml of V3459 + 9.000ml of V6974 = Final Quantity: 10.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
257	8260 Calibration Working STD Mix-First source, 160PPM	VP55955	08/31/2016	10/08/2016	Sam

FROM 0.200ml of V6689 + 0.200ml of V6784 + 0.200ml of V6963 + 0.200ml of V7064 + 0.400ml of V6766 + 0.640ml of V6514 + 0.700ml of V6529 + 1.000ml of V6530 + 1.500ml of V6531 + 1.500ml of V6690 + 1.500ml of V6691 + 1.500ml of V6753 + 1.500ml of V6762 + 1.500ml of V6765 + 1.500ml of V6769 + 1.500ml of V6785 + 1.500ml of V6786 + 1.500ml of V6961 + 1.500ml of V6962 + 1.500ml of V7061 + 1.500ml of V7063 + 16.960ml of V6974 = Final Quantity: 40.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
259	8260 Calibration Working STD Mix-Second source, 160PPM	VP55956	08/31/2016	10/08/2016	Sam

FROM 0.160ml of V6519 + 0.200ml of V6779 + 0.800ml of V6021 + 0.800ml of V6347 + 0.800ml of V6537 + 0.800ml of V6968 + 0.800ml of V7043 + 1.400ml of V6775 + 4.240ml of V6974 = Final Quantity: 10.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
260	8260 Calibration Working STD Mix-Second source, 100PPM	VP55957	08/31/2016	10/08/2016	Sam

FROM 1.875ml of V6974 + 3.125ml of VP55956 = Final Quantity: 5.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
244	8260 Calibration Working STD Mix-First source, 100PPM	VP55959	08/31/2016	10/08/2016	Sam

FROM 7.500ml of V6974 + 12.500ml of VP55955 = Final Quantity: 20.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
245	8260 Calibration Working STD Mix-First source, 20PPM	VP55961	08/31/2016	10/08/2016	Sam

FROM 17.500ml of V6974 + 2.500ml of VP55955 = Final Quantity: 20.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
246	8260 Calibration Working STD Mix-First source, 10PPM	VP55963	08/31/2016	10/08/2016	Sam

FROM 9.375ml of V6974 + 0.625ml of VP55955 = Final Quantity: 10.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
263	8260 Working STD (Acrolein)-Second source, 800PPM	VP56428	09/21/2016	10/19/2016	Sam

FROM 0.400ml of V7074 + 1.200ml of V7073 + 8.400ml of V6976 = Final Quantity: 10.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
264	8260 Working STD (Acrolein)-Second source, 500PPM	VP56429	09/21/2016	10/19/2016	Sam

FROM 1.875ml of V6976 + 3.125ml of VP56428 = Final Quantity: 5.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
51	8260 Working STD (Acrolein) -first source, 800PPM	VP56432	09/22/2016	10/20/2016	Sam

FROM 0.400ml of V7071 + 1.500ml of V7067 + 1.500ml of V7068 + 1.500ml of V7069 + 1.500ml of V7070 + 33.600ml of V6976 = Final Quantity: 40.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
56	8260 Working STD (Acrolein) -first source, 500PPM	VP56433	09/22/2016	10/20/2016	Sam

FROM 7.500ml of V6976 + 12.500ml of VP56432 = Final Quantity: 20.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
180	8260 Working STD (Acrolein)-First source, 100PPM	VP56434	09/22/2016	10/20/2016	Sam

FROM 17.500ml of V6976 + 2.500ml of VP56432 = Final Quantity: 20.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
181	8260 Working STD (Acrolein)-First source, 50PPM	VP56435	09/22/2016	10/20/2016	Sam

FROM 9.375ml of V6976 + 0.625ml of VP56432 = Final Quantity: 10.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
218	BFB, 25PPM	VP56693	09/29/2016	03/29/2017	Sam

FROM 0.250ml of V5218 + 0.250ml of V5219 + 49.500ml of V6982 = Final Quantity: 50.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
334	1 PPB ICC, 8260-Water	VP56894	10/05/2016	10/06/2016	lisa

FROM 39.982ml of V1456 + 0.002ml of VP55599 + 0.002ml of VP55728 + 0.002ml of VP55841 + 0.002ml of VP55961 + 0.002ml of VP56434 + 0.008ml of VP53523 = Final Quantity: 40.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
335	5 PPB ICC, 8260-Water	VP56895	10/05/2016	10/06/2016	lisa

FROM 39.942ml of V1456 + 0.008ml of VP53523 + 0.010ml of VP55599 + 0.010ml of VP55728 + 0.010ml of VP55841 + 0.010ml of VP55961 + 0.010ml of VP56434 = Final Quantity: 40.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
337	20 PPB ICC, 8260-Water	VP56896	10/05/2016	10/06/2016	lisa

FROM 39.961ml of V1456 + 0.005ml of VP55839 + 0.005ml of VP55955 + 0.005ml of VP56432 + 0.008ml of VP53523 + 0.008ml of VP54362 + 0.008ml of VP55727 = Final Quantity: 40.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
380	50 PPB ICC, 8260-Water	VP56897	10/05/2016	10/06/2016	lisa

FROM 39.945ml of V1456 + 0.005ml of VP55598 + 0.005ml of VP55726 + 0.008ml of VP53523 + 0.013ml of VP55839 + 0.013ml of VP55955 + 0.013ml of VP56432 = Final Quantity: 40.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
381	100 PPB ICC, 8260-Water	VP56898	10/05/2016	10/06/2016	lisa

FROM 39.987ml of V1456 + 0.008ml of VP53523 + 0.010ml of VP55598 + 0.010ml of VP55726 + 0.025ml of VP55839 + 0.025ml of VP55955 + 0.025ml of VP56432 = Final Quantity: 40.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
1216	200 PPB ICC, 8260-Water	VP56899	10/05/2016	10/06/2016	lisa

FROM 39.802ml of V1456 + 0.008ml of VP53523 + 0.020ml of VP55598 + 0.020ml of VP55726 + 0.050ml of VP55839 + 0.050ml of VP55955 + 0.050ml of VP56432 = Final Quantity: 40.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
385	50 PPB ICV, 8260-Water	VP56900	10/05/2016	10/06/2016	lisa

FROM 39.930ml of V1456 + 0.005ml of VP55598 + 0.008ml of VP53523 + 0.013ml of VP55415 + 0.013ml of VP55956 + 0.013ml of VP56428 + 0.020ml of VP55910 = Final Quantity: 40.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
287	50 PPB ICV, 8260-SOIL	VP56932	10/06/2016	10/07/2016	lisa

FROM 4.980ml of V1456 + 0.003ml of VP54362 + 0.003ml of VP55416 + 0.003ml of VP55910 + 0.003ml of VP55957 + 0.003ml of VP56429 + 0.005ml of VP53524 = Final Quantity: 5.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
267	5 PPB ICC, 8260-SOIL	VP56934	10/06/2016	10/07/2016	lisa

FROM 4.980ml of V1456 + 0.003ml of VP52754 + 0.003ml of VP55729 + 0.003ml of VP55842 + 0.003ml of VP55963 + 0.003ml of VP56435 + 0.005ml of VP53524 = Final Quantity: 5.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
269	10 PPB ICC, 8260-SOIL	VP56935	10/06/2016	10/07/2016	lisa

FROM 4.980ml of V1456 + 0.003ml of VP55599 + 0.003ml of VP55728 + 0.003ml of VP55841 + 0.003ml of VP55961 + 0.003ml of VP56434 + 0.005ml of VP53524 = Final Quantity: 5.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
270	20 PPB ICC, 8260-SOIL	VP56936	10/06/2016	10/07/2016	lisa

FROM 4.965ml of V1456 + 0.005ml of VP53524 + 0.005ml of VP55599 + 0.005ml of VP55728 + 0.005ml of VP55841 + 0.005ml of VP55961 + 0.005ml of VP56434 = Final Quantity: 5.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
273	50 PPB ICC, 8260-SOIL	VP56937	10/06/2016	10/07/2016	lisa

FROM 4.980ml of V1456 + 0.003ml of VP54362 + 0.003ml of VP55727 + 0.003ml of VP55840 + 0.003ml of VP55959 + 0.003ml of VP56433 + 0.005ml of VP53524 = Final Quantity: 5.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
274	75 PPB ICC, 8260-SOIL	VP56938	10/06/2016	10/07/2016	lisa

FROM 4.973ml of V1456 + 0.004ml of VP54362 + 0.004ml of VP55727 + 0.004ml of VP55840 + 0.004ml of VP55959 + 0.004ml of VP56433 + 0.005ml of VP53524 = Final Quantity: 5.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
280	100 PPB ICC, 8260-SOIL	VP56939	10/06/2016	10/07/2016	lisa

FROM 4.965ml of V1456 + 0.005ml of VP53524 + 0.005ml of VP54362 + 0.005ml of VP55727 + 0.005ml of VP55840 + 0.005ml of VP55959 + 0.005ml of VP56433 = Final Quantity: 5.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
257	8260 Calibration Working STD Mix-First source, 160PPM	VP57012	10/10/2016	11/14/2016	Sam

FROM 0.400ml of V6514 + 0.500ml of V6530 + 0.500ml of V6691 + 0.500ml of V6962 + 1.000ml of V6761 + 1.000ml of V6785 + 1.000ml of V6786 + 1.000ml of V7063 + 1.000ml of V7064 + 1.500ml of V6531 + 1.500ml of V6690 + 1.500ml of V6765 + 1.500ml of V6769 + 1.500ml of V6963 + 10.600ml of V6981 = Final Quantity: 25.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
244	8260 Calibration Working STD Mix-First source, 100PPM	VP57013	10/10/2016	11/14/2016	Sam

FROM 3.750ml of V6981 + 6.250ml of VP57012 = Final Quantity: 10.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
732	BFB TUNE CHECK - SOIL	VP57170	10/17/2016	10/18/2016	lisa

FROM 4.998ml of V1456 + 0.002ml of VP56693 = Final Quantity: 5.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
773	50 PPB CCC, 8260-SOIL	VP57171	10/17/2016	10/18/2016	lisa

FROM 4.980ml of V1456 + 0.003ml of VP54362 + 0.003ml of VP55727 + 0.003ml of VP55840 + 0.003ml of VP56433 + 0.003ml of VP57013 + 0.005ml of VP53524 = Final Quantity: 5.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
773	50 PPB CCC, 8260-SOIL	VP57172	10/17/2016	10/18/2016	lisa

FROM 4.980ml of V1456 + 0.003ml of VP54362 + 0.003ml of VP55727 + 0.003ml of VP55840 + 0.003ml of VP56433 + 0.003ml of VP57013 + 0.005ml of VP53524 = Final Quantity: 5.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
732	BFB TUNE CHECK - SOIL	VP57187	10/18/2016	10/19/2016	lisa

FROM 4.998ml of V1456 + 0.002ml of VP56693 = Final Quantity: 5.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
773	50 PPB CCC, 8260-SOIL	VP57188	10/18/2016	10/19/2016	lisa

FROM 4.980ml of V1456 + 0.003ml of VP54362 + 0.003ml of VP55727 + 0.003ml of VP55840 + 0.003ml of VP56433 + 0.003ml of VP57013 + 0.005ml of VP53524 = Final Quantity: 5.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
773	50 PPB CCC, 8260-SOIL	VP57189	10/18/2016	10/19/2016	lisa

FROM 4.980ml of V1456 + 0.003ml of VP54362 + 0.003ml of VP55727 + 0.003ml of VP55840 + 0.003ml of VP56433 + 0.003ml of VP57013 + 0.005ml of VP53524 = Final Quantity: 5.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
51	8260 Working STD (Acrolein) -first source, 800PPM	VP57256	10/20/2016	11/17/2016	Sam

FROM 0.400ml of V7140 + 1.200ml of V7137 + 1.200ml of V7138 + 1.200ml of V7139 + 21.000ml of V6981 = Final Quantity: 25.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
589	BFB TUNE CHECK	VP57305	10/21/2016	10/22/2016	MMDadoda

FROM 39.984ml of V1456 + 0.016ml of VP56693 = Final Quantity: 40.000 ml

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STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
620	50 PPB CCC, 8260-Water	VP57308	10/21/2016	10/22/2016	MMDadoda

FROM 39.945ml of V1456 + 0.005ml of VP55598 + 0.005ml of VP55726 + 0.008ml of VP53523 + 0.013ml of VP55839 + 0.013ml of VP57012 + 0.013ml of VP57256 = Final Quantity: 40.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
620	50 PPB CCC, 8260-Water	VP57309	10/21/2016	10/22/2016	MMDadoda

FROM 39.945ml of V1456 + 0.005ml of VP55598 + 0.005ml of VP55726 + 0.008ml of VP53523 + 0.013ml of VP55839 + 0.013ml of VP57012 + 0.013ml of VP57256 = Final Quantity: 40.000 ml

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Res-Kem General water	DIW / DI Water	DAILY	12/31/2019	03/01/2010 / apatel	03/02/2010 / apatel	V1456

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	70046 / Bromochloromethane Std. sol/methanol 1000ppm	012612	01/26/2017	08/30/2016 / Sam	06/04/2012 / sam	V3459

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30067 / BFB tuneing solution	A0102518	04/30/2019	11/13/2015 / sam	07/14/2014 / sam	V5218

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30067 / BFB tuneing solution	A0102518	04/30/2019	09/29/2016 / Sam	07/14/2014 / sam	V5219

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	012314	01/23/2017	02/15/2016 /	07/15/2015 / sam	V6021

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000ug/ml, PTM, 1ml	A0112834	05/31/2022	08/31/2016 / Sam	10/28/2015 / sam	V6347

