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SITE MANAGEMENT PLAN

Ogdensburg (King Street) Non-Owned Former Manufactured Gas Plant Site

City of Ogdensburg, St. Lawrence County, New York

NYSDEC Site No. V00479

September 2018

I, Michael J. Benoit, certify that I am currently a New York State-registered professional engineer, and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Michael J. Benoit — September 26, 2018 (Date)

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NYSDEC Site No. V00479

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Our Ref.:
B0036671.0003.00001

Date:
September 2018

RECORD OF CHANGE

Revision No.	Date Submitted	Date Approved By NYSDEC	Description of Change	Reviewed By

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ACRONYMS AND ABBREVIATIONS

Arcadis	Arcadis of New York, Inc.
BTEX	benzene, toluene, ethylbenzene, and xylenes
COC	constituent of concern
cy	in-situ cubic yard
ECL	Environmental Conservation Law
EWP	Excavation Work Plan
mg/kg	milligram per kilogram
MGP	manufactured gas plant
NAPL	non-aqueous phase liquid
NYCRR	New York Codes, Rules, and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PAH	polycyclic aromatic hydrocarbon
PDI	pre-design investigation
RAO	Remedial Action Objective
RI	remedial investigation
SC	soil characterization
SCO	soil cleanup objective
SMP	Site Management Plan
VCO	Voluntary Consent Order

EXECUTIVE SUMMARY

Table ES-1 summarizes the institutional and engineering controls implemented for the non-owned former manufactured gas plant (MGP) site located at 10 King Street in the City of Ogdensburg, St. Lawrence County, New York (hereinafter, the "Site"; designated as Site No. V00479), as well as the monitoring, inspection, maintenance, and reporting requirements of this Site Management Plan (SMP).

Table ES-1. Site Management Plan Summary

SMP Element	Requirement
Institutional Controls	1. The Site may only be used for restricted-residential, commercial, and industrial enterprises allowable under current zoning provided that the long-term institutional and engineering controls identified in this SMP are employed. 2. All engineering controls must be operated and maintained as specified in this SMP. 3. All engineering controls must be inspected at the frequency and in the manner defined in this SMP. 4. The use of groundwater underlying the Site is prohibited without necessary water quality treatment, as determined by the New York State Department of Health or the St. Lawrence County Department of Health, to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the New York State Department of Environmental Conservation. 5. The potential for vapor intrusion must be evaluated for any buildings developed on the Site, and any potential impacts that are identified must be monitored or mitigated. 6. Groundwater and other environmental or public health monitoring must be performed as defined in this SMP. 7. Data and information pertinent to the management of the Site must be reported at the frequency and in the manner defined in this SMP. 8. All future activities at the Site that will disturb remaining MGP-impacted material must be conducted in accordance with this SMP. 9. Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP. 10. Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy must be performed as defined in this SMP. 11. Access to the Site must be provided to agents, employees, or other representatives of the New York State Department of Environmental Conservation, with reasonable prior notice to the Site owner and remedial party, to assure compliance with the restrictions identified in the deed restriction.
Engineering Controls	Soil cover system.
Monitoring	Groundwater and non-aqueous phase liquid (NAPL) monitoring will be performed at monitoring wells MW-2(R), MW-5R(R), MW-8R, MW-9, MW-10R, MW-11, MW-12R, MW-14R, MW-15, MW-15RS, MW-17R, MW-19R, and MW-20R on a semi-annual basis for the first five years. Each monitoring event will include: (1) an integrity assessment of each well; (2) measurement of groundwater level and, where present, NAPL thickness at each well; (3) collection and analysis of groundwater samples from those wells where NAPL is not observed; and (4) manual removal, to the extent practicable, of NAPL accumulations greater than 0.1 foot in thickness.

SMP Element	Requirement
Inspections	Site-wide inspections will be performed on an annual basis and within five days after an emergency, such as a natural disaster (e.g., flood, tornado, etc.) or an unforeseen failure of an engineering control, to verify the continued effectiveness of the institutional and engineering controls on the Site.
Maintenance	Not applicable.
Reporting	A periodic review report will be submitted to the New York State Department of Environmental Conservation on an annual basis beginning 16 months after the Certificate of Completion is issued.

1 INTRODUCTION

1.1 General

This Site Management Plan (SMP) has been prepared by Arcadis of New York, Inc. (Arcadis), on behalf of National Grid, to present the post-remediation monitoring, sampling, inspection, certification, and reporting requirements for the non-owned former manufactured gas plant (MGP) site located at 10 King Street in the City of Ogdensburg, St. Lawrence County, New York (hereinafter referred to as the "Site"). The Site is currently in the New York State Voluntary Cleanup Program (Site No. V00479), which is administered by the New York State Department of Environmental Conservation (NYSDEC). On January 25, 2002, Niagara Mohawk Power Corporation (National Grid's predecessor) and NYSDEC entered into a multi-site Voluntary Consent Order (VCO; NYSDEC 2002), which requires National Grid to implement a full remedial program for several non-owned former MGP sites across New York State, including the Site. The Site and off-Site area, which are further described in Section 2.2 of this SMP, were remediated between May 2013 and November 2015 in accordance with the following documents:

- *Voluntary Cleanup Program Decision Document* (Decision Document; NYSDEC 2010b);
- *Final (100%) Remedial Design* (Arcadis 2012); and
- *Final Sanitary Sewer Replacement Design* (Arcadis 2015).

During the remediation activities, limited MGP-related impacts were left in place at the Site and in the off-Site area with the approval of NYSDEC. As further described in Section 3 of this SMP, institutional and engineering controls have been incorporated into the Site remedy to control exposure to these remaining MGP-related impacts, and thereby ensure the protection of public health and the environment. A Declaration of Covenants and Restrictions (hereinafter, the "Deed Restriction"; provided in Appendix A of this SMP) recorded with the St. Lawrence County Clerk requires compliance with this SMP and all institutional and engineering controls placed on the Site.

As further described in Appendix B of this SMP, the responsibilities for implementing this SMP are divided between the Site owner (St. Lawrence Gas Company, Inc.) and National Grid. Failure to properly implement this SMP is a violation of the Deed Restriction, which is grounds for revocation of the Certificate of Completion. Failure to comply with this SMP is also a violation of the New York State Environmental Conservation Law (ECL), Title 6, Part 375 of the New York Codes, Rules, and Regulations (6 NYCRR 375), and the VCO, and thereby subject to applicable penalties.

This SMP has been prepared in accordance with Section 6.2 of NYSDEC's *Technical Guidance for Site Investigation and Remediation* (DER-10; NYSDEC 2010a) and other applicable NYSDEC guidelines.

1.2 Revisions

This SMP is a required element of the remedial program for the Site and may only be revised with the approval of NYSDEC. Proposed revisions to this SMP will be submitted in writing to the NYSDEC project manager. Revisions will be necessary upon, but not limited to, the following occurring:

- A change in media monitoring requirements;

- Post-remediation removal of impacted soil;
- A change in Site ownership or responsibility for implementing this SMP; or
- Other significant change to the Site conditions.

In accordance with the Deed Restriction for the Site (provided in Appendix A of this SMP), NYSDEC will provide notice of any approved changes to the SMP and append such notices to the SMP that is retained in its files. All Site-related documents can be viewed by contacting NYSDEC or its successor agency managing environmental issues in New York State.

1.3 Notifications

As necessary, the NYSDEC project manager will be notified by the Site owner for the reasons and in the time frames identified below:

- 60-day advance notice of any proposed changes in Site use that are required under the terms of the VCO, 6 NYCRR 375, or the New York State ECL;
- Seven-day advance notice of any field activity associated with the remedial program;
- 15-day advance notice of any proposed ground-intrusive activity pursuant to the *Excavation Work Plan* (EWP; Arcadis 2018), which is provided in Appendix C of this SMP;
- Notice within 48-hours of any damage to or defect in any engineering control on the Site that reduces or has the potential to reduce the effectiveness of the engineering control, and likewise, any action to be taken to mitigate the damage or defect;
- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake, that reduces, or has the potential to reduce, the effectiveness of the engineering controls on the Site, with written notice to NYSDEC within seven days after the emergency describing the actions taken, or to be taken, and the potential impact to the environment and the public; and
- Within 45 days of any emergency requiring on-going responsive action, submittal of a follow-up status report to NYSDEC that describes and documents the actions taken to restore the effectiveness of the engineering controls on the Site.

In addition to the above, NYSDEC will be notified in writing at least 60 days prior to any change in the ownership of the Site or the responsibility for implementing this SMP. In the case of a change in ownership, the written notification will include a certification that the prospective purchaser has been provided with a copy of the VCO and all approved work plans and reports, including this SMP. Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing to NYSDEC.

The current contact information for the NYSDEC project manager, National Grid, the Site owner, and other Site-related contacts is provided in Appendix D of this SMP. The list of Site-related contacts will be updated as necessary to provide accurate contact information.

1.4 Contents and Organization

To satisfy the applicable requirements of DER-10, the remainder of this SMP is organized into six sections as follows:

- Section 2 (Site Background), presents general information regarding the pre- and post-remediation conditions at the Site and in the off-Site area, including the investigation and remediation activities performed;
- Section 3 (Institutional and Engineering Control Plan), provides additional information regarding the specific function and intended role of each institutional and engineering control on the Site, and describes the procedures required to implement and manage those controls;
- Section 4 (Monitoring, Sampling, and Inspection Plan), describes the periodic monitoring, sampling, and inspection requirements for the Site and off-Site area;
- Section 5 (Operation and Maintenance Plan), as applicable, describes the operation and maintenance requirements for engineering control systems at the Site;
- Section 6 (Certification and Reporting Requirements), describes the annual certification and reporting requirements for the institutional and engineering controls on the Site and the monitoring, sampling, and inspection programs; and
- Section 7 (References), presents a list of reference documents used in the preparation of this SMP.

2 SITE BACKGROUND

2.1 General

This section provides general information regarding the pre- and post-remediation conditions at the Site and in the off-Site area, including the investigations and remediation activities conducted by National Grid and Arcadis.

2.2 Site Location and Description

The Site is located at 10 King Street in the City of Ogdensburg, St. Lawrence County, New York (Figure 1), and is identified as Block 5, Lot 19 on Section 48.078 of the City of Ogdensburg Tax Map. The 0.75-acre property is currently owned by St. Lawrence Gas Company, Inc. and is generally bounded by King Street to the north, privately-owned properties (tax parcels 59.022-4-59.1 [9-11 Rensselaer Avenue] and 59.022-4-61.1 [231 Lake Street]) to the south and west, and a privately-owned property (tax parcel 48.078-5-26 [4 King Street]) and a vacant National Grid-owned property (tax parcel 48.078-5-25.1 [207-213 Lake Street]) to the east (Figure 2). The Site boundaries are more fully-described in Appendix A of the Deed Restriction, which is provided in Appendix A of this SMP.

The Site is grass covered, currently vacant, and surrounded by a 6-foot high chain-link fence with barbed wire. Surface topography is generally flat with a gentle slope to the north. The Site and surrounding area are zoned for commercial and industrial use. The Oswegatchie River is located approximately 400 feet east of the Site and joins the St. Lawrence River approximately 1,000 feet north of the Site.

The off-Site area comprises several properties, or portions thereof, currently owned by National Grid, the City of Ogdensburg, or private stakeholders.

2.3 Site History

Manufactured gas was produced at the Site from approximately 1854 until at least 1930 using the coal carbonization process. The key features of the former MGP operations during this period included the following:

- A coal shed, gas house, and coke room;
- Retorts, condensers, purifiers, and two tar wells; and
- Two gas holders, a regulator, and a governor house.

The majority of the buildings and above-grade structures were removed by 1949; however, several subsurface foundations and piping were left in place.

In addition to the former MGP, the Site was the location of a quarry from approximately 1850 to after 1865, and was used for the storage of propane gas tanks from before 1945 until sometime before 1997.

2.4 Previous Site Investigations

The Site and off-Site area have been the subject of three investigations, starting in 2003 with the site characterization (SC), the remedial investigation (RI), which was conducted between 2003 and 2009, and culminating in 2010 with the pre-design investigation (PDI). During these investigations, 76 soil borings were drilled, 22 monitoring wells were installed, 10 test pits were excavated, three soil vapor investigations were conducted, and more than 230 samples of environmental media were collected and analyzed. The results of the SC and RI were presented in the *Remedial Investigation Report* (RI Report; Arcadis 2009c), and the results of the PDI were presented in the *Pre-Design Investigation Summary Report* (PDI Report; National Grid 2011).

In March 2009, National Grid also conducted an investigation of the City of Ogdensburg's combined sewer system located downstream from the Site. The investigation was prompted by the findings of the utility evaluation conducted in October 2008 during the Phase III RI, which identified non-aqueous phase liquid (NAPL) in a sewer lateral that extended from the western portion of the Site, along the fence line, to one of the manholes in King Street. The results of the sewer investigation were presented in an April 10, 2009 memorandum to the NYSDEC (Arcadis 2009a) and were summarized in the RI Report.

2.5 Site Geology and Hydrogeology

The hydrostratigraphic units at the Site consist of fill and Ogdensburg Dolostone bedrock. The fill unit comprises the uppermost hydrostratigraphic unit at the Site. This unit consists of re-worked alluvial deposits (sands, gravels, and silts) and anthropogenic materials (e.g., slag, coal, wood, metal, piping, ash, concrete, brick, and the foundations of former MGP structures). The fill unit is bounded by the groundwater table, which is located at depths of between approximately 3 and 8 feet below grade, depending on location. The fill thickness generally ranges from 3 to 9 feet across the Site, but increases in thickness to approximately 10 feet to the north of the Site. The fill unit does not exist where the groundwater table lies below the top of the Ogdensburg Dolostone. The Ogdensburg Dolostone unit is fully saturated (located below the groundwater table) across most of the Site. The exceptions are in areas where its surface is (1) exposed or encountered within a few feet of existing grade, or (2) rises relative to the groundwater table.

The St. Lawrence River is a major regional groundwater discharge location for northern New York. Given the Site's proximity to the river, groundwater on and near the Site in either hydrostratigraphic unit will eventually flow to the river. In the Ogdensburg Dolostone unit, the routes of flow can be considerably more tortuous, depending on the degree of bedrock fracturing and fracture characteristics.

Groundwater in the fill unit is interpreted to move predominantly horizontally toward the north and discharge to the St. Lawrence and Oswegatchie Rivers. Strong upward gradients observed between the shallow bedrock and fill units indicates that groundwater in the shallow bedrock discharges upward through vertical joint fractures and into the fill unit before discharging to either river. Downward gradients observed in a few localized areas suggest that a fraction of groundwater in the fill unit also moves downward into the shallow bedrock.

Because the spacing of horizontal bedding plane fractures is greater than the spacing of joints, groundwater movement in the Ogdensburg Dolostone unit is predominantly horizontal in the direction of the St. Lawrence River. The ability of groundwater to move vertically within the Ogdensburg Dolostone

unit is impeded by the lack of abundant vertical jointing in the unit and the presence of flat-lying, un-fractured beds of more competent rock and thin shale beds. This is demonstrated by the much higher hydraulic head in the deeper portion of the Ogdensburg Dolostone as compared to the shallower regions of this unit.

2.6 Pre-Remediation Nature and Extent of MGP-Related Impacts

As described in the Decision Document, environmental media at the Site and in the off-Site area were impacted by waste by-products of the gas manufacturing process – specifically, coal tar and purifier waste. Coal tar, a reddish-brown to black NAPL, contains a complex mixture of organic chemicals, including volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs). Chief among these compounds are benzene, toluene, ethylbenzene, and xylenes (collectively, "BTEX") and a more general class of SVOCs known as polycyclic aromatic hydrocarbons (PAHs). The specific PAHs of concern are acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, 2-methylnaphthalene, naphthalene, phenanthrene, and pyrene. The sum of the individual concentrations of these PAHs is hereinafter referred to as "total PAHs". Purifier waste is typically found as a dark mixture of wood chips and often contains high concentrations of cyanide. Although some cyanide compounds are highly toxic, there is evidence that the cyanide compounds typically leached from purifier waste are in a chemically complexed form, which is significantly less toxic than free cyanide (CN-). Collectively, BTEX, PAHs, and cyanide are considered the primary constituents of concern (COCs) at the Site and in the off-Site area.

NAPL was observed in numerous soil borings and test pits at the Site, and also in off-Site soil borings to the west. NAPL in the off-Site soil borings was generally encountered at or slightly above the interface of the fill and bedrock units. Indications of cyanide-bearing purifier waste were also noted on the vacant National Grid-owned property (207-213 Lake Street) to the southeast of the Site, generally between 2 and 4 feet below grade.

MGP-related impacts in groundwater are significant, with BTEX and certain PAHs detected in all on-Site overburden and bedrock monitoring wells at concentrations exceeding applicable New York State Class GA ambient water quality standards or guidance values. Cyanide was also detected in certain overburden monitoring wells at the Site. Groundwater samples collected from off-Site monitoring wells located to the north, east, and west of the Site contained similar concentrations of BTEX. The plume of MGP-impacted groundwater extends approximately 100 feet to the north in the overburden and approximately 250 feet in the bedrock, reaching past King Street.

Soil vapor samples were collected: (1) above a known NAPL source at the Site; (2) next to the former St. Lawrence Foods facility located to the north of the Site; and (3) adjacent to a neighboring residence. In addition, indoor air samples were collected from the nearby residence. The sample results indicated that pre-remediation conditions were unlikely to cause exposures that would result in health effects, and no further action or additional air sampling was deemed necessary at the time the Decision Document was issued.

The pre-remediation nature and extent of MGP-related impacts at and near the Site were summarized in the RI Report, Decision Document, and PDI Report.

2.7 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Site, as identified in the *Remedial Action Work Plan* (Arcadis 2010), were developed based on the results of the SC and RI, and in consideration of current/future Site uses and potential exposure pathways. The primary goal of the remediation activities is to mitigate potential risks to public health and the environment based on the contemplated use (current zoning) of the Site and surrounding area. Table 1 summarizes the media-specific RAOs that were developed for the Site from the Division of Environmental Remediation's Generic RAOs for soil and groundwater.

Table 1. Remedial Action Objectives

Environmental Media	COC	Media-Specific RAO
Soil	BTEX PAHs Cyanide NAPL	1. Prevent, or minimize to the extent practicable, ingestion/direct contact with MGP-impacted soil exceeding standards, criteria, and guidance. 2. Prevent, or minimize to the extent practicable, inhalation of or exposure to volatilized COCs from MGP-impacted soil. 3. Prevent, or minimize to the extent practicable, migration of MGP-related impacts that would result in increased groundwater impacts or potential surface water impacts. 4. Recover NAPL to the extent practicable.
Groundwater	BTEX PAHs Cyanide NAPL	1. Prevent, or minimize to the extent practicable, ingestion of groundwater with concentrations of MGP-related COCs exceeding New York State Class Groundwater Quality Standards. 2. Prevent, or minimize to the extent practicable, contact with, or inhalation of volatized COCs from MGP-impacted groundwater. 3. Prevent, or minimize to the extent practicable, discharge of MGP-impacted groundwater to surface water. 4. Minimize future impacts to groundwater and reduce concentrations of COCs in groundwater to the extent practicable.

2.8 Selected Remedy

NYSDEC, in consultation with the New York State Department of Health (NYSDOH), selected an appropriate remedy for the Site: (1) based on the results of the SC and RI; and (2) in consideration of public comments received on the draft Decision Document. The primary elements of the selected remedy are summarized as follows:

1. Completion of a PDI as part of the remedial design program to determine if: (a) MGP NAPL has migrated north of the Site towards King Street; and (b) cyanide is present in soil in off-Site properties

to the southeast that require removal; and (c) identify how the remedial program will address such impacts, if present.

2. Excavation and removal of impacted surface and subsurface soils on the Site and in a portion of the western off-Site property between the Site and Lincoln Avenue (formerly Canal Street). The excavation at the Site will extend vertically to bedrock, removing the holder structure, all NAPL, and any soils containing total PAHs at concentrations greater than 500 milligrams per kilogram (mg/kg). Also, visible purifier wastes and soils containing free cyanide and/or total cyanide at concentrations greater than 27 mg/kg and 40 mg/kg, respectively, identified on the adjacent off-Site properties to the southeast will be excavated and disposed of off-Site. Soil and fill material overlying impacted soil that does not exceed the removal criteria will be excavated, stockpiled on-Site, and evaluated for use in backfilling the deeper excavations.
3. Enhanced natural attenuation of impacted groundwater through the addition of oxygen, nutrients, and/or other amendments, as necessary, to stimulate indigenous bacteria to degrade dissolved-phase COCs. Conceptually, this will be accomplished by blending oxygen enhancing amendments into the backfill of the on-Site excavation area.
4. Installation of bedrock NAPL recovery wells and periodic measurement and removal of accumulated NAPL. The locations and number of NAPL recovery wells, along with the method and frequency of NAPL removal, will be determined during the remedial design and remedial action phase. The bedrock surface and joints will be inspected and mapped during the soil excavation to determine the optimal locations of NAPL recovery wells. Recovered NAPL will be transported off-Site for treatment or disposal. The operation of the NAPL recovery wells will continue until the RAOs have been achieved, or until NYSDEC determines that continued recovery is technically impracticable or no longer feasible.
5. Installation of a cover system to allow for the restricted-residential use of the Site. The cover will consist either of the structures comprising the Site development, such as buildings, pavement, or sidewalks, or a soil cover in areas where the upper 2 feet of exposed surface soil will exceed the restricted-residential soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of 2 feet of soil, meeting the restricted-residential SCOs for cover material as set forth in 6 NYCRR 375-6.7(d), with the upper 6 inches consisting of soil of sufficient quality to maintain a vegetation layer. The soil cover will be placed over a demarcation layer.
6. Imposition of a deed restriction on the Site that: (a) limits the use and development of the Site to restricted-residential use, which would also allow commercial and industrial uses, as permitted by local zoning; (b) requires compliance with an approved site management plan; (c) restricts the use of groundwater as a source of drinking water or industrial supply without the necessary water quality treatment as determined by NYSDOH; and (d) requires National Grid or the Site owner to prepare and submit to NYSDEC a periodic certification of institutional and engineering controls.
7. Development of a site management plan, which will include: (a) an excavation plan to manage MGP-related impacts remaining beneath the Site cover, pavement, or buildings; (b) identification of any use restrictions on the Site; (c) provisions for the continued proper operation and maintenance of the components of the remedy; and (d) requirements to evaluate, and control if necessary, the potential for soil vapor intrusion into the indoor air of any new structures built on the Site.

8. Periodic certification of the institutional and engineering controls on the Site by National Grid or the Site owner, prepared and submitted by a professional engineer or such other expert acceptable to NYSDEC, until NYSDEC notifies the Site owner in writing that such certification is no longer needed. Such submissions will: (a) contain certification that the institutional and engineering controls on the Site are still in place, and are either unchanged from the previous certification or are compliant with NYSDEC-approved modifications; (b) allow NYSDEC access to the Site; and (c) state that nothing has occurred that will impair the ability of the institutional and engineering controls on the Site to protect public health or the environment, or constitute a violation or failure to comply with the site management plan unless otherwise approved by NYSDEC.

Subsequent to the issuance of the Decision Document, and based on the results of the PDI, the remedial excavation limits were extended southeast of the Site onto the adjacent off-Site 207-213 Lake Street and 231 Lake Street properties to address visible purifier waste and soils associated with soil boring PDI-SB11, which contained total cyanide at a concentration greater than the corresponding remediation level of 40 mg/kg (National Grid 2011).

In addition, during the Site remediation activities described in Section 2.9.2 of this SMP, bedrock surfaces across the Site were observed to be competent with no measurable joints/fractures, which would otherwise serve as potential locations for the bedrock NAPL recovery wells required by the Decision Document. In addition, following the removal of NAPL-containing overburden materials, the bedrock surface itself was generally observed to be free of NAPL. Based on these observations, National Grid proposed to eliminate the element of the remedy that required the installation of bedrock NAPL recovery wells (National Grid 2013). The proposal was subsequently approved by NYSDEC on September 27, 2013.

2.9 Overview of Remediation Activities

2.9.1 Interim Remedial Measures

2.9.1.1 Building Demolition and Surface Cover Installation (2007)

National Grid purchased the off-Site 207-213 Lake Street property from Mr. Randy Huot in January 2007. At the time of purchase, the property contained a vacant, two-story building with a gross floor space of approximately 4,500 square feet. The building was wood-sided with a metal/asphalt shingle roof, a stone/masonry foundation, and a concrete basement floor slab. A two-level wooden porch was located on the back of the building, and a single-level wooden porch/enclosed entrance was located on the front (Lake Street-side) of the building.

In November 2007, the building was demolished, and a surface cover was installed in the southwest corner of the property (adjacent to the Site). As described in the *Revised Work Plan for Focused Surface Cover IRM* (National Grid 2007), the primary objective of the surface cover was to provide a physical barrier to mitigate potential exposure to potential MGP-related materials observed at ground surface in that area. The surface cover comprised two layers of non-woven geotextile fabric and approximately 6 inches of imported run-of-crusher stone meeting the SCOs for unrestricted use, as set forth in 6 NYCRR

375-6.8(a). The run-of-crusher stone extended beyond the limits of the non-woven geotextile fabric by approximately 3 feet on the north and east sides.

The building demolition and surface cover installation activities were performed on behalf of National Grid by OP-TECH Environmental Services, Inc., and were documented in the *Former Huot Building Demolition Report* (Arcadis 2008) and a January 9, 2008 letter to NYSDEC titled *Former Huot Property – Interim Remedial Measure Surface Cover* (National Grid 2008). These documents were also included as electronic attachments to the NYSDEC-approved RI Report.

2.9.1.2 Sewer Lateral Plugging (2009)

Based on the findings of the Phase III RI and the subsequent sewer investigation described in Section 2.4 of this SMP, National Grid conducted a NYSDEC-approved interim remedial measure to plug two existing sanitary sewer laterals that extended from the western portion of the Site, along the fence line, to two manholes in King Street north of the Site. The work was performed on behalf of National Grid by OP-TECH Environmental Services, Inc. on March 20, 2009 and April 29, 2009, and consisted of installing a mechanical plug and non-shrink grout at the downstream end of each sewer lateral. The results of the interim remedial measure were summarized in a May 20, 2009 letter to NYSDEC titled *Inactive Sewer Lateral Pipe Plugging* (Arcadis 2009b), which was also included as an attachment to the NYSDEC-approved RI Report.

2.9.2 Site Remediation (2013)

The Site and portions of the off-Site 207-213 Lake Street, 231 Lake Street, and 9-11 Rensselaer Avenue properties were remediated between May and October 2013 in accordance with the Decision Document and *Final (100%) Remedial Design* (Arcadis 2012). The remediation activities were performed on behalf of National Grid by LAND Remediation, Inc. and generally included the following:

- Excavation of approximately 10,007 in-situ cubic yards (cy) of soil and debris down to the top of the underlying bedrock unit (depths ranging from approximately 3 to 16 feet below pre-remediation grade);
- Demolition and removal of underground facilities and former MGP structures located within the limits of excavation, including two tar wells and two gas holder foundations;
- Off-Site treatment/disposal of approximately 14,998 tons of soil and debris;
- Collection, on-Site treatment, and off-Site discharge of approximately 500,000 gallons of construction wastewater;
- Backfilling remedial excavation areas with a combination of the following:
    - Approximately 716 cy of crushed concrete debris and excavated soil that were observed to be free of visible NAPL (hereinafter referred to as “re-use material”);

  - Clean imported general fill material meeting the lower of the restricted use SCOs for protection of public health (restricted-residential use) or protection of groundwater, as set forth in Table 375-6.8(b) of 6 NYCRR 375[1];
  - Clean imported general fill material and re-use material amended with 2.0 pounds per cy of EHC-O™ Controlled Oxygen Release Compound by Adventus Americas, Inc. (hereinafter referred to as "amended general fill material");
  - Clean imported pipe bedding material[2]; and
  - Controlled low-strength material (flowable fill);
- Replacement of an existing storm sewer inlet pipe to the west of the Site;
- Installation of a 2-foot thick soil cover system across the Site, comprising:
  - A woven geotextile (demarcation) fabric;
  - 18 inches of clean imported general fill material meeting the lower of the restricted use SCOs for protection of public health (restricted-residential use) or protection of groundwater, as set forth in Table 375-6.8(b) of 6 NYCRR 375[1]; and
  - 6 inches of clean imported topsoil meeting the lower of the restricted use SCOs for protection of public health (restricted-residential use) or protection of groundwater, as set forth in Table 375-6.8(b) of 6 NYCRR 375[1]; and
- Restoration of the Site and other areas disturbed during the remediation activities.

Subsurface soils containing residual MGP-related impacts in the narrow, grassy strip of land located between the Site and the southern edge of King Street were not addressed at the time of the Site remediation activities due to the presence of utility poles and several active overhead wires, including a critical electrical back-up line for the nearby Claxton-Hepburn Medical Center. As further described in Section 2.9.3 of this SMP, following the Site remediation activities, National Grid arranged to have the overhead electrical lines in this area temporarily deactivated and removed, and elected to replace the section of sanitary sewer line in this area with new butt-fusion welded high-density polyethylene pipe to mitigate the potential for future infiltration of residual MGP-related impacts into the City of Ogdensburg's sanitary sewer system.

2.9.3 Sanitary Sewer Replacement (2015)

The replacement of the portion of sanitary sewer located in the King Street right-of-way (immediately north of the Site) was conducted between September and November 2015 in accordance with the *Final Sanitary Sewer Replacement Design* (Arcadis 2015). The construction activities were performed on behalf of National Grid by National Response Corporation (formerly, OP-TECH Environmental Services, Inc.) and generally included the following:

[1] The chemical testing results for the imported general fill material and topsoil used during the Site remediation activities also met the unrestricted use SCOs, as set forth in Table 375-6.8(a) of 6 NYCRR 375.
[2] The imported pipe bedding material was not used within the limits of the Site.

- Excavation of approximately 387.5 cy of soil and debris, and removal of approximately 17.5 cy of bedrock;
- Selective demolition and removal of four existing masonry manholes and approximately 180 linear feet of existing nominal 8-inch diameter and nominal 10-inch diameter vitrified clay sewer pipe;
- Installation of three new precast concrete manholes and approximately 180 linear feet of new nominal 12-inch diameter high-density polyethylene sewer pipe;
- Backfilling excavations with clean imported fill material[3] meeting the lower of the restricted use SCOs for protection of public health (restricted-residential use) or protection of groundwater, as set forth in Table 375-6.8(b) of 6 NYCRR 375;
- Off-Site disposal of approximately 790 tons of demolition, excavation, and construction wastes and approximately 24,000 gallons of construction wastewater; and
- Restoration of the disturbed areas to pre-construction condition.

2.10 Nature and Extent of Remaining MGP-Related Impacts

The Site remediation and sanitary sewer replacement activities summarized in Sections 2.9.2 and 2.9.3, respectively, of this SMP resulted in the removal of existing soil and debris located within the horizontal limits shown on Figure 3 down to the top of the underlying bedrock surface. Remedial excavation areas at the Site were backfilled with a combination of: (1) re-use material, consisting of crushed concrete debris and excavated soil that were observed to be free of visible NAPL; (2) imported general fill material meeting the lower of the restricted use SCOs for protection of public health (restricted-residential use) or protection of groundwater, as set forth in Table 375-6.8(b) of 6 NYCRR 375; (3) amended general fill material, consisting of clean imported general fill material and re-use material amended with 2.0 pounds per cy of EHC-O™ Controlled Oxygen Release Compound by Adventus Americas, Inc.; and (4) controlled low-strength material. The approximate horizontal limits of the area backfilled with re-use material, which may contain residual MGP-related impacts, are identified on Figure 3. Figure 3 also shows the remaining soil samples that exceed the unrestricted use SCOs, as set forth in Table 375-6.8(a) of 6 NYCRR 375, and the borings and wells where NAPL was previously observed in bedrock.

Monitoring well locations and groundwater sampling results are shown on Figure 4. Well construction logs are provided in Appendix E of this SMP, and well construction details are summarized in Table E-1 of Appendix E. Post-remediation groundwater sampling results are provided in Appendix F of this SMP and are summarized in Table F-1 of Appendix F.

[3] The imported fill material consisted of a crushed stone product, which was used as select fill material, general fill material, pipe bedding material, and subbase material on the project.

3 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

3.1 General

As described in Section 1.1, institutional and engineering controls have been established on the Site to protect human health and the environment from residual MGP-related impacts in soil, bedrock, and groundwater at the Site. This section provides additional information regarding the specific function and intended role of each institutional and engineering control on the Site and describes the procedures required to implement and manage those controls.

The contents and requirements of this section may only be revised with the approval of NYSDEC.

3.2 Institutional Controls

Institutional controls are required by the Decision Document to: (1) implement, maintain, and monitor the engineering controls; (2) prevent future exposure to remaining MGP-related impacts by controlling subsurface disturbances; and (3) limit the use and development of the Site to restricted-residential, commercial, or industrial enterprises only. Adherence to the institutional controls on the Site is required by the Deed Restriction (provided in Appendix A of this SMP).

The specific institutional controls to be implemented under this SMP are summarized as follows:

1. The Site may only be used for restricted-residential, commercial, and industrial enterprises allowable under current zoning provided that the long-term institutional and engineering controls identified in this SMP are employed.
2. All engineering controls must be operated and maintained as specified in this SMP.
3. All engineering controls must be inspected at the frequency and in the manner defined in this SMP.
4. The use of groundwater underlying the Site is prohibited without necessary water quality treatment, as determined by NYSDOH or the St. Lawrence County Department of Health, to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from NYSDEC.
5. The potential for vapor intrusion must be evaluated for any buildings developed on the Site, and any potential impacts that are identified must be monitored or mitigated.
6. Groundwater and other environmental or public health monitoring must be performed as defined in this SMP.
7. Data and information pertinent to the management of the Site must be reported at the frequency and in the manner defined in this SMP.
8. All future activities at the Site that will disturb remaining MGP-impacted material must be conducted in accordance with this SMP.
9. Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP.

10. Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy must be performed as defined in this SMP.
11. Access to the Site must be provided to agents, employees, or other representatives of NYSDEC, with reasonable prior notice to the Site owner and National Grid, to assure compliance with the restrictions identified in the Deed Restriction.

The Site may not be used for residential purposes, as defined in 6 NYCRR 375-1.8(g)(2)(i), and the institutional and engineering controls may not be discontinued without an amendment or extinguishment of the Deed Restriction.

3.3 Engineering Controls

3.3.1 Soil Cover System

Exposure to remaining MGP-related impacts in soil at the Site is prevented by a permeable soil cover system, which comprises a woven geotextile (demarcation) fabric and a minimum of 2 feet of clean soil meeting the SCOs for restricted-residential use, as set forth in 6 NYCRR 375-6.8(b). The EWP (provided in Appendix C of this SMP) outlines the procedures required to be implemented in the event that the soil cover system is breached, penetrated, or temporarily removed, and any underlying remaining impacts are disturbed. Procedures for the inspection and maintenance of the soil cover system are described in Section 4 of this SMP.

Any work conducted pursuant to the EWP will also be conducted in accordance with a task-specific Health and Safety Plan (HASP) and a Community Air Monitoring Plan (CAMP), which will be prepared by the party performing the work. The party performing the work is responsible for addressing task-specific hazards/hazard controls and must verify that its HASP is in current compliance with DER-10, Title 29, Section 1910 of the Code of Federal Regulations (29 CFR 1910), 29 CFR 1926, and all other applicable federal, state, and local regulations. NYSDOH's *Generic Community Air Monitoring Plan* (GCAMP; NYSDOH 2009) is provided in Appendix G of this SMP and may be used as a guide by the party performing the ground-intrusive work under the EWP.

The HASP and CAMP will be submitted to NYSDEC as part of the written notification required for work under the EWP (refer to Section 1.3 of this SMP and Section 1 of the EWP). Any ground-intrusive work with the potential to encounter or disturb the area of potential remaining MGP-related impacts (Figure 3) will comply with the EWP, HASP, and CAMP, and will be documented in the subsequent periodic review report in accordance with Section 6.3 of this SMP.

3.3.2 Criteria for Completion of Remediation

Generally, remedial processes are considered completed when effectiveness monitoring indicates that the remedy has achieved the RAOs identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.4 of DER-10.

3.3.2.1 Soil Cover System

The soil cover system is a permanent control and the quality and integrity of this system will be inspected in accordance with this SMP at defined, regular intervals in perpetuity.

3.3.2.2 Monitoring Wells Associated with Monitored Natural Attenuation

Groundwater monitoring to assess the effectiveness of natural attenuation will continue, as determined by NYSDEC with consultation with NYSDOH, until residual dissolved-phase concentrations of COCs in groundwater: (1) are found to be consistently below New York State Class GA ambient water quality standards or guidance values; or (2) have become asymptotic at an acceptable level over an extended period. In the event that monitoring data indicates that monitoring for natural attenuation may no longer be required, a proposal to discontinue monitoring will be submitted by the remedial party. Monitoring will continue until permission to discontinue is granted in writing by NYSDEC. If impacted groundwater levels become asymptotic at a level that is not acceptable to NYSDEC, additional treatment and/or control measures will be evaluated.

4 MONITORING, SAMPLING, AND INSPECTION PLAN

4.1 General

This section describes the periodic monitoring, sampling, and inspection requirements for the Site and off-Site area, including the methods to be used for the following:

- Monitoring groundwater and potential remaining NAPL in bedrock;
- Assessing compliance with applicable NYSDEC standards, criteria, and guidance, particularly the New York State Class GA ambient water quality standards and guidance values;
- Assessing achievement of the remedial performance criteria;
- Conducting periodic Site-wide inspections and evaluating Site information to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Documenting and preparing the necessary reports for the various monitoring and inspection activities.

Monitoring of the performance of the remedy and overall reduction in MGP-related impacts at the Site and off-Site area will be conducted for the first five years. The frequency thereafter will be determined by NYSDEC. Trends in the concentrations of dissolved-phase COCs in groundwater and in the recoverability of potential remaining NAPL in bedrock will be evaluated to determine if the remedy continues to be effective in achieving the RAOs identified in Section 2.5 of this SMP.

Monitoring, sampling, and inspection results will be evaluated on a periodic basis as part of the institutional and engineering control certification described in Section 6.2 of this SMP to confirm that: (1) the institutional and engineering controls on the Site are in place, are performing properly, and remain effective; (2) monitoring, sampling, and inspections are being conducted in accordance with this section; and (3) based on these items, the Site remedy continues to be protective of human health and the environment, and is performing as designed in the *Final (100%) Remedial Design* (Arcadis 2012) and *Final Sanitary Sewer Replacement Design* (Arcadis 2015).

The contents and requirements of this section may only be revised with the approval of NYSDEC.

4.2 Post-Remediation Media Monitoring and Sampling

4.2.1 Groundwater and NAPL Monitoring

Groundwater and NAPL monitoring will be performed at monitoring wells MW-2(R), MW-5R(R), MW-8R, MW-9, MW-10R, MW-11, MW-12R, MW-14R, MW-15, MW-15RS, MW-17R, MW-19R, and MW-20R on a semi-annual basis for the first five years to assess the: (1) effectiveness of the remedy at reducing residual dissolved-phase concentrations of the MGP-related COCs in groundwater; and (2) presence and mobility of potential remaining NAPL in bedrock. Monitoring well locations and groundwater sampling results are shown on Figure 4. Well construction logs are provided in Appendix E of this SMP, and well construction details are summarized in Table E-1 of Appendix E. Post-remediation groundwater sampling results are provided in Appendix F of this SMP and are summarized in Table F-1 of Appendix F.

Each monitoring event will include the following:

- Integrity assessment of each well;
- Measurement of groundwater level and, where present, NAPL thickness at each well;
- Collection and analysis of groundwater samples from those wells where NAPL is not observed; and
- Manual removal, to the extent practicable, of NAPL accumulations greater than 0.1 foot in thickness.

At each well, an oil-water interface probe will be used to (1) determine the presence or absence of NAPL and (2) measure the depth to groundwater, depth to NAPL (where present), and total depth of the well. Depths will be measured to the nearest one-hundredth (0.01) of a foot from the reference point at the top of the inner well casing. To the extent practicable, groundwater levels will be measured within one day of sampling to minimize potential relative changes in measurements due to seasonal conditions or precipitation events.

Groundwater samples will be collected using low-flow purging and sampling techniques in accordance with National Grid's *Generic Field Sampling Plan for Site Investigations at Manufactured Gas Plants* (GFSP; Foster Wheeler Environmental Corporation 2002a), which is provided as Appendix H of this SMP. Each sample will be analyzed for BTEX, PAHs[4], and total cyanide in accordance with the most-recent versions of United States Environmental Protection Agency SW-846 Methods 8260, 8270, and 9012, respectively, as referenced in NYSDEC's Analytical Services Protocol. Quality assurance/quality control samples will also be collected and analyzed in accordance with the *Generic Quality Assurance Project Plan for Site Investigations at Non-Owned Former MGP Sites* (GQAPP; Foster Wheeler Environmental Corporation 2002b), which is provided as Appendix I of this SMP.

Groundwater sampling activities and observations (e.g., condition of sample, integrity of well, etc.) will be recorded on the low-flow groundwater sampling log included in the GFSP. Field measurements and other information pertinent to each monitoring event will be recorded in a dedicated field log book in accordance with the GFSP.

4.2.2 Monitoring Well Repairs, Decommissioning, and Replacement

Monitoring wells may require redevelopment if biofouling or silt accumulation occurs. If redevelopment is deemed warranted, the well will be physically agitated/surged and redeveloped using the procedures described in the GFSP. The decommissioning and replacement of a monitoring well may be warranted if: (1) the well is broken, obstructed, or otherwise compromised; (2) cannot be adequately repaired; and (3) is required for the purpose of future monitoring. Well decommissioning will be performed in accordance with NYSDEC's *Groundwater Monitoring Well Decommissioning Policy* (NYSDEC 2009). The specific decommissioning method – grouting in-place, pulling the casing, or over-drilling – will be determined based on the construction and current condition of the well. The replacement monitoring well will be

[4] PAH analyte list comprises acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, 2-methylnaphthalene, naphthalene, phenanthrene, and pyrene.

installed in the nearest available location and will be constructed in the same manner as the original well, unless otherwise approved by NYSDEC.

NYSDEC will be notified before repairing or replacing any unusable monitoring wells. Well decommissioning without replacement will be done only with the prior approval of NYSDEC. All monitoring well maintenance activities, including redevelopment, repair, replacement, and decommissioning, will be documented in the subsequent periodic review report.

4.3 Site-Wide Inspections

Site-wide inspections will be conducted on an annual basis, regardless of the frequency of the periodic review report, to assess the following:

- Condition and continued effectiveness of the soil cover system;
- Compliance with all institutional controls, including administrative requirements and Site activity and use restrictions;
- General Site conditions at the time of the inspection; and
- As appropriate, completeness of Site records.

In the event of an emergency, such as a natural disaster (e.g., flood, tornado, etc.) or an unforeseen failure of the soil cover system, an additional inspection will be conducted, within five days after the emergency, to verify the continued effectiveness of the soil cover system and institutional controls on the Site. As required by Section 1.3 of this SMP, NYSDEC will be verbally notified by noon of the following day of any such emergency. Written notice will be provided to NYSDEC within seven days after the emergency describing the actions taken, or to be taken, and the potential impact to the environment and the public.

The results of each inspection will be recorded on the Side-wide inspection form provided in Appendix J of this SMP and will be documented in the periodic review report in accordance with Section 6.3 of this SMP.

4.4 Documentation and Recordkeeping

Field observations, measurements, notes, and other relevant information generated during monitoring events and inspections will be recorded on an appropriate form or in a field log book, as appropriate, in accordance with the GFSP and GQAPP. Completed forms and other field records will be maintained in a central project file and, as appropriate, will be included in the periodic review report.

All forms and other relevant reporting formats used during monitoring events and inspections are subject to NYSDEC review and approval.

5 OPERATION AND MAINTENANCE PLAN

The Site remedy does not rely on any mechanical systems, such as groundwater treatment systems, sub-slab depressurization systems, or air sparge/soil vapor extraction systems, to protect public health and the environment. Therefore, the operation and maintenance of such components are not included in this SMP.

6 CERTIFICATION AND REPORTING REQUIREMENTS

6.1 General

This section describes the annual certification and reporting requirements for the institutional and engineering controls on the Site and the monitoring, sampling, and inspection programs. The contents and requirements of this section may only be revised with the approval of NYSDEC.

6.2 Certification of Institutional and Engineering Controls

After the last Site-wide inspection of the reporting period, a qualified environmental professional will prepare and sign the following certification statement:

"For each institutional or engineering control identified for the Site, I certify that all of the following statements are true:

- The inspection of the Site to confirm the effectiveness of the institutional or engineering control required by the remedial program was performed under my direction;
- The institutional or engineering control employed at the Site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect public health and the environment;
- Nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this control;
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- Use of the Site is compliant with the deed restriction;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program; and
- The information presented in this report is accurate and complete.

I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [*NAME*], of [*BUSINESS ADDRESS*], am certifying as [*OWNER* or *OWNER'S DESIGNATED SITE REPRESENTATIVE* or *REMEDIAL PARTY* or *REMEDIAL PARTY'S DESIGNATED SITE REPRESENTATIVE*]."

A signed certification statement will be included in each periodic review report described in Section 6.3 below.

6.3 Periodic Review Report

A periodic review report will be submitted to NYSDEC on an annual basis beginning 16 months after the Certificate of Completion is issued. In the event that the Site is subdivided into separate parcels with different ownership, a single periodic review report will be prepared that addresses the site described in Appendix A of the Deed Restriction (provided in Appendix A of this SMP).

The periodic review report will be prepared in accordance with Section 6.3 of DER-10 and will include, at a minimum, the following:

- Identification, assessment, and certification of all institutional and engineering controls required by the remedy for the Site;
- Description of any ground-intrusive work that encountered or disturbed the area of potential remaining MGP-related impacts pursuant to Section 3.3.1 of this SMP;
- Date(s) and description of each monitoring event, including summary of results;
- Data summary tables for all samples collected during the reporting period, with listing of all compounds analyzed and comparison to applicable standards with all exceedances highlighted;
- Laboratory data sheets, electronic data deliverable(s), and data usability summary report(s) for all samples collected during the reporting period;
- Figure(s) depicting monitoring well locations, shallow groundwater contours, and interpreted groundwater flow direction for each groundwater monitoring event;
- Date(s) and results of the required annual Site-wide inspection and any other inspections performed in response to a natural disaster (e.g., flood, tornado, etc.) or unforeseen failure of an engineering control;
- All applicable inspection forms and other records generated for the Site during the reporting period;
- A Site evaluation, which includes the following:
    - Compliance of the remedy with the requirements of the Decision Document;
    - Any new conclusions or observations regarding Site impacts based on monitoring and inspection results;
    - Recommendations regarding any necessary changes to the remedy or monitoring/inspection programs;
    - Trends in levels of MGP-related impacts in the affected environmental media; and
    - Overall performance and effectiveness of the remedy.

The periodic review report will be submitted within 30 days of the end of each certification period to both NYSDEC and NYSDOH. Electronic data deliverable(s) for all samples collected during the reporting period will also be submitted electronically to NYSDEC's Environmental Information Management System administrator.

6.4 Corrective Measures Work Plan

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a corrective measures work plan will be prepared and submitted to NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the corrective measures work plan until it has been approved by NYSDEC.

7 REFERENCES

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NYSDEC. 2010a. *Technical Guidance for Site Investigation and Remediation*. Program Policy DER-10. Division of Environmental Remediation. May.

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FIGURES

REFERENCE: BASE MAP USGS 7.5 MIN. QUAD., OGDENSBURG EAST, NEW YORK, 1963.

2000' 0 2000'

Approximate Scale: 1" = 2000'

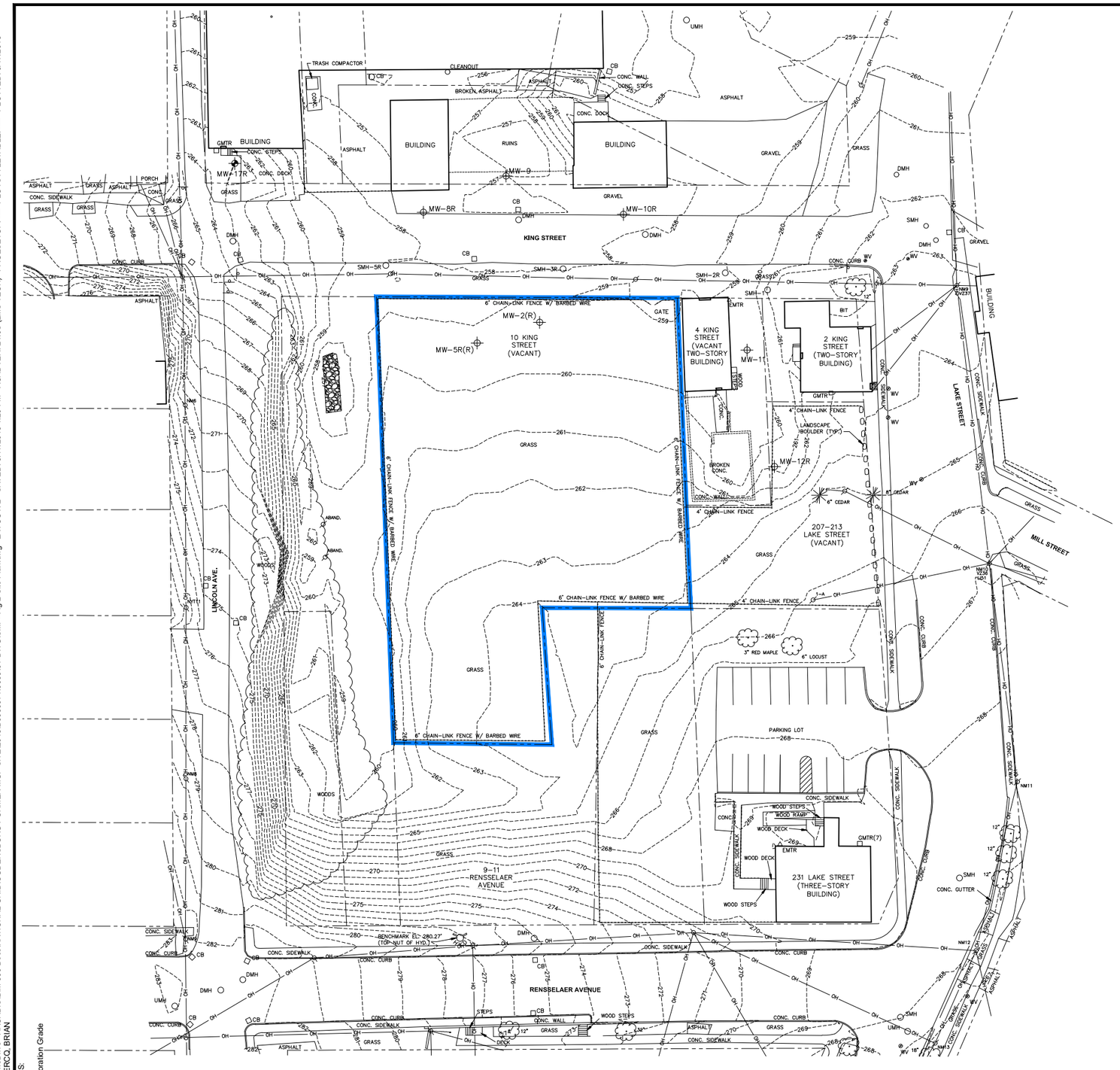
NATIONAL GRID
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
CITY OF OGDENSBURG, ST. LAWRENCE COUNTY, NEW YORK
SITE MANAGEMENT PLAN

SITE LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE
1

08/17/2018 (SYRACUSE, NY)CRANBURY-NJ-ENVCAD-DK.SARTORI
OneDrive - ARCADIS\BIM 360 Docs\NATIONAL GRID\OGDENSBURG FORMER MGP SITE\2018\B0036721.0003\01-DWG\366771N01.CDR



LEGEND:

- LIMIT OF SITE
- PROPERTY LINE (APPROXIMATE)
- 260 TOPOGRAPHIC CONTOUR (1-FOOT INTERVAL)
- EDGE OF BUILDING
- EDGE OF PAVEMENT/CONCRETE
- CHAIN-LINK FENCE
- RIPRAP
- CONIFEROUS TREE (SIZE IN DBH)
- 12" DECIDUOUS TREE (SIZE IN DBH)
- MW-10R MONITORING WELL
- CB CATCH BASIN
- SMH SANITARY MANHOLE
- DMH DRAINAGE MANHOLE
- UMH UNKNOWN MANHOLE
- WV WATER VALVE
- GMTR GAS METER
- EMTR ELECTRIC METER
- UTILITY POLE
- HYDRANT
- GUY WIRE
- OH OVERHEAD WIRES

NOTES:

1. HORIZONTAL REFERENCE DATUM IS THE NORTH AMERICAN DATUM OF 1983, NEW YORK STATE PLANE EAST ZONE.
2. VERTICAL REFERENCE DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988.

0 30' 60'
GRAPHIC SCALE

NATIONAL GRID
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
CITY OF OGDENSBURG, ST. LAWRENCE COUNTY, NEW YORK
SITE MANAGEMENT PLAN

SITE PLAN

ARCADIS Design & Consultancy for natural and built assets

FIGURE
2

CITY: SYRACUSE, NY DIV/GROUP: IMDV DB: B.GETTS LD: B.GETTS PIC: T.YOUNG PM: M.BENOIT TM: A.GEORGE LYR: ON=*;OFF=*REF*
C:\Users\bdeclercq\OneDrive - ARCADIS\BIM 360 Docs\NATIONAL GRID\OGDENSBURG FORMER MGP SITE\2018\B0036671.0003\01-DWG\SMP- Fig 2-Site Plan.dwg LAYOUT: 2 SAVED: 8/17/2018 1:20 PM ACADVER: 21.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 8/17/2018
1:20 PM BY: DECLERCQ, BRIAN
XREFS: IMAGES:
Design-X-Base
Design-X-Final Restoration Grade
Design-X-Utilities
SMP Fig-X-Title

MW-9		
Depth (feet)	4 – 4.5	6 – 6.4
Constituent	Result	Result
Acetone	**0.21 J**	**0.059 J**
Benzo(a)anthracene	**1.9 J**	**22**
Benzo(a)pyrene	**2.2**	**12**
Benzo(b)fluoranthene	**1.8 J**	**7.8 J**
Benzo(k)fluoranthene	**2.7**	**12 J**
Chrysene	**1.8 J**	**18**
Dibenzo(a,h)anthracene	**0.41 J**	**1.7 J**
Dibenzofuran	**1.1 J**	**21**
Fluorene	**3.0**	**32**
Indeno(1,2,3–cd)pyrene	**1.4 J**	**4.8 J**

B–19A	
Depth (feet)	5 – 6
Constituent	Result
Ethylbenzene	**3.4 J**
Xylene (total)	**25 J**
Benzo(a)anthracene	**18**
Benzo(a)pyrene	**16**
Benzo(b)fluoranthene	**11**
Benzo(k)fluoranthene	**18**
Chrysene	**16**
Dibenzo(a,h)anthracene	**1.8**
Indeno(1,2,3–cd)pyrene	**3.7**
Naphthalene	**75**

B–7	
Depth (feet)	4 – 4.6
Constituent	Result
Acetone	**0.43**
4–Methylphenol	**0.38 J**

B–6	
Depth (feet)	2 – 2.9
Constituent	Result
Acetone	**1.2**
Methyl Ethyl Ketone	**0.16**
4–Methylphenol	**0.45 J**
Benzo(a)anthracene	**20**
Benzo(a)pyrene	**27**
Benzo(b)fluoranthene	**32**
Benzo(k)fluoranthene	**17**
Chrysene	**17**
Dibenzo(a,h)anthracene	**4.6**
Indeno(1,2,3–cd)pyrene	**11**

B–21	
Depth (feet)	4 – 5.5
Constituent	Result
Acetone	**0.056**

B–17	
Depth (feet)	0 – 1
Constituent	Result
Benzo(a)anthracene	**1.3**
Benzo(a)pyrene	**1.8**
Benzo(b)fluoranthene	**1.3**
Benzo(k)fluoranthene	**2**
Chrysene	**1.2**
Indeno(1,2,3–cd)pyrene	**0.63**

B–25	
Depth (feet)	4 – 6
Constituent	Result
Acetone	**0.055**
Benzo(a)anthracene	**1.4**
Benzo(a)pyrene	**1.5**
Benzo(b)fluoranthene	**1.2**
Benzo(k)fluoranthene	**1.5**
Chrysene	**1.5**
Indeno(1,2,3–cd)pyrene	**0.71**

MW–10R		
Depth (feet)	0 – 1.5	4 – 5
Constituent	Result	Result
Acetone	**0.16 J [0.014 UJ]**	**0.16 J**
Benzo(a)anthracene	**19 [31]**	**0.56**
Benzo(a)pyrene	**21 [25]**	**0.75**
Benzo(b)fluoranthene	**21 J [23]**	**0.55 J**
Benzo(k)fluoranthene	**18 J [21]**	**0.63 J**
Chrysene	**18 J [29 J]**	**0.51**
Dibenzo(a,h)anthracene	**5.2 [4.7 J]**	**0.22 J**
Indeno(1,2,3–cd)pyrene	**12 J [21 J]**	**0.38**

B–26	
Depth (feet)	2 – 3.8
Constituent	Result
Acetone	**0.058**
Benzo(a)anthracene	**1.7**
Benzo(a)pyrene	**2.2**
Benzo(b)fluoranthene	**1.7**
Benzo(k)fluoranthene	**2.3**
Chrysene	**1.9**
Dibenzo(a,h)anthracene	**0.35**
Indeno(1,2,3–cd)pyrene	**1.1**

MW–11	
Depth (feet)	4 – 4.6
Constituent	Result
Methyl Ethyl Ketone	**0.31 J**
Benzo(a)anthracene	**6.4**
Benzo(a)pyrene	**9.2**
Benzo(b)fluoranthene	**6.2**
Benzo(k)fluoranthene	**7.7**
Chrysene	**5.1**
Dibenzo(a,h)anthracene	**1.5 J**
Indeno(1,2,3–cd)pyrene	**4**

B–27	
Depth (feet)	1.5 – 3.7
Constituent	Result
Benzo(a)anthracene	**5.1**
Benzo(a)pyrene	**7**
Benzo(b)fluoranthene	**8**
Benzo(k)fluoranthene	**8**
Chrysene	**5.5**
Dibenzo(a,h)anthracene	**0.83 J**
Indeno(1,2,3–cd)pyrene	**2.1 J**

PDI–SB5C	
Depth (feet)	2 – 4
Constituent	Result
Cyanide, Total	**53.5**

MW–12R	
Depth (feet)	2 – 2.8
Constituent	Result
Benzo(a)anthracene	**26**
Benzo(a)pyrene	**26**
Benzo(b)fluoranthene	**26**
Benzo(k)fluoranthene	**30**
Chrysene	**25**
Dibenzo(a,h)anthracene	**6.3 J**
Indeno(1,2,3–cd)pyrene	**22**
Cyanide	**44.6 J**

SS–03	
Depth (feet)	0 – 0.17
Constituent	Result
Benzo(a)anthracene	**8.7**
Benzo(a)pyrene	**8.4**
Benzo(b)fluoranthene	**9**
Benzo(k)fluoranthene	**6.9**
Chrysene	**8.7**
Dibenzo(a,h)anthracene	**2.5**
Indeno(1,2,3–cd)pyrene	**7.2**
4,4'–DDD	**0.027 JN**
4,4'–DDT	**0.022**
Dieldrin	**0.28 D**
Lead	**221**
Mercury	**0.21**
Zinc	**379**

PDI–SB6	
Depth (feet)	2 – 4
Constituent	Result
Cyanide, Total	**34**

B–11		
Depth (feet)	2 – 4	4 – 4.9
Constituent	Result	Result
Acetone	**0.067**	**0.064**
Cyanide	**35**	**102**

B–10	
Depth (feet)	0 – 0.5
Constituent	Result
Acetone	**0.059**
Benzo(a)anthracene	**1.3**
Benzo(a)pyrene	**1.5**
Benzo(b)fluoranthene	**1.4**
Benzo(k)fluoranthene	**1.5**
Chrysene	**1.2**
Indeno(1,2,3–cd)pyrene	**0.98**

B–16	
Depth (feet)	4 – 6
Constituent	Result
Benzene	**0.77 J**
Toluene	**0.84 J**
Xylene (total)	**0.81 J**
4–Methylphenol	**0.90 J**
Anthracene	**210**
Benzo(a)anthracene	**190**
Benzo(a)pyrene	**180**
Benzo(b)fluoranthene	**180**
Benzo(k)fluoranthene	**210**
Chrysene	**180**
Dibenzo(a,h)anthracene	**38**
Dibenzofuran	**110**
Fluoranthene	**580**
Fluorene	**81**
Indeno(1,2,3–cd)pyrene	**100**
Naphthalene	**390**
Phenanthrene	**730**
Pyrene	**420**

MW–4R	
Depth (feet)	2 – 2.5
Constituent	Result
Acetone	**0.073**
Benzo(a)anthracene	**9**
Benzo(a)pyrene	**9.9**
Benzo(b)fluoranthene	**8.9 J**
Benzo(k)fluoranthene	**7.6 J**
Chrysene	**7.7**
Dibenzo(a,h)anthracene	**2.1**
Indeno(1,2,3–cd)pyrene	**5.3**

B–9		
Depth (feet)	0 – 0.9	2 – 2.3
Constituent	Result	Result
2–Methylphenol	**8.7 J [5.8 J]**	120 U
4–Methylphenol	**23 J [18 J]**	240 U
Acenaphthene	**160 J [72 J]**	**86 J**
Acenaphthylene	**140 J [100 J]**	**22 J**
Anthracene	**430 [240 J]**	**160**
Benzo(a)anthracene	**590 J [390 J]**	**200**
Benzo(a)pyrene	**470 J [310 J]**	**160**
Benzo(b)fluoranthene	**430 J [320 J]**	**120**
Benzo(g,h,i)perylene	**190 J [110 J]**	**65 J**
Benzo(k)fluoranthene	**360 J [200 J]**	**150 J**
Chrysene	**540 J [370 J]**	**190**
Dibenzo(a,h)anthracene	**90 J [53 J]**	**32 J**
Dibenzofuran	**230 J [130 J]**	**80 J**
Fluoranthene	**1,500 D [1,100 D]**	**470**
Fluorene	**290 J [140 J]**	**110 J**
Indeno(1,2,3–cd)pyrene	**230 J [140 J]**	**79 J**
Naphthalene	**240 J [140 J]**	**86 J**
Phenanthrene	**1,800 D [1,200 D]**	**570**
Phenol	**10 J [9.4 J]**	120 U
Pyrene	**1,200 D [830 JD]**	**360**

NOTES:

1. SAMPLE RESULTS ARE PRESENTED IN UNITS OF MILLIGRAMS PER KILOGRAM. FIELD DUPLICATE RESULTS ARE PRESENTED IN BRACKETS.
2. DETECTED ANALYTES ARE SHOWN IN BOLD. CONCENTRATIONS EXCEEDING THE SOIL CLEANUP OBJECTIVES FOR UNRESTRICTED USE ARE SHADED.
3. D – CONCENTRATION IS BASED ON A DILUTED SAMPLE ANALYSIS.
   J – CONCENTRATION IS LESS THAN THE REPORTING LIMIT, BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT. THE REPORTED CONCENTRATION IS AN ESTIMATE.
   U – ANALYTE WAS NOT DETECTED IN THE SAMPLE. THE REPORTED CONCENTRATION IS THE REPORTING LIMIT.

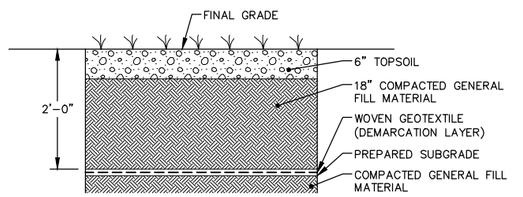
PLAN 1

0 30' 60'

SCALE: 1"=30'

LEGEND:

- LIMIT OF SITE
- PROPERTY LINE (APPROXIMATE)
- 260 TOPOGRAPHIC CONTOUR (1–FOOT INTERVAL)
- EDGE OF BUILDING
- EDGE OF PAVEMENT/CONCRETE
- CHAIN–LINK FENCE
- RIPRAP
- CONIFEROUS TREE (SIZE IN DBH)
- 12" DECIDUOUS TREE (SIZE IN DBH)
- HORIZONTAL LIMIT OF REMEDIAL EXCAVATION
- SOIL COVER SYSTEM 2/3
- AREA OF POTENTIAL REMAINING MGP–RELATED IMPACTS BELOW SOIL COVER SYSTEM
- SAMPLE LOCATION WITH ONE OR MORE CONSTITUENTS DETECTED AT CONCENTRATIONS GREATER THAN SOIL CLEANUP OBJECTIVES FOR UNRESTRICTED USE
- NAPL OBSERVED IN BEDROCK
- STAINING AND/OR ODOR OBSERVED IN OVERBURDEN
- MW–10R MONITORING WELL
- MW–5R FORMER (DECOMMISSIONED) MONITORING WELL
- B–1 SOIL BORING
- SS–01 SURFACE SOIL SAMPLE
- CB CATCH BASIN
- SMH SANITARY MANHOLE
- DMH DRAINAGE MANHOLE
- UMH UNKNOWN MANHOLE
- WV WATER VALVE
- GMTR GAS METER
- EMTR ELECTRIC METER
- UTILITY POLE
- HYDRANT
- GUY WIRE
- OH OVERHEAD WIRES



SOIL COVER SYSTEM 2

NOT TO SCALE

NATIONAL GRID
OGDENSBURG (KING STREET) NON–OWNED FORMER MGP SITE
CITY OF OGDENSBURG, ST. LAWRENCE COUNTY, NEW YORK
SITE MANAGEMENT PLAN

AREAS OF POTENTIAL REMAINING MGP–RELATED IMPACTS

ARCADIS Design & Consultancy for natural and built assets

FIGURE 3

CITY: SYRACUSE, NY DIV/GROUP: IMDV DB: B.GETTS LD: B.GETTS PIC: T.YOUNG PM: M.BENOIT TM: A.GEORGE LYR: ON=*;OFF=*REF*
C:\Users\bdederic\OneDrive - ARCADIS\BIM 360 Docs\NATIONAL GRID\OGDENSBURG FORMER MGP SITE\2018\B0036671.0003\01-DWG\SMP-Fig 3-Potential Remaining Impacts.dwg LAYOUT: 3 SAVED: 8/17/2018 2:40 PM ACADVER: 21.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ----
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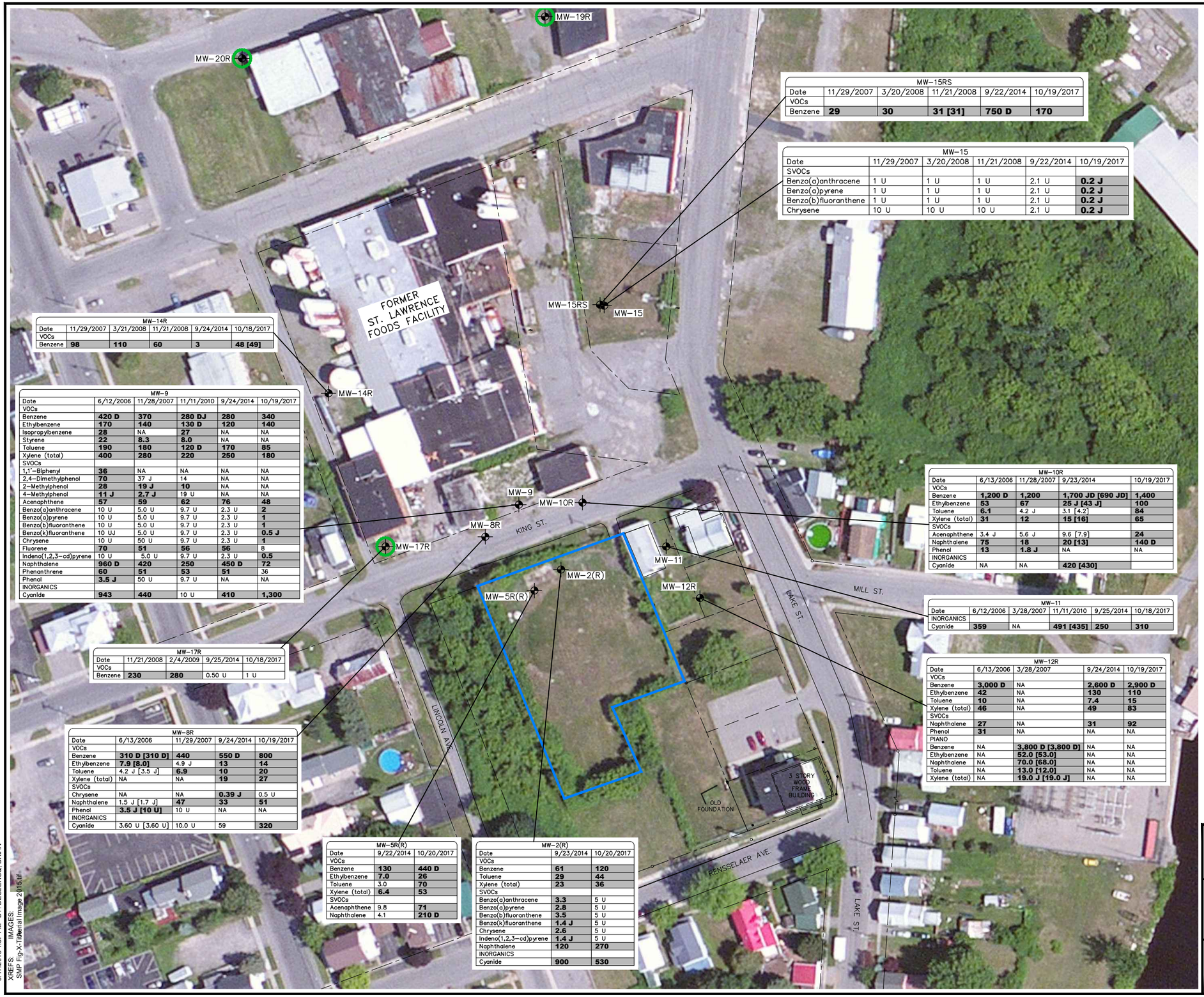
XREFS:
IMAGES:
Design-X-Base
Design-X-Final Restoration Grade
Design-X-Utilities
SMP Fig-X-Title



MW-15RS

Date	11/29/2007	3/20/2008	11/21/2008	9/22/2014	10/19/2017
VOCs					
Benzene	**29**	**30**	**31 [31]**	**750 D**	**170**

MW-15

Date	11/29/2007	3/20/2008	11/21/2008	9/22/2014	10/19/2017
SVOCs					
Benzo(a)anthracene	1 U	1 U	1 U	2.1 U	**0.2 J**
Benzo(a)pyrene	1 U	1 U	1 U	2.1 U	**0.2 J**
Benzo(b)fluoranthene	1 U	1 U	1 U	2.1 U	**0.2 J**
Chrysene	10 U	10 U	10 U	2.1 U	**0.2 J**

MW-14R

Date	11/29/2007	3/21/2008	11/21/2008	9/24/2014	10/18/2017
VOCs					
Benzene	**98**	**110**	**60**	**3**	**48 [49]**

MW-9

Date	6/12/2006	11/28/2007	11/11/2010	9/24/2014	10/19/2017
VOCs					
Benzene	**420 D**	**370**	**280 DJ**	**280**	**340**
Ethylbenzene	**170**	**140**	**130 D**	**120**	**140**
Isopropylbenzene	**28**	NA	**27**	NA	NA
Styrene	**22**	**8.3**	**8.0**	NA	NA
Toluene	**190**	**180**	**120 D**	**170**	**85**
Xylene (total)	**400**	**280**	**220**	**250**	**180**
SVOCs					
1,1'-Biphenyl	**36**	NA	NA	NA	NA
2,4-Dimethylphenol	**70**	37 J	14	NA	NA
2-Methylphenol	**28**	**19 J**	**10**	NA	NA
4-Methylphenol	**11 J**	**2.7 J**	19 U	NA	NA
Acenaphthene	**57**	**59**	**62**	**78**	**48**
Benzo(a)anthracene	10 U	5.0 U	9.7 U	2.3 U	**2**
Benzo(a)pyrene	10 U	5.0 U	9.7 U	2.3 U	**1**
Benzo(b)fluoranthene	10 U	5.0 U	9.7 U	2.3 U	**1**
Benzo(k)fluoranthene	10 UJ	5.0 U	9.7 U	2.3 U	**0.5 J**
Chrysene	10 U	50 U	9.7 U	2.3 U	**1**
Fluorene	**70**	**51**	**56**	**56**	8
Indeno(1,2,3-cd)pyrene	10 U	5.0 U	9.7 U	2.3 U	**0.5**
Naphthalene	**960 D**	**420**	**250**	**450 D**	**72**
Phenanthrene	**60**	**51**	**53**	**51**	36
Phenol	**3.5 J**	50 U	9.7 U	NA	NA
INORGANICS					
Cyanide	**943**	**440**	10 U	**410**	**1,300**

MW-10R

Date	6/13/2006	11/28/2007	9/23/2014	10/19/2017
VOCs				
Benzene	**1,200 D**	**1,200**	**1,700 JD [690 JD]**	**1,400**
Ethylbenzene	**53**	**67**	**25 J [43 J]**	**100**
Toluene	**6.1**	4.2 J	3.1 [4.2]	**84**
Xylene (total)	**31**	**12**	**15 [16]**	**65**
SVOCs				
Acenaphthene	3.4 J	5.6 J	9.6 [7.9]	**24**
Naphthalene	**75**	**18**	**20 [13]**	**140 D**
Phenol	**13**	**1.8 J**	NA	NA
INORGANICS				
Cyanide	NA	NA	**420 [430]**	

MW-11

Date	6/12/2006	3/28/2007	11/11/2010	9/25/2014	10/18/2017
INORGANICS					
Cyanide	**359**	NA	**491 [435]**	**250**	**310**

MW-12R

Date	6/13/2006	3/28/2007	9/24/2014	10/19/2017
VOCs				
Benzene	**3,000 D**	NA	**2,600 D**	**2,900 D**
Ethylbenzene	**42**	NA	**130**	**110**
Toluene	**10**	NA	**7.4**	**15**
Xylene (total)	**46**	NA	**49**	**83**
SVOCs				
Naphthalene	**27**	NA	**31**	**92**
Phenol	**31**	NA	NA	NA
PIANO				
Benzene	NA	**3,800 D [3,800 D]**	NA	NA
Ethylbenzene	NA	**52.0 [53.0]**	NA	NA
Naphthalene	NA	**70.0 [68.0]**	NA	NA
Toluene	NA	**13.0 [12.0]**	NA	NA
Xylene (total)	NA	**19.0 J [19.0 J]**	NA	NA

MW-17R

Date	11/21/2008	2/4/2009	9/25/2014	10/18/2017
VOCs				
Benzene	**230**	**280**	0.50 U	1 U

MW-8R

Date	6/13/2006	11/29/2007	9/24/2014	10/19/2017
VOCs				
Benzene	**310 D [310 D]**	**440**	**550 D**	**800**
Ethylbenzene	**7.9 [8.0]**	4.9 J	**13**	**14**
Toluene	4.2 J [3.5 J]	**6.9**	**10**	**20**
Xylene (total)	NA	NA	**19**	**27**
SVOCs				
Chrysene	NA	NA	**0.39 J**	0.5 U
Naphthalene	1.5 J [1.7 J]	**47**	**33**	**51**
Phenol	**3.5 J [10 U]**	10 U	NA	NA
INORGANICS				
Cyanide	3.60 U [3.60 U]	10.0 U	59	**320**

MW-5R(R)

Date	9/22/2014	10/20/2017
VOCs		
Benzene	**130**	**440 D**
Ethylbenzene	**7.0**	**26**
Toluene	3.0	**70**
Xylene (total)	**6.4**	**53**
SVOCs		
Acenaphthene	9.8	**71**
Naphthalene	4.1	**210 D**

MW-2(R)

Date	9/23/2014	10/20/2017
VOCs		
Benzene	**61**	**120**
Toluene	**29**	**44**
Xylene (total)	**23**	**36**
SVOCs		
Benzo(a)anthracene	**3.3**	5 U
Benzo(a)pyrene	**2.8**	5 U
Benzo(b)fluoranthene	**3.5**	5 U
Benzo(k)fluoranthene	**1.4 J**	5 U
Chrysene	**2.6**	5 U
Indeno(1,2,3-cd)pyrene	**1.4 J**	5 U
Naphthalene	**120**	**270**
INORGANICS		
Cyanide	**900**	**530**

LEGEND:

- LIMIT OF SITE
- APPROXIMATE ROAD RIGHT-OF-WAY
- MW-15 — MONITORING WELL
- MONITORING WELL WITH POST-REMEDIATION GROUNDWATER SAMPLE CONCENTRATIONS LESS THAN APPLICABLE NEW YORK STATE CLASS GA AMBIENT WATER QUALITY STANDARDS OR GUIDANCE VALUES

NOTES:

1. BASE MAP FROM SURVEY BY WCT SURVEYORS, P.C., ON 11/21/2003, 12/22/2003 AND 4/7/2004. BASE MAP UPDATED BY C.T. MALE SURVEYORS ON SEPTEMBER 7, 2006.
2. SAMPLE CONCENTRATIONS ARE PRESENTED IN UNITS OF MICROGRAMS PER LITER.
3. BOLDED/SHADED CONCENTRATIONS EXCEED THE APPLICABLE NEW YORK STATE CLASS GA AMBIENT WATER QUALITY STANDARDS OR GUIDANCE VALUES.
4. NA = NOT ANALYZED.
5. D = CONCENTRATION IS BASED ON DILUTED SAMPLE ANALYSIS.
6. J = CONCENTRATION IS LESS THAN REPORTING LIMIT (RL), BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT. THE REPORTED CONCENTRATION IS AN ESTIMATE.
7. U = ANALYTE WAS NOT DETECTED IN THE SAMPLE. THE REPORTED CONCENTRATION IS THE RL.
8. UJ = DETECTION LIMIT IS ESTIMATED.

0 50' 100'
GRAPHIC SCALE

NATIONAL GRID
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
CITY OF OGDENSBURG, ST. LAWRENCE COUNTY, NEW YORK
SITE MANAGEMENT PLAN

MONITORING WELL LOCATIONS AND GROUNDWATER SAMPLING RESULTS

ARCADIS Design & Consultancy for natural and built assets

FIGURE
4

CITY: SYRACUSE, NY DIV/GROUP: IMDV DB: B.GETTS LD: B.GETTS PIC: T.YOUNG PM: M.BENOIT TM: A.GEORGE LYR: ON=*;OFF=*REF*
C:\Users\bdeclerq\OneDrive - ARCADIS\BIM 360 Docs\NATIONAL GRID\OGDENSBURG FORMER MGP SITE\2018\B0036671.0003\01-DWG\SMP-Fig 4-MW & GW Results.DWG LAYOUT: 4 SAVED: 8/17/2018 1:54 PM ACADVER: 21.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 8/17/2018 1:57 PM BY: DECLERCQ, BRIAN
XREFS: IMAGES:
SMP Fig-X-TitleMaterial Image 2015.tif

APPENDICES

APPENDIX A

Declaration of Covenants and Restrictions

ST LAWRENCE COUNTY – STATE OF NEW YORK
MARY LOU RUPP, COUNTY CLERK
48 COURT STREET, CANTON, NEW YORK 13617

COUNTY CLERK'S RECORDING PAGE
*****THIS PAGE IS PART OF THE DOCUMENT – DO NOT DETACH*****

INSTRUMENT #: R-2018-00009571

Receipt#: 2018561173
Clerk: NT
Rec Date: 07/30/2018 12:31:34 PM
Doc Grp: RP
Descrip: MISCELLANEOUS RECORDING
Num Pgs: 10

Party1: ST LAWRENCE GAS CO INC
Party2: NIAGARA MOHAWK POWER CORP

Recording:

Pages	50.00
Recording Fee	20.00
Cultural Ed	14.25
Records Management - Coun	1.00
Records Management - Stat	4.75
Total:	90.00

****** NOTICE: THIS IS NOT A BILL ******

Record and Return To:

JOAN M LAMSON
BARCLAY DAMON LLP/BARCLAY DAMON TOWER
125 EAST JEFFERSON STREET
SYRACUSE NY 13202
ENV

Mary L Rupp

Mary Lou Rupp
St Lawrence County Clerk

WARNING***
** Information may change during the verification process and may not be reflected on this page.

2018561173

R-2018-00009571
07/30/2018 12:31:34 PM
MISCELLANEOUS RECORDING
10 Pages
Mary Lou Rupp, St Lawrence County Clerk

DECLARATION of COVENANTS and RESTRICTIONS

THIS COVENANT is made the 20th day of February 2018, by St. Lawrence Gas Company, Inc., a corporation organized and existing under the laws of the State of New York and having an office for the transaction of business at 33 Stearns Street, Massena, New York, 13662

WHEREAS, the Ogdensburg Former Manufactured Gas Plan Site (Site No. V00479) is the subject of a Voluntary Consent Order (Index No. D0-0001-0011) executed by Niagara Mohawk Power Corporation, a National Grid Company ("National Grid"), as part of the New York State Department of Environmental Conservation's (the "Department's) Voluntary Cleanup Program, includes that parcel of real property located on 10 King Street in the City of Ogdensburg, County of St. Lawrence, State of New York, which is part of lands conveyed by Niagara Mohawk Power Corporation to St. Lawrence Gas Company, Inc. by deed dated July 31, 1962 and recorded in the St. Lawrence County Clerk's Office in Liber and Page 708/304, and being more particularly described in Appendix "A," attached to this declaration and made a part hereof, and hereinafter referred to as "the Property";

WHEREAS, the Department approved a remedy to eliminate or mitigate all significant threats to the environment presented by the contamination disposed at the Property and such remedy requires that the Property be subject to restrictive covenants; and

WHEREAS, this Declaration of Covenants and Restrictions is intended to supersede a previously executed Agreement and Declaration of Covenants and Restrictions, dated October 10, 2006, and recorded in the St. Lawrence County Clerk's Office on March 20, 2007 as Instrument No. R-2007-0004323, regarding the property at 10 King Street in the City of Ogdensburg, St. Lawrence County, New York

NOW, THEREFORE, St. Lawrence Gas Company, Inc., for itself and its successors and/or assigns, covenants that:

First, the Property subject to this Declaration of Covenants and Restrictions is as shown on a map attached to this declaration as Appendix "B" and made a part hereof.

Second, unless prior written approval by the Department or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency," is first obtained, where contamination remains at the Property subject to the provisions of the Site Management Plan ("SMP"), there shall be no construction, use or occupancy of the Property that results in the disturbance or excavation of the Property which

threatens the integrity of the engineering controls or which results in unacceptable human exposure to contaminated soils.

Third, the owner of the Property shall not disturb, remove, or otherwise interfere with the installation, use, operation, and maintenance of engineering controls required for the Remedy, which are described in the SMP, unless in each instance the owner first obtains a written waiver of such prohibition from the Department or Relevant Agency.

Fourth, the owner of the Property shall prohibit the Property from ever being used for purposes other than for Restricted Residential as described in 6 NYCRR Part 375-1.8(g)(2)(ii), Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) or Industrial as described in 6 NYCRR Part 375-1.8(2)(iv) without the express written waiver of such prohibition by the Department or Relevant Agency.

Fifth, the owner of the Property shall prohibit the use of the groundwater underlying the Property without treatment to render it safe for drinking water or for industrial purposes, as appropriate, and the user must first notify and obtain written approval to do so from the Department or Relevant Agency.

Sixth, the owner of the Property shall cooperate with National Grid, or its successor or assignee, to enable National Grid to provide a periodic certification, prepared and submitted by a professional engineer or environmental professional acceptable to the Department or Relevant Agency, which will certify that the institutional and engineering controls put in place are unchanged from the previous certification, comply with the SMP, and have not been impaired.

Seventh, the owner of the Property shall cooperate with National Grid, or its successor or assignee, to enable National Grid to continue in full force and effect any institutional and engineering controls required for the Remedy and maintain such controls, unless the owner or National Grid first obtains permission to discontinue such controls from the Department or Relevant Agency, in compliance with the approved SMP, which is incorporated and made enforceable hereto, subject to modifications as approved by the Department or Relevant Agency, and subject to Appendix X of the SMP, which delineates the responsibilities between National Grid and the owner of the Property for implementing the SMP. If the owner fails to cooperate pursuant to the terms of this paragraph, National Grid at its cost and on behalf of the owner shall comply with the terms of this paragraph.

Eighth, this Declaration is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Property, and shall provide that the owner and its successors and assigns consent to enforcement by the Department or Relevant Agency of the prohibitions and restrictions that the Voluntary Cleanup Order requires to be recorded, and

hereby covenant not to contest the authority of the Department or Relevant Agency to seek enforcement.

Ninth, any deed of conveyance of the Property, or any portion thereof, shall recite, unless the Department or Relevant Agency has consented to the termination of such covenants and restrictions, that said conveyance is subject to this Declaration of Covenants and Restrictions.

Tenth, this Declaration of Covenants and Restrictions shall supersede the prior Agreement and Declaration of Covenants and Restrictions, dated October 10, 2006, and recorded in the St. Lawrence County Clerk's Office on March 20, 2007 as Instrument No. R-2007-0004323, executed by St. Lawrence Gas Company, Inc. and Niagara Mohawk Power Corporation, a National Grid Company, regarding the property at 10 King Street in the City of Ogdensburg, St. Lawrence County, New York.

Eleventh, to the extent there is any conflict or inconsistency between the terms of this Declaration of Covenants and Restrictions and the SMP, the terms of the SMP, including Appendix X of the SMP which delineates the responsibilities of National Grid and the owner of the Property, will control.

IN WITNESS WHEREOF, the undersigned has executed this instrument the day written below.

By: _____

Print Name: Gilles Volpe

Title: General Manager Date: 2015/02/20

STATE OF NEW YORK)

) s.s.:

COUNTY OF ST.LAWRENCE)

On the 20th day of February, in the year 2018 before me, the undersigned, personally appeared Gilles Volpé, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Amy L. Fayette

Notary Public State of New York

AMY L. FAYETTE
Notary Public, State of New York
No. 01FA6158402
Qualified In St. Lawrence County
Commission Expires Jan. 2, 2019

APPENDIX "A"

Environmental Deed Restriction
To be Acquired by
New York State Department of Environmental Conservation
from
St. Lawrence Gas Company, Inc.

Surveyor's Description
Contains: 0.769 acres

All that tract or parcel of land situate in the City of Ogdensburg, County of St. Lawrence, State of New York, and being more precisely described as follows:

Beginning at a 5/8-inch rebar with a 1 1/4-inch diameter red plastic cap marked "THEW ASSOCIATES - CANTON, NY" (hereinafter referred to as a 5/8-inch rebar) set on the southerly bounds of King Street (60-foot width), said rebar being at the northwesterly corner of Lot 15 in Section B as shown on a map titled "Plan of the Ogdensburg Water Power Lots" copied in part from R. Tate's map of 1838 by W.B. Gilbert, and recorded in the St. Lawrence County Clerk's Office on April 18, 1842, in Book 2 of Maps at Page 103, said rebar also being at the northwesterly corner of a parcel of land conveyed by Paul John Boyer and Edgar Lawrence Boyer to Edgar Lawrence Boyer by deed dated October 10, 2002 and recorded in the St. Lawrence County Clerk's Office on October 11, 2002 as Instrument No. 2002-00017724, said rebar having New York State plane coordinates (NAD83/2011 - East Zone) of 2,136,619.27 feet North and 233,047.24 feet East;

thence South 22 degrees 31 minutes 37 seconds East, in part along the westerly line of Edgar Lawrence Boyer and in part along the westerly line of a parcel of land conveyed by Randy J. Huot to Niagara Mohawk Power Corporation by deed dated January 29, 2007 and recorded in the St. Lawrence County Clerk's Office on January 29, 2007 as Instrument No. 2007-0001371, a distance of 166.99 feet to a 5/8-inch rebar set at the northeasterly corner of a parcel of land conveyed by A.J. Missert, Inc. to the Association for Neighborhood Rehabilitation, Inc. by deed dated June 28, 1996 and recorded in the St. Lawrence County Clerk's Office on July 1, 1996 in Liber 1099 of Deeds at Page 782, said rebar also being at the southwesterly corner of Lot 13 in Section B of said Ogdensburg Water Power Lots, said course passing over a 5/8-inch rebar set at the northwesterly corner of said Lot 13 at a distance of 111.99 feet;

thence South 69 degrees 23 minutes 18 seconds West, in part along the northerly line of the Association for Neighborhood Rehabilitation, Inc. and in part along the northerly line of a parcel of land conveyed by A.J. Missert, Inc. to John F. and Isabelle Andrews by deed dated October 19, 1973 and recorded in the St. Lawrence County Clerk's Office on October 19, 1973 in Liber 885 of Deeds at Page 202, a distance of 72.30 feet to a point, said point being North 13 degrees 39 minutes 03 seconds West a distance of 1.09 feet from a found 1/2-inch rebar (flush with grade);

thence continuing along the northerly line of John F. and Isabelle Andrews, the following two courses and distances:

1. South 24 degrees 44 minutes 19 seconds East, a distance of 73.90 feet to a point, said point being North 83 degrees 23 minutes 47 seconds East a distance of 0.29 feet from a found 5/8-inch rebar with a 1 1/4-inch diameter yellow plastic cap marked "Wilhelm Chatelle Towne" (0.5 feet below grade);

2. South 70 degrees 43 minutes 28 seconds West, a distance of 84.36 feet to a 5/8-inch rebar set on the easterly line of a parcel of land conveyed by Lighthouse Point Corporation to the City of Ogdensburg by deed dated January 23, 1990 and recorded in the St. Lawrence County Clerk's Office on March 23, 1990 in Liber 1038 of Deeds at Page 164, said rebar also being on the former easterly bounds of the Rome, Watertown, and Ogdensburgh Railroad, said course passing over a 5/8-inch rebar with a 1 1/4-inch diameter orange plastic cap marked "A&C - RS 050801" flush with grade found at a distance of 8.04 feet;

thence along the easterly line of City of Ogdensburg and along the former easterly bounds of the Rome, Watertown, and Ogdensburgh Railroad, the following three courses and distances:

1. North 22 degrees 49 minutes 43 seconds West, a distance of 71.80 feet to a point;

2. South 69 degrees 23 minutes 18 seconds West, a distance of 12.90 feet to a set 5/8-inch rebar, said course passing over a found 1 1/2-inch iron pipe (0.1 feet below grade - disturbed) found at a distance of 9.85 feet;

3. North 20 degrees 07 minutes 19 seconds West, a distance of 168.89 feet to a 5/8-inch rebar set on the southerly bounds of King Street;

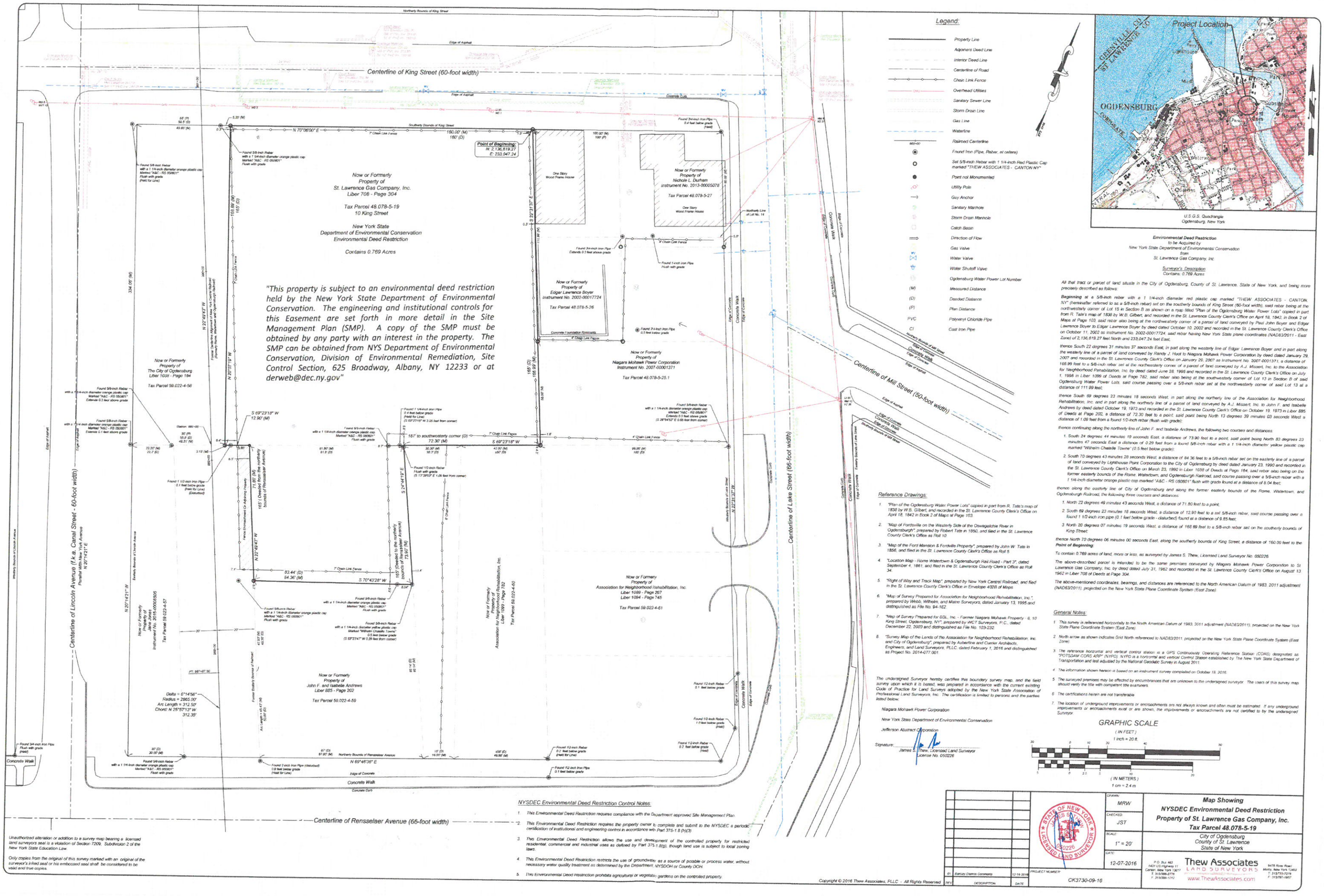
thence North 70 degrees 06 minutes 00 seconds East, along the southerly bounds of King Street, a distance of 160.00 feet to the Point of Beginning;

To contain 0.769 acres of land, more or less, as surveyed by James S. Thew, Licensed Land Surveyor No. 050226.

The above-described parcel is intended to be the same premises conveyed by Niagara Mohawk Power Corporation to St. Lawrence Gas Company, Inc. by deed dated July 31, 1962 and recorded in the St. Lawrence County Clerk's Office on August 13, 1962 in Liber 708 of Deeds at Page 304.

The above-mentioned coordinates, bearings, and distances are referenced to the North American Datum of 1983, 2011 adjustment (NAD83/2011), projected on the New York State Plane Coordinate System (East Zone).

APPENDIX "B"


Centerline of King Street (60-foot width)
Northerly Bounds of King Street
Edge of Asphalt
Southerly Bounds of King Street
Edge of Asphalt
Concrete Curb
Found 3/4-inch Iron Pipe 0.4 feet below grade (Held)
N 70°08'00" E
160.00' (M)
160' (D)
100.00' (M)
100' (P)
7' Chain Link Fence
Point of Beginning:
N: 2,136,619.27
E: 233,047.24
Found 5/8-inch Rebar with a 1 1/4-inch diameter orange plastic cap Marked "A&C - RS 050801" Flush with grade (Held for Line)
Found 5/8-inch Rebar with a 1 1/4-inch diameter orange plastic cap Marked "A&C - RS 050801" Flush with grade
Now or Formerly Property of St. Lawrence Gas Company, Inc. Liber 708 - Page 304
Tax Parcel 48.078-5-19
10 King Street
New York State Department of Environmental Conservation Environmental Deed Restriction
Contains 0.769 Acres
One Story Wood Frame House
Now or Formerly Property of Nichole L. Durham Instrument No. 2013-00005078
Tax Parcel 48.078-5-27
One Story Wood Frame House
Northerly Line of Lot No. 14
Found 3/4-inch Iron Pipe Extends 0.3 feet above grade
4' Chain Link Fence
Found 1-inch Iron Pipe Flush with grade
Now or Formerly Property of Edgar Lawrence Boyer Instrument No. 2002-00017724
Tax Parcel 48.078-5-26
Concrete Foundation Remnants
Found 3/4-inch Iron Pipe 0.5 feet below grade
Now or Formerly Property of Niagara Mohawk Power Corporation Instrument No. 2007-00001371
Tax Parcel 48.078-5-25.1
Edge of Concrete
Concrete Walk
Edge of Concrete
Centerline of Mill Street (50-foot width)
Edge of Asphalt
Edge of Asphalt
Northerly Bounds of Mill Street
Concrete Walk
Edge of Concrete
Edge of Asphalt
Found 5/8-inch Rebar with a 1 1/4-inch diameter orange plastic cap Marked "A&C - RS 050801" Extends 0.3 feet above grade
Found 5/8-inch Rebar with a 1 1/4-inch diameter orange plastic cap Marked "A&C - RS 050801" Extends 0.1 feet above grade
Found 1 1/4-inch Iron Pipe 0.4 feet below grade (Held for Line) (S 69°23'18" W 3.25 feet from corner)
Found 5/8-inch Rebar with a 1 1/4-inch diameter orange plastic cap Marked "A&C - RS 050801" Flush with grade
187' to southwesterly corner (D)
72.30' (M)
S 69°23'18" W
30.30' (M) 30.7' (D)
42.00' (M) 100' (D)
99.95' (M) 100' (D)
Found 5/8-inch Rebar with a 1 1/4-inch diameter orange plastic cap Marked "A&C - RS 050801" Extends 0.3 feet above grade (S 28°54'52" E 0.69 feet from corner)
Found 1/2-inch Rebar Flush with grade (S 13°39'03" E 1.26 feet from corner)
S 24°44'10" E
Found 1 1/2-inch Iron Pipe 0.1 feet below grade (Held for Line) (Disturbed)
71.80' (M) 72.1' (D)
165' (Deeded to the northerly bounds of Rensselaer Avenue)
N 22°48'47" W
7' Chain Link Fence
83.44' (D)
84.36' (M)
S 70°43'28" W
Found 5/8-inch Rebar with a 1 1/4-inch diameter orange plastic cap Marked "A&C - RS 050801" Flush with grade
Found 5/8-inch Rebar with a 1 1/4-inch diameter yellow plastic cap Marked "Wilhelm Chastelle Towne" 0.5 feet below grade (S 83°23'47" W 0.28 feet from corner)
Now or Formerly Property of Association for Neighborhood Rehabilitation, Inc. Liber 1089 - Page 267, Liber 1094 - Page 745
Tax Parcel 59.022-4-61
Now or Formerly Property of Association for Neighborhood Rehabilitation, Inc. Liber 1089 - Page 262
Tax Parcel 59.022-4-60
Now or Formerly Property of John F. and Isabelle Andrews Liber 885 - Page 202
Tax Parcel 59.022-4-59
Now or Formerly Property of The City of Ogdensburg Liber 1038 - Page 184
Tax Parcel 59.022-4-58
Now or Formerly Property of Ann Jones Instrument No. 2005-00005805
Tax Parcel 59.022-4-57
Centerline of Lincoln Avenue (f.k.a. Canal Street - 60-foot width)
Parallel With New York Avenue
N 20°14'21" E
Easterly Bounds of Lincoln Avenue
Westerly Bounds of Lincoln Avenue
N 20°14'21" W
N 24°49'43" W
Former Centerline Of Abandoned Railroad (Formerly Rome, Watertown and Ogdensburg Railroad)
N 20°07'15" W
Fence Encroachment On Adjoining Property
Found 5/8-inch Rebar with a 1 1/4-inch diameter orange plastic cap Marked "A&C - RS 050801" Extends 0.1 feet above grade
Found 3/4-inch Iron Pipe Flush with grade (Held)
Concrete Walk
Edge of Asphalt
Edge of Asphalt
Station: 986+00
50' (P) 55.8' (D) 48.31' (M)
73.20' (M) 73.2' (D)
3.15' (M)
6.4'
6.5'
6.8'
6.5'
6.6'
7.1'
6.5'
6.6'
6.4'
6.5'
6.5'
6.5

APPENDIX B

Responsibilities of Site Owner and Remedial Party

RESPONSIBILITIES OF SITE OWNER AND REMEDIAL PARTY

The responsibilities for implementing the *Site Management Plan* (SMP) for the Ogdensburg former manufactured gas plant site (hereinafter, the "Site") are divided between St. Lawrence Gas Company, Inc. (hereinafter referred to as "Site Owner") and Niagara Mohawk Power Corporation, doing business as National Grid (hereinafter referred to as "Remedial Party"). The current contact information for Site Owner and Remedial Party is presented in Appendix D of the SMP.

Responsibilities of Site Owner

1. Site Owner shall follow the provisions of the SMP as they relate to future construction and excavation at the Site to the extent such activities are unrelated to remediation or post-remediation activities, which remain the responsibility of Remedial Party.
2. In accordance with a periodic time frame determined by the New York State Department of Environmental Conservation (NYSDEC), Remedial Party shall periodically certify, in writing, that all institutional controls set forth in the Declaration of Covenants and Restrictions (hereinafter, the "Deed Restriction"; provided in Appendix A of the SMP) remain in place and continue to be complied with. Site Owner shall provide a written certification to Remedial Party, upon Remedial Party's request, in order to allow Remedial Party to include the above certification in the Site's periodic review report certification to the NYSDEC.
3. In the event the Site is delisted, Site Owner remains bound by the Deed Restriction and shall submit, upon request by the NYSDEC, a written certification that the Deed Restriction is still in place.
4. Site Owner shall grant access to the Site to Remedial Party and the NYSDEC and its agents for the purposes of performing activities required under the SMP and assuring compliance with the SMP.
5. In the event that damage to the remedial components or vandalism is evident, Site Owner shall notify Remedial Party and the NYSDEC in accordance with the time frames indicated in Section 1.3 of the SMP.
6. In the event some action or inaction by Site Owner adversely impacts the Site, Site Owner shall (a) notify Remedial Party and the NYSDEC in accordance with the time frames indicated in Section 1.3 of the SMP and (b) coordinate the performance of necessary corrective actions with Remedial Party.
7. Site Owner shall notify Remedial Party and the NYSDEC of any change in ownership of the Site property (identifying the tax map numbers in any correspondence) and provide contact information for the new owner(s) of the Site property. Title 6, Part 375 of the New York Codes, Rules, and Regulations (6 NYCRR 375) contains notification requirements applicable to any construction or activity changes and changes in ownership. Among the notification requirements is the following: 60 days prior written notification must be made to the NYSDEC. Notification is to be submitted to the NYSDEC Division of Environmental Remediation's Site Control Section. Notification requirements for a change of use are detailed in Section 1.3 of the SMP. The 60-Day Advance Notification of Site Change of Use, Transfer of Certificate of Completion, and/or Ownership form and instructions are found at http://www.dec.ny.gov/chemical/76250.html.

8. Site Owner is responsible for mowing, snow removal, maintenance of fences/gates, and other routine property maintenance activities not related to the remedial components located on its property. Remedial Party remains solely responsible for maintaining the engineering controls.
9. Site Owner is responsible for designing, installing, operating, and maintaining a vapor mitigation system, if such a system is determined to be necessary, for any future enclosed structures it constructs on the Site. Until such time as the NYSDEC deems the vapor mitigation system(s) unnecessary, Site Owner shall operate and maintain the vapor mitigation system(s); pay for associated utilities; and report any maintenance issues to Remedial Party and the NYSDEC.
10. Site Owner is responsible for designing, installing, operating, and maintaining a groundwater treatment system if it intends to use groundwater underlying the Site for drinking, industrial, or other purposes. Until such time as the NYSDEC deems the groundwater treatment system(s) unnecessary, Site Owner shall operate and maintain the groundwater treatment system(s); pay for associated utilities; and report any maintenance issues to Remedial Party and the NYSDEC.
11. In accordance with the tenant notification law, within 15 days of receipt, Site Owner shall supply a copy of any vapor intrusion data, that is produced with respect to structures and that exceeds New York State Department of Health or OSHA guidelines on the Site, whether produced by the NYSDEC, Remedial Party, or Site Owner, to the tenants on the property. Site Owner shall otherwise comply with the tenant and occupant notification provisions of Article 27, Title 24 of the New York State Environmental Conservation Law.
12. Remedial Party is responsible for implementing all other requirements of the SMP and Deed Restriction, except as expressly described in this Appendix.

Responsibilities of Remedial Party

1. Remedial Party shall follow the SMP provisions regarding any construction and/or excavation it undertakes at the Site.
2. Remedial Party shall report to the NYSDEC all activities required for remediation, operation, maintenance, monitoring, and reporting. Such reporting includes, but is not limited to, periodic review reports and certifications; electronic data deliverables; corrective action work plans and reports; and updates to the SMP.
3. Before accessing the Site property to undertake a specific activity, Remedial Party shall provide Site Owner advance notification that shall include an explanation of the work expected to be completed. Remedial Party shall provide to (a) Site Owner, upon Site Owner's request, (b) the NYSDEC, and (c) other entities, if required by the SMP, a copy of any data generated during the Site visit and/or any final report produced.
4. If the NYSDEC determines that an update of the SMP is necessary, Remedial Party shall update the SMP and obtain final approval from the NYSDEC. Within five business days after NYSDEC approval, Remedial Party shall submit a copy of the approved SMP to Site Owner.

5. Remedial Party shall notify the NYSDEC and Site Owner of any changes in Remedial Party ownership and/or control and of any changes in the party/entity responsible for the operation, maintenance, and monitoring of and reporting with respect to any remedial system (engineering controls). Remedial Party shall provide contact information for the new party/entity. Such activity constitutes a change of use pursuant to 6 NYCRR 375-1.11(d) and requires 60-days advance notice to the NYSDEC. The 60-Day Advance Notification of Site Change of Use, Transfer of Certificate of Completion, and/or Ownership form and instructions are found at http://www.dec.ny.gov/chemical/76250.html.
6. Remedial Party shall notify the NYSDEC of any damage to or modification of the systems as required under Section 1.3 of the SMP.
7. Prior to a change in use that impacts the remedial system or requirements and/or responsibilities for implementing the SMP, Remedial Party shall submit to the NYSDEC for approval an amended SMP.
8. Any change in use, change in ownership, change in Site classification (e.g., delisting), reduction or expansion of remediation, and other significant changes related to the Site may result in a change in responsibilities and, therefore, necessitate an update to the SMP and/or updated legal documents. Remedial Party shall contact the NYSDEC to discuss the need to update such documents.

Change in Remedial Party ownership and/or control and/or Site ownership does not affect Remedial Party's obligations with respect to the Site unless a legally binding document executed by the NYSDEC releases Remedial Party of its obligations.

Future Site Owners and Remedial Parties and their successors and assigns are required to carry out the activities set forth above.

APPENDIX C

Excavation Work Plan

ARCADIS Design & Consultancy for natural and built assets

nationalgrid

EXCAVATION WORK PLAN

Ogdensburg (King Street) Non-Owned Former Manufactured Gas Plant Site

City of Ogdensburg, St. Lawrence County, New York

NYSDEC Site No. V00479

September 2018

EXCAVATION WORK PLAN

Ogdensburg (King Street) Non-Owned Former Manufactured Gas Plant Site

City of Ogdensburg, St. Lawrence County, New York

NYSDEC Site No. V00479

Prepared for:

National Grid

300 Erie Boulevard West

Syracuse, New York 13202

Prepared by:

Arcadis of New York, Inc.

One Lincoln Center

110 West Fayette Street

Suite 300

Syracuse

New York 13202

Tel 315 446 9120

Fax 315 449 0017

Our Ref.:

B0036671.0003.00001

Date:

September 2018

RECORD OF CHANGE

Revision No.	Date Submitted	Date Approved By NYSDEC	Description of Change	Reviewed By

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TABLES

Table 1. NYSDEC Contact Information for Notifications 1

FIGURES

Figure 1. Truck Transport Route 4

ACRONYMS AND ABBREVIATIONS

EWP	Excavation Work Plan
MGP	manufactured gas plant
NYCRR	New York Codes, Rules, and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PAH	polycyclic aromatic hydrocarbon
SCO	soil cleanup objective

1 INTRODUCTION

This Excavation Work Plan (EWP) is a component of the *Site Management Plan* (SMP; Arcadis of New York, Inc. 2018) for the non-owned former manufactured gas plant (MGP) site located at 10 King Street in the City of Ogdensburg, St. Lawrence County, New York (hereinafter referred to as the "Site"). It describes the procedures required to be implemented in the event that the soil cover system at the Site is breached, penetrated, or temporarily removed, and any underlying remaining MGP-related impacts are disturbed.

2 NOTIFICATION

At least 15 days prior to the start of any activity with the potential to encounter or disturb areas of potential remaining MGP-related impacts at the Site, the Site owner, remedial party (National Grid), or a designated representative will notify the New York State Department of Environmental Conservation (NYSDEC). Table 1 lists the NYSDEC contact information for such notifications.

Table 1. NYSDEC Contact Information for Notifications

Organization	Primary Point-of-Contact	Contact Information
NYSDEC DER Project Manager	Mr. Scott Deyette	Telephone: (518) 402-9794 E-mail: scott.deyette@dec.ny.gov
NYSDEC Region 6 Hazardous Waste Engineer	Mr. Peter Taylor	Telephone: (315) 785-2513 E-mail: peter.taylor@dec.ny.gov
NYSDEC Site Control Section Chief	Ms. Kelly Lewandowski, PE	Telephone: (518) 402-9595 E-mail: kelly.lewandowski@dec.ny.gov

Table Notes:

1. Notifications are subject to change. Contact information in this table will be updated as necessary.
2. A full listing of Site-related contact information is provided in Appendix D of the SMP.

The NYSDEC notification will include the following:

- A detailed description of the work to be performed, including the location and areal extent of excavation, plans/drawings for Site re-grading, intrusive elements or utilities to be installed below the soil cover system, estimated volumes of impacted soil to be excavated, and any work that may impact an engineering control;
- A summary of environmental conditions anticipated to be encountered in the work areas, including the nature and concentrations of Site-related constituents of concern, potential presence of remaining MGP-related impacts, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all ground-intrusive work;
- A summary of the applicable components of this EWP;

- A statement that the work will be performed in compliance with this EWP and Title 29, Section 1910.120 of the Code of Federal Regulations;
- Copies of the contractor's task-specific Health and Safety Plan and Community Air Monitoring Plan in electronic format;
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

3 SOIL SCREENING METHODS

Visual, olfactory, and instrument-based (i.e., via photoionization detector) soil screening will be performed by a qualified environmental professional during all excavations into areas of known or potential remaining MGP-related impacts. Soil screening will be performed when ground-intrusive work is conducted and will include all excavation and other ground-intrusive work performed during any future development, such as excavations for foundations and utility work, after issuance of the Certificate of Completion.

Soil excavated from areas of potential remaining MGP-related impacts will be segregated based on previous environmental data and screening results into material that requires either (1) off-Site disposal or (2) sampling/testing to determine if the material can be reused on-Site as fill beneath the soil cover system. Stockpiles of potentially-reusable material will be sampled and tested as described in Section 8 of this EWP to evaluate whether it can be used as fill material at the Site or requires disposal off-Site.

4 SOIL STOCKPILING METHODS

Stockpiles of excavated material will, at minimum, be placed on top of polyethylene sheeting. If required by NYSDEC, stockpiles of excavated material will be placed within an engineered staging area. Stockpiles will be covered with polyethylene sheeting to reduce potential infiltration of precipitation, migration of wind-blown dust, and direct contact exposures. Stockpiles will be routinely inspected, and damaged polyethylene sheeting will be promptly replaced. During all soil disturbance activities, erosion and sediment controls will be employed in accordance with this EWP and in conformance with applicable laws and regulations (good work practices that require erosion and sediment controls are not limited to potentially impacted areas). Proven soil conservation practices will be incorporated into any such plans to mitigate soil erosion, off-Site sediment migration, and water pollution from erosion. Appropriate temporary erosion and sediment control measures (e.g., silt fencing, hay bales, etc.) will be installed and maintained around all impacted and potentially-impacted soil/fill stockpiles and bare soil surfaces during such activities. Such stockpiles will be graded and compacted as necessary for positive surface water run-off and dust control.

Stockpiles will be inspected not less than once each week and after every storm event. Inspection results will be recorded in a logbook, which will be maintained at the Site and made available for inspection by NYSDEC.

5 MATERIALS EXCAVATION AND LOAD-OUT

A qualified environmental professional or person under their supervision will oversee all ground-intrusive work and the excavation and load-out of all excavated material. The Site owner, its contractors, and the remedial party (if applicable) will be solely responsible for safe execution of all ground-intrusive work and other work performed under this EWP.

The presence of utilities and easements on the Site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this EWP is posed by utilities or easements on the Site.

To the extent practicable, queuing of trucks will be performed on-Site to minimize off-Site disturbance. Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with applicable federal, state, and local laws and regulations.

When necessary, a truck wash will be operated at the Site. The qualified environmental professional will be responsible for ensuring that all outbound trucks are washed (as necessary and appropriate) at the truck wash before leaving the Site until the activities performed under this EWP are complete. Truck wash waters will be collected and disposed of off-Site in an appropriate manner.

Locations where vehicles enter or exit the Site will be inspected daily for evidence of off-Site soil tracking. The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the Site are free of dirt and other materials derived from the Site during all ground-intrusive activities. Cleaning of the adjacent streets will be performed as needed to keep them clean with respect to Site-derived materials.

6 MATERIALS TRANSPORT OFF-SITE

All transportation of excavated materials will be performed by licensed haulers in accordance with appropriate federal, state, and local laws and regulations, including Title 6, Part 364 of the New York Codes, Rules, and Regulations (6 NYCRR 364). Haulers will be appropriately licensed, and trucks will be properly placarded.

Material transported by trucks exiting the Site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers are prohibited. If loads contain wet material capable of producing free liquid, truck liners will also be used. As necessary, all trucks will be washed prior to leaving the Site. As described in Section 5 of this EWP, truck wash waters will be collected and disposed of off-Site in an appropriate manner. Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during Site remediation and development.

The truck transport route for all vehicles leaving the Site with material destined for off-Site treatment/disposal is shown on Figure 1.

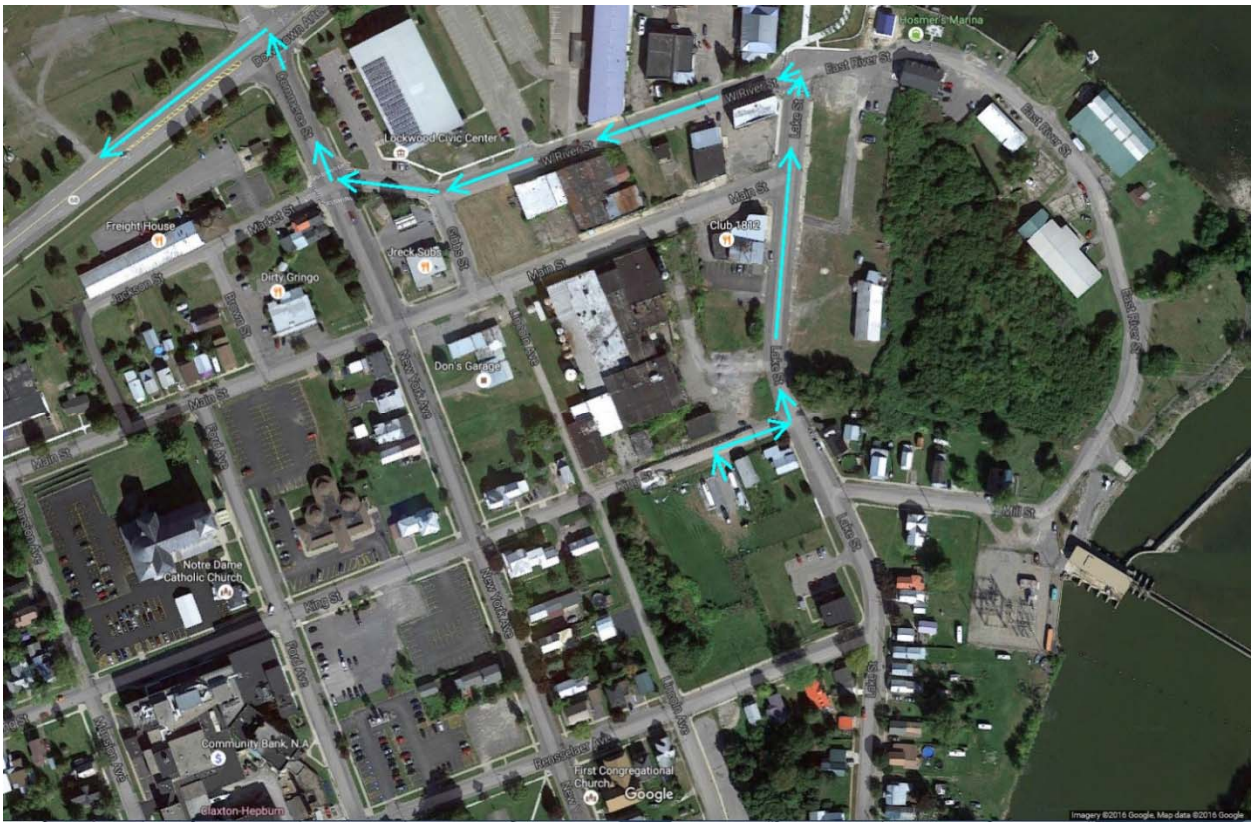

Figure 1. Truck Transport Route

Start: 10 King Street, Ogdensburg, New York 13669

1.	Head **east** on **King Street** toward **Lake Street**	go 180 feet
2.	Turn left onto **Lake Street**	go 0.1 mile
3.	Take the second left onto **West River Street**	go 0.2 mile
4.	Turn right onto **Commerce Street**	go 242 feet
5.	Turn left onto **NY-68 W**	0.4 mile total

All trucks loaded with Site-related materials will exit the vicinity of the Site using only the approved truck route. This is the most appropriate route and takes into account: (1) limiting transport through residential areas and past sensitive sites; (2) use of city-mapped truck routes; (3) limiting total distance to major highways; (4) promoting safety in access to highways; and (5) overall safety in transport. Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during Site remediation and development. Trucks loaded with Site-related materials are prohibited from stopping and idling in the neighborhood outside the Site.

7 MATERIALS DISPOSAL OFF-SITE

All material excavated and removed from areas of potential remaining MGP-related impacts at the Site will be treated as impacted and regulated material and, unless determined to be suitable for reuse on-Site, will be transported and disposed of in accordance with applicable federal, state, and local laws and regulations, including 6 NYCRR 360. If disposal of excavated material from areas of potential remaining MGP-related impacts at the Site is proposed for unregulated off-Site disposal (i.e., clean soil removed for development purposes), a formal request with an associated plan will be made in writing to NYSDEC. Unregulated off-Site management of materials excavated from areas of potential remaining MGP-related impacts at the Site will not occur without formal NYSDEC approval.

Off-Site treatment/disposal locations for excavated materials will be identified in the pre-excavation notification. This will include estimated quantities and, if appropriate, a breakdown by class of disposal facility (e.g., hazardous waste disposal facility, thermal treatment facility, solid waste landfill, etc.). Actual disposal quantities and associated documentation will be reported to NYSDEC in the periodic review report (described in Section 6.3 of the SMP). This documentation will include waste profiles, laboratory testing results, facility acceptance letters, manifests, bills of lading, and facility receipts.

Non-hazardous historic fill and impacted soils taken off-Site will be handled, at a minimum, as municipal solid waste in accordance with 6 NYCRR 360-1.2. Materials that do not meet the soil cleanup objectives (SCOs) for unrestricted use, as set forth in Table 375-6.8(a) of 6 NYCRR 375, are prohibited from being taken to a New York State recycling facility (6 NYCRR 360-16).

8 MATERIALS REUSE ON-SITE

Material excavated from above the demarcation layer of the soil cover system may be reused as fill material at the Site without restriction – either as fill within the soil cover system or as fill below the soil cover system. Material excavated from below the demarcation layer of the soil cover system and outside of the area of potential remaining MGP-related impacts may be reused as fill material at the Site below the soil cover system without sampling/testing. Material excavated from below the demarcation layer of the soil cover system in the area of potential remaining MGP-related impacts will be considered "potentially reusable" if such material is free of visible non-aqueous phase liquid. Potentially-reusable material will be placed on polyethylene sheeting in stockpiles not exceeding 250 cubic yards. Stockpiles will be covered with polyethylene sheeting whenever material is not being actively placed into or removed from the stockpile, during overnight/weekend hours, during periods of precipitation, or whenever dust action levels are exceeded.

Each stockpile of potentially-reusable material will be sampled and tested to evaluate its suitability for reuse as fill at the Site. One composite sample will be collected for each 250-cubic yard stockpile or fraction thereof. Each composite sample will comprise between three and five grab samples collected from spatially distributed locations within the stockpile. The composite sample will be formed by placing equal portions of soil from each grab sample into a pre-cleaned, stainless steel bowl or dedicated container. The grab samples will be thoroughly homogenized using a stainless-steel scoop or trowel before being transferred into the sample containers provided by the laboratory. The filled sample containers will be labeled and transported to the laboratory using a chain-of-custody form.

Each composite sample will be analyzed for polycyclic aromatic hydrocarbons (PAHs)[1] and total cyanide in accordance with the most-recent versions of United States Environmental Protection Agency SW-846 Methods 8270 and 9012, respectively, as referenced in NYSDEC's Analytical Services Protocol. In order to be reused as fill material at the Site, potentially-reusable material must: (1) be free of visible non-aqueous phase liquid; (2) have a total PAH concentration less than 500 milligrams per kilogram; and (3) have a total cyanide concentration less than 27 milligrams per kilogram (the SCO for restricted-residential use). If determined to be suitable for reuse, potentially-reusable material will only be used as fill material below the soil cover system or an impermeable surface, such as buildings, pavement, or sidewalks. Potentially-reusable material will not be used as fill material within the soil cover system itself, within landscaping berms, or as backfill around subsurface utility lines. Potentially-reusable material that does not meet the reuse criteria described above will be removed from the Site and disposed of in accordance with Section 7 of this EWP.

Any demolition material proposed for reuse as fill material at the Site will be sampled and tested for asbestos, and the results will be reported to NYSDEC for acceptance. Concrete crushing or processing will not be performed at the Site without prior NYSDEC approval. Organic matter (e.g., wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the Site will not be reused as backfill or landscaping material at the Site.

The qualified environmental professional will ensure that the procedures for material reuse described in this section of the EWP are followed, and that unacceptable material does not remain at the Site.

9 FLUIDS MANAGEMENT

All liquids to be removed from the Site, including excavation dewatering and groundwater monitoring well purge and development waters, will be handled, transported, and disposed of in accordance with applicable federal, state, and local laws and regulations. Discharge of water generated during large-scale construction activities to surface waters (i.e., a local pond, creek, stream, or river), if feasible, will be performed under a State Pollution Discharge Elimination System permit issued by NYSDEC. Run-off from surface discharges (if any) will be controlled. No discharges will be allowed to enter a surface water body or sewer without proper permits or approvals. Dewatering, purge, and development fluids will not be recharged back to the land surface or subsurface of the Site, but will be managed off-Site, unless prior approval is obtained from NYSDEC.

10 COVER SYSTEM RESTORATION

After the completion of excavation and any other ground-intrusive activities, the soil cover system will be restored in a manner that complies with the *Voluntary Cleanup Program Decision Document* (NYSDEC 2010b). The existing cover system at the Site comprises a woven geotextile (demarcation) fabric and a

[1] PAH analyte list will comprise acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, 2-methylnaphthalene, naphthalene, phenanthrene, and pyrene.

minimum of two feet of clean soil meeting the lower of the restricted use SCOs for protection of public health (restricted-residential use) or protection of groundwater, as set forth in Table 375-6.8(b) of 6 NYCRR 375. The woven geotextile demarcation layer or an equivalent material will be replaced to provide a visual reference to the top of the area of potential remaining MGP-related impacts (i.e., the area that requires adherence to special conditions in accordance with the SMP and this EWP). If the type of cover system changes from that which exists prior to the excavation (i.e., the soil cover is replaced by asphalt or other impermeable structure), this will constitute a modification of the cover element of the remedy and the upper surface of the area of potential remaining MGP-related impacts. A figure showing the modified surface will be included in the subsequent periodic review report and in any updates to the SMP.

11 FILL MATERIALS FROM OFF-SITE SOURCES

All off-Site fill materials proposed for use at the Site will be approved by the qualified environmental professional and will comply with 6 NYCRR 375-6.7(d) and the lower of the restricted use SCOs for protection of public health (restricted-residential use) or protection of groundwater, as set forth in Table 375-6.8(b) of 6 NYCRR 375. To determine their suitability for use at the Site, off-Site fill materials will be sampled and tested in accordance with Table 5.4(e)10 of NYSDEC's *Technical Guidance for Site Investigation and Remediation* (NYSDEC 2010a). A Request to Import/Reuse Fill or Soil form (http://www.dec.ny.gov/regulations/67386.html) will be prepared and submitted to the NYSDEC project manager, allowing a minimum of five business days for review.

Material from industrial sites, spill sites, other environmental remediation sites, or potentially-contaminated sites will not be used as fill material at the Site. Materials that meet "exempt" fill requirements under 6 NYCRR 360, but do not comply with the applicable SCOs, will not be used as fill material at the Site without prior approval by NYSDEC. Solid waste will not be used as fill material at Site.

Trucks entering the Site with off-Site fill material will be securely covered with tight-fitting covers. Off-Site fill material will be stockpiled separately from excavated material and will be covered to prevent dust releases.

12 STORM WATER POLLUTION PREVENTION

General storm water pollution prevention activities to be conducted in support of Site excavation activities include the following:

- Silt fencing or hay bale dikes will be installed around the entire perimeter of the construction area;
- Accumulated sediments will be removed as required to keep the silt fencing and hay bale dikes functional;
- All undercutting or erosion of the silt fence toe anchor will be repaired immediately with appropriate backfill materials;

- Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering;
- Erosion and sediment control measures identified in the SMP must be inspected to ensure that they are operating correctly; and
- Where discharge locations or points are accessible, they must be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Temporary erosion and sediment controls will be inspected not less than once per week and after each storm event. Inspection results will be recorded in a logbook, which will be maintained at the Site and made available for inspection by NYSDEC.

13 CONTINGENCY PLAN

If underground tanks or other previously unidentified sources of environmental impacts are found during post-remediation subsurface excavations or development-related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment, and surrounding soils as necessary to determine the nature of the material and proper disposal method. Chemical testing will be performed for a full list of analytes (target analyte list metals, target compound list volatile organic compounds, target compound list semi-volatile organic compounds, target compound list pesticides, and polychlorinated biphenyls), unless the Site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during ground-intrusive work will be promptly communicated by phone to the NYSDEC project manager (identified in Table 1 of this EWP). Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the periodic review report prepared pursuant to Section 6.3 of the SMP.

14 COMMUNITY AIR MONITORING PLAN

Community air monitoring for total volatile organic compounds and respirable dust (particulate matter less than 10 micrometers in diameter) will be performed in accordance with the New York State Department of Health (NYSDOH) *Generic Community Air Monitoring Plan* (GCAMP; NYSDOH 2009; Appendix G of the SMP) for soil disturbance activities conducted within areas of potential remaining MGP-related impacts. The quantity and locations of community air monitoring stations will be determined in conjunction with NYSDOH, based on the size and location of the proposed excavation; however, at a minimum there will be one upwind and one downwind monitoring location. Community air monitoring results will be included in the subsequent periodic review report. Exceedances of the action levels identified in the GCAMP will be reported to the NYSDEC and NYSDOH project managers.

15 ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors on- and off-Site. Specific odor control methods to be used on a routine basis are described below and in the GCAMP (Appendix G of the SMP). If nuisance odors are identified at the Site boundary, or if odor complaints are received, work will be halted, and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. The NYSDEC and NYSDOH project managers will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the property owner's qualified environmental professional, and any measures that are implemented will be described in the subsequent periodic review report.

All necessary means will be employed to prevent on- and off-Site odor nuisances. At a minimum, these measures will include: (1) limiting the area of open excavations and size of soil stockpiles; (2) shrouding open excavations with tarps and other covers; and (3) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (a) direct load-out of soils to trucks for off-Site disposal; (b) use of chemical odorants in spray or misting systems; and (c) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during ground-intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-Site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

16 DUST CONTROL PLAN

Dust monitoring will be performed in accordance with the GCAMP (Appendix G of the SMP). A dust suppression plan that addresses dust management during ground-intrusive work within areas of potential remaining MGP-related impacts will include, at a minimum, the following:

- Dust suppression will be achieved through the use of a dedicated on-Site water truck, which will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles;
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, un-vegetated soils vulnerable to dust production;
- Gravel will be used on roadways to provide a clean and dust-free road surface;
- On-Site roads will be limited in total area to minimize the area required for water truck sprinkling;
- Vehicle speeds on temporary access roads and active haul routes will be restricted;
- Excavated material and clean fill material will be hauled in properly covered vehicles;
- Shallow excavations and stockpiles of clean fill material will be covered with polyethylene liners (anchored appropriately to resist wind forces) before extended work breaks and at the end of each work day; and
- Paved surfaces over which construction vehicles travel will be cleaned on a periodic basis.

17 REFERENCES

Arcadis of New York, Inc. 2018. *Site Management Plan*. Ogdensburg (King Street) Non-Owned Former MGP Site, Ogdensburg, New York. Prepared for National Grid. September.

NYSDEC. 2010a. *Technical Guidance for Site Investigation and Remediation*. Program Policy DER-10. Division of Environmental Remediation. May.

NYSDEC. 2010b. *Voluntary Cleanup Program Decision Document*. Ogdensburg (King Street) Non-Owned Former MGP Site, Ogdensburg, New York. Division of Environmental Remediation. September 16.

NYSDOH. 2009. *Generic Community Air Monitoring Plan*. Center for Environmental Health, Bureau of Environmental Exposure Investigation. December.

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APPENDIX D

List of Site Contacts

Appendix D
List of Site Contacts
Site Management Plan

National Grid
Ogdensburg (King Street) Non-Owned Former Manufactured Gas Plant Site
City of Ogdensburg, St. Lawrence County, New York

Organization	Primary Point-of-Contact	Contact Information
Site Owner		
St. Lawrence Gas Company, Inc.	Mr. Darren Wilson	33 Stearns Street, PO Box 270 Massena, New York 13662 Telephone: (315) 842-3609 E-mail: djwilson@stlawrencegas.com
Remedial Party		
National Grid	Mr. Steven Stucker	300 Erie Boulevard West Syracuse, New York 13202 Telephone: (315) 428-5652 E-mail: steven.stucker@nationalgrid.com
Qualified Environmental Professional		
TBD	TBD	TBD
NYSDEC		
NYSDEC DER Project Manager	Mr. Scott Deyette	625 Broadway, 11th Floor Albany, New York 12233-7014 Telephone: (518) 402-9794 E-mail: scott.deyette@dec.ny.gov
NYSDEC Region 6 Hazardous Waste Engineer	Mr. Peter Taylor	317 Washington Street Watertown, New York 13601 Telephone: (315) 785-2513 E-mail: peter.taylor@dec.ny.gov
NYSDEC Site Control Section Chief	Ms. Kelly Lewandowski, PE	625 Broadway, 11th Floor Albany, New York 12233-7014 Telephone: (518) 402-9595 E-mail: kelly.lewandowski@dec.ny.gov
NYSDOH		
NYSDOH BEEI Project Manager	Mr. Ian Ushe	Empire State Plaza Corning Tower, Room 1787 Albany, New York 12237 Telephone: (518) 402-7860 E-mail: zwelonke.ushe@health.ny.gov
City of Ogdensburg		
Department of Public Works	Mr. Scott Thornhill	901 Champlain Street Ogdensburg, New York 13669 Telephone: (315) 393-2300 E-mail: sthornhill@ogdensburg.org

APPENDIX E

Monitoring Well Construction Summary and Logs

Table E-1
Monitoring Well Construction Summary
Site Management Plan

National Grid
Ogdensburg (King Street) Non-Owned Former Manufactured Gas Plant Site
City of Ogdensburg, St. Lawrence County, New York

Well ID	Date Installed	Screened Unit	Measuring Point Elevation (feet NAVD88)	Ground Surface Elevation (feet NAVD88)	Surface Completion	Well Casing and Screen Material	Nominal Well Diameter (inches)	Screen Slot Size (inches)	Screen Length (feet)	Screened Interval (feet bgs)	Sump Length (feet)	Total Depth of Well (feet bgs)
MW-2(R)	9/8/2014	Overburden	259.02	259.20	FM	PVC	2.0	0.020	3.00	4.00 - 7.00	0.00	7.00
MW-5R(R)	9/10/2014	Bedrock	259.24	259.40	FM	PVC	2.0	0.020	10.00	13.00 - 23.00	1.90	24.90
MW-8R	5/24/2006	Bedrock	256.97	257.38	FM	PVC	2.0	0.020	10.00	11.00 - 21.00	2.00	23.00
MW-9	5/24/2006	Overburden	256.78	257.00	FM	PVC	2.0	0.020	4.00	3.00 - 7.00	0.00	7.00
MW-10R	5/24/2006	Bedrock	257.23	257.58	FM	PVC	2.0	0.020	10.00	11.75 - 21.75	2.00	23.75
MW-11	5/15/2006	Overburden	258.89	259.16	FM	PVC	2.0	0.020	4.00	3.10 - 7.10	0.00	7.10
MW-12R	5/25/2006	Bedrock	260.49	260.79	FM	PVC	2.0	0.020	10.00	10.00 - 20.00	2.00	22.00
MW-14R	10/18/2007	Bedrock	255.77	256.13	FM	PVC	2.0	0.020	10.00	39.00 - 49.00	2.00	51.00
MW-15	10/11/2007	Overburden	257.35	257.72	FM	PVC	2.0	0.020	5.00	4.50 - 9.50	0.00	9.50
MW-15RS	10/18/2007	Bedrock	257.30	257.74	FM	PVC	2.0	0.020	10.00	14.00 - 24.00	0.00	24.00
MW-17R	10/9/2008	Bedrock	262.97	263.29	FM	PVC	2.0	0.020	10.00	14.86 - 24.86	0.00	24.86
MW-19R	10/16/2008	Bedrock	254.96	255.52	FM	PVC	2.0	0.020	10.00	28.52 - 38.52	0.00	38.52
MW-20R	10/16/2008	Bedrock	251.52	251.86	FM	PVC	2.0	0.020	10.00	18.20 - 28.20	0.00	28.20

Notes:

1. Vertical reference datum is the North American Vertical Datum of 1988 (NAVD88).
2. bgs, below ground surface.
3. FM, flush-mount.
4. PVC, polyvinyl chloride.

Date Start/Finish: 9/8/14 **Drilling Company:** Parratt-Wolff **Driller's Name:** L. Pench, R. Trask **Drilling Method:** Hand Clear / Air Knife **Sampler Size:** NA **Auger Size:** NA **Rig Type:** NA	**Northing:** 2136581.51' **Easting:** 232982.30' **Casing Elevation:** 259.02' **Surface Elevation:** 259.20' **Borehole Depth:** 7' bgs **Geologist:** Chris Kassel	**Well ID:** **MW-2(R)** **Client:** National Grid **Location:** Ogdensburg (King Street) Non-Owned Former MGP Site Ogdensburg, New York

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description	Well Construction
260										
0	1	0' - 7'	Hand Cleared	NA	7	0.0		NA	Dark brown very fine to fine SAND, trace Silt, organics, very soft, moist, low-plasticity. (Top Soil) Light brown fine to coarse SAND, few subangular small to medium Pebbles, poorly sorted, moist, non-plastic. (Fill) Geotextile at 3' bgs. Wet at 5' bgs.	Flush-mount concrete surface pad with locking j-plug. Sand Drain (0.3' - 1.0' bgs) Bentonite Seal (1.0' - 2.0' bgs) 2" Sch. 40 PVC Riser (0.18' - 4.0' bgs) #1 Silica Sand Pack (2.0' - 7.0' bgs) 2" Sch. 40 0.020" Slot PVC Screen (4.0' - 7.0' bgs) 5" Diameter Borehole.
255										
5										
250									Bottom of Boring at 7' bgs, refusal (presumed bedrock surface).	
10										
245										
15										

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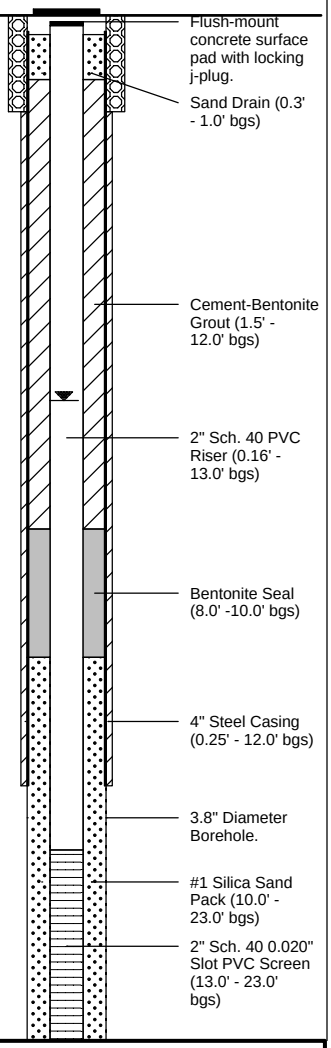
Remarks: bgs = below ground surface
NA = Not Applicable

Horizontal datum is NAD 83; New York State plan East Coordinate System, in U.S. Survey Feet. Vertical datum is NAVD 88.

Boring was advanced with hand tools and an air knife.

Date Start/Finish: 9/8/14 - 9/10/14 **Drilling Company:** Parratt-Wolff **Driller's Name:** L. Pench, R. Trask **Drilling Method:** Hollow Stem Auger/ Rock Core **Sampler Size:** 2" x 2' SS/ 5' HX Corebarrel **Auger Size:** 4'-1/4" Auger / HX **Rig Type:** CME-55	**Northing:** 2136560.37' **Easting:** 232954.60' **Casing Elevation:** 259.24' **Surface Elevation:** 259.40' **Borehole Depth:** 24.9' bgs **Geologist:** Chris Kassel	**Well ID:** **MW-5R(R)** **Client:** National Grid **Location:** Ogdensburg (King Street) Non-Owned Former MGP Site Ogdensburg, New York	

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description
260									
0	1	0' - 4'	Hand Clear	NA	4	0.0			Dark brown very fine to fine SAND, trace Silt, organics, very soft, moist, low-plasticity. (Top Soil) Light brown fine to coarse SAND, few subangular small to medium Pebbles, poorly sorted, moist, non-plastic. (Fill) Geotextile at 3' bgs.
255	1	4'- 6'	21 28 31 16	53	1.8	0.0			Dark Brown medium to coarse SAND, well sorted, moist, non-plastic. Light brown fine to coarse SAND, few subangular small to medium Pebbles, poorly sorted, moist, non-plastic. Wet at 6' bgs.
5	2	6' - 8'	10 30 27 48	58	2	0.0			Black medium SAND, moist, non-plastic. Black fine SAND and some subangular Granules, trace subangular Cobbels, poorly sorted, dense, moist.
	3	8' - 8.5'	70	140	.5	0.0			
250	1	8.5' - 12'	NA	NA	3.5	0.0			Blind drilled with roller bit from 8.5' to 12.0' bgs. Split spoon refusal at 8.5' bgs (assumed bedrock surface).
10	2	12' - 14'	NA	87	1.9	0.0		HZ-F HZ-F LA-F HZ-F	Grey fine grained DOLOSTONE, laminated to banded, roughly horizontal bedding, hard, trace fine to medium calcite.
245									
15									



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Remarks: bgs = below ground surface

LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

Horizontal datum is NAD 83; New York State plan East Coordinate System, in U.S. Survey Feet. Vertical datum is NAVD 88.

Client: National Grid

Well ID: **MW-5R(R)**

Borehole Depth: 24.9' bgs

Site Location:
Ogdensburg (King Street)
Non-Owned Former MGP Site
Ogdensburg, New York

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description	Well Construction
	3	14' - 18.5'	NA	85	4.5	0.0		HZ-F HZ-F HZ-F HZ-F		#1 Silica Sand Pack (10.0' - 23.0' bgs) 2" Sch. 40 0.020" Slot PVC Screen (13.0' - 23.0' bgs)
240 20								HZ-F HZ-SW LA-F VF-F LA-F	Vertical fracture from 19.73' to 21.20' bgs continues as a calcite solution-filled vertical fracture to 22.4' bgs.	3.8" Diameter Borehole.
	4	18.5' - 23.5'	NA	62	5	0.0		HZ-SW HZ-F HA-F	Grey fine grained DOLOSTONE, laminated to banded, roughly horizontal bedding, hard, little white calcite sparite up to pebble sized, trace fine to medium grained white calcite. Grey fine grained DOLOSTONE, laminated to banded, hard, trace fine to medium calcite, 0.1' wide high angle solution filled/cemented fracture zone.	2" Sch. 40 PVC Sump (23.0' - 24.9' bgs)
235 25	5	23.5' 24.9'	NA	79	1.5	0.0		HZ-MW	Grey fine grained DOLOSTONE, laminated to banded, roughly horizontal bedding, hard, trace fine to medium calcite. 24.4' to 24.7' high angle solution filled/cemented fracture zone. Bottom of Boring at 24.9' bgs.	Cement-Bentonite Grout (23.0' - 24.9' bgs)
230 30										
225 35										

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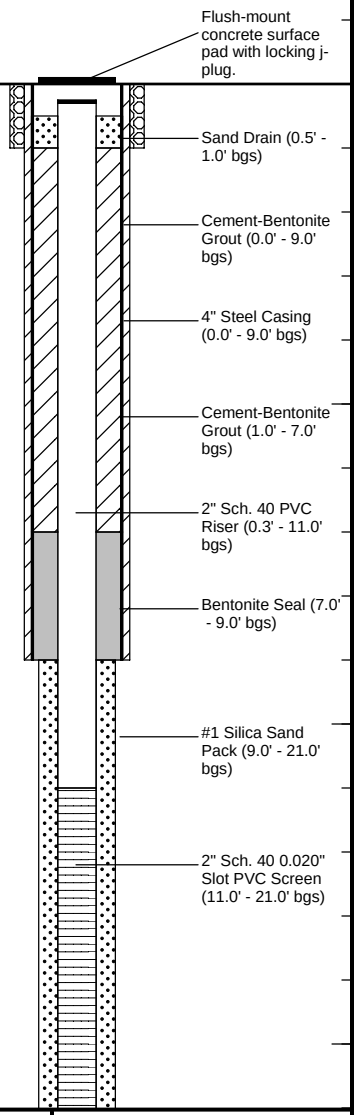
Remarks: bgs = below ground surface

LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

Horizontal datum is NAD 83; New York State plan East Coordinate System, in U.S. Survey Feet. Vertical datum is NAVD 88.

Date Start/Finish: 5/17/2006 - 5/24/2006	**Northing:** 2136615.728	**Well ID:** **MW-8R**
Drilling Company: Parratt Wolff	**Easting:** 232904.091	
Driller's Name: Rick Nvatka		**Client:** National Grid
Drilling Method: Hollow Stem Auger/ Conventional Coring	**Casing Elevation:** 256.97' AMSL **Surface Elevation:** 257.38' AMSL **Borehole Depth:** 23.0' bgs	**Location:** King St. Former MGP Site Ogdensburg, New York
Sampler Size: 2" x 2'/ 5' HX Corebarrel		
Auger Size: 6-1/4"		
Rig Type: CME 75 Truck-Mount	**Geologist:** Kristina Gross	

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description
260									
0	1	0-2	17 7 5 4	12	0.3	4.6			Medium brown fine to corase SAND, loose, wet due to rain. [FILL]
255	2	2-4	3 23 6 4	29	0.9	18.6			Tan and black banded SILT, litle fine Sand, trace fine Gravel, stiff, moist to wet due to rain.
5	3	4-5.9	3 4 6 50/0.4	10	0.1	31.7			Tan SILT and fine GRAVEL, medium dense, moist.
250									Air hammer to 9.0' bgs without sampling.
10	4	9-14.2	NA	71	5.1	0.0		HZ/SW HZ/SW LA/SW HZ/SW HZ/SW HZ/SW HZ/SW	Medium gray fine to medium grained Ogdensburg DOLOMITE, little Shale laminations to bands, little to some white fine grained Calcite, trace 1/4" to 1.5" diameter white Calcite inclusions, horizontal bedding, moderate response to HCL, fresh to slightly weathered, hard. Bedrock fractures HZ/SW at approximately 10.05', 10.1', 10.5', and 10.9' bgs. 1" diameter black sticky NAPL in horizontal break at 10.9' bgs. Bedrock fractures HZ/SW at approximately 11.55' bgs, VF/F at approximately 11.65' bgs, and HZ/F at approximately 11.7' bgs.
245									
15	5	14.2-19.2	NA	75	5.3	0.0		LA/SW LA/F HZ/SW HZ/F HZ/F	Trace black staining (3 spots 0.1" diameter) in horizontal break at 15.28' bgs.



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Remarks:

bgs = below ground surface; NA = Not Applicable/Available.

LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

Water Level Data

Date	Depth	Elev.

Depth measured from top of casing.

Client:
National Grid

Site Location:
King St. Former MGP Site
Ogdensburg, New York

Well ID: **MW-8R**

Borehole Depth: 23.0' bgs

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description	Well Construction
240	5	14.2-19.2	NA	75	5.3	0.0		HZ/F HZ/F HZ/F HZ/F	Medium gray fine to medium grained Ogdensburg DOLOMITE, little Shale laminations to bands, little to some white fine grained Calcite , trace 1/4" to 1.5" diameter white Calcite inclusions, horizontal bedding, moderate response to HCL, fresh to slightly weathered, hard. Bedrock fractures HZ/F at approximately 18.05' bgs and HZ/MW at approximately 18.15' bgs. Little black sticky NAPL (8 spots 0.2" diameter, 1 spot 1" diameter) with little black staining in horizontal break at 18.15' bgs.	2" Sch. 40 0.020" Slot PVC Screen (11.0' - 21.0' bgs) #1 Silica Sand Pack (9.0' - 21.0' bgs)
20	6	19.2-23.0	NA	78	3.4	0.0		HZ/SW HZ/SW HZ/SW HZ/SW LA/SW	Bedrock fractures HZ/SW at approximately 21.42' and 21.52' bgs. 0.2" diameter black stain at 22.5' bgs.	2" Sch. 40 PVC Sump (21.0' - 23.0' bgs) Cement-Bentonite Grout (21.0' - 23.0' bgs)
235									End of boring at 23.0' bgs.	
25										
230										
30										
225										
35										

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LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

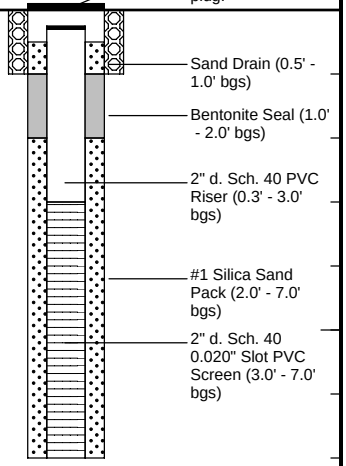
Water Level Data

Date	Depth	Elev.

Depth measured from top of casing.

Date Start/Finish: 5/12/2006 - 5/15/2006 **Drilling Company:** Parratt Wolff **Driller's Name:** Rick Nvatka **Drilling Method:** Hollow Stem Auger **Sampler Size:** 2" x 2' **Auger Size:** 4-1/4" **Rig Type:** CME 75 Truck-Mount	**Northing:** 2136648.909 **Easting:** 232938.7441 **Casing Elevation:** 256.78' AMSL **Surface Elevation:** 257' AMSL **Borehole Depth:** 7.3' bgs **Geologist:** Kristina Gross	**Well ID:** **MW-9** **Client:** National Grid **Location:** King St. Former MGP Site Ogdensburg, New York

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description
260									
0	1	0-2	5 2 2 1	4	0.8	NA			Medium brown fine SAND, some fine Gravel and medium to coarse Sand, little Brick, loose, dry. [FILL]
255	2	2-4	2 3 41 9	44	0.9	NA			
5	3	4-6	2 5 6 10	11	0.5	NA			Dark brown fine to medium SAND and fine GRAVEL, loose, wet.
250	4	6-7.3	8 11 50/0.3	NA	0.4	NA			Heavy black staining, slight MGP-type odor, from 6.0' - 7.3' bgs.
10									Refusal at 7.3' bgs.
245									
15									



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Remarks:

bgs = below ground surface; NA = Not Applicable/Available.

Headspace readings not available due to heavy rain/PID malfunctioning.

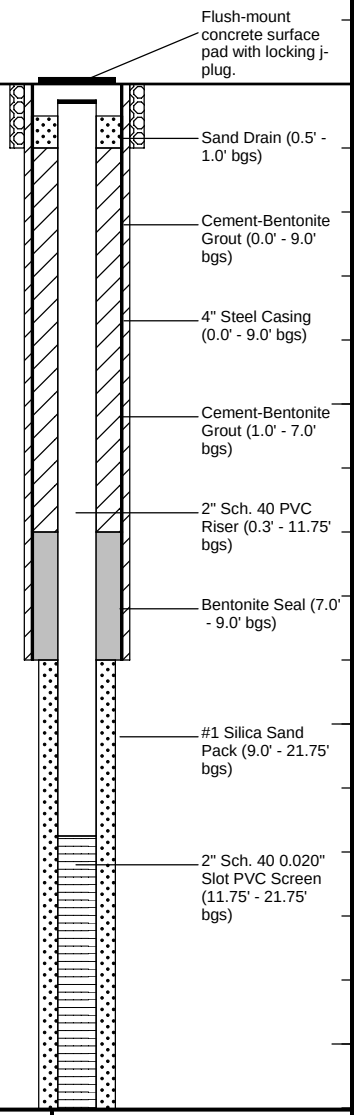
Water Level Data

Date	Depth	Elev.

Depth measured from top of casing.

Date Start/Finish: 5/17/2006 - 5/24/2006 **Drilling Company:** Parratt Wolff **Driller's Name:** Rick Nvatka **Drilling Method:** Hollow Stem Auger/ Conventional Coring **Sampler Size:** 2" x 2'/ 5' HX Corebarrel **Auger Size:** 6-1/4" **Rig Type:** CME 75 Truck-Mount	**Northing:** 2136651.037 **Easting:** 233004.4591 **Casing Elevation:** 257.23' AMSL **Surface Elevation:** 257.58' AMSL **Borehole Depth:** 23.75' bgs **Geologist:** Kristina Gross	**Well ID:** **MW-10R** **Client:** National Grid **Location:** King St. Former MGP Site Ogdensburg, New York

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description
260									
0	1	0-2	6 7 5 8	12	1.5	2.3			Medium brown SILT, some fine SAND, lttle Coal fragments, trace angular to subangular fine Gravel, medium dense, dry to moist due to rain. [FILL]
255	2	2-4	6 2 5 3	7	0.4	5.2			Dark brown SILT and CINDERS, little fine Sand and red and tan crushed Brick, loose, moist. [FILL]
	3	4-5.9	2 3 5 50/0.4	8	1.0	15.2			Black-stained SILT, some Cinders, little fine Sand, trace angular fine Gravel, soft, moist to wet. [FILL] Tan SILT, little fine Gravel, hard, moist.
5									Air hammer to 9.0' bgs without sampling.
250	4	9-9.75	NA	47	0.7	0.0		HZ/F	Light to medium gray medium to coarse grained Ogdensburg DOLOMITE, trace Shale laminations and fine grained white Calcite, horizontal bedding, weak response to HCL, slightly weathered, hard. 1/4" diameter white Calcite inclusions from 9.75' - 11.25' bgs. Approximately 24 black NAPL spots 0.01" to 0.1" diameter in horizontal break at 10.1' bgs.
10								HZ/SW HZ/SW HZ/SW HZ/F HZ/SW	
245	5	9.75-14.75	NA	71	4.8	0.0		HZ/SW HZ/F LA/F HZ/F HZ/F HZ/F HZ/F	Medium gray fine to medium grained Ogdensburg DOLOMITE, some Shale laminations to bands and fine grained to 1/2" diameter white Calcite inclusions, horizontal bedding, moderate response to HCL, slightly weathered, hard. Solution filled hairline fracture at 14.5' bgs.
15	6	14.75-19.75	NA	87	5.1	0.0		HZ/F HZ/F	



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Remarks:

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Water Level Data

Date	Depth	Elev.

Depth measured from top of casing.

Client:
National Grid

Site Location:
King St. Former MGP Site
Ogdensburg, New York

Well ID: **MW-10R**

Borehole Depth: 23.75' bgs

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description	Well Construction
240	6	14.75-19.75	NA	87	5.1	0.0		HZ/F HZ/SW HZ/F-SW HZ/SW HZ/F LZ/MW HZ/F	Medium gray fine to medium grained Ogdensburg DOLOMITE, some Shale laminations to bands and fine grained to 1/2" diameter white Calcite inclusions, horizontal bedding, moderate response to HCL, slightly weathered, hard. Bedrock fractures HZ/F at approximately 16.46' bgs and HZ/F-SW at approximately 16.5' bgs.	2" Sch. 40 0.020" Slot PVC Screen (11.75' - 21.75' bgs) #1 Silica Sand Pack (9.0' - 21.75' bgs)
20										
235	7	19.75-23.75	NA	87	3.4	0.0		HZ/SW HZ/SW LA/SW HZ/SW	Light gray medium to corase grained Ogdensburg DOLOMITE, massive (no laminations), some to 25% of total composition fine grained to 1.5" diameter white Calcite inclusions, horizontal bedding, strong response to HCL, fresh to slightly weathered, hard.	2" Sch. 40 PVC Sump (21.75' - 23.75' bgs) Cement-Bentonite Grout (21.75' - 23.75' bgs)
25									End of boring at 23.75' bgs.	
230										
30										
225										
35										

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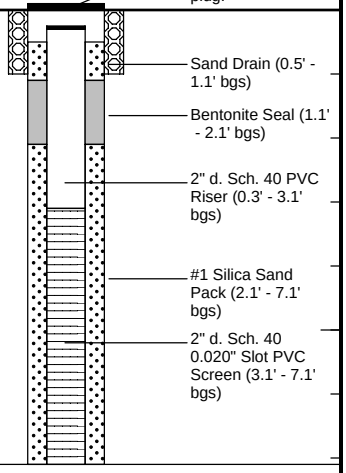
Water Level Data

Date	Depth	Elev.

Depth measured from top of casing.

Date Start/Finish: 5/12/2006 - 5/15/2006 **Drilling Company:** Parratt Wolff **Driller's Name:** Rick Nvatka **Drilling Method:** Hollow Stem Auger **Sampler Size:** 2" x 2' Split Spoon **Auger Size:** 4-1/4" **Rig Type:** CME 75 Truck-Mount	**Northing:** 2136605.776 **Easting:** 233090.8447 **Casing Elevation:** 258.89' AMSL **Surface Elevation:** 259.16' AMSL **Borehole Depth:** 7.1' bgs **Geologist:** Kristina Gross	**Well ID:** **MW-11** **Client:** National Grid **Location:** King St. Former MGP Site Ogdensburg, New York

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description
260									
0	1	0-2	2 2 1 2	3	0.8	1.2			Medium brown Silt, little fine Sand, Grass, and Roots, loose, moist due to rain. Dark brown fine to medium SAND, little Silt, Cinders, and red crushed Brick, loose, moist.
	2	2-4	2 1 1 2	2	0.8	0.0			
255	3	4-6	2 3 4 6	7	0.6	252			Black CINDERS, little red and tan crushed Brick and fine Sand, loose, wet.
5	4	6-7.1	1 10 50/0.1	NA	0.4	110			Gray medium GRAVEL/ crushed ROCK, little Cinders and fine Sand, loose, wet.
									Refusal at 7.1' bgs.
250									
10									
245									
15									



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Remarks:
bgs = below ground surface; NA = Not Applicable/Available.

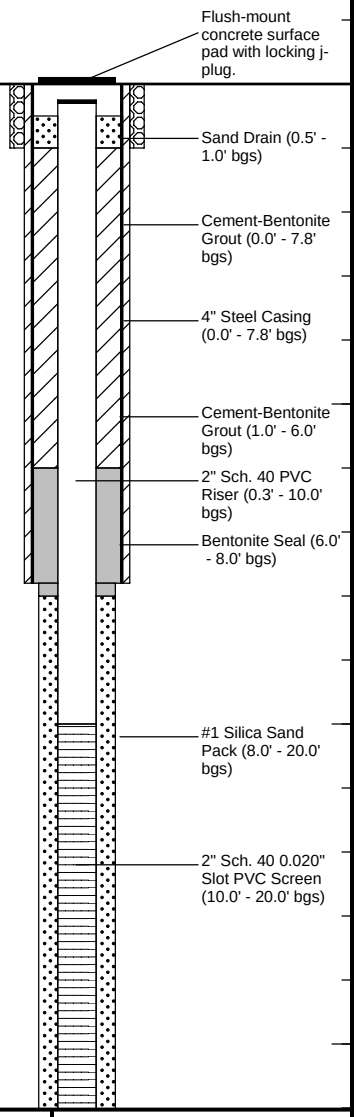
Water Level Data

Date	Depth	Elev.

Depth measured from top of casing.

Date Start/Finish: 5/12/2006 - 5/25/2006	**Northing:** 2136552.667	**Well ID:** **MW-12R**
Drilling Company: Parratt Wolff	**Easting:** 233125.6773	
Driller's Name: Rick Nvatka		**Client:** National Grid
Drilling Method: Hollow Stem Auger/ Conventional Coring	**Casing Elevation:** 260.49' AMSL **Surface Elevation:** 260.79' AMSL	
Sampler Size: 2" x 2' SS/ 5' HX Corebarrel	**Borehole Depth:** 22.0' bgs	
Auger Size: 6-1/4"		**Location:** King St. Former MGP Site Ogdensburg, New York
Rig Type: CME 75 Truck-Mount	**Geologist:** Kristina Gross	

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description
0 / 260	1	0-2	4 5 5 5	10	0.5	0.0			Brown SILT, little fine Sand and Grass, loose, wet due to rain. Tan BRICKS, BRICK fragments, and SILT (weathered/decomposed Brick), hard, moist.
	2	2-4	4 5 5 6	10	0.8	132			Dark blackish-brown SILT and CINDERS, trace tan crushed Brick, Coal, and fine Sand, little reddish-brown staining and burnt-type odor, medium dense, moist.
	3	4-4.8	2 50/0.3	NA	0.2	15.2			Medium brown SILT, little Cinders and fine Sand, trace red Brick, loose, moist.
5 / 255									Air hammer to 7.8' bgs without sampling.
	4	7.8-10.8	NA	91	2.9	0.0		HZ/SW LA/SW LA/SW	Medium gray fine to medium grained Ogdensburg DOLOMITE, some Shale laminations, some fine grained white Calcite throughout, trace 1/4" to 1/2" diameter white Calcite inclusions, horizontal bedding, moderate response to HCL, fresh to slightly weathered, hard.
10 / 250								HZ/SW LA/F	Bedrock fractures HZ/SW at approximately 10.7', 10.75', 11.05', 11.15', 11.6', 11.85', and 11.9' bgs.
	5	10.8-15.8	NA	76	5.1	0.0		HZ/SW LA/SW	Light gray Ogdensburg DOLOMITE, well graded horizontal bedding grading from corase to fine grained from 13.0' - 13.7', 13.7' - 14.7' and 14.7' - 15.8' bgs, trace Shale laminations, trace fine grained white Calcite throughout, 1/4" to 1" diameter white Calcite inclusions plentiful in coarse grained layers, weak response to HCL, fresh to slightly weathered, hard.
15 / 245								LA/F	



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Remarks:

bgs = below ground surface; NA = Not Applicable/Available.

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Water Level Data

Date	Depth	Elev.

Depth measured from top of casing.

Client:
National Grid

Site Location:
King St. Former MGP Site
Ogdensburg, New York

Well ID: **MW-12R**

Borehole Depth: 22.0' bgs

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description	Well Construction
	6	15.8-20.8	NA	90	5.0	0.0		HZ/MW HZ/MW HZ/F LA/F LA/MW HZ/SW HZ/F HZ/MW	Light gray Ogdensburg DOLOMITE, well graded horizontal bedding grading from corase grained from 15.8' - 16.4' bgs grading to fine grained from 16.4' - 19.2.' bgs, trace Shale laminations, trace fine grained white Calcite throughout, 1/4" to 1" diameter white Calcite inclusions plentiful in coarse grained layers, weak response to HCL, fresh to slightly weathered, hard. Some Silt in horizontal break at 16.4' bgs. Band of coarse grained DOLOMITE and CALCITE (Calcite approx. 50% minimum content) from 18.25' - 18.45' bgs. Medium gray Ogdensburg DOLOMOTE, well graded horizontal bedding, medium grained 19.2' - 20.8' bgs, grading to medium to coarse from 20.8' - 21.4' bgs, grading to fine from 21.4' - 22.0' bgs, trace Shale laminations from 20.8' - 21.4' bgs, trace fine grained white Calcite throughout, 1/4" to 1" diameter white Calcite inclusions plentiful in coarse grained layers, weak response to HCL, fresh to slightly weathered, hard.	2" Sch. 40 0.020" Slot PVC Screen (10.0' - 20.0' bgs) #1 Silica Sand Pack (8.0' - 20.0' bgs) 2" Sch. 40 PVC Sump (20.0' - 22.0' bgs) Cement-Bentonite Grout (20.0' - 22.0' bgs)
20 240	7	20.8-22.0	NA	97	1.8	0.0		HZ/SW HZ/MW	Bedrock fractures HZ/SW at approximately 19.4' and 19.45' bgs.	
									End of boring at 22.0' bgs.	
25 235										
30 230										
35 225										

ARCADIS BBL
Infrastructure, environment, facilities

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LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

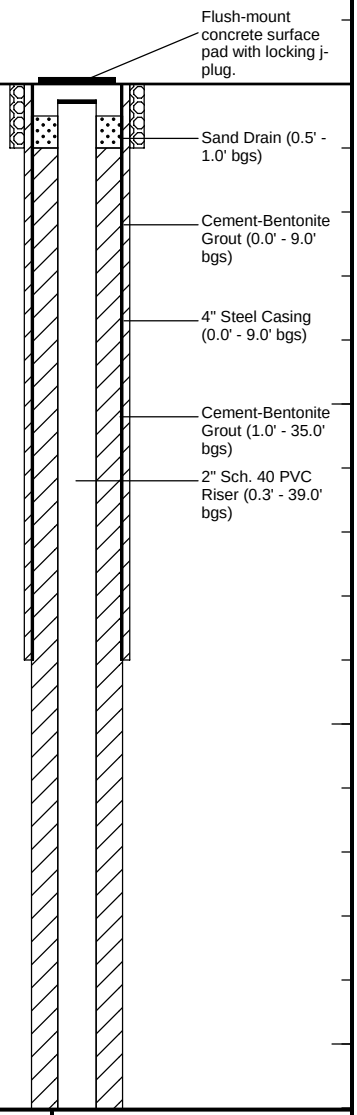
Water Level Data

Date	Depth	Elev.

Depth measured from top of casing.

Date Start/Finish: 10/16/07 - 10/18/07 **Drilling Company:** Parratt Wolff **Driller's Name:** Glenn Lansing **Drilling Method:** Hollow Stem Auger/ Conventional Coring **Sampler Size:** 2" x 2' SS/ 5' HX Corebarrel **Auger Size:** 4-1/4" **Rig Type:** CME 55 Truck-Mount	**Northing:** 2136763.9461 **Easting:** 232742.1593 **Casing Elevation:** 255.77 **Surface Elevation:** 256.13 **Borehole Depth:** 60.0' bgs **Geologist:** Jennifer Sandorf	**Well ID:** **MW-14R** **Client:** National Grid **Location:** King St. Former MGP Site Ogdensburg, New York	

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description
0 / 255									Hand clear location to approximately 3 feet bgs. Materials consist of concrete rip rap and rebar. Auger through to 5 feet bgs.
5 / 250	1	5-7	10 50/ 0.3	50/ 0.3	0.6	0.4		HZ	Gray CONCRETE fragments, little brown fine to medium Sand, dense, dry. Spoon is warm from hammering. Split spoon and auger refusal at 5.8' bgs.
	2	5-9	NA	48	3.7	0.3		HZ	Medium gray fine to medium grained Ogdensburg DOLOMITE, trace white Calcite, horizontal bedding, slightly weathered, very hard.
10 / 245	3	9-14	NA	20	5.3	0.0		HZ, LA	Medium gray fine to medium grained DOLOMITE, trace white Calcite inclusions, horizontal bedding, slightly weathered, very hard.
15	4	14-19	NA	63	5.0	0.0		HZ	Rock type as above.



ARCADIS BBL
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LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

Water Level Data

Date	Depth	Elev.

Depth measured from top of casing.

Client:
National Grid

Site Location:
King St. Former MGP Site
Ogdensburg, New York

Well ID: **MW-14R**

Borehole Depth: 60.0' bgs

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description
240	4	14-19	NA	63	5.0	0.0		HZ HZ HZ HZ HZ HZ HZ	Medium gray fine to medium grained DOLOMITE, trace white Calcite inclusions, horizontal bedding, slightly weathered, very hard.
20 / 235	5	19-24	NA	84	5.0	1.0		HZ HZ HZ HZ HZ HZ HZ HZ HZ HZ	Rock type as above.
25 / 230	6	24-29	NA	84	5.2	0.5		HZ HZ HZ HZ HZ HZ HZ HZ HZ HZ HZ	Rock type as above, slightly weathered, trace black banding (possible Shale laminations).
30 / 225	7	29-34	NA	92	5.1	0.6		HZ HZ HZ HZ HZ HZ HZ HZ HZ HZ	Medium to light gray DOLOMITE, as above.
35	8	34-39	NA	91	4.9	0.0		HZ HZ HZ HZ	Medium to light gray DOLOMITE, as above.

Well Construction

- 2" Sch. 40 PVC Riser (0.3' - 39.0' bgs)
- Cement-Bentonite Grout (1.0' - 35.0' bgs)
- Bentonite Seal (35.0' - 37.0' bgs)

ARCADIS BBL
Infrastructure, environment, facilities

Remarks:
bgs = below ground surface; NA = Not Applicable/Available.

LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

Water Level Data

Date	Depth	Elev.

Depth measured from top of casing.

Client:
National Grid

Site Location:
King St. Former MGP Site
Ogdensburg, New York

Well ID: **MW-14R**

Borehole Depth: 60.0' bgs

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description
220									
	8	34-39	NA	91	4.9	0.0		HZ HZ	Medium to light gray fine to medium grained DOLOMITE, trace white Calcite inclusions, trace black banding from possible Shale, slightly weathered, very hard.
40									
215	9	39-44	NA	98	5.0	0.8		HZ HZ HZ HZ	Rock type as above, medium gray color, trace pink and white Calcite inclusions.
45									
210	10	44-49	NA	90	5.0	1.1		HZ HZ (rough) HZ (wavy) HZ HZ HZ	Medium gray DOLOMITE, as above. Little water loss during coring.
50									
205	11	49-54	NA	74	5.0	0.0		HZ HZ HZ HZ HZ HZ HZ HZ HZ	Medium gray fine to medium grained Ogdensburg DOLOMITE, trace white Calcite inclusions, horizontal bedding, slightly weathered, very hard. Some water loss during coring.
55	12	54-59	NA	78	5.1	0.0		HZ HZ HZ	Medium gray fine to medium grained Ogdensburg DOLOMITE, trace white Calcite inclusions, horizontal bedding, slightly weathered, very hard. Some water loss during coring.
200									

Well Construction

- Bentonite Seal (35.0' - 37.0' bgs)
- 2" Sch. 40 PVC Riser (0.3' - 39.0' bgs)
- #1 Silica Sand Pack (37.0' - 49.0' bgs)
- 2" Sch. 40 0.020" Slot PVC Screen (39.0' - 49.0' bgs)
- 2" Sch. 40 PVC Sump (49.0' - 51.0' bgs)
- Cement-Bentonite Grout (49.0' - 60.0' bgs)

ARCADIS BBL
Infrastructure, environment, facilities

Remarks:
bgs = below ground surface; NA = Not Applicable/Available.

LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

Water Level Data

Date	Depth	Elev.

Depth measured from top of casing.

Client:
National Grid

Site Location:
King St. Former MGP Site
Ogdensburg, New York

Well ID: **MW-14R**

Borehole Depth: 60.0' bgs

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description	Well Construction
200										
	12	54-59	NA	78	5.1	0.0		HZ HZ HZ void (rough) HZ	Medium gray fine to medium grained Ogdensburg DOLOMITE, trace white Calcite inclusions, horizontal bedding, slightly weathered, very hard. Some water loss during coring.	Cement-Bentonite Grout (49.0' - 60.0' bgs)
	13	59-60	NA	100	1.1	0.0		void HZ LA	Rock type as above.	
60 195										
65 190										
70 185										
75										

ARCADIS BBL
Infrastructure, environment, facilities

Remarks:
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LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

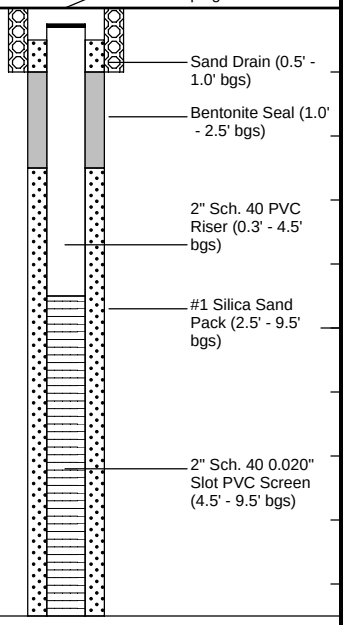
Water Level Data

Date	Depth	Elev.

Depth measured from top of casing.

Date Start/Finish: 10/11/07 **Drilling Company:** Parratt Wolff **Driller's Name:** Glenn Lansing **Drilling Method:** Hollow Stem Auger **Sampler Size:** 2" x 2' SS **Auger Size:** 4-1/4" **Rig Type:** CME 55 Truck-Mount	**Northing:** 2136854.4017 **Easting:** 233026.8813 **Casing Elevation:** 257.35 **Surface Elevation:** 257.72 **Borehole Depth:** 9.5' bgs **Geologist:** Jennifer Sandorf	**Well ID:** **MW-15** **Client:** National Grid **Location:** King St. Former MGP Site Ogdensburg, New York

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description
0 / 260									
0	1	0-2	3 3 9 12	12	1.4	0.0			TOPSOIL with coarse Gravel subbase, loose, dry. Brown fine SAND, trace coarse Gravel, moderately loose, dry. Gray CONCRETE fragments, loose, dry.
255	2	2-4	9 11 11 14	22	1.2	0.0			Light brown fine to medium SAND, little medium to coarse subrounded Gravel, trace Concrete fragments, moderately loose, dry.
5	3	4-6	3 4 2 2	6	1.0	0.0			Brown SILT and fine SAND, some black Coal fragments and red Brick fragments, trace Ash and Cinders, moderately loose, dry to moist.
	4	6-8	3 5 7 3	12	0.9	0.0			Miscellaneous FILL materials: Cinders, red Brick fragments, black Coal fragments, moderately loose, moist.
250	5	8-9.5	5 2 3	5	0.2	0.0			Brown fine to coarse SAND and fine to coarse GRAVEL, moderately loose, moist to wet, Cobble stuck in bottom of spoon.
10									
245									
15									



ARCADIS BBL
Infrastructure, environment, facilities

Remarks:
bgs = below ground surface; NA = Not Applicable/Available.

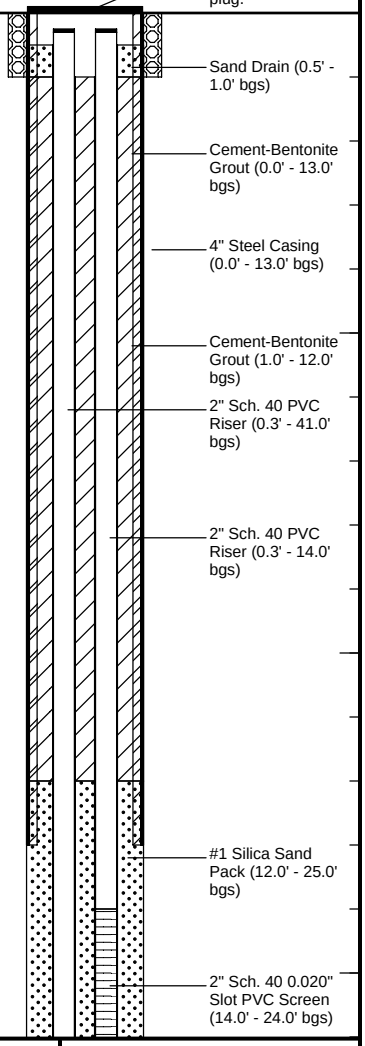
Water Level Data

Date	Depth	Elev.

Depth measured from top of casing.

Date Start/Finish:	10/10/07 - 10/18/07	**Northing:**	2136855.4910	**Well ID:**	**MW-15R/RD**
Drilling Company:	Parratt Wolff	**Easting:**	233022.4991		
Driller's Name:	Glenn Lansing			**Client:**	National Grid
Drilling Method:	Hollow Stem Auger/ Conventional Coring	**Casing Elevation:**	257.30		
		Surface Elevation:	257.74	**Location:**	King St. Former MGP Site Ogdensburg, New York
Sampler Size:	2" x 2' SS/ 5' HX Corebarrel	**Borehole Depth:**	59.5' bgs		
Auger Size:	4-1/4"				
Rig Type:	CME 55 Truck-Mount	**Geologist:**	Jennifer Sandorf		

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description
260									
0									
	1	0-2	3 3 9 12	12	1.4	0.0			TOPSOIL with coarse Gravel subbase, loose, dry. Brown fine SAND, trace coarse Gravel, moderately loose, dry. Gray CONCRETE fragments, loose, dry.
255	2	2-4	9 11 11 14	22	1.2	0.0			Light brown fine to medium SAND, little medium to coarse subrounded Gravel, trace Concrete fragments, moderately loose, dry.
5	3	4-6	3 4 2 2	6	1.0	0.0			Brown SILT and fine SAND, some black Coal fragments and red Brick fragments, trace Ash and Cinders, moderately loose, dry to moist.
	4	6-8	3 5 7 3	12	0.9	0.0			Miscellaneous FILL materials: Cinders, red Brick fragments, black Coal fragments, moderately loose, moist.
250	5	8-10	5 2 3 5	5	0.2	0.0			Brown fine to coarse SAND and fine to coarse GRAVEL, moderately loose, moist to wet, Cobble stuck in bottom of spoon. Brown to gray-brown SILT, little fine to coarse Sand and fine to medium subrounded Gravel, moderately soft, slightly plastic, moist to wet, rock fragments in tip of spoon.
10	6	10-10.1	50/ 0.1	NA	0.4	0.0			
	7	10-13	NA	33	2.7	NA			Medium gray fine to medium grained DOLOMITE, trace white Calcite filled voids, moderately weathered, primarily horizontal fractures, several unopened fractures, very hard. Fractured zones have brownish discoloration on surfaces and some silt.
245	8	13-14.5	NA	67	1.5	0.0		HZ HZ HZ	Medium gray fine to medium grained Ogdensburg DOLOMITE, horizontal bedding, slightly weathered, very hard, trace white Calcite inclusions.
15	9	14.5-19.5	NA	38	5.0	0.0		HZ HZ HZ HZ HZ	Rock type as above, slightly weathered, very hard.



ARCADIS BBL
Infrastructure, environment, facilities

Remarks:

bgs = below ground surface; NA = Not Applicable/Available.
NA = PID not working due to rain or high humidity.
LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

Water Level Data

Date	Depth	Elev.

Depth measured from top of casing.

Client:
National Grid

Site Location:
King St. Former MGP Site
Ogdensburg, New York

Well ID: **MW-15R/RD**

Borehole Depth: 59.5' bgs

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description
240	9	14.5-19.5	NA	38	5.0	0.0		HZ HZ HZ HZ HZ LA HZ HZ HZ HZ HZ	Medium gray fine to medium grained Ogdensburg DOLOMITE, horizontal bedding, slightly weathered, very hard, trace white Calcite inclusions.
20								HZ HZ HZ HZ	Medium gray fine to medium grained Ogdensburg DOLOMITE, trace pick and white Calcite infilling, trace dark gray Shale banding, horizontal bedding, very hard.
235	10	19.5-24.5	NA	96	5.0	0.0		HZ HZ HZ HZ HZ HZ	
25								HZ HZ HZ	Rock type as above, slightly weathered, trace Silt of fracture surfaces, a few unopened fractures, trace pink and white Calcite infilling.
230	11	24.5-29.5	NA	92	4.9	0.0		HZ HZ HZ HZ	
30								HZ HZ HZ	Medium gray fine to medium grained Ogdensburg DOLOMITE, trace light gray banding, trace white Calcite infilling, horizontal bedding, slightly weathered, very hard.
225	12	29.5-34.5	NA	82	5.0	0.3		HA HZ HZ HZ	
35	13	34.5-39.5	NA	78	5.0	0.2		HZ HZ	Rock type as above, no calcite observed, trace black Shale bands (fractures adjacent to shale), small void at 39.3' bgs.

Well Construction:
- 2" Sch. 40 PVC Riser (0.3' - 41.0' bgs)
- 2" Sch. 40 0.020" Slot PVC Screen (14.0' - 24.0' bgs)
- #1 Silica Sand Pack (12.0' - 25.0' bgs)
- Bentonite Seal (25.0' - 39.0' bgs)

ARCADIS BBL
Infrastructure, environment, facilities

Remarks:
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NA = PID not working due to rain or high humidity.
LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

Water Level Data

Date	Depth	Elev.

Depth measured from top of casing.

Client:
National Grid

Site Location:
King St. Former MGP Site
Ogdensburg, New York

Well ID: MW-15R/RD

Borehole Depth: 59.5' bgs

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description
220	13	34.5-39.5	NA	78	5.0	0.2		HZ HZ HZ LA LA HZ	Rock type as above, no calcite observed, trace black Shale bands (fractures adjacent to shale), small void at 39.3' bgs.
40								HZ HZ	Rock type as above, medium to dark gray color, trace white Calcite infilling.
	14	39.5-44.5	NA	86	5.0	0.0		HZ HZ HZ	
215								HZ HZ	
45								HZ HZ	Rock type as above, trace white and pinkish-white Calcite inclusions.
	15	44.5-49.5	NA	98	5.2	0.2		HZ HZ HZ HZ	
210									
50								HZ HZ HZ HZ HZ HZ	Medium gray fine to medium grained Ogdensburg DOLOMITE, trace white Calcite inclusions, horizontal bedding, slightly weathered, very hard.
	16	49.5-54.5	NA	100	4.9	0.0			
205									
55	17	54.5-59.5	NA	100	5.0	0.3		HZ	Rock type as above, little black banding (possible Shale laminations), trace white and pick Calicite inclusions, very hard.

Well Construction

- Bentonite Seal (25.0' - 39.0' bgs)
- 2" Sch. 40 PVC Riser (0.3' - 41.0' bgs)
- #1 Silica Sand Pack (39.0' - 51.0' bgs)
- 2" Sch. 40 0.020" Slot PVC Screen (41.0' - 51.0' bgs)
- 2" Sch. 40 PVC Sump (51.0' - 53.0' bgs)
- Cement-Bentonite Grout (51.0' - 59.5' bgs)

ARCADIS BBL
Infrastructure, environment, facilities

Remarks:
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NA = PID not working due to rain or high humidity.
LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

Water Level Data

Date	Depth	Elev.

Depth measured from top of casing.

Client:
National Grid

Site Location:
King St. Former MGP Site
Ogdensburg, New York

Well ID: **MW-15R/RD**

Borehole Depth: 59.5' bgs

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description	Well Construction
200	17	54.5-59.5	NA	100	5.0	0.3		HZ HZ HZ	Rock type as above, little black banding (possible Shale laminations), trace white and pick Calicite inclusions, very hard.	Cement-Bentonite Grout (51.0' - 59.5' bgs)
60										
195										
65										
190										
70										
185										
75										

ARCADIS BBL
Infrastructure, environment, facilities

Remarks:
bgs = below ground surface; NA = Not Applicable/Available.
NA = PID not working due to rain or high humidity.
LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

Water Level Data

Date	Depth	Elev.

Depth measured from top of casing.

Date Start/Finish: 10/9/08	**Northing:** 2136605.8307	**Well ID:** **MW-17R**
Drilling Company: Parrot Wolff	**Easting:** 232801.0619	
Driller's Name: D. Richmond, R. Trask		**Client:** National Grid
Drilling Method: Hollow Stem Auger/ Conventional Coring	**Casing Elevation:** 262.97 **Surface Elevation:** 263.29 **Borehole Depth:** 27.0	
Sampler Size: 2" x 2' SS/ 5' HX Corebarrel		**Location:** King St. Former MGP Site, Ogdensburg, New York
Auger Size: HS Auger 4'-1/4"	**Geologist:** Marcus Eriksson	
Rig Type: CME-55		

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description
260									
0	1	0-2	8 17 12	17	0.6	1.1			Dark brown fine SAND, little Silt, fine Gravel, organics, moist, non-plastic.
									Brown fine SAND, little fine Gravel, trace Silt, organics, moist, non-plastic.
									Grey-pink fine SAND, little silty Clay, trace organics, fine Gravel, moist, non-plastic.
255	2	2-4	13 12 19 19	31	1.1	0.0			Similar soils, little fine Gravel, moist, non-plastic.
	3	4-5	16 50/0.3	16	0.3	0.0			Similar soils, weathered rock in tip, moist, non-plastic.
5									
	1	5-9	NA	93	4.0	0.0		HZ HZ HZ HZ HZ	Medium to dark grey DOLOSTONE, fractures at Shale partings, dark wavy bands, possible birdseye, trace white fossils.
250									
10	2	9-14	NA	91	4.6	0.0		HZ HZ LA HZ HZ HZ	Medium to dark grey DOLOSTONE, birdseye, Shale partings mainly at fractures, little white fossils.
245									
								HZ HZ HZ	Medium to dark grey DOLOSTONE, birdseye, Shale partings, trace white fossils.
15									

Well Construction:
- Flush-mount concrete surface pad with locking j-plug.
- Sand Drain (0.5' - 1.0' bgs)
- 4" Steel Casing (0.0' - 6.0' bgs)
- Cement-Bentonite Grout (1.0' - 12.0' bgs)
- 2" Sch. 40 PVC Riser (0.5' - 14.86 bgs)
- Bentonite Seal (11.0' - 14.0' bgs)

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
NA = PID not working due to rain or high humidity.

LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

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Date Start/Finish: 10/9/08	**Northing:** 2136605.8307	**Well ID:** **MW-17R**
Drilling Company: Parrot Wolff	**Easting:** 232801.0619	
Driller's Name: D. Richmond, R. Trask		**Client:** National Grid
Drilling Method: Hollow Stem Auger/ Conventional Coring	**Casing Elevation:** 262.97 **Surface Elevation:** 263.29 **Borehole Depth:** 27.0	**Location:** King St. Former MGP Site, Ogdensburg, New York
Sampler Size: 2" x 2' SS/ 5' HX Corebarrel		
Auger Size: HS Auger 4'-1/4"	**Geologist:** Marcus Eriksson	
Rig Type: CME-55		

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description
240	3	14-18.8	NA	100	5.2	0.0		HZ	Medium to dark grey DOLOSTONE, birdseye, Shale partings, trace white fossils.
20								HZ HZ	Medium to dark grey DOLOSTONE, Shale partings, dark wavy banding, trace white fossils.
	4	18.8-24.3	NA	98	5.2	0.0		HZ HZ HZ HZ	
235								HZ	Medium to dark grey DOLOSTONE, litle Shale partings, dark wavy banding.
25	5	24.3-27.0	NA	85	2.7	0.0		HZ HZ HZ HZ	
									Bottom of Boring at 26.86' bgs.
230									
30									
225									

Well Construction:
- #1 Silica Sand Pack (14.0' - 24.86' bgs)
- 2" Sch. 40 0.020" Slot PVC Screen (14.86' - 24.86' bgs)
- Cement-Bentonite Grout (24.86' - 26.86' bgs)
- 2" Sch. 40 PVC Sump (24.86' - 26.86' bgs)

ARCADIS
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.
NA = PID not working due to rain or high humidity.

LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

Date Start/Finish: 9/29/08 - 10/16/08	**Northing:** 2137152.88	**Well ID:** **MW-19R**	
Drilling Company: Parratt Wolff	**Easting:** 232965.69		
Driller's Name: D Richmond, R. Trask		**Client:** National Grid	
Drilling Method: Hollow Stem Auger/ Conventional Coring	**Casing Elevation:** 254.96 ft AMSL **Surface Elevation:** 255.52 ft AMSL		
Sampler Size: 2" x 2' SS/ 5' HX Corebarrel	**Borehole Depth:** 68.8' bgs		
Auger Size: 4-1/4"		**Location:** King St. Former MGP Site Ogdensburg, New York	
Rig Type: CME-55	**Geologist:** Marcus Eriksson		

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description
0 / 255									
			8						No sample collected.
	1	0-2	12 7 7	19	0.8	0.0			Black/dark brown fine to medium SAND, little Organics and fine Gravel, trace Silt, trace red Brick, moist, non-plastic.
									Brown fine SAND, little fine to medium Gravel, Silt and Clay, trace Organics, moist, non-plastic.
	2	2-4	7 7 6 6	13	0.4	0.0			Brown fine SAND, little Silty Clay and fine Gravel, trace Organics, moist, non-plastic.
	3	4-6	12 5 4 3	9	0.0	0.0			No recovery - slough from above consists of dark brown/black fine to medium SAND, trace red Brick fragments and fine Gravel, moist, non-plastic.
5 / 250	4	6-8	7 9 4 5	13	0.0	0.0			
	5	8-10	5 7 9 7	16	0.4	0.0			Brown/light gray fine SAND, trace fine Gravel and Silty Clay, moist, non-plastic. Refusal at 9.7' bgs.
10 / 245		10-11.2	NA	NA	NA	NA			Auger through rock to create rock socket.
	6	11.2-14.1	NA	77	2.9	NA		HZ HZ HZ HZ HA HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), trace to little Shale laminations/partings, little dark gray wavy banding. Possible Shale parting at 12.0' and trace brown Silty Clay seams at parting at 12' bgs.(1-2mm).
15 / 240	7	14.1-19.1	NA	97	5.0	NA		HZ HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), increased wavy banding from 17.1 to 17.7' bgs (possible birds eye), little dark gray wavy banding, white calcareous fossils 16.6-19.1' bgs.

Well Construction:
- Flush-mount concrete surface pad with locking j-plug.
- Sand Drain (0.5' - 1.0' bgs)
- 4" Steel Casing (0.0' - 11.2' bgs)
- 2" Sch. 40 PVC Riser (0.5' - 28.52' bgs)
- Cement-Bentonite Grout (1.0' - 24.0' bgs)

Remarks: bgs = below ground surface; NA = Not Applicable/Available.

LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

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Date Start/Finish: 9/29/08 - 10/16/08	**Northing:** 2137152.88	**Well ID:** **MW-19R**
Drilling Company: Parratt Wolff	**Easting:** 232965.69	
Driller's Name: D Richmond, R. Trask		**Client:** National Grid
Drilling Method: Hollow Stem Auger/ Conventional Coring	**Casing Elevation:** 254.96 ft AMSL **Surface Elevation:** 255.52 ft AMSL	
Sampler Size: 2" x 2' SS/ 5' HX Corebarrel	**Borehole Depth:** 68.8' bgs	**Location:** King St. Former MGP Site Ogdensburg, New York
Auger Size: 4-1/4"		
Rig Type: CME-55	**Geologist:** Marcus Eriksson	

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description	Well Construction
	7	14.1-19.1	NA	97	5.0	NA		HZ HZ HZ HZ HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), increased wavy banding from 17.1 to 17.7' bgs (possible birds eye), little dark gray wavy banding, white calcareous fossils 16.6-19.1' bgs.	
20 235	8	19.1-24.3	NA	95	5.2	NA		HZ HZ HZ HZ HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), trace to little Shale partings, little dark gray wavy banding 22.7-23.7' bgs, little white calcareous fossils. Possible Shale partings at 21.35 and 23.15' bgs. Trace brown Silty Clay at seams at 21.35 and 23.15' bgs.(1-2mm).	Cement-Bentonite Grout (1.0' - 24.0' bgs) 2" Sch. 40 PVC Riser (0.5' - 28.52' bgs)
25 230	9	24.3-28.8	NA	85	4.5	NA		HZ HZ V HZ V	Medium to dark gray DOLOSTONE (Munsell N4-N5), little dark gray banding, white calcareous fossils 25.8-26.2' bgs, possible Shale parting 26.6' bgs. Trace brown Silty Clay seams at 26.6' bgs.(1mm) Vertical fracture 27.4-28.8' bgs.	Bentonite Seal (24.0' - 27.0' bgs)
30 225	10	28.8-33.8	NA	83	5.0	NA		HZ HZ HZ HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), little dark gray banding, trace white fossils, fractures occur at Shale partings. Vertical fracture 28.8-29.6' bgs - appears to continue from previous run, appears to continue unopened to 30.1' bgs.	#1 Silica Sand Pack (27.0' - 38.52' bgs) 2" Sch. 40 0.020" Slot PVC Screen (28.52' - 38.52' bgs)
35	11	33.8-38.8	NA	94	5.0	NA		HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), trace white fossils, little dark gray banding, Shale partings, fractures occur at Shale partings.	

Remarks: bgs = below ground surface; NA = Not Applicable/Available.

LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

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Date Start/Finish: 9/29/08 - 10/16/08	**Northing:** 2137152.88	**Well ID:** **MW-19R**
Drilling Company: Parratt Wolff	**Easting:** 232965.69	
Driller's Name: D Richmond, R. Trask		**Client:** National Grid
Drilling Method: Hollow Stem Auger/ Conventional Coring	**Casing Elevation:** 254.96 ft AMSL **Surface Elevation:** 255.52 ft AMSL	
Sampler Size: 2" x 2' SS/ 5' HX Corebarrel	**Borehole Depth:** 68.8' bgs	**Location:** King St. Former MGP Site Ogdensburg, New York
Auger Size: 4-1/4"		
Rig Type: CME-55	**Geologist:** Marcus Eriksson	

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description	Well Construction
220										
	11	33.8-38.8	NA	94	5.0	NA		HZ HZ HZ HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), trace white fossils, little dark gray banding, Shale partings, fractures occur at Shale partings.	2" Sch. 40 0.020" Slot PVC Screen (28.52' - 38.52' bgs)
40 215	12	38.8-43.8	NA	56	4.8	NA		HZ HZ HZ HZ HZ HZ HZ	Medium to dark gray DOLOMITE (Munsell N4-N5), trace dark wavy banding, trace Shale parting/band (at 42' ~1-2mm thick), trace white fossils.	#1 Silica Sand Pack (27.0' - 38.52' bgs)
45 210	13	43.8-49	NA	100	5.2	NA		HZ HZ HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), dark wavy banding, trace white fossils.	Cement-Bentonite Grout (38.52' - 68.8' bgs)
50 205	14	49-53.8	NA	83	4.8	NA		HZ HZ HZ HZ HZ HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), dark wavy banding, little Shale partings, trace Shale bands (~1-2 mm thick), trace white fossils, fractures occur at shale partings.	
								HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), little to some dark	

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LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

Date Start/Finish: 9/29/08 - 10/16/08	**Northing:** 2137152.88	**Well ID:** **MW-19R**
Drilling Company: Parratt Wolff	**Easting:** 232965.69	
Driller's Name: D Richmond, R. Trask		**Client:** National Grid
Drilling Method: Hollow Stem Auger/ Conventional Coring	**Casing Elevation:** 254.96 ft AMSL **Surface Elevation:** 255.52 ft AMSL	
Sampler Size: 2" x 2' SS/ 5' HX Corebarrel	**Borehole Depth:** 68.8' bgs	**Location:** King St. Former MGP Site Ogdensburg, New York
Auger Size: 4-1/4"		
Rig Type: CME-55	**Geologist:** Marcus Eriksson	

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description	Well Construction
55 / 200	15	53.8-58.8	NA	76	4.8	NA		HZ HZ HZ HZ HZ HZ HZ HZ HZ HZ HZ HZ	wavy banding, trace Shale partings/bands, trace white fossils.	
	15	53.8-58.8	NA	76	4.8	NA			Medium to dark gray DOLOSTONE (Munsell N4-N5), little to some dark wavy banding, trace Shale partings/bands, trace white fossils.	
60 / 195	16	58.8-63.8	NA	90	5.2	NA		HZ HZ HZ HZ HZ HZ HZ HZ HZ HZ HZ HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), trace to little dark wavy banding, trace Shale partings, trace fossils.	Cement-Bentonite Grout (38.52' - 68.8' bgs)
65 / 190	17	63.8-68.8	NA	85	5.0	NA		HZ HZ HZ HZ HZ HZ HZ HZ HZ HZ HZ HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), little white fossils, Shale partings, little dark wavy banding.	
70 / 185									Bottom of Boring at 68.8' bgs.	

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Remarks: bgs = below ground surface; NA = Not Applicable/Available.

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Date Start/Finish: 9/30/08 - 10/16/08 **Drilling Company:** Parratt Wolff **Driller's Name:** D Richmond, R. Trask **Drilling Method:** Hollow Stem Auger/ Conventional Coring **Sampler Size:** 2" x 2' SS/ 5' HX Corebarrel **Auger Size:** 4-1/4" **Rig Type:** CME-55	**Northing:** 2137109.75 **Easting:** 232652.93 **Casing Elevation:** 251.52 ft AMSL **Surface Elevation:** 251.86 ft AMSL **Borehole Depth:** 63.5' bgs **Geologist:** Marcus Eriksson	**Well ID:** **MW-20R** **Client:** National Grid **Location:** King St. Former MGP Site Ogdensburg, New York	

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description	Well Construction
0 / 250	1	0-2	- 8 4 5	9	1.1	0.3			No sample collected. Brown fine to medium SAND, little fine Gravel, trace Organics and Silt, moist, non-plastic.	Flush-mount concrete surface pad with locking j-plug. Sand Drain (0.5' - 1.0' bgs)
	2	2-4	15 12 9 13	21	0.3	0.5			Dark brown fine to medium SAND, little Silt and fine Gravel, trace Organics, moist, non-plastic. Dark brown fine to medium SAND, some fine Gravel and Silt, moist, non-plastic.	
5	3	4-6	11 7 9 8	16	0.7	0.2			Gray/brown fine SAND, little Silt, trace Wood and Silty Clay, moist, non-plastic.	4" Steel Casing (0.0' - 9.0' bgs)
245	4	6-8	31 31 60 -	91	0.5	0.1			As above, little Silty Clay, saturated. Refusal at 7.5' bgs.	
		8-9	NA	NA	NA	NA			Auger through rock to create rock socket.	Cement-Bentonite Grout (1.0' - 15.0 bgs)
10								HZ HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), Shale partings at fractures (light brown bands 5YR-3/2 color), dark wavy banding.	2" Sch. 40 PVC Riser (0.5' - 18.20 bgs)
240	5	9-14	NA	78	5.0	NA		HZ HZ LA HZ HZ HA HZ		
15	6	14-19	NA	78	4.9	NA		HZ HZ HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), dark wavy banding, trace Shale partings at fractures.	

Remarks: bgs = below ground surface; NA = Not Applicable/Available.

LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

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Date Start/Finish: 9/30/08 - 10/16/08	**Northing:** 2137109.75	**Well ID:** **MW-20R**
Drilling Company: Parratt Wolff	**Easting:** 232652.93	
Driller's Name: D Richmond, R. Trask		**Client:** National Grid
Drilling Method: Hollow Stem Auger/ Conventional Coring	**Casing Elevation:** 251.52 ft AMSL **Surface Elevation:** 251.86 ft AMSL	
Sampler Size: 2" x 2' SS/ 5' HX Corebarrel	**Borehole Depth:** 63.5' bgs	**Location:** King St. Former MGP Site Ogdensburg, New York
Auger Size: 4-1/4"		
Rig Type: CME-55	**Geologist:** Marcus Eriksson	

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description	Well Construction
235	6	14-19	NA	78	4.9	NA		HZ HZ HZ HZ HZ		Bentonite Seal (15.0' - 18.20' bgs)
20	7	18.9-23.9	NA	98	5.0	NA		HZ HZ HZ HZ HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), dark wavy banding, trace Shale partings, trace white fossils.	
230	8	23.9-28.8	NA	90	5.5	NA		HZ HZ HZ HZ HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), trace Shale partings, dark gray wavy banding, possible birds eye throughout.	2" Sch. 40 0.020" Slot PVC Screen (18.20' - 28.20' bgs) #1 Silica Sand Pack (18.20' - 28.20' bgs)
25										
225										
30	10	28.8-33.8	NA	83	5.0	NA			Medium to dark gray DOLOSTONE (Munsell N4-N5), little dark gray banding, trace Sale partings.	
220										
35	11	33.8-38.8	NA	94	5.0	NA			Medium to dark gray DOLOSTONE (Munsell N4-N5), trace Shale partings.	

Remarks: bgs = below ground surface; NA = Not Applicable/Available.

LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

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Date Start/Finish: 9/30/08 - 10/16/08	**Northing:** 2137109.75	**Well ID:** **MW-20R**
Drilling Company: Parratt Wolff	**Easting:** 232652.93	
Driller's Name: D Richmond, R. Trask		**Client:** National Grid
Drilling Method: Hollow Stem Auger/ Conventional Coring	**Casing Elevation:** 251.52 ft AMSL **Surface Elevation:** 251.86 ft AMSL	
Sampler Size: 2" x 2' SS/ 5' HX Corebarrel	**Borehole Depth:** 63.5' bgs	**Location:** King St. Former MGP Site Ogdensburg, New York
Auger Size: 4-1/4"		
Rig Type: CME-55	**Geologist:** Marcus Eriksson	

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description	Well Construction
215	11	33.8-38.8	NA	94	5.0	NA		HZ		
40	12	38.8-43.8	NA	56	4.8	NA		HZ HZ HZ HZ HZ HZ HZ HZ HZ	Medium to dark gray DOLOMITE (Munsell N4-N5), little white Fossils, trace Shale parting, fractures occur at shale partings.	
210										
45	13	43.8-49	NA	100	5.2	NA		HZ HZ HZ HZ HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), little white Fossils, Shale partings, fractures occur at shale partings.	Cement-Bentonite Grout (28.20'-63.5' bgs)
205										
50	14	49-53.8	NA	83	4.8	NA		HZ HZ HZ HZ HZ HZ HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), some dark gray wavy banding, little Shale partings, trace white Fossils, fractures occur at Shale partings.	
200										

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Date Start/Finish: 9/30/08 - 10/16/08	**Northing:** 2137109.75	**Well ID:** **MW-20R**
Drilling Company: Parratt Wolff	**Easting:** 232652.93	
Driller's Name: D Richmond, R. Trask		**Client:** National Grid
Drilling Method: Hollow Stem Auger/ Conventional Coring	**Casing Elevation:** 251.52 ft AMSL **Surface Elevation:** 251.86 ft AMSL	
Sampler Size: 2" x 2' SS/ 5' HX Corebarrel	**Borehole Depth:** 63.5' bgs	**Location:** King St. Former MGP Site Ogdensburg, New York
Auger Size: 4-1/4"		
Rig Type: CME-55	**Geologist:** Marcus Eriksson	

Depth (ft. bgs) / Elevation (ft. AMSL)	Sample Run Number	Sample/Int/Type	Blows per 6 Inches	N - Value / RQD (%)	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Bedrock Fractures	Stratigraphic Description	Well Construction
55 / 195	15	53.8-58.8	NA	76	4.8	NA		HZ HZ HZ HZ HZ HZ HZ HZ HZ HZ HZ HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), some Shale partings/bands, trace white fossils, fractures occur at Shale partings.	
	15	53.8-58.8	NA	76	4.8	NA				
60 / 190	16	58.8-63.8	NA	90	5.2	NA		HZ HZ HZ HZ HZ HZ HZ HZ HZ	Medium to dark gray DOLOSTONE (Munsell N4-N5), some dark wavy banding, Shale partings/bands, trace white fossils, possible water seem at fracture 59.8' bgs.(Silt in fracture, 1" fracture)	
65 / 185	17								Bottom of Boring at 63.5' bgs.	
70 / 180										

ARCADIS
Infrastructure, environment, facilities

Remarks: bgs = below ground surface; NA = Not Applicable/Available.

LA = Low Angle Fracture; HA = High Angle Fracture; HZ = Horizontal Fracture; VF = Vertical Fracture. F = Fresh; SW = Slightly Weathered; MW= Moderately Weathered; VW = Very Weathered.

APPENDIX F

Post-Remediation Groundwater Sampling Results

Table F-1
Chemical Testing Results for Post-Remediation Groundwater Samples

National Grid
Ogdensburg (King Street) Non-Owned Former Manufactured Gas Plant Site
City of Ogdensburg, St. Lawrence County, New York

Location ID: / Parameter / Sample Date:	New York State Class GA Ambient Water Quality Standard or Guidance Value[2]	MW-2(R) 9/23/2014	MW-2(R) 10/20/2017	MW-4R 9/25/2014	MW-5R(R) 9/22/2014	MW-5R(R) 10/20/2017	MW-8R 9/24/2018
Volatile Organic Compounds (USEPA SW-846 Method 8260)							
Benzene	1	**61**	**120**	0.50 U	**130**	**440 D**	**550 D**
Ethylbenzene	5	10 U	**3**	1.0 U	**7.0**	**26**	**13**
Toluene	5	**29**	**44**	1.0 U	**3.0**	**70**	**10**
Xylenes, Total	--	**23**	**36**	1.0 U	**6.4**	**53**	**19**
Polycyclic Aromatic Hydrocarbons (USEPA SW-846 Method 8270)							
Acenaphthene	20	**1.8 J**	**4 J**	2.9 U	**9.8**	**71**	**5.6**
Acenaphthylene	--	**7.7**	**18**	2.9 U	**6.6**	**40**	**6.7**
Anthracene	50	**1.7 J**	**3 J**	2.9 U	**0.50 J**	**8**	**0.94 J**
Benzo(a)anthracene	0.002	**3.3**	5 U	2.9 U	2.2 U	0.5 U	2.3 U
Benzo(a)pyrene	ND	**2.8**	5 U	2.9 U	2.2 U	0.5 U	2.3 U
Benzo(b)fluoranthene	0.002	**3.5**	5 U	2.9 U	2.2 U	0.5 U	2.3 U
Benzo(g,h,i)perylene	--	**1.6 J**	5 U	2.9 U	2.2 U	0.5 U	2.3 U
Benzo(k)fluoranthene	0.002	**1.4 J**	5 U	2.9 U	2.2 U	0.5 U	2.3 U
Chrysene	0.002	**2.6**	5 U	2.9 U	2.2 U	0.5 U	**0.39 J**
Dibenzo(a,h)anthracene	--	2.2 U	5 U	2.9 U	2.2 U	0.5 U	2.3 U
Fluoranthene	50	**6.9**	5 U	2.9 U	2.2 U	**6**	**1.5 J**
Fluorene	50	**2.3**	**7**	2.9 U	**4.7**	**48**	**4.4**
Indeno(1,2,3-cd)pyrene	0.002	**1.4 J**	5 U	2.9 U	2.2 U	0.5 U	2.3 U
2-Methylnaphthalene	--	**5.8**	**20**	2.9 U	2.2 U	**6**	**3.7**
Naphthalene	10	**120**	**270**	2.9 U	**4.1**	**210 D**	**33**
Phenanthrene	50	**4.1**	**6**	2.9 U	**2.6**	**41**	**2.7**
Pyrene	50	**5.4**	5 U	2.9 U	2.2 U	**5**	**1.1 J**
Cyanide (USEPA SW-846 Method 9012)							
Cyanide, Total	200	**900**	**530**	**55**	**10**	**55**	**59**

See notes on page 6.

Table F-1
Chemical Testing Results for Post-Remediation Groundwater Samples

National Grid
Ogdensburg (King Street) Non-Owned Former Manufactured Gas Plant Site
City of Ogdensburg, St. Lawrence County, New York

Location ID: / Parameter / Sample Date:	New York State Class GA Ambient Water Quality Standard or Guidance Value[2]	MW-8R 10/19/2017	MW-9 9/24/2014	MW-9 10/19/2017	MW-10R 9/23/2014	MW-10R 10/19/2017	MW-11 9/25/2014
Volatile Organic Compounds (USEPA SW-846 Method 8260)							
Benzene	1	800	280	340	1,700 JD [690 JD]	1,400	0.50 U
Ethylbenzene	5	14	120	140	25 J [43 J]	100	1.0 U
Toluene	5	20	170	85	3.1 [4.2]	94	1.0 U
Xylenes, Total	--	27	250	180	15 [16]	65	1.0 U
Polycyclic Aromatic Hydrocarbons (USEPA SW-846 Method 8270)							
Acenaphthene	20	10	76	48	9.6 [7.9]	24	2.2 U
Acenaphthylene	--	10	29	17	6.0 [3.1]	23	2.2 U
Anthracene	50	0.9	11	8	2.3 U [2.3 U]	0.5	2.2 U
Benzo(a)anthracene	0.002	0.5 U	2.3 U	2	2.3 U [2.3 U]	0.5 U	2.2 U
Benzo(a)pyrene	ND	0.5 U	2.3 U	1	2.3 U [2.3 U]	0.5 U	2.2 U
Benzo(b)fluoranthene	0.002	0.5 U	2.3 U	1	2.3 U [2.3 U]	0.5 U	2.2 U
Benzo(g,h,i)perylene	--	0.5 U	2.3 U	0.4 J	2.3 U [2.3 U]	0.5 U	2.2 U
Benzo(k)fluoranthene	0.002	0.5 U	2.3 U	0.5 J	2.3 U [2.3 U]	0.5 U	2.2 U
Chrysene	0.002	0.5 U	2.3 U	1	2.3 U [2.3 U]	0.5 U	2.2 U
Dibenzo(a,h)anthracene	--	0.5 U	2.3 U	0.2 J	2.3 U [2.3 U]	0.5 U	2.2 U
Fluoranthene	50	0.7	6.0	8	2.3 U [2.3 U]	0.5 U	2.2 U
Fluorene	50	7	56	38	3.9 [3.2]	11	2.2 U
Indeno(1,2,3-cd)pyrene	0.002	0.5 U	2.3 U	0.5	2.3 U [2.3 U]	0.5 U	2.2 U
2-Methylnaphthalene	--	3	14	1	2.3 U [2.3 U]	1	2.2 U
Naphthalene	10	51	450 D	72	20 J [13 J]	140 D	2.2 U
Phenanthrene	50	2	51	36	1.3 J [0.97 J]	2	2.2 U
Pyrene	50	0.5	3.5	5	2.3 U [2.3 U]	0.5 U	2.2 U
Cyanide (USEPA SW-846 Method 9012)							
Cyanide, Total	200	320	410	1,300	420 [430]	190	250

See notes on page 6.

Table F-1
Chemical Testing Results for Post-Remediation Groundwater Samples

National Grid
Ogdensburg (King Street) Non-Owned Former Manufactured Gas Plant Site
City of Ogdensburg, St. Lawrence County, New York

Location ID: / Parameter / Sample Date:	New York State Class GA Ambient Water Quality Standard or Guidance Value[2]	MW-11 10/18/2017	MW-12R 9/24/2014	MW-12R 10/19/2017	MW-13R 9/24/2014	MW-14R 9/25/2014	MW-14R 10/18/2017
Volatile Organic Compounds (USEPA SW-846 Method 8260)							
Benzene	1	1 U	**2,600 D**	**2900 D**	0.50 U	**3.0**	**48 [49]**
Ethylbenzene	5	1 U	**130**	**110**	1.0 U	1.0 U	1 U [1 U]
Toluene	5	1 U	**7.4**	**15**	1.0 U	1.0 U	1 U [1 U]
Xylenes, Total	--	1 U	**49**	**83**	1.0 U	1.0 U	1 U [1 U]
Polycyclic Aromatic Hydrocarbons (USEPA SW-846 Method 8270)							
Acenaphthene	20	0.5 U	**3.4**	**4**	2.3 UJ	2.2 U	0.5 U [0.5 U]
Acenaphthylene	--	0.5 U	**4.8**	**7**	2.3 UJ	2.2 U	0.5 U [0.5 U]
Anthracene	50	0.5 U	2.2 U	0.5 U	2.3 U	2.2 U	0.5 U [0.5 U]
Benzo(a)anthracene	0.002	0.5 U	2.2 U	0.5 U	2.3 U	2.2 U	0.5 U [0.5 U]
Benzo(a)pyrene	ND	0.5 U	2.2 U	0.5 U	2.3 U	2.2 U	0.5 U [0.5 U]
Benzo(b)fluoranthene	0.002	0.5 U	2.2 U	0.5 U	2.3 U	2.2 U	0.5 U [0.5 U]
Benzo(g,h,i)perylene	--	0.5 U	2.2 U	0.5 U	2.3 U	2.2 U	0.5 U [0.5 U]
Benzo(k)fluoranthene	0.002	0.5 U	2.2 U	0.5 U	2.3 U	2.2 U	0.5 U [0.5 U]
Chrysene	0.002	0.5 U	2.2 U	0.5 U	2.3 U	2.2 U	0.5 U [0.5 U]
Dibenzo(a,h)anthracene	--	0.5 U	2.2 U	0.5 U	2.3 U	2.2 U	0.5 U [0.5 U]
Fluoranthene	50	0.5 U	2.2 U	0.5 U	2.3 U	2.2 U	0.5 U [0.5 U]
Fluorene	50	0.5 U	2.2 U	**0.3 J**	2.3 UJ	2.2 U	0.5 U [0.5 U]
Indeno(1,2,3-cd)pyrene	0.002	0.5 U	2.2 U	0.5 U	2.3 U	2.2 U	0.5 U [0.5 U]
2-Methylnaphthalene	--	0.5 U	2.2 U	0.5 U	2.3 UJ	2.2 U	0.5 U [0.5 U]
Naphthalene	10	0.5 U	**31**	**92**	2.3 UJ	2.2 U	0.5 U [0.5 U]
Phenanthrene	50	0.5 U	2.2 U	0.5 U	2.3 U	2.2 U	0.5 U [0.5 U]
Pyrene	50	0.5 U	2.2 U	0.5 U	2.3 U	2.2 U	0.5 U [0.5 U]
Cyanide (USEPA SW-846 Method 9012)							
Cyanide, Total	200	**310**	**190**	**37**	10 U	10 U	10 U [10 U]

See notes on page 6.

Table F-1
Chemical Testing Results for Post-Remediation Groundwater Samples

National Grid
Ogdensburg (King Street) Non-Owned Former Manufactured Gas Plant Site
City of Ogdensburg, St. Lawrence County, New York

Location ID: / Parameter / Sample Date:	New York State Class GA Ambient Water Quality Standard or Guidance Value[2]	MW-15 9/24/2014	MW-15 10/19/2017	MW-15RD 9/22/2014	MW-15RS 9/22/2014	MW-15RS 10/19/2017	MW-16R 9/24/2014
Volatile Organic Compounds (USEPA SW-846 Method 8260)							
Benzene	1	0.50 U	1 U	**0.84**	**750 D**	**170**	0.50 U
Ethylbenzene	5	1.0 U	1 U	1.0 U	1.0 U	1 U	1.0 U
Toluene	5	1.0 U	1 U	1.0 U	**0.54 J**	1 U	1.0 U
Xylenes, Total	--	1.0 U	1 U	1.0 U	1.0 U	1 U	1.0 U
Polycyclic Aromatic Hydrocarbons (USEPA SW-846 Method 8270)							
Acenaphthene	20	2.1 U	0.5 U	2.3 U	2.4 U	0.5 U	2.1 U
Acenaphthylene	--	2.1 U	0.5 U	2.3 U	2.4 U	0.5 U	2.1 U
Anthracene	50	2.1 U	0.5 U	2.3 U	2.4 U	0.5 U	2.1 U
Benzo(a)anthracene	0.002	2.1 U	**0.2 J**	2.3 U	2.4 U	0.5 U	2.1 U
Benzo(a)pyrene	ND	2.1 U	**0.2 J**	2.3 U	2.4 U	0.5 U	2.1 U
Benzo(b)fluoranthene	0.002	2.1 U	**0.2 J**	2.3 U	2.4 U	0.5 U	2.1 U
Benzo(g,h,i)perylene	--	2.1 U	0.5 U	2.3 U	2.4 U	0.5 U	2.1 U
Benzo(k)fluoranthene	0.002	2.1 U	0.5 U	2.3 U	2.4 U	0.5 U	2.1 U
Chrysene	0.002	2.1 U	**0.2 J**	2.3 U	2.4 U	0.5 U	2.1 U
Dibenzo(a,h)anthracene	--	2.1 U	0.5 U	2.3 U	2.4 U	0.5 U	2.1 U
Fluoranthene	50	2.1 U	**0.3 J**	2.3 U	2.4 U	0.5 U	2.1 U
Fluorene	50	2.1 U	0.5 U	2.3 U	2.4 U	0.5 U	2.1 U
Indeno(1,2,3-cd)pyrene	0.002	2.1 U	0.5 U	2.3 U	2.4 U	0.5 U	2.1 U
2-Methylnaphthalene	--	2.1 U	0.5 U	2.3 U	2.4 U	0.5 U	2.1 U
Naphthalene	10	2.1 U	0.5 U	2.3 U	2.4 U	0.5 U	2.1 U
Phenanthrene	50	2.1 U	**0.1 J**	2.3 U	2.4 U	0.5 U	2.1 U
Pyrene	50	**0.35 J**	**0.3 J**	2.3 U	2.4 U	0.5 U	2.1 U
Cyanide (USEPA SW-846 Method 9012)							
Cyanide, Total	200	10 U	10 U	10 U	**160**	**64**	**16**

See notes on page 6.

Table F-1
Chemical Testing Results for Post-Remediation Groundwater Samples

National Grid
Ogdensburg (King Street) Non-Owned Former Manufactured Gas Plant Site
City of Ogdensburg, St. Lawrence County, New York

Location ID: / Parameter / Sample Date:	New York State Class GA Ambient Water Quality Standard or Guidance Value[2]	MW-17R 9/25/2014	MW-17R 10/18/2017	MW-19R 9/25/2014	MW-19R 10/18/2017	MW-20R 9/25/2014	MW-20R 10/18/2017
Volatile Organic Compounds (USEPA SW-846 Method 8260)							
Benzene	1	0.50 U	1 U	0.50 U	1 U	0.50 U	1 U
Ethylbenzene	5	1.0 U	1 U	1.0 U	1 U	1.0 U	1 U
Toluene	5	1.0 U	1 U	1.0 U	1 U	1.0 U	1 U
Xylenes, Total	--	1.0 U	1 U	1.0 U	1 U	1.0 U	1 U
Polycyclic Aromatic Hydrocarbons (USEPA SW-846 Method 8270)							
Acenaphthene	20	2.2 U	0.5 U	2.2 U	0.5 U	2.2 U	0.5 U
Acenaphthylene	--	2.2 U	0.5 U	2.2 U	0.5 U	2.2 U	0.5 U
Anthracene	50	2.2 U	0.5 U	2.2 U	0.5 U	2.2 U	0.5 U
Benzo(a)anthracene	0.002	2.2 U	0.5 U	2.2 U	0.5 U	2.2 U	0.5 U
Benzo(a)pyrene	ND	2.2 U	0.5 U	2.2 U	0.5 U	2.2 U	0.5 U
Benzo(b)fluoranthene	0.002	2.2 U	0.5 U	2.2 U	0.5 U	2.2 U	0.5 U
Benzo(g,h,i)perylene	--	2.2 U	0.5 U	2.2 U	0.5 U	2.2 U	0.5 U
Benzo(k)fluoranthene	0.002	2.2 U	0.5 U	2.2 U	0.5 U	2.2 U	0.5 U
Chrysene	0.002	2.2 U	0.5 U	2.2 U	0.5 U	2.2 U	0.5 U
Dibenzo(a,h)anthracene	--	2.2 U	0.5 U	2.2 U	0.5 U	2.2 U	0.5 U
Fluoranthene	50	2.2 U	0.5 U	2.2 U	0.5 U	2.2 U	0.5 U
Fluorene	50	2.2 U	0.5 U	2.2 U	0.5 U	2.2 U	0.5 U
Indeno(1,2,3-cd)pyrene	0.002	2.2 U	0.5 U	2.2 U	0.5 U	2.2 U	0.5 U
2-Methylnaphthalene	--	2.2 U	0.5 U	2.2 U	0.5 U	2.2 U	0.5 U
Naphthalene	10	2.2 U	0.5 U	2.2 U	0.5 U	2.2 U	0.5 U
Phenanthrene	50	2.2 U	0.5 U	2.2 U	0.5 U	2.2 U	0.5 U
Pyrene	50	2.2 U	0.5 U	2.2 U	0.5 U	2.2 U	0.5 U
Cyanide (USEPA SW-846 Method 9012)							
Cyanide, Total	200	10 U	10 U	10 U	10 U	10 U	10 U

See notes on page 6.

Table F-1
Chemical Testing Results for Post-Remediation Groundwater Samples

National Grid
Ogdensburg (King Street) Non-Owned Former Manufactured Gas Plant Site
City of Ogdensburg, St. Lawrence County, New York

Notes:

1. Sample results are presented in units of micrograms per liter (µg/L).
2. New York State Class GA (groundwater) ambient water quality standards and guidance values are from the New York State Department of Environmental Conservation's Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, titled *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations* (NYSDEC 1998).
3. --: No standard or guidance value is listed in TOGS 1.1.1 for this analyte.
4. ND: Non-detect.
5. Bolded sample concentrations denote detected analytes.
6. Field duplicate sample results are presented in brackets.
7. Gray shading denotes sample concentrations that exceed the applicable New York State Class GA ambient water quality standard or guidance value.

Data Qualifiers:

1. D: Concentration is based on a diluted sample analysis.
2. J: Concentration is less than the reporting limit, but greater than or equal to the method detection limit. The reported concentration is an estimate.
3. U: Analyte was not detected in the sample. The reported concentration is the reporting limit.

New England ACCUTEST LABORATORIES

10/08/14

Technical Report for

Arcadis

National Grid, 10 King Street, Ogdensburg, NY

B0036671.0003.00001

Accutest Job Number: MC33841

Sampling Dates: 09/22/14 - 09/23/14

Report to:

Arcadis U.S.
6723 Towpath Road, Box 66
Syracuse, NY 13214-0066
Douglas.Nodine@arcadis-us.com

ATTN: Douglas Nodine

Total number of pages in report: **375**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Sample Summary

Arcadis

Job No: MC33841

National Grid, 10 King Street, Ogdensburg, NY
Project No: B0036671.0003.00001

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC33841-1	09/22/14	18:05	KPEM	09/24/14	AQ	Ground Water	MW-5R
MC33841-2	09/23/14	14:00	KPEM	09/24/14	AQ	Ground Water	MW-2
MC33841-3	09/22/14	09:50	KPEM	09/24/14	AQ	Ground Water	MW-15RS
MC33841-4	09/22/14	11:15	KPEM	09/24/14	AQ	Ground Water	MW-15RD
MC33841-5	09/23/14	00:00	KPEM	09/24/14	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Arcadis	**Job No**	MC33841
Site:	National Grid, 10 King Street, Ogdensburg, NY	**Report Date**	10/8/2014 7:56:29 AM

4 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on between 09/22/2014 and 09/23/2014 and were received at Accutest on 09/24/2014 properly preserved, at 3.5 Deg. C and intact. These Samples received an Accutest job number of MC33841. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ **Batch ID:** MSN3352

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC33845-2MS, MC33845-2MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** MSN3353

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC33708-1MS, MC33708-1MSD were used as the QC samples indicated.
- MC33841-2: Elevated RL due to sample matrix.

Extractables by GCMS By Method SW846 8270D

Matrix: AQ **Batch ID:** OP39961

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC33800-11MS, MC33800-11MSD were used as the QC samples indicated.

Wet Chemistry By Method SW846 9012

Matrix: AQ **Batch ID:** GP18216

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC33908-3DUP, MC33908-3MS were used as the QC samples for Cyanide.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC33841).

Summary of Hits

Job Number: MC33841
Account: Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY
Collected: 09/22/14 thru 09/23/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC33841-1	**MW-5R**					
Benzene		129	0.50	0.32	ug/l	SW846 8260C
Toluene		3.0	1.0	0.33	ug/l	SW846 8260C
Ethylbenzene		7.0	1.0	0.38	ug/l	SW846 8260C
Xylene (total)		6.4	1.0	0.36	ug/l	SW846 8260C
Acenaphthene		9.8	2.2	0.35	ug/l	SW846 8270D
Acenaphthylene		6.6	2.2	0.24	ug/l	SW846 8270D
Anthracene		0.50 J	2.2	0.21	ug/l	SW846 8270D
Fluorene		4.7	2.2	0.24	ug/l	SW846 8270D
Naphthalene		4.1	2.2	0.33	ug/l	SW846 8270D
Phenanthrene		2.6	2.2	0.15	ug/l	SW846 8270D
Cyanide		0.010	0.010		mg/l	SW846 9012
MC33841-2	**MW-2**					
Benzene [a]		60.9	5.0	3.2	ug/l	SW846 8260C
Toluene [a]		29.2	10	3.3	ug/l	SW846 8260C
Xylene (total) [a]		23.0	10	3.6	ug/l	SW846 8260C
Acenaphthene		1.8 J	2.2	0.35	ug/l	SW846 8270D
Acenaphthylene		7.7	2.2	0.23	ug/l	SW846 8270D
Anthracene		1.7 J	2.2	0.20	ug/l	SW846 8270D
Benzo(a)anthracene		3.3	2.2	0.53	ug/l	SW846 8270D
Benzo(a)pyrene		2.8	2.2	0.17	ug/l	SW846 8270D
Benzo(b)fluoranthene		3.5	2.2	0.27	ug/l	SW846 8270D
Benzo(g,h,i)perylene		1.6 J	2.2	0.90	ug/l	SW846 8270D
Benzo(k)fluoranthene		1.4 J	2.2	0.95	ug/l	SW846 8270D
Chrysene		2.6	2.2	0.18	ug/l	SW846 8270D
Fluoranthene		6.9	2.2	0.49	ug/l	SW846 8270D
Fluorene		2.3	2.2	0.23	ug/l	SW846 8270D
Indeno(1,2,3-cd)pyrene		1.4 J	2.2	0.90	ug/l	SW846 8270D
2-Methylnaphthalene		5.8	2.2	0.29	ug/l	SW846 8270D
Naphthalene		117	2.2	0.32	ug/l	SW846 8270D
Phenanthrene		4.1	2.2	0.15	ug/l	SW846 8270D
Pyrene		5.4	2.2	0.18	ug/l	SW846 8270D
Cyanide		0.90	0.050		mg/l	SW846 9012
MC33841-3	**MW-15RS**					
Benzene		753	25	16	ug/l	SW846 8260C
Toluene		0.54 J	1.0	0.33	ug/l	SW846 8260C
Cyanide		0.16	0.010		mg/l	SW846 9012

Summary of Hits

Job Number: MC33841
Account: Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY
Collected: 09/22/14 thru 09/23/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC33841-4	**MW-15RD**					
Benzene		0.84	0.50	0.32	ug/l	SW846 8260C
MC33841-5	**TRIP BLANK**					
No hits reported in this sample.						

(a) Elevated RL due to sample matrix.

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-5R		
Lab Sample ID:	MC33841-1	**Date Sampled:**	09/22/14
Matrix:	AQ - Ground Water	**Date Received:**	09/24/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90611.D	1	09/26/14	KD	n/a	n/a	MSN3352
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	129	0.50	0.32	ug/l	
108-88-3	Toluene	3.0	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	7.0	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	6.4	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-5R		
Lab Sample ID:	MC33841-1	**Date Sampled:**	09/22/14
Matrix:	AQ - Ground Water	**Date Received:**	09/24/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R40059.D	1	10/01/14	WK	09/25/14	OP39961	MSR1474
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	9.8	2.2	0.35	ug/l	
208-96-8	Acenaphthylene	6.6	2.2	0.24	ug/l	
120-12-7	Anthracene	0.50	2.2	0.21	ug/l	J
56-55-3	Benzo(a)anthracene	ND	2.2	0.54	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.92	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.97	ug/l	
218-01-9	Chrysene	ND	2.2	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.71	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.50	ug/l	
86-73-7	Fluorene	4.7	2.2	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.92	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	4.1	2.2	0.33	ug/l	
85-01-8	Phenanthrene	2.6	2.2	0.15	ug/l	
129-00-0	Pyrene	ND	2.2	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	78%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%
1718-51-0	Terphenyl-d14	96%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-5R		
Lab Sample ID:	MC33841-1	**Date Sampled:**	09/22/14
Matrix:	AQ - Ground Water	**Date Received:**	09/24/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.010	0.010	mg/l	1	10/03/14 11:30	MA	SW846 9012

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	MC33841-2	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/24/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	N90634.D	10	09/26/14	KD	n/a	n/a	MSN3353
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	60.9	5.0	3.2	ug/l	
108-88-3	Toluene	29.2	10	3.3	ug/l	
100-41-4	Ethylbenzene	ND	10	3.8	ug/l	
1330-20-7	Xylene (total)	23.0	10	3.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

(a) Elevated RL due to sample matrix.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	MC33841-2	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/24/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R40060.D	1	10/01/14	WK	09/25/14	OP39961	MSR1474
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1.8	2.2	0.35	ug/l	J
208-96-8	Acenaphthylene	7.7	2.2	0.23	ug/l	
120-12-7	Anthracene	1.7	2.2	0.20	ug/l	J
56-55-3	Benzo(a)anthracene	3.3	2.2	0.53	ug/l	
50-32-8	Benzo(a)pyrene	2.8	2.2	0.17	ug/l	
205-99-2	Benzo(b)fluoranthene	3.5	2.2	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	1.6	2.2	0.90	ug/l	J
207-08-9	Benzo(k)fluoranthene	1.4	2.2	0.95	ug/l	J
218-01-9	Chrysene	2.6	2.2	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.69	ug/l	
206-44-0	Fluoranthene	6.9	2.2	0.49	ug/l	
86-73-7	Fluorene	2.3	2.2	0.23	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	1.4	2.2	0.90	ug/l	J
91-57-6	2-Methylnaphthalene	5.8	2.2	0.29	ug/l	
91-20-3	Naphthalene	117	2.2	0.32	ug/l	
85-01-8	Phenanthrene	4.1	2.2	0.15	ug/l	
129-00-0	Pyrene	5.4	2.2	0.18	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	70%		30-130%
1718-51-0	Terphenyl-d14	80%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	MC33841-2	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/24/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.90	0.050	mg/l	5	10/03/14 11:52	MA	SW846 9012

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-15RS		
Lab Sample ID:	MC33841-3	**Date Sampled:**	09/22/14
Matrix:	AQ - Ground Water	**Date Received:**	09/24/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90613.D	1	09/26/14	KD	n/a	n/a	MSN3352
Run #2	N90636.D	50	09/26/14	KD	n/a	n/a	MSN3353

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	753 [a]	25	16	ug/l	
108-88-3	Toluene	0.54	1.0	0.33	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%	98%	70-130%
2037-26-5	Toluene-D8	99%	102%	70-130%
460-00-4	4-Bromofluorobenzene	97%	99%	70-130%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-15RS		
Lab Sample ID:	MC33841-3	**Date Sampled:**	09/22/14
Matrix:	AQ - Ground Water	**Date Received:**	09/24/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R40061.D	1	10/01/14	WK	09/25/14	OP39961	MSR1474
Run #2							

	Initial Volume	Final Volume
Run #1	850 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.4	0.37	ug/l	
208-96-8	Acenaphthylene	ND	2.4	0.25	ug/l	
120-12-7	Anthracene	ND	2.4	0.22	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.4	0.58	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.4	0.19	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.4	0.29	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.4	0.98	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.4	1.0	ug/l	
218-01-9	Chrysene	ND	2.4	0.19	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.4	0.75	ug/l	
206-44-0	Fluoranthene	ND	2.4	0.53	ug/l	
86-73-7	Fluorene	ND	2.4	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.4	0.97	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.4	0.31	ug/l	
91-20-3	Naphthalene	ND	2.4	0.35	ug/l	
85-01-8	Phenanthrene	ND	2.4	0.16	ug/l	
129-00-0	Pyrene	ND	2.4	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	70%		30-130%
321-60-8	2-Fluorobiphenyl	68%		30-130%
1718-51-0	Terphenyl-d14	88%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15RS		
Lab Sample ID:	MC33841-3	**Date Sampled:**	09/22/14
Matrix:	AQ - Ground Water	**Date Received:**	09/24/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.16	0.010	mg/l	1	10/03/14 11:32	MA	SW846 9012

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-15RD		
Lab Sample ID:	MC33841-4	**Date Sampled:**	09/22/14
Matrix:	AQ - Ground Water	**Date Received:**	09/24/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90633.D	1	09/26/14	KD	n/a	n/a	MSN3353
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.84	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-15RD		
Lab Sample ID:	MC33841-4	**Date Sampled:**	09/22/14
Matrix:	AQ - Ground Water	**Date Received:**	09/24/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R40062.D	1	10/01/14	WK	09/25/14	OP39961	MSR1474
Run #2							

	Initial Volume	Final Volume
Run #1	860 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.3	0.37	ug/l	
208-96-8	Acenaphthylene	ND	2.3	0.25	ug/l	
120-12-7	Anthracene	ND	2.3	0.22	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.3	0.57	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.3	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.3	0.29	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.3	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.3	1.0	ug/l	
218-01-9	Chrysene	ND	2.3	0.19	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.3	0.74	ug/l	
206-44-0	Fluoranthene	ND	2.3	0.52	ug/l	
86-73-7	Fluorene	ND	2.3	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.3	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.3	0.30	ug/l	
91-20-3	Naphthalene	ND	2.3	0.34	ug/l	
85-01-8	Phenanthrene	ND	2.3	0.16	ug/l	
129-00-0	Pyrene	ND	2.3	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	79%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%
1718-51-0	Terphenyl-d14	89%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15RD		
Lab Sample ID:	MC33841-4	**Date Sampled:**	09/22/14
Matrix:	AQ - Ground Water	**Date Received:**	09/24/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	10/03/14 11:33	MA	SW846 9012

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	MC33841-5	**Date Sampled:**	09/23/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	09/24/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90603.D	1	09/26/14	KD	n/a	n/a	MSN3352
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 1 OF 1

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: MC33841

Client / Reporting Information

Company Name: ARCADIS
Street Address: 6723 Towpath Rd
City: Syracuse State: NY Zip: 13214
Project Contact: Doug Nodine E-mail:
Phone #: (315) 671-9377 Fax #: (same)
Sampler(s) Name(s): Kasey Petrah Phone #: 315-663-5575

Project Information

Project Name: National Grid Ogdensburg
Street: King St
City: Ogdensburg, NY
Project #: 80036671.0003.0000
Client PO#:
Project Manager: Mike Benoit

Billing Information (If different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention: PO#:

Requested Analysis (see TEST CODE sheet)

BTEX
PAH
Total Cyanide

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB- Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfate	BTEX	PAH	Total Cyanide	LAB USE ONLY
-1	MW-5R		9/22/14	1805	KP	GW	6	3	1			2					3	2	1	
-2	MW-2		9/23/14	1400	RM	GW	6	3	1			2					3	2	1	
-3	MW-15RS		9/22/14	950	KP	GW	6	3	1			2					3	2	1	
-4	MW-15RD		9/22/14	1115	KP	GW	6	3	1			2					3	2	1	
-5	Trip Blank		9/23/14	—	—	TB	1	1									1			

5G4, 10E, 17B

Turnaround Time (Business days)

- [ ] Std. 10 Business Days
- [ ] Std. 5 Business Days (By Contract only)
- [ ] 5 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:
Confirm w/ PM or Doug Nodine

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] CT RCP
- [ ] MA MCP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

ACCUTEST SYRACUSE-SC

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Kasey Petrah	9/23/14 1600	1	2 FED EX	9-24-14 930	2
3			3	4		4
5			5			

Custody Seal # | [ ] Intact [ ] Not intact | Preserved where applicable [ ] | On Ice [x] | Cooler Temp. 5.5 C

5.1 5

MC33841: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC33841 **Client:** ARCADIS **Project:** NAT GRID OGDENSBURG

Date / Time Received: 9/24/2014 9:30:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (3.5/3.5);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Thermometer ID:	G1;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:(508) 481-6200

495 Technology Center West, Bldg One
F: (508) 481-7753

Marlborough, MA 01752
www/accutest.com

MC33841: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Arcadis

Job No: MC33841

National Grid, 10 King Street, Ogdensburg, NY
Project No: B0036671.0003.00001

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC33841-1 Collected: 22-SEP-14 18:05 By: KPEM Received: 24-SEP-14 By: MW-5R						
MC33841-1	SW846 8260C	26-SEP-14 04:27	KD			V8260BTX
MC33841-1	SW846 8270D	01-OCT-14 09:52	WK	25-SEP-14	TA	B8270PAH
MC33841-1	SW846 9012	03-OCT-14 11:30	MA	03-OCT-14	MA	CN
MC33841-2 Collected: 23-SEP-14 14:00 By: KPEM Received: 24-SEP-14 By: MW-2						
MC33841-2	SW846 8260C	26-SEP-14 15:19	KD			V8260BTX
MC33841-2	SW846 8270D	01-OCT-14 10:17	WK	25-SEP-14	TA	B8270PAH
MC33841-2	SW846 9012	03-OCT-14 11:52	MA	03-OCT-14	MA	CN
MC33841-3 Collected: 22-SEP-14 09:50 By: KPEM Received: 24-SEP-14 By: MW-15RS						
MC33841-3	SW846 8260C	26-SEP-14 05:23	KD			V8260BTX
MC33841-3	SW846 8260C	26-SEP-14 16:16	KD			V8260BTX
MC33841-3	SW846 8270D	01-OCT-14 10:41	WK	25-SEP-14	TA	B8270PAH
MC33841-3	SW846 9012	03-OCT-14 11:32	MA	03-OCT-14	MA	CN
MC33841-4 Collected: 22-SEP-14 11:15 By: KPEM Received: 24-SEP-14 By: MW-15RD						
MC33841-4	SW846 8260C	26-SEP-14 14:51	KD			V8260BTX
MC33841-4	SW846 8270D	01-OCT-14 11:05	WK	25-SEP-14	TA	B8270PAH
MC33841-4	SW846 9012	03-OCT-14 11:33	MA	03-OCT-14	MA	CN
MC33841-5 Collected: 23-SEP-14 00:00 By: KPEM Received: 24-SEP-14 By: TRIP BLANK						
MC33841-5	SW846 8260C	26-SEP-14 00:41	KD			V8260BTX

Accutest Internal Chain of Custody

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY
Received: 09/24/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC33841-1.2	Walk In Ref #22	Michael DiBuono	09/25/14 08:40	Retrieve from Storage
MC33841-1.2	Michael DiBuono		09/27/14 16:26	Depleted
MC33841-1.3	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33841-1.3	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33841-1.4	VOC Ref #5	Krysten Dufort	09/25/14 11:43	Retrieve from Storage
MC33841-1.4	Krysten Dufort	GCMSN	09/25/14 11:43	Load on Instrument
MC33841-1.4	GCMSN	Krysten Dufort	09/26/14 11:00	Unload from Instrument
MC33841-1.4	Krysten Dufort	VOC Ref #5	09/26/14 11:01	Return to Storage
MC33841-2.1	Walk In Ref #22	Michael DiBuono	09/25/14 08:40	Retrieve from Storage
MC33841-2.1	Michael DiBuono		09/27/14 16:26	Depleted
MC33841-2.3	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33841-2.3	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33841-2.5	VOC Ref #5	Krysten Dufort	09/26/14 12:35	Retrieve from Storage
MC33841-2.5	Krysten Dufort	GCMSN	09/26/14 12:35	Load on Instrument
MC33841-2.5	GCMSN	Jaclyn Bergeron	09/29/14 09:29	Unload from Instrument
MC33841-2.5	Jaclyn Bergeron	VOC Ref #5	09/29/14 09:29	Return to Storage
MC33841-2.6	VOC Ref #5	Krysten Dufort	09/25/14 11:43	Retrieve from Storage
MC33841-2.6	Krysten Dufort	GCMSN	09/25/14 11:43	Load on Instrument
MC33841-2.6	GCMSN	Krysten Dufort	09/26/14 11:00	Unload from Instrument
MC33841-2.6	Krysten Dufort	VOC Ref #5	09/26/14 11:01	Return to Storage
MC33841-3.2	Walk In Ref #22	Michael DiBuono	09/25/14 08:40	Retrieve from Storage
MC33841-3.2	Michael DiBuono		09/27/14 16:26	Depleted
MC33841-3.3	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33841-3.3	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33841-3.4	VOC Ref #5	Krysten Dufort	09/26/14 12:35	Retrieve from Storage
MC33841-3.4	Krysten Dufort	GCMSN	09/26/14 12:35	Load on Instrument
MC33841-3.4	GCMSN	Jaclyn Bergeron	09/29/14 09:29	Unload from Instrument
MC33841-3.4	Jaclyn Bergeron	VOC Ref #5	09/29/14 09:29	Return to Storage
MC33841-3.6	VOC Ref #5	Krysten Dufort	09/25/14 11:43	Retrieve from Storage
MC33841-3.6	Krysten Dufort	GCMSN	09/25/14 11:43	Load on Instrument
MC33841-3.6	GCMSN	Krysten Dufort	09/26/14 11:00	Unload from Instrument
MC33841-3.6	Krysten Dufort	VOC Ref #5	09/26/14 11:01	Return to Storage
MC33841-4.1	Walk In Ref #22	Michael DiBuono	09/25/14 08:40	Retrieve from Storage

Accutest Internal Chain of Custody

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY
Received: 09/24/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC33841-4.1	Michael DiBuono		09/27/14 16:26	Depleted
MC33841-4.3	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33841-4.3	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33841-4.4	VOC Ref #5	Krysten Dufort	09/25/14 11:43	Retrieve from Storage
MC33841-4.4	Krysten Dufort	GCMSN	09/25/14 11:43	Load on Instrument
MC33841-4.4	GCMSN	Krysten Dufort	09/26/14 11:00	Unload from Instrument
MC33841-4.4	Krysten Dufort	VOC Ref #5	09/26/14 11:01	Return to Storage
MC33841-4.6	VOC Ref #5	Krysten Dufort	09/26/14 12:35	Retrieve from Storage
MC33841-4.6	Krysten Dufort	GCMSN	09/26/14 12:35	Load on Instrument
MC33841-4.6	GCMSN	Jaclyn Bergeron	09/29/14 09:29	Unload from Instrument
MC33841-4.6	Jaclyn Bergeron	VOC Ref #5	09/29/14 09:29	Return to Storage
MC33841-5.1	VOC Ref #5	Krysten Dufort	09/25/14 11:43	Retrieve from Storage
MC33841-5.1	Krysten Dufort	GCMSN	09/25/14 11:43	Load on Instrument
MC33841-5.1	GCMSN	Krysten Dufort	09/26/14 11:00	Unload from Instrument
MC33841-5.1	Krysten Dufort	VOC Ref #5	09/26/14 11:01	Return to Storage

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3352-MB	N90602.D	1	09/26/14	KD	n/a	n/a	MSN3352

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33841-1, MC33841-3, MC33841-5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	94%	70-130%
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

Method Blank Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3353-MB	N90629.D	1	09/26/14	KD	n/a	n/a	MSN3353

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33841-2, MC33841-3, MC33841-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	70-130%
2037-26-5	Toluene-D8	102%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

Blank Spike Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3352-BS	N90600.D	1	09/25/14	KD	n/a	n/a	MSN3352

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33841-1, MC33841-3, MC33841-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	42.1	84	70-130
100-41-4	Ethylbenzene	50	46.5	93	70-130
108-88-3	Toluene	50	46.2	92	70-130
1330-20-7	Xylene (total)	150	136	91	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	70-130%
2037-26-5	Toluene-D8	103%	70-130%
460-00-4	4-Bromofluorobenzene	95%	70-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3353-BS	N90626.D	1	09/26/14	KD	n/a	n/a	MSN3353

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33841-2, MC33841-3, MC33841-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	45.8	92	70-130
100-41-4	Ethylbenzene	50	47.7	95	70-130
108-88-3	Toluene	50	48.1	96	70-130
1330-20-7	Xylene (total)	150	134	89	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	95%	70-130%
2037-26-5	Toluene-D8	103%	70-130%
460-00-4	4-Bromofluorobenzene	92%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC33845-2MS	N90622.D	5	09/26/14	KD	n/a	n/a	MSN3352
MC33845-2MSD	N90623.D	5	09/26/14	KD	n/a	n/a	MSN3352
MC33845-2	N90605.D	1	09/26/14	KD	n/a	n/a	MSN3352

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33841-1, MC33841-3, MC33841-5

CAS No.	Compound	MC33845-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		250	223	89	250	230	92	3	70-130/30
100-41-4	Ethylbenzene	ND		250	240	96	250	258	103	7	70-130/30
108-88-3	Toluene	ND		250	238	95	250	252	101	6	70-130/30
1330-20-7	Xylene (total)	ND		750	682	91	750	734	98	7	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC33845-2	Limits
1868-53-7	Dibromofluoromethane	96%	94%	96%	70-130%
2037-26-5	Toluene-D8	104%	104%	100%	70-130%
460-00-4	4-Bromofluorobenzene	93%	93%	99%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC33708-1MS	N90649.D	1	09/26/14	KD	n/a	n/a	MSN3353
MC33708-1MSD	N90650.D	1	09/26/14	KD	n/a	n/a	MSN3353
MC33708-1	N90635.D	1	09/26/14	KD	n/a	n/a	MSN3353

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33841-2, MC33841-3, MC33841-4

CAS No.	Compound	MC33708-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		50	49.6	99	50	49.6	99	0	70-130/30
100-41-4	Ethylbenzene	ND		50	49.9	100	50	50.0	100	0	70-130/30
108-88-3	Toluene	ND		50	52.2	104	50	52.0	104	0	70-130/30
1330-20-7	Xylene (total)	ND		150	141	94	150	141	94	0	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC33708-1	Limits
1868-53-7	Dibromofluoromethane	96%	99%	98%	70-130%
2037-26-5	Toluene-D8	103%	102%	99%	70-130%
460-00-4	4-Bromofluorobenzene	93%	93%	98%	70-130%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3345-BFB
Lab File ID: N90385.D
Instrument ID: GCMSN
Injection Date: 09/18/14
Injection Time: 13:17

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	27584	25.4		Pass
75	30.0 - 60.0% of mass 95	54529	50.3		Pass
95	Base peak, 100% relative abundance	108414	100.0		Pass
96	5.0 - 9.0% of mass 95	7647	7.05		Pass
173	Less than 2.0% of mass 174	581	0.54	(0.79) [a]	Pass
174	50.0 - 150.0% of mass 95	73592	67.9		Pass
175	5.0 - 9.0% of mass 174	5197	4.79	(7.06) [a]	Pass
176	95.0 - 101.0% of mass 174	71013	65.5	(96.5) [a]	Pass
177	5.0 - 9.0% of mass 176	4495	4.15	(6.33) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSN3345-IC3345	N90391.D	09/18/14	16:07	02:50	Initial cal 0.5
MSN3345-IC3345	N90392.D	09/18/14	16:35	03:18	Initial cal 1
MSN3345-IC3345	N90393.D	09/18/14	17:03	03:46	Initial cal 2
MSN3345-IC3345	N90394.D	09/18/14	17:32	04:15	Initial cal 5
MSN3345-IC3345	N90395.D	09/18/14	18:00	04:43	Initial cal 10
MSN3345-IC3345	N90396.D	09/18/14	18:30	05:13	Initial cal 25
MSN3345-ICC3345	N90397.D	09/18/14	18:59	05:42	Initial cal 50
MSN3345-IC3345	N90398.D	09/18/14	19:27	06:10	Initial cal 100
MSN3345-IC3345	N90399.D	09/18/14	19:55	06:38	Initial cal 200
MSN3345-IC3345	N90400.D	09/18/14	20:23	07:06	Initial cal 400

Instrument Performance Check (BFB)

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3345-BFB
Lab File ID: N90407.D
Instrument ID: GCMSN
Injection Date: 09/19/14
Injection Time: 13:04

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	31008	23.4		Pass
75	30.0 - 60.0% of mass 95	66272	49.9		Pass
95	Base peak, 100% relative abundance	132736	100.0		Pass
96	5.0 - 9.0% of mass 95	8223	6.20		Pass
173	Less than 2.0% of mass 174	660	0.50	(0.72) [a]	Pass
174	50.0 - 150.0% of mass 95	91480	68.9		Pass
175	5.0 - 9.0% of mass 174	5584	4.21	(6.10) [a]	Pass
176	95.0 - 101.0% of mass 174	88016	66.3	(96.2) [a]	Pass
177	5.0 - 9.0% of mass 176	5211	3.93	(5.92) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSN3345-ICV3345	N90407.D	09/19/14	13:04	00:00	Initial cal verification 50
MSN3345-BS	N90407.D	09/19/14	13:04	00:00	Blank Spike
MSN3345-CC3345	N90407.D	09/19/14	13:04	00:00	Continuing cal 50
MSN3345-MB	N90410.D	09/19/14	14:28	01:24	Method Blank
ZZZZZZ	N90411.D	09/19/14	15:09	02:05	(unrelated sample)
ZZZZZZ	N90412.D	09/19/14	15:37	02:33	(unrelated sample)
ZZZZZZ	N90413.D	09/19/14	16:05	03:01	(unrelated sample)
ZZZZZZ	N90414.D	09/19/14	16:33	03:29	(unrelated sample)
ZZZZZZ	N90415.D	09/19/14	17:02	03:58	(unrelated sample)
ZZZZZZ	N90416.D	09/19/14	17:30	04:26	(unrelated sample)
ZZZZZZ	N90417.D	09/19/14	17:58	04:54	(unrelated sample)
ZZZZZZ	N90418.D	09/19/14	18:26	05:22	(unrelated sample)
ZZZZZZ	N90422.D	09/19/14	20:19	07:15	(unrelated sample)
ZZZZZZ	N90423.D	09/19/14	20:47	07:43	(unrelated sample)
ZZZZZZ	N90424.D	09/19/14	21:16	08:12	(unrelated sample)
ZZZZZZ	N90425.D	09/19/14	21:44	08:40	(unrelated sample)
ZZZZZZ	N90426.D	09/19/14	22:12	09:08	(unrelated sample)
ZZZZZZ	N90427.D	09/19/14	22:40	09:36	(unrelated sample)
ZZZZZZ	N90428.D	09/19/14	23:09	10:05	(unrelated sample)
ZZZZZZ	N90429.D	09/19/14	23:37	10:33	(unrelated sample)
ZZZZZZ	N90430.D	09/20/14	00:05	11:01	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample:	MSN3352-BFB	**Injection Date:**	09/25/14
Lab File ID:	N90598.D	**Injection Time:**	22:20
Instrument ID:	GCMSN		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	32192	25.0		Pass
75	30.0 - 60.0% of mass 95	64031	49.8		Pass
95	Base peak, 100% relative abundance	128610	100.0		Pass
96	5.0 - 9.0% of mass 95	8442	6.56		Pass
173	Less than 2.0% of mass 174	565	0.44	(0.63) [a]	Pass
174	50.0 - 150.0% of mass 95	89167	69.3		Pass
175	5.0 - 9.0% of mass 174	7212	5.61	(8.09) [a]	Pass
176	95.0 - 101.0% of mass 174	86468	67.2	(97.0) [a]	Pass
177	5.0 - 9.0% of mass 176	5623	4.37	(6.50) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSN3352-CC3345	N90598.D	09/25/14	22:20	00:00	Continuing cal 50
MSN3352-BS	N90600.D	09/25/14	23:16	00:56	Blank Spike
MSN3352-MB	N90602.D	09/26/14	00:13	01:53	Method Blank
MC33841-5	N90603.D	09/26/14	00:41	02:21	TRIP BLANK
ZZZZZZ	N90604.D	09/26/14	01:09	02:49	(unrelated sample)
MC33845-2	N90605.D	09/26/14	01:37	03:17	(used for QC only; not part of job MC33841)
ZZZZZZ	N90606.D	09/26/14	02:06	03:46	(unrelated sample)
ZZZZZZ	N90607.D	09/26/14	02:34	04:14	(unrelated sample)
ZZZZZZ	N90608.D	09/26/14	03:02	04:42	(unrelated sample)
ZZZZZZ	N90609.D	09/26/14	03:30	05:10	(unrelated sample)
ZZZZZZ	N90610.D	09/26/14	03:58	05:38	(unrelated sample)
MC33841-1	N90611.D	09/26/14	04:27	06:07	MW-5R
MC33841-3	N90613.D	09/26/14	05:23	07:03	MW-15RS
ZZZZZZ	N90615.D	09/26/14	06:20	08:00	(unrelated sample)
ZZZZZZ	N90616.D	09/26/14	06:48	08:28	(unrelated sample)
ZZZZZZ	N90617.D	09/26/14	07:16	08:56	(unrelated sample)
ZZZZZZ	N90618.D	09/26/14	07:44	09:24	(unrelated sample)
ZZZZZZ	N90619.D	09/26/14	08:13	09:53	(unrelated sample)
ZZZZZZ	N90620.D	09/26/14	08:41	10:21	(unrelated sample)
ZZZZZZ	N90621.D	09/26/14	09:09	10:49	(unrelated sample)
MC33845-2MS	N90622.D	09/26/14	09:37	11:17	Matrix Spike
MC33845-2MSD	N90623.D	09/26/14	10:05	11:45	Matrix Spike Duplicate

Instrument Performance Check (BFB)

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3353-BFB
Lab File ID: N90625.D
Instrument ID: GCMSN
Injection Date: 09/26/14
Injection Time: 11:02

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	32808	24.3		Pass
75	30.0 - 60.0% of mass 95	66560	49.3		Pass
95	Base peak, 100% relative abundance	135104	100.0		Pass
96	5.0 - 9.0% of mass 95	8519	6.31		Pass
173	Less than 2.0% of mass 174	604	0.45	(0.62) [a]	Pass
174	50.0 - 150.0% of mass 95	96872	71.7		Pass
175	5.0 - 9.0% of mass 174	7449	5.51	(7.69) [a]	Pass
176	95.0 - 101.0% of mass 174	93100	68.9	(96.1) [a]	Pass
177	5.0 - 9.0% of mass 176	6307	4.67	(6.77) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSN3353-CC3345	N90625.D	09/26/14	11:02	00:00	Continuing cal 50
MSN3353-BS	N90626.D	09/26/14	11:30	00:28	Blank Spike
MSN3353-MB	N90629.D	09/26/14	12:55	01:53	Method Blank
ZZZZZZ	N90630.D	09/26/14	13:25	02:23	(unrelated sample)
ZZZZZZ	N90631.D	09/26/14	13:54	02:52	(unrelated sample)
ZZZZZZ	N90632.D	09/26/14	14:22	03:20	(unrelated sample)
MC33841-4	N90633.D	09/26/14	14:51	03:49	MW-15RD
MC33841-2	N90634.D	09/26/14	15:19	04:17	MW-2
MC33708-1	N90635.D	09/26/14	15:48	04:46	(used for QC only; not part of job MC33841)
MC33841-3	N90636.D	09/26/14	16:16	05:14	MW-15RS
ZZZZZZ	N90637.D	09/26/14	16:44	05:42	(unrelated sample)
ZZZZZZ	N90638.D	09/26/14	17:13	06:11	(unrelated sample)
ZZZZZZ	N90639.D	09/26/14	17:41	06:39	(unrelated sample)
ZZZZZZ	N90640.D	09/26/14	18:09	07:07	(unrelated sample)
ZZZZZZ	N90641.D	09/26/14	18:37	07:35	(unrelated sample)
ZZZZZZ	N90642.D	09/26/14	19:06	08:04	(unrelated sample)
ZZZZZZ	N90643.D	09/26/14	19:34	08:32	(unrelated sample)
ZZZZZZ	N90644.D	09/26/14	20:02	09:00	(unrelated sample)
ZZZZZZ	N90645.D	09/26/14	20:31	09:29	(unrelated sample)
ZZZZZZ	N90646.D	09/26/14	20:59	09:57	(unrelated sample)
ZZZZZZ	N90647.D	09/26/14	21:28	10:26	(unrelated sample)
ZZZZZZ	N90648.D	09/26/14	21:56	10:54	(unrelated sample)
MC33708-1MS	N90649.D	09/26/14	22:25	11:23	Matrix Spike
MC33708-1MSD	N90650.D	09/26/14	22:53	11:51	Matrix Spike Duplicate

Volatile Internal Standard Area Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std:	MSN3352-CC3345	**Injection Date:**	09/25/14
Lab File ID:	N90598.D	**Injection Time:**	22:20
Instrument ID:	GCMSN	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	309562	9.11	486769	9.99	258456	13.24	211347	15.80	110200	6.70
Upper Limit [a]	619124	9.61	973538	10.49	516912	13.74	422694	16.30	220400	7.20
Lower Limit [b]	154781	8.61	243385	9.49	129228	12.74	105674	15.30	55100	6.20

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN3352-BS	322369	9.11	509462	9.99	271230	13.24	221377	15.80	120934	6.69
MSN3352-MB	287393	9.12	436550	9.99	226165	13.24	169413	15.80	114162	6.71
MC33841-5	285284	9.12	445538	9.99	231575	13.24	170952	15.80	109395	6.71
ZZZZZZ	280107	9.12	431909	9.99	225250	13.24	164905	15.80	103089	6.71
MC33845-2	273987	9.12	425487	9.99	215156	13.24	162347	15.80	94092	6.71
ZZZZZZ	272545	9.12	417818	9.99	219766	13.24	166793	15.80	100394	6.71
ZZZZZZ	267784	9.12	418575	9.99	217232	13.24	163744	15.80	95658	6.71
ZZZZZZ	269445	9.12	419857	9.99	219242	13.24	169884	15.80	97002	6.71
ZZZZZZ	262668	9.12	406527	9.99	216867	13.24	166704	15.80	95319	6.71
ZZZZZZ	280319	9.12	443276	9.99	230660	13.24	181505	15.80	105440	6.71
MC33841-1	280347	9.12	438871	9.98	223316	13.24	171349	15.80	105744	6.71
MC33841-3	279427	9.11	468110	9.99	234162	13.24	175317	15.80	101143	6.71
ZZZZZZ	269285	9.12	420239	9.99	216391	13.24	166210	15.80	101806	6.71
ZZZZZZ	267170	9.12	416643	9.99	218829	13.24	164092	15.80	102310	6.71
ZZZZZZ	264672	9.12	416985	9.99	218656	13.24	165415	15.80	100940	6.71
ZZZZZZ	267673	9.12	419666	9.99	216449	13.24	166141	15.80	97084	6.71
ZZZZZZ	264224	9.12	411203	9.99	214974	13.24	161693	15.80	93501	6.71
ZZZZZZ	268304	9.12	421906	9.99	220470	13.24	177720	15.80	104077	6.71
ZZZZZZ	287836	9.12	450303	9.99	254742	13.24	212945	15.80	112653	6.71
MC33845-2MS	326711	9.11	511227	9.99	281681	13.24	225745	15.80	132904	6.69
MC33845-2MSD	318130	9.12	495172	9.99	263990	13.24	215915	15.80	131624	6.69

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std: MSN3353-CC3345 **Injection Date:** 09/26/14
Lab File ID: N90625.D **Injection Time:** 11:02
Instrument ID: GCMSN **Method:** SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	316312	9.12	496405	9.98	265872	13.24	218475	15.80	109977	6.70
Upper Limit [a]	632624	9.62	992810	10.48	531744	13.74	436950	16.30	219954	7.20
Lower Limit [b]	158156	8.62	248203	9.48	132936	12.74	109238	15.30	54989	6.20

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN3353-BS	318948	9.12	495358	9.99	271728	13.24	217925	15.80	133292	6.69
MSN3353-MB	294296	9.12	449032	9.99	229027	13.24	173071	15.80	133734	6.71
ZZZZZZ	289593	9.12	441393	9.99	229422	13.24	174023	15.80	132553	6.71
ZZZZZZ	275637	9.12	430181	9.99	226843	13.24	168938	15.80	125680	6.71
ZZZZZZ	273752	9.12	422675	9.99	218976	13.24	164143	15.80	123090	6.71
MC33841-4	272802	9.12	424995	9.99	220683	13.24	168277	15.80	130870	6.71
MC33841-2 [c]	272012	9.12	422607	9.99	218847	13.24	173484	15.80	121590	6.70
MC33708-1	269705	9.12	424354	9.99	218824	13.24	162624	15.80	120353	6.71
MC33841-3	263653	9.12	407717	9.99	214968	13.24	160006	15.80	108466	6.71
ZZZZZZ	260218	9.12	406180	9.99	206796	13.24	165084	15.80	115640	6.71
ZZZZZZ	266521	9.12	414180	9.99	210120	13.24	163718	15.80	118367	6.71
ZZZZZZ	261542	9.12	402081	9.99	211096	13.24	155698	15.80	113286	6.71
ZZZZZZ	261619	9.12	398726	9.99	206148	13.24	154108	15.80	113838	6.71
ZZZZZZ	255963	9.12	396067	9.99	206797	13.24	155359	15.80	110131	6.71
ZZZZZZ	260369	9.12	403501	9.99	212306	13.24	159160	15.80	126043	6.71
ZZZZZZ	256622	9.12	402502	9.98	205503	13.24	146843	15.80	60492	6.73
ZZZZZZ	261686	9.12	409824	9.99	212313	13.24	161152	15.80	104015	6.71
ZZZZZZ	255738	9.12	400900	9.99	207779	13.24	154164	15.80	94075	6.71
ZZZZZZ	256685	9.12	399579	9.99	210877	13.24	155841	15.80	95242	6.71
ZZZZZZ	256237	9.12	404946	9.99	211746	13.24	158199	15.80	106924	6.71
ZZZZZZ	255333	9.12	402406	9.99	207613	13.24	156859	15.80	104848	6.71
MC33708-1MS	280438	9.12	442674	9.99	247817	13.24	195507	15.80	104130	6.70
MC33708-1MSD	296480	9.12	470191	9.98	261558	13.24	205996	15.80	114468	6.70

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Elevated RL due to sample matrix.

Volatile Surrogate Recovery Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC33841-1	N90611.D	95	100	97
MC33841-2	N90634.D	97	103	95
MC33841-3	N90636.D	98	102	99
MC33841-3	N90613.D	96	99	97
MC33841-4	N90633.D	98	101	95
MC33841-5	N90603.D	97	101	98
MC33708-1MS	N90649.D	96	103	93
MC33708-1MSD	N90650.D	99	102	93
MC33845-2MS	N90622.D	96	104	93
MC33845-2MSD	N90623.D	94	104	93
MSN3352-BS	N90600.D	97	103	95
MSN3352-MB	N90602.D	94	101	98
MSN3353-BS	N90626.D	95	103	92
MSN3353-MB	N90629.D	97	102	98

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

Initial Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3345-ICC3345
Lab FileID: N90397.D

Response Factor Report MSN

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Calibration Files
0.5 =N90391.D 1 =N90392.D 2 =N90393.D 5 =N90394.D
10 =N90395.D 25 =N90396.D 50 =N90397.D 100 =N90398.D
200 =N90399.D 400 =N90400.D = =

Compound

Compound	0.5	1	2	5	10	25	50	100	200	400	Avg	%RSD
1) p tert butyl alcohol-d9 ----------ISTD----------												
2) tertiary butyl alcohol	2.116	1.627	1.612	1.771	1.676	1.849	1.793	1.619			1.758	9.68
3) Ethanol	0.328	0.262	0.247	0.238	0.240	0.268	0.252	0.213			0.256	13.14
4) I pentafluorobenzene ----------ISTD----------												
5) dichlorodifluoromethane	0.516	0.577	0.615	0.804	0.734	0.755	0.682	0.584			0.658	15.30
6) chloromethane	0.767	0.747	0.841	0.869	0.752	0.851	0.895	0.733			0.807	7.86
7) vinyl chloride	1.342	0.494	0.598	0.649	0.644	0.566	0.574	0.499			0.671	41.33
---- Linear regression ---- Coefficient = 0.9910												
Response Ratio = 0.01192 + 0.53102 *A												
8) bromomethane	0.110	0.137	0.189	0.216	0.234	0.300	0.320				0.215	36.20
---- Quadratic regression ---- Coefficient = 0.9971												
Response Ratio = -0.00728 + 0.23503 *A + 0.02290 *A^2												
9) chloroethane	0.291	0.341	0.380	0.377	0.315	0.315	0.300	0.266			0.323	12.46
10) ethyl ether	0.547	0.531	0.530	0.499	0.465	0.450	0.404				0.489	10.63
11) acetonitrile	0.081	0.086	0.096	0.083	0.070	0.068	0.059				0.078	16.51
12) trichlorofluoromethane	1.604	0.647	0.741	0.827	1.023	0.937	0.953				0.962	32.39
---- Linear regression ---- Coefficient = 0.9926												
Response Ratio = 0.00133 + 0.94402 *A												
13) freon-113	0.308	0.360	0.495	0.466	0.451	0.457	0.390				0.418	16.06
14) acrolein	0.066	0.066	0.066	0.062	0.050	0.048	0.041				0.057	18.10
15) 1,1-dichloroethene	0.705	0.558	0.360	0.365	0.444	0.399	0.407	0.401	0.355		0.444	26.16
---- Linear regression ---- Coefficient = 0.9952												
Response Ratio = 0.00648 + 0.37622 *A												
16) acetone	0.129	0.136	0.126	0.099	0.085						0.115	18.91
17) Methyl Acetate												

Initial Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3345-ICC3345
Lab FileID: N90397.D

```
                          0.486 0.501 0.512 0.429 0.379 0.340        0.441   16.01
18)  methylene chloride
                     0.687 0.546 0.552 0.553 0.471 0.469 0.461 0.418  0.520   16.20
19)  methyl tert butyl ether
           1.122 0.965 0.910 0.696 0.601 1.488 1.264 1.271 1.292 1.197  1.080   26.10
            ---- Linear regression ----  Coefficient =  0.9931
              Response Ratio = -0.00807 + 1.23694 *A

20)  acrylonitrile
                          0.226 0.256 0.258 0.225 0.201 0.183 0.169  0.217   15.81
21)  allyl chloride
                          0.926 0.937 1.042 0.942 0.952 0.925 0.773  0.928    8.55
22)  trans-1,2-dichloroethene
                0.720 0.570 0.439 0.439 0.494 0.467 0.475 0.479 0.435  0.502   18.22
23)  iodomethane
                          0.079 0.127 0.198 0.260 0.345 0.377 0.322  0.244   46.56
            ---- Linear regression ----  Coefficient =  0.9910
              Response Ratio = -0.01973 + 0.33574 *A

24)  carbon disulfide
                          1.276 1.336 1.599 1.453 1.506 1.545 1.400  1.445    7.99
25)  propionitrile
                          0.002 0.005 0.007 0.008 0.008 0.007        0.006#  39.82
            ---- Linear regression ----  Coefficient =  0.9963
              Response Ratio = -0.00052 + 0.00771 *A

26)  vinyl acetate
                          0.478 0.688 0.779 0.738 0.775 0.752 0.707  0.702   14.90
27)  chloroprene
                          0.769 0.848 1.045 0.979 0.972 0.944 0.750  0.901   12.54
28)  di-isopropyl ether
                     2.977 2.567 2.526 2.687 2.402 2.305 2.085 1.618  2.396   17.12
29)  methacrylonitrile
                          0.378 0.408 0.383 0.347 0.339 0.330 0.289  0.353   11.14
30)  2-butanone
                          0.046 0.063 0.070 0.063 0.057 0.052 0.043  0.056#  17.20
31)  Hexane
                          0.885 0.850 1.061 0.958 0.916 0.851 0.648  0.881   14.34
32)  1,1-dichloroethane
                1.637 1.395 1.116 1.176 1.246 1.129 1.161 1.162 1.056  1.231   14.61
33)  tert-butyl ethyl ether
                     0.263 0.258 0.249 1.348 1.155 1.271 1.514 1.383  0.930   60.92
            ---- Quadratic regression ----  Coefficient =  0.9907
              Response Ratio = -0.08188 + 1.36516 *A + 0.00714 *A^2

34)  isobutyl alcohol
                          0.397 0.397 0.426 0.383 0.359 0.328 0.253  0.363   15.91
35)  2,2-dichloropropane
                          0.150 0.271 0.870 0.827 0.874 0.890 0.779  0.666   47.34
            ---- Linear regression ----  Coefficient =  0.9920
              Response Ratio = -0.06601 + 0.84378 *A

36)  cis-1,2-dichloroethene
                0.745 0.638 0.543 0.539 0.563 0.523 0.545 0.553 0.496  0.572   13.19
37)  ethyl acetate
                          1.867 1.939 2.101 1.913 1.795 1.643 1.264  1.789   15.11
38)  bromochloromethane
                          0.244 0.238 0.254 0.236 0.244 0.237 0.186  0.234    9.38
39)  chloroform
                1.557 1.259 1.045 1.049 1.096 1.005 1.027 1.004 0.854  1.099   18.31
```

Initial Calibration Summary

Job Number: MC33841 **Sample:** MSN3345-ICC3345
Account: BBLNYS Arcadis **Lab FileID:** N90397.D
Project: National Grid, 10 King Street, Ogdensburg, NY

```
40)  dibromofluoromethane (s)
                            0.507 0.527 0.506 0.532 0.531 0.523 0.466  0.513    4.58
41)  Tetrahydrofuran
                            0.155 0.189 0.184 0.164 0.153 0.140 0.121  0.158   15.17
42)  1,1,1-trichloroethane
                 0.625 0.687 0.662 0.805 0.999 0.960 1.000 0.992 0.856  0.843   18.31

43) I   1,4-difluorobenzene   ----------------ISTD---------------------
44)  Cyclohexane
                            0.508 0.568 0.797 0.763 0.778 0.731 0.602  0.679   17.12
45)  carbon tetrachloride
                 0.577 0.490 0.355 0.402 0.544 0.517 0.545 0.523 0.449  0.489   14.98
46)  1,1-dichloropropene
                            0.359 0.403 0.495 0.472 0.483 0.460 0.404  0.439   11.59
47)  benzene
           1.840 1.953 1.639 1.307 1.321 1.388 1.256 1.315 1.227 1.089  1.433   19.65
48)  1,2-dichloroethane
                 0.959 0.799 0.623 0.616 0.666 0.616 0.640 0.589 0.531  0.671   19.38
49)  tert-amyl methyl ether
                       0.203 0.137 0.146 0.472 0.416 0.419 0.529 0.578  0.363   48.41
              ---- Quadratic regression ----  Coefficient =  0.9954
                Response Ratio = -0.01811 + 0.42102 *A + 0.02063 *A^2

50)  heptane
                            0.339 0.327 0.473 0.448 0.464 0.442 0.379  0.410   14.87
51)  trichloroethene
           0.541 0.583 0.496 0.379 0.390 0.418 0.387 0.395 0.368 0.323  0.428   19.51
52)  1,2-dichloropropane
                       0.445 0.402 0.411 0.449 0.412 0.427 0.387 0.331  0.408    9.20
53)  dibromomethane
                       0.260 0.199 0.206 0.226 0.201 0.207 0.193 0.174  0.208   12.26
54)  bromodichloromethane
                 0.677 0.579 0.479 0.499 0.545 0.509 0.552 0.520 0.472  0.537   11.75
55)  Methylcyclohexane
                            0.374 0.404 0.584 0.566 0.573 0.547 0.471  0.503   17.23
56)  2-chloroethyl vinyl ether
                            0.402 0.411 0.449 0.412 0.427 0.387 0.331  0.403    9.23
57)  methyl methacrylate
                            0.172 0.191 0.210 0.197 0.196 0.178 0.163  0.187    8.81
58)  1,4-dioxane
                            0.002 0.003 0.003 0.003 0.003 0.002        0.003#  24.96
              ---- Quadratic regression ----  Coefficient =  0.9959
                Response Ratio = -0.00071 + 0.00349 *A + -0.00006 *A^2

59)  cis-1,3-dichloropropene
           0.251 0.328 0.359 0.354 0.422 0.569 0.532 0.567 0.544 0.497  0.442   25.91
              ---- Linear regression ----  Coefficient =  0.9961
                Response Ratio = -0.00412 + 0.52238 *A

60)  toluene-d8 (s)
                            1.146 1.244 1.256 1.297 1.252 1.154 1.045  1.199    7.33
61)  4-methyl-2-pentanone
                            0.379 0.434 0.450 0.404 0.373 0.333 0.300  0.382   13.96
62)  toluene
                 1.213 0.978 0.799 0.809 0.895 0.811 0.832 0.753 0.658  0.861   18.45
63)  trans-1,3-dichloropropene
           0.362 0.443 0.389 0.329 0.349 0.485 0.447 0.477 0.458 0.430  0.417   13.35
64)  1,1,2-trichloroethane
                 0.397 0.310 0.248 0.261 0.274 0.251 0.251 0.227        0.277   19.46
65)  ethyl methacrylate
```

Initial Calibration Summary

Job Number: MC33841 **Sample:** MSN3345-ICC3345
Account: BBLNYS Arcadis **Lab FileID:** N90397.D
Project: National Grid, 10 King Street, Ogdensburg, NY

```
                          0.332 0.366 0.416 0.381 0.378 0.326 0.285  0.355   12.23

66) I   chlorobenzene-d5      ----------------ISTD---------------------
67)  tetrachloroethene
          0.842 0.876 0.722 0.541 0.558 0.611 0.590 0.637 0.596 0.538  0.651   18.74
68)  1,3-dichloropropane
                          0.995 0.954 0.999 0.941 0.986 0.912 0.808  0.942    7.14
69)  dibromochloromethane
          0.699 0.774 0.746 0.609 0.628 0.656 0.644 0.705 0.666 0.607  0.673    8.41
70)  1,2-dibromoethane
                     0.640 0.501 0.526 0.554 0.505 0.543 0.501 0.453  0.528   10.42
71)  2-hexanone
                          0.557 0.650 0.661 0.616 0.585 0.521 0.453  0.577   12.79
72)  chlorobenzene
                2.540 2.055 1.668 1.578 1.684 1.541 1.653 1.569 1.405  1.744   19.89
73)  1,1,1,2-tetrachloroethane
                0.819 0.686 0.594 0.596 0.629 0.593 0.637 0.605 0.555  0.635   12.32
74)  ethylbenzene
                4.620 3.654 2.927 2.958 3.193 2.994 3.220 3.025 2.660  3.250   17.87
75)  m,p-xylene
          1.485 1.631 1.323 1.058 1.037 1.109 0.999 1.070 0.983        1.188   19.74
76)  o-xylene
          1.376 1.583 1.374 1.064 1.060 1.089 1.015 1.090 1.003 0.888  1.154   18.73
77)  styrene
                          1.561 1.639 1.756 1.666 1.810 1.736 1.552  1.674    5.89
78)  bromoform
                0.531 0.384 0.337 0.355 0.382 0.374 0.412 0.392 0.359  0.392   14.47
79)  trans-1,4-dichloro-2-butene
                          0.095 0.124 0.173 0.170 0.183 0.183 0.175  0.157   21.77
           ---- Linear regression ----  Coefficient =  0.9990
             Response Ratio = -0.00840 + 0.18004 *A


80) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
81)  isopropylbenzene
                          3.339 3.416 3.795 3.596 3.680 3.592 3.395  3.544    4.71
82)  bromofluorobenzene (s)
                          1.264 1.244 1.169 1.248 1.236 1.205 1.167  1.219    3.20
83)  bromobenzene
                          0.861 0.819 0.858 0.808 0.860 0.842 0.823  0.839    2.64
84)  1,1,2,2-tetrachloroethane
          1.268 1.484 1.115 0.911 0.876 0.878 0.783                  1.045   24.37
           ---- Quadratic regression ----  Coefficient =  0.9972
             Response Ratio = 0.00619 + 0.90872 *A + -0.12790 *A^2

85)  1,2,3-trichloropropane
                          0.838 0.857 0.931 0.874 0.868 0.832 0.802  0.857    4.72
86)  n-propylbenzene
                          4.328 4.375 4.903 4.552 4.704 4.616 4.288  4.538    4.93
87)  2-chlorotoluene
                          2.936 2.880 2.999 2.796 2.924 2.911 2.754  2.886    2.93
88)  4-chlorotoluene
                          3.058 3.031 3.171 2.962 3.116 3.103 2.899  3.049    3.08
89)  1,3,5-trimethylbenzene
                5.065 4.012 3.251 3.233 3.475 3.266 3.394 3.276 3.053  3.558   17.58
90)  tert-butylbenzene
                          1.926 1.988 2.250 2.152 2.203 2.146 1.959  2.089    6.17
91)  1,2,4-trimethylbenzene
                4.967 3.993 3.209 3.277 3.416 3.258 3.357 3.241 3.029  3.527   17.06
92)  sec-butylbenzene
```

Initial Calibration Summary

Job Number: MC33841 **Sample:** MSN3345-ICC3345
Account: BBLNYS Arcadis **Lab FileID:** N90397.D
Project: National Grid, 10 King Street, Ogdensburg, NY

```
                            3.728 3.740 4.344 4.122 4.217 4.053 3.706  3.987    6.55
 93)  1,3-dichlorobenzene
                 2.816 2.133 1.697 1.622 1.668 1.597 1.677 1.631 1.558  1.822   22.48
              ---- Linear regression ----  Coefficient =  0.9992
                Response Ratio = 0.02230 + 1.58947 *A

 94)  p-isopropyltoluene
                            3.149 3.245 3.581 3.385 3.435 3.247 2.764  3.258    8.01
 95)  1,4-dichlorobenzene
                 2.996 2.124 1.705 1.601 1.633 1.523 1.547 1.454 1.333  1.768   28.84
              ---- Linear regression ----  Coefficient =  0.9964
                Response Ratio = 0.03514 + 1.40180 *A

 96)  1,2-dichlorobenzene
                 2.549 1.951 1.550 1.521 1.650 1.583 1.602 1.523 1.431  1.707   20.38
              ---- Linear regression ----  Coefficient =  0.9979
                Response Ratio = 0.02128 + 1.48476 *A

 97)  n-butylbenzene
                            3.054 3.132 3.712 3.557 3.630 3.457 3.115  3.380    8.08
 98)  1,2-dibromo-3-chloropropane
                            0.124 0.127 0.158 0.144 0.136 0.130 0.127  0.135    9.05
 99)  1,2,4-trichlorobenzene
                            0.446 0.573 0.776 0.777 0.750 0.733 0.669  0.675   18.39
100)  1,3,5-trichlorobenzene
                            1.075 1.052 1.152 1.096 1.062 0.984 0.895  1.045    7.95
101)  hexachlorobutadiene
                            0.525 0.520 0.595 0.559 0.528 0.506 0.471  0.529    7.40
102)  naphthalene
                            0.313 0.398 0.895 1.024 0.995 1.037 0.993  0.808   38.81
              ---- Linear regression ----  Coefficient =  0.9982
                Response Ratio = -0.08156 + 1.02758 *A

103)  1,2,3-trichlorobenzene
                            0.248 0.332 0.533 0.553 0.513 0.522 0.474  0.453   25.81
              ---- Linear regression ----  Coefficient =  0.9947
                Response Ratio = -0.01826 + 0.50273 *A

104)  2-methylnaphthalene
                            0.271 0.248 0.304 0.297 0.282 0.274 0.252  0.276    7.62
105)  1-methylnaphthalene
                            0.206 0.221 0.213 0.225 0.205 0.197 0.174  0.206    8.34
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           n140918w.m        Fri Sep 19 12:07:17 2014
```

Initial Calibration Verification

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3345-ICV3345
Lab FileID: N90407.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\N140919\N90407.D Vial: 16
Acq On : 19 Sep 2014 1:04 pm Operator: krystend
Sample : cc3345-50 Inst : MSN
Misc : ms32746,MSN3345,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Fri Sep 19 12:01:33 2014
Response via : Multiple Level Calibration

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

		Compound	AvgRF / Amount	CCRF / Calc.	%Dev / %Drift	Area%	Dev(min)	R.T.
1	p	tert butyl alcohol-d9	1.000	1.000	0.0	103	0.00	6.70
2	P	tertiary butyl alcohol	1.758	1.894	-7.7	116	0.00	6.78
3	p	Ethanol	0.256	0.299	-16.8	128	0.01	5.56
4	I	pentafluorobenzene	1.000	1.000	0.0	108	0.00	9.12
5	p	dichlorodifluoromethane	0.658	0.844	-28.3#	124	0.00	4.39
6	P	chloromethane	0.807	0.815	-1.0	117	0.00	4.66
		----------	Amount	Calc.	%Drift			
7	p	vinyl chloride	50.000	59.685	-19.4	123	0.00	4.90
8	p	bromomethane	50.000	50.545	-1.1	117	0.00	5.40
		----------	AvgRF	CCRF	%Dev			
9	p	chloroethane	0.323	0.388	-20.1#	133	0.00	5.56
10	p	ethyl ether	0.489	0.551	-12.7	119	0.00	6.43
11	p	acetonitrile	0.078	0.089	-14.1	116	0.00	6.43
		----------	Amount	Calc.	%Drift			
12	p	trichlorofluoromethane	50.000	55.869	-11.7	122	0.00	6.21
		----------	AvgRF	CCRF	%Dev			
13	p	freon-113	0.418	0.430	-2.9	100	0.00	6.96
14	p	acrolein	0.057	0.058	-1.8	100	0.00	6.20
		----------	Amount	Calc.	%Drift			
15	p	1,1-dichloroethene	50.000	52.865	-5.7	109	0.00	6.79
		----------	AvgRF	CCRF	%Dev			
16	p	acetone	0.115	0.100	13.0	109	0.00	6.34
17	M	Methyl Acetate	0.441	0.605	-37.2#	152	0.00	6.96
18	p	methylene chloride	0.520	0.485	6.7	111	0.00	6.94
		----------	Amount	Calc.	%Drift			
19	p	methyl tert butyl ether	50.000	54.924	-9.8	115	0.00	7.70
		----------	AvgRF	CCRF	%Dev			
20	p	acrylonitrile	0.217	0.221	-1.8	106	0.00	6.85
21	p	allyl chloride	0.928	1.042	-12.3	119	0.00	7.03
22	p	trans-1,2-dichloroethene	0.502	0.491	2.2	113	0.00	7.62
		----------	Amount	Calc.	%Drift			
23	p	iodomethane	50.000	38.452	23.1#	99	0.00	6.86

Initial Calibration Verification

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3345-ICV3345
Lab FileID: N90407.D

			AvgRF	CCRF	%Dev			
24	p	carbon disulfide	1.445	1.333	7.8	99	0.00	7.22
			Amount	Calc.	%Drift			
25	p	propionitrile	50.000	56.235	-12.5	111	0.00	6.85
			AvgRF	CCRF	%Dev			
26	p	vinyl acetate	0.702	0.564	19.7	82	0.00	7.97
27	p	chloroprene	0.901	1.156	-28.3#	127	0.00	8.23
28	p	di-isopropyl ether	2.396	2.580	-7.7	116	0.00	8.26
29	p	methacrylonitrile	0.353	0.360	-2.0	112	0.00	8.39
30	p	2-butanone	0.056	0.065#	-16.1	112	0.00	8.28
31	p	Hexane	0.881	0.948	-7.6	107	0.00	8.25
32	P	1,1-dichloroethane	1.231	1.260	-2.4	120	0.00	7.88
			Amount	Calc.	%Drift			
33	p	tert-butyl ethyl ether	50.000	46.992	6.0	113	0.00	8.66
			AvgRF	CCRF	%Dev			
34	p	isobutyl alcohol	0.363	0.396	-9.1	112	0.00	8.26
			Amount	Calc.	%Drift			
35	p	2,2-dichloropropane	50.000	58.647	-17.3	120	0.00	8.73
			AvgRF	CCRF	%Dev			
36	p	cis-1,2-dichloroethene	0.572	0.567	0.9	117	0.00	8.44
37	p	ethyl acetate	1.789	1.981	-10.7	112	0.00	8.26
38	p	bromochloromethane	0.234	0.250	-6.8	114	0.00	8.61
39	p	chloroform	1.099	1.099	0.0	118	0.00	8.64
40	S	dibromofluoromethane (s)	0.513	0.498	2.9	101	0.00	8.77
41	p	Tetrahydrofuran	0.158	0.165	-4.4	109	0.00	8.97
42	p	1,1,1-trichloroethane	0.843	1.001	-18.7	112	0.00	9.39
43	I	1,4-difluorobenzene	1.000	1.000	0.0	107	0.00	9.99
44	p	Cyclohexane	0.679	0.765	-12.7	107	0.00	9.67
45	p	carbon tetrachloride	0.489	0.545	-11.5	113	0.00	9.75
46	p	1,1-dichloropropene	0.439	0.515	-17.3	117	0.00	9.57
47	p	benzene	1.433	1.379	3.8	118	0.00	9.79
48	p	1,2-dichloroethane	0.671	0.688	-2.5	120	0.00	9.30
			Amount	Calc.	%Drift			
49	p	tert-amyl methyl ether	50.000	49.536	0.9	108	0.00	9.90
			AvgRF	CCRF	%Dev			
50	p	heptane	0.410	0.453	-10.5	108	0.00	10.25
51	p	trichloroethene	0.428	0.417	2.6	115	0.00	10.41
52	p	1,2-dichloropropane	0.408	0.478	-17.2	124	0.00	10.38
53	p	dibromomethane	0.208	0.222	-6.7	119	0.00	10.36
54	p	bromodichloromethane	0.537	0.608	-13.2	128	0.00	10.46
55	p	Methylcyclohexane	0.503	0.563	-11.9	107	0.00	10.92
56	p	2-chloroethyl vinyl ether	0.403	0.478	-18.6	124	0.00	10.38
57	p	methyl methacrylate	0.187	0.211	-12.8	115	0.00	10.55
			Amount	Calc.	%Drift			
58	p	1,4-dioxane	250.000	243.850	2.5	100	0.00	10.56
59	p	cis-1,3-dichloropropene	50.000	59.102	-18.2	123	0.00	11.08
			AvgRF	CCRF	%Dev			
60	S	toluene-d8 (s)	1.199	1.261	-5.2	104	0.00	11.78

Initial Calibration Verification

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3345-ICV3345
Lab FileID: N90407.D

61	p	4-methyl-2-pentanone	0.382	0.416	-8.9	110	0.00	11.17
62	p	toluene	0.861	0.861	0.0	114	0.00	11.85
63	p	trans-1,3-dichloropropene	0.417	0.524	-25.7#	125	0.00	11.49
64	p	1,1,2-trichloroethane	0.277	0.287	-3.6	122	0.00	11.67
65	p	ethyl methacrylate	0.355	0.380	-7.0	107	0.00	11.86
66	I	chlorobenzene-d5	1.000	1.000	0.0	104	0.00	13.24
67	p	tetrachloroethene	0.651	0.667	-2.5	118	0.00	12.59
68	p	1,3-dichloropropane	0.942	1.045	-10.9	116	0.00	11.90
69	p	dibromochloromethane	0.673	0.758	-12.6	122	0.00	12.19
70	p	1,2-dibromoethane	0.528	0.577	-9.3	119	0.00	12.45
71	p	2-hexanone	0.577	0.657	-13.9	111	0.00	12.02
72	P	chlorobenzene	1.744	1.707	2.1	115	0.00	13.28
73	p	1,1,1,2-tetrachloroethane	0.635	0.696	-9.6	122	0.00	13.19
74	p	ethylbenzene	3.250	3.247	0.1	113	0.00	13.45
75	p	m,p-xylene	1.188	1.103	7.2	115	0.00	13.63
76	p	o-xylene	1.154	1.113	3.6	114	0.00	14.04
77	p	styrene	1.674	1.816	-8.5	113	0.00	13.97
78	P	bromoform	0.392	0.434	-10.7	121	0.00	13.80
		----------	Amount	Calc.	%Drift		----------	
79	p	trans-1,4-dichloro-2-bute	50.000	50.549	-1.1	106	0.00	14.19
		----------	AvgRF	CCRF	%Dev		----------	
80	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	105	0.00	15.80
81	p	isopropylbenzene	3.544	3.702	-4.5	108	0.00	14.40
82	S	bromofluorobenzene (s)	1.219	1.162	4.7	97	0.00	14.46
83	p	bromobenzene	0.839	0.901	-7.4	117	0.00	14.69
		----------	Amount	Calc.	%Drift		----------	
84	P	1,1,2,2-tetrachloroethane	50.000	57.874	-15.7	118	0.00	14.05
		----------	AvgRF	CCRF	%Dev		----------	
85	p	1,2,3-trichloropropane	0.857	0.957	-11.7	115	0.00	14.19
86	p	n-propylbenzene	4.538	4.825	-6.3	111	0.00	14.85
87	p	2-chlorotoluene	2.886	3.017	-4.5	113	0.00	14.97
88	p	4-chlorotoluene	3.049	3.161	-3.7	112	0.00	15.04
89	p	1,3,5-trimethylbenzene	3.558	3.303	7.2	106	0.00	15.12
90	p	tert-butylbenzene	2.089	2.180	-4.4	106	0.00	15.43
91	p	1,2,4-trimethylbenzene	3.527	3.468	1.7	111	0.00	15.54
92	M	sec-butylbenzene	3.987	4.179	-4.8	106	0.00	15.65
		----------	Amount	Calc.	%Drift		----------	
93	p	1,3-dichlorobenzene	50.000	54.075	-8.2	114	0.00	15.76
		----------	AvgRF	CCRF	%Dev		----------	
94	p	p-isopropyltoluene	3.258	3.465	-6.4	107	0.00	15.82
		----------	Amount	Calc.	%Drift		----------	
95	p	1,4-dichlorobenzene	50.000	57.928	-15.9	114	0.00	15.83
96	p	1,2-dichlorobenzene	50.000	57.489	-15.0	114	0.00	16.19
		----------	AvgRF	CCRF	%Dev		----------	
97	p	n-butylbenzene	3.380	3.685	-9.0	108	0.00	16.24
98	p	1,2-dibromo-3-chloropropa	0.135	0.169	-25.2#	122	0.00	16.66
99	p	1,2,4-trichlorobenzene	0.675	0.809	-19.9	109	0.00	18.02
100	p	1,3,5-trichlorobenzene	1.045	1.153	-10.3	110	0.00	17.47
101	p	hexachlorobutadiene	0.529	0.576	-8.9	108	0.00	18.30

Initial Calibration Verification

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3345-ICV3345
Lab FileID: N90407.D

			Amount	Calc.	%Drift			
102	p	naphthalene	50.000	62.845	-25.7#	124	0.00	18.29
103	p	1,2,3-trichlorobenzene	50.000	58.201	-16.4	107	0.00	18.49

			AvgRF	CCRF	%Dev			
104	p	2-methylnaphthalene	0.276	0.250	9.4	88	0.00	19.67
105	p	1-methylnaphthalene	0.206	0.188	8.7	87	0.00	19.92

(#) = Out of Range SPCC's out = 1 CCC's out = 0
N90397.D n140918w.m Fri Sep 19 15:32:19 2014

Continuing Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3352-CC3345
Lab FileID: N90598.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\N140925\N90598.D Vial: 42
Acq On : 25 Sep 2014 10:20 pm Operator: krystend
Sample : cc3345-50 Inst : MSN
Misc : ms32815,MSN3352,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Fri Sep 19 12:01:33 2014
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	p	tert butyl alcohol-d9	1.000	1.000	0.0	103	0.00	6.70
2	P	tertiary butyl alcohol	1.758	1.860	-5.8	115	0.00	6.78
3	p	Ethanol	0.256	0.284	-10.9	122	0.00	5.56
4	I	pentafluorobenzene	1.000	1.000	0.0	110	0.00	9.11
5	p	dichlorodifluoromethane	0.658	0.425	35.4#	64	0.00	4.39
6	P	chloromethane	0.807	0.612	24.2#	89	0.00	4.65
		----------	Amount	Calc.	%Drift	----------		
7	p	vinyl chloride	50.000	45.809	8.4	97	0.00	4.90
8	p	bromomethane	50.000	41.572	16.9	96	0.00	5.40
		----------	AvgRF	CCRF	%Dev	----------		
9	p	chloroethane	0.323	0.294	9.0	103	0.00	5.57
10	p	ethyl ether	0.489	0.490	-0.2	108	0.00	6.43
11	p	acetonitrile	0.078	0.070	10.3	93	0.00	6.43
		----------	Amount	Calc.	%Drift	----------		
12	p	trichlorofluoromethane	50.000	35.541	28.9#	79	0.00	6.20
		----------	AvgRF	CCRF	%Dev	----------		
13	p	freon-113	0.418	0.387	7.4	91	0.00	6.96
14	p	acrolein	0.057	0.064	-12.3	114	0.00	6.20
		----------	Amount	Calc.	%Drift	----------		
15	p	1,1-dichloroethene	50.000	48.357	3.3	102	0.00	6.79
		----------	AvgRF	CCRF	%Dev	----------		
16	p	acetone	0.115	0.103	10.4	114	0.00	6.33
17	M	Methyl Acetate	0.441	0.438	0.7	112	0.00	6.96
18	p	methylene chloride	0.520	0.482	7.3	112	0.00	6.94
		----------	Amount	Calc.	%Drift	----------		
19	p	methyl tert butyl ether	50.000	40.546	18.9	87	0.00	7.70
		----------	AvgRF	CCRF	%Dev	----------		
20	p	acrylonitrile	0.217	0.218	-0.5	107	0.00	6.85
21	p	allyl chloride	0.928	0.878	5.4	102	0.00	7.03
22	p	trans-1,2-dichloroethene	0.502	0.461	8.2	109	0.00	7.62
		----------	Amount	Calc.	%Drift	----------		
23	p	iodomethane	50.000	35.803	28.4#	93	0.00	6.86

Continuing Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3352-CC3345
Lab FileID: N90598.D

			AvgRF	CCRF	%Dev			
24	p	carbon disulfide	1.445	1.266	12.4	96	0.00	7.22
			Amount	Calc.	%Drift			
25	p	propionitrile	50.000	57.424	-14.8	116	0.01	6.86
			AvgRF	CCRF	%Dev			
26	p	vinyl acetate	0.702	0.719	-2.4	107	0.00	7.97
27	p	chloroprene	0.901	0.880	2.3	99	0.00	8.24
28	p	di-isopropyl ether	2.396	2.406	-0.4	110	0.00	8.26
29	p	methacrylonitrile	0.353	0.343	2.8	109	0.00	8.40
30	p	2-butanone	0.056	0.062#	-10.7	109	0.00	8.28
31	p	Hexane	0.881	0.827	6.1	95	0.00	8.25
32	P	1,1-dichloroethane	1.231	1.148	6.7	112	0.00	7.88
			Amount	Calc.	%Drift			
33	p	tert-butyl ethyl ether	50.000	24.371	51.3#	56	0.00	8.66
			AvgRF	CCRF	%Dev			
34	p	isobutyl alcohol	0.363	0.361	0.6	104	0.00	8.26
			Amount	Calc.	%Drift			
35	p	2,2-dichloropropane	50.000	47.408	5.2	98	0.00	8.73
			AvgRF	CCRF	%Dev			
36	p	cis-1,2-dichloroethene	0.572	0.540	5.6	114	0.00	8.45
37	p	ethyl acetate	1.789	1.801	-0.7	104	0.00	8.26
38	p	bromochloromethane	0.234	0.247	-5.6	115	0.00	8.61
39	p	chloroform	1.099	1.024	6.8	112	0.00	8.64
40	S	dibromofluoromethane (s)	0.513	0.491	4.3	101	0.00	8.77
41	p	Tetrahydrofuran	0.158	0.164	-3.8	110	0.00	8.98
42	p	1,1,1-trichloroethane	0.843	0.899	-6.6	103	0.00	9.39
43	I	1,4-difluorobenzene	1.000	1.000	0.0	111	0.00	9.99
44	p	Cyclohexane	0.679	0.644	5.2	94	0.00	9.67
45	p	carbon tetrachloride	0.489	0.465	4.9	100	0.00	9.75
46	p	1,1-dichloropropene	0.439	0.428	2.5	101	0.00	9.57
47	p	benzene	1.433	1.303	9.1	115	0.00	9.79
48	p	1,2-dichloroethane	0.671	0.610	9.1	110	0.00	9.30
			Amount	Calc.	%Drift			
49	p	tert-amyl methyl ether	50.000	24.211	51.6#	51	0.00	9.91
			AvgRF	CCRF	%Dev			
50	p	heptane	0.410	0.362	11.7	90	0.00	10.25
51	p	trichloroethene	0.428	0.389	9.1	112	0.00	10.41
52	p	1,2-dichloropropane	0.408	0.436	-6.9	117	0.00	10.38
53	p	dibromomethane	0.208	0.209	-0.5	115	0.00	10.36
54	p	bromodichloromethane	0.537	0.526	2.0	115	0.00	10.47
55	p	Methylcyclohexane	0.503	0.489	2.8	96	0.00	10.92
56	p	2-chloroethyl vinyl ether	0.403	0.436	-8.2	117	0.00	10.38
57	p	methyl methacrylate	0.187	0.206	-10.2	115	0.00	10.55
			Amount	Calc.	%Drift			
58	p	1,4-dioxane	250.000	270.487	-8.2	116	0.00	10.56
59	p	cis-1,3-dichloropropene	50.000	53.480	-7.0	115	0.00	11.08
			AvgRF	CCRF	%Dev			
60	S	toluene-d8 (s)	1.199	1.233	-2.8	105	0.00	11.78

Continuing Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3352-CC3345
Lab FileID: N90598.D

61	p	4-methyl-2-pentanone	0.382	0.409	-7.1	112	0.00	11.17
62	p	toluene	0.861	0.833	3.3	114	0.00	11.85
63	p	trans-1,3-dichloropropene	0.417	0.459	-10.1	114	0.00	11.50
64	p	1,1,2-trichloroethane	0.277	0.269	2.9	119	0.00	11.67
65	p	ethyl methacrylate	0.355	0.406	-14.4	118	0.00	11.87
66	I	chlorobenzene-d5	1.000	1.000	0.0	105	0.00	13.24
67	p	tetrachloroethene	0.651	0.610	6.3	109	0.00	12.59
68	p	1,3-dichloropropane	0.942	1.034	-9.8	116	0.00	11.90
69	p	dibromochloromethane	0.673	0.713	-5.9	117	0.00	12.20
70	p	1,2-dibromoethane	0.528	0.558	-5.7	116	0.00	12.45
71	p	2-hexanone	0.577	0.642	-11.3	110	0.00	12.02
72	P	chlorobenzene	1.744	1.711	1.9	117	0.00	13.28
73	p	1,1,1,2-tetrachloroethane	0.635	0.657	-3.5	117	0.00	13.19
74	p	ethylbenzene	3.250	3.239	0.3	114	0.00	13.45
75	p	m,p-xylene	1.188	1.101	7.3	116	0.00	13.63
76	p	o-xylene	1.154	1.123	2.7	117	0.00	14.04
77	p	styrene	1.674	1.842	-10.0	116	0.00	13.97
78	P	bromoform	0.392	0.429	-9.4	121	0.00	13.80
			Amount	Calc.	%Drift			
79	p	trans-1,4-dichloro-2-bute	50.000	51.189	-2.4	109	0.00	14.19
			AvgRF	CCRF	%Dev			
80	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	15.80
81	p	isopropylbenzene	3.544	3.672	-3.6	112	0.00	14.40
82	S	bromofluorobenzene (s)	1.219	1.143	6.2	101	0.00	14.46
83	p	bromobenzene	0.839	0.875	-4.3	119	0.00	14.69
			Amount	Calc.	%Drift			
84	P	1,1,2,2-tetrachloroethane	50.000	53.967	-7.9	118	0.00	14.05
			AvgRF	CCRF	%Dev			
85	p	1,2,3-trichloropropane	0.857	0.948	-10.6	119	0.00	14.19
86	p	n-propylbenzene	4.538	4.659	-2.7	113	0.00	14.85
87	p	2-chlorotoluene	2.886	2.923	-1.3	115	0.00	14.97
88	p	4-chlorotoluene	3.049	3.138	-2.9	117	0.00	15.04
89	p	1,3,5-trimethylbenzene	3.558	3.389	4.7	114	0.00	15.12
90	p	tert-butylbenzene	2.089	2.144	-2.6	110	0.00	15.43
91	p	1,2,4-trimethylbenzene	3.527	3.392	3.8	115	0.00	15.54
92	M	sec-butylbenzene	3.987	4.092	-2.6	109	0.00	15.65
			Amount	Calc.	%Drift			
93	p	1,3-dichlorobenzene	50.000	52.857	-5.7	117	0.00	15.76
			AvgRF	CCRF	%Dev			
94	p	p-isopropyltoluene	3.258	3.428	-5.2	111	0.00	15.82
			Amount	Calc.	%Drift			
95	p	1,4-dichlorobenzene	50.000	57.248	-14.5	118	0.00	15.82
96	p	1,2-dichlorobenzene	50.000	56.726	-13.5	119	0.00	16.19
			AvgRF	CCRF	%Dev			
97	p	n-butylbenzene	3.380	3.574	-5.7	111	0.00	16.24
98	p	1,2-dibromo-3-chloropropa	0.135	0.155	-14.8	118	0.00	16.67
99	p	1,2,4-trichlorobenzene	0.675	0.843	-24.9#	119	0.00	18.02
100	p	1,3,5-trichlorobenzene	1.045	1.147	-9.8	115	0.00	17.48
101	p	hexachlorobutadiene	0.529	0.564	-6.6	111	0.00	18.30

Continuing Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3352-CC3345
Lab FileID: N90598.D

		Amount	Calc.	%Drift			
102 p	naphthalene	50.000	61.760	-23.5#	128	0.00	18.29
103 p	1,2,3-trichlorobenzene	50.000	62.974	-25.9#	122	0.00	18.49

		AvgRF	CCRF	%Dev			
104 p	2-methylnaphthalene	0.276	0.314	-13.8	116	0.00	19.67
105 p	1-methylnaphthalene	0.206	0.245	-18.9	119	0.00	19.92

(#) = Out of Range SPCC's out = 1 CCC's out = 0
N90397.D n140918w.m Fri Sep 26 09:30:26 2014

6.7.3

6

Continuing Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3353-CC3345
Lab FileID: N90625.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\N140926\N90625.D Vial: 69
Acq On : 26 Sep 2014 11:02 am Operator: krystend
Sample : cc3345-50 Inst : MSN
Misc : ms32815,MSN3353,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Fri Sep 19 12:01:33 2014
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	p	tert butyl alcohol-d9	1.000	1.000	0.0	103	0.00	6.70
2	P	tertiary butyl alcohol	1.758	1.787	-1.6	110	0.00	6.79
3	p	Ethanol	0.256	0.267	-4.3	114	0.00	5.56
4	I	pentafluorobenzene	1.000	1.000	0.0	112	0.00	9.12
5	p	dichlorodifluoromethane	0.658	0.520	21.0#	80	0.00	4.39
6	P	chloromethane	0.807	0.526	34.8#	79	0.00	4.65
		----------	Amount	Calc.	%Drift	----------		
7	p	vinyl chloride	50.000	48.463	3.1	105	0.00	4.89
8	p	bromomethane	50.000	34.825	30.3#	81	0.00	5.40
		----------	AvgRF	CCRF	%Dev	----------		
9	p	chloroethane	0.323	0.321	0.6	115	0.00	5.57
10	p	ethyl ether	0.489	0.445	9.0	100	0.00	6.43
11	p	acetonitrile	0.078	0.066	15.4	90	0.00	6.44
		----------	Amount	Calc.	%Drift	----------		
12	p	trichlorofluoromethane	50.000	40.652	18.7	92	0.00	6.20
		----------	AvgRF	CCRF	%Dev	----------		
13	p	freon-113	0.418	0.360	13.9	87	0.00	6.96
14	p	acrolein	0.057	0.058	-1.8	105	0.00	6.20
		----------	Amount	Calc.	%Drift	----------		
15	p	1,1-dichloroethene	50.000	42.555	14.9	92	0.00	6.79
		----------	AvgRF	CCRF	%Dev	----------		
16	p	acetone	0.115	0.097#	15.7	111	0.00	6.33
17	M	Methyl Acetate	0.441	0.412	6.6	108	0.00	6.96
18	p	methylene chloride	0.520	0.443	14.8	106	0.00	6.94
		----------	Amount	Calc.	%Drift	----------		
19	p	methyl tert butyl ether	50.000	40.067	19.9	87	0.00	7.70
		----------	AvgRF	CCRF	%Dev	----------		
20	p	acrylonitrile	0.217	0.216	0.5	108	0.00	6.85
21	p	allyl chloride	0.928	0.816	12.1	97	0.00	7.03
22	p	trans-1,2-dichloroethene	0.502	0.413	17.7	99	0.00	7.62
		----------	Amount	Calc.	%Drift	----------		
23	p	iodomethane	50.000	27.915	44.2#	72	0.00	6.86

Continuing Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3353-CC3345
Lab FileID: N90625.D

			AvgRF	CCRF	%Dev			
24	p	carbon disulfide	1.445	1.176	18.6	91	0.00	7.22
			Amount	Calc.	%Drift			
25	p	propionitrile	50.000	50.205	-0.4	103	0.00	6.85
			AvgRF	CCRF	%Dev			
26	p	vinyl acetate	0.702	0.868	-23.6#	132	0.00	7.97
27	p	chloroprene	0.901	0.792	12.1	91	0.00	8.23
28	p	di-isopropyl ether	2.396	2.171	9.4	102	0.00	8.26
29	p	methacrylonitrile	0.353	0.316	10.5	102	0.00	8.39
30	p	2-butanone	0.056	0.062#	-10.7	111	0.01	8.29
31	p	Hexane	0.881	0.790	10.3	93	0.00	8.25
32	P	1,1-dichloroethane	1.231	1.025	16.7	102	0.00	7.88
			Amount	Calc.	%Drift			
33	p	tert-butyl ethyl ether	50.000	27.335	45.3#	65	0.00	8.66
			AvgRF	CCRF	%Dev			
34	p	isobutyl alcohol	0.363	0.333	8.3	98	0.00	8.26
			Amount	Calc.	%Drift			
35	p	2,2-dichloropropane	50.000	48.230	3.5	102	0.00	8.73
			AvgRF	CCRF	%Dev			
36	p	cis-1,2-dichloroethene	0.572	0.491	14.2	106	0.00	8.44
37	p	ethyl acetate	1.789	1.657	7.4	97	0.00	8.26
38	p	bromochloromethane	0.234	0.224	4.3	107	0.00	8.61
39	p	chloroform	1.099	0.932	15.2	104	0.00	8.64
40	S	dibromofluoromethane (s)	0.513	0.492	4.1	104	0.00	8.77
41	p	Tetrahydrofuran	0.158	0.148	6.3	101	0.00	8.98
42	p	1,1,1-trichloroethane	0.843	0.810	3.9	95	0.00	9.39
43	I	1,4-difluorobenzene	1.000	1.000	0.0	113	0.00	9.98
44	p	Cyclohexane	0.679	0.607	10.6	90	0.00	9.67
45	p	carbon tetrachloride	0.489	0.420	14.1	92	0.00	9.76
46	p	1,1-dichloropropene	0.439	0.400	8.9	96	0.00	9.56
47	p	benzene	1.433	1.188	17.1	107	0.00	9.79
48	p	1,2-dichloroethane	0.671	0.554	17.4	102	0.00	9.30
			Amount	Calc.	%Drift			
49	p	tert-amyl methyl ether	50.000	28.720	42.6#	63	0.00	9.91
			AvgRF	CCRF	%Dev			
50	p	heptane	0.410	0.383	6.6	97	0.00	10.25
51	p	trichloroethene	0.428	0.348	18.7	102	0.00	10.41
52	p	1,2-dichloropropane	0.408	0.400	2.0	110	0.00	10.38
53	p	dibromomethane	0.208	0.193	7.2	109	0.00	10.36
54	p	bromodichloromethane	0.537	0.475	11.5	105	0.00	10.47
55	p	Methylcyclohexane	0.503	0.471	6.4	94	0.00	10.92
56	p	2-chloroethyl vinyl ether	0.403	0.400	0.7	110	0.00	10.38
57	p	methyl methacrylate	0.187	0.194	-3.7	111	0.00	10.55
			Amount	Calc.	%Drift			
58	p	1,4-dioxane	250.000	240.497	3.8	105	0.00	10.56
59	p	cis-1,3-dichloropropene	50.000	49.934	0.1	110	0.00	11.08
			AvgRF	CCRF	%Dev			
60	S	toluene-d8 (s)	1.199	1.244	-3.8	108	0.00	11.78

Continuing Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3353-CC3345
Lab FileID: N90625.D

61	p	4-methyl-2-pentanone	0.382	0.392	-2.6	110	0.00	11.17
62	p	toluene	0.861	0.773	10.2	108	0.00	11.85
63	p	trans-1,3-dichloropropene	0.417	0.425	-1.9	108	0.00	11.49
64	p	1,1,2-trichloroethane	0.277	0.246	11.2	111	0.00	11.67
65	p	ethyl methacrylate	0.355	0.383	-7.9	114	0.00	11.87
66	I	chlorobenzene-d5	1.000	1.000	0.0	108	0.00	13.24
67	p	tetrachloroethene	0.651	0.556	14.6	102	0.00	12.59
68	p	1,3-dichloropropane	0.942	0.957	-1.6	110	0.00	11.90
69	p	dibromochloromethane	0.673	0.651	3.3	110	0.00	12.20
70	p	1,2-dibromoethane	0.528	0.515	2.5	110	0.00	12.45
71	p	2-hexanone	0.577	0.608	-5.4	107	0.00	12.02
72	P	chlorobenzene	1.744	1.585	9.1	111	0.00	13.28
73	p	1,1,1,2-tetrachloroethane	0.635	0.597	6.0	109	0.00	13.19
74	p	ethylbenzene	3.250	2.992	7.9	108	0.00	13.45
75	p	m,p-xylene	1.188	1.018	14.3	110	0.00	13.63
76	p	o-xylene	1.154	1.031	10.7	110	0.00	14.04
77	p	styrene	1.674	1.702	-1.7	111	0.00	13.97
78	P	bromoform	0.392	0.389	0.8	113	0.00	13.80
			Amount	Calc.	%Drift			
79	p	trans-1,4-dichloro-2-bute	50.000	48.676	2.6	106	0.00	14.19
			AvgRF	CCRF	%Dev			
80	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	114	0.00	15.80
81	p	isopropylbenzene	3.544	3.350	5.5	106	0.00	14.40
82	S	bromofluorobenzene (s)	1.219	1.130	7.3	103	0.00	14.46
83	p	bromobenzene	0.839	0.781	6.9	110	0.00	14.69
			Amount	Calc.	%Drift			
84	P	1,1,2,2-tetrachloroethane	50.000	52.136	-4.3	118	0.00	14.05
			AvgRF	CCRF	%Dev			
85	p	1,2,3-trichloropropane	0.857	0.861	-0.5	112	0.00	14.19
86	p	n-propylbenzene	4.538	4.300	5.2	107	0.00	14.85
87	p	2-chlorotoluene	2.886	2.681	7.1	109	0.00	14.97
88	p	4-chlorotoluene	3.049	2.853	6.4	110	0.00	15.05
89	p	1,3,5-trimethylbenzene	3.558	3.106	12.7	108	0.00	15.13
90	p	tert-butylbenzene	2.089	1.963	6.0	104	0.00	15.43
91	p	1,2,4-trimethylbenzene	3.527	3.112	11.8	109	0.00	15.53
92	M	sec-butylbenzene	3.987	3.760	5.7	104	0.00	15.65
			Amount	Calc.	%Drift			
93	p	1,3-dichlorobenzene	50.000	48.208	3.6	111	0.00	15.76
			AvgRF	CCRF	%Dev			
94	p	p-isopropyltoluene	3.258	3.185	2.2	107	0.00	15.82
			Amount	Calc.	%Drift			
95	p	1,4-dichlorobenzene	50.000	52.585	-5.2	113	0.00	15.83
96	p	1,2-dichlorobenzene	50.000	51.123	-2.2	111	0.00	16.19
			AvgRF	CCRF	%Dev			
97	p	n-butylbenzene	3.380	3.305	2.2	106	0.00	16.24
98	p	1,2-dibromo-3-chloropropa	0.135	0.142	-5.2	112	0.00	16.67
99	p	1,2,4-trichlorobenzene	0.675	0.755	-11.9	110	0.00	18.02
100	p	1,3,5-trichlorobenzene	1.045	1.049	-0.4	109	0.00	17.47
101	p	hexachlorobutadiene	0.529	0.521	1.5	106	0.00	18.30

Continuing Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3353-CC3345
Lab FileID: N90625.D

		Amount	Calc.	%Drift			
102 p	naphthalene	50.000	56.637	-13.3	120	0.00	18.29
103 p	1,2,3-trichlorobenzene	50.000	56.799	-13.6	114	0.00	18.49

		AvgRF	CCRF	%Dev			
104 p	2-methylnaphthalene	0.276	0.275	0.4	105	0.00	19.67
105 p	1-methylnaphthalene	0.206	0.202	1.9	102	0.00	19.92

(#) = Out of Range SPCC's out = 2 CCC's out = 0
N90397.D n140918w.m Fri Sep 26 12:23:00 2014

New England ACCUTEST LABORATORIES

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90611.D
Acq On : 26 Sep 2014 4:27 am
Operator : krystend
Sample : mc33841-1
Misc : ms32815,MSN3352,,,,5,1
ALS Vial : 55 Sample Multiplier: 1

Quant Time: Sep 26 09:39:33 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

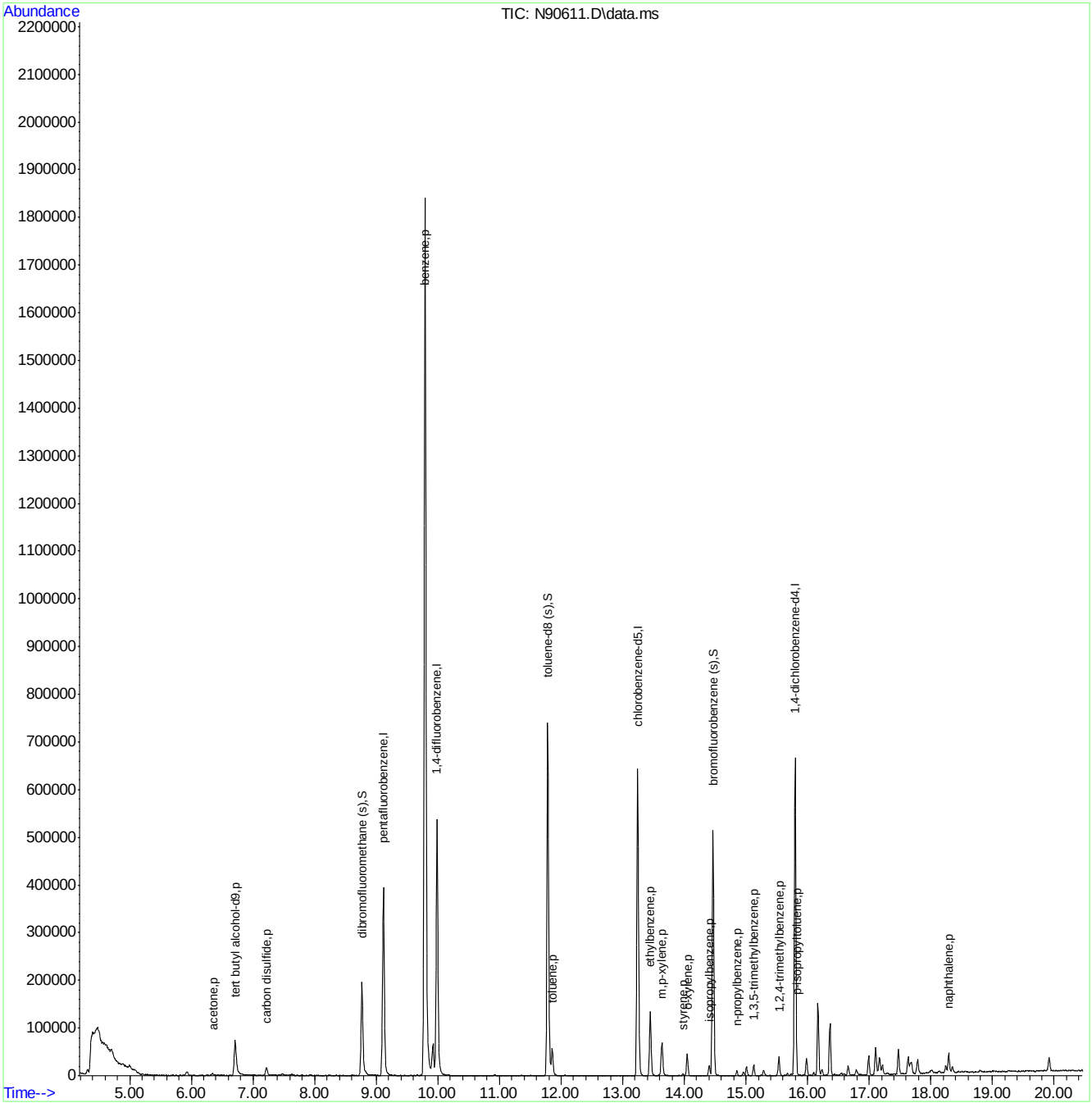
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.715	65	105744	500.00	ug/L	0.02
4) pentafluorobenzene	9.119	168	280347	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.985	114	438871	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	223316	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	171349	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.769	113	136056	47.30	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.60%			
60) toluene-d8 (s)	11.784	98	528544	50.21	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 100.42%			
82) bromofluorobenzene (s)	14.464	95	201989	48.35	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.70%			
Target Compounds						Qvalue
16) acetone	6.354	58	1305	2.02	ug/L #	71
24) carbon disulfide	7.220	76	24779	3.06	ug/L	95
47) benzene	9.794	78	1626138	129.24	ug/L	98
62) toluene	11.858	92	22433	2.97	ug/L	100
74) ethylbenzene	13.446	91	101617	7.00	ug/L	98
75) m,p-xylene	13.637	106	21271	4.01	ug/L	84
76) o-xylene	14.047	106	12260	2.38	ug/L	97
77) styrene	13.980	104	2157	0.29	ug/L	73
81) isopropylbenzene	14.404	105	14175	1.17	ug/L	99
86) n-propylbenzene	14.849	91	8325	0.54	ug/L	99
89) 1,3,5-trimethylbenzene	15.129	105	13036	1.07	ug/L	93
91) 1,2,4-trimethylbenzene	15.539	105	22477	1.86	ug/L	94
94) p-isopropyltoluene	15.821	119	1962	0.18	ug/L	88
102) naphthalene	18.289	128	30387	12.60	ug/L	100

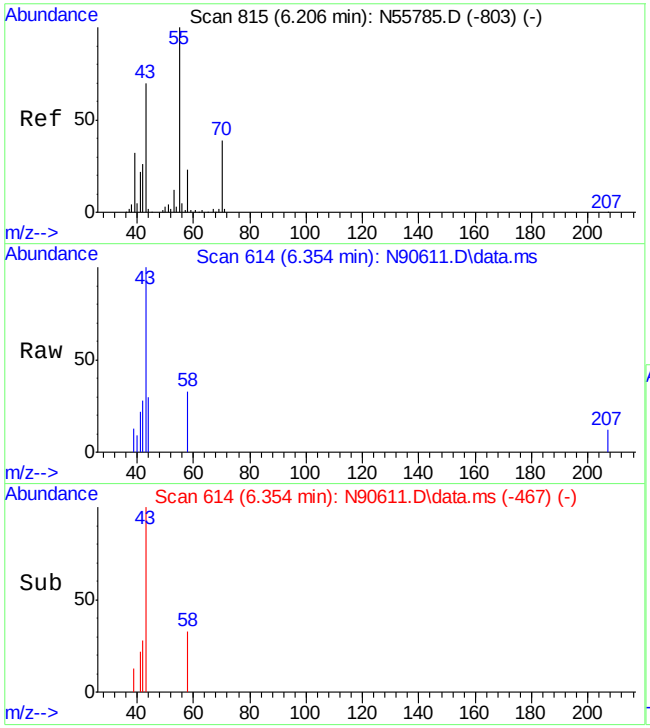
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90611.D
Acq On : 26 Sep 2014 4:27 am
Operator : krystend
Sample : mc33841-1
Misc : ms32815,MSN3352,,,,5,1
ALS Vial : 55 Sample Multiplier: 1

Quant Time: Sep 26 09:39:33 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

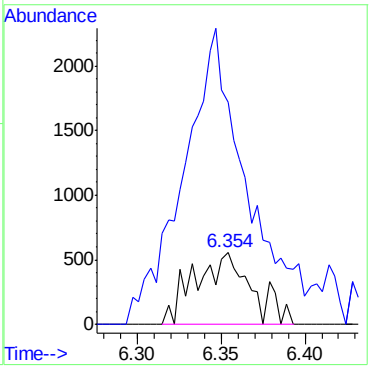


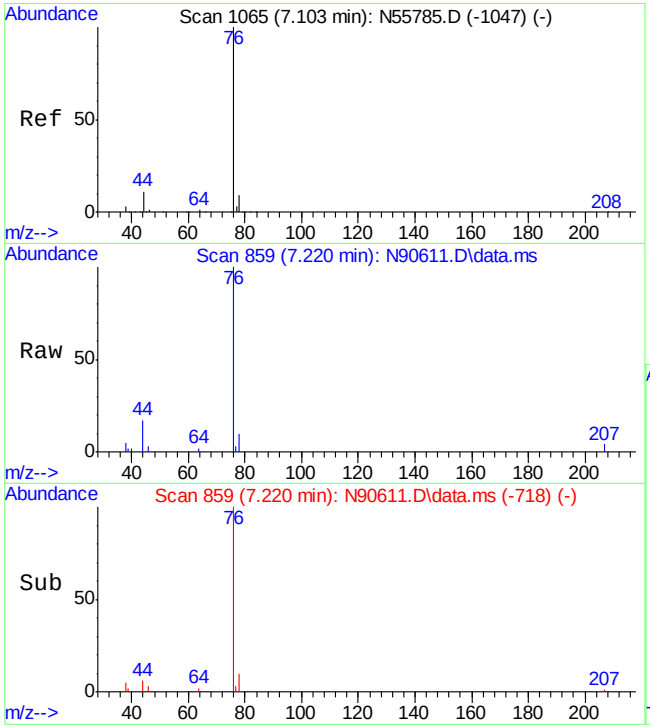


#16
acetone
Concen: 2.02 ug/L
RT: 6.354 min Scan# 614
Delta R.T. 0.021 min
Lab File: N90611.D
Acq: 26 Sep 2014 4:27 am

Tgt Ion: 58 Resp: 1305

Ion	Ratio	Lower	Upper
58	100		
43	230.8	256.2	316.2#

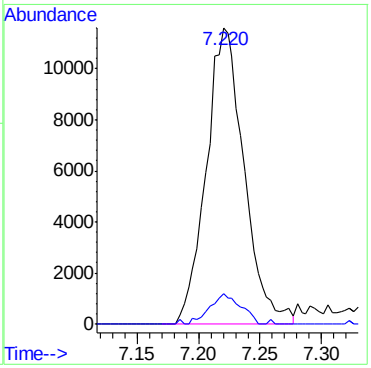


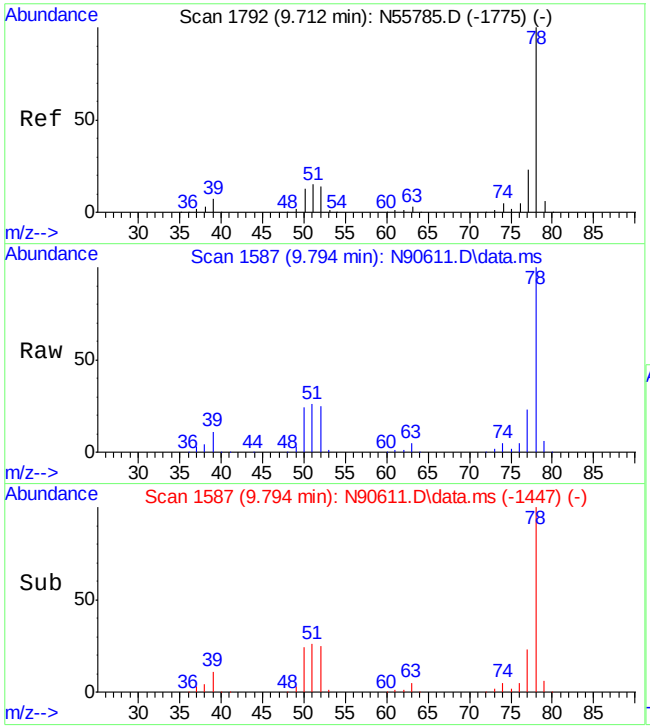


#24
carbon disulfide
Concen: 3.06 ug/L
RT: 7.220 min Scan# 859
Delta R.T. 0.000 min
Lab File: N90611.D
Acq: 26 Sep 2014 4:27 am

Tgt Ion: 76 Resp: 24779

Ion	Ratio	Lower	Upper
76	100		
78	10.3	0.0	38.7

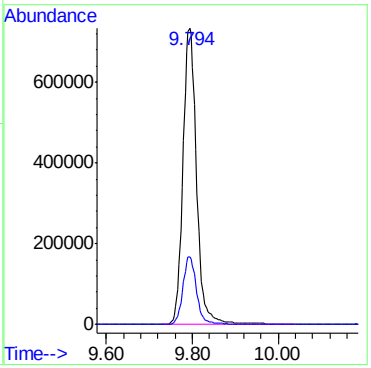


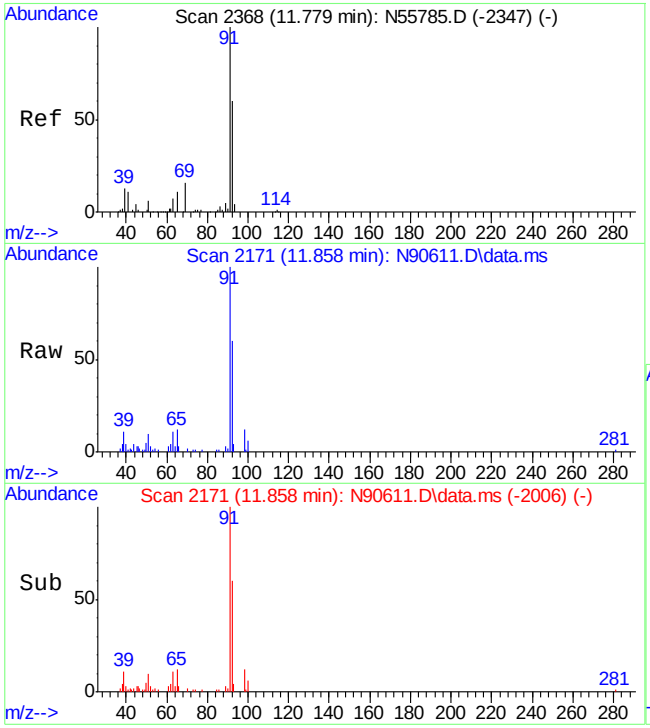


#47
benzene
Concen: 129.24 ug/L
RT: 9.794 min Scan# 1587
Delta R.T. 0.004 min
Lab File: N90611.D
Acq: 26 Sep 2014 4:27 am

Tgt Ion: 78 Resp: 1626138

Ion	Ratio	Lower	Upper
78	100		
77	22.9	0.0	52.2

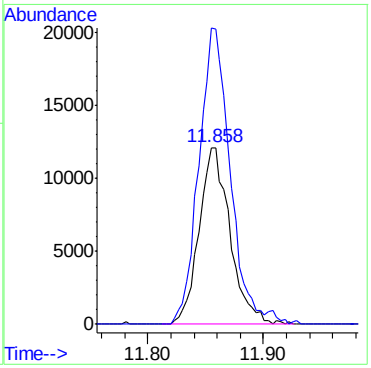


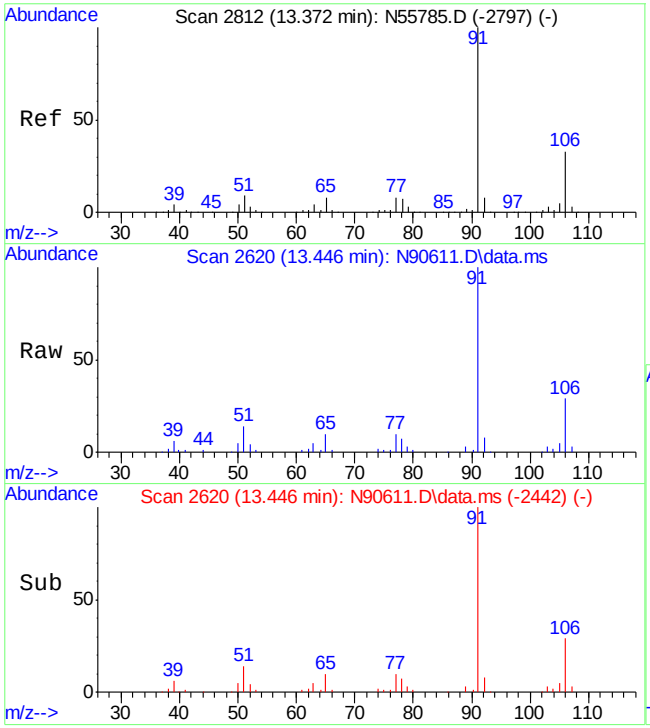


#62
toluene
Concen: 2.97 ug/L
RT: 11.858 min Scan# 2171
Delta R.T. 0.003 min
Lab File: N90611.D
Acq: 26 Sep 2014 4:27 am

Tgt Ion: 92 Resp: 22433

Ion	Ratio	Lower	Upper
92	100		
91	167.7	137.3	197.3

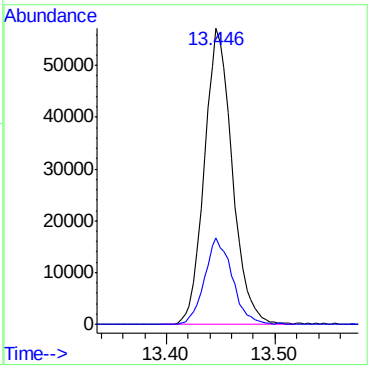


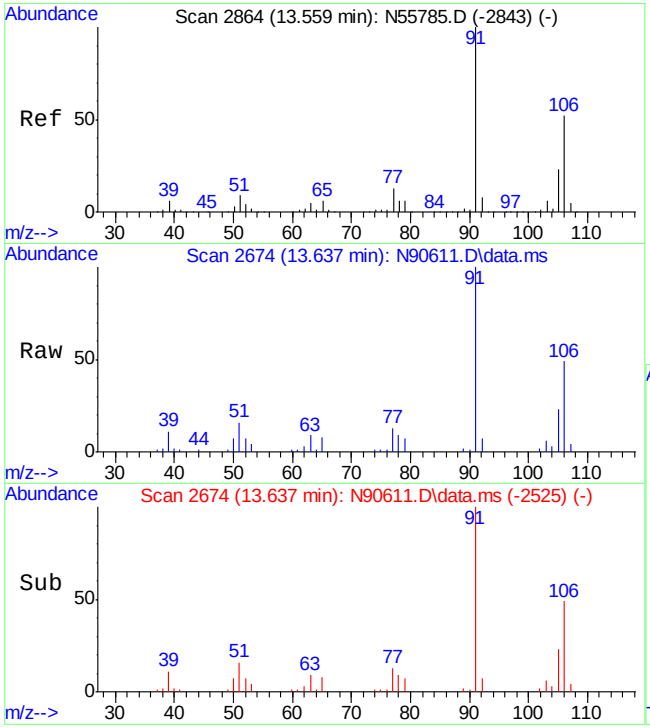


#74
ethylbenzene
Concen: 7.00 ug/L
RT: 13.446 min Scan# 2620
Delta R.T. -0.000 min
Lab File: N90611.D
Acq: 26 Sep 2014 4:27 am

Tgt Ion: 91 Resp: 101617

Ion	Ratio	Lower	Upper
91	100		
106	29.1	0.0	58.3

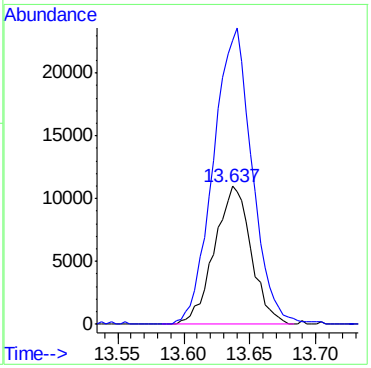


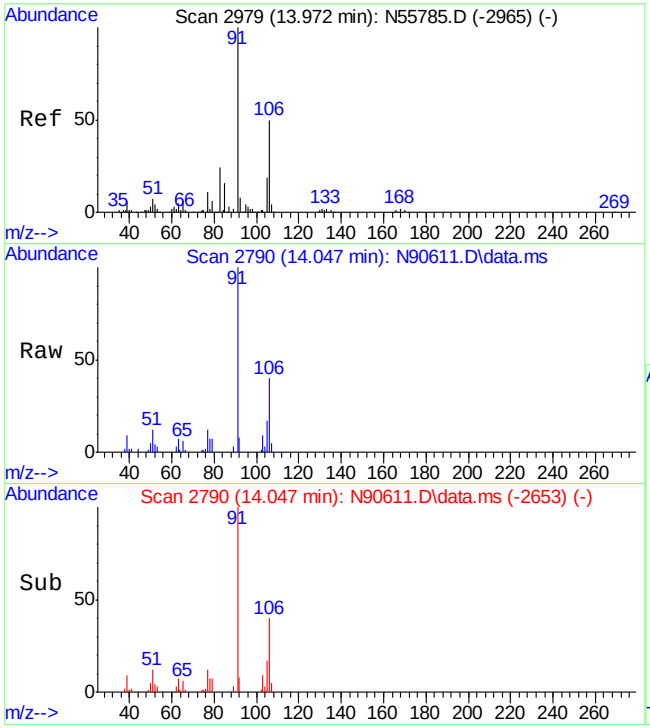


#75
m,p-xylene
Concen: 4.01 ug/L
RT: 13.637 min Scan# 2674
Delta R.T. 0.007 min
Lab File: N90611.D
Acq: 26 Sep 2014 4:27 am

Tgt Ion:106 Resp: 21271

Ion	Ratio	Lower	Upper
106	100		
91	205.6	202.6	262.6

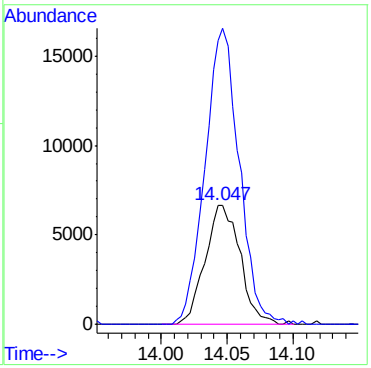


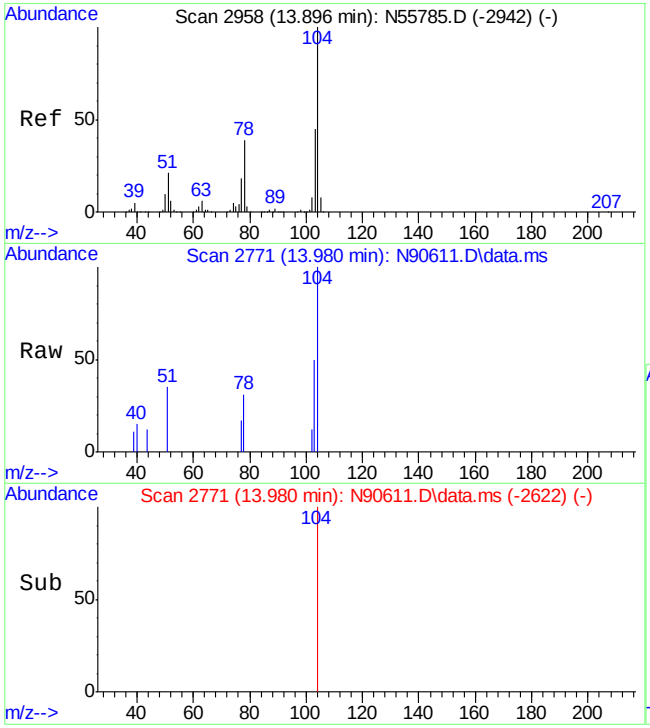


#76
o-xylene
Concen: 2.38 ug/L
RT: 14.047 min Scan# 2790
Delta R.T. 0.004 min
Lab File: N90611.D
Acq: 26 Sep 2014 4:27 am

Tgt Ion:106 Resp: 12260

Ion	Ratio	Lower	Upper
106	100		
91	247.9	213.4	273.4

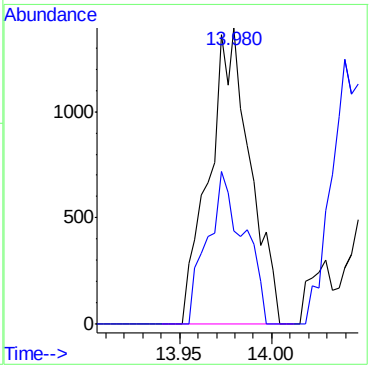


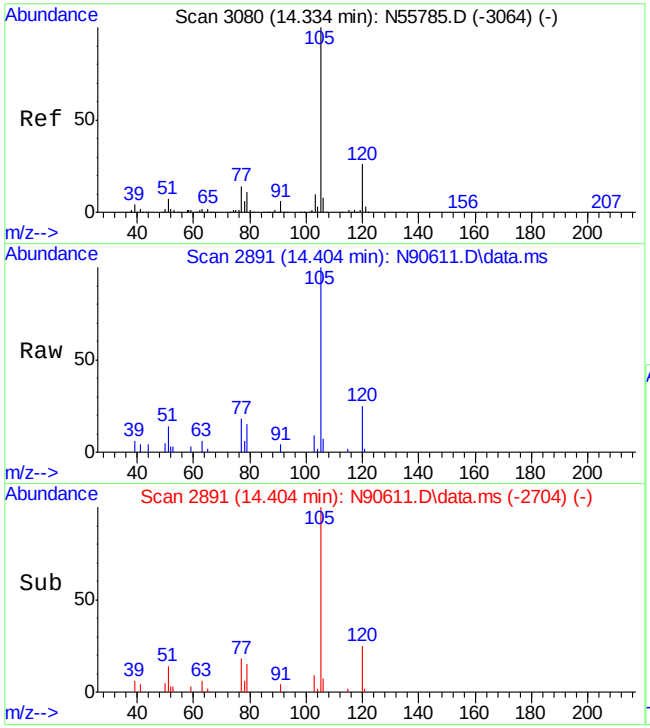


#77
styrene
Concen: 0.29 ug/L
RT: 13.980 min Scan# 2771
Delta R.T. 0.007 min
Lab File: N90611.D
Acq: 26 Sep 2014 4:27 am

Tgt Ion:104 Resp: 2157

Ion	Ratio	Lower	Upper
104	100		
78	31.3	20.1	80.1

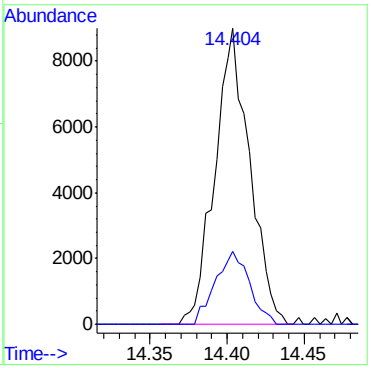


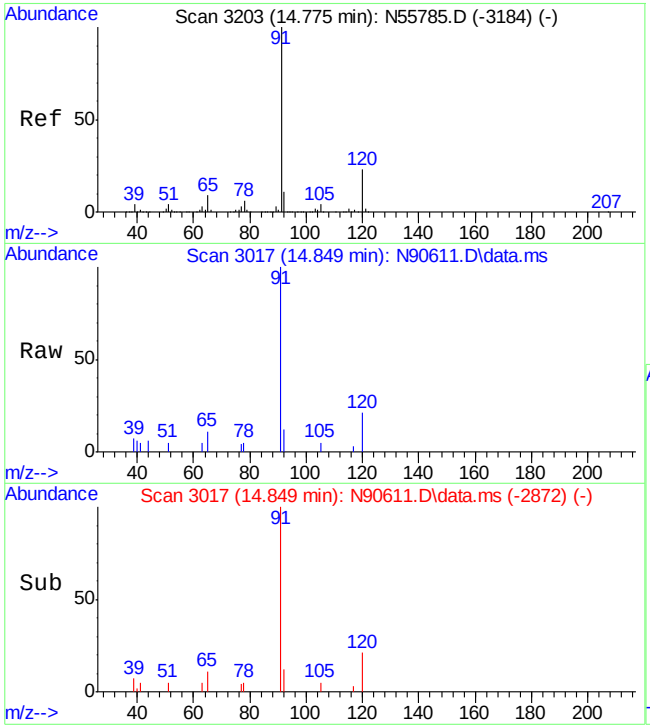


#81
isopropylbenzene
Concen: 1.17 ug/L
RT: 14.404 min Scan# 2891
Delta R.T. -0.000 min
Lab File: N90611.D
Acq: 26 Sep 2014 4:27 am

Tgt Ion:105 Resp: 14175

Ion	Ratio	Lower	Upper
105	100		
120	24.8	0.0	55.1

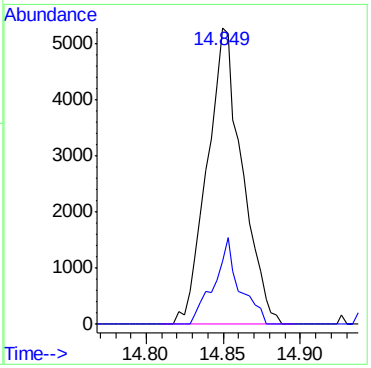


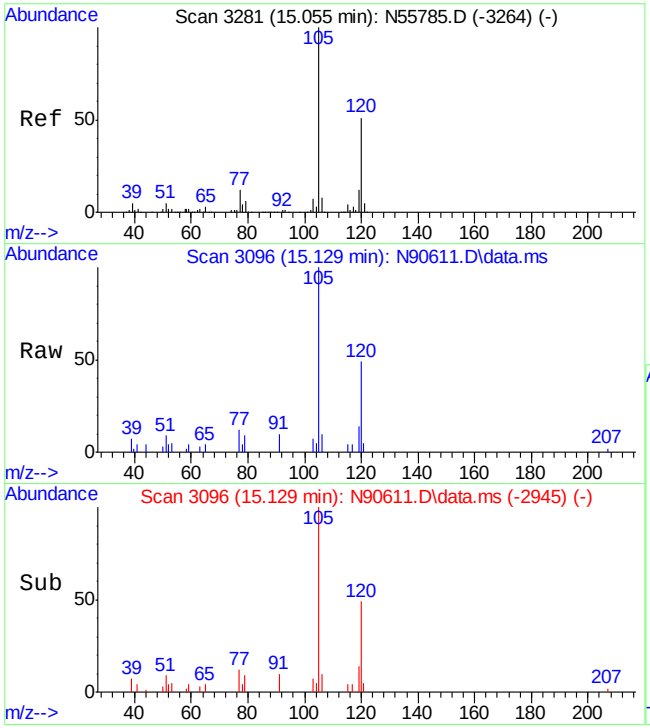


#86
n-propylbenzene
Concen: 0.54 ug/L
RT: 14.849 min Scan# 3017
Delta R.T. 0.003 min
Lab File: N90611.D
Acq: 26 Sep 2014 4:27 am

Tgt Ion: 91 Resp: 8325

Ion	Ratio	Lower	Upper
91	100		
120	21.3	0.0	50.6

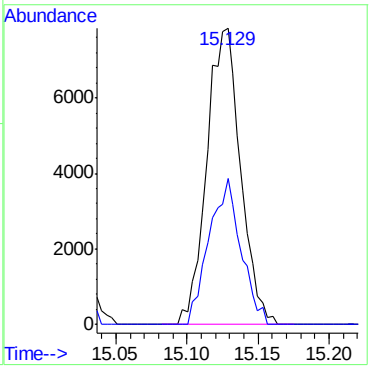


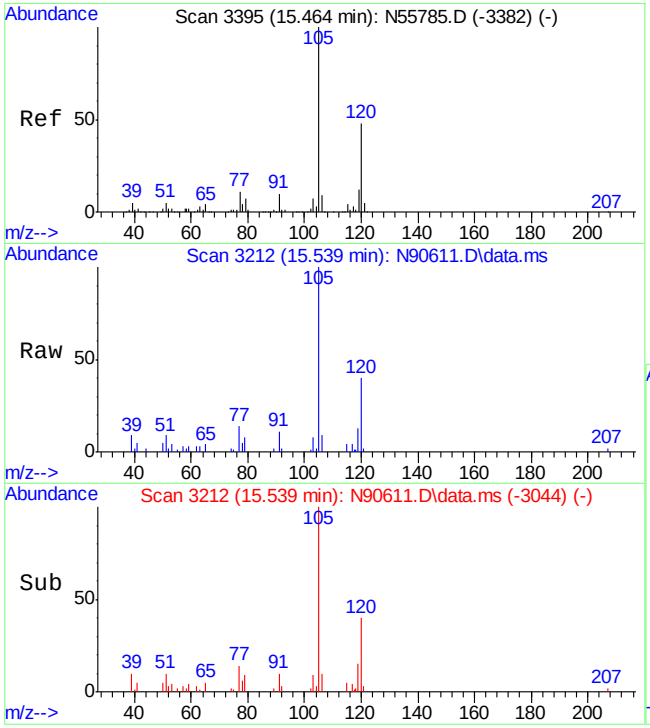


#89
1,3,5-trimethylbenzene
Concen: 1.07 ug/L
RT: 15.129 min Scan# 3096
Delta R.T. 0.004 min
Lab File: N90611.D
Acq: 26 Sep 2014 4:27 am

Tgt Ion:105 Resp: 13036

Ion	Ratio	Lower	Upper
105	100		
120	49.3	15.0	75.0

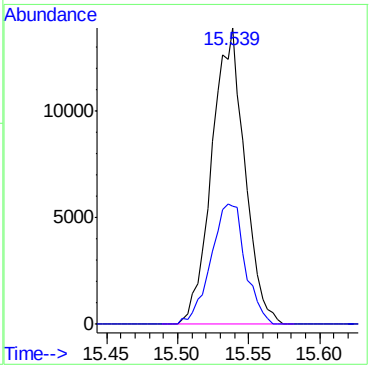


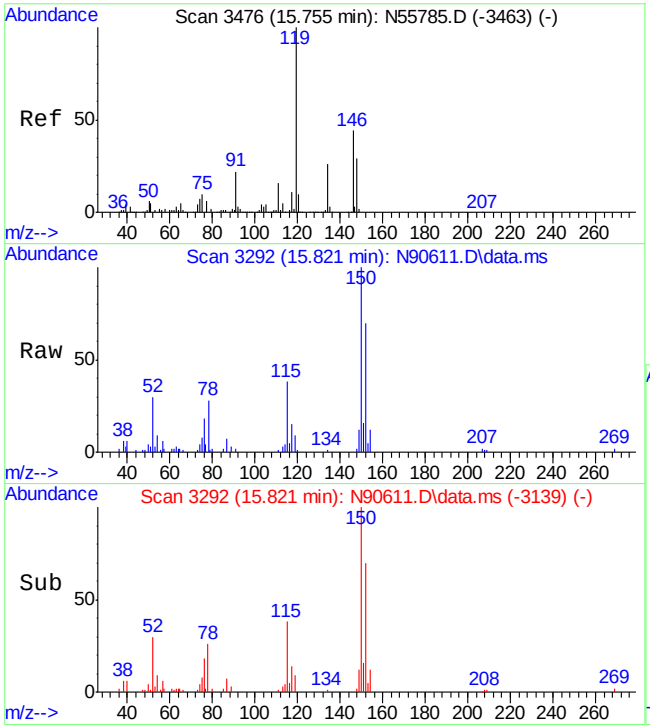


#91
1,2,4-trimethylbenzene
Concen: 1.86 ug/L
RT: 15.539 min Scan# 3212
Delta R.T. 0.004 min
Lab File: N90611.D
Acq: 26 Sep 2014 4:27 am

Tgt Ion:105 Resp: 22477

Ion	Ratio	Lower	Upper
105	100		
120	39.9	13.5	73.5

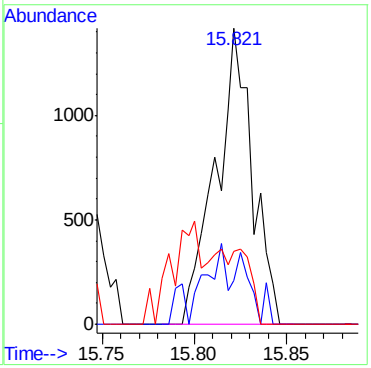


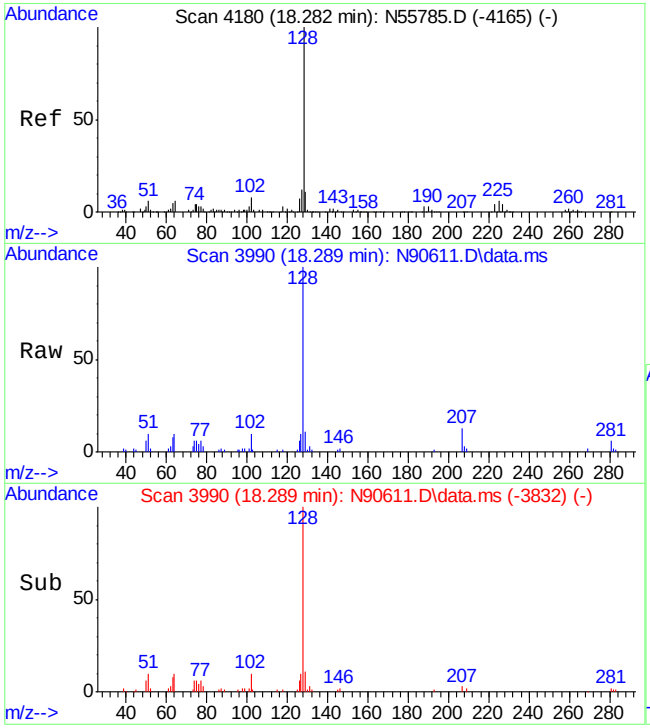


#94
p-isopropyltoluene
Concen: 0.18 ug/L
RT: 15.821 min Scan# 3292
Delta R.T. -0.001 min
Lab File: N90611.D
Acq: 26 Sep 2014 4:27 am

Tgt Ion:119 Resp: 1962

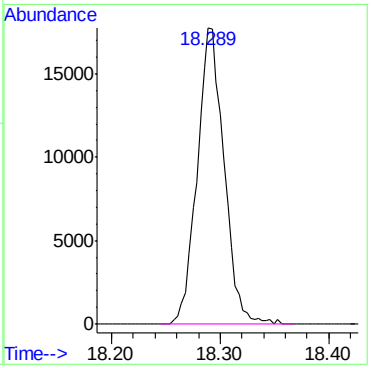
Ion	Ratio	Lower	Upper
119	100		
134	15.0	0.0	54.2
91	24.6	0.0	58.2





#102
naphthalene
Concen: 12.60 ug/L
RT: 18.289 min Scan# 3990
Delta R.T. 0.000 min
Lab File: N90611.D
Acq: 26 Sep 2014 4:27 am

Tgt Ion:128 Resp: 30387



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90634.D
Acq On : 26 Sep 2014 3:19 pm
Operator : krystend
Sample : mc33841-2
Misc : ms32815,MSN3353,,,,5,10
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 26 15:56:17 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

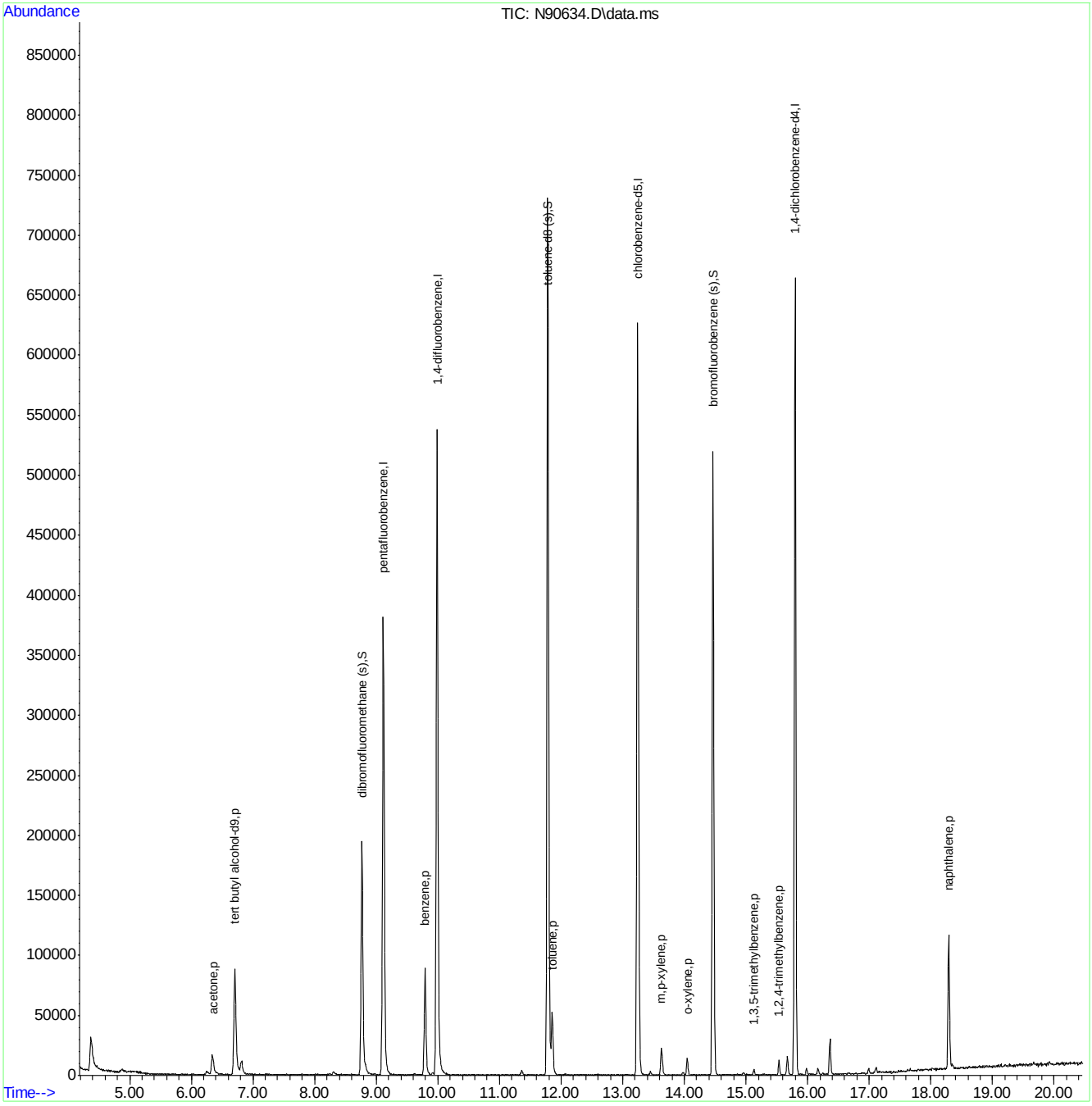
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.704	65	121590	500.00	ug/L	0.01
4) pentafluorobenzene	9.115	168	272012	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	422607	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	218847	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	173484	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.769	113	135036	48.39	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.78%			
60) toluene-d8 (s)	11.784	98	519885	51.29	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 102.58%			
82) bromofluorobenzene (s)	14.464	95	200120	47.31	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.62%			
Target Compounds						Qvalue
16) acetone	6.350	58	9172	14.66	ug/L	97
47) benzene	9.790	78	73770	6.09	ug/L	99
62) toluene	11.862	92	21240	2.92	ug/L	100
75) m,p-xylene	13.626	106	7709	1.48	ug/L	91
76) o-xylene	14.047	106	4156	0.82	ug/L	86
89) 1,3,5-trimethylbenzene	15.129	105	3353	0.27	ug/L	94
91) 1,2,4-trimethylbenzene	15.532	105	7128	0.58	ug/L	95
102) naphthalene	18.289	128	87529	28.52	ug/L	100

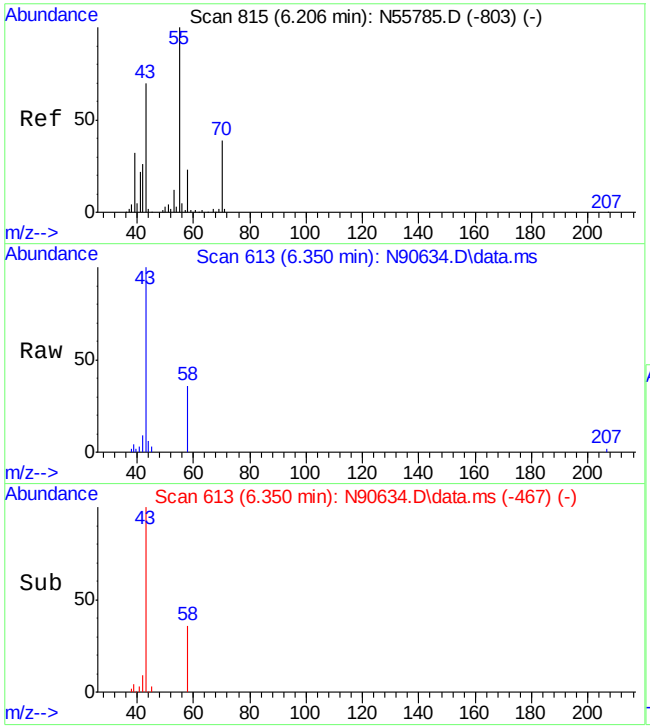
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90634.D
Acq On : 26 Sep 2014 3:19 pm
Operator : krystend
Sample : mc33841-2
Misc : ms32815,MSN3353,,,,5,10
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 26 15:56:17 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

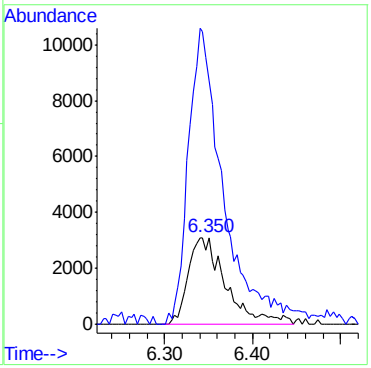


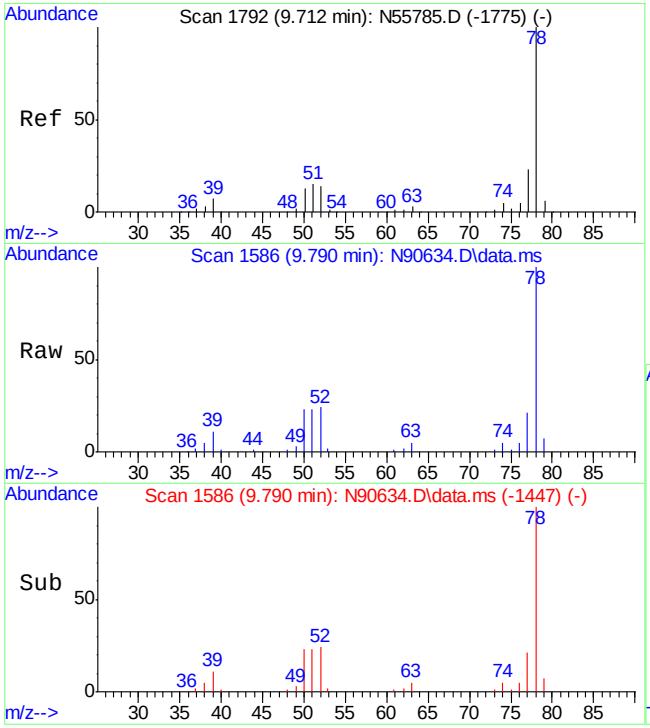


#16
acetone
Concen: 14.66 ug/L
RT: 6.350 min Scan# 613
Delta R.T. 0.017 min
Lab File: N90634.D
Acq: 26 Sep 2014 3:19 pm

Tgt Ion: 58 Resp: 9172

Ion	Ratio	Lower	Upper
58	100		
43	279.6	256.2	316.2

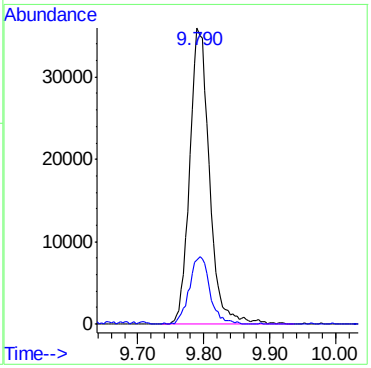


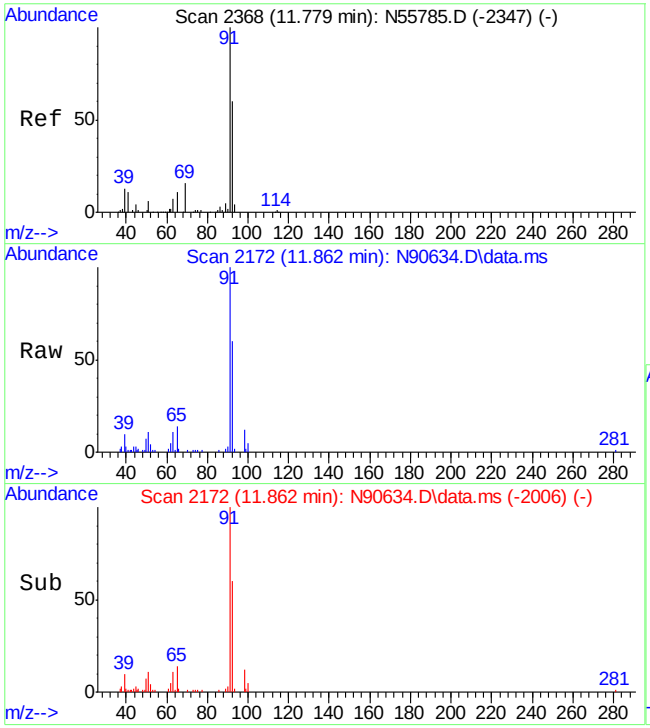


#47
benzene
Concen: 6.09 ug/L
RT: 9.790 min Scan# 1586
Delta R.T. 0.000 min
Lab File: N90634.D
Acq: 26 Sep 2014 3:19 pm

Tgt Ion: 78 Resp: 73770

Ion	Ratio	Lower	Upper
78	100		
77	21.5	0.0	52.2

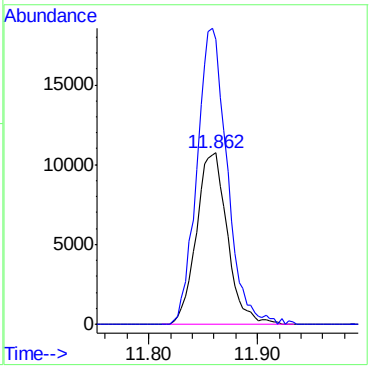


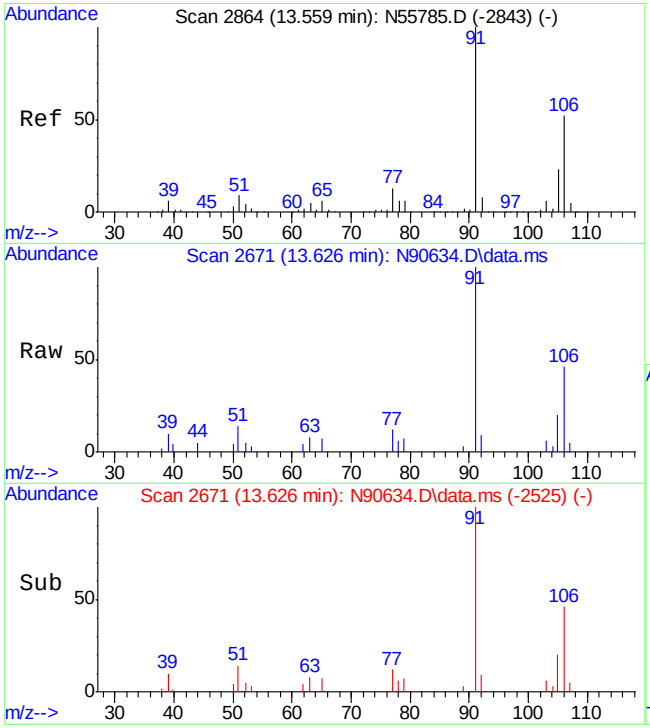


#62
toluene
Concen: 2.92 ug/L
RT: 11.862 min Scan# 2172
Delta R.T. 0.007 min
Lab File: N90634.D
Acq: 26 Sep 2014 3:19 pm

Tgt Ion: 92 Resp: 21240

Ion	Ratio	Lower	Upper
92	100		
91	166.7	137.3	197.3

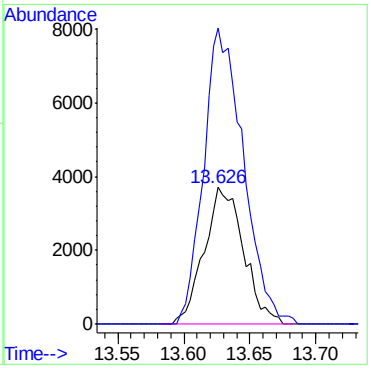


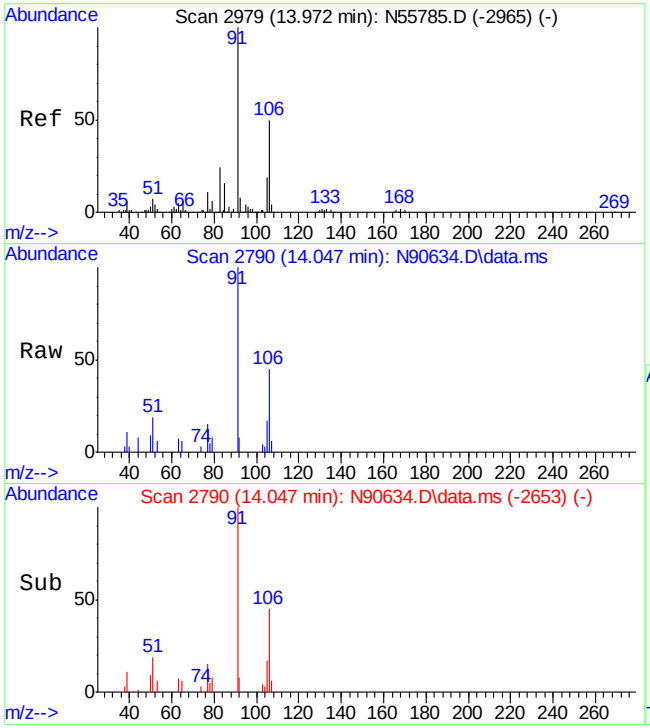


#75
m,p-xylene
Concen: 1.48 ug/L
RT: 13.626 min Scan# 2671
Delta R.T. -0.004 min
Lab File: N90634.D
Acq: 26 Sep 2014 3:19 pm

Tgt Ion:106 Resp: 7709

Ion	Ratio	Lower	Upper
106	100		
91	216.9	202.6	262.6

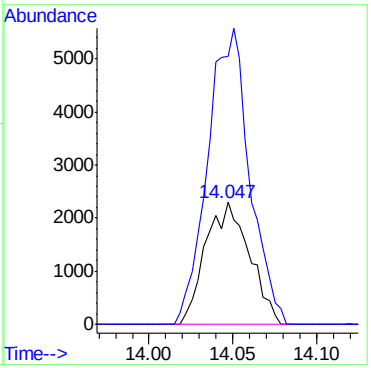


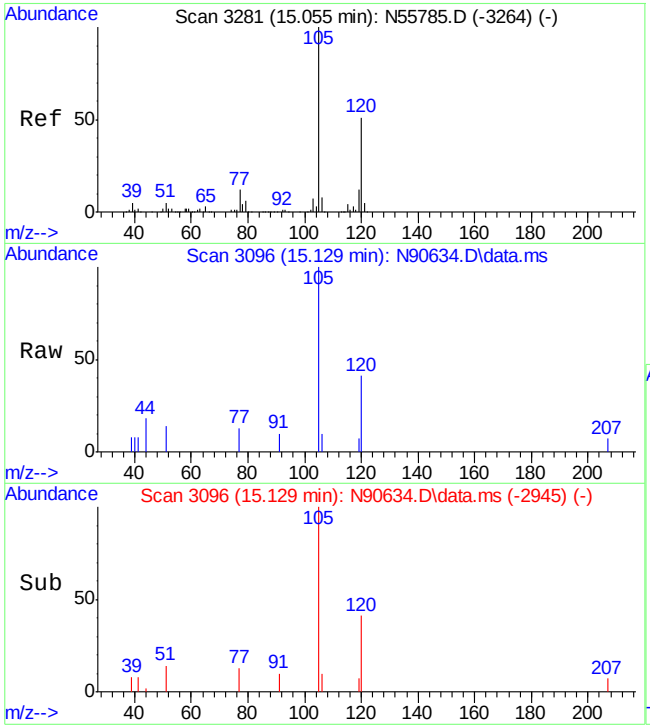


#76
o-xylene
Concen: 0.82 ug/L
RT: 14.047 min Scan# 2790
Delta R.T. 0.004 min
Lab File: N90634.D
Acq: 26 Sep 2014 3:19 pm

Tgt Ion:106 Resp: 4156

Ion	Ratio	Lower	Upper
106	100		
91	219.8	213.4	273.4

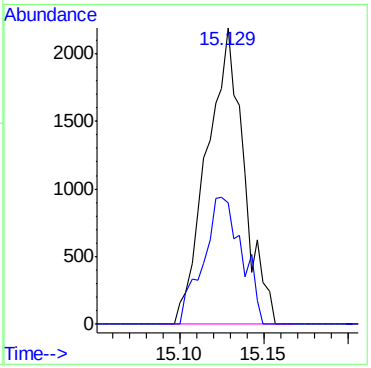


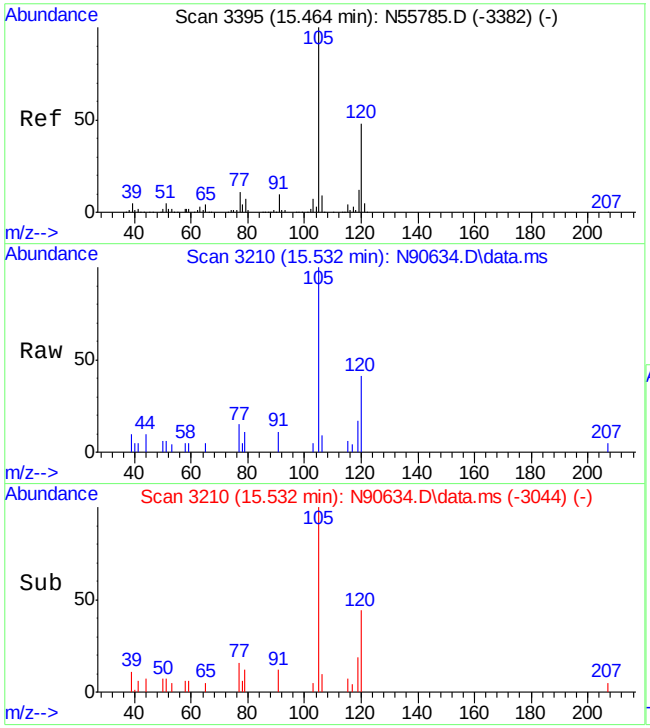


#89
1,3,5-trimethylbenzene
Concen: 0.27 ug/L
RT: 15.129 min Scan# 3096
Delta R.T. 0.004 min
Lab File: N90634.D
Acq: 26 Sep 2014 3:19 pm

Tgt Ion:105 Resp: 3353

Ion	Ratio	Lower	Upper
105	100		
120	40.8	15.0	75.0

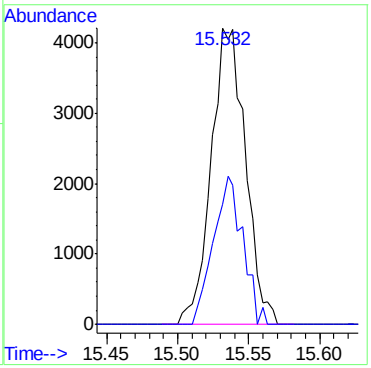


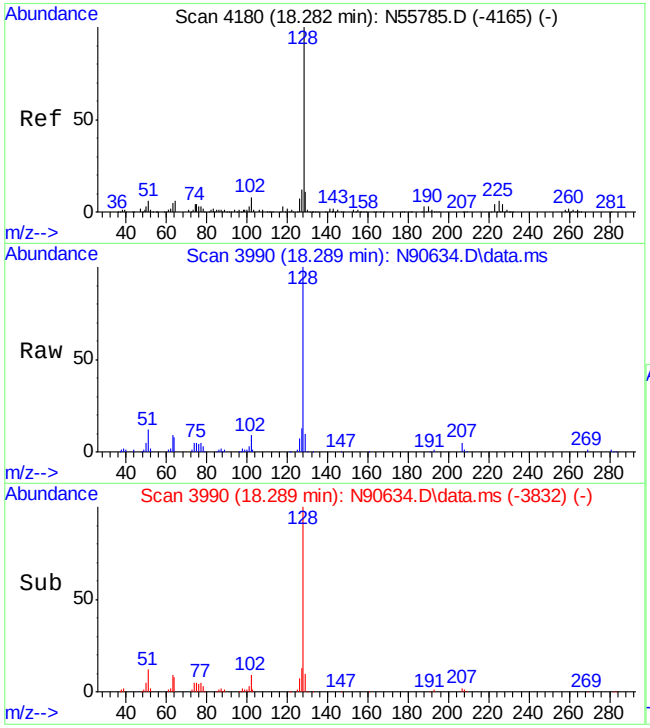


#91
1,2,4-trimethylbenzene
Concen: 0.58 ug/L
RT: 15.532 min Scan# 3210
Delta R.T. -0.003 min
Lab File: N90634.D
Acq: 26 Sep 2014 3:19 pm

Tgt Ion:105 Resp: 7128

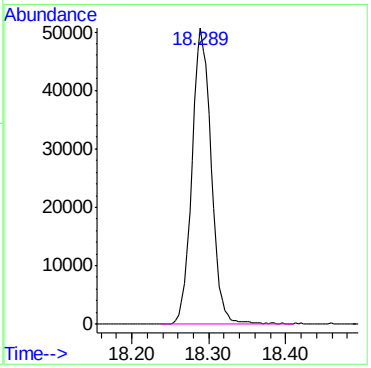
Ion	Ratio	Lower	Upper
105	100		
120	40.5	13.5	73.5





#102
naphthalene
Concen: 28.52 ug/L
RT: 18.289 min Scan# 3990
Delta R.T. 0.000 min
Lab File: N90634.D
Acq: 26 Sep 2014 3:19 pm

Tgt Ion:128 Resp: 87529



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90613.D
Acq On : 26 Sep 2014 5:23 am
Operator : krystend
Sample : mc33841-3
Misc : ms32815,MSN3352,,,,5,1
ALS Vial : 57 Sample Multiplier: 1

Quant Time: Sep 26 09:45:55 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

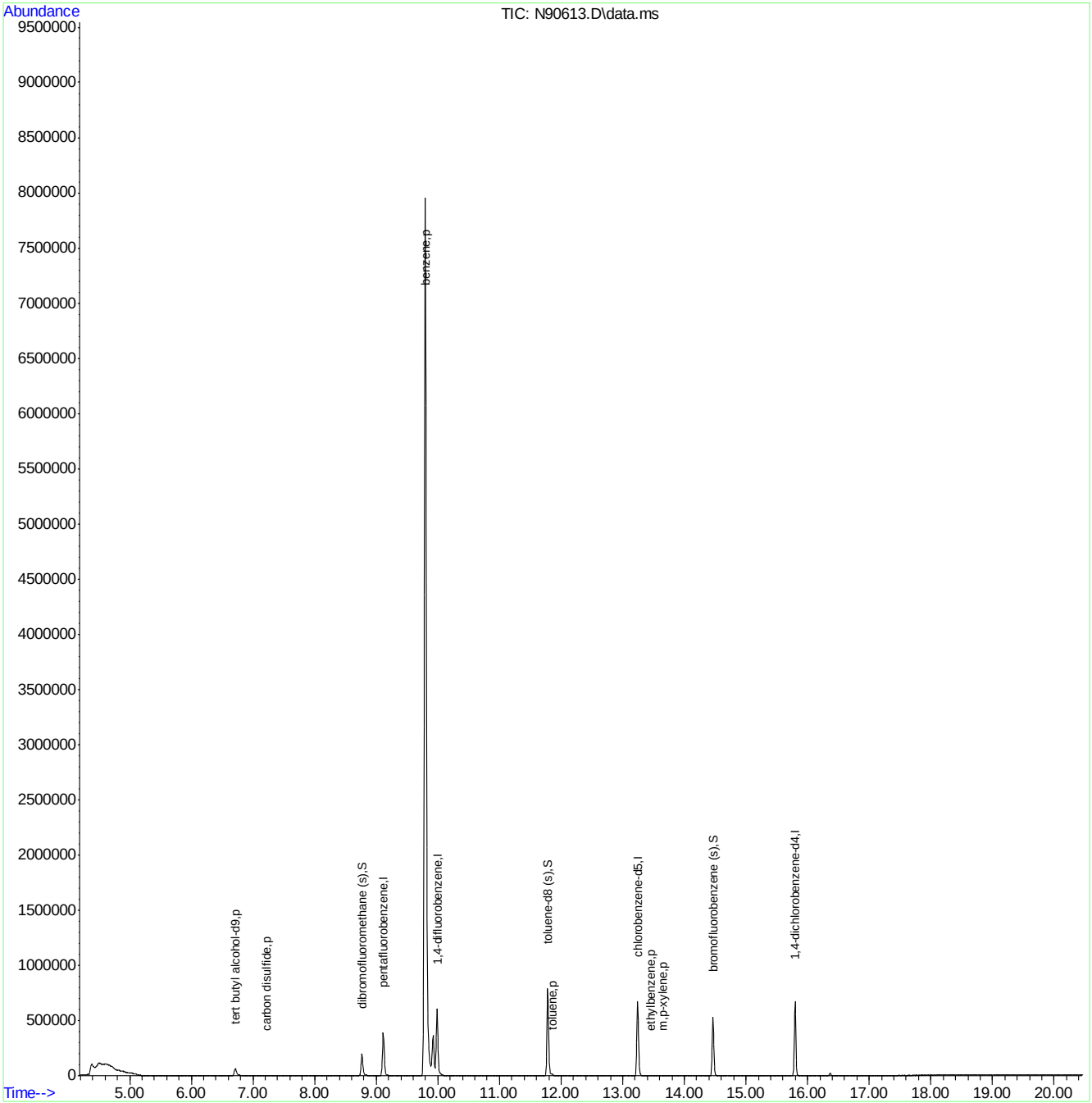
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.711	65	101143	500.00	ug/L	0.02
4) pentafluorobenzene	9.115	168	279427	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	468110	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	234162	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.800	152	175317	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.768	113	137929	48.11	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.22%			
60) toluene-d8 (s)	11.784	98	557866	49.69	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 99.38%			
82) bromofluorobenzene (s)	14.464	95	206264	48.25	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.50%			
Target Compounds						Qvalue
24) carbon disulfide	7.220	76	5255	0.65	ug/L	98
47) benzene	9.797	78	7914108	589.72	ug/L	98
62) toluene	11.855	92	4314	0.54	ug/L	98
74) ethylbenzene	13.453	91	3738	0.25	ug/L	81
75) m,p-xylene	13.644	106	1028	0.18	ug/L #	75

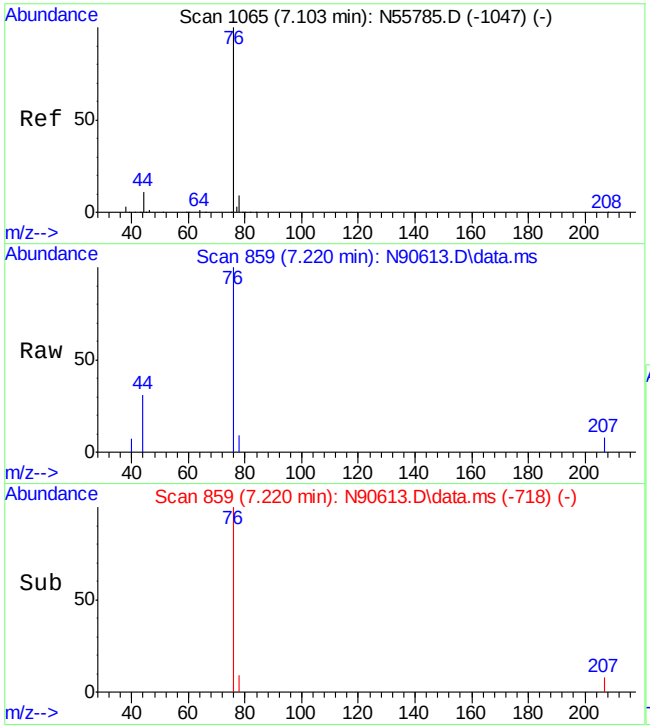
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90613.D
Acq On : 26 Sep 2014 5:23 am
Operator : krystend
Sample : mc33841-3
Misc : ms32815,MSN3352,,,,5,1
ALS Vial : 57 Sample Multiplier: 1

Quant Time: Sep 26 09:45:55 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

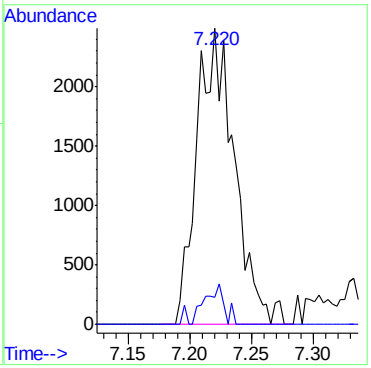


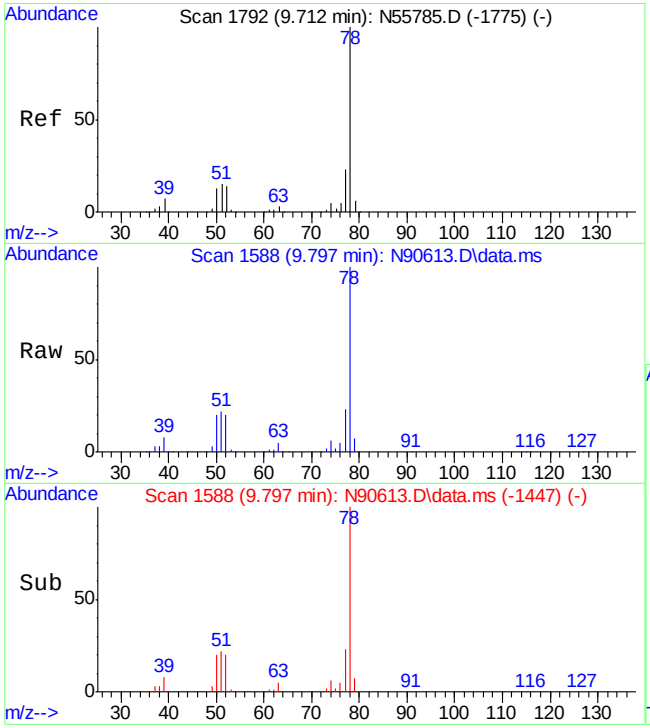


#24
carbon disulfide
Concen: 0.65 ug/L
RT: 7.220 min Scan# 859
Delta R.T. 0.000 min
Lab File: N90613.D
Acq: 26 Sep 2014 5:23 am

Tgt Ion: 76 Resp: 5255

Ion	Ratio	Lower	Upper
76	100		
78	9.3	0.0	38.7

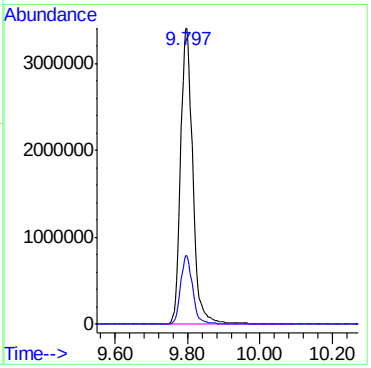


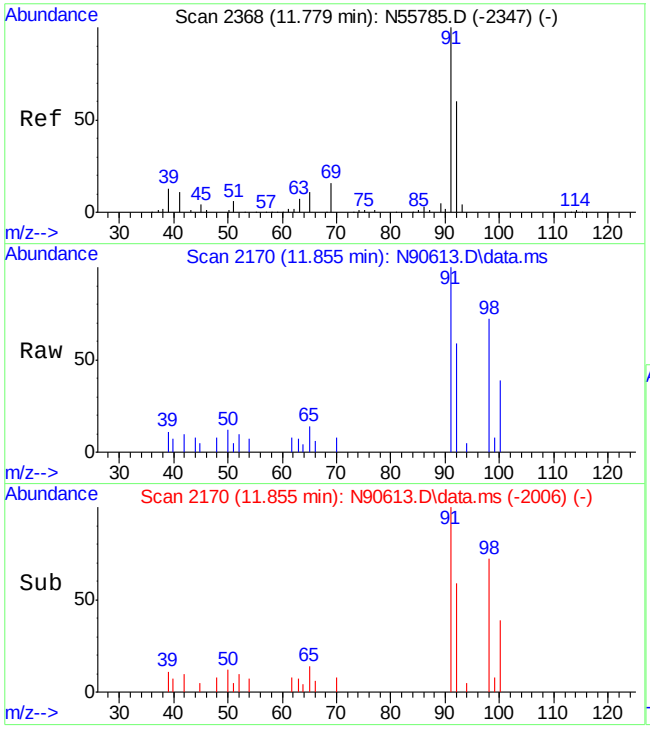


#47
benzene
Concen: 589.72 ug/L
RT: 9.797 min Scan# 1588
Delta R.T. 0.007 min
Lab File: N90613.D
Acq: 26 Sep 2014 5:23 am

Tgt Ion: 78 Resp: 7914108

Ion	Ratio	Lower	Upper
78	100		
77	23.1	0.0	52.2

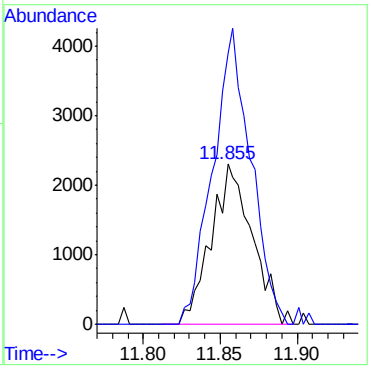


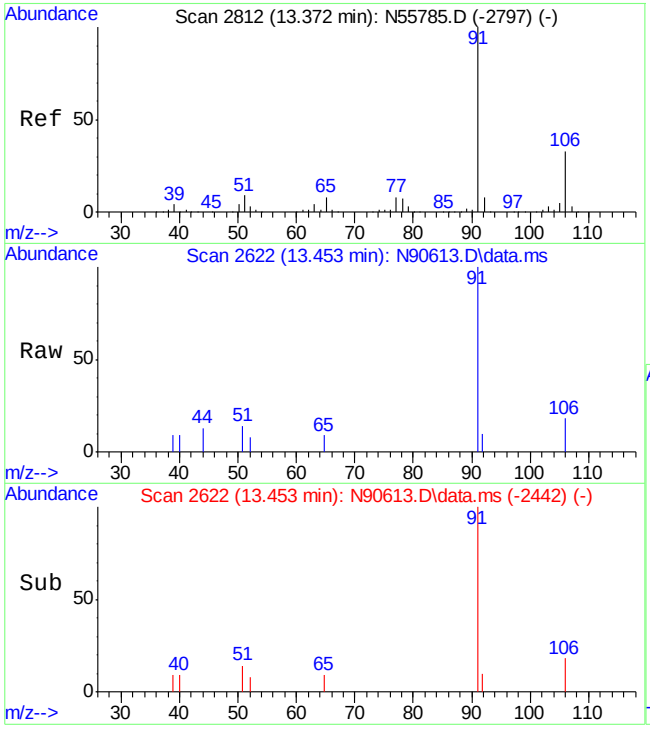


#62
toluene
Concen: 0.54 ug/L
RT: 11.855 min Scan# 2170
Delta R.T. -0.000 min
Lab File: N90613.D
Acq: 26 Sep 2014 5:23 am

Tgt Ion: 92 Resp: 4314

Ion	Ratio	Lower	Upper
92	100		
91	169.4	137.3	197.3

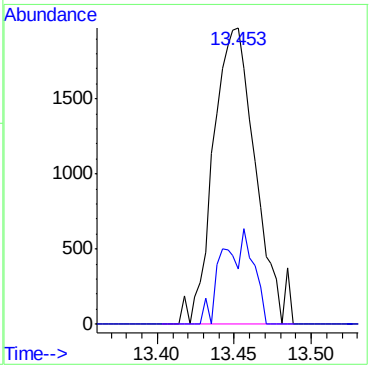


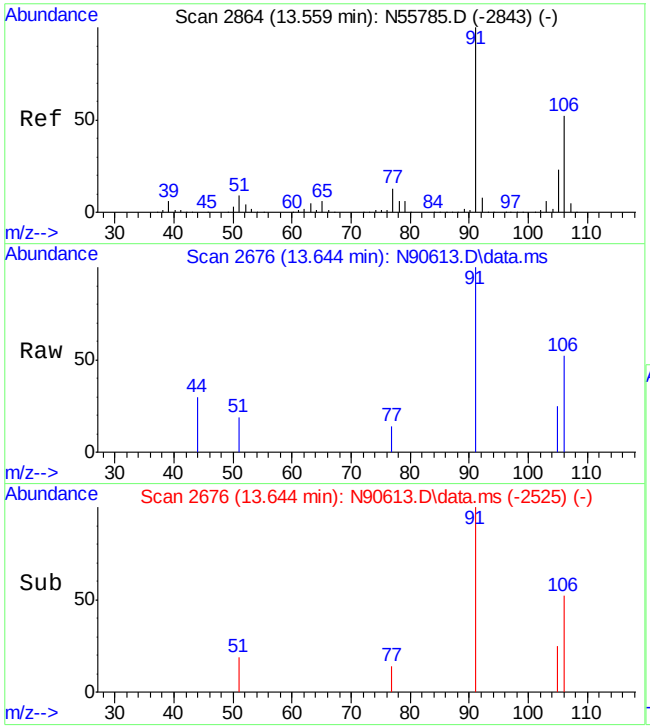


#74
ethylbenzene
Concen: 0.25 ug/L
RT: 13.453 min Scan# 2622
Delta R.T. 0.007 min
Lab File: N90613.D
Acq: 26 Sep 2014 5:23 am

Tgt Ion: 91 Resp: 3738

Ion	Ratio	Lower	Upper
91	100		
106	18.5	0.0	58.3

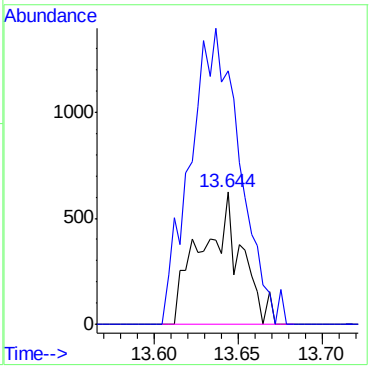




#75
m,p-xylene
Concen: 0.18 ug/L
RT: 13.644 min Scan# 2676
Delta R.T. 0.014 min
Lab File: N90613.D
Acq: 26 Sep 2014 5:23 am

Tgt Ion:106 Resp: 1028

Ion	Ratio	Lower	Upper
106	100		
91	191.2	202.6	262.6#



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90636.D
Acq On : 26 Sep 2014 4:16 pm
Operator : krystend
Sample : mc33841-3
Misc : ms32815,MSN3353,,,,5,50
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 26 16:38:18 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

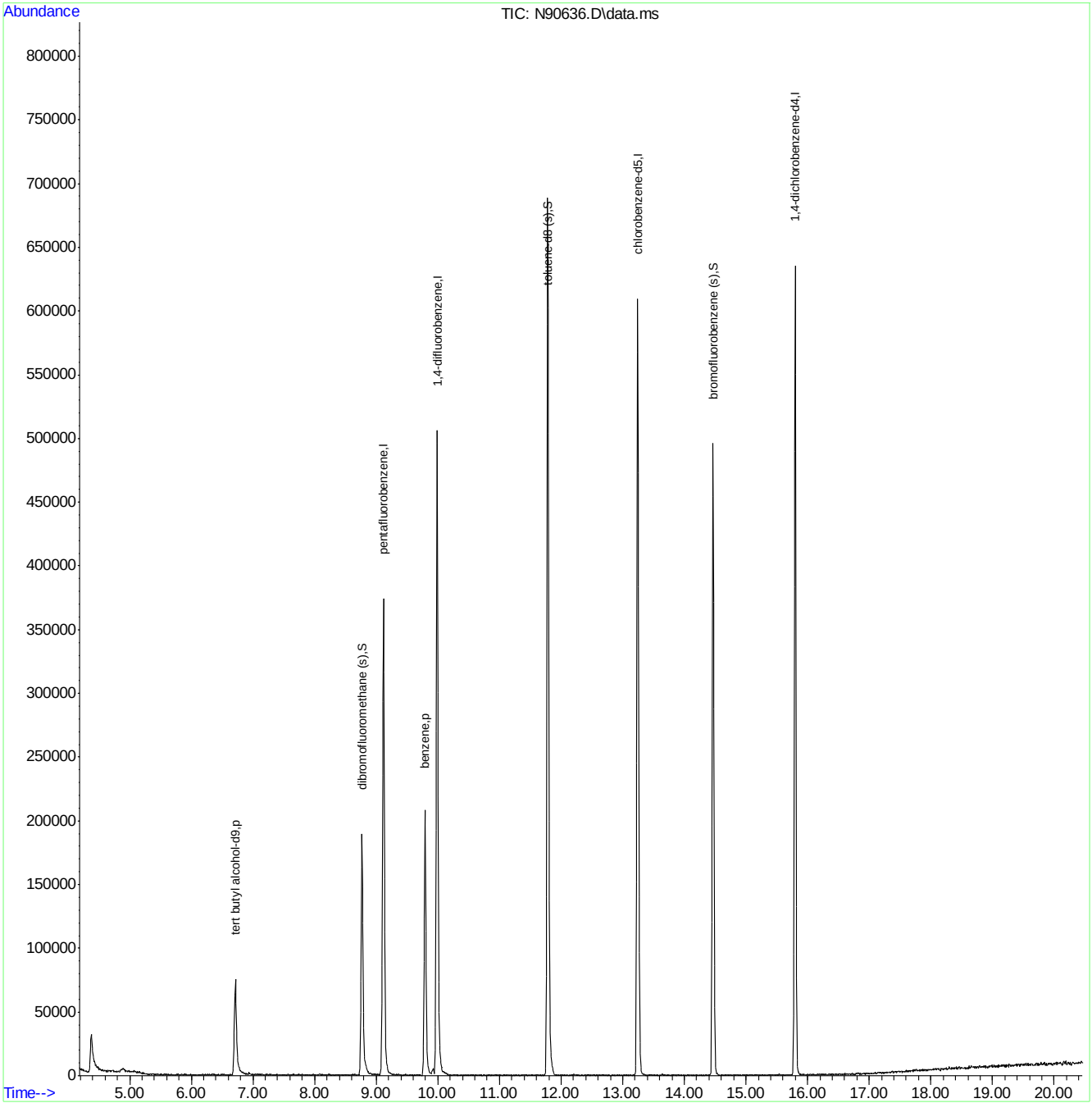
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.714	65	108466	500.00	ug/L	0.02
4) pentafluorobenzene	9.118	168	263653	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.992	114	407717	50.00	ug/L	0.00
66) chlorobenzene-d5	13.244	82	214968	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	160006	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.768	113	131900	48.76	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.52%			
60) toluene-d8 (s)	11.784	98	499507	51.08	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 102.16%			
82) bromofluorobenzene (s)	14.464	95	193851	49.69	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 99.38%			
Target Compounds						Qvalue
47) benzene	9.790	78	176006	15.06	ug/L	99

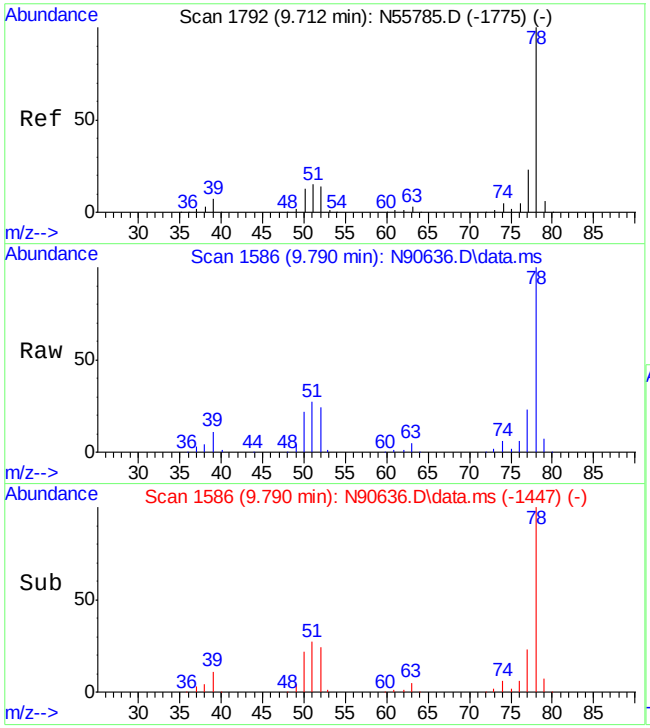
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90636.D
Acq On : 26 Sep 2014 4:16 pm
Operator : krystend
Sample : mc33841-3
Misc : ms32815,MSN3353,,,,5,50
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 26 16:38:18 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

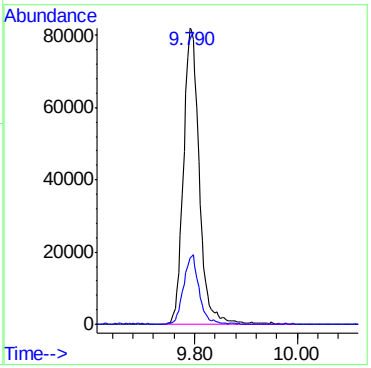




#47
benzene
Concen: 15.06 ug/L
RT: 9.790 min Scan# 1586
Delta R.T. 0.000 min
Lab File: N90636.D
Acq: 26 Sep 2014 4:16 pm

Tgt Ion: 78 Resp: 176006

Ion	Ratio	Lower	Upper
78	100		
77	22.6	0.0	52.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90633.D
Acq On : 26 Sep 2014 2:51 pm
Operator : krystend
Sample : mc33841-4
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 26 15:17:38 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

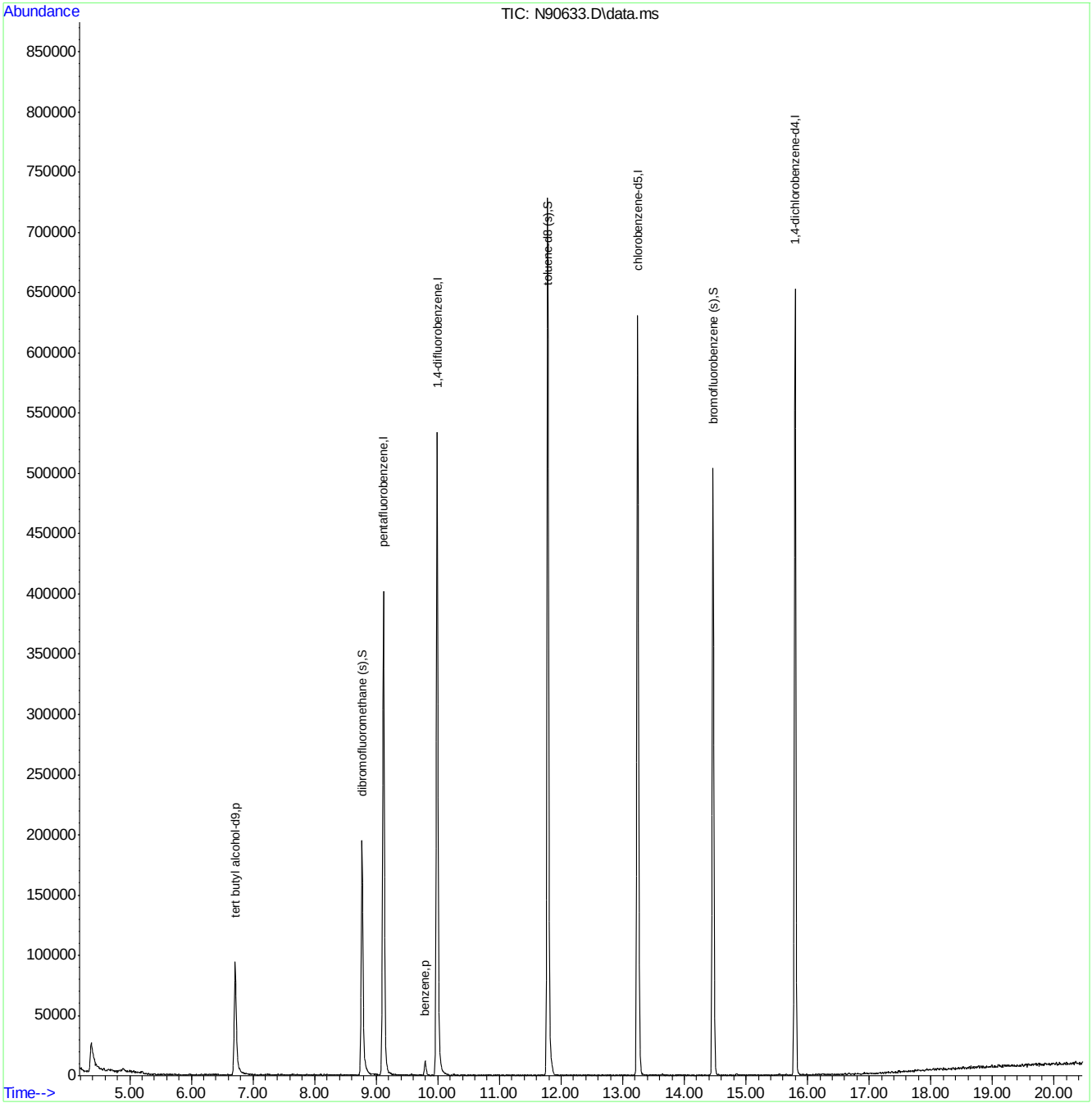
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.711	65	130870	500.00	ug/L	0.02
4) pentafluorobenzene	9.119	168	272802	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	424995	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	220683	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	168277	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.772	113	137059	48.97	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.94%			
60) toluene-d8 (s)	11.784	98	513789	50.40	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 100.80%			
82) bromofluorobenzene (s)	14.464	95	195904	47.75	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.50%			
Target Compounds						Qvalue
47) benzene	9.794	78	10262	0.84	ug/L	91

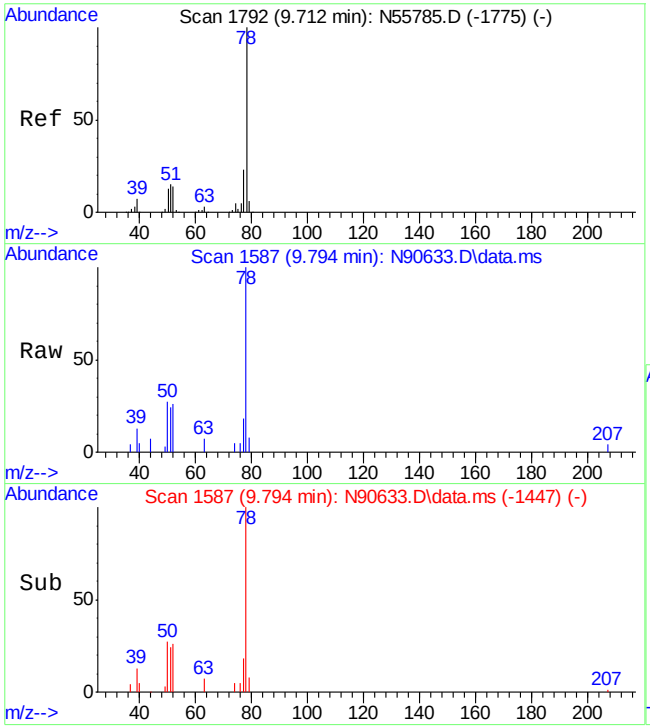
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90633.D
Acq On : 26 Sep 2014 2:51 pm
Operator : krystend
Sample : mc33841-4
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 26 15:17:38 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

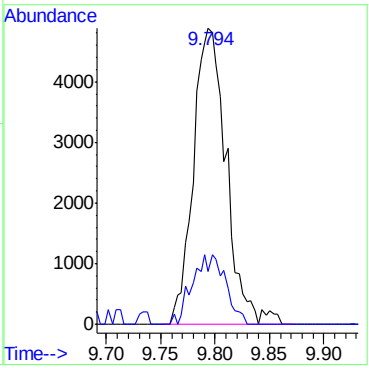




#47
benzene
Concen: 0.84 ug/L
RT: 9.794 min Scan# 1587
Delta R.T. 0.004 min
Lab File: N90633.D
Acq: 26 Sep 2014 2:51 pm

Tgt Ion: 78 Resp: 10262

Ion	Ratio	Lower	Upper
78	100		
77	17.8	0.0	52.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90603.D
Acq On : 26 Sep 2014 12:41 am
Operator : krystend
Sample : mc33841-5
Misc : ms32815,MSN3352,,,,5,1
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Sep 26 09:33:40 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

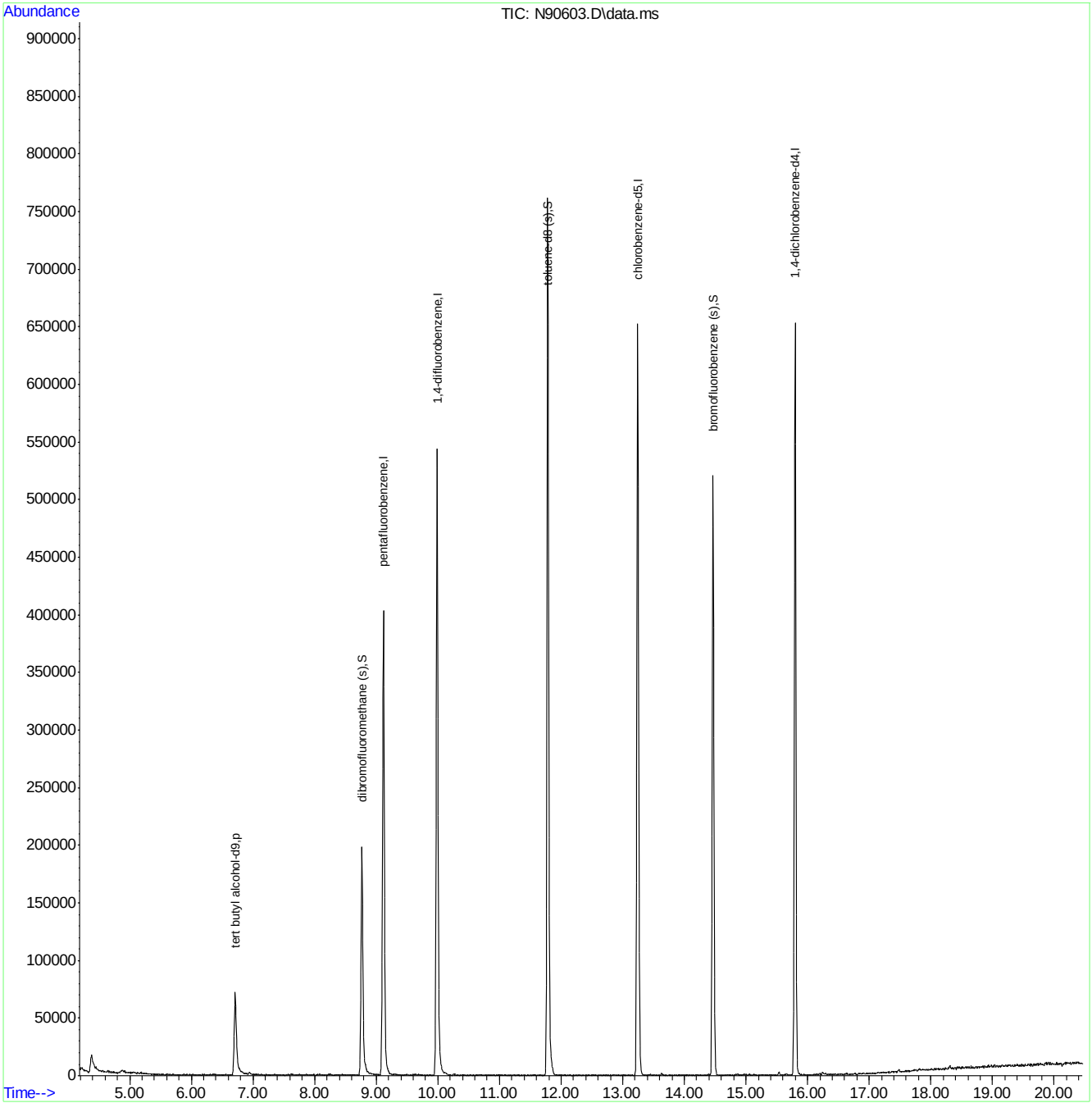
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.711	65	109395	500.00	ug/L	0.02
4) pentafluorobenzene	9.118	168	285284	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	445538	50.00	ug/L	0.00
66) chlorobenzene-d5	13.244	82	231575	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	170952	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.768	113	141852	48.46	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.92%			
60) toluene-d8 (s)	11.784	98	538645	50.41	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 100.82%			
82) bromofluorobenzene (s)	14.467	95	203732	48.88	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.76%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90603.D
Acq On : 26 Sep 2014 12:41 am
Operator : krystend
Sample : mc33841-5
Misc : ms32815,MSN3352,,,,5,1
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Sep 26 09:33:40 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90602.D
Acq On : 26 Sep 2014 12:13 am
Operator : krystend
Sample : mb
Misc : ms32815,MSN3352,,,,5,1
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Sep 26 09:33:15 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

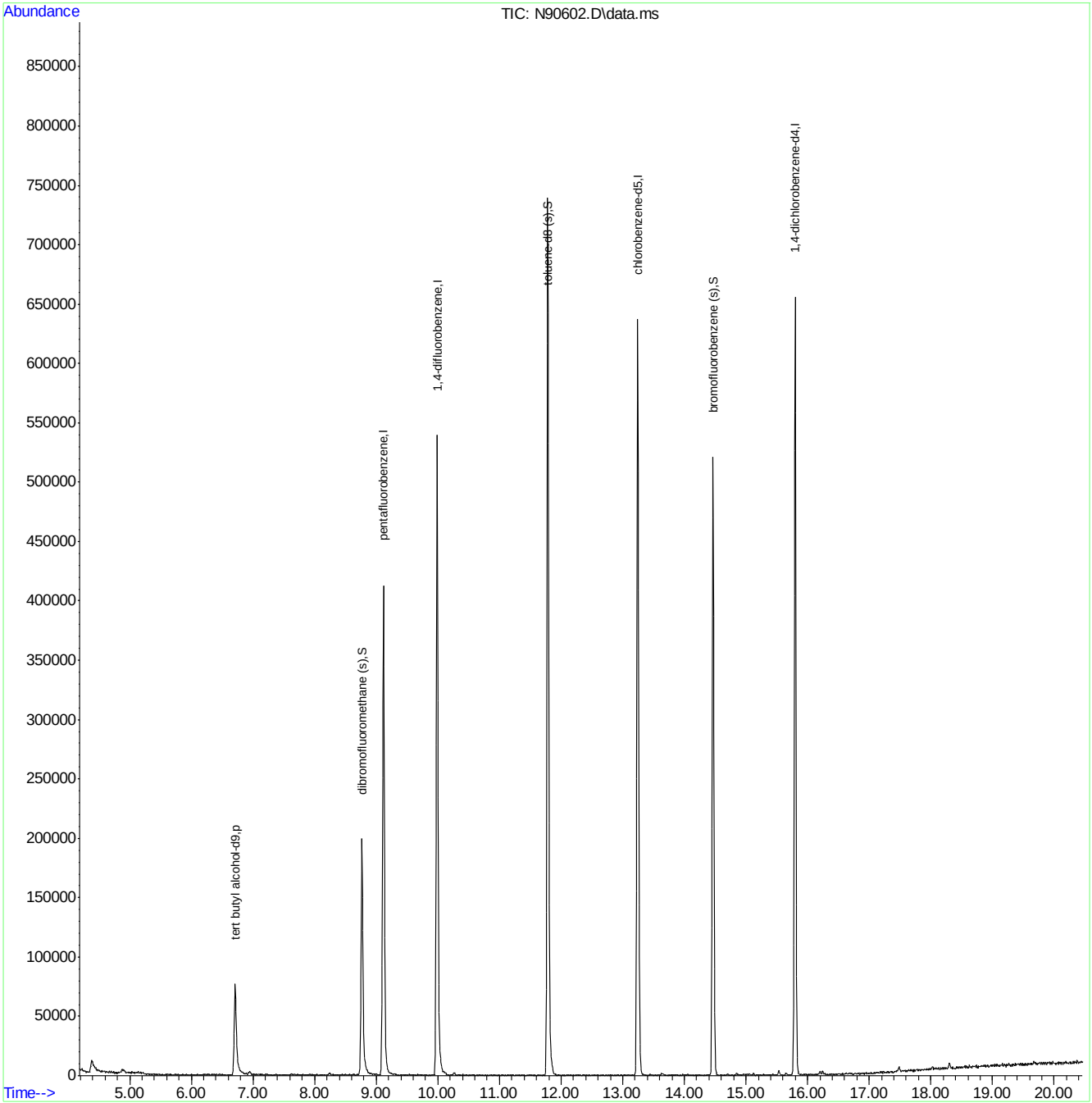
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.714	65	114162	500.00	ug/L	0.02
4) pentafluorobenzene	9.118	168	287393	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	436550	50.00	ug/L	0.00
66) chlorobenzene-d5	13.244	82	226165	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	169413	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.768	113	139198	47.21	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.42%			
60) toluene-d8 (s)	11.784	98	528892	50.51	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 101.02%			
82) bromofluorobenzene (s)	14.464	95	202591	49.05	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 98.10%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90602.D
Acq On : 26 Sep 2014 12:13 am
Operator : krystend
Sample : mb
Misc : ms32815,MSN3352,,,,5,1
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Sep 26 09:33:15 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90629.D
Acq On : 26 Sep 2014 12:55 pm
Operator : krystend
Sample : mb
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 26 13:18:53 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

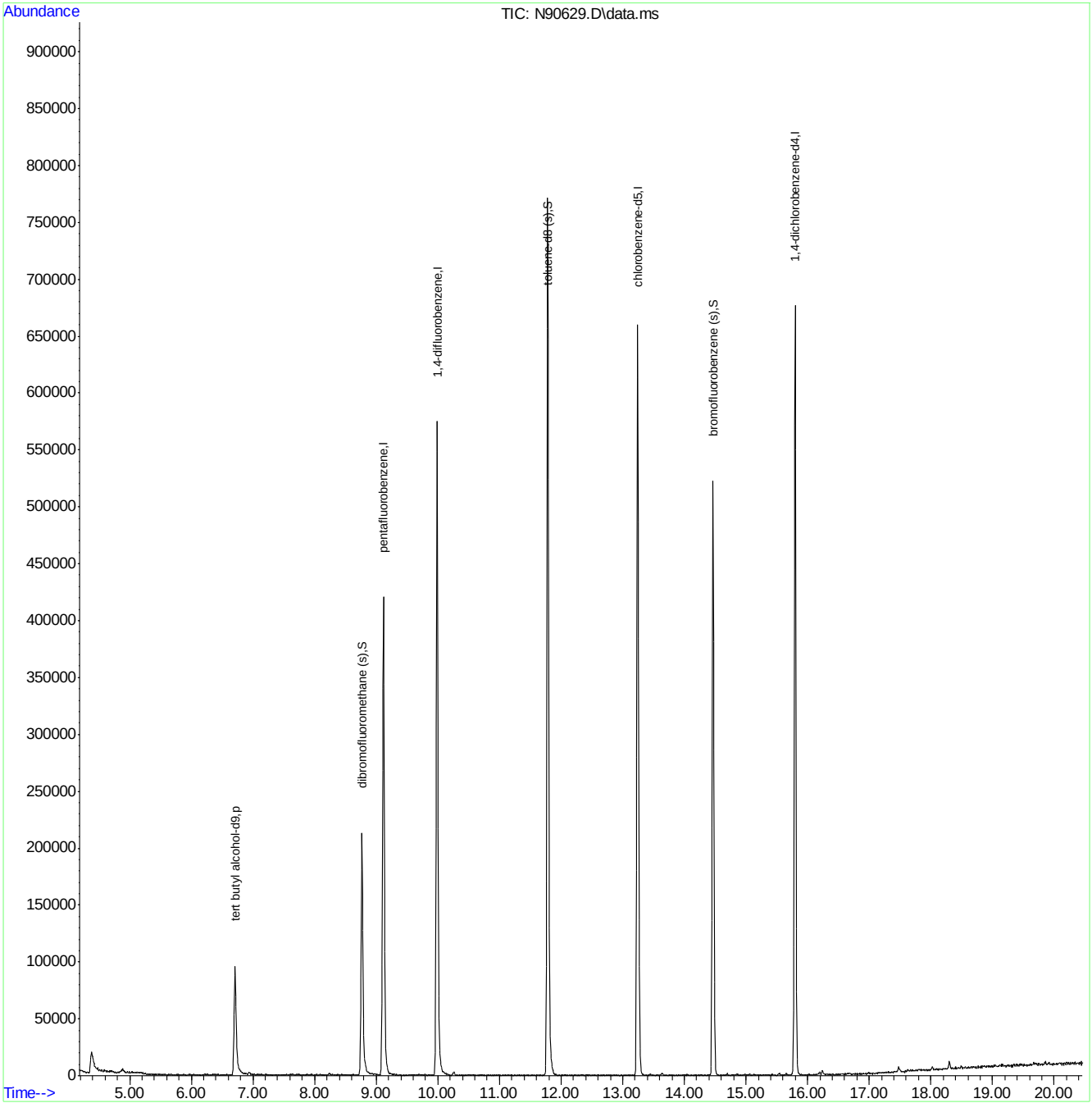
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.711	65	133734	500.00	ug/L	0.02
4) pentafluorobenzene	9.118	168	294296	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	449032	50.00	ug/L	0.00
66) chlorobenzene-d5	13.244	82	229027	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	173071	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.768	113	145995	48.35	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.70%			
60) toluene-d8 (s)	11.784	98	549247	51.00	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 102.00%			
82) bromofluorobenzene (s)	14.464	95	207426	49.16	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 98.32%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90629.D
Acq On : 26 Sep 2014 12:55 pm
Operator : krystend
Sample : mb
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 26 13:18:53 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES MC33841

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90600.D
Acq On : 25 Sep 2014 11:16 pm
Operator : krystend
Sample : bs
Misc : ms32815,MSN3352,,,,5,1
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Sep 26 09:31:18 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.693	65	120934	500.00	ug/L		0.00
4) pentafluorobenzene	9.115	168	322369	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	509462	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	271230	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	221377	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.769	113	160830	48.63	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.26%				
60) toluene-d8 (s)	11.784	98	629481	51.52	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.04%				
82) bromofluorobenzene (s)	14.464	95	255815	47.40	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.80%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.782	59	120685	283.85	ug/L	#	100
3) Ethanol	5.558	45	369470	5966.58	ug/L		99
5) dichlorodifluoromethane	4.392	85	229417	54.05	ug/L		99
6) chloromethane	4.653	50	233901	44.96	ug/L		98
7) vinyl chloride	4.890	62	205431	58.88	ug/L		99
8) bromomethane	5.399	96	70595	44.31	ug/L		98
9) chloroethane	5.566	64	129420	62.13	ug/L		96
10) ethyl ether	6.432	59	148027	46.91	ug/L		96
11) acetonitrile	6.435	41	22358	44.64	ug/L		99
12) trichlorofluoromethane	6.205	101	308775	50.66	ug/L		97
13) freon-113	6.966	101	100562	37.29	ug/L		95
14) acrolein	6.198	56	92244	250.77	ug/L		98
15) 1,1-dichloroethene	6.785	96	96505	38.92	ug/L		95
16) acetone	6.333	58	28169	37.99	ug/L	#	82
17) Methyl Acetate	6.966	43	187207	65.81	ug/L	#	93
18) methylene chloride	6.941	84	143601	42.87	ug/L		92
19) methyl tert butyl ether	7.704	73	342771	43.31	ug/L		96
20) acrylonitrile	6.849	53	70232	50.27	ug/L		93
21) allyl chloride	7.029	41	259079	43.29	ug/L		93
22) trans-1,2-dichloroethene	7.620	96	134444	41.54	ug/L		99
23) iodomethane	6.856	142	74583	37.39	ug/L		94
24) carbon disulfide	7.220	76	301407	32.35	ug/L		99
25) propionitrile	6.852	54	3024	64.16	ug/L		100
26) vinyl acetate	7.970	43	135796	29.98	ug/L		99
27) chloroprene	8.235	53	285900	49.22	ug/L		97
28) di-isopropyl ether	8.263	45	732224	47.40	ug/L		98
29) methacrylonitrile	8.397	41	113705	49.91	ug/L		97
30) 2-butanone	8.284	72	19234	52.92	ug/L	#	53
31) Hexane	8.256	41	235483	41.44	ug/L	#	63
32) 1,1-dichloroethane	7.878	63	350625	44.19	ug/L		97
33) tert-butyl ethyl ether	8.662	59	263942	32.87	ug/L		96
34) isobutyl alcohol	8.263	43	531585	227.01	ug/L		87
35) 2,2-dichloropropane	8.730	77	213266	43.11	ug/L		99
36) cis-1,2-dichloroethene	8.443	96	165504	44.91	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90600.D
Acq On : 25 Sep 2014 11:16 pm
Operator : krystend
Sample : bs
Misc : ms32815,MSN3352,,,,5,1
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Sep 26 09:31:18 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.263	43	534695	46.36	ug/L		92
38) bromochloromethane	8.613	128	75482	50.03	ug/L		97
39) chloroform	8.645	83	316034	44.59	ug/L		99
41) Tetrahydrofuran	8.974	42	56779	55.69	ug/L		96
42) 1,1,1-trichloroethane	9.394	97	266778	49.09	ug/L		98
44) Cyclohexane	9.674	56	297624	43.05	ug/L		97
45) carbon tetrachloride	9.758	117	215119	43.17	ug/L		95
46) 1,1-dichloropropene	9.568	75	211090	47.15	ug/L		99
47) benzene	9.794	78	615200	42.12	ug/L		99
48) 1,2-dichloroethane	9.299	62	306181	44.78	ug/L		98
49) tert-amyl methyl ether	9.903	73	138284	33.30	ug/L		99
50) heptane	10.253	43	175882	42.09	ug/L		97
51) trichloroethene	10.409	95	192014	44.03	ug/L		97
52) 1,2-dichloropropane	10.377	63	222025	53.38	ug/L		100
53) dibromomethane	10.356	93	106018	49.95	ug/L		93
54) bromodichloromethane	10.462	83	274651	50.22	ug/L		98
55) Methylcyclohexane	10.922	83	244536	47.74	ug/L		98
56) 2-chloroethyl vinyl ether	10.377	63	222025	54.08	ug/L	#	100
57) methyl methacrylate	10.550	69	106959	56.24	ug/L	#	77
58) 1,4-dioxane	10.564	88	3884	124.55	ug/L	#	73
59) cis-1,3-dichloropropene	11.077	75	283019	53.57	ug/L		98
61) 4-methyl-2-pentanone	11.169	43	210522	54.08	ug/L		96
62) toluene	11.855	92	405361	46.21	ug/L		96
63) trans-1,3-dichloropropene	11.494	75	244955	57.67	ug/L		98
64) 1,1,2-trichloroethane	11.667	83	139873	49.48	ug/L		99
65) ethyl methacrylate	11.865	69	202696	56.02	ug/L		93
67) tetrachloroethene	12.590	166	160602	45.47	ug/L		97
68) 1,3-dichloropropane	11.904	76	274828	53.77	ug/L		98
69) dibromochloromethane	12.198	129	195825	53.60	ug/L		96
70) 1,2-dibromoethane	12.449	107	156716	54.74	ug/L		97
71) 2-hexanone	12.021	43	166625	53.19	ug/L		96
72) chlorobenzene	13.276	112	453920	47.99	ug/L		97
73) 1,1,1,2-tetrachloroethane	13.191	131	175425	50.94	ug/L		95
74) ethylbenzene	13.446	91	819447	46.48	ug/L		100
75) m,p-xylene	13.630	106	568769	88.23	ug/L		99
76) o-xylene	14.047	106	296481	47.35	ug/L		95
77) styrene	13.969	104	498659	54.90	ug/L		99
78) bromoform	13.799	173	116936	55.02	ug/L		96
79) trans-1,4-dichloro-2-b...	14.195	53	46704	50.15	ug/L	#	79
81) isopropylbenzene	14.404	105	789151	50.29	ug/L		100
83) bromobenzene	14.697	156	190244	51.23	ug/L		98
84) 1,1,2,2-tetrachloroethane	14.043	83	189975	55.57	ug/L		97
85) 1,2,3-trichloropropane	14.195	75	211581	55.73	ug/L		100
86) n-propylbenzene	14.846	91	1020423	50.79	ug/L		100
87) 2-chlorotoluene	14.969	91	640658	50.14	ug/L		97
88) 4-chlorotoluene	15.044	91	673260	49.88	ug/L		100
89) 1,3,5-trimethylbenzene	15.125	105	716695	45.49	ug/L		98
90) tert-butylbenzene	15.429	91	461397	49.89	ug/L		98
91) 1,2,4-trimethylbenzene	15.535	105	754260	48.30	ug/L		98
92) sec-butylbenzene	15.648	105	910435	51.57	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90600.D
Acq On : 25 Sep 2014 11:16 pm
Operator : krystend
Sample : bs
Misc : ms32815,MSN3352,,,,5,1
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Sep 26 09:31:18 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

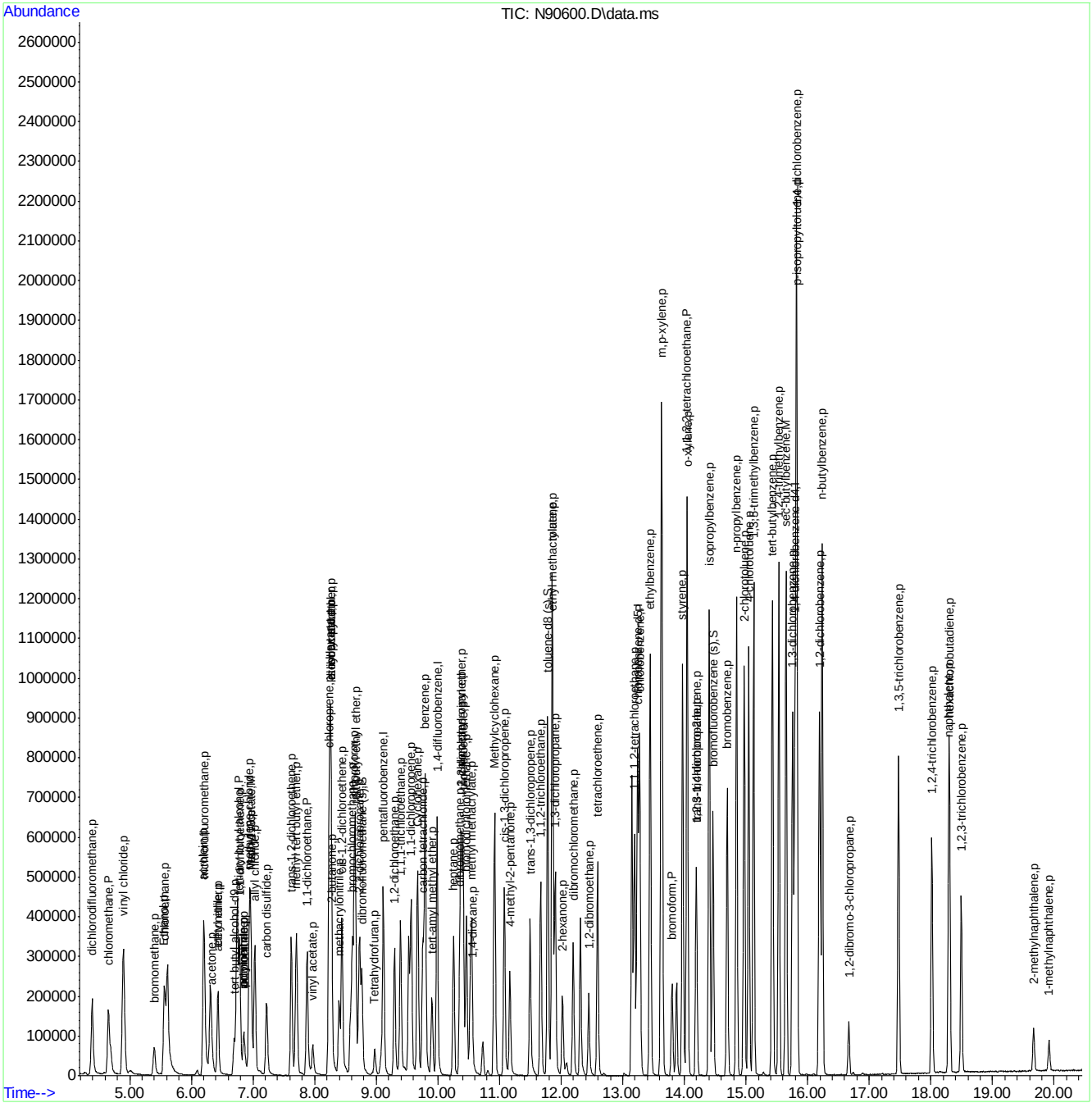
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	373899	52.43	ug/L		97
94) p-isopropyltoluene	15.821	119	756950	52.47	ug/L		99
95) 1,4-dichlorobenzene	15.825	146	359513	56.67	ug/L		97
96) 1,2-dichlorobenzene	16.193	146	378844	56.91	ug/L		99
97) n-butylbenzene	16.235	91	792553	52.97	ug/L		100
98) 1,2-dibromo-3-chloropr...	16.670	75	36876	61.65	ug/L		96
99) 1,2,4-trichlorobenzene	18.017	180	194293	65.03	ug/L		96
100) 1,3,5-trichlorobenzene	17.476	180	261485	56.51	ug/L		99
101) hexachlorobutadiene	18.303	225	131234	56.02	ug/L		100
102) naphthalene	18.289	128	317407	73.73	ug/L		100
103) 1,2,3-trichlorobenzene	18.494	180	145450	67.16	ug/L		94
104) 2-methylnaphthalene	19.668	142	58732	48.14	ug/L	#	100
105) 1-methylnaphthalene	19.919	142	44270	48.55	ug/L		98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90600.D
Acq On : 25 Sep 2014 11:16 pm
Operator : krystend
Sample : bs
Misc : ms32815,MSN3352,,,,5,1
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Sep 26 09:31:18 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/29/14 10:19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90626.D
Acq On : 26 Sep 2014 11:30 am
Operator : krystend
Sample : bs
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 70 Sample Multiplier: 1