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	127999	10/27/2017	04/20/2016 / sam	01/13/2016 / sam	V6490

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	127999	10/27/2017	03/30/2016 / sam	01/13/2016 / sam	V6492

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM	A0110153	11/30/2018	06/20/2016 / sam	01/14/2016 / sam	V6514

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM	A0115385	11/30/2018	02/15/2016 / sam	01/14/2016 / sam	V6519

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	051115	05/11/2018	07/29/2016 / sam	01/14/2016 / sam	V6529

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	051115	05/11/2018	07/29/2016 / sam	01/14/2016 / sam	V6530

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	051115	05/11/2018	08/31/2016 / Sam	01/14/2016 / sam	V6531

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	051215	05/11/2018	08/31/2016 / Sam	01/14/2016 / sam	V6537

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	021616	02/16/2019	08/05/2016 / sam	02/17/2016 / sam	V6557

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	030615	03/06/2018	08/26/2016 / Sam	02/11/2016 / sam	V6561

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	030615	03/06/2018	08/26/2016 / Sam	02/11/2016 / sam	V6562

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	030615	03/06/2018	08/26/2016 / Sam	02/11/2016 / sam	V6563

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555581 / Custom Standard, 8260 Internal Std [CS 5179-1]	A0118136	03/31/2019	03/22/2016 / sam	03/21/2016 / sam	V6633

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2]	A0118140	03/31/2019	05/16/2016 / sam	03/21/2016 / sam	V6638

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2]	A0118140	03/31/2019	03/30/2016 / sam	03/21/2016 / sam	V6641

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0117927	03/31/2021	08/23/2016 / Sam	04/07/2016 / sam	V6660

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0117927	03/31/2021	08/23/2016 / Sam	04/07/2016 / sam	V6661

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0117927	03/31/2021	08/23/2016 / Sam	04/07/2016 / sam	V6663

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0117927	03/31/2021	08/23/2016 / Sam	04/07/2016 / sam	V6664

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0117927	03/31/2021	08/23/2016 / Sam	04/07/2016 / sam	V6666

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	0000127999	10/27/2017	05/04/2016 / sam	04/12/2016 / sam	V6674

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	0000127999	10/27/2017	06/02/2016 / sam	04/12/2016 / sam	V6676

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	0000127999	10/27/2017	08/01/2016 / sam	04/12/2016 / sam	V6679

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	0000127999	10/27/2017	06/17/2016 / sam	04/12/2016 / sam	V6680

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	041116	04/11/2019	07/29/2016 / sam	04/12/2016 / sam	V6689

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	041116	04/11/2019	08/31/2016 / Sam	04/12/2016 / sam	V6690

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	041116	04/11/2019	08/31/2016 / Sam	04/12/2016 / sam	V6691

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0113616	05/31/2019	08/31/2016 / Sam	04/20/2016 / sam	V6753

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0113616	05/31/2019	09/06/2016 / Sam	04/20/2016 / sam	V6761

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0113616	05/31/2019	08/31/2016 / Sam	04/20/2016 / sam	V6762

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0113616	05/31/2019	08/31/2016 / Sam	04/20/2016 / sam	V6765

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0113616	05/31/2019	08/31/2016 / Sam	04/20/2016 / sam	V6766

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0113616	05/31/2019	08/31/2016 / Sam	04/20/2016 / sam	V6769

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0117138	05/31/2019	08/31/2016 / Sam	04/20/2016 / sam	V6775

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0117138	05/31/2019	07/01/2016 / sam	04/20/2016 / sam	V6779

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml	A0116702	09/30/2022	07/29/2016 / sam	04/20/2016 / sam	V6784

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000ug/ml, PTM, 1ml	A0116702	09/30/2022	08/31/2016 / Sam	04/20/2016 / sam	V6785

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000ug/ml, PTM, 1ml	A0116702	09/30/2022	08/31/2016 / Sam	04/20/2016 / sam	V6786

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0119781	11/30/2016	08/31/2016 / Sam	06/27/2016 / sam	V6961

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0119781	11/30/2016	08/31/2016 / Sam	06/27/2016 / sam	V6962

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0119781	11/30/2016	08/31/2016 / Sam	06/27/2016 / sam	V6963

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0119205	11/30/2016	08/31/2016 / Sam	06/27/2016 / sam	V6968

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	127999	10/27/2017	08/16/2016 / Sam	07/25/2016 / sam	V6972

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	127999	10/27/2017	08/23/2016 / Sam	07/25/2016 / sam	V6973

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	127999	10/27/2017	08/26/2016 / Sam	07/25/2016 / sam	V6974

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	127999	10/27/2017	09/16/2016 / Sam	07/25/2016 / sam	V6976

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	127999	10/27/2017	10/05/2016 / Sam	07/25/2016 / sam	V6981

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	127999	10/27/2017	09/29/2016 / Sam	07/25/2016 / sam	V6982

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0121209	02/28/2017	08/31/2016 / Sam	08/29/2016 / Sam	V7043

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0121239	02/28/2017	08/31/2016 / Sam	08/29/2016 / Sam	V7061

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0121239	02/28/2017	08/31/2016 / Sam	08/29/2016 / Sam	V7063

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0121239	02/28/2017	08/31/2016 / Sam	08/29/2016 / Sam	V7064

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	092016	10/20/2016	09/21/2016 / Sam	09/21/2016 / Sam	V7067

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	092016	10/20/2016	09/21/2016 / Sam	09/21/2016 / Sam	V7068

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	092016	10/20/2016	09/21/2016 / Sam	09/21/2016 / Sam	V7069

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	092016	10/20/2016	09/21/2016 / Sam	09/21/2016 / Sam	V7070

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	092016	10/20/2016	09/21/2016 / Sam	09/21/2016 / Sam	V7071

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	091916	10/20/2016	09/21/2016 / Sam	09/21/2016 / Sam	V7073

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	091916	10/19/2016	09/21/2016 / Sam	09/21/2016 / Sam	V7074

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	101716	11/17/2016	10/20/2016 / Sam	10/18/2016 / Sam	V7137

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	101716	11/17/2016	10/20/2016 / Sam	10/18/2016 / Sam	V7138

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	101716	11/17/2016	10/20/2016 / Sam	10/18/2016 / Sam	V7139

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	101716	11/17/2016	10/20/2016 / Sam	10/18/2016 / Sam	V7140

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Certificate of Analysis

ilac-MRA

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.01

ACCREDITED ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30470 **Lot No.:** A0110153

Description : tert-Butanol Standard

tert-Butanol Std 50,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	tert-Butanol (TBA) CAS # 75-65-0 Purity 99%	50,038.0 µg/mL (Lot SHBF0688V)	+/-	292.9835	µg/mL	Gravimetric
			+/-	1,061.7413	µg/mL	Unstressed
			+/-	1,066.4473	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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Bellefonte, PA 16823-8812
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Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0113616

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 **Purity** 99% (Lot 07196AK)	5,006.4 µg/mL	+/- 29.1076 µg/mL +/- 266.4296 µg/mL +/- 266.7234 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 **Purity** 99% (Lot BCBK4358V)	5,001.5 µg/mL	+/- 29.0792 µg/mL +/- 266.1688 µg/mL +/- 266.4623 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 **Purity** 99% (Lot SHBP9556V)	5,008.3 µg/mL	+/- 29.1187 µg/mL +/- 266.5307 µg/mL +/- 266.8246 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 **Purity** 99% (Lot MKBN7380V)	5,007.1 µg/mL	+/- 29.1117 µg/mL +/- 266.4668 µg/mL +/- 266.7607 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

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Fax: (814)353-1309

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30470 **Lot No.:** A0115385

Description : tert-Butanol Standard

tert-Butanol Std 50,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	tert-Butanol (TBA) **CAS #** 75-65-0 **Purity** 99% (Lot SHBD0362V)	50,026.0 µg/mL	+/- 292.9132 µg/mL +/- 1,071.6232 µg/mL +/- 1,102.7451 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

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Catalog No. : 30042 **Lot No.:** A0116702

Description : 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot Q167-08) **Purity** 99%	2,002.5 µg/mL	+/- 15.6383 µg/mL +/- 112.7604 µg/mL +/- 115.3764 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBG1480V) **Purity** 99%	1,998.8 µg/mL	+/- 16.1475 µg/mL +/- 112.6290 µg/mL +/- 115.2386 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 25LPST) **Purity** 99%	2,004.0 µg/mL	+/- 18.0285 µg/mL +/- 113.2025 µg/mL +/- 115.8126 µg/mL	Gravimetric Unstressed Stressed
4	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,001.8 µg/mL	+/- 17.8354 µg/mL +/- 113.0475 µg/mL +/- 115.6552 µg/mL	Gravimetric Unstressed Stressed
5	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot SHBD1717V) **Purity** 99%	2,003.6 µg/mL	+/- 17.6859 µg/mL +/- 113.1253 µg/mL +/- 115.7361 µg/mL	Gravimetric Unstressed Stressed
6	Trichlorofluoromethane (CFC-11) **CAS #** 75-69-4 (Lot SHBF6387V) **Purity** 99%	1,998.0 µg/mL	+/- 20.0576 µg/mL +/- 113.2113 µg/mL +/- 115.8056 µg/mL	Gravimetric Unstressed Stressed

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ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

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ISO/IEC 17025 Accredited Testing Laboratory Certificate #3221.01

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0117138

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 (Lot 07196AK) **Purity** 99%	5,042.2 µg/mL	+/- 29.3158 µg/mL +/- 304.2183 µg/mL +/- 304.9405 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot SHBG0444V) **Purity** 98%	4,955.1 µg/mL	+/- 28.8092 µg/mL +/- 298.9617 µg/mL +/- 299.6715 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBG3630V) **Purity** 99%	5,033.2 µg/mL	+/- 29.2635 µg/mL +/- 303.6753 µg/mL +/- 304.3962 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKBW0198V) **Purity** 99%	5,024.4 µg/mL	+/- 29.2123 µg/mL +/- 303.1443 µg/mL +/- 303.8640 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

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Analytical Reference Material ARM

Rec 10/18/16

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 101716
Description: Acrolein

Solvent(s): **Lot#**
Water 081516Q

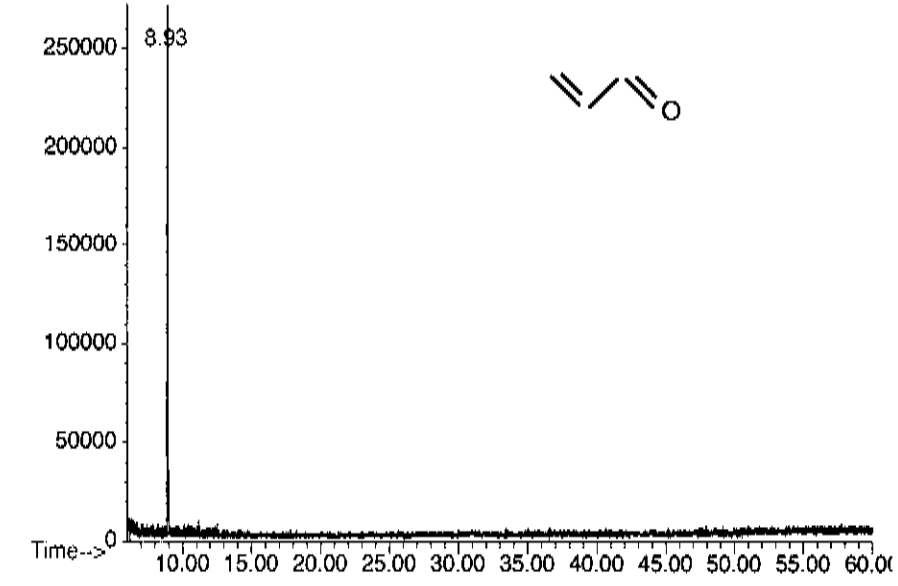
Expiration Date: 111716
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 822-275872-11 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 25.0 0.001 Flask Uncertainty

Formulated By: Jason Criscio	101716 DATE
Reviewed By: Pedro L. Rentas	101716 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	07813BN	5000	97	0.2	0.12885	0.12890	5001.8	21.0	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.

TIC: [BSB2]79005.D



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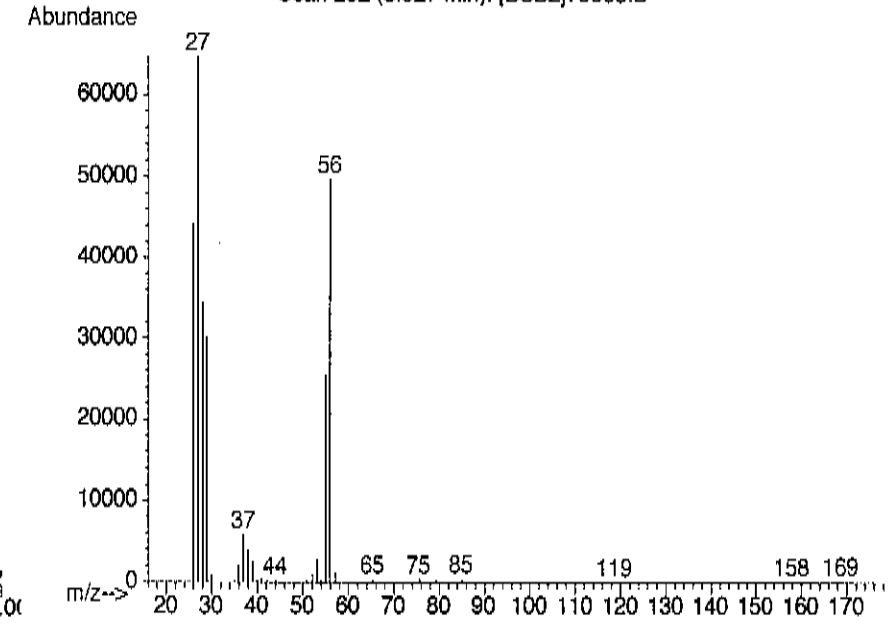

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty References: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

J.T.Baker®

Part of AVANTOR™ PERFORMANCE MATERIALS

Material No.: 9077-02
Batch No.: 0000127999
Manufactured Date: 2015/10/30
Expiration Date: 2017/10/27

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	>= 99.9 %	100.0
Residue after Evaporation	<= 1.0000 ppm	0.7000
Titrable Acid (µeq/g)	<= 0.3	0.3
Titrable Base (µeq/g)	<= 0.1	<0.01
Water (by KF, coulometric)	<= 0.08 %	< 0.01
Photoionization Detection (PID) Below CRQL	Passes Test	PT
Electroconductivity Detection (ELCD) Below CRQL	Passes Test	PT

For Laboratory, Research or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2008, 14001:2004, FSSC 22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Deventer, The Netherlands 9001:2008, 14001:2004, 11485:2003
Gliwice, Poland 9001:2008
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 11485:2003
Mumbai, India, 9001:2008, 17025:2005
Panoli, India 9001:2008

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.573.2600
Avantor ™ Performance Materials Inc.
3477 Corporate Parkway. Suite #200. Center Valley, PA 18034. U.S.A. Phone: 610.573.2600 . Fax: 610.573.2610

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Certified Reference Material CRM

ISO 9001 QS Registered
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Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 030615
Description: 2-Chloroethyl vinyl ether

Solvent(s): Methanol **Lot#** DK793

Expiration Date: 030618
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000

Weight(s) shown below were combined and diluted to: 25.0 5E-05 Balance Uncertainty 0.006 Flask Uncertainty

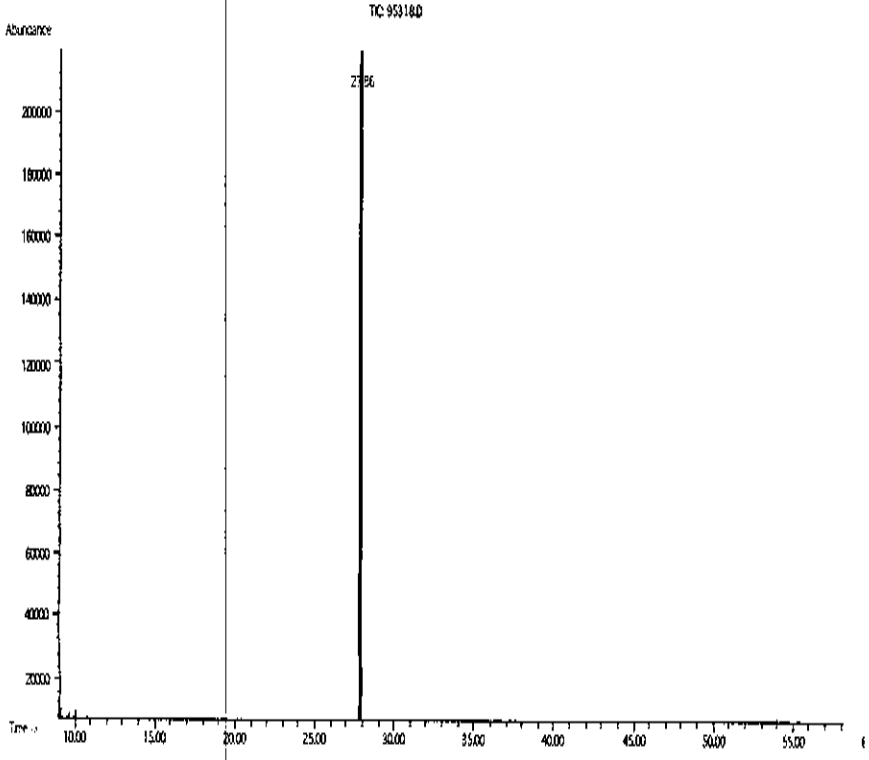
Formulated By: Paul Barron 030615 DATE

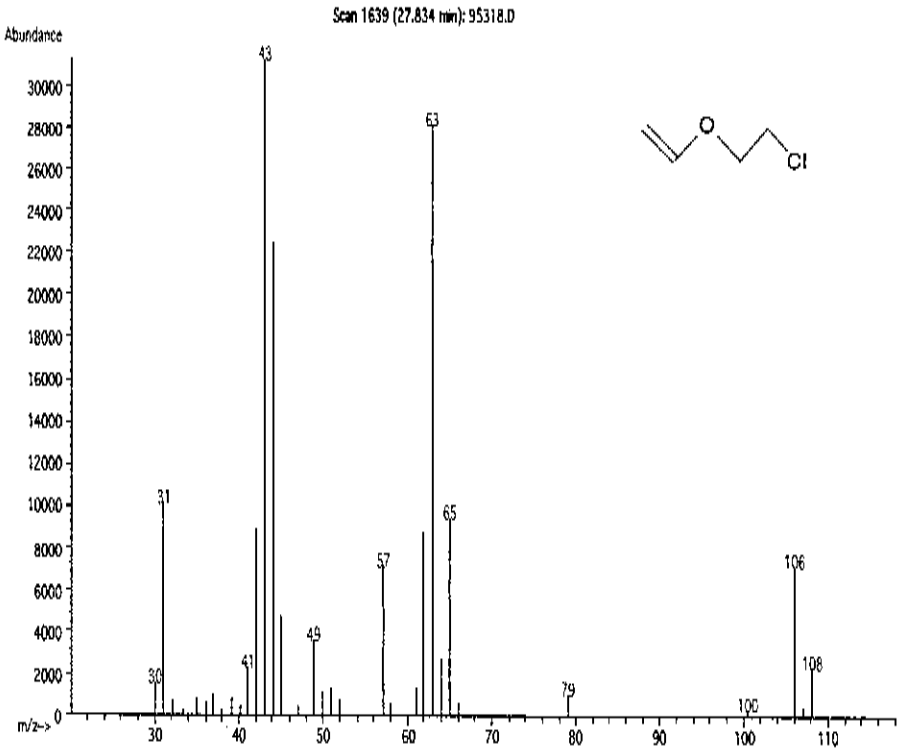
Reviewed By: Pedro L. Rentas 030615 DATE

MSDS Information
(Solvent Safety Info. On Attached pg.)

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty	CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	03206CI	10000	99	0.2	0.25254	0.25260	10002.4	0.00409	00110-75-8	N/A	ort-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





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Certified Reference Material CRM

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CERTIFIED WEIGHT REPORT: Uncertainty < +,-0.5% Stated Values.

Part Number: 95317
Lot Number: 012314
Description: Universal VOA Megamix
69 components
Expiration Date: 012317
Recommended Storage: Freezer (0 °C)
Nominal Concentration(ug/mL): 2000

Solvent(s): **Lot#**
Methanol DG595Q10

Weight(s) & Volume(s) shown below were combined and diluted to: 100 mL

Formulated By:
012314
Paul Barron DATE

Reviewed By:
012314
Pedro L. Rentas DATE

MSDS Information
(Solvent Safety Info. On Attached pg.)

	Compound	(RH#) Part Number	Lot Number	Dil Factor	Initial Vol (mL)	Initial Conc (ug/mL)	Nominal Conc (ug/mL)	Purity (%)	Max Target Weight(g)	Actual Weight(g)	Actual Conc (ug/mL)	CAS#	OSHA PEL (TWA)	LD50
1.	Acetonitrile	(0324)	12186PE	na	na	na	2000	99.8	0.20040	0.20060	2002.0	00075-05-8	40 ppm (70mg/m3/8H)	orl-rat 2730mg/kg
2.	Allyl chloride (3-Chloropropene)	(0325)	102396	na	na	na	2000	99	0.20202	0.20240	2003.8	00107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3.	Carbon disulphide	(0060)	PO 12273PO	na	na	na	2000	99	0.20202	0.20230	2002.8	00075-15-0	4 ppm (12mg/m3); (skin)	orl-rat 1200mg/kg
4.	cis-1,4-Dichloro-2-butene	(1196)	14718EF	na	na	na	2000	95	0.21053	0.21090	2003.8	07476-1F-5	N/A	N/A
5.	trans-1,4-Dichloro-2-butene	(0486)	12218HC	na	na	na	2000	98	0.20408	0.20425	2001.7	00110-57-6	N/A	N/A
6.	Diethyl ether (Ethyl ether)	(0153)	02563HC	na	na	na	2000	99.9	0.20020	0.20040	2002.0	00060-29-7	400ppm (1200mg/m3/8H)	orl-rat 1215mg/kg
7.	Ethyl methacrylate	(0381)	06126PX	na	na	na	2000	99	0.20202	0.20225	2002.3	00097-63-2	N/A	orl-rat 14800mg/kg
8.	Iodomethane	(0489)	12909DQ	na	na	na	2000	99	0.20202	0.20225	2002.3	00074-88-4	5 ppm(28mg/m3/8H)(skin)	scu-rat 110mg/kg
9.	Isobutanol	(0445)	15241EB	na	na	na	2000	99.5	0.20101	0.20140	2003.9	00078-83-1	50 ppm (150mg/m3/8H)	orl-rat 2460mg/kg
10.	Methacrylonitrile	(0442)	00427ET	na	na	na	2000	99	0.20202	0.20220	2001.8	00126-98-7	1 ppm (3mg/m3/8H)(skin)	orl-rat 120mg/kg
11.	Methyl acrylate	(1075)	05296KY	na	na	na	2000	99	0.20202	0.20230	2002.8	00096-33-3	10 ppm(35mg/m3/8H)(skin)	orl-rat 277mg/kg
12.	Methyl methacrylate	(0404)	03021BX	na	na	na	2000	99	0.20202	0.20249	2004.7	00080-62-6	100 ppm(410mg/m3/8H)	orl-rat 7872mg/kg
13.	Nitrobenzene	(0228)	01213TV	na	na	na	2000	99	0.20202	0.20213	2001.1	00098-95-3	1 ppm (5mg/m3/8H)(skin)	orl-rat 730mg/kg
14.	2-Nitropropane	(0461)	14002JX	na	na	na	2000	95	0.21053	0.21060	2000.7	00079-46-9	10 ppm (35mg/m3/8H)	orl-rat 720mg/kg
15.	Pentachloroethane	(0450)	HGA01	na	na	na	2000	98	0.20408	0.20422	2001.4	00076-01-7	N/A	N/A
16.	1,1,2-Trichloro-1,2,2-trifluoroethane	(0474)	01221PY	na	na	na	2000	99	0.20202	0.20230	2002.8	00076-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
17.	Bromodichloromethane	30171	122112	0 10	10.00	20016.1	2000	na	na	na	2001.6	00075-27-4	N/A	orl-rat 916mg/kg
18.	Dibromochloromethane	30171	122112	0 10	10.00	20011.7	2000	na	na	na	2001.2	00124-48-1	N/A	orl-rat 848mg/kg
19.	cis-1,2-Dichloroethene	30171	122112	0 10	10.00	20018.4	2000	na	na	na	2001.8	00156-59-2	N/A	N/A
20.	trans-1,2-Dichloroethene	30171	122112	0 10	10.00	20001.9	2000	na	na	na	2000.2	00156-60-5	N/A	orl-rat 1235mg/kg
21.	Methylene chloride	30171	122112	0 10	10.00	20004.5	2000	na	na	na	2000.4	00075-09-2	500 ppm	orl-rat 2136mg/kg
22.	1,1-Dichloroethene	32251	106113	0 10	10.00	20009.8	2000	na	na	na	2001.0	00075-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
23.	Bromoform	95321	012114	0 10	10.00	20004.6	2000	na	na	na	2000.5	00075-25-2	0.5 ppm (5mg/m3); (skin)	orl-rat 1147mg/kg
24.	Carbon tetrachloride	95321	012114	0 10	10.00	20004.4	2000	na	na	na	2000.4	00056-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25.	Chloroform	95321	012114	0 10	10.00	20005.9	2000	na	na	na	2000.6	00067-66-3	50 ppm (240mg/m3) (C)	orl-rat 908mg/kg
26.	Dibromomethane	95321	012114	0 10	10.00	20008.8	2000	na	na	na	2000.7	00074-95-3	N/A	orl-rat 138mg/kg
27.	1,1-Dichloroethane	95321	012114	0 10	10.00	20004.9	2000	na	na	na	2000.5	00075-34-3	100 ppm	orl-rat 725mg/kg
28.	2,2-Dichloropropane	95321	012114	0 10	10.00	20002.7	2000	na	na	na	2000.3	00594-20-7	N/A	N/A
29.	Tetrachloroethene	95321	012114	0 10	10.00	20003.7	2000	na	na	na	2000.4	00127-18-4	25 ppm (170mg/m3/8H)(final	orl-rat 2629mg/kg
30.	1,1,1-Trichloroethane	95321	012114	0 10	10.00	20005.9	2000	na	na	na	2000.6	00071-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31.	1,2-Dibromo-3-chloropropane	30161	012114	0 10	10.00	20006.0	2000	na	na	na	2000.6	00096-12-8	0.001 ppm	orl-rat 170mg/kg
32.	1,2-Dibromoethane	30161	012114	0 10	10.00	20005.7	2000	na	na	na	2000.6	00106-93-4	20 ppm (S)	orl-rat 108mg/kg
33.	1,2-Dichloroethane	30161	012114	0 10	10.00	20005.5	2000	na	na	na	2000.5	00107-06-2	50 ppm (S)	orl-rat 670mg/kg
34.	1,2-Dichloropropane	30161	012114	0 10	10.00	20002.5	2000	na	na	na	2000.3	00078-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35.	1,3-Dichloropropane	30161	012114	0 10	10.00	20003.5	2000	na	na	na	2000.4	00142-28-9	N/A	ipr-mus 3600mg/kg
36.	1,1-Dichloropropene	30161	012114	0 10	10.00	20005.0	2000	na	na	na	2000.5	00563-58-6	N/A	N/A
37.	cis-1,3-Dichloropropene	30161	012114	0 10	10.00	20005.5	2000	na	na	na	2000.5	10061-01-5	N/A	N/A
38.	trans-1,3-Dichloropropene	30161	012114	0 10	10.00	20003.0	2000	na	na	na	2000.3	10061-02-6	N/A	N/A
39.	Hexachloro-1,3-butadiene	30161	012114	0 10	10.00	20002.4	2000	na	na	na	2000.2	00087-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40.	1,1,1,2-Tetrachloroethane	30161	012114	0 10	10.00	20006.0	2000	na	na	na	2000.6	00630-20-6	N/A	orl-rat 670mg/kg
41.	1,1,2,2-Tetrachloroethane	30161	012114	0 10	10.00	20005.5	2000	na	na	na	2000.5	00079-34-5	5 ppm (35mg/m3/8H)(skin)	orl-rat 800mg/kg
42.	1,1,2-Trichloroethane	30161	012114	0 10	10.00	20003.6	2000	na	na	na	2000.4	00079-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
43.	Trichloroethene	30161	012114	0 10	10.00	20006.0	2000	na	na	na	2000.6	00079-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
44.	1,2,3-Trichloropropane	30161	012114	0 10	10.00	20002.9	2000	na	na	na	2000.3	00096-18-4	10 ppm (60mg/m3/8H)	orl-rat 1493mg/kg
45.	Benzene	30162	071613	0 10	10.00	20006.4	2000	na	na	na	2000.6	00071-43-2	1 ppm	orl-rat 4594mg/kg
46.	Bromobenzene	30162	071613	0 10	10.00	20008.2	2000	na	na	na	2000.8	00108-86-1	N/A	orl-rat 2699mg/kg
47.	n-Butyl benzene	30162	071613	0 10	10.00	20014.4	2000	na	na	na	2001.4	00104-51-8	N/A	N/A
48.	Ethyl benzene	30162	071613	0 10	10.00	20010.0	2000	na	na	na	2001.0	00100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49.	p-Isopropyl toluene	30162	071613	0 10	10.00	20012.0	2000	na	na	na	2001.2	00099-87-6	N/A	orl-rat 4750mg/kg
50.	Naphthalene	30162	071613	0 10	10.00	20018.7	2000	na	na	na	2001.9	00091-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
51.	Styrene	30162	071613	0 10	10.00	20019.9	2000	na	na	na	2002.0	00100-42-5	100 ppm	orl-rat 5000mg/kg
52.	Toluene	30162	071613	0 10	10.00	20011.6	2000	na	na	na	2001.2	00108-88-3	200 ppm	orl-rat 5000mg/kg
53.	1,2,3-Trichlorobenzene	30162	071613	0 10	10.00	20020.0	2000	na	na	na	2002.0	00087-61-6	N/A	ipr-mus 1390mg/kg
54.	1,2,4-Trichlorobenzene	30162	071613	0 10	10.00	20013.4	2000	na	na	na	2001.3	00120-82-1	5 ppm (C) (40mg/m3)	orl-rat 756mg/kg
55.	1,2,4-Trimethylbenzene	30162	071613	0 10	10.00	20012.6	2000	na	na	na	2001.3	00095-63-6	N/A	orl-rat 5g/kg
56.	1,3,5-Trimethylbenzene	30162	071613	0 10	10.00	20007.4	2000	na	na	na	2000.7	00108-67-8	N/A	N/A
57.	m-Xylene	30162	071613	0 10	10.00	20010.6	2000	na	na	na	2001.1	00108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58.	tert-Butyl benzene	30163	071913	0 10	10.00	20010.9	2000	na	na	na	2001.1	00098-06-6	N/A	N/A
59.	sec-Butyl benzene	30163	071913	0 10	10.00	20014.4	2000	na	na	na	2001.4	00135-98-8	N/A	orl-rat 2240mg/kg
60.	Chlorobenzene	30163	071913	0 10	10.00	20011.0	2000	na	na	na	2001.1	00108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61.	2-Chlorotoluene	30163	071913	0 10	10.00	20014.5	2000	na	na	na	2001.5	00095-49-8	50 ppm (250mg/m3/8H)	orl-rat 5700mg/kg
62.	4-Chlorotoluene	30163	071913	0 10	10.00	20009.4	2000	na	na	na	2000.9	00106-43-4	N/A	orl-rat 2100mg/kg
63.	1,2-Dichlorobenzene	30163	071913	0 10	10.00	20006.1	2000	na	na	na	2000.6	00095-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64.	1,3-Dichlorobenzene	30163	071913	0 10	10.00	20006.6	2000	na	na	na	2000.7	00541-73-1	N/A	ipr-mus 1062mg/kg
65.	1,4-Dichlorobenzene	30163	071913	0 10	10.00	20017.2	2000	na	na	na	2001.7	00106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66.	Isopropylbenzene	30163	071913	0 10	10.00	20011.4	2000	na	na	na	2001.1	00098-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67.	n-Propylbenzene	30163	071913	0 10	10.00	20010.0	2000	na	na	na	2001.0	00103-65-1	N/A	orl-rat 6040mg/kg
68.	o-Xylene	30163	071913	0 10	10.00	20005.6	2000	na	na	na	2000.6	00095-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69.	p-Xylene	30163	071913	0 10	10.00	20013.8	2000	na	na	na	2001.4	00106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