Quant Time: Sep 26 12:23:46 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.693	65	133292	500.00	ug/L		0.00
4) pentafluorobenzene	9.119	168	318948	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	495358	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	271728	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	217925	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.769	113	155210	47.43	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.86%				
60) toluene-d8 (s)	11.784	98	612420	51.55	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.10%				
82) bromofluorobenzene (s)	14.464	95	244898	46.09	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 92.18%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.785	59	133364	284.59	ug/L	#	100
3) Ethanol	5.562	45	371316	5440.45	ug/L		98
5) dichlorodifluoromethane	4.392	85	171029	40.72	ug/L		97
6) chloromethane	4.654	50	203723	39.58	ug/L		97
7) vinyl chloride	4.890	62	166149	47.93	ug/L		93
8) bromomethane	5.396	96	57216	37.04	ug/L		100
9) chloroethane	5.566	64	117572	57.04	ug/L		94
10) ethyl ether	6.432	59	182777	58.54	ug/L		91
11) acetonitrile	6.435	41	26701	53.89	ug/L		99
12) trichlorofluoromethane	6.206	101	253350	42.00	ug/L		100
13) freon-113	6.969	101	143149	53.65	ug/L		96
14) acrolein	6.202	56	95152	261.45	ug/L		100
15) 1,1-dichloroethene	6.789	96	133697	54.85	ug/L		95
16) acetone	6.336	58	35867	48.89	ug/L		95
17) Methyl Acetate	6.966	43	210811	74.90	ug/L	#	90
18) methylene chloride	6.944	84	161870	48.84	ug/L		93
19) methyl tert butyl ether	7.705	73	399206	50.92	ug/L		97
20) acrylonitrile	6.849	53	81501	58.96	ug/L		96
21) allyl chloride	7.029	41	318401	53.78	ug/L		95
22) trans-1,2-dichloroethene	7.623	96	157096	49.06	ug/L		98
23) iodomethane	6.856	142	73023m	37.03	ug/L		
24) carbon disulfide	7.224	76	512035	55.55	ug/L		98
25) propionitrile	6.853	54	3113	66.62	ug/L		100
26) vinyl acetate	7.970	43	212025	47.32	ug/L		99
27) chloroprene	8.238	53	341298	59.38	ug/L		97
28) di-isopropyl ether	8.263	45	752697	49.25	ug/L		97
29) methacrylonitrile	8.397	41	120415	53.42	ug/L		95
30) 2-butanone	8.288	72	24365	67.76	ug/L	#	3
31) Hexane	8.252	41	297050	52.84	ug/L		90
32) 1,1-dichloroethane	7.878	63	379361	48.33	ug/L		97
33) tert-butyl ethyl ether	8.663	59	350932	43.10	ug/L		93
34) isobutyl alcohol	8.263	43	621075	268.07	ug/L		94
35) 2,2-dichloropropane	8.730	77	276505	55.28	ug/L		99
36) cis-1,2-dichloroethene	8.443	96	174767	47.93	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90626.D
Acq On : 26 Sep 2014 11:30 am
Operator : krystend
Sample : bs
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 70 Sample Multiplier: 1

Quant Time: Sep 26 12:23:46 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.263	43	617770	54.14	ug/L		99
38) bromochloromethane	8.613	128	77867	52.17	ug/L		94
39) chloroform	8.648	83	319002	45.49	ug/L		97
41) Tetrahydrofuran	8.981	42	57000	56.50	ug/L		93
42) 1,1,1-trichloroethane	9.398	97	287906	53.54	ug/L		99
44) Cyclohexane	9.674	56	374737	55.75	ug/L		98
45) carbon tetrachloride	9.759	117	241380	49.82	ug/L		97
46) 1,1-dichloropropene	9.568	75	242017	55.60	ug/L		99
47) benzene	9.794	78	650766	45.82	ug/L		100
48) 1,2-dichloroethane	9.299	62	309636	46.58	ug/L		100
49) tert-amyl methyl ether	9.907	73	186975	44.99	ug/L		98
50) heptane	10.257	43	219885	54.12	ug/L		94
51) trichloroethene	10.413	95	190801	45.00	ug/L		95
52) 1,2-dichloropropane	10.377	63	216961	53.65	ug/L		99
53) dibromomethane	10.352	93	109110	52.87	ug/L		96
54) bromodichloromethane	10.466	83	267844	50.37	ug/L		98
55) Methylcyclohexane	10.922	83	273661	54.95	ug/L		97
56) 2-chloroethyl vinyl ether	10.377	63	216961	54.36	ug/L	#	100
57) methyl methacrylate	10.550	69	112570	60.88	ug/L		81
58) 1,4-dioxane	10.561	88	4748	155.49	ug/L		89
59) cis-1,3-dichloropropene	11.077	75	285377	55.54	ug/L		98
61) 4-methyl-2-pentanone	11.169	43	215770	57.01	ug/L		96
62) toluene	11.855	92	410275	48.11	ug/L		95
63) trans-1,3-dichloropropene	11.498	75	251752	60.96	ug/L		99
64) 1,1,2-trichloroethane	11.671	83	137330	49.97	ug/L		97
65) ethyl methacrylate	11.866	69	205183	58.32	ug/L		98
67) tetrachloroethene	12.594	166	166250	46.98	ug/L		99
68) 1,3-dichloropropane	11.904	76	270977	52.92	ug/L		99
69) dibromochloromethane	12.194	129	191435	52.30	ug/L		99
70) 1,2-dibromoethane	12.449	107	157831	55.03	ug/L		97
71) 2-hexanone	12.021	43	203599	64.88	ug/L		95
72) chlorobenzene	13.276	112	441492	46.59	ug/L		97
73) 1,1,1,2-tetrachloroethane	13.191	131	167524	48.56	ug/L		95
74) ethylbenzene	13.442	91	842743	47.71	ug/L		98
75) m,p-xylene	13.630	106	568058	87.96	ug/L		97
76) o-xylene	14.047	106	286448	45.67	ug/L		95
77) styrene	13.973	104	485337	53.34	ug/L		99
78) bromoform	13.799	173	117516	55.19	ug/L		99
79) trans-1,4-dichloro-2-b...	14.188	53	49975	53.41	ug/L		93
81) isopropylbenzene	14.404	105	768489	49.75	ug/L		100
83) bromobenzene	14.694	156	183925	50.32	ug/L		98
84) 1,1,2,2-tetrachloroethane	14.047	83	199823	60.37	ug/L		98
85) 1,2,3-trichloropropane	14.195	75	213095	57.02	ug/L		96
86) n-propylbenzene	14.846	91	1005833	50.85	ug/L		99
87) 2-chlorotoluene	14.970	91	612298	48.68	ug/L		97
88) 4-chlorotoluene	15.044	91	646431	48.65	ug/L		99
89) 1,3,5-trimethylbenzene	15.122	105	688330	44.38	ug/L		99
90) tert-butylbenzene	15.429	91	444252	48.79	ug/L		100
91) 1,2,4-trimethylbenzene	15.535	105	720489	46.87	ug/L		99
92) sec-butylbenzene	15.648	105	878124	50.53	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90626.D
Acq On : 26 Sep 2014 11:30 am
Operator : krystend
Sample : bs
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 70 Sample Multiplier: 1

Quant Time: Sep 26 12:23:46 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

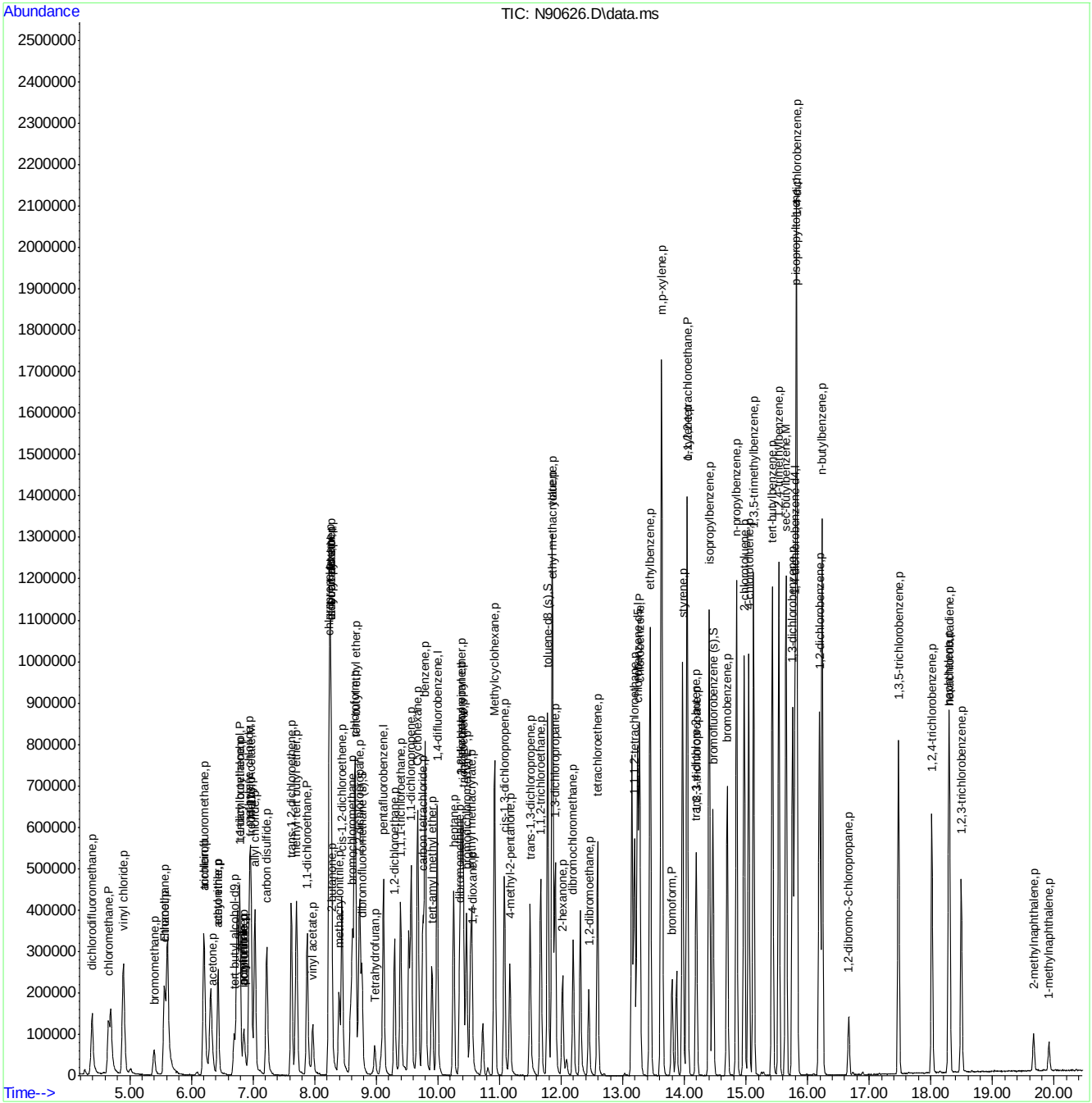
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	359134	51.14	ug/L		98
94) p-isopropyltoluene	15.818	119	733567	51.66	ug/L		99
95) 1,4-dichlorobenzene	15.825	146	346715	55.49	ug/L		98
96) 1,2-dichlorobenzene	16.193	146	361288	55.11	ug/L		98
97) n-butylbenzene	16.235	91	787217	53.44	ug/L		100
98) 1,2-dibromo-3-chloropr...	16.667	75	39202	66.57	ug/L		97
99) 1,2,4-trichlorobenzene	18.017	180	197937	67.30	ug/L		97
100) 1,3,5-trichlorobenzene	17.476	180	256841	56.38	ug/L		100
101) hexachlorobutadiene	18.303	225	129586	56.19	ug/L		99
102) naphthalene	18.289	128	349852	82.08	ug/L		100
103) 1,2,3-trichlorobenzene	18.491	180	158603	74.20	ug/L		95
104) 2-methylnaphthalene	19.668	142	50391	41.95	ug/L	#	100
105) 1-methylnaphthalene	19.912	142	39120	43.58	ug/L		97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90626.D
Acq On : 26 Sep 2014 11:30 am
Operator : krystend
Sample : bs
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 70 Sample Multiplier: 1

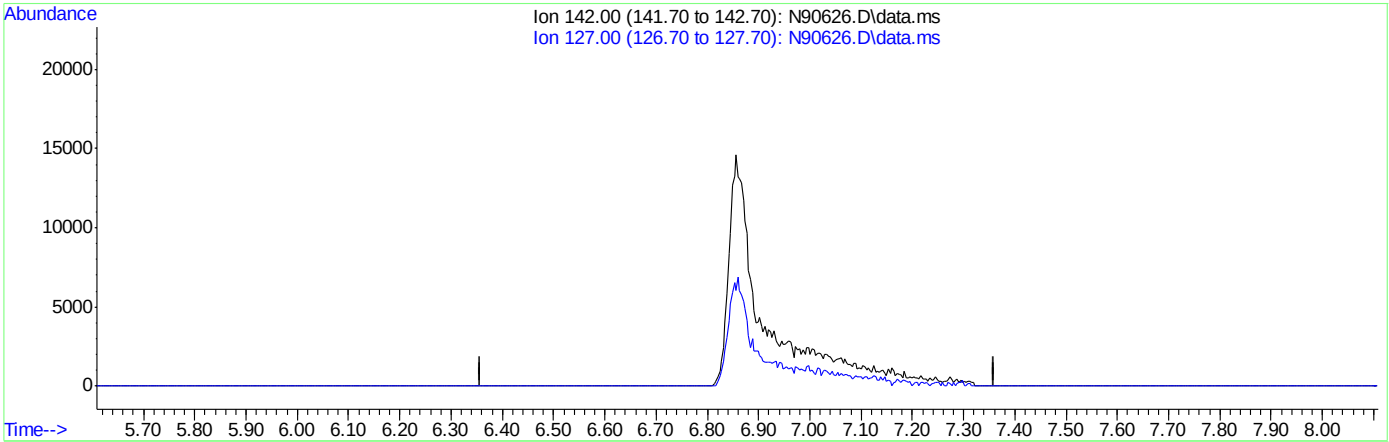
Quant Time: Sep 26 12:23:46 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

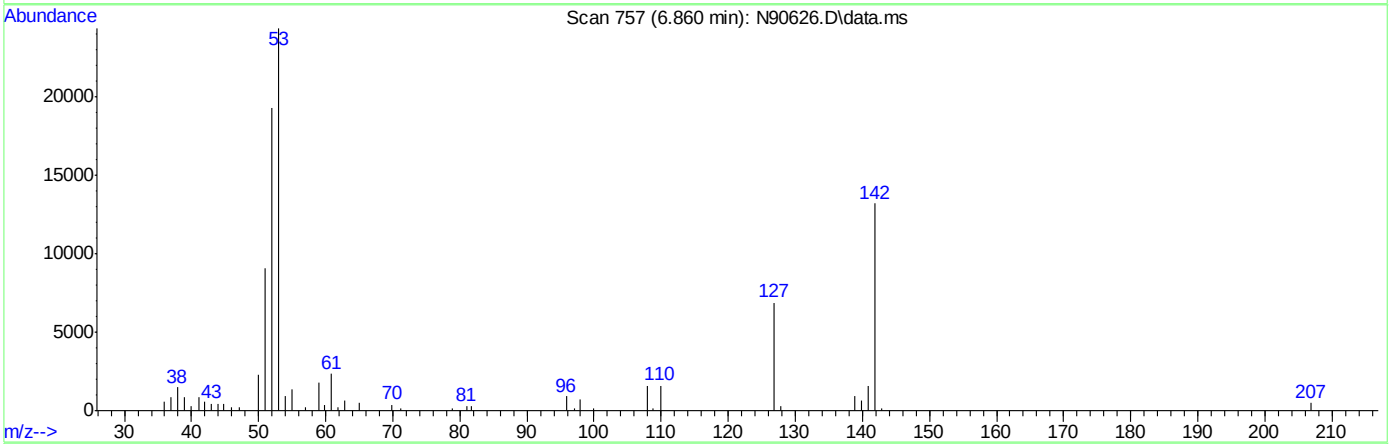


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90626.D
Acq On : 26 Sep 2014 11:30 am
Operator : krystend
Sample : bs
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 70 Sample Multiplier: 1

Quant Time: Sep 26 12:19:56 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90626.D\data.ms

(23) iodomethane (p)

6.859min (-6.859) 0.00ug/L

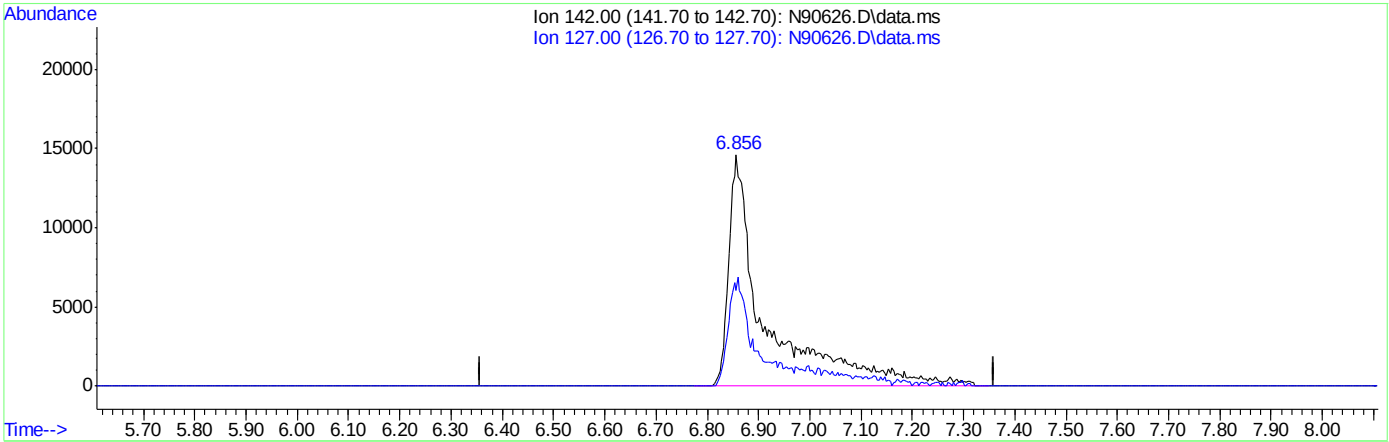
response 0

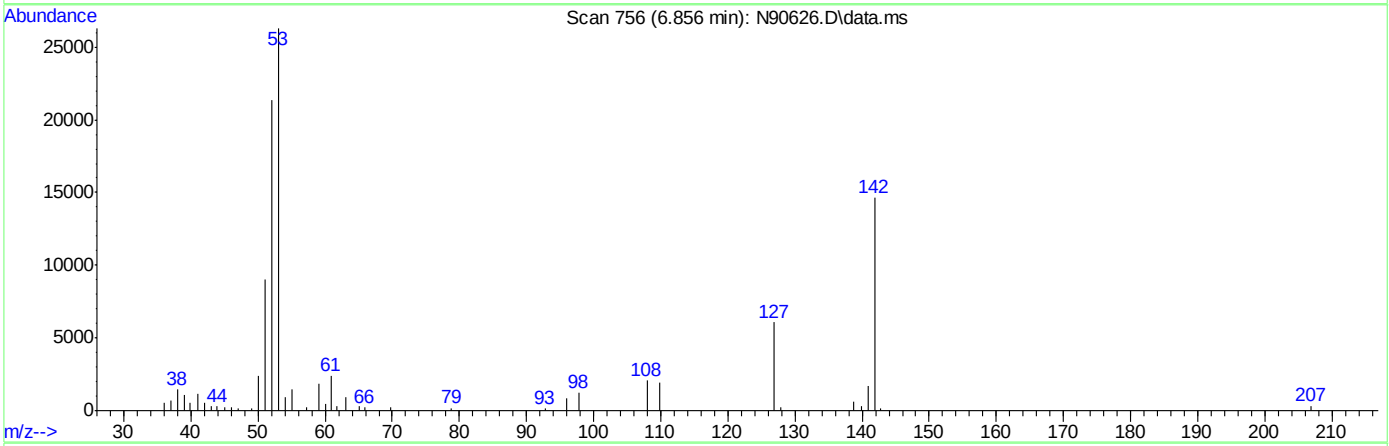
Ion	Exp%	Act%
142.00	100	0.00
127.00	47.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90626.D
Acq On : 26 Sep 2014 11:30 am
Operator : krystend
Sample : bs
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 70 Sample Multiplier: 1

Quant Time: Sep 26 12:19:56 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90626.D\data.ms

(23) iodomethane (p)

6.856min (-0.003) 37.03ug/L m

response 73023

Ion	Exp%	Act%
142.00	100	100
127.00	47.30	41.51
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33841

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90622.D
Acq On : 26 Sep 2014 9:37 am
Operator : krystend
Sample : mc33845-2ms
Misc : ms32815,MSN3352,,,,5,5
ALS Vial : 66 Sample Multiplier: 1

Quant Time: Sep 26 11:22:10 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.693	65	132904	500.00	ug/L		0.00
4) pentafluorobenzene	9.115	168	326711	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	511227	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	281681	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	225745	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.768	113	160172	47.79	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.58%				
60) toluene-d8 (s)	11.784	98	635204	51.80	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.60%				
82) bromofluorobenzene (s)	14.464	95	255842	46.48	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 92.96%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.782	59	121723	260.51	ug/L	#	100
3) Ethanol	5.558	45	371348	5456.80	ug/L		100
5) dichlorodifluoromethane	4.392	85	216795	50.39	ug/L		98
6) chloromethane	4.653	50	179249	33.99	ug/L		99
7) vinyl chloride	4.894	62	194271	54.87	ug/L		97
8) bromomethane	5.396	96	27394	18.70	ug/L		82
9) chloroethane	5.566	64	135945	64.39	ug/L		97
10) ethyl ether	6.432	59	155043	48.48	ug/L		93
11) acetonitrile	6.432	41	23383	46.07	ug/L		99
12) trichlorofluoromethane	6.205	101	323821	52.43	ug/L		99
13) freon-113	6.969	101	115974	42.43	ug/L		97
14) acrolein	6.202	56	98549	264.35	ug/L		92
15) 1,1-dichloroethene	6.789	96	105992	42.25	ug/L		94
16) acetone	6.329	58	18932	25.19	ug/L		93
17) Methyl Acetate	6.965	43	195544	67.82	ug/L	#	94
18) methylene chloride	6.944	84	153390	45.18	ug/L		93
19) methyl tert butyl ether	7.704	73	423804	52.76	ug/L		100
20) acrylonitrile	6.845	53	74603	52.68	ug/L		98
21) allyl chloride	7.033	41	280274	46.21	ug/L		95
22) trans-1,2-dichloroethene	7.623	96	145583	44.38	ug/L		99
23) iodomethane	6.859	142	24579	14.14	ug/L		97
24) carbon disulfide	7.224	76	335205	35.50	ug/L		99
25) propionitrile	6.849	54	2666	56.25	ug/L		100
26) vinyl acetate	7.973	43	207686	45.25	ug/L		97
27) chloroprene	8.235	53	319071	54.20	ug/L		97
28) di-isopropyl ether	8.263	45	768208	49.07	ug/L		96
29) methacrylonitrile	8.397	41	120696	52.28	ug/L		95
30) 2-butanone	8.284	72	17285	46.93	ug/L	#	83
31) Hexane	8.256	41	238273	41.37	ug/L	#	64
32) 1,1-dichloroethane	7.878	63	372681	46.35	ug/L		96
33) tert-butyl ethyl ether	8.659	59	408892	48.59	ug/L		96
34) isobutyl alcohol	8.263	43	529332	223.04	ug/L		89
35) 2,2-dichloropropane	8.730	77	197870	39.80	ug/L		97
36) cis-1,2-dichloroethene	8.447	96	174275	46.66	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90622.D
Acq On : 26 Sep 2014 9:37 am
Operator : krystend
Sample : mc33845-2ms
Misc : ms32815,MSN3352,,,,5,5
ALS Vial : 66 Sample Multiplier: 1

Quant Time: Sep 26 11:22:10 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.263	43	532034	45.52	ug/L		88
38) bromochloromethane	8.613	128	78443	51.30	ug/L		92
39) chloroform	8.648	83	335133	46.65	ug/L		99
41) Tetrahydrofuran	8.977	42	56710	54.88	ug/L		98
42) 1,1,1-trichloroethane	9.394	97	292880	53.17	ug/L		98
44) Cyclohexane	9.674	56	335917	48.42	ug/L		98
45) carbon tetrachloride	9.755	117	238789	47.76	ug/L		94
46) 1,1-dichloropropene	9.567	75	236580	52.66	ug/L		98
47) benzene	9.797	78	654109	44.63	ug/L		100
48) 1,2-dichloroethane	9.295	62	319389	46.55	ug/L		99
49) tert-amyl methyl ether	9.903	73	228828	52.60	ug/L		96
50) heptane	10.253	43	149276	35.60	ug/L		92
51) trichloroethene	10.409	95	194422	44.43	ug/L		97
52) 1,2-dichloropropane	10.377	63	230564	55.24	ug/L		100
53) dibromomethane	10.356	93	111629	52.42	ug/L		89
54) bromodichloromethane	10.465	83	285440	52.01	ug/L		97
55) Methylcyclohexane	10.918	83	258625	50.31	ug/L		99
56) 2-chloroethyl vinyl ether	10.377	63	230564	55.97	ug/L	#	100
57) methyl methacrylate	10.550	69	109754	57.51	ug/L		83
58) 1,4-dioxane	10.564	88	4447	141.43	ug/L	#	65
59) cis-1,3-dichloropropene	11.077	75	290069	54.70	ug/L		98
61) 4-methyl-2-pentanone	11.169	43	221330	56.66	ug/L		95
62) toluene	11.855	92	419214	47.63	ug/L		98
63) trans-1,3-dichloropropene	11.498	75	253190	59.40	ug/L		99
64) 1,1,2-trichloroethane	11.671	83	145407	51.26	ug/L		99
65) ethyl methacrylate	11.865	69	206804	56.96	ug/L		97
67) tetrachloroethene	12.590	166	166495	45.39	ug/L		98
68) 1,3-dichloropropane	11.904	76	285883	53.86	ug/L		99
69) dibromochloromethane	12.198	129	202830	53.46	ug/L		97
70) 1,2-dibromoethane	12.449	107	162282	54.58	ug/L		99
71) 2-hexanone	12.021	43	150052	46.12	ug/L		97
72) chlorobenzene	13.276	112	467144	47.56	ug/L		98
73) 1,1,1,2-tetrachloroethane	13.195	131	180435	50.45	ug/L		97
74) ethylbenzene	13.446	91	880058	48.06	ug/L		98
75) m,p-xylene	13.633	106	600541	89.70	ug/L		94
76) o-xylene	14.043	106	303596	46.69	ug/L		99
77) styrene	13.972	104	492269	52.19	ug/L		99
78) bromoform	13.799	173	122467	55.48	ug/L		99
79) trans-1,4-dichloro-2-b...	14.192	53	47839	49.50	ug/L		90
81) isopropylbenzene	14.404	105	825282	51.57	ug/L		99
83) bromobenzene	14.694	156	194083	51.26	ug/L		97
84) 1,1,2,2-tetrachloroethane	14.047	83	209708	61.38	ug/L		97
85) 1,2,3-trichloropropane	14.195	75	218582	56.46	ug/L		96
86) n-propylbenzene	14.849	91	1067090	52.08	ug/L		99
87) 2-chlorotoluene	14.973	91	652336	50.07	ug/L		98
88) 4-chlorotoluene	15.044	91	679261	49.35	ug/L		98
89) 1,3,5-trimethylbenzene	15.125	105	718079	44.70	ug/L		99
90) tert-butylbenzene	15.429	91	476067	50.48	ug/L		99
91) 1,2,4-trimethylbenzene	15.535	105	750896	47.15	ug/L		98
92) sec-butylbenzene	15.648	105	911448	50.63	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90622.D
Acq On : 26 Sep 2014 9:37 am
Operator : krystend
Sample : mc33845-2ms
Misc : ms32815,MSN3352,,,,5,5
ALS Vial : 66 Sample Multiplier: 1

Quant Time: Sep 26 11:22:10 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

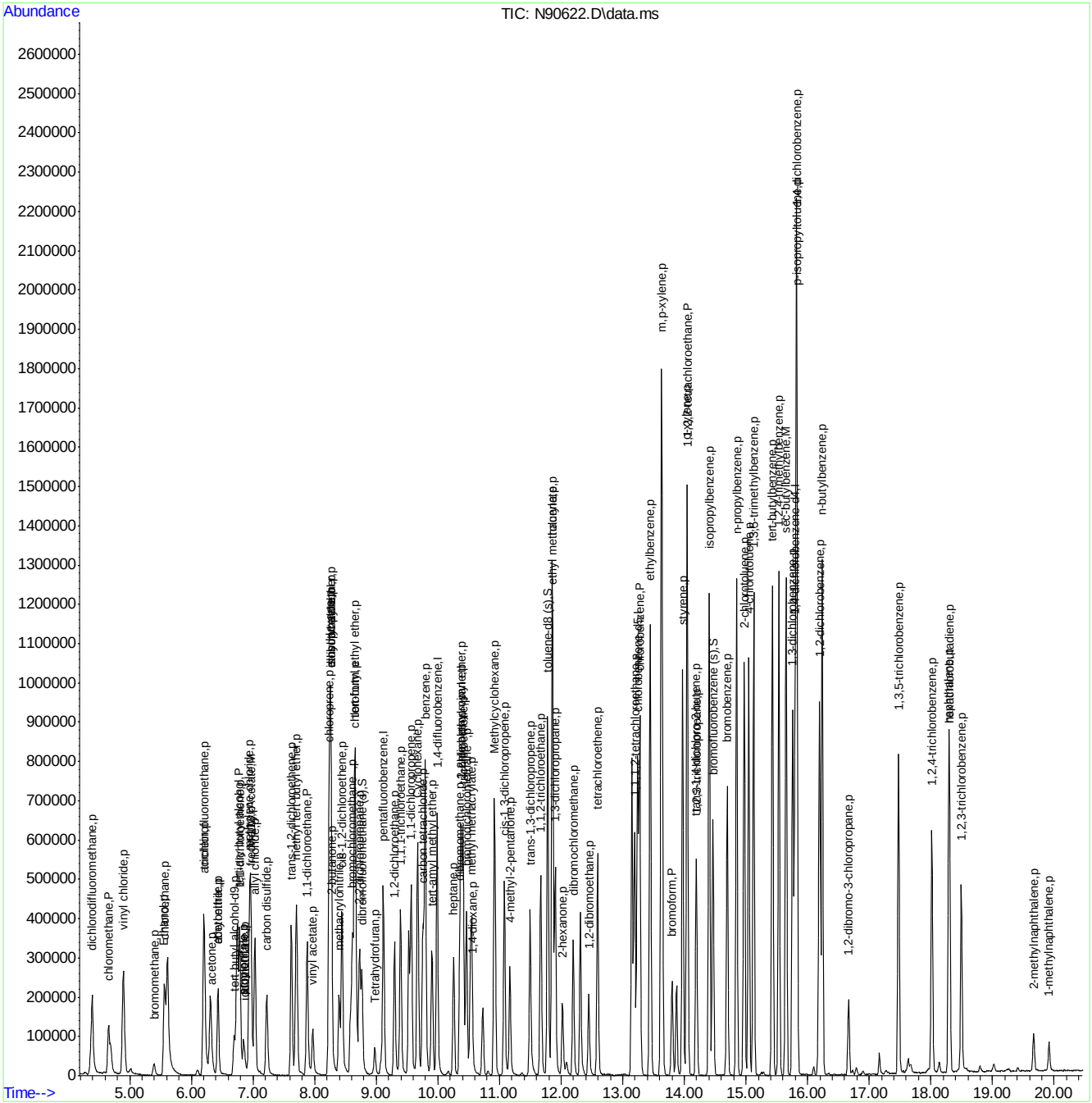
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	375182	51.58	ug/L		98
94) p-isopropyltoluene	15.821	119	756393	51.42	ug/L		99
95) 1,4-dichlorobenzene	15.825	146	363163	56.13	ug/L		97
96) 1,2-dichlorobenzene	16.193	146	375184	55.25	ug/L		99
97) n-butylbenzene	16.235	91	778191	51.00	ug/L		99
98) 1,2-dibromo-3-chloropr...	16.666	75	40272	66.02	ug/L		95
99) 1,2,4-trichlorobenzene	18.017	180	195277	64.09	ug/L		100
100) 1,3,5-trichlorobenzene	17.476	180	249615	52.90	ug/L		99
101) hexachlorobutadiene	18.303	225	121520	50.87	ug/L		99
102) naphthalene	18.289	128	388478	87.70	ug/L		100
103) 1,2,3-trichlorobenzene	18.494	180	158520	71.66	ug/L		97
104) 2-methylnaphthalene	19.668	142	51346	41.27	ug/L	#	100
105) 1-methylnaphthalene	19.915	142	39699	42.69	ug/L		96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90622.D
Acq On : 26 Sep 2014 9:37 am
Operator : krystend
Sample : mc33845-2ms
Misc : ms32815,MSN3352,,,,5,5
ALS Vial : 66 Sample Multiplier: 1

Quant Time: Sep 26 11:22:10 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90623.D
Acq On : 26 Sep 2014 10:05 am
Operator : krystend
Sample : mc33845-2msd
Misc : ms32815,MSN3352,,,,5,5
ALS Vial : 67 Sample Multiplier: 1

Quant Time: Sep 26 11:22:39 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.693	65	131624	500.00	ug/L		0.00
4) pentafluorobenzene	9.118	168	318130	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	495172	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	263990	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	215915	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.768	113	153973	47.17	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.34%				
60) toluene-d8 (s)	11.784	98	615053	51.79	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.58%				
82) bromofluorobenzene (s)	14.464	95	245911	46.71	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.42%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.782	59	121538	262.64	ug/L	#	100
3) Ethanol	5.558	45	368406	5466.21	ug/L		99
5) dichlorodifluoromethane	4.392	85	218047	52.05	ug/L		95
6) chloromethane	4.657	50	200369	39.02	ug/L		97
7) vinyl chloride	4.894	62	198462	57.62	ug/L		97
8) bromomethane	5.392	96	47872	31.61	ug/L		94
9) chloroethane	5.569	64	134015	65.19	ug/L		96
10) ethyl ether	6.432	59	158512	50.90	ug/L		99
11) acetonitrile	6.428	41	25472	51.54	ug/L		96
12) trichlorofluoromethane	6.205	101	313867	52.18	ug/L		98
13) freon-113	6.969	101	119333	44.84	ug/L		96
14) acrolein	6.198	56	101376	279.27	ug/L		99
15) 1,1-dichloroethene	6.789	96	105883	43.37	ug/L		90
16) acetone	6.340	58	18615	25.44	ug/L		94
17) Methyl Acetate	6.962	43	189126	67.37	ug/L	#	93
18) methylene chloride	6.941	84	154960	46.87	ug/L		96
19) methyl tert butyl ether	7.708	73	414450	52.99	ug/L		100
20) acrylonitrile	6.849	53	77187	55.98	ug/L		91
21) allyl chloride	7.029	41	274421	46.47	ug/L		92
22) trans-1,2-dichloroethene	7.627	96	143801	45.02	ug/L		97
23) iodomethane	6.863	142	48477	25.63	ug/L		96
24) carbon disulfide	7.224	76	337296	36.68	ug/L		98
25) propionitrile	6.852	54	2833	61.08	ug/L		100
26) vinyl acetate	7.973	43	196380	43.94	ug/L		99
27) chloroprene	8.235	53	322930	56.33	ug/L		98
28) di-isopropyl ether	8.263	45	764717	50.17	ug/L		96
29) methacrylonitrile	8.397	41	115801	51.51	ug/L		94
30) 2-butanone	8.288	72	17195	47.94	ug/L	#	31
31) Hexane	8.252	41	242624	43.27	ug/L	#	78
32) 1,1-dichloroethane	7.878	63	370146	47.27	ug/L		98
33) tert-butyl ethyl ether	8.659	59	395525	48.29	ug/L		96
34) isobutyl alcohol	8.266	43	540298	233.81	ug/L		84
35) 2,2-dichloropropane	8.733	77	196372	40.49	ug/L		96
36) cis-1,2-dichloroethene	8.443	96	175131	48.15	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90623.D
Acq On : 26 Sep 2014 10:05 am
Operator : krystend
Sample : mc33845-2msd
Misc : ms32815,MSN3352,,,,5,5
ALS Vial : 67 Sample Multiplier: 1

Quant Time: Sep 26 11:22:39 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.266	43	539513	47.40	ug/L		94
38) bromochloromethane	8.613	128	78008	52.40	ug/L		89
39) chloroform	8.645	83	334662	47.84	ug/L		97
41) Tetrahydrofuran	8.977	42	55294	54.95	ug/L		99
42) 1,1,1-trichloroethane	9.394	97	294243	54.86	ug/L		98
44) Cyclohexane	9.670	56	340023	50.60	ug/L		97
45) carbon tetrachloride	9.755	117	240535	49.66	ug/L		96
46) 1,1-dichloropropene	9.567	75	237653	54.62	ug/L		99
47) benzene	9.794	78	653178	46.01	ug/L		99
48) 1,2-dichloroethane	9.295	62	318390	47.91	ug/L		97
49) tert-amyl methyl ether	9.903	73	219423	52.11	ug/L		96
50) heptane	10.257	43	156470	38.53	ug/L		91
51) trichloroethene	10.409	95	198024	46.72	ug/L		96
52) 1,2-dichloropropane	10.377	63	229562	56.79	ug/L		100
53) dibromomethane	10.352	93	110603	53.62	ug/L		96
54) bromodichloromethane	10.465	83	285164	53.64	ug/L		97
55) Methylcyclohexane	10.921	83	267736	53.78	ug/L		99
56) 2-chloroethyl vinyl ether	10.377	63	229562	57.53	ug/L	#	100
57) methyl methacrylate	10.550	69	108640	58.77	ug/L	#	77
58) 1,4-dioxane	10.561	88	4445	145.82	ug/L		97
59) cis-1,3-dichloropropene	11.077	75	287925	56.05	ug/L		98
61) 4-methyl-2-pentanone	11.169	43	221686	58.60	ug/L		96
62) toluene	11.855	92	429239	50.35	ug/L		99
63) trans-1,3-dichloropropene	11.498	75	250096	60.58	ug/L		100
64) 1,1,2-trichloroethane	11.667	83	143795	52.34	ug/L		98
65) ethyl methacrylate	11.865	69	210007	59.72	ug/L		96
67) tetrachloroethene	12.594	166	170832	49.69	ug/L		97
68) 1,3-dichloropropane	11.904	76	285881	57.47	ug/L		98
69) dibromochloromethane	12.194	129	203821	57.32	ug/L		96
70) 1,2-dibromoethane	12.449	107	161265	57.87	ug/L		97
71) 2-hexanone	12.021	43	153006	50.18	ug/L		95
72) chlorobenzene	13.272	112	477897	51.91	ug/L		96
73) 1,1,1,2-tetrachloroethane	13.191	131	182670	54.50	ug/L		95
74) ethylbenzene	13.446	91	885772	51.62	ug/L		99
75) m,p-xylene	13.630	106	606541	96.67	ug/L		96
76) o-xylene	14.043	106	305648	50.16	ug/L		99
77) styrene	13.969	104	507482	57.41	ug/L		98
78) bromoform	13.796	173	121999	58.97	ug/L		94
79) trans-1,4-dichloro-2-b...	14.192	53	45808	50.52	ug/L	#	75
81) isopropylbenzene	14.404	105	834485	54.52	ug/L		100
83) bromobenzene	14.697	156	197105	54.43	ug/L		99
84) 1,1,2,2-tetrachloroethane	14.047	83	210989	65.51	ug/L		98
85) 1,2,3-trichloropropane	14.192	75	218650	59.05	ug/L		99
86) n-propylbenzene	14.846	91	1074498	54.83	ug/L		99
87) 2-chlorotoluene	14.969	91	662842	53.19	ug/L		96
88) 4-chlorotoluene	15.044	91	693231	52.66	ug/L		98
89) 1,3,5-trimethylbenzene	15.125	105	731426	47.60	ug/L		100
90) tert-butylbenzene	15.429	91	481834	53.41	ug/L		97
91) 1,2,4-trimethylbenzene	15.535	105	773592	50.79	ug/L		98
92) sec-butylbenzene	15.648	105	951484	55.26	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90623.D
Acq On : 26 Sep 2014 10:05 am
Operator : krystend
Sample : mc33845-2msd
Misc : ms32815,MSN3352,,,,5,5
ALS Vial : 67 Sample Multiplier: 1

Quant Time: Sep 26 11:22:39 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

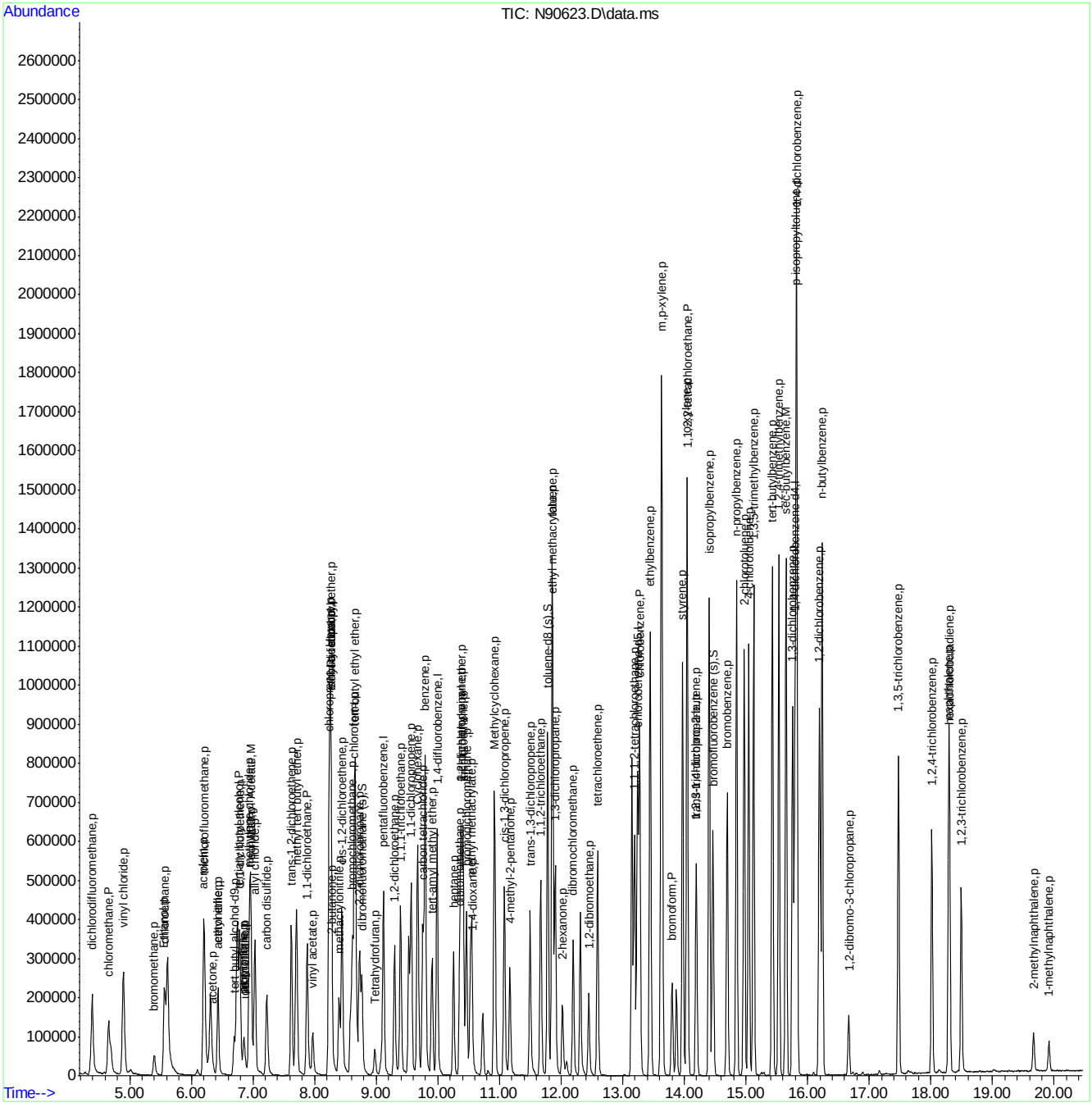
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	382352	55.00	ug/L		99
94) p-isopropyltoluene	15.818	119	776904	55.22	ug/L		99
95) 1,4-dichlorobenzene	15.825	146	367125	59.39	ug/L		97
96) 1,2-dichlorobenzene	16.189	146	382822	58.99	ug/L		98
97) n-butylbenzene	16.235	91	807396	55.32	ug/L		100
98) 1,2-dibromo-3-chloropr...	16.670	75	40122	68.77	ug/L		95
99) 1,2,4-trichlorobenzene	18.017	180	201978	69.31	ug/L		98
100) 1,3,5-trichlorobenzene	17.472	180	260181	57.65	ug/L		98
101) hexachlorobutadiene	18.303	225	127418	55.77	ug/L		96
102) naphthalene	18.289	128	367330	86.75	ug/L		100
103) 1,2,3-trichlorobenzene	18.494	180	159695	75.38	ug/L		100
104) 2-methylnaphthalene	19.668	142	54496	45.80	ug/L	#	100
105) 1-methylnaphthalene	19.915	142	43502	48.91	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90623.D
Acq On : 26 Sep 2014 10:05 am
Operator : krystend
Sample : mc33845-2msd
Misc : ms32815,MSN3352,,,,5,5
ALS Vial : 67 Sample Multiplier: 1

Quant Time: Sep 26 11:22:39 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90649.D
Acq On : 26 Sep 2014 10:25 pm
Operator : krystend
Sample : mc33708-1ms
Misc : ms32831,MSN3353,,,,5,1
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Sep 29 08:19:21 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.697	65	104130	500.00	ug/L		0.00
4) pentafluorobenzene	9.119	168	280438	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	442674	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	247817	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	195507	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.769	113	138337	48.08	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.16%				
60) toluene-d8 (s)	11.784	98	548732	51.68	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.36%				
82) bromofluorobenzene (s)	14.464	95	222366	46.65	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.30%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.782	59	112300	306.75	ug/L	#	100
5) dichlorodifluoromethane	4.392	85	173980	47.11	ug/L		100
6) chloromethane	4.654	50	189465	41.86	ug/L		98
7) vinyl chloride	4.894	62	160047	52.61	ug/L		98
8) bromomethane	5.396	96	53241	38.98	ug/L		97
9) chloroethane	5.566	64	106339	58.68	ug/L		97
10) ethyl ether	6.432	59	165529	60.30	ug/L		96
11) acetonitrile	6.432	41	23965	55.00	ug/L		93
12) trichlorofluoromethane	6.206	101	250972	47.33	ug/L		99
13) freon-113	6.969	101	141694	60.40	ug/L		98
14) acrolein	6.198	56	78694	245.92	ug/L		100
15) 1,1-dichloroethene	6.789	96	136778	63.96	ug/L		93
16) acetone	6.343	58	16635	25.79	ug/L		100
17) Methyl Acetate	6.962	43	176739	71.42	ug/L	#	93
18) methylene chloride	6.944	84	152107	52.20	ug/L		87
19) methyl tert butyl ether	7.708	73	302582	43.94	ug/L		100
20) acrylonitrile	6.852	53	72125	59.34	ug/L		98
21) allyl chloride	7.029	41	320940	61.65	ug/L		92
22) trans-1,2-dichloroethene	7.620	96	153070	54.37	ug/L		97
23) iodomethane	6.856	142	74584	42.55	ug/L		99
24) carbon disulfide	7.220	76	507783	62.65	ug/L		98
25) propionitrile	6.849	54	2590	63.22	ug/L		100
26) vinyl acetate	7.970	43	170678	43.32	ug/L		97
27) chloroprene	8.235	53	344353	68.14	ug/L		96
28) di-isopropyl ether	8.263	45	732745	54.53	ug/L		98
29) methacrylonitrile	8.397	41	113355	57.20	ug/L		92
30) 2-butanone	8.284	72	15719	49.72	ug/L	#	89
31) Hexane	8.252	41	285232	57.70	ug/L		85
32) 1,1-dichloroethane	7.878	63	370807	53.72	ug/L		97
33) tert-butyl ethyl ether	8.663	59	201198	29.19	ug/L		96
34) isobutyl alcohol	8.260	43	554476	272.19	ug/L		99
35) 2,2-dichloropropane	8.726	77	221010	50.61	ug/L		100
36) cis-1,2-dichloroethene	8.443	96	166825	52.03	ug/L		96
37) ethyl acetate	8.260	43	555890	55.41	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90649.D
Acq On : 26 Sep 2014 10:25 pm
Operator : krystend
Sample : mc33708-1ms
Misc : ms32831,MSN3353,,,,5,1
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Sep 29 08:19:21 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) bromochloromethane	8.610	128	73159	55.74	ug/L	#	88
39) chloroform	8.648	83	311899	50.58	ug/L		98
41) Tetrahydrofuran	8.977	42	54753	61.73	ug/L		97
42) 1,1,1-trichloroethane	9.394	97	291171	61.59	ug/L		98
44) Cyclohexane	9.670	56	375616	62.53	ug/L		98
45) carbon tetrachloride	9.758	117	244464	56.46	ug/L		98
46) 1,1-dichloropropene	9.568	75	238504	61.31	ug/L		99
47) benzene	9.794	78	630013	49.64	ug/L		99
48) 1,2-dichloroethane	9.295	62	302632	50.94	ug/L		99
49) tert-amyl methyl ether	9.907	73	100818	28.41	ug/L		97
50) heptane	10.257	43	185046	50.96	ug/L		90
51) trichloroethene	10.409	95	186835	49.31	ug/L		95
52) 1,2-dichloropropane	10.377	63	206780	57.22	ug/L		99
53) dibromomethane	10.352	93	100913	54.72	ug/L		97
54) bromodichloromethane	10.466	83	255217	53.70	ug/L		98
55) Methylcyclohexane	10.922	83	264589	59.45	ug/L		99
56) 2-chloroethyl vinyl ether	10.377	63	206780	57.97	ug/L	#	99
57) methyl methacrylate	10.550	69	97048	58.73	ug/L	#	74
58) 1,4-dioxane	10.550	88	3785	139.09	ug/L		96
59) cis-1,3-dichloropropene	11.077	75	262542	57.16	ug/L		99
61) 4-methyl-2-pentanone	11.169	43	195635	57.84	ug/L		93
62) toluene	11.855	92	397637	52.17	ug/L		98
63) trans-1,3-dichloropropene	11.498	75	218955	59.32	ug/L		99
64) 1,1,2-trichloroethane	11.668	83	125577	51.13	ug/L		97
65) ethyl methacrylate	11.866	69	182840	58.16	ug/L		90
67) tetrachloroethene	12.590	166	159778	49.51	ug/L		98
68) 1,3-dichloropropane	11.904	76	253336	54.25	ug/L		100
69) dibromochloromethane	12.194	129	175484	52.57	ug/L		95
70) 1,2-dibromoethane	12.449	107	144146	55.10	ug/L		98
71) 2-hexanone	12.021	43	129560	45.27	ug/L		96
72) chlorobenzene	13.276	112	422739	48.92	ug/L		97
73) 1,1,1,2-tetrachloroethane	13.191	131	161152	51.22	ug/L		97
74) ethylbenzene	13.446	91	804035	49.91	ug/L		100
75) m,p-xylene	13.630	106	547408	92.94	ug/L		100
76) o-xylene	14.043	106	275316	48.13	ug/L		99
77) styrene	13.973	104	449193	54.13	ug/L		100
78) bromoform	13.799	173	105133	54.14	ug/L		99
79) trans-1,4-dichloro-2-b...	14.195	53	42417	49.87	ug/L		90
81) isopropylbenzene	14.400	105	751920	54.25	ug/L		98
83) bromobenzene	14.694	156	172206	52.51	ug/L		96
84) 1,1,2,2-tetrachloroethane	14.043	83	178699	60.13	ug/L		96
85) 1,2,3-trichloropropane	14.192	75	190843	56.92	ug/L		99
86) n-propylbenzene	14.846	91	970725	54.71	ug/L		99
87) 2-chlorotoluene	14.970	91	596521	52.86	ug/L		98
88) 4-chlorotoluene	15.044	91	623832	52.33	ug/L		97
89) 1,3,5-trimethylbenzene	15.125	105	664591	47.77	ug/L		99
90) tert-butylbenzene	15.429	91	437657	53.58	ug/L		96
91) 1,2,4-trimethylbenzene	15.535	105	689977	50.03	ug/L		98
92) sec-butylbenzene	15.648	105	847268	54.35	ug/L		100
93) 1,3-dichlorobenzene	15.754	146	332327	52.77	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90649.D
Acq On : 26 Sep 2014 10:25 pm
Operator : krystend
Sample : mc33708-1ms
Misc : ms32831,MSN3353,,,,5,1
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Sep 29 08:19:21 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

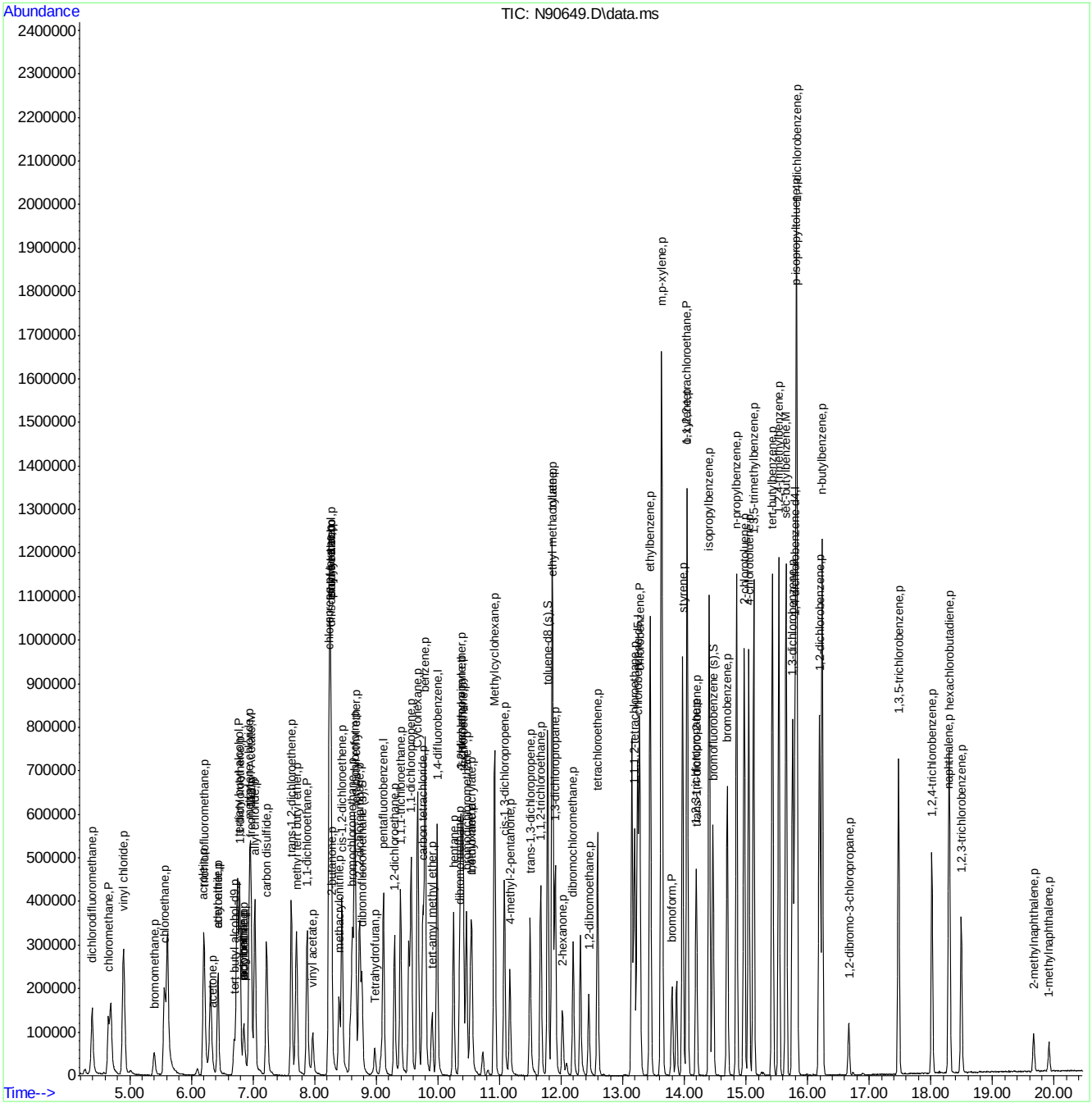
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
94)	p-isopropyltoluene	15.818	119	691017	54.24	ug/L		100
95)	1,4-dichlorobenzene	15.825	146	317895	56.74	ug/L		96
96)	1,2-dichlorobenzene	16.193	146	329041	55.96	ug/L		97
97)	n-butylbenzene	16.235	91	727910	55.08	ug/L		100
98)	1,2-dibromo-3-chloropr...	16.670	75	32954	62.38	ug/L		92
99)	1,2,4-trichlorobenzene	18.021	180	162390	61.54	ug/L		97
100)	1,3,5-trichlorobenzene	17.476	180	225355	55.14	ug/L		99
101)	hexachlorobutadiene	18.300	225	111203	53.75	ug/L		96
102)	naphthalene	18.286	128	261741	69.11	ug/L		100
103)	1,2,3-trichlorobenzene	18.494	180	120631	63.18	ug/L		96
104)	2-methylnaphthalene	19.668	142	46861	43.49	ug/L	#	100
105)	1-methylnaphthalene	19.915	142	36241	45.00	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90649.D
Acq On : 26 Sep 2014 10:25 pm
Operator : krystend
Sample : mc33708-1ms
Misc : ms32831,MSN3353,,,,5,1
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Sep 29 08:19:21 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES MC33841

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/29/14 10:19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90650.D
Acq On : 26 Sep 2014 10:53 pm
Operator : krystend
Sample : mc33708-1msd
Misc : ms32831,MSN3353,,,,5,1
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Sep 29 08:19:58 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.697	65	114468	500.00	ug/L		0.00
4) pentafluorobenzene	9.119	168	296480	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.985	114	470191	50.00	ug/L		0.00
66) chlorobenzene-d5	13.244	82	261558	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	205996	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.769	113	149879	49.27	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 98.54%				
60) toluene-d8 (s)	11.784	98	576946	51.16	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 102.32%				
82) bromofluorobenzene (s)	14.460	95	234757	46.74	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.48%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.778	59	121849	302.78	ug/L	#	100
3) Ethanol	5.559	45	381256m	6504.71	ug/L		
5) dichlorodifluoromethane	4.392	85	192556	49.32	ug/L		98
6) chloromethane	4.654	50	229107	47.88	ug/L		99
7) vinyl chloride	4.894	62	178530	55.58	ug/L		95
8) bromomethane	5.399	96	69310	46.98	ug/L		97
9) chloroethane	5.566	64	117678	61.42	ug/L		99
10) ethyl ether	6.432	59	174179	60.02	ug/L		89
11) acetonitrile	6.432	41	28817	62.56	ug/L		93
12) trichlorofluoromethane	6.202	101	275081	49.07	ug/L		99
13) freon-113	6.966	101	152222	61.38	ug/L		99
14) acrolein	6.198	56	87731	259.32	ug/L		92
15) 1,1-dichloroethene	6.785	96	147714	65.35	ug/L		97
16) acetone	6.326	58	18141	26.60	ug/L		99
17) Methyl Acetate	6.962	43	189073	72.27	ug/L	#	94
18) methylene chloride	6.941	84	163595	53.10	ug/L		89
19) methyl tert butyl ether	7.704	73	323528	44.44	ug/L		98
20) acrylonitrile	6.845	53	77510	60.32	ug/L		96
21) allyl chloride	7.029	41	343384	62.39	ug/L		94
22) trans-1,2-dichloroethene	7.623	96	163503	54.93	ug/L		99
23) iodomethane	6.860	142	93145	49.73	ug/L		94
24) carbon disulfide	7.224	76	552388	64.47	ug/L		99
25) propionitrile	6.849	54	2926	67.33	ug/L		100
26) vinyl acetate	7.973	43	184515	44.30	ug/L		96
27) chloroprene	8.235	53	369778	69.22	ug/L		95
28) di-isopropyl ether	8.263	45	771103	54.28	ug/L		99
29) methacrylonitrile	8.397	41	123764	59.07	ug/L		91
30) 2-butanone	8.284	72	17212	51.50	ug/L	#	94
31) Hexane	8.252	41	303578	58.09	ug/L		86
32) 1,1-dichloroethane	7.878	63	394401	54.05	ug/L		96
33) tert-butyl ethyl ether	8.663	59	205523	28.30	ug/L		97
34) isobutyl alcohol	8.260	43	589173	273.57	ug/L		97
35) 2,2-dichloropropane	8.730	77	234498	50.78	ug/L		97
36) cis-1,2-dichloroethene	8.447	96	177816	52.46	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90650.D
Acq On : 26 Sep 2014 10:53 pm
Operator : krystend
Sample : mc33708-1msd
Misc : ms32831,MSN3353,,,,5,1
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Sep 29 08:19:58 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.260	43	588560	55.49	ug/L		96
38) bromochloromethane	8.613	128	78593	56.64	ug/L		89
39) chloroform	8.648	83	331015	50.78	ug/L		96
41) Tetrahydrofuran	8.981	42	54354	57.96	ug/L		94
42) 1,1,1-trichloroethane	9.398	97	311308	62.28	ug/L		98
44) Cyclohexane	9.674	56	402747	63.12	ug/L		96
45) carbon tetrachloride	9.758	117	257793	56.06	ug/L		99
46) 1,1-dichloropropene	9.564	75	254621	61.63	ug/L		99
47) benzene	9.794	78	669183	49.64	ug/L		97
48) 1,2-dichloroethane	9.299	62	323149	51.21	ug/L		98
49) tert-amyl methyl ether	9.903	73	103296	27.50	ug/L		94
50) heptane	10.257	43	207753	53.87	ug/L		96
51) trichloroethene	10.409	95	198911	49.42	ug/L		96
52) 1,2-dichloropropane	10.377	63	220880	57.54	ug/L		100
53) dibromomethane	10.356	93	108555	55.42	ug/L		98
54) bromodichloromethane	10.466	83	275304	54.54	ug/L		98
55) Methylcyclohexane	10.918	83	289845	61.31	ug/L		98
56) 2-chloroethyl vinyl ether	10.377	63	220880	58.30	ug/L	#	99
57) methyl methacrylate	10.554	69	105723	60.24	ug/L	#	79
58) 1,4-dioxane	10.561	88	3836	132.92	ug/L		87
59) cis-1,3-dichloropropene	11.077	75	279321	57.26	ug/L		100
61) 4-methyl-2-pentanone	11.166	43	205681	57.25	ug/L		94
62) toluene	11.855	92	420949	52.00	ug/L		98
63) trans-1,3-dichloropropene	11.498	75	237351	60.54	ug/L		99
64) 1,1,2-trichloroethane	11.671	83	132808	50.91	ug/L		98
65) ethyl methacrylate	11.866	69	195065	58.41	ug/L		92
67) tetrachloroethene	12.594	166	168113	49.36	ug/L		98
68) 1,3-dichloropropane	11.904	76	267308	54.23	ug/L		98
69) dibromochloromethane	12.194	129	186935	53.06	ug/L		100
70) 1,2-dibromoethane	12.449	107	152758	55.33	ug/L		96
71) 2-hexanone	12.025	43	140685	46.57	ug/L		92
72) chlorobenzene	13.276	112	451444	49.50	ug/L		98
73) 1,1,1,2-tetrachloroethane	13.191	131	168381	50.70	ug/L		98
74) ethylbenzene	13.446	91	850889	50.05	ug/L		98
75) m,p-xylene	13.630	106	582642	93.72	ug/L		96
76) o-xylene	14.047	106	288201	47.73	ug/L		95
77) styrene	13.973	104	479165	54.71	ug/L		98
78) bromoform	13.799	173	111902	54.60	ug/L		100
79) trans-1,4-dichloro-2-b...	14.192	53	45401	50.54	ug/L		90
81) isopropylbenzene	14.404	105	795390	54.47	ug/L		99
83) bromobenzene	14.697	156	182405	52.79	ug/L		98
84) 1,1,2,2-tetrachloroethane	14.047	83	186506	59.41	ug/L		98
85) 1,2,3-trichloropropane	14.192	75	200777	56.84	ug/L		99
86) n-propylbenzene	14.849	91	1029723	55.08	ug/L		98
87) 2-chlorotoluene	14.970	91	627594	52.79	ug/L		97
88) 4-chlorotoluene	15.044	91	647683	51.57	ug/L		99
89) 1,3,5-trimethylbenzene	15.125	105	702549	47.92	ug/L		100
90) tert-butylbenzene	15.429	91	461905	53.67	ug/L		98
91) 1,2,4-trimethylbenzene	15.532	105	729515	50.20	ug/L		97
92) sec-butylbenzene	15.648	105	908054	55.28	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90650.D
Acq On : 26 Sep 2014 10:53 pm
Operator : krystend
Sample : mc33708-1msd
Misc : ms32831,MSN3353,,,,5,1
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Sep 29 08:19:58 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

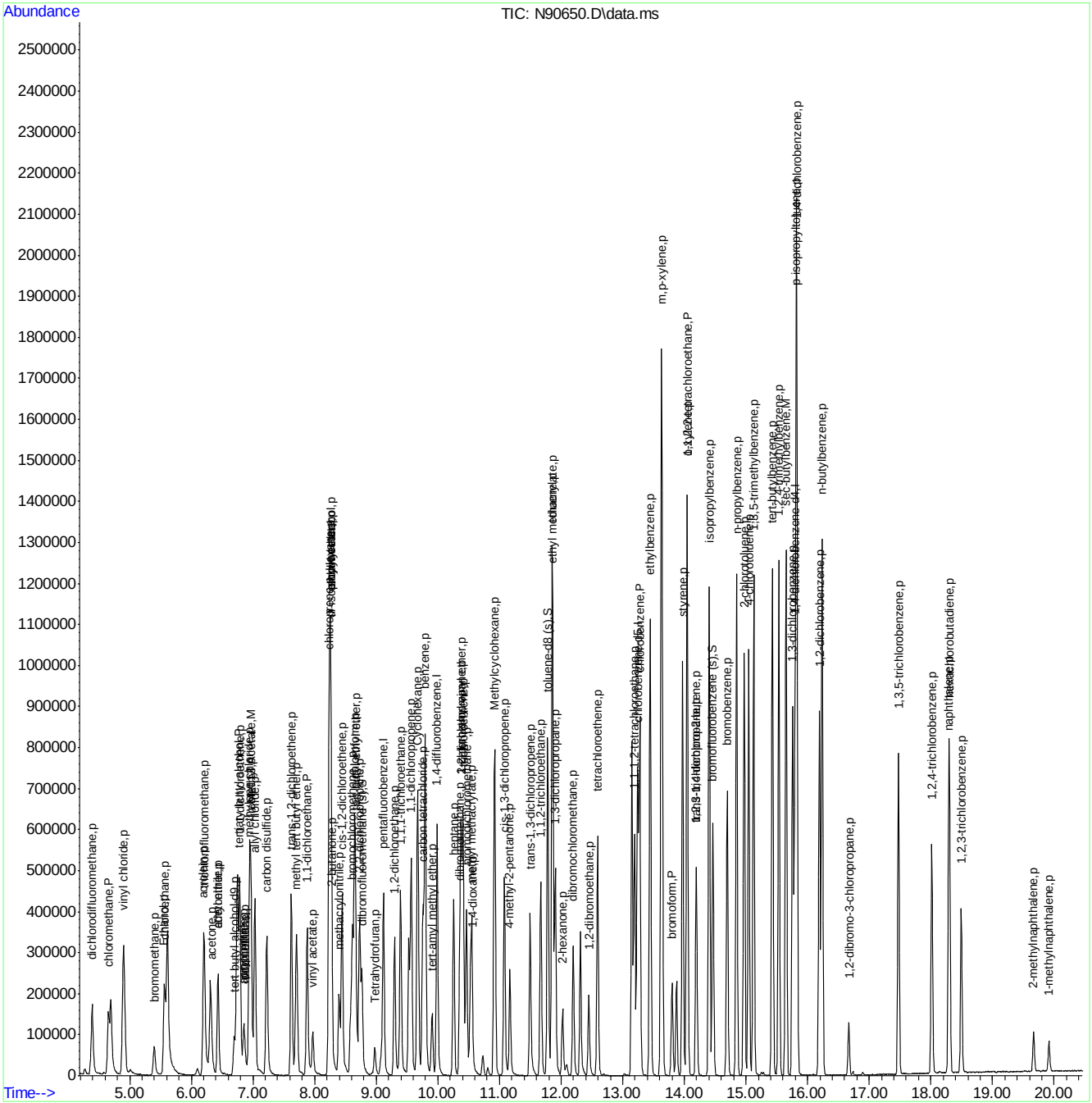
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	353277	53.25	ug/L		97
94) p-isopropyltoluene	15.818	119	739568	55.10	ug/L		98
95) 1,4-dichlorobenzene	15.825	146	334669	56.69	ug/L		97
96) 1,2-dichlorobenzene	16.193	146	351804	56.80	ug/L		99
97) n-butylbenzene	16.235	91	774272	55.61	ug/L		100
98) 1,2-dibromo-3-chloropr...	16.670	75	35167	63.18	ug/L		92
99) 1,2,4-trichlorobenzene	18.017	180	180552	64.94	ug/L		94
100) 1,3,5-trichlorobenzene	17.476	180	242157	56.24	ug/L		98
101) hexachlorobutadiene	18.300	225	127498	58.49	ug/L		97
102) naphthalene	18.289	128	299794	74.78	ug/L		100
103) 1,2,3-trichlorobenzene	18.491	180	136520	67.73	ug/L		96
104) 2-methylnaphthalene	19.664	142	52310	46.07	ug/L	#	100
105) 1-methylnaphthalene	19.915	142	40278	47.47	ug/L		98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90650.D
Acq On : 26 Sep 2014 10:53 pm
Operator : krystend
Sample : mc33708-1msd
Misc : ms32831,MSN3353,,,,5,1
ALS Vial : 38 Sample Multiplier: 1

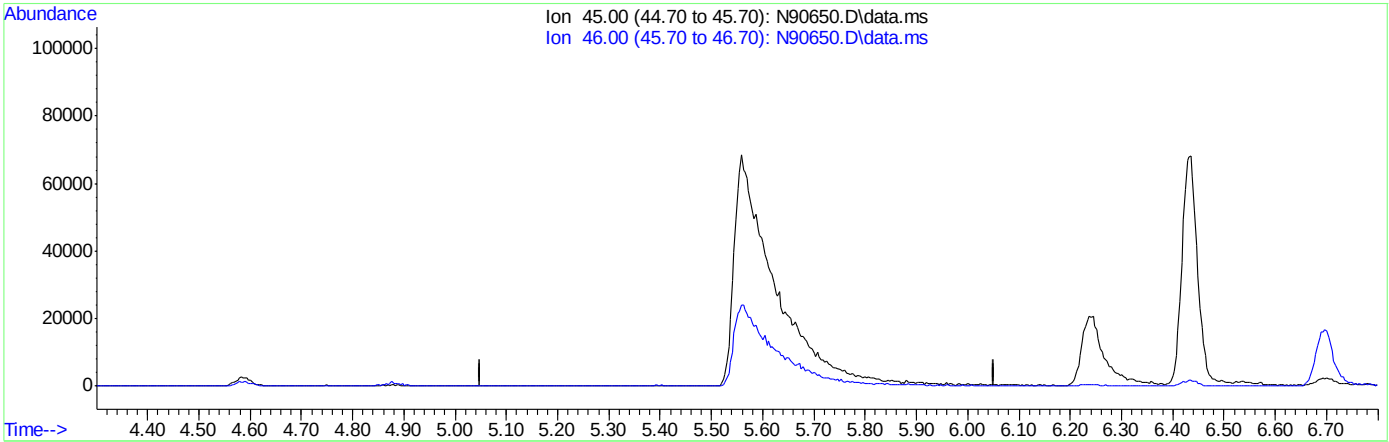
Quant Time: Sep 29 08:19:58 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

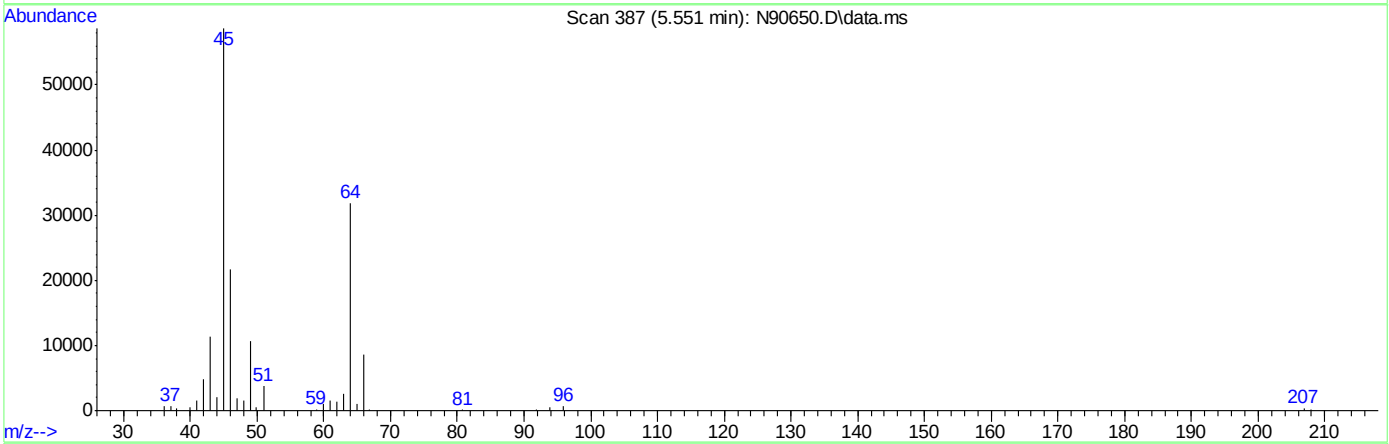


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90650.D
Acq On : 26 Sep 2014 10:53 pm
Operator : krystend
Sample : mc33708-1msd
Misc : ms32831,MSN3353,,,,5,1
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Sep 29 08:19:51 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90650.D\data.ms

(3) Ethanol (p)

5.551min (-5.551) 0.00ug/L

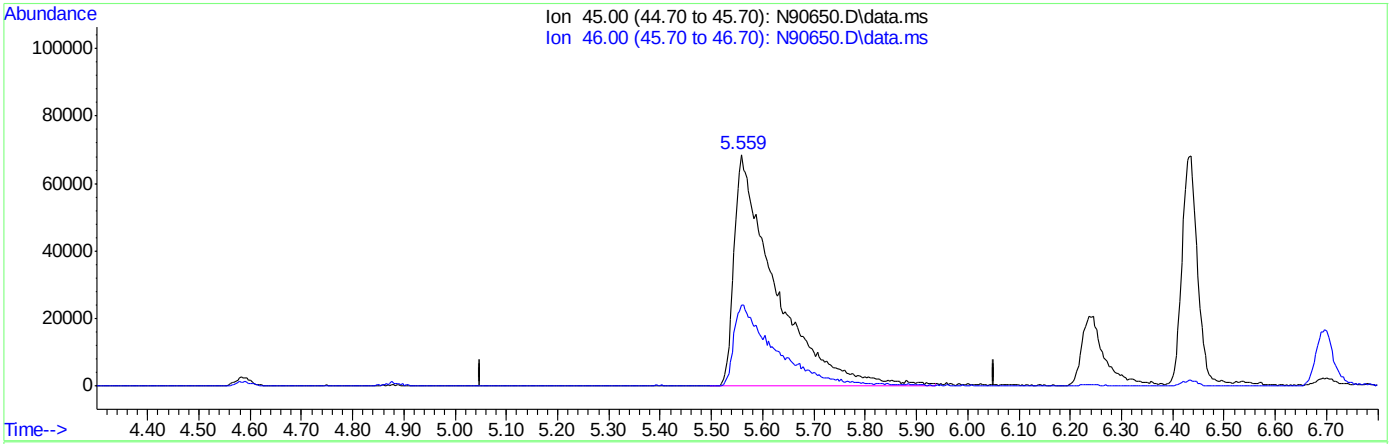
response 0

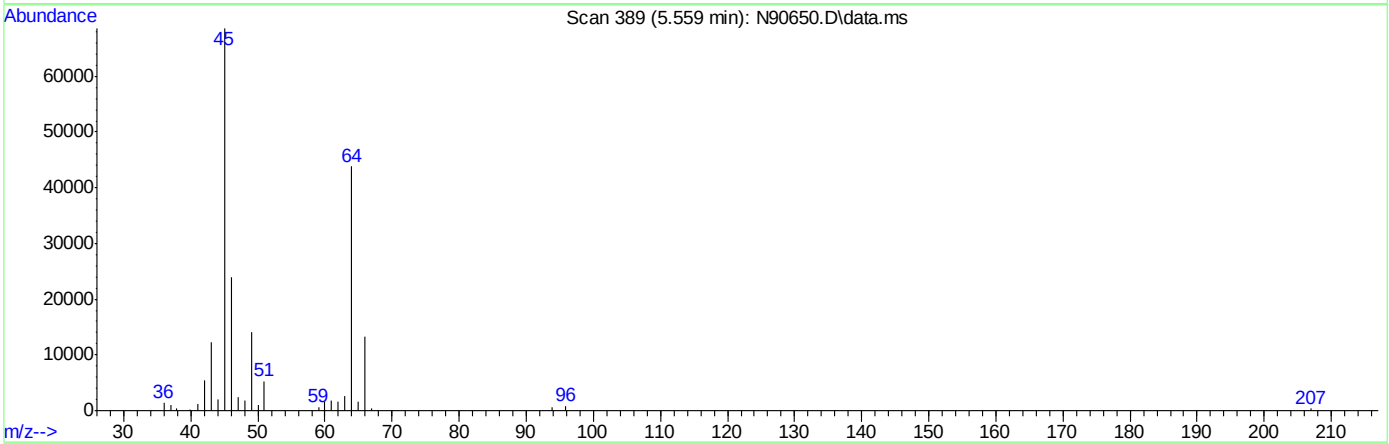
Ion	Exp%	Act%
45.00	100	0.00
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90650.D
Acq On : 26 Sep 2014 10:53 pm
Operator : krystend
Sample : mc33708-1msd
Misc : ms32831,MSN3353,,,,5,1
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Sep 29 08:19:51 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90650.D\data.ms

(3) Ethanol (p)

5.559min (+0.008) 6504.71ug/L m

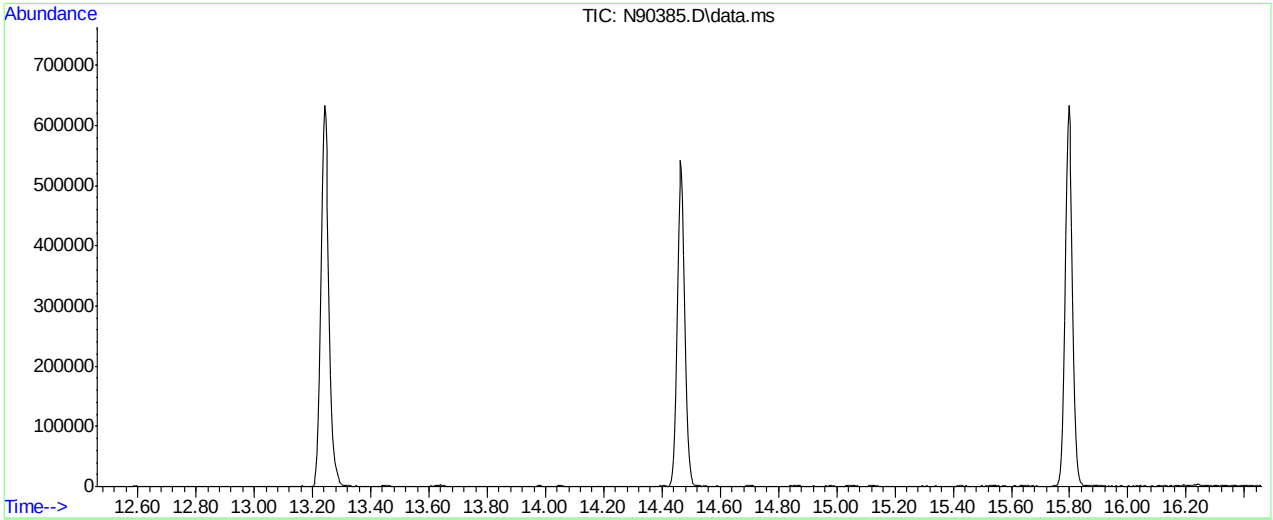
response 381256

Ion	Exp%	Act%
45.00	100	100
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

SW-846 Method 8260

Data File : C:\msdchem\1\data\N140918\N90385.D Vial: 1
Acq On : 18 Sep 2014 1:17 pm Operator: krystend
Sample : bfb Inst : MSN
Misc : ms32746,MSN3345,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
Title : SW-846 Method 8260



Spectrum Information: Scan 2907

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.4	27584	PASS
75	95	30	60	50.3	54529	PASS
95	95	100	100	100.0	108414	PASS
96	95	5	9	7.1	7647	PASS
173	174	0.00	2	0.8	581	PASS
174	95	50	150	67.9	73592	PASS
175	174	5	9	7.1	5197	PASS
176	174	95	101	96.5	71013	PASS
177	176	5	9	6.3	4495	PASS

N90385.D n140918w.m Fri Sep 19 12:05:43 2014

Scan 2907 (14.461 min): N90385.D\data.ms (-2926)
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1109	51.90	434	68.00	11486	79.90	614
37.00	5353	54.90	360	69.00	10366	80.90	2579
38.00	5006	56.00	1599	70.00	915	81.90	489
39.00	1935	57.00	3672	72.00	648	87.00	3260
43.95	527	58.00	255	73.00	4505	87.90	3962
45.00	1050	60.00	1022	74.00	19096	90.90	234
46.90	1577	61.00	5721	75.00	54529	92.00	3006
48.00	770	62.00	5839	76.00	5024	93.00	4463
49.00	5584	63.00	3927	77.00	614	94.00	11768
50.00	27584	63.90	373	77.90	480	94.95	108414
51.00	7835	67.00	227	78.90	2332	96.00	7647

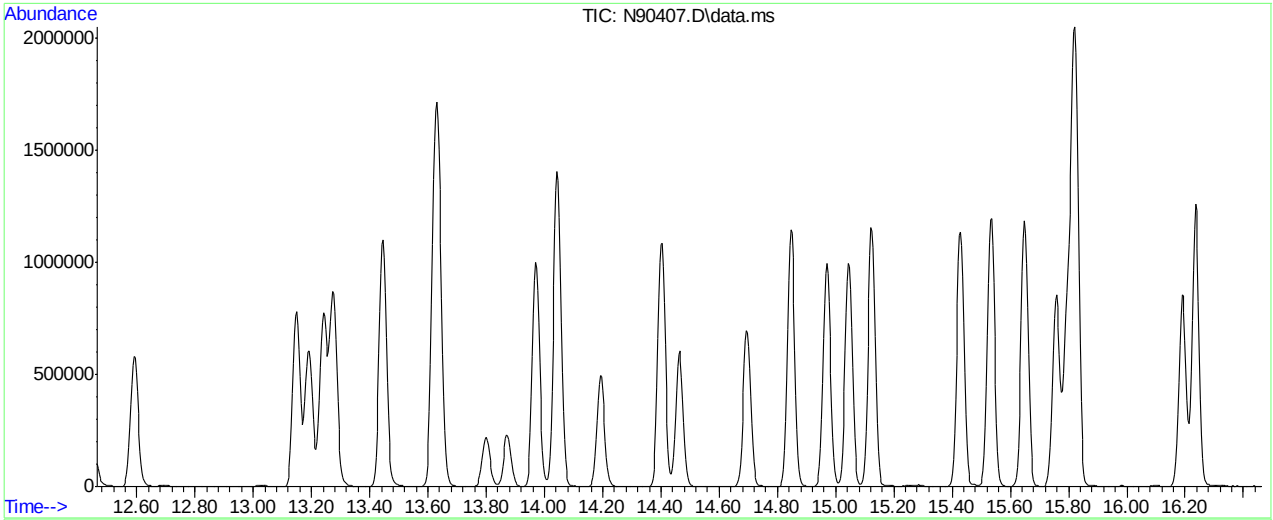
Scan 2907 (14.461 min): N90385.D\data.ms (-2926)
bfb
Modified:subtracted

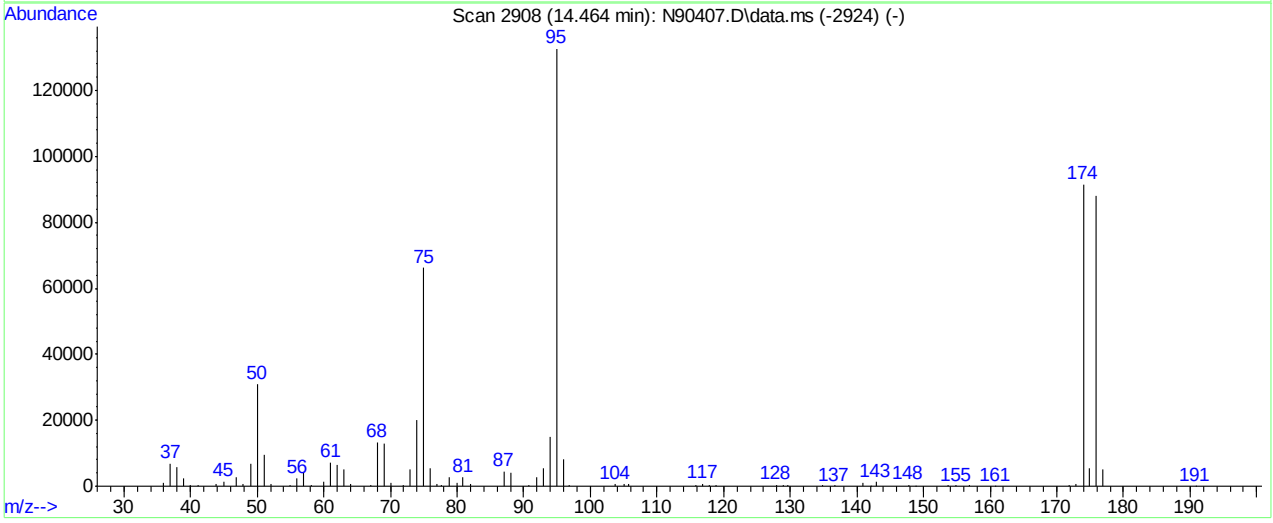
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.90	239	130.90	200	174.90	5197		
103.90	533	134.90	211	175.85	71013		
104.80	202	137.00	154	176.90	4495		
105.90	441	140.90	1031				
114.70	201	141.90	157				
115.80	373	142.90	1040				
116.70	371	147.90	304				
117.90	247	154.90	211				
118.80	486	171.50	172				
127.90	462	172.90	581				
129.90	348	173.85	73592				

SW-846 Method 8260

Data File : C:\msdchem\1\data\N140919\N90407.D Vial: 16
Acq On : 19 Sep 2014 1:04 pm Operator: krystend
Sample : bfb Inst : MSN
Misc : ms32746,MSN3345,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
Title : SW-846 Method 8260





Spectrum Information: Scan 2908

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.4	31008	PASS
75	95	30	60	49.9	66272	PASS
95	95	100	100	100.0	132736	PASS
96	95	5	9	6.2	8223	PASS
173	174	0.00	2	0.7	660	PASS
174	95	50	150	68.9	91480	PASS
175	174	5	9	6.1	5584	PASS
176	174	95	101	96.2	88016	PASS
177	176	5	9	5.9	5211	PASS

N90407.D n140918w.m Fri Sep 19 15:26:03 2014

Scan 2908 (14.464 min): N90407.D\data.ms (-2924)
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1163	50.00	31008	64.00	620	77.70	433
37.00	6912	51.00	9648	67.00	509	78.90	2614
38.00	5948	52.00	558	68.00	13330	80.00	1046
39.00	2409	54.90	471	69.00	12916	80.90	2774
40.00	185	56.00	2388	70.00	1053	82.00	861
41.20	188	57.00	3990	72.00	508	87.00	4533
43.90	610	58.10	207	73.00	5014	88.00	4031
45.00	1437	60.00	1472	74.00	20120	90.80	466
46.90	2625	61.00	7154	75.00	66272	92.00	2892
47.90	758	62.00	6425	76.00	5455	93.00	5404
49.00	6644	63.00	5163	77.00	703	94.00	14983

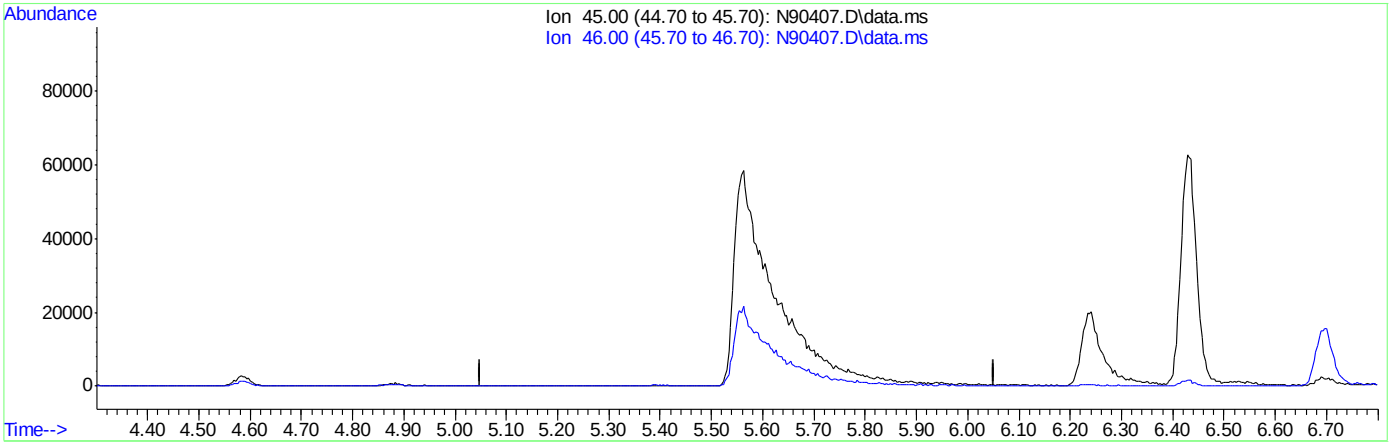
Scan 2908 (14.464 min): N90407.D\data.ms (-2924)
bfb
Modified:subtracted

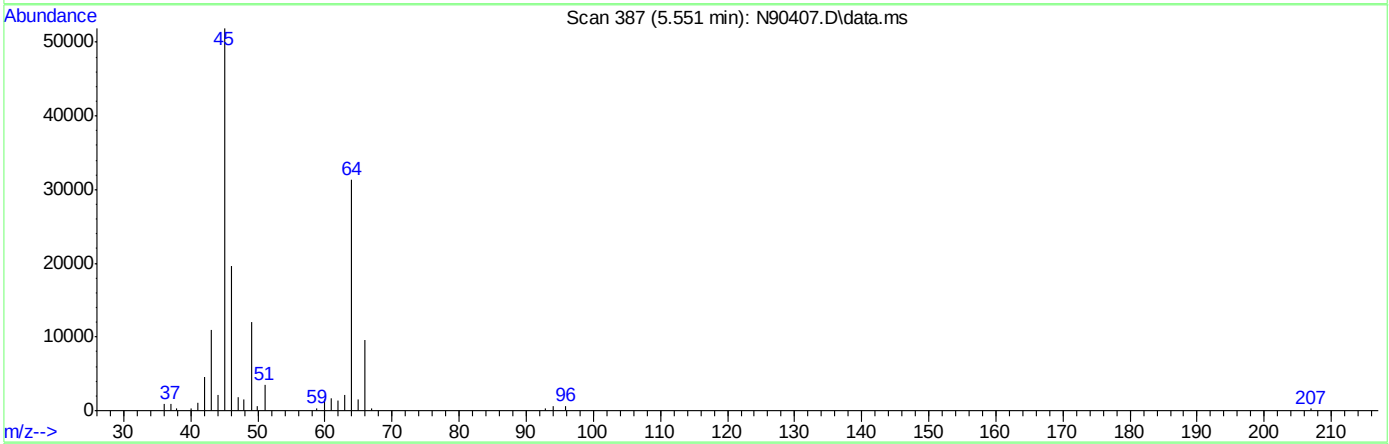
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.95	132736	128.90	234	156.90	186		
96.00	8223	129.70	389	160.80	180		
96.90	193	134.80	225	171.90	189		
103.80	620	136.70	233	172.90	660		
105.00	557	140.90	1171	174.00	91480		
105.80	560	142.00	158	174.90	5584		
115.90	364	142.90	1229	175.90	88016		
116.90	736	147.80	458	176.90	5211		
117.80	319	148.80	155	190.80	164		
118.80	502	153.70	186				
127.90	494	154.90	187				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 14:39:56 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90407.D\data.ms

(3) Ethanol (p)

5.551min (-5.551) 0.00ug/L

response 0

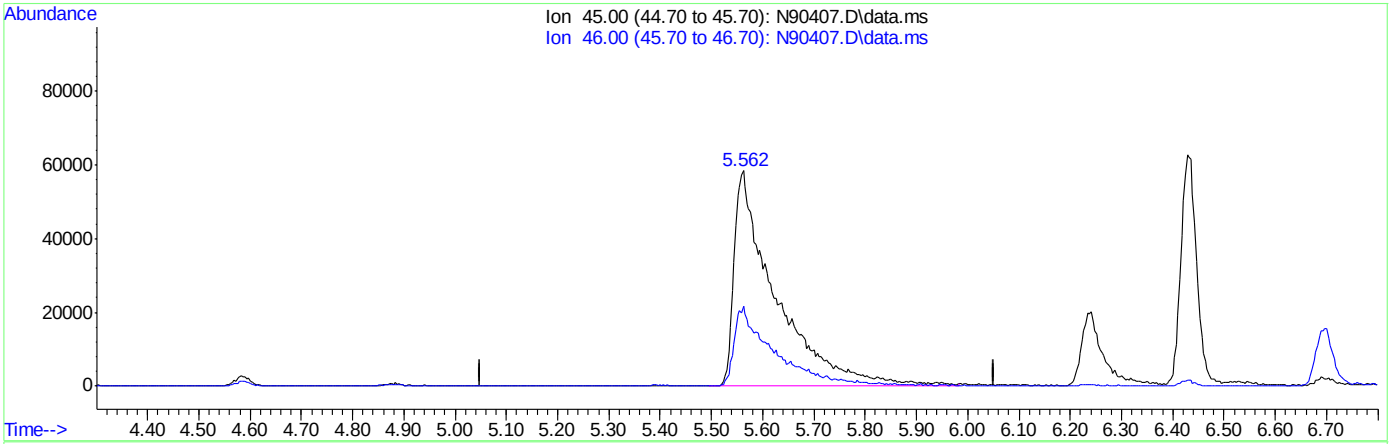
Ion	Exp%	Act%
45.00	100	0.00
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

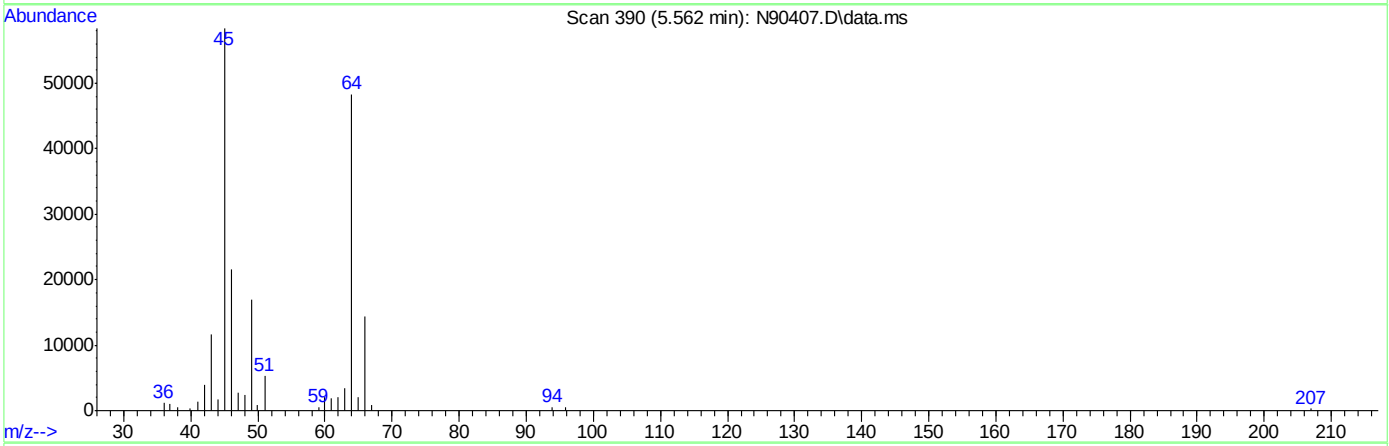
ACCUTEST LABORATORIES MC33841

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 14:39:56 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90407.D\data.ms

(3) Ethanol (p)

5.562min (+0.011) 5845.90ug/L m

response 328301

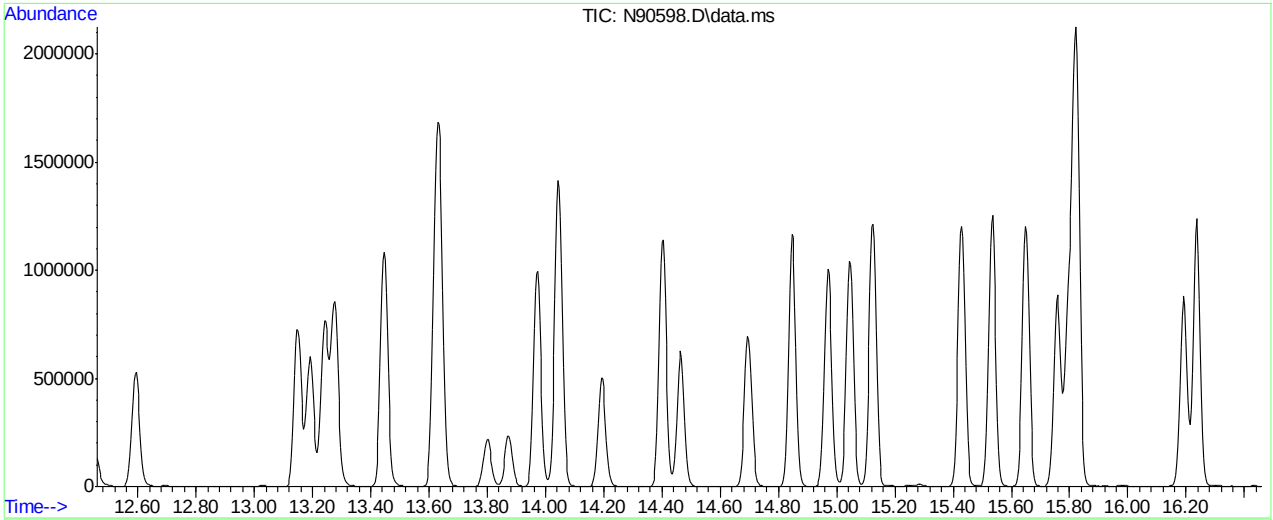
Ion	Exp%	Act%
45.00	100	100
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

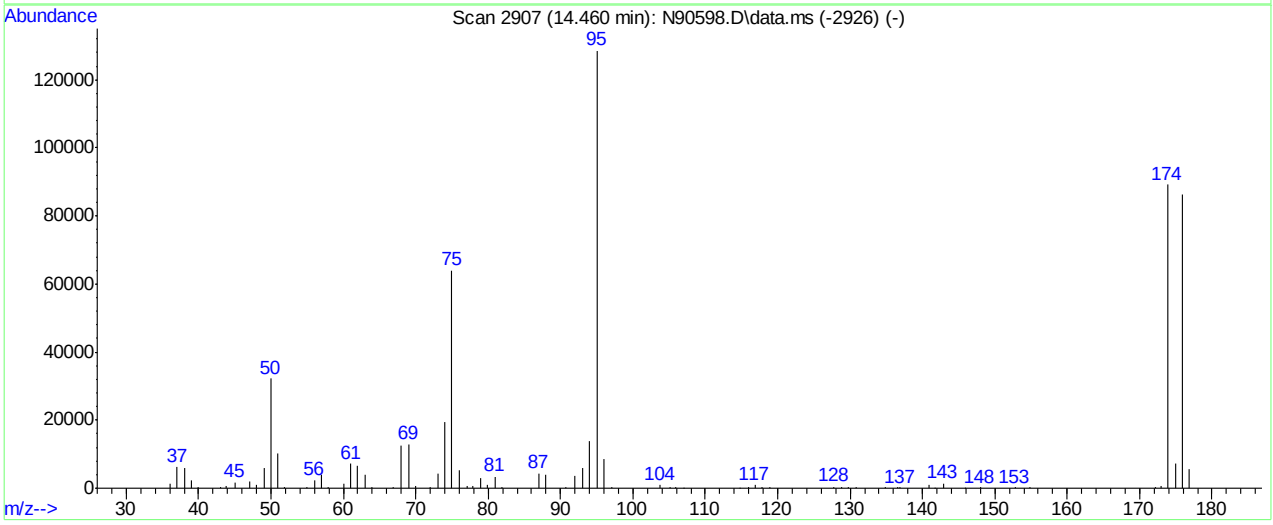
ACCUTEST LABORATORIES MC33841

SW-846 Method 8260

Data File : C:\msdchem\1\data\N140925\N90598.D Vial: 42
Acq On : 25 Sep 2014 10:20 pm Operator: krystend
Sample : bfb Inst : MSN
Misc : ms32815,MSN3352,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
Title : SW-846 Method 8260





Spectrum Information: Scan 2907

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.0	32192	PASS
75	95	30	60	49.8	64031	PASS
95	95	100	100	100.0	128610	PASS
96	95	5	9	6.6	8442	PASS
173	174	0.00	2	0.6	565	PASS
174	95	50	150	69.3	89167	PASS
175	174	5	9	8.1	7212	PASS
176	174	95	101	97.0	86468	PASS
177	176	5	9	6.5	5623	PASS

N90598.D n140918w.m Fri Sep 26 09:30:04 2014

Scan 2907 (14.460 min): N90598.D\data.ms (-2926)
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1262	50.00	32192	63.90	416	77.80	519
37.00	6219	51.00	10323	66.90	216	78.90	3044
38.00	5791	51.90	447	68.00	12440	79.90	883
39.00	2477	54.90	338	69.00	12877	80.90	3361
39.95	186	56.00	2330	70.00	836	81.85	295
43.00	240	57.00	3967	72.00	449	87.00	4447
43.85	623	57.90	176	73.00	4381	88.00	3864
45.00	1683	60.00	1214	74.00	19376	90.80	509
47.00	2098	61.00	7175	75.00	64031	92.00	3709
48.00	879	62.00	6535	76.00	5416	93.00	5972
49.00	6019	63.00	4120	77.10	791	94.00	13690

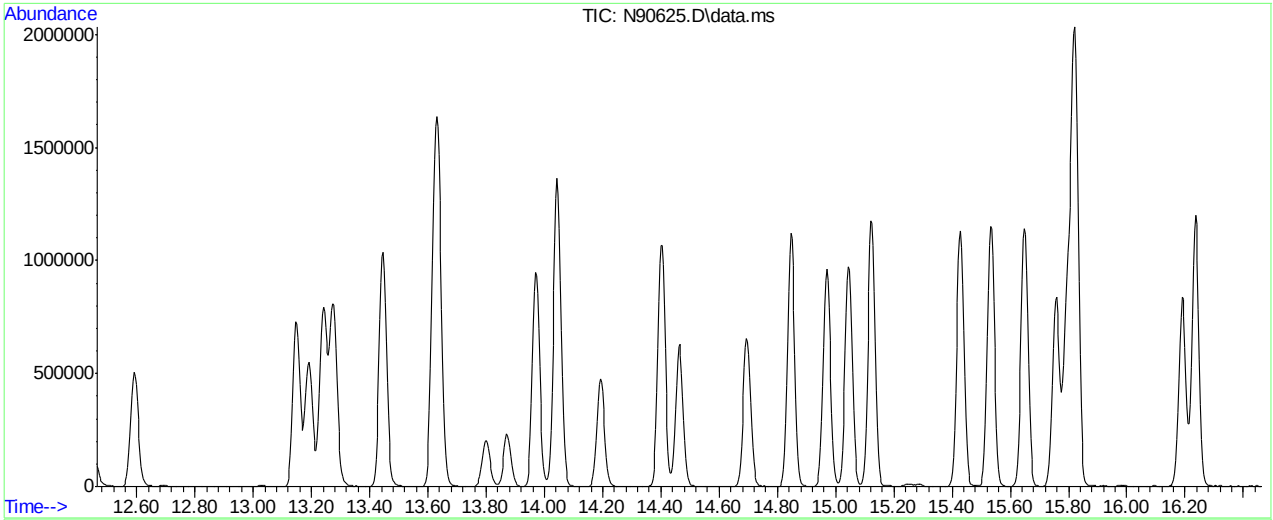
Scan 2907 (14.460 min): N90598.D\data.ms (-2926)
bfb
Modified:subtracted

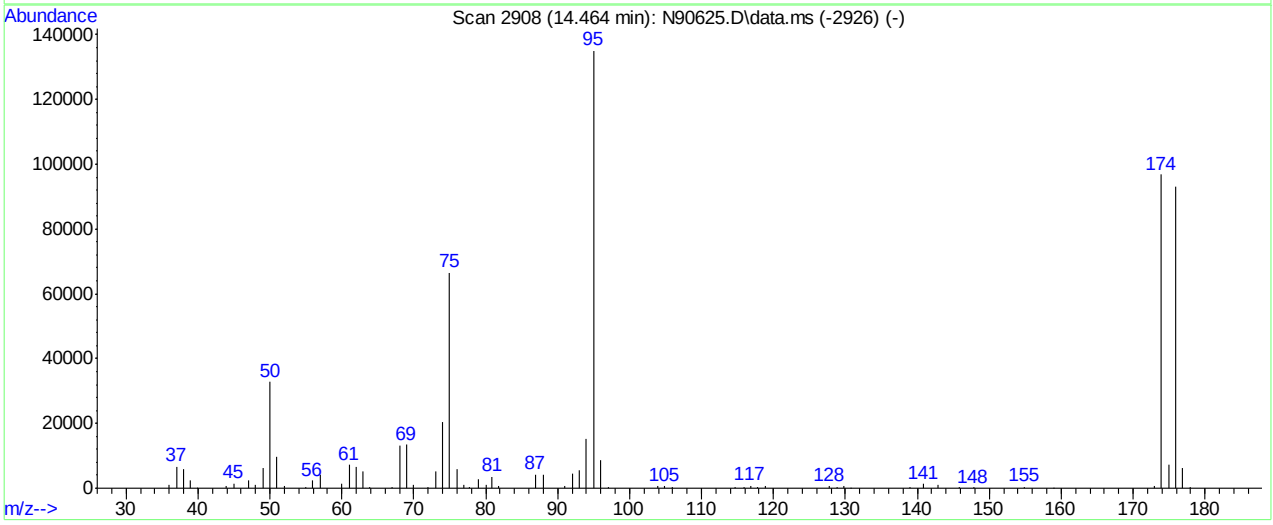
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	128610	118.90	485	145.90	162		
96.00	8442	127.80	492	148.00	331		
97.00	268	128.80	241	152.80	275		
103.80	912	129.80	391	154.90	228		
105.10	487	130.90	263	172.20	220		
105.90	427	134.90	180	173.00	565		
107.00	154	136.55	217	173.85	89167		
114.80	175	136.90	235	174.90	7212		
115.90	343	140.90	1014	175.90	86468		
116.90	921	141.70	150	176.90	5623		
117.80	312	142.90	1449				

SW-846 Method 8260

Data File : C:\msdchem\1\data\N140926\N90625.D Vial: 69
Acq On : 26 Sep 2014 11:02 am Operator: krystend
Sample : bfb Inst : MSN
Misc : ms32815,MSN3353,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
Title : SW-846 Method 8260





Spectrum Information: Scan 2908

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.3	32808	PASS
75	95	30	60	49.3	66560	PASS
95	95	100	100	100.0	135104	PASS
96	95	5	9	6.3	8519	PASS
173	174	0.00	2	0.6	604	PASS
174	95	50	150	71.7	96872	PASS
175	174	5	9	7.7	7449	PASS
176	174	95	101	96.1	93100	PASS
177	176	5	9	6.8	6307	PASS

N90625.D n140918w.m Fri Sep 26 12:22:18 2014

Scan 2908 (14.464 min): N90625.D\data.ms (-2926)
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1211	51.00	9647	68.00	13280	80.00	955
37.00	6609	52.00	628	69.00	13393	80.90	3511
38.00	6002	55.00	287	70.00	893	81.80	677
39.00	2582	55.90	2420	72.00	420	86.90	4255
39.90	180	57.00	4284	73.00	5291	88.00	4087
43.90	576	59.90	1345	74.00	20400	91.00	580
45.00	1464	61.00	7189	75.00	66560	92.00	4516
47.00	2285	62.00	6697	76.00	5736	93.00	5664
48.00	956	63.00	5062	76.90	886	94.00	15351
49.00	6112	63.90	363	77.80	452	95.00	135104
50.00	32808	66.90	206	78.90	2866	96.00	8519

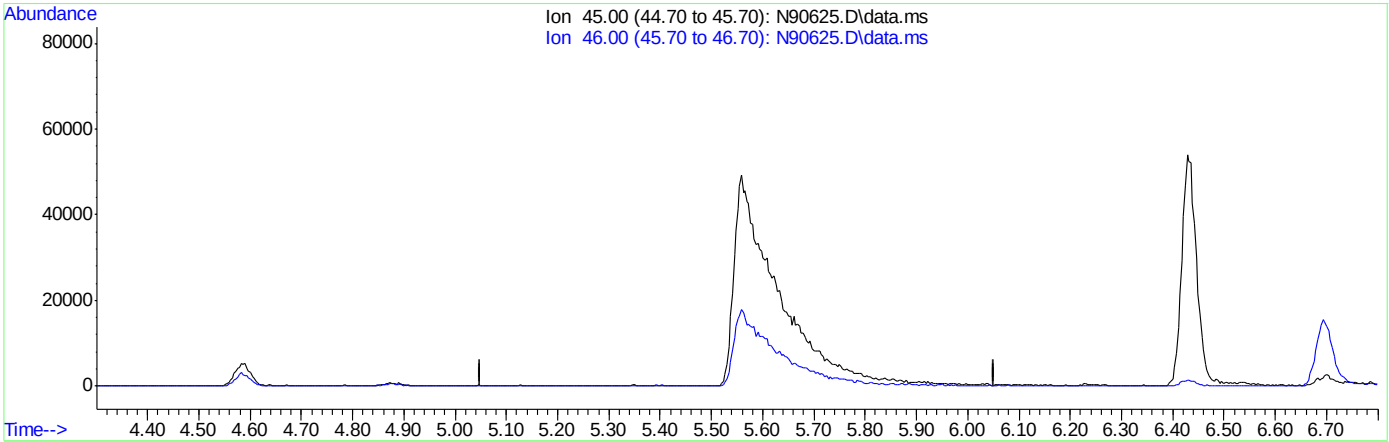
Scan 2908 (14.464 min): N90625.D\data.ms (-2926)
bfb
Modified:subtracted

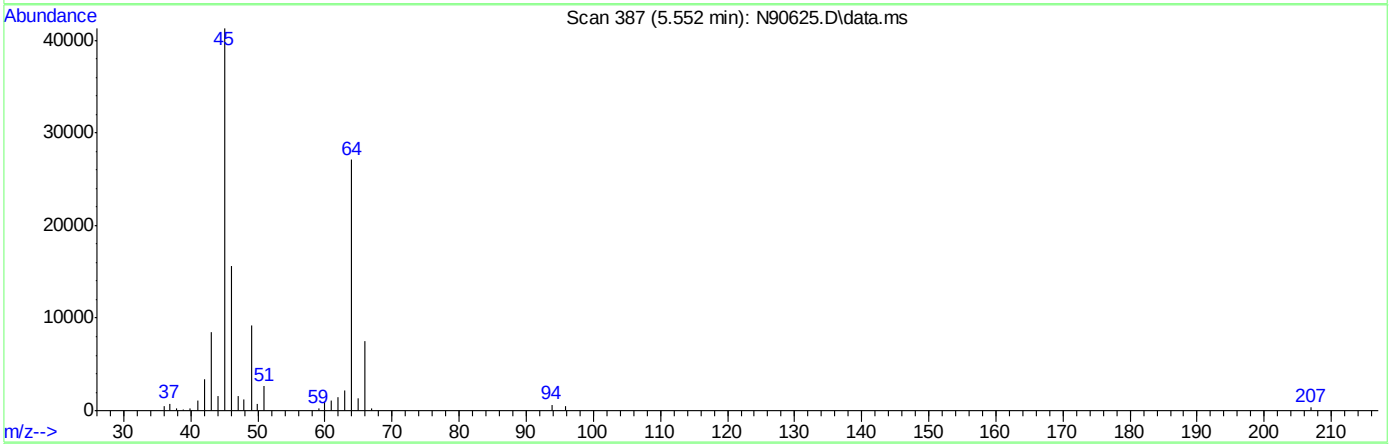
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.00	279	129.80	540	174.90	7449		
103.90	557	130.70	151	175.85	93100		
104.90	614	138.90	229	176.90	6307		
105.90	327	140.90	1262	177.90	307		
114.60	193	142.90	1187				
115.90	412	145.90	244				
116.80	785	147.80	316				
117.80	442	154.90	476				
118.80	577	158.90	155				
127.80	603	172.90	604				
128.80	350	173.90	96872				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90625.D
Acq On : 26 Sep 2014 11:02 am
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Sep 26 12:18:05 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90625.D\data.ms

(3) Ethanol (p)

5.551min (-5.551) 0.00ug/L

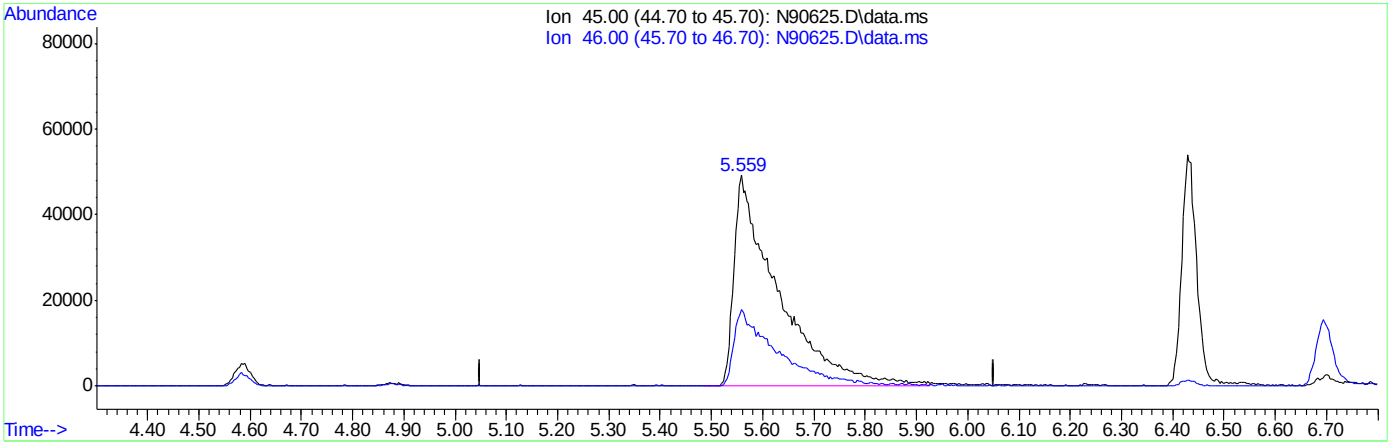
response 0

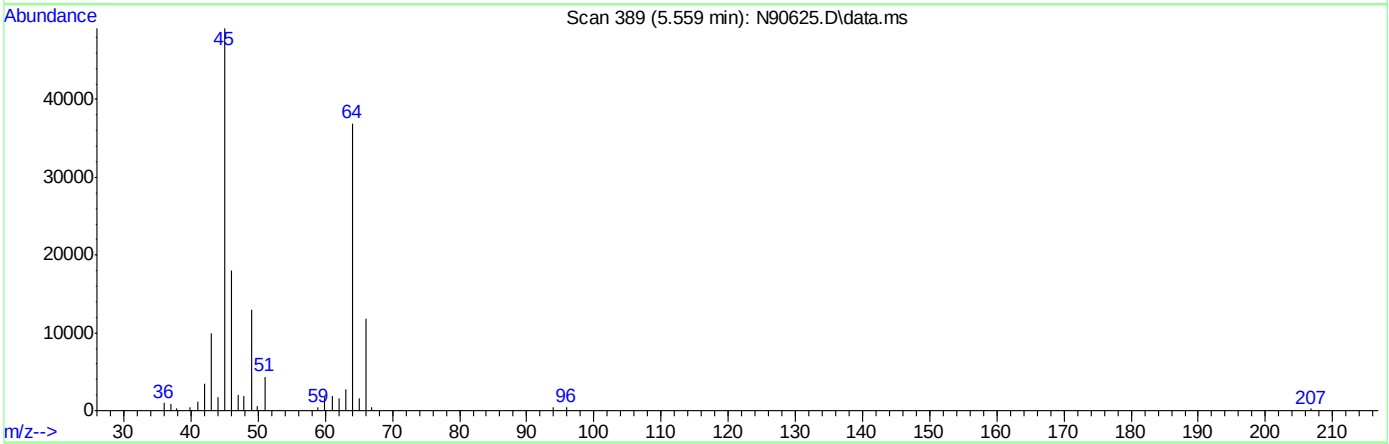
Ion	Exp%	Act%
45.00	100	0.00
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90625.D
Acq On : 26 Sep 2014 11:02 am
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Sep 26 12:18:05 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90625.D\data.ms

(3) Ethanol (p)

5.559min (+0.008) 5213.26ug/L m

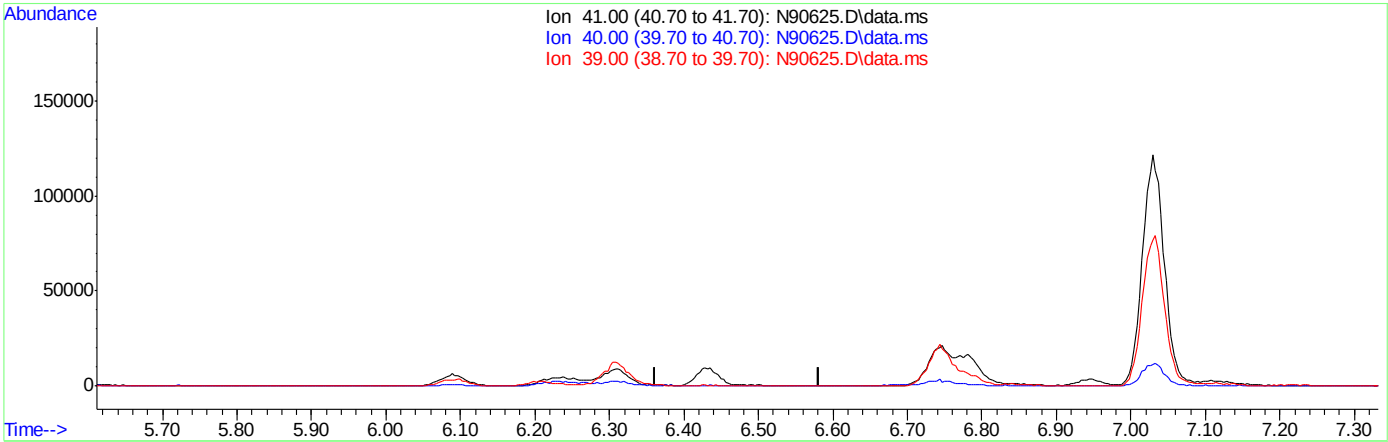
response 293573

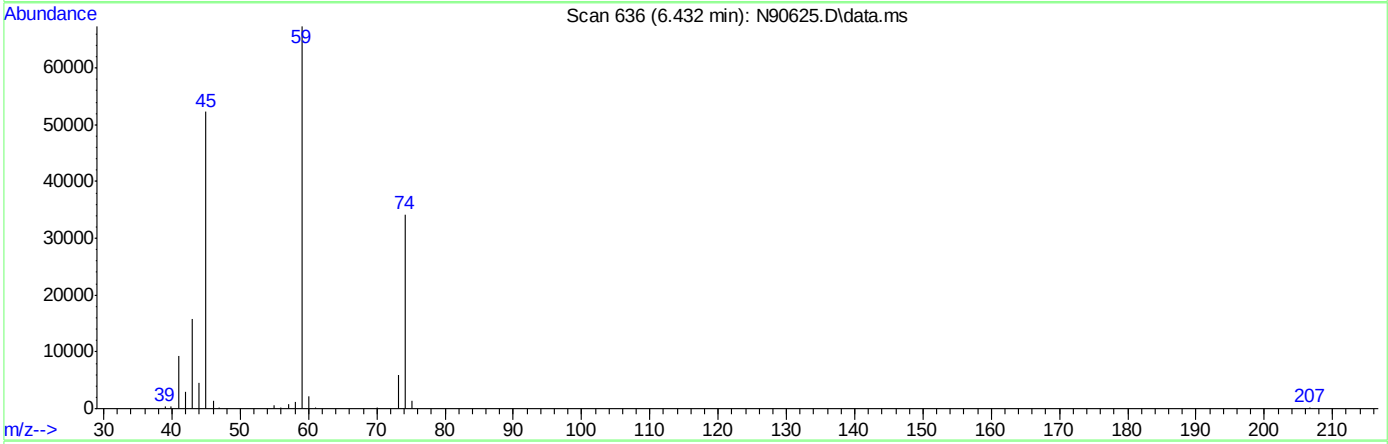
Ion	Exp%	Act%
45.00	100	100
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90625.D
Acq On : 26 Sep 2014 11:02 am
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Sep 26 12:18:05 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90625.D\data.ms

(11) acetonitrile (p)

6.432min (-6.432) 0.00ug/L

response 0

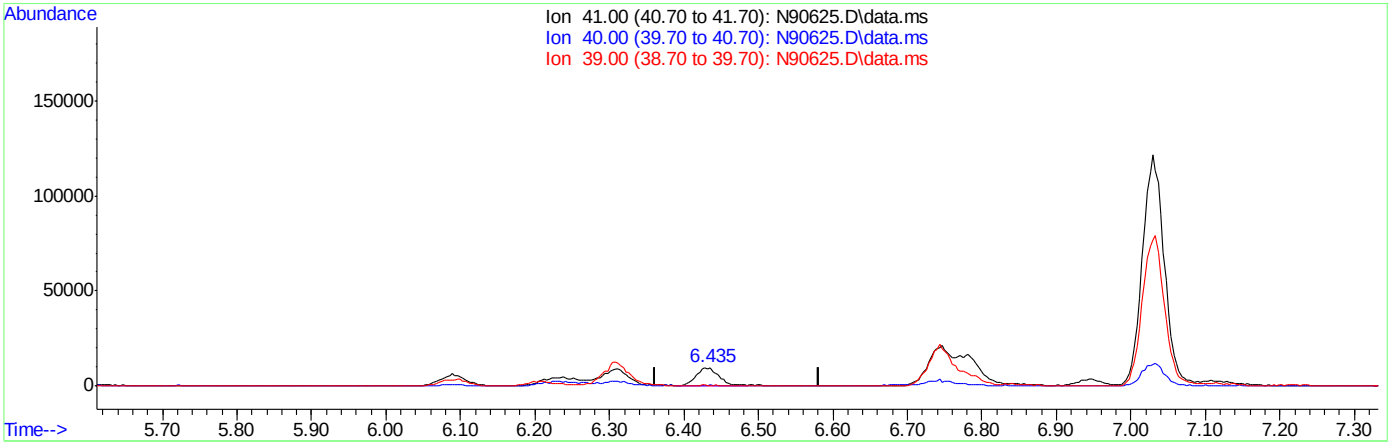
Ion	Exp%	Act%
41.00	100	0.00
40.00	0.80	0.00
39.00	5.00	0.00
0.00	0.00	0.00

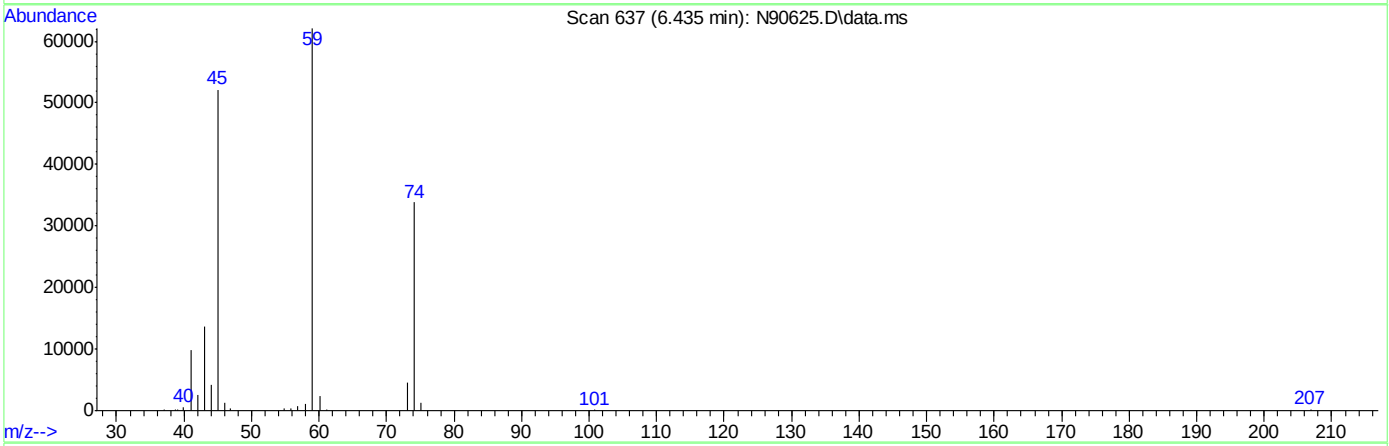
ACCUTEST LABORATORIES MC33841

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90625.D
Acq On : 26 Sep 2014 11:02 am
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Sep 26 12:18:05 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90625.D\data.ms

(11) acetonitrile (p)

6.435min (+0.003) 42.75ug/L m

response 21010

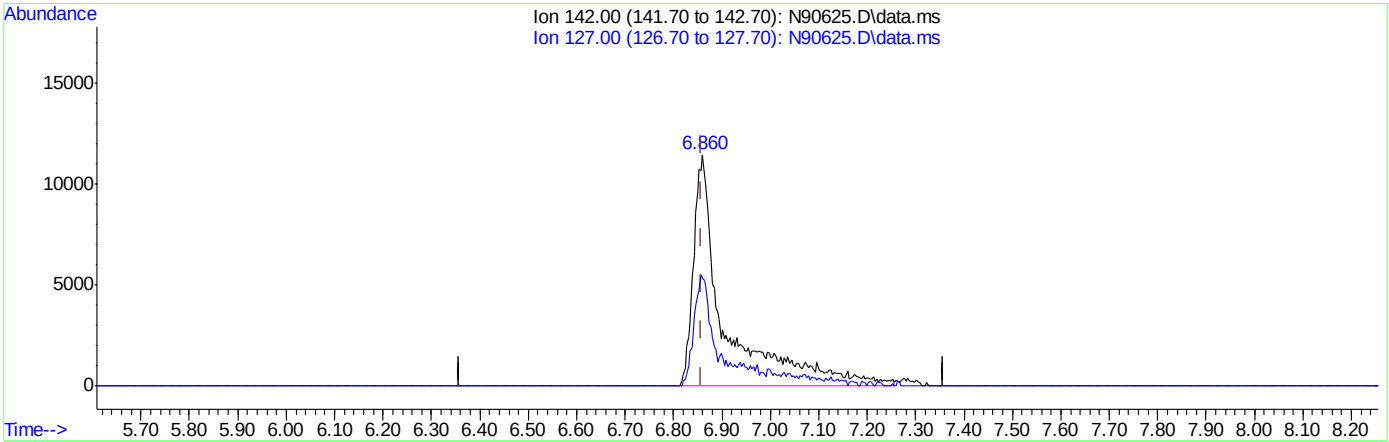
Ion	Exp%	Act%
41.00	100	100
40.00	0.80	5.73
39.00	5.00	2.40
0.00	0.00	0.00

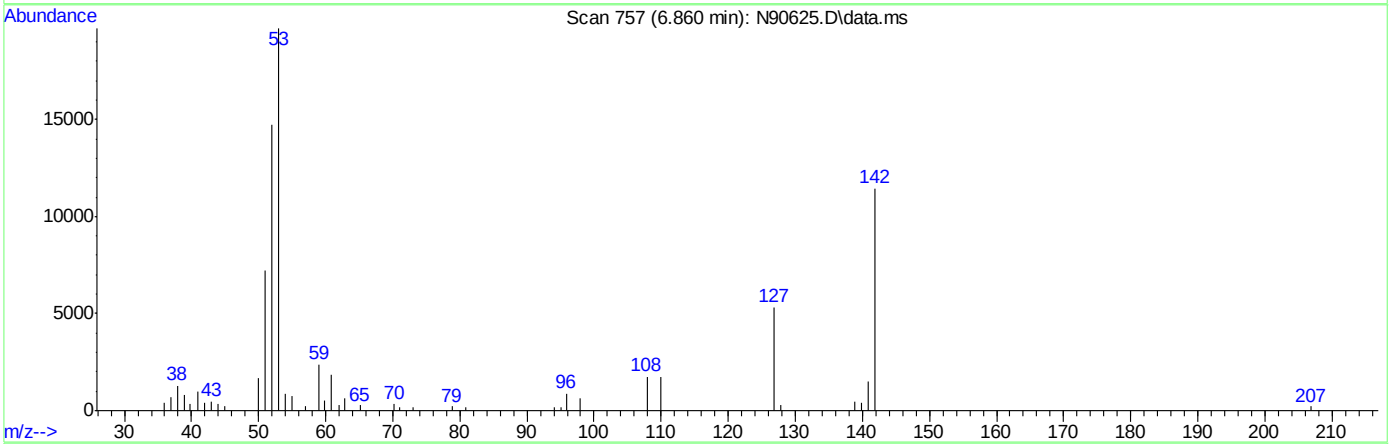
ACCUTEST LABORATORIES MC33841

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90625.D
Acq On : 26 Sep 2014 11:02 am
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Sep 26 12:18:05 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90625.D\data.ms

(23) iodomethane (p)

6.860min (+0.001) 27.50ug/L

response 52167

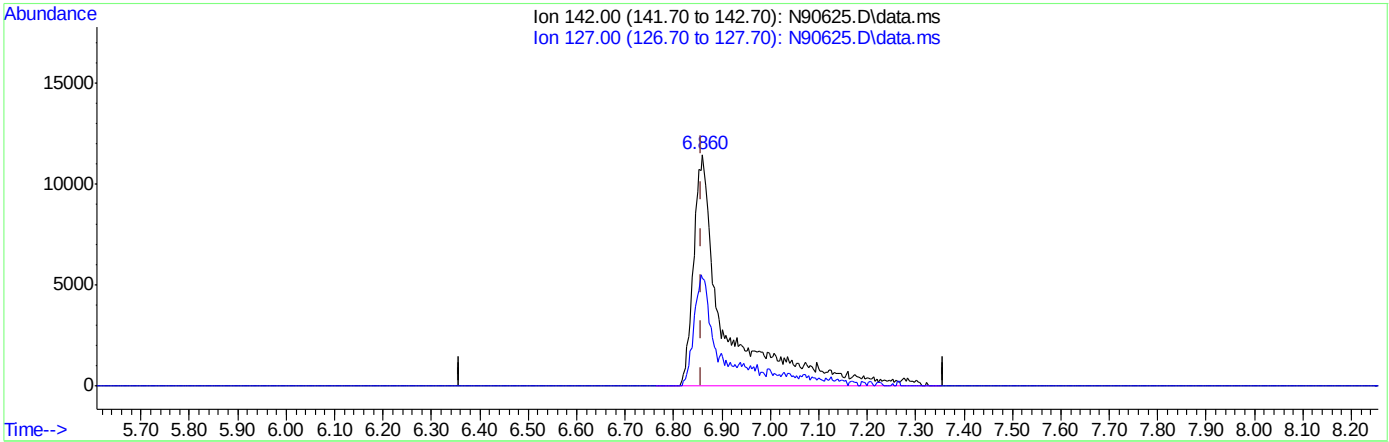
Ion	Exp%	Act%
142.00	100	100
127.00	47.30	46.50
0.00	0.00	0.00
0.00	0.00	0.00

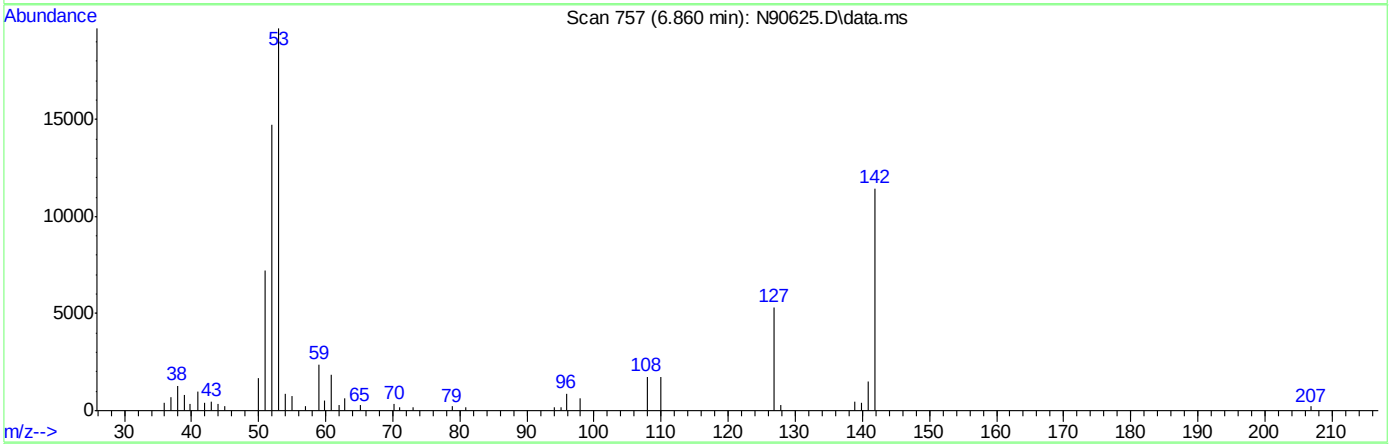
ACCUTEST LABORATORIES MC33841

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90625.D
Acq On : 26 Sep 2014 11:02 am
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Sep 26 12:18:05 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90625.D\data.ms

(23) iodomethane (p)

6.860min (+0.001) 27.91ug/L m

response 53049

Ion	Exp%	Act%
142.00	100	100
127.00	47.30	46.50
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33841

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/19/14 12:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90391.D
Acq On : 18 Sep 2014 4:07 pm
Operator : krystend
Sample : IC3345-0.5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 19 11:55:14 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:12:51 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.708	65	120097	500.00	ug/L	0.01
4) pentafluorobenzene	9.119	168	275131	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	415480	50.00	ug/L	0.00
66) chlorobenzene-d5	13.244	82	219528	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	162408	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	0.000	113	0	0.00	ug/L	
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#		
60) toluene-d8 (s)	0.000	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#		
82) bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#		
Target Compounds						Qvalue
7) vinyl chloride	4.898	62	1639m	0.53	ug/L	
19) methyl tert butyl ether	7.719	73	3086m	0.44	ug/L	
47) benzene	9.797	78	7643	0.73	ug/L	99
51) trichloroethene	10.406	95	2246	0.70	ug/L	86
59) cis-1,3-dichloropropene	11.077	75	1041	0.24	ug/L	56
63) trans-1,3-dichloropropene	11.505	75	1504	0.40	ug/L	87
67) tetrachloroethene	12.587	166	1848	0.71	ug/L #	58
69) dibromochloromethane	12.198	129	1535	0.54	ug/L	84
75) m,p-xylene	13.633	106	6519	1.49	ug/L	84
76) o-xylene	14.047	106	3021	0.68	ug/L	85
84) 1,1,2,2-tetrachloroethane	14.050	83	2059	0.81	ug/L	83

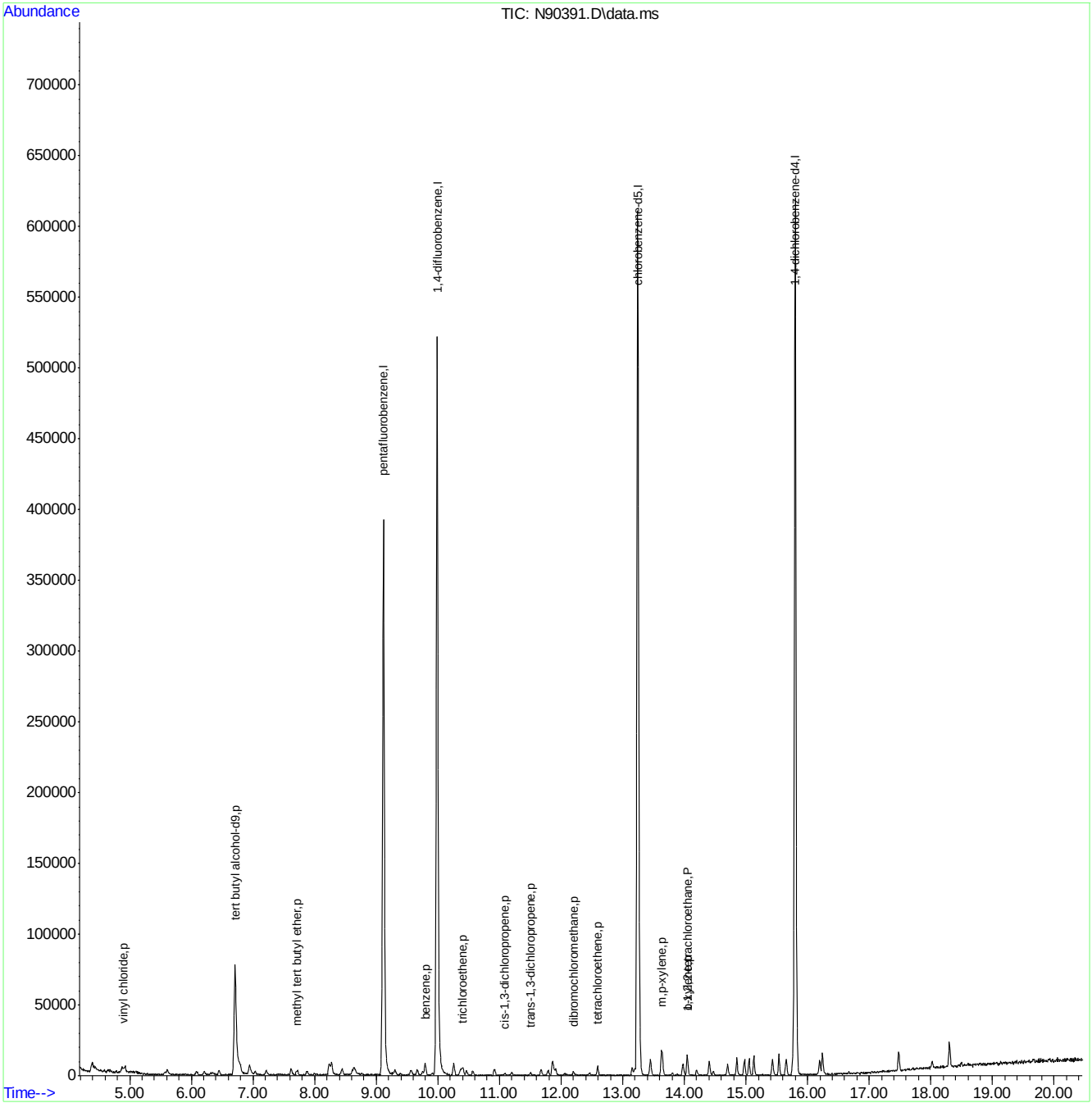
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90391.D
Acq On : 18 Sep 2014 4:07 pm
Operator : krystend
Sample : IC3345-0.5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 19 11:55:14 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:12:51 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES MC33841

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90392.D
Acq On : 18 Sep 2014 4:35 pm
Operator : krystend
Sample : IC3345-1
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 19 10:04:28 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 10:01:48 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.708	65	115293	500.00	ug/L		0.01
4) pentafluorobenzene	9.119	168	271362	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	419952	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	219703	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	167035	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	0.000	113	0	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
60) toluene-d8 (s)	0.000	98	0d	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
82) bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
Target Compounds							Qvalue
7) vinyl chloride	4.890	62	7283	1.62	ug/L		97
12) trichlorofluoromethane	6.198	101	8704	1.59	ug/L		84
15) 1,1-dichloroethene	6.785	96	3828	1.01	ug/L		93
19) methyl tert butyl ether	7.719	73	5236m	Below Cal			
22) trans-1,2-dichloroethene	7.623	96	3906	1.43	ug/L	#	76
32) 1,1-dichloroethane	7.885	63	8882	1.33	ug/L		99
36) cis-1,2-dichloroethene	8.450	96	4043	1.30	ug/L		84
39) chloroform	8.648	83	8452	1.42	ug/L		89
42) 1,1,1-trichloroethane	9.398	97	3394	0.74	ug/L		87
45) carbon tetrachloride	9.758	117	4847	1.18	ug/L		90
47) benzene	9.794	78	16400	1.36	ug/L		93
48) 1,2-dichloroethane	9.302	62	8058	1.43	ug/L		100
51) trichloroethene	10.409	95	4897	1.36	ug/L		91
54) bromodichloromethane	10.469	83	5684	1.26	ug/L		88
59) cis-1,3-dichloropropene	11.088	75	2757	1.02	ug/L		99
62) toluene	11.855	92	10192	1.41	ug/L		95
63) trans-1,3-dichloropropene	11.501	75	3719	1.06	ug/L		95
64) 1,1,2-trichloroethane	11.664	83	3333	1.43	ug/L	#	58
67) tetrachloroethene	12.594	166	3847	1.34	ug/L		95
69) dibromochloromethane	12.198	129	3400	1.15	ug/L		100
72) chlorobenzene	13.276	112	11161	1.46	ug/L		92
73) 1,1,1,2-tetrachloroethane	13.195	131	3600	1.29	ug/L		78
74) ethylbenzene	13.449	91	20302	1.42	ug/L		95
75) m,p-xylene	13.633	106	14337	2.75	ug/L		91
76) o-xylene	14.043	106	6957	1.37	ug/L		91
78) bromoform	13.803	173	2334	1.36	ug/L		86
84) 1,1,2,2-tetrachloroethane	14.047	83	4956	1.30	ug/L		86
89) 1,3,5-trimethylbenzene	15.129	105	16921	1.42	ug/L		84
91) 1,2,4-trimethylbenzene	15.539	105	16592	1.41	ug/L		94
93) 1,3-dichlorobenzene	15.761	146	9407	1.07	ug/L		95
95) 1,4-dichlorobenzene	15.822	146	10009	0.88	ug/L		89
96) 1,2-dichlorobenzene	16.196	146	8517	1.00	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90392.D
Acq On : 18 Sep 2014 4:35 pm
Operator : krystend
Sample : IC3345-1
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 19 10:04:28 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 10:01:48 2014
Response via : Initial Calibration

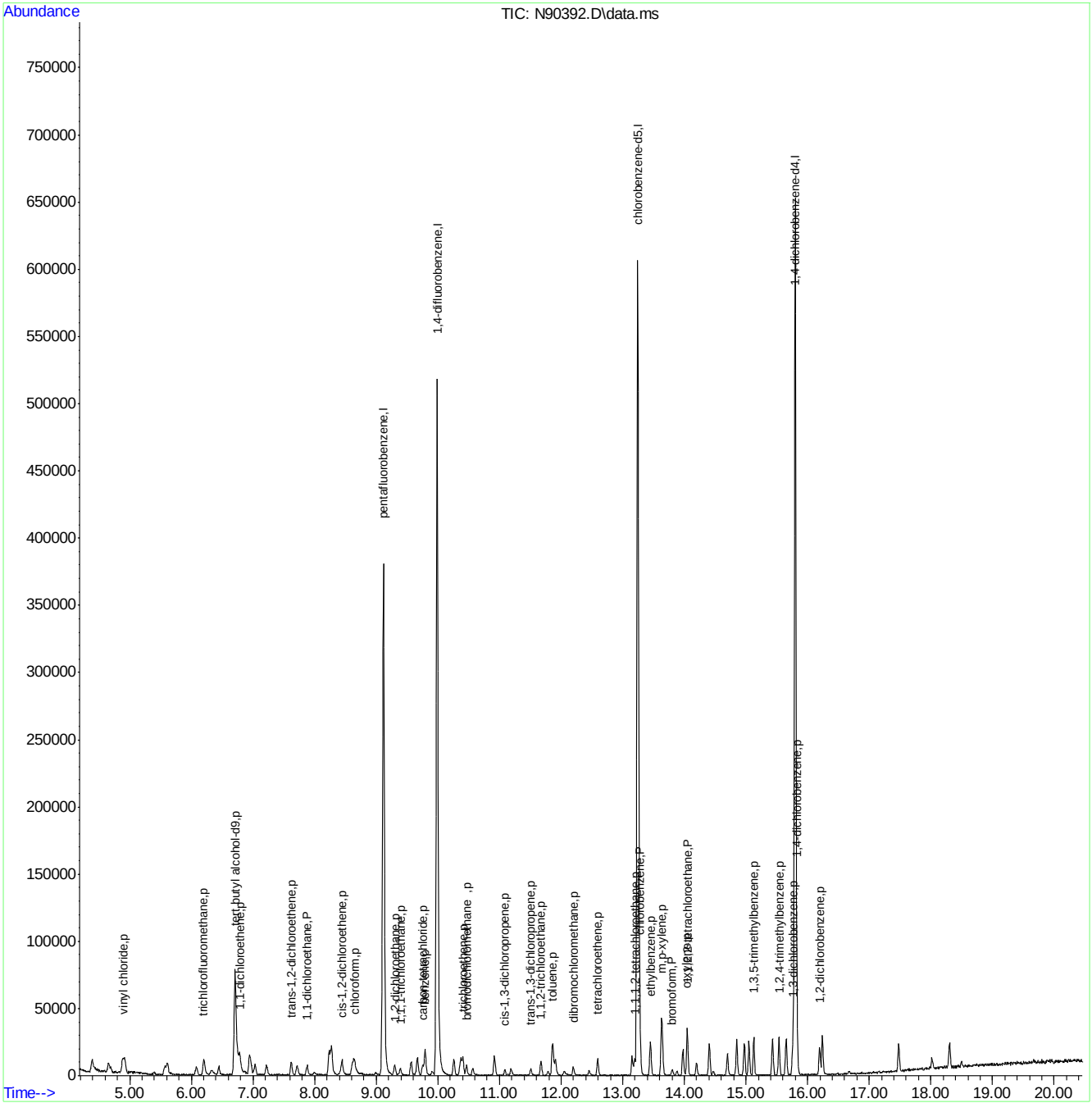
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90392.D
Acq On : 18 Sep 2014 4:35 pm
Operator : krystend
Sample : IC3345-1
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 22 Sample Multiplier: 1

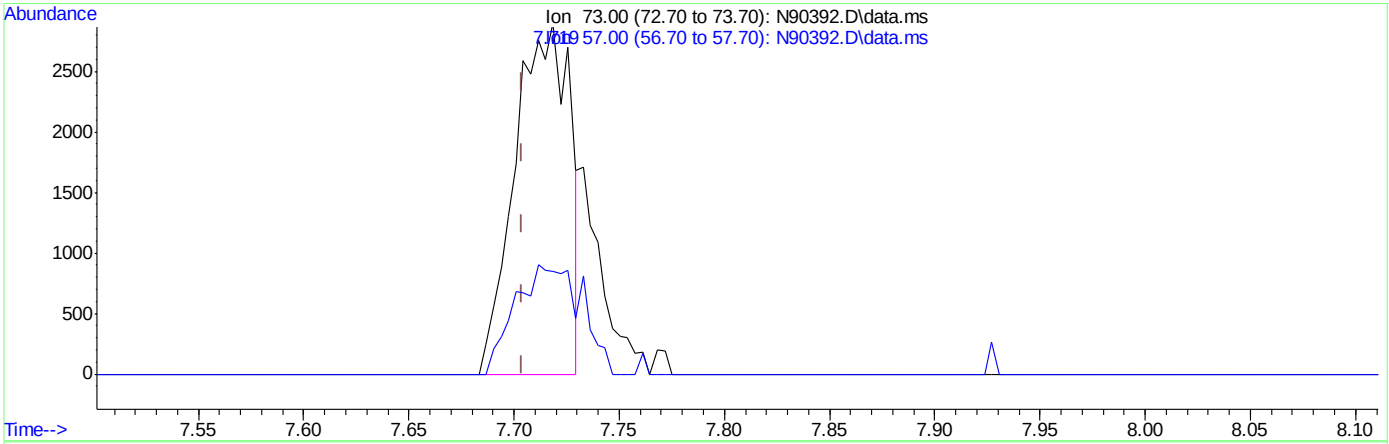
Quant Time: Sep 19 10:04:28 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 10:01:48 2014
Response via : Initial Calibration

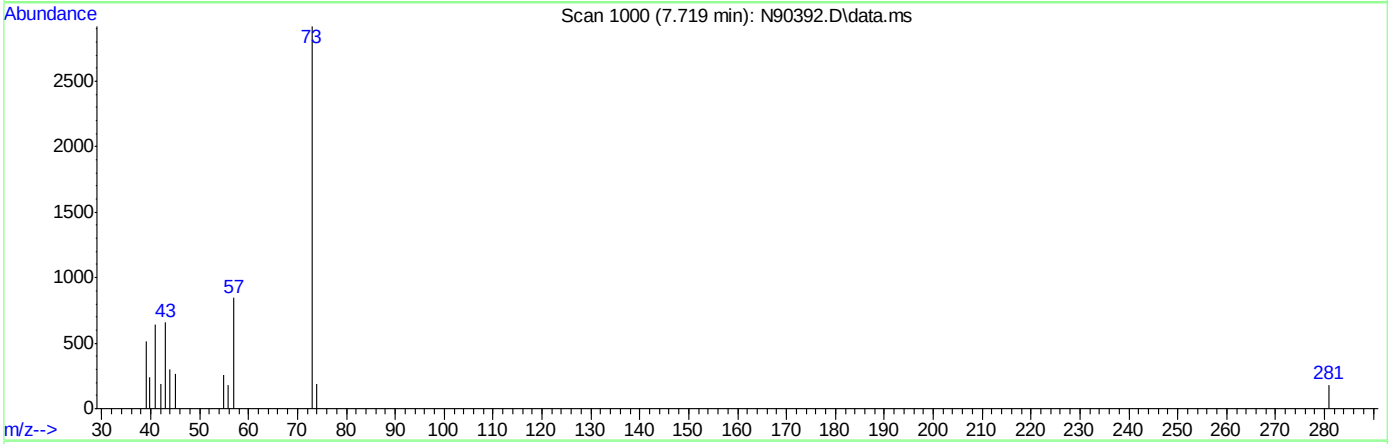


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90392.D
Acq On : 18 Sep 2014 4:35 pm
Operator : krystend
Sample : IC3345-1
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 19 09:16:03 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:14:20 2014
Response via : Initial Calibration





TIC: N90392.D\data.ms

(19) methyl tert butyl ether (p)

7.719min (+0.015) 0.76ug/L m

response 5236

Ion	Exp%	Act%
73.00	100	100
57.00	28.40	28.96
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90393.D
Acq On : 18 Sep 2014 5:03 pm
Operator : krystend
Sample : IC3345-2
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 19 09:18:54 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:17:10 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.707	65	112920	500.00	ug/L		0.01
4) pentafluorobenzene	9.119	168	263657	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	403108	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	215261	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	164137	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	0.000	113	0	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
60) toluene-d8 (s)	0.000	98	0d	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
82) bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.792	59	9557	25.25	ug/L	#	100
3) Ethanol	5.576	45	14818	272.84	ug/L	#	78
5) dichlorodifluoromethane	4.395	85	5443	1.41	ug/L		85
6) chloromethane	4.660	50	8094	2.04	ug/L		79
7) vinyl chloride	4.897	62	5215	1.04	ug/L		85
8) bromomethane	5.392	96	1165	0.95	ug/L	#	64
9) chloroethane	5.569	64	3070	1.85	ug/L		92
12) trichlorofluoromethane	6.198	101	6827	1.02	ug/L		93
15) 1,1-dichloroethene	6.785	96	5890	2.02	ug/L		95
18) methylene chloride	6.937	84	7249	2.92	ug/L		81
19) methyl tert butyl ether	7.715	73	9597	1.47	ug/L		99
22) trans-1,2-dichloroethene	7.620	96	6008	1.92	ug/L	#	82
28) di-isopropyl ether	8.274	45	31392	2.48	ug/L		85
32) 1,1-dichloroethane	7.871	63	14708	2.02	ug/L		90
33) tert-butyl ethyl ether	8.677	59	2769	0.45	ug/L		97
36) cis-1,2-dichloroethene	8.454	96	6725	2.01	ug/L		93
39) chloroform	8.645	83	13274	1.96	ug/L		83
42) 1,1,1-trichloroethane	9.391	97	7250	1.73	ug/L		93
45) carbon tetrachloride	9.751	117	7899	1.79	ug/L		93
47) benzene	9.797	78	26423	1.95	ug/L		95
48) 1,2-dichloroethane	9.299	62	12882	2.03	ug/L		99
49) tert-amyl methyl ether	9.910	73	3280	0.98	ug/L		93
51) trichloroethene	10.409	95	8004	1.97	ug/L		84
52) 1,2-dichloropropane	10.381	63	7182	2.16	ug/L		92
53) dibromomethane	10.352	93	4198	2.60	ug/L		84
54) bromodichloromethane	10.462	83	9343	1.96	ug/L		96
59) cis-1,3-dichloropropene	11.084	75	5783	1.94	ug/L		94
62) toluene	11.855	92	15764	1.93	ug/L		96
63) trans-1,3-dichloropropene	11.505	75	6265	1.86	ug/L		86
64) 1,1,2-trichloroethane	11.678	83	5003	1.92	ug/L		96
67) tetrachloroethene	12.594	166	6221	1.88	ug/L		93
69) dibromochloromethane	12.198	129	6427	2.12	ug/L		84
70) 1,2-dibromoethane	12.452	107	5514	2.54	ug/L		72
72) chlorobenzene	13.280	112	17695	2.01	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90393.D
Acq On : 18 Sep 2014 5:03 pm
Operator : krystend
Sample : IC3345-2
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 19 09:18:54 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:17:10 2014
Response via : Initial Calibration

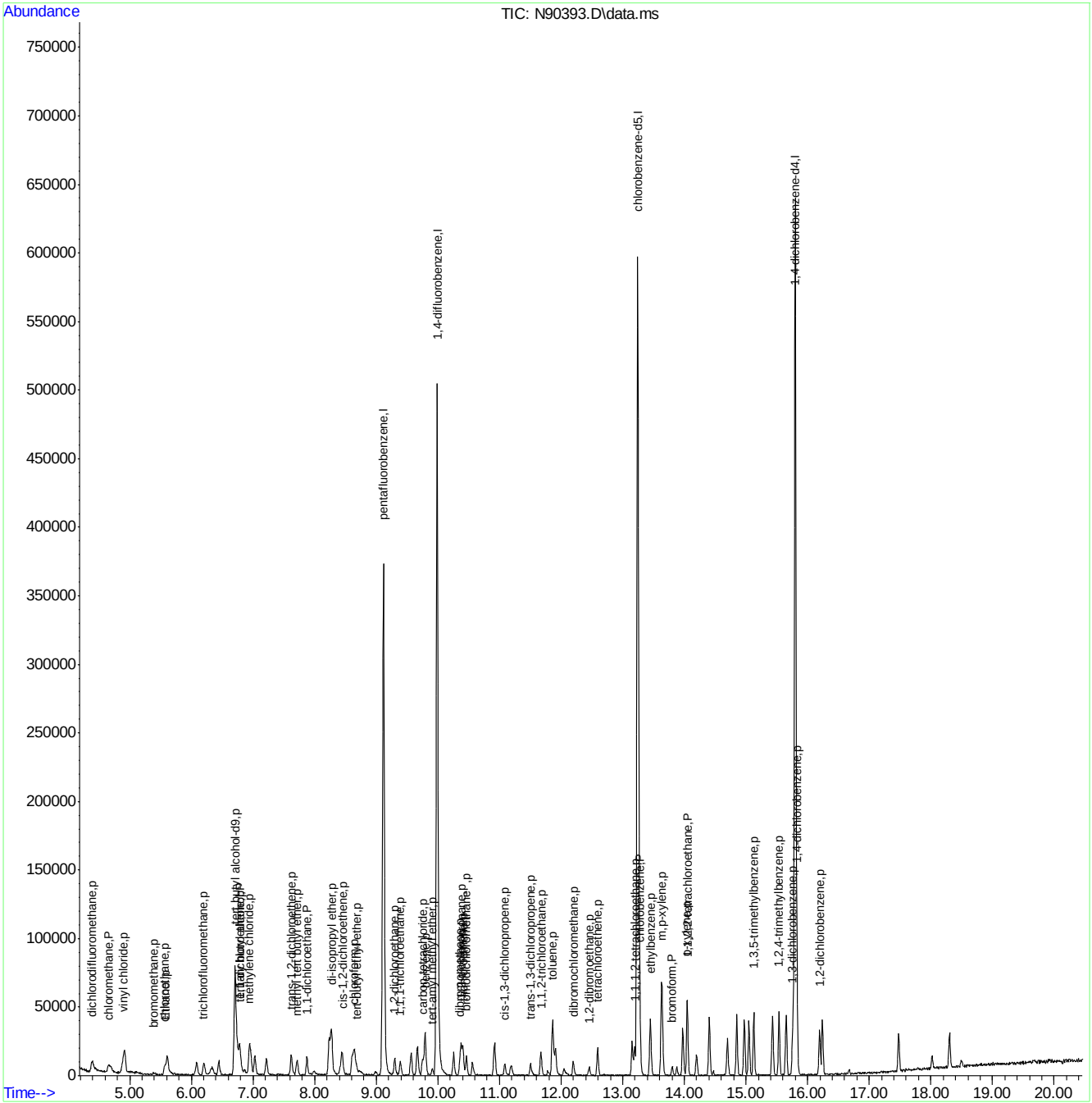
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
73) 1,1,1,2-tetrachloroethane	13.195	131	5905	1.94	ug/L	96
74) ethylbenzene	13.449	91	31464	1.92	ug/L	97
75) m,p-xylene	13.637	106	22784	3.86	ug/L	89
76) o-xylene	14.043	106	11834	2.07	ug/L	92
78) bromoform	13.796	173	3307	1.70	ug/L	79
84) 1,1,2,2-tetrachloroethane	14.047	83	7319	1.89	ug/L	96
89) 1,3,5-trimethylbenzene	15.125	105	26341	1.93	ug/L	98
91) 1,2,4-trimethylbenzene	15.535	105	26213	1.94	ug/L	98
93) 1,3-dichlorobenzene	15.758	146	14005	1.93	ug/L	99
95) 1,4-dichlorobenzene	15.825	146	13942	1.88	ug/L	90
96) 1,2-dichlorobenzene	16.196	146	12806	1.89	ug/L	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90393.D
Acq On : 18 Sep 2014 5:03 pm
Operator : krystend
Sample : IC3345-2
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 19 09:18:54 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:17:10 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski 09/19/14 12:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:21:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.707	65	115311	500.00	ug/L		0.01
4) pentafluorobenzene	9.118	168	257045	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	404691	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	212989	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	162164	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.768	113	13026	4.76	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 9.52%#				
60) toluene-d8 (s)	11.784	98	46384	4.42	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 8.84%#				
82) bromofluorobenzene (s)	14.467	95	20500	5.07	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 10.14%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.796	59	18756	42.89	ug/L	#	100
3) Ethanol	5.576	45	30201	460.66	ug/L		95
5) dichlorodifluoromethane	4.388	85	14822	4.61	ug/L		96
6) chloromethane	4.657	50	19212	4.92	ug/L		91
7) vinyl chloride	4.897	62	15363	3.73	ug/L		97
8) bromomethane	5.392	96	3523	3.98	ug/L		83
9) chloroethane	5.562	64	8770	5.63	ug/L		95
10) ethyl ether	6.439	59	14068	5.48	ug/L		88
11) acetonitrile	6.435	41	2094	4.92	ug/L		85
12) trichlorofluoromethane	6.205	101	19036	3.48	ug/L		96
13) freon-113	6.965	101	7927	3.31	ug/L		93
14) acrolein	6.205	56	8493	26.69	ug/L		92
15) 1,1-dichloroethene	6.785	96	9242	3.24	ug/L		96
16) acetone	6.343	58	3316	6.52	ug/L	#	80
17) Methyl Acetate	6.973	43	12498	5.67	ug/L	#	89
18) methylene chloride	6.941	84	14027	4.71	ug/L	#	82
19) methyl tert butyl ether	7.711	73	17899	3.08	ug/L		98
20) acrylonitrile	6.859	53	5811	5.03	ug/L		92
21) allyl chloride	7.036	41	23791	4.91	ug/L		92
22) trans-1,2-dichloroethene	7.619	96	11294	3.75	ug/L		91
23) iodomethane	6.863	142	2022	1.28	ug/L		82
24) carbon disulfide	7.220	76	32790	4.39	ug/L		95
25) propionitrile	6.789	54	47m	1.16	ug/L		
26) vinyl acetate	7.984	43	12276	3.24	ug/L		93
27) chloroprene	8.231	53	19763	3.93	ug/L		86
28) di-isopropyl ether	8.266	45	65977	4.77	ug/L		87
29) methacrylonitrile	8.411	41	9719	5.45	ug/L		94
30) 2-butanone	8.302	72	1194	3.71	ug/L	#	1
31) Hexane	8.252	41	22755	4.62	ug/L	#	64
32) 1,1-dichloroethane	7.878	63	28678	4.02	ug/L		98
33) tert-butyl ethyl ether	8.662	59	6641	1.82	ug/L		81
34) isobutyl alcohol	8.266	43	51083	25.96	ug/L		85
35) 2,2-dichloropropane	8.733	77	3847	0.90	ug/L		91
36) cis-1,2-dichloroethene	8.450	96	13951	4.27	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:21:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.266	43	47978	4.88	ug/L	#	70
38) bromochloromethane	8.613	128	6266	5.18	ug/L		97
39) chloroform	8.641	83	26857	4.10	ug/L		95
41) Tetrahydrofuran	8.991	42	3997	4.74	ug/L		93
42) 1,1,1-trichloroethane	9.394	97	17023	4.37	ug/L		97
44) Cyclohexane	9.670	56	20575	3.33	ug/L	#	88
45) carbon tetrachloride	9.748	117	14363	3.36	ug/L		90
46) 1,1-dichloropropene	9.567	75	14512	3.80	ug/L		86
47) benzene	9.790	78	52890	3.91	ug/L		97
48) 1,2-dichloroethane	9.302	62	25221	3.94	ug/L		97
49) tert-amyl methyl ether	9.907	73	5540	2.21	ug/L		73
50) heptane	10.257	43	13703	3.78	ug/L		98
51) trichloroethene	10.409	95	15353	3.78	ug/L		94
52) 1,2-dichloropropane	10.377	63	16284	4.69	ug/L		98
53) dibromomethane	10.363	93	8062	4.32	ug/L		98
54) bromodichloromethane	10.458	83	19383	4.07	ug/L		95
55) Methylcyclohexane	10.914	83	15134	3.30	ug/L		97
56) 2-chloroethyl vinyl ether	10.377	63	16284	4.88	ug/L	#	97
57) methyl methacrylate	10.564	69	6956	4.35	ug/L		81
58) 1,4-dioxane	10.575	88	305m	11.91	ug/L		
59) cis-1,3-dichloropropene	11.081	75	14326	4.82	ug/L		94
61) 4-methyl-2-pentanone	11.187	43	15348	4.69	ug/L		93
62) toluene	11.858	92	32323	3.99	ug/L		100
63) trans-1,3-dichloropropene	11.505	75	13309	4.01	ug/L		90
64) 1,1,2-trichloroethane	11.671	83	10052	3.89	ug/L		97
65) ethyl methacrylate	11.872	69	13448	4.36	ug/L		95
67) tetrachloroethene	12.594	166	11517	3.57	ug/L		96
68) 1,3-dichloropropane	11.908	76	21203	5.29	ug/L		94
69) dibromochloromethane	12.201	129	12977	4.26	ug/L		95
70) 1,2-dibromoethane	12.449	107	10672	4.37	ug/L		97
71) 2-hexanone	12.042	43	11863	4.52	ug/L		97
72) chlorobenzene	13.276	112	35521	4.08	ug/L		99
73) 1,1,1,2-tetrachloroethane	13.191	131	12646	4.24	ug/L		93
74) ethylbenzene	13.446	91	62342	3.90	ug/L		97
75) m,p-xylene	13.633	106	45068	7.78	ug/L		91
76) o-xylene	14.047	106	22661	3.98	ug/L		96
77) styrene	13.972	104	33240	4.68	ug/L		100
78) bromoform	13.810	173	7181	3.92	ug/L		89
79) trans-1,4-dichloro-2-b...	14.195	53	2021	2.79	ug/L	#	72
81) isopropylbenzene	14.404	105	54139	4.64	ug/L		96
83) bromobenzene	14.697	156	13958	5.33	ug/L		94
84) 1,1,2,2-tetrachloroethane	14.047	83	14779	3.92	ug/L		92
85) 1,2,3-trichloropropane	14.192	75	13586	4.79	ug/L		95
86) n-propylbenzene	14.849	91	70187	4.75	ug/L		99
87) 2-chlorotoluene	14.973	91	47616	5.25	ug/L		92
88) 4-chlorotoluene	15.047	91	49594	5.16	ug/L		98
89) 1,3,5-trimethylbenzene	15.128	105	52715	3.95	ug/L		99
90) tert-butylbenzene	15.429	91	31228	4.47	ug/L		98
91) 1,2,4-trimethylbenzene	15.539	105	52034	3.94	ug/L		97
92) sec-butylbenzene	15.652	105	60459	4.52	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:21:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration

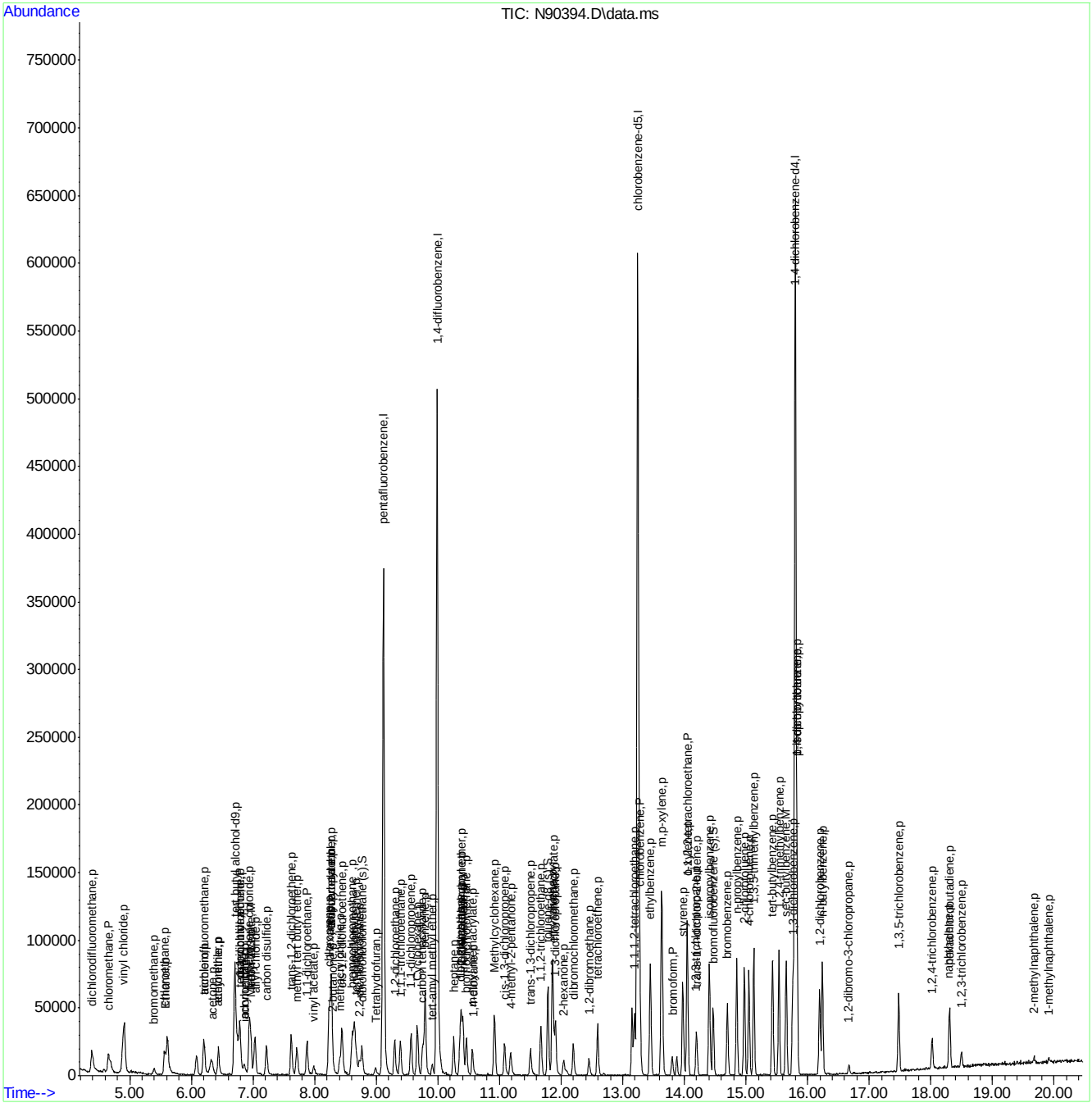
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.761	146	27513	3.89	ug/L		99
94) p-isopropyltoluene	15.825	119	51068	4.65	ug/L		98
95) 1,4-dichlorobenzene	15.825	146	27643	3.85	ug/L		95
96) 1,2-dichlorobenzene	16.196	146	25142	3.82	ug/L		95
97) n-butylbenzene	16.239	91	49528	4.29	ug/L		93
98) 1,2-dibromo-3-chloropr...	16.663	75	2015	4.30	ug/L	#	73
99) 1,2,4-trichlorobenzene	18.020	180	7236	2.87	ug/L		85
100) 1,3,5-trichlorobenzene	17.476	180	17439	4.91	ug/L		97
101) hexachlorobutadiene	18.300	225	8509	4.69	ug/L		94
102) naphthalene	18.293	128	5069	1.53	ug/L		100
103) 1,2,3-trichlorobenzene	18.498	180	4017	2.24	ug/L		74
104) 2-methylnaphthalene	19.678	142	2198	2.28	ug/L	#	100
105) 1-methylnaphthalene	19.919	142	1667	2.28	ug/L		95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

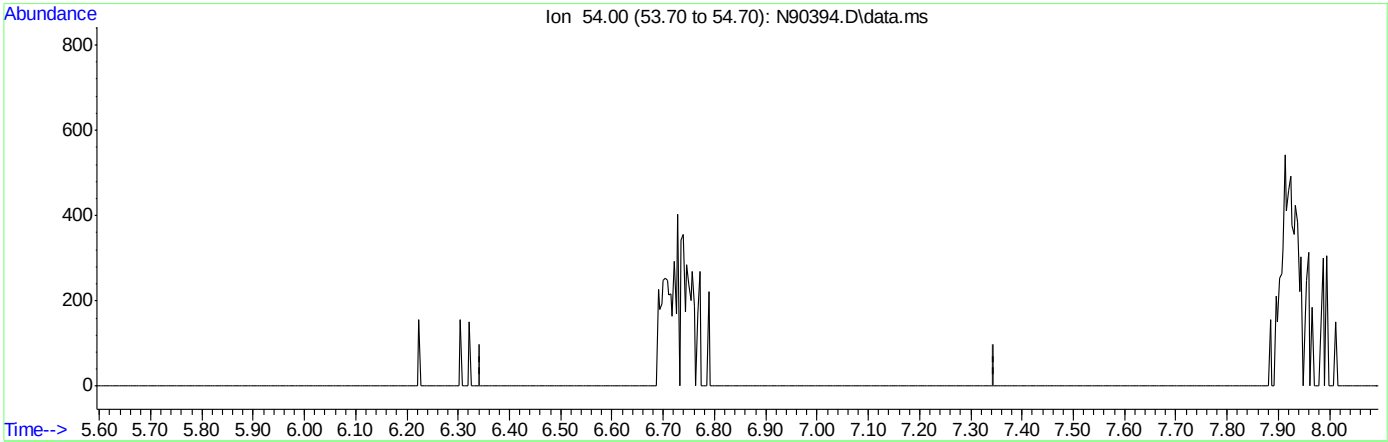
Quant Time: Sep 19 09:21:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration

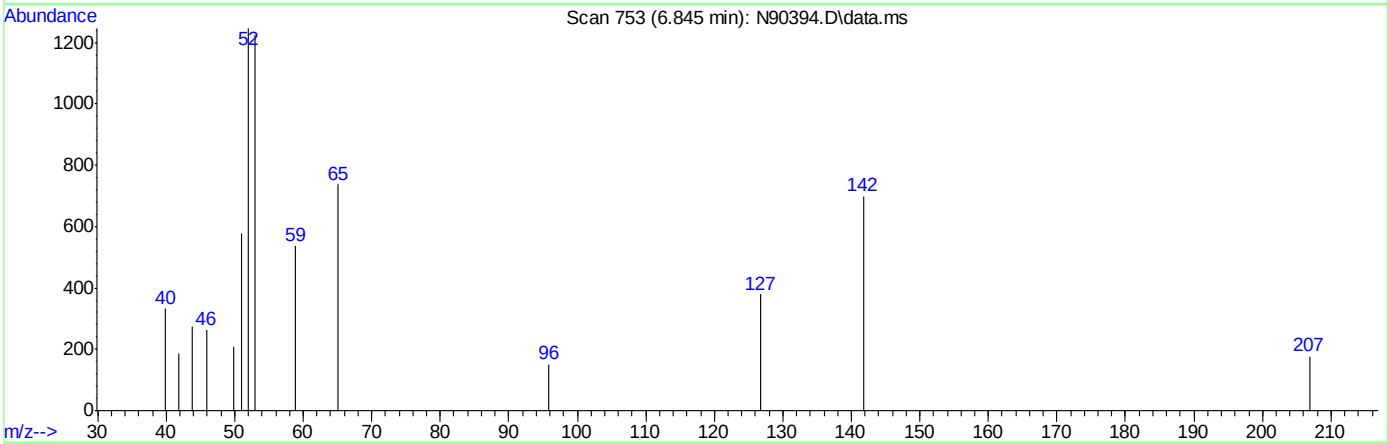


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:20:26 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration





TIC: N90394.D\data.ms

(25) propionitrile (p)

6.845min (-6.845) 0.00ug/L

response 0

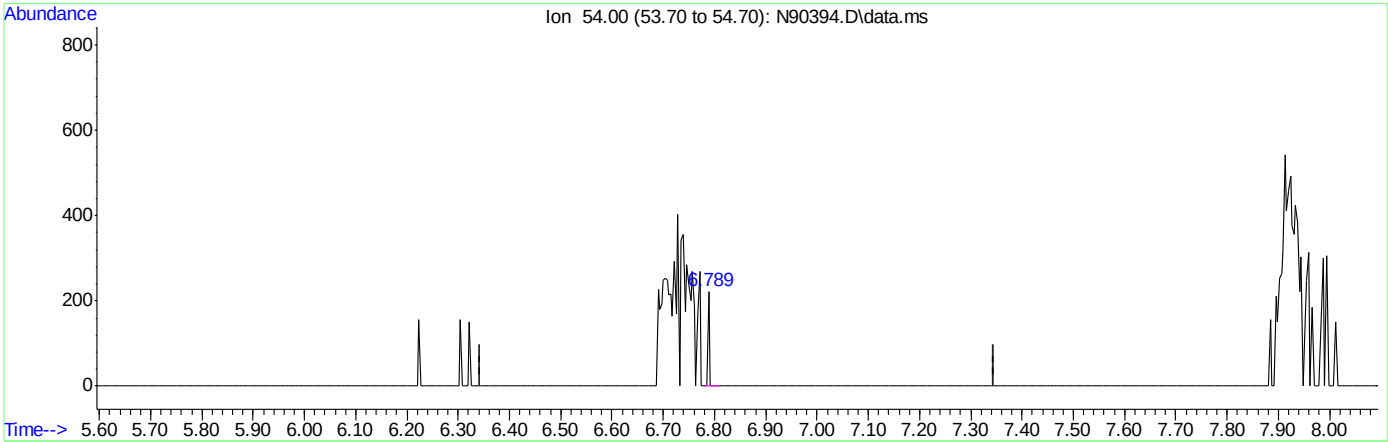
Ion	Exp%	Act%
54.00	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

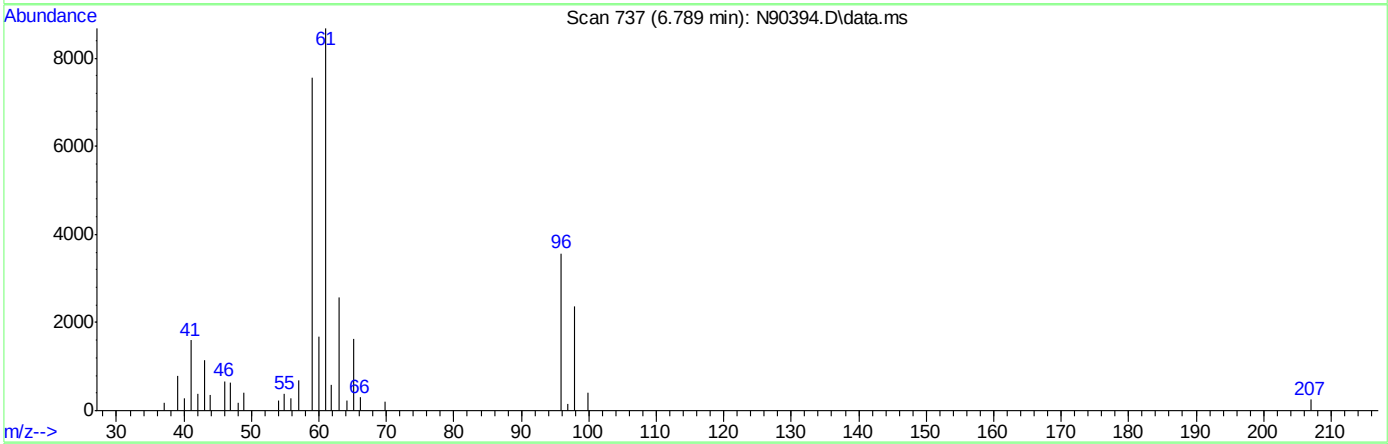
N90394.D edits: propionitrile

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:20:26 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration





TIC: N90394.D\data.ms

(25) propionitrile (p)

6.789min (-0.056) 1.16ug/L m

response 47

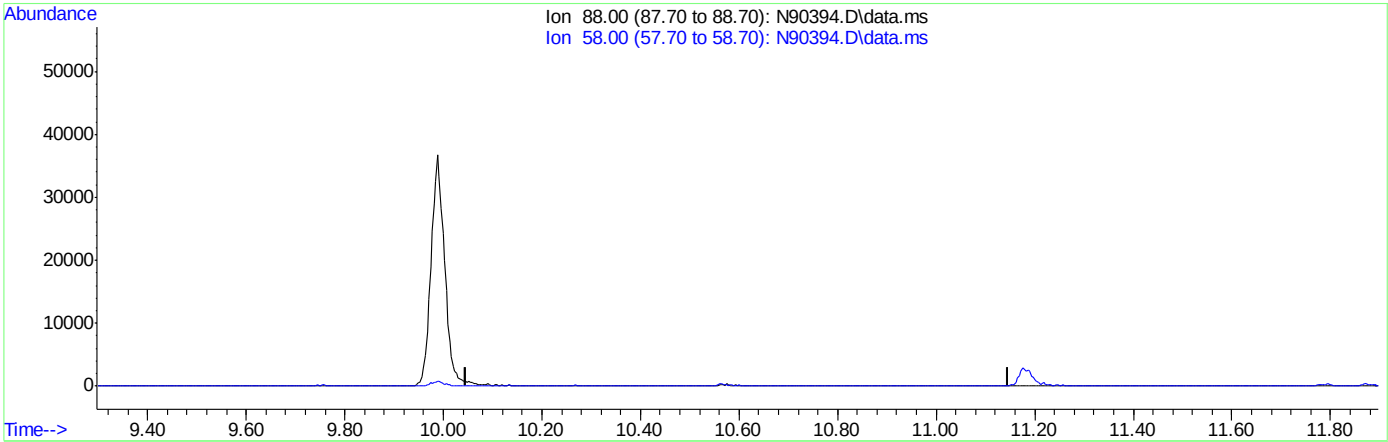
Ion	Exp%	Act%
54.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

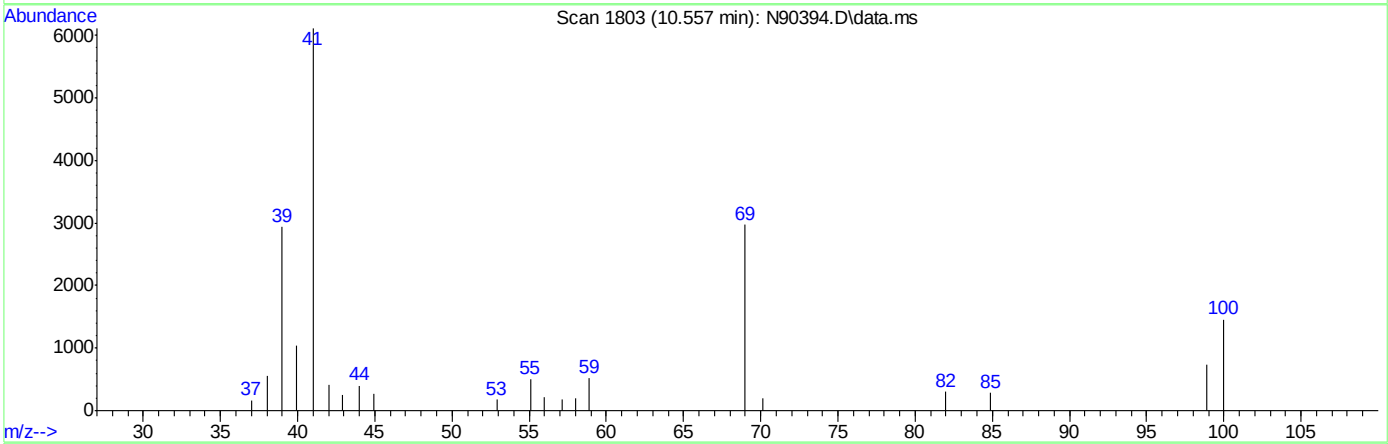
ACCUTEST LABORATORIES MC33841

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:20:26 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration





TIC: N90394.D\data.ms

(58) 1,4-dioxane (p)

10.557min (-10.557) 0.00ug/L

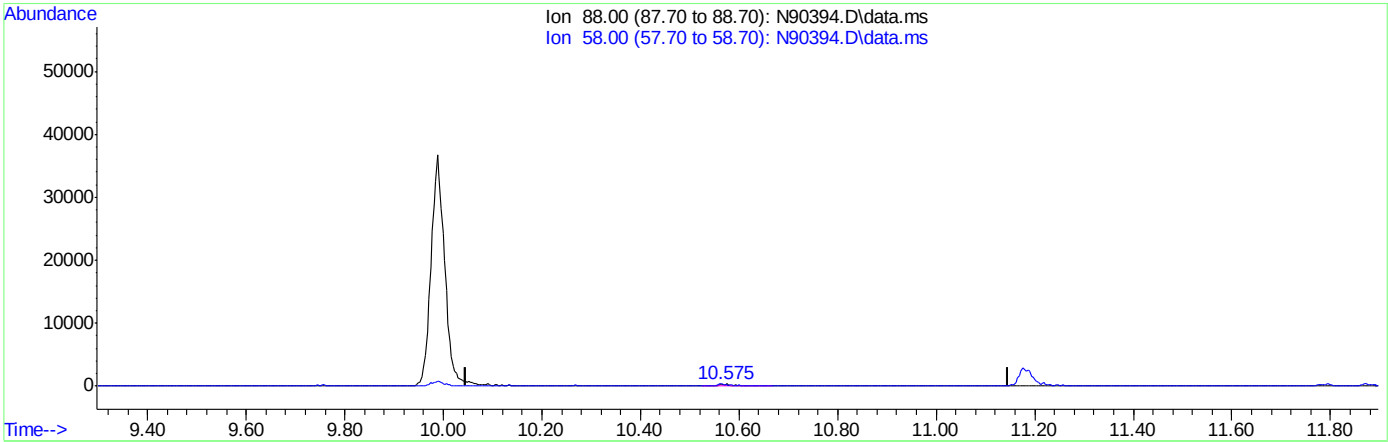
response 0

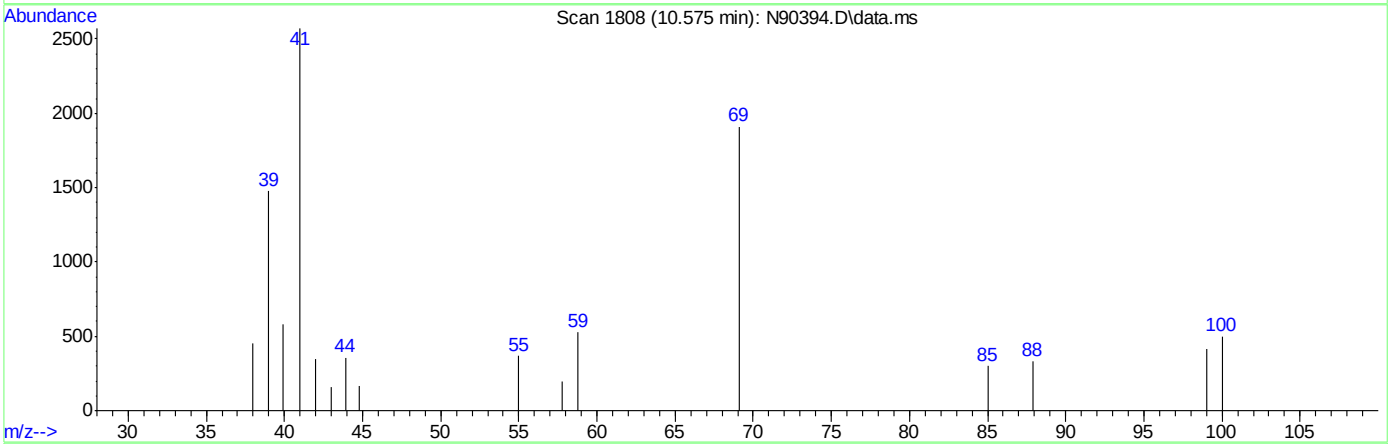
Ion	Exp%	Act%
88.00	100	0.00
58.00	134.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:20:26 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration





TIC: N90394.D\data.ms

(58) 1,4-dioxane (p)

10.575min (+0.018) 11.91ug/L m

response 305

Ion	Exp%	Act%
88.00	100	100
58.00	134.00	59.28#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski 09/19/14 12:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90395.D
Acq On : 18 Sep 2014 6:00 pm
Operator : krystend
Sample : IC3345-10
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 09:22:13 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:21:41 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.704	65	126512	500.00	ug/L		0.01
4) pentafluorobenzene	9.119	168	258191	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	407845	50.00	ug/L		0.00
66) chlorobenzene-d5	13.244	82	221249	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	172320	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.769	113	27210	10.14	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 20.28%#				
60) toluene-d8 (s)	11.784	98	101486	10.19	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 20.38%#				
82) bromofluorobenzene (s)	14.464	95	42884	9.91	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 19.82%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.789	59	40778	89.23	ug/L	#	100
3) Ethanol	5.566	45	62418	891.15	ug/L		97
5) dichlorodifluoromethane	4.385	85	31777	10.11	ug/L		87
6) chloromethane	4.654	50	43406	11.12	ug/L		97
7) vinyl chloride	4.897	62	33509	8.65	ug/L		96
8) bromomethane	5.392	96	9737	11.76	ug/L		74
9) chloroethane	5.569	64	19605	12.03	ug/L		91
10) ethyl ether	6.439	59	27414	10.15	ug/L		97
11) acetonitrile	6.435	41	4465	10.53	ug/L		87
12) trichlorofluoromethane	6.206	101	42717	8.42	ug/L		99
13) freon-113	6.969	101	18580	9.29	ug/L		86
14) acrolein	6.206	56	17077	51.68	ug/L		92
15) 1,1-dichloroethene	6.785	96	18873	7.23	ug/L		91
16) acetone	6.336	58	7023	11.93	ug/L	#	80
17) Methyl Acetate	6.969	43	25886	10.96	ug/L	#	91
18) methylene chloride	6.944	84	28490	9.71	ug/L		99
19) methyl tert butyl ether	7.712	73	31021	5.88	ug/L		96
20) acrylonitrile	6.856	53	13194	11.34	ug/L		97
21) allyl chloride	7.033	41	48398	10.04	ug/L		94
22) trans-1,2-dichloroethene	7.627	96	22666	8.00	ug/L		90
23) iodomethane	6.860	142	6549	6.59	ug/L		84
24) carbon disulfide	7.224	76	68989	9.79	ug/L		98
25) propionitrile	6.867	54	233m	9.28	ug/L		
26) vinyl acetate	7.980	43	35528	11.32	ug/L		97
27) chloroprene	8.231	53	43807	9.71	ug/L		96
28) di-isopropyl ether	8.270	45	130436	9.54	ug/L		91
29) methacrylonitrile	8.405	41	21048	11.24	ug/L		85
30) 2-butanone	8.295	72	3279	11.65	ug/L	#	1
31) Hexane	8.256	41	43898	9.22	ug/L	#	69
32) 1,1-dichloroethane	7.878	63	60716	8.92	ug/L		100
33) tert-butyl ethyl ether	8.666	59	12883	4.46	ug/L		96
34) isobutyl alcohol	8.267	43	102422	50.85	ug/L		88
35) 2,2-dichloropropane	8.733	77	14007	5.55	ug/L		100
36) cis-1,2-dichloroethene	8.443	96	27812	8.80	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90395.D
Acq On : 18 Sep 2014 6:00 pm
Operator : krystend
Sample : IC3345-10
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 09:22:13 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:21:41 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.267	43	100144	10.26	ug/L		85
38) bromochloromethane	8.613	128	12292	9.93	ug/L		88
39) chloroform	8.645	83	54158	8.62	ug/L		99
41) Tetrahydrofuran	8.984	42	9778	11.85	ug/L		82
42) 1,1,1-trichloroethane	9.391	97	41591	10.98	ug/L		97
44) Cyclohexane	9.670	56	46371	8.94	ug/L		93
45) carbon tetrachloride	9.755	117	32807	8.30	ug/L		97
46) 1,1-dichloropropene	9.564	75	32906	9.72	ug/L		93
47) benzene	9.794	78	107734	8.26	ug/L		98
48) 1,2-dichloroethane	9.299	62	50274	8.23	ug/L		98
49) tert-amyl methyl ether	9.911	73	11881	5.78	ug/L		88
50) heptane	10.257	43	26634	8.30	ug/L		97
51) trichloroethene	10.409	95	31842	8.18	ug/L		90
52) 1,2-dichloropropane	10.377	63	33512	9.78	ug/L		98
53) dibromomethane	10.360	93	16811	9.37	ug/L		93
54) bromodichloromethane	10.462	83	40713	8.90	ug/L		95
55) Methylcyclohexane	10.918	83	32926	8.59	ug/L		99
56) 2-chloroethyl vinyl ether	10.377	63	33512	10.09	ug/L	#	100
57) methyl methacrylate	10.554	69	15574	10.34	ug/L		81
58) 1,4-dioxane	10.558	88	1262	66.24	ug/L	#	61
59) cis-1,3-dichloropropene	11.081	75	34438	11.58	ug/L		94
61) 4-methyl-2-pentanone	11.176	43	35384	11.07	ug/L		95
62) toluene	11.858	92	65958	8.51	ug/L		100
63) trans-1,3-dichloropropene	11.501	75	28470	8.86	ug/L		98
64) 1,1,2-trichloroethane	11.671	83	21305	8.66	ug/L		92
65) ethyl methacrylate	11.873	69	29881	10.27	ug/L		96
67) tetrachloroethene	12.590	166	24673	7.81	ug/L		87
68) 1,3-dichloropropane	11.904	76	42223	9.86	ug/L		94
69) dibromochloromethane	12.194	129	27781	9.04	ug/L		92
70) 1,2-dibromoethane	12.449	107	23274	9.58	ug/L		91
71) 2-hexanone	12.035	43	28753	11.08	ug/L		97
72) chlorobenzene	13.276	112	69810	8.09	ug/L		97
73) 1,1,1,2-tetrachloroethane	13.195	131	26388	8.86	ug/L		94
74) ethylbenzene	13.446	91	130881	8.33	ug/L		98
75) m,p-xylene	13.630	106	91775	15.96	ug/L		96
76) o-xylene	14.047	106	46892	8.26	ug/L		91
77) styrene	13.973	104	72509	10.16	ug/L		97
78) bromoform	13.803	173	15696	8.72	ug/L		95
79) trans-1,4-dichloro-2-b...	14.192	53	5470	9.33	ug/L	#	62
81) isopropylbenzene	14.404	105	117713	9.85	ug/L		99
83) bromobenzene	14.697	156	28241	9.82	ug/L		98
84) 1,1,2,2-tetrachloroethane	14.050	83	30205	7.88	ug/L		93
85) 1,2,3-trichloropropane	14.195	75	29533	10.01	ug/L		100
86) n-propylbenzene	14.849	91	150782	9.85	ug/L		99
87) 2-chlorotoluene	14.970	91	99253	10.05	ug/L		98
88) 4-chlorotoluene	15.047	91	104462	10.07	ug/L		95
89) 1,3,5-trimethylbenzene	15.125	105	111408	8.29	ug/L		97
90) tert-butylbenzene	15.433	91	68511	9.75	ug/L		91
91) 1,2,4-trimethylbenzene	15.535	105	112937	8.50	ug/L		96
92) sec-butylbenzene	15.652	105	128895	9.53	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90395.D
Acq On : 18 Sep 2014 6:00 pm
Operator : krystend
Sample : IC3345-10
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 09:22:13 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:21:41 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.761	146	55907	7.87	ug/L		98
94) p-isopropyltoluene	15.822	119	111832	9.93	ug/L		98
95) 1,4-dichlorobenzene	15.825	146	55167	7.67	ug/L		96
96) 1,2-dichlorobenzene	16.196	146	52420	7.97	ug/L		99
97) n-butylbenzene	16.235	91	107958	9.48	ug/L		98
98) 1,2-dibromo-3-chloropr...	16.670	75	4379	9.46	ug/L		87
99) 1,2,4-trichlorobenzene	18.021	180	19744	9.37	ug/L		94
100) 1,3,5-trichlorobenzene	17.476	180	36268	9.69	ug/L		100
101) hexachlorobutadiene	18.300	225	17924	9.60	ug/L		94
102) naphthalene	18.293	128	13706	5.95	ug/L		100
103) 1,2,3-trichlorobenzene	18.491	180	11426	8.28	ug/L		84
104) 2-methylnaphthalene	19.668	142	4279	4.37	ug/L	#	100
105) 1-methylnaphthalene	19.919	142	3816	5.14	ug/L		90

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

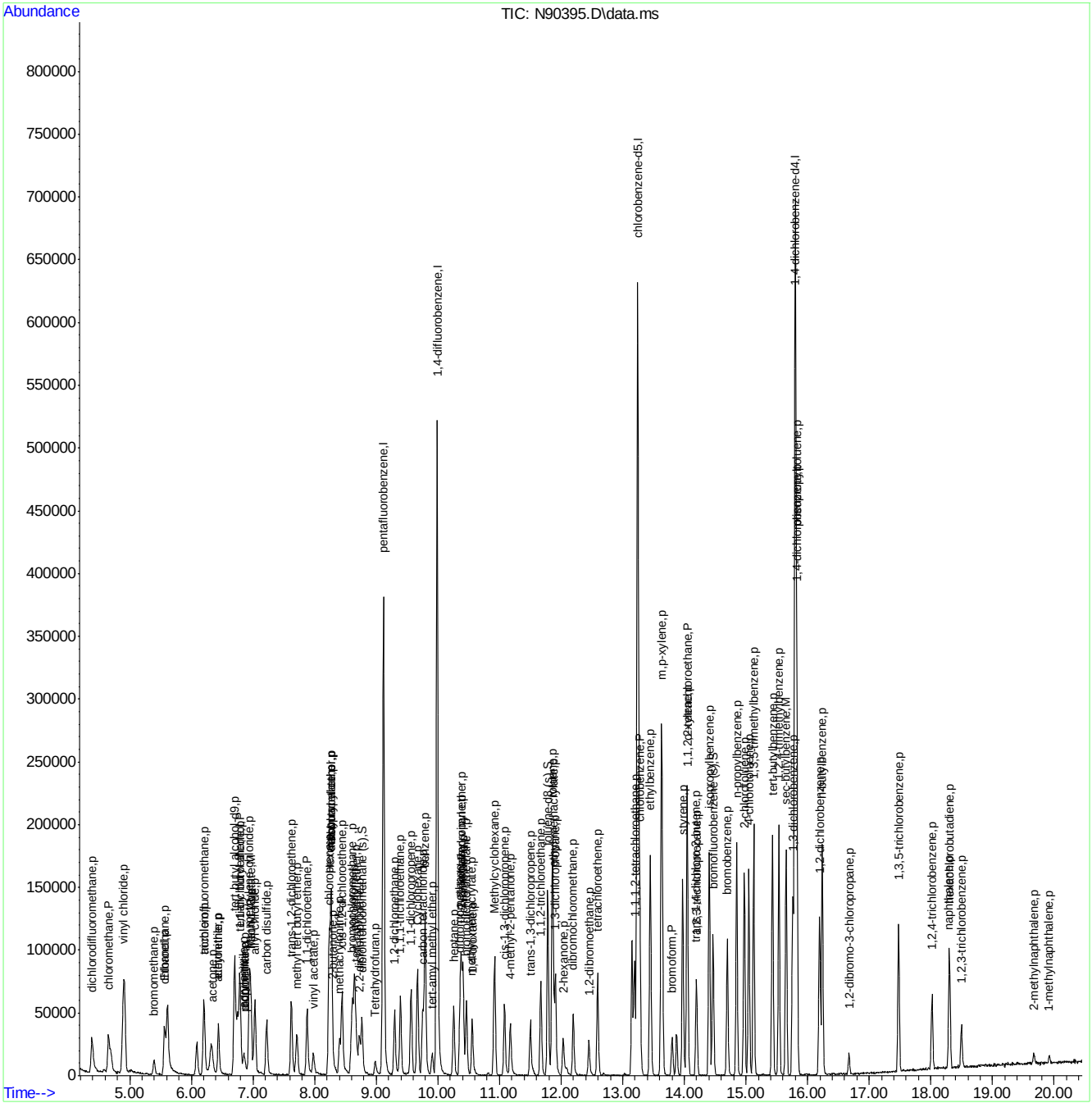
7.6.5

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90395.D
Acq On : 18 Sep 2014 6:00 pm
Operator : krystend
Sample : IC3345-10
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 25 Sample Multiplier: 1

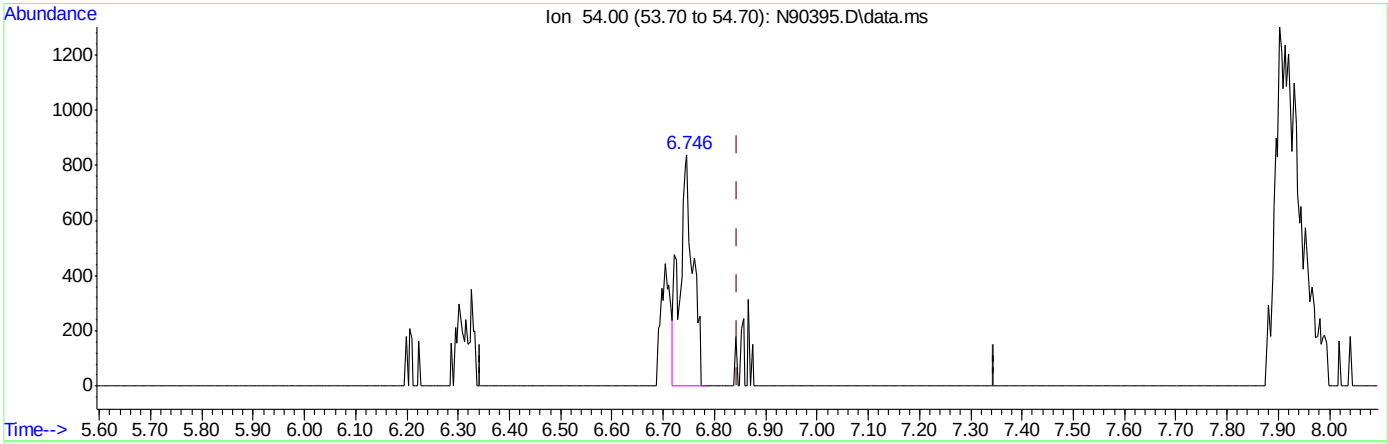
Quant Time: Sep 19 09:22:13 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:21:41 2014
Response via : Initial Calibration

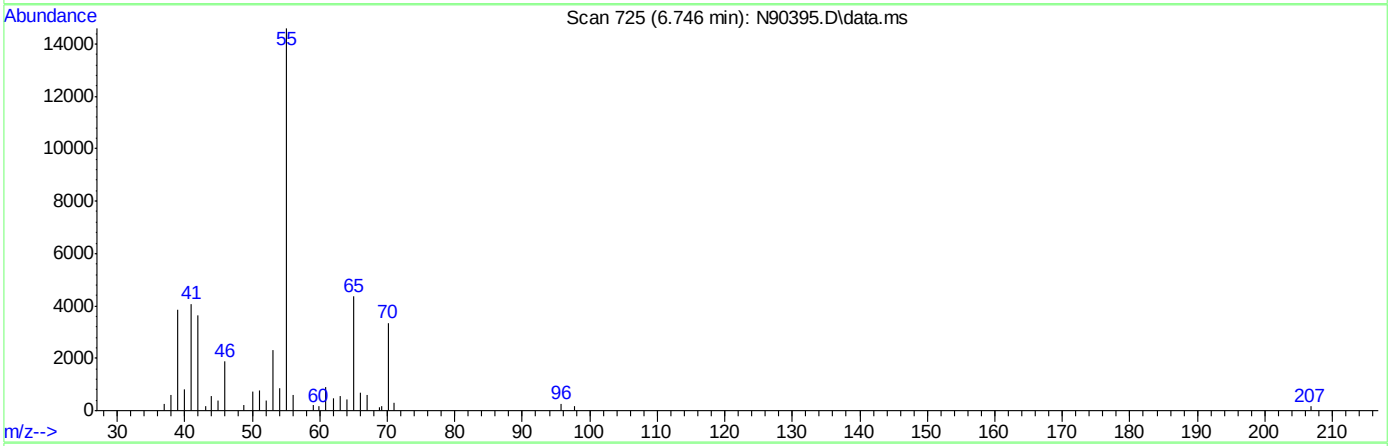


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90395.D
Acq On : 18 Sep 2014 6:00 pm
Operator : krystend
Sample : IC3345-10
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 09:21:52 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:21:41 2014
Response via : Initial Calibration





TIC: N90395.D\data.ms

(25) propionitrile (p)

6.746min (-0.099) 58.32ug/L

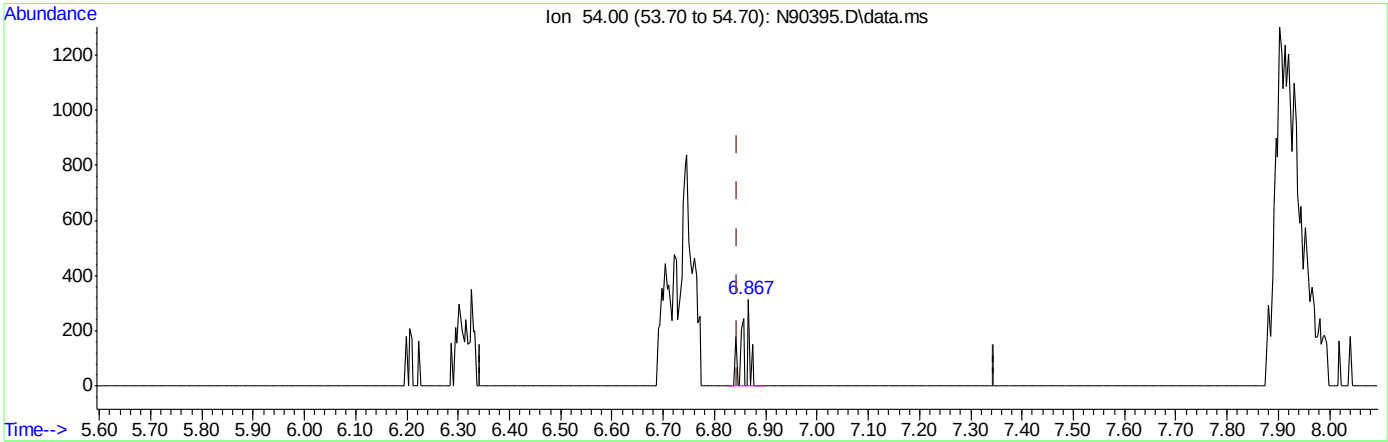
response 1464

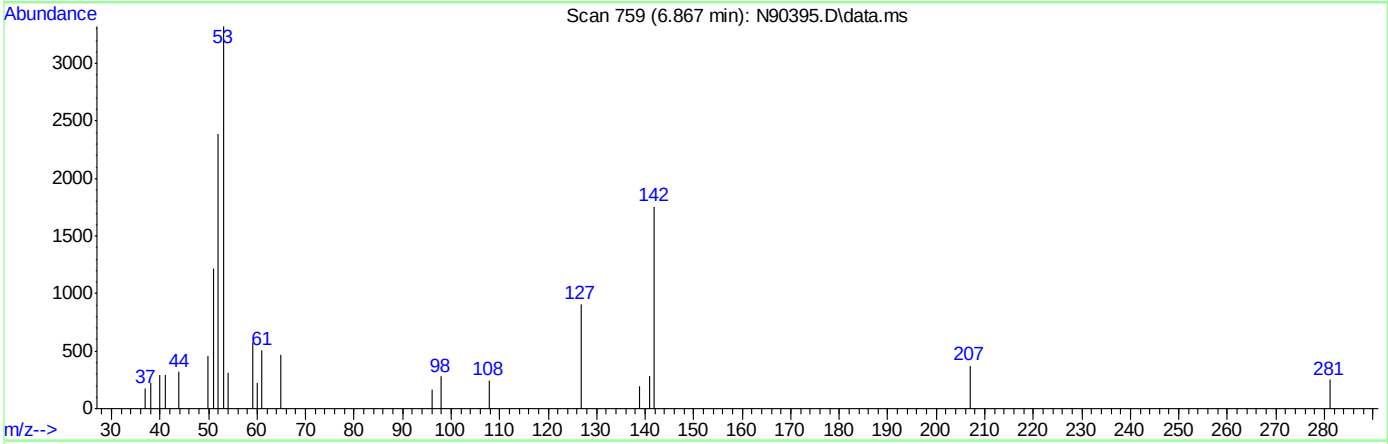
Ion	Exp%	Act%
54.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90395.D
Acq On : 18 Sep 2014 6:00 pm
Operator : krystend
Sample : IC3345-10
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 09:21:52 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:21:41 2014
Response via : Initial Calibration





TIC: N90395.D\data.ms

(25) propionitrile (p)

6.867min (+0.022) 9.28ug/L m

response 233

Ion	Exp%	Act%
54.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/19/14 12:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 11:45:04 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.701	65	120614	500.00	ug/L		0.00
4) pentafluorobenzene	9.115	168	269555	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	416772	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	236720	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	182873	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.772	113	68146	24.21	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 48.42%#				
60) toluene-d8 (s)	11.784	98	261827	25.56	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 51.12%#				
82) bromofluorobenzene (s)	14.464	95	106932	23.35	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 46.70%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.782	59	106832	251.98	ug/L	#	100
3) Ethanol	5.569	45	143564	2210.06	ug/L		99
5) dichlorodifluoromethane	4.392	85	108337	32.92	ug/L		99
6) chloromethane	4.654	50	117106	27.96	ug/L		97
7) vinyl chloride	4.894	62	86744m	22.05	ug/L		
8) bromomethane	5.392	96	29142	32.29	ug/L		91
9) chloroethane	5.566	64	50784	28.40	ug/L		98
10) ethyl ether	6.432	59	71425	25.20	ug/L		95
11) acetonitrile	6.428	41	13004	28.86	ug/L		95
12) trichlorofluoromethane	6.206	101	137908	26.89	ug/L		96
13) freon-113	6.966	101	66715	32.73	ug/L		95
14) acrolein	6.202	56	44259	126.88	ug/L		92
15) 1,1-dichloroethene	6.785	96	59783	23.22	ug/L		97
16) acetone	6.333	58	16952	25.92	ug/L	#	71
17) Methyl Acetate	6.966	43	69044	27.13	ug/L	#	94
18) methylene chloride	6.944	84	74505	24.50	ug/L		89
19) methyl tert butyl ether	7.705	73	200510	39.68	ug/L		96
20) acrylonitrile	6.849	53	34793	27.42	ug/L		90
21) allyl chloride	7.029	41	140420	27.86	ug/L		94
22) trans-1,2-dichloroethene	7.623	96	66641	23.46	ug/L		93
23) iodomethane	6.856	142	26748	29.08	ug/L		95
24) carbon disulfide	7.224	76	215554	29.51	ug/L		98
25) propionitrile	6.842	54	1003m	39.21	ug/L		
26) vinyl acetate	7.970	43	105054	30.71	ug/L		98
27) chloroprene	8.235	53	140800	30.18	ug/L		96
28) di-isopropyl ether	8.263	45	362119	25.66	ug/L		96
29) methacrylonitrile	8.401	41	51556	25.33	ug/L		97
30) 2-butanone	8.291	72	9414	30.37	ug/L	#	12
31) Hexane	8.249	41	143049	29.55	ug/L		87
32) 1,1-dichloroethane	7.878	63	167870	24.13	ug/L		94
33) tert-butyl ethyl ether	8.659	59	181704m	70.00	ug/L		
34) isobutyl alcohol	8.260	43	286914	135.67	ug/L		100
35) 2,2-dichloropropane	8.726	77	117204	52.25	ug/L		99
36) cis-1,2-dichloroethene	8.443	96	75927	23.58	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 11:45:04 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.260	43	283186	27.56	ug/L		98
38) bromochloromethane	8.613	128	34175	26.51	ug/L		92
39) chloroform	8.645	83	147660	23.15	ug/L		98
41) Tetrahydrofuran	8.977	42	24818	27.13	ug/L		98
42) 1,1,1-trichloroethane	9.394	97	134617	33.38	ug/L		97
44) Cyclohexane	9.670	56	166174	32.50	ug/L		96
45) carbon tetrachloride	9.759	117	113386	29.06	ug/L		98
46) 1,1-dichloropropene	9.568	75	103088	30.07	ug/L		98
47) benzene	9.794	78	289268	22.35	ug/L		100
48) 1,2-dichloroethane	9.299	62	138871	23.05	ug/L		97
49) tert-amyl methyl ether	9.903	73	98393	52.35	ug/L		96
50) heptane	10.257	43	98465	31.84	ug/L		90
51) trichloroethene	10.409	95	87170	22.60	ug/L		97
52) 1,2-dichloropropane	10.374	63	93646	26.90	ug/L		100
53) dibromomethane	10.356	93	47095	26.09	ug/L		98
54) bromodichloromethane	10.462	83	113562	24.84	ug/L		97
55) Methylcyclohexane	10.922	83	121705	32.60	ug/L		95
56) 2-chloroethyl vinyl ether	10.374	63	93646	27.51	ug/L	#	98
57) methyl methacrylate	10.554	69	43779	28.13	ug/L	#	77
58) 1,4-dioxane	10.554	88	3404	157.76	ug/L		82
59) cis-1,3-dichloropropene	11.081	75	118669	38.04	ug/L		100
61) 4-methyl-2-pentanone	11.173	43	93859	27.75	ug/L		95
62) toluene	11.859	92	186586	24.28	ug/L		94
63) trans-1,3-dichloropropene	11.498	75	100993	31.36	ug/L		97
64) 1,1,2-trichloroethane	11.671	83	57148	23.36	ug/L		99
65) ethyl methacrylate	11.869	69	86783	28.93	ug/L		88
67) tetrachloroethene	12.590	166	72359	22.21	ug/L		98
68) 1,3-dichloropropane	11.904	76	118265	25.92	ug/L		100
69) dibromochloromethane	12.198	129	77666	24.01	ug/L		96
70) 1,2-dibromoethane	12.449	107	65527	25.48	ug/L		93
71) 2-hexanone	12.025	43	78190	27.18	ug/L		95
72) chlorobenzene	13.276	112	199271	22.43	ug/L		96
73) 1,1,1,2-tetrachloroethane	13.191	131	74429	23.90	ug/L		95
74) ethylbenzene	13.446	91	377929	23.27	ug/L		99
75) m,p-xylene	13.633	106	262473	44.16	ug/L		97
76) o-xylene	14.047	106	128847	21.85	ug/L		98
77) styrene	13.973	104	207891	27.07	ug/L		99
78) bromoform	13.799	173	45255	24.13	ug/L		97
79) trans-1,4-dichloro-2-b...	14.195	53	20420	33.29	ug/L	#	83
81) isopropylbenzene	14.404	105	346975	27.50	ug/L		99
83) bromobenzene	14.697	156	78466	25.87	ug/L		94
84) 1,1,2,2-tetrachloroethane	14.047	83	80326	20.47	ug/L		93
85) 1,2,3-trichloropropane	14.195	75	85102	27.17	ug/L		99
86) n-propylbenzene	14.846	91	448308	27.74	ug/L		99
87) 2-chlorotoluene	14.973	91	274255	26.12	ug/L		100
88) 4-chlorotoluene	15.047	91	289963	26.28	ug/L		98
89) 1,3,5-trimethylbenzene	15.125	105	317710	23.07	ug/L		98
90) tert-butylbenzene	15.429	91	205705	27.82	ug/L		99
91) 1,2,4-trimethylbenzene	15.535	105	312329	22.83	ug/L		99
92) sec-butylbenzene	15.648	105	397173	28.11	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 11:45:04 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration

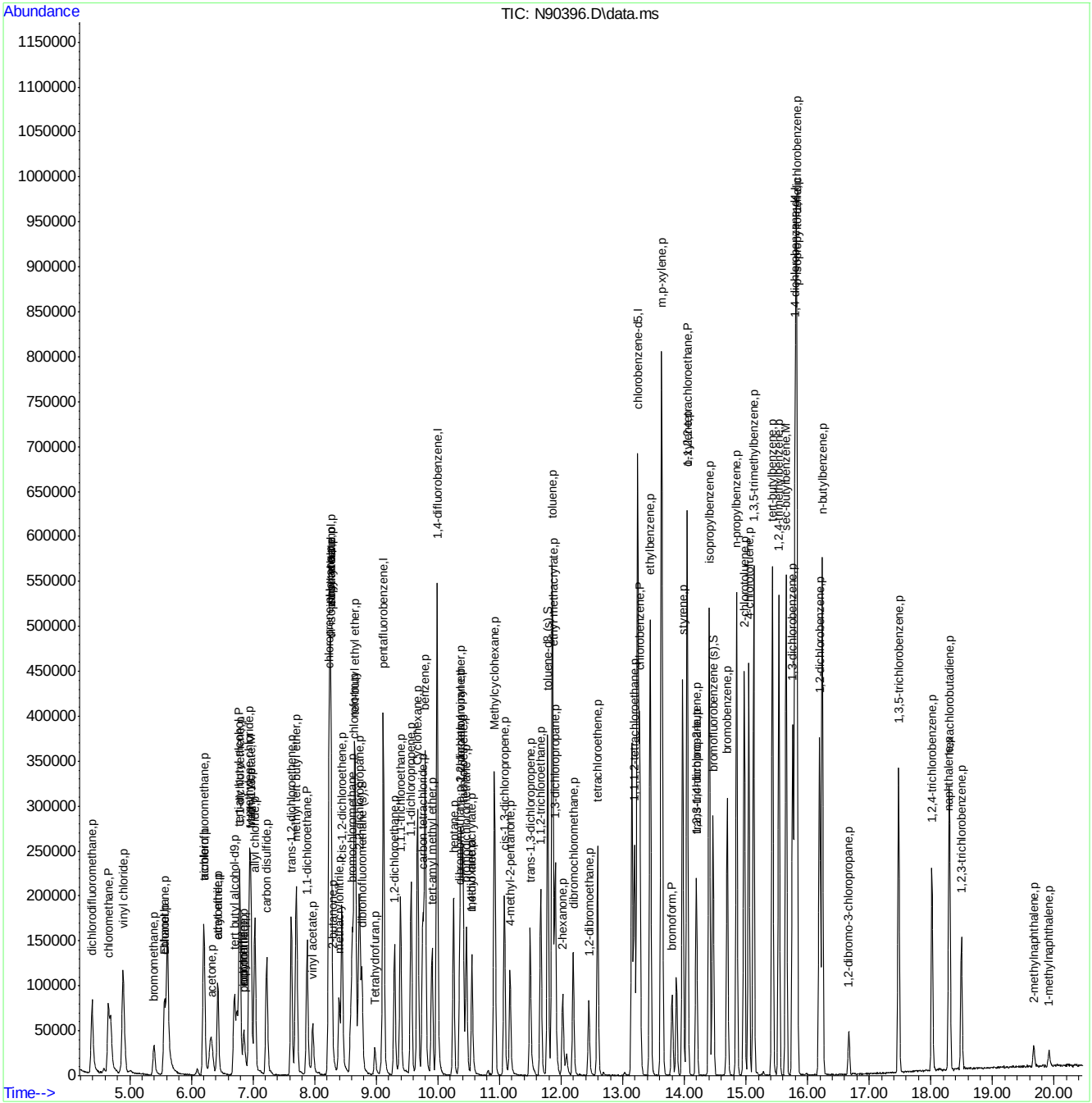
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	152517	21.14	ug/L		97
94) p-isopropyltoluene	15.822	119	327476	27.47	ug/L		99
95) 1,4-dichlorobenzene	15.825	146	149300	20.52	ug/L		97
96) 1,2-dichlorobenzene	16.193	146	150865	22.53	ug/L		98
97) n-butylbenzene	16.239	91	339391	28.57	ug/L		99
98) 1,2-dibromo-3-chloropr...	16.667	75	14448	29.95	ug/L		92
99) 1,2,4-trichlorobenzene	18.017	180	70970	32.41	ug/L		99
100) 1,3,5-trichlorobenzene	17.476	180	105304	26.79	ug/L		98
101) hexachlorobutadiene	18.303	225	54373	27.80	ug/L		96
102) naphthalene	18.289	128	81792	38.69	ug/L		100
103) 1,2,3-trichlorobenzene	18.498	180	48696	35.26	ug/L		93
104) 2-methylnaphthalene	19.672	142	13906	13.97	ug/L	#	100
105) 1-methylnaphthalene	19.919	142	9742	12.25	ug/L		94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

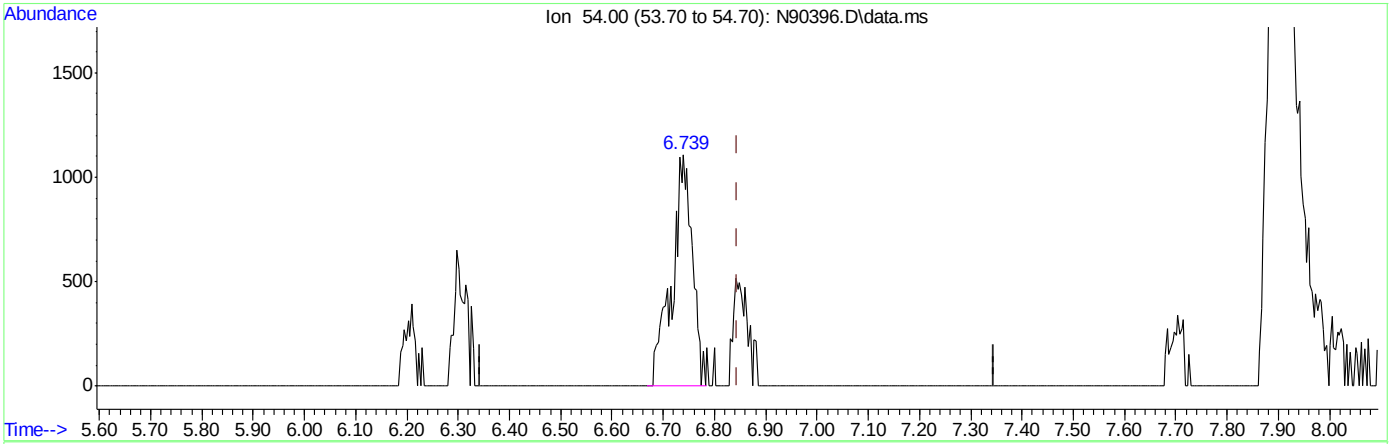
Quant Time: Sep 19 11:45:04 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration

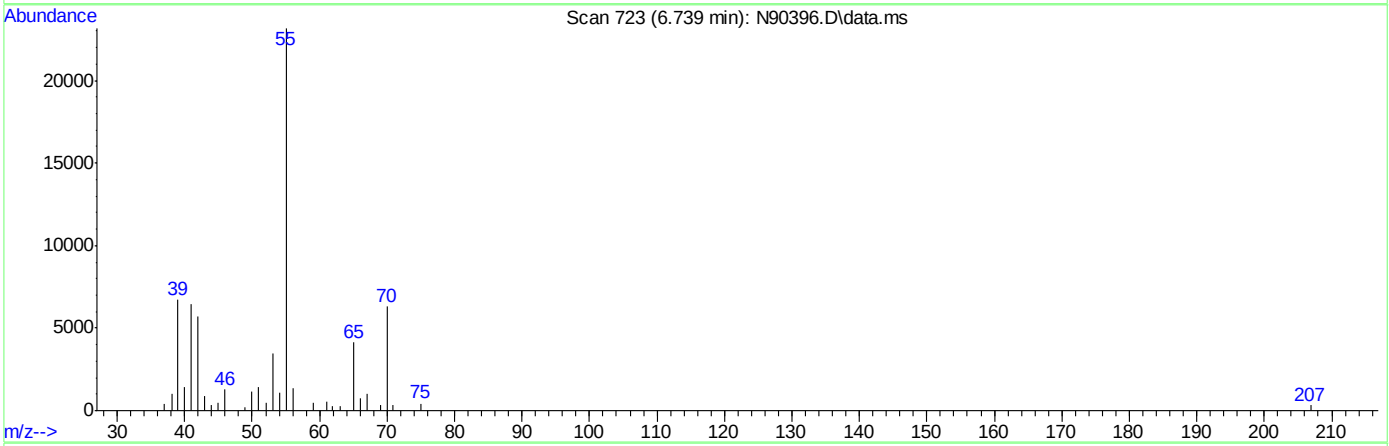


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 09:23:10 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration





TIC: N90396.D\data.ms

(25) propionitrile (p)

6.739min (-0.106) 118.92ug/L

response 3042

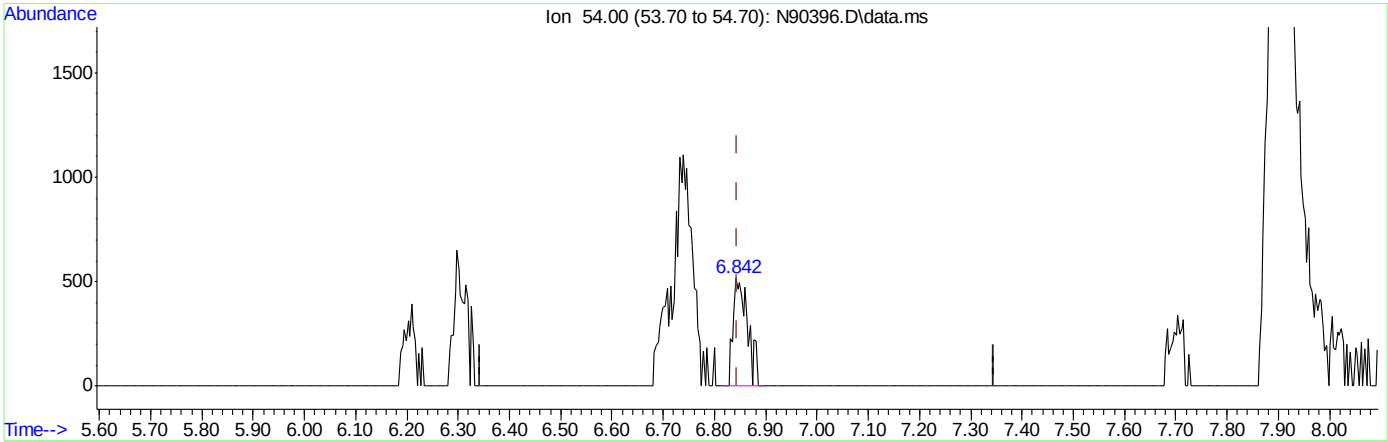
Ion	Exp%	Act%
54.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

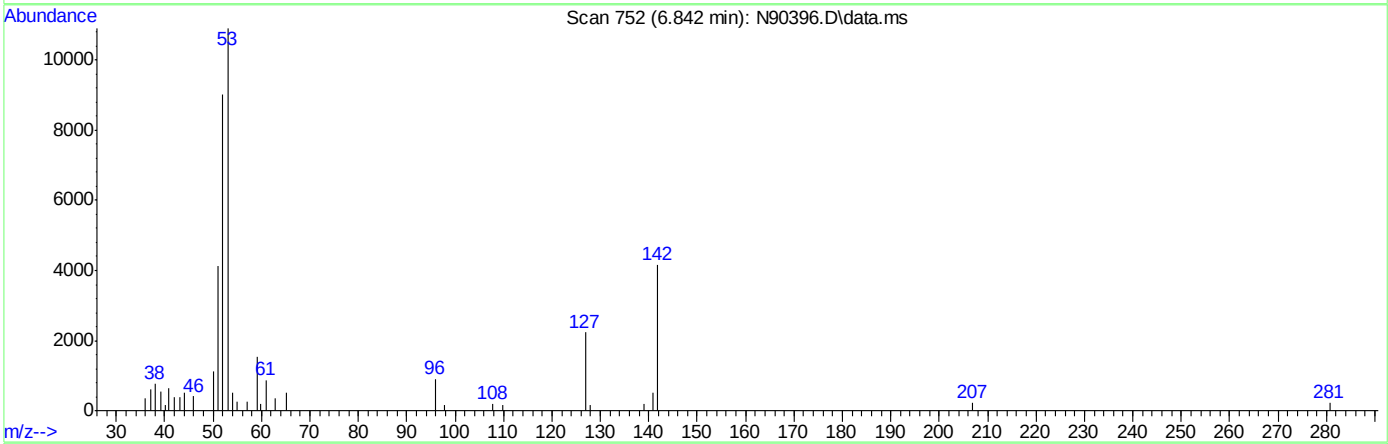
N90396.D edits: propionitrile

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 09:23:10 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration





TIC: N90396.D\data.ms

(25) propionitrile (p)

6.842min (-0.003) 39.21ug/L m

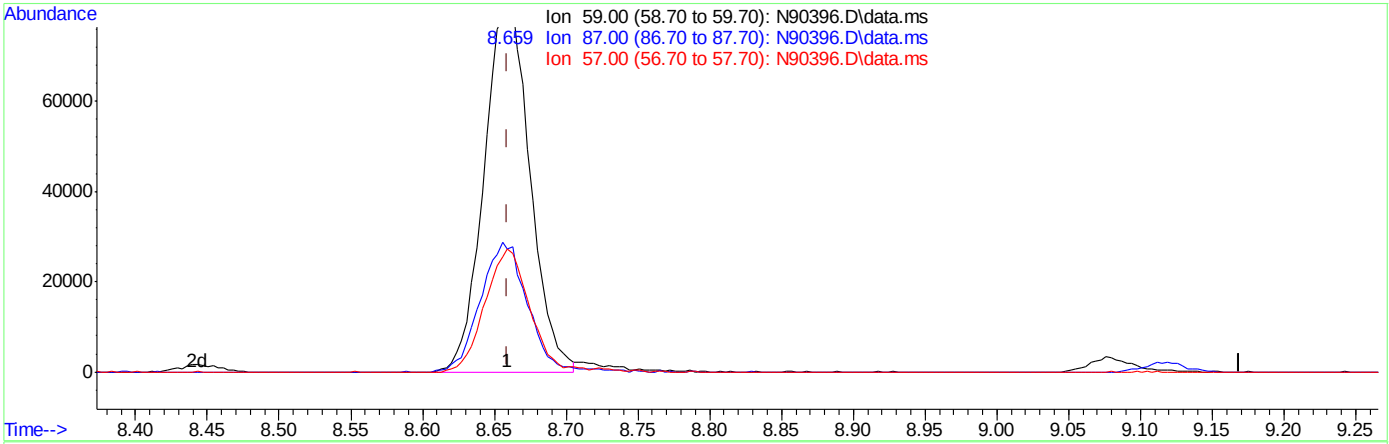
response 1003

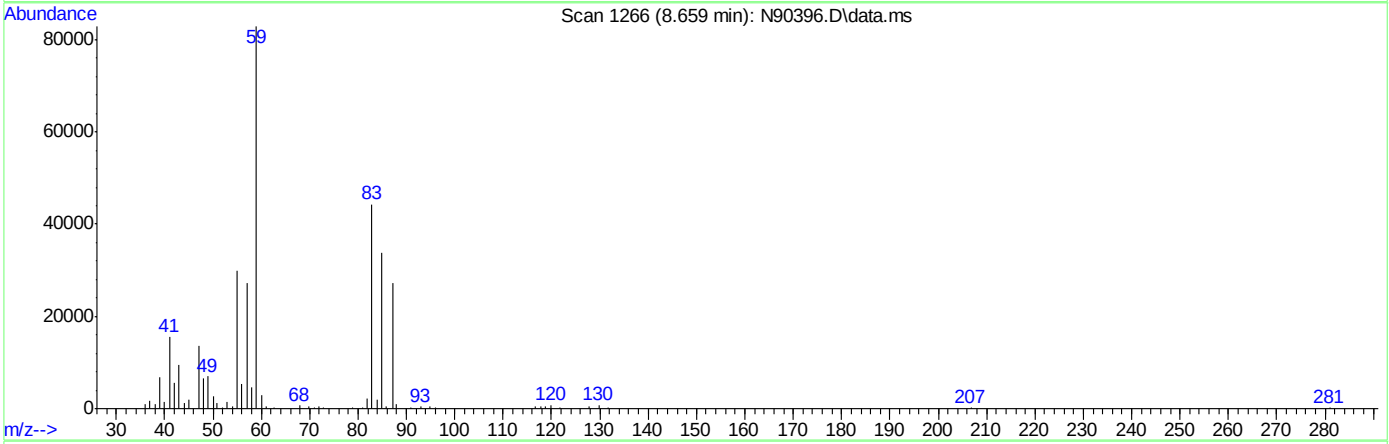
Ion	Exp%	Act%
54.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 09:54:37 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration





TIC: N90396.D\data.ms

(33) tert-butyl ethyl ether (p)

8.659min (+0.000) 70.00ug/L m

response 181704

Ion	Exp%	Act%
59.00	100	100
87.00	36.60	32.97
57.00	28.30	32.73
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33841

N90397.D

Manual Integrations APPROVED (compounds with "m" flag)

Tomasz Torski 09/19/14 12:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90397.D
Acq On : 18 Sep 2014 6:59 pm
Operator : krystend
Sample : ICC3345-50
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 19 09:35:43 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:29:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.693	65	106714	500.00	ug/L		0.00
4) pentafluorobenzene	9.115	168	281457	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	439257	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	245477	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	192160	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.765	113	149849	51.89	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.78%				
60) toluene-d8 (s)	11.784	98	569513	54.06	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 108.12%				
82) bromofluorobenzene (s)	14.460	95	239740	51.17	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 102.34%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.778	59	178874	476.77	ug/L	#	100
3) Ethanol	5.562	45	256631	4696.59	ug/L		100
5) dichlorodifluoromethane	4.392	85	206560	55.73	ug/L		98
6) chloromethane	4.650	50	211740	46.61	ug/L		98
7) vinyl chloride	4.890	62	159184	44.39	ug/L		100
8) bromomethane	5.389	96	65724	51.61	ug/L		97
9) chloroethane	5.566	64	88569	48.70	ug/L		99
10) ethyl ether	6.432	59	140520	51.00	ug/L		93
11) acetonitrile	6.432	41	23300	53.28	ug/L		97
12) trichlorofluoromethane	6.205	101	263802	49.79	ug/L		99
13) freon-113	6.962	101	131158	55.71	ug/L		95
14) acrolein	6.202	56	87100	271.20	ug/L		98
15) 1,1-dichloroethene	6.785	96	112259	44.93	ug/L		91
16) acetone	6.336	58	27850	47.66	ug/L		90
17) Methyl Acetate	6.958	43	120617	51.27	ug/L		95
18) methylene chloride	6.941	84	132628	45.35	ug/L		88
19) methyl tert butyl ether	7.704	73	355716	57.25	ug/L		94
20) acrylonitrile	6.845	53	63219	51.82	ug/L		93
21) allyl chloride	7.029	41	265155	50.75	ug/L		92
22) trans-1,2-dichloroethene	7.620	96	131390	46.50	ug/L		94
23) iodomethane	6.859	142	73206m	46.09	ug/L		
24) carbon disulfide	7.220	76	409043	50.28	ug/L		99
25) propionitrile	6.845	54	2222	64.56	ug/L		100
26) vinyl acetate	7.970	43	207683	52.52	ug/L		99
27) chloroprene	8.235	53	275545	54.33	ug/L		92
28) di-isopropyl ether	8.263	45	676008	50.12	ug/L		98
29) methacrylonitrile	8.397	41	97653	49.10	ug/L		92
30) 2-butanone	8.288	72	17611	55.50	ug/L	#	34
31) Hexane	8.249	41	269705	54.36	ug/L		93
32) 1,1-dichloroethane	7.874	63	317674	45.86	ug/L		98
33) tert-butyl ethyl ether	8.659	59	325210	61.83	ug/L		94
34) isobutyl alcohol	8.259	43	538584	263.43	ug/L		99
35) 2,2-dichloropropane	8.730	77	232879	62.14	ug/L		98
36) cis-1,2-dichloroethene	8.443	96	147082	45.71	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90397.D
Acq On : 18 Sep 2014 6:59 pm
Operator : krystend
Sample : ICC3345-50
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 19 09:35:43 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:29:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.259	43	538334	53.46	ug/L		97
38) bromochloromethane	8.613	128	66289	50.33	ug/L		94
39) chloroform	8.645	83	282850	45.70	ug/L		100
41) Tetrahydrofuran	8.977	42	46189	51.89	ug/L		93
42) 1,1,1-trichloroethane	9.394	97	270114	56.93	ug/L		98
44) Cyclohexane	9.674	56	335346	56.26	ug/L		98
45) carbon tetrachloride	9.755	117	226988	52.83	ug/L		98
46) 1,1-dichloropropene	9.568	75	207260	53.70	ug/L		100
47) benzene	9.794	78	551800	43.82	ug/L		97
48) 1,2-dichloroethane	9.299	62	270470	45.88	ug/L		100
49) tert-amyl methyl ether	9.903	73	182725	57.37	ug/L		97
50) heptane	10.257	43	196771	54.62	ug/L		93
51) trichloroethene	10.409	95	169855	45.17	ug/L		95
52) 1,2-dichloropropane	10.377	63	181006	50.47	ug/L		100
53) dibromomethane	10.356	93	88125	48.16	ug/L		98
54) bromodichloromethane	10.462	83	223382	47.37	ug/L		98
55) Methylcyclohexane	10.922	83	248696	56.31	ug/L		96
56) 2-chloroethyl vinyl ether	10.377	63	181006	51.14	ug/L	#	99
57) methyl methacrylate	10.550	69	86698	52.87	ug/L		80
58) 1,4-dioxane	10.557	88	6949	303.99	ug/L	#	75
59) cis-1,3-dichloropropene	11.077	75	233756	60.14	ug/L		99
61) 4-methyl-2-pentanone	11.169	43	177530	52.90	ug/L		94
62) toluene	11.855	92	356132	47.09	ug/L		99
63) trans-1,3-dichloropropene	11.498	75	196378	53.62	ug/L		97
64) 1,1,2-trichloroethane	11.671	83	110046	46.53	ug/L		99
65) ethyl methacrylate	11.865	69	167344	53.64	ug/L		94
67) tetrachloroethene	12.594	166	144901	45.33	ug/L		96
68) 1,3-dichloropropane	11.904	76	230986	49.93	ug/L		97
69) dibromochloromethane	12.194	129	158011	47.79	ug/L		99
70) 1,2-dibromoethane	12.449	107	124011	47.86	ug/L		98
71) 2-hexanone	12.021	43	151222	53.34	ug/L		94
72) chlorobenzene	13.276	112	378269	44.19	ug/L		99
73) 1,1,1,2-tetrachloroethane	13.191	131	145634	46.73	ug/L		97
74) ethylbenzene	13.446	91	734987	46.06	ug/L		100
75) m,p-xylene	13.633	106	490378	86.48	ug/L		98
76) o-xylene	14.047	106	249121	43.96	ug/L		98
77) styrene	13.972	104	409033	49.76	ug/L		99
78) bromoform	13.799	173	91775	47.71	ug/L		93
79) trans-1,4-dichloro-2-b...	14.192	53	41766	54.05	ug/L		99
81) isopropylbenzene	14.404	105	691045	50.73	ug/L		99
83) bromobenzene	14.697	156	155170	48.14	ug/L		98
84) 1,1,2,2-tetrachloroethane	14.047	83	150552	42.35	ug/L		93
85) 1,2,3-trichloropropane	14.192	75	167959	50.97	ug/L		97
86) n-propylbenzene	14.849	91	874622	50.15	ug/L		100
87) 2-chlorotoluene	14.969	91	537322	48.45	ug/L		98
88) 4-chlorotoluene	15.044	91	569106	48.57	ug/L		99
89) 1,3,5-trimethylbenzene	15.125	105	627680	45.90	ug/L		98
90) tert-butylbenzene	15.429	91	413466	51.50	ug/L		98
91) 1,2,4-trimethylbenzene	15.535	105	625962	46.18	ug/L		99
92) sec-butylbenzene	15.652	105	792099	51.69	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90397.D
Acq On : 18 Sep 2014 6:59 pm
Operator : krystend
Sample : ICC3345-50
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 19 09:35:43 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:29:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	306812	43.81	ug/L		98
94) p-isopropyltoluene	15.821	119	650478	51.95	ug/L		100
95) 1,4-dichlorobenzene	15.825	146	292741	43.07	ug/L		97
96) 1,2-dichlorobenzene	16.193	146	304149	46.37	ug/L		98
97) n-butylbenzene	16.235	91	683495	52.62	ug/L		98
98) 1,2-dibromo-3-chloropr...	16.666	75	27754	53.45	ug/L		91
99) 1,2,4-trichlorobenzene	18.017	180	149343	57.58	ug/L		99
100) 1,3,5-trichlorobenzene	17.476	180	210588	52.43	ug/L		99
101) hexachlorobutadiene	18.307	225	107474	52.85	ug/L		99
102) naphthalene	18.289	128	196686	63.37	ug/L		100
103) 1,2,3-trichlorobenzene	18.494	180	106358	61.02	ug/L		90
104) 2-methylnaphthalene	19.668	142	28564	26.97	ug/L	#	100
105) 1-methylnaphthalene	19.915	142	21661	27.37	ug/L		99

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

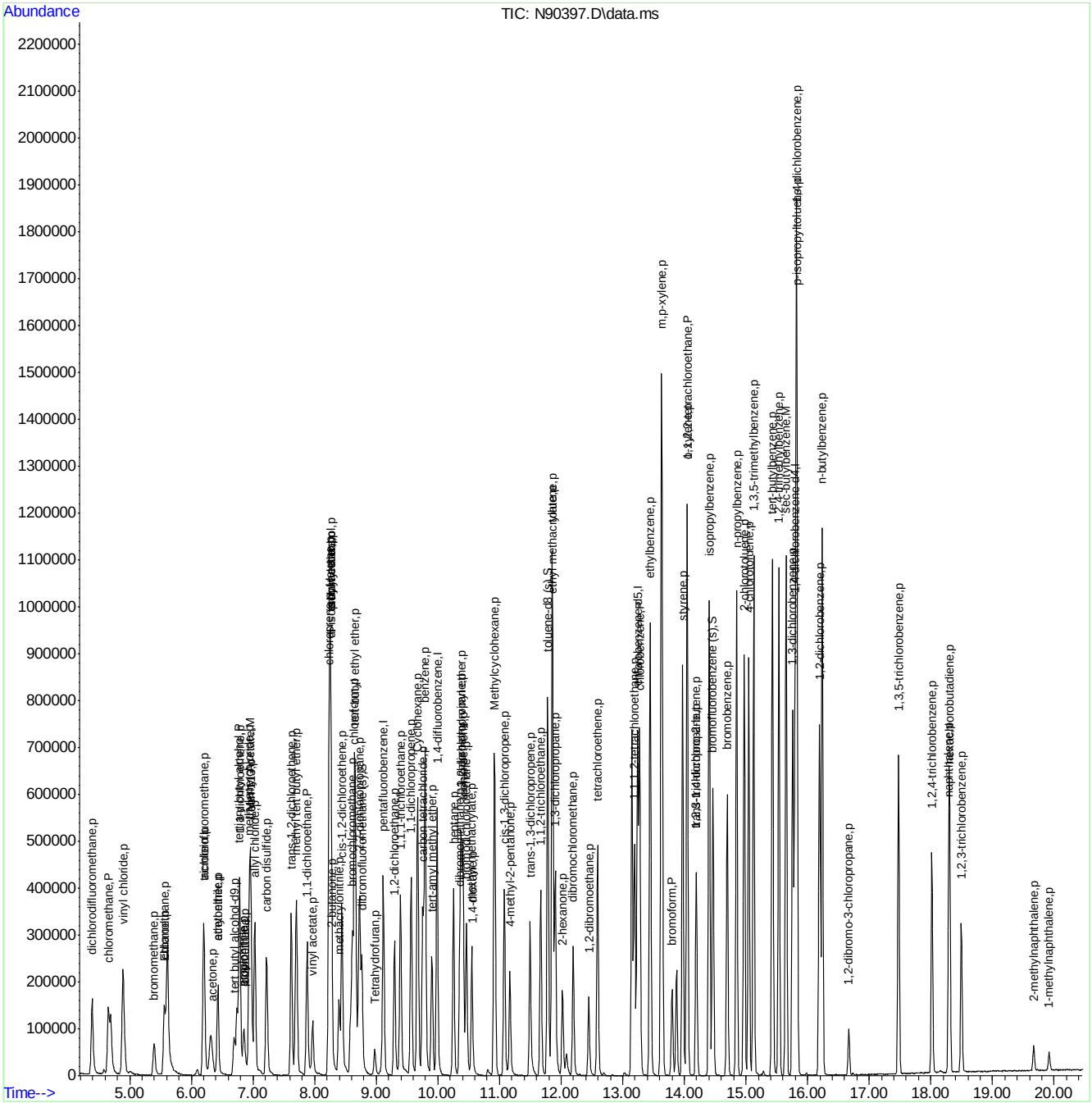
7.6.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90397.D
Acq On : 18 Sep 2014 6:59 pm
Operator : krystend
Sample : ICC3345-50
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 19 09:35:43 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:29:04 2014
Response via : Initial Calibration

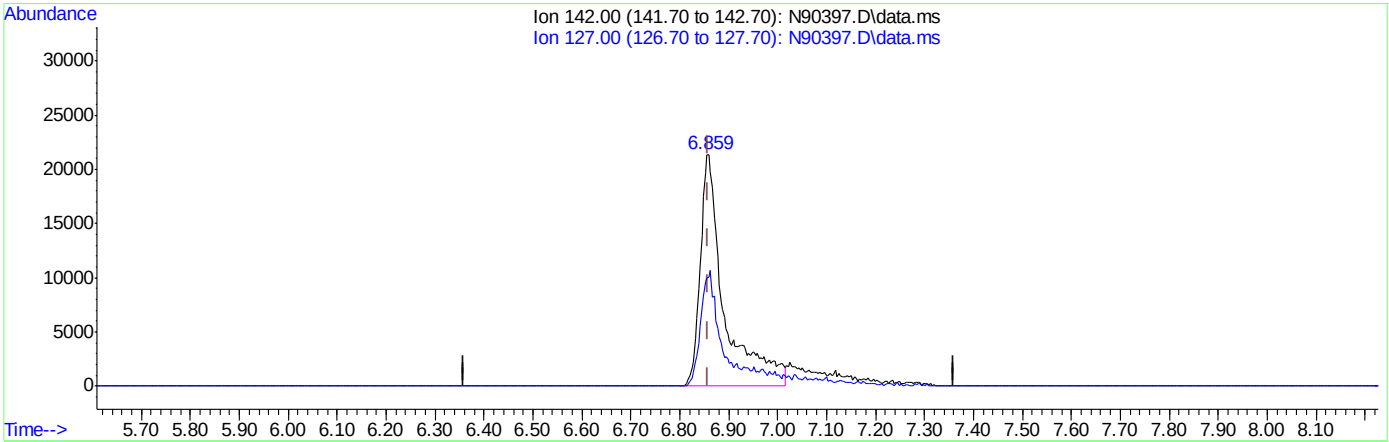


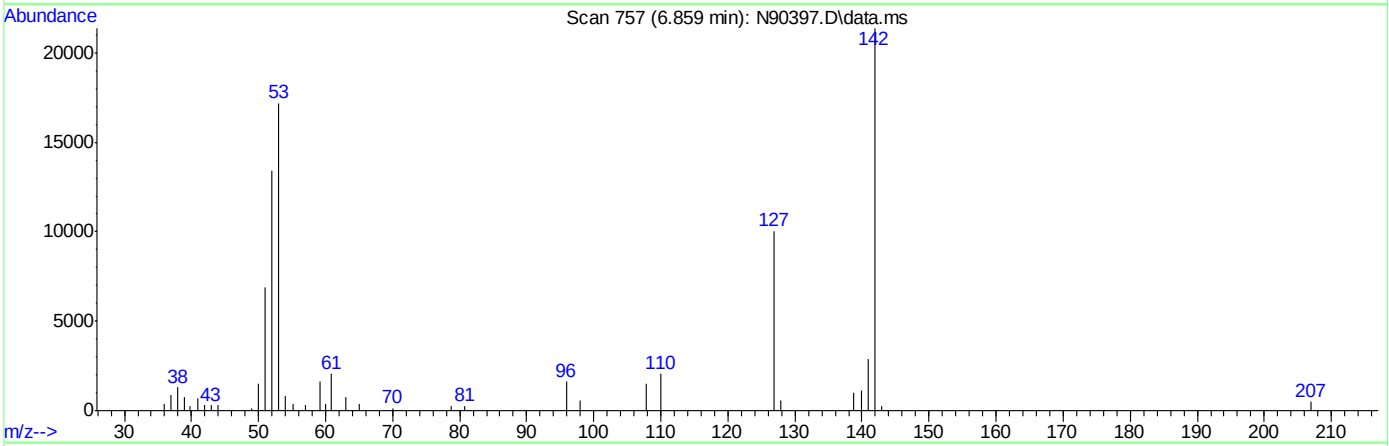
n140918w.m Fri Sep 19 12:06:51 2014 Page: 4

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90397.D
Acq On : 18 Sep 2014 6:59 pm
Operator : krystend
Sample : ICC3345-50
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 19 09:29:16 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:29:04 2014
Response via : Initial Calibration





TIC: N90397.D\data.ms

(23) iodomethane (p)

6.859min (+0.000) 46.09ug/L m

response 73206

Ion	Exp%	Act%
142.00	100	100
127.00	47.30	47.07
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33841

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski 09/19/14 12:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:36:06 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.690	65	86941	500.00	ug/L		0.00
4) pentafluorobenzene	9.111	168	321164	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	503335	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	272919	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.793	152	222509	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.765	113	340784	102.44	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 204.88%#				
60) toluene-d8 (s)	11.781	98	1260602	101.33	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 202.66%#				
82) bromofluorobenzene (s)	14.464	95	550022	100.37	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 200.74%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.775	59	321546	1050.49	ug/L	#	100
3) Ethanol	5.555	45	466743	10204.72	ug/L		99
5) dichlorodifluoromethane	4.388	85	484826	116.27	ug/L		95
6) chloromethane	4.650	50	546668	107.01	ug/L		94
7) vinyl chloride	4.890	62	369002	80.03	ug/L		98
8) bromomethane	5.396	96	192798	169.42	ug/L		99
9) chloroethane	5.562	64	202535	92.55	ug/L		99
10) ethyl ether	6.428	59	298590	88.23	ug/L		93
11) acetonitrile	6.428	41	45145	80.97	ug/L		98
12) trichlorofluoromethane	6.198	101	612431	98.98	ug/L		98
13) freon-113	6.962	101	289946	110.83	ug/L		99
14) acrolein	6.195	56	161817	387.88	ug/L		99
15) 1,1-dichloroethene	6.785	96	261306	86.21	ug/L		89
16) acetone	6.329	58	54794	69.67	ug/L	#	80
17) Methyl Acetate	6.955	43	243399	78.60	ug/L		96
18) methylene chloride	6.937	84	301121	83.45	ug/L		96
19) methyl tert butyl ether	7.701	73	816114	123.48	ug/L		97
20) acrylonitrile	6.842	53	128825	83.19	ug/L		97
21) allyl chloride	7.029	41	611548	99.00	ug/L		96
22) trans-1,2-dichloroethene	7.620	96	304835	91.00	ug/L		95
23) iodomethane	6.859	142	221764m	194.44	ug/L		
24) carbon disulfide	7.220	76	967448	106.36	ug/L		99
25) propionitrile	6.838	54	4877	140.10	ug/L		100
26) vinyl acetate	7.966	43	497804	115.54	ug/L		97
27) chloroprene	8.231	53	624373	106.79	ug/L		92
28) di-isopropyl ether	8.259	45	1480791	87.60	ug/L		97
29) methacrylonitrile	8.390	41	217812	89.52	ug/L		93
30) 2-butanone	8.274	72	36852	94.69	ug/L	#	37
31) Hexane	8.245	41	588275	97.56	ug/L		97
32) 1,1-dichloroethane	7.874	63	746004	90.54	ug/L		97
33) tert-butyl ethyl ether	8.655	59	816527	192.21	ug/L		95
34) isobutyl alcohol	8.256	43	1152942	448.00	ug/L		96
35) 2,2-dichloropropane	8.730	77	561197	165.01	ug/L		99
36) cis-1,2-dichloroethene	8.443	96	350075	92.12	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:36:06 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.256	43	1152942	91.82	ug/L		94
38) bromochloromethane	8.609	128	156904	100.64	ug/L		90
39) chloroform	8.645	83	659697	87.90	ug/L		98
41) Tetrahydrofuran	8.974	42	98393	88.40	ug/L		93
42) 1,1,1-trichloroethane	9.391	97	642494	126.64	ug/L		98
44) Cyclohexane	9.674	56	783611	118.04	ug/L		97
45) carbon tetrachloride	9.755	117	548283	113.27	ug/L		100
46) 1,1-dichloropropene	9.564	75	486561	111.85	ug/L		98
47) benzene	9.790	78	1323933	86.02	ug/L		98
48) 1,2-dichloroethane	9.295	62	643920	89.67	ug/L		99
49) tert-amyl methyl ether	9.903	73	421873	152.49	ug/L		95
50) heptane	10.253	43	467240	117.09	ug/L		93
51) trichloroethene	10.405	95	397347	86.49	ug/L		95
52) 1,2-dichloropropane	10.377	63	430101	100.76	ug/L		100
53) dibromomethane	10.352	93	208342	94.74	ug/L		97
54) bromodichloromethane	10.462	83	555698	100.74	ug/L		97
55) Methylcyclohexane	10.922	83	577325	118.99	ug/L		99
56) 2-chloroethyl vinyl ether	10.377	63	430101	102.05	ug/L	#	99
57) methyl methacrylate	10.547	69	196817	101.53	ug/L		82
58) 1,4-dioxane	10.561	88	13407	482.86	ug/L		91
59) cis-1,3-dichloropropene	11.077	75	571283	141.10	ug/L		99
61) 4-methyl-2-pentanone	11.165	43	375940	89.58	ug/L		95
62) toluene	11.855	92	837499	90.68	ug/L		97
63) trans-1,3-dichloropropene	11.494	75	480193	119.13	ug/L		98
64) 1,1,2-trichloroethane	11.667	83	252218	86.32	ug/L		98
65) ethyl methacrylate	11.865	69	380759	101.13	ug/L		92
67) tetrachloroethene	12.594	166	347962	94.15	ug/L		99
68) 1,3-dichloropropane	11.904	76	538093	101.37	ug/L		100
69) dibromochloromethane	12.194	129	384775	103.74	ug/L		96
70) 1,2-dibromoethane	12.449	107	296302	99.56	ug/L		99
71) 2-hexanone	12.021	43	319069	94.15	ug/L		95
72) chlorobenzene	13.273	112	902383	89.65	ug/L		99
73) 1,1,1,2-tetrachloroethane	13.191	131	347623	97.55	ug/L		97
74) ethylbenzene	13.446	91	1757690	94.96	ug/L		99
75) m,p-xylene	13.630	106	1168212	173.36	ug/L		99
76) o-xylene	14.043	106	595192	89.16	ug/L		99
77) styrene	13.969	104	988231	109.36	ug/L		96
78) bromoform	13.799	173	224773	104.55	ug/L		97
79) trans-1,4-dichloro-2-b...	14.188	53	99706	130.20	ug/L	#	81
81) isopropylbenzene	14.400	105	1637531	104.06	ug/L		100
83) bromobenzene	14.694	156	382890	102.86	ug/L		98
84) 1,1,2,2-tetrachloroethane	14.047	83	321843	69.20	ug/L		98
85) 1,2,3-trichloropropane	14.192	75	386362	99.24	ug/L		98
86) n-propylbenzene	14.846	91	2093154	103.62	ug/L		100
87) 2-chlorotoluene	14.969	91	1301367	100.74	ug/L		98
88) 4-chlorotoluene	15.044	91	1386623	101.98	ug/L		99
89) 1,3,5-trimethylbenzene	15.121	105	1510453	91.32	ug/L		100
90) tert-butylbenzene	15.429	91	980280	105.97	ug/L		99
91) 1,2,4-trimethylbenzene	15.535	105	1493723	91.05	ug/L		97
92) sec-butylbenzene	15.648	105	1876508	105.85	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:36:06 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	746124	87.23	ug/L		98
94) p-isopropyltoluene	15.818	119	1528773	102.85	ug/L		99
95) 1,4-dichlorobenzene	15.825	146	688495	80.15	ug/L		99
96) 1,2-dichlorobenzene	16.193	146	712980	88.97	ug/L		98
97) n-butylbenzene	16.235	91	1615624	107.93	ug/L		99
98) 1,2-dibromo-3-chloropr...	16.666	75	60415	98.06	ug/L		97
99) 1,2,4-trichlorobenzene	18.017	180	333607	116.57	ug/L		97
100) 1,3,5-trichlorobenzene	17.476	180	472545	97.08	ug/L		99
101) hexachlorobutadiene	18.300	225	234892	96.02	ug/L		97
102) naphthalene	18.289	128	442762	151.42	ug/L		100
103) 1,2,3-trichlorobenzene	18.494	180	228474	123.32	ug/L		98
104) 2-methylnaphthalene	19.668	142	62659	50.25	ug/L	#	100
105) 1-methylnaphthalene	19.915	142	45593	47.35	ug/L		99

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

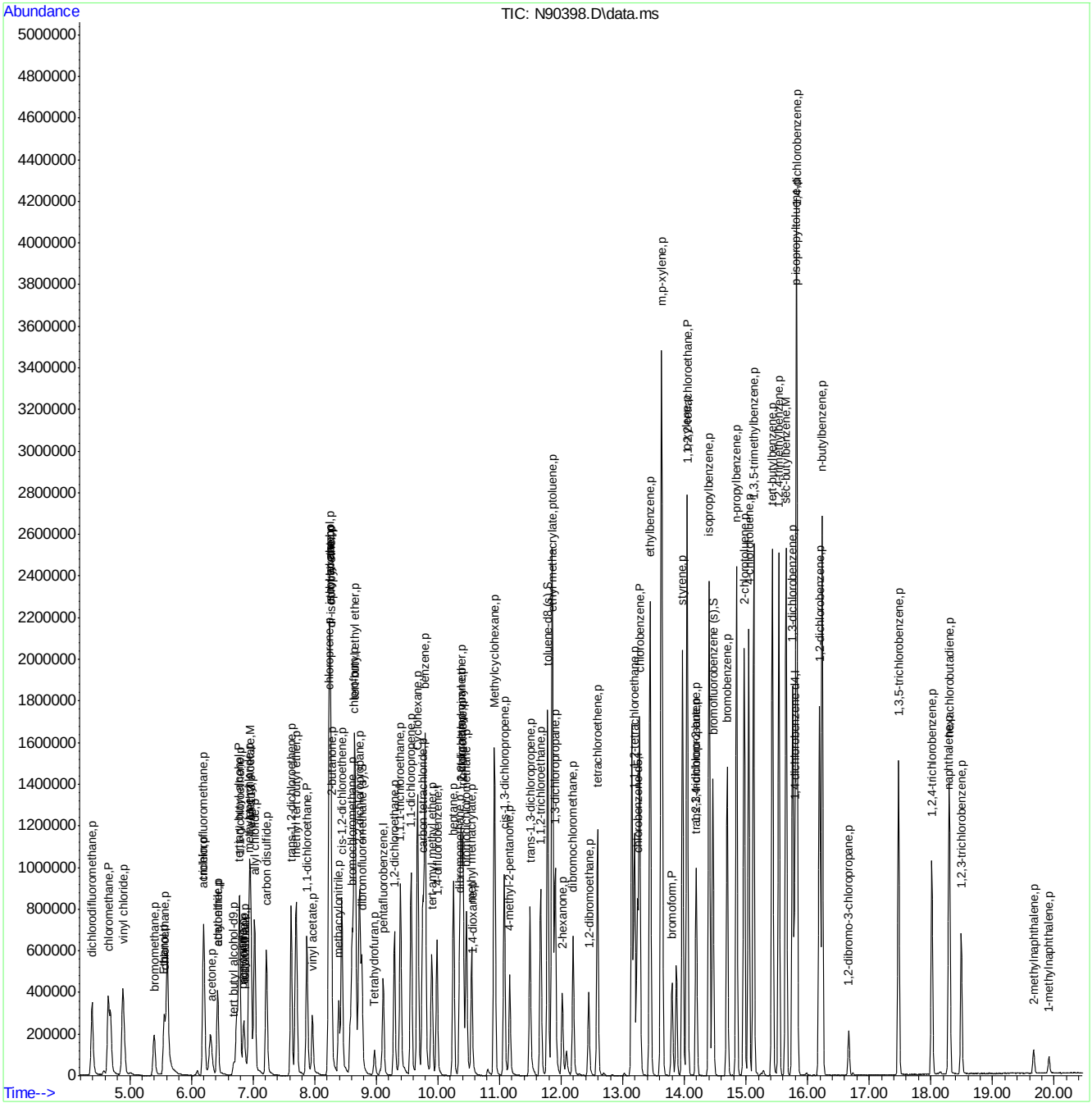
7.6.8

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

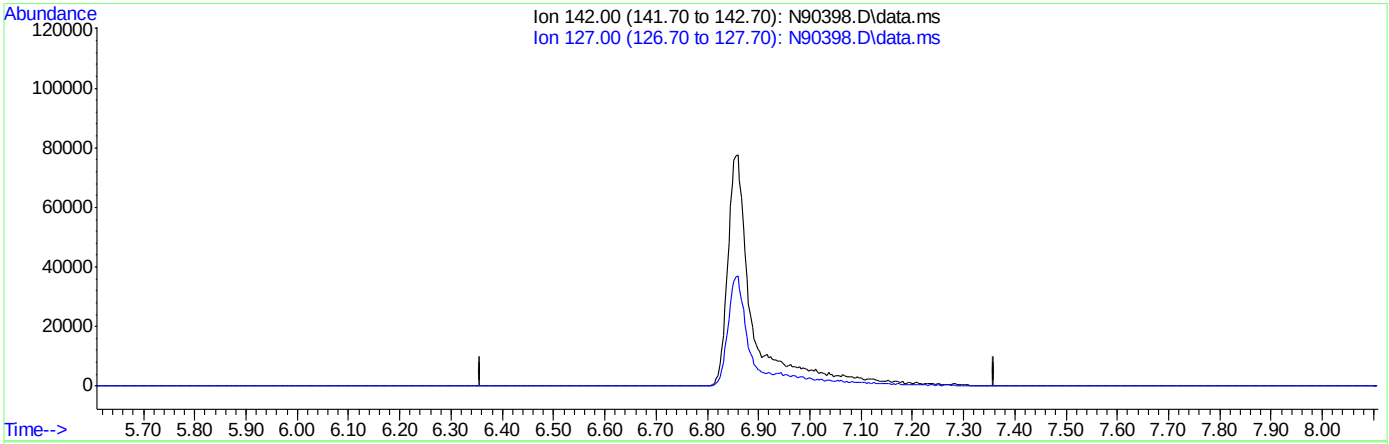
Quant Time: Sep 19 09:36:06 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration

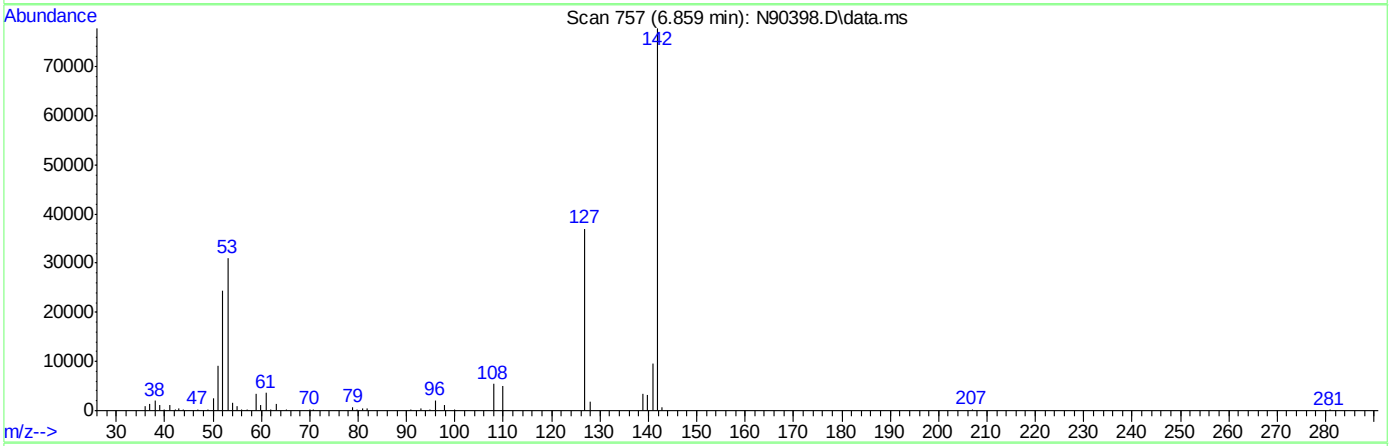


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:24:29 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration





TIC: N90398.D\data.ms

(23) iodomethane (p)

6.859min (-6.859) 0.00ug/L

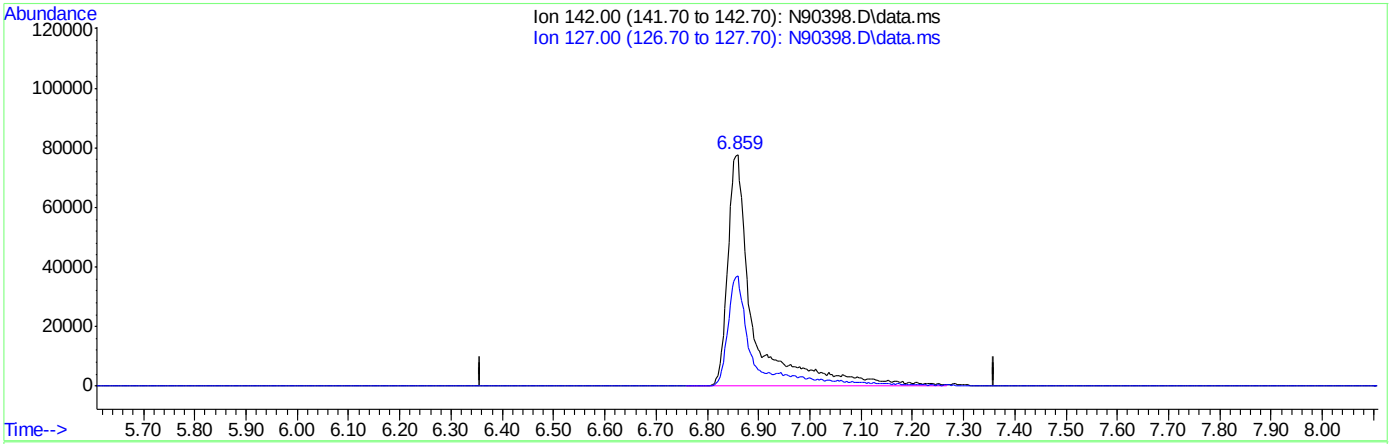
response 0

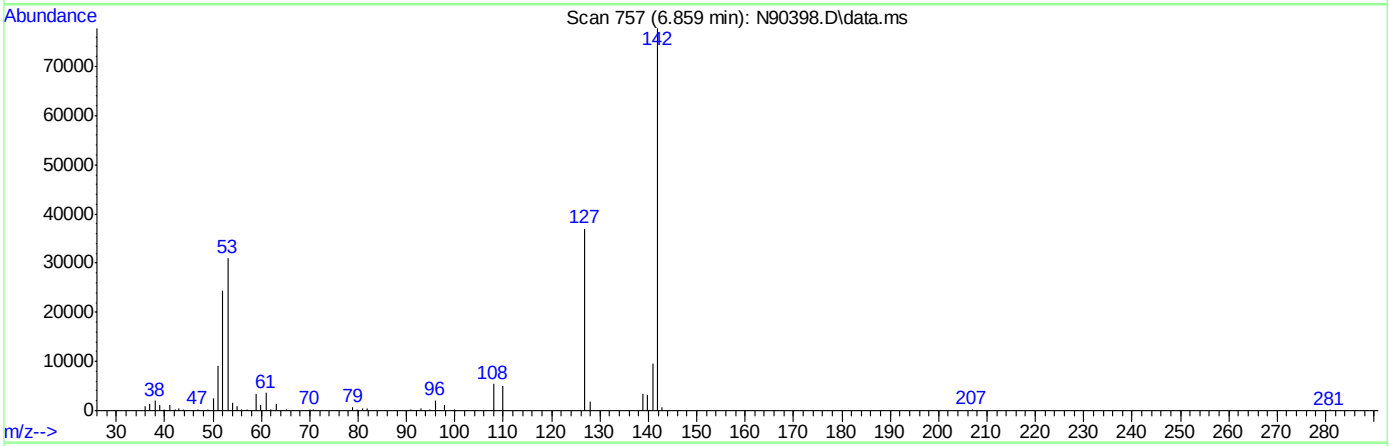
Ion	Exp%	Act%
142.00	100	0.00
127.00	47.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:24:29 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration





TIC: N90398.D\data.ms

(23) iodomethane (p)

6.859min (+0.000) 239.50ug/L m

response 273157

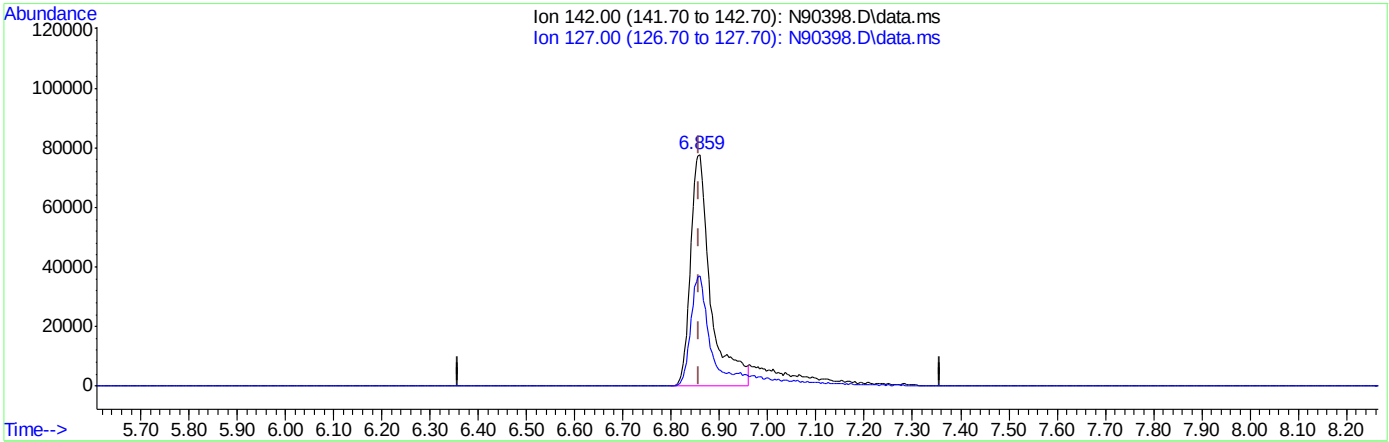
Ion	Exp%	Act%
142.00	100	100
127.00	47.30	47.53
0.00	0.00	0.00
0.00	0.00	0.00

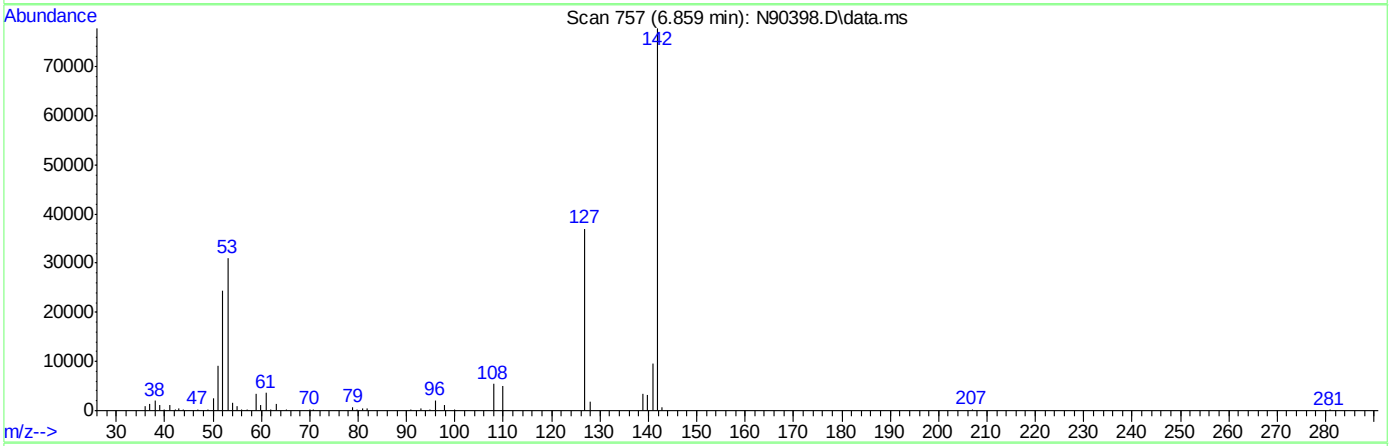
ACCUTEST LABORATORIES MC33841

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:24:47 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration





TIC: N90398.D\data.ms

(23) iodomethane (p)

6.859min (+0.000) 194.44ug/L m

response 221764

Ion	Exp%	Act%
142.00	100	100
127.00	47.30	47.53
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33841

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski 09/19/14 12:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:36:28 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.683	65	84015	500.00	ug/L		-0.01
4) pentafluorobenzene	9.115	168	355487	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.985	114	578959	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	310360	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	241599	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.768	113	743597	200.96	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 401.92%#				
60) toluene-d8 (s)	11.781	98	2673529	186.34	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 372.68%#				
82) bromofluorobenzene (s)	14.460	95	1164646	195.59	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 391.18%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.771	59	602715	2020.64	ug/L	#	100
3) Ethanol	5.558	45	846290m	19082.31	ug/L		
5) dichlorodifluoromethane	4.388	85	970284	204.68	ug/L		96
6) chloromethane	4.650	50	1272600	222.46	ug/L		96
7) vinyl chloride	4.887	62	709805	143.16	ug/L		99
8) bromomethane	5.396	96	455659	324.24	ug/L		96
9) chloroethane	5.562	64	426436	178.27	ug/L		98
10) ethyl ether	6.428	59	639251	174.77	ug/L		94
11) acetonitrile	6.428	41	96008	161.73	ug/L		99
12) trichlorofluoromethane	6.202	101	1319586	192.97	ug/L		99
13) freon-113	6.965	101	650175	219.77	ug/L		98
14) acrolein	6.191	56	341330	773.89	ug/L		92
15) 1,1-dichloroethene	6.782	96	570550	173.48	ug/L		90
16) acetone	6.326	58	117334	143.50	ug/L	#	75
17) Methyl Acetate	6.955	43	483647	147.42	ug/L		96
18) methylene chloride	6.937	84	655037	168.66	ug/L		98
19) methyl tert butyl ether	7.701	73	1837835	243.07	ug/L		98
20) acrylonitrile	6.842	53	260284	157.14	ug/L		98
21) allyl chloride	7.026	41	1315057	192.72	ug/L		97
22) trans-1,2-dichloroethene	7.616	96	681775	186.28	ug/L		98
23) iodomethane	6.856	142	536598m	332.34	ug/L		
24) carbon disulfide	7.220	76	2196280	215.41	ug/L		99
25) propionitrile	6.842	54	10370	249.16	ug/L		100
26) vinyl acetate	7.962	43	1069138	217.44	ug/L		100
27) chloroprene	8.231	53	1341946	204.59	ug/L		94
28) di-isopropyl ether	8.259	45	2965340	161.83	ug/L		93
29) methacrylonitrile	8.390	41	468896	177.83	ug/L		95
30) 2-butanone	8.274	72	73236	171.83	ug/L	#	39
31) Hexane	8.249	41	1209556	182.12	ug/L		90
32) 1,1-dichloroethane	7.874	63	1651702	183.58	ug/L		97
33) tert-butyl ethyl ether	8.655	59	2152404	396.77	ug/L		95
34) isobutyl alcohol	8.259	43	2331503	835.87	ug/L		96
35) 2,2-dichloropropane	8.730	77	1265525	297.50	ug/L		99
36) cis-1,2-dichloroethene	8.440	96	786879	189.20	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:36:28 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	ethyl acetate	8.259	43	2336184	170.88	ug/L		91
38)	bromochloromethane	8.609	128	336356	194.66	ug/L		95
39)	chloroform	8.645	83	1427099	174.82	ug/L		97
41)	Tetrahydrofuran	8.970	42	199285	165.61	ug/L		98
42)	1,1,1-trichloroethane	9.391	97	1409962	241.88	ug/L		99
44)	Cyclohexane	9.673	56	1693487	214.06	ug/L		99
45)	carbon tetrachloride	9.755	117	1210921	213.45	ug/L		98
46)	1,1-dichloropropene	9.567	75	1065050	207.92	ug/L		99
47)	benzene	9.790	78	2841607	163.36	ug/L		99
48)	1,2-dichloroethane	9.295	62	1363371	167.53	ug/L		100
49)	tert-amyl methyl ether	9.900	73	1224651	353.88	ug/L		96
50)	heptane	10.253	43	1023267	215.57	ug/L		96
51)	trichloroethene	10.409	95	851442	163.88	ug/L		97
52)	1,2-dichloropropane	10.377	63	896574	182.38	ug/L		100
53)	dibromomethane	10.352	93	446422	178.04	ug/L		97
54)	bromodichloromethane	10.462	83	1203112	189.42	ug/L		98
55)	Methylcyclohexane	10.918	83	1267064	218.74	ug/L		99
56)	2-chloroethyl vinyl ether	10.377	63	896574	184.19	ug/L	#	100
57)	methyl methacrylate	10.547	69	411811	184.12	ug/L	#	76
58)	1,4-dioxane	10.561	88	27286	860.26	ug/L		79
59)	cis-1,3-dichloropropene	11.077	75	1260385	257.42	ug/L		99
61)	4-methyl-2-pentanone	11.165	43	771381	163.19	ug/L		96
62)	toluene	11.851	92	1743267	166.32	ug/L		98
63)	trans-1,3-dichloropropene	11.494	75	1061561	223.61	ug/L		99
64)	1,1,2-trichloroethane	11.667	83	526541	159.79	ug/L		98
65)	ethyl methacrylate	11.862	69	754960	173.93	ug/L		98
67)	tetrachloroethene	12.590	166	739689	177.29	ug/L		98
68)	1,3-dichloropropane	11.904	76	1132443	187.09	ug/L		100
69)	dibromochloromethane	12.194	129	826797	195.12	ug/L		96
70)	1,2-dibromoethane	12.449	107	621384	183.74	ug/L		100
71)	2-hexanone	12.017	43	646866	169.84	ug/L		95
72)	chlorobenzene	13.272	112	1947935	172.72	ug/L		99
73)	1,1,1,2-tetrachloroethane	13.191	131	750738	185.90	ug/L		96
74)	ethylbenzene	13.446	91	3755551	179.71	ug/L		98
75)	m,p-xylene	13.629	106	2441778	324.04	ug/L		99
76)	o-xylene	14.043	106	1245006	166.26	ug/L		99
77)	styrene	13.972	104	2155006	205.86	ug/L		96
78)	bromoform	13.799	173	486701	197.78	ug/L		99
79)	trans-1,4-dichloro-2-b...	14.188	53	227506	246.37	ug/L	#	70
81)	isopropylbenzene	14.404	105	3470936	201.50	ug/L		99
83)	bromobenzene	14.694	156	813544	200.14	ug/L		95
84)	1,1,2,2-tetrachloroethane	14.047	83	612897	126.23	ug/L		99
85)	1,2,3-trichloropropane	14.192	75	804171	190.52	ug/L		99
86)	n-propylbenzene	14.846	91	4461050	201.92	ug/L		98
87)	2-chlorotoluene	14.969	91	2812983	200.25	ug/L		100
88)	4-chlorotoluene	15.044	91	2998397	202.29	ug/L		97
89)	1,3,5-trimethylbenzene	15.125	105	3166027	178.50	ug/L		99
90)	tert-butylbenzene	15.429	91	2073714	204.02	ug/L		99
91)	1,2,4-trimethylbenzene	15.535	105	3132505	178.14	ug/L		98
92)	sec-butylbenzene	15.648	105	3916792	201.13	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:36:28 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration

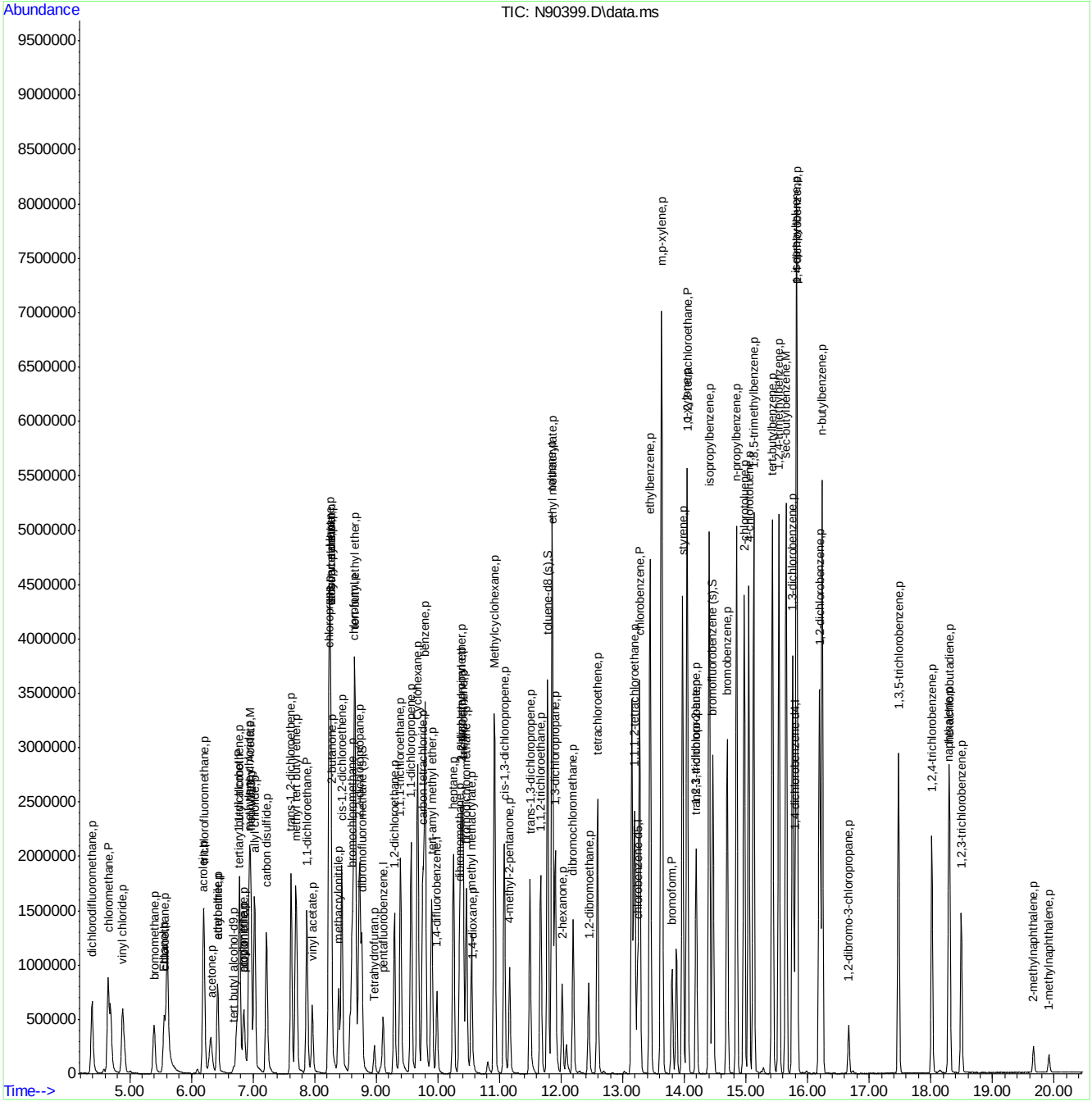
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	1,3-dichlorobenzene	15.758	146	1576372	172.89	ug/L		99
94)	p-isopropyltoluene	15.818	119	3137629	193.31	ug/L		99
95)	1,4-dichlorobenzene	15.825	146	1404920	155.03	ug/L		98
96)	1,2-dichlorobenzene	16.193	146	1471866	171.87	ug/L		99
97)	n-butylbenzene	16.235	91	3340819	202.33	ug/L		99
98)	1,2-dibromo-3-chloropr...	16.666	75	125191	187.88	ug/L		93
99)	1,2,4-trichlorobenzene	18.017	180	707934	220.51	ug/L		97
100)	1,3,5-trichlorobenzene	17.476	180	950650	180.92	ug/L		98
101)	hexachlorobutadiene	18.303	225	488881	185.54	ug/L		99
102)	naphthalene	18.289	128	1002390	286.27	ug/L		100
103)	1,2,3-trichlorobenzene	18.494	180	504633	239.67	ug/L		96
104)	2-methylnaphthalene	19.664	142	132620	97.85	ug/L	#	100
105)	1-methylnaphthalene	19.919	142	95280	92.10	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:36:28 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration

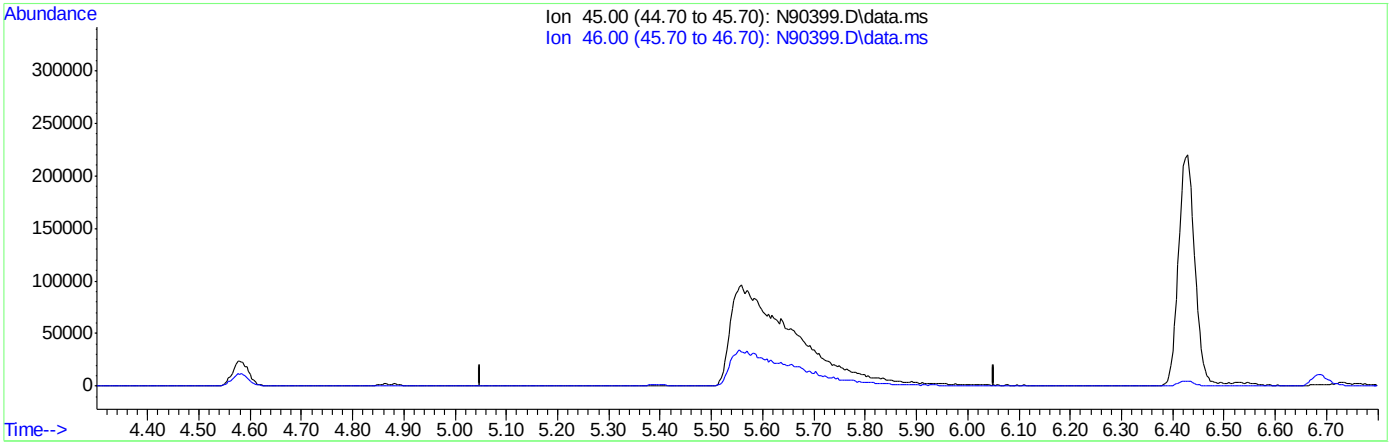


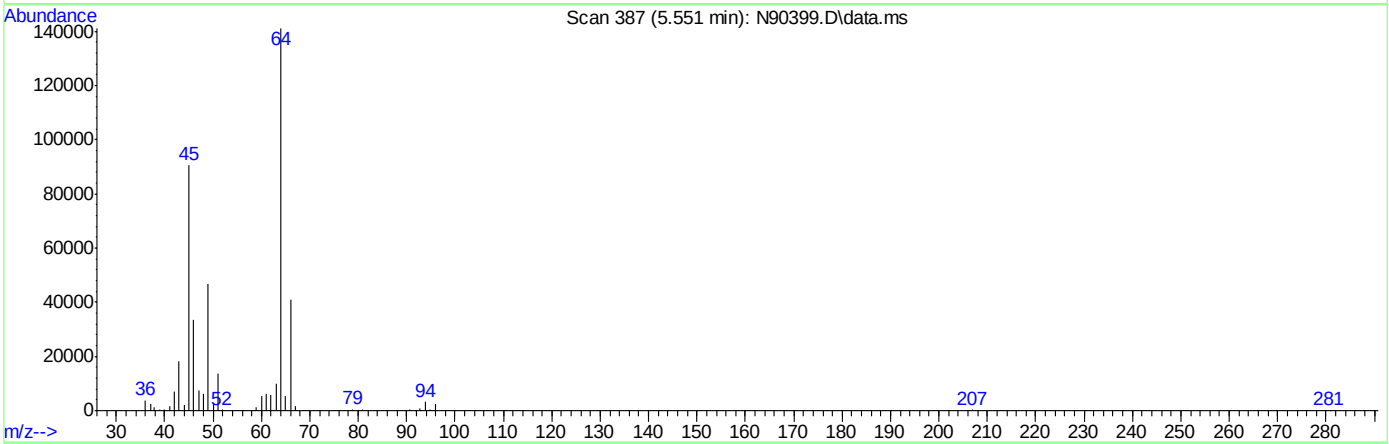
ACCUTEST LABORATORIES MC33841

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:25:50 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration





TIC: N90399.D\data.ms

(3) Ethanol (p)

5.551min (-5.551) 0.00ug/L

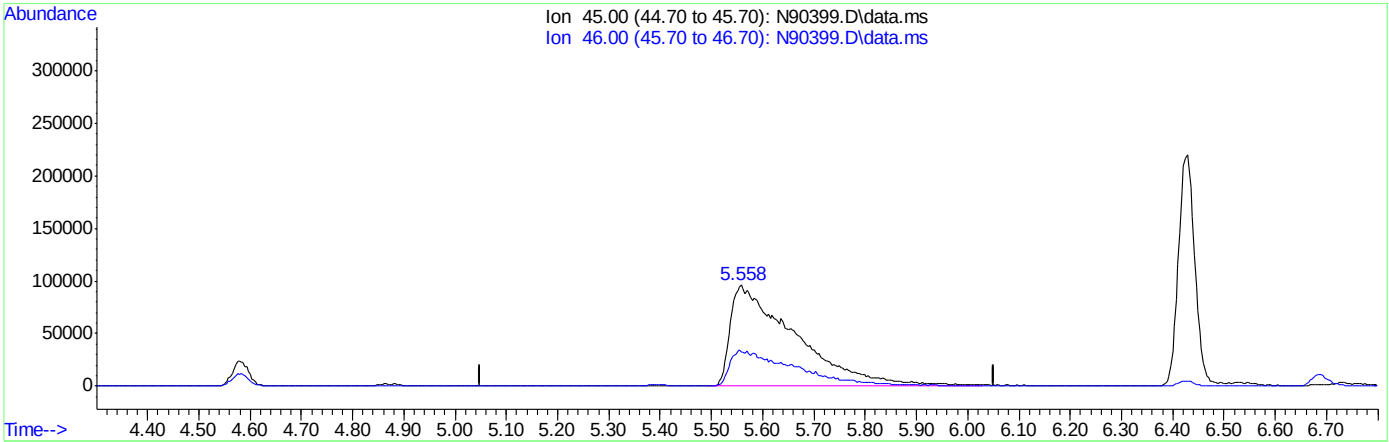
response 0

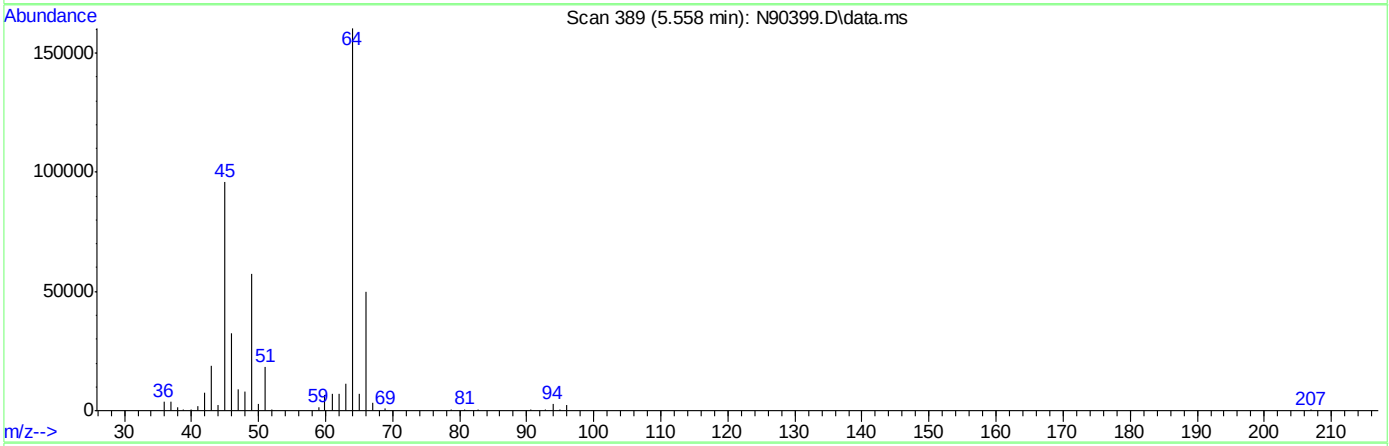
Ion	Exp%	Act%
45.00	100	0.00
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:25:50 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration





TIC: N90399.D\data.ms

(3) Ethanol (p)

5.558min (+0.007) 19082.31ug/L m

response 846290

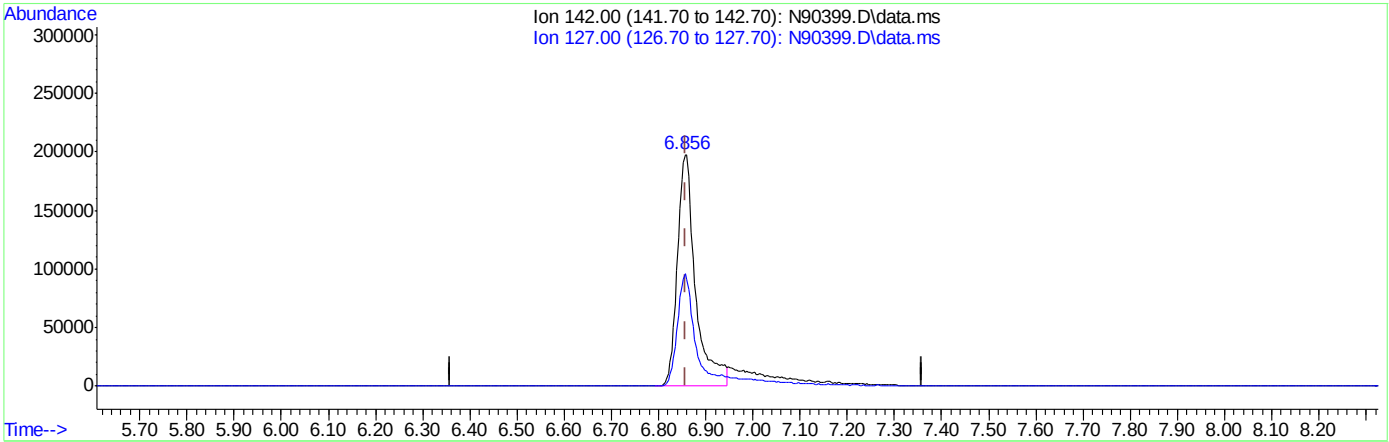
Ion	Exp%	Act%
45.00	100	100
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

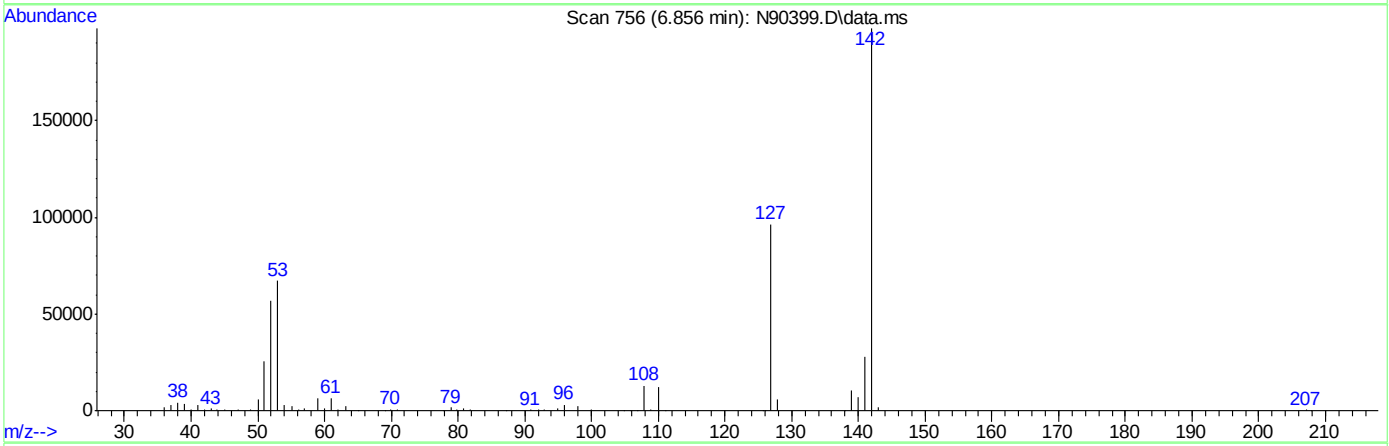
ACCUTEST LABORATORIES MC33841

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:25:59 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration





TIC: N90399.D\data.ms

(23) iodomethane (p)

6.856min (-0.003) 332.34ug/L m

response 536598

Ion	Exp%	Act%
142.00	100	100
127.00	47.30	48.69
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33841

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/19/14 12:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:36:50 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.690	65	91817	500.00	ug/L		0.00
4) pentafluorobenzene	9.111	168	394186	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	630290	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	338772	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.800	152	244502	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.768	113	1468431	357.60	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 715.20%#				
60) toluene-d8 (s)	11.784	98	5266774	341.06	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 682.12%#				
82) bromofluorobenzene (s)	14.467	95	2282447	380.16	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 760.32%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.775	59	1188886	3641.75	ug/L	#	100
3) Ethanol	5.576	45	1562443	32449.33	ug/L		99
5) dichlorodifluoromethane	4.388	85	1841997	349.25	ug/L		99
6) chloromethane	4.646	50	2312179	358.75	ug/L		97
7) vinyl chloride	4.880	62	1113616	210.01	ug/L		100
8) bromomethane	5.392	96	956856m	563.98	ug/L		
9) chloroethane	5.558	64	839384	321.44	ug/L		98
10) ethyl ether	6.428	59	1275138	321.15	ug/L		90
11) acetonitrile	6.432	41	185292	290.76	ug/L		99
12) trichlorofluoromethane	6.202	101	2554034	338.30	ug/L		98
13) freon-113	6.965	101	1229863	368.82	ug/L		96
14) acrolein	6.191	56	649467	1379.97	ug/L		100
15) 1,1-dichloroethene	6.785	96	1119679	312.20	ug/L		93
16) acetone	6.329	58	217918	252.22	ug/L		87
17) Methyl Acetate	6.958	43	877793	252.34	ug/L		97
18) methylene chloride	6.937	84	1319120	313.32	ug/L		97
19) methyl tert butyl ether	7.701	73	3774003	438.34	ug/L		99
20) acrylonitrile	6.842	53	533057	300.97	ug/L		100
21) allyl chloride	7.029	41	2438548	324.25	ug/L		100
22) trans-1,2-dichloroethene	7.619	96	1371526	340.86	ug/L		100
23) iodomethane	6.852	142	1014660m	482.90	ug/L		
24) carbon disulfide	7.220	76	4416422	385.68	ug/L		99
25) propionitrile	6.842	54	19665	409.33	ug/L		100
26) vinyl acetate	7.962	43	2230655	403.26	ug/L		99
27) chloroprene	8.235	53	2365560	324.00	ug/L		99
28) di-isopropyl ether	8.263	45	5102914	258.19	ug/L		93
29) methacrylonitrile	8.394	41	912486	317.97	ug/L		97
30) 2-butanone	8.281	72	136629	296.04	ug/L	#	93
31) Hexane	8.249	41	2043722	281.70	ug/L		96
32) 1,1-dichloroethane	7.878	63	3329344	337.18	ug/L		97
33) tert-butyl ethyl ether	8.659	59	4361829	635.76	ug/L		98
34) isobutyl alcohol	8.263	43	3986757	1325.23	ug/L		92
35) 2,2-dichloropropane	8.730	77	2456098	481.56	ug/L		99
36) cis-1,2-dichloroethene	8.443	96	1565191	341.69	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:36:50 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.263	43	3986757	269.52	ug/L		94
38) bromochloromethane	8.613	128	587268	307.87	ug/L		98
39) chloroform	8.645	83	2692432	302.20	ug/L		97
41) Tetrahydrofuran	8.970	42	380248	293.37	ug/L		96
42) 1,1,1-trichloroethane	9.394	97	2698204	406.78	ug/L		99
44) Cyclohexane	9.673	56	3036585	348.49	ug/L		96
45) carbon tetrachloride	9.758	117	2263535	363.44	ug/L		99
46) 1,1-dichloropropene	9.567	75	2036048	362.72	ug/L		99
47) benzene	9.794	78	5492578	296.07	ug/L		99
48) 1,2-dichloroethane	9.299	62	2677170	308.44	ug/L		100
49) tert-amyl methyl ether	9.900	73	2916533	697.48	ug/L		99
50) heptane	10.253	43	1911708	365.19	ug/L		97
51) trichloroethene	10.409	95	1627935	293.72	ug/L		96
52) 1,2-dichloropropane	10.381	63	1669731	315.97	ug/L		99
53) dibromomethane	10.352	93	878959	327.13	ug/L		96
54) bromodichloromethane	10.465	83	2378054	346.20	ug/L		98
55) Methylcyclohexane	10.921	83	2373109	370.53	ug/L		93
56) 2-chloroethyl vinyl ether	10.381	63	1669731	319.29	ug/L	#	99
57) methyl methacrylate	10.547	69	821385	341.86	ug/L		85
58) 1,4-dioxane	10.561	88	54498	1615.89	ug/L		80
59) cis-1,3-dichloropropene	11.077	75	2506516	455.70	ug/L		98
61) 4-methyl-2-pentanone	11.165	43	1512500	303.23	ug/L		98
62) toluene	11.855	92	3319976	297.20	ug/L		100
63) trans-1,3-dichloropropene	11.494	75	2170446	414.52	ug/L		98
64) 1,1,2-trichloroethane	11.671	83	1026098	293.41	ug/L		97
65) ethyl methacrylate	11.862	69	1439335	311.36	ug/L		86
67) tetrachloroethene	12.594	166	1458132	324.27	ug/L		98
68) 1,3-dichloropropane	11.908	76	2188787	334.89	ug/L		100
69) dibromochloromethane	12.198	129	1646207	356.88	ug/L		98
70) 1,2-dibromoethane	12.449	107	1226872	336.25	ug/L		100
71) 2-hexanone	12.017	43	1228361	303.08	ug/L		96
72) chlorobenzene	13.276	112	3807602	314.67	ug/L		99
73) 1,1,1,2-tetrachloroethane	13.191	131	1503100	344.02	ug/L		95
74) ethylbenzene	13.446	91	7208304	320.07	ug/L		98
75) m,p-xylene	13.633	106	4628802	574.88	ug/L		88
76) o-xylene	14.043	106	2406472	300.03	ug/L		91
77) styrene	13.972	104	4206443	366.33	ug/L		98
78) bromoform	13.803	173	973399	362.89	ug/L		99
79) trans-1,4-dichloro-2-b...	14.192	53	473221	452.02	ug/L	#	66
81) isopropylbenzene	14.404	105	6639975	380.42	ug/L		100
83) bromobenzene	14.697	156	1608930	391.07	ug/L		98
84) 1,1,2,2-tetrachloroethane	14.050	83	1129564	239.69	ug/L		98
85) 1,2,3-trichloropropane	14.195	75	1569124	370.26	ug/L		97
86) n-propylbenzene	14.849	91	8388125	374.57	ug/L		99
87) 2-chlorotoluene	14.973	91	5387353	378.87	ug/L		97
88) 4-chlorotoluene	15.047	91	5670780	377.32	ug/L		100
89) 1,3,5-trimethylbenzene	15.125	105	5971227	337.18	ug/L		97
90) tert-butylbenzene	15.429	91	3832246	371.31	ug/L		96
91) 1,2,4-trimethylbenzene	15.539	105	5924845	337.54	ug/L		98
92) sec-butylbenzene	15.655	105	7248458	367.45	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:36:50 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration

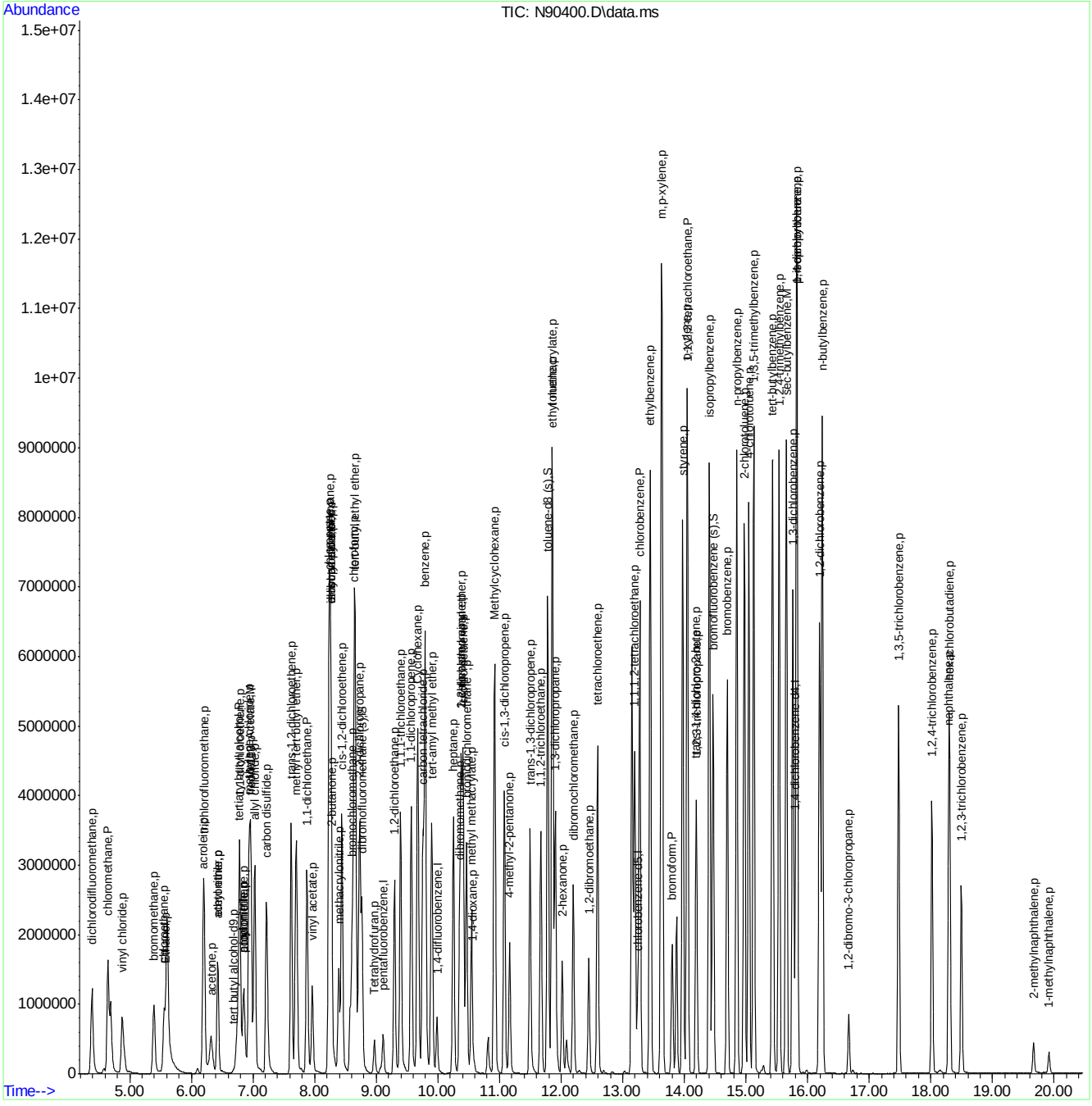
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	1,3-dichlorobenzene	15.761	146	3047779	335.98	ug/L		98
94)	p-isopropyltoluene	15.821	119	5405618	330.92	ug/L		96
95)	1,4-dichlorobenzene	15.828	146	2607427	292.53	ug/L		96
96)	1,2-dichlorobenzene	16.193	146	2798884	328.73	ug/L		97
97)	n-butylbenzene	16.239	91	6092781	363.91	ug/L		99
98)	1,2-dibromo-3-chloropr...	16.666	75	247810	371.23	ug/L		95
99)	1,2,4-trichlorobenzene	18.017	180	1309025	396.13	ug/L		97
100)	1,3,5-trichlorobenzene	17.476	180	1751047	334.61	ug/L		98
101)	hexachlorobutadiene	18.303	225	921687	349.86	ug/L		99
102)	naphthalene	18.289	128	1942414	511.38	ug/L		100
103)	1,2,3-trichlorobenzene	18.494	180	926393	420.85	ug/L		90
104)	2-methylnaphthalene	19.668	142	246522	180.38	ug/L	#	100
105)	1-methylnaphthalene	19.915	142	170161	164.70	ug/L		96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

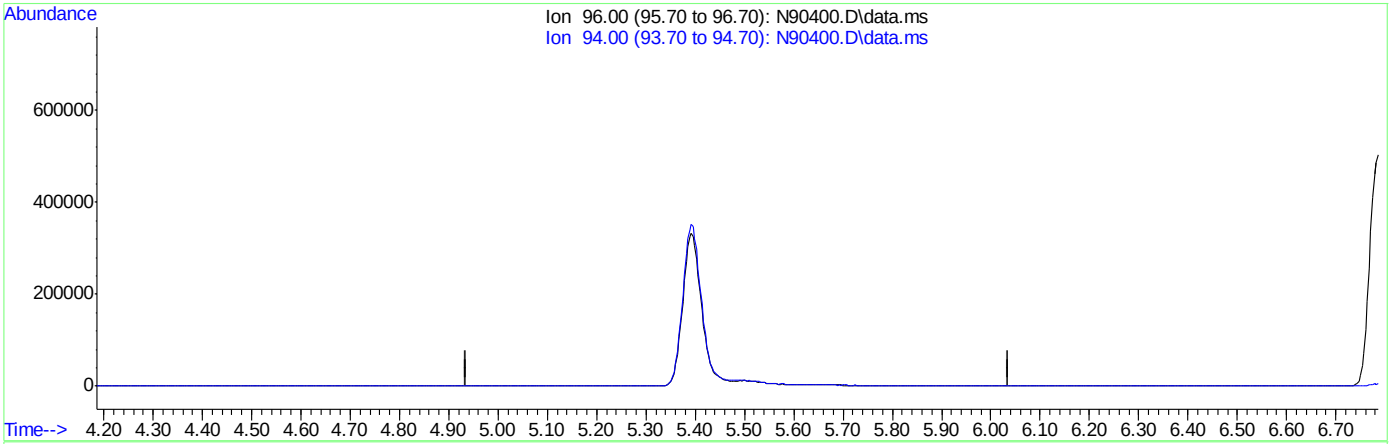
Quant Time: Sep 19 09:36:50 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration

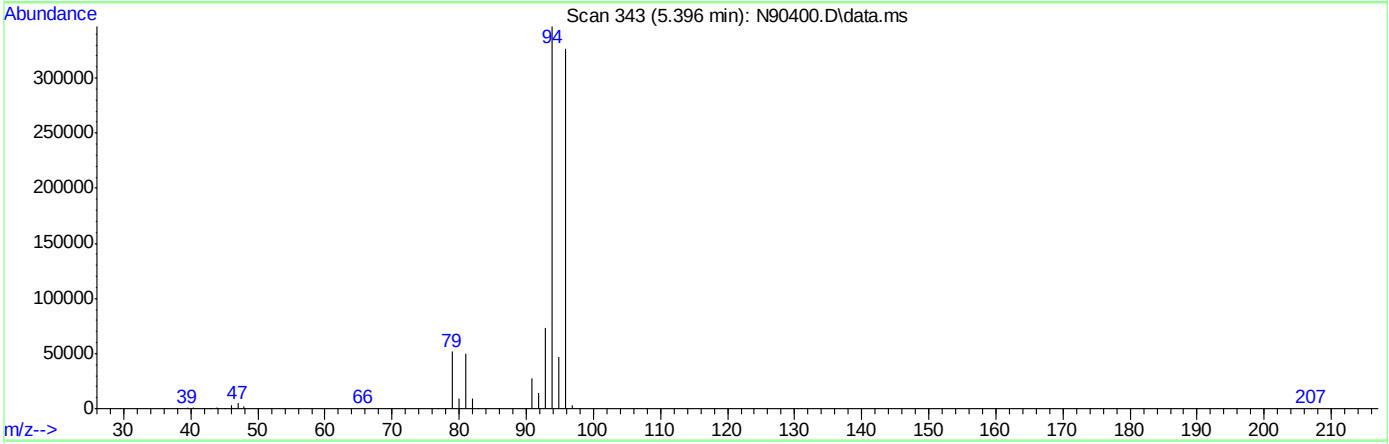


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:27:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration





TIC: N90400.D\data.ms

(8) bromomethane (p)

5.396min (-5.396) 0.00ug/L

response 0

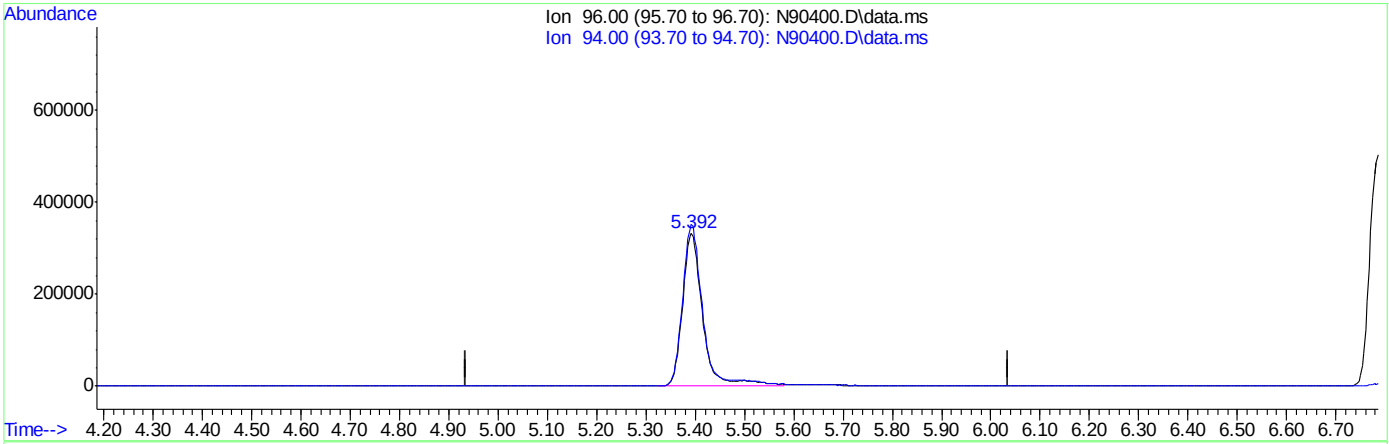
Ion	Exp%	Act%
96.00	100	0.00
94.00	103.80	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

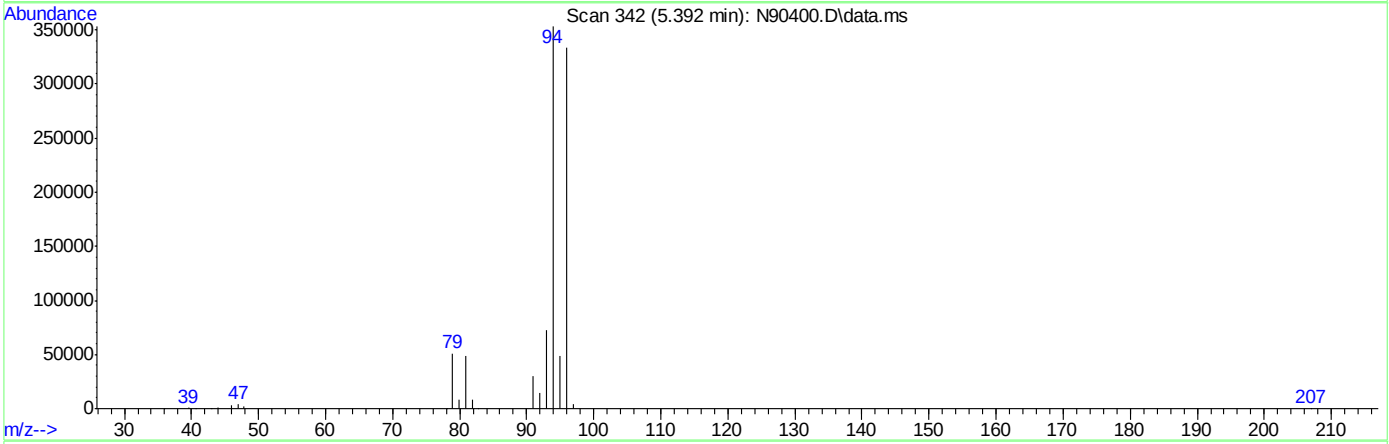
ACCUTEST LABORATORIES MC33841

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:27:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration





TIC: N90400.D\data.ms

(8) bromomethane (p)

5.392min (-0.004) 563.98ug/L m

response 956856

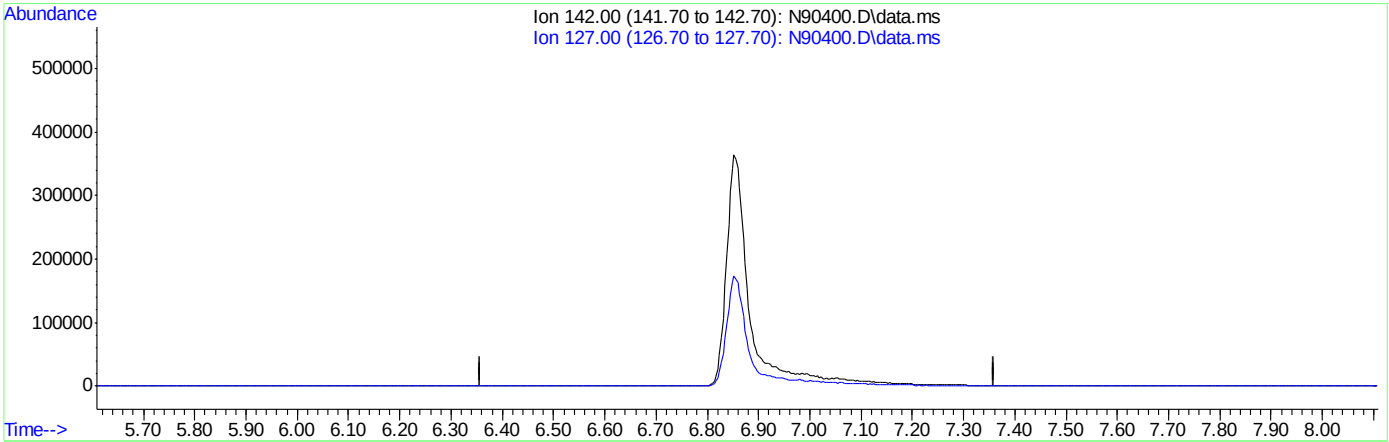
Ion	Exp%	Act%
96.00	100	100
94.00	103.80	105.85
0.00	0.00	0.00
0.00	0.00	0.00

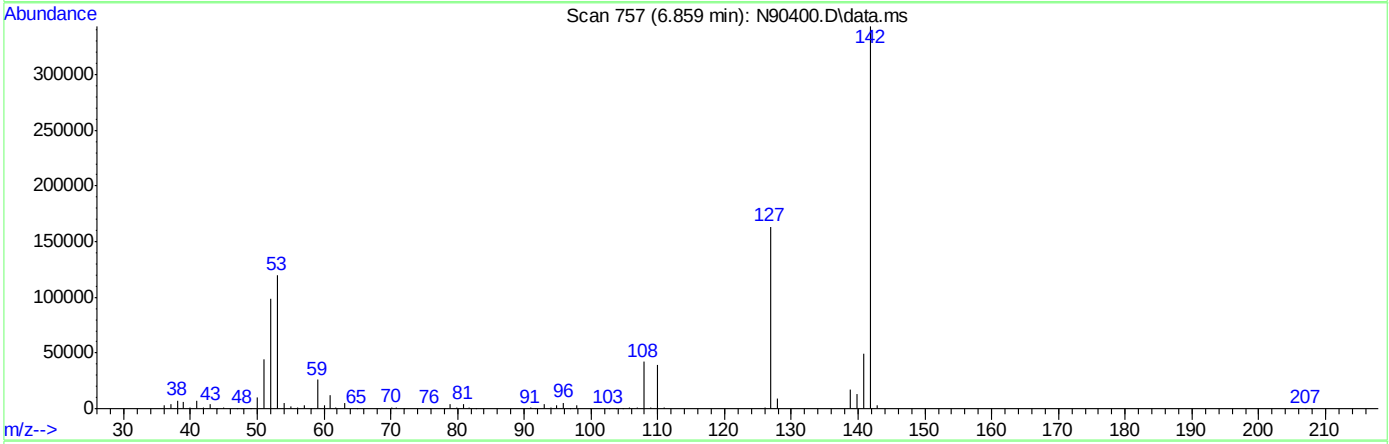
ACCUTEST LABORATORIES MC33841

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:27:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration





TIC: N90400.D\data.ms

(23) iodomethane (p)

6.859min (-6.859) 0.00ug/L

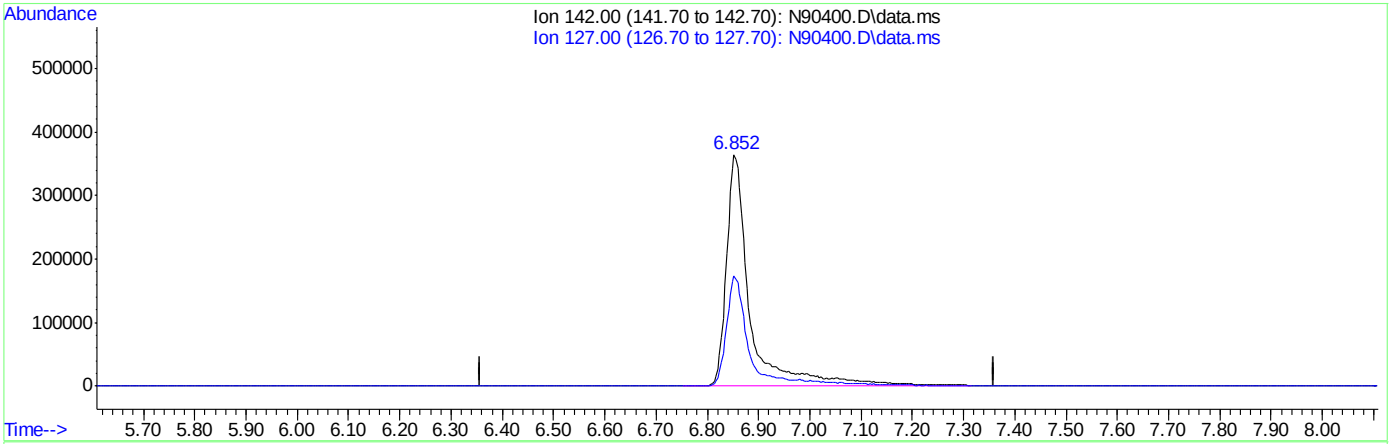
response 0

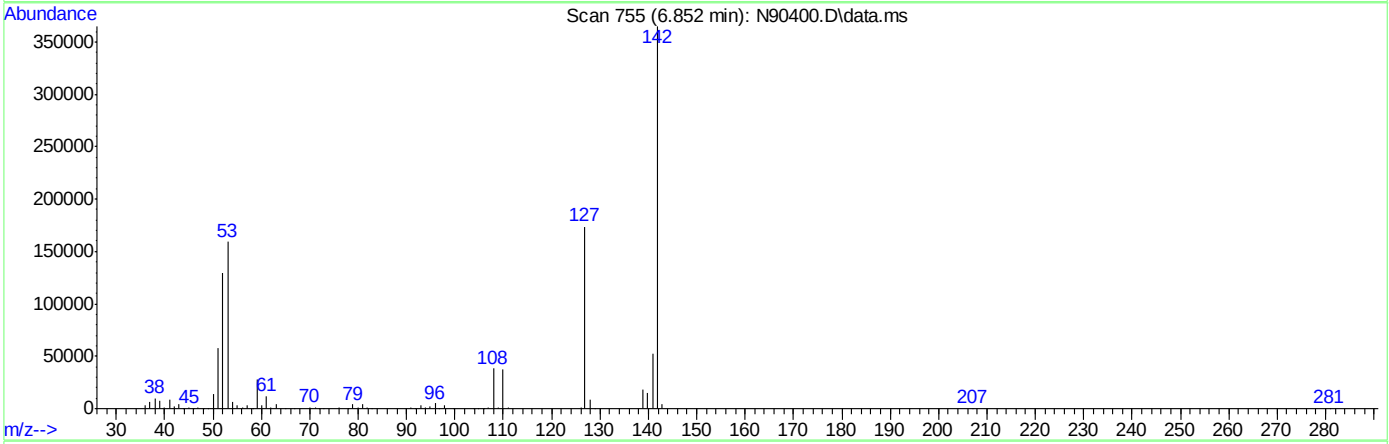
Ion	Exp%	Act%
142.00	100	0.00
127.00	47.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:27:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration





TIC: N90400.D\data.ms

(23) iodomethane (p)

6.852min (-0.007) 564.61ug/L m

response 1186346

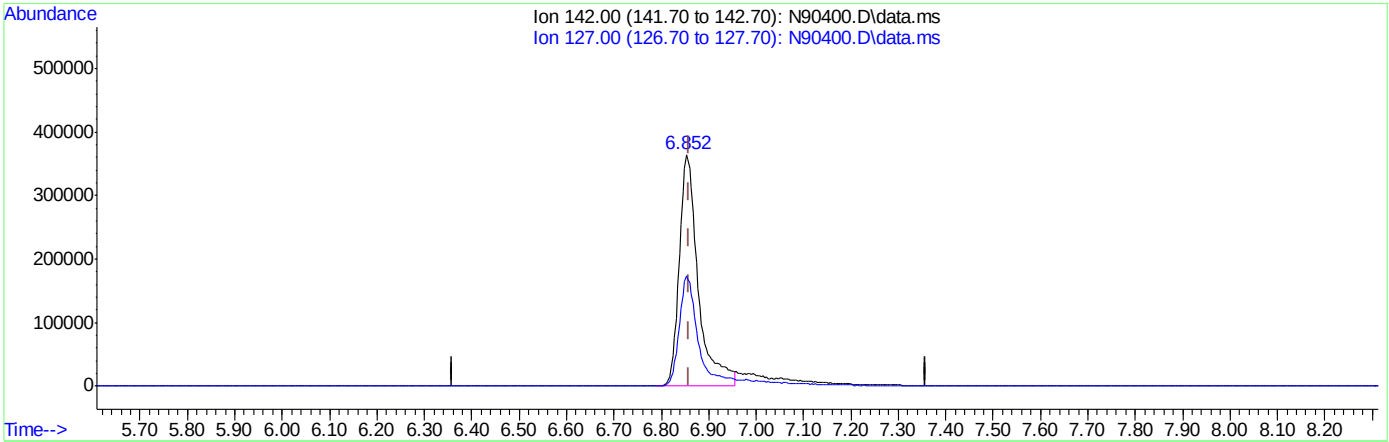
Ion	Exp%	Act%
142.00	100	100
127.00	47.30	47.54
0.00	0.00	0.00
0.00	0.00	0.00

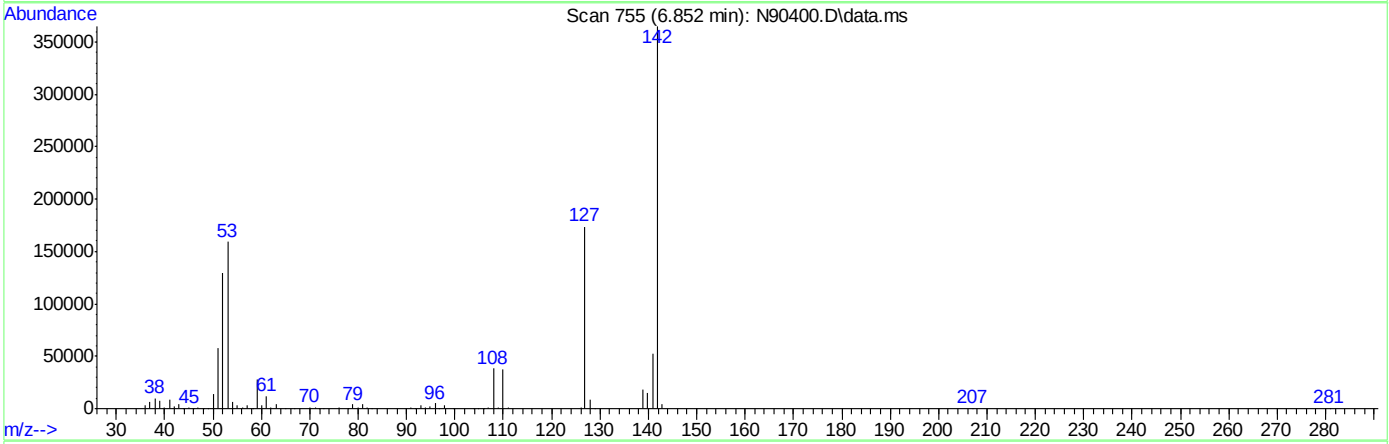
ACCUTEST LABORATORIES MC33841

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:28:16 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration





TIC: N90400.D\data.ms

(23) iodomethane (p)

6.852min (-0.007) 482.90ug/L m

response 1014660

Ion	Exp%	Act%
142.00	100	100
127.00	47.30	47.54
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33841

Manual Integrations APPROVED
(compounds with "m" flag)
Tomasz Torski
09/22/14 09:40

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 15:24:39 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.697	65	109677	500.00	ug/L		0.00
4) pentafluorobenzene	9.115	168	303532	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	470411	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	255267	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	201040	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.765	113	151085	48.52	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.04%				
60) toluene-d8 (s)	11.781	98	592963	52.56	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 105.12%				
82) bromofluorobenzene (s)	14.464	95	233597	47.66	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.32%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.782	59	103894	269.44	ug/L	#	100
3) Ethanol	5.562	45	328301m	5845.90	ug/L		
5) dichlorodifluoromethane	4.392	85	256233	64.11	ug/L		97
6) chloromethane	4.657	50	247452	50.51	ug/L		98
7) vinyl chloride	4.897	62	196022	59.69	ug/L		94
8) bromomethane	5.399	96	77011	50.54	ug/L		98
9) chloroethane	5.562	64	117801	60.06	ug/L		95
10) ethyl ether	6.432	59	167151	56.26	ug/L		98
11) acetonitrile	6.432	41	27076	57.42	ug/L		96
12) trichlorofluoromethane	6.209	101	320581	55.87	ug/L		99
13) freon-113	6.962	101	130506	51.40	ug/L		99
14) acrolein	6.198	56	87506	252.65	ug/L		100
15) 1,1-dichloroethene	6.785	96	122707	52.87	ug/L		91
16) acetone	6.336	58	30439	43.60	ug/L		84
17) Methyl Acetate	6.962	43	183707	68.58	ug/L	#	92
18) methylene chloride	6.941	84	147063	46.63	ug/L		91
19) methyl tert butyl ether	7.705	73	409974	54.92	ug/L		98
20) acrylonitrile	6.845	53	67014	50.94	ug/L		94
21) allyl chloride	7.029	41	316359	56.15	ug/L		93
22) trans-1,2-dichloroethene	7.623	96	149104	48.93	ug/L		98
23) iodomethane	6.860	142	72383	38.45	ug/L		97
24) carbon disulfide	7.220	76	404653	46.13	ug/L		99
25) propionitrile	6.852	54	2476	56.23	ug/L		100
26) vinyl acetate	7.970	43	171062	40.11	ug/L		96
27) chloroprene	8.235	53	350980	64.17	ug/L		93
28) di-isopropyl ether	8.263	45	783247	53.85	ug/L		97
29) methacrylonitrile	8.394	41	109220	50.92	ug/L		93
30) 2-butanone	8.281	72	19790	57.83	ug/L	#	78
31) Hexane	8.249	41	287716	53.77	ug/L		86
32) 1,1-dichloroethane	7.878	63	382325	51.18	ug/L		99
33) tert-butyl ethyl ether	8.659	59	366503	46.99	ug/L		94
34) isobutyl alcohol	8.260	43	601650	272.88	ug/L		99
35) 2,2-dichloropropane	8.730	77	280369	58.65	ug/L		99
36) cis-1,2-dichloroethene	8.443	96	171953	49.55	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 15:24:39 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.260	43	601428	55.38	ug/L		98
38) bromochloromethane	8.613	128	75756	53.33	ug/L		90
39) chloroform	8.645	83	333542	49.98	ug/L		97
41) Tetrahydrofuran	8.974	42	50164	52.25	ug/L		95
42) 1,1,1-trichloroethane	9.394	97	303810	59.37	ug/L		100
44) Cyclohexane	9.670	56	359704	56.35	ug/L		97
45) carbon tetrachloride	9.755	117	256419	55.73	ug/L		95
46) 1,1-dichloropropene	9.568	75	242242	58.60	ug/L		98
47) benzene	9.794	78	648540	48.09	ug/L		100
48) 1,2-dichloroethane	9.295	62	323777	51.29	ug/L		99
49) tert-amyl methyl ether	9.903	73	197220	49.54	ug/L		95
50) heptane	10.253	43	213210	55.26	ug/L		91
51) trichloroethene	10.409	95	196165	48.72	ug/L		93
52) 1,2-dichloropropane	10.377	63	224809	58.54	ug/L		100
53) dibromomethane	10.356	93	104523	53.34	ug/L		96
54) bromodichloromethane	10.462	83	286031	56.64	ug/L		99
55) Methylcyclohexane	10.918	83	264884	56.00	ug/L		97
56) 2-chloroethyl vinyl ether	10.377	63	224809	59.31	ug/L	#	99
57) methyl methacrylate	10.550	69	99350	56.58	ug/L	#	79
58) 1,4-dioxane	10.561	88	3507	121.93	ug/L		81
59) cis-1,3-dichloropropene	11.077	75	288523	59.10	ug/L		99
61) 4-methyl-2-pentanone	11.169	43	195879	54.50	ug/L		93
62) toluene	11.855	92	405078	50.01	ug/L		96
63) trans-1,3-dichloropropene	11.494	75	246408	62.83	ug/L		99
64) 1,1,2-trichloroethane	11.668	83	134803	51.65	ug/L		99
65) ethyl methacrylate	11.862	69	178921	53.55	ug/L		91
67) tetrachloroethene	12.594	166	170304	51.23	ug/L		93
68) 1,3-dichloropropane	11.904	76	266851	55.47	ug/L		99
69) dibromochloromethane	12.194	129	193508	56.28	ug/L		95
70) 1,2-dibromoethane	12.449	107	147384	54.70	ug/L		98
71) 2-hexanone	12.021	43	167694	56.88	ug/L		96
72) chlorobenzene	13.276	112	435746	48.95	ug/L		99
73) 1,1,1,2-tetrachloroethane	13.191	131	177699	54.83	ug/L		97
74) ethylbenzene	13.446	91	828883	49.95	ug/L		99
75) m,p-xylene	13.630	106	562899	92.78	ug/L		96
76) o-xylene	14.043	106	284187	48.23	ug/L		97
77) styrene	13.973	104	463567	54.23	ug/L		100
78) bromoform	13.799	173	110698	55.34	ug/L		97
79) trans-1,4-dichloro-2-b...	14.192	53	44319	50.55	ug/L		96
81) isopropylbenzene	14.404	105	744170	52.22	ug/L		99
83) bromobenzene	14.694	156	181227	53.74	ug/L		98
84) 1,1,2,2-tetrachloroethane	14.047	83	178255	57.87	ug/L		97
85) 1,2,3-trichloropropane	14.192	75	192325	55.79	ug/L		100
86) n-propylbenzene	14.846	91	969987	53.16	ug/L		100
87) 2-chlorotoluene	14.970	91	606503	52.27	ug/L		98
88) 4-chlorotoluene	15.044	91	635395	51.84	ug/L		98
89) 1,3,5-trimethylbenzene	15.122	105	664031	46.41	ug/L		100
90) tert-butylbenzene	15.429	91	438328	52.19	ug/L		98
91) 1,2,4-trimethylbenzene	15.535	105	697238	49.16	ug/L		99
92) sec-butylbenzene	15.648	105	840100	52.40	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 15:24:39 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

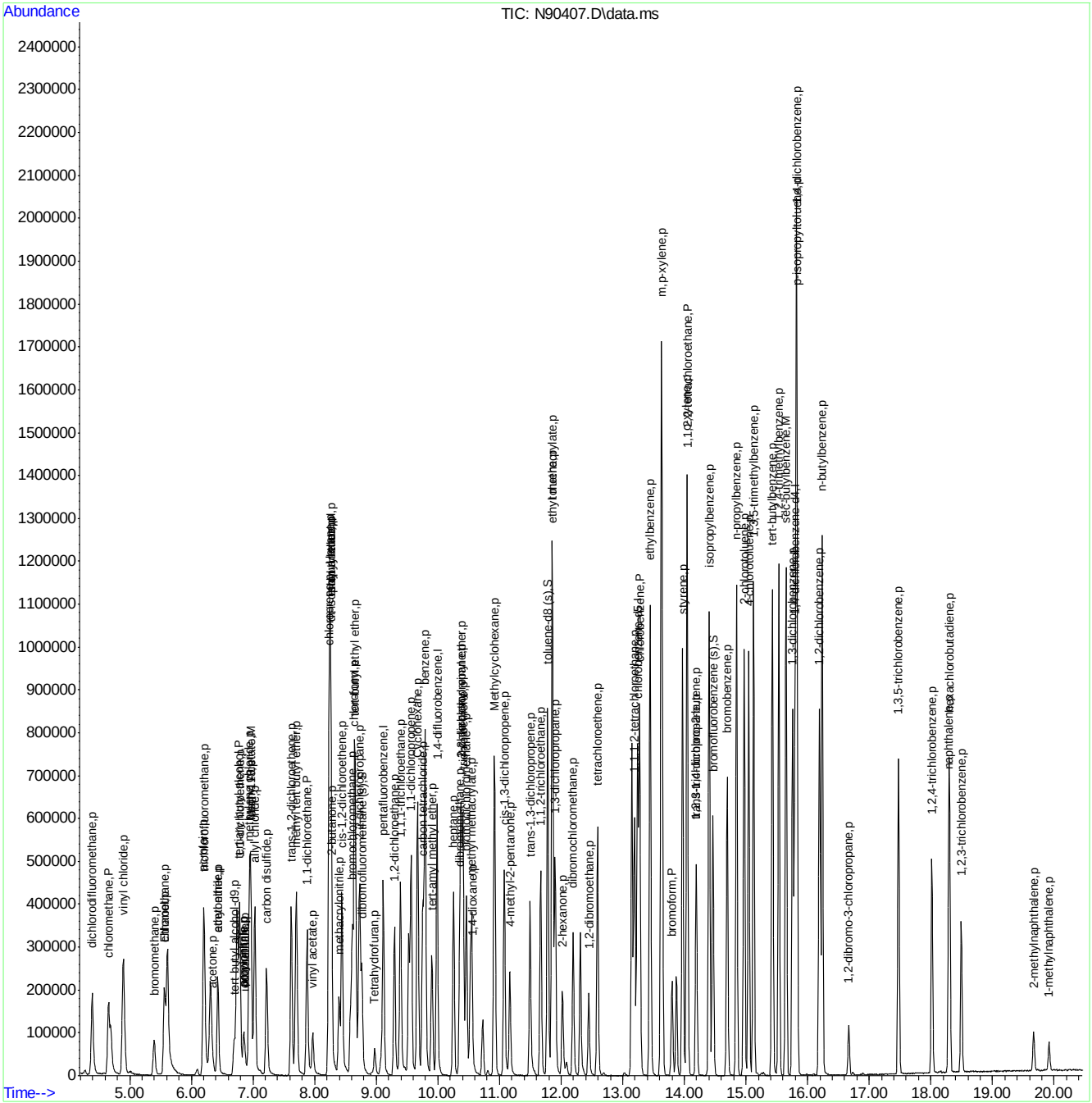
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	1,3-dichlorobenzene	15.758	146	350072	54.07	ug/L		98
94)	p-isopropyltoluene	15.822	119	696545	53.17	ug/L		99
95)	1,4-dichlorobenzene	15.825	146	333567	57.93	ug/L		97
96)	1,2-dichlorobenzene	16.189	146	347482	57.49	ug/L		99
97)	n-butylbenzene	16.235	91	740787	54.51	ug/L		99
98)	1,2-dibromo-3-chloropr...	16.663	75	33892	62.39	ug/L		89
99)	1,2,4-trichlorobenzene	18.017	180	162541	59.90	ug/L		98
100)	1,3,5-trichlorobenzene	17.473	180	231772	55.15	ug/L		99
101)	hexachlorobutadiene	18.300	225	115864	54.46	ug/L		99
102)	naphthalene	18.289	128	243260	62.85	ug/L		100
103)	1,2,3-trichlorobenzene	18.494	180	113975	58.20	ug/L		91
104)	2-methylnaphthalene	19.668	142	50146	45.26	ug/L	#	100
105)	1-methylnaphthalene	19.915	142	37746	45.58	ug/L		95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 15:24:39 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

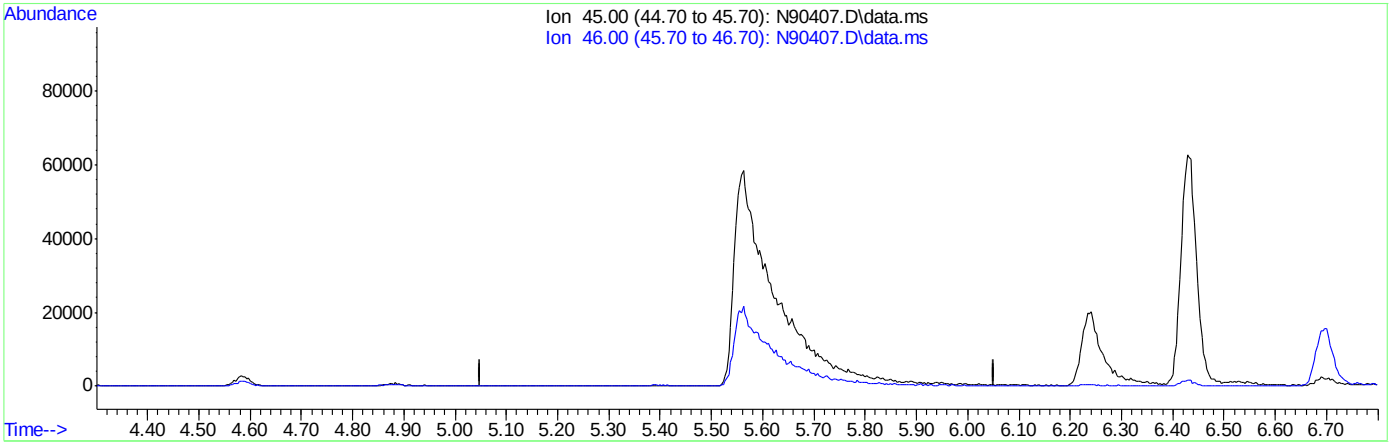


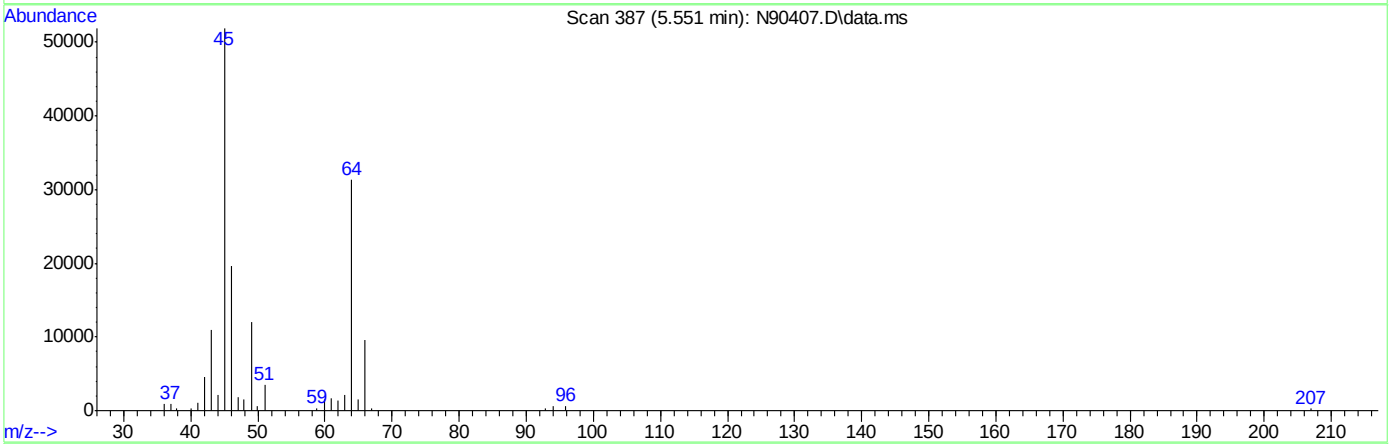
ACCUTEST LABORATORIES MC33841

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 14:39:56 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90407.D\data.ms

(3) Ethanol (p)

5.551min (-5.551) 0.00ug/L

response 0

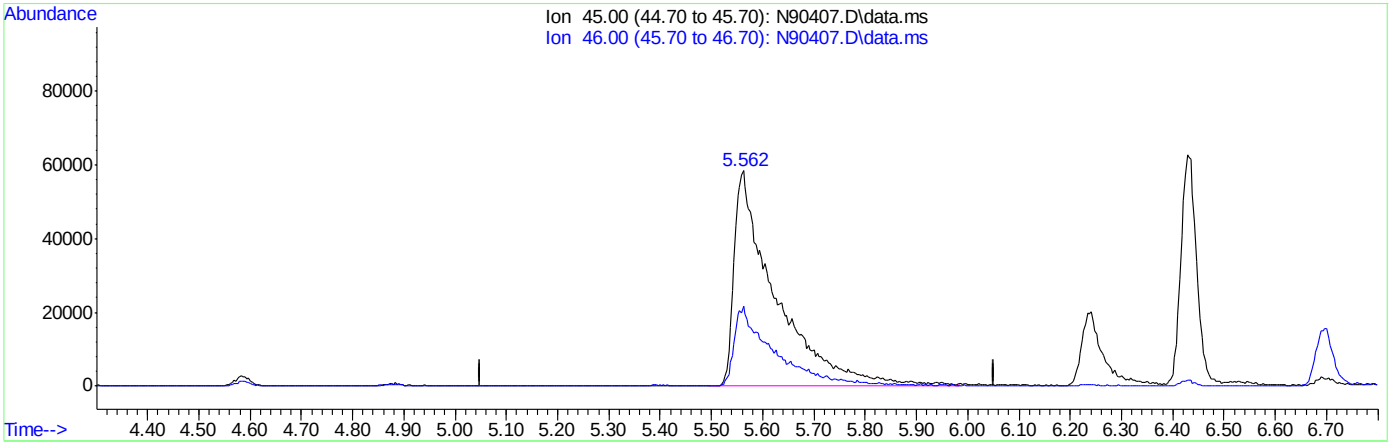
Ion	Exp%	Act%
45.00	100	0.00
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

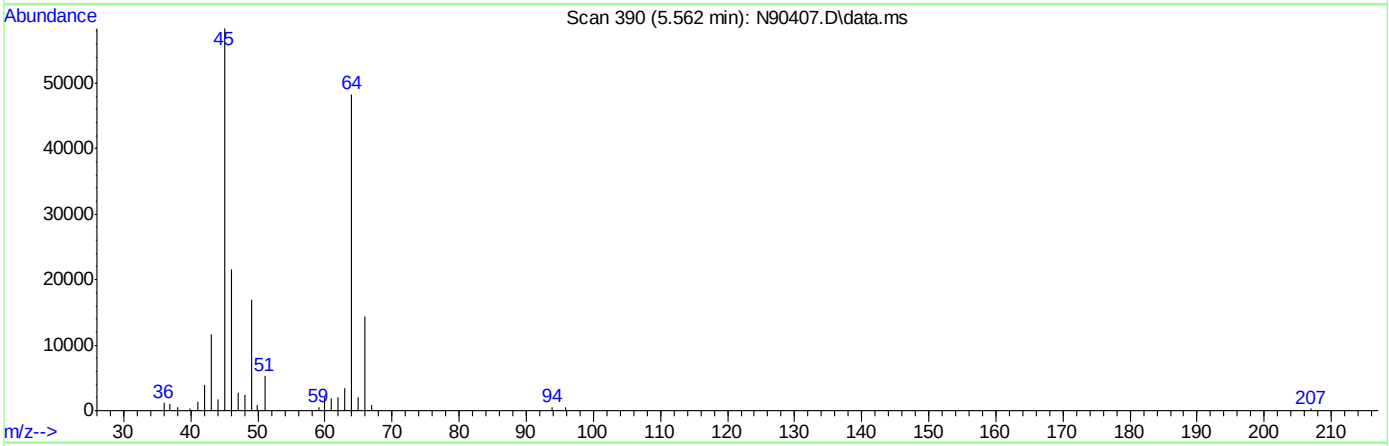
ACCUTEST LABORATORIES MC33841

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 14:39:56 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90407.D\data.ms

(3) Ethanol (p)

5.562min (+0.011) 5845.90ug/L m

response 328301

Ion	Exp%	Act%
45.00	100	100
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33841

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90598.D
Acq On : 25 Sep 2014 10:20 pm
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3352,,,,5,1
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Sep 26 09:28:47 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.697	65	110200	500.00	ug/L		0.00
4) pentafluorobenzene	9.115	168	309562	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	486769	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	258456	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	211347	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.768	113	151978	47.85	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.70%				
60) toluene-d8 (s)	11.784	98	600095	51.40	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 102.80%				
82) bromofluorobenzene (s)	14.464	95	241614	46.89	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.78%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.782	59	204946	528.98	ug/L	#	100
3) Ethanol	5.558	45	312697	5541.63	ug/L		99
5) dichlorodifluoromethane	4.388	85	131540	32.27	ug/L		94
6) chloromethane	4.653	50	189432	37.91	ug/L		99
7) vinyl chloride	4.897	62	154297	45.81	ug/L		98
8) bromomethane	5.399	96	63140	41.57	ug/L		99
9) chloroethane	5.565	64	90874	45.43	ug/L		94
10) ethyl ether	6.432	59	151589	50.02	ug/L		91
11) acetonitrile	6.432	41	21568	44.85	ug/L		98
12) trichlorofluoromethane	6.202	101	208141	35.54	ug/L		99
13) freon-113	6.962	101	119908	46.30	ug/L		99
14) acrolein	6.198	56	99207	280.85	ug/L		98
15) 1,1-dichloroethene	6.785	96	114644	48.36	ug/L		96
16) acetone	6.329	58	31788	44.64	ug/L	#	84
17) Methyl Acetate	6.962	43	135545	49.62	ug/L		95
18) methylene chloride	6.941	84	149165	46.37	ug/L		94
19) methyl tert butyl ether	7.704	73	308011	40.55	ug/L		100
20) acrylonitrile	6.845	53	67542	50.34	ug/L		100
21) allyl chloride	7.029	41	271780	47.30	ug/L		94
22) trans-1,2-dichloroethene	7.619	96	142815	45.95	ug/L		98
23) iodomethane	6.856	142	68315	35.80	ug/L		98
24) carbon disulfide	7.224	76	391980	43.81	ug/L		100
25) propionitrile	6.856	54	2582	57.42	ug/L		100
26) vinyl acetate	7.973	43	222672	51.20	ug/L		98
27) chloroprene	8.238	53	272336	48.82	ug/L		95
28) di-isopropyl ether	8.263	45	744883	50.22	ug/L		97
29) methacrylonitrile	8.397	41	106223	48.56	ug/L		95
30) 2-butanone	8.284	72	19120	54.79	ug/L	#	52
31) Hexane	8.249	41	256041	46.92	ug/L		93
32) 1,1-dichloroethane	7.878	63	355347	46.64	ug/L		96
33) tert-butyl ethyl ether	8.659	59	181165	24.37	ug/L		95
34) isobutyl alcohol	8.263	43	559268	248.71	ug/L		91
35) 2,2-dichloropropane	8.730	77	227228	47.41	ug/L		99
36) cis-1,2-dichloroethene	8.447	96	167180	47.24	ug/L		98

ACCUTEST LABORATORIES MC33841

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90598.D
Acq On : 25 Sep 2014 10:20 pm
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3352,,,,5,1
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Sep 26 09:28:47 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.263	43	557625	50.35	ug/L		91
38) bromochloromethane	8.613	128	76508	52.81	ug/L		91
39) chloroform	8.645	83	316968	46.57	ug/L		99
41) Tetrahydrofuran	8.981	42	50686	51.77	ug/L		100
42) 1,1,1-trichloroethane	9.394	97	278240	53.31	ug/L		98
44) Cyclohexane	9.674	56	313686	47.49	ug/L		99
45) carbon tetrachloride	9.755	117	226491	47.57	ug/L		97
46) 1,1-dichloropropene	9.567	75	208579	48.76	ug/L		98
47) benzene	9.794	78	634079	45.44	ug/L		99
48) 1,2-dichloroethane	9.295	62	296853	45.44	ug/L		99
49) tert-amyl methyl ether	9.907	73	92777	24.21	ug/L		97
50) heptane	10.253	43	176444	44.19	ug/L		94
51) trichloroethene	10.409	95	189490	45.48	ug/L		97
52) 1,2-dichloropropane	10.377	63	212305	53.42	ug/L		99
53) dibromomethane	10.356	93	101548	50.08	ug/L		93
54) bromodichloromethane	10.465	83	255898	48.97	ug/L		98
55) Methylcyclohexane	10.921	83	238108	48.65	ug/L		97
56) 2-chloroethyl vinyl ether	10.377	63	212305	54.13	ug/L	#	100
57) methyl methacrylate	10.554	69	100112	55.10	ug/L		83
58) 1,4-dioxane	10.557	88	8029	270.49	ug/L	#	67
59) cis-1,3-dichloropropene	11.077	75	269966	53.48	ug/L		100
61) 4-methyl-2-pentanone	11.169	43	199283	53.58	ug/L		96
62) toluene	11.855	92	405496	48.38	ug/L		100
63) trans-1,3-dichloropropene	11.498	75	223649	55.11	ug/L		99
64) 1,1,2-trichloroethane	11.667	83	131153	48.56	ug/L		98
65) ethyl methacrylate	11.865	69	197450	57.11	ug/L		93
67) tetrachloroethene	12.594	166	157707	46.86	ug/L		98
68) 1,3-dichloropropane	11.904	76	267183	54.86	ug/L		100
69) dibromochloromethane	12.198	129	184247	52.93	ug/L		96
70) 1,2-dibromoethane	12.449	107	144175	52.85	ug/L		96
71) 2-hexanone	12.021	43	165911	55.58	ug/L		96
72) chlorobenzene	13.276	112	442241	49.07	ug/L		98
73) 1,1,1,2-tetrachloroethane	13.191	131	169865	51.76	ug/L		96
74) ethylbenzene	13.446	91	837019	49.82	ug/L		99
75) m,p-xylene	13.630	106	568862	92.61	ug/L		97
76) o-xylene	14.043	106	290337	48.66	ug/L		94
77) styrene	13.969	104	476015	55.00	ug/L		99
78) bromoform	13.803	173	110973	54.79	ug/L		99
79) trans-1,4-dichloro-2-b...	14.192	53	45468	51.19	ug/L	#	87
81) isopropylbenzene	14.404	105	776070	51.80	ug/L		99
83) bromobenzene	14.694	156	184884	52.15	ug/L		97
84) 1,1,2,2-tetrachloroethane	14.047	83	177111	53.97	ug/L		98
85) 1,2,3-trichloropropane	14.192	75	200292	55.26	ug/L		98
86) n-propylbenzene	14.846	91	984620	51.33	ug/L		99
87) 2-chlorotoluene	14.969	91	617787	50.64	ug/L		97
88) 4-chlorotoluene	15.044	91	663113	51.46	ug/L		98
89) 1,3,5-trimethylbenzene	15.125	105	716358	47.63	ug/L		98
90) tert-butylbenzene	15.429	91	453207	51.33	ug/L		100
91) 1,2,4-trimethylbenzene	15.535	105	716826	48.08	ug/L		98
92) sec-butylbenzene	15.648	105	864730	51.31	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90598.D
Acq On : 25 Sep 2014 10:20 pm
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3352,,,,5,1
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Sep 26 09:28:47 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

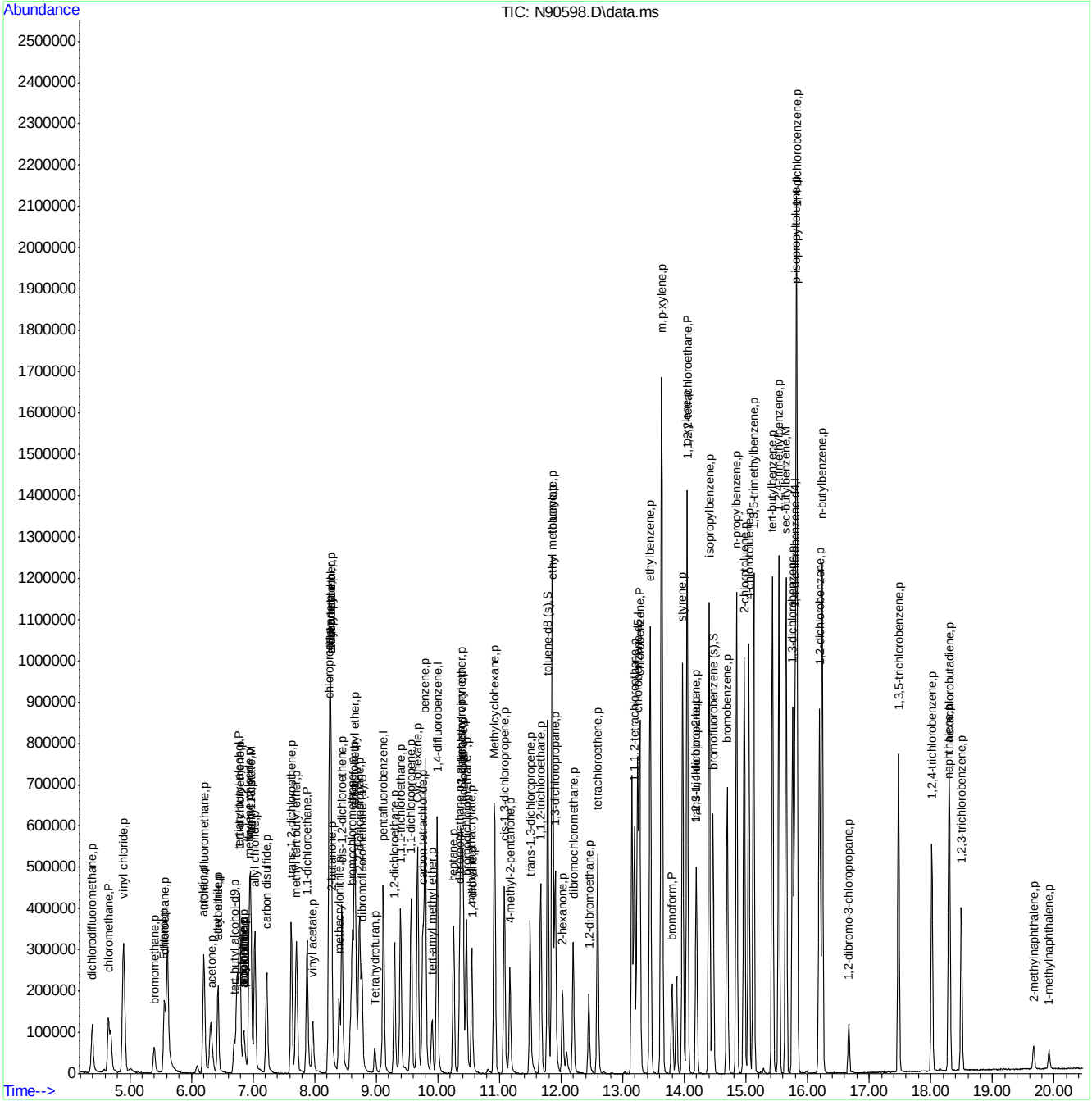
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	1,3-dichlorobenzene	15.758	146	359839	52.86	ug/L		98
94)	p-isopropyltoluene	15.818	119	724495	52.61	ug/L		99
95)	1,4-dichlorobenzene	15.825	146	346638	57.25	ug/L		96
96)	1,2-dichlorobenzene	16.193	146	360508	56.73	ug/L		97
97)	n-butylbenzene	16.235	91	755447	52.88	ug/L		100
98)	1,2-dibromo-3-chloropr...	16.666	75	32684	57.23	ug/L		95
99)	1,2,4-trichlorobenzene	18.017	180	178203	62.47	ug/L		100
100)	1,3,5-trichlorobenzene	17.476	180	242492	54.89	ug/L		98
101)	hexachlorobutadiene	18.303	225	119143	53.27	ug/L		100
102)	naphthalene	18.289	128	251016	61.76	ug/L		100
103)	1,2,3-trichlorobenzene	18.494	180	129961	62.97	ug/L		95
104)	2-methylnaphthalene	19.668	142	33191	28.49	ug/L	#	100
105)	1-methylnaphthalene	19.919	142	25868	29.71	ug/L		98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90598.D
Acq On : 25 Sep 2014 10:20 pm
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3352,,,,5,1
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Sep 26 09:28:47 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/29/14 10:19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90625.D
Acq On : 26 Sep 2014 11:02 am
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Sep 26 12:18:41 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.697	65	109977	500.00	ug/L		0.00
4) pentafluorobenzene	9.115	168	316312	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.985	114	496405	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	265872	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	218475	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.765	113	155666	47.97	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.94%				
60) toluene-d8 (s)	11.784	98	617515	51.87	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.74%				
82) bromofluorobenzene (s)	14.461	95	246954	46.36	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 92.72%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.785	59	196553	508.35	ug/L	#	100
3) Ethanol	5.559	45	293573m	5213.26	ug/L		
5) dichlorodifluoromethane	4.392	85	164422	39.48	ug/L		99
6) chloromethane	4.654	50	166363	32.59	ug/L		99
7) vinyl chloride	4.894	62	166577	48.46	ug/L		95
8) bromomethane	5.396	96	52992	34.82	ug/L		100
9) chloroethane	5.566	64	101689	49.75	ug/L		98
10) ethyl ether	6.432	59	140705	45.44	ug/L		91
11) acetonitrile	6.435	41	21010m	42.75	ug/L		
12) trichlorofluoromethane	6.202	101	243198	40.65	ug/L		99
13) freon-113	6.962	101	113913	43.05	ug/L		97
14) acrolein	6.202	56	91859	254.50	ug/L		92
15) 1,1-dichloroethene	6.785	96	103334	42.55	ug/L		93
16) acetone	6.333	58	30834	42.38	ug/L	#	77
17) Methyl Acetate	6.962	43	130375	46.71	ug/L		97
18) methylene chloride	6.944	84	140063	42.61	ug/L		97
19) methyl tert butyl ether	7.705	73	310983	40.07	ug/L		96
20) acrylonitrile	6.845	53	68348	49.85	ug/L		95
21) allyl chloride	7.029	41	258213	43.98	ug/L		93
22) trans-1,2-dichloroethene	7.623	96	130580	41.12	ug/L		99
23) iodomethane	6.860	142	53049m	27.91	ug/L		
24) carbon disulfide	7.220	76	371959	40.69	ug/L		99
25) propionitrile	6.853	54	2286	50.20	ug/L		100
26) vinyl acetate	7.970	43	274482	61.77	ug/L		98
27) chloroprene	8.235	53	250517	43.95	ug/L		98
28) di-isopropyl ether	8.260	45	686786	45.31	ug/L		97
29) methacrylonitrile	8.394	41	99969	44.72	ug/L		93
30) 2-butanone	8.288	72	19485	54.64	ug/L	#	13
31) Hexane	8.249	41	249889	44.82	ug/L		90
32) 1,1-dichloroethane	7.878	63	324249	41.65	ug/L		98
33) tert-butyl ethyl ether	8.659	59	210853	27.34	ug/L		97
34) isobutyl alcohol	8.263	43	527212	229.45	ug/L		93
35) 2,2-dichloropropane	8.726	77	236567	48.23	ug/L		98
36) cis-1,2-dichloroethene	8.443	96	155343	42.96	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90625.D
Acq On : 26 Sep 2014 11:02 am
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Sep 26 12:18:41 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.263	43	524090	46.31	ug/L		93
38) bromochloromethane	8.613	128	70822	47.84	ug/L		95
39) chloroform	8.645	83	294804	42.39	ug/L		100
41) Tetrahydrofuran	8.981	42	46766	46.74	ug/L		95
42) 1,1,1-trichloroethane	9.394	97	256090	48.02	ug/L		99
44) Cyclohexane	9.674	56	301244	44.72	ug/L		97
45) carbon tetrachloride	9.755	117	208429	42.93	ug/L		98
46) 1,1-dichloropropene	9.564	75	198585	45.53	ug/L		98
47) benzene	9.794	78	589713	41.44	ug/L		99
48) 1,2-dichloroethane	9.295	62	274769	41.24	ug/L		99
49) tert-amyl methyl ether	9.907	73	114438	28.72	ug/L		97
50) heptane	10.254	43	190082	46.69	ug/L		91
51) trichloroethene	10.409	95	172649	40.63	ug/L		95
52) 1,2-dichloropropane	10.377	63	198601	49.00	ug/L		100
53) dibromomethane	10.356	93	95679	46.27	ug/L		96
54) bromodichloromethane	10.466	83	235664	44.22	ug/L		97
55) Methylcyclohexane	10.918	83	233672	46.82	ug/L		99
56) 2-chloroethyl vinyl ether	10.377	63	198601	49.65	ug/L	#	99
57) methyl methacrylate	10.554	69	96114	51.87	ug/L		91
58) 1,4-dioxane	10.558	88	7322	240.50	ug/L		79
59) cis-1,3-dichloropropene	11.077	75	256922	49.93	ug/L		99
61) 4-methyl-2-pentanone	11.169	43	194458	51.27	ug/L		96
62) toluene	11.855	92	383550	44.88	ug/L		97
63) trans-1,3-dichloropropene	11.494	75	211107	51.01	ug/L		97
64) 1,1,2-trichloroethane	11.668	83	122285	44.40	ug/L		99
65) ethyl methacrylate	11.866	69	190331	53.99	ug/L		95
67) tetrachloroethene	12.590	166	147875	42.71	ug/L		97
68) 1,3-dichloropropane	11.904	76	254555	50.81	ug/L		97
69) dibromochloromethane	12.198	129	173202	48.36	ug/L		98
70) 1,2-dibromoethane	12.449	107	136900	48.78	ug/L		97
71) 2-hexanone	12.025	43	161652	52.64	ug/L		98
72) chlorobenzene	13.276	112	421323	45.44	ug/L		96
73) 1,1,1,2-tetrachloroethane	13.191	131	158683	47.01	ug/L		96
74) ethylbenzene	13.446	91	795449	46.03	ug/L		99
75) m,p-xylene	13.630	106	541062	85.62	ug/L		96
76) o-xylene	14.043	106	274181	44.67	ug/L		96
77) styrene	13.969	104	452578	50.83	ug/L		97
78) bromoform	13.799	173	103334	49.60	ug/L		99
79) trans-1,4-dichloro-2-b...	14.188	53	44367	48.68	ug/L		94
81) isopropylbenzene	14.404	105	731875	47.26	ug/L		99
83) bromobenzene	14.694	156	170687	46.58	ug/L		96
84) 1,1,2,2-tetrachloroethane	14.047	83	177985	52.14	ug/L		97
85) 1,2,3-trichloropropane	14.192	75	188043	50.19	ug/L		99
86) n-propylbenzene	14.846	91	939465	47.38	ug/L		98
87) 2-chlorotoluene	14.970	91	585639	46.44	ug/L		98
88) 4-chlorotoluene	15.047	91	623274	46.79	ug/L		99
89) 1,3,5-trimethylbenzene	15.125	105	678620	43.65	ug/L		100
90) tert-butylbenzene	15.429	91	428869	46.99	ug/L		95
91) 1,2,4-trimethylbenzene	15.532	105	679892	44.11	ug/L		98
92) sec-butylbenzene	15.648	105	821359	47.15	ug/L		100

ACCUTEST LABORATORIES MC33841

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90625.D
Acq On : 26 Sep 2014 11:02 am
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Sep 26 12:18:41 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

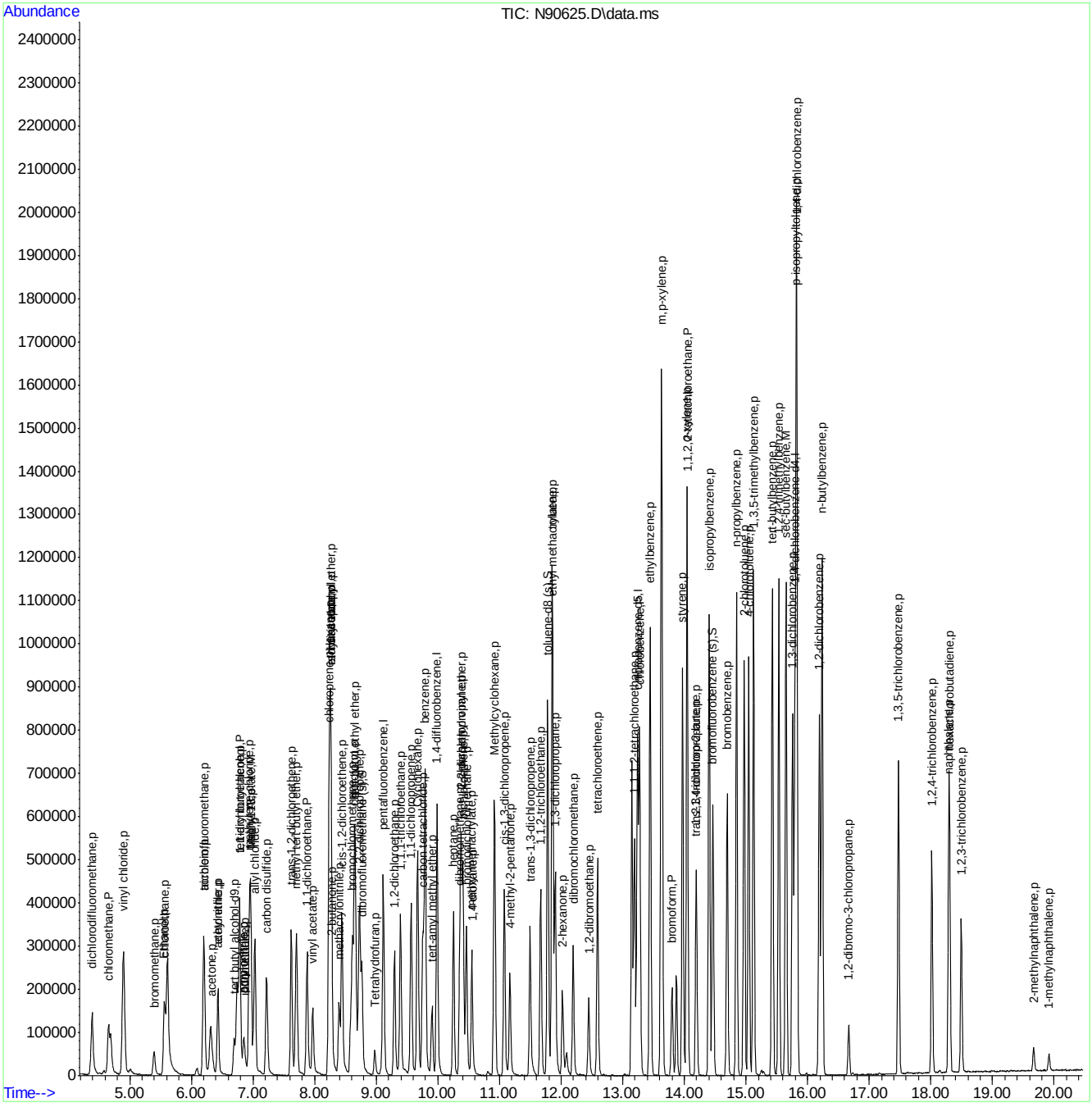
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	339687	48.21	ug/L		99
94) p-isopropyltoluene	15.818	119	695893	48.88	ug/L		99
95) 1,4-dichlorobenzene	15.825	146	329767	52.58	ug/L		96
96) 1,2-dichlorobenzene	16.189	146	336315	51.12	ug/L		99
97) n-butylbenzene	16.235	91	722154	48.90	ug/L		99
98) 1,2-dibromo-3-chloropr...	16.667	75	31085	52.65	ug/L		96
99) 1,2,4-trichlorobenzene	18.017	180	165000	55.96	ug/L		97
100) 1,3,5-trichlorobenzene	17.473	180	229110	50.17	ug/L		99
101) hexachlorobutadiene	18.303	225	113812	49.23	ug/L		99
102) naphthalene	18.289	128	236480	56.64	ug/L		100
103) 1,2,3-trichlorobenzene	18.491	180	120779	56.80	ug/L		90
104) 2-methylnaphthalene	19.668	142	30032	24.94	ug/L	#	100
105) 1-methylnaphthalene	19.915	142	22083	24.54	ug/L		97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140926\
Data File : N90625.D
Acq On : 26 Sep 2014 11:02 am
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 69 Sample Multiplier: 1

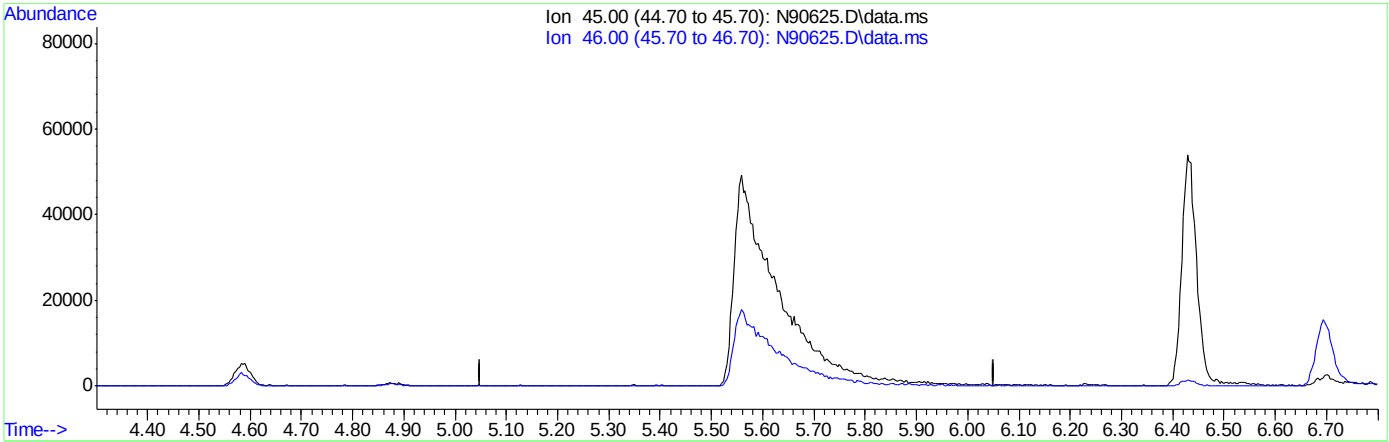
Quant Time: Sep 26 12:18:41 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

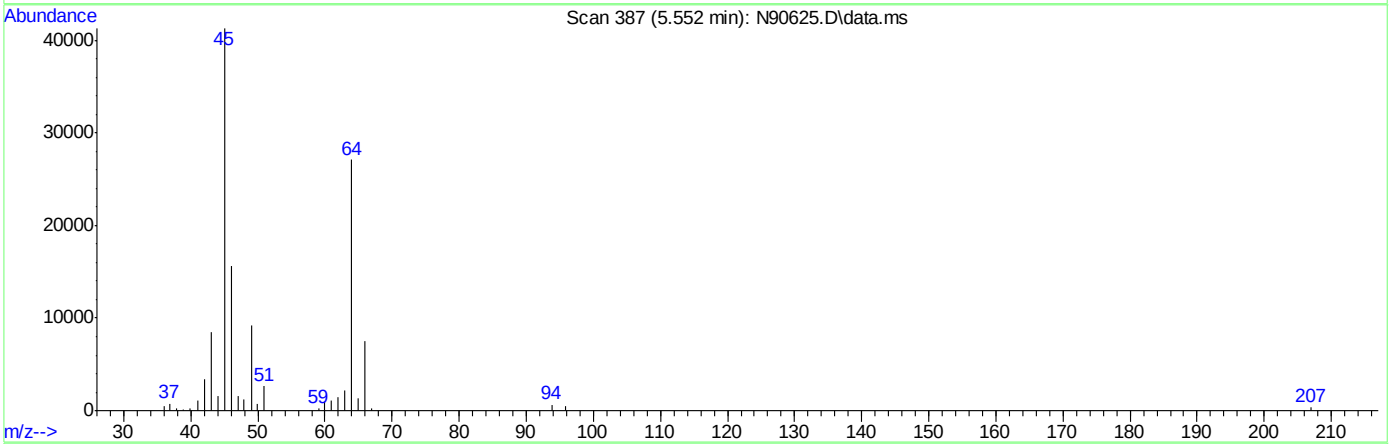


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90625.D
Acq On : 26 Sep 2014 11:02 am
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Sep 26 12:18:05 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90625.D\data.ms

(3) Ethanol (p)

5.551min (-5.551) 0.00ug/L

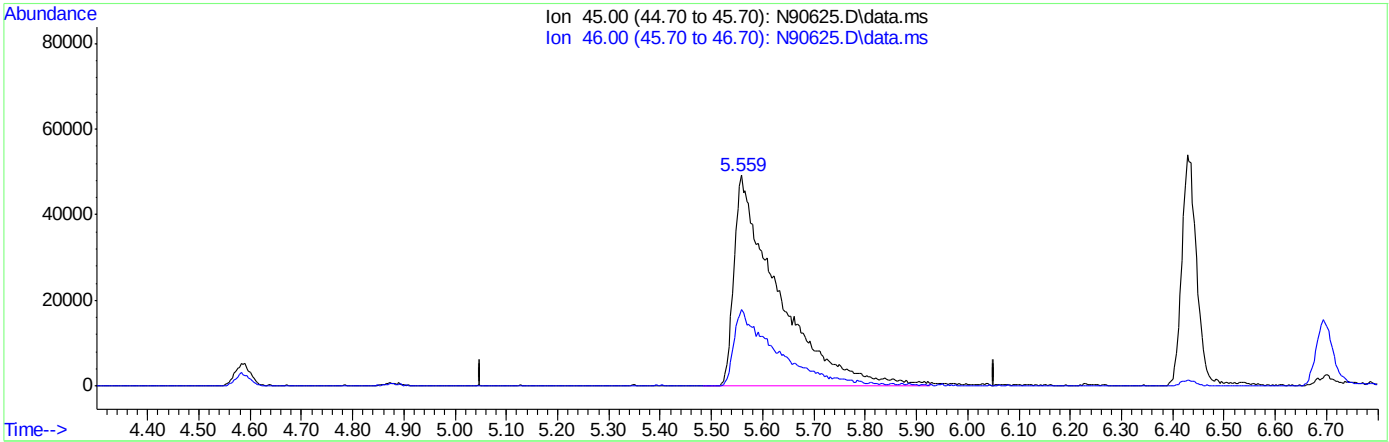
response 0

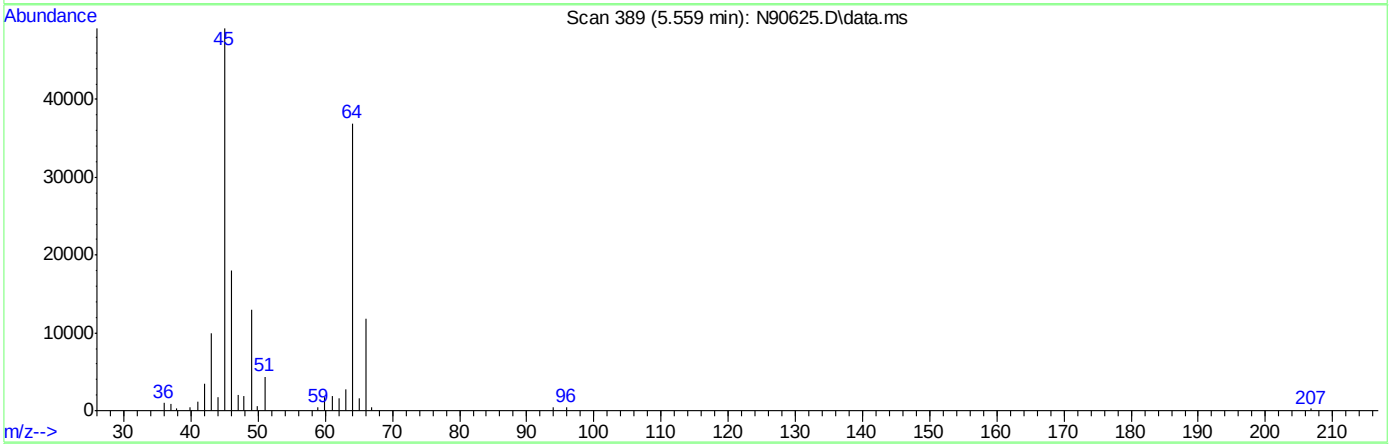
Ion	Exp%	Act%
45.00	100	0.00
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90625.D
Acq On : 26 Sep 2014 11:02 am
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Sep 26 12:18:05 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90625.D\data.ms

(3) Ethanol (p)

5.559min (+0.008) 5213.26ug/L m

response 293573

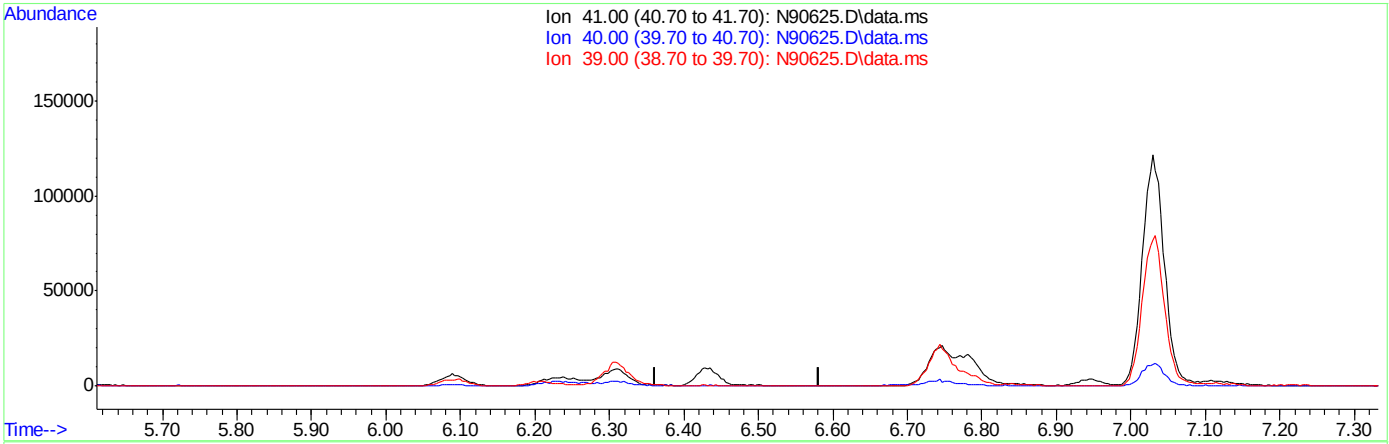
Ion	Exp%	Act%
45.00	100	100
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

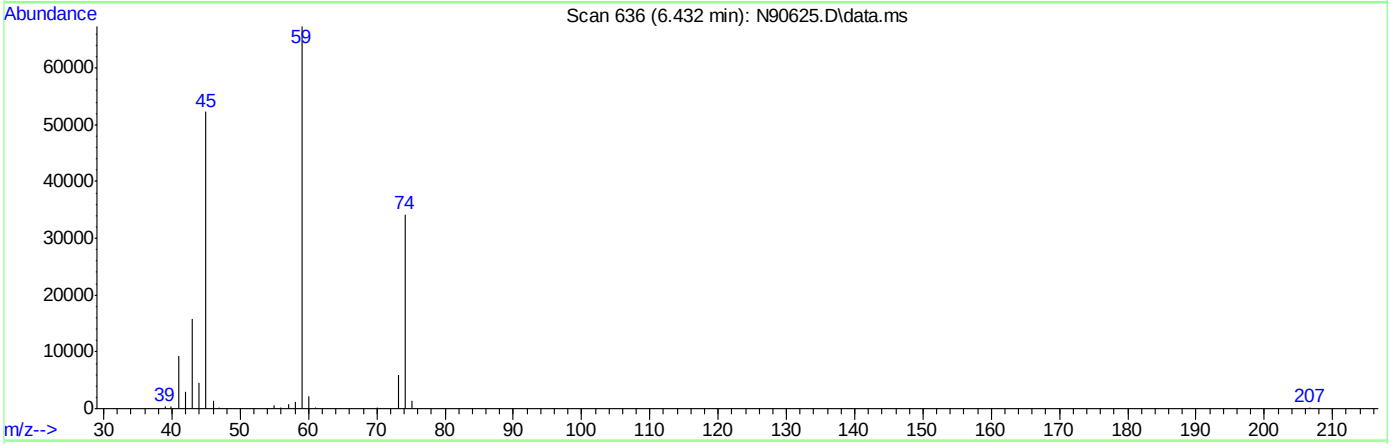
ACCUTEST LABORATORIES MC33841

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90625.D
Acq On : 26 Sep 2014 11:02 am
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Sep 26 12:18:05 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90625.D\data.ms

(11) acetonitrile (p)

6.432min (-6.432) 0.00ug/L

response 0

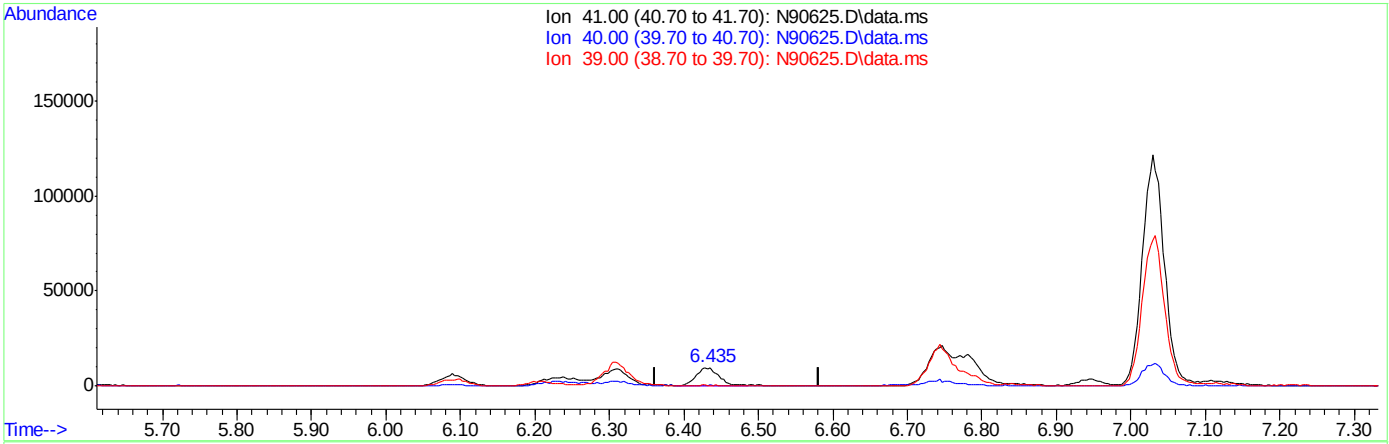
Ion	Exp%	Act%
41.00	100	0.00
40.00	0.80	0.00
39.00	5.00	0.00
0.00	0.00	0.00

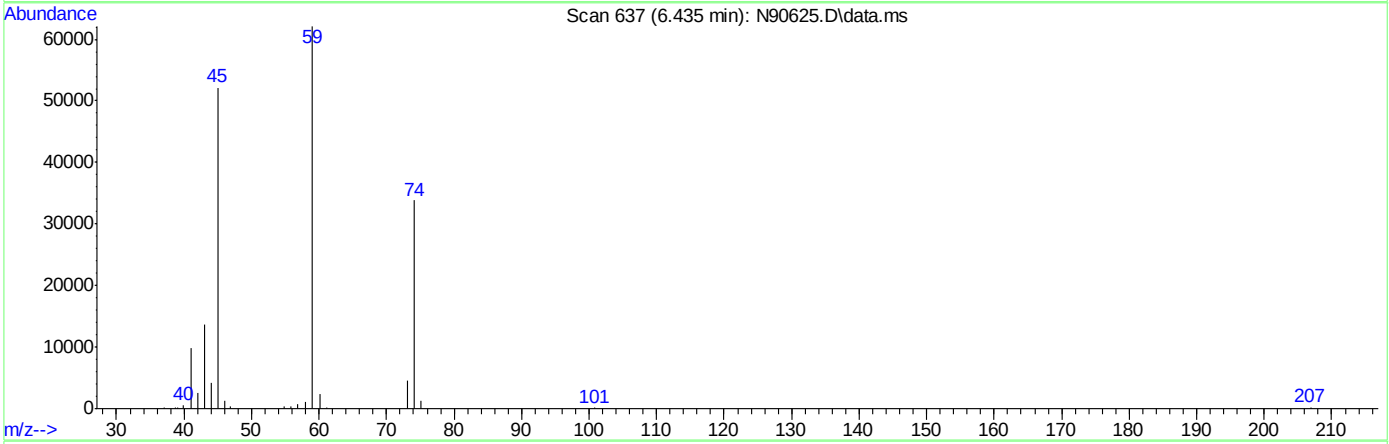
ACCUTEST LABORATORIES MC33841

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90625.D
Acq On : 26 Sep 2014 11:02 am
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Sep 26 12:18:05 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90625.D\data.ms

(11) acetonitrile (p)

6.435min (+0.003) 42.75ug/L m

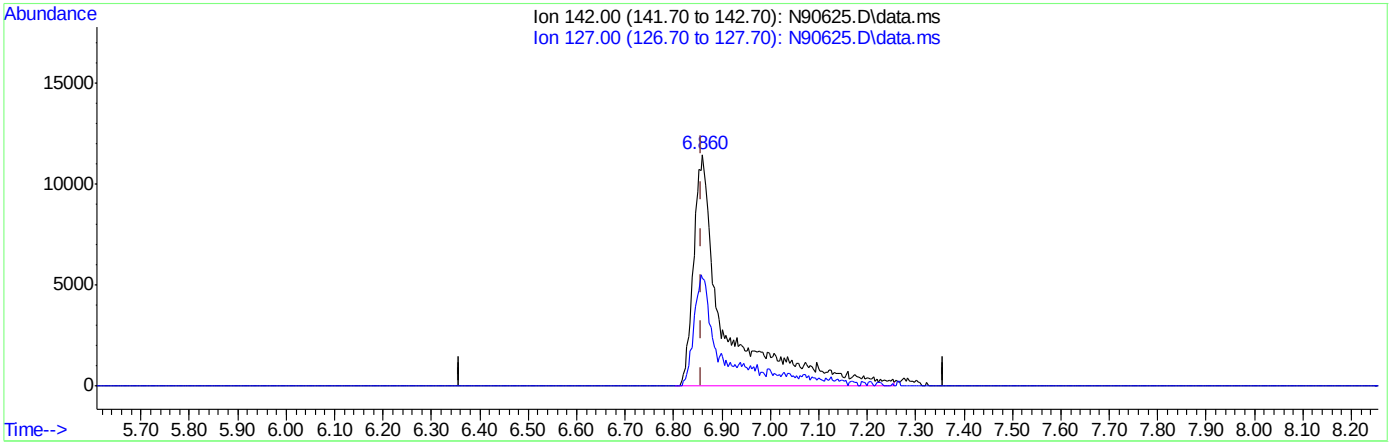
response 21010

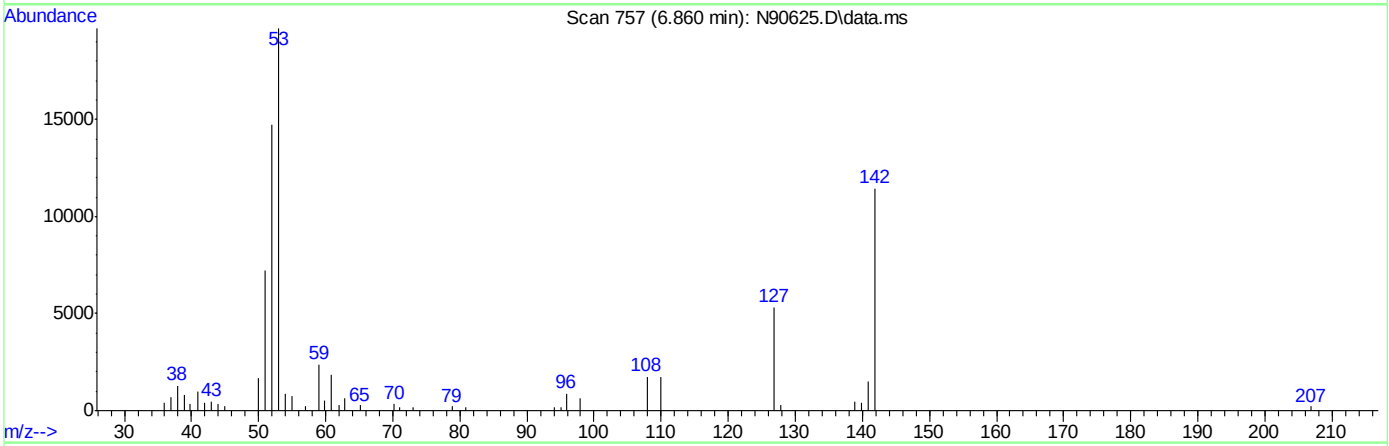
Ion	Exp%	Act%
41.00	100	100
40.00	0.80	5.73
39.00	5.00	2.40
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90625.D
Acq On : 26 Sep 2014 11:02 am
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Sep 26 12:18:05 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90625.D\data.ms

(23) iodomethane (p)

6.860min (+0.001) 27.50ug/L

response 52167

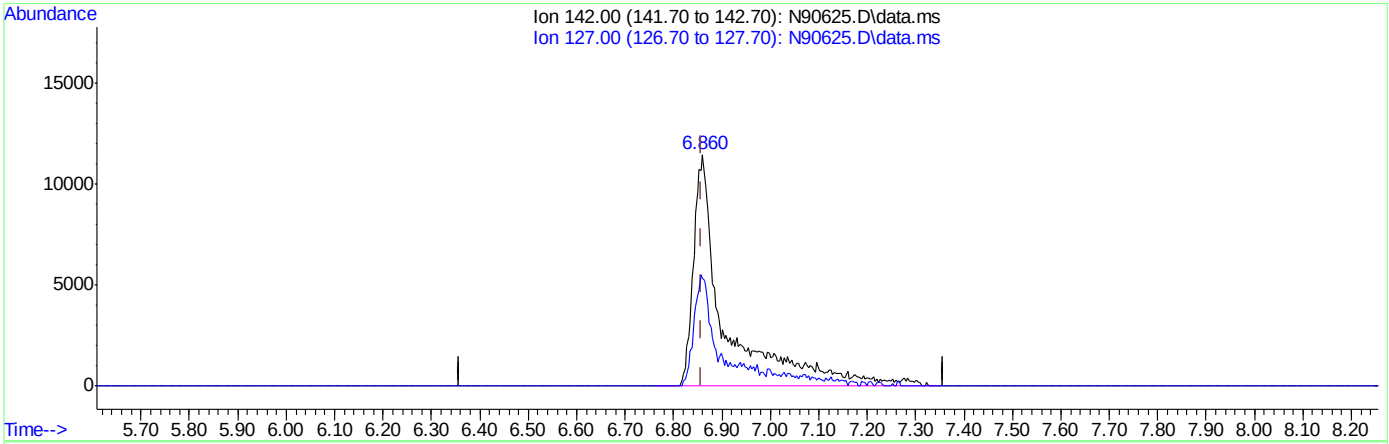
Ion	Exp%	Act%
142.00	100	100
127.00	47.30	46.50
0.00	0.00	0.00
0.00	0.00	0.00

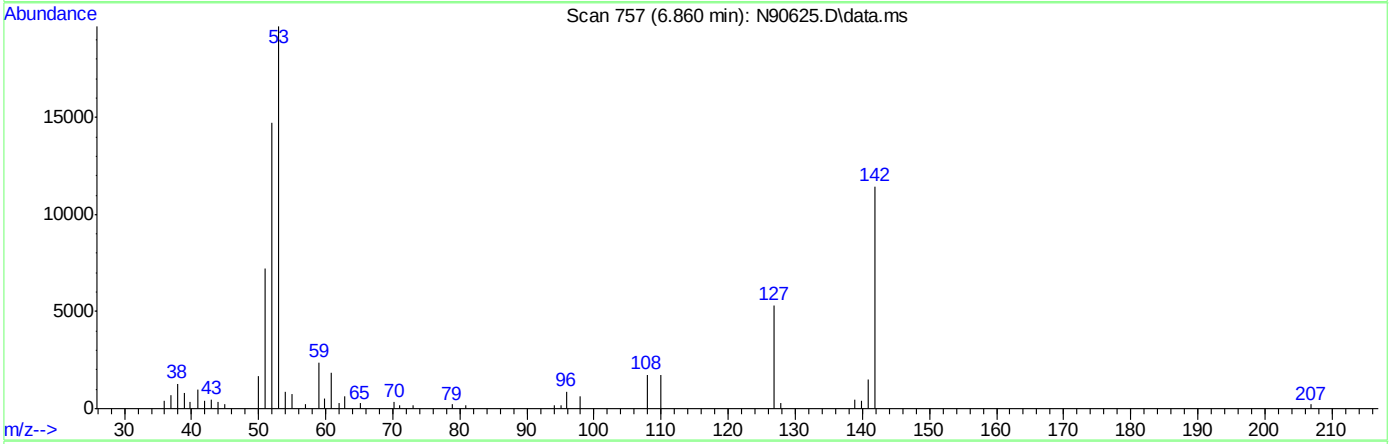
ACCUTEST LABORATORIES MC33841

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140925\
Data File : N90625.D
Acq On : 26 Sep 2014 11:02 am
Operator : krystend
Sample : cc3345-50
Misc : ms32815,MSN3353,,,,5,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Sep 26 12:18:05 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90625.D\data.ms

(23) iodomethane (p)

6.860min (+0.001) 27.91ug/L m

response 53049

Ion	Exp%	Act%
142.00	100	100
127.00	47.30	46.50
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33841

Accutest Laboratories of New England, Inc. **Instrument: GCMS N**

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Lot #	Description	Conc
MS9911	8260CC	200ug/mL
926	CCgas	200
910	BS	200
904	BSgas	200
840	IS	125
895	SS	200

Daily Saved File

Tune file 1:	N90385
Tune file 2:	NA
Initial Cal:	9/18/14
ID File:	N140918W.M
ICAL Verified:	KD
Sequence verified:	KD

Date: 9/18/14

Batch ID: MSN3345

Analysts KD

Signature:

*Note: If sample matrix is soil – method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
N90385	bfb	NA	MS9895	Curve	15	W	5mL	NA	1:1	NA	√√
86	test 0.5	2,1	MS9911/926		16						OK
87	test 5				17						OK
88	test 400				18						OK
89	blank	NA	NA		19						-
90	blank				20						-
91	IC3345-0.5	2,1	MS9911/926		21						√√
92	-1				22						√√
93	-2				23						√√
94	-5				24						√√
95	-10				25						√√
96	-25				26						√√
97	IC3345-50				27						√√
98	IC3345-100				28						√√
99	-200				29						√√
N90400	-400				30						√√
01	Blank	NA	NA		31						ICC
02					32						Stopped
03	ICV3345-50	2,2	MS9910/904		33						
04					34						
05	Blank	NA	NA		35						
06					36						

KD

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil.
Sample amount is reported in grams (wet) for soil and oil, mls for water

MS001-05 Date: 07/22/13

Review:

ACCUTEST LABORATORIES MC33841

Accutest Laboratories of New England, Inc. **Instrument: GCMS N**

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Lot #	Description	Conc
MS9911	8260CC	200ug/mL
926	CCgas	
910	BS	
904	BSgas	
905	IS+SS	125ug/mL

Daily Saved File

Tune file 1:	N90407
Tune file 2:	9/18/14
Initial Cal:	N140918W.M
ID File:	(Tune file 2: NA)
ICAL Verified:	KD
Sequence verified:	GK

Date: 9/19/14

Batch ID: MSN3345

Analysts KD

Signature:

*Note: If sample matrix is soil – method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
N90406	blank	NA	NA	NA	15	NA	5mL	NA	1:1	NA	-
07	BS (CC)	2,2	MS9910/904		16						ICV VV
08	BSD	↓	↓		17						-
09	iblk	NA	NA		18						-
10	mb	↓	↓	↓	19	↓				↓	VV
11	MC33464-9	2	MS32776	RCP	20	WTB				<2	VV
12	MC33644-8	1			21						VV
13	MC33645-1	1			22	↓					VV
14	MC33644-1	11			23	GW					VV
15	-4	10			24						VV
16	-5	12			25						VV
17	-7	12			26						VV
18	-3	9			27		↓	↓			VV
19	-2	11			28		500mL	1:10			RR1:5 odil
20	MC33645-2	1			29						RR1:1 odil
21	-4	2			30		↓	↓			RR1:2 odil
22	MC33464-1	2			31		5mL	1:1			VV
23	-2	2			32						VV
24	-3	2			33						VV
25	-4	1			34						VV
26	-5	2			35						VV
27	-6	2			36						VV
28	-7	1			37						VV
29	-8	1			38						VV
30	MC33646-1	6			39						VV
31	Blank	NA	NA	NA	40	NA			NA		-
32					41						-
33					42						-
34					43						-
35					44						-
36					45						-

= Matrix: Designate **W** for water, **S** for soil, **O** for oil.
ple amount is reported in grams (wet) for soil and oil, mls for water.

I-05 Date: 07/22/13

Review:

47

7.2.1

7

Accutest Laboratories of New England, Inc. **Instrument: GCMS N**

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Lot #	Description	Conc
MS9911	8260 CC	200ug/mL
926	CCgas	
910	BS	
904	BSgas	
929	IS+SS	125ug/mL

Daily Saved File

Tune file 1:	N90598
Tune file 2:	NA
Initial Cal:	9-18-14
ID File:	N140918W.M
ICAL Verified:	KD
Sequence verified:	BB

Date: 9/25/14

Batch ID: MSN3352

Analysts KD

Signature:

*Note: If sample matrix is soil – method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
N90598	CC3345-50	2,1	MS9911/926	NA	42	NA	5mL	NA	1:1	NA	VV
99	BS	2,2	MS9910/904		43						-
N90600	BSD				44						VV
01	blk	NA	NA		45						-
02	mb				46						VV
03	MC33841-5	1	MS32815	BTX	47	WTB				<2	VV
04	MC33845-14	2			48						VV
05	-2	2		BTXN	49	GW					VV
06	-9	1			50						VV
07	-11	2			51						VV
08	-4	3			52						VV
09	-7	1			53						VV
10	-6	3			54		1mL		1:5		VV
11	MC33841-1	4		BTX	55		5mL		1:1		VV
12	-2	6			56		500uL		1:10		RR 1:10 foamy
13	-3	6			57		5mL		1:1		RR 1:50 odd
14	-4	4			58						RR 1:100
15	MC33845-1	1		BTXN	59						VV
16	-3	3			60						VV
17	-5	3			61						VV
18	-8	2			62						VV
19	-10	1			63						VV
20	-12	3		BTX	64					>2	VV
21	-13	3			65						VV
22	-2MS	3		BTXN	66		1mL		1:5	<2	VV
23	-2MSD	3			67						VV
24	Blank	NA	NA	NA	68	NA	5mL		1:1	NA	-

9/25/14 KD

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil.
Sample amount is reported in grams (wet) for soil and oil, mls for water.

Review:_____

ACCUTEST LABORATORIES MC33841

Accutest Laboratories of New England, Inc. **Instrument: GCMS N**

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Lot #	Description	Conc
MS9911	8260CC	200ug/mL
926	CCgas	
910	BS	
904	BSgas	
929	ISTSS	125ug/mL

Daily Saved File

Tune file 1:	N90625
Tune file 2:	NA
Initial Cal:	9-18-14
ID File:	N140918W.M
ICAL Verified:	KD
Sequence verified:	KB

Date: 9/26/14

Batch ID: MSN3353

Analysts KD

Signature:

*Note: If sample matrix is soil – method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
N90625	CC3345-50	2,1	MS9911/926	NA	69	W	5mL	NA	1:1	NA	√√ iodomethane <40%
26	BS	3,2	MS9910/904		70						√√ naph ↑
27	BSD	↓	↓		15						-
28	iblk	NA	NA		16						-
29	mb	↓	↓	↓	17					↓	√√
30	MC33708-9	1	MS32831	TCL	18					<2	√√
31	MC33728-4	5		TCL11	19						√√
32	↓ -5	1	↓	↓	20						√√
33	MC33841-4	6	MS32815	BTX	21		↓		↓		√√
34	↓ -2	5	↓	↓	22		500mL		1:10		foamy √√
35	MC33708-1	13	MS32831	TCL	23		5mL		1:1		√√ J
36	MC33841-3	4	MS32815	BTX	24		100mL		1:50		√√ E!
37	MC33605-8	2	MS32814	Stdtmthe	25		250mL		1:20		√√
38	↓ -14	3	↓	↓	26		↓		↓		√√ ↓
39	MC33708-2	4	MS32831	TCL	27		5mL		1:1		√√
40	-3	4			28						√√
41	-4	5			29						√√
42	-5	5			30						√√
43	-6	6			31						√√
44	-7	5			32						√√
45	↓ -8	6		↓	33						√√
46	MC33728-1	6		TCL11	34						√√
47	-2	6			35						√√
48	↓ -3	6		↓	36						√√
49	MC33708-1MS	11,12		TCL	37						√√
50	↓ -1MSD	11,12	↓	↓	38						√√
51	Blank	NA	NA	NA	39				NA		√
52					40						√
53					41						√
54					42						√
55	↓	↓	↓	↓	43	↓	↓	↓	↓	↓	√

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil.
Sample amount is reported in grams (wet) for soil and oil, mls for water.

Review:

ACCUTEST LABORATORIES MC33841

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP39961-MB	F76467.D	1	09/29/14	WK	09/25/14	OP39961	MSF3354

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC33841-1, MC33841-2, MC33841-3, MC33841-4

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.0	0.32	ug/l	
208-96-8	Acenaphthylene	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	2.0	0.19	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.0	0.49	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.0	0.16	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.0	0.25	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	0.83	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.0	0.87	ug/l	
218-01-9	Chrysene	ND	2.0	0.17	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	0.64	ug/l	
206-44-0	Fluoranthene	ND	2.0	0.45	ug/l	
86-73-7	Fluorene	ND	2.0	0.21	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	0.82	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.26	ug/l	
91-20-3	Naphthalene	ND	2.0	0.30	ug/l	
85-01-8	Phenanthrene	ND	2.0	0.14	ug/l	
129-00-0	Pyrene	ND	2.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	49%	15-110%
4165-62-2	Phenol-d5	30%	15-110%
118-79-6	2,4,6-Tribromophenol	98%	15-110%
4165-60-0	Nitrobenzene-d5	93%	30-130%
321-60-8	2-Fluorobiphenyl	82%	30-130%
1718-51-0	Terphenyl-d14	92%	30-130%

Blank Spike Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP39961-BS	F76468.D	1	09/29/14	WK	09/25/14	OP39961	MSF3354

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC33841-1, MC33841-2, MC33841-3, MC33841-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	50.4	101	40-140
208-96-8	Acenaphthylene	50	46.0	92	40-140
120-12-7	Anthracene	50	51.7	103	40-140
56-55-3	Benzo(a)anthracene	50	55.6	111	40-140
50-32-8	Benzo(a)pyrene	50	52.9	106	40-140
205-99-2	Benzo(b)fluoranthene	50	59.3	119	40-140
191-24-2	Benzo(g,h,i)perylene	50	49.4	99	40-140
207-08-9	Benzo(k)fluoranthene	50	50.0	100	40-140
218-01-9	Chrysene	50	50.0	100	40-140
53-70-3	Dibenzo(a,h)anthracene	50	55.3	111	40-140
206-44-0	Fluoranthene	50	58.3	117	40-140
86-73-7	Fluorene	50	54.2	108	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	54.0	108	40-140
91-57-6	2-Methylnaphthalene	50	47.8	96	40-140
91-20-3	Naphthalene	50	47.3	95	40-140
85-01-8	Phenanthrene	50	53.2	106	40-140
129-00-0	Pyrene	50	49.0	98	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	50%	15-110%
4165-62-2	Phenol-d5	33%	15-110%
118-79-6	2,4,6-Tribromophenol	105%	15-110%
4165-60-0	Nitrobenzene-d5	103%	30-130%
321-60-8	2-Fluorobiphenyl	87%	30-130%
1718-51-0	Terphenyl-d14	89%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP39961-MS	F76469.D	1	09/29/14	WK	09/25/14	OP39961	MSF3354
OP39961-MSD	F76470.D	1	09/29/14	WK	09/25/14	OP39961	MSF3354
MC33800-11	F76471.D	1	09/29/14	WK	09/25/14	OP39961	MSF3354

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC33841-1, MC33841-2, MC33841-3, MC33841-4

CAS No.	Compound	MC33800-11 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	49.5	99	50	49.4	99	0	40-140/20
208-96-8	Acenaphthylene	ND		50	44.6	89	50	44.9	90	1	40-140/20
120-12-7	Anthracene	ND		50	50.4	101	50	49.5	99	2	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	54.8	110	50	54.5	109	1	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	53.3	107	50	52.2	104	2	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	58.5	117	50	55.2	110	6	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	49.3	99	50	47.3	95	4	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	52.8	106	50	48.9	98	8	40-140/20
218-01-9	Chrysene	ND		50	49.9	100	50	49.9	100	0	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	55.4	111	50	53.6	107	3	40-140/20
206-44-0	Fluoranthene	ND		50	56.1	112	50	55.7	111	1	40-140/20
86-73-7	Fluorene	ND		50	53.8	108	50	52.5	105	2	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	53.7	107	50	52.1	104	3	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	45.0	90	50	44.6	89	1	40-140/20
91-20-3	Naphthalene	ND		50	46.4	93	50	46.7	93	1	40-140/20
85-01-8	Phenanthrene	ND		50	51.6	103	50	51.5	103	0	40-140/20
129-00-0	Pyrene	ND		50	48.0	96	50	47.5	95	1	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC33800-11	Limits
367-12-4	2-Fluorophenol	51%	48%	53%	15-110%
4165-62-2	Phenol-d5	33%	32%	33%	15-110%
118-79-6	2,4,6-Tribromophenol	104%	99%	104%	15-110%
4165-60-0	Nitrobenzene-d5	103%	100%	101%	30-130%
321-60-8	2-Fluorobiphenyl	86%	84%	92%	30-130%
1718-51-0	Terphenyl-d14	88%	84%	92%	30-130%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3320-DFTPP
Lab File ID: F75538.D
Instrument ID: GCMSF
Injection Date: 08/25/14
Injection Time: 16:05

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	33576	53.7		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	32680	52.3		Pass
70	Less than 2.0% of mass 69	170	0.27	(0.52) [a]	Pass
127	40.0 - 60.0% of mass 198	34320	54.9		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	62472	100.0		Pass
199	5.0 - 9.0% of mass 198	5334	8.54		Pass
275	10.0 - 30.0% of mass 198	15115	24.2		Pass
365	1.0 - 100.0% of mass 198	1342	2.15		Pass
441	Present, but less than mass 443	6548	10.5	(92.9) [b]	Pass
442	40.0 - 100.0% of mass 198	34520	55.3		Pass
443	17.0 - 23.0% of mass 442	7051	11.3	(20.4) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSF3355-IC3355	F75541A.D	08/25/14	17:34	01:29	Initial cal 2
MSF3320-IC3320	F75541.D	08/25/14	17:34	01:29	Initial cal 2
MSF3355-IC3355	F75542A.D	08/25/14	17:57	01:52	Initial cal 5
MSF3320-IC3320	F75542.D	08/25/14	17:57	01:52	Initial cal 5
MSF3355-IC3355	F75543A.D	08/25/14	18:20	02:15	Initial cal 10
MSF3320-IC3320	F75543.D	08/25/14	18:20	02:15	Initial cal 10
MSF3320-IC3320	F75544.D	08/25/14	18:43	02:38	Initial cal 20
MSF3355-IC3355	F75544A.D	08/25/14	18:43	02:38	Initial cal 20
MSF3320-ICC3320	F75545.D	08/25/14	19:06	03:01	Initial cal 50
MSF3355-ICC3355	F75545A.D	08/25/14	19:06	03:01	Initial cal 50
MSF3320-IC3320	F75546.D	08/25/14	19:29	03:24	Initial cal 80
MSF3355-IC3355	F75546A.D	08/25/14	19:29	03:24	Initial cal 80
MSF3355-IC3355	F75547A.D	08/25/14	19:52	03:47	Initial cal 120
MSF3320-IC3320	F75547.D	08/25/14	19:52	03:47	Initial cal 120
MSF3320-IC3320	F75548.D	08/25/14	20:15	04:10	Initial cal 160
MSF3355-IC3355	F75548A.D	08/25/14	20:15	04:10	Initial cal 160
MSF3355-ICV3355	F75549A.D	08/25/14	20:38	04:33	Initial cal verification 50
MSF3320-ICV3320	F75549.D	08/25/14	20:38	04:33	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3354-DFTPP
Lab File ID: F76455.D
Instrument ID: GCMSF
Injection Date: 09/29/14
Injection Time: 07:38

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	46336	37.0		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	50400	40.2		Pass
70	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
127	40.0 - 60.0% of mass 198	58368	46.6		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	125312	100.0		Pass
199	5.0 - 9.0% of mass 198	8069	6.44		Pass
275	10.0 - 30.0% of mass 198	35000	27.9		Pass
365	0.8 - 100.0% of mass 198	4667	3.72		Pass
441	Present, but less than mass 443	23800	19.0	(97.9) [b]	Pass
442	40.0 - 100.0% of mass 198	121896	97.3		Pass
443	17.0 - 23.0% of mass 442	24320	19.4	(20.0) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSF3354-CC3320	F76456.D	09/29/14	08:01	00:23	Continuing cal 80
ZZZZZZ	F76457.D	09/29/14	08:24	00:46	(unrelated sample)
ZZZZZZ	F76458.D	09/29/14	08:48	01:10	(unrelated sample)
ZZZZZZ	F76459.D	09/29/14	09:11	01:33	(unrelated sample)
ZZZZZZ	F76460.D	09/29/14	09:35	01:57	(unrelated sample)
ZZZZZZ	F76461.D	09/29/14	09:58	02:20	(unrelated sample)
OP39969-MB	F76462.D	09/29/14	10:21	02:43	Method Blank
OP39969-BS	F76463.D	09/29/14	10:44	03:06	Blank Spike
OP39969-MS	F76464.D	09/29/14	11:07	03:29	Matrix Spike
OP39969-MSD	F76465.D	09/29/14	11:31	03:53	Matrix Spike Duplicate
MC33846-9	F76466.D	09/29/14	11:54	04:16	(used for QC only; not part of job MC33841)
OP39961-MB	F76467.D	09/29/14	12:17	04:39	Method Blank
OP39961-BS	F76468.D	09/29/14	12:40	05:02	Blank Spike
OP39961-MS	F76469.D	09/29/14	13:03	05:25	Matrix Spike
OP39961-MSD	F76470.D	09/29/14	13:26	05:48	Matrix Spike Duplicate
MC33800-11	F76471.D	09/29/14	13:49	06:11	(used for QC only; not part of job MC33841)
ZZZZZZ	F76472.D	09/29/14	14:12	06:34	(unrelated sample)
ZZZZZZ	F76473.D	09/29/14	14:35	06:57	(unrelated sample)
ZZZZZZ	F76474.D	09/29/14	14:58	07:20	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample:	MSF3354-DFTPP	**Injection Date:**	09/29/14
Lab File ID:	F76455.D	**Injection Time:**	07:38
Instrument ID:	GCMSF		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	F76475.D	09/29/14	15:22	07:44	(unrelated sample)
ZZZZZZ	F76476.D	09/29/14	15:45	08:07	(unrelated sample)
ZZZZZZ	F76477.D	09/29/14	16:08	08:30	(unrelated sample)
OP39966-MB	F76478.D	09/29/14	16:31	08:53	Method Blank
OP39966-BS	F76479.D	09/29/14	16:54	09:16	Blank Spike
ZZZZZZ	F76480.D	09/29/14	17:17	09:39	(unrelated sample)
ZZZZZZ	F76481.D	09/29/14	17:41	10:03	(unrelated sample)
ZZZZZZ	F76482.D	09/29/14	18:04	10:26	(unrelated sample)
ZZZZZZ	F76483.D	09/29/14	18:27	10:49	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-DFTPP
Lab File ID: R39637.D
Instrument ID: GCMSR
Injection Date: 09/11/14
Injection Time: 10:51

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	128280	45.2		Pass
68	Less than 2.0% of mass 69	1682	0.59	(1.35) [a]	Pass
69	Mass 69 relative abundance	124608	43.9		Pass
70	Less than 2.0% of mass 69	582	0.21	(0.47) [a]	Pass
127	40.0 - 60.0% of mass 198	139584	49.2		Pass
197	Less than 1.0% of mass 198	1108	0.39		Pass
198	Base peak, 100% relative abundance	283776	100.0		Pass
199	5.0 - 9.0% of mass 198	18784	6.62		Pass
275	10.0 - 30.0% of mass 198	58872	20.7		Pass
365	1.0 - 100.0% of mass 198	6790	2.39		Pass
441	Present, but less than mass 443	24504	8.63	(87.0) [b]	Pass
442	40.0 - 100.0% of mass 198	151744	53.5		Pass
443	17.0 - 23.0% of mass 442	28160	9.92	(18.6) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSR1461-IC1461	R39638.D	09/11/14	11:30	00:39	Initial cal 2
MSR1461-IC1461	R39639.D	09/11/14	11:55	01:04	Initial cal 5
MSR1461-IC1461	R39640.D	09/11/14	12:19	01:28	Initial cal 10
MSR1461-IC1461	R39641.D	09/11/14	12:43	01:52	Initial cal 20
MSR1461-ICC1461	R39642.D	09/11/14	13:08	02:17	Initial cal 50
MSR1461-IC1461	R39643.D	09/11/14	13:32	02:41	Initial cal 80
MSR1461-IC1461	R39644.D	09/11/14	13:56	03:05	Initial cal 120
MSR1461-IC1461	R39645.D	09/11/14	14:21	03:30	Initial cal 160
MSR1461-ICV1461	R39648A.D	09/11/14	15:40	04:49	Initial cal verification 50
OP39764-MB	R39649.D	09/11/14	16:03	05:12	Method Blank
OP39764-BS	R39650.D	09/11/14	16:27	05:36	Blank Spike
ZZZZZZ	R39651.D	09/11/14	16:52	06:01	(unrelated sample)
ZZZZZZ	R39652.D	09/11/14	17:16	06:25	(unrelated sample)
ZZZZZZ	R39653.D	09/11/14	17:40	06:49	(unrelated sample)
ZZZZZZ	R39654.D	09/11/14	18:05	07:14	(unrelated sample)
ZZZZZZ	R39655.D	09/11/14	18:29	07:38	(unrelated sample)
OP39750-MB	R39656.D	09/11/14	18:53	08:02	Method Blank
OP39750-BS	R39657.D	09/11/14	19:18	08:27	Blank Spike
OP39750-MS	R39658.D	09/11/14	19:42	08:51	Matrix Spike

Instrument Performance Check (DFTPP)

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample:	MSR1461-DFTPP	**Injection Date:**	09/11/14
Lab File ID:	R39637.D	**Injection Time:**	10:51
Instrument ID:	GCMSR		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
OP39750-MSD	R39659.D	09/11/14	20:06	09:15	Matrix Spike Duplicate
MC33200-17	R39660.D	09/11/14	20:31	09:40	(used for QC only; not part of job MC33841)
ZZZZZZ	R39661.D	09/11/14	20:55	10:04	(unrelated sample)
ZZZZZZ	R39662.D	09/11/14	21:19	10:28	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1474-DFTPP
Lab File ID: R40056.D
Instrument ID: GCMSR
Injection Date: 10/01/14
Injection Time: 08:26

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	139826	35.6		Pass
68	Less than 2.0% of mass 69	2345	0.60	(1.49) [a]	Pass
69	Mass 69 relative abundance	157013	40.0		Pass
70	Less than 2.0% of mass 69	792	0.20	(0.50) [a]	Pass
127	40.0 - 60.0% of mass 198	187669	47.8		Pass
197	Less than 1.0% of mass 198	560	0.14		Pass
198	Base peak, 100% relative abundance	392469	100.0		Pass
199	5.0 - 9.0% of mass 198	26040	6.63		Pass
275	10.0 - 30.0% of mass 198	90301	23.0		Pass
365	1.0 - 100.0% of mass 198	10268	2.62		Pass
441	Present, but less than mass 443	41947	10.7	(78.0) [b]	Pass
442	40.0 - 100.0% of mass 198	276629	70.5		Pass
443	17.0 - 23.0% of mass 442	53755	13.7	(19.4) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSR1474-CC1461	R40057.D	10/01/14	08:50	00:24	Continuing cal 50
ZZZZZZ	R40058.D	10/01/14	09:28	01:02	(unrelated sample)
MC33841-1	R40059.D	10/01/14	09:52	01:26	MW-5R
MC33841-2	R40060.D	10/01/14	10:17	01:51	MW-2
MC33841-3	R40061.D	10/01/14	10:41	02:15	MW-15RS
MC33841-4	R40062.D	10/01/14	11:05	02:39	MW-15RD
ZZZZZZ	R40064.D	10/01/14	11:54	03:28	(unrelated sample)
ZZZZZZ	R40065.D	10/01/14	12:19	03:53	(unrelated sample)
ZZZZZZ	R40066.D	10/01/14	12:43	04:17	(unrelated sample)
OP40026-MB	R40067.D	10/01/14	13:08	04:42	Method Blank
OP40026-BS	R40068.D	10/01/14	13:32	05:06	Blank Spike
ZZZZZZ	R40069.D	10/01/14	13:57	05:31	(unrelated sample)
ZZZZZZ	R40070.D	10/01/14	14:22	05:56	(unrelated sample)
ZZZZZZ	R40071.D	10/01/14	14:46	06:20	(unrelated sample)
ZZZZZZ	R40072.D	10/01/14	15:11	06:45	(unrelated sample)
ZZZZZZ	R40073.D	10/01/14	15:36	07:10	(unrelated sample)
ZZZZZZ	R40074.D	10/01/14	16:00	07:34	(unrelated sample)
ZZZZZZ	R40075.D	10/01/14	16:25	07:59	(unrelated sample)
ZZZZZZ	R40076.D	10/01/14	16:49	08:23	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample:	MSR1474-DFTPP	**Injection Date:**	10/01/14
Lab File ID:	R40056.D	**Injection Time:**	08:26
Instrument ID:	GCMSR		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
OP40023-MB	R40077.D	10/01/14	17:14	08:48	Method Blank
OP40023-BS	R40078.D	10/01/14	17:38	09:12	Blank Spike
OP40023-MS	R40079.D	10/01/14	18:03	09:37	Matrix Spike
OP40023-MSD	R40080.D	10/01/14	18:27	10:01	Matrix Spike Duplicate
MC33900-5	R40081.D	10/01/14	18:52	10:26	(used for QC only; not part of job MC33841)
ZZZZZZ	R40082.D	10/01/14	19:16	10:50	(unrelated sample)
ZZZZZZ	R40083.D	10/01/14	19:40	11:14	(unrelated sample)
ZZZZZZ	R40084.D	10/01/14	20:05	11:39	(unrelated sample)

Semivolatile Internal Standard Area Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std: MSF3354-CC3320 **Injection Date:** 09/29/14
Lab File ID: F76456.D **Injection Time:** 08:01
Instrument ID: GCMSF **Method:** SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	117833	3.54	427456	4.58	267237	6.08	459467	7.34	540834	9.72	512320	11.28
Upper Limit [a]	235666	4.04	854912	5.08	534474	6.58	918934	7.84	1081668	10.22	1024640	11.78
Lower Limit [b]	58917	3.04	213728	4.08	133619	5.58	229734	6.84	270417	9.22	256160	10.78

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	113765	3.54	416862	4.57	257454	6.08	448671	7.34	544217	9.73	592621	11.29
ZZZZZZ	117817	3.54	424708	4.57	259207	6.07	452463	7.34	538756	9.72	587774	11.29
ZZZZZZ	151710	3.54	546205	4.57	314948	6.08	512561	7.34	576655	9.73	628185	11.29
ZZZZZZ	149788	3.54	529147	4.58	306795	6.08	496900	7.34	612735	9.73	652364	11.30
ZZZZZZ	141518	3.54	519671	4.57	301838	6.08	495899	7.34	621246	9.73	636803	11.30
OP39969-MB	152666	3.54	545717	4.57	320670	6.08	521869	7.34	637341	9.72	621183	11.28
OP39969-BS	161651	3.54	568491	4.58	335514	6.08	530014	7.34	584401	9.72	619254	11.28
OP39969-MS	152387	3.54	543579	4.58	317009	6.08	513456	7.34	564114	9.72	587817	11.28
OP39969-MSD	182997	3.54	630925	4.58	369662	6.08	573681	7.34	633612	9.72	631646	11.28
MC33846-9	172701	3.54	600923	4.57	347460	6.08	567154	7.33	595578	9.72	625541	11.28
OP39961-MB	126942	3.54	462550	4.57	286385	6.08	495579	7.33	597640	9.72	601555	11.27
OP39961-BS	130564	3.54	468496	4.57	296201	6.08	499483	7.34	634714	9.72	609213	11.28
OP39961-MS	131568	3.54	475195	4.57	293453	6.08	493955	7.34	625098	9.72	593494	11.28
OP39961-MSD	128481	3.54	465061	4.57	286258	6.08	484624	7.34	612194	9.72	588394	11.28
MC33800-11	121404	3.54	447152	4.57	273951	6.07	481968	7.33	593954	9.71	575722	11.27
ZZZZZZ	120958	3.54	436119	4.57	271855	6.08	481000	7.33	585252	9.71	577600	11.27
ZZZZZZ	154250	3.54	540241	4.57	322070	6.08	517648	7.33	540800	9.71	548517	11.27
ZZZZZZ	161852	3.54	577219	4.57	336443	6.07	540237	7.33	568805	9.71	574283	11.27
ZZZZZZ	168566	3.54	590885	4.57	344369	6.08	552062	7.33	574870	9.71	577297	11.27
ZZZZZZ	127926	3.54	485045	4.57	302346	6.08	510477	7.34	641097	9.72	645995	11.28
ZZZZZZ	135871	3.54	514821	4.57	314985	6.08	523945	7.34	658624	9.72	673254	11.29
OP39966-MB	178494	3.54	636542	4.57	368110	6.07	597492	7.33	662872	9.72	683256	11.27
OP39966-BS	180268	3.54	630298	4.57	376782	6.08	586826	7.34	684240	9.72	659120	11.28
ZZZZZZ	129500	3.54	444975	4.57	267815	6.08	460913	7.34	629712	9.73	612301	11.29
ZZZZZZ	174724	3.54	617842	4.57	362627	6.07	594485	7.33	628675	9.72	649872	11.28
ZZZZZZ	126535	3.54	450816	4.57	272430	6.07	455365	7.33	614730	9.72	592882	11.29
ZZZZZZ	157582	3.54	541019	4.57	324483	6.08	537008	7.33	657941	9.72	657612	11.28

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

Semivolatile Internal Standard Area Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std:	MSF3354-CC3320	**Injection Date:**	09/29/14
Lab File ID:	F76456.D	**Injection Time:**	08:01
Instrument ID:	GCMSF	**Method:**	SW846 8270D

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std: MSR1474-CC1461 **Injection Date:** 10/01/14
Lab File ID: R40057.D **Injection Time:** 08:50
Instrument ID: GCMSR **Method:** SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	306202	4.52	1168302	5.61	692930	7.13	1146317	8.41	1165624	10.78	1019848	12.32
Upper Limit [a]	612404	5.02	2336604	6.11	1385860	7.63	2292634	8.91	2331248	11.28	2039696	12.82
Lower Limit [b]	153101	4.02	584151	5.11	346465	6.63	573159	7.91	582812	10.28	509924	11.82

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	331567	4.51	1263613	5.61	749809	7.13	1243320	8.41	1209831	10.78	1123617	12.32
MC33841-1	353454	4.51	1322308	5.61	780526	7.13	1274292	8.41	1189184	10.78	1078664	12.32
MC33841-2	352698	4.51	1340999	5.61	796318	7.13	1326375	8.41	1270168	10.78	1178086	12.32
MC33841-3	342502	4.51	1307285	5.61	771574	7.13	1280151	8.41	1246625	10.78	1140054	12.32
MC33841-4	334867	4.51	1304603	5.61	763344	7.13	1260263	8.41	1218079	10.78	1112271	12.32
ZZZZZZ	330078	4.52	1191967	5.62	727051	7.13	1206878	8.41	1164656	10.78	1067428	12.32
ZZZZZZ	299383	4.52	1062044	5.62	652696	7.14	987367	8.43	1116413	10.78	1014632	12.32
ZZZZZZ	342644	4.51	1277032	5.61	751573	7.13	1231631	8.41	1184526	10.78	1111012	12.32
OP40026-MB	335585	4.52	1259205	5.61	728960	7.13	1175946	8.41	1098219	10.78	900876	12.32
OP40026-BS	392037	4.52	1433938	5.61	821760	7.13	1308200	8.41	1232110	10.78	1024249	12.32
ZZZZZZ	360575	4.51	1349996	5.61	780270	7.13	1253225	8.41	1125842	10.78	998481	12.32
ZZZZZZ	364758	4.51	1333720	5.61	764442	7.13	1224924	8.41	1204619	10.81	1183720	12.36
ZZZZZZ	346786	4.51	1293615	5.61	743013	7.13	1204707	8.41	1199266	10.81	1185267	12.37
ZZZZZZ	362325	4.51	1342379	5.61	782820	7.13	1253674	8.41	1129735	10.78	1004621	12.32
ZZZZZZ	376309	4.51	1390618	5.61	800704	7.13	1270341	8.41	1123783	10.78	998133	12.32
ZZZZZZ	345241	4.51	1286458	5.61	750728	7.13	1206765	8.41	1085188	10.78	971369	12.32
ZZZZZZ	356168	4.51	1336352	5.61	770546	7.13	1251883	8.41	1134343	10.78	995533	12.32
ZZZZZZ	359764	4.51	1322304	5.61	759432	7.13	1222511	8.41	1083118	10.78	964245	12.32
OP40023-MB	377726	4.51	1440112	5.61	829122	7.13	1322816	8.41	1237437	10.78	1157956	12.32
OP40023-BS	361289	4.52	1335744	5.61	770096	7.13	1251001	8.41	1253290	10.79	1115097	12.32
OP40023-MS	356065	4.52	1330739	5.61	772257	7.13	1255273	8.41	1255003	10.78	1117720	12.32
OP40023-MSD	349833	4.51	1321342	5.61	771407	7.13	1255874	8.41	1264441	10.78	1131043	12.32
MC33900-5	338088	4.51	1306831	5.61	762964	7.13	1262415	8.41	1209829	10.78	1120314	12.32
ZZZZZZ	361131	4.51	1361019	5.61	792907	7.13	1288379	8.41	1232632	10.78	1150616	12.32
ZZZZZZ	343831	4.51	1328687	5.61	762303	7.13	1219080	8.41	1150662	10.78	1071220	12.32
ZZZZZZ	310233	4.52	1138882	5.61	685747	7.14	1053315	8.42	1163644	10.78	1035644	12.32

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std:	MSR1474-CC1461	**Injection Date:**	10/01/14
Lab File ID:	R40057.D	**Injection Time:**	08:50
Instrument ID:	GCMSR	**Method:**	SW846 8270D

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Method: SW846 8270D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC33841-1	R40059.D	78	77	96
MC33841-2	R40060.D	69	70	80
MC33841-3	R40061.D	70	68	88
MC33841-4	R40062.D	79	77	89
OP39961-BS	F76468.D	103	87	89
OP39961-MB	F76467.D	93	82	92
OP39961-MS	F76469.D	103	86	88
OP39961-MSD	F76470.D	100	84	84

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	30-130%
S2 = 2-Fluorobiphenyl	30-130%
S3 = Terphenyl-d14	30-130%

Initial Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3320-ICC3320
Lab FileID: F75545.D

Response Factor Report MSF

Method : W:\2\METHODS\F140825_8270.m (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Thu Sep 04 10:01:23 2014
Response via : Initial Calibration

Calibration Files
50 =f75545.D 5 =f75542.D 10 =f75543.D 20 =f75544.D
80 =f75546.D 2 =f75541.D 120 =f75547.D 160 =f75548.D

Compound	50	5	10	20	80	2	120	160	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	ISTD									
2) N-Nitrosodim	0.940	0.835	0.850	0.921	0.913	0.749	0.922	0.885	0.877	7.23
3) 1,4-Dioxane	0.630	0.554	0.577	0.609	0.604	0.534	0.620	0.612	0.592	5.71
4) Pyridine	1.693	1.375	1.555	1.658	1.634	1.361	1.637	1.583	1.562	8.14
5) Aniline	2.213	1.827	1.941	2.181	2.127		2.161	2.045	2.071	6.85
6) 2-Fluorophen	1.369	1.234	1.232	1.330	1.362	1.201	1.376	1.347	1.307	5.49
7) bis(2-Chloro	1.349	1.247	1.205	1.295	1.309	1.145	1.298	1.266	1.264	5.12
8) Phenol-d5	1.654	1.615	1.493	1.678	1.624	1.490	1.713	1.642	1.614	5.04
9) Phenol	1.824	1.711	1.663	1.817	1.797	1.501	1.807	1.730	1.731	6.33
10) 2-Chlorophen	1.447	1.350	1.295	1.432	1.406	1.222	1.442	1.369	1.370	5.80
11) 1,3-Dichloro	1.600	1.553	1.458	1.582	1.542	1.353	1.572	1.507	1.521	5.37
12) 1,4-Dichloro	1.660	1.505	1.521	1.596	1.597	1.413	1.610	1.568	1.559	4.94
13) 1,2-Dichloro	1.513	1.451	1.397	1.511	1.498	1.349	1.496	1.439	1.457	4.09
14) Benzyl alcoh	0.966	0.893	0.878	0.959	0.957	0.834	0.969	0.938	0.924	5.40
15) bis(2-chloro	1.714	1.758	1.599	1.701	1.625	1.702	1.647	1.578	1.665	3.77
16) o-cresol	1.342	1.227	1.254	1.326	1.315	1.075	1.341	1.266	1.268	7.02
17) Acetophenone	2.018	1.865	1.832	2.061	2.022	1.737	2.092	1.973	1.950	6.41
18) Hexachloroet	0.589	0.554	0.538	0.568	0.578	0.526	0.586	0.563	0.563	3.97
19) N-Nitroso-di	0.981	0.920	0.868	0.977	0.963	0.847	0.980	0.922	0.932	5.63
20) m+p-cresols	1.410	1.308	1.252	1.386	1.389	1.240	1.424	1.347	1.344	5.27
21) 4-methylphen	1.410	1.308	1.252	1.386	1.389	1.240	1.424	1.347	1.344	5.27
22) I Naphthalene-d8	ISTD									
23) Nitrobenzene	0.389	0.367	0.359	0.389	0.400	0.357	0.407	0.387	0.382	4.89
24) Nitrobenzene	0.392	0.384	0.377	0.388	0.403	0.366	0.391	0.376	0.385	2.98
25) Isophorone	0.699	0.668	0.647	0.705	0.708	0.599	0.700	0.659	0.673	5.59
26) 2-Nitropheno	0.207	0.184	0.181	0.198	0.216	0.153	0.216	0.205	0.195	11.02
27) 2,4-Dimethyl	0.383	0.363	0.369	0.384	0.386	0.344	0.382	0.360	0.371	4.03
28) bis(2-Chloro	0.439	0.407	0.402	0.431	0.435	0.386	0.435	0.406	0.417	4.73
29) Benzoic acid	0.304		0.187	0.277	0.289		0.273	0.267	0.266	15.37
30) 2,4-Dichloro	0.314	0.288	0.295	0.319	0.322	0.267	0.322	0.304	0.304	6.44
31) 1,2,4-Trichl	0.344	0.331	0.323	0.336	0.349	0.294	0.342	0.326	0.331	5.23
32) Naphthalene	1.064	1.015	0.999	1.058	1.070	0.942	1.052	0.999	1.025	4.31
33) 2,6-Dichloro	0.326	0.298	0.285	0.310	0.326		0.323	0.304	0.310	5.06
34) 4-Chloroanil	0.459	0.375	0.398	0.457	0.469		0.461	0.440	0.437	8.31
35) Hexachlorobu	0.188	0.176	0.179	0.187	0.192	0.162	0.191	0.179	0.182	5.52
36) 4-Chloro-3-m	0.330	0.315	0.290	0.327	0.335	0.288	0.334	0.318	0.317	5.86
37) 2-Methylnaph	0.742	0.687	0.694	0.750	0.759	0.652	0.744	0.701	0.716	5.30
38) 1-methylnaph	0.689	0.628	0.624	0.700	0.701	0.641	0.708	0.671	0.670	5.16
39) I Acenaphthene-d10	ISTD									
40) Hexachlorocy	0.340	0.275	0.283	0.320	0.340	0.249	0.333	0.327	0.308	11.24
41) 1,2,4,5-Tetr	0.592	0.578	0.555	0.601	0.600	0.545	0.594	0.579	0.581	3.58
42) 2,4,6-Trichl	0.397	0.359	0.351	0.377	0.393	0.296	0.388	0.384	0.368	9.07
43) 2,4,5-Trichl	0.422	0.384	0.377	0.410	0.434	0.353	0.422	0.409	0.401	6.89
44) 2-Fluorobiph	1.369	1.322	1.286	1.358	1.374	1.229	1.361	1.314	1.327	3.77

Initial Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3320-ICC3320
Lab FileID: F75545.D

45) 2-Chloronaph	1.154	1.155	1.062	1.120	1.140	0.987	1.095	1.070	1.098	5.22
46) Acenaphthyle	1.666	1.613	1.544	1.628	1.651	1.393	1.602	1.560	1.582	5.51
47) Dimethylphth	1.283	1.213	1.175	1.268	1.278	1.034	1.253	1.204	1.213	6.79
48) 2,6-Dinitrot	0.305	0.215	0.242	0.283	0.308		0.296	0.297	0.278	12.83
49) Acenaphthene	1.213	1.126	1.134	1.187	1.189	1.078	1.148	1.125	1.150	3.82
50) 2,4-Dinitrop	0.188			0.157	0.209		0.217	0.215	0.197	12.81
51) Dibenzofuran	1.723	1.627	1.595	1.696	1.726	1.415	1.677	1.620	1.635	6.19
52) 2,4-Dinitrot	0.405	0.312	0.336	0.379	0.407		0.390	0.387	0.374	9.64
53) 4-Nitropheno	0.271		0.237	0.266	0.273		0.269	0.262	0.263	5.02
54) 2,3,4,6-Tetr	0.372	0.329	0.322	0.359	0.376	0.291	0.368	0.360	0.347	8.62
55) Fluorene	1.330	1.234	1.211	1.298	1.319	1.058	1.278	1.243	1.246	6.98
56) 4-Chlorophen	0.665	0.614	0.629	0.638	0.655	0.533	0.639	0.621	0.624	6.52
57) Diethylphtha	1.249	1.207	1.116	1.237	1.228		1.203	1.169	1.201	3.80
58) 2-nitroanili	0.413	0.335	0.339	0.374	0.407	0.257	0.403	0.398	0.366	14.56
59) 3-nitroanili	0.351	0.277	0.273	0.326	0.351	0.224	0.340	0.335	0.310	14.94
60) 4-nitroanili	0.340	0.264	0.282	0.323	0.347	0.225	0.339	0.335	0.307	14.58
61) I Phenanthrene-d10	ISTD									
62) 4,6-Dinitro-	0.157		0.112	0.149	0.163		0.166	0.160	0.151	13.40
63) n-Nitrosodip	0.576	0.542	0.531	0.566	0.567		0.558	0.534	0.553	3.21
64) 1,2-Diphenyl	0.769	0.795	0.731	0.757	0.761	0.693	0.741	0.713	0.745	4.39
65) 2,4,6-Tribro	0.112	0.092	0.102	0.110	0.117	0.102	0.119	0.116	0.109	8.54
66) 4-Bromopheny	0.235	0.215	0.216	0.222	0.229	0.186	0.227	0.218	0.219	6.74
67) Hexachlorobe	0.235	0.228	0.215	0.226	0.232	0.185	0.229	0.224	0.222	7.28
68) Pentachlorop	0.193	0.160	0.159	0.183	0.201	0.132	0.205	0.198	0.179	14.57
69) Pentachloron	0.083	0.071	0.077	0.083	0.087	0.058	0.090	0.087	0.080	13.16
70) Phenanthrene	1.152	1.108	1.093	1.136	1.125	1.007	1.109	1.052	1.097	4.32
71) Anthracene	1.167	1.107	1.088	1.169	1.148	1.026	1.113	1.076	1.112	4.40
72) Carbazole	1.093	1.032	0.997	1.070	1.080	0.912	1.065	1.021	1.034	5.69
73) Di-n-butylph	1.319	1.187	1.207	1.276	1.312	1.055	1.289	1.226	1.234	7.07
74) Fluoranthene	1.268	1.165	1.141	1.236	1.258	1.002	1.252	1.195	1.190	7.44
75) I Chrysene-d12	ISTD									
76) Benzidine	0.429	0.187	0.256	0.428	0.414	0.199	0.378	0.342	0.329	30.88
---- Quadratic regression ---- Coefficient = 0.9994										
Response Ratio = -0.03624 + 0.50917 *A + -0.03954 *A^2										
77) Pyrene	1.205	1.176	1.123	1.183	1.206	1.018	1.122	1.086	1.140	5.77
78) Terphenyl-d1	0.895	0.820	0.839	0.905	0.891	0.772	0.851	0.836	0.851	5.27
79) 3,3'-Dimethy	0.443	0.381	0.308	0.454	0.426	0.365	0.402	0.331	0.389	13.48
80) Butylbenzylp	0.509	0.446	0.461	0.490	0.512	0.381	0.482	0.477	0.470	8.94
81) 3,3'-Dichlor	0.427	0.312	0.342	0.405	0.429	0.279	0.403	0.392	0.374	14.98
82) Benzo[a]anth	1.103	1.011	1.026	1.082	1.109	0.853	1.049	1.033	1.033	7.86
83) Chrysene	1.122	1.061	1.033	1.099	1.119	0.967	1.047	1.028	1.059	4.98
84) bis(2-Ethylh	0.721	0.610	0.636	0.684	0.728	0.481	0.688	0.684	0.654	12.30
85) I Perylene-d12	ISTD									
86) Di-n-octylph	1.290	0.906	1.008	1.205	1.309	0.718	1.279	1.209	1.116	19.31
87) Benzo[b]fluo	1.141	0.957	0.977	1.128	1.152	0.757	1.169	1.158	1.055	13.88
88) Benzo[k]fluo	1.284	1.086	1.148	1.167	1.235	1.021	1.147	1.048	1.142	7.85
89) Benzo[a]pyre	1.117	0.968	1.001	1.073	1.103	0.842	1.100	1.046	1.031	8.95
90) Indeno[1,2,3	1.388	1.073	1.171	1.285	1.407	0.888	1.413	1.387	1.252	15.37
91) Dibenz[a,h]a	1.148	0.934	0.920	1.049	1.180	0.798	1.176	1.146	1.044	13.78
92) Benzo[g,h,i]	1.161	1.039	1.070	1.143	1.208	0.897	1.228	1.207	1.119	10.02
93) I Acenaphthene-d10a	ISTD									
94) 1,1-Biphenyl									0.000#	-1.00

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

8.7.1

8

Initial Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3320-ICC3320
Lab FileID: F75545.D

F140825_8270.m Thu Sep 04 10:02:12 2014

Initial Calibration Verification

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3320-ICV3320
Lab FileID: F75549.D

Evaluate Continuing Calibration Report

Data File : F:\1\DATA\F140825\f75549.D Vial: 9
Acq On : 25 Aug 2014 8:38 pm Operator: williamk
Sample : icv3320-50 Inst : MSF
Misc : op39496,msf3320,,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : W:\2\METHODS\F140825_8270.m (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Thu Sep 04 10:01:23 2014
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	115	0.00	4.46
2	T	N-Nitrosodimethylamine	0.877	0.902	-2.9	111	0.00	2.62
3	T	1,4-Dioxane		----------NA----------				
4	T	Pyridine	1.562	1.604	-2.7	109	0.00	2.63
5	T	Aniline	2.071	1.699	18.0	88	0.00	4.23
6	S	2-Fluorophenol	1.307	1.386	-6.0	117	0.00	3.51
7	T	bis(2-Chloroethyl)ether	1.264	1.311	-3.7	112	0.00	4.27
8	S	Phenol-d5	1.614	1.619	-0.3	113	0.00	4.18
9	C	Phenol	1.731	1.832	-5.8	116	0.00	4.19
10	M	2-Chlorophenol	1.370	1.469	-7.2	117	0.00	4.32
11	T	1,3-Dichlorobenzene	1.521	1.618	-6.4	117	0.00	4.43
12	C	1,4-Dichlorobenzene	1.559	1.627	-4.4	113	0.00	4.47
13	T	1,2-Dichlorobenzene	1.457	1.533	-5.2	117	0.00	4.63
14	T	Benzyl alcohol	0.924	0.899	2.7	107	0.00	4.57
15	T	bis(2-chloroisopropyl)eth	1.665	1.862	-11.8	125	0.00	4.69
16	T	o-cresol	1.268	1.341	-5.8	115	0.00	4.67
17	T	Acetophenone	1.950	1.897	2.7	108	0.00	4.80
18	T	Hexachloroethane	0.563	0.580	-3.0	114	0.00	4.88
19	P	N-Nitroso-di-n-propylamin	0.932	0.991	-6.3	116	0.00	4.81
20	T	m+p-cresols	1.344	1.427	-6.2	117	0.00	4.78
21		4-methylphenol	1.344	1.427	-6.2	117	0.00	4.78
22	I	Naphthalene-d8	1.000	1.000	0.0	111	0.00	5.52
23	S	Nitrobenzene-d5	0.382	0.405	-6.0	115	0.00	4.93
24	T	Nitrobenzene	0.385	0.400	-3.9	113	0.00	4.94
25	T	Isophorone	0.673	0.637	5.3	101	0.00	5.13
26	C	2-Nitrophenol	0.195	0.218	-11.8	117	0.00	5.21
27	T	2,4-Dimethylphenol	0.371	0.394	-6.2	114	0.00	5.22
28	T	bis(2-Chloroethoxy)methan	0.417	0.415	0.5	105	0.00	5.30
29	T	Benzoic acid	0.266	0.331	-24.4#	121	0.00	5.30
30	C	2,4-Dichlorophenol	0.304	0.335	-10.2	119	0.00	5.40
31		1,2,4-Trichlorobenzene	0.331	0.351	-6.0	113	0.00	5.48
32	T	Naphthalene	1.025	1.061	-3.5	111	0.00	5.53
33	T	2,6-Dichlorophenol	0.310	0.331	-6.8	113	0.00	5.60
34	T	4-Chloroaniline	0.437	0.320	26.8#	77	0.00	5.59
35	C	Hexachlorobutadiene	0.182	0.199	-9.3	117	0.00	5.68
36	C	4-Chloro-3-methylphenol	0.317	0.343	-8.2	115	0.00	5.99
37	T	2-Methylnaphthalene	0.716	0.722	-0.8	108	0.00	6.12
38		1-methylnaphthalene	0.670	0.670	0.0	108	0.00	6.22
39	I	Acenaphthene-d10	1.000	1.000	0.0	112	0.00	7.05
40	P	Hexachlorocyclopentadiene	0.308	0.276	10.4	91	0.00	6.31

Initial Calibration Verification

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Sample: MSF3320-ICV3320
Lab FileID: F75549.D

41	T	1,2,4,5-Tetrachlorobenzen	0.581	0.588	-1.2	111	0.00	6.30
42	C	2,4,6-Trichlorophenol	0.368	0.419	-13.9	118	0.00	6.39
43	T	2,4,5-Trichlorophenol	0.401	0.446	-11.2	118	0.00	6.42
44	S	2-Fluorobiphenyl	1.327	1.372	-3.4	112	0.00	6.45
45	T	2-Chloronaphthalene	1.098	1.184	-7.8	114	0.00	6.55
46	M	Acenaphthylene	1.582	1.520	3.9	102	0.00	6.92
47	T	Dimethylphthalate	1.213	1.223	-0.8	106	0.00	6.83
48	T	2,6-Dinitrotoluene	0.278	0.278	0.0	102	0.00	6.90
49	C	Acenaphthene	1.150	1.180	-2.6	109	0.00	7.07
50	P	2,4-Dinitrophenol	0.197	0.192	2.5	114	0.00	7.10
51	T	Dibenzofuran	1.635	1.614	1.3	105	0.00	7.21
52	M	2,4-Dinitrotoluene	0.374	0.382	-2.1	105	0.00	7.24
53	P	4-Nitrophenol	0.263	0.265	-0.8	109	0.00	7.15
54	T	2,3,4,6-Tetrachlorophenol	0.347	0.372	-7.2	112	0.00	7.35
55	T	Fluorene	1.246	1.294	-3.9	109	0.00	7.51
56	T	4-Chlorophenyl-phenylethe	0.624	0.637	-2.1	107	0.00	7.50
57	T	Diethylphthalate	1.201	1.169	2.7	104	0.00	7.44
58	T	2-nitroaniline	0.366	0.381	-4.1	103	0.00	6.66
59	T	3-nitroaniline	0.310	0.254	18.1	81	0.00	7.02
60	T	4-nitroaniline	0.307	0.285	7.2	93	0.00	7.56
61	I	Phenanthrene-d10	1.000	1.000	0.0	104	0.00	8.33
62	T	4,6-Dinitro-2-methylpheno	0.151	0.172	-13.9	113	0.00	7.59
63	C	n-Nitrosodiphenylamine	0.553	0.536	3.1	97	0.00	7.61
64	T	1,2-Diphenylhydrazine	0.745	0.799	-7.2	108	0.00	7.64
65	S	2,4,6-Tribromophenol	0.109	0.120	-10.1	111	0.00	7.74
66	T	4-Bromophenyl-phenylether	0.219	0.239	-9.1	105	0.00	7.92
67	T	Hexachlorobenzene	0.222	0.247	-11.3	109	0.00	8.07
68	C	Pentachlorophenol	0.179	0.189	-5.6	102	0.00	8.22
69	T	Pentachloronitrobenzene	0.080	0.085	-6.3	106	0.00	8.29
70	T	Phenanthrene	1.097	1.150	-4.8	104	0.00	8.35
71	T	Anthracene	1.112	1.127	-1.3	100	0.00	8.39
72	T	Carbazole	1.034	1.034	0.0	98	0.00	8.53
73	T	Di-n-butylphthalate	1.234	1.230	0.3	97	0.00	8.85
74	C	Fluoranthene	1.190	1.250	-5.0	102	0.00	9.43
75	I	Chrysene-d12	1.000	1.000	0.0	103	0.00	10.98
		----------	Amount	Calc.	%Drift	----------		
76	T	Benzidine	50.000	37.642	24.7#	78	0.00	9.55
		----------	AvgRF	CCRF	%Dev	----------		
77	M	Pyrene	1.140	1.168	-2.5	100	0.00	9.66
78	S	Terphenyl-d14	0.851	0.888	-4.3	102	0.00	9.80
79	T	3,3'-Dimethylbenzidine		----------NA----------				
80	T	Butylbenzylphthalate	0.470	0.488	-3.8	99	0.00	10.33
81	T	3,3'-Dichlorobenzidine	0.374	0.326	12.8	78	0.00	10.94
82	T	Benzo[a]anthracene	1.033	1.092	-5.7	102	0.00	10.96
83	T	Chrysene	1.059	1.045	1.3	96	0.00	11.01
84	T	bis(2-Ethylhexyl)phthalat	0.654	0.693	-6.0	99	0.00	11.00
85	I	Perylene-d12	1.000	1.000	0.0	103	0.00	12.72
86	C	Di-n-octylphthalate	1.116	1.196	-7.2	96	0.00	11.73
87	T	Benzo[b]fluoranthene	1.055	1.137	-7.8	103	0.00	12.26
88	T	Benzo[k]fluoranthene	1.142	1.132	0.9	91	0.00	12.29
89	C	Benzo[a]pyrene	1.031	1.068	-3.6	99	0.00	12.65
90	T	Indeno[1,2,3-cd]pyrene	1.252	1.383	-10.5	103	0.00	14.13
91	T	Dibenz[a,h]anthracene	1.044	1.146	-9.8	103	0.00	14.14
92	T	Benzo[g,h,i]perylene	1.119	1.199	-7.1	107	0.00	14.52

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Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3320-ICV3320
Lab FileID: F75549.D

93	I	Acenaphthene-d10a	1.000	1.000	0.0	112	0.00	7.05
94	T	1,1-Biphenyl	----------NA----------					

(#) = Out of Range SPCC's out = 0 CCC's out = 0
f75545.D F140825_8270.m Thu Sep 04 10:02:48 2014

Continuing Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3354-CC3320
Lab FileID: F76456.D

Evaluate Continuing Calibration Report

Data File : F:\1\DATA\F140929\f76456.D Vial: 100
Acq On : 29 Sep 2014 8:01 am Operator: williamk
Sample : cc3320-80 Inst : MSF
Misc : op39496,msf3354,,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : W:\2\METHODS\F140825_8270.m (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Mon Sep 29 08:17:10 2014
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	114	0.00	3.54
2	T	N-Nitrosodimethylamine	0.877	0.887	-1.1	110	0.00	1.71
3	T	1,4-Dioxane		----------NA----------				
4	T	Pyridine	1.562	1.588	-1.7	110	0.00	1.71
5	T	Aniline	2.071	1.954	5.6	104	0.00	3.33
6	S	2-Fluorophenol	1.307	1.278	2.2	107	0.00	2.62
7	T	bis(2-Chloroethyl)ether	1.264	1.218	3.6	106	0.00	3.38
8	S	Phenol-d5	1.614	1.607	0.4	113	0.00	3.32
9	C	Phenol	1.731	1.860	-7.5	118	0.00	3.33
10	M	2-Chlorophenol	1.370	1.422	-3.8	115	0.00	3.41
11	T	1,3-Dichlorobenzene	1.521	1.586	-4.3	117	0.00	3.51
12	C	1,4-Dichlorobenzene	1.559	1.637	-5.0	116	0.00	3.55
13	T	1,2-Dichlorobenzene	1.457	1.523	-4.5	116	0.00	3.70
14	T	Benzyl alcohol	0.924	0.792	14.3	94	0.00	3.68
15	T	bis(2-chloroisopropyl)eth	1.665	1.457	12.5	102	0.00	3.79
16	T	o-cresol	1.268	1.265	0.2	109	0.00	3.79
17	T	Acetophenone	1.950	1.932	0.9	109	0.00	3.89
18	T	Hexachloroethane	0.563	0.594	-5.5	117	0.00	3.94
19	P	N-Nitroso-di-n-propylamin	0.932	0.948	-1.7	112	0.00	3.92
20	T	m+p-cresols	1.344	1.381	-2.8	113	0.00	3.92
21		4-methylphenol	1.344	1.381	-2.8	113	0.00	3.92
22	I	Naphthalene-d8	1.000	1.000	0.0	111	0.00	4.58
23	S	Nitrobenzene-d5	0.382	0.405	-6.0	112	0.00	4.01
24	T	Nitrobenzene	0.385	0.395	-2.6	109	0.00	4.03
25	T	Isophorone	0.673	0.698	-3.7	109	0.00	4.21
26	C	2-Nitrophenol	0.195	0.228	-16.9	117	0.00	4.28
27	T	2,4-Dimethylphenol	0.371	0.384	-3.5	110	0.00	4.33
28	T	bis(2-Chloroethoxy)methan	0.417	0.435	-4.3	111	0.00	4.41
29	T	Benzoic acid	0.266	0.227	14.7	87	0.00	4.47
30	C	2,4-Dichlorophenol	0.304	0.351	-15.5	121	0.00	4.48
31		1,2,4-Trichlorobenzene	0.331	0.379	-14.5	120	0.00	4.54
32	T	Naphthalene	1.025	1.100	-7.3	114	0.00	4.59
33	T	2,6-Dichlorophenol	0.310	0.350	-12.9	119	0.00	4.67
34	T	4-Chloroaniline	0.437	0.470	-7.6	111	0.00	4.67
35	C	Hexachlorobutadiene	0.182	0.224	-23.1#	129	0.00	4.74
36	C	4-Chloro-3-methylphenol	0.317	0.354	-11.7	117	0.00	5.10
37	T	2-Methylnaphthalene	0.716	0.797	-11.3	116	0.00	5.17
38		1-methylnaphthalene	0.670	0.739	-10.3	117	0.00	5.27
39	I	Acenaphthene-d10	1.000	1.000	0.0	114	0.00	6.08
40	P	Hexachlorocyclopentadiene	0.308	0.372	-20.8#	125	0.00	5.37

8.7.3

8

Continuing Calibration Summary

Job Number: MC33841 **Sample:** MSF3354-CC3320
Account: BBLNYS Arcadis **Lab FileID:** F76456.D
Project: National Grid, 10 King Street, Ogdensburg, NY

41	T	1,2,4,5-Tetrachlorobenzen	0.581	0.659	-13.4	125	0.00	5.35
42	C	2,4,6-Trichlorophenol	0.368	0.419	-13.9	122	0.00	5.45
43	T	2,4,5-Trichlorophenol	0.401	0.450	-12.2	118	0.00	5.49
44	S	2-Fluorobiphenyl	1.327	1.440	-8.5	120	0.00	5.51
45	T	2-Chloronaphthalene	1.098	1.194	-8.7	120	0.00	5.59
46	M	Acenaphthylene	1.582	1.700	-7.5	118	0.00	5.95
47	T	Dimethylphthalate	1.213	1.349	-11.2	121	0.00	5.90
48	T	2,6-Dinitrotoluene	0.278	0.324	-16.5	120	0.00	5.96
49	C	Acenaphthene	1.150	1.237	-7.6	119	0.00	6.11
50	P	2,4-Dinitrophenol	0.197	0.216	-9.6	118	0.00	6.16
51	T	Dibenzofuran	1.635	1.770	-8.3	117	0.00	6.24
52	M	2,4-Dinitrotoluene	0.374	0.415	-11.0	117	0.00	6.30
53	P	4-Nitrophenol	0.263	0.260	1.1	109	0.00	6.25
54	T	2,3,4,6-Tetrachlorophenol	0.347	0.398	-14.7	121	0.00	6.40
55	T	Fluorene	1.246	1.368	-9.8	119	0.00	6.54
56	T	4-Chlorophenyl-phenylethe	0.624	0.716	-14.7	125	0.00	6.54
57	T	Diethylphthalate	1.201	1.295	-7.8	120	0.00	6.51
58	T	2-nitroaniline	0.366	0.415	-13.4	116	0.00	5.72
59	T	3-nitroaniline	0.310	0.354	-14.2	115	0.00	6.08
60	T	4-nitroaniline	0.307	0.338	-10.1	111	0.00	6.62
61	I	Phenanthrene-d10	1.000	1.000	0.0	113	0.00	7.34
62	T	4,6-Dinitro-2-methylpheno	0.151	0.174	-15.2	122	0.00	6.64
63	C	n-Nitrosodiphenylamine	0.553	0.585	-5.8	117	0.00	6.66
64	T	1,2-Diphenylhydrazine	0.745	0.801	-7.5	119	0.00	6.68
65	S	2,4,6-Tribromophenol	0.109	0.136	-24.8#	132	0.00	6.76
66	T	4-Bromophenyl-phenylether	0.219	0.258	-17.8	128	0.00	6.96
67	T	Hexachlorobenzene	0.222	0.265	-19.4	129	0.00	7.08
68	C	Pentachlorophenol	0.179	0.198	-10.6	112	0.00	7.24
69	T	Pentachloronitrobenzene	0.080	0.100	-25.0#	130	0.00	7.31
70	T	Phenanthrene	1.097	1.179	-7.5	119	0.00	7.36
71	T	Anthracene	1.112	1.214	-9.2	120	0.00	7.40
72	T	Carbazole	1.034	1.110	-7.4	116	0.00	7.55
73	T	Di-n-butylphthalate	1.234	1.358	-10.0	117	0.00	7.90
74	C	Fluoranthene	1.190	1.328	-11.6	120	0.00	8.39
75	I	Chrysene-d12	1.000	1.000	0.0	120	0.00	9.72
		----------	Amount	Calc.	%Drift	----------		
76	T	Benzidine	80.000	53.753	32.8#	83	0.00	8.52
		----------	AvgRF	CCRF	%Dev	----------		
77	M	Pyrene	1.140	1.182	-3.7	118	0.00	8.58
78	S	Terphenyl-d14	0.851	0.919	-8.0	124	0.00	8.73
79	T	3,3'-Dimethylbenzidine	0.389	0.384	1.3	108	0.00	9.18
80	T	Butylbenzylphthalate	0.470	0.497	-5.7	117	0.00	9.21
81	T	3,3'-Dichlorobenzidine	0.374	0.454	-21.4#	127	0.00	9.72
82	T	Benzo[a]anthracene	1.033	1.105	-7.0	119	0.00	9.70
83	T	Chrysene	1.059	1.104	-4.2	118	0.00	9.75
84	T	bis(2-Ethylhexyl)phthalat	0.654	0.718	-9.8	118	0.00	9.82
85	I	Perylene-d12	1.000	1.000	0.0	120	0.00	11.28
86	C	Di-n-octylphthalate	1.116	1.334	-19.5	122	0.00	10.48
87	T	Benzo[b]fluoranthene	1.055	1.308	-24.0#	136	0.00	10.87
88	T	Benzo[k]fluoranthene	1.142	1.124	1.6	109	0.00	10.90
89	C	Benzo[a]pyrene	1.031	1.148	-11.3	125	0.00	11.22
90	T	Indeno[1,2,3-cd]pyrene	1.252	1.482	-18.4	126	0.00	12.41
91	T	Dibenz[a,h]anthracene	1.044	1.218	-16.7	124	0.00	12.43
92	T	Benzo[g,h,i]perylene	1.119	1.269	-13.4	126	0.00	12.68

Continuing Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3354-CC3320
Lab FileID: F76456.D

93	I	Acenaphthene-d10a	1.000	1.000	0.0	114	0.00	6.08
94	T	1,1-Biphenyl	0.000	0.017#	0.0	0#	0.00	8.52

(#) = Out of Range SPCC's out = 0 CCC's out = 1
f76456.D F140825_8270.m Mon Sep 29 08:23:09 2014

Initial Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-ICC1461
Lab FileID: R39642.D

Response Factor Report MSR

Method : W:\1\methods\R140911_8270A.m (RTE Integrator)
Title : SW-864 Method 8270
Last Update : Fri Sep 26 12:46:03 2014
Response via : Initial Calibration

Calibration Files
160 =R39645a.D 120 =R39644a.D 80 =R39929.D 20 =R39641a.D
5 =R39639a.D 2 =R39638a.D 10 =R39640a.D 50 =R39642a.D

Compound	160	120	80	20	5	2	10	50	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	ISTD									
2) 1,4-Dioxane	0.653	0.644	0.640	0.629	0.589	0.575	0.609	0.653	0.624	4.77
3) N-nitrosodim	1.080	1.050	1.039	0.931	0.699		0.844	1.042	0.955	14.65
4) Pyridine	1.863	1.841	1.835	1.787	1.461	1.233	1.616	1.916	1.694	14.14
5) Aniline	2.363	2.406	2.434	2.415	2.087	1.813	2.246	2.524	2.286	10.20
6) 2-Fluorophen	1.502	1.485	1.477	1.383	1.201	1.172	1.278	1.462	1.370	9.84
7) bis(2-Chloro	1.310	1.299	1.319	1.300	1.213	1.195	1.248	1.356	1.280	4.36
8) Phenol-d5	1.899	1.890	1.894	1.847	1.646	1.557	1.717	1.904	1.794	7.58
9) Phenol	2.220	2.246	2.296	2.055	1.826	1.742	1.915	2.163	2.058	10.11
10) 2-Chlorophen	1.559	1.542	1.545	1.466	1.320	1.270	1.371	1.533	1.451	7.90
11) 1,3-Dichloro	1.556	1.546	1.583	1.520	1.458	1.439	1.473	1.621	1.524	4.18
12) 1,4-Dichloro	1.594	1.599	1.631	1.587	1.489	1.477	1.535	1.681	1.574	4.43
13) 1,2-Dichloro	1.486	1.501	1.529	1.484	1.398	1.393	1.408	1.557	1.470	4.26
14) Benzyl alcoh	1.118	1.112	1.119	1.029	0.876	0.826	0.961	1.109	1.019	11.59
15) bis(2-chloro	2.100	2.156	2.165	2.224	2.113	2.059	2.174	2.237	2.154	2.82
16) o-cresol	1.533	1.494	1.521	1.455	1.317	1.318	1.371	1.545	1.444	6.62
17) Acetophenone	1.963	1.939	2.021	2.259	1.987	1.891	2.081	2.259	2.050	6.86
18) Hexachloroet	0.667	0.663	0.670	0.616	0.571	0.591	0.591	0.667	0.629	6.61
19) N-Nitroso-di	0.945	1.119	1.130	1.156	1.044	0.982	1.088	1.174	1.080	7.64
20) m+p-cresols	1.390	1.368	1.426	1.601	1.395	1.337	1.468	1.578	1.445	6.72
21) 4-methylphen	1.390	1.368	1.426	1.601	1.395	1.337	1.468	1.578	1.445	6.72
22) I Naphthalene-d8	ISTD									
23) Nitrobenzene	0.444	0.439	0.438	0.407	0.355	0.344	0.378	0.437	0.405	10.08
24) Nitrobenzene	0.443	0.440	0.448	0.429	0.388	0.355	0.406	0.459	0.421	8.42
25) Isophorone	0.799	0.791	0.804	0.770	0.676	0.641	0.729	0.824	0.754	8.76
26) 2-Nitropheno	0.210	0.203	0.202	0.164			0.143	0.191	0.186	14.20
27) 2,4-Dimethyl	0.400	0.397	0.405	0.384	0.354	0.346	0.369	0.415	0.384	6.58
28) bis(2-Chloro	0.484	0.482	0.497	0.480	0.444	0.431	0.461	0.513	0.474	5.72
29) Benzoic acid	0.321	0.292	0.288	0.248			0.200	0.313	0.277	16.40
30) 2,4-Dichloro	0.323	0.318	0.324	0.289	0.243	0.230	0.268	0.323	0.289	13.33
31) 1,2,4-Trichl	0.331	0.330	0.336	0.301	0.275	0.274	0.286	0.334	0.308	8.91
32) Naphthalene	1.021	1.032	1.074	1.096	1.033	1.041	1.065	1.154	1.064	4.15
33) 2,6-Dichloro	0.302	0.303	0.316	0.301	0.263	0.244	0.281	0.330	0.293	9.70
34) 4-Chloroanil	0.442	0.452	0.477	0.471	0.389	0.362	0.445	0.511	0.444	10.81
35) Hexachlorobu	0.178	0.177	0.178	0.152	0.137	0.139	0.144	0.173	0.160	11.66
36) 4-Chloro-3-m	0.353	0.349	0.353	0.322	0.279	0.264	0.309	0.356	0.323	11.22
37) 2-Methylnaph	0.726	0.737	0.763	0.752	0.681	0.671	0.716	0.801	0.731	5.82
38) 1-Methylnaph	0.684	0.687	0.711	0.708	0.643	0.629	0.667	0.742	0.684	5.45
39) 1,2,4,5-Tetr	0.340	0.339	0.341	0.300	0.262	0.260	0.277	0.336	0.307	11.90
40) Caprolactam	0.217	0.235	0.237	0.218	0.174	0.150	0.197	0.240	0.209	15.60
41) I Acenaphthene-d10	ISTD									
42) Pentachloron	0.177	0.177	0.172	0.133			0.115	0.162	0.156	16.72
43) Hexachlorocy	0.330	0.324	0.328	0.262	0.203		0.228	0.317	0.285	18.69
44) 2,4,6-Trichl	0.415	0.403	0.398	0.328	0.269	0.243	0.304	0.380	0.342	19.29

Initial Calibration Summary

Job Number: MC33841 **Sample:** MSR1461-ICC1461
Account: BBLNYS Arcadis **Lab FileID:** R39642.D
Project: National Grid, 10 King Street, Ogdensburg, NY

45) 2,4,5-Trichl	0.443	0.437	0.435	0.364	0.317	0.267	0.337	0.421	0.377	17.53
46) 2-Fluorobiph	1.312	1.308	1.337	1.309	1.175	1.175	1.219	1.405	1.280	6.42
47) 2-Chloronaph	1.133	1.145	1.172	1.096	0.992	0.960	1.028	1.208	1.092	8.19
48) Acenaphthyle	1.666	1.676	1.720	1.669	1.476	1.381	1.561	1.821	1.621	8.70
49) Dimethylphth	1.294	1.274	1.282	1.178	1.055	1.015	1.116	1.310	1.190	9.79
50) 2,4-Dinitrot	0.396	0.392	0.385	0.295			0.257	0.360	0.348	16.68
51) Acenaphthene	1.146	1.145	1.180	1.182	1.074	1.063	1.117	1.262	1.146	5.61
52) 2,4-Dinitrop	0.171	0.155	0.140	0.081	0.045		0.061	0.116	0.110	44.17
---- Quadratic regression ---- Coefficient = 0.9970										
Response Ratio = -0.00636 + 0.08870 *A + 0.02253 *A^2										
53) Dibenzofuran	1.622	1.649	1.712	1.650	1.503	1.487	1.562	1.801	1.623	6.48
54) 2,6-Dinitrot	0.306	0.297	0.289	0.231			0.203	0.277	0.267	15.36
55) 4-Nitropheno	0.328	0.320	0.315	0.274	0.196		0.233	0.315	0.283	18.03
56) 2,3,4,6-Tetr	0.353	0.342	0.333	0.268	0.209		0.243	0.317	0.295	18.74
57) Fluorene	1.211	1.247	1.316	1.364	1.193	1.137	1.270	1.458	1.274	8.06
58) 4-Chlorophen	0.586	0.602	0.627	0.617	0.521	0.522	0.559	0.682	0.590	9.31
59) Diethylphtha	1.322	1.322	1.334	1.218	1.081	1.034	1.156	1.356	1.228	10.19
60) 2-nitroanili	0.460	0.446	0.441	0.359			0.308	0.429	0.407	14.77
61) 3-nitroanili	0.379	0.370	0.363	0.308			0.275	0.357	0.342	12.09
62) 4-nitroanili	0.409	0.397	0.386	0.332			0.293	0.385	0.367	12.17
63) 1,1'-Bipheny	1.438	1.457	1.518	1.515	1.381	1.362	1.445	1.623	1.467	5.69
64) I Phenanthrene-d10	----------ISTD----------									
65) 4,6-Dinitro-	0.141	0.130	0.122	0.079	0.049		0.063	0.104	0.098	35.82
---- Quadratic regression ---- Coefficient = 0.9976										
Response Ratio = -0.00544 + 0.08715 *A + 0.01483 *A^2										
66) n-Nitrosodip	0.556	0.564	0.577	0.551	0.495	0.479	0.520	0.599	0.543	7.60
67) 1,2-Diphenyl	0.864	0.896	0.943	0.985	0.899	0.824	0.944	1.031	0.923	7.20
68) 2,4,6-Tribro	0.109	0.102	0.097	0.081	0.061		0.070	0.092	0.087	19.74
69) 4-Bromopheny	0.217	0.214	0.209	0.181	0.159	0.154	0.169	0.208	0.189	13.82
70) Hexachlorobe	0.218	0.212	0.210	0.183	0.164	0.158	0.169	0.205	0.190	12.73
71) Pentachlorop	0.190	0.185	0.181	0.133			0.111	0.169	0.162	19.85
72) Phenanthrene	1.071	1.097	1.131	1.138	1.055	1.038	1.077	1.218	1.103	5.25
73) Anthracene	1.080	1.109	1.148	1.154	1.025	0.973	1.076	1.246	1.101	7.61
74) Carbazole	1.083	1.103	1.133	1.127	1.001	0.963	1.050	1.222	1.085	7.48
75) Di-n-butylph	1.261	1.316	1.389	1.353	1.104	0.998	1.231	1.525	1.272	12.99
76) Fluoranthene	1.171	1.184	1.198	1.139	0.984	0.956	1.056	1.279	1.121	10.00
77) Atrazine	0.184	0.184	0.184	0.169	0.141	0.131	0.156	0.189	0.167	13.25
78) I Chrysene-d12	----------ISTD----------									
79) Benzidine	0.455	0.466	0.473	0.385	0.219	0.206	0.315	0.485	0.375	30.70
---- Quadratic regression ---- Coefficient = 0.9970										
Response Ratio = -0.02180 + 0.47637 *A + -0.00223 *A^2										
80) 3,3-Dimethyl	0.436	0.451	0.488	0.334			0.285	0.470	0.411	19.92
81) Pyrene	1.307	1.335	1.366	1.332	1.180	1.110	1.225	1.426	1.285	8.15
82) Terphenyl-d1	0.928	0.936	0.946	0.847	0.734	0.702	0.767	0.930	0.849	11.89
83) Butylbenzylp	0.652	0.671	0.685	0.600	0.472	0.412	0.535	0.685	0.589	17.83
84) 3,3'-Dichlor	0.463	0.466	0.468	0.358	0.297		0.323	0.434	0.401	18.32
85) Benzo[a]anth	1.237	1.237	1.230	1.138	1.040	1.038	1.089	1.227	1.155	7.74
86) Chrysene	1.188	1.205	1.231	1.172	1.046	1.003	1.077	1.283	1.150	8.50
87) bis(2-Ethylh	0.848	0.876	0.929	0.885	0.631	0.538	0.760	1.005	0.809	19.37
88) I Perylene-d12	----------ISTD----------									
89) Di-n-octylph	1.753	1.768	1.815	1.523	1.139		1.242	1.843	1.583	18.26
90) Benzo[b]fluo	1.440	1.344	1.295	1.118	0.951	0.886	0.999	1.259	1.161	17.42
91) Benzo[k]fluo	1.299	1.322	1.352	1.188	1.018	1.019	1.066	1.365	1.204	12.52
92) Benzo[a]pyre	1.284	1.243	1.227	1.063	0.894	0.837	0.947	1.207	1.088	16.19

Initial Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-ICC1461
Lab FileID: R39642.D

```
93) Indeno[1,2,3 1.569 1.509 1.474 1.259 1.074 1.006 1.129 1.434 1.307  16.67
94) Dibenz[a,h]a 1.290 1.259 1.239 1.024 0.871 0.842 0.909 1.190 1.078  17.38
95) Benzo[g,h,i] 1.237 1.203 1.188 1.047 0.893 0.854 0.956 1.176 1.069  14.25

96)     1,4-Dichlorobenzene-d ----------------ISTD--------------------
97) Benzaldehyde 0.464 0.546 0.624 0.366            0.293 0.601 0.482  27.46
            ---- Quadratic regression ----  Coefficient =  0.9977
              Response Ratio = -0.19189 + 0.89475 *A + -0.09525 *A^2

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

          R140911_8270A.m        Fri Sep 26 12:46:52 2014
```

8.7.4

8

Initial Calibration Verification

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-ICV1461
Lab FileID: R39648A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\R140911\R39648a.D Vial: 10
Acq On : 11 Sep 2014 3:40 pm Operator: williamk
Sample : icv1461-50 Inst : MSR
Misc : op39525,msr1461,,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : W:\1\methods\R140911_8270A.m (RTE Integrator)
Title : SW-864 Method 8270
Last Update : Fri Sep 26 12:54:48 2014
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	141	0.00	5.41
2		1,4-Dioxane		----------NA----------				
3		N-nitrosodimethylamine	0.955	0.980	-2.6	133	0.00	3.05
4	T	Pyridine	1.694	1.768	-4.4	130	0.00	3.10
5	T	Aniline	2.286	2.049	10.4	114	0.00	5.14
6	S	2-Fluorophenol	1.370	1.475	-7.7	142	0.00	4.30
7	T	bis(2-Chloroethyl)ether	1.280	1.265	1.2	131	0.00	5.19
8	S	Phenol-d5	1.794	1.826	-1.8	135	0.00	5.10
9	C	Phenol	2.058	2.003	2.7	131	0.00	5.11
10	M	2-Chlorophenol	1.451	1.440	0.8	132	0.00	5.23
11	T	1,3-Dichlorobenzene	1.524	1.572	-3.1	137	0.00	5.37
12	C	1,4-Dichlorobenzene	1.574	1.591	-1.1	133	0.00	5.43
13	T	1,2-Dichlorobenzene	1.470	1.493	-1.6	135	0.00	5.56
14	T	Benzyl alcohol	1.019	1.024	-0.5	130	0.00	5.54
15	T	bis(2-chloroisopropyl)eth	2.154	2.573	-19.5	162	0.00	5.65
16	T	o-cresol	1.444	1.407	2.6	128	0.00	5.63
17	T	Acetophenone	2.050	2.011	1.9	126	0.00	5.76
18	T	Hexachloroethane	0.629	0.633	-0.6	134	0.00	5.85
19	P	N-Nitroso-di-n-propylamin	1.080	1.124	-4.1	135	0.00	5.77
20	T	m+p-cresols	1.445	1.402	3.0	125	0.00	5.76
21		4-methylphenol	1.445	1.402	3.0	125	0.00	5.76
22	I	Naphthalene-d8	1.000	1.000	0.0	143	0.00	6.51
23	S	Nitrobenzene-d5	0.405	0.423	-4.4	138	0.00	5.89
24	T	Nitrobenzene	0.421	0.423	-0.5	132	0.00	5.91
25	T	Isophorone	0.754	0.704	6.6	122	0.00	6.12
26	C	2-Nitrophenol	0.186	0.184	1.1	137	0.00	6.18
27	T	2,4-Dimethylphenol	0.384	0.377	1.8	129	0.00	6.22
28	T	bis(2-Chloroethoxy)methan	0.474	0.462	2.5	128	0.00	6.30
29	T	Benzoic acid	0.277	0.283	-2.2	129	0.00	6.33
30	C	2,4-Dichlorophenol	0.289	0.302	-4.5	134	0.00	6.39
31	M	1,2,4-Trichlorobenzene	0.308	0.313	-1.6	134	0.00	6.46
32	T	Naphthalene	1.064	1.055	0.8	130	0.00	6.53
33	T	2,6-Dichlorophenol	0.293	0.299	-2.0	129	0.00	6.58
34	T	4-Chloroaniline	0.444	0.385	13.3	108	0.00	6.58
35	C	Hexachlorobutadiene	0.160	0.168	-5.0	138	0.00	6.64
36	C	4-Chloro-3-methylphenol	0.323	0.322	0.3	129	0.00	7.00
37	T	2-Methylnaphthalene	0.731	0.723	1.1	129	0.00	7.13
38	T	1-Methylnaphthalene	0.684	0.689	-0.7	133	0.00	7.22
39	T	1,2,4,5-Tetrachlorobenzen	0.307	0.317	-3.3	135	0.00	7.28
40		Caprolactam	0.209	0.225	-7.7	134	0.00	6.92

Initial Calibration Verification

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-ICV1461
Lab FileID: R39648A.D

41	I	Acenaphthene-d10	1.000	1.000	0.0	144	0.00	8.05
42	T	Pentachloronitrobenzene	0.156	0.152	2.6	136	0.00	9.20
43	P	Hexachlorocyclopentadiene	0.285	0.245	14.0	111	0.00	7.27
44	C	2,4,6-Trichlorophenol	0.342	0.357	-4.4	135	0.00	7.38
45	T	2,4,5-Trichlorophenol	0.377	0.384	-1.9	131	0.00	7.41
46	S	2-Fluorobiphenyl	1.280	1.304	-1.9	134	0.00	7.45
47	T	2-Chloronaphthalene	1.092	1.181	-8.2	141	0.00	7.56
48	M	Acenaphthylene	1.621	1.577	2.7	125	0.00	7.93
49	T	Dimethylphthalate	1.190	1.208	-1.5	133	0.00	7.81
50	T	2,4-Dinitrotoluene	0.348	0.357	-2.6	143	0.00	8.22
51	C	Acenaphthene	1.146	1.159	-1.1	132	0.00	8.08
		----------	Amount	Calc.	%Drift	----------		
52	P	2,4-Dinitrophenol	50.000	54.327	-8.7	154	0.00	8.10
		----------	AvgRF	CCRF	%Dev	----------		
53	T	Dibenzofuran	1.623	1.610	0.8	129	0.00	8.23
54	M	2,6-Dinitrotoluene	0.267	0.262	1.9	136	0.00	7.86
55	P	4-Nitrophenol	0.283	0.300	-6.0	137	0.00	8.16
56	T	2,3,4,6-Tetrachlorophenol	0.295	0.293	0.7	133	0.00	8.34
57	T	Fluorene	1.274	1.334	-4.7	132	0.00	8.53
58	T	4-Chlorophenyl-phenylethe	0.590	0.602	-2.0	127	0.00	8.53
59	T	Diethylphthalate	1.228	1.259	-2.5	134	0.00	8.43
60	T	2-nitroaniline	0.407	0.402	1.2	135	0.00	7.65
61	T	3-nitroaniline	0.342	0.244	28.7#	98	0.00	8.01
62	T	4-nitroaniline	0.367	0.333	9.3	125	0.00	8.55
63		1,1'-Biphenyl	1.467	1.453	1.0	129	0.00	7.54
64	I	Phenanthrene-d10	1.000	1.000	0.0	140	0.00	9.36
		----------	Amount	Calc.	%Drift	----------		
65	T	4,6-Dinitro-2-methylpheno	50.000	56.105	-12.2	158	0.00	8.58
		----------	AvgRF	CCRF	%Dev	----------		
66	C	n-Nitrosodiphenylamine	0.543	0.521	4.1	122	0.00	8.63
67	T	1,2-Diphenylhydrazine	0.923	0.988	-7.0	134	0.00	8.67
68	S	2,4,6-Tribromophenol	0.087	0.095	-9.2	144	0.00	8.74
69	T	4-Bromophenyl-phenylether	0.189	0.200	-5.8	135	0.00	8.96
70	T	Hexachlorobenzene	0.190	0.202	-6.3	138	0.00	9.01
71	C	Pentachlorophenol	0.162	0.149	8.0	123	0.00	9.18
72	T	Phenanthrene	1.103	1.132	-2.6	130	0.00	9.38
73	T	Anthracene	1.101	1.120	-1.7	126	0.00	9.42
74	T	Carbazole	1.085	1.113	-2.6	128	0.00	9.56
75	T	Di-n-butylphthalate	1.272	1.347	-5.9	124	0.00	9.87
76	C	Fluoranthene	1.121	1.203	-7.3	132	0.00	10.44
77		Atrazine	0.167	0.204	-22.2#	152	0.00	9.11
78	I	Chrysene-d12	1.000	1.000	0.0	144	0.00	11.97
		----------	Amount	Calc.	%Drift	----------		
79	T	Benzidine	50.000	55.004	-10.0	150	0.00	10.57
		----------	AvgRF	CCRF	%Dev	----------		
80		3,3-Dimethylbenzidine		----------NA----------				
81	M	Pyrene	1.285	1.251	2.6	127	0.00	10.66
82	S	Terphenyl-d14	0.849	0.868	-2.2	135	0.00	10.82
83	T	Butylbenzylphthalate	0.589	0.606	-2.9	128	0.00	11.33
84	T	3,3'-Dichlorobenzidine	0.401	0.341	15.0	114	0.00	11.93
85	T	Benzo[a]anthracene	1.155	1.165	-0.9	137	0.00	11.96
86	T	Chrysene	1.150	1.118	2.8	126	0.00	12.00

Initial Calibration Verification

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-ICV1461
Lab FileID: R39648A.D

87	T	bis(2-Ethylhexyl)phthalat	0.809	0.882	-9.0	127	0.00	12.00
88	I	Perylene-d12	1.000	1.000	0.0	145	0.00	13.69
89	C	Di-n-octylphthalate	1.583	1.626	-2.7	128	0.00	12.79
90	T	Benzo[b]fluoranthene	1.161	1.171	-0.9	135	0.00	13.23
91	T	Benzo[k]fluoranthene	1.204	1.196	0.7	127	0.00	13.27
92	C	Benzo[a]pyrene	1.088	1.080	0.7	130	0.00	13.62
93	T	Indeno[1,2,3-cd]pyrene	1.307	1.309	-0.2	132	0.00	15.01
94	T	Dibenz[a,h]anthracene	1.078	1.092	-1.3	133	0.00	15.04
95	T	Benzo[g,h,i]perylene	1.069	1.059	0.9	130	0.00	15.39
96		1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	141	0.00	5.41
			Amount	Calc.	%Drift			
97		Benzaldehyde	50.000	40.710	18.6	115	0.00	5.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
R39648a.D R140911_8270A.m Fri Sep 26 12:54:54 2014

8.7.5

8

Continuing Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1474-CC1461
Lab FileID: R40057.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\R141001\R40057.D Vial: 100
Acq On : 1 Oct 2014 8:50 am Operator: williamk
Sample : cc1461-50 Inst : MSR
Misc : op39867,msr1474,,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : W:\1\methods\R140911_8270A.m (RTE Integrator)
Title : SW-864 Method 8270
Last Update : Thu Oct 02 07:21:49 2014
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	123	0.00	4.52
2		1,4-Dioxane		----------NA----------				
3		N-nitrosodimethylamine	0.955	0.889	6.9	105	0.00	1.86
4	T	Pyridine	1.694	1.652	2.5	106	0.00	1.87
5	T	Aniline	2.286	2.101	8.1	103	0.00	4.24
6	S	2-Fluorophenol	1.370	1.392	-1.6	117	0.00	3.37
7	T	bis(2-Chloroethyl)ether	1.280	1.220	4.7	111	0.00	4.31
8	S	Phenol-d5	1.794	1.702	5.1	110	0.00	4.25
9	C	Phenol	2.058	2.049	0.4	117	0.00	4.26
10	M	2-Chlorophenol	1.451	1.500	-3.4	120	0.00	4.34
11	T	1,3-Dichlorobenzene	1.524	1.575	-3.3	120	0.00	4.46
12	C	1,4-Dichlorobenzene	1.574	1.630	-3.6	119	0.00	4.53
13	T	1,2-Dichlorobenzene	1.470	1.520	-3.4	120	0.00	4.66
14	T	Benzyl alcohol	1.019	0.959	5.9	106	0.00	4.66
15	T	bis(2-chloroisopropyl)eth	2.154	2.078	3.5	114	0.00	4.78
16	T	o-cresol	1.444	1.470	-1.8	117	0.00	4.77
17	T	Acetophenone	2.050	2.105	-2.7	115	0.00	4.88
18	T	Hexachloroethane	0.629	0.678	-7.8	125	0.00	4.94
19	P	N-Nitroso-di-n-propylamin	1.080	1.051	2.7	110	0.00	4.89
20	T	m+p-cresols	1.445	1.464	-1.3	114	0.00	4.91
21		4-methylphenol	1.445	1.464	-1.3	114	0.00	4.91
22	I	Naphthalene-d8	1.000	1.000	0.0	120	0.00	5.61
23	S	Nitrobenzene-d5	0.405	0.433	-6.9	119	0.00	5.00
24	T	Nitrobenzene	0.421	0.436	-3.6	114	0.00	5.02
25	T	Isophorone	0.754	0.762	-1.1	111	0.00	5.23
26	C	2-Nitrophenol	0.186	0.208	-11.8	131	0.00	5.29
27	T	2,4-Dimethylphenol	0.384	0.388	-1.0	113	0.00	5.36
28	T	bis(2-Chloroethoxy)methan	0.474	0.473	0.2	111	0.00	5.44
29	T	Benzoic acid	0.277	0.213	23.1#	82	0.00	5.50
30	C	2,4-Dichlorophenol	0.289	0.331	-14.5	123	0.00	5.51
31	M	1,2,4-Trichlorobenzene	0.308	0.361	-17.2	130	0.00	5.57
32	T	Naphthalene	1.064	1.092	-2.6	114	0.00	5.63
33	T	2,6-Dichlorophenol	0.293	0.331	-13.0	121	0.00	5.70
34	T	4-Chloroaniline	0.444	0.486	-9.5	115	0.00	5.70
35	C	Hexachlorobutadiene	0.160	0.204	-27.5#	142	0.00	5.75
36	C	4-Chloro-3-methylphenol	0.323	0.352	-9.0	119	0.00	6.14
37	T	2-Methylnaphthalene	0.731	0.770	-5.3	116	0.00	6.23
38	T	1-Methylnaphthalene	0.684	0.708	-3.5	115	0.00	6.32
39	T	1,2,4,5-Tetrachlorobenzen	0.307	0.370	-20.5#	133	0.00	6.38
40		Caprolactam	0.209	0.223	-6.7	112	0.00	6.03

Continuing Calibration Summary

Job Number: MC33841 **Sample:** MSR1474-CC1461
Account: BBLNYS Arcadis **Lab FileID:** R40057.D
Project: National Grid, 10 King Street, Ogdensburg, NY

41	I	Acenaphthene-d10	1.000	1.000	0.0	124	0.00	7.13
42	T	Pentachloronitrobenzene	0.156	0.188	-20.5#	144	0.00	8.27
43	P	Hexachlorocyclopentadiene	0.285	0.330	-15.8	129	0.00	6.37
44	C	2,4,6-Trichlorophenol	0.342	0.404	-18.1	131	0.00	6.49
45	T	2,4,5-Trichlorophenol	0.377	0.449	-19.1	132	0.00	6.52
46	S	2-Fluorobiphenyl	1.280	1.372	-7.2	121	0.00	6.56
47	T	2-Chloronaphthalene	1.092	1.168	-7.0	119	0.00	6.65
48	M	Acenaphthylene	1.621	1.774	-9.4	120	0.00	7.01
49	T	Dimethylphthalate	1.190	1.317	-10.7	124	0.00	6.93
50	T	2,4-Dinitrotoluene	0.348	0.400	-14.9	137	0.00	7.32
51	C	Acenaphthene	1.146	1.199	-4.6	117	0.00	7.16
		----------	Amount	Calc.	%Drift		----------	
52	P	2,4-Dinitrophenol	50.000	52.436	-4.9	126	0.00	7.21
		----------	AvgRF	CCRF	%Dev		----------	
53	T	Dibenzofuran	1.623	1.763	-8.6	121	0.00	7.31
54	M	2,6-Dinitrotoluene	0.267	0.300	-12.4	134	0.00	6.98
55	P	4-Nitrophenol	0.283	0.321	-13.4	126	0.00	7.29
56	T	2,3,4,6-Tetrachlorophenol	0.295	0.364	-23.4#	142	0.00	7.42
57	T	Fluorene	1.274	1.370	-7.5	116	0.00	7.60
58	T	4-Chlorophenyl-phenylethe	0.590	0.687	-16.4	124	0.00	7.62
59	T	Diethylphthalate	1.228	1.373	-11.8	125	0.00	7.55
60	T	2-nitroaniline	0.407	0.437	-7.4	126	0.00	6.76
61	T	3-nitroaniline	0.342	0.365	-6.7	126	0.00	7.12
62	T	4-nitroaniline	0.367	0.368	-0.3	118	0.00	7.65
63		1,1'-Biphenyl	1.467	1.536	-4.7	117	0.00	6.64
64	I	Phenanthrene-d10	1.000	1.000	0.0	124	0.00	8.41
		----------	Amount	Calc.	%Drift		----------	
65	T	4,6-Dinitro-2-methylpheno	50.000	61.118	-22.2#	155	0.00	7.67
		----------	AvgRF	CCRF	%Dev		----------	
66	C	n-Nitrosodiphenylamine	0.543	0.586	-7.9	122	0.00	7.73
67	T	1,2-Diphenylhydrazine	0.923	0.902	2.3	109	0.00	7.76
68	S	2,4,6-Tribromophenol	0.087	0.117	-34.5#	158	0.00	7.82
69	T	4-Bromophenyl-phenylether	0.189	0.228	-20.6#	136	0.00	8.04
70	T	Hexachlorobenzene	0.190	0.243	-27.9#	147	0.00	8.08
71	C	Pentachlorophenol	0.162	0.197	-21.6#	144	0.00	8.26
72	T	Phenanthrene	1.103	1.195	-8.3	122	0.00	8.43
73	T	Anthracene	1.101	1.236	-12.3	123	0.00	8.48
74	T	Carbazole	1.085	1.173	-8.1	119	0.00	8.63
75	T	Di-n-butylphthalate	1.272	1.491	-17.2	121	0.00	8.97
76	C	Fluoranthene	1.121	1.290	-15.1	125	0.00	9.46
77		Atrazine	0.167	0.150	10.2	99	0.00	8.22
78	I	Chrysene-d12	1.000	1.000	0.0	131	0.00	10.78
		----------	Amount	Calc.	%Drift		----------	
79	T	Benzidine	50.000	42.531	14.9	105	0.00	9.60
		----------	AvgRF	CCRF	%Dev		----------	
80		3,3-Dimethylbenzidine		----------NA----------				
81	M	Pyrene	1.285	1.357	-5.6	125	0.00	9.65
82	S	Terphenyl-d14	0.849	0.930	-9.5	131	0.00	9.82
83	T	Butylbenzylphthalate	0.589	0.638	-8.3	122	0.00	10.29
84	T	3,3'-Dichlorobenzidine	0.401	0.502	-25.2#	152	0.00	10.78
85	T	Benzo[a]anthracene	1.155	1.227	-6.2	131	0.00	10.78
86	T	Chrysene	1.150	1.181	-2.7	121	0.00	10.81

8.7.6

8

Continuing Calibration Summary

Job Number: MC33841
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1474-CC1461
Lab FileID: R40057.D

87	T	bis(2-Ethylhexyl)phthalat	0.809	0.893	-10.4	117	0.00	10.89
88	I	Perylene-d12	1.000	1.000	0.0	130	0.00	12.32
89	C	Di-n-octylphthalate	1.583	1.735	-9.6	123	0.00	11.60
90	T	Benzo[b]fluoranthene	1.161	1.256	-8.2	130	0.00	11.92
91	T	Benzo[k]fluoranthene	1.204	1.338	-11.1	128	0.00	11.95
92	C	Benzo[a]pyrene	1.088	1.196	-9.9	129	0.00	12.26
93	T	Indeno[1,2,3-cd]pyrene	1.307	1.115	14.7	101	0.00	13.44
94	T	Dibenz[a,h]anthracene	1.078	1.175	-9.0	129	0.00	13.47
95	T	Benzo[g,h,i]perylene	1.069	1.191	-11.4	132	0.00	13.70
96		1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	124	0.00	4.52
			Amount	Calc.	%Drift			
97		Benzaldehyde	50.000	67.493	-35.0#	172	0.00	4.13

(#) = Out of Range SPCC's out = 0 CCC's out = 2
R39642a.D R140911_8270A.m Thu Oct 02 07:57:52 2014

8.7.6

8

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141001\
Data File : R40059.D
Acq On : 1 Oct 2014 9:52 am
Operator : williamk
Sample : mc33841-1
Misc : op39961,msr1474,900,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 02 07:25:12 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Oct 02 07:21:49 2014
Response via : Initial Calibration

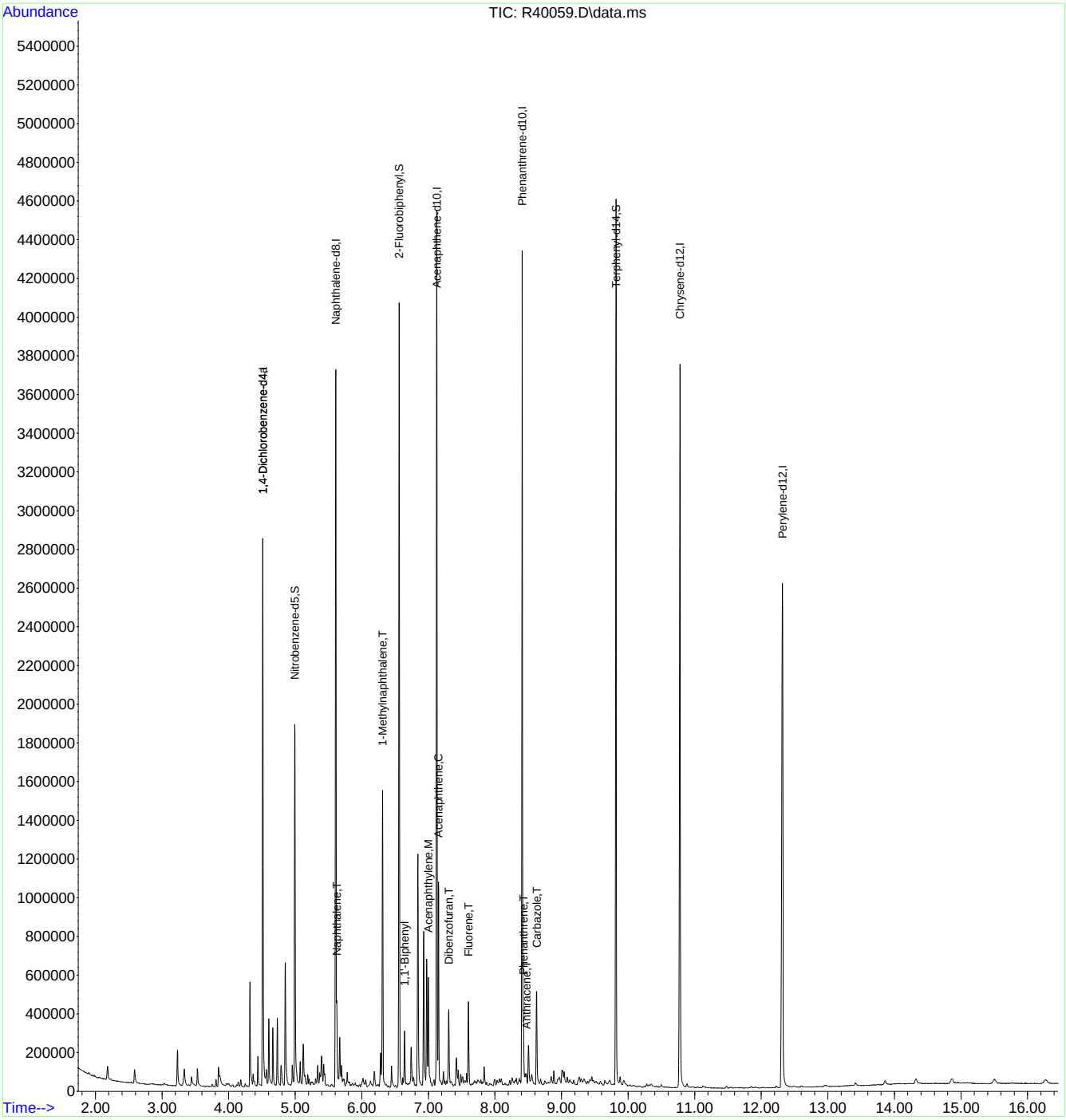
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.513	152	353454	40.00	ug/mL	0.00
22) Naphthalene-d8	5.610	136	1322308	40.00	ug/mL	0.00
41) Acenaphthene-d10	7.126	164	780526	40.00	ug/mL	0.00
64) Phenanthrene-d10	8.410	188	1274292	40.00	ug/mL	0.00
78) Chrysene-d12	10.778	240	1189184	40.00	ug/mL	0.00
88) Perylene-d12	12.317	264	1078664	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	4.513	152	353454	40.00	ug/mL	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0d	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
23) Nitrobenzene-d5	4.994	82	525156	39.20	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	78.40%		
46) 2-Fluorobiphenyl	6.561	172	956534	38.30	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	76.60%		
68) 2,4,6-Tribromophenol	0.000	330	0	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
82) Terphenyl-d14	9.818	244	1212639	48.06	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	96.12%		
Target Compounds						Qvalue
32) Naphthalene	5.625	128	128550	3.65	ug/mL	98
38) 1-Methylnaphthalene	6.312	142	321456	14.22	ug/mL	100
48) Acenaphthylene	6.999	152	188413	5.96	ug/mL	98
51) Acenaphthene	7.151	153	196494	8.79	ug/mL	95
53) Dibenzofuran	7.307	168	139505	4.40	ug/mL	94
57) Fluorene	7.602	166	104453	4.20	ug/mL	95
63) 1,1'-Biphenyl	6.642	154	79104	2.76	ug/mL	95
72) Phenanthrene	8.429	178	82326	2.34	ug/mL	99
73) Anthracene	8.472	178	15855	0.45	ug/mL	89
74) Carbazole	8.628	167	181534	5.25	ug/mL	100

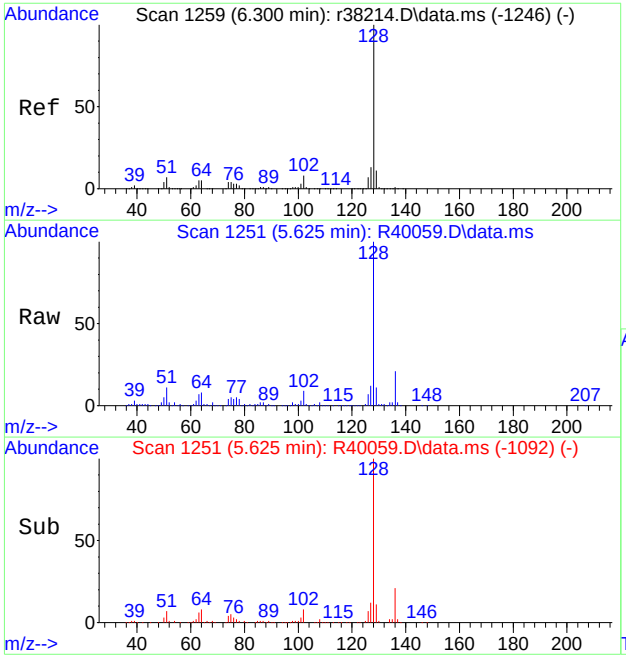
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141001\
Data File : R40059.D
Acq On : 1 Oct 2014 9:52 am
Operator : williamk
Sample : mc33841-1
Misc : op39961,msr1474,900,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 02 07:25:12 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Oct 02 07:21:49 2014
Response via : Initial Calibration

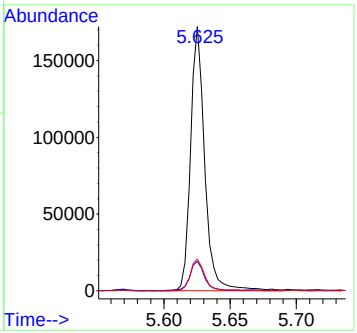


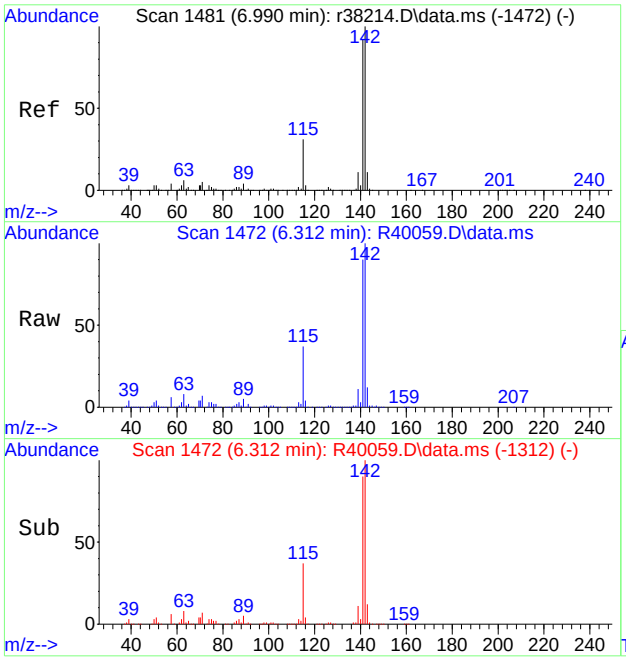


#32
Naphthalene
Concen: 3.65 ug/mL
RT: 5.625 min Scan# 1251
Delta R.T. -0.006 min
Lab File: R40059.D
Acq: 1 Oct 2014 9:52 am

Tgt Ion:128 Resp: 128550

Ion	Ratio	Lower	Upper
128	100		
129	11.1	0.0	40.1
127	12.0	0.0	42.3

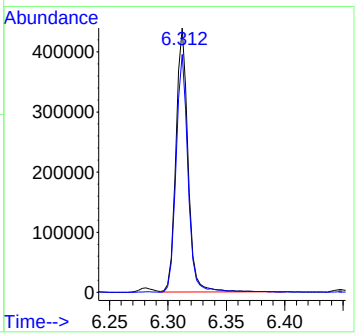


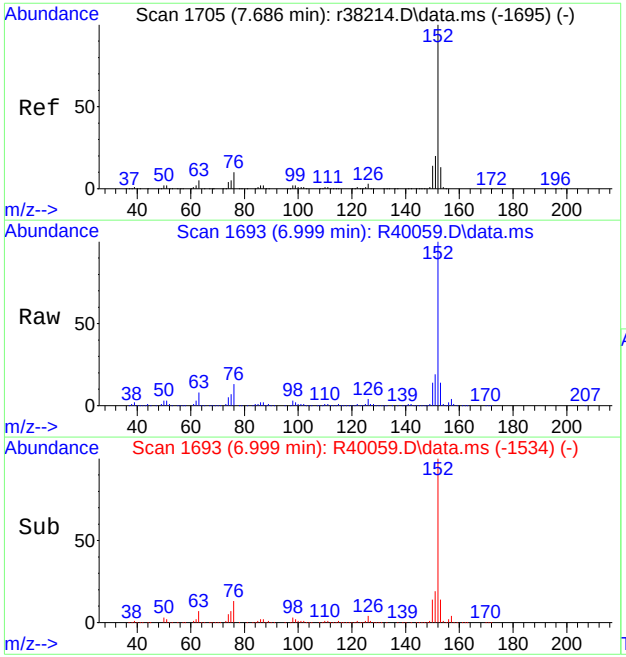


#38
1-Methylnaphthalene
Concen: 14.22 ug/mL
RT: 6.312 min Scan# 1472
Delta R.T. -0.003 min
Lab File: R40059.D
Acq: 1 Oct 2014 9:52 am

Tgt Ion:142 Resp: 321456

Ion	Ratio	Lower	Upper
142	100		
141	90.1	70.0	110.0

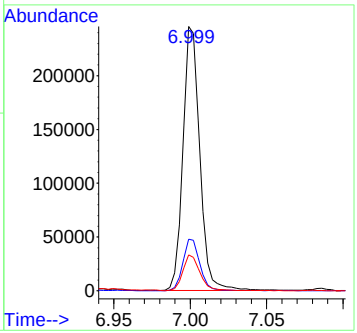


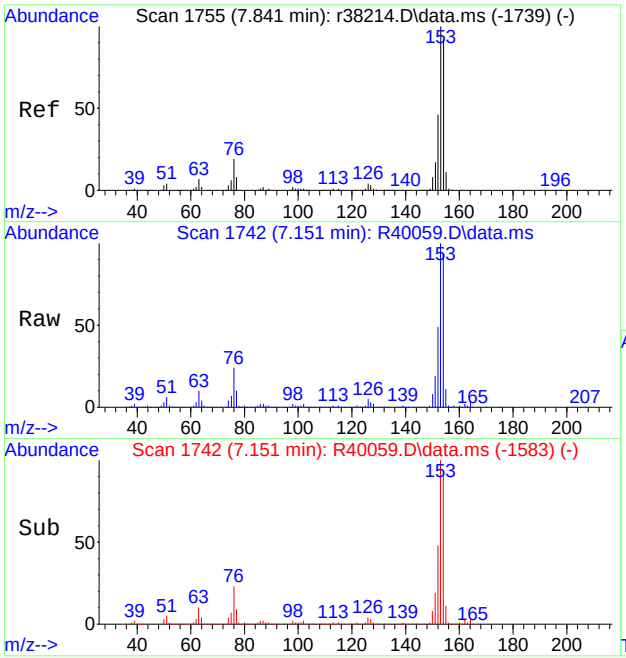


#48
Acenaphthylene
Concen: 5.96 ug/mL
RT: 6.999 min Scan# 1693
Delta R.T. -0.006 min
Lab File: R40059.D
Acq: 1 Oct 2014 9:52 am

Tgt Ion:152 Resp: 188413

Ion	Ratio	Lower	Upper
152	100		
151	19.5	0.0	50.4
153	13.5	0.0	42.9

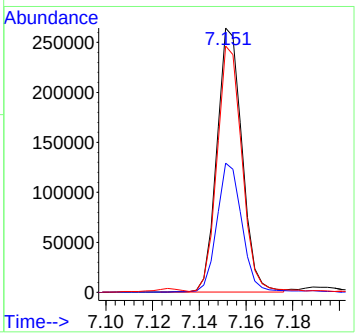


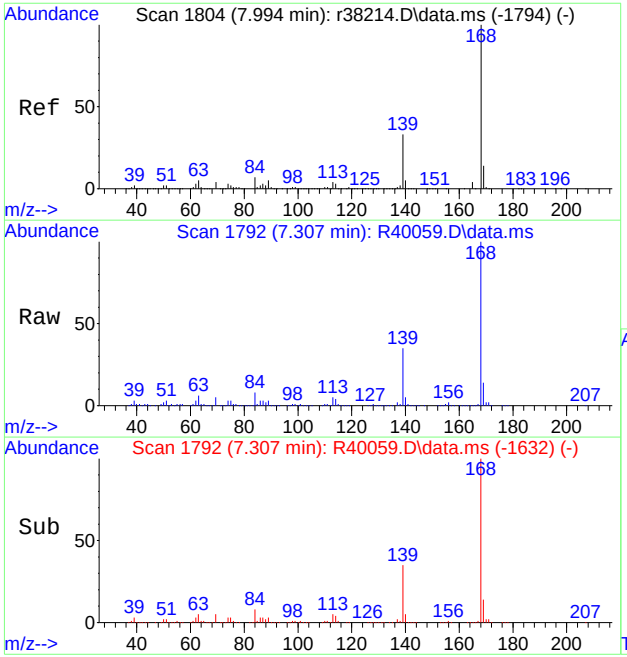


#51
Acenaphthene
Concen: 8.79 ug/mL
RT: 7.151 min Scan# 1742
Delta R.T. -0.006 min
Lab File: R40059.D
Acq: 1 Oct 2014 9:52 am

Tgt Ion:153 Resp: 196494

Ion	Ratio	Lower	Upper
153	100		
152	48.7	16.5	76.5
154	92.2	57.4	117.4

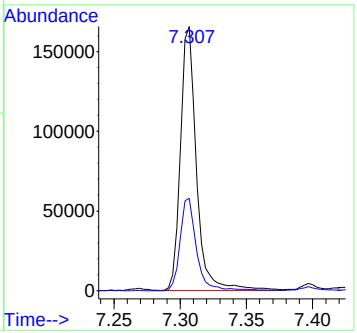


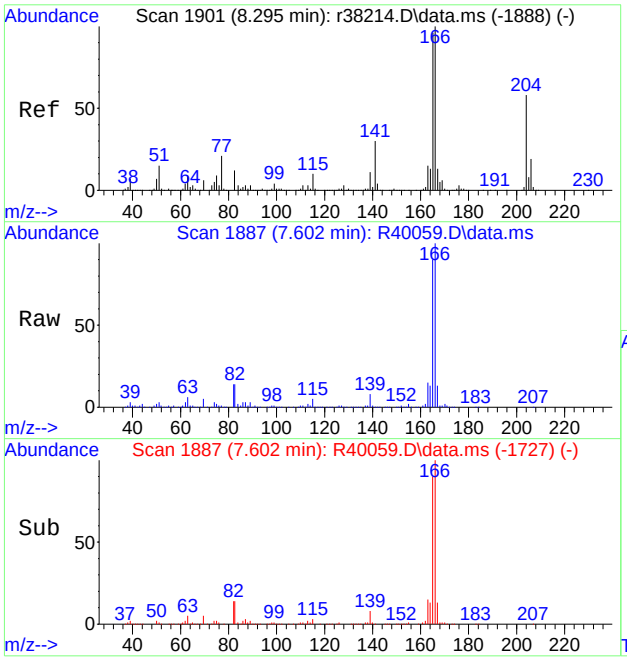


#53
Dibenzofuran
Concen: 4.40 ug/mL
RT: 7.307 min Scan# 1792
Delta R.T. -0.003 min
Lab File: R40059.D
Acq: 1 Oct 2014 9:52 am

Tgt Ion:168 Resp: 139505

Ion	Ratio	Lower	Upper
168	100		
139	35.0	8.7	68.7

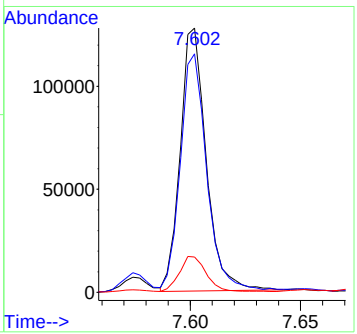


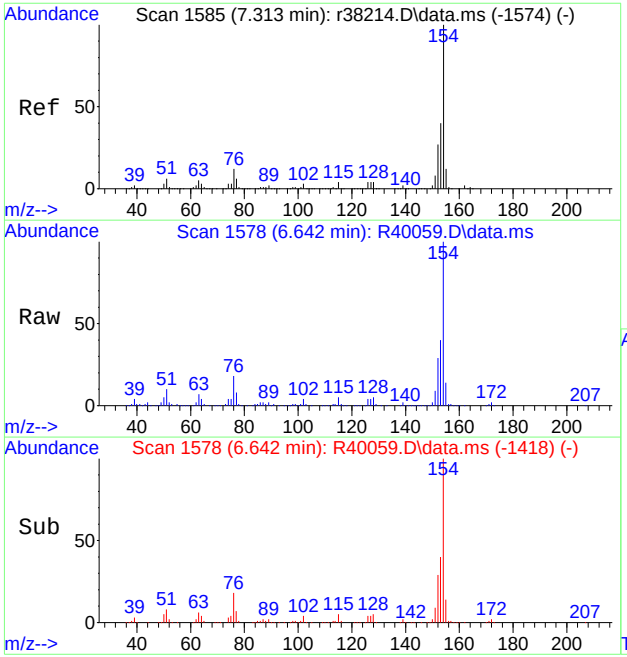


#57
Fluorene
Concen: 4.20 ug/mL
RT: 7.602 min Scan# 1887
Delta R.T. -0.003 min
Lab File: R40059.D
Acq: 1 Oct 2014 9:52 am

Tgt Ion:166 Resp: 104453

Ion	Ratio	Lower	Upper
166	100		
165	90.0	65.6	125.6
167	13.1	0.0	43.4

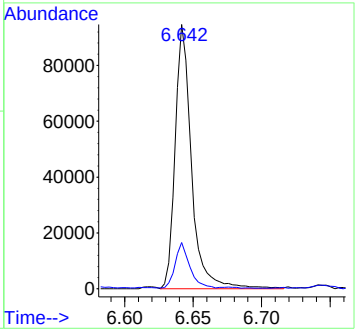


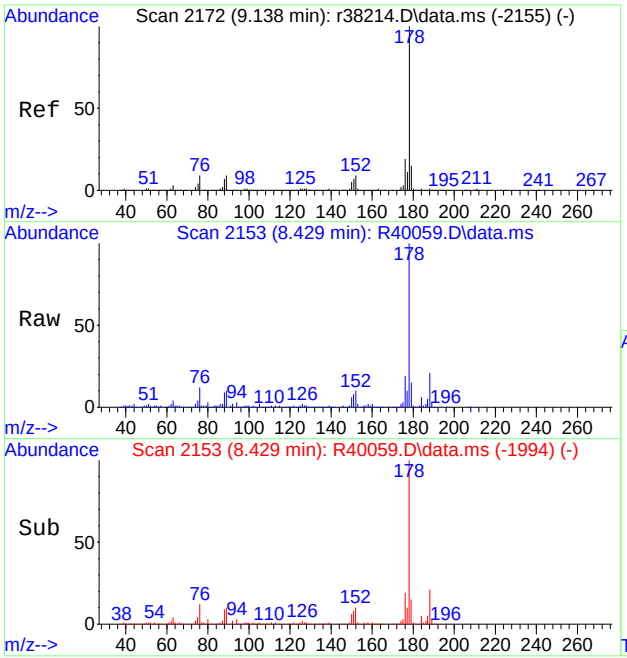


#63
1,1'-Biphenyl
Concen: 2.76 ug/mL
RT: 6.642 min Scan# 1578
Delta R.T. -0.003 min
Lab File: R40059.D
Acq: 1 Oct 2014 9:52 am

Tgt Ion:154 Resp: 79104

Ion	Ratio	Lower	Upper
154	100		
76	17.1	12.1	18.1

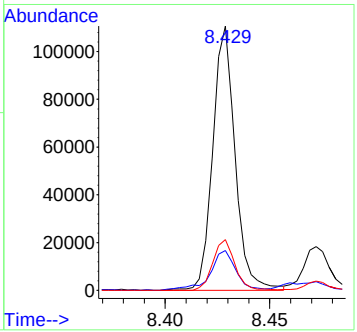


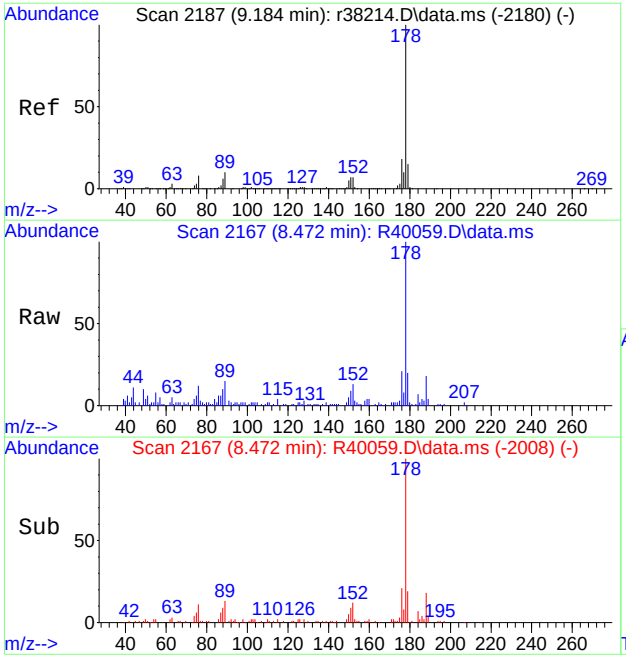


#72
Phenanthrene
Concen: 2.34 ug/mL
RT: 8.429 min Scan# 2153
Delta R.T. -0.006 min
Lab File: R40059.D
Acq: 1 Oct 2014 9:52 am

Tgt Ion:178 Resp: 82326

Ion	Ratio	Lower	Upper
178	100		
179	15.1	0.0	45.2
176	19.2	0.0	48.6

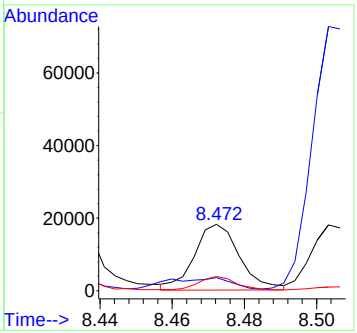


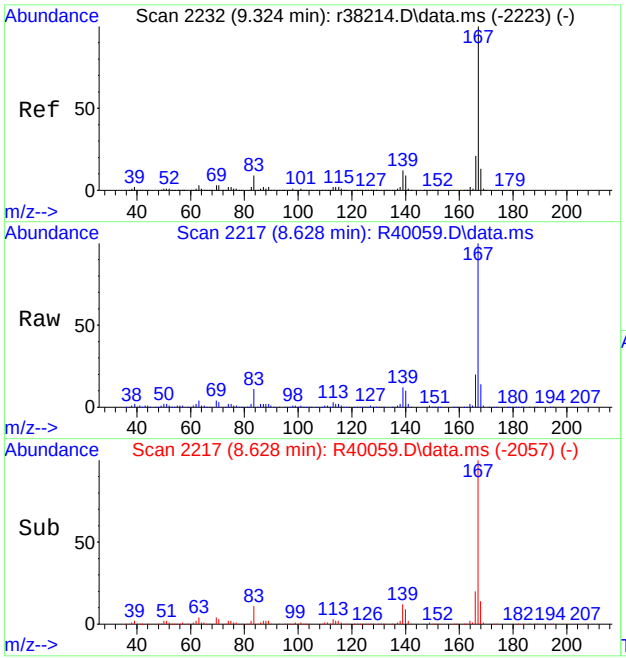


#73
Anthracene
Concen: 0.45 ug/mL
RT: 8.472 min Scan# 2167
Delta R.T. -0.006 min
Lab File: R40059.D
Acq: 1 Oct 2014 9:52 am

Tgt Ion:178 Resp: 15855

Ion	Ratio	Lower	Upper
178	100		
179	9.1	0.0	45.9
176	21.9	0.0	48.6

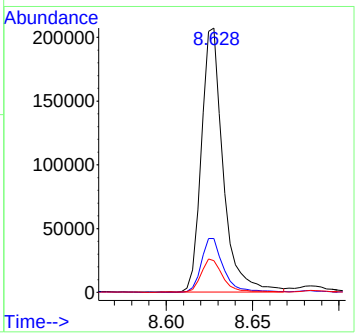




#74
Carbazole
Concen: 5.25 ug/mL
RT: 8.628 min Scan# 2217
Delta R.T. -0.003 min
Lab File: R40059.D
Acq: 1 Oct 2014 9:52 am

Tgt Ion:167 Resp: 181534

Ion	Ratio	Lower	Upper
167	100		
166	20.2	0.0	50.4
139	11.8	0.0	41.6



Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
10/07/14 17:36

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141001\
Data File : R40060.D
Acq On : 1 Oct 2014 10:17 am
Operator : williamk
Sample : mc33841-2
Misc : op39961,msr1474,920,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 02 07:27:10 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Oct 02 07:21:49 2014
Response via : Initial Calibration

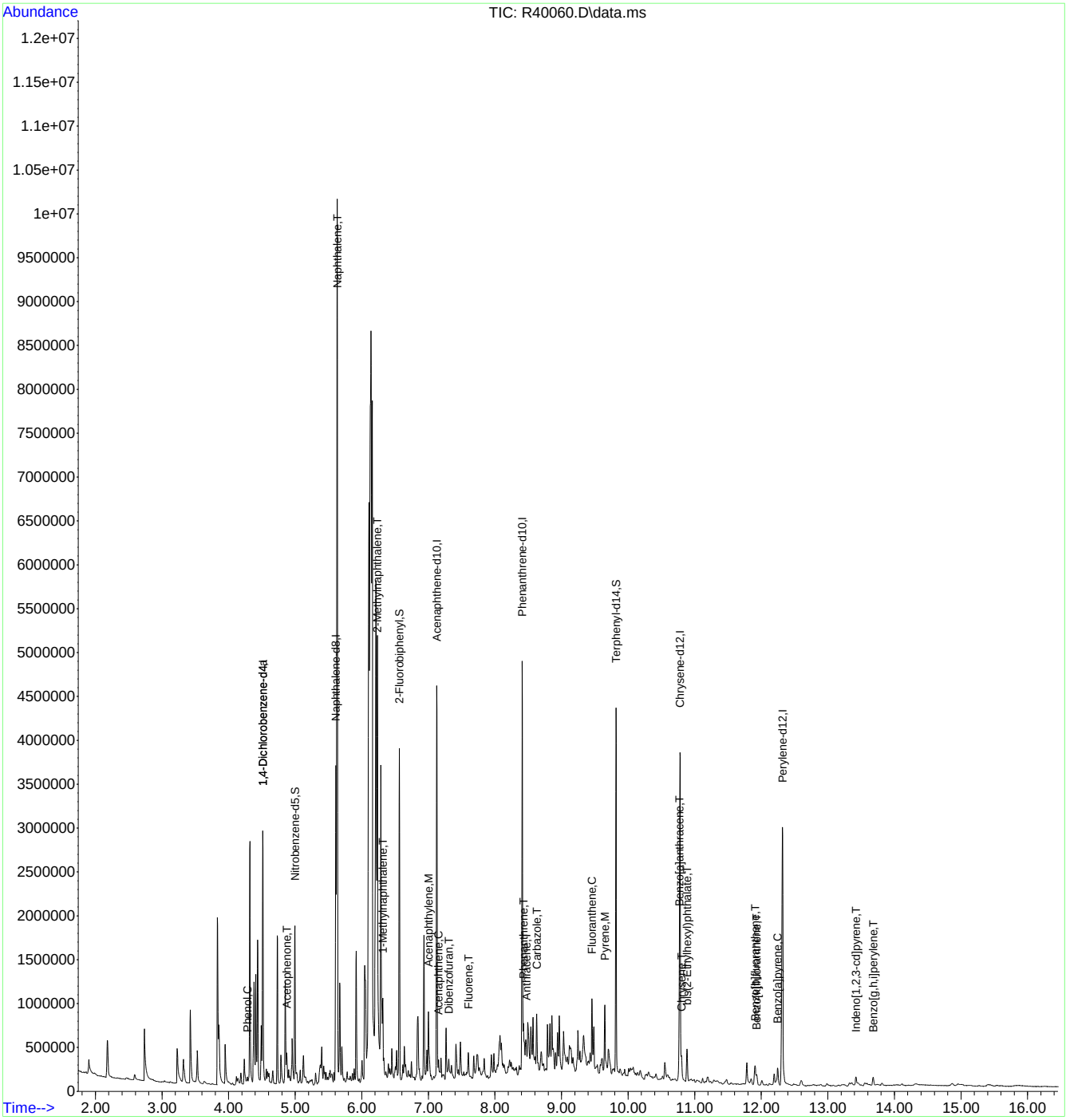
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.512	152	352698	40.00	ug/mL	0.00
22) Naphthalene-d8	5.609	136	1340999	40.00	ug/mL	0.00
41) Acenaphthene-d10	7.126	164	796318	40.00	ug/mL	0.00
64) Phenanthrene-d10	8.410	188	1326375	40.00	ug/mL	0.00
78) Chrysene-d12	10.778	240	1270168	40.00	ug/mL	0.00
88) Perylene-d12	12.317	264	1178086	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	4.512	152	352698	40.00	ug/mL	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.480	112	1207	0.10	ug/mL	0.11
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.10%#		
8) Phenol-d5	4.273	99	1413	0.09	ug/mL	0.03
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.09%#		
23) Nitrobenzene-d5	4.997	82	467618	34.42	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	68.84%		
46) 2-Fluorobiphenyl	6.564	172	890014	34.93	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	69.86%		
68) 2,4,6-Tribromophenol	0.000	330	0	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
82) Terphenyl-d14	9.818	244	1082135	40.15	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	80.30%		
Target Compounds						Qvalue
9) Phenol	4.282	94	19671	1.08	ug/mL	93
17) Acetophenone	4.873	105	69710	3.86	ug/mL	86
32) Naphthalene	5.631	128	3845300m	107.76	ug/mL	
37) 2-Methylnaphthalene	6.231	142	129679	5.29	ug/mL	100
38) 1-Methylnaphthalene	6.315	142	169316	7.38	ug/mL	97
48) Acenaphthylene	7.002	152	228294	7.07	ug/mL	98
51) Acenaphthene	7.154	153	37350	1.64	ug/mL	100
53) Dibenzofuran	7.307	168	58099	1.80	ug/mL	97
57) Fluorene	7.602	166	54003	2.13	ug/mL	99
72) Phenanthrene	8.429	178	137607	3.76	ug/mL	99
73) Anthracene	8.472	178	56632	1.55	ug/mL	94
74) Carbazole	8.627	167	177790	4.94	ug/mL	99
76) Fluoranthene	9.457	202	235122	6.33	ug/mL	89
81) Pyrene	9.650	202	200975	4.93	ug/mL	91
85) Benzo[a]anthracene	10.769	228	110404	3.01	ug/mL	99
86) Chrysene	10.803	228	86818	2.38	ug/mL	96
87) bis(2-Ethylhexyl)phtha...	10.887	149	101990	3.97	ug/mL	93
90) Benzo[b]fluoranthene	11.907	252	108888	3.18	ug/mL	94
91) Benzo[k]fluoranthene	11.928	252	45769m	1.29	ug/mL	
92) Benzo[a]pyrene	12.245	252	83159	2.60	ug/mL	94
93) Indeno[1,2,3-cd]pyrene	13.423	276	50931	1.32	ug/mL	98
95) Benzo[g,h,i]perylene	13.681	276	46853	1.49	ug/mL	91

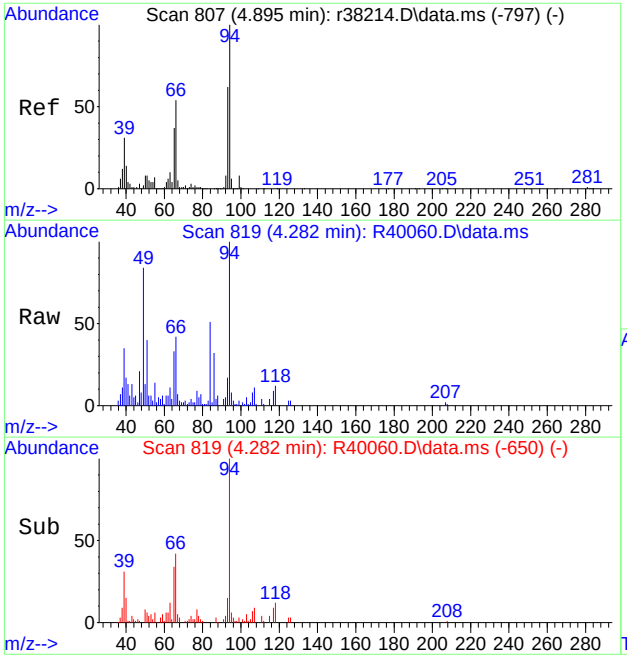
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141001\
Data File : R40060.D
Acq On : 1 Oct 2014 10:17 am
Operator : williamk
Sample : mc33841-2
Misc : op39961,msr1474,920,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 02 07:27:10 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Oct 02 07:21:49 2014
Response via : Initial Calibration

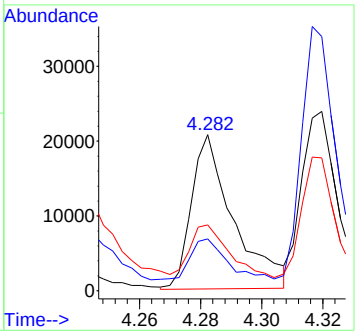


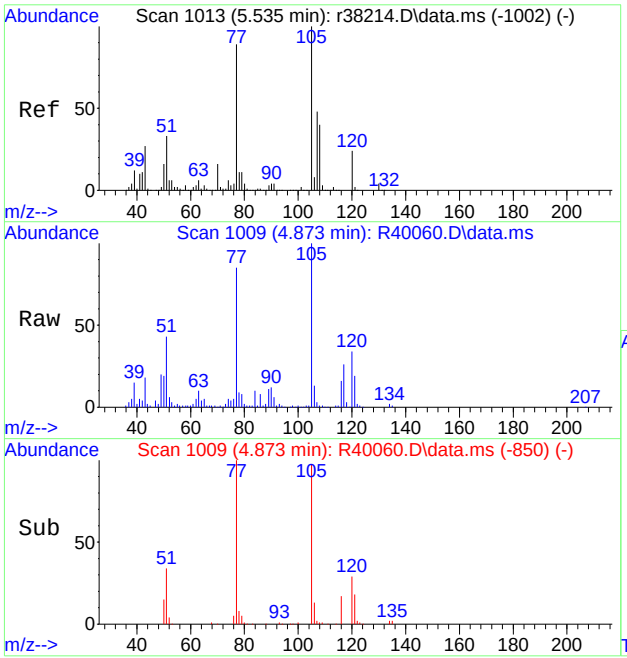


#9
Phenol
Concen: 1.08 ug/mL
RT: 4.282 min Scan# 819
Delta R.T. 0.025 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion: 94 Resp: 19671

Ion	Ratio	Lower	Upper
94	100		
65	26.5	0.0	57.9
66	32.1	7.9	67.9

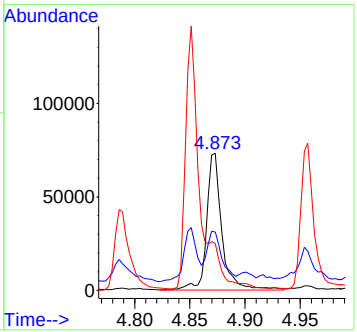


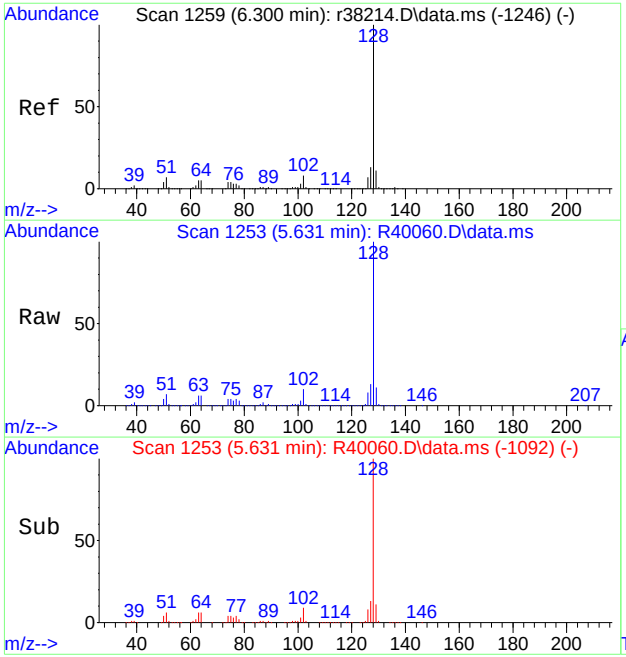


#17
Acetophenone
Concen: 3.86 ug/mL
RT: 4.873 min Scan# 1009
Delta R.T. -0.006 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:105 Resp: 69710

Ion	Ratio	Lower	Upper
105	100		
51	36.4	0.0	59.6
120	32.9	0.0	54.9

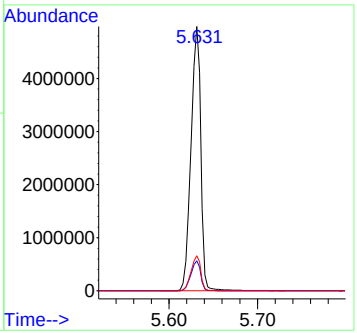


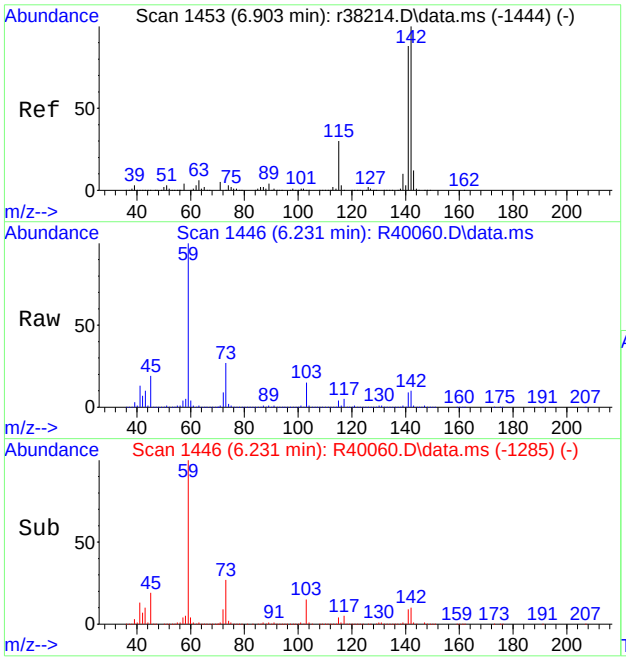


#32
Naphthalene
Concen: 107.76 ug/mL m
RT: 5.631 min Scan# 1253
Delta R.T. -0.000 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:128 Resp: 3845300

Ion	Ratio	Lower	Upper
128	100		
129	11.3	0.0	40.1
127	13.2	0.0	42.3

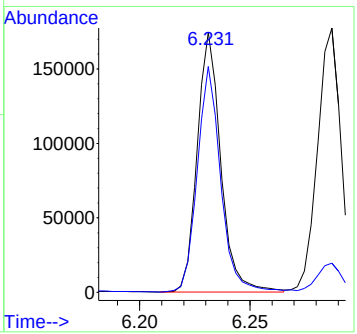




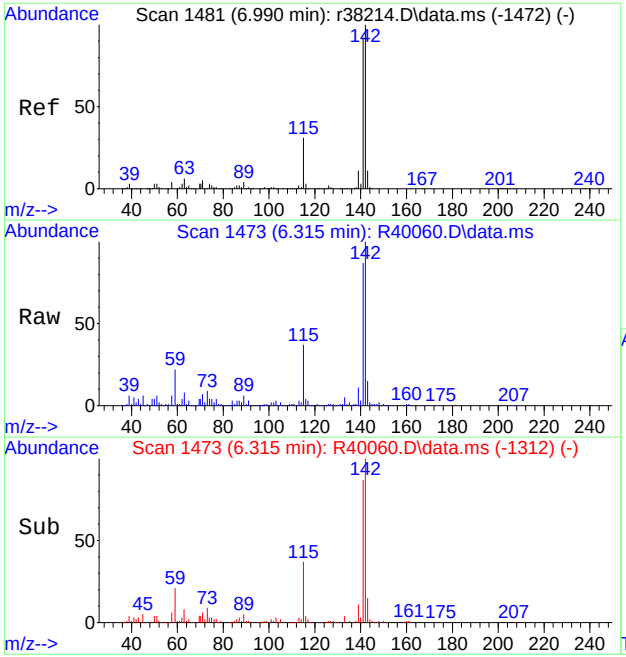
#37
2-Methylnaphthalene
Concen: 5.29 ug/mL
RT: 6.231 min Scan# 1446
Delta R.T. -0.000 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:142 Resp: 129679

Ion	Ratio	Lower	Upper
142	100		
141	86.8	57.2	117.2



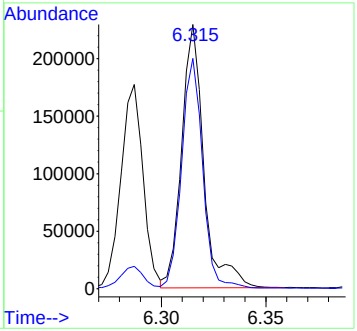
ACCUTEST LABORATORIES
MC33841

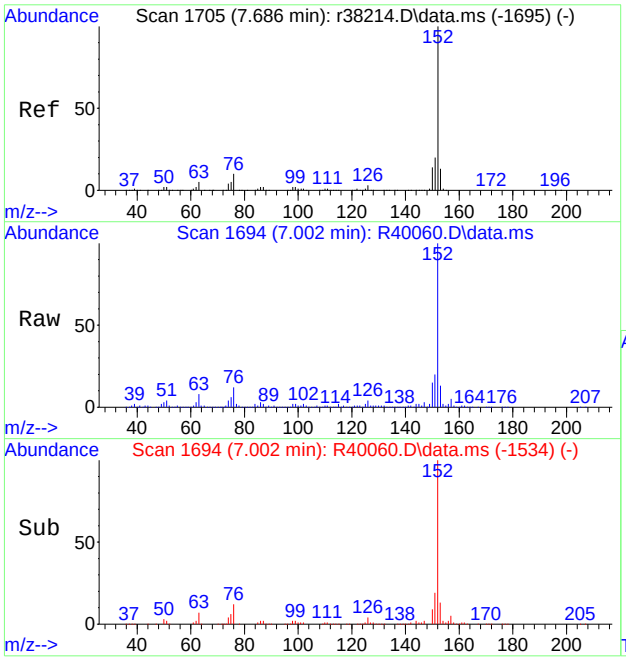


#38
1-Methylnaphthalene
Concen: 7.38 ug/mL
RT: 6.315 min Scan# 1473
Delta R.T. -0.000 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:142 Resp: 169316

Ion	Ratio	Lower	Upper
142	100		
141	87.2	70.0	110.0

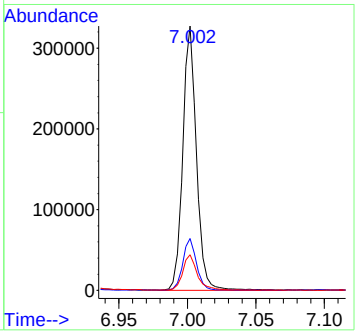


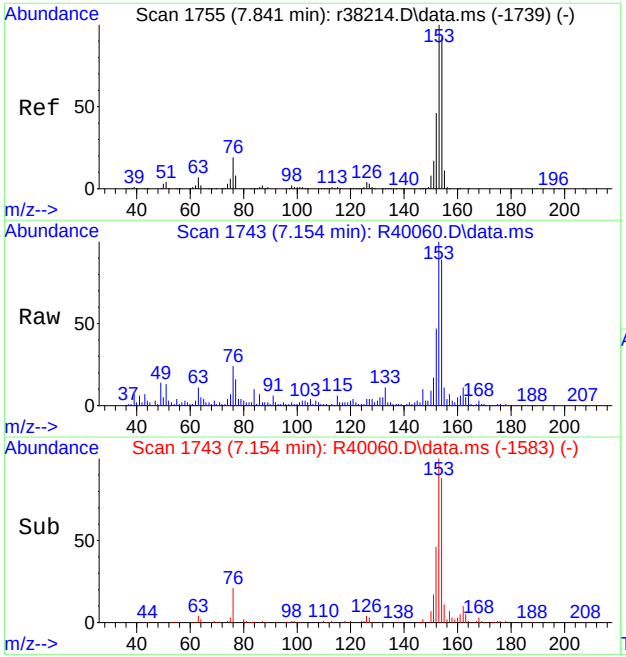


#48
Acenaphthylene
Concen: 7.07 ug/mL
RT: 7.002 min Scan# 1694
Delta R.T. -0.003 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:152 Resp: 228294

Ion	Ratio	Lower	Upper
152	100		
151	19.6	0.0	50.4
153	13.4	0.0	42.9

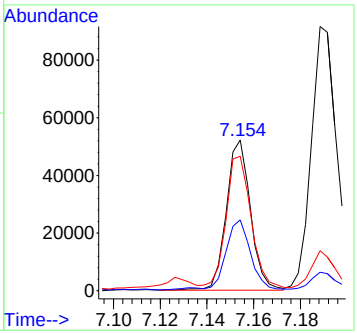


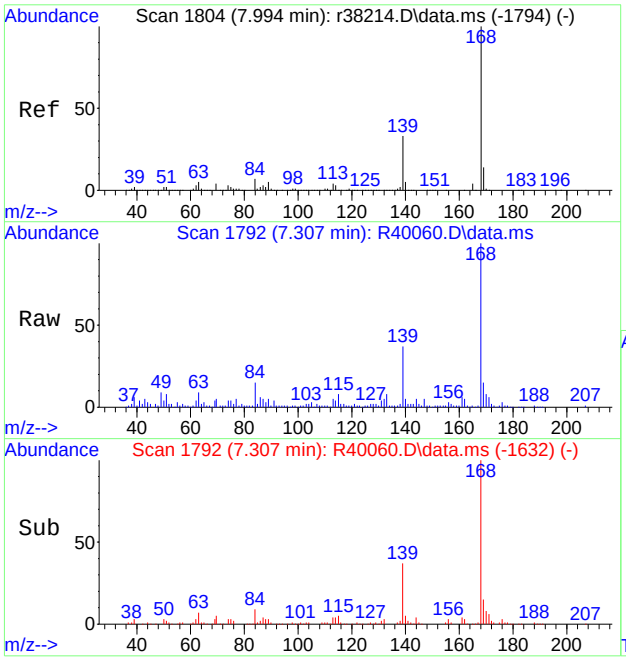


#51
Acenaphthene
Concen: 1.64 ug/mL
RT: 7.154 min Scan# 1743
Delta R.T. -0.003 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:153 Resp: 37350

Ion	Ratio	Lower	Upper
153	100		
152	46.6	16.5	76.5
154	87.3	57.4	117.4

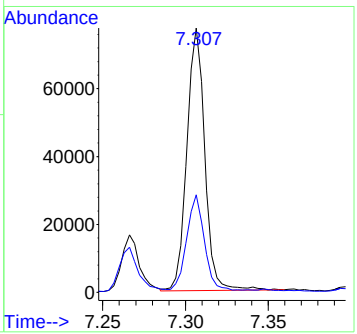


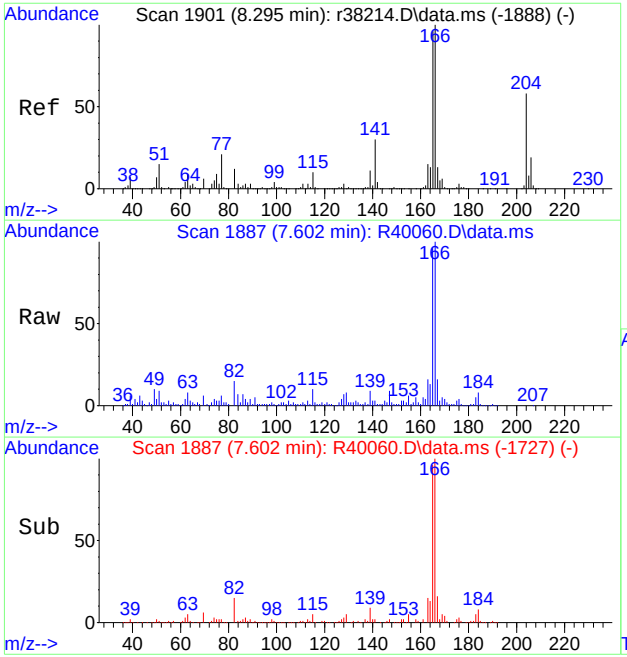


#53
Dibenzofuran
Concen: 1.80 ug/mL
RT: 7.307 min Scan# 1792
Delta R.T. -0.003 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:168 Resp: 58099

Ion	Ratio	Lower	Upper
168	100		
139	36.6	8.7	68.7

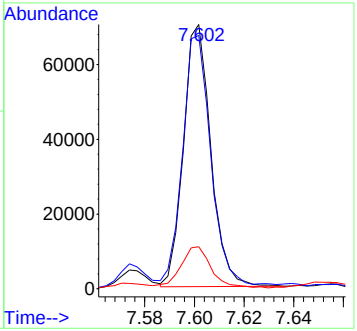


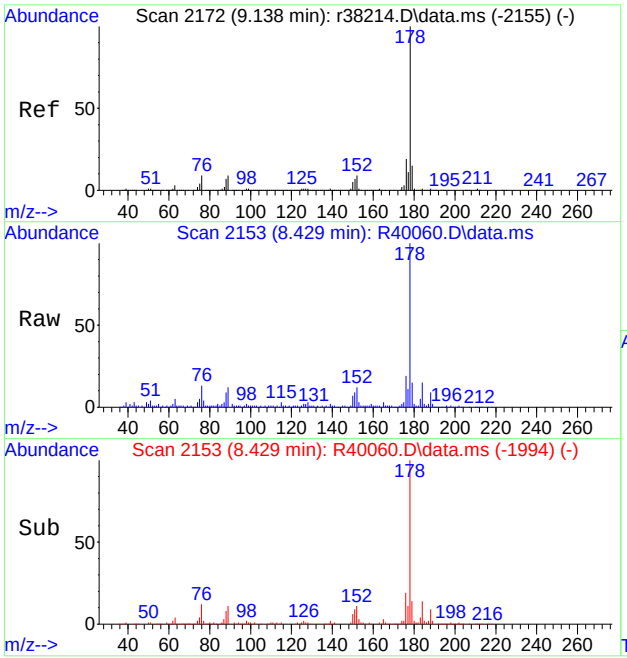


#57
Fluorene
Concen: 2.13 ug/mL
RT: 7.602 min Scan# 1887
Delta R.T. -0.003 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:166 Resp: 54003

Ion	Ratio	Lower	Upper
166	100		
165	95.0	65.6	125.6
167	15.5	0.0	43.4

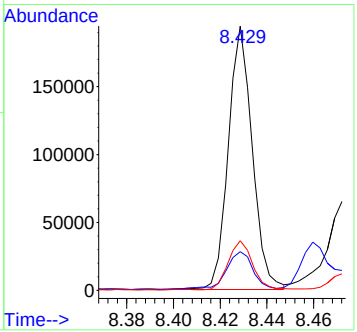


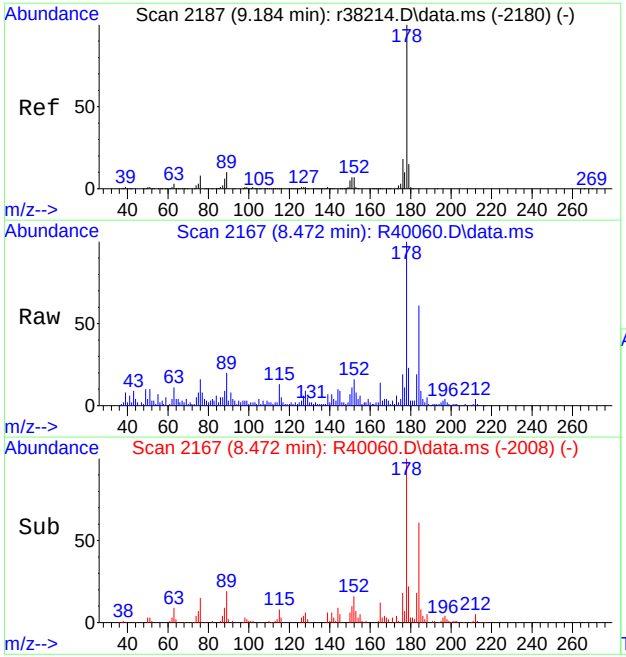


#72
Phenanthrene
Concen: 3.76 ug/mL
RT: 8.429 min Scan# 2153
Delta R.T. -0.006 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:178 Resp: 137607

Ion	Ratio	Lower	Upper
178	100		
179	14.3	0.0	45.2
176	18.7	0.0	48.6

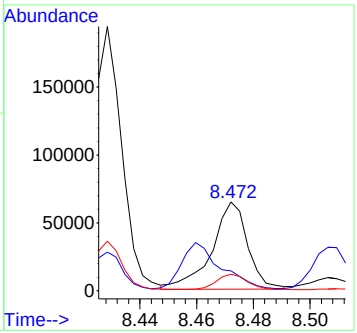


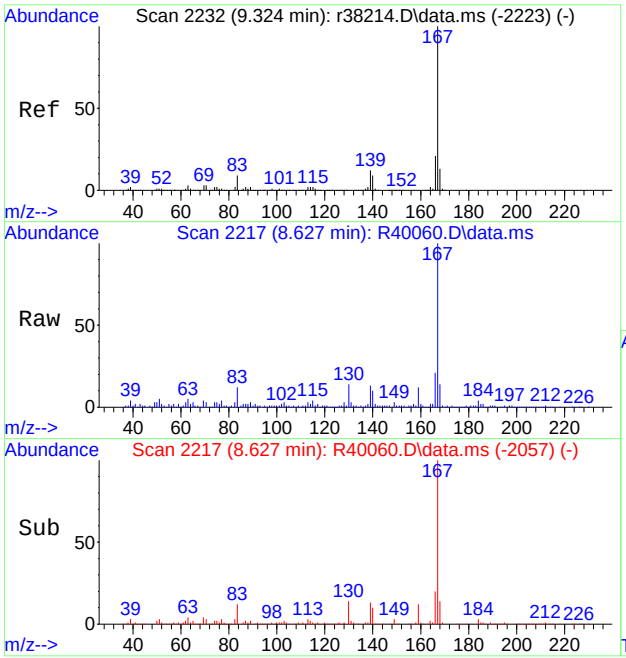


#73
Anthracene
Concen: 1.55 ug/mL
RT: 8.472 min Scan# 2167
Delta R.T. -0.006 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:178 Resp: 56632

Ion	Ratio	Lower	Upper
178	100		
179	20.9	0.0	45.9
176	17.9	0.0	48.6

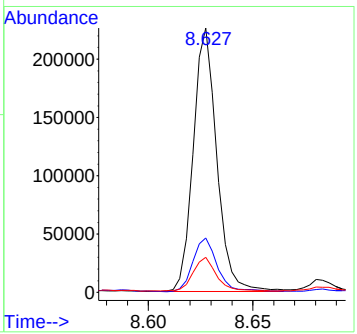


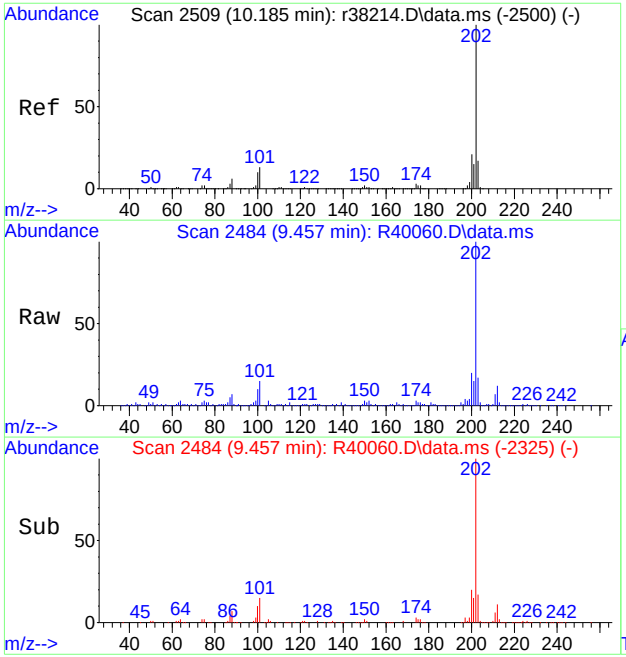


#74
Carbazole
Concen: 4.94 ug/mL
RT: 8.627 min Scan# 2217
Delta R.T. -0.003 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:167 Resp: 177790

Ion	Ratio	Lower	Upper
167	100		
166	20.3	0.0	50.4
139	12.7	0.0	41.6

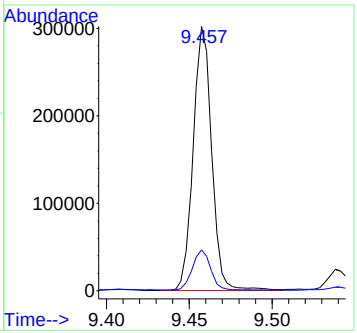


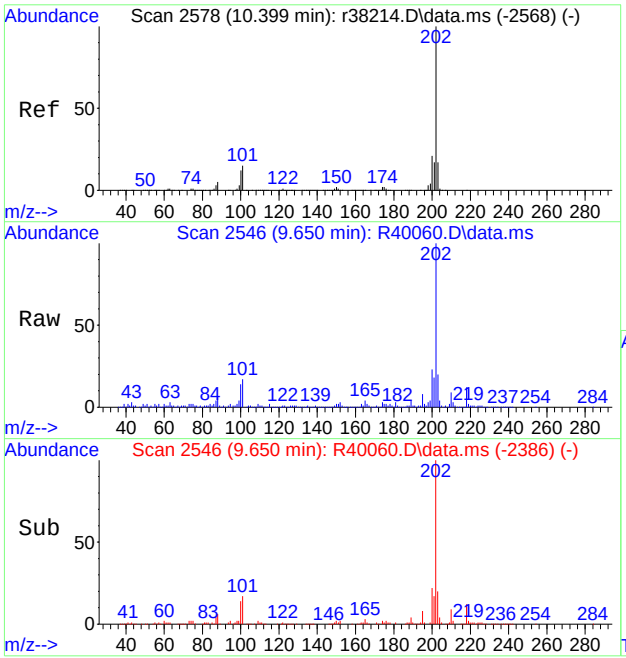


#76
Fluoranthene
Concen: 6.33 ug/mL
RT: 9.457 min Scan# 2484
Delta R.T. -0.006 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:202 Resp: 235122

Ion	Ratio	Lower	Upper
202	100		
101	15.2	0.0	41.0

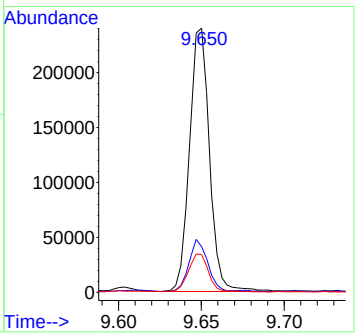


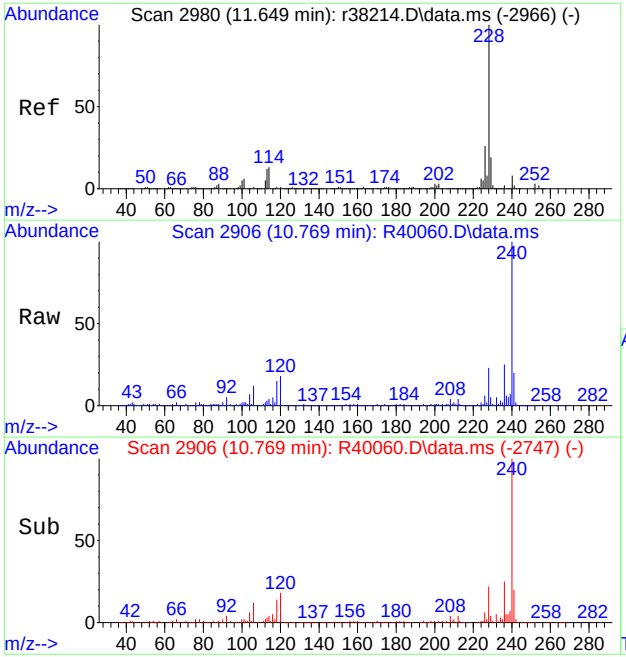


#81
Pyrene
Concen: 4.93 ug/mL
RT: 9.650 min Scan# 2546
Delta R.T. -0.003 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:202 Resp: 200975

Ion	Ratio	Lower	Upper
202	100		
101	16.9	0.0	43.1
100	14.2	0.0	40.6

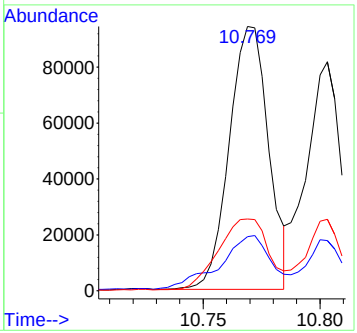


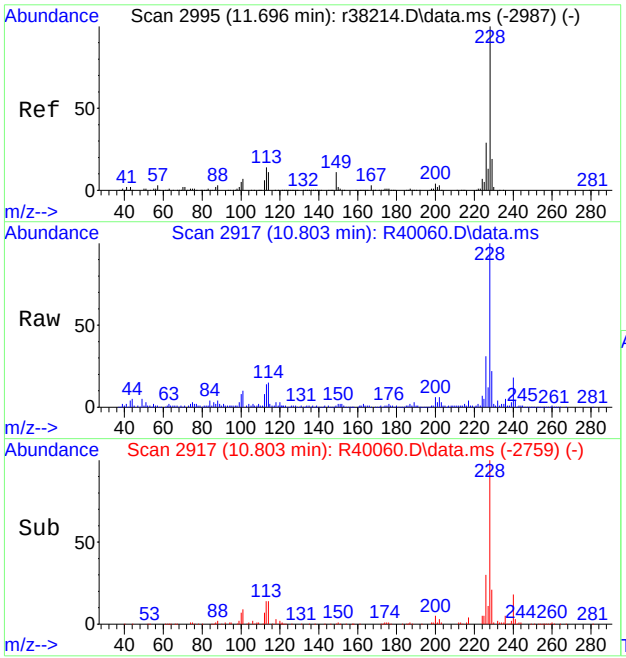


#85
Benzo[a]anthracene
Concen: 3.01 ug/mL
RT: 10.769 min Scan# 2906
Delta R.T. -0.006 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:228 Resp: 110404

Ion	Ratio	Lower	Upper
228	100		
229	19.6	0.0	49.1
226	26.9	0.0	56.0

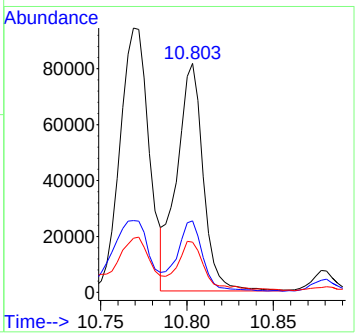


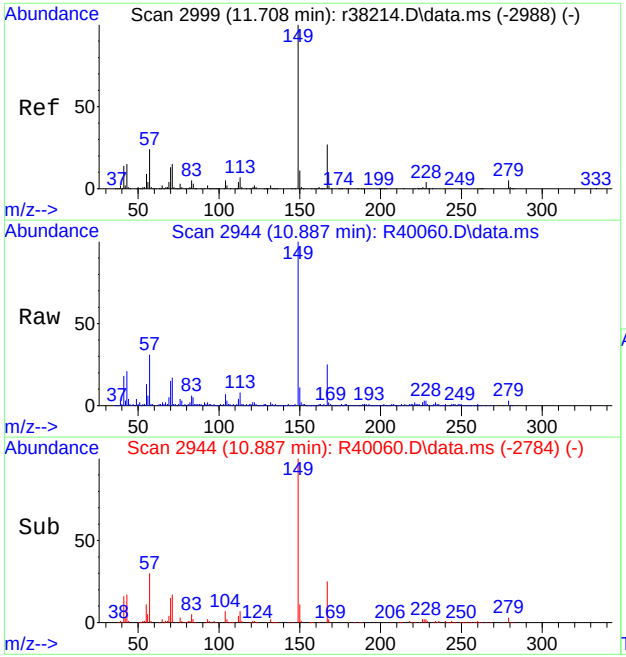


#86
Chrysene
Concen: 2.38 ug/mL
RT: 10.803 min Scan# 2917
Delta R.T. -0.009 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:228 Resp: 86818

Ion	Ratio	Lower	Upper
228	100		
226	31.0	0.0	59.0
229	21.2	0.0	48.7

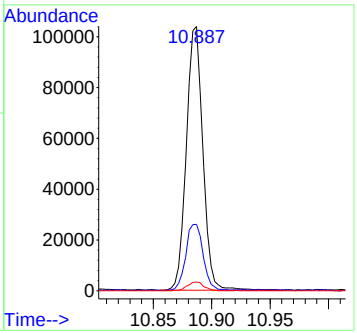


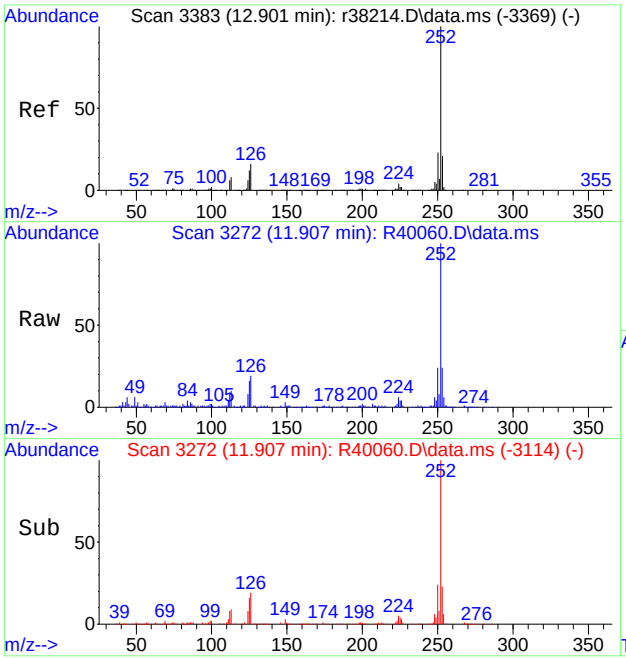


#87
bis(2-Ethylhexyl)phthalate
Concen: 3.97 ug/mL
RT: 10.887 min Scan# 2944
Delta R.T. -0.003 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:149 Resp: 101990

Ion	Ratio	Lower	Upper
149	100		
167	25.1	0.0	58.7
279	3.4	0.0	35.2

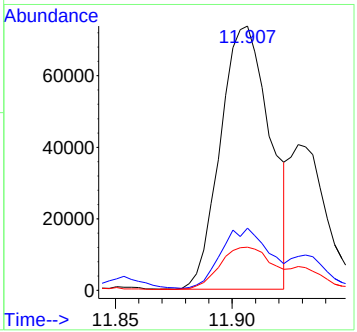


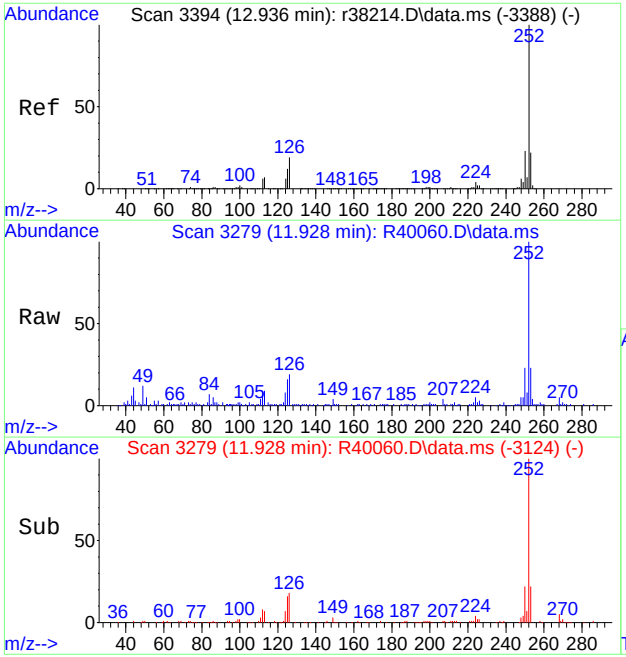


#90
Benzo[b]fluoranthene
Concen: 3.18 ug/mL
RT: 11.907 min Scan# 3272
Delta R.T. -0.009 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:252 Resp: 108888

Ion	Ratio	Lower	Upper
252	100		
253	22.2	0.0	50.9
125	16.0	0.0	41.8

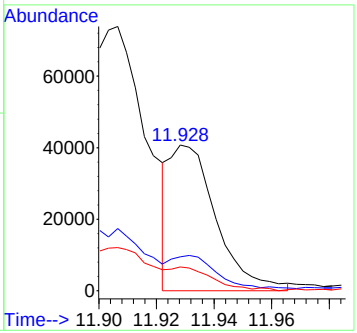


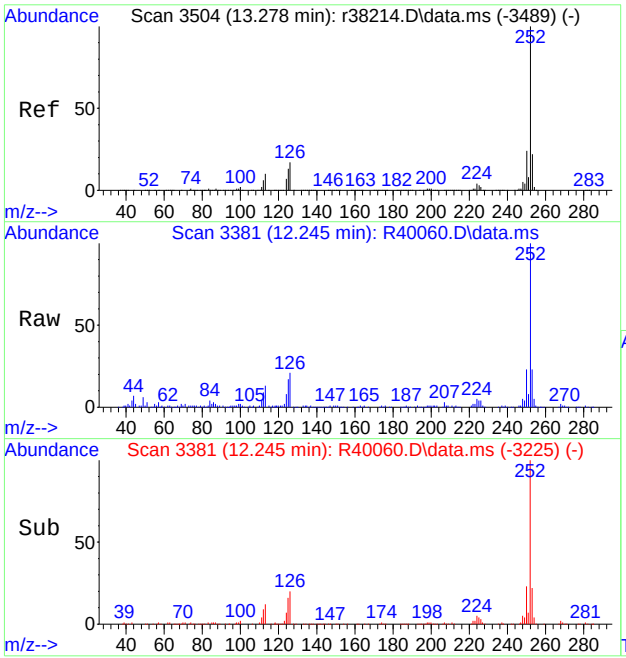


#91
Benzo[k]fluoranthene
Concen: 1.29 ug/mL m
RT: 11.928 min Scan# 3279
Delta R.T. -0.019 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:252 Resp: 45769

Ion	Ratio	Lower	Upper
252	100		
253	23.3	0.0	51.4
125	16.3	0.0	42.0

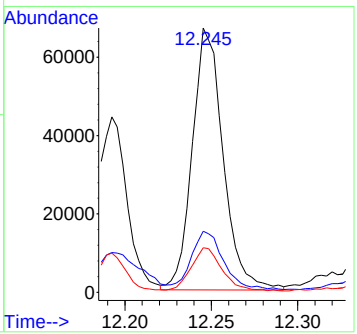


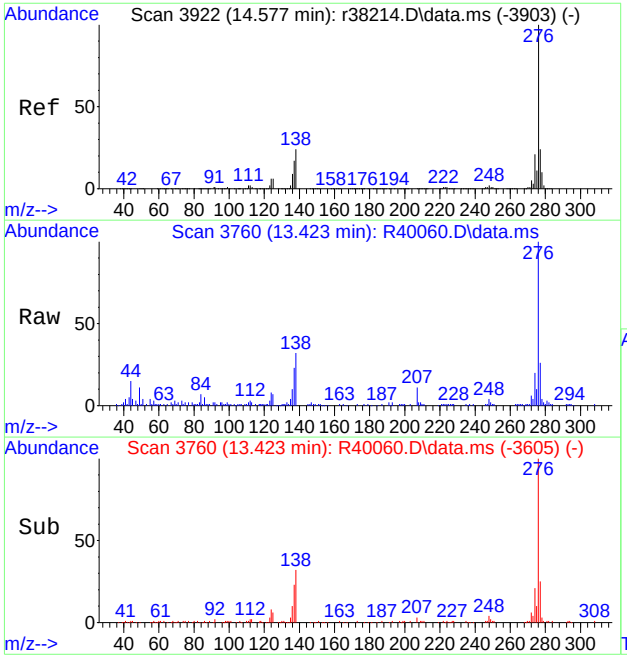


#92
Benzo[a]pyrene
Concen: 2.60 ug/mL
RT: 12.245 min Scan# 3381
Delta R.T. -0.016 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:252 Resp: 83159

Ion	Ratio	Lower	Upper
252	100		
253	22.5	0.0	50.5
125	16.7	0.0	43.2

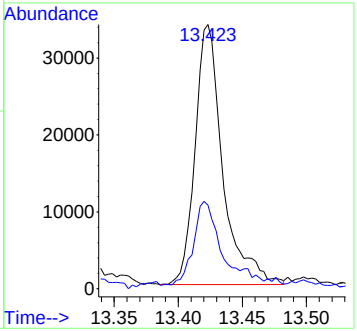


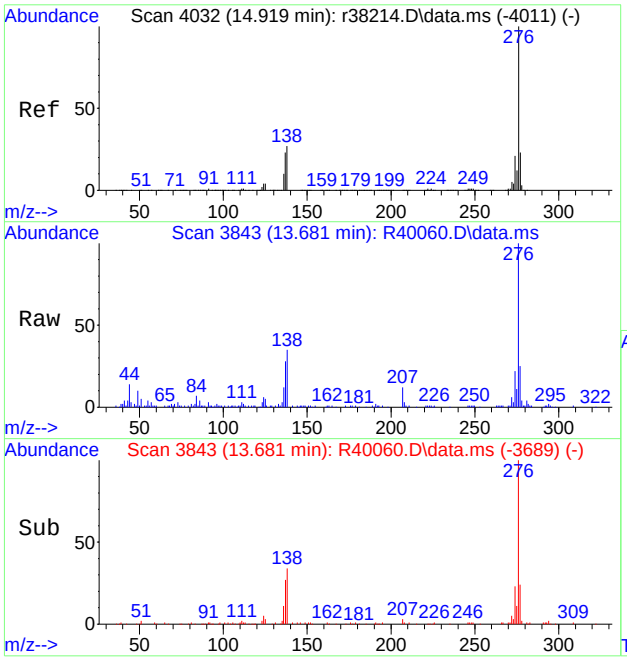


#93
Indeno[1,2,3-cd]pyrene
Concen: 1.32 ug/mL
RT: 13.423 min Scan# 3760
Delta R.T. -0.019 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:276 Resp: 50931

Ion	Ratio	Lower	Upper
276	100		
138	29.6	0.6	60.6

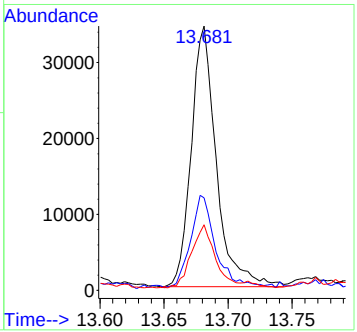




#95
Benzo[g,h,i]perylene
Concen: 1.49 ug/mL
RT: 13.681 min Scan# 3843
Delta R.T. -0.022 min
Lab File: R40060.D
Acq: 1 Oct 2014 10:17 am

Tgt Ion:276 Resp: 46853

Ion	Ratio	Lower	Upper
276	100		
138	33.6	0.0	55.6
277	24.1	0.0	53.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141001\
Data File : R40061.D
Acq On : 1 Oct 2014 10:41 am
Operator : williamk
Sample : mc33841-3
Misc : op39961,msr1474,850,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 02 07:29:19 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Oct 02 07:21:49 2014
Response via : Initial Calibration

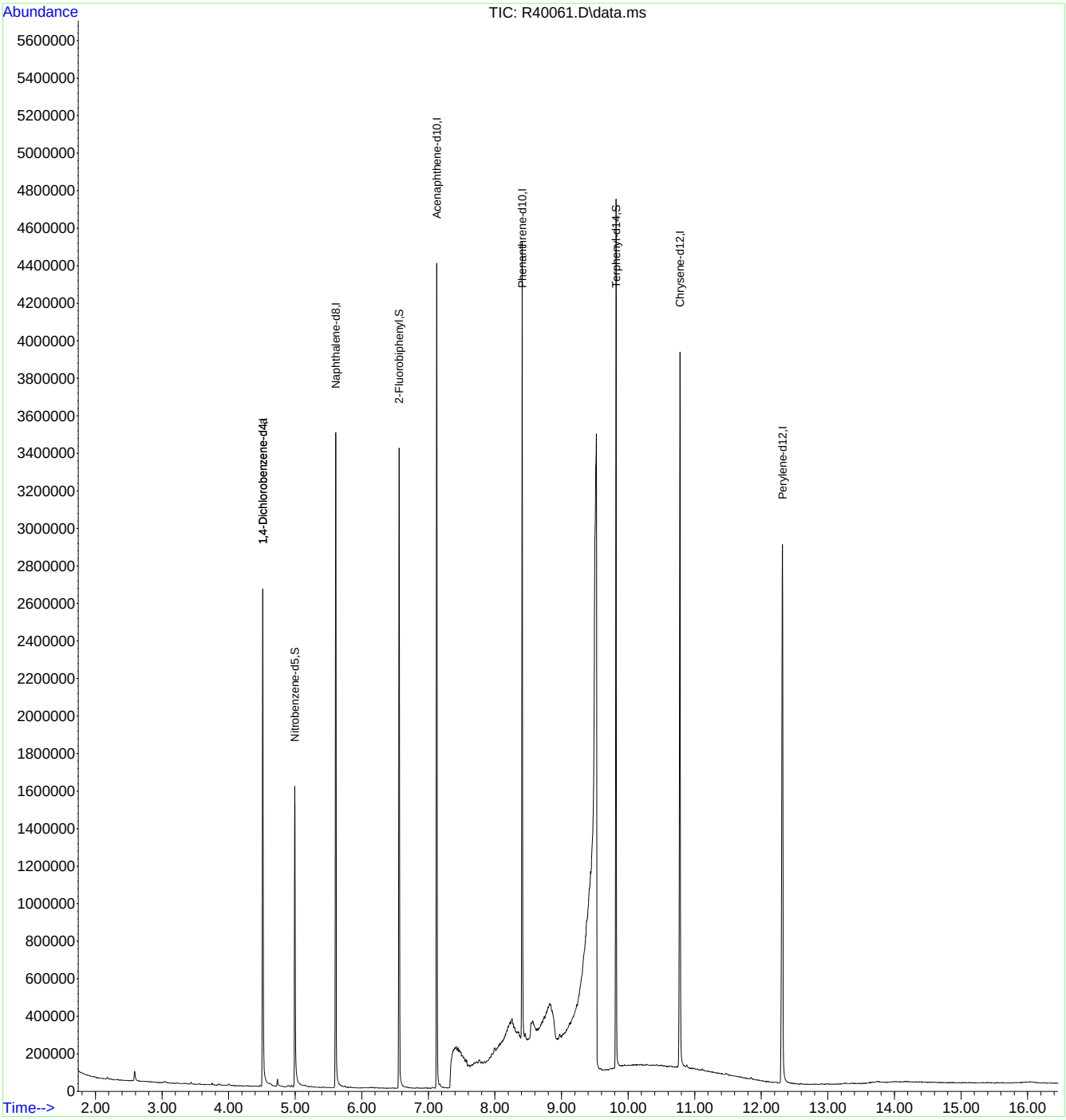
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.512	152	342502	40.00	ug/mL	0.00
22) Naphthalene-d8	5.610	136	1307285	40.00	ug/mL	0.00
41) Acenaphthene-d10	7.126	164	771574	40.00	ug/mL	0.00
64) Phenanthrene-d10	8.410	188	1280151	40.00	ug/mL	0.00
78) Chrysene-d12	10.778	240	1246625	40.00	ug/mL	0.00
88) Perylene-d12	12.317	264	1140054	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	4.512	152	342502	40.00	ug/mL	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0d	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
23) Nitrobenzene-d5	4.994	82	466612	35.23	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	70.46%		
46) 2-Fluorobiphenyl	6.561	172	836947	33.90	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	67.80%		
68) 2,4,6-Tribromophenol	0.000	330	0	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
82) Terphenyl-d14	9.818	244	1169307	44.20	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	88.40%		
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141001\
Data File : R40061.D
Acq On : 1 Oct 2014 10:41 am
Operator : williamk
Sample : mc33841-3
Misc : op39961,msr1474,850,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 02 07:29:19 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Oct 02 07:21:49 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141001\
Data File : R40062.D
Acq On : 1 Oct 2014 11:05 am
Operator : williamk
Sample : mc33841-4
Misc : op39961,msr1474,860,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 02 07:30:02 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Oct 02 07:21:49 2014
Response via : Initial Calibration

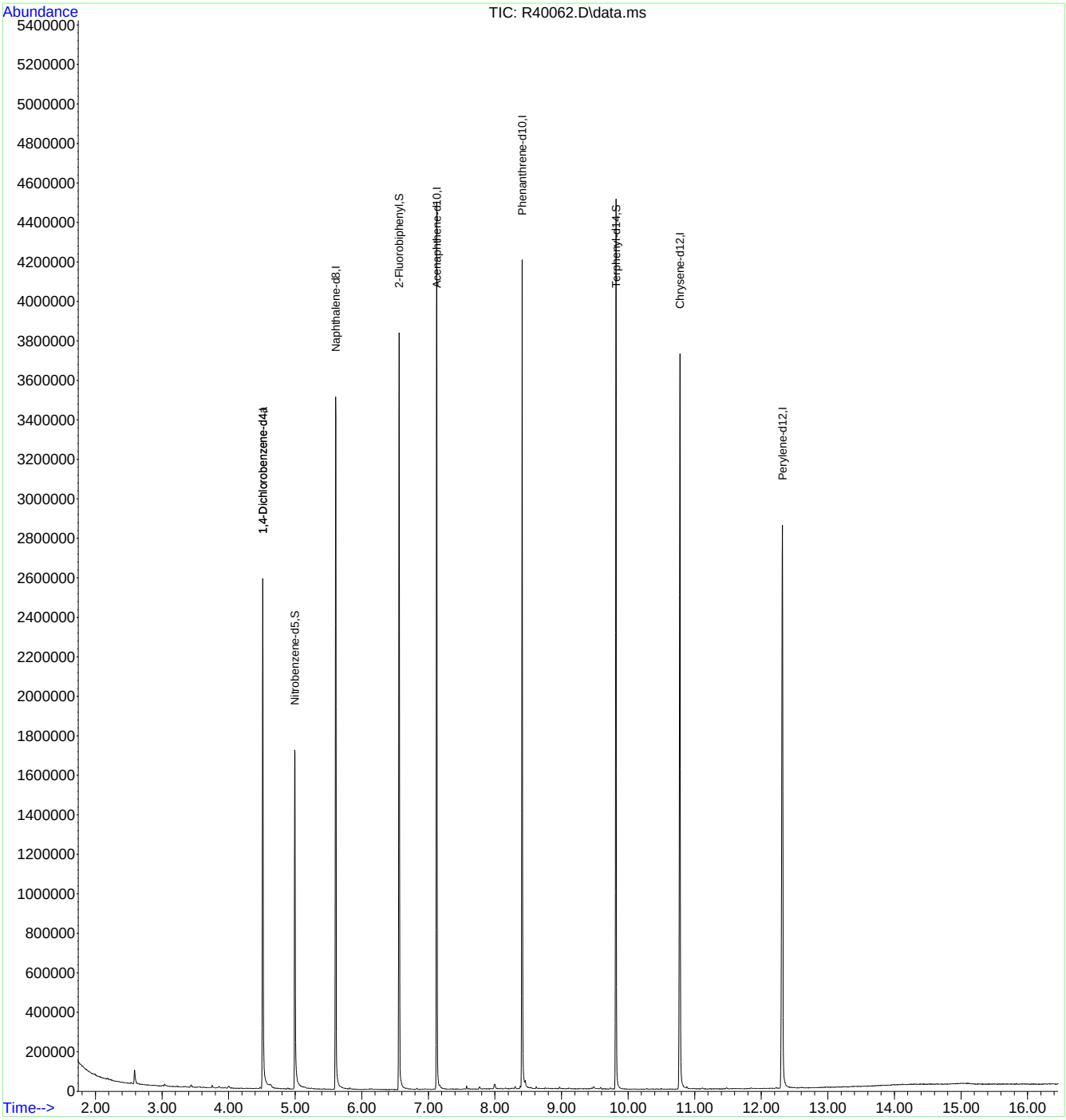
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.513	152	334867	40.00	ug/mL	0.00
22) Naphthalene-d8	5.607	136	1304603	40.00	ug/mL	0.00
41) Acenaphthene-d10	7.126	164	763344	40.00	ug/mL	0.00
64) Phenanthrene-d10	8.410	188	1260263	40.00	ug/mL	0.00
78) Chrysene-d12	10.778	240	1218079	40.00	ug/mL	0.00
88) Perylene-d12	12.317	264	1112271	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	4.513	152	334867	40.00	ug/mL	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0d	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
23) Nitrobenzene-d5	4.994	82	521382	39.45	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	78.90%		
46) 2-Fluorobiphenyl	6.561	172	939023	38.44	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	76.88%		
68) 2,4,6-Tribromophenol	0.000	330	0	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
82) Terphenyl-d14	9.818	244	1155375	44.70	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	89.40%		
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141001\
Data File : R40062.D
Acq On : 1 Oct 2014 11:05 am
Operator : williamk
Sample : mc33841-4
Misc : op39961,msr1474,860,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 02 07:30:02 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Oct 02 07:21:49 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F140929\
Data File : f76467.D
Acq On : 29 Sep 2014 12:17 pm
Operator : williamk
Sample : op39961-mb
Misc : op39961,msf3354,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 30 08:47:28 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Tue Sep 30 08:34:09 2014
Response via : Initial Calibration

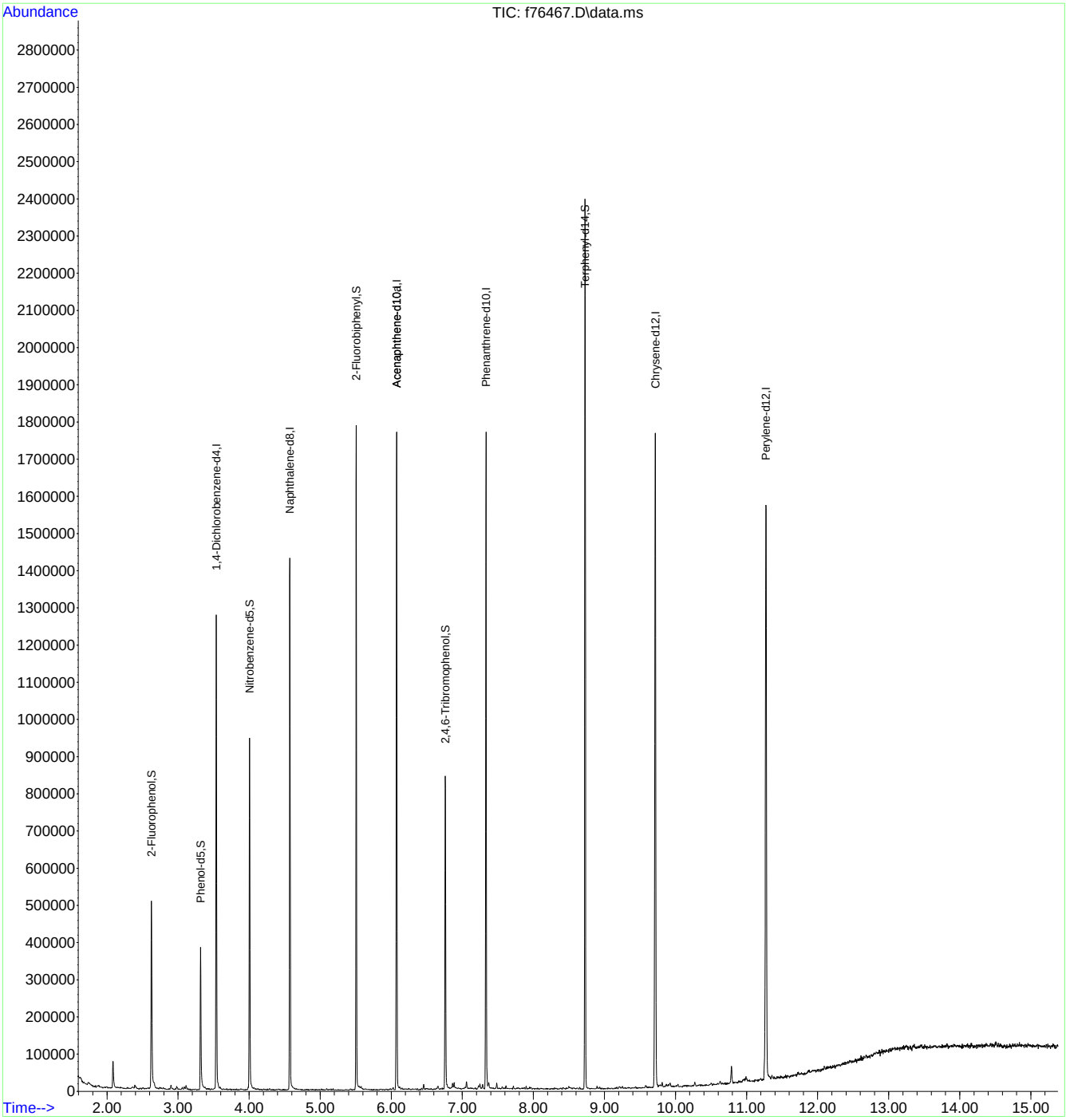
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.537	152	126942	40.00	ppm	0.00
22) Naphthalene-d8	4.574	136	462550	40.00	ppm	0.00
39) Acenaphthene-d10	6.077	164	286385	40.00	ppm	0.00
61) Phenanthrene-d10	7.334	188	495579	40.00	ppm	0.00
75) Chrysene-d12	9.718	240	597640	40.00	ppm	0.00
85) Perylene-d12	11.273	264	601555	40.00	ppm	0.00
93) Acenaphthene-d10a	6.077	164	286385	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	2.625	112	100723	24.29	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 24.29%			
8) Phenol-d5	3.317	99	77374	15.11	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 15.11%			
23) Nitrobenzene-d5	4.006	82	205931	46.64	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 93.28%			
44) 2-Fluorobiphenyl	5.508	172	390171	41.08	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 82.16%			
65) 2,4,6-Tribromophenol	6.763	330	66330	49.22	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 49.22%			
78) Terphenyl-d14	8.728	244	585338	46.04	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 92.08%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F140929\
Data File : f76467.D
Acq On : 29 Sep 2014 12:17 pm
Operator : williamk
Sample : op39961-mb
Misc : op39961,msf3354,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 30 08:47:28 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Tue Sep 30 08:34:09 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
10/01/14 10:55

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F140929\
Data File : f76468.D
Acq On : 29 Sep 2014 12:40 pm
Operator : williamk
Sample : op39961-bs
Misc : op39961,msf3354,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 30 08:48:34 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Tue Sep 30 08:34:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.537	152	130564	40.00	ppm	0.00
22) Naphthalene-d8	4.574	136	468496	40.00	ppm	0.00
39) Acenaphthene-d10	6.076	164	296201	40.00	ppm	0.00
61) Phenanthrene-d10	7.336	188	499483	40.00	ppm	0.00
75) Chrysene-d12	9.720	240	634714	40.00	ppm	0.00
85) Perylene-d12	11.279	264	609213	40.00	ppm	0.00
93) Acenaphthene-d10a	6.076	164	296201	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	2.624	112	106226	24.91	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 24.91%			
8) Phenol-d5	3.316	99	85759	16.28	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 16.28%			
23) Nitrobenzene-d5	4.009	82	230842	51.62	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 103.24%			
44) 2-Fluorobiphenyl	5.508	172	425982	43.36	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 86.72%			
65) 2,4,6-Tribromophenol	6.765	330	71066	52.32	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 52.32%			
78) Terphenyl-d14	8.730	244	598762	44.34	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 88.68%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	1.714	74	90784	31.72	ppm	# 41
4) Pyridine	1.711	79	153745	30.16	ppm	77
5) Aniline	3.326	93	224421m	33.20	ppm	
7) bis(2-Chloroethyl)ether	3.369	93	189010	45.80	ppm	83
9) Phenol	3.326	94	120620	21.34	ppm	# 1
10) 2-Chlorophenol	3.406	128	190434	42.57	ppm	86
11) 1,3-Dichlorobenzene	3.509	146	176578	35.57	ppm	99
12) 1,4-Dichlorobenzene	3.552	146	182682	35.91	ppm	99
13) 1,2-Dichlorobenzene	3.698	146	179823	37.82	ppm	96
14) Benzyl alcohol	3.676	108	94843	31.43	ppm	# 66
15) bis(2-chloroisopropyl)...	3.794	45	354842	65.27	ppm	91
16) o-cresol	3.788	108	160572	38.79	ppm	96
17) Acetophenone	3.884	105	314307	49.39	ppm	97
18) Hexachloroethane	3.937	117	61949	33.73	ppm	95
19) N-Nitroso-di-n-propyla...	3.909	70	175611	57.71	ppm	78
20) m+p-cresols	3.909	108	325901	74.26	ppm	96
21) 4-methylphenol	3.909	108	325901	74.26	ppm	96
24) Nitrobenzene	4.024	77	259765	57.65	ppm	87
25) Isophorone	4.207	82	409728	51.96	ppm	87
26) 2-Nitrophenol	4.285	139	106589	46.72	ppm	76
27) 2,4-Dimethylphenol	4.331	107	186403	42.85	ppm	86
28) bis(2-Chloroethoxy)met...	4.406	93	245031	50.12	ppm	99
29) Benzoic acid	4.437	105	73955	23.72	ppm	90
30) 2,4-Dichlorophenol	4.480	162	188034	52.83	ppm	98
31) 1,2,4-Trichlorobenzene	4.542	180	166586	43.01	ug/mL	99
32) Naphthalene	4.592	128	568062	47.33	ppm	97
33) 2,6-Dichlorophenol	4.670	162	192648	52.99	ppm	95
34) 4-Chloroaniline	4.670	127	242095	47.30	ppm	100
35) Hexachlorobutadiene	4.744	225	95469	44.86	ppm	99
36) 4-Chloro-3-methylphenol	5.095	107	193901	52.21	ppm	87
37) 2-Methylnaphthalene	5.173	142	400899	47.80	ppm	99
38) 1-methylnaphthalene	5.266	142	377208	48.04	ppm	95
40) Hexachlorocyclopentadiene	5.365	237	35985	15.76	ppm	99
41) 1,2,4,5-Tetrachloroben...	5.350	216	214331	49.86	ppm	98

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F140929\
Data File : f76468.D
Acq On : 29 Sep 2014 12:40 pm
Operator : williamk
Sample : op39961-bs
Misc : op39961,msf3354,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 30 08:48:34 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Tue Sep 30 08:34:09 2014
Response via : Initial Calibration

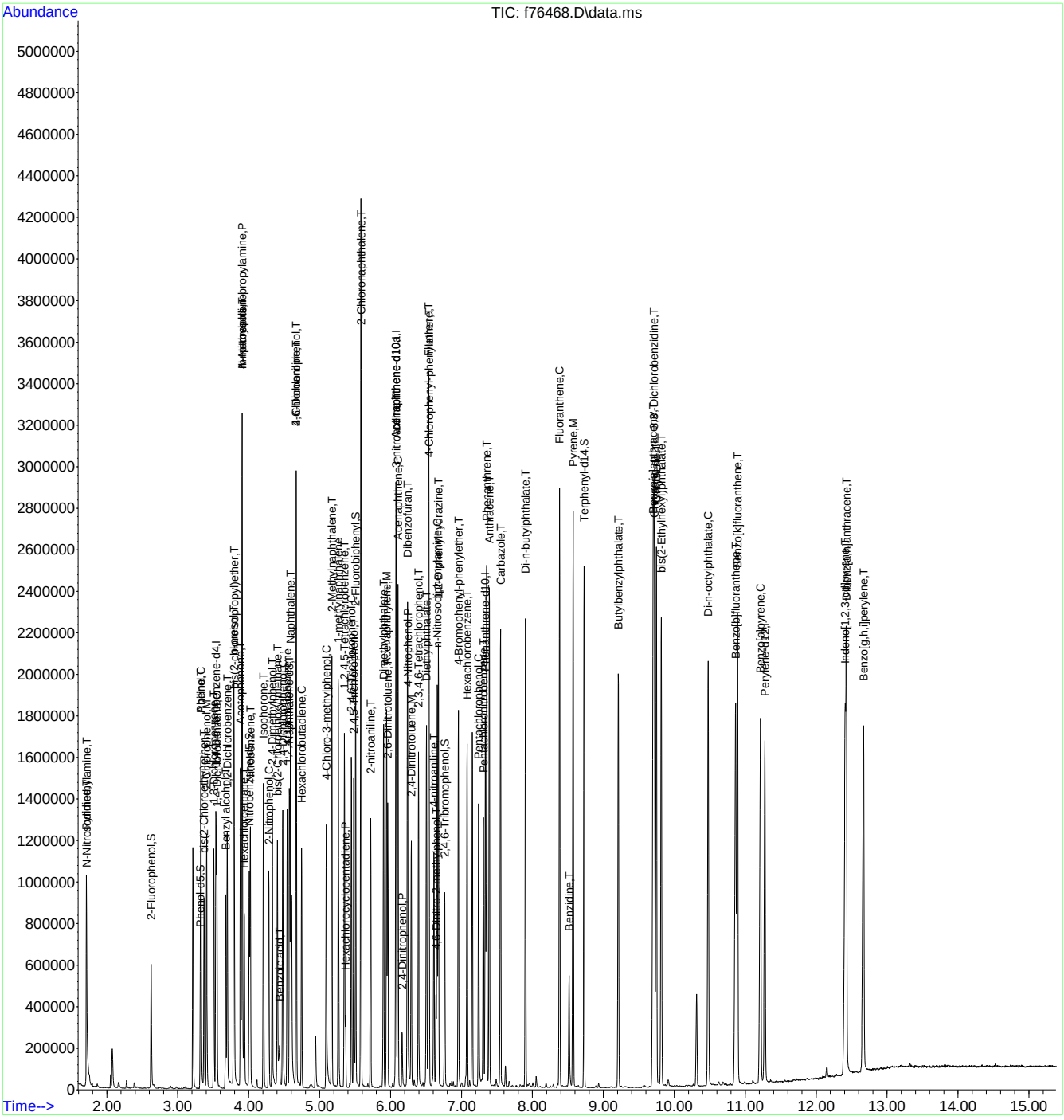
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2,4,6-Trichlorophenol	5.446	196	146908	53.90	ppm		100
43) 2,4,5-Trichlorophenol	5.480	196	158084	53.18	ppm		91
45) 2-Chloronaphthalene	5.586	162	420379	51.70	ppm		95
46) Acenaphthylene	5.942	152	538394	45.96	ppm		100
47) Dimethylphthalate	5.902	163	480595	53.49	ppm		99
48) 2,6-Dinitrotoluene	5.961	165	100410	48.77	ppm		66
49) Acenaphthene	6.104	153	429663	50.45	ppm		99
50) 2,4-Dinitrophenol	6.163	184	22531	15.43	ppm	#	56
51) Dibenzofuran	6.241	168	606453	50.09	ppm		89
52) 2,4-Dinitrotoluene	6.293	165	138664	50.12	ppm		68
53) 4-Nitrophenol	6.244	65	49952	25.65	ppm	#	1
54) 2,3,4,6-Tetrachlorophenol	6.393	232	144166	56.12	ppm		98
55) Fluorene	6.535	166	500137	54.19	ppm		96
56) 4-Chlorophenyl-phenyle...	6.542	204	246333	53.29	ppm		91
57) Diethylphthalate	6.507	149	492908	55.41	ppm		97
58) 2-nitroaniline	5.719	138	135269	49.94	ppm	#	55
59) 3-nitroaniline	6.079	138	116750	50.93	ppm	#	64
60) 4-nitroaniline	6.610	138	111202	48.95	ppm	#	63
62) 4,6-Dinitro-2-methylph...	6.641	198	40346	21.35	ppm		100
63) n-Nitrosodiphenylamine	6.660	169	327867	47.45	ppm		97
64) 1,2-Diphenylhydrazine	6.675	77	615733	66.17	ppm		92
66) 4-Bromophenyl-phenylether	6.958	248	155579	56.99	ppm		97
67) Hexachlorobenzene	7.079	284	168697	60.92	ppm		93
68) Pentachlorophenol	7.240	266	115996	51.94	ppm		99
69) Pentachloronitrobenzene	7.308	237	65910	66.38	ppm		87
70) Phenanthrene	7.358	178	729477	53.23	ppm		98
71) Anthracene	7.392	178	717064	51.65	ppm		98
72) Carbazole	7.551	167	680970	52.76	ppm		98
73) Di-n-butylphthalate	7.901	149	849065	55.11	ppm		96
74) Fluoranthene	8.382	202	866363	58.32	ppm		90
76) Benzidine	8.519	184	152850	22.77	ppm		98
77) Pyrene	8.575	202	885482	48.95	ppm		93
80) Butylbenzylphthalate	9.211	149	384941	51.65	ppm		86
81) 3,3'-Dichlorobenzidine	9.714	252	302909	51.10	ppm		96
82) Benzo[a]anthracene	9.702	228	911162	55.57	ppm		99
83) Chrysene	9.748	228	839934	49.96	ppm		98
84) bis(2-Ethylhexyl)phtha...	9.817	149	552060	53.20	ppm		94
86) Di-n-octylphthalate	10.478	149	938693	55.24	ppm		100
87) Benzo[b]fluoranthene	10.866	252	952510	59.28	ppm		97
88) Benzo[k]fluoranthene	10.891	252	868854	49.96	ppm		96
89) Benzo[a]pyrene	11.214	252	830434	52.88	ppm		95
90) Indeno[1,2,3-cd]pyrene	12.409	276	1028773	53.97	ppm		81
91) Dibenz[a,h]anthracene	12.427	278	878810	55.27	ppm		95
92) Benzo[g,h,i]perylene	12.669	276	841825	49.39	ppm		95

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

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F140929\
Data File : f76468.D
Acq On : 29 Sep 2014 12:40 pm
Operator : williamk
Sample : op39961-bs
Misc : op39961,msf3354,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 30 08:48:34 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Tue Sep 30 08:34:09 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES MC33841

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F140929\
Data File : f76469.D
Acq On : 29 Sep 2014 1:03 pm
Operator : williamk
Sample : op39961-ms
Misc : op39961,msf3354,1000,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 30 08:49:18 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Tue Sep 30 08:34:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.537	152	131568	40.00	ppm	0.00
22) Naphthalene-d8	4.574	136	475195	40.00	ppm	0.00
39) Acenaphthene-d10	6.076	164	293453	40.00	ppm	0.00
61) Phenanthrene-d10	7.337	188	493955	40.00	ppm	0.00
75) Chrysene-d12	9.721	240	625098	40.00	ppm	0.00
85) Perylene-d12	11.279	264	593494	40.00	ppm	0.00
93) Acenaphthene-d10a	6.076	164	293453	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	2.624	112	109460	25.47	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 25.47%			
8) Phenol-d5	3.320	99	88515	16.68	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 16.68%			
23) Nitrobenzene-d5	4.009	82	234549	51.70	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 103.40%			
44) 2-Fluorobiphenyl	5.508	172	418904	43.04	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 86.08%			
65) 2,4,6-Tribromophenol	6.766	330	69900	52.04	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 52.04%			
78) Terphenyl-d14	8.731	244	587931	44.21	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 88.42%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	1.715	74	90270	31.30	ppm	# 39
4) Pyridine	1.712	79	148041	28.82	ppm	71
5) Aniline	3.326	93	229099	33.64	ppm	# 48
7) bis(2-Chloroethyl)ether	3.369	93	187109	44.99	ppm	82
9) Phenol	3.326	94	123199	21.63	ppm	# 1
10) 2-Chlorophenol	3.407	128	192702	42.75	ppm	86
11) 1,3-Dichlorobenzene	3.509	146	174260	34.84	ppm	96
12) 1,4-Dichlorobenzene	3.550	146	177239	34.57	ppm	97
13) 1,2-Dichlorobenzene	3.699	146	171363	35.76	ppm	98
14) Benzyl alcohol	3.677	108	85892	28.25	ppm	# 72
15) bis(2-chloroisopropyl)...	3.795	45	358805	65.50	ppm	96
16) o-cresol	3.789	108	160595	38.50	ppm	95
17) Acetophenone	3.885	105	315955	49.27	ppm	97
18) Hexachloroethane	3.938	117	58077	31.38	ppm	99
19) N-Nitroso-di-n-propyla...	3.907	70	177590	57.91	ppm	77
20) m+p-cresols	3.910	108	330686	74.78	ppm	97
21) 4-methylphenol	3.910	108	330686	74.78	ppm	97
24) Nitrobenzene	4.021	77	255479	55.90	ppm	87
25) Isophorone	4.208	82	405627	50.71	ppm	88
26) 2-Nitrophenol	4.282	139	103576	44.76	ppm	73
27) 2,4-Dimethylphenol	4.332	107	199625	45.25	ppm	86
28) bis(2-Chloroethoxy)met...	4.406	93	244342	49.27	ppm	98
29) Benzoic acid	4.431	105	71888	22.73	ppm	90
30) 2,4-Dichlorophenol	4.481	162	188266	52.15	ppm	98
31) 1,2,4-Trichlorobenzene	4.543	180	162291	41.31	ug/mL	97
32) Naphthalene	4.589	128	564803	46.39	ppm	98
33) 2,6-Dichlorophenol	4.670	162	192012	52.07	ppm	94
34) 4-Chloroaniline	4.670	127	246860	47.56	ppm	100
35) Hexachlorobutadiene	4.745	225	91839	42.54	ppm	98
36) 4-Chloro-3-methylphenol	5.092	107	200267	53.16	ppm	84
37) 2-Methylnaphthalene	5.173	142	383049	45.03	ppm	98
38) 1-methylnaphthalene	5.263	142	363569	45.65	ppm	93
40) Hexachlorocyclopentadiene	5.366	237	27848	12.31	ppm	99
41) 1,2,4,5-Tetrachloroben...	5.350	216	206641	48.52	ppm	94

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F140929\
Data File : f76469.D
Acq On : 29 Sep 2014 1:03 pm
Operator : williamk
Sample : op39961-ms
Misc : op39961,msf3354,1000,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 30 08:49:18 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Tue Sep 30 08:34:09 2014
Response via : Initial Calibration

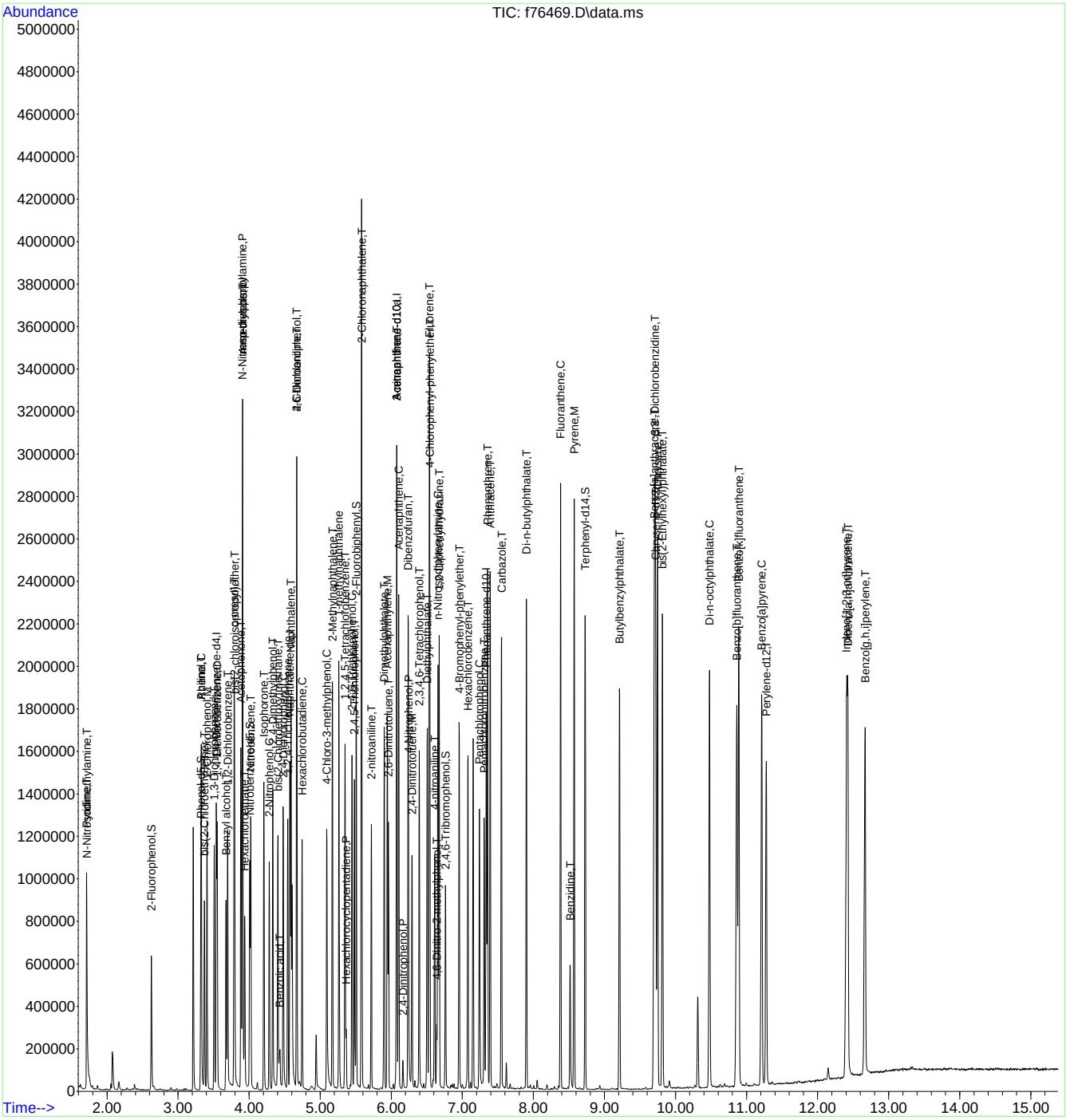
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2,4,6-Trichlorophenol	5.446	196	146266	54.17	ppm		96
43) 2,4,5-Trichlorophenol	5.480	196	152616	51.82	ppm		99
45) 2-Chloronaphthalene	5.586	162	412242	51.18	ppm		96
46) Acenaphthylene	5.943	152	517318	44.57	ppm		97
47) Dimethylphthalate	5.899	163	464684	52.20	ppm		99
48) 2,6-Dinitrotoluene	5.962	165	96964	47.54	ppm		77
49) Acenaphthene	6.104	153	417555	49.49	ppm		100
50) 2,4-Dinitrophenol	6.163	184	12021	8.31	ppm	#	61
51) Dibenzofuran	6.238	168	585071	48.78	ppm		90
52) 2,4-Dinitrotoluene	6.294	165	130555	47.63	ppm		70
53) 4-Nitrophenol	6.244	65	51292	26.58	ppm	#	1
54) 2,3,4,6-Tetrachlorophenol	6.393	232	142251	55.90	ppm		95
55) Fluorene	6.536	166	491482	53.75	ppm		98
56) 4-Chlorophenyl-phenyle...	6.542	204	242794	53.02	ppm		93
57) Diethylphthalate	6.508	149	480465	54.52	ppm		97
58) 2-nitroaniline	5.719	138	134224	50.02	ppm	#	60
59) 3-nitroaniline	6.076	138	116068	51.11	ppm	#	60
60) 4-nitroaniline	6.610	138	108200	48.07	ppm	#	60
62) 4,6-Dinitro-2-methylph...	6.638	198	25559	13.68	ppm		100
63) n-Nitrosodiphenylamine	6.657	169	318318	46.58	ppm		98
64) 1,2-Diphenylhydrazine	6.676	77	599044	65.10	ppm		92
66) 4-Bromophenyl-phenylether	6.958	248	152202	56.38	ppm		99
67) Hexachlorobenzene	7.079	284	158665	57.93	ppm		94
68) Pentachlorophenol	7.240	266	112592	50.98	ppm		100
69) Pentachloronitrobenzene	7.306	237	62894	64.05	ppm		84
70) Phenanthrene	7.355	178	699895	51.64	ppm		99
71) Anthracene	7.393	178	692347	50.43	ppm		97
72) Carbazole	7.551	167	656182	51.41	ppm		98
73) Di-n-butylphthalate	7.902	149	818889	53.75	ppm		97
74) Fluoranthene	8.383	202	824330	56.11	ppm		91
76) Benzidine	8.519	184	177198	26.48	ppm		97
77) Pyrene	8.575	202	855673	48.03	ppm		91
80) Butylbenzylphthalate	9.212	149	370137	50.43	ppm		89
81) 3,3'-Dichlorobenzidine	9.711	252	294575	50.45	ppm		96
82) Benzo[a]anthracene	9.702	228	884920	54.80	ppm		99
83) Chrysene	9.749	228	826024	49.89	ppm		98
84) bis(2-Ethylhexyl)phtha...	9.814	149	536965	52.54	ppm		95
86) Di-n-octylphthalate	10.478	149	905608	54.71	ppm		99
87) Benzo[b]fluoranthene	10.863	252	916099	58.52	ppm		97
88) Benzo[k]fluoranthene	10.891	252	895006	52.82	ppm		94
89) Benzo[a]pyrene	11.211	252	814960	53.27	ppm		95
90) Indeno[1,2,3-cd]pyrene	12.406	276	998132	53.75	ppm		82
91) Dibenz[a,h]anthracene	12.428	278	857476	55.36	ppm		94
92) Benzo[g,h,i]perylene	12.670	276	818300	49.28	ppm		96

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

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F140929\
Data File : f76469.D
Acq On : 29 Sep 2014 1:03 pm
Operator : williamk
Sample : op39961-ms
Misc : op39961,msf3354,1000,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 30 08:49:18 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Tue Sep 30 08:34:09 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F140929\
Data File : f76470.D
Acq On : 29 Sep 2014 1:26 pm
Operator : williamk
Sample : op39961-msd
Misc : op39961,msf3354,1000,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 30 08:50:50 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Tue Sep 30 08:34:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.537	152	128481	40.00	ppm	0.00
22) Naphthalene-d8	4.574	136	465061	40.00	ppm	0.00
39) Acenaphthene-d10	6.076	164	286258	40.00	ppm	0.00
61) Phenanthrene-d10	7.337	188	484624	40.00	ppm	0.00
75) Chrysene-d12	9.721	240	612194	40.00	ppm	0.00
85) Perylene-d12	11.276	264	588394	40.00	ppm	0.00
93) Acenaphthene-d10a	6.076	164	286258	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	2.624	112	100091	23.85	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 23.85%			
8) Phenol-d5	3.317	99	81913	15.80	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 15.80%			
23) Nitrobenzene-d5	4.009	82	221479	49.89	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 99.78%			
44) 2-Fluorobiphenyl	5.508	172	396750	41.79	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 83.58%			
65) 2,4,6-Tribromophenol	6.762	330	64984	49.31	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 49.31%			
78) Terphenyl-d14	8.727	244	547275	42.02	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 84.04%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	1.715	74	87164	30.95	ppm	# 36
4) Pyridine	1.712	79	140394	27.98	ppm	77
5) Aniline	3.326	93	219307	32.97	ppm	# 43
7) bis(2-Chloroethyl)ether	3.369	93	184300	45.38	ppm	82
9) Phenol	3.326	94	116285	20.91	ppm	# 1
10) 2-Chlorophenol	3.407	128	187256	42.54	ppm	86
11) 1,3-Dichlorobenzene	3.509	146	166291	34.04	ppm	98
12) 1,4-Dichlorobenzene	3.549	146	167893	33.53	ppm	97
13) 1,2-Dichlorobenzene	3.698	146	166173	35.51	ppm	99
14) Benzyl alcohol	3.677	108	95868	32.29	ppm	# 70
15) bis(2-chloroisopropyl)...	3.795	45	359859	67.27	ppm	94
16) o-cresol	3.788	108	151980	37.31	ppm	98
17) Acetophenone	3.885	105	308764	49.30	ppm	98
18) Hexachloroethane	3.937	117	54980	30.42	ppm	99
19) N-Nitroso-di-n-propyla...	3.906	70	172507	57.60	ppm	78
20) m+p-cresols	3.909	108	315532	73.07	ppm	99
21) 4-methylphenol	3.909	108	315532	73.07	ppm	99
24) Nitrobenzene	4.021	77	249093	55.69	ppm	85
25) Isophorone	4.207	82	396283	50.63	ppm	87
26) 2-Nitrophenol	4.282	139	101702	44.91	ppm	69
27) 2,4-Dimethylphenol	4.332	107	189170	43.81	ppm	87
28) bis(2-Chloroethoxy)met...	4.406	93	236892	48.81	ppm	98
29) Benzoic acid	4.434	105	64957	20.99	ppm	78
30) 2,4-Dichlorophenol	4.478	162	182306	51.60	ppm	96
31) 1,2,4-Trichlorobenzene	4.543	180	152408	39.64	ug/mL	99
32) Naphthalene	4.589	128	555861	46.65	ppm	99
33) 2,6-Dichlorophenol	4.670	162	182541	50.58	ppm	95
34) 4-Chloroaniline	4.670	127	240747	47.39	ppm	100
35) Hexachlorobutadiene	4.745	225	85974	40.69	ppm	99
36) 4-Chloro-3-methylphenol	5.092	107	193396	52.46	ppm	82
37) 2-Methylnaphthalene	5.170	142	371240	44.59	ppm	98
38) 1-methylnaphthalene	5.263	142	361221	46.34	ppm	97
40) Hexachlorocyclopentadiene	5.365	237	27706	12.55	ppm	94
41) 1,2,4,5-Tetrachloroben...	5.350	216	204521	49.23	ppm	98

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F140929\
Data File : f76470.D
Acq On : 29 Sep 2014 1:26 pm
Operator : williamk
Sample : op39961-msd
Misc : op39961,msf3354,1000,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 30 08:50:50 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Tue Sep 30 08:34:09 2014
Response via : Initial Calibration

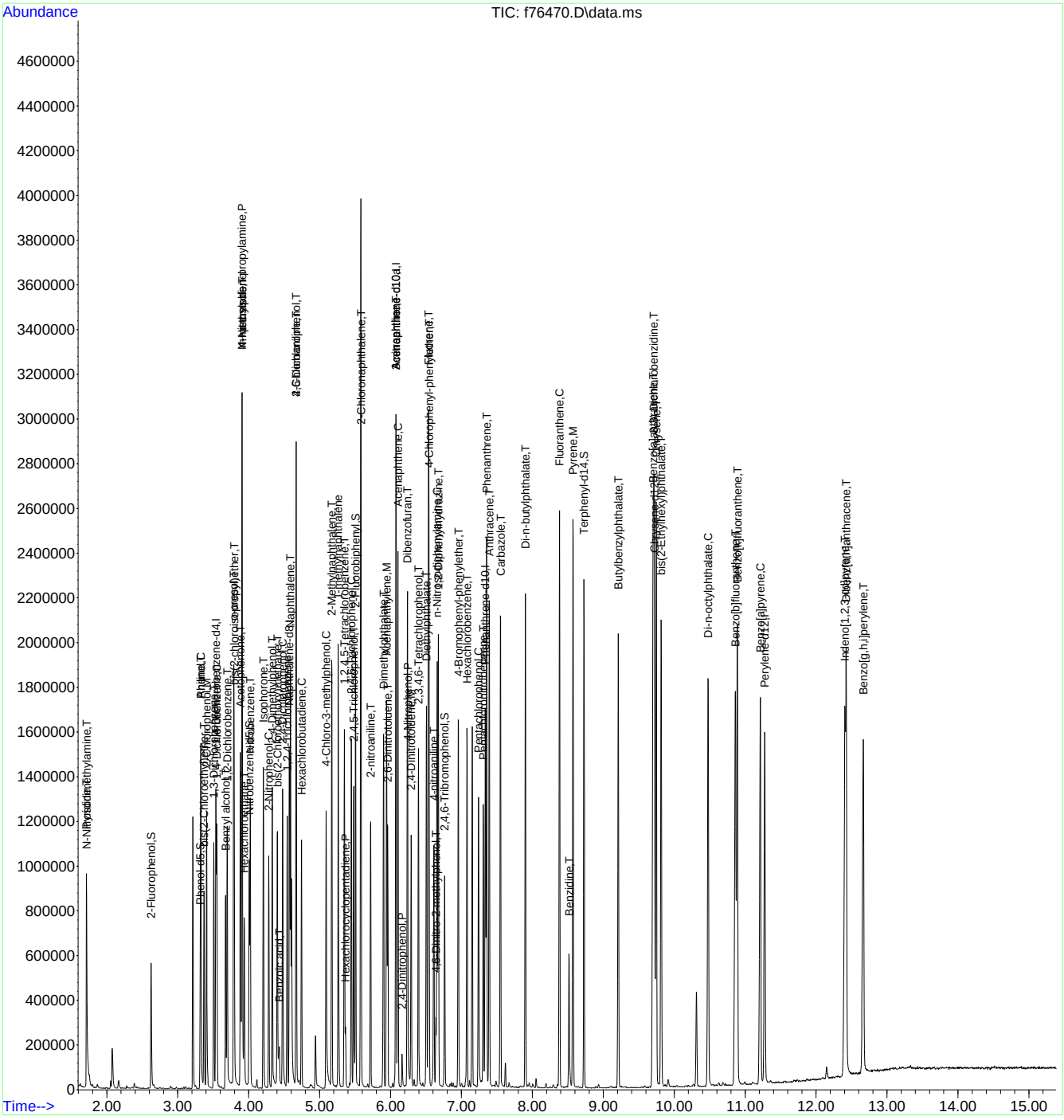
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 2,4,6-Trichlorophenol	5.446	196	139648	53.02	ppm		96
43) 2,4,5-Trichlorophenol	5.480	196	149584	52.07	ppm		93
45) 2-Chloronaphthalene	5.586	162	394534	50.21	ppm		96
46) Acenaphthylene	5.943	152	508480	44.91	ppm		99
47) Dimethylphthalate	5.902	163	454261	52.31	ppm		98
48) 2,6-Dinitrotoluene	5.961	165	94240	47.36	ppm		77
49) Acenaphthene	6.104	153	406295	49.36	ppm		97
50) 2,4-Dinitrophenol	6.160	184	12846	9.10	ppm	#	42
51) Dibenzofuran	6.238	168	571154	48.81	ppm		93
52) 2,4-Dinitrotoluene	6.290	165	127880	47.83	ppm		61
53) 4-Nitrophenol	6.244	65	48576	25.81	ppm	#	1
54) 2,3,4,6-Tetrachlorophenol	6.393	232	135838	54.72	ppm		95
55) Fluorene	6.536	166	468489	52.52	ppm		99
56) 4-Chlorophenyl-phenyle...	6.542	204	233185	52.20	ppm		93
57) Diethylphthalate	6.508	149	467916	54.43	ppm		96
58) 2-nitroaniline	5.719	138	129742	49.56	ppm	#	56
59) 3-nitroaniline	6.076	138	110908	50.06	ppm	#	55
60) 4-nitroaniline	6.610	138	105872	48.22	ppm	#	63
62) 4,6-Dinitro-2-methylph...	6.638	198	26116	14.25	ppm		100
63) n-Nitrosodiphenylamine	6.657	169	308287	45.98	ppm		95
64) 1,2-Diphenylhydrazine	6.675	77	584451	64.74	ppm		90
66) 4-Bromophenyl-phenylether	6.958	248	149877	56.59	ppm		96
67) Hexachlorobenzene	7.076	284	156819	58.36	ppm		93
68) Pentachlorophenol	7.240	266	107200	49.47	ppm		96
69) Pentachloronitrobenzene	7.306	237	62287	64.65	ppm		87
70) Phenanthrene	7.355	178	685188	51.53	ppm		99
71) Anthracene	7.392	178	667188	49.53	ppm		99
72) Carbazole	7.551	167	639020	51.03	ppm		98
73) Di-n-butylphthalate	7.902	149	792628	53.02	ppm		96
74) Fluoranthene	8.383	202	802462	55.68	ppm		92
76) Benzidine	8.519	184	172435	26.32	ppm		96
77) Pyrene	8.572	202	829085	47.52	ppm		92
80) Butylbenzylphthalate	9.212	149	360195	50.11	ppm		86
81) 3,3'-Dichlorobenzidine	9.711	252	283651	49.61	ppm		98
82) Benzo[a]anthracene	9.702	228	861826	54.50	ppm		98
83) Chrysene	9.745	228	808538	49.86	ppm		98
84) bis(2-Ethylhexyl)phtha...	9.814	149	520395	51.99	ppm		96
86) Di-n-octylphthalate	10.478	149	893007	54.41	ppm		98
87) Benzo[b]fluoranthene	10.863	252	855878	55.15	ppm		96
88) Benzo[k]fluoranthene	10.891	252	821944	48.93	ppm		95
89) Benzo[a]pyrene	11.214	252	792367	52.24	ppm		95
90) Indeno[1,2,3-cd]pyrene	12.406	276	958569	52.07	ppm		84
91) Dibenz[a,h]anthracene	12.424	278	823736	53.64	ppm		94
92) Benzo[g,h,i]perylene	12.667	276	777864	47.25	ppm		94

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

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F140929\
Data File : f76470.D
Acq On : 29 Sep 2014 1:26 pm
Operator : williamk
Sample : op39961-msd
Misc : op39961,msf3354,1000,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 30 08:50:50 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Tue Sep 30 08:34:09 2014
Response via : Initial Calibration

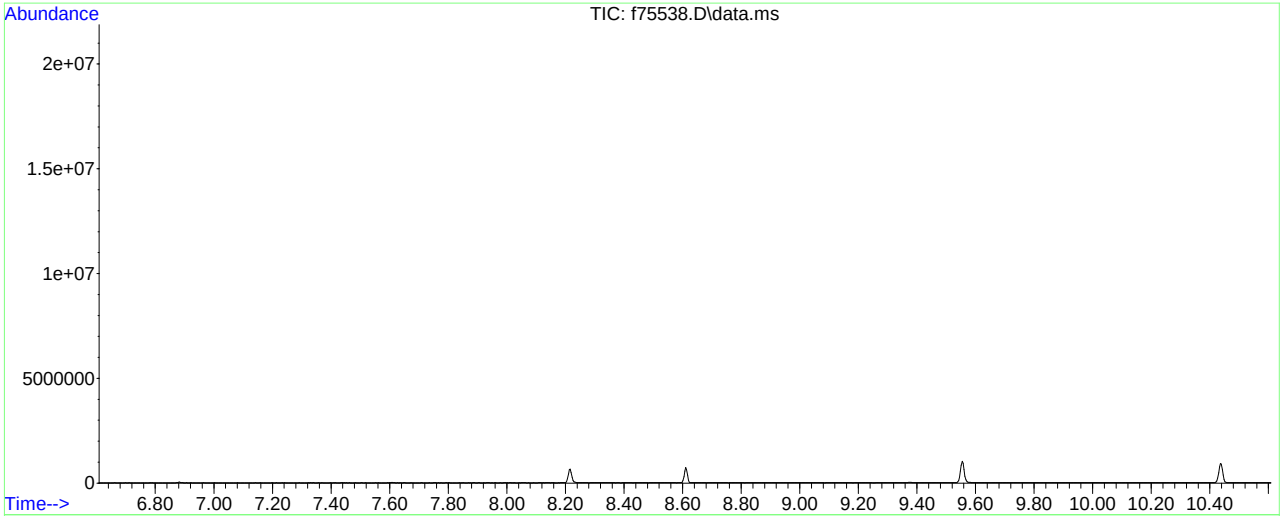


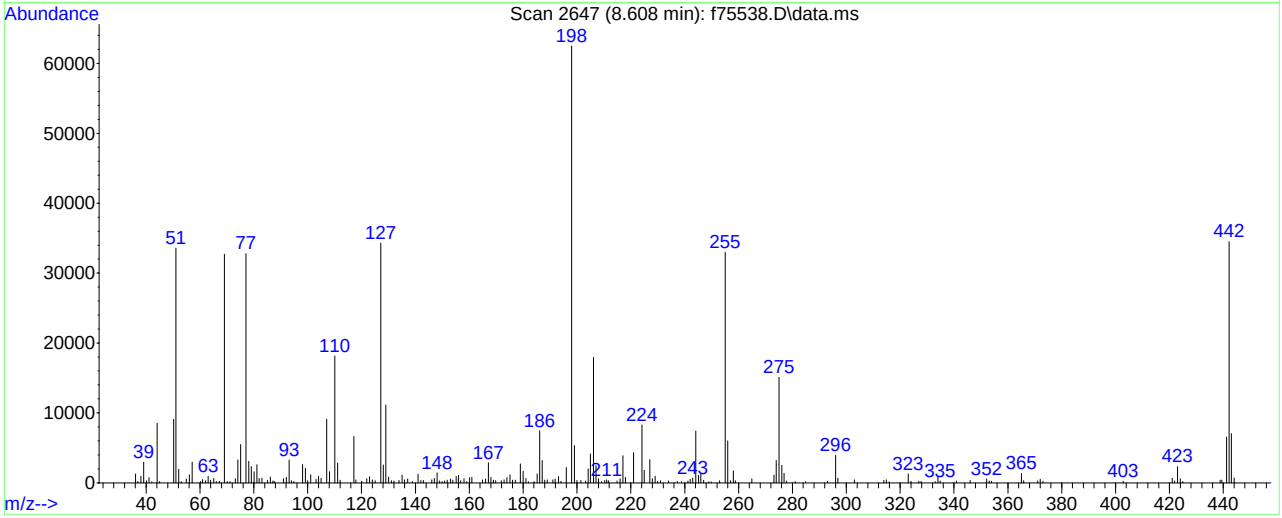
DFTPP

Data File : F:\1\DATA\F140825\f75538.D
Acq On : 25 Aug 2014 4:05 pm
Sample : dftpp
Misc : op39496,msf3320,1000,,,1,1
MS Integration Params: rteint.p

Vial: 99
Operator: williamk
Inst : MSF
Multiplr: 1.00

Method : W:\1\methods\dftppeval.m (RTE Integrator)
Title : DFTPP and Tune Evaluation





Spectrum Information: Scan 2647

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	53.7	33576	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	52.3	32680	PASS
70	69	0.00	2	0.5	170	PASS
127	198	40	60	54.9	34320	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	62472	PASS
199	198	5	9	8.5	5334	PASS
275	198	10	30	24.2	15115	PASS
365	198	1	100	2.1	1342	PASS
441	443	0.01	100	92.9	6548	PASS
442	198	40	100	55.3	34520	PASS
443	442	17	23	20.4	7051	PASS

f75538.D dftppeval.m Tue Aug 26 07:56:26 2014

Scan 2647 (8.608 min): f75538.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1260	52.10	1961	66.10	199	80.10	1582
36.90	168	53.00	195	67.20	220	81.10	2569
38.10	936	54.90	548	69.10	32680	82.00	626
39.10	2951	56.10	1152	70.10	170	83.00	664
40.10	299	57.10	2966	71.10	188	85.10	326
41.10	759	60.20	188	73.10	571	86.10	813
42.10	158	61.00	482	74.10	3275	87.10	264
44.10	8530	62.10	319	75.10	5471	87.60	211
45.00	196	63.00	952	77.10	32784	91.00	583
50.20	9079	64.00	390	78.10	3061	92.10	784
51.10	33576	65.10	626	79.10	2322	93.10	3273

Scan 2647 (8.608 min): f75538.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.90	308	110.10	18136	128.10	2533	142.00	347
94.90	170	111.10	2812	129.00	11138	143.00	338
98.10	2610	112.00	373	130.00	818	146.10	415
99.10	2049	117.10	6645	131.10	319	147.00	608
100.00	288	117.90	429	132.00	254	148.10	1411
101.10	1166	120.10	207	133.90	362	149.00	271
103.10	516	121.90	603	135.00	1102	149.90	170
104.00	951	123.00	873	136.00	438	150.90	278
105.00	656	124.00	436	137.10	559	151.80	374
107.10	9074	125.10	288	138.90	180	153.00	560
108.10	1590	127.10	34320	141.00	1230	153.90	368

Scan 2647 (8.608 min): f75538.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
155.10	887	169.00	367	182.00	155	196.00	2170
156.00	1049	169.80	311	184.10	182	198.00	62472
156.80	306	171.90	291	185.20	1270	199.00	5334
158.00	575	172.90	423	186.10	7433	200.00	345
159.10	192	174.00	761	187.10	3182	201.40	361
160.10	755	175.10	1167	188.00	370	203.20	270
161.00	797	176.00	385	188.90	426	204.10	1997
164.90	421	177.10	390	191.00	423	205.00	4099
166.10	558	179.00	2724	191.90	527	206.10	17944
167.10	2867	180.00	1669	193.10	922	207.10	2469
168.00	800	181.00	641	194.00	212	208.00	596

Scan 2647 (8.608 min): f75538.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
209.10	177	227.00	3293	244.10	7389	258.80	321
210.30	345	228.00	593	245.10	1067	264.90	564
211.00	436	229.00	927	246.00	1261	273.10	1122
211.60	310	230.00	191	247.00	333	274.00	3189
214.90	251	231.00	285	248.90	159	275.00	15115
216.00	594	234.00	277	249.80	156	276.10	2489
217.00	3856	237.20	209	253.00	309	276.90	1333
218.00	766	238.80	180	255.00	32984	277.80	247
221.00	4299	241.20	271	256.00	6015	281.10	169
224.10	8287	242.00	484	257.00	306	284.90	182
225.00	1791	243.00	655	258.00	1696	293.00	242

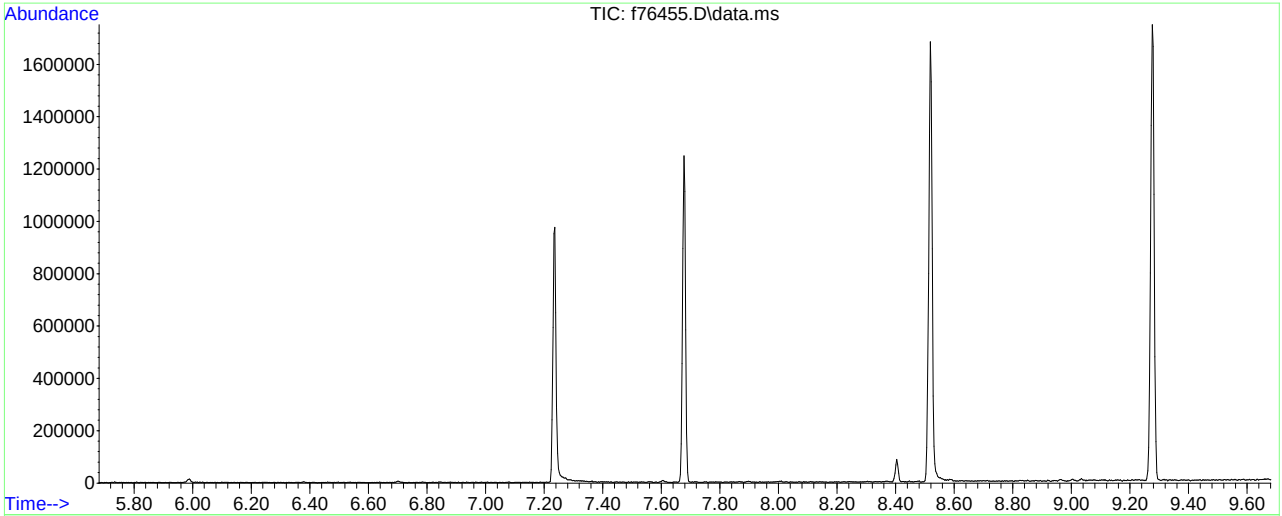
Scan 2647 (8.608 min): f75538.D\data.ms
dftpp

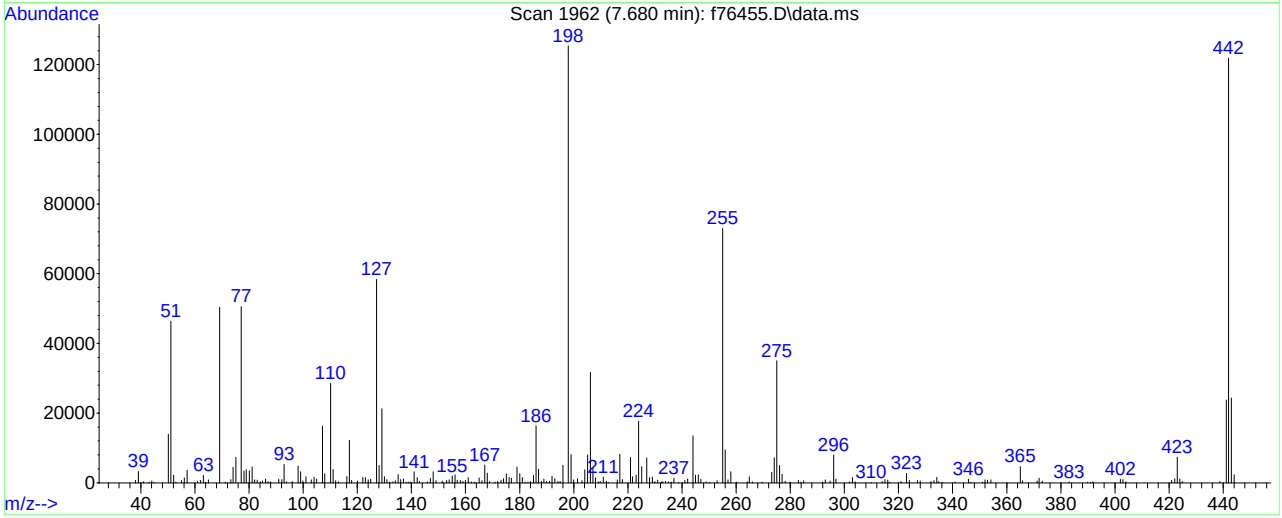
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
296.00	3936	334.00	959	373.00	221	443.00	7051
296.90	645	334.90	279	402.80	211	444.00	704
303.00	404	340.90	274	421.00	676		
313.90	355	346.00	341	421.80	267		
314.90	429	352.10	553	423.00	2320		
315.90	161	353.10	247	424.00	586		
323.00	1274	353.90	220	425.00	167		
324.00	231	365.00	1342	438.80	372		
326.90	243	365.90	290	439.40	375		
327.80	204	371.10	264	441.20	6548		
333.00	193	372.00	519	442.10	34520		

SW-846 Method 8270

Data File : F:\1\DATA\F140929\f76455.D Vial: 99
Acq On : 29 Sep 2014 7:38 am Operator: williamk
Sample : dftpp Inst : MSF
Misc : op39496,msf3354,,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : W:\2\METHODS\F140825dod_8270.m (RTE Integrator)
Title : SW-846 Method 8270





Spectrum Information: Scan 1962

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	37.0	46336	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	40.2	50400	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	46.6	58368	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	125312	PASS
199	198	5	9	6.4	8069	PASS
275	198	10	30	27.9	35000	PASS
365	198	0.80	100	3.7	4667	PASS
441	443	0.01	100	97.9	23800	PASS
442	198	40	100	97.3	121896	PASS
443	442	17	23	20.0	24320	PASS

f76455.D F140825dod_8270.m Wed Oct 01 08:13:34 2014

Scan 1962 (7.680 min): f76455.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.10	685	55.00	568	74.10	4446	86.10	1118
39.10	3266	56.10	1408	75.10	7321	87.00	379
40.00	162	57.10	3573	77.10	50544	88.00	252
41.10	364	61.00	475	78.10	3459	91.00	1009
43.00	240	62.10	673	79.00	3759	92.10	943
44.10	518	63.10	2165	80.10	3438	93.00	5288
44.90	160	64.00	151	81.10	4574	93.90	276
50.20	13958	65.00	880	82.10	815	96.00	404
51.10	46336	69.10	50400	83.00	780	98.10	4804
52.10	2221	71.20	189	84.10	306	99.10	3186
53.00	173	73.30	889	85.00	489	99.90	542

Scan 1962 (7.680 min): f76455.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
101.00	1726	117.10	12160	131.00	959	142.10	1487
103.00	857	117.90	670	132.00	169	143.00	453
104.00	1597	120.10	548	133.10	301	145.90	293
105.00	1126	122.10	1609	134.10	568	147.00	1250
107.10	16293	123.00	1460	135.10	2380	148.00	3146
108.00	2644	124.00	861	136.00	897	149.10	571
110.10	28552	125.00	1006	137.10	1097	151.40	488
111.10	3804	127.10	58368	138.10	201	153.00	717
112.00	637	128.10	4988	139.00	176	153.90	814
113.00	248	129.10	21248	139.80	179	155.10	1958
116.20	1817	130.00	1754	141.00	3198	156.10	2331

Scan 1962 (7.680 min): f76455.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
157.00	757	168.90	398	182.00	175	193.00	1172
158.10	659	170.90	228	183.10	212	194.10	333
159.00	430	171.90	424	184.00	391	195.00	441
160.00	679	173.10	796	185.10	2159	196.00	5056
161.00	1505	174.00	1141	186.10	16400	198.00	125312
162.10	318	175.10	2565	187.00	3897	199.00	8069
163.40	176	176.10	1546	188.00	414	199.90	875
165.00	1396	176.90	1366	189.00	1090	201.40	1159
166.10	629	179.00	4533	190.00	427	203.00	626
167.10	5133	180.00	2643	191.00	447	204.10	3736
168.00	2822	181.00	1468	192.00	1922	205.10	8027

Scan 1962 (7.680 min): f76455.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
206.10	31696	221.00	7324	232.90	299	247.00	979
207.10	4251	221.70	1761	233.90	443	248.90	321
208.00	1385	223.00	2177	234.90	327	250.10	163
209.00	269	224.00	17616	236.00	204	253.00	602
209.80	331	225.10	4614	237.00	1312	255.00	72960
210.90	1619	227.00	7096	238.80	163	256.00	9481
212.00	447	228.00	1527	241.00	721	257.00	847
212.80	157	229.00	1636	242.10	1081	258.00	3184
216.10	825	230.00	373	244.00	13480	260.10	202
217.00	8137	231.00	787	245.00	2232	264.10	273
218.00	960	232.40	288	246.00	2262	264.90	1775

Scan 1962 (7.680 min): f76455.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
266.00	308	285.00	611	315.00	947	334.90	340
269.60	200	291.90	177	316.00	770	336.10	191
273.10	2988	292.90	841	316.70	150	340.90	229
274.10	7171	294.70	489	320.90	351	345.90	1024
275.00	35000	296.00	7997	323.00	2711	346.80	193
276.00	4942	296.90	1104	324.00	698	351.00	203
277.00	2494	301.80	289	327.00	617	352.00	819
278.10	474	303.00	1466	328.00	534	352.90	748
279.90	181	304.00	261	332.00	328	354.10	809
283.00	692	309.90	150	333.10	581	365.00	4667
283.90	178	314.00	397	334.10	1541	365.80	605

Scan 1962 (7.680 min): f76455.D\data.ms

F140825dod_8270.m Wed Oct 01 07:23:23 2014

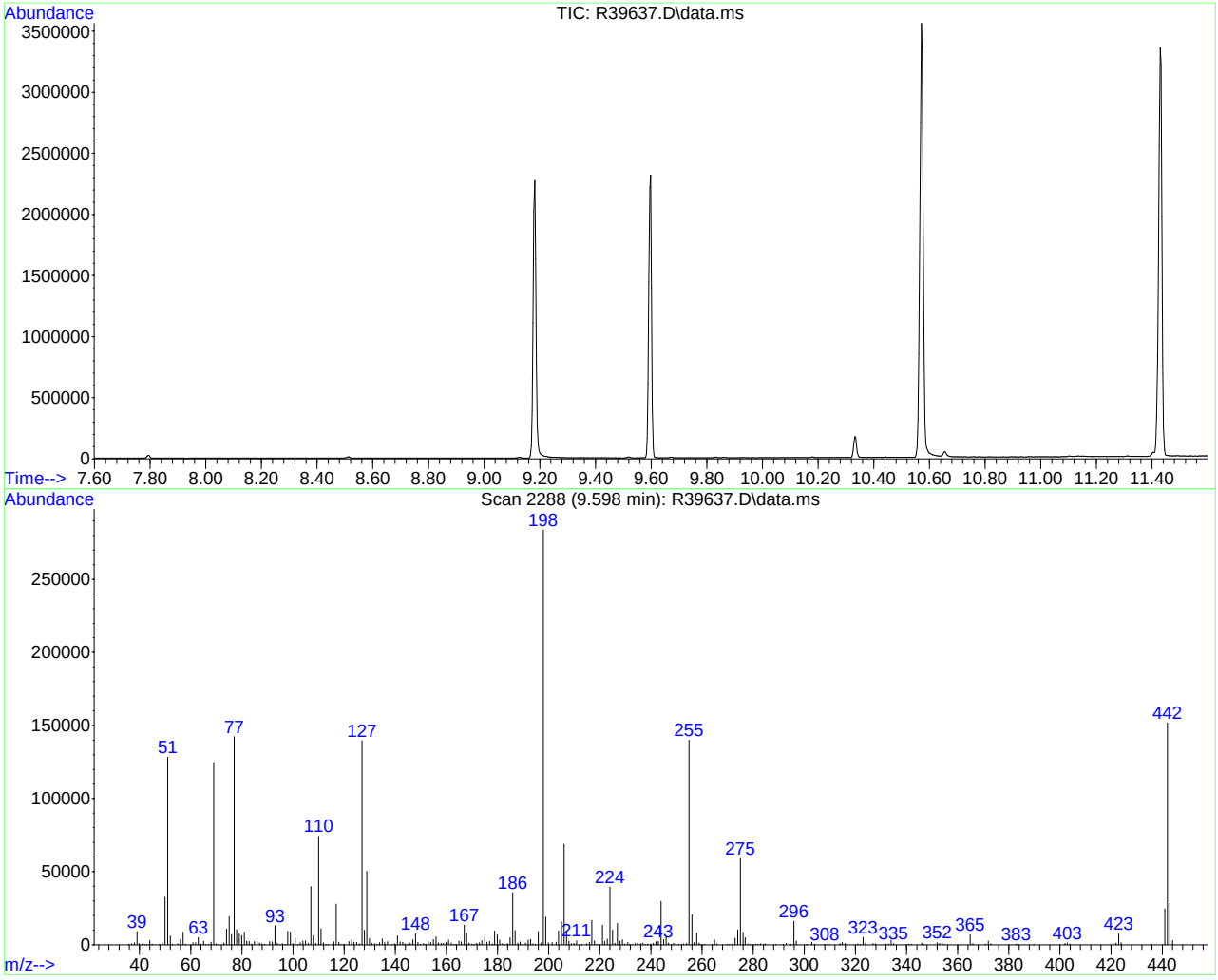
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
371.20	551	422.10	1193				
372.00	1311	423.00	7405				
373.10	489	423.90	1116				
383.00	291	424.90	359				
389.90	233	438.70	338				
390.90	165	441.10	23800				
391.80	263	442.00	121896				
402.00	1016	443.00	24320				
402.90	896	444.00	2256				
404.10	325						
420.90	685						

DFTPP

Data File : C:\msdchem\1\data\R140911\R39637.D Vial: 99
Acq On : 11 Sep 2014 10:51 am Operator: williamk
Sample : dftpp Inst : MSR
Misc : op39525,msr1461,,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : W:\2\METHODS\DFTPP.m (RTE Integrator)
Title : DFTPP and Tune Evaluation



Spectrum Information: Scan 2288

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.2	128280	PASS
68	69	0.00	2	1.3	1682	PASS
69	198	0.00	100	43.9	124608	PASS
70	69	0.00	2	0.5	582	PASS
127	198	40	60	49.2	139584	PASS
197	198	0.00	1	0.4	1108	PASS
198	198	100	100	100.0	283776	PASS
199	198	5	9	6.6	18784	PASS
275	198	10	30	20.7	58872	PASS
365	198	1	100	2.4	6790	PASS
441	443	0.01	100	87.0	24504	PASS
442	198	40	100	53.5	151744	PASS
443	442	17	23	18.6	28160	PASS

R39637.D DFTPP.m Thu Sep 11 16:34:00 2014

Scan 2288 (9.598 min): R39637.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.80	273	48.90	1424	63.00	4911	75.00	19184
36.90	681	50.00	32512	63.90	525	76.00	6962
38.00	1465	51.00	128280	65.00	2414	77.00	142336
39.00	9048	52.00	5986	65.90	161	78.00	10323
39.90	787	52.90	318	67.00	240	79.00	7471
41.00	479	54.90	665	68.00	1682	79.90	6217
41.90	250	56.00	3796	69.00	124608	81.00	8582
42.90	232	57.00	8681	69.90	582	81.90	2401
44.00	2768	58.00	422	70.90	168	82.90	2331
45.00	451	60.90	1446	73.00	1291	83.80	498
47.80	156	61.90	1382	74.00	10725	84.90	2125

Scan 2288 (9.598 min): R39637.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.00	2507	98.00	9259	108.90	1020	121.90	2185
86.90	1157	99.00	8709	110.00	74208	122.90	3357
87.90	604	99.90	873	111.00	10784	123.90	1823
88.90	342	100.90	4841	111.90	1464	124.90	1556
90.90	2053	101.90	304	112.80	322	126.00	604
91.90	2000	102.90	1445	113.80	162	127.00	139584
93.00	13073	103.90	2553	116.00	2089	128.00	9984
93.90	960	104.90	2750	116.90	27800	128.90	50128
94.90	291	106.00	1066	117.90	1796	129.90	4277
95.90	848	107.00	39720	118.80	224	130.90	1094
96.90	264	108.00	6071	119.90	554	131.90	561

Scan 2288 (9.598 min): R39637.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
132.80	310	144.80	452	156.00	5401	167.00	13436
133.90	1340	145.90	1168	156.90	1284	167.90	7965
134.90	3985	146.90	3296	157.90	1089	168.90	1209
135.90	1445	147.90	7320	158.90	941	169.90	396
137.00	2080	148.90	1634	159.90	1797	170.90	516
138.80	195	149.80	361	160.90	3168	171.90	958
139.80	629	151.10	766	161.90	1158	172.90	1356
140.90	6036	151.90	277	162.90	298	173.90	2836
141.90	1944	152.90	1846	163.80	360	175.00	5337
142.90	1738	153.90	1617	164.90	2453	175.90	1714
143.80	562	154.90	3518	165.90	1919	176.90	2211

Scan 2288 (9.598 min): R39637.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
177.90	721	188.90	1974	199.90	1455	212.90	286
178.90	9442	189.80	298	201.40	1496	214.90	625
179.90	6916	190.90	1231	202.90	1728	215.90	1571
180.90	3165	192.00	3276	203.90	9563	216.90	16752
181.90	601	192.90	3536	205.00	15741	217.90	2565
182.70	258	193.90	720	206.00	68696	218.80	198
183.90	808	194.90	378	207.00	9137	219.80	181
184.90	4819	195.90	9003	207.90	2440	221.00	13447
186.00	35592	197.00	1108	208.90	741	221.90	2335
186.90	9760	197.90	283776	209.90	987	222.90	4000
187.90	1213	198.90	18784	210.90	2751	224.00	39496

Scan 2288 (9.598 min): R39637.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
225.00	9933	235.90	742	246.90	1210	257.90	8014
225.90	1022	236.90	1275	247.90	270	258.80	1155
226.90	14419	237.80	210	248.90	1064	259.70	242
227.90	2439	238.80	493	249.80	162	260.80	304
228.90	3409	239.80	495	250.90	235	263.80	248
229.80	406	240.90	994	251.90	184	264.90	3242
230.90	1530	242.00	1923	252.80	681	265.80	600
231.70	222	242.90	2304	254.00	829	269.80	226
232.80	175	244.00	29544	254.90	140032	270.70	219
233.90	933	245.00	3572	256.00	20536	271.90	436
234.80	975	245.90	5170	256.90	1464	272.90	4454

Scan 2288 (9.598 min): R39637.D\data.ms

R140911_8270.m Thu Sep 11 16:32:24 2014

dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
273.90	10126	288.80	243	308.70	164	327.80	631
275.00	58872	291.80	288	309.90	175	331.90	422
276.00	8410	292.90	971	313.90	841	332.90	393
276.90	4869	294.80	351	314.90	1511	333.90	2963
277.90	711	295.90	16019	315.90	872	334.90	899
278.90	246	296.90	2479	316.80	166	340.90	472
280.90	480	300.90	241	320.90	698	342.00	221
281.90	237	301.80	309	321.90	280	345.90	1159
282.90	624	302.90	1655	323.00	5060	346.80	358
283.90	343	303.90	409	323.90	1201	352.00	1300
284.80	674	308.00	210	326.90	780	352.90	1098

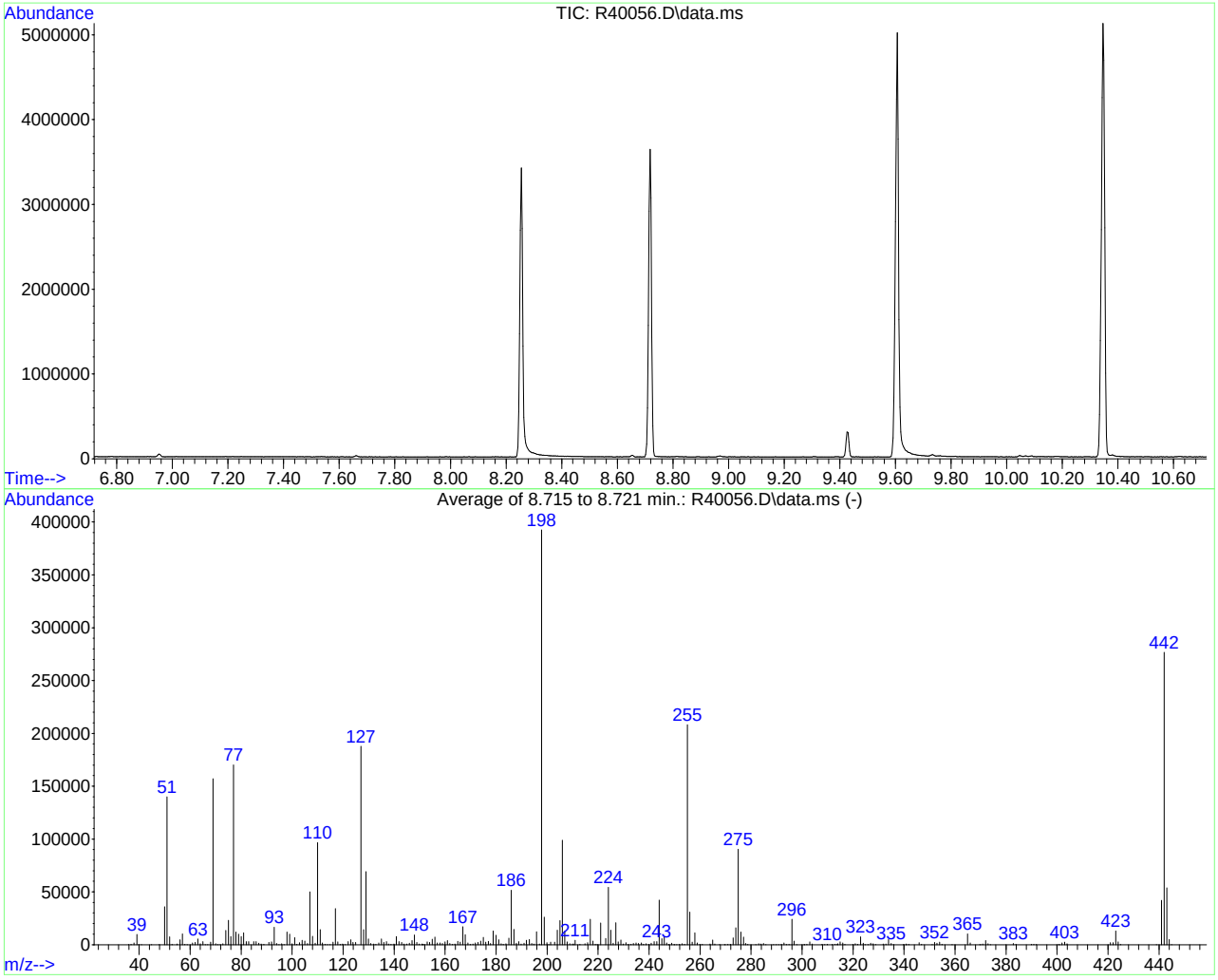
Scan 2288 (9.598 min): R39637.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
353.90	1383	402.90	1269				
354.80	166	403.80	389				
364.90	6790	420.80	1006				
365.90	862	421.90	1126				
370.80	385	423.00	7353				
371.90	2427	423.90	1466				
373.00	615	441.00	24504				
382.90	525	442.00	151744				
383.80	187	443.00	28160				
389.80	202	444.00	2844				
401.90	920						

DFTPP

Data File : C:\msdchem\1\data\R141001\R40056.D Vial: 99
Acq On : 1 Oct 2014 8:26 am Operator: williamk
Sample : dftpp Inst : MSR
Misc : op39867,msr1474,,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : W:\1\methods\dftppeval.m (RTE Integrator)
Title : DFTPP and Tune Evaluation



Spectrum Information: Average of 8.715 to 8.721 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	35.6	139826	PASS
68	69	0.00	2	1.5	2345	PASS
69	198	0.00	100	40.0	157013	PASS
70	69	0.00	2	0.5	792	PASS
127	198	40	60	47.8	187669	PASS
197	198	0.00	1	0.1	560	PASS
198	198	100	100	100.0	392469	PASS
199	198	5	9	6.6	26040	PASS
275	198	10	30	23.0	90301	PASS
365	198	1	100	2.6	10268	PASS
441	443	0.01	100	78.0	41947	PASS
442	198	40	100	70.5	276629	PASS
443	442	17	23	19.4	53755	PASS

R40056.D dftppeval.m Wed Oct 01 11:38:12 2014

Average of 8.715 to 8.721 min.: R40056.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	237	52.95	366	65.95	220	77.00	170091
36.90	487	54.90	546	66.95	210	78.00	12006
38.05	1574	56.00	4545	68.00	2345	79.00	9880
39.10	9799	56.95	10108	69.00	157013	80.00	7673
39.90	211	57.95	467	70.00	792	81.00	11196
40.90	239	58.85	109	70.90	51	82.00	2913
44.90	86	60.95	1591	71.80	73	83.00	2960
47.90	55	61.95	2153	72.90	875	84.95	3016
49.95	35806	63.00	5498	74.00	13415	85.90	2827
50.95	139826	63.95	776	75.00	23080	86.90	1286
52.00	7411	65.00	2991	76.00	7724	87.85	568

Average of 8.715 to 8.721 min.: R40056.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.95	352	101.00	6587	111.90	1688	123.00	4584
90.95	2230	101.90	392	112.95	509	123.90	2064
91.95	2688	102.90	1963	113.85	172	124.90	2179
93.00	16538	103.95	4090	114.85	181	127.00	187669
93.90	1279	105.00	3338	116.00	2363	128.00	14308
94.85	210	106.00	1193	117.00	34091	129.00	69067
95.90	970	107.00	50107	117.95	2570	129.90	5524
96.90	136	108.00	8056	118.90	484	130.90	1169
98.00	12071	109.05	1463	119.85	666	132.00	607
99.00	10058	110.00	96720	120.80	216	132.85	318
99.95	917	111.00	14231	121.95	3023	133.95	1648

Average of 8.715 to 8.721 min.: R40056.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
135.00	5432	145.95	1394	155.00	5063	165.95	2406
136.00	2095	147.00	3815	156.00	7168	166.95	16946
137.00	3014	147.95	9151	157.00	1581	167.95	9344
137.90	639	148.90	2050	157.95	1593	168.90	1548
138.80	330	149.90	680	158.90	1044	169.85	483
139.90	762	151.00	764	159.95	2768	170.90	761
140.90	7695	151.20	361	160.95	4002	171.90	1760
141.95	2873	151.40	308	161.90	1203	172.95	2196
142.95	2172	151.90	247	162.90	395	174.00	3318
143.85	652	152.95	2703	163.85	515	175.00	6819
144.95	623	153.95	2075	164.95	3271	175.95	2462

Average of 8.715 to 8.721 min.: R40056.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
176.95	3099	187.95	1441	198.90	26040	210.00	538
177.85	1024	188.90	2915	199.95	1905	210.40	721
178.90	13057	189.85	599	200.70	190	211.00	4138
180.00	8962	190.95	1332	201.40	2296	212.90	315
181.00	4689	191.90	4163	202.95	2508	214.90	853
182.00	773	193.00	4889	204.00	13655	215.95	2031
182.80	370	193.95	1158	205.00	22704	216.90	24157
183.85	831	194.85	652	206.00	98848	217.95	3364
185.00	6316	195.90	12115	206.95	12669	218.95	308
186.00	51536	197.00	560	207.90	2771	219.70	206
187.00	14418	197.90	392469	208.90	859	221.00	20477

Average of 8.715 to 8.721 min.: R40056.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
222.95	5858	233.85	1207	245.00	5614	253.90	387
224.00	54211	234.90	1586	245.90	7351	255.00	208192
225.00	13808	235.85	1088	246.90	1734	256.00	30853
225.95	1412	236.95	1652	247.70	103	256.95	2499
226.95	20760	237.80	275	247.85	188	257.95	11177
227.95	2755	238.90	768	248.90	1504	258.90	1739
228.95	4543	239.85	408	249.80	213	259.95	347
229.85	649	240.85	1301	250.00	106	260.85	388
230.95	1932	241.95	2862	250.85	228	263.85	616
231.85	277	243.00	2930	251.85	367	264.90	4456
232.90	359	244.00	42291	252.90	884	265.75	628

Average of 8.715 to 8.721 min.: R40056.D\data.ms

R140911_8270.m Wed Oct 01 09:19:40 2014

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
267.70	75	277.90	1270	292.90	1666	307.85	305
269.60	122	278.75	279	293.85	340	308.85	235
269.80	102	281.85	228	294.90	498	309.95	427
270.85	388	282.95	800	296.00	23968	311.80	56
271.80	187	283.85	693	296.90	3411	312.90	276
271.95	323	284.90	1189	297.90	203	313.80	290
272.95	6417	285.85	251	300.80	72	313.95	843
274.00	15888	288.80	201	300.95	166	314.90	2689
275.00	90301	289.85	261	301.90	467	315.95	1710
276.00	11933	290.80	247	303.00	2626	316.75	273
277.00	7217	291.85	369	303.95	764	319.90	53

Average of 8.715 to 8.721 min.: R40056.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
320.90	829	333.95	4913	352.90	1517	373.85	105
321.85	280	334.95	1162	353.95	2343	382.85	1064
323.00	7428	335.90	63	354.85	394	383.85	415
323.95	1484	339.80	52	358.85	157	389.90	461
324.70	51	340.80	238	364.90	10268	390.90	392
325.90	103	340.95	639	365.95	1630	391.80	170
326.90	1425	341.85	272	369.75	126	400.70	58
327.90	802	345.90	1871	370.00	58	400.95	180
328.90	60	346.90	432	370.90	571	401.95	1748
331.85	538	351.00	54	371.95	3953	402.95	2476
332.90	747	351.95	2279	372.95	996	403.90	832

Average of 8.715 to 8.721 min.: R40056.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
420.95	1907						
421.95	1887						
423.00	13081						
423.95	2612						
424.85	286						
439.00	66						
441.00	41947						
442.00	276629						
443.00	53755						
444.00	4856						
444.90	84						

Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
09/04/14 10:25

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75541.D
Sample : ic3320-2
Misc : op39496,msf3320,,,,1,1
ALS Vial : 1 Sample Multiplier: 1
Acq On : 25 Aug 2014 5:34 pm Operator: williamk

Quant Time: Sep 04 09:51:32 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.460	152	105430	40.00	ppm	0.00
22) Naphthalene-d8	5.516	136	389681	40.00	ppm	0.00
39) Acenaphthene-d10	7.046	164	228950	40.00	ppm	0.00
61) Phenanthrene-d10	8.331	188	380734	40.00	ppm	0.00
75) Chrysene-d12	10.979	240	406828	40.00	ppm	0.00
85) Perylene-d12	12.721	264	378163	40.00	ppm	0.00
93) Acenaphthene-d10a	7.046	164	228950	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.504	112	6332	1.82	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 1.82%#			
8) Phenol-d5	4.178	99	7855	1.83	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 1.83%#			
23) Nitrobenzene-d5	4.929	82	6959	1.85	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 3.70%#			
44) 2-Fluorobiphenyl	6.447	172	14070	1.83	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 3.66%#			
65) 2,4,6-Tribromophenol	7.738	330	1946m	1.86	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 1.86%#			
78) Terphenyl-d14	9.796	244	15695	1.79	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 3.58%#			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.619	74	3949m	1.674	ppm	
3) 1,4-Dioxane	2.393	88	2816m	1.778	ug/l	
4) Pyridine	2.647	79	7173	1.711	ppm	85
5) Aniline	4.230	93	8257	1.513	ppm	97
7) bis(2-Chloroethyl)ether	4.265	93	6034	1.787	ppm	98
9) Phenol	4.187	94	7915	1.702	ppm	87
10) 2-Chlorophenol	4.317	128	6442	1.756	ppm	84
11) 1,3-Dichlorobenzene	4.432	146	7130	1.751	ppm	85
12) 1,4-Dichlorobenzene	4.469	146	7446	1.788	ppm	96
13) 1,2-Dichlorobenzene	4.625	146	7110	1.832	ppm	95
14) Benzyl alcohol	4.572	108	4397m	1.780	ppm	
15) bis(2-chloroisopropyl)...	4.693	45	8971	2.050	ppm	94
16) o-cresol	4.662	108	5666m	1.659	ppm	
17) Acetophenone	4.795	105	9154	1.754	ppm	91
18) Hexachloroethane	4.876	117	2773m	1.852	ppm	
19) N-Nitroso-di-n-propyla...	4.808	70	4466m	1.794	ppm	
20) m+p-cresols	4.777	108	13071	3.644	ppm	92
21) 4-methylphenol	4.777	108	13071	3.643	ppm	92
24) Nitrobenzene	4.944	77	7137	1.890	ppm	88
25) Isophorone	5.128	82	11678	1.752	ppm	86
26) 2-Nitrophenol	5.211	139	2979m	1.523	ppm	
27) 2,4-Dimethylphenol	5.218	107	6710	1.836	ppm	86
28) bis(2-Chloroethoxy)met...	5.305	93	7518m	2.271	ppm	
29) Benzoic acid	5.255	105	1477m	0.624	ppm	
30) 2,4-Dichlorophenol	5.398	162	5205	1.728	ppm	97
31) 1,2,4-Trichlorobenzene	5.478	180	5733	1.752	ug/mL	93
32) Naphthalene	5.534	128	18352	1.817	ppm	95
33) 2,6-Dichlorophenol	5.596	162	5082	1.680	ppm	95
34) 4-Chloroaniline	5.590	127	6576	1.545	ppm	100
35) Hexachlorobutadiene	5.677	225	3160m	1.758	ppm	

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75541.D
Sample : ic3320-2
Misc : op39496,msf3320,,,,1,1
ALS Vial : 1 Sample Multiplier: 1
Acq On : 25 Aug 2014 5:34 pm Operator: williamk

Quant Time: Sep 04 09:51:32 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

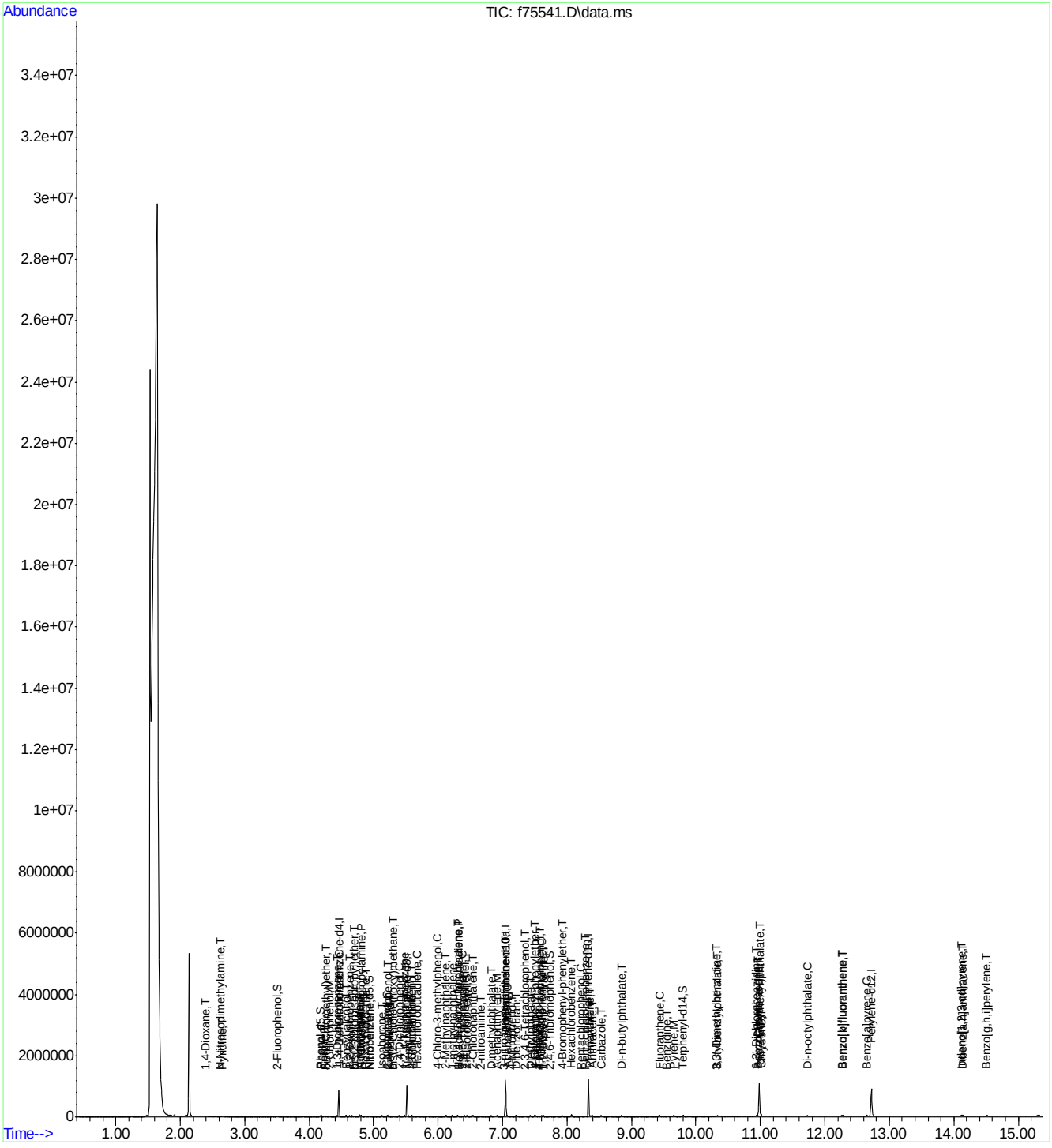
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36)	4-Chloro-3-methylphenol	5.984	107	5617	1.795	ppm		79
37)	2-Methylnaphthalene	6.121	142	12707	1.796	ppm		95
38)	1-methylnaphthalene	6.217	142	12496	1.902	ppm		97
40)	Hexachlorocyclopentadiene	6.313	237	2852m	1.572	ppm		
41)	1,2,4,5-Tetrachloroben...	6.301	216	6244	1.863	ppm		97
42)	2,4,6-Trichlorophenol	6.382	196	3383m	1.562	ppm		
43)	2,4,5-Trichlorophenol	6.413	196	4037m	1.723	ppm		
45)	2-Chloronaphthalene	6.543	162	11300	1.772	ppm		97
46)	Acenaphthylene	6.916	152	15944	1.731	ppm		97
47)	Dimethylphthalate	6.826	163	11832	1.668	ppm		96
48)	2,6-Dinitrotoluene	7.049	165	29838	18.750	ppm	#	38
49)	Acenaphthene	7.074	153	12341	1.858	ppm		93
51)	Dibenzofuran	7.207	168	16203	1.699	ppm		95
53)	4-Nitrophenol	7.139	65	2588m	1.719	ppm		
54)	2,3,4,6-Tetrachlorophenol	7.353	232	3328m	1.638	ppm		
55)	Fluorene	7.512	166	12108	1.661	ppm		98
56)	4-Chlorophenyl-phenyle...	7.499	204	6096	1.671	ppm		89
57)	Diethylphthalate	7.434	149	11793	1.715	ppm		97
58)	2-nitroaniline	6.658	138	2944m	1.349	ppm		
59)	3-nitroaniline	7.018	138	2563m	1.391	ppm		
60)	4-nitroaniline	7.555	138	2573m	1.411	ppm		
62)	4,6-Dinitro-2-methylph...	7.589	198	989m	0.728	ppm		
63)	n-Nitrosodiphenylamine	7.608	169	9217	1.750	ppm		99
64)	1,2-Diphenylhydrazine	7.636	77	13186	1.840	ppm		96
66)	4-Bromophenyl-phenylether	7.928	248	3550m	1.671	ppm		
67)	Hexachlorobenzene	8.064	284	3515m	1.626	ppm		
68)	Pentachlorophenol	8.216	266	2506m	1.415	ppm		
69)	Pentachloronitrobenzene	8.288	237	1111m	1.414	ppm		
70)	Phenanthrene	8.353	178	19166	1.813	ppm		87
71)	Anthracene	8.390	178	19535	1.825	ppm		97
72)	Carbazole	8.530	167	17362	1.735	ppm		94
73)	Di-n-butylphthalate	8.846	149	20080	1.675	ppm		98
74)	Fluoranthene	9.433	202	19080	1.648	ppm		97
76)	Benzidine	9.554	184	4045m	1.144	ppm		
77)	Pyrene	9.660	202	20702m	1.759	ppm		
79)	3,3'-Dimethylbenzidine	10.315	212	7415	1.860	ppm		98
80)	Butylbenzylphthalate	10.330	149	7752	1.581	ppm		81
81)	3,3'-Dichlorobenzidine	10.939	252	5669	1.440	ppm		87
82)	Benzo[a]anthracene	10.957	228	17357m	1.612	ppm		
83)	Chrysene	11.010	228	19660	1.803	ppm		94
84)	bis(2-Ethylhexyl)phtha...	10.995	149	9779	1.417	ppm		98
86)	Di-n-octylphthalate	11.730	149	13575	1.225	ppm		90
87)	Benzo[b]fluoranthene	12.261	252	14319	1.380	ppm		95
88)	Benzo[k]fluoranthene	12.286	252	19298m	1.761	ppm		
89)	Benzo[a]pyrene	12.649	252	15926	1.592	ppm		94
90)	Indeno[1,2,3-cd]pyrene	14.114	276	16788	1.362	ppm		83
91)	Dibenz[a,h]anthracene	14.130	278	15094	1.480	ppm		96
92)	Benzo[g,h,i]perylene	14.512	276	16960m	1.376	ppm		

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

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75541.D
Sample : ic3320-2
Misc : op39496,msf3320,,,,1,1
ALS Vial : 1 Sample Multiplier: 1
Acq On : 25 Aug 2014 5:34 pm Operator: williamk

Quant Time: Sep 04 09:51:32 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



ACCUTEST LABORATORIES MC33841

Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
09/04/14 10:25

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75542.D
Sample : ic3320-5
Misc : op39496,msf3320,,,,1,1
ALS Vial : 2 Sample Multiplier: 1
Acq On : 25 Aug 2014 5:57 pm Operator: williamk

Quant Time: Sep 04 09:51:18 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.459	152	102259	40.00	ppm	0.00
22) Naphthalene-d8	5.514	136	381849	40.00	ppm	0.00
39) Acenaphthene-d10	7.045	164	212429	40.00	ppm	0.00
61) Phenanthrene-d10	8.330	188	350313	40.00	ppm	0.00
75) Chrysene-d12	10.978	240	370974	40.00	ppm	0.00
85) Perylene-d12	12.719	264	352528	40.00	ppm	0.00
93) Acenaphthene-d10a	7.045	164	212429	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.503	112	15772	4.62	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 4.62%#			
8) Phenol-d5	4.176	99	20640	4.94	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 4.94%#			
23) Nitrobenzene-d5	4.927	82	17509	4.72	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 9.44%#			
44) 2-Fluorobiphenyl	6.445	172	35101	4.92	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 9.84%#			
65) 2,4,6-Tribromophenol	7.737	330	4034m	4.09	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 4.09%#			
78) Terphenyl-d14	9.795	244	38023	4.72	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 9.44%#			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.615	74	10671	4.612	ppm	66
3) 1,4-Dioxane	2.394	88	7084	4.553	ug/l #	75
4) Pyridine	2.636	79	17579	4.227	ppm	86
5) Aniline	4.229	93	23354	4.327	ppm	97
7) bis(2-Chloroethyl)ether	4.263	93	15944	4.846	ppm	88
9) Phenol	4.186	94	21868	4.824	ppm	90
10) 2-Chlorophenol	4.316	128	17253	4.826	ppm	89
11) 1,3-Dichlorobenzene	4.434	146	19854	5.032	ppm	96
12) 1,4-Dichlorobenzene	4.471	146	19243	4.728	ppm	99
13) 1,2-Dichlorobenzene	4.626	146	18551	4.917	ppm	93
14) Benzyl alcohol	4.570	108	11421	4.730	ppm	95
15) bis(2-chloroisopropyl)...	4.691	45	22467	5.346	ppm	95
16) o-cresol	4.660	108	15688m	2.243	ppm	
17) Acetophenone	4.797	105	23843	4.665	ppm	88
18) Hexachloroethane	4.875	117	7077	4.854	ppm	88
19) N-Nitroso-di-n-propyla...	4.803	70	11763	4.851	ppm	90
20) m+p-cresols	4.775	108	33430	9.546	ppm	93
21) 4-methylphenol	4.775	108	33430	9.545	ppm	93
24) Nitrobenzene	4.943	77	18317	4.942	ppm	91
25) Isophorone	5.126	82	31903	4.866	ppm	90
26) 2-Nitrophenol	5.210	139	8760	4.506	ppm	83
27) 2,4-Dimethylphenol	5.216	107	17308	4.805	ppm	93
28) bis(2-Chloroethoxy)met...	5.303	93	19408m	5.966	ppm	
29) Benzoic acid	5.253	105	4904m	1.930	ppm	
30) 2,4-Dichlorophenol	5.396	162	13732	4.600	ppm	91
31) 1,2,4-Trichlorobenzene	5.477	180	15797	4.915	ug/mL	93
32) Naphthalene	5.533	128	48429	4.876	ppm	99
33) 2,6-Dichlorophenol	5.595	162	14244	4.776	ppm	92
34) 4-Chloroaniline	5.589	127	17884	4.188	ppm	100
35) Hexachlorobutadiene	5.676	225	8398	4.732	ppm	92

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75542.D
Sample : ic3320-5
Misc : op39496,msf3320,,,,1,1
ALS Vial : 2 Sample Multiplier: 1
Acq On : 25 Aug 2014 5:57 pm Operator: williamk

Quant Time: Sep 04 09:51:18 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

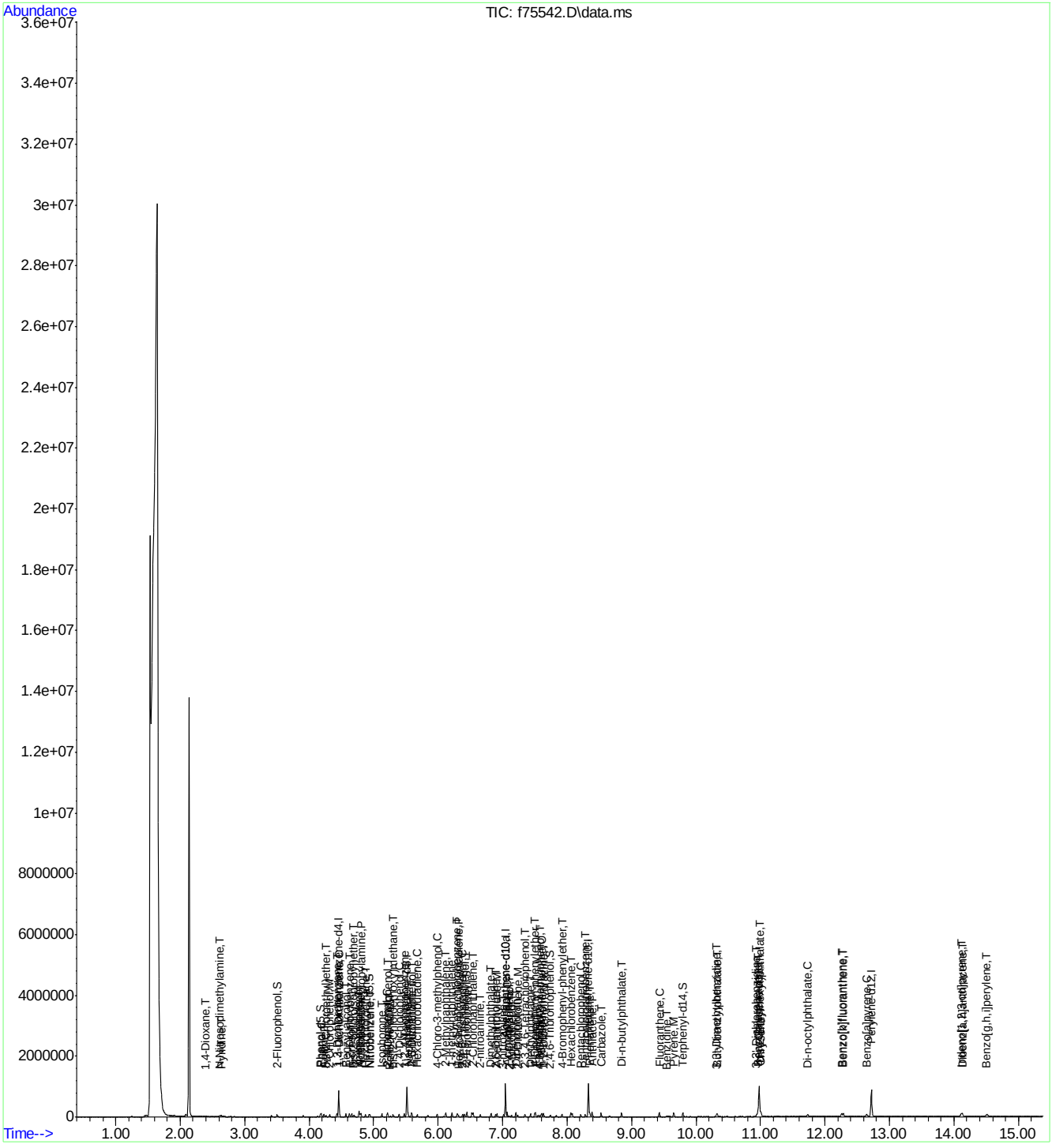
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36)	4-Chloro-3-methylphenol	5.986	107	15023	4.883	ppm		81
37)	2-Methylnaphthalene	6.119	142	32775	4.686	ppm		95
38)	1-methylnaphthalene	6.216	142	29990	4.605	ppm		94
40)	Hexachlorocyclopentadiene	6.315	237	7297	4.242	ppm		99
41)	1,2,4,5-Tetrachloroben...	6.300	216	15346	4.924	ppm		96
42)	2,4,6-Trichlorophenol	6.380	196	9529	4.701	ppm		95
43)	2,4,5-Trichlorophenol	6.411	196	10204	4.647	ppm		98
45)	2-Chloronaphthalene	6.542	162	30673	5.218	ppm		99
46)	Acenaphthylene	6.914	152	42818	5.013	ppm		97
47)	Dimethylphthalate	6.821	163	32203	4.876	ppm		97
48)	2,6-Dinitrotoluene	6.892	165	5697m	3.717	ppm		
49)	Acenaphthene	7.072	153	29910	4.830	ppm		94
50)	2,4-Dinitrophenol	7.100	184	1698m	1.769	ppm		
51)	Dibenzofuran	7.209	168	43211	4.864	ppm		97
52)	2,4-Dinitrotoluene	7.234	165	8288	4.065	ppm		90
53)	4-Nitrophenol	7.138	65	6361	4.554	ppm		83
54)	2,3,4,6-Tetrachlorophenol	7.349	232	8745	4.585	ppm		96
55)	Fluorene	7.510	166	32776	4.822	ppm		97
56)	4-Chlorophenyl-phenyle...	7.498	204	16294	4.785	ppm		92
57)	Diethylphthalate	7.433	149	32055	5.029	ppm		97
58)	2-nitroaniline	6.657	138	8897	4.306	ppm	#	59
59)	3-nitroaniline	7.013	138	7352	4.204	ppm		83
60)	4-nitroaniline	7.551	138	7015	4.032	ppm		82
62)	4,6-Dinitro-2-methylph...	7.585	198	3887m	2.927	ppm		
63)	n-Nitrosodiphenylamine	7.606	169	23736	4.882	ppm		95
64)	1,2-Diphenylhydrazine	7.634	77	34828	5.333	ppm		98
66)	4-Bromophenyl-phenylether	7.926	248	9432	4.797	ppm		97
67)	Hexachlorobenzene	8.066	284	9963	5.011	ppm		97
68)	Pentachlorophenol	8.215	266	7009	4.202	ppm		93
69)	Pentachloronitrobenzene	8.286	237	3119m	4.218	ppm		
70)	Phenanthrene	8.351	178	48499	4.985	ppm		95
71)	Anthracene	8.389	178	48482	4.911	ppm		98
72)	Carbazole	8.528	167	45169	4.891	ppm		97
73)	Di-n-butylphthalate	8.845	149	51959	4.665	ppm		97
74)	Fluoranthene	9.432	202	51013	4.754	ppm		91
76)	Benzidine	9.550	184	8654	2.491	ppm		89
77)	Pyrene	9.655	202	54550	5.097	ppm		95
79)	3,3'-Dimethylbenzidine	10.313	212	17660	4.835	ppm		95
80)	Butylbenzylphthalate	10.329	149	20704	4.573	ppm		91
81)	3,3'-Dichlorobenzidine	10.937	252	14458	3.902	ppm		96
82)	Benzo[a]anthracene	10.956	228	46877m	4.739	ppm		
83)	Chrysene	11.006	228	49200	4.938	ppm		91
84)	bis(2-Ethylhexyl)phtha...	10.993	149	28294	4.422	ppm		94
86)	Di-n-octylphthalate	11.732	149	39944	3.725	ppm		98
87)	Benzo[b]fluoranthene	12.260	252	42187	4.271	ppm		98
88)	Benzo[k]fluoranthene	12.285	252	47854m	4.635	ppm		
89)	Benzo[a]pyrene	12.651	252	42657	4.510	ppm		95
90)	Indeno[1,2,3-cd]pyrene	14.116	276	47302	4.000	ppm		85
91)	Dibenz[a,h]anthracene	14.128	278	41154	4.233	ppm		90
92)	Benzo[g,h,i]perylene	14.507	276	45806m	3.873	ppm		

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

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75542.D
Sample : ic3320-5
Misc : op39496,msf3320,,,,1,1
ALS Vial : 2 Sample Multiplier: 1
Acq On : 25 Aug 2014 5:57 pm Operator: williamk

Quant Time: Sep 04 09:51:18 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
09/04/14 10:25

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75543.D
Sample : ic3320-10
Misc : op39496,msf3320,,,,1,1
ALS Vial : 3 Sample Multiplier: 1
Acq On : 25 Aug 2014 6:20 pm Operator: williamk

Quant Time: Sep 04 09:51:05 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.460	152	103006	40.00	ppm	0.00
22) Naphthalene-d8	5.516	136	374990	40.00	ppm	0.00
39) Acenaphthene-d10	7.046	164	216887	40.00	ppm	0.00
61) Phenanthrene-d10	8.331	188	361858	40.00	ppm	0.00
75) Chrysene-d12	10.979	240	383884	40.00	ppm	0.00
85) Perylene-d12	12.721	264	359346	40.00	ppm	0.00
93) Acenaphthene-d10a	7.046	164	216887	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.504	112	31722	9.08	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 9.08%#			
8) Phenol-d5	4.175	99	38447	8.98	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 8.98%#			
23) Nitrobenzene-d5	4.929	82	33668	9.11	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 18.22%#			
44) 2-Fluorobiphenyl	6.447	172	69745	9.49	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 18.98%#			
65) 2,4,6-Tribromophenol	7.742	330	9206	8.85	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 8.85%#			
78) Terphenyl-d14	9.797	244	80501	9.59	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 19.18%#			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.613	74	21881	9.275	ppm	84
3) 1,4-Dioxane	2.390	88	14860	9.385	ug/l #	78
4) Pyridine	2.629	79	40047	9.477	ppm	90
5) Aniline	4.231	93	49971	9.045	ppm	96
7) bis(2-Chloroethyl)ether	4.262	93	31035	9.246	ppm	92
9) Phenol	4.184	94	42812	9.260	ppm	91
10) 2-Chlorophenol	4.314	128	33349	9.125	ppm	85
11) 1,3-Dichlorobenzene	4.432	146	37533	9.339	ppm	98
12) 1,4-Dichlorobenzene	4.473	146	39157	9.467	ppm	95
13) 1,2-Dichlorobenzene	4.625	146	35984	9.369	ppm	95
14) Benzyl alcohol	4.572	108	22617	9.170	ppm	93
15) bis(2-chloroisopropyl)...	4.693	45	41172	9.672	ppm	92
16) o-cresol	4.662	108	32302m	4.508	ppm	
17) Acetophenone	4.796	105	47173	9.011	ppm	86
18) Hexachloroethane	4.876	117	13860	9.332	ppm	97
19) N-Nitroso-di-n-propyla...	4.805	70	22352	8.997	ppm	94
20) m+p-cresols	4.777	108	64486	17.970	ppm	95
21) 4-methylphenol	4.777	108	64486	17.969	ppm	95
24) Nitrobenzene	4.945	77	35366	9.662	ppm	96
25) Isophorone	5.125	82	60701	9.321	ppm	95
26) 2-Nitrophenol	5.209	139	16932	8.674	ppm	89
27) 2,4-Dimethylphenol	5.218	107	34585	9.734	ppm	89
28) bis(2-Chloroethoxy)met...	5.305	93	37672m	11.725	ppm	
29) Benzoic acid	5.261	105	17536	6.633	ppm	84
30) 2,4-Dichlorophenol	5.395	162	27682	9.340	ppm	93
31) 1,2,4-Trichlorobenzene	5.479	180	30235	9.499	ug/mL	96
32) Naphthalene	5.534	128	93656	9.527	ppm	97
33) 2,6-Dichlorophenol	5.597	162	26742	8.974	ppm	96
34) 4-Chloroaniline	5.587	127	37295	8.700	ppm	100
35) Hexachlorobutadiene	5.677	225	16738	9.527	ppm	97

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75543.D
Sample : ic3320-10
Misc : op39496,msf3320,,,,1,1
ALS Vial : 3 Sample Multiplier: 1
Acq On : 25 Aug 2014 6:20 pm Operator: williamk

Quant Time: Sep 04 09:51:05 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

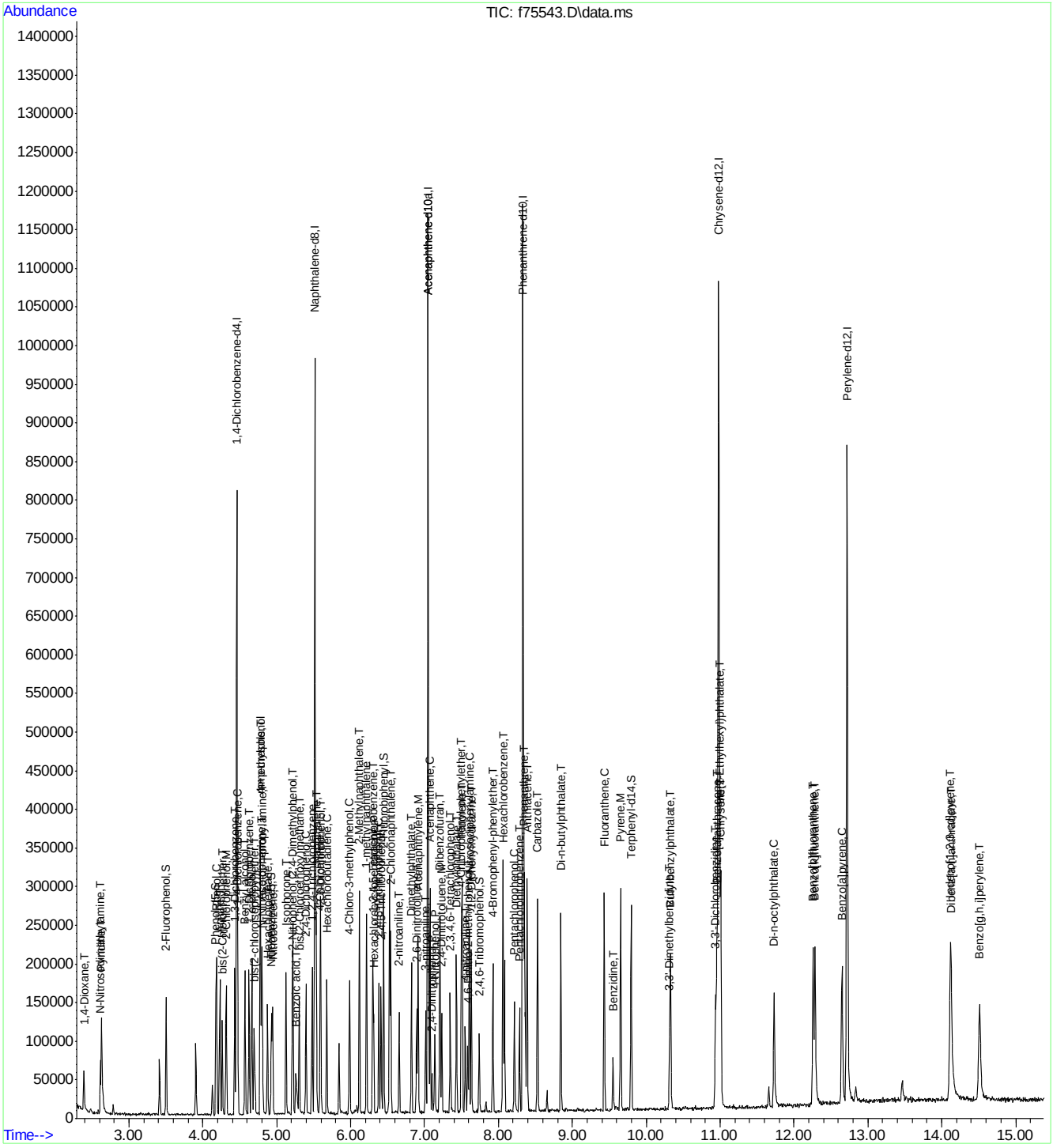
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36)	4-Chloro-3-methylphenol	5.985	107	27198	8.825	ppm	94
37)	2-Methylnaphthalene	6.118	142	65017	9.366	ppm	97
38)	1-methylnaphthalene	6.214	142	58513	8.995	ppm	99
40)	Hexachlorocyclopentadiene	6.314	237	15336	8.516	ppm	93
41)	1,2,4,5-Tetrachloroben...	6.301	216	30084	9.354	ppm	98
42)	2,4,6-Trichlorophenol	6.382	196	19051	9.062	ppm	99
43)	2,4,5-Trichlorophenol	6.413	196	20435	8.957	ppm	90
45)	2-Chloronaphthalene	6.543	162	57603	9.521	ppm	97
46)	Acenaphthylene	6.913	152	83696	9.520	ppm	97
47)	Dimethylphthalate	6.823	163	63725	9.349	ppm	97
48)	2,6-Dinitrotoluene	6.894	165	13142	8.137	ppm	93
49)	Acenaphthene	7.074	153	61475	9.669	ppm	99
50)	2,4-Dinitrophenol	7.102	184	5316	4.971	ppm	90
51)	Dibenzofuran	7.208	168	86461	9.444	ppm	95
52)	2,4-Dinitrotoluene	7.233	165	18193	8.526	ppm	90
53)	4-Nitrophenol	7.139	65	12864	8.848	ppm	82
54)	2,3,4,6-Tetrachlorophenol	7.350	232	17445	8.774	ppm	96
55)	Fluorene	7.509	166	65668	9.363	ppm	98
56)	4-Chlorophenyl-phenyle...	7.496	204	34107	9.772	ppm	98
57)	Diethylphthalate	7.431	149	60524	9.172	ppm	97
58)	2-nitroaniline	6.658	138	18395	8.503	ppm	81
59)	3-nitroaniline	7.018	138	14820	8.027	ppm	77
60)	4-nitroaniline	7.555	138	15265	8.359	ppm	89
62)	4,6-Dinitro-2-methylph...	7.586	198	10097	6.991	ppm	100
63)	n-Nitrosodiphenylamine	7.608	169	48015	9.477	ppm	99
64)	1,2-Diphenylhydrazine	7.633	77	66093	9.759	ppm	96
66)	4-Bromophenyl-phenylether	7.925	248	19531	9.543	ppm	100
67)	Hexachlorobenzene	8.064	284	19460	9.377	ppm	94
68)	Pentachlorophenol	8.213	266	14378	8.077	ppm	96
69)	Pentachloronitrobenzene	8.285	237	6927	8.904	ppm	92
70)	Phenanthrene	8.350	178	98858	9.805	ppm	96
71)	Anthracene	8.387	178	98449	9.589	ppm	96
72)	Carbazole	8.530	167	90227	9.356	ppm	99
73)	Di-n-butylphthalate	8.847	149	109175	9.393	ppm	98
74)	Fluoranthene	9.430	202	103264	9.190	ppm	95
76)	Benzidine	9.551	184	24559	6.424	ppm	87
77)	Pyrene	9.654	202	107792	9.681	ppm	99
79)	3,3'-Dimethylbenzidine	10.315	212	29580	7.499	ppm	96
80)	Butylbenzylphthalate	10.327	149	44275	9.349	ppm	95
81)	3,3'-Dichlorobenzidine	10.939	252	32855	8.330	ppm	92
82)	Benzo[a]anthracene	10.958	228	98503	9.551	ppm	97
83)	Chrysene	11.010	228	99145	9.544	ppm	95
84)	bis(2-Ethylhexyl)phtha...	10.995	149	60996	9.071	ppm	97
86)	Di-n-octylphthalate	11.731	149	90588	8.012	ppm	99
87)	Benzo[b]fluoranthene	12.258	252	87748	8.496	ppm	99
88)	Benzo[k]fluoranthene	12.283	252	103171m	9.764	ppm	
89)	Benzo[a]pyrene	12.649	252	89948	9.207	ppm	97
90)	Indeno[1,2,3-cd]pyrene	14.118	276	105160	8.506	ppm	97
91)	Dibenz[a,h]anthracene	14.127	278	82689	8.075	ppm	94
92)	Benzo[g,h,i]perylene	14.512	276	96119m	7.775	ppm	

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

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75543.D
Sample : ic3320-10
Misc : op39496,msf3320,,,,1,1
ALS Vial : 3 Sample Multiplier: 1
Acq On : 25 Aug 2014 6:20 pm Operator: williamk

Quant Time: Sep 04 09:51:05 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
09/04/14 10:25

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75544.D
Sample : ic3320-20
Misc : op39496,msf3320,,,,1,1
ALS Vial : 4 Sample Multiplier: 1
Acq On : 25 Aug 2014 6:43 pm Operator: williamk

Quant Time: Sep 04 09:50:49 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.461	152	99570	40.00	ppm	0.00
22) Naphthalene-d8	5.516	136	382219	40.00	ppm	0.00
39) Acenaphthene-d10	7.047	164	230496	40.00	ppm	0.00
61) Phenanthrene-d10	8.332	188	395824	40.00	ppm	0.00
75) Chrysene-d12	10.980	240	435577	40.00	ppm	0.00
85) Perylene-d12	12.721	264	408530	40.00	ppm	0.00
93) Acenaphthene-d10a	7.047	164	230496	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.505	112	66234	19.51	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 19.51%#			
8) Phenol-d5	4.178	99	83529	20.24	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 20.24%			
23) Nitrobenzene-d5	4.929	82	74292	19.65	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 39.30%			
44) 2-Fluorobiphenyl	6.447	172	156470	20.05	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 40.10%#			
65) 2,4,6-Tribromophenol	7.739	330	21816	18.99	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 18.99%			
78) Terphenyl-d14	9.797	244	197052	20.86	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 41.72%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.617	74	45843	20.129	ppm	91
3) 1,4-Dioxane	2.390	88	30309	19.754	ug/l #	76
4) Pyridine	2.629	79	82556	20.265	ppm	93
5) Aniline	4.231	93	108588	20.417	ppm	93
7) bis(2-Chloroethyl)ether	4.265	93	64470	19.837	ppm	94
9) Phenol	4.187	94	90484	20.310	ppm	90
10) 2-Chlorophenol	4.315	128	71282	20.223	ppm	89
11) 1,3-Dichlorobenzene	4.433	146	78747	20.340	ppm	98
12) 1,4-Dichlorobenzene	4.473	146	79432	19.834	ppm	98
13) 1,2-Dichlorobenzene	4.625	146	75244	20.336	ppm	99
14) Benzyl alcohol	4.572	108	47727	20.023	ppm	89
15) bis(2-chloroisopropyl)...	4.693	45	84699	20.735	ppm	95
16) o-cresol	4.662	108	66037m	9.525	ppm	
17) Acetophenone	4.796	105	102584	20.341	ppm	88
18) Hexachloroethane	4.877	117	28281	19.625	ppm	98
19) N-Nitroso-di-n-propyla...	4.808	70	48641	20.320	ppm	94
20) m+p-cresols	4.777	108	137977	39.722	ppm	100
21) 4-methylphenol	4.777	108	137977	39.719	ppm	100
24) Nitrobenzene	4.945	77	74179	19.854	ppm	92
25) Isophorone	5.125	82	134715	20.370	ppm	92
26) 2-Nitrophenol	5.209	139	37818	18.773	ppm	88
27) 2,4-Dimethylphenol	5.218	107	73341	20.314	ppm	95
28) bis(2-Chloroethoxy)met...	5.305	93	82326m	25.039	ppm	
29) Benzoic acid	5.277	105	52902	19.542	ppm	96
30) 2,4-Dichlorophenol	5.395	162	60969	20.227	ppm	95
31) 1,2,4-Trichlorobenzene	5.476	180	64184	19.731	ug/mL	96
32) Naphthalene	5.535	128	202121	20.215	ppm	96
33) 2,6-Dichlorophenol	5.597	162	59231	19.380	ppm	98
34) 4-Chloroaniline	5.591	127	87390	20.002	ppm	100
35) Hexachlorobutadiene	5.678	225	35717	19.932	ppm	93

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75544.D
Sample : ic3320-20
Misc : op39496,msf3320,,,,1,1
ALS Vial : 4 Sample Multiplier: 1
Acq On : 25 Aug 2014 6:43 pm Operator: williamk

Quant Time: Sep 04 09:50:49 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

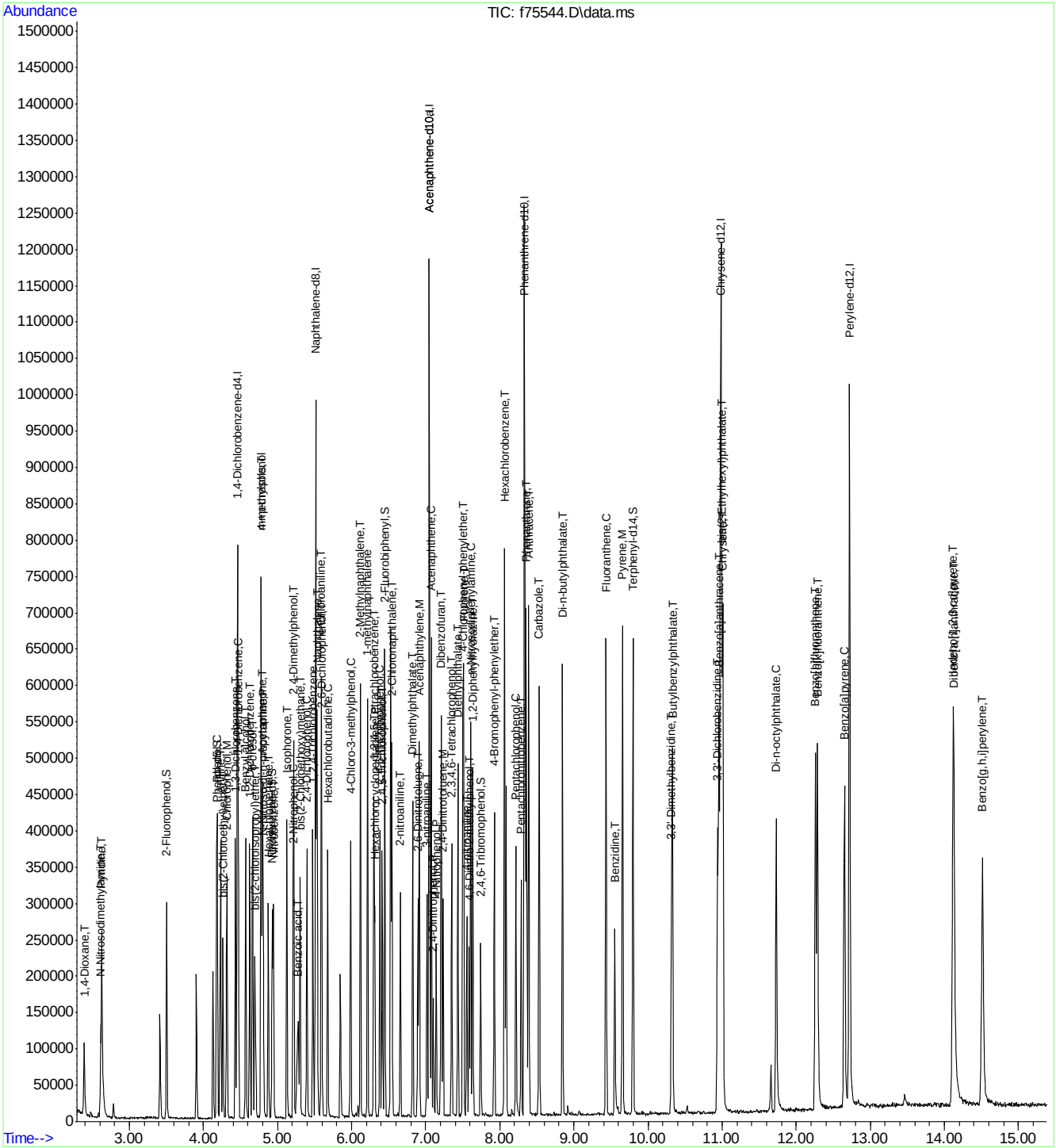
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36)	4-Chloro-3-methylphenol	5.988	107	62493	19.869	ppm	95
37)	2-Methylnaphthalene	6.118	142	143304	20.316	ppm	100
38)	1-methylnaphthalene	6.215	142	133815	20.228	ppm	99
40)	Hexachlorocyclopentadiene	6.314	237	36898	19.108	ppm	98
41)	1,2,4,5-Tetrachloroben...	6.301	216	69276	20.335	ppm	93
42)	2,4,6-Trichlorophenol	6.382	196	43455	19.316	ppm	97
43)	2,4,5-Trichlorophenol	6.413	196	47281	19.379	ppm	99
45)	2-Chloronaphthalene	6.544	162	129084	20.094	ppm	96
46)	Acenaphthylene	6.913	152	187621	20.102	ppm	99
47)	Dimethylphthalate	6.826	163	146172	20.222	ppm	99
48)	2,6-Dinitrotoluene	6.894	165	32638	18.785	ppm	95
49)	Acenaphthene	7.074	153	136836	20.316	ppm	96
50)	2,4-Dinitrophenol	7.102	184	18085	15.139	ppm	78
51)	Dibenzofuran	7.208	168	195476	20.113	ppm	95
52)	2,4-Dinitrotoluene	7.233	165	43635	19.061	ppm	92
53)	4-Nitrophenol	7.140	65	30660	19.803	ppm	89
54)	2,3,4,6-Tetrachlorophenol	7.351	232	41387	19.487	ppm	94
55)	Fluorene	7.512	166	149609	20.089	ppm	99
56)	4-Chlorophenyl-phenyle...	7.500	204	73528	19.779	ppm	97
57)	Diethylphthalate	7.435	149	142535	20.408	ppm	98
58)	2-nitroaniline	6.658	138	43083	18.449	ppm	76
59)	3-nitroaniline	7.019	138	37565	18.943	ppm	84
60)	4-nitroaniline	7.556	138	37232	18.990	ppm	80
62)	4,6-Dinitro-2-methylph...	7.587	198	29569	18.420	ppm	100
63)	n-Nitrosodiphenylamine	7.608	169	112005	20.264	ppm	96
64)	1,2-Diphenylhydrazine	7.636	77	149829	20.281	ppm	93
66)	4-Bromophenyl-phenylether	7.925	248	43933	19.531	ppm	96
67)	Hexachlorobenzene	8.065	284	44758	19.647	ppm	95
68)	Pentachlorophenol	8.217	266	36165	18.247	ppm	97
69)	Pentachloronitrobenzene	8.285	237	16469	19.197	ppm	89
70)	Phenanthrene	8.353	178	224801	20.481	ppm	96
71)	Anthracene	8.391	178	231267	20.746	ppm	95
72)	Carbazole	8.530	167	211693	20.085	ppm	98
73)	Di-n-butylphthalate	8.847	149	252515	19.828	ppm	98
74)	Fluoranthene	9.434	202	244592	19.875	ppm	95
76)	Benzidine	9.552	184	93243	21.907	ppm	94
77)	Pyrene	9.657	202	257681	20.498	ppm	96
79)	3,3'-Dimethylbenzidine	10.315	212	98933	22.703	ppm	97
80)	Butylbenzylphthalate	10.331	149	106635	19.805	ppm	96
81)	3,3'-Dichlorobenzidine	10.939	252	88261	19.653	ppm	100
82)	Benzo[a]anthracene	10.958	228	235564	20.163	ppm	98
83)	Chrysene	11.011	228	239267	20.375	ppm	97
84)	bis(2-Ethylhexyl)phtha...	10.995	149	148968	19.408	ppm	98
86)	Di-n-octylphthalate	11.728	149	246127	18.947	ppm	97
87)	Benzo[b]fluoranthene	12.259	252	230494	19.539	ppm	98
88)	Benzo[k]fluoranthene	12.287	252	238345	19.802	ppm	95
89)	Benzo[a]pyrene	12.650	252	219076	19.656	ppm	97
90)	Indeno[1,2,3-cd]pyrene	14.118	276	262541	18.376	ppm	96
91)	Dibenz[a,h]anthracene	14.127	278	214263	18.046	ppm	96
92)	Benzo[g,h,i]perylene	14.512	276	233409m	16.337	ppm	

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

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75544.D
Sample : ic3320-20
Misc : op39496,msf3320,,,,1,1
ALS Vial : 4 Sample Multiplier: 1
Acq On : 25 Aug 2014 6:43 pm Operator: williamk

Quant Time: Sep 04 09:50:49 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



ACCUTEST LABORATORIES MC33841

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75545.D
Sample : icc3320-50
Misc : op39496,msf3320,,,,1,1
ALS Vial : 5 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:06 pm Operator: williamk

Quant Time: Sep 04 09:55:30 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.459	152	96757	40.00	ppm	0.00
22) Naphthalene-d8	5.518	136	369811	40.00	ppm	0.00
39) Acenaphthene-d10	7.048	164	218020	40.00	ppm	0.00
61) Phenanthrene-d10	8.333	188	374412	40.00	ppm	0.00
75) Chrysene-d12	10.981	240	411207	40.00	ppm	0.00
85) Perylene-d12	12.720	264	384272	40.00	ppm	0.00
93) Acenaphthene-d10a	7.048	164	218020	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.506	112	165618	52.40	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 52.40%			
8) Phenol-d5	4.180	99	200080	51.26	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 51.26%			
23) Nitrobenzene-d5	4.931	82	179836	50.94	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 101.88%			
44) 2-Fluorobiphenyl	6.449	172	373055	51.59	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 103.18%			
65) 2,4,6-Tribromophenol	7.743	330	52451	51.52	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 51.52%			
78) Terphenyl-d14	9.799	244	460249	52.61	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 105.22%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.612	74	113687	53.604	ppm	86
3) 1,4-Dioxane	2.389	88	76170	53.150	ug/l #	81
4) Pyridine	2.621	79	204775	54.198	ppm	95
5) Aniline	4.233	93	267674	53.440	ppm	94
7) bis(2-Chloroethyl)ether	4.264	93	163159	53.350	ppm	96
9) Phenol	4.189	94	220637	52.682	ppm	89
10) 2-Chlorophenol	4.316	128	175049	52.809	ppm	89
11) 1,3-Dichlorobenzene	4.431	146	193521	52.606	ppm	98
12) 1,4-Dichlorobenzene	4.472	146	200749	53.244	ppm	99
13) 1,2-Dichlorobenzene	4.627	146	182939	51.913	ppm	99
14) Benzyl alcohol	4.574	108	116892	52.279	ppm	91
15) bis(2-chloroisopropyl)...	4.695	45	207300	51.458	ppm	95
16) o-cresol	4.664	108	162251	52.889	ppm	97
17) Acetophenone	4.798	105	244011	51.737	ppm	88
18) Hexachloroethane	4.875	117	71209	52.316	ppm	99
19) N-Nitroso-di-n-propyla...	4.810	70	118701	52.633	ppm	94
20) m+p-cresols	4.782	108	341137	104.897	ppm	99
21) 4-methylphenol	4.782	108	341137	104.897	ppm	99
24) Nitrobenzene	4.947	77	181399	51.002	ppm	96
25) Isophorone	5.127	82	323293	51.938	ppm	91
26) 2-Nitrophenol	5.210	139	95681	53.134	ppm	89
27) 2,4-Dimethylphenol	5.220	107	177163	51.599	ppm	96
28) bis(2-Chloroethoxy)met...	5.307	93	202851	65.290	ppm	99
29) Benzoic acid	5.300	105	140361	57.037	ppm	98
30) 2,4-Dichlorophenol	5.397	162	144992	51.611	ppm	99
31) 1,2,4-Trichlorobenzene	5.477	180	158939	51.991	ug/mL	99
32) Naphthalene	5.536	128	491984	51.926	ppm	97
33) 2,6-Dichlorophenol	5.598	162	150679	52.502	ppm	96
34) 4-Chloroaniline	5.592	127	212364	52.568	ppm	100
35) Hexachlorobutadiene	5.679	225	86762	51.645	ppm	97

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75545.D
Sample : icc3320-50
Misc : op39496,msf3320,,,,1,1
ALS Vial : 5 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:06 pm Operator: williamk

Quant Time: Sep 04 09:55:30 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

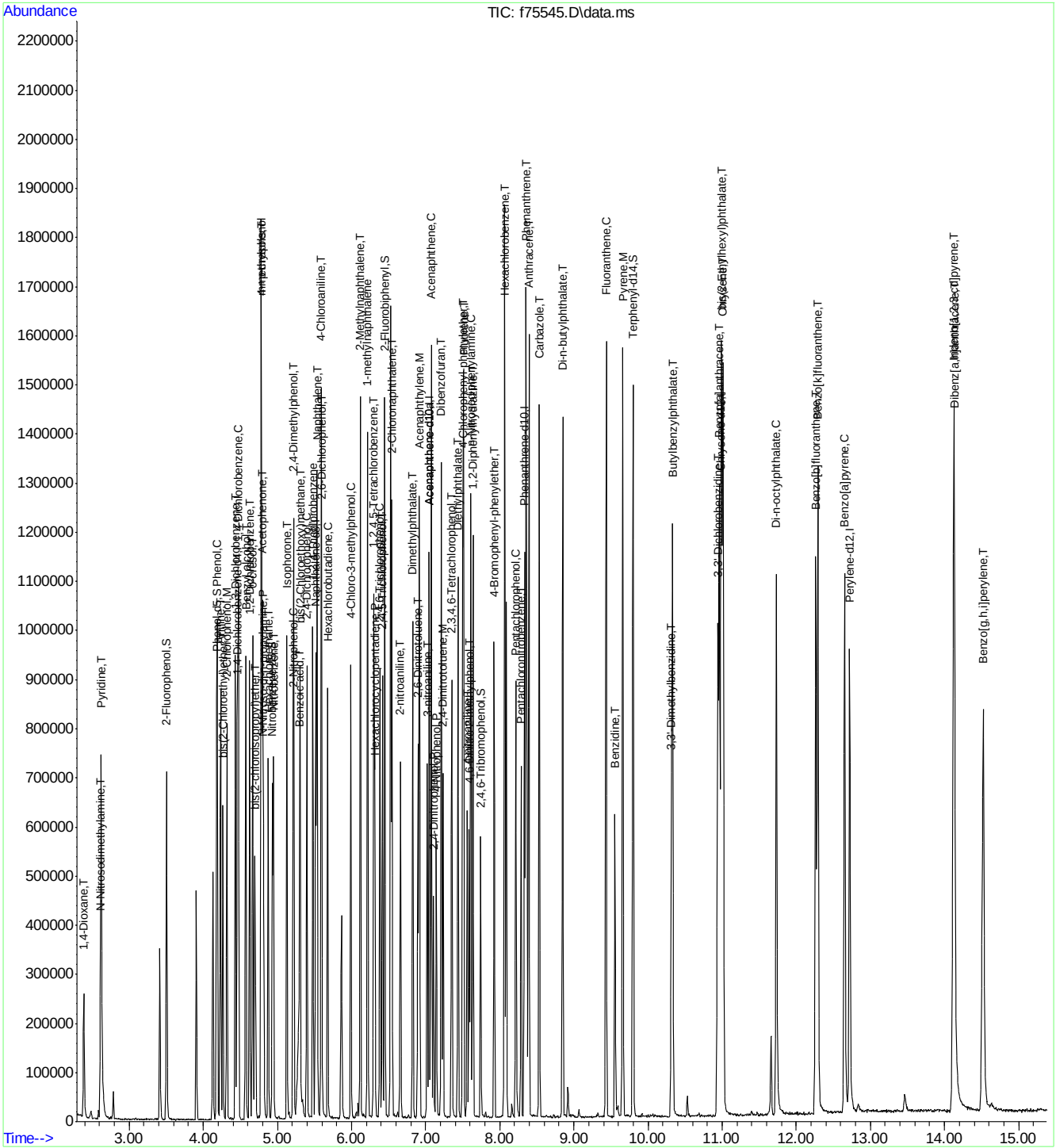
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) 4-Chloro-3-methylphenol	5.990	107	152427	51.993	ppm	92
37) 2-Methylnaphthalene	6.120	142	342956	51.807	ppm	99
38) 1-methylnaphthalene	6.216	142	318597	51.403	ppm	97
40) Hexachlorocyclopentadiene	6.316	237	92618	55.095	ppm	97
41) 1,2,4,5-Tetrachloroben...	6.300	216	161238	50.959	ppm	97
42) 2,4,6-Trichlorophenol	6.384	196	108060	53.866	ppm	95
43) 2,4,5-Trichlorophenol	6.415	196	115110	52.606	ppm	97
45) 2-Chloronaphthalene	6.545	162	314478	52.548	ppm	95
46) Acenaphthylene	6.915	152	454079	52.662	ppm	99
47) Dimethylphthalate	6.828	163	349660	52.868	ppm	99
48) 2,6-Dinitrotoluene	6.896	165	82999	54.771	ppm	88
49) Acenaphthene	7.076	153	330631	52.743	ppm	95
50) 2,4-Dinitrophenol	7.104	184	51293	47.715	ppm	84
51) Dibenzofuran	7.210	168	469582	52.695	ppm	100
52) 2,4-Dinitrotoluene	7.234	165	110246	54.136	ppm	92
53) 4-Nitrophenol	7.144	65	73916	51.564	ppm	91
54) 2,3,4,6-Tetrachlorophenol	7.352	232	101272	53.562	ppm	97
55) Fluorene	7.514	166	362471	53.358	ppm	98
56) 4-Chlorophenyl-phenyle...	7.501	204	181356	53.304	ppm	100
57) Diethylphthalate	7.436	149	340318	51.978	ppm	99
58) 2-nitroaniline	6.660	138	112570	56.462	ppm	79
59) 3-nitroaniline	7.020	138	95562	56.636	ppm	88
60) 4-nitroaniline	7.560	138	92621	55.387	ppm	86
62) 4,6-Dinitro-2-methylph...	7.588	198	73701	52.034	ppm	100
63) n-Nitrosodiphenylamine	7.610	169	269621	52.055	ppm	98
64) 1,2-Diphenylhydrazine	7.638	77	359985	51.613	ppm	95
66) 4-Bromophenyl-phenylether	7.927	248	110131	53.822	ppm	97
67) Hexachlorobenzene	8.066	284	110107	53.040	ppm	96
68) Pentachlorophenol	8.218	266	90152	53.854	ppm	99
69) Pentachloronitrobenzene	8.290	237	38942	52.320	ppm	92
70) Phenanthrene	8.355	178	538923	52.463	ppm	97
71) Anthracene	8.392	178	545949	52.463	ppm	98
72) Carbazole	8.532	167	511371	52.852	ppm	99
73) Di-n-butylphthalate	8.849	149	617474	53.465	ppm	99
74) Fluoranthene	9.435	202	593381	53.288	ppm	96
76) Benzidine	9.553	184	220578	49.803	ppm	96
77) Pyrene	9.659	202	619534	52.868	ppm	96
79) 3,3'-Dimethylbenzidine	10.314	212	227779	57.002	ppm	96
80) Butylbenzylphthalate	10.329	149	261416	54.139	ppm	95
81) 3,3'-Dichlorobenzidine	10.941	252	219586	57.174	ppm	98
82) Benzo[a]anthracene	10.960	228	567130	53.390	ppm	97
83) Chrysene	11.012	228	576729	52.953	ppm	98
84) bis(2-Ethylhexyl)phtha...	10.994	149	370657	55.133	ppm	99
86) Di-n-octylphthalate	11.729	149	619857	57.834	ppm	97
87) Benzo[b]fluoranthene	12.263	252	548149	54.084	ppm	98
88) Benzo[k]fluoranthene	12.291	252	616841	56.226	ppm	97
89) Benzo[a]pyrene	12.654	252	536460	54.155	ppm	97
90) Indeno[1,2,3-cd]pyrene	14.126	276	666875	55.464	ppm	100
91) Dibenz[a,h]anthracene	14.132	278	551272	54.967	ppm	96
92) Benzo[g,h,i]perylene	14.523	276	557539	51.857	ppm	98

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

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75545.D
Sample : icc3320-50
Misc : op39496,msf3320,,,,1,1
ALS Vial : 5 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:06 pm Operator: williamk

Quant Time: Sep 04 09:55:30 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
09/04/14 10:25

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75546.D
Sample : ic3320-80
Misc : op39496,msf3320,,,,1,1
ALS Vial : 6 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:29 pm Operator: williamk

Quant Time: Sep 04 09:50:15 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.461	152	103675	40.00	ppm	0.00
22) Naphthalene-d8	5.520	136	385739	40.00	ppm	0.00
39) Acenaphthene-d10	7.047	164	233957	40.00	ppm	0.00
61) Phenanthrene-d10	8.335	188	405706	40.00	ppm	0.00
75) Chrysene-d12	10.983	240	451143	40.00	ppm	0.00
85) Perylene-d12	12.722	264	426947	40.00	ppm	0.00
93) Acenaphthene-d10a	7.047	164	233957	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.505	112	282480	79.59	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 79.59%			
8) Phenol-d5	4.182	99	336663	78.52	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 78.52%			
23) Nitrobenzene-d5	4.933	82	308805	82.31	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 164.62%#			
44) 2-Fluorobiphenyl	6.451	172	642958	80.30	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 160.60%#			
65) 2,4,6-Tribromophenol	7.745	330	94609	82.78	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 82.78%			
78) Terphenyl-d14	9.800	244	803660	79.78	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 159.56%#			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.617	74	189287	77.694	ppm	88
3) 1,4-Dioxane	2.387	88	125256	76.735	ug/l #	81
4) Pyridine	2.623	79	338773	77.199	ppm	96
5) Aniline	4.235	93	441031	76.885	ppm	91
7) bis(2-Chloroethyl)ether	4.266	93	271389	77.617	ppm	94
9) Phenol	4.194	94	372660	78.816	ppm	93
10) 2-Chlorophenol	4.318	128	291527	77.714	ppm	92
11) 1,3-Dichlorobenzene	4.433	146	319816	77.117	ppm	99
12) 1,4-Dichlorobenzene	4.474	146	331096	76.962	ppm	99
13) 1,2-Dichlorobenzene	4.629	146	310518	79.206	ppm	100
14) Benzyl alcohol	4.576	108	198489	79.237	ppm	88
15) bis(2-chloroisopropyl)...	4.694	45	336999	75.859	ppm	96
16) o-cresol	4.666	108	272589m	37.287	ppm	
17) Acetophenone	4.803	105	419255m	130.920	ppm	
18) Hexachloroethane	4.877	117	119755	78.476	ppm	96
19) N-Nitroso-di-n-propyla...	4.818	70	199618	78.443	ppm	96
20) m+p-cresols	4.787	108	575954	156.303	ppm	99
21) 4-methylphenol	4.787	108	575954	156.252	ppm	99
24) Nitrobenzene	4.949	77	310952	81.780	ppm	95
25) Isophorone	5.129	82	545912	80.669	ppm	93
26) 2-Nitrophenol	5.212	139	166491	83.411	ppm	92
27) 2,4-Dimethylphenol	5.222	107	297869	80.595	ppm	96
28) bis(2-Chloroethoxy)met...	5.309	93	335435m	98.549	ppm	
29) Benzoic acid	5.315	105	223321m	76.267	ppm	
30) 2,4-Dichlorophenol	5.399	162	248415	82.128	ppm	97
31) 1,2,4-Trichlorobenzene	5.479	180	269591	81.308	ug/mL	96
32) Naphthalene	5.535	128	825271	80.408	ppm	98
33) 2,6-Dichlorophenol	5.597	162	251793	80.103	ppm	94
34) 4-Chloroaniline	5.594	127	361620	81.626	ppm	100
35) Hexachlorobutadiene	5.678	225	148395	81.987	ppm	98

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75546.D
Sample : ic3320-80
Misc : op39496,msf3320,,,,1,1
ALS Vial : 6 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:29 pm Operator: williamk

Quant Time: Sep 04 09:50:15 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

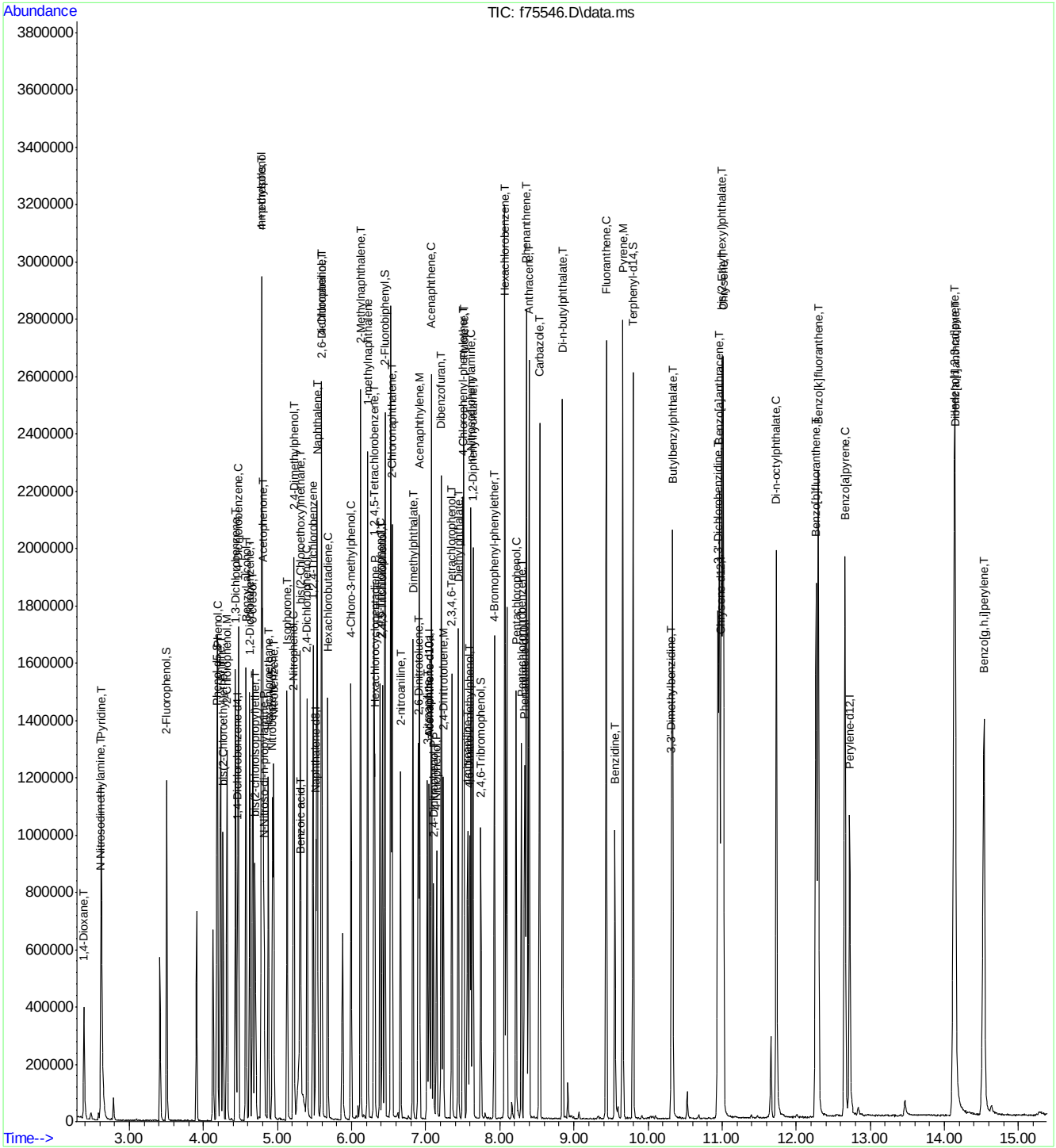
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36)	4-Chloro-3-methylphenol	5.992	107	258353	81.247	ppm	92
37)	2-Methylnaphthalene	6.122	142	585540	81.104	ppm	98
38)	1-methylnaphthalene	6.218	142	540787	81.366	ppm	96
40)	Hexachlorocyclopentadiene	6.314	237	159282	80.131	ppm	96
41)	1,2,4,5-Tetrachloroben...	6.302	216	280879	81.167	ppm	99
42)	2,4,6-Trichlorophenol	6.386	196	184109	79.385	ppm	94
43)	2,4,5-Trichlorophenol	6.420	196	203146	81.073	ppm	93
45)	2-Chloronaphthalene	6.547	162	533300	79.015	ppm	97
46)	Acenaphthylene	6.917	152	772671	79.285	ppm	99
47)	Dimethylphthalate	6.830	163	597883	79.671	ppm	99
48)	2,6-Dinitrotoluene	6.901	165	144214	80.959	ppm	97
49)	Acenaphthene	7.078	153	556463	78.419	ppm	99
50)	2,4-Dinitrophenol	7.106	184	97695	88.745	ppm	88
51)	Dibenzofuran	7.212	168	807780	80.152	ppm	99
52)	2,4-Dinitrotoluene	7.239	165	190327	80.439	ppm	97
53)	4-Nitrophenol	7.146	65	127539	80.396	ppm	91
54)	2,3,4,6-Tetrachlorophenol	7.354	232	175705	80.840	ppm	97
55)	Fluorene	7.513	166	616990	79.311	ppm	99
56)	4-Chlorophenyl-phenyle...	7.500	204	306372	78.713	ppm	96
57)	Diethylphthalate	7.441	149	574621	78.695	ppm	100
58)	2-nitroaniline	6.662	138	190523	78.860	ppm	72
59)	3-nitroaniline	7.025	138	164437	80.176	ppm	93
60)	4-nitroaniline	7.569	138	162447	81.721	ppm	97
62)	4,6-Dinitro-2-methylph...	7.593	198	131863	81.544	ppm	100
63)	n-Nitrosodiphenylamine	7.612	169	459877	78.766	ppm	97
64)	1,2-Diphenylhydrazine	7.640	77	617876	79.116	ppm	98
66)	4-Bromophenyl-phenylether	7.929	248	186036	77.898	ppm	95
67)	Hexachlorobenzene	8.068	284	188436	78.958	ppm	97
68)	Pentachlorophenol	8.220	266	163345	81.981	ppm	97
69)	Pentachloronitrobenzene	8.292	237	70838	83.916	ppm	88
70)	Phenanthrene	8.357	178	912682	78.139	ppm	97
71)	Anthracene	8.394	178	931739	78.609	ppm	98
72)	Carbazole	8.537	167	876440	78.971	ppm	99
73)	Di-n-butylphthalate	8.847	149	1064203	79.447	ppm	98
74)	Fluoranthene	9.437	202	1020859	79.261	ppm	96
76)	Benzidine	9.555	184	373986	77.291	ppm	96
77)	Pyrene	9.661	202	1087740	80.086	ppm	97
79)	3,3'-Dimethylbenzidine	10.316	212	384121	77.049	ppm	98
80)	Butylbenzylphthalate	10.331	149	461641	80.683	ppm	95
81)	3,3'-Dichlorobenzidine	10.943	252	386823	80.486	ppm	97
82)	Benzo[a]anthracene	10.961	228	1000283	80.584	ppm	97
83)	Chrysene	11.017	228	1009926	80.007	ppm	97
84)	bis(2-Ethylhexyl)phtha...	10.996	149	657263	81.017	ppm	99
86)	Di-n-octylphthalate	11.731	149	1117555	81.136	ppm	99
87)	Benzo[b]fluoranthene	12.268	252	983562	80.749	ppm	98
88)	Benzo[k]fluoranthene	12.299	252	1054442	76.928	ppm	96
89)	Benzo[a]pyrene	12.659	252	941466	78.977	ppm	97
90)	Indeno[1,2,3-cd]pyrene	14.134	276	1201050	81.050	ppm	99
91)	Dibenz[a,h]anthracene	14.146	278	1007651	82.258	ppm	98
92)	Benzo[g,h,i]perylene	14.534	276	1031920m	69.636	ppm	

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

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75546.D
Sample : ic3320-80
Misc : op39496,msf3320,,,,1,1
ALS Vial : 6 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:29 pm Operator: williamk

Quant Time: Sep 04 09:50:15 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



F75547.D

Manual Integrations APPROVED (compounds with "m" flag)

Sona Liskova 09/04/14 10:25

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75547.D
Sample : ic3320-120
Misc : op39496,msf3320,,,,1,1
ALS Vial : 7 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:52 pm Operator: williamk

Quant Time: Sep 04 09:49:59 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.461	152	101057	40.00	ppm	0.00
22) Naphthalene-d8	5.519	136	385554	40.00	ppm	0.00
39) Acenaphthene-d10	7.050	164	238239	40.00	ppm	0.00
61) Phenanthrene-d10	8.335	188	406506	40.00	ppm	0.00
75) Chrysene-d12	10.986	240	474687	40.00	ppm	0.00
85) Perylene-d12	12.724	264	442197	40.00	ppm	0.00
93) Acenaphthene-d10a	7.050	164	238239	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.508	112	417246	120.92	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 120.92%#			
8) Phenol-d5	4.185	99	519314	125.42	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 125.42%#			
23) Nitrobenzene-d5	4.936	82	470596	123.71	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 247.42%#			
44) 2-Fluorobiphenyl	6.451	172	972634	119.07	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 238.14%#			
65) 2,4,6-Tribromophenol	7.745	330	145471	124.86	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 124.86%#			
78) Terphenyl-d14	9.800	244	1211305	114.44	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 228.88%#			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.617	74	279543	119.434	ppm	90
3) 1,4-Dioxane	2.390	88	187885	120.545	ug/l #	81
4) Pyridine	2.623	79	496156	118.059	ppm	93
5) Aniline	4.234	93	655184	119.504	ppm	94
7) bis(2-Chloroethyl)ether	4.268	93	393575	117.224	ppm	94
9) Phenol	4.197	94	547900	119.767	ppm	94
10) 2-Chlorophenol	4.321	128	437104	121.272	ppm	93
11) 1,3-Dichlorobenzene	4.436	146	476651	120.076	ppm	99
12) 1,4-Dichlorobenzene	4.473	146	488227	118.680	ppm	98
13) 1,2-Dichlorobenzene	4.628	146	453609	119.295	ppm	99
14) Benzyl alcohol	4.579	108	293737	120.875	ppm	89
15) bis(2-chloroisopropyl)...	4.694	45	499306	118.370	ppm	95
16) o-cresol	4.669	108	406435m	57.473	ppm	
17) Acetophenone	4.802	105	634220m	196.718	ppm	
18) Hexachloroethane	4.877	117	177629	120.565	ppm	98
19) N-Nitroso-di-n-propyla...	4.827	70	297167	120.979	ppm	96
20) m+p-cresols	4.790	108	863285	243.157	ppm	100
21) 4-methylphenol	4.790	108	863285	243.117	ppm	100
24) Nitrobenzene	4.951	77	452054	117.638	ppm	97
25) Isophorone	5.135	82	809425	119.167	ppm	94
26) 2-Nitrophenol	5.212	139	249635	122.514	ppm	93
27) 2,4-Dimethylphenol	5.225	107	441991	119.205	ppm	93
28) bis(2-Chloroethoxy)met...	5.308	93	502805m	148.040	ppm	
29) Benzoic acid	5.330	105	315939m	99.700	ppm	
30) 2,4-Dichlorophenol	5.401	162	372984	121.751	ppm	97
31) 1,2,4-Trichlorobenzene	5.482	180	395748	118.445	ug/mL	98
32) Naphthalene	5.538	128	1216749	118.306	ppm	97
33) 2,6-Dichlorophenol	5.600	162	373917	118.935	ppm	96
34) 4-Chloroaniline	5.597	127	532922	119.140	ppm	100
35) Hexachlorobutadiene	5.681	225	221443	120.903	ppm	96

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75547.D
Sample : ic3320-120
Misc : op39496,msf3320,,,,1,1
ALS Vial : 7 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:52 pm Operator: williamk

Quant Time: Sep 04 09:49:59 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

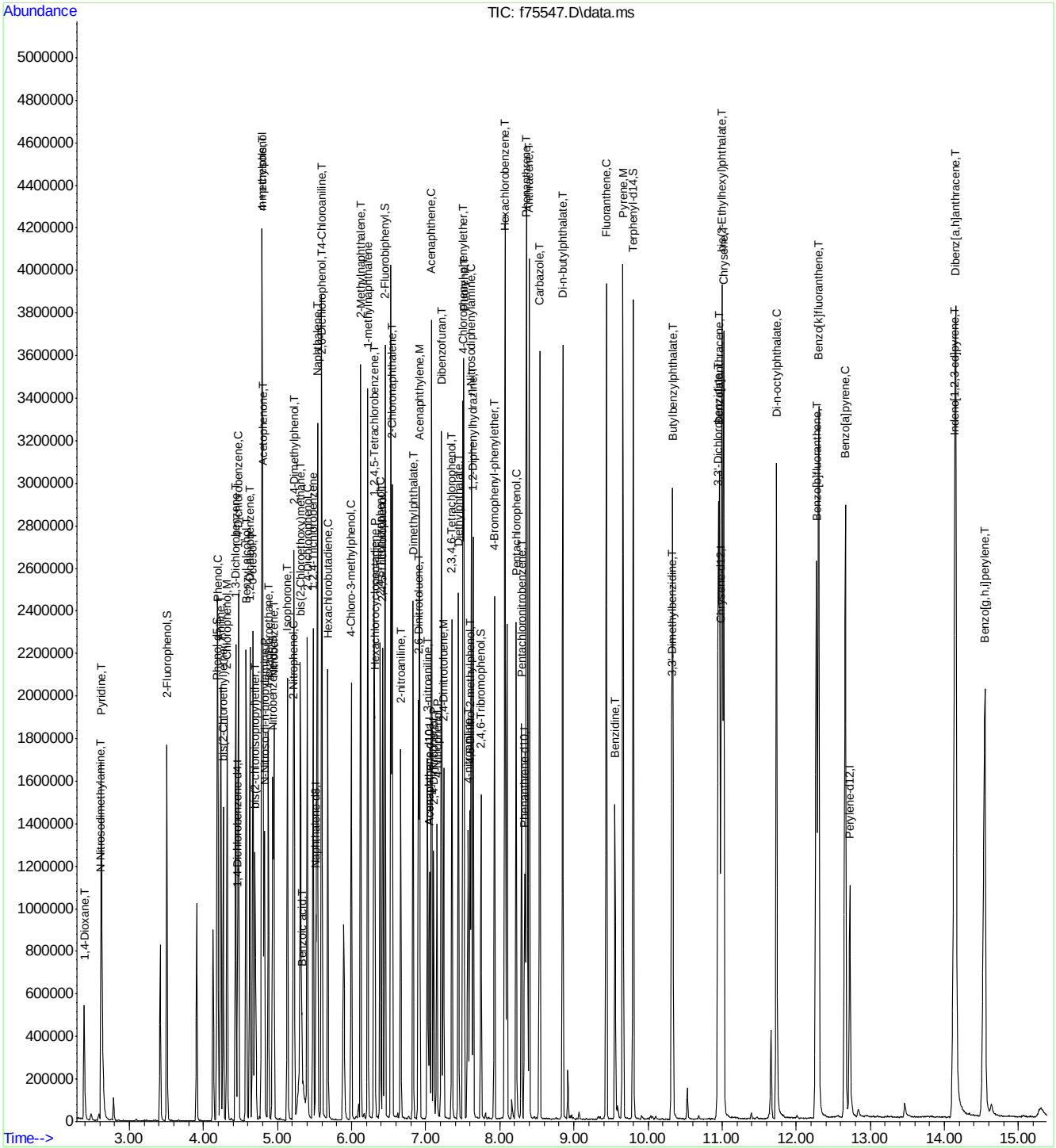
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36)	4-Chloro-3-methylphenol	5.994	107	386125	120.548	ppm	91
37)	2-Methylnaphthalene	6.122	142	860217	118.390	ppm	99
38)	1-methylnaphthalene	6.221	142	819298	122.285	ppm	96
40)	Hexachlorocyclopentadiene	6.314	237	238218	117.592	ppm	95
41)	1,2,4,5-Tetrachloroben...	6.302	216	424555	119.609	ppm	99
42)	2,4,6-Trichlorophenol	6.386	196	277101	117.787	ppm	96
43)	2,4,5-Trichlorophenol	6.420	196	301721	117.461	ppm	97
45)	2-Chloronaphthalene	6.547	162	782911	114.619	ppm	97
46)	Acenaphthylene	6.916	152	1144709	115.867	ppm	99
47)	Dimethylphthalate	6.829	163	895542	117.432	ppm	99
48)	2,6-Dinitrotoluene	6.901	165	211752	116.041	ppm	91
49)	Acenaphthene	7.078	153	820366	114.665	ppm	98
50)	2,4-Dinitrophenol	7.109	184	155342	131.393	ppm	92
51)	Dibenzofuran	7.214	168	1198300	116.653	ppm	99
52)	2,4-Dinitrotoluene	7.242	165	279076	115.511	ppm	92
53)	4-Nitrophenol	7.152	65	192394	118.804	ppm	89
54)	2,3,4,6-Tetrachlorophenol	7.354	232	262725	118.084	ppm	100
55)	Fluorene	7.515	166	913453	115.808	ppm	97
56)	4-Chlorophenyl-phenyle...	7.503	204	456843	116.197	ppm	98
57)	Diethylphthalate	7.441	149	859478	116.542	ppm	99
58)	2-nitroaniline	6.665	138	288017	117.911	ppm	81
59)	3-nitroaniline	7.025	138	242767	116.113	ppm	85
60)	4-nitroaniline	7.574	138	242349	118.451	ppm	91
62)	4,6-Dinitro-2-methylph...	7.596	198	202987	124.083	ppm	100
63)	n-Nitrosodiphenylamine	7.615	169	680404	117.212	ppm	99
64)	1,2-Diphenylhydrazine	7.640	77	904062	116.175	ppm	97
66)	4-Bromophenyl-phenylether	7.928	248	276520	117.096	ppm	97
67)	Hexachlorobenzene	8.068	284	279355	117.590	ppm	96
68)	Pentachlorophenol	8.220	266	250169	123.778	ppm	96
69)	Pentachloronitrobenzene	8.295	237	109365	126.212	ppm	93
70)	Phenanthrene	8.357	178	1352041	116.886	ppm	98
71)	Anthracene	8.397	178	1357360	115.295	ppm	98
72)	Carbazole	8.537	167	1298800	117.553	ppm	98
73)	Di-n-butylphthalate	8.850	149	1572505	117.569	ppm	98
74)	Fluoranthene	9.437	202	1526413	118.829	ppm	96
76)	Benzidine	9.555	184	538567	107.606	ppm	97
77)	Pyrene	9.664	202	1598430	111.789	ppm	99
79)	3,3'-Dimethylbenzidine	10.319	212	572004	111.093	ppm	99
80)	Butylbenzylphthalate	10.334	149	686630	113.568	ppm	97
81)	3,3'-Dichlorobenzidine	10.946	252	574209	113.205	ppm	99
82)	Benzo[a]anthracene	10.964	228	1494398	114.003	ppm	98
83)	Chrysene	11.020	228	1490814	112.241	ppm	98
84)	bis(2-Ethylhexyl)phtha...	10.998	149	979191	113.988	ppm	99
86)	Di-n-octylphthalate	11.734	149	1697135	118.126	ppm	98
87)	Benzo[b]fluoranthene	12.274	252	1551382	122.401	ppm	98
88)	Benzo[k]fluoranthene	12.302	252	1521424	109.267	ppm	97
89)	Benzo[a]pyrene	12.662	252	1459162	118.944	ppm	99
90)	Indeno[1,2,3-cd]pyrene	14.140	276	1874741	121.353	ppm	96
91)	Dibenz[a,h]anthracene	14.152	278	1560366	121.274	ppm	99
92)	Benzo[g,h,i]perylene	14.547	276	1628957m	105.443	ppm	

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

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75547.D
Sample : ic3320-120
Misc : op39496,msf3320,,,,1,1
ALS Vial : 7 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:52 pm Operator: williamk

Quant Time: Sep 04 09:49:59 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
09/04/14 10:25

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75548.D
Sample : ic3320-160
Misc : op39496,msf3320,,,,1,1
ALS Vial : 8 Sample Multiplier: 1
Acq On : 25 Aug 2014 8:15 pm Operator: williamk

Quant Time: Sep 04 09:49:22 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.460	152	102334	40.00	ppm	0.00
22) Naphthalene-d8	5.521	136	391107	40.00	ppm	0.00
39) Acenaphthene-d10	7.049	164	234590	40.00	ppm	0.00
61) Phenanthrene-d10	8.337	188	404973	40.00	ppm	0.00
75) Chrysene-d12	10.988	240	466073	40.00	ppm	0.00
85) Perylene-d12	12.726	264	456519	40.00	ppm	0.00
93) Acenaphthene-d10a	7.049	164	234590	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.507	112	551332	157.38	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 157.38%#			
8) Phenol-d5	4.186	99	672224	157.94	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 157.94%#			
23) Nitrobenzene-d5	4.938	82	605047	155.20	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 310.40%#			
44) 2-Fluorobiphenyl	6.453	172	1233168	153.71	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 307.42%#			
65) 2,4,6-Tribromophenol	7.747	330	187731	159.59	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 159.59%#			
78) Terphenyl-d14	9.805	244	1558245	152.29	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 304.58%#			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.616	74	362193	153.056	ppm	89
3) 1,4-Dioxane	2.386	88	250457	158.445	ug/l #	83
4) Pyridine	2.622	79	647910	153.070	ppm	94
5) Aniline	4.236	93	837095	150.987	ppm	94
7) bis(2-Chloroethyl)ether	4.270	93	518351	153.646	ppm	95
9) Phenol	4.199	94	708224	152.979	ppm	92
10) 2-Chlorophenol	4.320	128	560390	152.997	ppm	91
11) 1,3-Dichlorobenzene	4.435	146	616692	153.383	ppm	98
12) 1,4-Dichlorobenzene	4.475	146	642037	154.689	ppm	99
13) 1,2-Dichlorobenzene	4.627	146	589199	153.320	ppm	99
14) Benzyl alcohol	4.578	108	383822	155.596	ppm	93
15) bis(2-chloroisopropyl)...	4.696	45	645822	151.881	ppm	97
16) o-cresol	4.671	108	518255m	71.956	ppm	
17) Acetophenone	4.807	105	807445m	241.738	ppm	
18) Hexachloroethane	4.876	117	230642	154.352	ppm	100
19) N-Nitroso-di-n-propyla...	4.832	70	377367	151.301	ppm	97
20) m+p-cresols	4.795	108	1103087	305.485	ppm	100
21) 4-methylphenol	4.795	108	1103087	305.451	ppm	100
24) Nitrobenzene	4.953	77	588009	151.841	ppm	98
25) Isophorone	5.136	82	1031284	150.022	ppm	92
26) 2-Nitrophenol	5.214	139	320161	153.821	ppm	93
27) 2,4-Dimethylphenol	5.226	107	562938	150.000	ppm	95
28) bis(2-Chloroethoxy)met...	5.310	93	635107m	186.473	ppm	
29) Benzoic acid	5.341	105	417592	126.020	ppm	95
30) 2,4-Dichlorophenol	5.403	162	475078	152.135	ppm	98
31) 1,2,4-Trichlorobenzene	5.481	180	510464	151.263	ug/mL	96
32) Naphthalene	5.537	128	1563578	150.579	ppm	98
33) 2,6-Dichlorophenol	5.602	162	475207	149.449	ppm	96
34) 4-Chloroaniline	5.596	127	688441	152.086	ppm	100
35) Hexachlorobutadiene	5.680	225	279459	150.036	ppm	97

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75548.D
Sample : ic3320-160
Misc : op39496,msf3320,,,,1,1
ALS Vial : 8 Sample Multiplier: 1
Acq On : 25 Aug 2014 8:15 pm Operator: williamk

Quant Time: Sep 04 09:49:22 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

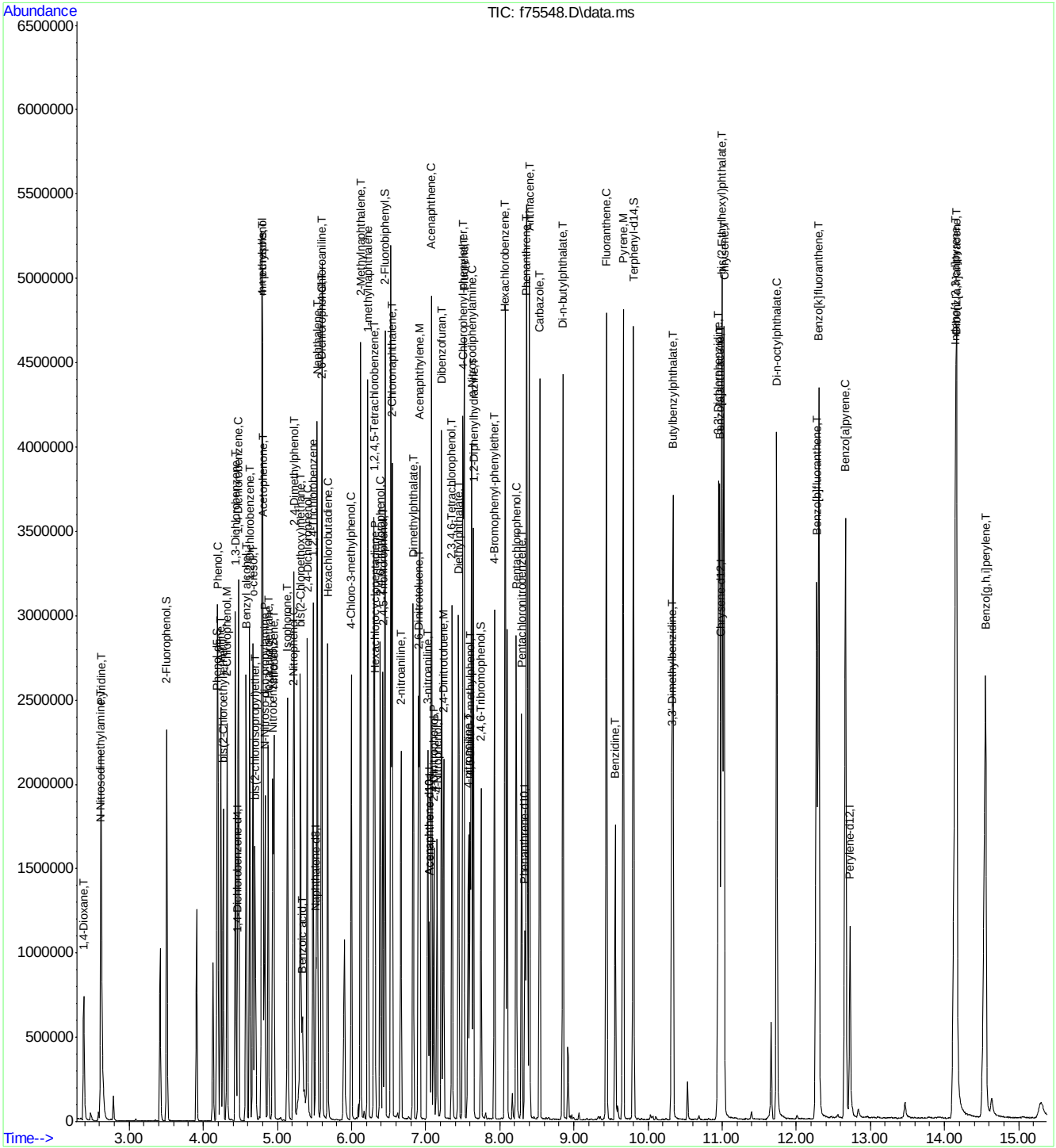
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36)	4-Chloro-3-methylphenol	5.999	107	497817	152.978	ppm	92
37)	2-Methylnaphthalene	6.124	142	1097261	149.539	ppm	99
38)	1-methylnaphthalene	6.220	142	1049223	153.406	ppm	93
40)	Hexachlorocyclopentadiene	6.316	237	306730	154.802	ppm	98
41)	1,2,4,5-Tetrachloroben...	6.304	216	543156	155.571	ppm	96
42)	2,4,6-Trichlorophenol	6.387	196	360299	156.496	ppm	99
43)	2,4,5-Trichlorophenol	6.425	196	383707	152.780	ppm	94
45)	2-Chloronaphthalene	6.549	162	1004183	151.566	ppm	97
46)	Acenaphthylene	6.918	152	1463566	152.193	ppm	99
47)	Dimethylphthalate	6.831	163	1129510	151.497	ppm	99
48)	2,6-Dinitrotoluene	6.903	165	278725	156.844	ppm	93
49)	Acenaphthene	7.080	153	1055826	152.126	ppm	99
50)	2,4-Dinitrophenol	7.111	184	201617	167.874	ppm	89
51)	Dibenzofuran	7.216	168	1520357	151.718	ppm	97
52)	2,4-Dinitrotoluene	7.244	165	363480	154.715	ppm	95
53)	4-Nitrophenol	7.157	65	245591	154.526	ppm	93
54)	2,3,4,6-Tetrachlorophenol	7.356	232	337372	154.818	ppm	99
55)	Fluorene	7.517	166	1166219	151.923	ppm	99
56)	4-Chlorophenyl-phenyle...	7.505	204	582852	152.161	ppm	97
57)	Diethylphthalate	7.446	149	1097140	152.547	ppm	99
58)	2-nitroaniline	6.667	138	373278	156.099	ppm	77
59)	3-nitroaniline	7.030	138	314129	154.247	ppm	88
60)	4-nitroaniline	7.579	138	314179	156.621	ppm	93
62)	4,6-Dinitro-2-methylph...	7.601	198	259950	157.716	ppm	100
63)	n-Nitrosodiphenylamine	7.620	169	864947	150.734	ppm	97
64)	1,2-Diphenylhydrazine	7.645	77	1155755	150.682	ppm	98
66)	4-Bromophenyl-phenylether	7.930	248	352729	151.152	ppm	99
67)	Hexachlorobenzene	8.070	284	363240	154.513	ppm	96
68)	Pentachlorophenol	8.222	266	321182	157.858	ppm	99
69)	Pentachloronitrobenzene	8.297	237	140246	159.707	ppm	92
70)	Phenanthrene	8.362	178	1703590	149.126	ppm	99
71)	Anthracene	8.399	178	1743172	150.595	ppm	98
72)	Carbazole	8.542	167	1654011	151.298	ppm	99
73)	Di-n-butylphthalate	8.852	149	1986378	150.088	ppm	98
74)	Fluoranthene	9.442	202	1935669	151.753	ppm	97
76)	Benzidine	9.557	184	637201	134.289	ppm	96
77)	Pyrene	9.665	202	2023815	147.519	ppm	100
79)	3,3'-Dimethylbenzidine	10.320	212	617605	125.266	ppm	98
80)	Butylbenzylphthalate	10.336	149	888676	152.427	ppm	96
81)	3,3'-Dichlorobenzidine	10.951	252	730037	149.407	ppm	98
82)	Benzo[a]anthracene	10.969	228	1925486	152.139	ppm	98
83)	Chrysene	11.025	228	1916824	150.219	ppm	98
84)	bis(2-Ethylhexyl)phtha...	11.000	149	1275417	153.784	ppm	99
86)	Di-n-octylphthalate	11.736	149	2207685	149.620	ppm	99
87)	Benzo[b]fluoranthene	12.276	252	2114052	160.491	ppm	99
88)	Benzo[k]fluoranthene	12.307	252	1913839	137.229	ppm	99
89)	Benzo[a]pyrene	12.667	252	1909748	151.234	ppm	99
90)	Indeno[1,2,3-cd]pyrene	14.151	276	2533385	158.248	ppm	93
91)	Dibenz[a,h]anthracene	14.164	278	2092898	157.004	ppm	98
92)	Benzo[g,h,i]perylene	14.555	276	2204002m	137.673	ppm	

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

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75548.D
Sample : ic3320-160
Misc : op39496,msf3320,,,,1,1
ALS Vial : 8 Sample Multiplier: 1
Acq On : 25 Aug 2014 8:15 pm Operator: williamk

Quant Time: Sep 04 09:49:22 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75549.D
Sample : icv3320-50
Misc : op39496,msf3320,,,,1,1
ALS Vial : 9 Sample Multiplier: 1
Acq On : 25 Aug 2014 8:38 pm Operator: williamk

Quant Time: Sep 04 10:02:05 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.461	152	111495	40.00	ppm	0.00
22) Naphthalene-d8	5.516	136	410098	40.00	ppm	0.00
39) Acenaphthene-d10	7.046	164	243283	40.00	ppm	0.00
61) Phenanthrene-d10	8.335	188	388832	40.00	ppm	0.00
75) Chrysene-d12	10.983	240	422489	40.00	ppm	0.00
85) Perylene-d12	12.721	264	396260	40.00	ppm	0.00
93) Acenaphthene-d10a	7.046	164	243283	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.508	112	193098	53.02	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 53.02%			
8) Phenol-d5	4.181	99	225677	50.18	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 50.18%			
23) Nitrobenzene-d5	4.932	82	207579	53.02	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 106.04%			
44) 2-Fluorobiphenyl	6.447	172	417090	51.69	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 103.38%			
65) 2,4,6-Tribromophenol	7.742	330	58232	55.07	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 55.07%			
78) Terphenyl-d14	9.797	244	468855	52.16	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 104.32%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.617	74	125707	51.437	ppm	88
4) Pyridine	2.626	79	223526	51.341	ppm	98
5) Aniline	4.231	93	236775	41.022	ppm	94
7) bis(2-Chloroethyl)ether	4.265	93	182757	51.859	ppm	95
9) Phenol	4.191	94	255355	52.912	ppm	92
10) 2-Chlorophenol	4.318	128	204685	53.587	ppm	92
11) 1,3-Dichlorobenzene	4.433	146	225470	53.189	ppm	99
12) 1,4-Dichlorobenzene	4.473	146	226789	52.200	ppm	98
13) 1,2-Dichlorobenzene	4.625	146	213690	52.624	ppm	99
14) Benzyl alcohol	4.572	108	125252	48.613	ppm	88
15) bis(2-chloroisopropyl)...	4.693	45	259495	55.899	ppm	93
16) o-cresol	4.665	108	186939	52.882	ppm	97
17) Acetophenone	4.799	105	264402	48.650	ppm	87
18) Hexachloroethane	4.877	117	80840	51.541	ppm	88
19) N-Nitroso-di-n-propyla...	4.811	70	138093	53.138	ppm	96
20) m+p-cresols	4.783	108	397732	106.134	ppm	99
21) 4-methylphenol	4.783	108	397732	106.134	ppm	99
24) Nitrobenzene	4.945	77	204847	51.937	ppm	97
25) Isophorone	5.128	82	326524	47.304	ppm	92
26) 2-Nitrophenol	5.212	139	111668	55.921	ppm	92
27) 2,4-Dimethylphenol	5.221	107	202167	53.097	ppm	97
28) bis(2-Chloroethoxy)met...	5.305	93	212588	49.675	ppm	97
29) Benzoic acid	5.305	105	169466	62.099	ppm	91
30) 2,4-Dichlorophenol	5.398	162	171908	55.180	ppm	97
31) 1,2,4-Trichlorobenzene	5.479	180	180046	53.110	ug/mL	96
32) Naphthalene	5.535	128	543858	51.762	ppm	97
33) 2,6-Dichlorophenol	5.597	162	169744	53.335	ppm	96
34) 4-Chloroaniline	5.591	127	164245	36.663	ppm	100
35) Hexachlorobutadiene	5.677	225	101762	54.623	ppm	97
36) 4-Chloro-3-methylphenol	5.991	107	175702	54.044	ppm	87

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75549.D
Sample : icv3320-50
Misc : op39496,msf3320,,,,1,1
ALS Vial : 9 Sample Multiplier: 1
Acq On : 25 Aug 2014 8:38 pm Operator: williamk

Quant Time: Sep 04 10:02:05 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

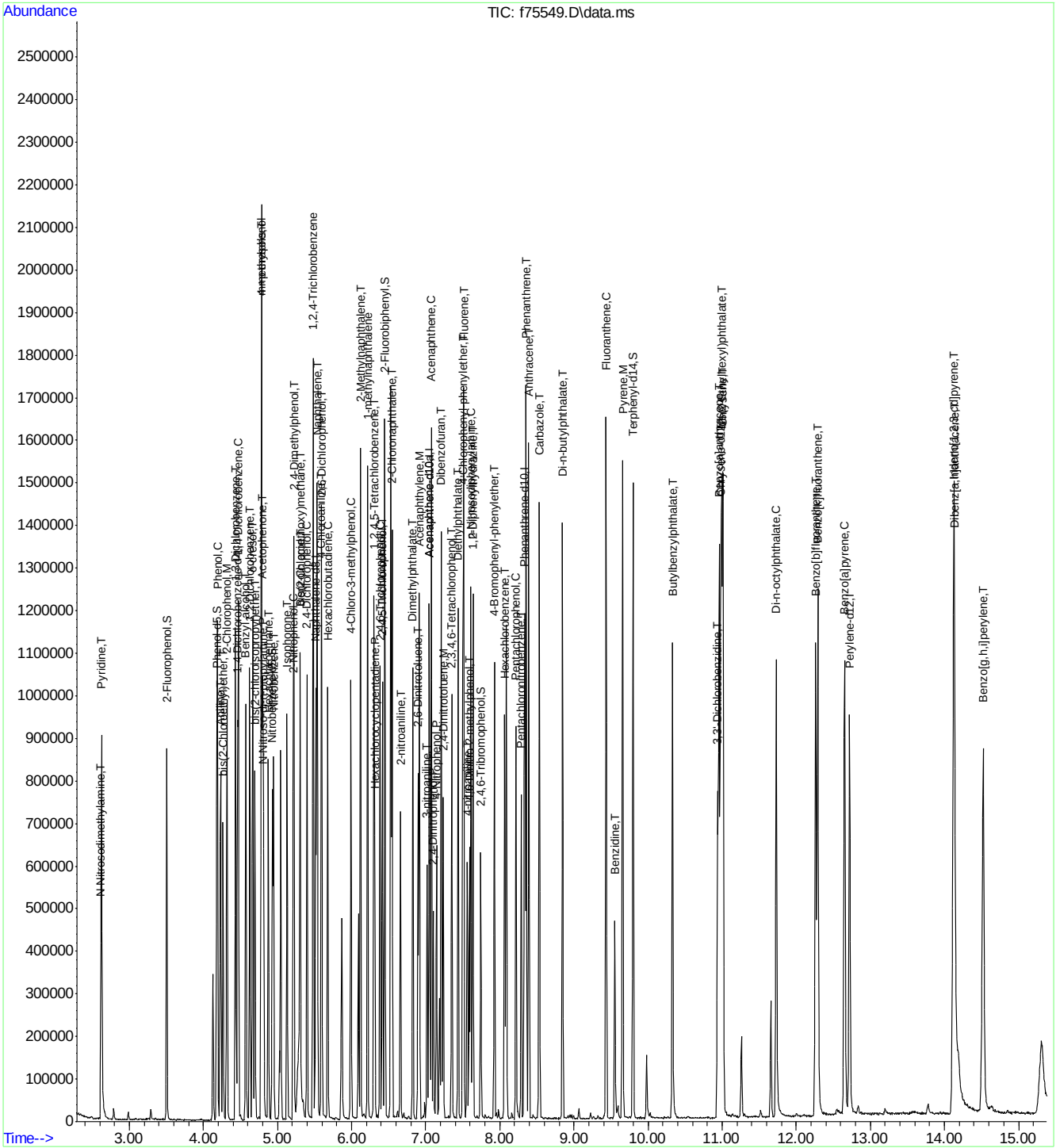
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37)	2-Methylnaphthalene	6.121	142	370163	50.424	ppm	100
38)	1-methylnaphthalene	6.218	142	343368	49.957	ppm	93
40)	Hexachlorocyclopentadiene	6.314	237	84083	44.824	ppm	98
41)	1,2,4,5-Tetrachloroben...	6.301	216	178866	50.660	ppm	98
42)	2,4,6-Trichlorophenol	6.385	196	127275	56.856	ppm	99
43)	2,4,5-Trichlorophenol	6.416	196	135593	55.532	ppm	97
45)	2-Chloronaphthalene	6.547	162	360043	53.914	ppm	99
46)	Acenaphthylene	6.916	152	462093	48.027	ppm	100
47)	Dimethylphthalate	6.826	163	371960	50.400	ppm	99
48)	2,6-Dinitrotoluene	6.897	165	84569	50.012	ppm	91
49)	Acenaphthene	7.074	153	358915	51.309	ppm	98
50)	2,4-Dinitrophenol	7.102	184	58385	48.673	ppm	96
51)	Dibenzofuran	7.211	168	490831	49.360	ppm	95
52)	2,4-Dinitrotoluene	7.236	165	116114	51.097	ppm	92
53)	4-Nitrophenol	7.146	65	80453	50.296	ppm	90
54)	2,3,4,6-Tetrachlorophenol	7.354	232	112983	53.551	ppm	94
55)	Fluorene	7.512	166	393610	51.925	ppm	97
56)	4-Chlorophenyl-phenyle...	7.500	204	193771	51.039	ppm	99
57)	Diethylphthalate	7.438	149	355626	48.675	ppm	99
58)	2-nitroaniline	6.662	138	115736	52.022	ppm	82
59)	3-nitroaniline	7.019	138	77099	40.949	ppm	90
60)	4-nitroaniline	7.562	138	86567	46.391	ppm	91
62)	4,6-Dinitro-2-methylph...	7.590	198	83488	56.757	ppm	100
63)	n-Nitrosodiphenylamine	7.611	169	260562	48.440	ppm	96
64)	1,2-Diphenylhydrazine	7.636	77	388393	53.621	ppm	99
66)	4-Bromophenyl-phenylether	7.925	248	116048	54.610	ppm	100
67)	Hexachlorobenzene	8.068	284	119874	55.604	ppm	98
68)	Pentachlorophenol	8.217	266	91986	52.912	ppm	98
69)	Pentachloronitrobenzene	8.288	237	41407	53.569	ppm	91
70)	Phenanthrene	8.353	178	559102	52.409	ppm	96
71)	Anthracene	8.394	178	547667	50.676	ppm	98
72)	Carbazole	8.533	167	502342	49.993	ppm	99
73)	Di-n-butylphthalate	8.847	149	597698	49.834	ppm	98
74)	Fluoranthene	9.434	202	607767	52.555	ppm	97
76)	Benzidine	9.552	184	172332	37.642	ppm	97
77)	Pyrene	9.660	202	616598	51.213	ppm	95
80)	Butylbenzylphthalate	10.331	149	257510	51.906	ppm	98
81)	3,3'-Dichlorobenzidine	10.939	252	172269	43.656	ppm	96
82)	Benzo[a]anthracene	10.961	228	576921	52.861	ppm	98
83)	Chrysene	11.011	228	551925	49.323	ppm	97
84)	bis(2-Ethylhexyl)phtha...	10.995	149	365875	52.969	ppm	98
86)	Di-n-octylphthalate	11.731	149	592553	53.614	ppm	99
87)	Benzo[b]fluoranthene	12.262	252	563265	53.894	ppm	97
88)	Benzo[k]fluoranthene	12.293	252	560814	49.573	ppm	98
89)	Benzo[a]pyrene	12.653	252	528846	51.771	ppm	99
90)	Indeno[1,2,3-cd]pyrene	14.127	276	684857	55.236	ppm	98
91)	Dibenz[a,h]anthracene	14.137	278	567858	54.908	ppm	97
92)	Benzo[g,h,i]perylene	14.522	276	594098	53.586	ppm	98

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

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75549.D
Sample : icv3320-50
Misc : op39496,msf3320,,,,1,1
ALS Vial : 9 Sample Multiplier: 1
Acq On : 25 Aug 2014 8:38 pm Operator: williamk

Quant Time: Sep 04 10:02:05 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
10/01/14 10:45

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F140929\
Data File : f76456.D
Acq On : 29 Sep 2014 8:01 am
Operator : williamk
Sample : cc3320-80
Misc : op39496,msf3354,,,,1,1
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Sep 29 08:22:40 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Mon Sep 29 08:17:10 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	3.540	152	117833	40.00	ppm		0.00
22) Naphthalene-d8	4.576	136	427456	40.00	ppm		0.00
39) Acenaphthene-d10	6.076	164	267237	40.00	ppm		0.00
61) Phenanthrene-d10	7.336	188	459467	40.00	ppm		0.00
75) Chrysene-d12	9.720	240	540834	40.00	ppm		0.00
85) Perylene-d12	11.275	264	512320	40.00	ppm		0.00
93) Acenaphthene-d10a	6.076	164	267237	40.00	ppm		0.00
System Monitoring Compounds							
6) 2-Fluorophenol	2.624	112	301163	78.25	ppm		0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 78.25%				
8) Phenol-d5	3.322	99	378769	79.68	ppm		0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 79.68%				
23) Nitrobenzene-d5	4.011	82	346578	84.93	ppm		0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 169.86%#				
44) 2-Fluorobiphenyl	5.511	172	769740	86.85	ppm		0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 173.70%#				
65) 2,4,6-Tribromophenol	6.765	330	124714m	99.82	ppm		0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 99.82%				
78) Terphenyl-d14	8.730	244	994171	86.41	ppm		0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 172.82%#				
Target Compounds							Qvalue
2) N-Nitrosodimethylamine	1.714	74	209084	80.95	ppm		80
4) Pyridine	1.708	79	374316	81.35	ppm		92
5) Aniline	3.329	93	460450	75.48	ppm	#	41
7) bis(2-Chloroethyl)ether	3.375	93	286961	77.05	ppm		96
9) Phenol	3.332	94	438364	85.95	ppm		58
10) 2-Chlorophenol	3.406	128	335042	83.00	ppm		95
11) 1,3-Dichlorobenzene	3.512	146	373723	83.42	ppm		99
12) 1,4-Dichlorobenzene	3.552	146	385669	83.99	ppm		99
13) 1,2-Dichlorobenzene	3.698	146	359032	83.66	ppm		99
14) Benzyl alcohol	3.679	108	186579m	68.52	ppm		
15) bis(2-chloroisopropyl)...	3.794	45	343430	70.00	ppm	#	28
16) o-cresol	3.791	108	298012	79.77	ppm		94
17) Acetophenone	3.890	105	455274	79.26	ppm		85
18) Hexachloroethane	3.940	117	140051	84.49	ppm		93
19) N-Nitroso-di-n-propyla...	3.915	70	223323	81.31	ppm		98
20) m+p-cresols	3.915	108	650997	164.37	ppm		95
21) 4-methylphenol	3.915	108	650997	164.37	ppm		95
24) Nitrobenzene	4.027	77	337922	82.20	ppm		99
25) Isophorone	4.210	82	596594	82.92	ppm		93
26) 2-Nitrophenol	4.285	139	195045	93.71	ppm		96
27) 2,4-Dimethylphenol	4.334	107	328284	82.72	ppm		95
28) bis(2-Chloroethoxy)met...	4.409	93	371658	83.32	ppm		99
29) Benzoic acid	4.474	105	194249	68.29	ppm		89
30) 2,4-Dichlorophenol	4.483	162	299918	92.36	ppm		99
31) 1,2,4-Trichlorobenzene	4.542	180	324264	91.77	ug/mL		99
32) Naphthalene	4.592	128	940279	85.86	ppm		96
33) 2,6-Dichlorophenol	4.673	162	299321	90.23	ppm		96
34) 4-Chloroaniline	4.673	127	402197	86.13	ppm		100
35) Hexachlorobutadiene	4.744	225	191266m	98.50	ppm		
36) 4-Chloro-3-methylphenol	5.101	107	303055	89.43	ppm		91
37) 2-Methylnaphthalene	5.172	142	681613	89.08	ppm		97
38) 1-methylnaphthalene	5.266	142	631753	88.18	ppm		96
40) Hexachlorocyclopentadiene	5.368	237	198981m	96.57	ppm		
41) 1,2,4,5-Tetrachloroben...	5.349	216	352011	90.76	ppm		99

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F140929\
Data File : f76456.D
Acq On : 29 Sep 2014 8:01 am
Operator : williamk
Sample : cc3320-80
Misc : op39496,msf3354,,,,1,1
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Sep 29 08:22:40 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Mon Sep 29 08:17:10 2014
Response via : Initial Calibration

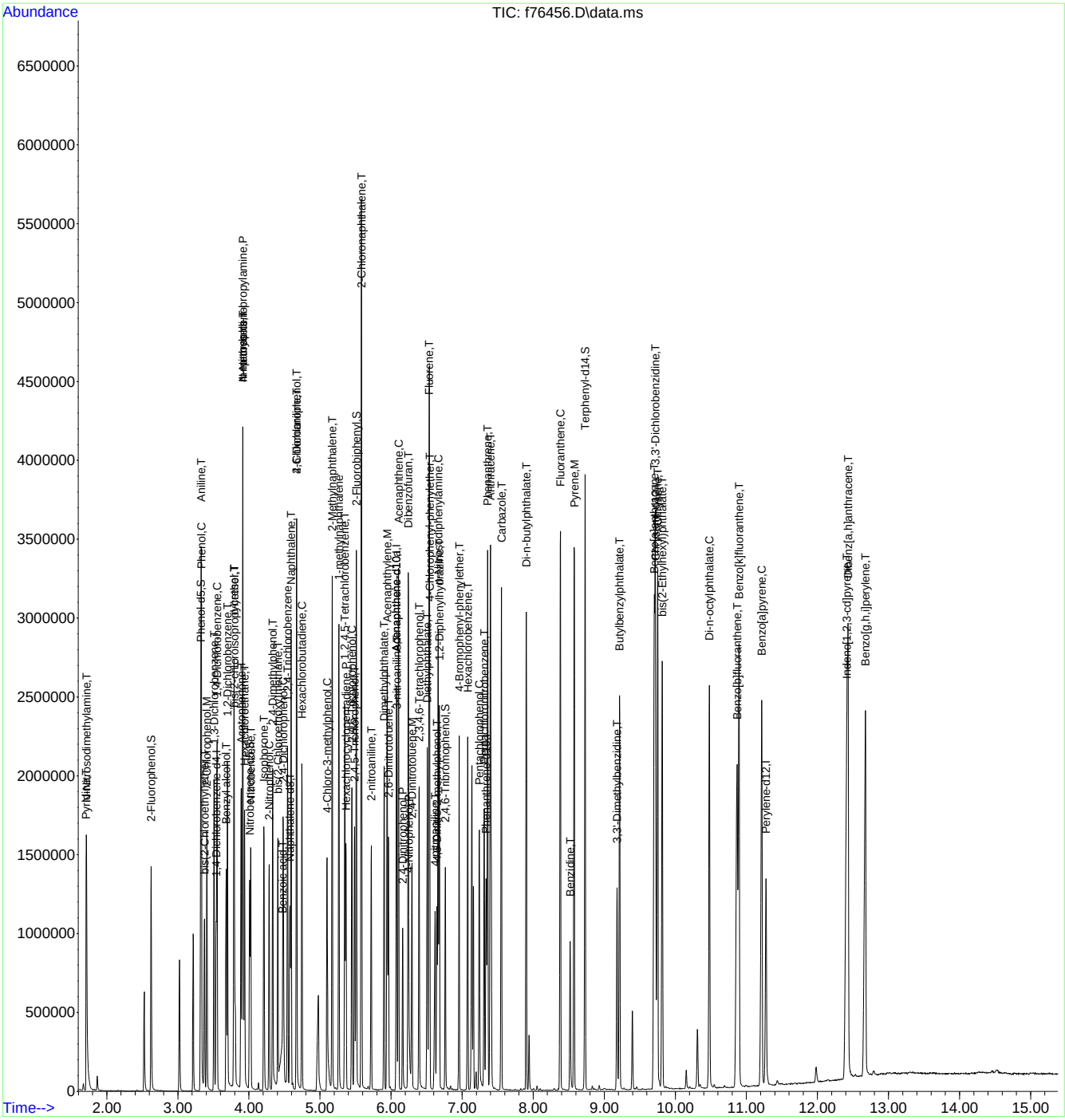
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) 2,4,6-Trichlorophenol	5.449	196	224023	91.10	ppm	94
43) 2,4,5-Trichlorophenol	5.486	196	240354	89.61	ppm	97
45) 2-Chloronaphthalene	5.585	162	638242	87.01	ppm	97
46) Acenaphthylene	5.945	152	908504	85.96	ppm	99
47) Dimethylphthalate	5.902	163	720861	88.92	ppm	99
48) 2,6-Dinitrotoluene	5.964	165	173162	93.22	ppm	94
49) Acenaphthene	6.107	153	661150	86.04	ppm	97
50) 2,4-Dinitrophenol	6.163	184	115352	87.54	ppm	85
51) Dibenzofuran	6.240	168	946246	86.63	ppm	95
52) 2,4-Dinitrotoluene	6.296	165	222009	88.94	ppm	91
53) 4-Nitrophenol	6.250	65	138953	79.08	ppm	91
54) 2,3,4,6-Tetrachlorophenol	6.396	232	212896	91.86	ppm	95
55) Fluorene	6.535	166	731269	87.82	ppm	98
56) 4-Chlorophenyl-phenyle...	6.545	204	382944	91.83	ppm	99
57) Diethylphthalate	6.510	149	692034	86.23	ppm	97
58) 2-nitroaniline	5.722	138	221958	90.82	ppm	83
59) 3-nitroaniline	6.082	138	189322	91.54	ppm	95
60) 4-nitroaniline	6.619	138	180728	88.17	ppm	87
62) 4,6-Dinitro-2-methylph...	6.644	198	160262	92.20	ppm	100
63) n-Nitrosodiphenylamine	6.663	169	537160	84.51	ppm	97
64) 1,2-Diphenylhydrazine	6.678	77	735795	85.97	ppm	97
66) 4-Bromophenyl-phenylether	6.957	248	237482	94.57	ppm	99
67) Hexachlorobenzene	7.079	284	243840m	95.72	ppm	
68) Pentachlorophenol	7.243	266	182396	88.79	ppm	97
69) Pentachloronitrobenzene	7.311	237	92347m	101.10	ppm	
70) Phenanthrene	7.358	178	1083399	85.94	ppm	99
71) Anthracene	7.398	178	1115508	87.35	ppm	97
72) Carbazole	7.553	167	1020454	85.94	ppm	99
73) Di-n-butylphthalate	7.904	149	1247863	88.05	ppm	97
74) Fluoranthene	8.385	202	1220050	89.28	ppm	91
76) Benzidine	8.519	184	311835m	53.75	ppm	
77) Pyrene	8.578	202	1278595	82.96	ppm	93
79) 3,3'-Dimethylbenzidine	9.180	212	415892	79.13	ppm	99
80) Butylbenzylphthalate	9.214	149	537898	84.70	ppm	97
81) 3,3'-Dichlorobenzidine	9.717	252	491249m	97.25	ppm	
82) Benzo[a]anthracene	9.702	228	1194975	85.53	ppm	99
83) Chrysene	9.751	228	1193879	83.34	ppm	99
84) bis(2-Ethylhexyl)phtha...	9.816	149	776337	87.80	ppm	98
86) Di-n-octylphthalate	10.481	149	1366633	95.64	ppm	98
87) Benzo[b]fluoranthene	10.869	252	1340516m	99.21	ppm	
88) Benzo[k]fluoranthene	10.897	252	1151444	78.72	ppm	96
89) Benzo[a]pyrene	11.217	252	1176319	89.07	ppm	96
90) Indeno[1,2,3-cd]pyrene	12.412	276	1518981m	94.76	ppm	
91) Dibenz[a,h]anthracene	12.430	278	1248090m	93.34	ppm	
92) Benzo[g,h,i]perylene	12.676	276	1299841	90.68	ppm	95

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

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F140929\
Data File : f76456.D
Acq On : 29 Sep 2014 8:01 am
Operator : williamk
Sample : cc3320-80
Misc : op39496,msf3354,,,,1,1
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Sep 29 08:22:40 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Mon Sep 29 08:17:10 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES MC33841

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39638.D
Acq On : 11 Sep 2014 11:30 am
Operator : williamk
Sample : ic1461-2
Misc : op39525,msr1461,,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 13:04:20 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:10 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.412	152	257002	40.00	ug/mL	0.00
22) Naphthalene-d8	6.509	136	1009828	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.047	164	586488	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.353	188	950088	40.00	ug/mL	0.00
78) Chrysene-d12	11.964	240	873439	40.00	ug/mL	0.00
88) Perylene-d12	13.682	264	808923	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.412	152	257002	40.00	ug/mL	# 0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.293	112	15061	1.70	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	1.70%#		
8) Phenol-d5	5.091	99	20003	1.69	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	1.69%#		
23) Nitrobenzene-d5	5.884	82	17371	1.69	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	3.38%#		
46) 2-Fluorobiphenyl	7.451	172	34454	1.80	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	3.60%#		
68) 2,4,6-Tribromophenol	8.734	330	2525	1.30	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	1.30%#		
82) Terphenyl-d14	10.810	244	30640	1.66	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	3.32%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.723	88	7387	1.83	ug/mL#	100
3) N-nitrosodimethylamine	3.068	74	5178	0.87	ug/mL#	82
4) Pyridine	3.137	79	15838	1.38	ug/mL	73
5) Aniline	5.129	93	23299	1.50	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.185	63	15358	1.84	ug/mL#	74
9) Phenol	5.104	94	22379	1.69	ug/mL	96
10) 2-Chlorophenol	5.228	128	16326	1.73	ug/mL	84
11) 1,3-Dichlorobenzene	5.362	146	18496	1.89	ug/mL	97
12) 1,4-Dichlorobenzene	5.424	146	18974	1.86	ug/mL	97
13) 1,2-Dichlorobenzene	5.555	146	17905	1.88	ug/mL	99
14) Benzyl alcohol	5.530	108	10612	1.61	ug/mL	91
15) bis(2-chloroisopropyl)...	5.645	45	26464	1.85	ug/mL	68
16) o-cresol	5.620	108	16935	1.81	ug/mL	74
17) Acetophenone	5.757	105	24300	1.67	ug/mL	79
18) Hexachloroethane	5.847	117	7594	1.92	ug/mL	86
19) N-Nitroso-di-n-propyla...	5.757	70	12625	1.70	ug/mL	77
20) m+p-cresols	5.750	108	34359	3.34	ug/mL	95
21) 4-methylphenol	5.750	108	34359	3.34	ug/mL	95
24) Nitrobenzene	5.900	77	17905	1.65	ug/mL	85
25) Isophorone	6.114	82	32373	1.67	ug/mL	93
26) 2-Nitrophenol	6.176	139	5524	1.33	ug/mL	77
27) 2,4-Dimethylphenol	6.210	107	17466	1.80	ug/mL	96
28) bis(2-Chloroethoxy)met...	6.294	93	21781	1.80	ug/mL	97
29) Benzoic acid	6.251	105	5919	0.94	ug/mL	84
30) 2,4-Dichlorophenol	6.384	162	11592	1.59	ug/mL	92
31) 1,2,4-Trichlorobenzene	6.456	180	13830	1.82	ug/mL	93
32) Naphthalene	6.527	128	52559	1.90	ug/mL	97
33) 2,6-Dichlorophenol	6.580	162	12330	1.62	ug/mL	96
34) 4-Chloroaniline	6.574	127	18286	1.54	ug/mL	100
35) Hexachlorobutadiene	6.636	225	7028	1.84	ug/mL	95
36) 4-Chloro-3-methylphenol	6.991	107	13332	1.64	ug/mL	86
37) 2-Methylnaphthalene	7.130	142	33886	1.78	ug/mL	98
38) 1-Methylnaphthalene	7.217	142	31756	1.78	ug/mL	98
39) 1,2,4,5-Tetrachloroben...	7.277	216	13106	1.73	ug/mL	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39638.D
Acq On : 11 Sep 2014 11:30 am
Operator : williamk
Sample : ic1461-2
Misc : op39525,msr1461,,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 13:04:20 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:10 2014
Response via : Initial Calibration

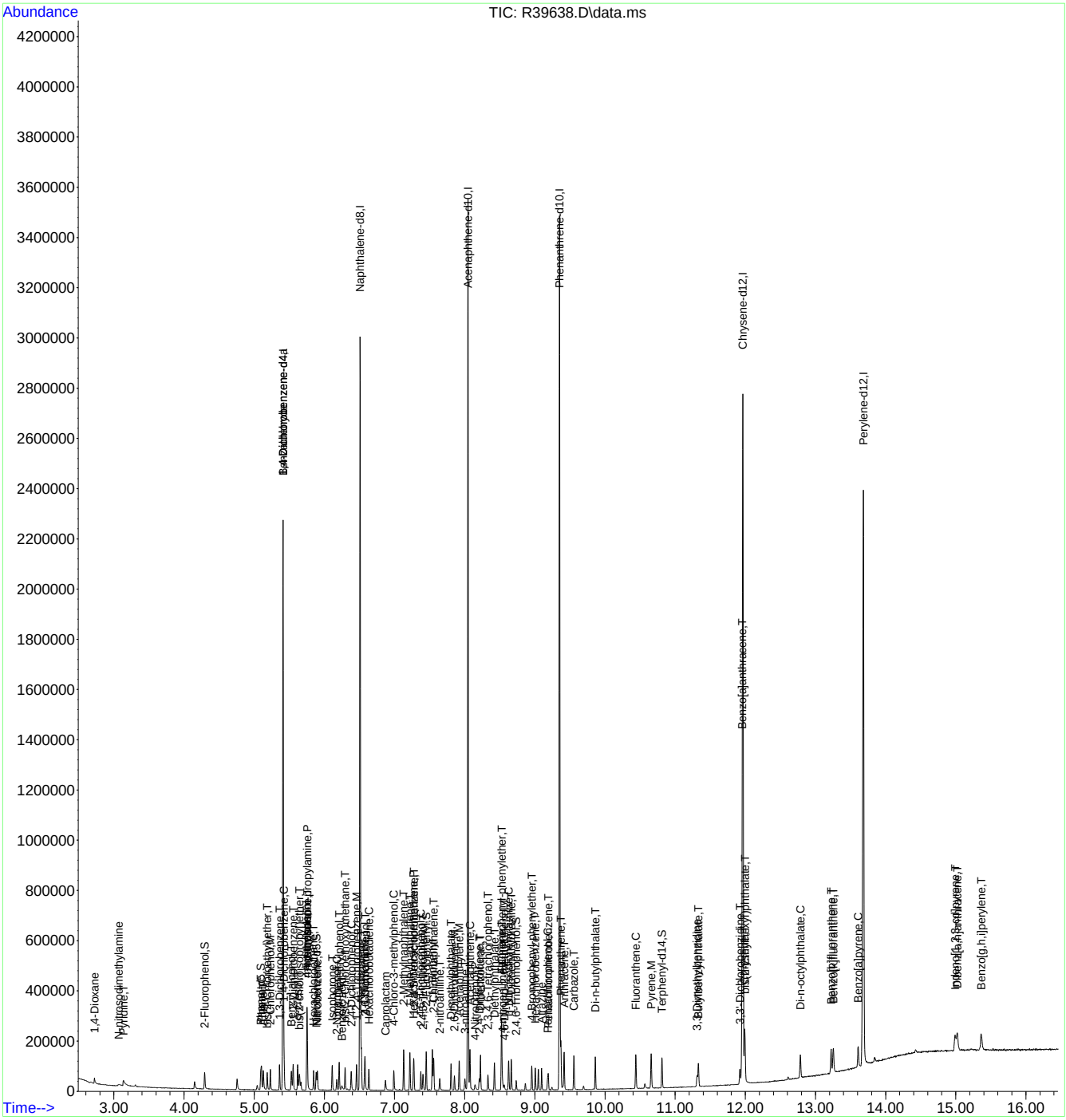
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Caprolactam	6.872	55	7579	1.37 ug/mL#	71
42) Pentachloronitrobenzene	9.191	237	2505	1.28 ug/mL	89
43) Hexachlorocyclopentadiene	7.270	237	5382	1.40 ug/mL	97
44) 2,4,6-Trichlorophenol	7.376	196	7118	1.48 ug/mL	94
45) 2,4,5-Trichlorophenol	7.407	196	7820	1.47 ug/mL	98
47) 2-Chloronaphthalene	7.556	162	28150	1.75 ug/mL	97
48) Acenaphthylene	7.920	152	40493	1.65 ug/mL	99
49) Dimethylphthalate	7.805	163	29774	1.72 ug/mL	98
50) 2,4-Dinitrotoluene	8.209	165	4681	1.08 ug/mL	78
51) Acenaphthene	8.075	153	31165	1.80 ug/mL	98
53) Dibenzofuran	8.224	168	43617	1.80 ug/mL	97
54) 2,6-Dinitrotoluene	7.855	165	4372	1.29 ug/mL	82
55) 4-Nitrophenol	8.150	65	4534	1.13 ug/mL#	71
56) 2,3,4,6-Tetrachlorophenol	8.330	232	5545	1.41 ug/mL	99
57) Fluorene	8.526	166	33333	1.67 ug/mL	100
58) 4-Chlorophenyl-phenyle...	8.526	204	15317	1.69 ug/mL	95
59) Diethylphthalate	8.423	149	30334	1.70 ug/mL	98
60) 2-nitroaniline	7.646	138	6276	1.19 ug/mL	90
61) 3-nitroaniline	8.004	138	5323	1.18 ug/mL	81
62) 4-nitroaniline	8.538	138	5950	1.22 ug/mL	93
63) 1,1'-Biphenyl	7.538	154	39949	1.80 ug/mL	93
65) 4,6-Dinitro-2-methylph...	8.563	198	1778	0.94 ug/mL	100
66) n-Nitrosodiphenylamine	8.629	169	22744	1.74 ug/mL	93
67) 1,2-Diphenylhydrazine	8.663	77	39158	1.67 ug/mL	96
69) 4-Bromophenyl-phenylether	8.955	248	7302	1.70 ug/mL	84
70) Hexachlorobenzene	9.008	284	7506	1.73 ug/mL	83
71) Pentachlorophenol	9.182	266	3889	1.23 ug/mL	96
72) Phenanthrene	9.371	178	49289	1.82 ug/mL	98
73) Anthracene	9.418	178	46208	1.69 ug/mL	98
74) Carbazole	9.555	167	45768	1.71 ug/mL	98
75) Di-n-butylphthalate	9.862	149	47413	1.48 ug/mL	98
76) Fluoranthene	10.437	202	45418	1.68 ug/mL	81
77) Atrazine	9.098	200	6245	1.56 ug/mL	89
80) 3,3-Dimethylbenzidine	11.311	212	14745	2.02 ug/mL	100
81) Pyrene	10.658	202	48479	1.67 ug/mL	81
83) Butylbenzylphthalate	11.329	149	17991	1.37 ug/mL	82
84) 3,3'-Dichlorobenzidine	11.923	252	11841	1.52 ug/mL	96
85) Benzo[a]anthracene	11.954	228	45334	1.82 ug/mL	97
86) Chrysene	11.992	228	43790	1.71 ug/mL	98
87) bis(2-Ethylhexyl)phtha...	11.998	149	23501	1.22 ug/mL	96
89) Di-n-octylphthalate	12.784	149	41443	1.35 ug/mL	99
90) Benzo[b]fluoranthene	13.222	252	35842	1.59 ug/mL	95
91) Benzo[k]fluoranthene	13.257	252	41220	1.72 ug/mL	96
92) Benzo[a]pyrene	13.608	252	33852	1.57 ug/mL	92
93) Indeno[1,2,3-cd]pyrene	14.991	276	40676	1.60 ug/mL	94
94) Dibenz[a,h]anthracene	15.022	278	34067	1.64 ug/mL	91
95) Benzo[g,h,i]perylene	15.364	276	34542	1.63 ug/mL	87
97) Benzaldehyde	5.412	77	12674	5.49 ug/mL	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39638.D
Acq On : 11 Sep 2014 11:30 am
Operator : williamk
Sample : ic1461-2
Misc : op39525,msr1461,,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 13:04:20 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:10 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39639.D
Acq On : 11 Sep 2014 11:55 am
Operator : williamk
Sample : ic1461-5
Misc : op39525,msr1461,,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 13:04:40 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.412	152	244776	40.00	ug/mL	0.00
22) Naphthalene-d8	6.509	136	956930	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.047	164	554274	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.353	188	890075	40.00	ug/mL	0.00
78) Chrysene-d12	11.960	240	813629	40.00	ug/mL	0.00
88) Perylene-d12	13.679	264	742206	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.412	152	244776	40.00	ug/mL #	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.293	112	36738	4.70	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	4.70%#		
8) Phenol-d5	5.092	99	50366	4.84	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	4.84%#		
23) Nitrobenzene-d5	5.884	82	42496	4.73	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	9.46%#		
46) 2-Fluorobiphenyl	7.451	172	81391	4.73	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	9.46%#		
68) 2,4,6-Tribromophenol	8.737	330	6826	4.54	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	4.54%#		
82) Terphenyl-d14	10.810	244	74678	4.74	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	9.48%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.720	88	18032	4.90	ug/mL#	100
3) N-nitrosodimethylamine	3.053	74	21388	5.24	ug/mL	91
4) Pyridine	3.121	79	44689	4.84	ug/mL	78
5) Aniline	5.129	93	63865	4.94	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.185	63	37106	4.86	ug/mL#	72
9) Phenol	5.104	94	55883	4.81	ug/mL	95
10) 2-Chlorophenol	5.231	128	40379	4.82	ug/mL	87
11) 1,3-Dichlorobenzene	5.362	146	44624	4.93	ug/mL	97
12) 1,4-Dichlorobenzene	5.424	146	45574	4.86	ug/mL	94
13) 1,2-Dichlorobenzene	5.555	146	42778	4.86	ug/mL	96
14) Benzyl alcohol	5.530	108	26817	4.73	ug/mL	97
15) bis(2-chloroisopropyl)...	5.645	45	64656	4.93	ug/mL	75
16) o-cresol	5.620	108	40308	4.75	ug/mL	79
17) Acetophenone	5.757	105	60782	4.79	ug/mL	82
18) Hexachloroethane	5.847	117	17475	4.73	ug/mL	85
19) N-Nitroso-di-n-propyla...	5.757	70	31955	4.88	ug/mL	76
20) m+p-cresols	5.750	108	85359	9.50	ug/mL	97
21) 4-methylphenol	5.750	108	85359	9.50	ug/mL	97
24) Nitrobenzene	5.900	77	46451	4.95	ug/mL	82
25) Isophorone	6.114	82	80816	4.79	ug/mL	97
26) 2-Nitrophenol	6.176	139	14747	4.50	ug/mL	86
27) 2,4-Dimethylphenol	6.210	107	42350	4.85	ug/mL	97
28) bis(2-Chloroethoxy)met...	6.294	93	53108	4.87	ug/mL	96
29) Benzoic acid	6.260	105	17567	4.02	ug/mL	93
30) 2,4-Dichlorophenol	6.385	162	29029	4.68	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.459	180	32882	4.78	ug/mL	96
32) Naphthalene	6.527	128	123580	4.84	ug/mL	98
33) 2,6-Dichlorophenol	6.580	162	31405	4.82	ug/mL	98
34) 4-Chloroaniline	6.574	127	46567	4.67	ug/mL	100
35) Hexachlorobutadiene	6.636	225	16338	4.70	ug/mL	97
36) 4-Chloro-3-methylphenol	6.991	107	33350	4.75	ug/mL	94
37) 2-Methylnaphthalene	7.130	142	81479	4.79	ug/mL	99
38) 1-Methylnaphthalene	7.217	142	76923	4.81	ug/mL	100
39) 1,2,4,5-Tetrachloroben...	7.277	216	31309	4.68	ug/mL	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39639.D
Acq On : 11 Sep 2014 11:55 am
Operator : williamk
Sample : ic1461-5
Misc : op39525,msr1461,,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 13:04:40 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:33 2014
Response via : Initial Calibration

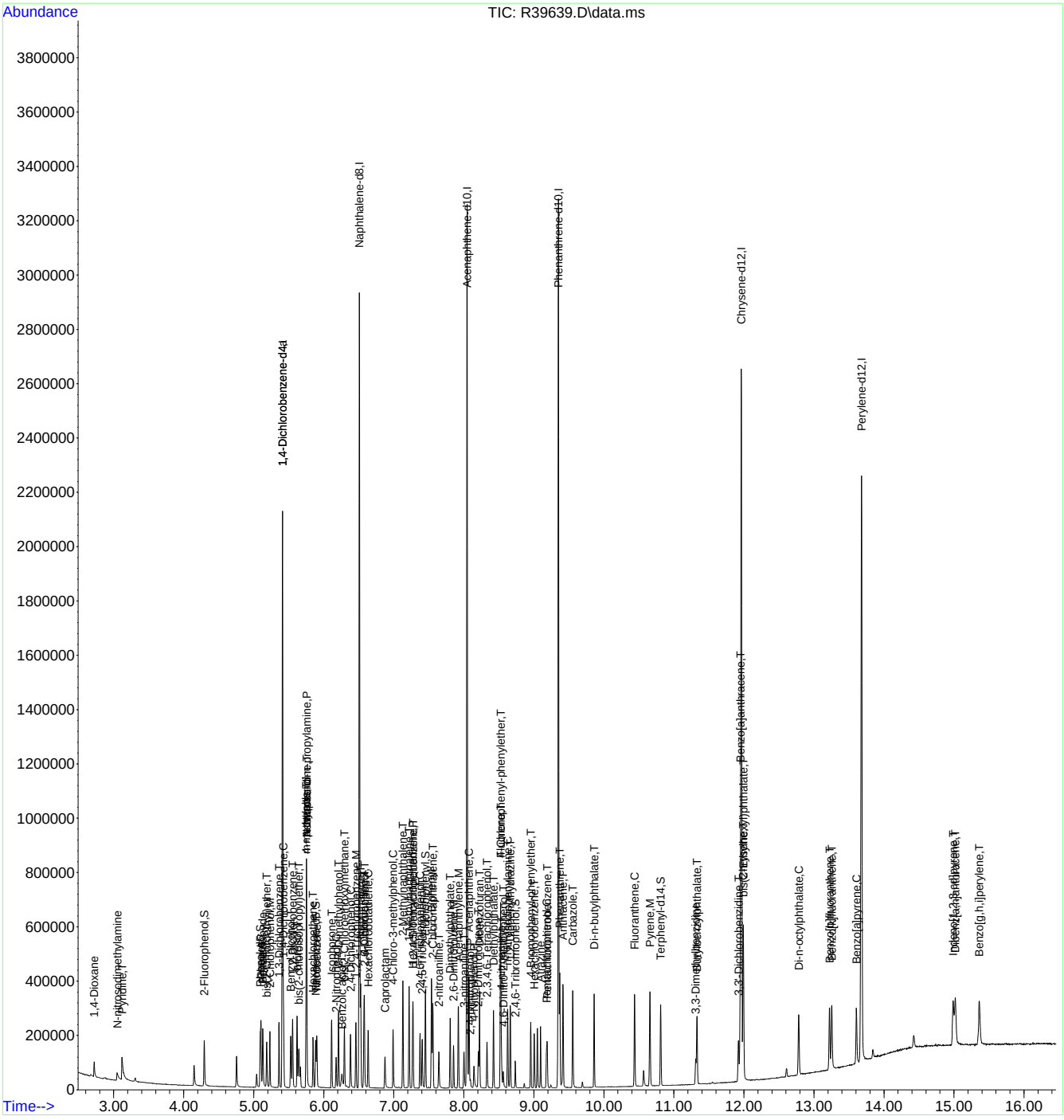
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Caprolactam	6.876	55	20813	4.72	ug/mL#	75
42) Pentachloronitrobenzene	9.191	237	6751	4.45	ug/mL	95
43) Hexachlorocyclopentadiene	7.270	237	14062	4.56	ug/mL	96
44) 2,4,6-Trichlorophenol	7.376	196	18619	4.71	ug/mL	97
45) 2,4,5-Trichlorophenol	7.407	196	21967	5.03	ug/mL	97
47) 2-Chloronaphthalene	7.556	162	68761	4.83	ug/mL	96
48) Acenaphthylene	7.923	152	102263	4.84	ug/mL	98
49) Dimethylphthalate	7.805	163	73096	4.81	ug/mL	99
50) 2,4-Dinitrotoluene	8.206	165	14080	4.47	ug/mL	86
51) Acenaphthene	8.072	153	74400	4.78	ug/mL	93
52) 2,4-Dinitrophenol	8.091	184	3121	2.77	ug/mL	92
53) Dibenzofuran	8.225	168	104112	4.79	ug/mL	96
54) 2,6-Dinitrotoluene	7.855	165	11663	4.43	ug/mL	87
55) 4-Nitrophenol	8.144	65	13557	4.57	ug/mL#	79
56) 2,3,4,6-Tetrachlorophenol	8.330	232	14481	4.58	ug/mL	93
57) Fluorene	8.526	166	82625	4.77	ug/mL	98
58) 4-Chlorophenyl-phenyle...	8.526	204	36105	4.57	ug/mL	96
59) Diethylphthalate	8.423	149	74869	4.80	ug/mL	98
60) 2-nitroaniline	7.643	138	17244	4.34	ug/mL	89
61) 3-nitroaniline	8.004	138	15004	4.43	ug/mL	82
62) 4-nitroaniline	8.535	138	16396	4.42	ug/mL	97
63) 1,1'-Biphenyl	7.538	154	95695	4.80	ug/mL#	93
65) 4,6-Dinitro-2-methylph...	8.563	198	5422	4.17	ug/mL	100
66) n-Nitrosodiphenylamine	8.629	169	55095	4.81	ug/mL	98
67) 1,2-Diphenylhydrazine	8.663	77	100009	4.97	ug/mL	95
69) 4-Bromophenyl-phenylether	8.955	248	17721	4.76	ug/mL	86
70) Hexachlorobenzene	9.008	284	18245	4.81	ug/mL	84
71) Pentachlorophenol	9.182	266	10116	4.23	ug/mL	96
72) Phenanthrene	9.371	178	117394	4.85	ug/mL	99
73) Anthracene	9.415	178	114082	4.82	ug/mL	99
74) Carbazole	9.555	167	111426	4.79	ug/mL	98
75) Di-n-butylphthalate	9.862	149	122855	4.70	ug/mL	99
76) Fluoranthene	10.437	202	109444	4.70	ug/mL	79
77) Atrazine	9.098	200	15651	4.68	ug/mL	100
80) 3,3-Dimethylbenzidine	11.311	212	28963	4.26	ug/mL	100
81) Pyrene	10.658	202	120034	4.83	ug/mL	83
83) Butylbenzylphthalate	11.329	149	48011	4.67	ug/mL	84
84) 3,3'-Dichlorobenzidine	11.923	252	30253	4.73	ug/mL	95
85) Benzo[a]anthracene	11.951	228	105790	4.78	ug/mL	97
86) Chrysene	11.992	228	106347	4.81	ug/mL	100
87) bis(2-Ethylhexyl)phtha...	11.995	149	64220	4.44	ug/mL	99
89) Di-n-octylphthalate	12.784	149	105693	4.47	ug/mL	98
90) Benzo[b]fluoranthene	13.222	252	88240	4.75	ug/mL	94
91) Benzo[k]fluoranthene	13.257	252	94441	4.61	ug/mL	96
92) Benzo[a]pyrene	13.608	252	82950	4.70	ug/mL	94
93) Indeno[1,2,3-cd]pyrene	14.988	276	99658	4.74	ug/mL	89
94) Dibenz[a,h]anthracene	15.019	278	80851	4.67	ug/mL	89
95) Benzo[g,h,i]perylene	15.361	276	82825	4.70	ug/mL	84
97) Benzaldehyde	5.129	77	1027	0.47	ug/mL	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39639.D
Acq On : 11 Sep 2014 11:55 am
Operator : williamk
Sample : ic1461-5
Misc : op39525,msr1461,,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 13:04:40 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:33 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Doug Yargeau
09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39640.D
Acq On : 11 Sep 2014 12:19 pm
Operator : williamk
Sample : ic1461-10
Misc : op39525,msr1461,,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 14:55:07 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:48 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.412	152	280146	40.00	ug/mL	0.00
22) Naphthalene-d8	6.512	136	1084816	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.047	164	632126	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.353	188	1020856	40.00	ug/mL	0.00
78) Chrysene-d12	11.964	240	954618	40.00	ug/mL	0.00
88) Perylene-d12	13.682	264	876707	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.412	152	280146	40.00	ug/mL	# 0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.296	112	89493	10.21	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	10.21%#		
8) Phenol-d5	5.095	99	120218	10.20	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	10.20%#		
23) Nitrobenzene-d5	5.884	82	102529	10.25	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	20.50%#		
46) 2-Fluorobiphenyl	7.451	172	192650	10.00	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	20.00%#		
68) 2,4,6-Tribromophenol	8.737	330	17863m	10.68	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	10.68%#		
82) Terphenyl-d14	10.810	244	183101	10.08	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	20.16%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.723	88	42642	10.19	ug/mL#	100
3) N-nitrosodimethylamine	3.043	74	59139	12.46	ug/mL	84
4) Pyridine	3.112	79	113162	10.82	ug/mL	79
5) Aniline	5.132	93	157278	10.67	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.185	63	87423	10.10	ug/mL#	74
9) Phenol	5.104	94	134098	10.22	ug/mL	97
10) 2-Chlorophenol	5.231	128	95992	10.14	ug/mL	86
11) 1,3-Dichlorobenzene	5.362	146	103137	10.00	ug/mL	97
12) 1,4-Dichlorobenzene	5.427	146	107492	10.11	ug/mL	98
13) 1,2-Dichlorobenzene	5.555	146	98627	9.88	ug/mL	99
14) Benzyl alcohol	5.530	108	67329	10.56	ug/mL	97
15) bis(2-chloroisopropyl)...	5.645	45	152270	10.20	ug/mL	75
16) o-cresol	5.620	108	96053	10.06	ug/mL	80
17) Acetophenone	5.757	105	145724	10.17	ug/mL	81
18) Hexachloroethane	5.847	117	41357	9.96	ug/mL	80
19) N-Nitroso-di-n-propyla...	5.757	70	76180	10.25	ug/mL	75
20) m+p-cresols	5.754	108	205674	20.33	ug/mL	100
21) 4-methylphenol	5.754	108	205674	20.33	ug/mL	100
24) Nitrobenzene	5.903	77	110067	10.38	ug/mL	89
25) Isophorone	6.114	82	197652	10.48	ug/mL	95
26) 2-Nitrophenol	6.176	139	38826	10.82	ug/mL	87
27) 2,4-Dimethylphenol	6.210	107	100095	10.21	ug/mL	97
28) bis(2-Chloroethoxy)met...	6.294	93	125115	10.21	ug/mL	99
29) Benzoic acid	6.276	105	54198	11.70	ug/mL	95
30) 2,4-Dichlorophenol	6.385	162	72614	10.56	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.459	180	77569	10.10	ug/mL	96
32) Naphthalene	6.528	128	288740	10.08	ug/mL	98
33) 2,6-Dichlorophenol	6.580	162	76203	10.44	ug/mL	98
34) 4-Chloroaniline	6.574	127	120817	10.93	ug/mL	100
35) Hexachlorobutadiene	6.636	225	38923	10.07	ug/mL	96
36) 4-Chloro-3-methylphenol	6.991	107	83820	10.72	ug/mL	91
37) 2-Methylnaphthalene	7.130	142	194228	10.21	ug/mL	97
38) 1-Methylnaphthalene	7.218	142	180893	10.11	ug/mL	99
39) 1,2,4,5-Tetrachloroben...	7.277	216	75140	10.12	ug/mL	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39640.D
Acq On : 11 Sep 2014 12:19 pm
Operator : williamk
Sample : ic1461-10
Misc : op39525,msr1461,,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 14:55:07 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:48 2014
Response via : Initial Calibration

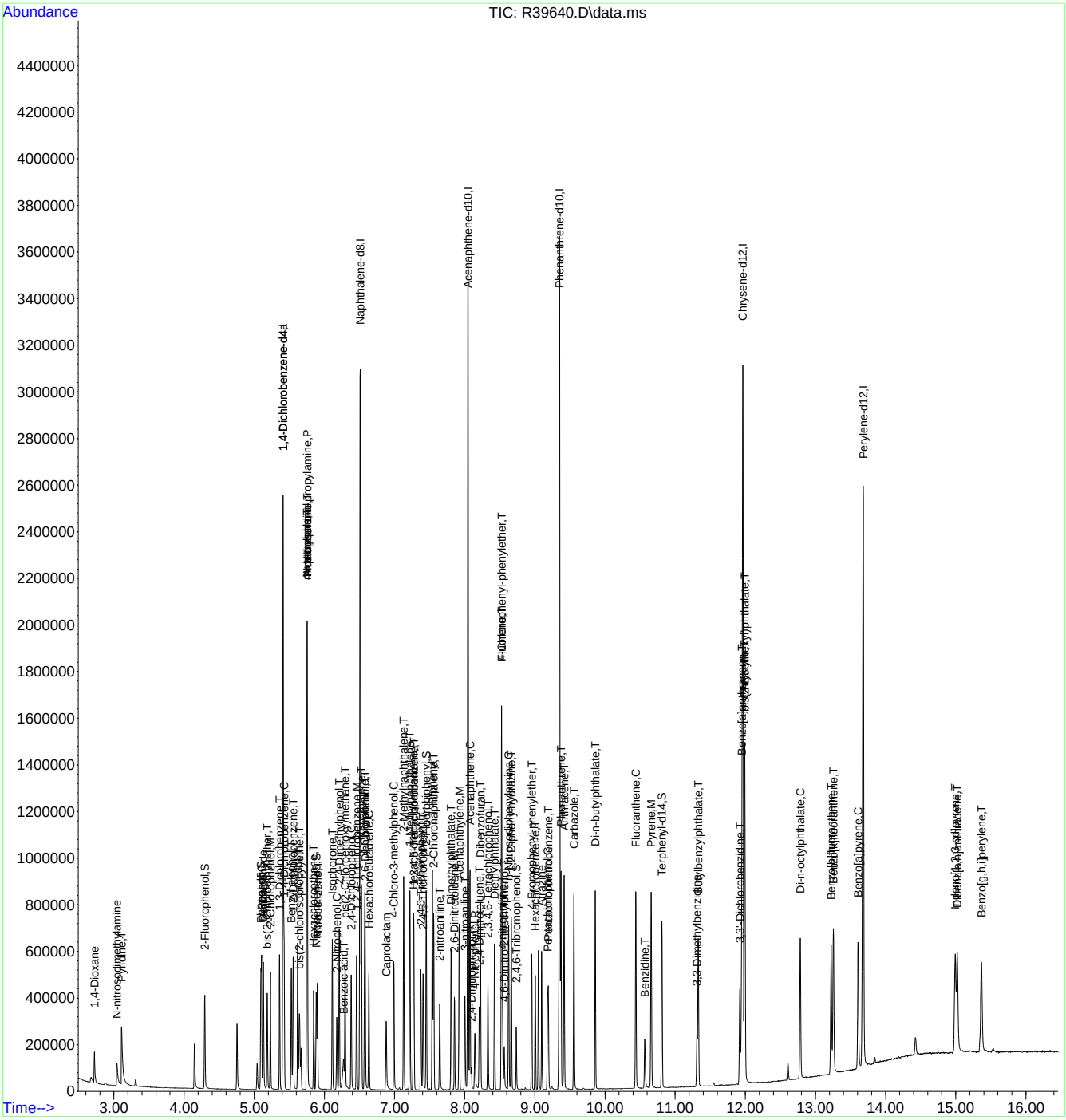
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Caprolactam	6.882	55	53519	10.91 ug/mL#	73
42) Pentachloronitrobenzene	9.191	237	18145	10.89 ug/mL	96
43) Hexachlorocyclopentadiene	7.270	237	35972	10.53 ug/mL	97
44) 2,4,6-Trichlorophenol	7.376	196	48043	10.87 ug/mL	94
45) 2,4,5-Trichlorophenol	7.407	196	53329	10.69 ug/mL	98
47) 2-Chloronaphthalene	7.556	162	162412	10.11 ug/mL	96
48) Acenaphthylene	7.923	152	246680	10.35 ug/mL	98
49) Dimethylphthalate	7.805	163	176316	10.31 ug/mL	100
50) 2,4-Dinitrotoluene	8.209	165	40662	11.73 ug/mL	99
51) Acenaphthene	8.075	153	176597	10.10 ug/mL	95
52) 2,4-Dinitrophenol	8.094	184	9660	9.67 ug/mL	91
53) Dibenzofuran	8.225	168	246809	10.10 ug/mL	96
54) 2,6-Dinitrotoluene	7.855	165	32118	11.12 ug/mL	95
55) 4-Nitrophenol	8.144	65	36832	11.21 ug/mL#	80
56) 2,3,4,6-Tetrachlorophenol	8.330	232	38390	10.95 ug/mL	97
57) Fluorene	8.526	166	200723	10.32 ug/mL	96
58) 4-Chlorophenyl-phenyle...	8.526	204	88401	10.11 ug/mL	97
59) Diethylphthalate	8.427	149	182706	10.41 ug/mL	99
60) 2-nitroaniline	7.646	138	48630	11.23 ug/mL	95
61) 3-nitroaniline	8.004	138	43423	11.68 ug/mL	86
62) 4-nitroaniline	8.538	138	46295	11.38 ug/mL	97
63) 1,1'-Biphenyl	7.541	154	228345	10.18 ug/mL	93
65) 4,6-Dinitro-2-methylph...	8.563	198	16198	11.50 ug/mL	100
66) n-Nitrosodiphenylamine	8.629	169	132610	10.23 ug/mL	98
67) 1,2-Diphenylhydrazine	8.663	77	240837	10.45 ug/mL	97
69) 4-Bromophenyl-phenylether	8.955	248	43102	10.25 ug/mL	87
70) Hexachlorobenzene	9.008	284	43159	10.05 ug/mL	81
71) Pentachlorophenol	9.182	266	28369	10.90 ug/mL	96
72) Phenanthrene	9.375	178	274888	10.00 ug/mL	99
73) Anthracene	9.418	178	274717	10.25 ug/mL	99
74) Carbazole	9.558	167	267933	10.19 ug/mL	97
75) Di-n-butylphthalate	9.863	149	314198	10.69 ug/mL	99
76) Fluoranthene	10.438	202	269461	10.29 ug/mL	81
77) Atrazine	9.098	200	39718	10.58 ug/mL	94
79) Benzidine	10.568	184	75114	11.11 ug/mL	98
80) 3,3-Dimethylbenzidine	11.311	212	67906m	9.19 ug/mL	
81) Pyrene	10.658	202	292293	10.14 ug/mL	83
83) Butylbenzylphthalate	11.330	149	127586	10.81 ug/mL	83
84) 3,3'-Dichlorobenzidine	11.923	252	76969	10.45 ug/mL	95
85) Benzo[a]anthracene	11.951	228	259800	10.15 ug/mL	99
86) Chrysene	11.992	228	256919	10.03 ug/mL	99
87) bis(2-Ethylhexyl)phtha...	11.995	149	181280	11.09 ug/mL	97
89) Di-n-octylphthalate	12.784	149	272134	10.10 ug/mL	100
90) Benzo[b]fluoranthene	13.222	252	218942	10.14 ug/mL	95
91) Benzo[k]fluoranthene	13.257	252	233603	9.91 ug/mL	95
92) Benzo[a]pyrene	13.608	252	207645	10.17 ug/mL	94
93) Indeno[1,2,3-cd]pyrene	14.994	276	247557	10.15 ug/mL	95
94) Dibenz[a,h]anthracene	15.022	278	199235	9.96 ug/mL	89
95) Benzo[g,h,i]perylene	15.367	276	209498	10.26 ug/mL	89
97) Benzaldehyde	5.129	77	2296	1.67 ug/mL	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39640.D
Acq On : 11 Sep 2014 12:19 pm
Operator : williamk
Sample : ic1461-10
Misc : op39525,msr1461,,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 14:55:07 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:48 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Doug Yargeau 09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39641.D
Acq On : 11 Sep 2014 12:43 pm
Operator : williamk
Sample : ic1461-20
Misc : op39525,msr1461,,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 14:23:01 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 12:53:08 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.412	152	276174	40.00	ug/mL	0.00
22) Naphthalene-d8	6.512	136	1092348	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.047	164	633083	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.356	188	1020366	40.00	ug/mL	0.00
78) Chrysene-d12	11.963	240	950309	40.00	ug/mL	0.00
88) Perylene-d12	13.679	264	860224	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.412	152	276174	40.00	ug/mL	# 0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.296	112	190965	22.98	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 22.98%#			
8) Phenol-d5	5.095	99	255023	23.06	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 23.06%#			
23) Nitrobenzene-d5	5.887	82	222359	21.27	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 42.54%			
46) 2-Fluorobiphenyl	7.454	172	414370	21.18	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 42.36%			
68) 2,4,6-Tribromophenol	8.737	330	41159m	16.67	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 16.67%#			
82) Terphenyl-d14	10.810	244	402638	23.57	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 47.14%			
Target Compounds						Qvalue
3) N-nitrosodimethylamine	3.034	74	128542	31.11	ug/mL	85
4) Pyridine	3.102	79	246775	31.30	ug/mL	77
5) Aniline	5.132	93	333494	25.19	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.185	63	179563	23.54	ug/mL#	72
9) Phenol	5.107	94	283788	23.52	ug/mL	96
10) 2-Chlorophenol	5.231	128	202436	22.52	ug/mL	87
11) 1,3-Dichlorobenzene	5.362	146	209839	21.36	ug/mL	99
12) 1,4-Dichlorobenzene	5.427	146	219172	21.54	ug/mL	96
13) 1,2-Dichlorobenzene	5.555	146	204964	21.28	ug/mL	97
14) Benzyl alcohol	5.530	108	142062	22.69	ug/mL	99
15) bis(2-chloroisopropyl)...	5.645	45	307133	25.02	ug/mL	75
16) o-cresol	5.623	108	200937	22.94	ug/mL	81
17) Acetophenone	5.760	105	311933	22.13	ug/mL	84
18) Hexachloroethane	5.847	117	85093	22.22	ug/mL	81
19) N-Nitroso-di-n-propyla...	5.760	70	159690	23.59	ug/mL	79
20) m+p-cresols	5.757	108	442114	47.37	ug/mL	97
21) 4-methylphenol	5.757	108	442114	47.37	ug/mL	97
24) Nitrobenzene	5.903	77	234567	22.07	ug/mL	88
25) Isophorone	6.117	82	420622	21.90	ug/mL	96
26) 2-Nitrophenol	6.176	139	89719	18.99	ug/mL	87
27) 2,4-Dimethylphenol	6.213	107	209722	20.82	ug/mL	99
28) bis(2-Chloroethoxy)met...	6.297	93	262388	23.81	ug/mL	98
29) Benzoic acid	6.291	105	135687	14.99	ug/mL	94
30) 2,4-Dichlorophenol	6.384	162	157655	19.79	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.459	180	164204	18.90	ug/mL	95
32) Naphthalene	6.530	128	598480	21.77	ug/mL	98
33) 2,6-Dichlorophenol	6.580	162	164330m	19.53	ug/mL	
34) 4-Chloroaniline	6.574	127	257262	22.07	ug/mL	100
35) Hexachlorobutadiene	6.636	225	82798	17.85	ug/mL	97
36) 4-Chloro-3-methylphenol	6.994	107	176115	19.72	ug/mL	94
37) 2-Methylnaphthalene	7.133	142	410826	20.80	ug/mL	99
38) 1-Methylnaphthalene	7.217	142	386663	20.39	ug/mL	97
39) 1,2,4,5-Tetrachloroben...	7.276	216	163968	17.76	ug/mL	98
40) Caprolactam	6.894	55	119264	18.35	ug/mL#	72

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39641.D
Acq On : 11 Sep 2014 12:43 pm
Operator : williamk
Sample : ic1461-20
Misc : op39525,msr1461,,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 14:23:01 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 12:53:08 2014
Response via : Initial Calibration

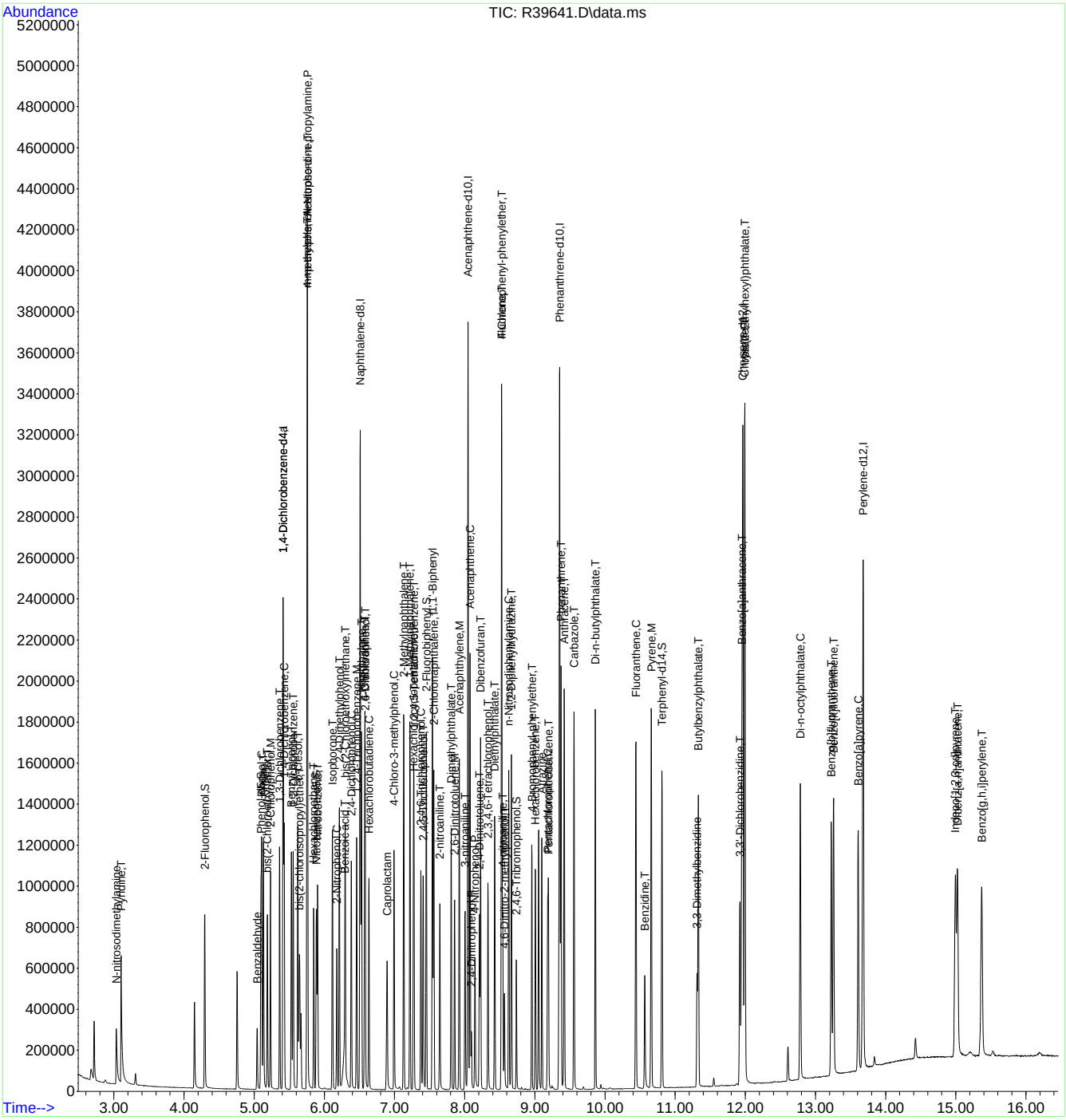
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Pentachloronitrobenzene	9.194	237	42242	14.99	ug/mL	96
43) Hexachlorocyclopentadiene	7.270	237	82945	24.35	ug/mL	99
44) 2,4,6-Trichlorophenol	7.376	196	103741	18.85	ug/mL	98
45) 2,4,5-Trichlorophenol	7.410	196	115128	19.22	ug/mL	98
47) 2-Chloronaphthalene	7.559	162	346989	21.06	ug/mL	96
48) Acenaphthylene	7.923	152	528384	21.56	ug/mL	99
49) Dimethylphthalate	7.808	163	372745	18.90	ug/mL	100
50) 2,4-Dinitrotoluene	8.209	165	93471	15.29	ug/mL	93
51) Acenaphthene	8.075	153	374048	21.48	ug/mL	95
52) 2,4-Dinitrophenol	8.094	184	25759	9.34	ug/mL#	51
53) Dibenzofuran	8.227	168	522196	20.51	ug/mL	95
54) 2,6-Dinitrotoluene	7.858	165	73126	17.27	ug/mL	98
55) 4-Nitrophenol	8.147	65	86603	15.65	ug/mL#	83
56) 2,3,4,6-Tetrachlorophenol	8.330	232	84682	16.24	ug/mL	99
57) Fluorene	8.526	166	431654	21.27	ug/mL	95
58) 4-Chlorophenyl-phenyle...	8.526	204	195337	19.62	ug/mL	97
59) Diethylphthalate	8.426	149	385638	19.19	ug/mL	98
60) 2-nitroaniline	7.646	138	113602	20.47	ug/mL	95
61) 3-nitroaniline	8.007	138	97337	18.97	ug/mL	96
62) 4-nitroaniline	8.541	138	105250	17.03	ug/mL	99
63) 1,1'-Biphenyl	7.541	154	479628	22.11	ug/mL	94
65) 4,6-Dinitro-2-methylph...	8.566	198	40486	12.97	ug/mL	100
66) n-Nitrosodiphenylamine	8.628	169	280863	22.00	ug/mL	98
67) 1,2-Diphenylhydrazine	8.666	77	502542	27.92	ug/mL	97
69) 4-Bromophenyl-phenylether	8.958	248	92387	20.26	ug/mL	92
70) Hexachlorobenzene	9.008	284	93395	18.03	ug/mL	81
71) Pentachlorophenol	9.182	266	67963	14.96	ug/mL	99
72) Phenanthrene	9.374	178	580402	20.90	ug/mL	98
73) Anthracene	9.418	178	588682	20.97	ug/mL	99
74) Carbazole	9.558	167	574895	20.15	ug/mL	97
75) Di-n-butylphthalate	9.862	149	690432	21.43	ug/mL	99
76) Fluoranthene	10.440	202	581107	17.52	ug/mL	84
77) Atrazine	9.101	200	86236	18.17	ug/mL	97
79) Benzidine	10.565	184	182719	18.31	ug/mL	99
80) 3,3-Dimethylbenzidine	11.311	212	158913	14.45	ug/mL	100
81) Pyrene	10.661	202	632715	24.84	ug/mL	85
83) Butylbenzylphthalate	11.329	149	284941	24.56	ug/mL	85
84) 3,3'-Dichlorobenzidine	11.923	252	169952	17.49	ug/mL	96
85) Benzo[a]anthracene	11.951	228	540839	21.20	ug/mL	97
86) Chrysene	11.991	228	556899	21.10	ug/mL	97
87) bis(2-Ethylhexyl)phtha...	11.995	149	420650	25.94	ug/mL	98
89) Di-n-octylphthalate	12.784	149	654873	27.62	ug/mL	100
90) Benzo[b]fluoranthene	13.225	252	480729	21.55	ug/mL	94
91) Benzo[k]fluoranthene	13.259	252	510889	21.23	ug/mL	96
92) Benzo[a]pyrene	13.611	252	457364	19.92	ug/mL	94
93) Indeno[1,2,3-cd]pyrene	14.994	276	541552	15.73	ug/mL	92
94) Dibenz[a,h]anthracene	15.025	278	440477	16.20	ug/mL	90
95) Benzo[g,h,i]perylene	15.370	276	450434	14.14	ug/mL	84
97) Benzaldehyde	5.042	77	49588m	260.57	ug/mL	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39641.D
Acq On : 11 Sep 2014 12:43 pm
Operator : williamk
Sample : ic1461-20
Misc : op39525,msr1461,,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 14:23:01 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 12:53:08 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Doug Yargeau 09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39642.D
Acq On : 11 Sep 2014 1:08 pm
Operator : williamk
Sample : icc1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 15:00:41 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:05:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.411	152	250700	40.00	ug/mL	0.00
22) Naphthalene-d8	6.512	136	970009	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.047	164	560852	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.356	188	923255	40.00	ug/mL	0.00
78) Chrysene-d12	11.970	240	887106	40.00	ug/mL	0.00
88) Perylene-d12	13.682	264	783651	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.411	152	250700	40.00	ug/mL	# 0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.296	112	458246	58.10	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 58.10%			
8) Phenol-d5	5.101	99	596544	56.27	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 56.27%			
23) Nitrobenzene-d5	5.890	82	529265	58.81	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 117.62%			
46) 2-Fluorobiphenyl	7.453	172	984795	57.60	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 115.20%			
68) 2,4,6-Tribromophenol	8.740	330	106332m	68.86	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 68.86%			
82) Terphenyl-d14	10.813	244	1031394	60.98	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 121.96%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.717	88	204640	54.37	ug/mL#	100
3) N-nitrosodimethylamine	3.034	74	326426	72.41	ug/mL	87
4) Pyridine	3.096	79	600351	62.85	ug/mL	76
5) Aniline	5.135	93	791023	58.97	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.191	63	425074	54.73	ug/mL#	74
9) Phenol	5.113	94	677679	57.38	ug/mL	96
10) 2-Chlorophenol	5.234	128	480528	56.51	ug/mL	88
11) 1,3-Dichlorobenzene	5.365	146	507864	55.03	ug/mL	98
12) 1,4-Dichlorobenzene	5.427	146	526695	55.21	ug/mL	97
13) 1,2-Dichlorobenzene	5.558	146	488001	54.79	ug/mL	99
14) Benzyl alcohol	5.536	108	347629	60.09	ug/mL	97
15) bis(2-chloroisopropyl)...	5.648	45	700979	52.20	ug/mL	76
16) o-cresol	5.626	108	484222	56.58	ug/mL	80
17) Acetophenone	5.763	105	708043	54.99	ug/mL	81
18) Hexachloroethane	5.850	117	209112	56.34	ug/mL	88
19) N-Nitroso-di-n-propyla...	5.766	70	367785	54.96	ug/mL	84
20) m+p-cresols	5.763	108	989229	108.83	ug/mL	98
21) 4-methylphenol	5.763	108	989229	108.83	ug/mL	98
24) Nitrobenzene	5.906	77	556465	58.16	ug/mL	89
25) Isophorone	6.120	82	999515	58.55	ug/mL	96
26) 2-Nitrophenol	6.179	139	231710	70.76	ug/mL	89
27) 2,4-Dimethylphenol	6.216	107	503691	57.18	ug/mL	98
28) bis(2-Chloroethoxy)met...	6.300	93	622517	56.51	ug/mL	99
29) Benzoic acid	6.316	105	379729	87.93	ug/mL	94
30) 2,4-Dichlorophenol	6.387	162	391045	62.70	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.462	180	404544	58.77	ug/mL	96
32) Naphthalene	6.530	128	1399693	54.52	ug/mL	97
33) 2,6-Dichlorophenol	6.583	162	400579	60.70	ug/mL	97
34) 4-Chloroaniline	6.577	127	619784	61.29	ug/mL	100
35) Hexachlorobutadiene	6.636	225	210115	60.71	ug/mL	96
36) 4-Chloro-3-methylphenol	7.000	107	431841	60.65	ug/mL	97
37) 2-Methylnaphthalene	7.133	142	970769	56.77	ug/mL	99
38) 1-Methylnaphthalene	7.220	142	899977	56.08	ug/mL	99
39) 1,2,4,5-Tetrachloroben...	7.279	216	406834	61.08	ug/mL	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39642.D
Acq On : 11 Sep 2014 1:08 pm
Operator : williamk
Sample : icc1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 15:00:41 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:05:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Caprolactam	6.919	55	290891	64.86	ug/mL#	73
42) Pentachloronitrobenzene	9.197	237	113353	75.01	ug/mL	98
43) Hexachlorocyclopentadiene	7.270	237	222283	72.38	ug/mL	97
44) 2,4,6-Trichlorophenol	7.379	196	266679	66.55	ug/mL	99
45) 2,4,5-Trichlorophenol	7.413	196	295009	65.50	ug/mL	99
47) 2-Chloronaphthalene	7.562	162	847068	59.28	ug/mL	95
48) Acenaphthylene	7.926	152	1276376	59.82	ug/mL	100
49) Dimethylphthalate	7.811	163	918332	60.04	ug/mL	100
50) 2,4-Dinitrotoluene	8.215	165	252543	78.70	ug/mL	99
51) Acenaphthene	8.078	153	884870	56.91	ug/mL	96
52) 2,4-Dinitrophenol	8.097	184	81415	92.88	ug/mL	97
53) Dibenzofuran	8.227	168	1262533	58.08	ug/mL	98
54) 2,6-Dinitrotoluene	7.861	165	194076	73.66	ug/mL	100
55) 4-Nitrophenol	8.153	65	220502	73.41	ug/mL	82
56) 2,3,4,6-Tetrachlorophenol	8.333	232	222308	69.80	ug/mL	98
57) Fluorene	8.529	166	1022329	58.76	ug/mL	96
58) 4-Chlorophenyl-phenyle...	8.529	204	478417	61.48	ug/mL	96
59) Diethylphthalate	8.429	149	950296	60.39	ug/mL	99
60) 2-nitroaniline	7.649	138	300823	75.98	ug/mL	99
61) 3-nitroaniline	8.010	138	250537	72.91	ug/mL	97
62) 4-nitroaniline	8.551	138	269741	72.26	ug/mL	94
63) 1,1'-Biphenyl	7.544	154	1137642	56.90	ug/mL	95
65) 4,6-Dinitro-2-methylph...	8.572	198	119871m	90.72	ug/mL	
66) n-Nitrosodiphenylamine	8.631	169	690920	58.58	ug/mL	98
67) 1,2-Diphenylhydrazine	8.669	77	1190222	56.48	ug/mL	99
69) 4-Bromophenyl-phenylether	8.958	248	239707	62.66	ug/mL	91
70) Hexachlorobenzene	9.011	284	236793	60.87	ug/mL	86
71) Pentachlorophenol	9.185	266	195254	81.11	ug/mL	98
72) Phenanthrene	9.377	178	1405308	56.54	ug/mL	97
73) Anthracene	9.421	178	1437444	58.91	ug/mL	98
74) Carbazole	9.561	167	1410385	59.02	ug/mL	97
75) Di-n-butylphthalate	9.865	149	1759807	65.07	ug/mL	99
76) Fluoranthene	10.443	202	1476039	61.87	ug/mL	84
77) Atrazine	9.107	200	217705	63.22	ug/mL	95
79) Benzidine	10.568	184	537541	42.26	ug/mL	100
80) 3,3-Dimethylbenzidine	11.314	212	520774	78.14	ug/mL	100
81) Pyrene	10.664	202	1581189	58.84	ug/mL	84
83) Butylbenzylphthalate	11.332	149	759464	67.87	ug/mL	88
84) 3,3'-Dichlorobenzidine	11.926	252	481213	69.50	ug/mL	96
85) Benzo[a]anthracene	11.954	228	1360822	57.01	ug/mL	97
86) Chrysene	12.001	228	1422292	59.70	ug/mL	97
87) bis(2-Ethylhexyl)phtha...	11.998	149	1114181	71.40	ug/mL	99
89) Di-n-octylphthalate	12.787	149	1805058	74.78	ug/mL	100
90) Benzo[b]fluoranthene	13.235	252	1233155	63.68	ug/mL	95
91) Benzo[k]fluoranthene	13.269	252	1336908	63.62	ug/mL	96
92) Benzo[a]pyrene	13.617	252	1182666	64.53	ug/mL	93
93) Indeno[1,2,3-cd]pyrene	15.009	276	1404910	64.19	ug/mL	90
94) Dibenz[a,h]anthracene	15.037	278	1165428	65.25	ug/mL	90
95) Benzo[g,h,i]perylene	15.392	276	1151906	62.72	ug/mL	88
97) Benzaldehyde	5.042	77	194256m	218.55	ug/mL	

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

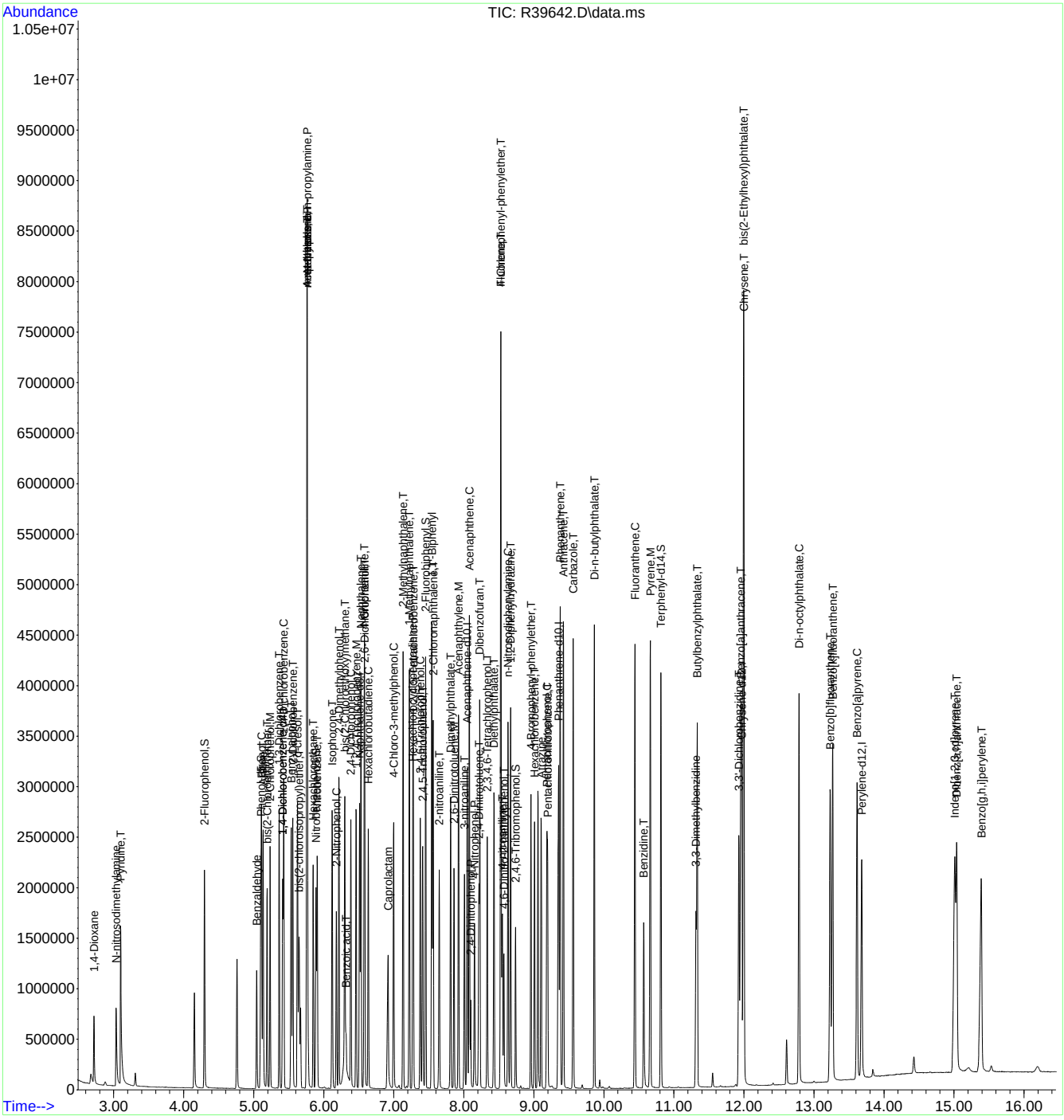
9.6.15

6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39642.D
Acq On : 11 Sep 2014 1:08 pm
Operator : williamk
Sample : icc1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 15:00:41 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:05:12 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Doug Yargeau 09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39643.D
Acq On : 11 Sep 2014 1:32 pm
Operator : williamk
Sample : ic1461-80
Misc : op39525,msr1461,,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 14:48:11 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:26:47 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.415	152	332351	40.00	ug/mL	0.00
22) Naphthalene-d8	6.515	136	1303434	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.050	164	761151	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.359	188	1277383	40.00	ug/mL	0.00
78) Chrysene-d12	11.976	240	1184924	40.00	ug/mL	0.01
88) Perylene-d12	13.688	264	1044778	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.415	152	332351	40.00	ug/mL	# 0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.299	112	981928	90.97	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 90.97%			
8) Phenol-d5	5.107	99	1259192	87.40	ug/mL	0.01
Spiked Amount 100.000	Range 30 - 130		Recovery = 87.40%			
23) Nitrobenzene-d5	5.896	82	1142471	91.26	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 182.52%#			
46) 2-Fluorobiphenyl	7.457	172	2035120	85.12	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 170.24%#			
68) 2,4,6-Tribromophenol	8.746	330	246747m	106.97	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 106.97%			
82) Terphenyl-d14	10.820	244	2241556	95.05	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 190.10%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.720	88	425739	83.86	ug/mL#	100
3) N-nitrosodimethylamine	3.043	74	690570	106.04	ug/mL	100
4) Pyridine	3.099	79	1219795	91.62	ug/mL	78
5) Aniline	5.138	93	1618102	87.84	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.194	63	876615	83.56	ug/mL#	74
9) Phenol	5.119	94	1525886	94.66	ug/mL	97
10) 2-Chlorophenol	5.237	128	1026696	88.77	ug/mL	89
11) 1,3-Dichlorobenzene	5.365	146	1052338	84.32	ug/mL	98
12) 1,4-Dichlorobenzene	5.430	146	1084358	83.99	ug/mL	96
13) 1,2-Dichlorobenzene	5.558	146	1016540	84.48	ug/mL	97
14) Benzyl alcohol	5.542	108	743831	93.22	ug/mL	97
15) bis(2-chloroisopropyl)...	5.651	45	1438960	80.12	ug/mL	77
16) o-cresol	5.629	108	1011060	86.83	ug/mL	82
17) Acetophenone	5.769	105	1343680	77.18	ug/mL	84
18) Hexachloroethane	5.850	117	445339	88.27	ug/mL	89
19) N-Nitroso-di-n-propyla...	5.791	70	750839	82.99	ug/mL	82
20) m+p-cresols	5.772	108	1895758	154.60	ug/mL	98
21) 4-methylphenol	5.772	108	1895758	154.60	ug/mL	98
24) Nitrobenzene	5.912	77	1168421	88.00	ug/mL	91
25) Isophorone	6.129	82	2094624	88.30	ug/mL	97
26) 2-Nitrophenol	6.182	139	526753	110.54	ug/mL	90
27) 2,4-Dimethylphenol	6.220	107	1056887	86.79	ug/mL	96
28) bis(2-Chloroethoxy)met...	6.304	93	1294461	85.23	ug/mL	99
29) Benzoic acid	6.350	105	749569m	112.15	ug/mL	
30) 2,4-Dichlorophenol	6.394	162	844746	95.93	ug/mL	97
31) 1,2,4-Trichlorobenzene	6.462	180	876313	91.53	ug/mL	95
32) Naphthalene	6.534	128	2799679	79.72	ug/mL	97
33) 2,6-Dichlorophenol	6.586	162	824766	89.19	ug/mL	98
34) 4-Chloroaniline	6.583	127	1244263	87.61	ug/mL	100
35) Hexachlorobutadiene	6.639	225	462966	95.46	ug/mL	97
36) 4-Chloro-3-methylphenol	7.006	107	921219	92.36	ug/mL	96
37) 2-Methylnaphthalene	7.136	142	1988777	84.27	ug/mL	98
38) 1-Methylnaphthalene	7.224	142	1854535	83.96	ug/mL	100
39) 1,2,4,5-Tetrachloroben...	7.283	216	888012	95.01	ug/mL	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39643.D
Acq On : 11 Sep 2014 1:32 pm
Operator : williamk
Sample : ic1461-80
Misc : op39525,msr1461,,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 14:48:11 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:26:47 2014
Response via : Initial Calibration

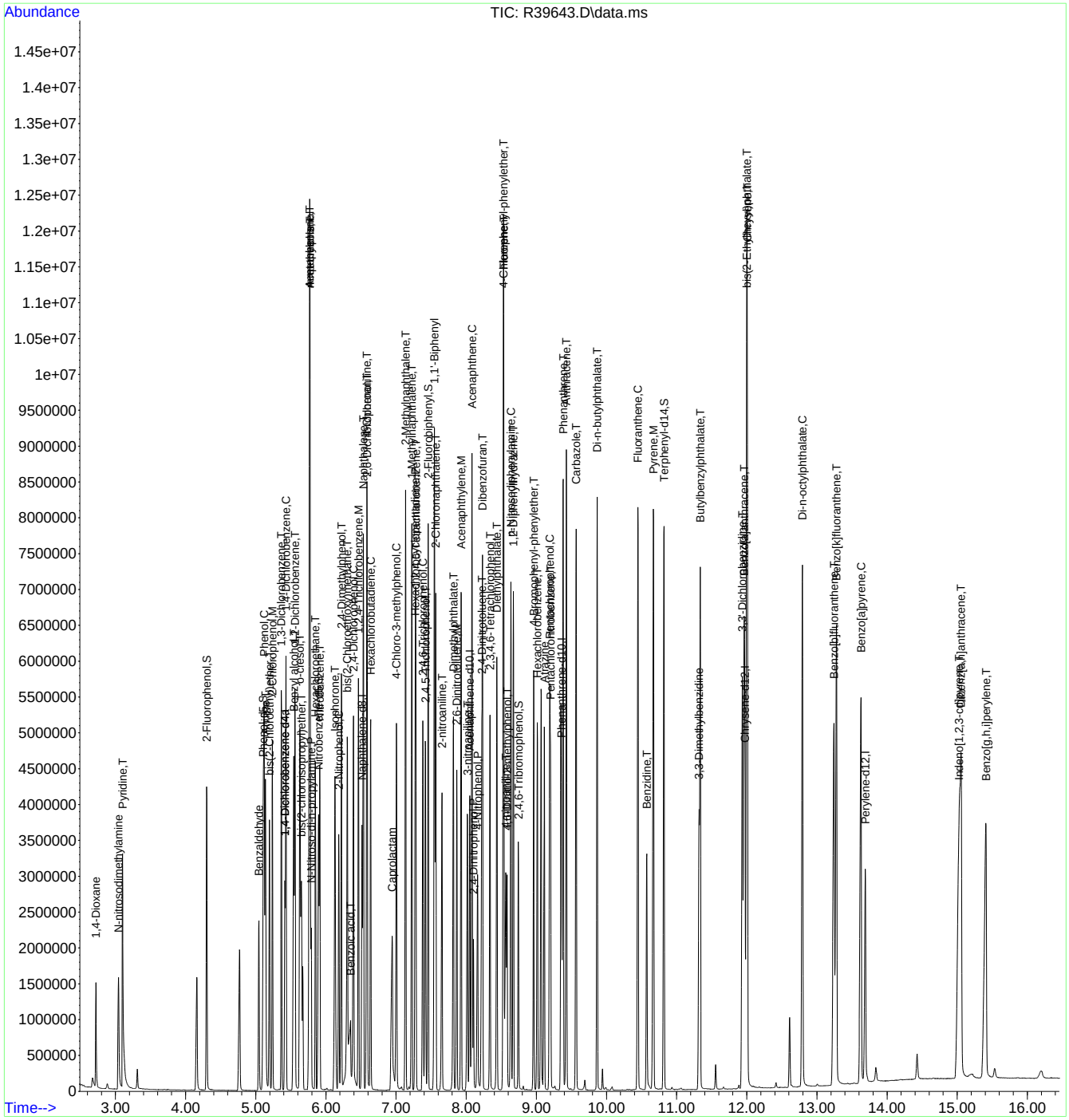
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Caprolactam	6.944	55	619095m	96.96	ug/mL	
42) Pentachloronitrobenzene	9.200	237	262535	116.37	ug/mL	98
43) Hexachlorocyclopentadiene	7.273	237	499398	109.97	ug/mL	98
44) 2,4,6-Trichlorophenol	7.382	196	606156	104.54	ug/mL	98
45) 2,4,5-Trichlorophenol	7.419	196	662037	101.99	ug/mL	99
47) 2-Chloronaphthalene	7.565	162	1784230	88.72	ug/mL	96
48) Acenaphthylene	7.929	152	2618891	87.02	ug/mL	99
49) Dimethylphthalate	7.817	163	1951514	90.38	ug/mL	99
50) 2,4-Dinitrotoluene	8.221	165	586511	120.81	ug/mL	91
51) Acenaphthene	8.081	153	1797003	82.87	ug/mL	94
52) 2,4-Dinitrophenol	8.103	184	213693	147.92	ug/mL#	70
53) Dibenzofuran	8.234	168	2605542	85.55	ug/mL	99
54) 2,6-Dinitrotoluene	7.867	165	440446	112.52	ug/mL	91
55) 4-Nitrophenol	8.162	65	478841	107.40	ug/mL	80
56) 2,3,4,6-Tetrachlorophenol	8.339	232	507450	108.79	ug/mL	99
57) Fluorene	8.535	166	2002795	81.95	ug/mL	97
58) 4-Chlorophenyl-phenyle...	8.532	204	955207	86.48	ug/mL	95
59) Diethylphthalate	8.436	149	2031211	91.31	ug/mL	99
60) 2-nitroaniline	7.656	138	670706	113.07	ug/mL	95
61) 3-nitroaniline	8.019	138	551907	108.41	ug/mL	95
62) 4-nitroaniline	8.563	138	587007	106.39	ug/mL	93
63) 1,1'-Biphenyl	7.547	154	2310361	82.86	ug/mL	98
65) 4,6-Dinitro-2-methylph...	8.582	198	312314	146.10	ug/mL	100
66) n-Nitrosodiphenylamine	8.638	169	1474733	87.37	ug/mL	98
67) 1,2-Diphenylhydrazine	8.672	77	2408594	80.52	ug/mL	100
69) 4-Bromophenyl-phenylether	8.961	248	533532	95.94	ug/mL	92
70) Hexachlorobenzene	9.014	284	537210	95.65	ug/mL	87
71) Pentachlorophenol	9.191	266	462962	123.62	ug/mL	99
72) Phenanthrene	9.384	178	2888365	81.85	ug/mL	97
73) Anthracene	9.427	178	2932747	83.89	ug/mL	98
74) Carbazole	9.567	167	2894280	84.49	ug/mL	96
75) Di-n-butylphthalate	9.869	149	3549061	89.46	ug/mL	98
76) Fluoranthene	10.447	202	3059865	88.50	ug/mL	83
77) Atrazine	9.116	200	471183	93.93	ug/mL	96
79) Benzidine	10.574	184	1121873	68.37	ug/mL	99
80) 3,3-Dimethylbenzidine	11.317	212	1156169	113.85	ug/mL	100
81) Pyrene	10.670	202	3236817	87.10	ug/mL	86
83) Butylbenzylphthalate	11.336	149	1623136	101.35	ug/mL	92
84) 3,3'-Dichlorobenzidine	11.935	252	1108486	111.19	ug/mL	97
85) Benzo[a]anthracene	11.960	228	2914527	88.92	ug/mL	97
86) Chrysene	12.007	228	2916759	88.23	ug/mL	96
87) bis(2-Ethylhexyl)phtha...	12.001	149	2200819	97.26	ug/mL	98
89) Di-n-octylphthalate	12.793	149	3792830	107.23	ug/mL	99
90) Benzo[b]fluoranthene	13.244	252	2706523	99.39	ug/mL	95
91) Benzo[k]fluoranthene	13.278	252	2825108	95.62	ug/mL	96
92) Benzo[a]pyrene	13.629	252	2564389	99.19	ug/mL	94
93) Indeno[1,2,3-cd]pyrene	15.025	276	3080138	99.89	ug/mL	93
94) Dibenz[a,h]anthracene	15.053	278	2588454	102.45	ug/mL	93
95) Benzo[g,h,i]perylene	15.410	276	2482984	96.49	ug/mL	88
97) Benzaldehyde	5.045	77	421168m	193.96	ug/mL	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39643.D
Acq On : 11 Sep 2014 1:32 pm
Operator : williamk
Sample : ic1461-80
Misc : op39525,msr1461,,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 14:48:11 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:26:47 2014
Response via : Initial Calibration



R39644.D

Manual Integrations APPROVED (compounds with "m" flag)

Doug Yargeau 09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39644.D
Acq On : 11 Sep 2014 1:56 pm
Operator : williamk
Sample : ic1461-120
Misc : op39525,msr1461,,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 14:56:26 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:54:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.415	152	287383	40.00	ug/mL	0.00
22) Naphthalene-d8	6.515	136	1131487	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.050	164	659837	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.359	188	1119316	40.00	ug/mL	0.00
78) Chrysene-d12	11.976	240	1056425	40.00	ug/mL	0.01
88) Perylene-d12	13.689	264	937831	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.415	152	287383	40.00	ug/mL #	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.302	112	1280295	134.10	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	134.10%#		
8) Phenol-d5	5.110	99	1629167	128.79	ug/mL	0.02
Spiked Amount 100.000	Range 30 - 130		Recovery =	128.79%		
23) Nitrobenzene-d5	5.900	82	1489365	133.90	ug/mL	0.01
Spiked Amount 50.000	Range 30 - 130		Recovery =	267.80%#		
46) 2-Fluorobiphenyl	7.460	172	2589454	123.61	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	247.22%#		
68) 2,4,6-Tribromophenol	8.747	330	341119m	158.91	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	158.91%#		
82) Terphenyl-d14	10.820	244	2967396	136.84	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	273.68%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.720	88	554966	125.41	ug/mL#	100
3) N-nitrosodimethylamine	3.043	74	905002	152.44	ug/mL	90
4) Pyridine	3.096	79	1586880	134.59	ug/mL	77
5) Aniline	5.141	93	2074060	128.12	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.197	63	1119798	122.54	ug/mL#	76
9) Phenol	5.126	94	1936277	134.80	ug/mL	96
10) 2-Chlorophenol	5.241	128	1329381	130.54	ug/mL	90
11) 1,3-Dichlorobenzene	5.368	146	1332622	122.38	ug/mL	98
12) 1,4-Dichlorobenzene	5.430	146	1378572	122.47	ug/mL	96
13) 1,2-Dichlorobenzene	5.561	146	1294153	123.23	ug/mL	98
14) Benzyl alcohol	5.545	108	958644	135.22	ug/mL	97
15) bis(2-chloroisopropyl)...	5.651	45	1858414	119.64	ug/mL	77
16) o-cresol	5.632	108	1288456	126.17	ug/mL	80
17) Acetophenone	5.772	105	1671761	111.71	ug/mL	86
18) Hexachloroethane	5.850	117	571328	128.74	ug/mL	90
19) N-Nitroso-di-n-propyla...	5.797	70	965088	122.59	ug/mL	85
20) m+p-cresols	5.778	108	2358389	223.68	ug/mL	96
21) 4-methylphenol	5.778	108	2358389	223.68	ug/mL	96
24) Nitrobenzene	5.915	77	1494131	127.51	ug/mL	93
25) Isophorone	6.136	82	2683682	128.10	ug/mL	98
26) 2-Nitrophenol	6.186	139	690505	156.93	ug/mL	91
27) 2,4-Dimethylphenol	6.223	107	1349130	125.85	ug/mL	96
28) bis(2-Chloroethoxy)met...	6.307	93	1635622	122.72	ug/mL	99
29) Benzoic acid	6.369	105	991971m	160.24	ug/mL	
30) 2,4-Dichlorophenol	6.397	162	1078486	136.55	ug/mL	95
31) 1,2,4-Trichlorobenzene	6.465	180	1120660	131.67	ug/mL	96
32) Naphthalene	6.537	128	3502097	114.94	ug/mL	97
33) 2,6-Dichlorophenol	6.590	162	1028328	125.69	ug/mL	98
34) 4-Chloroaniline	6.587	127	1533760	122.47	ug/mL	100
35) Hexachlorobutadiene	6.639	225	599971	138.06	ug/mL	97
36) 4-Chloro-3-methylphenol	7.012	107	1184949	133.41	ug/mL	98
37) 2-Methylnaphthalene	7.140	142	2502583	121.08	ug/mL	99
38) 1-Methylnaphthalene	7.227	142	2330552	120.55	ug/mL	100
39) 1,2,4,5-Tetrachloroben...	7.286	216	1151461	137.62	ug/mL	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39644.D
Acq On : 11 Sep 2014 1:56 pm
Operator : williamk
Sample : ic1461-120
Misc : op39525,msr1461,,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 14:56:26 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:54:35 2014
Response via : Initial Calibration

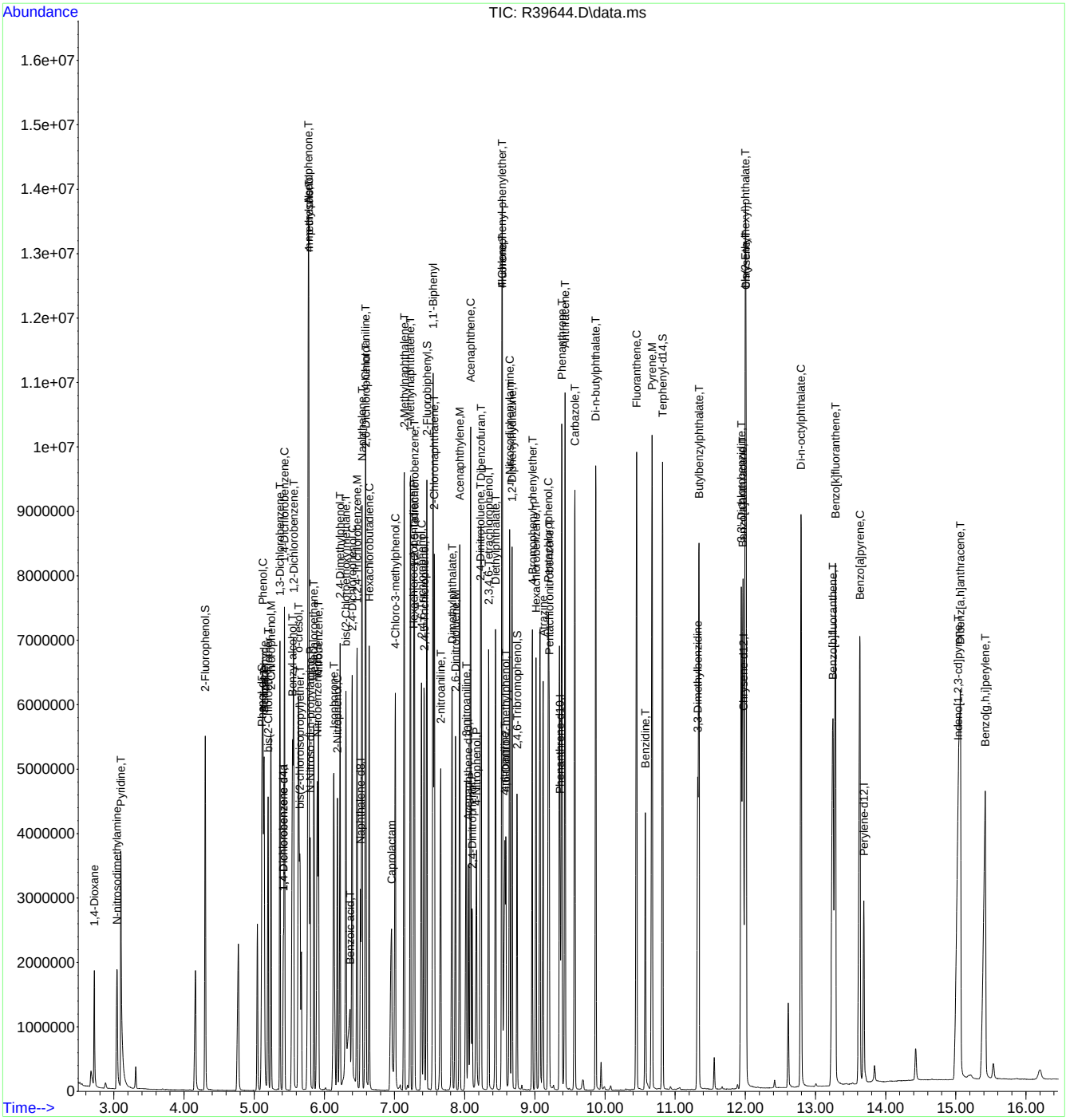
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Caprolactam	6.956	55	796915	138.87 ug/mL#	74
42) Pentachloronitrobenzene	9.204	237	351216	166.93 ug/mL	98
43) Hexachlorocyclopentadiene	7.273	237	642121	153.53 ug/mL	97
44) 2,4,6-Trichlorophenol	7.385	196	797640	150.97 ug/mL	97
45) 2,4,5-Trichlorophenol	7.423	196	864192	146.84 ug/mL	99
47) 2-Chloronaphthalene	7.566	162	2267284	127.72 ug/mL	96
48) Acenaphthylene	7.929	152	3317270	125.32 ug/mL	99
49) Dimethylphthalate	7.820	163	2521292	131.85 ug/mL	99
50) 2,4-Dinitrotoluene	8.224	165	776730	170.09 ug/mL	89
51) Acenaphthene	8.085	153	2266270	119.84 ug/mL	95
52) 2,4-Dinitrophenol	8.109	184	306653	209.32 ug/mL	89
53) Dibenzofuran	8.234	168	3263443	122.19 ug/mL	99
54) 2,6-Dinitrotoluene	7.870	165	588761	162.50 ug/mL	88
55) 4-Nitrophenol	8.169	65	633266	155.00 ug/mL	79
56) 2,3,4,6-Tetrachlorophenol	8.339	232	676461	157.82 ug/mL	100
57) Fluorene	8.535	166	2468675	116.06 ug/mL	96
58) 4-Chlorophenyl-phenyle...	8.532	204	1190785	122.70 ug/mL	95
59) Diethylphthalate	8.439	149	2617754	132.62 ug/mL	99
60) 2-nitroaniline	7.659	138	882324	160.53 ug/mL	95
61) 3-nitroaniline	8.022	138	732352	156.67 ug/mL	96
62) 4-nitroaniline	8.573	138	785732	155.71 ug/mL	90
63) 1,1'-Biphenyl	7.550	154	2884877	118.65 ug/mL	99
65) 4,6-Dinitro-2-methylph...	8.585	198	437016	205.06 ug/mL	100
66) n-Nitrosodiphenylamine	8.641	169	1894100	126.13 ug/mL	97
67) 1,2-Diphenylhydrazine	8.675	77	3007723	114.63 ug/mL	99
69) 4-Bromophenyl-phenylether	8.964	248	719188	142.85 ug/mL	95
70) Hexachlorobenzene	9.017	284	712890	140.28 ug/mL	91
71) Pentachlorophenol	9.191	266	620585	173.36 ug/mL	98
72) Phenanthrene	9.384	178	3682170	118.62 ug/mL	96
73) Anthracene	9.430	178	3725591	120.64 ug/mL	98
74) Carbazole	9.570	167	3702619	122.20 ug/mL	96
75) Di-n-butylphthalate	9.869	149	4420329	124.70 ug/mL	97
76) Fluoranthene	10.450	202	3974408	128.90 ug/mL	86
77) Atrazine	9.120	200	616405	136.27 ug/mL	98
79) Benzidine	10.574	184	1477078	107.83 ug/mL	99
80) 3,3-Dimethylbenzidine	11.320	212	1429673m	145.59 ug/mL	
81) Pyrene	10.671	202	4230351	125.82 ug/mL	87
83) Butylbenzylphthalate	11.339	149	2126299	142.57 ug/mL	93
84) 3,3'-Dichlorobenzidine	11.942	252	1477471	156.08 ug/mL	97
85) Benzo[a]anthracene	11.964	228	3920373	131.71 ug/mL	96
86) Chrysene	12.010	228	3817611	127.35 ug/mL	96
87) bis(2-Ethylhexyl)phtha...	12.001	149	2776673	132.86 ug/mL	98
89) Di-n-octylphthalate	12.793	149	4973740	148.25 ug/mL	99
90) Benzo[b]fluoranthene	13.247	252	3780213	148.65 ug/mL	95
91) Benzo[k]fluoranthene	13.284	252	3720544	135.87 ug/mL	96
92) Benzo[a]pyrene	13.636	252	3496585	144.88 ug/mL	95
93) Indeno[1,2,3-cd]pyrene	15.034	276	4246938	147.33 ug/mL	76
94) Dibenz[a,h]anthracene	15.062	278	3541866	149.19 ug/mL	93
95) Benzo[g,h,i]perylene	15.420	276	3384949	141.68 ug/mL	88
97) Benzaldehyde	5.141	77	21393	8.87 ug/mL#	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39644.D
Acq On : 11 Sep 2014 1:56 pm
Operator : williamk
Sample : ic1461-120
Misc : op39525,msr1461,,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 14:56:26 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:54:35 2014
Response via : Initial Calibration



R140911_8270.m Fri Sep 12 10:51:46 2014 Page: 3

Manual Integrations APPROVED (compounds with "m" flag)
Doug Yargeau 09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39645.D
Acq On : 11 Sep 2014 2:21 pm
Operator : williamk
Sample : ic1461-160
Misc : op39525,msr1461,,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 14:55:55 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 14:24:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.415	152	278395	40.00	ug/mL	0.00
22) Naphthalene-d8	6.518	136	1101063	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.053	164	636613	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.359	188	1096324	40.00	ug/mL	0.00
78) Chrysene-d12	11.979	240	1041052	40.00	ug/mL	0.02
88) Perylene-d12	13.688	264	905471	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.415	152	278395	40.00	ug/mL #	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.305	112	1672455	177.85	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	177.85%#		
8) Phenol-d5	5.116	99	2114966	170.81	ug/mL	0.02
Spiked Amount 100.000	Range 30 - 130		Recovery =	170.81%#		
23) Nitrobenzene-d5	5.900	82	1955184	177.70	ug/mL	0.01
Spiked Amount 50.000	Range 30 - 130		Recovery =	355.40%#		
46) 2-Fluorobiphenyl	7.460	172	3342135	164.66	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	329.32%#		
68) 2,4,6-Tribromophenol	8.750	330	462007m	210.89	ug/mL	0.01
Spiked Amount 100.000	Range 30 - 130		Recovery =	210.89%#		
82) Terphenyl-d14	10.823	244	3862767	177.21	ug/mL	0.01
Spiked Amount 50.000	Range 30 - 130		Recovery =	354.42%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.720	88	726916	168.49	ug/mL#	100
3) N-nitrosodimethylamine	3.046	74	1202168	201.26	ug/mL	91
4) Pyridine	3.099	79	2074251	178.50	ug/mL	77
5) Aniline	5.144	93	2630997	166.16	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.197	63	1459219	164.34	ug/mL#	75
9) Phenol	5.129	94	2471946	174.57	ug/mL	88
10) 2-Chlorophenol	5.241	128	1735748	173.76	ug/mL	90
11) 1,3-Dichlorobenzene	5.368	146	1732924	163.81	ug/mL	97
12) 1,4-Dichlorobenzene	5.433	146	1775463	162.35	ug/mL	95
13) 1,2-Dichlorobenzene	5.561	146	1654452	162.00	ug/mL	97
14) Benzyl alcohol	5.548	108	1244582	177.99	ug/mL	96
15) bis(2-chloroisopropyl)...	5.651	45	2337664	155.41	ug/mL	79
16) o-cresol	5.635	108	1707143	171.31	ug/mL	81
17) Acetophenone	5.778	105	2186187	152.30	ug/mL	86
18) Hexachloroethane	5.853	117	742202	170.87	ug/mL	96
19) N-Nitroso-di-n-propyla...	5.803	70	1051586m	137.47	ug/mL	
20) m+p-cresols	5.781	108	3096330	306.12	ug/mL	99
21) 4-methylphenol	5.781	108	3096330	306.12	ug/mL	99
24) Nitrobenzene	5.918	77	1950398	169.53	ug/mL	93
25) Isophorone	6.142	82	3519505	170.99	ug/mL	99
26) 2-Nitrophenol	6.189	139	925510	207.05	ug/mL	93
27) 2,4-Dimethylphenol	6.229	107	1763787	167.91	ug/mL	96
28) bis(2-Chloroethoxy)met...	6.310	93	2133171	163.94	ug/mL	99
29) Benzoic acid	6.381	105	1411734m	223.64	ug/mL	
30) 2,4-Dichlorophenol	6.400	162	1420603	181.27	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.465	180	1459640	173.82	ug/mL	94
32) Naphthalene	6.537	128	4495512	152.54	ug/mL	96
33) 2,6-Dichlorophenol	6.593	162	1328982	165.80	ug/mL	99
34) 4-Chloroaniline	6.586	127	1946206	159.23	ug/mL	100
35) Hexachlorobutadiene	6.639	225	785349	181.80	ug/mL	97
36) 4-Chloro-3-methylphenol	7.018	107	1552779	176.84	ug/mL	98
37) 2-Methylnaphthalene	7.140	142	3197591	158.77	ug/mL	100
38) 1-Methylnaphthalene	7.227	142	3014520	160.13	ug/mL	100
39) 1,2,4,5-Tetrachloroben...	7.286	216	1499045	180.33	ug/mL	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39645.D
Acq On : 11 Sep 2014 2:21 pm
Operator : williamk
Sample : ic1461-160
Misc : op39525,msr1461,,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 14:55:55 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 14:24:04 2014
Response via : Initial Calibration

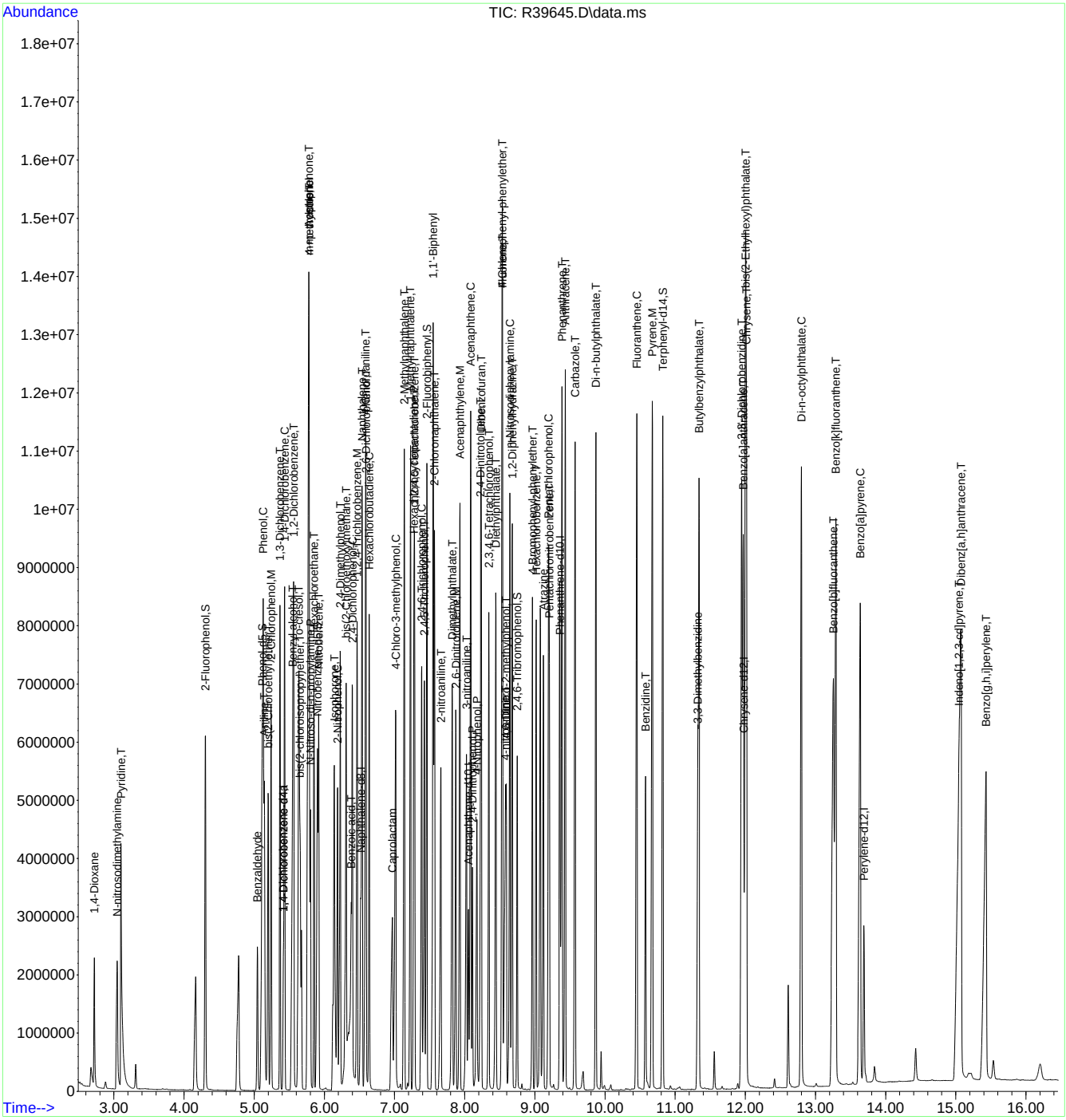
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Caprolactam	6.969	55	957910m	167.77 ug/mL	
42) Pentachloronitrobenzene	9.207	237	450967	210.40 ug/mL	98
43) Hexachlorocyclopentadiene	7.276	237	839716	200.11 ug/mL	97
44) 2,4,6-Trichlorophenol	7.388	196	1056956	199.97 ug/mL	96
45) 2,4,5-Trichlorophenol	7.426	196	1127745	192.47 ug/mL	99
47) 2-Chloronaphthalene	7.569	162	2884763	166.90 ug/mL	96
48) Acenaphthylene	7.932	152	4243637	165.12 ug/mL	98
49) Dimethylphthalate	7.820	163	3296656	176.20 ug/mL	99
50) 2,4-Dinitrotoluene	8.228	165	1009562	216.25 ug/mL	91
51) Acenaphthene	8.085	153	2917523	159.94 ug/mL	96
52) 2,4-Dinitrophenol	8.113	184	436684	274.85 ug/mL	80
53) Dibenzofuran	8.237	168	4130342	159.88 ug/mL	98
54) 2,6-Dinitrotoluene	7.876	165	780257	212.46 ug/mL	83
55) 4-Nitrophenol	8.175	65	835871	203.57 ug/mL	79
56) 2,3,4,6-Tetrachlorophenol	8.343	232	898206	207.84 ug/mL	99
57) Fluorene	8.538	166	3084075	150.99 ug/mL	96
58) 4-Chlorophenyl-phenyle...	8.535	204	1491850	158.82 ug/mL	93
59) Diethylphthalate	8.442	149	3366163	174.15 ug/mL	98
60) 2-nitroaniline	7.662	138	1171066	210.67 ug/mL	93
61) 3-nitroaniline	8.026	138	965980	205.23 ug/mL	96
62) 4-nitroaniline	8.579	138	1041927	205.29 ug/mL	90
63) 1,1'-Biphenyl	7.550	154	3663107	156.40 ug/mL	99
65) 4,6-Dinitro-2-methylph...	8.591	198	617300	268.54 ug/mL	100
66) n-Nitrosodiphenylamine	8.644	169	2439544	164.65 ug/mL	98
67) 1,2-Diphenylhydrazine	8.678	77	3788454	148.36 ug/mL	98
69) 4-Bromophenyl-phenylether	8.967	248	952465	188.04 ug/mL	95
70) Hexachlorobenzene	9.020	284	954972	187.34 ug/mL	95
71) Pentachlorophenol	9.194	266	833690	223.57 ug/mL	99
72) Phenanthrene	9.387	178	4696613	154.73 ug/mL	96
73) Anthracene	9.433	178	4736162	156.46 ug/mL	97
74) Carbazole	9.573	167	4749400	159.62 ug/mL	95
75) Di-n-butylphthalate	9.872	149	5530390	158.40 ug/mL	97
76) Fluoranthene	10.453	202	5135693	168.27 ug/mL	88
77) Atrazine	9.123	200	808728	179.07 ug/mL	98
79) Benzidine	10.577	184	1895280	150.69 ug/mL	99
80) 3,3-Dimethylbenzidine	11.320	212	1777391m	176.73 ug/mL	
81) Pyrene	10.674	202	5444553	163.19 ug/mL	88
83) Butylbenzylphthalate	11.339	149	2714101	179.84 ug/mL	92
84) 3,3'-Dichlorobenzidine	11.945	252	1929057	198.28 ug/mL	97
85) Benzo[a]anthracene	11.970	228	5152617	173.25 ug/mL	96
86) Chrysene	12.016	228	4946064	165.98 ug/mL	95
87) bis(2-Ethylhexyl)phtha...	12.004	149	3532506	168.94 ug/mL	96
89) Di-n-octylphthalate	12.800	149	6347429	189.58 ug/mL	99
90) Benzo[b]fluoranthene	13.256	252	5216535	205.45 ug/mL	95
91) Benzo[k]fluoranthene	13.291	252	4696056m	174.33 ug/mL	
92) Benzo[a]pyrene	13.639	252	4651332	193.87 ug/mL	95
93) Indeno[1,2,3-cd]pyrene	15.044	276	5681652	197.72 ug/mL	92
94) Dibenz[a,h]anthracene	15.075	278	4672357	197.00 ug/mL	95
95) Benzo[g,h,i]perylene	15.432	276	4480969	189.37 ug/mL	90
97) Benzaldehyde	5.045	77	517845m	262.02 ug/mL	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39645.D
Acq On : 11 Sep 2014 2:21 pm
Operator : williamk
Sample : ic1461-160
Misc : op39525,msr1461,,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 14:55:55 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 14:24:04 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES MC33841

Manual Integrations APPROVED
(compounds with "m" flag)
Doug Yargeau
09/26/14 13:04

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39648a.D
Acq On : 11 Sep 2014 3:39 pm
Operator : williamk
Sample : icv1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 24 09:14:33 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Sep 24 09:08:51 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.415	152	353545	40.00	ug/mL	0.00
22) Naphthalene-d8	6.512	136	1384460	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.050	164	807070m	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.356	188	1294610m	40.00	ug/mL	0.00
78) Chrysene-d12	11.973	240	1281438	40.00	ug/mL	0.00
88) Perylene-d12	13.685	264	1135179	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.415	152	353545	40.00	ug/mL	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.299	112	651926	53.84	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 53.84%			
8) Phenol-d5	5.101	99	806970	50.89	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 50.89%			
23) Nitrobenzene-d5	5.890	82	731311	52.14	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 104.28%			
46) 2-Fluorobiphenyl	7.454	172	1315939m	50.96	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 101.92%			
68) 2,4,6-Tribromophenol	8.740	330	153547	54.37	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 54.37%			
82) Terphenyl-d14	10.817	244	1389830	51.11	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 102.22%			
Target Compounds						Qvalue
3) N-nitrosodimethylamine	3.046	74	433153	51.32	ug/mL	91
4) Pyridine	3.102	79	781198	52.18	ug/mL	76
5) Aniline	5.135	93	905638	44.82	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.191	63	558952	49.40	ug/mL#	75
9) Phenol	5.113	94	885376	48.68	ug/mL	97
10) 2-Chlorophenol	5.234	128	636459	49.64	ug/mL	90
11) 1,3-Dichlorobenzene	5.365	146	694865	51.57	ug/mL	99
12) 1,4-Dichlorobenzene	5.427	146	703033	50.53	ug/mL	96
13) 1,2-Dichlorobenzene	5.558	146	659874	50.80	ug/mL	99
14) Benzyl alcohol	5.536	108	452332	50.23	ug/mL	99
15) bis(2-chloroisopropyl)...	5.651	45	1136947m	59.73	ug/mL	
16) o-cresol	5.626	108	621880	48.71	ug/mL	80
17) Acetophenone	5.763	105	888823	49.05	ug/mL	81
18) Hexachloroethane	5.850	117	279581	50.26	ug/mL	92
19) N-Nitroso-di-n-propyla...	5.769	70	496924	52.07	ug/mL	87
20) m+p-cresols	5.763	108	1239031	96.98	ug/mL	100
21) 4-methylphenol	5.763	108	1239031	96.98	ug/mL	100
24) Nitrobenzene	5.909	77	732495	50.26	ug/mL	93
25) Isophorone	6.123	82	1217512	46.64	ug/mL	96
26) 2-Nitrophenol	6.179	139	317969	49.47	ug/mL	89
27) 2,4-Dimethylphenol	6.217	107	652152	49.07	ug/mL	98
28) bis(2-Chloroethoxy)met...	6.301	93	799355	48.71	ug/mL	98
29) Benzoic acid	6.329	105	489656	51.08	ug/mL	91
30) 2,4-Dichlorophenol	6.388	162	523159	52.22	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.462	180	541720	50.76	ug/mL	96
32) Naphthalene	6.531	128	1826494	49.58	ug/mL	97
33) 2,6-Dichlorophenol	6.583	162	517227	51.09	ug/mL	98
34) 4-Chloroaniline	6.577	127	666495	43.39	ug/mL	100
35) Hexachlorobutadiene	6.636	225	290085	52.51	ug/mL	99
36) 4-Chloro-3-methylphenol	7.000	107	556789	49.77	ug/mL	97
37) 2-Methylnaphthalene	7.134	142	1251411	49.47	ug/mL	99
38) 1-Methylnaphthalene	7.221	142	1193065	50.40	ug/mL	99
39) 1,2,4,5-Tetrachloroben...	7.280	216	547893	51.60	ug/mL	97
40) Caprolactam	6.922	55	389450	53.93	ug/mL#	73

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39648a.D
Acq On : 11 Sep 2014 3:39 pm
Operator : williamk
Sample : icv1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 24 09:14:33 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Sep 24 09:08:51 2014
Response via : Initial Calibration

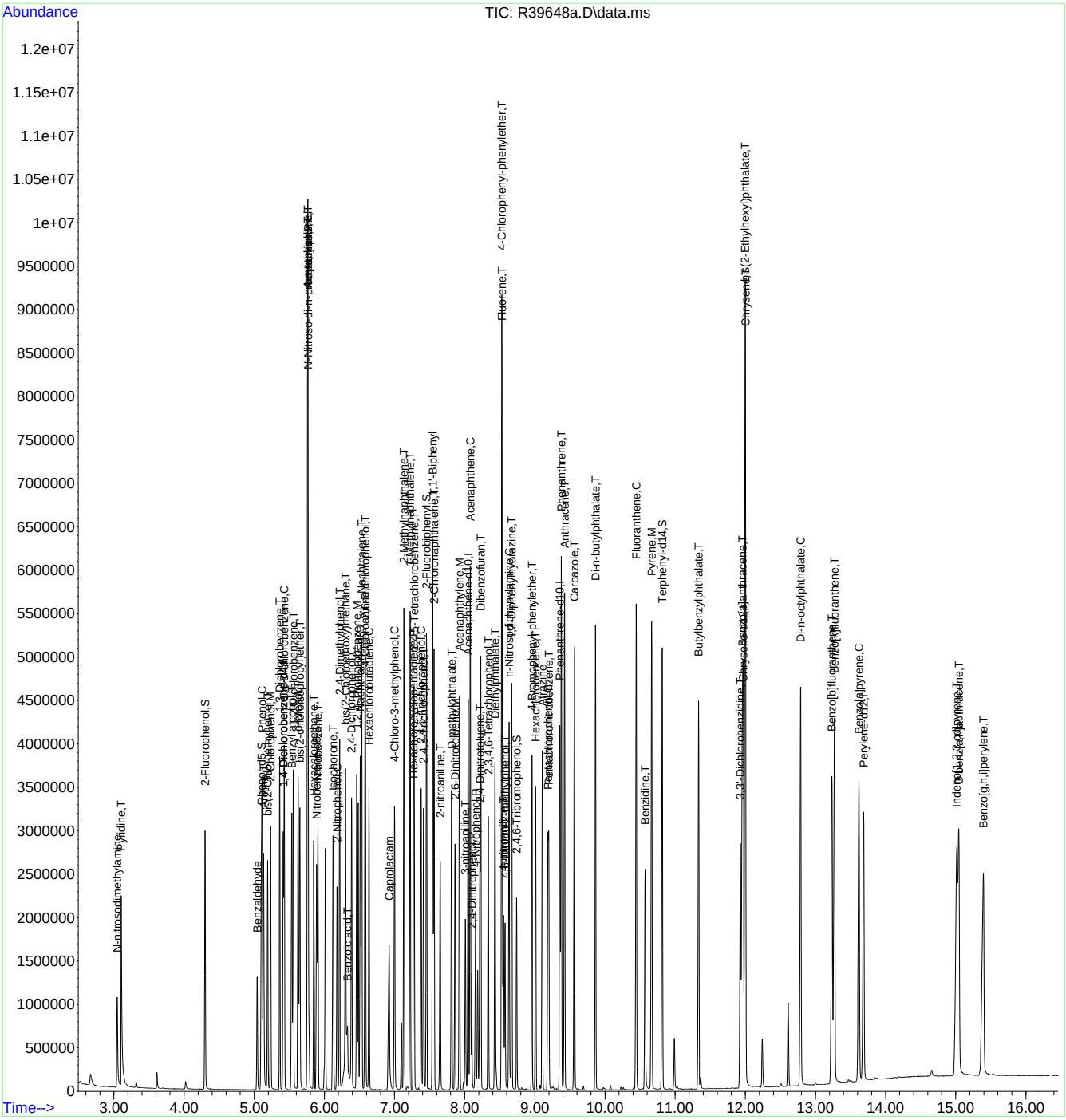
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Pentachloronitrobenzene	9.197	237	153740m	48.80	ug/mL	
43) Hexachlorocyclopentadiene	7.270	237	247158	43.05	ug/mL	98
44) 2,4,6-Trichlorophenol	7.379	196	359753m	52.06	ug/mL	
45) 2,4,5-Trichlorophenol	7.413	196	387183m	50.83	ug/mL	
47) 2-Chloronaphthalene	7.562	162	1191687m	54.09	ug/mL	
48) Acenaphthylene	7.926	152	1590694m	48.63	ug/mL	
49) Dimethylphthalate	7.814	163	1218478m	50.73	ug/mL	
50) 2,4-Dinitrotoluene	8.215	165	360232m	51.34	ug/mL	
51) Acenaphthene	8.078	153	1169440m	50.57	ug/mL	
52) 2,4-Dinitrophenol	8.100	184	125628m	54.33	ug/mL	
53) Dibenzofuran	8.231	168	1624507m	49.61	ug/mL	
54) 2,6-Dinitrotoluene	7.864	165	263933m	48.93	ug/mL	
55) 4-Nitrophenol	8.156	65	302576m	53.03	ug/mL	
56) 2,3,4,6-Tetrachlorophenol	8.336	232	295543m	49.67	ug/mL	
57) Fluorene	8.532	166	1346083m	52.35	ug/mL	
58) 4-Chlorophenyl-phenyle...	8.529	204	607295m	51.05	ug/mL	
59) Diethylphthalate	8.433	149	1270369m	51.28	ug/mL	
60) 2-nitroaniline	7.653	138	405557m	49.39	ug/mL	
61) 3-nitroaniline	8.010	138	245726m	35.62	ug/mL	
62) 4-nitroaniline	8.554	138	336078m	45.40	ug/mL	
63) 1,1'-Biphenyl	7.544	154	1465400m	49.49	ug/mL	
65) 4,6-Dinitro-2-methylph...	8.576	198	188971m	56.11	ug/mL	
66) n-Nitrosodiphenylamine	8.635	169	843589	48.04	ug/mL	98
67) 1,2-Diphenylhydrazine	8.669	77	1599108m	53.52	ug/mL	
69) 4-Bromophenyl-phenylether	8.958	248	323268	52.89	ug/mL	90
70) Hexachlorobenzene	9.011	284	326677	53.13	ug/mL	86
71) Pentachlorophenol	9.185	266	240489	45.98	ug/mL	99
72) Phenanthrene	9.378	178	1831708	51.31	ug/mL	97
73) Anthracene	9.424	178	1812628m	50.85	ug/mL	
74) Carbazole	9.561	167	1800406m	51.26	ug/mL	
75) Di-n-butylphthalate	9.866	149	2179653	52.93	ug/mL	98
76) Fluoranthene	10.444	202	1947376	53.69	ug/mL	83
77) Atrazine	9.107	200	330145	61.00	ug/mL	97
79) Benzidine	10.571	184	806067	55.00	ug/mL	99
81) Pyrene	10.664	202	2003386	48.66	ug/mL	83
83) Butylbenzylphthalate	11.333	149	970676	51.46	ug/mL	89
84) 3,3'-Dichlorobenzidine	11.929	252	546637	42.52	ug/mL	98
85) Benzo[a]anthracene	11.957	228	1865974	50.45	ug/mL	97
86) Chrysene	12.004	228	1790841	48.60	ug/mL	98
87) bis(2-Ethylhexyl)phtha...	11.998	149	1412402	54.49	ug/mL	99
89) Di-n-octylphthalate	12.790	149	2307035	51.35	ug/mL	100
90) Benzo[b]fluoranthene	13.235	252	1661413	50.40	ug/mL	93
91) Benzo[k]fluoranthene	13.272	252	1697541	49.70	ug/mL	96
92) Benzo[a]pyrene	13.620	252	1533121	49.66	ug/mL	92
93) Indeno[1,2,3-cd]pyrene	15.013	276	1857671	50.09	ug/mL	92
94) Dibenz[a,h]anthracene	15.044	278	1549046	50.63	ug/mL	91
95) Benzo[g,h,i]perylene	15.395	276	1503188	49.53	ug/mL	87
97) Benzaldehyde	5.042	77	216974	40.71	ug/mL#	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39648a.D
Acq On : 11 Sep 2014 3:39 pm
Operator : williamk
Sample : icv1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 24 09:14:33 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Sep 24 09:08:51 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
10/01/14 15:44

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141001\
Data File : R40057.D
Acq On : 1 Oct 2014 8:50 am
Operator : williamk
Sample : cc1461-50
Misc : op39867,msr1474,,,,1,1
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Oct 01 09:19:12 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 01 09:15:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.516	152	306202	40.00	ug/mL	0.00
22) Naphthalene-d8	5.613	136	1168302	40.00	ug/mL	0.00
41) Acenaphthene-d10	7.129	164	692930	40.00	ug/mL	0.00
64) Phenanthrene-d10	8.413	188	1146317	40.00	ug/mL	0.00
78) Chrysene-d12	10.785	240	1165624	40.00	ug/mL	0.00
88) Perylene-d12	12.320	264	1019848	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	4.516	152	306202	40.00	ug/mL	# 0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.366	112	522014	49.78	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 49.78%			
8) Phenol-d5	4.245	99	660673	48.10	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 48.10%			
23) Nitrobenzene-d5	5.000	82	632187	53.41	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 106.82%			
46) 2-Fluorobiphenyl	6.564	172	1188303	53.59	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 107.18%			
68) 2,4,6-Tribromophenol	7.816	330	161658m	64.98	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 64.98%			
82) Terphenyl-d14	9.818	244	1355289	54.79	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 109.58%			
Target Compounds						Qvalue
3) N-nitrosodimethylamine	1.858	74	343100	46.94	ug/mL	90
4) Pyridine	1.874	79	637663	49.18	ug/mL	82
5) Aniline	4.236	93	823987	47.09	ug/mL#	1
7) bis(2-Chloroethyl)ether	4.314	63	470531	48.02	ug/mL#	75
9) Phenol	4.258	94	790767	50.20	ug/mL	98
10) 2-Chlorophenol	4.335	128	569319	51.27	ug/mL	93
11) 1,3-Dichlorobenzene	4.460	146	613739	52.59	ug/mL	98
12) 1,4-Dichlorobenzene	4.528	146	629347	52.23	ug/mL	99
13) 1,2-Dichlorobenzene	4.655	146	586733	52.15	ug/mL	98
14) Benzyl alcohol	4.659	108	370103	47.46	ug/mL	97
15) bis(2-chloroisopropyl)...	4.783	45	636152m	38.59	ug/mL	
16) o-cresol	4.774	108	567542	51.33	ug/mL	80
17) Acetophenone	4.879	105	812603	51.78	ug/mL	97
18) Hexachloroethane	4.944	117	261564	54.29	ug/mL	100
19) N-Nitroso-di-n-propyla...	4.895	70	392120	47.44	ug/mL	87
20) m+p-cresols	4.913	108	1130182	102.14	ug/mL	99
21) 4-methylphenol	4.913	108	1130182	102.14	ug/mL	99
24) Nitrobenzene	5.019	77	636309	51.74	ug/mL	93
25) Isophorone	5.234	82	1112328	50.50	ug/mL	97
26) 2-Nitrophenol	5.293	139	304483	58.97	ug/mL	94
27) 2,4-Dimethylphenol	5.361	107	566914	50.55	ug/mL	95
28) bis(2-Chloroethoxy)met...	5.439	93	690901	49.89	ug/mL	97
29) Benzoic acid	5.498	105	498655m	61.64	ug/mL	
30) 2,4-Dichlorophenol	5.507	162	482884	57.12	ug/mL	97
31) 1,2,4-Trichlorobenzene	5.569	180	527575	58.58	ug/mL	97
32) Naphthalene	5.631	128	1594207	51.28	ug/mL	98
33) 2,6-Dichlorophenol	5.700	162	484012	56.65	ug/mL	98
34) 4-Chloroaniline	5.697	127	710361	54.81	ug/mL	100
35) Hexachlorobutadiene	5.749	225	294423m	63.16	ug/mL	
36) 4-Chloro-3-methylphenol	6.144	107	513566	54.40	ug/mL	99
37) 2-Methylnaphthalene	6.231	142	1124666	52.68	ug/mL	99
38) 1-Methylnaphthalene	6.315	142	1034291	51.77	ug/mL	99
39) 1,2,4,5-Tetrachloroben...	6.377	216	527670m	58.89	ug/mL	
40) Caprolactam	6.032	55	325734	53.44	ug/mL#	74

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141001\
Data File : R40057.D
Acq On : 1 Oct 2014 8:50 am
Operator : williamk
Sample : cc1461-50
Misc : op39867,msr1474,,,,1,1
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Oct 01 09:19:12 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 01 09:15:13 2014
Response via : Initial Calibration

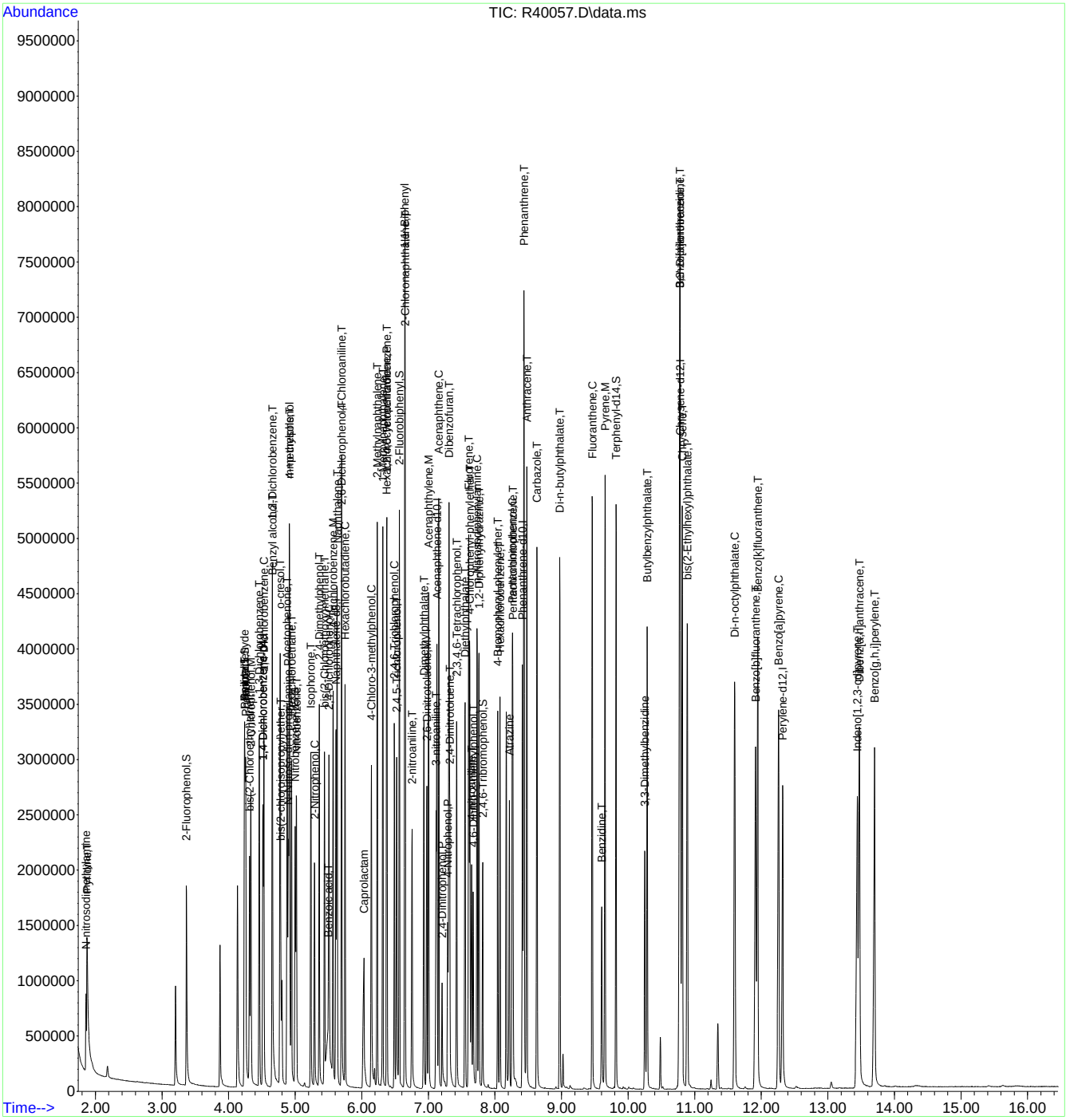
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Pentachloronitrobenzene	8.267	237	159765m	59.06	ug/mL	
43) Hexachlorocyclopentadiene	6.374	237	285930	58.00	ug/mL	100
44) 2,4,6-Trichlorophenol	6.489	196	349535	58.92	ug/mL	98
45) 2,4,5-Trichlorophenol	6.523	196	388846	59.46	ug/mL	99
47) 2-Chloronaphthalene	6.651	162	1012039	53.51	ug/mL	95
48) Acenaphthylene	7.005	152	1536702	54.71	ug/mL	99
49) Dimethylphthalate	6.934	163	1141008	55.33	ug/mL	100
50) 2,4-Dinitrotoluene	7.322	165	346170	57.45	ug/mL	88
51) Acenaphthene	7.157	153	1038545	52.31	ug/mL	95
52) 2,4-Dinitrophenol	7.207	184	102986	50.86	ug/mL	91
53) Dibenzofuran	7.310	168	1526756	54.30	ug/mL	99
54) 2,6-Dinitrotoluene	6.977	165	259762	56.08	ug/mL	84
55) 4-Nitrophenol	7.291	65	277959	56.74	ug/mL	81
56) 2,3,4,6-Tetrachlorophenol	7.425	232	301144m	58.95	ug/mL	
57) Fluorene	7.605	166	1186852	53.76	ug/mL	97
58) 4-Chlorophenyl-phenyle...	7.624	204	594828	58.23	ug/mL	93
59) Diethylphthalate	7.552	149	1189653	55.93	ug/mL	99
60) 2-nitroaniline	6.756	138	378622	53.70	ug/mL	90
61) 3-nitroaniline	7.117	138	316067	56.31	ug/mL	93
62) 4-nitroaniline	7.649	138	319155	52.89	ug/mL	87
63) 1,1'-Biphenyl	6.645	154	1330776	52.35	ug/mL	98
65) 4,6-Dinitro-2-methylph...	7.673	198	186087	59.67	ug/mL	100
66) n-Nitrosodiphenylamine	7.729	169	840115	54.03	ug/mL	99
67) 1,2-Diphenylhydrazine	7.760	77	1291949	48.83	ug/mL	98
69) 4-Bromophenyl-phenylether	8.043	248	323887m	59.84	ug/mL	
70) Hexachlorobenzene	8.077	284	343420m	63.08	ug/mL	
71) Pentachlorophenol	8.261	266	259335m	55.99	ug/mL	
72) Phenanthrene	8.435	178	1712667	54.19	ug/mL	98
73) Anthracene	8.478	178	1771155	56.11	ug/mL	99
74) Carbazole	8.631	167	1680118	54.02	ug/mL	98
75) Di-n-butylphthalate	8.973	149	2135773	58.58	ug/mL	99
76) Fluoranthene	9.464	202	1848341	57.55	ug/mL	92
77) Atrazine	8.217	200	215180	44.90	ug/mL	95
79) Benzidine	9.604	184	562059	42.53	ug/mL	99
80) 3,3-Dimethylbenzidine	10.253	212	710412	59.60	ug/mL	100
81) Pyrene	9.653	202	1976499	52.78	ug/mL	92
83) Butylbenzylphthalate	10.287	149	929754	54.18	ug/mL	96
84) 3,3'-Dichlorobenzidine	10.775	252	711202m	60.82	ug/mL	
85) Benzo[a]anthracene	10.775	228	1787897	53.14	ug/mL	97
86) Chrysene	10.813	228	1720756	51.33	ug/mL	98
87) bis(2-Ethylhexyl)phtha...	10.890	149	1300804	55.18	ug/mL	98
89) Di-n-octylphthalate	11.599	149	2212201	54.81	ug/mL	99
90) Benzo[b]fluoranthene	11.916	252	1601525	54.08	ug/mL	98
91) Benzo[k]fluoranthene	11.947	252	1705408	55.59	ug/mL	99
92) Benzo[a]pyrene	12.261	252	1524332	54.95	ug/mL	97
93) Indeno[1,2,3-cd]pyrene	13.442	276	1421740	42.67	ug/mL	98
94) Dibenz[a,h]anthracene	13.473	278	1498468	54.52	ug/mL	95
95) Benzo[g,h,i]perylene	13.703	276	1518374	55.69	ug/mL	94
97) Benzaldehyde	4.236	77	11287	5.19	ug/mL	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141001\
Data File : R40057.D
Acq On : 1 Oct 2014 8:50 am
Operator : williamk
Sample : cc1461-50
Misc : op39867,msr1474,,,,1,1
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Oct 01 09:19:12 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 01 09:15:13 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES MC33841

Accutest Laboratories of New England, Inc.