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CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 021616
Description: 2-Chloroethyl vinyl ether

Solvent(s): **Lot#**
Methanol DM417

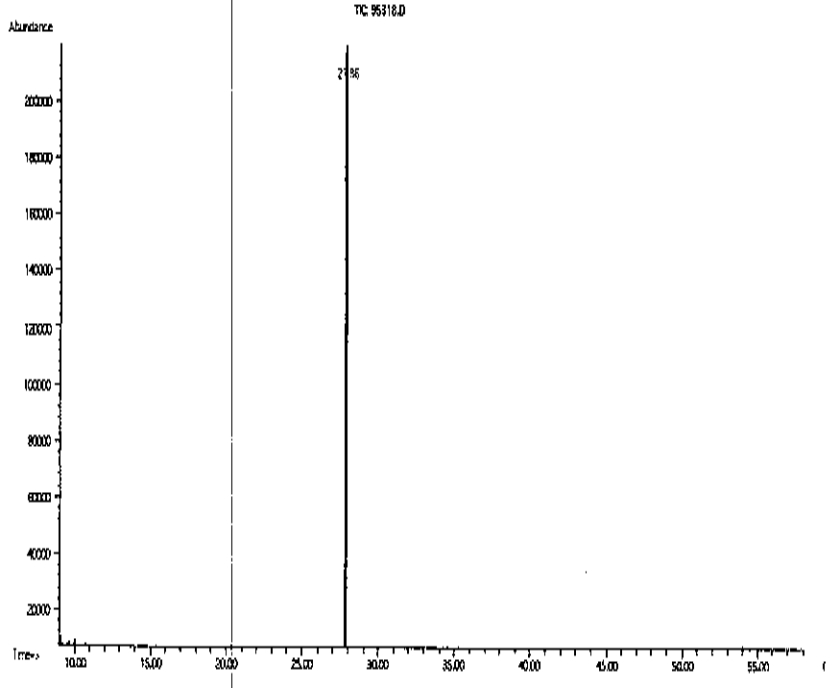
Expiration Date: 021619
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 822-275872-11 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 25.0 0.006 Flask Uncertainty

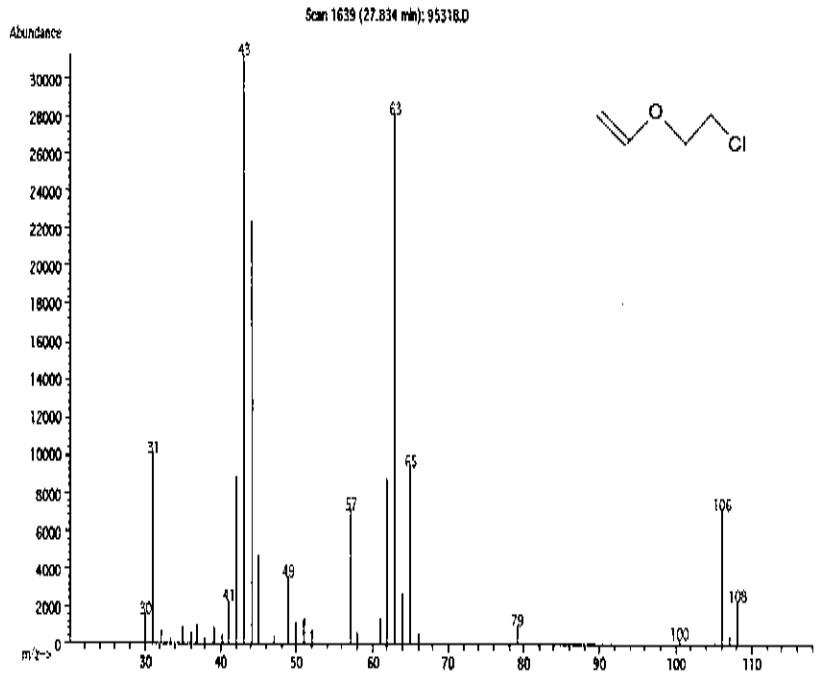
Gabriel Helland 021616
Formulated By: Gabriel Helland DATE

Pedro Rentas 021616
Reviewed By: Pedro L. Rentas DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL, (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	03206CI	10000	99	0.2	0.25254	0.25295	10016.2	40.9	00110-75-8	N/A	orl-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

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CERTIFIED WEIGHT REPORT: Uncertainty < +,-0.5% Stated Values.

Part Number: 95317
Lot Number: 041116
Description: Universal VOA Megamix 69 components
Expiration Date: 041119
Recommended Storage: Freezer (0 °C)
Nominal Concentration(ug/mL): 2000
NIST Test ID#: 822-275872-11
Weight(s) & Volume(s) shown below were combined and diluted to: 100 mL

Solvent(s): Methanol — **Lot#** DM417019

Formulated By: Paul Barron — 041116 DATE
Reviewed By: Pedro L. Rentas — 041116 DATE

MSDS Information (Solvent Safety Info. On Attached pg.)