Instrument: GCMS F

GCMS Analysis Log - Extractables

Run Date: 8/25/14 **Analyst Signature:** WK

Standard Data

Lot #	Description	Conc
MS61803	DFTPP	50 ng/mL
MS61397	AB8270 CCV, SVS	80
MS61347	AB8270 ICV, SVS	40000
MS61261	AB8270 ICV, SVS	50

Column Information: Front 30-SMS

Rear N/A

Sequence File: F140825.s

Quantitation Methods: DFTPP.m

F140825_8270.m

Instrument Run Batches: MSF3320

Inj. Vol:

Data Acquisition Methods: F8270FACT.m Inj. Vol: 1µl

ICAL verified: Sequence verified: WK 8/26/14

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Mult.	Comments
98	F25537	BLANK	N/A		N/A	N/A	N/A	
99	538	DFTPP						
100	539	cc3320-90						
100	540	cc3320-80						
1	541	IC3320-2						
2	542	-5						
3	543	-10						
4	544	-20						
5	545	ICC3320-50						
6	546	IC3320-80						
7	547	-120						
8	548	-160						
9	549	ICV3320-50						

WK 8/26/14

MS002-04

Date: 8/29/06 Dilution Solvent: B+3 DCM Lot: DL 934 **Review:**

ACCUTEST LABORATORIES MC33841

Accutest Laboratories of New England, Inc.

Instrument: GCMS F

GCMS Analysis Log - Extractables

Run Date: 9/29/14

Analyst Signature: WK

Standard Data

Lot #	Description	Conc
MSS1209	DFTPP	50 µg/mL
MSS1395	AB8270A Cont. Std.	80
MSS1743	AB8270A Init. Std.	4000

Column Information: Front ZB-5MS

Rear N/A

Sequence File: F140929.S

Quantitation Methods: DFTPP.M

Instrument Run Batches: F140926.M 8270.M

MSF 3354

Data Acquisition Methods: F8270SCAN.M Inj. Vol: 1µL

ICAL verified:

Sequence verified: WK 9/30/14

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Mult.	Comments
98	F34454	BLANK	N/A		N/A	N/A	N/A	
99	455	DFTPP						
100	456	SB332-20						
1	457	MC33839-5	OP39947		Soil	5X		RR@5X 20.32g
2	458	-7				5X		RR@25X 20.58g
3	459	-9				N/A		
4	460	-10						
5	461	-11						
6	462	OP39949-MB	OP39949					
7	463	-BS						
8	464	-MS						
9	465	-MSD						
10	466	MC33846-9						
11	467	OP39941-MB	OP39941		AQ			
12	468	-BS						
13	469	-MS						
14	470	-MSD						
15	471	MC33809-11						
16	472	MC33910-2						
17	473	MC33846-10	OP39948		Soil			
18	474	-11						
19	475	-12						
20	476	MC33851-1				20X		
21	477	-2				20X		
22	478	OP39946-MB	OP39946			N/A		
23	479	-BS						
24	480	MC33846-4				5X		RR@50X 20.12g
25	481	-9				N/A		
26	482	-10				5X		RR@25X 20.45g
27	483	-11				N/A		
28	484	-15						Re-extract
								WK 9/30/14

MS002-04

Date: 8/29/06 Dilution Solvent: B+J DCM Lot: DL 182 **Review:**

ACCUTEST LABORATORIES MC33841

Accutest Laboratories of New England, Inc.

Instrument: GCMS R

GCMS Analysis Log - Extractables

Run Date: 9/11/14 **Analyst Signature:** WK

Standard Data

Lot#	Description	Conc
MS61397	AB3270 Cal. Std.	80 ng/mL
MS61346	AB3270 Int. Std.	50
MS61810	AB3270 Surr. Std.	50
MS60809	DFTPP	4000

Column Information: Front 5B-5MS
Rear N/A
Sequence File: R139911.S
Quantitation Methods: DFTPP.M
R139911_3270.M
Instrument Run Batches: MSR1461
Data Acquisition Methods: R3270BASE.M Inj. Vol: 1µL

ICAL verified: Sequence verified: WK 9/12/14

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Mult.	Comments
99	R139630-631	~~BLANK~~	N/A		N/A	N/A	N/A	DFTPP WK 9/12
100	R139632-633	~~CL Std~~						
99	R139634	~~BLANK~~						DFTPP WK 9/12
100	R139635-636	CL Std						
99	R139637	DFTPP	MS61397		N/A	N/A	N/A	
1	638	IC 1461-2						
2	639	-5						
3	640	-10						
4	641	-20						
5	642	ICC 1461-50						
6	643	IC 1461-80						
7	644	-120						
8	645	-160						
9	646	ICV 1460-50						
10	647	-50						
10	648	-50						
11	649	OP39761-MB	OP39761		Soil	N/A	N/A	
12	650	-BS						
13	651	MC39426-4						
14	652	-5						
15	653	-6						
16	654	-7						
17	655	MC39360-17						
18	656	OP39360-MB	OP39360		AQ			
19	657	-BS						
20	658	-MS						
21	659	-MSD						
22	660	MC39280-17						
23	661	MC39421-1						
24	662	-2						AR@50X
								WK 9/12/14

1S002-04

Date: 8/29/06 Dilution Solvent: B+J RLM Lot: DL130 **Review:**

Accutest Laboratories of New England, Inc.

Instrument: GCMS R

GCMS Analysis Log - Extractables

Run Date: 10/1/14 **Analyst Signature:** WK

Standard Data

Lot #	Description	Conc
MSS13493	DFTPP	50 ng/mL
MG61309	AB8270 Cal. Std.	80
MG61343	AB8270 Int. Std.	4000

Column Information: Front 30-5ms
Rear N/A
Sequence File: R140054.S
Quantitation Methods: DFTPP.M
R140054-8270.M
Instrument Run Batches: MSR14474
Data Acquisition Methods: R8270FAST.M Inj. Vol: 1 µL

ICAL verified: Sequence verified: 10/2/14 WK

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Mult.	Comments
NA	R40054	NA	NA		NA	NA	NA	
98	-5	Blank						
99	-6	DFTPP						
100	-7	cc1461-50						
1	-8	mc33840-1	op39961		AQ			
2	-9	mc33841-1						
3	R40060	-2						
4	-1	-3						
5	-2	-4						
6	-3	mc33845-12						
7	-4	-13						
8	-5	-12				10		
9	-6	mc33848-1				NA		
10	-7	op40026-mB	op40026		SO			
11	-8	-BS						
12	-9	mc33860-15						
13	R40070	mc33925-2						
14	-1	-3						
15	-2	-8						
16	-3	-9						
17	-4	-14						
18	-5	-15						
19	-6	-20						
20	-7	op40023-mB	op40023		AQ			
21	-8	-BS						
22	-9	-MS						
23	R40080	-MSD						
24	-1	mc33900-5						
25	-2	mc33909-4						
26	-3	-8						
	-4	mc33895-2			SO	5		

MS002-04
Date: 8/29/06 Dilution Solvent: B+S DCM Lot: DC 183 **Review:**

ACCUTEST LABORATORIES MC33841

ACCUTEST LABORATORIES

Extracted by: MD, AZ
Spike Witness: AZ
Concentrated by: TA 9/26/14
Fractionated by:
Extraction Method: SW846 3510C

Date/Time: 9/25/14 13:30
Date/Time:
Batch: OP39961 (ABN) OP39962 (SIM)
Matrix: Aqueous
Analysis Method: AB8270SL, AB8270STD, BS270SIMPAH, BS270PAH, RMS+2MNAP

pH paper lot: C-396

Sample	Spike Addition Check (✓)	Bottle No.	Initial Volume (ml)	Final Volume (ml)	Acid pH	Base pH	*Cleanup/Comments (3660B, 3630, 3665, other)	Received by: Date:
OP39961 MB		N/A	1000	1.0ml	2	12	shares OP w/ OP39962	
BS								
MC33800-11 MS							MS MC33800-12	
-11 MSD							MSD -12	
							-12	
MC33840 -1		1	950				AB	
MC33849 -3		2	1000		N/A		(AB) SIM	
MC33857 -1		1	950				SIM	
MC33841 -1		2	900				(+) BN	
-2		1	920				BN	
-3		2	850					
-4		1	860					
MC33845 -12		1	990					
-13		1	(990)				225mL sediment init. vol: 765mL	
MC33849 -1		3	1000				SIM	
MC33848 -1		3	N/A		N/A	N/A	Bottle QC, AB/SIM	
MC33849	✓	1	1000		N/A	12	(SIM)	
MC33860-2	✓	3	900	1.0ml	2	12	(SIM) (ABN)	
MC33823-4	✓	2	990		N/A	12	(SIM)	
							TA 9/26/14	

Fraction	Spike ID	Bottle #	Lot #	Concentration	Vol (ml)
Surrogate: ABN		3	7271	500 ug/ml	100 mL
Surrogate:					
Spike: Acid		N/A	7258	500 ug/ml	100 mL
Spike: BN		3	7241	500 ug/ml	100 mL
Spike: Custom 8293		1	7118	2000 ug/ml	25 mL
Spike:					
Spike:					
Hexane Frac Volume:		NA	NA	NA	
Spike ID Witness Initials	AZ	Filter Paper Lot #	10688	Filtered By	AZ, MD
Form. Deriv. Oven in time:		Out Time:			

H2SO4:	52429
Ether:	
MeCl2:	DL188
Hexane:	
Acetone:	
Acetonitrile:	
Na Sulfate:	B-598
Silica:	
SPE MFG	
Copper:	
Hydromatrix:	
HCL:	
NaOH:	C565
Florisil:	

Concentrator Temp: 75°/40°C
Concentrator ID: opo 03104

Tray #: MS-2
Lab Percent Humidity:

Reviewed By:

QP002-12 (03/27/13) Circle as applicable: 3660B = Cu cleanup; 3630 = Silica gel cleanup; 3665 = Acid cleanup; 3620 = Florisil Cleanup

ACCUTEST LABORATORIES MC33841

New England ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC33841
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Cyanide	GP18216/GN48493	0.010	0.0	mg/l	0.1	0.0991	99.1	90-110%
Cyanide	GP18216/GN48493			mg/l	0.2	0.211	105.5	90-110%

Associated Samples:
Batch GP18216: MC33841-1, MC33841-2, MC33841-3, MC33841-4
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC33841
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Cyanide	GP18216/GN48493	MC33908-3	mg/l	0.0	0.0	0.0	0-20%

Associated Samples:
Batch GP18216: MC33841-1, MC33841-2, MC33841-3, MC33841-4
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC33841
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Cyanide	GP18216/GN48493	MC33908-3	mg/l	0.0	0.1	0.098	98.0	75-125%

Associated Samples:
Batch GP18216: MC33841-1, MC33841-2, MC33841-3, MC33841-4
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: MC33841
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

File ID: 100314W2.CN Date Analyzed: 10/03/14 Methods: SW846 9012
Analyst: MA Run ID: GN48493
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:35	GN48493-STD1	1		STDA0.50
10:36	GN48493-STD2	1		STDB0.30
10:37	GN48493-STD3	1		STDC0.20
10:38	GN48493-STD4	1		STDD0.10
10:39	GN48493-STD5	1		STDE0.030
10:40	GN48493-STD6	1		STDF0.010
10:41	GN48493-STD7	1		STDG0.00
11:19	GN48493-ICV1	1		
11:20	GN48493-ICB1	1		
11:21	GN48493-CCV1	1		
11:22	GN48493-CCB1	1		
11:23	GP18216-MB1	1		
11:24	GP18216-B1	1		
11:25	GP18216-B2	1		
11:27	GP18216-S1	1		
11:28	GP18216-D1	1		
11:29	MC33908-3	1		(sample used for QC only; not part of login MC33841)
11:30	MC33841-1	1		
11:31	ZZZZZZ	1		DNR, offscale
11:32	MC33841-3	1		
11:33	MC33841-4	1		
11:34	GN48493-CCV2	1		
11:35	GN48493-CCB2	1		
11:36	ZZZZZZ	1		
11:37	ZZZZZZ	1		
11:38	ZZZZZZ	1		
11:39	ZZZZZZ	1		
11:40	ZZZZZZ	1		
11:41	ZZZZZZ	1		
11:42	ZZZZZZ	1		
11:43	ZZZZZZ	1		
11:44	ZZZZZZ	1		
11:45	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: MC33841
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

File ID: 100314W2.CN Date Analyzed: 10/03/14 Methods: SW846 9012
Analyst: MA Run ID: GN48493
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:46	GN48493-CCV3	1		
11:47	GN48493-CCB3	1		
11:48	ZZZZZZ	1		
11:50	ZZZZZZ	1		
11:51	ZZZZZZ	1		
11:52	MC33841-2	5		
11:53	GN48493-CCV4	1		
11:54	GN48493-CCB4	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: MC33841
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

File ID: 100314W2.CN Date Analyzed: 10/03/14 Methods: SW846 9012
Run ID: GN48493 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN48493-ICV1	Cyanide	0.21	0.010	0.0014	.2	105.0	90-110
GN48493-ICB1	Cyanide	-0.0050	0.010	0.0014			
GN48493-CCV1	Cyanide	0.31	0.010	0.0014	.3	103.3	90-110
GN48493-CCB1	Cyanide	-0.0053	0.010	0.0014			
GN48493-CCV2	Cyanide	0.31	0.010	0.0014	.3	103.3	90-110
GN48493-CCB2	Cyanide	-0.0056	0.010	0.0014			
GN48493-CCV3	Cyanide	0.31	0.010	0.0014	.3	103.3	90-110
GN48493-CCB3	Cyanide	-0.0053	0.010	0.0014			
GN48493-CCV4	Cyanide	0.31	0.010	0.0014	.3	103.3	90-110
GN48493-CCB4	Cyanide	-0.0055	0.010	0.0014			

(!) Outside of QC limits

New England ACCUTEST LABORATORIES

General Chemistry

Raw Data

ACCUTEST LABORATORIES

MC33841

Protected Worksheet MGN117-02

(Format edits must be done by Dept. manager)

Analyst	MEHDIA	**Test/Analysis**	CN SW846 9012
Date	10/3/14	**Analysis Batch ID**	GN48493
Instrument ID	LACHAT	**Prep Batch ID**	GP18216
File ID	100314W2.CN		

Reagents

Calib STD	GNSTD-	35269-CN	**Buffer**	RGT-	42460-CN
ICV	GNSTD-	35268-CN-2	**Carrier**	RGT-	42263-CN
CCV	GNSTD-	35269-CN-4	**Chloramine-T**	RGT-	42540-CN
Rhodanine indicator	RGT-	41630-CN	**Pyridine Barb. Acid**	RGT-	42541-CN
Silver Nitrate	RGT-	41629-CN	**CN STOCK STD**	GNSTD-	35270-CN-1

Standardization

Reagent/Stock Std:		NA ○		Cyanide ◉			
Volume of DI/Blank	250	Ml of AgNO3 for Blank	0	Volume of Std	250	Ml of AgNO3 for Stock	2.5
Conc. Of Stock Calib STD (mg/L)		1000					

Sample ID	Bot#	pH	Sample ID	Bot#	pH	Sample ID	Bot#	pH	Sample ID	Bot#	pH

COMMENTS

Cyanide stock standardization was performed on 10/03/14.

QC Review Date: 10/7/14

QC Reports: GN48493

Raw Data GN48493: Cyanide page 1 of 4

ACCUTEST

Distillation

Protected Worksheet MGN127-01

(Format edits must be done by Dept. manager)

Analyst:	MEHDIA	Date	10/3/14	Batch ID	GP18216	Matrix	Aqueous
QC Sample	MC33908-3	Balance ID	N/A	pH Meter ID	N/A	Block ID	MICRO

Analysis Type

CN EPA 335.4 ○	CN SW846 9010B ◉	CN-A SM21 4500CN-G/335.4 ○	CN-A SW846 9010 ○
PAC MADEP ○	CREAC Chap 7 ○	SREAC Chap7 ○	CNWAD SM20 4500CN-I ○

Sample ID	Bot #	ID	Interfere Chk CL	Interfere Chk S	Init. pH	SMPL Amt ML	DIST Vol ML	Start Time	End Time	Comments/Spike
GP18216-MB1		N/A	ND	ND	>12	6	6	10:05	10:35	
GP18216-B1		N/A	ND	ND	>12	6	6	10:05	10:35	0.10 ML OF SPIKE
GP18216-S1	7	N/A	ND	ND	>12	6	6	10:05	10:35	0.10 ML OF SPIKE
GP18216-D1	7	N/A	ND	ND	>12	6	6	10:05	10:35	
GP18216-B2		N/A	ND	ND	>12	6	6	10:05	10:35	0.20 ML OF SPIKE
MC33841-1	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33841-2	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33841-3	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33841-4	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-1	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-10	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-11	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33908-12	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33908-13	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-3	7	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-4	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33908-5	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-6	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-7	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33908-8	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33908-9	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33933-1	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33933-2	3	N/A	ND	ND	>12	6	6	10:05	10:35	
ICV		N/A	ND	ND	>12	6	6	10:05	10:35	0.20 ML OF ICV SPIKE

MR 10-3-14

Reagent Lot # (Refer to Indivdual SOP for amounts added)

Sulfamic Acid	VENDOR-8715	Spike Solution	GNSTD-35267-CN-2
Conc. H2SO4	VENDOR-14810	ICV Stock Solution	GNSTD-35268-CN-2
NaOH	RGT-41908-CN	0.25N NAOH	RGT-42263-CN
MgCl2.6H2O	RGT-41169-CN	N/A	
Bismuth Nitrate	RGT-42539-CN	N/A	

Comment:

QC Review _____ Date 10/3/14

11.1 11

Author: chemistry

Date : 10/3/2014

Original Run Filename: OM_10-3-2014_11-18-43AM.QMN Created: 10/3/2014 11:18:43 AM
Original Run Author's Signature: [chemistry]
Current Run Filename: OM_10-3-2014_11-18-43AM.QMN Last Modified: 10/3/2014 11:55:54 AM
Current Run Author's Signature: [chemistry]
Description: Default New Run

Sample	Rep.	Channel 1 Cn (mg/L)	MDF
ICV	1	0.208	
Calibration:		Table/Fig. : 1	
ICB	1	-5.01e-3	
CCV	1	0.306	
CCB	1	-5.29e-3	
GP18216-MB1	1	-3.26e-3	
GP18216-B1	1	0.0991	
GP18216-B2	1	0.211	
GP18216-S1	1	0.0984	
GP18216-D1	1	7.18e-4	
MC33908-3	1	1.43e-4	
MC33841-1	1	0.0104	
MC33841-2	1	0.807	
MC33841-3	1	0.156	
MC33841-4	1	-1.61e-3	
CCV	1	0.306	
CCB	1	-5.57e-3	
MC33908-1	1	2.87e-3	
MC33908-4	1	0.193	
MC33908-5	1	0.0155	
MC33908-6	1	0.414	
MC33908-7	1	0.0588	
MC33908-8	1	0.421	
MC33908-9	1	0.249	
MC33908-10	1	0.0546	
MC33908-11	1	0.434	
MC33908-12	1	-2.18e-3	
CCV	1	0.306	
CCB	1	-5.29e-3	
MC33908-13	1	1.28e-4	
MC33933-1	1	-5.37e-5	
MC33933-2	1	-1.87e-4	
MC33841-2	1	0.180	5.00
CCV	1	0.308	
CCB	1	-5.48e-3	

Table : 1 (Cn)

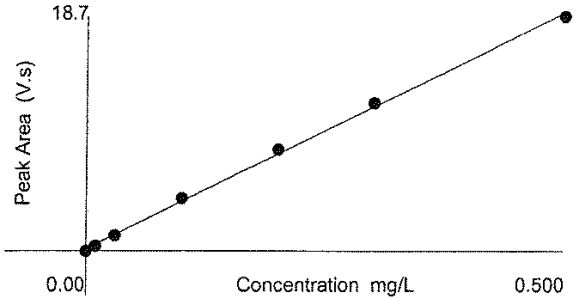
	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	0.500	1	18.7	1.22	0.0	1.7	0.491	10/3/2014	10:35:06 AM
2	0.300	1	11.8	0.769	0.0	-2.3	0.307	10/3/2014	10:36:11 AM
3	0.200	1	8.07	0.527	0.0	-4.2	0.208	10/3/2014	10:37:16 AM
4	0.100	1	4.18	0.275	0.0	-5.3	0.106	10/3/2014	10:38:20 AM
5	0.0300	1	1.24	0.0814	0.0	7.0	0.0277	10/3/2014	10:39:24 AM
6	0.0100	1	0.403	0.0267	0.0	29.9	5.65e-3	10/3/2014	10:40:29 AM
7	0.00	1	-0.0165	-2.88e-3			-5.46e-3	10/3/2014	10:41:33 AM

10/3/14

Author: chemistry

Date : 10/3/2014

Figure : 1 (Cn)



Area = 37.7 * Conc + 0.198
Conc = 0.0265 * Area - 5.02e-3
Correlation Coefficient (r) = 0.99930

Weighting : None

10/3/14

New England ACCUTEST LABORATORIES

10/09/14

Technical Report for

Arcadis

National Grid, 10 King Street, Ogdensburg, NY

B0036671.0003.00001

Accutest Job Number: MC33933

Sampling Dates: 09/25/14 - 09/26/14

Report to:

Arcadis U.S.
6723 Towpath Road, Box 66
Syracuse, NY 13214-0066
Douglas.Nodine@arcadis-us.com

ATTN: Douglas Nodine

Total number of pages in report: **308**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Accutest Laboratories

Sample Summary

Arcadis

Job No: MC33933

National Grid, 10 King Street, Ogdensburg, NY
Project No: B0036671.0003.00001

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC33933-1	09/25/14	15:30	RM	09/27/14	AQ	Ground Water	MW-20R
MC33933-2	09/25/14	17:15	KP	09/27/14	AQ	Ground Water	MW-19R
MC33933-3	09/26/14	00:00		09/27/14	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Arcadis **Job No** MC33933

Site: National Grid, 10 King Street, Ogdensburg, NY **Report Date** 10/9/2014 1:14:05 PM

2 Sample(s) and 1 Trip Blank(s) were collected on between 09/25/2014 and 09/26/2014 and were received at Accutest on 09/27/2014 properly preserved, at 1.9 Deg. C and intact. These Samples received an Accutest job number of MC33933. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix AQ **Batch ID:** MSV1275

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC33875-9MS, MC33875-9MSD were used as the QC samples indicated.

Matrix AQ **Batch ID:** MSV1277

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC33785-2MS, MC33785-2MSD were used as the QC samples indicated.

Extractables by GCMS By Method SW846 8270D

Matrix AQ **Batch ID:** OP40010

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC33900-1MS, MC33900-1MSD were used as the QC samples indicated.

Wet Chemistry By Method SW846 9012

Matrix AQ **Batch ID:** GP18216

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC33908-3DUP, MC33908-3MS were used as the QC samples for Cyanide.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC33933).

Summary of Hits

Job Number: MC33933
Account: Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY
Collected: 09/25/14 thru 09/26/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

MC33933-1 **MW-20R**

No hits reported in this sample.

MC33933-2 **MW-19R**

No hits reported in this sample.

MC33933-3 **TRIP BLANK**

No hits reported in this sample.

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-20R		
Lab Sample ID:	MC33933-1	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/27/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V35083.D	1	09/30/14	AMY	n/a	n/a	MSV1275
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-20R		
Lab Sample ID:	MC33933-1	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/27/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R40220.D	1	10/08/14	WK	09/29/14	OP40010	MSR1479
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.2	0.35	ug/l	
208-96-8	Acenaphthylene	ND	2.2	0.24	ug/l	
120-12-7	Anthracene	ND	2.2	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.54	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.92	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.97	ug/l	
218-01-9	Chrysene	ND	2.2	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.71	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.50	ug/l	
86-73-7	Fluorene	ND	2.2	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.92	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	ND	2.2	0.33	ug/l	
85-01-8	Phenanthrene	ND	2.2	0.15	ug/l	
129-00-0	Pyrene	ND	2.2	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	77%		30-130%
321-60-8	2-Fluorobiphenyl	68%		30-130%
1718-51-0	Terphenyl-d14	102%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-20R		
Lab Sample ID:	MC33933-1	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/27/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	10/03/14 11:50	MA	SW846 9012

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-19R		
Lab Sample ID:	MC33933-2	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/27/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V35121.D	1	10/01/14	AMY	n/a	n/a	MSV1277
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-19R		
Lab Sample ID:	MC33933-2	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/27/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R40221.D	1	10/08/14	WK	09/29/14	OP40010	MSR1479
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.2	0.35	ug/l	
208-96-8	Acenaphthylene	ND	2.2	0.24	ug/l	
120-12-7	Anthracene	ND	2.2	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.54	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.92	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.97	ug/l	
218-01-9	Chrysene	ND	2.2	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.71	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.50	ug/l	
86-73-7	Fluorene	ND	2.2	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.92	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	ND	2.2	0.33	ug/l	
85-01-8	Phenanthrene	ND	2.2	0.15	ug/l	
129-00-0	Pyrene	ND	2.2	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%		30-130%
321-60-8	2-Fluorobiphenyl	62%		30-130%
1718-51-0	Terphenyl-d14	101%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-19R		
Lab Sample ID:	MC33933-2	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/27/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	10/03/14 11:51	MA	SW846 9012

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	MC33933-3	**Date Sampled:**	09/26/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	09/27/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V35061.D	1	09/29/14	AMY	n/a	n/a	MSV1275
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 1 OF 1

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: MC33933

Client / Reporting Information

Company Name: ARCADIS
Street Address: 6723 Towpath Rd
City: Syracuse State: NY Zip: 13214
Project Contact: Doug Nodine E-mail:
Phone #: (315)-671-9377 Fax #:
Sampler(s) Name(s): Ryan Merrell Phone #: (315)399-3864

Project Information

Project Name: National Grid Ogdensburg
Street: King St
City: Ogdensburg, NY
Project#: B0036671.0003.00001
Client PO#:
Project Manager: Mike Benoit

Billing Information (If different from Report to)

Company Name:
Street Address:
City State Zip:
Attention: PO#:

Requested Analysis (see TEST CODE sheet)

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	Di Water	MEOH	ENCORE	Bisulfate	BTEX	PAH	Total Cyanide	LAB USE ONLY
-1	MW-20R		9/25/14	1530	RM	GW	6	3	1			2					3	2	1	
-2	MW-19R		9/25/14	1715	RP	GW	6	3	1			2					3	2	1	
-3	TRIP BLANK		9/26/14	—	—	TB	2										2			

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB- Equipment Blank; RB- Rinse Blank; TB-Trip Blank

17C, 11E, 1E2

Turnaround Time (Business days)

Approved By (Accutest PM): / Date:

- [X] Std. 10 Business Days
- [ ] Std. 5 Business Days (By Contract only)
- [ ] 5 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [X] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] CT RCP
- [ ] MA MCP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [X] EDD Format Core
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

ACCUTEST SYRACUSE,SC

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Ryan Merrell	9/26/14 1200	4	2		2 FP
3	FP	9/27/14 10:00	3	4		4
5			5			

Custody Seal # | [ ] Intact [ ] Not intact | Preserved where applicable [ ] | On Ice [X] Cooler Temp. 1.9c

MC33933: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC33933 **Client:** ARCADIS **Project:** NAT GRID

Date / Time Received: 9/27/2014 10:00:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (1.9/1.9);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Thermometer ID:	G1;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:(508) 481-6200

495 Technology Center West, Bldg One
F: (508) 481-7753

Marlborough, MA 01752
www/accutest.com

MC33933: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Arcadis

Job No: MC33933

National Grid, 10 King Street, Ogdensburg, NY
Project No: B0036671.0003.00001

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC33933-1 Collected: 25-SEP-14 15:30 By: RM Received: 27-SEP-14 By: MW-20R						
MC33933-1	SW846 8260C	30-SEP-14 09:53	AMY			V8260BTX
MC33933-1	SW846 9012	03-OCT-14 11:50	MA	03-OCT-14	MA	CN
MC33933-1	SW846 8270D	08-OCT-14 13:32	WK	29-SEP-14	PA	B8270PAH
MC33933-2 Collected: 25-SEP-14 17:15 By: KP Received: 27-SEP-14 By: MW-19R						
MC33933-2	SW846 8260C	01-OCT-14 11:02	AMY			V8260BTX
MC33933-2	SW846 9012	03-OCT-14 11:51	MA	03-OCT-14	MA	CN
MC33933-2	SW846 8270D	08-OCT-14 13:57	WK	29-SEP-14	PA	B8270PAH
MC33933-3 Collected: 26-SEP-14 00:00 By: Received: 27-SEP-14 By: TRIP BLANK						
MC33933-3	SW846 8260C	29-SEP-14 23:56	AMY			V8260BTX

Accutest Internal Chain of Custody

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY
Received: 09/27/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC33933-1.2	Walk In Ref #22	Marc Tahtamoni	09/29/14 14:32	Retrieve from Storage
MC33933-1.3	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33933-1.3	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33933-1.4	VOC Ref #1	Amy Min Yang	09/30/14 08:57	Retrieve from Storage
MC33933-1.4	Amy Min Yang	GCMSV	09/30/14 08:58	Load on Instrument
MC33933-1.4	GCMSV	Amy Min Yang	09/30/14 10:25	Unload from Instrument
MC33933-1.4	Amy Min Yang	VOC Ref #1	09/30/14 10:25	Return to Storage
MC33933-1.5	VOC Ref #1	Amy Min Yang	09/29/14 16:42	Retrieve from Storage
MC33933-1.5	Amy Min Yang	GCMSV	09/29/14 16:42	Load on Instrument
MC33933-1.5	GCMSV	Amy Min Yang	09/30/14 10:25	Unload from Instrument
MC33933-1.5	Amy Min Yang	VOC Ref #1	09/30/14 10:25	Return to Storage
MC33933-2.1	Walk In Ref #22	Marc Tahtamoni	09/29/14 14:32	Retrieve from Storage
MC33933-2.3	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33933-2.3	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33933-2.4	VOC Ref #1	Amy Min Yang	10/01/14 10:37	Retrieve from Storage
MC33933-2.4	Amy Min Yang	GCMSV	10/01/14 10:37	Load on Instrument
MC33933-2.4	GCMSV	Amy Min Yang	10/02/14 15:17	Unload from Instrument
MC33933-2.4	Amy Min Yang	VOC Ref #1	10/02/14 15:17	Return to Storage
MC33933-2.6	VOC Ref #1	Amy Min Yang	09/29/14 16:42	Retrieve from Storage
MC33933-2.6	Amy Min Yang	GCMSV	09/29/14 16:42	Load on Instrument
MC33933-2.6	GCMSV	Amy Min Yang	09/30/14 10:25	Unload from Instrument
MC33933-2.6	Amy Min Yang	VOC Ref #1	09/30/14 10:25	Return to Storage
MC33933-3.1	VOC Ref #1	Amy Min Yang	09/29/14 16:42	Retrieve from Storage
MC33933-3.1	Amy Min Yang	GCMSV	09/29/14 16:42	Load on Instrument
MC33933-3.1	GCMSV	Amy Min Yang	09/30/14 10:25	Unload from Instrument
MC33933-3.1	Amy Min Yang	VOC Ref #1	09/30/14 10:25	Return to Storage

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1275-MB	V35060.D	1	09/29/14	AMY	n/a	n/a	MSV1275

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33933-1, MC33933-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	93%	70-130%
2037-26-5	Toluene-D8	96%	70-130%
460-00-4	4-Bromofluorobenzene	94%	70-130%

Method Blank Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1277-MB	V35120.D	1	10/01/14	AMY	n/a	n/a	MSV1277

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33933-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	92%	70-130%
2037-26-5	Toluene-D8	97%	70-130%
460-00-4	4-Bromofluorobenzene	97%	70-130%

Blank Spike Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1275-BS	V35058.D	1	09/29/14	AMY	n/a	n/a	MSV1275

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33933-1, MC33933-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	46.7	93	70-130
100-41-4	Ethylbenzene	50	56.0	112	70-130
108-88-3	Toluene	50	52.4	105	70-130
1330-20-7	Xylene (total)	150	164	109	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	94%	70-130%
2037-26-5	Toluene-D8	102%	70-130%
460-00-4	4-Bromofluorobenzene	95%	70-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV1277-BS	V35118.D	1	10/01/14	AMY	n/a	n/a	MSV1277

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33933-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	47.6	95	70-130
100-41-4	Ethylbenzene	50	58.0	116	70-130
108-88-3	Toluene	50	55.1	110	70-130
1330-20-7	Xylene (total)	150	170	113	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	91%	70-130%
2037-26-5	Toluene-D8	103%	70-130%
460-00-4	4-Bromofluorobenzene	95%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC33875-9MS	V35065.D	5	09/30/14	AMY	n/a	n/a	MSV1275
MC33875-9MSD	V35066.D	5	09/30/14	AMY	n/a	n/a	MSV1275
MC33875-9	V35064.D	1	09/30/14	AMY	n/a	n/a	MSV1275

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33933-1, MC33933-3

CAS No.	Compound	MC33875-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		250	240	96	250	237	95	1	70-130/30
100-41-4	Ethylbenzene	ND		250	293	117	250	285	114	3	70-130/30
108-88-3	Toluene	ND		250	268	107	250	260	104	3	70-130/30
1330-20-7	Xylene (total)	ND		750	857	114	750	833	111	3	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC33875-9	Limits
1868-53-7	Dibromofluoromethane	95%	94%	95%	70-130%
2037-26-5	Toluene-D8	101%	100%	98%	70-130%
460-00-4	4-Bromofluorobenzene	91%	95%	94%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC33785-2MS	V35140.D	5	10/01/14	AMY	n/a	n/a	MSV1277
MC33785-2MSD	V35141.D	5	10/01/14	AMY	n/a	n/a	MSV1277
MC33785-2	V35124.D	1	10/01/14	AMY	n/a	n/a	MSV1277

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33933-2

CAS No.	Compound	MC33785-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		250	226	90	250	227	91	0	70-130/30
100-41-4	Ethylbenzene	ND		250	283	113	250	273	109	4	70-130/30
108-88-3	Toluene	ND		250	253	101	250	248	99	2	70-130/30
1330-20-7	Xylene (total)	ND		750	830	111	750	794	106	4	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC33785-2	Limits
1868-53-7	Dibromofluoromethane	95%	95%	95%	70-130%
2037-26-5	Toluene-D8	99%	99%	98%	70-130%
460-00-4	4-Bromofluorobenzene	93%	93%	96%	70-130%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSV1262-BFB
Lab File ID: V34673.D
Instrument ID: GCMSV
Injection Date: 09/17/14
Injection Time: 10:23

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	111560	23.0		Pass
75	30.0 - 60.0% of mass 95	230443	47.4		Pass
95	Base peak, 100% relative abundance	486059	100.0		Pass
96	5.0 - 9.0% of mass 95	32787	6.75		Pass
173	Less than 2.0% of mass 174	3308	0.68	(0.87) [a]	Pass
174	50.0 - 100.0% of mass 95	380459	78.3		Pass
175	5.0 - 9.0% of mass 174	27307	5.62	(7.18) [a]	Pass
176	95.0 - 101.0% of mass 174	368960	75.9	(97.0) [a]	Pass
177	5.0 - 9.0% of mass 176	23776	4.89	(6.44) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSV1262-IC1262	V34678.D	09/17/14	12:36	02:13	Initial cal 0.25
MSV1262-IC1262	V34679.D	09/17/14	13:02	02:39	Initial cal 0.5
MSV1262-IC1262	V34680.D	09/17/14	13:28	03:05	Initial cal 1
MSV1262-IC1262	V34682.D	09/17/14	14:22	03:59	Initial cal 5
MSV1262-IC1262	V34683.D	09/17/14	14:48	04:25	Initial cal 10
MSV1262-IC1262	V34684.D	09/17/14	15:15	04:52	Initial cal 25
MSV1262-ICC1262	V34685.D	09/17/14	15:41	05:18	Initial cal 50
MSV1262-IC1262	V34686.D	09/17/14	16:08	05:45	Initial cal 100
MSV1262-IC1262	V34687.D	09/17/14	16:34	06:11	Initial cal 200
MSV1262-IC1262	V34688.D	09/17/14	17:01	06:38	Initial cal 400
MSV1262-ICV1262	V34693.D	09/17/14	19:14	08:51	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample:	MSV1275-BFB	**Injection Date:**	09/29/14
Lab File ID:	V35057.D	**Injection Time:**	22:10
Instrument ID:	GCMSV		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	86480	22.4		Pass
75	30.0 - 60.0% of mass 95	191019	49.5		Pass
95	Base peak, 100% relative abundance	385792	100.0		Pass
96	5.0 - 9.0% of mass 95	25448	6.60		Pass
173	Less than 2.0% of mass 174	1764	0.46	(0.53) [a]	Pass
174	50.0 - 100.0% of mass 95	332245	86.1		Pass
175	5.0 - 9.0% of mass 174	24117	6.25	(7.26) [a]	Pass
176	95.0 - 101.0% of mass 174	318379	82.5	(95.8) [a]	Pass
177	5.0 - 9.0% of mass 176	20637	5.35	(6.48) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSV1275-CC1262	V35057.D	09/29/14	22:10	00:00	Continuing cal 50
MSV1275-BS	V35058.D	09/29/14	22:37	00:27	Blank Spike
MSV1275-MB	V35060.D	09/29/14	23:30	01:20	Method Blank
MC33933-3	V35061.D	09/29/14	23:56	01:46	TRIP BLANK
ZZZZZZ	V35062.D	09/30/14	00:23	02:13	(unrelated sample)
ZZZZZZ	V35063.D	09/30/14	00:50	02:40	(unrelated sample)
MC33875-9	V35064.D	09/30/14	01:17	03:07	(used for QC only; not part of job MC33933)
MC33875-9MS	V35065.D	09/30/14	01:43	03:33	Matrix Spike
MC33875-9MSD	V35066.D	09/30/14	02:10	04:00	Matrix Spike Duplicate
ZZZZZZ	V35068.D	09/30/14	03:03	04:53	(unrelated sample)
ZZZZZZ	V35069.D	09/30/14	03:30	05:20	(unrelated sample)
ZZZZZZ	V35070.D	09/30/14	03:57	05:47	(unrelated sample)
ZZZZZZ	V35071.D	09/30/14	04:23	06:13	(unrelated sample)
ZZZZZZ	V35072.D	09/30/14	04:50	06:40	(unrelated sample)
ZZZZZZ	V35073.D	09/30/14	05:17	07:07	(unrelated sample)
ZZZZZZ	V35075.D	09/30/14	06:10	08:00	(unrelated sample)
ZZZZZZ	V35076.D	09/30/14	06:37	08:27	(unrelated sample)
ZZZZZZ	V35077.D	09/30/14	07:03	08:53	(unrelated sample)
ZZZZZZ	V35080.D	09/30/14	08:33	10:23	(unrelated sample)
ZZZZZZ	V35081.D	09/30/14	09:00	10:50	(unrelated sample)
ZZZZZZ	V35082.D	09/30/14	09:27	11:17	(unrelated sample)
MC33933-1	V35083.D	09/30/14	09:53	11:43	MW-20R

Instrument Performance Check (BFB)

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSV1277-BFB
Lab File ID: V35116.D
Instrument ID: GCMSV
Injection Date: 10/01/14
Injection Time: 08:49

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	85659	22.0		Pass
75	30.0 - 60.0% of mass 95	192619	49.4		Pass
95	Base peak, 100% relative abundance	390187	100.0		Pass
96	5.0 - 9.0% of mass 95	26363	6.76		Pass
173	Less than 2.0% of mass 174	1977	0.51	(0.58) [a]	Pass
174	50.0 - 100.0% of mass 95	338304	86.7		Pass
175	5.0 - 9.0% of mass 174	24936	6.39	(7.37) [a]	Pass
176	95.0 - 101.0% of mass 174	328640	84.2	(97.1) [a]	Pass
177	5.0 - 9.0% of mass 176	21037	5.39	(6.40) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSV1277-CC1262	V35117.D	10/01/14	09:16	00:27	Continuing cal 50
MSV1277-BS	V35118.D	10/01/14	09:42	00:53	Blank Spike
MSV1277-MB	V35120.D	10/01/14	10:35	01:46	Method Blank
MC33933-2	V35121.D	10/01/14	11:02	02:13	MW-19R
ZZZZZZ	V35122.D	10/01/14	11:29	02:40	(unrelated sample)
ZZZZZZ	V35123.D	10/01/14	11:56	03:07	(unrelated sample)
MC33785-2	V35124.D	10/01/14	12:23	03:34	(used for QC only; not part of job MC33933)
ZZZZZZ	V35125.D	10/01/14	12:50	04:01	(unrelated sample)
ZZZZZZ	V35126.D	10/01/14	13:16	04:27	(unrelated sample)
ZZZZZZ	V35127.D	10/01/14	13:43	04:54	(unrelated sample)
ZZZZZZ	V35128.D	10/01/14	14:10	05:21	(unrelated sample)
ZZZZZZ	V35129.D	10/01/14	14:37	05:48	(unrelated sample)
ZZZZZZ	V35130.D	10/01/14	15:04	06:15	(unrelated sample)
ZZZZZZ	V35131.D	10/01/14	15:30	06:41	(unrelated sample)
ZZZZZZ	V35132.D	10/01/14	15:56	07:07	(unrelated sample)
ZZZZZZ	V35133.D	10/01/14	16:23	07:34	(unrelated sample)
ZZZZZZ	V35134.D	10/01/14	16:49	08:00	(unrelated sample)
ZZZZZZ	V35135.D	10/01/14	17:16	08:27	(unrelated sample)
ZZZZZZ	V35136.D	10/01/14	17:42	08:53	(unrelated sample)
ZZZZZZ	V35137.D	10/01/14	18:08	09:19	(unrelated sample)
ZZZZZZ	V35138.D	10/01/14	18:35	09:46	(unrelated sample)
ZZZZZZ	V35139.D	10/01/14	19:02	10:13	(unrelated sample)
MC33785-2MS	V35140.D	10/01/14	19:28	10:39	Matrix Spike
MC33785-2MSD	V35141.D	10/01/14	19:55	11:06	Matrix Spike Duplicate

Instrument Performance Check (BFB)

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample:	MSV1277-BFB	**Injection Date:**	10/01/14
Lab File ID:	V35116.D	**Injection Time:**	08:49
Instrument ID:	GCMSV		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	V35142.D	10/01/14	20:22	11:33	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std:	MSV1275-CC1262	**Injection Date:**	09/29/14
Lab File ID:	V35057.D	**Injection Time:**	22:10
Instrument ID:	GCMSV	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	771190	6.56	1238081	7.74	638733	11.08	773579	13.29	94729	3.52
Upper Limit [a]	1542380	7.06	2476162	8.24	1277466	11.58	1547158	13.79	189458	4.02
Lower Limit [b]	385595	6.06	619041	7.24	319367	10.58	386790	12.79	47365	3.02

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1275-BS	821468	6.56	1342407	7.75	669383	11.08	794646	13.29	101080	3.53
MSV1275-MB	773583	6.56	1277751	7.75	586482	11.08	684420	13.29	90812	3.52
MC33933-3	768781	6.56	1264390	7.75	594249	11.08	708132	13.29	87195	3.53
ZZZZZZ	760445	6.57	1237633	7.75	581702	11.08	691468	13.29	83529	3.53
ZZZZZZ	719080	6.56	1190160	7.75	580502	11.08	683899	13.29	83704	3.52
MC33875-9	691225	6.56	1128653	7.74	549441	11.08	658448	13.29	80506	3.52
MC33875-9MS	736526	6.56	1178846	7.75	581510	11.08	740126	13.29	84470	3.52
MC33875-9MSD	788598	6.56	1273498	7.75	631648	11.08	771862	13.29	92607	3.53
ZZZZZZ	752616	6.56	1191793	7.75	587284	11.08	726515	13.29	96777	3.53
ZZZZZZ	741036	6.57	1192739	7.75	553701	11.08	678792	13.29	88452	3.53
ZZZZZZ	773898	6.56	1252828	7.75	599620	11.08	717997	13.29	92782	3.53
ZZZZZZ	783625	6.56	1214177	7.74	664321	11.08	800090	13.29	194657[c]	3.54
ZZZZZZ	911574	6.56	1494986	7.75	701594	11.08	834620	13.29	106416	3.52
ZZZZZZ	916328	6.57	1514307	7.75	745891	11.08	871467	13.29	117976	3.53
ZZZZZZ	933400	6.56	1466190	7.75	739648	11.08	899351	13.29	130906	3.53
ZZZZZZ	1006157	6.56	1601932	7.75	758804	11.08	898916	13.29	145492	3.53
ZZZZZZ	951013	6.56	1502630	7.74	815616	11.08	992485	13.29	132405	3.52
ZZZZZZ	1055422	6.56	1717522	7.75	902844	11.08	969857	13.29	180793	3.53
ZZZZZZ	1086611	6.56	1772959	7.75	823455	11.08	967311	13.29	133779	3.53
ZZZZZZ	1083682	6.56	1765059	7.74	817194	11.08	949683	13.29	127580	3.52
MC33933-1	1094655	6.57	1766750	7.75	788187	11.08	932535	13.29	128369	3.53

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits. Target analytes not associated with this internal standard.

Volatile Internal Standard Area Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std:	MSV1277-CC1262	**Injection Date:**	10/01/14
Lab File ID:	V35117.D	**Injection Time:**	09:16
Instrument ID:	GCMSV	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	742525	6.56	1196304	7.74	617328	11.08	730526	13.29	79332	3.52
Upper Limit [a]	1485050	7.06	2392608	8.24	1234656	11.58	1461052	13.79	158664	4.02
Lower Limit [b]	371263	6.06	598152	7.24	308664	10.58	365263	12.79	39666	3.02

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV1277-BS	747808	6.55	1220567	7.74	621200	11.08	734858	13.29	83683	3.52
MSV1277-MB	752323	6.56	1263468	7.75	596807	11.08	683111	13.29	73814	3.53
MC33933-2	730164	6.56	1222801	7.75	583016	11.08	671807	13.29	66783	3.53
ZZZZZZ	710031	6.56	1175391	7.75	561174	11.08	643012	13.29	68065	3.53
ZZZZZZ	659485	6.56	1096097	7.74	541361	11.08	625181	13.29	66509	3.52
MC33785-2	679888	6.56	1121867	7.74	546533	11.08	625880	13.29	65087	3.52
ZZZZZZ	661571	6.56	1103000	7.74	520129	11.08	611153	13.29	63929	3.52
ZZZZZZ	642640	6.56	1074178	7.74	518155	11.08	603563	13.29	62688	3.52
ZZZZZZ	647247	6.56	1091643	7.74	512157	11.08	599028	13.29	62135	3.52
ZZZZZZ	667320	6.57	1095895	7.75	512761	11.08	593482	13.29	61449	3.53
ZZZZZZ	628260	6.56	1046153	7.74	500542	11.08	591439	13.29	62031	3.52
ZZZZZZ	615046	6.56	1011580	7.74	470051	11.08	579476	13.29	61385	3.52
ZZZZZZ	635689	6.56	1050103	7.75	484454	11.08	595494	13.29	65982	3.53
ZZZZZZ	590905	6.56	942949	7.74	478601	11.08	583190	13.29	65287	3.53
ZZZZZZ	593387	6.55	938133	7.74	469773	11.08	586806	13.29	66897	3.52
ZZZZZZ	637973	6.56	1018982	7.75	494763	11.08	580865	13.29	65131	3.53
ZZZZZZ	564111	6.55	934487	7.74	470380	11.08	569278	13.29	63323	3.52
ZZZZZZ	582758	6.56	973105	7.74	470387	11.08	554298	13.29	62218	3.52
ZZZZZZ	578201	6.56	934955	7.74	480834	11.08	580672	13.29	66073	3.53
ZZZZZZ	597158	6.56	973664	7.74	484260	11.08	576198	13.29	66373	3.52
ZZZZZZ	597899	6.56	998921	7.74	492427	11.08	575465	13.29	67007	3.53
MC33785-2MS	657795	6.56	1068874	7.74	510868	11.08	639441	13.29	69156	3.52
MC33785-2MSD	690647	6.56	1095977	7.74	543777	11.08	678173	13.29	78832	3.53
ZZZZZZ	632779	6.55	993366	7.73	468784	11.08	630630	13.29	76986	3.51

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC33933-1	V35083.D	85	97	93
MC33933-2	V35121.D	91	99	95
MC33933-3	V35061.D	94	97	95
MC33785-2MS	V35140.D	95	99	93
MC33785-2MSD	V35141.D	95	99	93
MC33875-9MS	V35065.D	95	101	91
MC33875-9MSD	V35066.D	94	100	95
MSV1275-BS	V35058.D	94	102	95
MSV1275-MB	V35060.D	93	96	94
MSV1277-BS	V35118.D	91	103	95
MSV1277-MB	V35120.D	92	97	97

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

Initial Calibration Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSV1262-ICC1262
Lab FileID: V34685.D

Response Factor Report MSV

Method : C:\msdchem\1\METHODS\v140917w.m (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Calibration Files
0.25=v34678.D 0.5 =v34679.D 1 =v34680.D 25 =v34684.D
5 =v34682.D 10 =v34683.D 50 =v34685.D 100 =v34686.D
200 =v34687.D 400 =v34688.D = =

Compound	0.25	0.5	1	25	5	10	50	100	200	400	Avg	%RSD
1) I tert butyl alcohol-d9	ISTD											
2) tertiary butyl alcohol			1.332	1.360	1.453	1.464	1.420	1.472	1.522	1.529	1.444	4.88
3) Ethanol			0.267	0.257	0.285	0.312	0.252	0.204	0.249	0.239	0.258	12.36
4) I pentafluorobenzene	ISTD											
5) dichlorodifluoromethane			1.101	1.128	1.208	1.292	1.135	1.238	1.141	1.063	1.163	6.54
6) chloromethane			0.777	0.792	0.844	0.894	0.825	0.911	0.800	0.751	0.824	6.80
7) vinyl chloride			0.651	0.737	0.706	0.752	0.784	0.878	0.782	0.748	0.755	8.71
8) bromomethane			0.493	0.517	0.588	0.614	0.543	0.597	0.535	0.500	0.548	8.38
9) chloroethane			0.309	0.298	0.313	0.327	0.307	0.338	0.298	0.283	0.309	5.59
10) ethyl ether			0.276	0.305	0.296	0.307	0.284	0.260	0.297	0.298	0.290	5.49
11) acetonitrile			0.724	0.811	0.743	0.814	0.803	0.865	0.788	0.768	0.789	5.62
12) trichlorofluoromethane			1.016	1.251	1.050	1.058	1.283	1.401	1.221	1.139	1.177	11.41
13) freon-113				0.672	0.496	0.593	0.708	0.749	0.674	0.673	0.652	12.79
14) acrolein				0.016	0.021	0.021	0.015	0.020	0.018	0.015	0.018#	14.70
15) 1,1-dichloroethene		0.379	0.323	0.437	0.370	0.441	0.448	0.471	0.441	0.442	0.417	11.53
16) acetone				0.050	0.048	0.051	0.047	0.051	0.047	0.047	0.049#	4.03
17) Methyl Acetate				0.208	0.216	0.210	0.188	0.201	0.194	0.196	0.202	4.92
18) methylene chloride			0.538	0.477	0.498	0.529	0.466	0.487	0.462	0.466	0.490	5.97
19) methyl tert butyl ether			0.886	0.839	0.800	0.885	0.879	0.996	0.966	0.977	0.904	7.73
20) acrylonitrile			0.130	0.136	0.129	0.133	0.127	0.135	0.126	0.126	0.130	3.05
21) allyl chloride			0.724	0.811	0.743	0.815	0.803	0.864	0.788	0.769	0.790	5.60
22) trans-1,2-dichloroethene			0.422	0.503	0.461	0.514	0.480	0.512	0.484	0.509	0.486	6.52
23) iodomethane												

Initial Calibration Summary

Job Number: MC33933 **Sample:** MSV1262-ICC1262
Account: BBLNYS Arcadis **Lab FileID:** V34685.D
Project: National Grid, 10 King Street, Ogdensburg, NY

```
                    1.134 1.151 1.156 1.254 1.182 1.245 1.185 1.177  1.185    3.64
24)  carbon disulfide
                    1.284 1.506 1.366 1.584 1.556 1.620 1.528 1.523  1.496    7.58
25)  propionitrile
                          0.040 0.035 0.040 0.040 0.044 0.042 0.043  0.041#   6.74
26)  vinyl acetate
                          1.357 1.308 1.413 1.423 1.497 1.400 1.291  1.384    5.16
27)  chloroprene
                    0.533 0.797 0.641 0.737 0.796 0.803 0.800 0.800  0.738   13.55
28)  di-isopropyl ether
                    1.672 1.802 1.736 1.888 1.847 1.947 1.793 1.661  1.793    5.61
29)  methacrylonitrile
                    0.221 0.210 0.208 0.211 0.212 0.222 0.209 0.202  0.212    3.17
30)  2-butanone
                          0.030 0.023 0.032 0.032 0.035 0.034 0.034  0.031#  12.58
31)  Hexane
                          0.506 0.367 0.441 0.526 0.519 0.489 0.473  0.474   11.74
32)  1,1-dichloroethane
               1.071 0.916 0.989 0.942 1.014 0.959 1.001 0.989 1.023  0.989    4.68
33)  tert-butyl ethyl ether
                    1.154 1.257 1.175 1.280 1.331 1.497 1.470 1.513  1.335   10.75
34)  isobutyl alcohol
                          0.271 0.262 0.283 0.285 0.299 0.280 0.258  0.277    5.17
35)  2,2-dichloropropane
                          0.704 0.569 0.704 0.787 0.883 0.854 0.878  0.769   15.13
           ---- Linear regression ----  Coefficient =  0.9990
             Response Ratio = -0.03936 + 0.87476 *A

36)  cis-1,2-dichloroethene
                    0.470 0.536 0.507 0.531 0.513 0.529 0.542 0.571  0.525    5.64
37)  ethyl acetate
                          1.355 1.308 1.413 1.419 1.495 1.400 1.291  1.383    5.10
38)  bromochloromethane
                    0.286 0.286 0.279 0.289 0.279 0.285 0.289 0.305  0.287    2.88
39)  chloroform
                    0.984 1.019 0.997 1.052 1.001 1.016 1.047 1.081  1.025    3.20
40)  dibromofluoromethane (s)
                          0.628 0.612 0.626 0.619 0.627 0.641 0.660  0.630    2.49
41)  Tetrahydrofuran
                          0.073 0.068 0.075 0.077 0.076 0.075 0.073  0.074    3.91
42)  1,1,1-trichloroethane
          0.943 0.937 0.736 1.011 0.839 1.005 1.062 1.144 1.108 1.112  0.990   13.09

43) I   1,4-difluorobenzene   ----------------ISTD---------------------
44)  Cyclohexane
                          0.666 0.569 0.584 0.655 0.656 0.631 0.619  0.626    6.00
45)  carbon tetrachloride
                          0.624 0.451 0.551 0.641 0.665 0.666 0.672  0.610   13.38
46)  1,1-dichloropropene
                    0.281 0.372 0.304 0.348 0.383 0.370 0.393 0.396  0.356   11.85
47)  benzene
               1.225 1.003 0.994 0.964 1.029 1.014 1.003 1.043 1.038  1.035    7.28
48)  1,2-dichloroethane
                    0.451 0.444 0.456 0.452 0.443 0.445 0.439 0.425  0.444    2.17
49)  tert-amyl methyl ether
                          0.468 0.411 0.447 0.482 0.539 0.574 0.619  0.506   14.65
50)  heptane
                          0.386 0.286 0.343 0.414 0.405 0.382 0.344  0.366   12.21
51)  trichloroethene
          0.398 0.375 0.308 0.335 0.315 0.347 0.348 0.355 0.359 0.359  0.350    7.57
```

Initial Calibration Summary

Job Number: MC33933 **Sample:** MSV1262-ICC1262
Account: BBLNYS Arcadis **Lab FileID:** V34685.D
Project: National Grid, 10 King Street, Ogdensburg, NY

52) 1,2-dichloropropane
0.317 0.310 0.298 0.332 0.322 0.337 0.326 0.313 0.319 3.95
53) dibromomethane
0.171 0.166 0.167 0.173 0.170 0.181 0.173 0.168 0.171 2.91
54) bromodichloromethane
0.375 0.408 0.403 0.435 0.439 0.467 0.458 0.445 0.429 7.24
55) Methylcyclohexane
0.455 0.311 0.376 0.465 0.475 0.470 0.480 0.433 14.91
56) 2-chloroethyl vinyl ether
0.109 0.108 0.113 0.129 0.156 0.145 0.132 0.127 14.38
57) methyl methacrylate
0.087 0.078 0.085 0.098 0.115 0.106 0.102 0.096 13.57
58) 1,4-dioxane
0.001 0.000 0.001 0.001 0.001 0.001 0.001 0.001# 26.35
---- Linear regression ---- Coefficient = 0.9989
Response Ratio = -0.00033 + 0.00122 *A

59) cis-1,3-dichloropropene
0.304 0.286 0.342 0.307 0.349 0.393 0.462 0.436 0.360 17.94
---- Quadratic regression ---- Coefficient = 0.9918
Response Ratio = -0.00052 + 0.33896 *A + 0.03248 *A^2

60) toluene-d8 (s)
1.059 1.013 1.073 1.147 1.254 1.141 0.990 1.097 8.30
61) 4-methyl-2-pentanone
0.167 0.193 0.173 0.188 0.208 0.233 0.216 0.202 0.197 11.10
62) toluene
0.600 0.684 0.667 0.771 0.739 0.812 0.749 0.702 0.716 9.31
63) trans-1,3-dichloropropene
0.245 0.196 0.260 0.223 0.262 0.303 0.376 0.266 22.06
---- Quadratic regression ---- Coefficient = 0.9954
Response Ratio = 0.00007 + 0.22155 *A + 0.07857 *A^2

64) 1,1,2-trichloroethane
0.181 0.171 0.177 0.191 0.183 0.207 0.191 0.175 0.185 6.24
65) ethyl methacrylate
0.208 0.166 0.205 0.234 0.283 0.266 0.245 0.229 17.45
---- Linear regression ---- Coefficient = 0.9954
Response Ratio = -0.01008 + 0.25660 *A

66) I chlorobenzene-d5 ----------ISTD----------
67) tetrachloroethene
0.830 0.731 0.598 0.716 0.638 0.738 0.765 0.741 0.757 0.792 0.731 9.36
68) 1,3-dichloropropane
0.687 0.661 0.665 0.708 0.704 0.711 0.709 0.697 0.692 2.88
69) dibromochloromethane
0.621 0.562 0.650 0.581 0.642 0.713 0.750 0.774 0.779 0.675 12.17
70) 1,2-dibromoethane
0.464 0.454 0.423 0.478 0.477 0.493 0.502 0.494 0.473 5.47
71) 2-hexanone
0.264 0.331 0.277 0.327 0.365 0.379 0.364 0.341 0.331 12.54
72) chlorobenzene
1.948 1.888 1.931 2.065 1.980 1.979 1.951 1.708 1.931 5.35
73) 1,1,1,2-tetrachloroethane
0.650 0.813 0.748 0.807 0.872 0.813 0.872 0.882 0.807 9.63
74) ethylbenzene
3.279 2.732 3.155 2.977 3.315 3.290 3.250 2.991 2.046 3.004 13.58
75) m,p-xylene
1.235 1.074 1.224 1.184 1.304 1.278 1.272 1.242 1.087 1.211 6.74

Initial Calibration Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSV1262-ICC1262
Lab FileID: V34685.D

```
76)  o-xylene
                1.288 1.105 1.283 1.217 1.339 1.343 1.308 1.298 1.275  1.273    5.75
77)  styrene
                      1.709 2.021 1.919 2.119 2.065 2.058 2.053 1.704  1.956    8.38
78)  bromoform
                      0.274 0.320 0.277 0.301 0.340 0.368 0.399 0.414  0.337   15.86
           ---- Quadratic regression ----  Coefficient =  0.9965
             Response Ratio = -0.00099 + 0.31628 *A + 0.01460 *A^2

79)  trans-1,4-dichloro-2-butene
                      0.165 0.182 0.159 0.168 0.187 0.194 0.201 0.199  0.182    8.89

80) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
81)  isopropylbenzene
                      2.236 2.843 2.568 3.087 3.205 3.218 2.756        2.845   12.70
82)  bromofluorobenzene (s)
                            0.827 0.825 0.868 0.891 0.923 0.903 0.857  0.871    4.28
83)  bromobenzene
                      0.717 0.729 0.732 0.801 0.783 0.828 0.824 0.789  0.775    5.65
84)  1,1,2,2-tetrachloroethane
                0.512 0.501 0.450 0.465 0.493 0.480 0.488 0.466 0.446  0.478    4.75
85)  1,2,3-trichloropropane
                            0.509 0.394 0.433 0.542 0.575 0.570 0.463  0.498   14.07
86)  n-propylbenzene
                      2.467 3.218 2.962 3.535 3.459 3.528 2.822        3.142   12.99
87)  2-chlorotoluene
                      1.906 2.003 2.021 2.278 2.190 2.255 2.107 1.575  2.042   11.19
88)  4-chlorotoluene
                      2.251 2.392 2.455 2.680 2.543 2.610 2.462 1.822  2.402   11.20
89)  1,3,5-trimethylbenzene
                      2.210 2.624 2.535 2.938 2.939 2.967 2.592        2.686   10.40
90)  tert-butylbenzene
                      1.131 1.422 1.283 1.562 1.625 1.574 1.537 1.388  1.440   11.72
91)  1,2,4-trimethylbenzene
                      2.361 2.672 2.647 3.010 2.931 2.964 2.599        2.741    8.64
92)  sec-butylbenzene
                      2.283 3.057 2.699 3.303 3.440 3.420 2.785        2.998   14.38
93)  1,3-dichlorobenzene
                      1.533 1.560 1.592 1.711 1.650 1.697 1.663 1.384  1.599    6.73
94)  p-isopropyltoluene
                      2.236 2.959 2.689 3.208 3.293 3.313 2.722        2.917   13.55
95)  1,4-dichlorobenzene
                      1.699 1.573 1.640 1.749 1.661 1.688 1.668 1.379  1.632    7.00
96)  1,2-dichlorobenzene
                      1.549 1.475 1.519 1.616 1.562 1.552 1.513 1.326  1.514    5.72
97)  n-butylbenzene
                      1.877 2.454 2.204 2.621 2.657 2.629 2.368        2.401   11.82
98)  1,2-dibromo-3-chloropropane
                      0.050 0.060 0.055 0.059 0.066 0.069 0.071 0.074  0.063   13.27
99)  1,3,5-trichlorobenzene
                      1.074 1.073 1.064 1.151 1.181 1.169 1.166 1.097  1.122    4.42
100)  1,2,4-trichlorobenzene
                      0.794 0.851 0.791 0.868 0.943 0.936 0.943 0.915  0.880    7.26
101)  hexachlorobutadiene
                      0.287 0.354 0.321 0.379 0.398 0.396 0.400 0.403  0.367   11.72
102)  naphthalene
                      0.884 1.153 0.909 1.081 1.290 1.335 1.349 1.272  1.159   16.02
           ---- Linear regression ----  Coefficient =  0.9985
             Response Ratio = -0.01635 + 1.29992 *A
```

Initial Calibration Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSV1262-ICC1262
Lab FileID: V34685.D

```
103)  1,2,3-trichlorobenzene
                        0.575 0.603 0.560 0.624 0.664 0.669 0.672 0.672  0.630    7.31
104)  2-Methylnaphthalene
                               0.209       0.151 0.281 0.321 0.358 0.348  0.278   29.80
              ---- Linear regression ----  Coefficient =  0.9978
                Response Ratio = -0.02652 + 0.35638 *A

105)  1-Methylnaphthalene
                               0.132       0.101 0.171 0.186 0.200 0.186  0.163   23.45
              ---- Linear regression ----  Coefficient =  0.9978
                Response Ratio = -0.01056 + 0.19407 *A

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

           v140917w.m        Thu Sep 18 11:26:50 2014
```

Initial Calibration Verification

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSV1262-ICV1262
Lab FileID: V34693.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V140917\v34693.D Vial: 26
Acq On : 17 Sep 2014 7:14 pm Operator: amym
Sample : icv1262-50 Inst : MSV
Misc : MS32743,MSV1262,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\v140917w.m (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Thu Sep 18 08:26:09 2014
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	114	0.00	3.54
2	p	tertiary butyl alcohol	1.444	1.338	7.3	108	0.00	3.64
3	p	Ethanol	0.258	0.229	11.2	104	0.00	2.62
4	I	pentafluorobenzene	1.000	1.000	0.0	106	0.00	6.57
5	p	dichlorodifluoromethane	1.163	1.144	1.6	106	0.00	1.54
6	P	chloromethane	0.824	0.811	1.6	104	0.00	1.65
7	p	vinyl chloride	0.755	0.788	-4.4	106	0.00	1.77
8	p	bromomethane	0.548	0.545	0.5	106	0.00	2.06
9	p	chloroethane	0.309	0.362	-17.2	125	0.00	2.15
10	p	ethyl ether	0.290	0.301	-3.8	112	0.00	2.62
11	p	acetonitrile	0.789	0.798	-1.1	105	0.00	3.31
12	p	trichlorofluoromethane	1.177	1.217	-3.4	100	0.00	2.37
13	p	freon-113	0.652	0.650	0.3	97	0.00	2.94
14	p	acrolein	0.018	0.020#	-11.1	138	0.00	2.77
15	p	1,1-dichloroethene	0.417	0.438	-5.0	103	0.00	2.88
16	p	acetone	0.049	0.043#	12.2	97	0.00	2.92
17	p	Methyl Acetate	0.202	0.238	-17.8	134	0.00	3.29
18	p	methylene chloride	0.490	0.458	6.5	104	0.00	3.48
19	p	methyl tert butyl ether	0.904	0.867	4.1	104	0.00	3.86
20	p	acrylonitrile	0.130	0.119	8.5	98	0.00	3.80
21	p	allyl chloride	0.790	0.798	-1.0	105	0.00	3.31
22	p	trans-1,2-dichloroethene	0.486	0.488	-0.4	107	0.00	3.85
23	p	iodomethane	1.185	1.047	11.6	94	0.00	3.05
24	p	carbon disulfide	1.496	1.356	9.4	92	0.00	3.13
25	p	propionitrile	0.041	0.038#	7.3	99	0.00	5.65
26	p	vinyl acetate	1.384	1.070	22.7#	79	0.00	4.60
27	p	chloroprene	0.738	0.844	-14.4	112	0.00	4.63
28	p	di-isopropyl ether	1.793	1.704	5.0	97	0.00	4.62
29	p	methacrylonitrile	0.212	0.189	10.8	94	0.00	5.93
30	p	2-butanone	0.031	0.029#	6.5	94	0.00	5.54
31	p	Hexane	0.474	0.452	4.6	91	0.00	4.26
32	P	1,1-dichloroethane	0.989	0.968	2.1	107	0.00	4.52
33	p	tert-butyl ethyl ether	1.335	1.344	-0.7	107	0.00	5.29
34	p	isobutyl alcohol	0.277	0.214	22.7#	79	0.00	4.60
			Amount	Calc.	%Drift			
35	p	2,2-dichloropropane	50.000	43.729	12.5	97	0.00	5.56
			AvgRF	CCRF	%Dev			
36	p	cis-1,2-dichloroethene	0.525	0.513	2.3	106	0.00	5.54
37	p	ethyl acetate	1.383	1.072	22.5#	80	0.01	4.60

Initial Calibration Verification

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSV1262-ICV1262
Lab FileID: V34693.D

38	p	bromochloromethane	0.287	0.267	7.0	101	0.00	5.96
39	p	chloroform	1.025	0.961	6.2	101	0.00	6.18
40	S	dibromofluoromethane (s)	0.630	0.624	1.0	106	0.00	6.45
41	p	Tetrahydrofuran	0.074	0.067	9.5	92	0.00	5.97
42	p	1,1,1-trichloroethane	0.990	1.003	-1.3	100	0.00	6.43
43	I	1,4-difluorobenzene	1.000	1.000	0.0	102	0.00	7.75
44	p	Cyclohexane	0.626	0.649	-3.7	101	0.00	6.53
45	p	carbon tetrachloride	0.610	0.616	-1.0	98	0.00	6.68
46	p	1,1-dichloropropene	0.356	0.382	-7.3	102	0.00	6.69
47	p	benzene	1.035	0.962	7.1	97	0.00	7.01
48	p	1,2-dichloroethane	0.444	0.403	9.2	93	0.00	7.13
49	p	tert-amyl methyl ether	0.506	0.532	-5.1	113	0.00	7.30
50	p	heptane	0.366	0.354	3.3	87	0.00	7.57
51	p	trichloroethene	0.350	0.337	3.7	99	0.00	8.04
52	p	1,2-dichloropropane	0.319	0.313	1.9	99	0.00	8.39
53	p	dibromomethane	0.171	0.154	9.9	92	0.00	8.49
54	p	bromodichloromethane	0.429	0.418	2.6	97	0.00	8.74
55	p	Methylcyclohexane	0.433	0.473	-9.2	104	0.00	8.34
56	p	2-chloroethyl vinyl ether	0.127	0.123	3.1	98	0.00	9.12
57	p	methyl methacrylate	0.096	0.092	4.2	95	0.00	8.52
			Amount	Calc.	%Drift			
58	p	1,4-dioxane	250.000	228.758	8.5	90	0.00	8.50
59	p	cis-1,3-dichloropropene	50.000	49.722	0.6	96	0.00	9.27
			AvgRF	CCRF	%Dev			
60	S	toluene-d8 (s)	1.097	1.121	-2.2	100	0.00	9.56
61	p	4-methyl-2-pentanone	0.197	0.190	3.6	93	0.00	9.45
62	p	toluene	0.716	0.679	5.2	94	0.00	9.63
			Amount	Calc.	%Drift			
63	p	trans-1,3-dichloropropene	50.000	49.209	1.6	99	0.00	9.92
			AvgRF	CCRF	%Dev			
64	p	1,1,2-trichloroethane	0.185	0.169	8.6	94	0.00	10.13
			Amount	Calc.	%Drift			
65	p	ethyl methacrylate	50.000	44.427	11.1	95	0.00	10.00
			AvgRF	CCRF	%Dev			
66	I	chlorobenzene-d5	1.000	1.000	0.0	99	0.00	11.08
67	p	tetrachloroethene	0.731	0.726	0.7	94	0.00	10.18
68	p	1,3-dichloropropane	0.692	0.647	6.5	91	0.00	10.29
69	p	dibromochloromethane	0.675	0.686	-1.6	96	0.00	10.51
70	p	1,2-dibromoethane	0.473	0.450	4.9	94	0.00	10.62
71	p	2-hexanone	0.331	0.312	5.7	85	0.00	10.36
72	P	chlorobenzene	1.931	1.878	2.7	94	0.00	11.11
73	p	1,1,1,2-tetrachloroethane	0.807	0.855	-5.9	97	0.00	11.21
74	p	ethylbenzene	3.004	3.112	-3.6	94	0.00	11.22
75	p	m,p-xylene	1.211	1.225	-1.2	95	0.00	11.35
76	p	o-xylene	1.273	1.278	-0.4	94	0.00	11.71
77	p	styrene	1.956	1.999	-2.2	96	0.00	11.73
			Amount	Calc.	%Drift			
78	P	bromoform	50.000	51.379	-2.8	99	0.00	11.91
			AvgRF	CCRF	%Dev			
79	p	trans-1,4-dichloro-2-bute	0.182	0.161	11.5	85	0.00	12.13

Initial Calibration Verification

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSV1262-ICV1262
Lab FileID: V34693.D

80	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	108	0.00	13.29
81	p	isopropylbenzene	2.845	2.852	-0.2	96	0.00	12.07
82	S	bromofluorobenzene (s)	0.871	0.841	3.4	102	0.00	12.23
83	p	bromobenzene	0.775	0.709	8.5	98	0.00	12.36
84	P	1,1,2,2-tetrachloroethane	0.478	0.442	7.5	100	0.00	12.36
85	p	1,2,3-trichloropropane	0.498	0.490	1.6	98	0.00	12.40
86	p	n-propylbenzene	3.142	3.167	-0.8	99	0.00	12.45
87	p	2-chlorotoluene	2.042	1.936	5.2	96	0.00	12.53
88	p	4-chlorotoluene	2.402	2.230	7.2	95	0.00	12.64
89	p	1,3,5-trimethylbenzene	2.686	2.490	7.3	92	0.00	12.62
90	p	tert-butylbenzene	1.440	1.406	2.4	94	0.00	12.91
91	p	1,2,4-trimethylbenzene	2.741	2.629	4.1	97	0.00	12.96
92	p	sec-butylbenzene	2.998	3.078	-2.7	97	0.00	13.11
93	p	1,3-dichlorobenzene	1.599	1.521	4.9	100	0.00	13.22
94	p	p-isopropyltoluene	2.917	2.946	-1.0	97	0.00	13.25
95	p	1,4-dichlorobenzene	1.632	1.514	7.2	99	0.00	13.32
96	p	1,2-dichlorobenzene	1.514	1.437	5.1	100	0.00	13.63
97	p	n-butylbenzene	2.401	2.397	0.2	98	0.00	13.62
98	p	1,2-dibromo-3-chloropropa	0.063	0.063	0.0	104	0.00	14.33
99	p	1,3,5-trichlorobenzene	1.122	1.094	2.5	100	0.00	14.50
100	p	1,2,4-trichlorobenzene	0.880	0.873	0.8	100	0.00	15.05
101	p	hexachlorobutadiene	0.367	0.373	-1.6	101	0.00	15.17
		----------	Amount	Calc.	%Drift	----------		
102	p	naphthalene	50.000	52.831	-5.7	114	0.00	15.29
		----------	AvgRF	CCRF	%Dev	----------		
103	p	1,2,3-trichlorobenzene	0.630	0.647	-2.7	105	0.00	15.48
		----------	Amount	Calc.	%Drift	----------		
104	p	2-Methylnaphthalene	25.000	24.964	0.14	127	0.00	16.29
105	p	1-Methylnaphthalene	25.000	27.712	-10.8	129	0.00	16.46

(#) = Out of Range SPCC's out = 4 CCC's out = 0
v34685.D v140917w.m Thu Sep 18 11:26:42 2014

Continuing Calibration Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSV1275-CC1262
Lab FileID: V35057.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V140929\v35057.D Vial: 32
Acq On : 29 Sep 2014 10:10 pm Operator: amym
Sample : cc1262-50 Inst : MSV
Misc : MS32838,MSV1275,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\v140917w.m (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Thu Sep 18 08:26:09 2014
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	61	-0.01	3.52
2	p	tertiary butyl alcohol	1.444	0.712	50.7#	31#	-0.01	3.63
3	p	Ethanol	0.258	0.237	8.1	57	-0.02	2.61
4	I	pentafluorobenzene	1.000	1.000	0.0	65	-0.01	6.56
5	p	dichlorodifluoromethane	1.163	1.436	-23.5#	82	-0.01	1.53
6	P	chloromethane	0.824	0.954	-15.8	75	0.00	1.65
7	p	vinyl chloride	0.755	0.900	-19.2	74	0.00	1.76
8	p	bromomethane	0.548	0.645	-17.7	77	0.00	2.05
9	p	chloroethane	0.309	0.414	-34.0#	87	0.00	2.14
10	p	ethyl ether	0.290	0.288	0.7	66	-0.01	2.60
11	p	acetonitrile	0.789	0.736	6.7	59	-0.01	3.29
12	p	trichlorofluoromethane	1.177	1.565	-33.0#	79	-0.01	2.35
13	p	freon-113	0.652	0.756	-16.0	69	-0.01	2.93
14	p	acrolein	0.018	0.015#	16.7	66	0.00	2.76
15	p	1,1-dichloroethene	0.417	0.491	-17.7	71	0.00	2.87
16	p	acetone	0.049	0.037#	24.5#	51	-0.01	2.91
17	p	Methyl Acetate	0.202	0.217	-7.4	75	-0.01	3.28
18	p	methylene chloride	0.490	0.475	3.1	66	-0.01	3.47
19	p	methyl tert butyl ether	0.904	0.873	3.4	64	-0.01	3.85
20	p	acrylonitrile	0.130	0.110	15.4	56	-0.01	3.78
21	p	allyl chloride	0.790	0.743	5.9	60	-0.01	3.29
22	p	trans-1,2-dichloroethene	0.486	0.497	-2.3	67	-0.01	3.83
23	p	iodomethane	1.185	1.301	-9.8	71	0.00	3.04
24	p	carbon disulfide	1.496	1.623	-8.5	68	0.00	3.12
25	p	propionitrile	0.041	0.035#	14.6	57	-0.01	5.65
26	p	vinyl acetate	1.384	1.068	22.8#	49#	0.00	4.59
27	p	chloroprene	0.738	0.905	-22.6#	74	-0.01	4.62
28	p	di-isopropyl ether	1.793	1.583	11.7	55	-0.01	4.61
29	p	methacrylonitrile	0.212	0.181	14.6	55	-0.01	5.92
30	p	2-butanone	0.031	0.028#	9.7	56	-0.01	5.53
31	p	Hexane	0.474	0.480	-1.3	59	-0.01	4.25
32	P	1,1-dichloroethane	0.989	0.968	2.1	65	-0.02	4.51
33	p	tert-butyl ethyl ether	1.335	1.308	2.0	64	-0.01	5.28
34	p	isobutyl alcohol	0.277	0.214	22.7#	49#	0.00	4.59
		----------	Amount	Calc.	%Drift		----------	
35	p	2,2-dichloropropane	50.000	48.179	3.6	66	-0.01	5.55
		----------	AvgRF	CCRF	%Dev		----------	
36	p	cis-1,2-dichloroethene	0.525	0.513	2.3	65	-0.01	5.53
37	p	ethyl acetate	1.383	1.068	22.8#	49#	0.00	4.59

Continuing Calibration Summary

Job Number: MC33933 **Sample:** MSV1275-CC1262
Account: BBLNYS Arcadis **Lab FileID:** V35057.D
Project: National Grid, 10 King Street, Ogdensburg, NY

38	p	bromochloromethane	0.287	0.294	-2.4	68	-0.01	5.95
39	p	chloroform	1.025	1.055	-2.9	68	-0.01	6.17
40	S	dibromofluoromethane (s)	0.630	0.592	6.0	62	-0.01	6.44
41	p	Tetrahydrofuran	0.074	0.061	17.6	51	-0.01	5.96
42	p	1,1,1-trichloroethane	0.990	1.200	-21.2#	73	-0.01	6.42
43	I	1,4-difluorobenzene	1.000	1.000	0.0	63	0.00	7.74
44	p	Cyclohexane	0.626	0.644	-2.9	62	-0.01	6.52
45	p	carbon tetrachloride	0.610	0.755	-23.8#	74	-0.01	6.67
46	p	1,1-dichloropropene	0.356	0.416	-16.9	69	0.00	6.68
47	p	benzene	1.035	0.993	4.1	62	0.00	7.00
48	p	1,2-dichloroethane	0.444	0.503	-13.3	72	0.00	7.13
49	p	tert-amyl methyl ether	0.506	0.506	0.0	66	0.00	7.29
50	p	heptane	0.366	0.347	5.2	53	0.00	7.56
51	p	trichloroethene	0.350	0.384	-9.7	70	0.00	8.04
52	p	1,2-dichloropropane	0.319	0.320	-0.3	63	0.00	8.38
53	p	dibromomethane	0.171	0.184	-7.6	68	0.00	8.49
54	p	bromodichloromethane	0.429	0.503	-17.2	72	0.00	8.74
55	p	Methylcyclohexane	0.433	0.458	-5.8	62	0.00	8.34
56	p	2-chloroethyl vinyl ether	0.127	0.117	7.9	58	0.00	9.11
57	p	methyl methacrylate	0.096	0.095	1.0	61	0.00	8.52
			Amount	Calc.	%Drift			
58	p	1,4-dioxane	250.000	123.612	50.6#	31	-0.01	8.50
59	p	cis-1,3-dichloropropene	50.000	57.003	-14.0	69	0.00	9.27
			AvgRF	CCRF	%Dev			
60	S	toluene-d8 (s)	1.097	1.133	-3.3	62	0.00	9.55
61	p	4-methyl-2-pentanone	0.197	0.173	12.2	53	0.00	9.45
62	p	toluene	0.716	0.787	-9.9	67	0.00	9.63
			Amount	Calc.	%Drift			
63	p	trans-1,3-dichloropropene	50.000	56.844	-13.7	74	0.00	9.92
			AvgRF	CCRF	%Dev			
64	p	1,1,2-trichloroethane	0.185	0.186	-0.5	64	0.00	10.12
			Amount	Calc.	%Drift			
65	p	ethyl methacrylate	50.000	44.567	10.9	59	0.00	10.00
			AvgRF	CCRF	%Dev			
66	I	chlorobenzene-d5	1.000	1.000	0.0	66	0.00	11.08
67	p	tetrachloroethene	0.731	0.874	-19.6	76	0.00	10.18
68	p	1,3-dichloropropane	0.692	0.683	1.3	64	0.00	10.28
69	p	dibromochloromethane	0.675	0.803	-19.0	75	0.00	10.50
70	p	1,2-dibromoethane	0.473	0.513	-8.5	71	0.00	10.61
71	p	2-hexanone	0.331	0.279	15.7	51	0.00	10.36
72	P	chlorobenzene	1.931	2.146	-11.1	72	0.00	11.11
73	p	1,1,1,2-tetrachloroethane	0.807	0.961	-19.1	73	0.00	11.21
74	p	ethylbenzene	3.004	3.443	-14.6	69	0.00	11.21
75	p	m,p-xylene	1.211	1.361	-12.4	71	0.00	11.34
76	p	o-xylene	1.273	1.405	-10.4	69	0.00	11.71
77	p	styrene	1.956	2.172	-11.0	70	0.00	11.73
			Amount	Calc.	%Drift			
78	P	bromoform	50.000	54.508	-9.0	70	0.00	11.91
			AvgRF	CCRF	%Dev			
79	p	trans-1,4-dichloro-2-bute	0.182	0.146	19.8	52	0.00	12.12

Continuing Calibration Summary

Job Number: MC33933 **Sample:** MSV1275-CC1262
Account: BBLNYS Arcadis **Lab FileID:** V35057.D
Project: National Grid, 10 King Street, Ogdensburg, NY

80	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	69	0.00	13.29
81	p	isopropylbenzene	2.845	3.260	-14.6	70	0.00	12.06
82	S	bromofluorobenzene (s)	0.871	0.820	5.9	64	0.00	12.23
83	p	bromobenzene	0.775	0.844	-8.9	74	0.00	12.35
84	P	1,1,2,2-tetrachloroethane	0.478	0.419	12.3	60	0.00	12.36
85	p	1,2,3-trichloropropane	0.498	0.394	20.9#	50	0.00	12.41
86	p	n-propylbenzene	3.142	3.500	-11.4	70	0.00	12.45
87	p	2-chlorotoluene	2.042	2.204	-7.9	70	0.00	12.53
88	p	4-chlorotoluene	2.402	2.565	-6.8	70	0.00	12.64
89	p	1,3,5-trimethylbenzene	2.686	2.922	-8.8	69	0.00	12.62
90	p	tert-butylbenzene	1.440	1.639	-13.8	70	0.00	12.91
91	p	1,2,4-trimethylbenzene	2.741	3.056	-11.5	72	0.00	12.96
92	p	sec-butylbenzene	2.998	3.458	-15.3	69	0.00	13.11
93	p	1,3-dichlorobenzene	1.599	1.725	-7.9	72	0.00	13.22
94	p	p-isopropyltoluene	2.917	3.441	-18.0	72	0.00	13.25
95	p	1,4-dichlorobenzene	1.632	1.695	-3.9	70	0.00	13.31
96	p	1,2-dichlorobenzene	1.514	1.587	-4.8	70	0.00	13.63
97	p	n-butylbenzene	2.401	2.587	-7.7	67	0.00	13.61
98	p	1,2-dibromo-3-chloropropa	0.063	0.063	0.0	67	0.00	14.33
99	p	1,3,5-trichlorobenzene	1.122	1.235	-10.1	72	0.00	14.50
100	p	1,2,4-trichlorobenzene	0.880	0.938	-6.6	69	0.00	15.05
101	p	hexachlorobutadiene	0.367	0.441	-20.2#	76	0.00	15.17

			Amount	Calc.	%Drift			
102	p	naphthalene	50.000	51.568	-3.1	71	0.00	15.29

			AvgRF	CCRF	%Dev			
103	p	1,2,3-trichlorobenzene	0.630	0.660	-4.8	69	0.00	15.47

			Amount	Calc.	%Drift			
104	p	2-Methylnaphthalene	25.000	40.504	-62.0#	129	0.00	16.28
105	p	1-Methylnaphthalene	25.000	47.143	-88.6#	139	0.00	16.45

(#) = Out of Range SPCC's out = 4 CCC's out = 0
v34685.D v140917w.m Tue Sep 30 13:47:13 2014

Continuing Calibration Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSV1277-CC1262
Lab FileID: V35117.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V141001\v35117.D Vial: 3
Acq On : 1 Oct 2014 9:16 am Operator: amym
Sample : cc1262-50 Inst : MSV
Misc : MS32846,MSV1277,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\v140917w.m (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Thu Sep 18 08:26:09 2014
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	51	-0.02	3.52
2	p	tertiary butyl alcohol	1.444	1.506	-4.3	54	-0.01	3.63
3	p	Ethanol	0.258	0.247	4.3	50	-0.02	2.60
4	I	pentafluorobenzene	1.000	1.000	0.0	62	-0.01	6.56
5	p	dichlorodifluoromethane	1.163	1.424	-22.4#	78	-0.01	1.53
6	P	chloromethane	0.824	0.932	-13.1	70	0.00	1.65
7	p	vinyl chloride	0.755	0.875	-15.9	70	0.00	1.76
8	p	bromomethane	0.548	0.635	-15.9	73	0.00	2.05
9	p	chloroethane	0.309	0.406	-31.4#	83	0.00	2.14
10	p	ethyl ether	0.290	0.279	3.8	61	-0.01	2.60
11	p	acetonitrile	0.789	0.743	5.8	58	-0.01	3.29
12	p	trichlorofluoromethane	1.177	1.516	-28.8#	74	-0.01	2.35
13	p	freon-113	0.652	0.743	-14.0	65	-0.01	2.93
14	p	acrolein	0.018	0.018#	0.0	75	-0.01	2.76
15	p	1,1-dichloroethene	0.417	0.485	-16.3	67	-0.01	2.87
16	p	acetone	0.049	0.041#	16.3	54	-0.01	2.91
17	p	Methyl Acetate	0.202	0.203	-0.5	67	-0.02	3.28
18	p	methylene chloride	0.490	0.465	5.1	62	-0.01	3.47
19	p	methyl tert butyl ether	0.904	0.866	4.2	61	-0.02	3.85
20	p	acrylonitrile	0.130	0.101	22.3#	50#	-0.02	3.78
21	p	allyl chloride	0.790	0.742	6.1	58	-0.01	3.29
22	p	trans-1,2-dichloroethene	0.486	0.485	0.2	63	-0.02	3.83
23	p	iodomethane	1.185	1.288	-8.7	68	-0.01	3.04
24	p	carbon disulfide	1.496	1.611	-7.7	65	-0.01	3.12
25	p	propionitrile	0.041	0.034#	17.1	53	-0.01	5.65
26	p	vinyl acetate	1.384	1.047	24.3#	46#	0.00	4.59
27	p	chloroprene	0.738	0.882	-19.5	69	-0.02	4.62
28	p	di-isopropyl ether	1.793	1.525	14.9	51	-0.02	4.60
29	p	methacrylonitrile	0.212	0.178	16.0	52	-0.01	5.92
30	p	2-butanone	0.031	0.031#	0.0	60	-0.01	5.53
31	p	Hexane	0.474	0.484	-2.1	57	-0.01	4.25
32	P	1,1-dichloroethane	0.989	0.945	4.4	61	-0.02	4.51
33	p	tert-butyl ethyl ether	1.335	1.285	3.7	60	-0.02	5.27
34	p	isobutyl alcohol	0.277	0.209	24.5#	46#	0.00	4.59
			Amount	Calc.	%Drift			
35	p	2,2-dichloropropane	50.000	53.363	-6.7	71	-0.02	5.55
			AvgRF	CCRF	%Dev			
36	p	cis-1,2-dichloroethene	0.525	0.506	3.6	62	-0.02	5.53
37	p	ethyl acetate	1.383	1.047	24.3#	46#	0.00	4.58

Continuing Calibration Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSV1277-CC1262
Lab FileID: V35117.D

38	p	bromochloromethane	0.287	0.289	-0.7	65	-0.01	5.95
39	p	chloroform	1.025	1.038	-1.3	65	-0.01	6.16
40	S	dibromofluoromethane (s)	0.630	0.583	7.5	59	-0.01	6.44
41	p	Tetrahydrofuran	0.074	0.059	20.3#	48#	-0.01	5.96
42	p	1,1,1-trichloroethane	0.990	1.178	-19.0	69	-0.01	6.41
43	I	1,4-difluorobenzene	1.000	1.000	0.0	61	0.00	7.74
44	p	Cyclohexane	0.626	0.617	1.4	57	-0.01	6.52
45	p	carbon tetrachloride	0.610	0.737	-20.8#	70	-0.01	6.67
46	p	1,1-dichloropropene	0.356	0.422	-18.5	67	-0.01	6.68
47	p	benzene	1.035	1.011	2.3	61	0.00	7.00
48	p	1,2-dichloroethane	0.444	0.505	-13.7	70	0.00	7.13
49	p	tert-amyl methyl ether	0.506	0.504	0.4	64	-0.01	7.29
50	p	heptane	0.366	0.361	1.4	53	0.00	7.56
51	p	trichloroethene	0.350	0.393	-12.3	69	0.00	8.03
52	p	1,2-dichloropropane	0.319	0.322	-0.9	61	0.00	8.38
53	p	dibromomethane	0.171	0.185	-8.2	66	0.00	8.49
54	p	bromodichloromethane	0.429	0.506	-17.9	70	0.00	8.74
55	p	Methylcyclohexane	0.433	0.459	-6.0	60	0.00	8.34
56	p	2-chloroethyl vinyl ether	0.127	0.121	4.7	57	0.00	9.11
57	p	methyl methacrylate	0.096	0.094	2.1	58	0.00	8.52
			Amount	Calc.	%Drift			
58	p	1,4-dioxane	250.000	279.120	-11.6	68	0.00	8.50
59	p	cis-1,3-dichloropropene	50.000	58.268	-16.5	68	0.00	9.27
			AvgRF	CCRF	%Dev			
60	S	toluene-d8 (s)	1.097	1.131	-3.1	60	0.00	9.55
61	p	4-methyl-2-pentanone	0.197	0.173	12.2	51	0.00	9.45
62	p	toluene	0.716	0.801	-11.9	66	0.00	9.63
			Amount	Calc.	%Drift			
63	p	trans-1,3-dichloropropene	50.000	58.953	-17.9	75	0.00	9.92
			AvgRF	CCRF	%Dev			
64	p	1,1,2-trichloroethane	0.185	0.189	-2.2	63	0.00	10.12
			Amount	Calc.	%Drift			
65	p	ethyl methacrylate	50.000	44.974	10.1	58	0.00	10.00
			AvgRF	CCRF	%Dev			
66	I	chlorobenzene-d5	1.000	1.000	0.0	64	0.00	11.08
67	p	tetrachloroethene	0.731	0.894	-22.3#	75	0.00	10.18
68	p	1,3-dichloropropane	0.692	0.684	1.2	62	0.00	10.28
69	p	dibromochloromethane	0.675	0.806	-19.4	72	0.00	10.50
70	p	1,2-dibromoethane	0.473	0.516	-9.1	69	0.00	10.61
71	p	2-hexanone	0.331	0.325	1.8	57	0.00	10.35
72	P	chlorobenzene	1.931	2.171	-12.4	70	0.00	11.11
73	p	1,1,1,2-tetrachloroethane	0.807	0.968	-20.0	71	0.00	11.21
74	p	ethylbenzene	3.004	3.504	-16.6	68	0.00	11.21
75	p	m,p-xylene	1.211	1.391	-14.9	70	0.00	11.34
76	p	o-xylene	1.273	1.429	-12.3	68	0.00	11.71
77	p	styrene	1.956	2.209	-12.9	68	0.00	11.73
			Amount	Calc.	%Drift			
78	P	bromoform	50.000	55.620	-11.2	69	0.00	11.91
			AvgRF	CCRF	%Dev			
79	p	trans-1,4-dichloro-2-bute	0.182	0.150	17.6	51	0.00	12.12

Continuing Calibration Summary

Job Number: MC33933 **Sample:** MSV1277-CC1262
Account: BBLNYS Arcadis **Lab FileID:** V35117.D
Project: National Grid, 10 King Street, Ogdensburg, NY

80	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	65	0.00	13.29
81	p	isopropylbenzene	2.845	3.370	-18.5	69	0.00	12.06
82	S	bromofluorobenzene (s)	0.871	0.840	3.6	62	0.00	12.23
83	p	bromobenzene	0.775	0.869	-12.1	72	0.00	12.35
84	P	1,1,2,2-tetrachloroethane	0.478	0.421	11.9	57	0.00	12.36
85	p	1,2,3-trichloropropane	0.498	0.413	17.1	50#	0.00	12.40
86	p	n-propylbenzene	3.142	3.645	-16.0	69	0.00	12.45
87	p	2-chlorotoluene	2.042	2.285	-11.9	68	0.00	12.53
88	p	4-chlorotoluene	2.402	2.653	-10.4	68	0.00	12.64
89	p	1,3,5-trimethylbenzene	2.686	3.035	-13.0	67	0.00	12.62
90	p	tert-butylbenzene	1.440	1.688	-17.2	68	0.00	12.91
91	p	1,2,4-trimethylbenzene	2.741	3.137	-14.4	70	0.00	12.96
92	p	sec-butylbenzene	2.998	3.564	-18.9	68	0.00	13.11
93	p	1,3-dichlorobenzene	1.599	1.779	-11.3	70	0.00	13.22
94	p	p-isopropyltoluene	2.917	3.555	-21.9#	70	0.00	13.25
95	p	1,4-dichlorobenzene	1.632	1.748	-7.1	69	0.00	13.31
96	p	1,2-dichlorobenzene	1.514	1.615	-6.7	67	0.00	13.63
97	p	n-butylbenzene	2.401	2.656	-10.6	65	0.00	13.61
98	p	1,2-dibromo-3-chloropropa	0.063	0.062	1.6	62	0.00	14.33
99	p	1,3,5-trichlorobenzene	1.122	1.251	-11.5	69	0.00	14.49
100	p	1,2,4-trichlorobenzene	0.880	0.942	-7.0	65	0.00	15.05
101	p	hexachlorobutadiene	0.367	0.460	-25.3#	75	0.00	15.17
			Amount	Calc.	%Drift			
102	p	naphthalene	50.000	50.687	-1.4	66	0.00	15.28
			AvgRF	CCRF	%Dev			
103	p	1,2,3-trichlorobenzene	0.630	0.660	-4.8	65	0.00	15.47
			Amount	Calc.	%Drift			
104	p	2-Methylnaphthalene	25.000	39.175	-56.7#	118	0.00	16.28
105	p	1-Methylnaphthalene	25.000	45.515	-82.1#	127	0.00	16.45

(#) = Out of Range SPCC's out = 4 CCC's out = 0
v34685.D v140917w.m Wed Oct 01 17:47:09 2014

New England ACCUTEST LABORATORIES

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35083.D
Acq On : 30 Sep 2014 9:53 am
Operator : amym
Sample : mc33933-1
Misc : MS32846,MSV1275,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 30 16:44:58 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

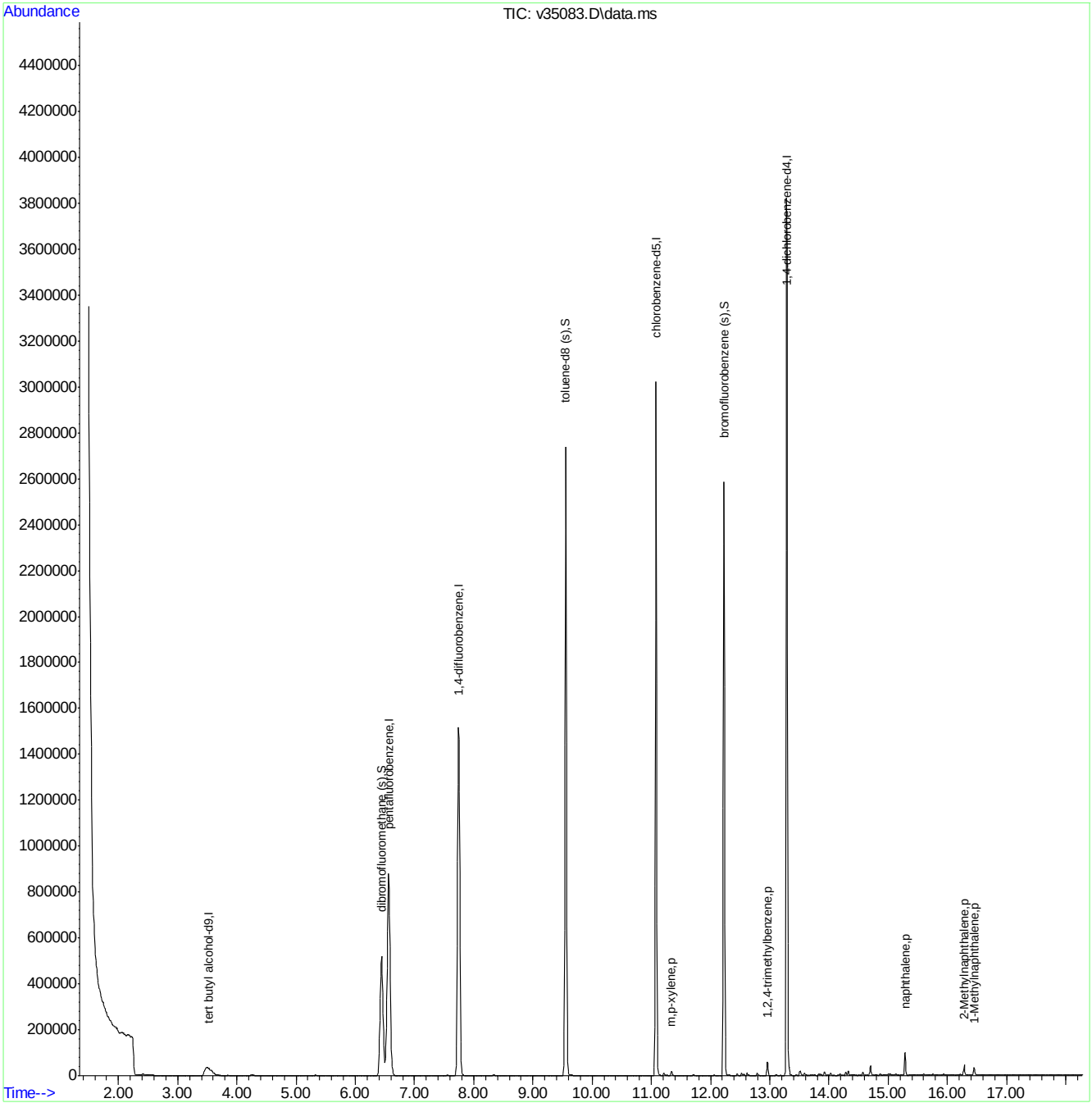
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.529	65	128369	500.00	ug/L	# 0.00
4) pentafluorobenzene	6.565	168	1094655	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.747	114	1766750	50.00	ug/L	0.00
66) chlorobenzene-d5	11.080	82	788187	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.290	152	932535	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.446	113	585114	42.39	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 84.78%			
60) toluene-d8 (s)	9.556	98	1873245	48.33	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.66%			
82) bromofluorobenzene (s)	12.227	95	757893	46.68	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.36%			
Target Compounds						Qvalue
75) m,p-xylene	11.343	106	6373	0.33	ug/L	96
91) 1,2,4-trimethylbenzene	12.961	105	29062	0.57	ug/L	92
102) naphthalene	15.285	128	76070	3.77	ug/L	100
104) 2-Methylnaphthalene	16.283	142	23216	7.21	ug/L	100
105) 1-Methylnaphthalene	16.453	142	15026	6.87	ug/L	96

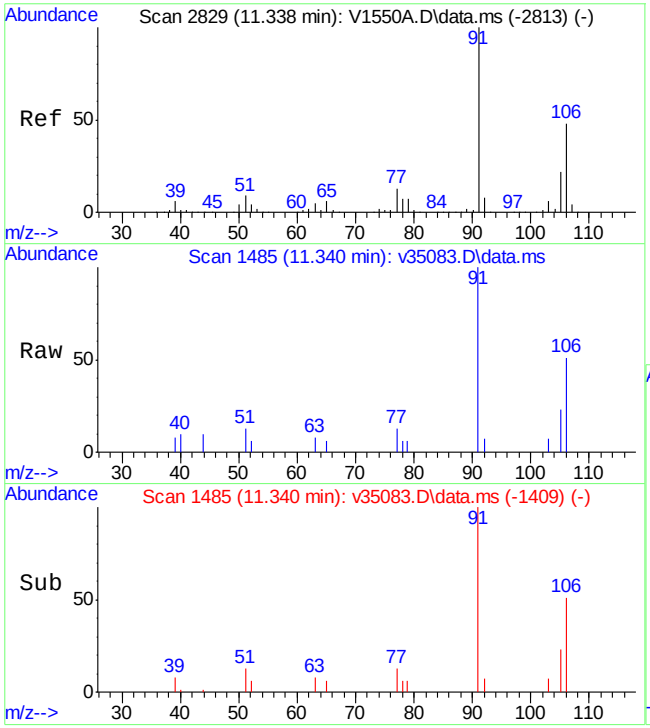
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35083.D
Acq On : 30 Sep 2014 9:53 am
Operator : amym
Sample : mc33933-1
Misc : MS32846,MSV1275,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 30 16:44:58 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

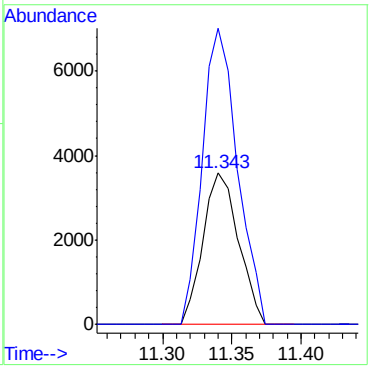


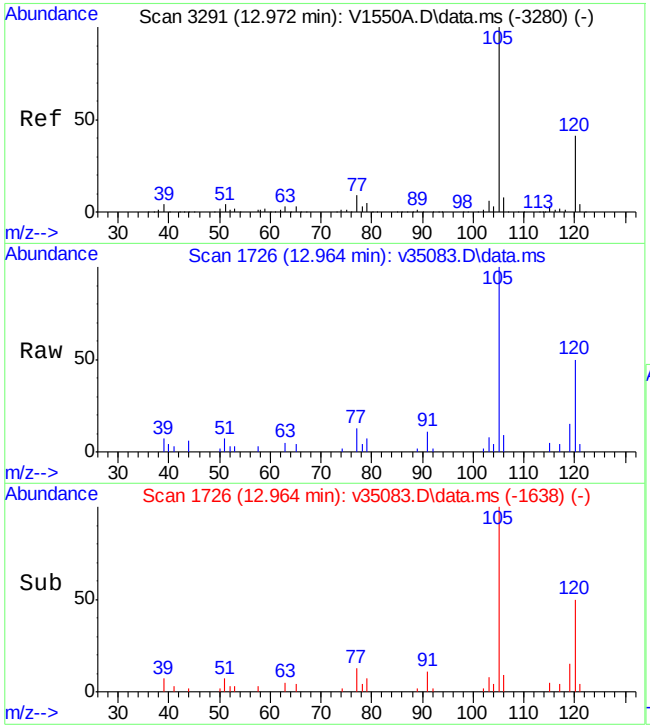


#75
m,p-xylene
Concen: 0.33 ug/L
RT: 11.343 min Scan# 1485
Delta R.T. -0.005 min
Lab File: v35083.D
Acq: 30 Sep 2014 9:53 am

Tgt Ion:106 Resp: 6373

Ion	Ratio	Lower	Upper
106	100		
91	195.9	171.5	231.5

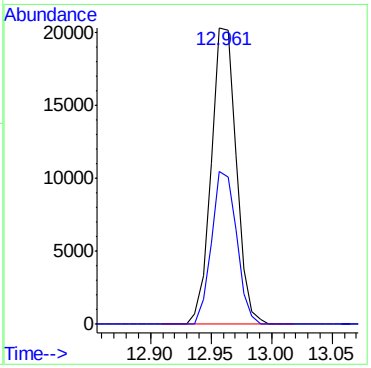


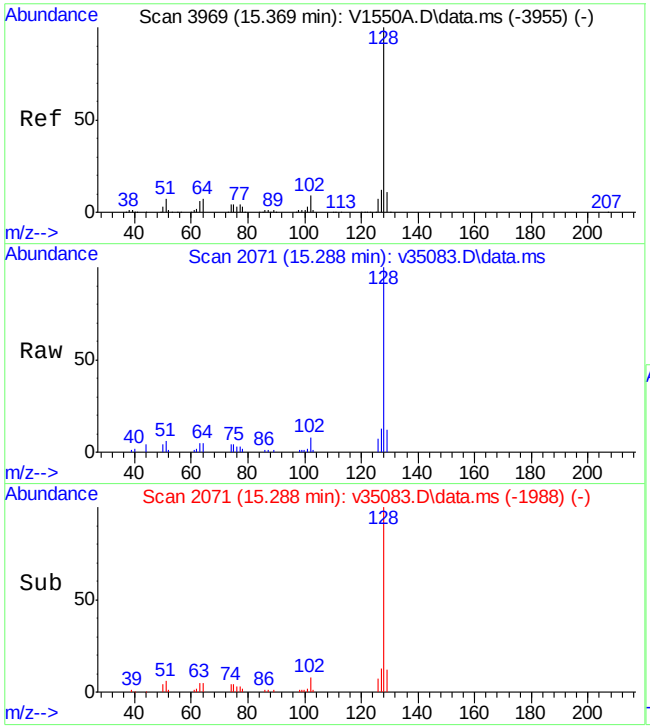


#91
1,2,4-trimethylbenzene
Concen: 0.57 ug/L
RT: 12.961 min Scan# 1726
Delta R.T. -0.003 min
Lab File: v35083.D
Acq: 30 Sep 2014 9:53 am

Tgt Ion:105 Resp: 29062

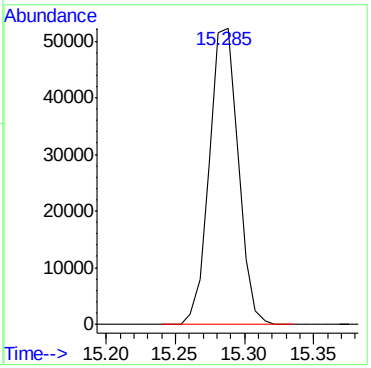
Ion	Ratio	Lower	Upper
105	100		
120	50.0	14.9	74.9

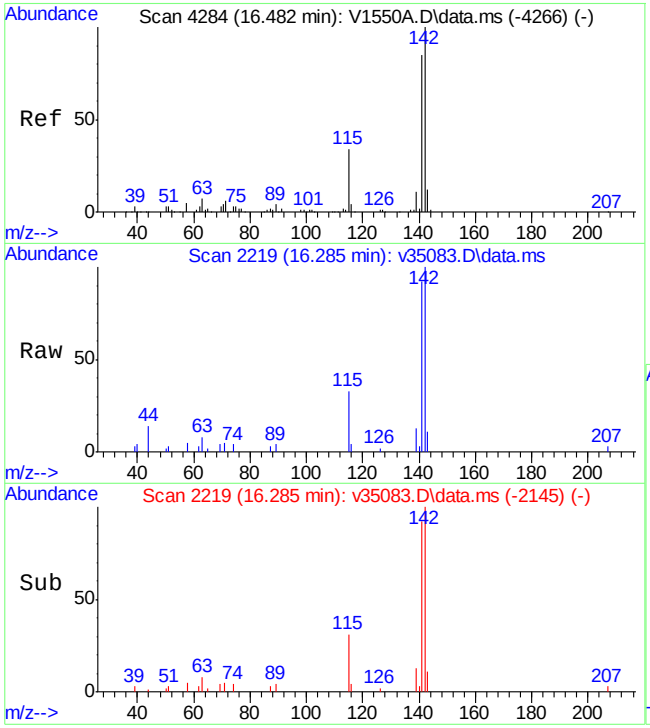




#102
naphthalene
Concen: 3.77 ug/L
RT: 15.285 min Scan# 2071
Delta R.T. -0.004 min
Lab File: v35083.D
Acq: 30 Sep 2014 9:53 am

Tgt Ion:128 Resp: 76070

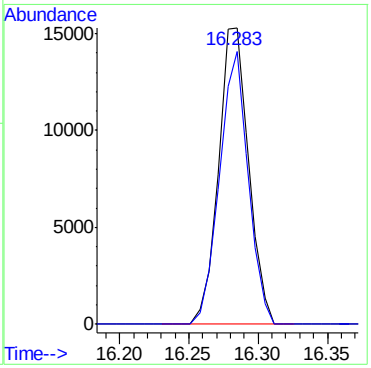


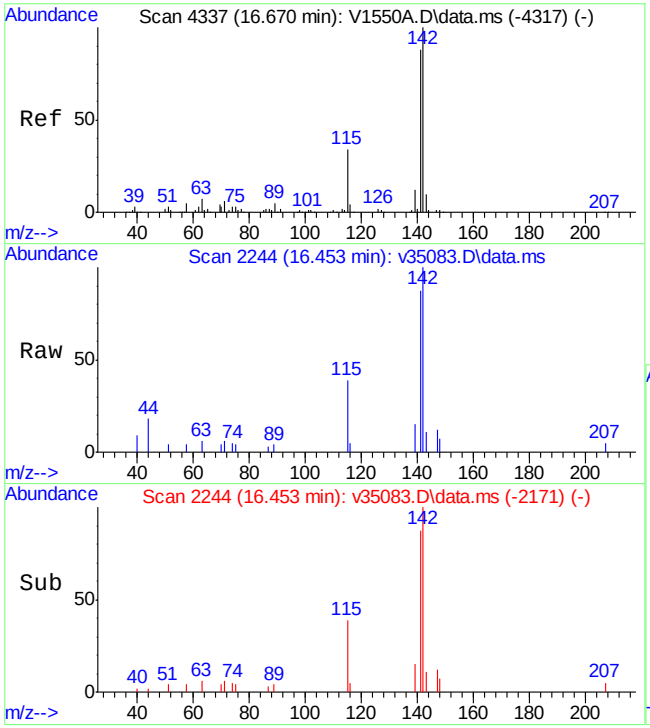


#104
2-Methylnaphthalene
Concen: 7.21 ug/L
RT: 16.283 min Scan# 2219
Delta R.T. -0.004 min
Lab File: v35083.D
Acq: 30 Sep 2014 9:53 am

Tgt Ion:142 Resp: 23216

Ion	Ratio	Lower	Upper
142	100		
141	87.9	67.7	107.7

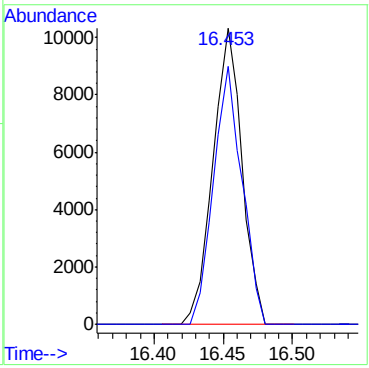




#105
1-Methylnaphthalene
Concen: 6.87 ug/L
RT: 16.453 min Scan# 2244
Delta R.T. -0.005 min
Lab File: v35083.D
Acq: 30 Sep 2014 9:53 am

Tgt Ion:142 Resp: 15026

Ion	Ratio	Lower	Upper
142	100		
141	85.4	69.6	109.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35121.D
Acq On : 1 Oct 2014 11:02 am
Operator : amym
Sample : mc33933-2
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 01 17:52:22 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

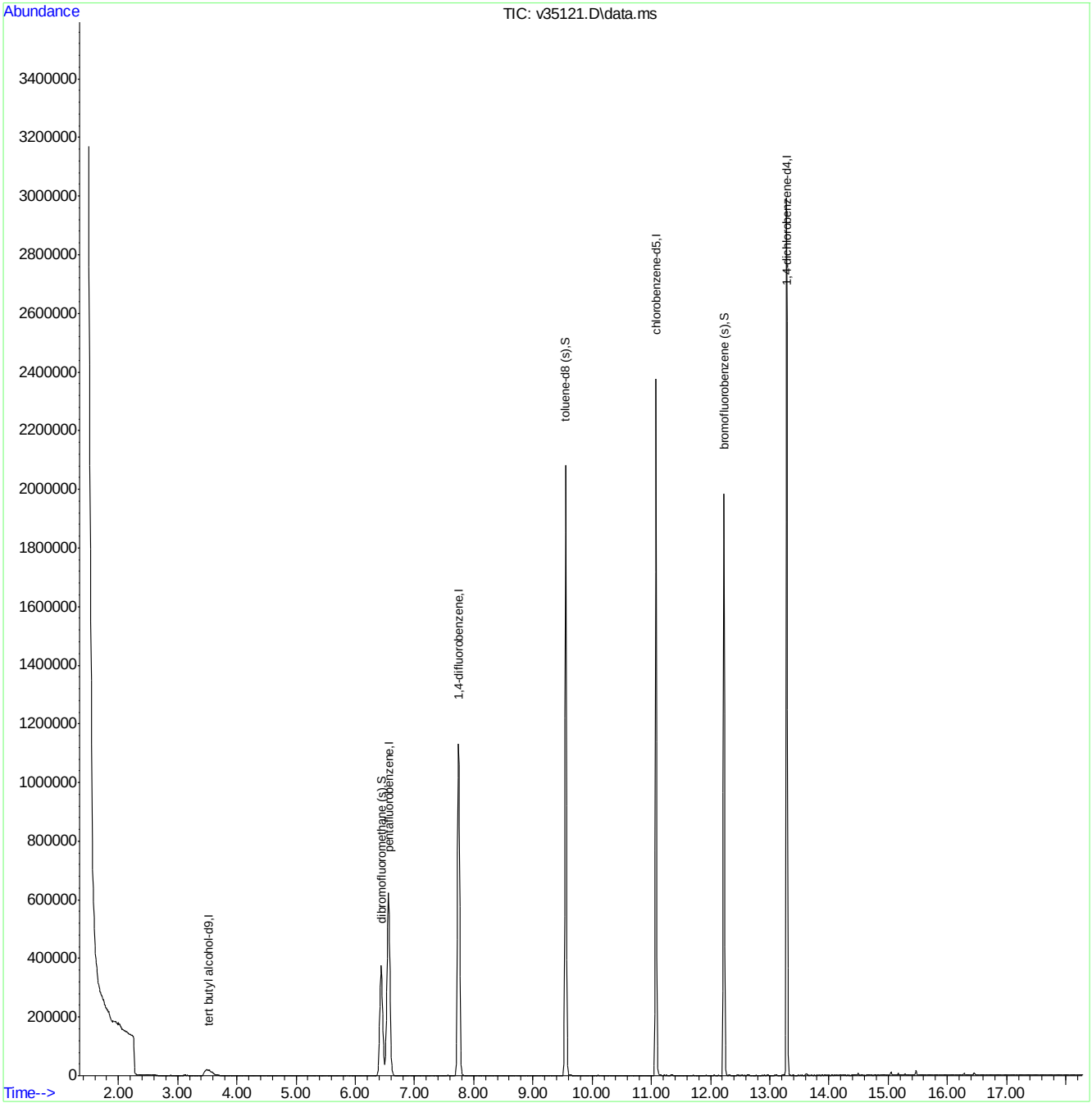
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.526	65	66783	500.00	ug/L	#-0.01
4) pentafluorobenzene	6.562	168	730164	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.746	114	1222801	50.00	ug/L	0.00
66) chlorobenzene-d5	11.079	82	583016	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.290	152	671807	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.440	113	421169	45.75	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 91.50%			
60) toluene-d8 (s)	9.554	98	1324893	49.39	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 98.78%			
82) bromofluorobenzene (s)	12.227	95	556814	47.60	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.20%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35121.D
Acq On : 1 Oct 2014 11:02 am
Operator : amym
Sample : mc33933-2
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 01 17:52:22 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35061.D
Acq On : 29 Sep 2014 11:56 pm
Operator : amym
Sample : mc33933-3
Misc : MS32846,MSV1275,,,,5,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Sep 30 13:50:21 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

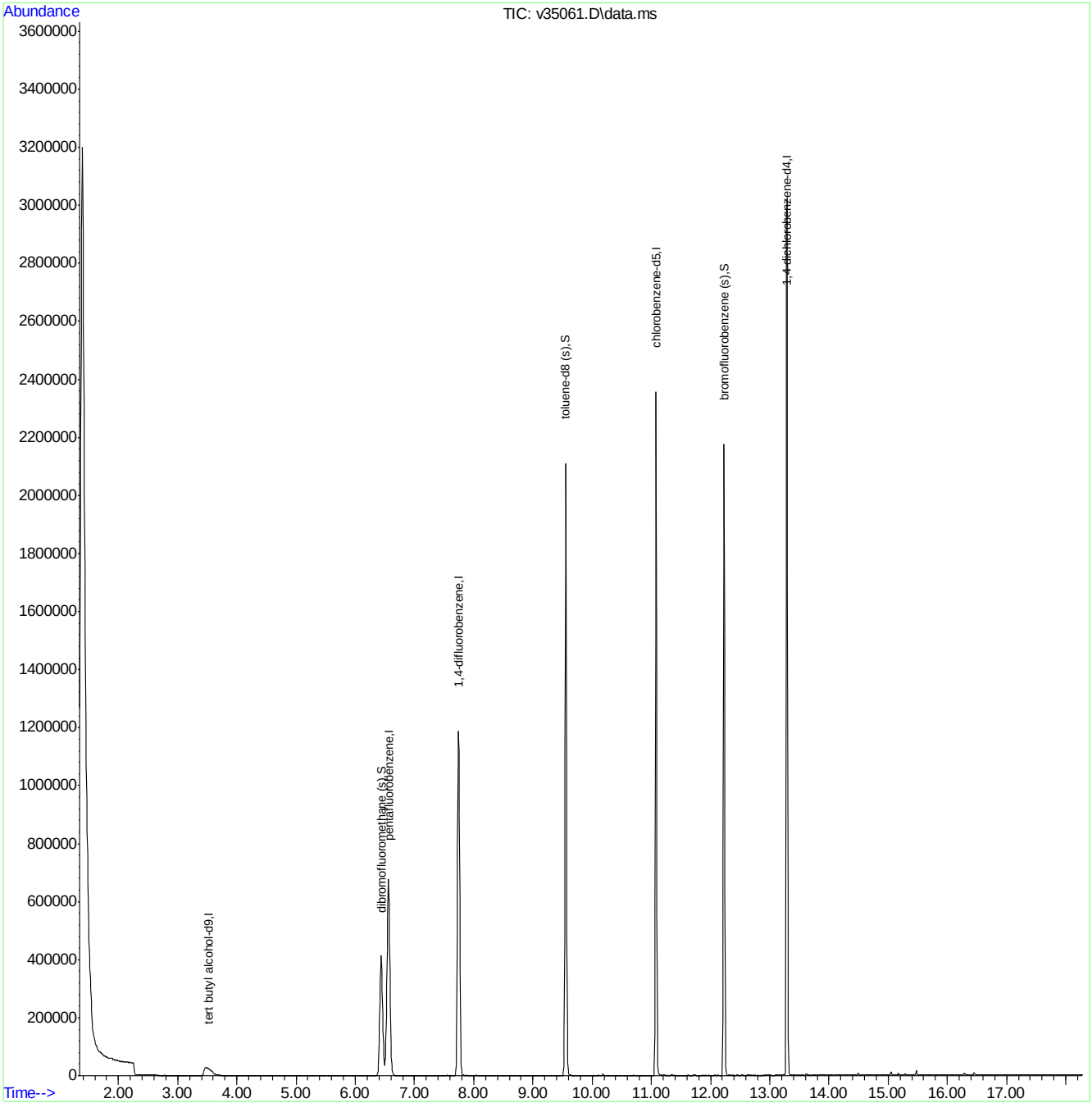
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.525	65	87195	500.00	ug/L	#-0.01
4) pentafluorobenzene	6.561	168	768781	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.746	114	1264390	50.00	ug/L	0.00
66) chlorobenzene-d5	11.081	82	594249	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.291	152	708132	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.440	113	453784	46.81	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.62%			
60) toluene-d8 (s)	9.556	98	1339287	48.29	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.58%			
82) bromofluorobenzene (s)	12.229	95	586078	47.53	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.06%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35061.D
Acq On : 29 Sep 2014 11:56 pm
Operator : amym
Sample : mc33933-3
Misc : MS32846,MSV1275,,,,5,1
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Sep 30 13:50:21 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35060.D
Acq On : 29 Sep 2014 11:30 pm
Operator : amym
Sample : mb
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Sep 30 13:49:44 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

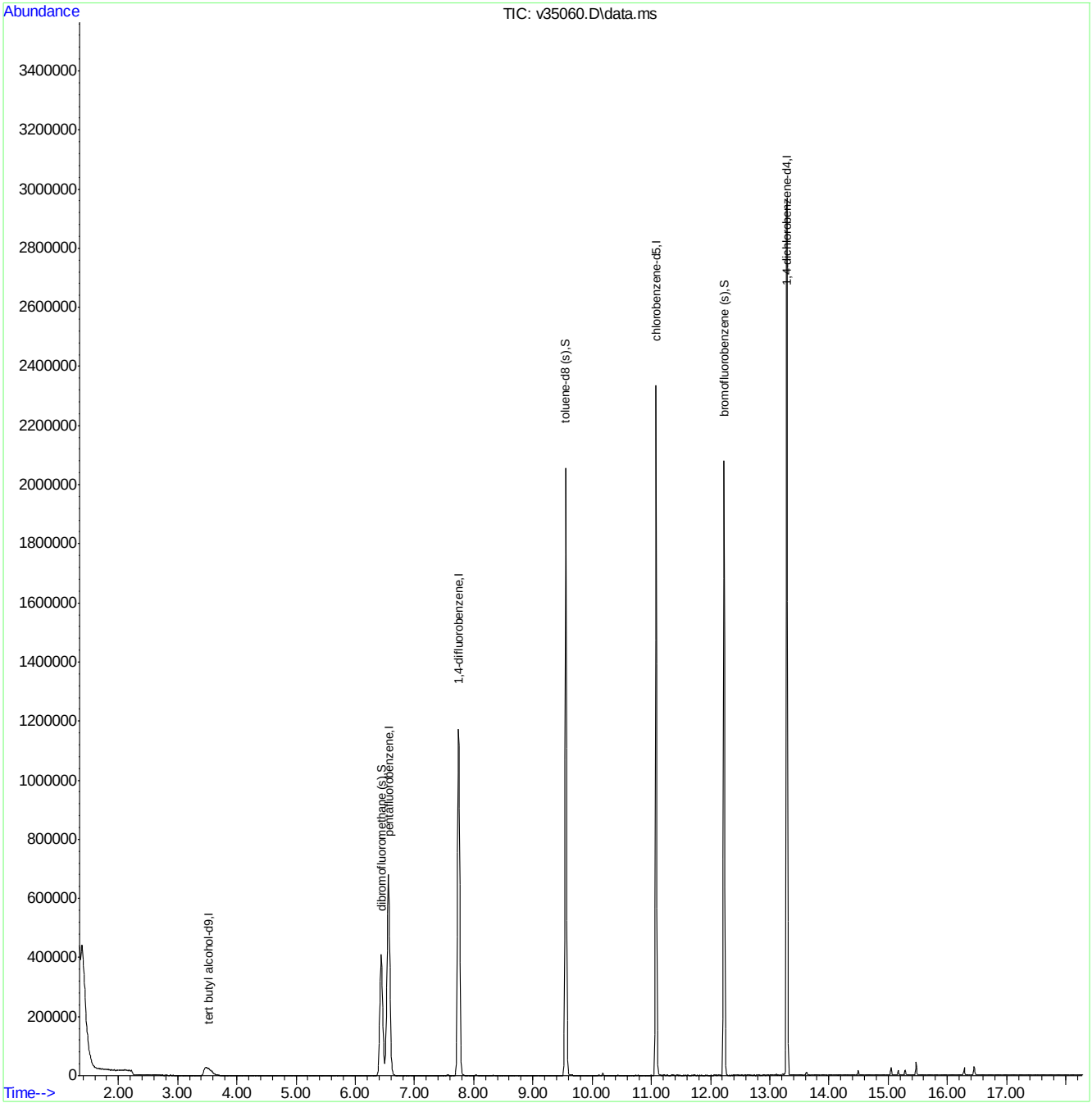
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.521	65	90812	500.00	ug/L	#-0.02
4) pentafluorobenzene	6.561	168	773583	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.746	114	1277751	50.00	ug/L	0.00
66) chlorobenzene-d5	11.081	82	586482	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.291	152	684420	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.442	113	453865	46.53	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.06%			
60) toluene-d8 (s)	9.556	98	1340471	47.82	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.64%			
82) bromofluorobenzene (s)	12.229	95	562821	47.23	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.46%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35060.D
Acq On : 29 Sep 2014 11:30 pm
Operator : amym
Sample : mb
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Sep 30 13:49:44 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35120.D
Acq On : 1 Oct 2014 10:35 am
Operator : amym
Sample : mb
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 01 17:51:23 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

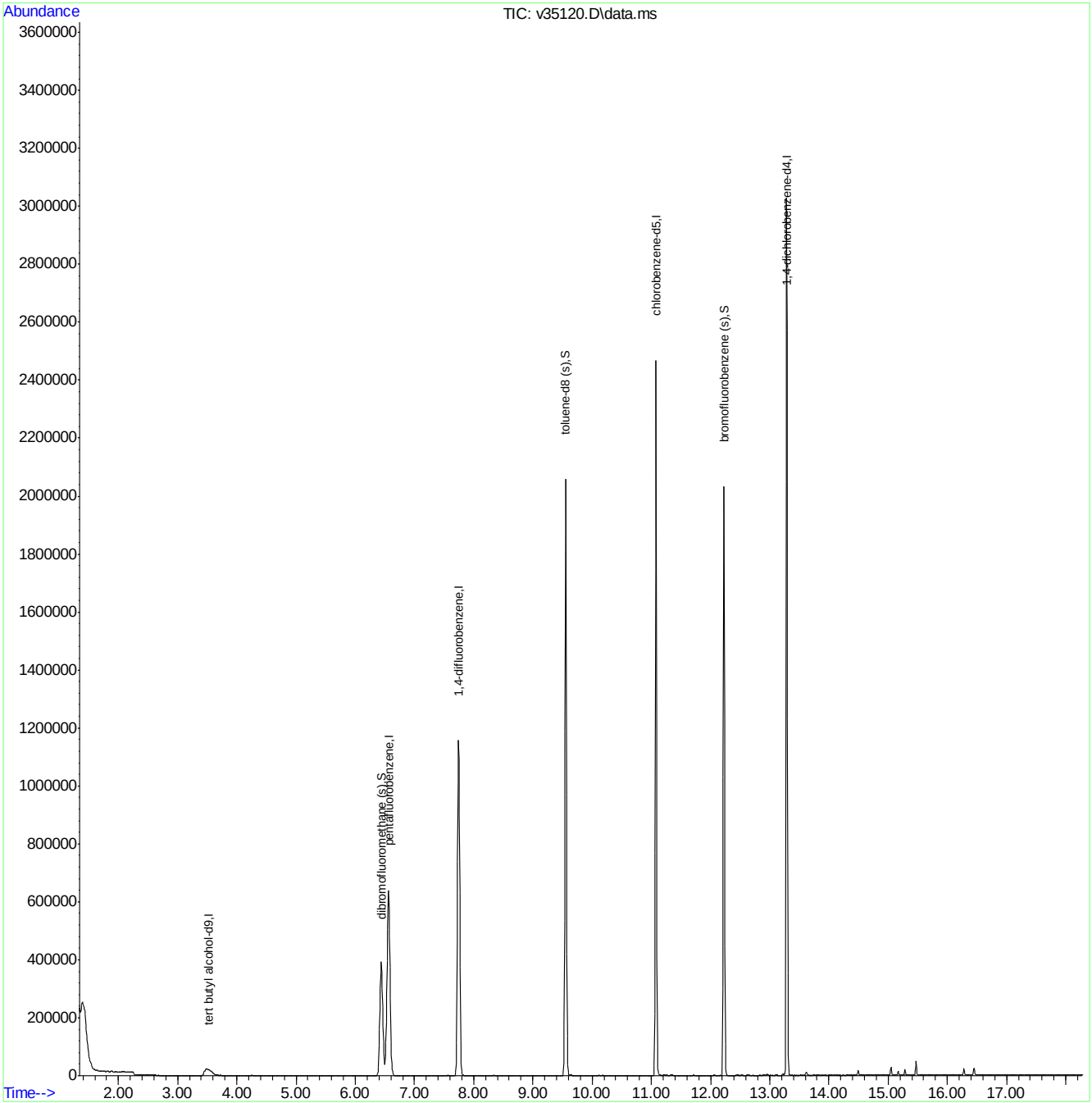
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.526	65	73814	500.00	ug/L	#-0.01
4) pentafluorobenzene	6.562	168	752323	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.746	114	1263468	50.00	ug/L	0.00
66) chlorobenzene-d5	11.079	82	596807	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.289	152	683111	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.442	113	438145	46.19	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 92.38%			
60) toluene-d8 (s)	9.555	98	1348819	48.67	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.34%			
82) bromofluorobenzene (s)	12.227	95	577015	48.51	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.02%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35120.D
Acq On : 1 Oct 2014 10:35 am
Operator : amym
Sample : mb
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 01 17:51:23 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
10/01/14 07:45

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35058.D
Acq On : 29 Sep 2014 10:37 pm
Operator : amym
Sample : bs
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 30 13:48:29 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.530	65	101080	500.00	ug/L	#	0.00
4) pentafluorobenzene	6.564	168	821468	50.00	ug/L		0.00
43) 1,4-difluorobenzene	7.748	114	1342407	50.00	ug/L		0.00
66) chlorobenzene-d5	11.081	82	669383	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	13.291	152	794646	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.445	113	485747	46.90	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.80%				
60) toluene-d8 (s)	9.556	98	1497416	50.85	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 101.70%				
82) bromofluorobenzene (s)	12.229	95	656100	47.42	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.84%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.639	59	74033	253.64	ug/L	#	53
3) Ethanol	2.613	45	227233	4352.77	ug/L	#	100
5) dichlorodifluoromethane	1.532	85	1095202m	57.31	ug/L		
6) chloromethane	1.654	50	736389	54.38	ug/L		97
7) vinyl chloride	1.766	62	698332	56.32	ug/L		99
8) bromomethane	2.057	96	501444	55.65	ug/L		99
9) chloroethane	2.145	64	321306	63.28	ug/L		97
10) ethyl ether	2.608	59	228960	47.99	ug/L		95
11) acetonitrile	3.300	41	569660	43.92	ug/L	#	19
12) trichlorofluoromethane	2.361	101	1197175	61.89	ug/L		99
13) freon-113	2.934	101	594448	55.47	ug/L		94
14) acrolein	2.772	56	61754	208.46	ug/L		98
15) 1,1-dichloroethene	2.876	96	386963	56.51	ug/L		94
16) acetone	2.914	58	29678	37.21	ug/L		98
17) Methyl Acetate	3.283	43	175347	52.90	ug/L	#	95
18) methylene chloride	3.474	84	372168	46.19	ug/L		87
19) methyl tert butyl ether	3.857	73	706413	47.58	ug/L		97
20) acrylonitrile	3.790	53	87110	40.70	ug/L		97
21) allyl chloride	3.300	41	569644	43.91	ug/L		94
22) trans-1,2-dichloroethene	3.840	96	379602	47.56	ug/L		99
23) iodomethane	3.045	142	1027376	52.75	ug/L		93
24) carbon disulfide	3.131	76	1281294	52.13	ug/L		98
25) propionitrile	5.656	54	29393	43.95	ug/L		100
26) vinyl acetate	4.596	43	853008	37.51	ug/L		97
27) chloroprene	4.627	53	706770	58.25	ug/L		93
28) di-isopropyl ether	4.614	45	1247281	42.33	ug/L		95
29) methacrylonitrile	5.925	41	150969	43.38	ug/L		96
30) 2-butanone	5.540	72	22841	44.24	ug/L	#	55
31) Hexane	4.259	41	377354	48.41	ug/L		96
32) 1,1-dichloroethane	4.515	63	750898	46.20	ug/L		97
33) tert-butyl ethyl ether	5.284	59	1048485	47.82	ug/L		96
34) isobutyl alcohol	4.596	43	853008	187.54	ug/L		86
35) 2,2-dichloropropane	5.558	77	619211	45.34	ug/L		93
36) cis-1,2-dichloroethene	5.536	96	410606	47.63	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35058.D
Acq On : 29 Sep 2014 10:37 pm
Operator : amym
Sample : bs
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 30 13:48:29 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	4.597	43	851333m	37.47	ug/L		
38) bromochloromethane	5.958	128	234273	49.63	ug/L	#	81
39) chloroform	6.173	83	831740	49.41	ug/L		96
41) Tetrahydrofuran	5.967	42	51290	42.20	ug/L		90
42) 1,1,1-trichloroethane	6.420	97	927328	57.03	ug/L		96
44) Cyclohexane	6.529	56	810514	48.24	ug/L		99
45) carbon tetrachloride	6.675	117	927866	56.67	ug/L		97
46) 1,1-dichloropropene	6.689	75	539785	56.50	ug/L		96
47) benzene	7.009	78	1298234	46.73	ug/L		100
48) 1,2-dichloroethane	7.134	62	655566	54.96	ug/L		98
49) tert-amyl methyl ether	7.295	73	653427	48.11	ug/L		96
50) heptane	7.565	43	447214	45.56	ug/L		93
51) trichloroethene	8.039	95	499536	53.16	ug/L		98
52) 1,2-dichloropropane	8.387	63	414574	48.35	ug/L		98
53) dibromomethane	8.492	93	238213	51.84	ug/L		91
54) bromodichloromethane	8.742	83	646007	56.12	ug/L		97
55) Methylcyclohexane	8.340	83	585048	50.30	ug/L		97
56) 2-chloroethyl vinyl ether	9.117	63	153282	44.79	ug/L		94
57) methyl methacrylate	8.520	69	125098	48.61	ug/L		90
58) 1,4-dioxane	8.504	88	3309m	114.56	ug/L		
59) cis-1,3-dichloropropene	9.269	75	551853	54.93	ug/L		98
61) 4-methyl-2-pentanone	9.451	43	228245	43.06	ug/L		92
62) toluene	9.632	92	1006945	52.41	ug/L		99
63) trans-1,3-dichloropropene	9.919	75	457665	55.26	ug/L		98
64) 1,1,2-trichloroethane	10.125	83	244720	49.40	ug/L		97
65) ethyl methacrylate	9.999	69	286204	43.51	ug/L		92
67) tetrachloroethene	10.184	166	579420	59.24	ug/L		99
68) 1,3-dichloropropane	10.286	76	452748	48.84	ug/L		99
69) dibromochloromethane	10.506	129	527836	58.44	ug/L		100
70) 1,2-dibromoethane	10.615	107	336604	53.14	ug/L		98
71) 2-hexanone	10.357	43	182098	41.08	ug/L		91
72) chlorobenzene	11.111	112	1402378	54.24	ug/L		95
73) 1,1,1,2-tetrachloroethane	11.210	131	633526	58.62	ug/L		98
74) ethylbenzene	11.215	91	2251567	55.99	ug/L		99
75) m,p-xylene	11.346	106	1784694	110.08	ug/L		99
76) o-xylene	11.713	106	925299	54.30	ug/L		98
77) styrene	11.733	104	1423208	54.35	ug/L		98
78) bromoform	11.908	173	234781	53.01	ug/L		97
79) trans-1,4-dichloro-2-b...	12.123	53	95412	39.14	ug/L		89
81) isopropylbenzene	12.064	105	2562199	56.67	ug/L		97
83) bromobenzene	12.354	156	662757	53.78	ug/L		85
84) 1,1,2,2-tetrachloroethane	12.359	83	335139	44.14	ug/L		97
85) 1,2,3-trichloropropane	12.408	75	313305	39.59	ug/L		95
86) n-propylbenzene	12.452	91	2742935	54.94	ug/L		96
87) 2-chlorotoluene	12.531	91	1725234	53.16	ug/L		91
88) 4-chlorotoluene	12.642	91	2012634	52.73	ug/L		97
89) 1,3,5-trimethylbenzene	12.622	105	2301195	53.90	ug/L		100
90) tert-butylbenzene	12.907	91	1294209	56.54	ug/L		91
91) 1,2,4-trimethylbenzene	12.961	105	2398213	55.06	ug/L		97
92) sec-butylbenzene	13.110	105	2713630	56.95	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35058.D
Acq On : 29 Sep 2014 10:37 pm
Operator : amym
Sample : bs
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 30 13:48:29 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

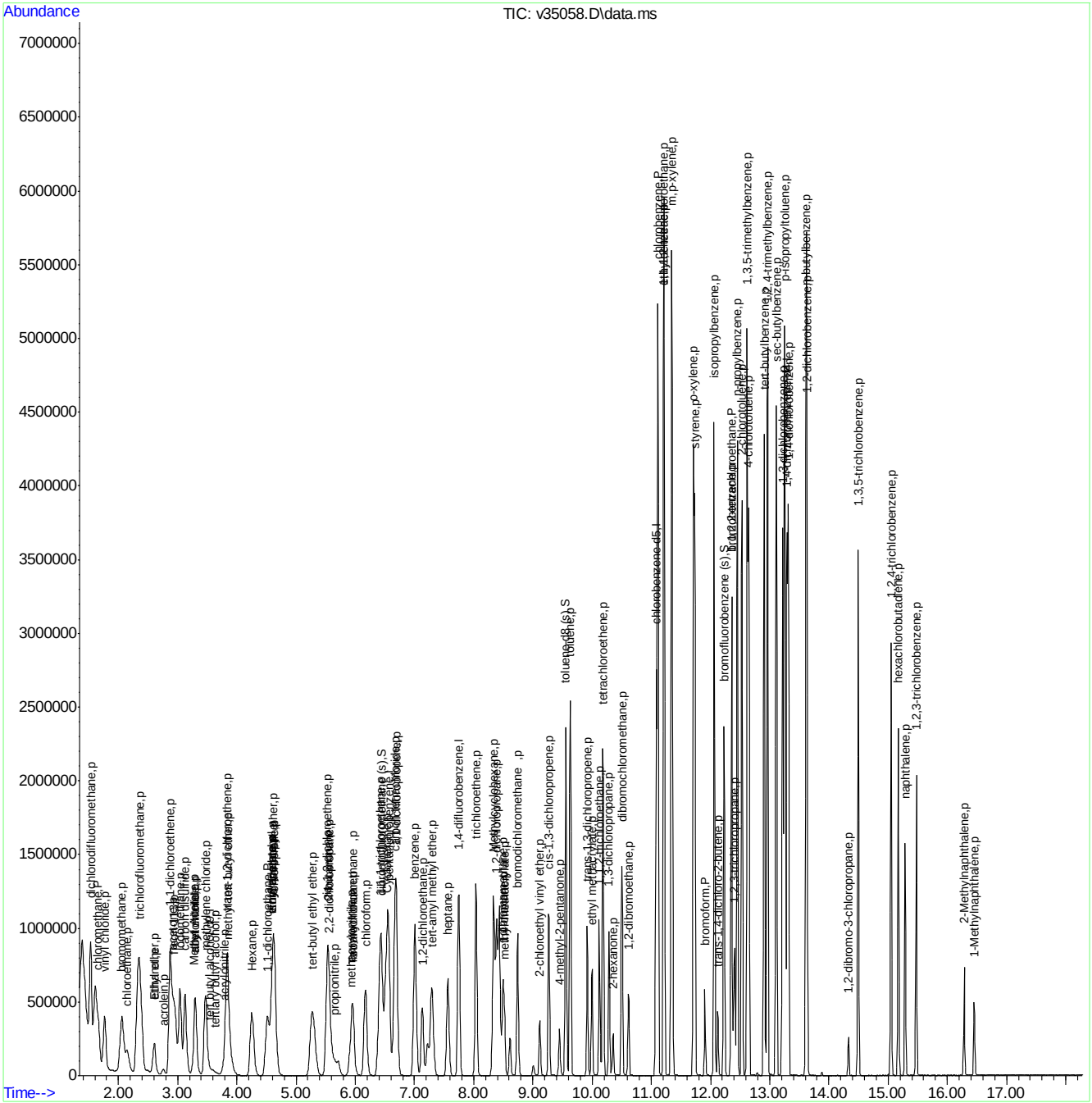
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.219	146	1339133	52.70	ug/L	98
94) p-isopropyltoluene	13.251	119	2698014	58.19	ug/L	98
95) 1,4-dichlorobenzene	13.314	146	1326327	51.14	ug/L	100
96) 1,2-dichlorobenzene	13.630	146	1252868	52.06	ug/L	99
97) n-butylbenzene	13.615	91	1991736	52.19	ug/L	91
98) 1,2-dibromo-3-chloropr...	14.332	75	50147	50.16	ug/L	83
99) 1,3,5-trichlorobenzene	14.496	180	964009	54.08	ug/L	99
100) 1,2,4-trichlorobenzene	15.052	180	751675	53.74	ug/L	98
101) hexachlorobutadiene	15.173	225	343050	58.76	ug/L	97
102) naphthalene	15.286	128	1093678	53.57	ug/L	100
103) 1,2,3-trichlorobenzene	15.475	180	533679	53.32	ug/L	99
104) 2-Methylnaphthalene	16.284	142	304051	57.40	ug/L	99
105) 1-Methylnaphthalene	16.455	142	217131	73.12	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35058.D
Acq On : 29 Sep 2014 10:37 pm
Operator : amym
Sample : bs
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 33 Sample Multiplier: 1

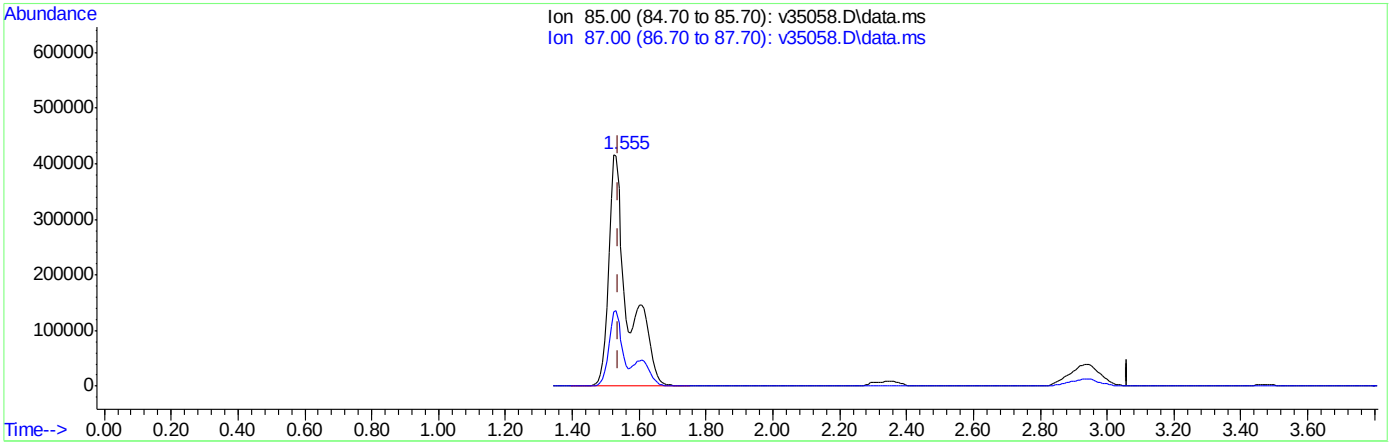
Quant Time: Sep 30 13:48:29 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

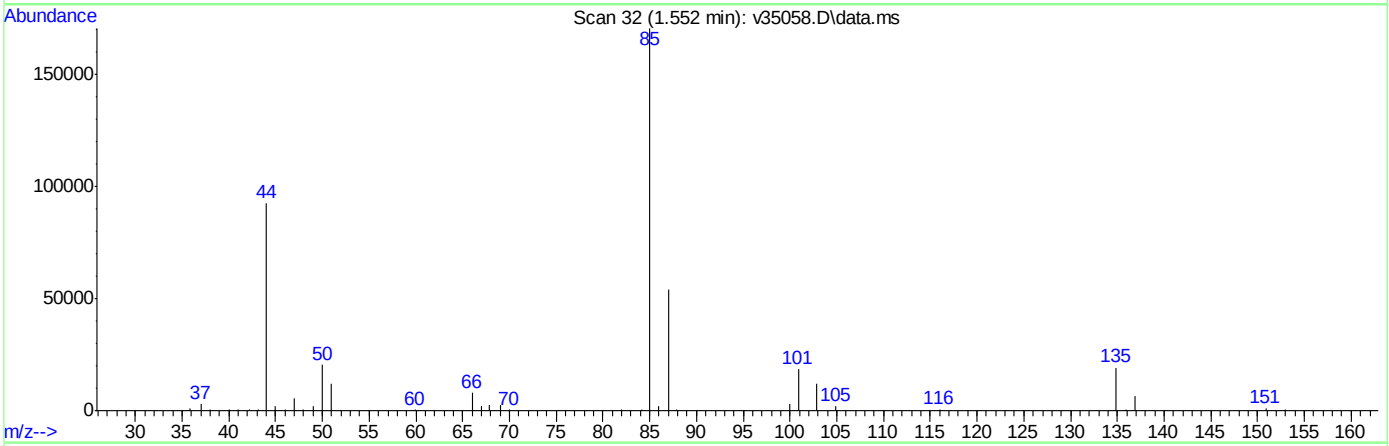


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35058.D
Acq On : 29 Sep 2014 10:37 pm
Operator : amym
Sample : bs
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 30 09:06:16 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35058.D\data.ms

(5) dichlorodifluoromethane (p)

1.555min (+0.016) 85.23ug/L

response 1628748

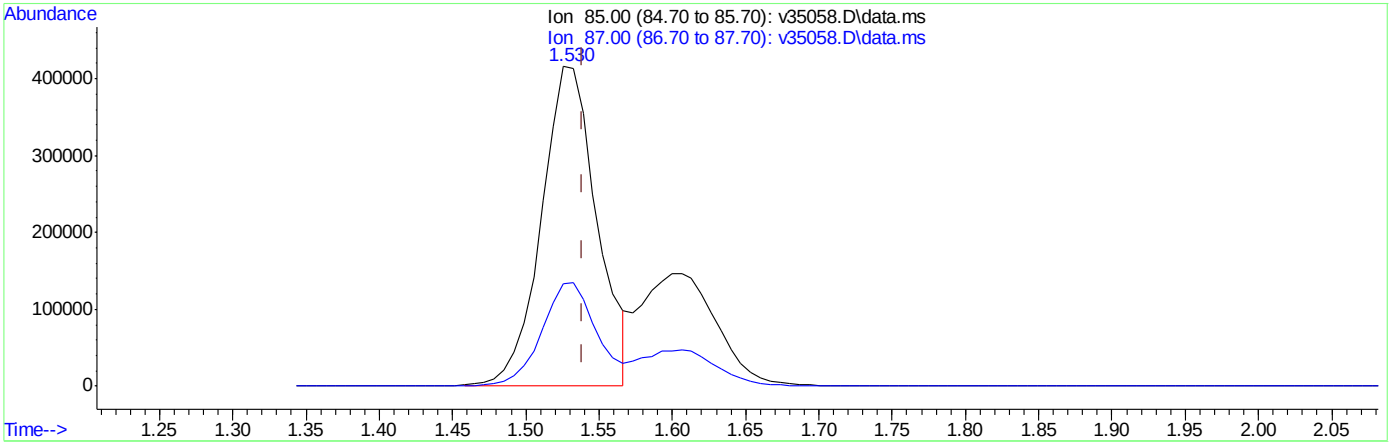
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	31.67
0.00	0.00	0.00
0.00	0.00	0.00

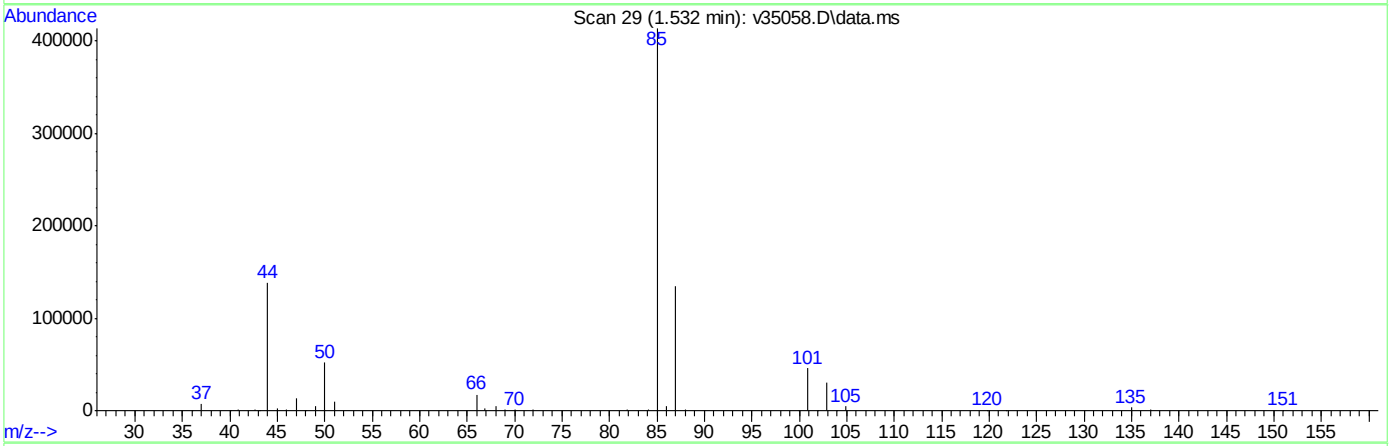
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35058.D
Acq On : 29 Sep 2014 10:37 pm
Operator : amym
Sample : bs
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 30 09:06:16 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35058.D\data.ms

(5) dichlorodifluoromethane (p)

1.532min (-0.007) 57.31ug/L m

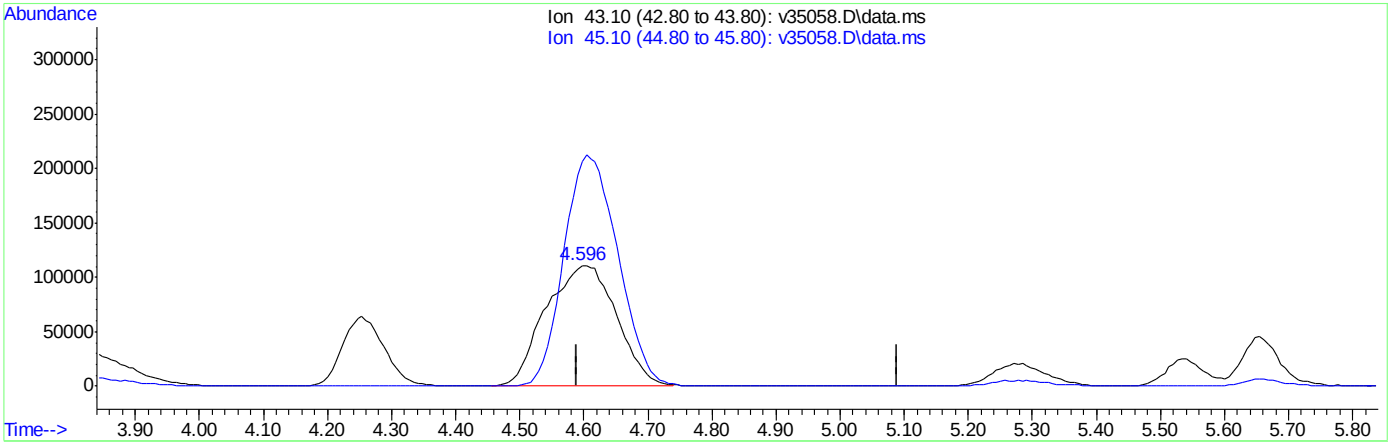
response 1095202

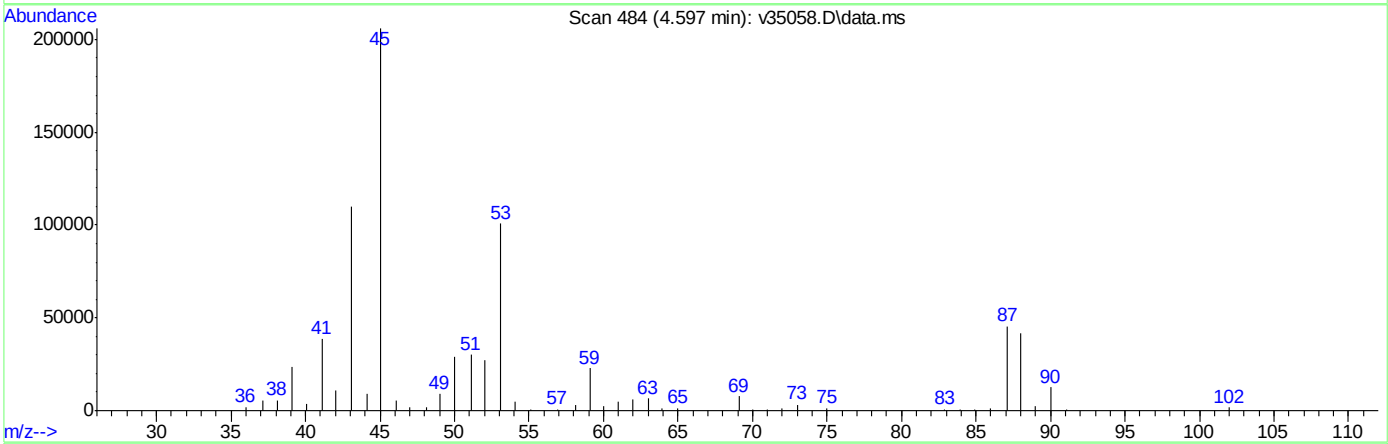
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	32.67
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35058.D
Acq On : 29 Sep 2014 10:37 pm
Operator : amym
Sample : bs
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 30 09:06:16 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35058.D\data.ms

(37) ethyl acetate (p)

4.597min (+0.007) 37.47ug/L m

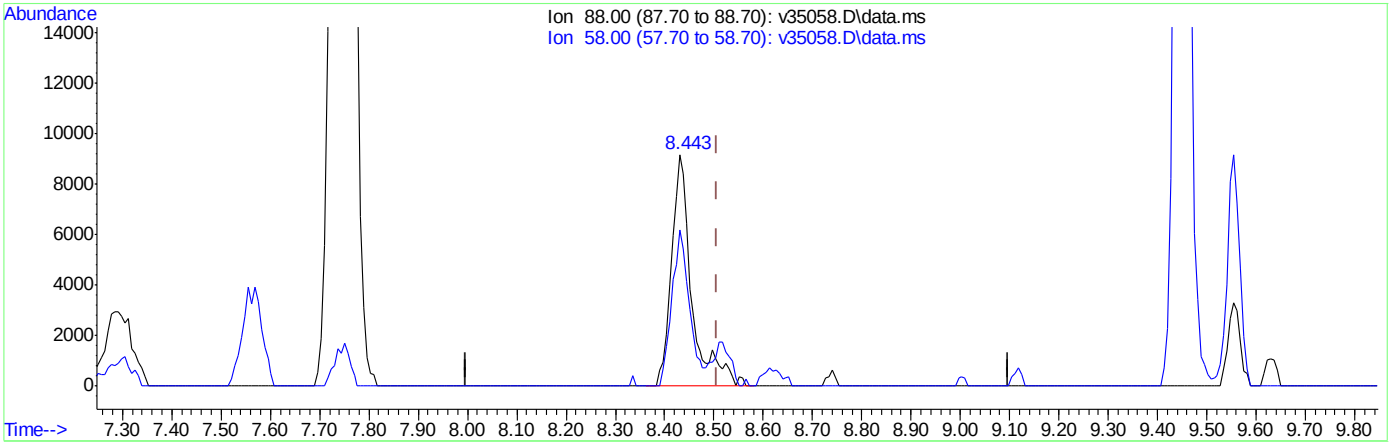
response 851333

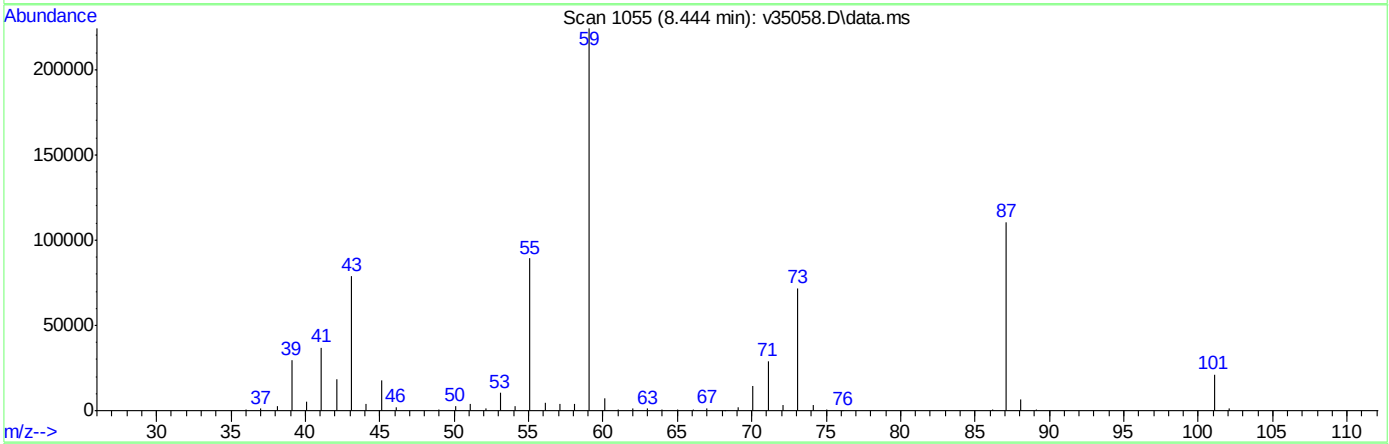
Ion	Exp%	Act%
43.10	100	100
45.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35058.D
Acq On : 29 Sep 2014 10:37 pm
Operator : amym
Sample : bs
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 30 09:06:16 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35058.D\data.ms

(58) 1,4-dioxane (p)

8.443min (-0.065) 809.72ug/L

response 26063

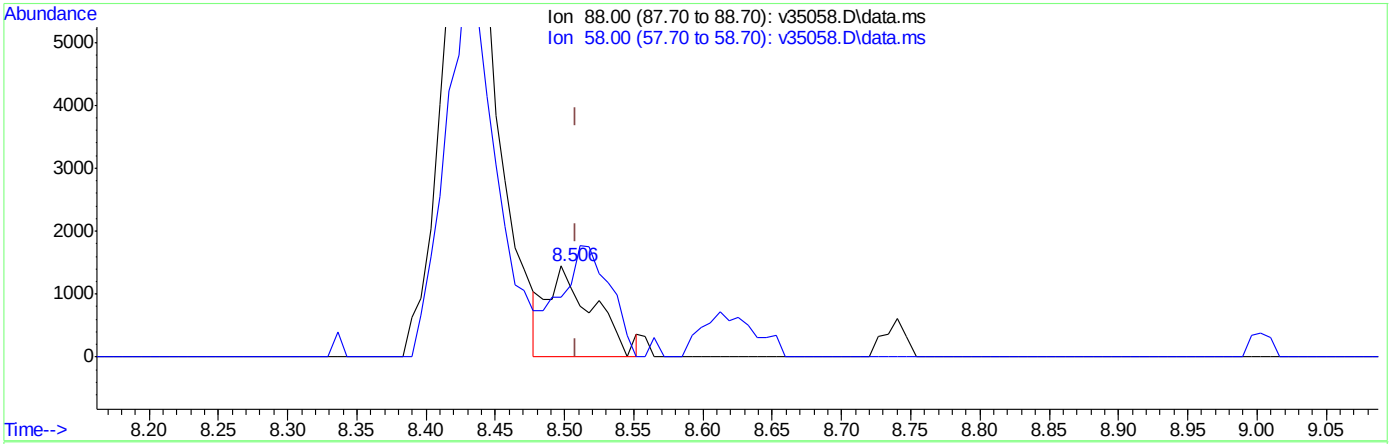
Ion	Exp%	Act%
88.00	100	100
58.00	101.70	64.20#
0.00	0.00	0.00
0.00	0.00	0.00

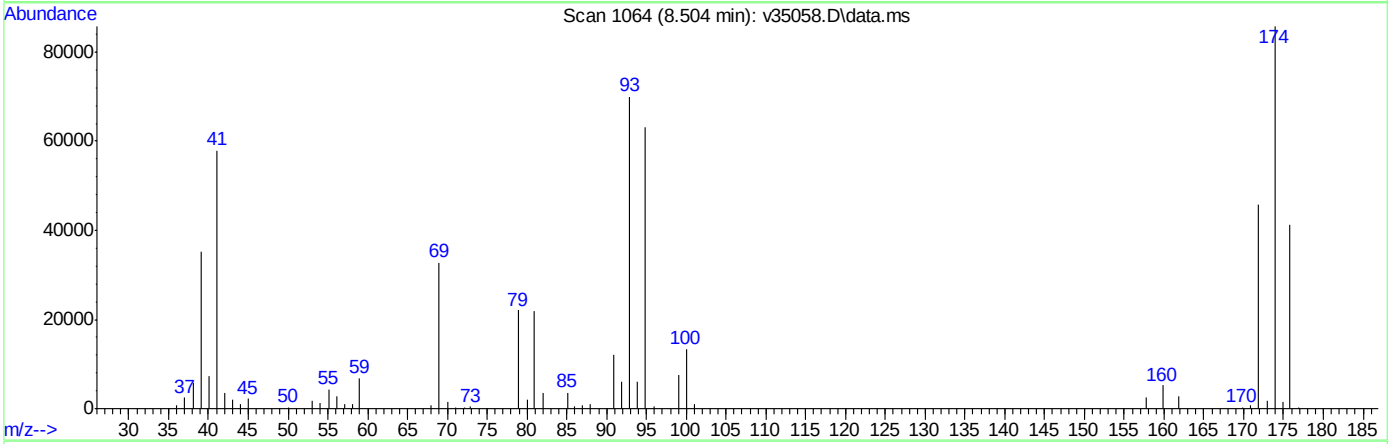
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35058.D
Acq On : 29 Sep 2014 10:37 pm
Operator : amym
Sample : bs
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Sep 30 09:06:16 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35058.D\data.ms

(58) 1,4-dioxane (p)

8.504min (-0.004) 114.56ug/L m

response 3309

Ion	Exp%	Act%
88.00	100	100
58.00	101.70	104.60
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
10/02/14 13:26

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35118.D
Acq On : 1 Oct 2014 9:42 am
Operator : amym
Sample : bs
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 01 17:50:20 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.517	65	83683	500.00	ug/L	#-0.02
4) pentafluorobenzene	6.555	168	747808	50.00	ug/L	-0.01
43) 1,4-difluorobenzene	7.741	114	1220567	50.00	ug/L	0.00
66) chlorobenzene-d5	11.079	82	621200	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.289	152	734858	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.434	113	429808	45.58	ug/L	-0.01
Spiked Amount 50.000	Range 70 - 130		Recovery = 91.16%			
60) toluene-d8 (s)	9.553	98	1374445	51.33	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 102.66%			
82) bromofluorobenzene (s)	12.226	95	607976	47.52	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.04%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.625	59	61957	256.40	ug/L	# 56
3) Ethanol	2.595	45	219097	5069.42	ug/L	# 100
5) dichlorodifluoromethane	1.523	85	1067455	61.36	ug/L	99
6) chloromethane	1.643	50	674889	54.74	ug/L	97
7) vinyl chloride	1.754	62	644493	57.10	ug/L	97
8) bromomethane	2.045	96	473220	57.69	ug/L	99
9) chloroethane	2.132	64	295242	63.87	ug/L	96
10) ethyl ether	2.597	59	217651	50.12	ug/L	92
11) acetonitrile	3.289	41	543878	46.07	ug/L	# 19
12) trichlorofluoromethane	2.350	101	1095942	62.23	ug/L	98
13) freon-113	2.923	101	554719	56.87	ug/L	94
14) acrolein	2.758	56	65671	243.52	ug/L	95
15) 1,1-dichloroethene	2.865	96	359529	57.68	ug/L	97
16) acetone	2.904	58	31037	42.75	ug/L	# 78
17) Methyl Acetate	3.271	43	154112	51.07	ug/L	97
18) methylene chloride	3.463	84	346313	47.22	ug/L	88
19) methyl tert butyl ether	3.843	73	663906	49.12	ug/L	97
20) acrylonitrile	3.777	53	76495	39.26	ug/L	96
21) allyl chloride	3.289	41	543878	46.06	ug/L	93
22) trans-1,2-dichloroethene	3.828	96	360161	49.57	ug/L	95
23) iodomethane	3.033	142	951876	53.69	ug/L	95
24) carbon disulfide	3.118	76	1193274	53.34	ug/L	99
25) propionitrile	5.643	54	26070	42.82	ug/L	100
26) vinyl acetate	4.583	43	776059	37.49	ug/L	97
27) chloroprene	4.614	53	637396	57.71	ug/L	99
28) di-isopropyl ether	4.601	45	1138411	42.44	ug/L	96
29) methacrylonitrile	5.914	41	132268	41.75	ug/L	98
30) 2-butanone	5.528	72	23101	49.16	ug/L	# 62
31) Hexane	4.246	41	347209	48.93	ug/L	95
32) 1,1-dichloroethane	4.501	63	699197	47.25	ug/L	99
33) tert-butyl ethyl ether	5.270	59	981199	49.16	ug/L	96
34) isobutyl alcohol	4.583	43	776080	187.43	ug/L	89
35) 2,2-dichloropropane	5.545	77	654492	52.28	ug/L	93
36) cis-1,2-dichloroethene	5.523	96	378352	48.21	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35118.D
Acq On : 1 Oct 2014 9:42 am
Operator : amym
Sample : bs
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 01 17:50:20 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	4.584	43	775969m	37.52	ug/L		
38) bromochloromethane	5.946	128	213839	49.77	ug/L	#	80
39) chloroform	6.162	83	760351	49.62	ug/L		94
41) Tetrahydrofuran	5.955	42	44091	39.85	ug/L		94
42) 1,1,1-trichloroethane	6.410	97	871473	58.88	ug/L		97
44) Cyclohexane	6.518	56	737253	48.26	ug/L		98
45) carbon tetrachloride	6.665	117	869501	58.40	ug/L		98
46) 1,1-dichloropropene	6.680	75	497251	57.24	ug/L		95
47) benzene	7.000	78	1203175	47.63	ug/L		100
48) 1,2-dichloroethane	7.126	62	595690	54.92	ug/L		99
49) tert-amyl methyl ether	7.287	73	621529	50.33	ug/L		97
50) heptane	7.558	43	419545	47.00	ug/L		90
51) trichloroethene	8.033	95	466343	54.58	ug/L		95
52) 1,2-dichloropropane	8.382	63	391426	50.21	ug/L		98
53) dibromomethane	8.487	93	224356	53.70	ug/L		94
54) bromodichloromethane	8.737	83	604126	57.72	ug/L		98
55) Methylcyclohexane	8.335	83	553237	52.31	ug/L		98
56) 2-chloroethyl vinyl ether	9.113	63	146707	47.15	ug/L		95
57) methyl methacrylate	8.515	69	117886	50.38	ug/L		83
58) 1,4-dioxane	8.498	88	2525m	98.31	ug/L		
59) cis-1,3-dichloropropene	9.265	75	535465	58.28	ug/L		96
61) 4-methyl-2-pentanone	9.447	43	216758	44.97	ug/L		91
62) toluene	9.628	92	961705	55.05	ug/L		98
63) trans-1,3-dichloropropene	9.916	75	447009	58.43	ug/L		98
64) 1,1,2-trichloroethane	10.122	83	230051	51.07	ug/L		98
65) ethyl methacrylate	9.996	69	275745	45.98	ug/L		91
67) tetrachloroethene	10.181	166	551699	60.79	ug/L		98
68) 1,3-dichloropropane	10.283	76	431953	50.21	ug/L		99
69) dibromochloromethane	10.503	129	503269	60.04	ug/L		98
70) 1,2-dibromoethane	10.612	107	324667	55.23	ug/L		98
71) 2-hexanone	10.353	43	206994	50.32	ug/L		87
72) chlorobenzene	11.108	112	1346081	56.10	ug/L		93
73) 1,1,1,2-tetrachloroethane	11.207	131	596979	59.53	ug/L		98
74) ethylbenzene	11.212	91	2165576	58.03	ug/L		98
75) m,p-xylene	11.343	106	1721456	114.42	ug/L		100
76) o-xylene	11.710	106	886294	56.04	ug/L		99
77) styrene	11.731	104	1360354	55.98	ug/L		100
78) bromoform	11.905	173	226809	55.08	ug/L		98
79) trans-1,4-dichloro-2-b...	12.121	53	90982	40.22	ug/L		84
81) isopropylbenzene	12.061	105	2477964	59.27	ug/L		96
83) bromobenzene	12.352	156	631914	55.45	ug/L		89
84) 1,1,2,2-tetrachloroethane	12.357	83	313299	44.62	ug/L		98
85) 1,2,3-trichloropropane	12.404	75	305592	41.75	ug/L		97
86) n-propylbenzene	12.449	91	2639191	57.16	ug/L		96
87) 2-chlorotoluene	12.529	91	1660964	55.35	ug/L		94
88) 4-chlorotoluene	12.640	91	1915498	54.26	ug/L		95
89) 1,3,5-trimethylbenzene	12.619	105	2206013	55.87	ug/L		98
90) tert-butylbenzene	12.905	91	1222525	57.75	ug/L		94
91) 1,2,4-trimethylbenzene	12.959	105	2294005	56.95	ug/L		98
92) sec-butylbenzene	13.108	105	2603229	59.08	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35118.D
Acq On : 1 Oct 2014 9:42 am
Operator : amym
Sample : bs
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 01 17:50:20 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

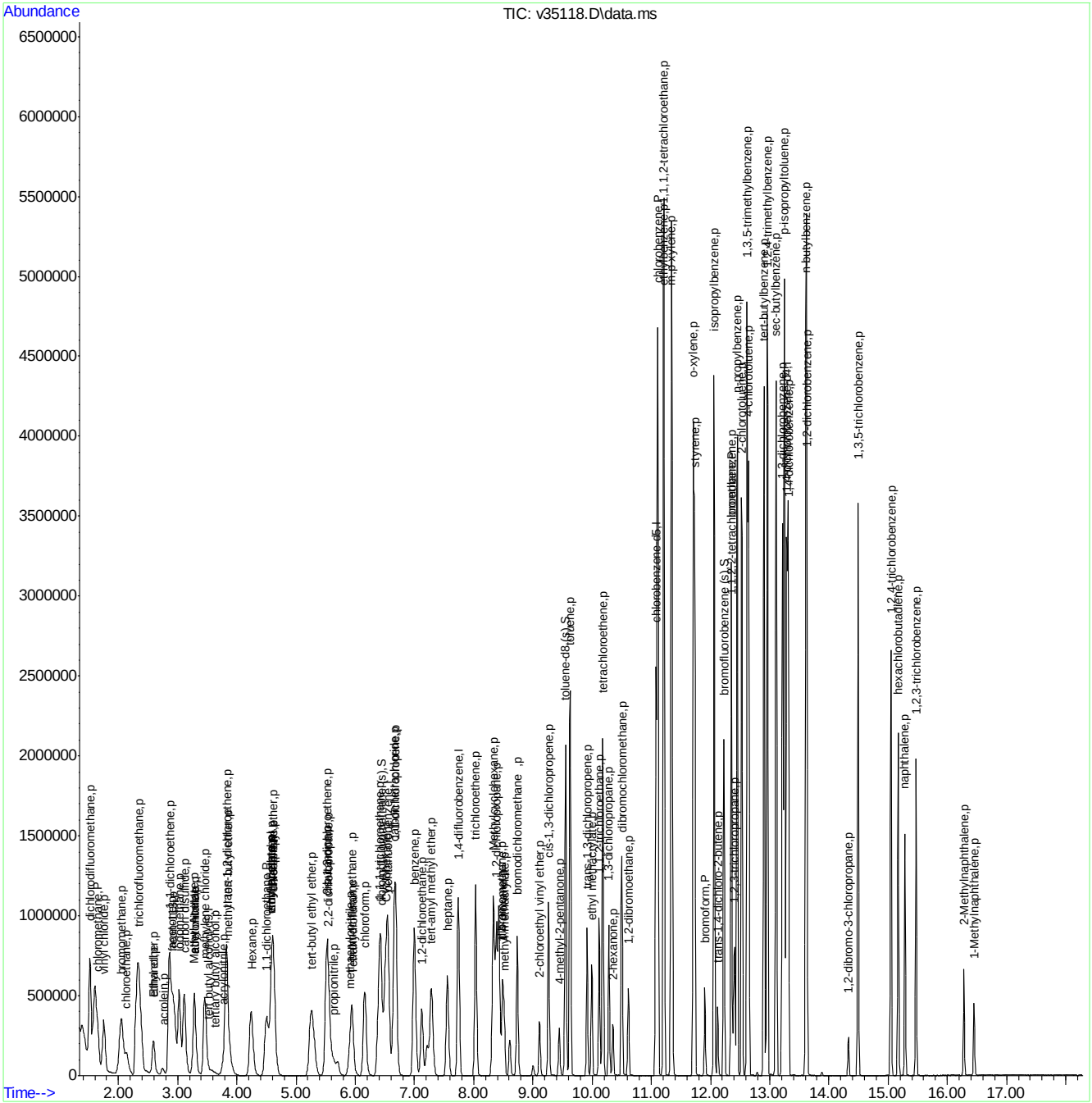
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.216	146	1279590	54.46	ug/L	99
94) p-isopropyltoluene	13.249	119	2581580	60.21	ug/L	99
95) 1,4-dichlorobenzene	13.311	146	1257465	52.43	ug/L	99
96) 1,2-dichlorobenzene	13.628	146	1195096	53.70	ug/L	98
97) n-butylbenzene	13.613	91	1926520	54.58	ug/L	94
98) 1,2-dibromo-3-chloropr...	14.330	75	46248	50.02	ug/L	81
99) 1,3,5-trichlorobenzene	14.494	180	925808	56.16	ug/L	100
100) 1,2,4-trichlorobenzene	15.049	180	722315	55.85	ug/L	98
101) hexachlorobutadiene	15.171	225	334252	61.91	ug/L	95
102) naphthalene	15.283	128	1030881	54.59	ug/L	100
103) 1,2,3-trichlorobenzene	15.472	180	519432	56.12	ug/L	98
104) 2-Methylnaphthalene	16.281	142	287341	58.58	ug/L	99
105) 1-Methylnaphthalene	16.451	142	199686	72.73	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35118.D
Acq On : 1 Oct 2014 9:42 am
Operator : amym
Sample : bs
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

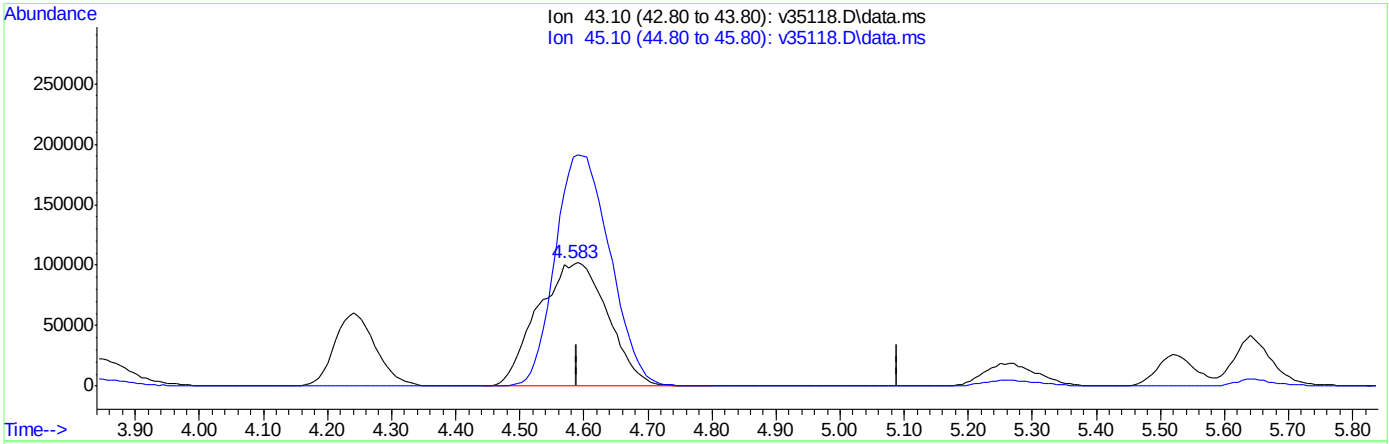
Quant Time: Oct 01 17:50:20 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

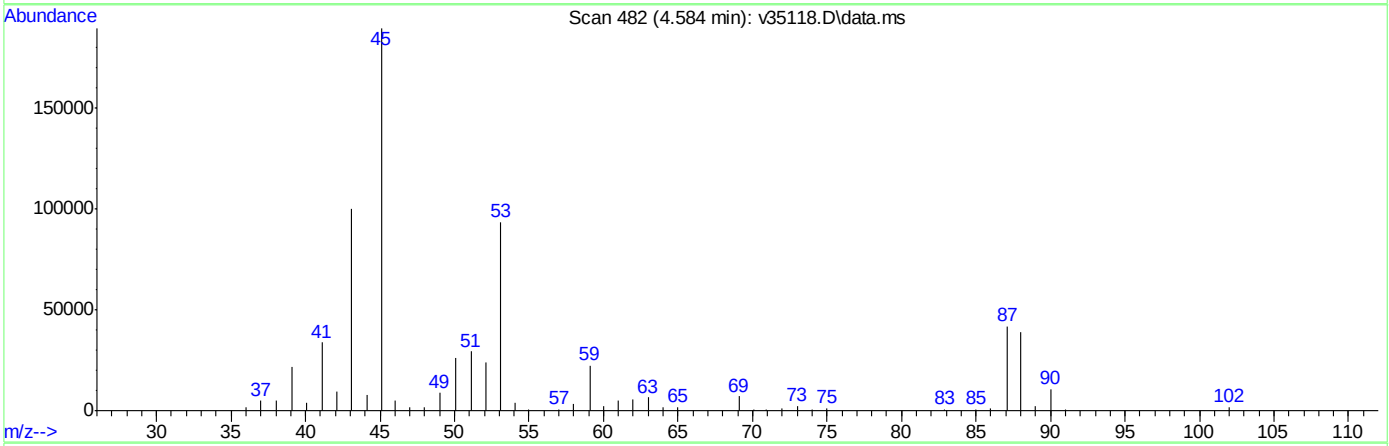


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35118.D
Acq On : 1 Oct 2014 9:42 am
Operator : amym
Sample : bs
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 01 10:20:26 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35118.D\data.ms

(37) ethyl acetate (p)

4.584min (-0.006) 37.52ug/L m

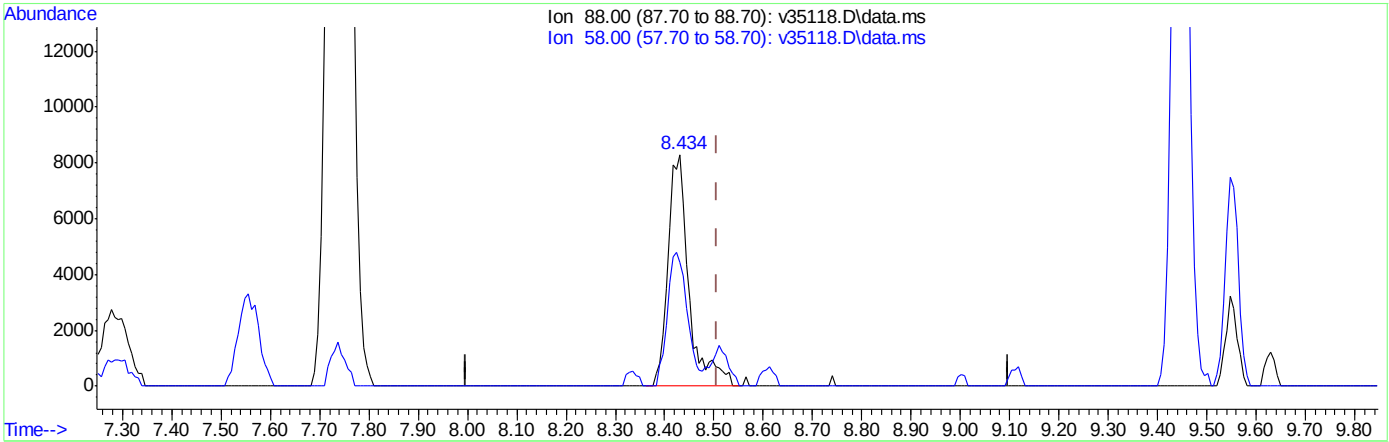
response 775969

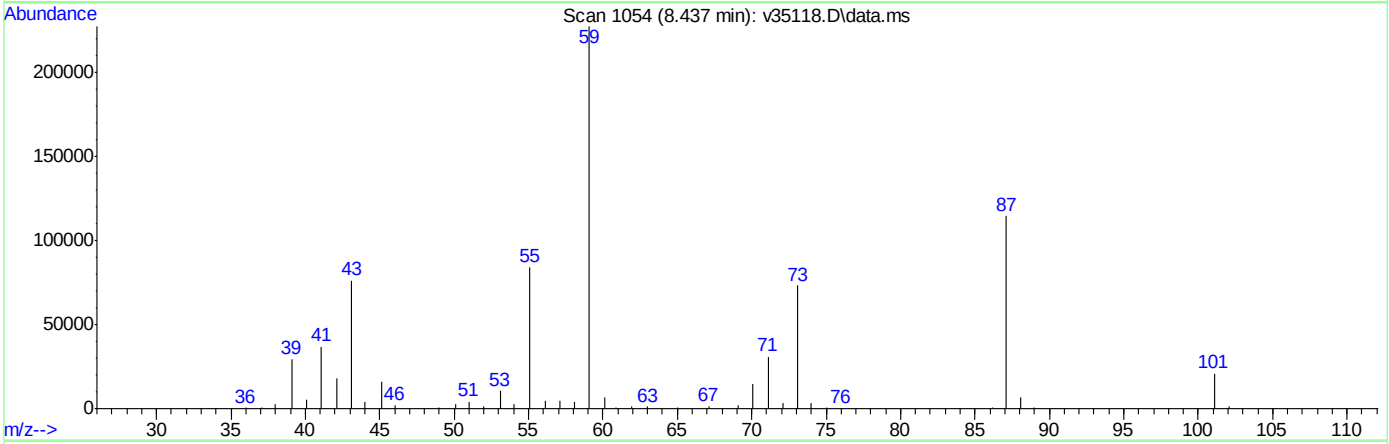
Ion	Exp%	Act%
43.10	100	100
45.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35118.D
Acq On : 1 Oct 2014 9:42 am
Operator : amym
Sample : bs
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 01 10:20:26 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35118.D\data.ms

(58) 1,4-dioxane (p)

8.434min (-0.074) 831.58ug/L

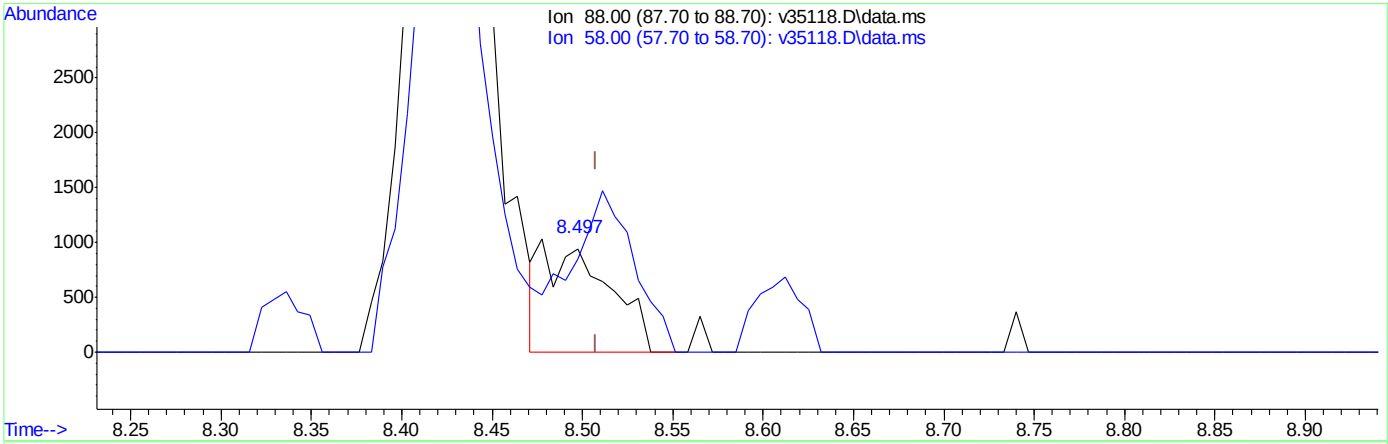
response 24348

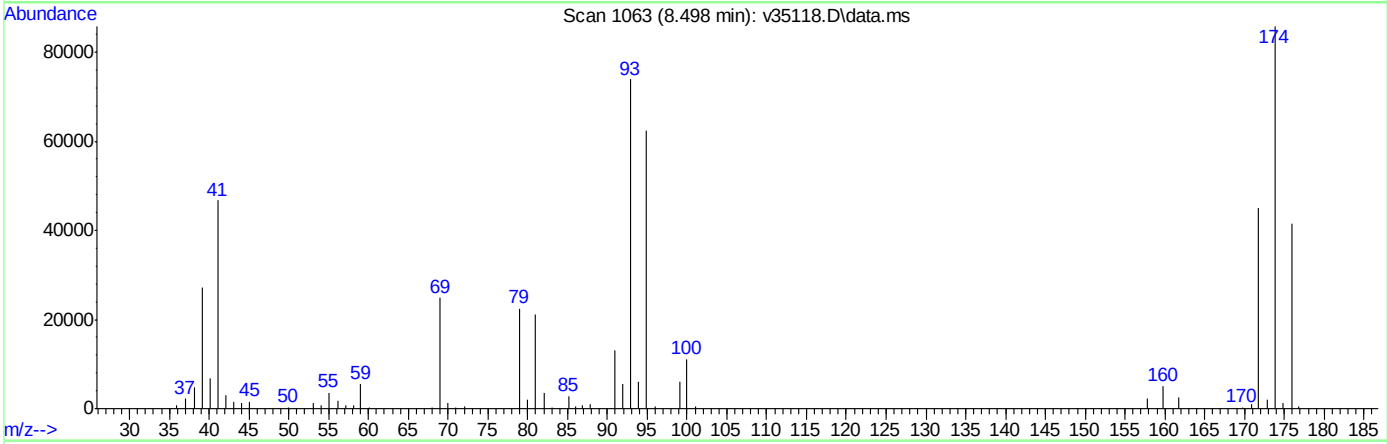
Ion	Exp%	Act%
88.00	100	100
58.00	101.70	59.87#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35118.D
Acq On : 1 Oct 2014 9:42 am
Operator : amym
Sample : bs
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 01 10:20:26 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35118.D\data.ms

(58) 1,4-dioxane (p)

8.498min (-0.010) 98.31ug/L m

response 2525

Ion	Exp%	Act%
88.00	100	100
58.00	101.70	89.80
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
10/01/14 07:45

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35065.D
Acq On : 30 Sep 2014 1:43 am
Operator : amym
Sample : mc33875-9ms
Misc : MS32846,MSV1275,,,,5,5
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Sep 30 16:24:07 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.525	65	84470	500.00	ug/L		#-0.01
4) pentafluorobenzene	6.560	168	736526	50.00	ug/L		0.00
43) 1,4-difluorobenzene	7.745	114	1178846	50.00	ug/L		0.00
66) chlorobenzene-d5	11.081	82	581510	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	13.292	152	740126	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.440	113	439516	47.33	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.66%				
60) toluene-d8 (s)	9.555	98	1307124	50.55	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 101.10%				
82) bromofluorobenzene (s)	12.229	95	587939	45.62	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 91.24%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.631	59	59484	243.87	ug/L	#	62
3) Ethanol	2.606	45	226740	5197.39	ug/L	#	100
5) dichlorodifluoromethane	1.526	85	1085630m	63.36	ug/L		
6) chloromethane	1.648	50	713021	58.72	ug/L		99
7) vinyl chloride	1.759	62	655991	59.01	ug/L		99
8) bromomethane	2.051	96	478155	59.19	ug/L		100
9) chloroethane	2.136	64	298354	65.54	ug/L		99
10) ethyl ether	2.601	59	214191	50.08	ug/L		88
11) acetonitrile	3.294	41	562064	48.34	ug/L	#	18
12) trichlorofluoromethane	2.354	101	1155067	66.59	ug/L		98
13) freon-113	2.929	101	561821	58.48	ug/L		90
14) acrolein	2.779	56	63300	238.32	ug/L		92
15) 1,1-dichloroethene	2.870	96	356576	58.08	ug/L		92
16) acetone	2.901	58	16877	23.60	ug/L		93
17) Methyl Acetate	3.276	43	157228	52.90	ug/L	#	97
18) methylene chloride	3.468	84	341457	47.27	ug/L		96
19) methyl tert butyl ether	3.849	73	624867	46.94	ug/L		99
20) acrylonitrile	3.784	53	77979	40.64	ug/L		93
21) allyl chloride	3.294	41	561612	48.29	ug/L		97
22) trans-1,2-dichloroethene	3.835	96	361885	50.57	ug/L		99
23) iodomethane	3.038	142	930863	53.31	ug/L		89
24) carbon disulfide	3.123	76	1184735	53.77	ug/L		98
25) propionitrile	5.647	54	25168	41.97	ug/L		100
26) vinyl acetate	4.590	43	784344	38.47	ug/L		96
27) chloroprene	4.620	53	671195	61.70	ug/L		93
28) di-isopropyl ether	4.608	45	1162934	44.02	ug/L		94
29) methacrylonitrile	5.919	41	132595	42.50	ug/L		97
30) 2-butanone	5.534	72	15953	34.47	ug/L	#	51
31) Hexane	4.251	41	350920	50.22	ug/L		99
32) 1,1-dichloroethane	4.508	63	707983	48.58	ug/L		97
33) tert-butyl ethyl ether	5.278	59	941228	47.88	ug/L		97
34) isobutyl alcohol	4.590	43	784389	192.34	ug/L		84
35) 2,2-dichloropropane	5.553	77	534802	43.75	ug/L		93
36) cis-1,2-dichloroethene	5.530	96	369105	47.75	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35065.D
Acq On : 30 Sep 2014 1:43 am
Operator : amym
Sample : mc33875-9ms
Misc : MS32846,MSV1275,,,,5,5
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Sep 30 16:24:07 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
37) ethyl acetate	4.591	43	784267m	38.50 ug/L		
38) bromochloromethane	5.952	128	211634	50.01 ug/L	#	83
39) chloroform	6.168	83	774970	51.35 ug/L		94
41) Tetrahydrofuran	5.961	42	43955	40.34 ug/L		97
42) 1,1,1-trichloroethane	6.417	97	886861	60.84 ug/L		97
44) Cyclohexane	6.525	56	769845	52.18 ug/L		96
45) carbon tetrachloride	6.671	117	919047	63.91 ug/L		97
46) 1,1-dichloropropene	6.685	75	492926	58.75 ug/L		96
47) benzene	7.005	78	1168671	47.90 ug/L		99
48) 1,2-dichloroethane	7.130	62	604173	57.68 ug/L		99
49) tert-amyl methyl ether	7.293	73	575127	48.22 ug/L		97
50) heptane	7.562	43	400124	46.41 ug/L		95
51) trichloroethene	8.037	95	451759	54.74 ug/L		93
52) 1,2-dichloropropane	8.385	63	373911	49.66 ug/L		98
53) dibromomethane	8.490	93	215903	53.50 ug/L		90
54) bromodichloromethane	8.740	83	596028	58.97 ug/L		97
55) Methylcyclohexane	8.340	83	544605	53.31 ug/L		96
57) methyl methacrylate	8.519	69	105352	46.62 ug/L		89
58) 1,4-dioxane	8.504	88	1996m	82.91 ug/L		
59) cis-1,3-dichloropropene	9.268	75	467477	53.16 ug/L		96
61) 4-methyl-2-pentanone	9.450	43	204238	43.87 ug/L		94
62) toluene	9.631	92	903666	53.56 ug/L		98
63) trans-1,3-dichloropropene	9.919	75	390229	54.00 ug/L		98
64) 1,1,2-trichloroethane	10.125	83	212958	48.95 ug/L		97
65) ethyl methacrylate	9.998	69	248175	42.99 ug/L		95
67) tetrachloroethene	10.184	166	518412	61.02 ug/L		98
68) 1,3-dichloropropane	10.285	76	394566	48.99 ug/L		99
69) dibromochloromethane	10.506	129	479025	61.05 ug/L		99
70) 1,2-dibromoethane	10.615	107	299454	54.42 ug/L		96
71) 2-hexanone	10.357	43	129933	33.74 ug/L		94
72) chlorobenzene	11.111	112	1256378	55.93 ug/L		96
73) 1,1,1,2-tetrachloroethane	11.210	131	590241	62.87 ug/L		97
74) ethylbenzene	11.215	91	2047653	58.61 ug/L		100
75) m,p-xylene	11.346	106	1616852	114.80 ug/L		98
76) o-xylene	11.713	106	838308	56.63 ug/L		97
77) styrene	11.733	104	1248563	54.89 ug/L		96
78) bromoform	11.908	173	213557	55.38 ug/L		99
79) trans-1,4-dichloro-2-b...	12.124	53	87942	41.53 ug/L		93
81) isopropylbenzene	12.064	105	2398513	56.96 ug/L		98
83) bromobenzene	12.355	156	599551	52.23 ug/L		85
84) 1,1,2,2-tetrachloroethane	12.360	83	305671	43.22 ug/L		97
85) 1,2,3-trichloropropane	12.408	75	283917	38.52 ug/L		96
86) n-propylbenzene	12.452	91	2567557	55.21 ug/L		97
87) 2-chlorotoluene	12.532	91	1596765	52.83 ug/L		92
88) 4-chlorotoluene	12.642	91	1850031	52.04 ug/L		99
89) 1,3,5-trimethylbenzene	12.622	105	2151790	54.11 ug/L		99
90) tert-butylbenzene	12.908	91	1231412	57.76 ug/L		93
91) 1,2,4-trimethylbenzene	12.961	105	2232101	55.02 ug/L		97
92) sec-butylbenzene	13.110	105	2534283	57.10 ug/L		95
93) 1,3-dichlorobenzene	13.219	146	1245110	52.61 ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35065.D
Acq On : 30 Sep 2014 1:43 am
Operator : amym
Sample : mc33875-9ms
Misc : MS32846,MSV1275,,,,5,5
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Sep 30 16:24:07 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

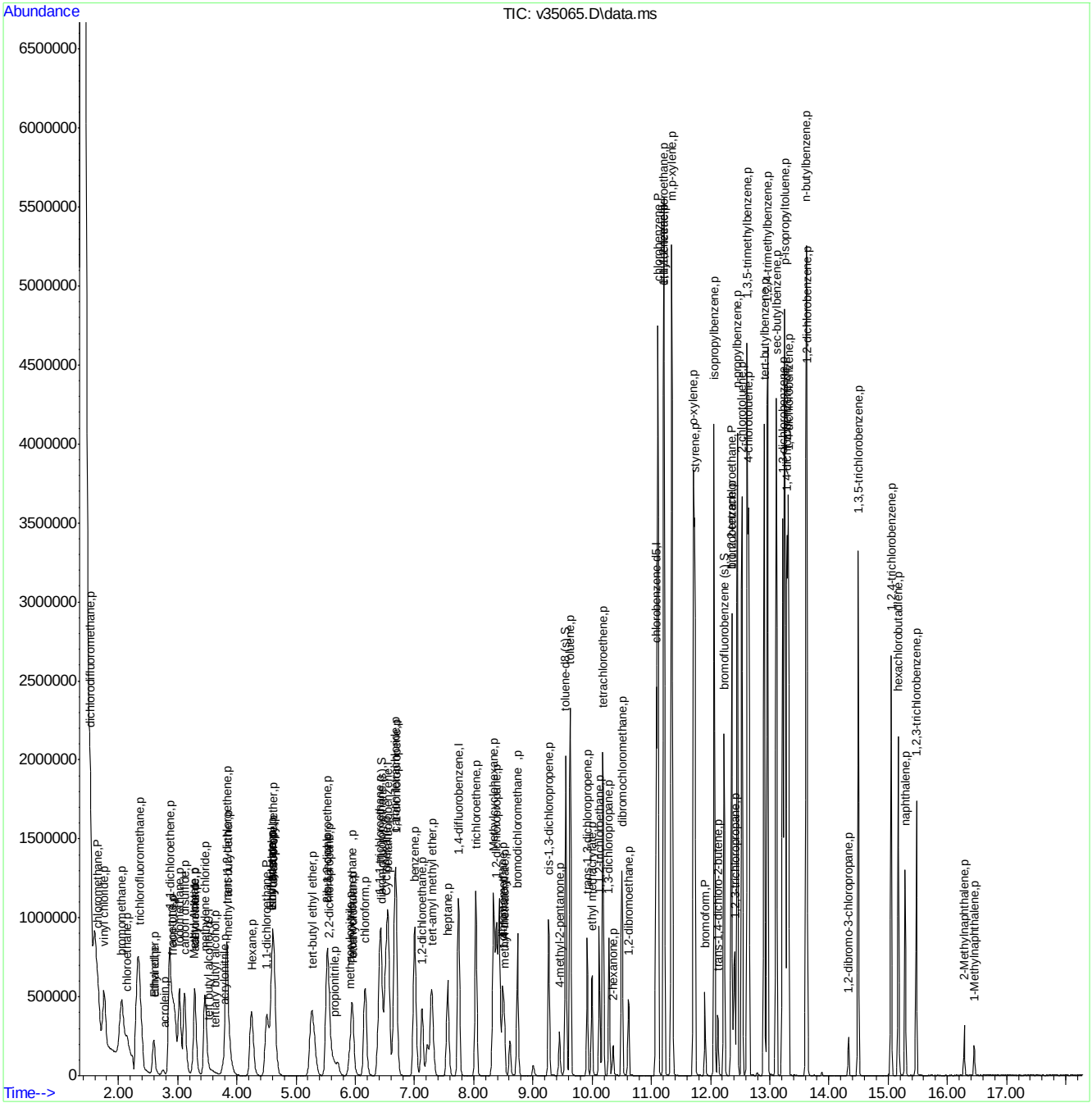
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	p-isopropyltoluene	13.251	119	2517682	58.30	ug/L	99
95)	1,4-dichlorobenzene	13.314	146	1237901	51.24	ug/L	99
96)	1,2-dichlorobenzene	13.631	146	1165919	52.02	ug/L	100
97)	n-butylbenzene	13.616	91	1871017	52.63	ug/L	92
98)	1,2-dibromo-3-chloropr...	14.332	75	46892	50.35	ug/L	90
99)	1,3,5-trichlorobenzene	14.497	180	897821	54.07	ug/L	98
100)	1,2,4-trichlorobenzene	15.052	180	666466	51.16	ug/L	97
101)	hexachlorobutadiene	15.173	225	317587	58.40	ug/L	96
102)	naphthalene	15.286	128	895986	47.19	ug/L	100
103)	1,2,3-trichlorobenzene	15.475	180	449308	48.19	ug/L	100
104)	2-Methylnaphthalene	16.285	142	132401	28.82	ug/L	99
105)	1-Methylnaphthalene	16.455	142	81308	31.02	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35065.D
Acq On : 30 Sep 2014 1:43 am
Operator : amym
Sample : mc33875-9ms
Misc : MS32846,MSV1275,,,,5,5
ALS Vial : 40 Sample Multiplier: 1

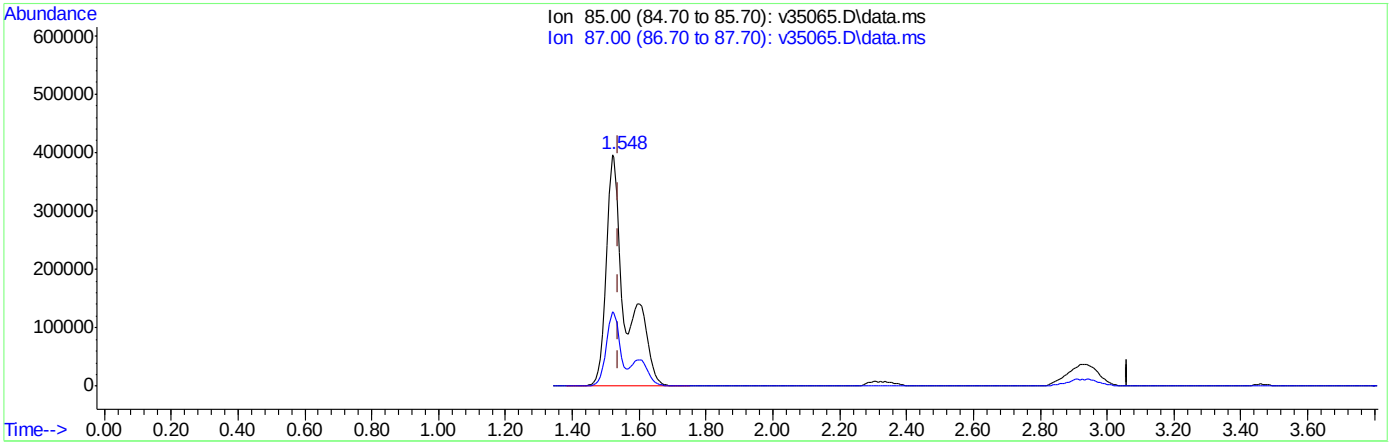
Quant Time: Sep 30 16:24:07 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

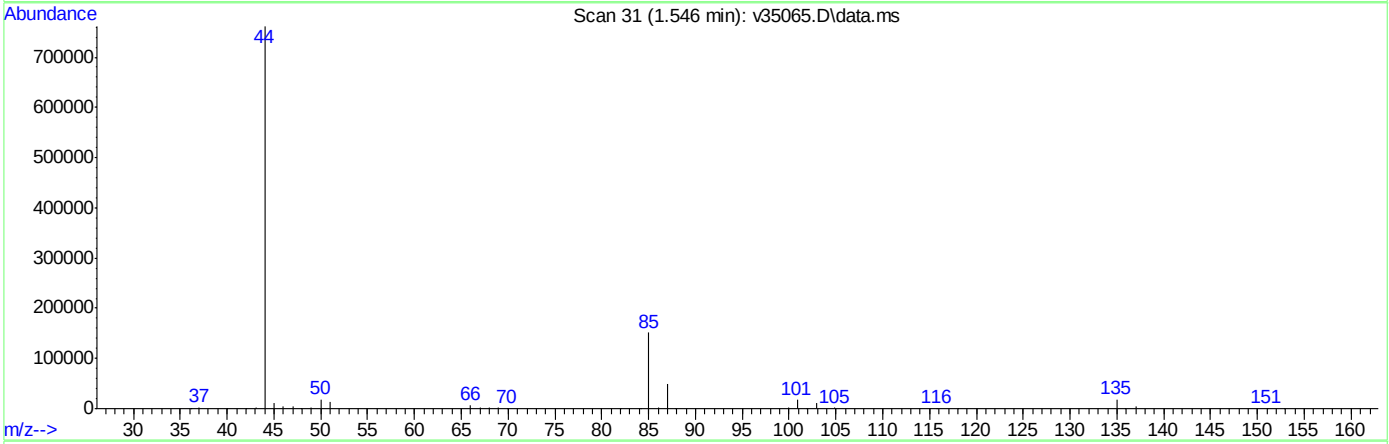


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35065.D
Acq On : 30 Sep 2014 1:43 am
Operator : amym
Sample : mc33875-9ms
Misc : MS32846,MSV1275,,,,5,5
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Sep 30 09:06:38 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35065.D\data.ms

(5) dichlorodifluoromethane (p)

1.548min (+0.009) 91.58ug/L

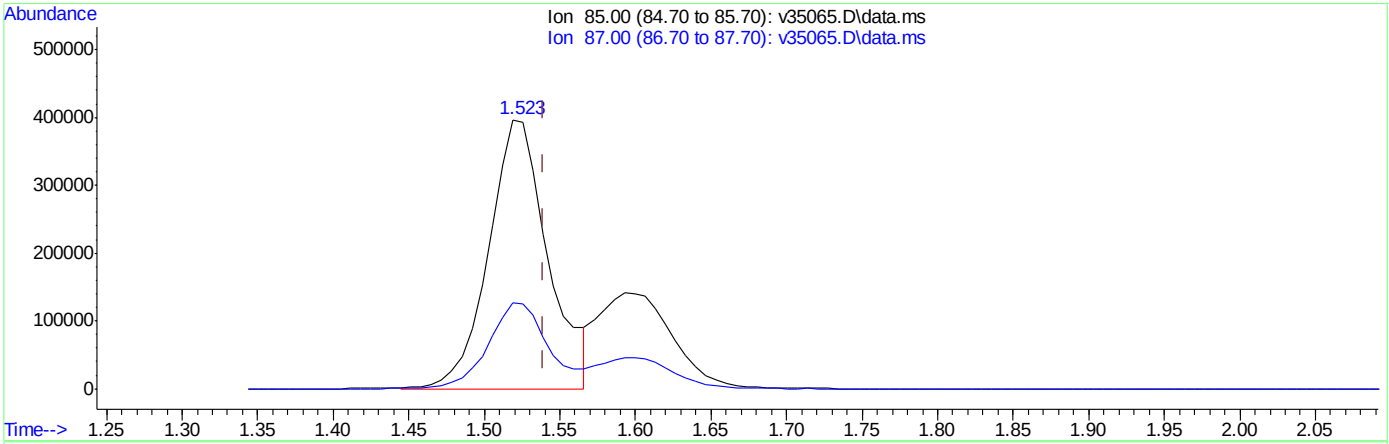
response 1569259

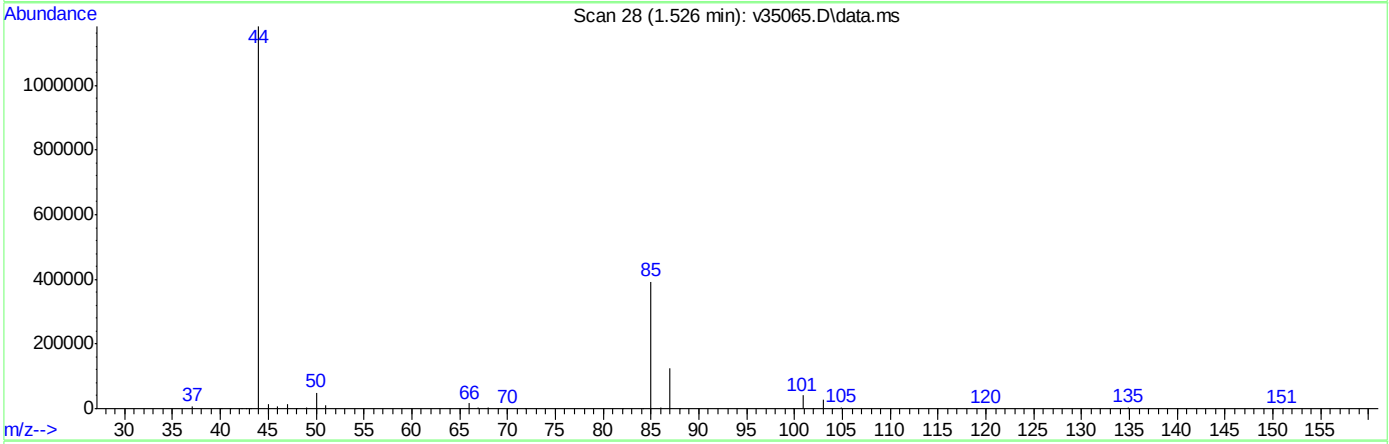
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	32.48
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35065.D
Acq On : 30 Sep 2014 1:43 am
Operator : amym
Sample : mc33875-9ms
Misc : MS32846,MSV1275,,,,5,5
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Sep 30 09:06:38 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35065.D\data.ms

(5) dichlorodifluoromethane (p)

1.526min (-0.013) 63.36ug/L m

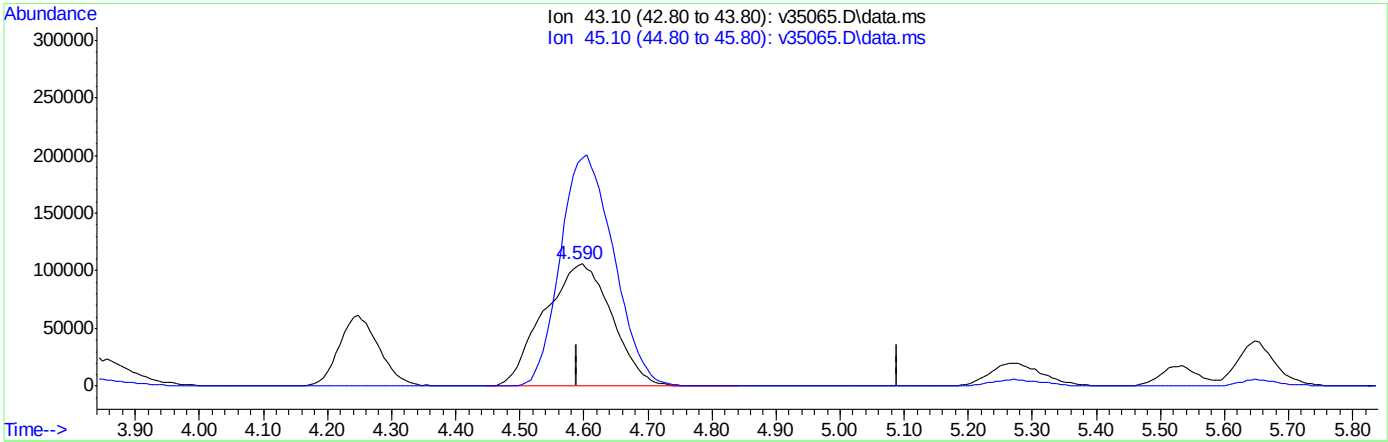
response 1085630

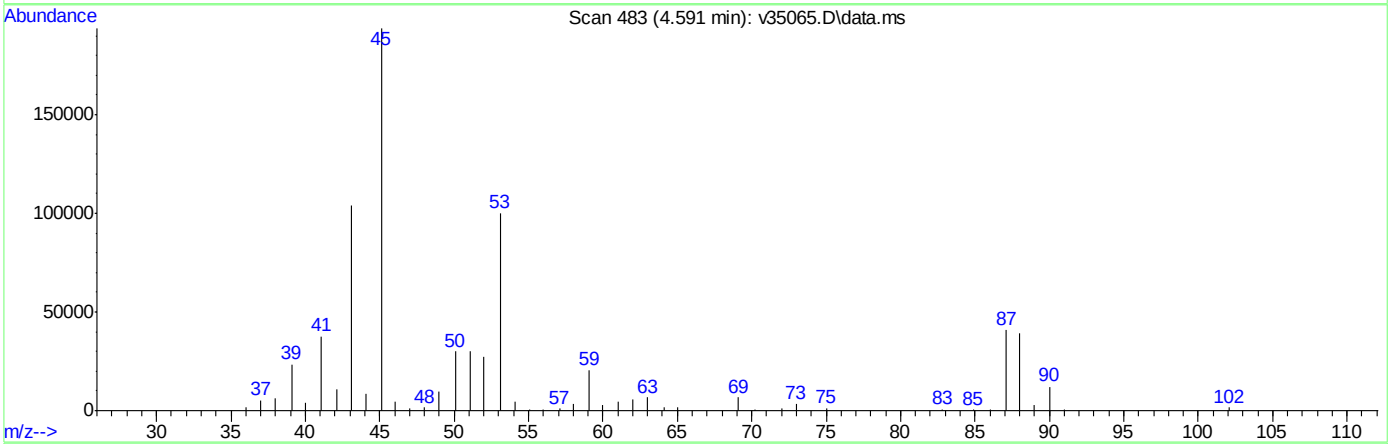
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	31.95
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35065.D
Acq On : 30 Sep 2014 1:43 am
Operator : amym
Sample : mc33875-9ms
Misc : MS32846,MSV1275,,,,5,5
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Sep 30 09:06:38 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35065.D\data.ms

(37) ethyl acetate (p)

4.591min (+0.001) 38.50ug/L m

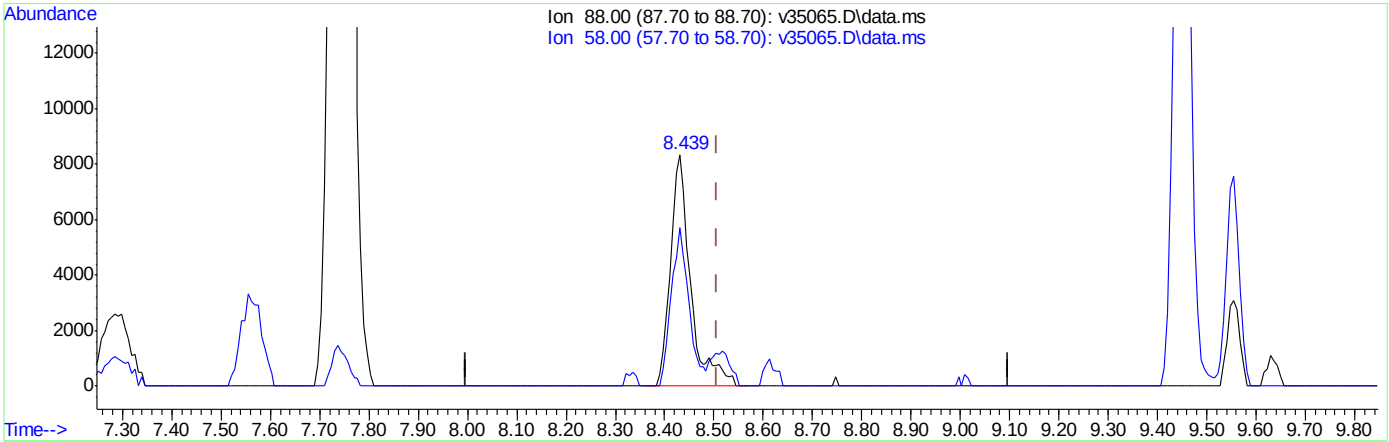
response 784267

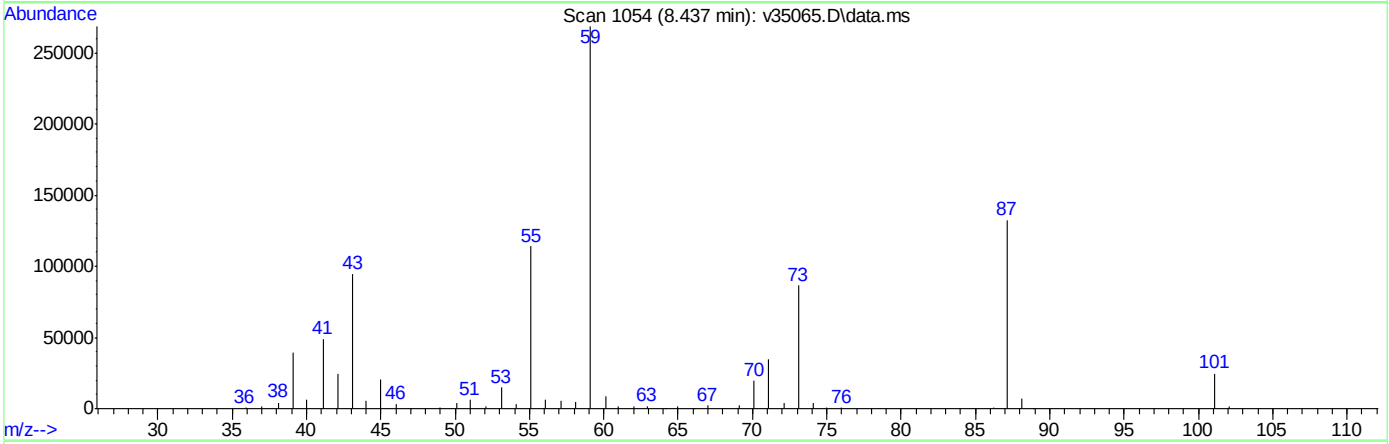
Ion	Exp%	Act%
43.10	100	100
45.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35065.D
Acq On : 30 Sep 2014 1:43 am
Operator : amym
Sample : mc33875-9ms
Misc : MS32846,MSV1275,,,,5,5
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Sep 30 09:06:38 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35065.D\data.ms

(58) 1,4-dioxane (p)

8.439min (-0.069) 826.58ug/L

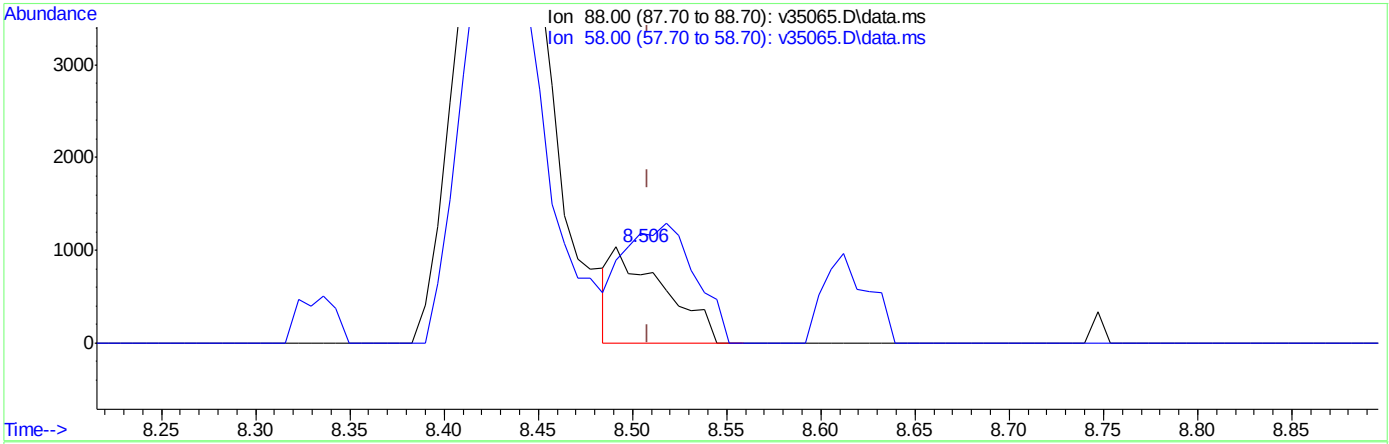
response 23372

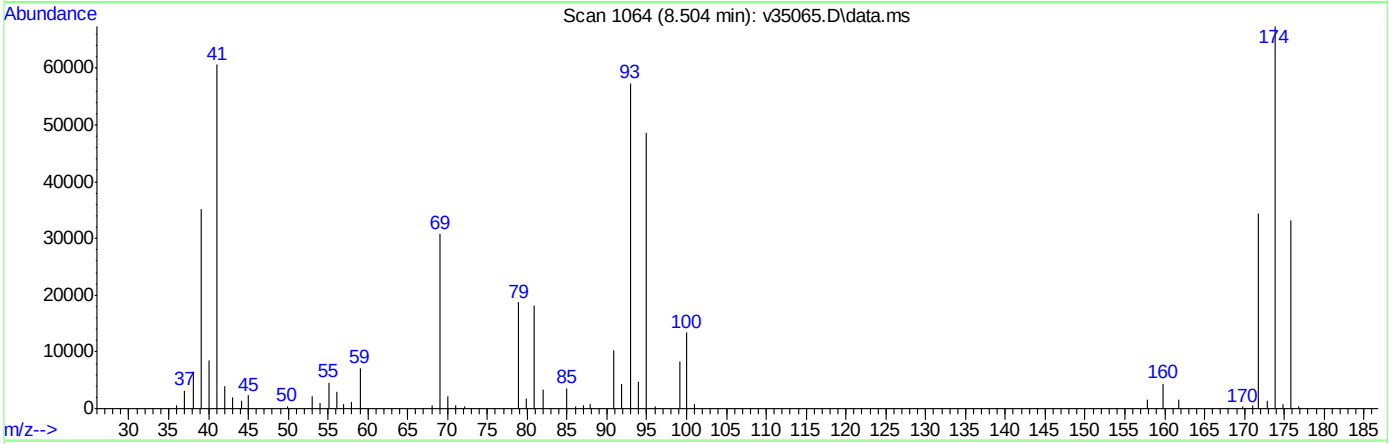
Ion	Exp%	Act%
88.00	100	100
58.00	101.70	66.26#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35065.D
Acq On : 30 Sep 2014 1:43 am
Operator : amym
Sample : mc33875-9ms
Misc : MS32846,MSV1275,,,,5,5
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Sep 30 09:06:38 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35065.D\data.ms

(58) 1,4-dioxane (p)

8.504min (-0.004) 82.91ug/L m

response 1996

Ion	Exp%	Act%
88.00	100	100
58.00	101.70	161.31#
0.00	0.00	0.00
0.00	0.00	0.00

V35065.D edits: 1,4-dioxane

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
10/01/14 07:45

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35066.D
Acq On : 30 Sep 2014 2:10 am
Operator : amym
Sample : mc33875-9msd
Misc : MS32846,MSV1275,,,,5,5
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Sep 30 16:26:30 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.528	65	92607	500.00	ug/L		#-0.01
4) pentafluorobenzene	6.564	168	788598	50.00	ug/L		0.00
43) 1,4-difluorobenzene	7.747	114	1273498	50.00	ug/L		0.00
66) chlorobenzene-d5	11.082	82	631648	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	13.292	152	771862	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.444	113	468768	47.14	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.28%				
60) toluene-d8 (s)	9.556	98	1392002	49.83	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 99.66%				
82) bromofluorobenzene (s)	12.229	95	636350	47.35	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.70%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.637	59	63982	239.26	ug/L	#	61
3) Ethanol	2.609	45	234674	4906.60	ug/L	#	100
5) dichlorodifluoromethane	1.529	85	1113824	60.71	ug/L		99
6) chloromethane	1.652	50	720352	55.41	ug/L		98
7) vinyl chloride	1.763	62	673252	56.56	ug/L		99
8) bromomethane	2.054	96	486996	56.30	ug/L		99
9) chloroethane	2.143	64	310852	63.77	ug/L		99
10) ethyl ether	2.606	59	229418	50.10	ug/L		91
11) acetonitrile	3.299	41	569351	45.73	ug/L	#	19
12) trichlorofluoromethane	2.359	101	1157512	62.33	ug/L		99
13) freon-113	2.932	101	576333	56.03	ug/L		98
14) acrolein	2.781	56	69118	243.04	ug/L		92
15) 1,1-dichloroethene	2.874	96	370255	56.33	ug/L		97
16) acetone	2.907	58	17208	22.48	ug/L	#	63
17) Methyl Acetate	3.282	43	168235	52.87	ug/L		99
18) methylene chloride	3.472	84	355913	46.02	ug/L		91
19) methyl tert butyl ether	3.855	73	671042	47.08	ug/L		98
20) acrylonitrile	3.789	53	81741	39.79	ug/L		89
21) allyl chloride	3.299	41	569351	45.72	ug/L		95
22) trans-1,2-dichloroethene	3.839	96	372649	48.64	ug/L		99
23) iodomethane	3.042	142	977112	52.26	ug/L		94
24) carbon disulfide	3.127	76	1232350	52.23	ug/L		97
25) propionitrile	5.655	54	28016	43.64	ug/L		100
26) vinyl acetate	4.594	43	824333	37.76	ug/L		97
27) chloroprene	4.626	53	698085	59.94	ug/L		95
28) di-isopropyl ether	4.612	45	1209672	42.77	ug/L		95
29) methacrylonitrile	5.924	41	143936	43.09	ug/L		98
30) 2-butanone	5.540	72	17652	35.62	ug/L	#	39
31) Hexane	4.257	41	365911	48.90	ug/L		94
32) 1,1-dichloroethane	4.513	63	742292	47.57	ug/L		99
33) tert-butyl ethyl ether	5.282	59	999499	47.49	ug/L		97
34) isobutyl alcohol	4.594	43	824333	188.79	ug/L		88
35) 2,2-dichloropropane	5.557	77	549713	42.09	ug/L		96
36) cis-1,2-dichloroethene	5.535	96	394850	47.71	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35066.D
Acq On : 30 Sep 2014 2:10 am
Operator : amym
Sample : mc33875-9msd
Misc : MS32846,MSV1275,,,,5,5
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Sep 30 16:26:30 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	4.590	43	822709m	37.72	ug/L		
38) bromochloromethane	5.957	128	226618	50.01	ug/L	#	80
39) chloroform	6.173	83	816333	50.52	ug/L		95
41) Tetrahydrofuran	5.966	42	49306	42.26	ug/L		99
42) 1,1,1-trichloroethane	6.419	97	912761	58.48	ug/L		97
44) Cyclohexane	6.528	56	789758	49.55	ug/L		98
45) carbon tetrachloride	6.674	117	916587	59.01	ug/L		95
46) 1,1-dichloropropene	6.689	75	530528	58.53	ug/L		98
47) benzene	7.009	78	1250560	47.45	ug/L		99
48) 1,2-dichloroethane	7.133	62	631639	55.82	ug/L		99
49) tert-amyl methyl ether	7.295	73	617218	47.90	ug/L		95
50) heptane	7.564	43	417806	44.86	ug/L		95
51) trichloroethene	8.039	95	480579	53.91	ug/L		96
52) 1,2-dichloropropane	8.387	63	397724	48.90	ug/L		97
53) dibromomethane	8.492	93	228823	52.49	ug/L		91
54) bromodichloromethane	8.741	83	625368	57.27	ug/L		98
55) Methylcyclohexane	8.341	83	566622	51.35	ug/L		98
57) methyl methacrylate	8.520	69	115969	47.50	ug/L		88
58) 1,4-dioxane	8.504	88	3030m	111.05	ug/L		
59) cis-1,3-dichloropropene	9.269	75	500409	52.71	ug/L		97
61) 4-methyl-2-pentanone	9.451	43	215751	42.90	ug/L		93
62) toluene	9.632	92	948374	52.03	ug/L		96
63) trans-1,3-dichloropropene	9.919	75	422898	54.14	ug/L		100
64) 1,1,2-trichloroethane	10.126	83	228275	48.57	ug/L		96
65) ethyl methacrylate	9.999	69	269692	43.23	ug/L		96
67) tetrachloroethene	10.185	166	544961	59.05	ug/L		97
68) 1,3-dichloropropane	10.286	76	429128	49.05	ug/L		98
69) dibromochloromethane	10.507	129	504154	59.15	ug/L		99
70) 1,2-dibromoethane	10.616	107	322665	53.98	ug/L		98
71) 2-hexanone	10.357	43	142955	34.18	ug/L		93
72) chlorobenzene	11.111	112	1341904	55.00	ug/L		96
73) 1,1,1,2-tetrachloroethane	11.211	131	619457	60.75	ug/L		97
74) ethylbenzene	11.216	91	2164979	57.05	ug/L		99
75) m,p-xylene	11.346	106	1714412	112.06	ug/L		97
76) o-xylene	11.713	106	875560	54.45	ug/L		95
77) styrene	11.734	104	1357301	54.93	ug/L		96
78) bromoform	11.908	173	226750	54.19	ug/L		100
79) trans-1,4-dichloro-2-b...	12.124	53	93273	40.55	ug/L		88
81) isopropylbenzene	12.064	105	2479745	56.47	ug/L		97
83) bromobenzene	12.355	156	642961	53.71	ug/L		86
84) 1,1,2,2-tetrachloroethane	12.359	83	323626	43.88	ug/L		98
85) 1,2,3-trichloropropane	12.408	75	302543	39.36	ug/L		98
86) n-propylbenzene	12.453	91	2674957	55.16	ug/L		97
87) 2-chlorotoluene	12.532	91	1670757	53.00	ug/L		92
88) 4-chlorotoluene	12.643	91	1951968	52.65	ug/L		98
89) 1,3,5-trimethylbenzene	12.622	105	2223748	53.62	ug/L		99
90) tert-butylbenzene	12.908	91	1268618	57.06	ug/L		92
91) 1,2,4-trimethylbenzene	12.962	105	2310785	54.61	ug/L		96
92) sec-butylbenzene	13.111	105	2633153	56.89	ug/L		95
93) 1,3-dichlorobenzene	13.219	146	1303190	52.80	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35066.D
Acq On : 30 Sep 2014 2:10 am
Operator : amym
Sample : mc33875-9msd
Misc : MS32846,MSV1275,,,,5,5
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Sep 30 16:26:30 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

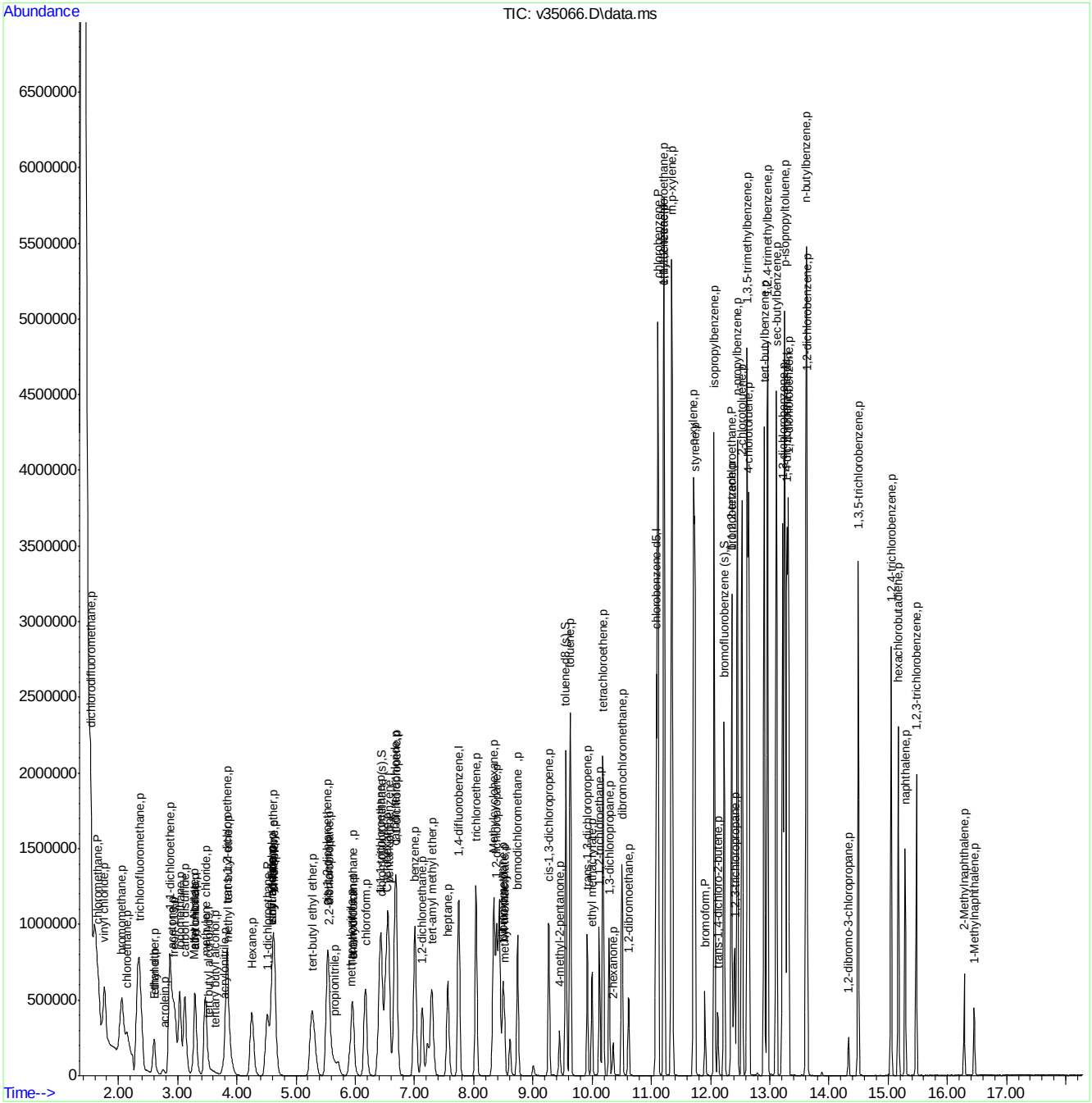
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	13.251	119	2600810	57.75	ug/L	98
95) 1,4-dichlorobenzene	13.314	146	1295688	51.43	ug/L	99
96) 1,2-dichlorobenzene	13.631	146	1222422	52.30	ug/L	99
97) n-butylbenzene	13.616	91	1931154	52.09	ug/L	93
98) 1,2-dibromo-3-chloropr...	14.332	75	49404	50.87	ug/L	92
99) 1,3,5-trichlorobenzene	14.497	180	935100	54.00	ug/L	98
100) 1,2,4-trichlorobenzene	15.052	180	720026	53.00	ug/L	97
101) hexachlorobutadiene	15.173	225	334609	59.00	ug/L	98
102) naphthalene	15.286	128	1050724	52.99	ug/L	100
103) 1,2,3-trichlorobenzene	15.475	180	510471	52.50	ug/L	94
104) 2-Methylnaphthalene	16.285	142	274852	53.68	ug/L	100
105) 1-Methylnaphthalene	16.454	142	191638	66.69	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35066.D
Acq On : 30 Sep 2014 2:10 am
Operator : amym
Sample : mc33875-9msd
Misc : MS32846,MSV1275,,,,5,5
ALS Vial : 41 Sample Multiplier: 1

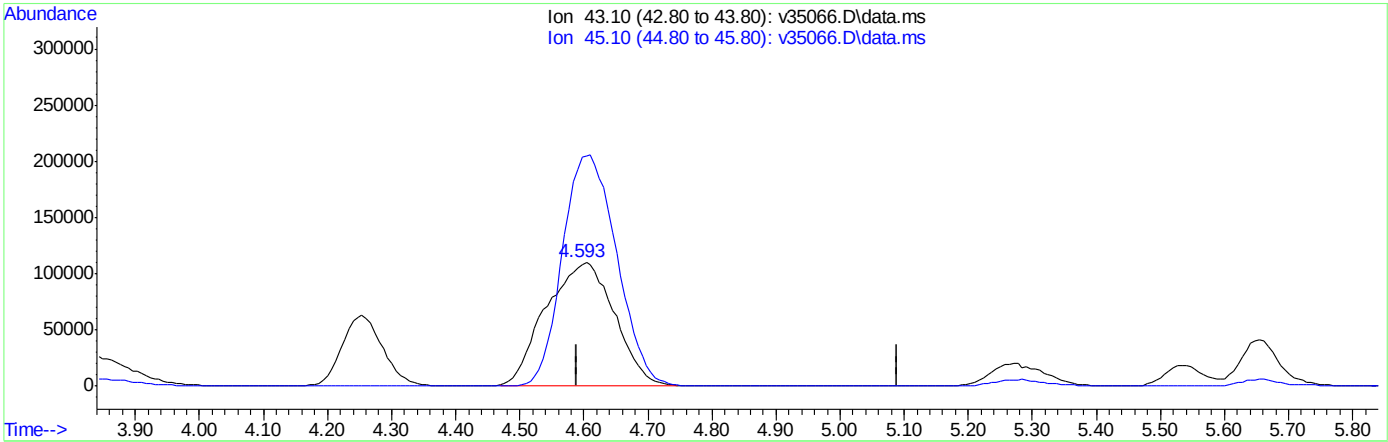
Quant Time: Sep 30 16:26:30 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

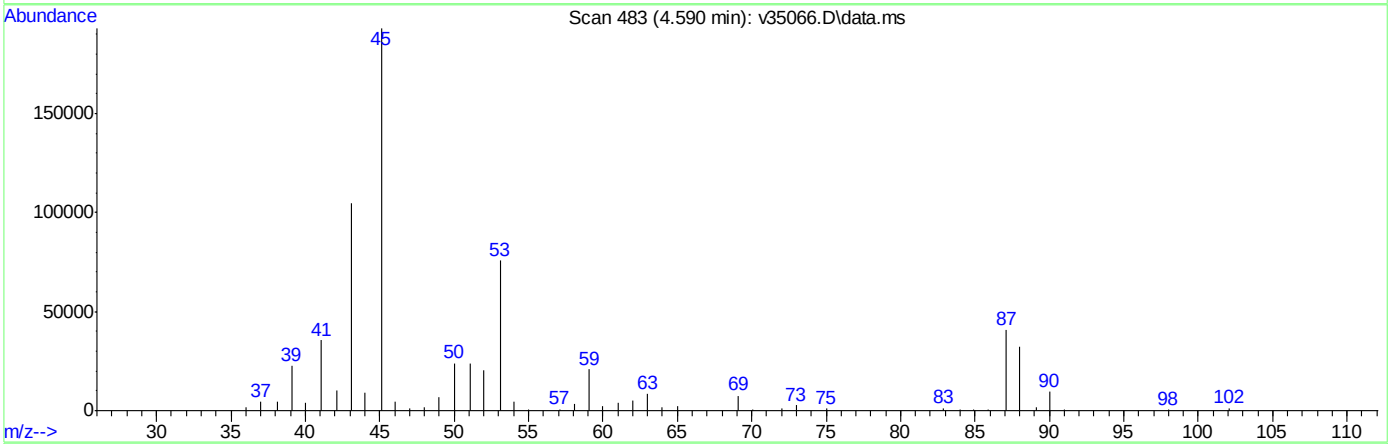


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35066.D
Acq On : 30 Sep 2014 2:10 am
Operator : amym
Sample : mc33875-9msd
Misc : MS32846,MSV1275,,,,5,5
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Sep 30 09:06:43 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35066.D\data.ms

(37) ethyl acetate (p)

4.590min (+0.000) 37.72ug/L m

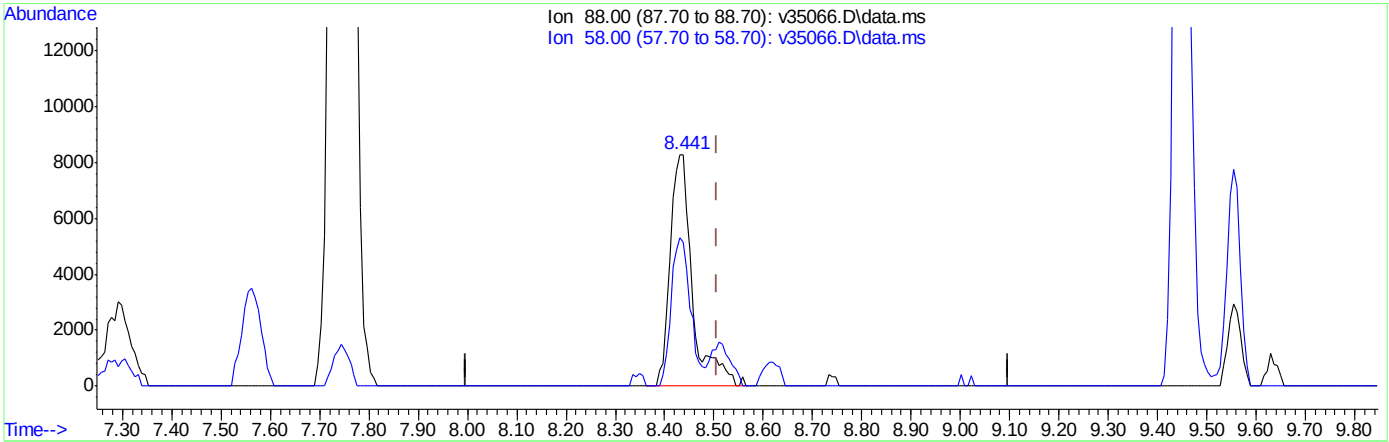
response 822709

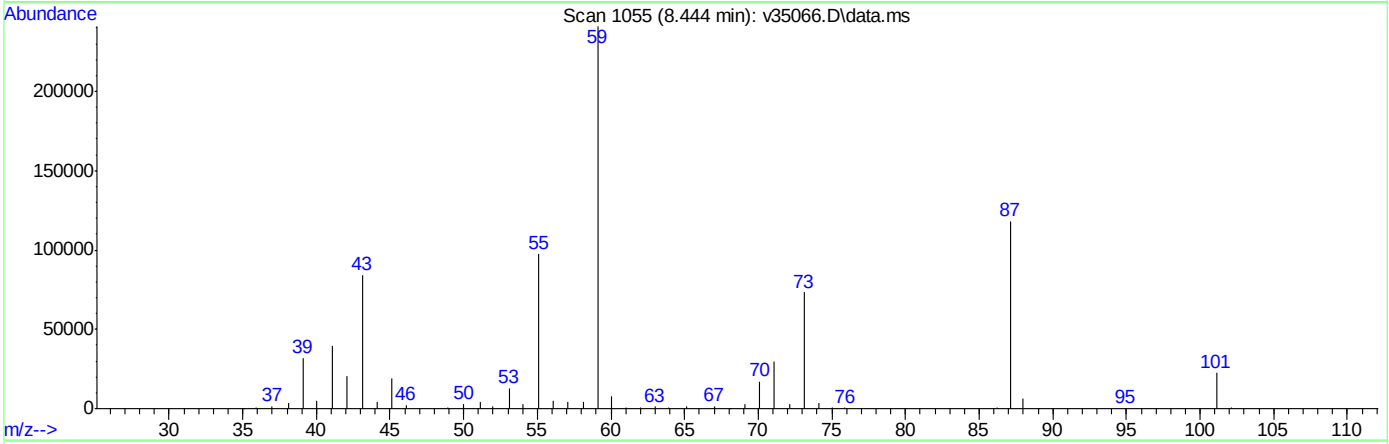
Ion	Exp%	Act%
43.10	100	100
45.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35066.D
Acq On : 30 Sep 2014 2:10 am
Operator : amym
Sample : mc33875-9msd
Misc : MS32846,MSV1275,,,,5,5
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Sep 30 09:06:43 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35066.D\data.ms

(58) 1,4-dioxane (p)

8.441min (-0.067) 850.39ug/L

response 25988

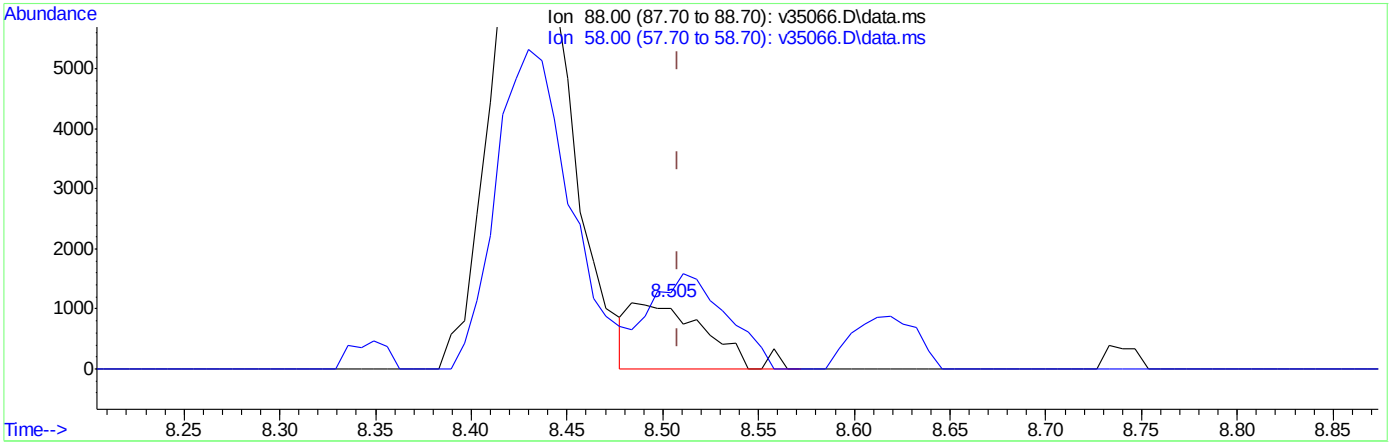
Ion	Exp%	Act%
88.00	100	100
58.00	101.70	66.75#
0.00	0.00	0.00
0.00	0.00	0.00

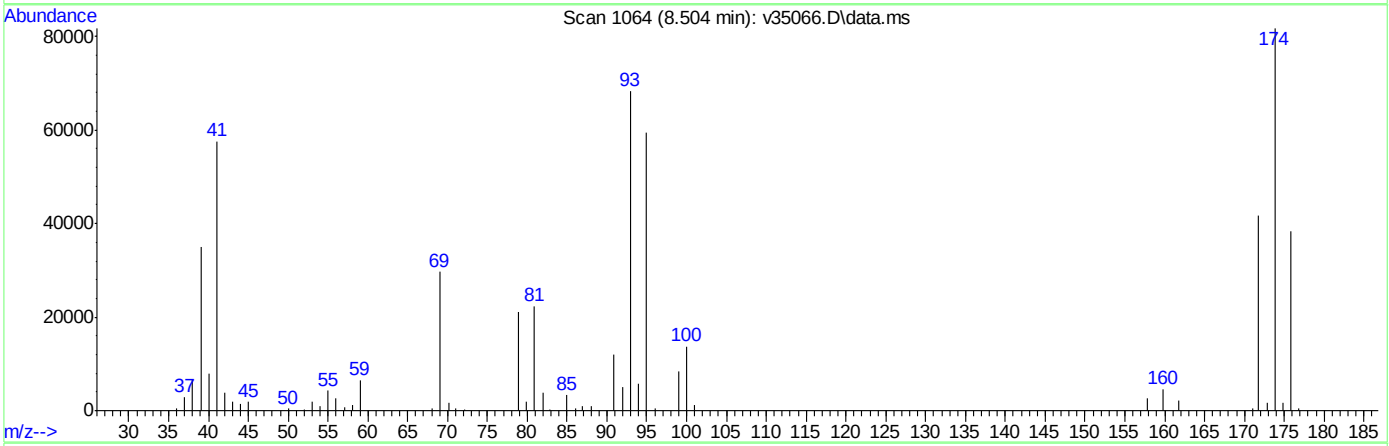
V35066.D edits: 1,4-dioxane

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35066.D
Acq On : 30 Sep 2014 2:10 am
Operator : amym
Sample : mc33875-9msd
Misc : MS32846,MSV1275,,,,5,5
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Sep 30 09:06:43 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35066.D\data.ms

(58) 1,4-dioxane (p)

8.504min (-0.004) 111.05ug/L m

response 3030

Ion	Exp%	Act%
88.00	100	100
58.00	101.70	127.80
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
10/02/14 13:26

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35140.D
Acq On : 1 Oct 2014 7:28 pm
Operator : amym
Sample : mc33785-2ms
Misc : MS32863,MSV1277,,,,5,5
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 02 08:36:03 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.525	65	69156	500.00	ug/L	#-0.01
4) pentafluorobenzene	6.559	168	657795	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.744	114	1068874	50.00	ug/L	0.00
66) chlorobenzene-d5	11.078	82	510868	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.288	152	639441	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.439	113	392473	47.32	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.64%			
60) toluene-d8 (s)	9.553	98	1156875	49.34	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 98.68%			
82) bromofluorobenzene (s)	12.225	95	517070	46.44	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 92.88%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.634	59	47046	235.59	ug/L #	60
3) Ethanol	2.606	45	175941	4926.02	ug/L #	100
5) dichlorodifluoromethane	1.528	85	917312	59.94	ug/L	97
6) chloromethane	1.652	50	591882	54.58	ug/L	95
7) vinyl chloride	1.763	62	545637	54.96	ug/L	97
8) bromomethane	2.054	96	401639	55.67	ug/L	99
9) chloroethane	2.141	64	255473	62.83	ug/L	97
10) ethyl ether	2.603	59	171200	44.82	ug/L	95
11) acetonitrile	3.293	41	459307	44.23	ug/L #	18
12) trichlorofluoromethane	2.357	101	1017992	65.72	ug/L	97
13) freon-113	2.931	101	478819	55.80	ug/L	92
14) acrolein	2.768	56	55189	232.65	ug/L	94
15) 1,1-dichloroethene	2.872	96	294576	53.73	ug/L	90
16) acetone	2.899	58	12841	20.11	ug/L	94
17) Methyl Acetate	3.279	43	128930	48.57	ug/L	97
18) methylene chloride	3.468	84	278746	43.21	ug/L	88
19) methyl tert butyl ether	3.850	73	495562	41.68	ug/L	98
20) acrylonitrile	3.786	53	64462	37.62	ug/L	96
21) allyl chloride	3.293	41	458854	44.17	ug/L	98
22) trans-1,2-dichloroethene	3.834	96	291936	45.68	ug/L	95
23) iodomethane	3.040	142	773189	49.58	ug/L	88
24) carbon disulfide	3.126	76	986746	50.14	ug/L	100
25) propionitrile	5.648	54	21676	40.48	ug/L	100
26) vinyl acetate	4.590	43	656473	36.05	ug/L	97
27) chloroprene	4.621	53	585120	60.23	ug/L	91
28) di-isopropyl ether	4.607	45	936930	39.71	ug/L	96
29) methacrylonitrile	5.921	41	112778	40.47	ug/L	96
30) 2-butanone	5.535	72	14232	34.43	ug/L #	59
31) Hexane	4.253	41	317709	50.90	ug/L	99
32) 1,1-dichloroethane	4.508	63	591846	45.47	ug/L	99
33) tert-butyl ethyl ether	5.276	59	745224	42.45	ug/L	97
34) isobutyl alcohol	4.590	43	656473	180.24	ug/L	86
35) 2,2-dichloropropane	5.551	77	534148	48.66	ug/L	91
36) cis-1,2-dichloroethene	5.530	96	314585	45.57	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35140.D
Acq On : 1 Oct 2014 7:28 pm
Operator : amym
Sample : mc33785-2ms
Misc : MS32863,MSV1277,,,,5,5
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 02 08:36:03 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	4.590	43	656468m	36.08	ug/L		
38) bromochloromethane	5.952	128	183632	48.58	ug/L	#	82
39) chloroform	6.167	83	674500	50.04	ug/L		95
41) Tetrahydrofuran	5.960	42	36726	37.74	ug/L		95
42) 1,1,1-trichloroethane	6.414	97	752309	57.78	ug/L		97
44) Cyclohexane	6.523	56	633294	47.34	ug/L		98
45) carbon tetrachloride	6.668	117	788194	60.45	ug/L		98
46) 1,1-dichloropropene	6.684	75	434563	57.12	ug/L		97
47) benzene	7.004	78	999309	45.17	ug/L		99
48) 1,2-dichloroethane	7.129	62	530223	55.82	ug/L		98
49) tert-amyl methyl ether	7.290	73	462553	42.77	ug/L		96
50) heptane	7.560	43	374250	47.88	ug/L		94
51) trichloroethene	8.036	95	399494	53.39	ug/L		98
52) 1,2-dichloropropane	8.383	63	322097	47.18	ug/L		99
53) dibromomethane	8.488	93	189859	51.89	ug/L		89
54) bromodichloromethane	8.738	83	529538	57.78	ug/L		96
55) Methylcyclohexane	8.336	83	457009	49.34	ug/L		94
57) methyl methacrylate	8.517	69	87382	42.65	ug/L		94
58) 1,4-dioxane	8.497	88	1980m	89.44	ug/L		
59) cis-1,3-dichloropropene	9.265	75	412132	51.81	ug/L		96
61) 4-methyl-2-pentanone	9.447	43	163305	38.69	ug/L		94
62) toluene	9.628	92	773026	50.53	ug/L		98
63) trans-1,3-dichloropropene	9.915	75	344590	52.90	ug/L		99
64) 1,1,2-trichloroethane	10.121	83	177930	45.11	ug/L		94
65) ethyl methacrylate	9.995	69	198188	38.09	ug/L		97
67) tetrachloroethene	10.181	166	460077	61.64	ug/L		99
68) 1,3-dichloropropane	10.282	76	335025	47.35	ug/L		99
69) dibromochloromethane	10.503	129	414437	60.12	ug/L		99
70) 1,2-dibromoethane	10.612	107	248908	51.48	ug/L		97
71) 2-hexanone	10.353	43	104206	30.81	ug/L		94
72) chlorobenzene	11.107	112	1069107	54.18	ug/L		97
73) 1,1,1,2-tetrachloroethane	11.207	131	517775	62.78	ug/L		98
74) ethylbenzene	11.212	91	1740053	56.69	ug/L		99
75) m,p-xylene	11.342	106	1373762	111.03	ug/L		96
76) o-xylene	11.709	106	715695	55.03	ug/L		100
77) styrene	11.730	104	1074085	53.75	ug/L		99
78) bromoform	11.904	173	179380	53.06	ug/L		98
79) trans-1,4-dichloro-2-b...	12.120	53	67714	36.40	ug/L		94
81) isopropylbenzene	12.061	105	2054091	56.46	ug/L		96
83) bromobenzene	12.351	156	510106	51.44	ug/L		89
84) 1,1,2,2-tetrachloroethane	12.356	83	249846	40.89	ug/L		98
85) 1,2,3-trichloropropane	12.404	75	242207	38.03	ug/L		97
86) n-propylbenzene	12.449	91	2166480	53.92	ug/L		96
87) 2-chlorotoluene	12.528	91	1364952	52.27	ug/L		94
88) 4-chlorotoluene	12.639	91	1566650	51.00	ug/L		95
89) 1,3,5-trimethylbenzene	12.619	105	1844630	53.69	ug/L		99
90) tert-butylbenzene	12.905	91	1092295	59.30	ug/L		97
91) 1,2,4-trimethylbenzene	12.958	105	1894529	54.05	ug/L		99
92) sec-butylbenzene	13.107	105	2190462	57.13	ug/L		96
93) 1,3-dichlorobenzene	13.216	146	1053212	51.51	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35140.D
Acq On : 1 Oct 2014 7:28 pm
Operator : amym
Sample : mc33785-2ms
Misc : MS32863,MSV1277,,,,5,5
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 02 08:36:03 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

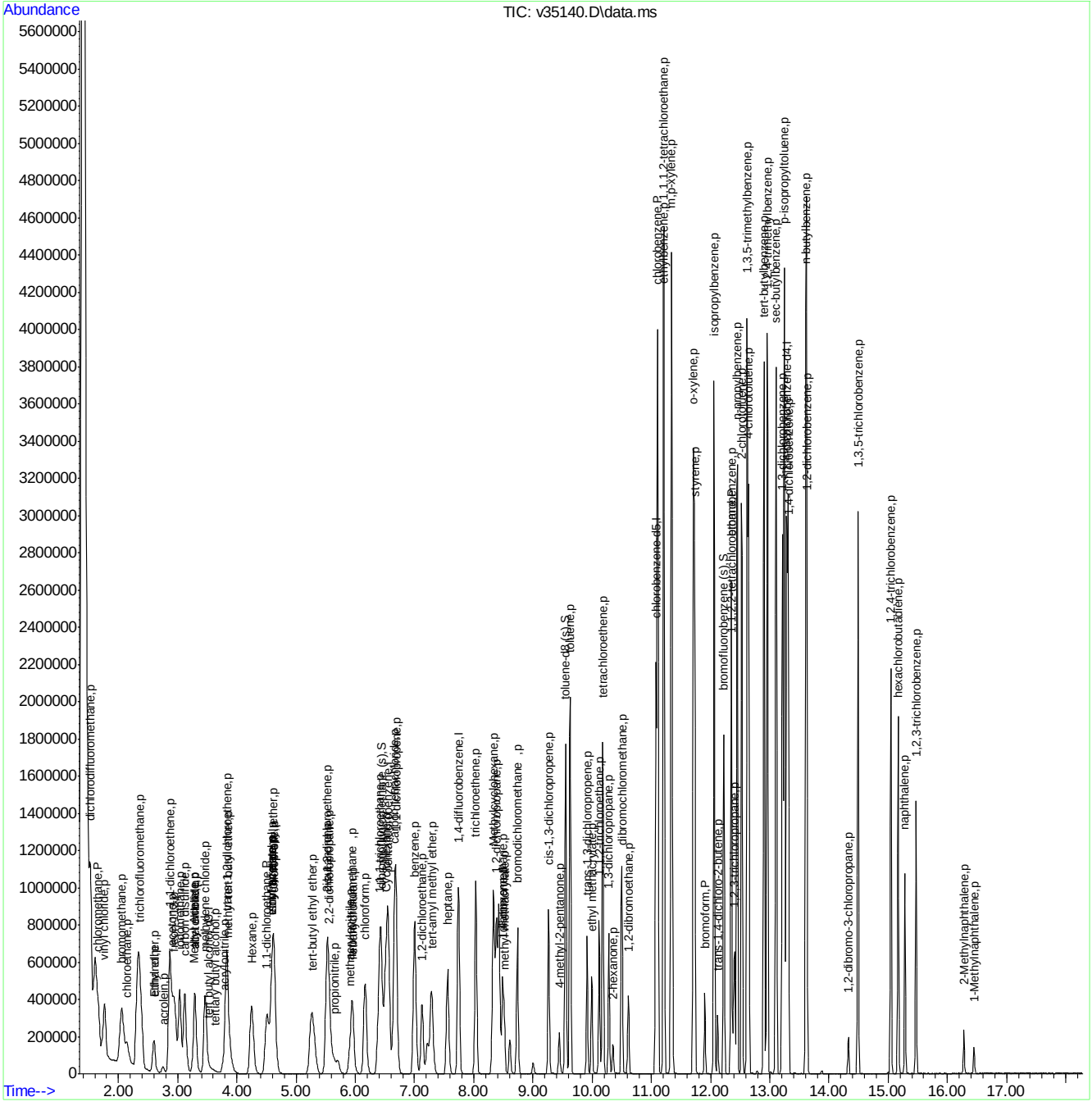
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	p-isopropyltoluene	13.248	119	2174443	58.28	ug/L	99
95)	1,4-dichlorobenzene	13.311	146	1045986	50.12	ug/L	100
96)	1,2-dichlorobenzene	13.627	146	979155	50.57	ug/L	98
97)	n-butylbenzene	13.612	91	1614111	52.56	ug/L	94
98)	1,2-dibromo-3-chloropr...	14.329	75	38465	47.81	ug/L	87
99)	1,3,5-trichlorobenzene	14.493	180	764622	53.30	ug/L	100
100)	1,2,4-trichlorobenzene	15.049	180	558016	49.58	ug/L	99
101)	hexachlorobutadiene	15.170	225	280108	59.62	ug/L	98
102)	naphthalene	15.283	128	718383	43.84	ug/L	100
103)	1,2,3-trichlorobenzene	15.472	180	368723	45.78	ug/L	100
104)	2-Methylnaphthalene	16.281	142	104293	26.60	ug/L	99
105)	1-Methylnaphthalene	16.451	142	65033	28.92	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35140.D
Acq On : 1 Oct 2014 7:28 pm
Operator : amym
Sample : mc33785-2ms
Misc : MS32863,MSV1277,,,,5,5
ALS Vial : 26 Sample Multiplier: 1

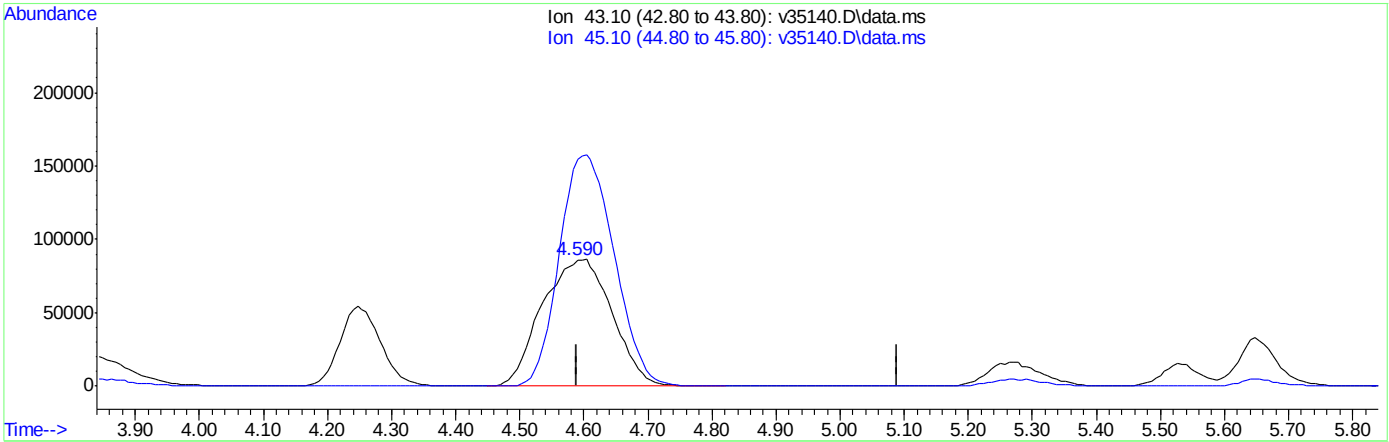
Quant Time: Oct 02 08:36:03 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

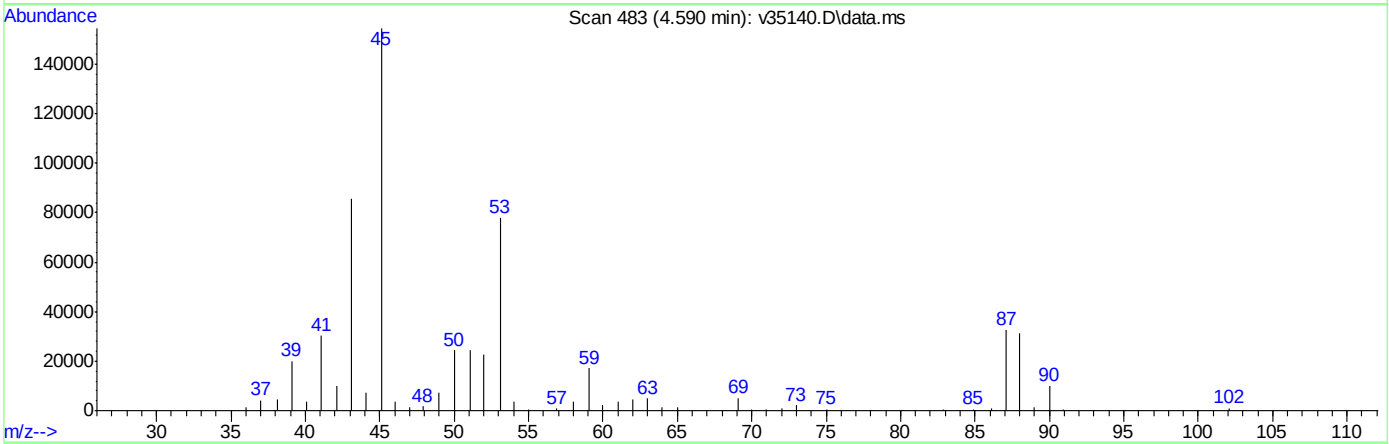


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35140.D
Acq On : 1 Oct 2014 7:28 pm
Operator : amym
Sample : mc33785-2ms
Misc : MS32863,MSV1277,,,,5,5
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 02 08:35:25 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35140.D\data.ms

(37) ethyl acetate (p)

4.590min (+0.000) 36.08ug/L m

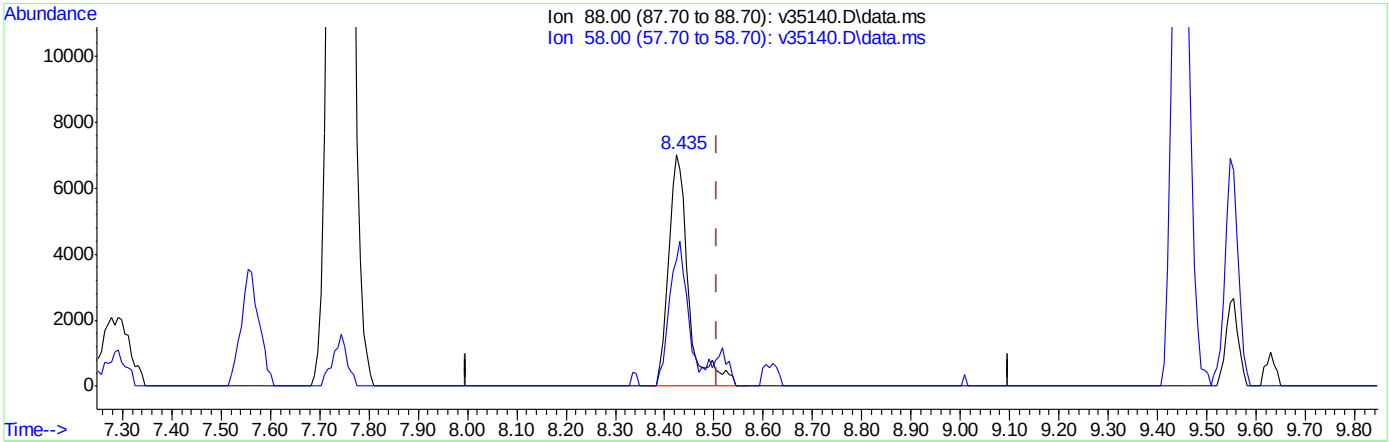
response 656468

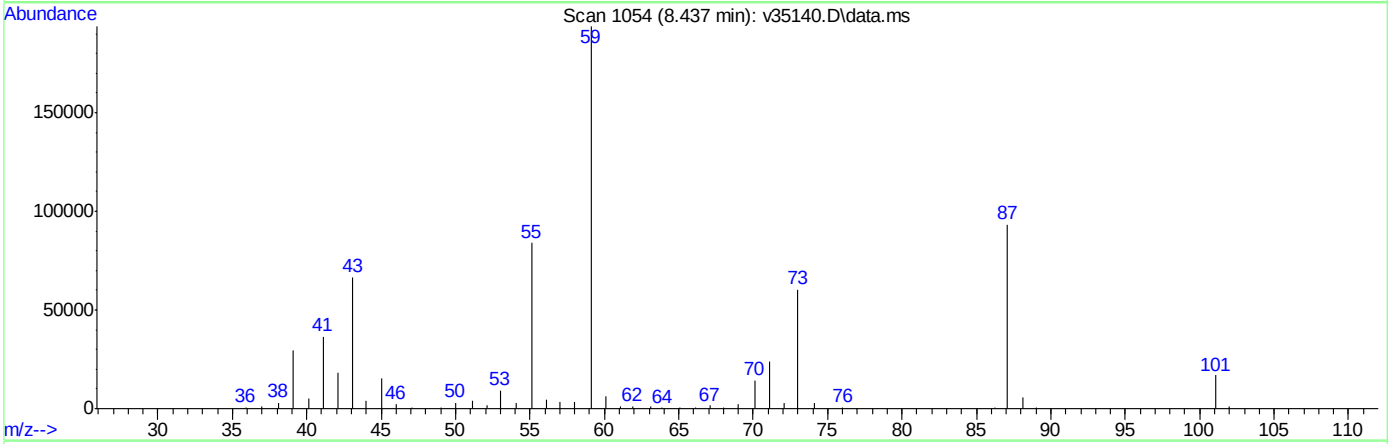
Ion	Exp%	Act%
43.10	100	100
45.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35140.D
Acq On : 1 Oct 2014 7:28 pm
Operator : amym
Sample : mc33785-2ms
Misc : MS32863,MSV1277,,,,5,5
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 02 08:35:25 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35140.D\data.ms

(58) 1,4-dioxane (p)

8.435min (-0.073) 761.10ug/L

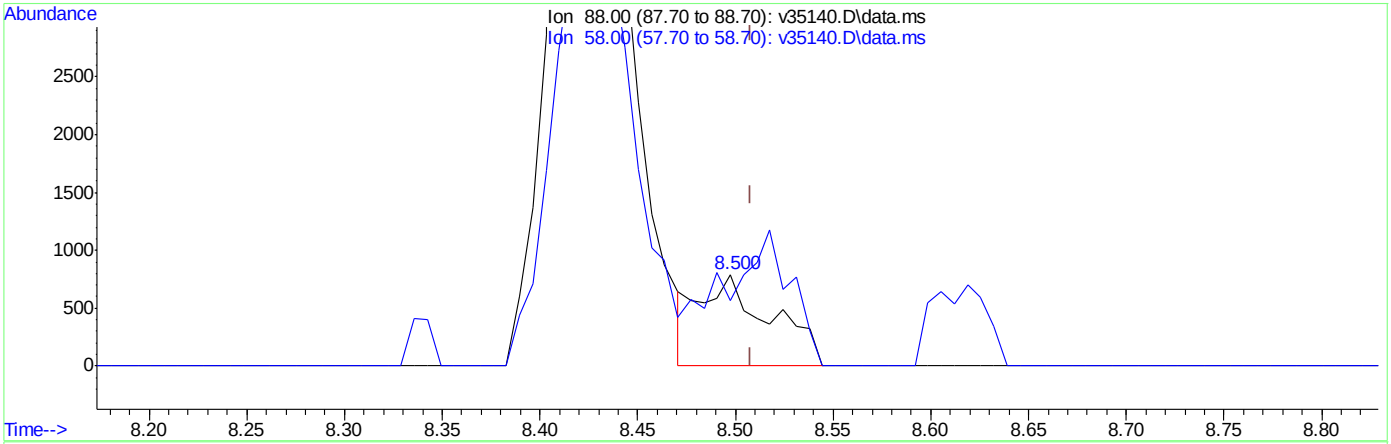
response 19485

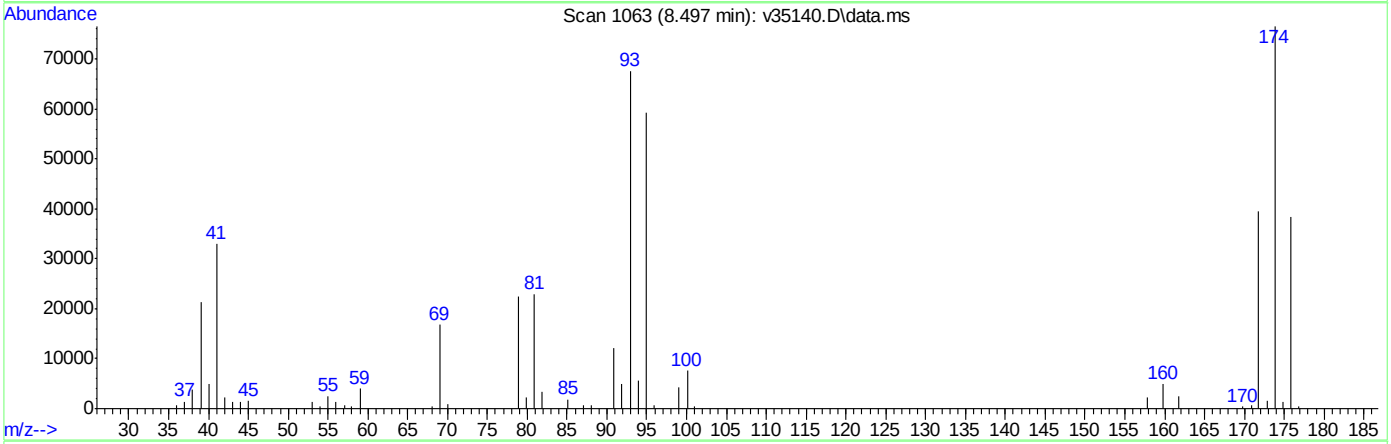
Ion	Exp%	Act%
88.00	100	100
58.00	101.70	59.35#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35140.D
Acq On : 1 Oct 2014 7:28 pm
Operator : amym
Sample : mc33785-2ms
Misc : MS32863,MSV1277,,,,5,5
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 02 08:35:25 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35140.D\data.ms

(58) 1,4-dioxane (p)

8.497min (-0.011) 89.44ug/L m

response 1980

Ion	Exp%	Act%
88.00	100	100
58.00	101.70	71.43#
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33933

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
10/02/14 13:26

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35141.D
Acq On : 1 Oct 2014 7:55 pm
Operator : amym
Sample : mc33785-2msd
Misc : MS32863,MSV1277,,,,5,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 02 08:37:43 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.529	65	78832	500.00	ug/L	#	0.00
4) pentafluorobenzene	6.560	168	690647	50.00	ug/L		0.00
43) 1,4-difluorobenzene	7.743	114	1095977	50.00	ug/L		0.00
66) chlorobenzene-d5	11.078	82	543777	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	13.288	152	678173	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.441	113	415347	47.70	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.40%				
60) toluene-d8 (s)	9.553	98	1192259	49.59	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 99.18%				
82) bromofluorobenzene (s)	12.225	95	550453	46.62	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.24%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.635	59	52530	230.76	ug/L	#	64
3) Ethanol	2.610	45	187211	4598.20	ug/L	#	100
5) dichlorodifluoromethane	1.532	85	892356m	55.54	ug/L		
6) chloromethane	1.655	50	610221	53.59	ug/L		95
7) vinyl chloride	1.766	62	564849	54.18	ug/L		99
8) bromomethane	2.057	96	418091	55.19	ug/L		100
9) chloroethane	2.145	64	263396	61.70	ug/L		99
10) ethyl ether	2.607	59	186250	46.44	ug/L		97
11) acetonitrile	3.297	41	484899	44.47	ug/L	#	18
12) trichlorofluoromethane	2.361	101	995275	61.19	ug/L		99
13) freon-113	2.935	101	476402	52.88	ug/L		98
14) acrolein	2.771	56	65058	261.21	ug/L		99
15) 1,1-dichloroethene	2.876	96	309588	53.78	ug/L		99
16) acetone	2.902	58	15451	23.04	ug/L	#	68
17) Methyl Acetate	3.281	43	138140	49.57	ug/L		97
18) methylene chloride	3.473	84	296960	43.84	ug/L		92
19) methyl tert butyl ether	3.853	73	545330	43.69	ug/L		98
20) acrylonitrile	3.787	53	67876	37.72	ug/L		97
21) allyl chloride	3.297	41	484277	44.40	ug/L		95
22) trans-1,2-dichloroethene	3.837	96	308374	45.96	ug/L		99
23) iodomethane	3.044	142	819085	50.02	ug/L		91
24) carbon disulfide	3.129	76	1029458	49.82	ug/L		99
25) propionitrile	5.651	54	23453	41.71	ug/L		100
26) vinyl acetate	4.592	43	685243	35.84	ug/L		97
27) chloroprene	4.625	53	590649	57.90	ug/L		92
28) di-isopropyl ether	4.610	45	987709	39.87	ug/L		95
29) methacrylonitrile	5.922	41	118063	40.35	ug/L		99
30) 2-butanone	5.536	72	14355	33.07	ug/L	#	45
31) Hexane	4.257	41	317420	48.44	ug/L		98
32) 1,1-dichloroethane	4.512	63	613849	44.92	ug/L		97
33) tert-butyl ethyl ether	5.279	59	813152	44.11	ug/L		100
34) isobutyl alcohol	4.592	43	685107	179.16	ug/L		86
35) 2,2-dichloropropane	5.553	77	548216	47.62	ug/L		93
36) cis-1,2-dichloroethene	5.533	96	333010	45.94	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35141.D
Acq On : 1 Oct 2014 7:55 pm
Operator : amym
Sample : mc33785-2msd
Misc : MS32863,MSV1277,,,,5,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 02 08:37:43 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	4.591	43	685409m	35.88	ug/L		
38) bromochloromethane	5.954	128	192230	48.44	ug/L	#	80
39) chloroform	6.170	83	687644	48.59	ug/L		95
41) Tetrahydrofuran	5.962	42	39155	38.32	ug/L		99
42) 1,1,1-trichloroethane	6.416	97	768540	56.22	ug/L		97
44) Cyclohexane	6.524	56	630805	45.99	ug/L		99
45) carbon tetrachloride	6.670	117	788492	58.98	ug/L		97
46) 1,1-dichloropropene	6.686	75	438324	56.19	ug/L		97
47) benzene	7.005	78	1028383	45.34	ug/L		100
48) 1,2-dichloroethane	7.130	62	540165	55.46	ug/L		98
49) tert-amyl methyl ether	7.291	73	509043	45.91	ug/L		98
50) heptane	7.561	43	364090	45.43	ug/L		95
51) trichloroethene	8.035	95	395629	51.57	ug/L		95
52) 1,2-dichloropropane	8.383	63	328455	46.92	ug/L		97
53) dibromomethane	8.488	93	194418	51.82	ug/L		93
54) bromodichloromethane	8.738	83	519776	55.31	ug/L		98
55) Methylcyclohexane	8.337	83	456883	48.11	ug/L		95
57) methyl methacrylate	8.516	69	91673	43.63	ug/L		90
58) 1,4-dioxane	8.498	88	1876m	83.67	ug/L		
59) cis-1,3-dichloropropene	9.265	75	418622	51.36	ug/L		95
61) 4-methyl-2-pentanone	9.447	43	172484	39.85	ug/L		94
62) toluene	9.628	92	778356	49.62	ug/L		99
63) trans-1,3-dichloropropene	9.916	75	359507	53.62	ug/L		99
64) 1,1,2-trichloroethane	10.122	83	186403	46.09	ug/L		96
65) ethyl methacrylate	9.995	69	215414	40.26	ug/L		97
67) tetrachloroethene	10.181	166	451618	56.84	ug/L		99
68) 1,3-dichloropropane	10.283	76	349557	46.41	ug/L		98
69) dibromochloromethane	10.503	129	422794	57.62	ug/L		98
70) 1,2-dibromoethane	10.612	107	270069	52.48	ug/L		93
71) 2-hexanone	10.354	43	112008	31.11	ug/L		94
72) chlorobenzene	11.107	112	1108103	52.75	ug/L		96
73) 1,1,1,2-tetrachloroethane	11.207	131	518028	59.01	ug/L		97
74) ethylbenzene	11.212	91	1782784	54.57	ug/L		98
75) m,p-xylene	11.342	106	1401557	106.42	ug/L		97
76) o-xylene	11.709	106	725880	52.44	ug/L		99
77) styrene	11.730	104	1132110	53.22	ug/L		99
78) bromoform	11.905	173	192739	53.54	ug/L		100
79) trans-1,4-dichloro-2-b...	12.120	53	73134	36.93	ug/L		89
81) isopropylbenzene	12.061	105	2046519	53.04	ug/L		96
83) bromobenzene	12.351	156	537162	51.07	ug/L		88
84) 1,1,2,2-tetrachloroethane	12.356	83	267552	41.29	ug/L		97
85) 1,2,3-trichloropropane	12.404	75	257798	38.17	ug/L		97
86) n-propylbenzene	12.449	91	2238697	52.54	ug/L		94
87) 2-chlorotoluene	12.528	91	1404561	50.71	ug/L		93
88) 4-chlorotoluene	12.639	91	1633952	50.16	ug/L		93
89) 1,3,5-trimethylbenzene	12.618	105	1863868	51.15	ug/L		98
90) tert-butylbenzene	12.904	91	1068996	54.72	ug/L		95
91) 1,2,4-trimethylbenzene	12.958	105	1940132	52.19	ug/L		98
92) sec-butylbenzene	13.107	105	2171119	53.39	ug/L		95
93) 1,3-dichlorobenzene	13.215	146	1105463	50.98	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35141.D
Acq On : 1 Oct 2014 7:55 pm
Operator : amym
Sample : mc33785-2msd
Misc : MS32863,MSV1277,,,,5,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 02 08:37:43 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

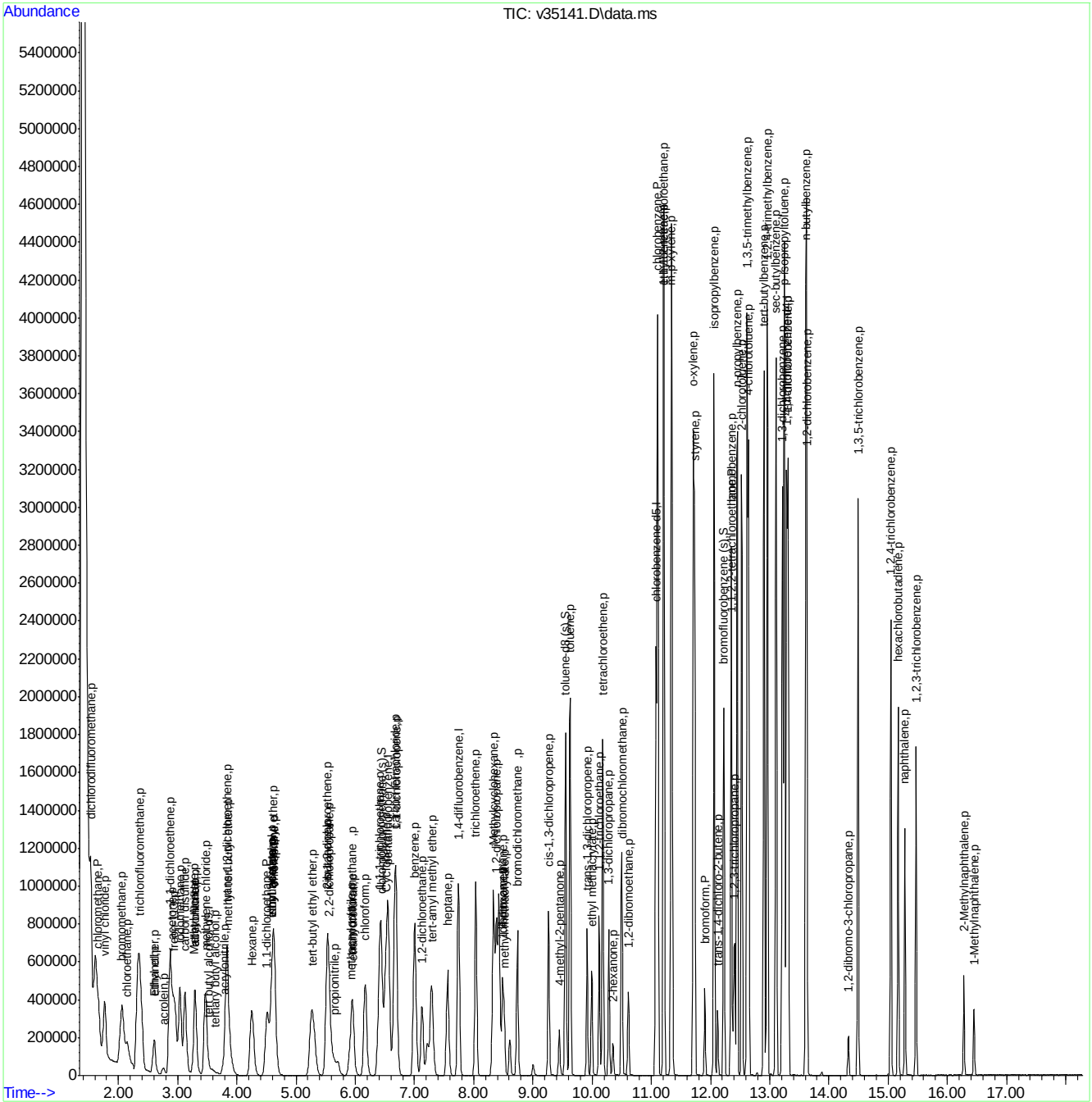
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	13.248	119	2194222	55.46	ug/L	99
95) 1,4-dichlorobenzene	13.310	146	1103441	49.85	ug/L	98
96) 1,2-dichlorobenzene	13.628	146	1035890	50.44	ug/L	99
97) n-butylbenzene	13.612	91	1643800	50.47	ug/L	94
98) 1,2-dibromo-3-chloropr...	14.329	75	41091	48.16	ug/L	81
99) 1,3,5-trichlorobenzene	14.493	180	792293	52.08	ug/L	100
100) 1,2,4-trichlorobenzene	15.048	180	612019	51.27	ug/L	98
101) hexachlorobutadiene	15.170	225	284604	57.12	ug/L	98
102) naphthalene	15.283	128	878393	50.45	ug/L	100
103) 1,2,3-trichlorobenzene	15.472	180	437349	51.20	ug/L	100
104) 2-Methylnaphthalene	16.281	142	225153	50.30	ug/L	98
105) 1-Methylnaphthalene	16.450	142	160215	63.59	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35141.D
Acq On : 1 Oct 2014 7:55 pm
Operator : amym
Sample : mc33785-2msd
Misc : MS32863,MSV1277,,,,5,5
ALS Vial : 27 Sample Multiplier: 1

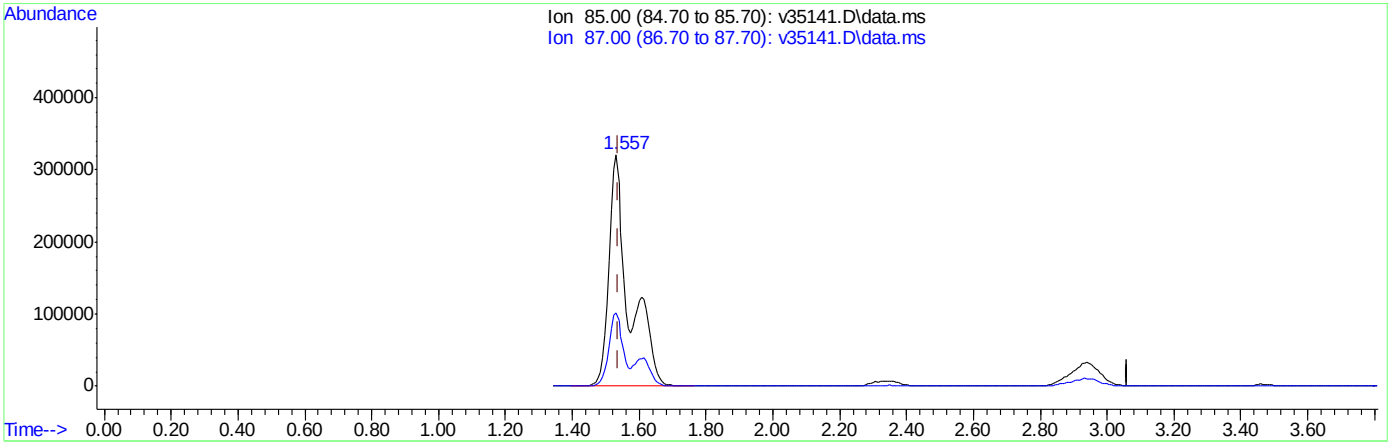
Quant Time: Oct 02 08:37:43 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

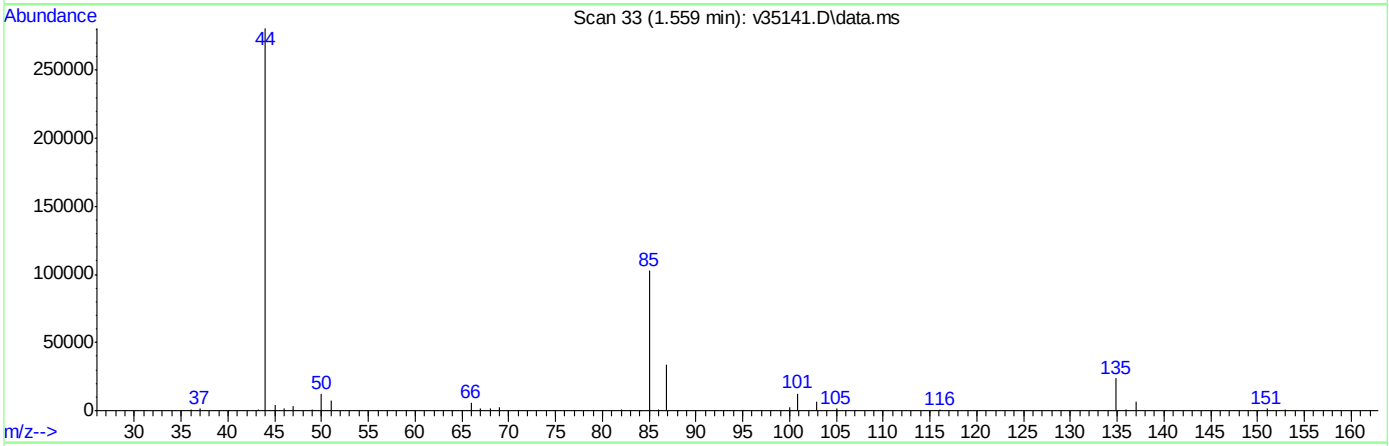


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35141.D
Acq On : 1 Oct 2014 7:55 pm
Operator : amym
Sample : mc33785-2msd
Misc : MS32863,MSV1277,,,,5,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 02 08:36:53 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35141.D\data.ms

(5) dichlorodifluoromethane (p)

1.557min (+0.018) 81.44ug/L

response 1308477

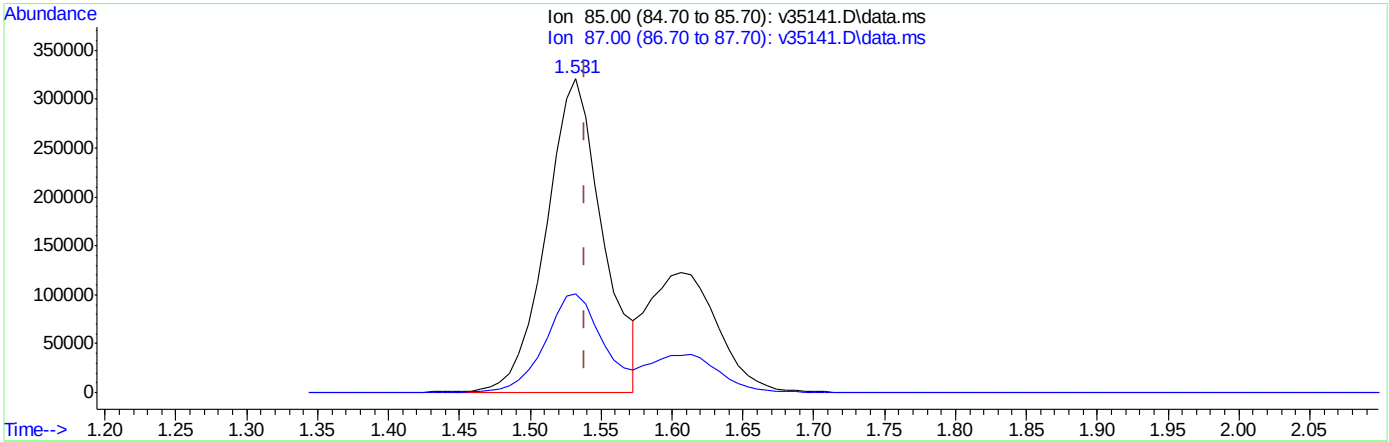
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	32.86
0.00	0.00	0.00
0.00	0.00	0.00

V35141.D edits: dichlorodifluoromethane

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35141.D
Acq On : 1 Oct 2014 7:55 pm
Operator : amym
Sample : mc33785-2msd
Misc : MS32863,MSV1277,,,,5,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 02 08:36:53 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration



TIC: v35141.D\data.ms

(5) dichlorodifluoromethane (p)

1.532min (-0.007) 55.54ug/L m

response 892356

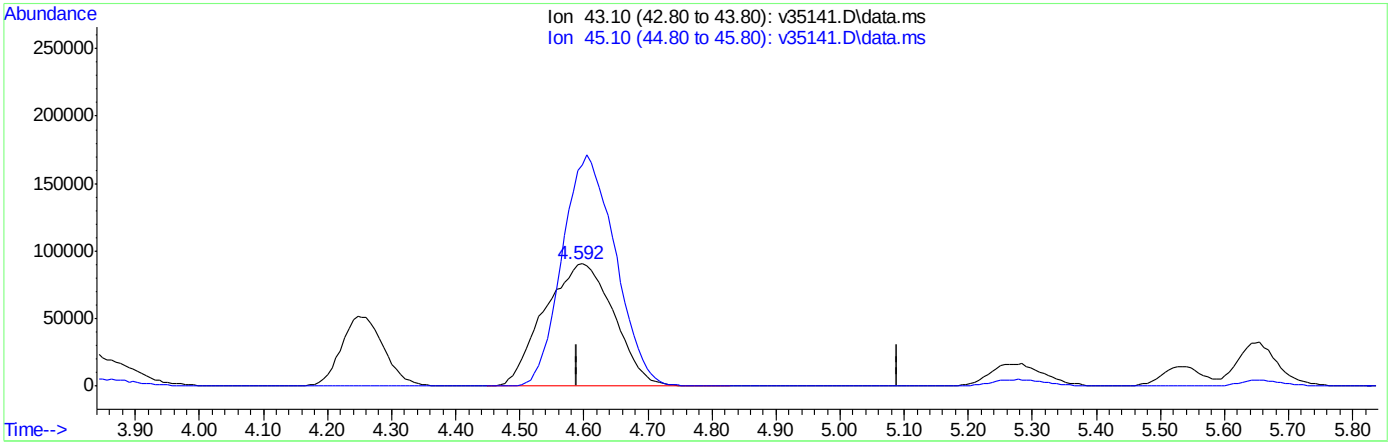
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	31.44
0.00	0.00	0.00
0.00	0.00	0.00

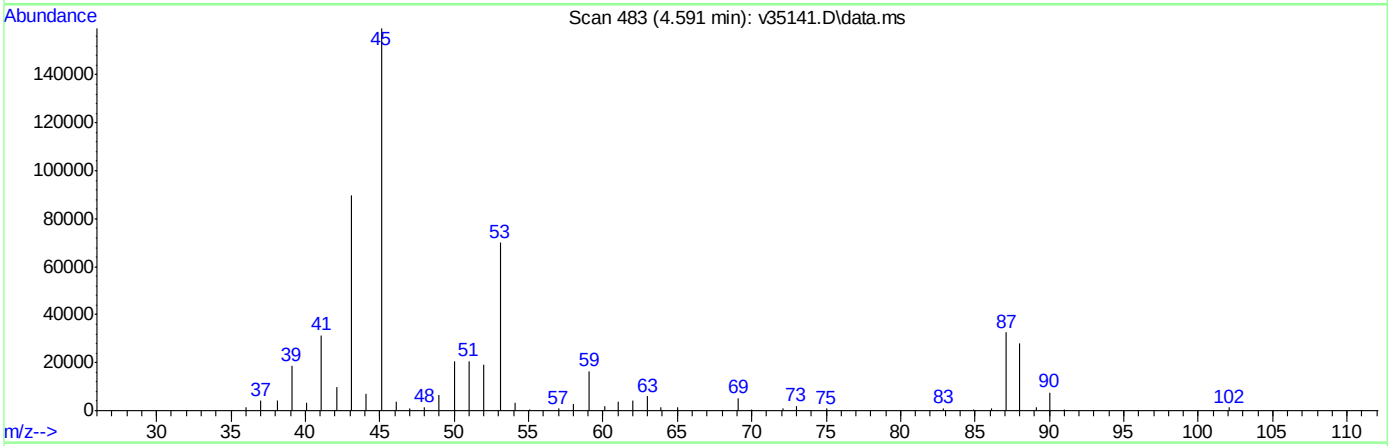
V35141.D edits: dichlorodifluoromethane

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35141.D
Acq On : 1 Oct 2014 7:55 pm
Operator : amym
Sample : mc33785-2msd
Misc : MS32863,MSV1277,,,,5,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 02 08:36:53 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35141.D\data.ms

(37) ethyl acetate (p)

4.591min (+0.001) 35.88ug/L m

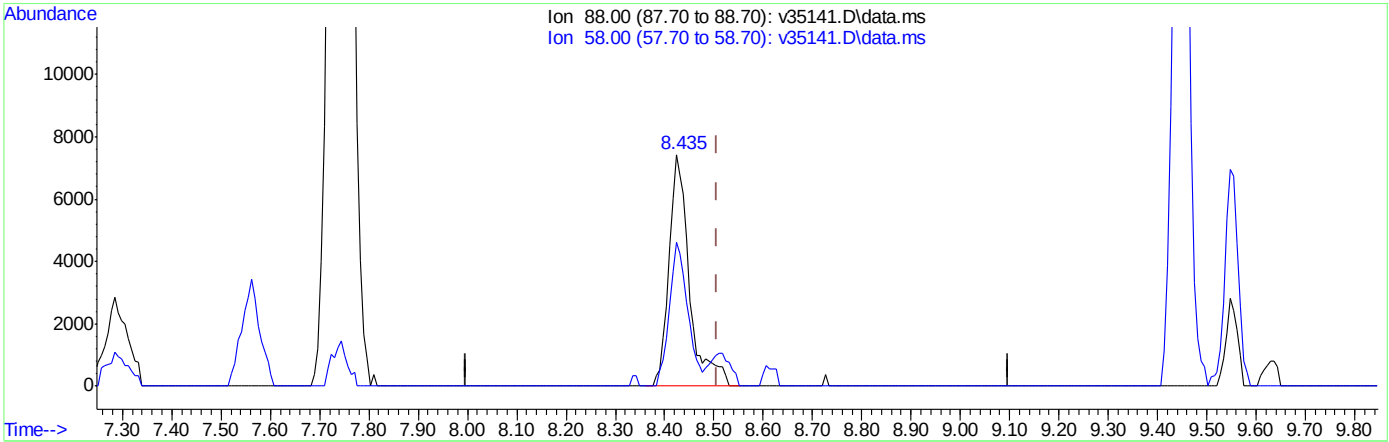
response 685409

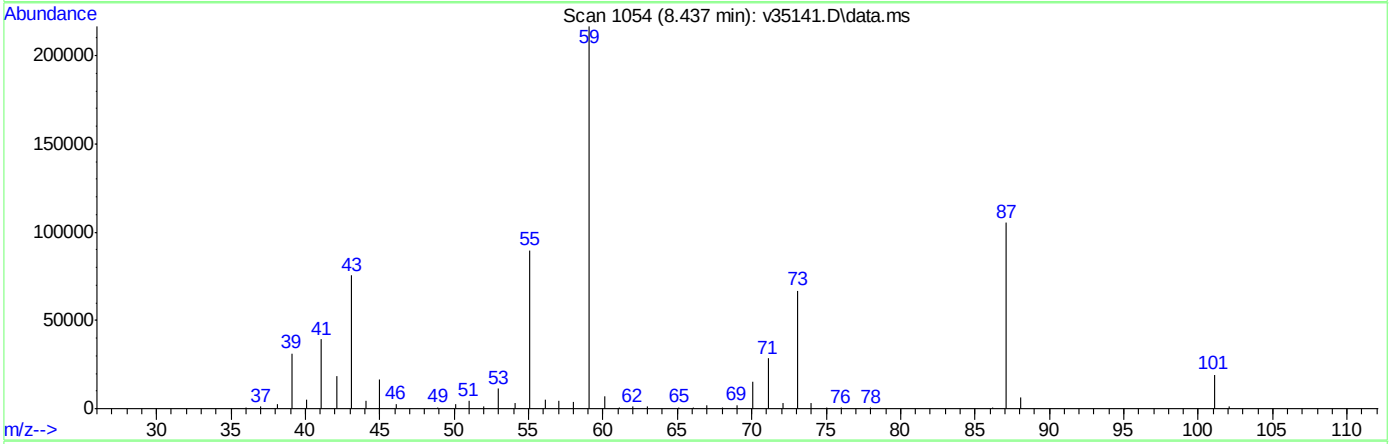
Ion	Exp%	Act%
43.10	100	100
45.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35141.D
Acq On : 1 Oct 2014 7:55 pm
Operator : amym
Sample : mc33785-2msd
Misc : MS32863,MSV1277,,,,5,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 02 08:36:53 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35141.D\data.ms

(58) 1,4-dioxane (p)

8.435min (-0.073) 807.38ug/L

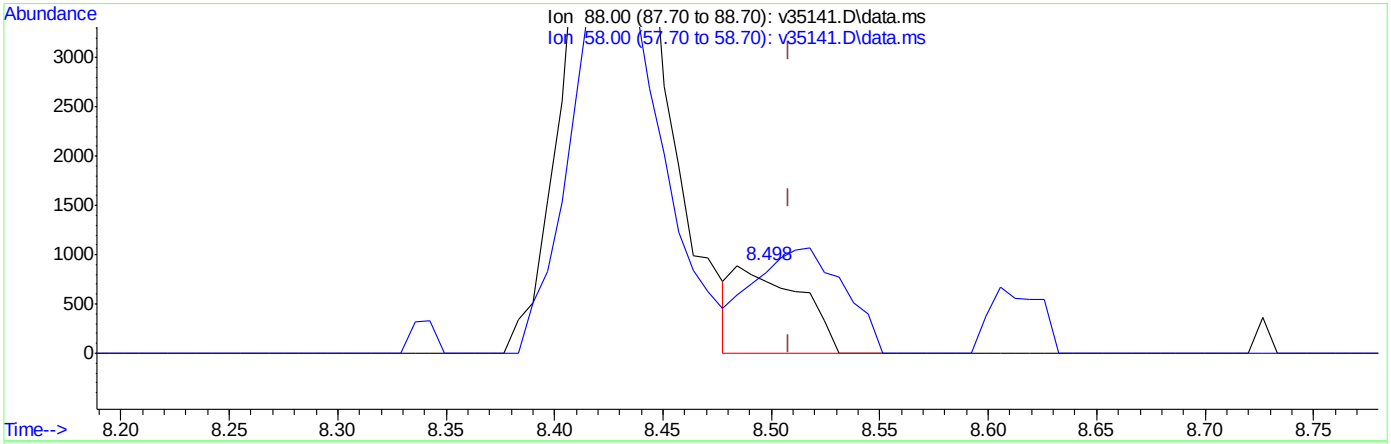
response 21216

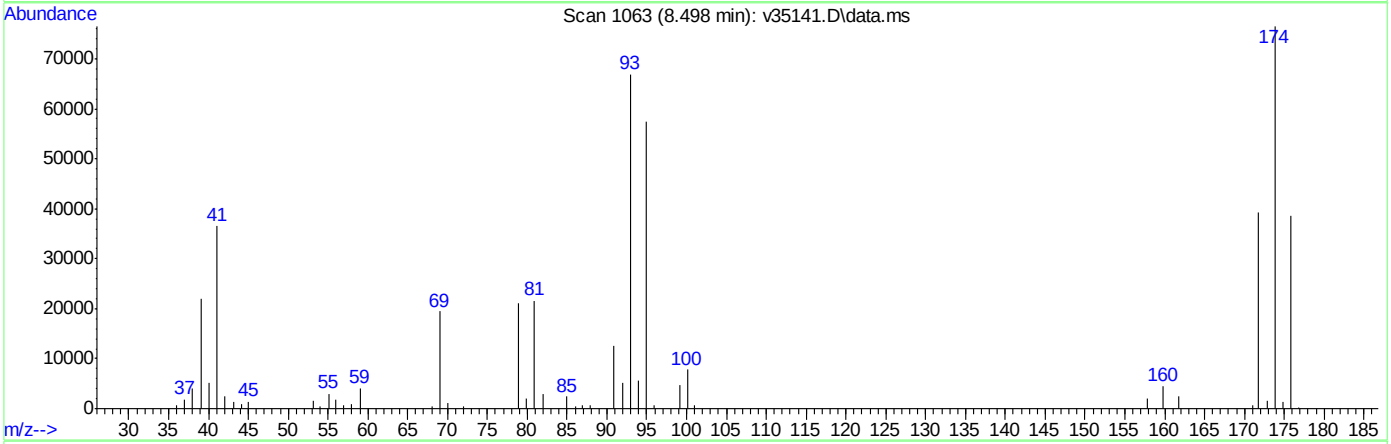
Ion	Exp%	Act%
88.00	100	100
58.00	101.70	58.18#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35141.D
Acq On : 1 Oct 2014 7:55 pm
Operator : amym
Sample : mc33785-2msd
Misc : MS32863,MSV1277,,,,5,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 02 08:36:53 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35141.D\data.ms

(58) 1,4-dioxane (p)

8.498min (-0.010) 83.67ug/L m

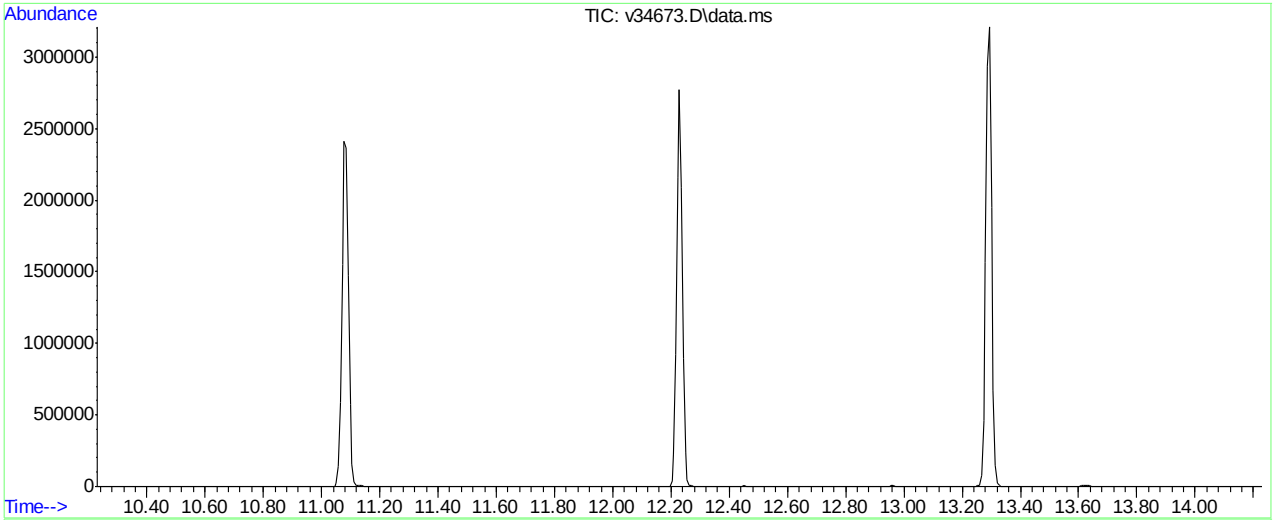
response 1876

Ion	Exp%	Act%
88.00	100	100
58.00	101.70	112.88
0.00	0.00	0.00
0.00	0.00	0.00

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V140917\v34673.D Vial: 6
Acq On : 17 Sep 2014 10:23 am Operator: amym
Sample : bfb Inst : MSV
Misc : MS32743,MSV1262,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\v140917w.m (RTE Integrator)
Title : SW-846 Method 8260



Spectrum Information: Average of 12.223 to 12.236 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.0	111560	PASS
75	95	30	60	47.4	230443	PASS
95	95	100	100	100.0	486059	PASS
96	95	5	9	6.7	32787	PASS
173	174	0.00	2	0.9	3308	PASS
174	95	50	100	78.3	380459	PASS
175	174	5	9	7.2	27307	PASS
176	174	95	101	97.0	368960	PASS
177	176	5	9	6.4	23776	PASS

v34673.D v140917w.m Thu Sep 18 11:21:06 2014

Average of 12.223 to 12.236 min.: v34673.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	4071	48.00	3324	62.00	24200	76.00	20382
37.10	22261	49.00	22712	63.00	17441	76.95	2371
38.05	20755	50.00	111560	64.05	1609	77.95	1504
39.05	8099	51.00	33360	67.00	1189	78.90	14641
39.95	350	52.00	1427	68.00	48861	79.95	3775
43.10	103	55.00	1390	69.00	49523	80.95	14687
44.00	2674	56.00	8518	70.00	3800	81.90	2901
45.00	4741	57.00	15435	72.00	2477	83.00	105
46.00	105	58.00	503	73.00	20427	85.90	355
46.30	119	60.00	4956	74.00	78973	87.00	15256
47.00	7452	61.00	24315	75.00	230443	88.00	15928

Average of 12.223 to 12.236 min.: v34673.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
90.95	1849	106.85	561	127.90	2106	143.70	102
92.00	14152	109.90	206	128.90	980	143.90	264
93.00	21341	110.90	376	129.90	2320	144.90	457
94.00	58843	111.90	244	130.95	833	145.85	784
95.00	486059	112.85	451	134.90	1088	146.85	233
96.00	32787	114.90	532	136.90	1011	147.85	1308
97.05	835	115.90	2160	138.80	137	148.80	125
102.80	111	116.90	3663	139.95	240	149.00	142
103.90	2353	117.90	1912	140.90	5830	149.85	700
104.85	758	118.90	2745	141.90	683	152.95	369
105.90	2267	123.90	424	142.95	5814	153.90	144

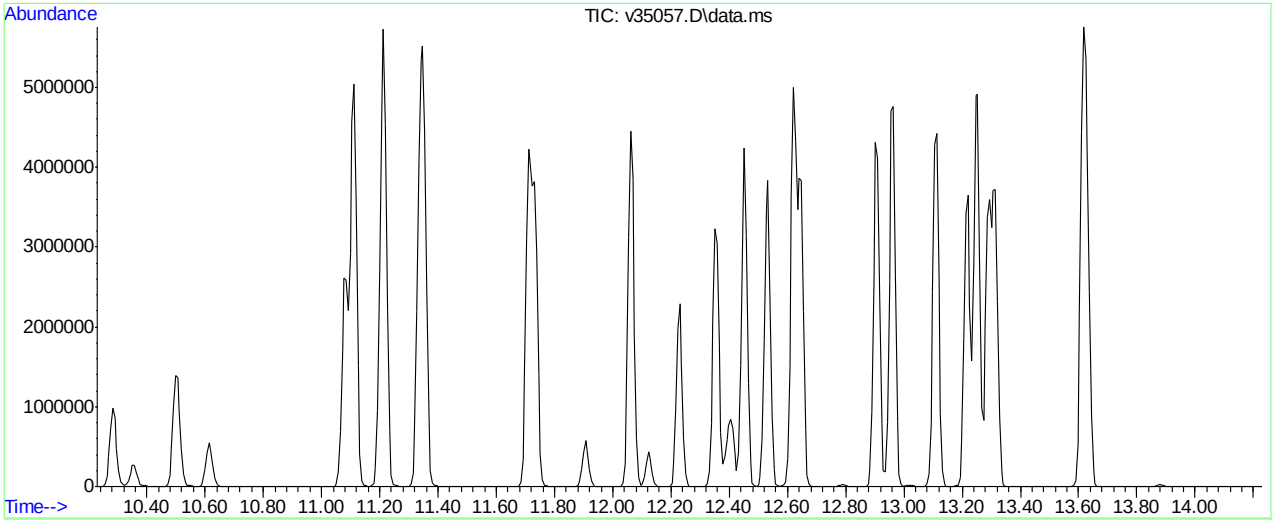
Average of 12.223 to 12.236 min.: v34673.D\data.ms
bfb
Modified:subtracted

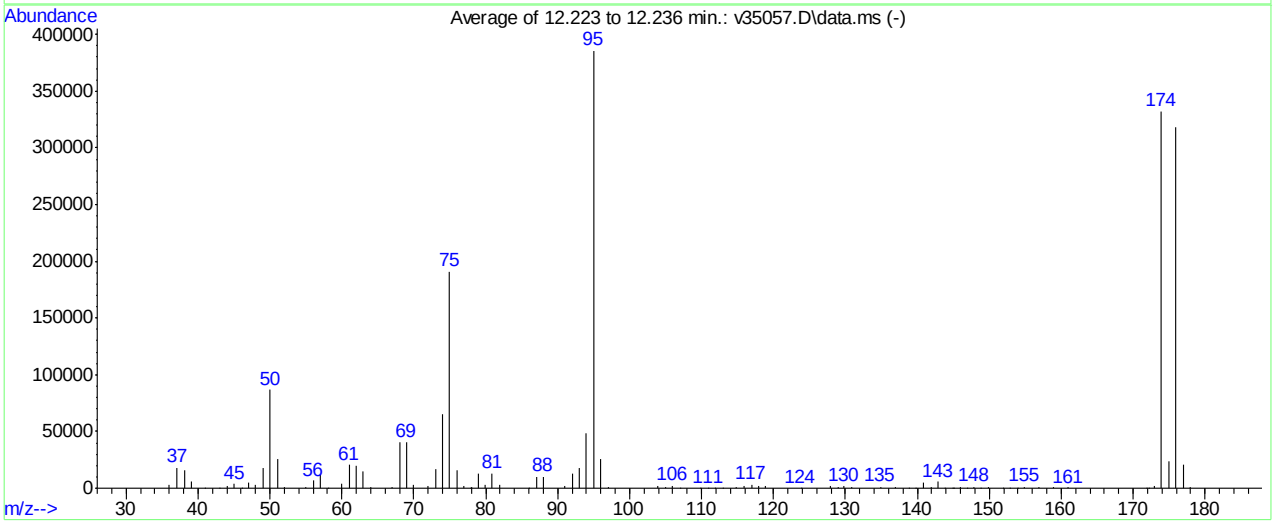
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
154.95	1258						
156.90	1003						
158.90	682						
160.95	679						
173.00	3308						
173.90	380459						
175.00	27307						
175.90	368960						
176.90	23776						
177.90	571						

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V140929\v35057.D Vial: 32
Acq On : 29 Sep 2014 10:10 pm Operator: amym
Sample : bfb Inst : MSV
Misc : MS32838,MSV1275,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\v140917w.m (RTE Integrator)
Title : SW-846 Method 8260





Spectrum Information: Average of 12.223 to 12.236 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.4	86480	PASS
75	95	30	60	49.5	191019	PASS
95	95	100	100	100.0	385792	PASS
96	95	5	9	6.6	25448	PASS
173	174	0.00	2	0.5	1764	PASS
174	95	50	100	86.1	332245	PASS
175	174	5	9	7.3	24117	PASS
176	174	95	101	95.8	318379	PASS
177	176	5	9	6.5	20637	PASS

v35057.D v140917w.m Tue Sep 30 16:50:16 2014

Average of 12.223 to 12.236 min.: v35057.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	3475	49.00	17492	63.00	14986	77.00	1680
37.10	18155	50.00	86480	64.00	1330	77.90	348
38.10	15818	51.05	25787	67.00	962	78.05	614
39.05	6236	52.05	1221	68.00	40101	78.90	12848
40.90	111	55.05	1272	69.00	40757	79.95	3351
43.05	261	56.05	6865	70.00	2789	80.90	12880
44.00	1997	57.05	12062	72.00	2013	81.90	2587
45.05	3557	58.05	445	73.00	16536	86.00	170
46.10	230	60.00	3852	74.00	65248	87.00	10156
47.00	4607	61.00	20384	75.00	191019	88.00	10234
48.00	2566	62.00	19657	76.00	16294	90.90	1690

Average of 12.223 to 12.236 min.: v35057.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.00	12799	110.95	331	129.85	1928	145.10	168
93.00	17710	111.85	228	130.85	629	145.95	701
94.00	48936	112.95	415	134.90	1004	146.90	164
95.00	385792	114.85	550	136.95	925	147.90	1172
96.00	25448	115.90	1749	138.80	119	148.85	273
97.05	664	116.95	3043	139.70	114	149.85	630
103.95	1894	117.90	1769	140.90	5255	151.90	103
104.95	799	118.90	2400	141.95	702	152.85	346
105.95	2023	123.85	261	142.90	5607	153.90	278
106.95	427	127.90	1715	143.85	276	154.90	1027
109.90	118	128.95	828	144.90	242	156.90	865

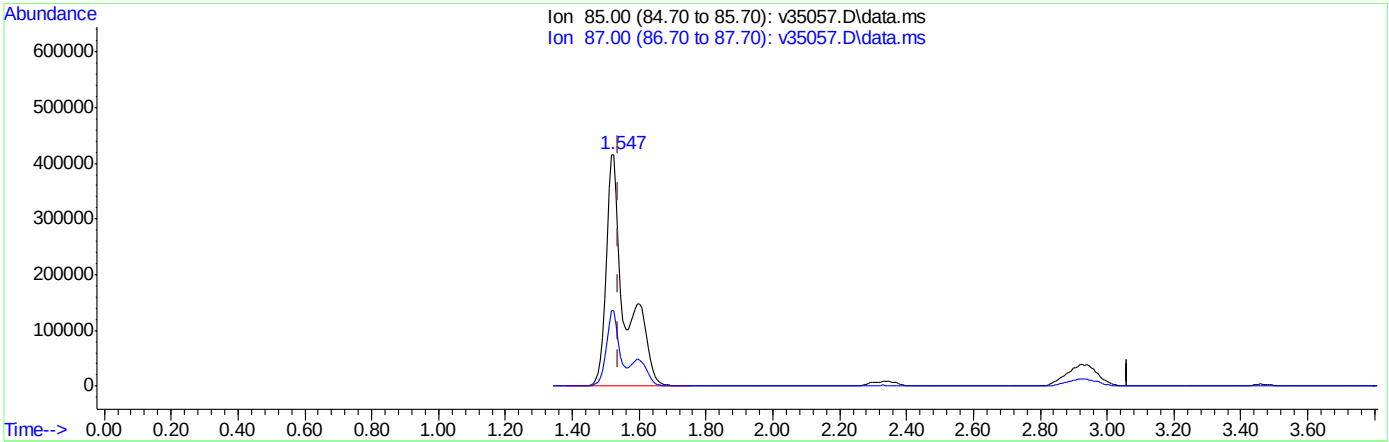
Average of 12.223 to 12.236 min.: v35057.D\data.ms
bfb
Modified:subtracted

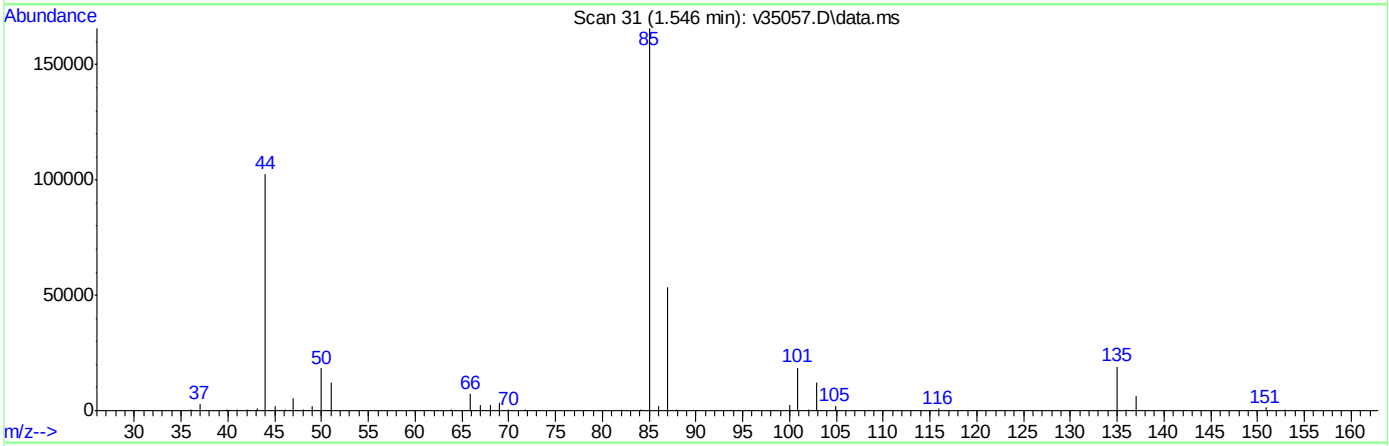
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
158.85	591						
161.00	624						
171.85	357						
172.10	129						
173.00	1764						
173.90	332245						
175.00	24117						
175.90	318379						
176.95	20637						
177.90	600						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35057.D
Acq On : 29 Sep 2014 10:10 pm
Operator : amym
Sample : cc1262-50
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 30 09:06:11 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35057.D\data.ms

(5) dichlorodifluoromethane (p)

1.547min (+0.008) 91.53ug/L

response 1642147

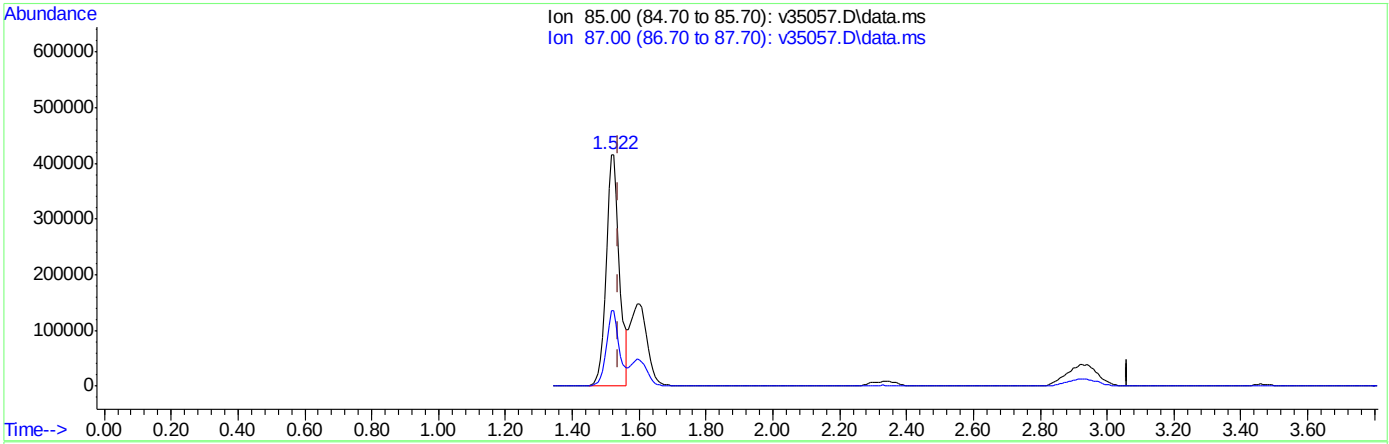
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	32.16
0.00	0.00	0.00
0.00	0.00	0.00

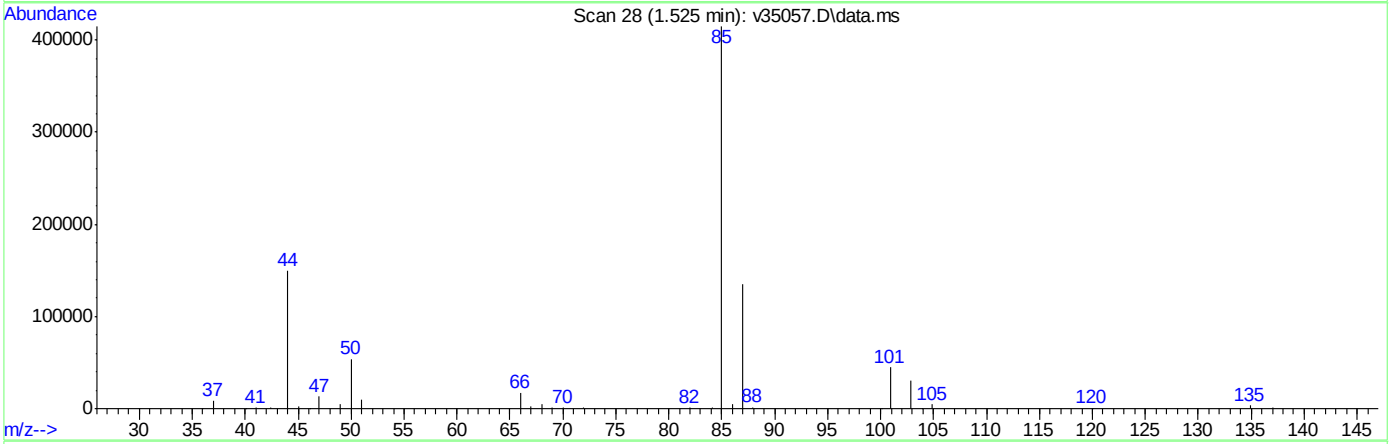
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35057.D
Acq On : 29 Sep 2014 10:10 pm
Operator : amym
Sample : cc1262-50
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 30 09:06:11 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35057.D\data.ms

(5) dichlorodifluoromethane (p)

1.525min (-0.014) 61.75ug/L m

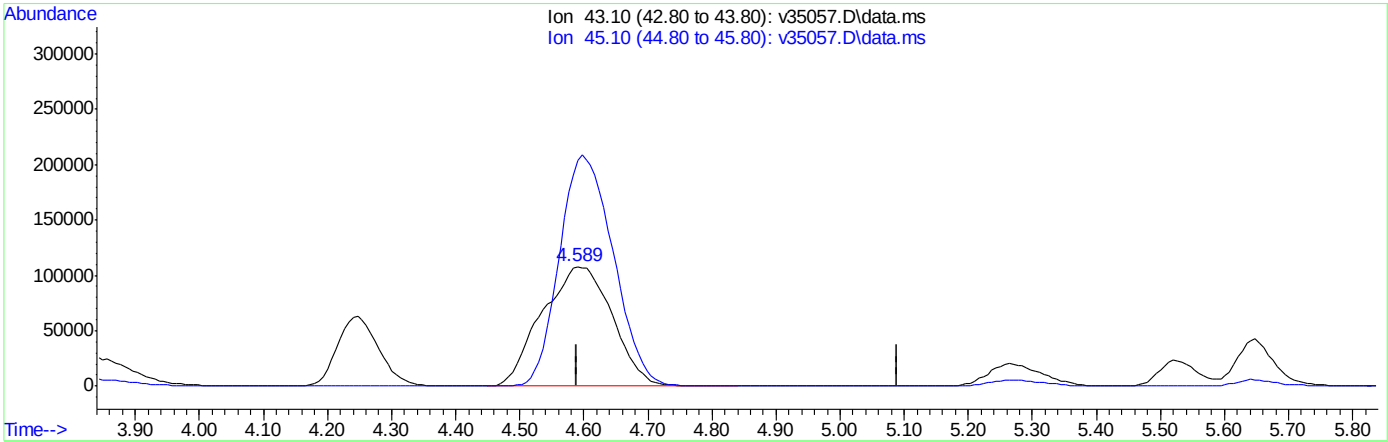
response 1107810

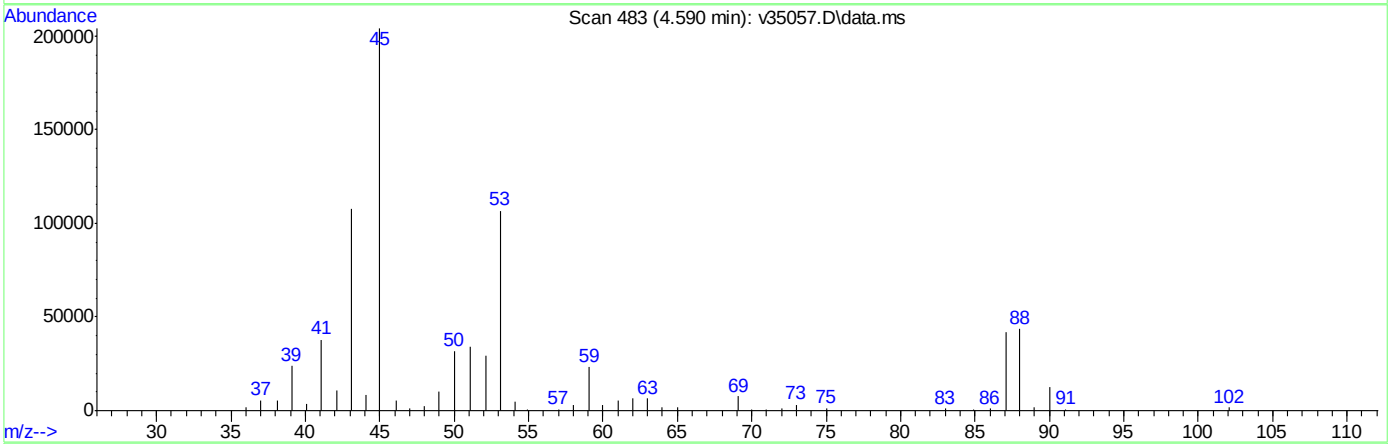
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	32.55
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35057.D
Acq On : 29 Sep 2014 10:10 pm
Operator : amym
Sample : cc1262-50
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 30 09:06:11 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35057.D\data.ms

(37) ethyl acetate (p)

4.590min (+0.000) 38.61ug/L m

response 823657

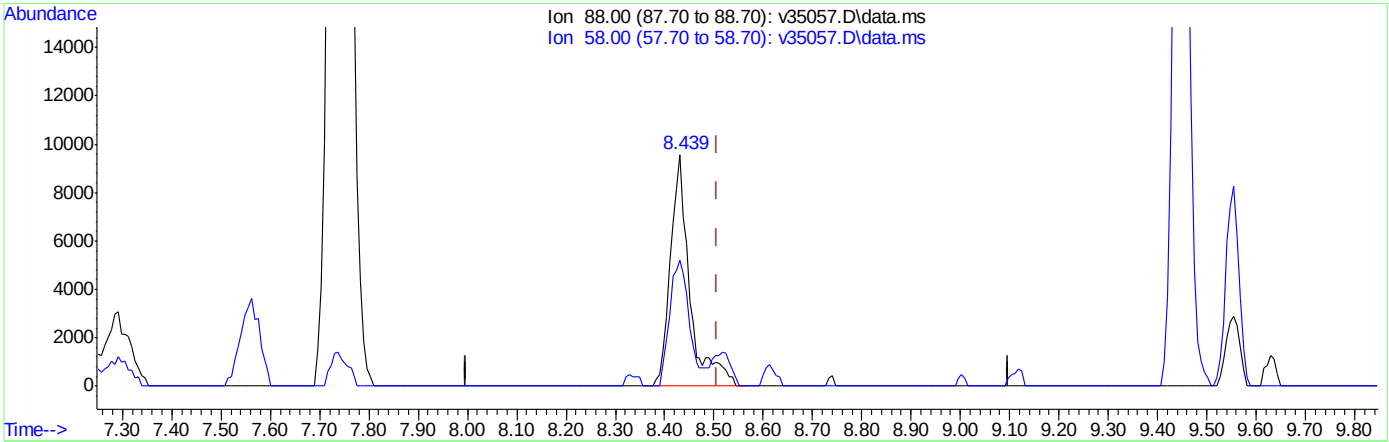
Ion	Exp%	Act%
43.10	100	100
45.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

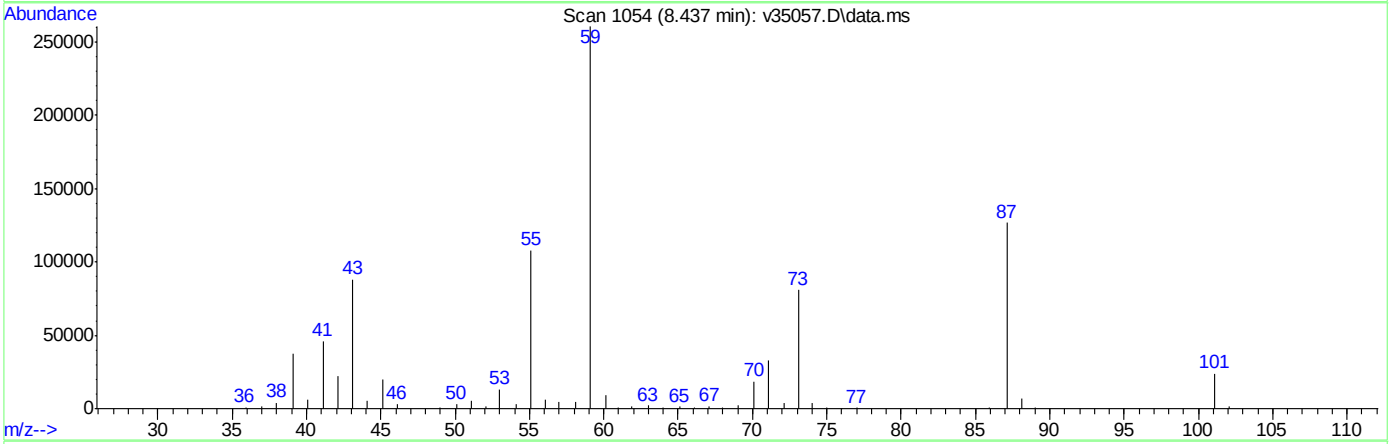
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35057.D
Acq On : 29 Sep 2014 10:10 pm
Operator : amym
Sample : cc1262-50
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 30 09:06:11 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35057.D\data.ms

(58) 1,4-dioxane (p)

8.439min (-0.069) 874.17ug/L

response 25983

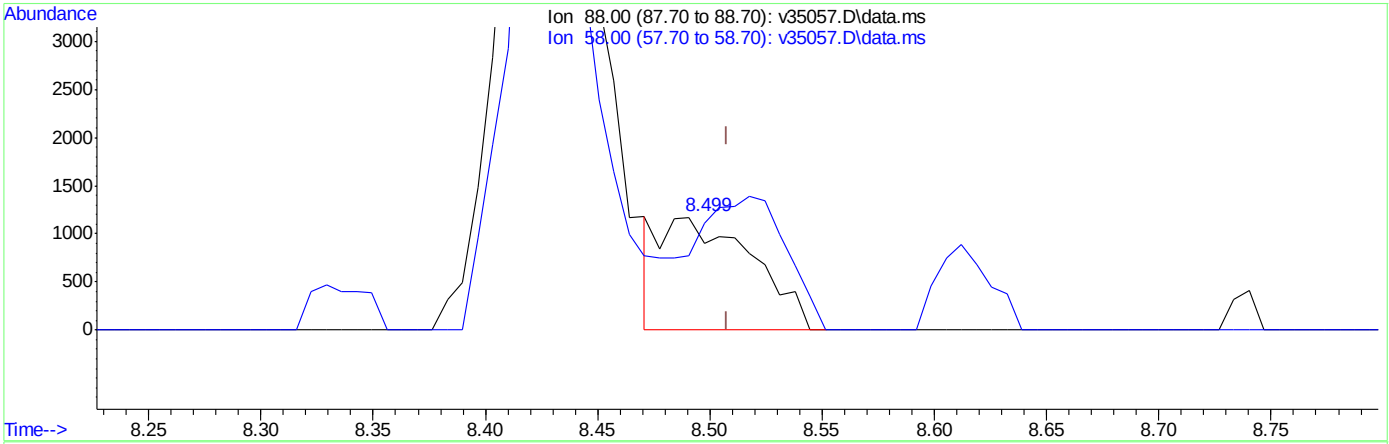
Ion	Exp%	Act%
88.00	100	100
58.00	101.70	66.85#
0.00	0.00	0.00
0.00	0.00	0.00

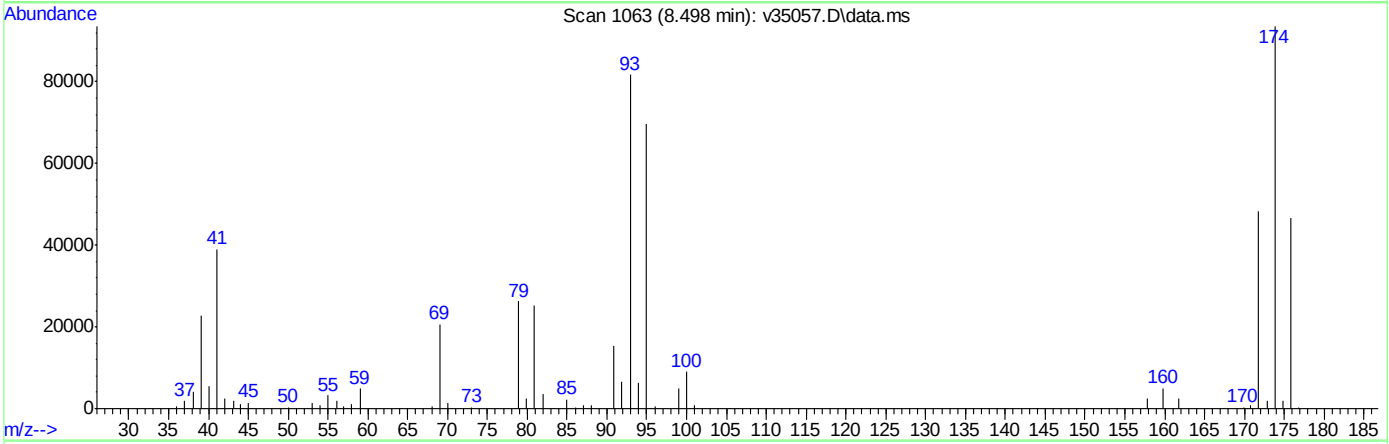
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35057.D
Acq On : 29 Sep 2014 10:10 pm
Operator : amym
Sample : cc1262-50
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 30 09:06:11 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35057.D\data.ms

(58) 1,4-dioxane (p)

8.498min (-0.010) 123.61ug/L m

response 3325

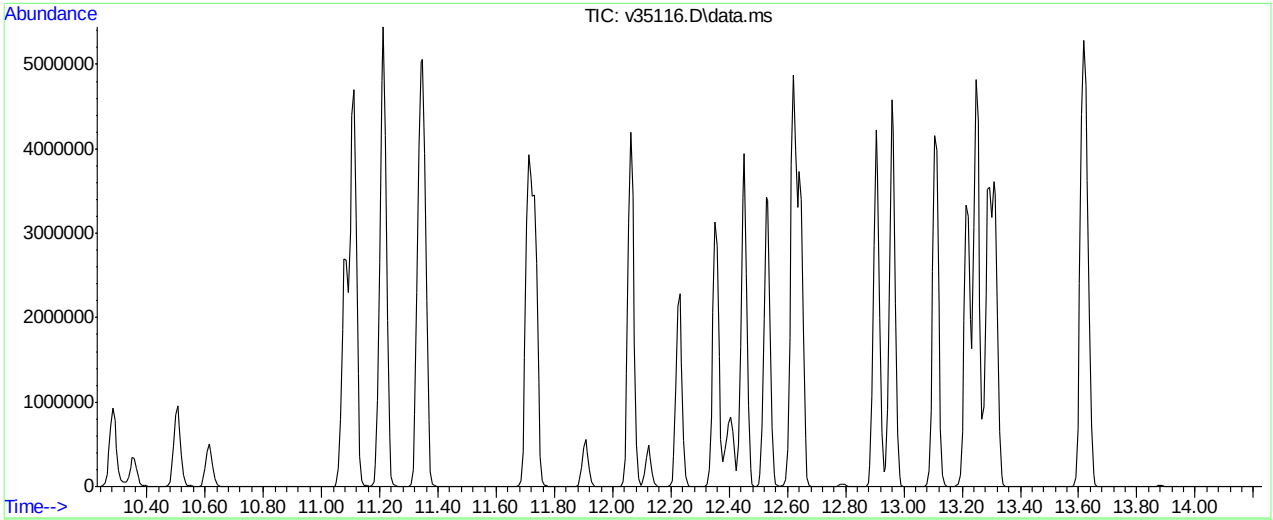
Ion	Exp%	Act%
88.00	100	100
58.00	101.70	123.69
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33933

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V141001\v35116.D Vial: 2
Acq On : 1 Oct 2014 8:49 am Operator: amym
Sample : bfb Inst : MSV
Misc : MS32846,MSV1277,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\v140917w.m (RTE Integrator)
Title : SW-846 Method 8260



Spectrum Information: Average of 12.223 to 12.236 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.0	85659	PASS
75	95	30	60	49.4	192619	PASS
95	95	100	100	100.0	390187	PASS
96	95	5	9	6.8	26363	PASS
173	174	0.00	2	0.6	1977	PASS
174	95	50	100	86.7	338304	PASS
175	174	5	9	7.4	24936	PASS
176	174	95	101	97.1	328640	PASS
177	176	5	9	6.4	21037	PASS

v35116.D v140917w.m Wed Oct 01 17:44:54 2014

Average of 12.223 to 12.236 min.: v35116.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	3035	50.05	85659	64.00	1399	77.05	1733
37.10	17728	51.00	25725	64.95	217	78.05	929
38.00	15350	52.00	1047	67.00	997	78.90	12225
39.05	5785	55.00	546	68.00	40624	79.95	3236
39.95	123	56.00	6838	69.00	41245	80.90	13197
43.05	277	57.00	12659	70.00	2943	81.95	2510
44.00	2273	58.05	503	72.00	2131	86.00	100
45.00	3559	60.00	4293	73.00	17146	87.00	10004
47.05	4398	61.00	20148	74.00	66323	87.95	10369
48.00	2544	62.00	20662	75.00	192619	90.90	1487
49.00	17876	63.05	14245	76.00	16530	92.00	12504

Average of 12.223 to 12.236 min.: v35116.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.00	18320	110.90	390	128.95	950	146.90	425
94.00	49640	111.90	101	129.90	1964	147.90	1364
95.00	390187	112.95	257	130.95	793	148.90	123
96.00	26363	114.95	452	134.90	937	149.95	676
97.05	680	115.90	1792	136.90	851	151.90	244
102.80	102	116.95	3030	139.95	251	152.95	346
103.90	2051	117.90	1772	140.95	5458	153.85	360
104.90	646	118.90	2699	141.90	768	154.90	1198
105.90	2051	123.80	125	142.95	5916	156.90	891
106.85	372	123.95	225	144.90	464	158.85	639
109.90	122	127.90	1978	145.90	686	160.95	708

Average of 12.223 to 12.236 min.: v35116.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
171.80	230						
173.00	1977						
173.90	338304						
174.95	24936						
175.95	328640						
176.90	21037						
177.90	390						
178.10	141						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34678.D
Acq On : 17 Sep 2014 12:36 pm
Operator : amym
Sample : ic1262-0.25
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 18 08:24:23 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

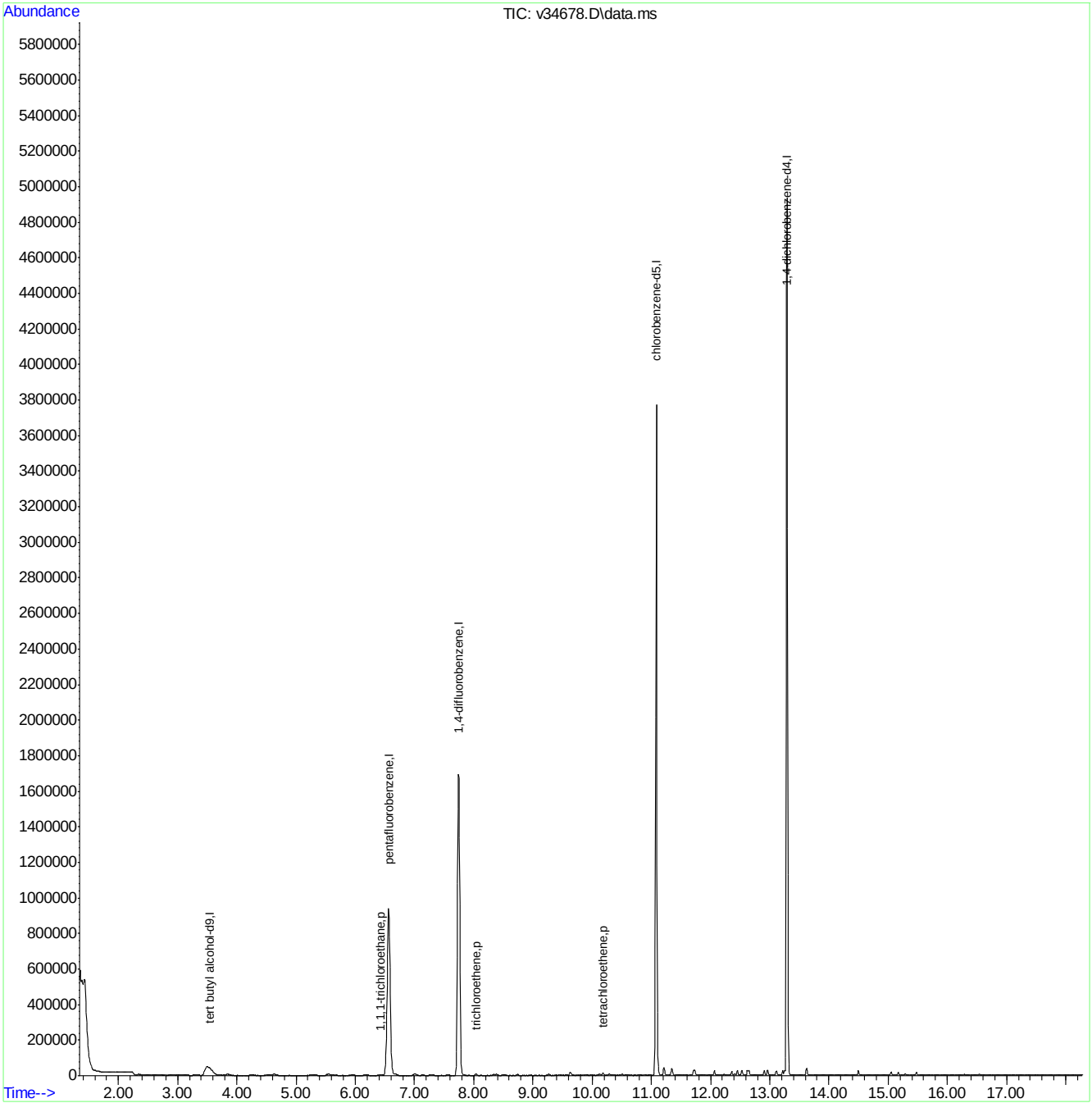
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.536	65	133163	500.00	ug/L	# 0.00
4) pentafluorobenzene	6.566	168	1083448	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.747	114	1836117	50.00	ug/L	0.00
66) chlorobenzene-d5	11.082	82	957476	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.293	152	1071471	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	0.000	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#		
60) toluene-d8 (s)	0.000	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#		
82) bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#		
Target Compounds						Qvalue
42) 1,1,1-trichloroethane	6.424	97	5109	0.22	ug/L	87
51) trichloroethene	8.038	95	3651	0.29	ug/L	88
67) tetrachloroethene	10.185	166	3973	0.27	ug/L	90

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34678.D
Acq On : 17 Sep 2014 12:36 pm
Operator : amym
Sample : ic1262-0.25
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 18 08:24:23 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34679.D
Acq On : 17 Sep 2014 1:02 pm
Operator : amym
Sample : ic1262-0.5
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 17 16:38:17 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

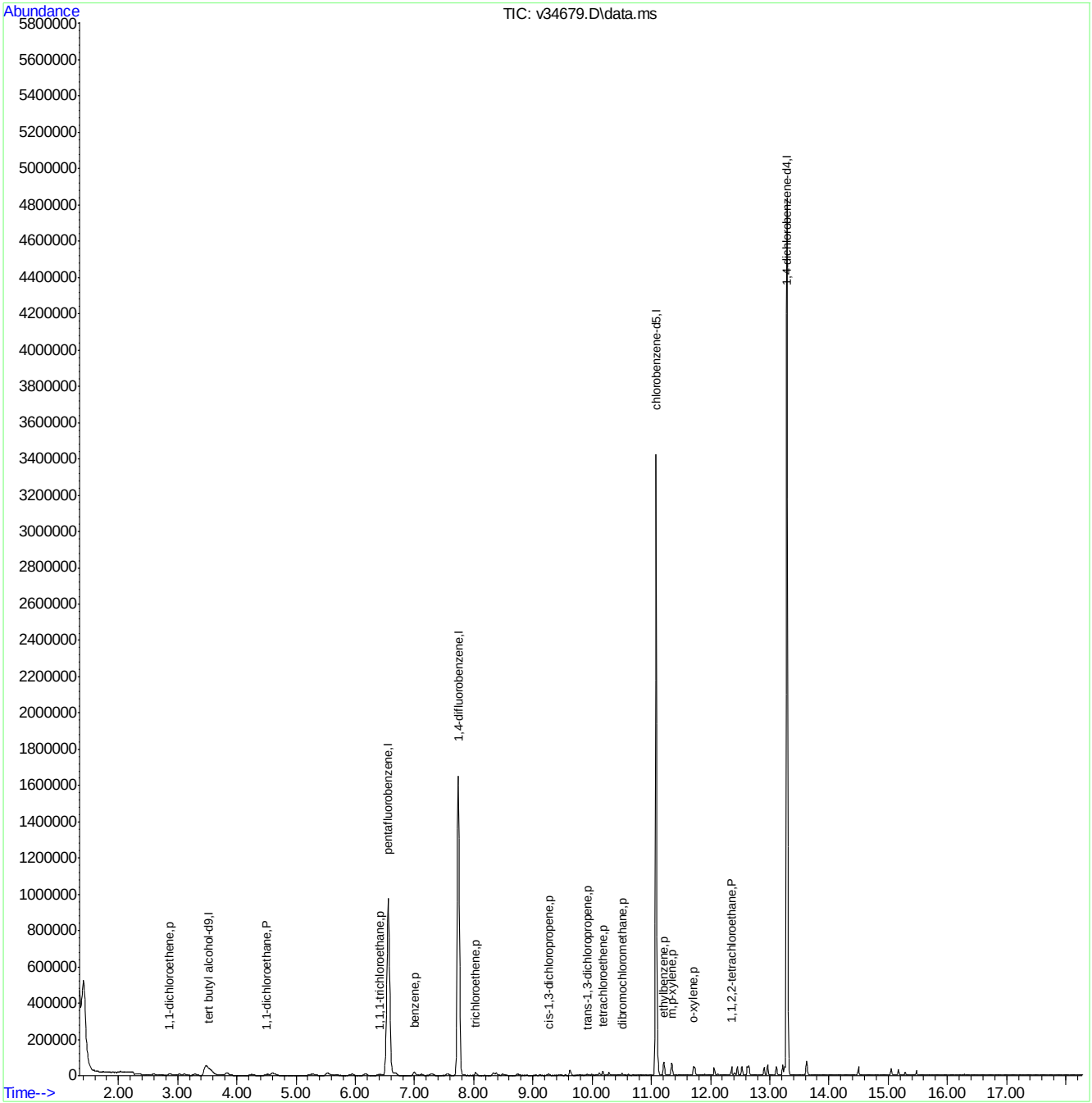
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.525	65	135148	500.00	ug/L	#-0.01
4) pentafluorobenzene	6.559	168	1068414	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.742	114	1734513	50.00	ug/L	0.00
66) chlorobenzene-d5	11.081	82	850698	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.293	152	1060273	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	0.000	113	0d	0.00	ug/L	
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#		
60) toluene-d8 (s)	0.000	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#		
82) bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#		
Target Compounds						Qvalue
15) 1,1-dichloroethene	2.861	96	4053	0.42	ug/L	94
32) 1,1-dichloroethane	4.508	63	11446	0.56	ug/L	98
42) 1,1,1-trichloroethane	6.414	97	10008	0.44	ug/L	88
47) benzene	7.003	78	21246	0.60	ug/L	96
51) trichloroethene	8.034	95	6511	0.54	ug/L #	80
59) cis-1,3-dichloropropene	9.265	75	5270	0.39	ug/L	86
63) trans-1,3-dichloropropene	9.917	75	4241	0.40	ug/L	89
67) tetrachloroethene	10.182	166	6219	0.48	ug/L	96
69) dibromochloromethane	10.505	129	5283	0.44	ug/L	100
74) ethylbenzene	11.215	91	27893	0.50	ug/L	96
75) m,p-xylene	11.346	106	21006	0.97	ug/L	94
76) o-xylene	11.712	106	10958	0.48	ug/L	99
84) 1,1,2,2-tetrachloroethane	12.359	83	5424	0.53	ug/L	85

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34679.D
Acq On : 17 Sep 2014 1:02 pm
Operator : amym
Sample : ic1262-0.5
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 17 16:38:17 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34680.D
Acq On : 17 Sep 2014 1:28 pm
Operator : amym
Sample : ic1262-1
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 17 16:41:43 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.538	65	139473	500.00	ug/L		0.00
4) pentafluorobenzene	6.567	168	1130596	50.00	ug/L		0.00
43) 1,4-difluorobenzene	7.748	114	1890164	50.00	ug/L		0.00
66) chlorobenzene-d5	11.083	82	919789	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	13.293	152	1064594	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	0.000	113	0d	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
60) toluene-d8 (s)	0.000	98	0d	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
82) bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.627	59	3715	9.30	ug/L		91
3) Ethanol	2.618	45	7443	108.43	ug/L	#	100
5) dichlorodifluoromethane	1.560	85	24903	0.97	ug/L		90
6) chloromethane	1.647	50	17561	0.94	ug/L		96
7) vinyl chloride	1.763	62	14726	0.83	ug/L		95
8) bromomethane	2.053	96	11150	0.91	ug/L		99
9) chloroethane	2.147	64	6996	1.01	ug/L		98
10) ethyl ether	2.615	59	6243	0.97	ug/L		77
11) acetonitrile	3.306	41	16380	0.90	ug/L	#	30
12) trichlorofluoromethane	2.366	101	22984	0.79	ug/L		88
13) freon-113	2.940	101	8384	0.52	ug/L		82
15) 1,1-dichloroethene	2.881	96	7300	0.72	ug/L	#	79
18) methylene chloride	3.480	84	12174	1.15	ug/L		89
19) methyl tert butyl ether	3.856	73	20041	1.02	ug/L		97
20) acrylonitrile	3.787	53	2932	1.02	ug/L	#	64
21) allyl chloride	3.306	41	16380	0.90	ug/L		93
22) trans-1,2-dichloroethene	3.850	96	9548	0.88	ug/L		92
23) iodomethane	3.049	142	25635	0.96	ug/L		91
24) carbon disulfide	3.136	76	29045	0.83	ug/L		96
27) chloroprene	4.631	53	12058	0.67	ug/L		77
28) di-isopropyl ether	4.619	45	37818	0.91	ug/L		92
29) methacrylonitrile	5.924	41	5003	1.04	ug/L	#	66
32) 1,1-dichloroethane	4.520	63	20705	0.95	ug/L		96
33) tert-butyl ethyl ether	5.285	59	26085	0.87	ug/L		93
36) cis-1,2-dichloroethene	5.539	96	10622	0.92	ug/L		92
38) bromochloromethane	5.958	128	6468	1.02	ug/L	#	70
39) chloroform	6.176	83	22243	0.98	ug/L		84
42) 1,1,1-trichloroethane	6.424	97	16637	0.69	ug/L		93
46) 1,1-dichloropropene	6.688	75	10633	0.73	ug/L		89
47) benzene	7.011	78	37919	0.99	ug/L		99
48) 1,2-dichloroethane	7.133	62	17053	1.02	ug/L		83
49) tert-amyl methyl ether	7.298	73	15407	0.84	ug/L		98
51) trichloroethene	8.039	95	11648	0.88	ug/L		96
52) 1,2-dichloropropane	8.387	63	11979	0.98	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34680.D
Acq On : 17 Sep 2014 1:28 pm
Operator : amym
Sample : ic1262-1
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 17 16:41:43 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

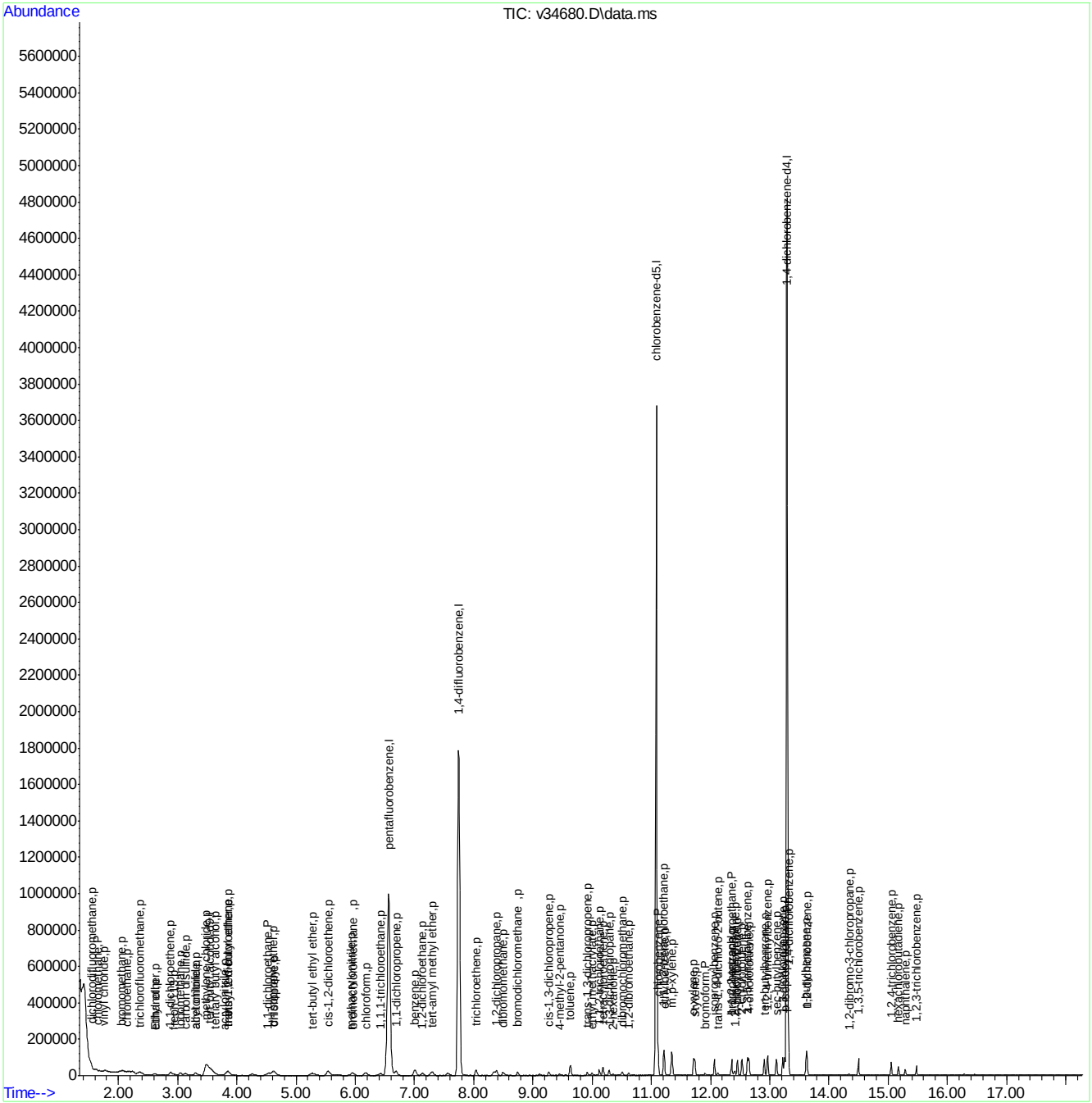
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
53) dibromomethane	8.491	93	6477	1.01	ug/L		92
54) bromodichloromethane	8.742	83	14185	0.86	ug/L		90
59) cis-1,3-dichloropropene	9.268	75	10801	0.73	ug/L		97
61) 4-methyl-2-pentanone	9.452	43	6305	0.80	ug/L	#	85
62) toluene	9.632	92	22691	0.81	ug/L		99
63) trans-1,3-dichloropropene	9.919	75	7403	0.65	ug/L		96
64) 1,1,2-trichloroethane	10.124	83	6837	0.99	ug/L		94
65) ethyl methacrylate	9.999	69	5629	0.64	ug/L		85
67) tetrachloroethene	10.186	166	10997	0.78	ug/L		99
68) 1,3-dichloropropane	10.288	76	12632	0.97	ug/L		86
69) dibromochloromethane	10.508	129	10336	0.79	ug/L		84
70) 1,2-dibromoethane	10.616	107	8534	0.97	ug/L		91
71) 2-hexanone	10.359	43	4857	0.72	ug/L		97
72) chlorobenzene	11.112	112	35840	0.98	ug/L		97
73) 1,1,1,2-tetrachloroethane	11.211	131	11958	0.75	ug/L		94
74) ethylbenzene	11.216	91	50266	0.83	ug/L		97
75) m,p-xylene	11.347	106	39512	1.68	ug/L		92
76) o-xylene	11.714	106	20324	0.82	ug/L		99
77) styrene	11.735	104	31440	0.83	ug/L		98
78) bromoform	11.909	173	5046	0.81	ug/L		89
79) trans-1,4-dichloro-2-b...	12.126	53	3044	0.88	ug/L		77
81) isopropylbenzene	12.065	105	47614	0.70	ug/L		99
83) bromobenzene	12.356	156	15270	0.92	ug/L		96
84) 1,1,2,2-tetrachloroethane	12.360	83	10672	1.05	ug/L		99
85) 1,2,3-trichloropropane	12.410	75	8281	0.72	ug/L		93
86) n-propylbenzene	12.454	91	52530	0.71	ug/L		97
87) 2-chlorotoluene	12.533	91	40592	0.87	ug/L		99
88) 4-chlorotoluene	12.645	91	47926	0.89	ug/L		96
89) 1,3,5-trimethylbenzene	12.623	105	47059	0.75	ug/L		100
90) tert-butylbenzene	12.909	91	24089	0.70	ug/L		91
91) 1,2,4-trimethylbenzene	12.964	105	50273	0.81	ug/L		99
92) sec-butylbenzene	13.112	105	48616	0.66	ug/L		99
93) 1,3-dichlorobenzene	13.221	146	32647	0.93	ug/L		97
94) p-isopropyltoluene	13.253	119	47616	0.68	ug/L		95
95) 1,4-dichlorobenzene	13.315	146	36185	1.02	ug/L		95
96) 1,2-dichlorobenzene	13.632	146	32989	0.99	ug/L		97
97) n-butylbenzene	13.617	91	39970	0.71	ug/L		97
98) 1,2-dibromo-3-chloropr...	14.335	75	1062	0.76	ug/L		84
99) 1,3,5-trichlorobenzene	14.498	180	22860	0.91	ug/L		96
100) 1,2,4-trichlorobenzene	15.054	180	16912	0.84	ug/L		98
101) hexachlorobutadiene	15.174	225	6121	0.72	ug/L		99
102) naphthalene	15.288	128	18825	0.69	ug/L		100
103) 1,2,3-trichlorobenzene	15.477	180	12239	0.87	ug/L		95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34680.D
Acq On : 17 Sep 2014 1:28 pm
Operator : amym
Sample : ic1262-1
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 17 16:41:43 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski 09/18/14 12:06

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34682.D
Acq On : 17 Sep 2014 2:22 pm
Operator : amym
Sample : ic1262-5
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 17 16:42:49 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.531	65	131848	500.00	ug/L		0.00
4) pentafluorobenzene	6.563	168	1094534	50.00	ug/L		0.00
43) 1,4-difluorobenzene	7.745	114	1794258	50.00	ug/L		0.00
66) chlorobenzene-d5	11.082	82	885679	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	13.293	152	1063460	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.444	113	66975	4.94	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	9.88%#			
60) toluene-d8 (s)	9.556	98	181737	4.42	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	8.84%#			
82) bromofluorobenzene (s)	12.230	95	87763	4.63	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	9.26%#			
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.634	59	19153	50.73	ug/L		85
3) Ethanol	2.612	45	37587	579.22	ug/L	#	100
5) dichlorodifluoromethane	1.553	85	132184	5.33	ug/L		97
6) chloromethane	1.642	50	92374	5.11	ug/L		89
7) vinyl chloride	1.756	62	77239	4.50	ug/L		98
8) bromomethane	2.048	96	64388	5.42	ug/L		91
9) chloroethane	2.139	64	34244	5.11	ug/L		87
10) ethyl ether	2.608	59	32411	5.21	ug/L		98
11) acetonitrile	3.302	41	81271	4.63	ug/L	#	21
12) trichlorofluoromethane	2.360	101	114953	4.09	ug/L		96
13) freon-113	2.932	101	54261	3.50	ug/L		90
14) acrolein	2.764	56	11443	34.68	ug/L		92
15) 1,1-dichloroethene	2.874	96	40496	4.13	ug/L		97
16) acetone	2.910	58	5231	5.08	ug/L		96
17) Methyl Acetate	3.285	43	23606	5.57	ug/L	#	89
18) methylene chloride	3.474	84	54475	5.34	ug/L		91
19) methyl tert butyl ether	3.853	73	87581	4.60	ug/L		94
20) acrylonitrile	3.788	53	14142	5.07	ug/L		94
21) allyl chloride	3.302	41	81274	4.63	ug/L		99
22) trans-1,2-dichloroethene	3.845	96	50500	4.80	ug/L		93
23) iodomethane	3.042	142	126524	4.89	ug/L		98
24) carbon disulfide	3.128	76	149546	4.39	ug/L		98
25) propionitrile	5.646	54	3881	4.40	ug/L		100
26) vinyl acetate	4.589	43	143187	4.60	ug/L		94
27) chloroprene	4.626	53	70141	4.02	ug/L		92
28) di-isopropyl ether	4.614	45	189999	4.70	ug/L		97
29) methacrylonitrile	5.923	41	22721	4.90	ug/L		98
30) 2-butanone	5.535	72	2516	3.57	ug/L	#	47
31) Hexane	4.256	41	40124	3.52	ug/L	#	94
32) 1,1-dichloroethane	4.516	63	103140	4.91	ug/L		97
33) tert-butyl ethyl ether	5.282	59	128574	4.41	ug/L		96
34) isobutyl alcohol	4.589	43	143187	22.98	ug/L		87
35) 2,2-dichloropropane	5.556	77	62238	3.61	ug/L		99
36) cis-1,2-dichloroethene	5.537	96	55470	4.94	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34682.D
Acq On : 17 Sep 2014 2:22 pm
Operator : amym
Sample : ic1262-5
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 17 16:42:49 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	4.591	43	143188m	4.61	ug/L		
38) bromochloromethane	5.957	128	30530	5.00	ug/L		93
39) chloroform	6.173	83	109159	4.98	ug/L		97
41) Tetrahydrofuran	5.965	42	7470	4.40	ug/L		81
42) 1,1,1-trichloroethane	6.420	97	91788	3.95	ug/L		97
44) Cyclohexane	6.537	56	102065	4.34	ug/L	#	84
45) carbon tetrachloride	6.675	117	80922	3.52	ug/L		93
46) 1,1-dichloropropene	6.685	75	54557	3.97	ug/L		95
47) benzene	7.006	78	172892	4.75	ug/L		95
48) 1,2-dichloroethane	7.130	62	81816	5.15	ug/L		96
49) tert-amyl methyl ether	7.296	73	73823	4.26	ug/L		99
50) heptane	7.562	43	51310	3.46	ug/L		95
51) trichloroethene	8.037	95	56479	4.52	ug/L		97
52) 1,2-dichloropropane	8.385	63	53460	4.62	ug/L		96
53) dibromomethane	8.490	93	29920	4.90	ug/L		92
54) bromodichloromethane	8.740	83	72256	4.59	ug/L		96
55) Methylcyclohexane	8.341	83	55805	3.34	ug/L	#	82
56) 2-chloroethyl vinyl ether	9.116	63	19420	4.21	ug/L		94
57) methyl methacrylate	8.519	69	13941	3.96	ug/L		93
58) 1,4-dioxane	8.498	88	397m	10.01	ug/L		
59) cis-1,3-dichloropropene	9.267	75	55098	3.90	ug/L		100
61) 4-methyl-2-pentanone	9.452	43	31036	4.16	ug/L		99
62) toluene	9.631	92	119657	4.51	ug/L		96
63) trans-1,3-dichloropropene	9.919	75	39987	3.68	ug/L		97
64) 1,1,2-trichloroethane	10.123	83	31717	4.83	ug/L		89
65) ethyl methacrylate	9.998	69	29709	3.54	ug/L		98
67) tetrachloroethene	10.184	166	56488	4.17	ug/L		98
68) 1,3-dichloropropane	10.286	76	58885	4.72	ug/L		97
69) dibromochloromethane	10.506	129	51488	4.08	ug/L		98
70) 1,2-dibromoethane	10.615	107	37489	4.44	ug/L		98
71) 2-hexanone	10.360	43	24549	3.80	ug/L		96
72) chlorobenzene	11.111	112	171029	4.88	ug/L		96
73) 1,1,1,2-tetrachloroethane	11.211	131	66240	4.29	ug/L		97
74) ethylbenzene	11.216	91	263638	4.52	ug/L		99
75) m,p-xylene	11.347	106	209650	9.26	ug/L		98
76) o-xylene	11.714	106	107819	4.53	ug/L		94
77) styrene	11.734	104	169987	4.65	ug/L		95
78) bromoform	11.909	173	24560	4.07	ug/L		99
79) trans-1,4-dichloro-2-b...	12.125	53	14126	4.25	ug/L		98
81) isopropylbenzene	12.065	105	273061	4.01	ug/L		96
83) bromobenzene	12.356	156	77871	4.68	ug/L		95
84) 1,1,2,2-tetrachloroethane	12.361	83	49493	4.85	ug/L		99
85) 1,2,3-trichloropropane	12.409	75	41886	3.64	ug/L		93
86) n-propylbenzene	12.454	91	314968	4.28	ug/L		98
87) 2-chlorotoluene	12.533	91	214930	4.60	ug/L		94
88) 4-chlorotoluene	12.644	91	261033	4.83	ug/L		97
89) 1,3,5-trimethylbenzene	12.623	105	269560	4.31	ug/L		98
90) tert-butylbenzene	12.909	91	136400	3.95	ug/L		96
91) 1,2,4-trimethylbenzene	12.963	105	281509	4.52	ug/L		96
92) sec-butylbenzene	13.112	105	287050	3.92	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34682.D
Acq On : 17 Sep 2014 2:22 pm
Operator : amym
Sample : ic1262-5
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 17 16:42:49 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

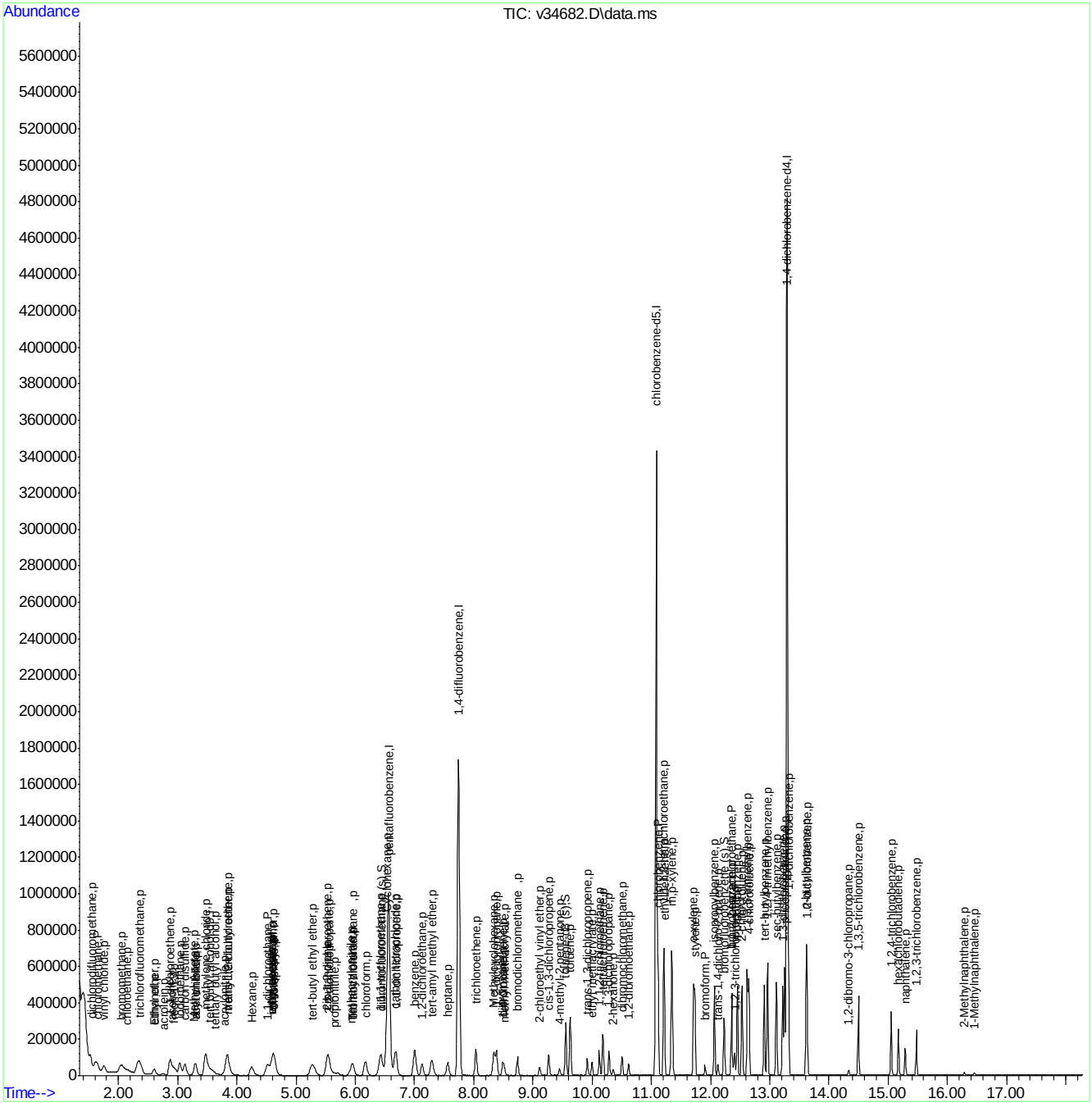
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	1,3-dichlorobenzene	13.220	146	169289	4.82	ug/L	100
94)	p-isopropyltoluene	13.253	119	286009	4.08	ug/L	99
95)	1,4-dichlorobenzene	13.315	146	174365	4.94	ug/L	99
96)	1,2-dichlorobenzene	13.632	146	161584	4.86	ug/L	98
97)	n-butylbenzene	13.617	91	234360	4.15	ug/L	100
98)	1,2-dibromo-3-chloropr...	14.334	75	5884	4.21	ug/L	91
99)	1,3,5-trichlorobenzene	14.498	180	113121	4.50	ug/L	98
100)	1,2,4-trichlorobenzene	15.054	180	84067	4.19	ug/L	93
101)	hexachlorobutadiene	15.174	225	34125	4.03	ug/L	99
102)	naphthalene	15.288	128	96620	3.52	ug/L	100
103)	1,2,3-trichlorobenzene	15.477	180	59573	4.22	ug/L	99
104)	2-Methylnaphthalene	16.286	142	7600	1.27	ug/L	96
105)	1-Methylnaphthalene	16.457	142	4400	1.21	ug/L	83

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34682.D
Acq On : 17 Sep 2014 2:22 pm
Operator : amym
Sample : ic1262-5
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

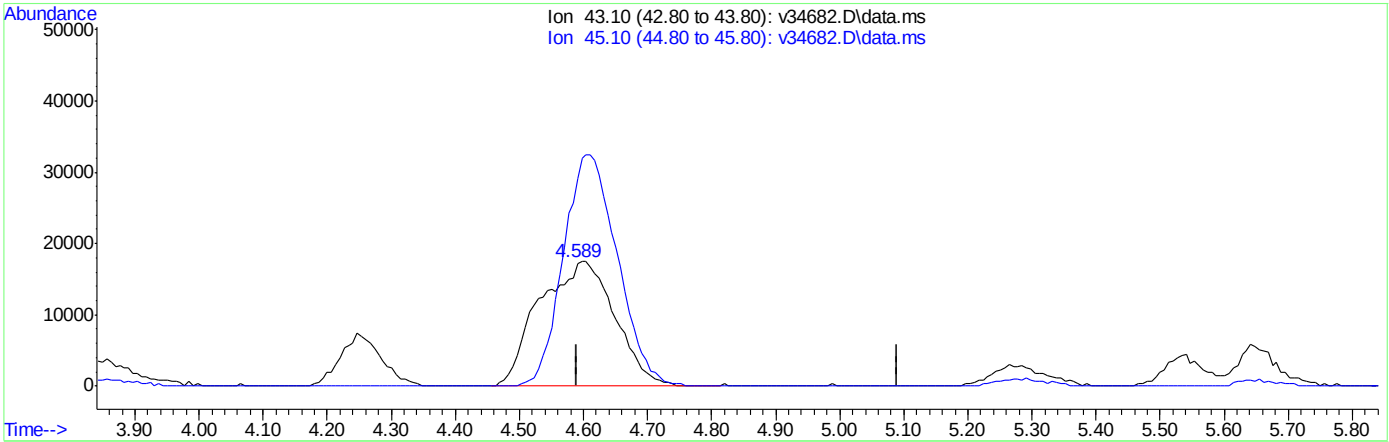
Quant Time: Sep 17 16:42:49 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

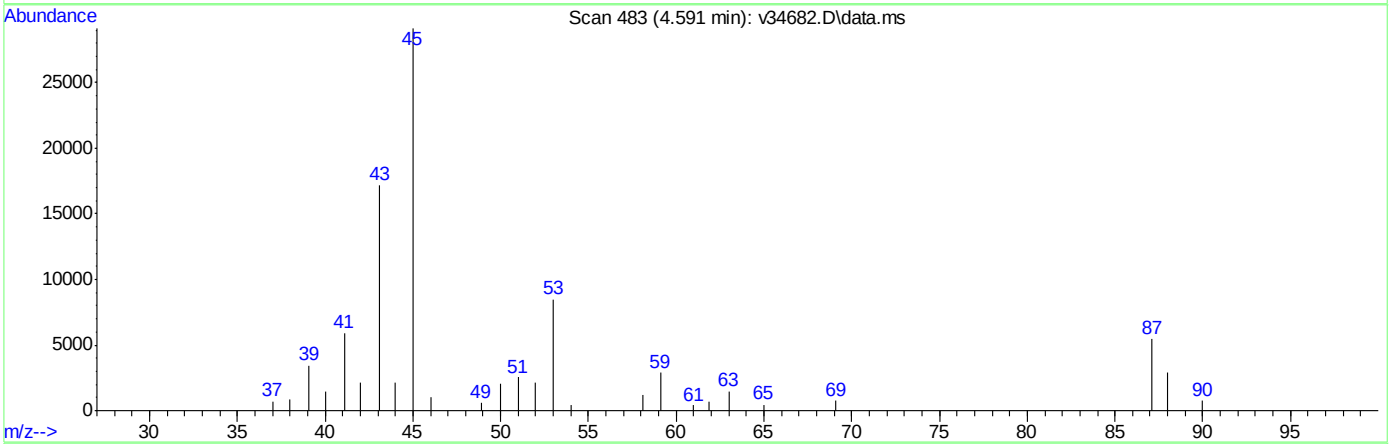


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34682.D
Acq On : 17 Sep 2014 2:22 pm
Operator : amym
Sample : ic1262-5
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 17 16:34:32 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration





TIC: v34682.D\data.ms

(37) ethyl acetate (p)

4.591min (+0.000) 4.61ug/L m

response 143188

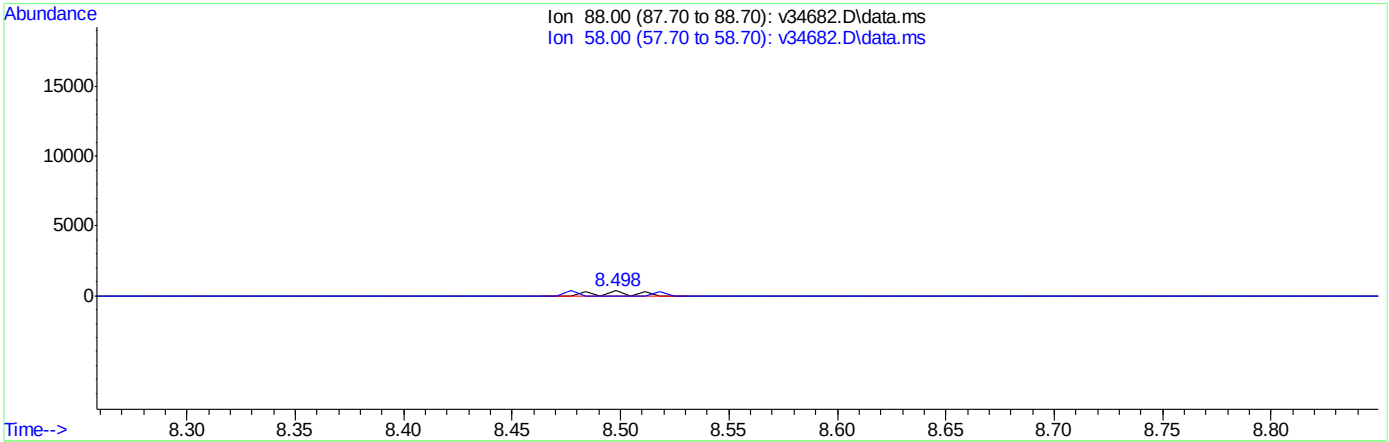
Ion	Exp%	Act%
43.10	100	100
45.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

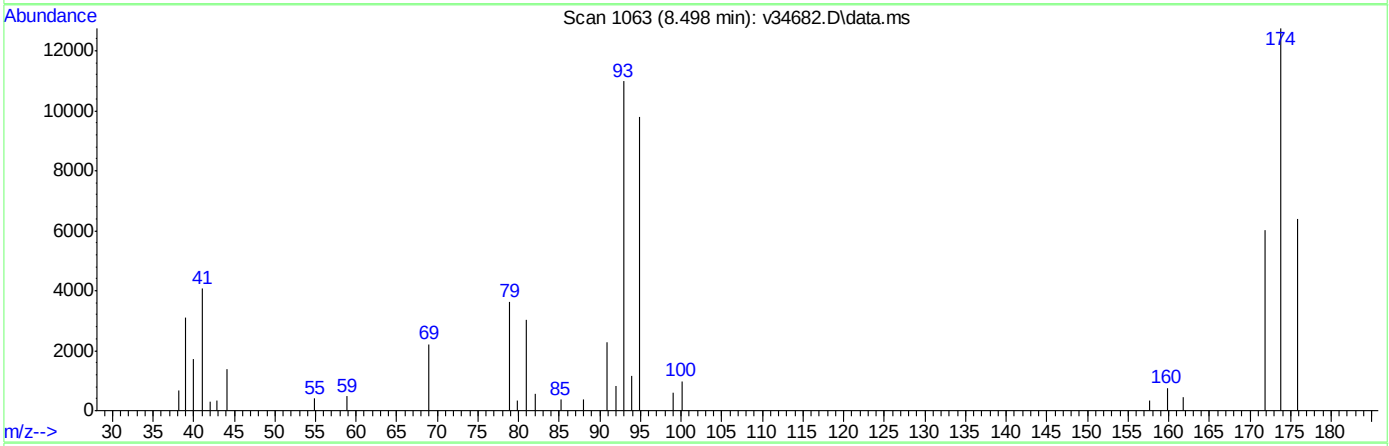
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34682.D
Acq On : 17 Sep 2014 2:22 pm
Operator : amym
Sample : ic1262-5
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 17 16:34:32 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration





TIC: v34682.D\data.ms

(58) 1,4-dioxane (p)

8.498min (-0.011) 10.01ug/L m

response 397

Ion	Exp%	Act%
88.00	100	100
58.00	101.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33933

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/18/14 12:06

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34683.D
Acq On : 17 Sep 2014 2:48 pm
Operator : amym
Sample : ic1262-10
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 17 16:43:58 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.532	65	134895	500.00	ug/L	#	0.00
4) pentafluorobenzene	6.563	168	1075476	50.00	ug/L		0.00
43) 1,4-difluorobenzene	7.747	114	1835966	50.00	ug/L		0.00
66) chlorobenzene-d5	11.083	82	921926	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	13.294	152	1066251	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.444	113	134617	10.11	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 20.22%#				
60) toluene-d8 (s)	9.557	98	394030	9.36	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 18.72%#				
82) bromofluorobenzene (s)	12.231	95	185110	9.74	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 19.48%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.633	59	39488	102.23	ug/L		87
3) Ethanol	2.612	45	84219	1268.51	ug/L	#	100
5) dichlorodifluoromethane	1.557	85	277854	11.39	ug/L		99
6) chloromethane	1.646	50	192354	10.84	ug/L		100
7) vinyl chloride	1.758	62	161818	9.60	ug/L		100
8) bromomethane	2.052	96	132076	11.31	ug/L		97
9) chloroethane	2.141	64	70264	10.67	ug/L		92
10) ethyl ether	2.607	59	65948	10.80	ug/L		97
11) acetonitrile	3.301	41	175106	10.14	ug/L	#	22
12) trichlorofluoromethane	2.360	101	227602	8.25	ug/L		94
13) freon-113	2.934	101	127589	8.37	ug/L		97
14) acrolein	2.769	56	22150	68.32	ug/L		92
15) 1,1-dichloroethene	2.874	96	94804	9.84	ug/L		93
16) acetone	2.912	58	10998	10.87	ug/L	#	73
17) Methyl Acetate	3.284	43	45157	10.83	ug/L	#	95
18) methylene chloride	3.473	84	113708	11.34	ug/L		96
19) methyl tert butyl ether	3.854	73	190281	10.17	ug/L		92
20) acrylonitrile	3.789	53	28578	10.43	ug/L		85
21) allyl chloride	3.302	41	175333	10.15	ug/L		100
22) trans-1,2-dichloroethene	3.844	96	110645	10.71	ug/L		99
23) iodomethane	3.043	142	269742	10.61	ug/L		94
24) carbon disulfide	3.129	76	340632	10.18	ug/L		98
25) propionitrile	5.649	54	8556	9.86	ug/L		100
26) vinyl acetate	4.589	43	303864	9.93	ug/L		97
27) chloroprene	4.624	53	158618	9.26	ug/L		95
28) di-isopropyl ether	4.613	45	406040	10.22	ug/L		99
29) methacrylonitrile	5.924	41	45461	9.98	ug/L		90
30) 2-butanone	5.535	72	6960	10.04	ug/L	#	59
31) Hexane	4.256	41	94925	8.48	ug/L		98
32) 1,1-dichloroethane	4.515	63	218105	10.57	ug/L		99
33) tert-butyl ethyl ether	5.282	59	275308	9.62	ug/L		98
34) isobutyl alcohol	4.589	43	303864	49.63	ug/L		93
35) 2,2-dichloropropane	5.558	77	151457	8.94	ug/L		94
36) cis-1,2-dichloroethene	5.534	96	114138	10.35	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34683.D
Acq On : 17 Sep 2014 2:48 pm
Operator : amym
Sample : ic1262-10
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 17 16:43:58 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	4.591	43	303879m	9.95	ug/L	
38) bromochloromethane	5.955	128	62213	10.36	ug/L	94
39) chloroform	6.172	83	226218	10.51	ug/L	96
41) Tetrahydrofuran	5.964	42	16176	9.69	ug/L	86
42) 1,1,1-trichloroethane	6.421	97	216135	9.46	ug/L	99
44) Cyclohexane	6.533	56	214432	8.91	ug/L	93
45) carbon tetrachloride	6.674	117	202157	8.58	ug/L	96
46) 1,1-dichloropropene	6.687	75	127903	9.09	ug/L	97
47) benzene	7.007	78	377971	10.15	ug/L	100
48) 1,2-dichloroethane	7.131	62	165974	10.21	ug/L	100
49) tert-amyl methyl ether	7.296	73	164120	9.26	ug/L	99
50) heptane	7.564	43	125891	8.29	ug/L	94
51) trichloroethene	8.039	95	127552	9.97	ug/L	97
52) 1,2-dichloropropane	8.387	63	121836	10.29	ug/L	98
53) dibromomethane	8.491	93	63682	10.19	ug/L	98
54) bromodichloromethane	8.741	83	159629	9.91	ug/L	96
55) Methylcyclohexane	8.342	83	138109	8.08	ug/L	92
56) 2-chloroethyl vinyl ether	9.118	63	41639	8.82	ug/L	96
57) methyl methacrylate	8.521	69	31261	8.67	ug/L	88
58) 1,4-dioxane	8.506	88	1915	47.20	ug/L	72
59) cis-1,3-dichloropropene	9.269	75	128008	8.87	ug/L	93
61) 4-methyl-2-pentanone	9.453	43	69146	9.06	ug/L	95
62) toluene	9.633	92	283285	10.43	ug/L	99
63) trans-1,3-dichloropropene	9.920	75	96124	8.64	ug/L	99
64) 1,1,2-trichloroethane	10.126	83	70195	10.44	ug/L	97
65) ethyl methacrylate	10.000	69	75241	8.75	ug/L	95
67) tetrachloroethene	10.185	166	136043	9.65	ug/L	97
68) 1,3-dichloropropane	10.287	76	130467	10.05	ug/L	99
69) dibromochloromethane	10.508	129	118444	9.02	ug/L	97
70) 1,2-dibromoethane	10.617	107	88084	10.03	ug/L	93
71) 2-hexanone	10.364	43	60364	8.97	ug/L	100
72) chlorobenzene	11.113	112	380754	10.43	ug/L	98
73) 1,1,1,2-tetrachloroethane	11.212	131	148769	9.25	ug/L	99
74) ethylbenzene	11.217	91	611156	10.07	ug/L	99
75) m,p-xylene	11.348	106	480885	20.41	ug/L	99
76) o-xylene	11.715	106	246859	9.97	ug/L	99
77) styrene	11.736	104	390675	10.26	ug/L	97
78) bromoform	11.910	173	55416	8.83	ug/L	99
79) trans-1,4-dichloro-2-b...	12.126	53	30890	8.93	ug/L	99
81) isopropylbenzene	12.067	105	658360	9.63	ug/L	97
83) bromobenzene	12.357	156	170726	10.22	ug/L	94
84) 1,1,2,2-tetrachloroethane	12.362	83	105090	10.28	ug/L	97
85) 1,2,3-trichloropropane	12.411	75	92337	7.99	ug/L	99
86) n-propylbenzene	12.454	91	753849	10.22	ug/L	100
87) 2-chlorotoluene	12.534	91	485768	10.36	ug/L	95
88) 4-chlorotoluene	12.645	91	571593	10.54	ug/L	97
89) 1,3,5-trimethylbenzene	12.624	105	626541	10.00	ug/L	99
90) tert-butylbenzene	12.910	91	333089	9.61	ug/L	96
91) 1,2,4-trimethylbenzene	12.964	105	641953	10.27	ug/L	99
92) sec-butylbenzene	13.113	105	704330	9.60	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34683.D
Acq On : 17 Sep 2014 2:48 pm
Operator : amym
Sample : ic1262-10
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 17 16:43:58 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

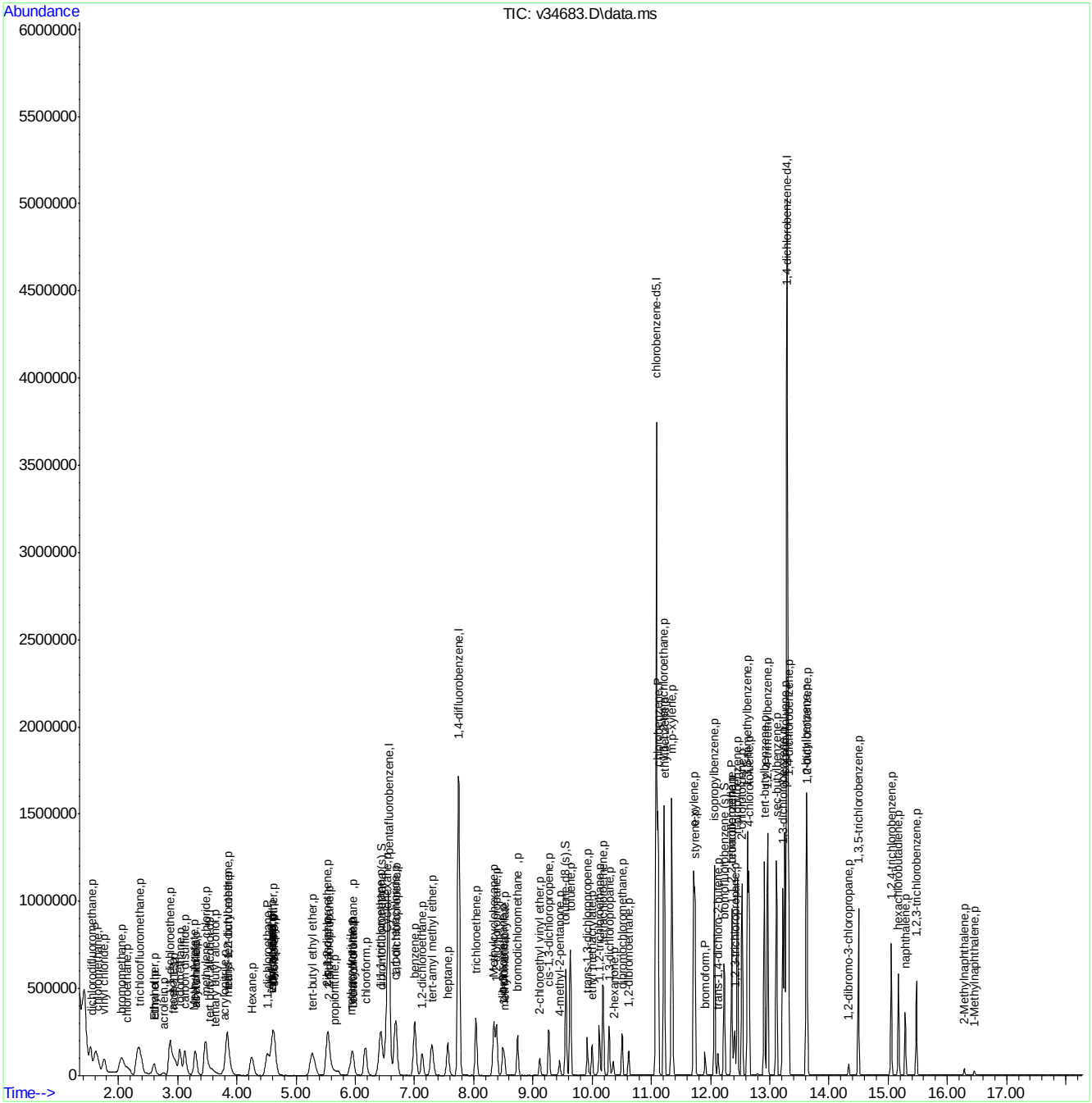
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.221	146	364776	10.36	ug/L	98
94) p-isopropyltoluene	13.254	119	684023	9.74	ug/L	98
95) 1,4-dichlorobenzene	13.316	146	372953	10.53	ug/L	97
96) 1,2-dichlorobenzene	13.633	146	344699	10.35	ug/L	99
97) n-butylbenzene	13.618	91	558875	9.86	ug/L	97
98) 1,2-dibromo-3-chloropr...	14.335	75	12538	8.95	ug/L	93
99) 1,3,5-trichlorobenzene	14.499	180	245363	9.74	ug/L	98
100) 1,2,4-trichlorobenzene	15.055	180	185130	9.21	ug/L	98
101) hexachlorobutadiene	15.176	225	80755	9.51	ug/L	98
102) naphthalene	15.289	128	230553	8.38	ug/L	100
103) 1,2,3-trichlorobenzene	15.478	180	133135	9.40	ug/L	96
104) 2-Methylnaphthalene	16.287	142	16063	2.69	ug/L	97
105) 1-Methylnaphthalene	16.457	142	10807	2.96	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34683.D
Acq On : 17 Sep 2014 2:48 pm
Operator : amym
Sample : ic1262-10
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

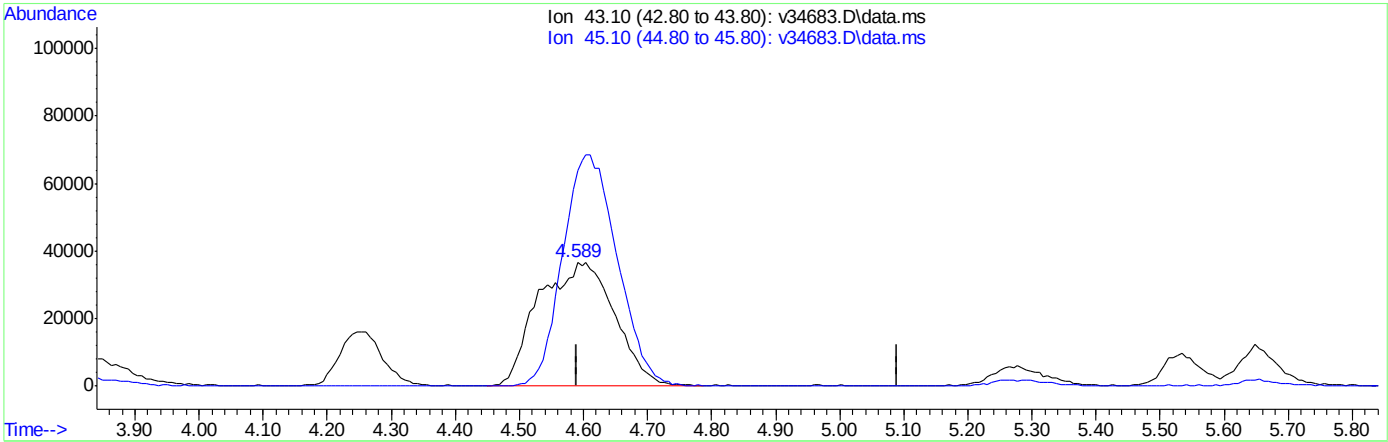
Quant Time: Sep 17 16:43:58 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

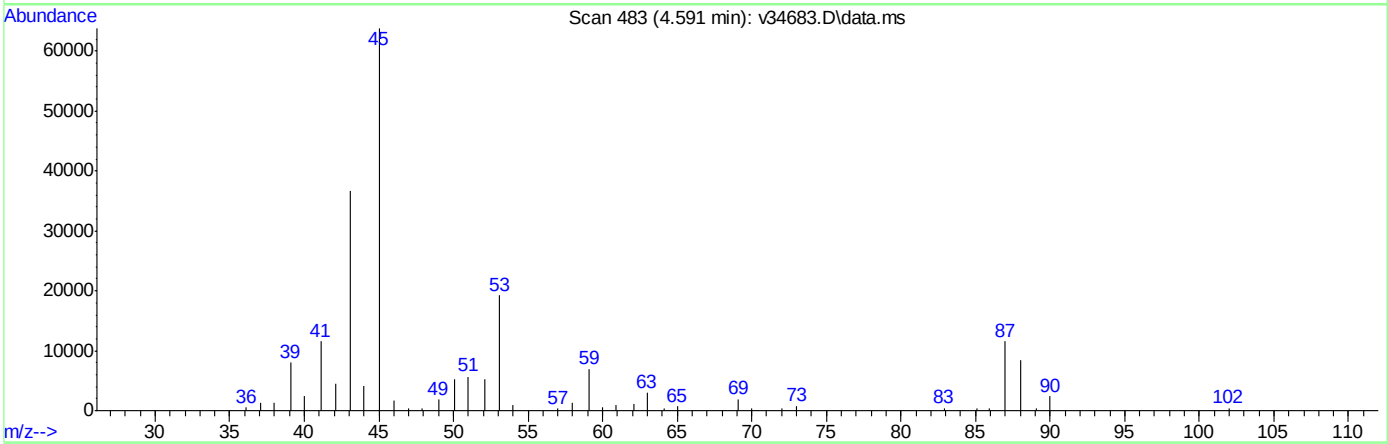


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34683.D
Acq On : 17 Sep 2014 2:48 pm
Operator : amym
Sample : ic1262-10
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 17 16:34:35 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration





TIC: v34683.D\data.ms

(37) ethyl acetate (p)

4.591min (+0.000) 9.95ug/L m

response 303879

Ion	Exp%	Act%
43.10	100	100
45.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33933

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski 09/18/14 12:06

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34684.D
Acq On : 17 Sep 2014 3:15 pm
Operator : amym
Sample : ic1262-25
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 17 16:45:24 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.540	65	151093	500.00	ug/L	# 0.00
4) pentafluorobenzene	6.568	168	1162644	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.748	114	1866759	50.00	ug/L	0.00
66) chlorobenzene-d5	11.083	82	901876	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.294	152	1113141	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.451	113	365090	25.35	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 50.70%#			
60) toluene-d8 (s)	9.557	98	988833	23.09	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 46.18%#			
82) bromofluorobenzene (s)	12.231	95	460176	23.21	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 46.42%#			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.644	59	102743	237.46	ug/L	# 57
3) Ethanol	2.625	45	194242	2612.03	ug/L	# 100
5) dichlorodifluoromethane	1.545	85	655609m	24.87	ug/L	
6) chloromethane	1.653	50	460525	24.00	ug/L	94
7) vinyl chloride	1.768	62	428220	23.50	ug/L	99
8) bromomethane	2.059	96	300685	23.82	ug/L	98
9) chloroethane	2.151	64	173104	24.32	ug/L	97
10) ethyl ether	2.622	59	177324	26.85	ug/L	96
11) acetonitrile	3.314	41	471427	25.26	ug/L	# 21
12) trichlorofluoromethane	2.369	101	727408	24.38	ug/L	100
13) freon-113	2.940	101	390569	23.71	ug/L	99
14) acrolein	2.777	56	47359	135.13	ug/L	95
15) 1,1-dichloroethene	2.882	96	253822	24.37	ug/L	96
16) acetone	2.928	58	28896	26.42	ug/L	# 78
17) Methyl Acetate	3.299	43	121148	26.89	ug/L	97
18) methylene chloride	3.483	84	277438	25.59	ug/L	96
19) methyl tert butyl ether	3.865	73	487698	24.11	ug/L	96
20) acrylonitrile	3.803	53	79141	26.72	ug/L	93
21) allyl chloride	3.314	41	471427	25.26	ug/L	99
22) trans-1,2-dichloroethene	3.858	96	292681	26.22	ug/L	99
23) iodomethane	3.051	142	669310	24.36	ug/L	96
24) carbon disulfide	3.136	76	875520	24.21	ug/L	98
25) propionitrile	5.660	54	23525	25.08	ug/L	100
26) vinyl acetate	4.597	43	788837	23.84	ug/L	97
27) chloroprene	4.637	53	463121	25.01	ug/L	96
28) di-isopropyl ether	4.623	45	1047744	24.40	ug/L	99
29) methacrylonitrile	5.929	41	122218	24.82	ug/L	98
30) 2-butanone	5.545	72	17688	23.61	ug/L	# 77
31) Hexane	4.266	41	294221	24.32	ug/L	100
32) 1,1-dichloroethane	4.529	63	574753	25.77	ug/L	98
33) tert-butyl ethyl ether	5.292	59	730511	23.60	ug/L	96
34) isobutyl alcohol	4.597	43	788951	119.20	ug/L	92
35) 2,2-dichloropropane	5.566	77	409524	22.37	ug/L	99
36) cis-1,2-dichloroethene	5.547	96	311316	26.10	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34684.D
Acq On : 17 Sep 2014 3:15 pm
Operator : amym
Sample : ic1262-25
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 17 16:45:24 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	4.597	43	787864m	23.86	ug/L	
38) bromochloromethane	5.966	128	166036	25.58	ug/L	96
39) chloroform	6.182	83	592453	25.46	ug/L	94
41) Tetrahydrofuran	5.972	42	42642	23.63	ug/L	98
42) 1,1,1-trichloroethane	6.427	97	587885	23.81	ug/L	99
44) Cyclohexane	6.536	56	621535	25.41	ug/L	98
45) carbon tetrachloride	6.681	117	582308	24.32	ug/L	99
46) 1,1-dichloropropene	6.692	75	346789	24.24	ug/L	98
47) benzene	7.011	78	927815	24.50	ug/L	98
48) 1,2-dichloroethane	7.135	62	414003	25.04	ug/L	99
49) tert-amyl methyl ether	7.301	73	436882	24.25	ug/L	98
50) heptane	7.566	43	360360	23.33	ug/L	96
51) trichloroethene	8.040	95	313073	24.07	ug/L	97
52) 1,2-dichloropropane	8.388	63	289224	24.03	ug/L	99
53) dibromomethane	8.492	93	154621	24.33	ug/L	94
54) bromodichloromethane	8.742	83	380572	23.23	ug/L	98
55) Methylcyclohexane	8.345	83	424326	24.43	ug/L	95
56) 2-chloroethyl vinyl ether	9.117	63	102089	21.26	ug/L	97
57) methyl methacrylate	8.520	69	81471	22.23	ug/L	97
58) 1,4-dioxane	8.504	88	5008	121.41	ug/L	93
59) cis-1,3-dichloropropene	9.269	75	319228	21.74	ug/L	98
61) 4-methyl-2-pentanone	9.452	43	179988	23.19	ug/L	96
62) toluene	9.632	92	638049	23.11	ug/L	100
63) trans-1,3-dichloropropene	9.920	75	242895	21.47	ug/L	99
64) 1,1,2-trichloroethane	10.126	83	159564	23.35	ug/L	98
65) ethyl methacrylate	9.999	69	193801	22.18	ug/L	98
67) tetrachloroethene	10.185	166	323006	23.42	ug/L	98
68) 1,3-dichloropropane	10.287	76	297888	23.45	ug/L	98
69) dibromochloromethane	10.507	129	292985	22.80	ug/L	100
70) 1,2-dibromoethane	10.616	107	204636	23.81	ug/L	98
71) 2-hexanone	10.362	43	149223	22.66	ug/L	95
72) chlorobenzene	11.112	112	851588	23.84	ug/L	97
73) 1,1,1,2-tetrachloroethane	11.212	131	366710	23.31	ug/L	99
74) ethylbenzene	11.216	91	1422922	23.98	ug/L	98
75) m,p-xylene	11.347	106	1103684	47.89	ug/L	99
76) o-xylene	11.714	106	578369	23.88	ug/L	99
77) styrene	11.735	104	911268	24.47	ug/L	98
78) bromoform	11.910	173	144086	23.47	ug/L	99
79) trans-1,4-dichloro-2-b...	12.126	53	82160	24.29	ug/L	96
81) isopropylbenzene	12.066	105	1582377	22.18	ug/L	97
83) bromobenzene	12.357	156	405749	23.28	ug/L	94
84) 1,1,2,2-tetrachloroethane	12.361	83	250265	23.44	ug/L	95
85) 1,2,3-trichloropropane	12.400	75	283426	23.50	ug/L	94
86) n-propylbenzene	12.454	91	1791302	23.26	ug/L	99
87) 2-chlorotoluene	12.533	91	1114608	22.77	ug/L	97
88) 4-chlorotoluene	12.645	91	1331284	23.52	ug/L	97
89) 1,3,5-trimethylbenzene	12.624	105	1460458	22.32	ug/L	98
90) tert-butylbenzene	12.909	91	791306	21.87	ug/L	95
91) 1,2,4-trimethylbenzene	12.963	105	1487317	22.79	ug/L	98
92) sec-butylbenzene	13.112	105	1701401	22.21	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34684.D
Acq On : 17 Sep 2014 3:15 pm
Operator : amym
Sample : ic1262-25
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 17 16:45:24 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

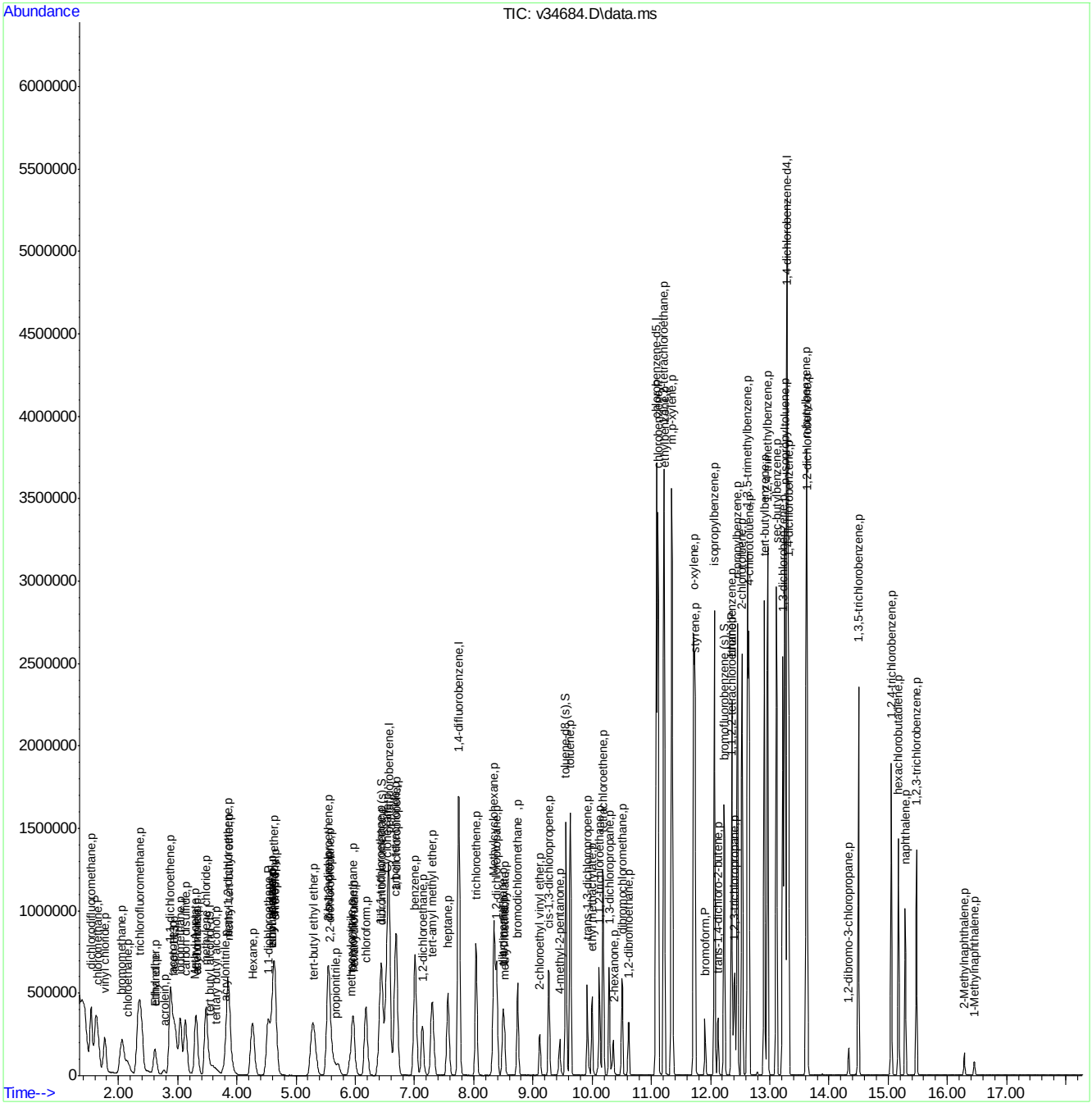
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.221	146	868519	23.64	ug/L	99
94) p-isopropyltoluene	13.253	119	1646666	22.46	ug/L	99
95) 1,4-dichlorobenzene	13.316	146	875252	23.68	ug/L	98
96) 1,2-dichlorobenzene	13.633	146	820889	23.61	ug/L	98
97) n-butylbenzene	13.617	91	1366098	23.10	ug/L	97
98) 1,2-dibromo-3-chloropr...	14.334	75	33217	22.70	ug/L	99
99) 1,3,5-trichlorobenzene	14.499	180	596999	22.70	ug/L	97
100) 1,2,4-trichlorobenzene	15.054	180	473621	22.56	ug/L	98
101) hexachlorobutadiene	15.175	225	197168	22.25	ug/L	99
102) naphthalene	15.289	128	641889	22.35	ug/L	100
103) 1,2,3-trichlorobenzene	15.478	180	335442	22.69	ug/L	99
104) 2-Methylnaphthalene	16.287	142	58049	9.30	ug/L	100
105) 1-Methylnaphthalene	16.457	142	36697	9.63	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34684.D
Acq On : 17 Sep 2014 3:15 pm
Operator : amym
Sample : ic1262-25
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

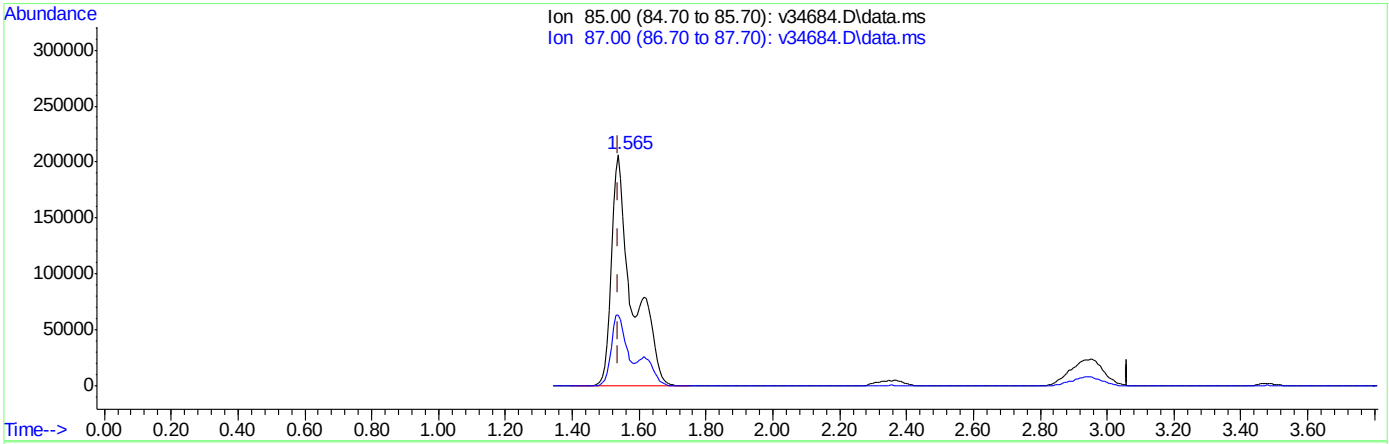
Quant Time: Sep 17 16:45:24 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

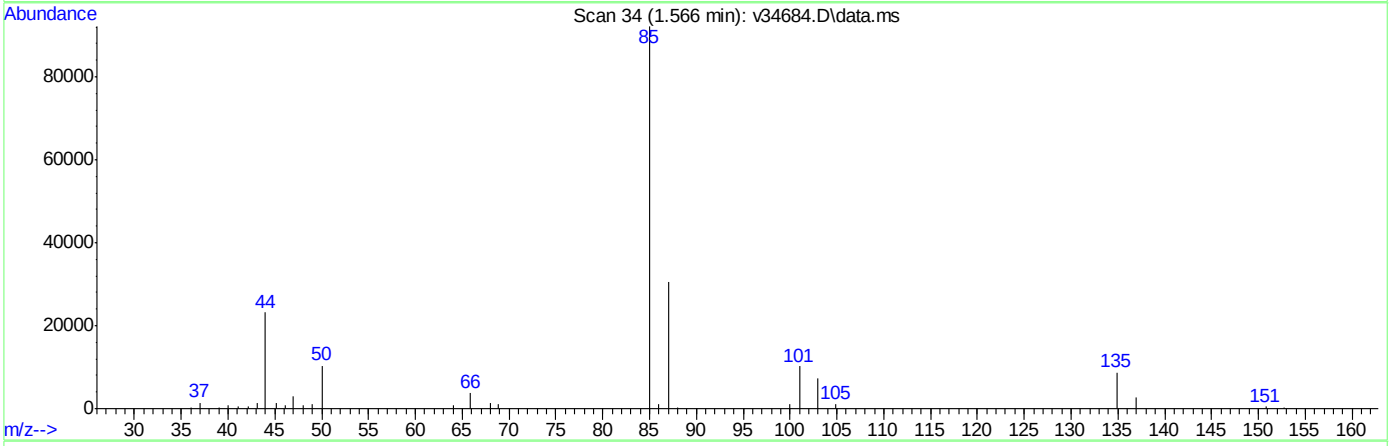


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34684.D
Acq On : 17 Sep 2014 3:15 pm
Operator : amym
Sample : ic1262-25
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 17 16:34:38 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration





TIC: v34684.D\data.ms

(5) dichlorodifluoromethane (p)

1.565min (+0.026) 33.78ug/L

response 890791

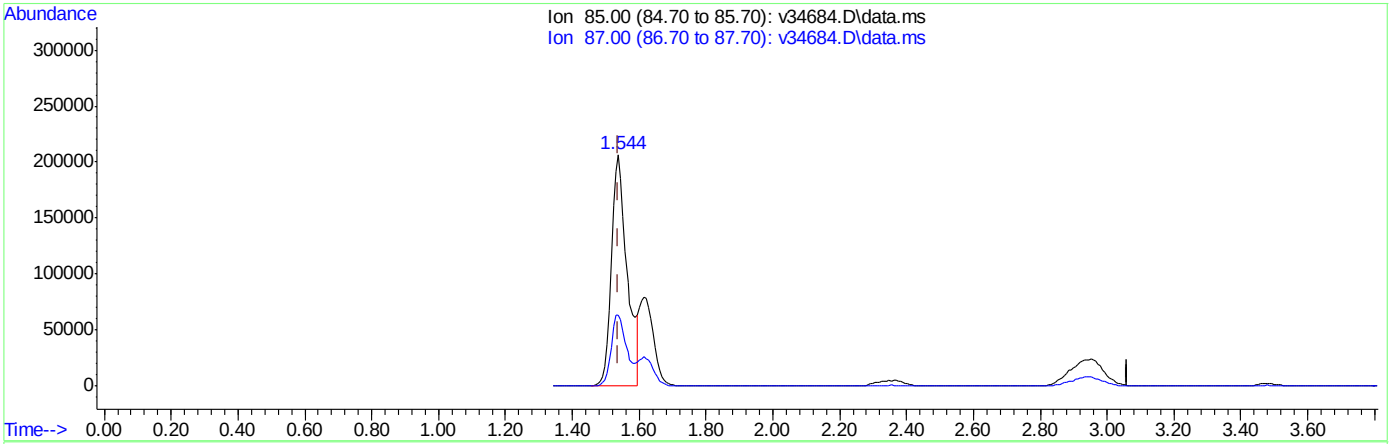
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	33.23
0.00	0.00	0.00
0.00	0.00	0.00

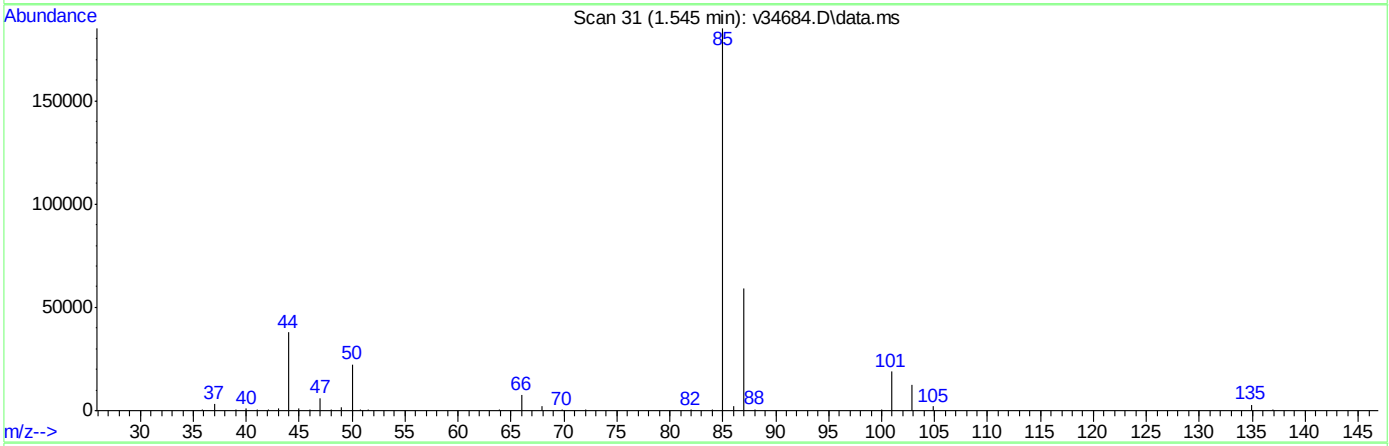
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34684.D
Acq On : 17 Sep 2014 3:15 pm
Operator : amym
Sample : ic1262-25
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 17 16:34:38 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration





TIC: v34684.D\data.ms

(5) dichlorodifluoromethane (p)

1.545min (+0.007) 24.87ug/L m

response 655609

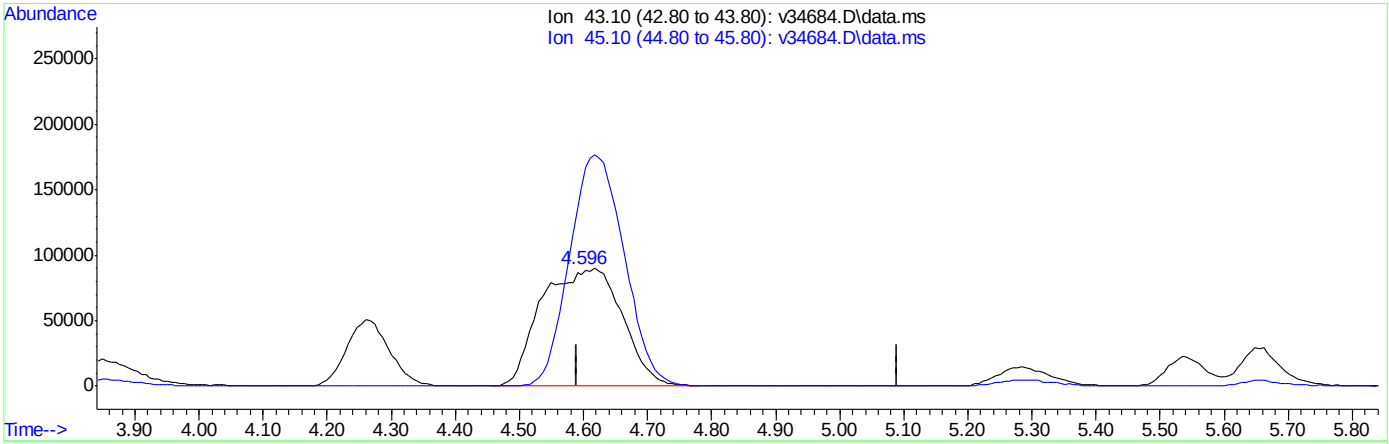
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	32.07
0.00	0.00	0.00
0.00	0.00	0.00

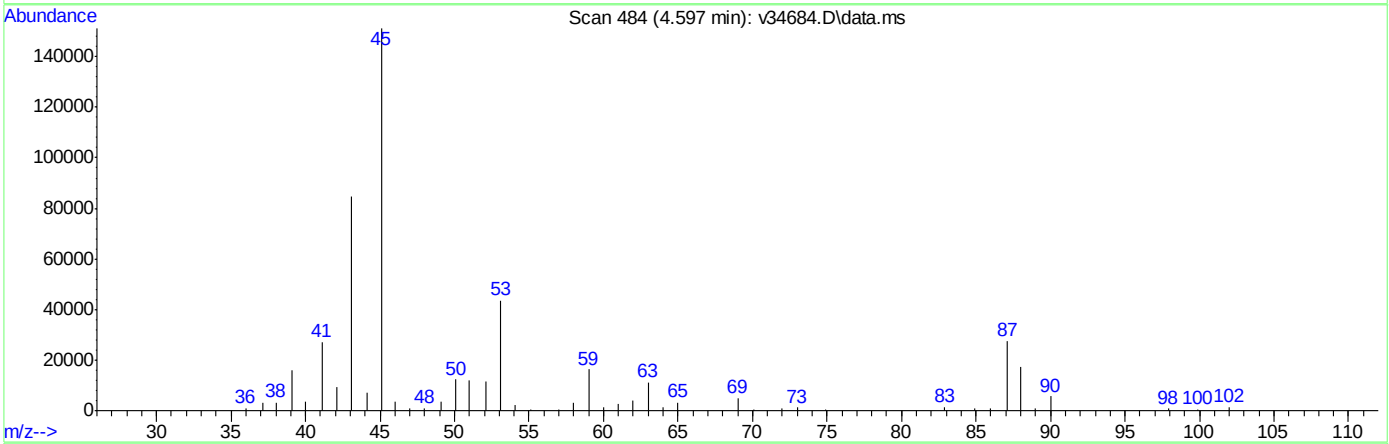
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34684.D
Acq On : 17 Sep 2014 3:15 pm
Operator : amym
Sample : ic1262-25
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 17 16:34:38 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration





TIC: v34684.D\data.ms

(37) ethyl acetate (p)

4.597min (+0.007) 23.86ug/L m

response 787864

Ion	Exp%	Act%
43.10	100	100
45.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

V34685.D

Manual Integrations APPROVED (compounds with "m" flag)

Tomasz Torski
09/18/14 12:06

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34685.D
Acq On : 17 Sep 2014 3:41 pm
Operator : amym
Sample : icc1262-50
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 17 16:47:05 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.539	65	155042	500.00	ug/L	#	0.00
4) pentafluorobenzene	6.568	168	1191502	50.00	ug/L		0.00
43) 1,4-difluorobenzene	7.749	114	1960799	50.00	ug/L		0.00
66) chlorobenzene-d5	11.083	82	964882	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	13.294	152	1120108	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.449	113	737896	50.00	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 100.00%				
60) toluene-d8 (s)	9.557	98	2249150	50.00	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 100.00%				
82) bromofluorobenzene (s)	12.231	95	997748	50.00	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 100.00%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.642	59	220098	495.74	ug/L	#	66
3) Ethanol	2.626	45	390582	5118.49	ug/L	#	100
5) dichlorodifluoromethane	1.539	85	1352221m	50.04	ug/L		
6) chloromethane	1.653	50	983205	50.00	ug/L		97
7) vinyl chloride	1.767	62	933878	50.00	ug/L		98
8) bromomethane	2.058	96	646843	49.99	ug/L		99
9) chloroethane	2.149	64	365418	50.10	ug/L		98
10) ethyl ether	2.615	59	338400	50.00	ug/L		96
11) acetonitrile	3.307	41	956492	50.00	ug/L	#	23
12) trichlorofluoromethane	2.366	101	1528988	50.00	ug/L		97
13) freon-113	2.940	101	844019	50.00	ug/L		97
14) acrolein	2.772	56	89800	250.02	ug/L		100
15) 1,1-dichloroethene	2.879	96	533706	50.00	ug/L		97
16) acetone	2.920	58	56037	50.00	ug/L	#	77
17) Methyl Acetate	3.290	43	224043	48.52	ug/L		96
18) methylene chloride	3.478	84	555486	50.00	ug/L		95
19) methyl tert butyl ether	3.867	73	1047463	50.53	ug/L		96
20) acrylonitrile	3.796	53	151773	50.00	ug/L		93
21) allyl chloride	3.307	41	956492	50.00	ug/L		100
22) trans-1,2-dichloroethene	3.849	96	572114	50.00	ug/L		97
23) iodomethane	3.048	142	1408033	50.00	ug/L		97
24) carbon disulfide	3.133	76	1853504	50.00	ug/L		99
25) propionitrile	5.658	54	48067	50.00	ug/L		100
26) vinyl acetate	4.593	43	1695389	50.00	ug/L		99
27) chloroprene	4.633	53	948956	50.00	ug/L		97
28) di-isopropyl ether	4.621	45	2200556	50.00	ug/L		99
29) methacrylonitrile	5.929	41	252298	50.00	ug/L		98
30) 2-butanone	5.545	72	38389	50.00	ug/L		98
31) Hexane	4.264	41	626964	50.57	ug/L		93
32) 1,1-dichloroethane	4.523	63	1142922	50.00	ug/L		99
33) tert-butyl ethyl ether	5.290	59	1586113	50.00	ug/L		97
34) isobutyl alcohol	4.593	43	1695900	250.02	ug/L		95
35) 2,2-dichloropropane	5.565	77	938231	50.00	ug/L		97
36) cis-1,2-dichloroethene	5.542	96	611211	50.00	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34685.D
Acq On : 17 Sep 2014 3:41 pm
Operator : amym
Sample : icc1262-50
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 17 16:47:05 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	4.590	43	1690837m	49.96	ug/L	
38) bromochloromethane	5.962	128	332643	50.00	ug/L	94
39) chloroform	6.179	83	1192693	50.00	ug/L	95
41) Tetrahydrofuran	5.970	42	91597	49.53	ug/L	94
42) 1,1,1-trichloroethane	6.426	97	1265048	50.00	ug/L	97
44) Cyclohexane	6.534	56	1284845	50.00	ug/L	95
45) carbon tetrachloride	6.680	117	1257503	50.00	ug/L	97
46) 1,1-dichloropropene	6.692	75	750316	49.93	ug/L	98
47) benzene	7.011	78	1988956	50.00	ug/L	99
48) 1,2-dichloroethane	7.135	62	868274	50.01	ug/L	100
49) tert-amyl methyl ether	7.300	73	946045	50.00	ug/L	99
50) heptane	7.566	43	811883	50.03	ug/L	94
51) trichloroethene	8.041	95	683013	50.00	ug/L	96
52) 1,2-dichloropropane	8.388	63	632225	50.00	ug/L	99
53) dibromomethane	8.493	93	333700	50.00	ug/L	95
54) bromodichloromethane	8.743	83	860408	50.00	ug/L	97
55) Methylcyclohexane	8.344	83	912304	50.00	ug/L	96
56) 2-chloroethyl vinyl ether	9.118	63	252228	50.00	ug/L	95
57) methyl methacrylate	8.521	69	192489	50.00	ug/L	93
58) 1,4-dioxane	8.508	88	10832	250.00	ug/L	87
59) cis-1,3-dichloropropene	9.270	75	771029	50.00	ug/L	97
61) 4-methyl-2-pentanone	9.452	43	407588	50.00	ug/L	95
62) toluene	9.633	92	1449859	50.00	ug/L	98
63) trans-1,3-dichloropropene	9.920	75	594182	50.00	ug/L	99
64) 1,1,2-trichloroethane	10.126	83	358915	50.00	ug/L	98
65) ethyl methacrylate	9.999	69	458967	50.00	ug/L	99
67) tetrachloroethene	10.185	166	737665	50.00	ug/L	99
68) 1,3-dichloropropane	10.287	76	679634	50.00	ug/L	99
69) dibromochloromethane	10.508	129	687531	50.00	ug/L	98
70) 1,2-dibromoethane	10.617	107	459783	50.00	ug/L	96
71) 2-hexanone	10.360	43	352320	50.00	ug/L	94
72) chlorobenzene	11.113	112	1910942	50.00	ug/L	97
73) 1,1,1,2-tetrachloroethane	11.212	131	841506	50.00	ug/L	99
74) ethylbenzene	11.217	91	3174453	50.00	ug/L	98
75) m,p-xylene	11.348	106	2465546	100.00	ug/L	98
76) o-xylene	11.714	106	1295677	50.00	ug/L	100
77) styrene	11.735	104	1992204	50.00	ug/L	98
78) bromoform	11.910	173	328416	50.00	ug/L	99
79) trans-1,4-dichloro-2-b...	12.126	53	180628	49.91	ug/L	88
81) isopropylbenzene	12.066	105	3589842	50.00	ug/L	97
83) bromobenzene	12.357	156	877017	50.00	ug/L	95
84) 1,1,2,2-tetrachloroethane	12.361	83	537160	50.00	ug/L	96
85) 1,2,3-trichloropropane	12.400	75	606692	50.00	ug/L	95
86) n-propylbenzene	12.454	91	3874353	50.00	ug/L	99
87) 2-chlorotoluene	12.534	91	2452572	49.80	ug/L	96
88) 4-chlorotoluene	12.645	91	2847952	50.00	ug/L	96
89) 1,3,5-trimethylbenzene	12.624	105	3292117	50.00	ug/L	98
90) tert-butylbenzene	12.910	91	1820227	50.00	ug/L	95
91) 1,2,4-trimethylbenzene	12.964	105	3283511	50.00	ug/L	97
92) sec-butylbenzene	13.113	105	3853578	50.00	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34685.D
Acq On : 17 Sep 2014 3:41 pm
Operator : amym
Sample : icc1262-50
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 17 16:47:05 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

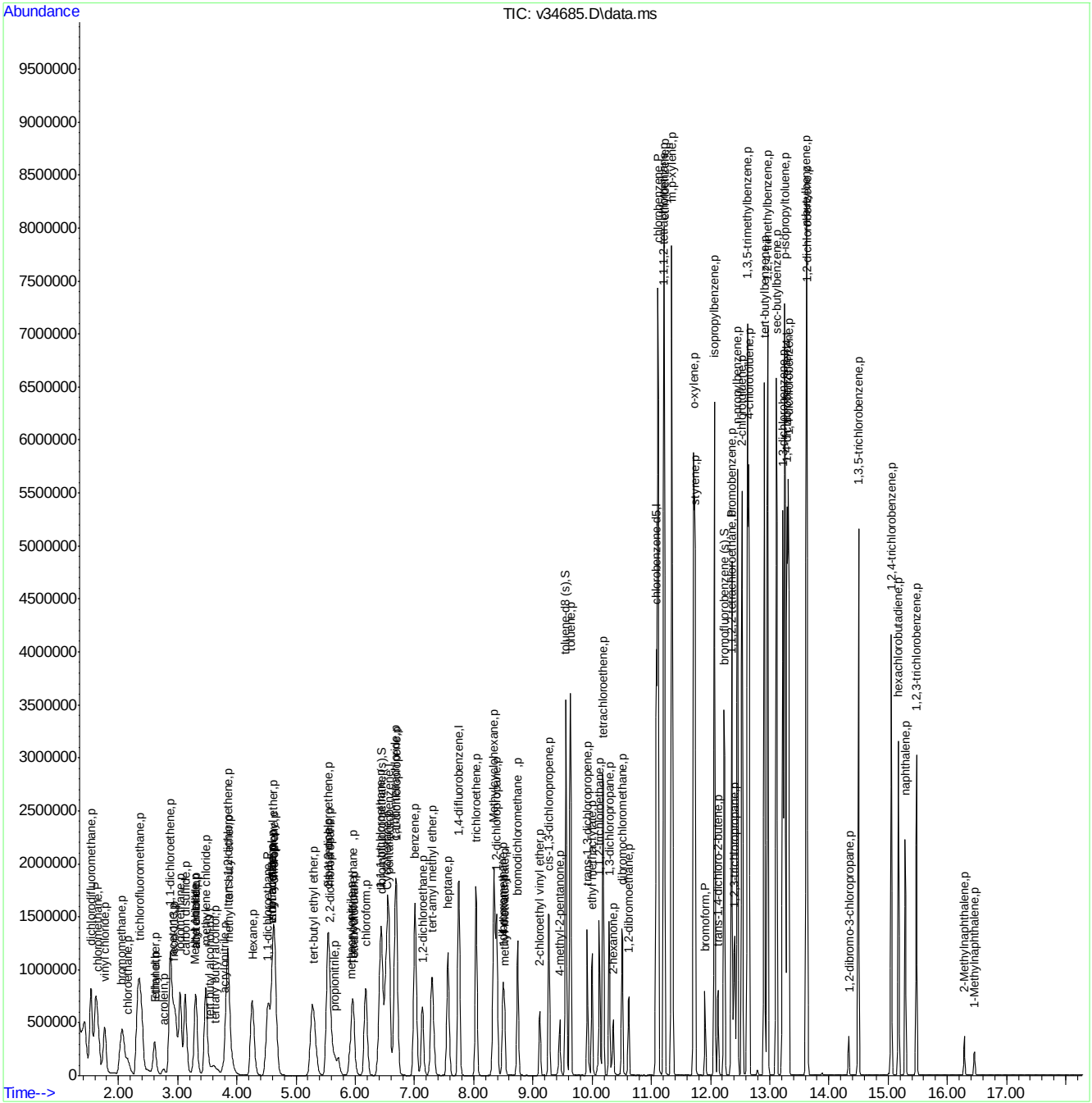
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.221	146	1848678	50.00	ug/L	98
94) p-isopropyltoluene	13.254	119	3688628	50.00	ug/L	99
95) 1,4-dichlorobenzene	13.316	146	1860035	50.00	ug/L	98
96) 1,2-dichlorobenzene	13.633	146	1749335	50.00	ug/L	99
97) n-butylbenzene	13.618	91	2975956	50.00	ug/L	97
98) 1,2-dibromo-3-chloropr...	14.335	75	73629	50.01	ug/L	83
99) 1,3,5-trichlorobenzene	14.499	180	1323060	50.00	ug/L	100
100) 1,2,4-trichlorobenzene	15.055	180	1056286	50.00	ug/L	98
101) hexachlorobutadiene	15.176	225	445885	50.00	ug/L	98
102) naphthalene	15.289	128	1444832	50.00	ug/L	100
103) 1,2,3-trichlorobenzene	15.478	180	743882	50.00	ug/L	100
104) 2-Methylnaphthalene	16.287	142	157104	25.00	ug/L	99
105) 1-Methylnaphthalene	16.458	142	95856	25.00	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34685.D
Acq On : 17 Sep 2014 3:41 pm
Operator : amym
Sample : icc1262-50
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

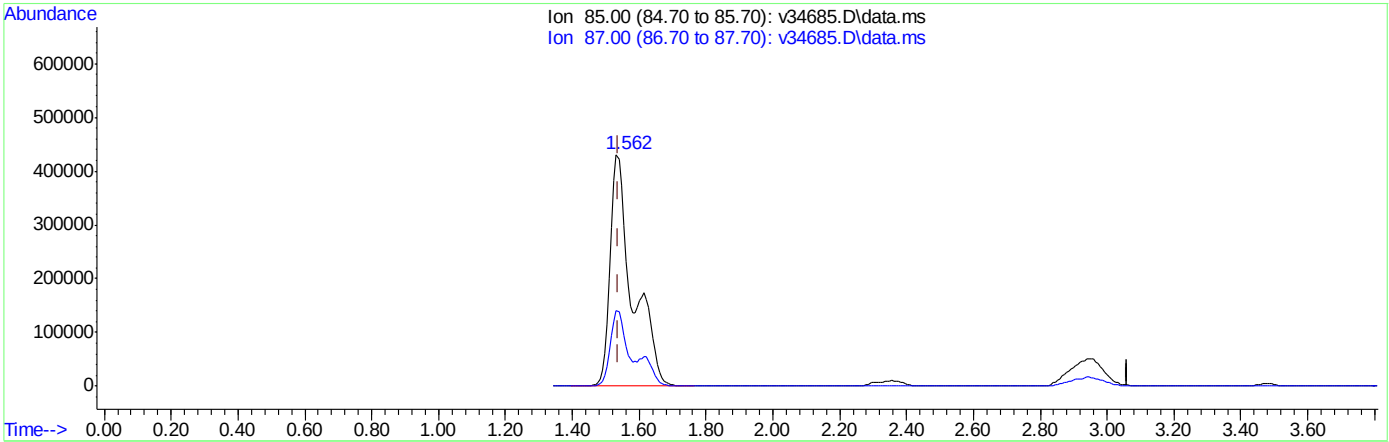
Quant Time: Sep 17 16:47:05 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

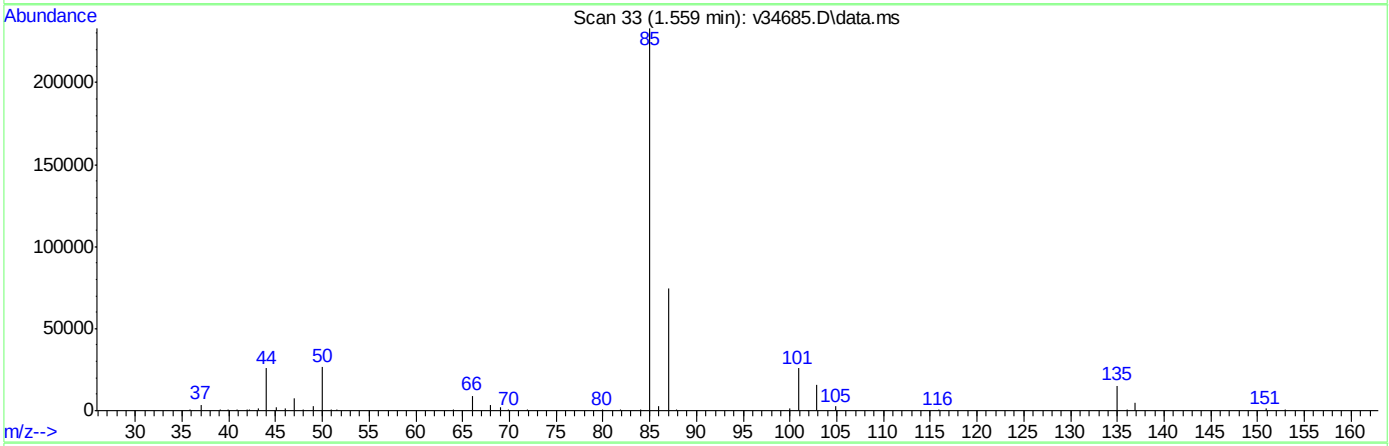


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34685.D
Acq On : 17 Sep 2014 3:41 pm
Operator : amym
Sample : icc1262-50
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 17 16:34:41 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration





TIC: v34685.D\data.ms

(5) dichlorodifluoromethane (p)

1.562min (+0.023) 72.14ug/L

response 1949318

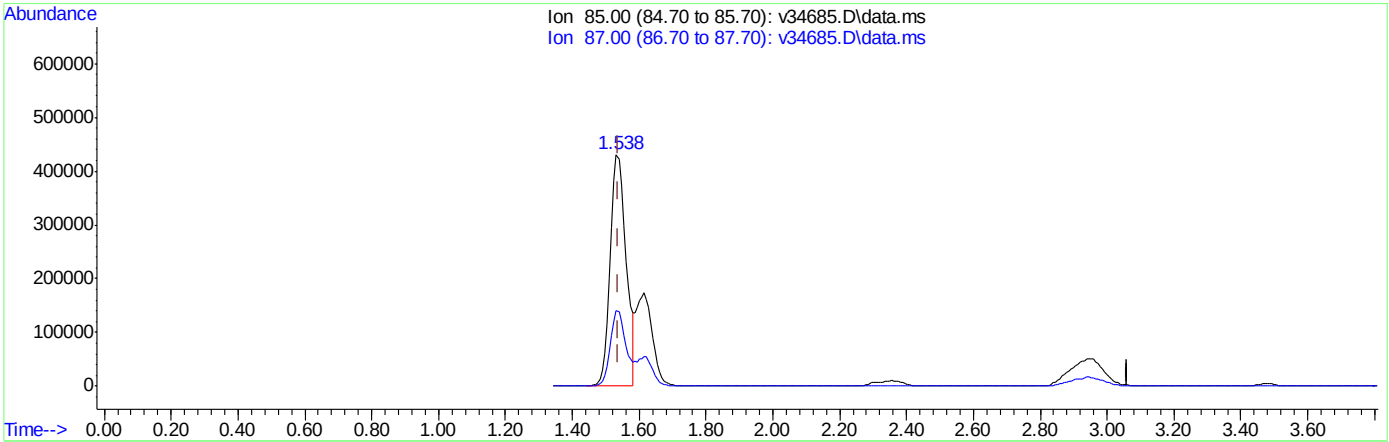
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	32.00
0.00	0.00	0.00
0.00	0.00	0.00

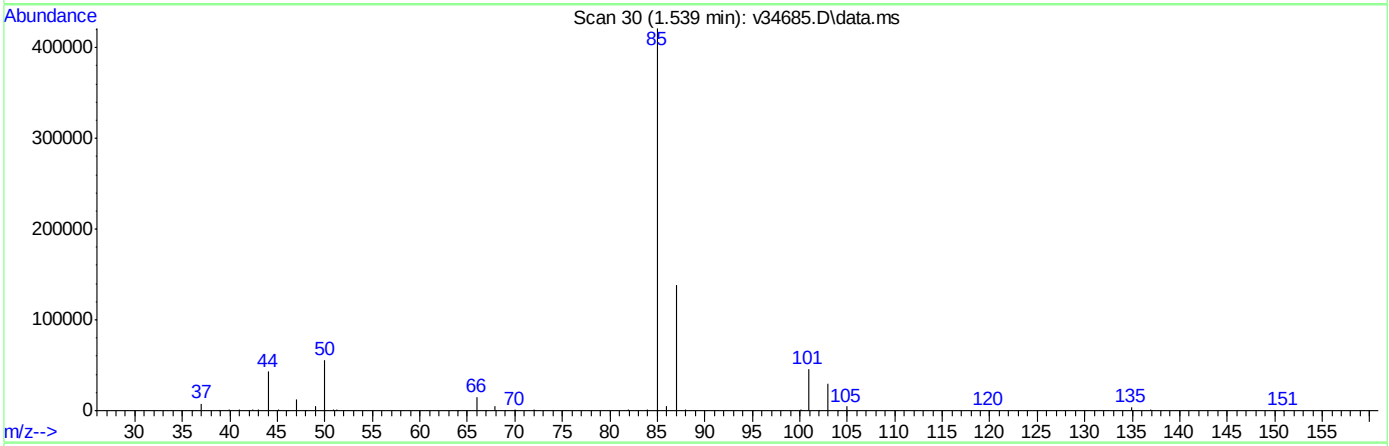
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34685.D
Acq On : 17 Sep 2014 3:41 pm
Operator : amym
Sample : icc1262-50
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 17 16:34:41 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration





TIC: v34685.D\data.ms

(5) dichlorodifluoromethane (p)

1.539min (0.000) 50.04ug/L m

response 1352221

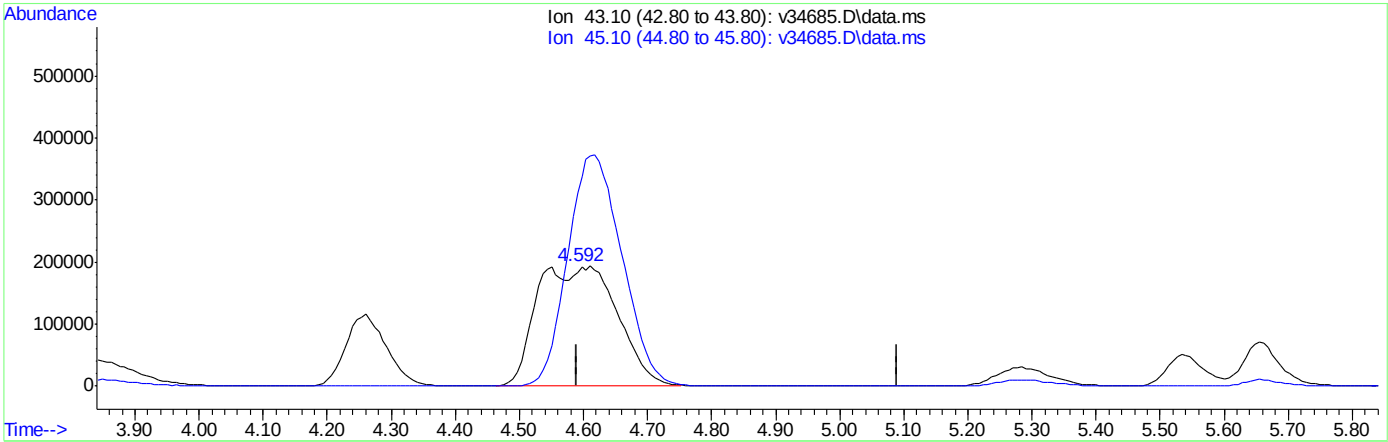
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	32.97
0.00	0.00	0.00
0.00	0.00	0.00

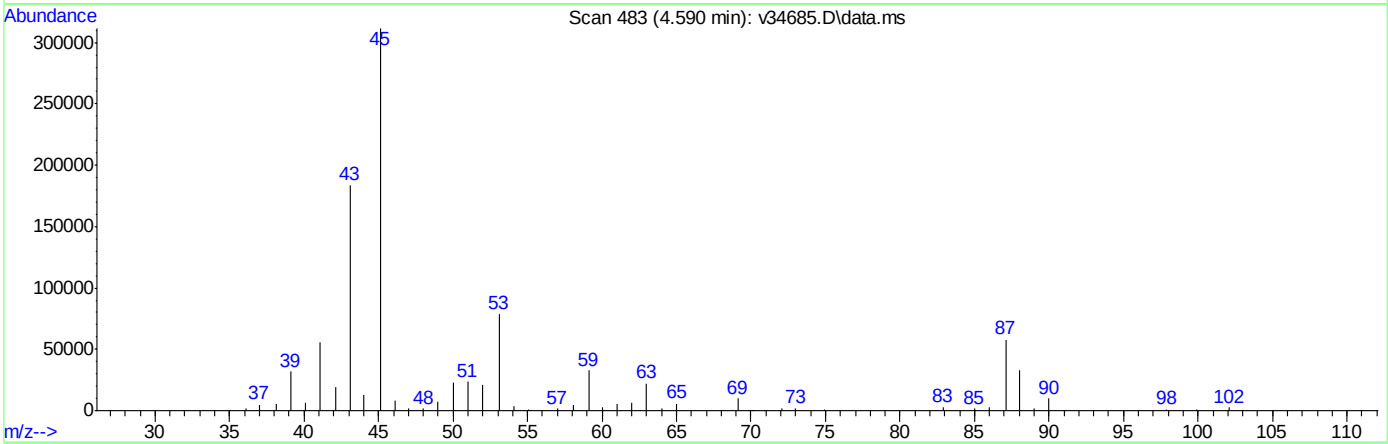
V34685.D edits: dichlorodifluoromethane

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34685.D
Acq On : 17 Sep 2014 3:41 pm
Operator : amym
Sample : icc1262-50
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 17 16:34:41 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration





TIC: v34685.D\data.ms

(37) ethyl acetate (p)

4.590min (0.000) 49.96ug/L m

response 1690837

Ion	Exp%	Act%
43.10	100	100
45.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski 09/18/14 12:06

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34686.D
Acq On : 17 Sep 2014 4:08 pm
Operator : amym
Sample : ic1262-100
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 17 16:48:46 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.531	65	164197	500.00	ug/L	#	0.00
4) pentafluorobenzene	6.560	168	1143307	50.00	ug/L		0.00
43) 1,4-difluorobenzene	7.746	114	1962265	50.00	ug/L		0.00
66) chlorobenzene-d5	11.084	82	1103364	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	13.295	152	1214505	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.440	113	1434435	101.30	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 202.60%#				
60) toluene-d8 (s)	9.558	98	4921562	109.33	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 218.66%#				
82) bromofluorobenzene (s)	12.232	95	2240938	103.57	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 207.14%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.633	59	483398	1028.09	ug/L	#	62
3) Ethanol	2.610	45	669497m	8284.42	ug/L		
5) dichlorodifluoromethane	1.532	85	2831459m	109.20	ug/L		
6) chloromethane	1.647	50	2082563	110.38	ug/L		98
7) vinyl chloride	1.760	62	2007482	112.02	ug/L		96
8) bromomethane	2.051	96	1364914	109.94	ug/L		98
9) chloroethane	2.142	64	773110	110.46	ug/L		99
10) ethyl ether	2.604	59	594667	91.57	ug/L		98
11) acetonitrile	3.298	41	1976987	107.71	ug/L	#	22
12) trichlorofluoromethane	2.357	101	3204012	109.20	ug/L		100
13) freon-113	2.932	101	1711882	105.69	ug/L		97
14) acrolein	2.761	56	231547	671.84	ug/L		100
15) 1,1-dichloroethene	2.869	96	1076249	105.09	ug/L		97
16) acetone	2.911	58	116125	107.99	ug/L	#	86
17) Methyl Acetate	3.277	43	458523	103.49	ug/L		99
18) methylene chloride	3.468	84	1114060	104.51	ug/L		95
19) methyl tert butyl ether	3.857	73	2278537	114.56	ug/L		99
20) acrylonitrile	3.785	53	308563	105.95	ug/L		99
21) allyl chloride	3.298	41	1975365	107.62	ug/L		98
22) trans-1,2-dichloroethene	3.841	96	1171374	106.70	ug/L		99
23) iodomethane	3.037	142	2846154	105.34	ug/L		97
24) carbon disulfide	3.122	76	3704008	104.14	ug/L		99
25) propionitrile	5.645	54	100136	108.56	ug/L		100
26) vinyl acetate	4.581	43	3423909	105.24	ug/L		98
27) chloroprene	4.620	53	1835705	100.80	ug/L		96
28) di-isopropyl ether	4.610	45	4452409	105.44	ug/L		100
29) methacrylonitrile	5.919	41	506700	104.66	ug/L		97
30) 2-butanone	5.535	72	78908	107.11	ug/L	#	58
31) Hexane	4.251	41	1186662	99.75	ug/L		93
32) 1,1-dichloroethane	4.511	63	2289621	104.39	ug/L		100
33) tert-butyl ethyl ether	5.282	59	3422985	112.46	ug/L		96
34) isobutyl alcohol	4.581	43	3424053	526.07	ug/L		94
35) 2,2-dichloropropane	5.557	77	2020113	112.20	ug/L		94
36) cis-1,2-dichloroethene	5.531	96	1208686	103.05	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34686.D
Acq On : 17 Sep 2014 4:08 pm
Operator : amym
Sample : ic1262-100
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 17 16:48:46 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	4.584	43	3418134m	105.26	ug/L	
38) bromochloromethane	5.952	128	650952	101.98	ug/L	90
39) chloroform	6.169	83	2322062	101.46	ug/L	96
41) Tetrahydrofuran	5.959	42	173925	98.01	ug/L	96
42) 1,1,1-trichloroethane	6.420	97	2616338	107.77	ug/L	97
44) Cyclohexane	6.527	56	2576130	100.18	ug/L	96
45) carbon tetrachloride	6.674	117	2608547	103.64	ug/L	99
46) 1,1-dichloropropene	6.685	75	1452609	96.58	ug/L	97
47) benzene	7.005	78	3934442	98.83	ug/L	100
48) 1,2-dichloroethane	7.130	62	1748060	100.60	ug/L	100
49) tert-amyl methyl ether	7.296	73	2115220	111.71	ug/L	97
50) heptane	7.563	43	1590895	97.96	ug/L	95
51) trichloroethene	8.038	95	1394604	102.02	ug/L	98
52) 1,2-dichloropropane	8.387	63	1321709	104.45	ug/L	99
53) dibromomethane	8.492	93	711250	106.49	ug/L	95
54) bromodichloromethane	8.742	83	1833742	106.48	ug/L	97
55) Methylcyclohexane	8.341	83	1865622	102.17	ug/L	95
56) 2-chloroethyl vinyl ether	9.118	63	610578	120.95	ug/L	97
57) methyl methacrylate	8.521	69	449775	116.75	ug/L	91
58) 1,4-dioxane	8.513	88	24418	563.14	ug/L	78
59) cis-1,3-dichloropropene	9.271	75	1811692	117.40	ug/L	98
61) 4-methyl-2-pentanone	9.451	43	913236	111.95	ug/L	94
62) toluene	9.634	92	3188660	109.88	ug/L	100
63) trans-1,3-dichloropropene	9.921	75	1474328	123.97	ug/L	99
64) 1,1,2-trichloroethane	10.128	83	811429	112.95	ug/L	99
65) ethyl methacrylate	9.999	69	1111030	120.95	ug/L	98
67) tetrachloroethene	10.186	166	1635961	96.97	ug/L	100
68) 1,3-dichloropropane	10.289	76	1568207	100.89	ug/L	99
69) dibromochloromethane	10.509	129	1654603	105.23	ug/L	100
70) 1,2-dibromoethane	10.618	107	1088546	103.52	ug/L	96
71) 2-hexanone	10.359	43	836144	103.77	ug/L	91
72) chlorobenzene	11.114	112	4366826	99.92	ug/L	97
73) 1,1,1,2-tetrachloroethane	11.213	131	1795021	93.27	ug/L	98
74) ethylbenzene	11.218	91	7172712	98.80	ug/L	98
75) m,p-xylene	11.349	106	5616111	199.19	ug/L	98
76) o-xylene	11.716	106	2887022	97.43	ug/L	98
77) styrene	11.736	104	4541038	99.66	ug/L	98
78) bromoform	11.911	173	811053	107.98	ug/L	99
79) trans-1,4-dichloro-2-b...	12.127	53	428842	103.62	ug/L	80
81) isopropylbenzene	12.067	105	7816907	100.41	ug/L	96
83) bromobenzene	12.358	156	2012225	105.80	ug/L	93
84) 1,1,2,2-tetrachloroethane	12.362	83	1184879	101.72	ug/L	97
85) 1,2,3-trichloropropane	12.401	75	1396894	106.18	ug/L	96
86) n-propylbenzene	12.455	91	8568762	101.99	ug/L	98
87) 2-chlorotoluene	12.535	91	5478281	102.58	ug/L	96
88) 4-chlorotoluene	12.645	91	6340350	102.66	ug/L	95
89) 1,3,5-trimethylbenzene	12.624	105	7206579	100.94	ug/L	96
90) tert-butylbenzene	12.910	91	3822598	96.84	ug/L	96
91) 1,2,4-trimethylbenzene	12.964	105	7200453	101.13	ug/L	95
92) sec-butylbenzene	13.113	105	8307892	99.42	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34686.D
Acq On : 17 Sep 2014 4:08 pm
Operator : amym
Sample : ic1262-100
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 17 16:48:46 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.222	146	4122155	102.82	ug/L	99
94) p-isopropyltoluene	13.254	119	8046759	100.60	ug/L	99
95) 1,4-dichlorobenzene	13.317	146	4100785	101.67	ug/L	98
96) 1,2-dichlorobenzene	13.634	146	3770944	99.40	ug/L	99
97) n-butylbenzene	13.618	91	6386941	98.97	ug/L	95
98) 1,2-dibromo-3-chloropr...	14.335	75	167348	104.83	ug/L	79
99) 1,3,5-trichlorobenzene	14.499	180	2838741	98.94	ug/L	99
100) 1,2,4-trichlorobenzene	15.055	180	2273410	99.25	ug/L	97
101) hexachlorobutadiene	15.176	225	962136	99.50	ug/L	98
102) naphthalene	15.289	128	3242813	103.50	ug/L	100
103) 1,2,3-trichlorobenzene	15.478	180	1623988	100.67	ug/L	99
104) 2-Methylnaphthalene	16.287	142	390006	57.24	ug/L	99
105) 1-Methylnaphthalene	16.458	142	226318	54.44	ug/L	100

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

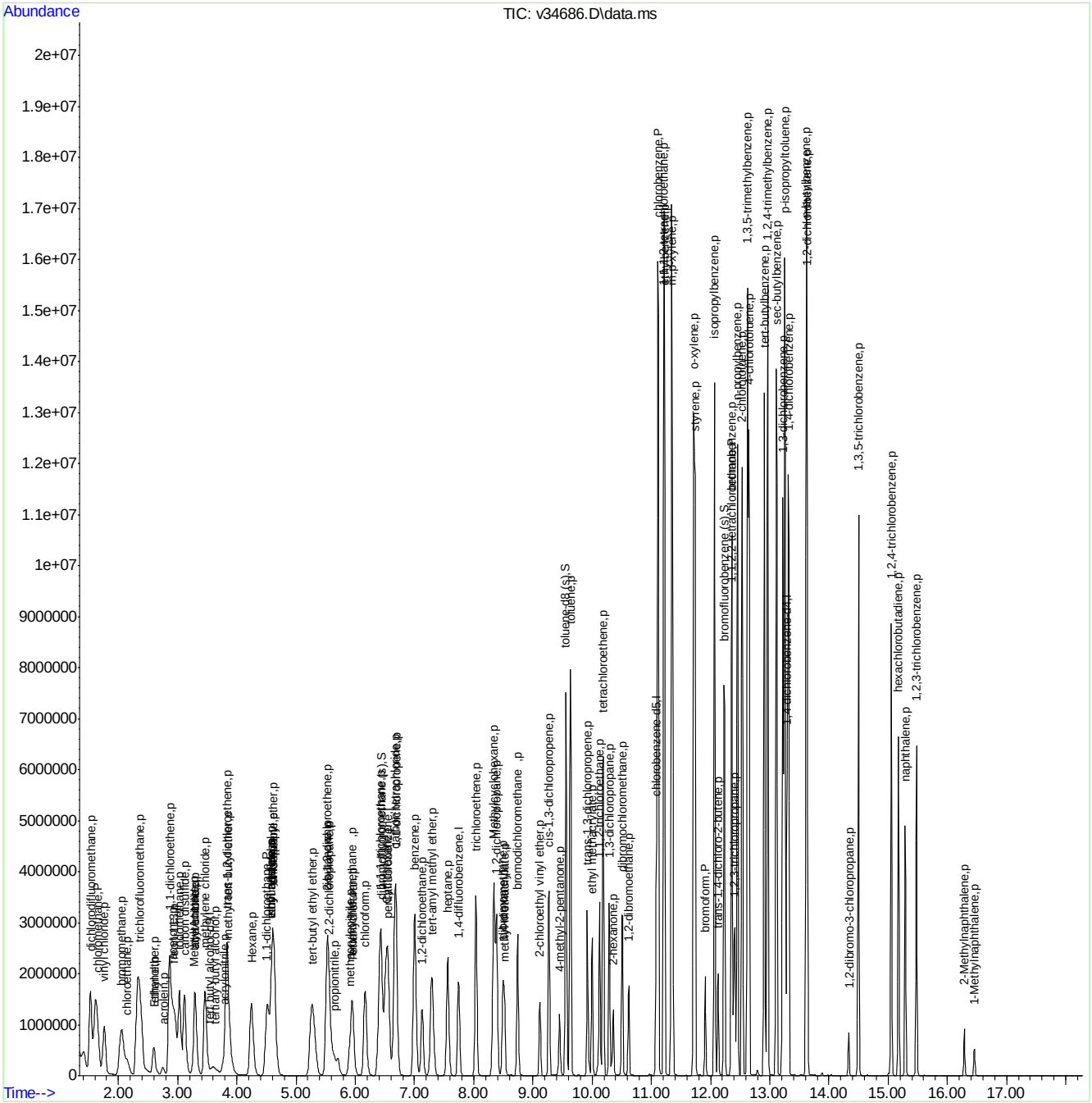
7.6.8

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34686.D
Acq On : 17 Sep 2014 4:08 pm
Operator : amym
Sample : ic1262-100
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 19 Sample Multiplier: 1

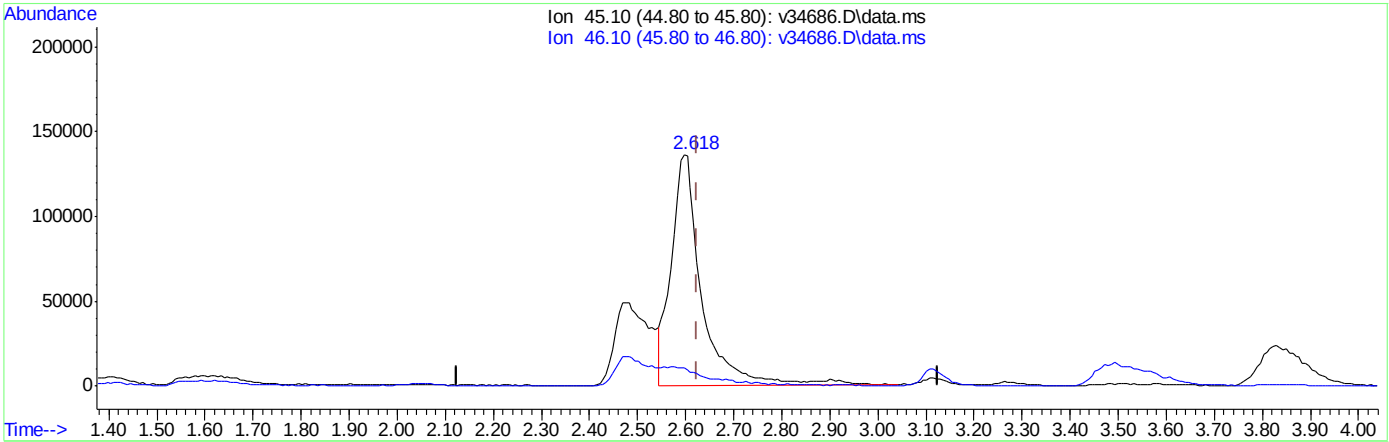
Quant Time: Sep 17 16:48:46 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration

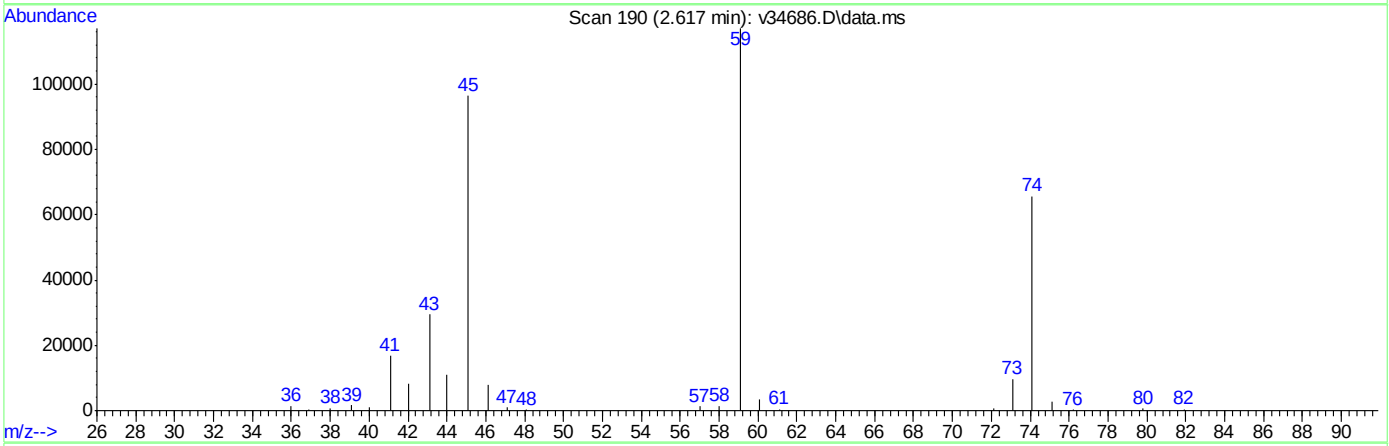


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34686.D
Acq On : 17 Sep 2014 4:08 pm
Operator : amym
Sample : ic1262-100
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 17 16:34:44 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration





TIC: v34686.D\data.ms

(3) Ethanol (p)

2.618min (-0.007) 7462.74ug/L

response 603094

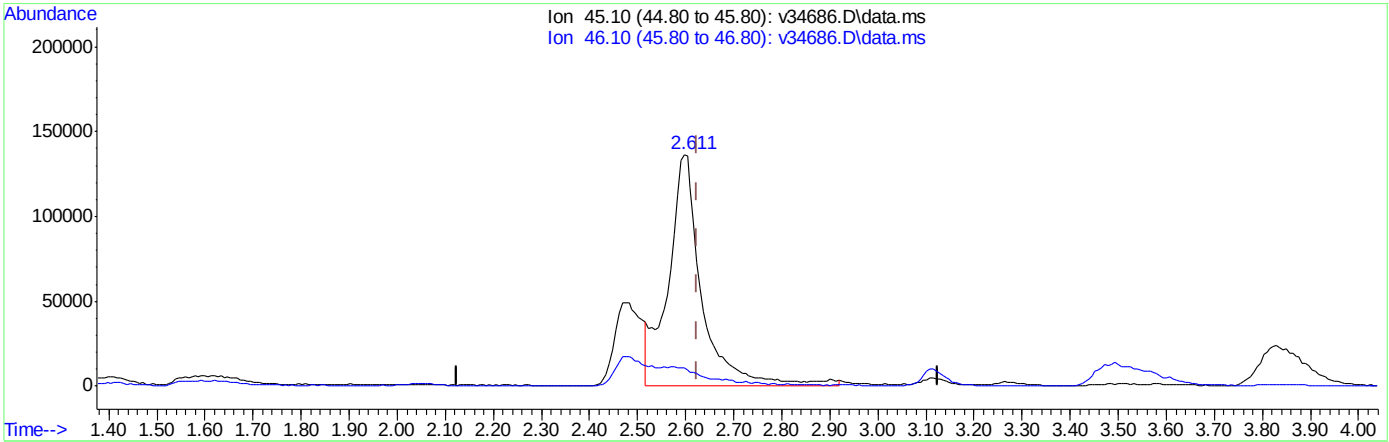
Ion	Exp%	Act%
45.10	100	100
46.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

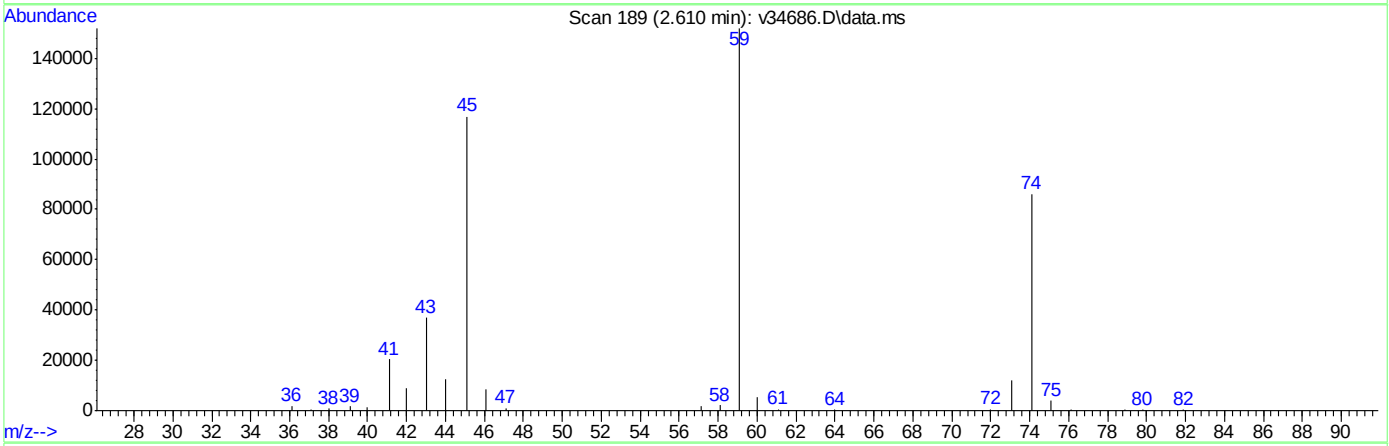
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34686.D
Acq On : 17 Sep 2014 4:08 pm
Operator : amym
Sample : ic1262-100
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 17 16:34:44 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration





TIC: v34686.D\data.ms

(3) Ethanol (p)

2.610min (-0.015) 8284.42ug/L m

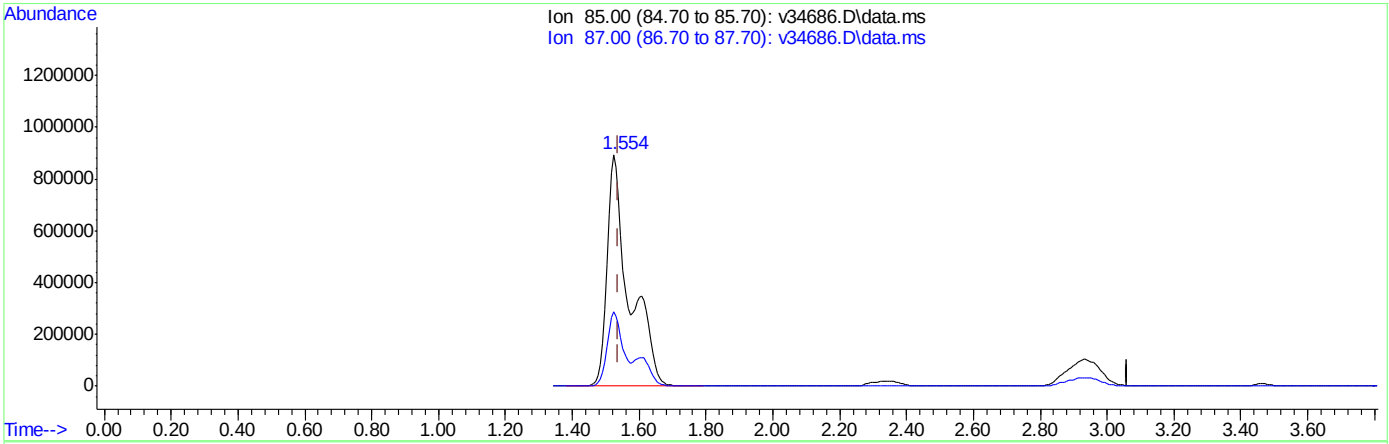
response 669497

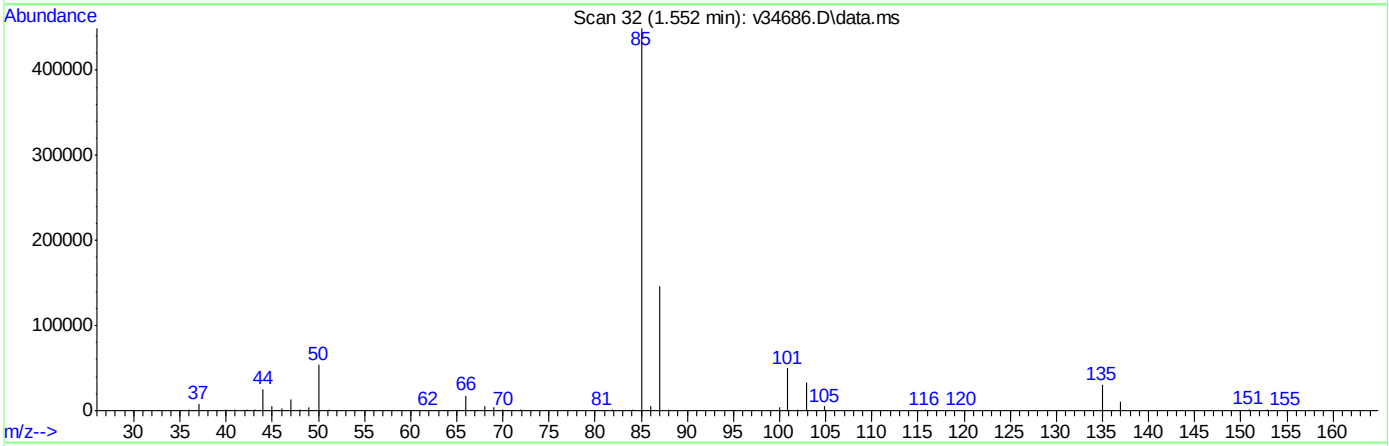
Ion	Exp%	Act%
45.10	100	100
46.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34686.D
Acq On : 17 Sep 2014 4:08 pm
Operator : amym
Sample : ic1262-100
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 17 16:34:44 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration





TIC: v34686.D\data.ms

(5) dichlorodifluoromethane (p)

1.554min (+0.015) 156.00ug/L

response 4044760

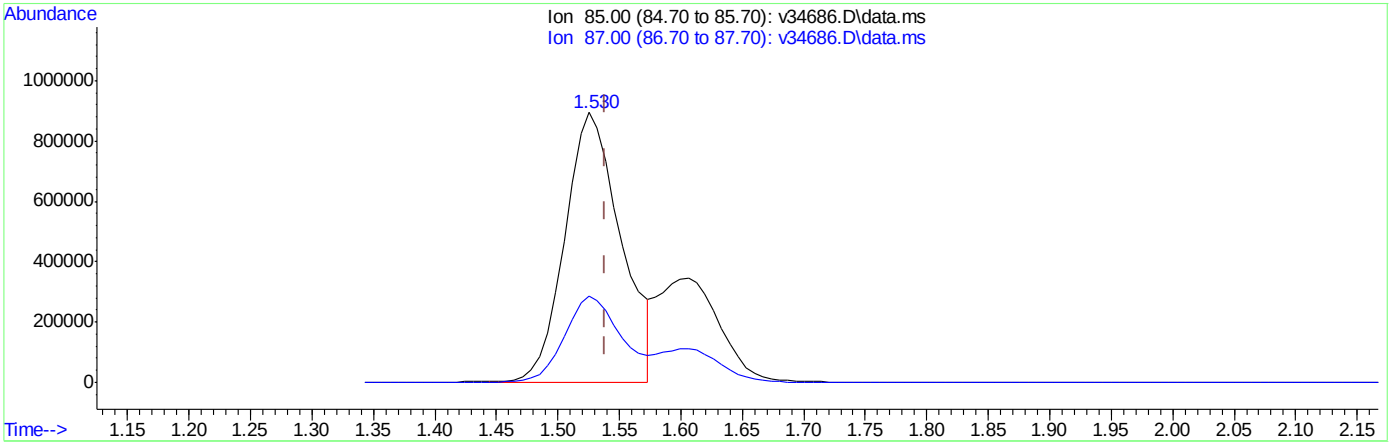
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	32.52
0.00	0.00	0.00
0.00	0.00	0.00

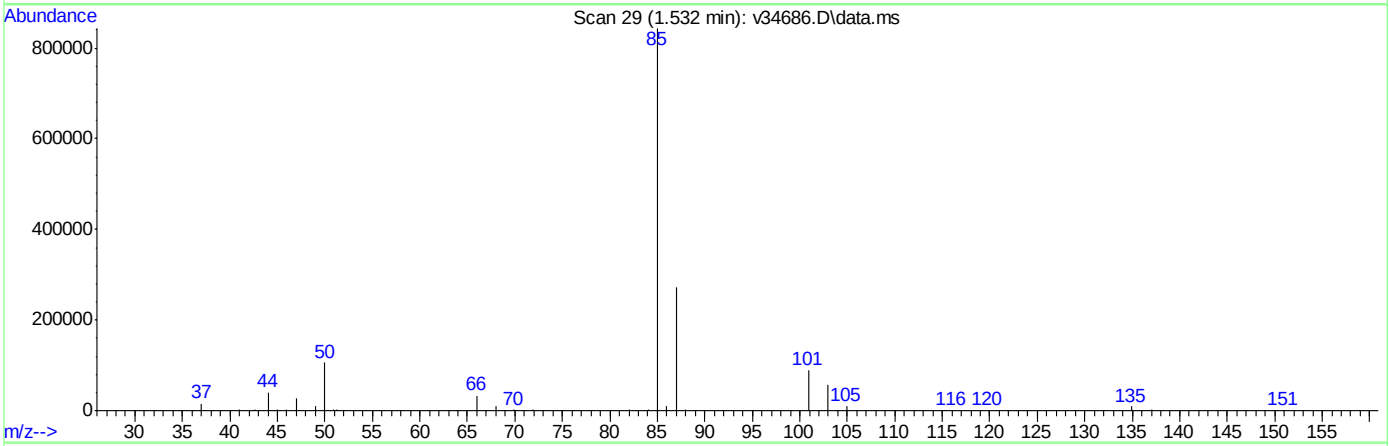
V34686.D edits: dichlorodifluoromethane

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34686.D
Acq On : 17 Sep 2014 4:08 pm
Operator : amym
Sample : ic1262-100
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 17 16:34:44 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration





TIC: v34686.D\data.ms

(5) dichlorodifluoromethane (p)

1.532min (-0.007) 109.20ug/L m

response 2831459

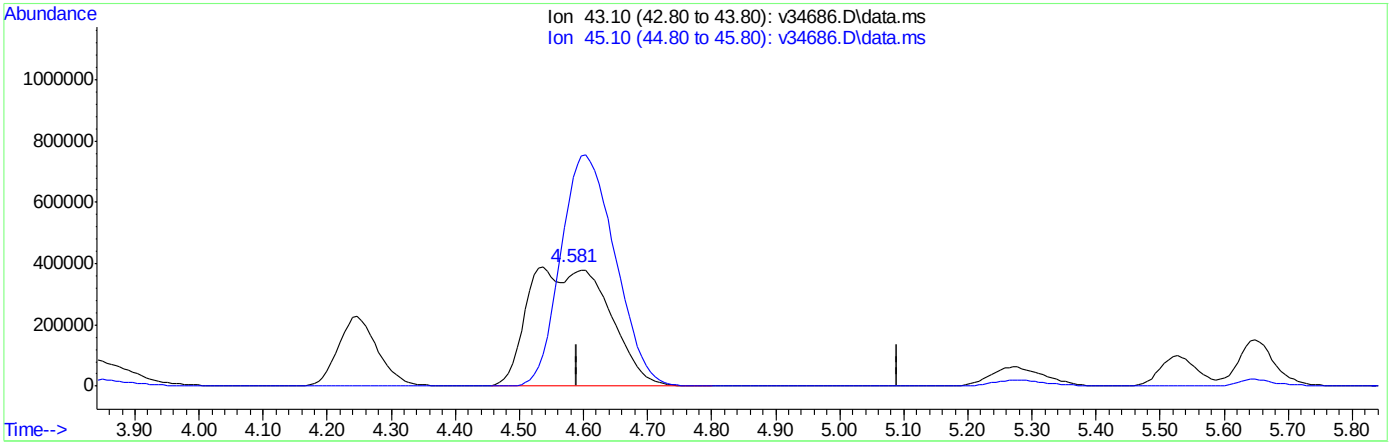
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	32.18
0.00	0.00	0.00
0.00	0.00	0.00

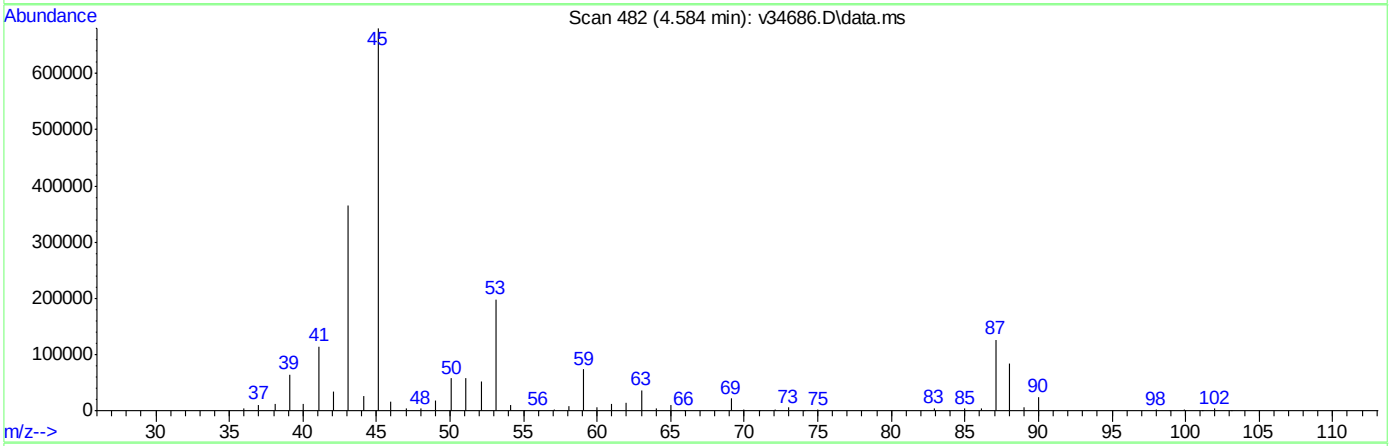
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34686.D
Acq On : 17 Sep 2014 4:08 pm
Operator : amym
Sample : ic1262-100
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 17 16:34:44 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:34:02 2014
Response via : Initial Calibration





TIC: v34686.D\data.ms

(37) ethyl acetate (p)

4.584min (-0.007) 105.26ug/L m

response 3418134

Ion	Exp%	Act%
43.10	100	100
45.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/18/14 12:06

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34687.D
Acq On : 17 Sep 2014 4:34 pm
Operator : amym
Sample : ic1262-200
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 17 17:00:15 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:49:27 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.539	65	175694	500.00	ug/L	# 0.00
4) pentafluorobenzene	6.568	168	1317333	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.749	114	2155680	50.00	ug/L	0.00
66) chlorobenzene-d5	11.084	82	1116207	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.295	152	1289566	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.451	113	3375583	205.82	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 411.64%#			
60) toluene-d8 (s)	9.558	98	9841951	205.79	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 411.58%#			
82) bromofluorobenzene (s)	12.232	95	4658980	208.43	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 416.86%#			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.642	59	1069675	2148.88	ug/L #	58
3) Ethanol	2.616	45	1753097	18982.15	ug/L #	100
5) dichlorodifluoromethane	1.539	85	6012309m	192.80	ug/L	
6) chloromethane	1.654	50	4216357	190.40	ug/L	98
7) vinyl chloride	1.768	62	4121346	208.22	ug/L	98
8) bromomethane	2.053	96	2817379	191.39	ug/L	99
9) chloroethane	2.144	64	1568195	188.81	ug/L	99
10) ethyl ether	2.612	59	1564966	206.26	ug/L	95
11) acetonitrile	3.303	41	4151739	198.66	ug/L #	22
12) trichlorofluoromethane	2.362	101	6431413	207.44	ug/L	99
13) freon-113	2.935	101	3553108	225.48	ug/L	97
14) acrolein	2.767	56	482398	983.08	ug/L	100
15) 1,1-dichloroethene	2.875	96	2324060	215.29	ug/L	99
16) acetone	2.918	58	246269	189.64	ug/L #	78
17) Methyl Acetate	3.289	43	1021134	189.51	ug/L	97
18) methylene chloride	3.474	84	2433829	185.04	ug/L	89
19) methyl tert butyl ether	3.868	73	5092664	219.42	ug/L	99
20) acrylonitrile	3.793	53	665129	191.69	ug/L	98
21) allyl chloride	3.303	41	4151739	198.65	ug/L	95
22) trans-1,2-dichloroethene	3.847	96	2547846	200.50	ug/L	98
23) iodomethane	3.044	142	6243963	199.67	ug/L	99
24) carbon disulfide	3.129	76	8050856	205.64	ug/L	98
25) propionitrile	5.656	54	222390	211.19	ug/L	100
26) vinyl acetate	4.590	43	7377557	200.07	ug/L	99
27) chloroprene	4.635	53	4216034	222.90	ug/L	98
28) di-isopropyl ether	4.620	45	9448079	197.53	ug/L	97
29) methacrylonitrile	5.927	41	1101072	195.32	ug/L	96
30) 2-butanone	5.545	72	177591	221.00	ug/L #	51
31) Hexane	4.262	41	2575779	207.20	ug/L	89
32) 1,1-dichloroethane	4.523	63	5212267	200.92	ug/L	98
33) tert-butyl ethyl ether	5.292	59	7747651	229.35	ug/L	97
34) isobutyl alcohol	4.590	43	7378526m	1000.37	ug/L	
35) 2,2-dichloropropane	5.566	77	4501051	234.15	ug/L	95
36) cis-1,2-dichloroethene	5.544	96	2857177	210.96	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34687.D
Acq On : 17 Sep 2014 4:34 pm
Operator : amym
Sample : ic1262-200
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 17 17:00:15 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:49:27 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	4.590	43	7377459m	200.29	ug/L		
38) bromochloromethane	5.964	128	1525451	203.91	ug/L		88
39) chloroform	6.181	83	5515128	206.97	ug/L		95
41) Tetrahydrofuran	5.969	42	396261	203.39	ug/L		97
42) 1,1,1-trichloroethane	6.426	97	5837554	230.91	ug/L		97
44) Cyclohexane	6.533	56	5439303	201.51	ug/L		97
45) carbon tetrachloride	6.680	117	5740742	227.11	ug/L		97
46) 1,1-dichloropropene	6.694	75	3390487	229.27	ug/L		98
47) benzene	7.013	78	8993803	201.92	ug/L		100
48) 1,2-dichloroethane	7.136	62	3781281	195.56	ug/L		99
49) tert-amyl methyl ether	7.302	73	4951142	250.06	ug/L		96
50) heptane	7.566	43	3290198	208.02	ug/L		93
51) trichloroethene	8.042	95	3091546	206.17	ug/L		98
52) 1,2-dichloropropane	8.389	63	2814351	204.45	ug/L		99
53) dibromomethane	8.493	93	1491856	201.85	ug/L		93
54) bromodichloromethane	8.743	83	3951819	217.68	ug/L		97
55) Methylcyclohexane	8.345	83	4055225	225.84	ug/L		99
56) 2-chloroethyl vinyl ether	9.118	63	1250675	235.76	ug/L		97
57) methyl methacrylate	8.521	69	913049	228.75	ug/L		91
58) 1,4-dioxane	8.512	88	50346	1189.67	ug/L		76
59) cis-1,3-dichloropropene	9.270	75	3761848	250.10	ug/L		97
61) 4-methyl-2-pentanone	9.451	43	1863377	223.27	ug/L		93
62) toluene	9.634	92	6457657	210.26	ug/L		96
63) trans-1,3-dichloropropene	9.921	75	3109947	270.90	ug/L		100
64) 1,1,2-trichloroethane	10.127	83	1649652	206.91	ug/L		99
65) ethyl methacrylate	9.999	69	2291400	256.30	ug/L		93
67) tetrachloroethene	10.187	166	3379086	210.36	ug/L		99
68) 1,3-dichloropropane	10.288	76	3163662	205.65	ug/L		99
69) dibromochloromethane	10.509	129	3455407	239.78	ug/L		99
70) 1,2-dibromoethane	10.618	107	2243290	216.22	ug/L		97
71) 2-hexanone	10.358	43	1626717	224.95	ug/L		89
72) chlorobenzene	11.114	112	8709600	198.51	ug/L		98
73) 1,1,1,2-tetrachloroethane	11.214	131	3893526	222.48	ug/L		99
74) ethylbenzene	11.219	91	13353503	190.34	ug/L		89
75) m,p-xylene	11.349	106	11087204	405.66	ug/L	#	65
76) o-xylene	11.716	106	5797439	204.65	ug/L		90
77) styrene	11.737	104	9164408	207.15	ug/L		100
78) bromoform	11.911	173	1782689	254.91	ug/L		99
79) trans-1,4-dichloro-2-b...	12.127	53	897580	228.40	ug/L		69
81) isopropylbenzene	12.067	105	14215076	192.74	ug/L		80
83) bromobenzene	12.358	156	4248165	215.29	ug/L		92
84) 1,1,2,2-tetrachloroethane	12.363	83	2403513	192.54	ug/L		97
85) 1,2,3-trichloropropane	12.401	75	2940618	240.73	ug/L		96
86) n-propylbenzene	12.456	91	14555767	176.65	ug/L		71
87) 2-chlorotoluene	12.535	91	10869291	199.84	ug/L		92
88) 4-chlorotoluene	12.646	91	12701314	197.90	ug/L		92
89) 1,3,5-trimethylbenzene	12.625	105	13372543	191.88	ug/L		80
90) tert-butylbenzene	12.911	91	7928484	214.56	ug/L		96
91) 1,2,4-trimethylbenzene	12.965	105	13406824	188.04	ug/L		79
92) sec-butylbenzene	13.114	105	14366291	183.60	ug/L		78

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34687.D
Acq On : 17 Sep 2014 4:34 pm
Operator : amym
Sample : ic1262-200
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 17 17:00:15 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:49:27 2014
Response via : Initial Calibration

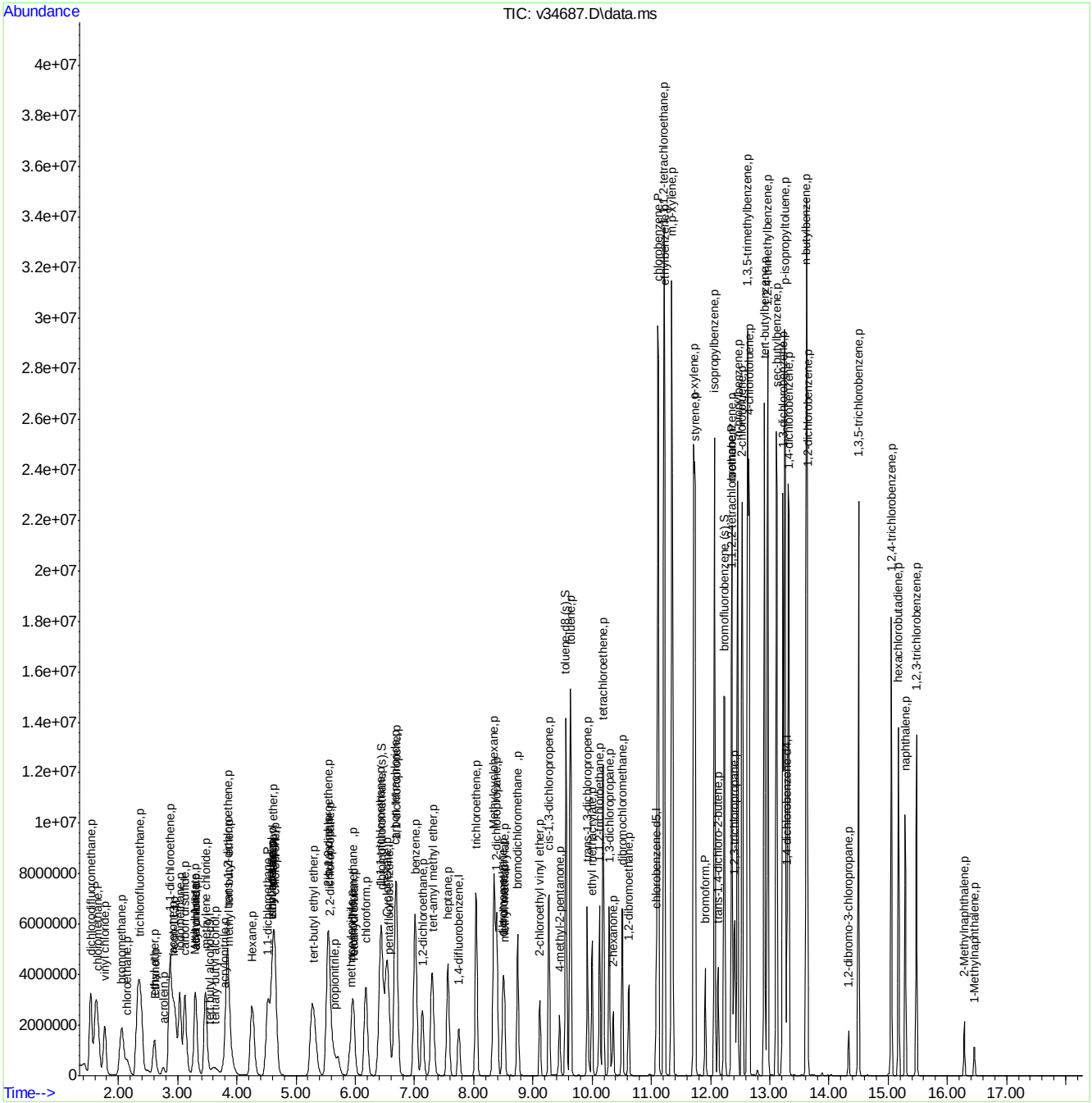
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.223	146	8576662	204.77	ug/L	98
94) p-isopropyltoluene	13.254	119	14042974	184.59	ug/L	77
95) 1,4-dichlorobenzene	13.318	146	8604564	199.99	ug/L	99
96) 1,2-dichlorobenzene	13.634	146	7803798	195.75	ug/L	98
97) n-butylbenzene	13.619	91	12212875	196.72	ug/L	86
98) 1,2-dibromo-3-chloropr...	14.334	75	365005	236.98	ug/L	92
99) 1,3,5-trichlorobenzene	14.500	180	6012618	208.44	ug/L	100
100) 1,2,4-trichlorobenzene	15.055	180	4864278	218.34	ug/L	97
101) hexachlorobutadiene	15.176	225	2065529	225.02	ug/L	100
102) naphthalene	15.289	128	6957805	243.33	ug/L	100
103) 1,2,3-trichlorobenzene	15.478	180	3467142	218.31	ug/L	99
104) 2-Methylnaphthalene	16.287	142	924374	162.35	ug/L	99
105) 1-Methylnaphthalene	16.457	142	515849	148.49	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34687.D
Acq On : 17 Sep 2014 4:34 pm
Operator : amym
Sample : ic1262-200
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 20 Sample Multiplier: 1

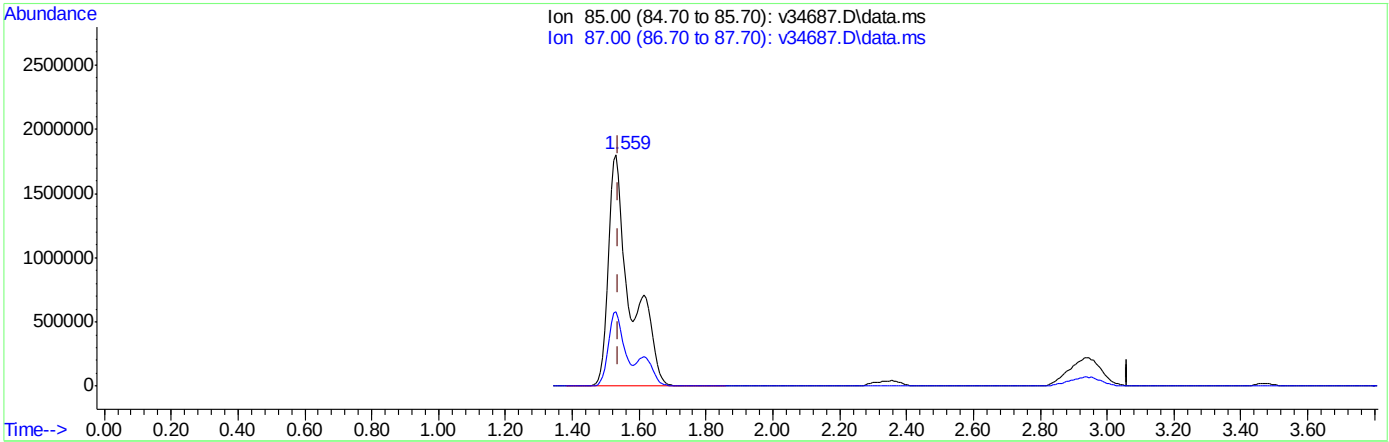
Quant Time: Sep 17 17:00:15 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:49:27 2014
Response via : Initial Calibration

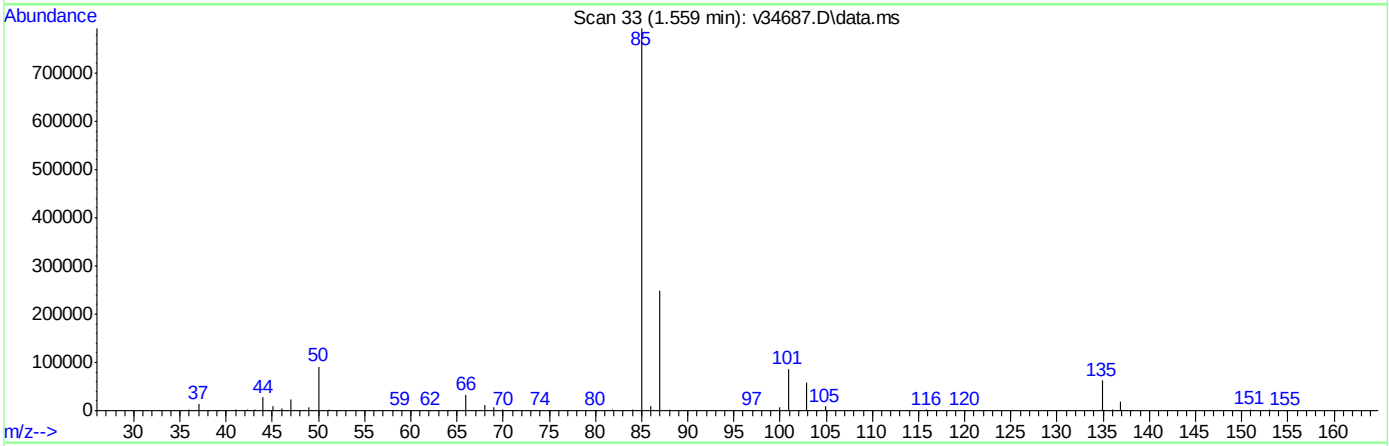


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34687.D
Acq On : 17 Sep 2014 4:34 pm
Operator : amym
Sample : ic1262-200
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 17 16:59:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:49:27 2014
Response via : Initial Calibration





TIC: v34687.D\data.ms

(5) dichlorodifluoromethane (p)

1.559min (+0.020) 264.41ug/L

response 8245456

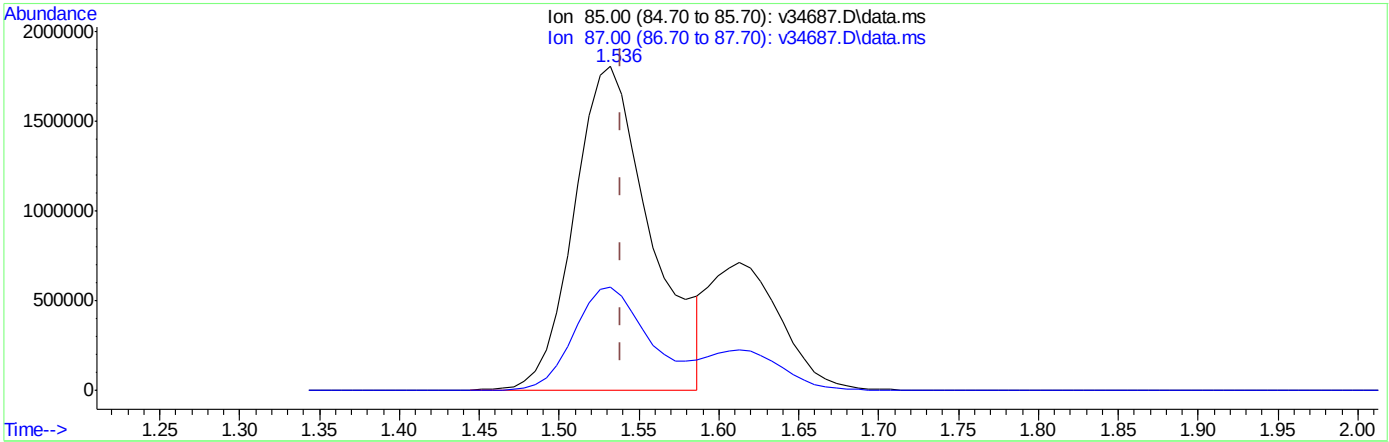
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	31.44
0.00	0.00	0.00
0.00	0.00	0.00

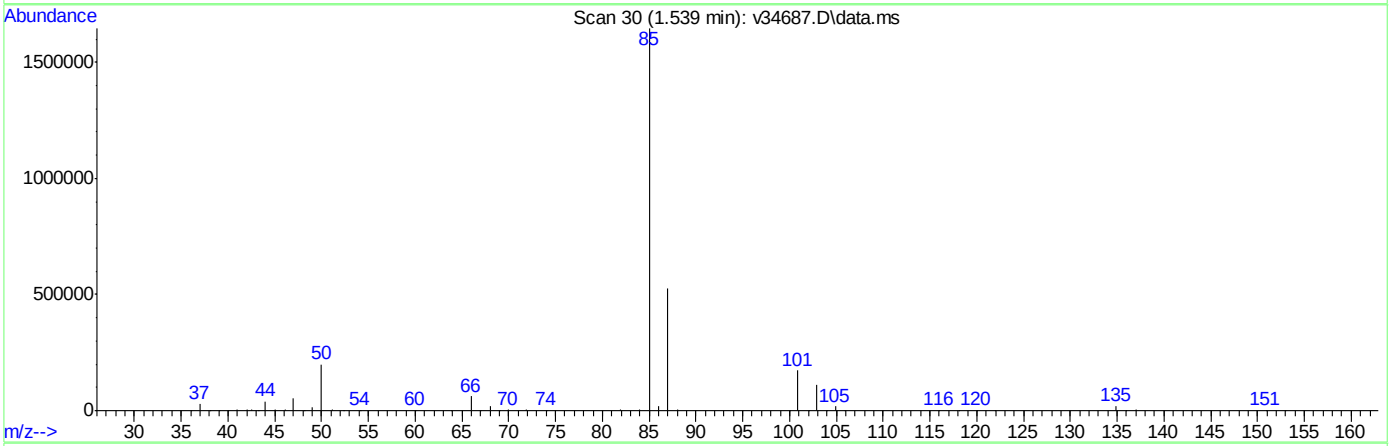
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34687.D
Acq On : 17 Sep 2014 4:34 pm
Operator : amym
Sample : ic1262-200
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 17 16:59:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:49:27 2014
Response via : Initial Calibration





TIC: v34687.D\data.ms

(5) dichlorodifluoromethane (p)

1.539min (-0.000) 192.80ug/L m

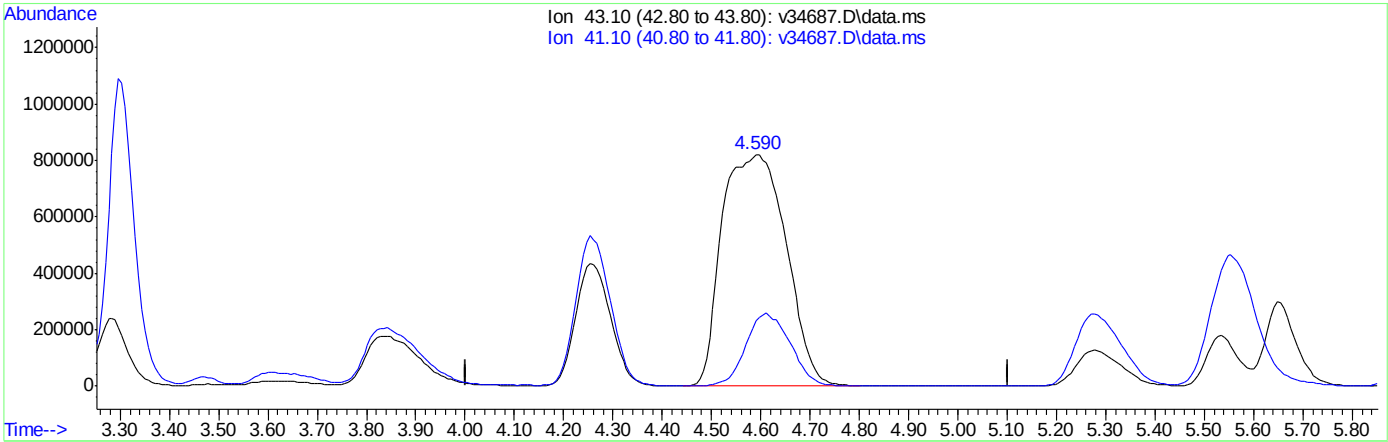
response 6012309

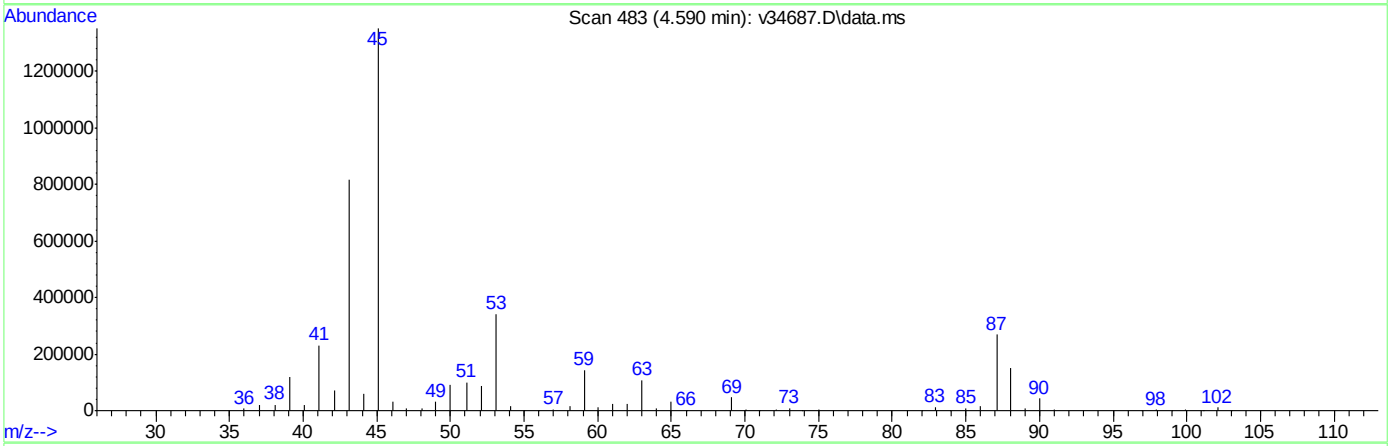
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	31.92
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34687.D
Acq On : 17 Sep 2014 4:34 pm
Operator : amym
Sample : ic1262-200
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 17 16:59:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:49:27 2014
Response via : Initial Calibration





TIC: v34687.D\data.ms

(34) isobutyl alcohol (p)

4.590min (-0.003) 1000.37ug/L m

response 7378526

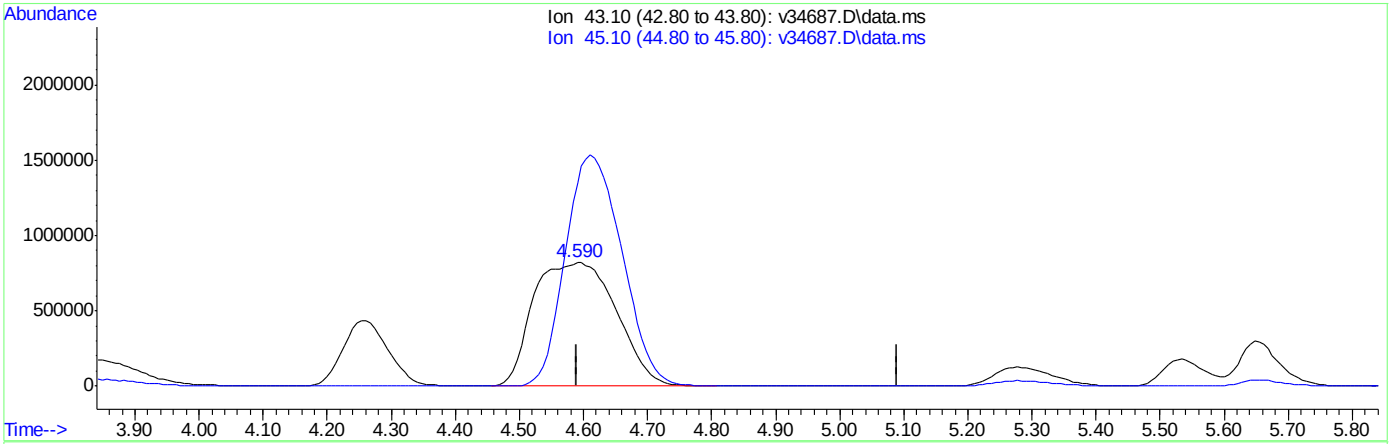
Ion	Exp%	Act%
43.10	100	100
41.10	27.80	28.15
0.00	0.00	0.00
0.00	0.00	0.00

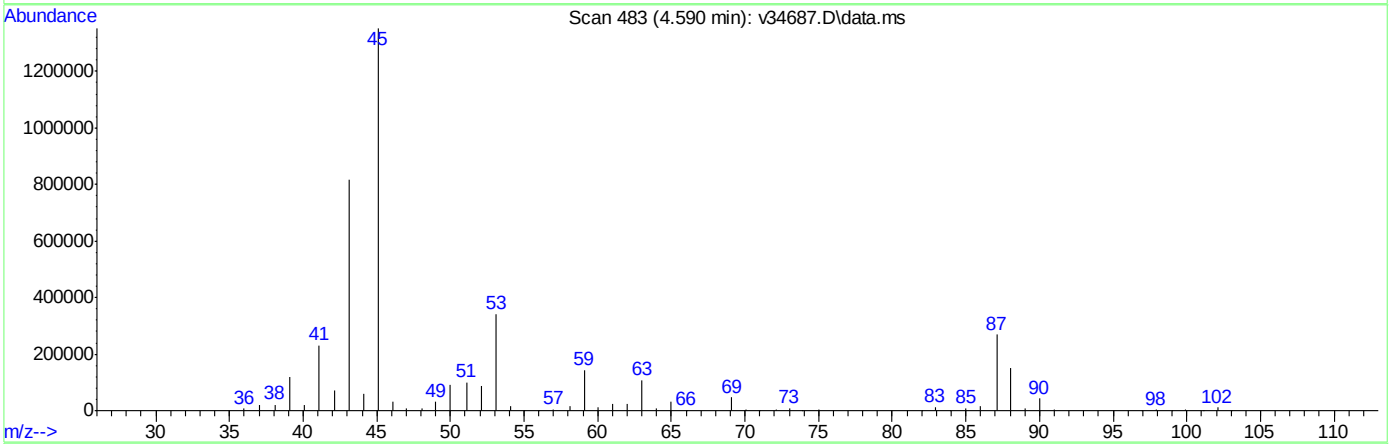
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34687.D
Acq On : 17 Sep 2014 4:34 pm
Operator : amym
Sample : ic1262-200
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 17 16:59:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 16:49:27 2014
Response via : Initial Calibration





TIC: v34687.D\data.ms

(37) ethyl acetate (p)

4.590min (-0.000) 200.29ug/L m

response 7377459

Ion	Exp%	Act%
43.10	100	100
45.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

V34687.D edits: ethyl acetate

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/18/14 12:06

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:22:50 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.561	65	196143	500.00	ug/L	# 0.02
4) pentafluorobenzene	6.575	168	1397957	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.753	114	2280754	50.00	ug/L	0.00
66) chlorobenzene-d5	11.085	82	1090106	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.296	152	1292116	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.459	113	7381600	422.08	ug/L	0.01
Spiked Amount 50.000	Range 70 - 130		Recovery = 844.16%#			
60) toluene-d8 (s)	9.561	98	18058846	355.18	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 710.36%#			
82) bromofluorobenzene (s)	12.234	95	8861890	392.91	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 785.82%#			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.657	59	2398829	4271.19	ug/L #	52
3) Ethanol	2.632	45	3757007	36705.79	ug/L #	100
5) dichlorodifluoromethane	1.546	85	11889248	361.13	ug/L	99
6) chloromethane	1.669	50	8400907	359.96	ug/L	97
7) vinyl chloride	1.781	62	8363953	395.87	ug/L	98
8) bromomethane	2.064	96	5596490	360.46	ug/L	100
9) chloroethane	2.157	64	3169099	362.45	ug/L	99
10) ethyl ether	2.627	59	3332778	412.07	ug/L	98
11) acetonitrile	3.315	41	8588823	387.64	ug/L #	22
12) trichlorofluoromethane	2.373	101	12734328	385.00	ug/L	99
13) freon-113	2.947	101	7531754m	442.35	ug/L	
14) acrolein	2.778	56	826776	1592.20	ug/L	100
15) 1,1-dichloroethene	2.881	96	4939412	427.09	ug/L	96
16) acetone	2.933	58	521225	381.52	ug/L #	74
17) Methyl Acetate	3.306	43	2191363	386.62	ug/L #	94
18) methylene chloride	3.483	84	5209847	377.28	ug/L	85
19) methyl tert butyl ether	3.883	73	10928640m	437.64	ug/L	
20) acrylonitrile	3.807	53	1405210	383.90	ug/L	93
21) allyl chloride	3.315	41	8599226	388.09	ug/L	91
22) trans-1,2-dichloroethene	3.862	96	5690677	421.84	ug/L	95
23) iodomethane	3.051	142	13167931	396.89	ug/L	99
24) carbon disulfide	3.135	76	17035969	408.39	ug/L	98
25) propionitrile	5.670	54	479699	425.31	ug/L	100
26) vinyl acetate	4.601	43	14434064	368.83	ug/L	99
27) chloroprene	4.651	53	8948619	438.65	ug/L	96
28) di-isopropyl ether	4.631	45	18581364m	366.73	ug/L	
29) methacrylonitrile	5.935	41	2255745	378.34	ug/L	97
30) 2-butanone	5.556	72	377499	435.07	ug/L #	39
31) Hexane	4.274	41	5288338	398.48	ug/L	88
32) 1,1-dichloroethane	4.539	63	11438004	415.24	ug/L	99
33) tert-butyl ethyl ether	5.306	59	16919497	462.28	ug/L	97
34) isobutyl alcohol	4.601	43	14432430	1843.76	ug/L	99
35) 2,2-dichloropropane	5.578	77	9820146	468.07	ug/L	97
36) cis-1,2-dichloroethene	5.559	96	6391295	441.24	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:22:50 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	4.604	43	14433721m	369.17	ug/L		
38) bromochloromethane	5.976	128	3413678	428.79	ug/L	#	82
39) chloroform	6.192	83	12092319	425.51	ug/L		94
41) Tetrahydrofuran	5.980	42	814962	393.06	ug/L		91
42) 1,1,1-trichloroethane	6.435	97	12440234	455.88	ug/L		95
44) Cyclohexane	6.543	56	11301419	395.23	ug/L		96
45) carbon tetrachloride	6.687	117	12261808	448.37	ug/L		98
46) 1,1-dichloropropene	6.701	75	7220456	452.04	ug/L		96
47) benzene	7.019	78	18945910	401.55	ug/L		100
48) 1,2-dichloroethane	7.141	62	7755188	380.29	ug/L		98
49) tert-amyl methyl ether	7.311	73	11297423	520.68	ug/L		94
50) heptane	7.569	43	6268603	372.10	ug/L		89
51) trichloroethene	8.045	95	6553716	411.68	ug/L		96
52) 1,2-dichloropropane	8.392	63	5707170	390.62	ug/L		98
53) dibromomethane	8.496	93	3058762	390.64	ug/L		90
54) bromodichloromethane	8.745	83	8120692	417.52	ug/L		97
55) Methylcyclohexane	8.349	83	8760044	451.39	ug/L		95
56) 2-chloroethyl vinyl ether	9.119	63	2407931	416.60	ug/L		97
57) methyl methacrylate	8.522	69	1864293	431.13	ug/L		83
58) 1,4-dioxane	8.513	88	111173	2406.85	ug/L		91
59) cis-1,3-dichloropropene	9.272	75	7619788	464.28	ug/L		96
61) 4-methyl-2-pentanone	9.453	43	3685941	410.60	ug/L		90
62) toluene	9.636	92	12800976	391.08	ug/L	#	58
63) trans-1,3-dichloropropene	9.922	75	6134682	483.64	ug/L		98
64) 1,1,2-trichloroethane	10.129	83	3198808	377.35	ug/L		98
65) ethyl methacrylate	10.000	69	4468414	454.14	ug/L		87
67) tetrachloroethene	10.189	166	6907207	437.77	ug/L		99
68) 1,3-dichloropropane	10.289	76	6075710	402.77	ug/L		99
69) dibromochloromethane	10.509	129	6797679	471.28	ug/L		99
70) 1,2-dibromoethane	10.618	107	4312237	420.71	ug/L		98
71) 2-hexanone	10.358	43	2971336	413.37	ug/L		85
72) chlorobenzene	11.115	112	14898929	348.08	ug/L		88
73) 1,1,1,2-tetrachloroethane	11.216	131	7691624	442.92	ug/L		98
74) ethylbenzene	11.221	91	17840688	261.97	ug/L	#	30
75) m,p-xylene	11.351	106	18964405	709.23	ug/L	#	33
76) o-xylene	11.718	106	11116979	400.66	ug/L	#	39
77) styrene	11.738	104	14859865	342.18	ug/L		71
78) bromoform	11.911	173	3614399	509.24	ug/L		100
79) trans-1,4-dichloro-2-b...	12.128	53	1739110	444.12	ug/L		63
81) isopropylbenzene	12.068	105	18777388m	255.42	ug/L		
83) bromobenzene	12.359	156	8159472	408.24	ug/L		91
84) 1,1,2,2-tetrachloroethane	12.364	83	4608037	370.14	ug/L		97
85) 1,2,3-trichloropropane	12.412	75	4784866m	379.88	ug/L		
86) n-propylbenzene	12.459	91	18609669m	229.23	ug/L		
87) 2-chlorotoluene	12.540	91	16282282m	298.81	ug/L		
88) 4-chlorotoluene	12.647	91	18831354	293.27	ug/L		49
89) 1,3,5-trimethylbenzene	12.627	105	17415381m	250.85	ug/L		
90) tert-butylbenzene	12.912	91	14352803	383.66	ug/L	#	61
91) 1,2,4-trimethylbenzene	12.964	105	17166611m	242.37	ug/L		
92) sec-butylbenzene	13.119	105	18268791m	235.78	ug/L		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:22:50 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration

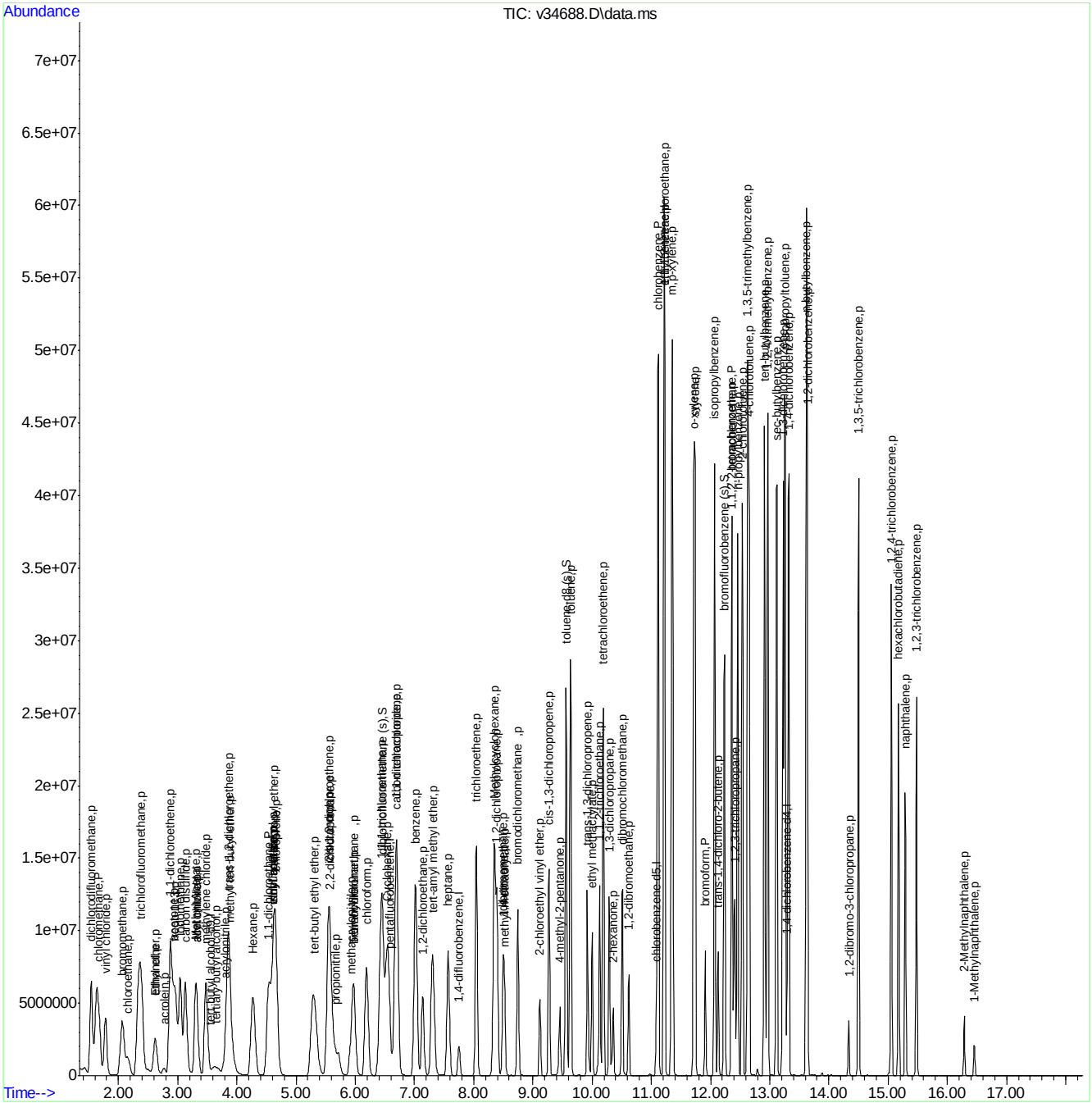
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.224	146	14303700	339.68	ug/L	73
94) p-isopropyltoluene	13.254	119	17458277m	231.58	ug/L	
95) 1,4-dichlorobenzene	13.319	146	14250051	330.55	ug/L	70
96) 1,2-dichlorobenzene	13.635	146	13704915	344.14	ug/L	83
97) n-butylbenzene	13.617	91	16331234m	263.16	ug/L	
98) 1,2-dibromo-3-chloropr...	14.335	75	767108	484.27	ug/L	75
99) 1,3,5-trichlorobenzene	14.501	180	11343196	390.11	ug/L	99
100) 1,2,4-trichlorobenzene	15.056	180	9453626	418.02	ug/L	99
101) hexachlorobutadiene	15.177	225	4165980	444.99	ug/L	100
102) naphthalene	15.289	128	13149910	445.19	ug/L	100
103) 1,2,3-trichlorobenzene	15.479	180	6942329	430.63	ug/L	99
104) 2-Methylnaphthalene	16.287	142	1800006	285.81	ug/L	99
105) 1-Methylnaphthalene	16.457	142	962718	255.90	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

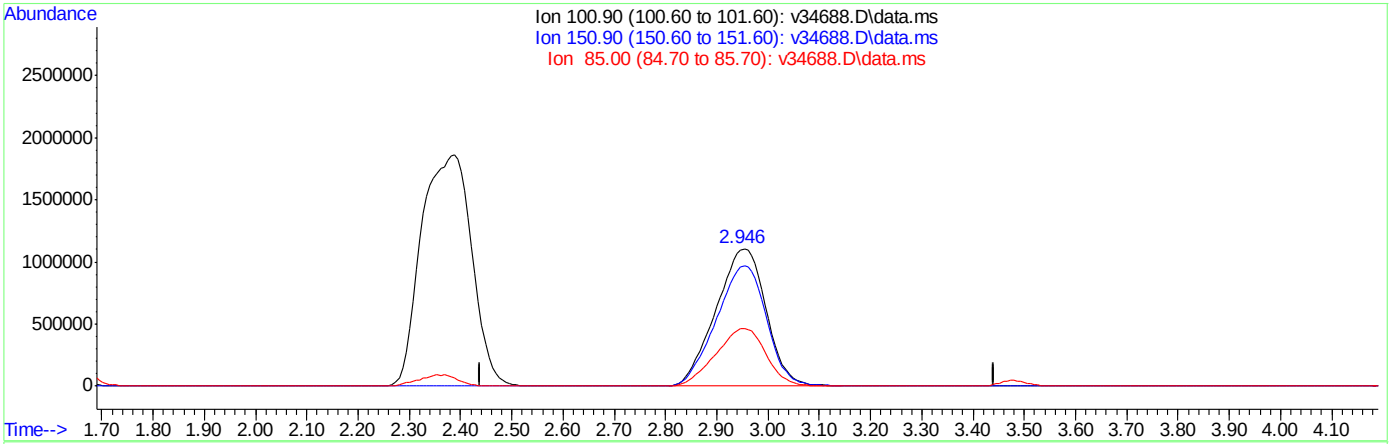
Quant Time: Sep 17 17:22:50 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration

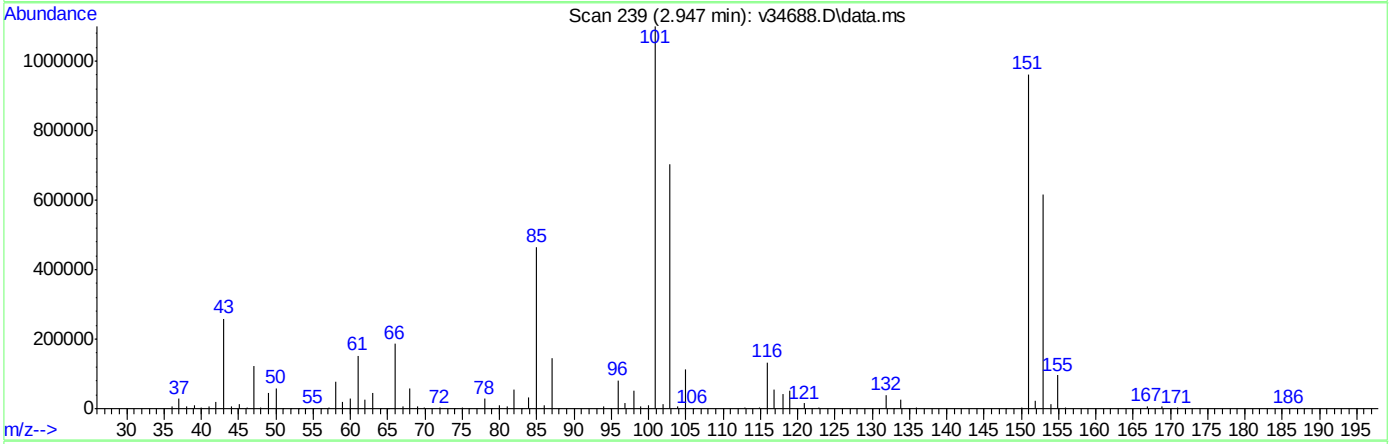


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(13) freon-113 (p)

2.947min (+0.006) 442.35ug/L m

response 7531754

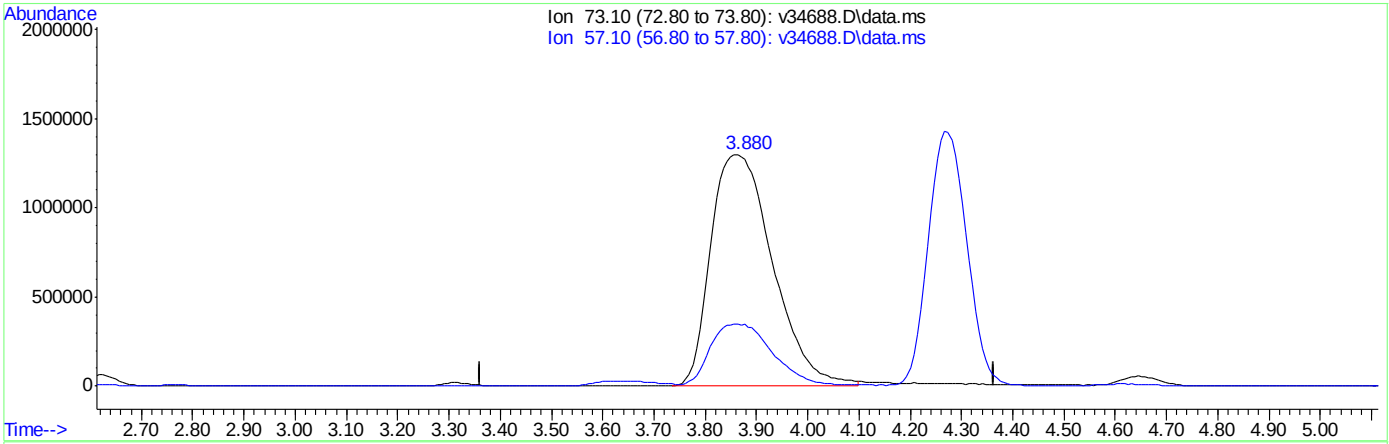
Ion	Exp%	Act%
100.90	100	100
150.90	82.30	87.47
85.00	43.20	42.26
0.00	0.00	0.00

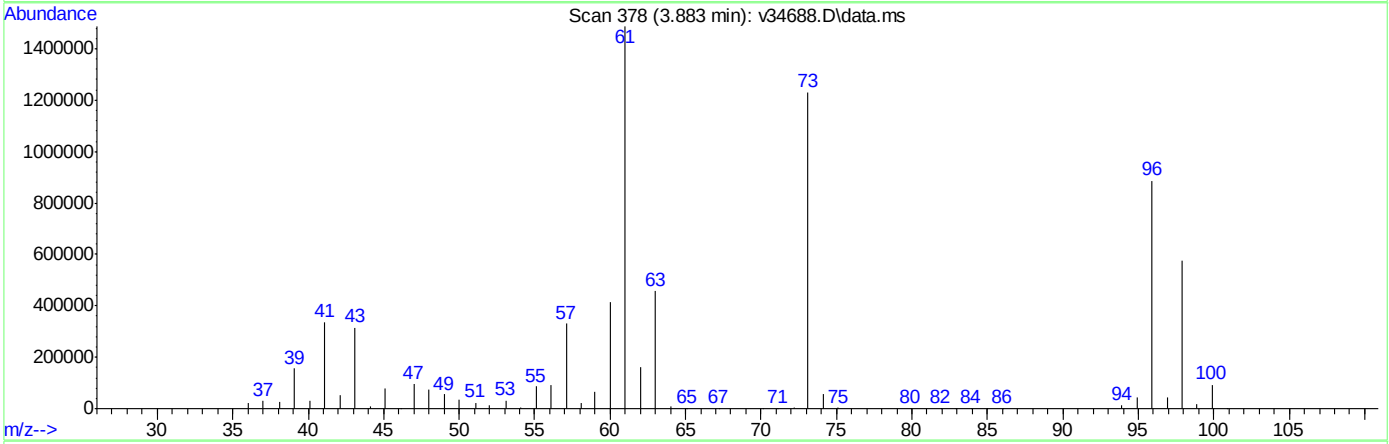
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(19) methyl tert butyl ether (p)

3.883min (+0.020) 437.64ug/L m

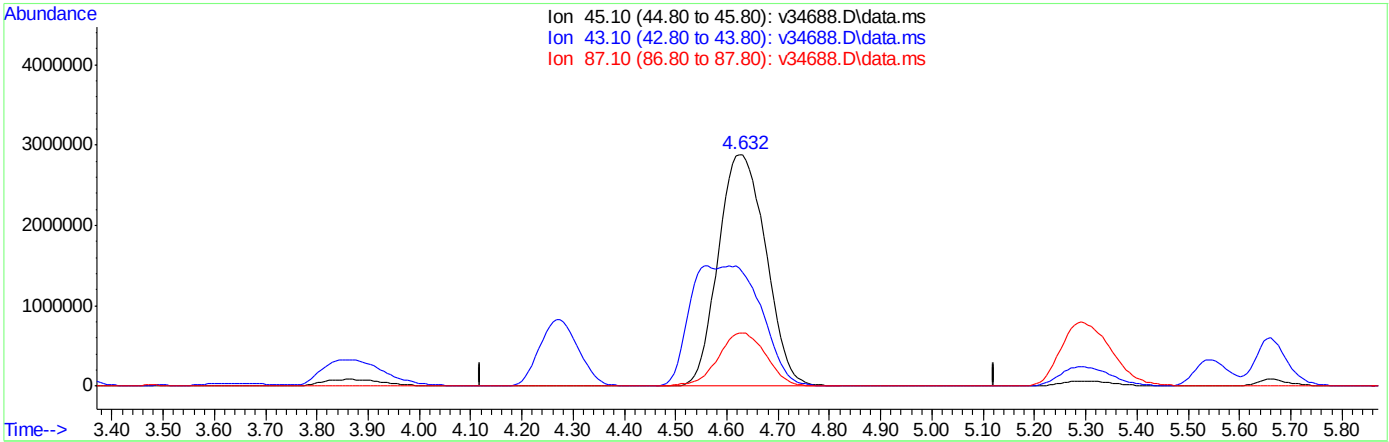
response 10928640

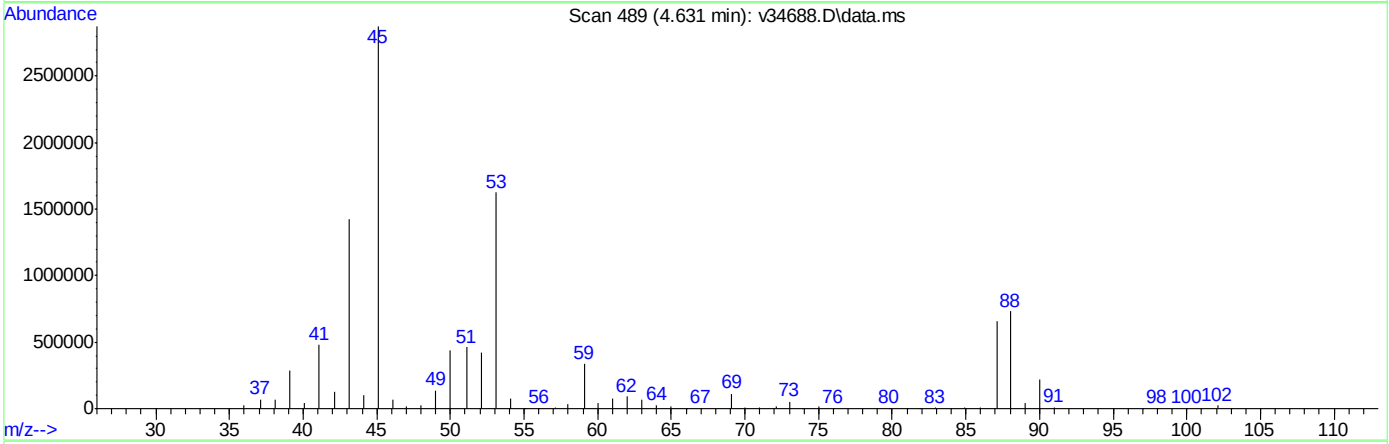
Ion	Exp%	Act%
73.10	100	100
57.10	27.80	26.94
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(28) di-isopropyl ether (p)

4.631min (+0.010) 366.73ug/L m

response 18581364

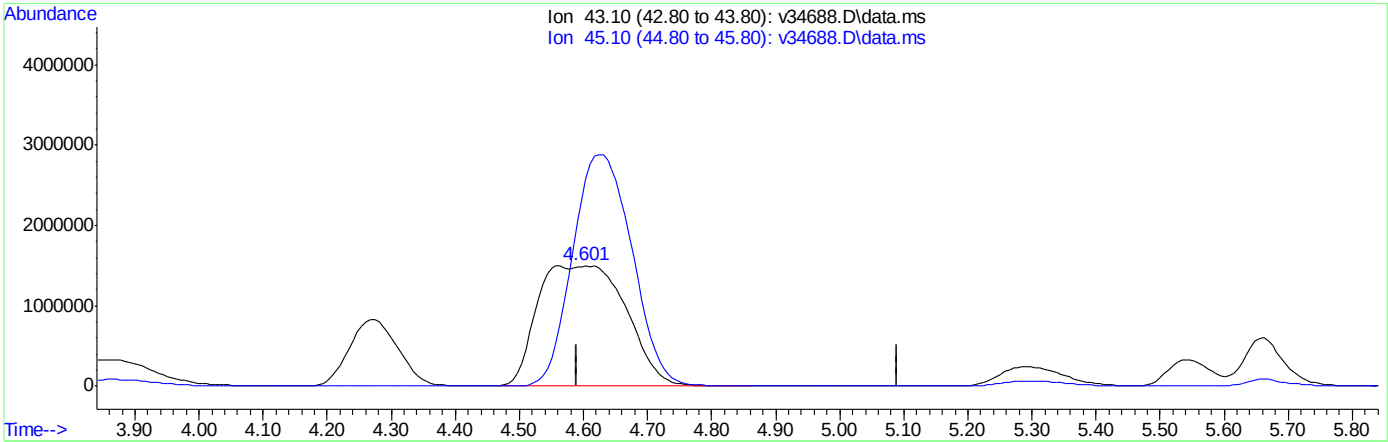
Ion	Exp%	Act%
45.10	100	100
43.10	49.20	49.47
87.10	18.90	22.87
0.00	0.00	0.00

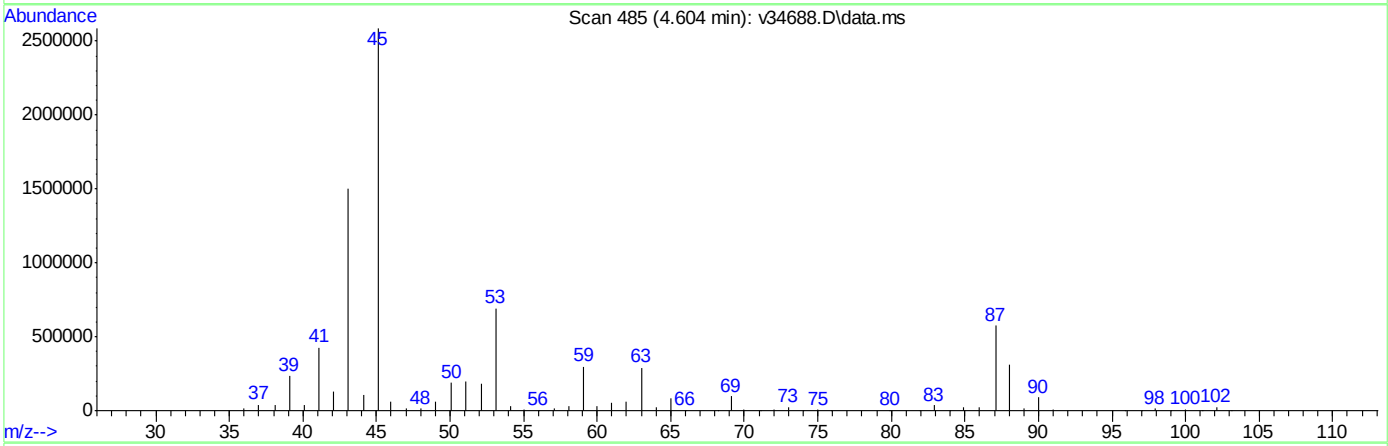
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(37) ethyl acetate (p)

4.604min (+0.014) 369.17ug/L m

response 14433721

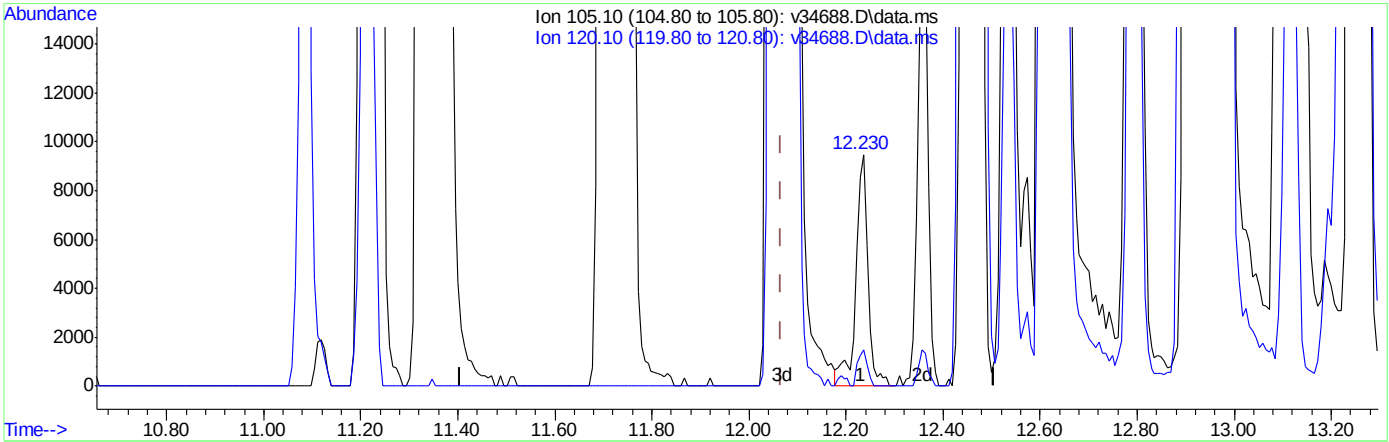
Ion	Exp%	Act%
43.10	100	100
45.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

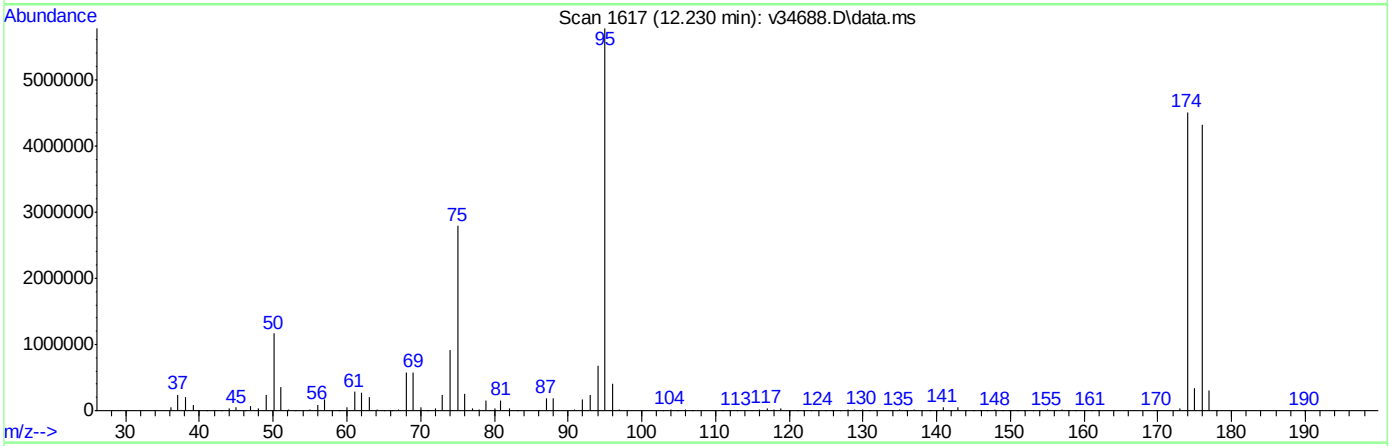
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(81) isopropylbenzene (p)

12.230min (+0.164) 0.22ug/L

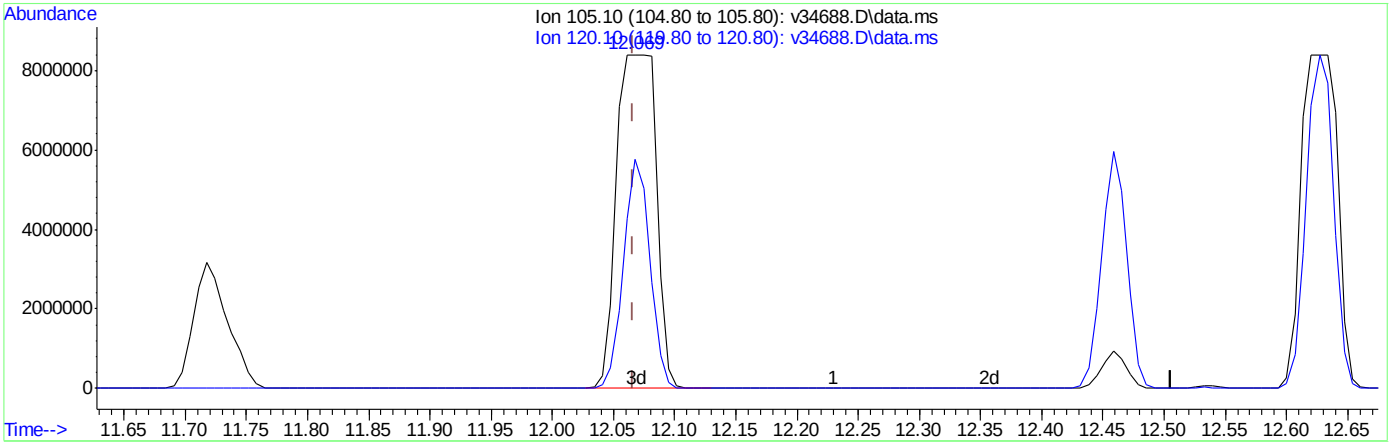
response 16294

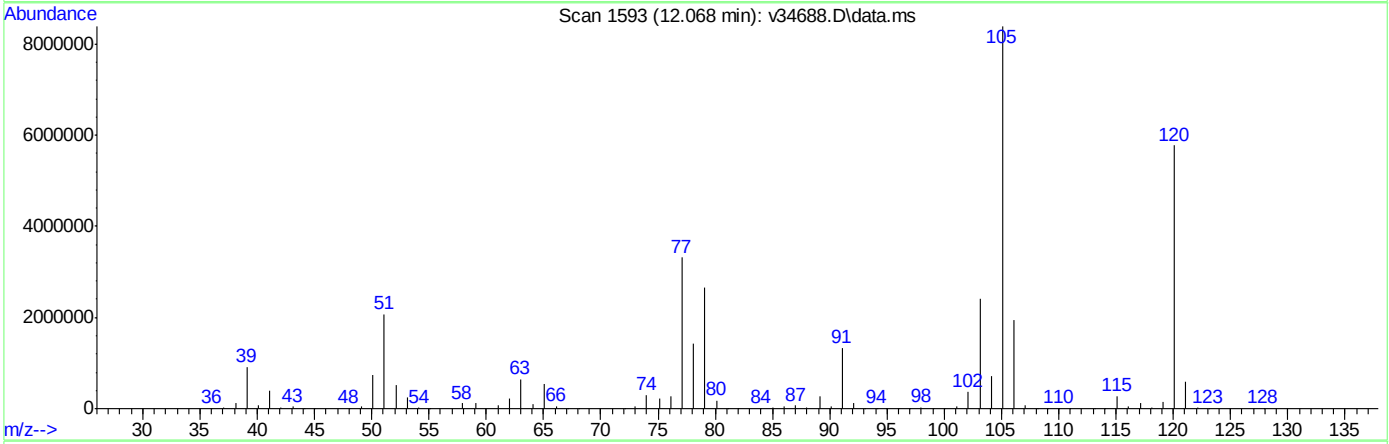
Ion	Exp%	Act%
105.10	100	100
120.10	25.80	14.53
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(81) isopropylbenzene (p)

12.068min (+0.002) 255.42ug/L m

response 18777388

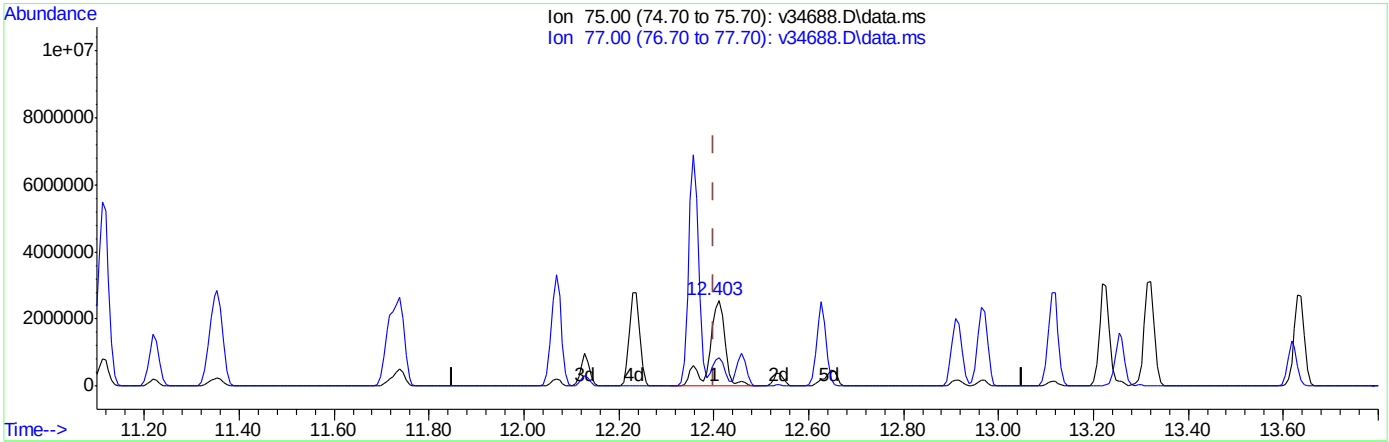
Ion	Exp%	Act%
105.10	100	100
120.10	25.80	68.88#
0.00	0.00	0.00
0.00	0.00	0.00

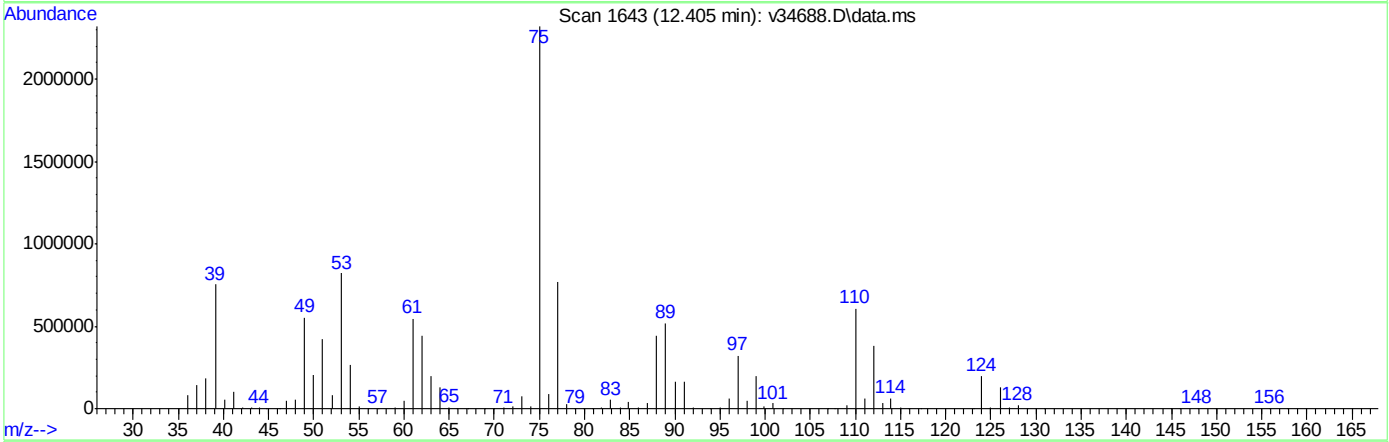
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(85) 1,2,3-trichloropropane (p)

12.403min (+0.003) 465.73ug/L

response 5866205

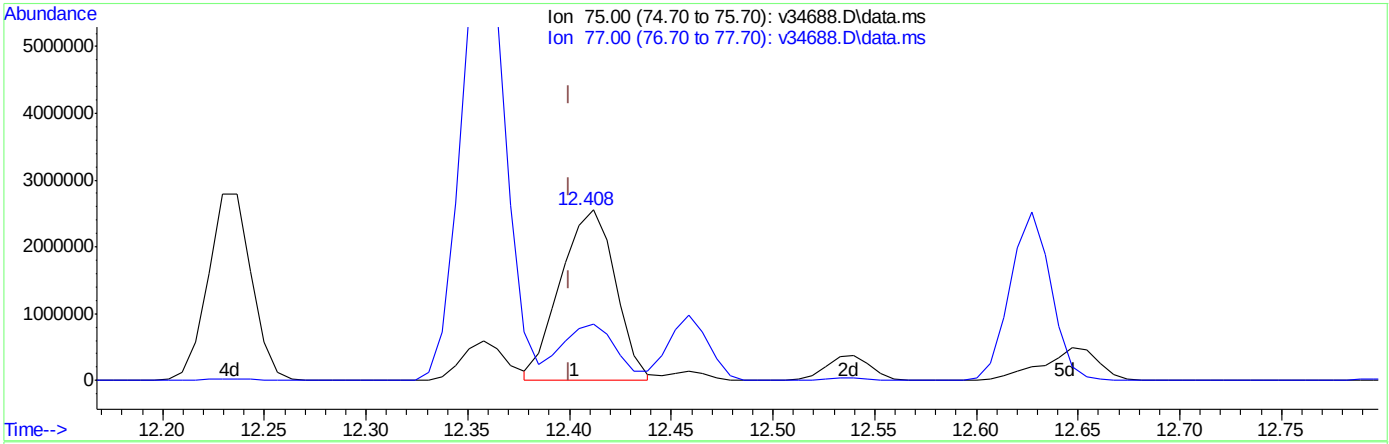
Ion	Exp%	Act%
75.00	100	100
77.00	31.40	33.13
0.00	0.00	0.00
0.00	0.00	0.00

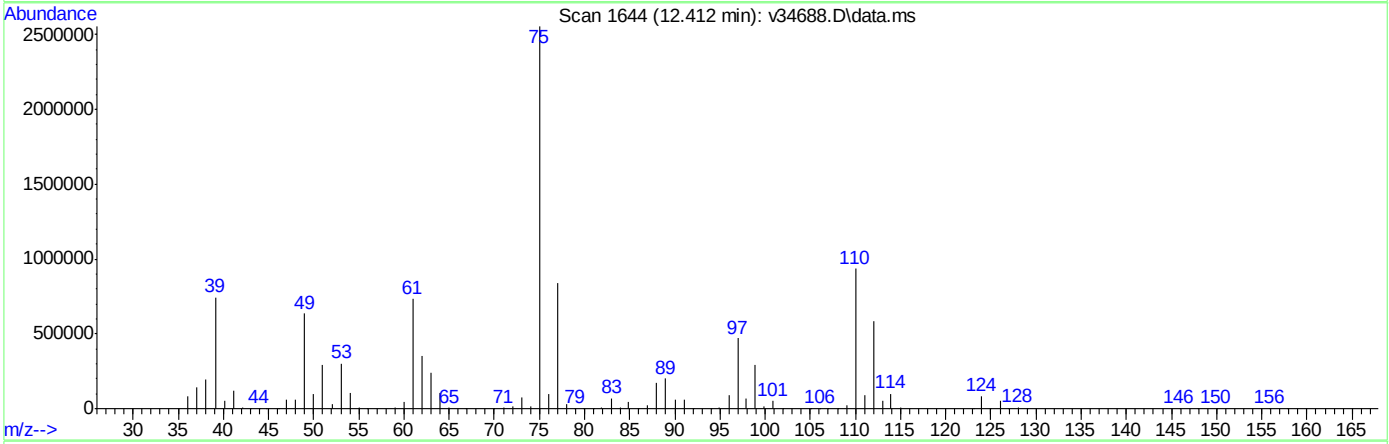
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(85) 1,2,3-trichloropropane (p)

12.412min (+0.011) 379.88ug/L m

response 4784866

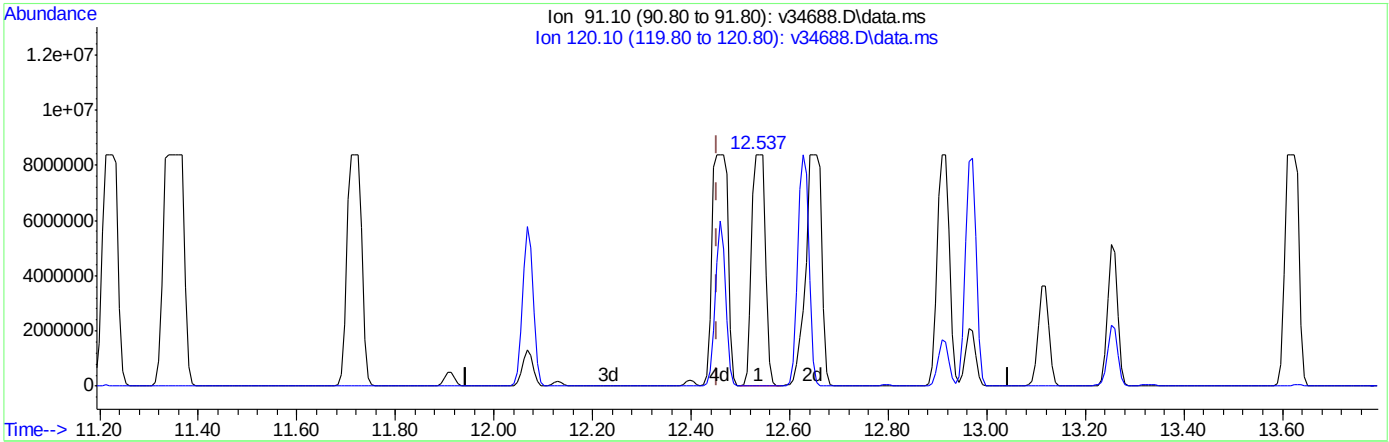
Ion	Exp%	Act%
75.00	100	100
77.00	31.40	32.75
0.00	0.00	0.00
0.00	0.00	0.00

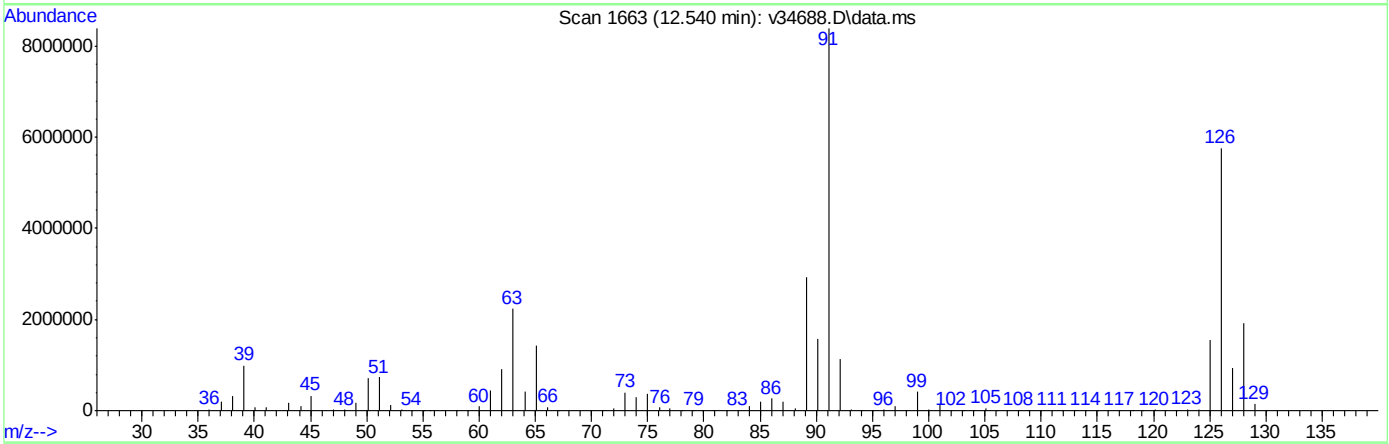
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(86) n-propylbenzene (p)

12.537min (+0.083) 199.83ug/L

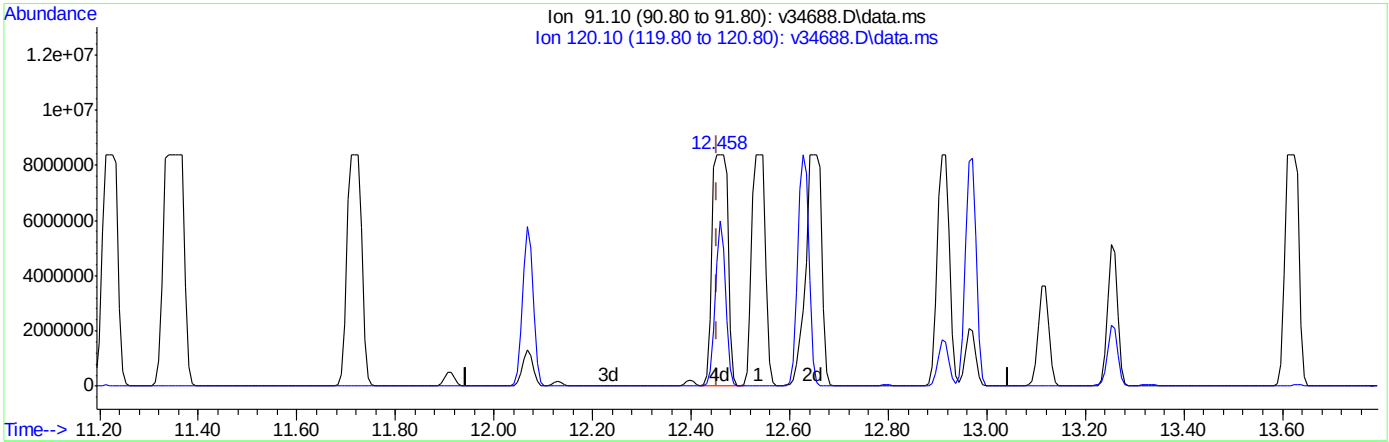
response 16223358

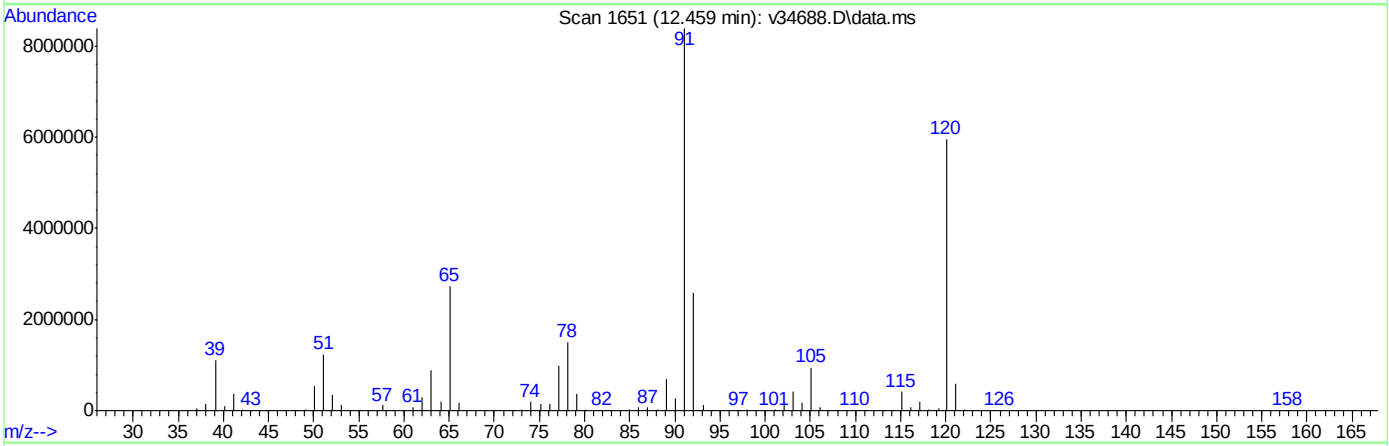
Ion	Exp%	Act%
91.10	100	100
120.10	24.50	0.25
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(86) n-propylbenzene (p)

12.459min (+0.004) 229.23ug/L m

response 18609669

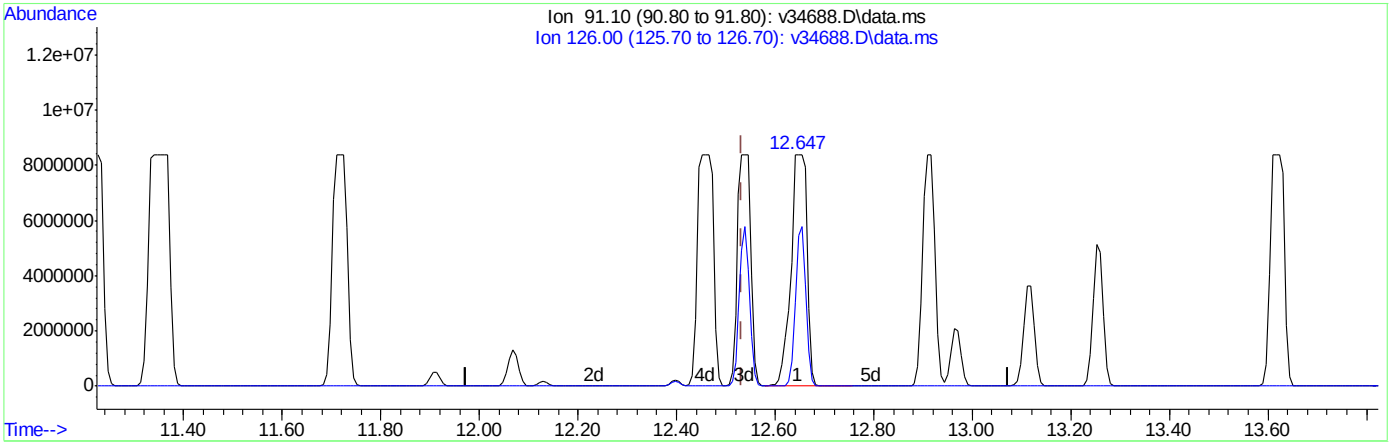
Ion	Exp%	Act%
91.10	100	100
120.10	24.50	71.08#
0.00	0.00	0.00
0.00	0.00	0.00

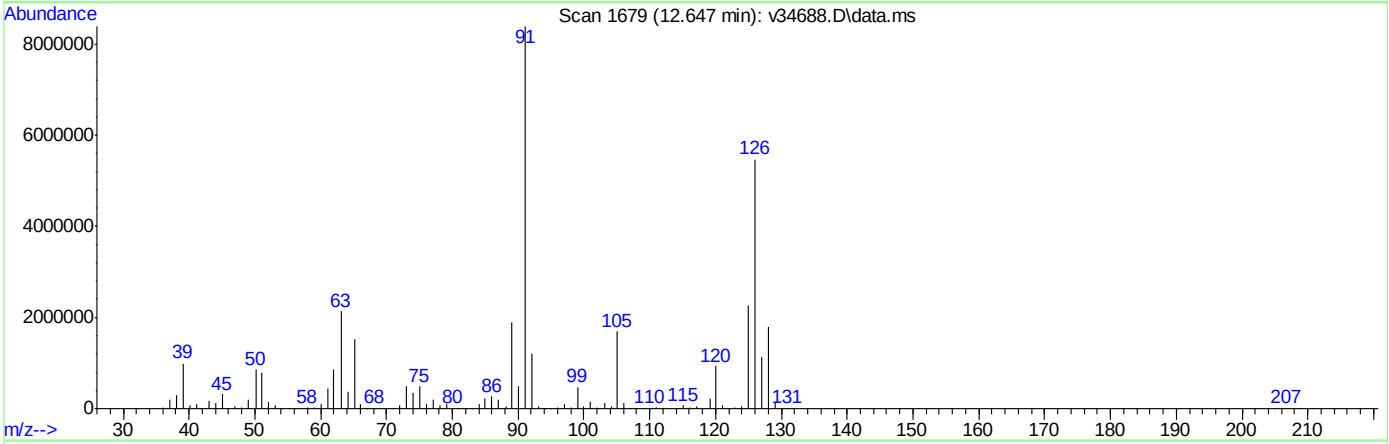
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(87) 2-chlorotoluene (p)

12.647min (+0.113) 345.25ug/L

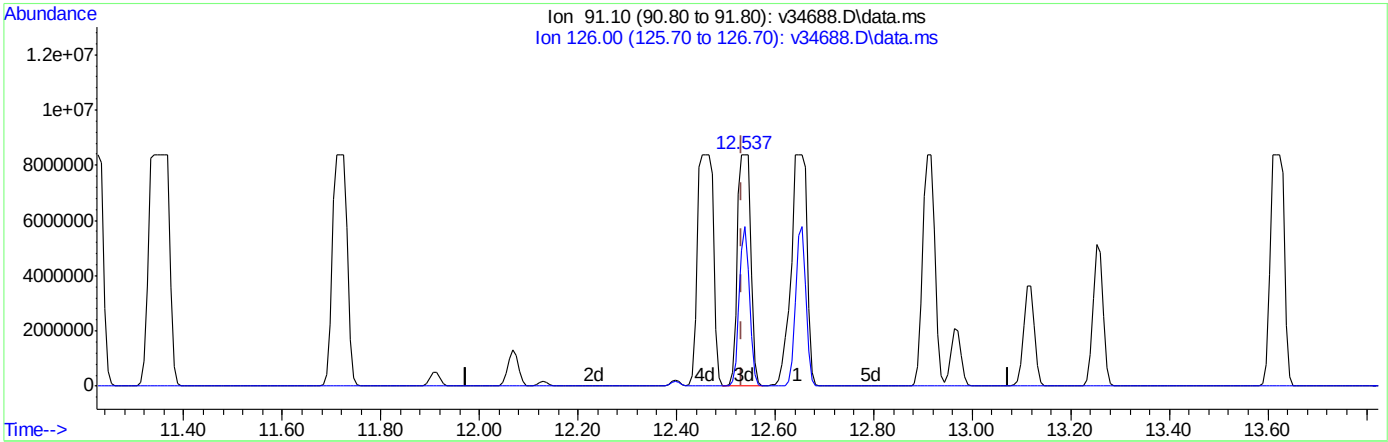
response 18812995

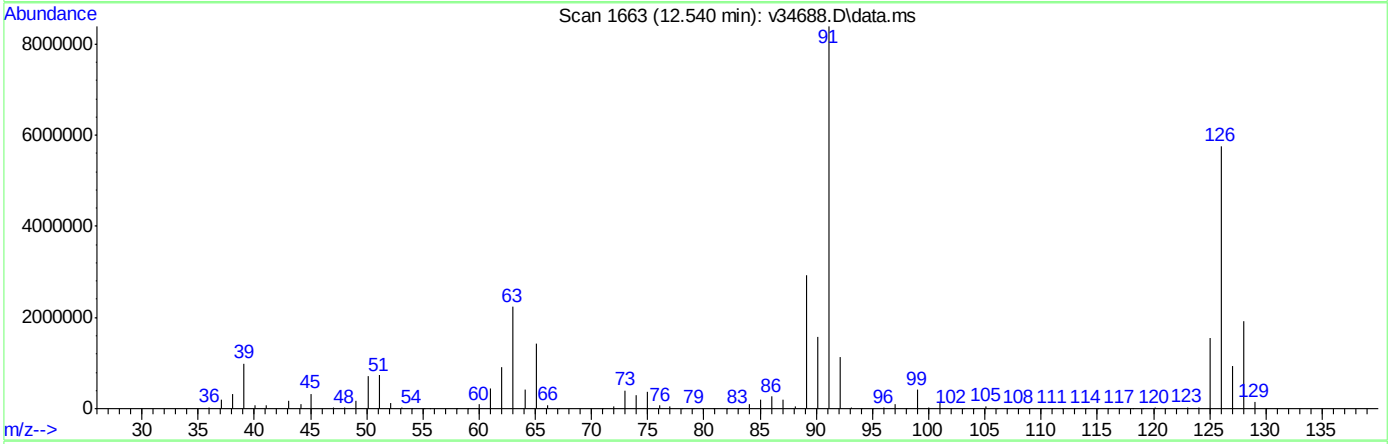
Ion	Exp%	Act%
91.10	100	100
126.00	36.10	65.21
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(87) 2-chlorotoluene (p)

12.540min (+0.006) 298.81ug/L m

response 16282282

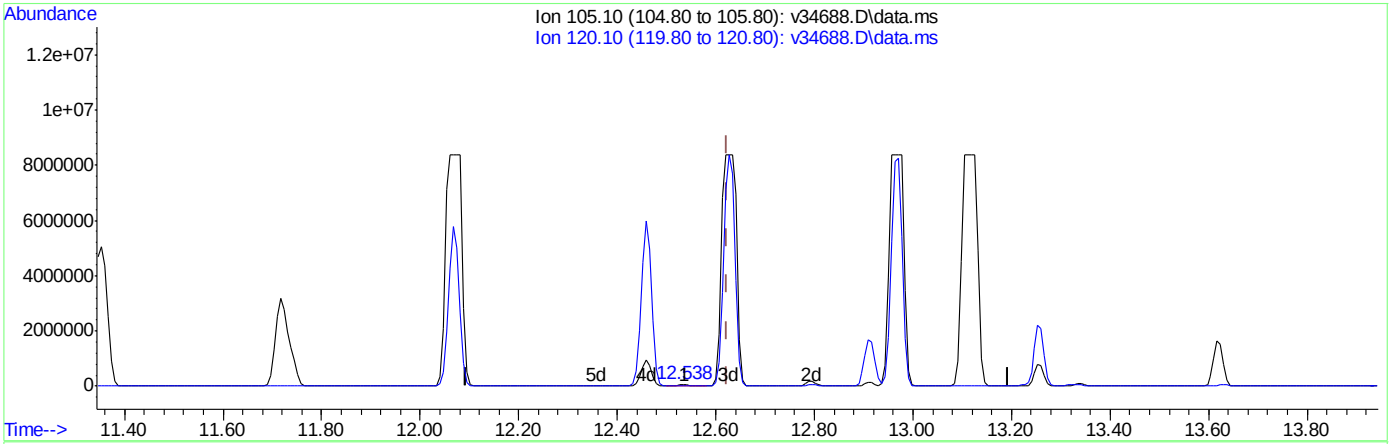
Ion	Exp%	Act%
91.10	100	100
126.00	36.10	68.77#
0.00	0.00	0.00
0.00	0.00	0.00

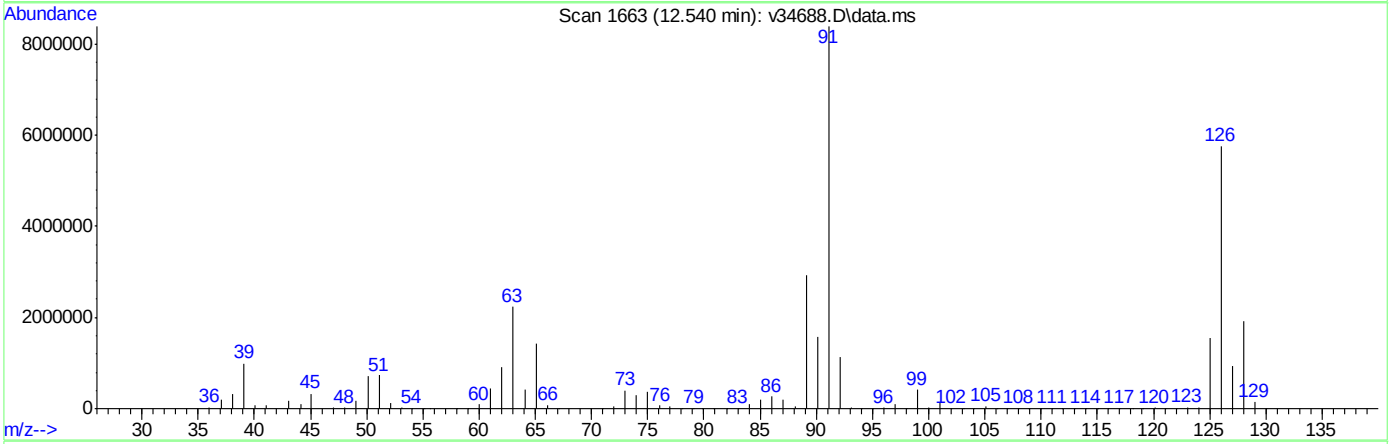
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(89) 1,3,5-trimethylbenzene (p)

12.538min (-0.086) 1.55ug/L

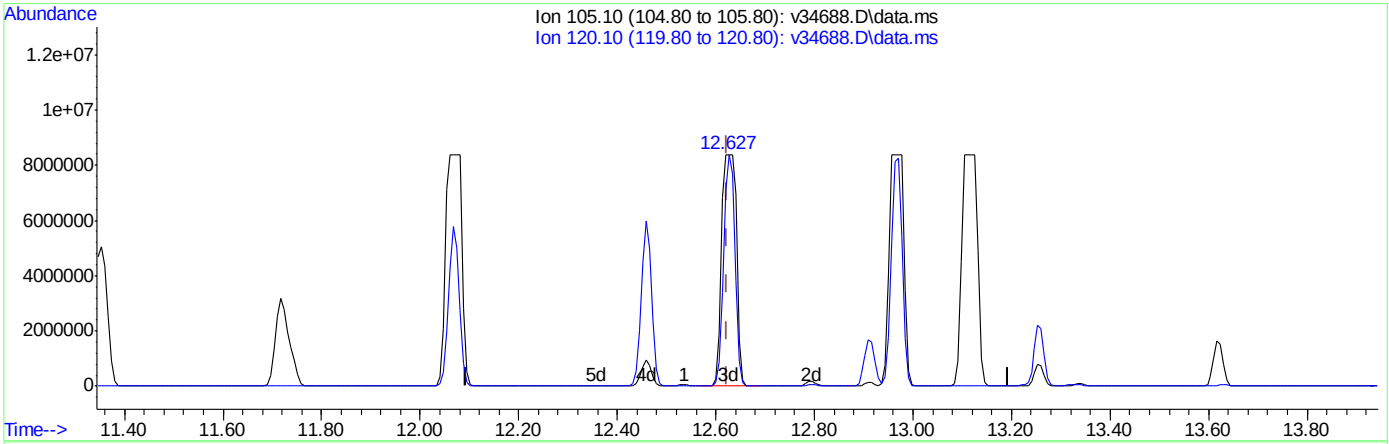
response 107445

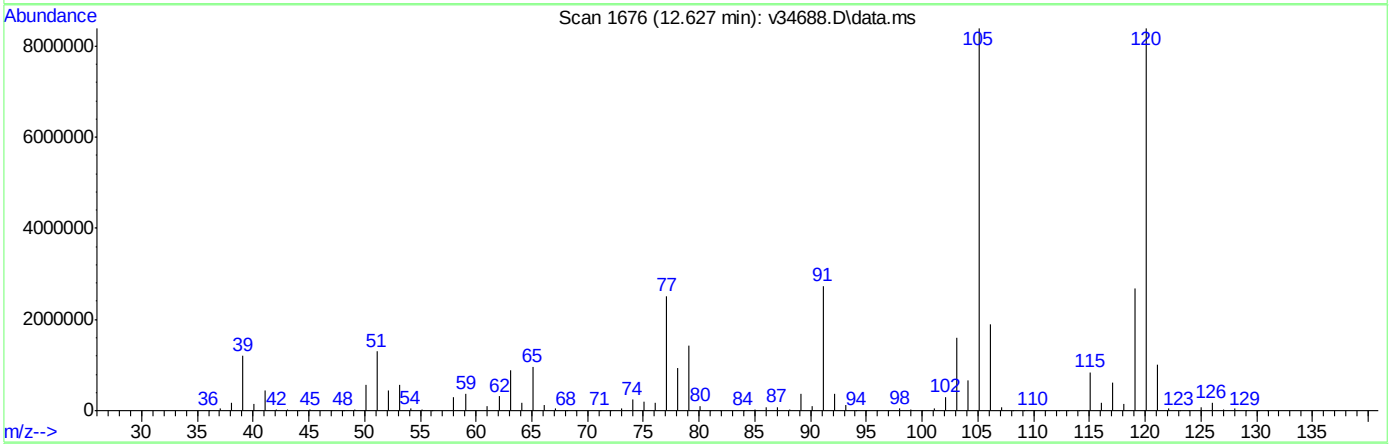
Ion	Exp%	Act%
105.10	100	100
120.10	48.80	34.43
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(89) 1,3,5-trimethylbenzene (p)

12.627min (+0.003) 250.85ug/L m

response 17415381

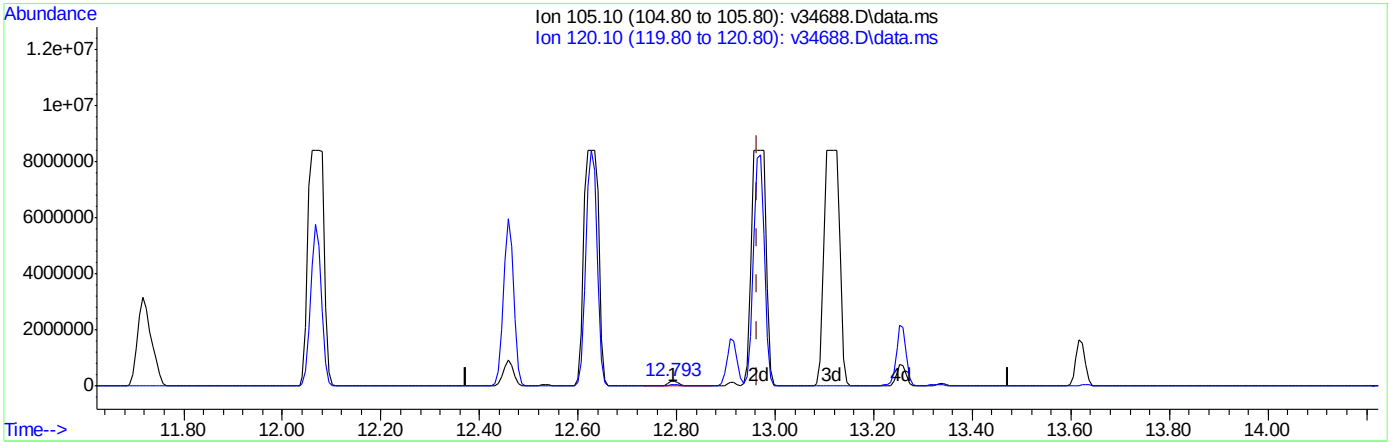
Ion	Exp%	Act%
105.10	100	100
120.10	48.80	100.00#
0.00	0.00	0.00
0.00	0.00	0.00

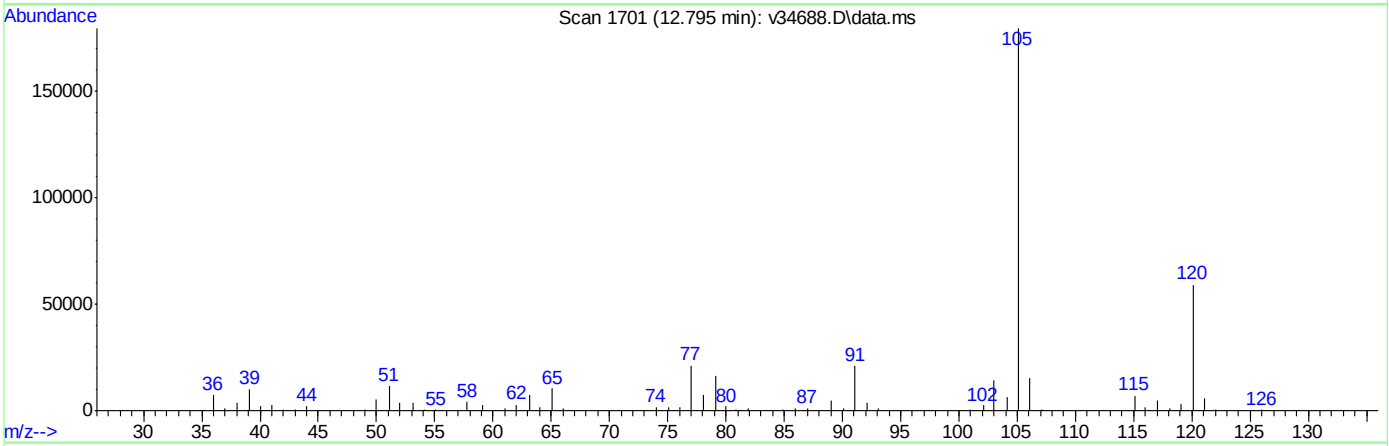
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(91) 1,2,4-trimethylbenzene (p)

12.793min (-0.170) 3.62ug/L

response 256665

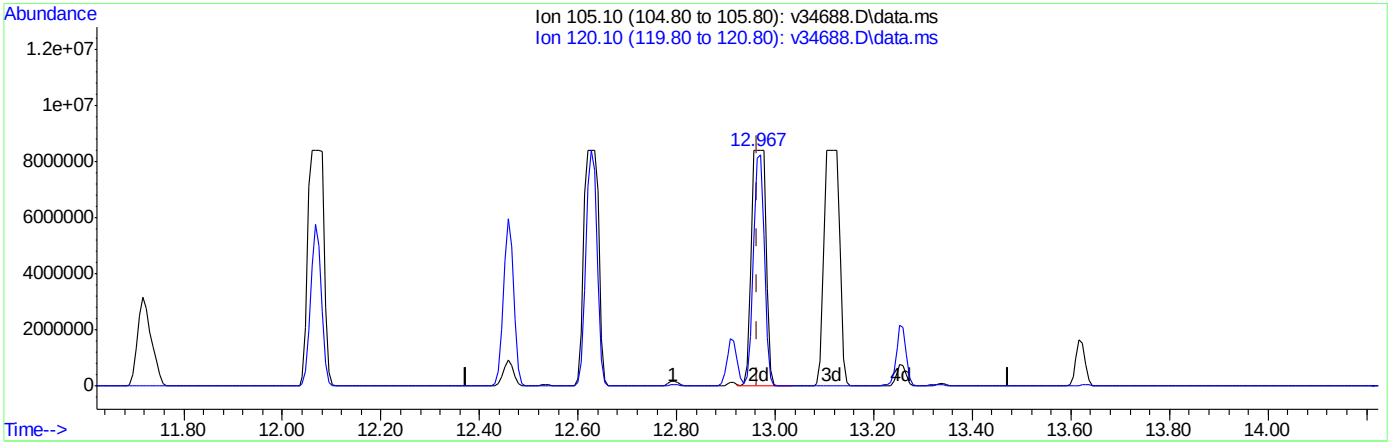
Ion	Exp%	Act%
105.10	100	100
120.10	44.90	32.68
0.00	0.00	0.00
0.00	0.00	0.00

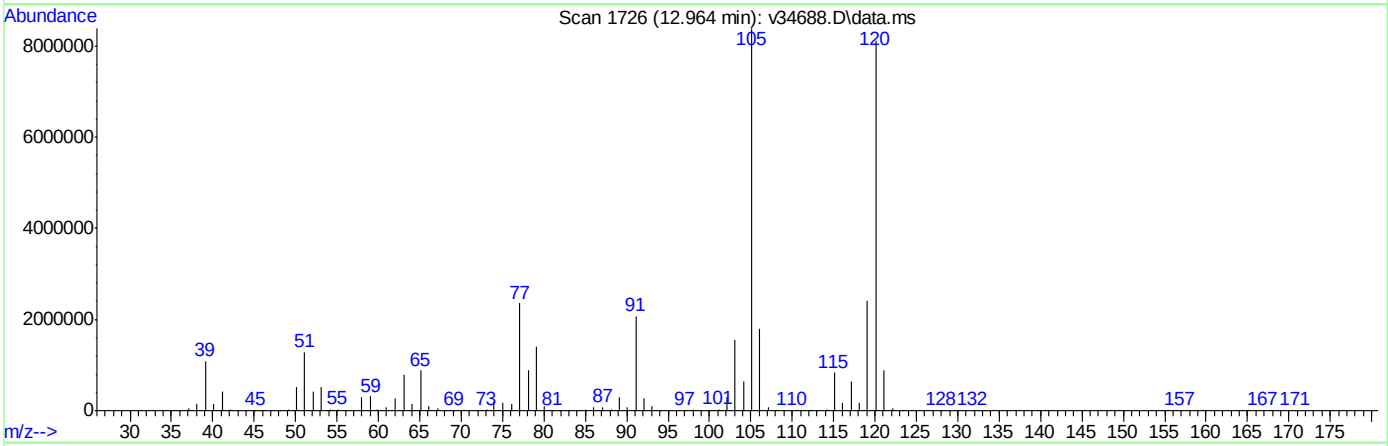
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(91) 1,2,4-trimethylbenzene (p)

12.964min (+0.000) 242.37ug/L m

response 17166611

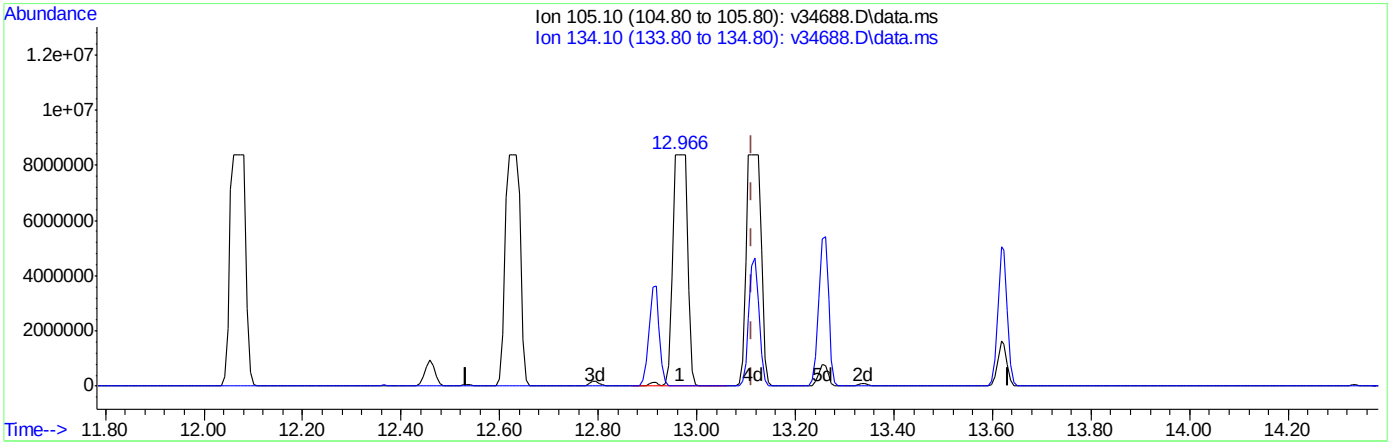
Ion	Exp%	Act%
105.10	100	100
120.10	44.90	96.86#
0.00	0.00	0.00
0.00	0.00	0.00

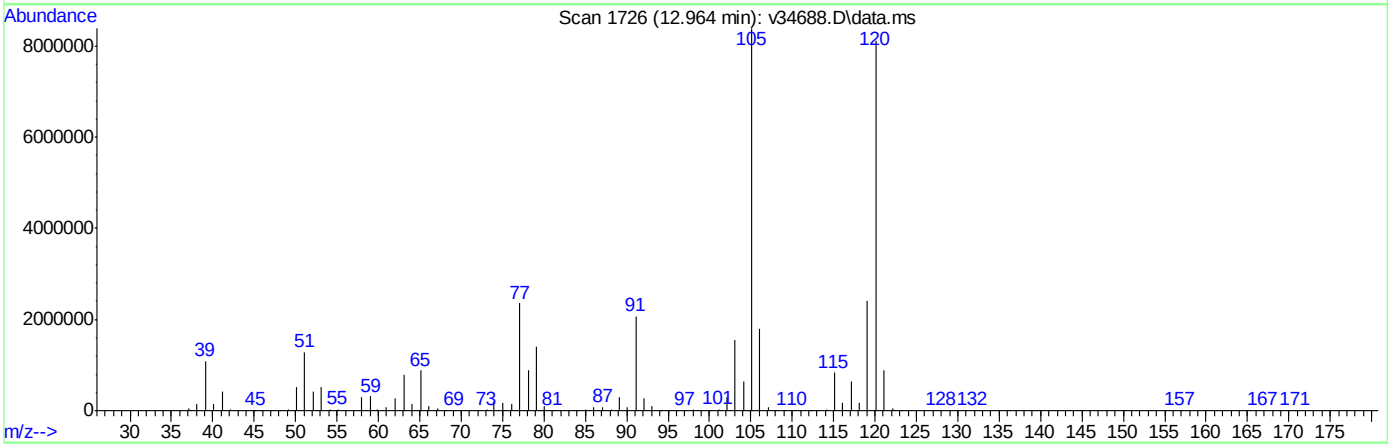
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(92) sec-butylbenzene (p)

12.966min (-0.146) 223.85ug/L

response 17344837

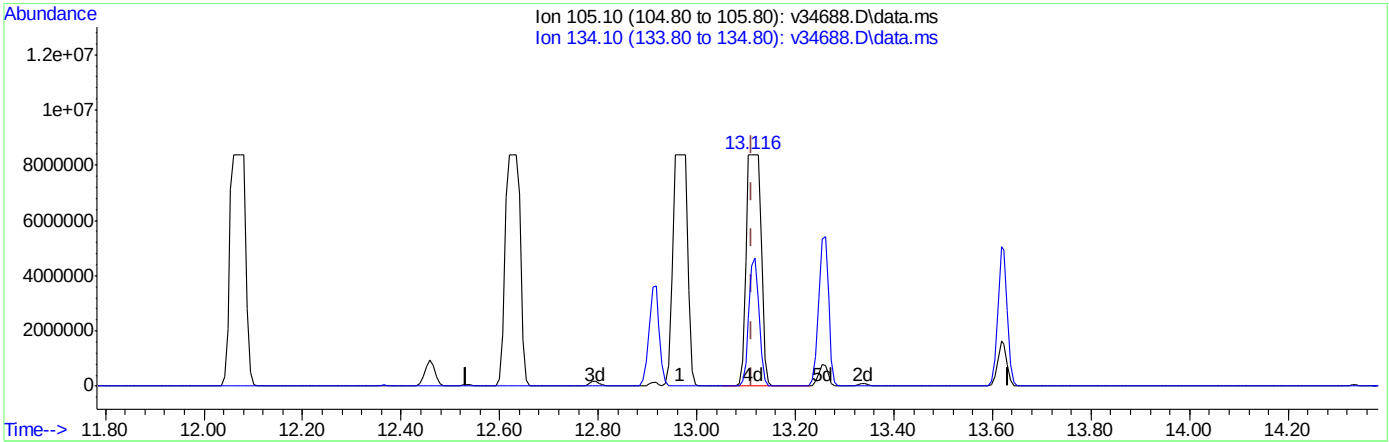
Ion	Exp%	Act%
105.10	100	100
134.10	18.70	0.01
0.00	0.00	0.00
0.00	0.00	0.00

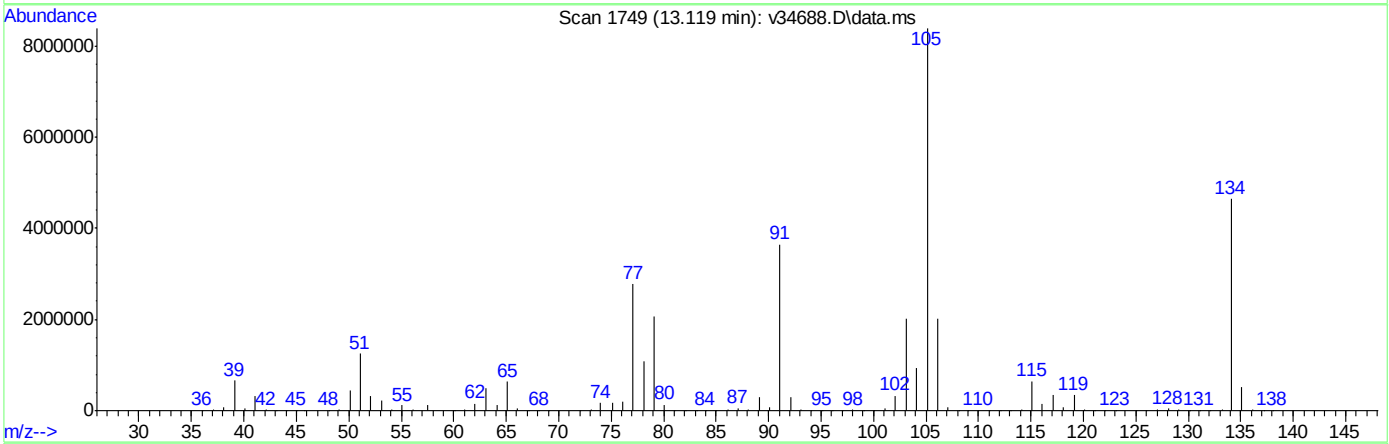
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(92) sec-butylbenzene (p)

13.119min (+0.006) 235.78ug/L m

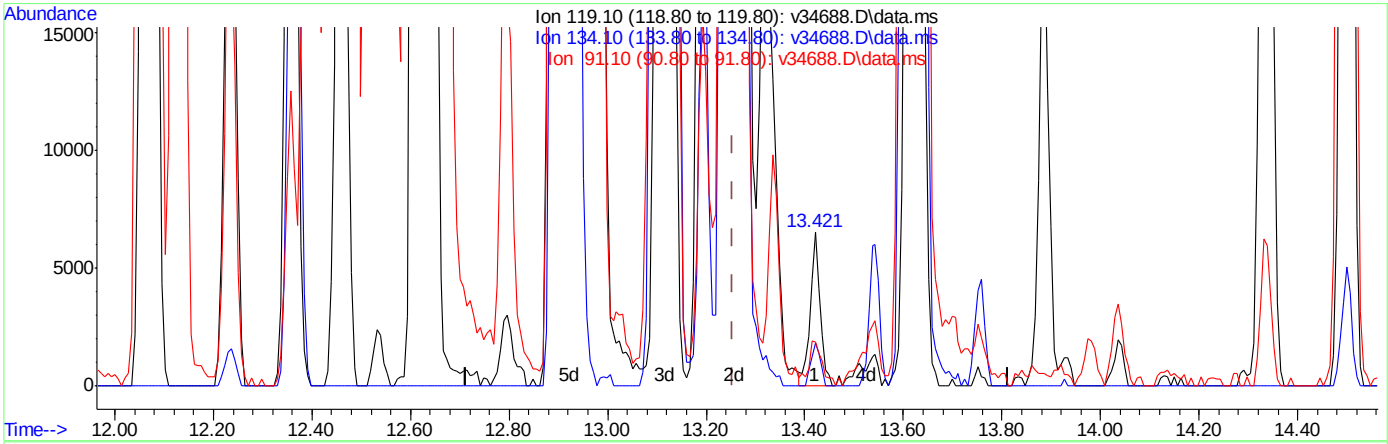
response 18268791

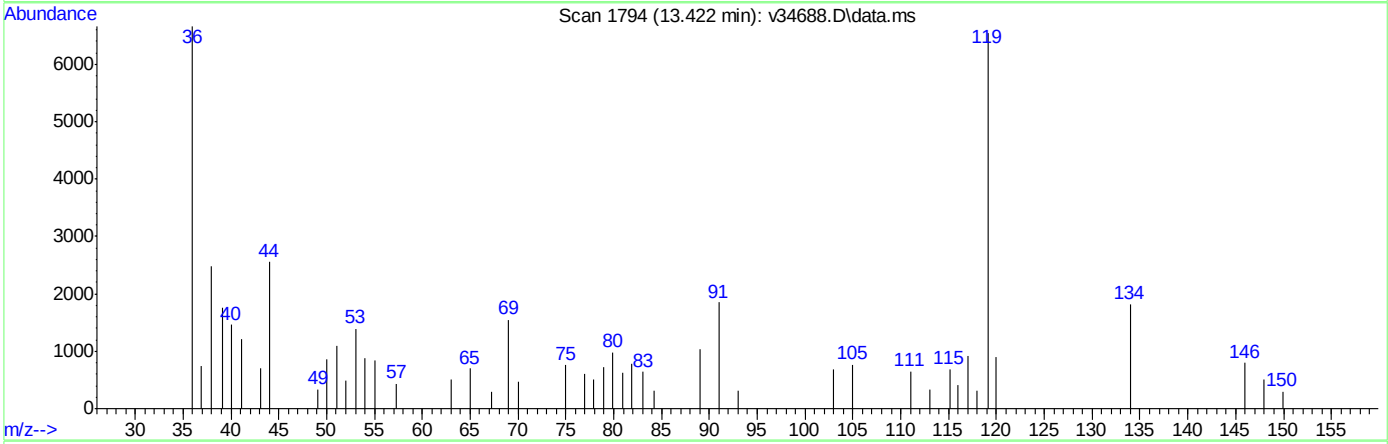
Ion	Exp%	Act%
105.10	100	100
134.10	18.70	55.33#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(94) p-isopropyltoluene (p)

13.421min (+0.167) 0.12ug/L

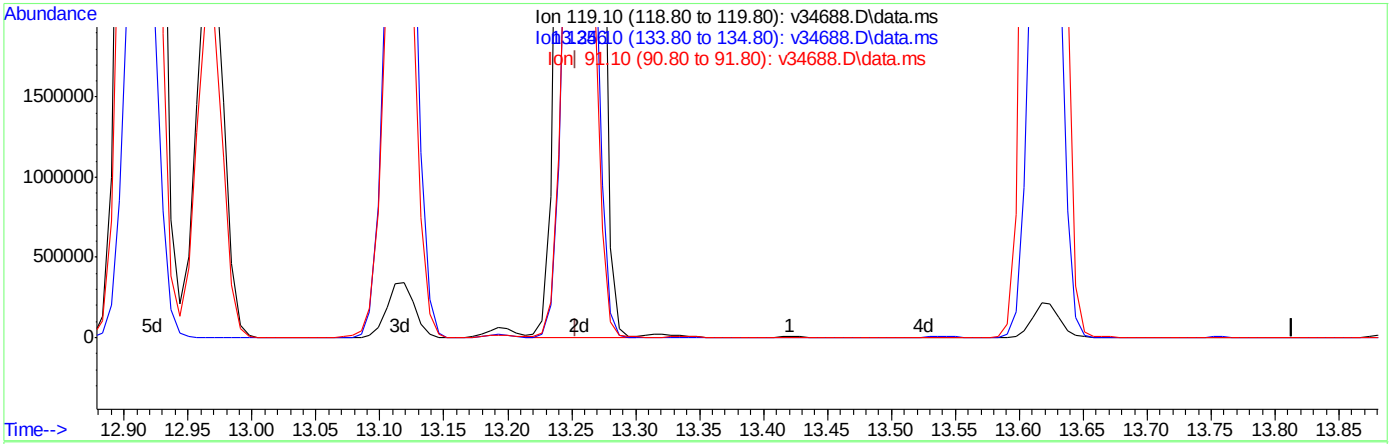
response 9061

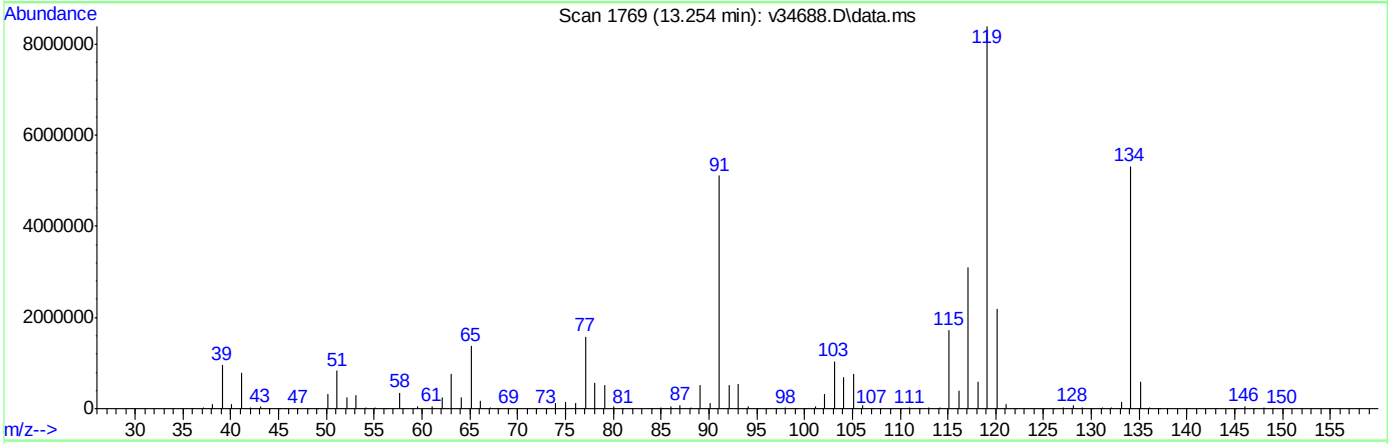
Ion	Exp%	Act%
119.10	100	100
134.10	24.30	27.80
91.10	23.50	22.88
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(94) p-isopropyltoluene (p)

13.254min (0.000) 231.58ug/L m

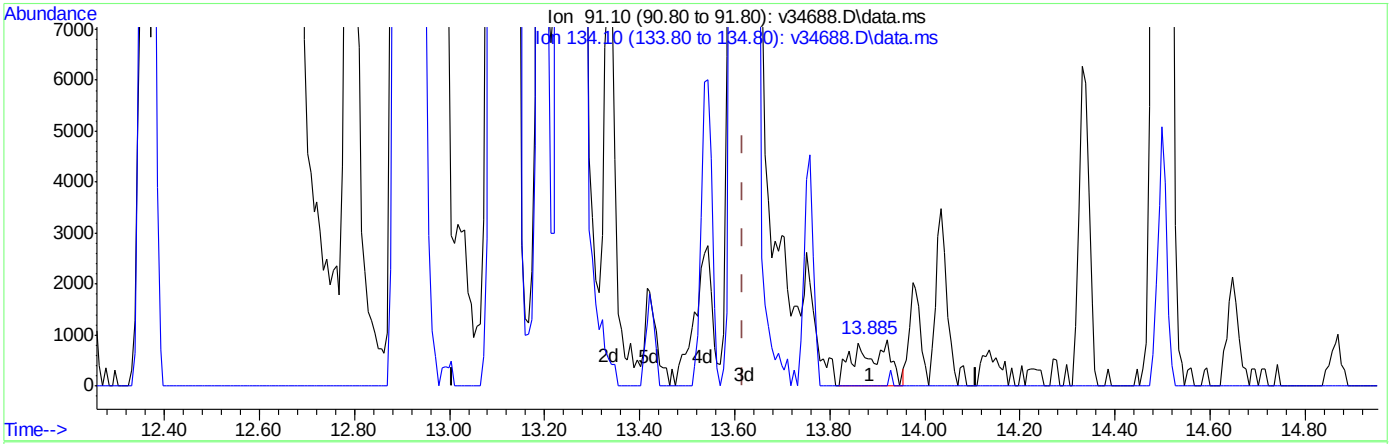
response 17458277

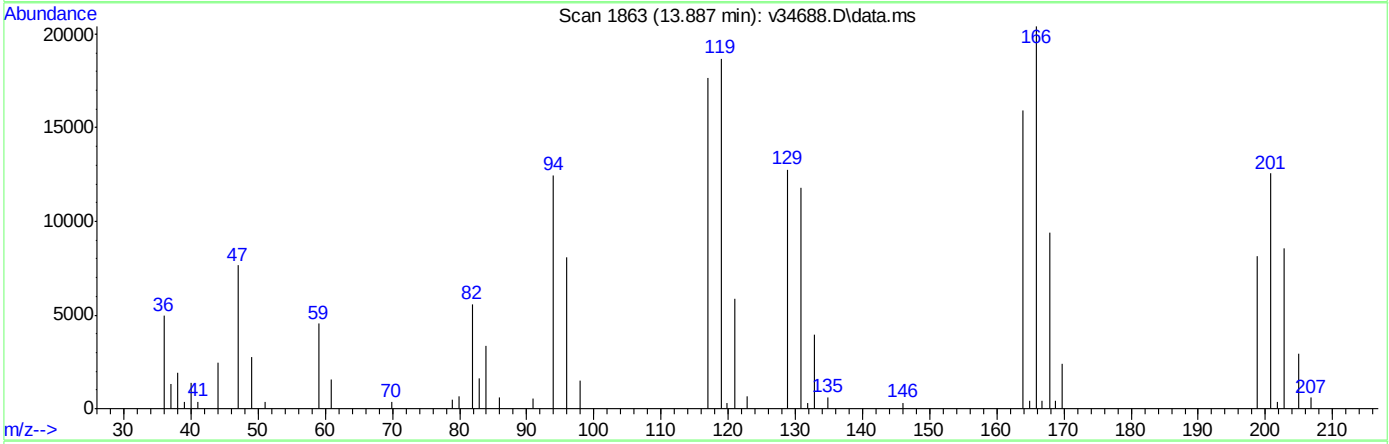
Ion	Exp%	Act%
119.10	100	100
134.10	24.30	63.48#
91.10	23.50	60.98#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(97) n-butylbenzene (p)

13.885min (+0.267) 0.07ug/L

response 4235

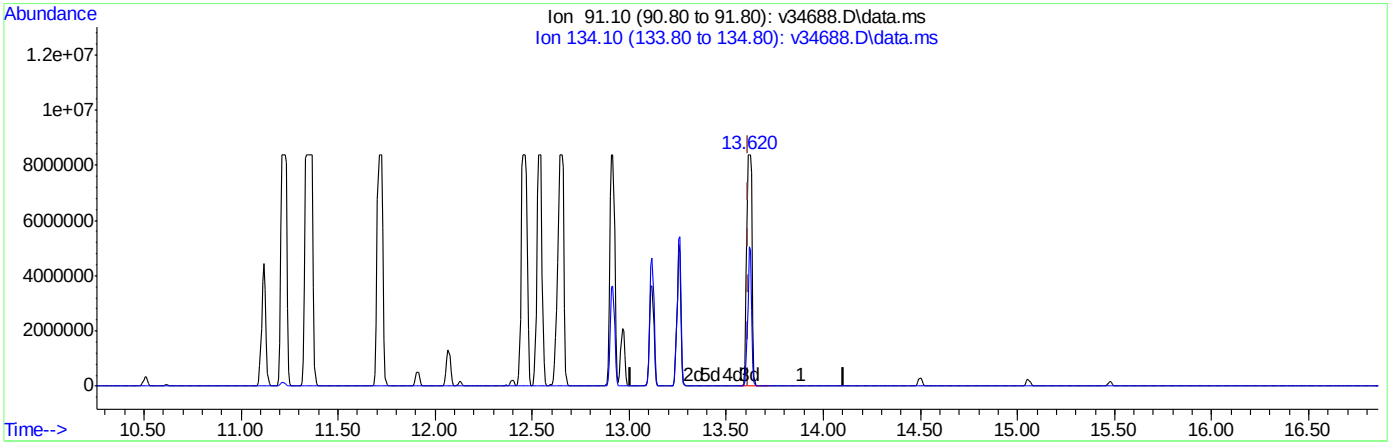
Ion	Exp%	Act%
91.10	100	100
134.10	25.40	0.00
0.00	0.00	0.00
0.00	0.00	0.00

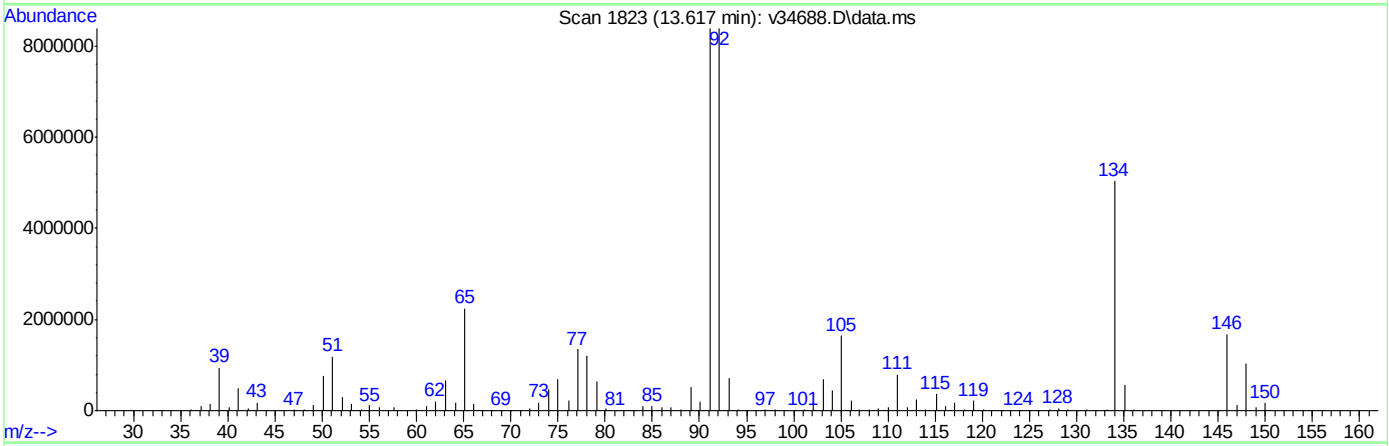
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34688.D
Acq On : 17 Sep 2014 5:01 pm
Operator : amym
Sample : ic1262-400
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 17 17:20:18 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Sep 17 17:01:36 2014
Response via : Initial Calibration





TIC: v34688.D\data.ms

(97) n-butylbenzene (p)

13.617min (-0.001) 263.16ug/L m

response 16331234

Ion	Exp%	Act%
91.10	100	100
134.10	25.40	60.09#
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33933

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/18/14 12:06

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34693.D
Acq On : 17 Sep 2014 7:14 pm
Operator : amym
Sample : icv1262-50
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 18 08:31:57 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.540	65	176478	500.00	ug/L	#	0.00
4) pentafluorobenzene	6.567	168	1257741	50.00	ug/L		0.00
43) 1,4-difluorobenzene	7.747	114	2001645	50.00	ug/L		0.00
66) chlorobenzene-d5	11.082	82	957171	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	13.293	152	1211172	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.448	113	784407	49.46	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 98.92%				
60) toluene-d8 (s)	9.556	98	2244127	51.11	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 102.22%				
82) bromofluorobenzene (s)	12.230	95	1018047	48.28	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.56%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.643	59	118095	231.74	ug/L	#	61
3) Ethanol	2.621	45	404725	4440.47	ug/L	#	100
5) dichlorodifluoromethane	1.539	85	1438504m	49.16	ug/L		
6) chloromethane	1.654	50	1020401	49.21	ug/L		96
7) vinyl chloride	1.767	62	991304	52.22	ug/L		98
8) bromomethane	2.059	96	685633	49.70	ug/L		98
9) chloroethane	2.149	64	455649	58.61	ug/L		99
10) ethyl ether	2.617	59	378343	51.80	ug/L		95
11) acetonitrile	3.311	41	1003859	50.55	ug/L	#	23
12) trichlorofluoromethane	2.366	101	1530559	51.67	ug/L		99
13) freon-113	2.941	101	817817	49.85	ug/L		96
14) acrolein	2.773	56	123502	272.29	ug/L		97
15) 1,1-dichloroethene	2.878	96	550573	52.52	ug/L		98
16) acetone	2.924	58	54632	44.74	ug/L	#	87
17) Methyl Acetate	3.290	43	299969	59.11	ug/L		96
18) methylene chloride	3.479	84	575893	46.69	ug/L		90
19) methyl tert butyl ether	3.864	73	1090966	47.99	ug/L		99
20) acrylonitrile	3.798	53	149268	45.56	ug/L		99
21) allyl chloride	3.311	41	1003859	50.54	ug/L		96
22) trans-1,2-dichloroethene	3.853	96	613767	50.23	ug/L		97
23) iodomethane	3.046	142	1316538	44.15	ug/L		99
24) carbon disulfide	3.131	76	1706001	45.34	ug/L		99
25) propionitrile	5.654	54	47488	46.38	ug/L		100
26) vinyl acetate	4.601	43	1346275	38.67	ug/L		96
27) chloroprene	4.633	53	1061028	57.12	ug/L		99
28) di-isopropyl ether	4.620	45	2143524	47.52	ug/L		97
29) methacrylonitrile	5.926	41	237580	44.59	ug/L		95
30) 2-butanone	5.541	72	35909	45.43	ug/L	#	64
31) Hexane	4.263	41	568021	47.60	ug/L		89
32) 1,1-dichloroethane	4.524	63	1217703	48.93	ug/L		100
33) tert-butyl ethyl ether	5.288	59	1689824	50.34	ug/L		97
34) isobutyl alcohol	4.601	43	1346391	193.34	ug/L		88
35) 2,2-dichloropropane	5.563	77	912722	43.73	ug/L		97
36) cis-1,2-dichloroethene	5.542	96	645061	48.87	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34693.D
Acq On : 17 Sep 2014 7:14 pm
Operator : amym
Sample : icv1262-50
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 18 08:31:57 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	4.604	43	1347859m	38.74	ug/L		
38) bromochloromethane	5.962	128	335384	46.41	ug/L	#	86
39) chloroform	6.178	83	1208154	46.88	ug/L		95
41) Tetrahydrofuran	5.968	42	84546	45.44	ug/L		97
42) 1,1,1-trichloroethane	6.425	97	1261917	50.69	ug/L		96
44) Cyclohexane	6.533	56	1299315	51.86	ug/L		97
45) carbon tetrachloride	6.679	117	1233303	50.51	ug/L		97
46) 1,1-dichloropropene	6.691	75	764219	53.64	ug/L		97
47) benzene	7.010	78	1925599	46.48	ug/L		100
48) 1,2-dichloroethane	7.133	62	805903	45.31	ug/L		98
49) tert-amyl methyl ether	7.299	73	1065575	52.61	ug/L		98
50) heptane	7.565	43	708633	48.41	ug/L		94
51) trichloroethene	8.040	95	674266	48.12	ug/L		95
52) 1,2-dichloropropane	8.387	63	627355	49.07	ug/L		98
53) dibromomethane	8.492	93	308504	45.02	ug/L		93
54) bromodichloromethane	8.742	83	835757	48.69	ug/L		97
55) Methylcyclohexane	8.344	83	946321	54.56	ug/L		97
56) 2-chloroethyl vinyl ether	9.116	63	246826	48.37	ug/L		97
57) methyl methacrylate	8.519	69	183464	47.81	ug/L		87
58) 1,4-dioxane	8.504	88	4925m	114.38	ug/L		
59) cis-1,3-dichloropropene	9.268	75	737960	49.72	ug/L		99
61) 4-methyl-2-pentanone	9.451	43	380828	48.18	ug/L		93
62) toluene	9.632	92	1358578	47.43	ug/L		97
63) trans-1,3-dichloropropene	9.919	75	588922	49.21	ug/L		98
64) 1,1,2-trichloroethane	10.126	83	338969	45.89	ug/L		97
65) ethyl methacrylate	9.999	69	436198	44.43	ug/L		91
67) tetrachloroethene	10.185	166	695355	49.72	ug/L		98
68) 1,3-dichloropropane	10.286	76	619451	46.73	ug/L		100
69) dibromochloromethane	10.507	129	656997	50.87	ug/L		98
70) 1,2-dibromoethane	10.616	107	430911	47.57	ug/L		96
71) 2-hexanone	10.357	43	299085	47.19	ug/L		89
72) chlorobenzene	11.112	112	1797653	48.62	ug/L		96
73) 1,1,1,2-tetrachloroethane	11.211	131	818091	52.94	ug/L		98
74) ethylbenzene	11.216	91	2978381	51.79	ug/L		98
75) m,p-xylene	11.347	106	2345614	101.18	ug/L		100
76) o-xylene	11.714	106	1223154	50.20	ug/L		100
77) styrene	11.734	104	1913858	51.11	ug/L		95
78) bromoform	11.909	173	324899	51.38	ug/L		99
79) trans-1,4-dichloro-2-b...	12.125	53	154219	44.24	ug/L		81
81) isopropylbenzene	12.065	105	3454401	50.13	ug/L		97
83) bromobenzene	12.356	156	858513	45.71	ug/L		94
84) 1,1,2,2-tetrachloroethane	12.360	83	535883	46.31	ug/L		96
85) 1,2,3-trichloropropane	12.400	75	594048	49.25	ug/L		96
86) n-propylbenzene	12.453	91	3836350	50.41	ug/L		99
87) 2-chlorotoluene	12.532	91	2345080	47.41	ug/L		95
88) 4-chlorotoluene	12.644	91	2701209	46.43	ug/L		95
89) 1,3,5-trimethylbenzene	12.623	105	3015699	46.34	ug/L		99
90) tert-butylbenzene	12.908	91	1702906	48.81	ug/L		92
91) 1,2,4-trimethylbenzene	12.963	105	3184096	47.96	ug/L		98
92) sec-butylbenzene	13.111	105	3728308	51.33	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34693.D
Acq On : 17 Sep 2014 7:14 pm
Operator : amym
Sample : icv1262-50
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 18 08:31:57 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	1,3-dichlorobenzene	13.220	146	1842221	47.57	ug/L	98
94)	p-isopropyltoluene	13.253	119	3568591	50.50	ug/L	98
95)	1,4-dichlorobenzene	13.315	146	1834048	46.39	ug/L	98
96)	1,2-dichlorobenzene	13.632	146	1740734	47.46	ug/L	99
97)	n-butylbenzene	13.617	91	2903010	49.90	ug/L	95
98)	1,2-dibromo-3-chloropr...	14.334	75	76639	50.29	ug/L	95
99)	1,3,5-trichlorobenzene	14.498	180	1325008	48.77	ug/L	99
100)	1,2,4-trichlorobenzene	15.053	180	1057297	49.60	ug/L	98
101)	hexachlorobutadiene	15.174	225	451639	50.75	ug/L	99
102)	naphthalene	15.288	128	1643750	52.83	ug/L	100
103)	1,2,3-trichlorobenzene	15.476	180	783557	51.36	ug/L	99
104)	2-Methylnaphthalene	16.286	142	398902	49.93	ug/L	99
105)	1-Methylnaphthalene	16.455	142	247763	55.42	ug/L	99

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

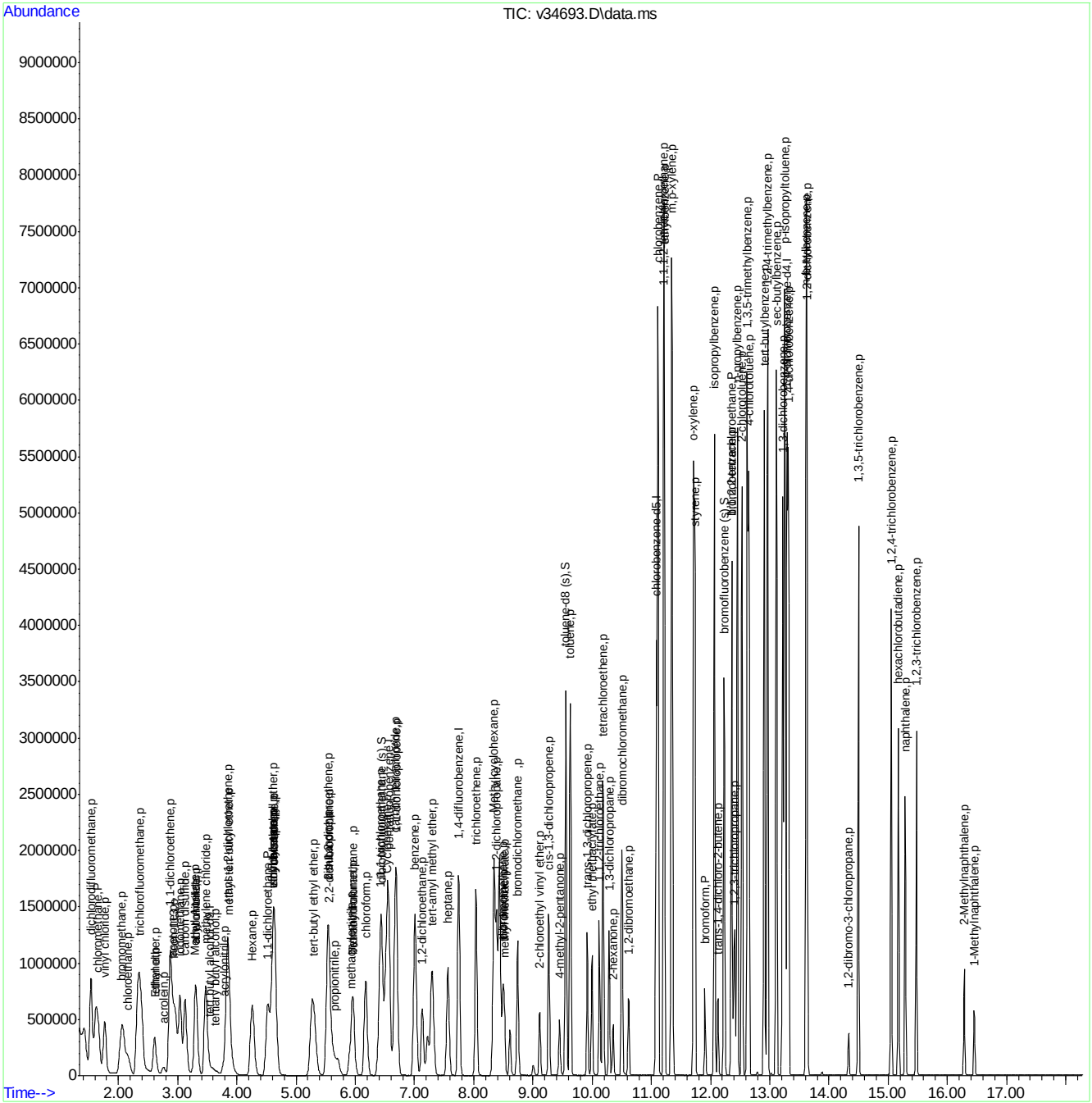
7.9.11

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140917\
Data File : v34693.D
Acq On : 17 Sep 2014 7:14 pm
Operator : amym
Sample : icv1262-50
Misc : MS32743,MSV1262,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 18 08:31:57 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
10/01/14 07:45

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35057.D
Acq On : 29 Sep 2014 10:10 pm
Operator : amym
Sample : cc1262-50
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 30 13:46:20 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.524	65	94729	500.00	ug/L	#	-0.01
4) pentafluorobenzene	6.558	168	771190	50.00	ug/L		-0.01
43) 1,4-difluorobenzene	7.743	114	1238081	50.00	ug/L		0.00
66) chlorobenzene-d5	11.080	82	638733	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	13.291	152	773579	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.438	113	456191	46.92	ug/L		-0.01
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.84%				
60) toluene-d8 (s)	9.554	98	1403013	51.66	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.32%				
82) bromofluorobenzene (s)	12.228	95	634456	47.10	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.20%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.631	59	67420	246.47	ug/L	#	64
3) Ethanol	2.606	45	224349	4585.65	ug/L	#	100
5) dichlorodifluoromethane	1.525	85	1107810m	61.75	ug/L		
6) chloromethane	1.646	50	735989	57.89	ug/L		97
7) vinyl chloride	1.759	62	694422	59.66	ug/L		96
8) bromomethane	2.049	96	497709	58.84	ug/L		100
9) chloroethane	2.138	64	319263	66.98	ug/L		95
10) ethyl ether	2.602	59	222300	49.64	ug/L		96
11) acetonitrile	3.294	41	567284	46.59	ug/L	#	20
12) trichlorofluoromethane	2.355	101	1207169	66.47	ug/L		99
13) freon-113	2.927	101	582859	57.94	ug/L		93
14) acrolein	2.764	56	58849	211.60	ug/L		98
15) 1,1-dichloroethene	2.870	96	378460	58.88	ug/L		98
16) acetone	2.909	58	28423	37.96	ug/L		93
17) Methyl Acetate	3.277	43	167711	53.89	ug/L	#	96
18) methylene chloride	3.468	84	366302	48.43	ug/L		91
19) methyl tert butyl ether	3.851	73	673565	48.33	ug/L		100
20) acrylonitrile	3.785	53	85069	42.34	ug/L		98
21) allyl chloride	3.294	41	572838	47.04	ug/L		97
22) trans-1,2-dichloroethene	3.835	96	383414	51.17	ug/L		99
23) iodomethane	3.038	142	1003052	54.86	ug/L		92
24) carbon disulfide	3.124	76	1251834	54.26	ug/L		99
25) propionitrile	5.646	54	27173	43.28	ug/L		100
26) vinyl acetate	4.589	43	823537	38.58	ug/L		97
27) chloroprene	4.619	53	697688	61.26	ug/L		93
28) di-isopropyl ether	4.607	45	1220610	44.13	ug/L		96
29) methacrylonitrile	5.918	41	139879	42.82	ug/L		98
30) 2-butanone	5.532	72	21307	43.96	ug/L	#	41
31) Hexane	4.250	41	370413	50.62	ug/L		99
32) 1,1-dichloroethane	4.508	63	746421	48.91	ug/L		99
33) tert-butyl ethyl ether	5.277	59	1008631	49.00	ug/L		97
34) isobutyl alcohol	4.589	43	823537	192.87	ug/L		86
35) 2,2-dichloropropane	5.552	77	619679	48.18	ug/L		92
36) cis-1,2-dichloroethene	5.529	96	395704	48.89	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35057.D
Acq On : 29 Sep 2014 10:10 pm
Operator : amym
Sample : cc1262-50
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 30 13:46:20 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	4.590	43	823657m	38.61	ug/L		
38) bromochloromethane	5.950	128	226599	51.14	ug/L	#	79
39) chloroform	6.167	83	813939	51.51	ug/L		95
41) Tetrahydrofuran	5.959	42	46931	41.13	ug/L		97
42) 1,1,1-trichloroethane	6.415	97	925234	60.62	ug/L		96
44) Cyclohexane	6.523	56	797481	51.46	ug/L		97
45) carbon tetrachloride	6.669	117	934283	61.87	ug/L		95
46) 1,1-dichloropropene	6.683	75	515286	58.48	ug/L		97
47) benzene	7.003	78	1229092	47.97	ug/L		100
48) 1,2-dichloroethane	7.128	62	622168	56.55	ug/L		100
49) tert-amyl methyl ether	7.292	73	626467	50.01	ug/L		98
50) heptane	7.560	43	429803	47.47	ug/L		94
51) trichloroethene	8.035	95	475733	54.89	ug/L		93
52) 1,2-dichloropropane	8.384	63	396670	50.16	ug/L		98
53) dibromomethane	8.488	93	227414	53.66	ug/L		91
54) bromodichloromethane	8.738	83	622829	58.67	ug/L		97
55) Methylcyclohexane	8.338	83	567498	52.90	ug/L		98
56) 2-chloroethyl vinyl ether	9.114	63	145316	46.04	ug/L		93
57) methyl methacrylate	8.517	69	117140	49.35	ug/L		87
58) 1,4-dioxane	8.498	88	3325m	123.61	ug/L		
59) cis-1,3-dichloropropene	9.266	75	530062	57.00	ug/L		98
61) 4-methyl-2-pentanone	9.448	43	214263	43.82	ug/L		92
62) toluene	9.630	92	974678	55.01	ug/L		100
63) trans-1,3-dichloropropene	9.917	75	437658	56.84	ug/L		98
64) 1,1,2-trichloroethane	10.123	83	229966	50.33	ug/L		96
65) ethyl methacrylate	9.997	69	270696	44.57	ug/L		92
67) tetrachloroethene	10.182	166	558066	59.80	ug/L		98
68) 1,3-dichloropropane	10.284	76	436255	49.31	ug/L		99
69) dibromochloromethane	10.505	129	512835	59.50	ug/L		99
70) 1,2-dibromoethane	10.614	107	327519	54.18	ug/L		97
71) 2-hexanone	10.355	43	178146	42.12	ug/L		91
72) chlorobenzene	11.110	112	1370900	55.56	ug/L		94
73) 1,1,1,2-tetrachloroethane	11.209	131	613958	59.54	ug/L		97
74) ethylbenzene	11.214	91	2198985	57.30	ug/L		99
75) m,p-xylene	11.345	106	1738922	112.41	ug/L		100
76) o-xylene	11.712	106	897628	55.20	ug/L		97
77) styrene	11.732	104	1387311	55.52	ug/L		98
78) bromoform	11.907	173	230689	54.51	ug/L		99
79) trans-1,4-dichloro-2-b...	12.123	53	93251	40.09	ug/L		87
81) isopropylbenzene	12.063	105	2522111	57.30	ug/L		97
83) bromobenzene	12.354	156	652882	54.42	ug/L		92
84) 1,1,2,2-tetrachloroethane	12.358	83	323885	43.82	ug/L		95
85) 1,2,3-trichloropropane	12.407	75	304584	39.53	ug/L		98
86) n-propylbenzene	12.451	91	2707650	55.71	ug/L		96
87) 2-chlorotoluene	12.531	91	1704631	53.96	ug/L		92
88) 4-chlorotoluene	12.641	91	1983977	53.39	ug/L		96
89) 1,3,5-trimethylbenzene	12.621	105	2260459	54.38	ug/L		99
90) tert-butylbenzene	12.906	91	1267754	56.89	ug/L		96
91) 1,2,4-trimethylbenzene	12.960	105	2364259	55.75	ug/L		96
92) sec-butylbenzene	13.109	105	2674980	57.66	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35057.D
Acq On : 29 Sep 2014 10:10 pm
Operator : amym
Sample : cc1262-50
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 30 13:46:20 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

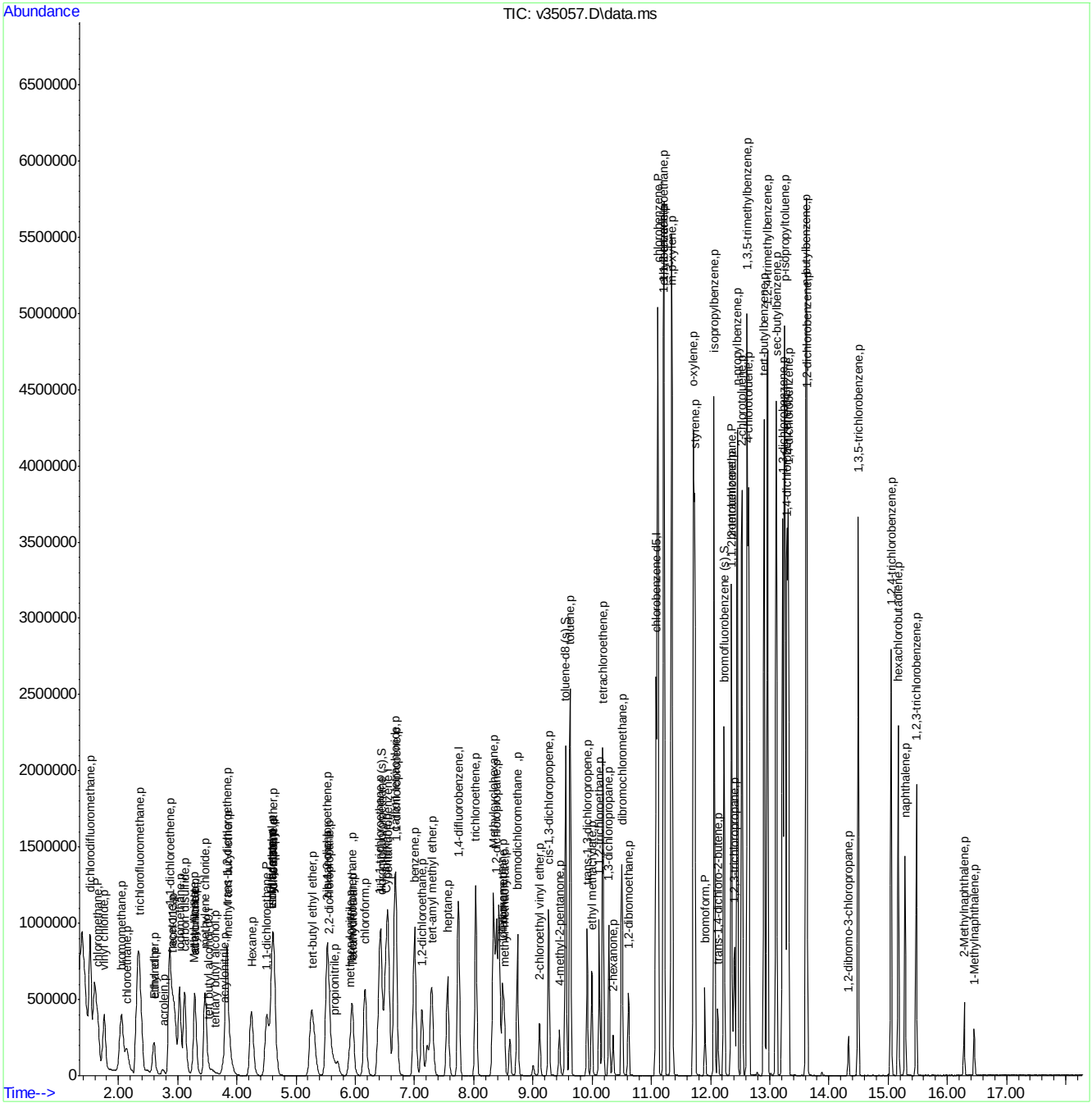
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.218	146	1334298	53.94	ug/L	98
94) p-isopropyltoluene	13.251	119	2661766	58.98	ug/L	98
95) 1,4-dichlorobenzene	13.313	146	1311128	51.93	ug/L	100
96) 1,2-dichlorobenzene	13.630	146	1227803	52.41	ug/L	99
97) n-butylbenzene	13.615	91	2001238	53.86	ug/L	92
98) 1,2-dibromo-3-chloropr...	14.331	75	49008	50.35	ug/L	88
99) 1,3,5-trichlorobenzene	14.496	180	955122	55.04	ug/L	99
100) 1,2,4-trichlorobenzene	15.051	180	725611	53.29	ug/L	99
101) hexachlorobutadiene	15.172	225	340964	59.99	ug/L	97
102) naphthalene	15.285	128	1024470	51.57	ug/L	100
103) 1,2,3-trichlorobenzene	15.474	180	510286	52.37	ug/L	99
104) 2-Methylnaphthalene	16.284	142	202814	40.50	ug/L	99
105) 1-Methylnaphthalene	16.454	142	133383	47.14	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35057.D
Acq On : 29 Sep 2014 10:10 pm
Operator : amym
Sample : cc1262-50
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

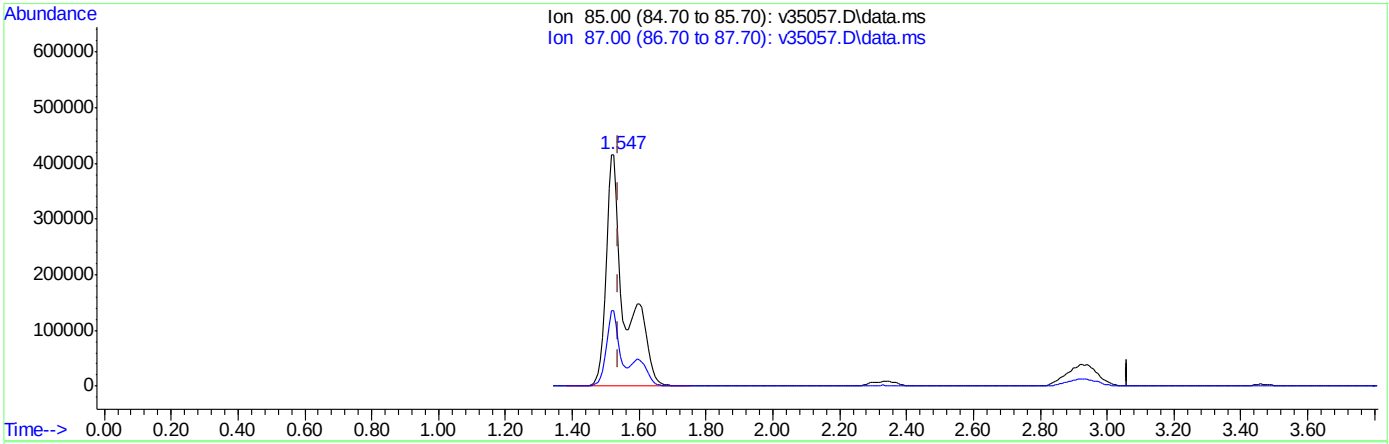
Quant Time: Sep 30 13:46:20 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

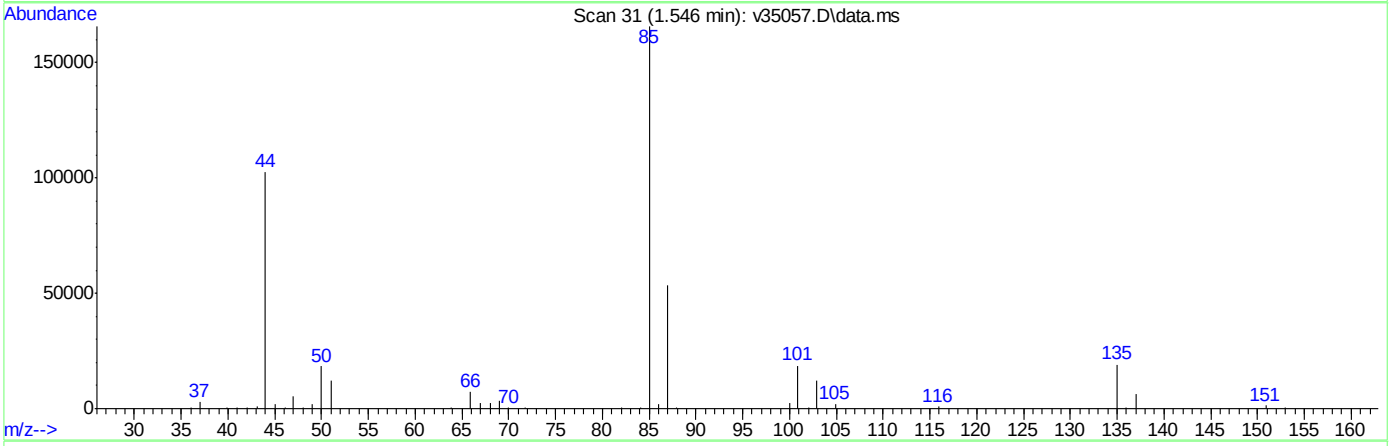


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35057.D
Acq On : 29 Sep 2014 10:10 pm
Operator : amym
Sample : cc1262-50
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 30 09:06:11 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35057.D\data.ms

(5) dichlorodifluoromethane (p)

1.547min (+0.008) 91.53ug/L

response 1642147

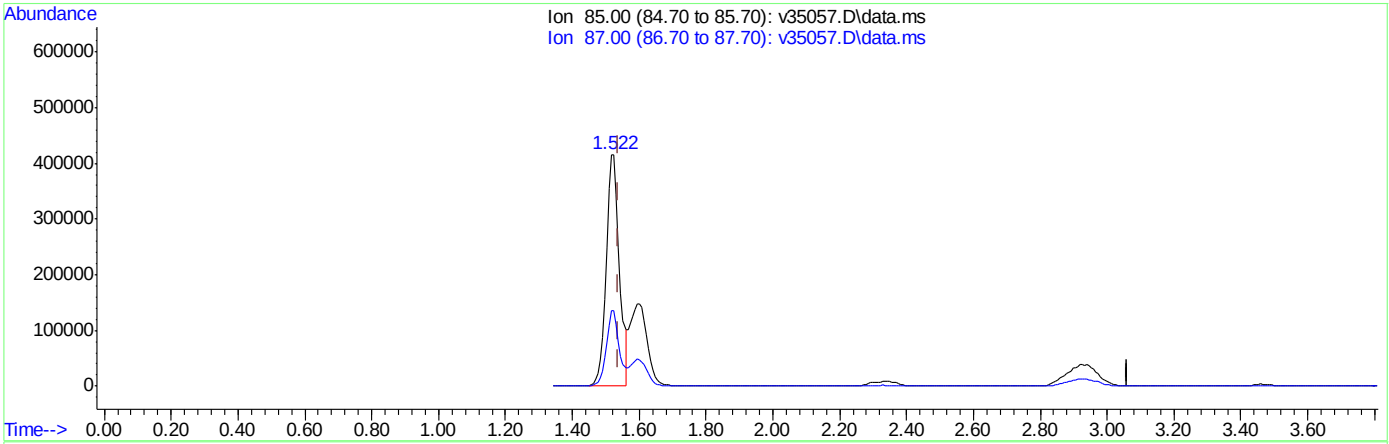
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	32.16
0.00	0.00	0.00
0.00	0.00	0.00

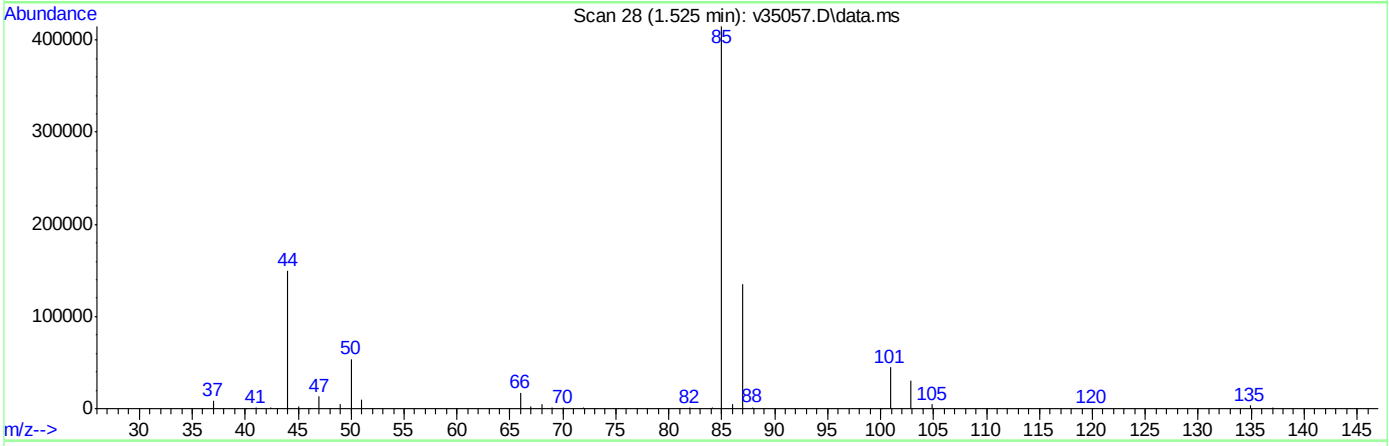
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35057.D
Acq On : 29 Sep 2014 10:10 pm
Operator : amym
Sample : cc1262-50
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 30 09:06:11 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35057.D\data.ms

(5) dichlorodifluoromethane (p)

1.525min (-0.014) 61.75ug/L m

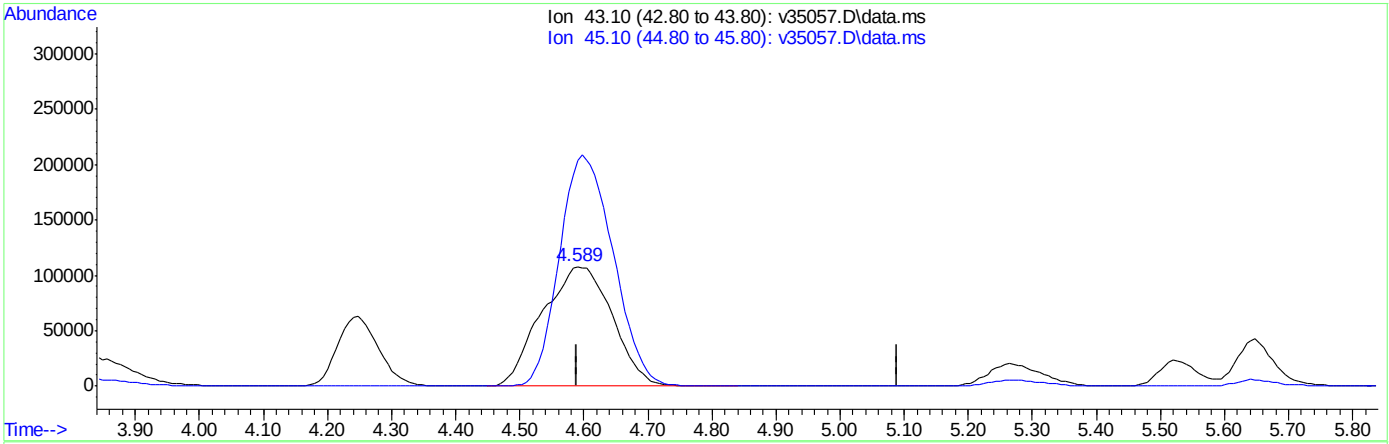
response 1107810

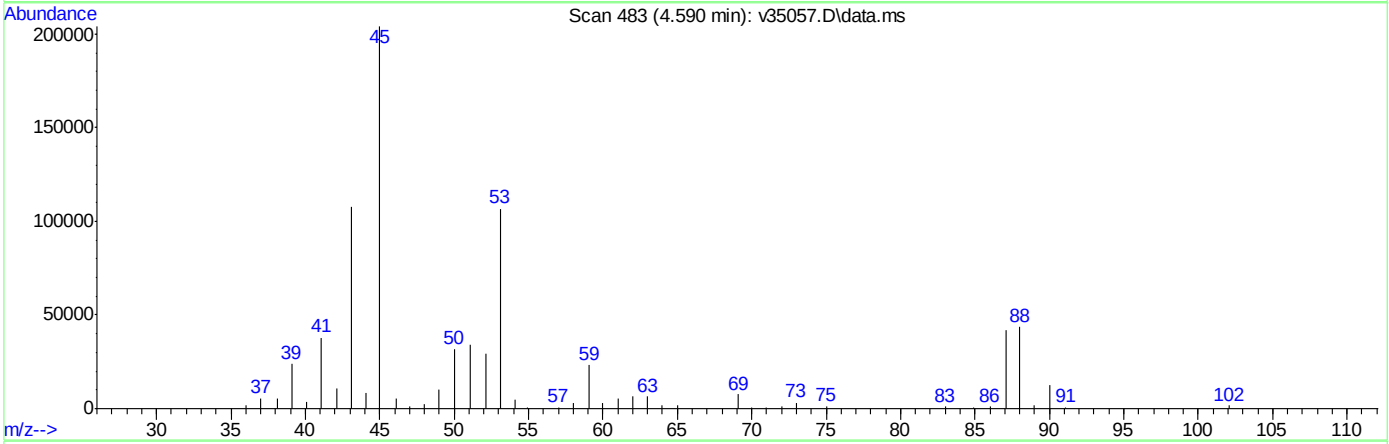
Ion	Exp%	Act%
85.00	100	100
87.00	33.00	32.55
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35057.D
Acq On : 29 Sep 2014 10:10 pm
Operator : amym
Sample : cc1262-50
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 30 09:06:11 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35057.D\data.ms

(37) ethyl acetate (p)

4.590min (+0.000) 38.61ug/L m

response 823657

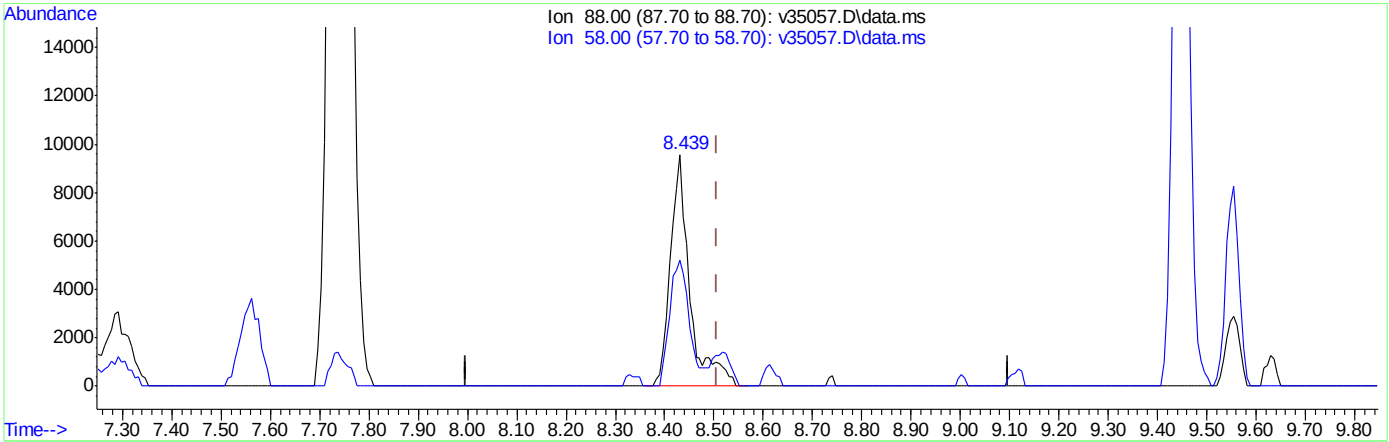
Ion	Exp%	Act%
43.10	100	100
45.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

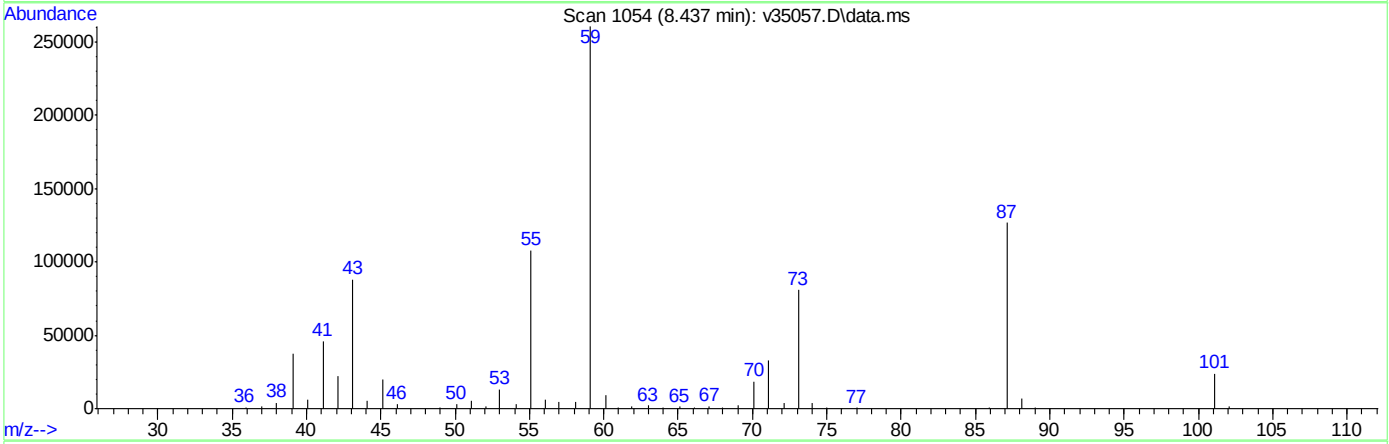
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35057.D
Acq On : 29 Sep 2014 10:10 pm
Operator : amym
Sample : cc1262-50
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 30 09:06:11 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35057.D\data.ms

(58) 1,4-dioxane (p)

8.439min (-0.069) 874.17ug/L

response 25983

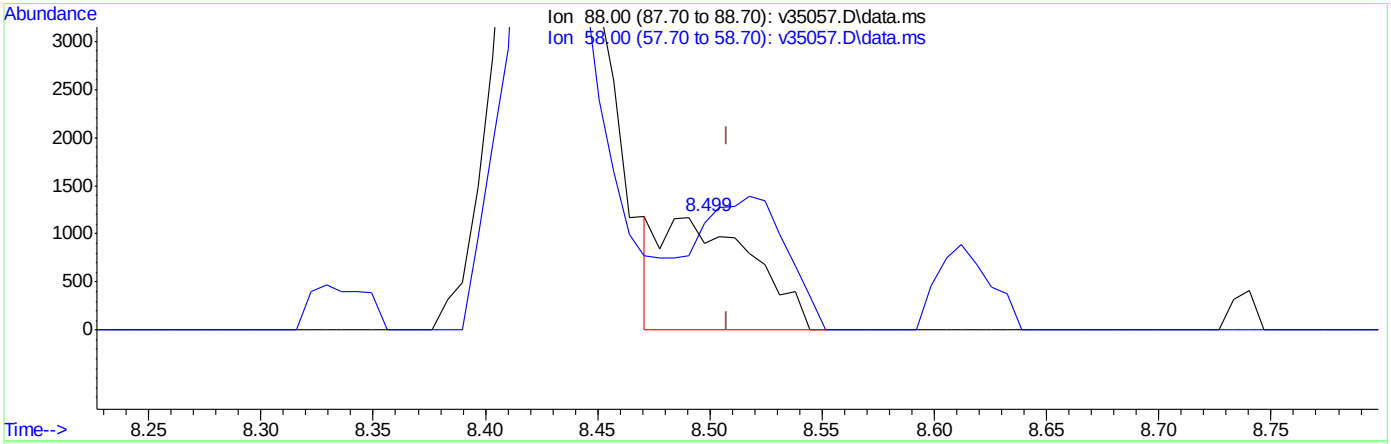
Ion	Exp%	Act%
88.00	100	100
58.00	101.70	66.85#
0.00	0.00	0.00
0.00	0.00	0.00

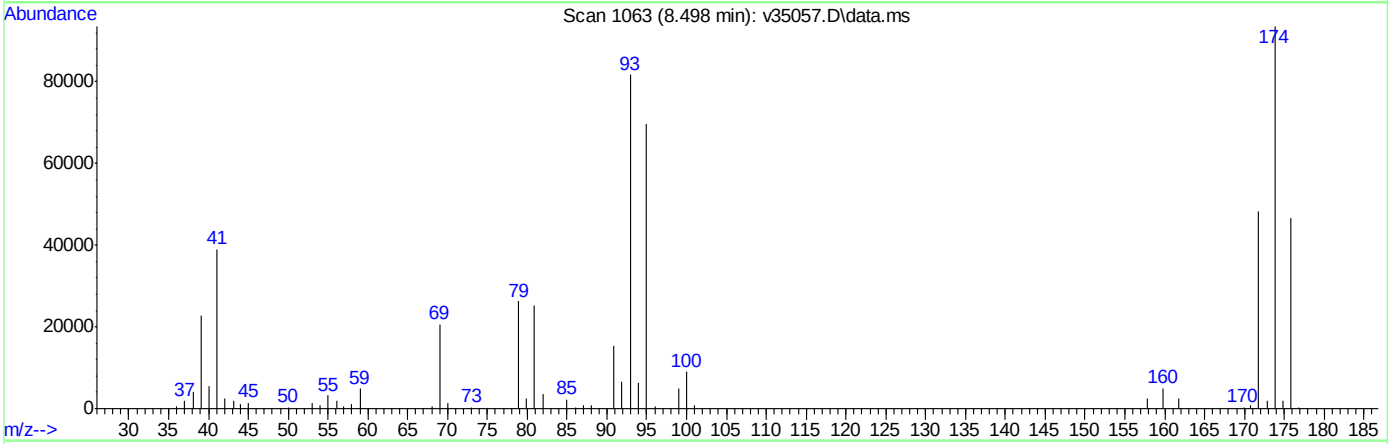
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V140929\
Data File : v35057.D
Acq On : 29 Sep 2014 10:10 pm
Operator : amym
Sample : cc1262-50
Misc : MS32838,MSV1275,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 30 09:06:11 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35057.D\data.ms

(58) 1,4-dioxane (p)

8.498min (-0.010) 123.61ug/L m

response 3325

Ion	Exp%	Act%
88.00	100	100
58.00	101.70	123.69
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
10/02/14 13:26

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35117.D
Acq On : 1 Oct 2014 9:16 am
Operator : amym
Sample : cc1262-50
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 01 17:46:40 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.521	65	79332	500.00	ug/L	#	-0.02
4) pentafluorobenzene	6.557	168	742525	50.00	ug/L		-0.01
43) 1,4-difluorobenzene	7.742	114	1196304	50.00	ug/L		0.00
66) chlorobenzene-d5	11.079	82	617328	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	13.289	152	730526	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.437	113	432776	46.23	ug/L		-0.01
Spiked Amount 50.000	Range 70 - 130		Recovery = 92.46%				
60) toluene-d8 (s)	9.553	98	1353265	51.57	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.14%				
82) bromofluorobenzene (s)	12.227	95	613703	48.25	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.50%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.629	59	59712	260.66	ug/L	#	55
3) Ethanol	2.603	45	195729	4777.12	ug/L	#	100
5) dichlorodifluoromethane	1.527	85	1057113	61.20	ug/L		98
6) chloromethane	1.647	50	692167	56.54	ug/L		98
7) vinyl chloride	1.759	62	649989	58.00	ug/L		98
8) bromomethane	2.049	96	471737	57.92	ug/L		99
9) chloroethane	2.139	64	301514	65.69	ug/L		97
10) ethyl ether	2.601	59	207039	48.01	ug/L		96
11) acetonitrile	3.293	41	551386	47.03	ug/L	#	19
12) trichlorofluoromethane	2.355	101	1125579	64.37	ug/L		97
13) freon-113	2.927	101	551645	56.95	ug/L		95
14) acrolein	2.762	56	67505	252.10	ug/L		98
15) 1,1-dichloroethene	2.869	96	360247	58.21	ug/L		95
16) acetone	2.908	58	30285	42.01	ug/L		90
17) Methyl Acetate	3.275	43	150974	50.39	ug/L	#	93
18) methylene chloride	3.467	84	344997	47.37	ug/L		89
19) methyl tert butyl ether	3.847	73	642715	47.89	ug/L		97
20) acrylonitrile	3.781	53	75343	38.95	ug/L		83
21) allyl chloride	3.292	41	550910	46.98	ug/L		94
22) trans-1,2-dichloroethene	3.832	96	359843	49.88	ug/L		99
23) iodomethane	3.037	142	956705	54.34	ug/L		96
24) carbon disulfide	3.123	76	1196333	53.85	ug/L		100
25) propionitrile	5.646	54	25546	42.26	ug/L		100
26) vinyl acetate	4.586	43	777300	37.82	ug/L		97
27) chloroprene	4.617	53	655011	59.73	ug/L		97
28) di-isopropyl ether	4.604	45	1132209	42.51	ug/L		95
29) methacrylonitrile	5.917	41	132052	41.98	ug/L		98
30) 2-butanone	5.532	72	22876	49.02	ug/L	#	48
31) Hexane	4.249	41	359073	50.97	ug/L		98
32) 1,1-dichloroethane	4.505	63	701387	47.74	ug/L		97
33) tert-butyl ethyl ether	5.274	59	954158	48.15	ug/L		99
34) isobutyl alcohol	4.586	43	777420	189.09	ug/L		87
35) 2,2-dichloropropane	5.549	77	663989	53.36	ug/L		91
36) cis-1,2-dichloroethene	5.527	96	375934	48.24	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35117.D
Acq On : 1 Oct 2014 9:16 am
Operator : amym
Sample : cc1262-50
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 01 17:46:40 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	4.584	43	777556m	37.86	ug/L		
38) bromochloromethane	5.949	128	214611	50.30	ug/L	#	80
39) chloroform	6.165	83	771051	50.68	ug/L		94
41) Tetrahydrofuran	5.957	42	43912	39.97	ug/L		94
42) 1,1,1-trichloroethane	6.413	97	874996	59.54	ug/L		97
44) Cyclohexane	6.521	56	737700	49.27	ug/L		97
45) carbon tetrachloride	6.667	117	881907	60.44	ug/L		99
46) 1,1-dichloropropene	6.682	75	504777	59.28	ug/L		96
47) benzene	7.002	78	1208951	48.83	ug/L		100
48) 1,2-dichloroethane	7.128	62	604711	56.88	ug/L		99
49) tert-amyl methyl ether	7.289	73	603208	49.83	ug/L		95
50) heptane	7.559	43	431681	49.34	ug/L		93
51) trichloroethene	8.034	95	469823	56.10	ug/L		94
52) 1,2-dichloropropane	8.383	63	384715	50.35	ug/L		98
53) dibromomethane	8.488	93	221691	54.14	ug/L		87
54) bromodichloromethane	8.738	83	605158	58.99	ug/L		97
55) Methylcyclohexane	8.336	83	548530	52.92	ug/L		97
56) 2-chloroethyl vinyl ether	9.114	63	144578	47.41	ug/L		96
57) methyl methacrylate	8.516	69	111886	48.79	ug/L		86
58) 1,4-dioxane	8.504	88	3678m	139.56	ug/L		
59) cis-1,3-dichloropropene	9.266	75	524708	58.27	ug/L		97
61) 4-methyl-2-pentanone	9.447	43	206914	43.80	ug/L		91
62) toluene	9.629	92	958085	55.96	ug/L		98
63) trans-1,3-dichloropropene	9.916	75	443249	58.95	ug/L		98
64) 1,1,2-trichloroethane	10.123	83	226503	51.30	ug/L		97
65) ethyl methacrylate	9.996	69	264057	44.97	ug/L		95
67) tetrachloroethene	10.181	166	551779	61.18	ug/L		99
68) 1,3-dichloropropane	10.283	76	422251	49.39	ug/L		99
69) dibromochloromethane	10.504	129	497297	59.70	ug/L		100
70) 1,2-dibromoethane	10.613	107	318452	54.51	ug/L		95
71) 2-hexanone	10.354	43	200844	49.13	ug/L		90
72) chlorobenzene	11.109	112	1340107	56.20	ug/L		94
73) 1,1,1,2-tetrachloroethane	11.207	131	597790	59.98	ug/L		98
74) ethylbenzene	11.213	91	2162978	58.32	ug/L		98
75) m,p-xylene	11.343	106	1717341	114.86	ug/L		95
76) o-xylene	11.710	106	881944	56.12	ug/L		97
77) styrene	11.731	104	1363784	56.48	ug/L		99
78) bromoform	11.906	173	227743	55.62	ug/L		98
79) trans-1,4-dichloro-2-b...	12.122	53	92738	41.25	ug/L		86
81) isopropylbenzene	12.062	105	2462104	59.24	ug/L		96
83) bromobenzene	12.352	156	634560	56.01	ug/L		92
84) 1,1,2,2-tetrachloroethane	12.357	83	307801	44.10	ug/L		98
85) 1,2,3-trichloropropane	12.404	75	301534	41.44	ug/L		96
86) n-propylbenzene	12.450	91	2663056	58.02	ug/L		96
87) 2-chlorotoluene	12.529	91	1668907	55.94	ug/L		94
88) 4-chlorotoluene	12.640	91	1938064	55.23	ug/L		95
89) 1,3,5-trimethylbenzene	12.619	105	2217511	56.50	ug/L		99
90) tert-butylbenzene	12.905	91	1232939	58.59	ug/L		94
91) 1,2,4-trimethylbenzene	12.960	105	2291632	57.23	ug/L		98
92) sec-butylbenzene	13.108	105	2603863	59.44	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35117.D
Acq On : 1 Oct 2014 9:16 am
Operator : amym
Sample : cc1262-50
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 01 17:46:40 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

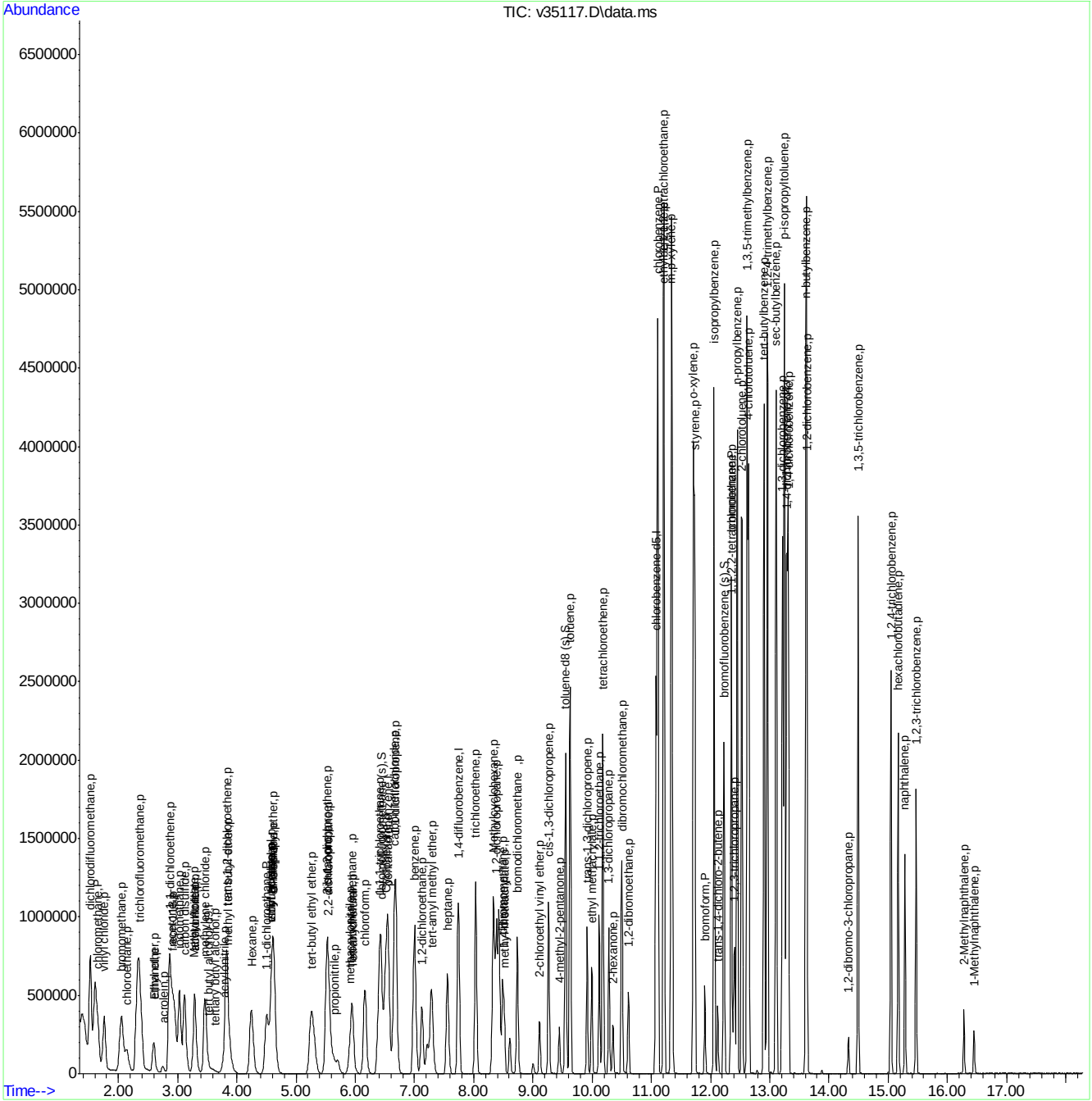
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	1,3-dichlorobenzene	13.216	146	1299548	55.63	ug/L	98
94)	p-isopropyltoluene	13.249	119	2596873	60.93	ug/L	100
95)	1,4-dichlorobenzene	13.312	146	1277046	53.56	ug/L	99
96)	1,2-dichlorobenzene	13.628	146	1180152	53.35	ug/L	99
97)	n-butylbenzene	13.613	91	1940338	55.30	ug/L	95
98)	1,2-dibromo-3-chloropr...	14.330	75	45512	49.51	ug/L	81
99)	1,3,5-trichlorobenzene	14.494	180	913687	55.75	ug/L	99
100)	1,2,4-trichlorobenzene	15.049	180	687848	53.50	ug/L	100
101)	hexachlorobutadiene	15.171	225	336165	62.63	ug/L	96
102)	naphthalene	15.284	128	950728	50.69	ug/L	100
103)	1,2,3-trichlorobenzene	15.473	180	482487	52.43	ug/L	98
104)	2-Methylnaphthalene	16.282	142	184606	39.17	ug/L	100
105)	1-Methylnaphthalene	16.452	142	121345	45.52	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35117.D
Acq On : 1 Oct 2014 9:16 am
Operator : amym
Sample : cc1262-50
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

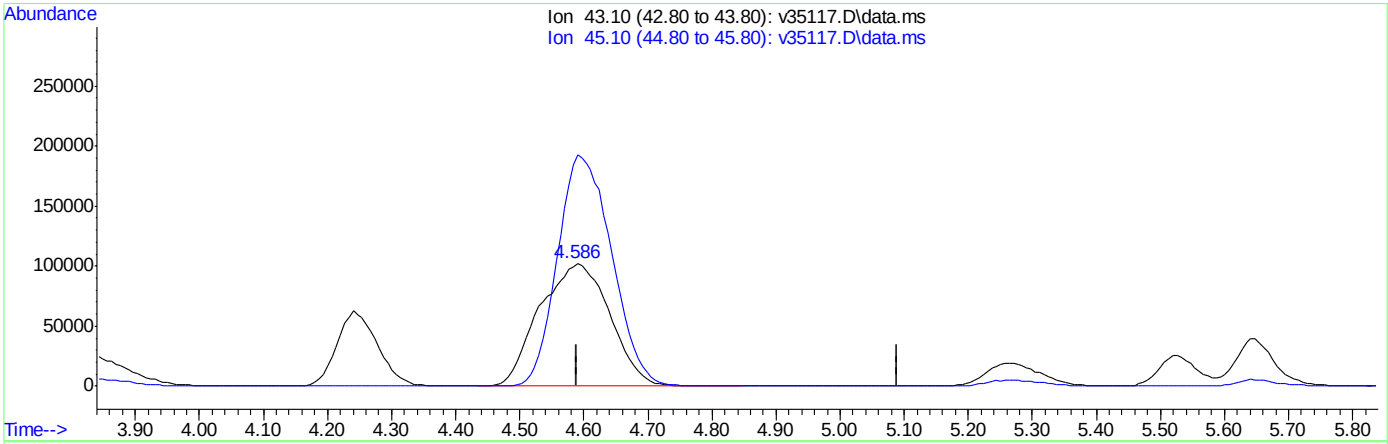
Quant Time: Oct 01 17:46:40 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration

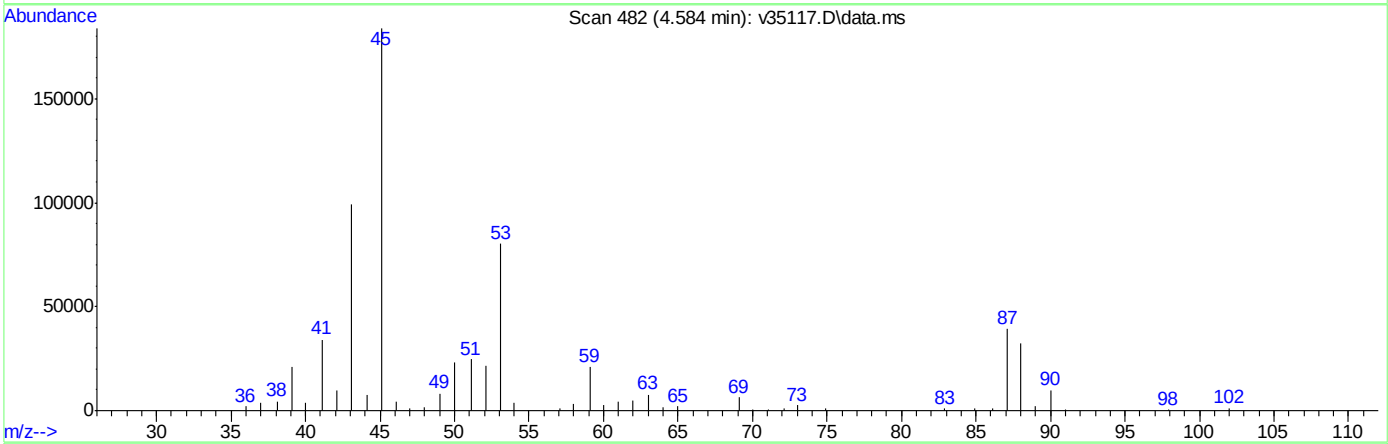


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35117.D
Acq On : 1 Oct 2014 9:16 am
Operator : amym
Sample : cc1262-50
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 01 10:17:16 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35117.D\data.ms

(37) ethyl acetate (p)

4.584min (-0.006) 37.86ug/L m

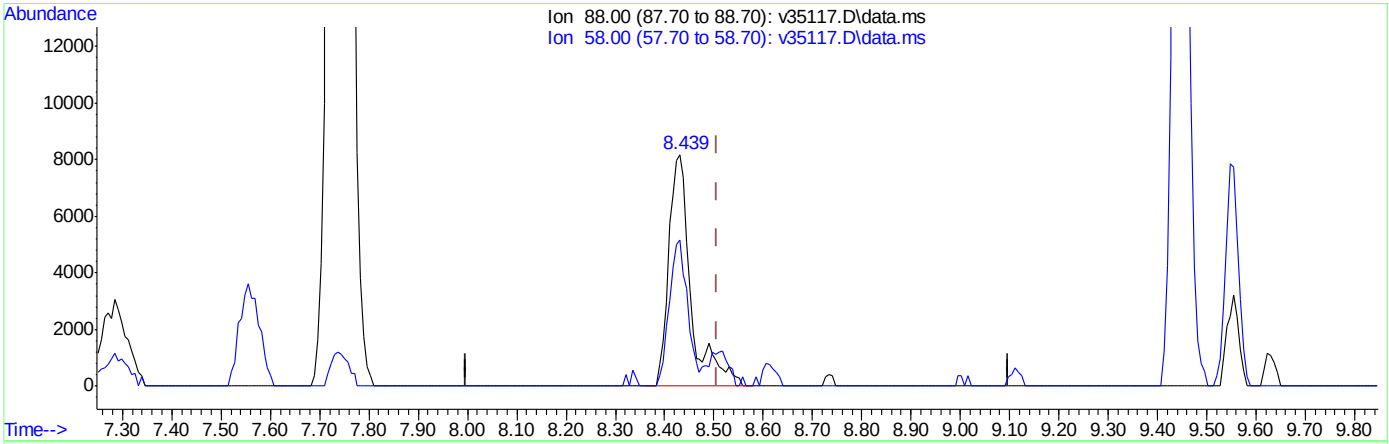
response 777556

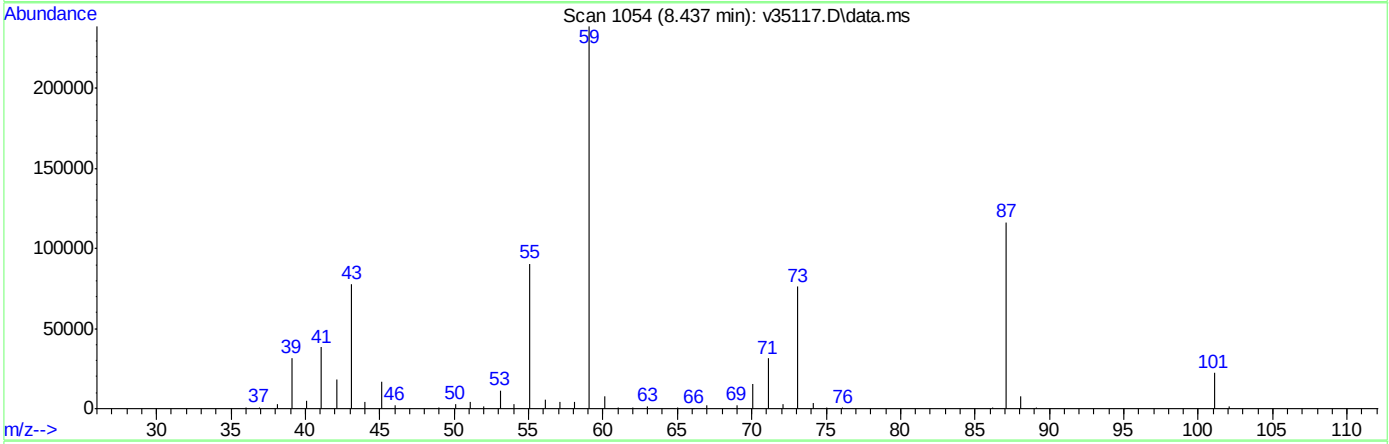
Ion	Exp%	Act%
43.10	100	100
45.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35117.D
Acq On : 1 Oct 2014 9:16 am
Operator : amym
Sample : cc1262-50
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 01 10:17:16 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35117.D\data.ms

(58) 1,4-dioxane (p)

8.439min (-0.069) 883.59ug/L

response 25381

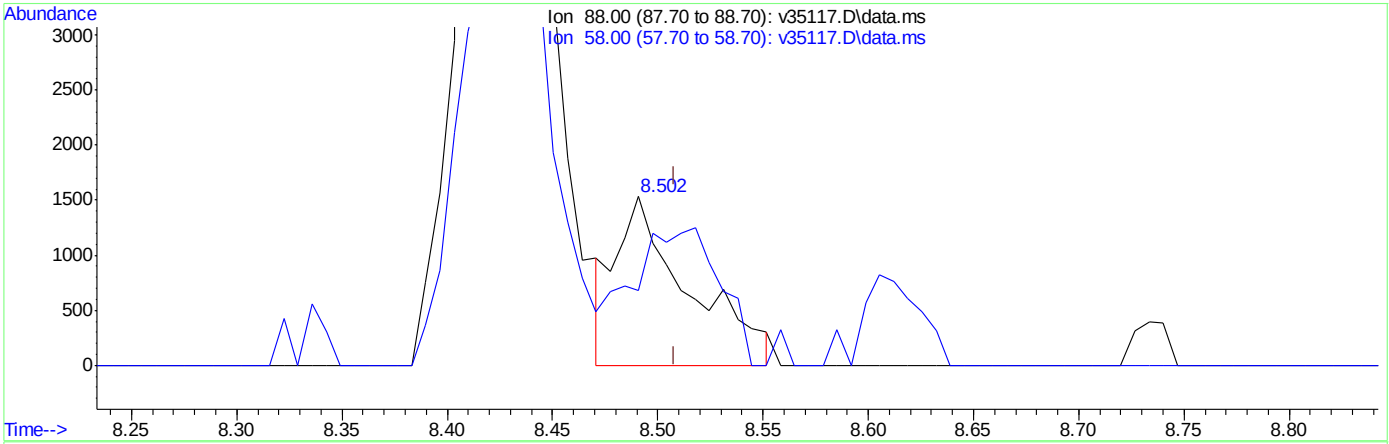
Ion	Exp%	Act%
88.00	100	100
58.00	101.70	53.45#
0.00	0.00	0.00
0.00	0.00	0.00

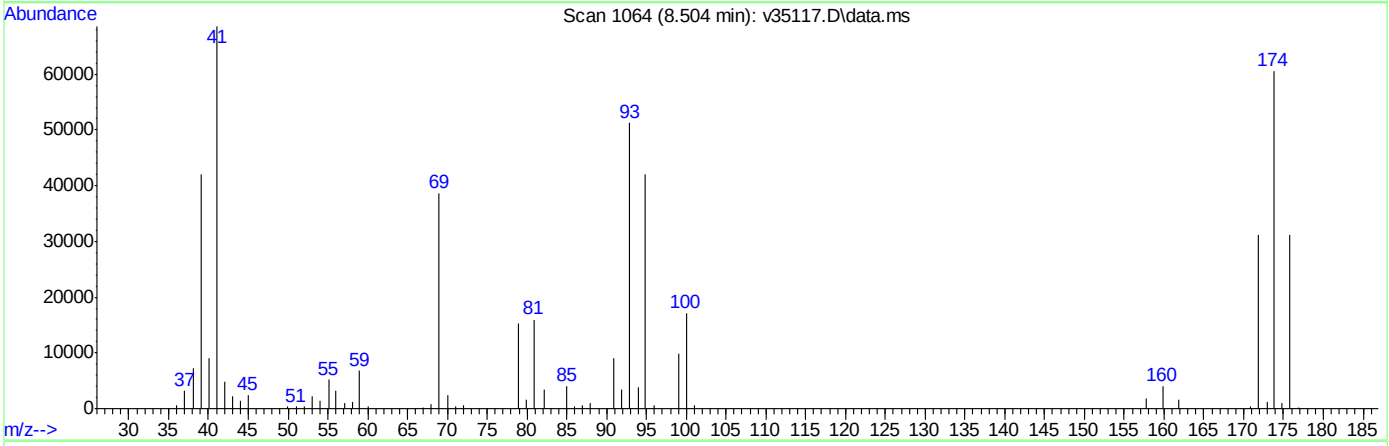
ACCUTEST LABORATORIES MC33933

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\V141001\
Data File : v35117.D
Acq On : 1 Oct 2014 9:16 am
Operator : amym
Sample : cc1262-50
Misc : MS32846,MSV1277,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 01 10:17:16 2014
Quant Method : C:\msdchem\1\METHODS\v140917w.m
Quant Title : SW-846 Method 8260
QLast Update : Thu Sep 18 08:26:09 2014
Response via : Initial Calibration





TIC: v35117.D\data.ms

(58) 1,4-dioxane (p)

8.504min (-0.004) 139.56ug/L m

response 3678

Ion	Exp%	Act%
88.00	100	100
58.00	101.70	121.98
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33933

Accutest Laboratories of New England, Inc. **Instrument: GCMS V**

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Lot #	Description	Conc
MS 9911	V 8260 Cal STD	200 ug/ml
9926	Cal Gas	
9910	BS STD	
9904	BS Gas	
9895	MS	
9902	MS	250 ug/ml

Daily Saved File

Tune file 1:	V34673
Tune file 2:	NA
Initial Cal:	09/17/14
ID File:	V140917W
ICAL Verified:	V34693
Sequence verified:	

Date: 9/17/14

Batch ID: MSV1262

Analysts Amy Yang

Signature:

*Note: If sample matrix is soil – method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
V34668	blk	NA	NA	NA	1	NA	NA	NA	NA	NA	
69	↓	↓	↓	↓	2	↓	↓	↓	↓	↓	
70	↓	↓	↓	↓	3	↓	↓	↓	↓	↓	
71	test 0.25	↓	↓	↓	4	↓	↓	↓	↓	↓	
72	test 5	↓	↓	↓	5	↓	↓	↓	↓	↓	
73	BFB	↓	↓	↓	6	↓	↓	↓	↓	↓	
74	blk	↓	↓	↓	7	↓	↓	↓	↓	↓	
75	test 5	↓	↓	↓	8	↓	↓	↓	↓	↓	
76	blk	↓	↓	↓	9	↓	↓	↓	↓	↓	
77	↓	↓	↓	↓	10	↓	↓	↓	↓	↓	
78	ic1262-0.25	2.1	MS9911/9926	↓	11	↓	↓	↓	↓	↓	
79	-0.5	↓	↓	↓	12	↓	↓	↓	↓	↓	
80	-1	↓	↓	↓	13	↓	↓	↓	↓	↓	
81	-2	↓	↓	↓	14	↓	↓	↓	↓	↓	
82	-5	↓	MS9911/9926/9895	↓	15	↓	↓	↓	↓	↓	
83	-10	↓	↓	↓	16	↓	↓	↓	↓	↓	
84	-25	↓	↓	↓	17	↓	↓	↓	↓	↓	
85	ic1262-50	↓	↓	↓	18	↓	↓	↓	↓	↓	
86	ic1262-100	↓	↓	↓	19	↓	↓	↓	↓	↓	
87	-200	↓	↓	↓	20	↓	↓	↓	↓	↓	
88	-400	↓	↓	↓	21	↓	↓	↓	↓	↓	
89	blk	NA	NA	↓	22	↓	↓	↓	↓	↓	
90	↓	↓	↓	↓	23	↓	↓	↓	↓	↓	
91	↓	↓	↓	↓	24	↓	↓	↓	↓	↓	
92	ic1262-10	2.2	MS9910/9904/9895	↓	25	↓	↓	↓	↓	↓	
93	↓	↓	↓	↓	26	↓	↓	↓	↓	↓	
94	blk	NA	NA	↓	27	↓	↓	↓	↓	↓	
95	↓	↓	↓	↓	28	↓	↓	↓	↓	↓	

9/18/14

MTX = Matrix: Designate W for water, S for soil, O for oil.
Sample amount is reported in grams (wet) for soil and oil, mls for water.

MS001-05 Date: 07/22/13

Review:

ACCUTEST LABORATORIES MC33933

Accutest Laboratories of New England, Inc. **Instrument: GCMS V**

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Lot #	Description	Conc
MS 9911	V 8260 Cal STD	200 µg/mL
9926	Cal Gas	
9712	BS STD	
9927	BS Gas	
9903	75/25	250 µg/mL

Daily Saved File

Tune file 1:	V35057
Tune file 2:	NA
Initial Cal:	09/17/14
ID File:	V140917.W
ICAL Verified:	
Sequence verified:	

Date: 9/29/14

Batch ID: MSV1275

Analysts Amy Yang

Signature:

*Note: If sample matrix is soil – method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
V35056	CC 12h2-50	3.2	MS9911/9926	NA	31	NA	5 ml	NA	1:1	NA	
57	BS	3.1	MS9910/9927		32						
58	BSD	↓	↓		33						
59	MB	NA	NA		34						
60	MB	↓	↓	↓	35	↓	↓	↓	↓	↓	
61	MC33933-3	1	MS32846	V8260BTX	36	WTB				<2	
62	MC33875-12	↓	↓	V8260BTXM	37	↓				↓	
63	↓ -13	↓	↓	↓	38	↓			↓		
64	MC33875-9	↓	↓	V8260BTXMW	39	GW					
65	-9MS	2		↓	40	↓			1:5		
66	-9MSD	↓			41				↓		
X 67	-9	↓			42				1:20		Noneed
68	-3	1			43				1:1		
69	-5	↓			44				↓		
70	-6				45						
71	-7				46						
72	-1				47				1:5		
✓ 73	-4				48				↓		KR=1:50
X 74	-10				49						RR=1:1
75	-11				50				↓		RR=1:50
76	-8				51				1:2		
77	↓ -2	↓		↓	1				1:1		RR=1:20
X 78	MC33933-1	5		V8260BTX	2				↓		C.O? RR
✓ 79	↓ -2	6	↓	↓	3	↓	↓	↓			C.O? RR
80	MC33875-10	2		V8260BTXMW	4						
81	-11	2		↓	5				1:50		
82	↓ -2	2			6				1:20		
83	MC33933-1	4	↓	V8260BTX	7	↓	↓	↓	1:1	↓	

9/30/14

MTX = Matrix: Designate W for water, S for soil, O for oil.
Sample amount is reported in grams (wet) for soil and oil, mls for water.

MS001-05 Date: 07/22/13

Review:

ACCUTEST LABORATORIES MC33933

Accutest Laboratories of New England, Inc. **Instrument: GCMS V**

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Lot #	Description	Conc
MS 9911	V Blk Cal STD	20 ug/ml
9926	Cal Gas	
9910	BS STD	
9927	BS Gas	
9903	25/55	250 ug/ml

Daily Saved File

Tune file 1:	V35116
Tune file 2:	NA
Initial Cal:	09/17/14
ID File:	V140917W
ICAL Verified:	
Sequence verified:	MB

Date: 10/1/14

Batch ID: MSV1277

Analysts Ay Yang

Signature:

*Note: If sample matrix is soil – method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
V35115	VBlk	NA	NA	NA	1	NA	5ml	NA	1:1	NA	
16	CC1262-50	3,2	MS9911/9926		2						
17	BS	3,1	MS9910/9927		3						
18	BSD	↓	↓		4						
19	VBlk	NA	NA		5						
20	MB	↓	↓	↓	6	↓				↓	
21	MC33933-2	4	MS32896	VBlnBTX	7	GW				<2	
22	MC33780-2	2	MS32852	VBlnSL	8	↓					
23	MC33721-2	2	MS32863	VBlnBTXM	9	DW					
24	MC33785-2	1		VBlnSTD	10	GW					
25	-3				11						
26	-4				12						
27	-5				13						
28	-6				14						
29	-7				15						
30	-10				16						
31	-11				17						
32	-12				18						
33	-13	↓			19						
34	-15	2			20						
35	-16	3			21						✓
36	-18	2			22						
37	-19	3			23						
38	-20	2			24						
39	-21	3			25				↓		
40	MC -2MS	2			26				1:5		
41	-2MSD	↓	↓		27				↓		
42	MC33780-1	3	MS32852	VBlnSL	28	↓			1:10	↓	
43	VBlk				29						
											10/2/14 my

MTX = Matrix: Designate W for water, S for soil, O for oil.
Sample amount is reported in grams (wet) for soil and oil, mls for water.

MS001-05 Date: 07/22/13

Review:

ACCUTEST LABORATORIES MC33933

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP40010-MB	R40214.D	1	10/08/14	WK	09/29/14	OP40010	MSR1479

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC33933-1, MC33933-2

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.0	0.32	ug/l	
208-96-8	Acenaphthylene	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	2.0	0.19	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.0	0.49	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.0	0.16	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.0	0.25	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	0.83	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.0	0.87	ug/l	
218-01-9	Chrysene	ND	2.0	0.17	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	0.64	ug/l	
206-44-0	Fluoranthene	ND	2.0	0.45	ug/l	
86-73-7	Fluorene	ND	2.0	0.21	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	0.82	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.26	ug/l	
91-20-3	Naphthalene	ND	2.0	0.30	ug/l	
85-01-8	Phenanthrene	ND	2.0	0.14	ug/l	
129-00-0	Pyrene	ND	2.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	42%	15-110%
4165-62-2	Phenol-d5	25%	15-110%
118-79-6	2,4,6-Tribromophenol	103%	15-110%
4165-60-0	Nitrobenzene-d5	72%	30-130%
321-60-8	2-Fluorobiphenyl	66%	30-130%
1718-51-0	Terphenyl-d14	100%	30-130%

Blank Spike Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP40010-BS	R40215.D	1	10/08/14	WK	09/29/14	OP40010	MSR1479

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC33933-1, MC33933-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	41.6	83	40-140
208-96-8	Acenaphthylene	50	39.9	80	40-140
120-12-7	Anthracene	50	45.7	91	40-140
56-55-3	Benzo(a)anthracene	50	48.2	96	40-140
50-32-8	Benzo(a)pyrene	50	47.0	94	40-140
205-99-2	Benzo(b)fluoranthene	50	48.2	96	40-140
191-24-2	Benzo(g,h,i)perylene	50	49.1	98	40-140
207-08-9	Benzo(k)fluoranthene	50	48.0	96	40-140
218-01-9	Chrysene	50	44.0	88	40-140
53-70-3	Dibenzo(a,h)anthracene	50	47.7	95	40-140
206-44-0	Fluoranthene	50	50.1	100	40-140
86-73-7	Fluorene	50	45.2	90	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	38.2	76	40-140
91-57-6	2-Methylnaphthalene	50	35.2	70	40-140
91-20-3	Naphthalene	50	32.3	65	40-140
85-01-8	Phenanthrene	50	46.4	93	40-140
129-00-0	Pyrene	50	46.5	93	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	42%	15-110%
4165-62-2	Phenol-d5	25%	15-110%
118-79-6	2,4,6-Tribromophenol	116%* [a]	15-110%
4165-60-0	Nitrobenzene-d5	69%	30-130%
321-60-8	2-Fluorobiphenyl	68%	30-130%
1718-51-0	Terphenyl-d14	89%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP40010-MS	R40216.D	1	10/08/14	WK	09/29/14	OP40010	MSR1479
OP40010-MSD	R40217.D	1	10/08/14	WK	09/29/14	OP40010	MSR1479
MC33900-1	R40218.D	1	10/08/14	WK	09/29/14	OP40010	MSR1479

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC33933-1, MC33933-2

CAS No.	Compound	MC33900-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	49.5	99	50	48.7	97	2	40-140/20
208-96-8	Acenaphthylene	ND		50	47.3	95	50	46.4	93	2	40-140/20
120-12-7	Anthracene	ND		50	52.2	104	50	52.7	105	1	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	55.7	111	50	55.7	111	0	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	55.1	110	50	55.1	110	0	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	57.3	115	50	58.0	116	1	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	56.7	113	50	57.0	114	1	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	54.7	109	50	54.7	109	0	40-140/20
218-01-9	Chrysene	ND		50	50.9	102	50	51.5	103	1	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	55.7	111	50	56.2	112	1	40-140/20
206-44-0	Fluoranthene	ND		50	57.3	115	50	58.1	116	1	40-140/20
86-73-7	Fluorene	ND		50	52.4	105	50	52.2	104	0	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	44.4	89	50	44.5	89	0	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	40.8	82	50	41.1	82	1	40-140/20
91-20-3	Naphthalene	ND		50	35.1	70	50	37.0	74	5	40-140/20
85-01-8	Phenanthrene	ND		50	53.9	108	50	53.8	108	0	40-140/20
129-00-0	Pyrene	ND		50	54.1	108	50	54.3	109	0	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC33900-1	Limits
367-12-4	2-Fluorophenol	43%	48%	47%	15-110%
4165-62-2	Phenol-d5	26%	29%	28%	15-110%
118-79-6	2,4,6-Tribromophenol	132%* b	134%* b	111%* a	15-110%
4165-60-0	Nitrobenzene-d5	76%	81%	80%	30-130%
321-60-8	2-Fluorobiphenyl	79%	79%	74%	30-130%
1718-51-0	Terphenyl-d14	100%	102%	103%	30-130%

(a) Outside control limits. Meets program technical requirements.
(b) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-DFTPP
Lab File ID: R39637.D
Instrument ID: GCMSR
Injection Date: 09/11/14
Injection Time: 10:51

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	128280	45.2		Pass
68	Less than 2.0% of mass 69	1682	0.59	(1.35) [a]	Pass
69	Mass 69 relative abundance	124608	43.9		Pass
70	Less than 2.0% of mass 69	582	0.21	(0.47) [a]	Pass
127	40.0 - 60.0% of mass 198	139584	49.2		Pass
197	Less than 1.0% of mass 198	1108	0.39		Pass
198	Base peak, 100% relative abundance	283776	100.0		Pass
199	5.0 - 9.0% of mass 198	18784	6.62		Pass
275	10.0 - 30.0% of mass 198	58872	20.7		Pass
365	1.0 - 100.0% of mass 198	6790	2.39		Pass
441	Present, but less than mass 443	24504	8.63	(87.0) [b]	Pass
442	40.0 - 100.0% of mass 198	151744	53.5		Pass
443	17.0 - 23.0% of mass 442	28160	9.92	(18.6) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSR1461-IC1461	R39638.D	09/11/14	11:30	00:39	Initial cal 2
MSR1461-IC1461	R39639.D	09/11/14	11:55	01:04	Initial cal 5
MSR1461-IC1461	R39640.D	09/11/14	12:19	01:28	Initial cal 10
MSR1461-IC1461	R39641.D	09/11/14	12:43	01:52	Initial cal 20
MSR1461-ICC1461	R39642.D	09/11/14	13:08	02:17	Initial cal 50
MSR1461-IC1461	R39643.D	09/11/14	13:32	02:41	Initial cal 80
MSR1461-IC1461	R39644.D	09/11/14	13:56	03:05	Initial cal 120
MSR1461-IC1461	R39645.D	09/11/14	14:21	03:30	Initial cal 160
MSR1461-ICV1461	R39648A.D	09/11/14	15:40	04:49	Initial cal verification 50
OP39764-MB	R39649.D	09/11/14	16:03	05:12	Method Blank
OP39764-BS	R39650.D	09/11/14	16:27	05:36	Blank Spike
ZZZZZZ	R39651.D	09/11/14	16:52	06:01	(unrelated sample)
ZZZZZZ	R39652.D	09/11/14	17:16	06:25	(unrelated sample)
ZZZZZZ	R39653.D	09/11/14	17:40	06:49	(unrelated sample)
ZZZZZZ	R39654.D	09/11/14	18:05	07:14	(unrelated sample)
ZZZZZZ	R39655.D	09/11/14	18:29	07:38	(unrelated sample)
OP39750-MB	R39656.D	09/11/14	18:53	08:02	Method Blank
OP39750-BS	R39657.D	09/11/14	19:18	08:27	Blank Spike
OP39750-MS	R39658.D	09/11/14	19:42	08:51	Matrix Spike

Instrument Performance Check (DFTPP)

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample:	MSR1461-DFTPP	**Injection Date:**	09/11/14
Lab File ID:	R39637.D	**Injection Time:**	10:51
Instrument ID:	GCMSR		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
OP39750-MSD	R39659.D	09/11/14	20:06	09:15	Matrix Spike Duplicate
MC33200-17	R39660.D	09/11/14	20:31	09:40	(used for QC only; not part of job MC33933)
ZZZZZZ	R39661.D	09/11/14	20:55	10:04	(unrelated sample)
ZZZZZZ	R39662.D	09/11/14	21:19	10:28	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1479-DFTPP
Lab File ID: R40199.D
Instrument ID: GCMSR
Injection Date: 10/08/14
Injection Time: 07:33

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	115017	33.3		Pass
68	Less than 2.0% of mass 69	2000	0.58	(1.49) [a]	Pass
69	Mass 69 relative abundance	134435	38.9		Pass
70	Less than 2.0% of mass 69	493	0.14	(0.37) [a]	Pass
127	40.0 - 60.0% of mass 198	162995	47.1		Pass
197	Less than 1.0% of mass 198	659	0.19		Pass
198	Base peak, 100% relative abundance	345749	100.0		Pass
199	5.0 - 9.0% of mass 198	24005	6.94		Pass
275	10.0 - 30.0% of mass 198	83965	24.3		Pass
365	1.0 - 100.0% of mass 198	9852	2.85		Pass
441	Present, but less than mass 443	42923	12.4	(78.2) [b]	Pass
442	40.0 - 100.0% of mass 198	282837	81.8		Pass
443	17.0 - 23.0% of mass 442	54912	15.9	(19.4) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSR1479-CC1461	R40200.D	10/08/14	07:58	00:25	Continuing cal 50
OP40099-MB	R40209.D	10/08/14	09:01	01:28	Method Blank
OP40099-BS	R40210.D	10/08/14	09:26	01:53	Blank Spike
ZZZZZZ	R40211.D	10/08/14	09:51	02:18	(unrelated sample)
ZZZZZZ	R40212.D	10/08/14	10:15	02:42	(unrelated sample)
ZZZZZZ	R40213.D	10/08/14	10:40	03:07	(unrelated sample)
OP40010-MB	R40214.D	10/08/14	11:04	03:31	Method Blank
OP40010-BS	R40215.D	10/08/14	11:29	03:56	Blank Spike
OP40010-MS	R40216.D	10/08/14	11:54	04:21	Matrix Spike
OP40010-MSD	R40217.D	10/08/14	12:19	04:46	Matrix Spike Duplicate
MC33900-1	R40218.D	10/08/14	12:43	05:10	(used for QC only; not part of job MC33933)
ZZZZZZ	R40219.D	10/08/14	13:08	05:35	(unrelated sample)
MC33933-1	R40220.D	10/08/14	13:32	05:59	MW-20R
MC33933-2	R40221.D	10/08/14	13:57	06:24	MW-19R
OP40068-MB	R40222.D	10/08/14	14:21	06:48	Method Blank
OP40068-BS	R40223.D	10/08/14	14:46	07:13	Blank Spike
OP40068-MS	R40224.D	10/08/14	15:10	07:37	Matrix Spike
OP40068-MSD	R40225.D	10/08/14	15:34	08:01	Matrix Spike Duplicate
MC34075-1	R40226.D	10/08/14	15:59	08:26	(used for QC only; not part of job MC33933)

Instrument Performance Check (DFTPP)

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample:	MSR1479-DFTPP	**Injection Date:**	10/08/14
Lab File ID:	R40199.D	**Injection Time:**	07:33
Instrument ID:	GCMSR		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	R40227.D	10/08/14	16:23	08:50	(unrelated sample)
ZZZZZZ	R40228.D	10/08/14	16:48	09:15	(unrelated sample)
ZZZZZZ	R40229.D	10/08/14	17:13	09:40	(unrelated sample)
ZZZZZZ	R40230.D	10/08/14	17:37	10:04	(unrelated sample)
ZZZZZZ	R40231.D	10/08/14	18:02	10:29	(unrelated sample)
ZZZZZZ	R40232.D	10/08/14	18:27	10:54	(unrelated sample)
ZZZZZZ	R40233.D	10/08/14	18:52	11:19	(unrelated sample)
ZZZZZZ	R40234.D	10/08/14	19:17	11:44	(unrelated sample)
ZZZZZZ	R40235.D	10/08/14	19:42	12:09	(unrelated sample)
ZZZZZZ	R40236.D	10/08/14	20:07	12:34	(unrelated sample)
ZZZZZZ	R40237.D	10/08/14	20:31	12:58	(unrelated sample)

Semivolatile Internal Standard Area Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std: MSR1479-CC1461 **Injection Date:** 10/08/14
Lab File ID: R40200.D **Injection Time:** 07:58
Instrument ID: GCMSR **Method:** SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	346943	4.34	1284158	5.44	759375	6.95	1259154	8.23	1290850	10.57	1152463	12.06
Upper Limit [a]	693886	4.84	2568316	5.94	1518750	7.45	2518308	8.73	2581700	11.07	2304926	12.56
Lower Limit [b]	173472	3.84	642079	4.94	379688	6.45	629577	7.73	645425	10.07	576232	11.56

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP40099-MB	428754	4.33	1572977	5.43	931454	6.94	1533300	8.22	1388984	10.56	1267768	12.05
OP40099-BS	497308	4.34	1825644	5.43	1056780	6.95	1688014	8.23	1612813	10.57	1418658	12.06
ZZZZZZ	431781	4.33	1568745	5.43	926181	6.94	1499270	8.22	1335543	10.56	1208028	12.05
ZZZZZZ	432045	4.33	1579901	5.43	918521	6.94	1488872	8.22	1297808	10.56	1174089	12.05
ZZZZZZ	332284	4.33	1230970	5.43	731345	6.94	1225170	8.22	1205384	10.55	1119910	12.05
OP40010-MB	397915	4.33	1448109	5.43	863596	6.94	1430410	8.22	1404115	10.55	1319987	12.05
OP40010-BS	392323	4.33	1423586	5.43	821848	6.94	1334279	8.23	1298797	10.56	1155337	12.05
OP40010-MS	381960	4.33	1386533	5.43	801925	6.95	1294353	8.22	1237895	10.56	1087118	12.05
OP40010-MSD	392135	4.33	1403639	5.43	811072	6.94	1320000	8.22	1271789	10.56	1122711	12.05
MC33900-1	353514	4.33	1305191	5.43	775186	6.94	1285109	8.22	1251327	10.55	1178147	12.05
ZZZZZZ	375915	4.33	1365068	5.43	810670	6.94	1342363	8.22	1309973	10.55	1232701	12.04
MC33933-1	350333	4.33	1295683	5.43	763554	6.94	1258730	8.22	1241382	10.55	1168900	12.04
MC33933-2	365100	4.33	1343656	5.43	795979	6.94	1294367	8.22	1230235	10.55	1140925	12.04
OP40068-MB	455985	4.33	1656115	5.43	969927	6.94	1574284	8.22	1432009	10.55	1300680	12.04
OP40068-BS	471401	4.33	1711911	5.43	982997	6.94	1556360	8.22	1481844	10.56	1293987	12.05
OP40068-MS	489061	4.33	1734317	5.43	979178	6.94	1553749	8.22	1473400	10.56	1304634	12.05
OP40068-MSD	470745	4.33	1679032	5.43	943257	6.94	1489780	8.22	1384888	10.56	1236954	12.05
MC34075-1	474756	4.33	1675106	5.43	953290	6.94	1487257	8.22	1338226	10.55	1212354	12.05
ZZZZZZ	414543	4.33	1488077	5.43	877129	6.94	1442171	8.22	1316413	10.55	1170793	12.04
ZZZZZZ	429502	4.33	1542933	5.43	883516	6.94	1347044	8.22	1181633	10.55	1029803	12.04
ZZZZZZ	482381	4.33	1733283	5.43	995773	6.94	1547807	8.22	1387861	10.55	1256840	12.05
ZZZZZZ	496096	4.33	1761325	5.43	995092	6.94	1547702	8.22	1347903	10.55	1229054	12.04
ZZZZZZ	461694	4.33	1592724	5.43	884088	6.94	1369610	8.22	1310127	10.57	1320073	12.08
ZZZZZZ	388731	4.34	1391193	5.44	782183	6.94	1264257	8.22	1158920	10.55	1108435	12.05
ZZZZZZ	395509	4.33	1400417	5.43	807143	6.94	1269948	8.22	1163697	10.55	1097461	12.04
ZZZZZZ	430595	4.34	1506506	5.44	893784	6.94	1424739	8.22	1307214	10.55	1205837	12.04
ZZZZZZ	413204	4.33	1471667	5.43	857338	6.94	1350868	8.22	1247028	10.55	1167496	12.04
ZZZZZZ	380194	4.33	1316551	5.43	763003	6.95	1221407	8.22	1222237	10.57	1209746	12.07
ZZZZZZ	406702	4.33	1452399	5.43	827379	6.94	1293562	8.22	1181709	10.55	1137278	12.04

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12

Semivolatile Internal Standard Area Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std:	MSR1479-CC1461	**Injection Date:**	10/08/14
Lab File ID:	R40200.D	**Injection Time:**	07:58
Instrument ID:	GCMSR	**Method:**	SW846 8270D

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT

IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.5.1

8

Semivolatile Surrogate Recovery Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Method: SW846 8270D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC33933-1	R40220.D	77	68	102
MC33933-2	R40221.D	66	62	101
OP40010-BS	R40215.D	69	68	89
OP40010-MB	R40214.D	72	66	100
OP40010-MS	R40216.D	76	79	100
OP40010-MSD	R40217.D	81	79	102

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	30-130%
S2 = 2-Fluorobiphenyl	30-130%
S3 = Terphenyl-d14	30-130%

Initial Calibration Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-ICC1461
Lab FileID: R39642.D

Response Factor Report MSR

Method : W:\1\methods\R140911_8270A.m (RTE Integrator)
Title : SW-864 Method 8270
Last Update : Fri Sep 26 12:46:03 2014
Response via : Initial Calibration

Calibration Files
160 =R39645a.D 120 =R39644a.D 80 =R39929.D 20 =R39641a.D
5 =R39639a.D 2 =R39638a.D 10 =R39640a.D 50 =R39642a.D

Compound	160	120	80	20	5	2	10	50	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	ISTD									
2) 1,4-Dioxane	0.653	0.644	0.640	0.629	0.589	0.575	0.609	0.653	0.624	4.77
3) N-nitrosodim	1.080	1.050	1.039	0.931	0.699		0.844	1.042	0.955	14.65
4) Pyridine	1.863	1.841	1.835	1.787	1.461	1.233	1.616	1.916	1.694	14.14
5) Aniline	2.363	2.406	2.434	2.415	2.087	1.813	2.246	2.524	2.286	10.20
6) 2-Fluorophen	1.502	1.485	1.477	1.383	1.201	1.172	1.278	1.462	1.370	9.84
7) bis(2-Chloro	1.310	1.299	1.319	1.300	1.213	1.195	1.248	1.356	1.280	4.36
8) Phenol-d5	1.899	1.890	1.894	1.847	1.646	1.557	1.717	1.904	1.794	7.58
9) Phenol	2.220	2.246	2.296	2.055	1.826	1.742	1.915	2.163	2.058	10.11
10) 2-Chlorophen	1.559	1.542	1.545	1.466	1.320	1.270	1.371	1.533	1.451	7.90
11) 1,3-Dichloro	1.556	1.546	1.583	1.520	1.458	1.439	1.473	1.621	1.524	4.18
12) 1,4-Dichloro	1.594	1.599	1.631	1.587	1.489	1.477	1.535	1.681	1.574	4.43
13) 1,2-Dichloro	1.486	1.501	1.529	1.484	1.398	1.393	1.408	1.557	1.470	4.26
14) Benzyl alcoh	1.118	1.112	1.119	1.029	0.876	0.826	0.961	1.109	1.019	11.59
15) bis(2-chloro	2.100	2.156	2.165	2.224	2.113	2.059	2.174	2.237	2.154	2.82
16) o-cresol	1.533	1.494	1.521	1.455	1.317	1.318	1.371	1.545	1.444	6.62
17) Acetophenone	1.963	1.939	2.021	2.259	1.987	1.891	2.081	2.259	2.050	6.86
18) Hexachloroet	0.667	0.663	0.670	0.616	0.571	0.591	0.591	0.667	0.629	6.61
19) N-Nitroso-di	0.945	1.119	1.130	1.156	1.044	0.982	1.088	1.174	1.080	7.64
20) m+p-cresols	1.390	1.368	1.426	1.601	1.395	1.337	1.468	1.578	1.445	6.72
21) 4-methylphen	1.390	1.368	1.426	1.601	1.395	1.337	1.468	1.578	1.445	6.72
22) I Naphthalene-d8	ISTD									
23) Nitrobenzene	0.444	0.439	0.438	0.407	0.355	0.344	0.378	0.437	0.405	10.08
24) Nitrobenzene	0.443	0.440	0.448	0.429	0.388	0.355	0.406	0.459	0.421	8.42
25) Isophorone	0.799	0.791	0.804	0.770	0.676	0.641	0.729	0.824	0.754	8.76
26) 2-Nitropheno	0.210	0.203	0.202	0.164			0.143	0.191	0.186	14.20
27) 2,4-Dimethyl	0.400	0.397	0.405	0.384	0.354	0.346	0.369	0.415	0.384	6.58
28) bis(2-Chloro	0.484	0.482	0.497	0.480	0.444	0.431	0.461	0.513	0.474	5.72
29) Benzoic acid	0.321	0.292	0.288	0.248			0.200	0.313	0.277	16.40
30) 2,4-Dichloro	0.323	0.318	0.324	0.289	0.243	0.230	0.268	0.323	0.289	13.33
31) 1,2,4-Trichl	0.331	0.330	0.336	0.301	0.275	0.274	0.286	0.334	0.308	8.91
32) Naphthalene	1.021	1.032	1.074	1.096	1.033	1.041	1.065	1.154	1.064	4.15
33) 2,6-Dichloro	0.302	0.303	0.316	0.301	0.263	0.244	0.281	0.330	0.293	9.70
34) 4-Chloroanil	0.442	0.452	0.477	0.471	0.389	0.362	0.445	0.511	0.444	10.81
35) Hexachlorobu	0.178	0.177	0.178	0.152	0.137	0.139	0.144	0.173	0.160	11.66
36) 4-Chloro-3-m	0.353	0.349	0.353	0.322	0.279	0.264	0.309	0.356	0.323	11.22
37) 2-Methylnaph	0.726	0.737	0.763	0.752	0.681	0.671	0.716	0.801	0.731	5.82
38) 1-Methylnaph	0.684	0.687	0.711	0.708	0.643	0.629	0.667	0.742	0.684	5.45
39) 1,2,4,5-Tetr	0.340	0.339	0.341	0.300	0.262	0.260	0.277	0.336	0.307	11.90
40) Caprolactam	0.217	0.235	0.237	0.218	0.174	0.150	0.197	0.240	0.209	15.60
41) I Acenaphthene-d10	ISTD									
42) Pentachloron	0.177	0.177	0.172	0.133			0.115	0.162	0.156	16.72
43) Hexachlorocy	0.330	0.324	0.328	0.262	0.203		0.228	0.317	0.285	18.69
44) 2,4,6-Trichl	0.415	0.403	0.398	0.328	0.269	0.243	0.304	0.380	0.342	19.29

Initial Calibration Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-ICC1461
Lab FileID: R39642.D

45)	2,4,5-Trichl	0.443	0.437	0.435	0.364	0.317	0.267	0.337	0.421	0.377	17.53
46)	2-Fluorobiph	1.312	1.308	1.337	1.309	1.175	1.175	1.219	1.405	1.280	6.42
47)	2-Chloronaph	1.133	1.145	1.172	1.096	0.992	0.960	1.028	1.208	1.092	8.19
48)	Acenaphthyle	1.666	1.676	1.720	1.669	1.476	1.381	1.561	1.821	1.621	8.70
49)	Dimethylphth	1.294	1.274	1.282	1.178	1.055	1.015	1.116	1.310	1.190	9.79
50)	2,4-Dinitrot	0.396	0.392	0.385	0.295			0.257	0.360	0.348	16.68
51)	Acenaphthene	1.146	1.145	1.180	1.182	1.074	1.063	1.117	1.262	1.146	5.61
52)	2,4-Dinitrop	0.171	0.155	0.140	0.081	0.045		0.061	0.116	0.110	44.17

---- Quadratic regression ---- Coefficient = 0.9970
Response Ratio = -0.00636 + 0.08870 *A + 0.02253 *A^2

53)	Dibenzofuran	1.622	1.649	1.712	1.650	1.503	1.487	1.562	1.801	1.623	6.48
54)	2,6-Dinitrot	0.306	0.297	0.289	0.231			0.203	0.277	0.267	15.36
55)	4-Nitropheno	0.328	0.320	0.315	0.274	0.196		0.233	0.315	0.283	18.03
56)	2,3,4,6-Tetr	0.353	0.342	0.333	0.268	0.209		0.243	0.317	0.295	18.74
57)	Fluorene	1.211	1.247	1.316	1.364	1.193	1.137	1.270	1.458	1.274	8.06
58)	4-Chlorophen	0.586	0.602	0.627	0.617	0.521	0.522	0.559	0.682	0.590	9.31
59)	Diethylphtha	1.322	1.322	1.334	1.218	1.081	1.034	1.156	1.356	1.228	10.19
60)	2-nitroanili	0.460	0.446	0.441	0.359			0.308	0.429	0.407	14.77
61)	3-nitroanili	0.379	0.370	0.363	0.308			0.275	0.357	0.342	12.09
62)	4-nitroanili	0.409	0.397	0.386	0.332			0.293	0.385	0.367	12.17
63)	1,1'-Bipheny	1.438	1.457	1.518	1.515	1.381	1.362	1.445	1.623	1.467	5.69

64)	I Phenanthrene-d10	----------ISTD----------								
65)	4,6-Dinitro-	0.141	0.130	0.122	0.079	0.049		0.063	0.104	0.098	35.82

---- Quadratic regression ---- Coefficient = 0.9976
Response Ratio = -0.00544 + 0.08715 *A + 0.01483 *A^2

66)	n-Nitrosodip	0.556	0.564	0.577	0.551	0.495	0.479	0.520	0.599	0.543	7.60
67)	1,2-Diphenyl	0.864	0.896	0.943	0.985	0.899	0.824	0.944	1.031	0.923	7.20
68)	2,4,6-Tribro	0.109	0.102	0.097	0.081	0.061		0.070	0.092	0.087	19.74
69)	4-Bromopheny	0.217	0.214	0.209	0.181	0.159	0.154	0.169	0.208	0.189	13.82
70)	Hexachlorobe	0.218	0.212	0.210	0.183	0.164	0.158	0.169	0.205	0.190	12.73
71)	Pentachlorop	0.190	0.185	0.181	0.133			0.111	0.169	0.162	19.85
72)	Phenanthrene	1.071	1.097	1.131	1.138	1.055	1.038	1.077	1.218	1.103	5.25
73)	Anthracene	1.080	1.109	1.148	1.154	1.025	0.973	1.076	1.246	1.101	7.61
74)	Carbazole	1.083	1.103	1.133	1.127	1.001	0.963	1.050	1.222	1.085	7.48
75)	Di-n-butylph	1.261	1.316	1.389	1.353	1.104	0.998	1.231	1.525	1.272	12.99
76)	Fluoranthene	1.171	1.184	1.198	1.139	0.984	0.956	1.056	1.279	1.121	10.00
77)	Atrazine	0.184	0.184	0.184	0.169	0.141	0.131	0.156	0.189	0.167	13.25

78)	I Chrysene-d12	----------ISTD----------								
79)	Benzidine	0.455	0.466	0.473	0.385	0.219	0.206	0.315	0.485	0.375	30.70

---- Quadratic regression ---- Coefficient = 0.9970
Response Ratio = -0.02180 + 0.47637 *A + -0.00223 *A^2

80)	3,3-Dimethyl	0.436	0.451	0.488	0.334			0.285	0.470	0.411	19.92
81)	Pyrene	1.307	1.335	1.366	1.332	1.180	1.110	1.225	1.426	1.285	8.15
82)	Terphenyl-d1	0.928	0.936	0.946	0.847	0.734	0.702	0.767	0.930	0.849	11.89
83)	Butylbenzylp	0.652	0.671	0.685	0.600	0.472	0.412	0.535	0.685	0.589	17.83
84)	3,3'-Dichlor	0.463	0.466	0.468	0.358	0.297		0.323	0.434	0.401	18.32
85)	Benzo[a]anth	1.237	1.237	1.230	1.138	1.040	1.038	1.089	1.227	1.155	7.74
86)	Chrysene	1.188	1.205	1.231	1.172	1.046	1.003	1.077	1.283	1.150	8.50
87)	bis(2-Ethylh	0.848	0.876	0.929	0.885	0.631	0.538	0.760	1.005	0.809	19.37

88)	I Perylene-d12	----------ISTD----------								
89)	Di-n-octylph	1.753	1.768	1.815	1.523	1.139		1.242	1.843	1.583	18.26
90)	Benzo[b]fluo	1.440	1.344	1.295	1.118	0.951	0.886	0.999	1.259	1.161	17.42
91)	Benzo[k]fluo	1.299	1.322	1.352	1.188	1.018	1.019	1.066	1.365	1.204	12.52
92)	Benzo[a]pyre	1.284	1.243	1.227	1.063	0.894	0.837	0.947	1.207	1.088	16.19