Compound	(Mix) Part Number	Lot Number	Dil Factor	Initial Vol. (mL)	Initial Conc (ug/mL)	Nominal Conc (ug/mL)	Purity (%)	Max Target Weight(g)	Actual Weight(g)	Actual Conc(ug/mL)	CAS#	OSHA PEL (TWA)	LD50
1. Acetonitrile	(0324)	SHBB3649V	na	na	na	2000	99.8	0.20040	0.20060	2002.0	75-05-8	40 ppm (70mg/m3/8H)	orl-rat 2460mg/kg
2. Allyl chloride (3-Chloropropene)	(0325)	102396	na	na	na	2000	99	0.20202	0.20225	2002.3	107-05-1	1 ppm (3mg/m3/8H)	skn-rat 700mg/kg
3. Carbon disulphide	(0060)	PO 12279PO	na	na	na	2000	99	0.20202	0.20220	2001.8	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
4. cis-1,4-Dichloro-2-butene	(1196)	14718EF	na	na	na	2000	98	0.20406	0.20430	2002.1	110-57-8	N/A	N/A
5. trans-1,4-Dichloro-2-butene	(0486)	12218HC	na	na	na	2000	99.9	0.20020	0.20035	2001.5	60-29-7	N/A	N/A
6. Diethyl ether (Ethyl ether)	(0153)	02553HC	na	na	na	2000	99	0.20202	0.20230	2002.8	97-63-2	400ppm (1200mg/m3/8H)	orl-rat 1215mg/kg
7. Ethyl methacrylate	(0381)	06126PX	na	na	na	2000	99	0.20202	0.20215	2001.3	74-88-4	N/A	orl-rat 14800mg/kg
8. Iodomethane	(0489)	12609DQ	na	na	na	2000	99.5	0.20101	0.20126	2002.7	78-93-1	5 ppm(28mg/m3/8H)(skin)	skn-rat 1110mg/kg
9. Isobutanol	(0445)	15241EB	na	na	na	2000	99	0.20202	0.20220	2001.8	126-98-7	50 ppm (155mg/m3/8H)	orl-rat 2460mg/kg
10. Methacrylonitrile	(0442)	00427ET	na	na	na	2000	99	0.20202	0.20230	2002.8	96-33-3	1 ppm (3mg/m3/8H)(skin)	skn-rat 120mg/kg
11. Methyl acrylate	(1075)	05208KY	na	na	na	2000	99	0.20202	0.20240	2003.6	80-62-6	10 ppm(35mg/m3/8H)	orl-rat 277mg/kg
12. Methyl methacrylate	(0404)	03021BX	na	na	na	2000	99	0.20202	0.20210	2000.8	96-95-3	100 ppm (410mg/m3/8H)	orl-rat 7872mg/kg
13. Nitrobenzene	(0228)	01213TV	na	na	na	2000	95	0.21053	0.21090	2003.6	79-46-9	1 ppm (5mg/m3/8H)(skin)	orl-rat 760mg/kg
14. 2-Nitropropane	(0461)	14002JX	na	na	na	2000	98	0.20408	0.20430	2002.1	78-01-7	10 ppm (35mg/m3/8H)	orl-rat 720mg/kg
15. Pentachloroethane	(0450)	HGA01	na	na	na	2000	99	0.20202	0.20230	2002.8	76-13-1	N/A	N/A
16. 1,1,2-Trichloro-1,2,2-trifluoroethane	(0474)	01221PY	na	na	na	2000	na	na	na	2000.6	75-27-4	1000 ppm (7500mg/m3/8H)	orl-rat 316mg/kg
17. Bromodichloromethane	35171	101615	0.05	5.00	40012.7	2000	na	na	na	2000.3	124-48-1	N/A	orl-rat 848mg/kg
18. Dibromochloromethane	35171	101615	0.05	5.00	40005.8	2000	na	na	na	2000.3	156-59-2	N/A	N/A
19. cis-1,2-Dichloroethene	35171	101615	0.05	5.00	40006.7	2000	na	na	na	2000.9	156-60-5	N/A	N/A
20. trans-1,2-Dichloroethene	35171	101615	0.05	5.00	40004.9	2000	na	na	na	2000.2	156-60-5	N/A	orl-rat 1235mg/kg
21. Methylene chloride	35171	101615	0.05	5.00	40002.2	2000	na	na	na	2000.1	75-09-2	500 ppm	orl-rat 2133mg/kg
22. 1,1-Dichloroethene	35251	012816	0.10	10.00	20002.6	2000	na	na	na	2000.3	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 2200mg/kg
23. Bromoform	95321	012114	0.10	10.00	20004.6	2000	na	na	na	2000.5	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 1147mg/kg
24. Carbon tetrachloride	95321	012114	0.10	10.00	20004.4	2000	na	na	na	2000.4	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25. Chloroform	95321	012114	0.10	10.00	20005.9	2000	na	na	na	2000.6	67-66-3	50 ppm (240mg/m3) (C1)	orl-rat 308mg/kg
26. Dibromomethane	95321	012114	0.10	10.00	20006.8	2000	na	na	na	2000.7	74-95-3	N/A	orl-rat 108mg/kg
27. 1,1-Dichloroethane	95321	012114	0.10	10.00	20004.9	2000	na	na	na	2000.5	75-34-3	100 ppm	orl-rat 725mg/kg
28. 2,2-Dichloropropane	95321	012114	0.10	10.00	20002.7	2000	na	na	na	2000.3	594-20-7	N/A	N/A
29. Tetrachloroethene	95321	012114	0.10	10.00	20003.7	2000	na	na	na	2000.4	127-18-4	15 ppm (170mg/m3/8H)(final	orl-rat 2629mg/kg
30. 1,1,1-Trichloroethane	95321	012114	0.10	10.00	20005.9	2000	na	na	na	2000.6	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31. 1,2-Dibromo-3-chloropropane	35161	021016	0.05	5.00	40004.2	2000	na	na	na	2000.2	96-12-8	0.001 ppm	orl-rat 170mg/kg
32. 1,2-Dibromoethane	35161	021016	0.05	5.00	40002.7	2000	na	na	na	2000.1	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
33. 1,2-Dichloroethane	35161	021016	0.05	5.00	40825.5	2000	na	na	na	2041.3	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
34. 1,2-Dichloropropane	35161	021016	0.05	5.00	40003.2	2000	na	na	na	2000.2	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35. 1,3-Dichloropropane	35161	021016	0.05	5.00	40006.2	2000	na	na	na	2000.3	142-28-9	N/A	unreas 5800mg/kg
36. 1,1-Dichloropropene	35161	021016	0.05	5.00	40006.2	2000	na	na	na	2000.3	563-58-6	N/A	N/A
37. cis-1,3-Dichloropropene	35161	021016	0.05	5.00	40003.9	2000	na	na	na	2000.2	10061-01-5	N/A	N/A
38. trans-1,3-Dichloropropene	35161	021016	0.05	5.00	40007.3	2000	na	na	na	2000.4	10061-02-6	N/A	N/A
39. Hexachloro-1,3-butadiene	35161	021016	0.05	5.00	40009.4	2000	na	na	na	2000.4	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40. 1,1,1,2-Tetrachloroethane	35161	021016	0.05	5.00	40012.1	2000	na	na	na	2000.6	630-20-6	N/A	orl-rat 673mg/kg
41. 1,1,2,2-Tetrachloroethane	35161	021016	0.05	5.00	40004.1	2000	na	na	na	2000.2	79-34-5	5 ppm (35mg/m3/8H)(skin)	orl-rat 800mg/kg
42. 1,1,2-Trichloroethane	35161	021016	0.05	5.00	40008.8	2000	na	na	na	2000.4	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 896mg/kg
43. Trichloroethene	35161	021016	0.05	5.00	40006.3	2000	na	na	na	2000.3	79-01-6	50 ppm (270mg/m3/8H)	orl-rat 2402mg/kg
44. 1,2,3-Trichloropropane	35162	021616	0.05	5.00	40006.7	2000	na	na	na	2000.4	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
45. Benzene	35162	021616	0.05	5.00	40047.5	2000	na	na	na	2002.4	71-43-2	1 ppm	orl-rat 4894mg/kg
46. Bromobenzene	35162	021616	0.05	5.00	40012.2	2000	na	na	na	2000.6	108-86-1	N/A	orl-rat 2699mg/kg
47. n-Butyl benzene	35162	021616	0.05	5.00	40047.2	2000	na	na	na	2002.4	104-51-8	N/A	N/A
48. Ethyl benzene	35162	021616	0.05	5.00	40010.5	2000	na	na	na	2000.5	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49. p-Isopropyl toluene	35162	021616	0.05	5.00	40055.2	2000	na	na	na	2002.8	99-87-6	N/A	orl-rat 4750mg/kg
50. Naphthalene	35162	021616	0.05	5.00	40015.2	2000	na	na	na	2000.8	91-20-3	10 ppm (52mg/m3/8H)	orl-rat 490mg/kg
51. Styrene	35162	021616	0.05	5.00	40052.6	2000	na	na	na	2002.6	100-42-5	100 ppm	orl-rat 5000mg/kg
52. Toluene	35162	021616	0.05	5.00	40009.3	2000	na	na	na	2000.5	108-88-3	200 ppm	orl-rat 5000mg/kg
53. 1,2,3-Trichlorobenzene	35162	021616	0.05	5.00	40046.1	2000	na	na	na	2002.3	87-61-6	N/A	ipr-mus 1330mg/kg
54. 1,2,4-Trichlorobenzene	35162	021616	0.05	5.00	40010.7	2000	na	na	na	2000.5	120-82-1	5 ppm (C1) (40mg/m3)	orl-rat 756mg/kg
55. 1,2,4-Trimethylbenzene	35162	021616	0.05	5.00	40015.3	2000	na	na	na	2000.8	95-63-6	N/A	orl-rat 5g/kg
56. 1,3,5-Trimethylbenzene	35162	021616	0.05	5.00	40002.0	2000	na	na	na	2000.1	108-67-8	N/A	N/A
57. m-Xylene	35162	021616	0.05	5.00	40036.0	2000	na	na	na	2001.8	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58. tert-Butyl benzene	35163	021616	0.05	5.00	40041.8	2000	na	na	na	2002.1	98-06-6	N/A	N/A
59. sec-Butyl benzene	35163	021616	0.05	5.00	40025.5	2000	na	na	na	2001.3	135-98-8	N/A	orl-rat 3249mg/kg
60. Chlorobenzene	35163	021616	0.05	5.00	40070.1	2000	na	na	na	2003.5	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61. 2-Chlorotoluene	35163	021616	0.05	5.00	40024.5	2000	na	na	na	2001.2	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3800mg/kg
62. 4-Chlorotoluene	35163	021616	0.05	5.00	40023.6	2000	na	na	na	2001.2	106-43-4	N/A	orl-rat 2100mg/kg
63. 1,2-Dichlorobenzene	35163	021616	0.05	5.00	40065.2	2000	na	na	na	2004.3	95-50-1	50 ppm (300mg/m3) (C)	orl-rat 500mg/kg
64. 1,3-Dichlorobenzene	35163	021616	0.05	5.00	40009.4	2000	na	na	na	2000.5	541-73-1	N/A	ipr-mus 1062mg/kg
65. 1,4-Dichlorobenzene	35163	021616	0.05	5.00	40049.4	2000	na	na	na	2002.5	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66. Isopropylbenzene	35163	021616	0.05	5.00	40036.3	2000	na	na	na	2001.8	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67. n-Propylbenzene	35163	021616	0.05	5.00	40048.9	2000	na	na	na	2002.4	103-65-1	N/A	orl-rat 6040mg/kg
68. o-Xylene	35163	021616	0.05	5.00	40043.3	2000	na	na	na	2002.2	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69. p-Xylene	35163	021616	0.05	5.00	40025.1	2000	na	na	na	2001.3	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyatt, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

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CERTIFIED WEIGHT REPORT

Part Number: 95319
Lot Number: 051115
Description: Revised Additions Mix
11 components
Expiration Date: 051118
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): Varied

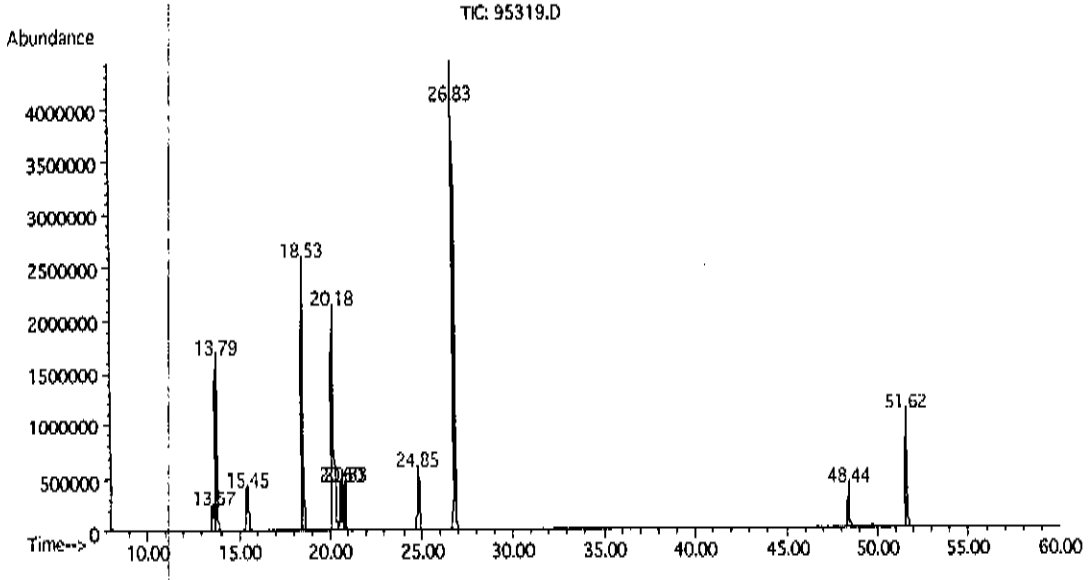
Solvent(s): Methanol **Lot#** DL535

Formulated By: Justin Dippold DATE 051115

Reviewed By: Pedro L. Rentas DATE 051115

Weight(s) shown below were combined and diluted to (mL): 100.0 5E-05 Balance Uncertainty 0.006 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrylonitrile	7	4718CK	10000	99	0.2	1.01017	1.01088	10007.0	40.5	00107-13-1	N/A	orl-rat 78 mg/kg
2. 1-Chlorobutane	1072	15538EZ	2000	99.5	0.2	0.20102	0.20128	2002.6	8.1	00109-69-3	N/A	orl-rat 2670mg/kg
3. Cyclohexane	1023	13096TK	2000	99.5	0.2	0.20102	0.20130	2002.8	8.1	00110-82-7	300 ppm (1050mg/m3/8H)	orl-rat 12705mg/kg
4. Di-isopropyl ether (DIPE)	987	00412MX	2000	99	0.2	0.20203	0.20237	2003.3	8.2	00108-20-3	500 ppm (2100mg/m3/8H)	orl-rat 8470mg/kg
5. 1,4-Dioxane	373	03853KE	40000	99	0.2	4.04067	4.04105	40003.7	161.7	00123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
6. Hexachloroethane	199	12604HBV	2000	99	0.2	0.20203	0.20225	2002.1	8.2	00067-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
7. Methylcyclohexane	1627	50996APV	2000	99	0.2	0.20203	0.20231	2002.7	8.2	00108-87-2	N/A	orl-mus 2250mg/kg
8. Methyl tert-butyl ether (MTBE)	209	AU 01134TR	2000	99.8	0.2	0.20041	0.20095	2005.3	8.1	01634-04-4	N/A	orl-rat 4g/kg
9. Propionitrile	349	1395468	20000	99	0.2	2.02034	2.02103	20006.9	80.9	00107-12-0	N/A	orl-rat 39mg/kg
10. Tetrahydrofuran	380	113886	10000	99.9	0.2	1.00107	1.00124	10001.7	40.1	00109-99-9	20 ppm (590mg/m3/8H)	orl-rat 2500mg/kg
11. 1,2,3,4-Tetramethylbenzene	491	AP01	2000	93	0.2	0.21507	0.21535	2002.6	8.7	00488-23-3	N/A	orl-rat 6408mg/kg



Method GC6MSD-1: Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Temp. 1 = 35°C (10min.), Temp. 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Solvent Delay: 8 minutes. Analysis performed

Name	MSD RT (min.)
Methyl tert-butyl ether (MTBE)	13.56
Acrylonitrile	13.79
Di-isopropyl ether	15.44
Propionitrile	18.53
Tetrahydrofuran	20.17
Cyclohexane	20.58
1-Chlorobutane	20.83
Methylcyclohexane	24.84
1,4-Dioxane	26.84
Hexachloroethane	48.44
1,2,3,4-Tetramethylbenzene	51.62