Initial Calibration Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-ICC1461
Lab FileID: R39642.D

```
93) Indeno[1,2,3 1.569 1.509 1.474 1.259 1.074 1.006 1.129 1.434 1.307  16.67
94) Dibenz[a,h]a 1.290 1.259 1.239 1.024 0.871 0.842 0.909 1.190 1.078  17.38
95) Benzo[g,h,i] 1.237 1.203 1.188 1.047 0.893 0.854 0.956 1.176 1.069  14.25

96)     1,4-Dichlorobenzene-d ----------------ISTD--------------------
97) Benzaldehyde 0.464 0.546 0.624 0.366            0.293 0.601 0.482  27.46
            ---- Quadratic regression ----  Coefficient =  0.9977
              Response Ratio = -0.19189 + 0.89475 *A + -0.09525 *A^2

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

          R140911_8270A.m        Fri Sep 26 12:46:52 2014
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Initial Calibration Verification

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-ICV1461
Lab FileID: R39648A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\R140911\R39648a.D Vial: 10
Acq On : 11 Sep 2014 3:40 pm Operator: williamk
Sample : icv1461-50 Inst : MSR
Misc : op39525,msr1461,,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : W:\1\methods\R140911_8270A.m (RTE Integrator)
Title : SW-864 Method 8270
Last Update : Fri Sep 26 12:54:48 2014
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	141	0.00	5.41
2		1,4-Dioxane		----------NA----------				
3		N-nitrosodimethylamine	0.955	0.980	-2.6	133	0.00	3.05
4	T	Pyridine	1.694	1.768	-4.4	130	0.00	3.10
5	T	Aniline	2.286	2.049	10.4	114	0.00	5.14
6	S	2-Fluorophenol	1.370	1.475	-7.7	142	0.00	4.30
7	T	bis(2-Chloroethyl)ether	1.280	1.265	1.2	131	0.00	5.19
8	S	Phenol-d5	1.794	1.826	-1.8	135	0.00	5.10
9	C	Phenol	2.058	2.003	2.7	131	0.00	5.11
10	M	2-Chlorophenol	1.451	1.440	0.8	132	0.00	5.23
11	T	1,3-Dichlorobenzene	1.524	1.572	-3.1	137	0.00	5.37
12	C	1,4-Dichlorobenzene	1.574	1.591	-1.1	133	0.00	5.43
13	T	1,2-Dichlorobenzene	1.470	1.493	-1.6	135	0.00	5.56
14	T	Benzyl alcohol	1.019	1.024	-0.5	130	0.00	5.54
15	T	bis(2-chloroisopropyl)eth	2.154	2.573	-19.5	162	0.00	5.65
16	T	o-cresol	1.444	1.407	2.6	128	0.00	5.63
17	T	Acetophenone	2.050	2.011	1.9	126	0.00	5.76
18	T	Hexachloroethane	0.629	0.633	-0.6	134	0.00	5.85
19	P	N-Nitroso-di-n-propylamin	1.080	1.124	-4.1	135	0.00	5.77
20	T	m+p-cresols	1.445	1.402	3.0	125	0.00	5.76
21		4-methylphenol	1.445	1.402	3.0	125	0.00	5.76
22	I	Naphthalene-d8	1.000	1.000	0.0	143	0.00	6.51
23	S	Nitrobenzene-d5	0.405	0.423	-4.4	138	0.00	5.89
24	T	Nitrobenzene	0.421	0.423	-0.5	132	0.00	5.91
25	T	Isophorone	0.754	0.704	6.6	122	0.00	6.12
26	C	2-Nitrophenol	0.186	0.184	1.1	137	0.00	6.18
27	T	2,4-Dimethylphenol	0.384	0.377	1.8	129	0.00	6.22
28	T	bis(2-Chloroethoxy)methan	0.474	0.462	2.5	128	0.00	6.30
29	T	Benzoic acid	0.277	0.283	-2.2	129	0.00	6.33
30	C	2,4-Dichlorophenol	0.289	0.302	-4.5	134	0.00	6.39
31	M	1,2,4-Trichlorobenzene	0.308	0.313	-1.6	134	0.00	6.46
32	T	Naphthalene	1.064	1.055	0.8	130	0.00	6.53
33	T	2,6-Dichlorophenol	0.293	0.299	-2.0	129	0.00	6.58
34	T	4-Chloroaniline	0.444	0.385	13.3	108	0.00	6.58
35	C	Hexachlorobutadiene	0.160	0.168	-5.0	138	0.00	6.64
36	C	4-Chloro-3-methylphenol	0.323	0.322	0.3	129	0.00	7.00
37	T	2-Methylnaphthalene	0.731	0.723	1.1	129	0.00	7.13
38	T	1-Methylnaphthalene	0.684	0.689	-0.7	133	0.00	7.22
39	T	1,2,4,5-Tetrachlorobenzen	0.307	0.317	-3.3	135	0.00	7.28
40		Caprolactam	0.209	0.225	-7.7	134	0.00	6.92

Initial Calibration Verification

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-ICV1461
Lab FileID: R39648A.D

41	I	Acenaphthene-d10	1.000	1.000	0.0	144	0.00	8.05
42	T	Pentachloronitrobenzene	0.156	0.152	2.6	136	0.00	9.20
43	P	Hexachlorocyclopentadiene	0.285	0.245	14.0	111	0.00	7.27
44	C	2,4,6-Trichlorophenol	0.342	0.357	-4.4	135	0.00	7.38
45	T	2,4,5-Trichlorophenol	0.377	0.384	-1.9	131	0.00	7.41
46	S	2-Fluorobiphenyl	1.280	1.304	-1.9	134	0.00	7.45
47	T	2-Chloronaphthalene	1.092	1.181	-8.2	141	0.00	7.56
48	M	Acenaphthylene	1.621	1.577	2.7	125	0.00	7.93
49	T	Dimethylphthalate	1.190	1.208	-1.5	133	0.00	7.81
50	T	2,4-Dinitrotoluene	0.348	0.357	-2.6	143	0.00	8.22
51	C	Acenaphthene	1.146	1.159	-1.1	132	0.00	8.08
			Amount	Calc.	%Drift			
52	P	2,4-Dinitrophenol	50.000	54.327	-8.7	154	0.00	8.10
			AvgRF	CCRF	%Dev			
53	T	Dibenzofuran	1.623	1.610	0.8	129	0.00	8.23
54	M	2,6-Dinitrotoluene	0.267	0.262	1.9	136	0.00	7.86
55	P	4-Nitrophenol	0.283	0.300	-6.0	137	0.00	8.16
56	T	2,3,4,6-Tetrachlorophenol	0.295	0.293	0.7	133	0.00	8.34
57	T	Fluorene	1.274	1.334	-4.7	132	0.00	8.53
58	T	4-Chlorophenyl-phenylethe	0.590	0.602	-2.0	127	0.00	8.53
59	T	Diethylphthalate	1.228	1.259	-2.5	134	0.00	8.43
60	T	2-nitroaniline	0.407	0.402	1.2	135	0.00	7.65
61	T	3-nitroaniline	0.342	0.244	28.7#	98	0.00	8.01
62	T	4-nitroaniline	0.367	0.333	9.3	125	0.00	8.55
63		1,1'-Biphenyl	1.467	1.453	1.0	129	0.00	7.54
64	I	Phenanthrene-d10	1.000	1.000	0.0	140	0.00	9.36
			Amount	Calc.	%Drift			
65	T	4,6-Dinitro-2-methylpheno	50.000	56.105	-12.2	158	0.00	8.58
			AvgRF	CCRF	%Dev			
66	C	n-Nitrosodiphenylamine	0.543	0.521	4.1	122	0.00	8.63
67	T	1,2-Diphenylhydrazine	0.923	0.988	-7.0	134	0.00	8.67
68	S	2,4,6-Tribromophenol	0.087	0.095	-9.2	144	0.00	8.74
69	T	4-Bromophenyl-phenylether	0.189	0.200	-5.8	135	0.00	8.96
70	T	Hexachlorobenzene	0.190	0.202	-6.3	138	0.00	9.01
71	C	Pentachlorophenol	0.162	0.149	8.0	123	0.00	9.18
72	T	Phenanthrene	1.103	1.132	-2.6	130	0.00	9.38
73	T	Anthracene	1.101	1.120	-1.7	126	0.00	9.42
74	T	Carbazole	1.085	1.113	-2.6	128	0.00	9.56
75	T	Di-n-butylphthalate	1.272	1.347	-5.9	124	0.00	9.87
76	C	Fluoranthene	1.121	1.203	-7.3	132	0.00	10.44
77		Atrazine	0.167	0.204	-22.2#	152	0.00	9.11
78	I	Chrysene-d12	1.000	1.000	0.0	144	0.00	11.97
			Amount	Calc.	%Drift			
79	T	Benzidine	50.000	55.004	-10.0	150	0.00	10.57
			AvgRF	CCRF	%Dev			
80		3,3-Dimethylbenzidine		----------NA----------				
81	M	Pyrene	1.285	1.251	2.6	127	0.00	10.66
82	S	Terphenyl-d14	0.849	0.868	-2.2	135	0.00	10.82
83	T	Butylbenzylphthalate	0.589	0.606	-2.9	128	0.00	11.33
84	T	3,3'-Dichlorobenzidine	0.401	0.341	15.0	114	0.00	11.93
85	T	Benzo[a]anthracene	1.155	1.165	-0.9	137	0.00	11.96
86	T	Chrysene	1.150	1.118	2.8	126	0.00	12.00

Initial Calibration Verification

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-ICV1461
Lab FileID: R39648A.D

87	T	bis(2-Ethylhexyl)phthalat	0.809	0.882	-9.0	127	0.00	12.00
88	I	Perylene-d12	1.000	1.000	0.0	145	0.00	13.69
89	C	Di-n-octylphthalate	1.583	1.626	-2.7	128	0.00	12.79
90	T	Benzo[b]fluoranthene	1.161	1.171	-0.9	135	0.00	13.23
91	T	Benzo[k]fluoranthene	1.204	1.196	0.7	127	0.00	13.27
92	C	Benzo[a]pyrene	1.088	1.080	0.7	130	0.00	13.62
93	T	Indeno[1,2,3-cd]pyrene	1.307	1.309	-0.2	132	0.00	15.01
94	T	Dibenz[a,h]anthracene	1.078	1.092	-1.3	133	0.00	15.04
95	T	Benzo[g,h,i]perylene	1.069	1.059	0.9	130	0.00	15.39
96		1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	141	0.00	5.41
			Amount	Calc.	%Drift			
97		Benzaldehyde	50.000	40.710	18.6	115	0.00	5.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
R39648a.D R140911_8270A.m Fri Sep 26 12:54:54 2014

8.7.2

8

Continuing Calibration Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1479-CC1461
Lab FileID: R40200.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\R141008\R40200.D Vial: 100
Acq On : 8 Oct 2014 7:58 am Operator: williamk
Sample : cc1461-50 Inst : MSR
Misc : op39867,msr1479,,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : W:\1\methods\R140911_8270A.m (RTE Integrator)
Title : SW-864 Method 8270
Last Update : Wed Oct 08 08:40:34 2014
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	138	-0.03	4.34
2		1,4-Dioxane		----------NA----------				
3		N-nitrosodimethylamine	0.955	0.885	7.3	118	-0.04	1.61
4	T	Pyridine	1.694	1.573	7.1	114	-0.05	1.62
5	T	Aniline	2.286	1.976	13.6	108	-0.03	4.06
6	S	2-Fluorophenol	1.370	1.393	-1.7	132	-0.03	3.17
7	T	bis(2-Chloroethyl)ether	1.280	1.191	7.0	122	-0.03	4.14
8	S	Phenol-d5	1.794	1.692	5.7	123	-0.02	4.08
9	C	Phenol	2.058	1.838	10.7	118	-0.02	4.09
10	M	2-Chlorophenol	1.451	1.488	-2.5	134	-0.03	4.16
11	T	1,3-Dichlorobenzene	1.524	1.580	-3.7	135	-0.03	4.28
12	C	1,4-Dichlorobenzene	1.574	1.625	-3.2	134	-0.03	4.35
13	T	1,2-Dichlorobenzene	1.470	1.528	-3.9	136	-0.03	4.48
14	T	Benzyl alcohol	1.019	0.988	3.0	123	-0.03	4.49
15	T	bis(2-chloroisopropyl)eth	2.154	1.729	19.7	107	-0.04	4.60
16	T	o-cresol	1.444	1.397	3.3	125	-0.02	4.61
17	T	Acetophenone	2.050	2.023	1.3	124	-0.03	4.71
18	T	Hexachloroethane	0.629	0.658	-4.6	137	-0.03	4.76
19	P	N-Nitroso-di-n-propylamin	1.080	0.986	8.7	116	-0.03	4.73
20	T	m+p-cresols	1.445	1.389	3.9	122	-0.02	4.76
21		4-methylphenol	1.445	1.389	3.9	122	-0.02	4.76
22	I	Naphthalene-d8	1.000	1.000	0.0	132	-0.03	5.44
23	S	Nitrobenzene-d5	0.405	0.437	-7.9	133	-0.03	4.83
24	T	Nitrobenzene	0.421	0.424	-0.7	122	-0.03	4.85
25	T	Isophorone	0.754	0.751	0.4	121	-0.03	5.07
26	C	2-Nitrophenol	0.186	0.223	-19.9	154	-0.03	5.12
27	T	2,4-Dimethylphenol	0.384	0.392	-2.1	125	-0.02	5.20
28	T	bis(2-Chloroethoxy)methan	0.474	0.463	2.3	119	-0.03	5.27
29	T	Benzoic acid	0.277	0.304	-9.7	129	-0.02	5.35
30	C	2,4-Dichlorophenol	0.289	0.345	-19.4	141	-0.03	5.34
31	M	1,2,4-Trichlorobenzene	0.308	0.369	-19.8	147	-0.02	5.40
32	T	Naphthalene	1.064	1.082	-1.7	124	-0.03	5.46
33	T	2,6-Dichlorophenol	0.293	0.336	-14.7	135	-0.02	5.53
34	T	4-Chloroaniline	0.444	0.472	-6.3	122	-0.02	5.53
35	C	Hexachlorobutadiene	0.160	0.219	-36.9#	168	-0.03	5.57
36	C	4-Chloro-3-methylphenol	0.323	0.351	-8.7	131	-0.02	5.98
37	T	2-Methylnaphthalene	0.731	0.768	-5.1	127	-0.02	6.06
38	T	1-Methylnaphthalene	0.684	0.711	-3.9	127	-0.02	6.14
39	T	1,2,4,5-Tetrachlorobenzen	0.307	0.388	-26.4#	153	-0.02	6.20
40		Caprolactam	0.209	0.206	1.4	113	-0.02	5.88

Continuing Calibration Summary

Job Number: MC33933 **Sample:** MSR1479-CC1461
Account: BBLNYS Arcadis **Lab FileID:** R40200.D
Project: National Grid, 10 King Street, Ogdensburg, NY

41	I	Acenaphthene-d10	1.000	1.000	0.0	135	-0.02	6.95
42	T	Pentachloronitrobenzene	0.156	0.197	-26.3#	165	-0.02	8.09
43	P	Hexachlorocyclopentadiene	0.285	0.352	-23.5#	150	-0.02	6.20
44	C	2,4,6-Trichlorophenol	0.342	0.431	-26.0#	154	-0.02	6.32
45	T	2,4,5-Trichlorophenol	0.377	0.482	-27.9#	155	-0.02	6.35
46	S	2-Fluorobiphenyl	1.280	1.400	-9.4	135	-0.02	6.39
47	T	2-Chloronaphthalene	1.092	1.159	-6.1	130	-0.02	6.48
48	M	Acenaphthylene	1.621	1.763	-8.8	131	-0.02	6.82
49	T	Dimethylphthalate	1.190	1.329	-11.7	137	-0.02	6.76
50	T	2,4-Dinitrotoluene	0.348	0.397	-14.1	149	-0.02	7.15
51	C	Acenaphthene	1.146	1.193	-4.1	128	-0.02	6.98
			Amount	Calc.	%Drift			
52	P	2,4-Dinitrophenol	50.000	67.179	-34.4#	192	-0.02	7.04
			AvgRF	CCRF	%Dev			
53	T	Dibenzofuran	1.623	1.754	-8.1	132	-0.02	7.13
54	M	2,6-Dinitrotoluene	0.267	0.309	-15.7	151	-0.02	6.81
55	P	4-Nitrophenol	0.283	0.293	-3.5	126	-0.02	7.13
56	T	2,3,4,6-Tetrachlorophenol	0.295	0.383	-29.8#	164	-0.02	7.25
57	T	Fluorene	1.274	1.365	-7.1	127	-0.02	7.43
58	T	4-Chlorophenyl-phenylethe	0.590	0.699	-18.5	139	-0.02	7.44
59	T	Diethylphthalate	1.228	1.366	-11.2	136	-0.02	7.38
60	T	2-nitroaniline	0.407	0.445	-9.3	140	-0.02	6.58
61	T	3-nitroaniline	0.342	0.371	-8.5	140	-0.02	6.94
62	T	4-nitroaniline	0.367	0.364	0.8	128	-0.02	7.48
63		1,1'-Biphenyl	1.467	1.510	-2.9	126	-0.02	6.47
64	I	Phenanthrene-d10	1.000	1.000	0.0	136	-0.02	8.23
			Amount	Calc.	%Drift			
65	T	4,6-Dinitro-2-methylpheno	50.000	68.110	-36.2#	195	-0.02	7.50
			AvgRF	CCRF	%Dev			
66	C	n-Nitrosodiphenylamine	0.543	0.583	-7.4	133	-0.02	7.55
67	T	1,2-Diphenylhydrazine	0.923	0.855	7.4	113	-0.02	7.58
68	S	2,4,6-Tribromophenol	0.087	0.121	-39.1#	179	-0.02	7.63
69	T	4-Bromophenyl-phenylether	0.189	0.240	-27.0#	157	-0.02	7.86
70	T	Hexachlorobenzene	0.190	0.256	-34.7#	170	-0.02	7.90
71	C	Pentachlorophenol	0.162	0.208	-28.4#	168	-0.02	8.08
72	T	Phenanthrene	1.103	1.171	-6.2	131	-0.02	8.25
73	T	Anthracene	1.101	1.195	-8.5	131	-0.02	8.29
74	T	Carbazole	1.085	1.137	-4.8	127	-0.02	8.45
75	T	Di-n-butylphthalate	1.272	1.442	-13.4	129	-0.02	8.80
76	C	Fluoranthene	1.121	1.275	-13.7	136	-0.02	9.28
77		Atrazine		----------NA----------				
78	I	Chrysene-d12	1.000	1.000	0.0	146	-0.02	10.57
			Amount	Calc.	%Drift			
79	T	Benzidine	50.000	38.831	22.3#	105	-0.02	9.42
			AvgRF	CCRF	%Dev			
80		3,3-Dimethylbenzidine	0.411	0.429	-4.4	133	-0.02	10.06
81	M	Pyrene	1.285	1.335	-3.9	136	-0.02	9.47
82	S	Terphenyl-d14	0.849	0.934	-10.0	146	-0.02	9.64
83	T	Butylbenzylphthalate	0.589	0.618	-4.9	131	-0.02	10.09
84	T	3,3'-Dichlorobenzidine	0.401	0.489	-21.9#	164	-0.02	10.56
85	T	Benzo[a]anthracene	1.155	1.196	-3.5	142	-0.02	10.56
86	T	Chrysene	1.150	1.174	-2.1	133	-0.02	10.59

Continuing Calibration Summary

Job Number: MC33933
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1479-CC1461
Lab FileID: R40200.D

87	T	bis(2-Ethylhexyl)phthalat	0.809	0.875	-8.2	127	-0.02	10.68
88	I	Perylene-d12	1.000	1.000	0.0	147	-0.03	12.06
89	C	Di-n-octylphthalate	1.583	1.715	-8.3	137	-0.02	11.37
90	T	Benzo[b]fluoranthene	1.161	1.265	-9.0	148	-0.03	11.66
91	T	Benzo[k]fluoranthene	1.204	1.313	-9.1	141	-0.03	11.69
92	C	Benzo[a]pyrene	1.088	1.199	-10.2	146	-0.03	12.00
93	T	Indeno[1,2,3-cd]pyrene	1.307	1.182	9.6	121	-0.03	13.16
94	T	Dibenz[a,h]anthracene	1.078	1.199	-11.2	148	-0.03	13.20
95	T	Benzo[g,h,i]perylene	1.069	1.211	-13.3	151	-0.03	13.42
96		1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	138	-0.03	4.34
			Amount	Calc.	%Drift			
97		Benzaldehyde	50.000	9.968	80.1#	5	-0.04	4.09

(#) = Out of Range SPCC's out = 0 CCC's out = 3
R40169.D R140911_8270A.m Wed Oct 08 11:37:46 2014

8.7.3

8

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40220.D
Acq On : 8 Oct 2014 1:32 pm
Operator : williamk
Sample : mc33933-1
Misc : op40010,msr1479,900,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 09 10:41:27 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration

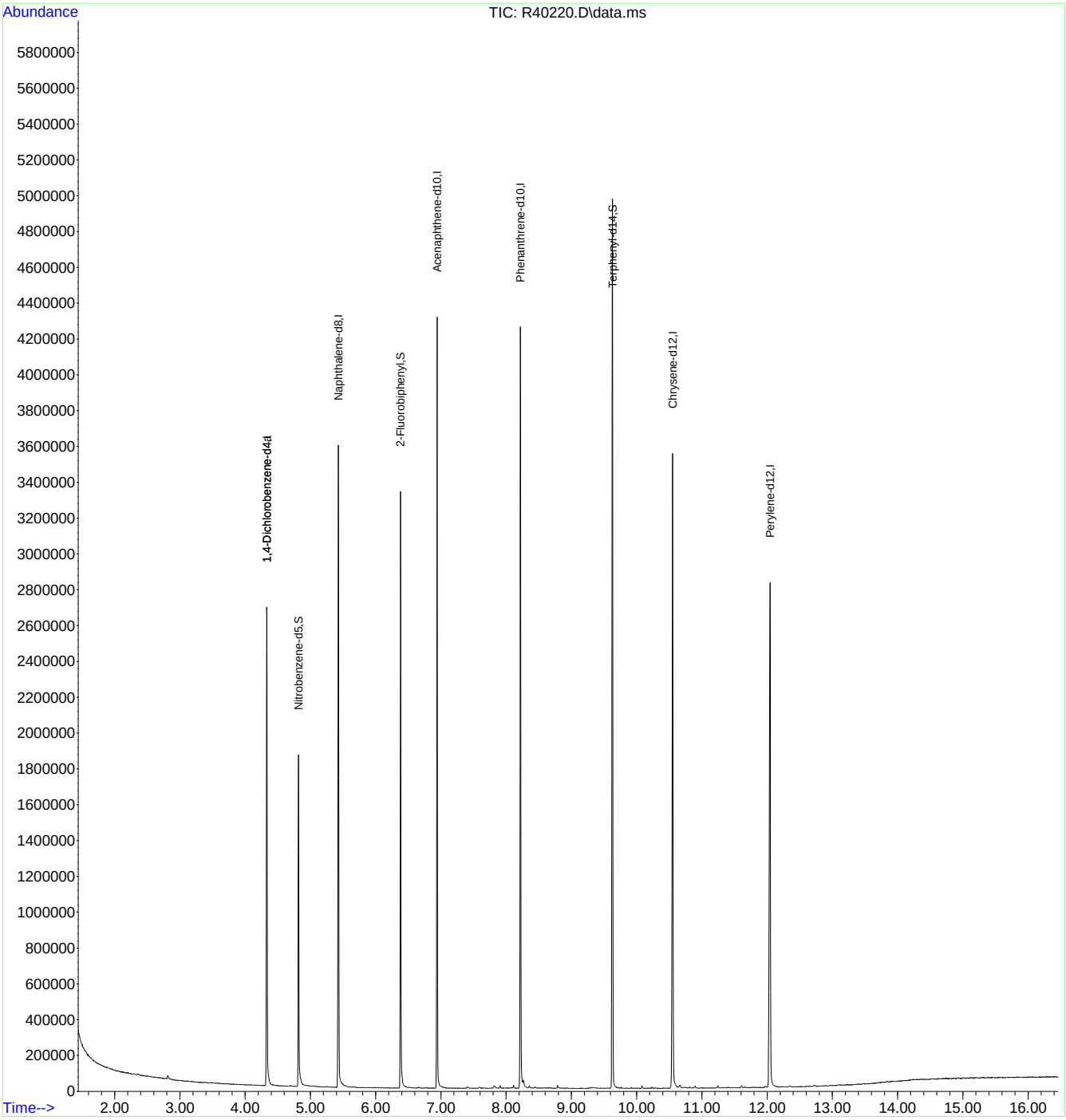
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.331	152	350333	40.00	ug/mL	-0.03
22) Naphthalene-d8	5.428	136	1295683	40.00	ug/mL	-0.04
41) Acenaphthene-d10	6.941	164	763554	40.00	ug/mL	-0.03
64) Phenanthrene-d10	8.219	188	1258730	40.00	ug/mL	-0.03
78) Chrysene-d12	10.553	240	1241382	40.00	ug/mL	-0.04
88) Perylene-d12	12.045	264	1168900	40.00	ug/mL	-0.04
96) 1,4-Dichlorobenzene-d4a	4.331	152	350333	40.00	ug/mL	-0.03
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0d	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
23) Nitrobenzene-d5	4.819	82	506943	38.62	ug/mL	-0.04
Spiked Amount 50.000	Range 30 - 130		Recovery =	77.24%		
46) 2-Fluorobiphenyl	6.382	172	826185	33.81	ug/mL	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery =	67.62%		
68) 2,4,6-Tribromophenol	0.000	330	0	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
82) Terphenyl-d14	9.630	244	1346656	51.12	ug/mL	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery =	102.24%		
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40220.D
Acq On : 8 Oct 2014 1:32 pm
Operator : williamk
Sample : mc33933-1
Misc : op40010,msr1479,900,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 09 10:41:27 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40221.D
Acq On : 8 Oct 2014 1:57 pm
Operator : williamk
Sample : mc33933-2
Misc : op40010,msr1479,900,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 09 10:43:10 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration

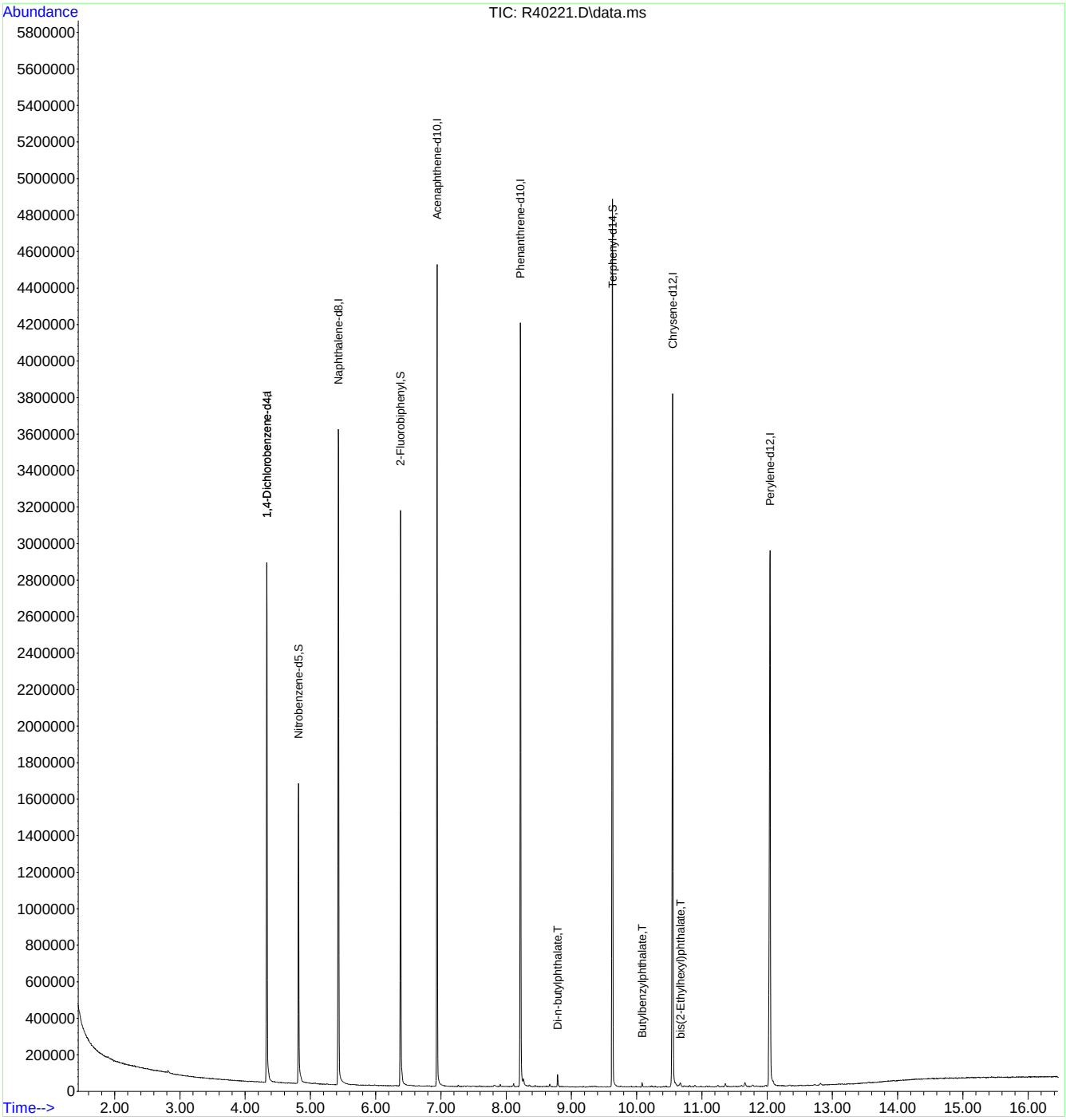
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.330	152	365100	40.00	ug/mL	-0.03
22) Naphthalene-d8	5.428	136	1343656	40.00	ug/mL	-0.04
41) Acenaphthene-d10	6.941	164	795979	40.00	ug/mL	-0.03
64) Phenanthrene-d10	8.219	188	1294367	40.00	ug/mL	-0.03
78) Chrysene-d12	10.553	240	1230235	40.00	ug/mL	-0.04
88) Perylene-d12	12.045	264	1140925	40.00	ug/mL	-0.04
96) 1,4-Dichlorobenzene-d4a	4.330	152	365100	40.00	ug/mL	-0.03
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0d	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
23) Nitrobenzene-d5	4.818	82	449800	33.04	ug/mL	-0.04
Spiked Amount 50.000	Range 30 - 130		Recovery =	66.08%		
46) 2-Fluorobiphenyl	6.382	172	793814	31.17	ug/mL	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery =	62.34%		
68) 2,4,6-Tribromophenol	0.000	330	0	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery =	0.00%#		
82) Terphenyl-d14	9.630	244	1321586	50.62	ug/mL	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery =	101.24%		
Target Compounds						Qvalue
75) Di-n-butylphthalate	8.787	149	30128	0.73	ug/mL	100
83) Butylbenzylphthalate	10.084	149	5000	0.28	ug/mL	92
87) bis(2-Ethylhexyl)phtha...	10.671	149	8477	0.34	ug/mL	68

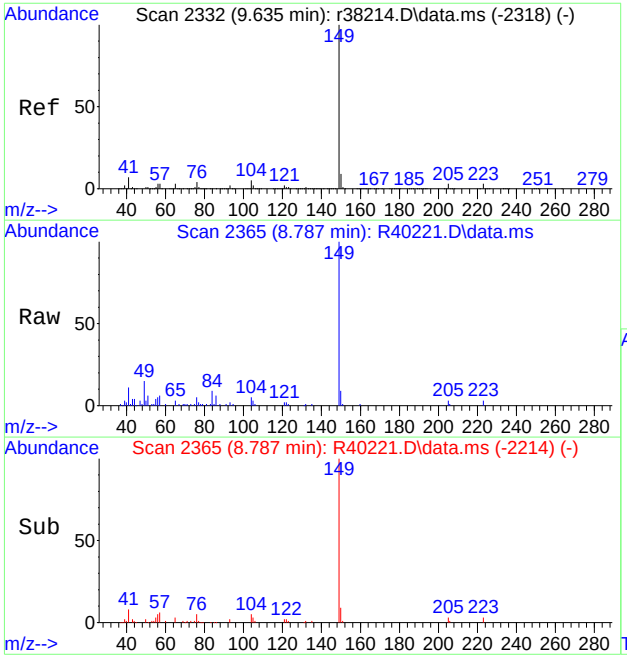
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40221.D
Acq On : 8 Oct 2014 1:57 pm
Operator : williamk
Sample : mc33933-2
Misc : op40010,msr1479,900,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 09 10:43:10 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration

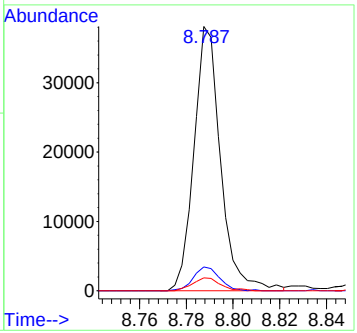


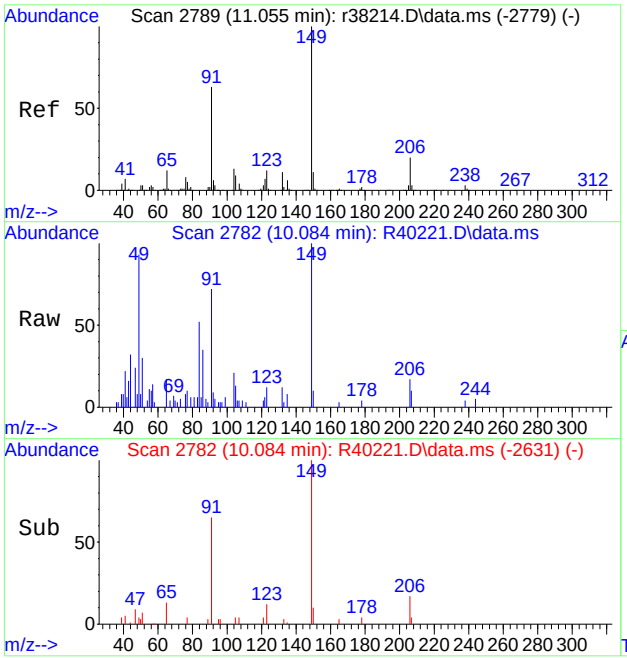


#75
Di-n-butylphthalate
Concen: 0.73 ug/mL
RT: 8.787 min Scan# 2365
Delta R.T. -0.031 min
Lab File: R40221.D
Acq: 8 Oct 2014 1:57 pm

Tgt Ion:149 Resp: 30128

Ion	Ratio	Lower	Upper
149	100		
150	9.0	0.0	39.0
104	4.9	0.0	34.5

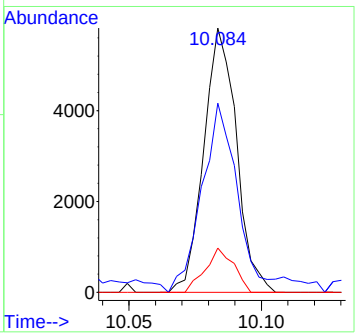


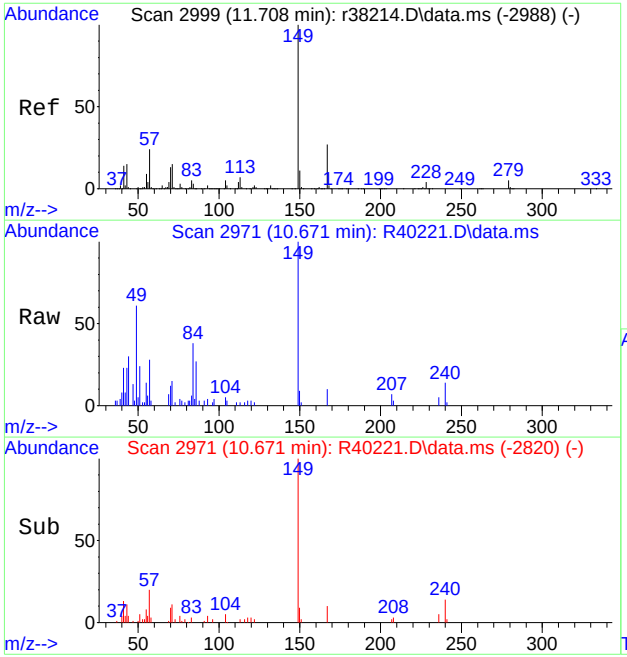


#83
Butylbenzylphthalate
Concen: 0.28 ug/mL
RT: 10.084 min Scan# 2782
Delta R.T. -0.031 min
Lab File: R40221.D
Acq: 8 Oct 2014 1:57 pm

Tgt Ion:149 Resp: 5000

Ion	Ratio	Lower	Upper
149	100		
91	68.5	34.4	94.4
206	26.5	0.0	49.4

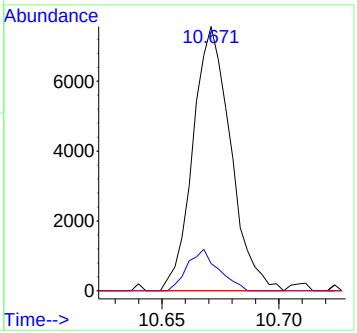




#87
bis(2-Ethylhexyl)phthalate
Concen: 0.34 ug/mL
RT: 10.671 min Scan# 2971
Delta R.T. -0.031 min
Lab File: R40221.D
Acq: 8 Oct 2014 1:57 pm

Tgt Ion:149 Resp: 8477

Ion	Ratio	Lower	Upper
149	100		
167	10.3	0.0	58.7
279	0.0	0.0	35.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40214.D
Acq On : 8 Oct 2014 11:04 am
Operator : williamk
Sample : op40010-mb
Misc : op40010,msr1479,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 08 13:43:22 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration

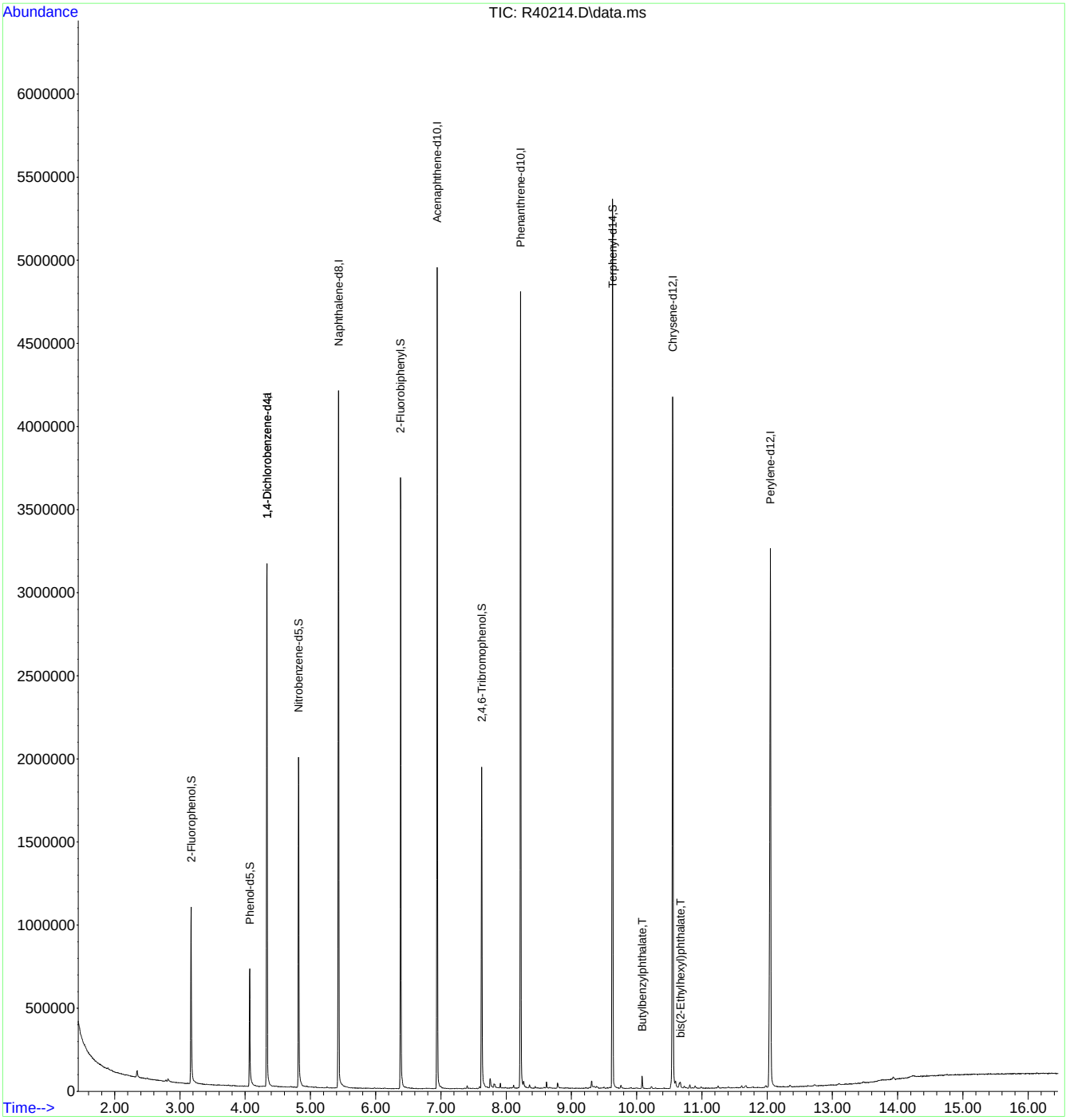
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.334	152	397915	40.00	ug/mL	-0.03
22) Naphthalene-d8	5.431	136	1448109	40.00	ug/mL	-0.03
41) Acenaphthene-d10	6.944	164	863596	40.00	ug/mL	-0.03
64) Phenanthrene-d10	8.222	188	1430410	40.00	ug/mL	-0.03
78) Chrysene-d12	10.553	240	1404115	40.00	ug/mL	-0.04
88) Perylene-d12	12.051	264	1319987	40.00	ug/mL	-0.04
96) 1,4-Dichlorobenzene-d4a	4.334	152	397915	40.00	ug/mL	-0.03
System Monitoring Compounds						
6) 2-Fluorophenol	3.171	112	284552	20.88	ug/mL	-0.04
Spiked Amount 100.000	Range 30 - 130		Recovery = 20.88%#			
8) Phenol-d5	4.069	99	219345	12.29	ug/mL	-0.04
Spiked Amount 100.000	Range 30 - 130		Recovery = 12.29%#			
23) Nitrobenzene-d5	4.818	82	524914	35.78	ug/mL	-0.04
Spiked Amount 50.000	Range 30 - 130		Recovery = 71.56%			
46) 2-Fluorobiphenyl	6.382	172	917783	33.21	ug/mL	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 66.42%			
68) 2,4,6-Tribromophenol	7.625	330	161300	51.69	ug/mL	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery = 51.69%			
82) Terphenyl-d14	9.630	244	1495405	50.19	ug/mL	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 100.38%			
Target Compounds						Qvalue
83) Butylbenzylphthalate	10.084	149	14760	0.71	ug/mL	89
87) bis(2-Ethylhexyl)phtha...	10.671	149	8899	0.31	ug/mL	96

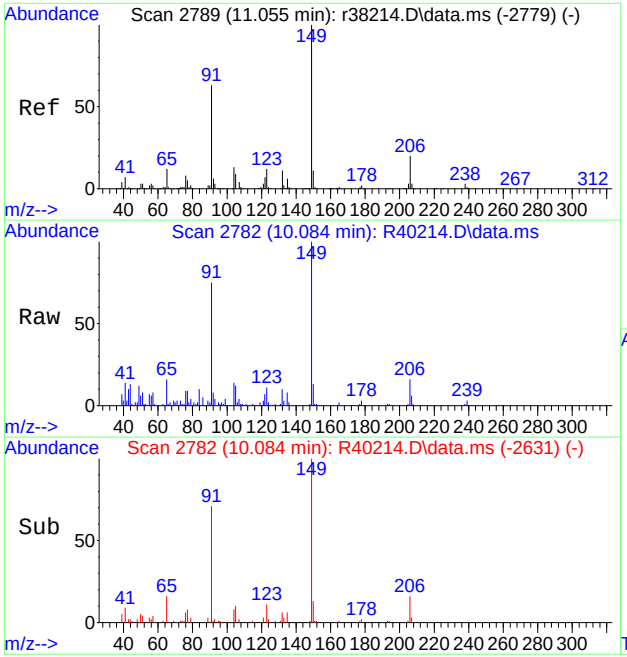
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40214.D
Acq On : 8 Oct 2014 11:04 am
Operator : williamk
Sample : op40010-mb
Misc : op40010,msr1479,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 08 13:43:22 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration

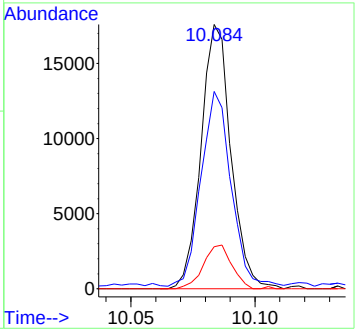


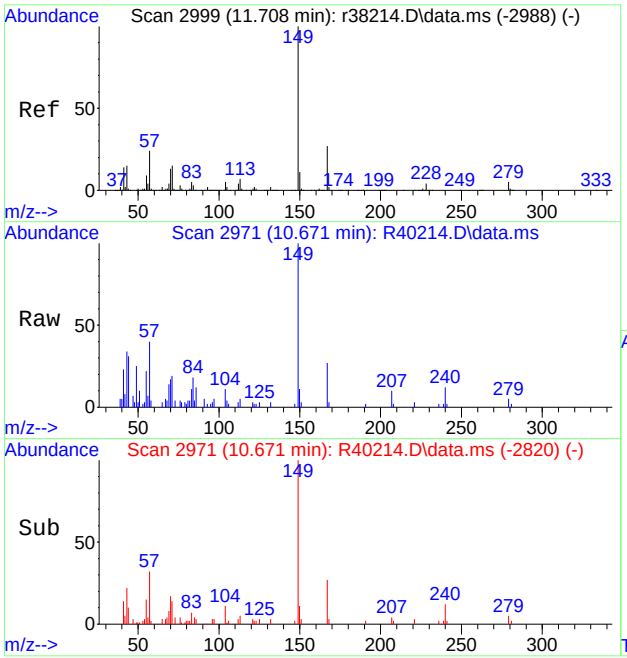


#83
Butylbenzylphthalate
Concen: 0.71 ug/mL
RT: 10.084 min Scan# 2782
Delta R.T. -0.031 min
Lab File: R40214.D
Acq: 8 Oct 2014 11:04 am

Tgt Ion:149 Resp: 14760

Ion	Ratio	Lower	Upper
149	100		
91	73.4	34.4	94.4
206	15.9	0.0	49.4

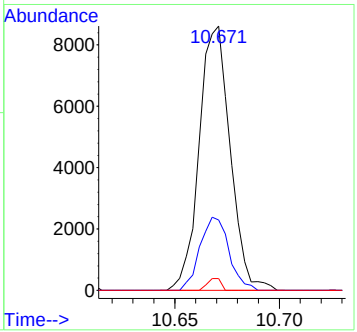




#87
bis(2-Ethylhexyl)phthalate
Concen: 0.31 ug/mL
RT: 10.671 min Scan# 2971
Delta R.T. -0.031 min
Lab File: R40214.D
Acq: 8 Oct 2014 11:04 am

Tgt Ion:149 Resp: 8899

Ion	Ratio	Lower	Upper
149	100		
167	26.6	0.0	58.7
279	4.5	0.0	35.2



Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
10/09/14 10:09

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40215.D
Acq On : 8 Oct 2014 11:29 am
Operator : williamk
Sample : op40010-bs
Misc : op40010,msr1479,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 08 13:44:57 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.334	152	392323	40.00	ug/mL	-0.03
22) Naphthalene-d8	5.434	136	1423586	40.00	ug/mL	-0.03
41) Acenaphthene-d10	6.945	164	821848	40.00	ug/mL	-0.03
64) Phenanthrene-d10	8.225	188	1334279	40.00	ug/mL	-0.03
78) Chrysene-d12	10.559	240	1298797	40.00	ug/mL	-0.03
88) Perylene-d12	12.051	264	1155337	40.00	ug/mL	-0.04
96) 1,4-Dichlorobenzene-d4a	4.334	152	392323	40.00	ug/mL	-0.03
System Monitoring Compounds						
6) 2-Fluorophenol	3.174	112	284923	21.20	ug/mL	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery = 21.20%#			
8) Phenol-d5	4.073	99	222642	12.65	ug/mL	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery = 12.65%#			
23) Nitrobenzene-d5	4.822	82	500804	34.72	ug/mL	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 69.44%			
46) 2-Fluorobiphenyl	6.385	172	893505	33.98	ug/mL	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 67.96%			
68) 2,4,6-Tribromophenol	7.631	330	169538	58.24	ug/mL	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery = 58.24%			
82) Terphenyl-d14	9.630	244	1223743	44.40	ug/mL	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 88.80%			
Target Compounds						Qvalue
3) N-nitrosodimethylamine	1.614	74	191533	20.45	ug/mL	88
4) Pyridine	1.633	79	344391	20.73	ug/mL	83
5) Aniline	4.054	93	562102	25.07	ug/mL#	1
7) bis(2-Chloroethyl)ether	4.135	63	424524	33.81	ug/mL#	78
9) Phenol	4.085	94	267768m	13.27	ug/mL	
10) 2-Chlorophenol	4.153	128	492293	34.60	ug/mL	96
11) 1,3-Dichlorobenzene	4.278	146	419925	28.08	ug/mL	98
12) 1,4-Dichlorobenzene	4.349	146	427107	27.66	ug/mL	98
13) 1,2-Dichlorobenzene	4.474	146	408996	28.37	ug/mL	98
14) Benzyl alcohol	4.483	108	296721	29.69	ug/mL	99
15) bis(2-chloroisopropyl)...	4.610	45	679266	32.16	ug/mL	95
16) o-cresol	4.604	108	405257	28.61	ug/mL	80
17) Acetophenone	4.704	105	717995	35.71	ug/mL	97
18) Hexachloroethane	4.760	117	167987	27.21	ug/mL	95
19) N-Nitroso-di-n-propyla...	4.722	70	370942	35.02	ug/mL	88
20) m+p-cresols	4.747	108	783667	55.28	ug/mL	98
21) 4-methylphenol	4.747	108	783667	55.28	ug/mL	98
24) Nitrobenzene	4.840	77	550104	36.71	ug/mL	93
25) Isophorone	5.061	82	927236	34.55	ug/mL	97
26) 2-Nitrophenol	5.114	139	278078	42.08	ug/mL	94
27) 2,4-Dimethylphenol	5.192	107	481857	35.26	ug/mL	96
28) bis(2-Chloroethoxy)met...	5.269	93	603596	35.77	ug/mL	98
29) Benzoic acid	5.319	105	211771	21.48	ug/mL	90
30) 2,4-Dichlorophenol	5.335	162	443349	43.04	ug/mL	97
31) 1,2,4-Trichlorobenzene	5.394	180	391262	35.65	ug/mL	98
32) Naphthalene	5.450	128	1222916	32.28	ug/mL	98
33) 2,6-Dichlorophenol	5.524	162	438687	42.14	ug/mL	99
34) 4-Chloroaniline	5.521	127	612079	38.75	ug/mL	100
35) Hexachlorobutadiene	5.574	225	215175	37.88	ug/mL	98
36) 4-Chloro-3-methylphenol	5.972	107	468651	40.74	ug/mL	100
37) 2-Methylnaphthalene	6.053	142	914699	35.16	ug/mL	98
38) 1-Methylnaphthalene	6.136	142	884737	36.35	ug/mL	97
39) 1,2,4,5-Tetrachloroben...	6.199	216	488937	44.78	ug/mL	98
40) Caprolactam	5.838	55	104738	14.11	ug/mL#	74

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40215.D
Acq On : 8 Oct 2014 11:29 am
Operator : williamk
Sample : op40010-bs
Misc : op40010,msr1479,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 08 13:44:57 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration

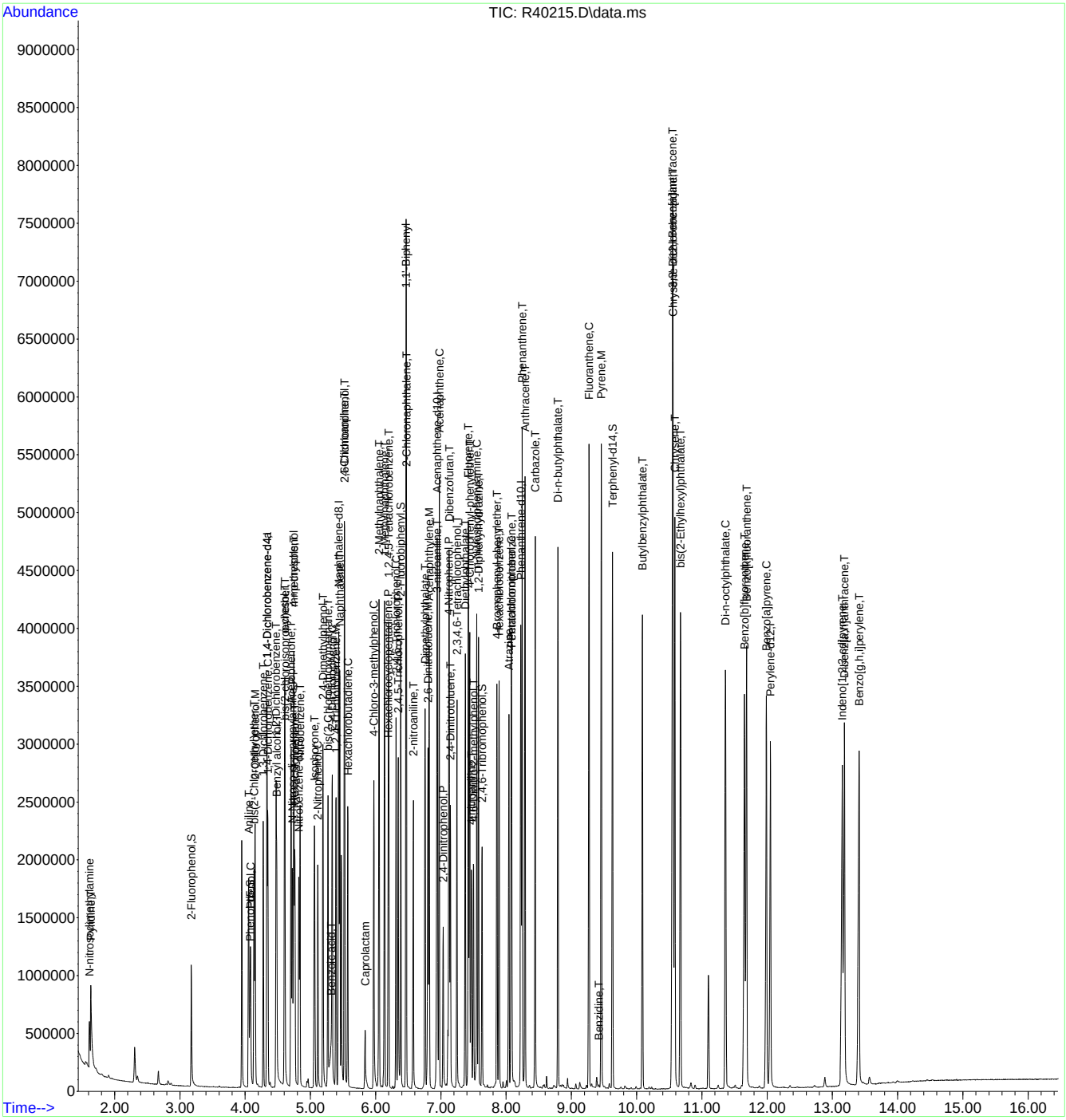
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Pentachloronitrobenzene	8.085	237	174367	54.35	ug/mL	99
43) Hexachlorocyclopentadiene	6.192	237	167561	28.66	ug/mL	98
44) 2,4,6-Trichlorophenol	6.314	196	354008	50.31	ug/mL	98
45) 2,4,5-Trichlorophenol	6.345	196	393919	50.79	ug/mL	99
47) 2-Chloronaphthalene	6.472	162	939821	41.89	ug/mL	95
48) Acenaphthylene	6.820	152	1329106	39.90	ug/mL	99
49) Dimethylphthalate	6.758	163	1184058	48.41	ug/mL	99
50) 2,4-Dinitrotoluene	7.147	165	357173	49.99	ug/mL	88
51) Acenaphthene	6.976	153	980065	41.62	ug/mL	95
52) 2,4-Dinitrophenol	7.035	184	155025	62.85	ug/mL	87
53) Dibenzofuran	7.128	168	1440942	43.21	ug/mL	100
54) 2,6-Dinitrotoluene	6.802	165	263076	47.89	ug/mL	82
55) 4-Nitrophenol	7.122	65	107167	18.44	ug/mL#	1
56) 2,3,4,6-Tetrachlorophenol	7.246	232	329788	54.43	ug/mL	97
57) Fluorene	7.420	166	1183181	45.19	ug/mL	96
58) 4-Chlorophenyl-phenyle...	7.442	204	584848	48.28	ug/mL	93
59) Diethylphthalate	7.373	149	1227770	48.66	ug/mL	99
60) 2-nitroaniline	6.578	138	380886	45.55	ug/mL	90
61) 3-nitroaniline	6.938	138	299183	42.59	ug/mL	88
62) 4-nitroaniline	7.467	138	297649	39.48	ug/mL	85
63) 1,1'-Biphenyl	6.466	154	1151396	38.19	ug/mL	98
65) 4,6-Dinitro-2-methylph...	7.501	198	229070	63.92	ug/mL	100
66) n-Nitrosodiphenylamine	7.551	169	794564	43.90	ug/mL	99
67) 1,2-Diphenylhydrazine	7.579	77	1271765	41.30	ug/mL	98
69) 4-Bromophenyl-phenylether	7.858	248	344372	54.66	ug/mL	97
70) Hexachlorobenzene	7.893	284	375526	59.26	ug/mL	97
71) Pentachlorophenol	8.076	266	274465	50.91	ug/mL	98
72) Phenanthrene	8.247	178	1707129	46.40	ug/mL	98
73) Anthracene	8.290	178	1679436	45.71	ug/mL	98
74) Carbazole	8.446	167	1636593	45.21	ug/mL	98
75) Di-n-butylphthalate	8.794	149	2067369	48.71	ug/mL	99
76) Fluoranthene	9.269	202	1871865	50.07	ug/mL	93
77) Atrazine	8.045	200	338019	60.60	ug/mL	97
79) Benzidine	9.422	184	2199	1.97	ug/mL	94
81) Pyrene	9.459	202	1940531	46.51	ug/mL	95
83) Butylbenzylphthalate	10.090	149	915192	47.87	ug/mL	98
84) 3,3'-Dichlorobenzidine	10.553	252	495894	38.06	ug/mL	98
85) Benzo[a]anthracene	10.550	228	1806849	48.20	ug/mL	98
86) Chrysene	10.587	228	1643946	44.01	ug/mL	97
87) bis(2-Ethylhexyl)phtha...	10.671	149	1289822	49.10	ug/mL	97
89) Di-n-octylphthalate	11.361	149	2160976	47.26	ug/mL	100
90) Benzo[b]fluoranthene	11.653	252	1615379	48.15	ug/mL	99
91) Benzo[k]fluoranthene	11.684	252	1667903	47.98	ug/mL	99
92) Benzo[a]pyrene	11.989	252	1476398	46.98	ug/mL	98
93) Indeno[1,2,3-cd]pyrene	13.151	276	1442151	38.21	ug/mL	92
94) Dibenz[a,h]anthracene	13.186	278	1483923	47.66	ug/mL	97
95) Benzo[g,h,i]perylene	13.409	276	1517405	49.13	ug/mL	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40215.D
Acq On : 8 Oct 2014 11:29 am
Operator : williamk
Sample : op40010-bs
Misc : op40010,msr1479,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 08 13:44:57 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40216.D
Acq On : 8 Oct 2014 11:54 am
Operator : williamk
Sample : op40010-ms
Misc : op40010,msr1479,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 08 13:45:19 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.334	152	381960	40.00	ug/mL	-0.03
22) Naphthalene-d8	5.434	136	1386533	40.00	ug/mL	-0.03
41) Acenaphthene-d10	6.948	164	801925	40.00	ug/mL	-0.02
64) Phenanthrene-d10	8.225	188	1294353	40.00	ug/mL	-0.03
78) Chrysene-d12	10.559	240	1237895	40.00	ug/mL	-0.03
88) Perylene-d12	12.051	264	1087118	40.00	ug/mL	-0.04
96) 1,4-Dichlorobenzene-d4a	4.334	152	381960	40.00	ug/mL	-0.03
System Monitoring Compounds						
6) 2-Fluorophenol	3.174	112	283445	21.67	ug/mL	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery = 21.67%#			
8) Phenol-d5	4.073	99	225633	13.17	ug/mL	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery = 13.17%#			
23) Nitrobenzene-d5	4.825	82	533434	37.97	ug/mL	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 75.94%			
46) 2-Fluorobiphenyl	6.385	172	1013130	39.48	ug/mL	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 78.96%			
68) 2,4,6-Tribromophenol	7.631	330	186557	66.07	ug/mL	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery = 66.07%			
82) Terphenyl-d14	9.630	244	1315580	50.08	ug/mL	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 100.16%			
Target Compounds						Qvalue
3) N-nitrosodimethylamine	1.614	74	198146	21.73	ug/mL	90
4) Pyridine	1.636	79	344710	21.31	ug/mL	82
5) Aniline	4.054	93	551246	25.25	ug/mL#	1
7) bis(2-Chloroethyl)ether	4.135	63	415910	34.02	ug/mL#	78
9) Phenol	4.085	94	286435	14.58	ug/mL	98
10) 2-Chlorophenol	4.153	128	508783	36.73	ug/mL	96
11) 1,3-Dichlorobenzene	4.278	146	419085	28.79	ug/mL	99
12) 1,4-Dichlorobenzene	4.349	146	426577	28.38	ug/mL	96
13) 1,2-Dichlorobenzene	4.473	146	409662	29.19	ug/mL	99
14) Benzyl alcohol	4.483	108	323689	33.27	ug/mL	98
15) bis(2-chloroisopropyl)...	4.610	45	705878	34.33	ug/mL	91
16) o-cresol	4.604	108	432150	31.33	ug/mL	80
17) Acetophenone	4.704	105	780625	39.88	ug/mL	97
18) Hexachloroethane	4.759	117	172487	28.70	ug/mL	95
19) N-Nitroso-di-n-propyla...	4.725	70	418820	40.62	ug/mL	90
20) m+p-cresols	4.747	108	847849	61.43	ug/mL	99
21) 4-methylphenol	4.747	108	847849	61.43	ug/mL	99
24) Nitrobenzene	4.840	77	592446	40.59	ug/mL	93
25) Isophorone	5.064	82	1085123	41.51	ug/mL	98
26) 2-Nitrophenol	5.114	139	308736	47.96	ug/mL	94
27) 2,4-Dimethylphenol	5.191	107	529775	39.80	ug/mL	94
28) bis(2-Chloroethoxy)met...	5.269	93	672921	40.94	ug/mL	98
29) Benzoic acid	5.322	105	233326	24.30	ug/mL	95
30) 2,4-Dichlorophenol	5.334	162	507282	50.56	ug/mL	98
31) 1,2,4-Trichlorobenzene	5.390	180	410222	38.38	ug/mL	97
32) Naphthalene	5.449	128	1296724	35.15	ug/mL	98
33) 2,6-Dichlorophenol	5.524	162	494018	48.72	ug/mL	99
34) 4-Chloroaniline	5.524	127	635961	41.34	ug/mL	100
35) Hexachlorobutadiene	5.571	225	224374	40.56	ug/mL	96
36) 4-Chloro-3-methylphenol	5.972	107	533616	47.63	ug/mL	99
37) 2-Methylnaphthalene	6.052	142	1032637	40.76	ug/mL	98
38) 1-Methylnaphthalene	6.136	142	1000562	42.20	ug/mL	99
39) 1,2,4,5-Tetrachloroben...	6.202	216	558838	52.55	ug/mL	98
40) Caprolactam	5.841	55	111705	15.45	ug/mL#	75

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40216.D
Acq On : 8 Oct 2014 11:54 am
Operator : williamk
Sample : op40010-ms
Misc : op40010,msr1479,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 08 13:45:19 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration

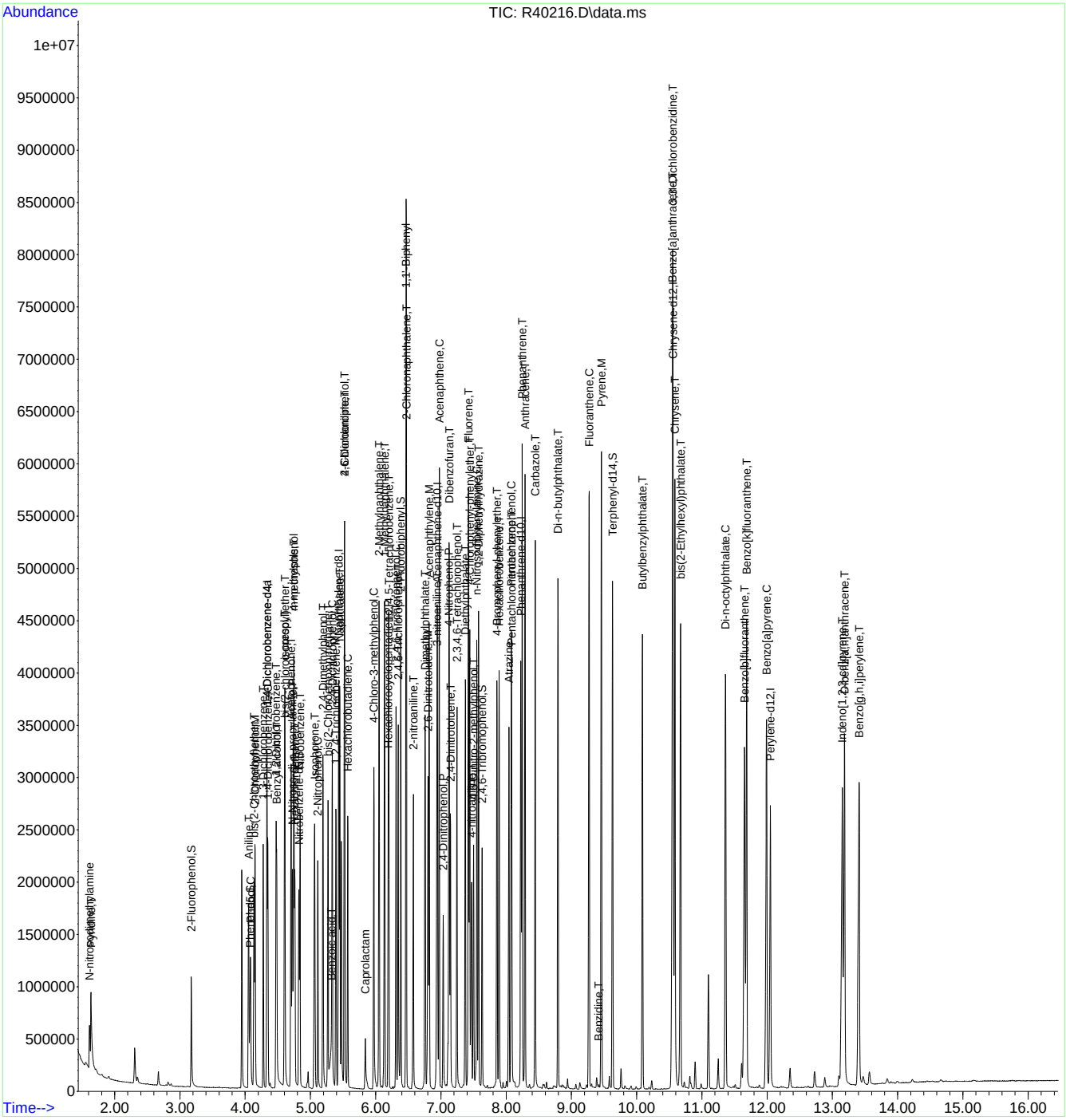
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42)	Pentachloronitrobenzene	8.085	237	193889	61.94	ug/mL	99
43)	Hexachlorocyclopentadiene	6.192	237	184956	32.42	ug/mL	99
44)	2,4,6-Trichlorophenol	6.314	196	417358	60.79	ug/mL	96
45)	2,4,5-Trichlorophenol	6.345	196	457625	60.47	ug/mL	98
47)	2-Chloronaphthalene	6.472	162	1077622	49.23	ug/mL	95
48)	Acenaphthylene	6.820	152	1536336	47.27	ug/mL	99
49)	Dimethylphthalate	6.758	163	1323512	55.46	ug/mL	99
50)	2,4-Dinitrotoluene	7.150	165	396014	56.80	ug/mL	83
51)	Acenaphthene	6.976	153	1138146	49.53	ug/mL	95
52)	2,4-Dinitrophenol	7.035	184	179865	71.53	ug/mL	94
53)	Dibenzofuran	7.128	168	1638912	50.37	ug/mL	100
54)	2,6-Dinitrotoluene	6.801	165	298446	55.68	ug/mL	83
55)	4-Nitrophenol	7.122	65	106889	18.85	ug/mL#	1
56)	2,3,4,6-Tetrachlorophenol	7.246	232	375868	63.58	ug/mL	98
57)	Fluorene	7.423	166	1337845	52.36	ug/mL	97
58)	4-Chlorophenyl-phenyle...	7.442	204	673613	56.98	ug/mL	93
59)	Diethylphthalate	7.373	149	1360694	55.27	ug/mL	99
60)	2-nitroaniline	6.578	138	430157	52.72	ug/mL	90
61)	3-nitroaniline	6.938	138	320513	46.76	ug/mL	86
62)	4-nitroaniline	7.470	138	325238	44.21	ug/mL	82
63)	1,1'-Biphenyl	6.466	154	1338236	45.49	ug/mL	97
65)	4,6-Dinitro-2-methylph...	7.501	198	258620	72.10	ug/mL	100
66)	n-Nitrosodiphenylamine	7.551	169	880971	50.18	ug/mL	98
67)	1,2-Diphenylhydrazine	7.579	77	1420179	47.54	ug/mL	99
69)	4-Bromophenyl-phenylether	7.858	248	395924	64.79	ug/mL	96
70)	Hexachlorobenzene	7.892	284	423166	68.84	ug/mL	97
71)	Pentachlorophenol	8.079	266	312094	59.68	ug/mL	99
72)	Phenanthrene	8.247	178	1922336	53.86	ug/mL	98
73)	Anthracene	8.290	178	1861688	52.23	ug/mL	98
74)	Carbazole	8.446	167	1828424	52.06	ug/mL	98
75)	Di-n-butylphthalate	8.794	149	2259695	54.89	ug/mL	99
76)	Fluoranthene	9.272	202	2078191	57.30	ug/mL	95
77)	Atrazine	8.045	200	374742	69.25	ug/mL	95
79)	Benzidine	9.418	184	2021	1.97	ug/mL	83
81)	Pyrene	9.462	202	2151063	54.09	ug/mL	97
83)	Butylbenzylphthalate	10.090	149	1006019	55.20	ug/mL	99
84)	3,3'-Dichlorobenzidine	10.553	252	517179	41.65	ug/mL	99
85)	Benzo[a]anthracene	10.550	228	1988471	55.65	ug/mL	98
86)	Chrysene	10.587	228	1811059	50.87	ug/mL	97
87)	bis(2-Ethylhexyl)phtha...	10.674	149	1397677	55.82	ug/mL	99
89)	Di-n-octylphthalate	11.361	149	2352306	54.67	ug/mL	100
90)	Benzo[b]fluoranthene	11.653	252	1809512	57.32	ug/mL	98
91)	Benzo[k]fluoranthene	11.687	252	1790729	54.74	ug/mL	99
92)	Benzo[a]pyrene	11.992	252	1629892	55.12	ug/mL	97
93)	Indeno[1,2,3-cd]pyrene	13.151	276	1577706	44.42	ug/mL	92
94)	Dibenz[a,h]anthracene	13.189	278	1632471	55.72	ug/mL	98
95)	Benzo[g,h,i]perylene	13.409	276	1646483	56.66	ug/mL	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40216.D
Acq On : 8 Oct 2014 11:54 am
Operator : williamk
Sample : op40010-ms
Misc : op40010,msr1479,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 08 13:45:19 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40217.D
Acq On : 8 Oct 2014 12:19 pm
Operator : williamk
Sample : op40010-msd
Misc : op40010,msr1479,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 08 13:45:54 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.334	152	392135	40.00	ug/mL	-0.03
22) Naphthalene-d8	5.434	136	1403639	40.00	ug/mL	-0.03
41) Acenaphthene-d10	6.944	164	811072	40.00	ug/mL	-0.03
64) Phenanthrene-d10	8.225	188	1320000	40.00	ug/mL	-0.03
78) Chrysene-d12	10.559	240	1271789	40.00	ug/mL	-0.03
88) Perylene-d12	12.051	264	1122711	40.00	ug/mL	-0.04
96) 1,4-Dichlorobenzene-d4a	4.334	152	392135	40.00	ug/mL	-0.03
System Monitoring Compounds						
6) 2-Fluorophenol	3.174	112	320390	23.86	ug/mL	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery = 23.86%#			
8) Phenol-d5	4.073	99	250851	14.26	ug/mL	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery = 14.26%#			
23) Nitrobenzene-d5	4.825	82	574242	40.38	ug/mL	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 80.76%			
46) 2-Fluorobiphenyl	6.385	172	1027942	39.61	ug/mL	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 79.22%			
68) 2,4,6-Tribromophenol	7.631	330	193024	67.03	ug/mL	-0.03
Spiked Amount 100.000	Range 30 - 130		Recovery = 67.03%			
82) Terphenyl-d14	9.630	244	1372138	50.84	ug/mL	-0.03
Spiked Amount 50.000	Range 30 - 130		Recovery = 101.68%			
Target Compounds						Qvalue
3) N-nitrosodimethylamine	1.614	74	220187	23.52	ug/mL	86
4) Pyridine	1.636	79	380365	22.91	ug/mL	86
5) Aniline	4.054	93	583118	26.02	ug/mL#	1
7) bis(2-Chloroethyl)ether	4.135	63	488844	38.95	ug/mL#	77
9) Phenol	4.085	94	313208	15.53	ug/mL	99
10) 2-Chlorophenol	4.153	128	555966	39.09	ug/mL	94
11) 1,3-Dichlorobenzene	4.278	146	467849	31.30	ug/mL	98
12) 1,4-Dichlorobenzene	4.349	146	478112	30.98	ug/mL	97
13) 1,2-Dichlorobenzene	4.473	146	462888	32.13	ug/mL	98
14) Benzyl alcohol	4.483	108	333203	33.36	ug/mL	99
15) bis(2-chloroisopropyl)...	4.610	45	752584	35.65	ug/mL	91
16) o-cresol	4.604	108	459979	32.48	ug/mL	80
17) Acetophenone	4.704	105	817783	40.69	ug/mL	97
18) Hexachloroethane	4.759	117	188973	30.63	ug/mL	95
19) N-Nitroso-di-n-propyla...	4.725	70	418675	39.55	ug/mL	90
20) m+p-cresols	4.747	108	875993	61.82	ug/mL	98
21) 4-methylphenol	4.747	108	875993	61.82	ug/mL	98
24) Nitrobenzene	4.840	77	633550	42.88	ug/mL	93
25) Isophorone	5.064	82	1057921	39.98	ug/mL	98
26) 2-Nitrophenol	5.114	139	320555	49.19	ug/mL	94
27) 2,4-Dimethylphenol	5.191	107	536363	39.81	ug/mL	94
28) bis(2-Chloroethoxy)met...	5.269	93	687078	41.29	ug/mL	98
29) Benzoic acid	5.322	105	238235	24.51	ug/mL	92
30) 2,4-Dichlorophenol	5.334	162	511784	50.39	ug/mL	98
31) 1,2,4-Trichlorobenzene	5.394	180	448116	41.41	ug/mL	97
32) Naphthalene	5.449	128	1382941	37.03	ug/mL	98
33) 2,6-Dichlorophenol	5.524	162	496044	48.33	ug/mL	99
34) 4-Chloroaniline	5.524	127	616121	39.57	ug/mL	100
35) Hexachlorobutadiene	5.571	225	246593	44.03	ug/mL	97
36) 4-Chloro-3-methylphenol	5.972	107	522573	46.08	ug/mL	99
37) 2-Methylnaphthalene	6.052	142	1054750	41.12	ug/mL	99
38) 1-Methylnaphthalene	6.136	142	1008118	42.00	ug/mL	100
39) 1,2,4,5-Tetrachloroben...	6.199	216	571723	53.11	ug/mL	98
40) Caprolactam	5.841	55	111155	15.18	ug/mL#	76

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40217.D
Acq On : 8 Oct 2014 12:19 pm
Operator : williamk
Sample : op40010-msd
Misc : op40010,msr1479,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 08 13:45:54 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration

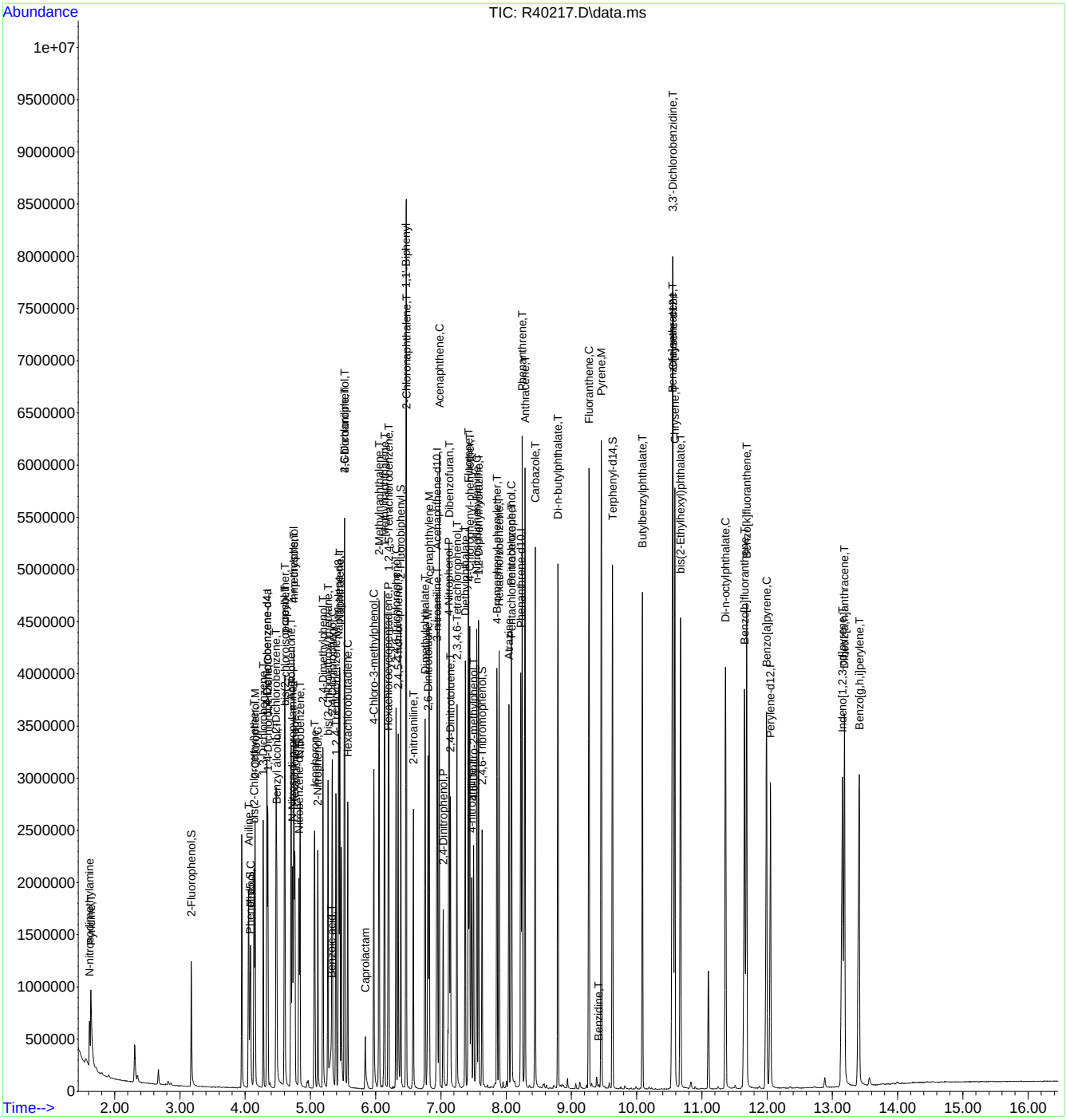
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Pentachloronitrobenzene	8.085	237	199795	63.10	ug/mL	99
43) Hexachlorocyclopentadiene	6.192	237	191607	33.21	ug/mL	100
44) 2,4,6-Trichlorophenol	6.314	196	407670	58.71	ug/mL	97
45) 2,4,5-Trichlorophenol	6.345	196	452411	59.11	ug/mL	99
47) 2-Chloronaphthalene	6.472	162	1070443	48.35	ug/mL	94
48) Acenaphthylene	6.820	152	1526814	46.44	ug/mL	99
49) Dimethylphthalate	6.758	163	1336181	55.36	ug/mL	99
50) 2,4-Dinitrotoluene	7.146	165	407994	57.86	ug/mL	86
51) Acenaphthene	6.976	153	1132084	48.71	ug/mL	96
52) 2,4-Dinitrophenol	7.035	184	185832	72.67	ug/mL	90
53) Dibenzofuran	7.128	168	1633759	49.64	ug/mL	100
54) 2,6-Dinitrotoluene	6.801	165	302931	55.88	ug/mL	85
55) 4-Nitrophenol	7.122	65	117546	20.50	ug/mL#	1
56) 2,3,4,6-Tetrachlorophenol	7.246	232	374958	62.71	ug/mL	98
57) Fluorene	7.423	166	1349802	52.24	ug/mL	97
58) 4-Chlorophenyl-phenyle...	7.442	204	675446	56.49	ug/mL	93
59) Diethylphthalate	7.373	149	1410810	56.66	ug/mL	99
60) 2-nitroaniline	6.578	138	432498	52.41	ug/mL	90
61) 3-nitroaniline	6.938	138	310710	44.82	ug/mL	87
62) 4-nitroaniline	7.470	138	337402	45.35	ug/mL	85
63) 1,1'-Biphenyl	6.466	154	1317161	44.27	ug/mL	97
65) 4,6-Dinitro-2-methylph...	7.501	198	266729	72.74	ug/mL	100
66) n-Nitrosodiphenylamine	7.551	169	893367	49.90	ug/mL	97
67) 1,2-Diphenylhydrazine	7.579	77	1427231	46.85	ug/mL	99
69) 4-Bromophenyl-phenylether	7.858	248	402644	64.61	ug/mL	97
70) Hexachlorobenzene	7.892	284	437239	69.75	ug/mL	97
71) Pentachlorophenol	8.079	266	319741	59.95	ug/mL	100
72) Phenanthrene	8.247	178	1956584	53.76	ug/mL	98
73) Anthracene	8.290	178	1914155	52.66	ug/mL	98
74) Carbazole	8.446	167	1874629	52.34	ug/mL	97
75) Di-n-butylphthalate	8.794	149	2348374	55.93	ug/mL	99
76) Fluoranthene	9.269	202	2149515	58.12	ug/mL	94
77) Atrazine	8.045	200	381180	69.07	ug/mL	97
79) Benzidine	9.418	184	1796	1.95	ug/mL	79
81) Pyrene	9.459	202	2219089	54.31	ug/mL	95
83) Butylbenzylphthalate	10.090	149	1037409	55.41	ug/mL	99
84) 3,3'-Dichlorobenzidine	10.553	252	542294	42.51	ug/mL	99
85) Benzo[a]anthracene	10.547	228	2045014	55.71	ug/mL	97
86) Chrysene	10.587	228	1882739	51.48	ug/mL	96
87) bis(2-Ethylhexyl)phtha...	10.671	149	1464333	56.93	ug/mL	97
89) Di-n-octylphthalate	11.361	149	2440659	54.93	ug/mL	99
90) Benzo[b]fluoranthene	11.653	252	1890845	58.00	ug/mL	98
91) Benzo[k]fluoranthene	11.687	252	1847326	54.68	ug/mL	99
92) Benzo[a]pyrene	11.992	252	1683593	55.14	ug/mL	98
93) Indeno[1,2,3-cd]pyrene	13.154	276	1633605	44.54	ug/mL	91
94) Dibenz[a,h]anthracene	13.186	278	1700828	56.21	ug/mL	97
95) Benzo[g,h,i]perylene	13.412	276	1711751	57.03	ug/mL	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40217.D
Acq On : 8 Oct 2014 12:19 pm
Operator : williamk
Sample : op40010-msd
Misc : op40010,msr1479,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

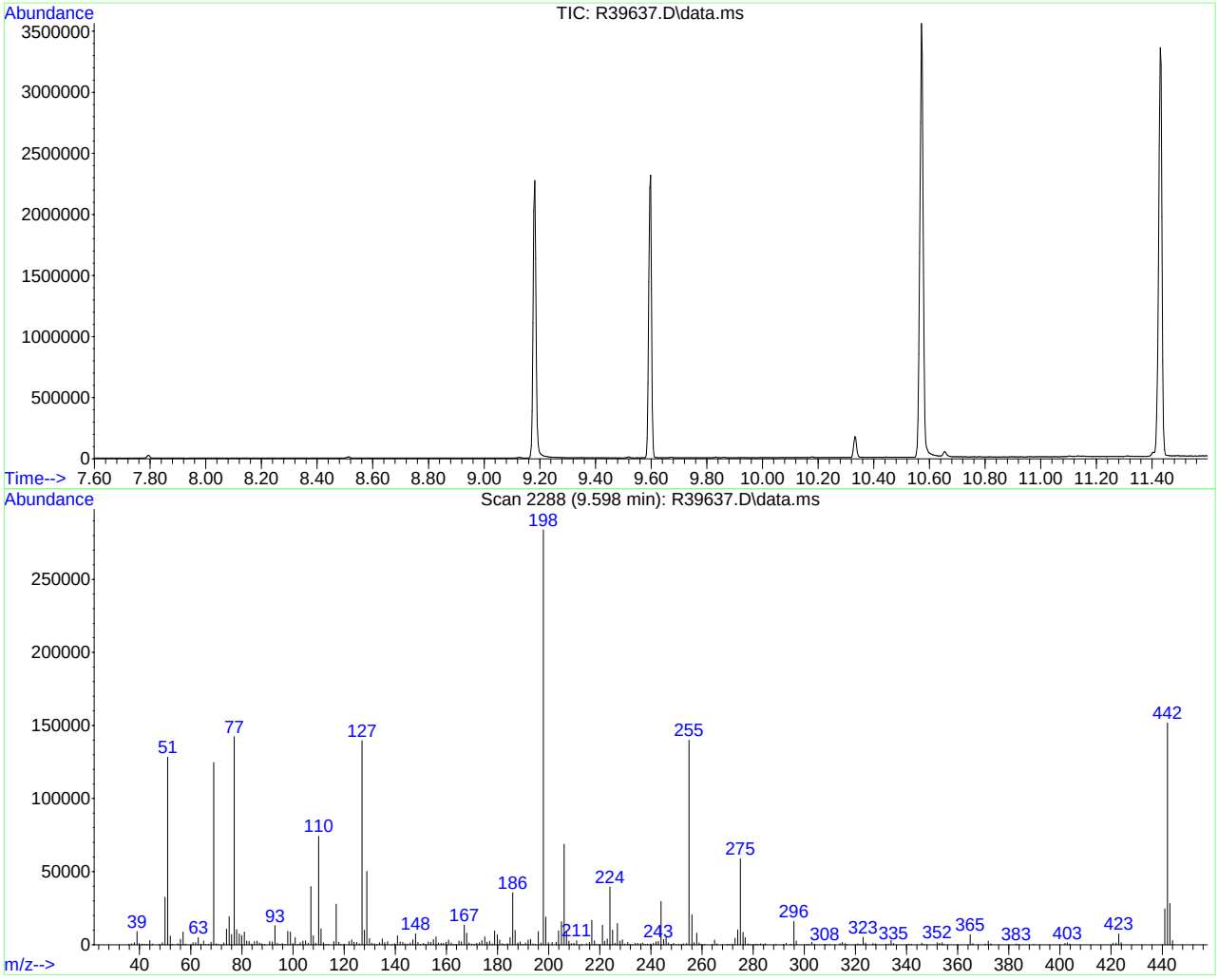
Quant Time: Oct 08 13:45:54 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration



DFTPP

Data File : C:\msdchem\1\data\R140911\R39637.D Vial: 99
Acq On : 11 Sep 2014 10:51 am Operator: williamk
Sample : dftpp Inst : MSR
Misc : op39525,msr1461,,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : W:\2\METHODS\DFTPP.m (RTE Integrator)
Title : DFTPP and Tune Evaluation



Spectrum Information: Scan 2288

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.2	128280	PASS
68	69	0.00	2	1.3	1682	PASS
69	198	0.00	100	43.9	124608	PASS
70	69	0.00	2	0.5	582	PASS
127	198	40	60	49.2	139584	PASS
197	198	0.00	1	0.4	1108	PASS
198	198	100	100	100.0	283776	PASS
199	198	5	9	6.6	18784	PASS
275	198	10	30	20.7	58872	PASS
365	198	1	100	2.4	6790	PASS
441	443	0.01	100	87.0	24504	PASS
442	198	40	100	53.5	151744	PASS
443	442	17	23	18.6	28160	PASS

R39637.D DFTPP.m Thu Sep 11 16:34:00 2014

Scan 2288 (9.598 min): R39637.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.80	273	48.90	1424	63.00	4911	75.00	19184
36.90	681	50.00	32512	63.90	525	76.00	6962
38.00	1465	51.00	128280	65.00	2414	77.00	142336
39.00	9048	52.00	5986	65.90	161	78.00	10323
39.90	787	52.90	318	67.00	240	79.00	7471
41.00	479	54.90	665	68.00	1682	79.90	6217
41.90	250	56.00	3796	69.00	124608	81.00	8582
42.90	232	57.00	8681	69.90	582	81.90	2401
44.00	2768	58.00	422	70.90	168	82.90	2331
45.00	451	60.90	1446	73.00	1291	83.80	498
47.80	156	61.90	1382	74.00	10725	84.90	2125

Scan 2288 (9.598 min): R39637.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.00	2507	98.00	9259	108.90	1020	121.90	2185
86.90	1157	99.00	8709	110.00	74208	122.90	3357
87.90	604	99.90	873	111.00	10784	123.90	1823
88.90	342	100.90	4841	111.90	1464	124.90	1556
90.90	2053	101.90	304	112.80	322	126.00	604
91.90	2000	102.90	1445	113.80	162	127.00	139584
93.00	13073	103.90	2553	116.00	2089	128.00	9984
93.90	960	104.90	2750	116.90	27800	128.90	50128
94.90	291	106.00	1066	117.90	1796	129.90	4277
95.90	848	107.00	39720	118.80	224	130.90	1094
96.90	264	108.00	6071	119.90	554	131.90	561

Scan 2288 (9.598 min): R39637.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
132.80	310	144.80	452	156.00	5401	167.00	13436
133.90	1340	145.90	1168	156.90	1284	167.90	7965
134.90	3985	146.90	3296	157.90	1089	168.90	1209
135.90	1445	147.90	7320	158.90	941	169.90	396
137.00	2080	148.90	1634	159.90	1797	170.90	516
138.80	195	149.80	361	160.90	3168	171.90	958
139.80	629	151.10	766	161.90	1158	172.90	1356
140.90	6036	151.90	277	162.90	298	173.90	2836
141.90	1944	152.90	1846	163.80	360	175.00	5337
142.90	1738	153.90	1617	164.90	2453	175.90	1714
143.80	562	154.90	3518	165.90	1919	176.90	2211

Scan 2288 (9.598 min): R39637.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
177.90	721	188.90	1974	199.90	1455	212.90	286
178.90	9442	189.80	298	201.40	1496	214.90	625
179.90	6916	190.90	1231	202.90	1728	215.90	1571
180.90	3165	192.00	3276	203.90	9563	216.90	16752
181.90	601	192.90	3536	205.00	15741	217.90	2565
182.70	258	193.90	720	206.00	68696	218.80	198
183.90	808	194.90	378	207.00	9137	219.80	181
184.90	4819	195.90	9003	207.90	2440	221.00	13447
186.00	35592	197.00	1108	208.90	741	221.90	2335
186.90	9760	197.90	283776	209.90	987	222.90	4000
187.90	1213	198.90	18784	210.90	2751	224.00	39496

Scan 2288 (9.598 min): R39637.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
225.00	9933	235.90	742	246.90	1210	257.90	8014
225.90	1022	236.90	1275	247.90	270	258.80	1155
226.90	14419	237.80	210	248.90	1064	259.70	242
227.90	2439	238.80	493	249.80	162	260.80	304
228.90	3409	239.80	495	250.90	235	263.80	248
229.80	406	240.90	994	251.90	184	264.90	3242
230.90	1530	242.00	1923	252.80	681	265.80	600
231.70	222	242.90	2304	254.00	829	269.80	226
232.80	175	244.00	29544	254.90	140032	270.70	219
233.90	933	245.00	3572	256.00	20536	271.90	436
234.80	975	245.90	5170	256.90	1464	272.90	4454

Scan 2288 (9.598 min): R39637.D\data.ms

R140911_8270.m Thu Sep 11 16:32:24 2014

dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
273.90	10126	288.80	243	308.70	164	327.80	631
275.00	58872	291.80	288	309.90	175	331.90	422
276.00	8410	292.90	971	313.90	841	332.90	393
276.90	4869	294.80	351	314.90	1511	333.90	2963
277.90	711	295.90	16019	315.90	872	334.90	899
278.90	246	296.90	2479	316.80	166	340.90	472
280.90	480	300.90	241	320.90	698	342.00	221
281.90	237	301.80	309	321.90	280	345.90	1159
282.90	624	302.90	1655	323.00	5060	346.80	358
283.90	343	303.90	409	323.90	1201	352.00	1300
284.80	674	308.00	210	326.90	780	352.90	1098

Scan 2288 (9.598 min): R39637.D\data.ms

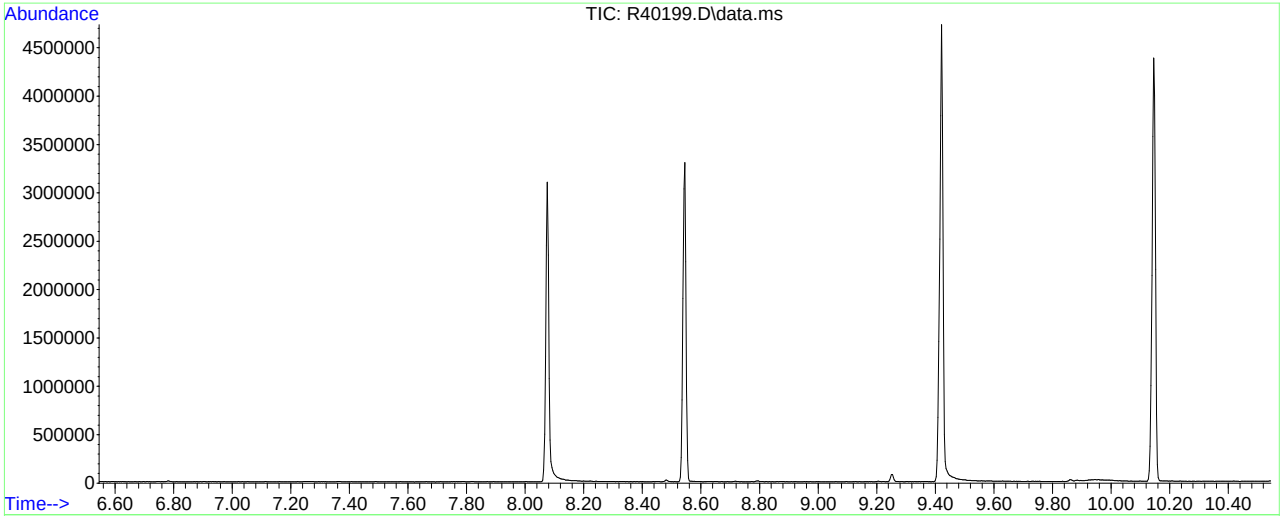
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
353.90	1383	402.90	1269				
354.80	166	403.80	389				
364.90	6790	420.80	1006				
365.90	862	421.90	1126				
370.80	385	423.00	7353				
371.90	2427	423.90	1466				
373.00	615	441.00	24504				
382.90	525	442.00	151744				
383.80	187	443.00	28160				
389.80	202	444.00	2844				
401.90	920						

DFTPP

Data File : C:\msdchem\1\data\R141008\R40199.D Vial: 99
Acq On : 8 Oct 2014 7:33 am Operator: williamk
Sample : dftpp Inst : MSR
Misc : op39867,msr1479,,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : W:\1\methods\dftppeval.m (RTE Integrator)
Title : DFTPP and Tune Evaluation



Spectrum Information: Average of 8.542 to 8.548 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.3	115017	PASS
68	69	0.00	2	1.5	2000	PASS
69	198	0.00	100	38.9	134435	PASS
70	69	0.00	2	0.4	493	PASS
127	198	40	60	47.1	162995	PASS
197	198	0.00	1	0.2	659	PASS
198	198	100	100	100.0	345749	PASS
199	198	5	9	6.9	24005	PASS
275	198	10	30	24.3	83965	PASS
365	198	1	100	2.8	9852	PASS
441	443	0.01	100	78.2	42923	PASS
442	198	40	100	81.8	282837	PASS
443	442	17	23	19.4	54912	PASS

R40199.D dftppeval.m Wed Oct 08 11:37:31 2014

Average of 8.542 to 8.548 min.: R40199.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.95	472	54.95	577	65.95	183	77.00	143485
38.00	1333	55.90	3372	66.95	336	78.00	9928
39.00	8020	56.95	8568	68.00	2000	79.00	8755
39.90	282	57.90	399	69.00	134435	80.00	6230
41.00	78	58.90	78	69.90	493	80.95	9680
44.95	323	59.80	61	70.10	157	81.90	2154
47.85	150	60.95	1546	70.95	197	83.00	2652
49.95	28893	62.00	1796	72.95	861	84.95	2362
50.95	115017	63.00	4467	74.00	11594	85.90	2241
52.00	6313	63.90	600	75.00	19476	86.95	1357
52.90	199	65.00	2727	76.00	6369	87.85	615

Average of 8.542 to 8.548 min.: R40199.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.85	242	99.90	725	111.00	12534	121.95	2499
90.90	2000	101.00	5825	111.95	1329	123.00	4200
91.95	2486	101.80	162	112.85	508	123.95	1830
93.00	14198	102.95	1746	114.80	175	124.95	1876
93.95	1098	103.95	3134	115.00	78	127.00	162995
94.85	276	105.00	3039	115.90	2046	128.00	12711
95.95	851	106.00	990	117.00	30432	129.00	59117
96.80	115	107.00	44429	117.90	2386	129.95	4803
97.05	196	108.00	6792	118.90	331	130.95	1078
98.00	10894	108.95	1055	119.85	566	131.90	534
99.00	8951	110.00	82587	120.90	175	132.85	300

Average of 8.542 to 8.548 min.: R40199.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
133.90	1619	143.85	442	153.95	1654	164.95	2455
134.95	4548	144.95	541	155.00	4238	165.95	2509
135.90	1864	145.85	1297	156.00	5989	167.00	15785
136.95	2465	146.95	3680	156.95	1290	167.95	7893
137.70	225	147.95	8194	157.85	1293	168.90	1328
138.00	375	148.95	1849	158.90	887	169.90	456
138.85	280	149.85	565	159.90	1987	170.85	733
139.90	789	151.20	977	160.95	3380	171.85	1233
140.95	7653	151.80	436	161.90	1017	172.90	1866
141.95	2424	152.00	248	162.90	301	173.95	3134
142.90	1780	152.90	2500	163.90	449	175.00	6720

Average of 8.542 to 8.548 min.: R40199.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.95	2010	186.00	45499	197.00	659	208.85	852
176.90	2733	187.00	12171	197.90	345749	210.20	650
177.85	794	187.90	1403	198.90	24005	210.95	3332
178.90	11667	188.90	2740	199.95	1940	211.80	296
179.95	8197	189.80	403	201.35	2064	212.85	270
180.95	3777	190.95	1231	202.95	2254	214.90	865
181.85	679	191.90	3619	203.95	12045	215.95	1742
182.70	116	192.95	4288	205.00	20494	216.90	21152
182.85	195	193.90	836	206.00	87168	217.90	2824
183.90	888	194.95	580	207.00	11795	218.90	332
184.95	5569	195.90	11050	207.90	2700	221.00	18616

Average of 8.542 to 8.548 min.: R40199.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
222.90	5272	232.95	351	244.00	39096	254.00	316
224.00	48824	233.90	1325	244.95	4850	255.00	190187
225.00	11805	234.90	1318	245.90	6436	256.00	28061
226.00	1279	235.85	919	246.90	1427	256.90	2241
226.95	18582	236.90	1648	247.85	345	257.95	10407
227.95	2810	237.90	155	248.90	1444	258.90	1686
228.90	4284	238.85	860	249.80	154	259.80	291
229.85	606	239.85	490	250.00	60	260.85	246
230.95	1708	240.85	1126	250.85	420	263.85	347
231.80	229	241.95	2495	251.85	303	264.90	4006
232.00	106	243.00	2631	252.90	767	265.85	746

Average of 8.542 to 8.548 min.: R40199.D\data.ms

R140911_8270A.m Wed Oct 08 11:29:58 2014

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
267.70	129	281.85	128	294.90	282	312.95	278
269.90	154	282.90	808	295.95	22877	313.90	1076
270.80	414	283.85	494	296.95	3137	314.90	2331
271.90	451	284.95	1171	297.80	134	315.90	1342
272.95	6244	285.85	209	300.80	225	316.80	144
273.95	14548	288.85	222	301.75	367	320.95	680
275.00	83965	289.80	251	302.95	2834	321.90	393
276.00	11088	290.90	50	303.90	793	323.00	7572
276.95	6399	291.85	330	307.90	306	323.95	1399
277.85	1136	292.90	1501	308.90	319	324.75	102
278.85	311	293.90	431	309.90	324	325.90	132

Average of 8.542 to 8.548 min.: R40199.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
326.85	1423	341.85	301	365.90	1523	401.90	1466
327.90	760	345.90	1928	369.85	160	403.00	2294
328.80	56	346.80	306	370.85	467	403.90	646
329.00	64	351.00	94	371.95	3538	404.80	145
331.90	575	351.95	2539	372.95	901	420.90	1975
332.85	625	352.90	1366	382.90	1187	421.90	1882
333.95	4744	353.95	2088	383.85	290	423.00	12694
334.95	1241	354.90	377	389.95	530	423.95	2592
336.00	76	358.80	81	390.85	302	424.95	292
339.80	64	363.90	79	391.90	270	438.40	54
340.90	851	364.95	9852	400.85	213	441.00	42923

Average of 8.542 to 8.548 min.: R40199.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
442.00	282837						
443.00	54912						
444.00	5287						
444.95	328						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39638.D
Acq On : 11 Sep 2014 11:30 am
Operator : williamk
Sample : ic1461-2
Misc : op39525,msr1461,,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 13:04:20 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:10 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.412	152	257002	40.00	ug/mL	0.00
22) Naphthalene-d8	6.509	136	1009828	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.047	164	586488	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.353	188	950088	40.00	ug/mL	0.00
78) Chrysene-d12	11.964	240	873439	40.00	ug/mL	0.00
88) Perylene-d12	13.682	264	808923	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.412	152	257002	40.00	ug/mL #	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.293	112	15061	1.70	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	1.70%#		
8) Phenol-d5	5.091	99	20003	1.69	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	1.69%#		
23) Nitrobenzene-d5	5.884	82	17371	1.69	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	3.38%#		
46) 2-Fluorobiphenyl	7.451	172	34454	1.80	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	3.60%#		
68) 2,4,6-Tribromophenol	8.734	330	2525	1.30	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	1.30%#		
82) Terphenyl-d14	10.810	244	30640	1.66	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	3.32%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.723	88	7387	1.83	ug/mL#	100
3) N-nitrosodimethylamine	3.068	74	5178	0.87	ug/mL#	82
4) Pyridine	3.137	79	15838	1.38	ug/mL	73
5) Aniline	5.129	93	23299	1.50	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.185	63	15358	1.84	ug/mL#	74
9) Phenol	5.104	94	22379	1.69	ug/mL	96
10) 2-Chlorophenol	5.228	128	16326	1.73	ug/mL	84
11) 1,3-Dichlorobenzene	5.362	146	18496	1.89	ug/mL	97
12) 1,4-Dichlorobenzene	5.424	146	18974	1.86	ug/mL	97
13) 1,2-Dichlorobenzene	5.555	146	17905	1.88	ug/mL	99
14) Benzyl alcohol	5.530	108	10612	1.61	ug/mL	91
15) bis(2-chloroisopropyl)...	5.645	45	26464	1.85	ug/mL	68
16) o-cresol	5.620	108	16935	1.81	ug/mL	74
17) Acetophenone	5.757	105	24300	1.67	ug/mL	79
18) Hexachloroethane	5.847	117	7594	1.92	ug/mL	86
19) N-Nitroso-di-n-propyla...	5.757	70	12625	1.70	ug/mL	77
20) m+p-cresols	5.750	108	34359	3.34	ug/mL	95
21) 4-methylphenol	5.750	108	34359	3.34	ug/mL	95
24) Nitrobenzene	5.900	77	17905	1.65	ug/mL	85
25) Isophorone	6.114	82	32373	1.67	ug/mL	93
26) 2-Nitrophenol	6.176	139	5524	1.33	ug/mL	77
27) 2,4-Dimethylphenol	6.210	107	17466	1.80	ug/mL	96
28) bis(2-Chloroethoxy)met...	6.294	93	21781	1.80	ug/mL	97
29) Benzoic acid	6.251	105	5919	0.94	ug/mL	84
30) 2,4-Dichlorophenol	6.384	162	11592	1.59	ug/mL	92
31) 1,2,4-Trichlorobenzene	6.456	180	13830	1.82	ug/mL	93
32) Naphthalene	6.527	128	52559	1.90	ug/mL	97
33) 2,6-Dichlorophenol	6.580	162	12330	1.62	ug/mL	96
34) 4-Chloroaniline	6.574	127	18286	1.54	ug/mL	100
35) Hexachlorobutadiene	6.636	225	7028	1.84	ug/mL	95
36) 4-Chloro-3-methylphenol	6.991	107	13332	1.64	ug/mL	86
37) 2-Methylnaphthalene	7.130	142	33886	1.78	ug/mL	98
38) 1-Methylnaphthalene	7.217	142	31756	1.78	ug/mL	98
39) 1,2,4,5-Tetrachloroben...	7.277	216	13106	1.73	ug/mL	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39638.D
Acq On : 11 Sep 2014 11:30 am
Operator : williamk
Sample : ic1461-2
Misc : op39525,msr1461,,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 13:04:20 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:10 2014
Response via : Initial Calibration

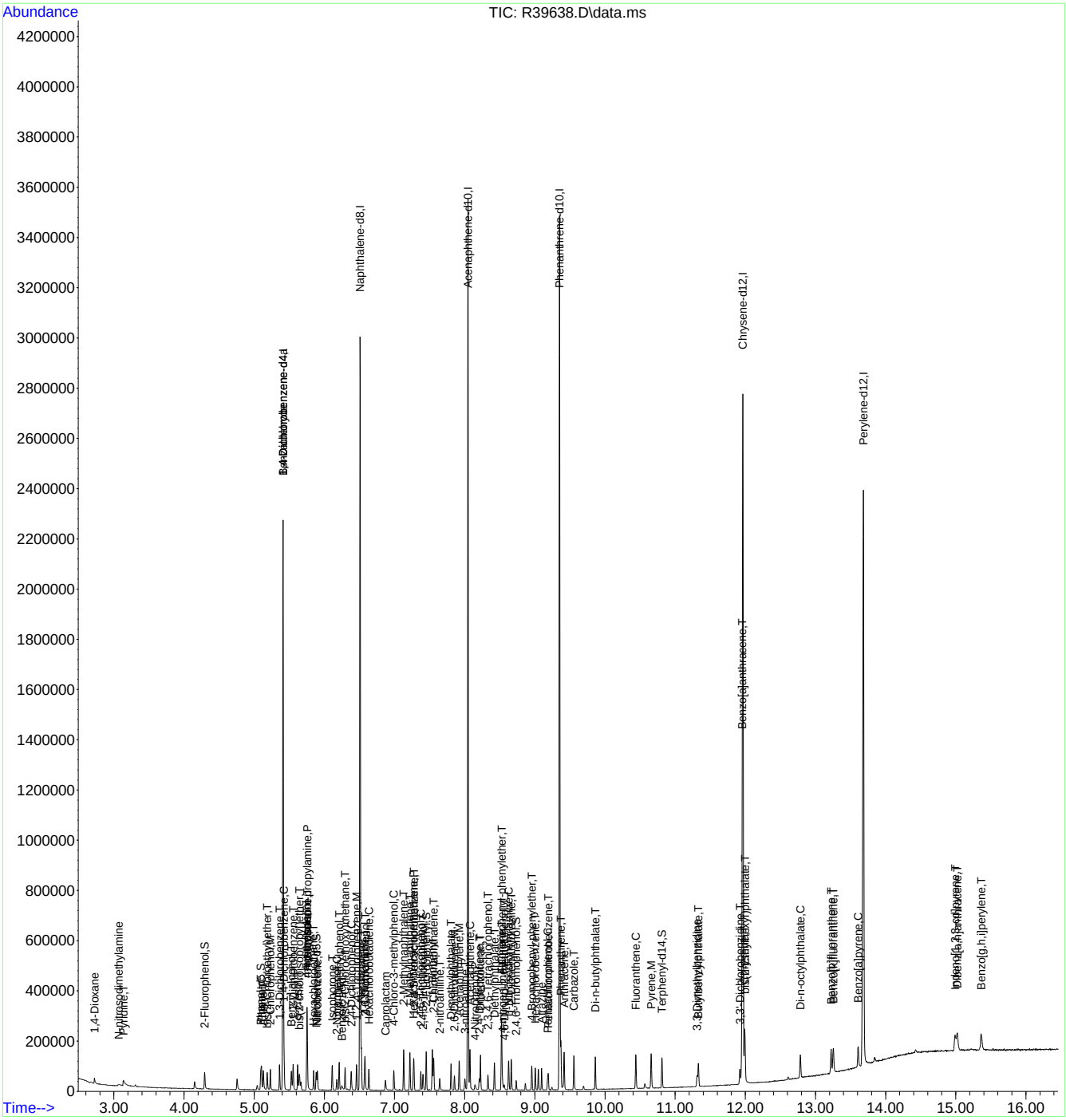
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Caprolactam	6.872	55	7579	1.37 ug/mL#	71
42) Pentachloronitrobenzene	9.191	237	2505	1.28 ug/mL	89
43) Hexachlorocyclopentadiene	7.270	237	5382	1.40 ug/mL	97
44) 2,4,6-Trichlorophenol	7.376	196	7118	1.48 ug/mL	94
45) 2,4,5-Trichlorophenol	7.407	196	7820	1.47 ug/mL	98
47) 2-Chloronaphthalene	7.556	162	28150	1.75 ug/mL	97
48) Acenaphthylene	7.920	152	40493	1.65 ug/mL	99
49) Dimethylphthalate	7.805	163	29774	1.72 ug/mL	98
50) 2,4-Dinitrotoluene	8.209	165	4681	1.08 ug/mL	78
51) Acenaphthene	8.075	153	31165	1.80 ug/mL	98
53) Dibenzofuran	8.224	168	43617	1.80 ug/mL	97
54) 2,6-Dinitrotoluene	7.855	165	4372	1.29 ug/mL	82
55) 4-Nitrophenol	8.150	65	4534	1.13 ug/mL#	71
56) 2,3,4,6-Tetrachlorophenol	8.330	232	5545	1.41 ug/mL	99
57) Fluorene	8.526	166	33333	1.67 ug/mL	100
58) 4-Chlorophenyl-phenyle...	8.526	204	15317	1.69 ug/mL	95
59) Diethylphthalate	8.423	149	30334	1.70 ug/mL	98
60) 2-nitroaniline	7.646	138	6276	1.19 ug/mL	90
61) 3-nitroaniline	8.004	138	5323	1.18 ug/mL	81
62) 4-nitroaniline	8.538	138	5950	1.22 ug/mL	93
63) 1,1'-Biphenyl	7.538	154	39949	1.80 ug/mL	93
65) 4,6-Dinitro-2-methylph...	8.563	198	1778	0.94 ug/mL	100
66) n-Nitrosodiphenylamine	8.629	169	22744	1.74 ug/mL	93
67) 1,2-Diphenylhydrazine	8.663	77	39158	1.67 ug/mL	96
69) 4-Bromophenyl-phenylether	8.955	248	7302	1.70 ug/mL	84
70) Hexachlorobenzene	9.008	284	7506	1.73 ug/mL	83
71) Pentachlorophenol	9.182	266	3889	1.23 ug/mL	96
72) Phenanthrene	9.371	178	49289	1.82 ug/mL	98
73) Anthracene	9.418	178	46208	1.69 ug/mL	98
74) Carbazole	9.555	167	45768	1.71 ug/mL	98
75) Di-n-butylphthalate	9.862	149	47413	1.48 ug/mL	98
76) Fluoranthene	10.437	202	45418	1.68 ug/mL	81
77) Atrazine	9.098	200	6245	1.56 ug/mL	89
80) 3,3-Dimethylbenzidine	11.311	212	14745	2.02 ug/mL	100
81) Pyrene	10.658	202	48479	1.67 ug/mL	81
83) Butylbenzylphthalate	11.329	149	17991	1.37 ug/mL	82
84) 3,3'-Dichlorobenzidine	11.923	252	11841	1.52 ug/mL	96
85) Benzo[a]anthracene	11.954	228	45334	1.82 ug/mL	97
86) Chrysene	11.992	228	43790	1.71 ug/mL	98
87) bis(2-Ethylhexyl)phtha...	11.998	149	23501	1.22 ug/mL	96
89) Di-n-octylphthalate	12.784	149	41443	1.35 ug/mL	99
90) Benzo[b]fluoranthene	13.222	252	35842	1.59 ug/mL	95
91) Benzo[k]fluoranthene	13.257	252	41220	1.72 ug/mL	96
92) Benzo[a]pyrene	13.608	252	33852	1.57 ug/mL	92
93) Indeno[1,2,3-cd]pyrene	14.991	276	40676	1.60 ug/mL	94
94) Dibenz[a,h]anthracene	15.022	278	34067	1.64 ug/mL	91
95) Benzo[g,h,i]perylene	15.364	276	34542	1.63 ug/mL	87
97) Benzaldehyde	5.412	77	12674	5.49 ug/mL	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39638.D
Acq On : 11 Sep 2014 11:30 am
Operator : williamk
Sample : ic1461-2
Misc : op39525,msr1461,,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 13:04:20 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:10 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39639.D
Acq On : 11 Sep 2014 11:55 am
Operator : williamk
Sample : ic1461-5
Misc : op39525,msr1461,,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 13:04:40 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.412	152	244776	40.00	ug/mL	0.00
22) Naphthalene-d8	6.509	136	956930	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.047	164	554274	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.353	188	890075	40.00	ug/mL	0.00
78) Chrysene-d12	11.960	240	813629	40.00	ug/mL	0.00
88) Perylene-d12	13.679	264	742206	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.412	152	244776	40.00	ug/mL #	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.293	112	36738	4.70	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	4.70%#		
8) Phenol-d5	5.092	99	50366	4.84	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	4.84%#		
23) Nitrobenzene-d5	5.884	82	42496	4.73	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	9.46%#		
46) 2-Fluorobiphenyl	7.451	172	81391	4.73	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	9.46%#		
68) 2,4,6-Tribromophenol	8.737	330	6826	4.54	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	4.54%#		
82) Terphenyl-d14	10.810	244	74678	4.74	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	9.48%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.720	88	18032	4.90	ug/mL#	100
3) N-nitrosodimethylamine	3.053	74	21388	5.24	ug/mL	91
4) Pyridine	3.121	79	44689	4.84	ug/mL	78
5) Aniline	5.129	93	63865	4.94	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.185	63	37106	4.86	ug/mL#	72
9) Phenol	5.104	94	55883	4.81	ug/mL	95
10) 2-Chlorophenol	5.231	128	40379	4.82	ug/mL	87
11) 1,3-Dichlorobenzene	5.362	146	44624	4.93	ug/mL	97
12) 1,4-Dichlorobenzene	5.424	146	45574	4.86	ug/mL	94
13) 1,2-Dichlorobenzene	5.555	146	42778	4.86	ug/mL	96
14) Benzyl alcohol	5.530	108	26817	4.73	ug/mL	97
15) bis(2-chloroisopropyl)...	5.645	45	64656	4.93	ug/mL	75
16) o-cresol	5.620	108	40308	4.75	ug/mL	79
17) Acetophenone	5.757	105	60782	4.79	ug/mL	82
18) Hexachloroethane	5.847	117	17475	4.73	ug/mL	85
19) N-Nitroso-di-n-propyla...	5.757	70	31955	4.88	ug/mL	76
20) m+p-cresols	5.750	108	85359	9.50	ug/mL	97
21) 4-methylphenol	5.750	108	85359	9.50	ug/mL	97
24) Nitrobenzene	5.900	77	46451	4.95	ug/mL	82
25) Isophorone	6.114	82	80816	4.79	ug/mL	97
26) 2-Nitrophenol	6.176	139	14747	4.50	ug/mL	86
27) 2,4-Dimethylphenol	6.210	107	42350	4.85	ug/mL	97
28) bis(2-Chloroethoxy)met...	6.294	93	53108	4.87	ug/mL	96
29) Benzoic acid	6.260	105	17567	4.02	ug/mL	93
30) 2,4-Dichlorophenol	6.385	162	29029	4.68	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.459	180	32882	4.78	ug/mL	96
32) Naphthalene	6.527	128	123580	4.84	ug/mL	98
33) 2,6-Dichlorophenol	6.580	162	31405	4.82	ug/mL	98
34) 4-Chloroaniline	6.574	127	46567	4.67	ug/mL	100
35) Hexachlorobutadiene	6.636	225	16338	4.70	ug/mL	97
36) 4-Chloro-3-methylphenol	6.991	107	33350	4.75	ug/mL	94
37) 2-Methylnaphthalene	7.130	142	81479	4.79	ug/mL	99
38) 1-Methylnaphthalene	7.217	142	76923	4.81	ug/mL	100
39) 1,2,4,5-Tetrachloroben...	7.277	216	31309	4.68	ug/mL	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39639.D
Acq On : 11 Sep 2014 11:55 am
Operator : williamk
Sample : ic1461-5
Misc : op39525,msr1461,,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 13:04:40 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:33 2014
Response via : Initial Calibration

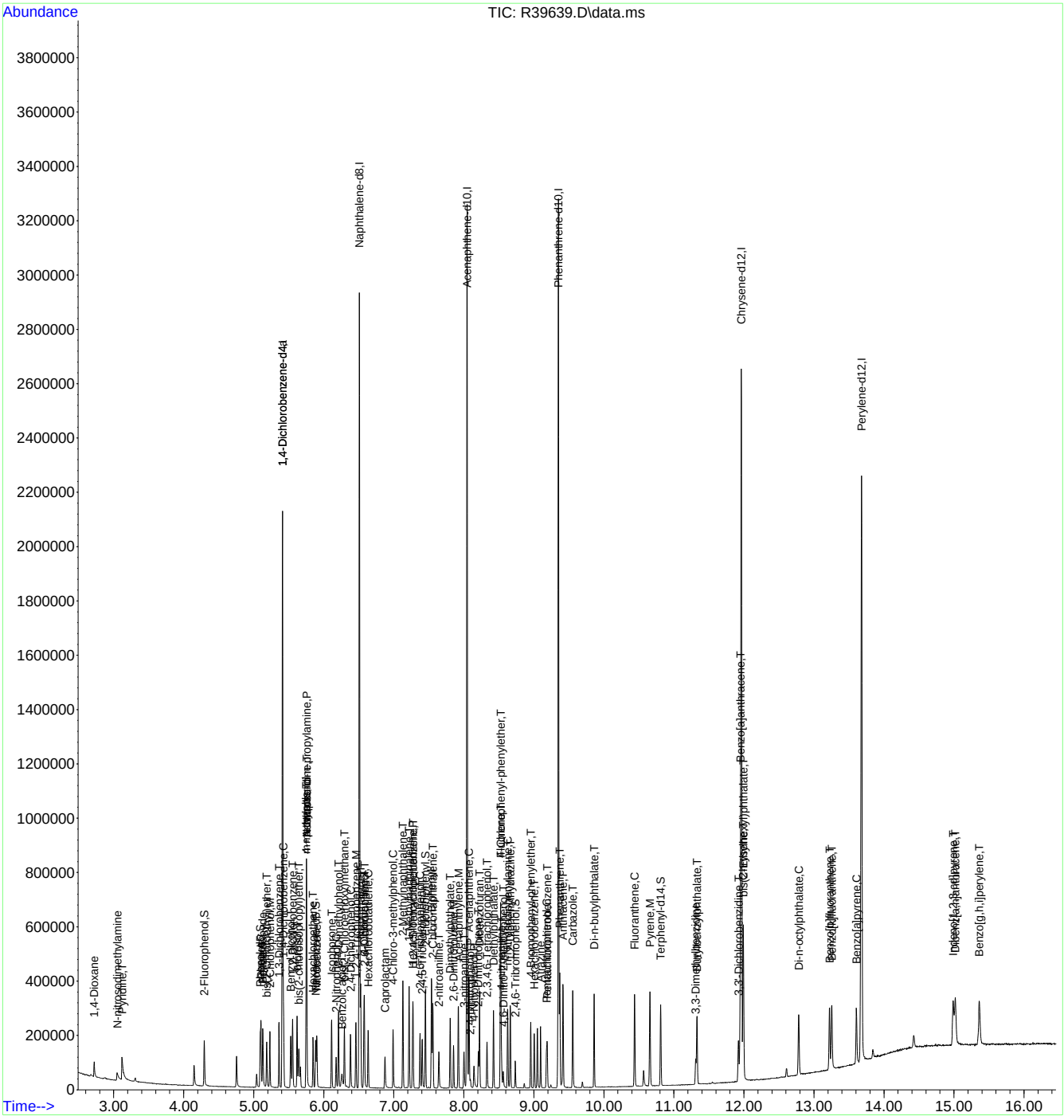
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Caprolactam	6.876	55	20813	4.72	ug/mL#	75
42) Pentachloronitrobenzene	9.191	237	6751	4.45	ug/mL	95
43) Hexachlorocyclopentadiene	7.270	237	14062	4.56	ug/mL	96
44) 2,4,6-Trichlorophenol	7.376	196	18619	4.71	ug/mL	97
45) 2,4,5-Trichlorophenol	7.407	196	21967	5.03	ug/mL	97
47) 2-Chloronaphthalene	7.556	162	68761	4.83	ug/mL	96
48) Acenaphthylene	7.923	152	102263	4.84	ug/mL	98
49) Dimethylphthalate	7.805	163	73096	4.81	ug/mL	99
50) 2,4-Dinitrotoluene	8.206	165	14080	4.47	ug/mL	86
51) Acenaphthene	8.072	153	74400	4.78	ug/mL	93
52) 2,4-Dinitrophenol	8.091	184	3121	2.77	ug/mL	92
53) Dibenzofuran	8.225	168	104112	4.79	ug/mL	96
54) 2,6-Dinitrotoluene	7.855	165	11663	4.43	ug/mL	87
55) 4-Nitrophenol	8.144	65	13557	4.57	ug/mL#	79
56) 2,3,4,6-Tetrachlorophenol	8.330	232	14481	4.58	ug/mL	93
57) Fluorene	8.526	166	82625	4.77	ug/mL	98
58) 4-Chlorophenyl-phenyle...	8.526	204	36105	4.57	ug/mL	96
59) Diethylphthalate	8.423	149	74869	4.80	ug/mL	98
60) 2-nitroaniline	7.643	138	17244	4.34	ug/mL	89
61) 3-nitroaniline	8.004	138	15004	4.43	ug/mL	82
62) 4-nitroaniline	8.535	138	16396	4.42	ug/mL	97
63) 1,1'-Biphenyl	7.538	154	95695	4.80	ug/mL#	93
65) 4,6-Dinitro-2-methylph...	8.563	198	5422	4.17	ug/mL	100
66) n-Nitrosodiphenylamine	8.629	169	55095	4.81	ug/mL	98
67) 1,2-Diphenylhydrazine	8.663	77	100009	4.97	ug/mL	95
69) 4-Bromophenyl-phenylether	8.955	248	17721	4.76	ug/mL	86
70) Hexachlorobenzene	9.008	284	18245	4.81	ug/mL	84
71) Pentachlorophenol	9.182	266	10116	4.23	ug/mL	96
72) Phenanthrene	9.371	178	117394	4.85	ug/mL	99
73) Anthracene	9.415	178	114082	4.82	ug/mL	99
74) Carbazole	9.555	167	111426	4.79	ug/mL	98
75) Di-n-butylphthalate	9.862	149	122855	4.70	ug/mL	99
76) Fluoranthene	10.437	202	109444	4.70	ug/mL	79
77) Atrazine	9.098	200	15651	4.68	ug/mL	100
80) 3,3-Dimethylbenzidine	11.311	212	28963	4.26	ug/mL	100
81) Pyrene	10.658	202	120034	4.83	ug/mL	83
83) Butylbenzylphthalate	11.329	149	48011	4.67	ug/mL	84
84) 3,3'-Dichlorobenzidine	11.923	252	30253	4.73	ug/mL	95
85) Benzo[a]anthracene	11.951	228	105790	4.78	ug/mL	97
86) Chrysene	11.992	228	106347	4.81	ug/mL	100
87) bis(2-Ethylhexyl)phtha...	11.995	149	64220	4.44	ug/mL	99
89) Di-n-octylphthalate	12.784	149	105693	4.47	ug/mL	98
90) Benzo[b]fluoranthene	13.222	252	88240	4.75	ug/mL	94
91) Benzo[k]fluoranthene	13.257	252	94441	4.61	ug/mL	96
92) Benzo[a]pyrene	13.608	252	82950	4.70	ug/mL	94
93) Indeno[1,2,3-cd]pyrene	14.988	276	99658	4.74	ug/mL	89
94) Dibenz[a,h]anthracene	15.019	278	80851	4.67	ug/mL	89
95) Benzo[g,h,i]perylene	15.361	276	82825	4.70	ug/mL	84
97) Benzaldehyde	5.129	77	1027	0.47	ug/mL	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39639.D
Acq On : 11 Sep 2014 11:55 am
Operator : williamk
Sample : ic1461-5
Misc : op39525,msr1461,,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 13:04:40 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:33 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Doug Yargeau
09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39640.D
Acq On : 11 Sep 2014 12:19 pm
Operator : williamk
Sample : ic1461-10
Misc : op39525,msr1461,,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 14:55:07 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:48 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.412	152	280146	40.00	ug/mL	0.00
22) Naphthalene-d8	6.512	136	1084816	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.047	164	632126	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.353	188	1020856	40.00	ug/mL	0.00
78) Chrysene-d12	11.964	240	954618	40.00	ug/mL	0.00
88) Perylene-d12	13.682	264	876707	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.412	152	280146	40.00	ug/mL	# 0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.296	112	89493	10.21	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 10.21%#			
8) Phenol-d5	5.095	99	120218	10.20	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 10.20%#			
23) Nitrobenzene-d5	5.884	82	102529	10.25	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 20.50%#			
46) 2-Fluorobiphenyl	7.451	172	192650	10.00	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 20.00%#			
68) 2,4,6-Tribromophenol	8.737	330	17863m	10.68	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 10.68%#			
82) Terphenyl-d14	10.810	244	183101	10.08	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 20.16%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.723	88	42642	10.19	ug/mL#	100
3) N-nitrosodimethylamine	3.043	74	59139	12.46	ug/mL	84
4) Pyridine	3.112	79	113162	10.82	ug/mL	79
5) Aniline	5.132	93	157278	10.67	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.185	63	87423	10.10	ug/mL#	74
9) Phenol	5.104	94	134098	10.22	ug/mL	97
10) 2-Chlorophenol	5.231	128	95992	10.14	ug/mL	86
11) 1,3-Dichlorobenzene	5.362	146	103137	10.00	ug/mL	97
12) 1,4-Dichlorobenzene	5.427	146	107492	10.11	ug/mL	98
13) 1,2-Dichlorobenzene	5.555	146	98627	9.88	ug/mL	99
14) Benzyl alcohol	5.530	108	67329	10.56	ug/mL	97
15) bis(2-chloroisopropyl)...	5.645	45	152270	10.20	ug/mL	75
16) o-cresol	5.620	108	96053	10.06	ug/mL	80
17) Acetophenone	5.757	105	145724	10.17	ug/mL	81
18) Hexachloroethane	5.847	117	41357	9.96	ug/mL	80
19) N-Nitroso-di-n-propyla...	5.757	70	76180	10.25	ug/mL	75
20) m+p-cresols	5.754	108	205674	20.33	ug/mL	100
21) 4-methylphenol	5.754	108	205674	20.33	ug/mL	100
24) Nitrobenzene	5.903	77	110067	10.38	ug/mL	89
25) Isophorone	6.114	82	197652	10.48	ug/mL	95
26) 2-Nitrophenol	6.176	139	38826	10.82	ug/mL	87
27) 2,4-Dimethylphenol	6.210	107	100095	10.21	ug/mL	97
28) bis(2-Chloroethoxy)met...	6.294	93	125115	10.21	ug/mL	99
29) Benzoic acid	6.276	105	54198	11.70	ug/mL	95
30) 2,4-Dichlorophenol	6.385	162	72614	10.56	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.459	180	77569	10.10	ug/mL	96
32) Naphthalene	6.528	128	288740	10.08	ug/mL	98
33) 2,6-Dichlorophenol	6.580	162	76203	10.44	ug/mL	98
34) 4-Chloroaniline	6.574	127	120817	10.93	ug/mL	100
35) Hexachlorobutadiene	6.636	225	38923	10.07	ug/mL	96
36) 4-Chloro-3-methylphenol	6.991	107	83820	10.72	ug/mL	91
37) 2-Methylnaphthalene	7.130	142	194228	10.21	ug/mL	97
38) 1-Methylnaphthalene	7.218	142	180893	10.11	ug/mL	99
39) 1,2,4,5-Tetrachloroben...	7.277	216	75140	10.12	ug/mL	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39640.D
Acq On : 11 Sep 2014 12:19 pm
Operator : williamk
Sample : ic1461-10
Misc : op39525,msr1461,,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 14:55:07 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:48 2014
Response via : Initial Calibration

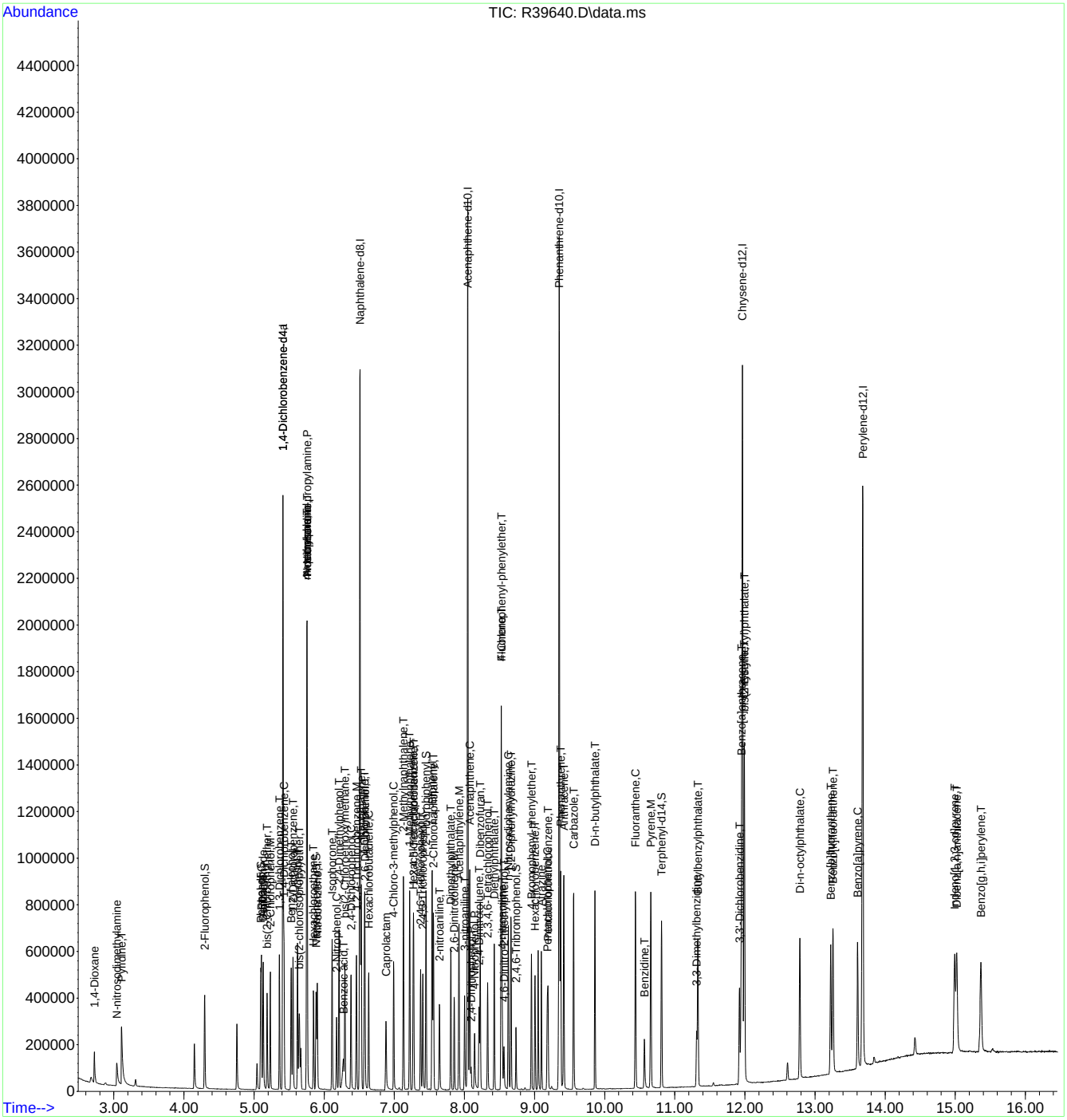
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Caprolactam	6.882	55	53519	10.91 ug/mL#	73
42) Pentachloronitrobenzene	9.191	237	18145	10.89 ug/mL	96
43) Hexachlorocyclopentadiene	7.270	237	35972	10.53 ug/mL	97
44) 2,4,6-Trichlorophenol	7.376	196	48043	10.87 ug/mL	94
45) 2,4,5-Trichlorophenol	7.407	196	53329	10.69 ug/mL	98
47) 2-Chloronaphthalene	7.556	162	162412	10.11 ug/mL	96
48) Acenaphthylene	7.923	152	246680	10.35 ug/mL	98
49) Dimethylphthalate	7.805	163	176316	10.31 ug/mL	100
50) 2,4-Dinitrotoluene	8.209	165	40662	11.73 ug/mL	99
51) Acenaphthene	8.075	153	176597	10.10 ug/mL	95
52) 2,4-Dinitrophenol	8.094	184	9660	9.67 ug/mL	91
53) Dibenzofuran	8.225	168	246809	10.10 ug/mL	96
54) 2,6-Dinitrotoluene	7.855	165	32118	11.12 ug/mL	95
55) 4-Nitrophenol	8.144	65	36832	11.21 ug/mL#	80
56) 2,3,4,6-Tetrachlorophenol	8.330	232	38390	10.95 ug/mL	97
57) Fluorene	8.526	166	200723	10.32 ug/mL	96
58) 4-Chlorophenyl-phenyle...	8.526	204	88401	10.11 ug/mL	97
59) Diethylphthalate	8.427	149	182706	10.41 ug/mL	99
60) 2-nitroaniline	7.646	138	48630	11.23 ug/mL	95
61) 3-nitroaniline	8.004	138	43423	11.68 ug/mL	86
62) 4-nitroaniline	8.538	138	46295	11.38 ug/mL	97
63) 1,1'-Biphenyl	7.541	154	228345	10.18 ug/mL	93
65) 4,6-Dinitro-2-methylph...	8.563	198	16198	11.50 ug/mL	100
66) n-Nitrosodiphenylamine	8.629	169	132610	10.23 ug/mL	98
67) 1,2-Diphenylhydrazine	8.663	77	240837	10.45 ug/mL	97
69) 4-Bromophenyl-phenylether	8.955	248	43102	10.25 ug/mL	87
70) Hexachlorobenzene	9.008	284	43159	10.05 ug/mL	81
71) Pentachlorophenol	9.182	266	28369	10.90 ug/mL	96
72) Phenanthrene	9.375	178	274888	10.00 ug/mL	99
73) Anthracene	9.418	178	274717	10.25 ug/mL	99
74) Carbazole	9.558	167	267933	10.19 ug/mL	97
75) Di-n-butylphthalate	9.863	149	314198	10.69 ug/mL	99
76) Fluoranthene	10.438	202	269461	10.29 ug/mL	81
77) Atrazine	9.098	200	39718	10.58 ug/mL	94
79) Benzidine	10.568	184	75114	11.11 ug/mL	98
80) 3,3-Dimethylbenzidine	11.311	212	67906m	9.19 ug/mL	
81) Pyrene	10.658	202	292293	10.14 ug/mL	83
83) Butylbenzylphthalate	11.330	149	127586	10.81 ug/mL	83
84) 3,3'-Dichlorobenzidine	11.923	252	76969	10.45 ug/mL	95
85) Benzo[a]anthracene	11.951	228	259800	10.15 ug/mL	99
86) Chrysene	11.992	228	256919	10.03 ug/mL	99
87) bis(2-Ethylhexyl)phtha...	11.995	149	181280	11.09 ug/mL	97
89) Di-n-octylphthalate	12.784	149	272134	10.10 ug/mL	100
90) Benzo[b]fluoranthene	13.222	252	218942	10.14 ug/mL	95
91) Benzo[k]fluoranthene	13.257	252	233603	9.91 ug/mL	95
92) Benzo[a]pyrene	13.608	252	207645	10.17 ug/mL	94
93) Indeno[1,2,3-cd]pyrene	14.994	276	247557	10.15 ug/mL	95
94) Dibenz[a,h]anthracene	15.022	278	199235	9.96 ug/mL	89
95) Benzo[g,h,i]perylene	15.367	276	209498	10.26 ug/mL	89
97) Benzaldehyde	5.129	77	2296	1.67 ug/mL	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39640.D
Acq On : 11 Sep 2014 12:19 pm
Operator : williamk
Sample : ic1461-10
Misc : op39525,msr1461,,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 14:55:07 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:48 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Doug Yargeau
09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39641.D
Acq On : 11 Sep 2014 12:43 pm
Operator : williamk
Sample : ic1461-20
Misc : op39525,msr1461,,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 14:23:01 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 12:53:08 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.412	152	276174	40.00	ug/mL	0.00
22) Naphthalene-d8	6.512	136	1092348	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.047	164	633083	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.356	188	1020366	40.00	ug/mL	0.00
78) Chrysene-d12	11.963	240	950309	40.00	ug/mL	0.00
88) Perylene-d12	13.679	264	860224	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.412	152	276174	40.00	ug/mL #	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.296	112	190965	22.98	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 22.98%#			
8) Phenol-d5	5.095	99	255023	23.06	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 23.06%#			
23) Nitrobenzene-d5	5.887	82	222359	21.27	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 42.54%			
46) 2-Fluorobiphenyl	7.454	172	414370	21.18	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 42.36%			
68) 2,4,6-Tribromophenol	8.737	330	41159m	16.67	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 16.67%#			
82) Terphenyl-d14	10.810	244	402638	23.57	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 47.14%			
Target Compounds						Qvalue
3) N-nitrosodimethylamine	3.034	74	128542	31.11	ug/mL	85
4) Pyridine	3.102	79	246775	31.30	ug/mL	77
5) Aniline	5.132	93	333494	25.19	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.185	63	179563	23.54	ug/mL#	72
9) Phenol	5.107	94	283788	23.52	ug/mL	96
10) 2-Chlorophenol	5.231	128	202436	22.52	ug/mL	87
11) 1,3-Dichlorobenzene	5.362	146	209839	21.36	ug/mL	99
12) 1,4-Dichlorobenzene	5.427	146	219172	21.54	ug/mL	96
13) 1,2-Dichlorobenzene	5.555	146	204964	21.28	ug/mL	97
14) Benzyl alcohol	5.530	108	142062	22.69	ug/mL	99
15) bis(2-chloroisopropyl)...	5.645	45	307133	25.02	ug/mL	75
16) o-cresol	5.623	108	200937	22.94	ug/mL	81
17) Acetophenone	5.760	105	311933	22.13	ug/mL	84
18) Hexachloroethane	5.847	117	85093	22.22	ug/mL	81
19) N-Nitroso-di-n-propyla...	5.760	70	159690	23.59	ug/mL	79
20) m+p-cresols	5.757	108	442114	47.37	ug/mL	97
21) 4-methylphenol	5.757	108	442114	47.37	ug/mL	97
24) Nitrobenzene	5.903	77	234567	22.07	ug/mL	88
25) Isophorone	6.117	82	420622	21.90	ug/mL	96
26) 2-Nitrophenol	6.176	139	89719	18.99	ug/mL	87
27) 2,4-Dimethylphenol	6.213	107	209722	20.82	ug/mL	99
28) bis(2-Chloroethoxy)met...	6.297	93	262388	23.81	ug/mL	98
29) Benzoic acid	6.291	105	135687	14.99	ug/mL	94
30) 2,4-Dichlorophenol	6.384	162	157655	19.79	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.459	180	164204	18.90	ug/mL	95
32) Naphthalene	6.530	128	598480	21.77	ug/mL	98
33) 2,6-Dichlorophenol	6.580	162	164330m	19.53	ug/mL	
34) 4-Chloroaniline	6.574	127	257262	22.07	ug/mL	100
35) Hexachlorobutadiene	6.636	225	82798	17.85	ug/mL	97
36) 4-Chloro-3-methylphenol	6.994	107	176115	19.72	ug/mL	94
37) 2-Methylnaphthalene	7.133	142	410826	20.80	ug/mL	99
38) 1-Methylnaphthalene	7.217	142	386663	20.39	ug/mL	97
39) 1,2,4,5-Tetrachloroben...	7.276	216	163968	17.76	ug/mL	98
40) Caprolactam	6.894	55	119264	18.35	ug/mL#	72

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39641.D
Acq On : 11 Sep 2014 12:43 pm
Operator : williamk
Sample : ic1461-20
Misc : op39525,msr1461,,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 14:23:01 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 12:53:08 2014
Response via : Initial Calibration

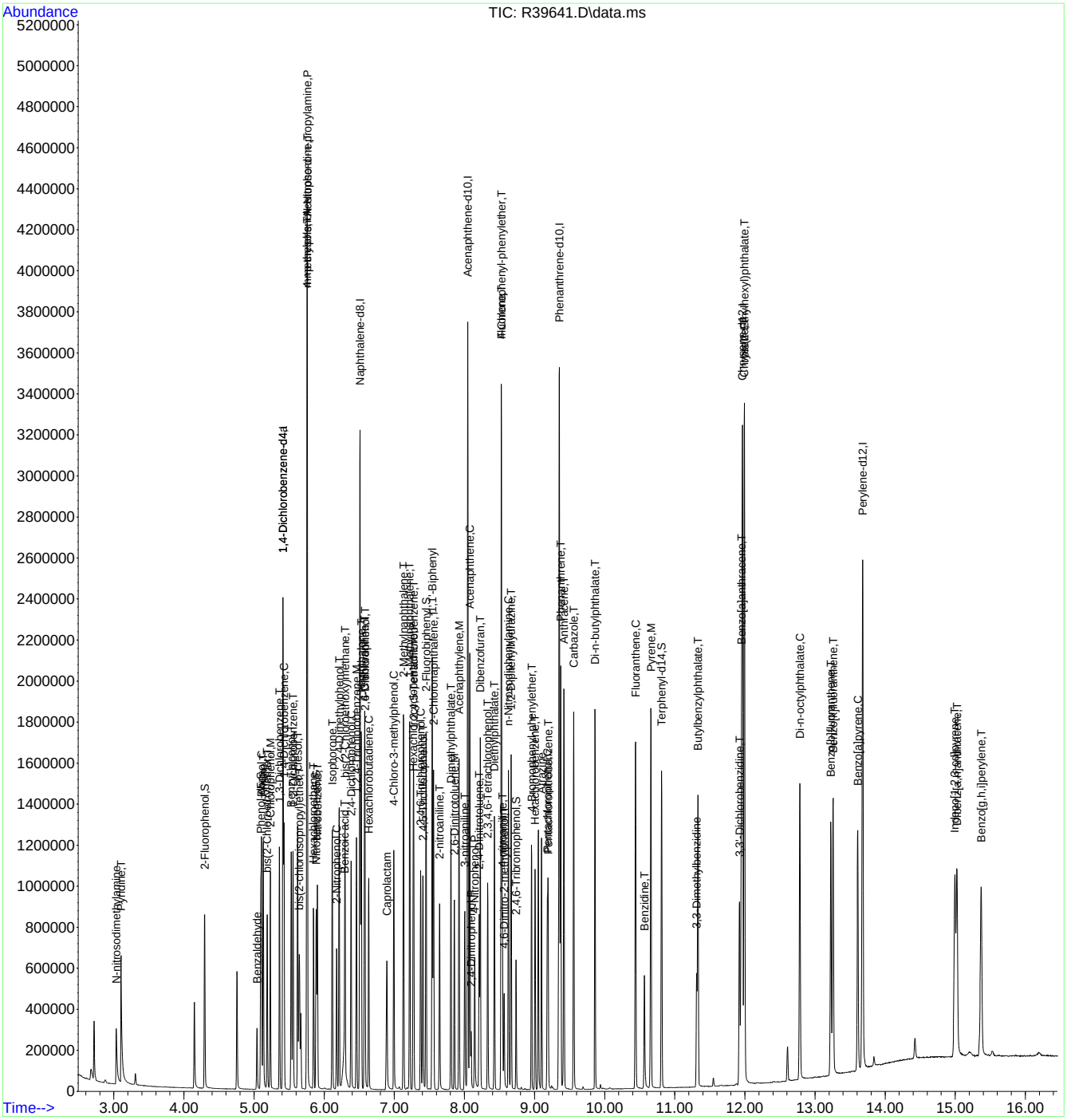
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Pentachloronitrobenzene	9.194	237	42242	14.99	ug/mL	96
43) Hexachlorocyclopentadiene	7.270	237	82945	24.35	ug/mL	99
44) 2,4,6-Trichlorophenol	7.376	196	103741	18.85	ug/mL	98
45) 2,4,5-Trichlorophenol	7.410	196	115128	19.22	ug/mL	98
47) 2-Chloronaphthalene	7.559	162	346989	21.06	ug/mL	96
48) Acenaphthylene	7.923	152	528384	21.56	ug/mL	99
49) Dimethylphthalate	7.808	163	372745	18.90	ug/mL	100
50) 2,4-Dinitrotoluene	8.209	165	93471	15.29	ug/mL	93
51) Acenaphthene	8.075	153	374048	21.48	ug/mL	95
52) 2,4-Dinitrophenol	8.094	184	25759	9.34	ug/mL#	51
53) Dibenzofuran	8.227	168	522196	20.51	ug/mL	95
54) 2,6-Dinitrotoluene	7.858	165	73126	17.27	ug/mL	98
55) 4-Nitrophenol	8.147	65	86603	15.65	ug/mL#	83
56) 2,3,4,6-Tetrachlorophenol	8.330	232	84682	16.24	ug/mL	99
57) Fluorene	8.526	166	431654	21.27	ug/mL	95
58) 4-Chlorophenyl-phenyle...	8.526	204	195337	19.62	ug/mL	97
59) Diethylphthalate	8.426	149	385638	19.19	ug/mL	98
60) 2-nitroaniline	7.646	138	113602	20.47	ug/mL	95
61) 3-nitroaniline	8.007	138	97337	18.97	ug/mL	96
62) 4-nitroaniline	8.541	138	105250	17.03	ug/mL	99
63) 1,1'-Biphenyl	7.541	154	479628	22.11	ug/mL	94
65) 4,6-Dinitro-2-methylph...	8.566	198	40486	12.97	ug/mL	100
66) n-Nitrosodiphenylamine	8.628	169	280863	22.00	ug/mL	98
67) 1,2-Diphenylhydrazine	8.666	77	502542	27.92	ug/mL	97
69) 4-Bromophenyl-phenylether	8.958	248	92387	20.26	ug/mL	92
70) Hexachlorobenzene	9.008	284	93395	18.03	ug/mL	81
71) Pentachlorophenol	9.182	266	67963	14.96	ug/mL	99
72) Phenanthrene	9.374	178	580402	20.90	ug/mL	98
73) Anthracene	9.418	178	588682	20.97	ug/mL	99
74) Carbazole	9.558	167	574895	20.15	ug/mL	97
75) Di-n-butylphthalate	9.862	149	690432	21.43	ug/mL	99
76) Fluoranthene	10.440	202	581107	17.52	ug/mL	84
77) Atrazine	9.101	200	86236	18.17	ug/mL	97
79) Benzidine	10.565	184	182719	18.31	ug/mL	99
80) 3,3-Dimethylbenzidine	11.311	212	158913	14.45	ug/mL	100
81) Pyrene	10.661	202	632715	24.84	ug/mL	85
83) Butylbenzylphthalate	11.329	149	284941	24.56	ug/mL	85
84) 3,3'-Dichlorobenzidine	11.923	252	169952	17.49	ug/mL	96
85) Benzo[a]anthracene	11.951	228	540839	21.20	ug/mL	97
86) Chrysene	11.991	228	556899	21.10	ug/mL	97
87) bis(2-Ethylhexyl)phtha...	11.995	149	420650	25.94	ug/mL	98
89) Di-n-octylphthalate	12.784	149	654873	27.62	ug/mL	100
90) Benzo[b]fluoranthene	13.225	252	480729	21.55	ug/mL	94
91) Benzo[k]fluoranthene	13.259	252	510889	21.23	ug/mL	96
92) Benzo[a]pyrene	13.611	252	457364	19.92	ug/mL	94
93) Indeno[1,2,3-cd]pyrene	14.994	276	541552	15.73	ug/mL	92
94) Dibenz[a,h]anthracene	15.025	278	440477	16.20	ug/mL	90
95) Benzo[g,h,i]perylene	15.370	276	450434	14.14	ug/mL	84
97) Benzaldehyde	5.042	77	49588m	260.57	ug/mL	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39641.D
Acq On : 11 Sep 2014 12:43 pm
Operator : williamk
Sample : ic1461-20
Misc : op39525,msr1461,,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 14:23:01 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 12:53:08 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Doug Yargeau
09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39642.D
Acq On : 11 Sep 2014 1:08 pm
Operator : williamk
Sample : icc1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 15:00:41 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:05:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.411	152	250700	40.00	ug/mL	0.00
22) Naphthalene-d8	6.512	136	970009	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.047	164	560852	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.356	188	923255	40.00	ug/mL	0.00
78) Chrysene-d12	11.970	240	887106	40.00	ug/mL	0.00
88) Perylene-d12	13.682	264	783651	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.411	152	250700	40.00	ug/mL #	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.296	112	458246	58.10	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 58.10%			
8) Phenol-d5	5.101	99	596544	56.27	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 56.27%			
23) Nitrobenzene-d5	5.890	82	529265	58.81	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 117.62%			
46) 2-Fluorobiphenyl	7.453	172	984795	57.60	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 115.20%			
68) 2,4,6-Tribromophenol	8.740	330	106332m	68.86	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 68.86%			
82) Terphenyl-d14	10.813	244	1031394	60.98	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 121.96%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.717	88	204640	54.37	ug/mL#	100
3) N-nitrosodimethylamine	3.034	74	326426	72.41	ug/mL	87
4) Pyridine	3.096	79	600351	62.85	ug/mL	76
5) Aniline	5.135	93	791023	58.97	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.191	63	425074	54.73	ug/mL#	74
9) Phenol	5.113	94	677679	57.38	ug/mL	96
10) 2-Chlorophenol	5.234	128	480528	56.51	ug/mL	88
11) 1,3-Dichlorobenzene	5.365	146	507864	55.03	ug/mL	98
12) 1,4-Dichlorobenzene	5.427	146	526695	55.21	ug/mL	97
13) 1,2-Dichlorobenzene	5.558	146	488001	54.79	ug/mL	99
14) Benzyl alcohol	5.536	108	347629	60.09	ug/mL	97
15) bis(2-chloroisopropyl)...	5.648	45	700979	52.20	ug/mL	76
16) o-cresol	5.626	108	484222	56.58	ug/mL	80
17) Acetophenone	5.763	105	708043	54.99	ug/mL	81
18) Hexachloroethane	5.850	117	209112	56.34	ug/mL	88
19) N-Nitroso-di-n-propyla...	5.766	70	367785	54.96	ug/mL	84
20) m+p-cresols	5.763	108	989229	108.83	ug/mL	98
21) 4-methylphenol	5.763	108	989229	108.83	ug/mL	98
24) Nitrobenzene	5.906	77	556465	58.16	ug/mL	89
25) Isophorone	6.120	82	999515	58.55	ug/mL	96
26) 2-Nitrophenol	6.179	139	231710	70.76	ug/mL	89
27) 2,4-Dimethylphenol	6.216	107	503691	57.18	ug/mL	98
28) bis(2-Chloroethoxy)met...	6.300	93	622517	56.51	ug/mL	99
29) Benzoic acid	6.316	105	379729	87.93	ug/mL	94
30) 2,4-Dichlorophenol	6.387	162	391045	62.70	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.462	180	404544	58.77	ug/mL	96
32) Naphthalene	6.530	128	1399693	54.52	ug/mL	97
33) 2,6-Dichlorophenol	6.583	162	400579	60.70	ug/mL	97
34) 4-Chloroaniline	6.577	127	619784	61.29	ug/mL	100
35) Hexachlorobutadiene	6.636	225	210115	60.71	ug/mL	96
36) 4-Chloro-3-methylphenol	7.000	107	431841	60.65	ug/mL	97
37) 2-Methylnaphthalene	7.133	142	970769	56.77	ug/mL	99
38) 1-Methylnaphthalene	7.220	142	899977	56.08	ug/mL	99
39) 1,2,4,5-Tetrachloroben...	7.279	216	406834	61.08	ug/mL	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39642.D
Acq On : 11 Sep 2014 1:08 pm
Operator : williamk
Sample : icc1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 15:00:41 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:05:12 2014
Response via : Initial Calibration

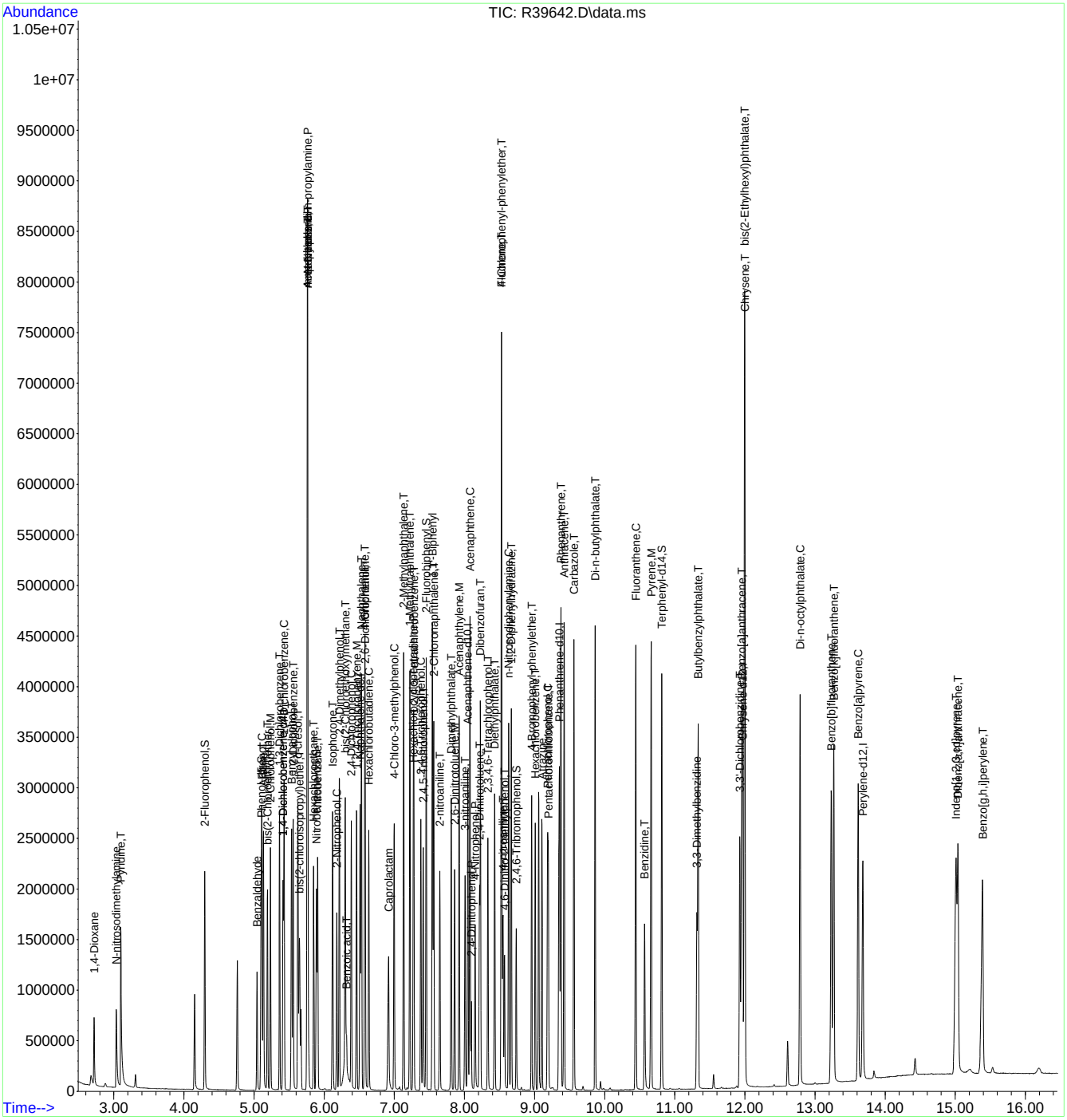
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Caprolactam	6.919	55	290891	64.86 ug/mL#	73
42) Pentachloronitrobenzene	9.197	237	113353	75.01 ug/mL	98
43) Hexachlorocyclopentadiene	7.270	237	222283	72.38 ug/mL	97
44) 2,4,6-Trichlorophenol	7.379	196	266679	66.55 ug/mL	99
45) 2,4,5-Trichlorophenol	7.413	196	295009	65.50 ug/mL	99
47) 2-Chloronaphthalene	7.562	162	847068	59.28 ug/mL	95
48) Acenaphthylene	7.926	152	1276376	59.82 ug/mL	100
49) Dimethylphthalate	7.811	163	918332	60.04 ug/mL	100
50) 2,4-Dinitrotoluene	8.215	165	252543	78.70 ug/mL	99
51) Acenaphthene	8.078	153	884870	56.91 ug/mL	96
52) 2,4-Dinitrophenol	8.097	184	81415	92.88 ug/mL	97
53) Dibenzofuran	8.227	168	1262533	58.08 ug/mL	98
54) 2,6-Dinitrotoluene	7.861	165	194076	73.66 ug/mL	100
55) 4-Nitrophenol	8.153	65	220502	73.41 ug/mL	82
56) 2,3,4,6-Tetrachlorophenol	8.333	232	222308	69.80 ug/mL	98
57) Fluorene	8.529	166	1022329	58.76 ug/mL	96
58) 4-Chlorophenyl-phenyle...	8.529	204	478417	61.48 ug/mL	96
59) Diethylphthalate	8.429	149	950296	60.39 ug/mL	99
60) 2-nitroaniline	7.649	138	300823	75.98 ug/mL	99
61) 3-nitroaniline	8.010	138	250537	72.91 ug/mL	97
62) 4-nitroaniline	8.551	138	269741	72.26 ug/mL	94
63) 1,1'-Biphenyl	7.544	154	1137642	56.90 ug/mL	95
65) 4,6-Dinitro-2-methylph...	8.572	198	119871m	90.72 ug/mL	
66) n-Nitrosodiphenylamine	8.631	169	690920	58.58 ug/mL	98
67) 1,2-Diphenylhydrazine	8.669	77	1190222	56.48 ug/mL	99
69) 4-Bromophenyl-phenylether	8.958	248	239707	62.66 ug/mL	91
70) Hexachlorobenzene	9.011	284	236793	60.87 ug/mL	86
71) Pentachlorophenol	9.185	266	195254	81.11 ug/mL	98
72) Phenanthrene	9.377	178	1405308	56.54 ug/mL	97
73) Anthracene	9.421	178	1437444	58.91 ug/mL	98
74) Carbazole	9.561	167	1410385	59.02 ug/mL	97
75) Di-n-butylphthalate	9.865	149	1759807	65.07 ug/mL	99
76) Fluoranthene	10.443	202	1476039	61.87 ug/mL	84
77) Atrazine	9.107	200	217705	63.22 ug/mL	95
79) Benzidine	10.568	184	537541	42.26 ug/mL	100
80) 3,3-Dimethylbenzidine	11.314	212	520774	78.14 ug/mL	100
81) Pyrene	10.664	202	1581189	58.84 ug/mL	84
83) Butylbenzylphthalate	11.332	149	759464	67.87 ug/mL	88
84) 3,3'-Dichlorobenzidine	11.926	252	481213	69.50 ug/mL	96
85) Benzo[a]anthracene	11.954	228	1360822	57.01 ug/mL	97
86) Chrysene	12.001	228	1422292	59.70 ug/mL	97
87) bis(2-Ethylhexyl)phtha...	11.998	149	1114181	71.40 ug/mL	99
89) Di-n-octylphthalate	12.787	149	1805058	74.78 ug/mL	100
90) Benzo[b]fluoranthene	13.235	252	1233155	63.68 ug/mL	95
91) Benzo[k]fluoranthene	13.269	252	1336908	63.62 ug/mL	96
92) Benzo[a]pyrene	13.617	252	1182666	64.53 ug/mL	93
93) Indeno[1,2,3-cd]pyrene	15.009	276	1404910	64.19 ug/mL	90
94) Dibenz[a,h]anthracene	15.037	278	1165428	65.25 ug/mL	90
95) Benzo[g,h,i]perylene	15.392	276	1151906	62.72 ug/mL	88
97) Benzaldehyde	5.042	77	194256m	218.55 ug/mL	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39642.D
Acq On : 11 Sep 2014 1:08 pm
Operator : williamk
Sample : icc1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 15:00:41 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:05:12 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Doug Yargeau
09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39643.D
Acq On : 11 Sep 2014 1:32 pm
Operator : williamk
Sample : ic1461-80
Misc : op39525,msr1461,,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 14:48:11 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:26:47 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.415	152	332351	40.00	ug/mL	0.00
22) Naphthalene-d8	6.515	136	1303434	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.050	164	761151	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.359	188	1277383	40.00	ug/mL	0.00
78) Chrysene-d12	11.976	240	1184924	40.00	ug/mL	0.01
88) Perylene-d12	13.688	264	1044778	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.415	152	332351	40.00	ug/mL	# 0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.299	112	981928	90.97	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 90.97%			
8) Phenol-d5	5.107	99	1259192	87.40	ug/mL	0.01
Spiked Amount 100.000	Range 30 - 130		Recovery = 87.40%			
23) Nitrobenzene-d5	5.896	82	1142471	91.26	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 182.52%#			
46) 2-Fluorobiphenyl	7.457	172	2035120	85.12	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 170.24%#			
68) 2,4,6-Tribromophenol	8.746	330	246747m	106.97	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 106.97%			
82) Terphenyl-d14	10.820	244	2241556	95.05	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 190.10%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.720	88	425739	83.86	ug/mL#	100
3) N-nitrosodimethylamine	3.043	74	690570	106.04	ug/mL	90
4) Pyridine	3.099	79	1219795	91.62	ug/mL	78
5) Aniline	5.138	93	1618102	87.84	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.194	63	876615	83.56	ug/mL#	74
9) Phenol	5.119	94	1525886	94.66	ug/mL	97
10) 2-Chlorophenol	5.237	128	1026696	88.77	ug/mL	89
11) 1,3-Dichlorobenzene	5.365	146	1052338	84.32	ug/mL	98
12) 1,4-Dichlorobenzene	5.430	146	1084358	83.99	ug/mL	96
13) 1,2-Dichlorobenzene	5.558	146	1016540	84.48	ug/mL	97
14) Benzyl alcohol	5.542	108	743831	93.22	ug/mL	97
15) bis(2-chloroisopropyl)...	5.651	45	1438960	80.12	ug/mL	77
16) o-cresol	5.629	108	1011060	86.83	ug/mL	82
17) Acetophenone	5.769	105	1343680	77.18	ug/mL	84
18) Hexachloroethane	5.850	117	445339	88.27	ug/mL	89
19) N-Nitroso-di-n-propyla...	5.791	70	750839	82.99	ug/mL	82
20) m+p-cresols	5.772	108	1895758	154.60	ug/mL	98
21) 4-methylphenol	5.772	108	1895758	154.60	ug/mL	98
24) Nitrobenzene	5.912	77	1168421	88.00	ug/mL	91
25) Isophorone	6.129	82	2094624	88.30	ug/mL	97
26) 2-Nitrophenol	6.182	139	526753	110.54	ug/mL	90
27) 2,4-Dimethylphenol	6.220	107	1056887	86.79	ug/mL	96
28) bis(2-Chloroethoxy)met...	6.304	93	1294461	85.23	ug/mL	99
29) Benzoic acid	6.350	105	749569m	112.15	ug/mL	
30) 2,4-Dichlorophenol	6.394	162	844746	95.93	ug/mL	97
31) 1,2,4-Trichlorobenzene	6.462	180	876313	91.53	ug/mL	95
32) Naphthalene	6.534	128	2799679	79.72	ug/mL	97
33) 2,6-Dichlorophenol	6.586	162	824766	89.19	ug/mL	98
34) 4-Chloroaniline	6.583	127	1244263	87.61	ug/mL	100
35) Hexachlorobutadiene	6.639	225	462966	95.46	ug/mL	97
36) 4-Chloro-3-methylphenol	7.006	107	921219	92.36	ug/mL	96
37) 2-Methylnaphthalene	7.136	142	1988777	84.27	ug/mL	98
38) 1-Methylnaphthalene	7.224	142	1854535	83.96	ug/mL	100
39) 1,2,4,5-Tetrachloroben...	7.283	216	888012	95.01	ug/mL	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39643.D
Acq On : 11 Sep 2014 1:32 pm
Operator : williamk
Sample : ic1461-80
Misc : op39525,msr1461,,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 14:48:11 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:26:47 2014
Response via : Initial Calibration

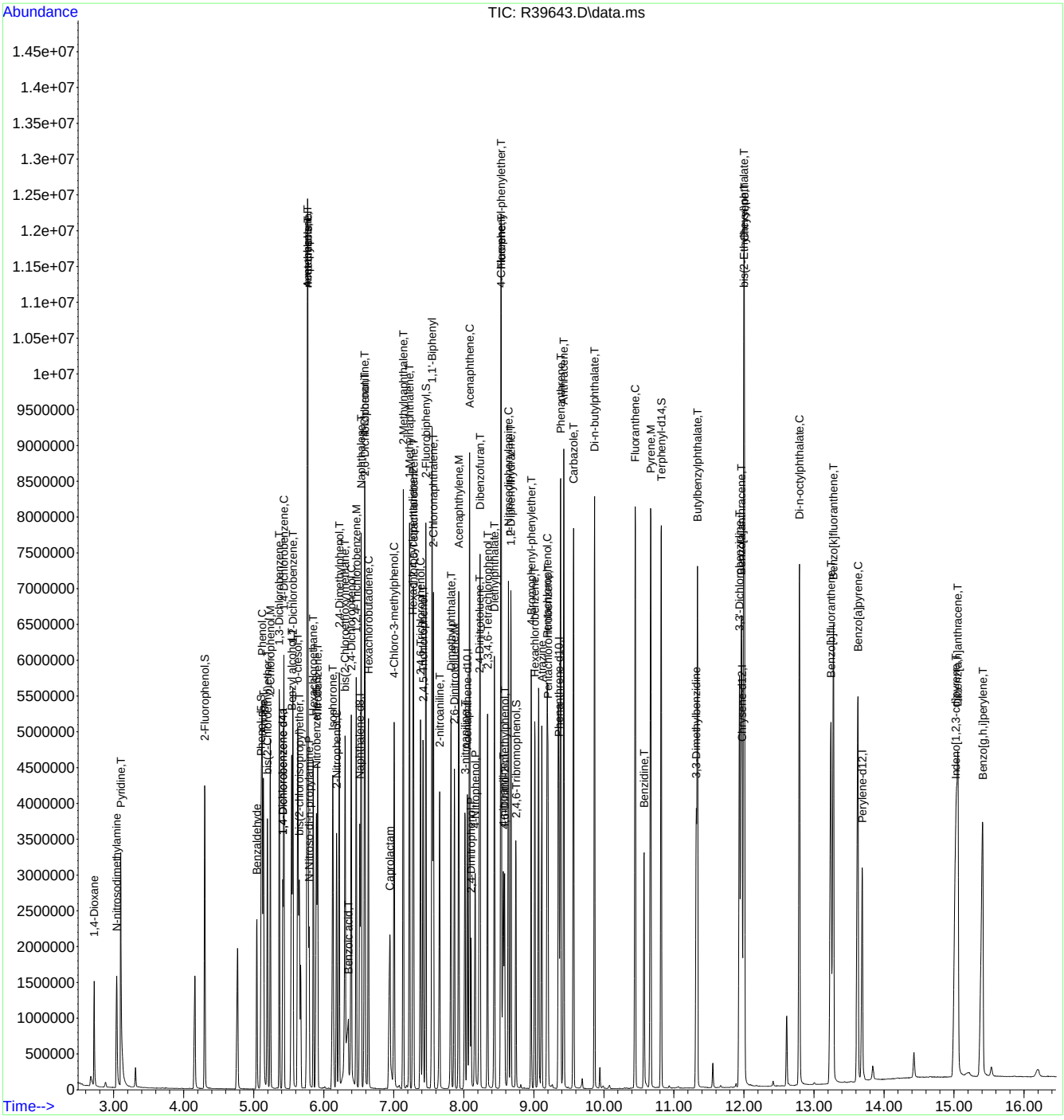
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Caprolactam	6.944	55	619095m	96.96	ug/mL	
42) Pentachloronitrobenzene	9.200	237	262535	116.37	ug/mL	98
43) Hexachlorocyclopentadiene	7.273	237	499398	109.97	ug/mL	98
44) 2,4,6-Trichlorophenol	7.382	196	606156	104.54	ug/mL	98
45) 2,4,5-Trichlorophenol	7.419	196	662037	101.99	ug/mL	99
47) 2-Chloronaphthalene	7.565	162	1784230	88.72	ug/mL	96
48) Acenaphthylene	7.929	152	2618891	87.02	ug/mL	99
49) Dimethylphthalate	7.817	163	1951514	90.38	ug/mL	99
50) 2,4-Dinitrotoluene	8.221	165	586511	120.81	ug/mL	91
51) Acenaphthene	8.081	153	1797003	82.87	ug/mL	94
52) 2,4-Dinitrophenol	8.103	184	213693	147.92	ug/mL#	70
53) Dibenzofuran	8.234	168	2605542	85.55	ug/mL	99
54) 2,6-Dinitrotoluene	7.867	165	440446	112.52	ug/mL	91
55) 4-Nitrophenol	8.162	65	478841	107.40	ug/mL	80
56) 2,3,4,6-Tetrachlorophenol	8.339	232	507450	108.79	ug/mL	99
57) Fluorene	8.535	166	2002795	81.95	ug/mL	97
58) 4-Chlorophenyl-phenyle...	8.532	204	955207	86.48	ug/mL	95
59) Diethylphthalate	8.436	149	2031211	91.31	ug/mL	99
60) 2-nitroaniline	7.656	138	670706	113.07	ug/mL	95
61) 3-nitroaniline	8.019	138	551907	108.41	ug/mL	95
62) 4-nitroaniline	8.563	138	587007	106.39	ug/mL	93
63) 1,1'-Biphenyl	7.547	154	2310361	82.86	ug/mL	98
65) 4,6-Dinitro-2-methylph...	8.582	198	312314	146.10	ug/mL	100
66) n-Nitrosodiphenylamine	8.638	169	1474733	87.37	ug/mL	98
67) 1,2-Diphenylhydrazine	8.672	77	2408594	80.52	ug/mL	100
69) 4-Bromophenyl-phenylether	8.961	248	533532	95.94	ug/mL	92
70) Hexachlorobenzene	9.014	284	537210	95.65	ug/mL	87
71) Pentachlorophenol	9.191	266	462962	123.62	ug/mL	99
72) Phenanthrene	9.384	178	2888365	81.85	ug/mL	97
73) Anthracene	9.427	178	2932747	83.89	ug/mL	98
74) Carbazole	9.567	167	2894280	84.49	ug/mL	96
75) Di-n-butylphthalate	9.869	149	3549061	89.46	ug/mL	98
76) Fluoranthene	10.447	202	3059865	88.50	ug/mL	83
77) Atrazine	9.116	200	471183	93.93	ug/mL	96
79) Benzidine	10.574	184	1121873	68.37	ug/mL	99
80) 3,3-Dimethylbenzidine	11.317	212	1156169	113.85	ug/mL	100
81) Pyrene	10.670	202	3236817	87.10	ug/mL	86
83) Butylbenzylphthalate	11.336	149	1623136	101.35	ug/mL	92
84) 3,3'-Dichlorobenzidine	11.935	252	1108486	111.19	ug/mL	97
85) Benzo[a]anthracene	11.960	228	2914527	88.92	ug/mL	97
86) Chrysene	12.007	228	2916759	88.23	ug/mL	96
87) bis(2-Ethylhexyl)phtha...	12.001	149	2200819	97.26	ug/mL	98
89) Di-n-octylphthalate	12.793	149	3792830	107.23	ug/mL	99
90) Benzo[b]fluoranthene	13.244	252	2706523	99.39	ug/mL	95
91) Benzo[k]fluoranthene	13.278	252	2825108	95.62	ug/mL	96
92) Benzo[a]pyrene	13.629	252	2564389	99.19	ug/mL	94
93) Indeno[1,2,3-cd]pyrene	15.025	276	3080138	99.89	ug/mL	93
94) Dibenz[a,h]anthracene	15.053	278	2588454	102.45	ug/mL	93
95) Benzo[g,h,i]perylene	15.410	276	2482984	96.49	ug/mL	88
97) Benzaldehyde	5.045	77	421168m	193.96	ug/mL	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39643.D
Acq On : 11 Sep 2014 1:32 pm
Operator : williamk
Sample : ic1461-80
Misc : op39525,msr1461,,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 14:48:11 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:26:47 2014
Response via : Initial Calibration



R39644.D

Manual Integrations APPROVED (compounds with "m" flag)

Doug Yargeau 09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39644.D
Acq On : 11 Sep 2014 1:56 pm
Operator : williamk
Sample : ic1461-120
Misc : op39525,msr1461,,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 14:56:26 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:54:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.415	152	287383	40.00	ug/mL	0.00
22) Naphthalene-d8	6.515	136	1131487	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.050	164	659837	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.359	188	1119316	40.00	ug/mL	0.00
78) Chrysene-d12	11.976	240	1056425	40.00	ug/mL	0.01
88) Perylene-d12	13.689	264	937831	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.415	152	287383	40.00	ug/mL #	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.302	112	1280295	134.10	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	134.10%#		
8) Phenol-d5	5.110	99	1629167	128.79	ug/mL	0.02
Spiked Amount 100.000	Range 30 - 130		Recovery =	128.79%		
23) Nitrobenzene-d5	5.900	82	1489365	133.90	ug/mL	0.01
Spiked Amount 50.000	Range 30 - 130		Recovery =	267.80%#		
46) 2-Fluorobiphenyl	7.460	172	2589454	123.61	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	247.22%#		
68) 2,4,6-Tribromophenol	8.747	330	341119m	158.91	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	158.91%#		
82) Terphenyl-d14	10.820	244	2967396	136.84	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	273.68%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.720	88	554966	125.41	ug/mL#	100
3) N-nitrosodimethylamine	3.043	74	905002	152.44	ug/mL	90
4) Pyridine	3.096	79	1586880	134.59	ug/mL	77
5) Aniline	5.141	93	2074060	128.12	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.197	63	1119798	122.54	ug/mL#	76
9) Phenol	5.126	94	1936277	134.80	ug/mL	96
10) 2-Chlorophenol	5.241	128	1329381	130.54	ug/mL	90
11) 1,3-Dichlorobenzene	5.368	146	1332622	122.38	ug/mL	98
12) 1,4-Dichlorobenzene	5.430	146	1378572	122.47	ug/mL	96
13) 1,2-Dichlorobenzene	5.561	146	1294153	123.23	ug/mL	98
14) Benzyl alcohol	5.545	108	958644	135.22	ug/mL	97
15) bis(2-chloroisopropyl)...	5.651	45	1858414	119.64	ug/mL	77
16) o-cresol	5.632	108	1288456	126.17	ug/mL	80
17) Acetophenone	5.772	105	1671761	111.71	ug/mL	86
18) Hexachloroethane	5.850	117	571328	128.74	ug/mL	90
19) N-Nitroso-di-n-propyla...	5.797	70	965088	122.59	ug/mL	85
20) m+p-cresols	5.778	108	2358389	223.68	ug/mL	96
21) 4-methylphenol	5.778	108	2358389	223.68	ug/mL	96
24) Nitrobenzene	5.915	77	1494131	127.51	ug/mL	93
25) Isophorone	6.136	82	2683682	128.10	ug/mL	98
26) 2-Nitrophenol	6.186	139	690505	156.93	ug/mL	91
27) 2,4-Dimethylphenol	6.223	107	1349130	125.85	ug/mL	96
28) bis(2-Chloroethoxy)met...	6.307	93	1635622	122.72	ug/mL	99
29) Benzoic acid	6.369	105	991971m	160.24	ug/mL	
30) 2,4-Dichlorophenol	6.397	162	1078486	136.55	ug/mL	95
31) 1,2,4-Trichlorobenzene	6.465	180	1120660	131.67	ug/mL	96
32) Naphthalene	6.537	128	3502097	114.94	ug/mL	97
33) 2,6-Dichlorophenol	6.590	162	1028328	125.69	ug/mL	98
34) 4-Chloroaniline	6.587	127	1533760	122.47	ug/mL	100
35) Hexachlorobutadiene	6.639	225	599971	138.06	ug/mL	97
36) 4-Chloro-3-methylphenol	7.012	107	1184949	133.41	ug/mL	98
37) 2-Methylnaphthalene	7.140	142	2502583	121.08	ug/mL	99
38) 1-Methylnaphthalene	7.227	142	2330552	120.55	ug/mL	100
39) 1,2,4,5-Tetrachloroben...	7.286	216	1151461	137.62	ug/mL	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39644.D
Acq On : 11 Sep 2014 1:56 pm
Operator : williamk
Sample : ic1461-120
Misc : op39525,msr1461,,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 14:56:26 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:54:35 2014
Response via : Initial Calibration

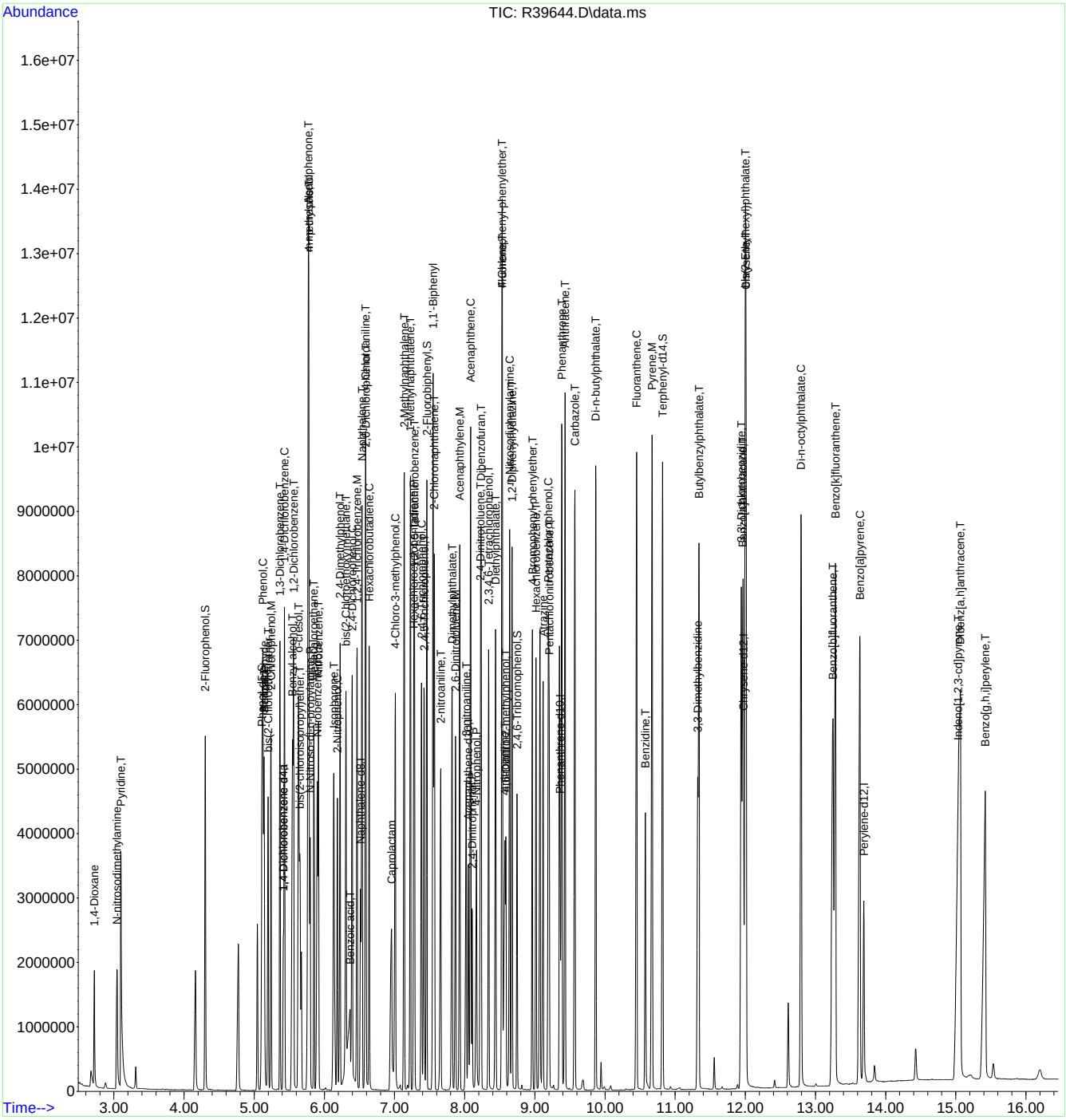
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Caprolactam	6.956	55	796915	138.87 ug/mL#	74
42) Pentachloronitrobenzene	9.204	237	351216	166.93 ug/mL	98
43) Hexachlorocyclopentadiene	7.273	237	642121	153.53 ug/mL	97
44) 2,4,6-Trichlorophenol	7.385	196	797640	150.97 ug/mL	97
45) 2,4,5-Trichlorophenol	7.423	196	864192	146.84 ug/mL	99
47) 2-Chloronaphthalene	7.566	162	2267284	127.72 ug/mL	96
48) Acenaphthylene	7.929	152	3317270	125.32 ug/mL	99
49) Dimethylphthalate	7.820	163	2521292	131.85 ug/mL	99
50) 2,4-Dinitrotoluene	8.224	165	776730	170.09 ug/mL	89
51) Acenaphthene	8.085	153	2266270	119.84 ug/mL	95
52) 2,4-Dinitrophenol	8.109	184	306653	209.32 ug/mL	89
53) Dibenzofuran	8.234	168	3263443	122.19 ug/mL	99
54) 2,6-Dinitrotoluene	7.870	165	588761	162.50 ug/mL	88
55) 4-Nitrophenol	8.169	65	633266	155.00 ug/mL	79
56) 2,3,4,6-Tetrachlorophenol	8.339	232	676461	157.82 ug/mL	100
57) Fluorene	8.535	166	2468675	116.06 ug/mL	96
58) 4-Chlorophenyl-phenyle...	8.532	204	1190785	122.70 ug/mL	95
59) Diethylphthalate	8.439	149	2617754	132.62 ug/mL	99
60) 2-nitroaniline	7.659	138	882324	160.53 ug/mL	95
61) 3-nitroaniline	8.022	138	732352	156.67 ug/mL	96
62) 4-nitroaniline	8.573	138	785732	155.71 ug/mL	90
63) 1,1'-Biphenyl	7.550	154	2884877	118.65 ug/mL	99
65) 4,6-Dinitro-2-methylph...	8.585	198	437016	205.06 ug/mL	100
66) n-Nitrosodiphenylamine	8.641	169	1894100	126.13 ug/mL	97
67) 1,2-Diphenylhydrazine	8.675	77	3007723	114.63 ug/mL	99
69) 4-Bromophenyl-phenylether	8.964	248	719188	142.85 ug/mL	95
70) Hexachlorobenzene	9.017	284	712890	140.28 ug/mL	91
71) Pentachlorophenol	9.191	266	620585	173.36 ug/mL	98
72) Phenanthrene	9.384	178	3682170	118.62 ug/mL	96
73) Anthracene	9.430	178	3725591	120.64 ug/mL	98
74) Carbazole	9.570	167	3702619	122.20 ug/mL	96
75) Di-n-butylphthalate	9.869	149	4420329	124.70 ug/mL	97
76) Fluoranthene	10.450	202	3974408	128.90 ug/mL	86
77) Atrazine	9.120	200	616405	136.27 ug/mL	98
79) Benzidine	10.574	184	1477078	107.83 ug/mL	99
80) 3,3-Dimethylbenzidine	11.320	212	1429673m	145.59 ug/mL	
81) Pyrene	10.671	202	4230351	125.82 ug/mL	87
83) Butylbenzylphthalate	11.339	149	2126299	142.57 ug/mL	93
84) 3,3'-Dichlorobenzidine	11.942	252	1477471	156.08 ug/mL	97
85) Benzo[a]anthracene	11.964	228	3920373	131.71 ug/mL	96
86) Chrysene	12.010	228	3817611	127.35 ug/mL	96
87) bis(2-Ethylhexyl)phtha...	12.001	149	2776673	132.86 ug/mL	98
89) Di-n-octylphthalate	12.793	149	4973740	148.25 ug/mL	99
90) Benzo[b]fluoranthene	13.247	252	3780213	148.65 ug/mL	95
91) Benzo[k]fluoranthene	13.284	252	3720544	135.87 ug/mL	96
92) Benzo[a]pyrene	13.636	252	3496585	144.88 ug/mL	95
93) Indeno[1,2,3-cd]pyrene	15.034	276	4246938	147.33 ug/mL	76
94) Dibenz[a,h]anthracene	15.062	278	3541866	149.19 ug/mL	93
95) Benzo[g,h,i]perylene	15.420	276	3384949	141.68 ug/mL	88
97) Benzaldehyde	5.141	77	21393	8.87 ug/mL#	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39644.D
Acq On : 11 Sep 2014 1:56 pm
Operator : williamk
Sample : ic1461-120
Misc : op39525,msr1461,,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 14:56:26 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:54:35 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Doug Yargeau 09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39645.D
Acq On : 11 Sep 2014 2:21 pm
Operator : williamk
Sample : ic1461-160
Misc : op39525,msr1461,,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 14:55:55 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 14:24:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.415	152	278395	40.00	ug/mL	0.00
22) Naphthalene-d8	6.518	136	1101063	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.053	164	636613	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.359	188	1096324	40.00	ug/mL	0.00
78) Chrysene-d12	11.979	240	1041052	40.00	ug/mL	0.02
88) Perylene-d12	13.688	264	905471	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.415	152	278395	40.00	ug/mL #	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.305	112	1672455	177.85	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	177.85%#		
8) Phenol-d5	5.116	99	2114966	170.81	ug/mL	0.02
Spiked Amount 100.000	Range 30 - 130		Recovery =	170.81%#		
23) Nitrobenzene-d5	5.900	82	1955184	177.70	ug/mL	0.01
Spiked Amount 50.000	Range 30 - 130		Recovery =	355.40%#		
46) 2-Fluorobiphenyl	7.460	172	3342135	164.66	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	329.32%#		
68) 2,4,6-Tribromophenol	8.750	330	462007m	210.89	ug/mL	0.01
Spiked Amount 100.000	Range 30 - 130		Recovery =	210.89%#		
82) Terphenyl-d14	10.823	244	3862767	177.21	ug/mL	0.01
Spiked Amount 50.000	Range 30 - 130		Recovery =	354.42%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.720	88	726916	168.49	ug/mL#	100
3) N-nitrosodimethylamine	3.046	74	1202168	201.26	ug/mL	91
4) Pyridine	3.099	79	2074251	178.50	ug/mL	77
5) Aniline	5.144	93	2630997	166.16	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.197	63	1459219	164.34	ug/mL#	75
9) Phenol	5.129	94	2471946	174.57	ug/mL	88
10) 2-Chlorophenol	5.241	128	1735748	173.76	ug/mL	90
11) 1,3-Dichlorobenzene	5.368	146	1732924	163.81	ug/mL	97
12) 1,4-Dichlorobenzene	5.433	146	1775463	162.35	ug/mL	95
13) 1,2-Dichlorobenzene	5.561	146	1654452	162.00	ug/mL	97
14) Benzyl alcohol	5.548	108	1244582	177.99	ug/mL	96
15) bis(2-chloroisopropyl)...	5.651	45	2337664	155.41	ug/mL	79
16) o-cresol	5.635	108	1707143	171.31	ug/mL	81
17) Acetophenone	5.778	105	2186187	152.30	ug/mL	86
18) Hexachloroethane	5.853	117	742202	170.87	ug/mL	96
19) N-Nitroso-di-n-propyla...	5.803	70	1051586m	137.47	ug/mL	
20) m+p-cresols	5.781	108	3096330	306.12	ug/mL	99
21) 4-methylphenol	5.781	108	3096330	306.12	ug/mL	99
24) Nitrobenzene	5.918	77	1950398	169.53	ug/mL	93
25) Isophorone	6.142	82	3519505	170.99	ug/mL	99
26) 2-Nitrophenol	6.189	139	925510	207.05	ug/mL	93
27) 2,4-Dimethylphenol	6.229	107	1763787	167.91	ug/mL	96
28) bis(2-Chloroethoxy)met...	6.310	93	2133171	163.94	ug/mL	99
29) Benzoic acid	6.381	105	1411734m	223.64	ug/mL	
30) 2,4-Dichlorophenol	6.400	162	1420603	181.27	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.465	180	1459640	173.82	ug/mL	94
32) Naphthalene	6.537	128	4495512	152.54	ug/mL	96
33) 2,6-Dichlorophenol	6.593	162	1328982	165.80	ug/mL	99
34) 4-Chloroaniline	6.586	127	1946206	159.23	ug/mL	100
35) Hexachlorobutadiene	6.639	225	785349	181.80	ug/mL	97
36) 4-Chloro-3-methylphenol	7.018	107	1552779	176.84	ug/mL	98
37) 2-Methylnaphthalene	7.140	142	3197591	158.77	ug/mL	100
38) 1-Methylnaphthalene	7.227	142	3014520	160.13	ug/mL	100
39) 1,2,4,5-Tetrachloroben...	7.286	216	1499045	180.33	ug/mL	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39645.D
Acq On : 11 Sep 2014 2:21 pm
Operator : williamk
Sample : ic1461-160
Misc : op39525,msr1461,,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 14:55:55 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 14:24:04 2014
Response via : Initial Calibration

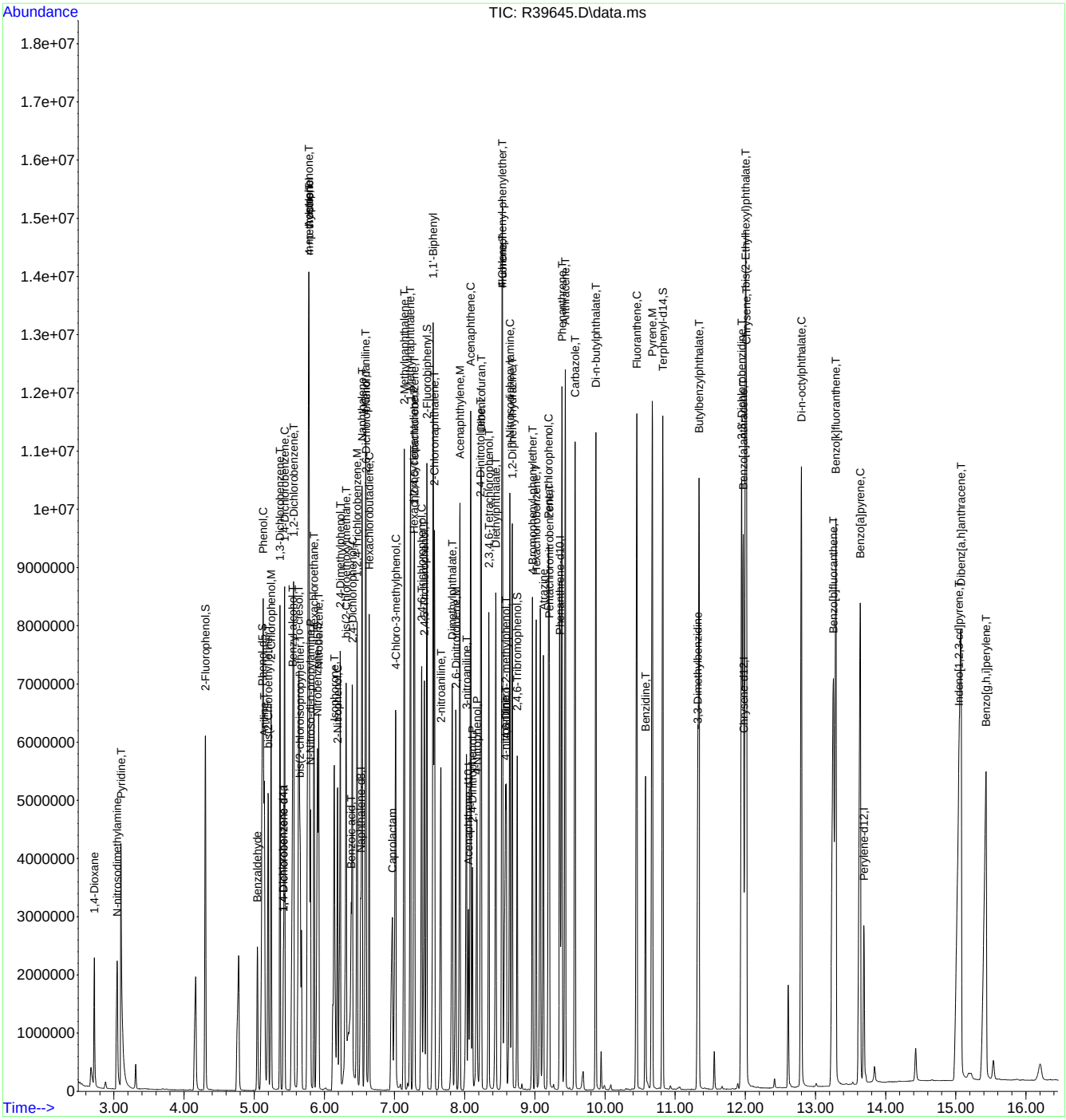
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Caprolactam	6.969	55	957910m	167.77 ug/mL	
42) Pentachloronitrobenzene	9.207	237	450967	210.40 ug/mL	98
43) Hexachlorocyclopentadiene	7.276	237	839716	200.11 ug/mL	97
44) 2,4,6-Trichlorophenol	7.388	196	1056956	199.97 ug/mL	96
45) 2,4,5-Trichlorophenol	7.426	196	1127745	192.47 ug/mL	99
47) 2-Chloronaphthalene	7.569	162	2884763	166.90 ug/mL	96
48) Acenaphthylene	7.932	152	4243637	165.12 ug/mL	98
49) Dimethylphthalate	7.820	163	3296656	176.20 ug/mL	99
50) 2,4-Dinitrotoluene	8.228	165	1009562	216.25 ug/mL	91
51) Acenaphthene	8.085	153	2917523	159.94 ug/mL	96
52) 2,4-Dinitrophenol	8.113	184	436684	274.85 ug/mL	80
53) Dibenzofuran	8.237	168	4130342	159.88 ug/mL	98
54) 2,6-Dinitrotoluene	7.876	165	780257	212.46 ug/mL	83
55) 4-Nitrophenol	8.175	65	835871	203.57 ug/mL	79
56) 2,3,4,6-Tetrachlorophenol	8.343	232	898206	207.84 ug/mL	99
57) Fluorene	8.538	166	3084075	150.99 ug/mL	96
58) 4-Chlorophenyl-phenyle...	8.535	204	1491850	158.82 ug/mL	93
59) Diethylphthalate	8.442	149	3366163	174.15 ug/mL	98
60) 2-nitroaniline	7.662	138	1171066	210.67 ug/mL	93
61) 3-nitroaniline	8.026	138	965980	205.23 ug/mL	96
62) 4-nitroaniline	8.579	138	1041927	205.29 ug/mL	90
63) 1,1'-Biphenyl	7.550	154	3663107	156.40 ug/mL	99
65) 4,6-Dinitro-2-methylph...	8.591	198	617300	268.54 ug/mL	100
66) n-Nitrosodiphenylamine	8.644	169	2439544	164.65 ug/mL	98
67) 1,2-Diphenylhydrazine	8.678	77	3788454	148.36 ug/mL	98
69) 4-Bromophenyl-phenylether	8.967	248	952465	188.04 ug/mL	95
70) Hexachlorobenzene	9.020	284	954972	187.34 ug/mL	95
71) Pentachlorophenol	9.194	266	833690	223.57 ug/mL	99
72) Phenanthrene	9.387	178	4696613	154.73 ug/mL	96
73) Anthracene	9.433	178	4736162	156.46 ug/mL	97
74) Carbazole	9.573	167	4749400	159.62 ug/mL	95
75) Di-n-butylphthalate	9.872	149	5530390	158.40 ug/mL	97
76) Fluoranthene	10.453	202	5135693	168.27 ug/mL	88
77) Atrazine	9.123	200	808728	179.07 ug/mL	98
79) Benzidine	10.577	184	1895280	150.69 ug/mL	99
80) 3,3-Dimethylbenzidine	11.320	212	1777391m	176.73 ug/mL	
81) Pyrene	10.674	202	5444553	163.19 ug/mL	88
83) Butylbenzylphthalate	11.339	149	2714101	179.84 ug/mL	92
84) 3,3'-Dichlorobenzidine	11.945	252	1929057	198.28 ug/mL	97
85) Benzo[a]anthracene	11.970	228	5152617	173.25 ug/mL	96
86) Chrysene	12.016	228	4946064	165.98 ug/mL	95
87) bis(2-Ethylhexyl)phtha...	12.004	149	3532506	168.94 ug/mL	96
89) Di-n-octylphthalate	12.800	149	6347429	189.58 ug/mL	99
90) Benzo[b]fluoranthene	13.256	252	5216535	205.45 ug/mL	95
91) Benzo[k]fluoranthene	13.291	252	4696056m	174.33 ug/mL	
92) Benzo[a]pyrene	13.639	252	4651332	193.87 ug/mL	95
93) Indeno[1,2,3-cd]pyrene	15.044	276	5681652	197.72 ug/mL	92
94) Dibenz[a,h]anthracene	15.075	278	4672357	197.00 ug/mL	95
95) Benzo[g,h,i]perylene	15.432	276	4480969	189.37 ug/mL	90
97) Benzaldehyde	5.045	77	517845m	262.02 ug/mL	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39645.D
Acq On : 11 Sep 2014 2:21 pm
Operator : williamk
Sample : ic1461-160
Misc : op39525,msr1461,,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 14:55:55 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 14:24:04 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Doug Yargeau 09/26/14 13:04

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39648a.D
Acq On : 11 Sep 2014 3:39 pm
Operator : williamk
Sample : icv1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 24 09:14:33 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Sep 24 09:08:51 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.415	152	353545	40.00	ug/mL	0.00
22) Naphthalene-d8	6.512	136	1384460	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.050	164	807070m	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.356	188	1294610m	40.00	ug/mL	0.00
78) Chrysene-d12	11.973	240	1281438	40.00	ug/mL	0.00
88) Perylene-d12	13.685	264	1135179	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.415	152	353545	40.00	ug/mL	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.299	112	651926	53.84	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 53.84%			
8) Phenol-d5	5.101	99	806970	50.89	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 50.89%			
23) Nitrobenzene-d5	5.890	82	731311	52.14	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 104.28%			
46) 2-Fluorobiphenyl	7.454	172	1315939m	50.96	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 101.92%			
68) 2,4,6-Tribromophenol	8.740	330	153547	54.37	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 54.37%			
82) Terphenyl-d14	10.817	244	1389830	51.11	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 102.22%			
Target Compounds						Qvalue
3) N-nitrosodimethylamine	3.046	74	433153	51.32	ug/mL	91
4) Pyridine	3.102	79	781198	52.18	ug/mL	76
5) Aniline	5.135	93	905638	44.82	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.191	63	558952	49.40	ug/mL#	75
9) Phenol	5.113	94	885376	48.68	ug/mL	97
10) 2-Chlorophenol	5.234	128	636459	49.64	ug/mL	90
11) 1,3-Dichlorobenzene	5.365	146	694865	51.57	ug/mL	99
12) 1,4-Dichlorobenzene	5.427	146	703033	50.53	ug/mL	96
13) 1,2-Dichlorobenzene	5.558	146	659874	50.80	ug/mL	99
14) Benzyl alcohol	5.536	108	452332	50.23	ug/mL	99
15) bis(2-chloroisopropyl)...	5.651	45	1136947m	59.73	ug/mL	
16) o-cresol	5.626	108	621880	48.71	ug/mL	80
17) Acetophenone	5.763	105	888823	49.05	ug/mL	81
18) Hexachloroethane	5.850	117	279581	50.26	ug/mL	92
19) N-Nitroso-di-n-propyla...	5.769	70	496924	52.07	ug/mL	87
20) m+p-cresols	5.763	108	1239031	96.98	ug/mL	100
21) 4-methylphenol	5.763	108	1239031	96.98	ug/mL	100
24) Nitrobenzene	5.909	77	732495	50.26	ug/mL	93
25) Isophorone	6.123	82	1217512	46.64	ug/mL	96
26) 2-Nitrophenol	6.179	139	317969	49.47	ug/mL	89
27) 2,4-Dimethylphenol	6.217	107	652152	49.07	ug/mL	98
28) bis(2-Chloroethoxy)met...	6.301	93	799355	48.71	ug/mL	98
29) Benzoic acid	6.329	105	489656	51.08	ug/mL	91
30) 2,4-Dichlorophenol	6.388	162	523159	52.22	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.462	180	541720	50.76	ug/mL	96
32) Naphthalene	6.531	128	1826494	49.58	ug/mL	97
33) 2,6-Dichlorophenol	6.583	162	517227	51.09	ug/mL	98
34) 4-Chloroaniline	6.577	127	666495	43.39	ug/mL	100
35) Hexachlorobutadiene	6.636	225	290085	52.51	ug/mL	99
36) 4-Chloro-3-methylphenol	7.000	107	556789	49.77	ug/mL	97
37) 2-Methylnaphthalene	7.134	142	1251411	49.47	ug/mL	99
38) 1-Methylnaphthalene	7.221	142	1193065	50.40	ug/mL	99
39) 1,2,4,5-Tetrachloroben...	7.280	216	547893	51.60	ug/mL	97
40) Caprolactam	6.922	55	389450	53.93	ug/mL#	73

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39648a.D
Acq On : 11 Sep 2014 3:39 pm
Operator : williamk
Sample : icv1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 24 09:14:33 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Sep 24 09:08:51 2014
Response via : Initial Calibration

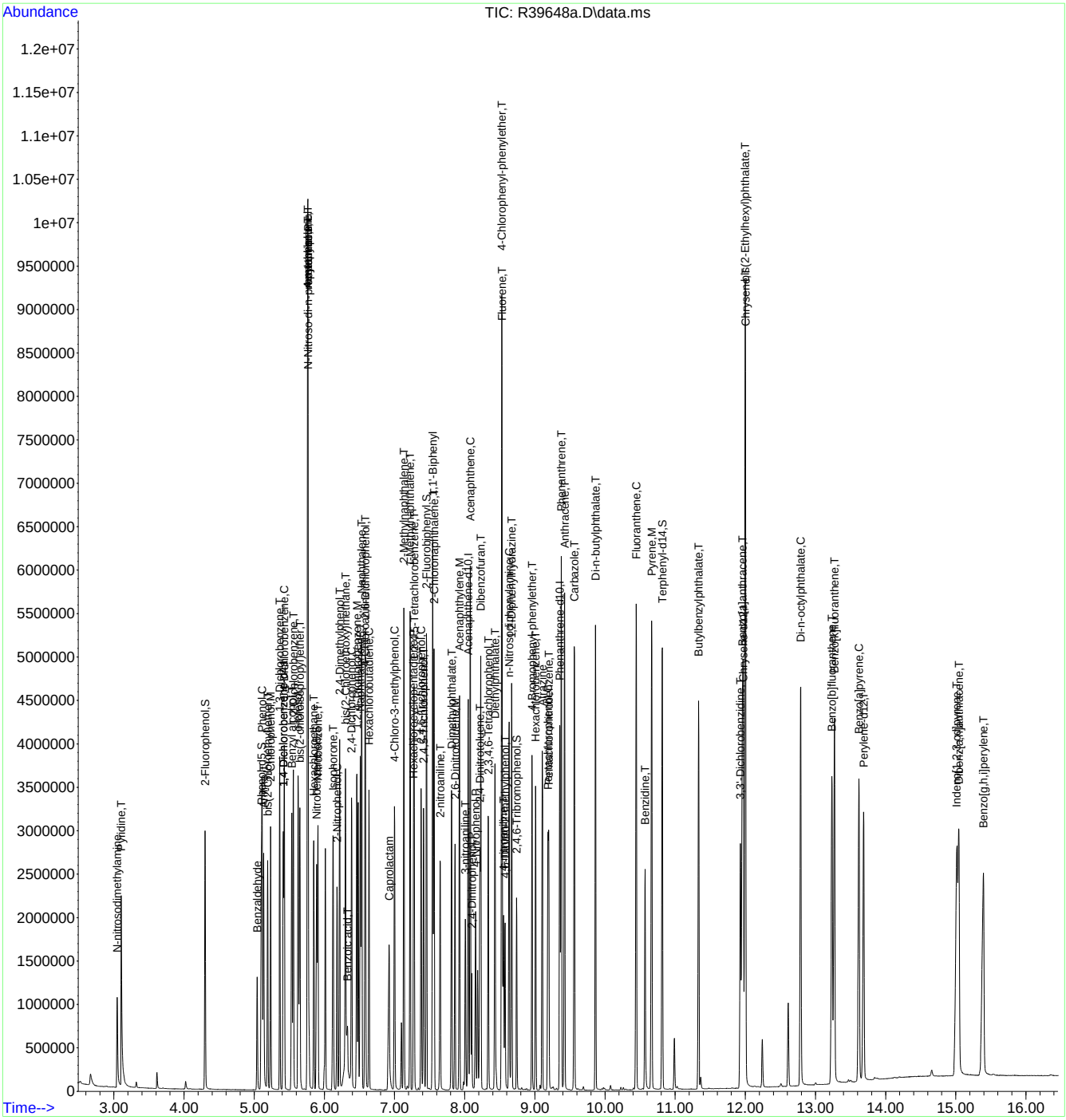
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) Pentachloronitrobenzene	9.197	237	153740m	48.80 ug/mL	
43) Hexachlorocyclopentadiene	7.270	237	247158	43.05 ug/mL	98
44) 2,4,6-Trichlorophenol	7.379	196	359753m	52.06 ug/mL	
45) 2,4,5-Trichlorophenol	7.413	196	387183m	50.83 ug/mL	
47) 2-Chloronaphthalene	7.562	162	1191687m	54.09 ug/mL	
48) Acenaphthylene	7.926	152	1590694m	48.63 ug/mL	
49) Dimethylphthalate	7.814	163	1218478m	50.73 ug/mL	
50) 2,4-Dinitrotoluene	8.215	165	360232m	51.34 ug/mL	
51) Acenaphthene	8.078	153	1169440m	50.57 ug/mL	
52) 2,4-Dinitrophenol	8.100	184	125628m	54.33 ug/mL	
53) Dibenzofuran	8.231	168	1624507m	49.61 ug/mL	
54) 2,6-Dinitrotoluene	7.864	165	263933m	48.93 ug/mL	
55) 4-Nitrophenol	8.156	65	302576m	53.03 ug/mL	
56) 2,3,4,6-Tetrachlorophenol	8.336	232	295543m	49.67 ug/mL	
57) Fluorene	8.532	166	1346083m	52.35 ug/mL	
58) 4-Chlorophenyl-phenyle...	8.529	204	607295m	51.05 ug/mL	
59) Diethylphthalate	8.433	149	1270369m	51.28 ug/mL	
60) 2-nitroaniline	7.653	138	405557m	49.39 ug/mL	
61) 3-nitroaniline	8.010	138	245726m	35.62 ug/mL	
62) 4-nitroaniline	8.554	138	336078m	45.40 ug/mL	
63) 1,1'-Biphenyl	7.544	154	1465400m	49.49 ug/mL	
65) 4,6-Dinitro-2-methylph...	8.576	198	188971m	56.11 ug/mL	
66) n-Nitrosodiphenylamine	8.635	169	843589	48.04 ug/mL	98
67) 1,2-Diphenylhydrazine	8.669	77	1599108m	53.52 ug/mL	
69) 4-Bromophenyl-phenylether	8.958	248	323268	52.89 ug/mL	90
70) Hexachlorobenzene	9.011	284	326677	53.13 ug/mL	86
71) Pentachlorophenol	9.185	266	240489	45.98 ug/mL	99
72) Phenanthrene	9.378	178	1831708	51.31 ug/mL	97
73) Anthracene	9.424	178	1812628m	50.85 ug/mL	
74) Carbazole	9.561	167	1800406m	51.26 ug/mL	
75) Di-n-butylphthalate	9.866	149	2179653	52.93 ug/mL	98
76) Fluoranthene	10.444	202	1947376	53.69 ug/mL	83
77) Atrazine	9.107	200	330145	61.00 ug/mL	97
79) Benzidine	10.571	184	806067	55.00 ug/mL	99
81) Pyrene	10.664	202	2003386	48.66 ug/mL	83
83) Butylbenzylphthalate	11.333	149	970676	51.46 ug/mL	89
84) 3,3'-Dichlorobenzidine	11.929	252	546637	42.52 ug/mL	98
85) Benzo[a]anthracene	11.957	228	1865974	50.45 ug/mL	97
86) Chrysene	12.004	228	1790841	48.60 ug/mL	98
87) bis(2-Ethylhexyl)phtha...	11.998	149	1412402	54.49 ug/mL	99
89) Di-n-octylphthalate	12.790	149	2307035	51.35 ug/mL	100
90) Benzo[b]fluoranthene	13.235	252	1661413	50.40 ug/mL	93
91) Benzo[k]fluoranthene	13.272	252	1697541	49.70 ug/mL	96
92) Benzo[a]pyrene	13.620	252	1533121	49.66 ug/mL	92
93) Indeno[1,2,3-cd]pyrene	15.013	276	1857671	50.09 ug/mL	92
94) Dibenz[a,h]anthracene	15.044	278	1549046	50.63 ug/mL	91
95) Benzo[g,h,i]perylene	15.395	276	1503188	49.53 ug/mL	87
97) Benzaldehyde	5.042	77	216974	40.71 ug/mL#	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39648a.D
Acq On : 11 Sep 2014 3:39 pm
Operator : williamk
Sample : icv1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 24 09:14:33 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Sep 24 09:08:51 2014
Response via : Initial Calibration



Manual Integrations APPROVED
(compounds with "m" flag)
Sona Liskova
10/08/14 12:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40200.D
Acq On : 8 Oct 2014 7:58 am
Operator : williamk
Sample : cc1461-50
Misc : op39867,msr1479,,,,1,1
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Oct 08 08:51:14 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.337	152	346943	40.00	ug/mL	0.00
22) Naphthalene-d8	5.437	136	1284158	40.00	ug/mL	0.00
41) Acenaphthene-d10	6.948	164	759375	40.00	ug/mL	0.00
64) Phenanthrene-d10	8.228	188	1259154	40.00	ug/mL	0.00
78) Chrysene-d12	10.565	240	1290850	40.00	ug/mL	0.00
88) Perylene-d12	12.060	264	1152463	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	4.337	152	346943	40.00	ug/mL	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.174	112	604202	50.85	ug/mL	-0.01
Spiked Amount 100.000	Range 30 - 130		Recovery = 50.85%			
8) Phenol-d5	4.082	99	733980	47.17	ug/mL	-0.01
Spiked Amount 100.000	Range 30 - 130		Recovery = 47.17%			
23) Nitrobenzene-d5	4.828	82	701364	53.91	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 107.82%			
46) 2-Fluorobiphenyl	6.388	172	1328948	54.69	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 109.38%			
68) 2,4,6-Tribromophenol	7.634	330	190379m	69.31	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 69.31%			
82) Terphenyl-d14	9.636	244	1506545	55.00	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 110.00%			
Target Compounds						Qvalue
3) N-nitrosodimethylamine	1.611	74	383803	46.34	ug/mL	89
4) Pyridine	1.623	79	682347	46.45	ug/mL	84
5) Aniline	4.057	93	857058	43.22	ug/mL#	1
7) bis(2-Chloroethyl)ether	4.141	63	516618m	46.53	ug/mL	
9) Phenol	4.094	94	797228	44.67	ug/mL	99
10) 2-Chlorophenol	4.156	128	645500	51.30	ug/mL	95
11) 1,3-Dichlorobenzene	4.281	146	685197	51.82	ug/mL	99
12) 1,4-Dichlorobenzene	4.352	146	704878	51.62	ug/mL	98
13) 1,2-Dichlorobenzene	4.477	146	662551	51.98	ug/mL	99
14) Benzyl alcohol	4.489	108	428660	48.51	ug/mL	99
15) bis(2-chloroisopropyl)...	4.604	45	750040m	40.15	ug/mL	
16) o-cresol	4.610	108	605932	48.36	ug/mL	81
17) Acetophenone	4.710	105	877142	49.33	ug/mL	97
18) Hexachloroethane	4.763	117	285557	52.31	ug/mL	99
19) N-Nitroso-di-n-propyla...	4.728	70	427650	45.66	ug/mL	90
20) m+p-cresols	4.756	108	1204922	96.11	ug/mL	95
21) 4-methylphenol	4.756	108	1204922	96.11	ug/mL	95
24) Nitrobenzene	4.846	77	680790	50.36	ug/mL	95
25) Isophorone	5.067	82	1206258	49.82	ug/mL	98
26) 2-Nitrophenol	5.120	139	357278	59.93	ug/mL	96
27) 2,4-Dimethylphenol	5.198	107	629132	51.04	ug/mL	95
28) bis(2-Chloroethoxy)met...	5.272	93	742704	48.79	ug/mL	98
29) Benzoic acid	5.353	105	488735m	54.97	ug/mL	
30) 2,4-Dichlorophenol	5.338	162	553286	59.54	ug/mL	98
31) 1,2,4-Trichlorobenzene	5.397	180	592880	59.89	ug/mL	97
32) Naphthalene	5.456	128	1736142	50.81	ug/mL	98
33) 2,6-Dichlorophenol	5.530	162	540111	57.52	ug/mL	98
34) 4-Chloroaniline	5.527	127	757918	53.20	ug/mL	100
35) Hexachlorobutadiene	5.574	225	352283	68.75	ug/mL	97
36) 4-Chloro-3-methylphenol	5.981	107	564032	54.36	ug/mL	98
37) 2-Methylnaphthalene	6.059	142	1232478	52.52	ug/mL	98
38) 1-Methylnaphthalene	6.139	142	1141101	51.97	ug/mL	99
39) 1,2,4,5-Tetrachloroben...	6.205	216	622074	63.16	ug/mL	98
40) Caprolactam	5.875	55	330120m	49.29	ug/mL	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40200.D
Acq On : 8 Oct 2014 7:58 am
Operator : williamk
Sample : cc1461-50
Misc : op39867,msr1479,,,,1,1
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Oct 08 08:51:14 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration

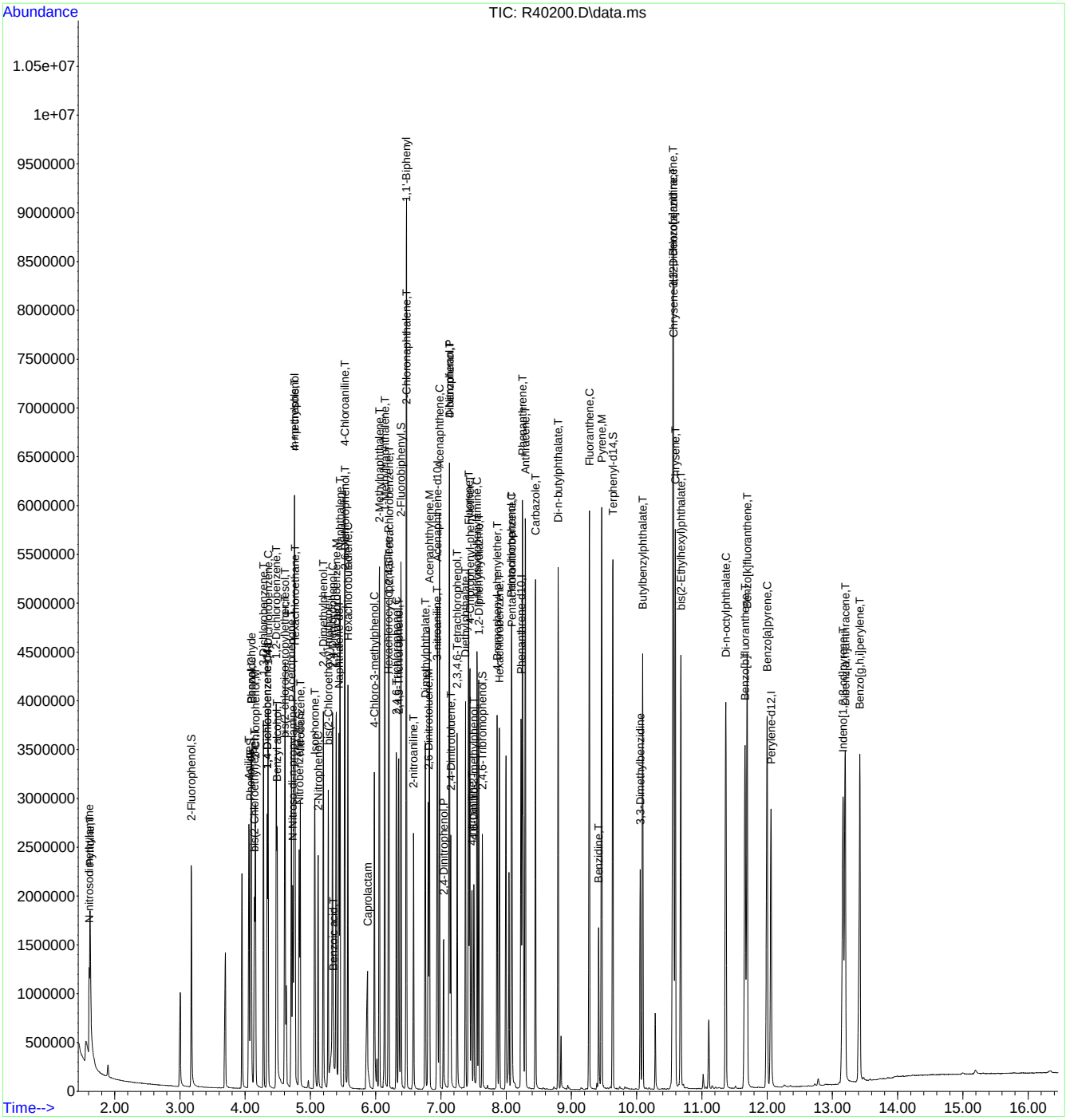
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) Pentachloronitrobenzene	8.088	237	187072	63.11 ug/mL	98
43) Hexachlorocyclopentadiene	6.195	237	334416	61.91 ug/mL	99
44) 2,4,6-Trichlorophenol	6.320	196	409359	62.96 ug/mL	97
45) 2,4,5-Trichlorophenol	6.354	196	457539	63.84 ug/mL	99
47) 2-Chloronaphthalene	6.475	162	1099790	53.06 ug/mL	96
48) Acenaphthylene	6.823	152	1673194	54.36 ug/mL	100
49) Dimethylphthalate	6.761	163	1261630	55.82 ug/mL	100
50) 2,4-Dinitrotoluene	7.153	165	377289	57.15 ug/mL	87
51) Acenaphthene	6.979	153	1132135	52.03 ug/mL	95
52) 2,4-Dinitrophenol	7.041	184	156539m	67.18 ug/mL	
53) Dibenzofuran	7.131	168	1664532	54.02 ug/mL	85
54) 2,6-Dinitrotoluene	6.808	165	292898	57.71 ug/mL	80
55) 4-Nitrophenol	7.131	65	277896	51.76 ug/mL#	1
56) 2,3,4,6-Tetrachlorophenol	7.249	232	363687	64.96 ug/mL	97
57) Fluorene	7.426	166	1295454	53.55 ug/mL	97
58) 4-Chlorophenyl-phenyle...	7.445	204	663321	59.26 ug/mL	93
59) Diethylphthalate	7.376	149	1297090	55.64 ug/mL	99
60) 2-nitroaniline	6.581	138	422238	54.65 ug/mL	91
61) 3-nitroaniline	6.941	138	351847	54.21 ug/mL	87
62) 4-nitroaniline	7.476	138	345470	49.60 ug/mL	80
63) 1,1'-Biphenyl	6.469	154	1433483	51.46 ug/mL	98
65) 4,6-Dinitro-2-methylph...	7.504	198	234126	68.11 ug/mL	100
66) n-Nitrosodiphenylamine	7.554	169	917813	53.74 ug/mL	99
67) 1,2-Diphenylhydrazine	7.582	77	1345588	46.30 ug/mL	98
69) 4-Bromophenyl-phenylether	7.861	248	377503	63.50 ug/mL	99
70) Hexachlorobenzene	7.895	284	403303	67.44 ug/mL	95
71) Pentachlorophenol	8.082	266	327917	64.46 ug/mL	98
72) Phenanthrene	8.250	178	1842395	53.07 ug/mL	97
73) Anthracene	8.293	178	1880851	54.25 ug/mL	99
74) Carbazole	8.452	167	1789877	52.39 ug/mL	98
75) Di-n-butylphthalate	8.797	149	2269053	56.66 ug/mL	99
76) Fluoranthene	9.275	202	2007529	56.90 ug/mL	95
79) Benzidine	9.418	184	566102m	38.83 ug/mL	
80) 3,3-Dimethylbenzidine	10.056	212	692643	52.27 ug/mL	100
81) Pyrene	9.465	202	2154689	51.96 ug/mL	96
83) Butylbenzylphthalate	10.093	149	997530	52.49 ug/mL	98
84) 3,3'-Dichlorobenzidine	10.562	252	788794m	60.92 ug/mL	
85) Benzo[a]anthracene	10.556	228	1930325	51.81 ug/mL	98
86) Chrysene	10.593	228	1894794	51.04 ug/mL	97
87) bis(2-Ethylhexyl)phtha...	10.677	149	1411475	54.06 ug/mL	98
89) Di-n-octylphthalate	11.367	149	2469928	54.15 ug/mL	100
90) Benzo[b]fluoranthene	11.663	252	1823046	54.48 ug/mL	98
91) Benzo[k]fluoranthene	11.694	252	1891333	54.54 ug/mL	100
92) Benzo[a]pyrene	12.001	252	1727633	55.12 ug/mL	98
93) Indeno[1,2,3-cd]pyrene	13.164	276	1702659	45.22 ug/mL	91
94) Dibenz[a,h]anthracene	13.198	278	1727944	55.63 ug/mL	97
95) Benzo[g,h,i]perylene	13.422	276	1744268	56.62 ug/mL	97
97) Benzaldehyde	4.094	77	8734	9.97 ug/mL	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141008\
Data File : R40200.D
Acq On : 8 Oct 2014 7:58 am
Operator : williamk
Sample : cc1461-50
Misc : op39867,msr1479,,,,1,1
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Oct 08 08:51:14 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Oct 08 08:40:34 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES MC33933

Accutest Laboratories of New England, Inc.

Instrument: GCMS R

GCMS Analysis Log - Extractables

Run Date: 9/11/14

Analyst Signature: WK

Standard Data

Lot#	Description	Conc
MSR1397	AB3270 Calib. Std.	80 ng/mL
MSR1346	AB3270 Intl. Std.	50
MSR1810	AB3270 Surr. Std.	50
MSR1809	DFTPP	4000

Column Information: Front 5B-5MS

Rear N/A

Sequence File: R114911.S

Quantitation Methods: DFTPP.M

R114911_3270.M

Instrument Run Batches: MSR1461

Inj. Vol:

Data Acquisition Methods: R3270BASE.M Inj. Vol: 1µL

ICAL verified:

Sequence verified: WK 9/12/14

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Mult.	Comments
99	R396 30-633	~~BLANK~~	N/A		N/A	N/A	N/A	DFTPP WK 9/12
100	R396 32-633	CL TUNE						
99	R39634	~~BLANK~~						DFTPP WK 9/12
100	R39635-636	CL TUNE						
99	R39637	DFTPP	MSR1397		N/A	N/A	N/A	
1	638	IC 1461-2						
2	639	-5						
3	640	-10						
4	641	-20						
5	642	ICC 1461-50						
6	643	IC 1461-80						
7	644	-120						
8	645	-160						
9	646	ICV 1460-50						
10	647	-50						
10	648	-50						
11	649	OP39761-MB	OP39761		Soil	N/A	N/A	
12	650	-BS						
13	651	MC39426-4						
14	652	-5						
15	653	-6						
16	654	-7						
17	655	MC39360-17						
18	656	OP39760-MB	OP39760		AQ			
19	657	-BS						
20	658	-MS						
21	659	-MSD						
22	660	MC39280-17						
23	661	MC39421-1						
24	662	-2						AR@50X
								WK 9/12/14

1S002-04

Date: 8/29/06 Dilution Solvent: B+J RLM Lot: DL130 **Review:**

ACCUTEST LABORATORIES MC33933

Accutest Laboratories of New England, Inc.

Instrument: GCMS R

GCMS Analysis Log - Extractables

Run Date: 10/8/14

Analyst Signature: WK

Standard Data

Lot #	Description	Conc
MSR1397	DFTPP	50ng/mL
MSR1809	AB8270 Cal. Std.	50 ↓
MSR1447	AB8270 Int. Std.	40ng ↓

Column Information: Front ZB-5MS

Rear N/A

Sequence File: R140108.S

Quantitation Methods: DFTPP.M

R140911-8270.M

Instrument Run Batches: MSR1479

Data Acquisition Methods: R8270BASE.M Inj. Vol: 1µL

Inj. Vol:

ICAL verified:

Sequence verified: WK 10/8/14

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Mult.	Comments
98 X	R140198	BLANK	N/A		N/A	N/A	N/A	
99 X	199	DFTPP	↓		↓	↓	↓	
100 X	200	CC14W1-50						
100 X	201	CC14W1-120	↓		↓			
1 X	202	OP40095-MB	OP40095		SOIL			
2 X	203	↓ -BS	↓					
3 X	204	MC34112-1						
4 X	205	↓ -2						
5 X	206	MC34016-1	↓		↓			
6 X	207	OP40010-MB	OP40010		AQ			
7 X	208	↓ -BS	↓		↓			
8 X	216	-MS						
9 X	217	↓ -MSD						
10 X	218	MC33900-1						
11 X	219	MC33935-1						
12 X	220	MC33933-1						
13 X	221	↓ -2						
14 X	222	OP40068-MB						
15 X	223	↓ -BS						
16 X	224	-MS						
17 X	225	↓ -MSD						
18 X	226	MC34035-1						
19 X	227	MC34060-1						
20 X	228	MC34074-1						
21 X	229	MC34075-2						
22 X	230	↓ -3						
23 X	231	↓ -4						
24 X	232	MC33912-11						* RRRSX (Naphthalene)
25 X	233	↓ -12						970mL ✓
26 X	234	MC33918-1						
27 X	235	↓ -2						OUT of 12-H 990mL ✓
28 X	236	↓ -3						↓ WK 10/9/14 ↓ 990mL ✓
29 X	237	↓ -4	↓		↓	↓	↓	↓ 970mL ✓

MS002-04

Date: 8/29/06 Dilution Solvent: A+S DCM Lot: DCM 128 **Review:**

ACCUTEST LABORATORIES MC33933

ACCUTEST LABORATORIES

Extracted by: MT
Date/Time: 9/29/14 17:30
Spike Witness: N/A
Date/Time:
Concentrated by: RK 10/5
Batch: OP40010
Fractionated by:
Matrix: Aqueous
Extraction Method: SW846 3510C
Analysis Method: 8270TCL, 8270STar 8270PAH
pH paper lot: C-396

Sample	Spike Addition Check (ID)	Bottle No.	Initial Volume (ml)	Final Volume (ml)	Acid pH	Base pH	*Cleanup/Comments (3660B, 3630, 3665, other)	Received by: Date:
OP40010 MB	N/A	N/A	1000	1.0	2	12		
↓ BS								
MC33900-1 MS								
-1 MSD								
-1								
MC33935-1		1	920					
MC33912-11		2	970		N/A			
-12		1	1000					
MC33918-1		1	890					
-2		1	990					
-3		1	990					
-4		1	970					
MC33933-1		2	900					
-2		1	900					

MSR 10/8/14

Fraction	Spike ID	Bottle #	Lot #	Concentration	Vol (ml)
Surrogate: ABN	N/A	3	107271	500 ug/ml	100 ul
Surrogate:					
Spike: BN	N/A	3	107241	500 ug/ml	100 ul
Spike: Acid	N/A	N/A	107258	500 ug/ml	100 ul
Spike: Custom 8298	N/A	1	107110	2000 ug/ml	25 ul
Spike:					
Spike:					
Hexane Frac Volume:		NA	NA	NA	
Spike ID Witness Initials	N/A	Filter Paper Lot #	101688	Filtered By	MT
Form. Deriv. Oven in time:		Out Time:			

H2SO4:	52429
Ether:	
MeCl2:	DL 188
Hexane:	
Acetone:	
Acetonitrile:	
Na Sulfate:	B-898
Silica:	
SPE MFG	
Copper:	
Hydromatrix:	
HCL:	
NaOH:	C-505
Florisil:	

Concentrator Temp: 70/40°C
Concentrator ID:
Tray #: F-1
Lab Percent Humidity:

Reviewed By:

*Circle as applicable: 3660B = Cu cleanup; 3630 = Silica gel cleanup; 3665 = Acid cleanup; 3620 = Florisil Cleanup

OP002-12 (03/27/13)

ACCUTEST LABORATORIES MC33933

9.8.1 9

New England ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC33933
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Cyanide	GP18216/GN48493	0.010	0.0	mg/l	0.1	0.0991	99.1	90-110%
Cyanide	GP18216/GN48493			mg/l	0.2	0.211	105.5	90-110%

Associated Samples:
Batch GP18216: MC33933-1, MC33933-2
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC33933
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Cyanide	GP18216/GN48493	MC33908-3	mg/l	0.0	0.0	0.0	0-20%

Associated Samples:
Batch GP18216: MC33933-1, MC33933-2
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC33933
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Cyanide	GP18216/GN48493	MC33908-3	mg/l	0.0	0.1	0.098	98.0	75-125%

Associated Samples:
Batch GP18216: MC33933-1, MC33933-2
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: MC33933
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

File ID: 100314W2.CN Date Analyzed: 10/03/14 Methods: SW846 9012
Analyst: MA Run ID: GN48493
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:35	GN48493-STD1	1		STDA0.50
10:36	GN48493-STD2	1		STDB0.30
10:37	GN48493-STD3	1		STDC0.20
10:38	GN48493-STD4	1		STDD0.10
10:39	GN48493-STD5	1		STDE0.030
10:40	GN48493-STD6	1		STDF0.010
10:41	GN48493-STD7	1		STDG0.00
11:19	GN48493-ICV1	1		
11:20	GN48493-ICB1	1		
11:21	GN48493-CCV1	1		
11:22	GN48493-CCB1	1		
11:23	GP18216-MB1	1		
11:24	GP18216-B1	1		
11:25	GP18216-B2	1		
11:27	GP18216-S1	1		
11:28	GP18216-D1	1		
11:29	MC33908-3	1		(sample used for QC only; not part of login MC33933)
11:30	ZZZZZZ	1		
11:31	ZZZZZZ	1		DNR, offscale
11:32	ZZZZZZ	1		
11:33	ZZZZZZ	1		
11:34	GN48493-CCV2	1		
11:35	GN48493-CCB2	1		
11:36	ZZZZZZ	1		
11:37	ZZZZZZ	1		
11:38	ZZZZZZ	1		
11:39	ZZZZZZ	1		
11:40	ZZZZZZ	1		
11:41	ZZZZZZ	1		
11:42	ZZZZZZ	1		
11:43	ZZZZZZ	1		
11:44	ZZZZZZ	1		
11:45	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: MC33933
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

File ID: 100314W2.CN Date Analyzed: 10/03/14 Methods: SW846 9012
Analyst: MA Run ID: GN48493
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:46	GN48493-CCV3	1		
11:47	GN48493-CCB3	1		
11:48	ZZZZZZ	1		
11:50	MC33933-1	1		
11:51	MC33933-2	1		
11:52	ZZZZZZ	5		
11:53	GN48493-CCV4	1		
11:54	GN48493-CCB4	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: MC33933
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

File ID: 100314W2.CN Date Analyzed: 10/03/14 Methods: SW846 9012
Run ID: GN48493 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN48493-ICV1	Cyanide	0.21	0.010	0.0014	.2	105.0	90-110
GN48493-ICB1	Cyanide	-0.0050	0.010	0.0014			
GN48493-CCV1	Cyanide	0.31	0.010	0.0014	.3	103.3	90-110
GN48493-CCB1	Cyanide	-0.0053	0.010	0.0014			
GN48493-CCV2	Cyanide	0.31	0.010	0.0014	.3	103.3	90-110
GN48493-CCB2	Cyanide	-0.0056	0.010	0.0014			
GN48493-CCV3	Cyanide	0.31	0.010	0.0014	.3	103.3	90-110
GN48493-CCB3	Cyanide	-0.0053	0.010	0.0014			
GN48493-CCV4	Cyanide	0.31	0.010	0.0014	.3	103.3	90-110
GN48493-CCB4	Cyanide	-0.0055	0.010	0.0014			

(!) Outside of QC limits

New England ACCUTEST LABORATORIES

General Chemistry

Raw Data

ACCUTEST LABORATORIES

Protected Worksheet MGN117-02

(Format edits must be done by Dept. manager)

Analyst	MEHDIA	**Test/Analysis**	CN SW846 9012
Date	10/3/14	**Analysis Batch ID**	GN48493
Instrument ID	LACHAT	**Prep Batch ID**	GP18216
File ID	100314W2.CN		

Reagents

Calib STD	GNSTD-	35269-CN	**Buffer**	RGT-	42460-CN
ICV	GNSTD-	35268-CN-2	**Carrier**	RGT-	42263-CN
CCV	GNSTD-	35269-CN-4	**Chloramine-T**	RGT-	42540-CN
Rhodanine indicator	RGT-	41630-CN	**Pyridine Barb. Acid**	RGT-	42541-CN
Silver Nitrate	RGT-	41629-CN	**CN STOCK STD**	GNSTD-	35270-CN-1

Standardization

Reagent/Stock Std:	NA ○		Cyanide ◉		
Volume of DI/Blank	250	Ml of AgNO3 for Blank	0	Volume of Std	250	Ml of AgNO3 for Stock	2.5
Conc. Of Stock Calib STD (mg/L)	1000				

Sample ID	Bot#	pH	Sample ID	Bot#	pH	Sample ID	Bot#	pH	Sample ID	Bot#	pH

COMMENTS

Cyanide stock standardization was performed on 10/03/14.

QC Review **Date:** 10/7/14

ACCUTEST

Distillation

Protected Worksheet MGN127-01

(Format edits must be done by Dept. manager)

Analyst:	MEHDIA	Date	10/3/14	Batch ID	GP18216	Matrix	Aqueous
QC Sample	MC33908-3	Balance ID	N/A	pH Meter ID	N/A	Block ID	MICRO

Analysis Type

CN EPA 335.4 ○	CN SW846 9010B ◉	CN-A SM21 4500CN-G/335.4 ○	CN-A SW846 9010 ○
PAC MADEP ○	CREAC Chap 7 ○	SREAC Chap7 ○	CNWAD SM20 4500CN-I ○

Sample ID	Bot #	ID	Interfere Chk CL	Interfere Chk S	Init. pH	SMPL Amt ML	DIST Vol ML	Start Time	End Time	Comments/Spike
GP18216-MB1		N/A	ND	ND	>12	6	6	10:05	10:35	
GP18216-B1		N/A	ND	ND	>12	6	6	10:05	10:35	0.10 ML OF SPIKE
GP18216-S1	7	N/A	ND	ND	>12	6	6	10:05	10:35	0.10 ML OF SPIKE
GP18216-D1	7	N/A	ND	ND	>12	6	6	10:05	10:35	
GP18216-B2		N/A	ND	ND	>12	6	6	10:05	10:35	0.20 ML OF SPIKE
MC33841-1	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33841-2	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33841-3	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33841-4	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-1	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-10	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-11	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33908-12	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33908-13	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-3	7	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-4	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33908-5	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-6	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-7	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33908-8	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33908-9	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33933-1	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33933-2	3	N/A	ND	ND	>12	6	6	10:05	10:35	
ICV		N/A	ND	ND	>12	6	6	10:05	10:35	0.20 ML OF ICV SPIKE

MR 10-3-14

Reagent Lot # (Refer to Indivdual SOP for amounts added)

Sulfamic Acid	VENDOR-8715	Spike Solution	GNSTD-35267-CN-2
Conc. H2SO4	VENDOR-14810	ICV Stock Solution	GNSTD-35268-CN-2
NaOH	RGT-41908-CN	0.25N NAOH	RGT-42263-CN
MgCl2.6H2O	RGT-41169-CN	N/A	
Bismuth Nitrate	RGT-42539-CN	N/A	

Comment:

QC Review _____ Date 10/3/14

11.1 11

Author: chemistry

Date : 10/3/2014

Original Run Filename: OM_10-3-2014_11-18-43AM.QMN Created: 10/3/2014 11:18:43 AM
Original Run Author's Signature: [chemistry]
Current Run Filename: OM_10-3-2014_11-18-43AM.QMN Last Modified: 10/3/2014 11:55:54 AM
Current Run Author's Signature: [chemistry]
Description: Default New Run

Sample	Rep.	Channel 1 Cn (mg/L)	MDF
ICV	1	0.208	
Calibration:		Table/Fig. : 1	
ICB	1	-5.01e-3	
CCV	1	0.306	
CCB	1	-5.29e-3	
GP18216-MB1	1	-3.26e-3	
GP18216-B1	1	0.0991	
GP18216-B2	1	0.211	
GP18216-S1	1	0.0984	
GP18216-D1	1	7.18e-4	
MC33908-3	1	1.43e-4	
MC33841-1	1	0.0104	
MC33841-2	1	0.807	
MC33841-3	1	0.156	
MC33841-4	1	-1.61e-3	
CCV	1	0.306	
CCB	1	-5.57e-3	
MC33908-1	1	2.87e-3	
MC33908-4	1	0.193	
MC33908-5	1	0.0155	
MC33908-6	1	0.414	
MC33908-7	1	0.0588	
MC33908-8	1	0.421	
MC33908-9	1	0.249	
MC33908-10	1	0.0546	
MC33908-11	1	0.434	
MC33908-12	1	-2.18e-3	
CCV	1	0.306	
CCB	1	-5.29e-3	
MC33908-13	1	1.28e-4	
MC33933-1	1	-5.37e-5	
MC33933-2	1	-1.87e-4	
MC33841-2	1	0.180	5.00
CCV	1	0.308	
CCB	1	-5.48e-3	

Table : 1 (Cn)

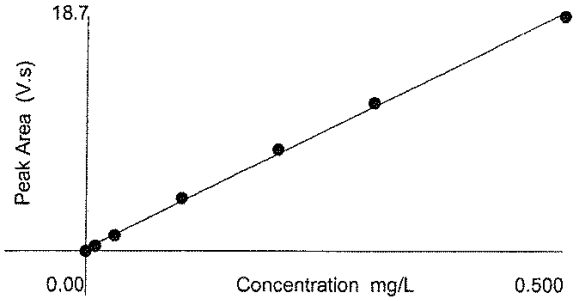
	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	0.500	1	18.7	1.22	0.0	1.7	0.491	10/3/2014	10:35:06 AM
2	0.300	1	11.8	0.769	0.0	-2.3	0.307	10/3/2014	10:36:11 AM
3	0.200	1	8.07	0.527	0.0	-4.2	0.208	10/3/2014	10:37:16 AM
4	0.100	1	4.18	0.275	0.0	-5.3	0.106	10/3/2014	10:38:20 AM
5	0.0300	1	1.24	0.0814	0.0	7.0	0.0277	10/3/2014	10:39:24 AM
6	0.0100	1	0.403	0.0267	0.0	29.9	5.65e-3	10/3/2014	10:40:29 AM
7	0.00	1	-0.0165	-2.88e-3			-5.46e-3	10/3/2014	10:41:33 AM

10/3/14

Author: chemistry

Date : 10/3/2014

Figure : 1 (Cn)



Area = 37.7 * Conc + 0.198
Conc = 0.0265 * Area - 5.02e-3
Correlation Coefficient (r) = 0.99930

Weighting : None

10/3/14

New England ACCUTEST LABORATORIES

10/14/14

Technical Report for

Arcadis

National Grid, 10 King Street, Ogdensburg, NY

B0036671.0003.00001

Accutest Job Number: MC33908

Sampling Dates: 09/23/14 - 09/25/14

Report to:

Client Service (MCM)

mattm@accutest.com

ATTN: Matt Morrell

Total number of pages in report: **706**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Sample Summary

Arcadis

Job No: MC33908

National Grid, 10 King Street, Ogdensburg, NY
Project No: B0036671.0003.00001

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC33908-1	09/24/14	18:00	RMKP	09/26/14	AQ	Ground Water	MW-15
MC33908-2	09/25/14	13:30	RMKP	09/26/14	AQ	Ground Water	MW-15
MC33908-3	09/24/14	16:00	RMKP	09/26/14	AQ	Ground Water	MW-13R
MC33908-3D	09/24/14	16:00	RMKP	09/26/14	AQ	Water Dup/MSD	MW-13R
MC33908-3S	09/24/14	16:00	RMKP	09/26/14	AQ	Water Matrix Spike	MW-13R
MC33908-4	09/24/14	13:10	RMKP	09/26/14	AQ	Ground Water	MW-12R
MC33908-5	09/24/14	12:30	RMKP	09/26/14	AQ	Ground Water	MW-16R
MC33908-6	09/24/14	10:35	RMKP	09/26/14	AQ	Ground Water	MW-9
MC33908-7	09/24/14	08:50	RMKP	09/26/14	AQ	Ground Water	MW-8R
MC33908-8	09/23/14	14:40	RMKP	09/26/14	AQ	Ground Water	MW-10R
MC33908-9	09/25/14	08:55	RMKP	09/26/14	AQ	Ground Water	MW-11
MC33908-10	09/25/14	10:30	RMKP	09/26/14	AQ	Ground Water	MW-4R
MC33908-11	09/23/14	00:00	RMKP	09/26/14	AQ	Ground Water	NGO-DUP092314

Sample Summary
(continued)

Arcadis

Job No: MC33908

National Grid, 10 King Street, Ogdensburg, NY
Project No: B0036671.0003.00001

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC33908-12	09/25/14	13:30	RMKP	09/26/14	AQ	Ground Water	MW-14R
MC33908-13	09/25/14	12:35	RMKP	09/26/14	AQ	Ground Water	MW-17
MC33908-14	09/25/14	00:00	RMKP	09/26/14	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Arcadis **Job No** MC33908

Site: National Grid, 10 King Street, Ogdensburg, NY **Report Date** 10/13/2014 10:15:12 AM

13 Sample(s) and 1 Trip Blank(s) were collected on between 09/23/2014 and 09/25/2014 and were received at Accutest on 09/26/2014 properly preserved, at 0.4 Deg. C and intact. These Samples received an Accutest job number of MC33908. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ **Batch ID:** MSN3359

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC33936-16MS, MC33936-16MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: AQ **Batch ID:** MSP2629

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC33981-7MS, MC33981-7MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** MSU990

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC33908-3MS, MC33908-3MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** MSU992

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Extractables by GCMS By Method SW846 8270D

Matrix: AQ **Batch ID:** OP39993

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC33908-3MS, MC33908-3MSD were used as the QC samples indicated.
- RPD(s) for MSD for 2-Methylnaphthalene, Acenaphthene, Acenaphthylene, Fluorene, Naphthalene are outside control limits for sample OP39993-MSD. High RPD due to possible matrix interference and/or sample heterogeneity.

Wet Chemistry By Method SW846 9012

Matrix: AQ **Batch ID:** GP18216

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC33908-3DUP, MC33908-3MS were used as the QC samples for Cyanide.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC33908).

Summary of Hits

Job Number: MC33908
Account: Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY
Collected: 09/23/14 thru 09/25/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC33908-1	**MW-15**					
Pyrene		0.35 J	2.1	0.18	ug/l	SW846 8270D
MC33908-2	**MW-15**					
No hits reported in this sample.						
MC33908-3	**MW-13R**					
No hits reported in this sample.						
MC33908-4	**MW-12R**					
Benzene		2580	50	32	ug/l	SW846 8260C
Toluene		7.4	5.0	1.7	ug/l	SW846 8260C
Ethylbenzene		131	5.0	1.9	ug/l	SW846 8260C
Xylene (total)		49.4	5.0	1.8	ug/l	SW846 8260C
Acenaphthene		3.4	2.2	0.35	ug/l	SW846 8270D
Acenaphthylene		4.8	2.2	0.24	ug/l	SW846 8270D
Naphthalene		30.8	2.2	0.33	ug/l	SW846 8270D
Cyanide		0.19	0.010		mg/l	SW846 9012
MC33908-5	**MW-16R**					
Cyanide		0.016	0.010		mg/l	SW846 9012
MC33908-6	**MW-9**					
Benzene		284	0.50	0.32	ug/l	SW846 8260C
Toluene		165	1.0	0.33	ug/l	SW846 8260C
Ethylbenzene		117	1.0	0.38	ug/l	SW846 8260C
Xylene (total)		247	1.0	0.36	ug/l	SW846 8260C
Acenaphthene		75.8	2.3	0.37	ug/l	SW846 8270D
Acenaphthylene		29.4	2.3	0.25	ug/l	SW846 8270D
Anthracene		10.8	2.3	0.22	ug/l	SW846 8270D
Fluoranthene		6.0	2.3	0.52	ug/l	SW846 8270D
Fluorene		55.7	2.3	0.25	ug/l	SW846 8270D
2-Methylnaphthalene		13.7	2.3	0.30	ug/l	SW846 8270D
Naphthalene		454	12	1.7	ug/l	SW846 8270D
Phenanthrene		50.9	2.3	0.16	ug/l	SW846 8270D
Pyrene		3.5	2.3	0.20	ug/l	SW846 8270D
Cyanide		0.41	0.010		mg/l	SW846 9012

Summary of Hits

Job Number: MC33908
Account: Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY
Collected: 09/23/14 thru 09/25/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC33908-7	**MW-8R**					
Benzene		546	10	6.3	ug/l	SW846 8260C
Toluene		10.0	1.0	0.33	ug/l	SW846 8260C
Ethylbenzene		13.2	1.0	0.38	ug/l	SW846 8260C
Xylene (total)		18.9	1.0	0.36	ug/l	SW846 8260C
Acenaphthene		5.6	2.3	0.37	ug/l	SW846 8270D
Acenaphthylene		6.7	2.3	0.25	ug/l	SW846 8270D
Anthracene		0.94 J	2.3	0.22	ug/l	SW846 8270D
Chrysene		0.39 J	2.3	0.19	ug/l	SW846 8270D
Fluoranthene		1.5 J	2.3	0.52	ug/l	SW846 8270D
Fluorene		4.4	2.3	0.25	ug/l	SW846 8270D
2-Methylnaphthalene		3.7	2.3	0.30	ug/l	SW846 8270D
Naphthalene		32.9	2.3	0.34	ug/l	SW846 8270D
Phenanthrene		2.7	2.3	0.16	ug/l	SW846 8270D
Pyrene		1.1 J	2.3	0.20	ug/l	SW846 8270D
Cyanide		0.059	0.010		mg/l	SW846 9012
MC33908-8	**MW-10R**					
Benzene		1660	10	6.3	ug/l	SW846 8260C
Toluene		3.1	1.0	0.33	ug/l	SW846 8260C
Ethylbenzene		24.5	1.0	0.38	ug/l	SW846 8260C
Xylene (total)		15.4	1.0	0.36	ug/l	SW846 8260C
Acenaphthene		9.6	2.3	0.37	ug/l	SW846 8270D
Acenaphthylene		6.0	2.3	0.25	ug/l	SW846 8270D
Fluorene		3.9	2.3	0.25	ug/l	SW846 8270D
Naphthalene		19.5	2.3	0.34	ug/l	SW846 8270D
Phenanthrene		1.3 J	2.3	0.16	ug/l	SW846 8270D
Cyanide		0.42	0.010		mg/l	SW846 9012
MC33908-9	**MW-11**					
Cyanide		0.25	0.010		mg/l	SW846 9012
MC33908-10	**MW-4R**					
Cyanide		0.055	0.010		mg/l	SW846 9012
MC33908-11	**NGO-DUP092314**					
Benzene		689	10	6.3	ug/l	SW846 8260C
Toluene		4.2	1.0	0.33	ug/l	SW846 8260C
Ethylbenzene		43.1	1.0	0.38	ug/l	SW846 8260C
Xylene (total)		15.8	1.0	0.36	ug/l	SW846 8260C

Summary of Hits

Job Number: MC33908
Account: Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY
Collected: 09/23/14 thru 09/25/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Acenaphthene		7.9	2.3	0.36	ug/l	SW846 8270D
Acenaphthylene		3.1	2.3	0.24	ug/l	SW846 8270D
Fluorene		3.2	2.3	0.24	ug/l	SW846 8270D
Naphthalene		13.2	2.3	0.34	ug/l	SW846 8270D
Phenanthrene		0.97 J	2.3	0.16	ug/l	SW846 8270D
Cyanide		0.43	0.010		mg/l	SW846 9012
MC33908-12	**MW-14R**					
Benzene		3.0	0.50	0.32	ug/l	SW846 8260C
MC33908-13	**MW-17**					
No hits reported in this sample.						
MC33908-14	**TRIP BLANK**					
No hits reported in this sample.						

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest LabLink@153326 15:12 14-Oct-2014

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	MC33908-1	**Date Sampled:**	09/24/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76572.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.1	0.33	ug/l	
208-96-8	Acenaphthylene	ND	2.1	0.23	ug/l	
120-12-7	Anthracene	ND	2.1	0.20	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.1	0.52	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.1	0.17	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.1	0.26	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.1	0.87	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.1	0.92	ug/l	
218-01-9	Chrysene	ND	2.1	0.17	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.1	0.67	ug/l	
206-44-0	Fluoranthene	ND	2.1	0.47	ug/l	
86-73-7	Fluorene	ND	2.1	0.22	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.1	0.87	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.1	0.28	ug/l	
91-20-3	Naphthalene	ND	2.1	0.31	ug/l	
85-01-8	Phenanthrene	ND	2.1	0.14	ug/l	
129-00-0	Pyrene	0.35	2.1	0.18	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	57%		30-130%
321-60-8	2-Fluorobiphenyl	60%		30-130%
1718-51-0	Terphenyl-d14	85%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	MC33908-1	**Date Sampled:**	09/24/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	10/03/14 11:36	MA	SW846 9012

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	MC33908-2	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22733.D	1	09/29/14	GK	n/a	n/a	MSU990
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	105%		70-130%
460-00-4	4-Bromofluorobenzene	123%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-13R		
Lab Sample ID:	MC33908-3	**Date Sampled:**	09/24/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22729.D	1	09/29/14	GK	n/a	n/a	MSU990
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	124%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-13R		
Lab Sample ID:	MC33908-3	**Date Sampled:**	09/24/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76571.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	860 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.3	0.37	ug/l	
208-96-8	Acenaphthylene	ND	2.3	0.25	ug/l	
120-12-7	Anthracene	ND	2.3	0.22	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.3	0.57	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.3	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.3	0.29	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.3	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.3	1.0	ug/l	
218-01-9	Chrysene	ND	2.3	0.19	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.3	0.74	ug/l	
206-44-0	Fluoranthene	ND	2.3	0.52	ug/l	
86-73-7	Fluorene	ND	2.3	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.3	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.3	0.30	ug/l	
91-20-3	Naphthalene	ND	2.3	0.34	ug/l	
85-01-8	Phenanthrene	ND	2.3	0.16	ug/l	
129-00-0	Pyrene	ND	2.3	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	69%		30-130%
1718-51-0	Terphenyl-d14	82%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-13R		
Lab Sample ID:	MC33908-3	**Date Sampled:**	09/24/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	10/03/14 11:29	MA	SW846 9012

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	MW-12R		
Lab Sample ID:	MC33908-4	**Date Sampled:**	09/24/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22738.D	5	09/29/14	GK	n/a	n/a	MSU990
Run #2	N90794.D	100	10/01/14	JB	n/a	n/a	MSN3359

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	2580 [a]	50	32	ug/l	
108-88-3	Toluene	7.4	5.0	1.7	ug/l	
100-41-4	Ethylbenzene	131	5.0	1.9	ug/l	
1330-20-7	Xylene (total)	49.4	5.0	1.8	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%	94%	70-130%
2037-26-5	Toluene-D8	103%	100%	70-130%
460-00-4	4-Bromofluorobenzene	124%	93%	70-130%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-12R		
Lab Sample ID:	MC33908-4	**Date Sampled:**	09/24/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76573.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	3.4	2.2	0.35	ug/l	
208-96-8	Acenaphthylene	4.8	2.2	0.24	ug/l	
120-12-7	Anthracene	ND	2.2	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.54	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.92	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.97	ug/l	
218-01-9	Chrysene	ND	2.2	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.71	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.50	ug/l	
86-73-7	Fluorene	ND	2.2	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.92	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	30.8	2.2	0.33	ug/l	
85-01-8	Phenanthrene	ND	2.2	0.15	ug/l	
129-00-0	Pyrene	ND	2.2	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	77%		30-130%
321-60-8	2-Fluorobiphenyl	73%		30-130%
1718-51-0	Terphenyl-d14	71%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-12R		
Lab Sample ID:	MC33908-4	**Date Sampled:**	09/24/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.19	0.010	mg/l	1	10/03/14 11:37	MA	SW846 9012

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	MW-16R		
Lab Sample ID:	MC33908-5	**Date Sampled:**	09/24/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22732.D	1	09/29/14	GK	n/a	n/a	MSU990
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	125%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-16R		
Lab Sample ID:	MC33908-5	**Date Sampled:**	09/24/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76574.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.1	0.34	ug/l	
208-96-8	Acenaphthylene	ND	2.1	0.23	ug/l	
120-12-7	Anthracene	ND	2.1	0.20	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.1	0.52	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.1	0.17	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.1	0.26	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.1	0.88	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.1	0.93	ug/l	
218-01-9	Chrysene	ND	2.1	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.1	0.68	ug/l	
206-44-0	Fluoranthene	ND	2.1	0.48	ug/l	
86-73-7	Fluorene	ND	2.1	0.23	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.1	0.88	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.1	0.28	ug/l	
91-20-3	Naphthalene	ND	2.1	0.32	ug/l	
85-01-8	Phenanthrene	ND	2.1	0.15	ug/l	
129-00-0	Pyrene	ND	2.1	0.18	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	60%		30-130%
321-60-8	2-Fluorobiphenyl	53%		30-130%
1718-51-0	Terphenyl-d14	74%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-16R		
Lab Sample ID:	MC33908-5	**Date Sampled:**	09/24/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.016	0.010	mg/l	1	10/03/14 11:38	MA	SW846 9012

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	MW-9		
Lab Sample ID:	MC33908-6	**Date Sampled:**	09/24/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90793.D	1	10/01/14	JB	n/a	n/a	MSN3359
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	284	0.50	0.32	ug/l	
108-88-3	Toluene	165	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	117	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	247	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-9		
Lab Sample ID:	MC33908-6	**Date Sampled:**	09/24/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76575.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2	R40138.D	5	10/04/14	WK	09/27/14	OP39993	MSR1476

	Initial Volume	Final Volume
Run #1	860 ml	1.0 ml
Run #2	860 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	75.8	2.3	0.37	ug/l	
208-96-8	Acenaphthylene	29.4	2.3	0.25	ug/l	
120-12-7	Anthracene	10.8	2.3	0.22	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.3	0.57	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.3	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.3	0.29	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.3	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.3	1.0	ug/l	
218-01-9	Chrysene	ND	2.3	0.19	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.3	0.74	ug/l	
206-44-0	Fluoranthene	6.0	2.3	0.52	ug/l	
86-73-7	Fluorene	55.7	2.3	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.3	0.96	ug/l	
91-57-6	2-Methylnaphthalene	13.7	2.3	0.30	ug/l	
91-20-3	Naphthalene	454 [a]	12	1.7	ug/l	
85-01-8	Phenanthrene	50.9	2.3	0.16	ug/l	
129-00-0	Pyrene	3.5	2.3	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	70%	78%	30-130%
321-60-8	2-Fluorobiphenyl	62%	71%	30-130%
1718-51-0	Terphenyl-d14	64%	69%	30-130%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-9		
Lab Sample ID:	MC33908-6	**Date Sampled:**	09/24/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.41	0.010	mg/l	1	10/03/14 11:39	MA	SW846 9012

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	MW-8R		
Lab Sample ID:	MC33908-7	**Date Sampled:**	09/24/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22777.D	1	10/02/14	GK	n/a	n/a	MSU992
Run #2	P80350.D	20	10/03/14	GK	n/a	n/a	MSP2629

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	546 [a]	10	6.3	ug/l	
108-88-3	Toluene	10.0	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	13.2	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	18.9	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%	83%	70-130%
2037-26-5	Toluene-D8	95%	95%	70-130%
460-00-4	4-Bromofluorobenzene	105%	82%	70-130%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-8R		
Lab Sample ID:	MC33908-7	**Date Sampled:**	09/24/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76576.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	860 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	5.6	2.3	0.37	ug/l	
208-96-8	Acenaphthylene	6.7	2.3	0.25	ug/l	
120-12-7	Anthracene	0.94	2.3	0.22	ug/l	J
56-55-3	Benzo(a)anthracene	ND	2.3	0.57	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.3	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.3	0.29	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.3	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.3	1.0	ug/l	
218-01-9	Chrysene	0.39	2.3	0.19	ug/l	J
53-70-3	Dibenzo(a,h)anthracene	ND	2.3	0.74	ug/l	
206-44-0	Fluoranthene	1.5	2.3	0.52	ug/l	J
86-73-7	Fluorene	4.4	2.3	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.3	0.96	ug/l	
91-57-6	2-Methylnaphthalene	3.7	2.3	0.30	ug/l	
91-20-3	Naphthalene	32.9	2.3	0.34	ug/l	
85-01-8	Phenanthrene	2.7	2.3	0.16	ug/l	
129-00-0	Pyrene	1.1	2.3	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	53%		30-130%
321-60-8	2-Fluorobiphenyl	48%		30-130%
1718-51-0	Terphenyl-d14	75%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-8R		
Lab Sample ID:	MC33908-7	**Date Sampled:**	09/24/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.059	0.010	mg/l	1	10/03/14 11:40	MA	SW846 9012

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	MC33908-8	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22775.D	1	10/02/14	GK	n/a	n/a	MSU992
Run #2	P80351.D	20	10/03/14	GK	n/a	n/a	MSP2629

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1660 [a]	10	6.3	ug/l	
108-88-3	Toluene	3.1	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	24.5	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	15.4	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%	84%	70-130%
2037-26-5	Toluene-D8	94%	92%	70-130%
460-00-4	4-Bromofluorobenzene	103%	82%	70-130%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	MC33908-8	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76577.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	860 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	9.6	2.3	0.37	ug/l	
208-96-8	Acenaphthylene	6.0	2.3	0.25	ug/l	
120-12-7	Anthracene	ND	2.3	0.22	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.3	0.57	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.3	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.3	0.29	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.3	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.3	1.0	ug/l	
218-01-9	Chrysene	ND	2.3	0.19	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.3	0.74	ug/l	
206-44-0	Fluoranthene	ND	2.3	0.52	ug/l	
86-73-7	Fluorene	3.9	2.3	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.3	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.3	0.30	ug/l	
91-20-3	Naphthalene	19.5	2.3	0.34	ug/l	
85-01-8	Phenanthrene	1.3	2.3	0.16	ug/l	J
129-00-0	Pyrene	ND	2.3	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	67%		30-130%
321-60-8	2-Fluorobiphenyl	59%		30-130%
1718-51-0	Terphenyl-d14	75%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	MC33908-8	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.42	0.010	mg/l	1	10/03/14 11:41	MA	SW846 9012

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	MC33908-9	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22767.D	1	10/02/14	GK	n/a	n/a	MSU992
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	111%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	MC33908-9	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76578.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	910 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.2	0.35	ug/l	
208-96-8	Acenaphthylene	ND	2.2	0.24	ug/l	
120-12-7	Anthracene	ND	2.2	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.54	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.17	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.91	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.96	ug/l	
218-01-9	Chrysene	ND	2.2	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.70	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.49	ug/l	
86-73-7	Fluorene	ND	2.2	0.23	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.91	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	ND	2.2	0.33	ug/l	
85-01-8	Phenanthrene	ND	2.2	0.15	ug/l	
129-00-0	Pyrene	ND	2.2	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	61%		30-130%
1718-51-0	Terphenyl-d14	58%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	MC33908-9	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.25	0.010	mg/l	1	10/03/14 11:42	MA	SW846 9012

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	MW-4R		
Lab Sample ID:	MC33908-10	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22768.D	1	10/02/14	GK	n/a	n/a	MSU992
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	106%		70-130%
460-00-4	4-Bromofluorobenzene	112%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-4R		
Lab Sample ID:	MC33908-10	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76579.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	680 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.9	0.47	ug/l	
208-96-8	Acenaphthylene	ND	2.9	0.32	ug/l	
120-12-7	Anthracene	ND	2.9	0.28	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.9	0.72	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.9	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.9	0.36	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.9	1.2	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.9	1.3	ug/l	
218-01-9	Chrysene	ND	2.9	0.24	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.9	0.94	ug/l	
206-44-0	Fluoranthene	ND	2.9	0.66	ug/l	
86-73-7	Fluorene	ND	2.9	0.31	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.9	1.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.9	0.39	ug/l	
91-20-3	Naphthalene	ND	2.9	0.44	ug/l	
85-01-8	Phenanthrene	ND	2.9	0.20	ug/l	
129-00-0	Pyrene	ND	2.9	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	50%		30-130%
321-60-8	2-Fluorobiphenyl	50%		30-130%
1718-51-0	Terphenyl-d14	51%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4R		
Lab Sample ID:	MC33908-10	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.055	0.010	mg/l	1	10/03/14 11:43	MA	SW846 9012

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	NGO-DUP092314		
Lab Sample ID:	MC33908-11	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22776.D	1	10/02/14	GK	n/a	n/a	MSU992
Run #2	P80352.D	20	10/03/14	GK	n/a	n/a	MSP2629

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	689 [a]	10	6.3	ug/l	
108-88-3	Toluene	4.2	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	43.1	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	15.8	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%	85%	70-130%
2037-26-5	Toluene-D8	96%	94%	70-130%
460-00-4	4-Bromofluorobenzene	105%	84%	70-130%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	NGO-DUP092314		
Lab Sample ID:	MC33908-11	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76580.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	880 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	7.9	2.3	0.36	ug/l	
208-96-8	Acenaphthylene	3.1	2.3	0.24	ug/l	
120-12-7	Anthracene	ND	2.3	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.3	0.56	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.3	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.3	0.28	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.3	0.94	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.3	0.99	ug/l	
218-01-9	Chrysene	ND	2.3	0.19	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.3	0.72	ug/l	
206-44-0	Fluoranthene	ND	2.3	0.51	ug/l	
86-73-7	Fluorene	3.2	2.3	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.3	0.94	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.3	0.30	ug/l	
91-20-3	Naphthalene	13.2	2.3	0.34	ug/l	
85-01-8	Phenanthrene	0.97	2.3	0.16	ug/l	J
129-00-0	Pyrene	ND	2.3	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	60%		30-130%
321-60-8	2-Fluorobiphenyl	57%		30-130%
1718-51-0	Terphenyl-d14	58%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NGO-DUP092314		
Lab Sample ID:	MC33908-11	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.43	0.010	mg/l	1	10/03/14 11:44	MA	SW846 9012

RL = Reporting Limit

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Report of Analysis

Client Sample ID:	MW-14R		
Lab Sample ID:	MC33908-12	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22769.D	1	10/02/14	GK	n/a	n/a	MSU992
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	3.0	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	103%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	MW-14R		
Lab Sample ID:	MC33908-12	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76581.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.2	0.35	ug/l	
208-96-8	Acenaphthylene	ND	2.2	0.23	ug/l	
120-12-7	Anthracene	ND	2.2	0.20	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.53	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.17	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.90	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.95	ug/l	
218-01-9	Chrysene	ND	2.2	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.69	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.49	ug/l	
86-73-7	Fluorene	ND	2.2	0.23	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.90	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	ND	2.2	0.32	ug/l	
85-01-8	Phenanthrene	ND	2.2	0.15	ug/l	
129-00-0	Pyrene	ND	2.2	0.18	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	66%		30-130%
1718-51-0	Terphenyl-d14	57%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-14R		
Lab Sample ID:	MC33908-12	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	10/03/14 11:45	MA	SW846 9012

RL = Reporting Limit

Accutest LabLink@153326 15:12 14-Oct-2014

Report of Analysis

Client Sample ID:	MW-17		
Lab Sample ID:	MC33908-13	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22770.D	1	10/02/14	GK	n/a	n/a	MSU992
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@153326 15:12 14-Oct-2014

Report of Analysis

Client Sample ID:	MW-17		
Lab Sample ID:	MC33908-13	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76582.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	910 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.2	0.35	ug/l	
208-96-8	Acenaphthylene	ND	2.2	0.24	ug/l	
120-12-7	Anthracene	ND	2.2	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.54	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.17	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.91	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.96	ug/l	
218-01-9	Chrysene	ND	2.2	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.70	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.49	ug/l	
86-73-7	Fluorene	ND	2.2	0.23	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.91	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	ND	2.2	0.33	ug/l	
85-01-8	Phenanthrene	ND	2.2	0.15	ug/l	
129-00-0	Pyrene	ND	2.2	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	57%		30-130%
321-60-8	2-Fluorobiphenyl	53%		30-130%
1718-51-0	Terphenyl-d14	58%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-17		
Lab Sample ID:	MC33908-13	**Date Sampled:**	09/25/14
Matrix:	AQ - Ground Water	**Date Received:**	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	10/03/14 11:48	MA	SW846 9012

RL = Reporting Limit

Accutest LabLink@153326 15:12 14-Oct-2014

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	MC33908-14	**Date Sampled:**	09/25/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	09/26/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22762.D	1	10/02/14	GK	n/a	n/a	MSU992
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	103%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

3 coolers

PAGE 1 OF 2

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: mc33908

Client / Reporting Information	Project Information	Requested Analysis (see TEST CODE sheet)	Matrix Codes
Company Name: ARCADIS	Project Name: National Grid Ogdensburg		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank EB- Equipment Blank RB- Rinse Blank TB-Trip Blank
Street Address: 6723 Towpath Rd	Street: King St	Billing Information (If different from Report to)	
City / State / Zip: Syracuse NY 13214	City: Ogdensburg, NY	Company Name:	
Project Contact / E-mail: Doug Nodine	Project#: B003616.0071.00003.00000	Street Address:	
Phone # / Fax #: (315) 671-9877	Client PO#:	City / State / Zip:	
Sampler(s) Name(s) / Phone #: Kasey Petrah (315)663-5575	Project Manager: Mike Benoit	Attention: / PO#:	

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfite	BTEX	PAH	Total Cyanide	LAB USE ONLY
-1	MW-15		9/24/14	1800	RM	GW	3	Ø	1			2					Ø	2	1	
-2	MW-15		9/25/14	1330	RM	GW	3	3	Ø			Ø					3	Ø	Ø	
-3	MW-13R		9/24/14	1600	KP	GW	6	3	1			2					3	2	1	
-3S	MW-13R MS		9/24/14	1600	KP	GW	6	3	1			2					3	2	1	
-3SD	MW-13R MSD		9/24/14	1600	KP	GW	6	3	1			2					3	2	1	
-4	MW-12R		9/24/14	1310	RM	GW	6	3	1			2					3	2	1	
-5	MW-16R		9/24/14	1230	KP	GW	6	3	1			2					3	2	1	
-6	MW-9		9/24/14	1035	RM	GW	6	3	1			2					3	2	1	
-7	MW-8R		9/24/14	0850	KP	GW	6	3	1			2					3	2	1	17C,
-8	MW-10R		9/23/14	1440	KP	GW	6	3	1			2					3	2	1	13B, 11B,
-9	MW-11		9/25/14	855	RM	GW	6	3	1			2					3	2	1	
-10	MW-4R		9/25/14	1030	RM	GW	6	3	1			2					3	2	1	

Turnaround Time (Business days) — Approved By (Accutest PM): / Date:

- [X] Std. 10 Business Days
- [ ] Std. 5 Business Days (By Contract only)
- [ ] 5 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [X] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] CT RCP
- [ ] MA MCP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [X] EDD Format CORE
- [ ] Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

*Std 10 DAY TAT Applies to samples shipped on 9/28/14 Aswell

ACCUTEST SYRACUSE-SC

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Kasey Petrah	9/25/14 1530	1	2 FX	9-26-14 10:05	2
3			3	4		4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	[ ] Intact [ ] Not Intact	Preserved where applicable [ ]

On Ice: 2 | Cooler Temp: 0.4°C, 0.2°C, 1.2°C

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 2 OF 2

FED-EX Tracking # | Bottle Order Control #
Accutest Quote # | Accutest Job # mc33908

Client / Reporting Information

Company Name: Arcadis
Street Address: 6723 Towpath Rd
City / State / Zip: Syracuse, NY 13214
Project Contact / E-mail: Doug Nodine
Phone # / Fax #: 315-671-9377
Sampler(s) Name(s) / Phone #: Kasey Petrak 315-663-5315

Project Information

Project Name: National Grid Ogdensburg
Street: King St.
City: Ogdensburg, NY
Project #: 30036671.00003.0001
Client PO#:
Project Manager: Mike Benoit

Billing Information (If different from Report to)

Company Name:
Street Address:
City / State / Zip:
Attention: / PO#:

Requested Analysis (see TEST CODE sheet)

BTEX
Total Cyanide
PAH

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED - Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfate	BTEX	Total Cyanide	PAH	LAB USE ONLY
-11	NGO-DUP092314		9/23/14	—	KP	GW	6	3	1			2					3	1	2	
-12	MW-14R		9/25/14	1330	RM	GW	6	3	1			2					3	1	2	
-13	MW-17		9/25/14	1235	RM	GW	6	3	1			2					3	1	2	
-14	Trip Blank		9/25/14	—	—	TB	1	1									1			

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] Std. 5 Business Days (By Contract only)
- [ ] 5 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [x] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] CT RCP
- [ ] MA MCP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [x] EDD Format CORE
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Kasey Petrak	9/25/14 1530	1	2 FX	9-26-14 1000	2
3			3	4		4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	☐ Intact ☐ Not Intact	Preserved where applicable ☐

On Ice: ☐ Cooler Temp: 0.4c 0.2c 1.2c

MC33908: Chain of Custody
Page 2 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC33908 **Client:** ARCADIS **Project:** NAT GRID OGDENOBURG

Date / Time Received: 9/26/2014 10:00:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (0.4/0.4); #2: (0.2/0.2); #3: (1.2/1.2);

Cooler Security

	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature

	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Thermometer ID:	G1;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	3		

Quality Control Preservation

	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation

	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition

	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions

	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:(508) 481-6200

495 Technology Center West, Bldg One
F: (508) 481-7753

Marlborough, MA 01752
www/accutest.com

MC33908: Chain of Custody
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Internal Sample Tracking Chronicle

Arcadis

Job No: MC33908

National Grid, 10 King Street, Ogdensburg, NY
Project No: B0036671.0003.00001

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC33908-1 Collected: 24-SEP-14 18:00 By: RMKP Received: 26-SEP-14 By: MW-15						
MC33908-1	SW846 8270D	02-OCT-14 11:57	WK	27-SEP-14	FC	B8270PAH
MC33908-1	SW846 9012	03-OCT-14 11:36	MA	03-OCT-14	MA	CN
MC33908-2 Collected: 25-SEP-14 13:30 By: RMKP Received: 26-SEP-14 By: MW-15						
MC33908-2	SW846 8260C	29-SEP-14 17:59	GK			V8260BTX
MC33908-3 Collected: 24-SEP-14 16:00 By: RMKP Received: 26-SEP-14 By: MW-13R						
MC33908-3	SW846 8260C	29-SEP-14 16:09	GK			V8260BTX
MC33908-3	SW846 8270D	02-OCT-14 11:34	WK	27-SEP-14	FC	B8270PAH
MC33908-3	SW846 9012	03-OCT-14 11:29	MA	03-OCT-14	MA	CN
MC33908-4 Collected: 24-SEP-14 13:10 By: RMKP Received: 26-SEP-14 By: MW-12R						
MC33908-4	SW846 8260C	29-SEP-14 20:15	GK			V8260BTX
MC33908-4	SW846 8260C	01-OCT-14 13:56	JB			V8260BTX
MC33908-4	SW846 8270D	02-OCT-14 12:20	WK	27-SEP-14	FC	B8270PAH
MC33908-4	SW846 9012	03-OCT-14 11:37	MA	03-OCT-14	MA	CN
MC33908-5 Collected: 24-SEP-14 12:30 By: RMKP Received: 26-SEP-14 By: MW-16R						
MC33908-5	SW846 8260C	29-SEP-14 17:31	GK			V8260BTX
MC33908-5	SW846 8270D	02-OCT-14 12:43	WK	27-SEP-14	FC	B8270PAH
MC33908-5	SW846 9012	03-OCT-14 11:38	MA	03-OCT-14	MA	CN
MC33908-6 Collected: 24-SEP-14 10:35 By: RMKP Received: 26-SEP-14 By: MW-9						
MC33908-6	SW846 8260C	01-OCT-14 13:27	JB			V8260BTX
MC33908-6	SW846 8270D	02-OCT-14 13:06	WK	27-SEP-14	FC	B8270PAH
MC33908-6	SW846 9012	03-OCT-14 11:39	MA	03-OCT-14	MA	CN
MC33908-6	SW846 8270D	04-OCT-14 00:43	WK	27-SEP-14	FC	B8270PAH

Internal Sample Tracking Chronicle

Arcadis

Job No: MC33908

National Grid, 10 King Street, Ogdensburg, NY
Project No: B0036671.0003.00001

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC33908-7	Collected: 24-SEP-14 08:50 By: RMKP			Received: 26-SEP-14	By:	
MW-8R						
MC33908-7	SW846 8270D	02-OCT-14 13:29	WK	27-SEP-14	FC	B8270PAH
MC33908-7	SW846 8260C	02-OCT-14 17:48	GK			V8260BTX
MC33908-7	SW846 9012	03-OCT-14 11:40	MA	03-OCT-14	MA	CN
MC33908-7	SW846 8260C	03-OCT-14 19:30	GK			V8260BTX
MC33908-8	Collected: 23-SEP-14 14:40 By: RMKP			Received: 26-SEP-14	By:	
MW-10R						
MC33908-8	SW846 8270D	02-OCT-14 13:52	WK	27-SEP-14	FC	B8270PAH
MC33908-8	SW846 8260C	02-OCT-14 16:54	GK			V8260BTX
MC33908-8	SW846 9012	03-OCT-14 11:41	MA	03-OCT-14	MA	CN
MC33908-8	SW846 8260C	03-OCT-14 20:01	GK			V8260BTX
MC33908-9	Collected: 25-SEP-14 08:55 By: RMKP			Received: 26-SEP-14	By:	
MW-11						
MC33908-9	SW846 8260C	02-OCT-14 13:16	GK			V8260BTX
MC33908-9	SW846 8270D	02-OCT-14 14:15	WK	27-SEP-14	FC	B8270PAH
MC33908-9	SW846 9012	03-OCT-14 11:42	MA	03-OCT-14	MA	CN
MC33908-10	Collected: 25-SEP-14 10:30 By: RMKP			Received: 26-SEP-14	By:	
MW-4R						
MC33908-10	SW846 8260C	02-OCT-14 13:43	GK			V8260BTX
MC33908-10	SW846 8270D	02-OCT-14 14:38	WK	27-SEP-14	FC	B8270PAH
MC33908-10	SW846 9012	03-OCT-14 11:43	MA	03-OCT-14	MA	CN
MC33908-11	Collected: 23-SEP-14 00:00 By: RMKP			Received: 26-SEP-14	By:	
NGO-DUP092314						
MC33908-11	SW846 8270D	02-OCT-14 15:01	WK	27-SEP-14	FC	B8270PAH
MC33908-11	SW846 8260C	02-OCT-14 17:21	GK			V8260BTX
MC33908-11	SW846 9012	03-OCT-14 11:44	MA	03-OCT-14	MA	CN
MC33908-11	SW846 8260C	03-OCT-14 20:32	GK			V8260BTX

Internal Sample Tracking Chronicle

Arcadis

Job No: MC33908

National Grid, 10 King Street, Ogdensburg, NY
Project No: B0036671.0003.00001

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC33908-12	Collected: 25-SEP-14 13:30 By: RMKP		Received: 26-SEP-14 By:			
MW-14R						
MC33908-12	SW846 8260C	02-OCT-14 14:10	GK			V8260BTX
MC33908-12	SW846 8270D	02-OCT-14 15:24	WK	27-SEP-14	FC	B8270PAH
MC33908-12	SW846 9012	03-OCT-14 11:45	MA	03-OCT-14	MA	CN
MC33908-13	Collected: 25-SEP-14 12:35 By: RMKP		Received: 26-SEP-14 By:			
MW-17						
MC33908-13	SW846 8260C	02-OCT-14 14:37	GK			V8260BTX
MC33908-13	SW846 8270D	02-OCT-14 15:47	WK	27-SEP-14	FC	B8270PAH
MC33908-13	SW846 9012	03-OCT-14 11:48	MA	03-OCT-14	MA	CN
MC33908-14	Collected: 25-SEP-14 00:00 By: RMKP		Received: 26-SEP-14 By:			
TRIP BLANK						
MC33908-14	SW846 8260C	02-OCT-14 10:59	GK			V8260BTX

Accutest Internal Chain of Custody

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY
Received: 09/26/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC33908-1.2	Walk In Ref #22	Alireza Zeighami	09/27/14 07:55	Retrieve from Storage
MC33908-1.2	Alireza Zeighami		09/27/14 13:24	Depleted
MC33908-1.3	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33908-1.3	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33908-2.2	VOC Ref #1	Gary Krasinski	09/29/14 10:25	Retrieve from Storage
MC33908-2.2	Gary Krasinski	GCMSU	09/29/14 10:25	Load on Instrument
MC33908-2.2	GCMSU	Gary Krasinski	09/30/14 08:25	Unload from Instrument
MC33908-2.2	Gary Krasinski	VOC Ref #1	09/30/14 08:25	Return to Storage
MC33908-3.1	Walk In Ref #22	Alireza Zeighami	09/27/14 07:55	Retrieve from Storage
MC33908-3.1	Alireza Zeighami		09/27/14 13:24	Depleted
MC33908-3.3	Walk In Ref #22	Alireza Zeighami	09/27/14 07:55	Retrieve from Storage
MC33908-3.3	Alireza Zeighami		09/27/14 13:24	Depleted
MC33908-3.6	Walk In Ref #22	Alireza Zeighami	09/27/14 07:55	Retrieve from Storage
MC33908-3.6	Alireza Zeighami		09/27/14 13:24	Depleted
MC33908-3.7	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33908-3.7	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33908-3.10	VOC Ref #1	Gary Krasinski	09/29/14 10:25	Retrieve from Storage
MC33908-3.10	Gary Krasinski	GCMSU	09/29/14 10:25	Load on Instrument
MC33908-3.10	GCMSU	Gary Krasinski	09/30/14 08:25	Unload from Instrument
MC33908-3.10	Gary Krasinski	VOC Ref #1	09/30/14 08:25	Return to Storage
MC33908-4.2	Walk In Ref #22	Alireza Zeighami	09/27/14 07:55	Retrieve from Storage
MC33908-4.2	Alireza Zeighami		09/27/14 13:24	Depleted
MC33908-4.3	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33908-4.3	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33908-4.4	VOC Ref #1	Jaclyn Bergeron	10/01/14 10:26	Retrieve from Storage
MC33908-4.4	Jaclyn Bergeron	GCMSN	10/01/14 10:26	Load on Instrument
MC33908-4.4	GCMSN	Jaclyn Bergeron	10/02/14 11:43	Unload from Instrument
MC33908-4.4	Jaclyn Bergeron	VOC Ref #1	10/02/14 11:43	Return to Storage
MC33908-4.5	VOC Ref #1	Gary Krasinski	09/29/14 10:25	Retrieve from Storage
MC33908-4.5	Gary Krasinski	GCMSU	09/29/14 10:25	Load on Instrument
MC33908-4.5	GCMSU	Gary Krasinski	09/30/14 08:25	Unload from Instrument
MC33908-4.5	Gary Krasinski	VOC Ref #1	09/30/14 08:25	Return to Storage

Accutest Internal Chain of Custody

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY
Received: 09/26/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC33908-5.1	Walk In Ref #22	Alireza Zeighami	09/27/14 07:55	Retrieve from Storage
MC33908-5.1	Alireza Zeighami		09/27/14 13:24	Depleted
MC33908-5.3	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33908-5.3	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33908-5.4	VOC Ref #1	Gary Krasinski	09/29/14 10:25	Retrieve from Storage
MC33908-5.4	Gary Krasinski	GCMSU	09/29/14 10:25	Load on Instrument
MC33908-5.4	GCMSU	Gary Krasinski	09/30/14 08:25	Unload from Instrument
MC33908-5.4	Gary Krasinski	VOC Ref #1	09/30/14 08:25	Return to Storage
MC33908-6.1	Walk In Ref #22	Alireza Zeighami	09/27/14 07:55	Retrieve from Storage
MC33908-6.1	Alireza Zeighami		09/27/14 13:24	Depleted
MC33908-6.3	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33908-6.3	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33908-6.5	VOC Ref #1	Jaclyn Bergeron	10/01/14 10:26	Retrieve from Storage
MC33908-6.5	Jaclyn Bergeron	GCMSN	10/01/14 10:26	Load on Instrument
MC33908-6.5	GCMSN	Jaclyn Bergeron	10/02/14 11:43	Unload from Instrument
MC33908-6.5	Jaclyn Bergeron	VOC Ref #1	10/02/14 11:43	Return to Storage
MC33908-6.6	VOC Ref #1	Gary Krasinski	09/29/14 10:25	Retrieve from Storage
MC33908-6.6	Gary Krasinski	GCMSU	09/29/14 10:25	Load on Instrument
MC33908-6.6	GCMSU	Gary Krasinski	09/30/14 08:25	Unload from Instrument
MC33908-6.6	Gary Krasinski	VOC Ref #1	09/30/14 08:25	Return to Storage
MC33908-7.2	Walk In Ref #22	Alireza Zeighami	09/27/14 07:55	Retrieve from Storage
MC33908-7.2	Alireza Zeighami		09/27/14 13:24	Depleted
MC33908-7.3	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33908-7.3	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33908-7.4	VOC Ref #1	Gary Krasinski	10/03/14 11:56	Retrieve from Storage
MC33908-7.4	Gary Krasinski	GCMSP	10/03/14 11:56	Load on Instrument
MC33908-7.4	GCMSP	Gary Krasinski	10/06/14 08:57	Unload from Instrument
MC33908-7.4	Gary Krasinski	VOC Ref #1	10/06/14 08:57	Return to Storage
MC33908-7.5	VOC Ref #1	Tomasz Torski	10/02/14 08:59	Retrieve from Storage
MC33908-7.5	Tomasz Torski	GCMSU	10/02/14 08:59	Load on Instrument
MC33908-7.5	GCMSU	Tomasz Torski	10/03/14 10:28	Unload from Instrument
MC33908-7.5	Tomasz Torski	VOC Ref #1	10/03/14 10:29	Return to Storage
MC33908-8.2	Walk In Ref #22	Alireza Zeighami	09/27/14 07:55	Retrieve from Storage

Accutest Internal Chain of Custody

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY
Received: 09/26/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC33908-8.2	Alireza Zeighami		09/27/14 13:24	Depleted
MC33908-8.3	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33908-8.3	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33908-8.5	VOC Ref #1	Gary Krasinski	10/03/14 11:56	Retrieve from Storage
MC33908-8.5	Gary Krasinski	GCMSP	10/03/14 11:56	Load on Instrument
MC33908-8.5	GCMSP	Gary Krasinski	10/06/14 08:57	Unload from Instrument
MC33908-8.5	Gary Krasinski	VOC Ref #1	10/06/14 08:57	Return to Storage
MC33908-8.6	VOC Ref #1	Tomasz Torski	10/02/14 08:59	Retrieve from Storage
MC33908-8.6	Tomasz Torski	GCMSU	10/02/14 08:59	Load on Instrument
MC33908-8.6	GCMSU	Tomasz Torski	10/03/14 10:28	Unload from Instrument
MC33908-8.6	Tomasz Torski	VOC Ref #1	10/03/14 10:29	Return to Storage
MC33908-9.1	Walk In Ref #22	Alireza Zeighami	09/27/14 07:55	Retrieve from Storage
MC33908-9.1	Alireza Zeighami		09/27/14 13:24	Depleted
MC33908-9.3	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33908-9.3	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33908-9.6	VOC Ref #1	Tomasz Torski	10/02/14 08:59	Retrieve from Storage
MC33908-9.6	Tomasz Torski	GCMSU	10/02/14 08:59	Load on Instrument
MC33908-9.6	GCMSU	Tomasz Torski	10/03/14 10:28	Unload from Instrument
MC33908-9.6	Tomasz Torski	VOC Ref #1	10/03/14 10:29	Return to Storage
MC33908-10.1	Walk In Ref #22	Alireza Zeighami	09/27/14 07:55	Retrieve from Storage
MC33908-10.1	Alireza Zeighami		09/27/14 13:24	Depleted
MC33908-10.3	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33908-10.3	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33908-10.4	VOC Ref #1	Tomasz Torski	10/02/14 08:59	Retrieve from Storage
MC33908-10.4	Tomasz Torski	GCMSU	10/02/14 08:59	Load on Instrument
MC33908-10.4	GCMSU	Tomasz Torski	10/03/14 10:28	Unload from Instrument
MC33908-10.4	Tomasz Torski	VOC Ref #1	10/03/14 10:29	Return to Storage
MC33908-11.1	Walk In Ref #22	Alireza Zeighami	09/27/14 07:55	Retrieve from Storage
MC33908-11.1	Alireza Zeighami		09/27/14 13:24	Depleted
MC33908-11.3	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33908-11.3	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33908-11.4	VOC Ref #1	Tomasz Torski	10/02/14 08:59	Retrieve from Storage

Accutest Internal Chain of Custody

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY
Received: 09/26/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC33908-11.4	Tomasz Torski	GCMSU	10/02/14 08:59	Load on Instrument
MC33908-11.4	GCMSU	Tomasz Torski	10/03/14 10:28	Unload from Instrument
MC33908-11.4	Tomasz Torski	VOC Ref #1	10/03/14 10:29	Return to Storage
MC33908-11.5	VOC Ref #1	Gary Krasinski	10/03/14 11:56	Retrieve from Storage
MC33908-11.5	Gary Krasinski	GCMSP	10/03/14 11:56	Load on Instrument
MC33908-11.5	GCMSP	Gary Krasinski	10/06/14 08:57	Unload from Instrument
MC33908-11.5	Gary Krasinski	VOC Ref #1	10/06/14 08:57	Return to Storage
MC33908-12.2	Walk In Ref #22	Alireza Zeighami	09/27/14 07:55	Retrieve from Storage
MC33908-12.2	Alireza Zeighami		09/27/14 13:24	Depleted
MC33908-12.3	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33908-12.3	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33908-12.4	VOC Ref #1	Tomasz Torski	10/02/14 08:59	Retrieve from Storage
MC33908-12.4	Tomasz Torski	GCMSU	10/02/14 08:59	Load on Instrument
MC33908-12.4	GCMSU	Tomasz Torski	10/03/14 10:28	Unload from Instrument
MC33908-12.4	Tomasz Torski	VOC Ref #1	10/03/14 10:29	Return to Storage
MC33908-13.1	Walk In Ref #22	Alireza Zeighami	09/27/14 07:55	Retrieve from Storage
MC33908-13.1	Alireza Zeighami		09/27/14 13:24	Depleted
MC33908-13.3	Walk In Ref #9	Mehdi Abdolrahim	10/03/14 07:34	Retrieve from Storage
MC33908-13.3	Mehdi Abdolrahim	Walk In Ref #9	10/03/14 09:47	Return to Storage
MC33908-13.4	VOC Ref #1	Tomasz Torski	10/02/14 08:59	Retrieve from Storage
MC33908-13.4	Tomasz Torski	GCMSU	10/02/14 08:59	Load on Instrument
MC33908-13.4	GCMSU	Tomasz Torski	10/03/14 10:28	Unload from Instrument
MC33908-13.4	Tomasz Torski	VOC Ref #1	10/03/14 10:29	Return to Storage
MC33908-14.1	VOC Ref #1	Tomasz Torski	10/02/14 08:59	Retrieve from Storage
MC33908-14.1	Tomasz Torski	GCMSU	10/02/14 08:59	Load on Instrument
MC33908-14.1	GCMSU	Tomasz Torski	10/03/14 10:28	Unload from Instrument
MC33908-14.1	Tomasz Torski	VOC Ref #1	10/03/14 10:29	Return to Storage

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSU990-MB	U22717.D	1	09/29/14	GK	n/a	n/a	MSU990

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33908-2, MC33908-3, MC33908-4, MC33908-5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	94%	70-130%
2037-26-5	Toluene-D8	105%	70-130%
460-00-4	4-Bromofluorobenzene	122%	70-130%

Method Blank Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3359-MB	N90788.D	1	10/01/14	JB	n/a	n/a	MSN3359

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33908-4, MC33908-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	95%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	97%	70-130%

Method Blank Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSU992-MB	U22759.D	1	10/02/14	GK	n/a	n/a	MSU992

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33908-7, MC33908-8, MC33908-9, MC33908-10, MC33908-11, MC33908-12, MC33908-13, MC33908-14

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	91%	70-130%
2037-26-5	Toluene-D8	95%	70-130%
460-00-4	4-Bromofluorobenzene	103%	70-130%

Method Blank Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2629-MB	P80334.D	1	10/03/14	GK	n/a	n/a	MSP2629

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33908-7, MC33908-8, MC33908-11

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	84%	70-130%
2037-26-5	Toluene-D8	94%	70-130%
460-00-4	4-Bromofluorobenzene	84%	70-130%

Blank Spike Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSU990-BS	U22714.D	1	09/29/14	GK	n/a	n/a	MSU990

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33908-2, MC33908-3, MC33908-4, MC33908-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	50.4	101	70-130
100-41-4	Ethylbenzene	50	52.9	106	70-130
108-88-3	Toluene	50	62.3	125	70-130
1330-20-7	Xylene (total)	150	163	109	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	96%	70-130%
2037-26-5	Toluene-D8	115%	70-130%
460-00-4	4-Bromofluorobenzene	119%	70-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN3359-BS	N90785.D	1	10/01/14	JB	n/a	n/a	MSN3359

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33908-4, MC33908-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	47.1	94	70-130
100-41-4	Ethylbenzene	50	47.8	96	70-130
108-88-3	Toluene	50	49.4	99	70-130
1330-20-7	Xylene (total)	150	136	91	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	96%	70-130%
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	94%	70-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSP2629-BS	P80332.D	1	10/03/14	GK	n/a	n/a	MSP2629

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33908-7, MC33908-8, MC33908-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	47.2	94	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	84%	70-130%
2037-26-5	Toluene-D8	91%	70-130%
460-00-4	4-Bromofluorobenzene	74%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSU992-BS	U22756.D	1	10/02/14	GK	n/a	n/a	MSU992
MSU992-BSD	U22757.D	1	10/02/14	GK	n/a	n/a	MSU992

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33908-7, MC33908-8, MC33908-9, MC33908-10, MC33908-11, MC33908-12, MC33908-13, MC33908-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	50	47.9	96	49.8	100	4	70-130/20
100-41-4	Ethylbenzene	50	51.3	103	51.6	103	1	70-130/20
108-88-3	Toluene	50	53.1	106	54.0	108	2	70-130/20
1330-20-7	Xylene (total)	150	148	99	150	100	1	70-130/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	90%	92%	70-130%
2037-26-5	Toluene-D8	104%	103%	70-130%
460-00-4	4-Bromofluorobenzene	105%	110%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC33908-3MS	U22734.D	1	09/29/14	GK	n/a	n/a	MSU990
MC33908-3MSD	U22735.D	1	09/29/14	GK	n/a	n/a	MSU990
MC33908-3	U22729.D	1	09/29/14	GK	n/a	n/a	MSU990

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33908-2, MC33908-3, MC33908-4, MC33908-5

CAS No.	Compound	MC33908-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		50	48.5	97	50	48.5	97	0	70-130/30
100-41-4	Ethylbenzene	ND		50	50.4	101	50	51.1	102	1	70-130/30
108-88-3	Toluene	ND		50	58.5	117	50	58.9	118	1	70-130/30
1330-20-7	Xylene (total)	ND		150	152	101	150	154	103	1	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC33908-3	Limits
1868-53-7	Dibromofluoromethane	100%	94%	98%	70-130%
2037-26-5	Toluene-D8	115%	114%	103%	70-130%
460-00-4	4-Bromofluorobenzene	121%	119%	124%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC33936-16MS	N90807.D	5	10/01/14	JB	n/a	n/a	MSN3359
MC33936-16MSD	N90808.D	5	10/01/14	JB	n/a	n/a	MSN3359
MC33936-16	N90789.D	1	10/01/14	JB	n/a	n/a	MSN3359

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33908-4, MC33908-6

CAS No.	Compound	MC33936-16 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		250	233	93	250	231	92	1	70-130/30
100-41-4	Ethylbenzene	ND		250	241	96	250	245	98	2	70-130/30
108-88-3	Toluene	ND		250	243	97	250	241	96	1	70-130/30
1330-20-7	Xylene (total)	ND		750	687	92	750	710	95	3	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC33936-16	Limits
1868-53-7	Dibromofluoromethane	93%	93%	95%	70-130%
2037-26-5	Toluene-D8	102%	101%	100%	70-130%
460-00-4	4-Bromofluorobenzene	94%	92%	97%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC33981-7MS	P80347.D	5	10/03/14	GK	n/a	n/a	MSP2629
MC33981-7MSD	P80348.D	5	10/03/14	GK	n/a	n/a	MSP2629
MC33981-7	P80343.D	1	10/03/14	GK	n/a	n/a	MSP2629

The QC reported here applies to the following samples: **Method:** SW846 8260C

MC33908-7, MC33908-8, MC33908-11

CAS No.	Compound	MC33981-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		250	246	98	250	233	93	5	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC33981-7	Limits
1868-53-7	Dibromofluoromethane	84%	85%	87%	70-130%
2037-26-5	Toluene-D8	92%	92%	93%	70-130%
460-00-4	4-Bromofluorobenzene	75%	76%	84%	70-130%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3345-BFB
Lab File ID: N90385.D
Instrument ID: GCMSN
Injection Date: 09/18/14
Injection Time: 13:17

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	27584	25.4		Pass
75	30.0 - 60.0% of mass 95	54529	50.3		Pass
95	Base peak, 100% relative abundance	108414	100.0		Pass
96	5.0 - 9.0% of mass 95	7647	7.05		Pass
173	Less than 2.0% of mass 174	581	0.54	(0.79) [a]	Pass
174	50.0 - 150.0% of mass 95	73592	67.9		Pass
175	5.0 - 9.0% of mass 174	5197	4.79	(7.06) [a]	Pass
176	95.0 - 101.0% of mass 174	71013	65.5	(96.5) [a]	Pass
177	5.0 - 9.0% of mass 176	4495	4.15	(6.33) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSN3345-IC3345	N90391.D	09/18/14	16:07	02:50	Initial cal 0.5
MSN3345-IC3345	N90392.D	09/18/14	16:35	03:18	Initial cal 1
MSN3345-IC3345	N90393.D	09/18/14	17:03	03:46	Initial cal 2
MSN3345-IC3345	N90394.D	09/18/14	17:32	04:15	Initial cal 5
MSN3345-IC3345	N90395.D	09/18/14	18:00	04:43	Initial cal 10
MSN3345-IC3345	N90396.D	09/18/14	18:30	05:13	Initial cal 25
MSN3345-ICC3345	N90397.D	09/18/14	18:59	05:42	Initial cal 50
MSN3345-IC3345	N90398.D	09/18/14	19:27	06:10	Initial cal 100
MSN3345-IC3345	N90399.D	09/18/14	19:55	06:38	Initial cal 200
MSN3345-IC3345	N90400.D	09/18/14	20:23	07:06	Initial cal 400

Instrument Performance Check (BFB)

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3345-BFB
Lab File ID: N90407.D
Instrument ID: GCMSN
Injection Date: 09/19/14
Injection Time: 13:04

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	31008	23.4		Pass
75	30.0 - 60.0% of mass 95	66272	49.9		Pass
95	Base peak, 100% relative abundance	132736	100.0		Pass
96	5.0 - 9.0% of mass 95	8223	6.20		Pass
173	Less than 2.0% of mass 174	660	0.50	(0.72) [a]	Pass
174	50.0 - 150.0% of mass 95	91480	68.9		Pass
175	5.0 - 9.0% of mass 174	5584	4.21	(6.10) [a]	Pass
176	95.0 - 101.0% of mass 174	88016	66.3	(96.2) [a]	Pass
177	5.0 - 9.0% of mass 176	5211	3.93	(5.92) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSN3345-ICV3345	N90407.D	09/19/14	13:04	00:00	Initial cal verification 50
MSN3345-BS	N90407.D	09/19/14	13:04	00:00	Blank Spike
MSN3345-CC3345	N90407.D	09/19/14	13:04	00:00	Continuing cal 50
MSN3345-MB	N90410.D	09/19/14	14:28	01:24	Method Blank
ZZZZZZ	N90411.D	09/19/14	15:09	02:05	(unrelated sample)
ZZZZZZ	N90412.D	09/19/14	15:37	02:33	(unrelated sample)
ZZZZZZ	N90413.D	09/19/14	16:05	03:01	(unrelated sample)
ZZZZZZ	N90414.D	09/19/14	16:33	03:29	(unrelated sample)
ZZZZZZ	N90415.D	09/19/14	17:02	03:58	(unrelated sample)
ZZZZZZ	N90416.D	09/19/14	17:30	04:26	(unrelated sample)
ZZZZZZ	N90417.D	09/19/14	17:58	04:54	(unrelated sample)
ZZZZZZ	N90418.D	09/19/14	18:26	05:22	(unrelated sample)
ZZZZZZ	N90422.D	09/19/14	20:19	07:15	(unrelated sample)
ZZZZZZ	N90423.D	09/19/14	20:47	07:43	(unrelated sample)
ZZZZZZ	N90424.D	09/19/14	21:16	08:12	(unrelated sample)
ZZZZZZ	N90425.D	09/19/14	21:44	08:40	(unrelated sample)
ZZZZZZ	N90426.D	09/19/14	22:12	09:08	(unrelated sample)
ZZZZZZ	N90427.D	09/19/14	22:40	09:36	(unrelated sample)
ZZZZZZ	N90428.D	09/19/14	23:09	10:05	(unrelated sample)
ZZZZZZ	N90429.D	09/19/14	23:37	10:33	(unrelated sample)
ZZZZZZ	N90430.D	09/20/14	00:05	11:01	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3359-BFB
Lab File ID: N90785.D
Instrument ID: GCMSN
Injection Date: 10/01/14
Injection Time: 09:41

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	26904	24.5		Pass
75	30.0 - 60.0% of mass 95	55224	50.3		Pass
95	Base peak, 100% relative abundance	109856	100.0		Pass
96	5.0 - 9.0% of mass 95	7088	6.45		Pass
173	Less than 2.0% of mass 174	824	0.75	(0.99) [a]	Pass
174	50.0 - 150.0% of mass 95	83112	75.7		Pass
175	5.0 - 9.0% of mass 174	5854	5.33	(7.04) [a]	Pass
176	95.0 - 101.0% of mass 174	79304	72.2	(95.4) [a]	Pass
177	5.0 - 9.0% of mass 176	5675	5.17	(7.16) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSN3359-BS	N90785.D	10/01/14	09:41	00:00	Blank Spike
MSN3359-CC3345	N90785.D	10/01/14	09:41	00:00	Continuing cal 50
MSN3359-MB	N90788.D	10/01/14	11:06	01:25	Method Blank
MC33936-16	N90789.D	10/01/14	11:34	01:53	(used for QC only; not part of job MC33908)
ZZZZZZ	N90790.D	10/01/14	12:03	02:22	(unrelated sample)
ZZZZZZ	N90791.D	10/01/14	12:31	02:50	(unrelated sample)
ZZZZZZ	N90792.D	10/01/14	12:59	03:18	(unrelated sample)
MC33908-6	N90793.D	10/01/14	13:27	03:46	MW-9
MC33908-4	N90794.D	10/01/14	13:56	04:15	MW-12R
ZZZZZZ	N90795.D	10/01/14	14:24	04:43	(unrelated sample)
ZZZZZZ	N90796.D	10/01/14	14:52	05:11	(unrelated sample)
ZZZZZZ	N90797.D	10/01/14	15:21	05:40	(unrelated sample)
ZZZZZZ	N90798.D	10/01/14	15:49	06:08	(unrelated sample)
ZZZZZZ	N90799.D	10/01/14	16:17	06:36	(unrelated sample)
ZZZZZZ	N90800.D	10/01/14	16:45	07:04	(unrelated sample)
ZZZZZZ	N90801.D	10/01/14	17:13	07:32	(unrelated sample)
ZZZZZZ	N90802.D	10/01/14	17:42	08:01	(unrelated sample)
ZZZZZZ	N90803.D	10/01/14	18:10	08:29	(unrelated sample)
ZZZZZZ	N90804.D	10/01/14	18:38	08:57	(unrelated sample)
ZZZZZZ	N90805.D	10/01/14	19:06	09:25	(unrelated sample)
MC33936-16MS	N90807.D	10/01/14	20:03	10:22	Matrix Spike
MC33936-16MSD	N90808.D	10/01/14	20:31	10:50	Matrix Spike Duplicate

Instrument Performance Check (BFB)

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSP2607-BFB
Lab File ID: P79735.D
Instrument ID: GCMSP
Injection Date: 09/12/14
Injection Time: 15:54

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	27360	23.0		Pass
75	30.0 - 60.0% of mass 95	56616	47.7		Pass
95	Base peak, 100% relative abundance	118776	100.0		Pass
96	5.0 - 9.0% of mass 95	7690	6.47		Pass
173	Less than 2.0% of mass 174	1417	1.19	(1.33) [a]	Pass
174	50.0 - 150.0% of mass 95	106904	90.0		Pass
175	5.0 - 9.0% of mass 174	7837	6.60	(7.33) [a]	Pass
176	95.0 - 101.0% of mass 174	107320	90.4	(100.4) [a]	Pass
177	5.0 - 9.0% of mass 176	6917	5.82	(6.45) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSP2607-IC2607	P79736.D	09/12/14	16:26	00:32	Initial cal 0.5
MSP2607-IC2607	P79737.D	09/12/14	16:55	01:01	Initial cal 1
MSP2607-IC2607	P79738.D	09/12/14	17:25	01:31	Initial cal 2
MSP2607-IC2607	P79739.D	09/12/14	17:55	02:01	Initial cal 5
MSP2607-IC2607	P79740.D	09/12/14	18:25	02:31	Initial cal 10
MSP2607-IC2607	P79741.D	09/12/14	18:55	03:01	Initial cal 25
MSP2607-ICC2607	P79742.D	09/12/14	19:25	03:31	Initial cal 50
MSP2607-IC2607	P79743.D	09/12/14	19:55	04:01	Initial cal 100
MSP2607-IC2607	P79744.D	09/12/14	20:24	04:30	Initial cal 200
MSP2607-IC2607	P79745.D	09/12/14	20:57	05:03	Initial cal 400

Instrument Performance Check (BFB)

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSP2608-BFB
Lab File ID: P79759.D
Instrument ID: GCMSP
Injection Date: 09/15/14
Injection Time: 10:28

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	26336	22.5		Pass
75	30.0 - 60.0% of mass 95	55632	47.5		Pass
95	Base peak, 100% relative abundance	117208	100.0		Pass
96	5.0 - 9.0% of mass 95	7308	6.24		Pass
173	Less than 2.0% of mass 174	2138	1.82	(1.73) [a]	Pass
174	50.0 - 150.0% of mass 95	123688	105.5		Pass
175	5.0 - 9.0% of mass 174	9219	7.87	(7.45) [a]	Pass
176	95.0 - 101.0% of mass 174	120984	103.2	(97.8) [a]	Pass
177	5.0 - 9.0% of mass 176	7206	6.15	(5.96) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSP2608-CC2607	P79759.D	09/15/14	10:28	00:00	Continuing cal 50
MSP2608-BS	P79759.D	09/15/14	10:28	00:00	Blank Spike
MSP2608-ICV2607	P79759.D	09/15/14	10:28	00:00	Initial cal verification 50
MSP2608-MB	P79761.D	09/15/14	11:28	01:00	Method Blank
ZZZZZZ	P79762.D	09/15/14	11:58	01:30	(unrelated sample)
ZZZZZZ	P79763.D	09/15/14	12:28	02:00	(unrelated sample)
ZZZZZZ	P79764.D	09/15/14	12:58	02:30	(unrelated sample)
ZZZZZZ	P79765.D	09/15/14	13:28	03:00	(unrelated sample)
ZZZZZZ	P79766.D	09/15/14	13:58	03:30	(unrelated sample)
ZZZZZZ	P79767.D	09/15/14	14:28	04:00	(unrelated sample)
ZZZZZZ	P79768.D	09/15/14	14:58	04:30	(unrelated sample)
ZZZZZZ	P79769.D	09/15/14	15:28	05:00	(unrelated sample)
ZZZZZZ	P79771.D	09/15/14	16:28	06:00	(unrelated sample)
ZZZZZZ	P79772.D	09/15/14	16:58	06:30	(unrelated sample)
ZZZZZZ	P79773.D	09/15/14	17:28	07:00	(unrelated sample)
ZZZZZZ	P79775.D	09/15/14	18:27	07:59	(unrelated sample)
ZZZZZZ	P79776.D	09/15/14	18:57	08:29	(unrelated sample)
ZZZZZZ	P79779.D	09/15/14	20:27	09:59	(unrelated sample)
ZZZZZZ	P79780.D	09/15/14	20:57	10:29	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSP2629-BFB
Lab File ID: P80332.D
Instrument ID: GCMSP
Injection Date: 10/03/14
Injection Time: 10:19

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	27496	33.0		Pass
75	30.0 - 60.0% of mass 95	48456	58.2		Pass
95	Base peak, 100% relative abundance	83200	100.0		Pass
96	5.0 - 9.0% of mass 95	5601	6.73		Pass
173	Less than 2.0% of mass 174	1532	1.84	(1.92) [a]	Pass
174	50.0 - 150.0% of mass 95	79824	95.9		Pass
175	5.0 - 9.0% of mass 174	6974	8.38	(8.74) [a]	Pass
176	95.0 - 101.0% of mass 174	79608	95.7	(99.7) [a]	Pass
177	5.0 - 9.0% of mass 176	5410	6.50	(6.80) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSP2629-BS	P80332.D	10/03/14	10:19	00:00	Blank Spike
MSP2629-CC2607	P80332.D	10/03/14	10:19	00:00	Continuing cal 50
MSP2629-MB	P80334.D	10/03/14	11:19	01:00	Method Blank
GP18211-LB1	P80335.D	10/03/14	11:50	01:31	Leachate Blank
ZZZZZZ	P80336.D	10/03/14	12:21	02:02	(unrelated sample)
ZZZZZZ	P80337.D	10/03/14	12:52	02:33	(unrelated sample)
ZZZZZZ	P80338.D	10/03/14	13:24	03:05	(unrelated sample)
ZZZZZZ	P80339.D	10/03/14	13:56	03:37	(unrelated sample)
ZZZZZZ	P80340.D	10/03/14	14:28	04:09	(unrelated sample)
ZZZZZZ	P80341.D	10/03/14	14:59	04:40	(unrelated sample)
ZZZZZZ	P80342.D	10/03/14	15:30	05:11	(unrelated sample)
MC33981-7	P80343.D	10/03/14	16:00	05:41	(used for QC only; not part of job MC33908)
ZZZZZZ	P80344.D	10/03/14	16:29	06:10	(unrelated sample)
ZZZZZZ	P80345.D	10/03/14	16:59	06:40	(unrelated sample)
ZZZZZZ	P80346.D	10/03/14	17:30	07:11	(unrelated sample)
MC33981-7MS	P80347.D	10/03/14	17:59	07:40	Matrix Spike
MC33981-7MSD	P80348.D	10/03/14	18:29	08:10	Matrix Spike Duplicate
GP18211-LS1	P80349.D	10/03/14	18:59	08:40	Leachate Spike
MC33908-7	P80350.D	10/03/14	19:30	09:11	MW-8R
MC33908-8	P80351.D	10/03/14	20:01	09:42	MW-10R
MC33908-11	P80352.D	10/03/14	20:32	10:13	NGO-DUP092314
ZZZZZZ	P80353.D	10/03/14	21:02	10:43	(unrelated sample)
ZZZZZZ	P80354.D	10/03/14	21:32	11:13	(unrelated sample)
ZZZZZZ	P80355.D	10/03/14	22:03	11:44	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample:	MSU972-BFB	**Injection Date:**	08/29/14
Lab File ID:	U22110.D	**Injection Time:**	14:02
Instrument ID:	GCMSU		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	49149	24.0		Pass
75	30.0 - 60.0% of mass 95	93029	45.5		Pass
95	Base peak, 100% relative abundance	204672	100.0		Pass
96	5.0 - 9.0% of mass 95	14550	7.11		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	179093	87.5		Pass
175	5.0 - 9.0% of mass 174	12996	6.35	(7.26) [a]	Pass
176	95.0 - 101.0% of mass 174	172139	84.1	(96.1) [a]	Pass
177	5.0 - 9.0% of mass 176	11157	5.45	(6.48) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSU972-IC972	U22111.D	08/29/14	14:29	00:27	Initial cal 0.5
MSU972-IC972	U22112.D	08/29/14	14:56	00:54	Initial cal 1
MSU972-IC972	U22113.D	08/29/14	15:24	01:22	Initial cal 2
MSU972-IC972	U22114.D	08/29/14	15:51	01:49	Initial cal 5
MSU972-IC972	U22115.D	08/29/14	16:18	02:16	Initial cal 10
MSU972-IC972	U22116.D	08/29/14	16:45	02:43	Initial cal 25
MSU972-ICC972	U22117.D	08/29/14	17:12	03:10	Initial cal 50
MSU972-IC972	U22118.D	08/29/14	17:40	03:38	Initial cal 100
MSU972-IC972	U22119.D	08/29/14	18:07	04:05	Initial cal 200
MSU972-IC972	U22120.D	08/29/14	18:34	04:32	Initial cal 400
MSU972-ICV972	U22123.D	08/29/14	19:56	05:54	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample:	MSU990-BFB	**Injection Date:**	09/29/14
Lab File ID:	U22713.D	**Injection Time:**	08:51
Instrument ID:	GCMSU		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	78176	25.7		Pass
75	30.0 - 60.0% of mass 95	142400	46.8		Pass
95	Base peak, 100% relative abundance	304256	100.0		Pass
96	5.0 - 9.0% of mass 95	19480	6.40		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	291840	95.9		Pass
175	5.0 - 9.0% of mass 174	21592	7.10	(7.40) [a]	Pass
176	95.0 - 101.0% of mass 174	286080	94.0	(98.0) [a]	Pass
177	5.0 - 9.0% of mass 176	18904	6.21	(6.61) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSU990-CC972	U22713.D	09/29/14	08:51	00:00	Continuing cal 50
MSU990-BS	U22714.D	09/29/14	09:18	00:27	Blank Spike
MSU990-MB	U22717.D	09/29/14	10:40	01:49	Method Blank
ZZZZZZ	U22718.D	09/29/14	11:08	02:17	(unrelated sample)
ZZZZZZ	U22719.D	09/29/14	11:35	02:44	(unrelated sample)
ZZZZZZ	U22720.D	09/29/14	12:02	03:11	(unrelated sample)
ZZZZZZ	U22721.D	09/29/14	12:29	03:38	(unrelated sample)
ZZZZZZ	U22722.D	09/29/14	12:57	04:06	(unrelated sample)
ZZZZZZ	U22723.D	09/29/14	13:25	04:34	(unrelated sample)
ZZZZZZ	U22724.D	09/29/14	13:52	05:01	(unrelated sample)
ZZZZZZ	U22725.D	09/29/14	14:20	05:29	(unrelated sample)
ZZZZZZ	U22726.D	09/29/14	14:47	05:56	(unrelated sample)
ZZZZZZ	U22727.D	09/29/14	15:15	06:24	(unrelated sample)
ZZZZZZ	U22728.D	09/29/14	15:42	06:51	(unrelated sample)
MC33908-3	U22729.D	09/29/14	16:09	07:18	MW-13R
ZZZZZZ	U22730.D	09/29/14	16:36	07:45	(unrelated sample)
ZZZZZZ	U22731.D	09/29/14	17:04	08:13	(unrelated sample)
MC33908-5	U22732.D	09/29/14	17:31	08:40	MW-16R
MC33908-2	U22733.D	09/29/14	17:59	09:08	MW-15
MC33908-3MS	U22734.D	09/29/14	18:26	09:35	Matrix Spike
MC33908-3MSD	U22735.D	09/29/14	18:54	10:03	Matrix Spike Duplicate
ZZZZZZ	U22737.D	09/29/14	19:48	10:57	(unrelated sample)
MC33908-4	U22738.D	09/29/14	20:15	11:24	MW-12R

Instrument Performance Check (BFB)

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSU992-BFB
Lab File ID: U22756.D
Instrument ID: GCMSU
Injection Date: 10/02/14
Injection Time: 08:16

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	58984	29.5		Pass
75	30.0 - 60.0% of mass 95	99776	49.9		Pass
95	Base peak, 100% relative abundance	199936	100.0		Pass
96	5.0 - 9.0% of mass 95	13650	6.83		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	176000	88.0		Pass
175	5.0 - 9.0% of mass 174	13124	6.56	(7.46) [a]	Pass
176	95.0 - 101.0% of mass 174	167808	83.9	(95.3) [a]	Pass
177	5.0 - 9.0% of mass 176	11709	5.86	(6.98) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSU992-CC972	U22756.D	10/02/14	08:16	00:00	Continuing cal 50
MSU992-BS	U22756.D	10/02/14	08:16	00:00	Blank Spike
MSU992-BSD	U22757.D	10/02/14	08:43	00:27	Blank Spike Duplicate
MSU992-MB	U22759.D	10/02/14	09:37	01:21	Method Blank
ZZZZZZ	U22760.D	10/02/14	10:04	01:48	(unrelated sample)
ZZZZZZ	U22761.D	10/02/14	10:31	02:15	(unrelated sample)
MC33908-14	U22762.D	10/02/14	10:59	02:43	TRIP BLANK
ZZZZZZ	U22763.D	10/02/14	11:26	03:10	(unrelated sample)
ZZZZZZ	U22764.D	10/02/14	11:53	03:37	(unrelated sample)
ZZZZZZ	U22765.D	10/02/14	12:20	04:04	(unrelated sample)
ZZZZZZ	U22766.D	10/02/14	12:48	04:32	(unrelated sample)
MC33908-9	U22767.D	10/02/14	13:16	05:00	MW-11
MC33908-10	U22768.D	10/02/14	13:43	05:27	MW-4R
MC33908-12	U22769.D	10/02/14	14:10	05:54	MW-14R
MC33908-13	U22770.D	10/02/14	14:37	06:21	MW-17
ZZZZZZ	U22771.D	10/02/14	15:05	06:49	(unrelated sample)
ZZZZZZ	U22772.D	10/02/14	15:32	07:16	(unrelated sample)
ZZZZZZ	U22773.D	10/02/14	15:59	07:43	(unrelated sample)
ZZZZZZ	U22774.D	10/02/14	16:26	08:10	(unrelated sample)
MC33908-8	U22775.D	10/02/14	16:54	08:38	MW-10R
MC33908-11	U22776.D	10/02/14	17:21	09:05	NGO-DUP092314
MC33908-7	U22777.D	10/02/14	17:48	09:32	MW-8R

Volatile Internal Standard Area Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std: MSN3359-CC3345 **Injection Date:** 10/01/14
Lab File ID: N90785.D **Injection Time:** 09:41
Instrument ID: GCMSN **Method:** SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	331306	9.12	517983	9.99	286514	13.24	223331	15.80	128041	6.69
Upper Limit [a]	662612	9.62	1035966	10.49	573028	13.74	446662	16.30	256082	7.19
Lower Limit [b]	165653	8.62	258992	9.49	143257	12.74	111666	15.30	64021	6.19

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN3359-BS	331306	9.12	517983	9.99	286514	13.24	223331	15.80	128041	6.69
MSN3359-MB	299809	9.12	461539	9.99	231460	13.24	174841	15.80	103967	6.71
MC33936-16	296032	9.12	453156	9.99	228258	13.24	171392	15.80	102393	6.71
ZZZZZZ	294204	9.12	456759	9.99	230716	13.24	177299	15.79	97779	6.71
ZZZZZZ	289917	9.12	449225	9.98	228603	13.24	175311	15.80	98989	6.71
ZZZZZZ	321722	9.12	527563	9.99	280026	13.24	223562	15.80	106781	6.70
MC33908-6	320441	9.12	520623	9.98	261383	13.24	218127	15.80	114306	6.71
MC33908-4	322040	9.11	496081	9.98	249097	13.24	195541	15.80	105206	6.71
ZZZZZZ	305884	9.12	476276	9.99	238594	13.24	184403	15.80	109877	6.71
ZZZZZZ	302109	9.12	464497	9.98	236240	13.24	179127	15.80	105086	6.71
ZZZZZZ	295755	9.12	447366	9.99	230669	13.24	172881	15.80	103608	6.72
ZZZZZZ	293944	9.12	460182	9.99	237333	13.24	179615	15.80	104435	6.71
ZZZZZZ	290925	9.12	456372	9.99	234976	13.24	180158	15.80	105231	6.71
ZZZZZZ	281698	9.11	437600	9.99	225394	13.24	165074	15.80	97532	6.72
ZZZZZZ	290802	9.12	455501	9.99	234676	13.24	181250	15.80	101205	6.72
ZZZZZZ	294251	9.11	459985	9.98	242168	13.24	212909	15.80	121817	6.70
ZZZZZZ	297848	9.12	460762	9.98	238432	13.24	180952	15.80	110259	6.71
ZZZZZZ	301192	9.12	473687	9.99	250197	13.24	228184	15.80	137803	6.70
ZZZZZZ	317663	9.12	498782	9.99	266947	13.24	245179	15.80	110609	6.71
MC33936-16MS	345846	9.11	539213	9.99	291111	13.24	231578	15.80	118591	6.69
MC33936-16MSD	348589	9.12	545275	9.99	281329	13.24	230106	15.80	115549	6.70

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std: MSP2629-CC2607 **Injection Date:** 10/03/14
Lab File ID: P80332.D **Injection Time:** 10:19
Instrument ID: GCMSP **Method:** SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	430392	8.48	510520	9.32	260558	12.52	286559	15.08	88974	6.16
Upper Limit [a]	860784	8.98	1021040	9.82	521116	13.02	573118	15.58	177948	6.66
Lower Limit [b]	215196	7.98	255260	8.82	130279	12.02	143280	14.58	44487	5.66
Lab Sample ID	**IS 1 AREA**	**RT**	**IS 2 AREA**	**RT**	**IS 3 AREA**	**RT**	**IS 4 AREA**	**RT**	**IS 5 AREA**	**RT**
MSP2629-BS	430392	8.48	510520	9.32	260558	12.52	286559	15.08	88974	6.16
MSP2629-MB	373146	8.48	445612	9.33	232600	12.52	222171	15.08	97699	6.19
GP18211-LB1	362947	8.48	432970	9.33	224917	12.53	218085	15.08	73165	6.19
ZZZZZZ	376027	8.48	444548	9.33	229084	12.52	224148	15.08	100672	6.18
ZZZZZZ	377287	8.48	451924	9.33	230429	12.53	223549	15.09	94776	6.19
ZZZZZZ	384175	8.48	460921	9.33	238148	12.53	227671	15.09	101809	6.18
ZZZZZZ	360910	8.48	436479	9.32	226149	12.53	219972	15.08	83330	6.18
ZZZZZZ	293998	8.48	350083	9.33	183713	12.53	173930	15.09	71743	6.20
ZZZZZZ	367502	8.48	435184	9.33	224004	12.53	224628	15.08	89236	6.18
ZZZZZZ	347683	8.48	426379	9.33	221404	12.53	210693	15.08	68924	6.19
MC33981-7	358933	8.48	441492	9.33	227969	12.53	216989	15.08	74961	6.18
ZZZZZZ	358150	8.48	424197	9.33	220716	12.53	217796	15.08	92636	6.19
ZZZZZZ	297620	8.48	357102	9.33	186112	12.53	172251	15.08	71718	6.19
ZZZZZZ	345599	8.48	419726	9.33	216268	12.53	207098	15.08	98762	6.18
MC33981-7MS	389456	8.48	468258	9.32	229113	12.52	261236	15.08	88487	6.16
MC33981-7MSD	405528	8.48	488581	9.32	249497	12.53	271110	15.08	98204	6.16
GP18211-LS1	414303	8.48	495714	9.32	241888	12.52	274374	15.08	93661	6.16
MC33908-7	372076	8.48	440671	9.32	228540	12.53	230073	15.08	87791	6.19
MC33908-8	379321	8.48	457546	9.32	228200	12.53	234994	15.08	87142	6.18
MC33908-11	365627	8.48	436049	9.33	227963	12.52	223591	15.08	81282	6.19
ZZZZZZ	372876	8.48	446843	9.33	225229	12.52	234587	15.08	109634	6.17
ZZZZZZ	337775	8.48	402582	9.32	191041	12.53	231977	15.08	86833	6.18
ZZZZZZ	385168	8.48	458194	9.32	228985	12.52	246373	15.08	81654	6.18

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std: MSU990-CC972 **Injection Date:** 09/29/14
Lab File ID: U22713.D **Injection Time:** 08:51
Instrument ID: GCMSU **Method:** SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	546318	8.97	974839	9.84	525663	13.09	724843	15.66	249920	6.66
Upper Limit [a]	1092636	9.47	1949678	10.34	1051326	13.59	1449686	16.16	499840	7.16
Lower Limit [b]	273159	8.47	487420	9.34	262832	12.59	362422	15.16	124960	6.16

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSU990-BS	516231	8.97	921335	9.84	547020	13.09	734567	15.66	215940	6.69
MSU990-MB	491077	8.97	823511	9.84	431336	13.10	645641	15.66	196790	6.68
ZZZZZZ	492240	8.97	815014	9.84	415991	13.10	615094	15.66	164743	6.67
ZZZZZZ	476592	8.97	790940	9.84	434416	13.10	614871	15.66	195947	6.69
ZZZZZZ	488303	8.97	808110	9.84	422134	13.10	614287	15.66	186863	6.65
ZZZZZZ	417129	8.97	710376	9.84	391746	13.10	591811	15.66	189627	6.68
ZZZZZZ	485416	8.97	810774	9.84	423277	13.10	585897	15.66	202442	6.67
ZZZZZZ	442129	8.97	757467	9.84	396881	13.10	571784	15.66	193005	6.69
ZZZZZZ	415058	8.97	704709	9.84	391350	13.10	565669	15.66	199584	6.70
ZZZZZZ	474211	8.97	806246	9.84	416348	13.10	560138	15.66	208369	6.67
ZZZZZZ	435666	8.97	744746	9.84	392957	13.10	562089	15.66	189886	6.68
ZZZZZZ	431849	8.97	737786	9.84	402868	13.10	551394	15.66	157844	6.71
ZZZZZZ	415227	8.97	708689	9.84	380378	13.10	553922	15.66	213885	6.69
MC33908-3	412231	8.97	715279	9.84	383116	13.10	551008	15.66	207292	6.68
ZZZZZZ	451312	8.97	772809	9.84	401944	13.10	573335	15.66	197678	6.68
ZZZZZZ	439055	8.97	747293	9.84	382700	13.10	546231	15.66	183309	6.67
MC33908-5	410836	8.97	703927	9.84	393265	13.10	544863	15.66	199910	6.70
MC33908-2	426393	8.97	739413	9.84	393431	13.10	540489	15.66	189593	6.68
MC33908-3MS	411221	8.97	761189	9.84	453175	13.09	606652	15.66	173493	6.74
MC33908-3MSD	446496	8.97	797825	9.84	457923	13.09	597713	15.66	156986	6.68
ZZZZZZ	443391	8.97	782050	9.84	435582	13.10	619692	15.66	178780	6.68
MC33908-4	467076	8.97	833886	9.84	424041	13.10	589186	15.66	193720	6.68

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std:	MSU992-CC972	**Injection Date:**	10/02/14
Lab File ID:	U22756.D	**Injection Time:**	08:16
Instrument ID:	GCMSU	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	599572	8.97	1042811	9.84	414771	13.09	500463	15.66	249452	6.69
Upper Limit [a]	1199144	9.47	2085622	10.34	829542	13.59	1000926	16.16	498904	7.19
Lower Limit [b]	299786	8.47	521406	9.34	207386	12.59	250232	15.16	124726	6.19

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSU992-BS	599572	8.97	1042811	9.84	414771	13.09	500463	15.66	249452	6.69
MSU992-BSD	573500	8.97	991830	9.84	404230	13.09	476204	15.66	228658	6.75
MSU992-MB	526421	8.97	879076	9.84	293123	13.10	399923	15.66	187785	6.75
ZZZZZZ	470753	8.97	812798	9.84	275278	13.10	376746	15.66	164885	6.80
ZZZZZZ	483907	8.97	804346	9.84	294732	13.10	383504	15.66	163637	6.77
MC33908-14	454916	8.97	760940	9.84	254977	13.10	346525	15.66	165543	6.77
ZZZZZZ	436604	8.97	753074	9.84	266492	13.10	356108	15.66	177163	6.79
ZZZZZZ	414841	8.97	717978	9.84	254988	13.10	340263	15.66	166884	6.79
ZZZZZZ	405528	8.97	687442	9.84	254714	13.10	337484	15.66	206737	6.78
ZZZZZZ	419673	8.97	719044	9.84	248344	13.10	328053	15.66	167409	6.77
MC33908-9	404957	8.97	695524	9.84	285738	13.10	353484	15.66	181886	6.76
MC33908-10	405269	8.97	689174	9.84	282250	13.10	344138	15.66	145634	6.77
MC33908-12	395485	8.97	683920	9.84	226225	13.10	294726	15.66	166740	6.76
MC33908-13	376971	8.97	656598	9.84	215939	13.10	292106	15.66	150951	6.77
ZZZZZZ	410096	8.97	720198	9.84	258041	13.10	317097	15.66	199441	6.73
ZZZZZZ	423576	8.97	731446	9.84	256217	13.10	324214	15.66	222073	6.73
ZZZZZZ	401910	8.97	725591	9.84	274857	13.10	347977	15.66	172464	6.75
ZZZZZZ	437653	8.97	779403	9.84	289827	13.10	373566	15.66	189546	6.76
MC33908-8	535704	8.97	950565	9.84	306566	13.10	398187	15.66	218006	6.73
MC33908-11	507675	8.97	916604	9.84	307688	13.10	383958	15.66	238026	6.75
MC33908-7	505650	8.97	877234	9.84	287501	13.10	365312	15.66	181950	6.77

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC33908-2	U22733.D	95	105	123
MC33908-3	U22729.D	98	103	124
MC33908-4	N90794.D	94	100	93
MC33908-4	U22738.D	94	103	124
MC33908-5	U22732.D	99	108	125
MC33908-6	N90793.D	96	98	93
MC33908-7	P80350.D	83	95	82
MC33908-7	U22777.D	91	95	105
MC33908-8	P80351.D	84	92	82
MC33908-8	U22775.D	89	94	103
MC33908-9	U22767.D	98	103	111
MC33908-10	U22768.D	96	106	112
MC33908-11	P80352.D	85	94	84
MC33908-11	U22776.D	96	96	105
MC33908-12	U22769.D	99	94	103
MC33908-13	U22770.D	98	94	101
MC33908-14	U22762.D	95	91	103
MC33908-3MS	U22734.D	100	115	121
MC33908-3MSD	U22735.D	94	114	119
MC33936-16MS	N90807.D	93	102	94
MC33936-16MSD	N90808.D	93	101	92
MC33981-7MS	P80347.D	84	92	75
MC33981-7MSD	P80348.D	85	92	76
MSN3359-BS	N90785.D	96	104	94
MSN3359-MB	N90788.D	95	100	97
MSP2629-BS	P80332.D	84	91	74
MSP2629-MB	P80334.D	84	94	84
MSU990-BS	U22714.D	96	115	119
MSU990-MB	U22717.D	94	105	122
MSU992-BS	U22756.D	90	104	105
MSU992-BSD	U22757.D	92	103	110
MSU992-MB	U22759.D	91	95	103

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

Initial Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3345-ICC3345
Lab FileID: N90397.D

Response Factor Report MSN

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Calibration Files
0.5 =N90391.D 1 =N90392.D 2 =N90393.D 5 =N90394.D
10 =N90395.D 25 =N90396.D 50 =N90397.D 100 =N90398.D
200 =N90399.D 400 =N90400.D = =

Compound	0.5	1	2	5	10	25	50	100	200	400	Avg	%RSD
1) p tert butyl alcohol-d9 ----------ISTD----------												
2) tertiary butyl alcohol			2.116	1.627	1.612	1.771	1.676	1.849	1.793	1.619	1.758	9.68
3) Ethanol			0.328	0.262	0.247	0.238	0.240	0.268	0.252	0.213	0.256	13.14
4) I pentafluorobenzene ----------ISTD----------												
5) dichlorodifluoromethane			0.516	0.577	0.615	0.804	0.734	0.755	0.682	0.584	0.658	15.30
6) chloromethane			0.767	0.747	0.841	0.869	0.752	0.851	0.895	0.733	0.807	7.86
7) vinyl chloride		1.342	0.494	0.598	0.649	0.644	0.566	0.574	0.499		0.671	41.33
---- Linear regression ---- Coefficient = 0.9910												
Response Ratio = 0.01192 + 0.53102 *A												
8) bromomethane			0.110	0.137	0.189	0.216	0.234	0.300	0.320		0.215	36.20
---- Quadratic regression ---- Coefficient = 0.9971												
Response Ratio = -0.00728 + 0.23503 *A + 0.02290 *A^2												
9) chloroethane			0.291	0.341	0.380	0.377	0.315	0.315	0.300	0.266	0.323	12.46
10) ethyl ether				0.547	0.531	0.530	0.499	0.465	0.450	0.404	0.489	10.63
11) acetonitrile				0.081	0.086	0.096	0.083	0.070	0.068	0.059	0.078	16.51
12) trichlorofluoromethane		1.604	0.647	0.741	0.827	1.023	0.937	0.953			0.962	32.39
---- Linear regression ---- Coefficient = 0.9926												
Response Ratio = 0.00133 + 0.94402 *A												
13) freon-113				0.308	0.360	0.495	0.466	0.451	0.457	0.390	0.418	16.06
14) acrolein				0.066	0.066	0.066	0.062	0.050	0.048	0.041	0.057	18.10
15) 1,1-dichloroethene		0.705	0.558	0.360	0.365	0.444	0.399	0.407	0.401	0.355	0.444	26.16
---- Linear regression ---- Coefficient = 0.9952												
Response Ratio = 0.00648 + 0.37622 *A												
16) acetone				0.129	0.136	0.126	0.099	0.085			0.115	18.91
17) Methyl Acetate												

Initial Calibration Summary

Job Number: MC33908 **Sample:** MSN3345-ICC3345
Account: BBLNYS Arcadis **Lab FileID:** N90397.D
Project: National Grid, 10 King Street, Ogdensburg, NY

```
                          0.486 0.501 0.512 0.429 0.379 0.340        0.441   16.01
18)  methylene chloride
                     0.687 0.546 0.552 0.553 0.471 0.469 0.461 0.418  0.520   16.20
19)  methyl tert butyl ether
           1.122 0.965 0.910 0.696 0.601 1.488 1.264 1.271 1.292 1.197  1.080   26.10
            ---- Linear regression ----  Coefficient =  0.9931
              Response Ratio = -0.00807 + 1.23694 *A

20)  acrylonitrile
                          0.226 0.256 0.258 0.225 0.201 0.183 0.169  0.217   15.81
21)  allyl chloride
                          0.926 0.937 1.042 0.942 0.952 0.925 0.773  0.928    8.55
22)  trans-1,2-dichloroethene
                0.720 0.570 0.439 0.439 0.494 0.467 0.475 0.479 0.435  0.502   18.22
23)  iodomethane
                          0.079 0.127 0.198 0.260 0.345 0.377 0.322  0.244   46.56
            ---- Linear regression ----  Coefficient =  0.9910
              Response Ratio = -0.01973 + 0.33574 *A

24)  carbon disulfide
                          1.276 1.336 1.599 1.453 1.506 1.545 1.400  1.445    7.99
25)  propionitrile
                          0.002 0.005 0.007 0.008 0.008 0.007        0.006#  39.82
            ---- Linear regression ----  Coefficient =  0.9963
              Response Ratio = -0.00052 + 0.00771 *A

26)  vinyl acetate
                          0.478 0.688 0.779 0.738 0.775 0.752 0.707  0.702   14.90
27)  chloroprene
                          0.769 0.848 1.045 0.979 0.972 0.944 0.750  0.901   12.54
28)  di-isopropyl ether
                     2.977 2.567 2.526 2.687 2.402 2.305 2.085 1.618  2.396   17.12
29)  methacrylonitrile
                          0.378 0.408 0.383 0.347 0.339 0.330 0.289  0.353   11.14
30)  2-butanone
                          0.046 0.063 0.070 0.063 0.057 0.052 0.043  0.056#  17.20
31)  Hexane
                          0.885 0.850 1.061 0.958 0.916 0.851 0.648  0.881   14.34
32)  1,1-dichloroethane
                1.637 1.395 1.116 1.176 1.246 1.129 1.161 1.162 1.056  1.231   14.61
33)  tert-butyl ethyl ether
                     0.263 0.258 0.249 1.348 1.155 1.271 1.514 1.383  0.930   60.92
            ---- Quadratic regression ----  Coefficient =  0.9907
              Response Ratio = -0.08188 + 1.36516 *A + 0.00714 *A^2

34)  isobutyl alcohol
                          0.397 0.397 0.426 0.383 0.359 0.328 0.253  0.363   15.91
35)  2,2-dichloropropane
                          0.150 0.271 0.870 0.827 0.874 0.890 0.779  0.666   47.34
            ---- Linear regression ----  Coefficient =  0.9920
              Response Ratio = -0.06601 + 0.84378 *A

36)  cis-1,2-dichloroethene
                0.745 0.638 0.543 0.539 0.563 0.523 0.545 0.553 0.496  0.572   13.19
37)  ethyl acetate
                          1.867 1.939 2.101 1.913 1.795 1.643 1.264  1.789   15.11
38)  bromochloromethane
                          0.244 0.238 0.254 0.236 0.244 0.237 0.186  0.234    9.38
39)  chloroform
                1.557 1.259 1.045 1.049 1.096 1.005 1.027 1.004 0.854  1.099   18.31
```

Initial Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3345-ICC3345
Lab FileID: N90397.D

```
40)  dibromofluoromethane (s)
                            0.507 0.527 0.506 0.532 0.531 0.523 0.466  0.513    4.58
41)  Tetrahydrofuran
                            0.155 0.189 0.184 0.164 0.153 0.140 0.121  0.158   15.17
42)  1,1,1-trichloroethane
                 0.625 0.687 0.662 0.805 0.999 0.960 1.000 0.992 0.856  0.843   18.31

43) I   1,4-difluorobenzene   ----------------ISTD---------------------
44)  Cyclohexane
                            0.508 0.568 0.797 0.763 0.778 0.731 0.602  0.679   17.12
45)  carbon tetrachloride
                 0.577 0.490 0.355 0.402 0.544 0.517 0.545 0.523 0.449  0.489   14.98
46)  1,1-dichloropropene
                            0.359 0.403 0.495 0.472 0.483 0.460 0.404  0.439   11.59
47)  benzene
           1.840 1.953 1.639 1.307 1.321 1.388 1.256 1.315 1.227 1.089  1.433   19.65
48)  1,2-dichloroethane
                 0.959 0.799 0.623 0.616 0.666 0.616 0.640 0.589 0.531  0.671   19.38
49)  tert-amyl methyl ether
                       0.203 0.137 0.146 0.472 0.416 0.419 0.529 0.578  0.363   48.41
              ---- Quadratic regression ----  Coefficient =  0.9954
                Response Ratio = -0.01811 + 0.42102 *A + 0.02063 *A^2

50)  heptane
                            0.339 0.327 0.473 0.448 0.464 0.442 0.379  0.410   14.87
51)  trichloroethene
           0.541 0.583 0.496 0.379 0.390 0.418 0.387 0.395 0.368 0.323  0.428   19.51
52)  1,2-dichloropropane
                       0.445 0.402 0.411 0.449 0.412 0.427 0.387 0.331  0.408    9.20
53)  dibromomethane
                       0.260 0.199 0.206 0.226 0.201 0.207 0.193 0.174  0.208   12.26
54)  bromodichloromethane
                 0.677 0.579 0.479 0.499 0.545 0.509 0.552 0.520 0.472  0.537   11.75
55)  Methylcyclohexane
                            0.374 0.404 0.584 0.566 0.573 0.547 0.471  0.503   17.23
56)  2-chloroethyl vinyl ether
                            0.402 0.411 0.449 0.412 0.427 0.387 0.331  0.403    9.23
57)  methyl methacrylate
                            0.172 0.191 0.210 0.197 0.196 0.178 0.163  0.187    8.81
58)  1,4-dioxane
                            0.002 0.003 0.003 0.003 0.003 0.002        0.003#  24.96
              ---- Quadratic regression ----  Coefficient =  0.9959
                Response Ratio = -0.00071 + 0.00349 *A + -0.00006 *A^2

59)  cis-1,3-dichloropropene
           0.251 0.328 0.359 0.354 0.422 0.569 0.532 0.567 0.544 0.497  0.442   25.91
              ---- Linear regression ----  Coefficient =  0.9961
                Response Ratio = -0.00412 + 0.52238 *A

60)  toluene-d8 (s)
                            1.146 1.244 1.256 1.297 1.252 1.154 1.045  1.199    7.33
61)  4-methyl-2-pentanone
                            0.379 0.434 0.450 0.404 0.373 0.333 0.300  0.382   13.96
62)  toluene
                 1.213 0.978 0.799 0.809 0.895 0.811 0.832 0.753 0.658  0.861   18.45
63)  trans-1,3-dichloropropene
           0.362 0.443 0.389 0.329 0.349 0.485 0.447 0.477 0.458 0.430  0.417   13.35
64)  1,1,2-trichloroethane
                 0.397 0.310 0.248 0.261 0.274 0.251 0.251 0.227        0.277   19.46
65)  ethyl methacrylate
```

Initial Calibration Summary

Job Number: MC33908 **Sample:** MSN3345-ICC3345
Account: BBLNYS Arcadis **Lab FileID:** N90397.D
Project: National Grid, 10 King Street, Ogdensburg, NY

```
                          0.332 0.366 0.416 0.381 0.378 0.326 0.285  0.355   12.23

66) I   chlorobenzene-d5      ----------------ISTD---------------------
67)  tetrachloroethene
          0.842 0.876 0.722 0.541 0.558 0.611 0.590 0.637 0.596 0.538  0.651   18.74
68)  1,3-dichloropropane
                          0.995 0.954 0.999 0.941 0.986 0.912 0.808  0.942    7.14
69)  dibromochloromethane
          0.699 0.774 0.746 0.609 0.628 0.656 0.644 0.705 0.666 0.607  0.673    8.41
70)  1,2-dibromoethane
                     0.640 0.501 0.526 0.554 0.505 0.543 0.501 0.453  0.528   10.42
71)  2-hexanone
                          0.557 0.650 0.661 0.616 0.585 0.521 0.453  0.577   12.79
72)  chlorobenzene
                2.540 2.055 1.668 1.578 1.684 1.541 1.653 1.569 1.405  1.744   19.89
73)  1,1,1,2-tetrachloroethane
                0.819 0.686 0.594 0.596 0.629 0.593 0.637 0.605 0.555  0.635   12.32
74)  ethylbenzene
                4.620 3.654 2.927 2.958 3.193 2.994 3.220 3.025 2.660  3.250   17.87
75)  m,p-xylene
          1.485 1.631 1.323 1.058 1.037 1.109 0.999 1.070 0.983        1.188   19.74
76)  o-xylene
          1.376 1.583 1.374 1.064 1.060 1.089 1.015 1.090 1.003 0.888  1.154   18.73
77)  styrene
                          1.561 1.639 1.756 1.666 1.810 1.736 1.552  1.674    5.89
78)  bromoform
                0.531 0.384 0.337 0.355 0.382 0.374 0.412 0.392 0.359  0.392   14.47
79)  trans-1,4-dichloro-2-butene
                          0.095 0.124 0.173 0.170 0.183 0.183 0.175  0.157   21.77
           ---- Linear regression ----  Coefficient =  0.9990
             Response Ratio = -0.00840 + 0.18004 *A


80) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
81)  isopropylbenzene
                          3.339 3.416 3.795 3.596 3.680 3.592 3.395  3.544    4.71
82)  bromofluorobenzene (s)
                          1.264 1.244 1.169 1.248 1.236 1.205 1.167  1.219    3.20
83)  bromobenzene
                          0.861 0.819 0.858 0.808 0.860 0.842 0.823  0.839    2.64
84)  1,1,2,2-tetrachloroethane
          1.268 1.484 1.115 0.911 0.876 0.878 0.783                  1.045   24.37
           ---- Quadratic regression ----  Coefficient =  0.9972
             Response Ratio = 0.00619 + 0.90872 *A + -0.12790 *A^2

85)  1,2,3-trichloropropane
                          0.838 0.857 0.931 0.874 0.868 0.832 0.802  0.857    4.72
86)  n-propylbenzene
                          4.328 4.375 4.903 4.552 4.704 4.616 4.288  4.538    4.93
87)  2-chlorotoluene
                          2.936 2.880 2.999 2.796 2.924 2.911 2.754  2.886    2.93
88)  4-chlorotoluene
                          3.058 3.031 3.171 2.962 3.116 3.103 2.899  3.049    3.08
89)  1,3,5-trimethylbenzene
                5.065 4.012 3.251 3.233 3.475 3.266 3.394 3.276 3.053  3.558   17.58
90)  tert-butylbenzene
                          1.926 1.988 2.250 2.152 2.203 2.146 1.959  2.089    6.17
91)  1,2,4-trimethylbenzene
                4.967 3.993 3.209 3.277 3.416 3.258 3.357 3.241 3.029  3.527   17.06
92)  sec-butylbenzene
```

Initial Calibration Summary

Job Number: MC33908 **Sample:** MSN3345-ICC3345
Account: BBLNYS Arcadis **Lab FileID:** N90397.D
Project: National Grid, 10 King Street, Ogdensburg, NY

```
                            3.728 3.740 4.344 4.122 4.217 4.053 3.706  3.987    6.55
 93)  1,3-dichlorobenzene
                 2.816 2.133 1.697 1.622 1.668 1.597 1.677 1.631 1.558  1.822   22.48
              ---- Linear regression ----  Coefficient =  0.9992
                Response Ratio = 0.02230 + 1.58947 *A

 94)  p-isopropyltoluene
                            3.149 3.245 3.581 3.385 3.435 3.247 2.764  3.258    8.01
 95)  1,4-dichlorobenzene
                 2.996 2.124 1.705 1.601 1.633 1.523 1.547 1.454 1.333  1.768   28.84
              ---- Linear regression ----  Coefficient =  0.9964
                Response Ratio = 0.03514 + 1.40180 *A

 96)  1,2-dichlorobenzene
                 2.549 1.951 1.550 1.521 1.650 1.583 1.602 1.523 1.431  1.707   20.38
              ---- Linear regression ----  Coefficient =  0.9979
                Response Ratio = 0.02128 + 1.48476 *A

 97)  n-butylbenzene
                            3.054 3.132 3.712 3.557 3.630 3.457 3.115  3.380    8.08
 98)  1,2-dibromo-3-chloropropane
                            0.124 0.127 0.158 0.144 0.136 0.130 0.127  0.135    9.05
 99)  1,2,4-trichlorobenzene
                            0.446 0.573 0.776 0.777 0.750 0.733 0.669  0.675   18.39
100)  1,3,5-trichlorobenzene
                            1.075 1.052 1.152 1.096 1.062 0.984 0.895  1.045    7.95
101)  hexachlorobutadiene
                            0.525 0.520 0.595 0.559 0.528 0.506 0.471  0.529    7.40
102)  naphthalene
                            0.313 0.398 0.895 1.024 0.995 1.037 0.993  0.808   38.81
              ---- Linear regression ----  Coefficient =  0.9982
                Response Ratio = -0.08156 + 1.02758 *A

103)  1,2,3-trichlorobenzene
                            0.248 0.332 0.533 0.553 0.513 0.522 0.474  0.453   25.81
              ---- Linear regression ----  Coefficient =  0.9947
                Response Ratio = -0.01826 + 0.50273 *A

104)  2-methylnaphthalene
                            0.271 0.248 0.304 0.297 0.282 0.274 0.252  0.276    7.62
105)  1-methylnaphthalene
                            0.206 0.221 0.213 0.225 0.205 0.197 0.174  0.206    8.34
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           n140918w.m        Fri Sep 19 12:07:17 2014
```

Initial Calibration Verification

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3345-ICV3345
Lab FileID: N90407.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\N140919\N90407.D Vial: 16
Acq On : 19 Sep 2014 1:04 pm Operator: krystend
Sample : cc3345-50 Inst : MSN
Misc : ms32746,MSN3345,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Fri Sep 19 12:01:33 2014
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 p	tert butyl alcohol-d9	1.000	1.000	0.0	103	0.00	6.70
2 P	tertiary butyl alcohol	1.758	1.894	-7.7	116	0.00	6.78
3 p	Ethanol	0.256	0.299	-16.8	128	0.01	5.56
4 I	pentafluorobenzene	1.000	1.000	0.0	108	0.00	9.12
5 p	dichlorodifluoromethane	0.658	0.844	-28.3#	124	0.00	4.39
6 P	chloromethane	0.807	0.815	-1.0	117	0.00	4.66
		Amount	Calc.	%Drift			
7 p	vinyl chloride	50.000	59.685	-19.4	123	0.00	4.90
8 p	bromomethane	50.000	50.545	-1.1	117	0.00	5.40
		AvgRF	CCRF	%Dev			
9 p	chloroethane	0.323	0.388	-20.1#	133	0.00	5.56
10 p	ethyl ether	0.489	0.551	-12.7	119	0.00	6.43
11 p	acetonitrile	0.078	0.089	-14.1	116	0.00	6.43
		Amount	Calc.	%Drift			
12 p	trichlorofluoromethane	50.000	55.869	-11.7	122	0.00	6.21
		AvgRF	CCRF	%Dev			
13 p	freon-113	0.418	0.430	-2.9	100	0.00	6.96
14 p	acrolein	0.057	0.058	-1.8	100	0.00	6.20
		Amount	Calc.	%Drift			
15 p	1,1-dichloroethene	50.000	52.865	-5.7	109	0.00	6.79
		AvgRF	CCRF	%Dev			
16 p	acetone	0.115	0.100	13.0	109	0.00	6.34
17 M	Methyl Acetate	0.441	0.605	-37.2#	152	0.00	6.96
18 p	methylene chloride	0.520	0.485	6.7	111	0.00	6.94
		Amount	Calc.	%Drift			
19 p	methyl tert butyl ether	50.000	54.924	-9.8	115	0.00	7.70
		AvgRF	CCRF	%Dev			
20 p	acrylonitrile	0.217	0.221	-1.8	106	0.00	6.85
21 p	allyl chloride	0.928	1.042	-12.3	119	0.00	7.03
22 p	trans-1,2-dichloroethene	0.502	0.491	2.2	113	0.00	7.62
		Amount	Calc.	%Drift			
23 p	iodomethane	50.000	38.452	23.1#	99	0.00	6.86

Initial Calibration Verification

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3345-ICV3345
Lab FileID: N90407.D

			AvgRF	CCRF	%Dev			
24	p	carbon disulfide	1.445	1.333	7.8	99	0.00	7.22
			Amount	Calc.	%Drift			
25	p	propionitrile	50.000	56.235	-12.5	111	0.00	6.85
			AvgRF	CCRF	%Dev			
26	p	vinyl acetate	0.702	0.564	19.7	82	0.00	7.97
27	p	chloroprene	0.901	1.156	-28.3#	127	0.00	8.23
28	p	di-isopropyl ether	2.396	2.580	-7.7	116	0.00	8.26
29	p	methacrylonitrile	0.353	0.360	-2.0	112	0.00	8.39
30	p	2-butanone	0.056	0.065#	-16.1	112	0.00	8.28
31	p	Hexane	0.881	0.948	-7.6	107	0.00	8.25
32	P	1,1-dichloroethane	1.231	1.260	-2.4	120	0.00	7.88
			Amount	Calc.	%Drift			
33	p	tert-butyl ethyl ether	50.000	46.992	6.0	113	0.00	8.66
			AvgRF	CCRF	%Dev			
34	p	isobutyl alcohol	0.363	0.396	-9.1	112	0.00	8.26
			Amount	Calc.	%Drift			
35	p	2,2-dichloropropane	50.000	58.647	-17.3	120	0.00	8.73
			AvgRF	CCRF	%Dev			
36	p	cis-1,2-dichloroethene	0.572	0.567	0.9	117	0.00	8.44
37	p	ethyl acetate	1.789	1.981	-10.7	112	0.00	8.26
38	p	bromochloromethane	0.234	0.250	-6.8	114	0.00	8.61
39	p	chloroform	1.099	1.099	0.0	118	0.00	8.64
40	S	dibromofluoromethane (s)	0.513	0.498	2.9	101	0.00	8.77
41	p	Tetrahydrofuran	0.158	0.165	-4.4	109	0.00	8.97
42	p	1,1,1-trichloroethane	0.843	1.001	-18.7	112	0.00	9.39
43	I	1,4-difluorobenzene	1.000	1.000	0.0	107	0.00	9.99
44	p	Cyclohexane	0.679	0.765	-12.7	107	0.00	9.67
45	p	carbon tetrachloride	0.489	0.545	-11.5	113	0.00	9.75
46	p	1,1-dichloropropene	0.439	0.515	-17.3	117	0.00	9.57
47	p	benzene	1.433	1.379	3.8	118	0.00	9.79
48	p	1,2-dichloroethane	0.671	0.688	-2.5	120	0.00	9.30
			Amount	Calc.	%Drift			
49	p	tert-amyl methyl ether	50.000	49.536	0.9	108	0.00	9.90
			AvgRF	CCRF	%Dev			
50	p	heptane	0.410	0.453	-10.5	108	0.00	10.25
51	p	trichloroethene	0.428	0.417	2.6	115	0.00	10.41
52	p	1,2-dichloropropane	0.408	0.478	-17.2	124	0.00	10.38
53	p	dibromomethane	0.208	0.222	-6.7	119	0.00	10.36
54	p	bromodichloromethane	0.537	0.608	-13.2	128	0.00	10.46
55	p	Methylcyclohexane	0.503	0.563	-11.9	107	0.00	10.92
56	p	2-chloroethyl vinyl ether	0.403	0.478	-18.6	124	0.00	10.38
57	p	methyl methacrylate	0.187	0.211	-12.8	115	0.00	10.55
			Amount	Calc.	%Drift			
58	p	1,4-dioxane	250.000	243.850	2.5	100	0.00	10.56
59	p	cis-1,3-dichloropropene	50.000	59.102	-18.2	123	0.00	11.08
			AvgRF	CCRF	%Dev			
60	S	toluene-d8 (s)	1.199	1.261	-5.2	104	0.00	11.78

Initial Calibration Verification

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3345-ICV3345
Lab FileID: N90407.D

61	p	4-methyl-2-pentanone	0.382	0.416	-8.9	110	0.00	11.17
62	p	toluene	0.861	0.861	0.0	114	0.00	11.85
63	p	trans-1,3-dichloropropene	0.417	0.524	-25.7#	125	0.00	11.49
64	p	1,1,2-trichloroethane	0.277	0.287	-3.6	122	0.00	11.67
65	p	ethyl methacrylate	0.355	0.380	-7.0	107	0.00	11.86
66	I	chlorobenzene-d5	1.000	1.000	0.0	104	0.00	13.24
67	p	tetrachloroethene	0.651	0.667	-2.5	118	0.00	12.59
68	p	1,3-dichloropropane	0.942	1.045	-10.9	116	0.00	11.90
69	p	dibromochloromethane	0.673	0.758	-12.6	122	0.00	12.19
70	p	1,2-dibromoethane	0.528	0.577	-9.3	119	0.00	12.45
71	p	2-hexanone	0.577	0.657	-13.9	111	0.00	12.02
72	P	chlorobenzene	1.744	1.707	2.1	115	0.00	13.28
73	p	1,1,1,2-tetrachloroethane	0.635	0.696	-9.6	122	0.00	13.19
74	p	ethylbenzene	3.250	3.247	0.1	113	0.00	13.45
75	p	m,p-xylene	1.188	1.103	7.2	115	0.00	13.63
76	p	o-xylene	1.154	1.113	3.6	114	0.00	14.04
77	p	styrene	1.674	1.816	-8.5	113	0.00	13.97
78	P	bromoform	0.392	0.434	-10.7	121	0.00	13.80
		----------	Amount	Calc.	%Drift		----------	
79	p	trans-1,4-dichloro-2-bute	50.000	50.549	-1.1	106	0.00	14.19
		----------	AvgRF	CCRF	%Dev		----------	
80	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	105	0.00	15.80
81	p	isopropylbenzene	3.544	3.702	-4.5	108	0.00	14.40
82	S	bromofluorobenzene (s)	1.219	1.162	4.7	97	0.00	14.46
83	p	bromobenzene	0.839	0.901	-7.4	117	0.00	14.69
		----------	Amount	Calc.	%Drift		----------	
84	P	1,1,2,2-tetrachloroethane	50.000	57.874	-15.7	118	0.00	14.05
		----------	AvgRF	CCRF	%Dev		----------	
85	p	1,2,3-trichloropropane	0.857	0.957	-11.7	115	0.00	14.19
86	p	n-propylbenzene	4.538	4.825	-6.3	111	0.00	14.85
87	p	2-chlorotoluene	2.886	3.017	-4.5	113	0.00	14.97
88	p	4-chlorotoluene	3.049	3.161	-3.7	112	0.00	15.04
89	p	1,3,5-trimethylbenzene	3.558	3.303	7.2	106	0.00	15.12
90	p	tert-butylbenzene	2.089	2.180	-4.4	106	0.00	15.43
91	p	1,2,4-trimethylbenzene	3.527	3.468	1.7	111	0.00	15.54
92	M	sec-butylbenzene	3.987	4.179	-4.8	106	0.00	15.65
		----------	Amount	Calc.	%Drift		----------	
93	p	1,3-dichlorobenzene	50.000	54.075	-8.2	114	0.00	15.76
		----------	AvgRF	CCRF	%Dev		----------	
94	p	p-isopropyltoluene	3.258	3.465	-6.4	107	0.00	15.82
		----------	Amount	Calc.	%Drift		----------	
95	p	1,4-dichlorobenzene	50.000	57.928	-15.9	114	0.00	15.83
96	p	1,2-dichlorobenzene	50.000	57.489	-15.0	114	0.00	16.19
		----------	AvgRF	CCRF	%Dev		----------	
97	p	n-butylbenzene	3.380	3.685	-9.0	108	0.00	16.24
98	p	1,2-dibromo-3-chloropropa	0.135	0.169	-25.2#	122	0.00	16.66
99	p	1,2,4-trichlorobenzene	0.675	0.809	-19.9	109	0.00	18.02
100	p	1,3,5-trichlorobenzene	1.045	1.153	-10.3	110	0.00	17.47
101	p	hexachlorobutadiene	0.529	0.576	-8.9	108	0.00	18.30

Initial Calibration Verification

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3345-ICV3345
Lab FileID: N90407.D

			Amount	Calc.	%Drift			
102	p	naphthalene	50.000	62.845	-25.7#	124	0.00	18.29
103	p	1,2,3-trichlorobenzene	50.000	58.201	-16.4	107	0.00	18.49

			AvgRF	CCRF	%Dev			
104	p	2-methylnaphthalene	0.276	0.250	9.4	88	0.00	19.67
105	p	1-methylnaphthalene	0.206	0.188	8.7	87	0.00	19.92

(#) = Out of Range SPCC's out = 1 CCC's out = 0
N90397.D n140918w.m Fri Sep 19 15:32:19 2014

6.8.2

6

Continuing Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3359-CC3345
Lab FileID: N90785.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\N141001\N90785.D Vial: 2
Acq On : 1 Oct 2014 9:41 am Operator: jaclynb
Sample : cc3345-50 Inst : MSN
Misc : ms32855,MSN3359,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Fri Sep 19 12:01:33 2014
Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 p	tert butyl alcohol-d9	1.000	1.000	0.0	120	0.00	6.69
2 P	tertiary butyl alcohol	0.879	0.919	-4.5	66	0.00	6.78
3 p	Ethanol	0.256	0.280	-9.4	140	0.00	5.56
4 I	pentafluorobenzene	1.000	1.000	0.0	118	0.00	9.12
5 p	dichlorodifluoromethane	0.658	0.542	17.6	87	0.00	4.39
6 P	chloromethane	0.807	0.500	38.0#	78	0.00	4.65
		Amount	Calc.	%Drift			
7 p	vinyl chloride	50.000	47.975	4.0	109	0.00	4.89
8 p	bromomethane	50.000	33.077	33.8#	80	0.00	5.40
		AvgRF	CCRF	%Dev			
9 p	chloroethane	0.323	0.359	-11.1	134	0.00	5.57
10 p	ethyl ether	0.489	0.546	-11.7	129	0.00	6.43
11 p	acetonitrile	0.078	0.081	-3.8	115	0.00	6.43
		Amount	Calc.	%Drift			
12 p	trichlorofluoromethane	50.000	45.259	9.5	107	0.00	6.20
		AvgRF	CCRF	%Dev			
13 p	freon-113	0.418	0.518	-23.9#	131	0.00	6.97
14 p	acrolein	0.057	0.051	10.5	98	0.00	6.20
		Amount	Calc.	%Drift			
15 p	1,1-dichloroethene	50.000	59.796	-19.6	135	0.00	6.79
		AvgRF	CCRF	%Dev			
16 p	acetone	0.115	0.101	12.2	120	0.00	6.33
17 M	Methyl Acetate	0.441	0.619	-40.4#	170	0.00	6.96
18 p	methylene chloride	0.520	0.513	1.3	128	0.00	6.94
		Amount	Calc.	%Drift			
19 p	methyl tert butyl ether	50.000	45.839	8.3	105	0.00	7.70
		AvgRF	CCRF	%Dev			
20 p	acrylonitrile	0.217	0.219	-0.9	115	0.00	6.85
21 p	allyl chloride	0.928	1.038	-11.9	130	0.00	7.03
22 p	trans-1,2-dichloroethene	0.502	0.507	-1.0	128	0.00	7.62
		Amount	Calc.	%Drift			
23 p	iodomethane	50.000	30.980	38.0#	85	0.00	6.86

Continuing Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3359-CC3345
Lab FileID: N90785.D

			AvgRF	CCRF	%Dev			
24	p	carbon disulfide	1.445	1.753	-21.3#	142	0.00	7.22
			Amount	Calc.	%Drift			
25	p	propionitrile	50.000	59.178	-18.4	128	0.00	6.84
			AvgRF	CCRF	%Dev			
26	p	vinyl acetate	0.702	0.589	16.1	94	0.00	7.97
27	p	chloroprene	0.901	1.162	-29.0#	140	0.00	8.23
28	p	di-isopropyl ether	2.396	2.340	2.3	115	0.00	8.26
29	p	methacrylonitrile	0.353	0.352	0.3	119	0.00	8.40
30	p	2-butanone	0.056	0.067#	-19.6	126	0.00	8.28
31	p	Hexane	0.881	1.029	-16.8	126	0.00	8.25
32	P	1,1-dichloroethane	1.231	1.218	1.1	127	0.00	7.88
			Amount	Calc.	%Drift			
33	p	tert-butyl ethyl ether	50.000	36.354	27.3#	93	0.00	8.66
			AvgRF	CCRF	%Dev			
34	p	isobutyl alcohol	0.363	0.394	-8.5	121	0.00	8.26
			Amount	Calc.	%Drift			
35	p	2,2-dichloropropane	50.000	56.658	-13.3	127	0.00	8.73
			AvgRF	CCRF	%Dev			
36	p	cis-1,2-dichloroethene	0.572	0.551	3.7	124	0.00	8.44
37	p	ethyl acetate	1.789	1.971	-10.2	121	0.00	8.26
38	p	bromochloromethane	0.234	0.244	-4.3	122	0.00	8.61
39	p	chloroform	1.099	1.011	8.0	118	0.00	8.64
40	S	dibromofluoromethane (s)	0.513	0.493	3.9	109	0.00	8.77
41	p	Tetrahydrofuran	0.158	0.157	0.6	113	0.00	8.97
42	p	1,1,1-trichloroethane	0.843	0.967	-14.7	119	0.00	9.39
43	I	1,4-difluorobenzene	1.000	1.000	0.0	118	0.00	9.99
44	p	Cyclohexane	0.679	0.866	-27.5#	134	0.00	9.67
45	p	carbon tetrachloride	0.489	0.532	-8.8	121	0.00	9.76
46	p	1,1-dichloropropene	0.439	0.515	-17.3	129	0.00	9.56
47	p	benzene	1.433	1.350	5.8	127	0.00	9.79
48	p	1,2-dichloroethane	0.671	0.620	7.6	119	0.00	9.30
			Amount	Calc.	%Drift			
49	p	tert-amyl methyl ether	50.000	38.274	23.5#	90	0.00	9.90
			AvgRF	CCRF	%Dev			
50	p	heptane	0.410	0.510	-24.4#	134	0.00	10.25
51	p	trichloroethene	0.428	0.401	6.3	122	0.00	10.41
52	p	1,2-dichloropropane	0.408	0.443	-8.6	127	0.00	10.37
53	p	dibromomethane	0.208	0.213	-2.4	125	0.00	10.35
54	p	bromodichloromethane	0.537	0.537	0.0	125	0.00	10.46
55	p	Methylcyclohexane	0.503	0.647	-28.6#	135	0.00	10.92
56	p	2-chloroethyl vinyl ether	0.403	0.443	-9.9	127	0.00	10.37
57	p	methyl methacrylate	0.187	0.205	-9.6	122	0.00	10.55
			Amount	Calc.	%Drift			
58	p	1,4-dioxane	125.000	132.226	-5.6	60	0.00	10.56
59	p	cis-1,3-dichloropropene	50.000	55.417	-10.8	127	0.00	11.08
			AvgRF	CCRF	%Dev			
60	S	toluene-d8 (s)	1.199	1.246	-3.9	113	0.00	11.78

Continuing Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3359-CC3345
Lab FileID: N90785.D

61	p	4-methyl-2-pentanone	0.382	0.399	-4.5	116	0.00	11.17
62	p	toluene	0.861	0.851	1.2	124	0.00	11.85
63	p	trans-1,3-dichloropropene	0.417	0.483	-15.8	128	0.00	11.49
64	p	1,1,2-trichloroethane	0.277	0.263	5.1	124	0.00	11.67
65	p	ethyl methacrylate	0.355	0.379	-6.8	117	0.00	11.86
66	I	chlorobenzene-d5	1.000	1.000	0.0	117	0.00	13.24
67	p	tetrachloroethene	0.651	0.640	1.7	126	0.00	12.59
68	p	1,3-dichloropropane	0.942	0.949	-0.7	118	0.00	11.90
69	p	dibromochloromethane	0.673	0.670	0.4	122	0.00	12.19
70	p	1,2-dibromoethane	0.528	0.541	-2.5	125	0.00	12.45
71	p	2-hexanone	0.577	0.647	-12.1	123	0.00	12.02
72	P	chlorobenzene	1.744	1.634	6.3	124	0.00	13.28
73	p	1,1,1,2-tetrachloroethane	0.635	0.609	4.1	120	0.00	13.19
74	p	ethylbenzene	3.250	3.110	4.3	121	0.00	13.45
75	p	m,p-xylene	1.188	1.071	9.8	125	0.00	13.63
76	p	o-xylene	1.154	1.070	7.3	123	0.00	14.04
77	p	styrene	1.674	1.755	-4.8	123	0.00	13.97
78	P	bromoform	0.392	0.396	-1.0	124	0.00	13.80
		----------	Amount	Calc.	%Drift	----------		
79	p	trans-1,4-dichloro-2-bute	50.000	40.204	19.6	94	0.00	14.19
		----------	AvgRF	CCRF	%Dev	----------		
80	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	116	0.00	15.80
81	p	isopropylbenzene	3.544	3.752	-5.9	121	0.00	14.40
82	S	bromofluorobenzene (s)	1.219	1.150	5.7	107	0.00	14.46
83	p	bromobenzene	0.839	0.858	-2.3	123	0.00	14.70
		----------	Amount	Calc.	%Drift	----------		
84	P	1,1,2,2-tetrachloroethane	50.000	53.787	-7.6	124	0.00	14.05
		----------	AvgRF	CCRF	%Dev	----------		
85	p	1,2,3-trichloropropane	0.857	0.877	-2.3	117	0.00	14.19
86	p	n-propylbenzene	4.538	4.923	-8.5	126	0.00	14.85
87	p	2-chlorotoluene	2.886	2.945	-2.0	122	0.00	14.97
88	p	4-chlorotoluene	3.049	3.058	-0.3	120	0.00	15.04
89	p	1,3,5-trimethylbenzene	3.558	3.293	7.4	117	0.00	15.13
90	p	tert-butylbenzene	2.089	2.161	-3.4	117	0.00	15.43
91	p	1,2,4-trimethylbenzene	3.527	3.398	3.7	121	0.00	15.53
92	M	sec-butylbenzene	3.987	4.345	-9.0	123	0.00	15.65
		----------	Amount	Calc.	%Drift	----------		
93	p	1,3-dichlorobenzene	50.000	51.538	-3.1	121	0.00	15.76
		----------	AvgRF	CCRF	%Dev	----------		
94	p	p-isopropyltoluene	3.258	3.561	-9.3	122	0.00	15.82
		----------	Amount	Calc.	%Drift	----------		
95	p	1,4-dichlorobenzene	50.000	54.834	-9.7	120	0.00	15.83
96	p	1,2-dichlorobenzene	50.000	54.235	-8.5	120	0.00	16.19
		----------	AvgRF	CCRF	%Dev	----------		
97	p	n-butylbenzene	3.380	3.785	-12.0	124	0.00	16.24
98	p	1,2-dibromo-3-chloropropa	0.135	0.157	-16.3	127	0.00	16.67
99	p	1,2,4-trichlorobenzene	0.675	0.848	-25.6#	127	0.00	18.02
100	p	1,3,5-trichlorobenzene	1.045	1.165	-11.5	124	0.00	17.48
101	p	hexachlorobutadiene	0.529	0.608	-14.9	126	0.00	18.30

Continuing Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSN3359-CC3345
Lab FileID: N90785.D

			Amount	Calc.	%Drift			
102	p	naphthalene	50.000	68.742	-37.5#	151	0.00	18.29
103	p	1,2,3-trichlorobenzene	50.000	64.609	-29.2#	133	0.00	18.49

			AvgRF	CCRF	%Dev			
104	p	2-methylnaphthalene	0.552	0.478	13.4	187	0.00	19.67
105	p	1-methylnaphthalene	0.412	0.371	4.1	191	0.00	19.92

(#) = Out of Range SPCC's out = 1 CCC's out = 0
N90397.D n140918w.m Wed Oct 01 11:17:28 2014

Initial Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSP2607-ICC2607
Lab FileID: P79742.D

Response Factor Report MSP

Method : C:\msdchem\1\methods\P140912W.M (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Mon Sep 15 08:37:10 2014
Response via : Initial Calibration

Calibration Files
0.5 =p79736.D 1.0 =p79737.D 2.0 =p79738.D 5.0 =p79739.D
10 =p79740.D 25 =p79741.D 50 =p79742.D 100 =p79743.D
200 =p79744.D 400 =p79745.D = =

Compound	0.5	1.0	2.0	5.0	10	25	50	100	200	400	Avg	%RSD
1) tert butyl alcohol-d9	ISTD											
2) tertiary butyl alcohol	0.142	0.159	0.155	0.151	0.163	0.157	0.172	0.165			0.158	5.64
3) Ethanol	0.022	0.022	0.021	0.020	0.020	0.018	0.018	0.017			0.020#	9.55
4) I pentafluorobenzene	ISTD											
5) dichlorodifluoromethane	0.753	0.744	0.686	0.654	0.557	0.571	0.556	0.542	0.593	0.545	0.620	13.33
6) chloromethane	0.822	0.766	0.629	0.611	0.543	0.554	0.553	0.545	0.648	0.657	0.633	15.19
7) vinyl chloride	0.559	0.525	0.518	0.520	0.440	0.461	0.455	0.441	0.402		0.480	10.82
8) bromomethane	0.088	0.088	0.084	0.093	0.117	0.165	0.197				0.119	37.63
----- Quadratic regression ----- Coefficient = 0.9939 Response Ratio = 0.00004 + 0.08471 *A + 0.03039 *A^2												
9) chloroethane	0.327	0.289	0.260	0.214	0.201	0.198	0.189	0.191			0.234	22.29
----- Linear regression ----- Coefficient = 0.9999 Response Ratio = 0.00473 + 0.18962 *A												
10) ethyl ether	0.382	0.400	0.275	0.305	0.317	0.378	0.317	0.316	0.319	0.292	0.330	12.61
11) acetonitrile	0.062	0.063	0.052	0.054	0.053	0.057	0.067				0.058	9.81
12) trichlorofluoromethane	0.841	0.831	0.871	0.848	0.741	0.748	0.728	0.695	0.747	0.668	0.772	9.14
13) freon-113	0.474	0.565	0.356	0.413	0.405	0.372	0.365	0.376	0.406	0.371	0.410	15.71
14) acrolein	0.073	0.069	0.048	0.052	0.055	0.048	0.050	0.046			0.055	18.87
15) 1,1-dichloroethene	0.642	0.364	0.391	0.371	0.339	0.327	0.326	0.349			0.389	26.97
----- Linear regression ----- Coefficient = 0.9981 Response Ratio = 0.00439 + 0.33728 *A												
16) acetone	0.104	0.112	0.107	0.102	0.088	0.080	0.079	0.072			0.093#	16.23
17) Methyl Acetate	0.440	0.467	0.459	0.454	0.494	0.490	0.498	0.432			0.467	5.38
18) methylene chloride	0.454	0.489	0.472	0.448	0.447	0.441	0.466				0.460	3.73

Initial Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSP2607-ICC2607
Lab FileID: P79742.D

19) methyl tert butyl ether
0.911 1.184 0.741 0.770 0.725 0.840 1.033 1.169 1.315 0.965 22.61
----- Quadratic regression ----- Coefficient = 0.9976
Response Ratio = -0.00088 + 0.88756 *A + 0.11074 *A^2

20) acrylonitrile
0.272 0.172 0.190 0.189 0.187 0.194 0.198 0.208 0.193 0.200 14.26
21) allyl chloride
0.837 0.661 0.764 0.818 0.919 0.892 0.808 0.683 0.668 0.783 12.24
22) trans-1,2-dichloroethene
0.569 0.553 0.379 0.389 0.385 0.362 0.358 0.365 0.395 0.361 0.412 19.44
23) iodomethane
0.098 0.060 0.086 0.097 0.142 0.207 0.247 0.242 0.147 50.52
----- Linear regression ----- Coefficient = 0.9972
Response Ratio = -0.02205 + 0.24795 *A

24) carbon disulfide
1.303 1.338 1.286 1.204 1.161 1.173 1.265 1.189 1.240 5.37
25) propionitrile
0.059 0.061 0.062 0.068 0.071 0.072 0.066 0.065 7.51
26) vinyl acetate
1.026 0.842 0.861 0.904 0.961 1.020 1.183 1.036 0.979 11.40
27) chloroprene
0.834 0.917 0.605 0.672 0.669 0.643 0.656 0.669 0.734 0.639 0.704 13.96
28) di-isopropyl ether
2.966 1.909 2.127 2.183 2.136 2.182 2.162 2.128 1.732 2.170 15.45
29) methacrylonitrile
0.419 0.350 0.344 0.316 0.334 0.340 0.368 0.408 0.393 0.364 9.80
30) 2-butanone
0.050 0.064 0.072 0.075 0.077 0.081 0.070# 15.94
31) Hexane
1.011 0.894 0.923 0.885 0.896 0.921 0.959 0.791 0.910 6.97
32) 1,1-dichloroethane
0.927 1.218 0.804 0.891 0.902 0.882 0.885 0.884 0.948 0.844 0.919 12.25
33) tert-butyl ethyl ether
0.389 0.380 0.368 0.471 0.772 1.212 0.599 56.29
----- Quadratic regression ----- Coefficient = 0.9995
Response Ratio = 0.00419 + 0.26418 *A + 0.47530 *A^2

34) isobutyl alcohol
0.376 0.361 0.357 0.380 0.367 0.379 0.381 0.389 0.324 0.368 5.31
35) 2,2-dichloropropane
0.039 0.117 0.330 0.514 0.635 0.737 0.395 71.28
----- Quadratic regression ----- Coefficient = 0.9967
Response Ratio = -0.06112 + 0.50264 *A + 0.06431 *A^2

36) cis-1,2-dichloroethene
0.620 0.679 0.393 0.448 0.436 0.427 0.435 0.447 0.470 0.419 0.477 19.64
37) ethyl acetate
0.493 0.431 0.533 0.444 0.482 0.509 0.559 0.520 0.496 8.76
38) bromochloromethane
0.279 0.179 0.198 0.206 0.200 0.191 0.185 0.194 0.179 0.201 15.18
39) chloroform
0.838 1.176 0.753 0.833 0.838 0.818 0.831 0.844 0.892 0.765 0.859 13.77
40) dibromofluoromethane (s)
0.405 0.405 0.414 0.411 0.422 0.451 0.413 0.417 3.84
41) Tetrahydrofuran
0.226 0.201 0.233 0.211 0.179 0.186 0.196 0.184 0.202 9.83
42) 1,1,1-trichloroethane
0.742 0.851 0.547 0.671 0.700 0.675 0.676 0.697 0.772 0.735 0.707 11.15

Initial Calibration Summary

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Sample: MSP2607-ICC2607
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```
43) I   1,4-difluorobenzene   ----------------ISTD--------------------
44)  Cyclohexane
      0.795 0.899 0.564 0.618 0.633 0.584 0.575 0.588 0.644 0.558  0.646   17.40
45)  carbon tetrachloride
      0.414 0.525 0.326 0.411 0.423 0.414 0.414 0.432 0.494 0.464  0.432   12.52
46)  1,1-dichloropropene
      0.476 0.571 0.363 0.409 0.426 0.404 0.401 0.417 0.460 0.414  0.434   13.25
47)  benzene
      1.543 1.903 1.188 1.321 1.369 1.310 1.331 1.323 1.382 1.173  1.384   15.13
48)  1,2-dichloroethane
      0.421 0.646 0.377 0.420 0.429 0.434 0.462 0.475 0.544 0.526  0.473   16.69
49)  tert-amyl methyl ether
                  0.472 0.450 0.390 0.357 0.451 0.670 0.881        0.524   35.50
          ----- Quadratic regression -----                Coefficient =  0.9978
               Response Ratio = 0.00424 + 0.34565 *A + 0.13580 *A^2

50)  heptane
                  0.504 0.547 0.605 0.561 0.544 0.551 0.596        0.558    6.09
51)  trichloroethene
      0.437 0.485 0.297 0.330 0.354 0.338 0.335 0.337 0.360 0.319  0.359   16.04
52)  1,2-dichloropropane
      0.508 0.545 0.360 0.389 0.403 0.396 0.411 0.408 0.418 0.329  0.417   15.43
53)  dibromomethane
      0.199 0.265 0.182 0.204 0.201 0.200 0.219 0.224 0.238 0.203  0.214   11.15
54)  bromodichloromethane
      0.470 0.629 0.383 0.435 0.453 0.457 0.478 0.483 0.537 0.496  0.482   13.54
55)  Methylcyclohexane
      0.577 0.664 0.423 0.468 0.488 0.452 0.457 0.463 0.505 0.446  0.494   14.77
56)  2-chloroethyl vinyl ether
                              0.003 0.004 0.005 0.005 0.006 0.009  0.005#  36.94
          ----- Quadratic regression -----                Coefficient =  0.9992
               Response Ratio = 0.00004 + 0.00358 *A + 0.00067 *A^2

57)  methyl methacrylate
             0.285 0.189 0.232 0.231 0.232 0.244 0.250 0.267 0.243  0.241   10.94
58)  1,4-dioxane
                        0.001 0.002 0.003 0.003 0.003 0.003        0.003#  31.09
             ----- Linear regression -----  Coefficient =  0.9997
               Response Ratio = -0.00114 + 0.00328 *A

59)  cis-1,3-dichloropropene
      0.378 0.519 0.352 0.401 0.427 0.460 0.511 0.533 0.587 0.517  0.469   16.38
60)  toluene-d8 (s)
                        1.026 1.023 1.042 1.039 1.049 1.110 0.980  1.038    3.74
61)  4-methyl-2-pentanone
                  0.622 0.529 0.474 0.433 0.462 0.469 0.517 0.490  0.500   11.61
62)  toluene
      0.799 1.018 0.647 0.721 0.772 0.751 0.787 0.792 0.828 0.734  0.785   12.27
63)  trans-1,3-dichloropropene
      0.358 0.478 0.306 0.338 0.360 0.367 0.406 0.436 0.498 0.455  0.400   16.04
64)  1,1,2-trichloroethane
      0.273 0.335 0.206 0.249 0.263 0.264 0.281 0.278 0.295 0.253  0.270   12.39
65)  ethyl methacrylate
             0.651 0.392 0.427 0.417 0.424 0.470 0.488 0.488 0.400  0.462   17.19

66) I   chlorobenzene-d5      ----------------ISTD--------------------
67)  tetrachloroethene
      0.687 0.920 0.567 0.666 0.657 0.638 0.638 0.667 0.825 0.784  0.705   14.97
68)  1,3-dichloropropane
```

Initial Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSP2607-ICC2607
Lab FileID: P79742.D

	0.969	1.394	0.892	1.016	1.034	0.999	1.024	1.054	1.106	0.919	1.041	13.37
69)	dibromochloromethane											
	0.587	0.853	0.550	0.659	0.672	0.672	0.693	0.722	0.802	0.738	0.695	13.08
70)	1,2-dibromoethane											
	0.510	0.840	0.532	0.595	0.585	0.572	0.582	0.606	0.668	0.602	0.609	15.06
71)	2-hexanone											
		0.648	0.995	0.849	0.739	0.765	0.774	0.879	0.879		0.816	13.05
72)	chlorobenzene											
	2.014	2.356	1.533	1.641	1.628	1.599	1.619	1.666	1.786	1.611	1.745	14.53
73)	1,1,1,2-tetrachloroethane											
	0.612	0.809	0.523	0.597	0.614	0.598	0.612	0.625	0.683	0.626	0.630	11.77
74)	ethylbenzene											
	3.691	4.263	2.687	2.921	2.920	2.856	2.840	2.960	3.149	2.762	3.105	15.92
75)	m,p-xylene											
	1.293	1.494	0.935	1.023	1.050	1.036	1.043	1.068	1.126	1.056	1.112	14.61
76)	o-xylene											
	1.225	1.516	0.899	0.980	1.015	1.008	1.040	1.065	1.101	1.015	1.086	15.93
77)	styrene											
	2.126	2.399	1.514	1.600	1.643	1.641	1.699	1.726	1.857	1.675	1.788	15.25
78)	bromoform											
	0.416	0.616	0.374	0.446	0.457	0.471	0.506	0.550	0.613	0.581	0.503	16.74
79)	trans-1,4-dichloro-2-butene											
			0.169	0.174	0.177	0.195	0.225	0.265	0.254		0.208	19.02
80)	I 1,4-dichlorobenzene-d ----------ISTD----------											
81)	isopropylbenzene											
		2.815	2.961	2.976	2.883	2.940	2.963	3.089	2.582		2.901	5.20
82)	bromofluorobenzene (s)											
			0.920	0.854	0.831	0.840	0.858	0.916	0.778		0.857	5.76
83)	bromobenzene											
	1.079	1.214	0.779	0.793	0.795	0.791	0.843	0.852	0.913	0.821	0.888	16.38
84)	1,1,2,2-tetrachloroethane											
	1.050	1.496	0.932	0.948	0.945	0.889	0.926	0.882	0.842		0.990	20.02
85)	1,2,3-trichloropropane											
	0.989	1.347	0.841	0.919	0.913	0.891	0.954	0.953	1.002	0.824	0.963	15.22
86)	n-propylbenzene											
		5.531	3.431	3.572	3.606	3.340	3.384	3.446	3.616	2.995	3.658	19.89
87)	2-chlorotoluene											
		2.171	2.246	2.180	2.096	2.132	2.129	2.249	1.882		2.136	5.42
88)	4-chlorotoluene											
		2.230	2.344	2.313	2.157	2.197	2.217	2.360	1.989		2.226	5.41
89)	1,3,5-trimethylbenzene											
	3.441	3.806	2.282	2.528	2.529	2.387	2.422	2.449	2.562	2.264	2.667	19.53
90)	tert-butylbenzene											
		1.466	1.504	1.496	1.356	1.354	1.390	1.493	1.313		1.422	5.40
91)	1,2,4-trimethylbenzene											
	3.109	3.602	2.192	2.418	2.481	2.354	2.400	2.408	2.536	2.267	2.577	16.98
92)	sec-butylbenzene											
	4.181	4.284	2.623	2.925	2.992	2.800	2.761	2.795	2.973	2.647	3.098	19.72
93)	1,3-dichlorobenzene											
	1.800	2.022	1.262	1.303	1.303	1.288	1.340	1.351	1.469	1.387	1.452	17.48
94)	p-isopropyltoluene											
	3.015	3.330	1.995	2.233	2.352	2.308	2.314	2.291	2.431	2.330	2.460	16.23
95)	1,4-dichlorobenzene											
	2.060	2.053	1.290	1.374	1.392	1.351	1.384	1.370	1.505	1.453	1.523	18.82
96)	1,2-dichlorobenzene											
	1.640	1.892	1.177	1.255	1.281	1.261	1.314	1.305	1.425	1.334	1.388	15.63
97)	n-butylbenzene											
	2.257	2.515	1.571	1.934	2.033	2.068	2.130	2.179	2.399	2.083	2.117	12.24
98)	1,2-dibromo-3-chloropropane											

Initial Calibration Summary

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Sample: MSP2607-ICC2607
Lab FileID: P79742.D

```
                    0.101 0.123 0.126 0.124 0.132 0.130 0.144 0.136  0.127    9.99
 99)  1,3,5-trichlorobenzene
       0.738 0.964 0.615 0.709 0.752 0.798 0.840 0.886 1.067 1.051  0.842   17.75
100)  1,2,4-trichlorobenzene
                    0.084 0.229 0.353 0.506 0.627 0.713 0.890 0.925  0.541   56.31
          ----- Quadratic regression -----                Coefficient =  0.9955
               Response Ratio = -0.03883 + 0.69019 *A + 0.03210 *A^2

101)  hexachlorobutadiene
             0.541 0.341 0.389 0.380 0.380 0.401 0.441 0.538 0.541  0.439   18.21
102)  naphthalene
       0.976 0.693 0.372 0.266 0.249 0.442 0.852 1.164 1.593        0.734   62.18
          ----- Quadratic regression -----                Coefficient =  0.9991
               Response Ratio = -0.04829 + 0.68930 *A + 0.22997 *A^2

103)  1,2,3-trichlorobenzene
                         0.085 0.175 0.337 0.485 0.580 0.761 0.790  0.459   59.78
          ----- Quadratic regression -----                Coefficient =  0.9943
               Response Ratio = -0.07290 + 0.59314 *A + 0.02770 *A^2

104)  2-Methylnaphthalene
                    0.294 0.295 0.290 0.259 0.245 0.225 0.231 0.268  0.263   10.59
105)  1-Methylnaphthalene
                    0.294 0.269 0.268 0.227 0.210 0.187 0.193 0.257  0.238   16.52
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           P140912W.M        Tue Sep 16 09:35:13 2014
```

Initial Calibration Verification

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSP2608-ICV2607
Lab FileID: P79759.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\P140915\p79759.D Vial: 6
Acq On : 15 Sep 2014 10:28 am Operator: jaclynb
Sample : icv2607-50 Inst : MSP
Misc : ms32693,msp2608,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\P140912W.M (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Tue Sep 16 09:50:02 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	50.000	50.000	0.0	72	-0.02	6.16
2	P	tertiary butyl alcohol	250.000	292.498	-16.5	41	0.00	6.23
3	P	Ethanol	5000.000	6370.230	-27.4	89	0.00	5.11
4	I	pentafluorobenzene	50.000	50.000	0.0	95	0.00	8.48
5	P	dichlorodifluoromethane	50.000	38.138	23.7	81	0.00	4.04
6	P	chloromethane	50.000	48.811	2.4	106	0.00	4.28
7	P	vinyl chloride	50.000	49.254	1.5	99	0.00	4.49
		---------- True	Calc.	% Drift	----------			
8	P	bromomethane	50.000	64.456	-28.9	129	0.00	4.94
9	P	chloroethane	50.000	63.614	-27.2	118	0.00	5.09
		---------- AvgRF	CCRF	% Dev	----------			
10	P	ethyl ether	50.000	56.593	-13.2	112	0.00	5.90
11	P	acetonitrile	50.000	52.874	-5.7	107	0.00	5.70
12	P	trichlorofluoromethane	50.000	48.695	2.6	98	0.00	5.67
13	P	freon-113	50.000	50.316	-0.6	107	0.00	6.39
14	P	acrolein	250.000	190.554	23.8	72	0.00	5.68
15	P	1,1-dichloroethene	50.000	54.909	-9.8	109	0.00	6.22
16	P	acetone	50.000	36.604	26.8	74	0.00	5.80
17	P	Methyl Acetate	50.000	61.029	-22.1	109	0.00	6.40
18	P	methylene chloride	50.000	49.476	1.0	97	0.00	6.37
		---------- True	Calc.	% Drift	----------			
19	P	methyl tert butyl ether	50.000	49.060	1.9	90	0.00	7.11
		---------- AvgRF	CCRF	% Dev	----------			
20	P	acrylonitrile	50.000	42.856	14.3	84	0.00	6.29
21	P	allyl chloride	50.000	63.977	-28.0	107	0.00	6.45
22	P	trans-1,2-dichloroethene	50.000	46.196	7.6	101	0.00	7.01
23	P	iodomethane	50.000	56.446	-12.9	118	0.00	6.28
24	P	carbon disulfide	50.000	50.558	-1.1	102	0.00	6.62
25	P	propionitrile	50.000	43.745	12.5	80	0.00	7.28
26	P	vinyl acetate	50.000	28.193	43.6#	55	0.00	7.36
27	P	chloroprene	50.000	55.654	-11.3	113	0.00	7.61
28	P	di-isopropyl ether	50.000	50.423	-0.8	95	0.00	7.65
29	P	methacrylonitrile	50.000	39.750	20.5	81	0.00	7.77
30	P	2-butanone	50.000	39.763	20.5	70	0.00	7.66
31	P	Hexane	50.000	54.747	-9.5	106	0.00	7.62
32	P	1,1-dichloroethane	50.000	50.784	-1.6	100	0.00	7.26

Initial Calibration Verification

Job Number: MC33908
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Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSP2608-ICV2607
Lab FileID: P79759.D

			True	Calc.	% Drift			
33	P	tert-butyl ethyl ether	50.000	53.979	-8.0	104	0.00	8.03
			AvgRF	CCRF	% Dev			
34	P	isobutyl alcohol	250.000	252.383	-1.0	93	0.00	7.65
			True	Calc.	% Drift			
35	P	2,2-dichloropropane	50.000	56.364	-12.7	108	0.00	8.08
			AvgRF	CCRF	% Dev			
36	P	cis-1,2-dichloroethene	50.000	47.003	6.0	98	0.00	7.81
37	P	ethyl acetate	50.000	44.614	10.8	87	0.00	7.96
38	P	bromochloromethane	50.000	47.504	5.0	95	0.00	7.97
39	P	chloroform	50.000	49.389	1.2	97	0.00	8.00
40	S	dibromofluoromethane (s)	40.000	44.158	-10.4	106	0.00	8.12
41	P	Tetrahydrofuran	50.000	41.710	16.6	89	0.00	8.33
42	P	1,1,1-trichloroethane	50.000	51.370	-2.7	102	0.00	8.73
43	I	1,4-difluorobenzene	50.000	50.000	0.0	93	0.00	9.32
44	P	Cyclohexane	50.000	51.959	-3.9	109	0.00	8.99
45	P	carbon tetrachloride	50.000	52.813	-5.6	103	0.00	9.08
46	P	1,1-dichloropropene	50.000	53.617	-7.2	108	0.00	8.90
47	P	benzene	50.000	49.390	1.2	96	0.00	9.12
48	P	1,2-dichloroethane	50.000	49.360	1.3	94	0.00	8.64
			True	Calc.	% Drift			
49	P	tert-amyl methyl ether	50.000	48.999	2.0	98	0.00	9.24
			AvgRF	CCRF	% Dev			
50	P	heptane	50.000	52.589	-5.2	101	0.00	9.59
51	P	trichloroethene	50.000	49.681	0.6	100	0.00	9.72
52	P	1,2-dichloropropane	50.000	51.255	-2.5	97	0.00	9.69
53	P	dibromomethane	50.000	49.492	1.0	90	0.00	9.67
54	P	bromodichloromethane	50.000	52.425	-4.8	99	0.00	9.78
55	P	Methylcyclohexane	50.000	52.686	-5.4	106	0.00	10.23
			True	Calc.	% Drift			
56	P	2-chloroethyl vinyl ether	50.000	61.538	-23.1	109	0.00	10.23
			AvgRF	CCRF	% Dev			
57	P	methyl methacrylate	50.000	44.908	10.2	83	0.00	9.88
58	P	1,4-dioxane	125.000	115.714	8.0	40	0.00	9.88
59	P	cis-1,3-dichloropropene	50.000	56.427	-12.9	97	0.00	10.39
60	S	toluene-d8 (s)	40.000	47.701	-19.3	111	0.00	11.08
61	P	4-methyl-2-pentanone	50.000	38.984	22.0	79	0.00	10.49
62	P	toluene	50.000	51.937	-3.9	97	0.00	11.15
63	P	trans-1,3-dichloropropene	50.000	53.544	-7.1	99	0.00	10.81
64	P	1,1,2-trichloroethane	50.000	51.160	-2.3	92	0.00	10.98
65	P	ethyl methacrylate	50.000	44.038	11.9	81	0.00	11.18
66	I	chlorobenzene-d5	50.000	50.000	0.0	88	0.00	12.52
67	P	tetrachloroethene	50.000	52.177	-4.4	102	0.00	11.88
68	P	1,3-dichloropropane	50.000	49.682	0.6	89	0.00	11.20
69	P	dibromochloromethane	50.000	52.179	-4.4	92	0.00	11.49
70	P	1,2-dibromoethane	50.000	47.844	4.3	88	0.00	11.74
71	P	2-hexanone	50.000	38.387	23.2	72	0.00	11.35
72	P	chlorobenzene	50.000	50.152	-0.3	95	0.00	12.56
73	P	1,1,1,2-tetrachloroethane	50.000	52.778	-5.6	96	0.00	12.48
74	P	ethylbenzene	50.000	50.015	-0.0	96	0.00	12.73
75	P	m,p-xylene	100.000	102.681	-2.7	96	0.00	12.92

Initial Calibration Verification

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSP2608-ICV2607
Lab FileID: P79759.D

76	P	o-xylene	50.000	51.806	-3.6	95	0.00	13.33
77	P	styrene	50.000	51.592	-3.2	96	0.00	13.26
78	P	bromoform	50.000	49.323	1.4	86	0.00	13.08
79	P	trans-1,4-dichloro-2-bute	50.000	42.705	14.6	80	0.00	13.49
80	I	1,4-dichlorobenzene-d4	50.000	50.000	0.0	94	0.00	15.08
81	P	isopropylbenzene	50.000	53.397	-6.8	99	0.00	13.70
82	S	bromofluorobenzene (s)	40.000	44.116	-10.3	106	0.00	13.75
83	P	bromobenzene	50.000	48.096	3.8	96	0.00	13.97
84	P	1,1,2,2-tetrachloroethane	50.000	43.353	13.3	87	0.00	13.34
85	P	1,2,3-trichloropropane	50.000	43.367	13.3	83	0.00	13.49
86	P	n-propylbenzene	50.000	48.847	2.3	100	0.00	14.14
87	P	2-chlorotoluene	50.000	50.880	-1.8	96	0.00	14.25
88	P	4-chlorotoluene	50.000	49.431	1.1	95	0.00	14.33
89	P	1,3,5-trimethylbenzene	50.000	45.657	8.7	95	0.00	14.42
90	P	tert-butylbenzene	50.000	50.223	-0.4	100	0.00	14.72
91	P	1,2,4-trimethylbenzene	50.000	48.287	3.4	98	0.00	14.83
92	P	sec-butylbenzene	50.000	48.042	3.9	102	0.00	14.94
93	P	1,3-dichlorobenzene	50.000	47.531	4.9	97	0.00	15.04
94	P	p-isopropyltoluene	50.000	50.035	-0.1	100	0.00	15.12
95	P	1,4-dichlorobenzene	50.000	46.866	6.3	97	0.00	15.11
96	P	1,2-dichlorobenzene	50.000	48.279	3.4	96	0.00	15.48
97	P	n-butylbenzene	50.000	52.628	-5.3	99	0.00	15.54
98	P	1,2-dibromo-3-chloropropa	50.000	46.205	7.6	84	0.00	15.96
99	P	1,3,5-trichlorobenzene	50.000	52.952	-5.9	100	0.00	16.78
		---------- True	Calc.	% Drift	----------			
100	P	1,2,4-trichlorobenzene	50.000	47.265	5.5	97	0.00	17.31
		---------- AvgRF	CCRF	% Dev	----------			
101	P	hexachlorobutadiene	50.000	51.105	-2.2	106	0.00	17.59
		---------- True	Calc.	% Drift	----------			
102	P	naphthalene	50.000	49.606	0.8	95	0.00	17.56
103	P	1,2,3-trichlorobenzene	50.000	45.083	9.8	94	0.00	17.76
		---------- AvgRF	CCRF	% Dev	----------			
104	P	2-Methylnaphthalene	50.000	37.989	23.9	154	0.00	18.86
105	P	1-Methylnaphthalene	50.000	35.006	23.8	150	0.00	19.09

(5.0 %) 5 of 101 compounds'%D > 30

(#) = Out of Range SPCC's out = 0 CCC's out = 0
p79742.D P140912W.M Tue Sep 16 10:00:56 2014

Continuing Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSP2629-CC2607
Lab FileID: P80332.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\P141003\p80332.D Vial: 4
Acq On : 3 Oct 2014 10:19 am Operator: garyk
Sample : cc2607-50 Inst : MSP
Misc : ms32875,msp2629,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\P140912W.M (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Tue Sep 16 09:50:02 2014
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	48#	-0.02	6.16
2	P	tertiary butyl alcohol	0.158	0.180	-13.9	52	0.00	6.24
3	P	Ethanol	0.020	0.033#	-65.0#	78	0.00	5.11
4	I	pentafluorobenzene	1.000	1.000	0.0	79	0.00	8.48
5	P	dichlorodifluoromethane	0.620	0.620	0.0	88	0.00	4.06
6	P	chloromethane	0.633	0.602	4.9	86	0.00	4.28
7	P	vinyl chloride	0.480	0.560	-16.7	97	0.00	4.50
		---------- True	Calc.	% Drift	----------			
8	P	bromomethane	50.000	52.874	-5.7	83	0.00	4.95
9	P	chloroethane	50.000	70.415	-40.8#	108	0.00	5.09
		---------- AvgRF	CCRF	% Dev	----------			
10	P	ethyl ether	0.330	0.366	-10.9	91	0.00	5.91
11	P	acetonitrile	0.058	0.075	-29.3#	109	0.00	5.70
12	P	trichlorofluoromethane	0.772	0.916	-18.7	99	0.00	5.67
13	P	freon-113	0.410	0.390	4.9	84	0.00	6.39
14	P	acrolein	0.055	0.022#	60.0#	31#	0.00	5.68
		---------- True	Calc.	% Drift	----------			
15	P	1,1-dichloroethene	50.000	50.360	-0.7	83	0.00	6.22
		---------- AvgRF	CCRF	% Dev	----------			
16	P	acetone	0.093	0.088#	5.4	78	0.00	5.80
17	P	Methyl Acetate	0.467	0.559	-19.7	89	0.00	6.40
18	P	methylene chloride	0.460	0.401	12.8	71	0.00	6.37
		---------- True	Calc.	% Drift	----------			
19	P	methyl tert butyl ether	50.000	49.658	0.7	75	0.00	7.11
		---------- AvgRF	CCRF	% Dev	----------			
20	P	acrylonitrile	0.200	0.147	26.5#	59	0.00	6.29
21	P	allyl chloride	0.783	0.714	8.8	63	0.00	6.46
22	P	trans-1,2-dichloroethene	0.412	0.339	17.7	74	0.00	7.01
		---------- True	Calc.	% Drift	----------			
23	P	iodomethane	50.000	48.834	2.3	83	0.00	6.28
		---------- AvgRF	CCRF	% Dev	----------			
24	P	carbon disulfide	1.240	1.080	12.9	73	0.00	6.62
25	P	propionitrile	0.065	0.051	21.5#	59	0.00	7.28

Continuing Calibration Summary

Job Number: MC33908 **Sample:** MSP2629-CC2607
Account: BBLNYS Arcadis **Lab FileID:** P80332.D
Project: National Grid, 10 King Street, Ogdensburg, NY

26	P	vinyl acetate	0.979	0.519	47.0#	42#	0.00	7.36
27	P	chloroprene	0.704	0.748	-6.3	90	0.00	7.61
28	P	di-isopropyl ether	2.170	1.899	12.5	68	0.00	7.65
29	P	methacrylonitrile	0.364	0.318	12.6	74	0.00	7.77
30	P	2-butanone	0.070	0.053#	24.3#	55	0.00	7.67
31	P	Hexane	0.910	0.973	-6.9	85	0.00	7.62
32	P	1,1-dichloroethane	0.919	0.842	8.4	75	0.00	7.26
			True	Calc.	% Drift			
33	P	tert-butyl ethyl ether	50.000	64.065	-28.1#	114	0.00	8.03
			AvgRF	CCRF	% Dev			
34	P	isobutyl alcohol	0.368	0.351	4.6	73	0.00	7.65
			True	Calc.	% Drift			
35	P	2,2-dichloropropane	50.000	28.541	42.9#	38	0.00	8.09
			AvgRF	CCRF	% Dev			
36	P	cis-1,2-dichloroethene	0.477	0.390	18.2	70	0.00	7.81
37	P	ethyl acetate	0.496	0.438	11.7	72	0.00	7.96
38	P	bromochloromethane	0.201	0.203	-1.0	83	0.00	7.97
39	P	chloroform	0.859	0.814	5.2	77	0.00	8.00
40	S	dibromofluoromethane (s)	0.522	0.549	-5.2	84	0.00	8.13
41	P	Tetrahydrofuran	0.202	0.137	32.2#	60	0.00	8.33
42	P	1,1,1-trichloroethane	0.707	0.696	1.6	81	0.00	8.73
43	I	1,4-difluorobenzene	1.000	1.000	0.0	70	0.00	9.32
44	P	Cyclohexane	0.646	0.641	0.8	78	0.00	8.99
45	P	carbon tetrachloride	0.432	0.512	-18.5	87	0.00	9.08
46	P	1,1-dichloropropene	0.434	0.456	-5.1	80	0.00	8.90
47	P	benzene	1.384	1.307	5.6	69	0.00	9.12
48	P	1,2-dichloroethane	0.473	0.541	-14.4	82	0.00	8.64
			True	Calc.	% Drift			
49	P	tert-amyl methyl ether	50.000	69.762	-39.5#	117	0.00	9.24
			AvgRF	CCRF	% Dev			
50	P	heptane	0.558	0.565	-1.3	73	0.00	9.59
51	P	trichloroethene	0.359	0.361	-0.6	75	0.00	9.72
52	P	1,2-dichloropropane	0.417	0.395	5.3	67	0.00	9.70
53	P	dibromomethane	0.214	0.231	-7.9	74	0.00	9.67
54	P	bromodichloromethane	0.482	0.547	-13.5	80	0.00	9.78
55	P	Methylcyclohexane	0.494	0.484	2.0	74	0.00	10.23
			True	Calc.	% Drift			
56	P	2-chloroethyl vinyl ether	50.000	72.052	-44.1#	99	0.00	10.23
			AvgRF	CCRF	% Dev			
57	P	methyl methacrylate	0.241	0.212	12.0	61	0.00	9.88
			True	Calc.	% Drift			
58	P	1,4-dioxane	250.000	200.048	19.9	0.00	9.88	
			AvgRF	CCRF	% Dev			
59	P	cis-1,3-dichloropropene	0.469	0.486	-3.6	66	0.00	10.39
60	S	toluene-d8 (s)	1.298	1.481	-14.1	80	0.00	11.08
61	P	4-methyl-2-pentanone	0.500	0.462	7.6	70	0.00	10.49
62	P	toluene	0.785	0.765	2.5	68	0.00	11.15
63	P	trans-1,3-dichloropropene	0.400	0.429	-7.2	74	0.00	10.81
64	P	1,1,2-trichloroethane	0.270	0.267	1.1	67	0.00	10.98

Continuing Calibration Summary

Job Number: MC33908 **Sample:** MSP2629-CC2607
Account: BBLNYS Arcadis **Lab FileID:** P80332.D
Project: National Grid, 10 King Street, Ogdensburg, NY

65	P	ethyl methacrylate	0.462	0.407	11.9	61	0.00	11.18
66	I	chlorobenzene-d5	1.000	1.000	0.0	69	0.00	12.52
67	P	tetrachloroethene	0.705	0.785	-11.3	85	0.00	11.88
68	P	1,3-dichloropropane	1.041	0.985	5.4	66	0.00	11.20
69	P	dibromochloromethane	0.695	0.791	-13.8	79	0.00	11.49
70	P	1,2-dibromoethane	0.609	0.612	-0.5	73	0.00	11.74
71	P	2-hexanone	0.816	0.696	14.7	63	0.03	11.37
72	P	chlorobenzene	1.745	1.728	1.0	74	0.00	12.56
73	P	1,1,1,2-tetrachloroethane	0.630	0.686	-8.9	77	0.00	12.48
74	P	ethylbenzene	3.105	2.832	8.8	69	0.00	12.73
75	P	m,p-xylene	1.112	1.085	2.4	72	0.00	12.92
76	P	o-xylene	1.086	1.082	0.4	72	0.00	13.33
77	P	styrene	1.788	1.816	-1.6	74	0.00	13.26
78	P	bromoform	0.503	0.600	-19.3	82	0.00	13.08
79	P	trans-1,4-dichloro-2-bute	0.208	0.096	53.8#	34#	0.00	13.49
80	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	15.08
81	P	isopropylbenzene	2.901	2.461	15.2	77	0.00	13.69
82	S	bromofluorobenzene (s)	1.071	0.994	7.2	87	0.00	13.74
83	P	bromobenzene	0.888	0.810	8.8	88	0.00	13.97
84	P	1,1,2,2-tetrachloroethane	0.990	0.719	27.4#	71	0.00	13.34
85	P	1,2,3-trichloropropane	0.963	0.612	36.4#	59	0.00	13.49
86	P	n-propylbenzene	3.658	2.945	19.5	80	0.00	14.13
87	P	2-chlorotoluene	2.136	1.793	16.1	77	0.00	14.25
88	P	4-chlorotoluene	2.226	1.918	13.8	80	0.00	14.33
89	P	1,3,5-trimethylbenzene	2.667	2.122	20.4#	80	0.00	14.42
90	P	tert-butylbenzene	1.422	1.247	12.3	84	0.00	14.72
91	P	1,2,4-trimethylbenzene	2.577	2.115	17.9	81	0.00	14.83
92	P	sec-butylbenzene	3.098	2.490	19.6	83	0.00	14.94
93	P	1,3-dichlorobenzene	1.452	1.328	8.5	91	0.00	15.04
94	P	p-isopropyltoluene	2.460	2.054	16.5	81	0.00	15.12
95	P	1,4-dichlorobenzene	1.523	1.348	11.5	89	0.00	15.11
96	P	1,2-dichlorobenzene	1.388	1.278	7.9	89	0.00	15.48
97	P	n-butylbenzene	2.117	1.603	24.3#	69	0.00	15.54
98	P	1,2-dibromo-3-chloropropa	0.127	0.110	13.4	76	0.00	15.96
99	P	1,3,5-trichlorobenzene	0.842	0.852	-1.2	93	0.00	16.78
		----------	True	Calc.	% Drift	----------		
100	P	1,2,4-trichlorobenzene	50.000	37.457	25.1#	73	0.00	17.31
		----------	AvgRF	CCRF	% Dev	----------		
101	P	hexachlorobutadiene	0.439	0.452	-3.0	103	0.00	17.59
		----------	True	Calc.	% Drift	----------		
102	P	naphthalene	50.000	17.931	64.1#	25	0.00	17.56
103	P	1,2,3-trichlorobenzene	50.000	29.415	41.2#	54	0.00	17.76
		----------	AvgRF	CCRF	% Dev	----------		
104	P	2-Methylnaphthalene	0.263	0.389	-47.9#	145	0.00	18.86
105	P	1-Methylnaphthalene	0.238	0.330	-38.7#	144	0.00	19.09

(24.8 %) 25 of 101 compounds'%D > 20

(#) = Out of Range SPCC's out = 4 CCC's out = 0
p79742.D P140912W.M Fri Oct 03 11:10:29 2014

Initial Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSU972-ICC972
Lab FileID: U22117.D

Response Factor Report MSU

Method : D:\msdchem\1\methods\U140829W.m (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

Calibration Files
0.5 =U22111.D 1 =U22112.D 2 =U22113.D 5 =U22114.D
10 =U22115.D 25 =U22116.D 50 =U22117.D 100 =U22118.D
200 =U22119.D 400 =U22120.D = =

Compound	0.5	1	2	5	10	25	50	100	200	400	Avg	%RSD
1) I tert butyl alcohol-d9 ----------ISTD----------												
2) tertiary butyl alcohol												
	0.108	0.105	0.106	0.101	0.098	0.101	0.102	0.103			0.103	3.26
3) Ethanol												
	0.020	0.015	0.014	0.012	0.011	0.012	0.011	0.011			0.013#	23.24
---- Linear regression ---- Coefficient = 0.9987												
Response Ratio = 0.04331 + 0.01097 *A												
4) I pentafluorobenzene ----------ISTD----------												
5) dichlorodifluoromethane												
	0.697	0.879	0.923	0.866	0.822	0.815	0.828	0.773			0.825	8.38
6) chloromethane												
	1.638	1.753	1.765	1.595	1.475	1.523	1.499	1.216			1.558	11.32
7) vinyl chloride												
	1.021	0.927	1.113	1.182	1.102	1.041	1.064	1.048	0.930		1.047	7.89
8) bromomethane												
	0.565	0.575	0.606	0.556	0.510	0.533	0.549	0.497			0.549	6.42
9) chloroethane												
	0.353	0.432	0.449	0.426	0.409	0.413	0.407	0.375			0.408	7.57
10) ethyl ether												
		0.586	0.568	0.541	0.510	0.527	0.518	0.493			0.535	6.15
11) acetonitrile												
		0.176	0.097	0.086	0.074	0.081	0.083	0.069			0.095	38.75
---- Linear regression ---- Coefficient = 0.9900												
Response Ratio = 0.00862 + 0.07197 *A												
12) trichlorofluoromethane												
	0.966	0.955	1.128	1.160	1.112	1.077	1.095	1.098	1.032		1.069	6.63
13) freon-113												
		0.643	0.626	0.664	0.636	0.641	0.663	0.613			0.641	2.91
14) acrolein												
		0.047	0.047	0.046	0.040	0.041	0.045	0.042			0.044#	6.90
15) 1,1-dichloroethene												
	0.726	0.644	0.594	0.550	0.558	0.518	0.509	0.515	0.478		0.566	13.79
16) acetone												
			0.120	0.154	0.131	0.136	0.139	0.122			0.134	9.30
17) Methyl Acetate												
		0.656	0.549	0.597	0.573	0.589	0.578	0.560			0.586	5.94
18) methylene chloride												
	0.632	0.632	0.661	0.622	0.571	0.584	0.583	0.539			0.603	6.63
19) methyl tert butyl ether												
	1.541	1.473	1.505	1.581	1.447	1.351	1.425	1.407	1.338		1.452	5.65
20) acrylonitrile												

Initial Calibration Summary

Job Number: MC33908 **Sample:** MSU972-ICC972
Account: BBLNYS Arcadis **Lab FileID:** U22117.D
Project: National Grid, 10 King Street, Ogdensburg, NY

0.299 0.279 0.295 0.276 0.287 0.287 0.273 0.285 3.37
21) allyl chloride
1.426 1.445 1.405 1.273 1.303 1.288 1.195 1.333 6.98
22) trans-1,2-dichloroethene
0.772 0.670 0.652 0.642 0.620 0.575 0.573 0.584 0.543 0.626 11.08
23) iodomethane
1.204 1.282 1.213 1.116 1.156 1.162 1.079 1.173 5.70
24) carbon disulfide
1.893 1.864 1.825 1.706 1.700 1.708 1.555 1.750 6.73
25) propionitrile
0.054 0.060 0.057 0.054 0.056 0.054 0.052 0.055 4.66
26) vinyl acetate
0.481 0.431 0.424 0.438 0.427 0.437 0.433 0.439 4.40
27) chloroprene
1.063 1.065 1.051 0.994 1.014 1.020 0.961 1.024 3.78
28) di-isopropyl ether
2.649 2.702 2.776 2.648 2.463 2.589 2.535 2.365 2.591 5.13
29) methacrylonitrile
0.383 0.386 0.401 0.378 0.392 0.397 0.388 0.389 2.11
30) 2-butanone
0.055 0.066 0.075 0.067 0.070 0.074 0.069 0.068# 10.12
31) Ethyl Acetate
2.226 2.329 2.257 2.141 2.205 2.193 2.050 2.200 4.01
32) Hexane
1.171 1.165 1.117 1.062 1.076 1.062 0.995 1.093 5.74
33) 1,1-dichloroethane
1.245 1.241 1.244 1.303 1.238 1.151 1.183 1.177 1.101 1.209 5.05
34) tert-butyl ethyl ether
1.991 2.042 2.171 2.031 1.925 2.043 2.022 1.911 2.017 4.00
35) isobutyl alcohol
0.089 0.093 0.080 0.075 0.080 0.079 0.077 0.082 7.89
36) 2,2-dichloropropane
0.822 0.805 0.791 0.743 0.750 0.742 0.675 0.761 6.51
37) cis-1,2-dichloroethene
0.845 0.686 0.724 0.729 0.703 0.639 0.658 0.652 0.610 0.694 9.95
38) bromochloromethane
0.375 0.387 0.365 0.341 0.362 0.364 0.344 0.363 4.41
39) chloroform
1.067 1.048 1.093 1.126 1.041 0.975 1.017 1.013 0.944 1.036 5.45
40) dibromofluoromethane (s)
0.662 0.696 0.628 0.617 0.637 0.632 0.607 0.640 4.73
41) Tetrahydrofuran
0.269 0.224 0.207 0.197 0.198 0.199 0.203 0.214 12.11
42) 1,1,1-trichloroethane
0.864 0.890 0.952 0.921 0.922 0.883 0.896 0.904 0.856 0.899 3.37

43) I 1,4-difluorobenzene ----------ISTD----------
44) Cyclohexane
0.827 0.811 0.783 0.718 0.711 0.708 0.657 0.745 8.42
45) carbon tetrachloride
0.477 0.459 0.521 0.497 0.504 0.460 0.460 0.461 0.429 0.474 6.00
46) 1,1-dichloropropene
0.440 0.423 0.402 0.381 0.381 0.377 0.356 0.394 7.41
47) benzene
1.283 1.338 1.264 1.284 1.291 1.226 1.131 1.144 1.126 1.060 1.215 7.61
48) 1,2-dichloroethane
0.500 0.487 0.483 0.494 0.452 0.418 0.433 0.422 0.401 0.454 8.19
49) tert-amyl methyl ether
0.848 0.828 0.868 0.841 0.753 0.788 0.764 0.723 0.802 6.50
50) heptane

Initial Calibration Summary

Job Number: MC33908 **Sample:** MSU972-ICC972
Account: BBLNYS Arcadis **Lab FileID:** U22117.D
Project: National Grid, 10 King Street, Ogdensburg, NY

```
                          0.572 0.573 0.553 0.505 0.510 0.498 0.474  0.527    7.42
51)  trichloroethene
          0.381 0.365 0.344 0.348 0.352 0.334 0.315 0.328 0.324 0.317  0.341    6.25
52)  1,2-dichloropropane
                      0.333 0.349 0.347 0.340 0.313 0.339 0.339 0.342  0.338    3.28
53)  dibromomethane
                      0.207 0.204 0.209 0.203 0.180 0.191 0.189 0.184  0.196    5.75
54)  bromodichloromethane
                0.393 0.374 0.394 0.410 0.401 0.375 0.401 0.402 0.397  0.394    3.06
55)  Methylcyclohexane
                          0.578 0.577 0.560 0.506 0.508 0.514 0.470  0.530    7.84
56)  2-chloroethyl vinyl ether
                          0.106 0.100 0.140 0.103 0.128 0.140 0.159  0.125   18.10
             ---- Quadratic regression ----  Coefficient =  0.9996
               Response Ratio = -0.00356 + 0.11987 *A + 0.00501 *A^2

57)  methyl methacrylate
                          0.096 0.100 0.125 0.097 0.117 0.123 0.138  0.114   14.51
58)  1,4-dioxane
                               0.002 0.002 0.002 0.002 0.002 0.002  0.002#   7.74
59)  cis-1,3-dichloropropene
          0.322 0.330 0.338 0.339 0.361 0.399 0.342 0.399 0.415 0.432  0.368   10.83
60)  toluene-d8 (s)
                          0.942 0.990 0.998 0.898 1.008 1.047 1.073  0.994    5.97
61)  4-methyl-2-pentanone
                          0.372 0.365 0.348 0.318 0.340 0.349 0.372  0.352    5.52
62)  toluene
                0.580 0.546 0.566 0.594 0.650 0.568 0.640 0.674 0.697  0.613    8.74
63)  trans-1,3-dichloropropene
          0.222 0.240 0.235 0.240 0.257 0.307 0.231 0.287 0.307        0.258   12.90
64)  1,1,2-trichloroethane
                0.170 0.150 0.154 0.172 0.186 0.147 0.174 0.184 0.197  0.170   10.10
65)  ethyl methacrylate
                          0.219 0.239 0.261 0.209 0.241 0.245 0.277  0.241    9.63

66) I   chlorobenzene-d5      ----------------ISTD---------------------
67)  tetrachloroethene
          0.672 0.690 0.660 0.712 0.691 0.674 0.684 0.700 0.678 0.674  0.684    2.23
68)  1,3-dichloropropane
                          0.724 0.764 0.766 0.663 0.751 0.713 0.731  0.730    4.90
69)  dibromochloromethane
          0.649 0.784 0.726 0.703 0.725 0.722 0.677 0.750 0.715 0.720  0.717    5.14
70)  1,2-dibromoethane
                      0.562 0.554 0.571 0.574 0.496 0.549 0.524 0.530  0.545    4.84
71)  2-hexanone
                          0.446 0.592 0.650 0.471 0.531 0.516 0.531  0.534   13.00
72)  chlorobenzene
                2.070 1.926 1.938 2.006 1.884 1.756 1.930 1.879 1.871  1.918    4.60
73)  1,1,1,2-tetrachloroethane
                      0.930 0.978 0.980 0.886 0.894 0.930 0.860 0.821  0.910    6.10
74)  ethylbenzene
                3.282 3.068 3.191 3.165 2.981 2.835 2.990 2.860 2.730  3.011    6.06
75)  m,p-xylene
          1.232 1.324 1.300 1.327 1.341 1.263 1.191 1.266 1.236 1.183  1.266    4.44
76)  o-xylene
          1.144 1.434 1.451 1.506 1.571 1.412 1.392 1.460 1.381 1.298  1.405    8.36
77)  styrene
                          2.089 2.313 2.028 1.850 2.065 1.981 1.927  2.036    7.22
78)  bromoform
                0.505 0.561 0.523 0.576 0.521 0.499 0.562 0.522 0.516  0.532    5.17
```

Initial Calibration Summary

Job Number: MC33908 **Sample:** MSU972-ICC972
Account: BBLNYS Arcadis **Lab FileID:** U22117.D
Project: National Grid, 10 King Street, Ogdensburg, NY

```
 79)  trans-1,4-dichloro-2-butene
                            0.291 0.315 0.269 0.278 0.320 0.303 0.298  0.296    6.24

 80) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
 81)  isopropylbenzene
                            2.093 2.136 2.344 2.208 2.333 2.411 2.359  2.269    5.41
 82)  bromofluorobenzene (s)
                            0.654 0.642 0.640 0.596 0.648 0.663 0.735  0.654    6.39
 83)  bromobenzene
                            0.607 0.631 0.636 0.580 0.645 0.656 0.713  0.638    6.50
 84)  1,1,2,2-tetrachloroethane
          0.543 0.588 0.561 0.528 0.566 0.548 0.505 0.551 0.547 0.576  0.551    4.30
 85)  1,2,3-trichloropropane
                            0.522 0.564 0.540 0.511 0.581 0.583 0.639  0.563    7.77
 86)  n-propylbenzene
                            2.464 2.529 2.618 2.393 2.517 2.568 2.447  2.505    3.06
 87)  2-chlorotoluene
                            1.597 1.631 1.654 1.539 1.631 1.647 1.690  1.627    2.95
 88)  4-chlorotoluene
                            1.628 1.701 1.696 1.554 1.680 1.708 1.771  1.677    4.09
 89)  1,3,5-trimethylbenzene
                 2.035 1.970 2.081 2.176 2.311 2.161 2.299 2.332 2.234  2.178    5.91
 90)  tert-butylbenzene
                            1.006 1.085 1.234 1.195 1.273 1.291 1.294  1.197    9.30
 91)  1,2,4-trimethylbenzene
                 2.256 2.172 2.211 2.316 2.381 2.216 2.337 2.332 2.226  2.272    3.15
 92)  sec-butylbenzene
                            2.645 2.763 2.986 2.796 2.939 2.947 2.555  2.804    5.85
 93)  1,3-dichlorobenzene
                 1.566 1.436 1.449 1.520 1.469 1.400 1.495 1.473 1.458  1.474    3.29
 94)  p-isopropyltoluene
                            2.587 2.584 2.686 2.535 2.646 2.616 2.326  2.569    4.57
 95)  1,4-dichlorobenzene
                 1.723 1.621 1.590 1.633 1.562 1.490 1.573 1.483 1.393  1.563    6.20
 96)  1,2-dichlorobenzene
                 1.613 1.531 1.547 1.619 1.536 1.487 1.538 1.481 1.433  1.532    3.92
 97)  n-butylbenzene
                            2.449 2.512 2.490 2.342 2.381 2.345 2.120  2.377    5.55
 98)  1,2-dibromo-3-chloropropane
                            0.145 0.138 0.121 0.116 0.118 0.113 0.112  0.123   10.51
 99)  1,3,5-trichlorobenzene
                            1.113 1.132 1.130 1.069 1.051 1.021 0.967  1.069    5.75
100)  1,2,4-trichlorobenzene
                            0.984 1.032 1.024 0.970 0.973 0.941 0.862  0.969    5.89
101)  hexachlorobutadiene
                            0.501 0.476 0.478 0.450 0.441 0.424 0.388  0.451    8.38
102)  naphthalene
                            2.207 2.277 2.263 2.194 2.200 2.083 1.803  2.147    7.64
103)  2-Methylnaphthalene
                            0.744 0.502 0.642 0.594 0.452              0.587   19.62
              ---- Quadratic regression ----  Coefficient =  0.9979
                Response Ratio = -0.01021 + 0.75609 *A + -0.29294 *A^2

104)  1-Methylnaphthalene
                            0.512 0.259 0.340 0.303 0.204              0.324   36.09
              ---- Quadratic regression ----  Coefficient =  0.9930
                Response Ratio = -0.00239 + 0.40022 *A + -0.19382 *A^2

105)  1,2,3-trichlorobenzene
                            0.859 0.889 0.875 0.830 0.830 0.773 0.578  0.805   13.30
```

Initial Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSU972-ICC972
Lab FileID: U22117.D

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

          U140829W.m        Fri Sep 19 09:41:40 2014
```

Initial Calibration Verification

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSU972-ICV972
Lab FileID: U22123.D

Evaluate Continuing Calibration Report

Data File : D:\msdchem\1\data\U140829\U22123.D Vial: 21
Acq On : 29 Aug 2014 7:56 pm Operator: GaryK
Sample : icv972-50 Inst : MSU
Misc : ms32529,msu972,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : D:\msdchem\1\methods\U140829W.m (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Fri Sep 19 09:05:29 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	50.000	50.000	0.0	111	0.00	6.61
2	P	tertiary butyl alcohol	250.000	300.236	-20.1#	142	0.41	6.70
3	P	Ethanol	5000.000	4680.092	6.4	104	-0.03	5.58
4	I	pentafluorobenzene	50.000	50.000	0.0	100	0.00	8.97
5	P	dichlorodifluoromethane	50.000	47.514	5.0	96	0.00	4.32
6	P	chloromethane	50.000	50.819	-1.6	108	0.00	4.55
7	P	vinyl chloride	50.000	50.096	-0.2	101	0.00	4.80
8	P	bromomethane	50.000	50.602	-1.2	109	0.00	5.28
9	P	chloroethane	50.000	57.748	-15.5	116	0.00	5.42
10	P	ethyl ether	50.000	49.461	1.1	104	0.00	6.29
11	P	acetonitrile	50.000	61.609	-23.2	132	0.00	6.07
12	P	trichlorofluoromethane	50.000	48.259	3.5	96	0.00	6.06
13	P	freon-113	50.000	48.877	2.2	99	0.00	6.83
14	P	acrolein	250.000	362.445	-45.0#	161	0.00	6.06
15	P	1,1-dichloroethene	50.000	47.862	4.3	105	0.00	6.63
16	P	acetone	50.000	43.654	12.7	90	0.00	6.21
17	P	Methyl Acetate	50.000	60.414	-20.8	124	0.00	6.82
18	P	methylene chloride	50.000	50.630	-1.3	107	0.00	6.78
19	P	methyl tert butyl ether	50.000	48.264	3.5	104	0.00	7.56
20	P	acrylonitrile	50.000	51.135	-2.3	106	0.00	6.70
21	P	allyl chloride	50.000	50.138	-0.3	105	0.00	6.87
22	P	trans-1,2-dichloroethene	50.000	48.411	3.2	106	0.00	7.47
23	P	iodomethane	50.000	49.413	1.2	104	0.00	6.69
24	P	carbon disulfide	50.000	49.995	0.0	103	0.00	7.05
25	P	propionitrile	50.000	52.573	-5.1	108	0.00	8.08
26	P	vinyl acetate	50.000	81.215	-62.4#	163	0.00	7.82
27	P	chloroprene	50.000	54.062	-8.1	112	0.00	8.08
28	P	di-isopropyl ether	50.000	49.163	1.7	104	0.00	8.12
29	P	methacrylonitrile	50.000	46.934	6.1	97	0.00	8.24
30	P	2-butanone	50.000	42.508	15.0	87	0.00	8.14
31	P	Ethyl Acetate	50.000	46.921	6.2	97	0.00	8.12
32	P	Hexane	50.000	47.900	4.2	99	0.00	8.10
33	P	1,1-dichloroethane	50.000	51.169	-2.3	108	0.00	7.72
34	P	tert-butyl ethyl ether	50.000	50.768	-1.5	107	0.00	8.52
35	P	isobutyl alcohol	250.000	170.800	31.7#	75	-0.02	8.52
36	P	2,2-dichloropropane	50.000	48.694	2.6	100	0.00	8.57
37	P	cis-1,2-dichloroethene	50.000	48.246	3.5	105	0.00	8.29
38	P	bromochloromethane	50.000	49.599	0.8	106	0.00	8.45
39	P	chloroform	50.000	49.008	2.0	104	0.00	8.49
40	S	dibromofluoromethane (s)	50.000	49.694	0.6	103	0.00	8.61
41	P	Tetrahydrofuran	50.000	46.412	7.2	101	0.00	8.83

Initial Calibration Verification

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Sample: MSU972-ICV972
Lab FileID: U22123.D

42	P	1,1,1-trichloroethane	50.000	49.292	1.4	101	0.00	9.24
43	I	1,4-difluorobenzene	50.000	50.000	0.0	96	0.00	9.84
44	P	Cyclohexane	50.000	50.764	-1.5	102	0.00	9.52
45	P	carbon tetrachloride	50.000	51.111	-2.2	102	0.00	9.60
46	P	1,1-dichloropropene	50.000	51.405	-2.8	103	0.00	9.41
47	P	benzene	50.000	47.397	5.2	98	0.00	9.64
48	P	1,2-dichloroethane	50.000	48.753	2.5	102	0.00	9.14
49	P	tert-amyl methyl ether	50.000	50.914	-1.8	105	0.00	9.76
50	P	heptane	50.000	47.564	4.9	96	0.00	10.12
51	P	trichloroethene	50.000	48.121	3.8	100	0.00	10.26
52	P	1,2-dichloropropane	50.000	49.967	0.1	104	0.00	10.23
53	P	dibromomethane	50.000	48.801	2.4	102	0.00	10.20
54	P	bromodichloromethane	50.000	51.455	-2.9	104	0.00	10.31
55	P	Methylcyclohexane	50.000	52.648	-5.3	106	0.00	10.78
		----------	Amount	Calc.	%Drift		----------	
56	P	2-chloroethyl vinyl ether	50.000	48.249	3.5	109	0.00	10.70
		----------	Amount	Calc.	%Drift		----------	
57	P	methyl methacrylate	50.000	44.925	10.2	102	0.00	10.41
58	P	1,4-dioxane	125.000	153.291	-22.6#	68	-0.02	10.43
59	P	cis-1,3-dichloropropene	50.000	49.382	1.2	102	0.00	10.93
60	S	toluene-d8 (s)	50.000	48.770	2.5	104	0.00	11.64
61	P	4-methyl-2-pentanone	50.000	46.710	6.6	100	-0.01	11.04
62	P	toluene	50.000	48.742	2.5	101	0.00	11.71
63	P	trans-1,3-dichloropropene	50.000	51.931	-3.9	112	0.00	11.35
64	P	1,1,2-trichloroethane	50.000	49.009	2.0	110	0.00	11.53
65	P	ethyl methacrylate	50.000	46.541	6.9	104	0.00	11.73
66	I	chlorobenzene-d5	50.000	50.000	0.0	104	0.00	13.09
67	P	tetrachloroethene	50.000	48.270	3.5	101	0.00	12.45
68	P	1,3-dichloropropane	50.000	45.851	8.3	105	0.00	11.76
69	P	dibromochloromethane	50.000	50.103	-0.2	111	0.00	12.05
70	P	1,2-dibromoethane	50.000	47.489	5.0	109	0.00	12.30
71	P	2-hexanone	50.000	40.239	19.5	95	0.00	11.90
72	P	chlorobenzene	50.000	47.774	4.5	109	0.00	13.13
73	P	1,1,1,2-tetrachloroethane	50.000	52.428	-4.9	111	0.00	13.05
74	P	ethylbenzene	50.000	48.100	3.8	107	0.00	13.31
75	P	m,p-xylene	100.000	97.932	2.1	109	0.00	13.49
76	P	o-xylene	50.000	51.746	-3.5	109	0.00	13.90
77	P	styrene	50.000	49.760	0.5	114	0.00	13.83
78	P	bromoform	50.000	53.262	-6.5	118	0.00	13.66
79	P	trans-1,4-dichloro-2-bute	50.000	54.438	-8.9	121	0.00	14.06
80	I	1,4-dichlorobenzene-d4	50.000	50.000	0.0	109	0.00	15.66
81	P	isopropylbenzene	50.000	48.969	2.1	110	0.00	14.27
82	S	bromofluorobenzene (s)	50.000	46.933	6.1	112	0.00	14.32
83	P	bromobenzene	50.000	47.796	4.4	115	0.00	14.55
84	P	1,1,2,2-tetrachloroethane	50.000	49.451	1.1	118	0.00	13.91
85	P	1,2,3-trichloropropane	50.000	50.317	-0.6	121	0.00	14.06
86	P	n-propylbenzene	50.000	49.198	1.6	112	0.00	14.71
87	P	2-chlorotoluene	50.000	48.709	2.6	112	0.00	14.83
88	P	4-chlorotoluene	50.000	47.588	4.8	112	0.00	14.91
89	P	1,3,5-trimethylbenzene	50.000	49.388	1.2	109	0.00	14.99
90	P	tert-butylbenzene	50.000	49.602	0.8	108	0.00	15.29
91	P	1,2,4-trimethylbenzene	50.000	50.447	-0.9	113	0.00	15.40
92	P	sec-butylbenzene	50.000	50.836	-1.7	111	0.00	15.52
93	P	1,3-dichlorobenzene	50.000	48.800	2.4	112	0.00	15.62
94	P	p-isopropyltoluene	50.000	50.038	-0.1	111	0.00	15.69

Initial Calibration Verification

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSU972-ICV972
Lab FileID: U22123.D

95	P	1,4-dichlorobenzene	50.000	48.945	2.1	112	0.00	15.69
96	P	1,2-dichlorobenzene	50.000	49.778	0.4	112	0.00	16.06
97	P	n-butylbenzene	50.000	48.973	2.1	108	0.00	16.11
98	P	1,2-dibromo-3-chloropropa	50.000	52.986	-6.0	123	0.01	16.55
99	P	1,3,5-trichlorobenzene	50.000	50.512	-1.0	110	0.00	17.35
100	P	1,2,4-trichlorobenzene	50.000	49.984	0.0	109	0.00	17.89
101	P	hexachlorobutadiene	50.000	50.090	-0.2	110	0.00	18.18
102	P	naphthalene	50.000	55.523	-11.0	119	0.00	18.15
		----------	Amount	Calc.	%Drift		----------	
103	P	2-Methylnaphthalene	25.000	-50.000	300.0#	177	0.00	19.52
104	P	1-Methylnaphthalene	25.000	-50.000	300.0#	168	0.00	19.77
		----------	Amount	Calc.	%Drift		----------	
105	P	1,2,3-trichlorobenzene	50.000	51.785	-3.6	110	0.00	18.36

(#) = Out of Range SPCC's out = 0 CCC's out = 0
U22117.D U140829W.m Fri Sep 19 09:12:05 2014

6.8.8

6

Continuing Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSU990-CC972
Lab FileID: U22713.D

Evaluate Continuing Calibration Report

Data File : D:\msdchem\1\data\U140929\U22713.D Vial: 2
Acq On : 29 Sep 2014 8:51 am Operator: GaryK
Sample : cc972-50 Inst : MSU
Misc : ms32826,msu990,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : D:\msdchem\1\methods\U140829W.m (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Fri Sep 19 09:05:29 2014
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	68	0.05	6.66
2	P	tertiary butyl alcohol	0.103	0.102	1.0	71	0.00	6.28
			Amount	Calc.	%Drift			
3	P	Ethanol	5000.000	6656.386	-33.1#	89	0.08	5.69
			AvgRF	CCRF	%Dev			
4	I	pentafluorobenzene	1.000	1.000	0.0	96	0.00	8.97
5	P	dichlorodifluoromethane	0.825	0.568	31.2#	67	-0.01	4.31
6	P	chloromethane	1.558	1.432	8.1	94	0.00	4.56
7	P	vinyl chloride	1.047	1.006	3.9	93	0.00	4.80
8	P	bromomethane	0.549	0.475	13.5	90	0.00	5.27
9	P	chloroethane	0.408	0.354	13.2	84	0.00	5.41
10	P	ethyl ether	0.535	0.466	12.9	88	0.00	6.28
			Amount	Calc.	%Drift			
11	P	acetonitrile	50.000	48.642	2.7	103	0.03	6.10
			AvgRF	CCRF	%Dev			
12	P	trichlorofluoromethane	1.069	0.988	7.6	88	0.00	6.07
13	P	freon-113	0.641	0.641	0.0	97	-0.01	6.82
14	P	acrolein	0.044	0.030#	31.8#	74	0.02	6.08
15	P	1,1-dichloroethene	0.566	0.504	11.0	94	0.00	6.63
16	P	acetone	0.134	0.097#	27.6#	71	0.03	6.25
17	P	Methyl Acetate	0.586	0.524	10.6	88	0.01	6.83
18	P	methylene chloride	0.603	0.575	4.6	97	0.00	6.78
19	P	methyl tert butyl ether	1.452	1.394	4.0	100	0.00	7.56
20	P	acrylonitrile	0.285	0.269	5.6	94	0.03	6.73
21	P	allyl chloride	1.333	1.089	18.3	83	0.00	6.87
22	P	trans-1,2-dichloroethene	0.626	0.551	12.0	92	0.00	7.46
23	P	iodomethane	1.173	1.098	6.4	95	0.00	6.69
24	P	carbon disulfide	1.750	1.589	9.2	90	0.00	7.05
25	P	propionitrile	0.055	0.056	-1.8	100	0.00	8.08
26	P	vinyl acetate	0.439	1.155	-163.1#	254#	0.00	7.82
27	P	chloroprene	1.024	0.952	7.0	92	0.00	8.08
28	P	di-isopropyl ether	2.591	2.440	5.8	96	0.00	8.12
29	P	methacrylonitrile	0.389	0.357	8.2	91	0.00	8.24
30	P	2-butanone	0.068	0.060#	11.8	86	0.00	8.13
31	P	Ethyl Acetate	2.200	2.082	5.4	94	0.00	8.11
32	P	Hexane	1.093	1.096	-0.3	100	0.00	8.10
33	P	1,1-dichloroethane	1.209	1.116	7.7	94	0.00	7.71

Continuing Calibration Summary

Job Number: MC33908 **Sample:** MSU990-CC972
Account: BBLNYS Arcadis **Lab FileID:** U22713.D
Project: National Grid, 10 King Street, Ogdensburg, NY

34	P	tert-butyl ethyl ether	2.017	2.099	-4.1	105	0.00	8.51
35	P	isobutyl alcohol	0.082	0.093	-13.4	119	0.00	8.54
36	P	2,2-dichloropropane	0.761	0.760	0.1	99	0.00	8.57
37	P	cis-1,2-dichloroethene	0.694	0.626	9.8	95	0.00	8.28
38	P	bromochloromethane	0.363	0.339	6.6	96	0.00	8.45
39	P	chloroform	1.036	1.002	3.3	99	0.00	8.49
40	S	dibromofluoromethane (s)	0.640	0.590	7.8	92	0.00	8.61
41	P	Tetrahydrofuran	0.214	0.194	9.3	95	0.01	8.85
42	P	1,1,1-trichloroethane	0.899	0.921	-2.4	101	0.00	9.24
43	I	1,4-difluorobenzene	1.000	1.000	0.0	96	0.00	9.84
44	P	Cyclohexane	0.745	0.699	6.2	93	0.00	9.52
45	P	carbon tetrachloride	0.474	0.468	1.3	98	0.00	9.60
46	P	1,1-dichloropropene	0.394	0.378	4.1	95	0.00	9.41
47	P	benzene	1.215	1.162	4.4	99	0.00	9.64
48	P	1,2-dichloroethane	0.454	0.440	3.1	101	0.00	9.14
49	P	tert-amyl methyl ether	0.802	0.843	-5.1	107	0.00	9.76
50	P	heptane	0.527	0.586	-11.2	111	0.00	10.11
51	P	trichloroethene	0.341	0.337	1.2	103	0.00	10.26
52	P	1,2-dichloropropane	0.338	0.351	-3.8	107	0.00	10.22
53	P	dibromomethane	0.196	0.204	-4.1	109	0.00	10.20
54	P	bromodichloromethane	0.394	0.428	-8.6	109	0.00	10.31
55	P	Methylcyclohexane	0.530	0.540	-1.9	102	0.00	10.77
		----------	Amount	Calc.	%Drift	----------		
56	P	2-chloroethyl vinyl ether	50.000	65.212	-30.4#	150	0.00	10.69
		----------	AvgRF	CCRF	%Dev	----------		
57	P	methyl methacrylate	0.114	0.141	-23.7#	140	0.00	10.41
58	P	1,4-dioxane	0.002	0.002#	0.0	137	0.00	10.46
59	P	cis-1,3-dichloropropene	0.368	0.430	-16.8	121	0.00	10.93
60	S	toluene-d8 (s)	0.994	1.098	-10.5	117	0.00	11.63
61	P	4-methyl-2-pentanone	0.352	0.377	-7.1	114	-0.02	11.03
62	P	toluene	0.613	0.712	-16.2	120	0.00	11.71
63	P	trans-1,3-dichloropropene	0.258	0.361	-39.9#	150	0.00	11.35
64	P	1,1,2-trichloroethane	0.170	0.214	-25.9#	140	0.00	11.53
65	P	ethyl methacrylate	0.241	0.312	-29.5#	144	0.00	11.73
66	I	chlorobenzene-d5	1.000	1.000	0.0	129	0.00	13.09
67	P	tetrachloroethene	0.684	0.674	1.5	127	0.00	12.45
68	P	1,3-dichloropropane	0.730	0.723	1.0	141	0.00	11.76
69	P	dibromochloromethane	0.717	0.732	-2.1	140	0.00	12.05
70	P	1,2-dibromoethane	0.545	0.566	-3.9	147	0.00	12.30
71	P	2-hexanone	0.534	0.530	0.7	146	-0.03	11.89
72	P	chlorobenzene	1.918	1.908	0.5	140	0.00	13.13
73	P	1,1,1,2-tetrachloroethane	0.910	0.820	9.9	119	0.00	13.05
74	P	ethylbenzene	3.011	3.153	-4.7	144	0.00	13.30
75	P	m,p-xylene	1.266	1.369	-8.1	149	0.00	13.49
76	P	o-xylene	1.405	1.453	-3.4	135	0.00	13.90
77	P	styrene	2.036	2.252	-10.6	157	0.00	13.83
78	P	bromoform	0.532	0.602	-13.2	156	0.00	13.66
79	P	trans-1,4-dichloro-2-bute	0.296	0.391	-32.1#	182	0.00	14.06
80	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	15.66
81	P	isopropylbenzene	2.269	2.862	-26.1#	134	0.00	14.27
82	S	bromofluorobenzene (s)	0.654	0.777	-18.8	135	0.00	14.32
83	P	bromobenzene	0.638	0.821	-28.7#	146	0.00	14.55
84	P	1,1,2,2-tetrachloroethane	0.551	0.615	-11.6	126	0.00	13.91
85	P	1,2,3-trichloropropane	0.563	0.727	-29.1#	147	0.00	14.06
86	P	n-propylbenzene	2.505	3.331	-33.0#	144	0.00	14.71

Continuing Calibration Summary

Job Number: MC33908 **Sample:** MSU990-CC972
Account: BBLNYS Arcadis **Lab FileID:** U22713.D
Project: National Grid, 10 King Street, Ogdensburg, NY

87	P	2-chlorotoluene	1.627	1.921	-18.1	129	0.00	14.83
88	P	4-chlorotoluene	1.677	2.053	-22.4#	137	0.00	14.91
89	P	1,3,5-trimethylbenzene	2.178	2.611	-19.9	125	0.00	14.99
90	P	tert-butylbenzene	1.197	1.379	-15.2	119	0.00	15.30
91	P	1,2,4-trimethylbenzene	2.272	2.571	-13.2	120	0.00	15.40
92	P	sec-butylbenzene	2.804	3.361	-19.9	124	0.00	15.52
93	P	1,3-dichlorobenzene	1.474	1.577	-7.0	116	0.00	15.62
94	P	p-isopropyltoluene	2.569	2.914	-13.4	119	0.00	15.69
95	P	1,4-dichlorobenzene	1.563	1.658	-6.1	115	0.00	15.69
96	P	1,2-dichlorobenzene	1.532	1.463	4.5	102	0.00	16.06
97	P	n-butylbenzene	2.377	2.610	-9.8	115	0.00	16.11
98	P	1,2-dibromo-3-chloropropa	0.123	0.081	34.1#	72	0.00	16.54
99	P	1,3,5-trichlorobenzene	1.069	0.624	41.6#	60	0.00	17.35
100	P	1,2,4-trichlorobenzene	0.969	0.081#	91.6#	9#	0.00	17.89
101	P	hexachlorobutadiene	0.451	0.162	64.1#	37#	0.00	18.18
102	P	naphthalene	2.147	0.063	97.1#	3#	0.00	18.16
			Amount	Calc.	%Drift			
103	P	2-Methylnaphthalene		----------NA----------				
104	P	1-Methylnaphthalene		----------NA----------				
			AvgRF	CCRF	%Dev			
105	P	1,2,3-trichlorobenzene	0.805	0.003#	99.6#	0#	0.00	18.36

(#) = Out of Range SPCC's out = 6 CCC's out = 0
U22117.D U140829W.m Mon Sep 29 13:28:05 2014

Continuing Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSU992-CC972
Lab FileID: U22756.D

Evaluate Continuing Calibration Report

Data File : D:\msdchem\1\data\U141002\U22756.D Vial: 2
Acq On : 2 Oct 2014 8:16 am Operator: GaryK
Sample : cc972-50 Inst : MSU
Misc : ms32871,msu992,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : D:\msdchem\1\methods\U140829W.m (RTE Integrator)
Title : SW-846 Method 8260
Last Update : Fri Sep 19 09:05:29 2014
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	68	0.08	6.69
2	P	tertiary butyl alcohol	0.103	0.084	18.4	58	0.00	6.66
			Amount	Calc.	%Drift			
3	P	Ethanol	5000.000	4984.150	0.3	67	0.07	5.67
			AvgRF	CCRF	%Dev			
4	I	pentafluorobenzene	1.000	1.000	0.0	106	0.00	8.97
5	P	dichlorodifluoromethane	0.825	0.897	-8.7	116	0.00	4.31
6	P	chloromethane	1.558	1.857	-19.2	133	0.01	4.56
7	P	vinyl chloride	1.047	1.210	-15.6	123	0.00	4.81
8	P	bromomethane	0.549	0.596	-8.6	124	0.00	5.28
9	P	chloroethane	0.408	0.489	-19.9	127	0.00	5.42
10	P	ethyl ether	0.535	0.514	3.9	107	0.00	6.29
			Amount	Calc.	%Drift			
11	P	acetonitrile	50.000	35.358	29.3#	85	0.04	6.11
			AvgRF	CCRF	%Dev			
12	P	trichlorofluoromethane	1.069	1.082	-1.2	106	0.00	6.07
13	P	freon-113	0.641	0.656	-2.3	109	0.00	6.83
14	P	acrolein	0.044	0.016#	63.6#	44#	0.03	6.09
15	P	1,1-dichloroethene	0.566	0.529	6.5	108	0.00	6.63
16	P	acetone	0.134	0.035#	73.9#	29#	0.02	6.23
17	P	Methyl Acetate	0.586	0.767	-30.9#	142	0.03	6.85
18	P	methylene chloride	0.603	0.584	3.2	108	0.00	6.78
19	P	methyl tert butyl ether	1.452	1.368	5.8	107	0.01	7.57
20	P	acrylonitrile	0.285	0.284	0.4	109	0.04	6.74
21	P	allyl chloride	1.333	1.261	5.4	105	0.00	6.87
22	P	trans-1,2-dichloroethene	0.626	0.567	9.4	104	0.00	7.46
23	P	iodomethane	1.173	1.147	2.2	109	0.00	6.69
24	P	carbon disulfide	1.750	1.861	-6.3	115	0.00	7.05
25	P	propionitrile	0.055	0.063	-14.5	123	0.00	8.08
26	P	vinyl acetate	0.439	0.731	-66.5#	177	0.00	7.82
27	P	chloroprene	1.024	1.127	-10.1	120	0.00	8.08
28	P	di-isopropyl ether	2.591	2.520	2.7	108	0.00	8.12
29	P	methacrylonitrile	0.389	0.422	-8.5	118	0.00	8.25
30	P	2-butanone	0.068	0.039#	42.6#	61	0.00	8.13
31	P	Ethyl Acetate	2.200	2.060	6.4	102	0.00	8.11
32	P	Hexane	1.093	1.143	-4.6	114	0.00	8.10
33	P	1,1-dichloroethane	1.209	1.183	2.2	109	0.00	7.71

Continuing Calibration Summary

Job Number: MC33908 **Sample:** MSU992-CC972
Account: BBLNYS Arcadis **Lab FileID:** U22756.D
Project: National Grid, 10 King Street, Ogdensburg, NY

34	P	tert-butyl ethyl ether	2.017	2.127	-5.5	117	0.00	8.52
35	P	isobutyl alcohol	0.082	0.082	0.0	116	-0.01	8.53
36	P	2,2-dichloropropane	0.761	0.766	-0.7	109	0.00	8.57
37	P	cis-1,2-dichloroethene	0.694	0.611	12.0	101	0.00	8.29
38	P	bromochloromethane	0.363	0.335	7.7	104	0.00	8.46
39	P	chloroform	1.036	0.982	5.2	107	0.00	8.49
40	S	dibromofluoromethane (s)	0.640	0.576	10.0	99	0.00	8.61
41	P	Tetrahydrofuran	0.214	0.221	-3.3	119	0.02	8.85
42	P	1,1,1-trichloroethane	0.899	0.901	-0.2	108	0.00	9.24
43	I	1,4-difluorobenzene	1.000	1.000	0.0	103	0.00	9.84
44	P	Cyclohexane	0.745	0.729	2.1	104	0.00	9.52
45	P	carbon tetrachloride	0.474	0.468	1.3	104	0.00	9.60
46	P	1,1-dichloropropene	0.394	0.399	-1.3	107	0.00	9.41
47	P	benzene	1.215	1.163	4.3	105	0.00	9.64
48	P	1,2-dichloroethane	0.454	0.463	-2.0	114	0.00	9.14
49	P	tert-amyl methyl ether	0.802	0.807	-0.6	110	0.00	9.76
50	P	heptane	0.527	0.591	-12.1	120	0.00	10.11
51	P	trichloroethene	0.341	0.350	-2.6	114	0.00	10.26
52	P	1,2-dichloropropane	0.338	0.365	-8.0	120	0.00	10.22
53	P	dibromomethane	0.196	0.200	-2.0	114	0.00	10.20
54	P	bromodichloromethane	0.394	0.426	-8.1	117	0.00	10.31
55	P	Methylcyclohexane	0.530	0.516	2.6	105	0.00	10.77
		----------	Amount	Calc.	%Drift	----------		
56	P	2-chloroethyl vinyl ether	50.000	72.570	-45.1#	180	0.00	10.70
		----------	AvgRF	CCRF	%Dev	----------		
57	P	methyl methacrylate	0.114	0.139	-21.9#	148	0.00	10.41
58	P	1,4-dioxane	0.002	0.000#	100.0#	19#	-0.03	10.42
59	P	cis-1,3-dichloropropene	0.368	0.427	-16.0	128	0.00	10.93
60	S	toluene-d8 (s)	0.994	1.037	-4.3	119	0.00	11.63
61	P	4-methyl-2-pentanone	0.352	0.358	-1.7	116	-0.01	11.03
62	P	toluene	0.613	0.651	-6.2	117	0.00	11.71
63	P	trans-1,3-dichloropropene	0.258	0.337	-30.6#	150	0.00	11.35
64	P	1,1,2-trichloroethane	0.170	0.182	-7.1	128	0.00	11.53
65	P	ethyl methacrylate	0.241	0.256	-6.2	126	0.00	11.73
66	I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	13.09
67	P	tetrachloroethene	0.684	0.784	-14.6	117	0.00	12.45
68	P	1,3-dichloropropane	0.730	0.833	-14.1	128	0.00	11.76
69	P	dibromochloromethane	0.717	0.764	-6.6	115	0.00	12.05
70	P	1,2-dibromoethane	0.545	0.593	-8.8	122	0.00	12.30
71	P	2-hexanone	0.534	0.444	16.9	96	-0.02	11.90
72	P	chlorobenzene	1.918	1.876	2.2	109	0.00	13.13
73	P	1,1,1,2-tetrachloroethane	0.910	0.892	2.0	102	0.00	13.05
74	P	ethylbenzene	3.011	3.090	-2.6	111	0.00	13.30
75	P	m,p-xylene	1.266	1.259	0.6	108	0.00	13.49
76	P	o-xylene	1.405	1.376	2.1	101	0.00	13.90
77	P	styrene	2.036	1.819	10.7	100	0.00	13.83
78	P	bromoform	0.532	0.462	13.2	94	0.00	13.66
79	P	trans-1,4-dichloro-2-bute	0.296	0.272	8.1	100	0.00	14.06
80	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	71	0.00	15.66
81	P	isopropylbenzene	2.269	3.161	-39.3#	102	0.00	14.26
82	S	bromofluorobenzene (s)	0.654	0.689	-5.4	83	0.00	14.32
83	P	bromobenzene	0.638	0.726	-13.8	89	0.00	14.55
84	P	1,1,2,2-tetrachloroethane	0.551	0.626	-13.6	88	0.00	13.91
85	P	1,2,3-trichloropropane	0.563	0.656	-16.5	92	0.00	14.06
86	P	n-propylbenzene	2.505	3.320	-32.5#	99	0.00	14.71

Continuing Calibration Summary

Job Number: MC33908 **Sample:** MSU992-CC972
Account: BBLNYS Arcadis **Lab FileID:** U22756.D
Project: National Grid, 10 King Street, Ogdensburg, NY

87	P	2-chlorotoluene	1.627	1.984	-21.9#	92	0.00	14.83
88	P	4-chlorotoluene	1.677	1.847	-10.1	85	0.00	14.90
89	P	1,3,5-trimethylbenzene	2.178	2.805	-28.8#	93	0.00	14.99
90	P	tert-butylbenzene	1.197	1.596	-33.3#	95	0.00	15.29
91	P	1,2,4-trimethylbenzene	2.272	2.862	-26.0#	92	0.00	15.40
92	P	sec-butylbenzene	2.804	3.807	-35.8#	97	0.00	15.52
93	P	1,3-dichlorobenzene	1.474	1.561	-5.9	80	0.00	15.62
94	P	p-isopropyltoluene	2.569	3.262	-27.0#	92	0.00	15.69
95	P	1,4-dichlorobenzene	1.563	1.616	-3.4	77	0.00	15.69
96	P	1,2-dichlorobenzene	1.532	1.723	-12.5	83	0.00	16.05
97	P	n-butylbenzene	2.377	2.936	-23.5#	89	0.00	16.11
98	P	1,2-dibromo-3-chloropropa	0.123	0.189	-53.7#	116	0.00	16.54
99	P	1,3,5-trichlorobenzene	1.069	1.540	-44.1#	103	0.00	17.35
100	P	1,2,4-trichlorobenzene	0.969	1.500	-54.8#	110	0.00	17.88
101	P	hexachlorobutadiene	0.451	0.680	-50.8#	108	0.00	18.17
102	P	naphthalene	2.147	3.568	-66.2#	116	0.00	18.15
			Amount	Calc.	%Drift			
103	P	2-Methylnaphthalene	25.000	-50.000	300.0#	441	-0.01	19.51
104	P	1-Methylnaphthalene	25.000	-50.000	300.0#	684	-0.01	19.76
			AvgRF	CCRF	%Dev			
105	P	1,2,3-trichlorobenzene	0.805	1.350	-67.7#	116	0.00	18.36

(#) = Out of Range SPCC's out = 5 CCC's out = 0
U22117.D U140829W.m Thu Oct 02 15:46:49 2014

New England ACCUTEST LABORATORIES

GC/MS Volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/30/14 09:07

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22733.D
Acq On : 29 Sep 2014 5:59 pm
Operator : GaryK
Sample : mc33908-2
Misc : ms32817,msu990,,,,5,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 30 08:09:41 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

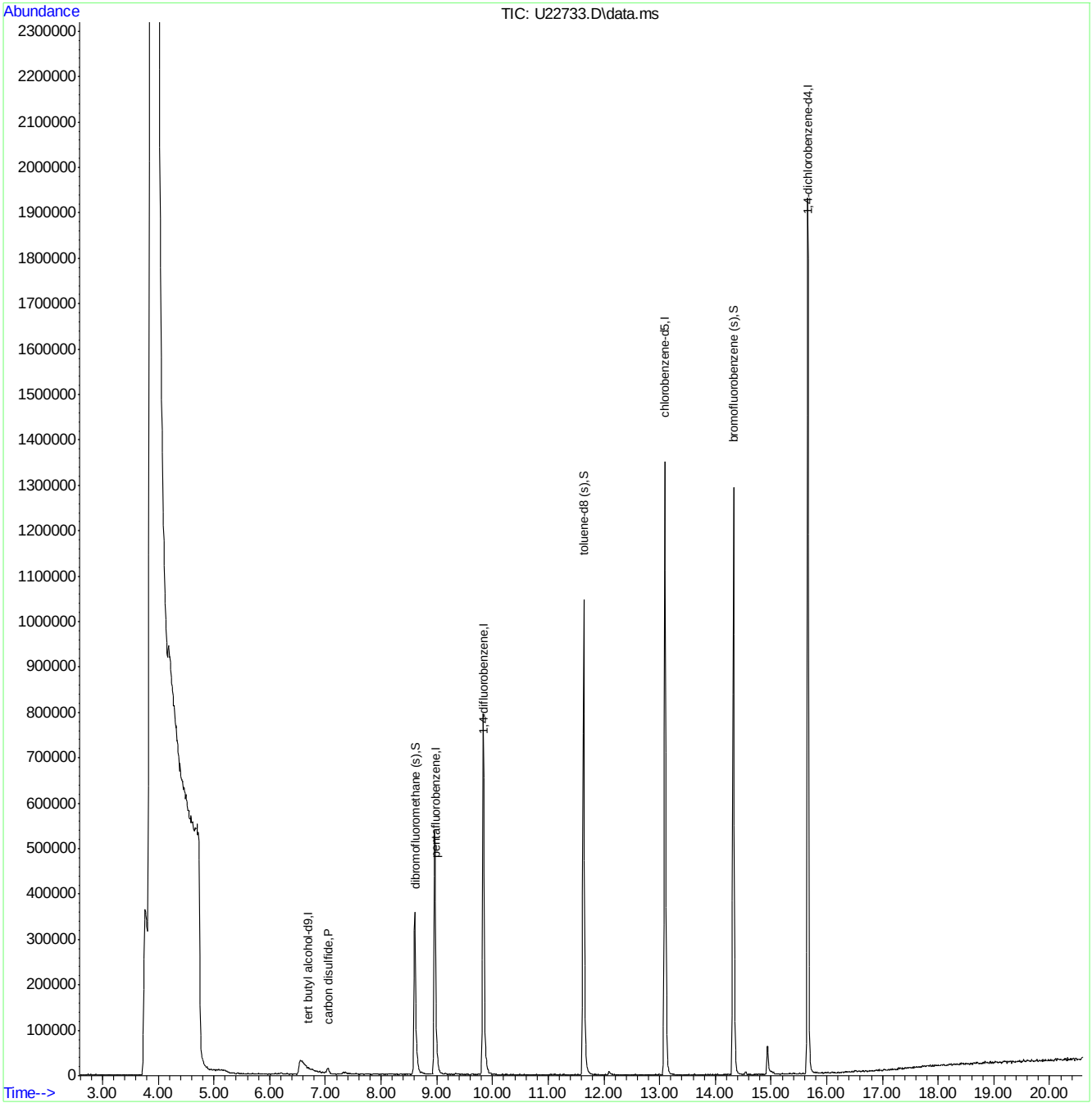
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.684	65	189593	50.00	ppb	0.07
4) pentafluorobenzene	8.975	168	426393m	50.00	ppb	0.00
43) 1,4-difluorobenzene	9.841	114	739413	50.00	ppb	0.00
66) chlorobenzene-d5	13.098	82	393431	50.00	ppb	# 0.00
80) 1,4-dichlorobenzene-d4	15.662	152	540489	50.00	ppb	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.615	113	259779	47.60	ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.20%			
60) toluene-d8 (s)	11.638	98	769635	52.38	ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 104.76%			
82) bromofluorobenzene (s)	14.326	95	433788	61.38	ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 122.76%			
Target Compounds						Qvalue
24) carbon disulfide	7.049	76	18321	1.23	ppb	81

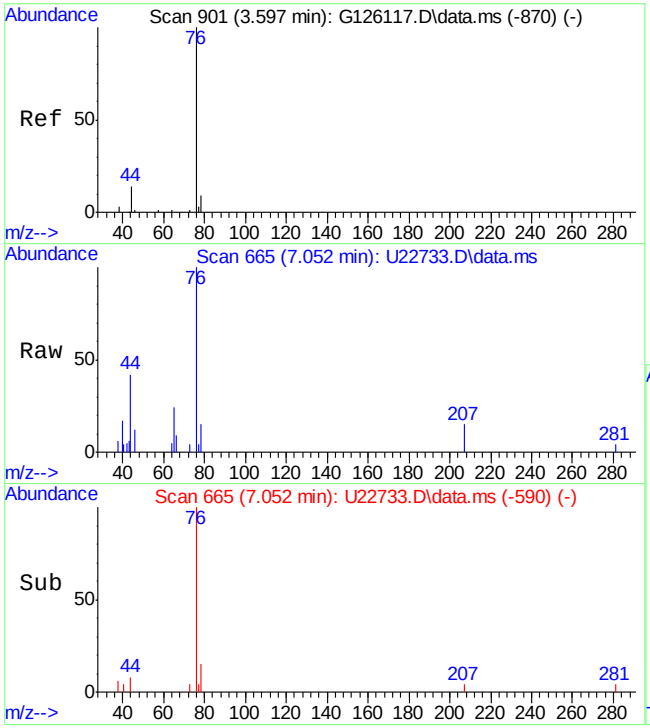
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22733.D
Acq On : 29 Sep 2014 5:59 pm
Operator : GaryK
Sample : mc33908-2
Misc : ms32817,msu990,,,,5,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 30 08:09:41 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

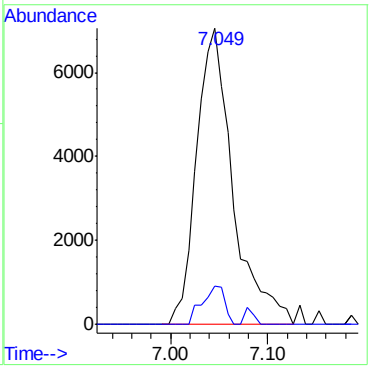




#24
carbon disulfide
Concen: 1.23 ppb
RT: 7.049 min Scan# 665
Delta R.T. -0.001 min
Lab File: U22733.D
Acq: 29 Sep 2014 5:59 pm

Tgt Ion: 76 Resp: 18321

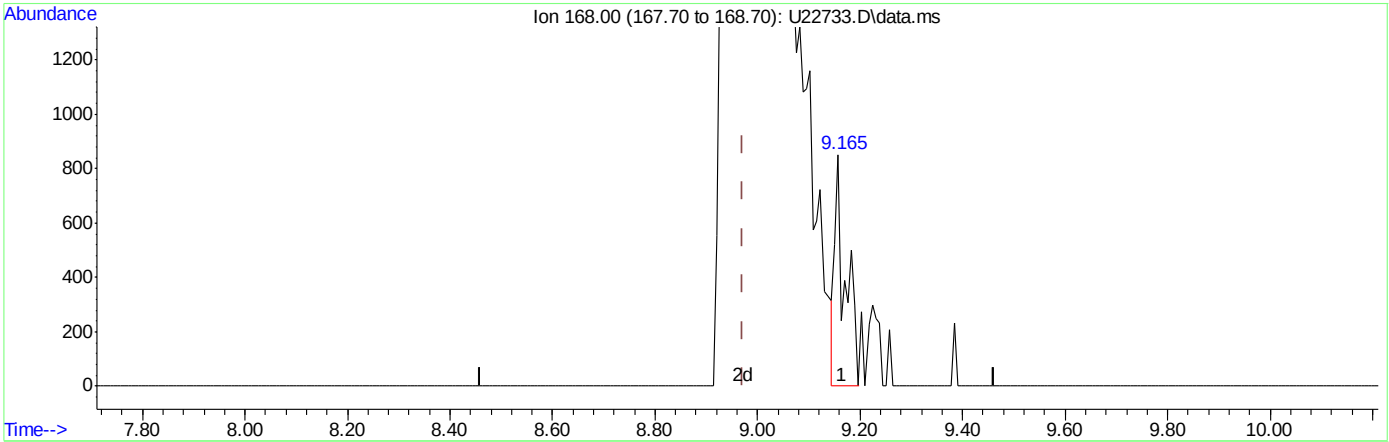
Ion	Ratio	Lower	Upper
76	100		
78	15.5	0.0	38.8

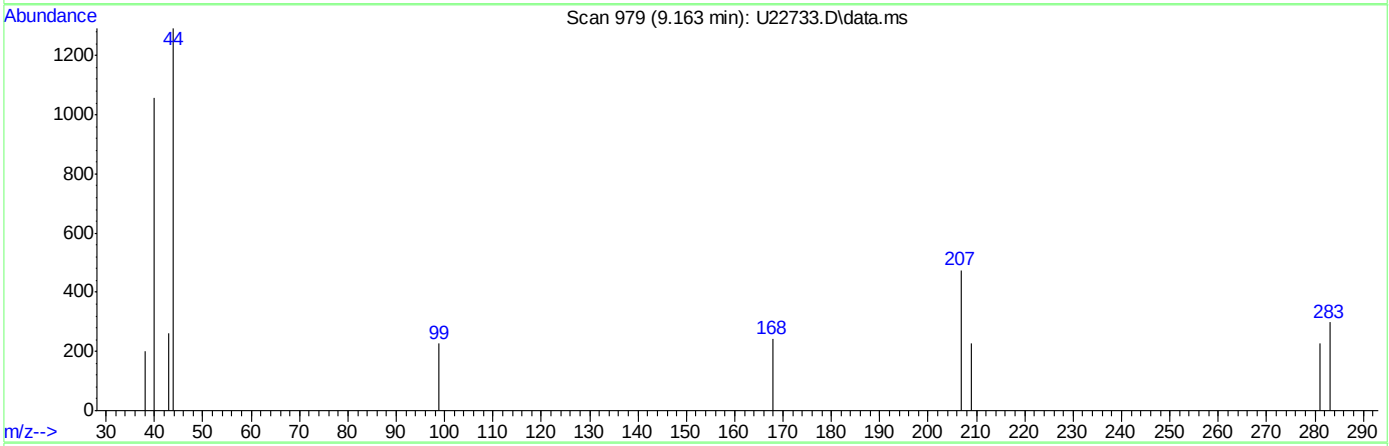


Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22733.D
Acq On : 29 Sep 2014 5:59 pm
Operator : GaryK
Sample : mc33908-2
Misc : ms32817,msu990,,,,5,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 30 08:09:25 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22733.D\data.ms

(4) pentafluorobenzene (I)

9.165min (+0.194) 50.00ppb

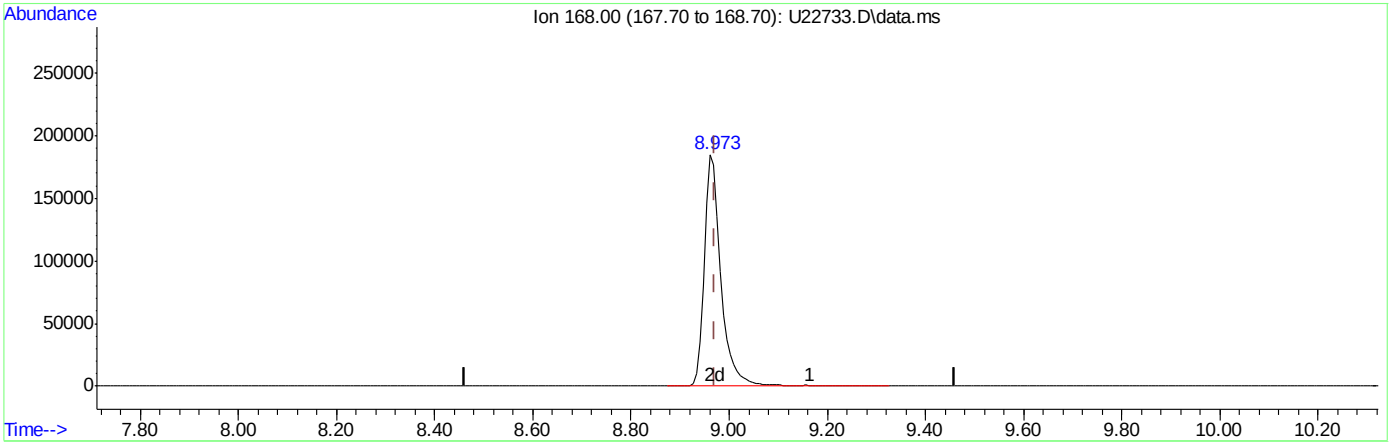
response 1255

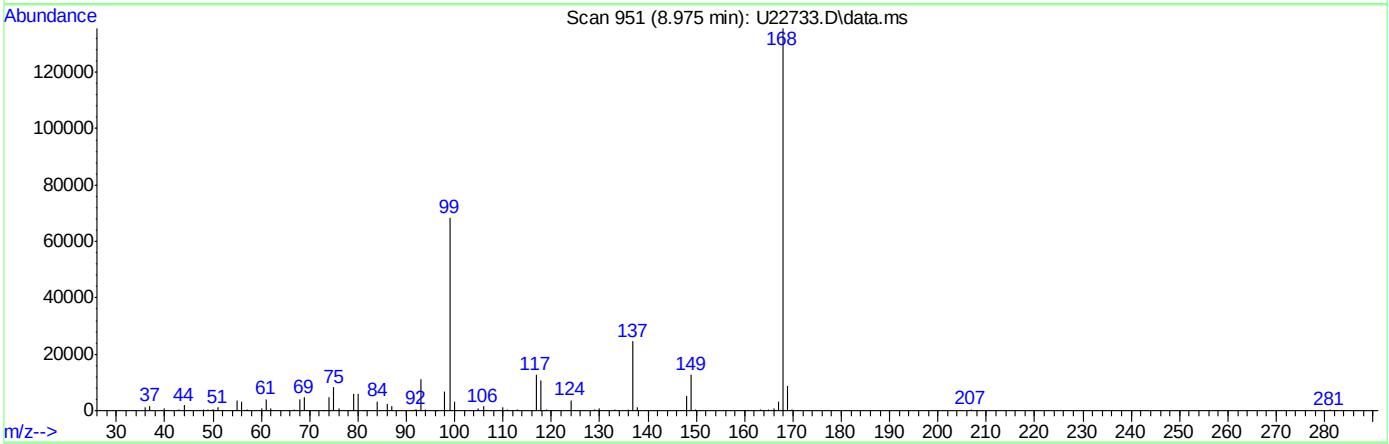
Ion	Exp%	Act%
168.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22733.D
Acq On : 29 Sep 2014 5:59 pm
Operator : GaryK
Sample : mc33908-2
Misc : ms32817,msu990,,,,5,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 30 08:09:25 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22733.D\data.ms

(4) pentafluorobenzene (I)

8.975min (+0.004) 50.00ppb m

response 426393

Ion	Exp%	Act%
168.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22729.D
Acq On : 29 Sep 2014 4:09 pm
Operator : GaryK
Sample : mc33908-3
Misc : ms32817,msu990,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 29 16:32:46 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

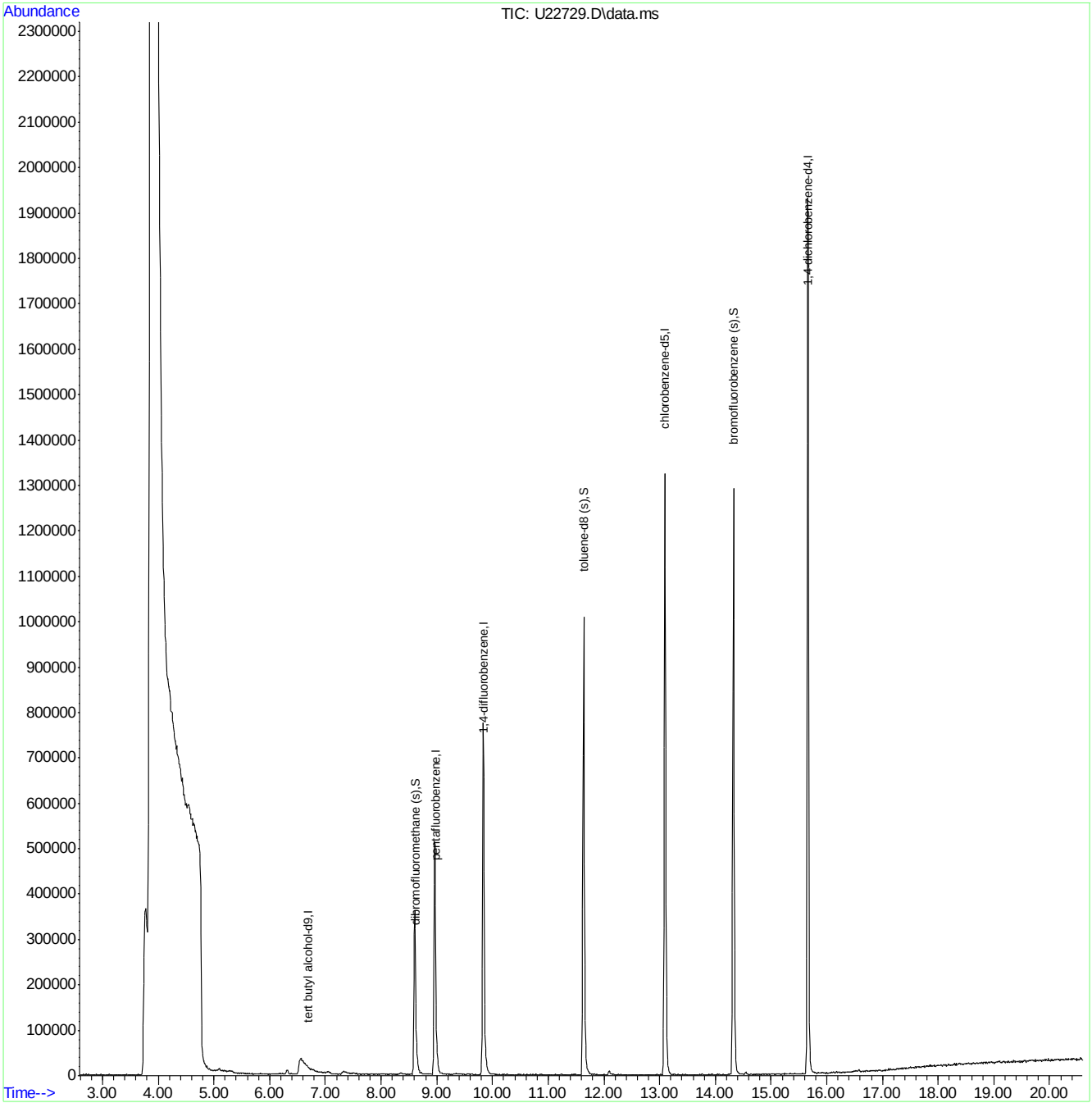
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.682	65	207292	50.00	ppb		0.07
4) pentafluorobenzene	8.972	168	412231	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.841	114	715279	50.00	ppb		0.00
66) chlorobenzene-d5	13.098	82	383116	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.663	152	551008	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.615	113	259427	49.17	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 98.34%				
60) toluene-d8 (s)	11.638	98	735525	51.75	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.50%				
82) bromofluorobenzene (s)	14.326	95	446087	61.91	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 123.82%				
Target Compounds							Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22729.D
Acq On : 29 Sep 2014 4:09 pm
Operator : GaryK
Sample : mc33908-3
Misc : ms32817,msu990,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 29 16:32:46 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90794.D
Acq On : 1 Oct 2014 1:56 pm
Operator : jaclynb
Sample : mc33908-4
Misc : ms32817,MSN3359,,,,5,100
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 01 14:21:13 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

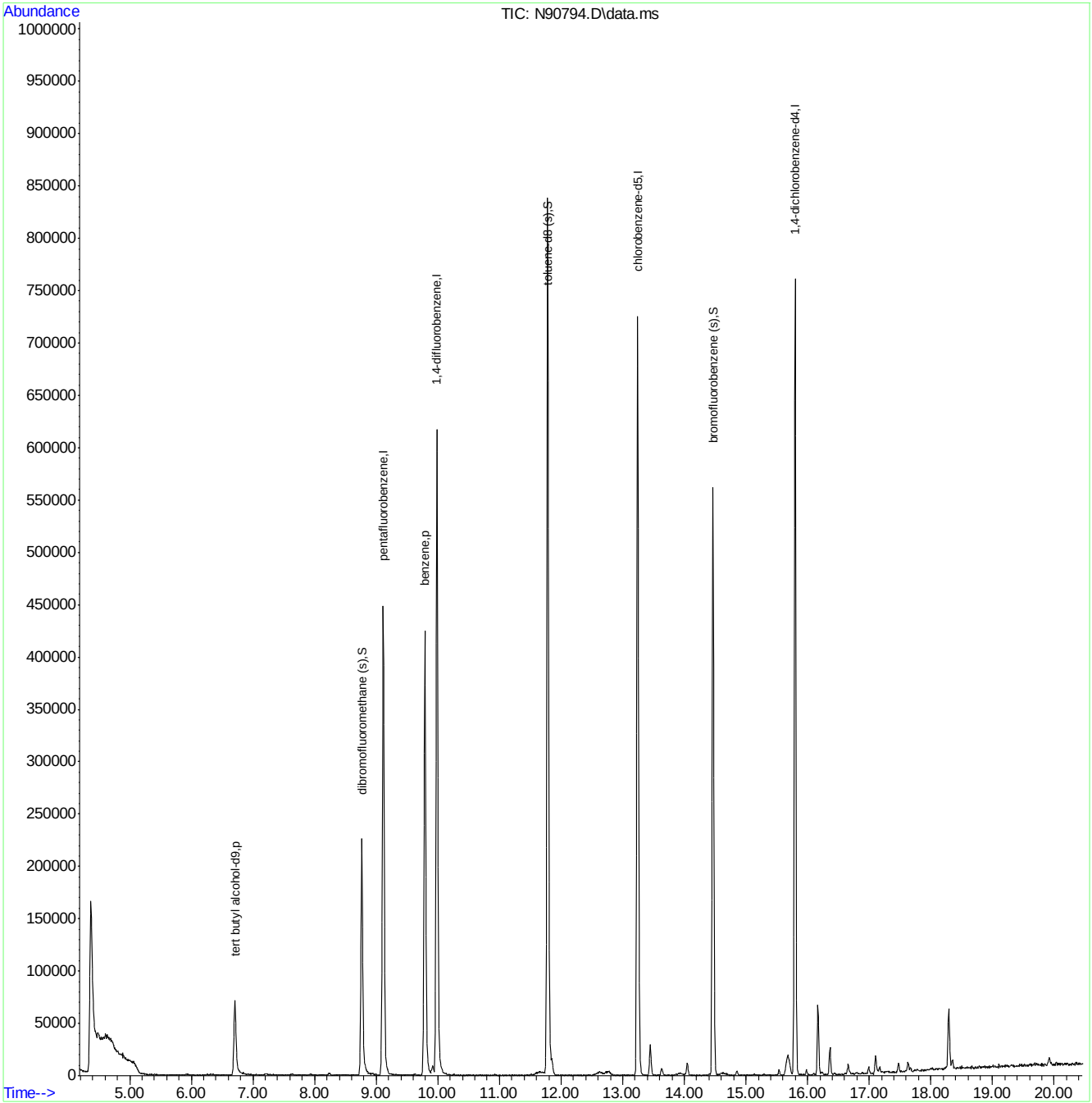
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.707	65	105206	500.00	ug/L	0.01
4) pentafluorobenzene	9.115	168	322040	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.985	114	496081	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	249097	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	195541	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.765	113	155165	46.96	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.92%			
60) toluene-d8 (s)	11.781	98	594645	49.98	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 99.96%			
82) bromofluorobenzene (s)	14.464	95	221736	46.51	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.02%			
Target Compounds						Qvalue
47) benzene	9.790	78	367037	25.81	ug/L	98

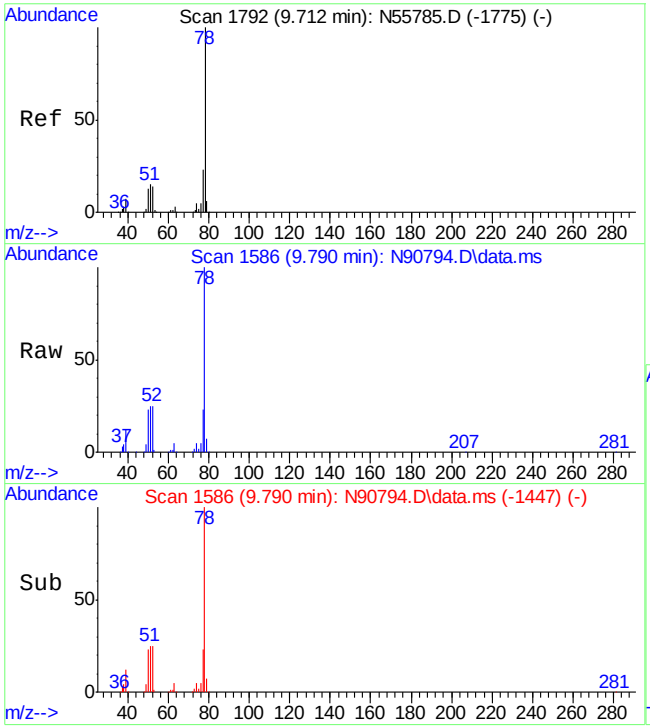
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90794.D
Acq On : 1 Oct 2014 1:56 pm
Operator : jaclynb
Sample : mc33908-4
Misc : ms32817,MSN3359,,,,5,100
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 01 14:21:13 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

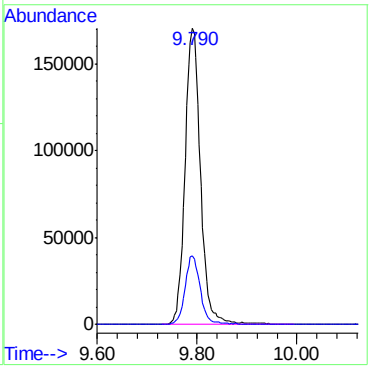




#47
benzene
Concen: 25.81 ug/L
RT: 9.790 min Scan# 1586
Delta R.T. 0.000 min
Lab File: N90794.D
Acq: 1 Oct 2014 1:56 pm

Tgt Ion: 78 Resp: 367037

Ion	Ratio	Lower	Upper
78	100		
77	23.2	0.0	52.2



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
10/02/14 11:16

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22738.D
Acq On : 29 Sep 2014 8:15 pm
Operator : GaryK
Sample : mc33908-4
Misc : ms32817,msu990,,,,5,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 30 08:18:33 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

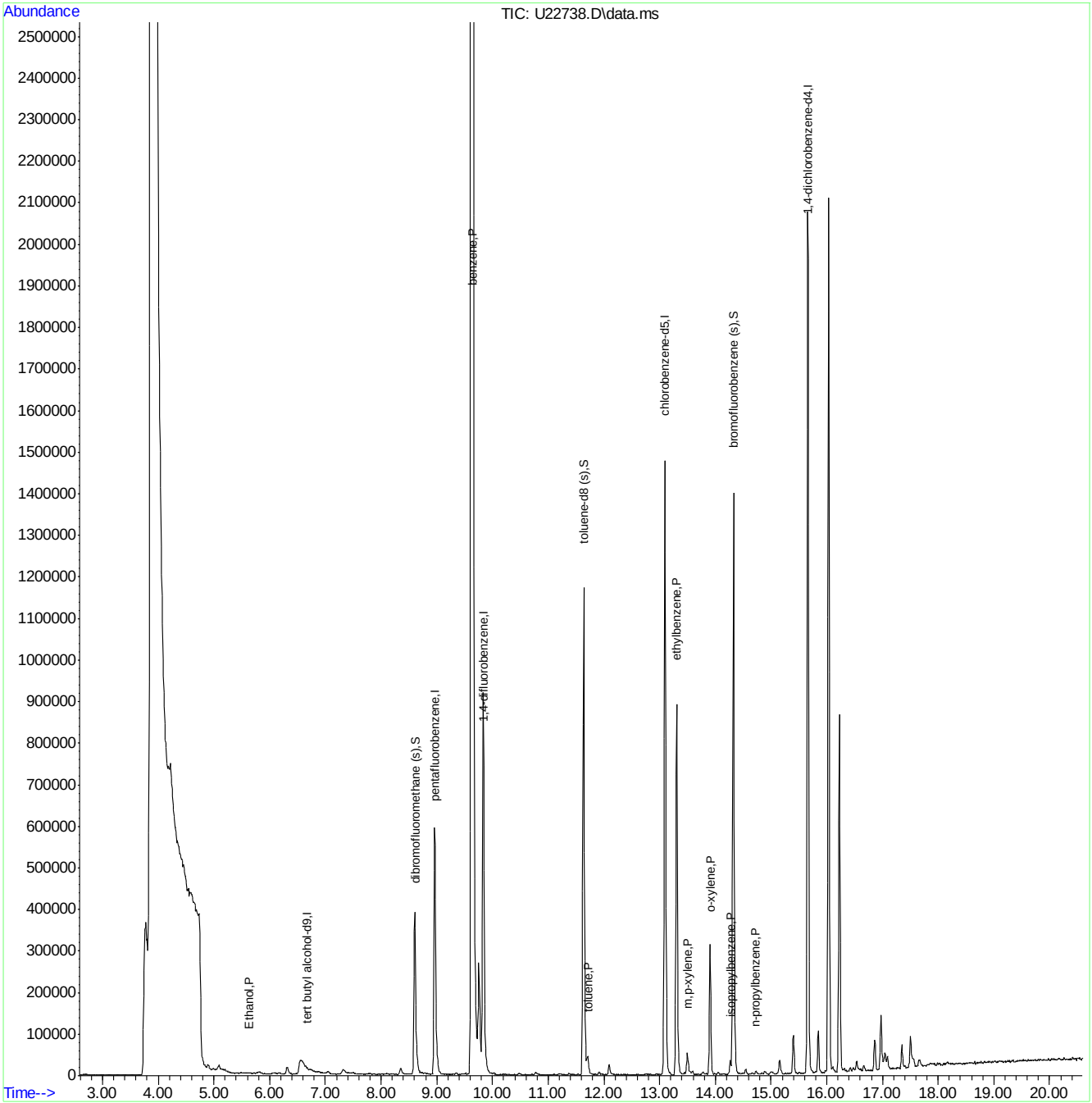
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.675	65	193720	50.00	ppb	0.06
4) pentafluorobenzene	8.971	168	467076	50.00	ppb	0.00
43) 1,4-difluorobenzene	9.839	114	833886	50.00	ppb	0.00
66) chlorobenzene-d5	13.098	82	424041	50.00	ppb	# 0.00
80) 1,4-dichlorobenzene-d4	15.662	152	589186	50.00	ppb	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.614	113	281556	47.10	ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.20%			
60) toluene-d8 (s)	11.638	98	854862	51.59	ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.18%			
82) bromofluorobenzene (s)	14.326	95	476954	61.91	ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 123.82%			
Target Compounds						Qvalue
3) Ethanol	5.640	45	29227m	490.30	ppb	
47) benzene	9.636	78	11210232	553.36	ppb	99
62) toluene	11.712	92	15068	1.47	ppb	92
74) ethylbenzene	13.308	91	667392	26.13	ppb	94
75) m,p-xylene	13.503	106	20576	1.92	ppb	87
76) o-xylene	13.907	106	94850	7.96	ppb	97
81) isopropylbenzene	14.273	105	25021	0.94	ppb	87
86) n-propylbenzene	14.733	91	7510	0.25	ppb	92

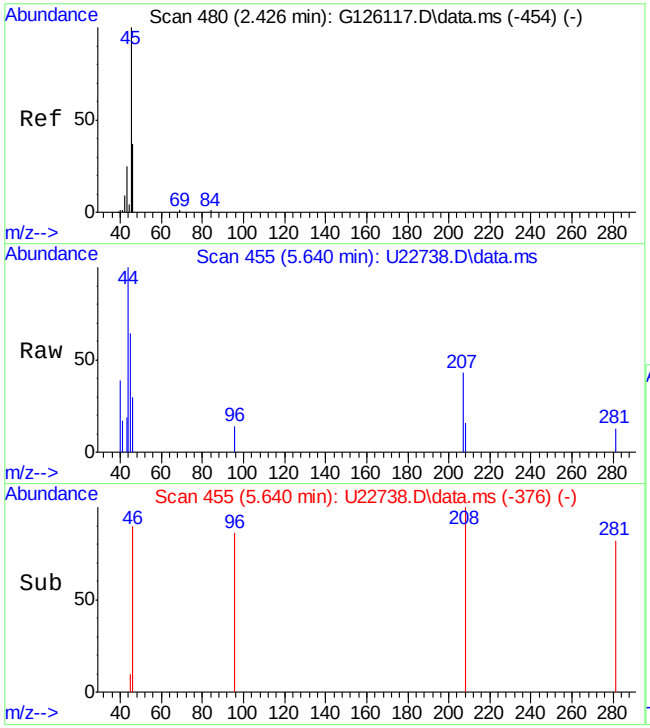
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22738.D
Acq On : 29 Sep 2014 8:15 pm
Operator : GaryK
Sample : mc33908-4
Misc : ms32817,msu990,,,,5,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 30 08:18:33 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

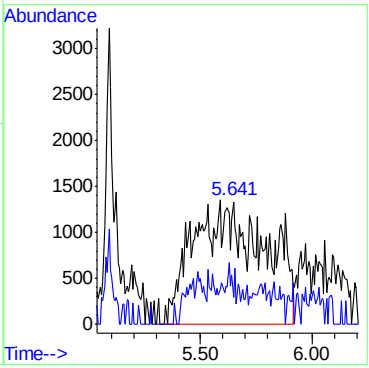


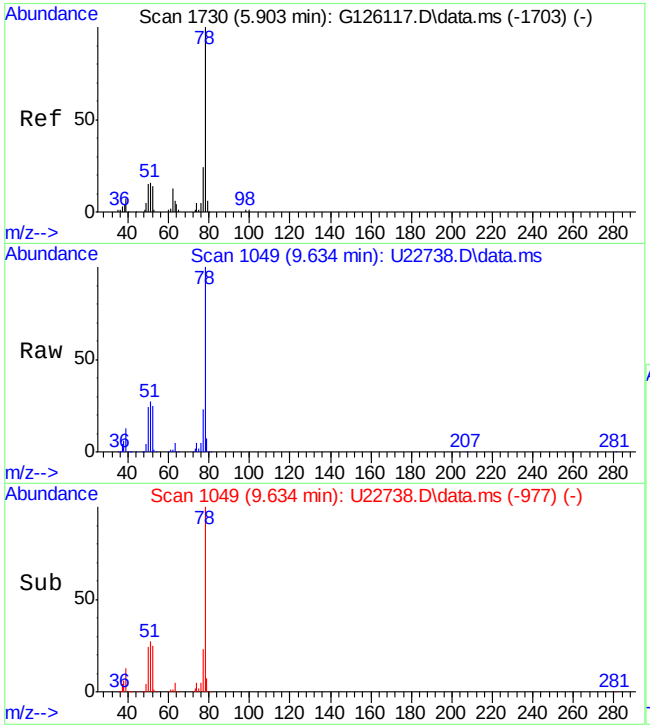


#3
Ethanol
Concen: 490.30 ppb m
RT: 5.640 min Scan# 455
Delta R.T. 0.034 min
Lab File: U22738.D
Acq: 29 Sep 2014 8:15 pm

Tgt Ion: 45 Resp: 29227

Ion	Ratio	Lower	Upper
45	100		
46	47.6	24.7	45.9#

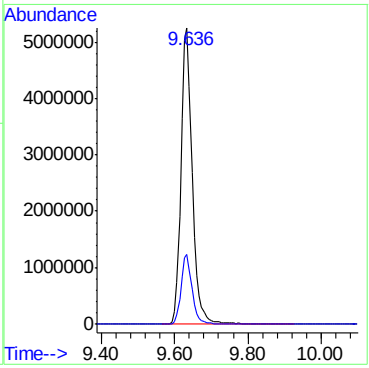


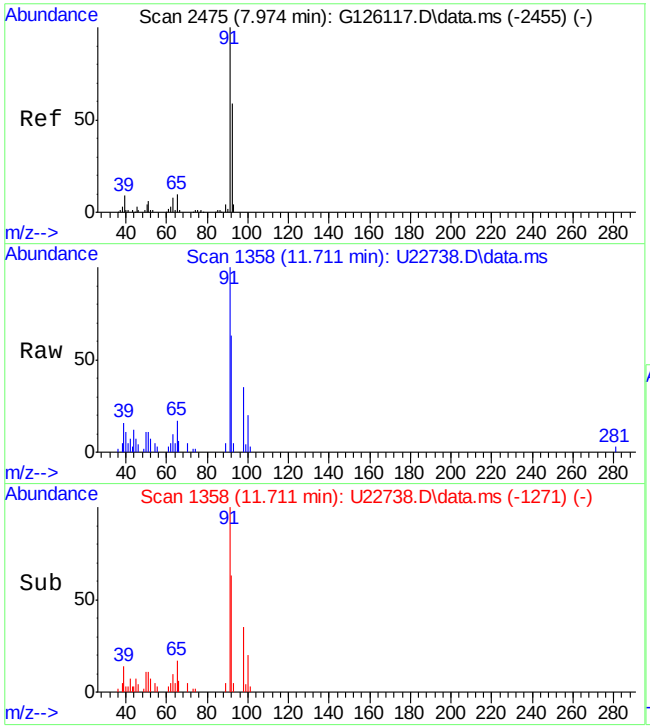


#47
benzene
Concen: 553.36 ppb
RT: 9.636 min Scan# 1049
Delta R.T. -0.001 min
Lab File: U22738.D
Acq: 29 Sep 2014 8:15 pm

Tgt Ion: 78 Resp:11210232

Ion	Ratio	Lower	Upper
78	100		
77	23.4	0.0	53.9

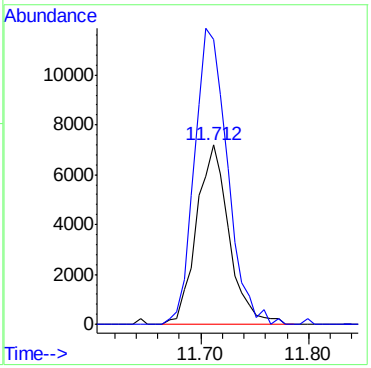


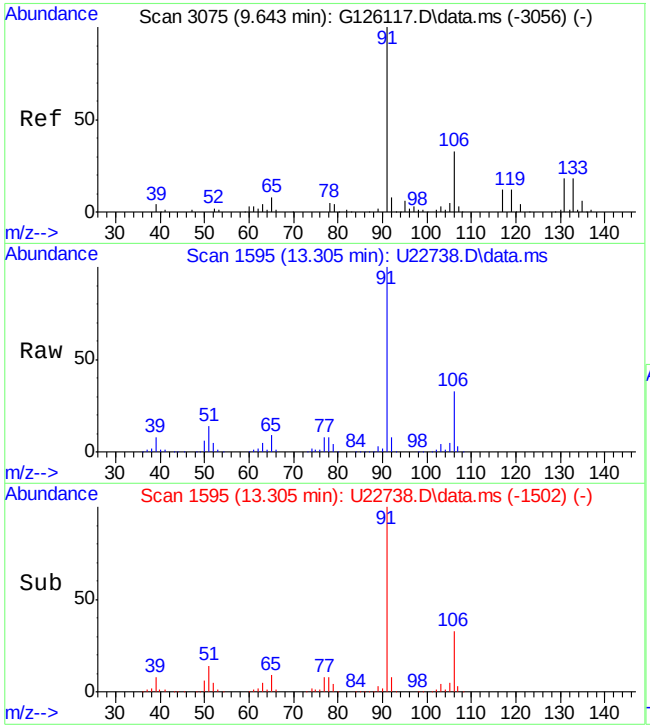


#62
toluene
Concen: 1.47 ppb
RT: 11.712 min Scan# 1358
Delta R.T. 0.003 min
Lab File: U22738.D
Acq: 29 Sep 2014 8:15 pm

Tgt Ion: 92 Resp: 15068

Ion	Ratio	Lower	Upper
92	100		
91	159.0	139.2	199.2

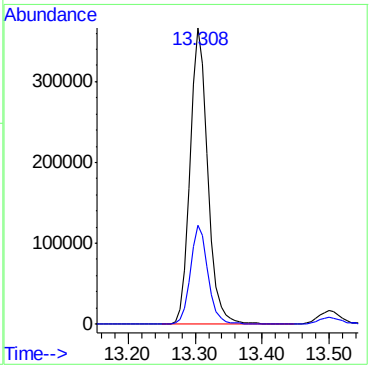


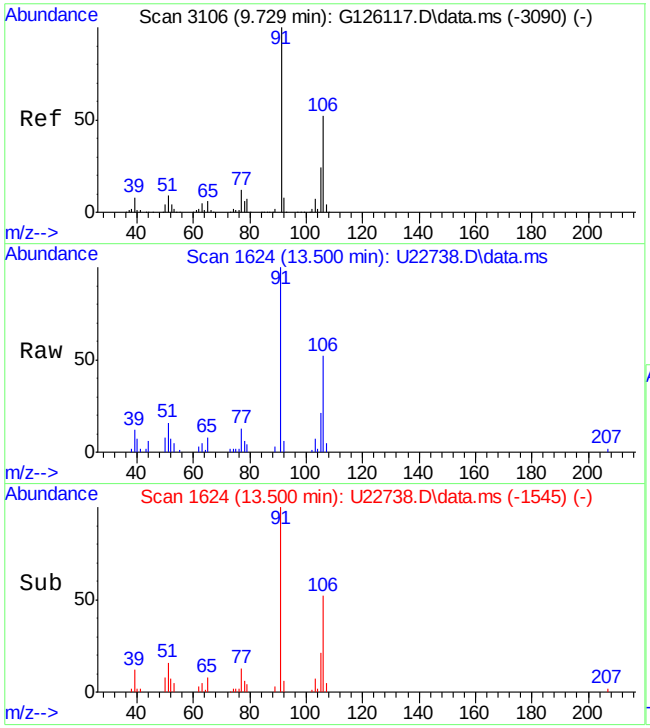


#74
ethylbenzene
Concen: 26.13 ppb
RT: 13.308 min Scan# 1595
Delta R.T. 0.001 min
Lab File: U22738.D
Acq: 29 Sep 2014 8:15 pm

Tgt Ion: 91 Resp: 667392

Ion	Ratio	Lower	Upper
91	100		
106	33.4	0.1	60.1

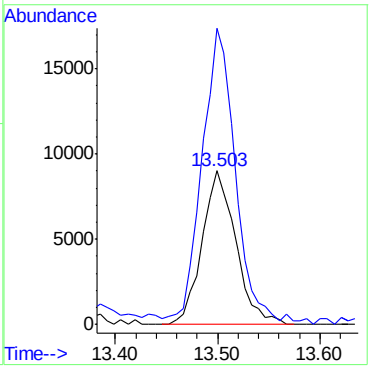


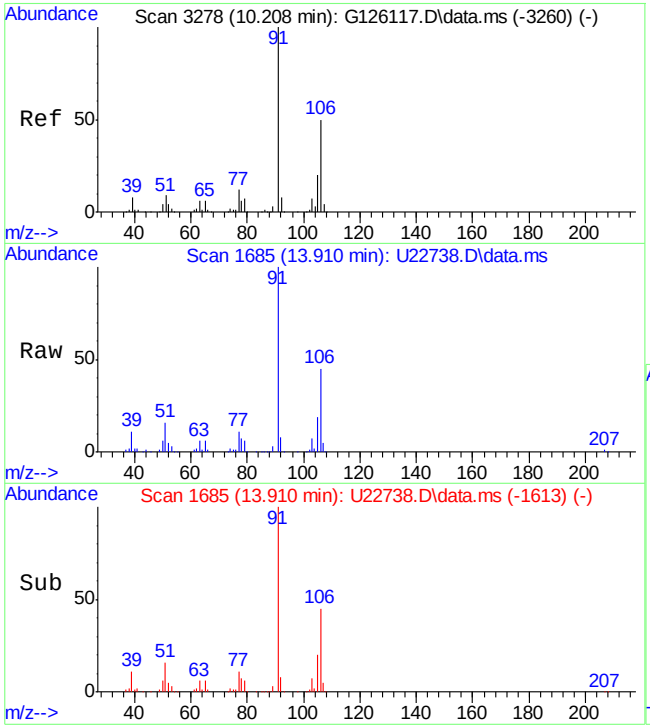


#75
m,p-xylene
Concen: 1.92 ppb
RT: 13.503 min Scan# 1624
Delta R.T. 0.013 min
Lab File: U22738.D
Acq: 29 Sep 2014 8:15 pm

Tgt Ion:106 Resp: 20576

Ion	Ratio	Lower	Upper
106	100		
91	191.0	180.7	240.7

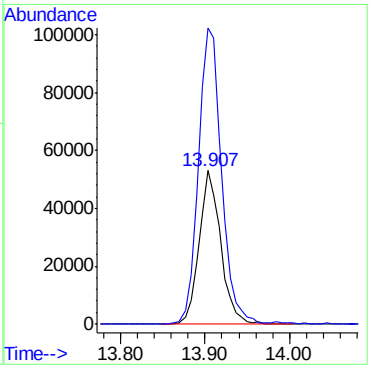


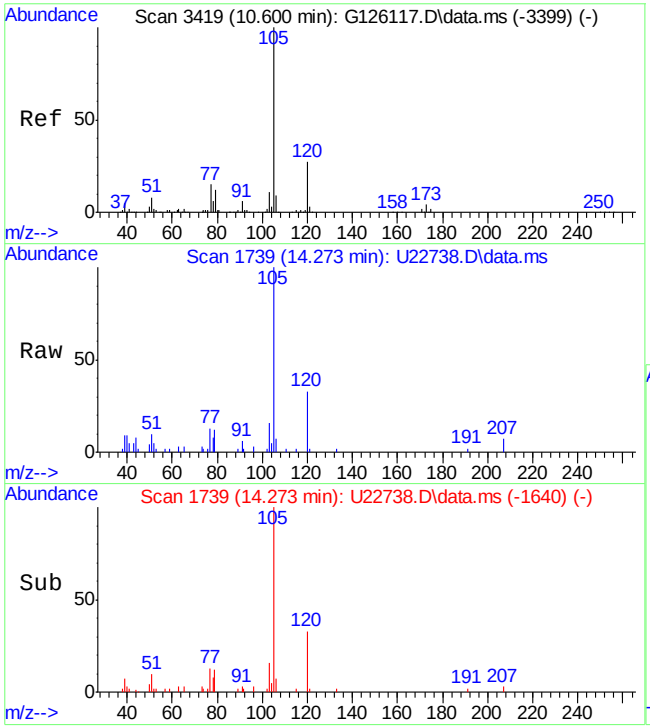


#76
o-xylene
Concen: 7.96 ppb
RT: 13.907 min Scan# 1685
Delta R.T. 0.004 min
Lab File: U22738.D
Acq: 29 Sep 2014 8:15 pm

Tgt Ion:106 Resp: 94850

Ion	Ratio	Lower	Upper
106	100		
91	222.7	188.5	248.5

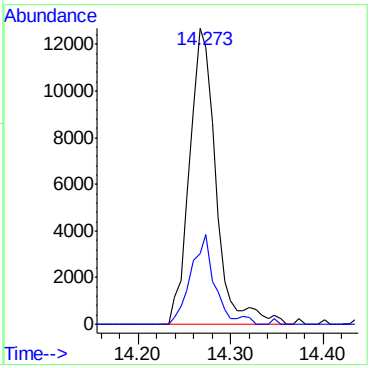


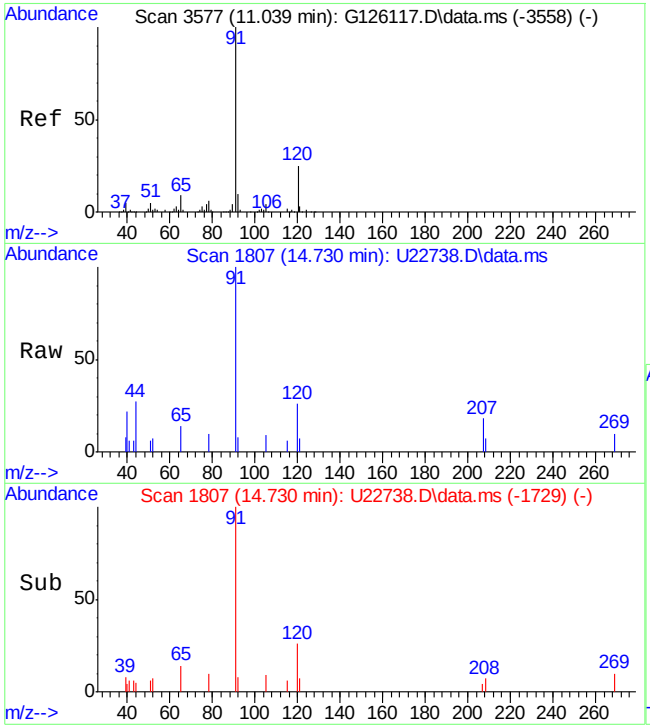


#81
isopropylbenzene
Concen: 0.94 ppb
RT: 14.273 min Scan# 1739
Delta R.T. 0.006 min
Lab File: U22738.D
Acq: 29 Sep 2014 8:15 pm

Tgt Ion:105 Resp: 25021

Ion	Ratio	Lower	Upper
105	100		
120	32.5	0.0	55.8

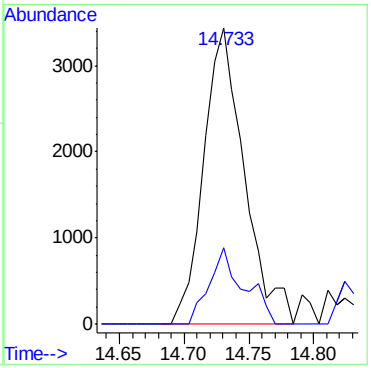




#86
n-propylbenzene
Concen: 0.25 ppb
RT: 14.733 min Scan# 1807
Delta R.T. 0.020 min
Lab File: U22738.D
Acq: 29 Sep 2014 8:15 pm

Tgt Ion: 91 Resp: 7510

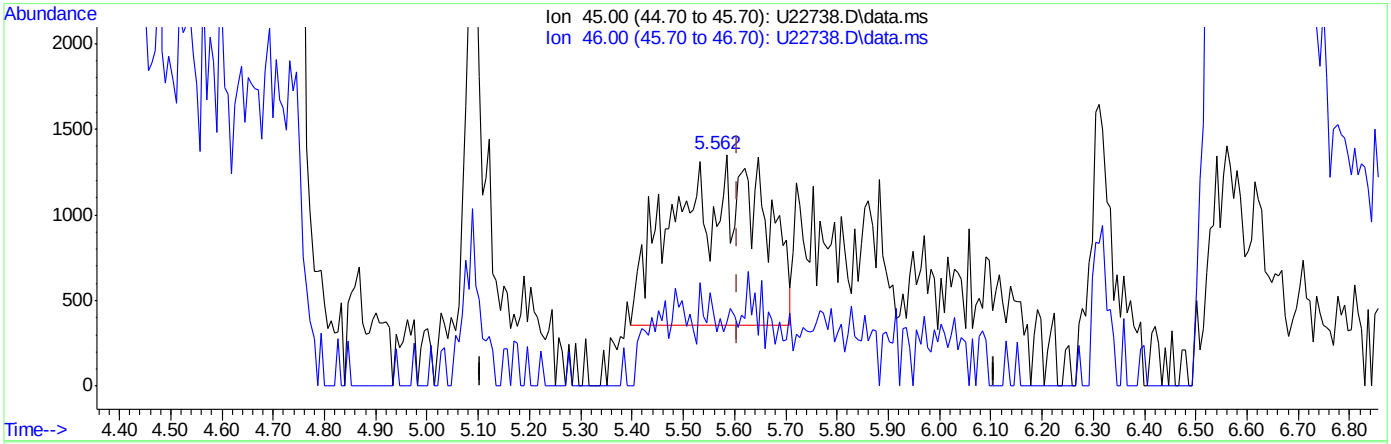
Ion	Ratio	Lower	Upper
91	100		
120	25.6	0.0	51.7

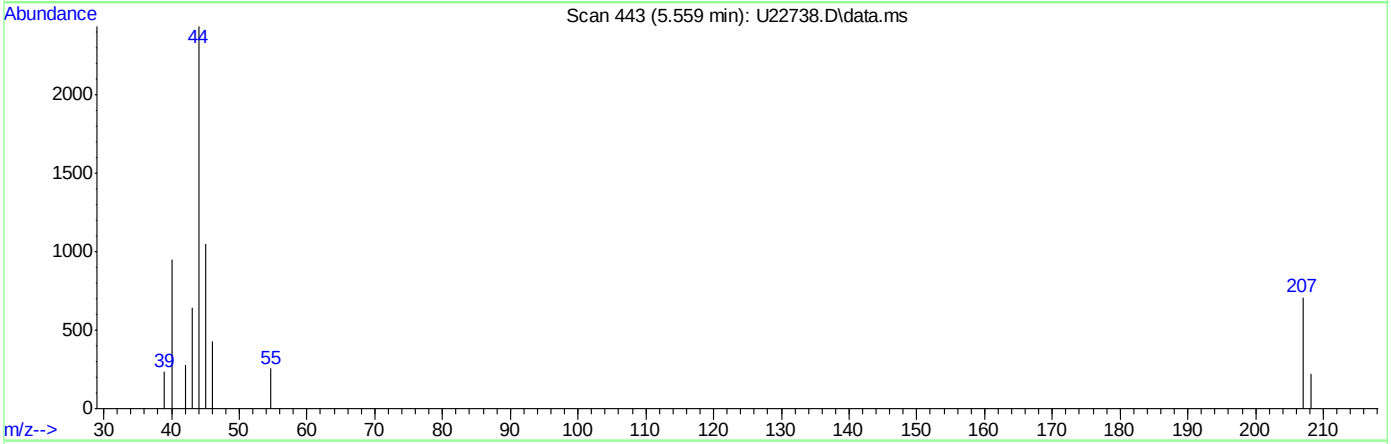


Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22738.D
Acq On : 29 Sep 2014 8:15 pm
Operator : GaryK
Sample : mc33908-4
Misc : ms32817,msu990,,,,5,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 30 08:17:11 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22738.D\data.ms

(3) Ethanol (P)

5.562min (-0.044) 71.18ppb

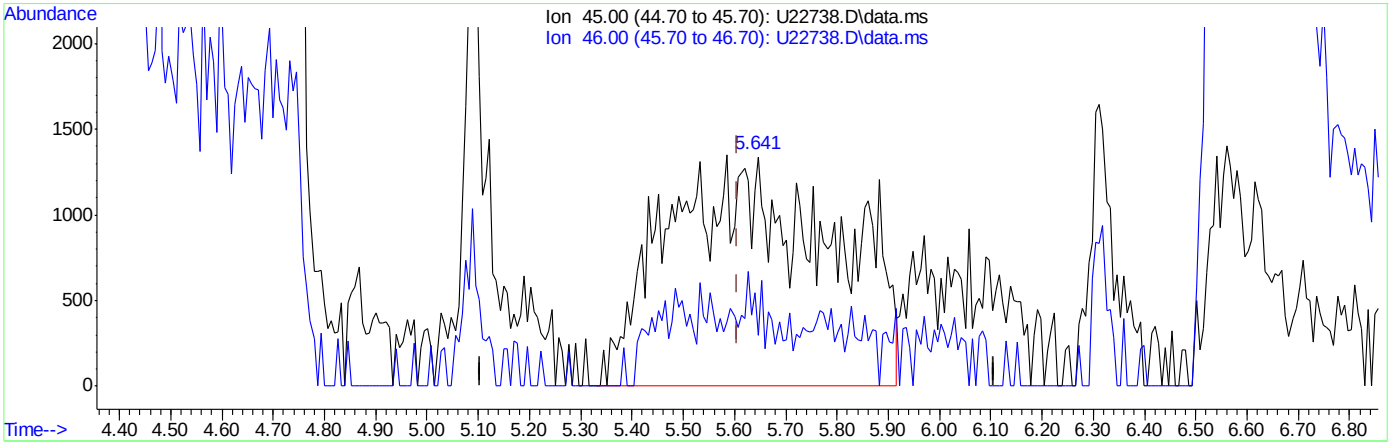
response 11415

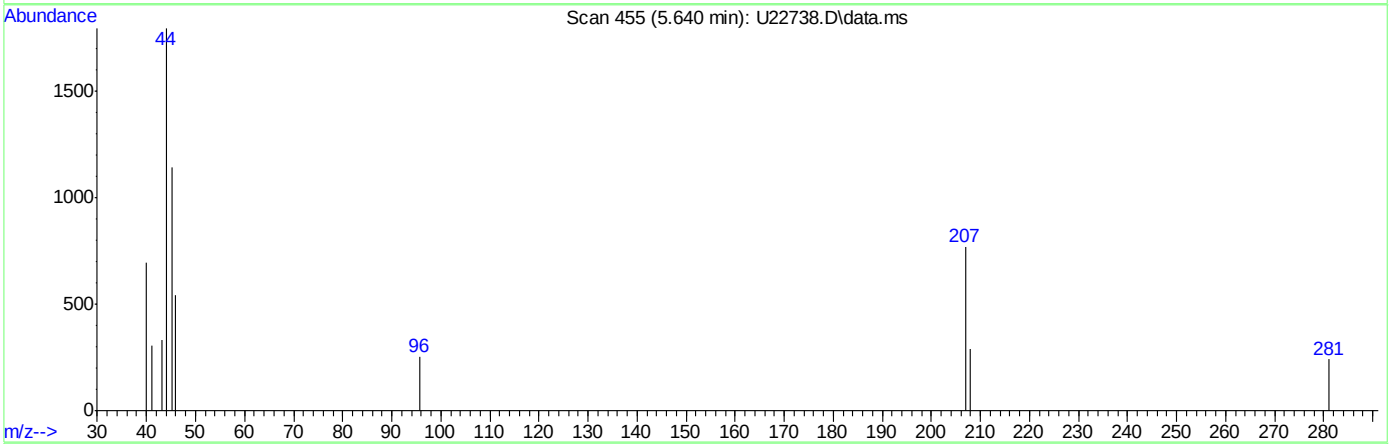
Ion	Exp%	Act%
45.00	100	100
46.00	35.30	61.76#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22738.D
Acq On : 29 Sep 2014 8:15 pm
Operator : GaryK
Sample : mc33908-4
Misc : ms32817,msu990,,,,5,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 30 08:17:11 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22738.D\data.ms

(3) Ethanol (P)

5.640min (+0.034) 490.30ppb m

response 29227

Ion	Exp%	Act%
45.00	100	100
46.00	35.30	47.63#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22732.D
Acq On : 29 Sep 2014 5:31 pm
Operator : GaryK
Sample : mc33908-5
Misc : ms32817,msu990,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 30 08:08:41 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

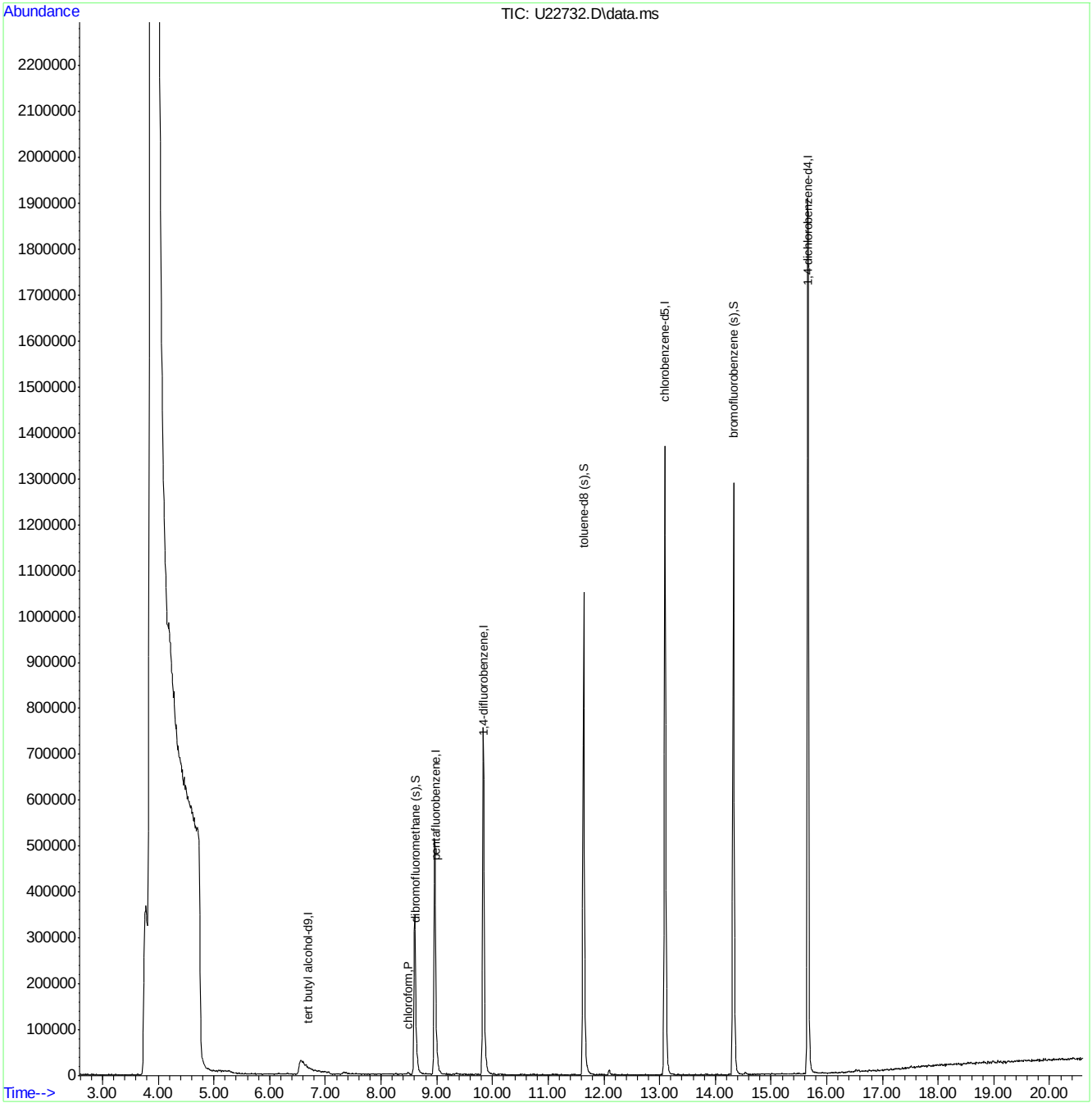
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.696	65	199910	50.00	ppb	0.08
4) pentafluorobenzene	8.972	168	410836	50.00	ppb	0.00
43) 1,4-difluorobenzene	9.841	114	703927	50.00	ppb	0.00
66) chlorobenzene-d5	13.099	82	393265	50.00	ppb	# 0.00
80) 1,4-dichlorobenzene-d4	15.663	152	544863	50.00	ppb	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.615	113	259049	49.27	ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 98.54%			
60) toluene-d8 (s)	11.639	98	754328	53.93	ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 107.86%			
82) bromofluorobenzene (s)	14.327	95	443944	62.31	ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 124.62%			
Target Compounds						Qvalue
39) chloroform	8.489	83	3477	0.41	ppb	88

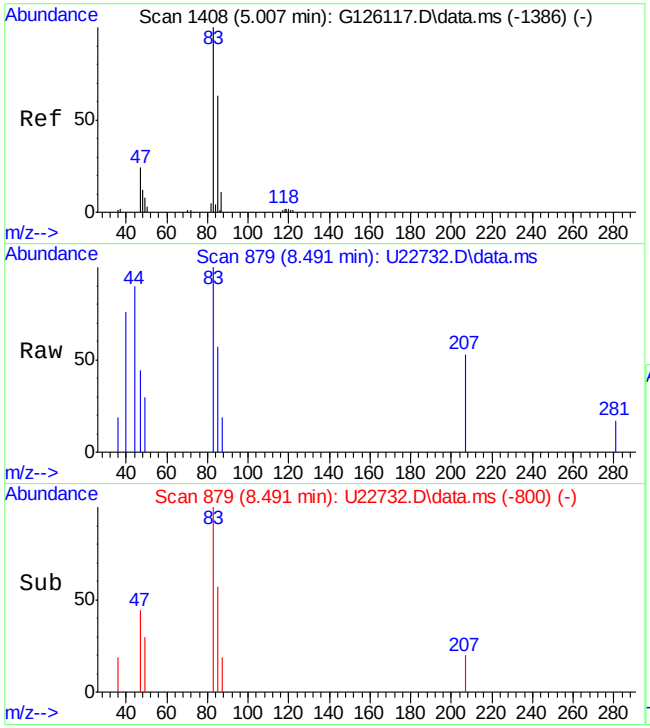
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22732.D
Acq On : 29 Sep 2014 5:31 pm
Operator : GaryK
Sample : mc33908-5
Misc : ms32817,msu990,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 30 08:08:41 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

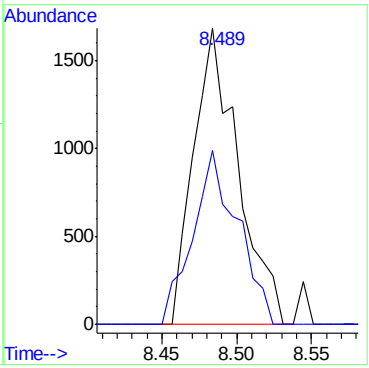




#39
chloroform
Concen: 0.41 ppb
RT: 8.489 min Scan# 879
Delta R.T. -0.000 min
Lab File: U22732.D
Acq: 29 Sep 2014 5:31 pm

Tgt Ion: 83 Resp: 3477

Ion	Ratio	Lower	Upper
83	100		
85	56.9	36.9	96.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90793.D
Acq On : 1 Oct 2014 1:27 pm
Operator : jaclynb
Sample : mc33908-6
Misc : ms32817,MSN3359,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 01 14:14:39 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

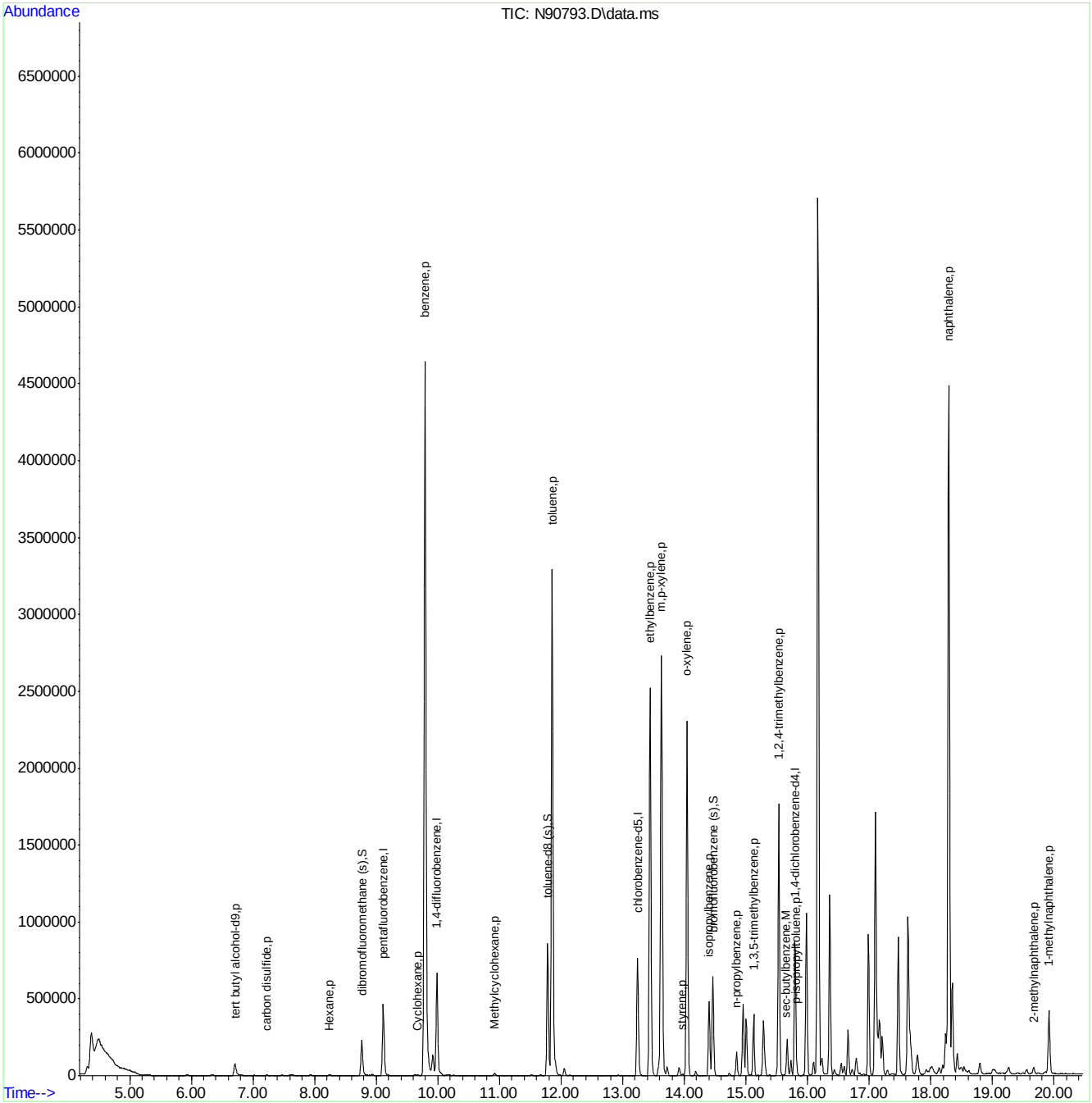
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.707	65	114306	500.00	ug/L		0.01
4) pentafluorobenzene	9.115	168	320441	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.985	114	520623	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	261383	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	218127	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.765	113	158337	48.16	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.32%				
60) toluene-d8 (s)	11.781	98	611109	48.94	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.88%				
82) bromofluorobenzene (s)	14.464	95	246365	46.32	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 92.64%				
Target Compounds							Qvalue
24) carbon disulfide	7.224	76	9986	1.08	ug/L		97
31) Hexane	8.242	41	2658	0.47	ug/L	#	68
44) Cyclohexane	9.670	56	3716	0.53	ug/L		95
47) benzene	9.790	78	4236908	283.87	ug/L		98
55) Methylcyclohexane	10.922	83	5114	0.98	ug/L	#	81
62) toluene	11.855	92	1478614	164.96	ug/L		99
74) ethylbenzene	13.446	91	1986218	116.90	ug/L		100
75) m,p-xylene	13.626	106	899140	144.73	ug/L		99
76) o-xylene	14.043	106	617167	102.28	ug/L		99
77) styrene	13.969	104	6458	0.74	ug/L		93
81) isopropylbenzene	14.400	105	319753	20.68	ug/L		99
86) n-propylbenzene	14.846	91	126134	6.37	ug/L		100
89) 1,3,5-trimethylbenzene	15.125	105	217381	14.00	ug/L		99
91) 1,2,4-trimethylbenzene	15.532	105	1011850	65.76	ug/L		97
92) sec-butylbenzene	15.652	105	4892	0.28	ug/L		89
94) p-isopropyltoluene	15.818	119	28314	1.99	ug/L		96
95) 1,4-dichlorobenzene	16.196	146	1736	Below Cal			90
96) 1,2-dichlorobenzene	16.196	146	1736	Below Cal			89
102) naphthalene	18.289	128	3850265	862.86	ug/L		100
104) 2-methylnaphthalene	19.668	142	21328	17.74	ug/L	#	100
105) 1-methylnaphthalene	19.919	142	233890	260.32	ug/L		99

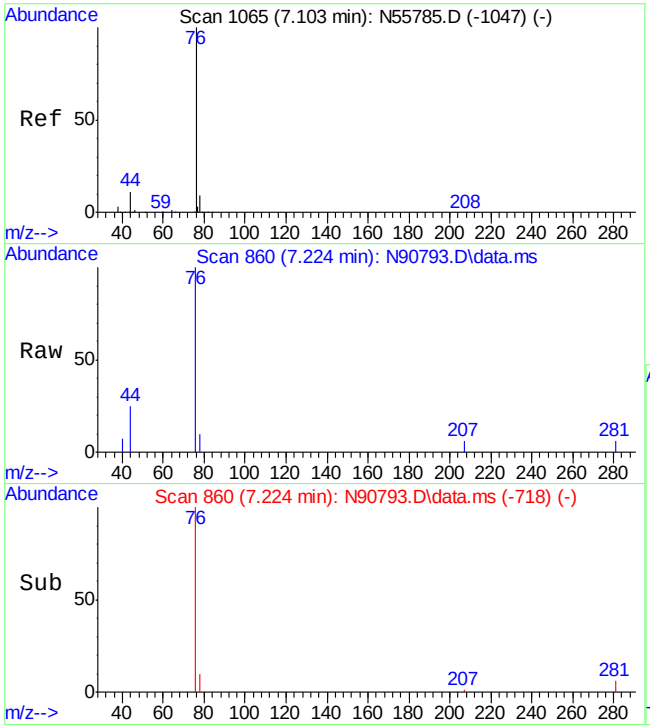
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90793.D
Acq On : 1 Oct 2014 1:27 pm
Operator : jaclynb
Sample : mc33908-6
Misc : ms32817,MSN3359,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 01 14:14:39 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

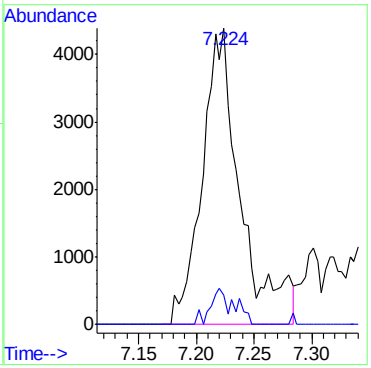


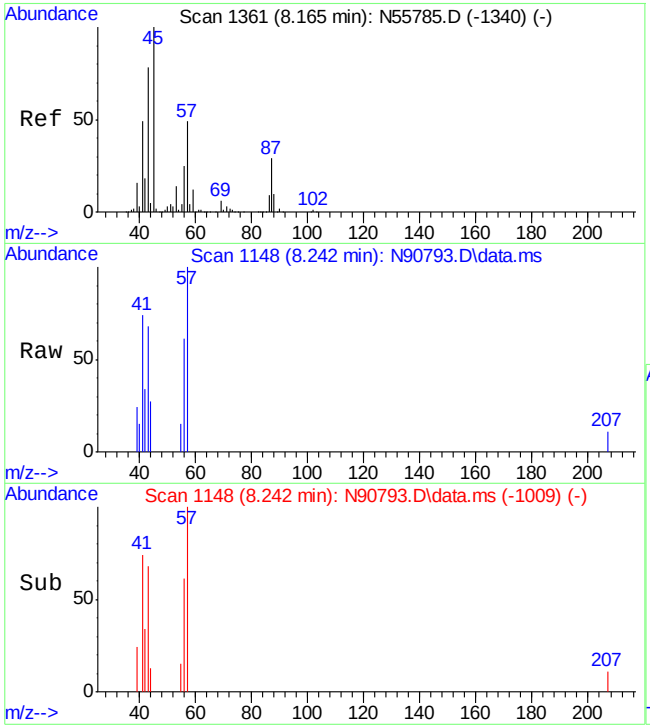


#24
carbon disulfide
Concen: 1.08 ug/L
RT: 7.224 min Scan# 860
Delta R.T. 0.004 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion: 76 Resp: 9986

Ion	Ratio	Lower	Upper
76	100		
78	9.9	0.0	38.7

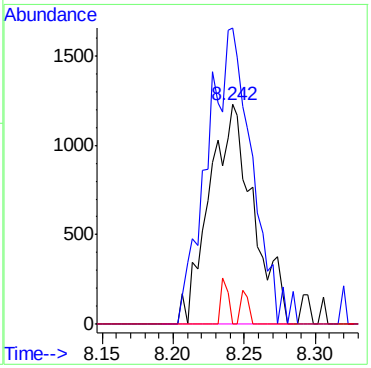


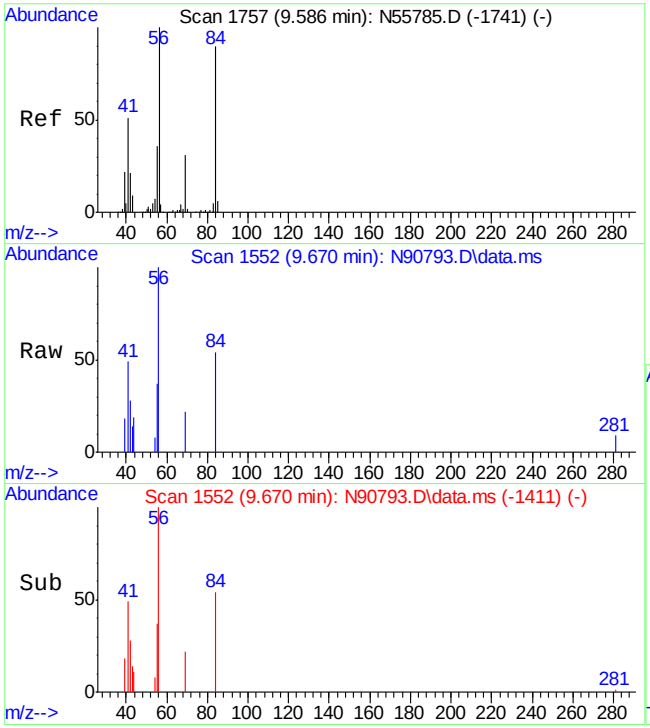


#31
Hexane
Concen: 0.47 ug/L
RT: 8.242 min Scan# 1148
Delta R.T. -0.007 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion: 41 Resp: 2658

Ion	Ratio	Lower	Upper
41	100		
57	134.8	81.9	122.9#
86	0.0	8.3	12.5#

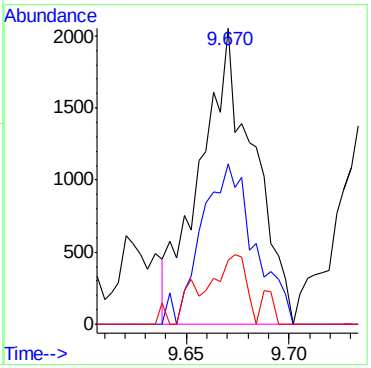


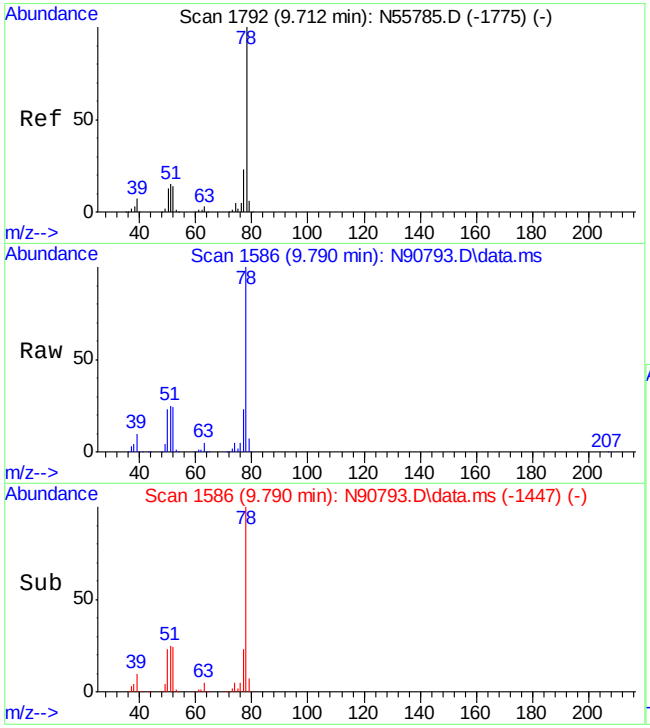


#44
Cyclohexane
Concen: 0.53 ug/L
RT: 9.670 min Scan# 1552
Delta R.T. 0.000 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion: 56 Resp: 3716

Ion	Ratio	Lower	Upper
56	100		
84	54.4	46.8	70.2
69	21.8	16.0	24.0

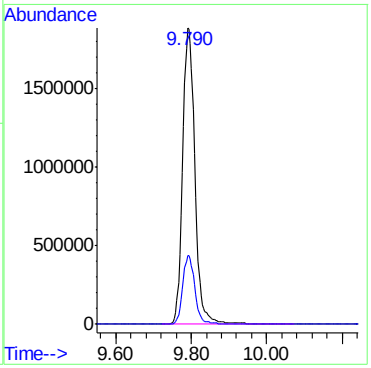


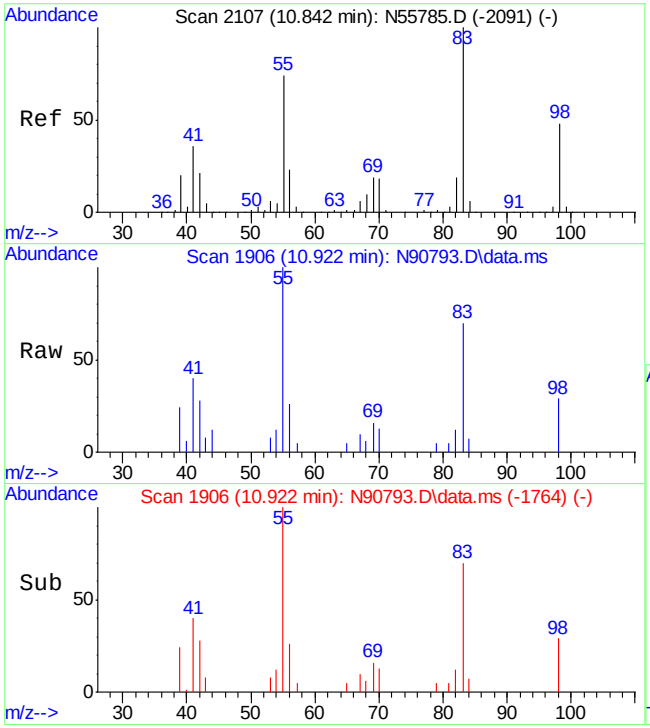


#47
benzene
Concen: 283.87 ug/L
RT: 9.790 min Scan# 1586
Delta R.T. 0.000 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion: 78 Resp: 4236908

Ion	Ratio	Lower	Upper
78	100		
77	23.3	0.0	52.2

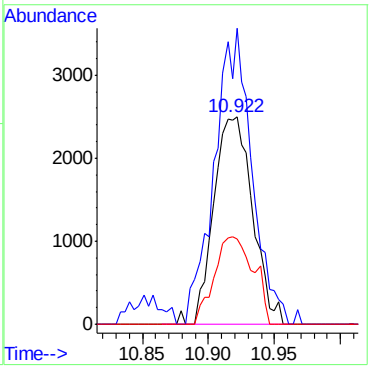


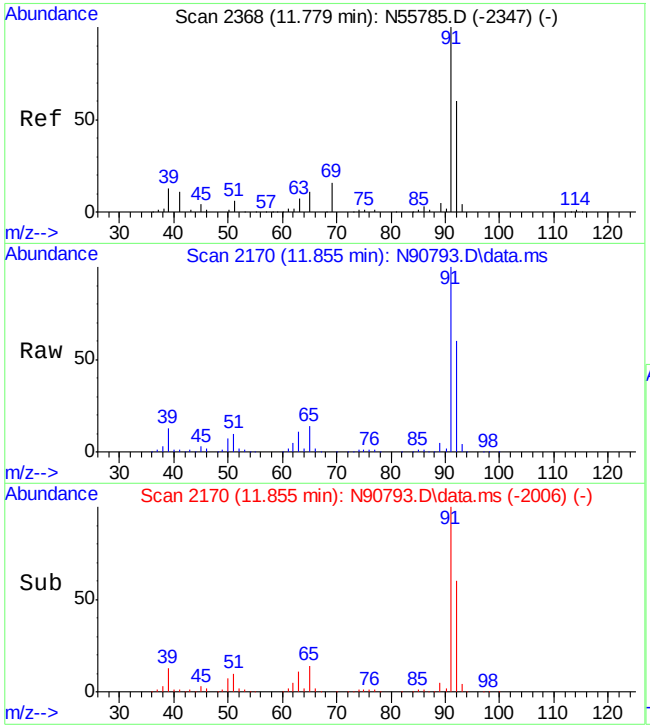


#55
Methylcyclohexane
Concen: 0.98 ug/L
RT: 10.922 min Scan# 1906
Delta R.T. 0.004 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion: 83 Resp: 5114

Ion	Ratio	Lower	Upper
83	100		
55	142.7	92.6	139.0#
98	41.1	34.3	51.5

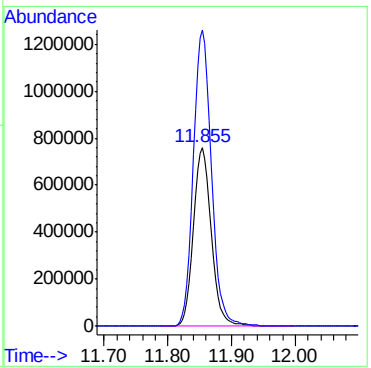


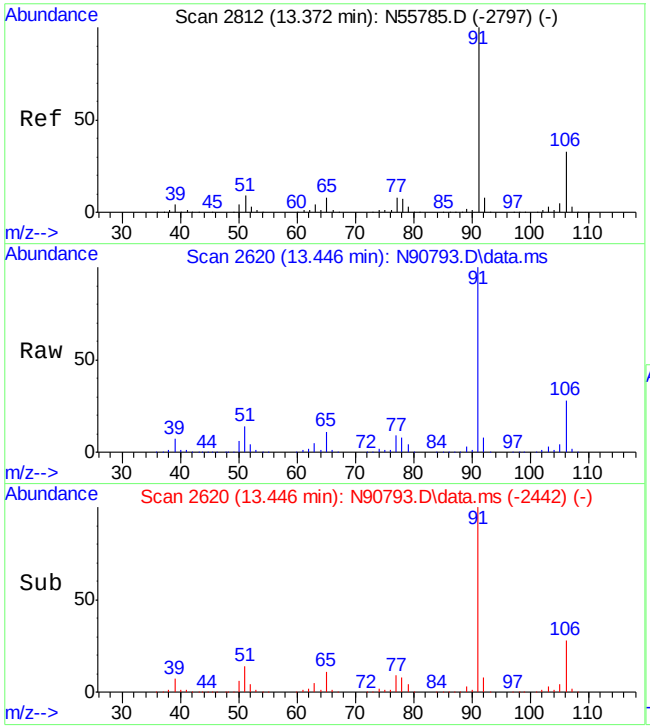


#62
toluene
Concen: 164.96 ug/L
RT: 11.855 min Scan# 2170
Delta R.T. -0.000 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion: 92 Resp: 1478614

Ion	Ratio	Lower	Upper
92	100		
91	165.5	137.3	197.3

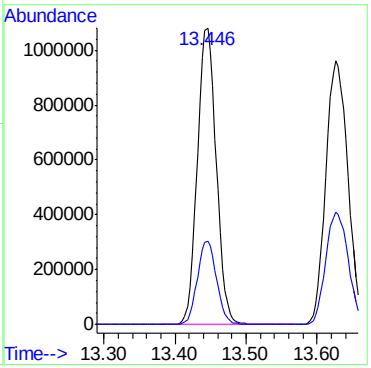


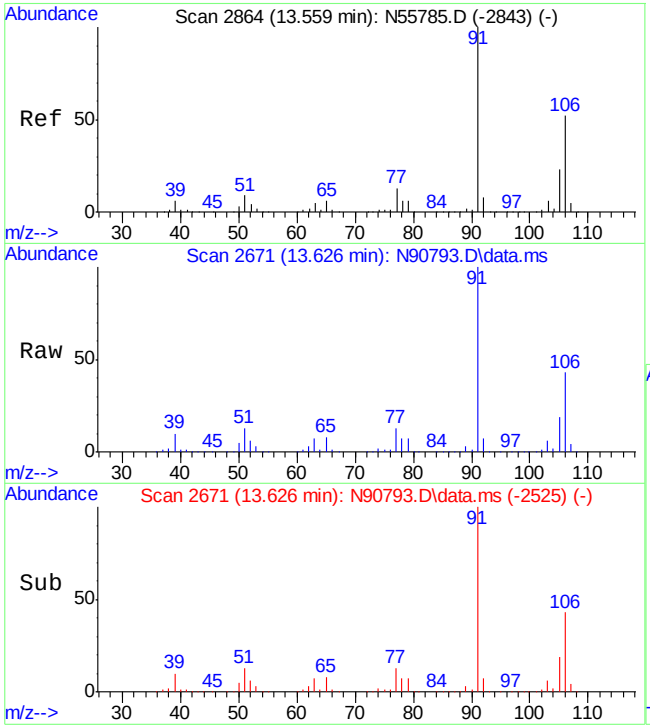


#74
ethylbenzene
Concen: 116.90 ug/L
RT: 13.446 min Scan# 2620
Delta R.T. -0.000 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion: 91 Resp: 1986218

Ion	Ratio	Lower	Upper
91	100		
106	28.2	0.0	58.3

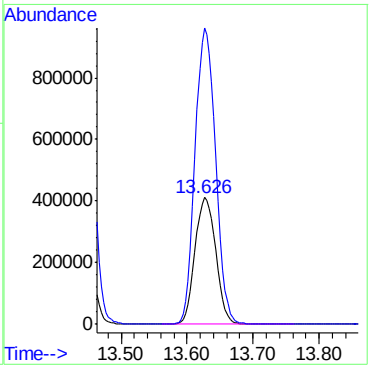


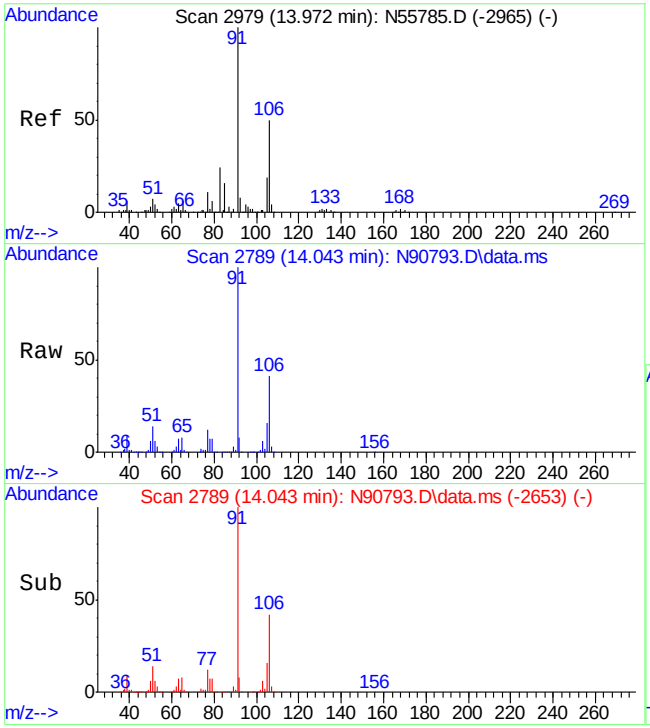


#75
m,p-xylene
Concen: 144.73 ug/L
RT: 13.626 min Scan# 2671
Delta R.T. -0.004 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion:106 Resp: 899140

Ion	Ratio	Lower	Upper
106	100		
91	233.7	202.6	262.6

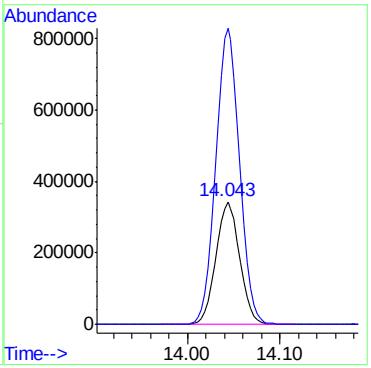


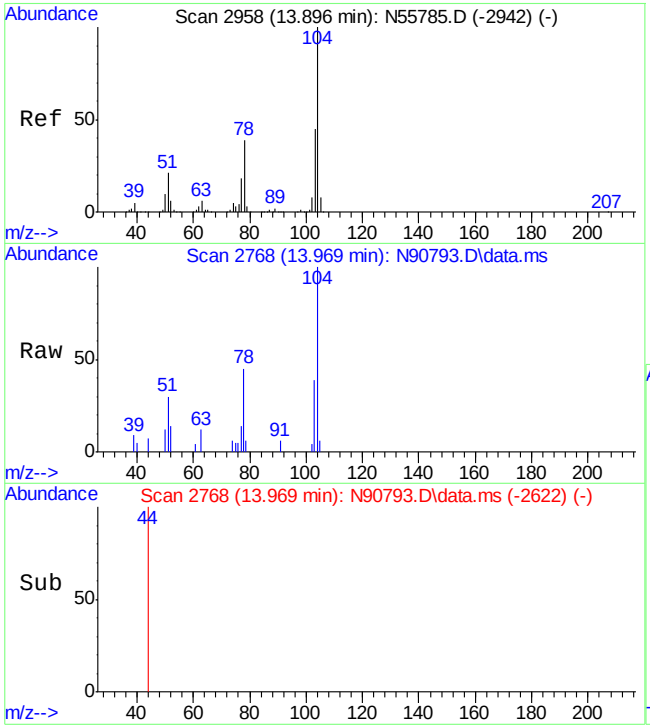


#76
o-xylene
Concen: 102.28 ug/L
RT: 14.043 min Scan# 2789
Delta R.T. 0.000 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion:106 Resp: 617167

Ion	Ratio	Lower	Upper
106	100		
91	241.0	213.4	273.4

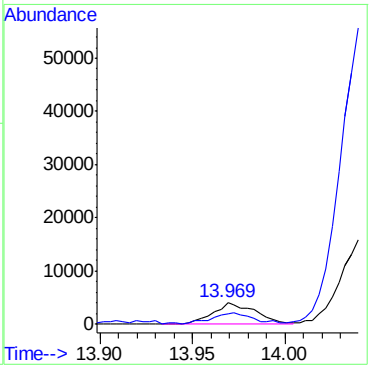


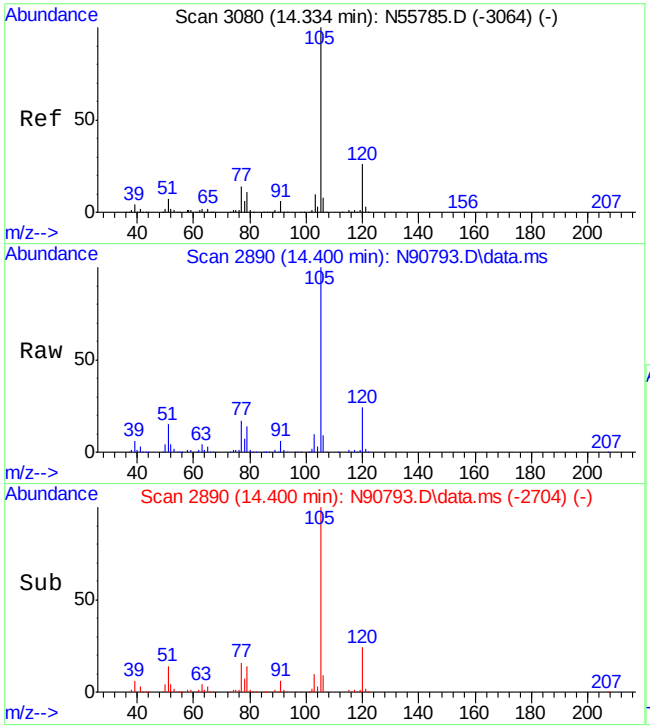


#77
styrene
Concen: 0.74 ug/L
RT: 13.969 min Scan# 2768
Delta R.T. -0.004 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion:104 Resp: 6458

Ion	Ratio	Lower	Upper
104	100		
78	45.5	20.1	80.1

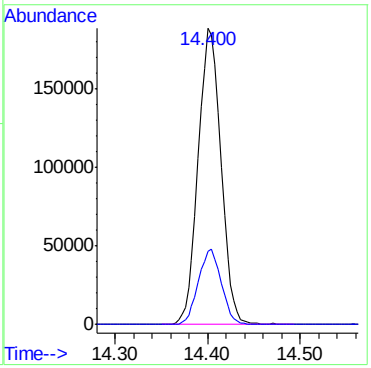


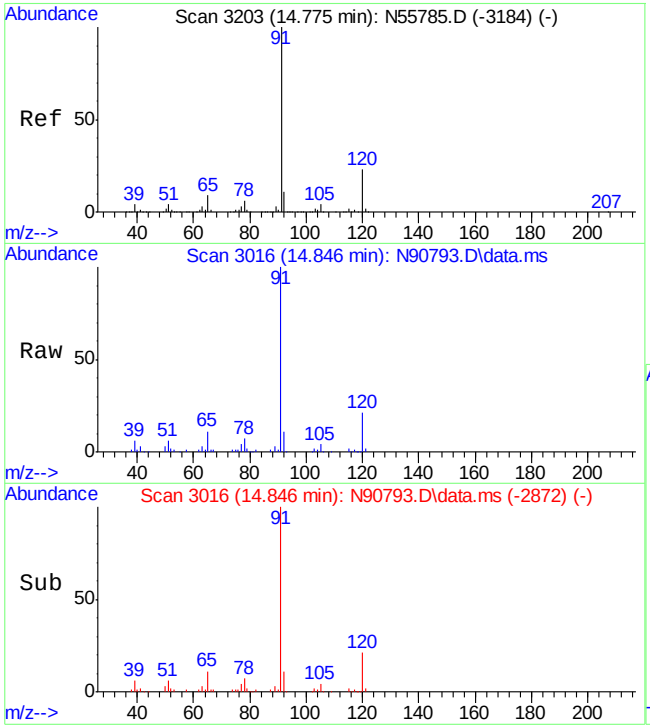


#81
isopropylbenzene
Concen: 20.68 ug/L
RT: 14.400 min Scan# 2890
Delta R.T. -0.004 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion:105 Resp: 319753

Ion	Ratio	Lower	Upper
105	100		
120	24.5	0.0	55.1

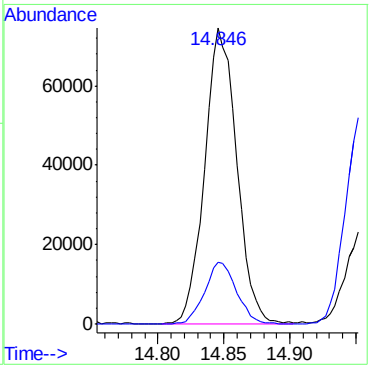


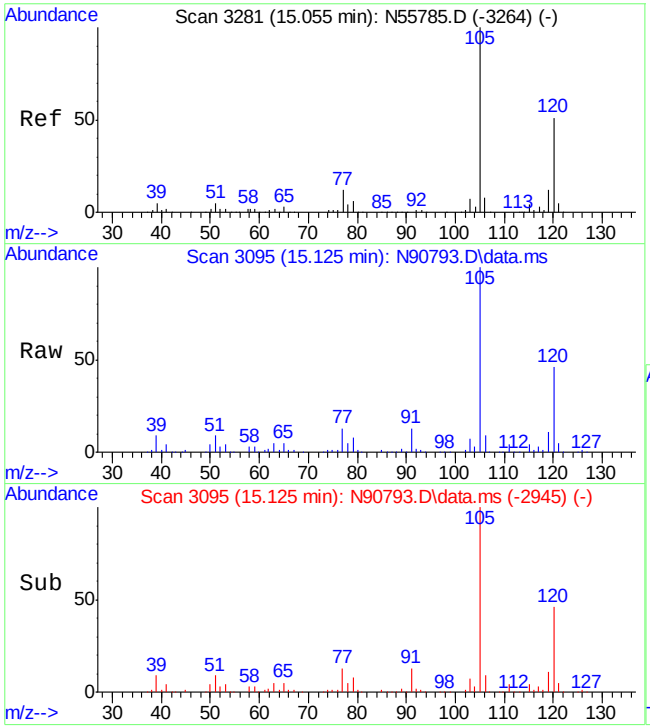


#86
n-propylbenzene
Concen: 6.37 ug/L
RT: 14.846 min Scan# 3016
Delta R.T. -0.000 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion: 91 Resp: 126134

Ion	Ratio	Lower	Upper
91	100		
120	20.8	0.0	50.6

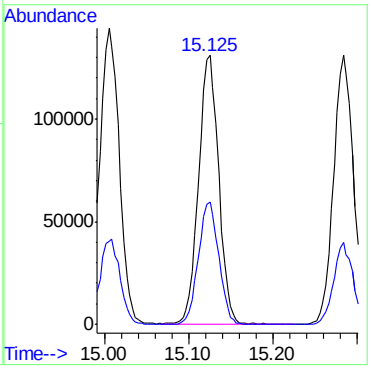


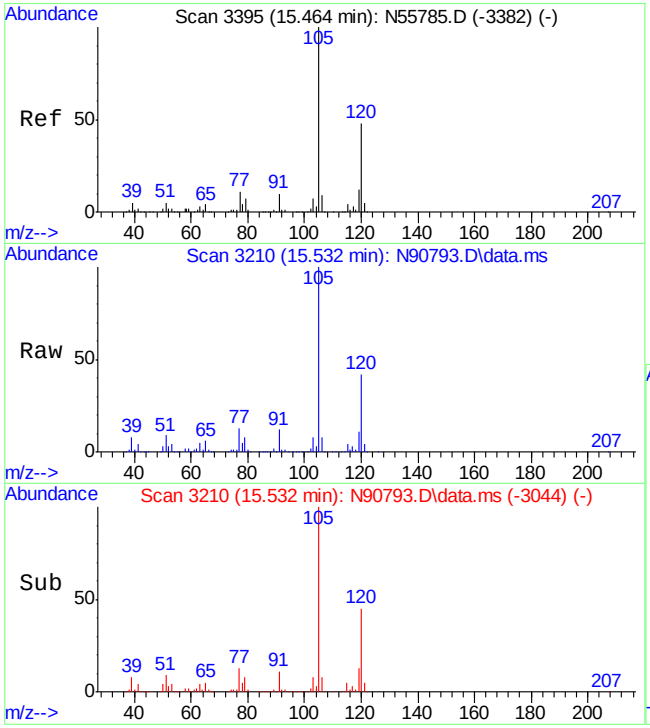


#89
1,3,5-trimethylbenzene
Concen: 14.00 ug/L
RT: 15.125 min Scan# 3095
Delta R.T. 0.000 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion:105 Resp: 217381

Ion	Ratio	Lower	Upper
105	100		
120	45.5	15.0	75.0

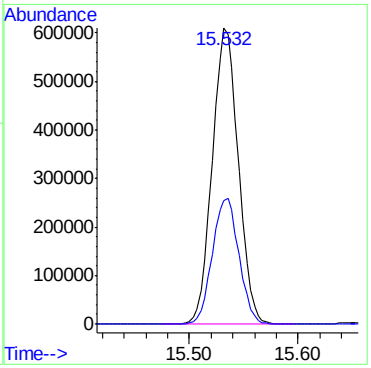


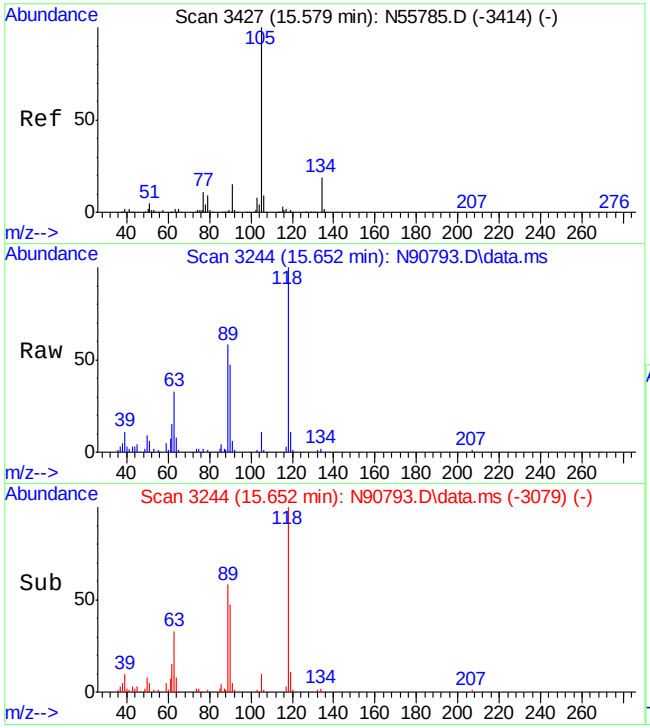


#91
1,2,4-trimethylbenzene
Concen: 65.76 ug/L
RT: 15.532 min Scan# 3210
Delta R.T. -0.003 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion:105 Resp: 1011850

Ion	Ratio	Lower	Upper
105	100		
120	41.8	13.5	73.5

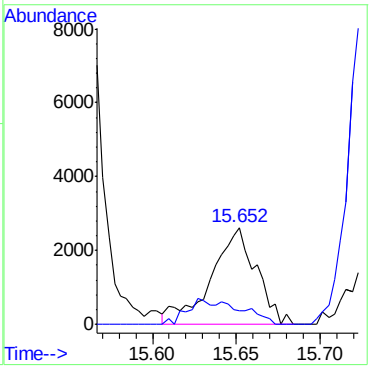


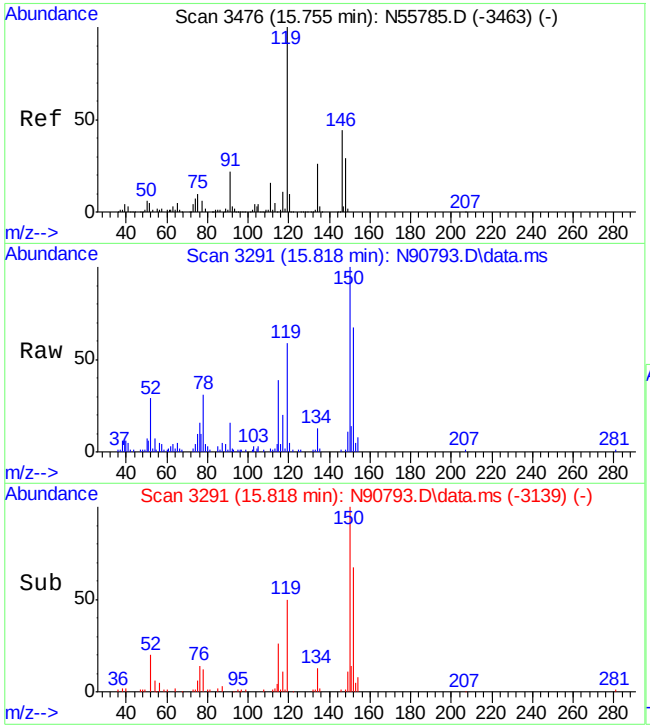


#92
sec-butylbenzene
Concen: 0.28 ug/L
RT: 15.652 min Scan# 3244
Delta R.T. 0.004 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion:105 Resp: 4892

Ion	Ratio	Lower	Upper
105	100		
134	13.6	0.0	48.4

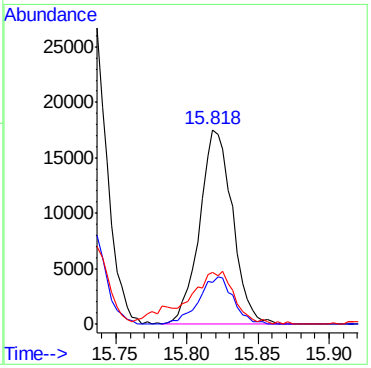


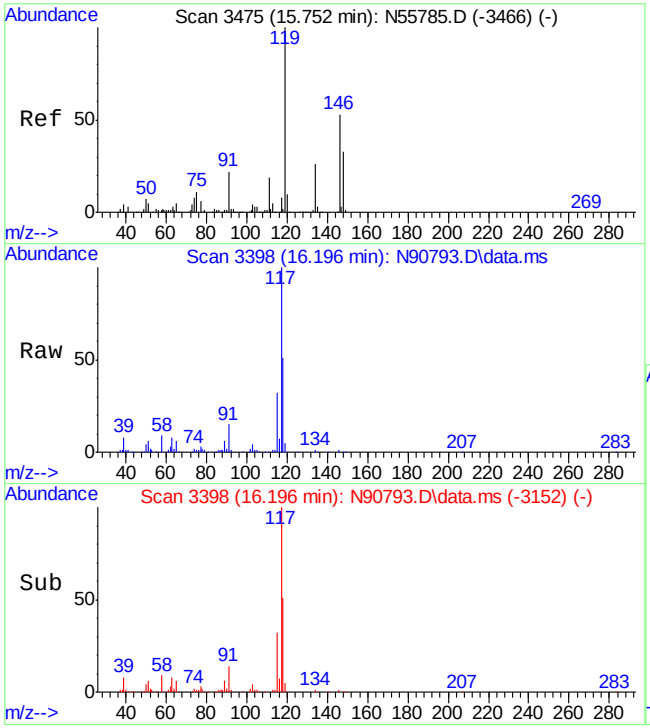


#94
p-isopropyltoluene
Concen: 1.99 ug/L
RT: 15.818 min Scan# 3291
Delta R.T. -0.004 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion:119 Resp: 28314

Ion	Ratio	Lower	Upper
119	100		
134	21.6	0.0	54.2
91	26.6	0.0	58.2

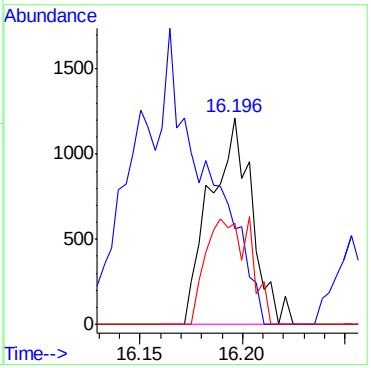


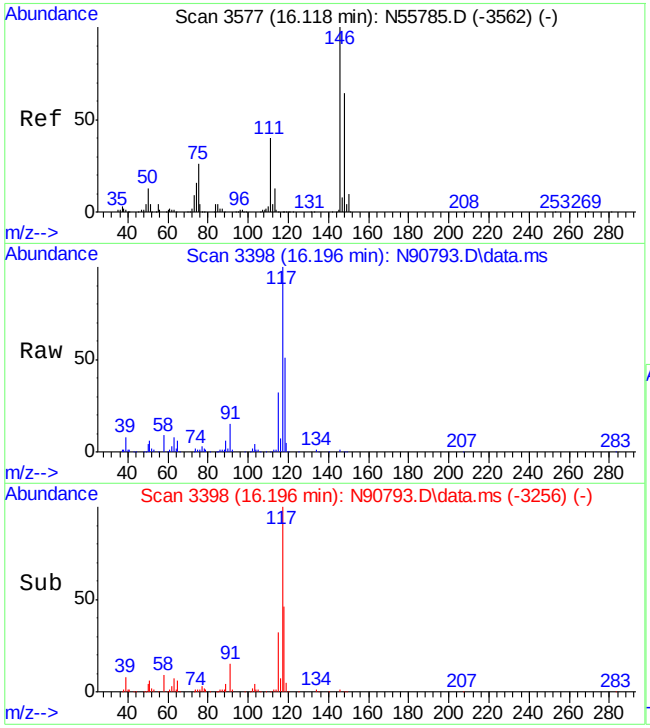


#95
1,4-dichlorobenzene
Concen: Below Cal
RT: 16.196 min Scan# 3398
Delta R.T. 0.371 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion:146 Resp: 1736

Ion	Ratio	Lower	Upper
146	100		
111	46.1	16.9	76.9
148	48.8	31.6	91.6

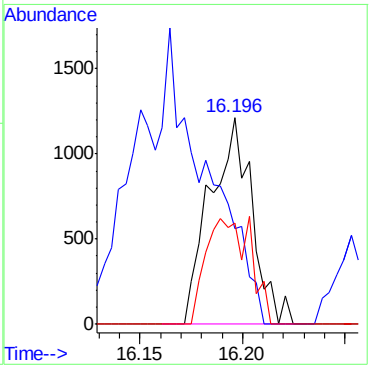


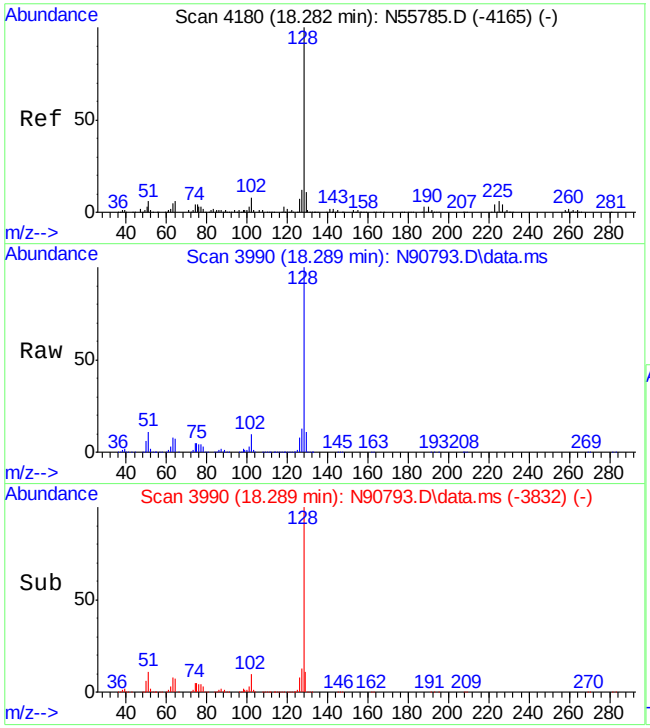


#96
1,2-dichlorobenzene
Concen: Below Cal
RT: 16.196 min Scan# 3398
Delta R.T. 0.003 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion:146 Resp: 1736

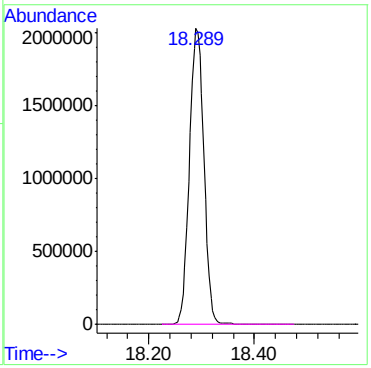
Ion	Ratio	Lower	Upper
146	100		
111	46.1	15.3	75.3
148	48.8	33.1	93.1

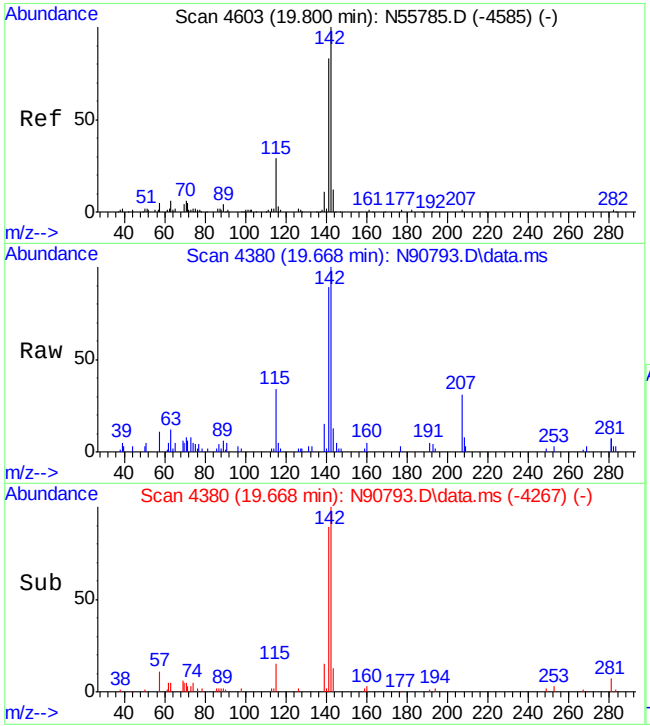




#102
naphthalene
Concen: 862.86 ug/L
RT: 18.289 min Scan# 3990
Delta R.T. 0.000 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion:128 Resp: 3850265

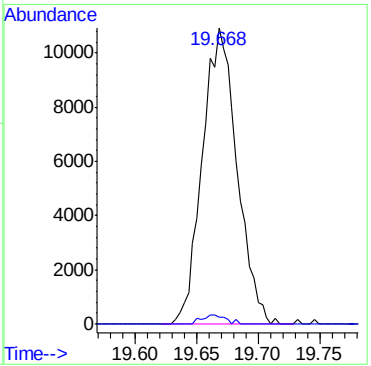


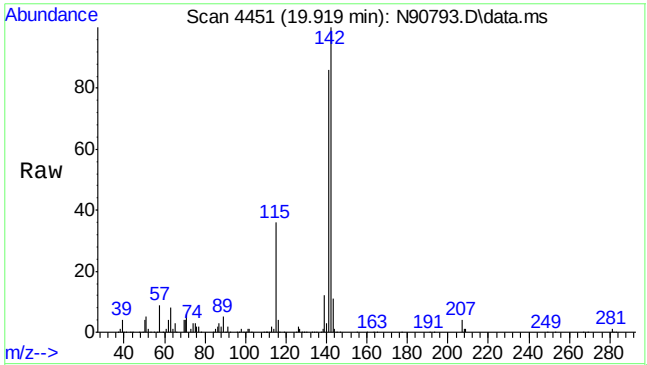


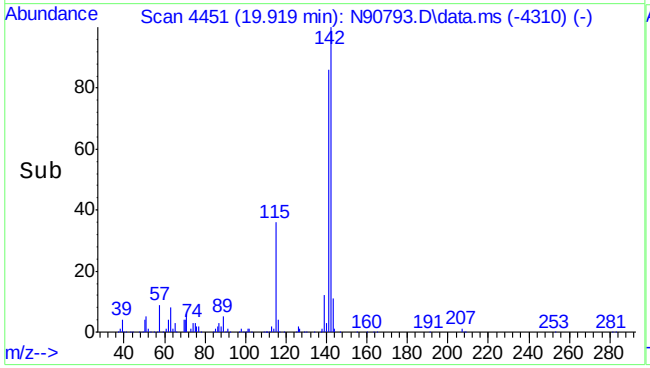
#104
2-methylnaphthalene
Concen: 17.74 ug/L
RT: 19.668 min Scan# 4380
Delta R.T. -0.000 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion:142 Resp: 21328

Ion	Ratio	Lower	Upper
142	100		
140	0.0	0.0	0.0



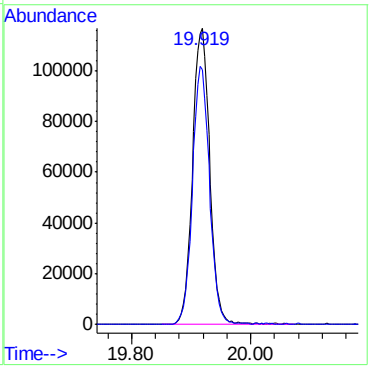




#105
1-methylnaphthalene
Concen: 260.32 ug/L
RT: 19.919 min Scan# 4451
Delta R.T. -0.000 min
Lab File: N90793.D
Acq: 1 Oct 2014 1:27 pm

Tgt Ion:142 Resp: 233890

Ion	Ratio	Lower	Upper
142	100		
141	86.7	68.4	102.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80350.D
Acq On : 3 Oct 2014 7:30 pm
Operator : garyk
Sample : mc33908-7
Misc : ms32871,msp2629,,,,5,20
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 06 08:37:19 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

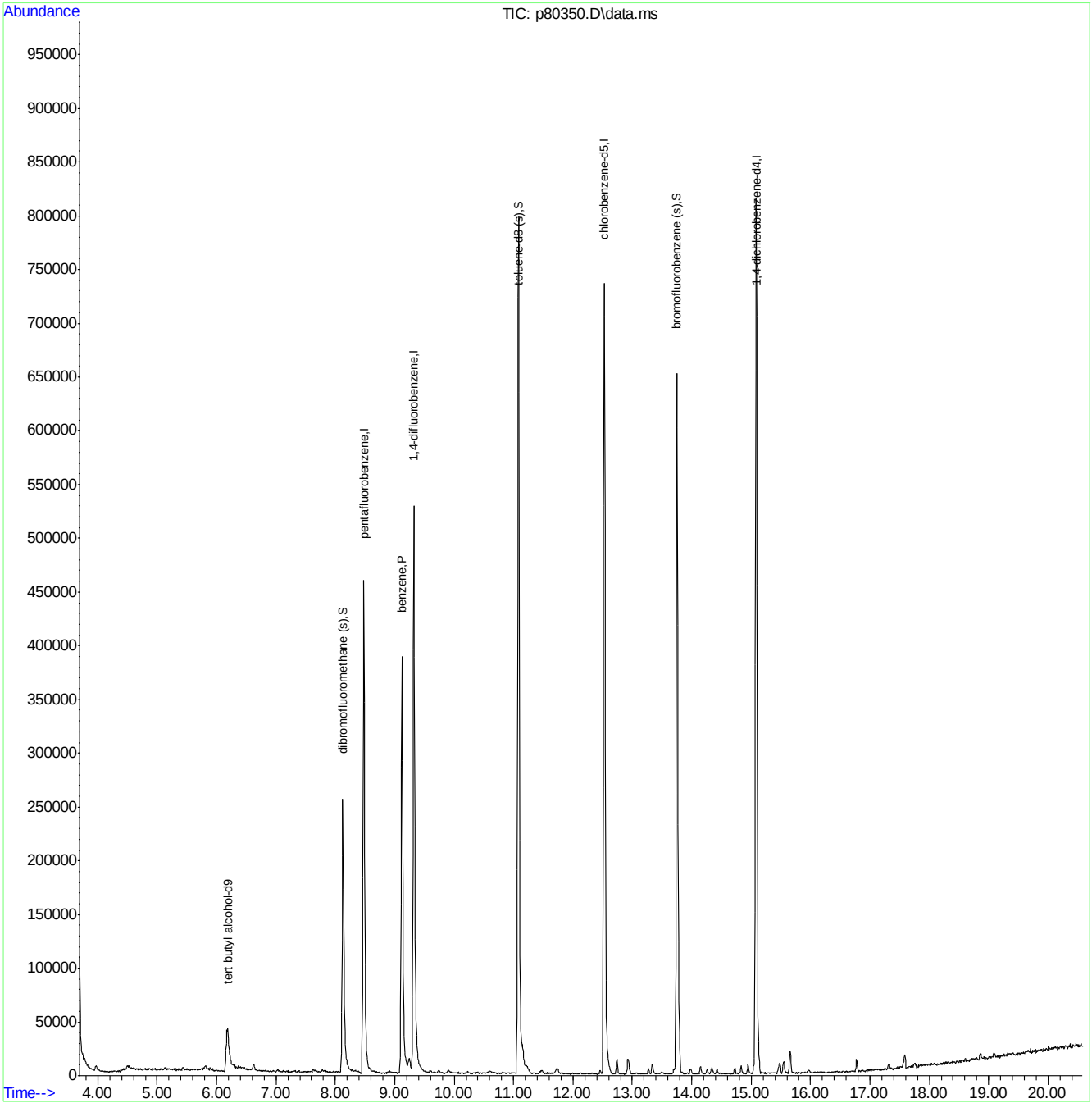
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.186	65	87791	50.00	ug/L	# 0.00
4) pentafluorobenzene	8.483	168	372076	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.319	114	440671	50.00	ug/L	0.00
66) chlorobenzene-d5	12.525	82	228540	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.085	152	230073	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.126	113	161464	41.60	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 83.20%			
60) toluene-d8 (s)	11.083	98	540512	47.25	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.50%			
82) bromofluorobenzene (s)	13.751	95	202189	41.04	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 82.08%			
Target Compounds						Qvalue
47) benzene	9.123	78	332924	27.29	ug/L	99

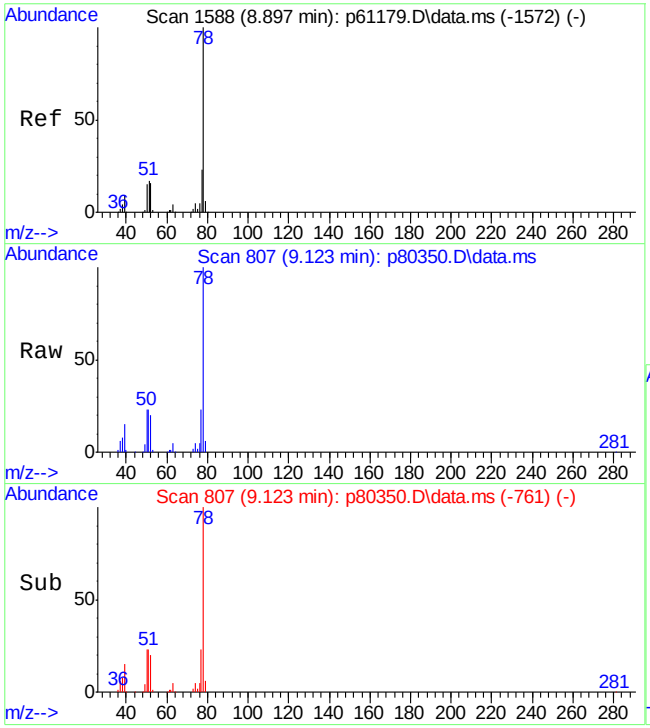
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80350.D
Acq On : 3 Oct 2014 7:30 pm
Operator : garyk
Sample : mc33908-7
Misc : ms32871,msp2629,,,,5,20
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 06 08:37:19 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

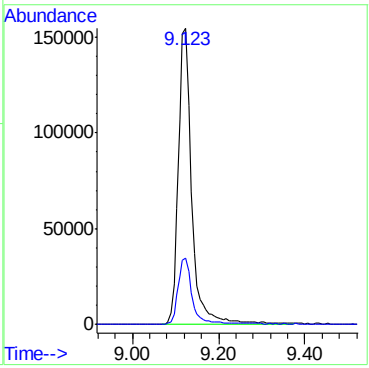




#47
benzene
Concen: 27.29 ug/L
RT: 9.123 min Scan# 807
Delta R.T. 0.007 min
Lab File: p80350.D
Acq: 3 Oct 2014 7:30 pm

Tgt Ion: 78 Resp: 332924

Ion	Ratio	Lower	Upper
78	100		
77	22.5	0.0	53.0



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
10/06/14 09:32

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22777.D
Acq On : 2 Oct 2014 5:48 pm
Operator : GaryK
Sample : mc33908-7
Misc : ms32871,msu992,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 03 09:24:54 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

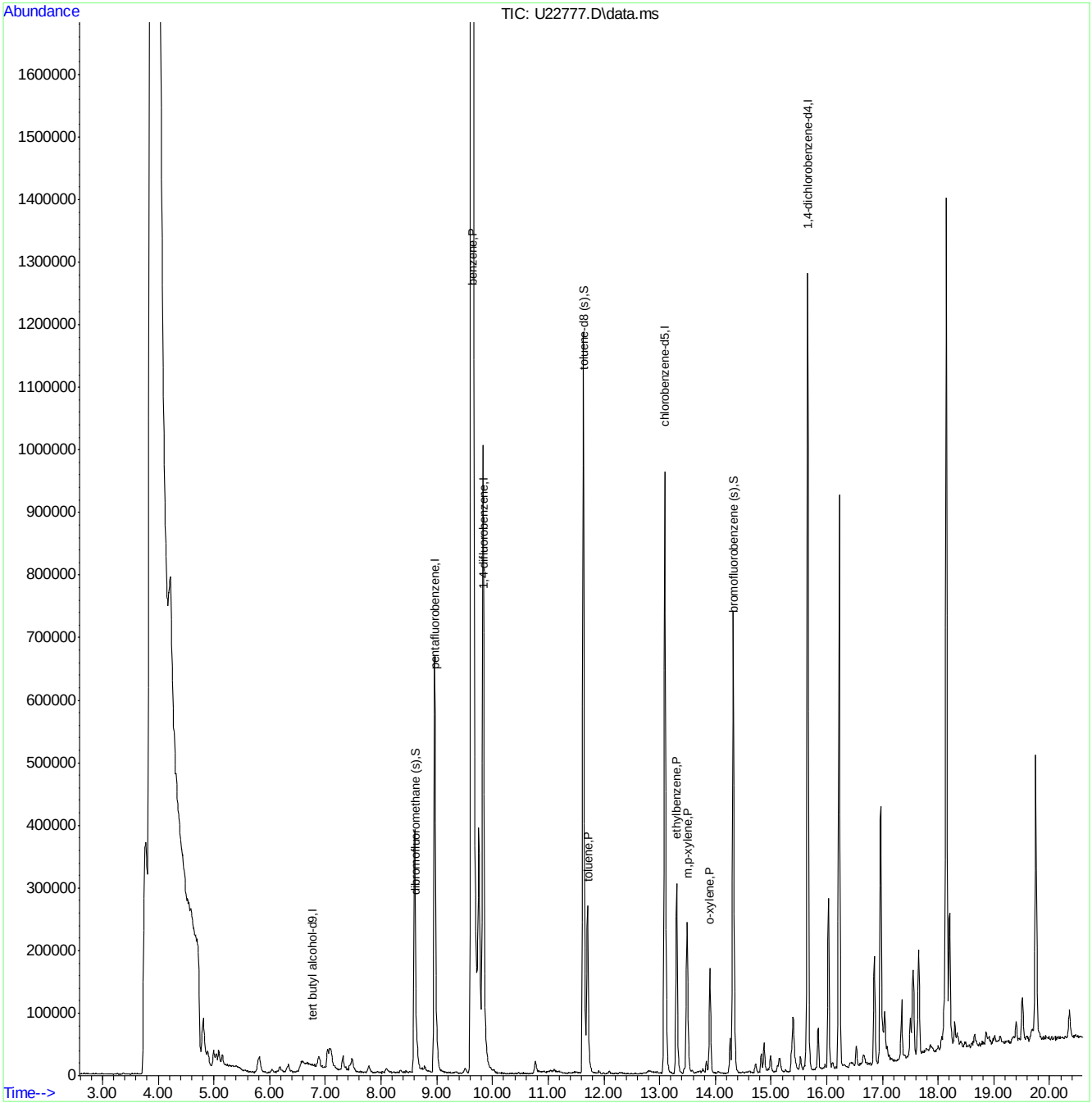
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.770	65	181950	50.00	ppb		0.16
4) pentafluorobenzene	8.968	168	505650m	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.839	114	877234	50.00	ppb		0.00
66) chlorobenzene-d5	13.096	82	287501	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.658	152	365312	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.618	113	295286m	45.63	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 91.26%				
60) toluene-d8 (s)	11.636	98	829930	47.61	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.22%				
82) bromofluorobenzene (s)	14.324	95	251221	52.59	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 105.18%				
Target Compounds							Qvalue
3) Ethanol	5.724	45	2016	Below Cal		#	39
47) benzene	9.636	78	11200995	525.58	ppb		99
62) toluene	11.709	92	107653	10.01	ppb		97
74) ethylbenzene	13.308	91	228774	13.21	ppb		97
75) m,p-xylene	13.494	106	90997	12.50	ppb		92
76) o-xylene	13.906	106	51429	6.37	ppb		94
104) 1-Methylnaphthalene	19.756	142	271821	Below Cal			96

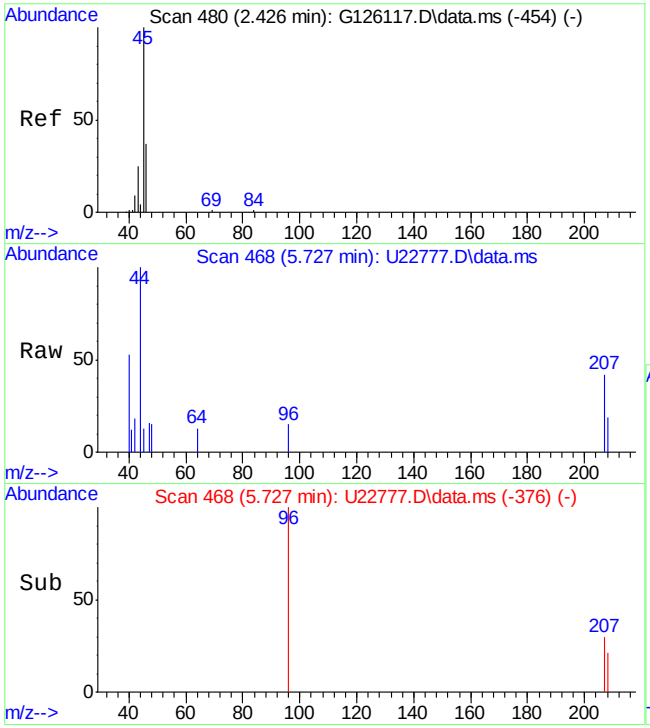
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22777.D
Acq On : 2 Oct 2014 5:48 pm
Operator : GaryK
Sample : mc33908-7
Misc : ms32871,msu992,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 03 09:24:54 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

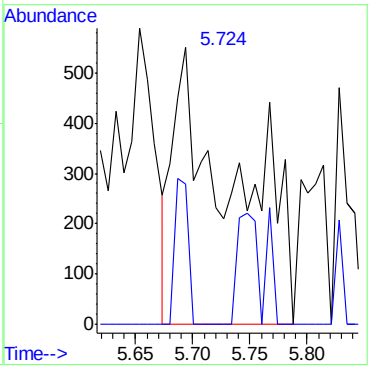


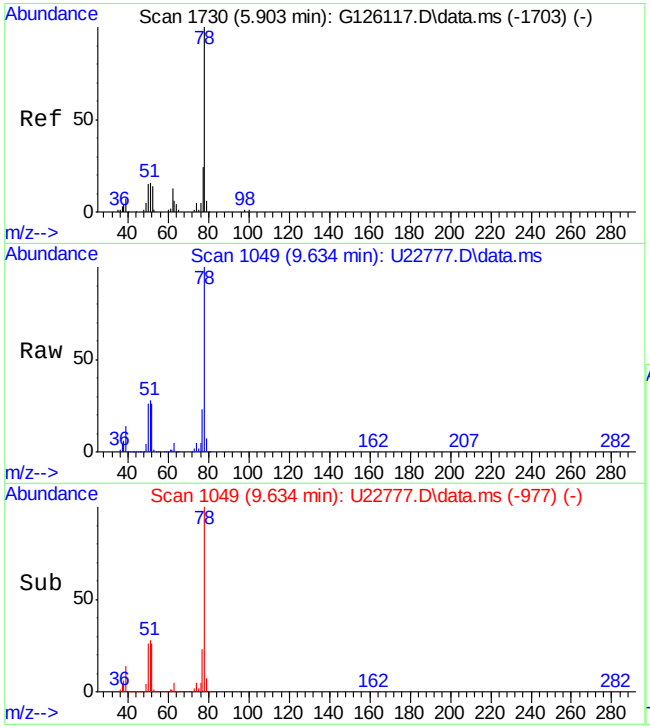


#3
Ethanol
Concen: Below Cal
RT: 5.724 min Scan# 468
Delta R.T. 0.118 min
Lab File: U22777.D
Acq: 2 Oct 2014 5:48 pm

Tgt Ion: 45 Resp: 2016

Ion	Ratio	Lower	Upper
45	100		
46	0.0	24.7	45.9#

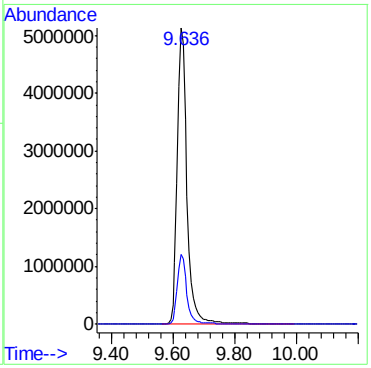


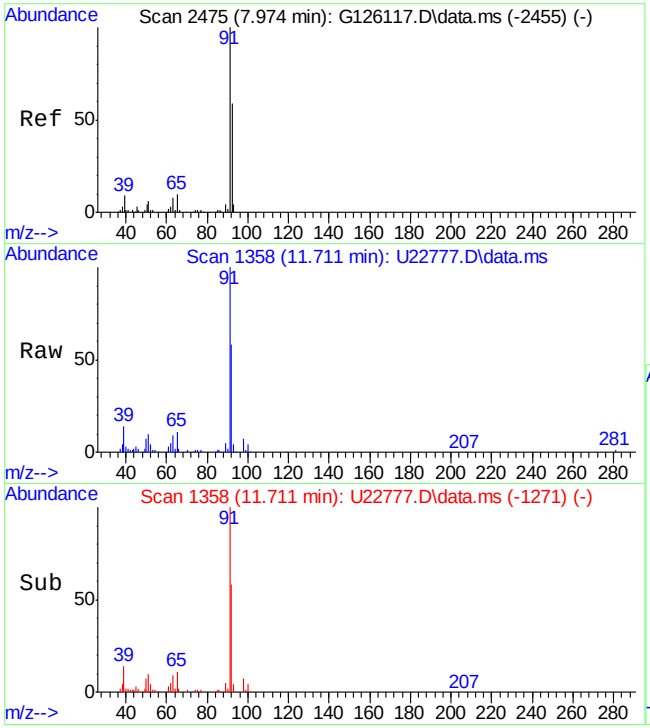


#47
benzene
Concen: 525.58 ppb
RT: 9.636 min Scan# 1049
Delta R.T. -0.001 min
Lab File: U22777.D
Acq: 2 Oct 2014 5:48 pm

Tgt Ion: 78 Resp:11200995

Ion	Ratio	Lower	Upper
78	100		
77	23.4	0.0	53.9

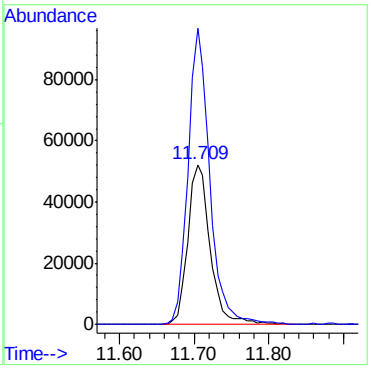


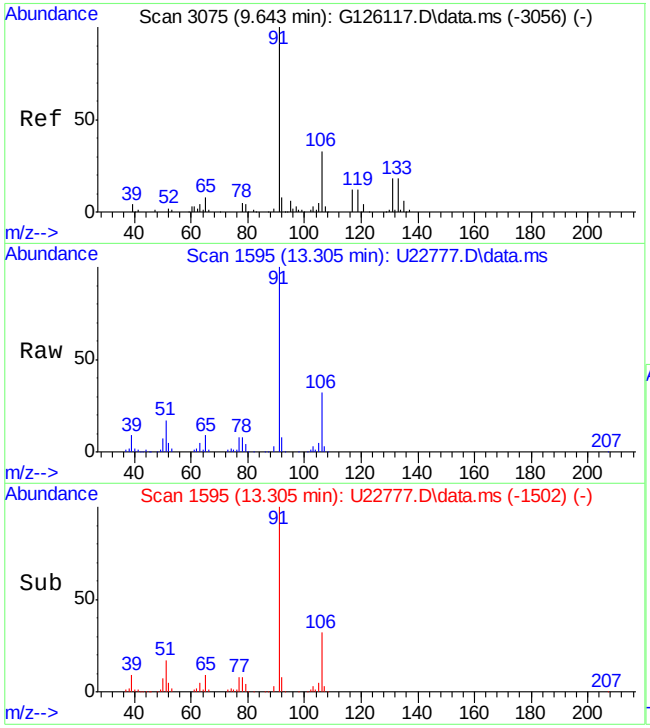


#62
toluene
Concen: 10.01 ppb
RT: 11.709 min Scan# 1358
Delta R.T. 0.000 min
Lab File: U22777.D
Acq: 2 Oct 2014 5:48 pm

Tgt Ion: 92 Resp: 107653

Ion	Ratio	Lower	Upper
92	100		
91	173.3	139.2	199.2

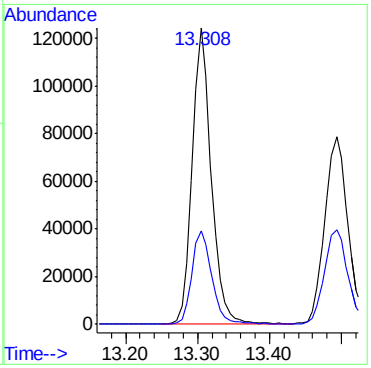


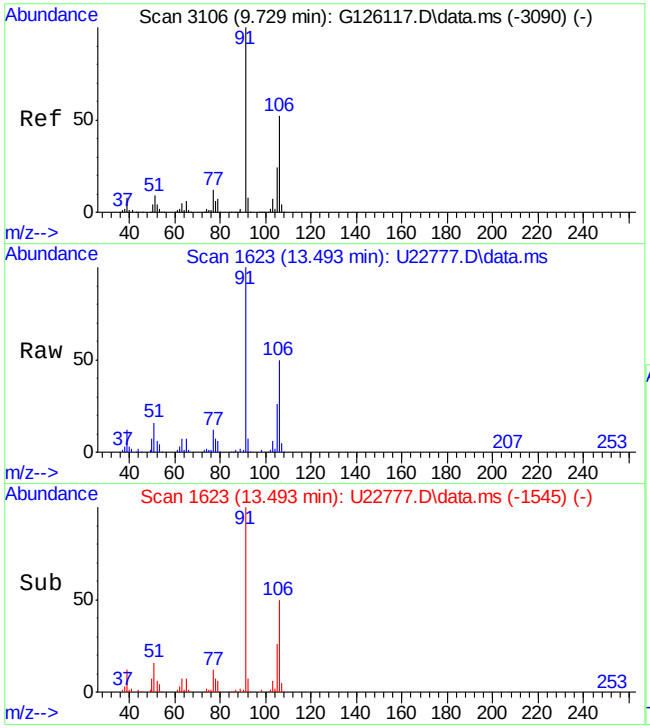


#74
ethylbenzene
Concen: 13.21 ppb
RT: 13.308 min Scan# 1595
Delta R.T. 0.001 min
Lab File: U22777.D
Acq: 2 Oct 2014 5:48 pm

Tgt Ion: 91 Resp: 228774

Ion	Ratio	Lower	Upper
91	100		
106	31.6	0.1	60.1

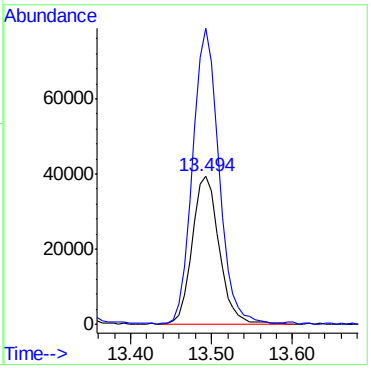


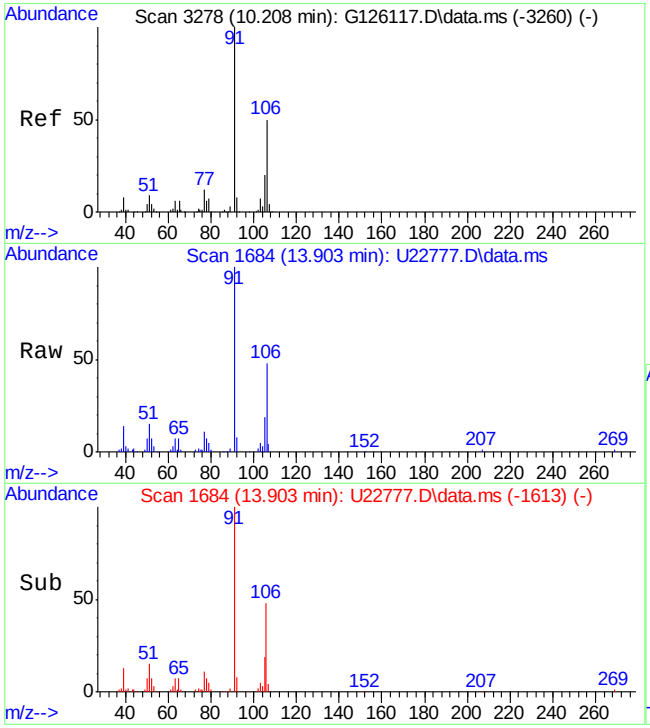


#75
m,p-xylene
Concen: 12.50 ppb
RT: 13.494 min Scan# 1623
Delta R.T. 0.004 min
Lab File: U22777.D
Acq: 2 Oct 2014 5:48 pm

Tgt Ion:106 Resp: 90997

Ion	Ratio	Lower	Upper
106	100		
91	198.5	180.7	240.7

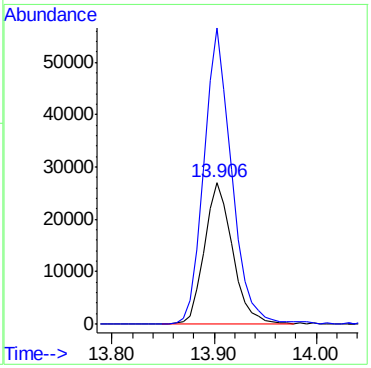


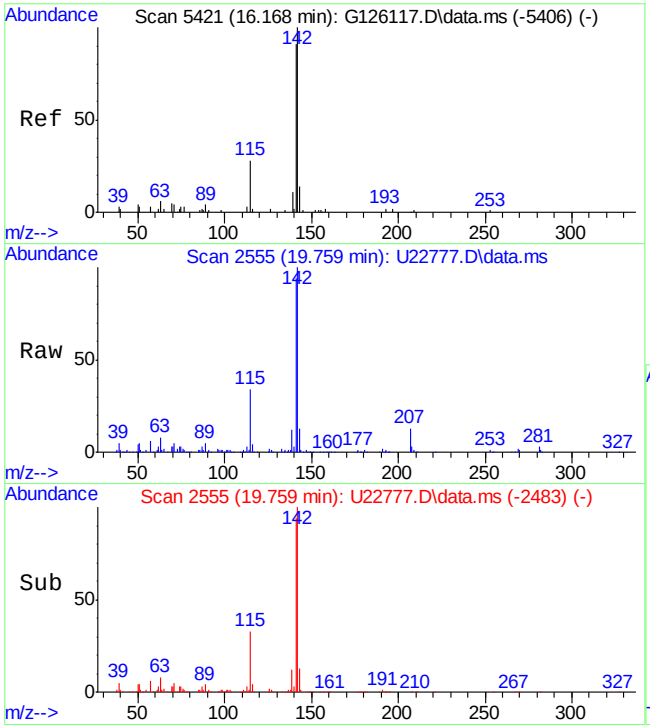


#76
o-xylene
Concen: 6.37 ppb
RT: 13.906 min Scan# 1684
Delta R.T. 0.003 min
Lab File: U22777.D
Acq: 2 Oct 2014 5:48 pm

Tgt Ion:106 Resp: 51429

Ion	Ratio	Lower	Upper
106	100		
91	209.1	188.5	248.5

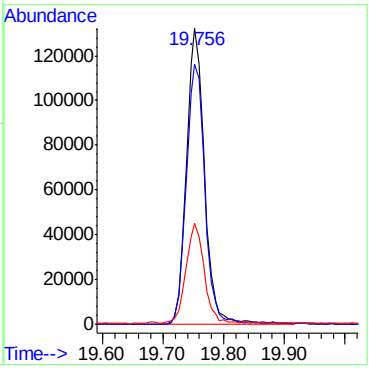




#104
1-Methylnaphthalene
Concen: Below Cal
RT: 19.756 min Scan# 2555
Delta R.T. -0.016 min
Lab File: U22777.D
Acq: 2 Oct 2014 5:48 pm

Tgt Ion:142 Resp: 271821

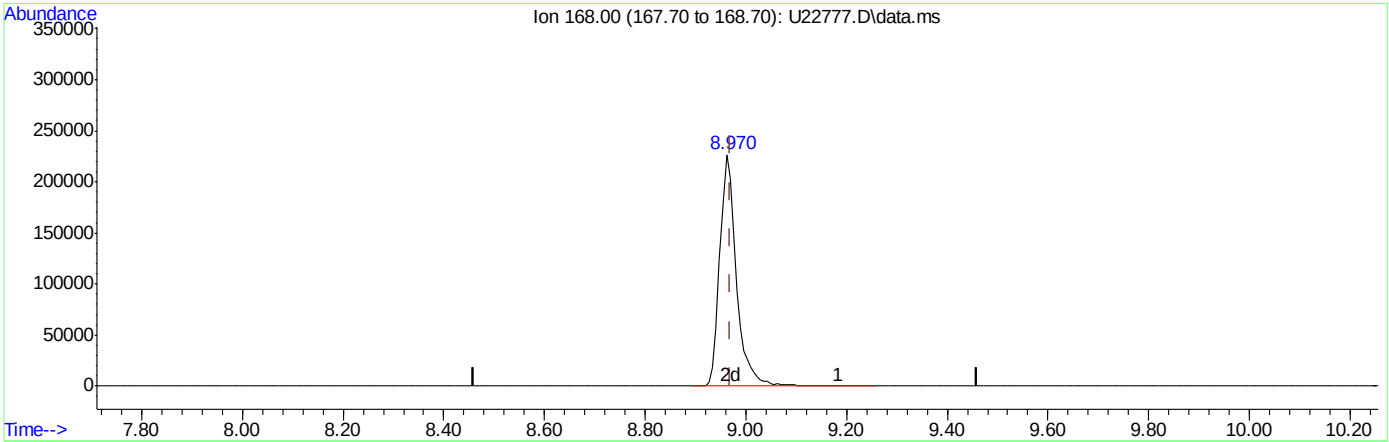
Ion	Ratio	Lower	Upper
142	100		
141	94.3	72.6	108.8
115	33.0	29.2	43.8



Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22777.D
Acq On : 2 Oct 2014 5:48 pm
Operator : GaryK
Sample : mc33908-7
Misc : ms32871,msu992,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 03 09:05:42 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration



TIC: U22777.D\data.ms

(4) pentafluorobenzene (I)

8.968min (-0.003) 50.00ppb m

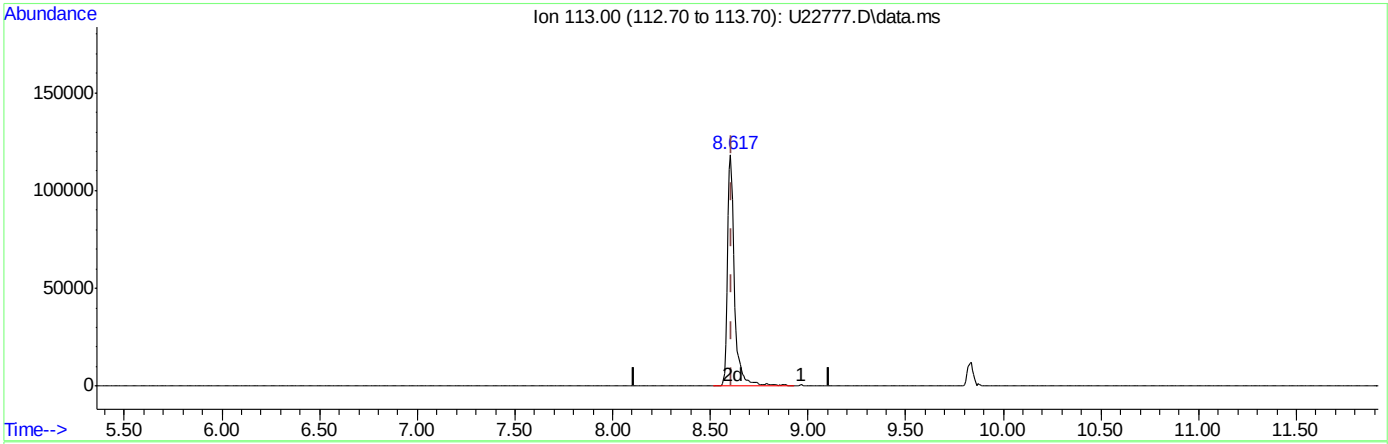
response 505650

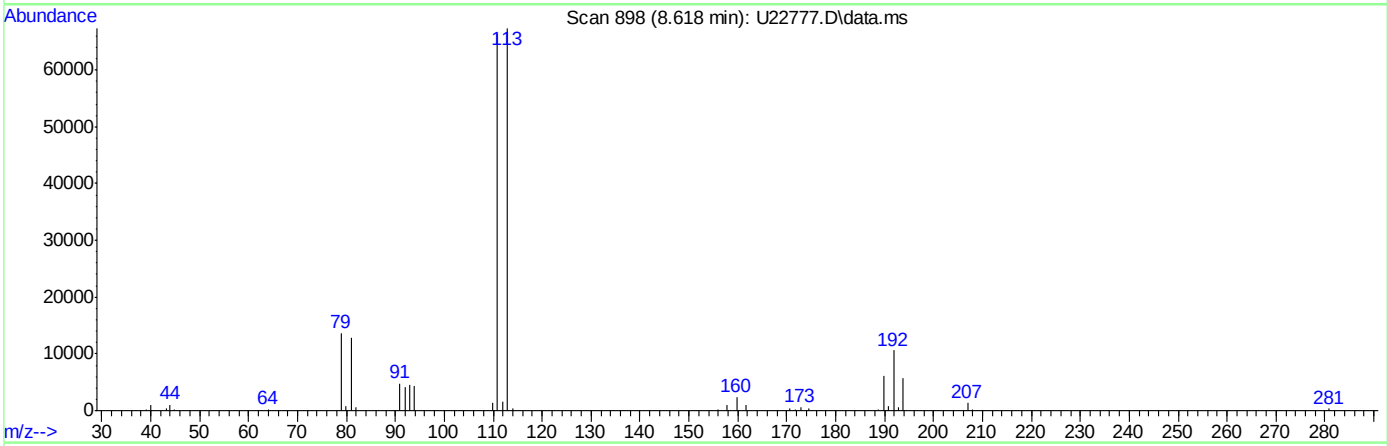
Ion	Exp%	Act%
168.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22777.D
Acq On : 2 Oct 2014 5:48 pm
Operator : GaryK
Sample : mc33908-7
Misc : ms32871,msu992,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 03 09:11:10 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22777.D\data.ms

(40) dibromofluoromethane (s) (S)

8.618min (+0.008) 45.63ppb m

response 295286

Ion	Exp%	Act%
113.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80351.D
Acq On : 3 Oct 2014 8:01 pm
Operator : garyk
Sample : mc33908-8
Misc : ms32871,msp2629,,,,5,20
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 06 08:37:57 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

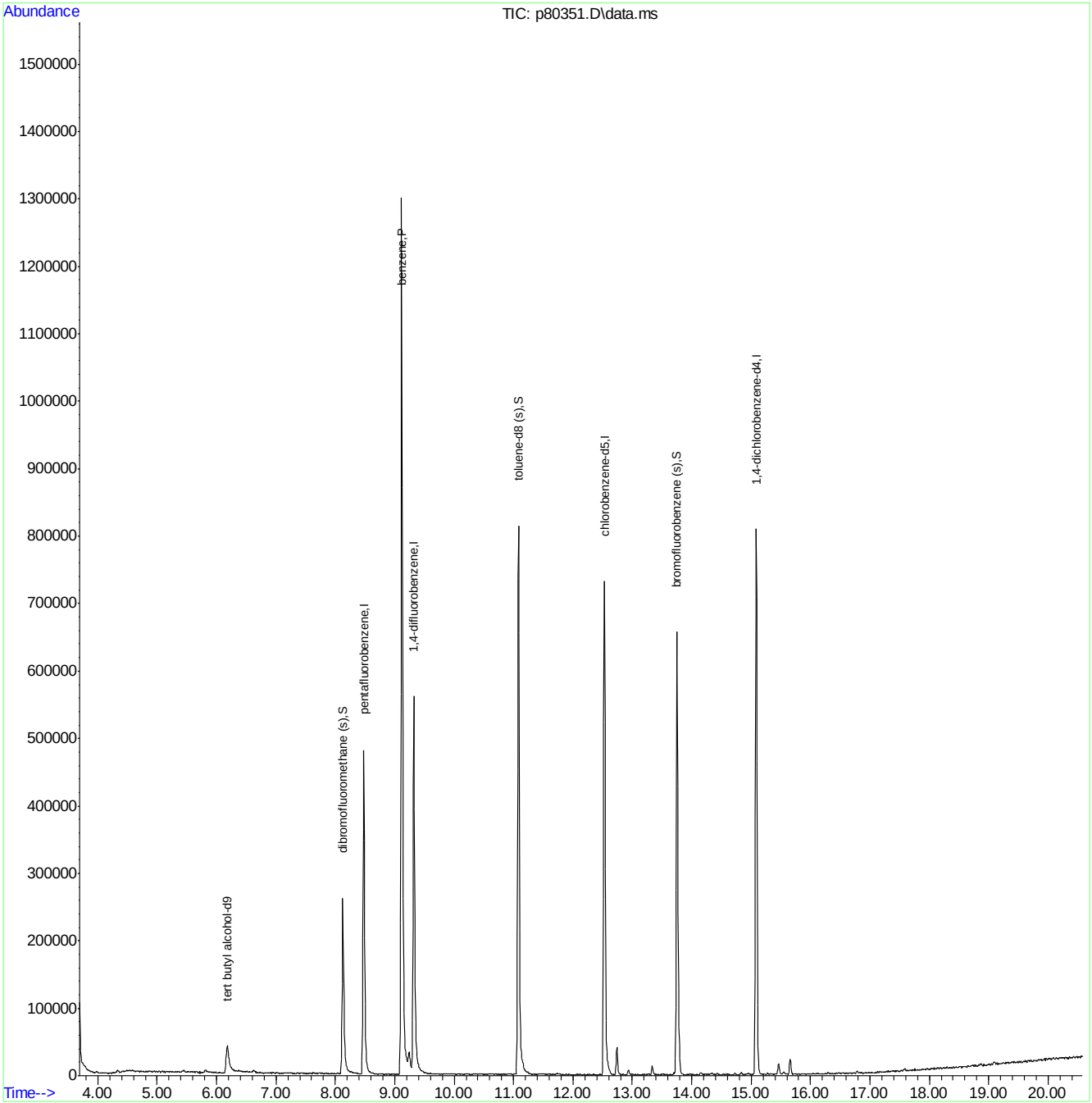
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.179	65	87142	50.00	ug/L	# 0.00
4) pentafluorobenzene	8.483	168	379321	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.318	114	457546	50.00	ug/L	0.00
66) chlorobenzene-d5	12.532	82	228200	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.085	152	234994	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.126	113	165420	41.80	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 83.60%			
60) toluene-d8 (s)	11.083	98	545042	45.89	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 91.78%			
82) bromofluorobenzene (s)	13.751	95	206926	41.12	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 82.24%			
Target Compounds						Qvalue
47) benzene	9.116	78	1050362	82.92	ug/L	99

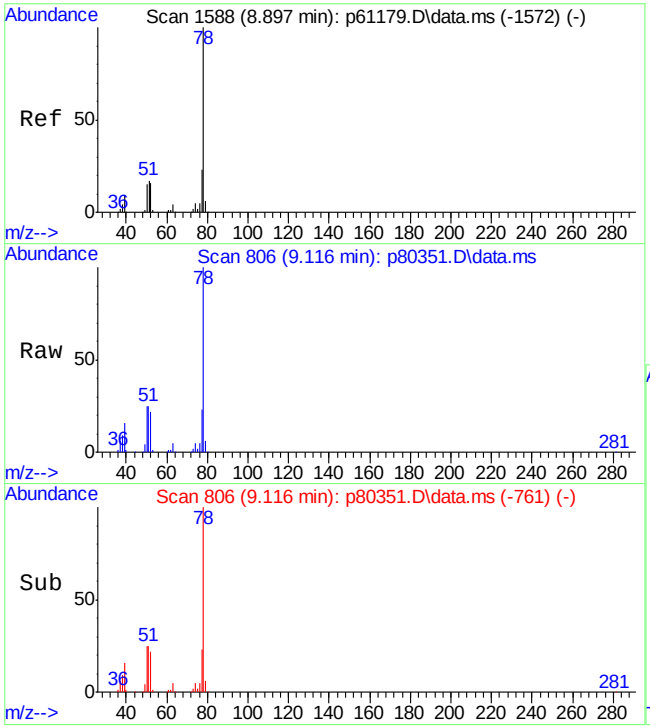
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80351.D
Acq On : 3 Oct 2014 8:01 pm
Operator : garyk
Sample : mc33908-8
Misc : ms32871,msp2629,,,,5,20
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 06 08:37:57 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

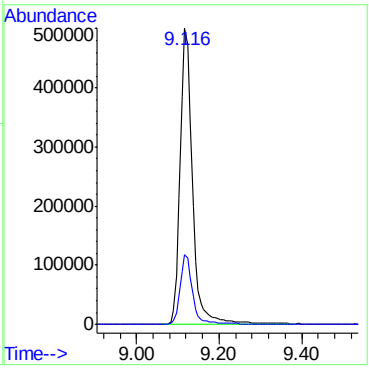




#47
benzene
Concen: 82.92 ug/L
RT: 9.116 min Scan# 806
Delta R.T. 0.000 min
Lab File: p80351.D
Acq: 3 Oct 2014 8:01 pm

Tgt Ion: 78 Resp: 1050362

Ion	Ratio	Lower	Upper
78	100		
77	23.4	0.0	53.0



7.1.9

7

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22775.D
Acq On : 2 Oct 2014 4:54 pm
Operator : GaryK
Sample : mc33908-8
Misc : ms32871,msu992,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 03 09:03:17 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

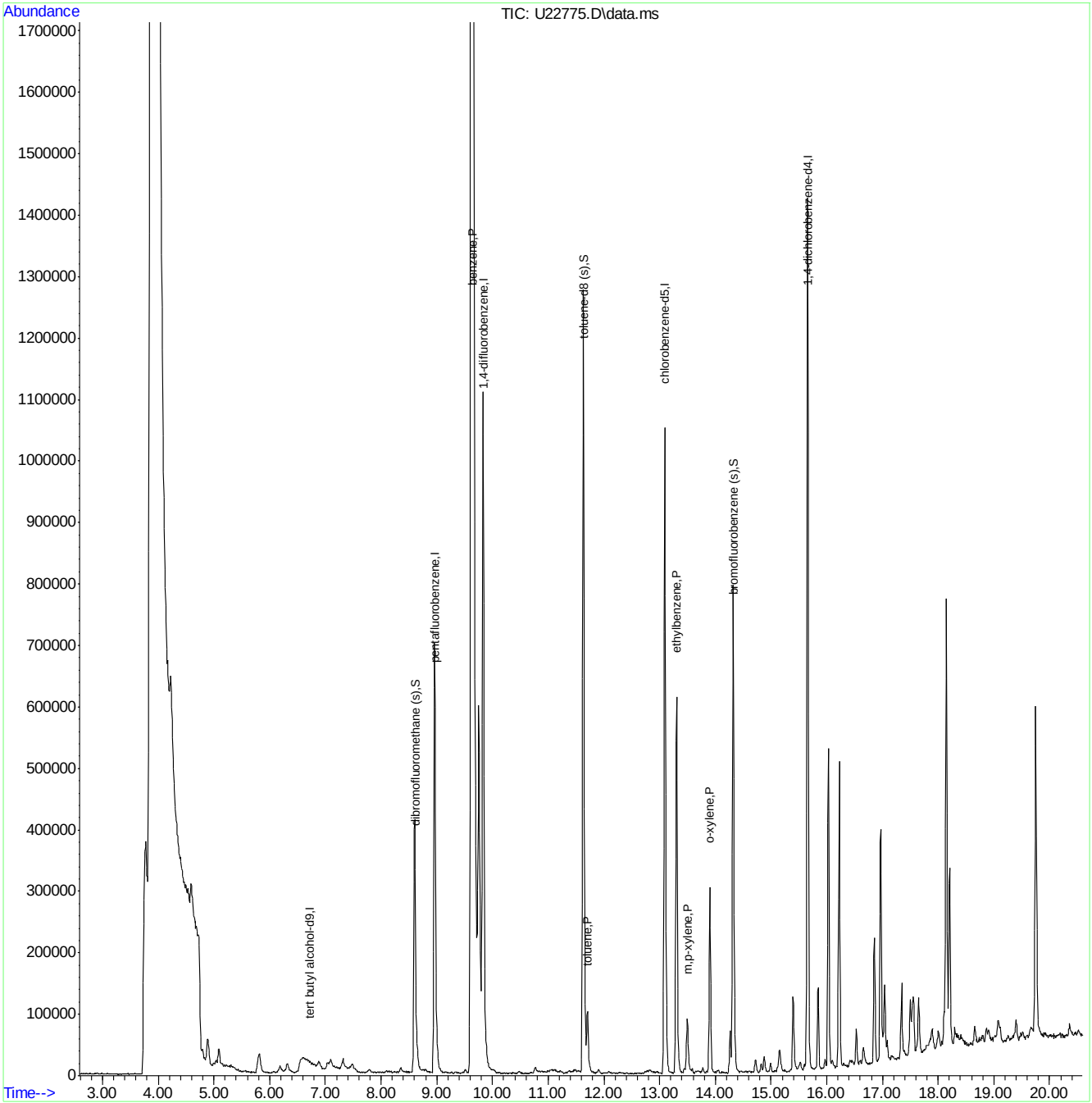
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.730	65	218006	50.00	ppb	0.12
4) pentafluorobenzene	8.969	168	535704	50.00	ppb	0.00
43) 1,4-difluorobenzene	9.837	114	950565	50.00	ppb	0.00
66) chlorobenzene-d5	13.096	82	306566	50.00	ppb	# 0.00
80) 1,4-dichlorobenzene-d4	15.658	152	398187	50.00	ppb	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.614	113	305836	44.61	ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 89.22%			
60) toluene-d8 (s)	11.636	98	888534	47.04	ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.08%			
82) bromofluorobenzene (s)	14.324	95	268593	51.58	ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.16%			
Target Compounds						Qvalue
3) Ethanol	5.669	45	1174	Below Cal	#	39
11) acetonitrile	6.053	41	1092	Below Cal	#	28
47) benzene	9.635	78	20817277	901.45	ppb	87
62) toluene	11.708	92	36564	3.14	ppb	95
74) ethylbenzene	13.306	91	451693	24.47	ppb	96
75) m,p-xylene	13.499	106	35725	4.60	ppb	87
76) o-xylene	13.904	106	92651	10.76	ppb	87
103) 2-Methylnaphthalene	19.757	142	326616	Below Cal		96
104) 1-Methylnaphthalene	19.757	142	326616	Below Cal		97

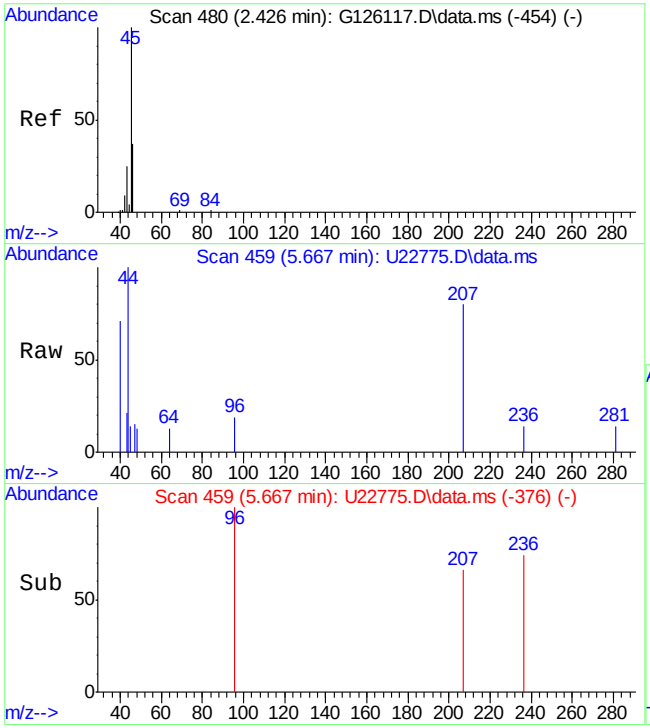
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22775.D
Acq On : 2 Oct 2014 4:54 pm
Operator : GaryK
Sample : mc33908-8
Misc : ms32871,msu992,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 03 09:03:17 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

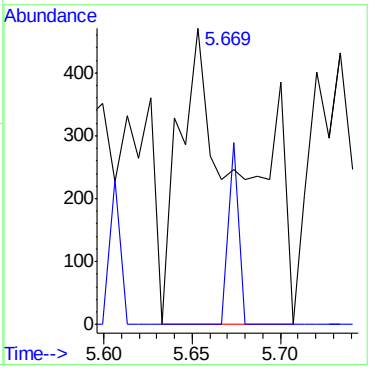


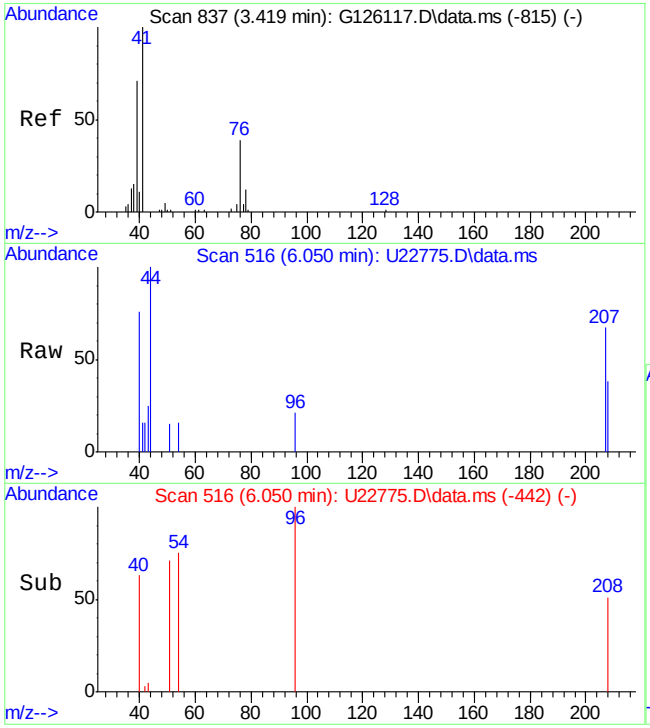


#3
Ethanol
Concen: Below Cal
RT: 5.669 min Scan# 459
Delta R.T. 0.063 min
Lab File: U22775.D
Acq: 2 Oct 2014 4:54 pm

Tgt Ion: 45 Resp: 1174

Ion	Ratio	Lower	Upper
45	100		
46	0.0	24.7	45.9#

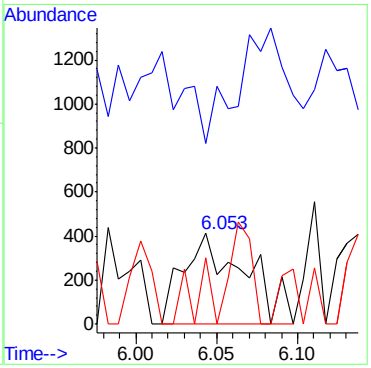


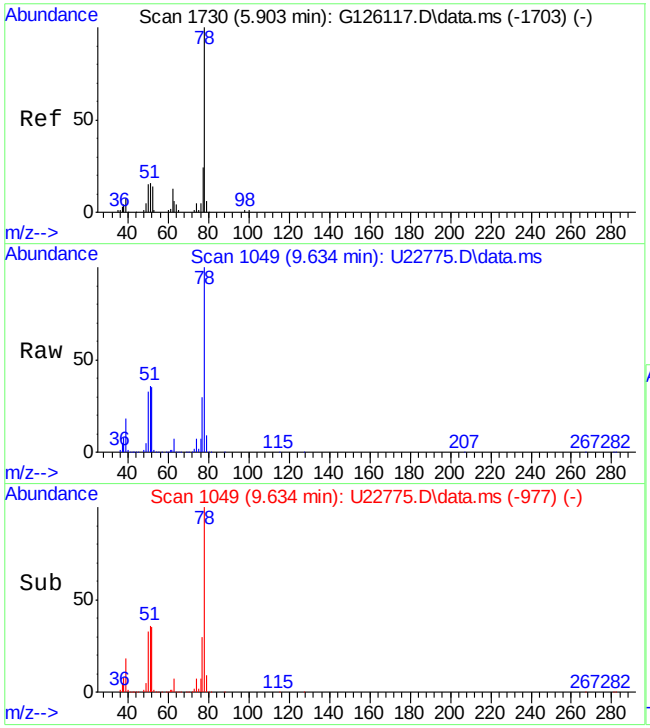


#11
acetonitrile
Concen: Below Cal
RT: 6.053 min Scan# 516
Delta R.T. -0.017 min
Lab File: U22775.D
Acq: 2 Oct 2014 4:54 pm

Tgt Ion: 41 Resp: 1092

Ion	Ratio	Lower	Upper
41	100		
40	17.7	62.3	122.3#
39	0.0	0.0	54.5

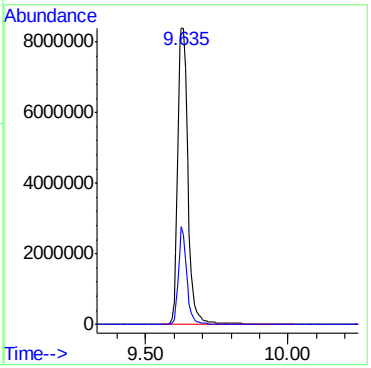


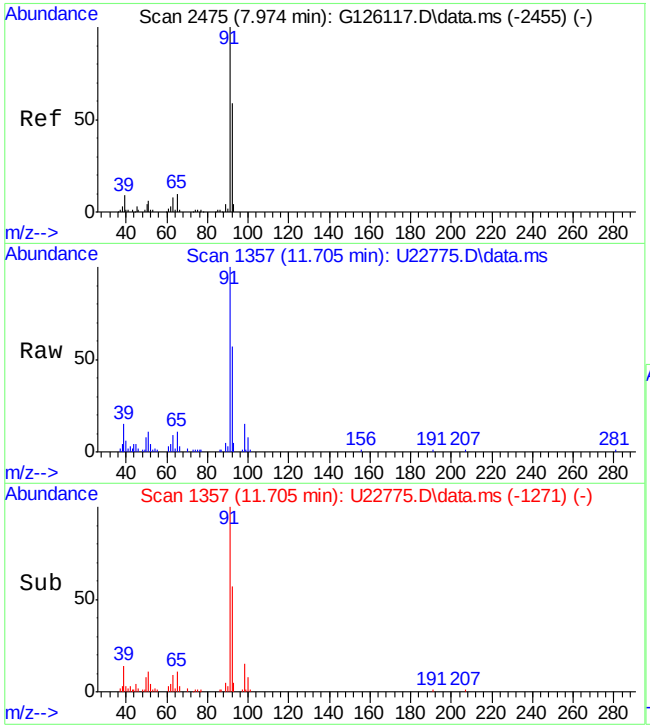


#47
benzene
Concen: 901.45 ppb
RT: 9.635 min Scan# 1049
Delta R.T. -0.002 min
Lab File: U22775.D
Acq: 2 Oct 2014 4:54 pm

Tgt Ion: 78 Resp:20817277

Ion	Ratio	Lower	Upper
78	100		
77	30.4	0.0	53.9

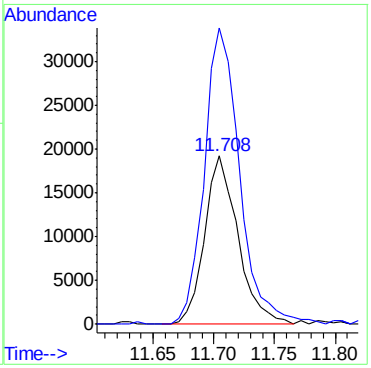


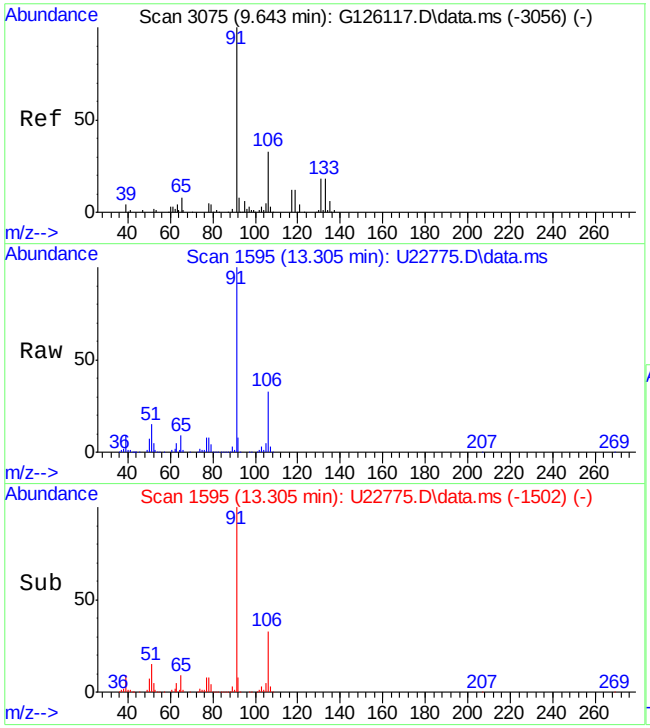


#62
toluene
Concen: 3.14 ppb
RT: 11.708 min Scan# 1357
Delta R.T. -0.001 min
Lab File: U22775.D
Acq: 2 Oct 2014 4:54 pm

Tgt Ion: 92 Resp: 36564

Ion	Ratio	Lower	Upper
92	100		
91	176.4	139.2	199.2

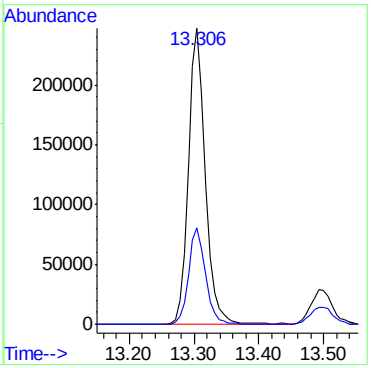


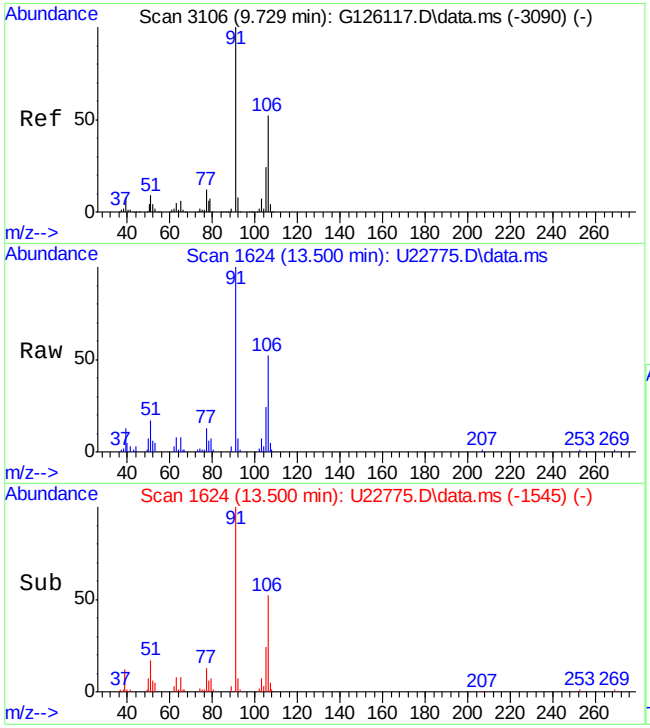


#74
ethylbenzene
Concen: 24.47 ppb
RT: 13.306 min Scan# 1595
Delta R.T. -0.001 min
Lab File: U22775.D
Acq: 2 Oct 2014 4:54 pm

Tgt Ion: 91 Resp: 451693

Ion	Ratio	Lower	Upper
91	100		
106	32.5	0.1	60.1

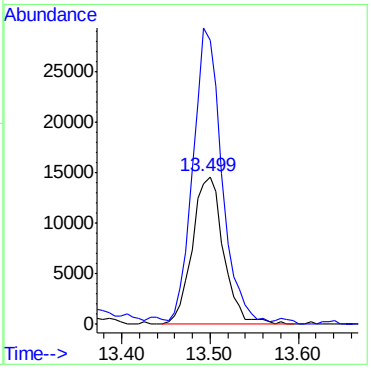


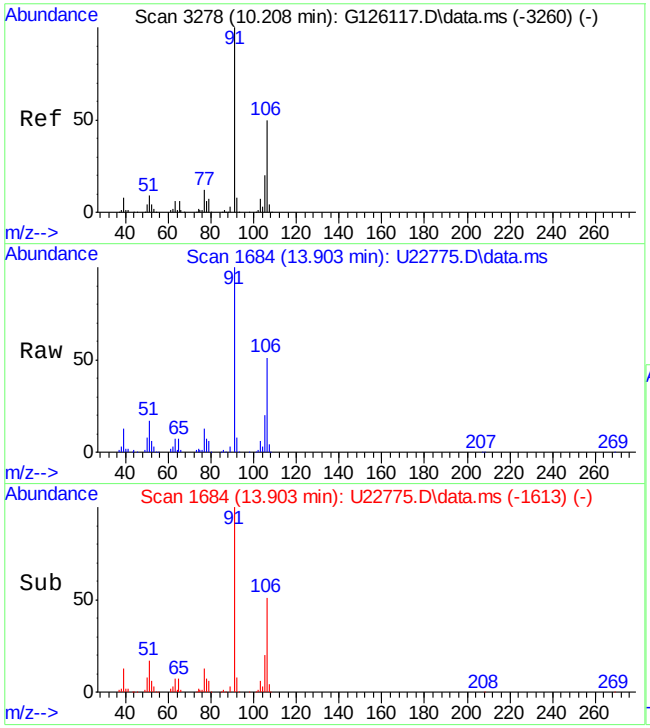


#75
m,p-xylene
Concen: 4.60 ppb
RT: 13.499 min Scan# 1624
Delta R.T. 0.009 min
Lab File: U22775.D
Acq: 2 Oct 2014 4:54 pm

Tgt Ion:106 Resp: 35725

Ion	Ratio	Lower	Upper
106	100		
91	190.8	180.7	240.7

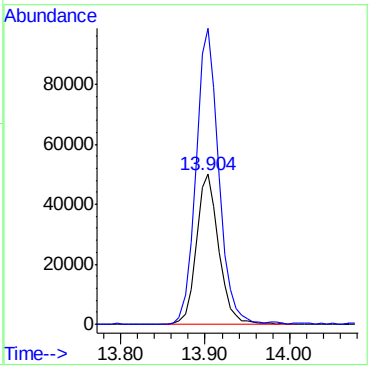


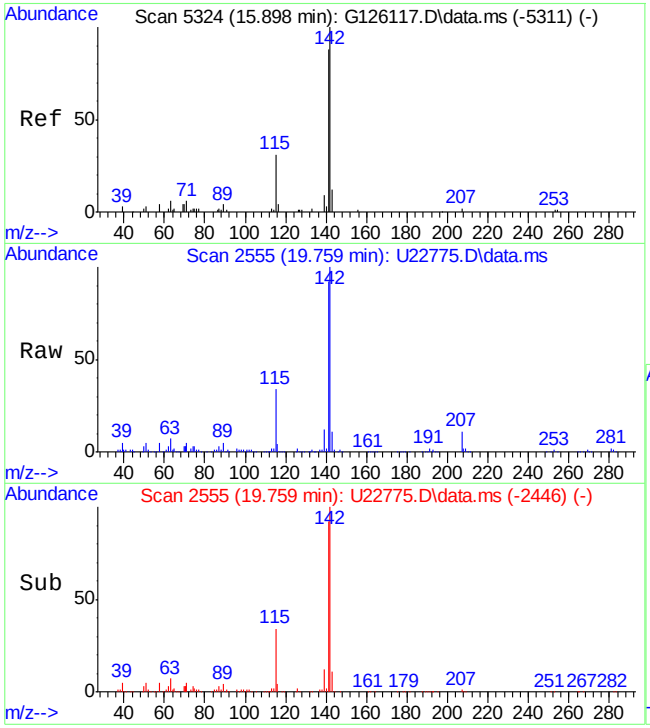


#76
o-xylene
Concen: 10.76 ppb
RT: 13.904 min Scan# 1684
Delta R.T. 0.001 min
Lab File: U22775.D
Acq: 2 Oct 2014 4:54 pm

Tgt Ion:106 Resp: 92651

Ion	Ratio	Lower	Upper
106	100		
91	197.5	188.5	248.5

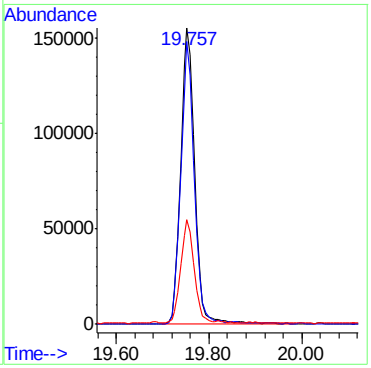


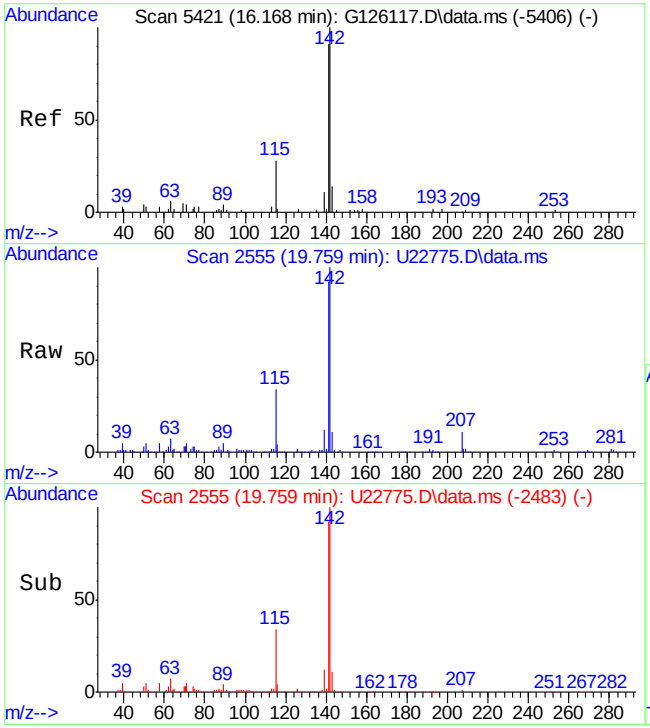


#103
2-Methylnaphthalene
Concen: Below Cal
RT: 19.757 min Scan# 2555
Delta R.T. 0.231 min
Lab File: U22775.D
Acq: 2 Oct 2014 4:54 pm

Tgt Ion:142 Resp: 326616

Ion	Ratio	Lower	Upper
142	100		
141	92.3	67.9	107.9
115	33.8	15.5	55.5

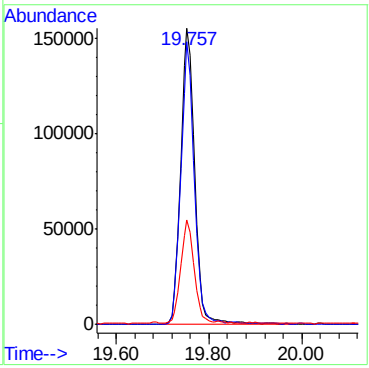




#104
1-Methylnaphthalene
Concen: Below Cal
RT: 19.757 min Scan# 2555
Delta R.T. -0.015 min
Lab File: U22775.D
Acq: 2 Oct 2014 4:54 pm

Tgt Ion:142 Resp: 326616

Ion	Ratio	Lower	Upper
142	100		
141	92.3	72.6	108.8
115	33.8	29.2	43.8



Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22767.D
Acq On : 2 Oct 2014 1:16 pm
Operator : GaryK
Sample : mc33908-9
Misc : ms32871,msu992,,,,5,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 02 13:43:15 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

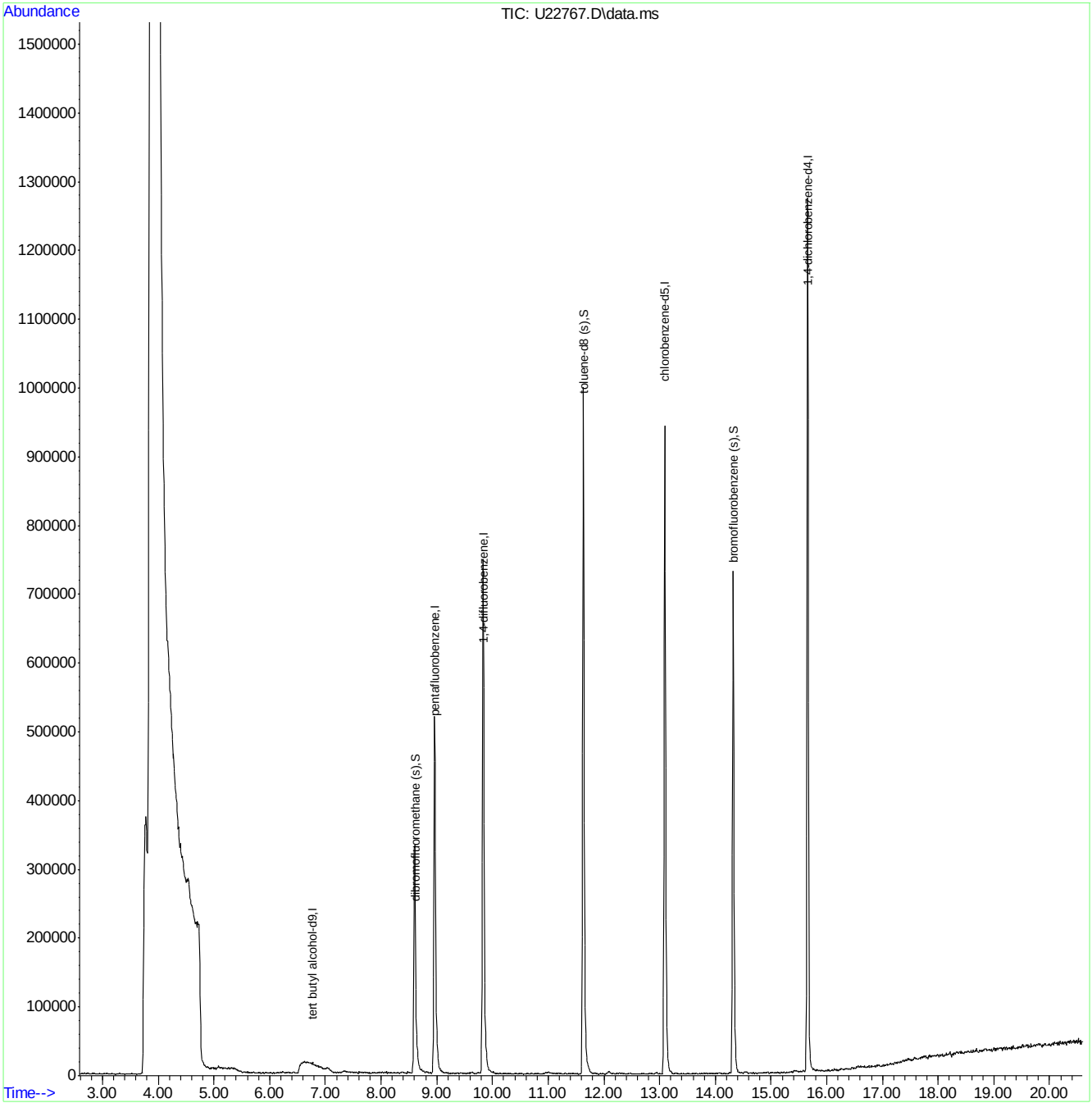
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.760	65	181886	50.00	ppb		0.15
4) pentafluorobenzene	8.971	168	404957	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.840	114	695524	50.00	ppb		0.00
66) chlorobenzene-d5	13.097	82	285738	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.659	152	353484	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.615	113	253923	48.99	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.98%				
60) toluene-d8 (s)	11.637	98	713053	51.59	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.18%				
82) bromofluorobenzene (s)	14.325	95	255453	55.26	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 110.52%				
Target Compounds							Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22767.D
Acq On : 2 Oct 2014 1:16 pm
Operator : GaryK
Sample : mc33908-9
Misc : ms32871,msu992,,,,5,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 02 13:43:15 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22768.D
Acq On : 2 Oct 2014 1:43 pm
Operator : GaryK
Sample : mc33908-10
Misc : ms32871,msu992,,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 02 14:11:21 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.771	65	145634	50.00	ppb		0.16
4) pentafluorobenzene	8.971	168	405269	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.840	114	689174	50.00	ppb		0.00
66) chlorobenzene-d5	13.096	82	282250	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.659	152	344138	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.615	113	248045	47.82	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.64%				
60) toluene-d8 (s)	11.636	98	724434	52.90	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 105.80%				
82) bromofluorobenzene (s)	14.325	95	252943	56.21	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 112.42%				
Target Compounds							Qvalue

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

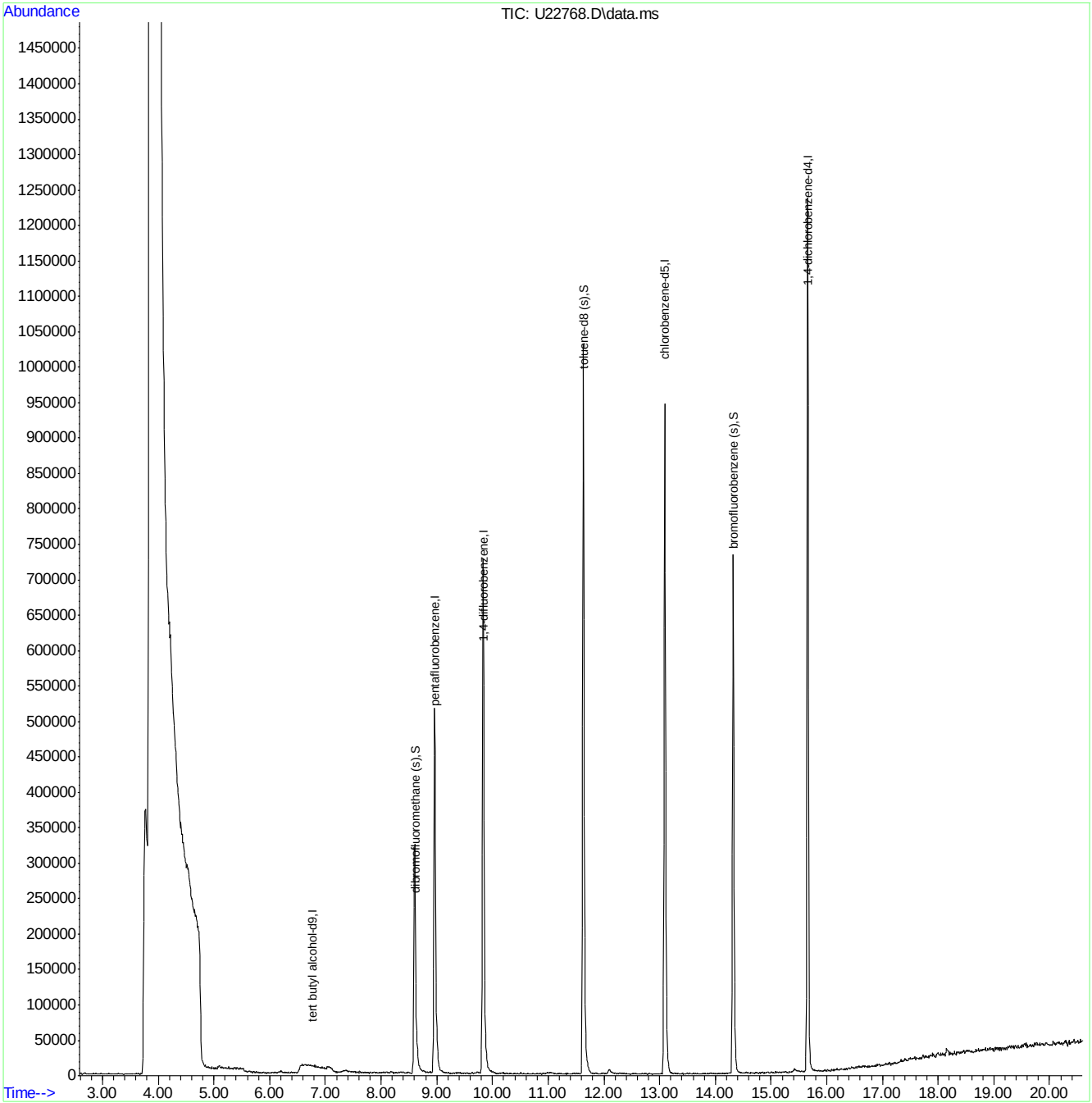
7.1.12

7

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22768.D
Acq On : 2 Oct 2014 1:43 pm
Operator : GaryK
Sample : mc33908-10
Misc : ms32871,msu992,,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 02 14:11:21 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80352.D
Acq On : 3 Oct 2014 8:32 pm
Operator : garyk
Sample : mc33908-11
Misc : ms32871,msp2629,,,,5,20
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 06 08:38:40 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

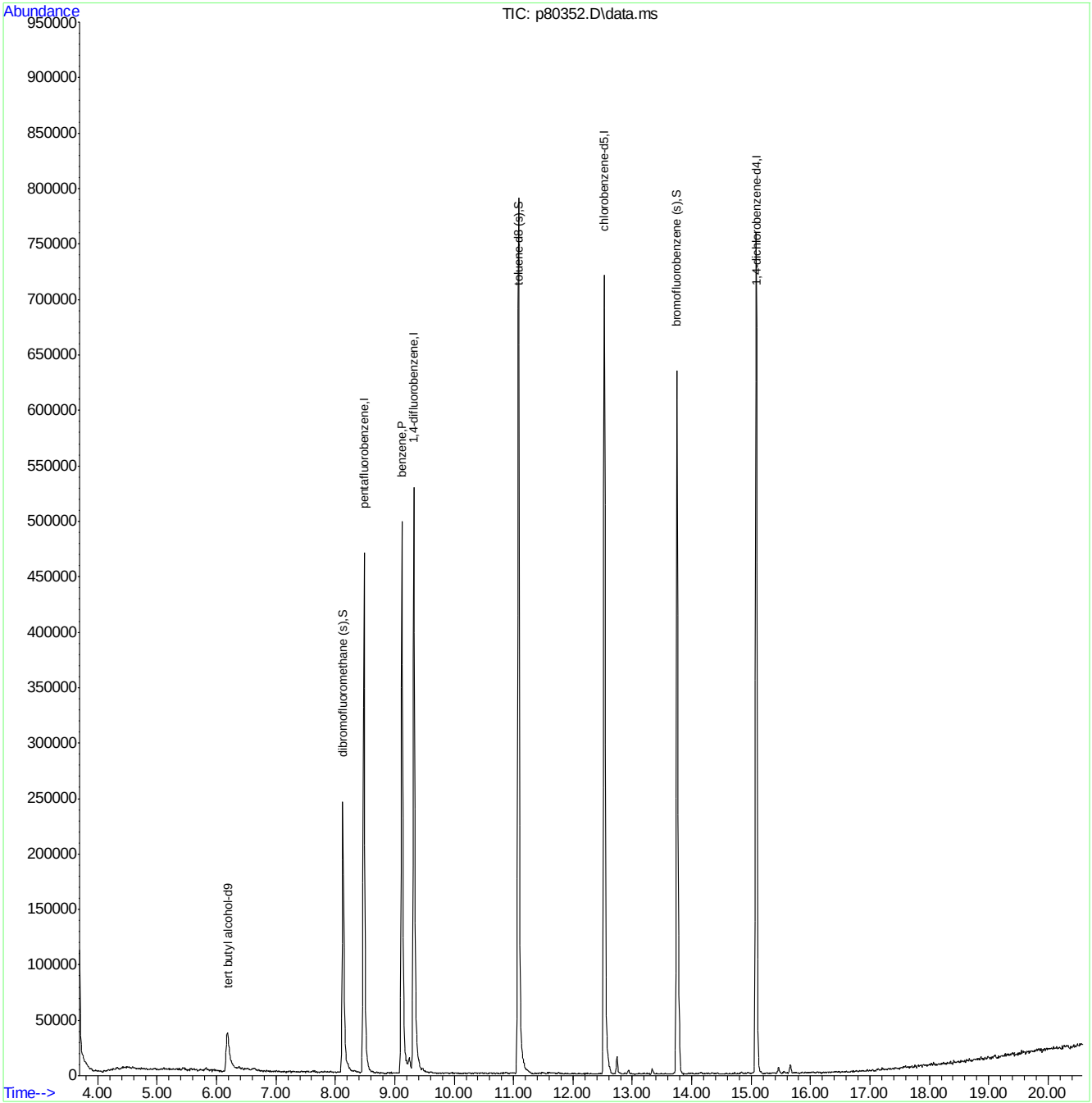
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.186	65	81282	50.00	ug/L	# 0.00
4) pentafluorobenzene	8.483	168	365627	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.325	114	436049	50.00	ug/L	0.00
66) chlorobenzene-d5	12.525	82	227963	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.085	152	223591	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.126	113	161264	42.28	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 84.56%			
60) toluene-d8 (s)	11.083	98	529863	46.81	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.62%			
82) bromofluorobenzene (s)	13.751	95	200150	41.80	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 83.60%			
Target Compounds						Qvalue
47) benzene	9.123	78	416117	34.47	ug/L	99

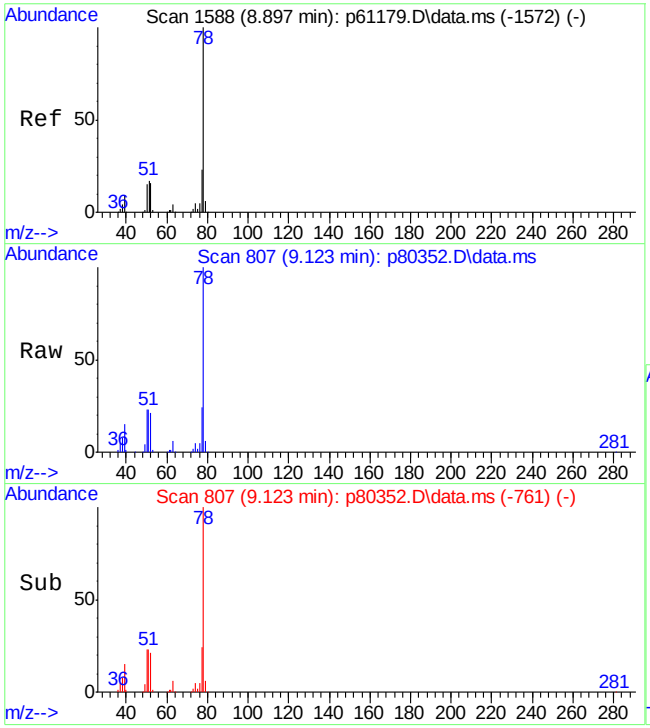
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80352.D
Acq On : 3 Oct 2014 8:32 pm
Operator : garyk
Sample : mc33908-11
Misc : ms32871,msp2629,,,,5,20
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 06 08:38:40 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

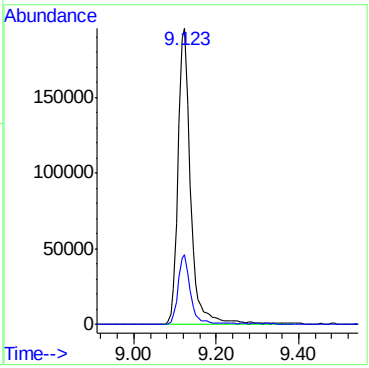




#47
benzene
Concen: 34.47 ug/L
RT: 9.123 min Scan# 807
Delta R.T. 0.007 min
Lab File: p80352.D
Acq: 3 Oct 2014 8:32 pm

Tgt Ion: 78 Resp: 416117

Ion	Ratio	Lower	Upper
78	100		
77	23.6	0.0	53.0



Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22776.D
Acq On : 2 Oct 2014 5:21 pm
Operator : GaryK
Sample : mc33908-11
Misc : ms32871,msu992,,,,5,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 03 09:04:34 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.748	65	238026	50.00	ppb		0.14
4) pentafluorobenzene	8.969	168	507675	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.837	114	916604	50.00	ppb		0.00
66) chlorobenzene-d5	13.096	82	307688	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.658	152	383958	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.616	113	311140	47.89	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.78%				
60) toluene-d8 (s)	11.636	98	871543	47.85	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.70%				
82) bromofluorobenzene (s)	14.324	95	263269	52.43	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 104.86%				
Target Compounds							Qvalue
3) Ethanol	5.647	45	9174	Below Cal		#	39
47) benzene	9.636	78	21843354	980.93	ppb		83
62) toluene	11.709	92	47635	4.24	ppb		89
74) ethylbenzene	13.305	91	799463	43.14	ppb		95
75) m,p-xylene	13.497	106	49143	6.31	ppb		85
76) o-xylene	13.904	106	81775	9.46	ppb		83
103) 2-Methylnaphthalene	19.756	142	656414	Below Cal			95
104) 1-Methylnaphthalene	19.757	142	657627	Below Cal			96

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

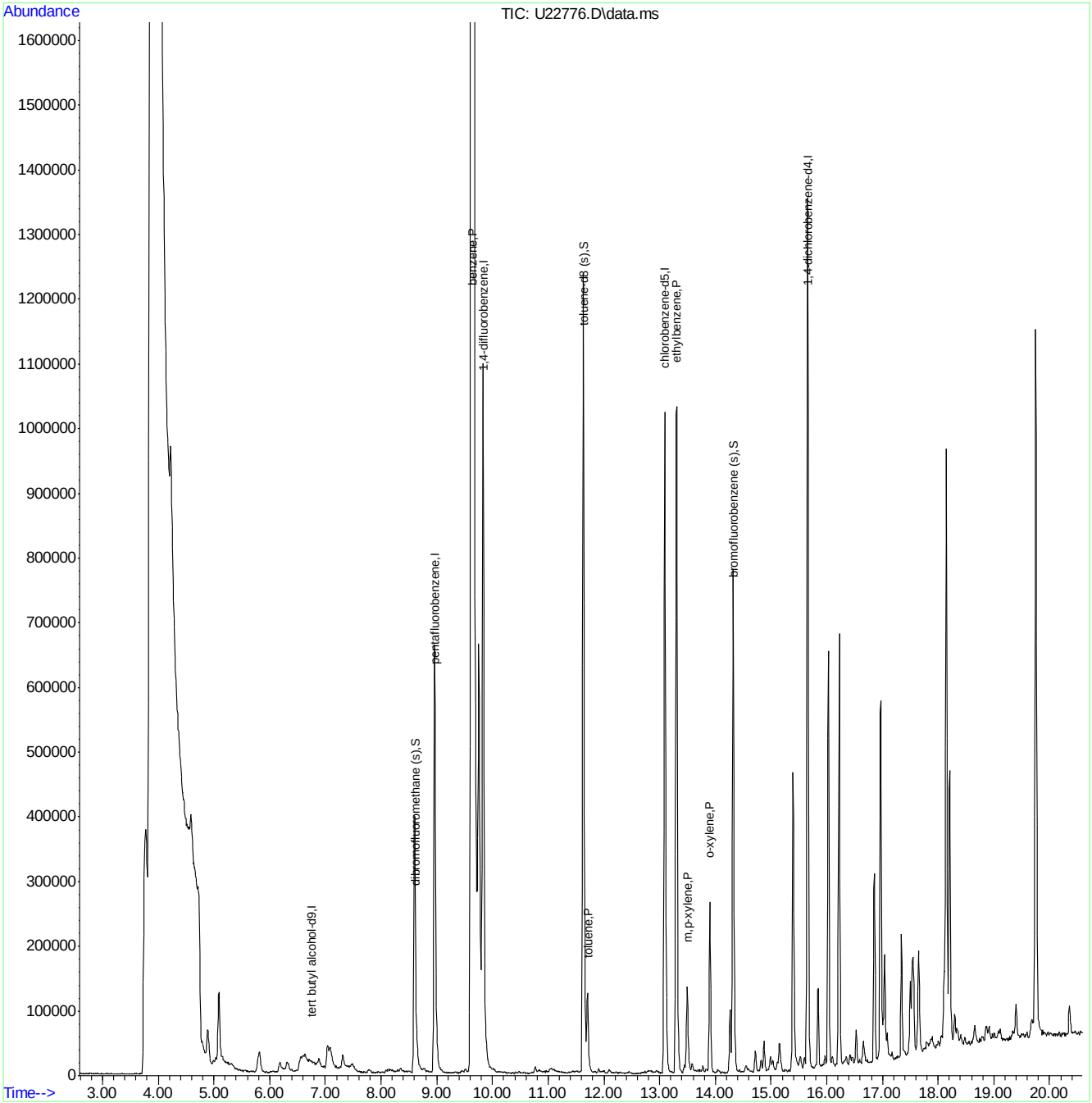
7.1.14

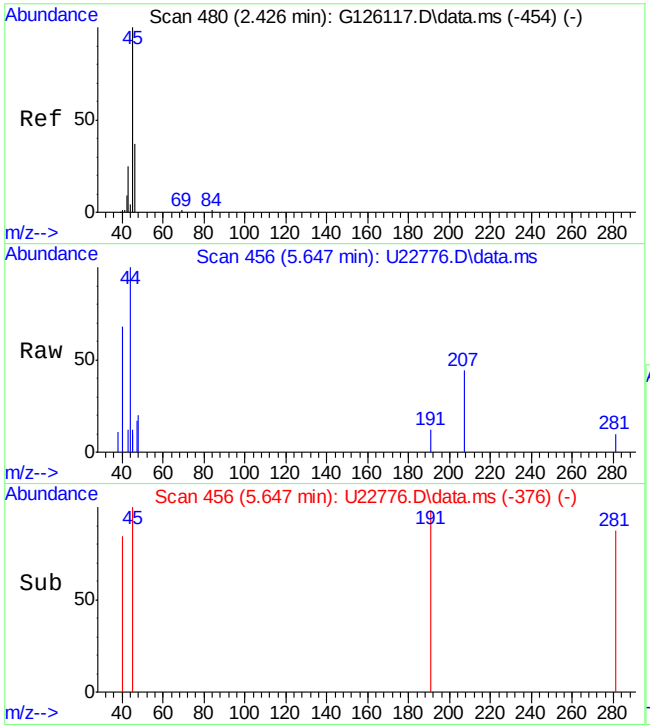
7

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22776.D
Acq On : 2 Oct 2014 5:21 pm
Operator : GaryK
Sample : mc33908-11
Misc : ms32871,msu992,,,,5,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 03 09:04:34 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

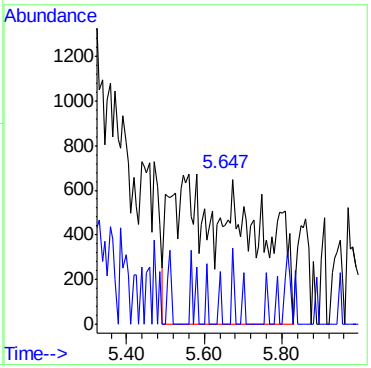


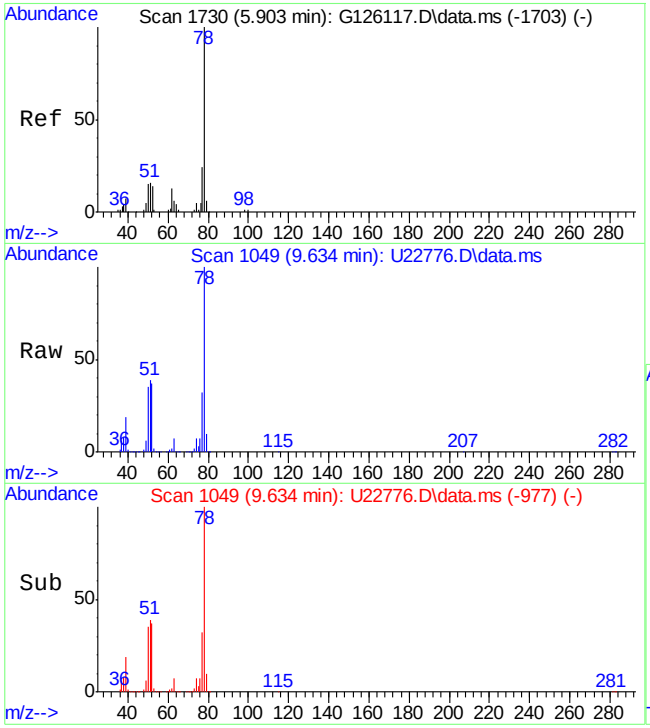


#3
Ethanol
Concen: Below Cal
RT: 5.647 min Scan# 456
Delta R.T. 0.041 min
Lab File: U22776.D
Acq: 2 Oct 2014 5:21 pm

Tgt Ion: 45 Resp: 9174

Ion	Ratio	Lower	Upper
45	100		
46	0.0	24.7	45.9#

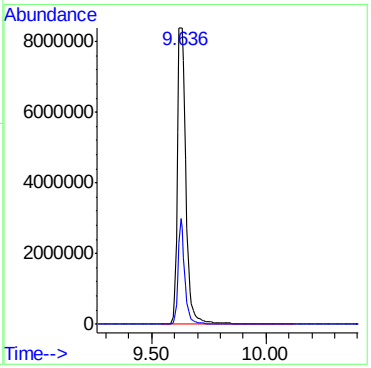


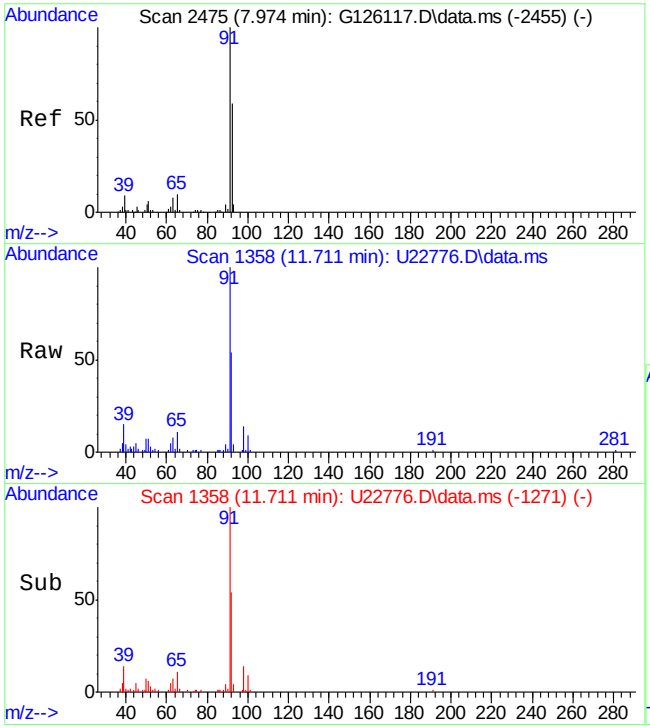


#47
benzene
Concen: 980.93 ppb
RT: 9.636 min Scan# 1049
Delta R.T. -0.001 min
Lab File: U22776.D
Acq: 2 Oct 2014 5:21 pm

Tgt Ion: 78 Resp:21843354

Ion	Ratio	Lower	Upper
78	100		
77	32.3	0.0	53.9

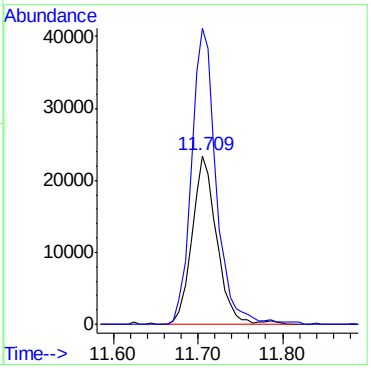


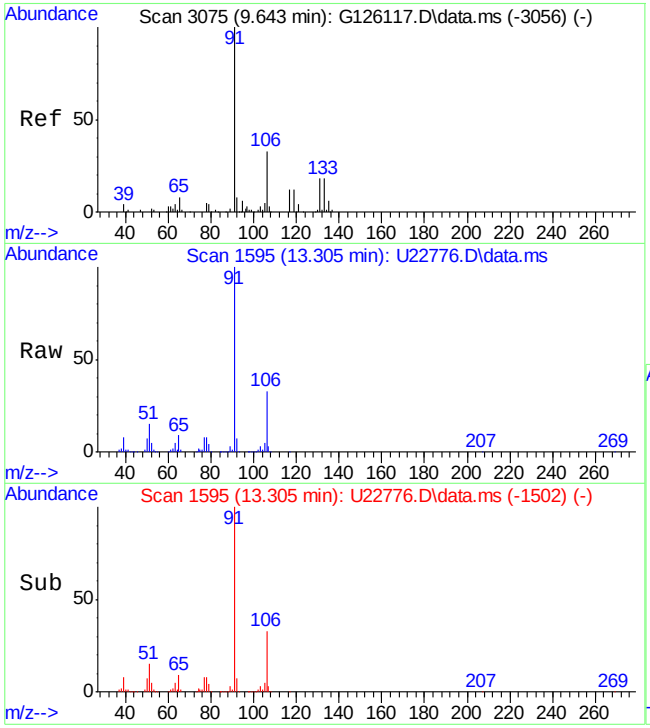


#62
toluene
Concen: 4.24 ppb
RT: 11.709 min Scan# 1358
Delta R.T. 0.000 min
Lab File: U22776.D
Acq: 2 Oct 2014 5:21 pm

Tgt Ion: 92 Resp: 47635

Ion	Ratio	Lower	Upper
92	100		
91	183.9	139.2	199.2

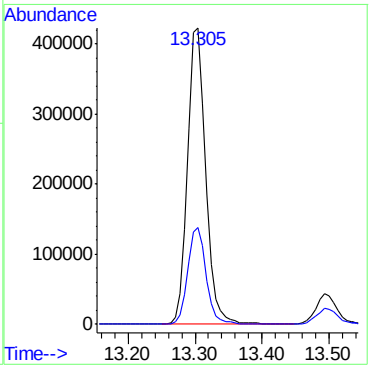


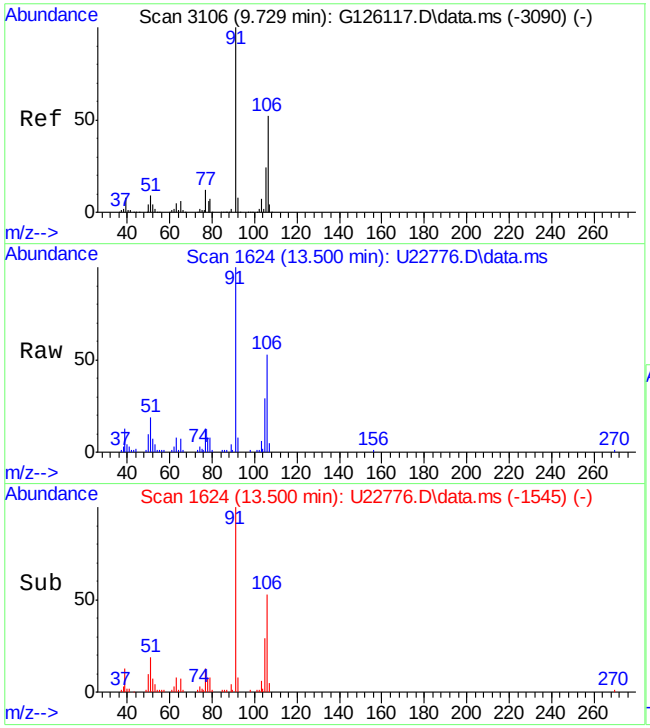


#74
ethylbenzene
Concen: 43.14 ppb
RT: 13.305 min Scan# 1595
Delta R.T. -0.002 min
Lab File: U22776.D
Acq: 2 Oct 2014 5:21 pm

Tgt Ion: 91 Resp: 799463

Ion	Ratio	Lower	Upper
91	100		
106	32.6	0.1	60.1

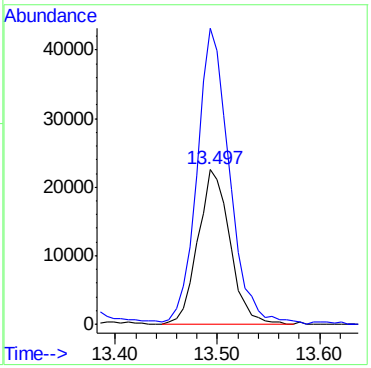


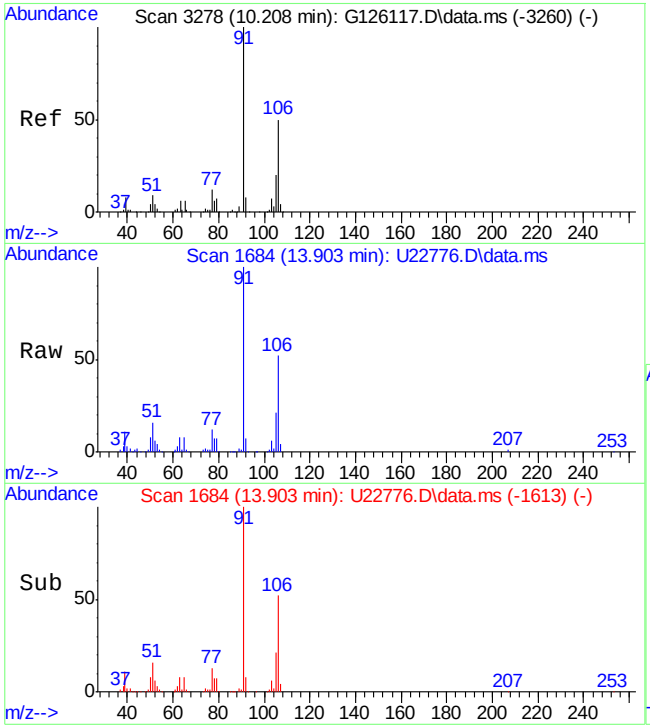


#75
m,p-xylene
Concen: 6.31 ppb
RT: 13.497 min Scan# 1624
Delta R.T. 0.007 min
Lab File: U22776.D
Acq: 2 Oct 2014 5:21 pm

Tgt Ion:106 Resp: 49143

Ion	Ratio	Lower	Upper
106	100		
91	187.9	180.7	240.7

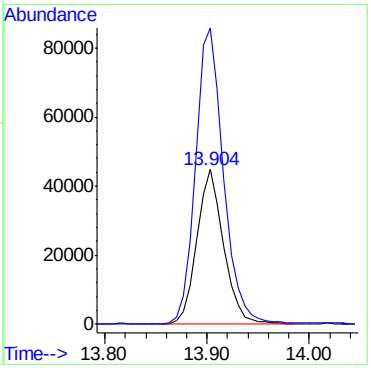


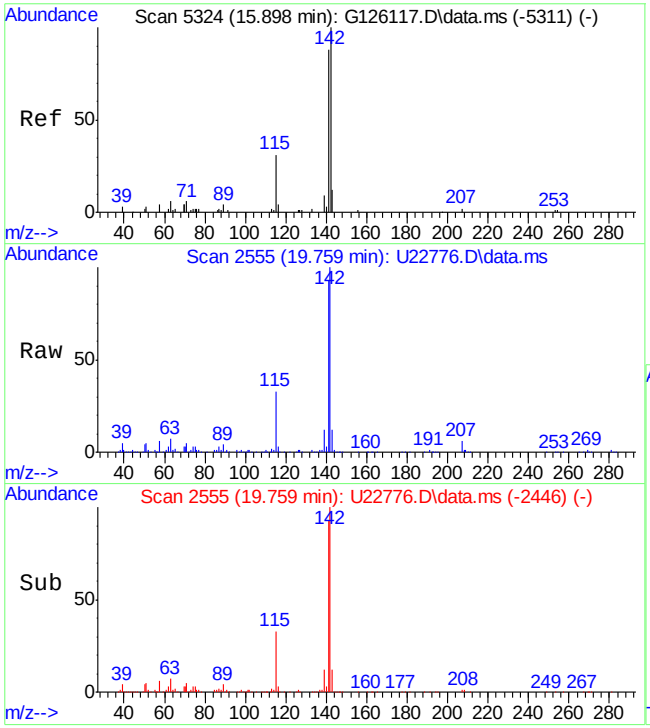


#76
o-xylene
Concen: 9.46 ppb
RT: 13.904 min Scan# 1684
Delta R.T. 0.001 min
Lab File: U22776.D
Acq: 2 Oct 2014 5:21 pm

Tgt Ion:106 Resp: 81775

Ion	Ratio	Lower	Upper
106	100		
91	191.6	188.5	248.5

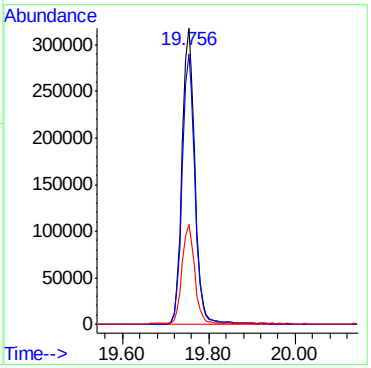


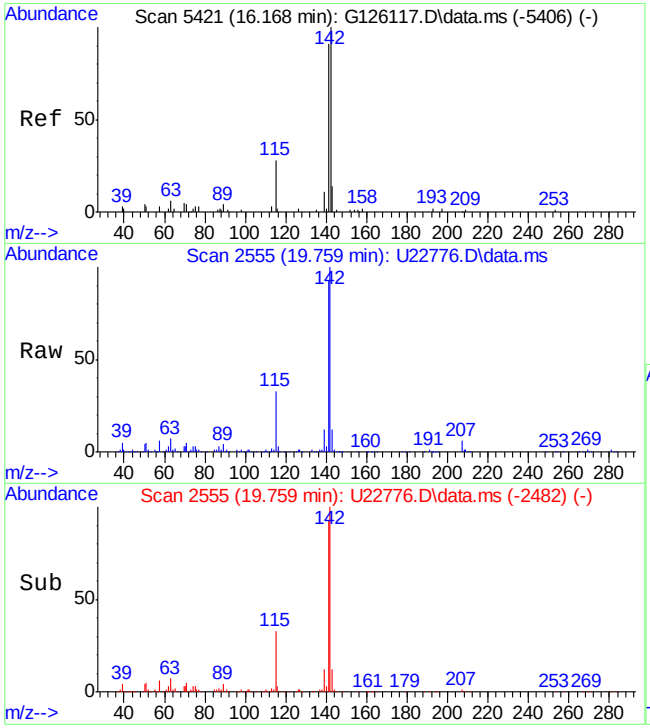


#103
2-Methylnaphthalene
Concen: Below Cal
RT: 19.756 min Scan# 2555
Delta R.T. 0.230 min
Lab File: U22776.D
Acq: 2 Oct 2014 5:21 pm

Tgt Ion:142 Resp: 656414

Ion	Ratio	Lower	Upper
142	100		
141	93.1	67.9	107.9
115	33.0	15.5	55.5

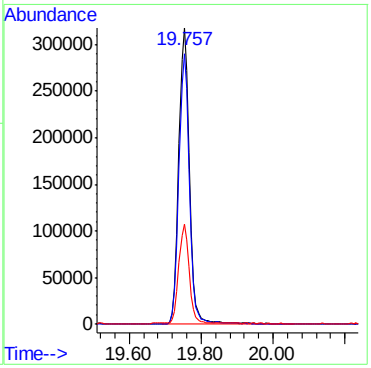




#104
1-Methylnaphthalene
Concen: Below Cal
RT: 19.757 min Scan# 2555
Delta R.T. -0.015 min
Lab File: U22776.D
Acq: 2 Oct 2014 5:21 pm

Tgt Ion:142 Resp: 657627

Ion	Ratio	Lower	Upper
142	100		
141	93.1	72.6	108.8
115	33.0	29.2	43.8



Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22769.D
Acq On : 2 Oct 2014 2:10 pm
Operator : GaryK
Sample : mc33908-12
Misc : ms32871,msu992,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 02 14:33:56 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

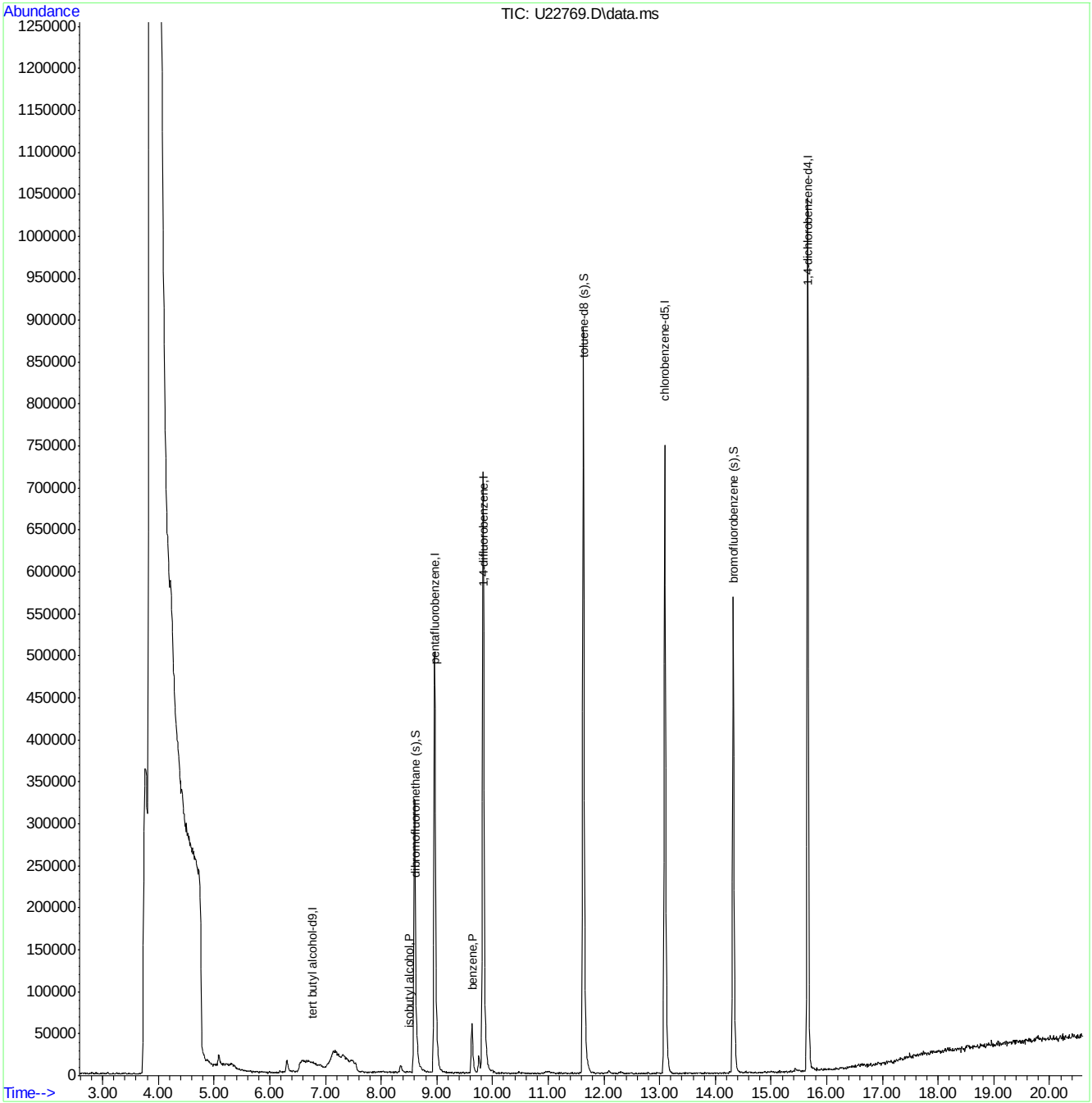
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.763	65	166740	50.00	ppb		0.15
4) pentafluorobenzene	8.970	168	395485	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.840	114	683920	50.00	ppb		0.00
66) chlorobenzene-d5	13.098	82	226225	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.659	152	294726	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.616	113	249345	49.26	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 98.52%				
60) toluene-d8 (s)	11.637	98	637908	46.94	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.88%				
82) bromofluorobenzene (s)	14.325	95	199095	51.66	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.32%				
Target Compounds							Qvalue
3) Ethanol	5.636	45	1031	Below Cal		#	23
35) isobutyl alcohol	8.495	43	1435	2.22	ppb	#	74
47) benzene	9.638	78	50351	3.03	ppb		96

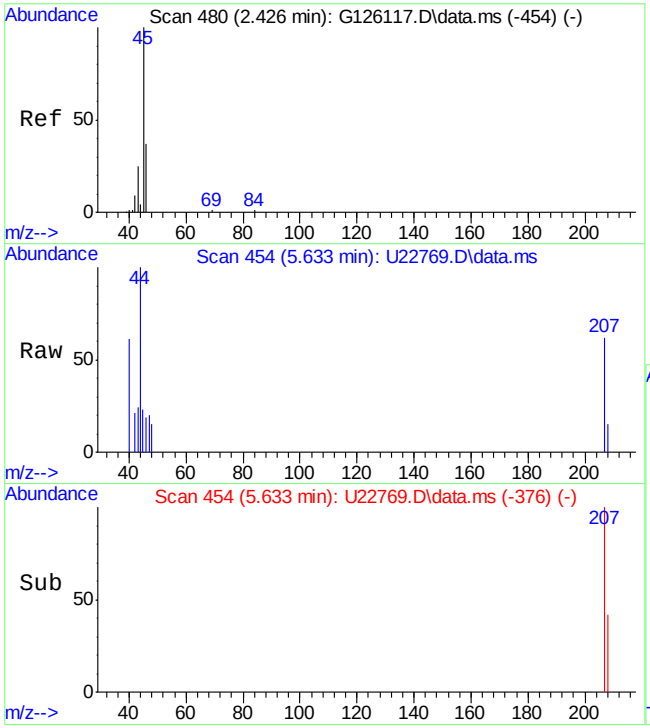
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22769.D
Acq On : 2 Oct 2014 2:10 pm
Operator : GaryK
Sample : mc33908-12
Misc : ms32871,msu992,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 02 14:33:56 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

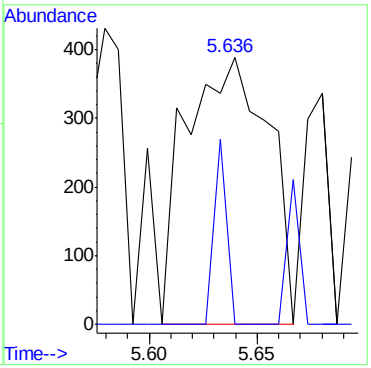


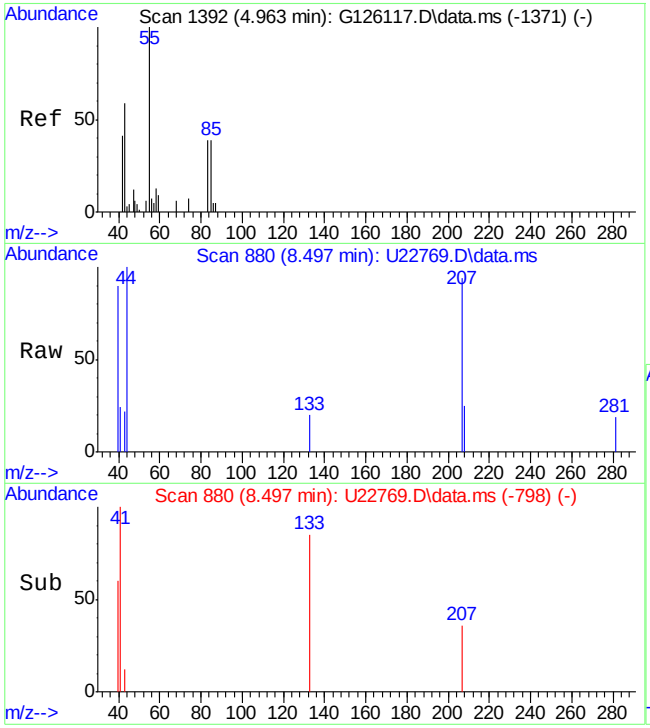


#3
Ethanol
Concen: Below Cal
RT: 5.636 min Scan# 454
Delta R.T. 0.030 min
Lab File: U22769.D
Acq: 2 Oct 2014 2:10 pm

Tgt Ion: 45 Resp: 1031

Ion	Ratio	Lower	Upper
45	100		
46	80.4	24.7	45.9#

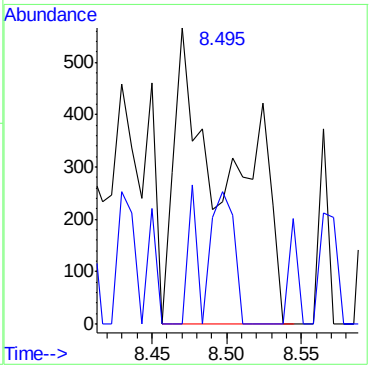


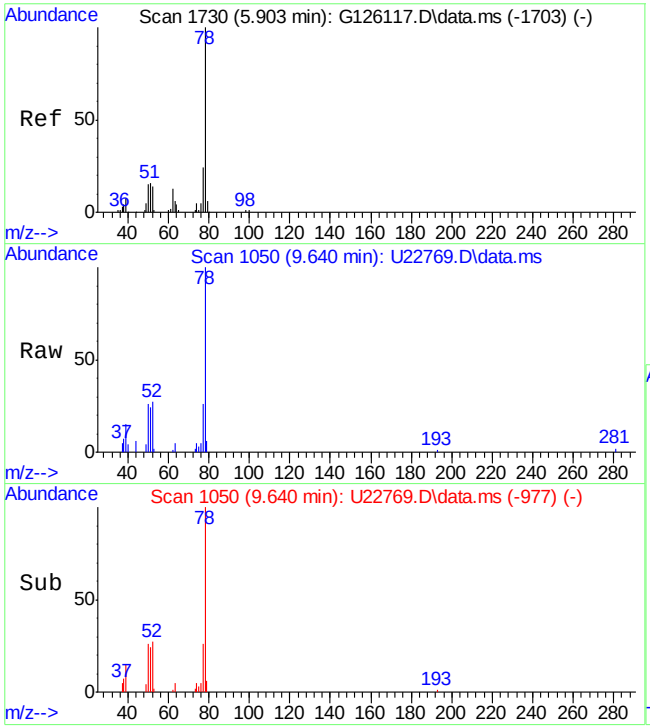


#35
isobutyl alcohol
Concen: 2.22 ppb
RT: 8.495 min Scan# 880
Delta R.T. -0.041 min
Lab File: U22769.D
Acq: 2 Oct 2014 2:10 pm

Tgt Ion: 43 Resp: 1435

Ion	Ratio	Lower	Upper
43	100		
41	108.6	109.9	169.9#

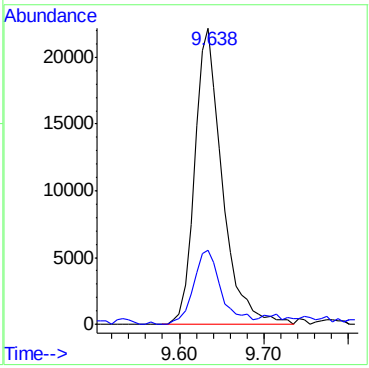




#47
benzene
Concen: 3.03 ppb
RT: 9.638 min Scan# 1050
Delta R.T. 0.001 min
Lab File: U22769.D
Acq: 2 Oct 2014 2:10 pm

Tgt Ion: 78 Resp: 50351

Ion	Ratio	Lower	Upper
78	100		
77	26.0	0.0	53.9



7.1.15

7

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22770.D
Acq On : 2 Oct 2014 2:37 pm
Operator : GaryK
Sample : mc33908-13
Misc : ms32871,msu992,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 02 15:33:53 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

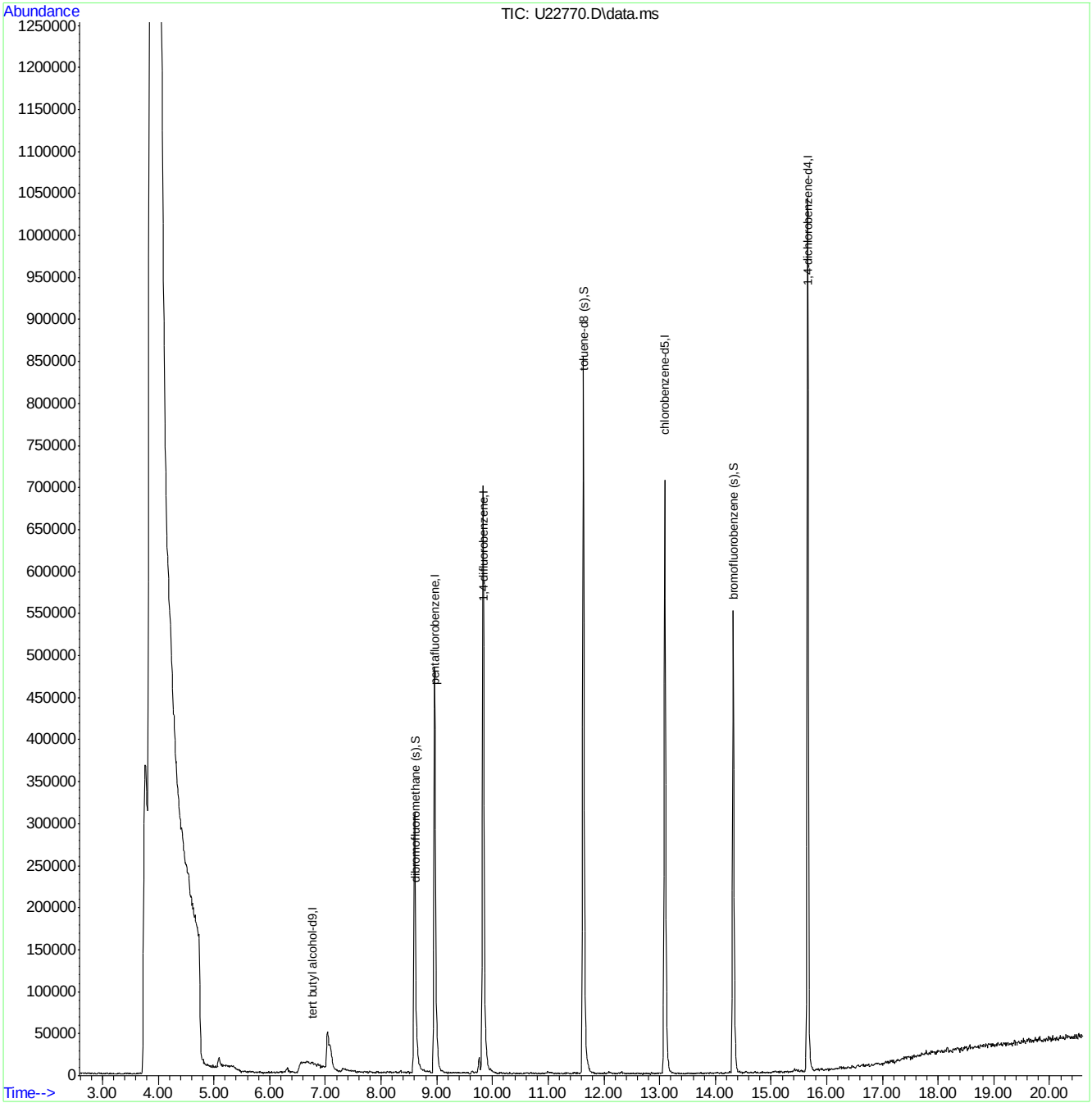
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.771	65	150951	50.00	ppb		0.16
4) pentafluorobenzene	8.970	168	376971	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.840	114	656598	50.00	ppb		0.00
66) chlorobenzene-d5	13.098	82	215939	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.659	152	292106	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.616	113	237599	49.25	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 98.50%				
60) toluene-d8 (s)	11.637	98	615005	47.13	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.26%				
82) bromofluorobenzene (s)	14.325	95	193555	50.67	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 101.34%				
Target Compounds							Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22770.D
Acq On : 2 Oct 2014 2:37 pm
Operator : GaryK
Sample : mc33908-13
Misc : ms32871,msu992,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 02 15:33:53 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22762.D
Acq On : 2 Oct 2014 10:59 am
Operator : GaryK
Sample : mc33908-14
Misc : ms32871,msu992,,,,5,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 02 11:23:17 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

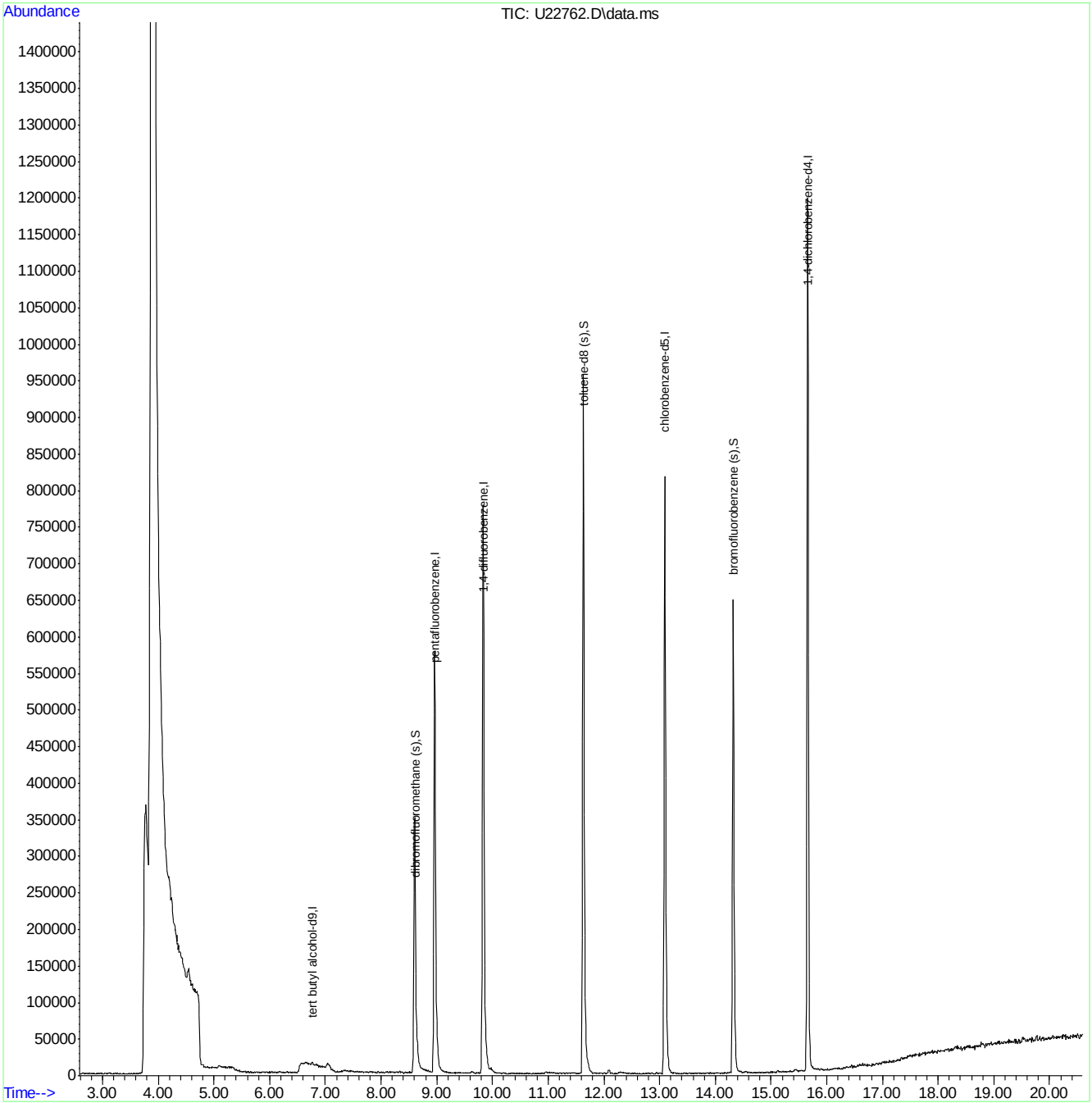
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.769	65	165543	50.00	ppb	0.16
4) pentafluorobenzene	8.971	168	454916	50.00	ppb	0.00
43) 1,4-difluorobenzene	9.841	114	760940	50.00	ppb	0.00
66) chlorobenzene-d5	13.098	82	254977	50.00	ppb	# 0.00
80) 1,4-dichlorobenzene-d4	15.660	152	346525	50.00	ppb	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.620	113	276996	47.58	ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.16%			
60) toluene-d8 (s)	11.637	98	688920	45.56	ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 91.12%			
82) bromofluorobenzene (s)	14.326	95	232433	51.29	ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 102.58%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22762.D
Acq On : 2 Oct 2014 10:59 am
Operator : GaryK
Sample : mc33908-14
Misc : ms32871,msu992,,,,5,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 02 11:23:17 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22717.D
Acq On : 29 Sep 2014 10:40 am
Operator : GaryK
Sample : mb
Misc : ms32826,msu990,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 29 13:29:28 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

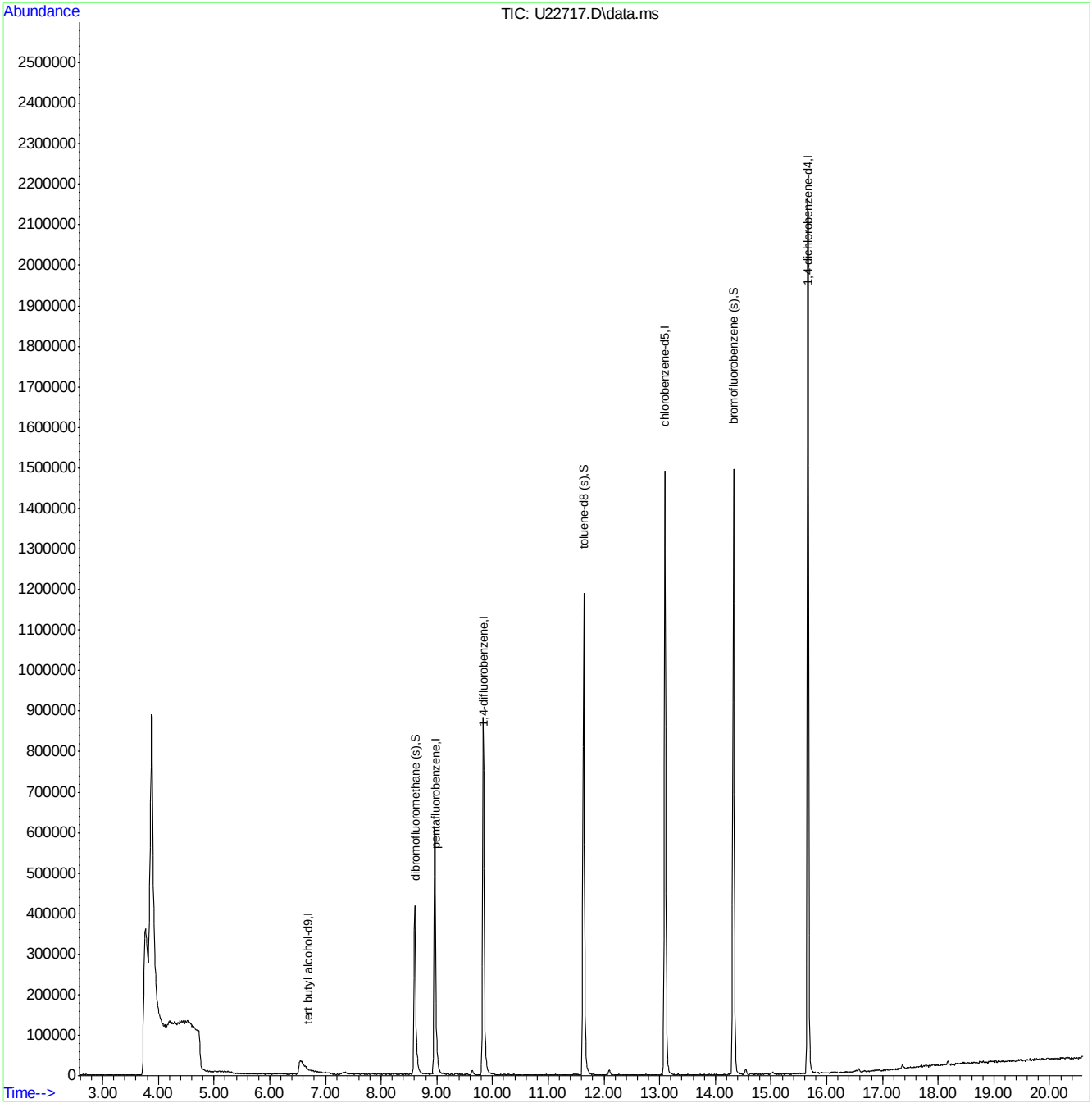
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.682	65	196790	50.00	ppb		0.07
4) pentafluorobenzene	8.972	168	491077	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.841	114	823511	50.00	ppb		0.00
66) chlorobenzene-d5	13.099	82	431336	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.663	152	645641	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.613	113	295834	47.07	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.14%				
60) toluene-d8 (s)	11.638	98	862654	52.71	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 105.42%				
82) bromofluorobenzene (s)	14.326	95	513276	60.79	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 121.58%				
Target Compounds							Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22717.D
Acq On : 29 Sep 2014 10:40 am
Operator : GaryK
Sample : mb
Misc : ms32826,msu990,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 29 13:29:28 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90788.D
Acq On : 1 Oct 2014 11:06 am
Operator : jaclynb
Sample : mb
Misc : ms32855,MSN3359,,,,5,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 01 11:31:46 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

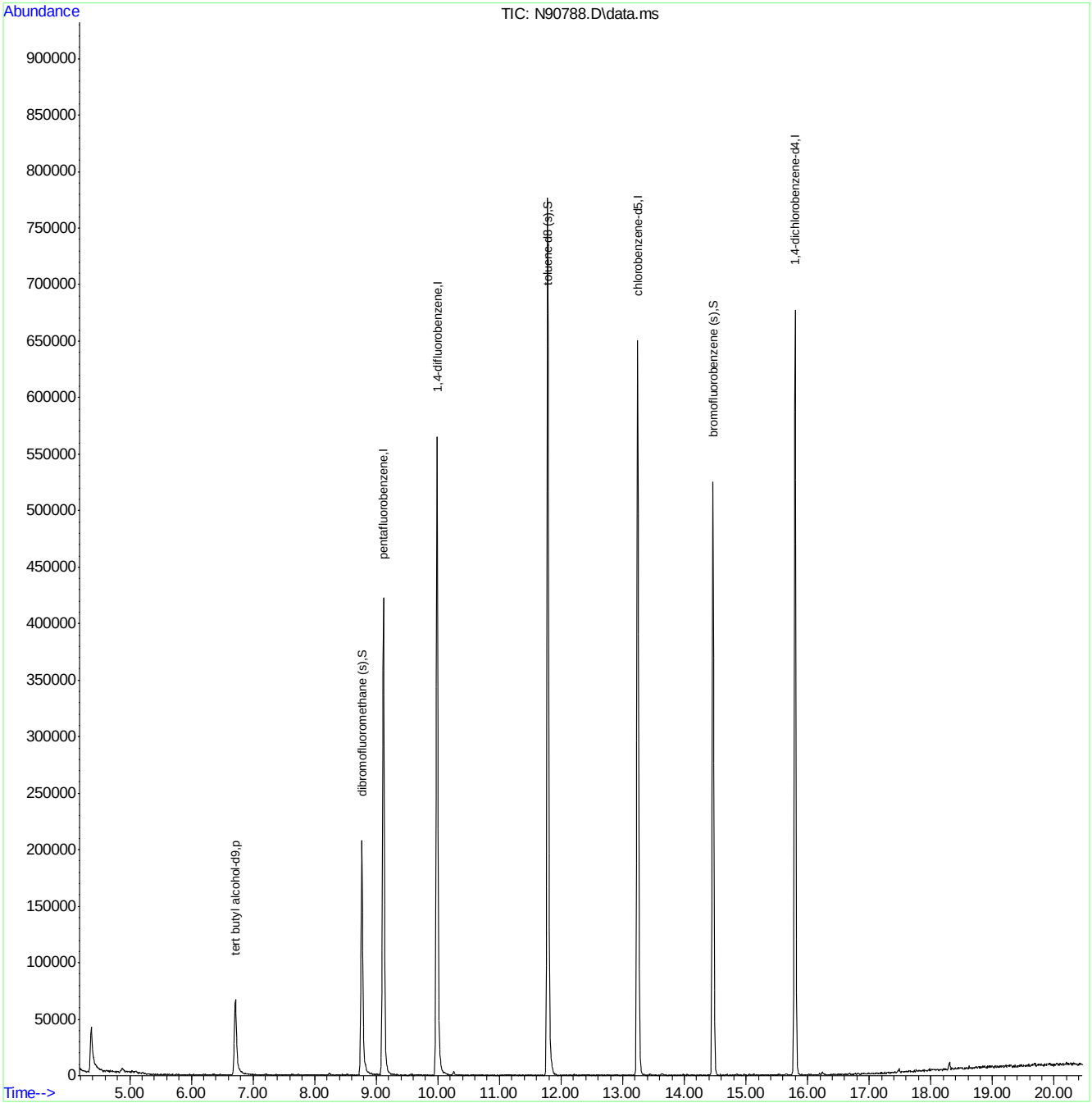
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.715	65	103967	500.00	ug/L	0.02
4) pentafluorobenzene	9.115	168	299809	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	461539	50.00	ug/L	0.00
66) chlorobenzene-d5	13.241	82	231460	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	174841	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.769	113	146317	47.57	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.14%			
60) toluene-d8 (s)	11.784	98	555659	50.20	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 100.40%			
82) bromofluorobenzene (s)	14.464	95	207323	48.63	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.26%			
Target Compounds						Qvalue
93) 1,3-dichlorobenzene	15.825	146	1189	Below Cal		82
95) 1,4-dichlorobenzene	15.825	146	1188	Below Cal		82
96) 1,2-dichlorobenzene	15.825	146	1188	Below Cal		81

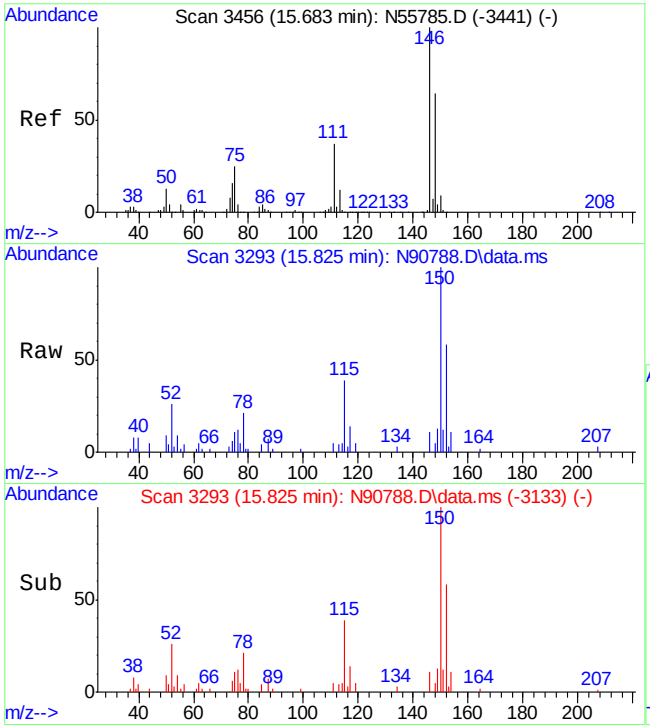
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90788.D
Acq On : 1 Oct 2014 11:06 am
Operator : jaclynb
Sample : mb
Misc : ms32855,MSN3359,,,,5,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 01 11:31:46 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

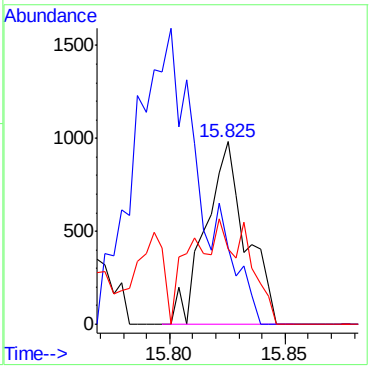


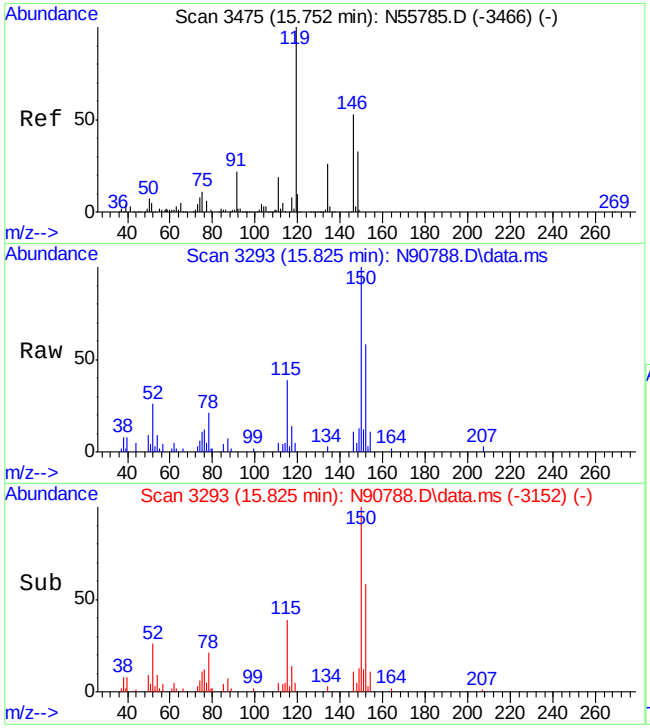


#93
1,3-dichlorobenzene
Concen: Below Cal
RT: 15.825 min Scan# 3293
Delta R.T. 0.067 min
Lab File: N90788.D
Acq: 1 Oct 2014 11:06 am

Tgt Ion:146 Resp: 1189

Ion	Ratio	Lower	Upper
146	100		
111	41.6	15.6	75.6
148	41.3	31.5	91.5

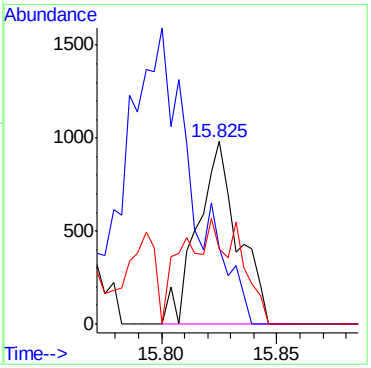


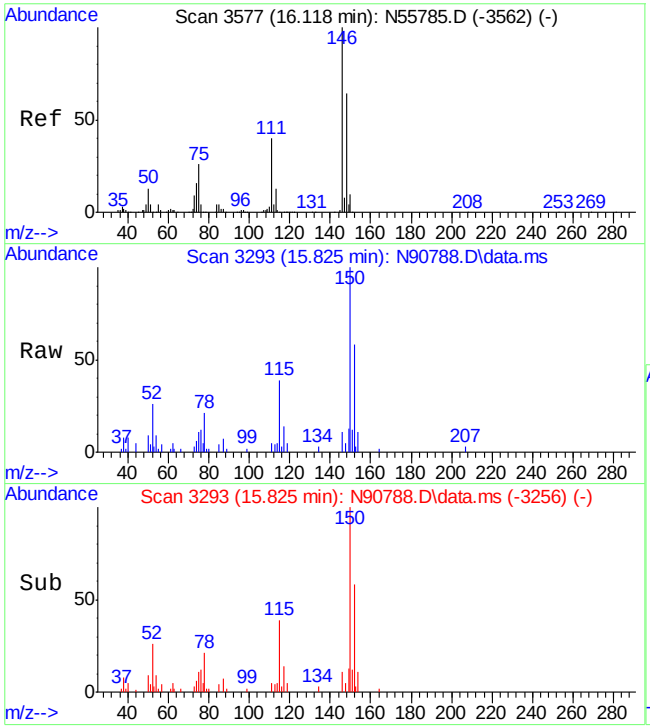


#95
1,4-dichlorobenzene
Concen: Below Cal
RT: 15.825 min Scan# 3293
Delta R.T. 0.000 min
Lab File: N90788.D
Acq: 1 Oct 2014 11:06 am

Tgt Ion:146 Resp: 1188

Ion	Ratio	Lower	Upper
146	100		
111	41.6	16.9	76.9
148	41.3	31.6	91.6

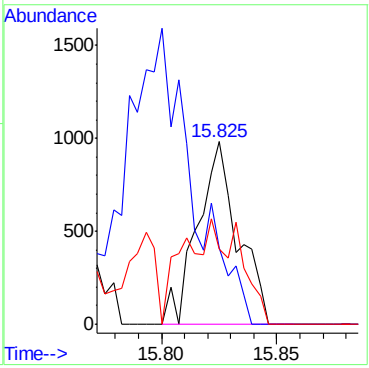




#96
1,2-dichlorobenzene
Concen: Below Cal
RT: 15.825 min Scan# 3293
Delta R.T. -0.368 min
Lab File: N90788.D
Acq: 1 Oct 2014 11:06 am

Tgt Ion:146 Resp: 1188

Ion	Ratio	Lower	Upper
146	100		
111	41.6	15.3	75.3
148	41.3	33.1	93.1



Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22759.D
Acq On : 2 Oct 2014 9:37 am
Operator : GaryK
Sample : mb
Misc : ms32871,msu992,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 02 10:15:34 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

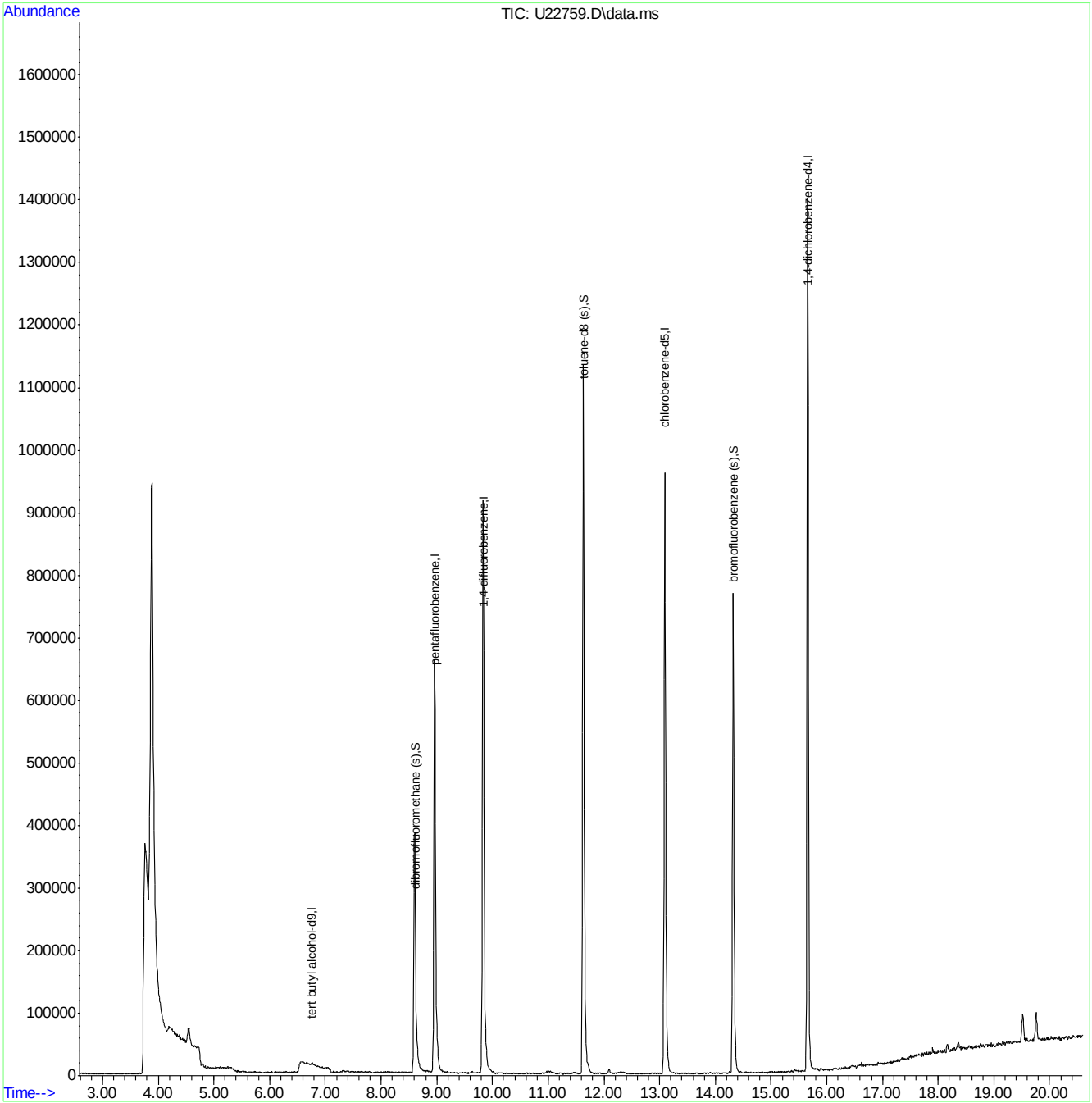
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.754	65	187785	50.00	ppb		0.14
4) pentafluorobenzene	8.970	168	526421	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.840	114	879076	50.00	ppb		0.00
66) chlorobenzene-d5	13.098	82	293123	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.659	152	399923	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.618	113	305907	45.40	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 90.80%				
60) toluene-d8 (s)	11.637	98	827291	47.36	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.72%				
82) bromofluorobenzene (s)	14.325	95	268671	51.37	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 102.74%				
Target Compounds							Qvalue
3) Ethanol	5.813	45	4119	Below Cal		#	39

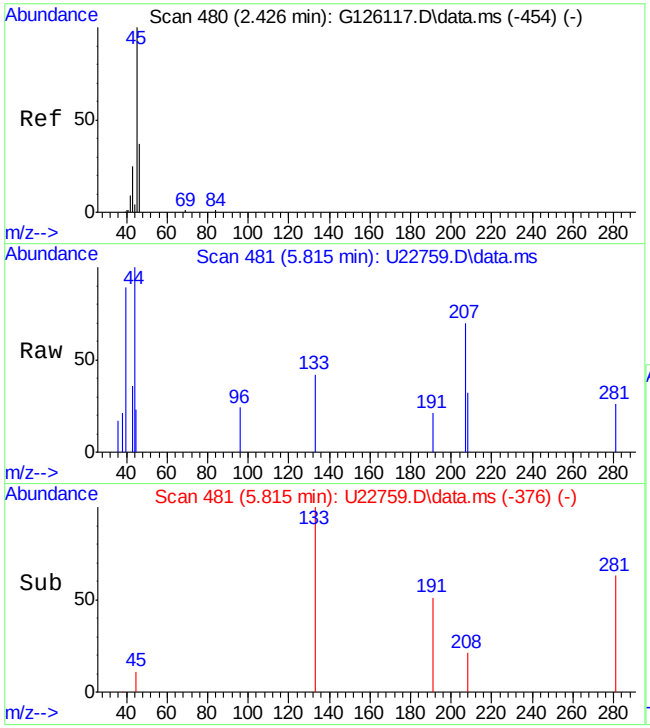
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22759.D
Acq On : 2 Oct 2014 9:37 am
Operator : GaryK
Sample : mb
Misc : ms32871,msu992,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 02 10:15:34 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

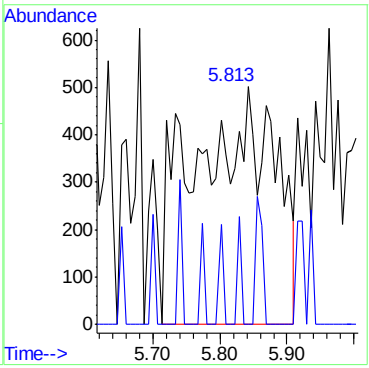




#3
Ethanol
Concen: Below Cal
RT: 5.813 min Scan# 481
Delta R.T. 0.207 min
Lab File: U22759.D
Acq: 2 Oct 2014 9:37 am

Tgt Ion: 45 Resp: 4119

Ion	Ratio	Lower	Upper
45	100		
46	0.0	24.7	45.9#



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80334.D
Acq On : 3 Oct 2014 11:19 am
Operator : garyk
Sample : mb
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 03 12:29:41 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

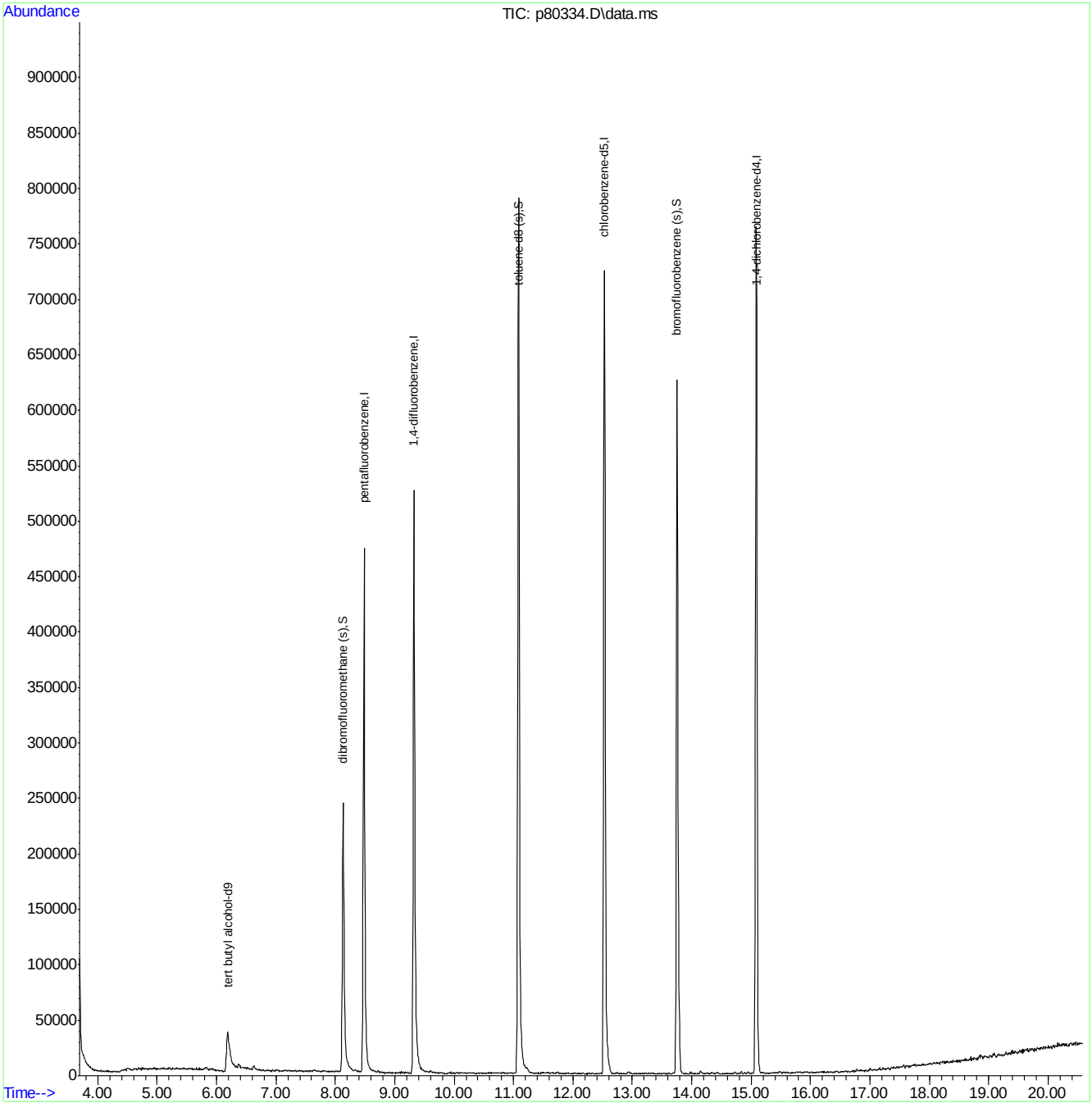
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.193	65	97699	50.00	ug/L	0.01
4) pentafluorobenzene	8.483	168	373146	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.325	114	445612	50.00	ug/L	0.00
66) chlorobenzene-d5	12.525	82	232600	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.085	152	222171	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.126	113	164099	42.16	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 84.32%			
60) toluene-d8 (s)	11.083	98	542958	46.94	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.88%			
82) bromofluorobenzene (s)	13.751	95	199566	41.94	ug/L	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 83.88%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80334.D
Acq On : 3 Oct 2014 11:19 am
Operator : garyk
Sample : mb
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 03 12:29:41 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration



Manual Integrations APPROVED
(compounds with "m" flag)
Tomasz Torski
09/30/14 09:07

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:44:50 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.685	65	215940	50.00	ppb		0.07
4) pentafluorobenzene	8.968	168	516231	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.838	114	921335	50.00	ppb		0.00
66) chlorobenzene-d5	13.094	82	547020	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.662	152	734567	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.610	113	316035	47.83	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.66%				
60) toluene-d8 (s)	11.635	98	1055036	57.62	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 115.24%				
82) bromofluorobenzene (s)	14.324	95	572087	59.56	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 119.12%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.279	59	263825m	593.75	ppb		
3) Ethanol	5.680	45	238045m	4827.52	ppb		
5) dichlorodifluoromethane	4.305	85	501215	58.82	ppb		97
6) chloromethane	4.544	50	975575m	60.65	ppb		
7) vinyl chloride	4.796	62	665780	61.57	ppb		96
8) bromomethane	5.262	96	298423	52.68	ppb		89
9) chloroethane	5.412	64	261744	62.13	ppb		95
10) ethyl ether	6.284	59	268690	48.68	ppb		96
11) acetonitrile	6.084	41	36231m	42.77	ppb		
12) trichlorofluoromethane	6.062	101	595602	53.94	ppb		98
13) freon-113	6.823	101	364109	55.03	ppb		92
14) acrolein	6.086	56	200394	444.30	ppb		92
15) 1,1-dichloroethene	6.625	96	304704	52.16	ppb		97
16) acetone	6.280	58	53791	38.97	ppb	#	1
17) Methyl Acetate	6.816	43	355242m	58.71	ppb		
18) methylene chloride	6.778	84	336499	54.04	ppb		86
19) methyl tert butyl ether	7.564	73	780786	52.08	ppb		96
20) acrylonitrile	6.732	53	148378	50.43	ppb		89
21) allyl chloride	6.868	41	653287	47.45	ppb		98
22) trans-1,2-dichloroethene	7.462	96	327834	50.75	ppb		95
23) iodomethane	6.685	142	644923	53.24	ppb		98
24) carbon disulfide	7.048	76	998996	55.29	ppb		98
25) propionitrile	8.074	54	33791m	59.02	ppb		
26) vinyl acetate	7.816	43	362213	79.97	ppb		99
27) chloroprene	8.078	53	596894	56.46	ppb		93
28) di-isopropyl ether	8.116	45	1327537	49.63	ppb		97
29) methacrylonitrile	8.241	41	206094	51.27	ppb		89
30) 2-butanone	8.137	72	33559	47.74	ppb	#	48
31) Ethyl Acetate	8.113	43	1110274	48.88	ug/L	#	55
32) Hexane	8.100	41	586105	51.96	ppb	#	82
33) 1,1-dichloroethane	7.714	63	652744	52.29	ppb		98
34) tert-butyl ethyl ether	8.514	59	1197260	57.49	ppb		99
35) isobutyl alcohol	8.517	43	202519m	239.56	ppb		
36) 2,2-dichloropropane	8.571	77	446152	56.75	ppb		93

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:44:50 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) cis-1,2-dichloroethene	8.285	96	354633	49.49	ppb		96
38) bromochloromethane	8.453	128	191726	51.20	ppb	#	85
39) chloroform	8.489	83	561718	52.50	ppb		97
41) Tetrahydrofuran	8.848	42	107871	48.83	ppb		95
42) 1,1,1-trichloroethane	9.236	97	510989	55.07	ppb		96
44) Cyclohexane	9.521	56	708320	51.59	ppb		91
45) carbon tetrachloride	9.601	117	468717	53.66	ppb		100
46) 1,1-dichloropropene	9.412	75	382836	52.70	ppb		91
47) benzene	9.636	78	1128293	50.41	ppb		96
48) 1,2-dichloroethane	9.139	62	440444	52.61	ppb		97
49) tert-amyl methyl ether	9.760	73	829913	56.18	ppb		91
50) heptane	10.118	43	525011m	54.11	ppb		
51) trichloroethene	10.258	95	335187	53.40	ppb		74
52) 1,2-dichloropropane	10.225	63	358227	57.55	ppb		100
53) dibromomethane	10.201	93	204696	56.73	ppb		94
54) bromodichloromethane	10.315	83	432771	59.58	ppb		96
55) Methylcyclohexane	10.774	83	544232	55.68	ppb		95
56) 2-chloroethyl vinyl ether	10.688	63	165982	72.26	ppb		98
57) methyl methacrylate	10.412	69	135435	64.71	ppb		95
58) 1,4-dioxane	10.461	88	4567m	125.60	ppb		
59) cis-1,3-dichloropropene	10.933	75	430565	63.54	ppb		90
61) 4-methyl-2-pentanone	11.031	43	364866	56.26	ppb		97
62) toluene	11.708	92	703460	62.30	ppb		95
63) trans-1,3-dichloropropene	11.354	75	381623	80.19	ppb		97
64) 1,1,2-trichloroethane	11.527	83	222323	70.81	ppb		93
65) ethyl methacrylate	11.729	69	304089	68.35	ppb		89
67) tetrachloroethene	12.450	166	359850	48.12	ppb		97
68) 1,3-dichloropropane	11.761	76	391822	49.04	ppb		95
69) dibromochloromethane	12.053	129	427743	54.52	ppb		96
70) 1,2-dibromoethane	12.304	107	320459	53.73	ppb		98
71) 2-hexanone	11.890	43	285887	48.94	ppb		98
72) chlorobenzene	13.131	112	1074901	51.23	ppb		89
73) 1,1,1,2-tetrachloroethane	13.051	131	478064	48.03	ppb		98
74) ethylbenzene	13.305	91	1743453	52.92	ppb		95
75) m,p-xylene	13.490	106	1517034	109.50	ppb		87
76) o-xylene	13.904	106	819531	53.33	ppb		91
77) styrene	13.831	104	1300401	58.38	ppb		99
78) bromoform	13.660	173	334656	57.54	ppb		98
79) trans-1,4-dichloro-2-b...	14.057	53	194228	59.90	ppb	#	82
81) isopropylbenzene	14.267	105	2177033	65.30	ppb		98
83) bromobenzene	14.556	156	638451	68.08	ppb	#	79
84) 1,1,2,2-tetrachloroethane	13.914	83	452484	55.86	ppb		97
85) 1,2,3-trichloropropane	14.059	75	531270	64.22	ppb		99
86) n-propylbenzene	14.713	91	2590021	70.37	ppb		95
87) 2-chlorotoluene	14.832	91	1493071	62.47	ppb		86
88) 4-chlorotoluene	14.907	91	1561606	63.39	ppb		85
89) 1,3,5-trimethylbenzene	14.992	105	1930114m	60.33	ppb		
90) tert-butylbenzene	15.296	91	1039429	59.12	ppb		87
91) 1,2,4-trimethylbenzene	15.400	105	1982078	59.38	ppb		100
92) sec-butylbenzene	15.519	105	2529005	61.39	ppb		95

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:44:50 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

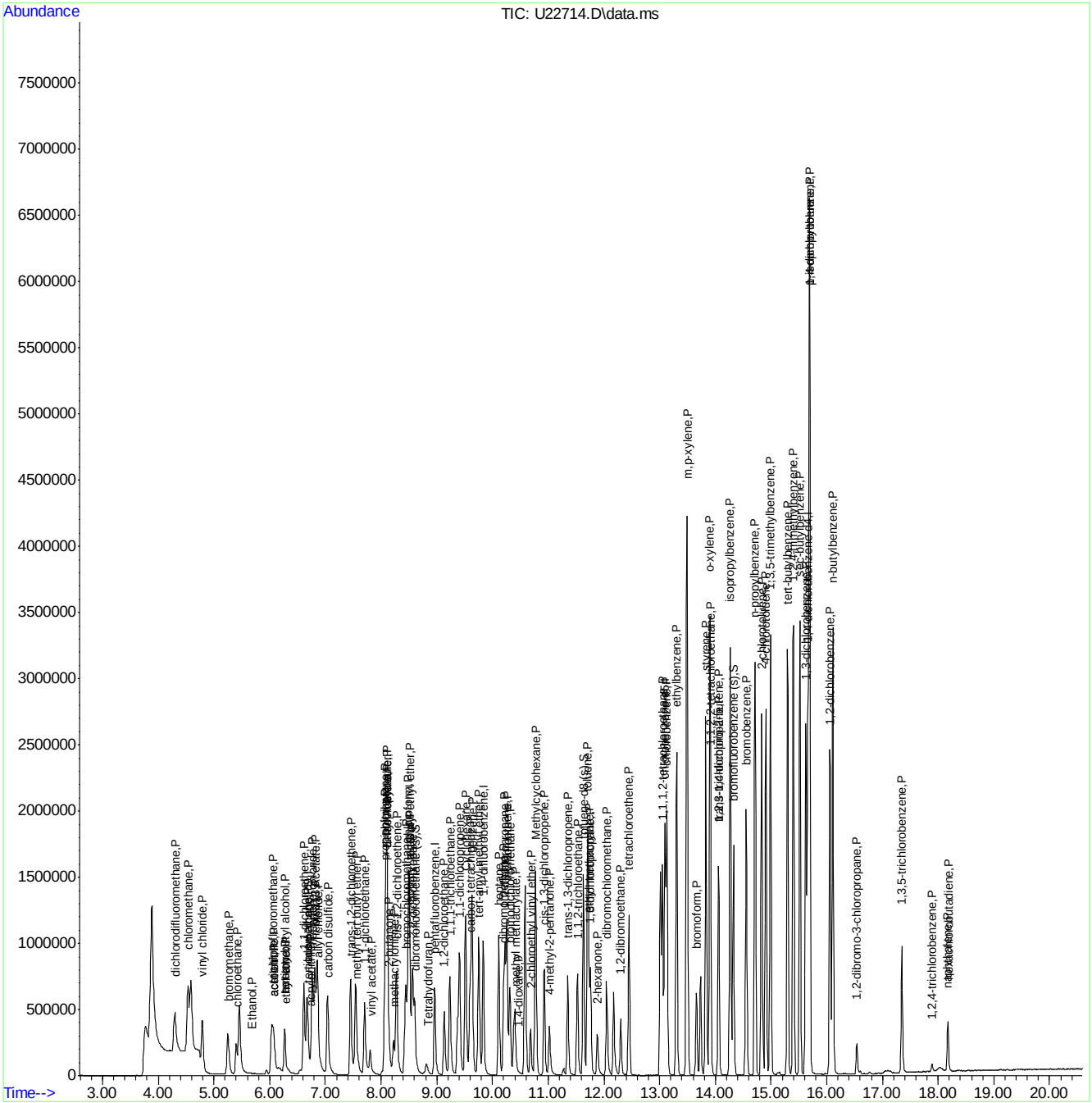
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.623	146	1209485	55.85	ppb	98
94) p-isopropyltoluene	15.692	119	2211044	58.59	ppb	94
95) 1,4-dichlorobenzene	15.690	146	1259416	54.85	ppb	98
96) 1,2-dichlorobenzene	16.059	146	1121906	49.86	ppb	96
97) n-butylbenzene	16.110	91	1937890	55.49	ppb	92
98) 1,2-dibromo-3-chloropr...	16.542	75	52063	28.73	ppb	84
99) 1,3,5-trichlorobenzene	17.351	180	328785	20.93	ug/L	91
100) 1,2,4-trichlorobenzene	17.896	180	23037	1.62	ppb	87
101) hexachlorobutadiene	18.178	225	70263	10.60	ppb	89
102) naphthalene	18.166	128	15034	0.48	ppb	100

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

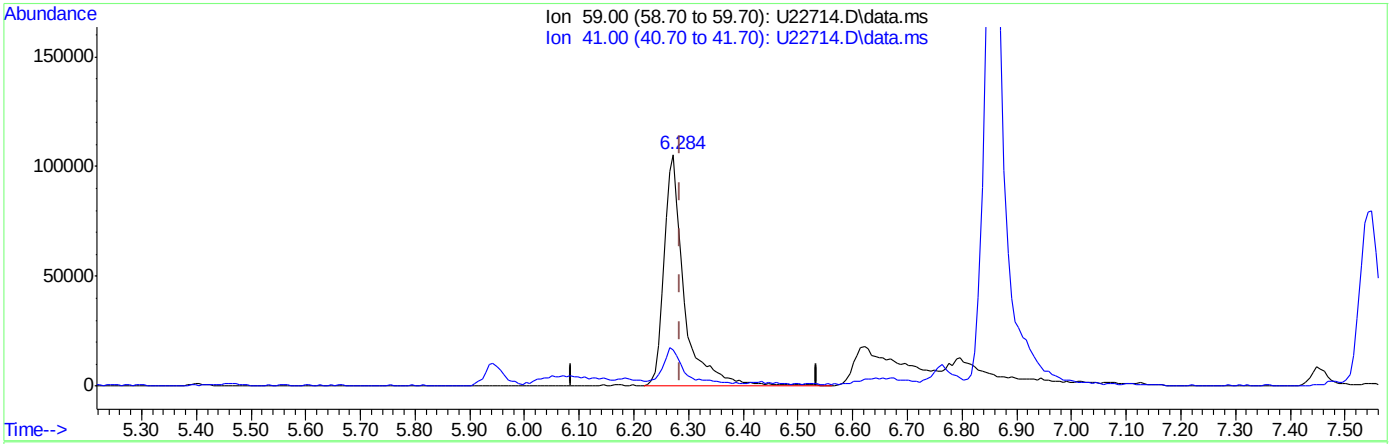
Quant Time: Sep 29 09:44:50 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

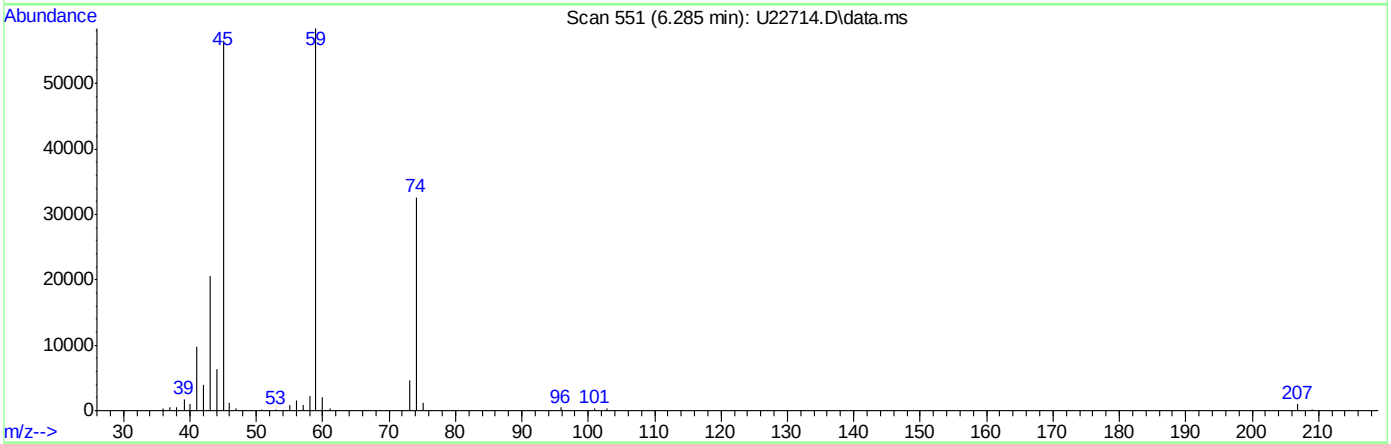


Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(2) tertiary butyl alcohol (P)

6.284min (-0.002) 604.70ppb

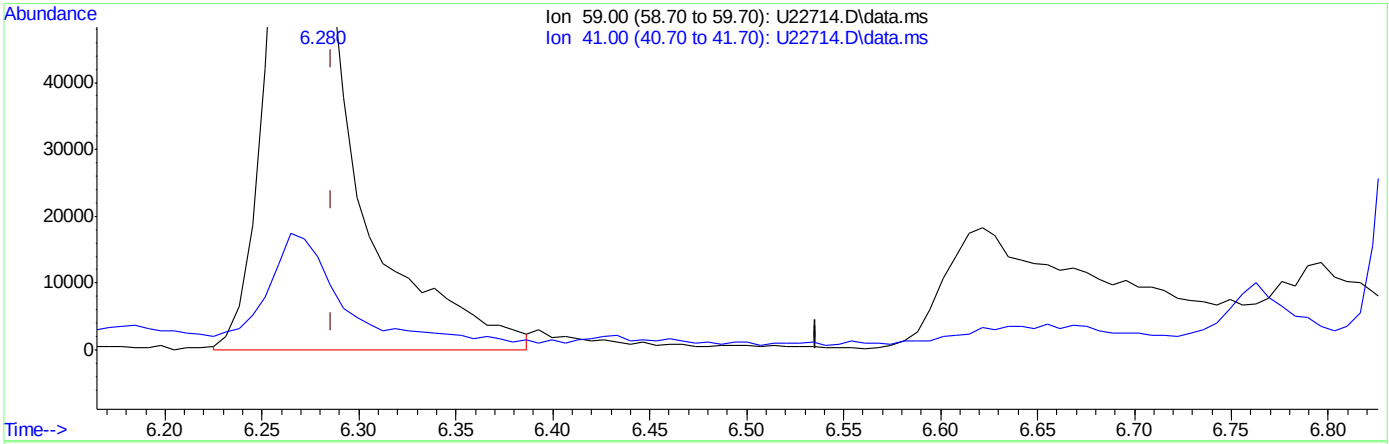
response 268690

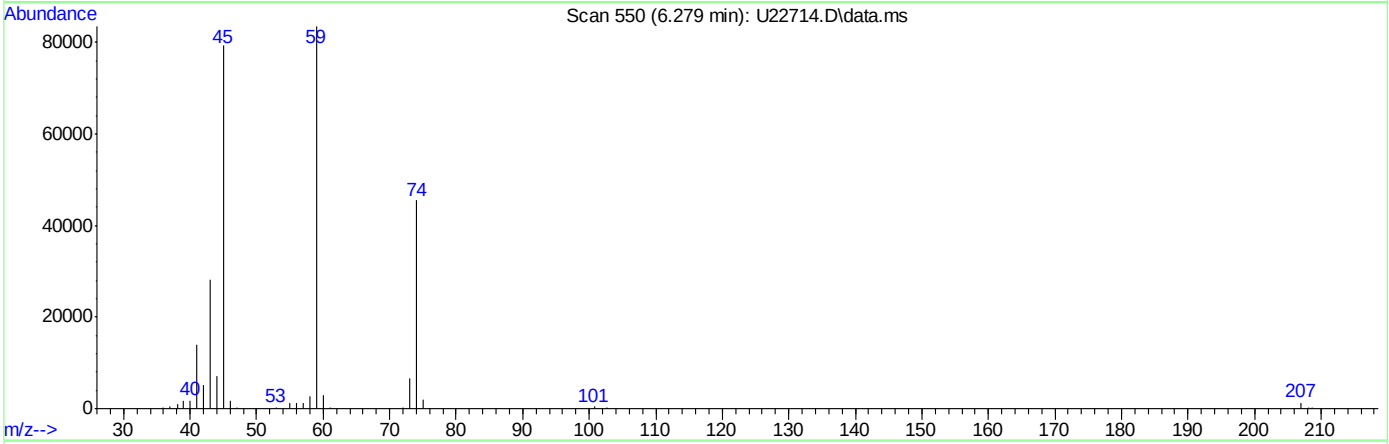
Ion	Exp%	Act%
59.00	100	100
41.00	12.70	15.04
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(2) tertiary butyl alcohol (P)

6.279min (-0.007) 593.75ppb m

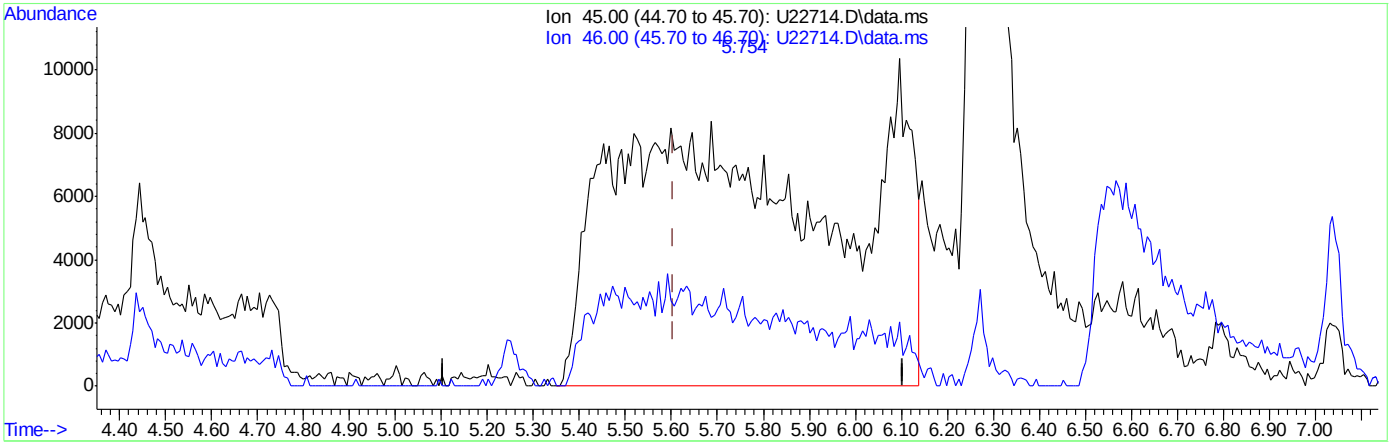
response 263825

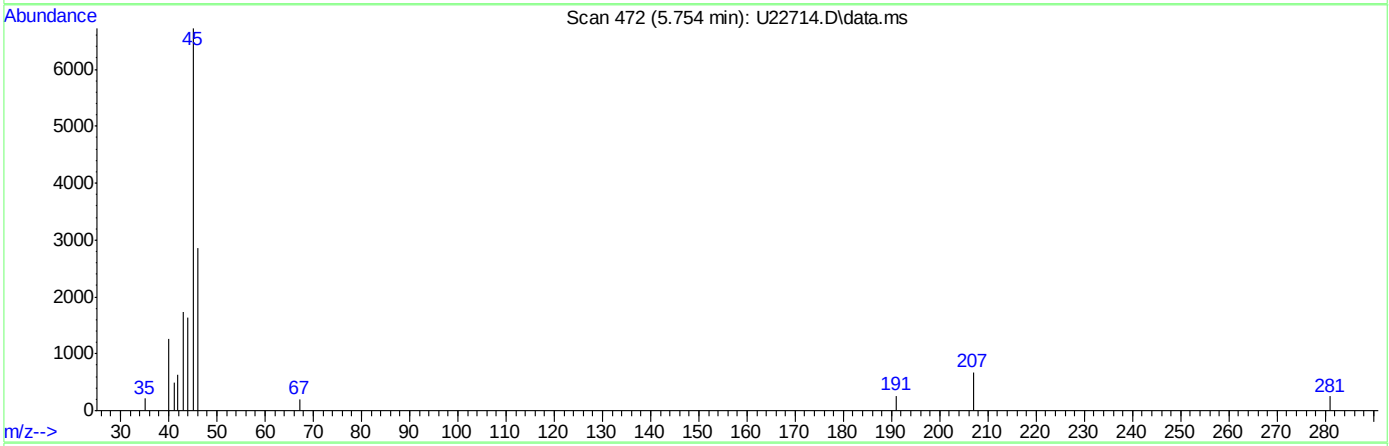
Ion	Exp%	Act%
59.00	100	100
41.00	12.70	16.61
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(3) Ethanol (P)

5.754min (+0.148) 5889.82ppb

response 288369

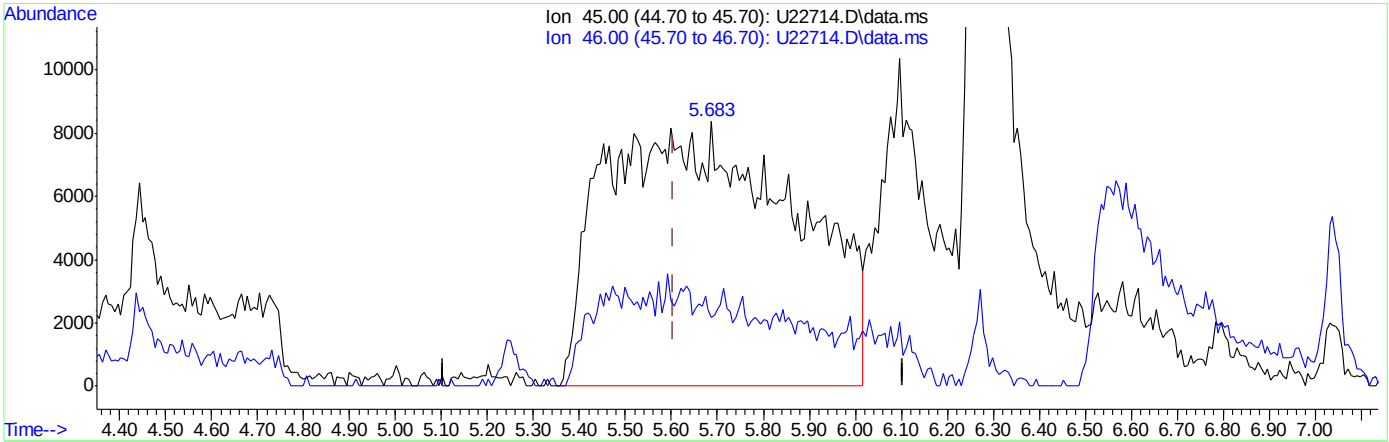
Ion	Exp%	Act%
45.00	100	100
46.00	35.30	42.44
0.00	0.00	0.00
0.00	0.00	0.00

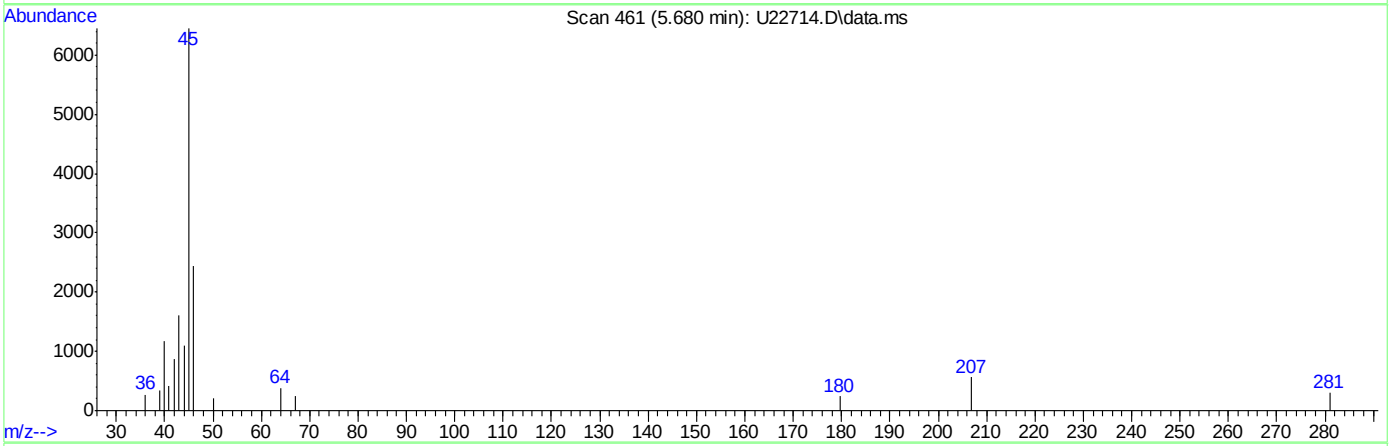
ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(3) Ethanol (P)

5.680min (+0.074) 4827.52ppb m

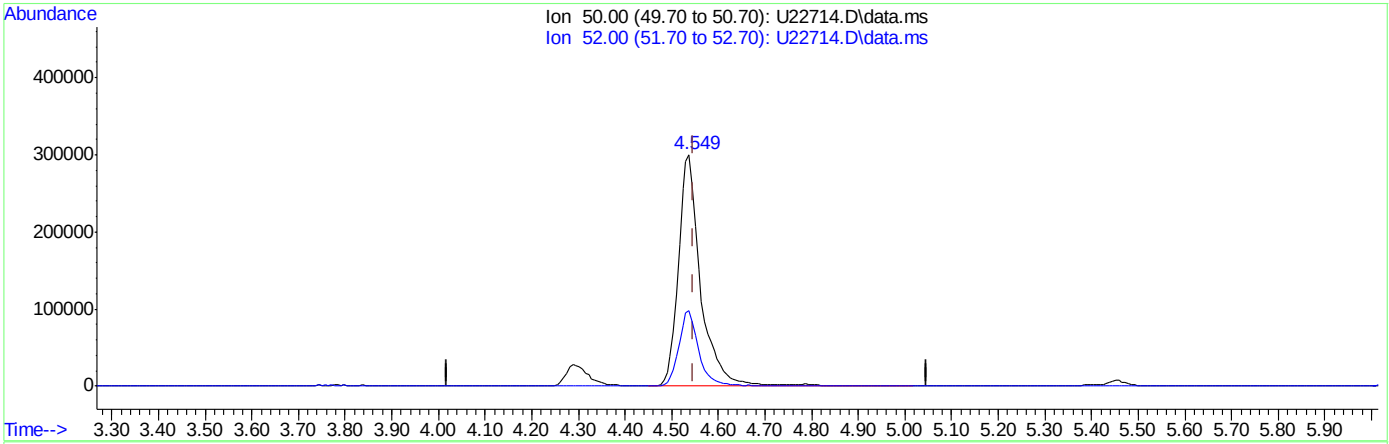
response 238045

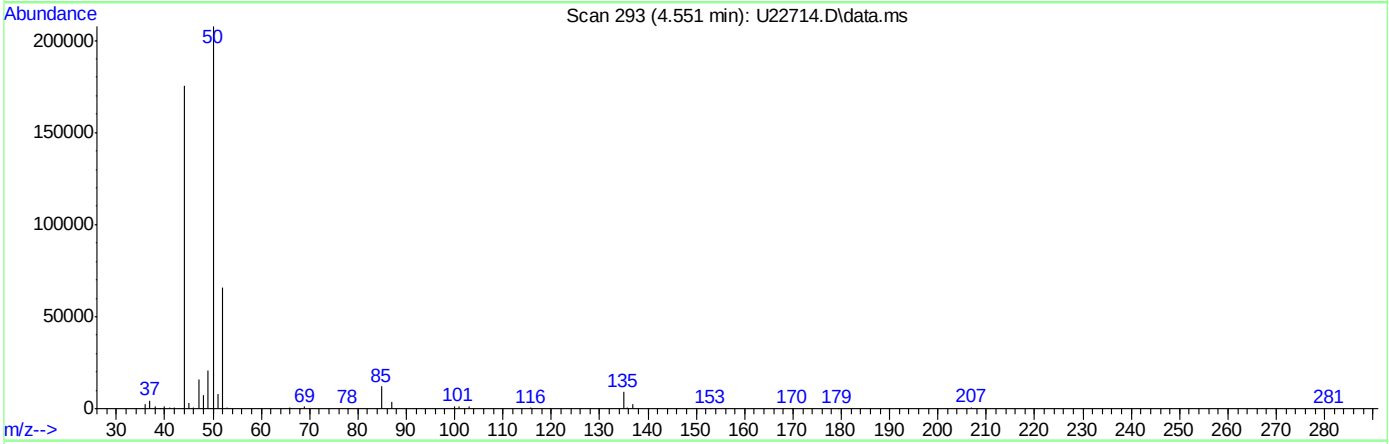
Ion	Exp%	Act%
45.00	100	100
46.00	35.30	37.76
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(6) chloromethane (P)

4.549min (+0.001) 62.13ppb

response 999257

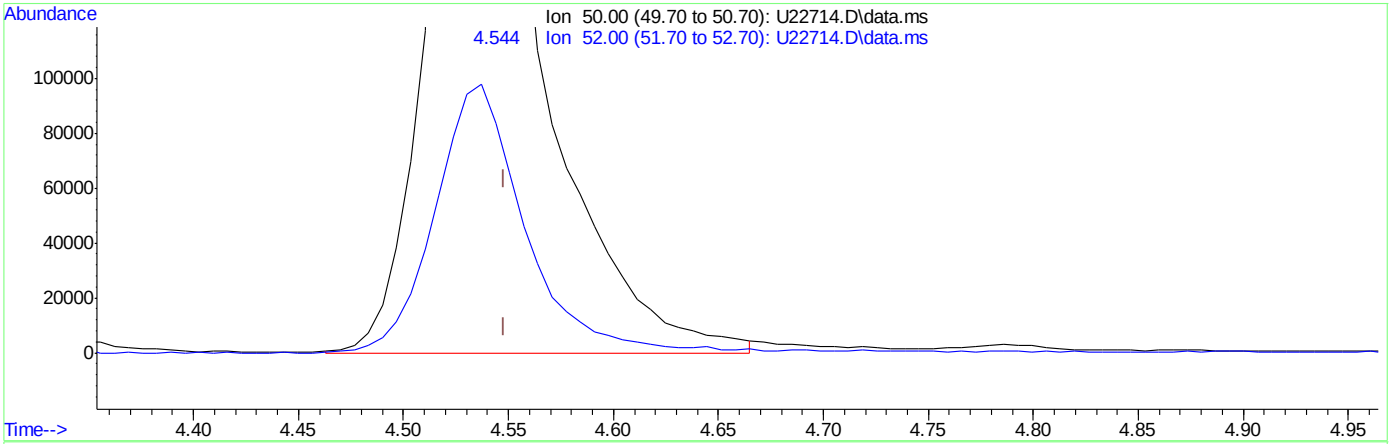
Ion	Exp%	Act%
50.00	100	100
52.00	32.60	31.70
0.00	0.00	0.00
0.00	0.00	0.00

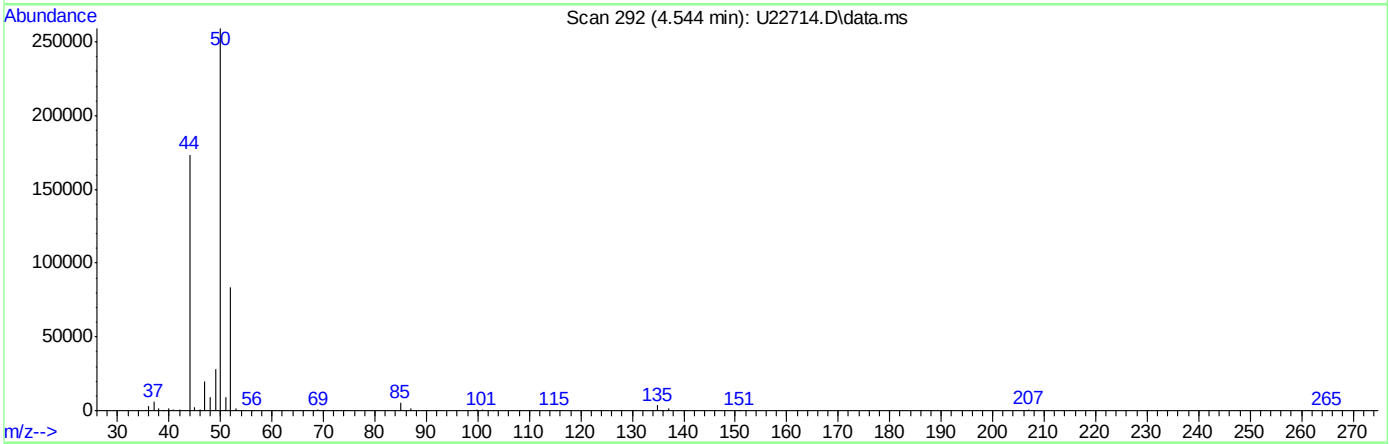
U22714.D edits: chloromethane

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(6) chloromethane (P)

4.544min (-0.004) 60.65ppb m

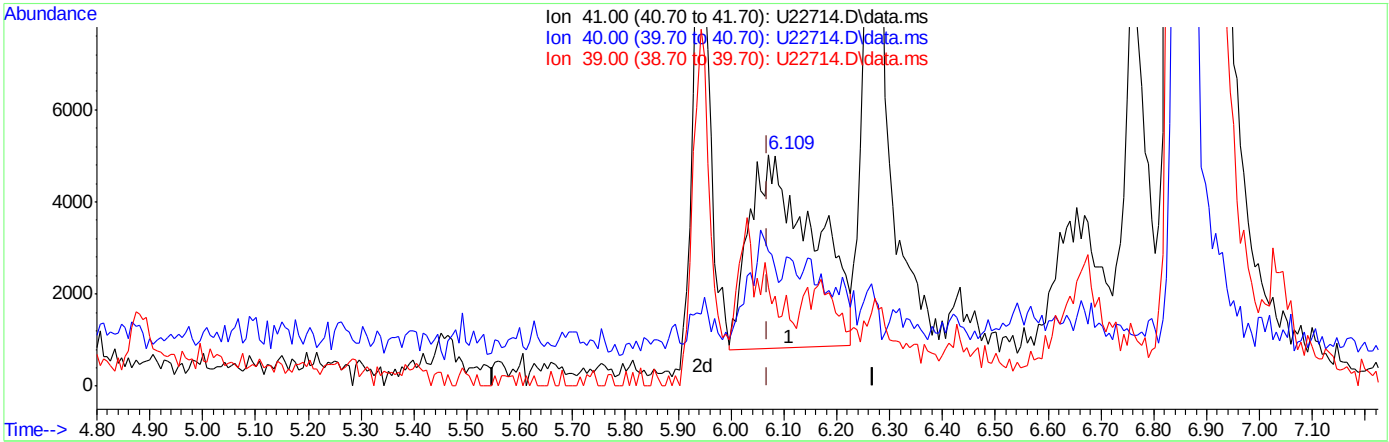
response 975575

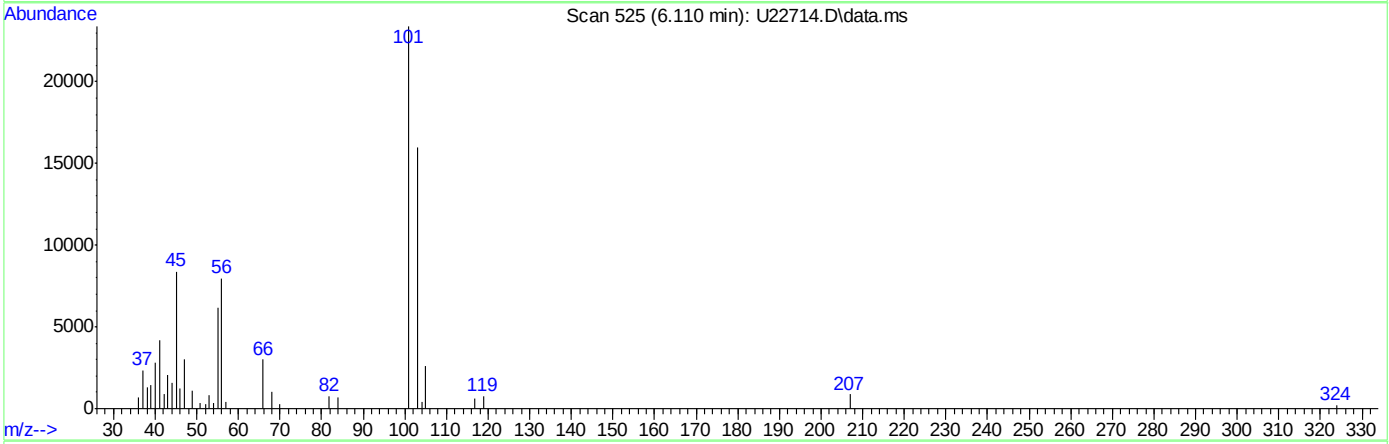
Ion	Exp%	Act%
50.00	100	100
52.00	32.60	32.29
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(11) acetonitrile (P)

6.109min (+0.039) 41.77ppb

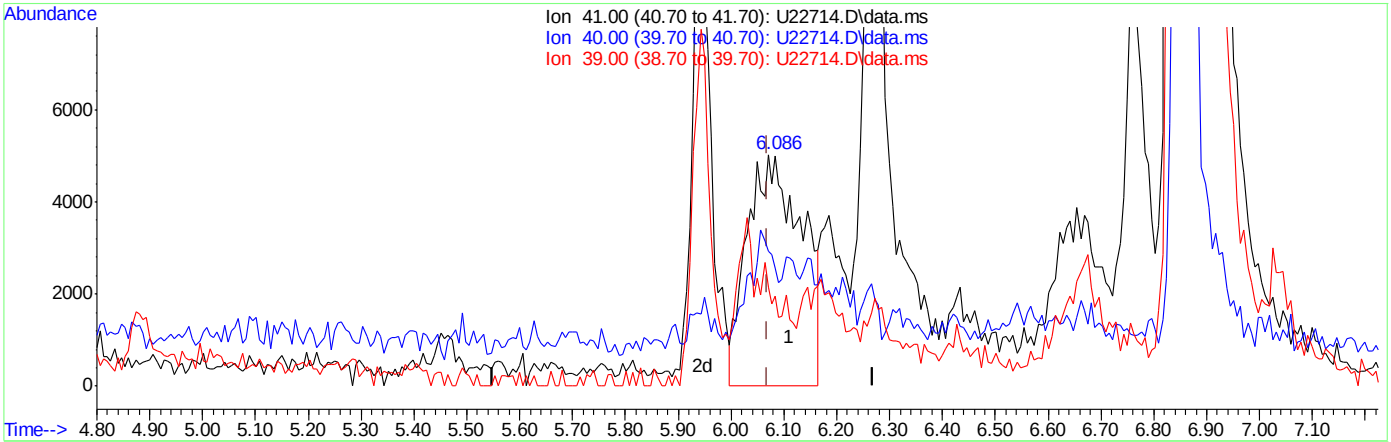
response 35487

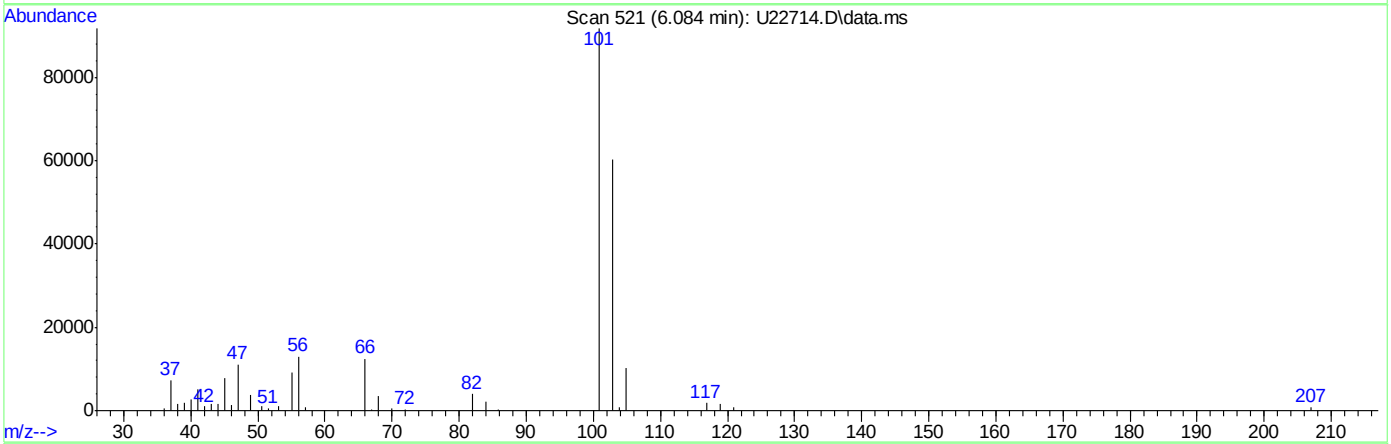
Ion	Exp%	Act%
41.00	100	100
40.00	92.30	53.82#
39.00	24.50	13.32
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(11) acetonitrile (P)

6.084min (+0.014) 42.77ppb m

response 36231

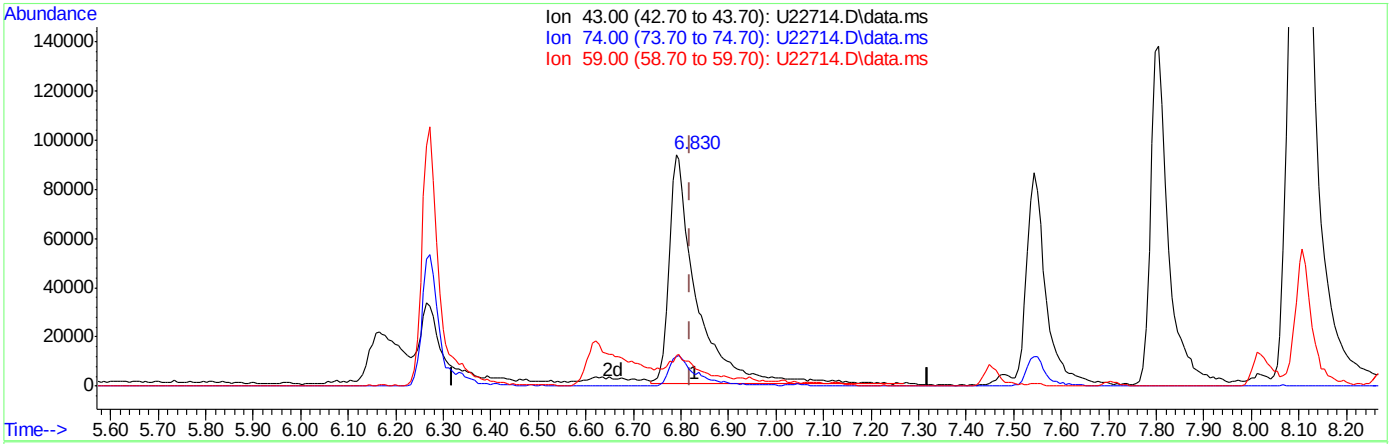
Ion	Exp%	Act%
41.00	100	100
40.00	92.30	51.49#
39.00	24.50	39.35
0.00	0.00	0.00

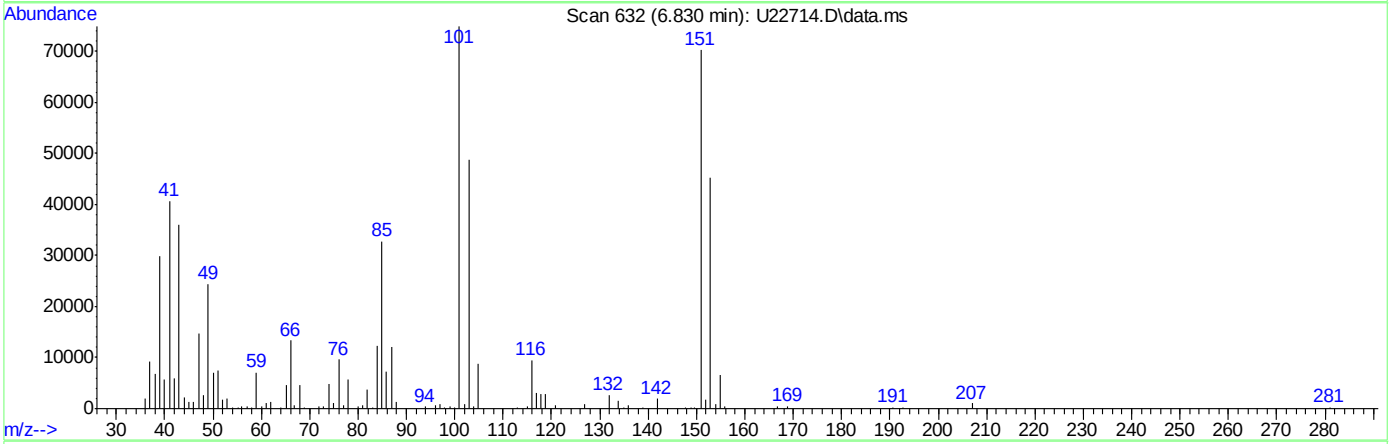
U22714.D edits: acetonitrile

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(17) Methyl Acetate (P)

6.830min (+0.009) 61.17ppb

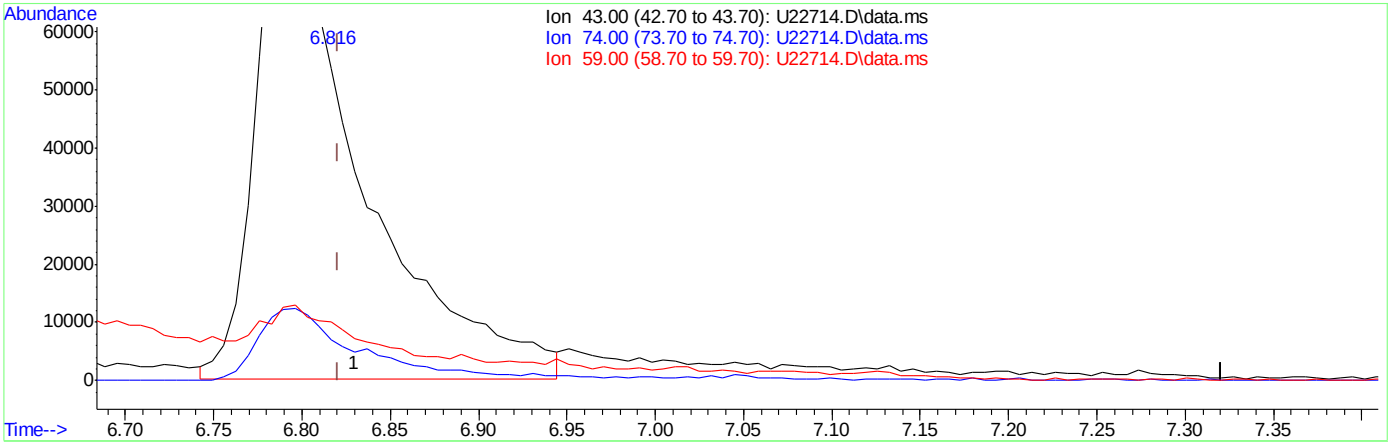
response 370145

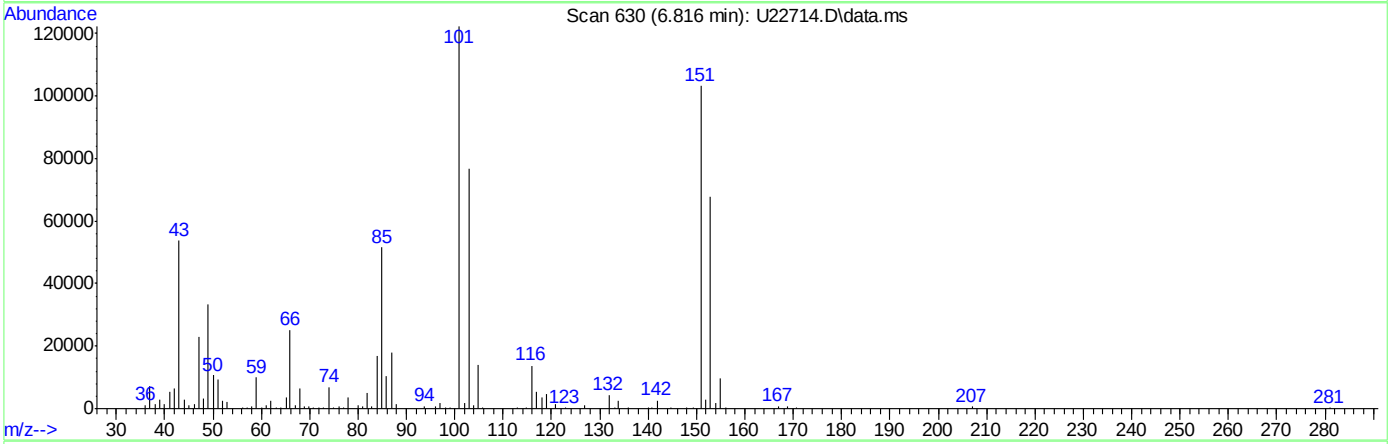
Ion	Exp%	Act%
43.00	100	100
74.00	18.30	14.00#
59.00	10.60	19.82#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(17) Methyl Acetate (P)

6.816min (-0.005) 58.71ppb m

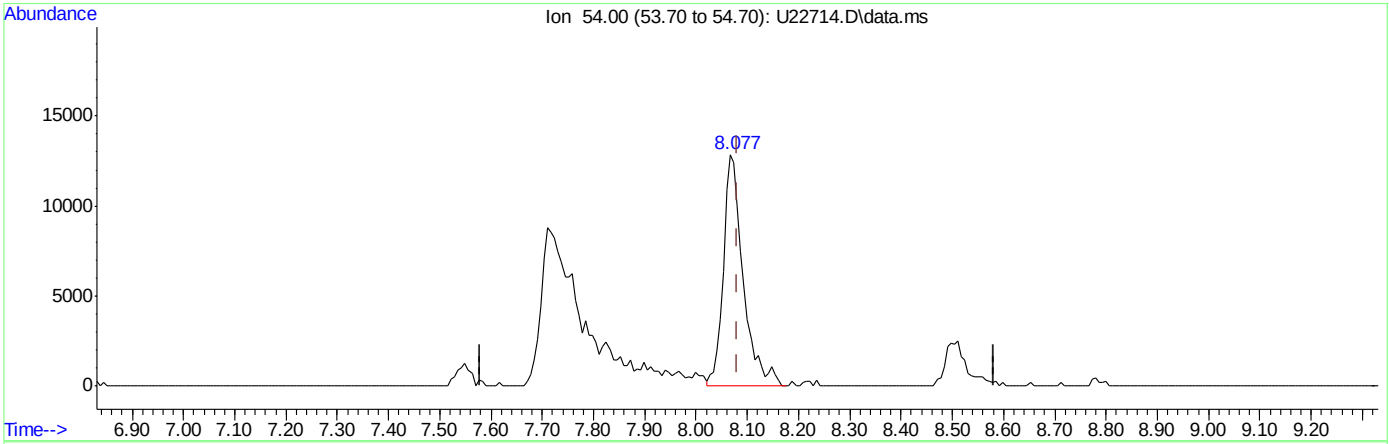
response 355242

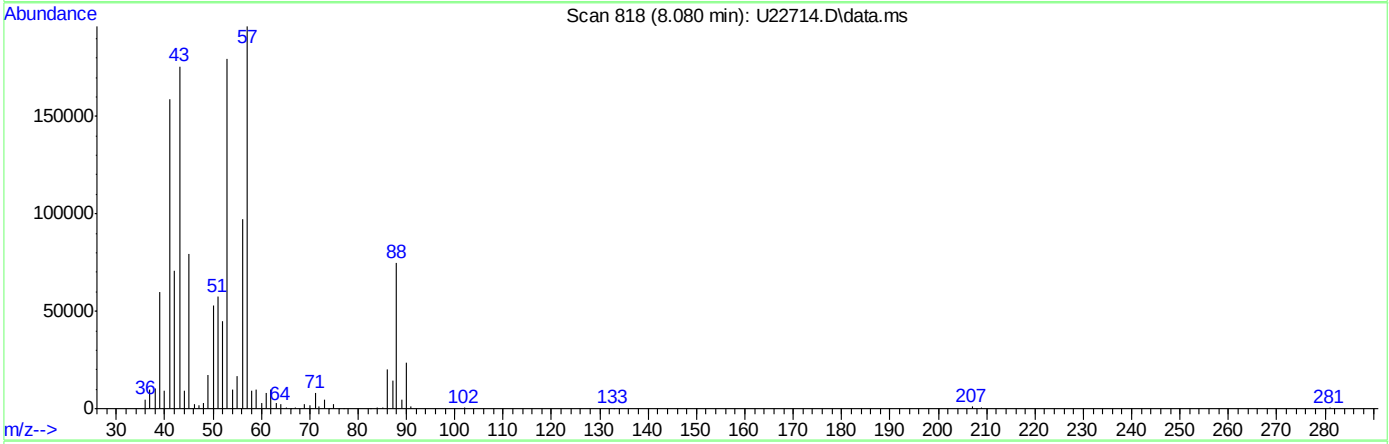
Ion	Exp%	Act%
43.00	100	100
74.00	18.30	12.91#
59.00	10.60	18.63#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(25) propionitrile (P)

8.077min (-0.004) 60.94ppb

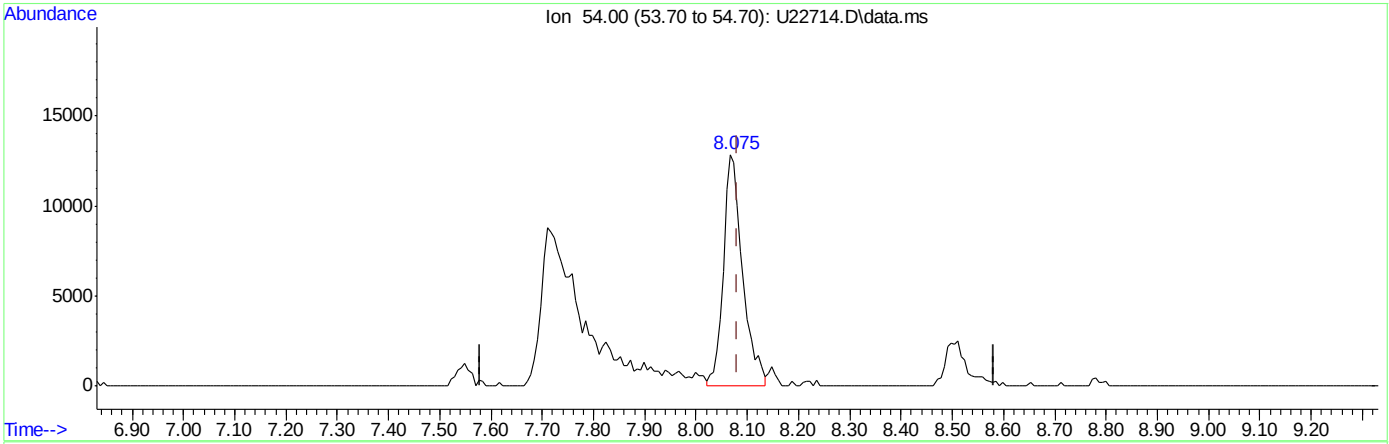
response 34893

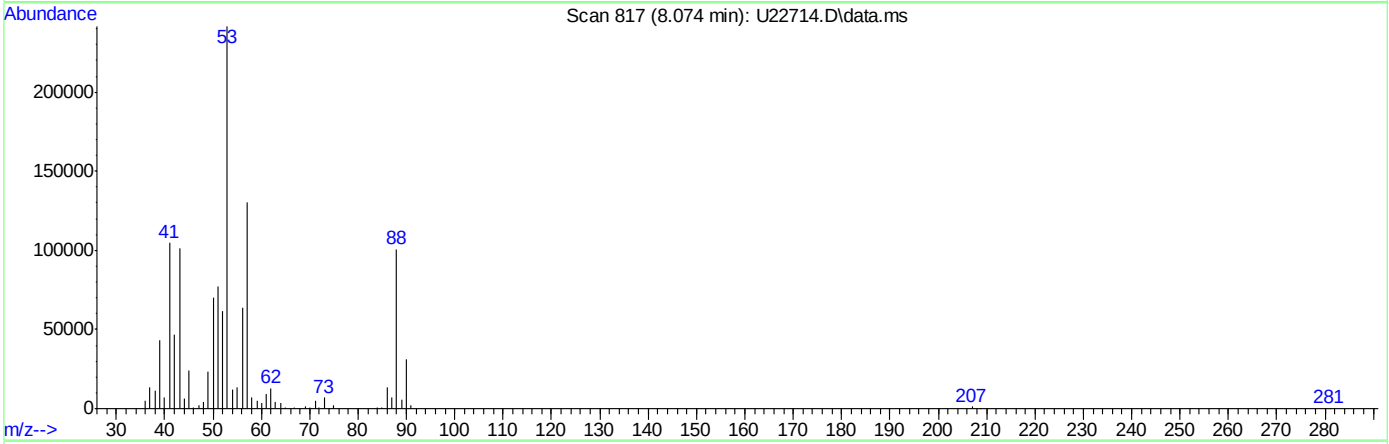
Ion	Exp%	Act%
54.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(25) propionitrile (P)

8.074min (-0.007) 59.02ppb m

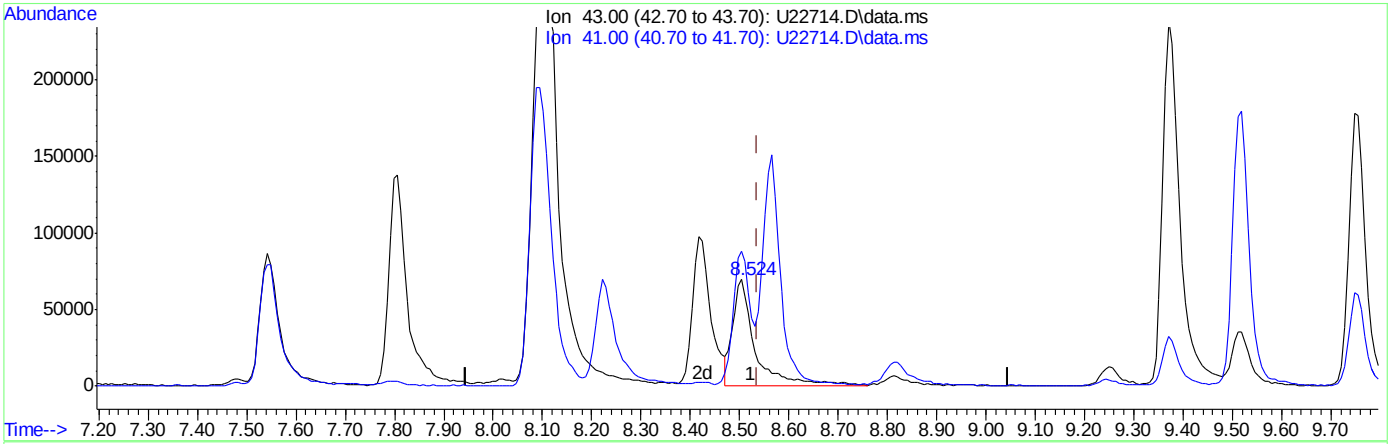
response 33791

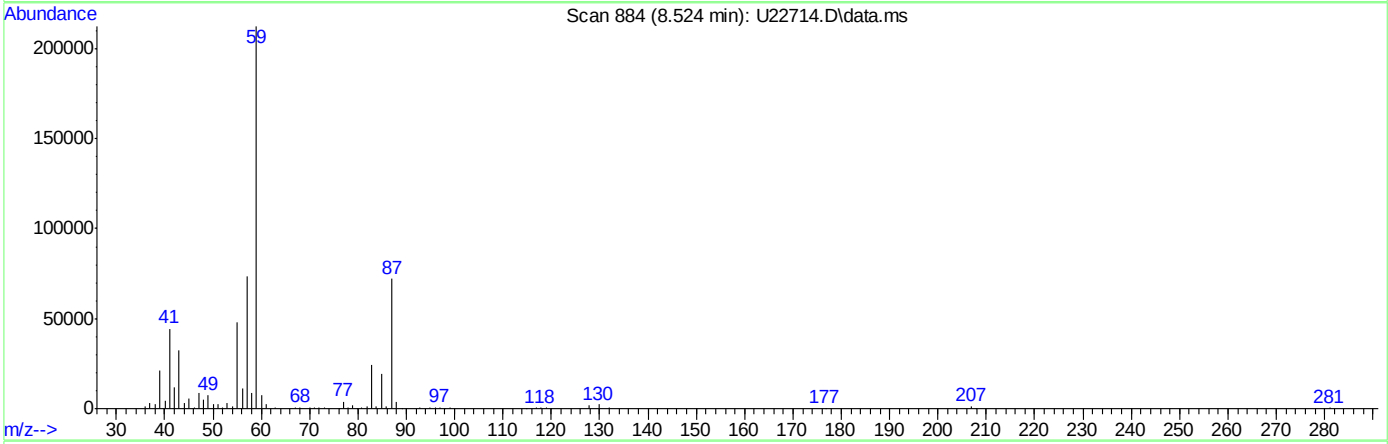
Ion	Exp%	Act%
54.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(35) isobutyl alcohol (P)

8.524min (-0.012) 252.07ppb

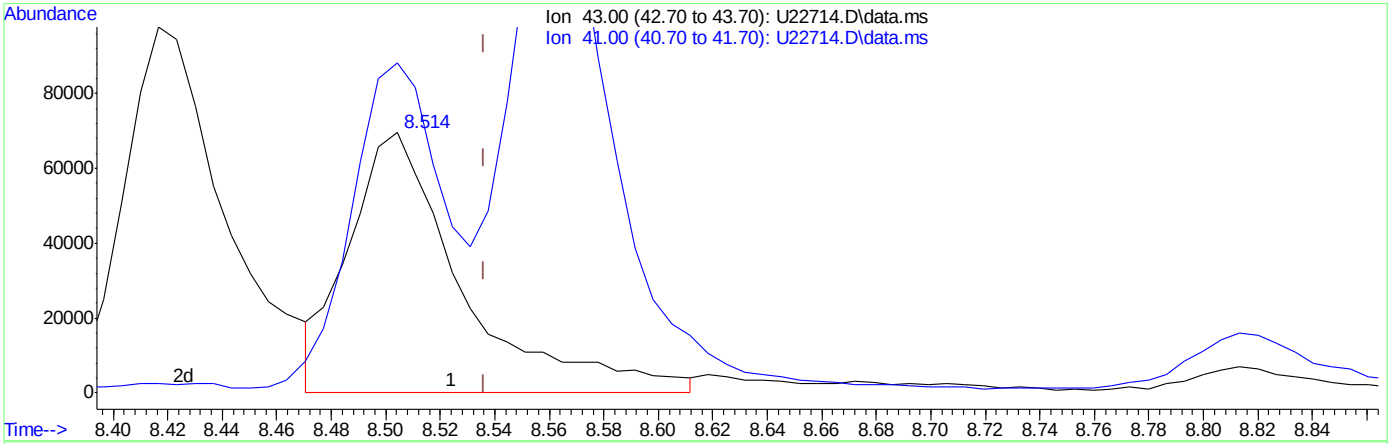
response 213091

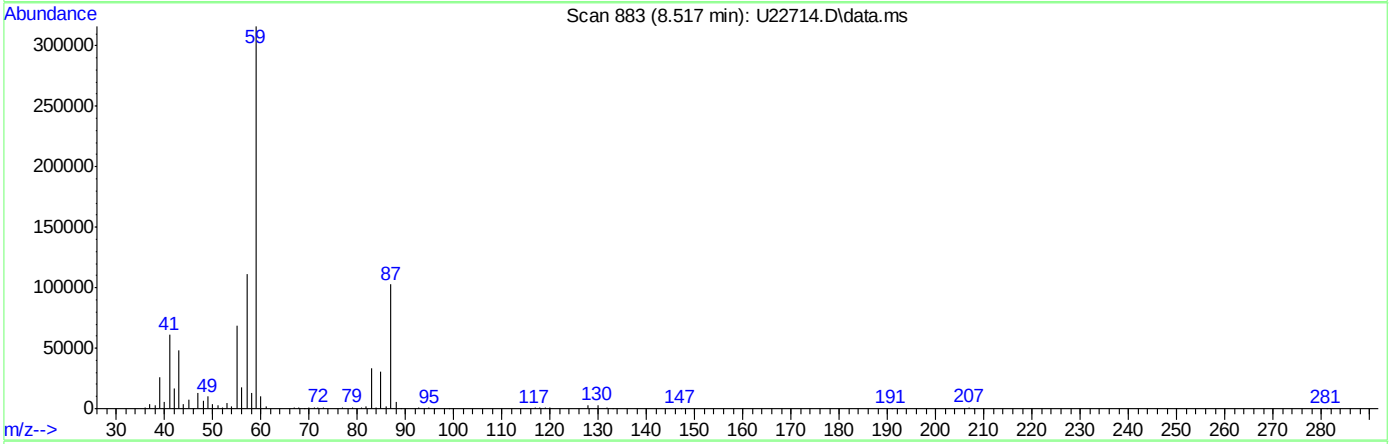
Ion	Exp%	Act%
43.00	100	100
41.00	139.90	136.29
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(35) isobutyl alcohol (P)

8.517min (-0.019) 239.56ppb m

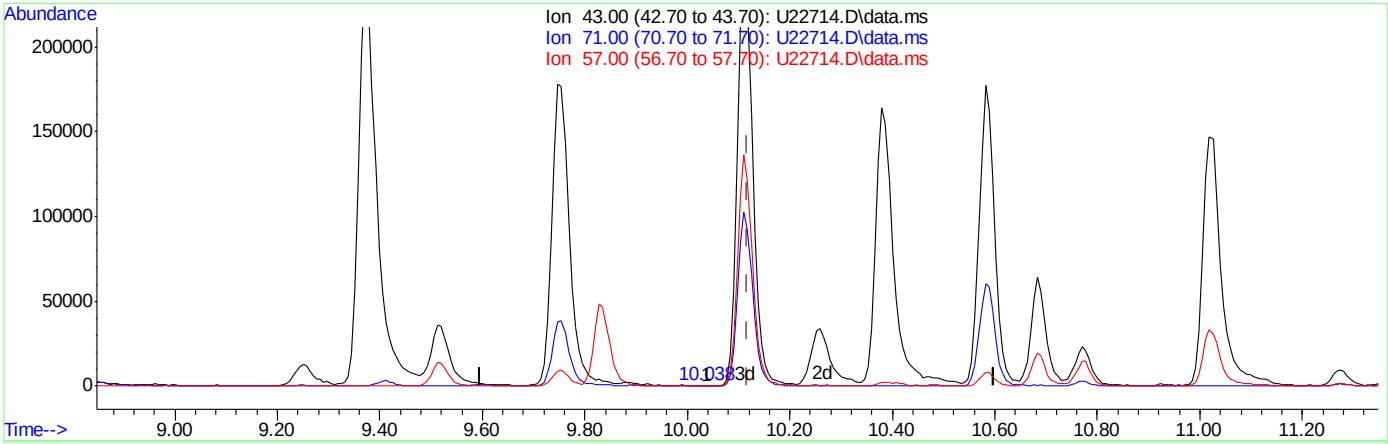
response 202519

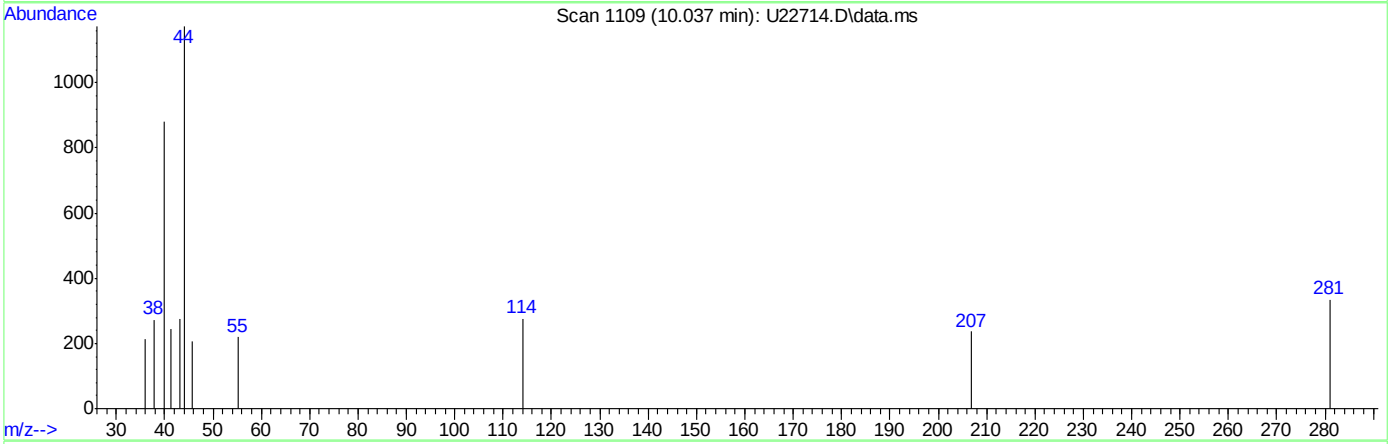
Ion	Exp%	Act%
43.00	100	100
41.00	139.90	127.30
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(50) heptane (P)

10.038min (-0.080) 0.12ppb

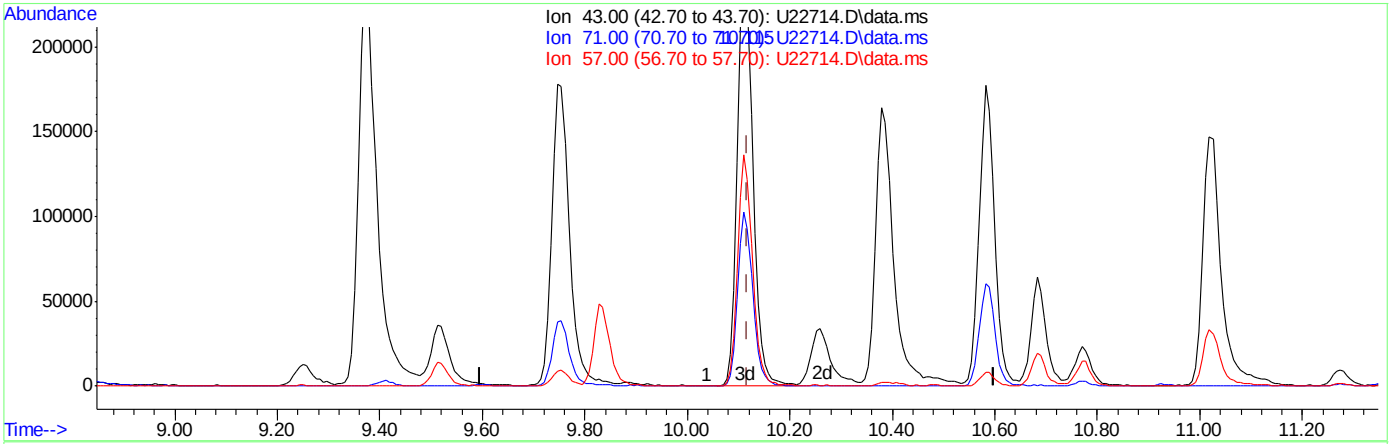
response 1176

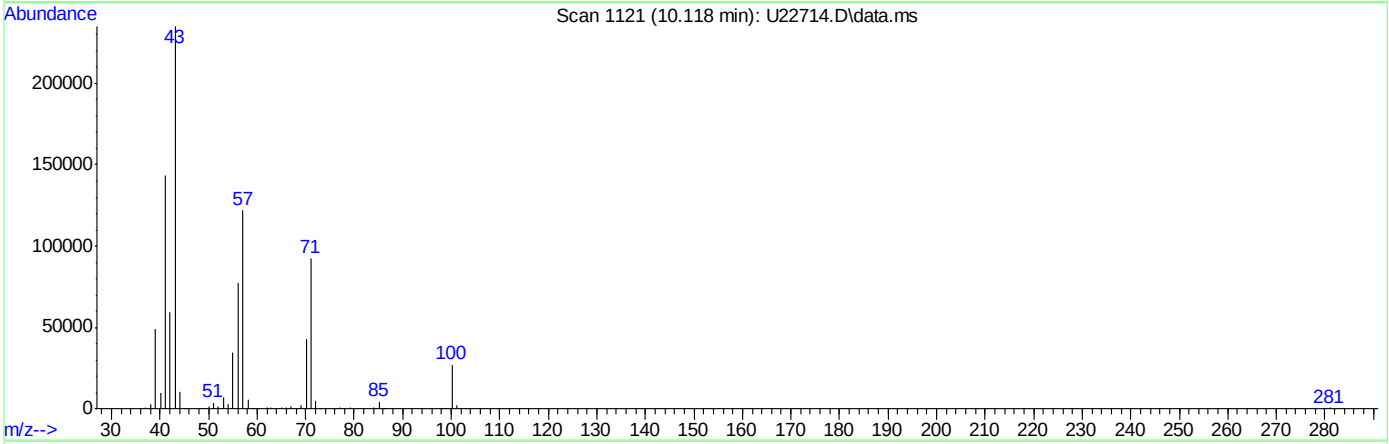
Ion	Exp%	Act%
43.00	100	100
71.00	26.10	0.00
57.00	5.80	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(50) heptane (P)

10.118min (-0.000) 54.11ppb m

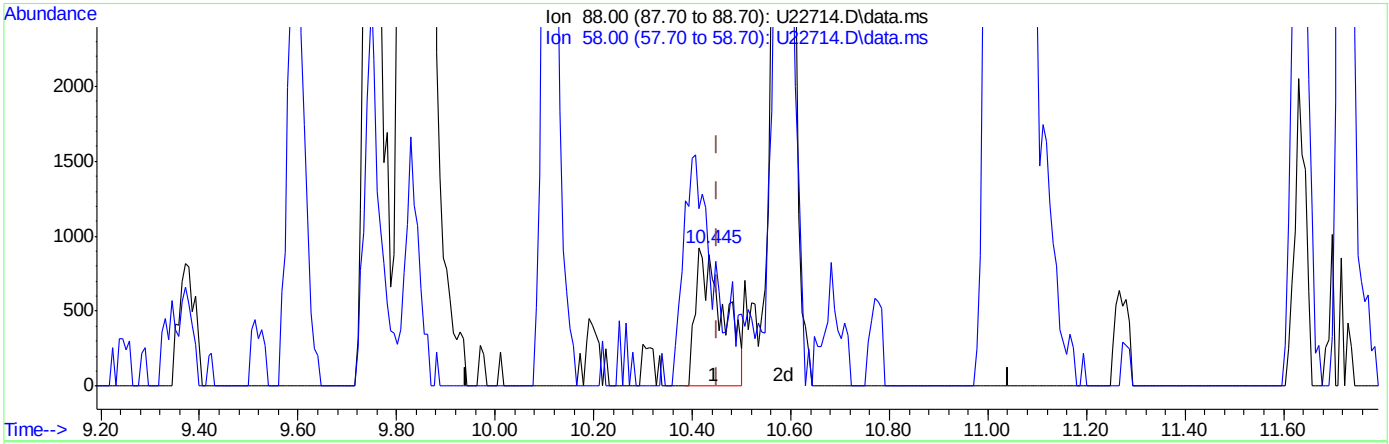
response 525011

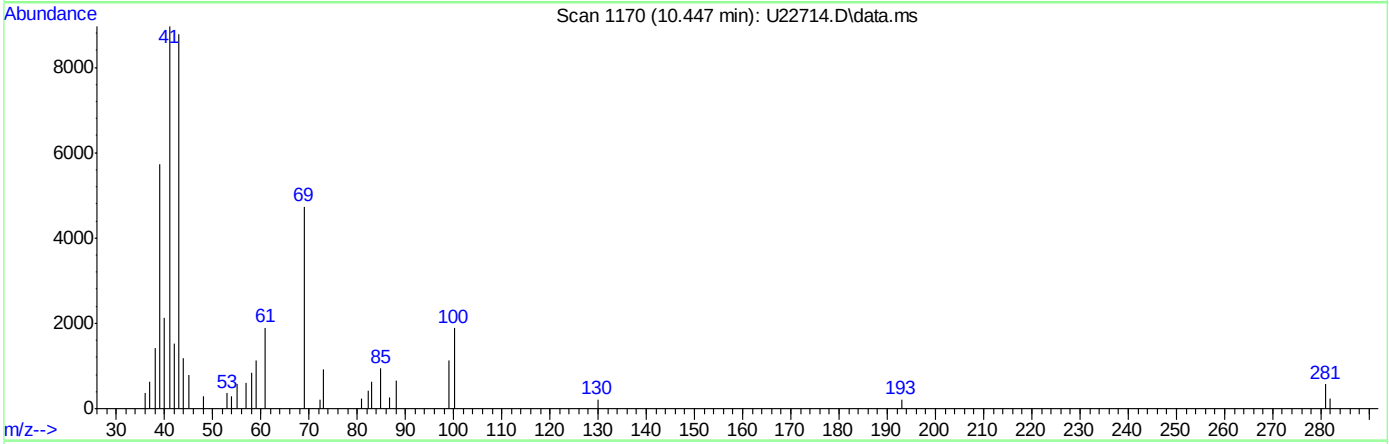
Ion	Exp%	Act%
43.00	100	100
71.00	26.10	39.40
57.00	5.80	51.95#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(58) 1,4-dioxane (P)

10.445min (-0.007) 98.40ppb

response 3578

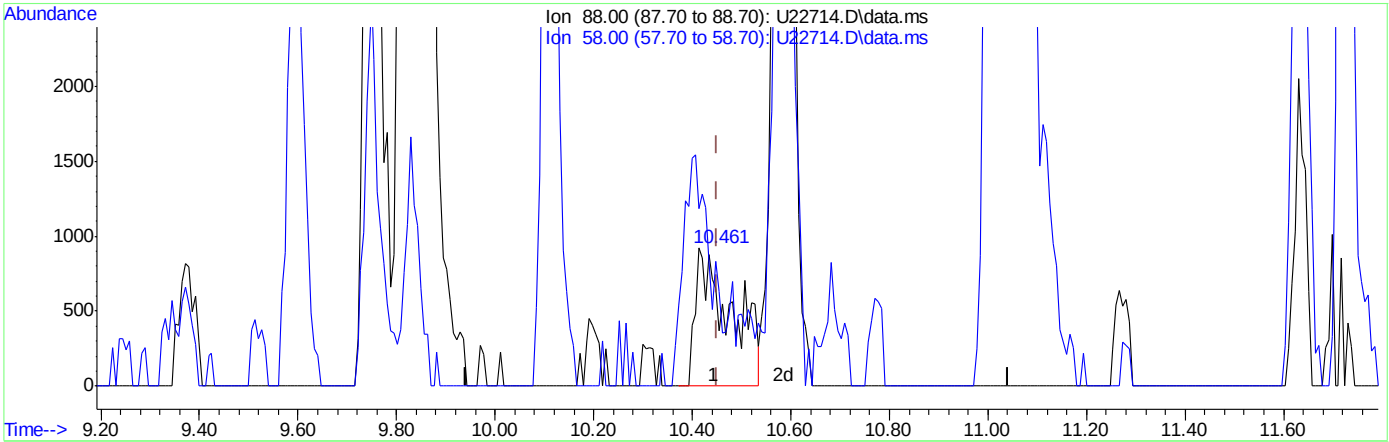
Ion	Exp%	Act%
88.00	100	100
58.00	109.20	53.75#
0.00	0.00	0.00
0.00	0.00	0.00

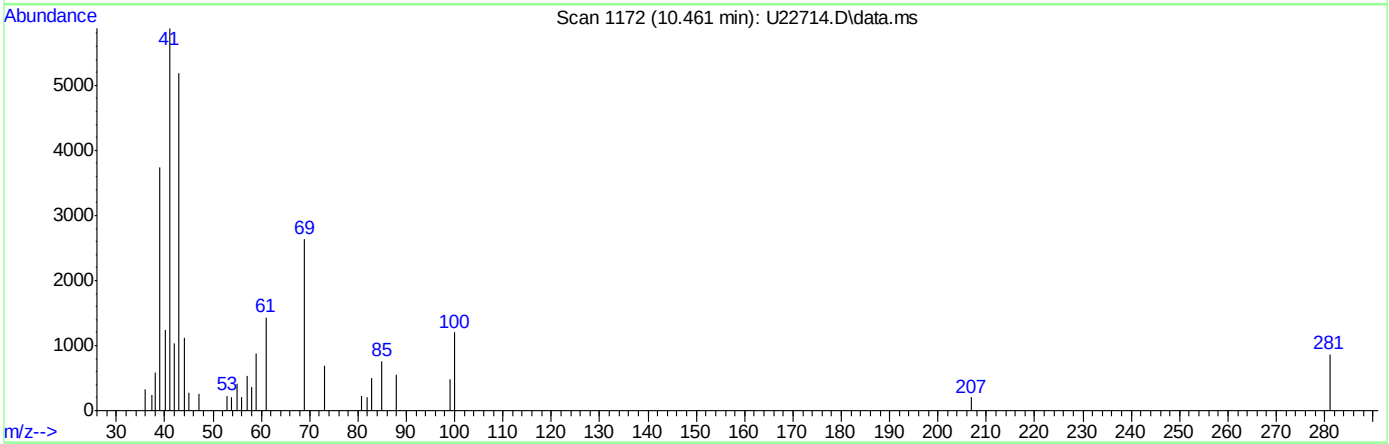
ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:39:36 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(58) 1,4-dioxane (P)

10.461min (+0.009) 125.60ppb m

response 4567

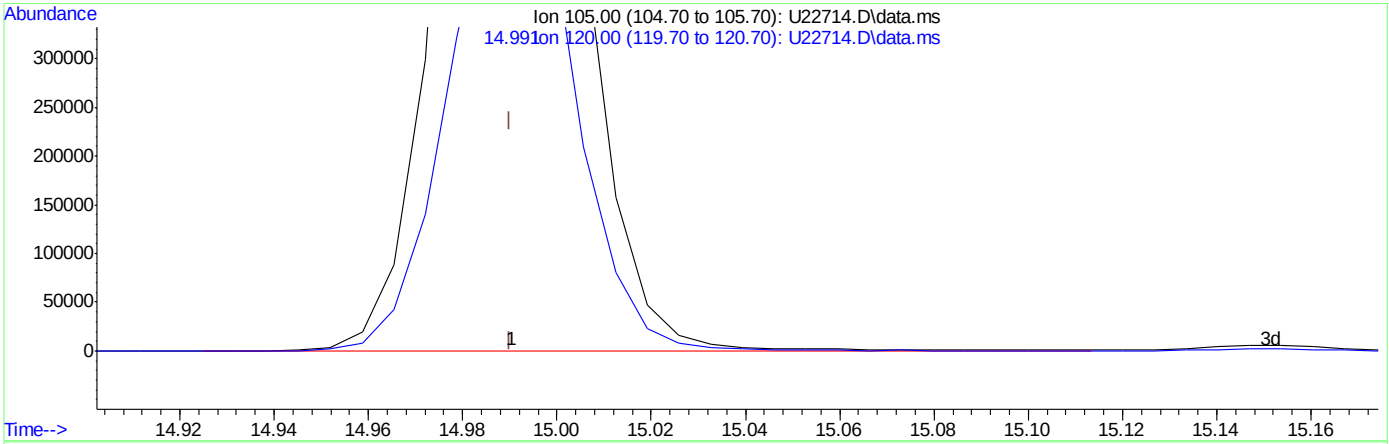
Ion	Exp%	Act%
88.00	100	100
58.00	109.20	65.08#
0.00	0.00	0.00
0.00	0.00	0.00

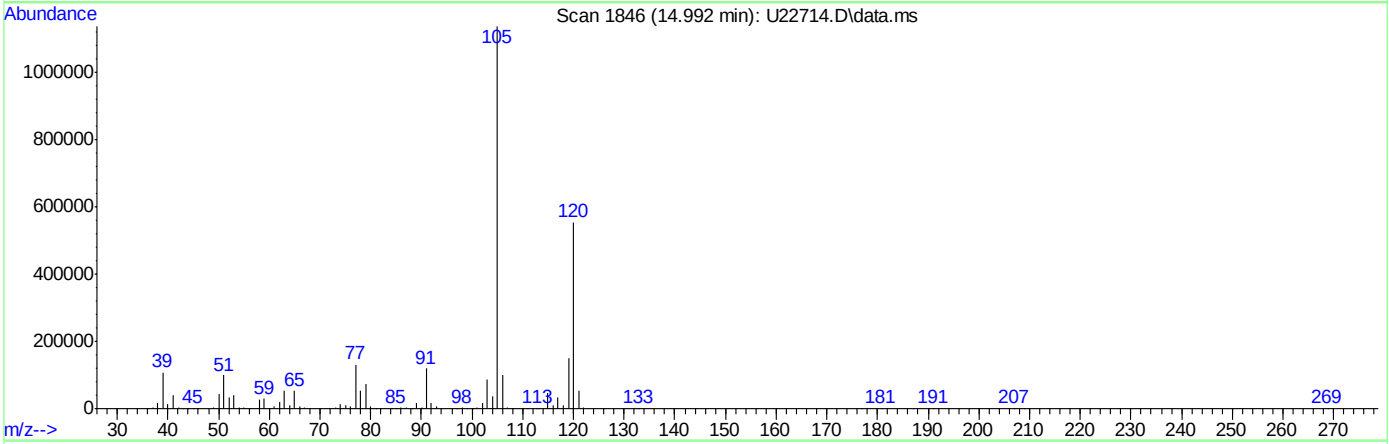
ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:42:35 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(89) 1,3,5-trimethylbenzene (P)

14.991min (+0.001) 60.50ppb

response 1935491

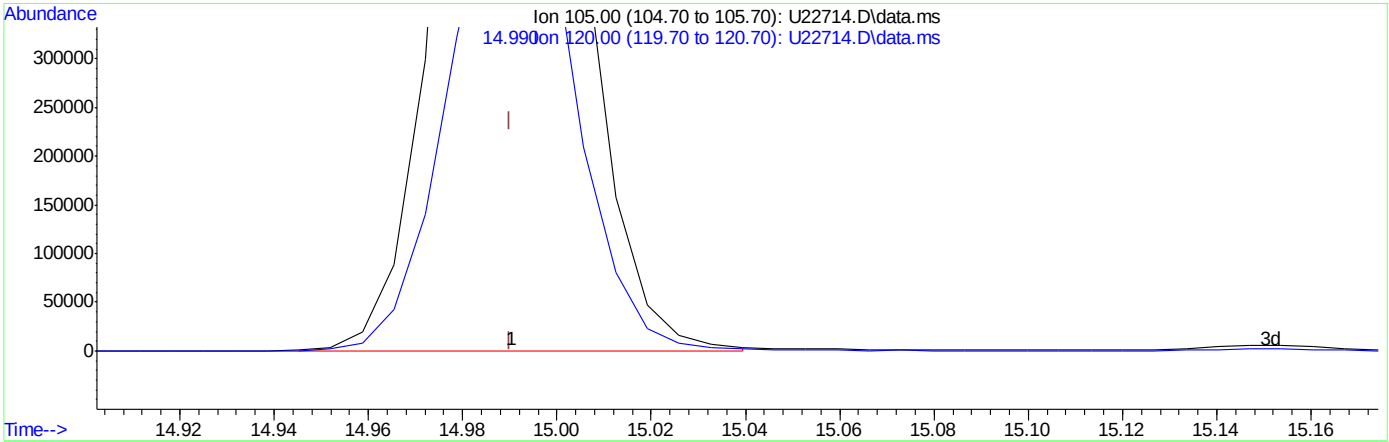
Ion	Exp%	Act%
105.00	100	100
120.00	46.10	48.69
0.00	0.00	0.00
0.00	0.00	0.00

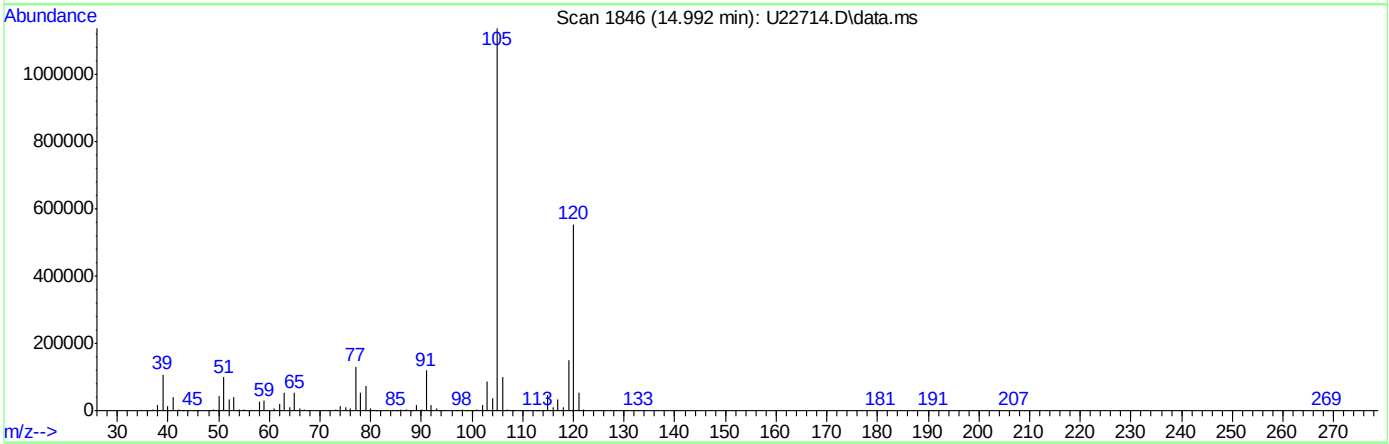
ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22714.D
Acq On : 29 Sep 2014 9:18 am
Operator : GaryK
Sample : bs
Misc : ms32826,msu990,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 09:42:35 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22714.D\data.ms

(89) 1,3,5-trimethylbenzene (P)

14.992min (+0.002) 60.33ppb m

response 1930114

Ion	Exp%	Act%
105.00	100	100
120.00	46.10	48.69
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90785.D
Acq On : 1 Oct 2014 9:41 am
Operator : jaclynb
Sample : bs
Misc : ms32855,MSN3359,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 01 10:14:45 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.690	65	128041	500.00	ug/L		0.00
4) pentafluorobenzene	9.115	168	331306	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	517983	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	286514	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	223331	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.769	113	163420	48.08	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.16%				
60) toluene-d8 (s)	11.781	98	645283	51.94	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.88%				
82) bromofluorobenzene (s)	14.461	95	256751	47.15	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.30%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.778	59	117733	261.54	ug/L	#	100
3) Ethanol	5.555	45	358138	5462.56	ug/L		99
5) dichlorodifluoromethane	4.388	85	179585	41.17	ug/L		98
6) chloromethane	4.654	50	165617	30.97	ug/L		94
7) vinyl chloride	4.894	62	172755	47.97	ug/L		95
8) bromomethane	5.396	96	52421	33.08	ug/L		96
9) chloroethane	5.566	64	118988	55.58	ug/L		97
10) ethyl ether	6.432	59	180897	55.78	ug/L		87
11) acetonitrile	6.432	41	26791	52.05	ug/L		96
12) trichlorofluoromethane	6.202	101	283547	45.26	ug/L		98
13) freon-113	6.966	101	171516	61.89	ug/L		99
14) acrolein	6.199	56	85144	225.22	ug/L		92
15) 1,1-dichloroethene	6.785	96	151212	59.80	ug/L		99
16) acetone	6.333	58	33453	43.90	ug/L	#	75
17) Methyl Acetate	6.962	43	204923	70.09	ug/L	#	93
18) methylene chloride	6.937	84	169944	49.36	ug/L		96
19) methyl tert butyl ether	7.705	73	373029	45.84	ug/L		96
20) acrylonitrile	6.849	53	72604	50.56	ug/L		99
21) allyl chloride	7.029	41	344043	55.94	ug/L		96
22) trans-1,2-dichloroethene	7.623	96	168080	50.53	ug/L		99
23) iodomethane	6.860	142	62383	30.98	ug/L		90
24) carbon disulfide	7.220	76	580852	60.66	ug/L		98
25) propionitrile	6.838	54	2853	59.18	ug/L		100
26) vinyl acetate	7.970	43	195062	41.91	ug/L		98
27) chloroprene	8.231	53	385067	64.50	ug/L		95
28) di-isopropyl ether	8.263	45	775120	48.83	ug/L		99
29) methacrylonitrile	8.397	41	116578	49.79	ug/L		95
30) 2-butanone	8.284	72	22168	59.35	ug/L	#	34
31) Hexane	8.249	41	341030	58.40	ug/L		99
32) 1,1-dichloroethane	7.878	63	403655	49.50	ug/L		98
33) tert-butyl ethyl ether	8.659	59	302971	36.35	ug/L		95
34) isobutyl alcohol	8.260	43	651877	270.87	ug/L		97
35) 2,2-dichloropropane	8.730	77	294902	56.66	ug/L		99
36) cis-1,2-dichloroethene	8.443	96	182543	48.19	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90785.D
Acq On : 1 Oct 2014 9:41 am
Operator : jaclynb
Sample : bs
Misc : ms32855,MSN3359,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 01 10:14:45 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.260	43	653115	55.10	ug/L		95
38) bromochloromethane	8.613	128	80944	52.21	ug/L		94
39) chloroform	8.645	83	335101	46.00	ug/L		99
41) Tetrahydrofuran	8.974	42	52137	49.75	ug/L		100
42) 1,1,1-trichloroethane	9.394	97	320488	57.38	ug/L		99
44) Cyclohexane	9.674	56	448397	63.79	ug/L		97
45) carbon tetrachloride	9.755	117	275398	54.36	ug/L		100
46) 1,1-dichloropropene	9.564	75	266830	58.62	ug/L		99
47) benzene	9.794	78	699042	47.07	ug/L		99
48) 1,2-dichloroethane	9.295	62	321052	46.18	ug/L		99
49) tert-amyl methyl ether	9.903	73	163818	38.27	ug/L		93
50) heptane	10.253	43	264266	62.20	ug/L		96
51) trichloroethene	10.409	95	207529	46.80	ug/L		95
52) 1,2-dichloropropane	10.374	63	229431	54.25	ug/L		100
53) dibromomethane	10.352	93	110099	51.02	ug/L		95
54) bromodichloromethane	10.462	83	278315	50.05	ug/L		97
55) Methylcyclohexane	10.922	83	335189	64.36	ug/L		98
56) 2-chloroethyl vinyl ether	10.374	63	229431	54.97	ug/L	#	100
57) methyl methacrylate	10.550	69	106005	54.82	ug/L	#	78
58) 1,4-dioxane	10.558	88	4203	132.23	ug/L	#	66
59) cis-1,3-dichloropropene	11.077	75	297762	55.42	ug/L		99
61) 4-methyl-2-pentanone	11.169	43	206564	52.19	ug/L		96
62) toluene	11.855	92	440971	49.45	ug/L		99
63) trans-1,3-dichloropropene	11.494	75	250435	57.99	ug/L		99
64) 1,1,2-trichloroethane	11.671	83	136068	47.34	ug/L		98
65) ethyl methacrylate	11.862	69	196250	53.35	ug/L		95
67) tetrachloroethene	12.594	166	183237	49.11	ug/L		96
68) 1,3-dichloropropane	11.904	76	271763	50.33	ug/L		100
69) dibromochloromethane	12.194	129	191988	49.75	ug/L		96
70) 1,2-dibromoethane	12.449	107	155138	51.30	ug/L		99
71) 2-hexanone	12.021	43	185503	56.06	ug/L		97
72) chlorobenzene	13.276	112	468206	46.86	ug/L		99
73) 1,1,1,2-tetrachloroethane	13.191	131	174544	47.98	ug/L		98
74) ethylbenzene	13.446	91	890984	47.84	ug/L		99
75) m,p-xylene	13.630	106	613439	90.08	ug/L		92
76) o-xylene	14.043	106	306568	46.35	ug/L		99
77) styrene	13.969	104	502904	52.42	ug/L		99
78) bromoform	13.799	173	113566	50.58	ug/L		100
79) trans-1,4-dichloro-2-b...	14.188	53	39071	40.20	ug/L	#	82
81) isopropylbenzene	14.400	105	838034	52.93	ug/L		100
83) bromobenzene	14.697	156	191544	51.13	ug/L		98
84) 1,1,2,2-tetrachloroethane	14.047	83	186643	53.79	ug/L		97
85) 1,2,3-trichloropropane	14.192	75	195818	51.13	ug/L		97
86) n-propylbenzene	14.846	91	1099367	54.24	ug/L		100
87) 2-chlorotoluene	14.970	91	657661	51.02	ug/L		98
88) 4-chlorotoluene	15.044	91	682907	50.15	ug/L		100
89) 1,3,5-trimethylbenzene	15.125	105	735502	46.28	ug/L		95
90) tert-butylbenzene	15.429	91	482614	51.72	ug/L		100
91) 1,2,4-trimethylbenzene	15.532	105	758956	48.17	ug/L		99
92) sec-butylbenzene	15.648	105	970388	54.49	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90785.D
Acq On : 1 Oct 2014 9:41 am
Operator : jaclynb
Sample : bs
Misc : ms32855,MSN3359,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 01 10:14:45 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

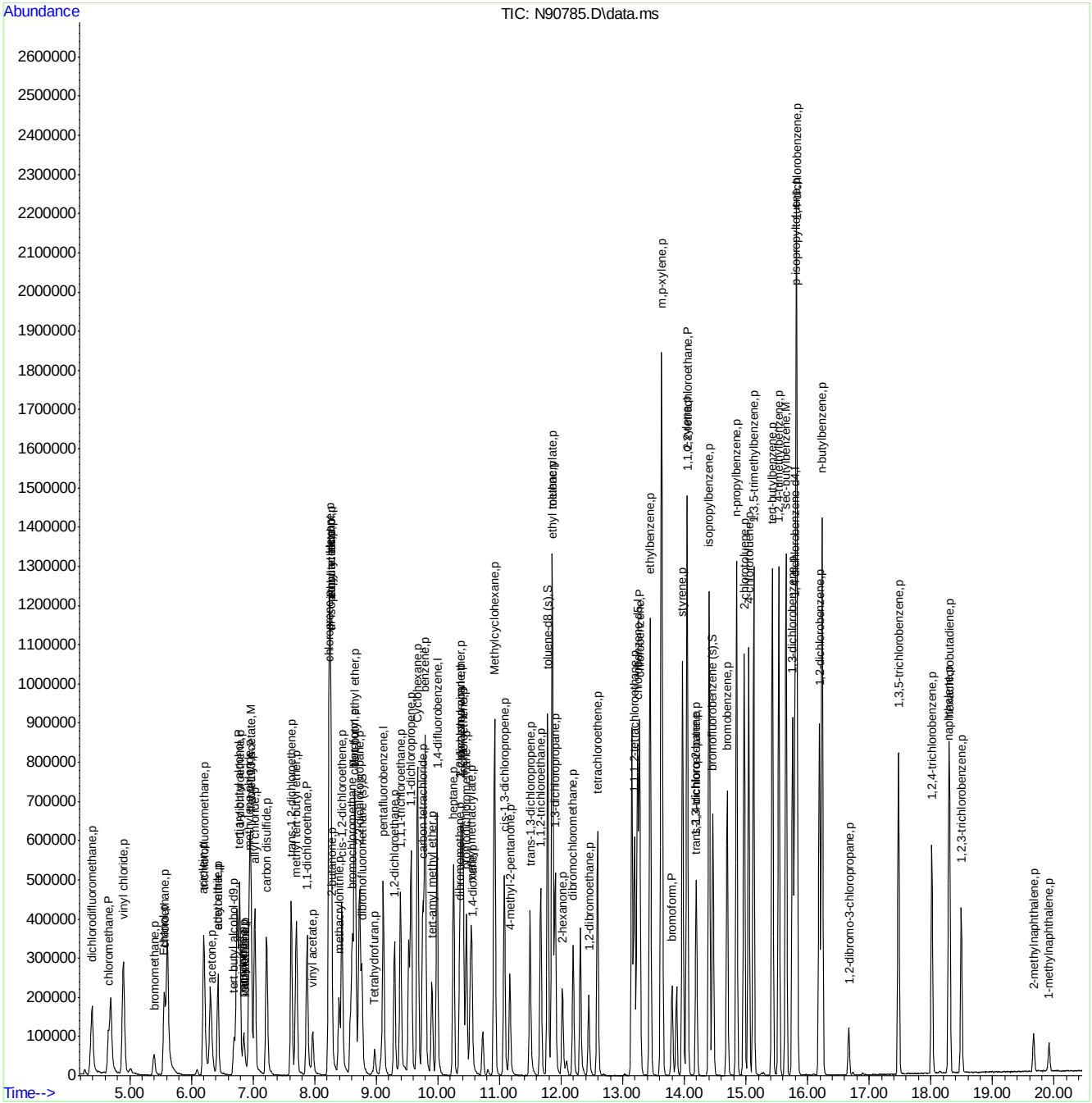
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	370877	51.54	ug/L		97
94) p-isopropyltoluene	15.818	119	795253	54.65	ug/L		99
95) 1,4-dichlorobenzene	15.825	146	351180	54.83	ug/L		98
96) 1,2-dichlorobenzene	16.193	146	364431	54.24	ug/L		99
97) n-butylbenzene	16.235	91	845265	55.99	ug/L		98
98) 1,2-dibromo-3-chloropr...	16.670	75	35138	58.23	ug/L		94
99) 1,2,4-trichlorobenzene	18.017	180	189313	62.81	ug/L		99
100) 1,3,5-trichlorobenzene	17.476	180	260252	55.75	ug/L		100
101) hexachlorobutadiene	18.303	225	135849	57.48	ug/L		96
102) naphthalene	18.289	128	297298	68.74	ug/L		100
103) 1,2,3-trichlorobenzene	18.494	180	141001	64.61	ug/L		94
104) 2-methylnaphthalene	19.668	142	53358	43.35	ug/L	#	100
105) 1-methylnaphthalene	19.915	142	41398	45.00	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90785.D
Acq On : 1 Oct 2014 9:41 am
Operator : jaclynb
Sample : bs
Misc : ms32855,MSN3359,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 01 10:14:45 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES MC33908

Manual Integrations APPROVED
(compounds with "m" flag)
Tomasz Torski
10/03/14 09:16

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22756.D
Acq On : 2 Oct 2014 8:16 am
Operator : GaryK
Sample : cc972-50
Misc : ms32871,msu992,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 02 15:45:46 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.691	65	249452	50.00	ppb		0.08
4) pentafluorobenzene	8.967	168	599572	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.836	114	1042811	50.00	ppb		0.00
66) chlorobenzene-d5	13.092	82	414771	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.657	152	500463	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.611	113	345406	45.01	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 90.02%				
60) toluene-d8 (s)	11.634	98	1081792	52.20	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 104.40%				
82) bromofluorobenzene (s)	14.321	95	344995	52.72	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 105.44%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.655	59	105381m	205.30	ppb		
3) Ethanol	5.673	45	283559m	4984.15	ppb		
5) dichlorodifluoromethane	4.314	85	538065	54.37	ppb		90
6) chloromethane	4.561	50	1113465	59.60	ppb		95
7) vinyl chloride	4.807	62	725374	57.75	ppb		98
8) bromomethane	5.282	96	357138	54.28	ppb		92
9) chloroethane	5.416	64	293225	59.93	ppb		98
10) ethyl ether	6.289	59	308448	48.12	ppb		90
11) acetonitrile	6.111	41	35682	35.36	ppb	#	62
12) trichlorofluoromethane	6.069	101	648877	50.60	ppb		100
13) freon-113	6.832	101	393117	51.16	ppb		93
14) acrolein	6.094	56	49332	94.17	ppb		92
15) 1,1-dichloroethene	6.626	96	316882	46.70	ppb		97
16) acetone	6.231	58	21120	13.17	ppb	#	48
17) Methyl Acetate	6.847	43	459756	65.42	ppb	#	85
18) methylene chloride	6.784	84	350292	48.43	ppb		86
19) methyl tert butyl ether	7.570	73	820264	47.11	ppb		90
20) acrylonitrile	6.742	53	170032	49.76	ppb		93
21) allyl chloride	6.870	41	755810	47.27	ppb		95
22) trans-1,2-dichloroethene	7.462	96	340241	45.35	ppb		92
23) iodomethane	6.690	142	687705	48.88	ppb		100
24) carbon disulfide	7.055	76	1115797	53.17	ppb		98
25) propionitrile	8.077	54	37636	56.60	ppb		100
26) vinyl acetate	7.818	43	438225	83.31	ppb		95
27) chloroprene	8.077	53	675687	55.03	ppb		87
28) di-isopropyl ether	8.117	45	1510984	48.63	ppb		95
29) methacrylonitrile	8.245	41	252799	54.15	ppb		93
30) 2-butanone	8.134	72	23170	28.38	ppb	#	1
31) Ethyl Acetate	8.111	43	1235160	46.82	ug/L	#	51
32) Hexane	8.099	41	685042	52.29	ppb	#	79
33) 1,1-dichloroethane	7.715	63	709326	48.92	ppb		97
34) tert-butyl ethyl ether	8.517	59	1275263	52.73	ppb		99
35) isobutyl alcohol	8.525	43	246334	250.89	ppb		95
36) 2,2-dichloropropane	8.573	77	459428	50.32	ppb		91

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22756.D
Acq On : 2 Oct 2014 8:16 am
Operator : GaryK
Sample : cc972-50
Misc : ms32871,msu992,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 02 15:45:46 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	cis-1,2-dichloroethene	8.286	96	366211	44.00	ppb		98
38)	bromochloromethane	8.456	128	200580	46.12	ppb		91
39)	chloroform	8.488	83	588696	47.38	ppb		99
41)	Tetrahydrofuran	8.855	42	132266	51.55	ppb		93
42)	1,1,1-trichloroethane	9.236	97	539980	50.11	ppb		97
44)	Cyclohexane	9.522	56	760332	48.93	ppb		92
45)	carbon tetrachloride	9.600	117	487634	49.33	ppb		99
46)	1,1-dichloropropene	9.410	75	415624	50.55	ppb		91
47)	benzene	9.635	78	1212274	47.85	ppb		97
48)	1,2-dichloroethane	9.137	62	482902	50.96	ppb		98
49)	tert-amyl methyl ether	9.761	73	841443	50.33	ppb		88
50)	heptane	10.111	43	616245m	56.12	ppb		
51)	trichloroethene	10.256	95	365215	51.40	ppb		77
52)	1,2-dichloropropane	10.224	63	380865	54.06	ppb		99
53)	dibromomethane	10.200	93	208550	51.06	ppb		94
54)	bromodichloromethane	10.312	83	444162	54.03	ppb		97
55)	Methylcyclohexane	10.772	83	538591	48.69	ppb		89
56)	2-chloroethyl vinyl ether	10.695	63	188737	72.57	ppb		97
57)	methyl methacrylate	10.415	69	145058	61.23	ppb	#	71
58)	1,4-dioxane	10.418	88	1636	39.75	ppb	#	23
59)	cis-1,3-dichloropropene	10.932	75	445288	58.06	ppb		91
61)	4-methyl-2-pentanone	11.034	43	373588	50.89	ppb		95
62)	toluene	11.706	92	678616	53.10	ppb		95
63)	trans-1,3-dichloropropene	11.354	75	351216	65.21	ppb		95
64)	1,1,2-trichloroethane	11.526	83	190209	53.52	ppb		92
65)	ethyl methacrylate	11.732	69	267004	53.03	ppb		79
67)	tetrachloroethene	12.448	166	325117	57.33	ppb		98
68)	1,3-dichloropropane	11.760	76	345547	57.04	ppb		94
69)	dibromochloromethane	12.051	129	317065	53.30	ppb		96
70)	1,2-dibromoethane	12.304	107	245781	54.35	ppb		98
71)	2-hexanone	11.897	43	184239	41.60	ppb		93
72)	chlorobenzene	13.129	112	778050	48.90	ppb		89
73)	1,1,1,2-tetrachloroethane	13.049	131	369926	49.02	ppb		98
74)	ethylbenzene	13.304	91	1281644	51.31	ppb		95
75)	m,p-xylene	13.488	106	1044355	99.42	ppb		89
76)	o-xylene	13.901	106	570580	48.97	ppb		89
77)	styrene	13.829	104	754491	44.67	ppb		99
78)	bromoform	13.657	173	191499	43.42	ppb		99
79)	trans-1,4-dichloro-2-b...	14.055	53	112751	45.86	ppb		89
81)	isopropylbenzene	14.264	105	1581737	69.64	ppb		100
83)	bromobenzene	14.552	156	363448	56.88	ppb	#	77
84)	1,1,2,2-tetrachloroethane	13.908	83	313116	56.74	ppb		99
85)	1,2,3-trichloropropane	14.056	75	328171	58.23	ppb		99
86)	n-propylbenzene	14.710	91	1661691	66.27	ppb		94
87)	2-chlorotoluene	14.828	91	992927	60.98	ppb		84
88)	4-chlorotoluene	14.904	91	924158	55.06	ppb		85
89)	1,3,5-trimethylbenzene	14.987	105	1403756	64.41	ppb		97
90)	tert-butylbenzene	15.293	91	798653	66.67	ppb		88
91)	1,2,4-trimethylbenzene	15.396	105	1432373	62.99	ppb		99
92)	sec-butylbenzene	15.516	105	1905094	67.87	ppb		95

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22756.D
Acq On : 2 Oct 2014 8:16 am
Operator : GaryK
Sample : cc972-50
Misc : ms32871,msu992,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 02 15:45:46 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

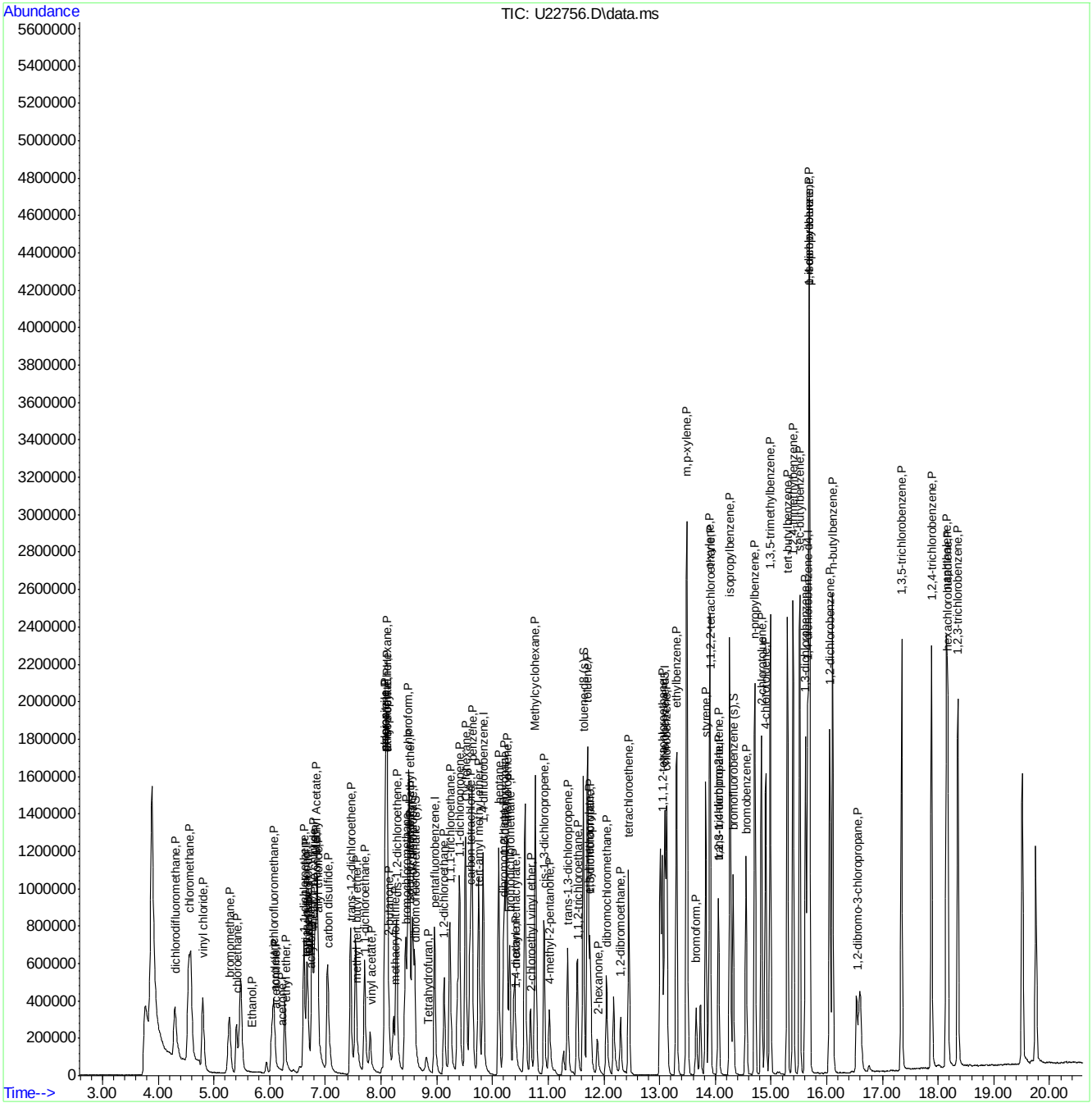
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	1,3-dichlorobenzene	15.618	146	781131	52.95	ppb		98
94)	p-isopropyltoluene	15.688	119	1632527	63.50	ppb		95
95)	1,4-dichlorobenzene	15.685	146	808916	51.70	ppb		99
96)	1,2-dichlorobenzene	16.054	146	862154	56.24	ppb		96
97)	n-butylbenzene	16.106	91	1469153	61.75	ppb		90
98)	1,2-dibromo-3-chloropr...	16.544	75	94686	76.70	ppb	#	62
99)	1,3,5-trichlorobenzene	17.345	180	770671	72.02	ug/L		95
100)	1,2,4-trichlorobenzene	17.884	180	750836	77.38	ppb		92
101)	hexachlorobutadiene	18.173	225	340185	75.32	ppb		96
102)	naphthalene	18.150	128	1785843	83.12	ppb		100
103)	2-Methylnaphthalene	19.513	142	919068	Below Cal			97
104)	1-Methylnaphthalene	19.760	142	726789	Below Cal			97
105)	1,2,3-trichlorobenzene	18.357	180	675706	83.86	ppb		94

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22756.D
Acq On : 2 Oct 2014 8:16 am
Operator : GaryK
Sample : cc972-50
Misc : ms32871,msu992,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 02 15:45:46 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

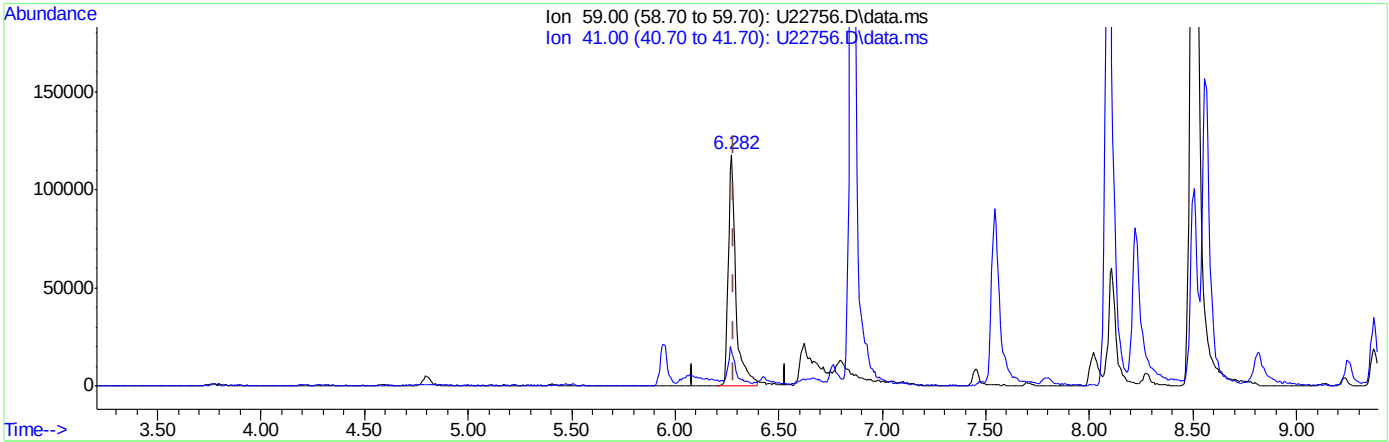


ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22756.D
Acq On : 2 Oct 2014 8:16 am
Operator : GaryK
Sample : bs
Misc : ms32817,msu992,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 02 08:40:28 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration



TIC: U22756.D\data.ms

(2) tertiary butyl alcohol (P)

6.285min (-0.001) 576.97ppb m

response 296154

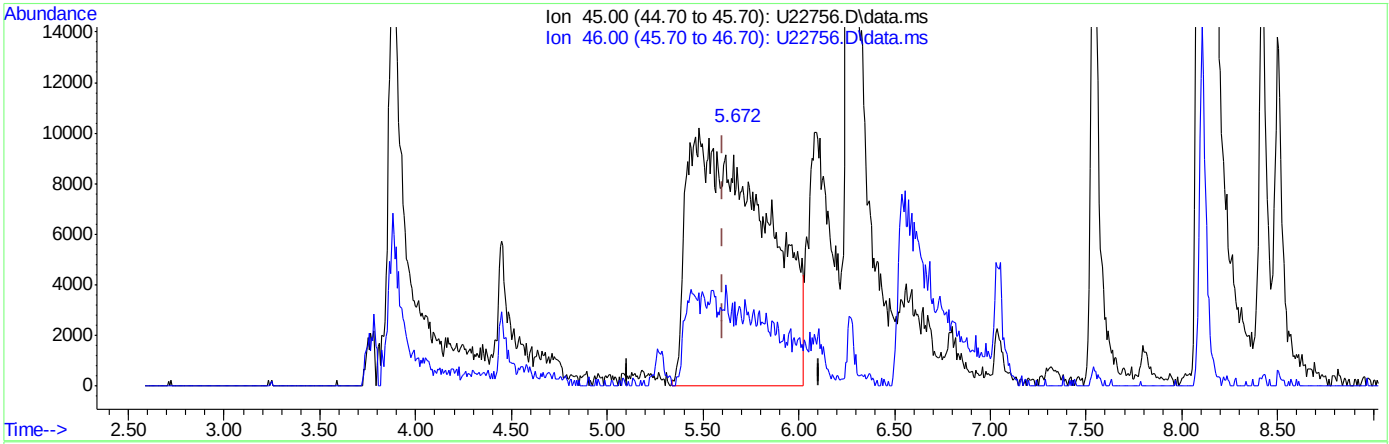
Ion	Exp%	Act%
59.00	100	100
41.00	12.70	17.13
0.00	0.00	0.00
0.00	0.00	0.00

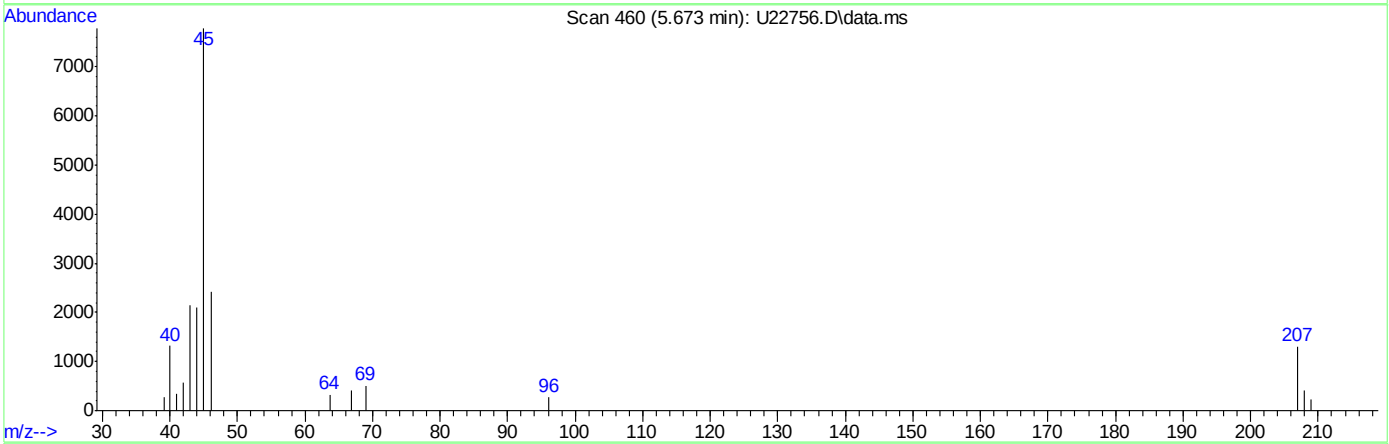
U22756.D edits: tertiary butyl alcohol

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22756.D
Acq On : 2 Oct 2014 8:16 am
Operator : GaryK
Sample : bs
Misc : ms32871,msu992,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 02 15:45:04 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22756.D\data.ms

(3) Ethanol (P)

5.673min (+0.067) 4984.15ppb m

response 283559

Ion	Exp%	Act%
45.00	100	100
46.00	35.30	31.13
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
10/03/14 09:16

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22757.D
Acq On : 2 Oct 2014 8:43 am
Operator : GaryK
Sample : bsd
Misc : ms32871,msu992,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 02 15:50:26 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.748	65	228658	50.00	ppb		0.14
4) pentafluorobenzene	8.968	168	573500	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.837	114	991830	50.00	ppb		0.00
66) chlorobenzene-d5	13.092	82	404230	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.657	152	476204	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.613	113	337874	46.03	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 92.06%				
60) toluene-d8 (s)	11.634	98	1018615	51.68	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.36%				
82) bromofluorobenzene (s)	14.321	95	340960	54.75	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 109.50%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.669	59	91265m	193.97	ppb		
3) Ethanol	5.837	45	245842	4703.47	ppb		91
5) dichlorodifluoromethane	4.309	85	538535	56.89	ppb		97
6) chloromethane	4.555	50	1133237	63.42	ppb		96
7) vinyl chloride	4.801	62	710194	59.12	ppb		99
8) bromomethane	5.278	96	350537	55.70	ppb		94
9) chloroethane	5.414	64	288790	61.70	ppb		97
10) ethyl ether	6.294	59	312942	51.04	ppb		87
11) acetonitrile	6.019	41	85324	97.37	ppb	#	10
12) trichlorofluoromethane	6.066	101	642622	52.39	ppb		99
13) freon-113	6.830	101	389444	52.98	ppb		93
14) acrolein	6.118	56	52193	104.16	ppb		92
15) 1,1-dichloroethene	6.628	96	321566	49.55	ppb		96
16) acetone	6.198	58	9995	6.52	ppb		88
17) Methyl Acetate	6.860	43	462255	68.76	ppb	#	79
18) methylene chloride	6.786	84	355755	51.43	ppb	#	82
19) methyl tert butyl ether	7.575	73	839792	50.42	ppb		87
20) acrylonitrile	6.766	53	183314	56.08	ppb		98
21) allyl chloride	6.873	41	768780	50.26	ppb		94
22) trans-1,2-dichloroethene	7.464	96	347348	48.40	ppb		96
23) iodomethane	6.690	142	689324	51.22	ppb		97
24) carbon disulfide	7.051	76	1088821	54.24	ppb		95
25) propionitrile	8.076	54	39821	62.61	ppb		100
26) vinyl acetate	7.823	43	435095	86.47	ppb		99
27) chloroprene	8.078	53	668544	56.93	ppb		91
28) di-isopropyl ether	8.119	45	1513176	50.92	ppb		93
29) methacrylonitrile	8.253	41	266283	59.63	ppb		95
30) 2-butanone	8.141	72	23069	29.54	ppb	#	1
31) Ethyl Acetate	8.113	43	1203420	47.69	ug/L	#	43
32) Hexane	8.099	41	669502	53.42	ppb	#	80
33) 1,1-dichloroethane	7.716	63	716517	51.66	ppb		99
34) tert-butyl ethyl ether	8.519	59	1275737	55.14	ppb		98
35) isobutyl alcohol	8.531	43	260598	277.48	ppb		86
36) 2,2-dichloropropane	8.573	77	452645	51.83	ppb		92

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22757.D
Acq On : 2 Oct 2014 8:43 am
Operator : GaryK
Sample : bsd
Misc : ms32871,msu992,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 02 15:50:26 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) cis-1,2-dichloroethene	8.286	96	368338	46.27	ppb		98
38) bromochloromethane	8.460	128	202131	48.59	ppb		93
39) chloroform	8.489	83	588303	49.50	ppb		94
41) Tetrahydrofuran	8.867	42	138954	56.62	ppb		87
42) 1,1,1-trichloroethane	9.238	97	541640	52.55	ppb		96
44) Cyclohexane	9.521	56	755068	51.09	ppb		88
45) carbon tetrachloride	9.600	117	480704	51.12	ppb		100
46) 1,1-dichloropropene	9.411	75	416879	53.31	ppb		92
47) benzene	9.636	78	1201058	49.85	ppb		97
48) 1,2-dichloroethane	9.157	62	544819	60.45	ppb		96
49) tert-amyl methyl ether	9.763	73	853598	53.68	ppb		89
50) heptane	10.111	43	587727m	56.27	ppb		
51) trichloroethene	10.256	95	365618	54.10	ppb		72
52) 1,2-dichloropropane	10.226	63	369463	55.13	ppb		99
53) dibromomethane	10.201	93	207128	53.32	ppb		94
54) bromodichloromethane	10.313	83	431728	55.22	ppb		97
55) Methylcyclohexane	10.773	83	536804	51.02	ppb		90
56) 2-chloroethyl vinyl ether	10.697	63	198006	79.47	ppb		96
57) methyl methacrylate	10.419	69	158844	70.50	ppb		90
58) 1,4-dioxane	10.496	88	1594	40.72	ppb	#	7
59) cis-1,3-dichloropropene	10.933	75	437779	60.02	ppb		90
61) 4-methyl-2-pentanone	11.038	43	405545	58.09	ppb		96
62) toluene	11.706	92	656653	54.02	ppb		97
63) trans-1,3-dichloropropene	11.355	75	353320	68.97	ppb		98
64) 1,1,2-trichloroethane	11.528	83	194867	57.65	ppb		98
65) ethyl methacrylate	11.733	69	276849	57.81	ppb		80
67) tetrachloroethene	12.448	166	318843	57.69	ppb		98
68) 1,3-dichloropropane	11.761	76	352813	59.76	ppb		95
69) dibromochloromethane	12.052	129	319958	55.19	ppb		95
70) 1,2-dibromoethane	12.305	107	253007	57.41	ppb		93
71) 2-hexanone	11.898	43	214213	49.63	ppb		99
72) chlorobenzene	13.129	112	762213	49.16	ppb		88
73) 1,1,1,2-tetrachloroethane	13.049	131	365874	49.75	ppb		97
74) ethylbenzene	13.304	91	1257185	51.64	ppb		97
75) m,p-xylene	13.488	106	1025709	100.19	ppb		90
76) o-xylene	13.901	106	568925	50.10	ppb		88
77) styrene	13.829	104	747429	45.41	ppb		99
78) bromoform	13.658	173	200305	46.60	ppb		99
79) trans-1,4-dichloro-2-b...	14.056	53	119198	49.75	ppb		85
81) isopropylbenzene	14.264	105	1576490	72.95	ppb		97
83) bromobenzene	14.553	156	363960	59.86	ppb	#	79
84) 1,1,2,2-tetrachloroethane	13.908	83	316978	60.36	ppb		100
85) 1,2,3-trichloropropane	14.057	75	351504	65.55	ppb		100
86) n-propylbenzene	14.710	91	1670826	70.02	ppb		95
87) 2-chlorotoluene	14.828	91	989292	63.85	ppb		82
88) 4-chlorotoluene	14.904	91	916341	57.38	ppb		86
89) 1,3,5-trimethylbenzene	14.987	105	1392115	67.12	ppb		94
90) tert-butylbenzene	15.293	91	791740	69.46	ppb		87
91) 1,2,4-trimethylbenzene	15.396	105	1444159	66.74	ppb		99
92) sec-butylbenzene	15.516	105	1909436	71.49	ppb		94

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22757.D
Acq On : 2 Oct 2014 8:43 am
Operator : GaryK
Sample : bsd
Misc : ms32871,msu992,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 02 15:50:26 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

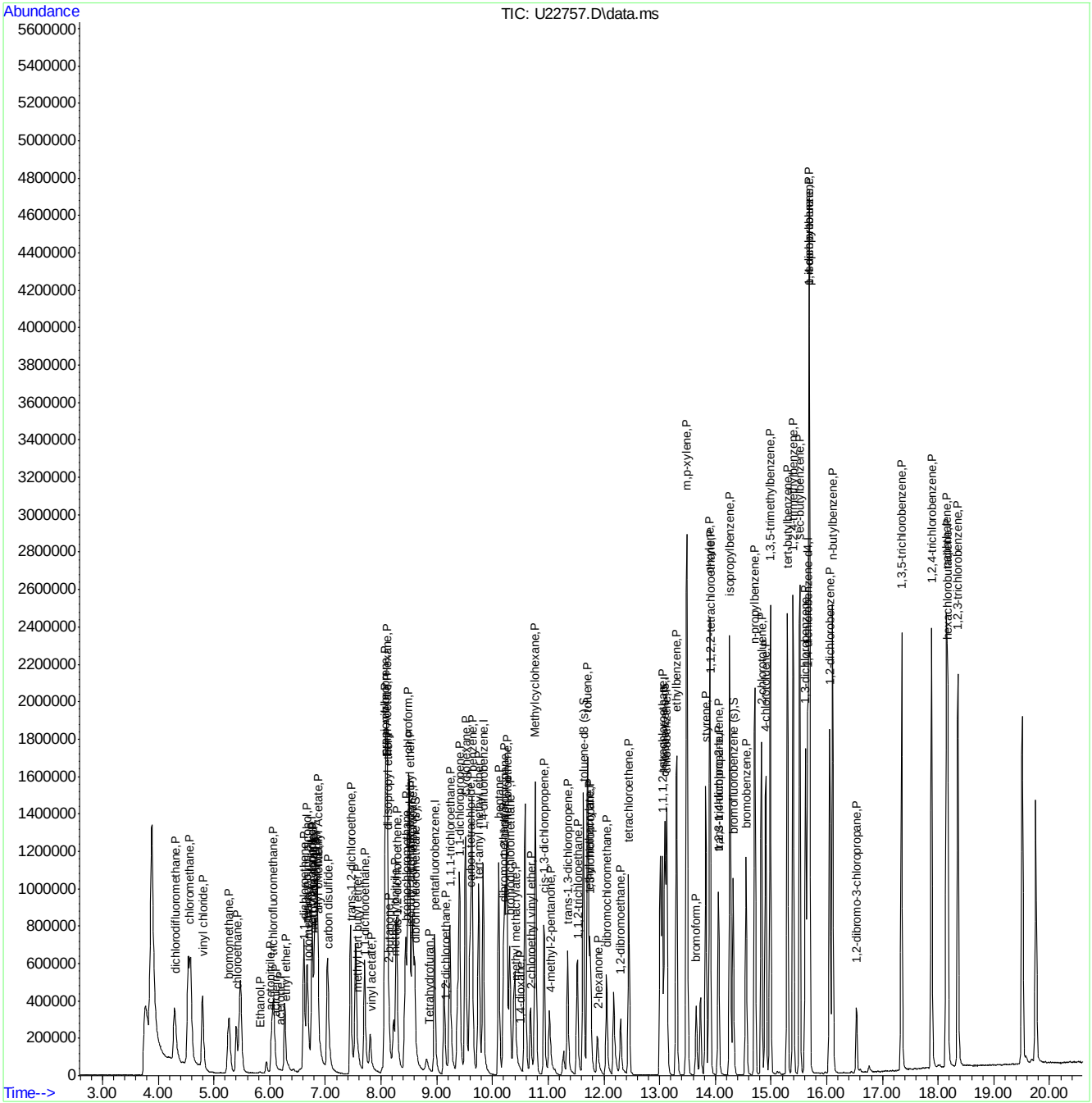
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	1,3-dichlorobenzene	15.618	146	771207	54.94	ppb	97
94)	p-isopropyltoluene	15.688	119	1652924	67.57	ppb	95
95)	1,4-dichlorobenzene	15.685	146	789088	53.01	ppb	99
96)	1,2-dichlorobenzene	16.053	146	849854	58.26	ppb	96
97)	n-butylbenzene	16.106	91	1459089	64.45	ppb	90
98)	1,2-dibromo-3-chloropr...	16.535	75	79466	67.65	ppb	82
99)	1,3,5-trichlorobenzene	17.345	180	769255	75.55	ug/L	94
100)	1,2,4-trichlorobenzene	17.884	180	770756	83.48	ppb	93
101)	hexachlorobutadiene	18.173	225	349872	81.41	ppb	98
102)	naphthalene	18.150	128	1841730	90.08	ppb	100
103)	2-Methylnaphthalene	19.513	142	1090031	Below Cal		97
104)	1-Methylnaphthalene	19.759	142	847737	Below Cal		99
105)	1,2,3-trichlorobenzene	18.356	180	721542	94.11	ppb	95

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22757.D
Acq On : 2 Oct 2014 8:43 am
Operator : GaryK
Sample : bsd
Misc : ms32871,msu992,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 02 15:50:26 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

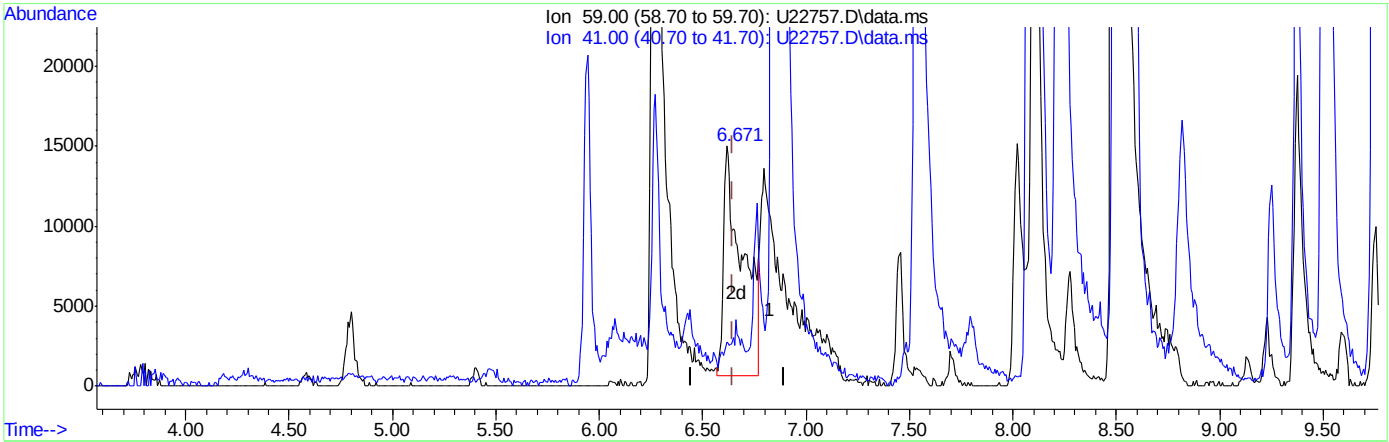


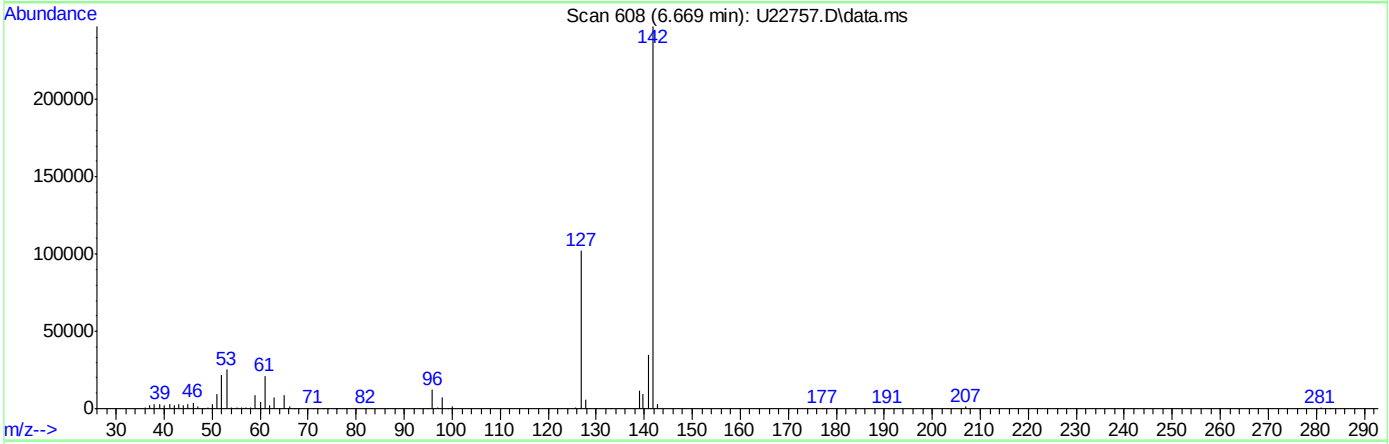
ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22757.D
Acq On : 2 Oct 2014 8:43 am
Operator : GaryK
Sample : bsd
Misc : ms32871,msu992,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 02 15:49:43 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22757.D\data.ms

(2) tertiary butyl alcohol (P)

6.669min (+0.020) 193.97ppb m

response 91265

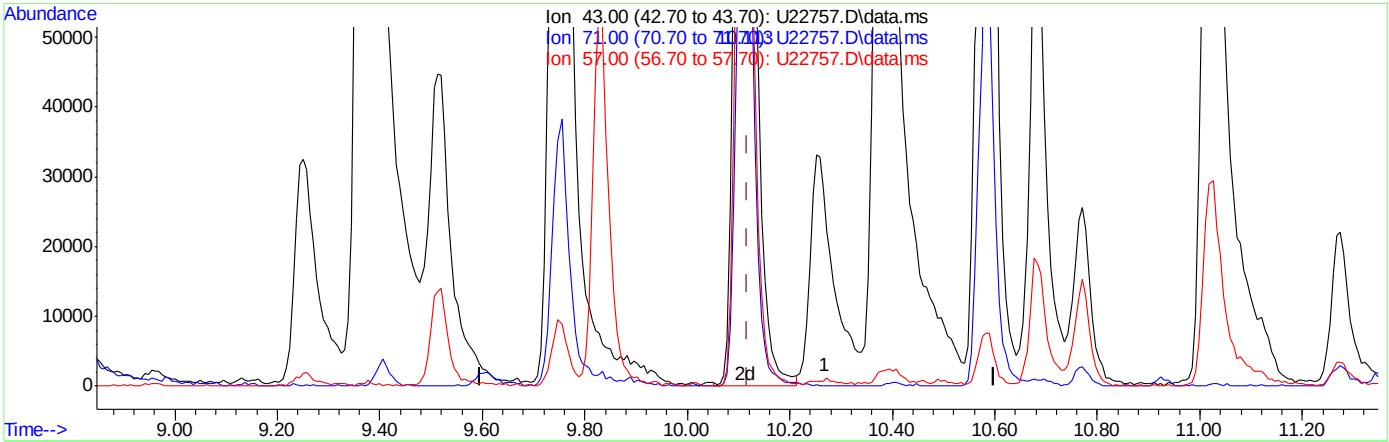
Ion	Exp%	Act%
59.00	100	100
41.00	23.90	36.72
0.00	0.00	0.00
0.00	0.00	0.00

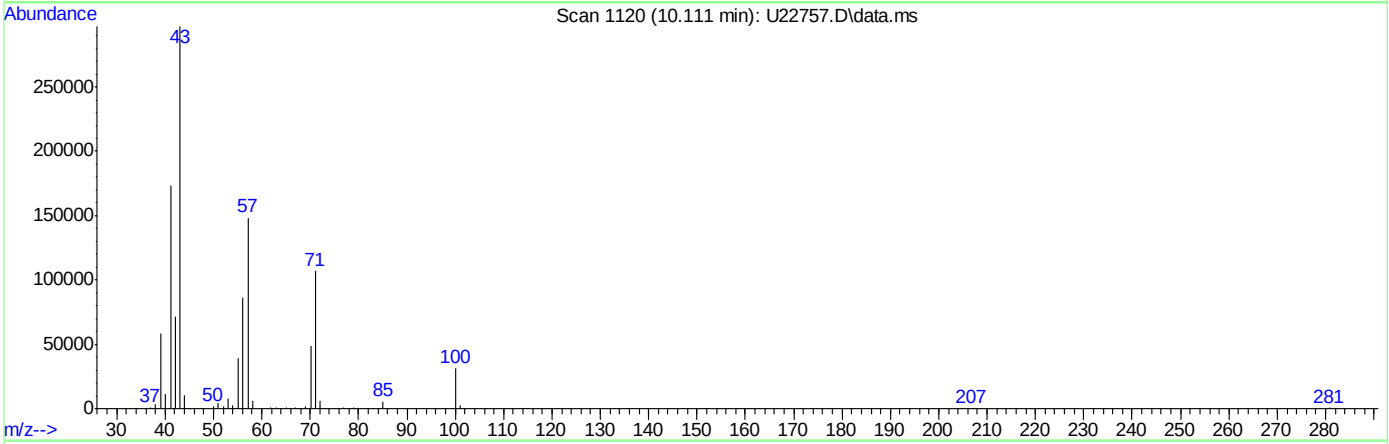
ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22757.D
Acq On : 2 Oct 2014 8:43 am
Operator : GaryK
Sample : bsd
Misc : ms32871,msu992,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 02 15:49:43 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22757.D\data.ms

(50) heptane (P)

10.111min (-0.007) 56.27ppb m

response 587727

Ion	Exp%	Act%
43.00	100	100
71.00	26.10	36.02
57.00	5.80	50.00#
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
10/06/14 09:31

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : bs
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:09:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.159	65	88974	50.00	ug/L		#-0.02
4) pentafluorobenzene	8.476	168	430392	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.318	114	510520	50.00	ug/L		0.00
66) chlorobenzene-d5	12.525	82	260558	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.078	152	286559	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.126	113	188913	42.08	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 84.16%				
60) toluene-d8 (s)	11.083	98	604980	45.65	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 91.30%				
82) bromofluorobenzene (s)	13.744	95	227920	37.14	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 74.28%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.240	59	80418	285.93	ug/L	#	57
3) Ethanol	5.115	45	295016	8416.55	ug/L		98
5) dichlorodifluoromethane	4.057	85	266905	50.00	ug/L		98
6) chloromethane	4.279	50	259186	47.58	ug/L		98
7) vinyl chloride	4.495	62	241157m	58.37	ug/L		
8) bromomethane	4.946	96	53198	52.87	ug/L		94
9) chloroethane	5.095	64	116971	70.41	ug/L		100
10) ethyl ether	5.910	59	157465	55.41	ug/L		81
11) acetonitrile	5.701	41	32393	64.57	ug/L		84
12) trichlorofluoromethane	5.674	101	394130	59.33	ug/L		99
13) freon-113	6.395	101	167813	47.52	ug/L		94
14) acrolein	5.681	56	47198	99.32	ug/L		88
15) 1,1-dichloroethene	6.220	96	148096	50.36	ug/L		93
16) acetone	5.802	58	37753	47.16	ug/L	#	35
17) Methyl Acetate	6.401	43	240757	59.90	ug/L	#	84
18) methylene chloride	6.368	84	172562	43.62	ug/L	#	50
19) methyl tert butyl ether	7.109	73	426018	49.66	ug/L		82
20) acrylonitrile	6.287	53	63231	36.67	ug/L		91
21) allyl chloride	6.455	41	307304	45.57	ug/L		78
22) trans-1,2-dichloroethene	7.014	96	145989	41.20	ug/L		83
23) iodomethane	6.280	142	94737	48.83	ug/L		95
24) carbon disulfide	6.624	76	464955	43.56	ug/L		99
25) propionitrile	7.284	54	21812	38.72	ug/L		100
26) vinyl acetate	7.365	43	223230	26.49	ug/L		90
27) chloroprene	7.607	53	321929	53.14	ug/L		82
28) di-isopropyl ether	7.654	45	817196	43.76	ug/L		92
29) methacrylonitrile	7.769	41	136789	43.72	ug/L		74
30) 2-butanone	7.668	72	22640	37.70	ug/L	#	13
31) Hexane	7.621	41	418947	53.48	ug/L	#	84
32) 1,1-dichloroethane	7.257	63	362179	45.80	ug/L		97
33) tert-butyl ethyl ether	8.032	59	483331	64.07	ug/L		90
34) isobutyl alcohol	7.654	43	755414	238.34	ug/L		98
35) 2,2-dichloropropane	8.086	77	106199	28.54	ug/L		96
36) cis-1,2-dichloroethene	7.809	96	167894	40.86	ug/L		85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : bs
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:09:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	7.958	43	188710	44.18	ug/L		100
38) bromochloromethane	7.971	128	87311	50.42	ug/L	#	71
39) chloroform	8.005	83	350296	47.39	ug/L		98
41) Tetrahydrofuran	8.328	42	58841	33.83	ug/L		71
42) 1,1,1-trichloroethane	8.725	97	299661	49.27	ug/L		94
44) Cyclohexane	8.995	56	327355	49.64	ug/L	#	73
45) carbon tetrachloride	9.076	117	261521	59.32	ug/L		92
46) 1,1-dichloropropene	8.901	75	232568	52.48	ug/L		97
47) benzene	9.116	78	667499	47.23	ug/L		99
48) 1,2-dichloroethane	8.638	62	276419	57.20	ug/L		100
49) tert-amyl methyl ether	9.244	73	383331	69.76	ug/L		78
50) heptane	9.588	43	288227	50.56	ug/L		73
51) trichloroethene	9.722	95	184384	50.28	ug/L		93
52) 1,2-dichloropropane	9.696	63	201473	47.34	ug/L		100
53) dibromomethane	9.669	93	118006	54.13	ug/L		95
54) bromodichloromethane	9.776	83	279227	56.72	ug/L		99
55) Methylcyclohexane	10.228	83	247031	48.96	ug/L	#	79
56) 2-chloroethyl vinyl ether	10.228	63	3362	72.05	ug/L	#	84
57) methyl methacrylate	9.877	69	108220	43.90	ug/L	#	32
58) 1,4-dioxane	9.877	88	2766m	100.02	ug/L		
59) cis-1,3-dichloropropene	10.389	75	248025	51.83	ug/L		97
61) 4-methyl-2-pentanone	10.490	43	235682	46.20	ug/L		84
62) toluene	11.151	92	390737	48.76	ug/L		96
63) trans-1,3-dichloropropene	10.807	75	219078	53.60	ug/L		98
64) 1,1,2-trichloroethane	10.975	83	136425	49.56	ug/L		97
65) ethyl methacrylate	11.184	69	207811	44.07	ug/L	#	58
67) tetrachloroethene	11.885	166	204459	55.66	ug/L		98
68) 1,3-dichloropropane	11.204	76	256549	47.31	ug/L		99
69) dibromochloromethane	11.487	129	206089	56.91	ug/L		100
70) 1,2-dibromoethane	11.737	107	159473	50.23	ug/L		98
71) 2-hexanone	11.373	43	181243	42.63	ug/L		79
72) chlorobenzene	12.558	112	450294	49.51	ug/L		93
73) 1,1,1,2-tetrachloroethane	12.484	131	178696	54.44	ug/L		98
74) ethylbenzene	12.734	91	737898	45.60	ug/L		99
75) m,p-xylene	12.922	106	565281	97.53	ug/L		98
76) o-xylene	13.333	106	281942	49.81	ug/L		95
77) styrene	13.259	104	473052	50.77	ug/L		91
78) bromoform	13.077	173	156427	59.67	ug/L		96
79) trans-1,4-dichloro-2-b...	13.488	53	25070	23.09	ug/L	#	29
81) isopropylbenzene	13.690	105	705267	42.42	ug/L		95
83) bromobenzene	13.973	156	232146	45.61	ug/L		88
84) 1,1,2,2-tetrachloroethane	13.340	83	206020	36.31	ug/L		99
85) 1,2,3-trichloropropane	13.488	75	175460	31.78	ug/L		99
86) n-propylbenzene	14.135	91	843815	40.25	ug/L		98
87) 2-chlorotoluene	14.249	91	513857	41.98	ug/L		92
88) 4-chlorotoluene	14.330	91	549755	43.09	ug/L		91
89) 1,3,5-trimethylbenzene	14.418	105	608014	39.78	ug/L		95
90) tert-butylbenzene	14.721	91	357361	43.86	ug/L		86
91) 1,2,4-trimethylbenzene	14.829	105	606215	41.05	ug/L		95
92) sec-butylbenzene	14.943	105	713653	40.19	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : bs
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:09:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

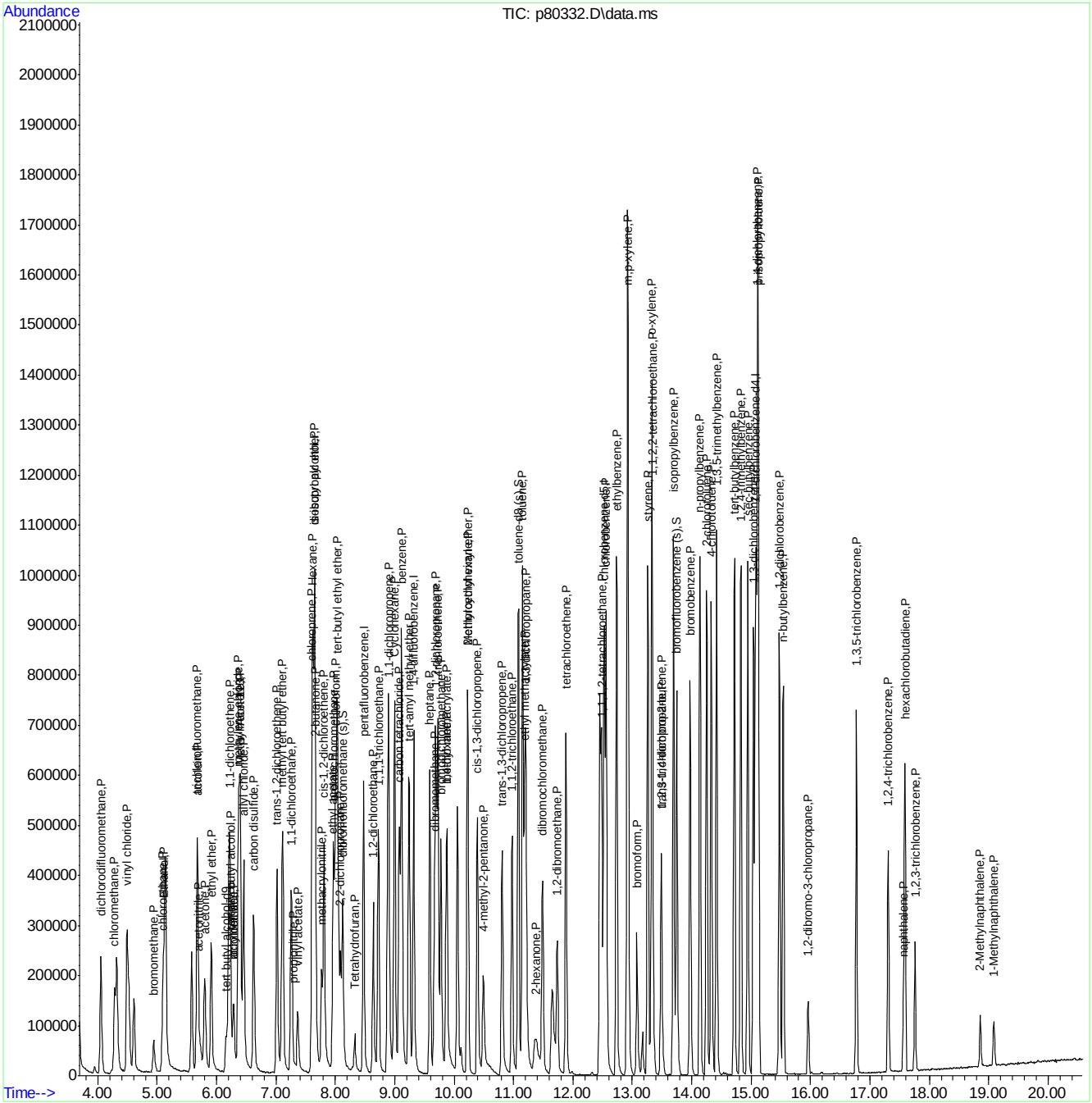
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	1,3-dichlorobenzene	15.037	146	380573	45.72	ug/L	98
94)	p-isopropyltoluene	15.118	119	588652	41.75	ug/L	98
95)	1,4-dichlorobenzene	15.112	146	386270	44.25	ug/L	94
96)	1,2-dichlorobenzene	15.475	146	366221	46.03	ug/L	98
97)	n-butylbenzene	15.543	91	459492	37.87	ug/L	93
98)	1,2-dibromo-3-chloropr...	15.960	75	31528	43.28	ug/L	86
99)	1,3,5-trichlorobenzene	16.775	180	244031	50.56	ug/L	96
100)	1,2,4-trichlorobenzene	17.308	180	142199	37.46	ug/L	95
101)	hexachlorobutadiene	17.591	225	129543	51.50	ug/L	96
102)	naphthalene	17.564	128	65473	17.93	ug/L	100
103)	1,2,3-trichlorobenzene	17.759	180	81850	29.42	ug/L	98
104)	2-Methylnaphthalene	18.857	142	55731	36.92	ug/L	100
105)	1-Methylnaphthalene	19.086	142	47233	34.60	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : bs
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

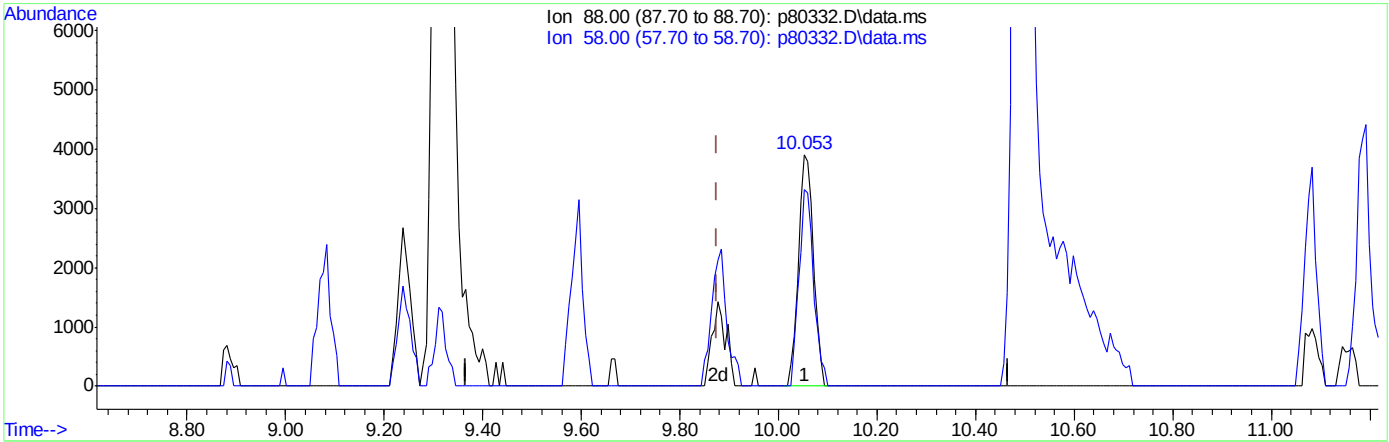
Quant Time: Oct 03 11:09:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

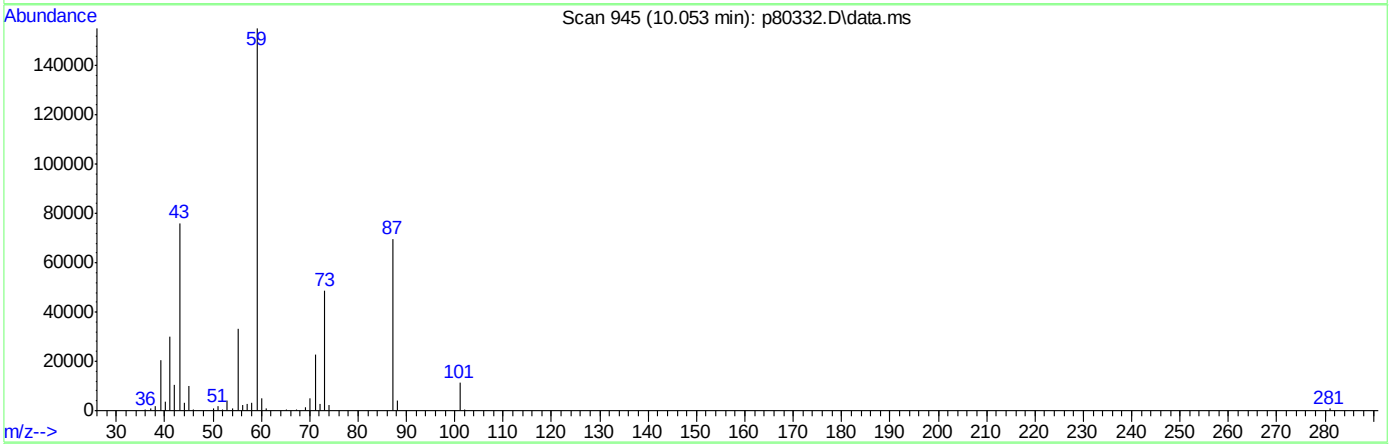


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : cc2607-50
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:08:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration





TIC: p80332.D\data.ms

(58) 1,4-dioxane (P)

10.053min (+0.176) 260.69ug/L

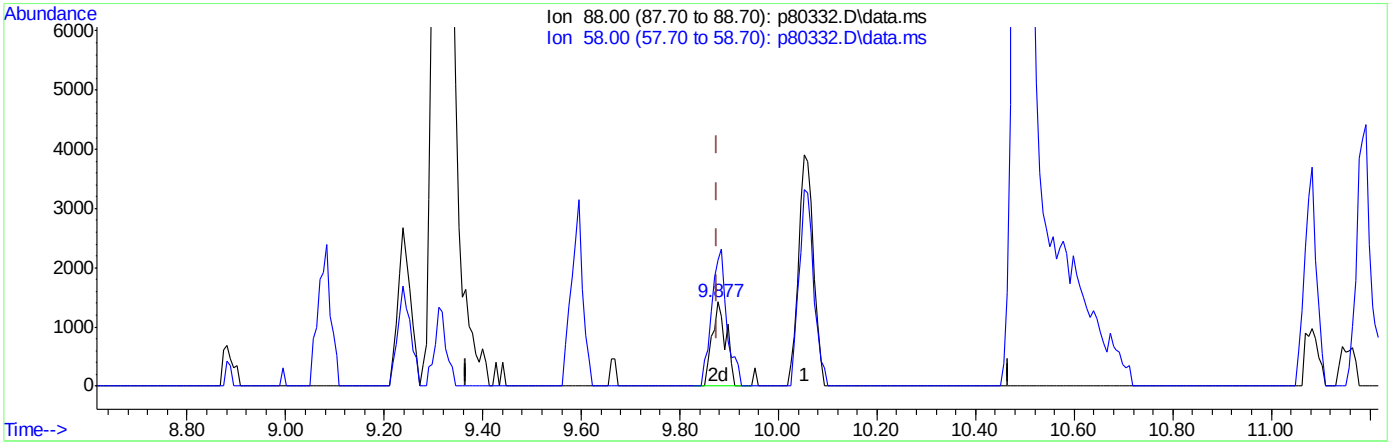
response 8147

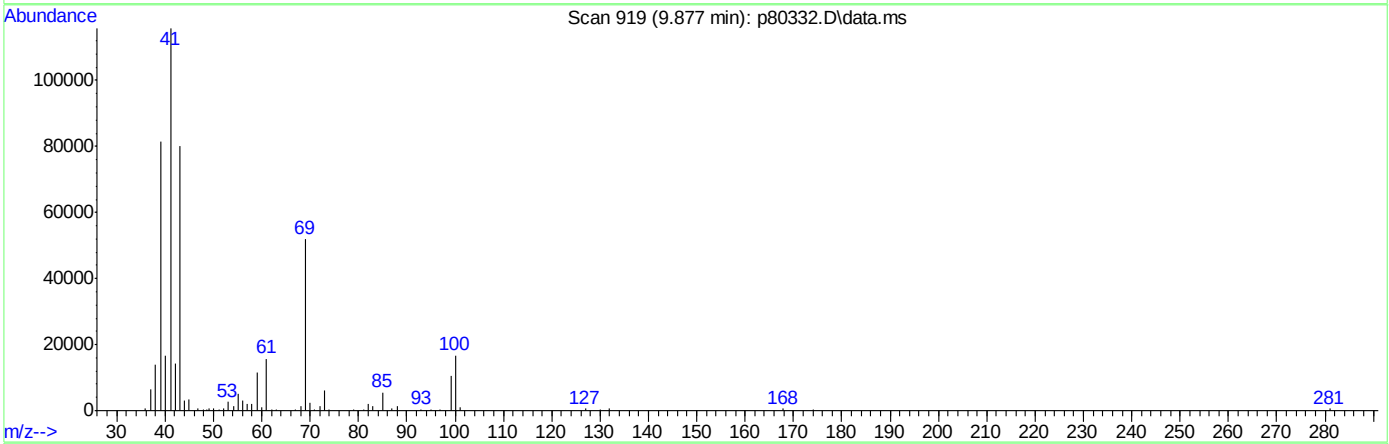
Ion	Exp%	Act%
88.00	100	100
58.00	83.70	85.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : cc2607-50
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:08:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration





TIC: p80332.D\data.ms

(58) 1,4-dioxane (P)

9.877min (+0.000) 100.02ug/L m

response 2766

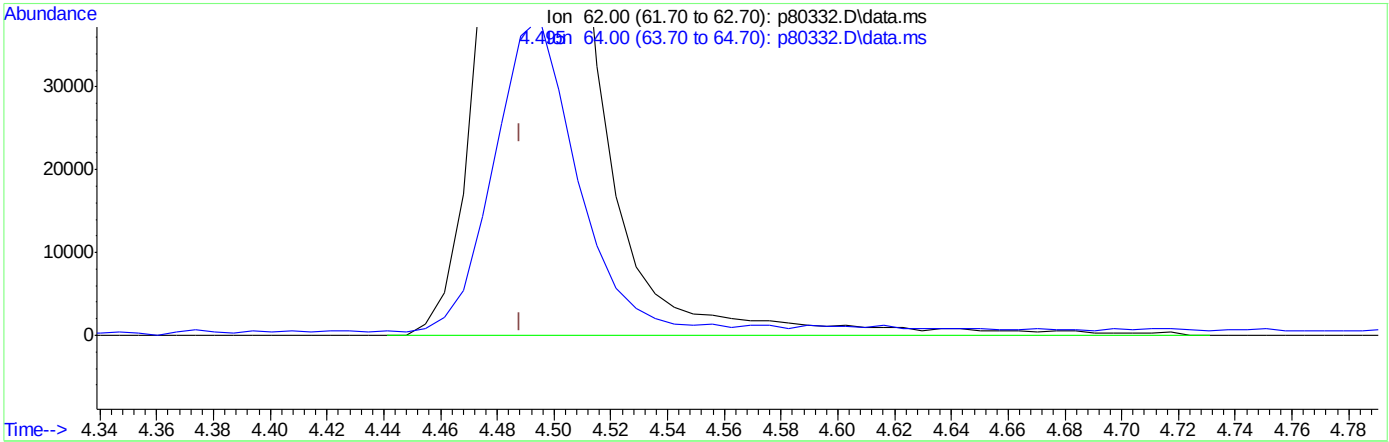
Ion	Exp%	Act%
88.00	100	100
58.00	83.70	149.30#
0.00	0.00	0.00
0.00	0.00	0.00

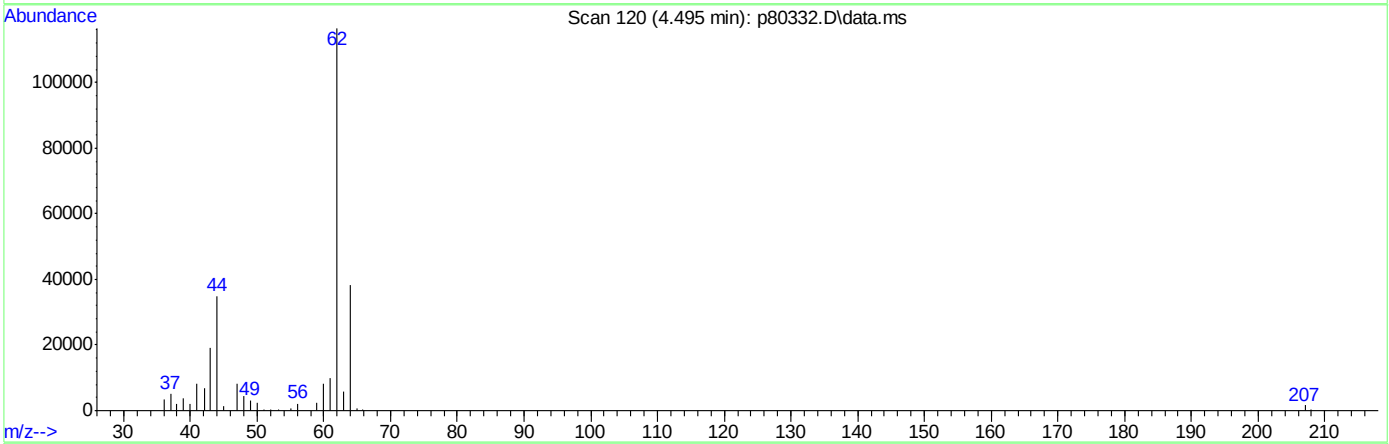
ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : cc2607-50
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:08:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration





TIC: p80332.D\data.ms

(7) vinyl chloride (P)

4.495min (+0.007) 61.10ug/L

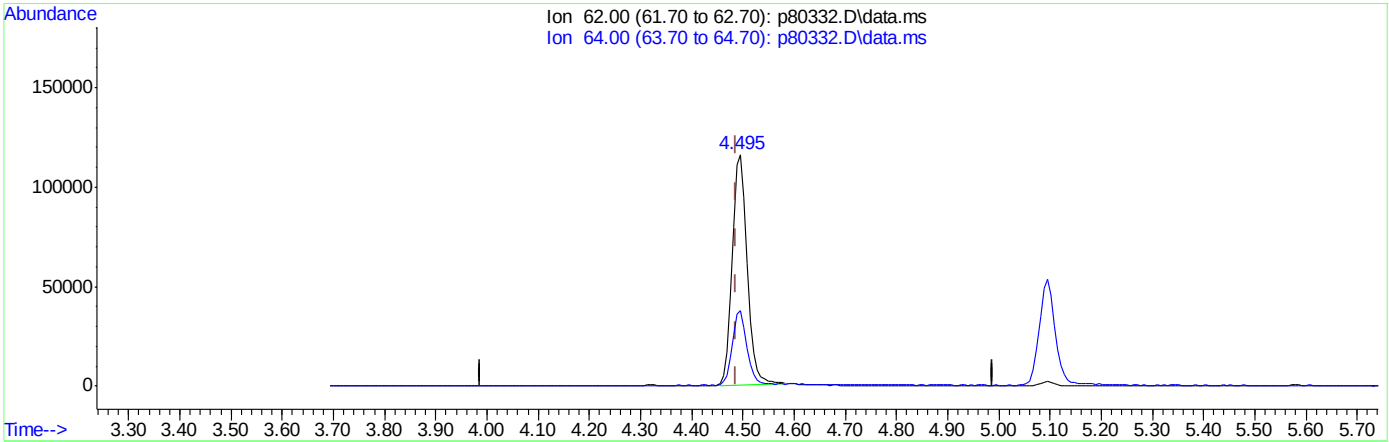
response 252441

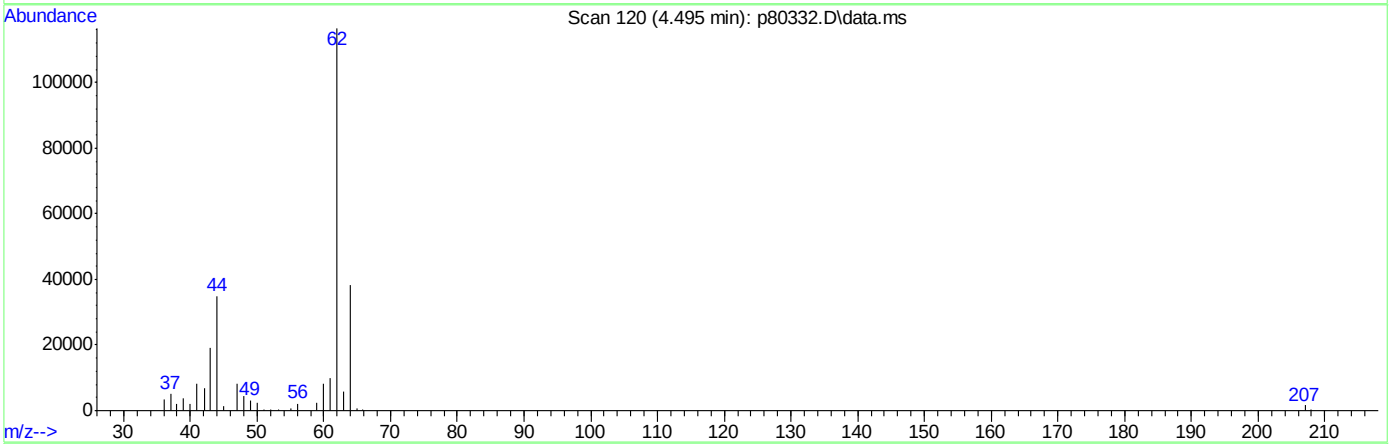
Ion	Exp%	Act%
62.00	100	100
64.00	33.00	32.21
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : cc2607-50
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:08:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration





TIC: p80332.D\data.ms

(7) vinyl chloride (P)

4.495min (+0.007) 58.37ug/L m

response 241157

Ion	Exp%	Act%
62.00	100	100
64.00	33.00	32.71
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33908

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/30/14 09:07

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22734.D
Acq On : 29 Sep 2014 6:26 pm
Operator : GaryK
Sample : mc33908-3ms
Misc : ms32817,msu990,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 30 08:11:15 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.737	65	173493	50.00	ppb		0.13
4) pentafluorobenzene	8.970	168	411221	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.840	114	761189	50.00	ppb		0.00
66) chlorobenzene-d5	13.094	82	453175	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.662	152	606652	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.614	113	262329	49.84	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 99.68%				
60) toluene-d8 (s)	11.636	98	872044	57.65	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 115.30%				
82) bromofluorobenzene (s)	14.325	95	477974	60.25	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 120.50%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.292	59	201859	565.44	ppb		88
3) Ethanol	5.707	45	86159m	2066.30	ppb		
5) dichlorodifluoromethane	4.311	85	432616	63.74	ppb		94
6) chloromethane	4.547	50	796311	62.15	ppb		99
7) vinyl chloride	4.798	62	538429	62.51	ppb		99
8) bromomethane	5.261	96	233856	51.82	ppb		97
9) chloroethane	5.415	64	212126	63.21	ppb		96
10) ethyl ether	6.292	59	202104	45.97	ppb		93
11) acetonitrile	6.117	41	27553m	40.56	ppb		
12) trichlorofluoromethane	6.063	101	474130	53.91	ppb		100
13) freon-113	6.826	101	282736	53.65	ppb		93
14) acrolein	6.118	56	127963	356.16	ppb		87
15) 1,1-dichloroethene	6.629	96	234841	50.47	ppb		97
16) acetone	6.283	58	28151	25.60	ppb	#	1
17) Methyl Acetate	6.854	43	288336	59.82	ppb	#	80
18) methylene chloride	6.783	84	268299	54.09	ppb		84
19) methyl tert butyl ether	7.570	73	608089	50.92	ppb		94
20) acrylonitrile	6.764	53	113540	48.45	ppb		91
21) allyl chloride	6.874	41	439859	40.11	ppb		97
22) trans-1,2-dichloroethene	7.466	96	258395	50.22	ppb		90
23) iodomethane	6.689	142	510303	52.89	ppb		98
24) carbon disulfide	7.051	76	710188	49.34	ppb		97
25) propionitrile	8.079	54	25191	55.23	ppb		100
26) vinyl acetate	7.826	43	270764	75.05	ppb		97
27) chloroprene	8.080	53	424004	50.35	ppb		93
28) di-isopropyl ether	8.120	45	1059548	49.72	ppb		94
29) methacrylonitrile	8.254	41	148164	46.27	ppb		97
30) 2-butanone	8.149	72	21145	37.76	ppb	#	43
31) Ethyl Acetate	8.119	43	858944	47.47	ug/L	#	49
32) Hexane	8.103	41	449507	50.02	ppb		92
33) 1,1-dichloroethane	7.717	63	507807	51.06	ppb		99
34) tert-butyl ethyl ether	8.518	59	940003	56.67	ppb		98
35) isobutyl alcohol	8.531	43	180667	268.29	ppb		99
36) 2,2-dichloropropane	8.573	77	348345	55.63	ppb		89

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22734.D
Acq On : 29 Sep 2014 6:26 pm
Operator : GaryK
Sample : mc33908-3ms
Misc : ms32817,msu990,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 30 08:11:15 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	cis-1,2-dichloroethene	8.287	96	273158	47.85	ppb		92
38)	bromochloromethane	8.459	128	150963	50.61	ppb		90
39)	chloroform	8.492	83	440798	51.72	ppb		100
41)	Tetrahydrofuran	8.866	42	87192	49.55	ppb		80
42)	1,1,1-trichloroethane	9.238	97	405566	54.87	ppb		98
44)	Cyclohexane	9.522	56	550326	48.52	ppb		90
45)	carbon tetrachloride	9.602	117	356384	49.39	ppb		99
46)	1,1-dichloropropene	9.414	75	297859	49.63	ppb		92
47)	benzene	9.638	78	897007	48.51	ppb		97
48)	1,2-dichloroethane	9.142	62	337897	48.85	ppb		99
49)	tert-amyl methyl ether	9.763	73	647585	53.06	ppb		90
50)	heptane	10.118	43	393928m	49.15	ppb		
51)	trichloroethene	10.260	95	265839	51.26	ppb		76
52)	1,2-dichloropropane	10.228	63	280190	54.48	ppb		98
53)	dibromomethane	10.204	93	160519	53.84	ppb		91
54)	bromodichloromethane	10.317	83	332842	55.47	ppb		98
55)	Methylcyclohexane	10.775	83	411525	50.96	ppb		95
57)	methyl methacrylate	10.419	69	96713	55.93	ppb		90
58)	1,4-dioxane	10.461	88	868m	28.89	ppb		
59)	cis-1,3-dichloropropene	10.935	75	318172	56.83	ppb		89
61)	4-methyl-2-pentanone	11.039	43	314636	58.72	ppb		97
62)	toluene	11.709	92	546101	58.54	ppb		91
63)	trans-1,3-dichloropropene	11.356	75	274476	69.81	ppb		98
64)	1,1,2-trichloroethane	11.529	83	177225	68.32	ppb		98
65)	ethyl methacrylate	11.733	69	216222	58.83	ppb		88
67)	tetrachloroethene	12.451	166	282385	45.58	ppb		97
68)	1,3-dichloropropane	11.763	76	305631	46.18	ppb		92
69)	dibromochloromethane	12.054	129	314761	48.43	ppb		94
70)	1,2-dibromoethane	12.306	107	257166	52.05	ppb		99
71)	2-hexanone	11.897	43	217314	44.91	ppb		98
72)	chlorobenzene	13.131	112	862155	49.60	ppb		88
73)	1,1,1,2-tetrachloroethane	13.052	131	371531	45.06	ppb		98
74)	ethylbenzene	13.306	91	1375069	50.38	ppb		94
75)	m,p-xylene	13.491	106	1177103	102.56	ppb		85
76)	o-xylene	13.904	106	634885	49.87	ppb		86
77)	styrene	13.832	104	695069	37.67	ppb		97
78)	bromoform	13.661	173	235453	48.86	ppb		98
79)	trans-1,4-dichloro-2-b...	14.058	53	131576	48.98	ppb		87
81)	isopropylbenzene	14.268	105	1710686	62.13	ppb		99
83)	bromobenzene	14.556	156	484463	62.55	ppb	#	80
84)	1,1,2,2-tetrachloroethane	13.914	83	377131	56.38	ppb		98
85)	1,2,3-trichloropropane	14.060	75	396503	58.04	ppb		99
86)	n-propylbenzene	14.713	91	2027566	66.70	ppb		95
87)	2-chlorotoluene	14.832	91	1163234	58.93	ppb		86
88)	4-chlorotoluene	14.907	91	1210839	59.51	ppb		84
89)	1,3,5-trimethylbenzene	14.991	105	1386110	52.46	ppb		97
90)	tert-butylbenzene	15.296	91	800994	55.16	ppb		86
91)	1,2,4-trimethylbenzene	15.400	105	1426993	51.77	ppb		98
92)	sec-butylbenzene	15.519	105	1936036	56.90	ppb		95
93)	1,3-dichlorobenzene	15.623	146	931211	52.07	ppb		98

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22734.D
Acq On : 29 Sep 2014 6:26 pm
Operator : GaryK
Sample : mc33908-3ms
Misc : ms32817,msu990,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 30 08:11:15 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

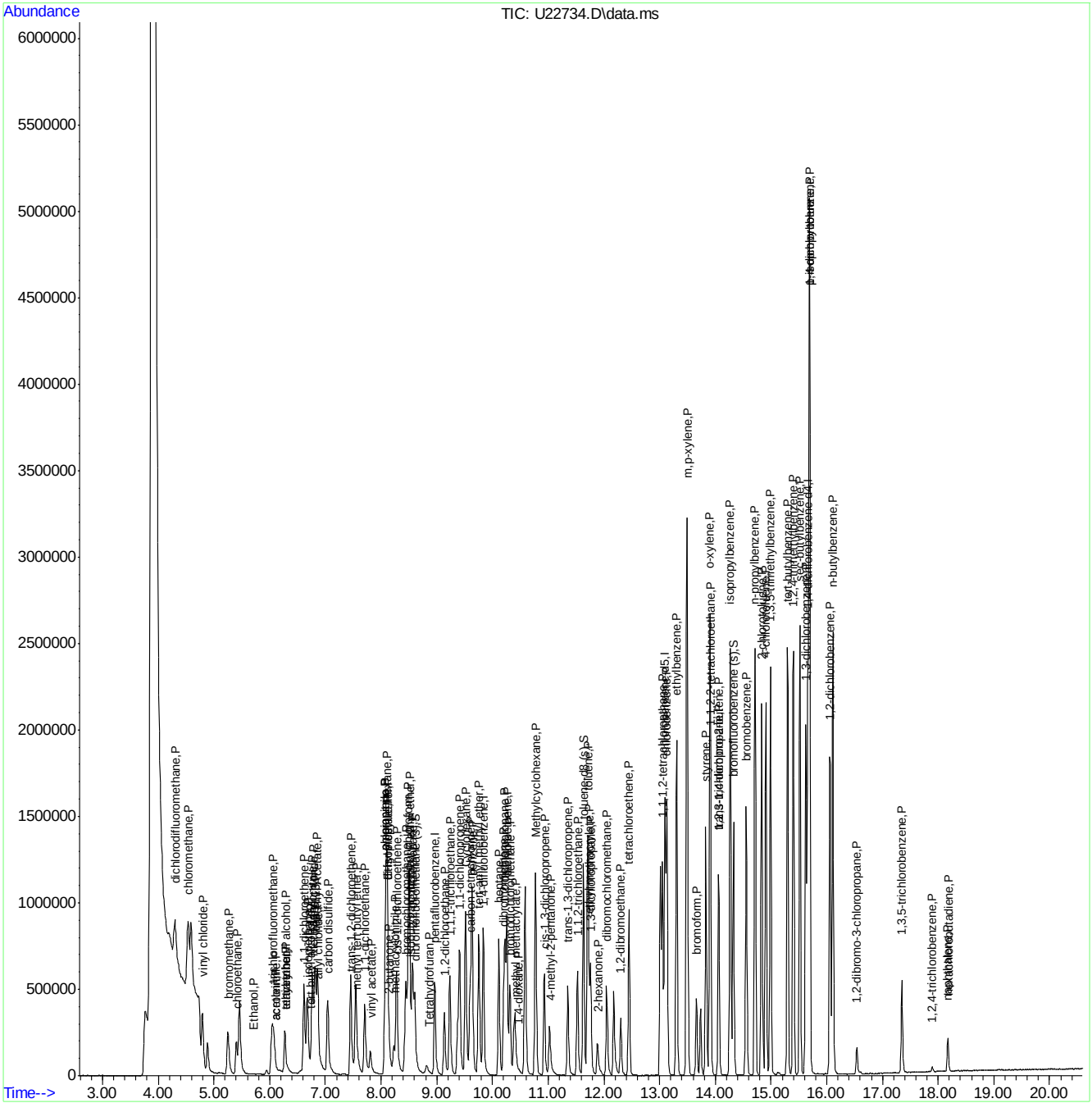
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
94)	p-isopropyltoluene	15.692	119	1681000	53.94	ppb		95
95)	1,4-dichlorobenzene	15.690	146	966696	50.97	ppb		98
96)	1,2-dichlorobenzene	16.059	146	856814	46.11	ppb		95
97)	n-butylbenzene	16.110	91	1461276	50.67	ppb		92
98)	1,2-dibromo-3-chloropr...	16.542	75	35512	23.73	ppb	#	70
99)	1,3,5-trichlorobenzene	17.352	180	193187	14.89	ug/L		93
100)	1,2,4-trichlorobenzene	17.897	180	10934	0.93	ppb		100
101)	hexachlorobutadiene	18.178	225	37297	6.81	ppb		95
102)	naphthalene	18.169	128	8378	0.32	ppb		100

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22734.D
Acq On : 29 Sep 2014 6:26 pm
Operator : GaryK
Sample : mc33908-3ms
Misc : ms32817,msu990,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 30 08:11:15 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

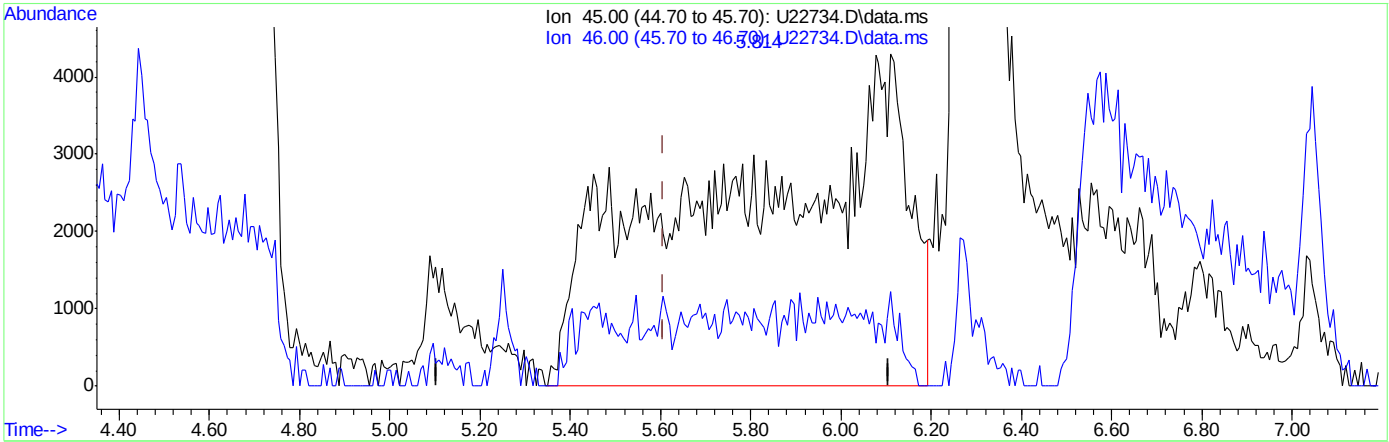


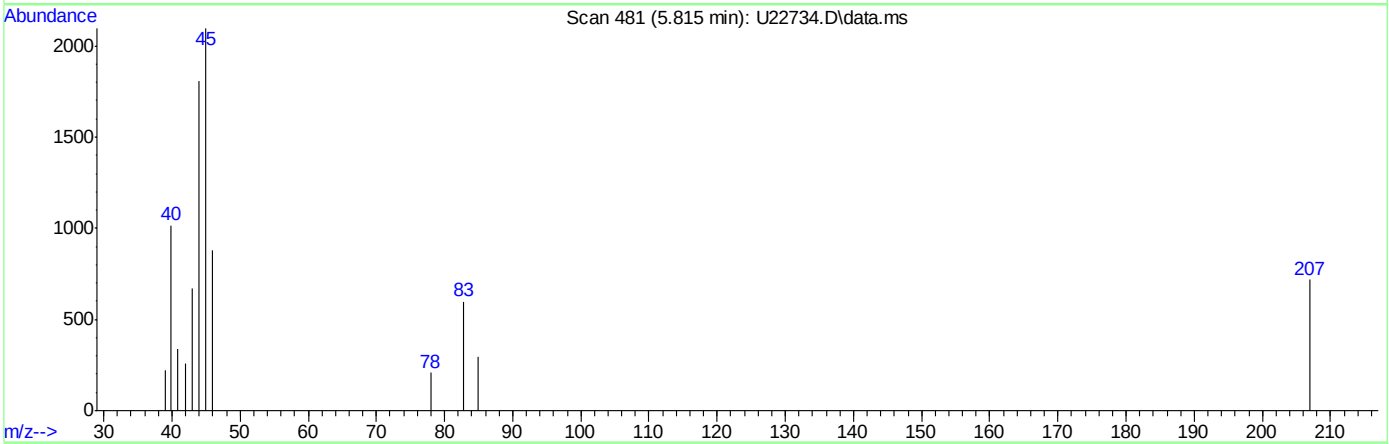
U140829W.m Tue Sep 30 08:11:53 2014 Page: 4

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22734.D
Acq On : 29 Sep 2014 6:26 pm
Operator : GaryK
Sample : mc33908-3ms
Misc : ms32817,msu990,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 30 08:10:03 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22734.D\data.ms

(3) Ethanol (P)

5.814min (+0.208) 2918.57ppb

response 118597

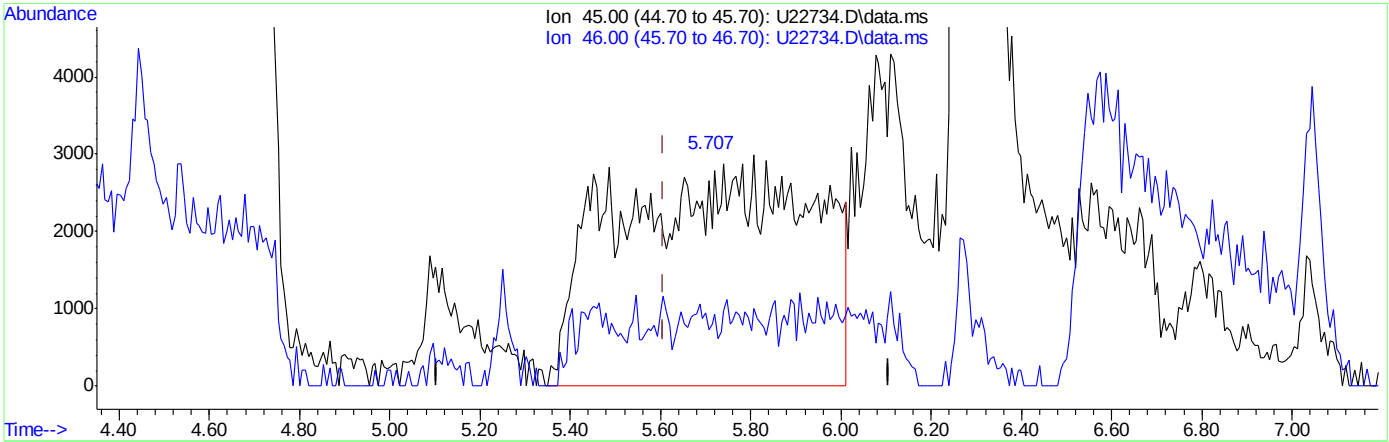
Ion	Exp%	Act%
45.00	100	100
46.00	35.30	41.89
0.00	0.00	0.00
0.00	0.00	0.00

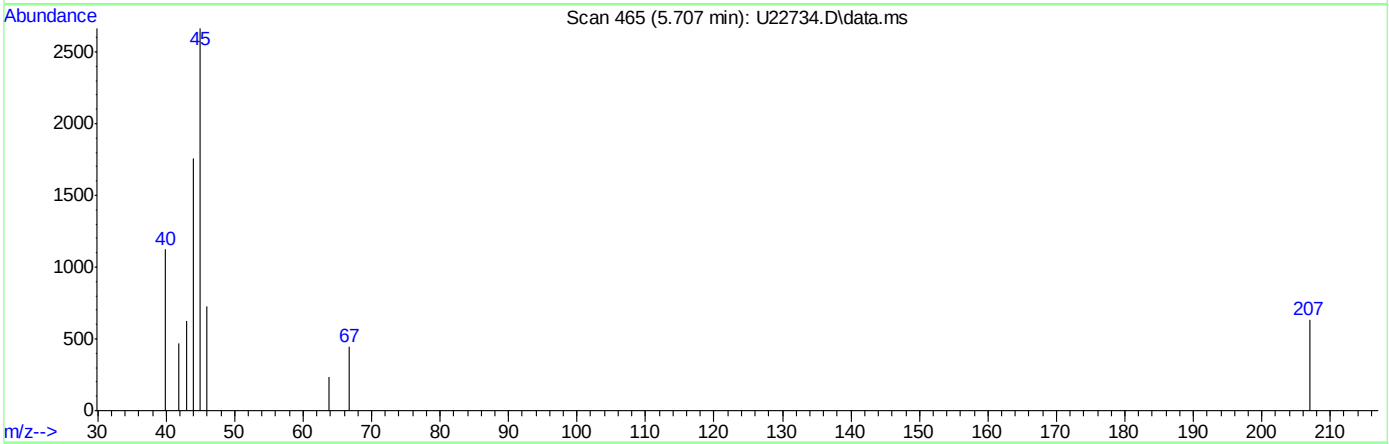
U22734.D edits: Ethanol

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22734.D
Acq On : 29 Sep 2014 6:26 pm
Operator : GaryK
Sample : mc33908-3ms
Misc : ms32817,msu990,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 30 08:10:03 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22734.D\data.ms

(3) Ethanol (P)

5.707min (+0.101) 2066.30ppb m

response 86159

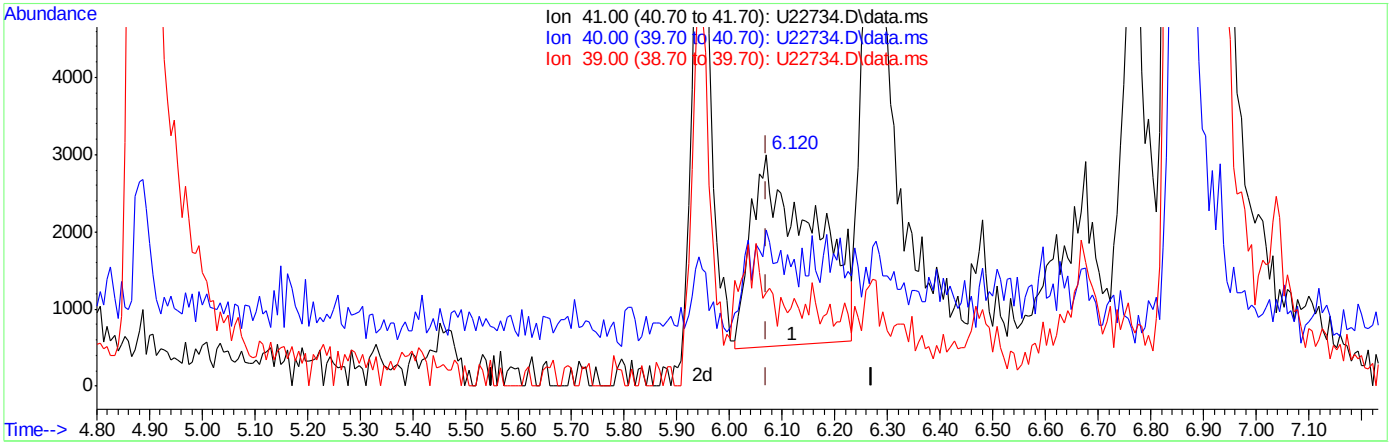
Ion	Exp%	Act%
45.00	100	100
46.00	35.30	27.18
0.00	0.00	0.00
0.00	0.00	0.00

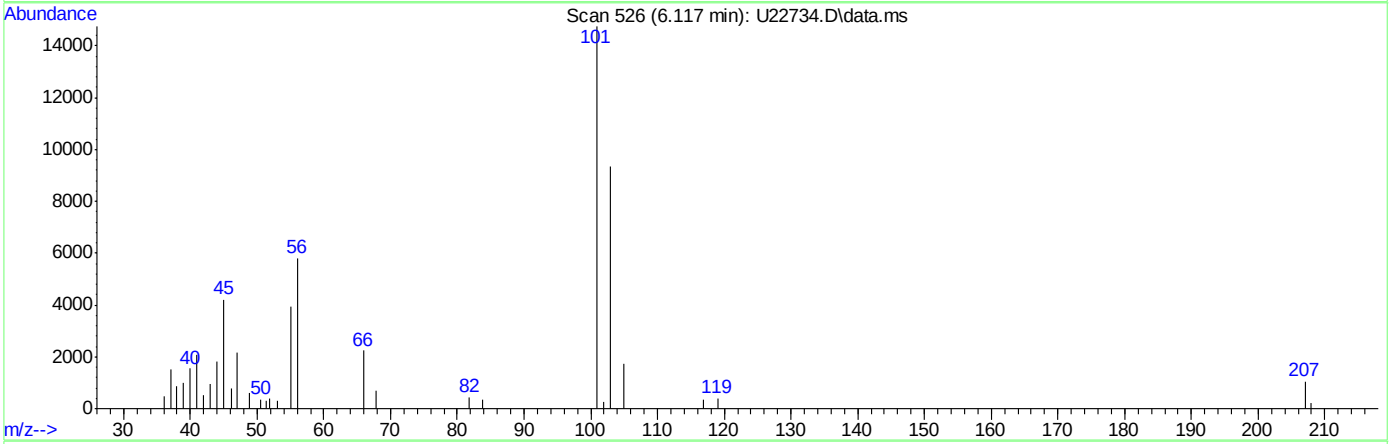
U22734.D edits: Ethanol

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22734.D
Acq On : 29 Sep 2014 6:26 pm
Operator : GaryK
Sample : mc33908-3ms
Misc : ms32817,msu990,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 30 08:10:03 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22734.D\data.ms

(11) acetonitrile (P)

6.120min (+0.050) 28.18ppb

response 20227

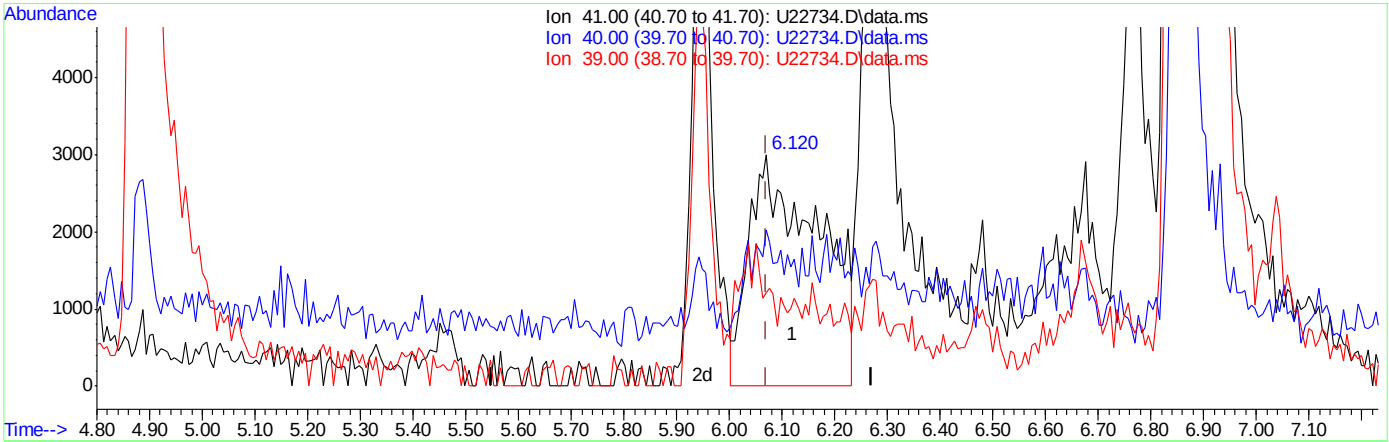
Ion	Exp%	Act%
41.00	100	100
40.00	92.30	39.92#
39.00	24.50	21.79
0.00	0.00	0.00

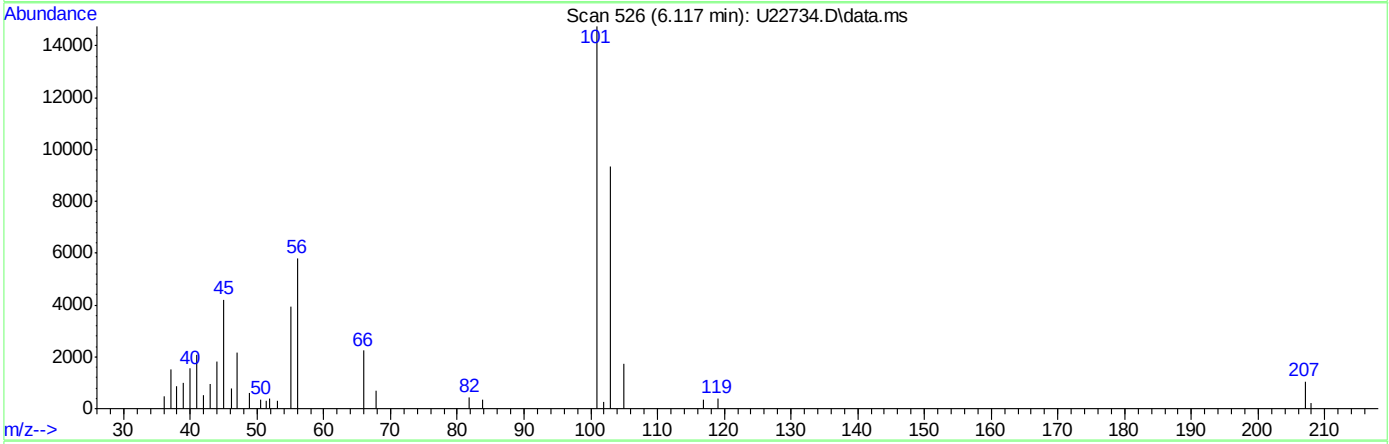
U22734.D edits: acetonitrile

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22734.D
Acq On : 29 Sep 2014 6:26 pm
Operator : GaryK
Sample : mc33908-3ms
Misc : ms32817,msu990,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 30 08:10:03 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22734.D\data.ms

(11) acetonitrile (P)

6.117min (+0.047) 40.56ppb m

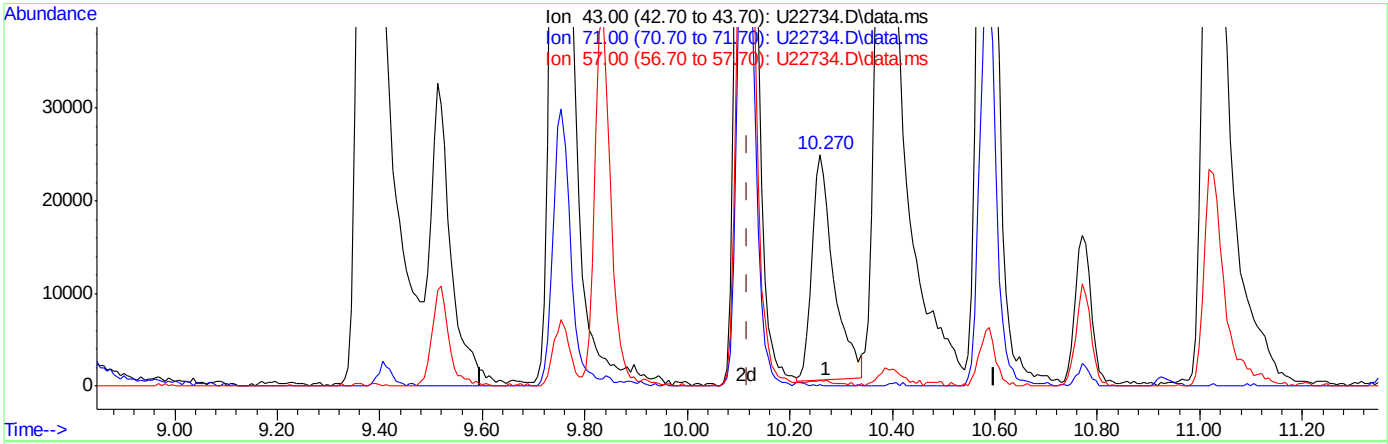
response 27553

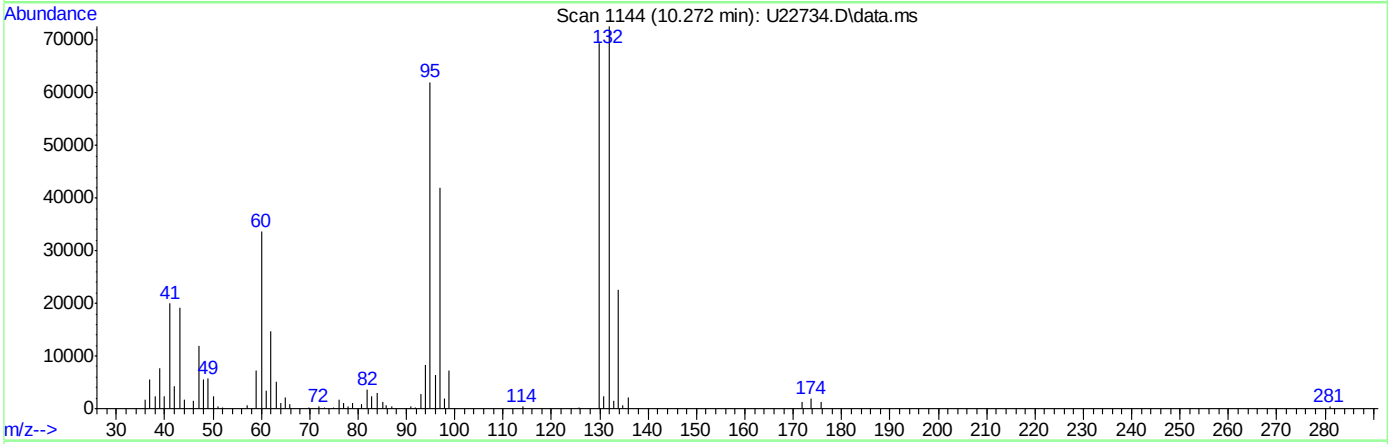
Ion	Exp%	Act%
41.00	100	100
40.00	92.30	74.72
39.00	24.50	49.10
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22734.D
Acq On : 29 Sep 2014 6:26 pm
Operator : GaryK
Sample : mc33908-3ms
Misc : ms32817,msu990,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 30 08:10:03 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22734.D\data.ms

(50) heptane (P)

10.270min (+0.152) 8.99ppb

response 72026

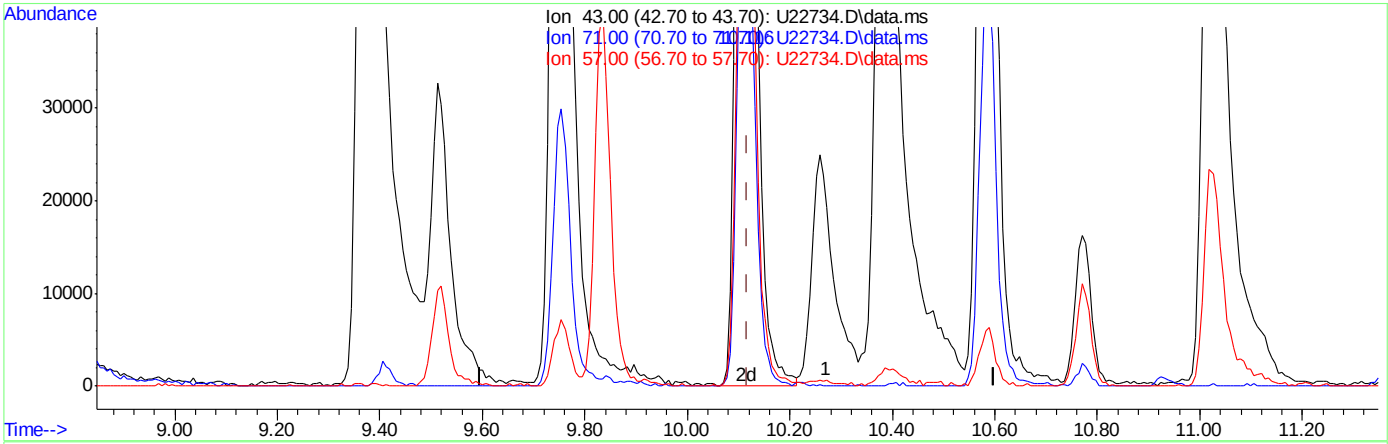
Ion	Exp%	Act%
43.00	100	100
71.00	26.10	0.00
57.00	5.80	2.51
0.00	0.00	0.00

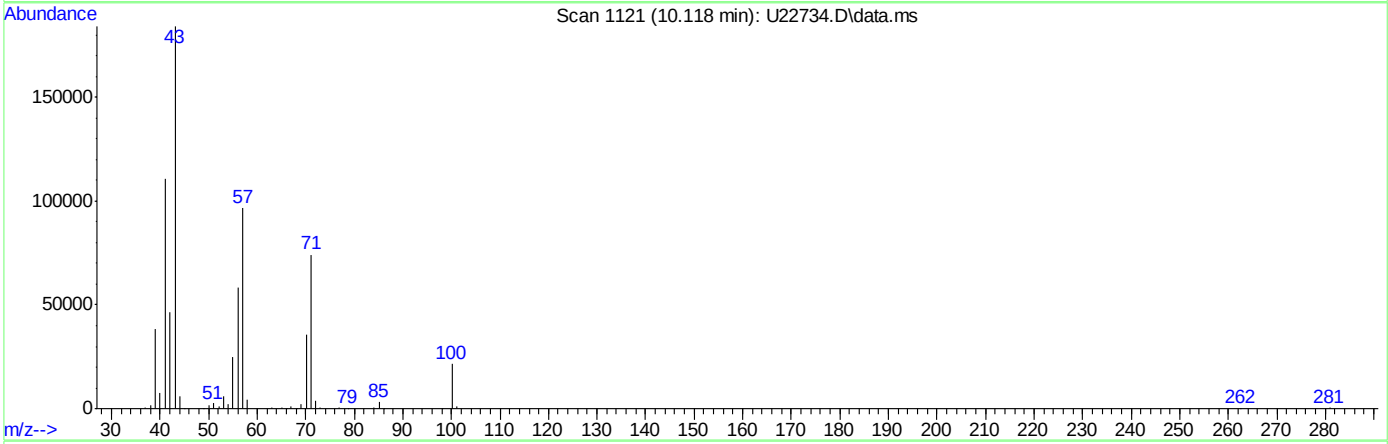
U22734.D edits: heptane

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22734.D
Acq On : 29 Sep 2014 6:26 pm
Operator : GaryK
Sample : mc33908-3ms
Misc : ms32817,msu990,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 30 08:10:03 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22734.D\data.ms

(50) heptane (P)

10.118min (-0.000) 49.15ppb m

response 393928

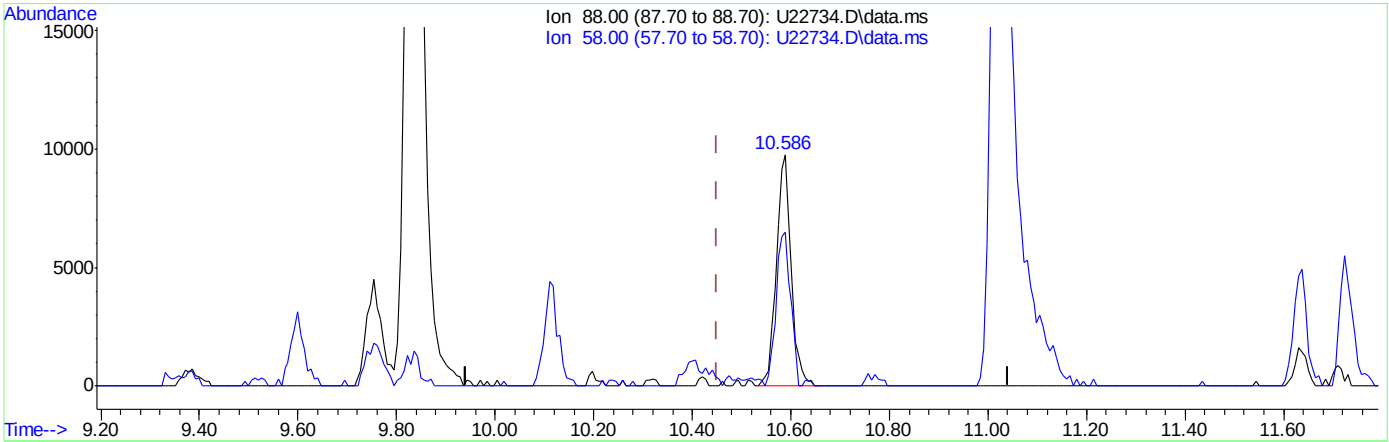
Ion	Exp%	Act%
43.00	100	100
71.00	26.10	40.24
57.00	5.80	52.41#
0.00	0.00	0.00

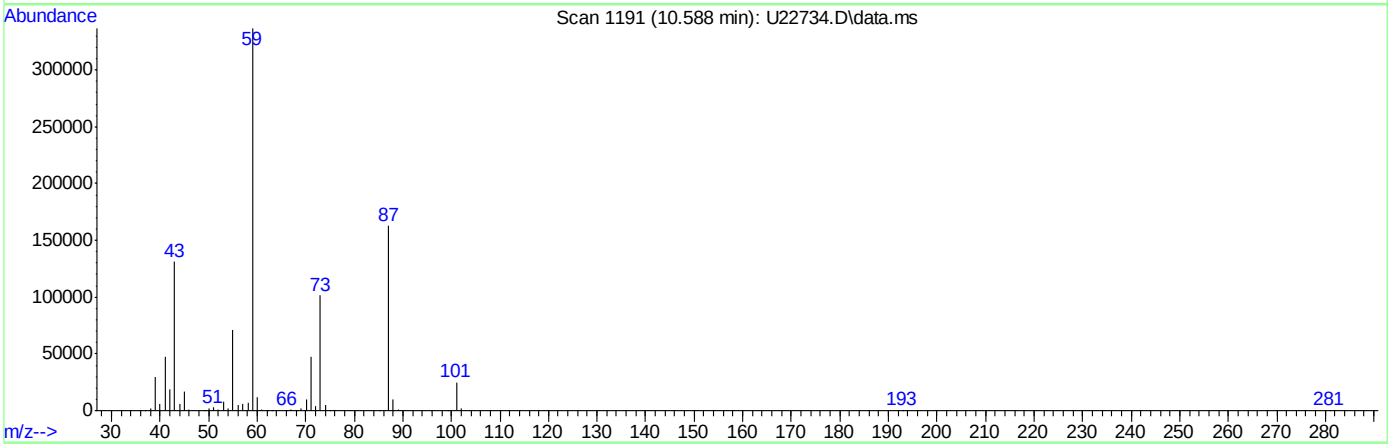
U22734.D edits: heptane

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22734.D
Acq On : 29 Sep 2014 6:26 pm
Operator : GaryK
Sample : mc33908-3ms
Misc : ms32817,msu990,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 30 08:10:03 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22734.D\data.ms

(58) 1,4-dioxane (P)

10.586min (+0.134) 666.81ppb

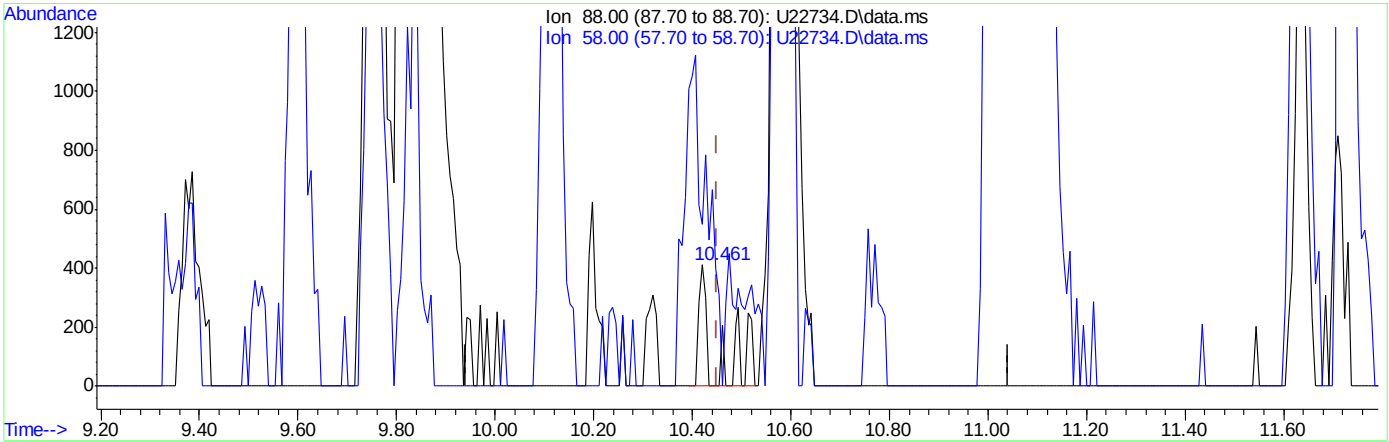
response 20032

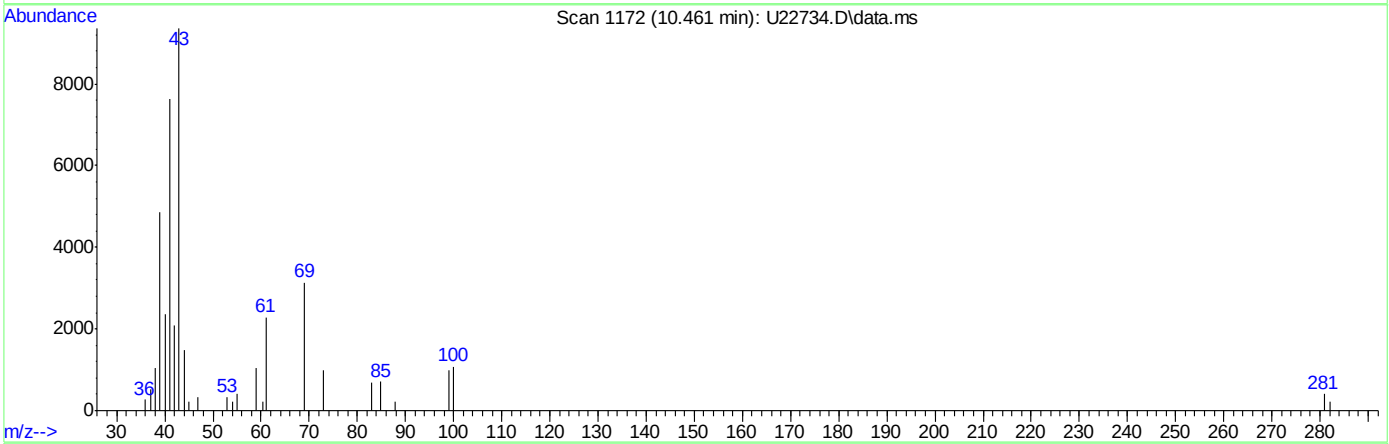
Ion	Exp%	Act%
88.00	100	100
58.00	109.20	66.71#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22734.D
Acq On : 29 Sep 2014 6:26 pm
Operator : GaryK
Sample : mc33908-3ms
Misc : ms32817,msu990,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 30 08:10:03 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22734.D\data.ms

(58) 1,4-dioxane (P)

10.461min (+0.009) 28.89ppb m

response 868

Ion	Exp%	Act%
88.00	100	100
58.00	109.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/30/14 09:07

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22735.D
Acq On : 29 Sep 2014 6:54 pm
Operator : GaryK
Sample : mc33908-3msd
Misc : ms32817,msu990,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 30 08:12:49 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.682	65	156986	50.00	ppb		0.07
4) pentafluorobenzene	8.969	168	446496	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.839	114	797825	50.00	ppb		0.00
66) chlorobenzene-d5	13.093	82	457923	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.661	152	597713	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.612	113	269697	47.20	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.40%				
60) toluene-d8 (s)	11.635	98	902199	56.91	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 113.82%				
82) bromofluorobenzene (s)	14.324	95	465209	59.52	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 119.04%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.288	59	231474	716.58	ppb		97
3) Ethanol	5.687	45	177747m	4963.73	ppb		
5) dichlorodifluoromethane	4.312	85	423507	57.46	ppb		99
6) chloromethane	4.552	50	853591	61.36	ppb		98
7) vinyl chloride	4.804	62	571461	61.10	ppb		99
8) bromomethane	5.265	96	235628	48.09	ppb		89
9) chloroethane	5.414	64	215897	59.25	ppb		96
10) ethyl ether	6.288	59	231474	48.49	ppb		91
11) acetonitrile	6.117	41	30167m	40.95	ppb		
12) trichlorofluoromethane	6.068	101	498940	52.25	ppb		98
13) freon-113	6.825	101	293468	51.28	ppb		93
14) acrolein	6.098	56	128235	328.72	ppb		92
15) 1,1-dichloroethene	6.628	96	242815	48.06	ppb		97
16) acetone	6.266	58	27708	23.21	ppb	#	1
17) Methyl Acetate	6.834	43	263766	50.40	ppb	#	87
18) methylene chloride	6.782	84	276053	51.26	ppb		92
19) methyl tert butyl ether	7.566	73	603566	46.55	ppb		90
20) acrylonitrile	6.744	53	110108	43.27	ppb		90
21) allyl chloride	6.871	41	441040	37.04	ppb		97
22) trans-1,2-dichloroethene	7.463	96	261252	46.76	ppb		91
23) iodomethane	6.688	142	514606	49.12	ppb		97
24) carbon disulfide	7.052	76	724800	46.38	ppb		98
25) propionitrile	8.078	54	26956	54.43	ppb		100
26) vinyl acetate	7.820	43	302366	77.18	ppb		98
27) chloroprene	8.079	53	464362	50.79	ppb		92
28) di-isopropyl ether	8.118	45	1103714	47.70	ppb		97
29) methacrylonitrile	8.247	41	152361	43.82	ppb		95
30) 2-butanone	8.138	72	20687	34.02	ppb	#	1
31) Ethyl Acetate	8.115	43	898080	45.71	ug/L	#	52
32) Hexane	8.102	41	481025	49.30	ppb	#	86
33) 1,1-dichloroethane	7.716	63	532712	49.34	ppb		98
34) tert-butyl ethyl ether	8.516	59	965650	53.61	ppb		99
35) isobutyl alcohol	8.526	43	169633	232.00	ppb		98
36) 2,2-dichloropropane	8.571	77	339482	49.93	ppb		89

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22735.D
Acq On : 29 Sep 2014 6:54 pm
Operator : GaryK
Sample : mc33908-3msd
Misc : ms32817,msu990,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 30 08:12:49 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	cis-1,2-dichloroethene	8.287	96	287290	46.35	ppb		95
38)	bromochloromethane	8.456	128	154475	47.70	ppb		88
39)	chloroform	8.491	83	465483	50.30	ppb		97
41)	Tetrahydrofuran	8.852	42	78353	41.01	ppb		96
42)	1,1,1-trichloroethane	9.237	97	411024	51.22	ppb		94
44)	Cyclohexane	9.522	56	561942	47.27	ppb		91
45)	carbon tetrachloride	9.601	117	364437	48.18	ppb		97
46)	1,1-dichloropropene	9.412	75	319493	50.79	ppb		93
47)	benzene	9.637	78	939471	48.47	ppb		96
48)	1,2-dichloroethane	9.140	62	359957	49.65	ppb		99
49)	tert-amyl methyl ether	9.761	73	658100	51.45	ppb		91
50)	heptane	10.118	43	416405m	49.56	ppb		
51)	trichloroethene	10.259	95	278178	51.17	ppb		78
52)	1,2-dichloropropane	10.226	63	293616	54.47	ppb		99
53)	dibromomethane	10.202	93	164252	52.57	ppb		96
54)	bromodichloromethane	10.314	83	362032	57.56	ppb		96
55)	Methylcyclohexane	10.774	83	422040	49.87	ppb		94
57)	methyl methacrylate	10.415	69	102981	56.82	ppb		86
58)	1,4-dioxane	10.460	88	3320	105.44	ppb	#	1
59)	cis-1,3-dichloropropene	10.934	75	334082	56.94	ppb		90
61)	4-methyl-2-pentanone	11.035	43	280240	49.90	ppb		95
62)	toluene	11.708	92	576212	58.93	ppb		98
63)	trans-1,3-dichloropropene	11.354	75	284033	68.93	ppb		98
64)	1,1,2-trichloroethane	11.528	83	181413	66.72	ppb		92
65)	ethyl methacrylate	11.731	69	227419	59.03	ppb		86
67)	tetrachloroethene	12.450	166	292179	46.67	ppb		96
68)	1,3-dichloropropane	11.762	76	310988	46.50	ppb		95
69)	dibromochloromethane	12.053	129	320827	48.85	ppb		97
70)	1,2-dibromoethane	12.305	107	253560	50.79	ppb		97
71)	2-hexanone	11.895	43	189506	38.75	ppb		98
72)	chlorobenzene	13.130	112	872186	49.65	ppb		89
73)	1,1,1,2-tetrachloroethane	13.051	131	370570	44.48	ppb		97
74)	ethylbenzene	13.305	91	1409287	51.10	ppb		95
75)	m,p-xylene	13.490	106	1208962	104.25	ppb		87
76)	o-xylene	13.903	106	644549	50.10	ppb		89
77)	styrene	13.831	104	841059	45.10	ppb		96
78)	bromoform	13.660	173	237744	48.83	ppb		100
79)	trans-1,4-dichloro-2-b...	14.057	53	115867	42.69	ppb		90
81)	isopropylbenzene	14.266	105	1714086	63.19	ppb		98
83)	bromobenzene	14.555	156	495196	64.89	ppb	#	78
84)	1,1,2,2-tetrachloroethane	13.913	83	359126	54.49	ppb		99
85)	1,2,3-trichloropropane	14.058	75	365121	54.24	ppb		98
86)	n-propylbenzene	14.712	91	2023471	67.56	ppb		94
87)	2-chlorotoluene	14.831	91	1159342	59.61	ppb		83
88)	4-chlorotoluene	14.906	91	1225190	61.12	ppb		85
89)	1,3,5-trimethylbenzene	14.990	105	1451285	55.75	ppb		96
90)	tert-butylbenzene	15.295	91	802181	56.07	ppb		87
91)	1,2,4-trimethylbenzene	15.399	105	1495086	55.05	ppb		99
92)	sec-butylbenzene	15.518	105	1929810	57.57	ppb		96
93)	1,3-dichlorobenzene	15.622	146	945667	53.67	ppb		96

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22735.D
Acq On : 29 Sep 2014 6:54 pm
Operator : GaryK
Sample : mc33908-3msd
Misc : ms32817,msu990,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 30 08:12:49 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

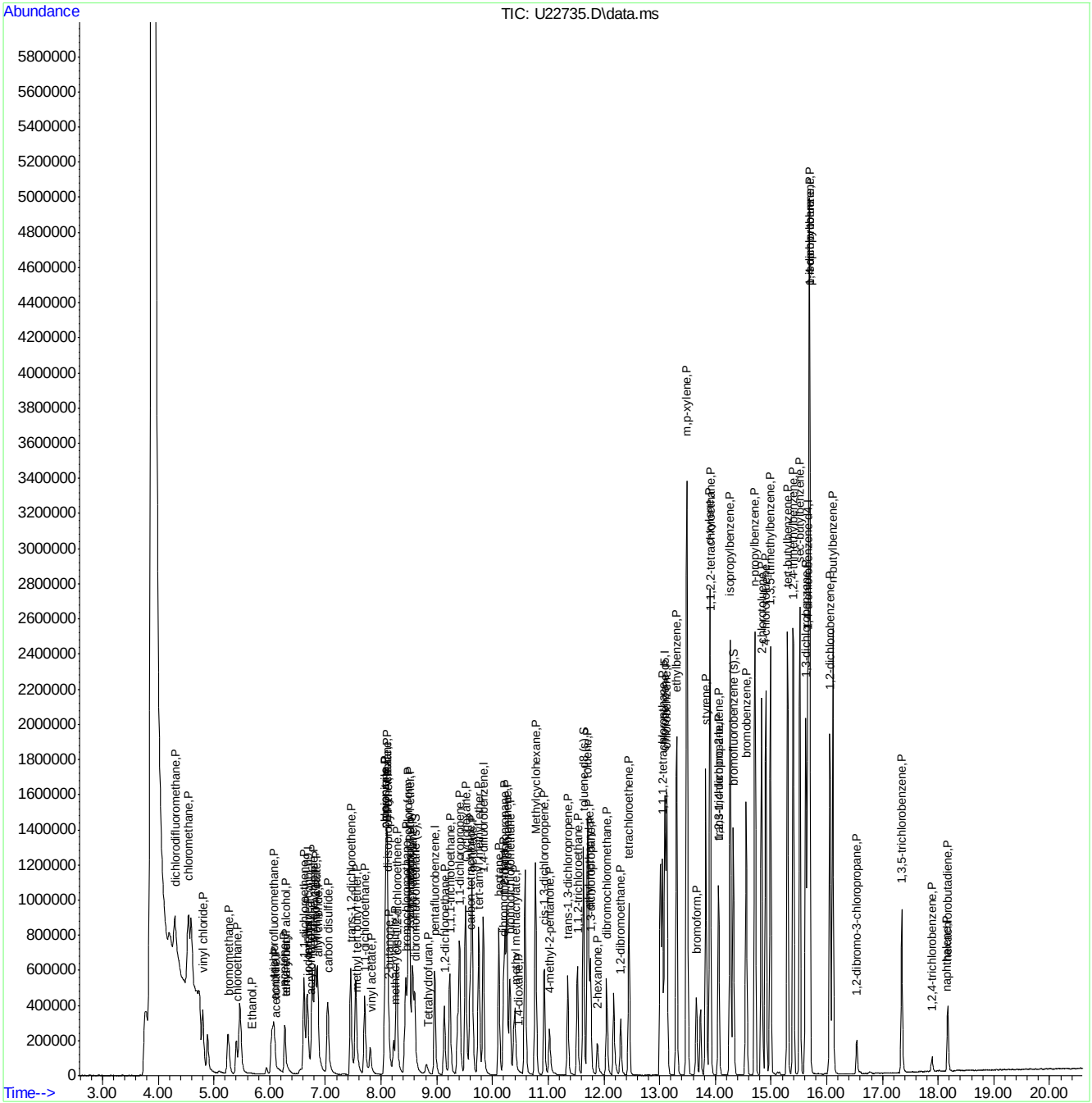
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
94) p-isopropyltoluene	15.691	119	1690344	55.05	ppb		95
95) 1,4-dichlorobenzene	15.689	146	969350	51.88	ppb		98
96) 1,2-dichlorobenzene	16.057	146	870514	47.55	ppb		96
97) n-butylbenzene	16.109	91	1461939	51.45	ppb		92
98) 1,2-dibromo-3-chloropr...	16.541	75	44662	30.29	ppb	#	71
99) 1,3,5-trichlorobenzene	17.349	180	301201	23.57	ug/L		95
100) 1,2,4-trichlorobenzene	17.893	180	32568	2.81	ppb		100
101) hexachlorobutadiene	18.176	225	66644	12.35	ppb		97
102) naphthalene	18.162	128	28454	1.11	ppb		100

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22735.D
Acq On : 29 Sep 2014 6:54 pm
Operator : GaryK
Sample : mc33908-3msd
Misc : ms32817,msu990,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

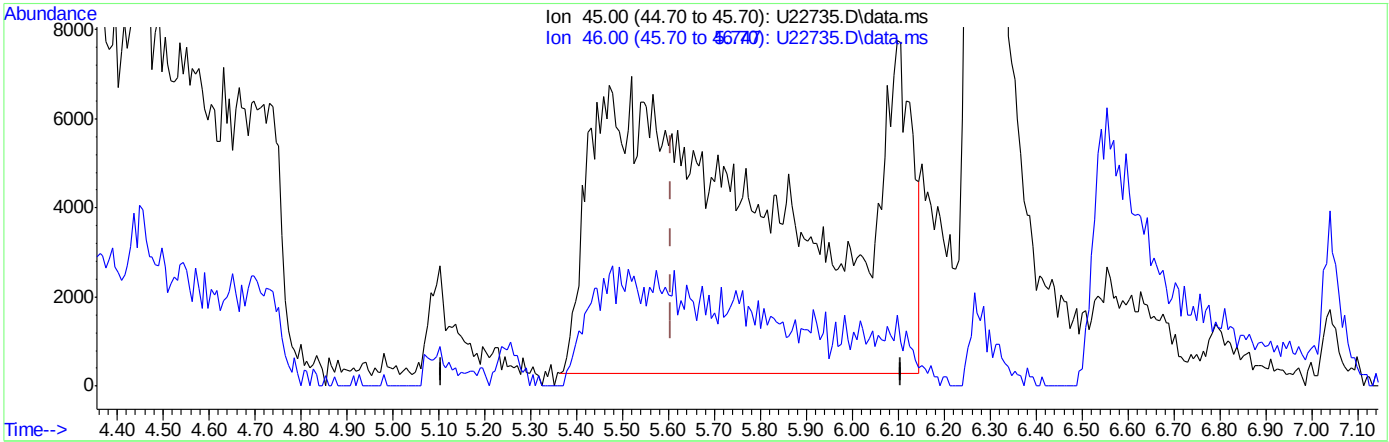
Quant Time: Sep 30 08:12:49 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

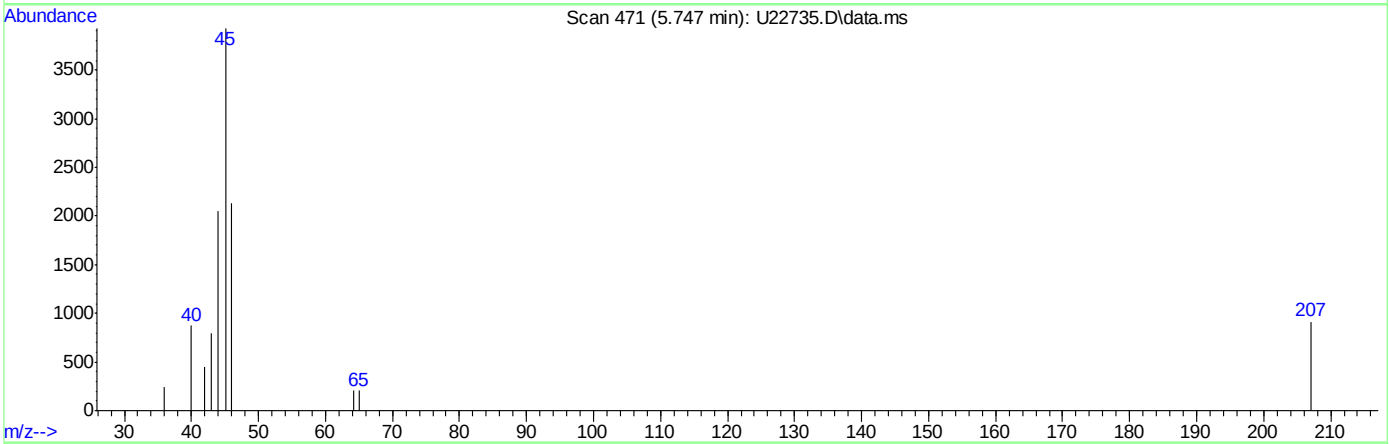


Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22735.D
Acq On : 29 Sep 2014 6:54 pm
Operator : GaryK
Sample : mc33908-3msd
Misc : ms32817,msu990,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 30 08:11:57 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22735.D\data.ms

(3) Ethanol (P)

5.747min (+0.141) 5492.05ppb

response 195942

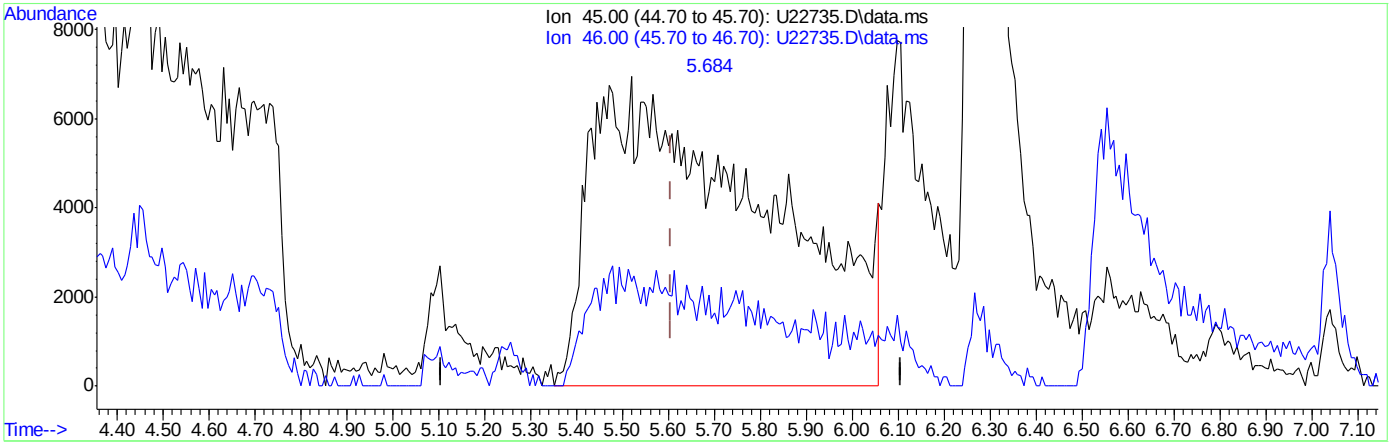
Ion	Exp%	Act%
45.00	100	100
46.00	35.30	58.48#
0.00	0.00	0.00
0.00	0.00	0.00

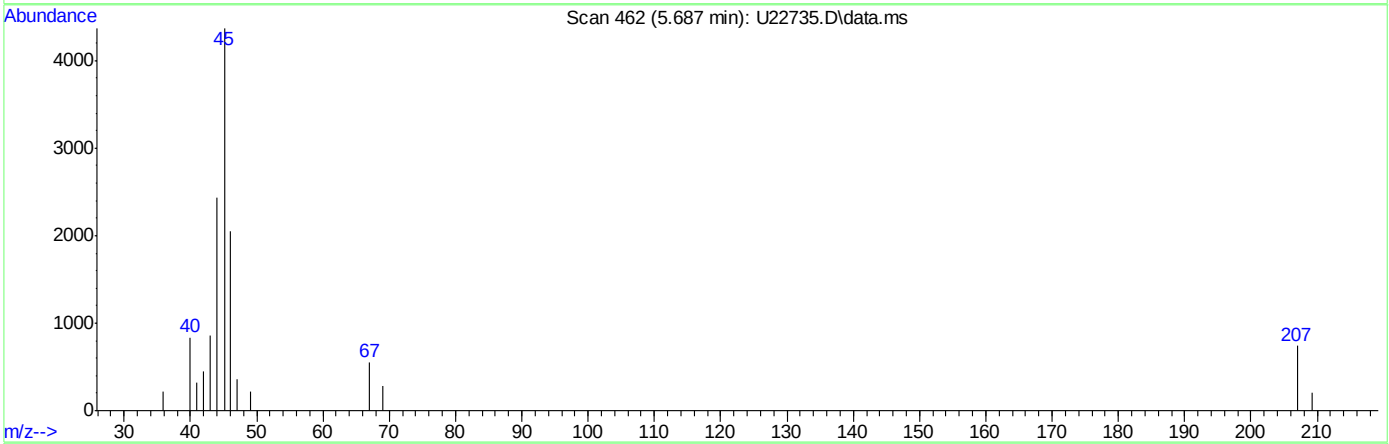
U22735.D edits: Ethanol

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22735.D
Acq On : 29 Sep 2014 6:54 pm
Operator : GaryK
Sample : mc33908-3msd
Misc : ms32817,msu990,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 30 08:11:57 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22735.D\data.ms

(3) Ethanol (P)

5.687min (+0.081) 4963.73ppb m

response 177747

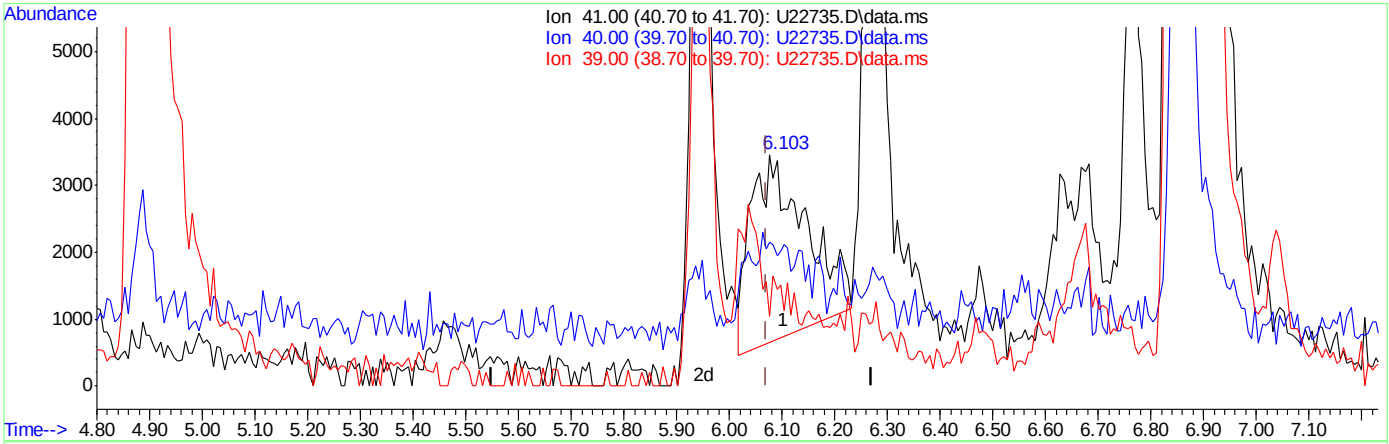
Ion	Exp%	Act%
45.00	100	100
46.00	35.30	47.06#
0.00	0.00	0.00
0.00	0.00	0.00

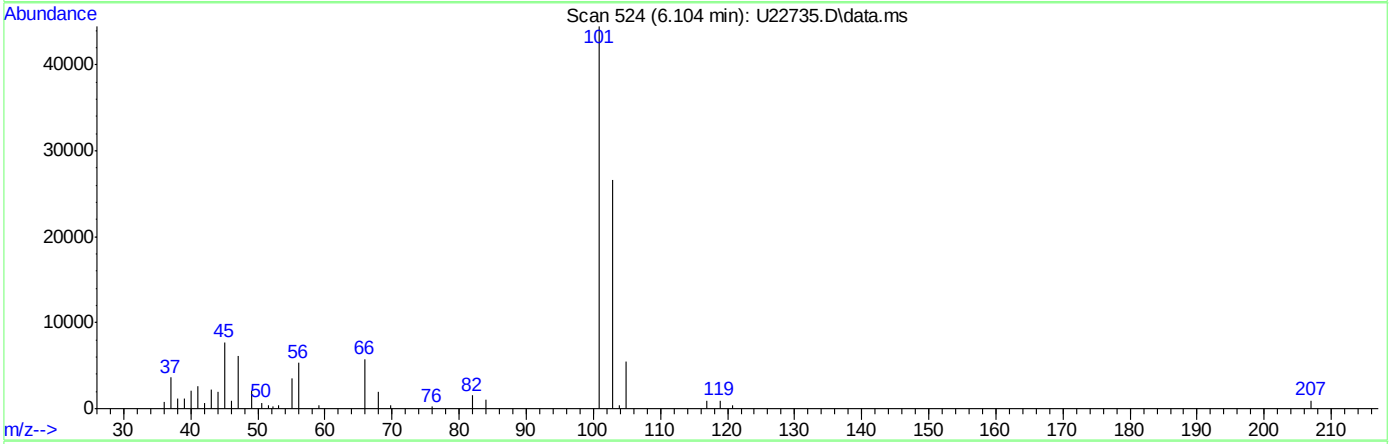
U22735.D edits: Ethanol

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22735.D
Acq On : 29 Sep 2014 6:54 pm
Operator : GaryK
Sample : mc33908-3msd
Misc : ms32817,msu990,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 30 08:11:57 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22735.D\data.ms

(11) acetonitrile (P)

6.103min (+0.033) 25.42ppb

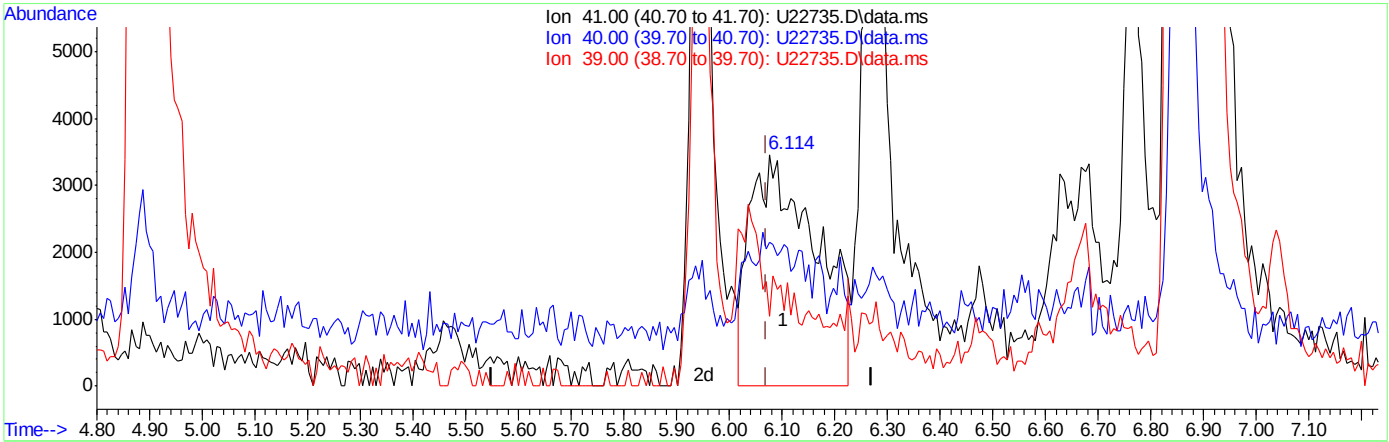
response 20188

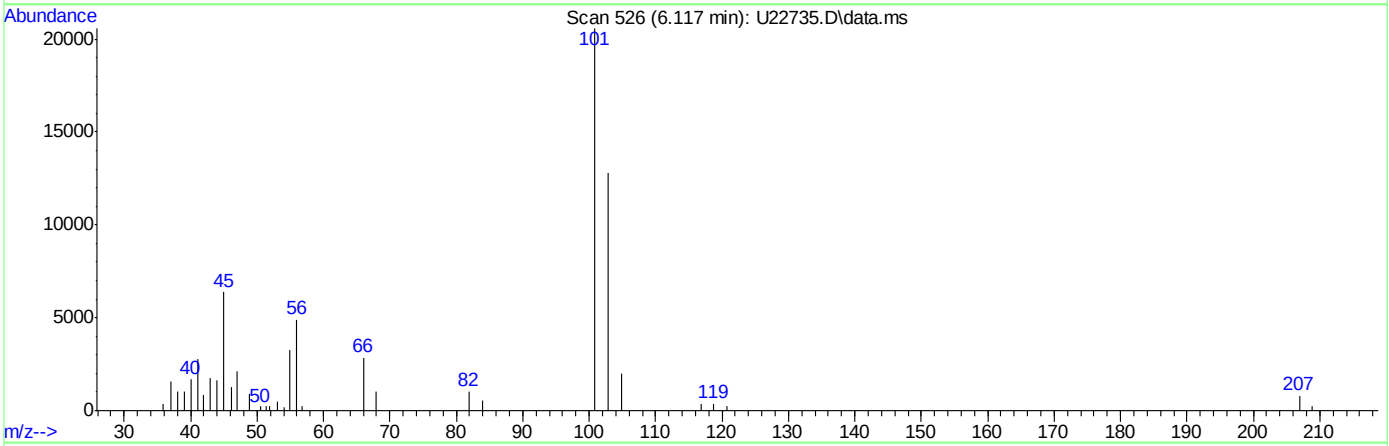
Ion	Exp%	Act%
41.00	100	100
40.00	92.30	60.63#
39.00	24.50	8.16
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22735.D
Acq On : 29 Sep 2014 6:54 pm
Operator : GaryK
Sample : mc33908-3msd
Misc : ms32817,msu990,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 30 08:11:57 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22735.D\data.ms

(11) acetonitrile (P)

6.117min (+0.047) 40.95ppb m

response 30167

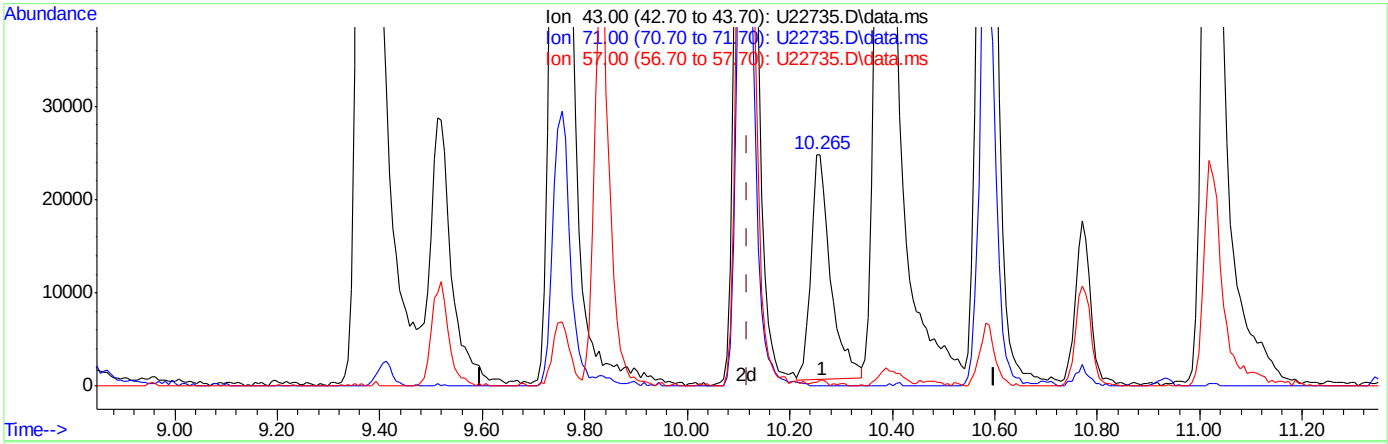
Ion	Exp%	Act%
41.00	100	100
40.00	92.30	61.43#
39.00	24.50	37.71
0.00	0.00	0.00

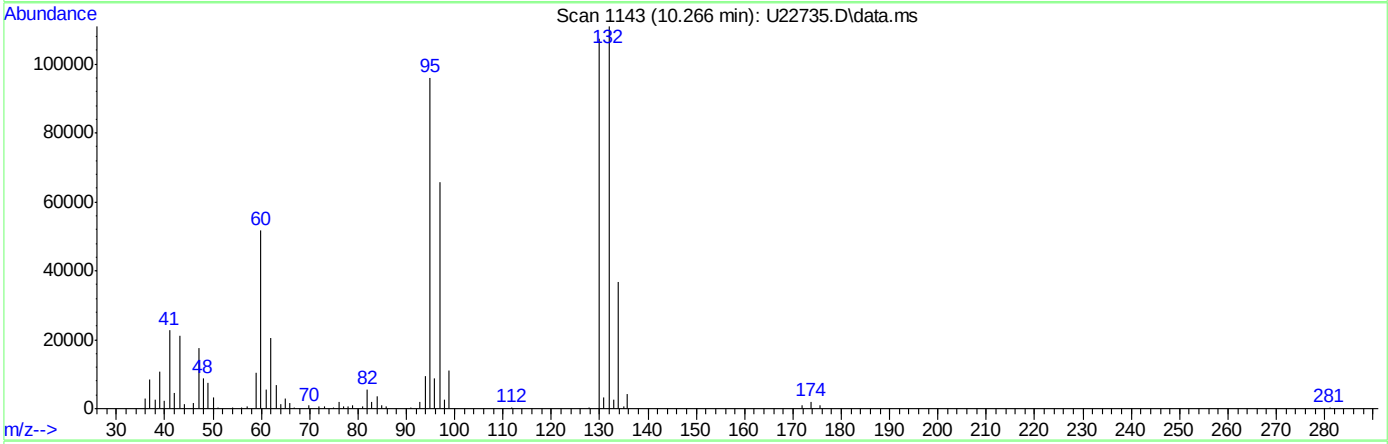
U22735.D edits: acetonitrile

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22735.D
Acq On : 29 Sep 2014 6:54 pm
Operator : GaryK
Sample : mc33908-3msd
Misc : ms32817,msu990,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 30 08:11:57 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22735.D\data.ms

(50) heptane (P)

10.265min (+0.147) 7.73ppb

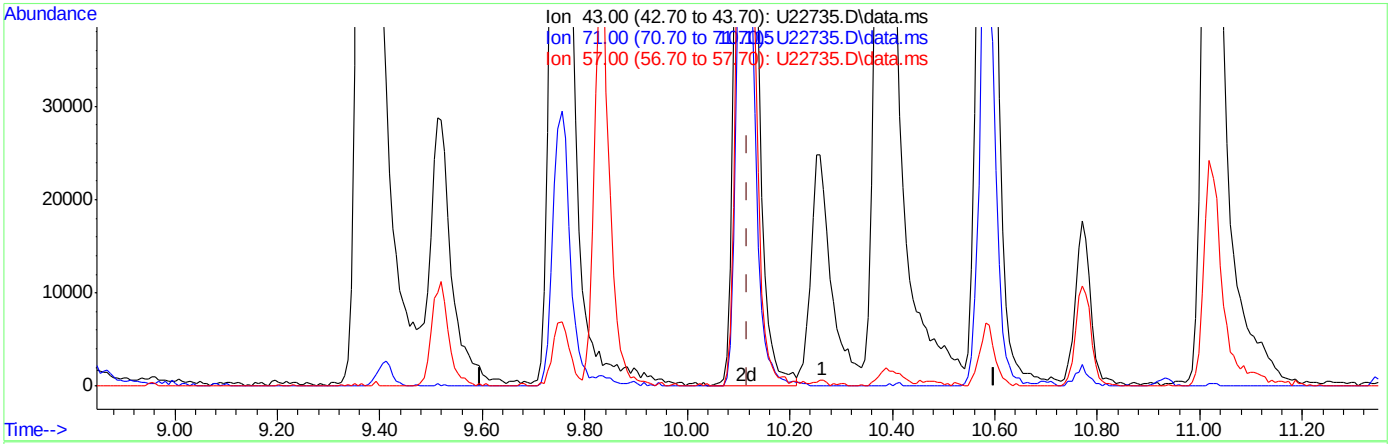
response 64954

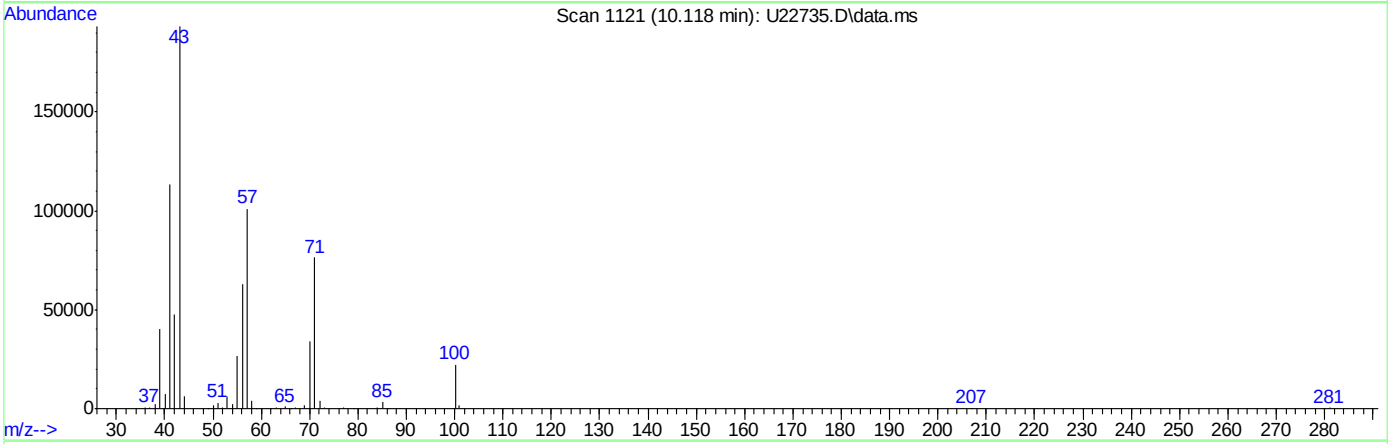
Ion	Exp%	Act%
43.00	100	100
71.00	26.10	0.00
57.00	5.80	1.99
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22735.D
Acq On : 29 Sep 2014 6:54 pm
Operator : GaryK
Sample : mc33908-3msd
Misc : ms32817,msu990,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 30 08:11:57 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22735.D\data.ms

(50) heptane (P)

10.118min (-0.000) 49.56ppb m

response 416405

Ion	Exp%	Act%
43.00	100	100
71.00	26.10	39.52
57.00	5.80	52.33#
0.00	0.00	0.00

U22735.D edits: heptane

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90807.D
Acq On : 1 Oct 2014 8:03 pm
Operator : jaclynb
Sample : mc33936-16ms
Misc : ms32850,MSN3359,,,,5,5
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 02 09:20:43 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.690	65	118591	500.00	ug/L		0.00
4) pentafluorobenzene	9.115	168	345846	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	539213	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	291111	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	231578	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.768	113	165853	46.74	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.48%				
60) toluene-d8 (s)	11.781	98	658882	50.95	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 101.90%				
82) bromofluorobenzene (s)	14.464	95	266505	47.20	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.40%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.785	59	115906	277.99	ug/L	#	100
3) Ethanol	5.558	45	359215	5915.59	ug/L		99
5) dichlorodifluoromethane	4.395	85	186037	40.85	ug/L		98
6) chloromethane	4.653	50	194156	34.78	ug/L		98
7) vinyl chloride	4.894	62	186714	49.71	ug/L		96
8) bromomethane	5.392	96	49314	30.12	ug/L		99
9) chloroethane	5.565	64	125059	55.96	ug/L		93
10) ethyl ether	6.428	59	186980	55.23	ug/L		93
11) acetonitrile	6.432	41	26894	50.05	ug/L		88
12) trichlorofluoromethane	6.205	101	293011	44.80	ug/L		96
13) freon-113	6.965	101	169734	58.67	ug/L		100
14) acrolein	6.202	56	89307	226.30	ug/L		99
15) 1,1-dichloroethene	6.785	96	158419	60.02	ug/L		98
16) acetone	6.333	58	17984	22.61	ug/L	#	79
17) Methyl Acetate	6.962	43	196529	64.39	ug/L	#	94
18) methylene chloride	6.941	84	172716	48.06	ug/L		92
19) methyl tert butyl ether	7.704	73	375542	44.22	ug/L		98
20) acrylonitrile	6.845	53	78728	52.52	ug/L		96
21) allyl chloride	7.029	41	348753	54.32	ug/L		94
22) trans-1,2-dichloroethene	7.623	96	173061	49.84	ug/L		95
23) iodomethane	6.856	142	85451	39.73	ug/L		98
24) carbon disulfide	7.224	76	567898	56.82	ug/L		100
25) propionitrile	6.845	54	2843	56.64	ug/L		100
26) vinyl acetate	7.970	43	194953	40.12	ug/L		99
27) chloroprene	8.235	53	387403	62.16	ug/L		95
28) di-isopropyl ether	8.263	45	797549	48.13	ug/L		99
29) methacrylonitrile	8.401	41	113844	46.58	ug/L		93
30) 2-butanone	8.281	72	17093	43.84	ug/L	#	60
31) Hexane	8.249	41	322623	52.92	ug/L		98
32) 1,1-dichloroethane	7.878	63	412402	48.45	ug/L		97
33) tert-butyl ethyl ether	8.659	59	277552	32.28	ug/L		95
34) isobutyl alcohol	8.256	43	613398	244.17	ug/L		92
35) 2,2-dichloropropane	8.730	77	267953	49.82	ug/L		96
36) cis-1,2-dichloroethene	8.443	96	189017	47.81	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90807.D
Acq On : 1 Oct 2014 8:03 pm
Operator : jaclynb
Sample : mc33936-16ms
Misc : ms32850,MSN3359,,,,5,5
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 02 09:20:43 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.256	43	611147	49.39	ug/L		90
38) bromochloromethane	8.609	128	81654	50.45	ug/L		91
39) chloroform	8.645	83	346012	45.50	ug/L		96
41) Tetrahydrofuran	8.977	42	57394	52.47	ug/L		94
42) 1,1,1-trichloroethane	9.394	97	324317	55.62	ug/L		99
44) Cyclohexane	9.670	56	450124	61.51	ug/L		98
45) carbon tetrachloride	9.758	117	277593	52.63	ug/L		99
46) 1,1-dichloropropene	9.564	75	276206	58.29	ug/L		99
47) benzene	9.794	78	721543	46.68	ug/L		100
48) 1,2-dichloroethane	9.295	62	330299	45.64	ug/L		98
49) tert-amyl methyl ether	9.907	73	143360	32.68	ug/L		96
50) heptane	10.257	43	231147	52.26	ug/L		95
51) trichloroethene	10.405	95	220663	47.81	ug/L		94
52) 1,2-dichloropropane	10.377	63	233769	53.10	ug/L		99
53) dibromomethane	10.356	93	113939	50.72	ug/L		96
54) bromodichloromethane	10.465	83	285916	49.39	ug/L		98
55) Methylcyclohexane	10.918	83	330351	60.93	ug/L		99
56) 2-chloroethyl vinyl ether	10.377	63	233769	53.80	ug/L	#	98
57) methyl methacrylate	10.550	69	107957	53.63	ug/L		83
58) 1,4-dioxane	10.561	88	4020	121.93	ug/L	#	64
59) cis-1,3-dichloropropene	11.077	75	300991	53.82	ug/L		98
61) 4-methyl-2-pentanone	11.169	43	199074	48.32	ug/L		95
62) toluene	11.855	92	451701	48.66	ug/L		99
63) trans-1,3-dichloropropene	11.494	75	251758	56.00	ug/L		98
64) 1,1,2-trichloroethane	11.667	83	140939	47.11	ug/L		100
65) ethyl methacrylate	11.865	69	202829	52.96	ug/L		98
67) tetrachloroethene	12.594	166	184981	48.80	ug/L		100
68) 1,3-dichloropropane	11.904	76	283665	51.71	ug/L		99
69) dibromochloromethane	12.194	129	198250	50.56	ug/L		99
70) 1,2-dibromoethane	12.449	107	160636	52.28	ug/L		97
71) 2-hexanone	12.021	43	134890	40.12	ug/L		97
72) chlorobenzene	13.276	112	476014	46.89	ug/L		97
73) 1,1,1,2-tetrachloroethane	13.191	131	179038	48.44	ug/L		97
74) ethylbenzene	13.446	91	913511	48.27	ug/L		99
75) m,p-xylene	13.630	106	625231	90.36	ug/L		96
76) o-xylene	14.043	106	316635	47.12	ug/L		99
77) styrene	13.969	104	506589	51.97	ug/L		98
78) bromoform	13.799	173	116900	51.24	ug/L		99
79) trans-1,4-dichloro-2-b...	14.192	53	43355	43.69	ug/L	#	78
81) isopropylbenzene	14.400	105	850089	51.78	ug/L		98
83) bromobenzene	14.694	156	195039	50.21	ug/L		97
84) 1,1,2,2-tetrachloroethane	14.043	83	196262	54.72	ug/L		98
85) 1,2,3-trichloropropane	14.192	75	204806	51.57	ug/L		99
86) n-propylbenzene	14.846	91	1097565	52.22	ug/L		98
87) 2-chlorotoluene	14.969	91	661514	49.49	ug/L		95
88) 4-chlorotoluene	15.044	91	688713	48.78	ug/L		97
89) 1,3,5-trimethylbenzene	15.125	105	748466	45.42	ug/L		99
90) tert-butylbenzene	15.429	91	485569	50.19	ug/L		96
91) 1,2,4-trimethylbenzene	15.532	105	776350	47.52	ug/L		99
92) sec-butylbenzene	15.648	105	980601	53.10	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90807.D
Acq On : 1 Oct 2014 8:03 pm
Operator : jaclynb
Sample : mc33936-16ms
Misc : ms32850,MSN3359,,,,5,5
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 02 09:20:43 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

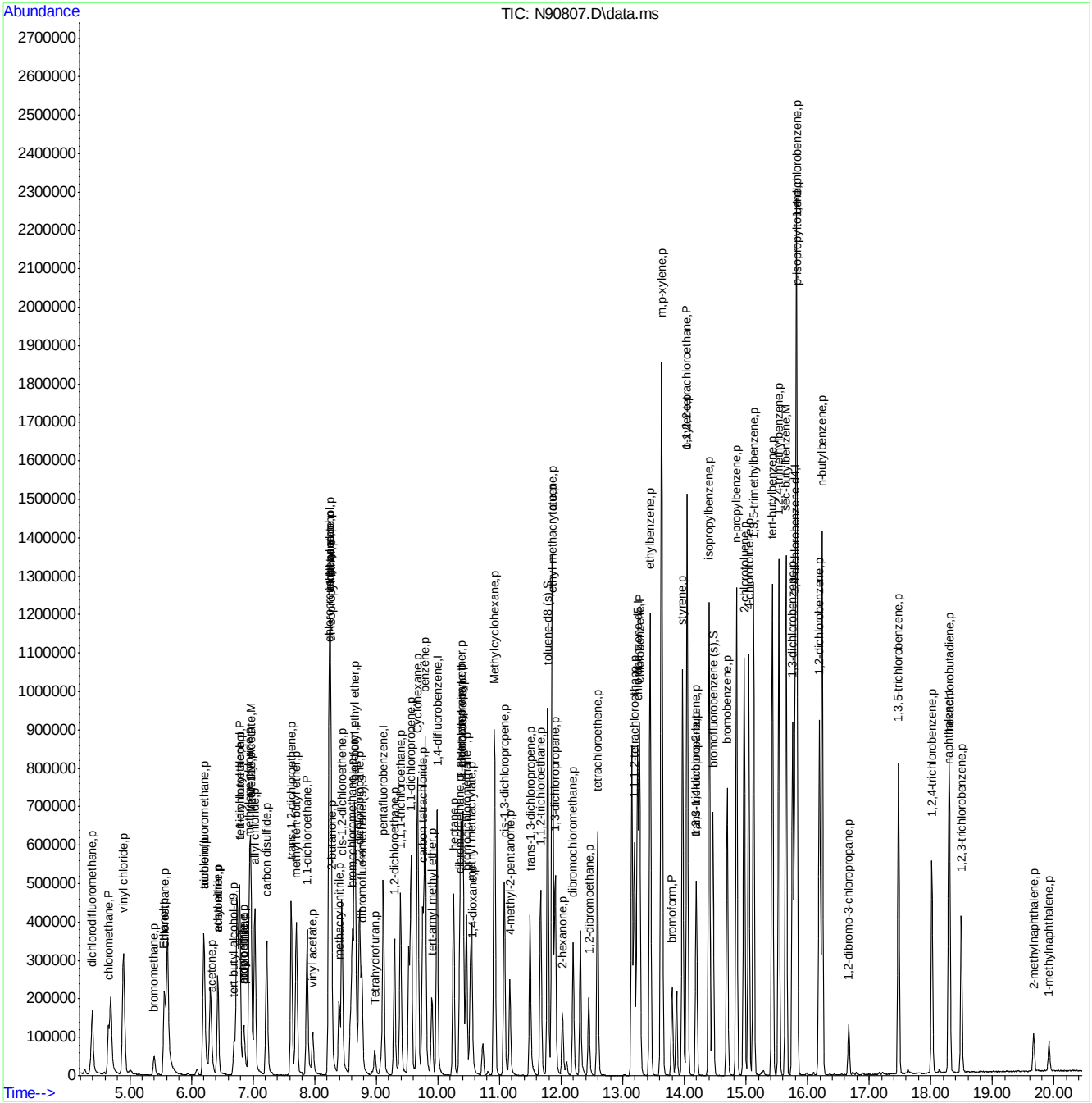
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	377973	50.64	ug/L		99
94) p-isopropyltoluene	15.821	119	800039	53.02	ug/L		98
95) 1,4-dichlorobenzene	15.825	146	360499	54.27	ug/L		96
96) 1,2-dichlorobenzene	16.189	146	373062	53.53	ug/L		98
97) n-butylbenzene	16.235	91	835237	53.36	ug/L		98
98) 1,2-dibromo-3-chloropr...	16.666	75	34411	54.99	ug/L		91
99) 1,2,4-trichlorobenzene	18.017	180	183130	58.59	ug/L		99
100) 1,3,5-trichlorobenzene	17.472	180	257357	53.17	ug/L		99
101) hexachlorobutadiene	18.303	225	131448	53.64	ug/L		95
102) naphthalene	18.289	128	294778	65.91	ug/L		100
103) 1,2,3-trichlorobenzene	18.494	180	134601	59.62	ug/L		91
104) 2-methylnaphthalene	19.668	142	55674	43.62	ug/L	#	100
105) 1-methylnaphthalene	19.919	142	42950	45.03	ug/L		98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90807.D
Acq On : 1 Oct 2014 8:03 pm
Operator : jaclynb
Sample : mc33936-16ms
Misc : ms32850,MSN3359,,,,5,5
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 02 09:20:43 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90808.D
Acq On : 1 Oct 2014 8:31 pm
Operator : jaclynb
Sample : mc33936-16msd
Misc : ms32850,MSN3359,,,,5,5
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 02 09:20:54 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.697	65	115549	500.00	ug/L		0.00
4) pentafluorobenzene	9.119	168	348589	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	545275	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	281329	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	230106	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.769	113	166192	46.47	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 92.94%				
60) toluene-d8 (s)	11.781	98	662360	50.65	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 101.30%				
82) bromofluorobenzene (s)	14.464	95	258525	46.08	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 92.16%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.785	59	116295	286.27	ug/L	#	100
3) Ethanol	5.559	45	360725	6096.84	ug/L		99
5) dichlorodifluoromethane	4.392	85	187200	40.78	ug/L		95
6) chloromethane	4.657	50	200476	35.63	ug/L		100
7) vinyl chloride	4.898	62	188171	49.70	ug/L		94
8) bromomethane	5.400	96	63782	37.70	ug/L		96
9) chloroethane	5.566	64	126056	55.96	ug/L		95
10) ethyl ether	6.432	59	182592	53.51	ug/L		94
11) acetonitrile	6.428	41	27967	51.64	ug/L		96
12) trichlorofluoromethane	6.202	101	292534	44.38	ug/L		100
13) freon-113	6.966	101	172599	59.19	ug/L		95
14) acrolein	6.199	56	90043	226.37	ug/L		92
15) 1,1-dichloroethene	6.785	96	157296	59.11	ug/L		98
16) acetone	6.333	58	17956	22.39	ug/L	#	80
17) Methyl Acetate	6.962	43	197943	64.35	ug/L	#	95
18) methylene chloride	6.944	84	175723	48.51	ug/L		96
19) methyl tert butyl ether	7.705	73	373635	43.65	ug/L		100
20) acrylonitrile	6.849	53	79355	52.52	ug/L		96
21) allyl chloride	7.029	41	347329	53.68	ug/L		93
22) trans-1,2-dichloroethene	7.623	96	173252	49.50	ug/L		99
23) iodomethane	6.856	142	91818	42.16	ug/L		94
24) carbon disulfide	7.224	76	581276	57.70	ug/L		99
25) propionitrile	6.863	54	2492	49.70	ug/L		100
26) vinyl acetate	7.973	43	194612	39.74	ug/L		98
27) chloroprene	8.235	53	384707	61.25	ug/L		99
28) di-isopropyl ether	8.263	45	790636	47.33	ug/L		98
29) methacrylonitrile	8.397	41	112329	45.60	ug/L		99
30) 2-butanone	8.281	72	16403	41.74	ug/L	#	67
31) Hexane	8.245	41	324386	52.79	ug/L		86
32) 1,1-dichloroethane	7.878	63	408674	47.63	ug/L		98
33) tert-butyl ethyl ether	8.663	59	277526	32.05	ug/L		95
34) isobutyl alcohol	8.260	43	607599	239.95	ug/L		97
35) 2,2-dichloropropane	8.730	77	262256	48.49	ug/L		99
36) cis-1,2-dichloroethene	8.443	96	186841	46.88	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90808.D
Acq On : 1 Oct 2014 8:31 pm
Operator : jaclynb
Sample : mc33936-16msd
Misc : ms32850,MSN3359,,,,5,5
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 02 09:20:54 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.260	43	609974	48.91	ug/L		99
38) bromochloromethane	8.617	128	84454	51.77	ug/L		95
39) chloroform	8.645	83	342874	44.73	ug/L		100
41) Tetrahydrofuran	8.977	42	52666	47.77	ug/L		97
42) 1,1,1-trichloroethane	9.394	97	326710	55.59	ug/L		99
44) Cyclohexane	9.674	56	451315	60.99	ug/L		99
45) carbon tetrachloride	9.755	117	277757	52.08	ug/L		100
46) 1,1-dichloropropene	9.568	75	274479	57.28	ug/L		97
47) benzene	9.794	78	722646	46.23	ug/L		98
48) 1,2-dichloroethane	9.295	62	322529	44.07	ug/L		99
49) tert-amyl methyl ether	9.907	73	146195	32.93	ug/L		95
50) heptane	10.257	43	234497	52.43	ug/L		95
51) trichloroethene	10.409	95	221506	47.46	ug/L		95
52) 1,2-dichloropropane	10.381	63	239903	53.89	ug/L		99
53) dibromomethane	10.356	93	112929	49.72	ug/L		93
54) bromodichloromethane	10.466	83	286767	48.99	ug/L		98
55) Methylcyclohexane	10.922	83	330639	60.31	ug/L		99
56) 2-chloroethyl vinyl ether	10.381	63	239903	54.60	ug/L	#	100
57) methyl methacrylate	10.550	69	107209	52.67	ug/L	#	78
58) 1,4-dioxane	10.565	88	4118	123.44	ug/L		80
59) cis-1,3-dichloropropene	11.077	75	303051	53.59	ug/L		98
61) 4-methyl-2-pentanone	11.169	43	200248	48.07	ug/L		95
62) toluene	11.855	92	451831	48.13	ug/L		98
63) trans-1,3-dichloropropene	11.498	75	251499	55.32	ug/L		100
64) 1,1,2-trichloroethane	11.668	83	141708	46.84	ug/L		99
65) ethyl methacrylate	11.866	69	198800	51.33	ug/L		100
67) tetrachloroethene	12.594	166	186486	50.90	ug/L		99
68) 1,3-dichloropropane	11.904	76	281524	53.10	ug/L		97
69) dibromochloromethane	12.194	129	198288	52.33	ug/L		99
70) 1,2-dibromoethane	12.445	107	160010	53.88	ug/L		98
71) 2-hexanone	12.021	43	134019	41.25	ug/L		97
72) chlorobenzene	13.276	112	479643	48.89	ug/L		97
73) 1,1,1,2-tetrachloroethane	13.191	131	180385	50.50	ug/L		96
74) ethylbenzene	13.446	91	897103	49.06	ug/L		99
75) m,p-xylene	13.630	106	625562	93.56	ug/L		98
76) o-xylene	14.043	106	315054	48.51	ug/L		97
77) styrene	13.973	104	508074	53.93	ug/L		99
78) bromoform	13.799	173	115305	52.30	ug/L		100
79) trans-1,4-dichloro-2-b...	14.192	53	42351	44.14	ug/L	#	78
81) isopropylbenzene	14.404	105	850570	52.14	ug/L		100
83) bromobenzene	14.694	156	194652	50.43	ug/L		97
84) 1,1,2,2-tetrachloroethane	14.047	83	193323	54.14	ug/L		100
85) 1,2,3-trichloropropane	14.192	75	203217	51.50	ug/L		99
86) n-propylbenzene	14.846	91	1094919	52.43	ug/L		100
87) 2-chlorotoluene	14.970	91	658019	49.55	ug/L		97
88) 4-chlorotoluene	15.047	91	694257	49.48	ug/L		99
89) 1,3,5-trimethylbenzene	15.122	105	741403	45.27	ug/L		97
90) tert-butylbenzene	15.429	91	487120	50.67	ug/L		97
91) 1,2,4-trimethylbenzene	15.535	105	770575	47.47	ug/L		98
92) sec-butylbenzene	15.648	105	976991	53.25	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90808.D
Acq On : 1 Oct 2014 8:31 pm
Operator : jaclynb
Sample : mc33936-16msd
Misc : ms32850,MSN3359,,,,5,5
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 02 09:20:54 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

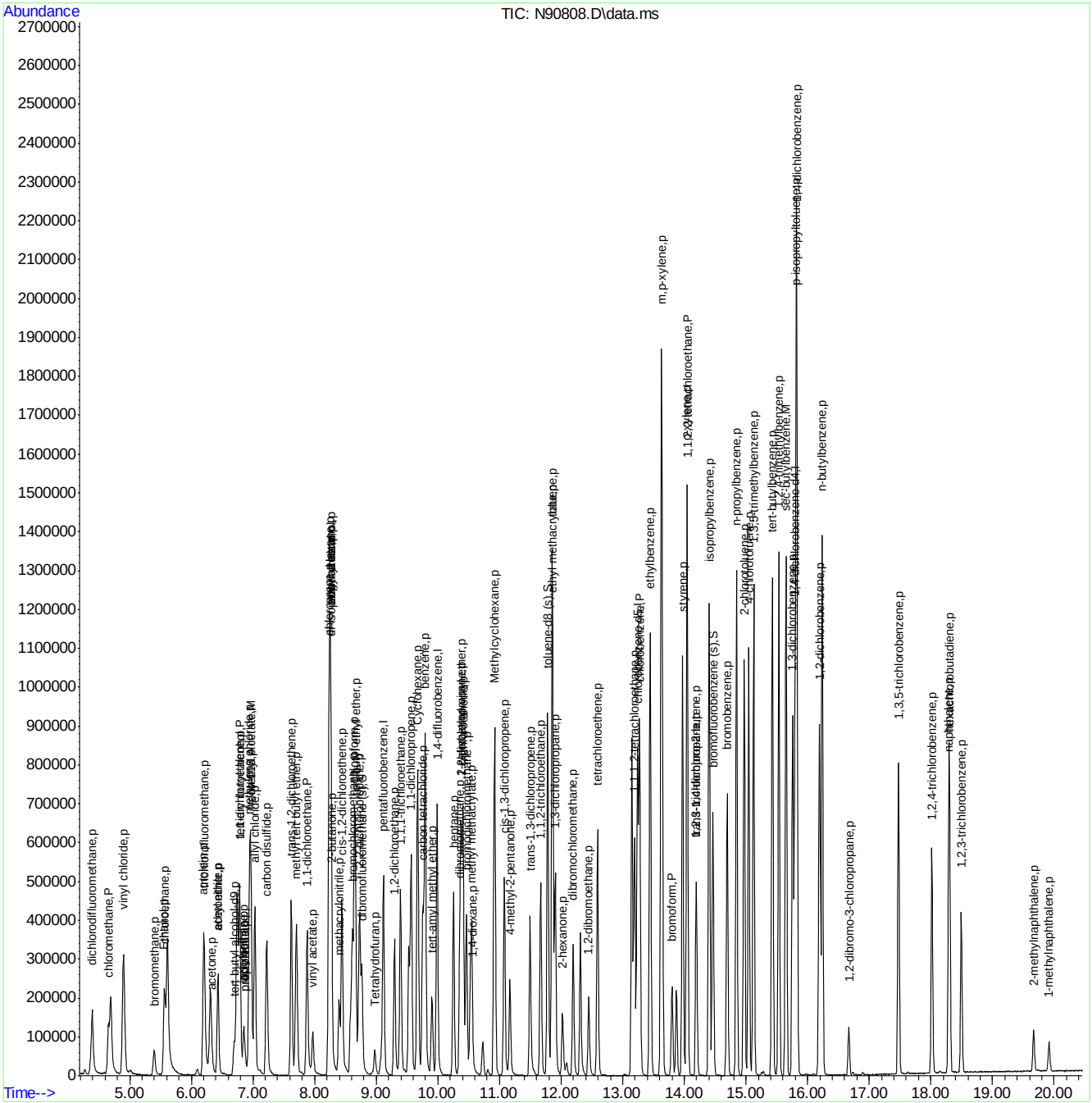
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	376464	50.76	ug/L		99
94) p-isopropyltoluene	15.818	119	797208	53.17	ug/L		99
95) 1,4-dichlorobenzene	15.825	146	362071	54.87	ug/L		97
96) 1,2-dichlorobenzene	16.193	146	374235	54.05	ug/L		99
97) n-butylbenzene	16.235	91	839175	53.95	ug/L		99
98) 1,2-dibromo-3-chloropr...	16.670	75	34809	55.98	ug/L		94
99) 1,2,4-trichlorobenzene	18.021	180	185141	59.61	ug/L		99
100) 1,3,5-trichlorobenzene	17.476	180	258609	53.77	ug/L		100
101) hexachlorobutadiene	18.303	225	133852	54.97	ug/L		94
102) naphthalene	18.289	128	297867	66.96	ug/L		100
103) 1,2,3-trichlorobenzene	18.494	180	137495	61.24	ug/L		97
104) 2-methylnaphthalene	19.668	142	56495	44.55	ug/L	#	100
105) 1-methylnaphthalene	19.919	142	42996	45.36	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90808.D
Acq On : 1 Oct 2014 8:31 pm
Operator : jaclynb
Sample : mc33936-16msd
Misc : ms32850,MSN3359,,,,5,5
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 02 09:20:54 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
10/06/14 09:31

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80347.D
Acq On : 3 Oct 2014 5:59 pm
Operator : garyk
Sample : mc33981-7ms
Misc : ms32875,msp2629,,,,5,5
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 06 08:34:03 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.159	65	88487	50.00	ug/L		#-0.02
4) pentafluorobenzene	8.476	168	389456	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.318	114	468258	50.00	ug/L		0.00
66) chlorobenzene-d5	12.525	82	229113	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.078	152	261236	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.126	113	171325	42.17	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 84.34%				
60) toluene-d8 (s)	11.083	98	558614	45.96	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 91.92%				
82) bromofluorobenzene (s)	13.751	95	210869	37.69	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 75.38%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.240	59	84837	303.30	ug/L	#	57
3) Ethanol	5.115	45	287271	8240.70	ug/L		100
5) dichlorodifluoromethane	4.051	85	234286	48.50	ug/L		100
6) chloromethane	4.286	50	225965	45.84	ug/L		97
7) vinyl chloride	4.495	62	233134	62.36	ug/L		97
8) bromomethane	4.947	96	47031	51.92	ug/L		100
9) chloroethane	5.095	64	112761	75.10	ug/L		99
10) ethyl ether	5.910	59	155169	60.34	ug/L		78
11) acetonitrile	5.701	41	33369	73.50	ug/L		89
12) trichlorofluoromethane	5.681	101	345957	57.55	ug/L		100
13) freon-113	6.395	101	155901	48.79	ug/L		95
14) acrolein	5.681	56	46649	108.48	ug/L		96
15) 1,1-dichloroethene	6.220	96	138731	52.16	ug/L		95
16) acetone	5.802	58	23122	31.92	ug/L	#	25
17) Methyl Acetate	6.402	43	242907	66.79	ug/L	#	82
18) methylene chloride	6.375	84	168019	46.93	ug/L	#	49
19) methyl tert butyl ether	7.109	73	422778	53.94	ug/L		82
20) acrylonitrile	6.294	53	61572	39.47	ug/L		83
21) allyl chloride	6.455	41	297002	48.67	ug/L		77
22) trans-1,2-dichloroethene	7.021	96	139621	43.55	ug/L		85
23) iodomethane	6.287	142	42372	26.39	ug/L		94
24) carbon disulfide	6.624	76	439469	45.50	ug/L		100
25) propionitrile	7.284	54	20531	40.27	ug/L		100
26) vinyl acetate	7.365	43	218599	28.66	ug/L		92
27) chloroprene	7.607	53	302419	55.17	ug/L		85
28) di-isopropyl ether	7.655	45	788355	46.65	ug/L		90
29) methacrylonitrile	7.769	41	133531	47.16	ug/L	#	71
30) 2-butanone	7.661	72	15353	28.25	ug/L	#	1
31) Hexane	7.628	41	392884	55.42	ug/L	#	80
32) 1,1-dichloroethane	7.257	63	345819	48.33	ug/L		98
33) tert-butyl ethyl ether	8.032	59	465359	66.45	ug/L		89
34) isobutyl alcohol	7.655	43	681827	237.73	ug/L		92
35) 2,2-dichloropropane	8.086	77	94194	28.12	ug/L		97
36) cis-1,2-dichloroethene	7.809	96	161937	43.55	ug/L		87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80347.D
Acq On : 3 Oct 2014 5:59 pm
Operator : garyk
Sample : mc33981-7ms
Misc : ms32875,msp2629,,,,5,5
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 06 08:34:03 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	7.958	43	181874	47.05	ug/L		99
38) bromochloromethane	7.971	128	89966	57.41	ug/L	#	67
39) chloroform	8.005	83	336482	50.31	ug/L		99
41) Tetrahydrofuran	8.321	42	66290	42.12	ug/L		66
42) 1,1,1-trichloroethane	8.726	97	271882	49.41	ug/L		95
44) Cyclohexane	9.002	56	296621	49.04	ug/L	#	75
45) carbon tetrachloride	9.083	117	249433	61.69	ug/L		95
46) 1,1-dichloropropene	8.901	75	216926	53.37	ug/L		95
47) benzene	9.116	78	638777	49.28	ug/L		99
48) 1,2-dichloroethane	8.638	62	265435	59.88	ug/L		100
49) tert-amyl methyl ether	9.238	73	368770	72.27	ug/L		76
50) heptane	9.588	43	254180	48.61	ug/L		73
51) trichloroethene	9.729	95	171388	50.96	ug/L		89
52) 1,2-dichloropropane	9.696	63	194940	49.94	ug/L		99
53) dibromomethane	9.669	93	115699	57.86	ug/L		95
54) bromodichloromethane	9.783	83	257169	56.95	ug/L		97
55) Methylcyclohexane	10.228	83	222500	48.08	ug/L	#	76
56) 2-chloroethyl vinyl ether	10.228	63	3013	70.68	ug/L	#	88
57) methyl methacrylate	9.884	69	104953	46.41	ug/L	#	41
58) 1,4-dioxane	9.878	88	2845m	110.05	ug/L		
59) cis-1,3-dichloropropene	10.389	75	240188	54.73	ug/L		96
61) 4-methyl-2-pentanone	10.491	43	225853	48.27	ug/L		84
62) toluene	11.151	92	370016	50.34	ug/L		95
63) trans-1,3-dichloropropene	10.807	75	213280	56.90	ug/L		95
64) 1,1,2-trichloroethane	10.976	83	130257	51.59	ug/L		97
65) ethyl methacrylate	11.184	69	199215	46.06	ug/L	#	56
67) tetrachloroethene	11.878	166	189211	58.58	ug/L		97
68) 1,3-dichloropropane	11.205	76	246447	51.69	ug/L		99
69) dibromochloromethane	11.488	129	201449	63.27	ug/L		97
70) 1,2-dibromoethane	11.737	107	156066	55.91	ug/L		96
71) 2-hexanone	11.380	43	130901	35.01	ug/L		79
72) chlorobenzene	12.559	112	424785	53.12	ug/L		93
73) 1,1,1,2-tetrachloroethane	12.478	131	169855	58.85	ug/L		97
74) ethylbenzene	12.734	91	692904	48.70	ug/L		97
75) m,p-xylene	12.922	106	531680	104.32	ug/L		93
76) o-xylene	13.333	106	268570	53.96	ug/L		96
77) styrene	13.259	104	464232	56.66	ug/L		94
78) bromoform	13.077	173	158860	68.92	ug/L		99
79) trans-1,4-dichloro-2-b...	13.495	53	33511	35.10	ug/L	#	76
81) isopropylbenzene	13.690	105	653401	43.11	ug/L		93
83) bromobenzene	13.973	156	220424	47.51	ug/L		88
84) 1,1,2,2-tetrachloroethane	13.340	83	204576	39.55	ug/L		99
85) 1,2,3-trichloropropane	13.488	75	180801	35.93	ug/L		98
86) n-propylbenzene	14.142	91	786335	41.15	ug/L		94
87) 2-chlorotoluene	14.249	91	489562	43.88	ug/L		94
88) 4-chlorotoluene	14.330	91	508162	43.69	ug/L		92
89) 1,3,5-trimethylbenzene	14.418	105	571084	40.98	ug/L		97
90) tert-butylbenzene	14.721	91	326189	43.92	ug/L		87
91) 1,2,4-trimethylbenzene	14.829	105	564240	41.91	ug/L		94
92) sec-butylbenzene	14.943	105	655400	40.49	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80347.D
Acq On : 3 Oct 2014 5:59 pm
Operator : garyk
Sample : mc33981-7ms
Misc : ms32875,msp2629,,,,5,5
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 06 08:34:03 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

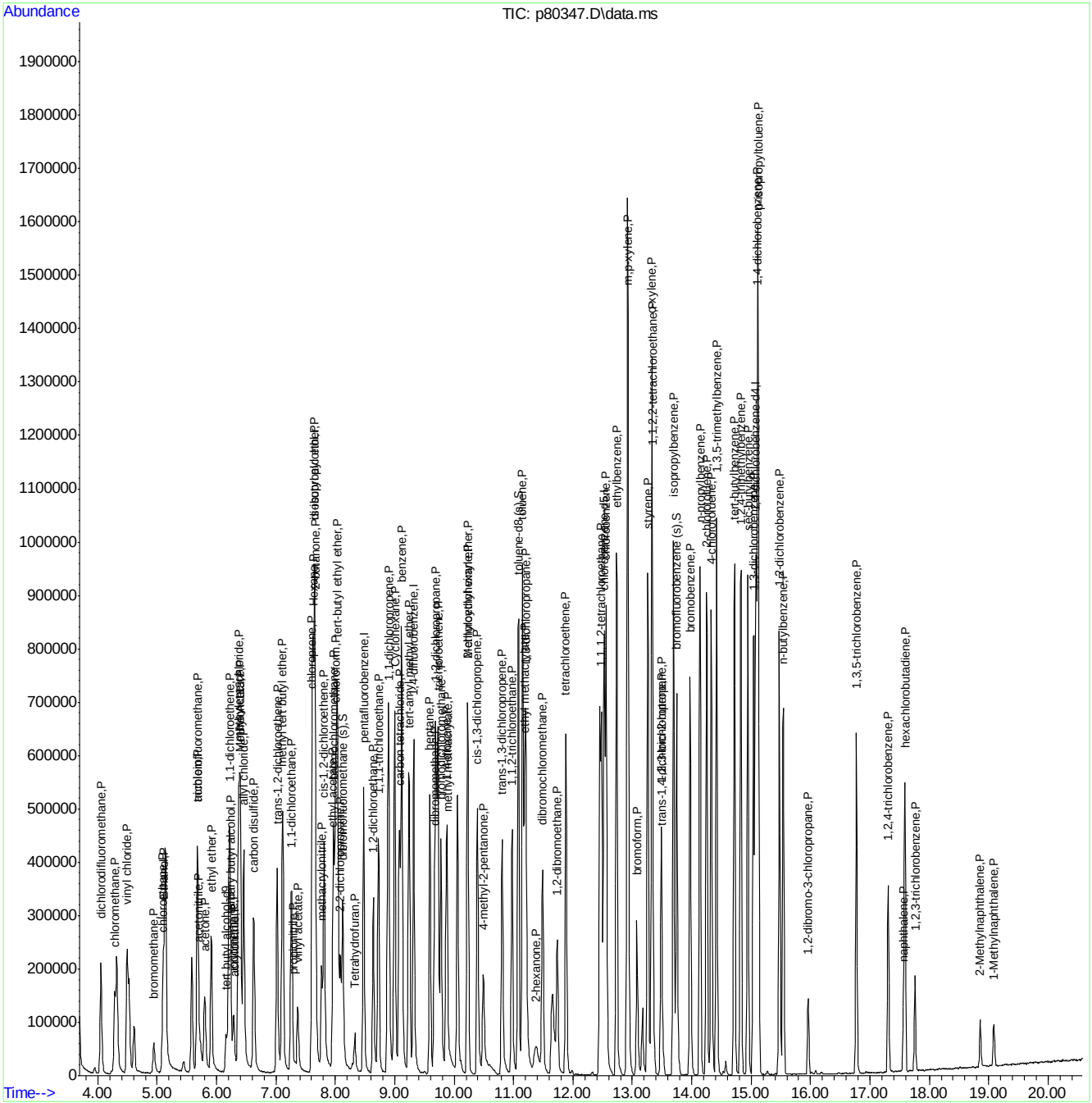
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	1,3-dichlorobenzene	15.044	146	354662	46.74	ug/L	95
94)	p-isopropyltoluene	15.118	119	535414	41.66	ug/L	97
95)	1,4-dichlorobenzene	15.112	146	357580	44.93	ug/L	95
96)	1,2-dichlorobenzene	15.475	146	345581	47.64	ug/L	99
97)	n-butylbenzene	15.543	91	403336	36.47	ug/L	94
98)	1,2-dibromo-3-chloropr...	15.960	75	29205	43.98	ug/L	80
99)	1,3,5-trichlorobenzene	16.776	180	219776	49.95	ug/L	98
100)	1,2,4-trichlorobenzene	17.308	180	111743	32.80	ug/L	96
101)	hexachlorobutadiene	17.591	225	112977	49.27	ug/L	99
102)	naphthalene	17.564	128	57266	17.39	ug/L	100
103)	1,2,3-trichlorobenzene	17.759	180	59648	24.82	ug/L	93
104)	2-Methylnaphthalene	18.857	142	47580	34.57	ug/L	100
105)	1-Methylnaphthalene	19.086	142	42707	34.32	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80347.D
Acq On : 3 Oct 2014 5:59 pm
Operator : garyk
Sample : mc33981-7ms
Misc : ms32875,msp2629,,,,5,5
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 06 08:34:03 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80348.D
Acq On : 3 Oct 2014 6:29 pm
Operator : garyk
Sample : mc33981-7msd
Misc : ms32875,msp2629,,,,5,5
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 06 08:34:32 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.159	65	98204	50.00	ug/L		#-0.02
4) pentafluorobenzene	8.477	168	405528	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.319	114	488581	50.00	ug/L		0.00
66) chlorobenzene-d5	12.525	82	249497	50.00	ug/L	#	0.00
80) 1,4-dichlorobenzene-d4	15.078	152	271110	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.119	113	178762	42.26	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 84.52%				
60) toluene-d8 (s)	11.083	98	583331	45.99	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 91.98%				
82) bromofluorobenzene (s)	13.751	95	220467	37.97	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 75.94%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.240	59	93150	300.07	ug/L	#	57
3) Ethanol	5.108	45	301458	7792.01	ug/L		95
5) dichlorodifluoromethane	4.051	85	224930	44.72	ug/L		100
6) chloromethane	4.280	50	234030	45.60	ug/L		96
7) vinyl chloride	4.489	62	220036	56.52	ug/L		98
8) bromomethane	4.940	96	53449	55.60	ug/L		99
9) chloroethane	5.095	64	106572	68.05	ug/L		100
10) ethyl ether	5.910	59	156446	58.43	ug/L		82
11) acetonitrile	5.701	41	33027	69.87	ug/L		93
12) trichlorofluoromethane	5.681	101	327344	52.29	ug/L		98
13) freon-113	6.395	101	152640	45.88	ug/L		95
14) acrolein	5.681	56	50754	113.35	ug/L		88
15) 1,1-dichloroethene	6.220	96	136376	49.20	ug/L		84
16) acetone	5.802	58	23206	30.77	ug/L	#	41
17) Methyl Acetate	6.402	43	249341	65.84	ug/L	#	83
18) methylene chloride	6.368	84	165546	44.41	ug/L	#	49
19) methyl tert butyl ether	7.109	73	429741	52.79	ug/L		81
20) acrylonitrile	6.287	53	62509	38.48	ug/L		97
21) allyl chloride	6.456	41	300034	47.22	ug/L		77
22) trans-1,2-dichloroethene	7.021	96	134877	40.40	ug/L		82
23) iodomethane	6.287	142	75021	41.75	ug/L		91
24) carbon disulfide	6.624	76	434925	43.25	ug/L		99
25) propionitrile	7.284	54	24091	45.38	ug/L		100
26) vinyl acetate	7.365	43	231590	29.16	ug/L		89
27) chloroprene	7.608	53	300613	52.67	ug/L		82
28) di-isopropyl ether	7.655	45	786887	44.72	ug/L		92
29) methacrylonitrile	7.769	41	138135	46.85	ug/L		75
30) 2-butanone	7.668	72	17431	30.80	ug/L	#	1
31) Hexane	7.628	41	377872	51.19	ug/L	#	81
32) 1,1-dichloroethane	7.257	63	339465	45.56	ug/L		98
33) tert-butyl ethyl ether	8.032	59	476681	65.82	ug/L		91
34) isobutyl alcohol	7.655	43	683924	229.01	ug/L		95
35) 2,2-dichloropropane	8.079	77	99109	28.34	ug/L		99
36) cis-1,2-dichloroethene	7.810	96	159585	41.21	ug/L		88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80348.D
Acq On : 3 Oct 2014 6:29 pm
Operator : garyk
Sample : mc33981-7msd
Misc : ms32875,msp2629,,,,5,5
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 06 08:34:32 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	ethyl acetate	7.958	43	191381	47.55	ug/L		98
38)	bromochloromethane	7.971	128	85242	52.24	ug/L	#	70
39)	chloroform	8.005	83	333167	47.84	ug/L		100
41)	Tetrahydrofuran	8.322	42	62042	37.86	ug/L		71
42)	1,1,1-trichloroethane	8.726	97	269982	47.12	ug/L		94
44)	Cyclohexane	8.995	56	293495	46.51	ug/L	#	76
45)	carbon tetrachloride	9.076	117	240270	56.95	ug/L		89
46)	1,1-dichloropropene	8.901	75	213830	50.42	ug/L		97
47)	benzene	9.116	78	629811	46.56	ug/L		99
48)	1,2-dichloroethane	8.638	62	271099	58.62	ug/L		99
49)	tert-amyl methyl ether	9.238	73	378599	71.41	ug/L		76
50)	heptane	9.588	43	247646	45.39	ug/L		72
51)	trichloroethene	9.723	95	169594	48.33	ug/L		93
52)	1,2-dichloropropane	9.696	63	188659	46.32	ug/L		100
53)	dibromomethane	9.669	93	113606	54.45	ug/L		94
54)	bromodichloromethane	9.777	83	262111	55.63	ug/L		99
55)	Methylcyclohexane	10.228	83	218593	45.27	ug/L	#	76
56)	2-chloroethyl vinyl ether	10.228	63	3415	75.69	ug/L	#	81
57)	methyl methacrylate	9.878	69	108528	46.00	ug/L	#	32
58)	1,4-dioxane	9.871	88	3147	115.62	ug/L		86
59)	cis-1,3-dichloropropene	10.390	75	241333	52.70	ug/L		97
61)	4-methyl-2-pentanone	10.491	43	237425	48.64	ug/L		84
62)	toluene	11.151	92	362185	47.23	ug/L		99
63)	trans-1,3-dichloropropene	10.807	75	218215	55.79	ug/L		95
64)	1,1,2-trichloroethane	10.976	83	131054	49.74	ug/L		98
65)	ethyl methacrylate	11.185	69	204676	45.35	ug/L	#	52
67)	tetrachloroethene	11.885	166	183106	52.05	ug/L		99
68)	1,3-dichloropropane	11.205	76	249563	48.06	ug/L		98
69)	dibromochloromethane	11.488	129	200560	57.84	ug/L		99
70)	1,2-dibromoethane	11.737	107	155001	50.99	ug/L		100
71)	2-hexanone	11.373	43	144051	35.38	ug/L		79
72)	chlorobenzene	12.559	112	417676	47.96	ug/L		94
73)	1,1,1,2-tetrachloroethane	12.478	131	167917	53.42	ug/L		97
74)	ethylbenzene	12.734	91	680050	43.89	ug/L		98
75)	m,p-xylene	12.923	106	524149	94.44	ug/L		96
76)	o-xylene	13.327	106	267473	49.34	ug/L		95
77)	styrene	13.259	104	458121	51.35	ug/L		92
78)	bromoform	13.077	173	162728	64.83	ug/L		96
79)	trans-1,4-dichloro-2-b...	13.488	53	37283	35.86	ug/L	#	83
81)	isopropylbenzene	13.690	105	645832	41.05	ug/L		96
83)	bromobenzene	13.973	156	219021	45.48	ug/L		86
84)	1,1,2,2-tetrachloroethane	13.340	83	207407	38.64	ug/L		98
85)	1,2,3-trichloropropane	13.488	75	188593	36.11	ug/L		97
86)	n-propylbenzene	14.142	91	781297	39.39	ug/L		96
87)	2-chlorotoluene	14.250	91	480740	41.52	ug/L		90
88)	4-chlorotoluene	14.330	91	508126	42.10	ug/L		90
89)	1,3,5-trimethylbenzene	14.418	105	561786	38.85	ug/L		95
90)	tert-butylbenzene	14.721	91	324300	42.07	ug/L		88
91)	1,2,4-trimethylbenzene	14.829	105	564080	40.37	ug/L		93
92)	sec-butylbenzene	14.943	105	649766	38.68	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80348.D
Acq On : 3 Oct 2014 6:29 pm
Operator : garyk
Sample : mc33981-7msd
Misc : ms32875,msp2629,,,,5,5
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 06 08:34:32 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

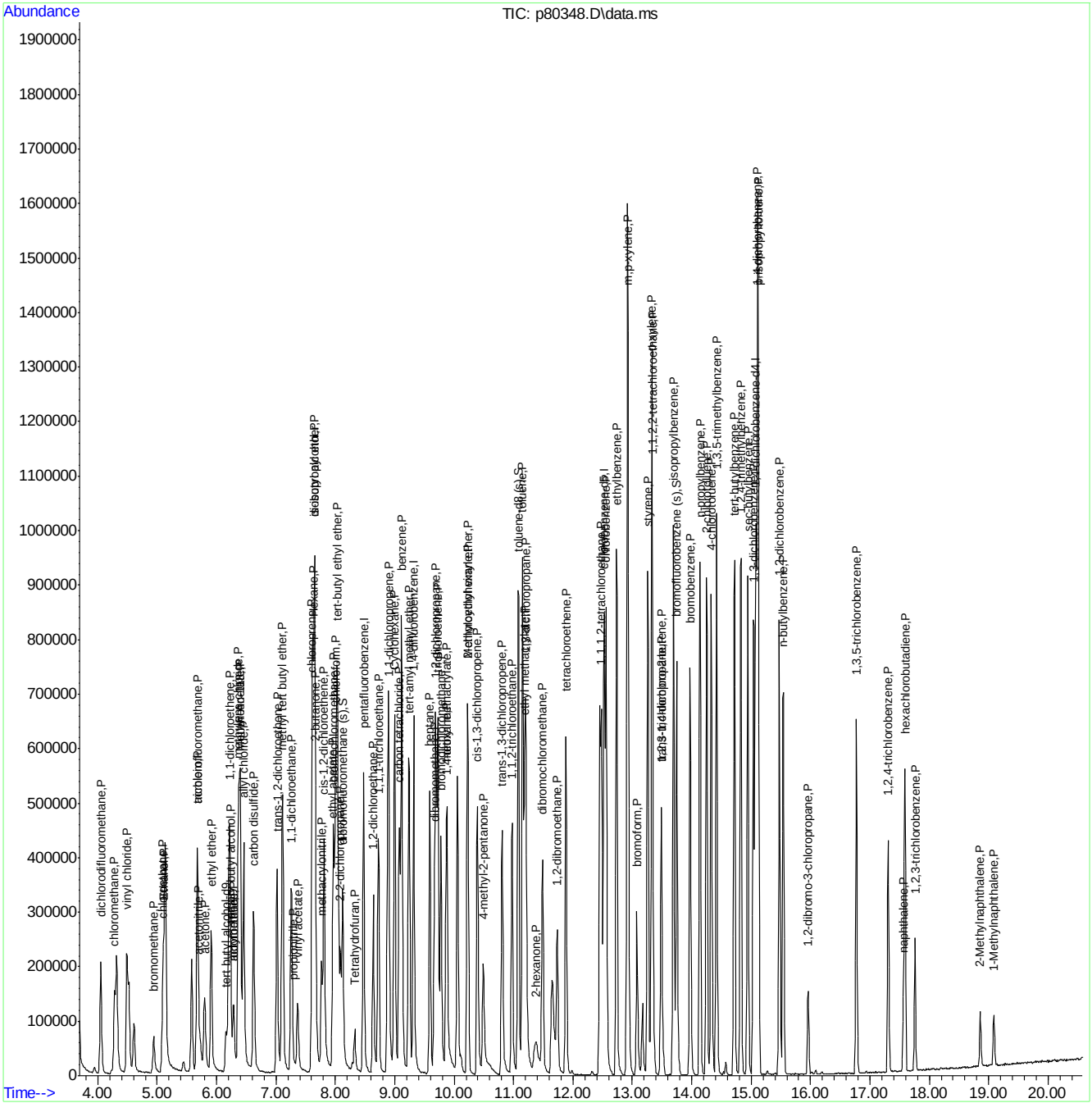
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	1,3-dichlorobenzene	15.044	146	356404	45.26	ug/L	96
94)	p-isopropyltoluene	15.119	119	540892	40.55	ug/L	99
95)	1,4-dichlorobenzene	15.112	146	364709	44.16	ug/L	96
96)	1,2-dichlorobenzene	15.476	146	345387	45.88	ug/L	98
97)	n-butylbenzene	15.543	91	413545	36.03	ug/L	93
98)	1,2-dibromo-3-chloropr...	15.961	75	31129	45.17	ug/L	79
99)	1,3,5-trichlorobenzene	16.776	180	226792	49.67	ug/L	97
100)	1,2,4-trichlorobenzene	17.308	180	130796	36.52	ug/L	95
101)	hexachlorobutadiene	17.591	225	112509	47.28	ug/L	92
102)	naphthalene	17.564	128	68024	19.23	ug/L	100
103)	1,2,3-trichlorobenzene	17.759	180	78444	29.71	ug/L	96
104)	2-Methylnaphthalene	18.857	142	55627	38.95	ug/L	96
105)	1-Methylnaphthalene	19.086	142	49084	38.01	ug/L	92

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80348.D
Acq On : 3 Oct 2014 6:29 pm
Operator : garyk
Sample : mc33981-7msd
Misc : ms32875,msp2629,,,,5,5
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 06 08:34:32 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration



SW-846 Method 8260

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Data File : C:\msdchem\1\data\N140918\N90385.D          Vial: 1
Acq On    : 18 Sep 2014   1:17 pm                   Operator: krystend
Sample    : bfb                                     Inst    : MSN
Misc      : ms32746,MSN3345,,,,5,1                  Multiplr: 1.00
MS Integration Params: RTEINT.P

Method    : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
Title     : SW-846 Method 8260
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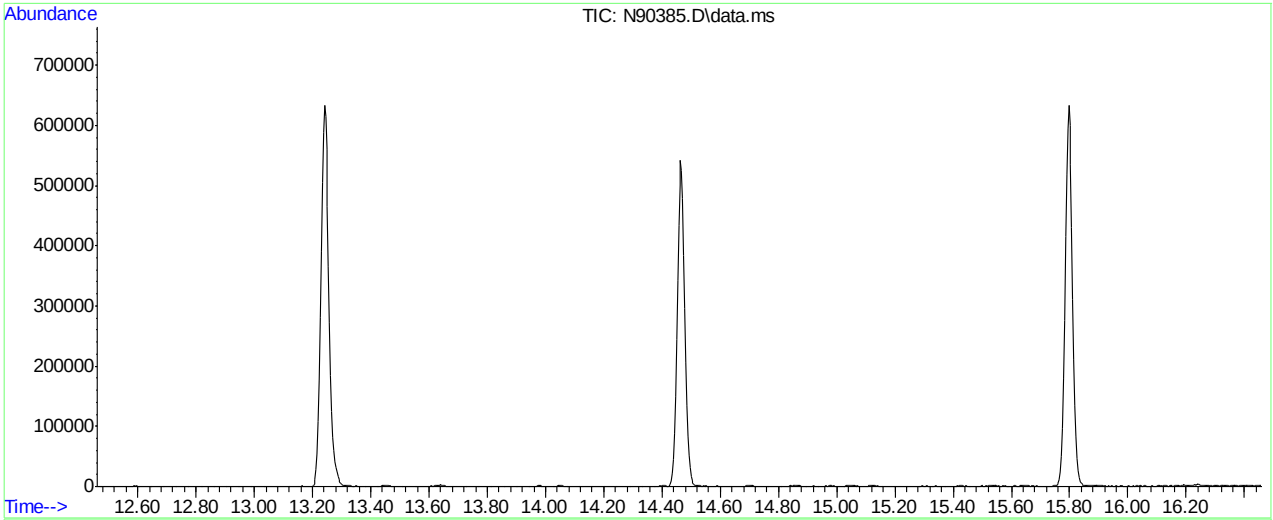

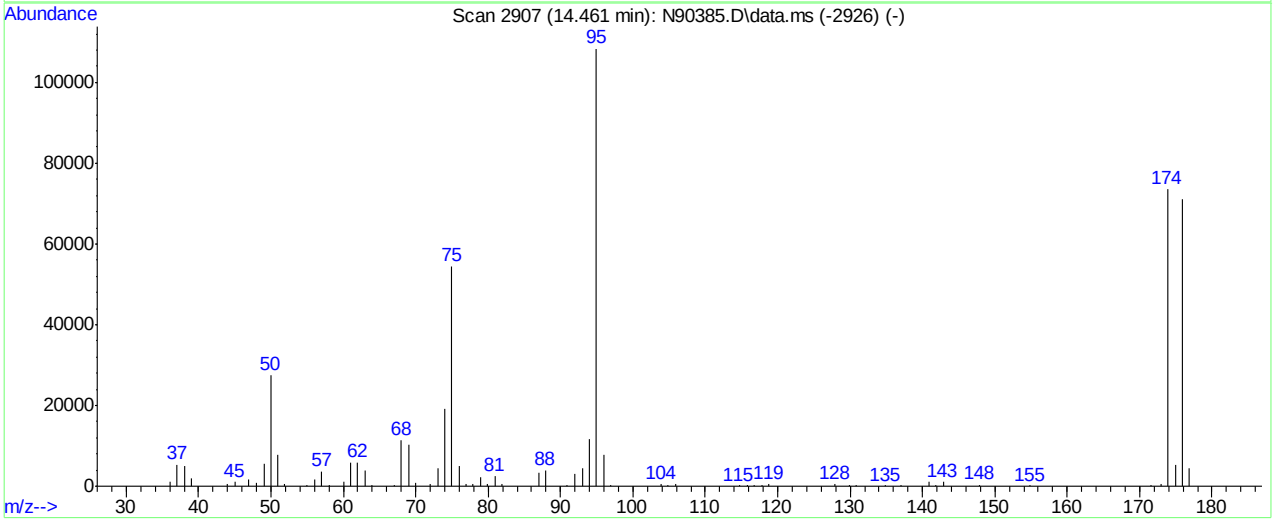

Spectrum Information: Scan 2907

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.4	27584	PASS
75	95	30	60	50.3	54529	PASS
95	95	100	100	100.0	108414	PASS
96	95	5	9	7.1	7647	PASS
173	174	0.00	2	0.8	581	PASS
174	95	50	150	67.9	73592	PASS
175	174	5	9	7.1	5197	PASS
176	174	95	101	96.5	71013	PASS
177	176	5	9	6.3	4495	PASS

N90385.D n140918w.m Fri Sep 19 12:05:43 2014

Scan 2907 (14.461 min): N90385.D\data.ms (-2926)
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1109	51.90	434	68.00	11486	79.90	614
37.00	5353	54.90	360	69.00	10366	80.90	2579
38.00	5006	56.00	1599	70.00	915	81.90	489
39.00	1935	57.00	3672	72.00	648	87.00	3260
43.95	527	58.00	255	73.00	4505	87.90	3962
45.00	1050	60.00	1022	74.00	19096	90.90	234
46.90	1577	61.00	5721	75.00	54529	92.00	3006
48.00	770	62.00	5839	76.00	5024	93.00	4463
49.00	5584	63.00	3927	77.00	614	94.00	11768
50.00	27584	63.90	373	77.90	480	94.95	108414
51.00	7835	67.00	227	78.90	2332	96.00	7647

Scan 2907 (14.461 min): N90385.D\data.ms (-2926)
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.90	239	130.90	200	174.90	5197		
103.90	533	134.90	211	175.85	71013		
104.80	202	137.00	154	176.90	4495		
105.90	441	140.90	1031				
114.70	201	141.90	157				
115.80	373	142.90	1040				
116.70	371	147.90	304				
117.90	247	154.90	211				
118.80	486	171.50	172				
127.90	462	172.90	581				
129.90	348	173.85	73592				

SW-846 Method 8260