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CERTIFIED WEIGHT REPORT

Part Number: 95319
Lot Number: 051215
Description: Revised Additions Mix
11 components
Expiration Date: 051218
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): Varied

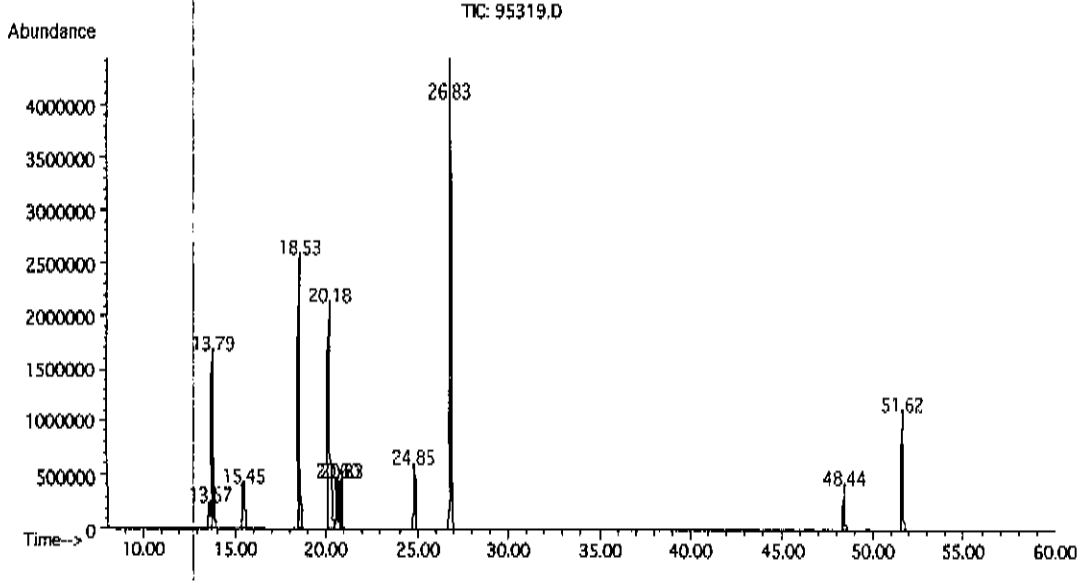
Solvent(s): **Lot#**
Methanol DL535

Formulated By: Paul Barron 051215 DATE

Reviewed By: Pedro L. Rentas 051215 DATE

Weight(s) shown below were combined and diluted to (mL): 100.0 5E-05 Balance Uncertainty 0.006 Flask Uncertainty

	Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acrylonitrile	7	4718CK	10000	99	0.2	1.01017	1.01120	10010.2	40.5	00107-13-1	N/A	orl-rat 78 mg/kg
2.	1-Chlorobutane	1072	15538EZ	2000	99.5	0.2	0.20102	0.20120	2001.8	8.1	00109-69-3	N/A	orl-rat 2670mg/kg
3.	Cyclohexane	1023	13096TK	2000	99.5	0.2	0.20102	0.20120	2001.8	8.1	00110-82-7	300 ppm (1050mg/m3/8H)	orl-rat 12705mg/kg
4.	Di-isopropyl ether (DIPE)	987	00412MX	2000	99	0.2	0.20203	0.20222	2001.8	8.2	00108-20-3	500 ppm (2100mg/m3/8H)	orl-rat 8470mg/kg
5.	1,4-Dioxane	373	03853KE	40000	99	0.2	4.04067	4.04130	40006.2	161.7	00123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
6.	Hexachloroethane	199	12604HBV	2000	99	0.2	0.20203	0.20221	2001.7	8.2	00067-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
7.	Methylcyclohexane	1627	50996APV	2000	99	0.2	0.20203	0.20240	2003.6	8.2	00108-87-2	N/A	orl-mus 2250mg/kg
8.	Methyl tert-butyl ether (MTBE)	209	AU 01134TR	2000	99.8	0.2	0.20041	0.20070	2002.9	8.1	01634-04-4	N/A	orl-rat 4g/kg
9.	Propionitrile	349	1395468	20000	99	0.2	2.02034	2.02088	20005.4	80.9	00107-12-0	N/A	orl-rat 39mg/kg
10.	Tetrahydrofuran	380	113886	10000	99.9	0.2	1.00107	1.00135	10002.8	40.1	00109-99-9	20 ppm (590mg/m3/8H)	orl-rat 2500mg/kg
11.	1,2,3,4-Tetramethylbenzene	491	AP01	2000	93	0.2	0.21507	0.21542	2003.3	8.7	00488-23-3	N/A	orl-rat 6408mg/kg



Method GC6MSD-1: Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Temp. 1 = 35°C (10min.), Temp. 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Solvent Delay: 8 minutes. Analysis performed

Name	MSD RT (min.)
Methyl tert-butyl ether (MTBE)	13.56
Acrylonitrile	13.79
Di-isopropyl ether	15.44
Propionitrile	18.53
Tetrahydrofuran	20.17
Cyclohexane	20.58
1-Chlorobutane	20.83
Methylcyclohexane	24.84
1,4-Dioxane	26.84
Hexachloroethane	48.44
1,2,3,4-Tetramethylbenzene	51.62

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CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 082016
Description: Acrolein

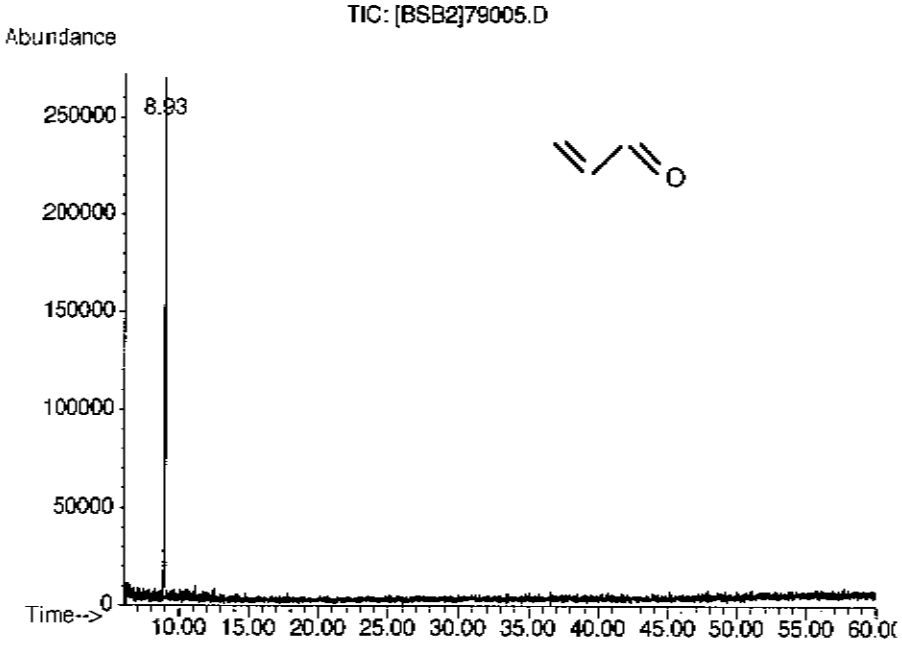
Solvent(s): **Lot#**
Water 081516Q

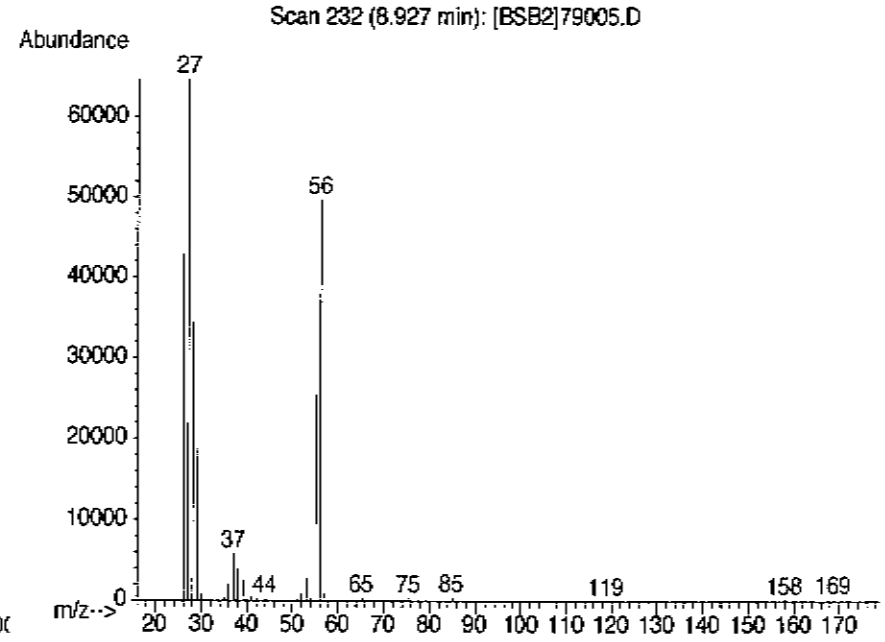
Expiration Date: 092016
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 822-275872-11 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.007 Flask Uncertainty

Formulated By:	Vincent K. Criscio, Jr.	082016 DATE
Reviewed By:	Pedro L. Rentas	082016 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	04715LL	5000	97	0.2	0.05157	0.05160	5003.3	23.8	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

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CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 091916
Description: Acrolein

Expiration Date: 101916
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 822-275872-11 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.007 Flask Uncertainty

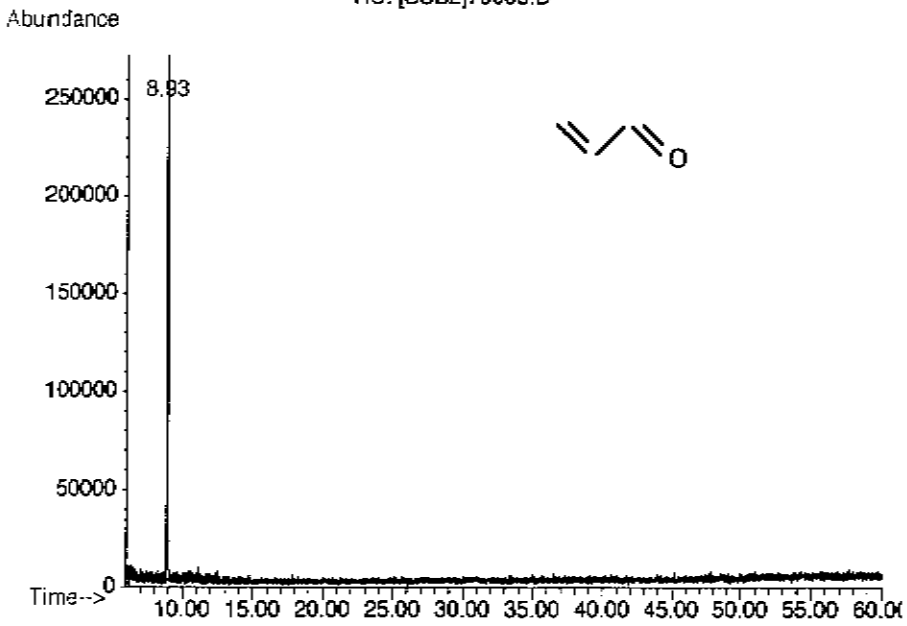
Solvent(s): **Lot#**
Water 081516Q

Formulated By: Vincent K. Criscio, Jr. 091916 DATE
Reviewed By: Pedro L. Rentas 091916 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	04715LL	5000	97	0.2	0.05157	0.05165	5006.1	23.8	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.

TIC: [BSB2]79005.D



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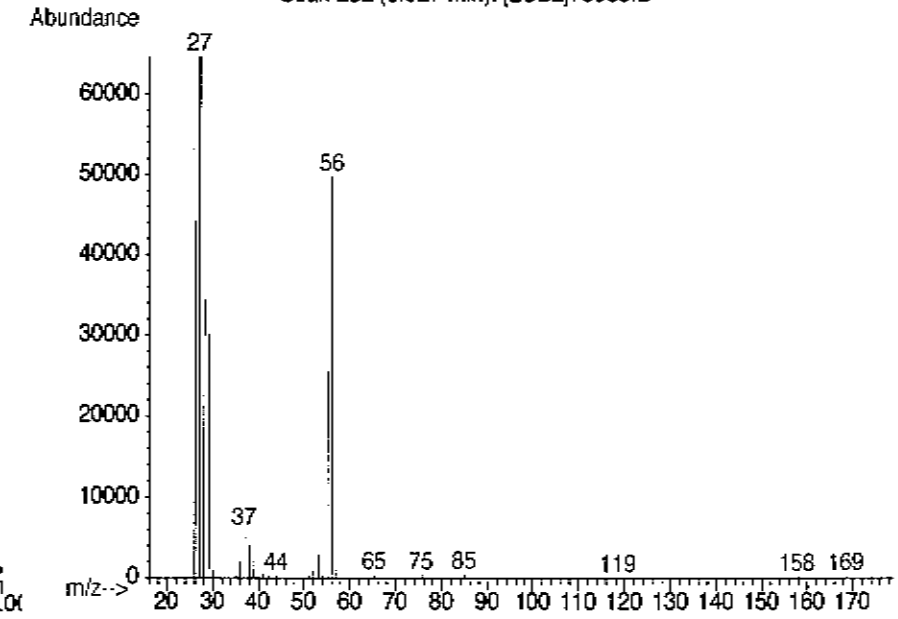

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

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Batch No.: 0000127999
Manufactured Date: 2015/10/30
Expiration Date: 2017/10/27

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Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	>= 99.9 %	100.0
Residue after Evaporation	<= 1.0000 ppm	0.7000
Titrable Acid (µeq/g)	<= 0.3	0.3
Titrable Base (µeq/g)	<= 0.1	<0.01
Water (by KF, coulometric)	<= 0.08 %	< 0.01
Photoionization Detection (PID) Below CRQL	Passes Test	PT
Electroconductivity Detection (ELCD) Below CRQL	Passes Test	PT

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Gliwice, Poland 9001:2008
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2008, 17025:2005
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James Ethier
Jamie Ethier
Vice President Global Quality

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5 vials

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No.: 30067 **Lot No.:** A0102518

Description: 4-Bromofluorobenzene Standard

4-Bromofluorobenzene Standard 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size: 2 mL **Pkg Amt:** > 1 mL

Expiration Date: April 30, 2019 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1-Bromo-4-fluorobenzene (BFB)	2,506.0 µg/mL	+/- 14.7066 µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 01127COV)		+/- 28.3294 µg/mL	Unstressed
	Purity 99%		+/- 32.5790 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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Catalog No. : 30042 **Lot No.:** A0112834

Description : 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot Q167-08) **Purity** 99%	2,001.9 µg/mL	+/- 16.3175 µg/mL +/- 25.3058 µg/mL +/- 28.3823 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBF7067V) **Purity** 99%	2,002.5 µg/mL	+/- 15.7857 µg/mL +/- 24.9704 µg/mL +/- 28.0854 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 25LPST) **Purity** 99%	2,000.1 µg/mL	+/- 16.4089 µg/mL +/- 25.3518 µg/mL +/- 28.4183 µg/mL	Gravimetric Unstressed Stressed
4	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,001.8 µg/mL	+/- 16.3217 µg/mL +/- 25.3075 µg/mL +/- 28.3835 µg/mL	Gravimetric Unstressed Stressed
5	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot SHBD1717V) **Purity** 99%	1,997.5 µg/mL	+/- 16.5711 µg/mL +/- 25.4381 µg/mL +/- 28.4878 µg/mL	Gravimetric Unstressed Stressed
6	Trichlorofluoromethane (CFC-11) **CAS #** 75-69-4 (Lot SHBD5121V) **Purity** 99%	1,998.3 µg/mL	+/- 16.9478 µg/mL +/- 25.6908 µg/mL +/- 28.7160 µg/mL	Gravimetric Unstressed Stressed

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0117927

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L. ; K=2)		
1	Bromochloromethane **CAS #** 74-97-5 (Lot 00004559) **Purity** 99%	2,008.0 µg/mL	+/- 18.6733 µg/mL +/- 113.5259 µg/mL +/- 116.1390 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555581 **Lot No.:** A0118136

Description : Custom 8260 Internal Standard Mix

Custom 8260 Internal Standard Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2019 **Storage:** 10°C or colder

CERTIFIED VALUES

Component #	Compound	Grav. Conc (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 (Lot PR-18488) **Purity** 99%	25,036.0 µg/mL	+/- 231.6879 µg/mL +/- 1,415.2694 µg/mL +/- 1,447.8538 µg/mL	Gravimetric Unstressed Stressed
2	1,4-Difluorobenzene **CAS #** 540-36-3 (Lot MKBN8571V) **Purity** 99%	25,032.0 µg/mL	+/- 231.6508 µg/mL +/- 1,415.0433 µg/mL +/- 1,447.6224 µg/mL	Gravimetric Unstressed Stressed
3	Chlorobenzene-d5 **CAS #** 3114-55-4 (Lot PR-23926) **Purity** 99%	25,012.0 µg/mL	+/- 231.4658 µg/mL +/- 1,413.9127 µg/mL +/- 1,446.4658 µg/mL	Gravimetric Unstressed Stressed
4	Pentafluorobenzene **CAS #** 363-72-4 (Lot MKBQ6444V) **Purity** 99%	25,040.0 µg/mL	+/- 231.7249 µg/mL +/- 1,415.4955 µg/mL +/- 1,448.0851 µg/mL	Gravimetric Unstressed Stressed

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Catalog No. : 555582 **Lot No.:** A0118140

Description : Custom 8260A/B Surrogate Mix

Custom 8260A/B Surrogate Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2019 **Storage:** 10°C or colder

CERTIFIED VALUES

Component #	Compound	Grav. Conc (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot 12K-027) **Purity** 99%	25,036.0 µg/mL	+/- 231.6879 µg/mL +/- 1,415.2694 µg/mL +/- 1,447.8538 µg/mL	Gravimetric Unstressed Stressed
2	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 20401KOV) **Purity** 99%	25,016.0 µg/mL	+/- 231.5028 µg/mL +/- 1,414.1388 µg/mL +/- 1,446.6971 µg/mL	Gravimetric Unstressed Stressed
3	Dibromofluoromethane **CAS #** 1868-53-7 (Lot 032015) **Purity** 99%	25,036.0 µg/mL	+/- 231.6879 µg/mL +/- 1,415.2694 µg/mL +/- 1,447.8538 µg/mL	Gravimetric Unstressed Stressed
4	Toluene-d8 **CAS #** 2037-26-5 (Lot PR-26282) **Purity** 99%	25,032.0 µg/mL	+/- 231.6508 µg/mL +/- 1,415.0433 µg/mL +/- 1,447.6224 µg/mL	Gravimetric Unstressed Stressed

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30489 **Lot No.:** A0119205

Description : 8260B Acetates Mix

8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2016 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc (weight/volume)	Expanded Uncertainty (95% C.L. ; K=2)	
1	Methyl acetate **CAS #** 79-20-9 **Purity** 98% (Lot SHBD7134V)	2,005.1 µg/mL	+/- 11.7669 µg/mL +/- 120.9859 µg/mL +/- 121.2731 µg/mL	Gravimetric Unstressed Stressed
2	Vinyl acetate **CAS #** 108-05-4 **Purity** 99% (Lot STBD7333V)	2,016.0 µg/mL	+/- 11.8310 µg/mL +/- 121.6448 µg/mL +/- 121.9336 µg/mL	Gravimetric Unstressed Stressed
3	Ethyl acetate **CAS #** 141-78-6 **Purity** 99% (Lot SHBG2707V)	2,000.0 µg/mL	+/- 11.7371 µg/mL +/- 120.6794 µg/mL +/- 120.9659 µg/mL	Gravimetric Unstressed Stressed
4	Isopropyl acetate **CAS #** 108-21-4 **Purity** 99% (Lot BCBN7598V)	2,005.0 µg/mL	+/- 11.7665 µg/mL +/- 120.9811 µg/mL +/- 121.2683 µg/mL	Gravimetric Unstressed Stressed
5	Propyl acetate **CAS #** 109-60-4 **Purity** 99% (Lot FGL01)	2,007.0 µg/mL	+/- 11.7782 µg/mL +/- 121.1018 µg/mL +/- 121.3893 µg/mL	Gravimetric Unstressed Stressed
6	Butyl acetate **CAS #** 123-86-4 **Purity** 99% (Lot SHBF4442V)	2,004.0 µg/mL	+/- 11.7606 µg/mL +/- 120.9208 µg/mL +/- 121.2078 µg/mL	Gravimetric Unstressed Stressed
7	Amyl acetate **CAS #** 628-63-7 **Purity** 99% (Lot 41325/1)	2,006.0 µg/mL	+/- 11.7723 µg/mL +/- 121.0414 µg/mL +/- 121.3288 µg/mL	Gravimetric Unstressed Stressed

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30489 **Lot No.:** A0119781

Description : 8260B Acetates Mix

8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2016 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Methyl acetate **CAS #** 79-20-9 **Purity** 98%	(Lot SHBD7134V)	2,000.2 µg/mL	+/- 11.7382 µg/mL +/- 120.6903 µg/mL +/- 120.9768 µg/mL		Gravimetric Unstressed Stressed
2	Vinyl acetate **CAS #** 108-05-4 **Purity** 99%	(Lot STBD7333V)	2,001.0 µg/mL	+/- 11.7430 µg/mL +/- 120.7397 µg/mL +/- 121.0264 µg/mL		Gravimetric Unstressed Stressed
3	Ethyl acetate **CAS #** 141-78-6 **Purity** 99%	(Lot SHBG2707V)	2,012.0 µg/mL	+/- 11.8075 µg/mL +/- 121.4035 µg/mL +/- 121.6917 µg/mL		Gravimetric Unstressed Stressed
4	Isopropyl acetate **CAS #** 108-21-4 **Purity** 99%	(Lot BCBN7598V)	2,006.0 µg/mL	+/- 11.7723 µg/mL +/- 121.0414 µg/mL +/- 121.3288 µg/mL		Gravimetric Unstressed Stressed
5	Propyl acetate **CAS #** 109-60-4 **Purity** 99%	(Lot FGL01)	2,001.0 µg/mL	+/- 11.7430 µg/mL +/- 120.7397 µg/mL +/- 121.0264 µg/mL		Gravimetric Unstressed Stressed
6	Butyl acetate **CAS #** 123-86-4 **Purity** 99%	(Lot SHBC9340V)	2,005.0 µg/mL	+/- 11.7665 µg/mL +/- 120.9811 µg/mL +/- 121.2683 µg/mL		Gravimetric Unstressed Stressed
7	Amyl acetate **CAS #** 628-63-7 **Purity** 99%	(Lot 41325/1)	2,016.0 µg/mL	+/- 11.8310 µg/mL +/- 121.6448 µg/mL +/- 121.9336 µg/mL		Gravimetric Unstressed Stressed

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Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Composition

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555408-FL **Lot No.:** A0121209

Description : Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2017 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L. K=2)		
1	Vinyl acetate **CAS #** 108-05-4 (Lot STBD7333V) **Purity** 99%	8,012.0 µg/mL	+/- 47.0189 +/- 483.4417 +/- 484.5893	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Composition

14 vials

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555408-SL **Lot No.:** A0121239

Description : Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2017 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	Vinyl acetate	8,008.0 µg/mL	+/- 46.9954	µg/mL	Gravimetric
	CAS # 108-05-4 (Lot STBD7333V)		+/- 483.2004	µg/mL	Unstressed
	Purity 99%		+/- 484.3474	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

Material No.: 9077-02
Batch No.: 0000127999
Manufactured Date: 2015/10/30
Expiration Date: 2017/10/27

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	>= 99.9 %	100.0
Residue after Evaporation	<= 1.0000 ppm	0.7000
Titrable Acid (µeq/g)	<= 0.3	0.3
Titrable Base (µeq/g)	<= 0.1	<0.01
Water (by KF, coulometric)	<= 0.08 %	< 0.01
Photoionization Detection (PID) Below CRQL	Passes Test	PT
Electroconductivity Detection (ELCD) Below CRQL	Passes Test	PT

For Laboratory, Research or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2008, 14001:2004, FSSC 22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Deventer, The Netherlands 9001:2008, 14001:2004, 13485:2003
Gliwice, Poland 9001:2008
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, Indra, 9001:2008, 17025:2005
Panoli, India 9001:2008

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.573.2600
Avantor ™ Performance Materials Inc.
3477 Corporate Parkway, Suite #200, Center Valley, PA 18034, U.S.A. Phone: 610.573.2600 . Fax: 610.573.2610

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 06/04/12 SY

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 70046 **Solvent(s):** Lot # 51145 Methanol
Lot Number: 012612
Description: Bromochloromethane

Expiration Date: 012617
Storage: 4 °C
Nominal Concentration (µg/mL): 1000

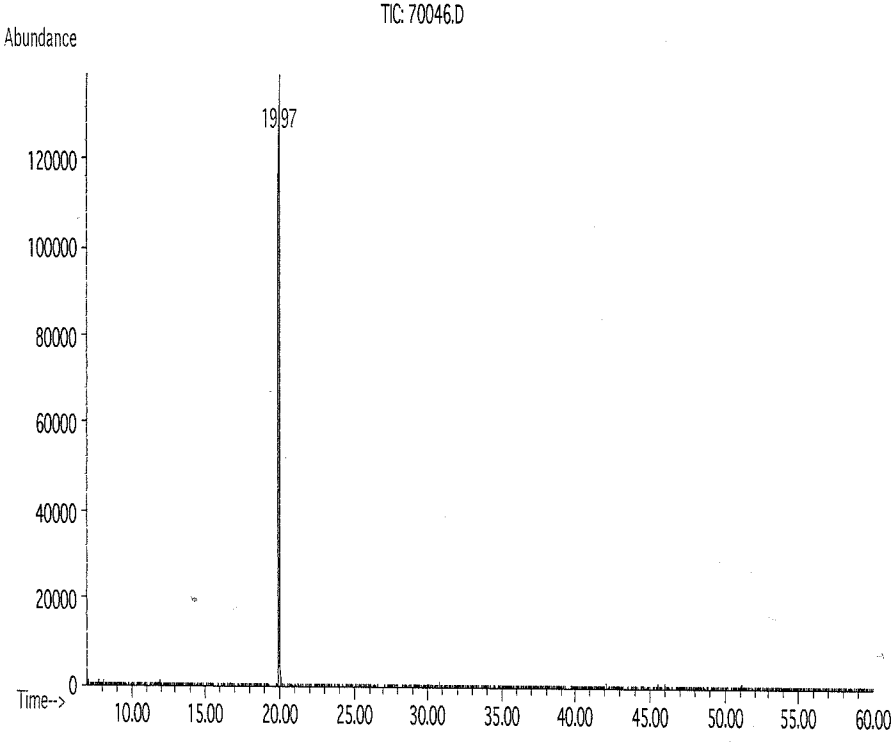
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to: 25.0 0.011 Flask Uncertainty

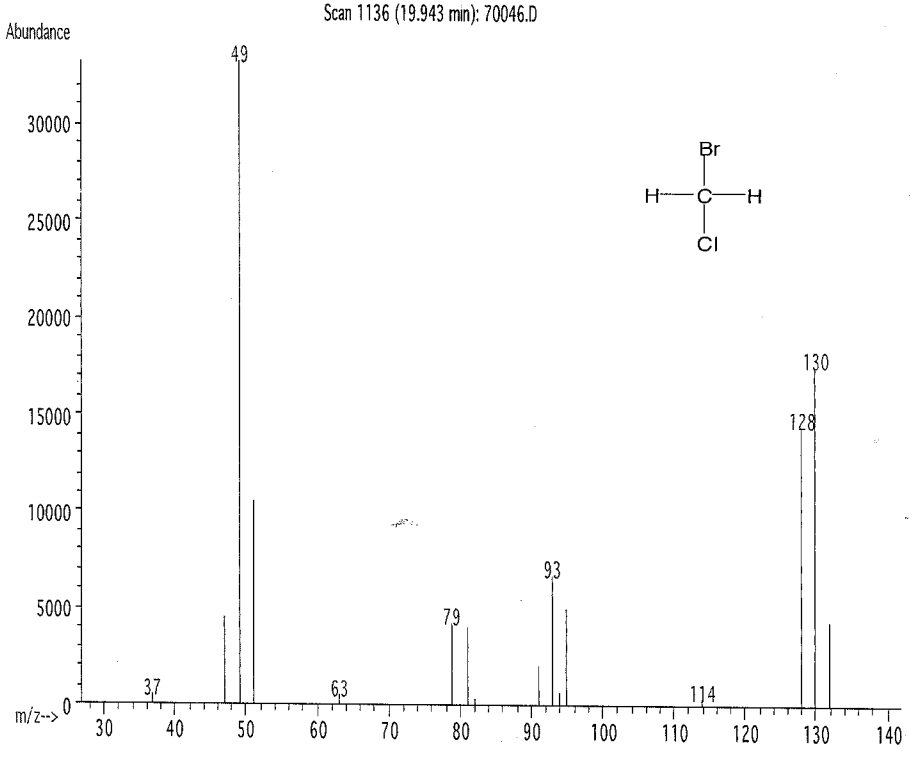
Formulated By: Vincent K. Criscio, Jr. 012612 DATE

Reviewed By: Pedro L. Rentas 012612 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty : Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Bromochloromethane	46	AY01	1000	99	0.2	0.02525	0.02529	1001.5	0.0057	00074-97-5	200 ppm (1050mg/m3/8H)	orl-rat 5000mg/kg

Method GC6MSD-1.M: Column : (60m X 0.25mm X 1.5 µm) Temp 1 = 35°C (10min.), Temp 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector B= 200°C, Detector B = 220°C.
Analyst: Candice Warren





LOGIN REPORT/SAMPLE TRANSFER

Order ID:	H5282 DAYE01	**Order Date:**	10/14/2016	**Project Mgr:**	Loreana
Client Name:	Day Environmental, Inc.	**Project Name:**	121 and 123 Reynolds St.	**Report Type:**	NYS ASP B
Client Contact:	Jeff Danzinger	**Rec DateTime**	10/14/2016 9:20:00 AM	**EDD:**	NYSDEC EDD V-3
Invoice Name:	Day Environmental, Inc.	**Purchase Order:**	51365-15	**Hard Copy Date:**	
Invoice Contact	Jeff Danzinger	**Login Tech:**	NILESH	**Date Signoff:**	10/14/2016 2:42:18 PM

jak 10/17

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	QTY	TEST	TEST GROUP	METHOD	COMMENT	FAX DATE	Due Dates
H5282-01	031-TB-17(7-8)	Solid	10/13/2016	12:20	1	VOCMS Group1	A 5.00 B 4.99	8260C	C 4.98		10 Bus.
H5282-02	032-TB-18(8-9)	Solid	10/13/2016	10:55	1	VOCMS Group1	A 5.00 B 4.98	8260C	C 5.01		10 Bus.
H5282-03	033-TB-19(8-9)	Solid	10/13/2016	10:20	1	VOCMS Group1	A 4.98 B 5.00	8260C	C 4.99		10 Bus.
H5282-04	034-TB-20(8-9.3)	Solid	10/13/2016	12:00	1	VOCMS Group1	A 4.99 B 5.00	8260C	C 4.97		10 Bus.
H5282-05	035-TB-21(8-9)	Solid	10/13/2016	11:35	1	VOCMS Group1	A 5.03 B 5.01	8260C	C 5.01		10 Bus.
H5282-06	036-TB-22(8-8.6)	Solid	10/13/2016	11:20	1	VOCMS Group1	A 5.00 B 4.99	8260C	C 4.98		10 Bus.
H5282-07	037-TB-23(9-9.5)	Solid	10/13/2016	8:50	1	VOCMS Group1	A 4.99 B 5.01	8260C	C 5.02		10 Bus.
H5282-08	038-TB-24(8.8-9.3)	Solid	10/13/2016	9:30	1	VOCMS Group1	A 5.00 B 5.00	8260C	C 5.03		10 Bus.
H5282-09	039-TB-25(8-8.5)	Solid	10/13/2016	10:00	1	VOCMS Group1	A 5.02 B 5.00	8260C	C 5.00		10 Bus.

LOGIN REPORT/SAMPLE TRANSFER

Order ID:	H5282 DAYE01	**Order Date:**	10/14/2016	**Project Mgr:**	Loreana
Client Name:	Day Environmental, Inc.	**Project Name:**	121 and 123 Reynolds St.	**Report Type:**	NYS ASP B
Client Contact:	Jeff Danzinger	**Rec DateTime**	10/14/2016 9:20:00 AM	**EDD:**	NYSDEC EDD V-3
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LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	QTY	TEST	TEST GROUP	METHOD	COMMENT	FAX DATE	Due Dates

SAMPLE CONDITION RECORD

Are samples submitted with a chain of custody?	Yes
Are the number of samples the same as stated on the chain of custody?	Yes
Are bottle caps tight and securely in place?	Yes
Were all containers intact when received?	Yes
Were samples submitted in an ice chest?	Yes
Were samples received cold?	Yes
Were samples within the holding time for the requested test(s)?	Yes
Is the volume of sample submitted sufficient for the requested test(s)?	Yes
Are all samples for volatile organic analyses free of headspace?	NA

ORDER COMMENT

-NY--VOCMS Group1 = STARS + CP-51 compounds. Go ahead with < minimum amount for Invoice

Relinquished By:

Date / Time: 10/14/16 2:45pm

Received By:

Date / Time: 10/14/16 2:45pm

Storage Area: VOA Refridgerator Room

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. H5282
QUOTE NO. Q1506120
COC Number 043174

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Day Environmental, Inc.
ADDRESS: 1563 Lyell Avenue
CITY: Rochester STATE: NY ZIP: 14606
ATTENTION: Jeff Danzinger
PHONE: 585-454-0210 FAX: 585-454-0825

CLIENT PROJECT INFORMATION

PROJECT NAME: 121-123 Reynolds St.
PROJECT NO.: 5136.5-15 LOCATION: Rochester, NY
PROJECT MANAGER: Jeff Danzinger
e-mail: jdanzinger@daymail.net
PHONE: 585-454-0210 FAX: 585-454-0825

CLIENT BILLING INFORMATION

BILL TO: Day Environmental, Inc. PO#: 5136.5-15
ADDRESS: 1563 Lyell Avenue
CITY: Rochester STATE: NY ZIP: 14606
ATTENTION: Jeff Danzinger PHONE: 585-454-0210

DATA TURNAROUND INFORMATION

FAX: Std 10 DAYS *
HARD COPY: Std 10 DAYS *
EDD: Std 10 DAYS *
PREAPPROVED TAT: ☒ YES ☐ NO
* STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ LEVEL 1: Results only
☐ LEVEL 2: Results + QC
☐ LEVEL 3: Results (plus results raw data) + QC
☐ LEVEL 4: Results + QC (all raw data)
☒ EDD Format: NYSDEC Equis Excel
☒ Others NYSDEC ASP Category B

ANALYSIS

1 NYSDEC STARS/CP-51 VOCs 8260
2 3 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES E (1)	2	3	4	5	6	7	8	9	COMMENTS
1.	031-TB-17 (7-8)	Soil		X	10-13-16	1220	1	X									
2.	032-TB-18 (8-9)	Soil		X	10-13-16	1055	1	X									
3.	033-TB-19 (8-9)	Soil		X	10-13-16	1020	1	X									
4.	034-TB-20 (8-9.3)	Soil		X	10-13-16	1200	1	X									
5.	035-TB-21 (8-9)	Soil		X	10-13-16	1135	1	X									
6.	036-TB-22 (8-8.6)	Soil		X	10-13-16	1120	1	X									
7.	037-TB-23 (9-9.5)	Soil		X	10-13-16	0850	1	X									
8.	038-TB-24 (8.8-9.3)	Soil		X	10-13-16	0930	1	X									
9.	039-TB-25 (8-8.5)	Soil		X	10-13-16	1000	1	X									
10.																	

10-13-16

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	10-13-16/1620	1. FED-EX
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
2. FED-EX		2.
RELINQUISHED BY:	DATE/TIME:	RECEIVED FOR LAB BY:
3. Fedex	10/14/16 9:20	3.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant Cooler Temp. 2.2
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments: Ice in Cooler?:

Page ____ of ____

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT CHEMTECH: ☐ PICKED UP ☐ OVERNIGHT
Shipment Complete: ☐ YES ☐ NO

Revision 8/2007

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

ORIGIN ID:ROCA (585) 454-0210
JEFF DAZINGER
DAY ENGINEERING
1563 LYELL AVENUE

ROCHESTER, NY 14606
UNITED STATES US

SHIP DATE: 06OCT16
ACTWGT: 30.00 LB
CAD: 107979030/INET3790

TO LOREANA DAVI
CHEMTECH
284 SHEFFIELD ST

MOUNTAINSIDE NJ 07092
(908) 789-8900
INV:
PO: REF: B1610022 RETURN
DEPT:

JR 10/14/16
9.20
2.2

544J1/E52E/14E8

RMA:

FedEx Express

J152015070501ur

RETURNS MON-FRI
STANDARD OVERNIGHT

TRK# 0221 7905 7027 3487

07092

NJ-US

H5282

1. Select the 'Print' button to print 1 copy of each label.
2. The Return Shipment instructions, which provide your recipient with information on the returns process, will be printed with the label(s).
3. After printing, select your next step by clicking one of the displayed buttons.

Note: To review or print individual labels, select the Label button under each label image above.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	EP-W-14-030
Connecticut	PH-0649
DOD ELAP (L-A-B)	L2219
Florida	E87935
Maine	2012025
Maryland	296
New Hampshire	255413
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	P330-13-00380
Texas	T104704488-13-5

LOGIN REPORT/SAMPLE TRANSFER

Order ID:	H5282 DAYE01	**Order Date:**	10/14/2016	**Project Mgr:**	Loreana
Client Name:	Day Environmental, Inc.	**Project Name:**	121 and 123 Reynolds St.	**Report Type:**	NYS ASP B
Client Contact:	Jeff Danzinger	**Rec DateTime**	10/14/2016 9:20:00 AM	**EDD:**	NYSDEC EDD V-3
Invoice Name:	Day Environmental, Inc.	**Purchase Order:**	51365-15	**Hard Copy Date:**	
Invoice Contact	Jeff Danzinger	**Login Tech:**	NILESH	**Date Signoff:**	10/14/2016 2:42:18 PM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	QTY	TEST	TEST GROUP	METHOD	COMMENT	FAX DATE	Due Dates

SAMPLE CONDITION RECORD

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Were samples received cold?	Yes
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Is the volume of sample submitted sufficient for the requested test(s)?	Yes
Are all samples for volatile organic analyses free of headspace?	NA

ORDER COMMENT

-NY--VOCMS Group1 = STARS + CP-51 compounds. Go ahead with < minimum amount for Invoice

Relinguished By:

Date / Time: 10/14/16 2:45pm

Received By:

Date / Time: 10/14/16 2:45pm

Storage Area: VOA Refridgerator Room

LOGIN REPORT/SAMPLE TRANSFER

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H5282-01	031-TB-17(7-8)	Solid	10/13/2016	12:20	1	VOCMS	Group1	8260C			10 Bus.
H5282-02	032-TB-18(8-9)	Solid	10/13/2016	10:55	1	VOCMS	Group1	8260C			10 Bus.
H5282-03	033-TB-19(8-9)	Solid	10/13/2016	10:20	1	VOCMS	Group1	8260C			10 Bus.
H5282-04	034-TB-20(8-9.3)	Solid	10/13/2016	12:00	1	VOCMS	Group1	8260C			10 Bus.
H5282-05	035-TB-21(8-9)	Solid	10/13/2016	11:35	1	VOCMS	Group1	8260C			10 Bus.
H5282-06	036-TB-22(8-8.6)	Solid	10/13/2016	11:20	1	VOCMS	Group1	8260C			10 Bus.
H5282-07	037-TB-23(9-9.5)	Solid	10/13/2016	8:50	1	VOCMS	Group1	8260C			10 Bus.
H5282-08	038-TB-24(8.8-9.3)	Solid	10/13/2016	9:30	1	VOCMS	Group1	8260C			10 Bus.
H5282-09	039-TB-25(8-8.5)	Solid	10/13/2016	10:00	1	VOCMS	Group1	8260C			10 Bus.