```
Data File : C:\msdchem\1\data\N140919\N90407.D          Vial: 16
Acq On    : 19 Sep 2014   1:04 pm                   Operator: krystend
Sample    : bfb                                     Inst    : MSN
Misc      : ms32746,MSN3345,,,,5,1                  Multiplr: 1.00
MS Integration Params: RTEINT.P

Method    : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
Title     : SW-846 Method 8260
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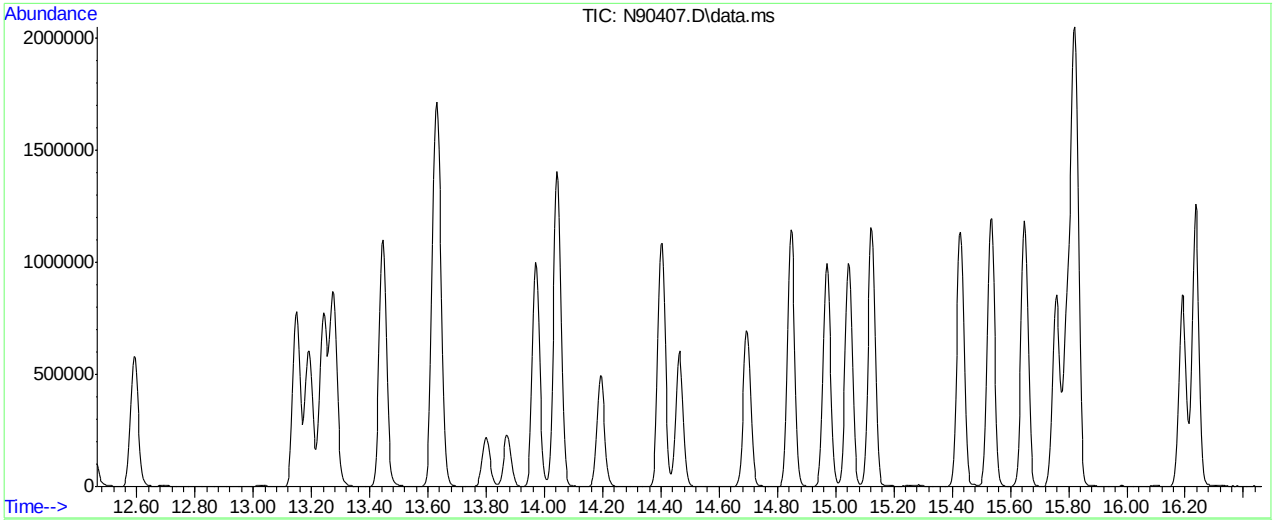
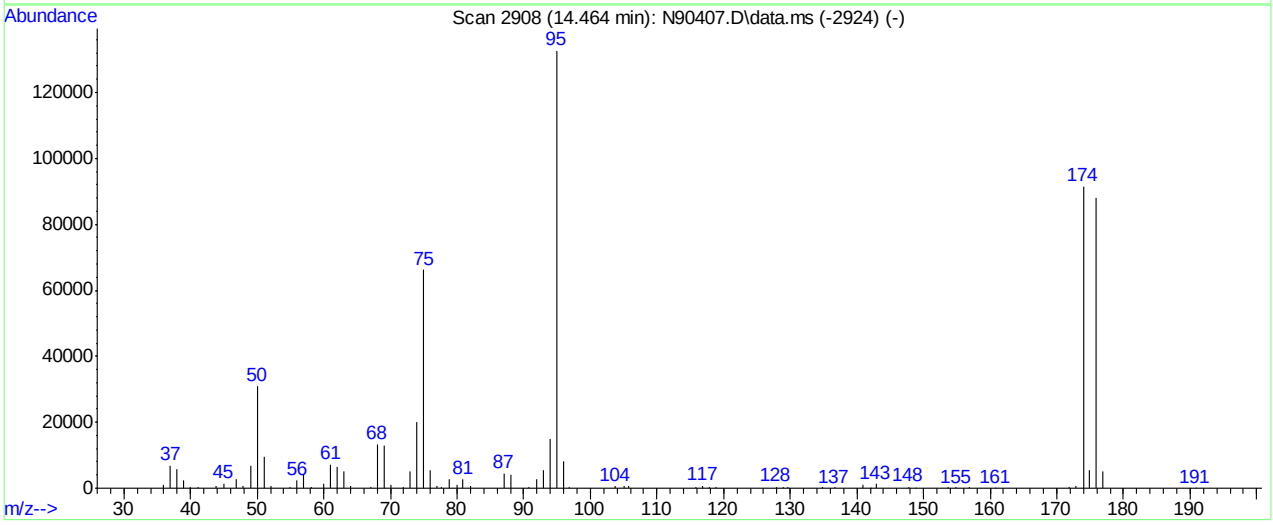




Spectrum Information: Scan 2908

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.4	31008	PASS
75	95	30	60	49.9	66272	PASS
95	95	100	100	100.0	132736	PASS
96	95	5	9	6.2	8223	PASS
173	174	0.00	2	0.7	660	PASS
174	95	50	150	68.9	91480	PASS
175	174	5	9	6.1	5584	PASS
176	174	95	101	96.2	88016	PASS
177	176	5	9	5.9	5211	PASS

N90407.D n140918w.m Fri Sep 19 15:26:03 2014

Scan 2908 (14.464 min): N90407.D\data.ms (-2924)
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1163	50.00	31008	64.00	620	77.70	433
37.00	6912	51.00	9648	67.00	509	78.90	2614
38.00	5948	52.00	558	68.00	13330	80.00	1046
39.00	2409	54.90	471	69.00	12916	80.90	2774
40.00	185	56.00	2388	70.00	1053	82.00	861
41.20	188	57.00	3990	72.00	508	87.00	4533
43.90	610	58.10	207	73.00	5014	88.00	4031
45.00	1437	60.00	1472	74.00	20120	90.80	466
46.90	2625	61.00	7154	75.00	66272	92.00	2892
47.90	758	62.00	6425	76.00	5455	93.00	5404
49.00	6644	63.00	5163	77.00	703	94.00	14983

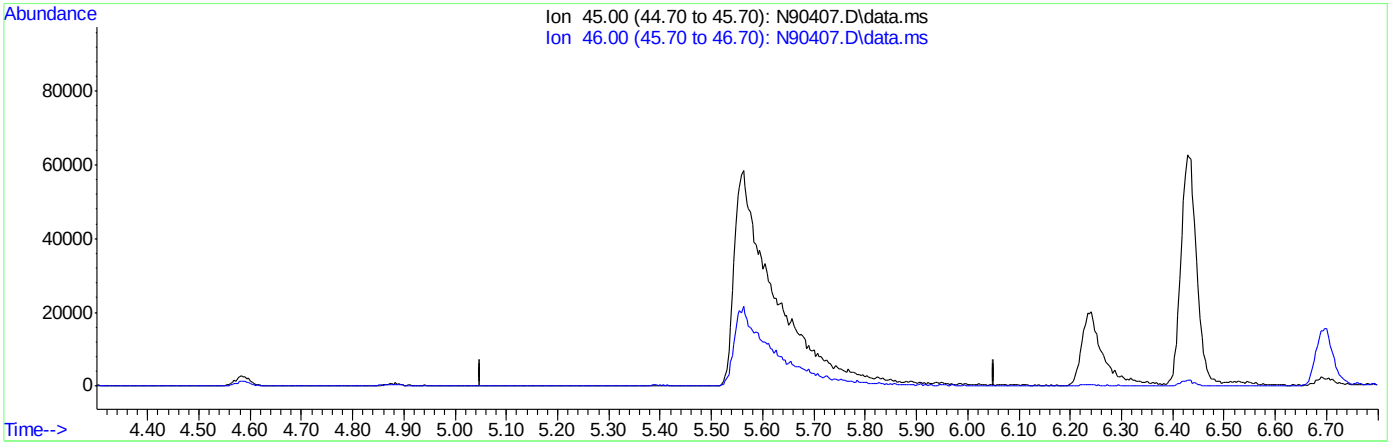
Scan 2908 (14.464 min): N90407.D\data.ms (-2924)
bfb
Modified:subtracted

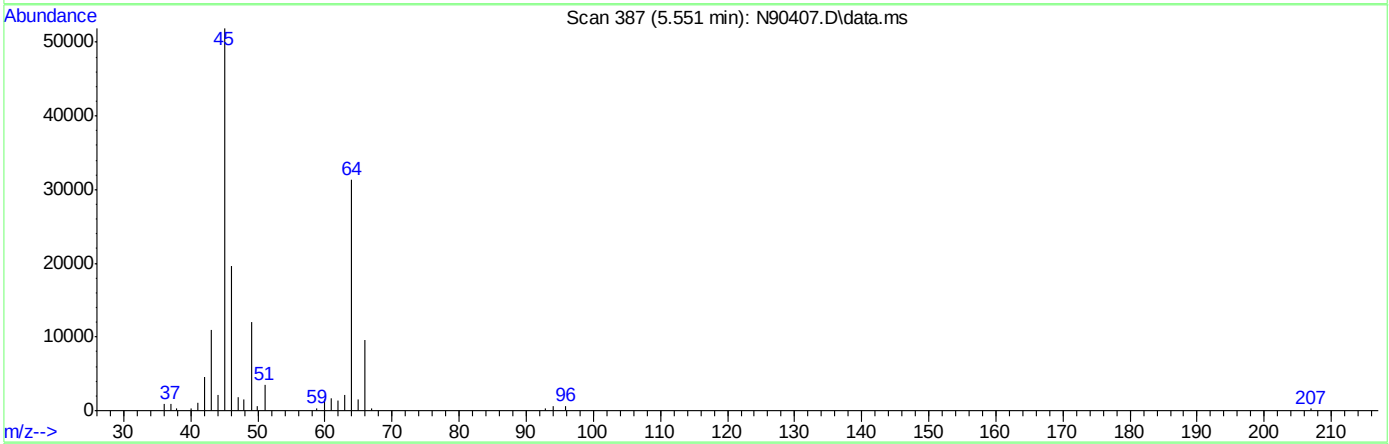
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.95	132736	128.90	234	156.90	186		
96.00	8223	129.70	389	160.80	180		
96.90	193	134.80	225	171.90	189		
103.80	620	136.70	233	172.90	660		
105.00	557	140.90	1171	174.00	91480		
105.80	560	142.00	158	174.90	5584		
115.90	364	142.90	1229	175.90	88016		
116.90	736	147.80	458	176.90	5211		
117.80	319	148.80	155	190.80	164		
118.80	502	153.70	186				
127.90	494	154.90	187				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 14:39:56 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90407.D\data.ms

(3) Ethanol (p)

5.551min (-5.551) 0.00ug/L

response 0

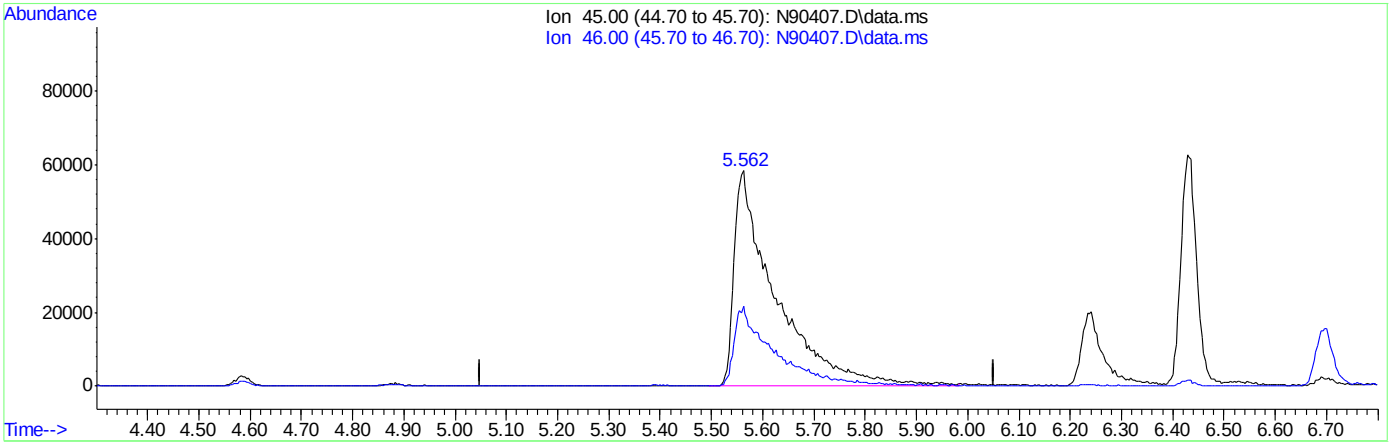
Ion	Exp%	Act%
45.00	100	0.00
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

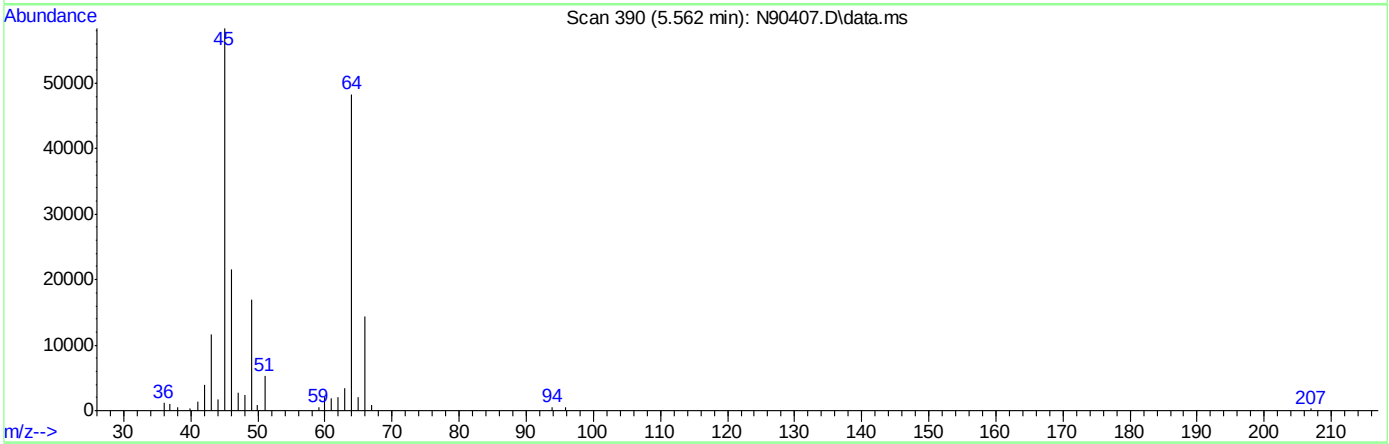
ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 14:39:56 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90407.D\data.ms

(3) Ethanol (p)

5.562min (+0.011) 5845.90ug/L m

response 328301

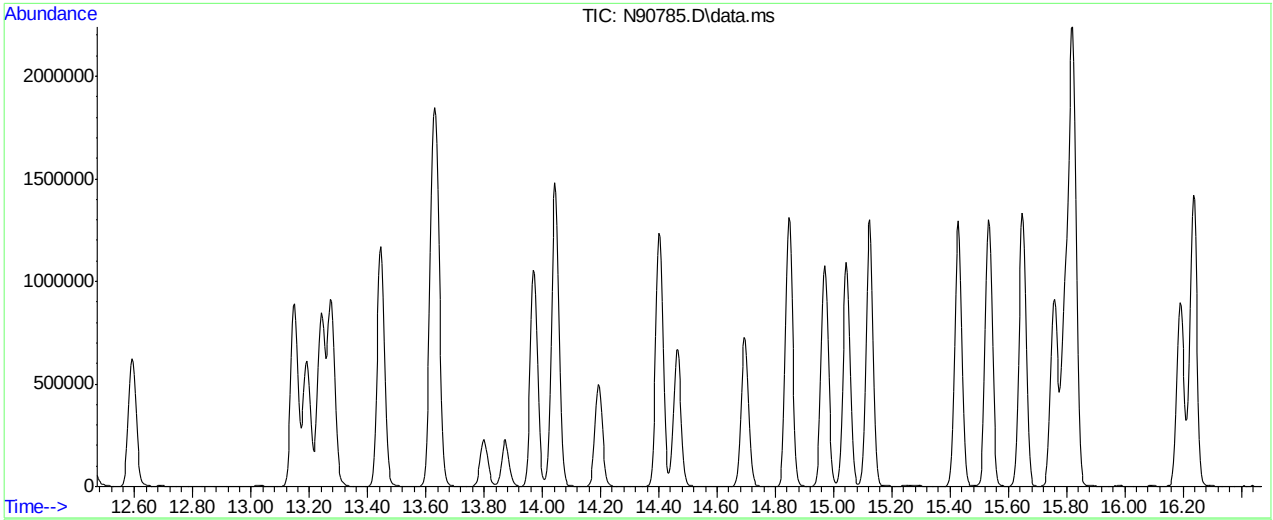
Ion	Exp%	Act%
45.00	100	100
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

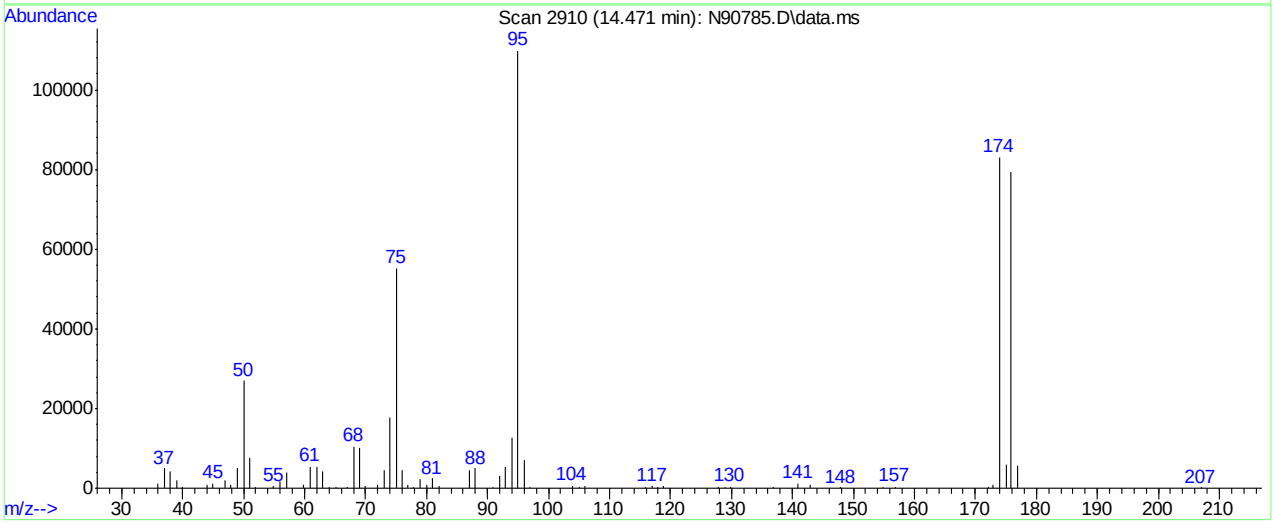
ACCUTEST LABORATORIES MC33908

SW-846 Method 8260

Data File : C:\msdchem\1\data\N141001\N90785.D Vial: 2
Acq On : 1 Oct 2014 9:41 am Operator: jaclynb
Sample : bfb Inst : MSN
Misc : ms32855,MSN3359,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n140918w.m (RTE Integrator)
Title : SW-846 Method 8260





Spectrum Information: Scan 2910

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.5	26904	PASS
75	95	30	60	50.3	55224	PASS
95	95	100	100	100.0	109856	PASS
96	95	5	9	6.5	7088	PASS
173	174	0.00	2	1.0	824	PASS
174	95	50	150	75.7	83112	PASS
175	174	5	9	7.0	5854	PASS
176	174	95	101	95.4	79304	PASS
177	176	5	9	7.2	5675	PASS

N90785.D n140918w.m Wed Oct 01 11:16:57 2014

Scan 2910 (14.471 min): N90785.D\data.ms
bs

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1226	51.00	7624	66.90	237	78.90	2322
37.00	4951	51.90	383	68.00	10543	80.00	797
38.00	4161	54.90	453	69.00	10216	80.90	2411
39.00	1865	56.00	1814	70.00	688	82.00	550
39.90	279	57.00	3856	72.00	782	87.00	4574
44.00	867	59.90	934	73.00	4560	88.00	5030
45.00	1199	60.90	5374	74.00	17736	90.80	292
47.00	1924	62.00	5262	75.00	55224	92.00	3187
47.90	824	63.00	4210	76.00	4456	93.00	5303
49.00	5147	64.00	275	76.90	745	94.00	12628
50.00	26904	65.10	162	77.80	418	95.00	109856

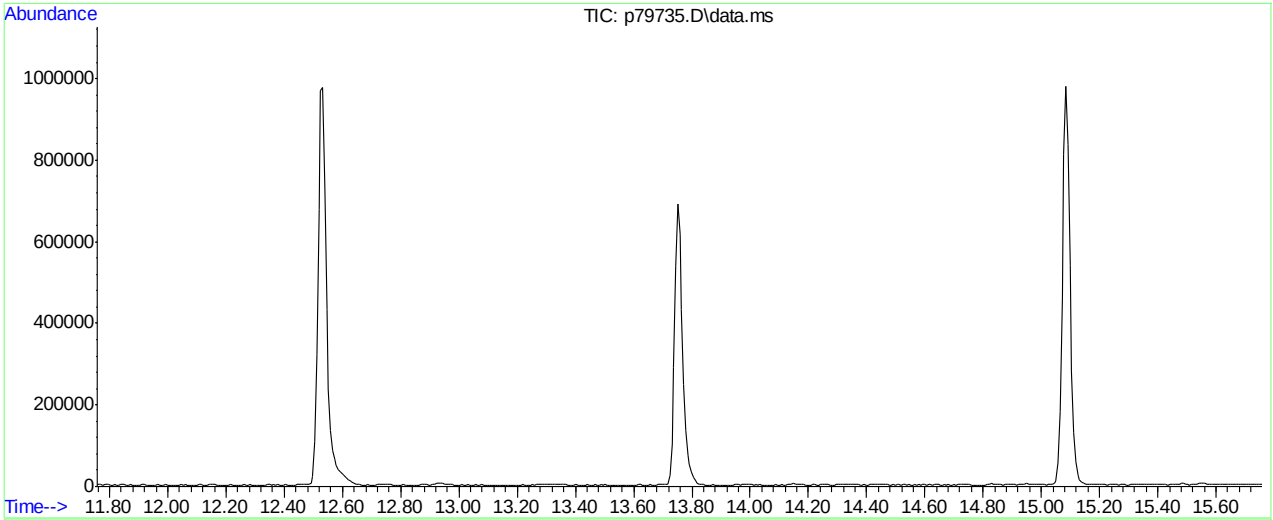
Scan 2910 (14.471 min): N90785.D\data.ms
bs

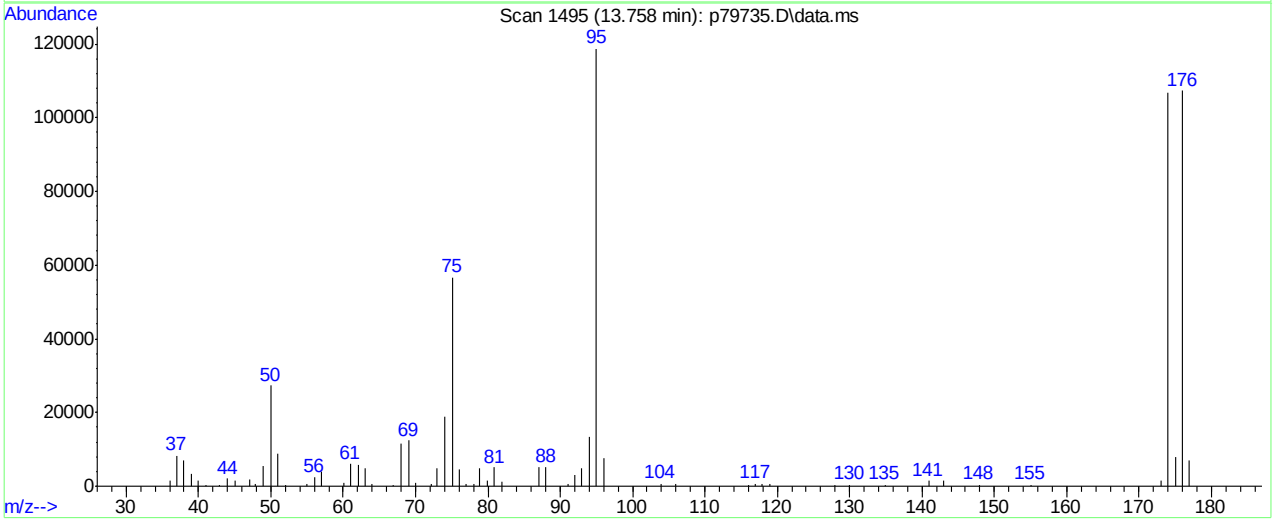
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	7088	129.80	396	175.90	79304		
97.00	171	136.80	235	176.90	5675		
103.90	573	140.90	1205	207.00	197		
105.10	430	142.90	935				
105.90	488	147.90	168				
115.80	341	154.90	169				
117.00	542	156.80	430				
117.90	360	172.10	191				
118.80	505	172.90	824				
127.90	349	173.90	83112				
128.90	240	175.00	5854				

SW-846 Method 8260

Data File : C:\msdchem\1\data\P140912\p79735.D Vial: 8
Acq On : 12 Sep 2014 3:54 pm Operator: jaclynb
Sample : bfb Inst : MSP
Misc : ms32693,msp2607,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\P140912W.M (RTE Integrator)
Title : SW-846 Method 8260





Spectrum Information: Scan 1495

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.0	27360	PASS
75	95	30	60	47.7	56616	PASS
95	95	100	100	100.0	118776	PASS
96	95	5	9	6.5	7690	PASS
173	174	0.00	2	1.3	1417	PASS
174	95	50	150	90.0	106904	PASS
175	174	5	9	7.3	7837	PASS
176	174	95	101	100.4	107320	PASS
177	176	5	9	6.4	6917	PASS

p79735.D P140912W.M Mon Sep 15 09:01:02 2014

Scan 1495 (13.758 min): p79735.D\data.ms
bfb

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1653	49.00	5507	64.00	470	78.00	542
37.00	8247	50.00	27360	66.90	324	78.90	4949
38.00	7104	51.00	8819	68.00	11603	79.90	1500
39.00	3338	52.00	432	69.00	12438	80.90	5060
40.00	1481	55.00	585	70.00	1046	81.90	1194
41.10	434	56.00	2584	72.10	638	87.00	5066
42.90	365	57.00	4106	73.00	5017	88.00	5257
44.00	2044	60.10	1019	74.00	18952	91.00	635
45.00	1587	61.00	5986	75.10	56616	92.00	3104
47.00	1957	62.10	5762	76.00	4567	93.00	4835
47.90	707	63.00	4886	77.00	594	94.00	13275

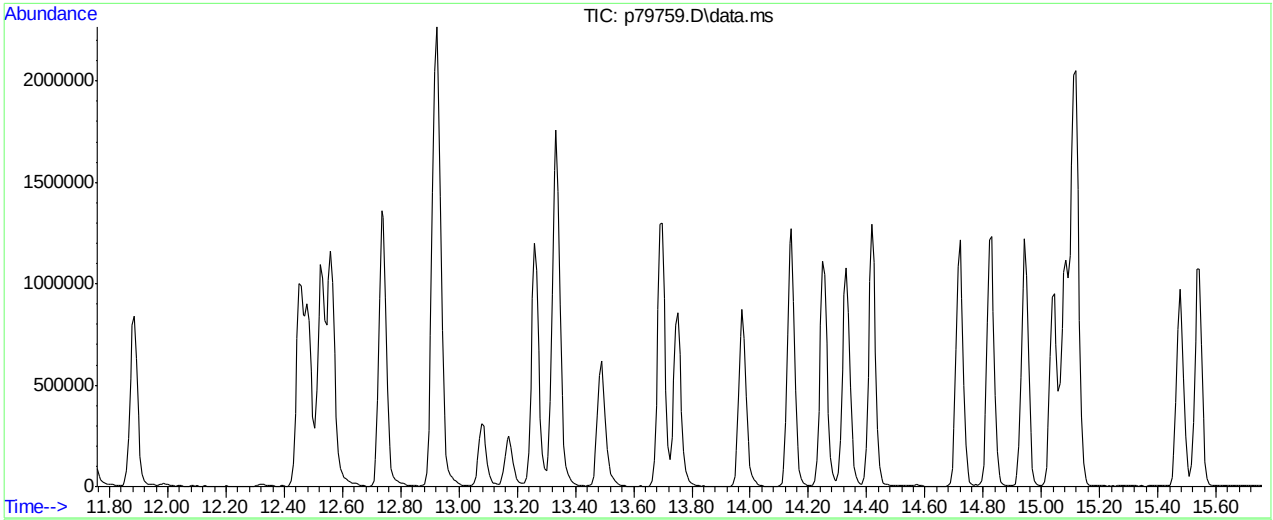
Scan 1495 (13.758 min): p79735.D\data.ms
bfb

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	118776	140.90	1455				
96.00	7690	143.00	1446				
103.90	726	147.90	444				
105.90	632	155.00	353				
116.00	347	173.10	1417				
117.00	698	174.00	106904				
117.90	632	175.00	7837				
118.90	629	176.00	107320				
127.90	406	177.00	6917				
130.00	447						
134.90	370						

SW-846 Method 8260

Data File : C:\msdchem\1\data\P140915\p79759.D Vial: 6
Acq On : 15 Sep 2014 10:28 am Operator: jaclynb
Sample : bfb Inst : MSP
Misc : ms32693,msp2608,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\P140912W.M (RTE Integrator)
Title : SW-846 Method 8260



Spectrum Information: Scan 1495

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.5	26336	PASS
75	95	30	60	47.5	55632	PASS
95	95	100	100	100.0	117208	PASS
96	95	5	9	6.2	7308	PASS
173	174	0.00	2	1.7	2138	PASS
174	95	50	150	105.5	123688	PASS
175	174	5	9	7.5	9219	PASS
176	174	95	101	97.8	120984	PASS
177	176	5	9	6.0	7206	PASS

p79759.D P140912W.M Mon Sep 15 12:00:04 2014

Scan 1495 (13.758 min): p79759.D\data.ms
bfb

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	1416	49.00	5901	64.00	481	77.90	679
37.00	8294	50.00	26336	67.20	317	78.90	5437
38.00	7656	51.00	8514	68.00	11442	79.90	1310
39.00	3168	52.10	406	69.00	11106	80.90	5097
40.00	1374	55.00	665	70.10	1004	82.00	1047
40.90	538	56.00	2362	72.00	592	87.00	4449
43.00	580	57.00	4037	73.00	4948	88.00	5168
44.00	1697	60.00	1055	74.00	19728	90.90	758
45.00	1202	61.00	5509	75.00	55632	92.00	3507
47.10	2091	62.00	5660	76.10	4748	93.00	4823
47.90	814	63.00	4693	77.00	872	94.00	13985

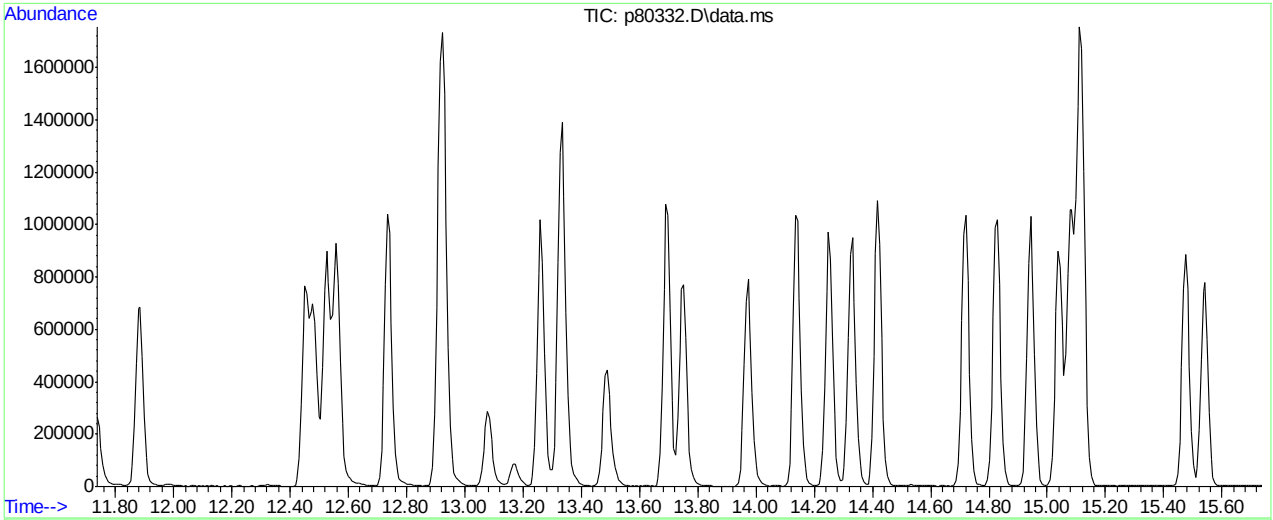
Scan 1495 (13.758 min): p79759.D\data.ms
bfb

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.10	117208	128.00	453	177.00	7206		
96.10	7308	130.00	404				
97.10	351	135.00	343				
103.90	608	137.00	342				
105.00	1692	140.90	1469				
106.00	802	143.00	1702				
116.00	690	171.80	349				
117.00	703	173.10	2138				
117.90	616	174.00	123688				
118.90	820	175.00	9219				
120.00	435	176.00	120984				

SW-846 Method 8260

Data File : C:\msdchem\1\data\P141003\p80332.D Vial: 4
Acq On : 3 Oct 2014 10:19 am Operator: garyk
Sample : bfb Inst : MSP
Misc : ms32875,msp2629,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\P140912W.M (RTE Integrator)
Title : SW-846 Method 8260



Spectrum Information: Scan 1492

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	33.0	27496	PASS
75	95	30	60	58.2	48456	PASS
95	95	100	100	100.0	83200	PASS
96	95	5	9	6.7	5601	PASS
173	174	0.00	2	1.9	1532	PASS
174	95	50	150	95.9	79824	PASS
175	174	5	9	8.7	6974	PASS
176	174	95	101	99.7	79608	PASS
177	176	5	9	6.8	5410	PASS

p80332.D P140912W.M Fri Oct 03 11:10:01 2014

Scan 1492 (13.737 min): p80332.D\data.ms
bfb

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1945	48.00	1127	62.00	5815	76.00	4395
37.00	8390	49.00	6931	63.00	4790	77.10	1467
38.10	8380	50.00	27496	64.10	724	78.10	644
39.00	4419	51.00	8099	67.00	427	78.90	6415
40.00	1483	52.10	584	68.00	10292	80.00	1511
41.10	511	52.80	326	69.00	11246	80.90	6132
43.10	848	55.10	618	70.10	1424	82.00	1121
44.00	1710	56.00	2095	72.00	600	83.00	314
45.00	1683	57.00	3793	73.10	4384	87.00	2905
46.20	335	60.00	1218	74.00	17824	88.00	2712
47.10	1315	61.00	5638	75.00	48456	91.00	873

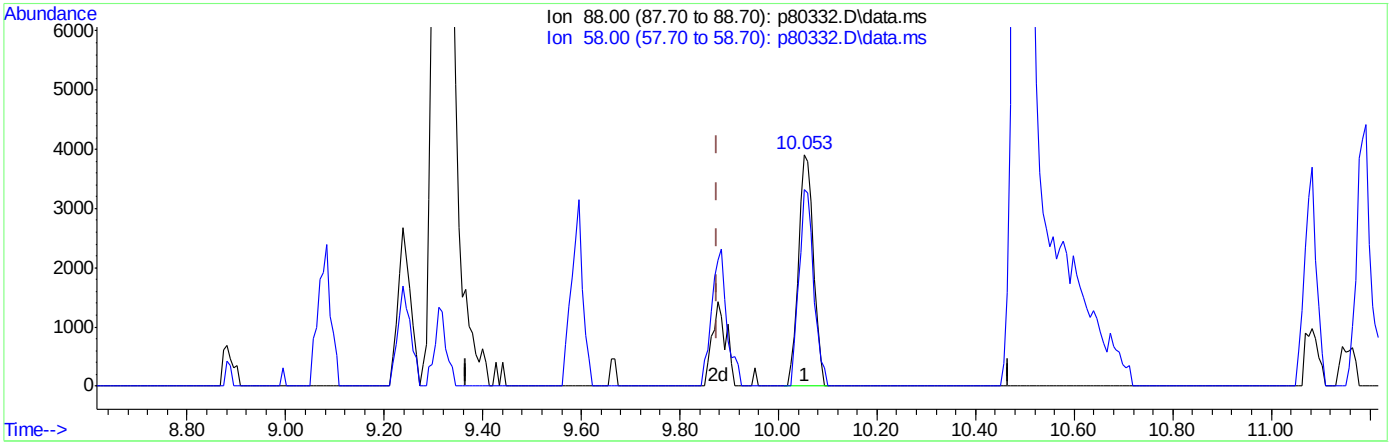
Scan 1492 (13.737 min): p80332.D\data.ms
bfb

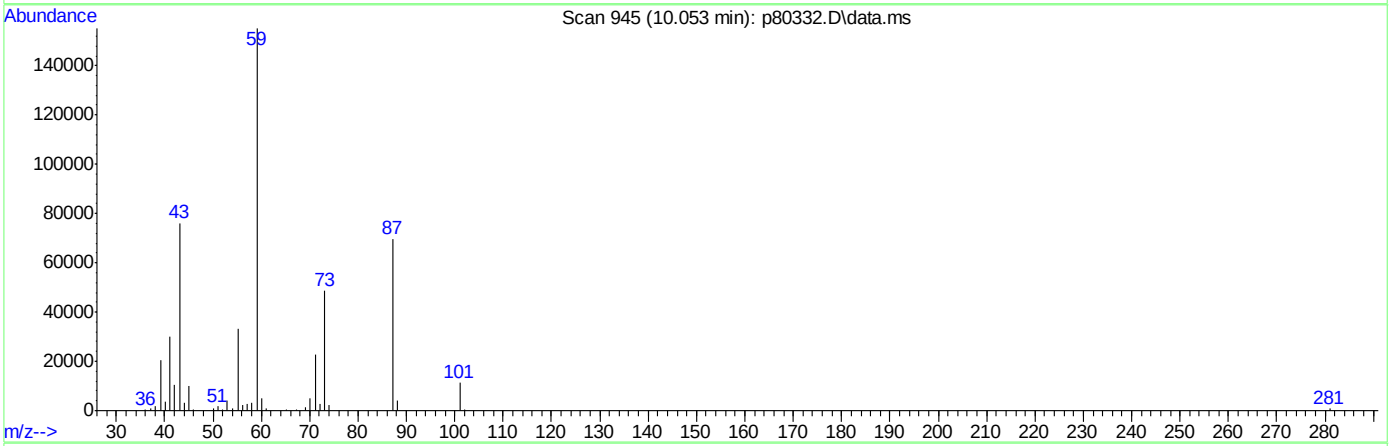
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.00	3124	117.90	459	172.90	1532		
93.00	4492	118.90	499	174.00	79824		
94.00	10242	120.00	1173	175.00	6974		
95.00	83200	128.00	450	176.00	79608		
96.10	5601	129.90	333	176.90	5410		
103.10	848	134.90	393				
104.00	916	136.90	322				
105.10	5618	141.00	1358				
105.90	842	142.90	1199				
115.90	437	147.90	302				
116.90	1005	170.90	337				

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : cc2607-50
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:08:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration





TIC: p80332.D\data.ms

(58) 1,4-dioxane (P)

10.053min (+0.176) 260.69ug/L

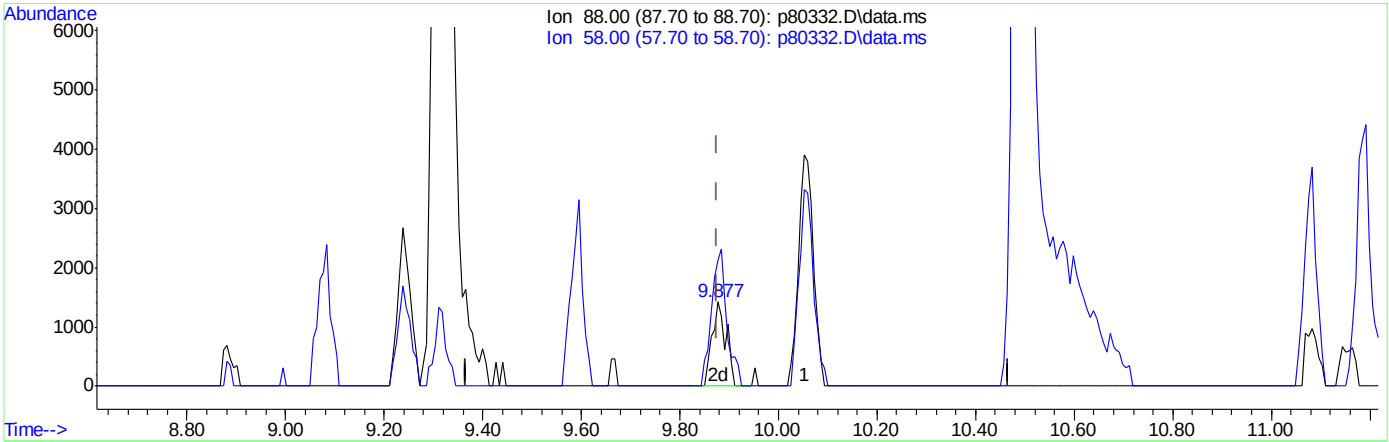
response 8147

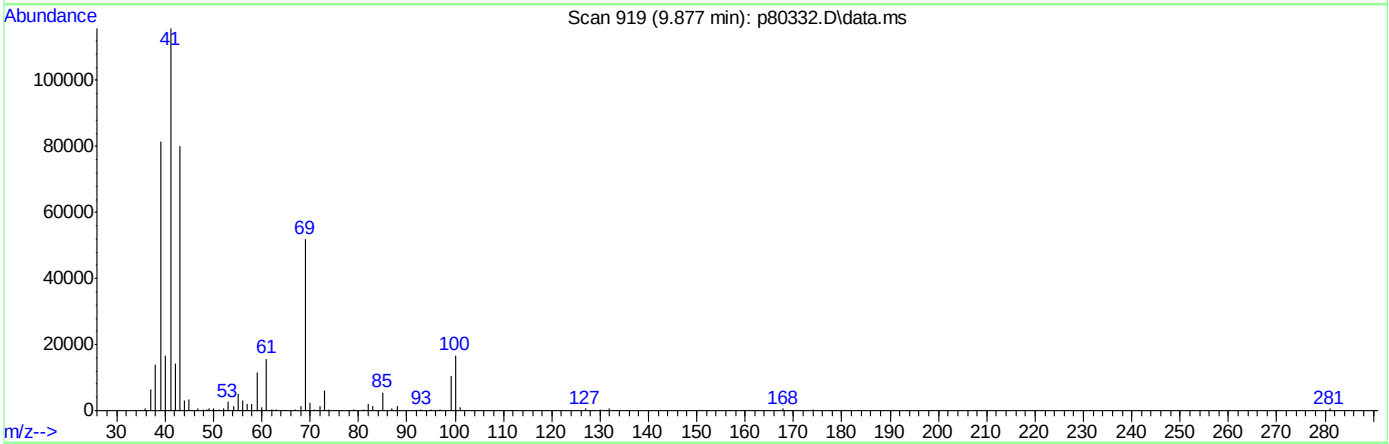
Ion	Exp%	Act%
88.00	100	100
58.00	83.70	85.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : cc2607-50
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:08:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration





TIC: p80332.D\data.ms

(58) 1,4-dioxane (P)

9.877min (+0.000) 100.02ug/L m

response 2766

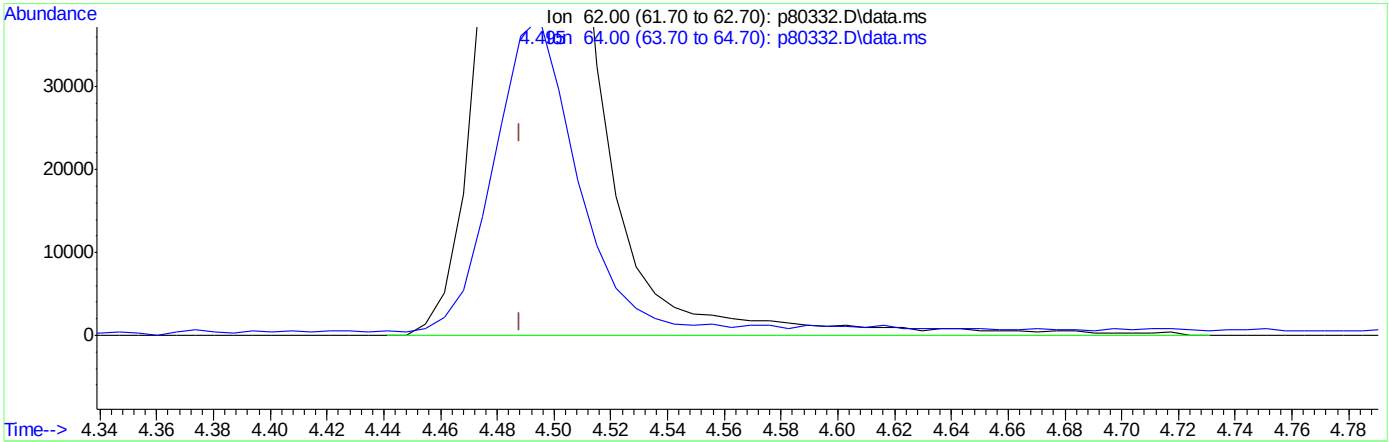
Ion	Exp%	Act%
88.00	100	100
58.00	83.70	149.30#
0.00	0.00	0.00
0.00	0.00	0.00

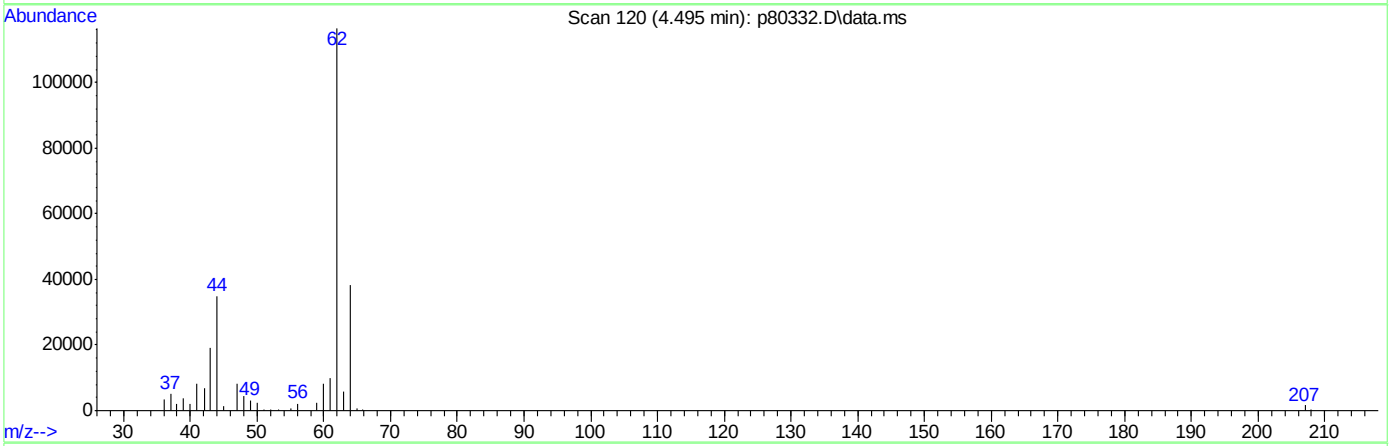
ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : cc2607-50
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:08:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration





TIC: p80332.D\data.ms

(7) vinyl chloride (P)

4.495min (+0.007) 61.10ug/L

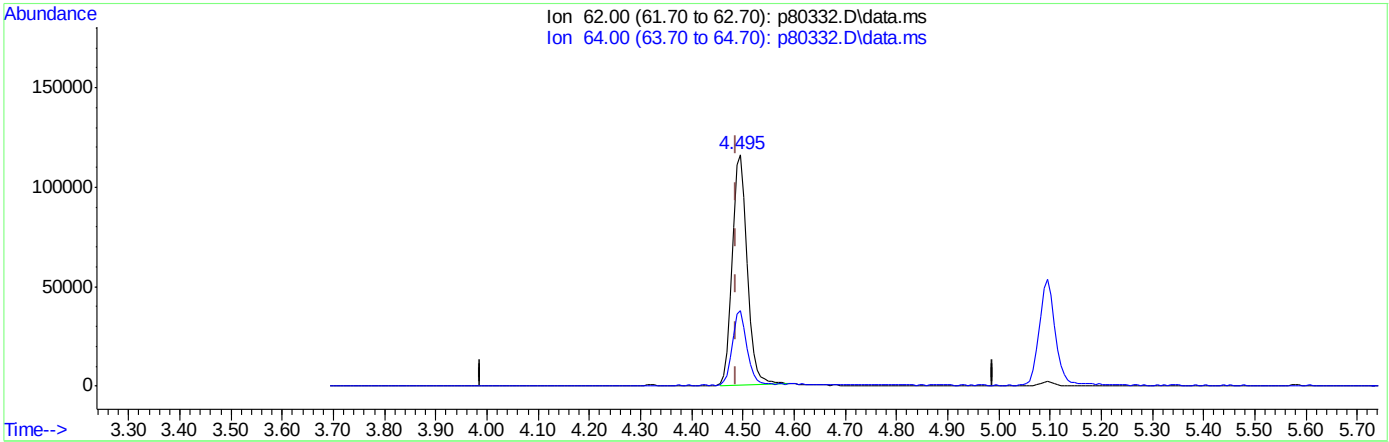
response 252441

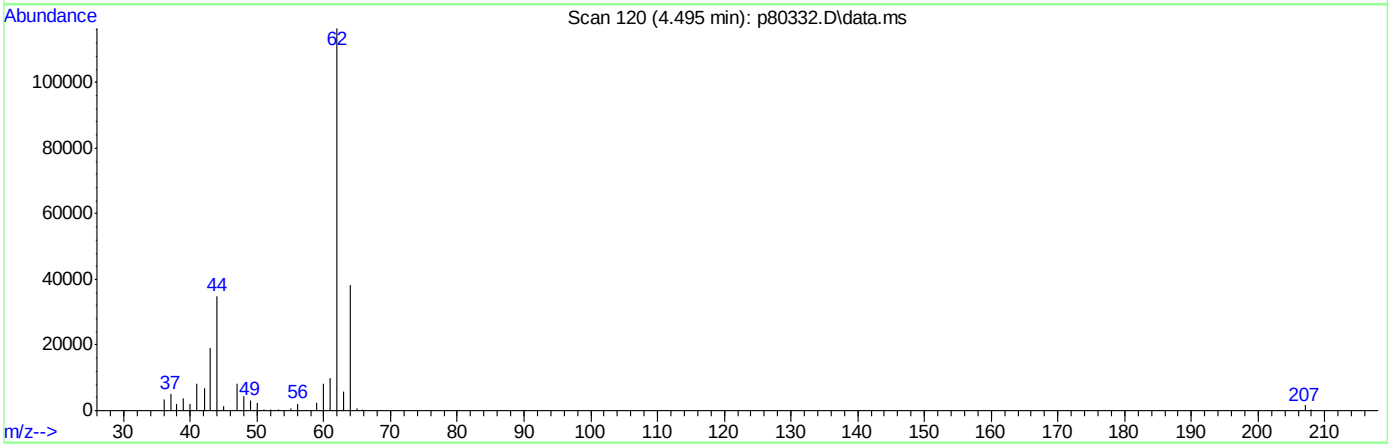
Ion	Exp%	Act%
62.00	100	100
64.00	33.00	32.21
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : cc2607-50
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:08:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration





TIC: p80332.D\data.ms

(7) vinyl chloride (P)

4.495min (+0.007) 58.37ug/L m

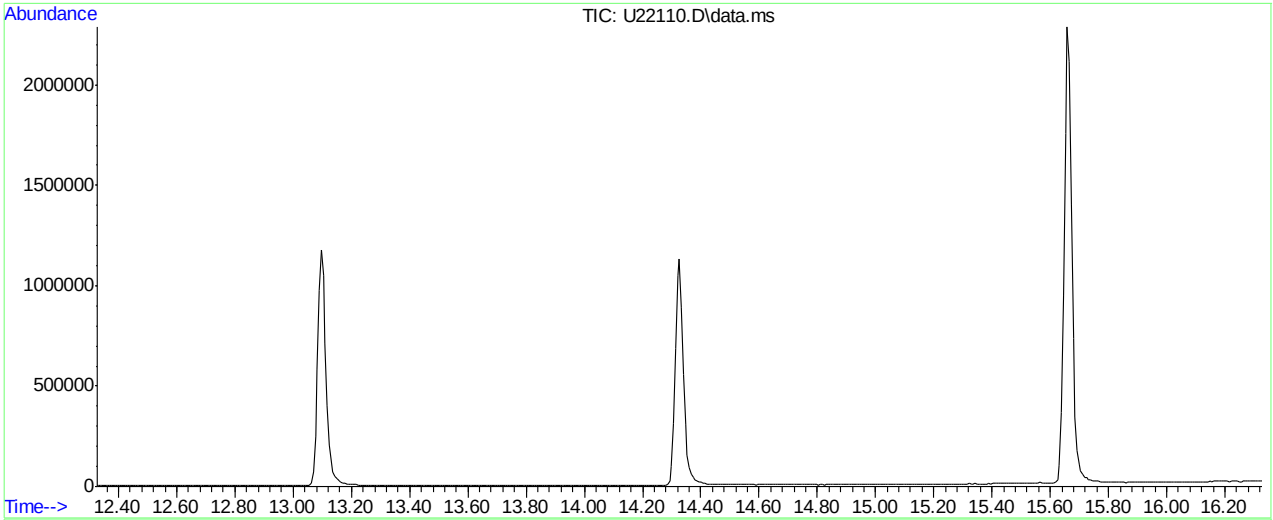
response 241157

Ion	Exp%	Act%
62.00	100	100
64.00	33.00	32.71
0.00	0.00	0.00
0.00	0.00	0.00

SW-846 Method 8260

Data File : D:\msdchem\1\data\U140829\U22110.D Vial: 8
Acq On : 29 Aug 2014 2:02 pm Operator: GaryK
Sample : bfb Inst : MSU
Misc : ms32529,msu972,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : D:\msdchem\1\methods\U140829W.m (RTE Integrator)
Title : SW-846 Method 8260



Spectrum Information: Average of 14.320 to 14.334 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.0	49149	PASS
75	95	30	60	45.5	93029	PASS
95	95	100	100	100.0	204672	PASS
96	95	5	9	7.1	14550	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	87.5	179093	PASS
175	174	5	9	7.3	12996	PASS
176	174	95	101	96.1	172139	PASS
177	176	5	9	6.5	11157	PASS

U22110.D U140829W.m Tue Sep 02 12:00:53 2014

Average of 14.320 to 14.334 min.: U22110.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	2061	47.00	3693	61.00	10356	74.00	30096
37.00	11202	47.95	1551	62.00	9227	75.00	93029
38.00	10184	49.00	10635	63.00	7052	76.00	7917
39.00	3826	50.00	49149	64.00	725	76.95	1393
40.00	364	51.00	15133	67.00	506	77.95	858
40.90	68	52.05	577	68.00	18220	78.90	5620
41.10	93	55.05	706	69.00	18831	79.90	1577
43.00	54	56.00	3659	70.00	1385	80.90	6304
44.00	936	57.00	6338	71.20	70	81.90	1307
45.00	2204	58.00	289	72.00	1018	83.00	73
46.10	154	60.00	2190	73.00	7615	86.00	184

Average of 14.320 to 14.334 min.: U22110.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.95	8430	104.85	162	123.90	94	144.90	74
88.00	8373	105.90	898	127.90	830	145.85	336
90.90	721	106.90	97	128.90	333	147.90	537
92.00	5637	110.80	78	129.85	834	148.85	222
93.00	7989	111.85	148	130.85	323	149.95	243
94.00	23507	112.90	86	134.90	336	153.90	95
95.00	204672	114.90	272	136.85	441	154.95	489
96.00	14550	115.90	1049	140.10	83	156.90	432
96.95	462	116.90	1285	140.90	2175	158.90	189
102.80	76	117.90	856	141.80	306	160.90	292
103.90	774	118.95	1241	142.90	2305	169.70	70

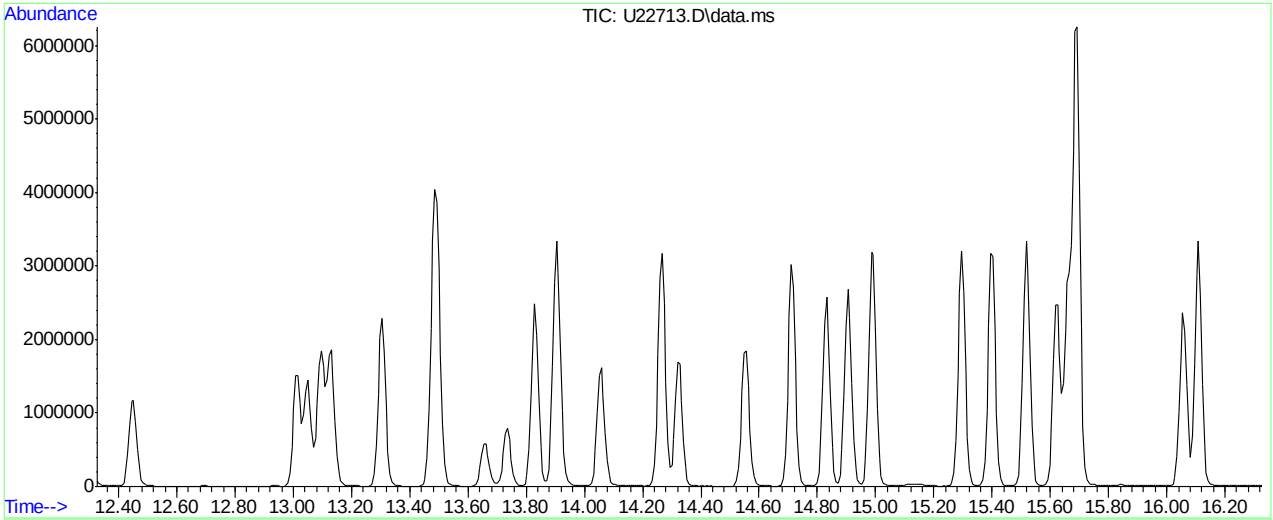
Average of 14.320 to 14.334 min.: U22110.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
171.95	428	252.95	86				
173.90	179093	270.15	246				
174.90	12996	281.00	7				
175.90	172139						
176.90	11157						
177.80	69						
178.05	245						
190.90	177						
191.10	74						
207.00	12						
207.95	212						

SW-846 Method 8260

Data File : D:\msdchem\1\data\U140929\U22713.D Vial: 2
Acq On : 29 Sep 2014 8:51 am Operator: GaryK
Sample : bfb Inst : MSU
Misc : ms32826,msu990,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : D:\msdchem\1\methods\U140829W.m (RTE Integrator)
Title : SW-846 Method 8260



Spectrum Information: Scan 1747

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.7	78176	PASS
75	95	30	60	46.8	142400	PASS
95	95	100	100	100.0	304256	PASS
96	95	5	9	6.4	19480	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	95.9	291840	PASS
175	174	5	9	7.4	21592	PASS
176	174	95	101	98.0	286080	PASS
177	176	5	9	6.6	18904	PASS

U22713.D U140829W.m Mon Sep 29 13:27:25 2014

Scan 1747 (14.327 min): U22713.D\data.ms
bfb

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	3914	47.00	5306	61.00	16752	73.00	12654
37.00	20088	48.00	2056	62.00	16313	74.00	53464
38.00	18912	49.00	17864	63.00	13750	75.00	142400
39.00	7050	50.00	78176	64.00	1077	76.00	11876
40.00	1280	51.00	24640	64.90	218	77.00	2098
41.10	464	52.10	1223	67.00	1735	78.00	1614
42.20	201	55.00	1119	68.00	29224	78.90	13064
43.10	858	56.00	6713	69.00	32104	79.90	3580
44.00	4048	57.00	11254	70.00	2864	80.90	14159
45.00	4124	58.00	540	70.90	275	81.90	3134
46.20	262	60.00	3459	72.00	1679	82.80	274

Scan 1747 (14.327 min): U22713.D\data.ms
bfb

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.40	200	103.00	431	116.90	2164	134.00	205
85.90	398	103.90	2039	117.80	1186	134.80	856
86.90	15793	105.00	2593	118.90	2330	136.90	585
88.00	13598	105.90	1729	120.10	369	139.80	281
90.90	1925	106.80	422	124.00	289	140.90	4361
92.00	9346	110.00	366	125.90	229	141.90	540
93.00	13133	110.80	674	127.80	1200	142.90	4591
94.00	39528	111.70	214	128.80	684	143.80	283
95.00	304256	112.80	311	129.80	1048	144.90	289
96.00	19480	114.80	587	130.90	507	145.80	382
97.00	405	115.80	1262	131.90	218	147.00	320

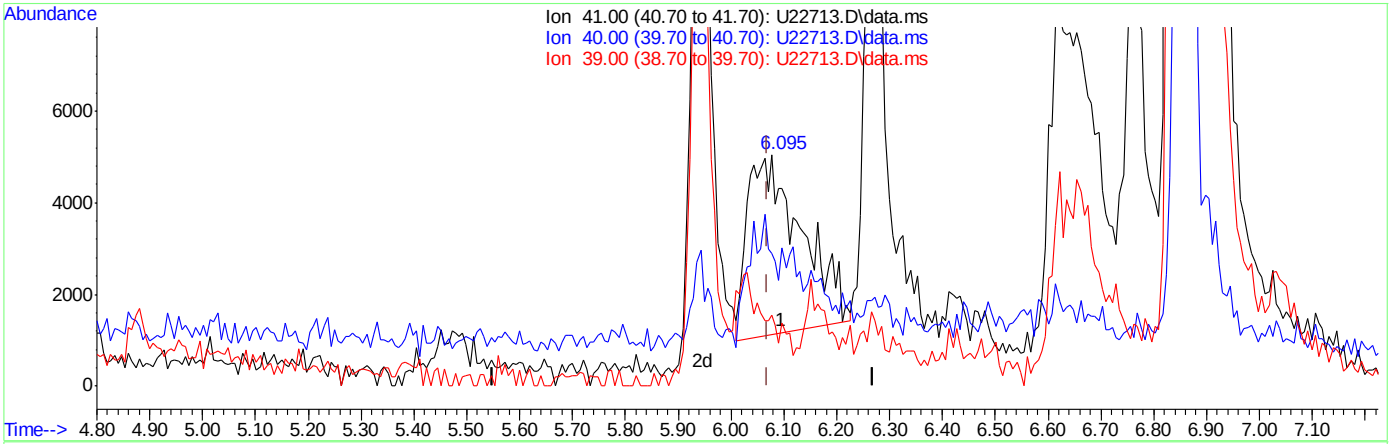
Scan 1747 (14.327 min): U22713.D\data.ms
bfb

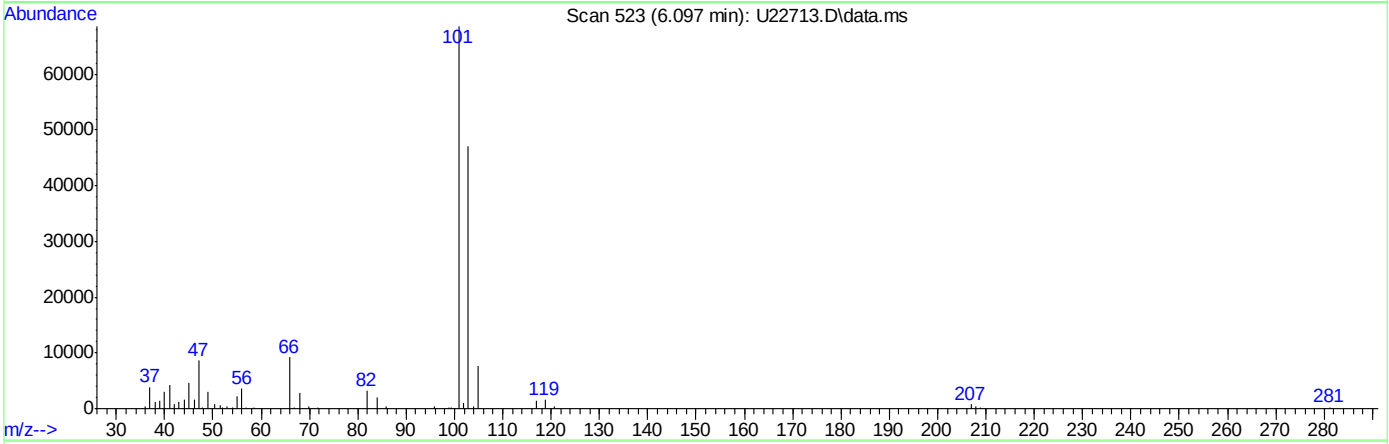
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
147.90	1139	169.00	494				
149.00	340	170.10	547				
149.90	398	170.50	539				
152.90	561	171.50	879				
154.90	1135	173.90	291840				
156.90	707	174.90	21592				
157.90	242	175.90	286080				
158.90	343	176.90	18904				
160.80	399	177.90	680				
166.00	299	206.90	508				
168.30	260	268.90	209				

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22713.D
Acq On : 29 Sep 2014 8:51 am
Operator : GaryK
Sample : cc972-50
Misc : ms32826,msu990,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 29 09:12:20 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22713.D\data.ms

(11) acetonitrile (P)

6.095min (+0.025) 29.48ppb

response 27892

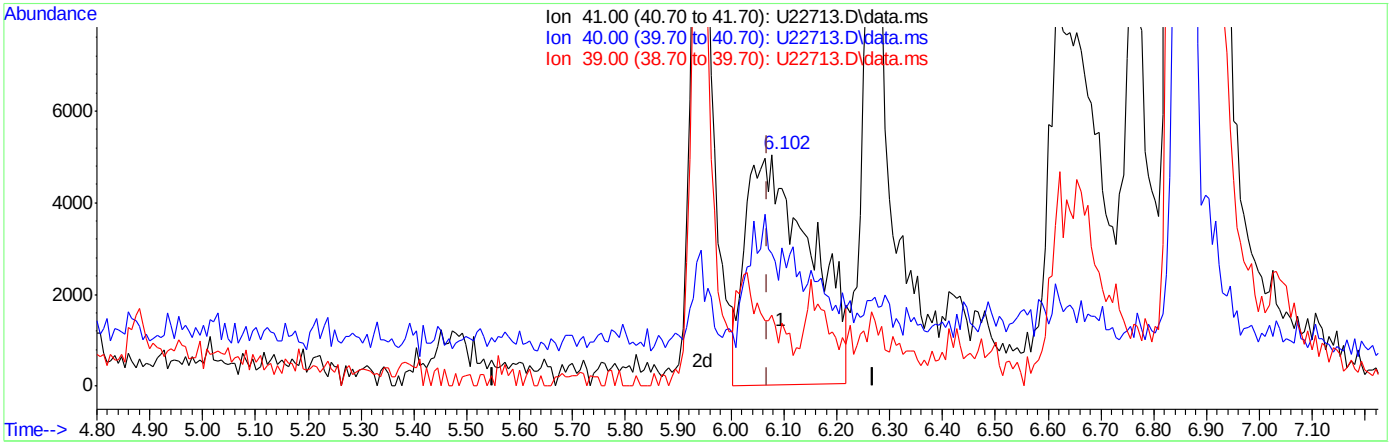
Ion	Exp%	Act%
41.00	100	100
40.00	92.30	75.13
39.00	24.50	1.87
0.00	0.00	0.00

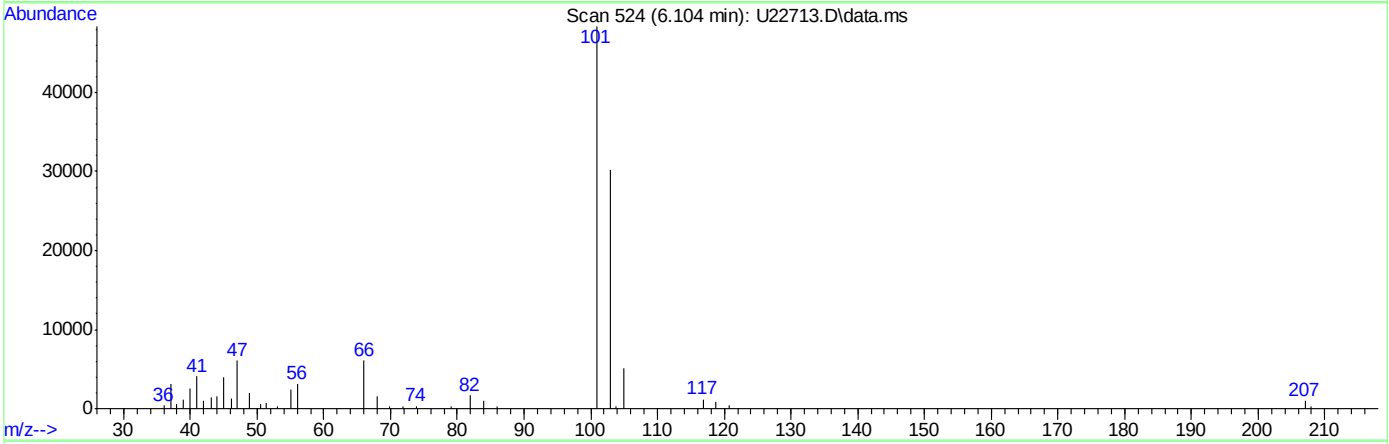
ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22713.D
Acq On : 29 Sep 2014 8:51 am
Operator : GaryK
Sample : cc972-50
Misc : ms32826,msu990,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 29 09:12:20 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22713.D\data.ms

(11) acetonitrile (P)

6.104min (+0.034) 48.64ppb m

response 42959

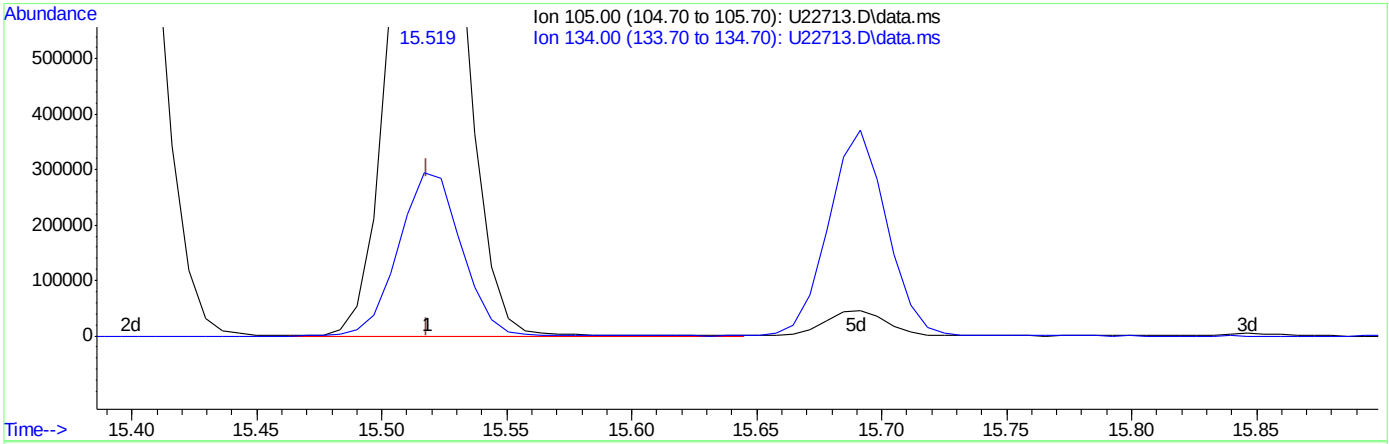
Ion	Exp%	Act%
41.00	100	100
40.00	92.30	63.49
39.00	24.50	27.84
0.00	0.00	0.00

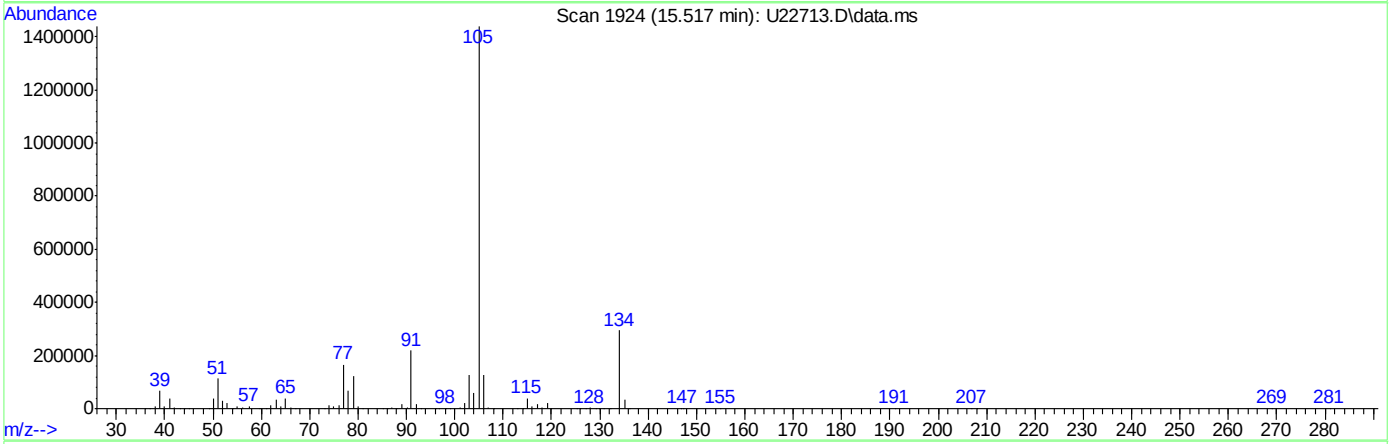
ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22713.D
Acq On : 29 Sep 2014 8:51 am
Operator : GaryK
Sample : cc972-50
Misc : ms32826,msu990,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 29 09:12:44 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22713.D\data.ms

(92) sec-butylbenzene (P)

15.519min (+0.001) 60.10ppb

response 2443297

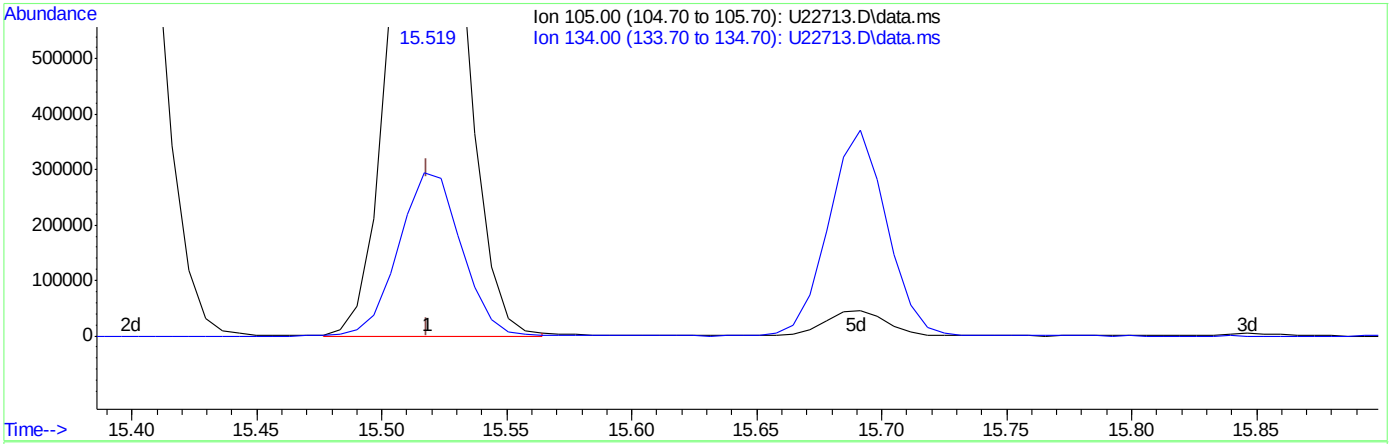
Ion	Exp%	Act%
105.00	100	100
134.00	18.60	20.46
0.00	0.00	0.00
0.00	0.00	0.00

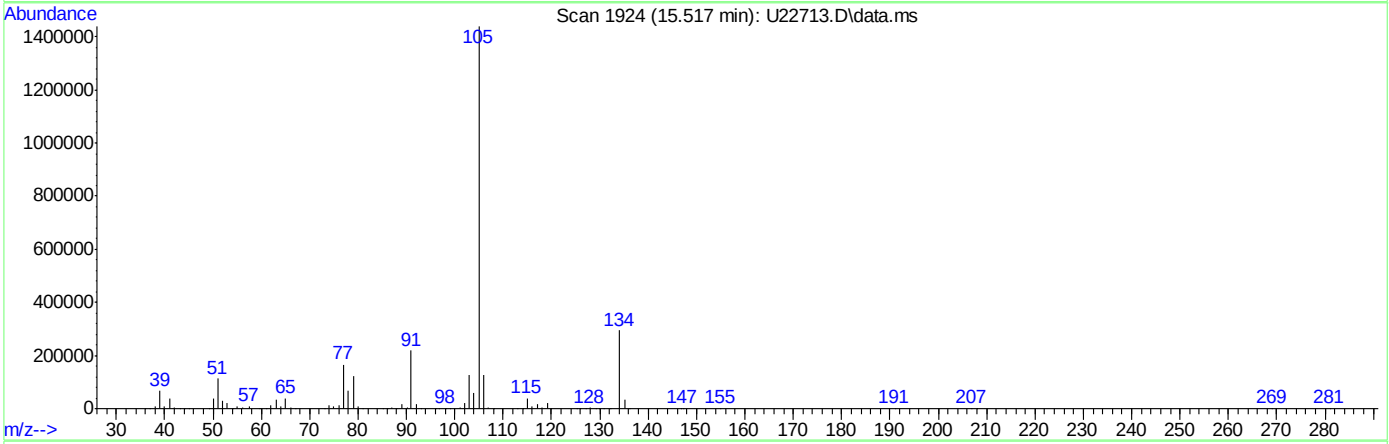
ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22713.D
Acq On : 29 Sep 2014 8:51 am
Operator : GaryK
Sample : cc972-50
Misc : ms32826,msu990,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 29 09:12:44 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





(92) sec-butylbenzene (P)

15.517min (-0.001) 59.92ppb m

response 2436084

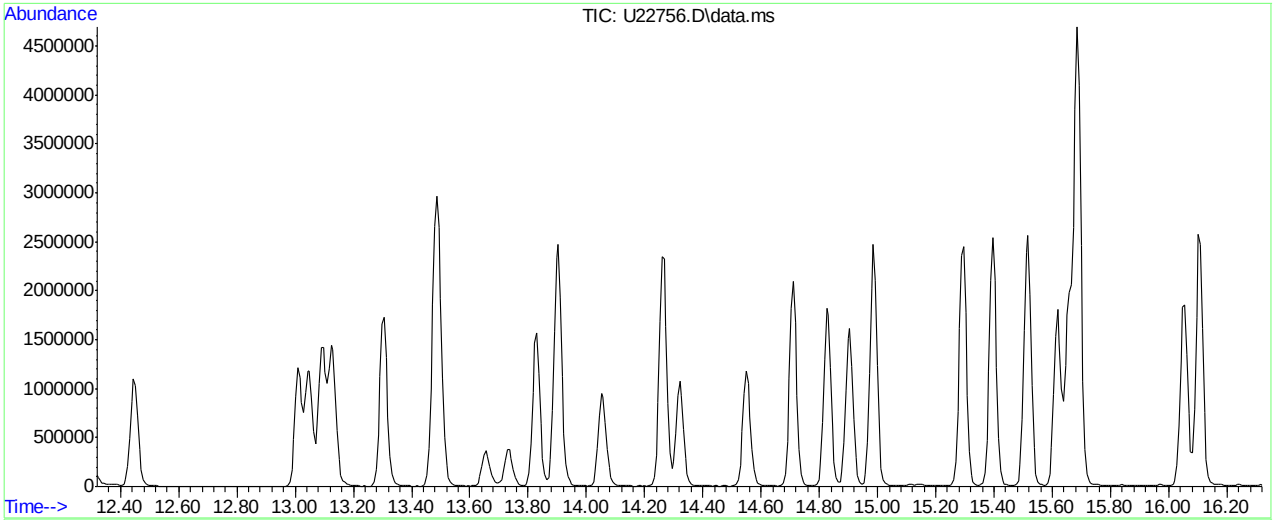
Ion	Exp%	Act%
105.00	100	100
134.00	18.60	20.45
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33908

SW-846 Method 8260

Data File : D:\msdchem\1\data\U141002\U22756.D Vial: 2
Acq On : 2 Oct 2014 8:16 am Operator: GaryK
Sample : bfb Inst : MSU
Misc : ms32871,msu992,,,,5,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : D:\msdchem\1\methods\U140829W.m (RTE Integrator)
Title : SW-846 Method 8260



Spectrum Information: Scan 1746

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	29.5	58984	PASS
75	95	30	60	49.9	99776	PASS
95	95	100	100	100.0	199936	PASS
96	95	5	9	6.8	13650	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	88.0	176000	PASS
175	174	5	9	7.5	13124	PASS
176	174	95	101	95.3	167808	PASS
177	176	5	9	7.0	11709	PASS

U22756.D U140829W.m Thu Oct 02 09:32:39 2014

Scan 1746 (14.320 min): U22756.D\data.ms
bs

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	2510	46.20	253	58.00	313	71.00	395
37.00	14137	47.00	3221	60.00	2153	72.10	904
38.00	11829	48.00	1965	61.00	12622	73.00	9785
39.00	4771	49.00	12647	62.00	10222	74.00	34224
40.00	1512	50.00	58984	63.00	8626	75.00	99776
41.10	643	51.00	17800	63.90	711	76.00	8354
42.10	458	52.10	932	64.90	292	77.00	1607
43.10	1054	52.90	264	67.00	847	78.00	1021
44.00	3554	55.00	1610	68.00	20240	78.90	8411
45.00	2852	56.00	4176	69.00	21320	79.90	2207
46.00	271	57.00	7613	70.00	1852	80.90	8147

Scan 1746 (14.320 min): U22756.D\data.ms
bs

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
81.90	1618	96.00	13650	116.90	1131	137.00	483
82.90	242	97.00	454	117.90	956	139.80	227
83.10	249	102.90	366	118.90	1377	140.90	2235
86.90	8875	103.90	1158	120.00	835	142.00	409
88.00	8293	105.00	2552	127.90	657	142.90	2725
89.10	211	105.90	992	128.90	648	146.00	306
90.90	939	106.70	241	129.90	897	147.90	485
92.00	6645	110.80	379	130.80	255	148.80	275
93.00	7651	112.80	495	132.90	237	154.90	678
94.00	23968	114.90	518	134.90	743	156.20	235
95.00	199936	115.80	712	136.10	224	156.90	371

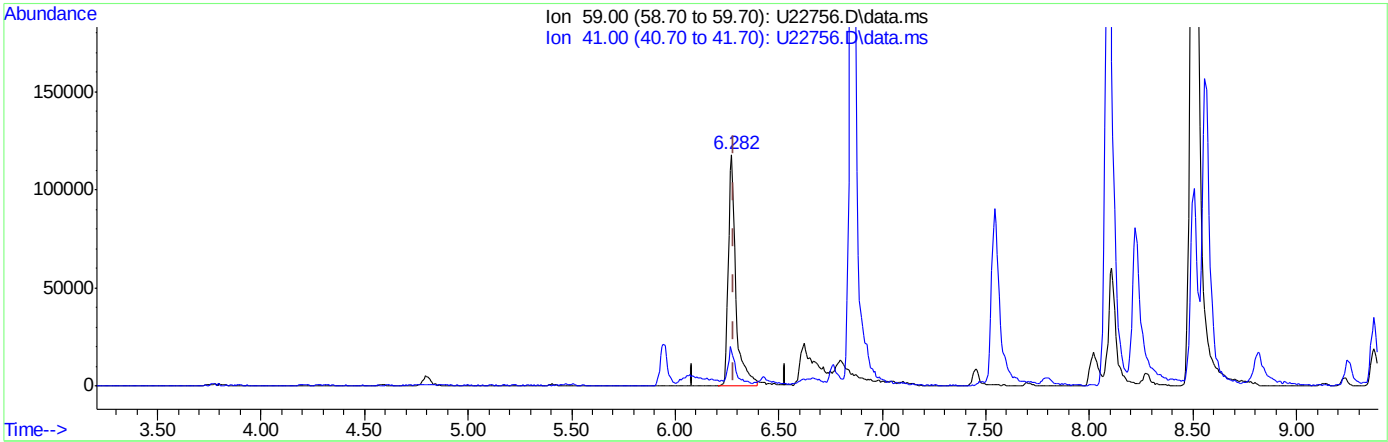
Scan 1746 (14.320 min): U22756.D\data.ms
bs

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
160.80	385	269.10	256				
169.20	210	281.00	389				
172.00	632						
173.90	176000						
174.90	13124						
175.90	167808						
176.90	11709						
177.90	322						
180.90	212						
207.10	332						
209.00	255						

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22756.D
Acq On : 2 Oct 2014 8:16 am
Operator : GaryK
Sample : bs
Misc : ms32817,msu992,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 02 08:40:28 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration



TIC: U22756.D\data.ms

(2) tertiary butyl alcohol (P)

6.285min (-0.001) 576.97ppb m

response 296154

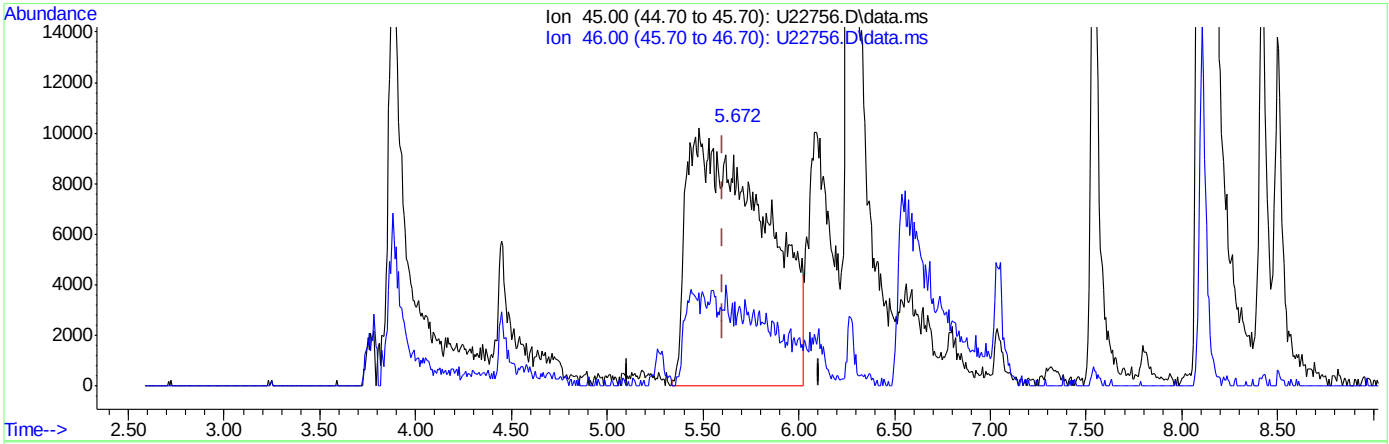
Ion	Exp%	Act%
59.00	100	100
41.00	12.70	17.13
0.00	0.00	0.00
0.00	0.00	0.00

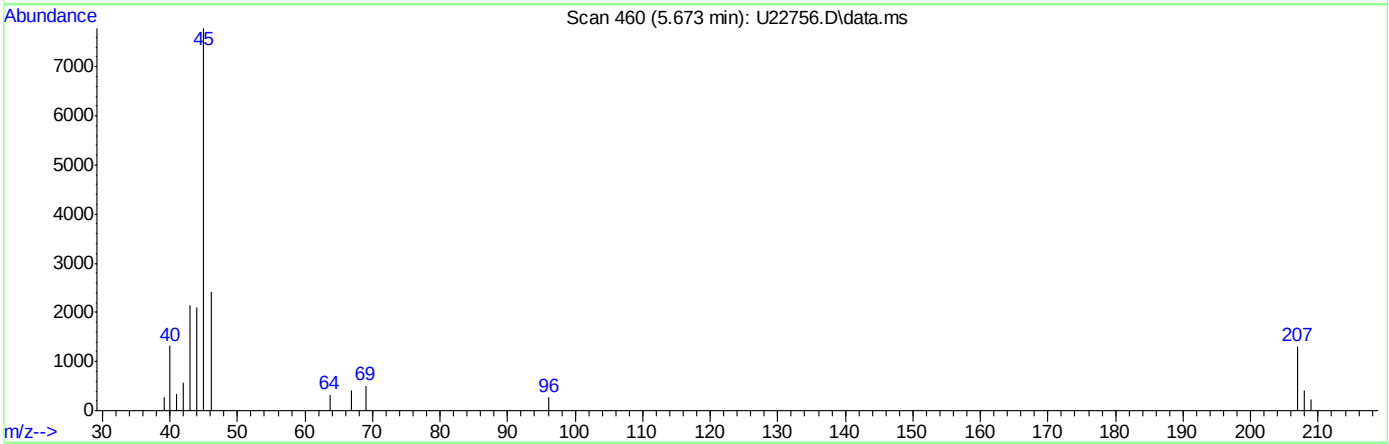
U22756.D edits: tertiary butyl alcohol

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22756.D
Acq On : 2 Oct 2014 8:16 am
Operator : GaryK
Sample : bs
Misc : ms32871,msu992,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 02 15:45:04 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22756.D\data.ms

(3) Ethanol (P)

5.673min (+0.067) 4984.15ppb m

response 283559

Ion	Exp%	Act%
45.00	100	100
46.00	35.30	31.13
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/19/14 12:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90391.D
Acq On : 18 Sep 2014 4:07 pm
Operator : krystend
Sample : IC3345-0.5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 19 11:55:14 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:12:51 2014
Response via : Initial Calibration

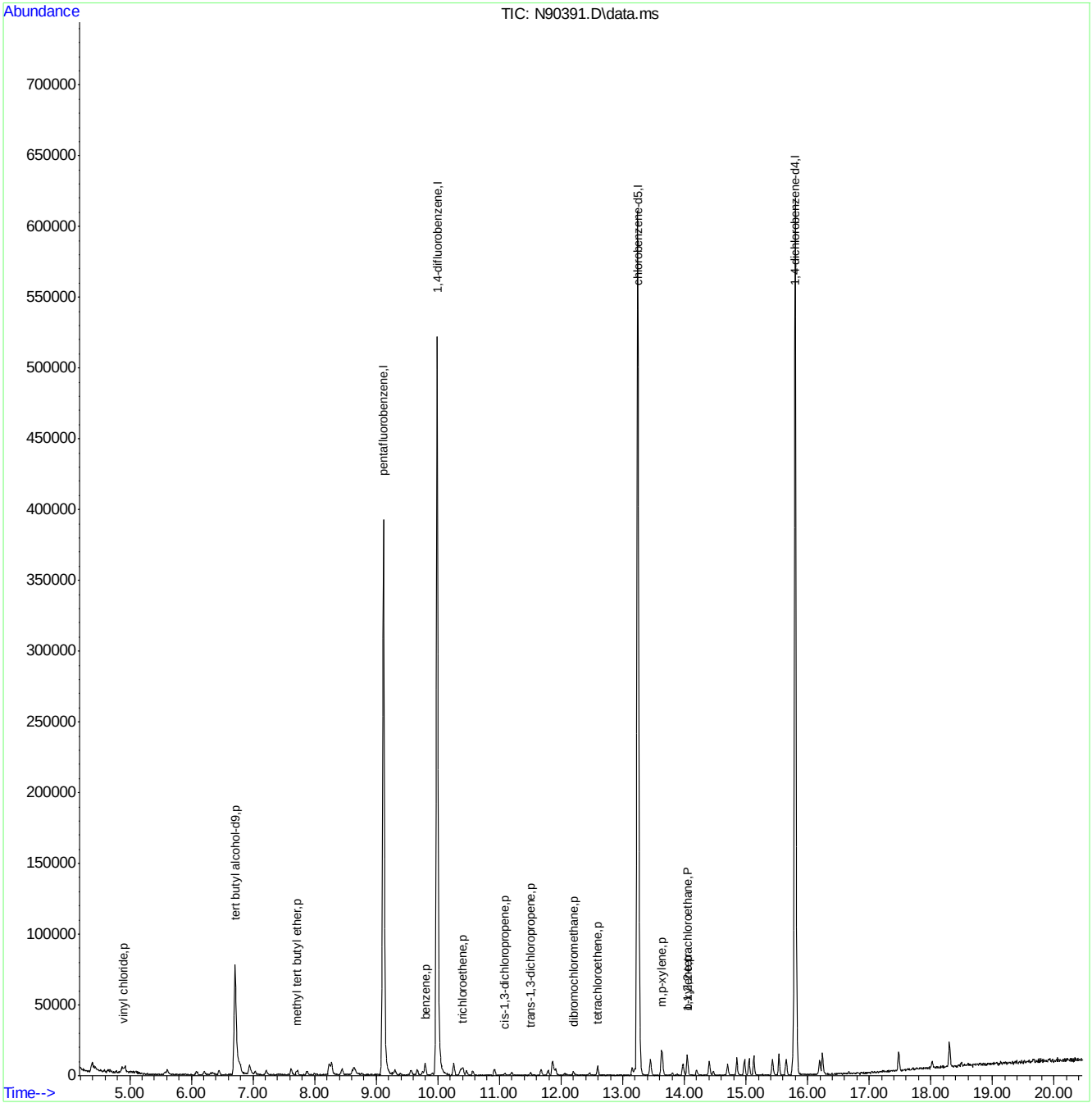
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.708	65	120097	500.00	ug/L	0.01
4) pentafluorobenzene	9.119	168	275131	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.988	114	415480	50.00	ug/L	0.00
66) chlorobenzene-d5	13.244	82	219528	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.797	152	162408	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	0.000	113	0	0.00	ug/L	
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#		
60) toluene-d8 (s)	0.000	98	0d	0.00	ug/L	
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#		
82) bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L	
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#		
Target Compounds						Qvalue
7) vinyl chloride	4.898	62	1639m	0.53	ug/L	
19) methyl tert butyl ether	7.719	73	3086m	0.44	ug/L	
47) benzene	9.797	78	7643	0.73	ug/L	99
51) trichloroethene	10.406	95	2246	0.70	ug/L	86
59) cis-1,3-dichloropropene	11.077	75	1041	0.24	ug/L	56
63) trans-1,3-dichloropropene	11.505	75	1504	0.40	ug/L	87
67) tetrachloroethene	12.587	166	1848	0.71	ug/L #	58
69) dibromochloromethane	12.198	129	1535	0.54	ug/L	84
75) m,p-xylene	13.633	106	6519	1.49	ug/L	84
76) o-xylene	14.047	106	3021	0.68	ug/L	85
84) 1,1,2,2-tetrachloroethane	14.050	83	2059	0.81	ug/L	83

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90391.D
Acq On : 18 Sep 2014 4:07 pm
Operator : krystend
Sample : IC3345-0.5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 19 11:55:14 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:12:51 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90392.D
Acq On : 18 Sep 2014 4:35 pm
Operator : krystend
Sample : IC3345-1
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 19 10:04:28 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 10:01:48 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.708	65	115293	500.00	ug/L		0.01
4) pentafluorobenzene	9.119	168	271362	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	419952	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	219703	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	167035	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	0.000	113	0	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
60) toluene-d8 (s)	0.000	98	0d	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
82) bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
Target Compounds							Qvalue
7) vinyl chloride	4.890	62	7283	1.62	ug/L		97
12) trichlorofluoromethane	6.198	101	8704	1.59	ug/L		84
15) 1,1-dichloroethene	6.785	96	3828	1.01	ug/L		93
19) methyl tert butyl ether	7.719	73	5236m	Below Cal			
22) trans-1,2-dichloroethene	7.623	96	3906	1.43	ug/L	#	76
32) 1,1-dichloroethane	7.885	63	8882	1.33	ug/L		99
36) cis-1,2-dichloroethene	8.450	96	4043	1.30	ug/L		84
39) chloroform	8.648	83	8452	1.42	ug/L		89
42) 1,1,1-trichloroethane	9.398	97	3394	0.74	ug/L		87
45) carbon tetrachloride	9.758	117	4847	1.18	ug/L		90
47) benzene	9.794	78	16400	1.36	ug/L		93
48) 1,2-dichloroethane	9.302	62	8058	1.43	ug/L		100
51) trichloroethene	10.409	95	4897	1.36	ug/L		91
54) bromodichloromethane	10.469	83	5684	1.26	ug/L		88
59) cis-1,3-dichloropropene	11.088	75	2757	1.02	ug/L		99
62) toluene	11.855	92	10192	1.41	ug/L		95
63) trans-1,3-dichloropropene	11.501	75	3719	1.06	ug/L		95
64) 1,1,2-trichloroethane	11.664	83	3333	1.43	ug/L	#	58
67) tetrachloroethene	12.594	166	3847	1.34	ug/L		95
69) dibromochloromethane	12.198	129	3400	1.15	ug/L		100
72) chlorobenzene	13.276	112	11161	1.46	ug/L		92
73) 1,1,1,2-tetrachloroethane	13.195	131	3600	1.29	ug/L		78
74) ethylbenzene	13.449	91	20302	1.42	ug/L		95
75) m,p-xylene	13.633	106	14337	2.75	ug/L		91
76) o-xylene	14.043	106	6957	1.37	ug/L		91
78) bromoform	13.803	173	2334	1.36	ug/L		86
84) 1,1,2,2-tetrachloroethane	14.047	83	4956	1.30	ug/L		86
89) 1,3,5-trimethylbenzene	15.129	105	16921	1.42	ug/L		84
91) 1,2,4-trimethylbenzene	15.539	105	16592	1.41	ug/L		94
93) 1,3-dichlorobenzene	15.761	146	9407	1.07	ug/L		95
95) 1,4-dichlorobenzene	15.822	146	10009	0.88	ug/L		89
96) 1,2-dichlorobenzene	16.196	146	8517	1.00	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90392.D
Acq On : 18 Sep 2014 4:35 pm
Operator : krystend
Sample : IC3345-1
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 19 10:04:28 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 10:01:48 2014
Response via : Initial Calibration

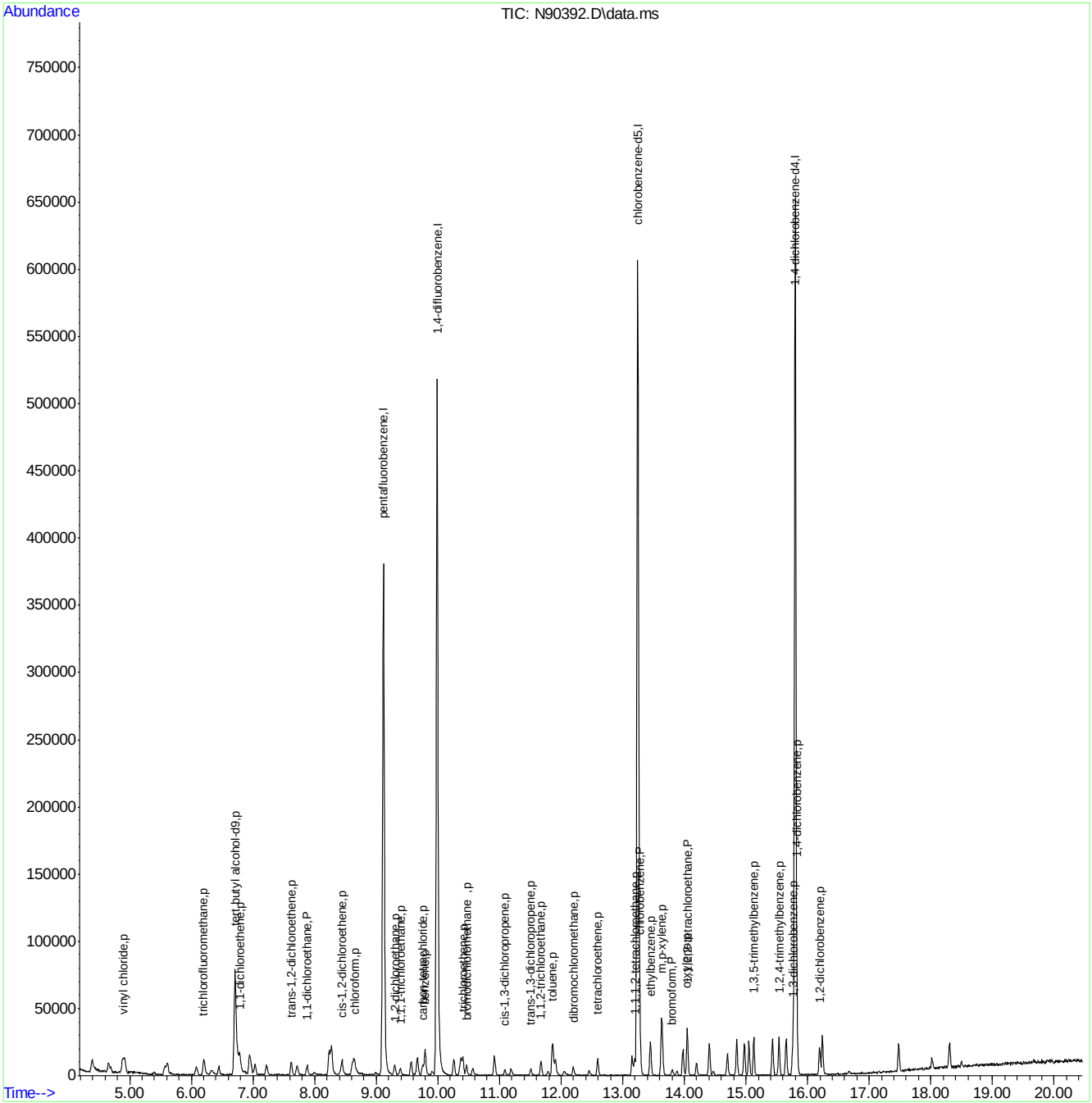
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90392.D
Acq On : 18 Sep 2014 4:35 pm
Operator : krystend
Sample : IC3345-1
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 22 Sample Multiplier: 1

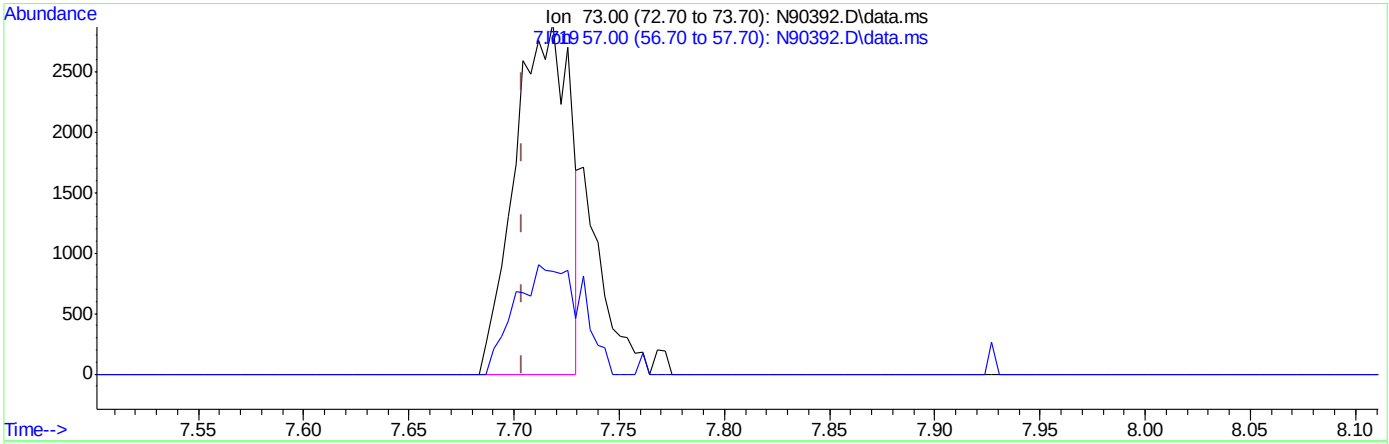
Quant Time: Sep 19 10:04:28 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 10:01:48 2014
Response via : Initial Calibration

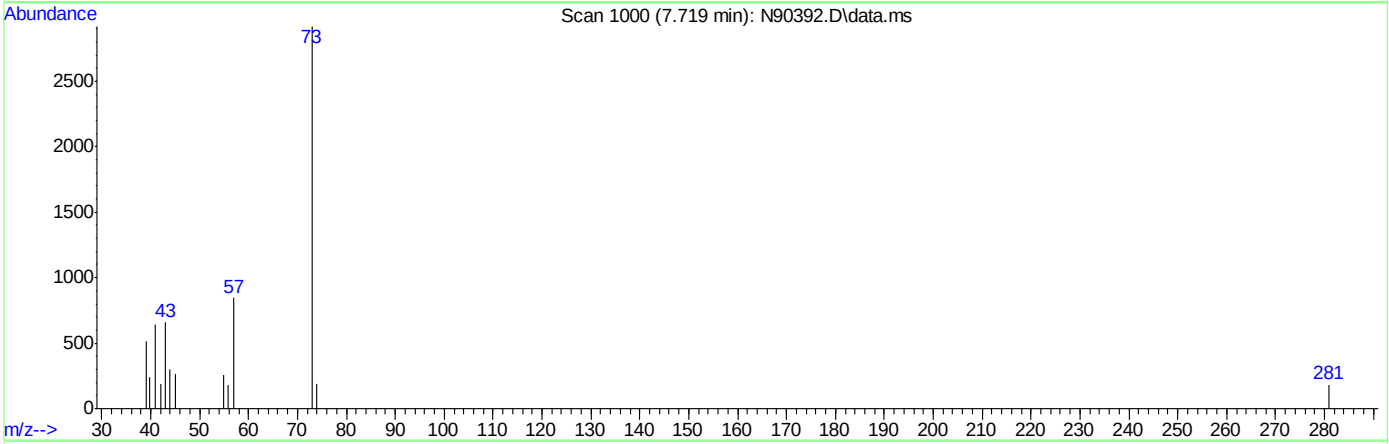


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90392.D
Acq On : 18 Sep 2014 4:35 pm
Operator : krystend
Sample : IC3345-1
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 19 09:16:03 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:14:20 2014
Response via : Initial Calibration





TIC: N90392.D\data.ms

(19) methyl tert butyl ether (p)

7.719min (+0.015) 0.76ug/L m

response 5236

Ion	Exp%	Act%
73.00	100	100
57.00	28.40	28.96
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33908

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90393.D
Acq On : 18 Sep 2014 5:03 pm
Operator : krystend
Sample : IC3345-2
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 19 09:18:54 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:17:10 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.707	65	112920	500.00	ug/L		0.01
4) pentafluorobenzene	9.119	168	263657	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	403108	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	215261	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	164137	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	0.000	113	0	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
60) toluene-d8 (s)	0.000	98	0d	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
82) bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.792	59	9557	25.25	ug/L	#	100
3) Ethanol	5.576	45	14818	272.84	ug/L	#	78
5) dichlorodifluoromethane	4.395	85	5443	1.41	ug/L		85
6) chloromethane	4.660	50	8094	2.04	ug/L		79
7) vinyl chloride	4.897	62	5215	1.04	ug/L		85
8) bromomethane	5.392	96	1165	0.95	ug/L	#	64
9) chloroethane	5.569	64	3070	1.85	ug/L		92
12) trichlorofluoromethane	6.198	101	6827	1.02	ug/L		93
15) 1,1-dichloroethene	6.785	96	5890	2.02	ug/L		95
18) methylene chloride	6.937	84	7249	2.92	ug/L		81
19) methyl tert butyl ether	7.715	73	9597	1.47	ug/L		99
22) trans-1,2-dichloroethene	7.620	96	6008	1.92	ug/L	#	82
28) di-isopropyl ether	8.274	45	31392	2.48	ug/L		85
32) 1,1-dichloroethane	7.871	63	14708	2.02	ug/L		90
33) tert-butyl ethyl ether	8.677	59	2769	0.45	ug/L		97
36) cis-1,2-dichloroethene	8.454	96	6725	2.01	ug/L		93
39) chloroform	8.645	83	13274	1.96	ug/L		83
42) 1,1,1-trichloroethane	9.391	97	7250	1.73	ug/L		93
45) carbon tetrachloride	9.751	117	7899	1.79	ug/L		93
47) benzene	9.797	78	26423	1.95	ug/L		95
48) 1,2-dichloroethane	9.299	62	12882	2.03	ug/L		99
49) tert-amyl methyl ether	9.910	73	3280	0.98	ug/L		93
51) trichloroethene	10.409	95	8004	1.97	ug/L		84
52) 1,2-dichloropropane	10.381	63	7182	2.16	ug/L		92
53) dibromomethane	10.352	93	4198	2.60	ug/L		84
54) bromodichloromethane	10.462	83	9343	1.96	ug/L		96
59) cis-1,3-dichloropropene	11.084	75	5783	1.94	ug/L		94
62) toluene	11.855	92	15764	1.93	ug/L		96
63) trans-1,3-dichloropropene	11.505	75	6265	1.86	ug/L		86
64) 1,1,2-trichloroethane	11.678	83	5003	1.92	ug/L		96
67) tetrachloroethene	12.594	166	6221	1.88	ug/L		93
69) dibromochloromethane	12.198	129	6427	2.12	ug/L		84
70) 1,2-dibromoethane	12.452	107	5514	2.54	ug/L		72
72) chlorobenzene	13.280	112	17695	2.01	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90393.D
Acq On : 18 Sep 2014 5:03 pm
Operator : krystend
Sample : IC3345-2
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 19 09:18:54 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:17:10 2014
Response via : Initial Calibration

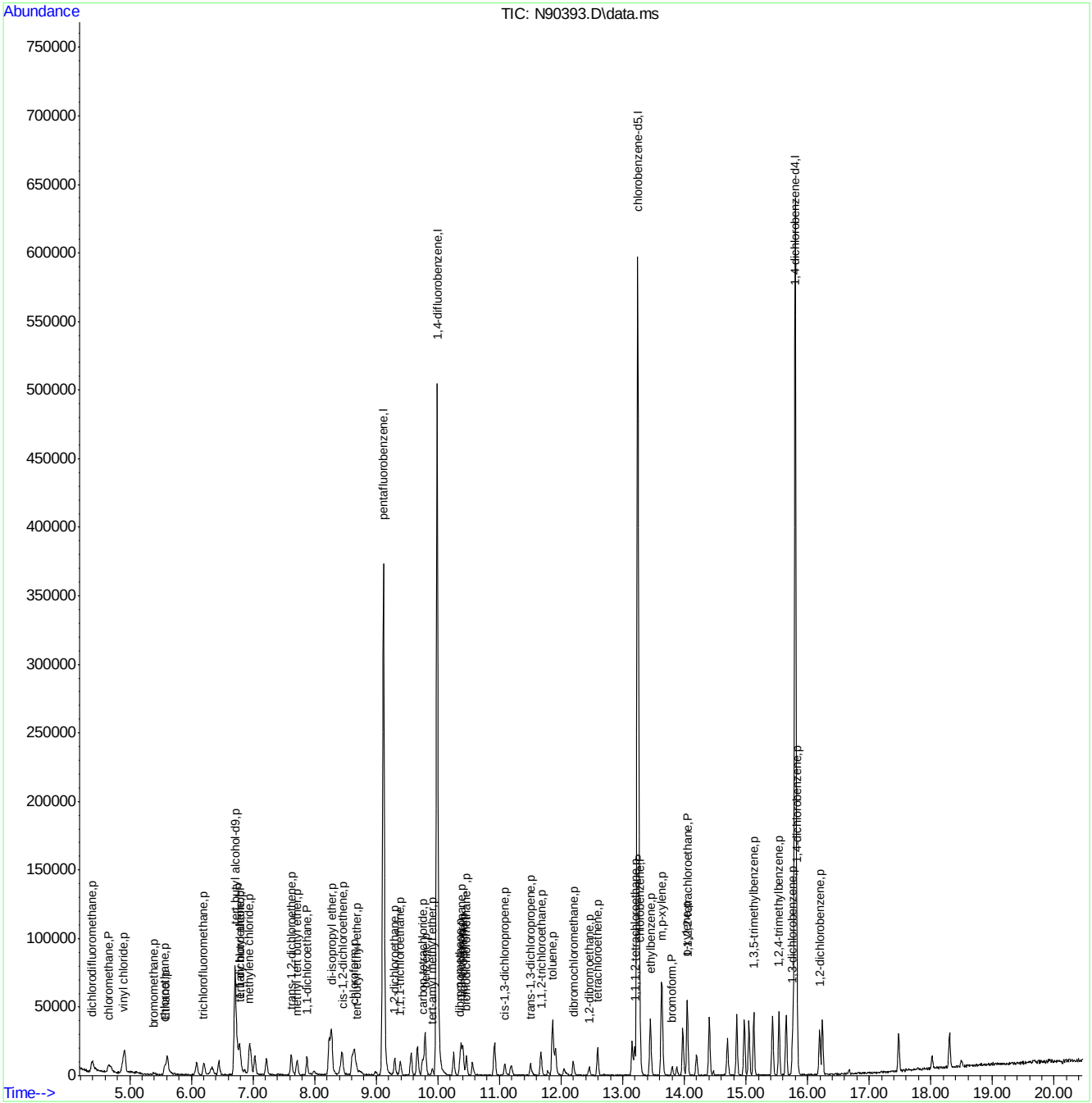
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
73) 1,1,1,2-tetrachloroethane	13.195	131	5905	1.94	ug/L	96
74) ethylbenzene	13.449	91	31464	1.92	ug/L	97
75) m,p-xylene	13.637	106	22784	3.86	ug/L	89
76) o-xylene	14.043	106	11834	2.07	ug/L	92
78) bromoform	13.796	173	3307	1.70	ug/L	79
84) 1,1,2,2-tetrachloroethane	14.047	83	7319	1.89	ug/L	96
89) 1,3,5-trimethylbenzene	15.125	105	26341	1.93	ug/L	98
91) 1,2,4-trimethylbenzene	15.535	105	26213	1.94	ug/L	98
93) 1,3-dichlorobenzene	15.758	146	14005	1.93	ug/L	99
95) 1,4-dichlorobenzene	15.825	146	13942	1.88	ug/L	90
96) 1,2-dichlorobenzene	16.196	146	12806	1.89	ug/L	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90393.D
Acq On : 18 Sep 2014 5:03 pm
Operator : krystend
Sample : IC3345-2
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 19 09:18:54 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:17:10 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski 09/19/14 12:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:21:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.707	65	115311	500.00	ug/L		0.01
4) pentafluorobenzene	9.118	168	257045	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	404691	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	212989	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	162164	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.768	113	13026	4.76	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 9.52%#				
60) toluene-d8 (s)	11.784	98	46384	4.42	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 8.84%#				
82) bromofluorobenzene (s)	14.467	95	20500	5.07	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 10.14%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.796	59	18756	42.89	ug/L	#	100
3) Ethanol	5.576	45	30201	460.66	ug/L		95
5) dichlorodifluoromethane	4.388	85	14822	4.61	ug/L		96
6) chloromethane	4.657	50	19212	4.92	ug/L		91
7) vinyl chloride	4.897	62	15363	3.73	ug/L		97
8) bromomethane	5.392	96	3523	3.98	ug/L		83
9) chloroethane	5.562	64	8770	5.63	ug/L		95
10) ethyl ether	6.439	59	14068	5.48	ug/L		88
11) acetonitrile	6.435	41	2094	4.92	ug/L		85
12) trichlorofluoromethane	6.205	101	19036	3.48	ug/L		96
13) freon-113	6.965	101	7927	3.31	ug/L		93
14) acrolein	6.205	56	8493	26.69	ug/L		92
15) 1,1-dichloroethene	6.785	96	9242	3.24	ug/L		96
16) acetone	6.343	58	3316	6.52	ug/L	#	80
17) Methyl Acetate	6.973	43	12498	5.67	ug/L	#	89
18) methylene chloride	6.941	84	14027	4.71	ug/L	#	82
19) methyl tert butyl ether	7.711	73	17899	3.08	ug/L		98
20) acrylonitrile	6.859	53	5811	5.03	ug/L		92
21) allyl chloride	7.036	41	23791	4.91	ug/L		92
22) trans-1,2-dichloroethene	7.619	96	11294	3.75	ug/L		91
23) iodomethane	6.863	142	2022	1.28	ug/L		82
24) carbon disulfide	7.220	76	32790	4.39	ug/L		95
25) propionitrile	6.789	54	47m	1.16	ug/L		
26) vinyl acetate	7.984	43	12276	3.24	ug/L		93
27) chloroprene	8.231	53	19763	3.93	ug/L		86
28) di-isopropyl ether	8.266	45	65977	4.77	ug/L		87
29) methacrylonitrile	8.411	41	9719	5.45	ug/L		94
30) 2-butanone	8.302	72	1194	3.71	ug/L	#	1
31) Hexane	8.252	41	22755	4.62	ug/L	#	64
32) 1,1-dichloroethane	7.878	63	28678	4.02	ug/L		98
33) tert-butyl ethyl ether	8.662	59	6641	1.82	ug/L		81
34) isobutyl alcohol	8.266	43	51083	25.96	ug/L		85
35) 2,2-dichloropropane	8.733	77	3847	0.90	ug/L		91
36) cis-1,2-dichloroethene	8.450	96	13951	4.27	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:21:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.266	43	47978	4.88	ug/L	#	70
38) bromochloromethane	8.613	128	6266	5.18	ug/L		97
39) chloroform	8.641	83	26857	4.10	ug/L		95
41) Tetrahydrofuran	8.991	42	3997	4.74	ug/L		93
42) 1,1,1-trichloroethane	9.394	97	17023	4.37	ug/L		97
44) Cyclohexane	9.670	56	20575	3.33	ug/L	#	88
45) carbon tetrachloride	9.748	117	14363	3.36	ug/L		90
46) 1,1-dichloropropene	9.567	75	14512	3.80	ug/L		86
47) benzene	9.790	78	52890	3.91	ug/L		97
48) 1,2-dichloroethane	9.302	62	25221	3.94	ug/L		97
49) tert-amyl methyl ether	9.907	73	5540	2.21	ug/L		73
50) heptane	10.257	43	13703	3.78	ug/L		98
51) trichloroethene	10.409	95	15353	3.78	ug/L		94
52) 1,2-dichloropropane	10.377	63	16284	4.69	ug/L		98
53) dibromomethane	10.363	93	8062	4.32	ug/L		98
54) bromodichloromethane	10.458	83	19383	4.07	ug/L		95
55) Methylcyclohexane	10.914	83	15134	3.30	ug/L		97
56) 2-chloroethyl vinyl ether	10.377	63	16284	4.88	ug/L	#	97
57) methyl methacrylate	10.564	69	6956	4.35	ug/L		81
58) 1,4-dioxane	10.575	88	305m	11.91	ug/L		
59) cis-1,3-dichloropropene	11.081	75	14326	4.82	ug/L		94
61) 4-methyl-2-pentanone	11.187	43	15348	4.69	ug/L		93
62) toluene	11.858	92	32323	3.99	ug/L		100
63) trans-1,3-dichloropropene	11.505	75	13309	4.01	ug/L		90
64) 1,1,2-trichloroethane	11.671	83	10052	3.89	ug/L		97
65) ethyl methacrylate	11.872	69	13448	4.36	ug/L		95
67) tetrachloroethene	12.594	166	11517	3.57	ug/L		96
68) 1,3-dichloropropane	11.908	76	21203	5.29	ug/L		94
69) dibromochloromethane	12.201	129	12977	4.26	ug/L		95
70) 1,2-dibromoethane	12.449	107	10672	4.37	ug/L		97
71) 2-hexanone	12.042	43	11863	4.52	ug/L		97
72) chlorobenzene	13.276	112	35521	4.08	ug/L		99
73) 1,1,1,2-tetrachloroethane	13.191	131	12646	4.24	ug/L		93
74) ethylbenzene	13.446	91	62342	3.90	ug/L		97
75) m,p-xylene	13.633	106	45068	7.78	ug/L		91
76) o-xylene	14.047	106	22661	3.98	ug/L		96
77) styrene	13.972	104	33240	4.68	ug/L		100
78) bromoform	13.810	173	7181	3.92	ug/L		89
79) trans-1,4-dichloro-2-b...	14.195	53	2021	2.79	ug/L	#	72
81) isopropylbenzene	14.404	105	54139	4.64	ug/L		96
83) bromobenzene	14.697	156	13958	5.33	ug/L		94
84) 1,1,2,2-tetrachloroethane	14.047	83	14779	3.92	ug/L		92
85) 1,2,3-trichloropropane	14.192	75	13586	4.79	ug/L		95
86) n-propylbenzene	14.849	91	70187	4.75	ug/L		99
87) 2-chlorotoluene	14.973	91	47616	5.25	ug/L		92
88) 4-chlorotoluene	15.047	91	49594	5.16	ug/L		98
89) 1,3,5-trimethylbenzene	15.128	105	52715	3.95	ug/L		99
90) tert-butylbenzene	15.429	91	31228	4.47	ug/L		98
91) 1,2,4-trimethylbenzene	15.539	105	52034	3.94	ug/L		97
92) sec-butylbenzene	15.652	105	60459	4.52	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:21:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration

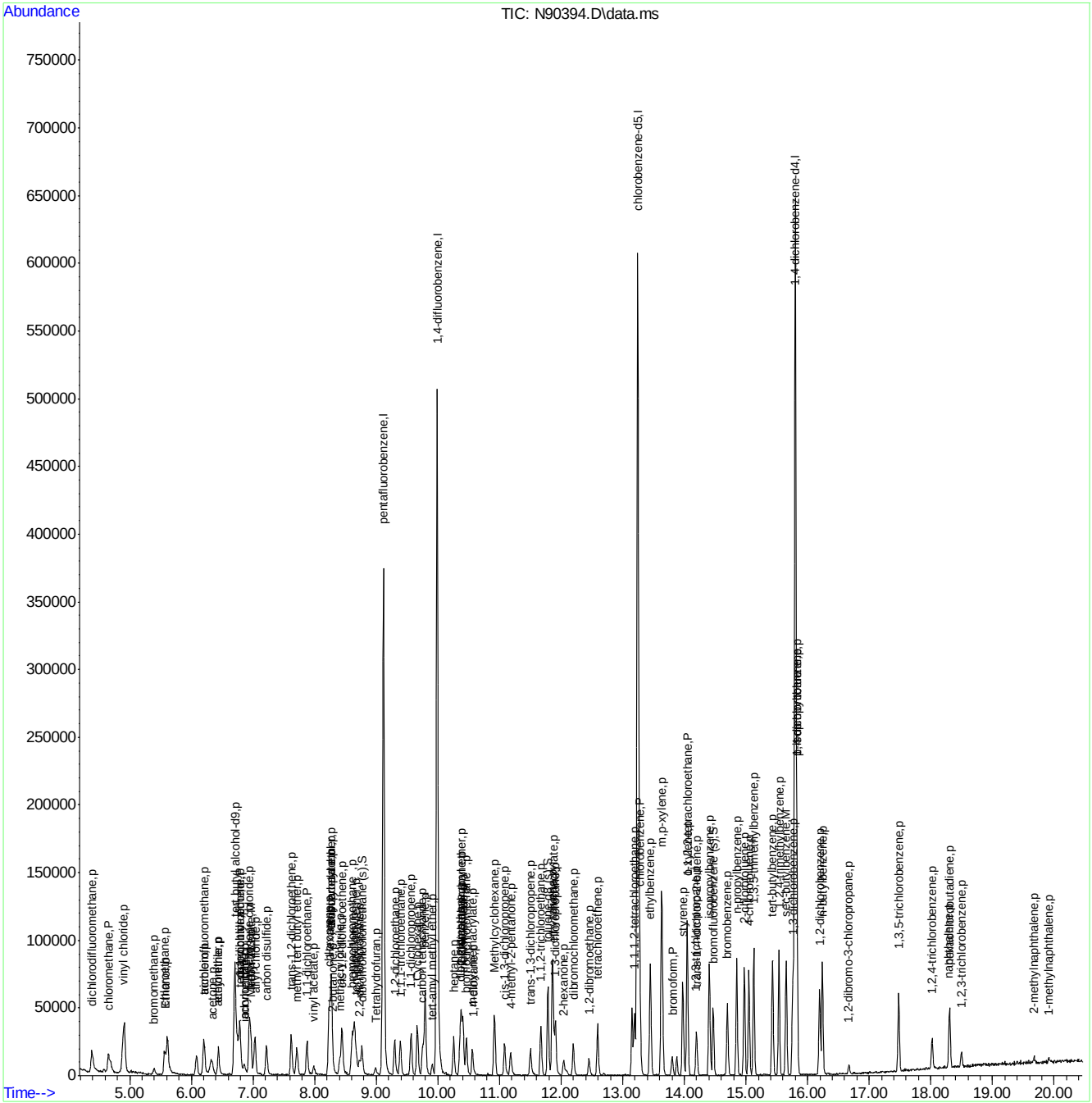
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	1,3-dichlorobenzene	15.761	146	27513	3.89	ug/L		99
94)	p-isopropyltoluene	15.825	119	51068	4.65	ug/L		98
95)	1,4-dichlorobenzene	15.825	146	27643	3.85	ug/L		95
96)	1,2-dichlorobenzene	16.196	146	25142	3.82	ug/L		95
97)	n-butylbenzene	16.239	91	49528	4.29	ug/L		93
98)	1,2-dibromo-3-chloropr...	16.663	75	2015	4.30	ug/L	#	73
99)	1,2,4-trichlorobenzene	18.020	180	7236	2.87	ug/L		85
100)	1,3,5-trichlorobenzene	17.476	180	17439	4.91	ug/L		97
101)	hexachlorobutadiene	18.300	225	8509	4.69	ug/L		94
102)	naphthalene	18.293	128	5069	1.53	ug/L		100
103)	1,2,3-trichlorobenzene	18.498	180	4017	2.24	ug/L		74
104)	2-methylnaphthalene	19.678	142	2198	2.28	ug/L	#	100
105)	1-methylnaphthalene	19.919	142	1667	2.28	ug/L		95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

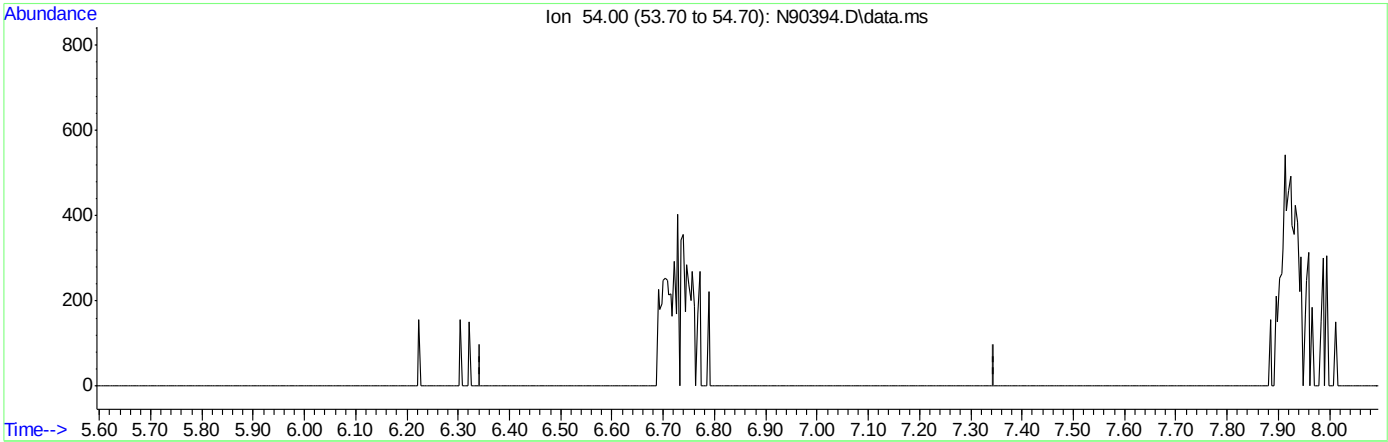
Quant Time: Sep 19 09:21:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration

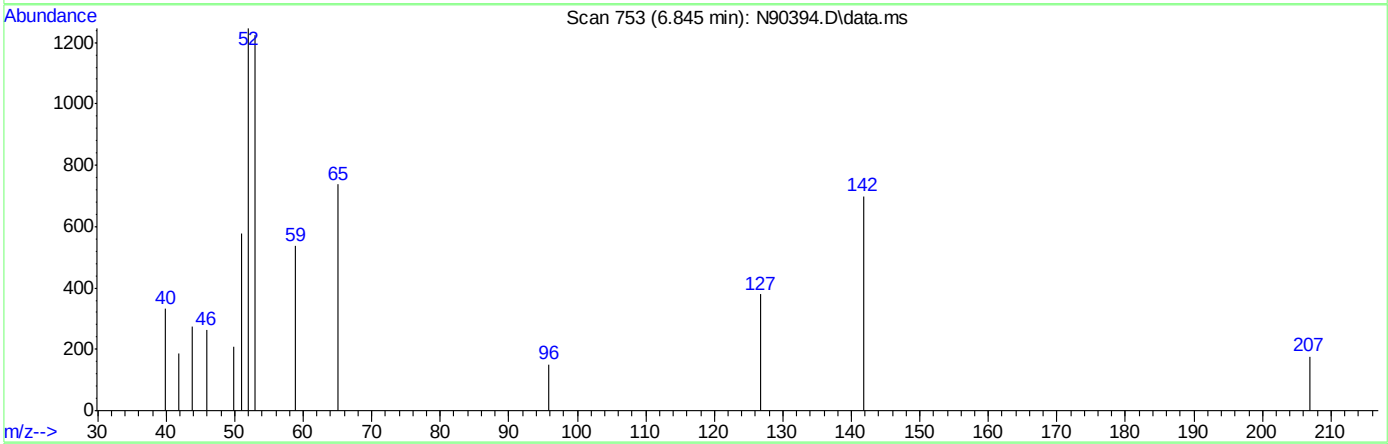


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:20:26 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration





TIC: N90394.D\data.ms

(25) propionitrile (p)

6.845min (-6.845) 0.00ug/L

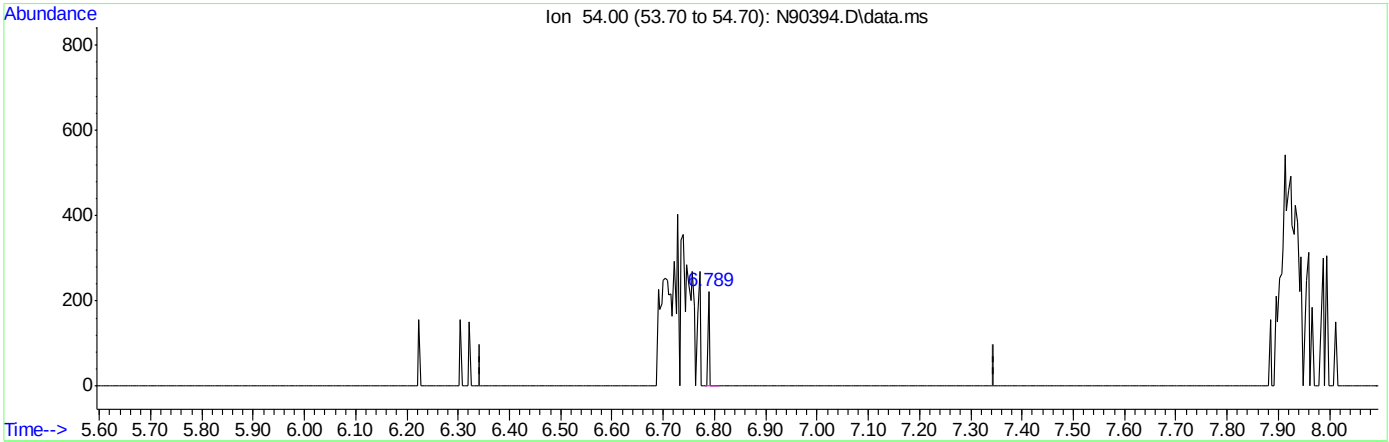
response 0

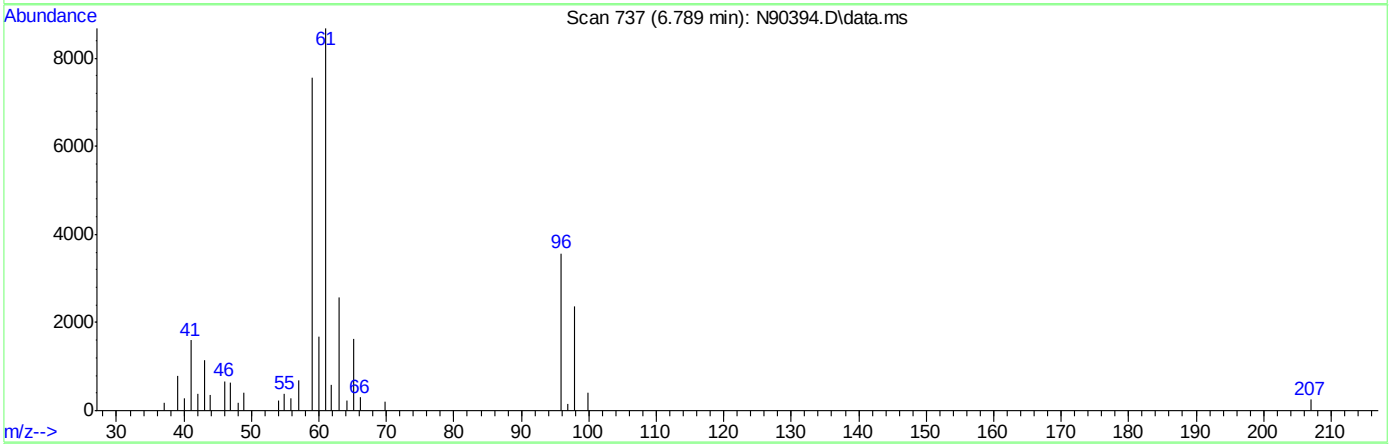
Ion	Exp%	Act%
54.00	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:20:26 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration





TIC: N90394.D\data.ms

(25) propionitrile (p)

6.789min (-0.056) 1.16ug/L m

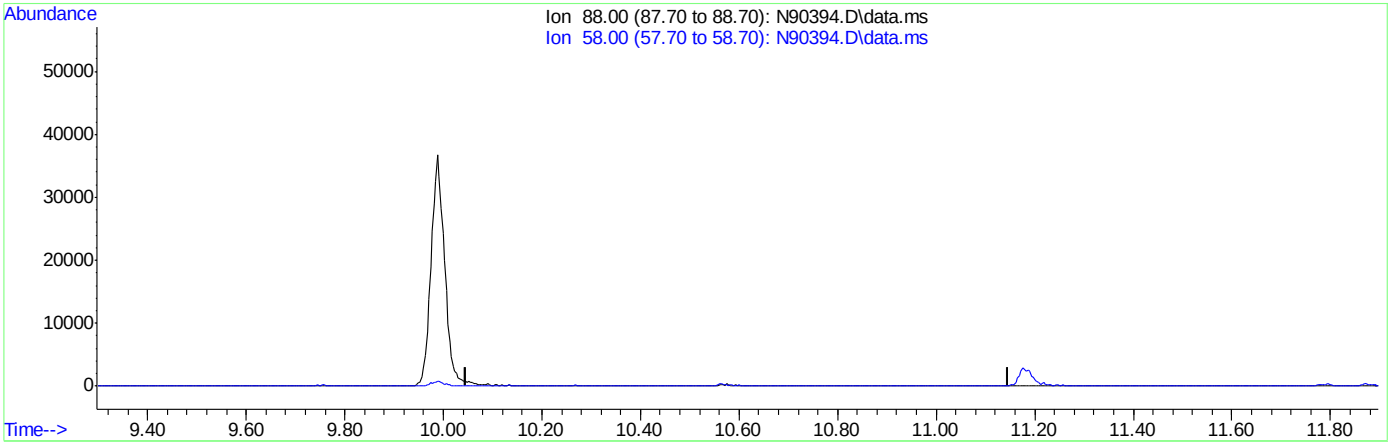
response 47

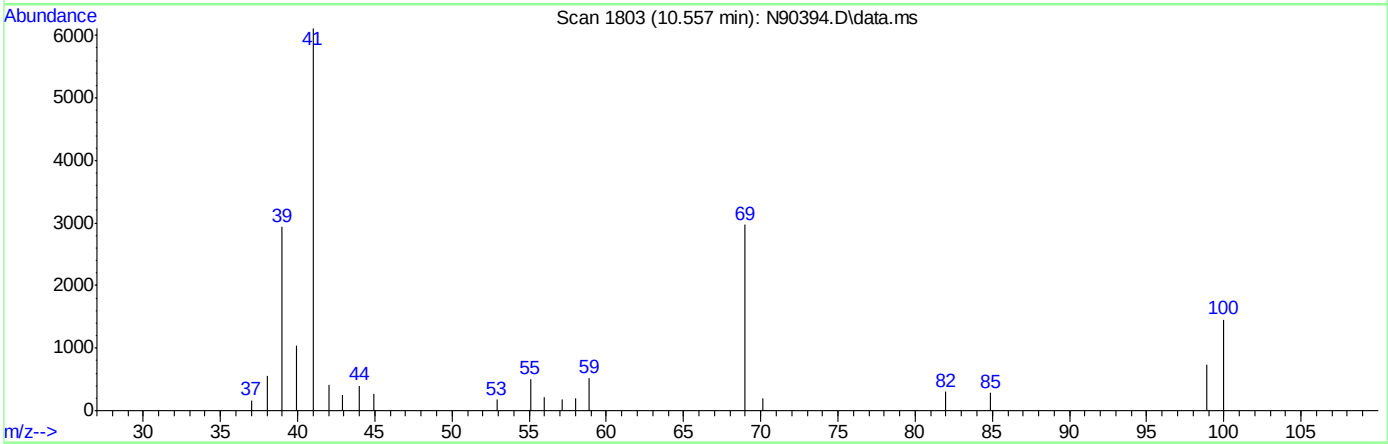
Ion	Exp%	Act%
54.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:20:26 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration





TIC: N90394.D\data.ms

(58) 1,4-dioxane (p)

10.557min (-10.557) 0.00ug/L

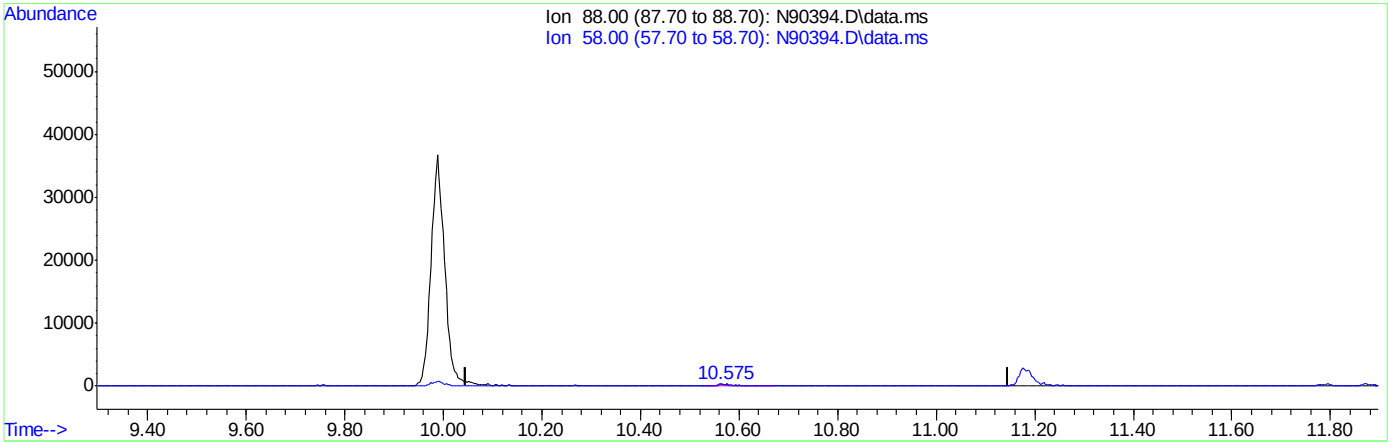
response 0

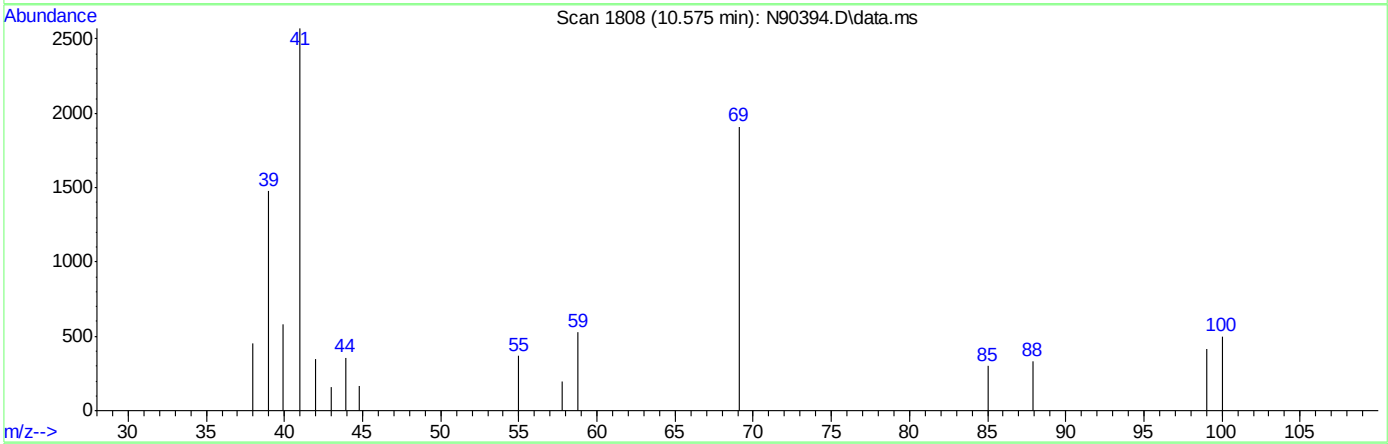
Ion	Exp%	Act%
88.00	100	0.00
58.00	134.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90394.D
Acq On : 18 Sep 2014 5:32 pm
Operator : krystend
Sample : IC3345-5
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 19 09:20:26 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:20:13 2014
Response via : Initial Calibration





TIC: N90394.D\data.ms

(58) 1,4-dioxane (p)

10.575min (+0.018) 11.91ug/L m

response 305

Ion	Exp%	Act%
88.00	100	100
58.00	134.00	59.28#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/19/14 12:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90395.D
Acq On : 18 Sep 2014 6:00 pm
Operator : krystend
Sample : IC3345-10
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 09:22:13 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:21:41 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.704	65	126512	500.00	ug/L		0.01
4) pentafluorobenzene	9.119	168	258191	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	407845	50.00	ug/L		0.00
66) chlorobenzene-d5	13.244	82	221249	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	172320	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.769	113	27210	10.14	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 20.28%#				
60) toluene-d8 (s)	11.784	98	101486	10.19	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 20.38%#				
82) bromofluorobenzene (s)	14.464	95	42884	9.91	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 19.82%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.789	59	40778	89.23	ug/L	#	100
3) Ethanol	5.566	45	62418	891.15	ug/L		97
5) dichlorodifluoromethane	4.385	85	31777	10.11	ug/L		87
6) chloromethane	4.654	50	43406	11.12	ug/L		97
7) vinyl chloride	4.897	62	33509	8.65	ug/L		96
8) bromomethane	5.392	96	9737	11.76	ug/L		74
9) chloroethane	5.569	64	19605	12.03	ug/L		91
10) ethyl ether	6.439	59	27414	10.15	ug/L		97
11) acetonitrile	6.435	41	4465	10.53	ug/L		87
12) trichlorofluoromethane	6.206	101	42717	8.42	ug/L		99
13) freon-113	6.969	101	18580	9.29	ug/L		86
14) acrolein	6.206	56	17077	51.68	ug/L		92
15) 1,1-dichloroethene	6.785	96	18873	7.23	ug/L		91
16) acetone	6.336	58	7023	11.93	ug/L	#	80
17) Methyl Acetate	6.969	43	25886	10.96	ug/L	#	91
18) methylene chloride	6.944	84	28490	9.71	ug/L		99
19) methyl tert butyl ether	7.712	73	31021	5.88	ug/L		96
20) acrylonitrile	6.856	53	13194	11.34	ug/L		97
21) allyl chloride	7.033	41	48398	10.04	ug/L		94
22) trans-1,2-dichloroethene	7.627	96	22666	8.00	ug/L		90
23) iodomethane	6.860	142	6549	6.59	ug/L		84
24) carbon disulfide	7.224	76	68989	9.79	ug/L		98
25) propionitrile	6.867	54	233m	9.28	ug/L		
26) vinyl acetate	7.980	43	35528	11.32	ug/L		97
27) chloroprene	8.231	53	43807	9.71	ug/L		96
28) di-isopropyl ether	8.270	45	130436	9.54	ug/L		91
29) methacrylonitrile	8.405	41	21048	11.24	ug/L		85
30) 2-butanone	8.295	72	3279	11.65	ug/L	#	1
31) Hexane	8.256	41	43898	9.22	ug/L	#	69
32) 1,1-dichloroethane	7.878	63	60716	8.92	ug/L		100
33) tert-butyl ethyl ether	8.666	59	12883	4.46	ug/L		96
34) isobutyl alcohol	8.267	43	102422	50.85	ug/L		88
35) 2,2-dichloropropane	8.733	77	14007	5.55	ug/L		100
36) cis-1,2-dichloroethene	8.443	96	27812	8.80	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90395.D
Acq On : 18 Sep 2014 6:00 pm
Operator : krystend
Sample : IC3345-10
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 09:22:13 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:21:41 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.267	43	100144	10.26	ug/L		85
38) bromochloromethane	8.613	128	12292	9.93	ug/L		88
39) chloroform	8.645	83	54158	8.62	ug/L		99
41) Tetrahydrofuran	8.984	42	9778	11.85	ug/L		82
42) 1,1,1-trichloroethane	9.391	97	41591	10.98	ug/L		97
44) Cyclohexane	9.670	56	46371	8.94	ug/L		93
45) carbon tetrachloride	9.755	117	32807	8.30	ug/L		97
46) 1,1-dichloropropene	9.564	75	32906	9.72	ug/L		93
47) benzene	9.794	78	107734	8.26	ug/L		98
48) 1,2-dichloroethane	9.299	62	50274	8.23	ug/L		98
49) tert-amyl methyl ether	9.911	73	11881	5.78	ug/L		88
50) heptane	10.257	43	26634	8.30	ug/L		97
51) trichloroethene	10.409	95	31842	8.18	ug/L		90
52) 1,2-dichloropropane	10.377	63	33512	9.78	ug/L		98
53) dibromomethane	10.360	93	16811	9.37	ug/L		93
54) bromodichloromethane	10.462	83	40713	8.90	ug/L		95
55) Methylcyclohexane	10.918	83	32926	8.59	ug/L		99
56) 2-chloroethyl vinyl ether	10.377	63	33512	10.09	ug/L	#	100
57) methyl methacrylate	10.554	69	15574	10.34	ug/L		81
58) 1,4-dioxane	10.558	88	1262	66.24	ug/L	#	61
59) cis-1,3-dichloropropene	11.081	75	34438	11.58	ug/L		94
61) 4-methyl-2-pentanone	11.176	43	35384	11.07	ug/L		95
62) toluene	11.858	92	65958	8.51	ug/L		100
63) trans-1,3-dichloropropene	11.501	75	28470	8.86	ug/L		98
64) 1,1,2-trichloroethane	11.671	83	21305	8.66	ug/L		92
65) ethyl methacrylate	11.873	69	29881	10.27	ug/L		96
67) tetrachloroethene	12.590	166	24673	7.81	ug/L		87
68) 1,3-dichloropropane	11.904	76	42223	9.86	ug/L		94
69) dibromochloromethane	12.194	129	27781	9.04	ug/L		92
70) 1,2-dibromoethane	12.449	107	23274	9.58	ug/L		91
71) 2-hexanone	12.035	43	28753	11.08	ug/L		97
72) chlorobenzene	13.276	112	69810	8.09	ug/L		97
73) 1,1,1,2-tetrachloroethane	13.195	131	26388	8.86	ug/L		94
74) ethylbenzene	13.446	91	130881	8.33	ug/L		98
75) m,p-xylene	13.630	106	91775	15.96	ug/L		96
76) o-xylene	14.047	106	46892	8.26	ug/L		91
77) styrene	13.973	104	72509	10.16	ug/L		97
78) bromoform	13.803	173	15696	8.72	ug/L		95
79) trans-1,4-dichloro-2-b...	14.192	53	5470	9.33	ug/L	#	62
81) isopropylbenzene	14.404	105	117713	9.85	ug/L		99
83) bromobenzene	14.697	156	28241	9.82	ug/L		98
84) 1,1,2,2-tetrachloroethane	14.050	83	30205	7.88	ug/L		93
85) 1,2,3-trichloropropane	14.195	75	29533	10.01	ug/L		100
86) n-propylbenzene	14.849	91	150782	9.85	ug/L		99
87) 2-chlorotoluene	14.970	91	99253	10.05	ug/L		98
88) 4-chlorotoluene	15.047	91	104462	10.07	ug/L		95
89) 1,3,5-trimethylbenzene	15.125	105	111408	8.29	ug/L		97
90) tert-butylbenzene	15.433	91	68511	9.75	ug/L		91
91) 1,2,4-trimethylbenzene	15.535	105	112937	8.50	ug/L		96
92) sec-butylbenzene	15.652	105	128895	9.53	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90395.D
Acq On : 18 Sep 2014 6:00 pm
Operator : krystend
Sample : IC3345-10
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 09:22:13 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:21:41 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.761	146	55907	7.87	ug/L		98
94) p-isopropyltoluene	15.822	119	111832	9.93	ug/L		98
95) 1,4-dichlorobenzene	15.825	146	55167	7.67	ug/L		96
96) 1,2-dichlorobenzene	16.196	146	52420	7.97	ug/L		99
97) n-butylbenzene	16.235	91	107958	9.48	ug/L		98
98) 1,2-dibromo-3-chloropr...	16.670	75	4379	9.46	ug/L		87
99) 1,2,4-trichlorobenzene	18.021	180	19744	9.37	ug/L		94
100) 1,3,5-trichlorobenzene	17.476	180	36268	9.69	ug/L		100
101) hexachlorobutadiene	18.300	225	17924	9.60	ug/L		94
102) naphthalene	18.293	128	13706	5.95	ug/L		100
103) 1,2,3-trichlorobenzene	18.491	180	11426	8.28	ug/L		84
104) 2-methylnaphthalene	19.668	142	4279	4.37	ug/L	#	100
105) 1-methylnaphthalene	19.919	142	3816	5.14	ug/L		90

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

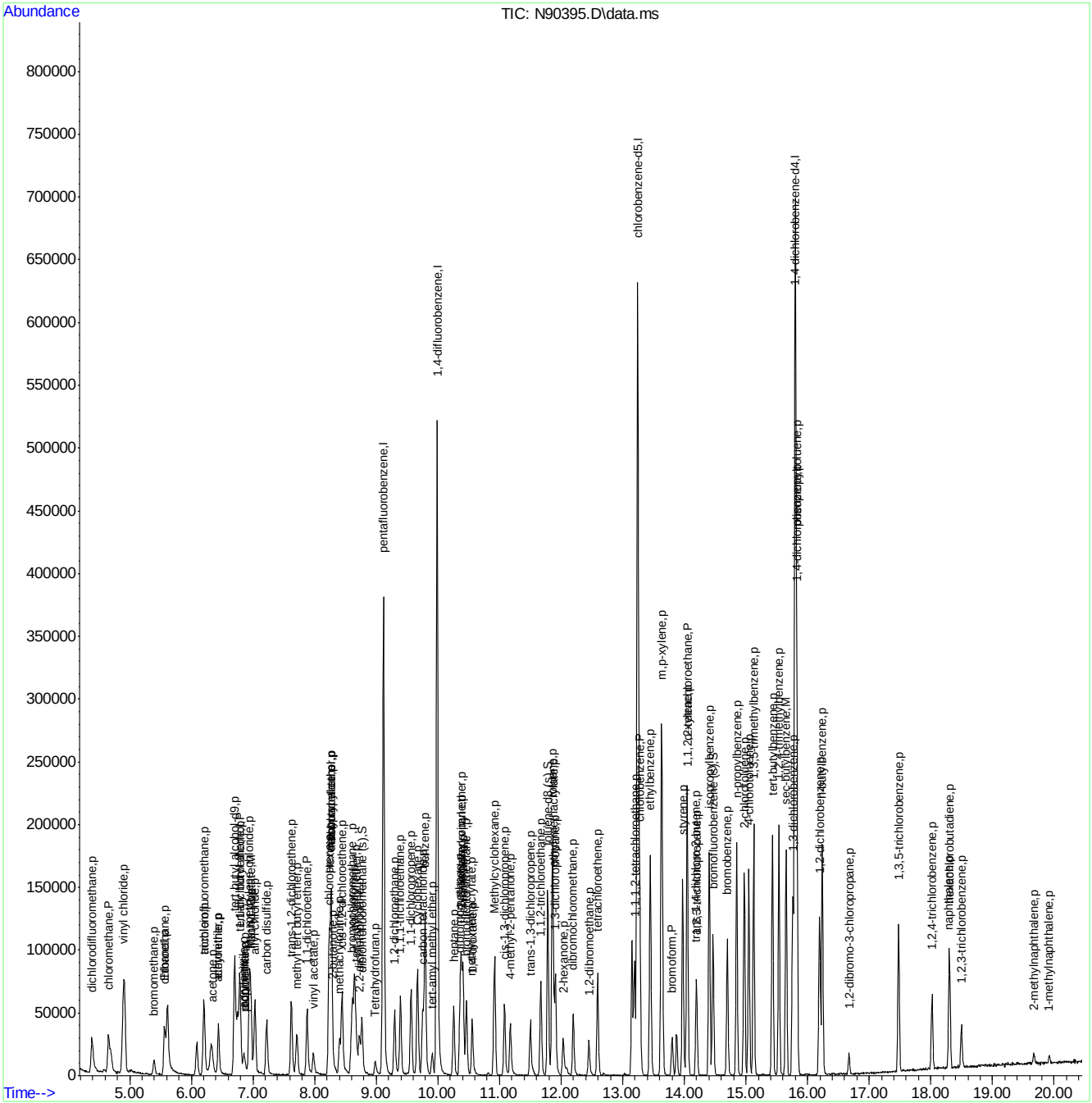
7.6.5

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90395.D
Acq On : 18 Sep 2014 6:00 pm
Operator : krystend
Sample : IC3345-10
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 25 Sample Multiplier: 1

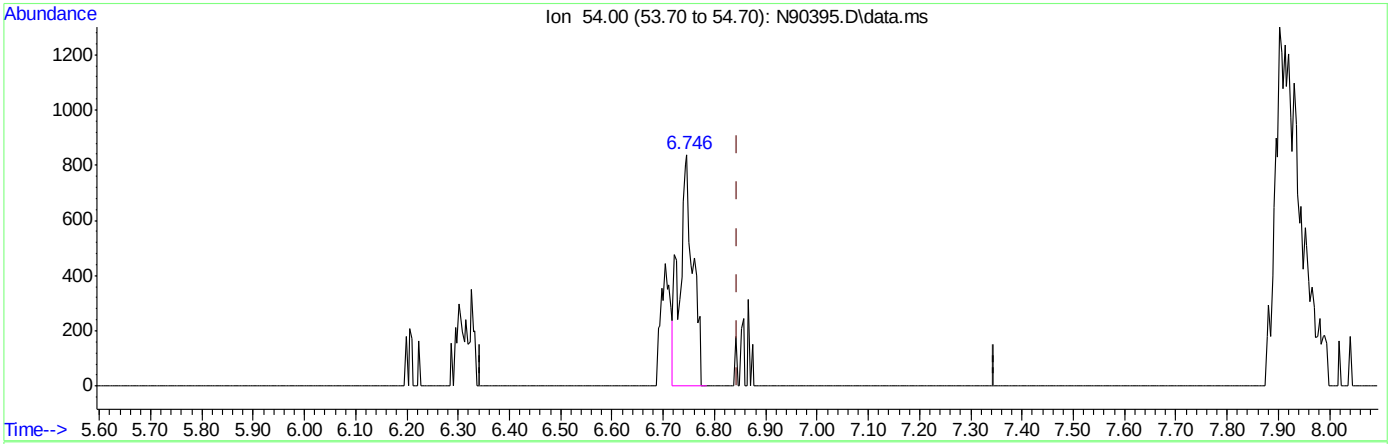
Quant Time: Sep 19 09:22:13 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:21:41 2014
Response via : Initial Calibration

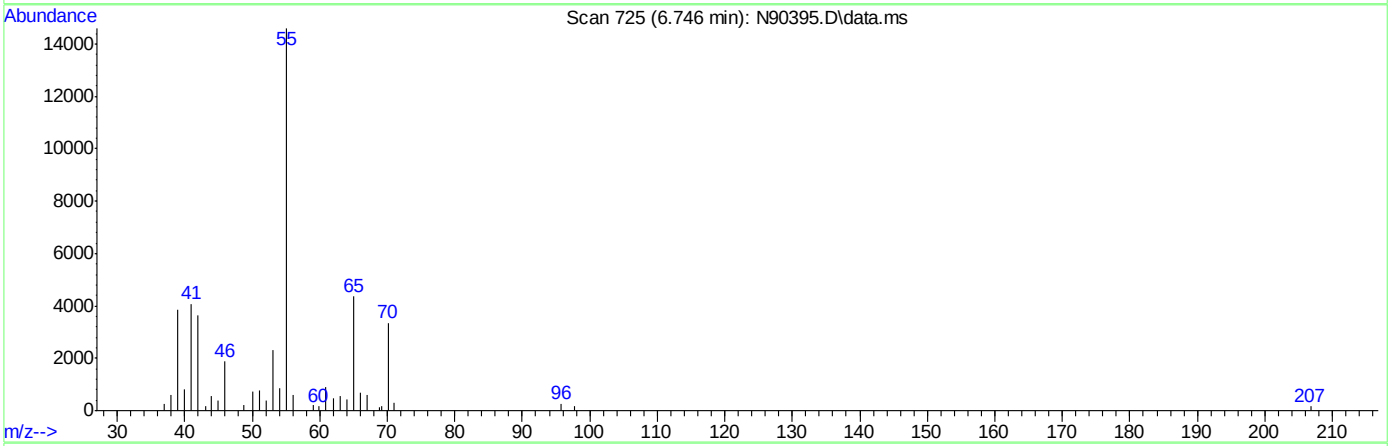


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90395.D
Acq On : 18 Sep 2014 6:00 pm
Operator : krystend
Sample : IC3345-10
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 09:21:52 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:21:41 2014
Response via : Initial Calibration





TIC: N90395.D\data.ms

(25) propionitrile (p)

6.746min (-0.099) 58.32ug/L

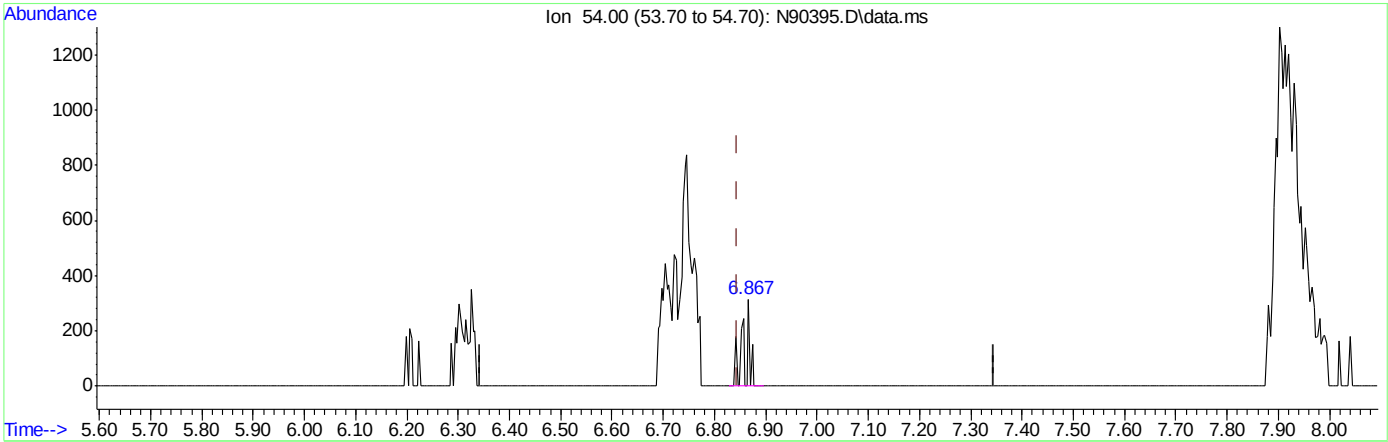
response 1464

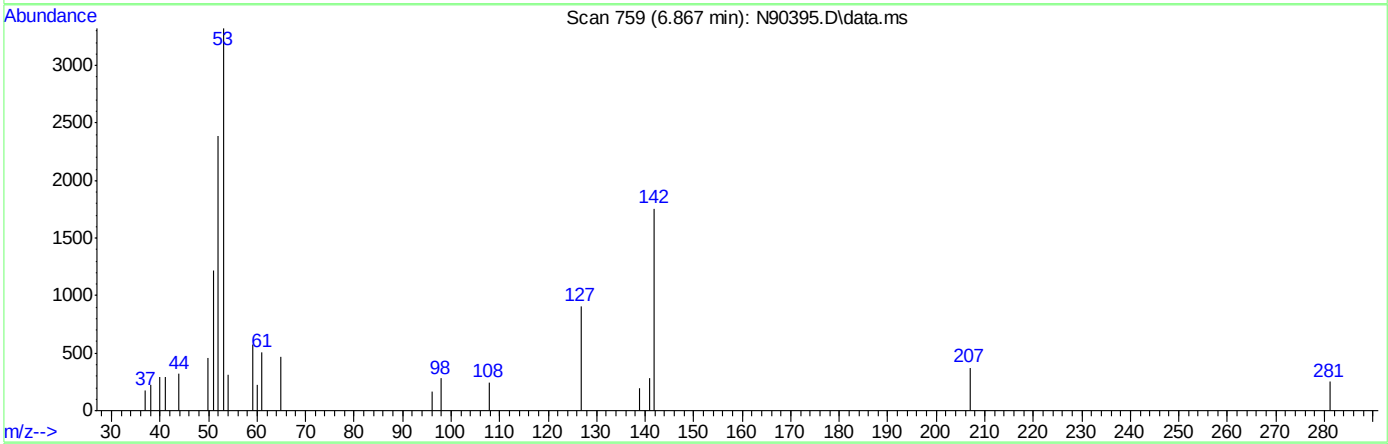
Ion	Exp%	Act%
54.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90395.D
Acq On : 18 Sep 2014 6:00 pm
Operator : krystend
Sample : IC3345-10
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 19 09:21:52 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:21:41 2014
Response via : Initial Calibration





TIC: N90395.D\data.ms

(25) propionitrile (p)

6.867min (+0.022) 9.28ug/L m

response 233

Ion	Exp%	Act%
54.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/19/14 12:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 11:45:04 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.701	65	120614	500.00	ug/L		0.00
4) pentafluorobenzene	9.115	168	269555	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	416772	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	236720	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	182873	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.772	113	68146	24.21	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 48.42%#				
60) toluene-d8 (s)	11.784	98	261827	25.56	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 51.12%#				
82) bromofluorobenzene (s)	14.464	95	106932	23.35	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 46.70%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.782	59	106832	251.98	ug/L	#	100
3) Ethanol	5.569	45	143564	2210.06	ug/L		99
5) dichlorodifluoromethane	4.392	85	108337	32.92	ug/L		99
6) chloromethane	4.654	50	117106	27.96	ug/L		97
7) vinyl chloride	4.894	62	86744m	22.05	ug/L		
8) bromomethane	5.392	96	29142	32.29	ug/L		91
9) chloroethane	5.566	64	50784	28.40	ug/L		98
10) ethyl ether	6.432	59	71425	25.20	ug/L		95
11) acetonitrile	6.428	41	13004	28.86	ug/L		95
12) trichlorofluoromethane	6.206	101	137908	26.89	ug/L		96
13) freon-113	6.966	101	66715	32.73	ug/L		95
14) acrolein	6.202	56	44259	126.88	ug/L		92
15) 1,1-dichloroethene	6.785	96	59783	23.22	ug/L		97
16) acetone	6.333	58	16952	25.92	ug/L	#	71
17) Methyl Acetate	6.966	43	69044	27.13	ug/L	#	94
18) methylene chloride	6.944	84	74505	24.50	ug/L		89
19) methyl tert butyl ether	7.705	73	200510	39.68	ug/L		96
20) acrylonitrile	6.849	53	34793	27.42	ug/L		90
21) allyl chloride	7.029	41	140420	27.86	ug/L		94
22) trans-1,2-dichloroethene	7.623	96	66641	23.46	ug/L		93
23) iodomethane	6.856	142	26748	29.08	ug/L		95
24) carbon disulfide	7.224	76	215554	29.51	ug/L		98
25) propionitrile	6.842	54	1003m	39.21	ug/L		
26) vinyl acetate	7.970	43	105054	30.71	ug/L		98
27) chloroprene	8.235	53	140800	30.18	ug/L		96
28) di-isopropyl ether	8.263	45	362119	25.66	ug/L		96
29) methacrylonitrile	8.401	41	51556	25.33	ug/L		97
30) 2-butanone	8.291	72	9414	30.37	ug/L	#	12
31) Hexane	8.249	41	143049	29.55	ug/L		87
32) 1,1-dichloroethane	7.878	63	167870	24.13	ug/L		94
33) tert-butyl ethyl ether	8.659	59	181704m	70.00	ug/L		
34) isobutyl alcohol	8.260	43	286914	135.67	ug/L		100
35) 2,2-dichloropropane	8.726	77	117204	52.25	ug/L		99
36) cis-1,2-dichloroethene	8.443	96	75927	23.58	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 11:45:04 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.260	43	283186	27.56	ug/L		98
38) bromochloromethane	8.613	128	34175	26.51	ug/L		92
39) chloroform	8.645	83	147660	23.15	ug/L		98
41) Tetrahydrofuran	8.977	42	24818	27.13	ug/L		98
42) 1,1,1-trichloroethane	9.394	97	134617	33.38	ug/L		97
44) Cyclohexane	9.670	56	166174	32.50	ug/L		96
45) carbon tetrachloride	9.759	117	113386	29.06	ug/L		98
46) 1,1-dichloropropene	9.568	75	103088	30.07	ug/L		98
47) benzene	9.794	78	289268	22.35	ug/L		100
48) 1,2-dichloroethane	9.299	62	138871	23.05	ug/L		97
49) tert-amyl methyl ether	9.903	73	98393	52.35	ug/L		96
50) heptane	10.257	43	98465	31.84	ug/L		90
51) trichloroethene	10.409	95	87170	22.60	ug/L		97
52) 1,2-dichloropropane	10.374	63	93646	26.90	ug/L		100
53) dibromomethane	10.356	93	47095	26.09	ug/L		98
54) bromodichloromethane	10.462	83	113562	24.84	ug/L		97
55) Methylcyclohexane	10.922	83	121705	32.60	ug/L		95
56) 2-chloroethyl vinyl ether	10.374	63	93646	27.51	ug/L	#	98
57) methyl methacrylate	10.554	69	43779	28.13	ug/L	#	77
58) 1,4-dioxane	10.554	88	3404	157.76	ug/L		82
59) cis-1,3-dichloropropene	11.081	75	118669	38.04	ug/L		100
61) 4-methyl-2-pentanone	11.173	43	93859	27.75	ug/L		95
62) toluene	11.859	92	186586	24.28	ug/L		94
63) trans-1,3-dichloropropene	11.498	75	100993	31.36	ug/L		97
64) 1,1,2-trichloroethane	11.671	83	57148	23.36	ug/L		99
65) ethyl methacrylate	11.869	69	86783	28.93	ug/L		88
67) tetrachloroethene	12.590	166	72359	22.21	ug/L		98
68) 1,3-dichloropropane	11.904	76	118265	25.92	ug/L		100
69) dibromochloromethane	12.198	129	77666	24.01	ug/L		96
70) 1,2-dibromoethane	12.449	107	65527	25.48	ug/L		93
71) 2-hexanone	12.025	43	78190	27.18	ug/L		95
72) chlorobenzene	13.276	112	199271	22.43	ug/L		96
73) 1,1,1,2-tetrachloroethane	13.191	131	74429	23.90	ug/L		95
74) ethylbenzene	13.446	91	377929	23.27	ug/L		99
75) m,p-xylene	13.633	106	262473	44.16	ug/L		97
76) o-xylene	14.047	106	128847	21.85	ug/L		98
77) styrene	13.973	104	207891	27.07	ug/L		99
78) bromoform	13.799	173	45255	24.13	ug/L		97
79) trans-1,4-dichloro-2-b...	14.195	53	20420	33.29	ug/L	#	83
81) isopropylbenzene	14.404	105	346975	27.50	ug/L		99
83) bromobenzene	14.697	156	78466	25.87	ug/L		94
84) 1,1,2,2-tetrachloroethane	14.047	83	80326	20.47	ug/L		93
85) 1,2,3-trichloropropane	14.195	75	85102	27.17	ug/L		99
86) n-propylbenzene	14.846	91	448308	27.74	ug/L		99
87) 2-chlorotoluene	14.973	91	274255	26.12	ug/L		100
88) 4-chlorotoluene	15.047	91	289963	26.28	ug/L		98
89) 1,3,5-trimethylbenzene	15.125	105	317710	23.07	ug/L		98
90) tert-butylbenzene	15.429	91	205705	27.82	ug/L		99
91) 1,2,4-trimethylbenzene	15.535	105	312329	22.83	ug/L		99
92) sec-butylbenzene	15.648	105	397173	28.11	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 11:45:04 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration

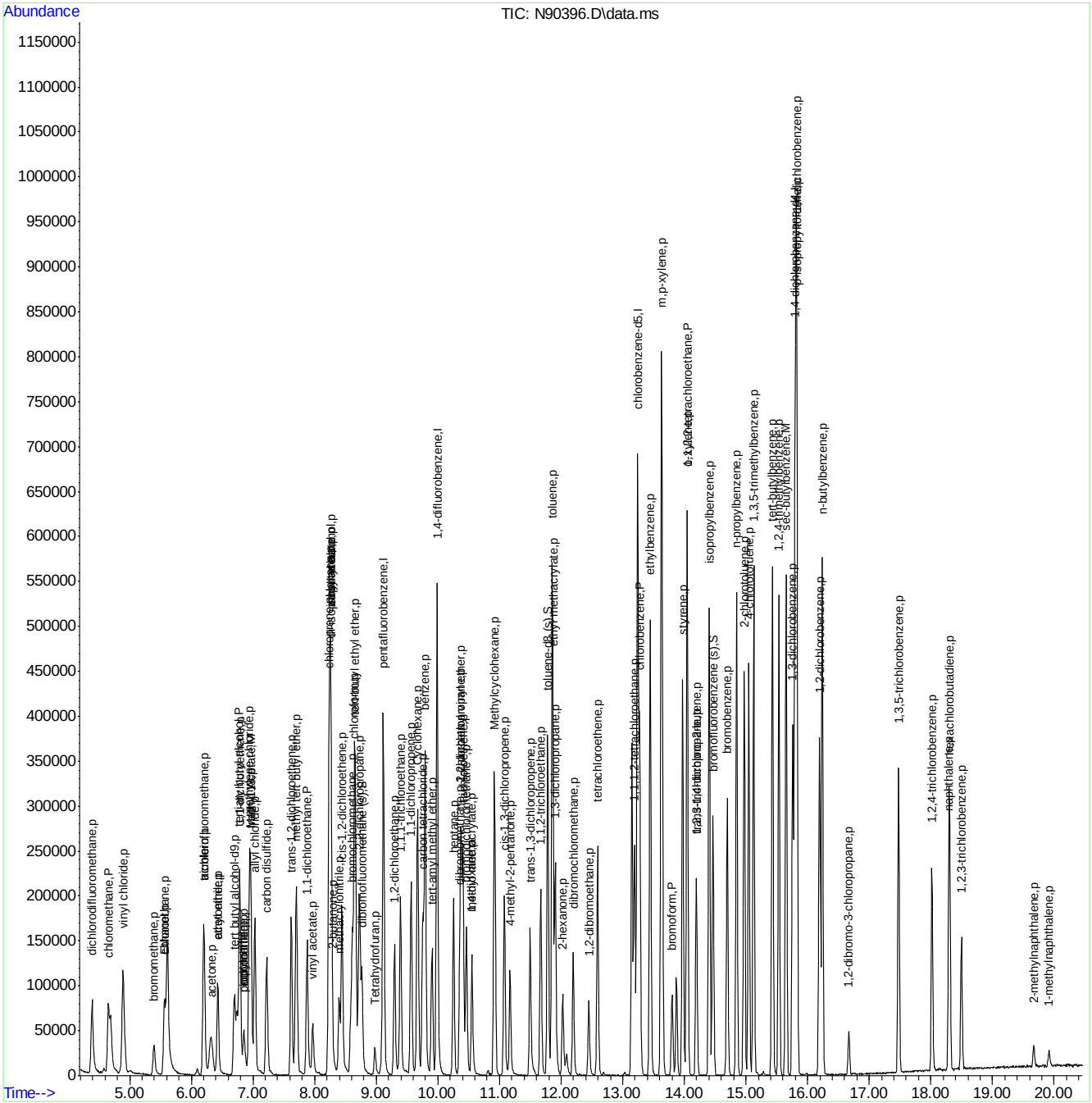
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	1,3-dichlorobenzene	15.758	146	152517	21.14	ug/L		97
94)	p-isopropyltoluene	15.822	119	327476	27.47	ug/L		99
95)	1,4-dichlorobenzene	15.825	146	149300	20.52	ug/L		97
96)	1,2-dichlorobenzene	16.193	146	150865	22.53	ug/L		98
97)	n-butylbenzene	16.239	91	339391	28.57	ug/L		99
98)	1,2-dibromo-3-chloropr...	16.667	75	14448	29.95	ug/L		92
99)	1,2,4-trichlorobenzene	18.017	180	70970	32.41	ug/L		99
100)	1,3,5-trichlorobenzene	17.476	180	105304	26.79	ug/L		98
101)	hexachlorobutadiene	18.303	225	54373	27.80	ug/L		96
102)	naphthalene	18.289	128	81792	38.69	ug/L		100
103)	1,2,3-trichlorobenzene	18.498	180	48696	35.26	ug/L		93
104)	2-methylnaphthalene	19.672	142	13906	13.97	ug/L	#	100
105)	1-methylnaphthalene	19.919	142	9742	12.25	ug/L		94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

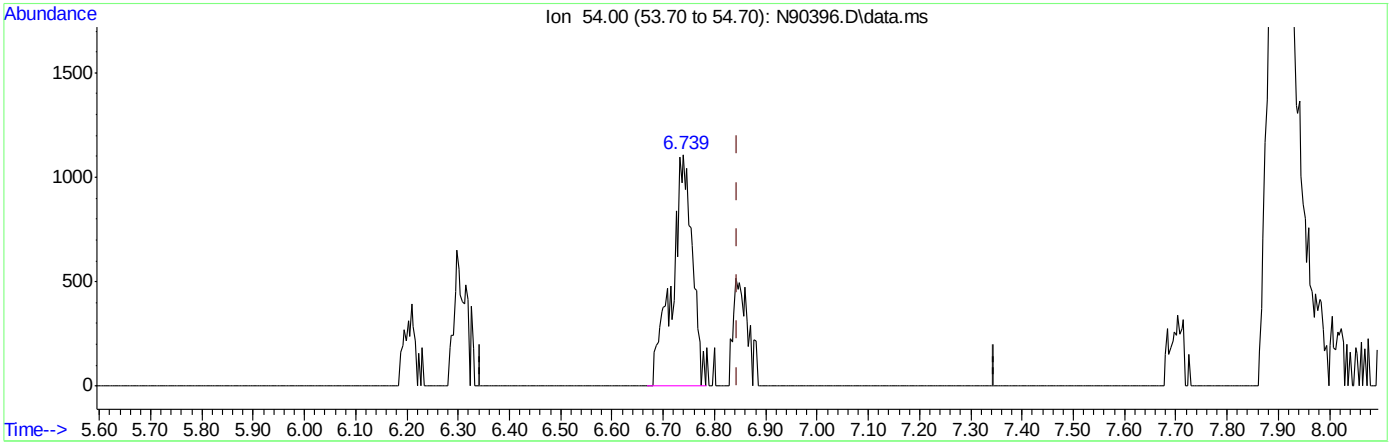
Quant Time: Sep 19 11:45:04 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration

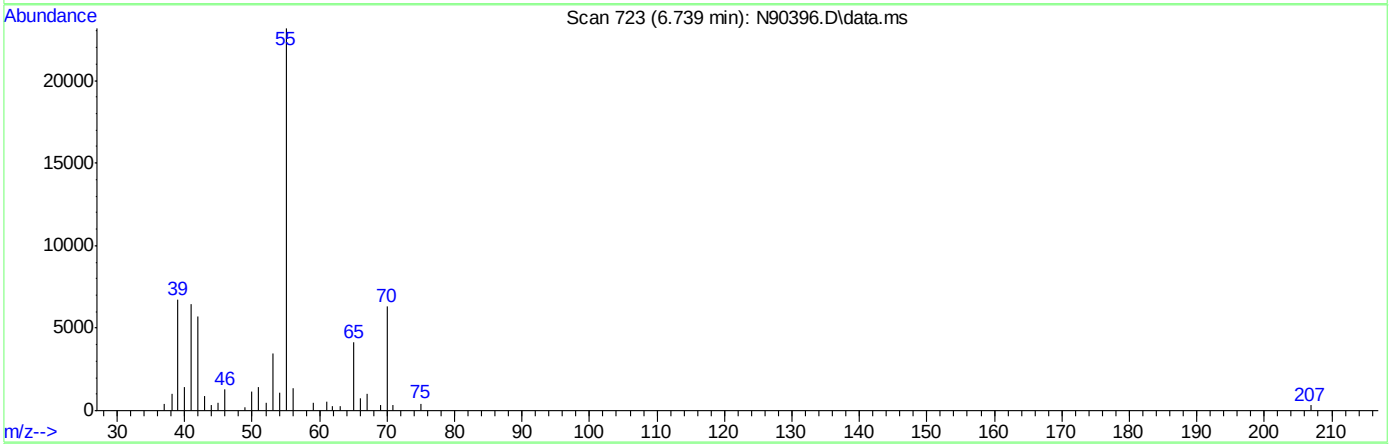


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 09:23:10 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration





TIC: N90396.D\data.ms

(25) propionitrile (p)

6.739min (-0.106) 118.92ug/L

response 3042

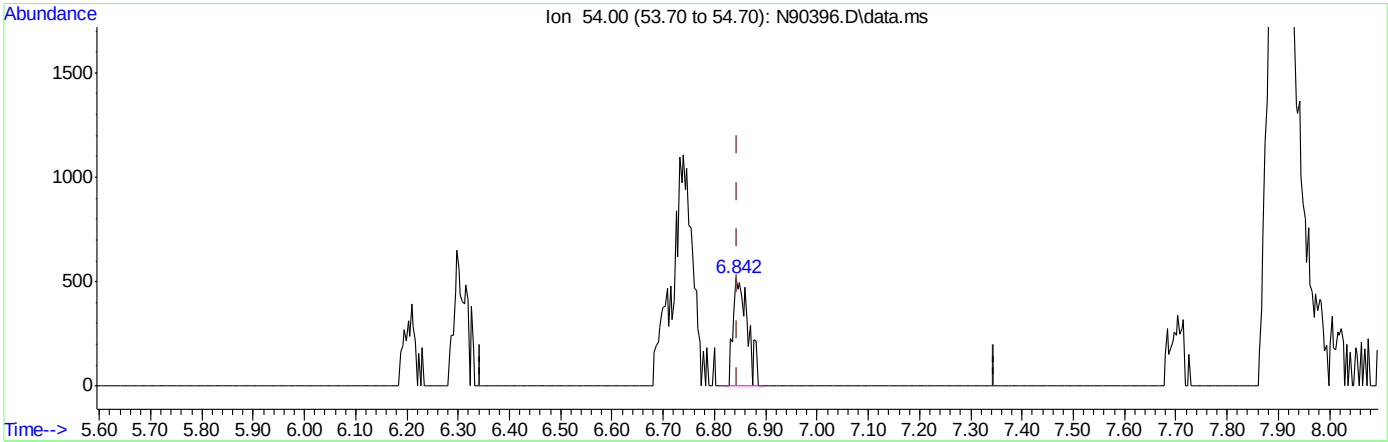
Ion	Exp%	Act%
54.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

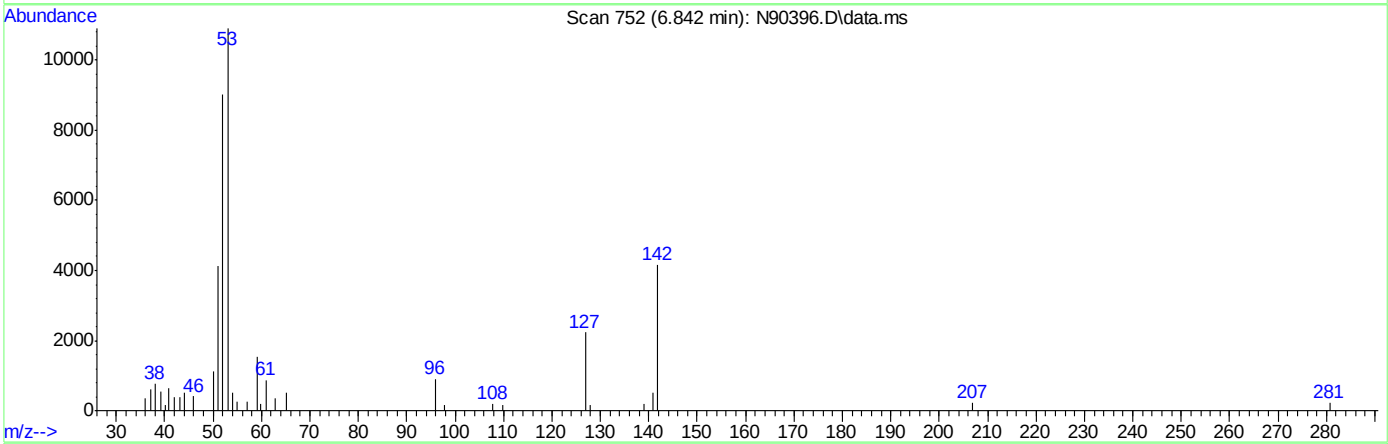
ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 09:23:10 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration





TIC: N90396.D\data.ms

(25) propionitrile (p)

6.842min (-0.003) 39.21ug/L m

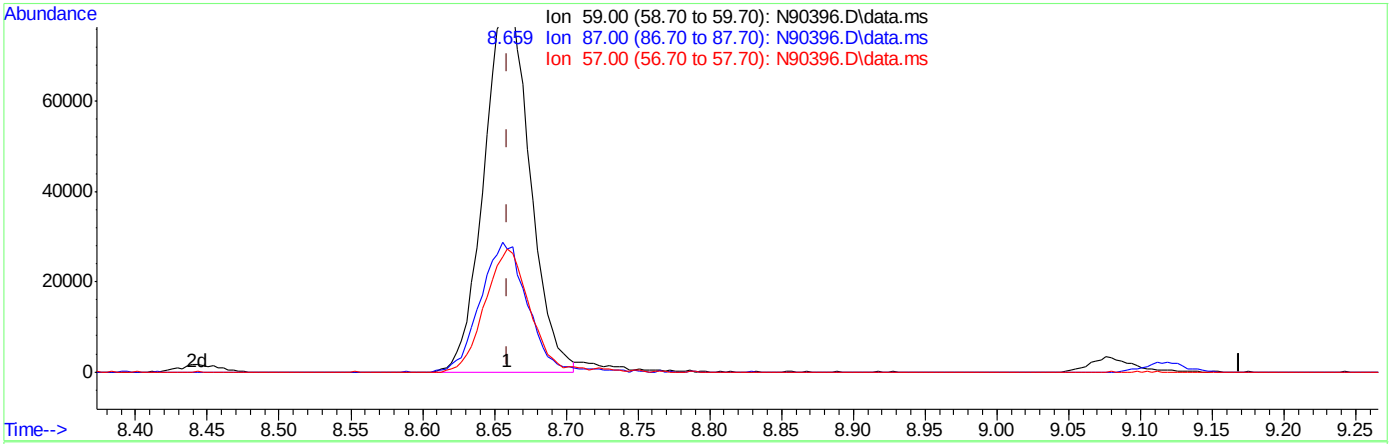
response 1003

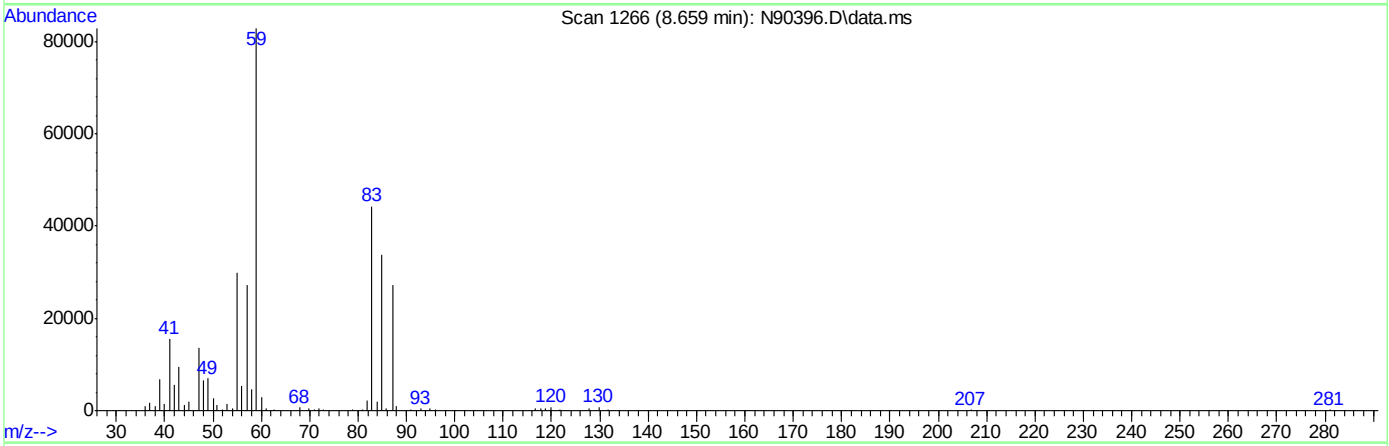
Ion	Exp%	Act%
54.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90396.D
Acq On : 18 Sep 2014 6:30 pm
Operator : krystend
Sample : IC3345-25
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 19 09:54:37 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:22:58 2014
Response via : Initial Calibration





TIC: N90396.D\data.ms

(33) tert-butyl ethyl ether (p)

8.659min (+0.000) 70.00ug/L m

response 181704

Ion	Exp%	Act%
59.00	100	100
87.00	36.60	32.97
57.00	28.30	32.73
0.00	0.00	0.00

N90397.D

Manual Integrations APPROVED (compounds with "m" flag)

Tomasz Torski 09/19/14 12:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90397.D
Acq On : 18 Sep 2014 6:59 pm
Operator : krystend
Sample : ICC3345-50
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 19 09:35:43 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:29:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.693	65	106714	500.00	ug/L		0.00
4) pentafluorobenzene	9.115	168	281457	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	439257	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	245477	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	192160	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.765	113	149849	51.89	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.78%				
60) toluene-d8 (s)	11.784	98	569513	54.06	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 108.12%				
82) bromofluorobenzene (s)	14.460	95	239740	51.17	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 102.34%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.778	59	178874	476.77	ug/L	#	100
3) Ethanol	5.562	45	256631	4696.59	ug/L		100
5) dichlorodifluoromethane	4.392	85	206560	55.73	ug/L		98
6) chloromethane	4.650	50	211740	46.61	ug/L		98
7) vinyl chloride	4.890	62	159184	44.39	ug/L		100
8) bromomethane	5.389	96	65724	51.61	ug/L		97
9) chloroethane	5.566	64	88569	48.70	ug/L		99
10) ethyl ether	6.432	59	140520	51.00	ug/L		93
11) acetonitrile	6.432	41	23300	53.28	ug/L		97
12) trichlorofluoromethane	6.205	101	263802	49.79	ug/L		99
13) freon-113	6.962	101	131158	55.71	ug/L		95
14) acrolein	6.202	56	87100	271.20	ug/L		98
15) 1,1-dichloroethene	6.785	96	112259	44.93	ug/L		91
16) acetone	6.336	58	27850	47.66	ug/L		90
17) Methyl Acetate	6.958	43	120617	51.27	ug/L		95
18) methylene chloride	6.941	84	132628	45.35	ug/L		88
19) methyl tert butyl ether	7.704	73	355716	57.25	ug/L		94
20) acrylonitrile	6.845	53	63219	51.82	ug/L		93
21) allyl chloride	7.029	41	265155	50.75	ug/L		92
22) trans-1,2-dichloroethene	7.620	96	131390	46.50	ug/L		94
23) iodomethane	6.859	142	73206m	46.09	ug/L		
24) carbon disulfide	7.220	76	409043	50.28	ug/L		99
25) propionitrile	6.845	54	2222	64.56	ug/L		100
26) vinyl acetate	7.970	43	207683	52.52	ug/L		99
27) chloroprene	8.235	53	275545	54.33	ug/L		92
28) di-isopropyl ether	8.263	45	676008	50.12	ug/L		98
29) methacrylonitrile	8.397	41	97653	49.10	ug/L		92
30) 2-butanone	8.288	72	17611	55.50	ug/L	#	34
31) Hexane	8.249	41	269705	54.36	ug/L		93
32) 1,1-dichloroethane	7.874	63	317674	45.86	ug/L		98
33) tert-butyl ethyl ether	8.659	59	325210	61.83	ug/L		94
34) isobutyl alcohol	8.259	43	538584	263.43	ug/L		99
35) 2,2-dichloropropane	8.730	77	232879	62.14	ug/L		98
36) cis-1,2-dichloroethene	8.443	96	147082	45.71	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90397.D
Acq On : 18 Sep 2014 6:59 pm
Operator : krystend
Sample : ICC3345-50
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 19 09:35:43 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:29:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.259	43	538334	53.46	ug/L		97
38) bromochloromethane	8.613	128	66289	50.33	ug/L		94
39) chloroform	8.645	83	282850	45.70	ug/L		100
41) Tetrahydrofuran	8.977	42	46189	51.89	ug/L		93
42) 1,1,1-trichloroethane	9.394	97	270114	56.93	ug/L		98
44) Cyclohexane	9.674	56	335346	56.26	ug/L		98
45) carbon tetrachloride	9.755	117	226988	52.83	ug/L		98
46) 1,1-dichloropropene	9.568	75	207260	53.70	ug/L		100
47) benzene	9.794	78	551800	43.82	ug/L		97
48) 1,2-dichloroethane	9.299	62	270470	45.88	ug/L		100
49) tert-amyl methyl ether	9.903	73	182725	57.37	ug/L		97
50) heptane	10.257	43	196771	54.62	ug/L		93
51) trichloroethene	10.409	95	169855	45.17	ug/L		95
52) 1,2-dichloropropane	10.377	63	181006	50.47	ug/L		100
53) dibromomethane	10.356	93	88125	48.16	ug/L		98
54) bromodichloromethane	10.462	83	223382	47.37	ug/L		98
55) Methylcyclohexane	10.922	83	248696	56.31	ug/L		96
56) 2-chloroethyl vinyl ether	10.377	63	181006	51.14	ug/L	#	99
57) methyl methacrylate	10.550	69	86698	52.87	ug/L		80
58) 1,4-dioxane	10.557	88	6949	303.99	ug/L	#	75
59) cis-1,3-dichloropropene	11.077	75	233756	60.14	ug/L		99
61) 4-methyl-2-pentanone	11.169	43	177530	52.90	ug/L		94
62) toluene	11.855	92	356132	47.09	ug/L		99
63) trans-1,3-dichloropropene	11.498	75	196378	53.62	ug/L		97
64) 1,1,2-trichloroethane	11.671	83	110046	46.53	ug/L		99
65) ethyl methacrylate	11.865	69	167344	53.64	ug/L		94
67) tetrachloroethene	12.594	166	144901	45.33	ug/L		96
68) 1,3-dichloropropane	11.904	76	230986	49.93	ug/L		97
69) dibromochloromethane	12.194	129	158011	47.79	ug/L		99
70) 1,2-dibromoethane	12.449	107	124011	47.86	ug/L		98
71) 2-hexanone	12.021	43	151222	53.34	ug/L		94
72) chlorobenzene	13.276	112	378269	44.19	ug/L		99
73) 1,1,1,2-tetrachloroethane	13.191	131	145634	46.73	ug/L		97
74) ethylbenzene	13.446	91	734987	46.06	ug/L		100
75) m,p-xylene	13.633	106	490378	86.48	ug/L		98
76) o-xylene	14.047	106	249121	43.96	ug/L		98
77) styrene	13.972	104	409033	49.76	ug/L		99
78) bromoform	13.799	173	91775	47.71	ug/L		93
79) trans-1,4-dichloro-2-b...	14.192	53	41766	54.05	ug/L		99
81) isopropylbenzene	14.404	105	691045	50.73	ug/L		99
83) bromobenzene	14.697	156	155170	48.14	ug/L		98
84) 1,1,2,2-tetrachloroethane	14.047	83	150552	42.35	ug/L		93
85) 1,2,3-trichloropropane	14.192	75	167959	50.97	ug/L		97
86) n-propylbenzene	14.849	91	874622	50.15	ug/L		100
87) 2-chlorotoluene	14.969	91	537322	48.45	ug/L		98
88) 4-chlorotoluene	15.044	91	569106	48.57	ug/L		99
89) 1,3,5-trimethylbenzene	15.125	105	627680	45.90	ug/L		98
90) tert-butylbenzene	15.429	91	413466	51.50	ug/L		98
91) 1,2,4-trimethylbenzene	15.535	105	625962	46.18	ug/L		99
92) sec-butylbenzene	15.652	105	792099	51.69	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90397.D
Acq On : 18 Sep 2014 6:59 pm
Operator : krystend
Sample : ICC3345-50
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 19 09:35:43 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:29:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	306812	43.81	ug/L		98
94) p-isopropyltoluene	15.821	119	650478	51.95	ug/L		100
95) 1,4-dichlorobenzene	15.825	146	292741	43.07	ug/L		97
96) 1,2-dichlorobenzene	16.193	146	304149	46.37	ug/L		98
97) n-butylbenzene	16.235	91	683495	52.62	ug/L		98
98) 1,2-dibromo-3-chloropr...	16.666	75	27754	53.45	ug/L		91
99) 1,2,4-trichlorobenzene	18.017	180	149343	57.58	ug/L		99
100) 1,3,5-trichlorobenzene	17.476	180	210588	52.43	ug/L		99
101) hexachlorobutadiene	18.307	225	107474	52.85	ug/L		99
102) naphthalene	18.289	128	196686	63.37	ug/L		100
103) 1,2,3-trichlorobenzene	18.494	180	106358	61.02	ug/L		90
104) 2-methylnaphthalene	19.668	142	28564	26.97	ug/L	#	100
105) 1-methylnaphthalene	19.915	142	21661	27.37	ug/L		99

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

7.6.7

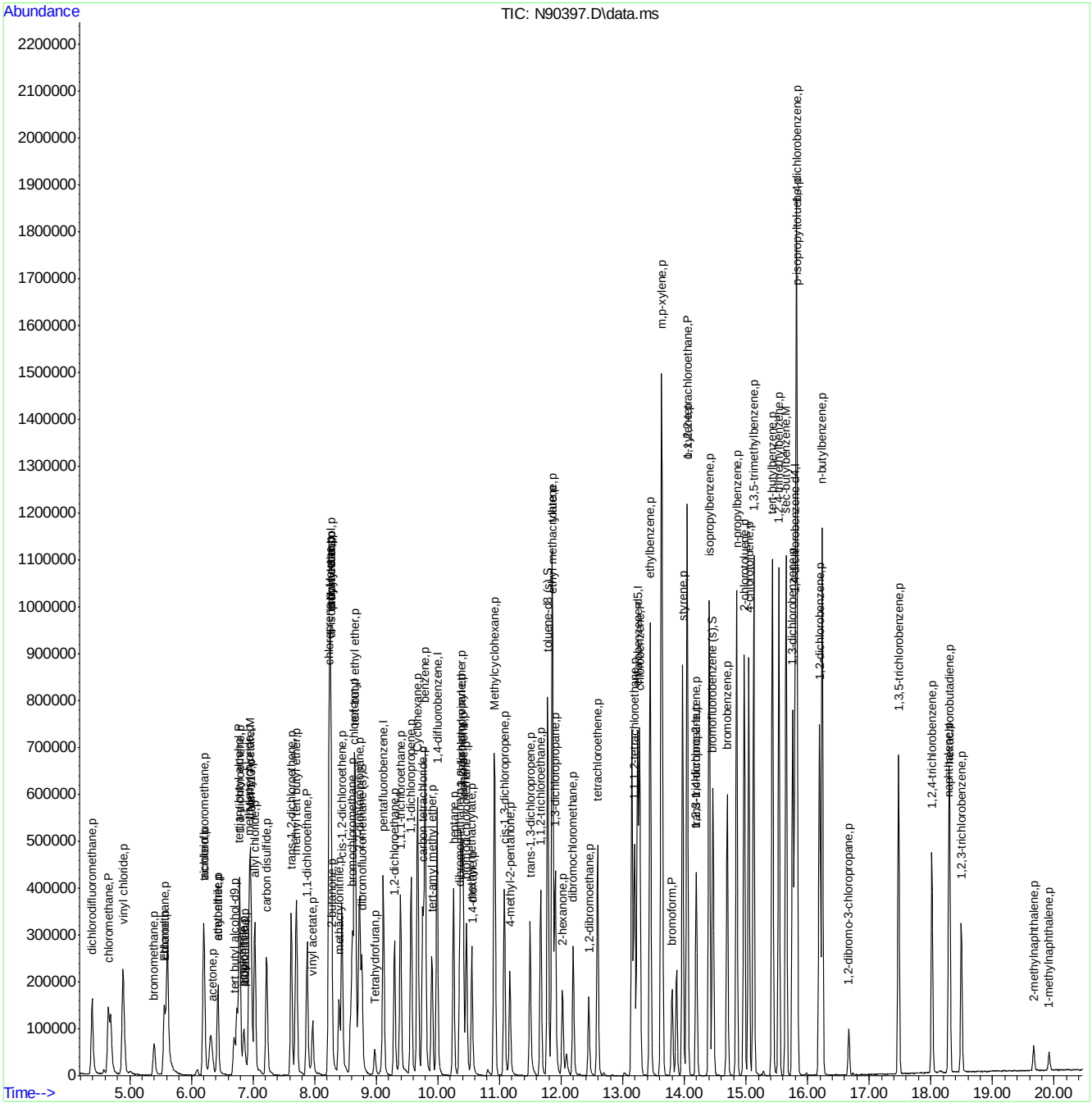
7

ACCUTEST LABORATORIES MC33908

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90397.D
Acq On : 18 Sep 2014 6:59 pm
Operator : krystend
Sample : ICC3345-50
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 27 Sample Multiplier: 1

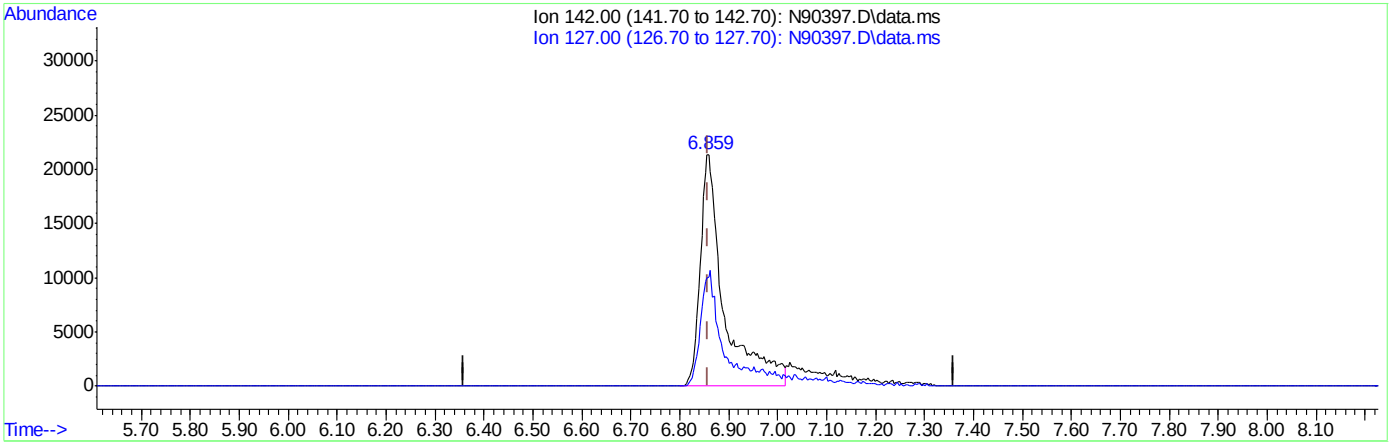
Quant Time: Sep 19 09:35:43 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:29:04 2014
Response via : Initial Calibration

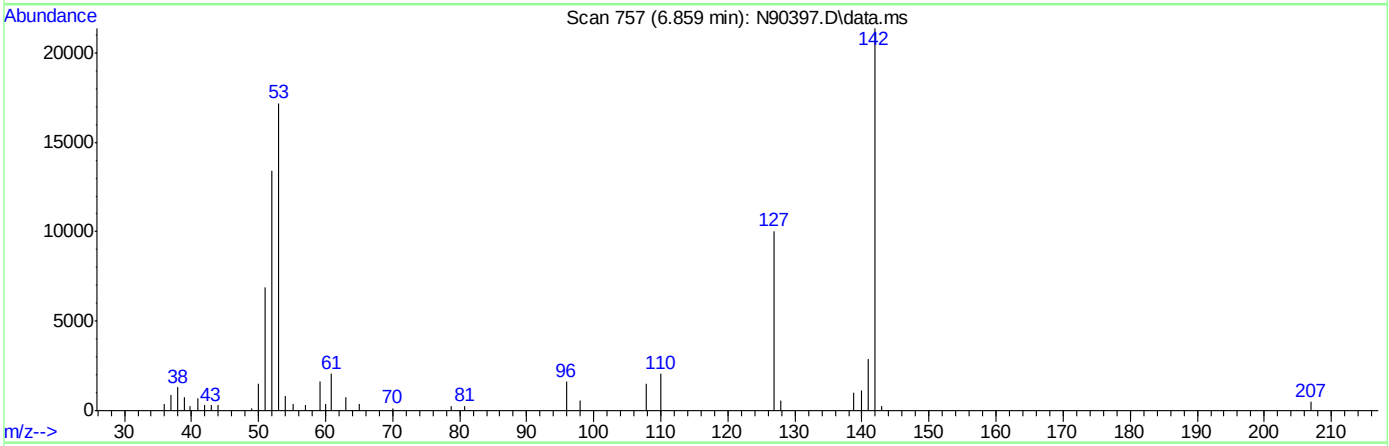


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90397.D
Acq On : 18 Sep 2014 6:59 pm
Operator : krystend
Sample : ICC3345-50
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 19 09:29:16 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:29:04 2014
Response via : Initial Calibration





TIC: N90397.D\data.ms

(23) iodomethane (p)

6.859min (+0.000) 46.09ug/L m

response 73206

Ion	Exp%	Act%
142.00	100	100
127.00	47.30	47.07
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/19/14 12:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:36:06 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.690	65	86941	500.00	ug/L		0.00
4) pentafluorobenzene	9.111	168	321164	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	503335	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	272919	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.793	152	222509	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.765	113	340784	102.44	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 204.88%#				
60) toluene-d8 (s)	11.781	98	1260602	101.33	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 202.66%#				
82) bromofluorobenzene (s)	14.464	95	550022	100.37	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 200.74%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.775	59	321546	1050.49	ug/L	#	100
3) Ethanol	5.555	45	466743	10204.72	ug/L		99
5) dichlorodifluoromethane	4.388	85	484826	116.27	ug/L		95
6) chloromethane	4.650	50	546668	107.01	ug/L		94
7) vinyl chloride	4.890	62	369002	80.03	ug/L		98
8) bromomethane	5.396	96	192798	169.42	ug/L		99
9) chloroethane	5.562	64	202535	92.55	ug/L		99
10) ethyl ether	6.428	59	298590	88.23	ug/L		93
11) acetonitrile	6.428	41	45145	80.97	ug/L		98
12) trichlorofluoromethane	6.198	101	612431	98.98	ug/L		98
13) freon-113	6.962	101	289946	110.83	ug/L		99
14) acrolein	6.195	56	161817	387.88	ug/L		99
15) 1,1-dichloroethene	6.785	96	261306	86.21	ug/L		89
16) acetone	6.329	58	54794	69.67	ug/L	#	80
17) Methyl Acetate	6.955	43	243399	78.60	ug/L		96
18) methylene chloride	6.937	84	301121	83.45	ug/L		96
19) methyl tert butyl ether	7.701	73	816114	123.48	ug/L		97
20) acrylonitrile	6.842	53	128825	83.19	ug/L		97
21) allyl chloride	7.029	41	611548	99.00	ug/L		96
22) trans-1,2-dichloroethene	7.620	96	304835	91.00	ug/L		95
23) iodomethane	6.859	142	221764m	194.44	ug/L		
24) carbon disulfide	7.220	76	967448	106.36	ug/L		99
25) propionitrile	6.838	54	4877	140.10	ug/L		100
26) vinyl acetate	7.966	43	497804	115.54	ug/L		97
27) chloroprene	8.231	53	624373	106.79	ug/L		92
28) di-isopropyl ether	8.259	45	1480791	87.60	ug/L		97
29) methacrylonitrile	8.390	41	217812	89.52	ug/L		93
30) 2-butanone	8.274	72	36852	94.69	ug/L	#	37
31) Hexane	8.245	41	588275	97.56	ug/L		97
32) 1,1-dichloroethane	7.874	63	746004	90.54	ug/L		97
33) tert-butyl ethyl ether	8.655	59	816527	192.21	ug/L		95
34) isobutyl alcohol	8.256	43	1152942	448.00	ug/L		96
35) 2,2-dichloropropane	8.730	77	561197	165.01	ug/L		99
36) cis-1,2-dichloroethene	8.443	96	350075	92.12	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:36:06 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.256	43	1152942	91.82	ug/L		94
38) bromochloromethane	8.609	128	156904	100.64	ug/L		90
39) chloroform	8.645	83	659697	87.90	ug/L		98
41) Tetrahydrofuran	8.974	42	98393	88.40	ug/L		93
42) 1,1,1-trichloroethane	9.391	97	642494	126.64	ug/L		98
44) Cyclohexane	9.674	56	783611	118.04	ug/L		97
45) carbon tetrachloride	9.755	117	548283	113.27	ug/L		100
46) 1,1-dichloropropene	9.564	75	486561	111.85	ug/L		98
47) benzene	9.790	78	1323933	86.02	ug/L		98
48) 1,2-dichloroethane	9.295	62	643920	89.67	ug/L		99
49) tert-amyl methyl ether	9.903	73	421873	152.49	ug/L		95
50) heptane	10.253	43	467240	117.09	ug/L		93
51) trichloroethene	10.405	95	397347	86.49	ug/L		95
52) 1,2-dichloropropane	10.377	63	430101	100.76	ug/L		100
53) dibromomethane	10.352	93	208342	94.74	ug/L		97
54) bromodichloromethane	10.462	83	555698	100.74	ug/L		97
55) Methylcyclohexane	10.922	83	577325	118.99	ug/L		99
56) 2-chloroethyl vinyl ether	10.377	63	430101	102.05	ug/L	#	99
57) methyl methacrylate	10.547	69	196817	101.53	ug/L		82
58) 1,4-dioxane	10.561	88	13407	482.86	ug/L		91
59) cis-1,3-dichloropropene	11.077	75	571283	141.10	ug/L		99
61) 4-methyl-2-pentanone	11.165	43	375940	89.58	ug/L		95
62) toluene	11.855	92	837499	90.68	ug/L		97
63) trans-1,3-dichloropropene	11.494	75	480193	119.13	ug/L		98
64) 1,1,2-trichloroethane	11.667	83	252218	86.32	ug/L		98
65) ethyl methacrylate	11.865	69	380759	101.13	ug/L		92
67) tetrachloroethene	12.594	166	347962	94.15	ug/L		99
68) 1,3-dichloropropane	11.904	76	538093	101.37	ug/L		100
69) dibromochloromethane	12.194	129	384775	103.74	ug/L		96
70) 1,2-dibromoethane	12.449	107	296302	99.56	ug/L		99
71) 2-hexanone	12.021	43	319069	94.15	ug/L		95
72) chlorobenzene	13.273	112	902383	89.65	ug/L		99
73) 1,1,1,2-tetrachloroethane	13.191	131	347623	97.55	ug/L		97
74) ethylbenzene	13.446	91	1757690	94.96	ug/L		99
75) m,p-xylene	13.630	106	1168212	173.36	ug/L		99
76) o-xylene	14.043	106	595192	89.16	ug/L		99
77) styrene	13.969	104	988231	109.36	ug/L		96
78) bromoform	13.799	173	224773	104.55	ug/L		97
79) trans-1,4-dichloro-2-b...	14.188	53	99706	130.20	ug/L	#	81
81) isopropylbenzene	14.400	105	1637531	104.06	ug/L		100
83) bromobenzene	14.694	156	382890	102.86	ug/L		98
84) 1,1,2,2-tetrachloroethane	14.047	83	321843	69.20	ug/L		98
85) 1,2,3-trichloropropane	14.192	75	386362	99.24	ug/L		98
86) n-propylbenzene	14.846	91	2093154	103.62	ug/L		100
87) 2-chlorotoluene	14.969	91	1301367	100.74	ug/L		98
88) 4-chlorotoluene	15.044	91	1386623	101.98	ug/L		99
89) 1,3,5-trimethylbenzene	15.121	105	1510453	91.32	ug/L		100
90) tert-butylbenzene	15.429	91	980280	105.97	ug/L		99
91) 1,2,4-trimethylbenzene	15.535	105	1493723	91.05	ug/L		97
92) sec-butylbenzene	15.648	105	1876508	105.85	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:36:06 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	1,3-dichlorobenzene	15.758	146	746124	87.23	ug/L		98
94)	p-isopropyltoluene	15.818	119	1528773	102.85	ug/L		99
95)	1,4-dichlorobenzene	15.825	146	688495	80.15	ug/L		99
96)	1,2-dichlorobenzene	16.193	146	712980	88.97	ug/L		98
97)	n-butylbenzene	16.235	91	1615624	107.93	ug/L		99
98)	1,2-dibromo-3-chloropr...	16.666	75	60415	98.06	ug/L		97
99)	1,2,4-trichlorobenzene	18.017	180	333607	116.57	ug/L		97
100)	1,3,5-trichlorobenzene	17.476	180	472545	97.08	ug/L		99
101)	hexachlorobutadiene	18.300	225	234892	96.02	ug/L		97
102)	naphthalene	18.289	128	442762	151.42	ug/L		100
103)	1,2,3-trichlorobenzene	18.494	180	228474	123.32	ug/L		98
104)	2-methylnaphthalene	19.668	142	62659	50.25	ug/L	#	100
105)	1-methylnaphthalene	19.915	142	45593	47.35	ug/L		99

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

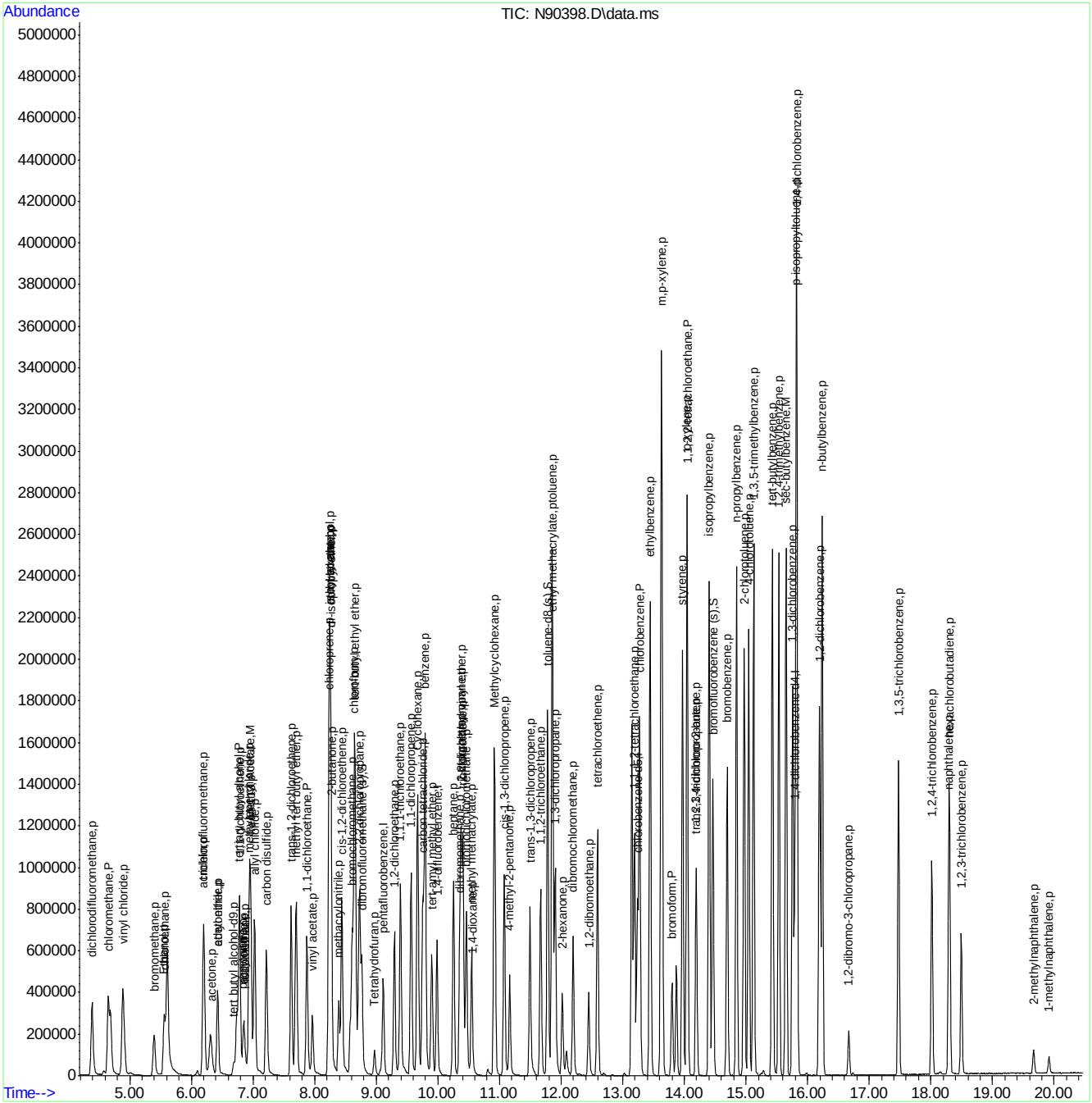
7.6.8

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:36:06 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration

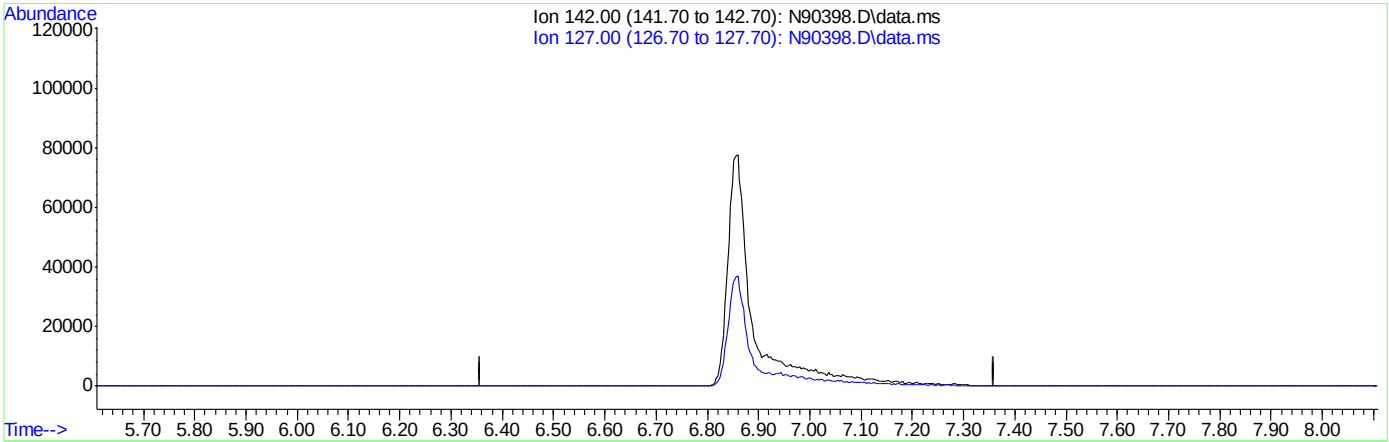


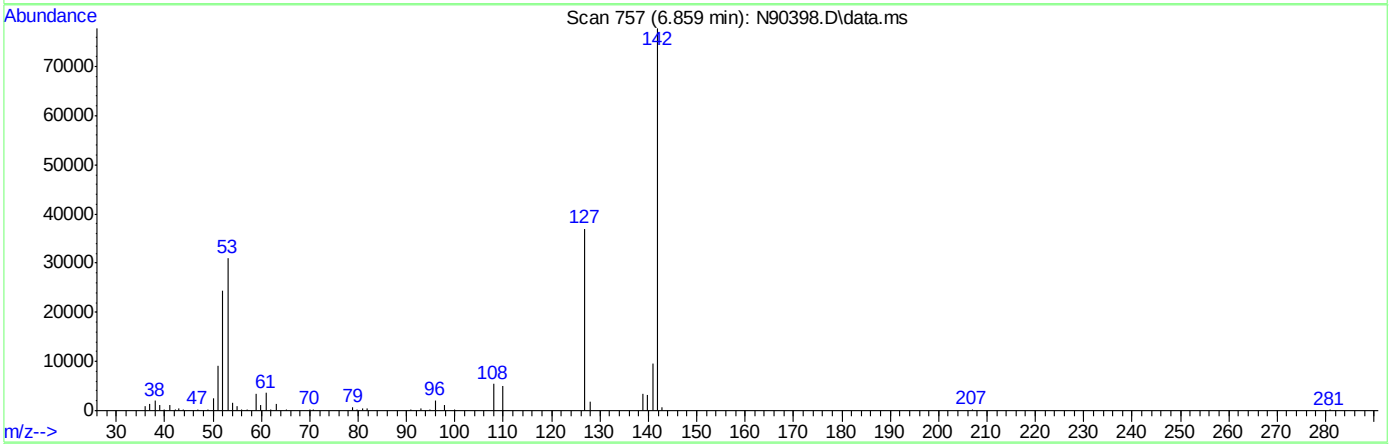
n140918w.m Fri Sep 19 12:06:55 2014 Page: 4

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:24:29 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration





TIC: N90398.D\data.ms

(23) iodomethane (p)

6.859min (-6.859) 0.00ug/L

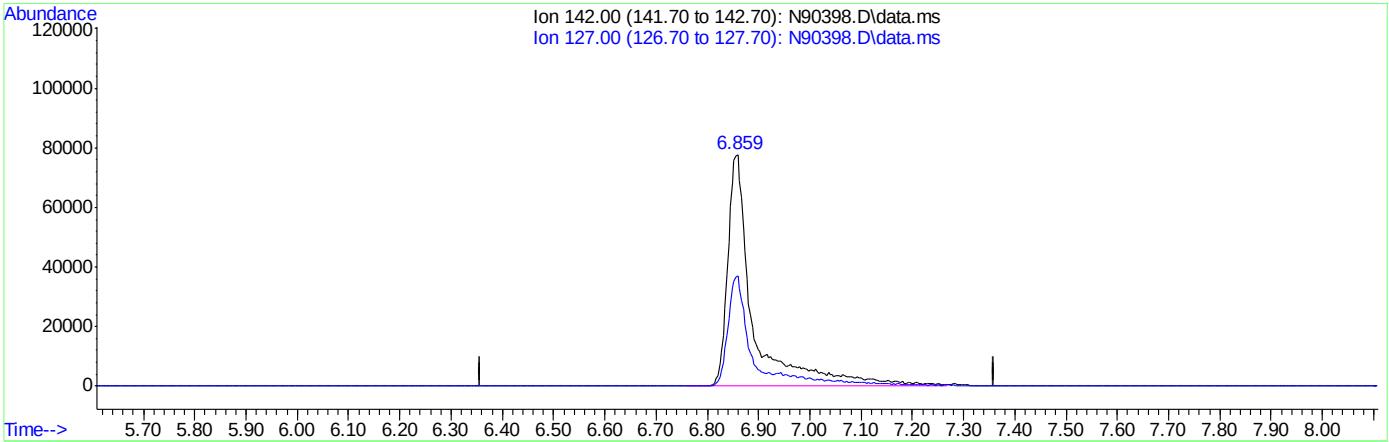
response 0

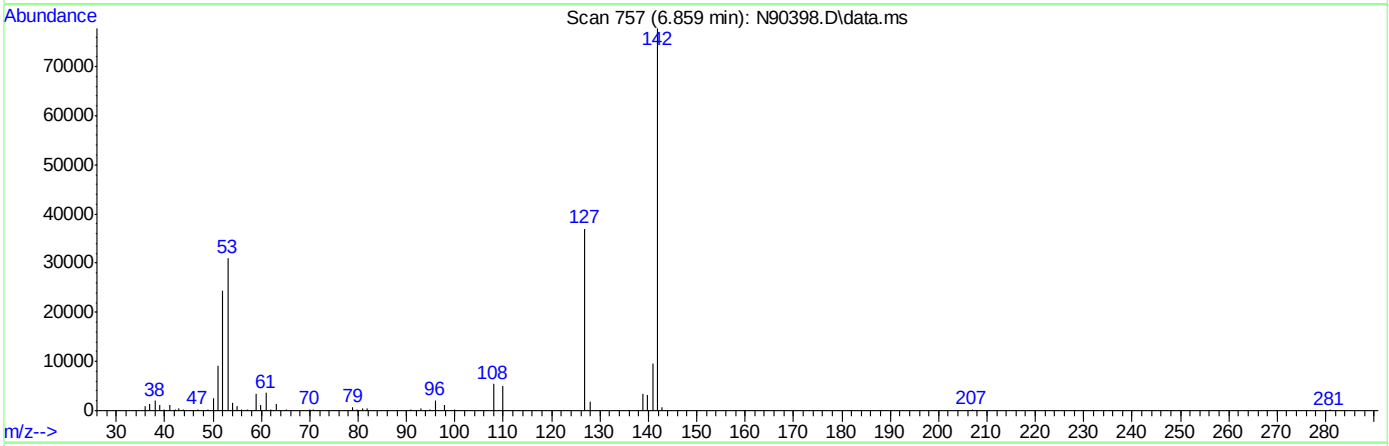
Ion	Exp%	Act%
142.00	100	0.00
127.00	47.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:24:29 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration





TIC: N90398.D\data.ms

(23) iodomethane (p)

6.859min (+0.000) 239.50ug/L m

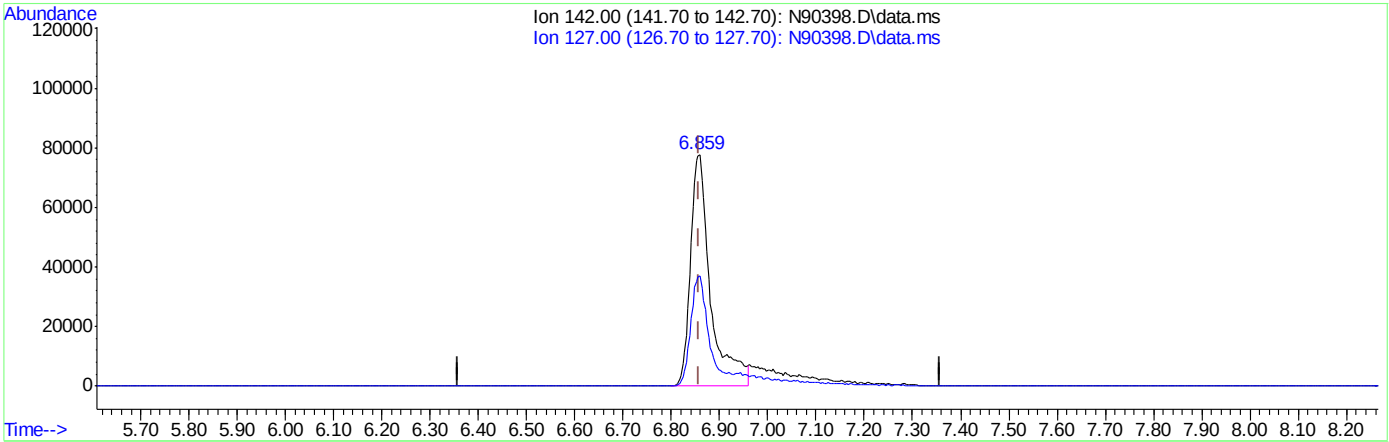
response 273157

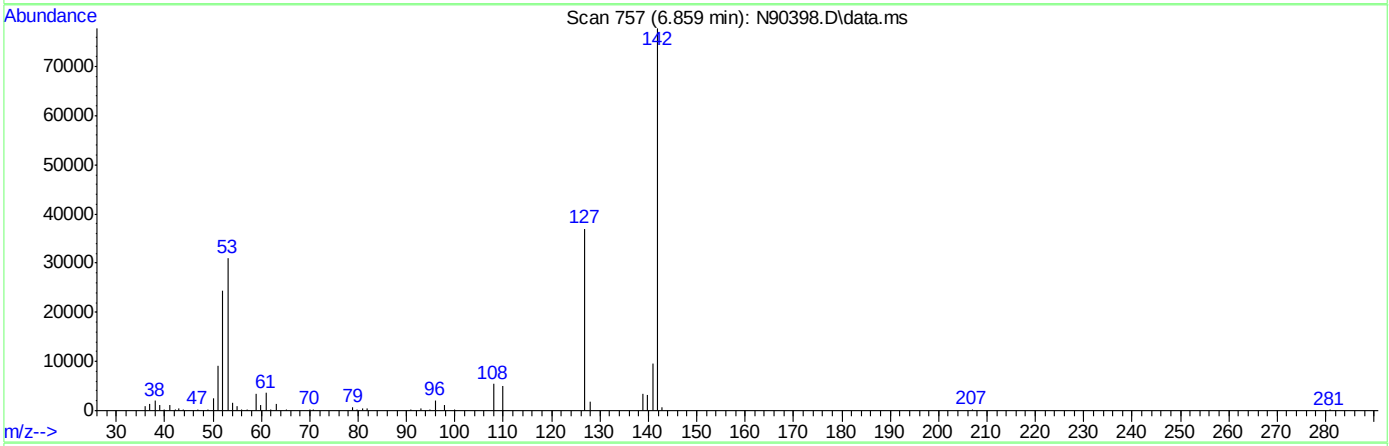
Ion	Exp%	Act%
142.00	100	100
127.00	47.30	47.53
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90398.D
Acq On : 18 Sep 2014 7:27 pm
Operator : krystend
Sample : IC3345-100
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 19 09:24:47 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:24:14 2014
Response via : Initial Calibration





TIC: N90398.D\data.ms

(23) iodomethane (p)

6.859min (+0.000) 194.44ug/L m

response 221764

Ion	Exp%	Act%
142.00	100	100
127.00	47.30	47.53
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33908

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/19/14 12:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:36:28 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.683	65	84015	500.00	ug/L		-0.01
4) pentafluorobenzene	9.115	168	355487	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.985	114	578959	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	310360	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	241599	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.768	113	743597	200.96	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 401.92%#				
60) toluene-d8 (s)	11.781	98	2673529	186.34	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 372.68%#				
82) bromofluorobenzene (s)	14.460	95	1164646	195.59	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 391.18%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.771	59	602715	2020.64	ug/L	#	100
3) Ethanol	5.558	45	846290m	19082.31	ug/L		
5) dichlorodifluoromethane	4.388	85	970284	204.68	ug/L		96
6) chloromethane	4.650	50	1272600	222.46	ug/L		96
7) vinyl chloride	4.887	62	709805	143.16	ug/L		99
8) bromomethane	5.396	96	455659	324.24	ug/L		96
9) chloroethane	5.562	64	426436	178.27	ug/L		98
10) ethyl ether	6.428	59	639251	174.77	ug/L		94
11) acetonitrile	6.428	41	96008	161.73	ug/L		99
12) trichlorofluoromethane	6.202	101	1319586	192.97	ug/L		99
13) freon-113	6.965	101	650175	219.77	ug/L		98
14) acrolein	6.191	56	341330	773.89	ug/L		92
15) 1,1-dichloroethene	6.782	96	570550	173.48	ug/L		90
16) acetone	6.326	58	117334	143.50	ug/L	#	75
17) Methyl Acetate	6.955	43	483647	147.42	ug/L		96
18) methylene chloride	6.937	84	655037	168.66	ug/L		98
19) methyl tert butyl ether	7.701	73	1837835	243.07	ug/L		98
20) acrylonitrile	6.842	53	260284	157.14	ug/L		98
21) allyl chloride	7.026	41	1315057	192.72	ug/L		97
22) trans-1,2-dichloroethene	7.616	96	681775	186.28	ug/L		98
23) iodomethane	6.856	142	536598m	332.34	ug/L		
24) carbon disulfide	7.220	76	2196280	215.41	ug/L		99
25) propionitrile	6.842	54	10370	249.16	ug/L		100
26) vinyl acetate	7.962	43	1069138	217.44	ug/L		100
27) chloroprene	8.231	53	1341946	204.59	ug/L		94
28) di-isopropyl ether	8.259	45	2965340	161.83	ug/L		93
29) methacrylonitrile	8.390	41	468896	177.83	ug/L		95
30) 2-butanone	8.274	72	73236	171.83	ug/L	#	39
31) Hexane	8.249	41	1209556	182.12	ug/L		90
32) 1,1-dichloroethane	7.874	63	1651702	183.58	ug/L		97
33) tert-butyl ethyl ether	8.655	59	2152404	396.77	ug/L		95
34) isobutyl alcohol	8.259	43	2331503	835.87	ug/L		96
35) 2,2-dichloropropane	8.730	77	1265525	297.50	ug/L		99
36) cis-1,2-dichloroethene	8.440	96	786879	189.20	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:36:28 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	ethyl acetate	8.259	43	2336184	170.88	ug/L		91
38)	bromochloromethane	8.609	128	336356	194.66	ug/L		95
39)	chloroform	8.645	83	1427099	174.82	ug/L		97
41)	Tetrahydrofuran	8.970	42	199285	165.61	ug/L		98
42)	1,1,1-trichloroethane	9.391	97	1409962	241.88	ug/L		99
44)	Cyclohexane	9.673	56	1693487	214.06	ug/L		99
45)	carbon tetrachloride	9.755	117	1210921	213.45	ug/L		98
46)	1,1-dichloropropene	9.567	75	1065050	207.92	ug/L		99
47)	benzene	9.790	78	2841607	163.36	ug/L		99
48)	1,2-dichloroethane	9.295	62	1363371	167.53	ug/L		100
49)	tert-amyl methyl ether	9.900	73	1224651	353.88	ug/L		96
50)	heptane	10.253	43	1023267	215.57	ug/L		96
51)	trichloroethene	10.409	95	851442	163.88	ug/L		97
52)	1,2-dichloropropane	10.377	63	896574	182.38	ug/L		100
53)	dibromomethane	10.352	93	446422	178.04	ug/L		97
54)	bromodichloromethane	10.462	83	1203112	189.42	ug/L		98
55)	Methylcyclohexane	10.918	83	1267064	218.74	ug/L		99
56)	2-chloroethyl vinyl ether	10.377	63	896574	184.19	ug/L	#	100
57)	methyl methacrylate	10.547	69	411811	184.12	ug/L	#	76
58)	1,4-dioxane	10.561	88	27286	860.26	ug/L		79
59)	cis-1,3-dichloropropene	11.077	75	1260385	257.42	ug/L		99
61)	4-methyl-2-pentanone	11.165	43	771381	163.19	ug/L		96
62)	toluene	11.851	92	1743267	166.32	ug/L		98
63)	trans-1,3-dichloropropene	11.494	75	1061561	223.61	ug/L		99
64)	1,1,2-trichloroethane	11.667	83	526541	159.79	ug/L		98
65)	ethyl methacrylate	11.862	69	754960	173.93	ug/L		98
67)	tetrachloroethene	12.590	166	739689	177.29	ug/L		98
68)	1,3-dichloropropane	11.904	76	1132443	187.09	ug/L		100
69)	dibromochloromethane	12.194	129	826797	195.12	ug/L		96
70)	1,2-dibromoethane	12.449	107	621384	183.74	ug/L		100
71)	2-hexanone	12.017	43	646866	169.84	ug/L		95
72)	chlorobenzene	13.272	112	1947935	172.72	ug/L		99
73)	1,1,1,2-tetrachloroethane	13.191	131	750738	185.90	ug/L		96
74)	ethylbenzene	13.446	91	3755551	179.71	ug/L		98
75)	m,p-xylene	13.629	106	2441778	324.04	ug/L		99
76)	o-xylene	14.043	106	1245006	166.26	ug/L		99
77)	styrene	13.972	104	2155006	205.86	ug/L		96
78)	bromoform	13.799	173	486701	197.78	ug/L		99
79)	trans-1,4-dichloro-2-b...	14.188	53	227506	246.37	ug/L	#	70
81)	isopropylbenzene	14.404	105	3470936	201.50	ug/L		99
83)	bromobenzene	14.694	156	813544	200.14	ug/L		95
84)	1,1,2,2-tetrachloroethane	14.047	83	612897	126.23	ug/L		99
85)	1,2,3-trichloropropane	14.192	75	804171	190.52	ug/L		99
86)	n-propylbenzene	14.846	91	4461050	201.92	ug/L		98
87)	2-chlorotoluene	14.969	91	2812983	200.25	ug/L		100
88)	4-chlorotoluene	15.044	91	2998397	202.29	ug/L		97
89)	1,3,5-trimethylbenzene	15.125	105	3166027	178.50	ug/L		99
90)	tert-butylbenzene	15.429	91	2073714	204.02	ug/L		99
91)	1,2,4-trimethylbenzene	15.535	105	3132505	178.14	ug/L		98
92)	sec-butylbenzene	15.648	105	3916792	201.13	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:36:28 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration

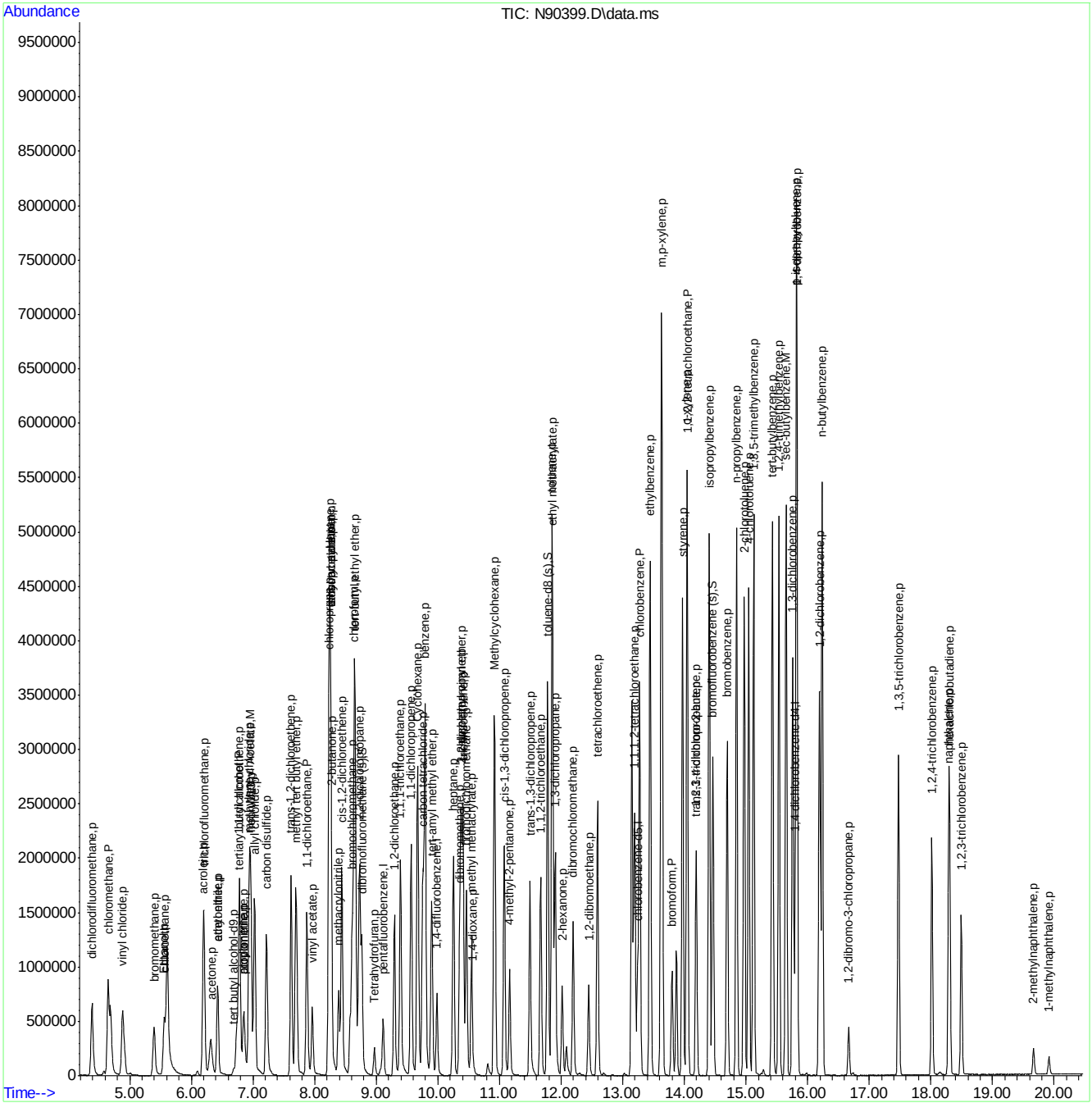
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.758	146	1576372	172.89	ug/L		99
94) p-isopropyltoluene	15.818	119	3137629	193.31	ug/L		99
95) 1,4-dichlorobenzene	15.825	146	1404920	155.03	ug/L		98
96) 1,2-dichlorobenzene	16.193	146	1471866	171.87	ug/L		99
97) n-butylbenzene	16.235	91	3340819	202.33	ug/L		99
98) 1,2-dibromo-3-chloropr...	16.666	75	125191	187.88	ug/L		93
99) 1,2,4-trichlorobenzene	18.017	180	707934	220.51	ug/L		97
100) 1,3,5-trichlorobenzene	17.476	180	950650	180.92	ug/L		98
101) hexachlorobutadiene	18.303	225	488881	185.54	ug/L		99
102) naphthalene	18.289	128	1002390	286.27	ug/L		100
103) 1,2,3-trichlorobenzene	18.494	180	504633	239.67	ug/L		96
104) 2-methylnaphthalene	19.664	142	132620	97.85	ug/L	#	100
105) 1-methylnaphthalene	19.919	142	95280	92.10	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:36:28 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration

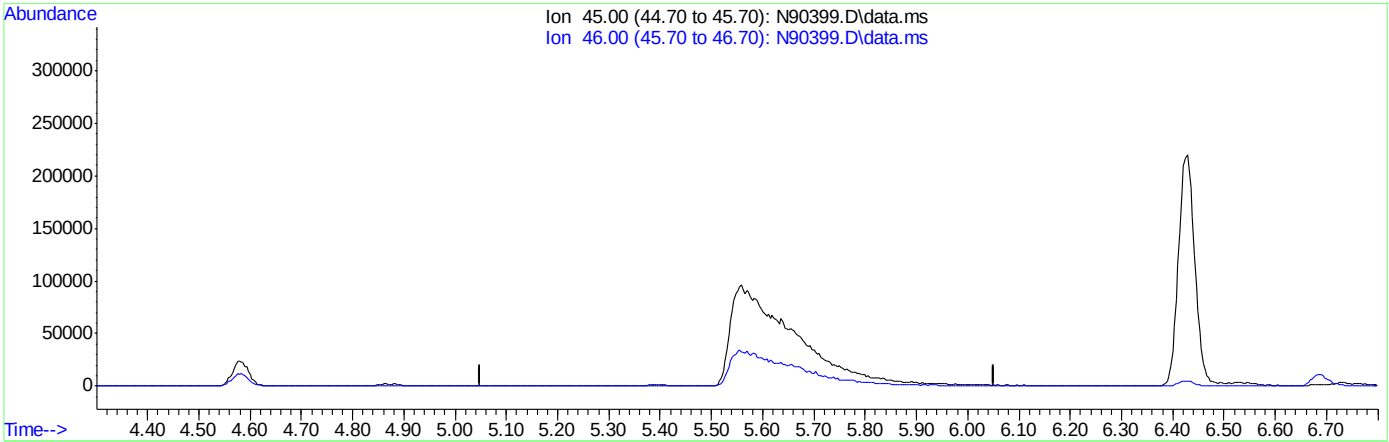


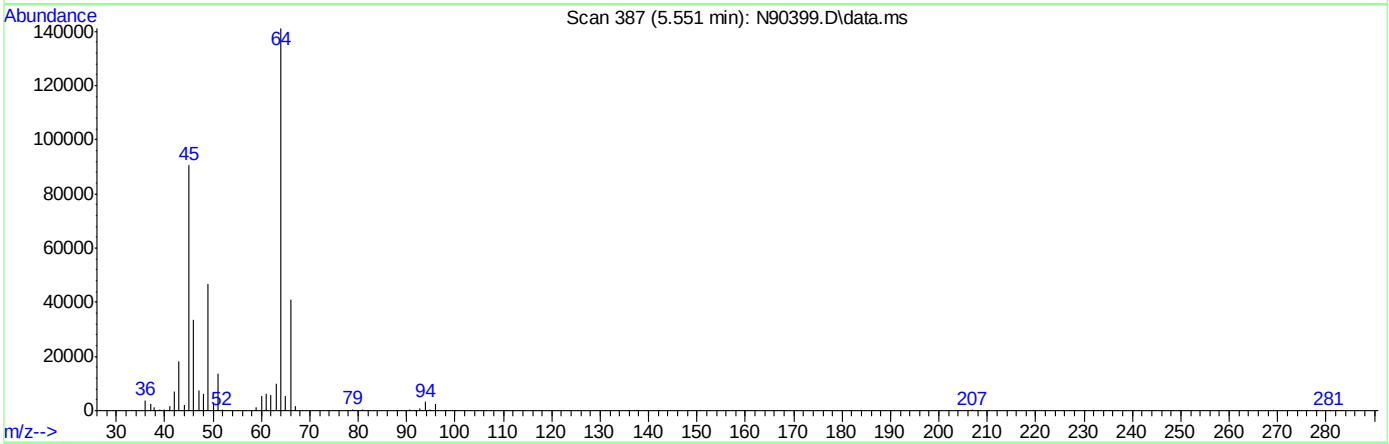
ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:25:50 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration





TIC: N90399.D\data.ms

(3) Ethanol (p)

5.551min (-5.551) 0.00ug/L

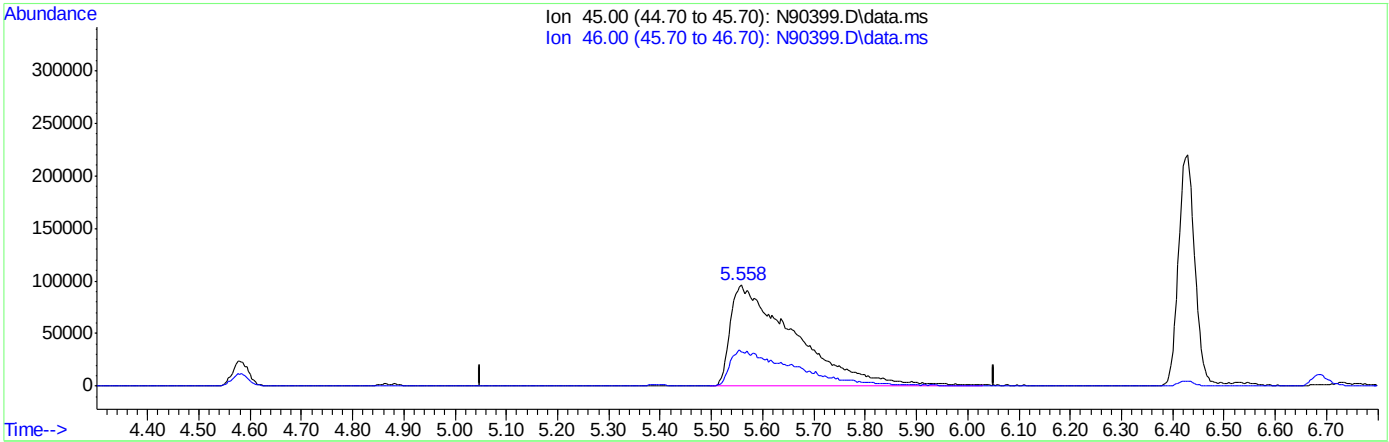
response 0

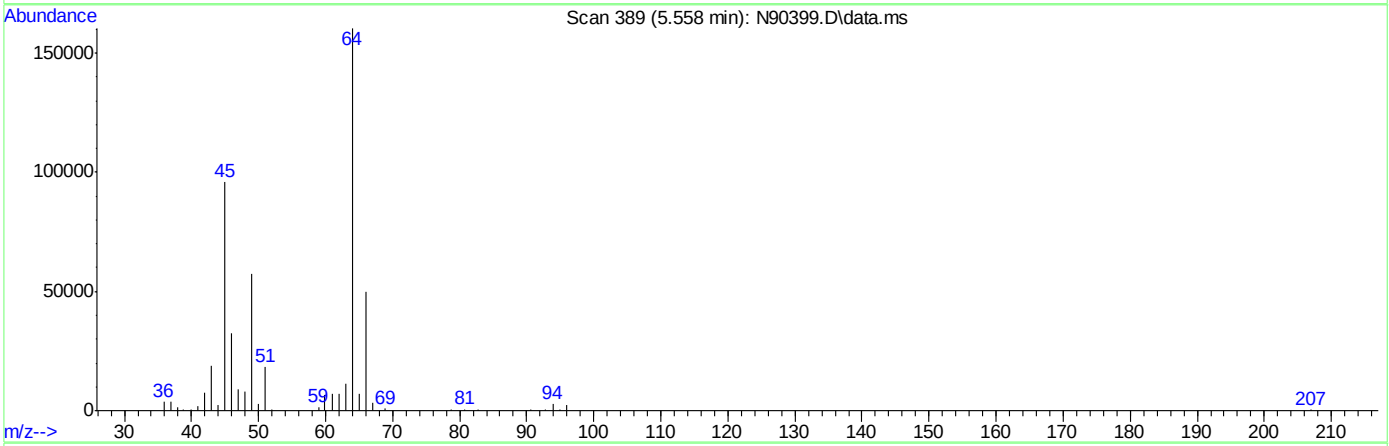
Ion	Exp%	Act%
45.00	100	0.00
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:25:50 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration





TIC: N90399.D\data.ms

(3) Ethanol (p)

5.558min (+0.007) 19082.31ug/L m

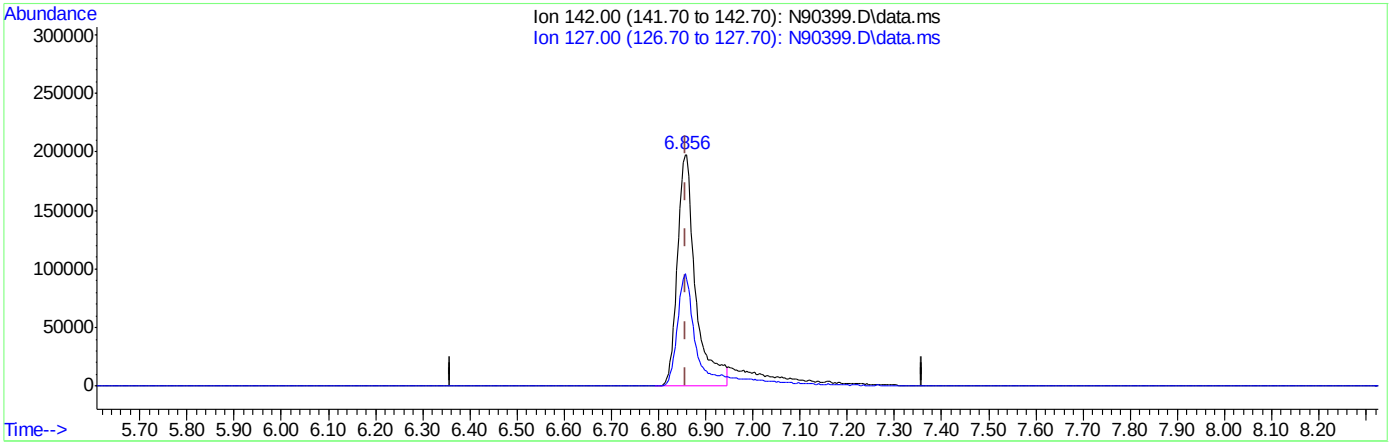
response 846290

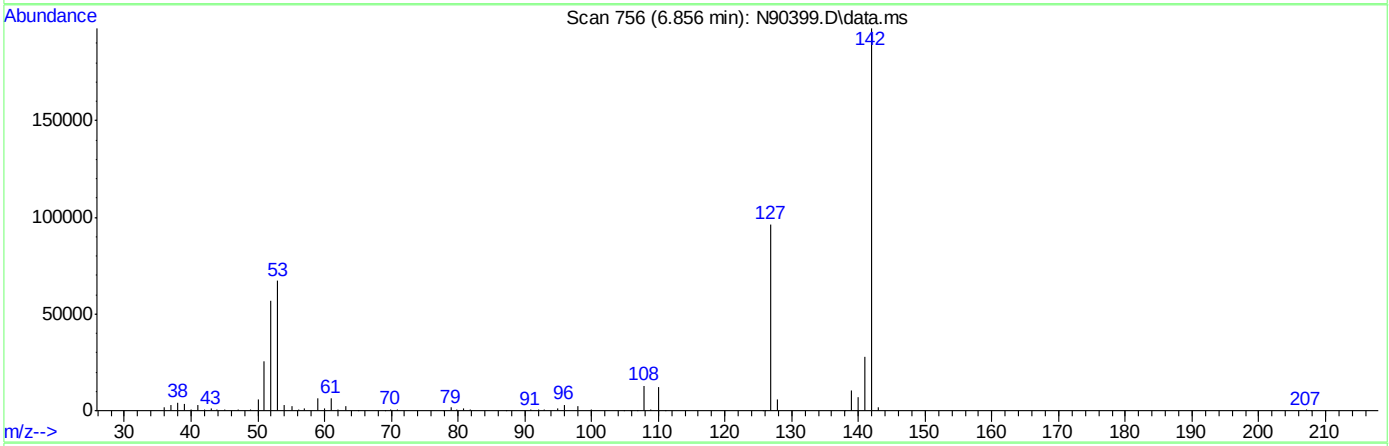
Ion	Exp%	Act%
45.00	100	100
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90399.D
Acq On : 18 Sep 2014 7:55 pm
Operator : krystend
Sample : IC3345-200
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 19 09:25:59 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:25:33 2014
Response via : Initial Calibration





TIC: N90399.D\data.ms

(23) iodomethane (p)

6.856min (-0.003) 332.34ug/L m

response 536598

Ion	Exp%	Act%
142.00	100	100
127.00	47.30	48.69
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/19/14 12:38

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:36:50 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.690	65	91817	500.00	ug/L		0.00
4) pentafluorobenzene	9.111	168	394186	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	630290	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	338772	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.800	152	244502	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.768	113	1468431	357.60	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 715.20%#				
60) toluene-d8 (s)	11.784	98	5266774	341.06	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 682.12%#				
82) bromofluorobenzene (s)	14.467	95	2282447	380.16	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 760.32%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.775	59	1188886	3641.75	ug/L	#	100
3) Ethanol	5.576	45	1562443	32449.33	ug/L		99
5) dichlorodifluoromethane	4.388	85	1841997	349.25	ug/L		99
6) chloromethane	4.646	50	2312179	358.75	ug/L		97
7) vinyl chloride	4.880	62	1113616	210.01	ug/L		100
8) bromomethane	5.392	96	956856m	563.98	ug/L		
9) chloroethane	5.558	64	839384	321.44	ug/L		98
10) ethyl ether	6.428	59	1275138	321.15	ug/L		90
11) acetonitrile	6.432	41	185292	290.76	ug/L		99
12) trichlorofluoromethane	6.202	101	2554034	338.30	ug/L		98
13) freon-113	6.965	101	1229863	368.82	ug/L		96
14) acrolein	6.191	56	649467	1379.97	ug/L		100
15) 1,1-dichloroethene	6.785	96	1119679	312.20	ug/L		93
16) acetone	6.329	58	217918	252.22	ug/L		87
17) Methyl Acetate	6.958	43	877793	252.34	ug/L		97
18) methylene chloride	6.937	84	1319120	313.32	ug/L		97
19) methyl tert butyl ether	7.701	73	3774003	438.34	ug/L		99
20) acrylonitrile	6.842	53	533057	300.97	ug/L		100
21) allyl chloride	7.029	41	2438548	324.25	ug/L		100
22) trans-1,2-dichloroethene	7.619	96	1371526	340.86	ug/L		100
23) iodomethane	6.852	142	1014660m	482.90	ug/L		
24) carbon disulfide	7.220	76	4416422	385.68	ug/L		99
25) propionitrile	6.842	54	19665	409.33	ug/L		100
26) vinyl acetate	7.962	43	2230655	403.26	ug/L		99
27) chloroprene	8.235	53	2365560	324.00	ug/L		99
28) di-isopropyl ether	8.263	45	5102914	258.19	ug/L		93
29) methacrylonitrile	8.394	41	912486	317.97	ug/L		97
30) 2-butanone	8.281	72	136629	296.04	ug/L	#	93
31) Hexane	8.249	41	2043722	281.70	ug/L		96
32) 1,1-dichloroethane	7.878	63	3329344	337.18	ug/L		97
33) tert-butyl ethyl ether	8.659	59	4361829	635.76	ug/L		98
34) isobutyl alcohol	8.263	43	3986757	1325.23	ug/L		92
35) 2,2-dichloropropane	8.730	77	2456098	481.56	ug/L		99
36) cis-1,2-dichloroethene	8.443	96	1565191	341.69	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:36:50 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.263	43	3986757	269.52	ug/L		94
38) bromochloromethane	8.613	128	587268	307.87	ug/L		98
39) chloroform	8.645	83	2692432	302.20	ug/L		97
41) Tetrahydrofuran	8.970	42	380248	293.37	ug/L		96
42) 1,1,1-trichloroethane	9.394	97	2698204	406.78	ug/L		99
44) Cyclohexane	9.673	56	3036585	348.49	ug/L		96
45) carbon tetrachloride	9.758	117	2263535	363.44	ug/L		99
46) 1,1-dichloropropene	9.567	75	2036048	362.72	ug/L		99
47) benzene	9.794	78	5492578	296.07	ug/L		99
48) 1,2-dichloroethane	9.299	62	2677170	308.44	ug/L		100
49) tert-amyl methyl ether	9.900	73	2916533	697.48	ug/L		99
50) heptane	10.253	43	1911708	365.19	ug/L		97
51) trichloroethene	10.409	95	1627935	293.72	ug/L		96
52) 1,2-dichloropropane	10.381	63	1669731	315.97	ug/L		99
53) dibromomethane	10.352	93	878959	327.13	ug/L		96
54) bromodichloromethane	10.465	83	2378054	346.20	ug/L		98
55) Methylcyclohexane	10.921	83	2373109	370.53	ug/L		93
56) 2-chloroethyl vinyl ether	10.381	63	1669731	319.29	ug/L	#	99
57) methyl methacrylate	10.547	69	821385	341.86	ug/L		85
58) 1,4-dioxane	10.561	88	54498	1615.89	ug/L		80
59) cis-1,3-dichloropropene	11.077	75	2506516	455.70	ug/L		98
61) 4-methyl-2-pentanone	11.165	43	1512500	303.23	ug/L		98
62) toluene	11.855	92	3319976	297.20	ug/L		100
63) trans-1,3-dichloropropene	11.494	75	2170446	414.52	ug/L		98
64) 1,1,2-trichloroethane	11.671	83	1026098	293.41	ug/L		97
65) ethyl methacrylate	11.862	69	1439335	311.36	ug/L		86
67) tetrachloroethene	12.594	166	1458132	324.27	ug/L		98
68) 1,3-dichloropropane	11.908	76	2188787	334.89	ug/L		100
69) dibromochloromethane	12.198	129	1646207	356.88	ug/L		98
70) 1,2-dibromoethane	12.449	107	1226872	336.25	ug/L		100
71) 2-hexanone	12.017	43	1228361	303.08	ug/L		96
72) chlorobenzene	13.276	112	3807602	314.67	ug/L		99
73) 1,1,1,2-tetrachloroethane	13.191	131	1503100	344.02	ug/L		95
74) ethylbenzene	13.446	91	7208304	320.07	ug/L		98
75) m,p-xylene	13.633	106	4628802	574.88	ug/L		88
76) o-xylene	14.043	106	2406472	300.03	ug/L		91
77) styrene	13.972	104	4206443	366.33	ug/L		98
78) bromoform	13.803	173	973399	362.89	ug/L		99
79) trans-1,4-dichloro-2-b...	14.192	53	473221	452.02	ug/L	#	66
81) isopropylbenzene	14.404	105	6639975	380.42	ug/L		100
83) bromobenzene	14.697	156	1608930	391.07	ug/L		98
84) 1,1,2,2-tetrachloroethane	14.050	83	1129564	239.69	ug/L		98
85) 1,2,3-trichloropropane	14.195	75	1569124	370.26	ug/L		97
86) n-propylbenzene	14.849	91	8388125	374.57	ug/L		99
87) 2-chlorotoluene	14.973	91	5387353	378.87	ug/L		97
88) 4-chlorotoluene	15.047	91	5670780	377.32	ug/L		100
89) 1,3,5-trimethylbenzene	15.125	105	5971227	337.18	ug/L		97
90) tert-butylbenzene	15.429	91	3832246	371.31	ug/L		96
91) 1,2,4-trimethylbenzene	15.539	105	5924845	337.54	ug/L		98
92) sec-butylbenzene	15.655	105	7248458	367.45	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:36:50 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration

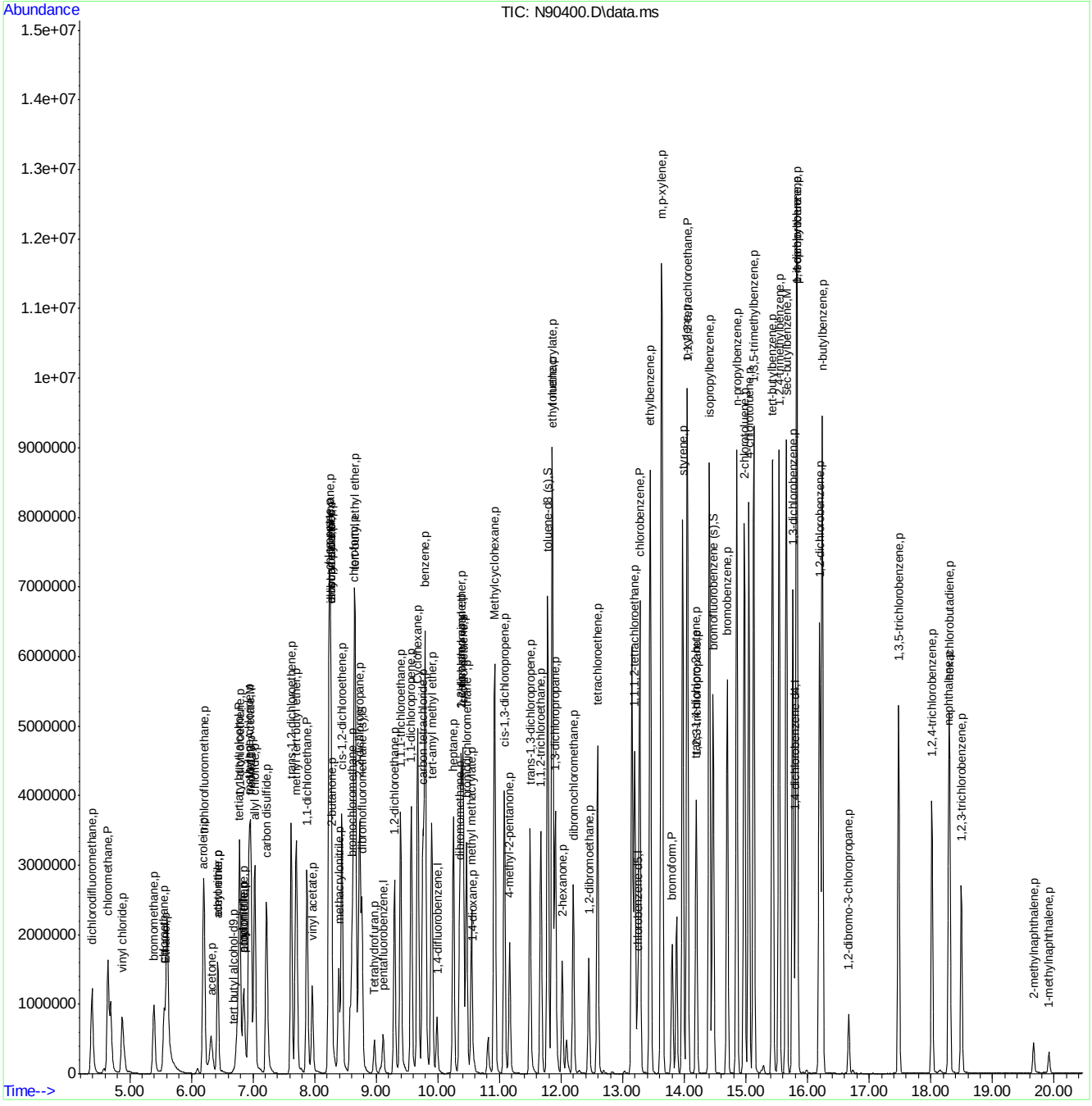
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	1,3-dichlorobenzene	15.761	146	3047779	335.98	ug/L		98
94)	p-isopropyltoluene	15.821	119	5405618	330.92	ug/L		96
95)	1,4-dichlorobenzene	15.828	146	2607427	292.53	ug/L		96
96)	1,2-dichlorobenzene	16.193	146	2798884	328.73	ug/L		97
97)	n-butylbenzene	16.239	91	6092781	363.91	ug/L		99
98)	1,2-dibromo-3-chloropr...	16.666	75	247810	371.23	ug/L		95
99)	1,2,4-trichlorobenzene	18.017	180	1309025	396.13	ug/L		97
100)	1,3,5-trichlorobenzene	17.476	180	1751047	334.61	ug/L		98
101)	hexachlorobutadiene	18.303	225	921687	349.86	ug/L		99
102)	naphthalene	18.289	128	1942414	511.38	ug/L		100
103)	1,2,3-trichlorobenzene	18.494	180	926393	420.85	ug/L		90
104)	2-methylnaphthalene	19.668	142	246522	180.38	ug/L	#	100
105)	1-methylnaphthalene	19.915	142	170161	164.70	ug/L		96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

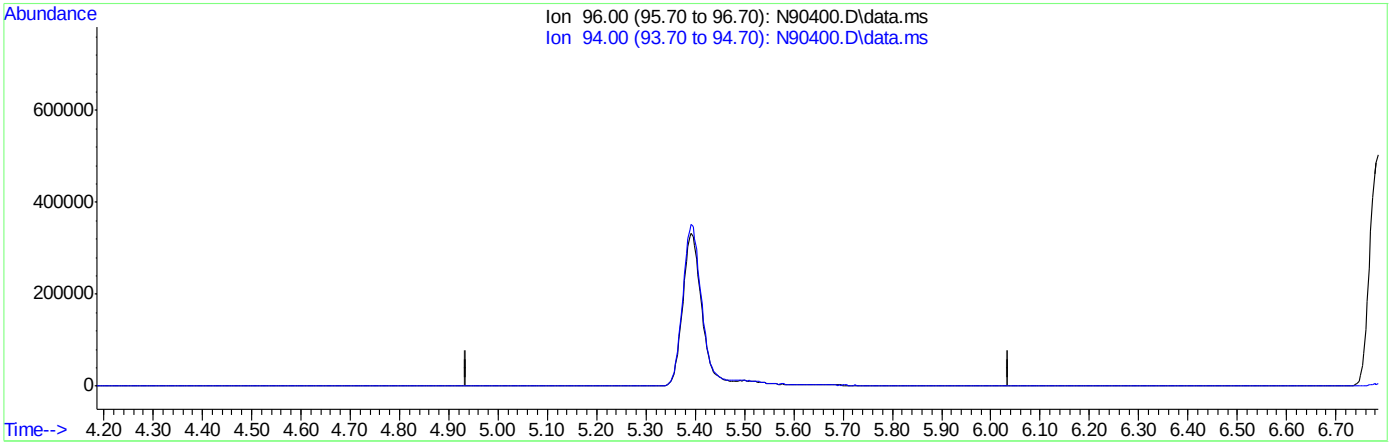
Quant Time: Sep 19 09:36:50 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration

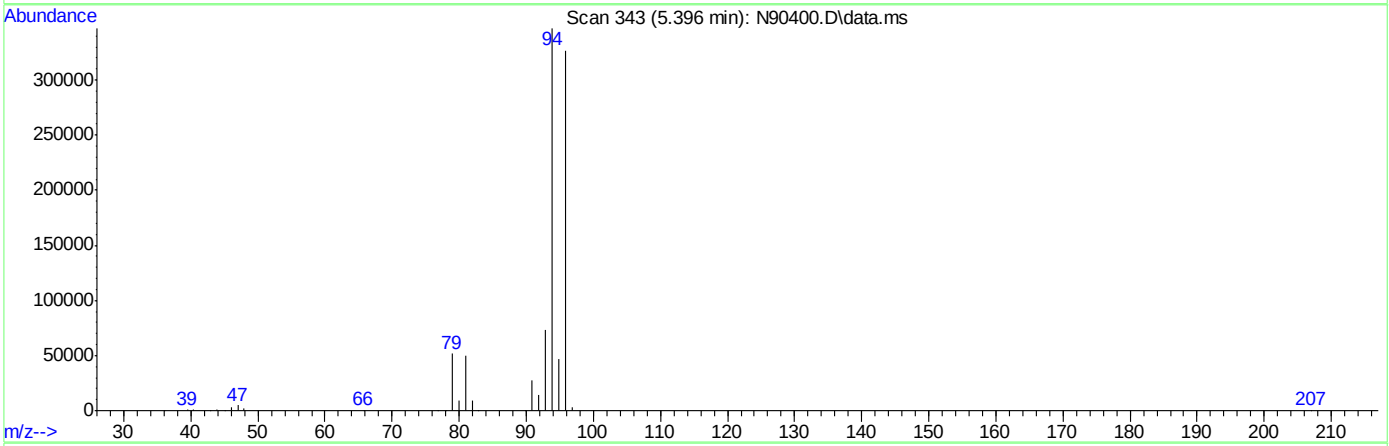


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:27:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration





TIC: N90400.D\data.ms

(8) bromomethane (p)

5.396min (-5.396) 0.00ug/L

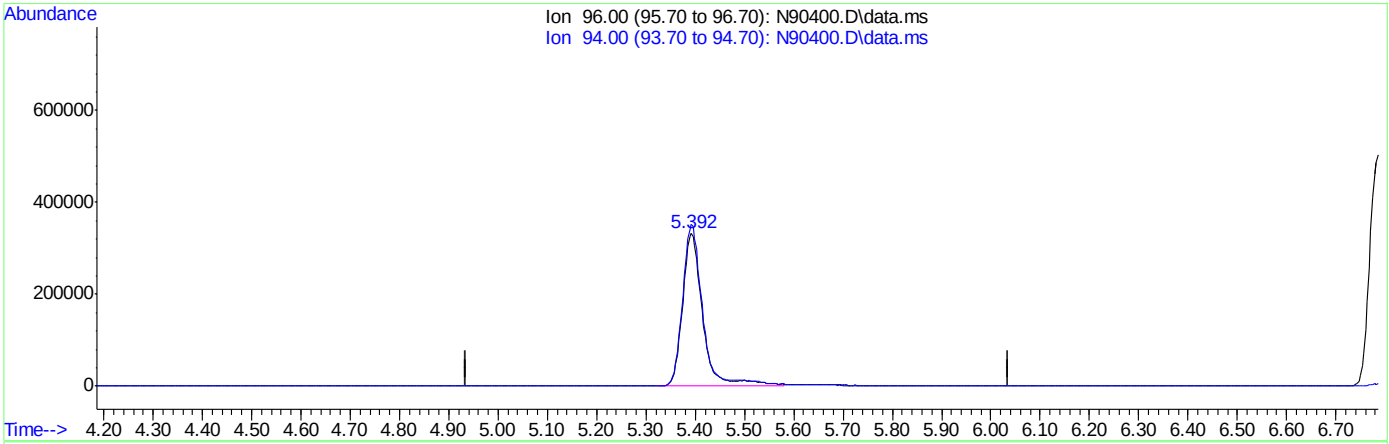
response 0

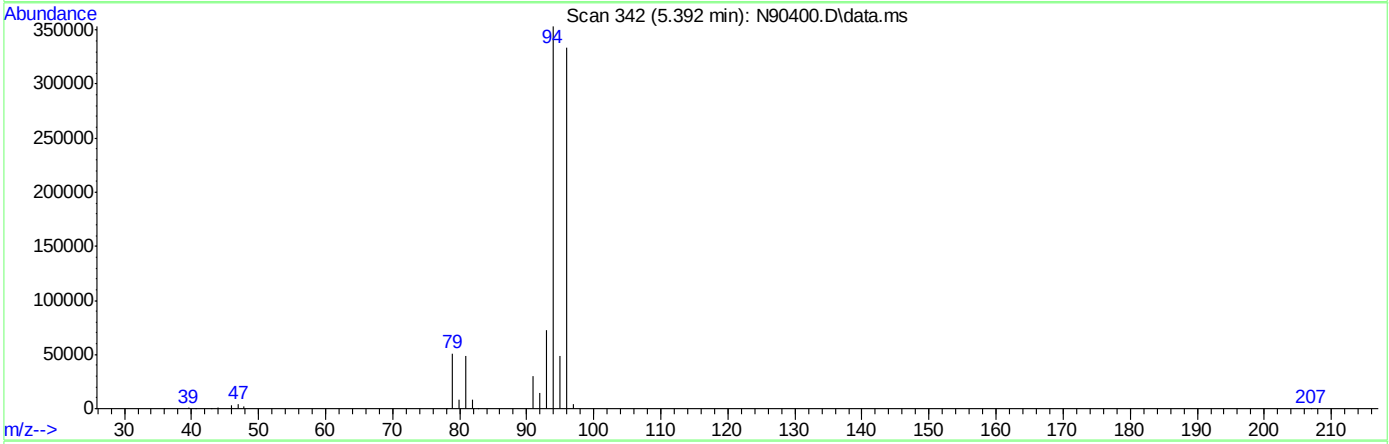
Ion	Exp%	Act%
96.00	100	0.00
94.00	103.80	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:27:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration





TIC: N90400.D\data.ms

(8) bromomethane (p)

5.392min (-0.004) 563.98ug/L m

response 956856

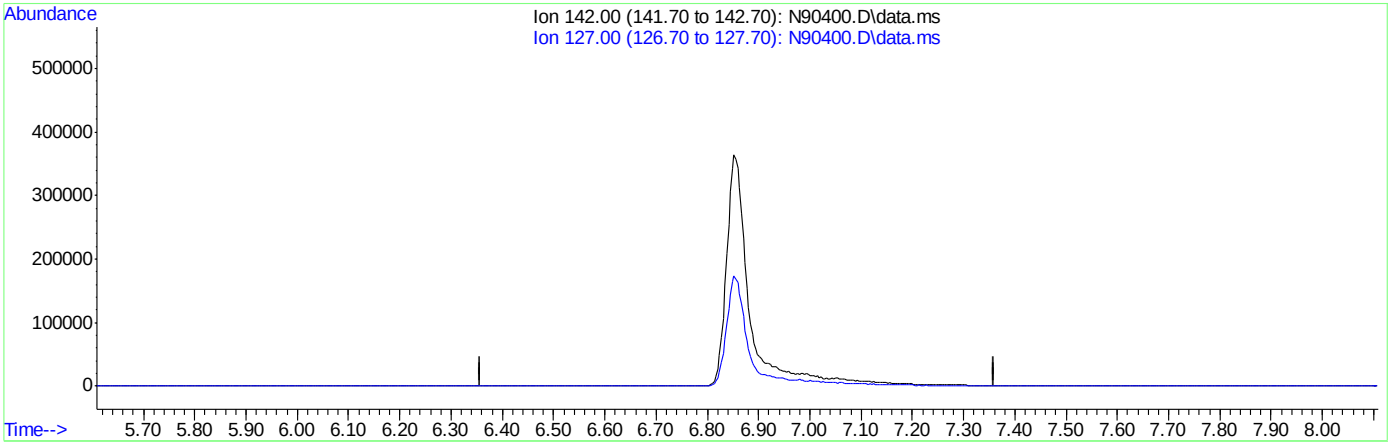
Ion	Exp%	Act%
96.00	100	100
94.00	103.80	105.85
0.00	0.00	0.00
0.00	0.00	0.00

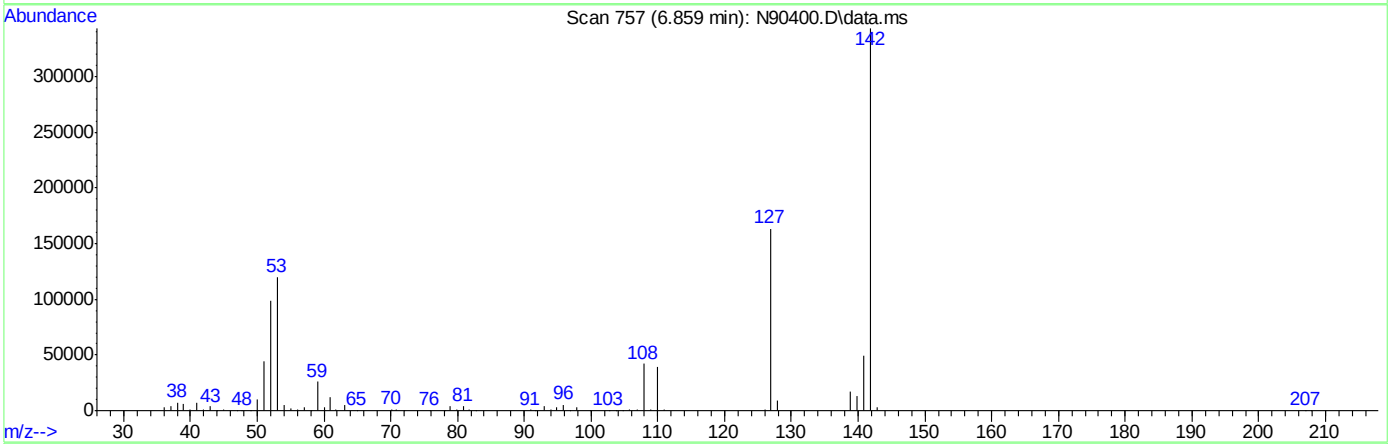
7.6.10.2
7
ACCUTEST LABORATORIES
MC33908
N90400.D edits: bromomethane

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:27:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration





TIC: N90400.D\data.ms

(23) iodomethane (p)

6.859min (-6.859) 0.00ug/L

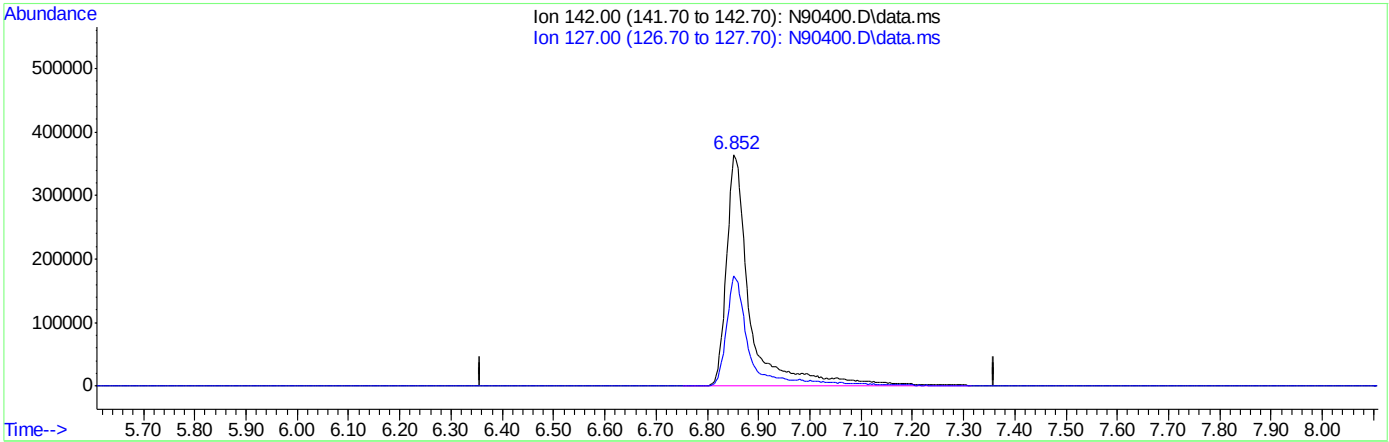
response 0

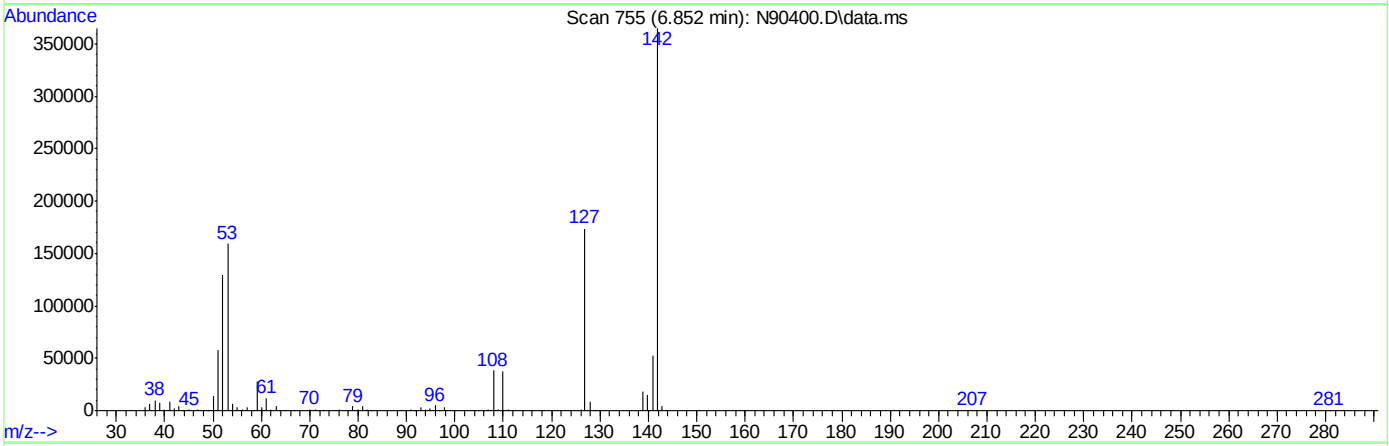
Ion	Exp%	Act%
142.00	100	0.00
127.00	47.30	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:27:12 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration





TIC: N90400.D\data.ms

(23) iodomethane (p)

6.852min (-0.007) 564.61ug/L m

response 1186346

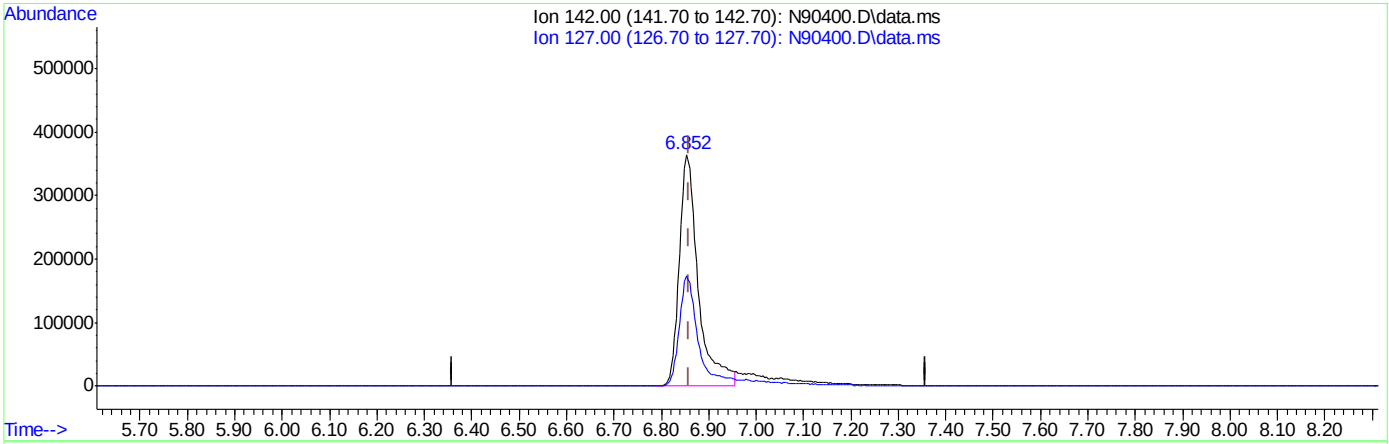
Ion	Exp%	Act%
142.00	100	100
127.00	47.30	47.54
0.00	0.00	0.00
0.00	0.00	0.00

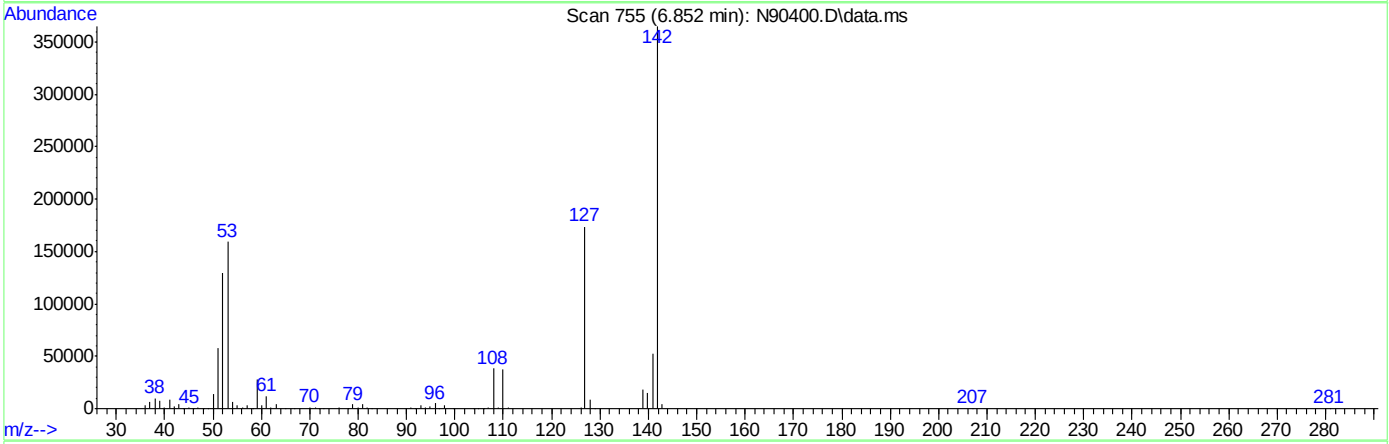
ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140918\
Data File : N90400.D
Acq On : 18 Sep 2014 8:23 pm
Operator : krystend
Sample : IC3345-400
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 19 09:28:16 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:26:59 2014
Response via : Initial Calibration





TIC: N90400.D\data.ms

(23) iodomethane (p)

6.852min (-0.007) 482.90ug/L m

response 1014660

Ion	Exp%	Act%
142.00	100	100
127.00	47.30	47.54
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/22/14 09:40

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 15:24:39 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.697	65	109677	500.00	ug/L		0.00
4) pentafluorobenzene	9.115	168	303532	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	470411	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	255267	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	201040	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.765	113	151085	48.52	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.04%				
60) toluene-d8 (s)	11.781	98	592963	52.56	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 105.12%				
82) bromofluorobenzene (s)	14.464	95	233597	47.66	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.32%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.782	59	103894	269.44	ug/L	#	100
3) Ethanol	5.562	45	328301m	5845.90	ug/L		
5) dichlorodifluoromethane	4.392	85	256233	64.11	ug/L		97
6) chloromethane	4.657	50	247452	50.51	ug/L		98
7) vinyl chloride	4.897	62	196022	59.69	ug/L		94
8) bromomethane	5.399	96	77011	50.54	ug/L		98
9) chloroethane	5.562	64	117801	60.06	ug/L		95
10) ethyl ether	6.432	59	167151	56.26	ug/L		98
11) acetonitrile	6.432	41	27076	57.42	ug/L		96
12) trichlorofluoromethane	6.209	101	320581	55.87	ug/L		99
13) freon-113	6.962	101	130506	51.40	ug/L		99
14) acrolein	6.198	56	87506	252.65	ug/L		100
15) 1,1-dichloroethene	6.785	96	122707	52.87	ug/L		91
16) acetone	6.336	58	30439	43.60	ug/L		84
17) Methyl Acetate	6.962	43	183707	68.58	ug/L	#	92
18) methylene chloride	6.941	84	147063	46.63	ug/L		91
19) methyl tert butyl ether	7.705	73	409974	54.92	ug/L		98
20) acrylonitrile	6.845	53	67014	50.94	ug/L		94
21) allyl chloride	7.029	41	316359	56.15	ug/L		93
22) trans-1,2-dichloroethene	7.623	96	149104	48.93	ug/L		98
23) iodomethane	6.860	142	72383	38.45	ug/L		97
24) carbon disulfide	7.220	76	404653	46.13	ug/L		99
25) propionitrile	6.852	54	2476	56.23	ug/L		100
26) vinyl acetate	7.970	43	171062	40.11	ug/L		96
27) chloroprene	8.235	53	350980	64.17	ug/L		93
28) di-isopropyl ether	8.263	45	783247	53.85	ug/L		97
29) methacrylonitrile	8.394	41	109220	50.92	ug/L		93
30) 2-butanone	8.281	72	19790	57.83	ug/L	#	78
31) Hexane	8.249	41	287716	53.77	ug/L		86
32) 1,1-dichloroethane	7.878	63	382325	51.18	ug/L		99
33) tert-butyl ethyl ether	8.659	59	366503	46.99	ug/L		94
34) isobutyl alcohol	8.260	43	601650	272.88	ug/L		99
35) 2,2-dichloropropane	8.730	77	280369	58.65	ug/L		99
36) cis-1,2-dichloroethene	8.443	96	171953	49.55	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 15:24:39 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	8.260	43	601428	55.38	ug/L		98
38) bromochloromethane	8.613	128	75756	53.33	ug/L		90
39) chloroform	8.645	83	333542	49.98	ug/L		97
41) Tetrahydrofuran	8.974	42	50164	52.25	ug/L		95
42) 1,1,1-trichloroethane	9.394	97	303810	59.37	ug/L		100
44) Cyclohexane	9.670	56	359704	56.35	ug/L		97
45) carbon tetrachloride	9.755	117	256419	55.73	ug/L		95
46) 1,1-dichloropropene	9.568	75	242242	58.60	ug/L		98
47) benzene	9.794	78	648540	48.09	ug/L		100
48) 1,2-dichloroethane	9.295	62	323777	51.29	ug/L		99
49) tert-amyl methyl ether	9.903	73	197220	49.54	ug/L		95
50) heptane	10.253	43	213210	55.26	ug/L		91
51) trichloroethene	10.409	95	196165	48.72	ug/L		93
52) 1,2-dichloropropane	10.377	63	224809	58.54	ug/L		100
53) dibromomethane	10.356	93	104523	53.34	ug/L		96
54) bromodichloromethane	10.462	83	286031	56.64	ug/L		99
55) Methylcyclohexane	10.918	83	264884	56.00	ug/L		97
56) 2-chloroethyl vinyl ether	10.377	63	224809	59.31	ug/L	#	99
57) methyl methacrylate	10.550	69	99350	56.58	ug/L	#	79
58) 1,4-dioxane	10.561	88	3507	121.93	ug/L		81
59) cis-1,3-dichloropropene	11.077	75	288523	59.10	ug/L		99
61) 4-methyl-2-pentanone	11.169	43	195879	54.50	ug/L		93
62) toluene	11.855	92	405078	50.01	ug/L		96
63) trans-1,3-dichloropropene	11.494	75	246408	62.83	ug/L		99
64) 1,1,2-trichloroethane	11.668	83	134803	51.65	ug/L		99
65) ethyl methacrylate	11.862	69	178921	53.55	ug/L		91
67) tetrachloroethene	12.594	166	170304	51.23	ug/L		93
68) 1,3-dichloropropane	11.904	76	266851	55.47	ug/L		99
69) dibromochloromethane	12.194	129	193508	56.28	ug/L		95
70) 1,2-dibromoethane	12.449	107	147384	54.70	ug/L		98
71) 2-hexanone	12.021	43	167694	56.88	ug/L		96
72) chlorobenzene	13.276	112	435746	48.95	ug/L		99
73) 1,1,1,2-tetrachloroethane	13.191	131	177699	54.83	ug/L		97
74) ethylbenzene	13.446	91	828883	49.95	ug/L		99
75) m,p-xylene	13.630	106	562899	92.78	ug/L		96
76) o-xylene	14.043	106	284187	48.23	ug/L		97
77) styrene	13.973	104	463567	54.23	ug/L		100
78) bromoform	13.799	173	110698	55.34	ug/L		97
79) trans-1,4-dichloro-2-b...	14.192	53	44319	50.55	ug/L		96
81) isopropylbenzene	14.404	105	744170	52.22	ug/L		99
83) bromobenzene	14.694	156	181227	53.74	ug/L		98
84) 1,1,2,2-tetrachloroethane	14.047	83	178255	57.87	ug/L		97
85) 1,2,3-trichloropropane	14.192	75	192325	55.79	ug/L		100
86) n-propylbenzene	14.846	91	969987	53.16	ug/L		100
87) 2-chlorotoluene	14.970	91	606503	52.27	ug/L		98
88) 4-chlorotoluene	15.044	91	635395	51.84	ug/L		98
89) 1,3,5-trimethylbenzene	15.122	105	664031	46.41	ug/L		100
90) tert-butylbenzene	15.429	91	438328	52.19	ug/L		98
91) 1,2,4-trimethylbenzene	15.535	105	697238	49.16	ug/L		99
92) sec-butylbenzene	15.648	105	840100	52.40	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 15:24:39 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

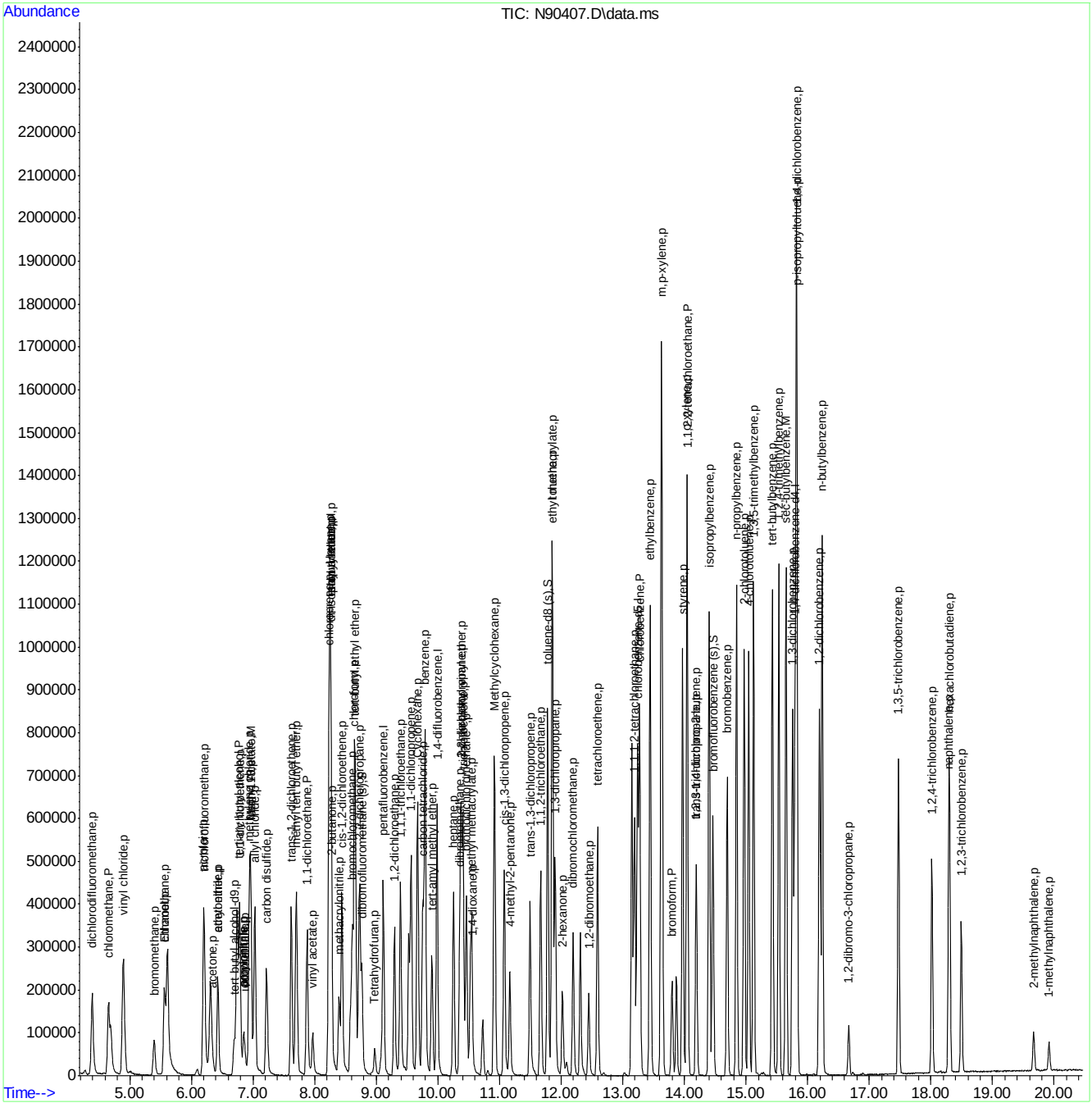
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	1,3-dichlorobenzene	15.758	146	350072	54.07	ug/L		98
94)	p-isopropyltoluene	15.822	119	696545	53.17	ug/L		99
95)	1,4-dichlorobenzene	15.825	146	333567	57.93	ug/L		97
96)	1,2-dichlorobenzene	16.189	146	347482	57.49	ug/L		99
97)	n-butylbenzene	16.235	91	740787	54.51	ug/L		99
98)	1,2-dibromo-3-chloropr...	16.663	75	33892	62.39	ug/L		89
99)	1,2,4-trichlorobenzene	18.017	180	162541	59.90	ug/L		98
100)	1,3,5-trichlorobenzene	17.473	180	231772	55.15	ug/L		99
101)	hexachlorobutadiene	18.300	225	115864	54.46	ug/L		99
102)	naphthalene	18.289	128	243260	62.85	ug/L		100
103)	1,2,3-trichlorobenzene	18.494	180	113975	58.20	ug/L		91
104)	2-methylnaphthalene	19.668	142	50146	45.26	ug/L	#	100
105)	1-methylnaphthalene	19.915	142	37746	45.58	ug/L		95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

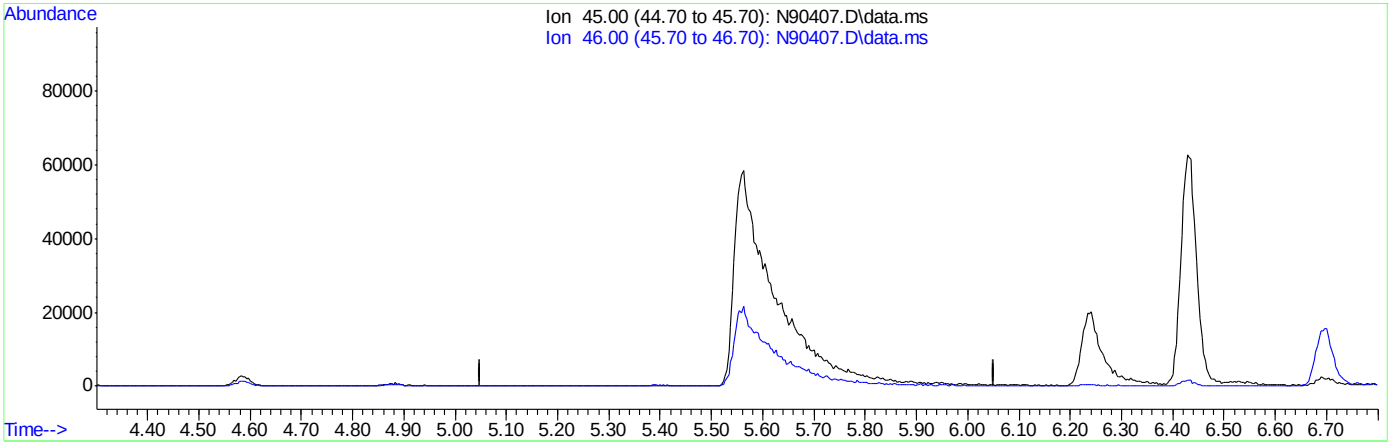
Quant Time: Sep 19 15:24:39 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

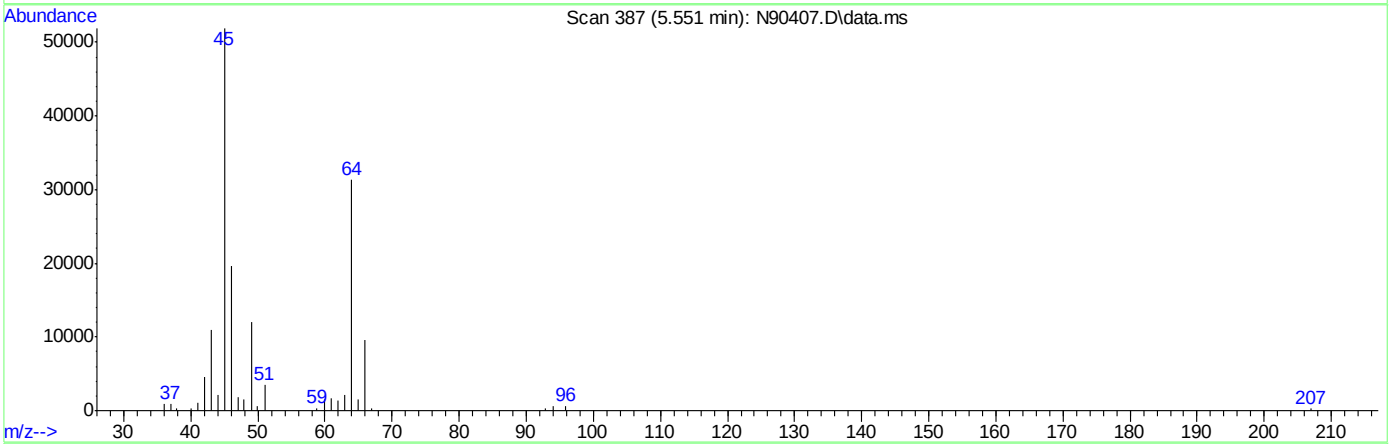


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 14:39:56 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90407.D\data.ms

(3) Ethanol (p)

5.551min (-5.551) 0.00ug/L

response 0

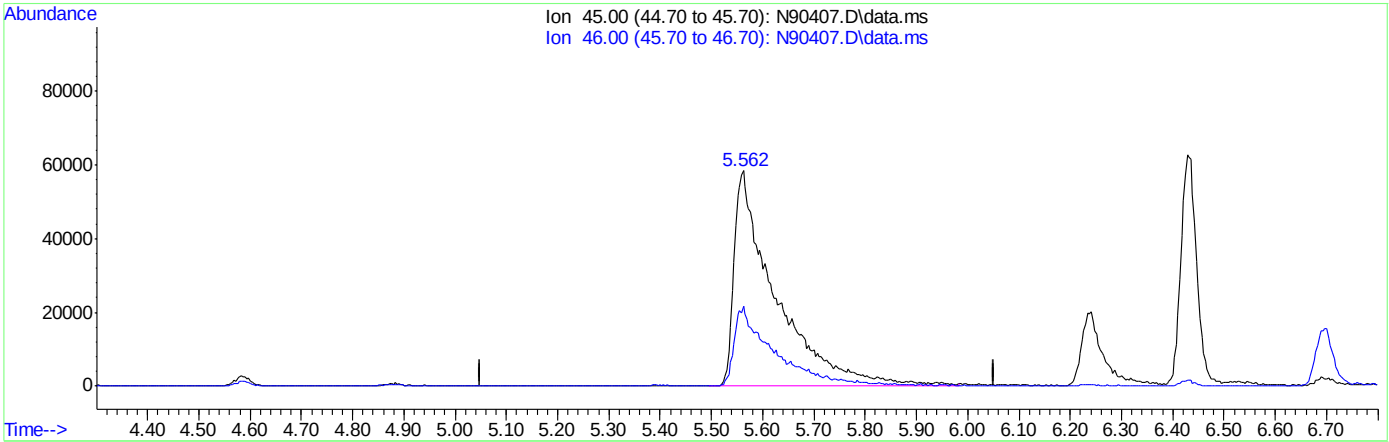
Ion	Exp%	Act%
45.00	100	0.00
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

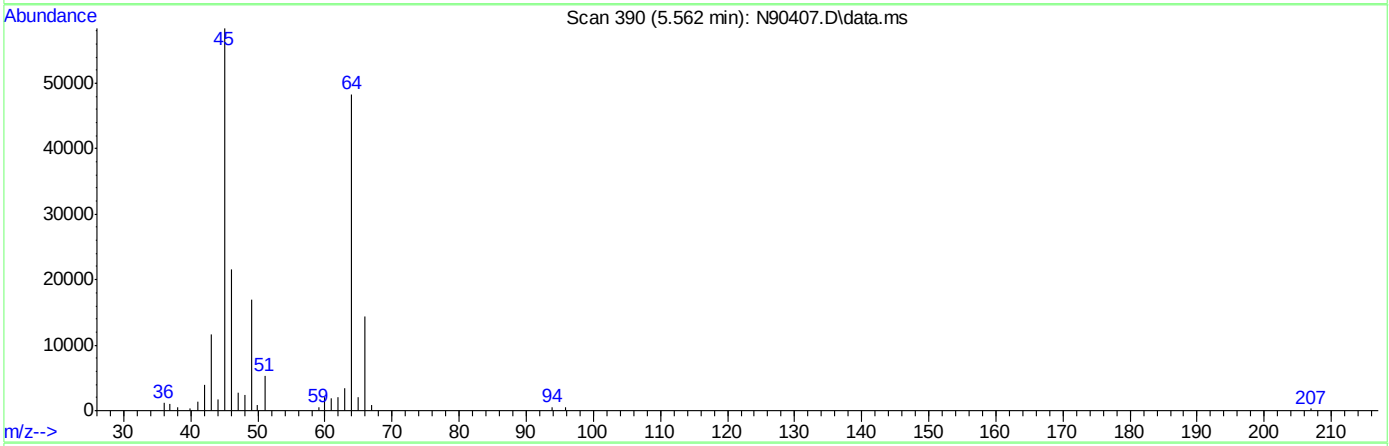
ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\N140919\
Data File : N90407.D
Acq On : 19 Sep 2014 1:04 pm
Operator : krystend
Sample : bs
Misc : ms32746,MSN3345,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 14:39:56 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration





TIC: N90407.D\data.ms

(3) Ethanol (p)

5.562min (+0.011) 5845.90ug/L m

response 328301

Ion	Exp%	Act%
45.00	100	100
46.00	35.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33908

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90785.D
Acq On : 1 Oct 2014 9:41 am
Operator : jaclynb
Sample : bs
Misc : ms32855,MSN3359,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 01 10:14:45 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.690	65	128041	500.00	ug/L		0.00
4) pentafluorobenzene	9.115	168	331306	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.988	114	517983	50.00	ug/L		0.00
66) chlorobenzene-d5	13.241	82	286514	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.797	152	223331	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.769	113	163420	48.08	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.16%				
60) toluene-d8 (s)	11.781	98	645283	51.94	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.88%				
82) bromofluorobenzene (s)	14.461	95	256751	47.15	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.30%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.778	59	117733	261.54	ug/L	#	100
3) Ethanol	5.555	45	358138	5462.56	ug/L		99
5) dichlorodifluoromethane	4.388	85	179585	41.17	ug/L		98
6) chloromethane	4.654	50	165617	30.97	ug/L		94
7) vinyl chloride	4.894	62	172755	47.97	ug/L		95
8) bromomethane	5.396	96	52421	33.08	ug/L		96
9) chloroethane	5.566	64	118988	55.58	ug/L		97
10) ethyl ether	6.432	59	180897	55.78	ug/L		87
11) acetonitrile	6.432	41	26791	52.05	ug/L		96
12) trichlorofluoromethane	6.202	101	283547	45.26	ug/L		98
13) freon-113	6.966	101	171516	61.89	ug/L		99
14) acrolein	6.199	56	85144	225.22	ug/L		92
15) 1,1-dichloroethene	6.785	96	151212	59.80	ug/L		99
16) acetone	6.333	58	33453	43.90	ug/L	#	75
17) Methyl Acetate	6.962	43	204923	70.09	ug/L	#	93
18) methylene chloride	6.937	84	169944	49.36	ug/L		96
19) methyl tert butyl ether	7.705	73	373029	45.84	ug/L		96
20) acrylonitrile	6.849	53	72604	50.56	ug/L		99
21) allyl chloride	7.029	41	344043	55.94	ug/L		96
22) trans-1,2-dichloroethene	7.623	96	168080	50.53	ug/L		99
23) iodomethane	6.860	142	62383	30.98	ug/L		90
24) carbon disulfide	7.220	76	580852	60.66	ug/L		98
25) propionitrile	6.838	54	2853	59.18	ug/L		100
26) vinyl acetate	7.970	43	195062	41.91	ug/L		98
27) chloroprene	8.231	53	385067	64.50	ug/L		95
28) di-isopropyl ether	8.263	45	775120	48.83	ug/L		99
29) methacrylonitrile	8.397	41	116578	49.79	ug/L		95
30) 2-butanone	8.284	72	22168	59.35	ug/L	#	34
31) Hexane	8.249	41	341030	58.40	ug/L		99
32) 1,1-dichloroethane	7.878	63	403655	49.50	ug/L		98
33) tert-butyl ethyl ether	8.659	59	302971	36.35	ug/L		95
34) isobutyl alcohol	8.260	43	651877	270.87	ug/L		97
35) 2,2-dichloropropane	8.730	77	294902	56.66	ug/L		99
36) cis-1,2-dichloroethene	8.443	96	182543	48.19	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90785.D
Acq On : 1 Oct 2014 9:41 am
Operator : jaclynb
Sample : bs
Misc : ms32855,MSN3359,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 01 10:14:45 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	ethyl acetate	8.260	43	653115	55.10	ug/L		95
38)	bromochloromethane	8.613	128	80944	52.21	ug/L		94
39)	chloroform	8.645	83	335101	46.00	ug/L		99
41)	Tetrahydrofuran	8.974	42	52137	49.75	ug/L		100
42)	1,1,1-trichloroethane	9.394	97	320488	57.38	ug/L		99
44)	Cyclohexane	9.674	56	448397	63.79	ug/L		97
45)	carbon tetrachloride	9.755	117	275398	54.36	ug/L		100
46)	1,1-dichloropropene	9.564	75	266830	58.62	ug/L		99
47)	benzene	9.794	78	699042	47.07	ug/L		99
48)	1,2-dichloroethane	9.295	62	321052	46.18	ug/L		99
49)	tert-amyl methyl ether	9.903	73	163818	38.27	ug/L		93
50)	heptane	10.253	43	264266	62.20	ug/L		96
51)	trichloroethene	10.409	95	207529	46.80	ug/L		95
52)	1,2-dichloropropane	10.374	63	229431	54.25	ug/L		100
53)	dibromomethane	10.352	93	110099	51.02	ug/L		95
54)	bromodichloromethane	10.462	83	278315	50.05	ug/L		97
55)	Methylcyclohexane	10.922	83	335189	64.36	ug/L		98
56)	2-chloroethyl vinyl ether	10.374	63	229431	54.97	ug/L	#	100
57)	methyl methacrylate	10.550	69	106005	54.82	ug/L	#	78
58)	1,4-dioxane	10.558	88	4203	132.23	ug/L	#	66
59)	cis-1,3-dichloropropene	11.077	75	297762	55.42	ug/L		99
61)	4-methyl-2-pentanone	11.169	43	206564	52.19	ug/L		96
62)	toluene	11.855	92	440971	49.45	ug/L		99
63)	trans-1,3-dichloropropene	11.494	75	250435	57.99	ug/L		99
64)	1,1,2-trichloroethane	11.671	83	136068	47.34	ug/L		98
65)	ethyl methacrylate	11.862	69	196250	53.35	ug/L		95
67)	tetrachloroethene	12.594	166	183237	49.11	ug/L		96
68)	1,3-dichloropropane	11.904	76	271763	50.33	ug/L		100
69)	dibromochloromethane	12.194	129	191988	49.75	ug/L		96
70)	1,2-dibromoethane	12.449	107	155138	51.30	ug/L		99
71)	2-hexanone	12.021	43	185503	56.06	ug/L		97
72)	chlorobenzene	13.276	112	468206	46.86	ug/L		99
73)	1,1,1,2-tetrachloroethane	13.191	131	174544	47.98	ug/L		98
74)	ethylbenzene	13.446	91	890984	47.84	ug/L		99
75)	m,p-xylene	13.630	106	613439	90.08	ug/L		92
76)	o-xylene	14.043	106	306568	46.35	ug/L		99
77)	styrene	13.969	104	502904	52.42	ug/L		99
78)	bromoform	13.799	173	113566	50.58	ug/L		100
79)	trans-1,4-dichloro-2-b...	14.188	53	39071	40.20	ug/L	#	82
81)	isopropylbenzene	14.400	105	838034	52.93	ug/L		100
83)	bromobenzene	14.697	156	191544	51.13	ug/L		98
84)	1,1,2,2-tetrachloroethane	14.047	83	186643	53.79	ug/L		97
85)	1,2,3-trichloropropane	14.192	75	195818	51.13	ug/L		97
86)	n-propylbenzene	14.846	91	1099367	54.24	ug/L		100
87)	2-chlorotoluene	14.970	91	657661	51.02	ug/L		98
88)	4-chlorotoluene	15.044	91	682907	50.15	ug/L		100
89)	1,3,5-trimethylbenzene	15.125	105	735502	46.28	ug/L		95
90)	tert-butylbenzene	15.429	91	482614	51.72	ug/L		100
91)	1,2,4-trimethylbenzene	15.532	105	758956	48.17	ug/L		99
92)	sec-butylbenzene	15.648	105	970388	54.49	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90785.D
Acq On : 1 Oct 2014 9:41 am
Operator : jaclynb
Sample : bs
Misc : ms32855,MSN3359,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 01 10:14:45 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration

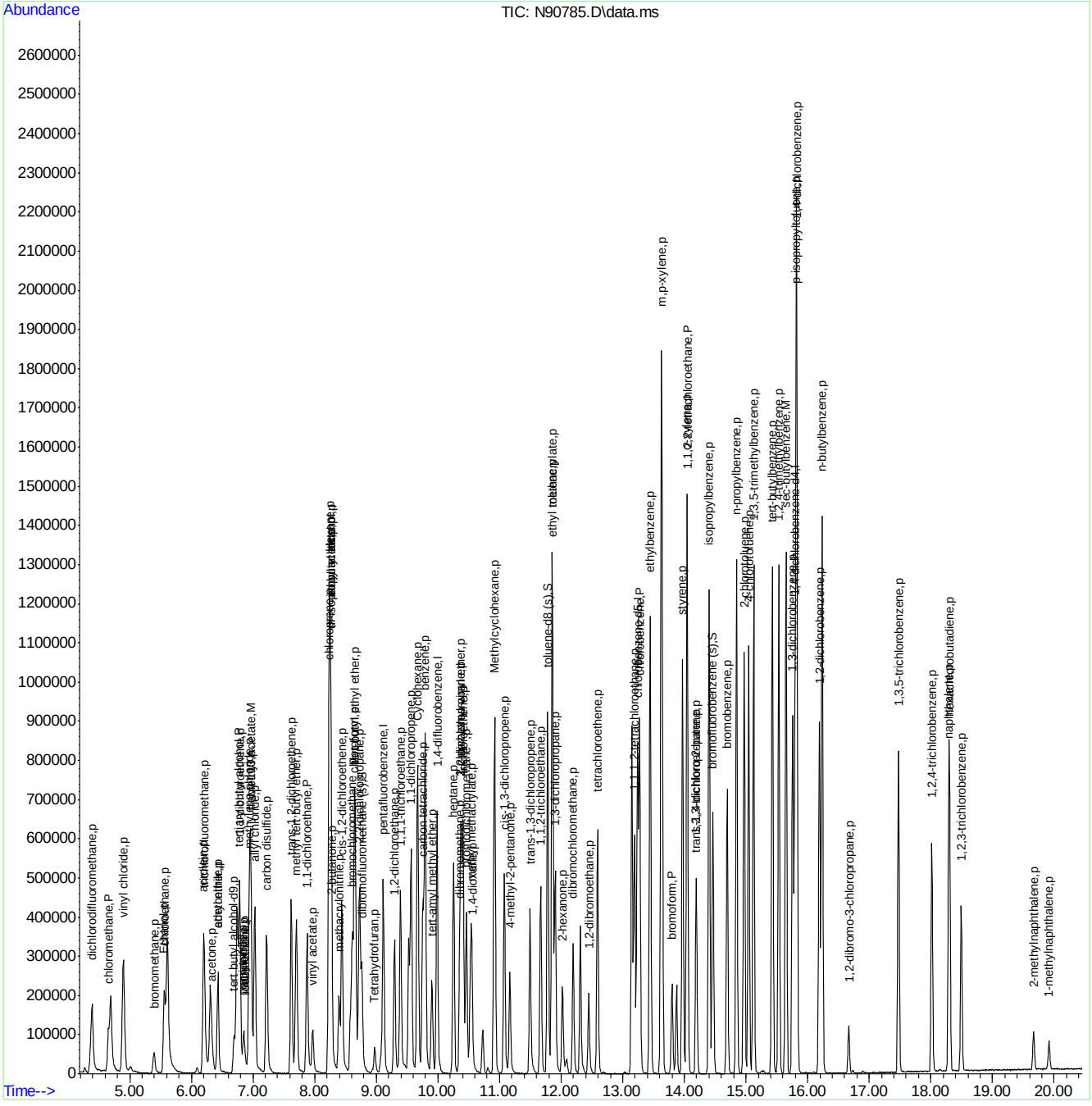
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	1,3-dichlorobenzene	15.758	146	370877	51.54	ug/L		97
94)	p-isopropyltoluene	15.818	119	795253	54.65	ug/L		99
95)	1,4-dichlorobenzene	15.825	146	351180	54.83	ug/L		98
96)	1,2-dichlorobenzene	16.193	146	364431	54.24	ug/L		99
97)	n-butylbenzene	16.235	91	845265	55.99	ug/L		98
98)	1,2-dibromo-3-chloropr...	16.670	75	35138	58.23	ug/L		94
99)	1,2,4-trichlorobenzene	18.017	180	189313	62.81	ug/L		99
100)	1,3,5-trichlorobenzene	17.476	180	260252	55.75	ug/L		100
101)	hexachlorobutadiene	18.303	225	135849	57.48	ug/L		96
102)	naphthalene	18.289	128	297298	68.74	ug/L		100
103)	1,2,3-trichlorobenzene	18.494	180	141001	64.61	ug/L		94
104)	2-methylnaphthalene	19.668	142	53358	43.35	ug/L	#	100
105)	1-methylnaphthalene	19.915	142	41398	45.00	ug/L		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N141001\
Data File : N90785.D
Acq On : 1 Oct 2014 9:41 am
Operator : jaclynb
Sample : bs
Misc : ms32855,MSN3359,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 01 10:14:45 2014
Quant Method : C:\msdchem\1\methods\n140918w.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 12:01:33 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/17/14 14:44

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79736.D
Acq On : 12 Sep 2014 4:26 pm
Operator : jaclynb
Sample : ic2607-0.5
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 15 08:37:25 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 08:37:10 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.179	65	143670	50.00	ug/L	#	0.02
4) pentafluorobenzene	8.476	168	526064	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.318	114	712140	50.00	ug/L		0.00
66) chlorobenzene-d5	12.532	82	325566	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.085	152	258163	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	0.000	113	0	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery = 0.00%#				
60) toluene-d8 (s)	11.090	98	7216	0.49	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 0.98%#				
82) bromofluorobenzene (s)	13.751	95	4715	1.07	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 2.14%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.273	59	2441	5.37	ug/L	#	57
3) Ethanol	5.142	45	4556	80.50	ug/L	#	42
5) dichlorodifluoromethane	4.050	85	3961	0.61	ug/L		90
6) chloromethane	4.279	50	4326	0.65	ug/L		99
7) vinyl chloride	4.502	62	2940	0.58	ug/L		90
9) chloroethane	5.088	64	1704	Below Cal		#	44
10) ethyl ether	5.937	59	2010	0.58	ug/L		70
11) acetonitrile	5.573	41	4382	7.15	ug/L	#	31
12) trichlorofluoromethane	5.674	101	4424	0.54	ug/L		99
13) freon-113	6.388	101	2494	0.58	ug/L		100
14) acrolein	5.694	56	2334	4.02	ug/L		88
15) 1,1-dichloroethene	6.220	96	2971	0.19	ug/L		87
17) Methyl Acetate	6.435	43	3121	0.64	ug/L	#	59
18) methylene chloride	6.375	84	3026	0.63	ug/L	#	69
19) methyl tert butyl ether	7.122	73	4790	0.56	ug/L		62
21) allyl chloride	6.462	41	4207	0.51	ug/L		92
22) trans-1,2-dichloroethene	7.008	96	2995	0.69	ug/L	#	73
24) carbon disulfide	6.624	76	12074	0.93	ug/L		95
26) vinyl acetate	7.398	43	4489	0.44	ug/L		77
27) chloroprene	7.614	53	4390	0.59	ug/L		84
28) di-isopropyl ether	7.668	45	12583	0.55	ug/L		72
29) methacrylonitrile	7.803	41	2362	0.62	ug/L	#	22
31) Hexane	7.621	41	3993	0.42	ug/L	#	91
32) 1,1-dichloroethane	7.257	63	4878	0.50	ug/L		89
33) tert-butyl ethyl ether	8.045	59	2649	0.16	ug/L		79
34) isobutyl alcohol	7.661	43	8528	2.20	ug/L		69
36) cis-1,2-dichloroethene	7.809	96	3261	0.65	ug/L	#	68
37) ethyl acetate	7.991	43	4231	0.81	ug/L	#	64
39) chloroform	8.011	83	4406	0.49	ug/L		85
41) Tetrahydrofuran	8.342	42	1915	0.90	ug/L	#	30
42) 1,1,1-trichloroethane	8.732	97	3903	0.53	ug/L		89
44) Cyclohexane	8.995	56	5663	0.62	ug/L	#	66
45) carbon tetrachloride	9.083	117	2947	0.48	ug/L		84
46) 1,1-dichloropropene	8.901	75	3392	0.55	ug/L		87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79736.D
Acq On : 12 Sep 2014 4:26 pm
Operator : jaclynb
Sample : ic2607-0.5
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 15 08:37:25 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 08:37:10 2014
Response via : Initial Calibration

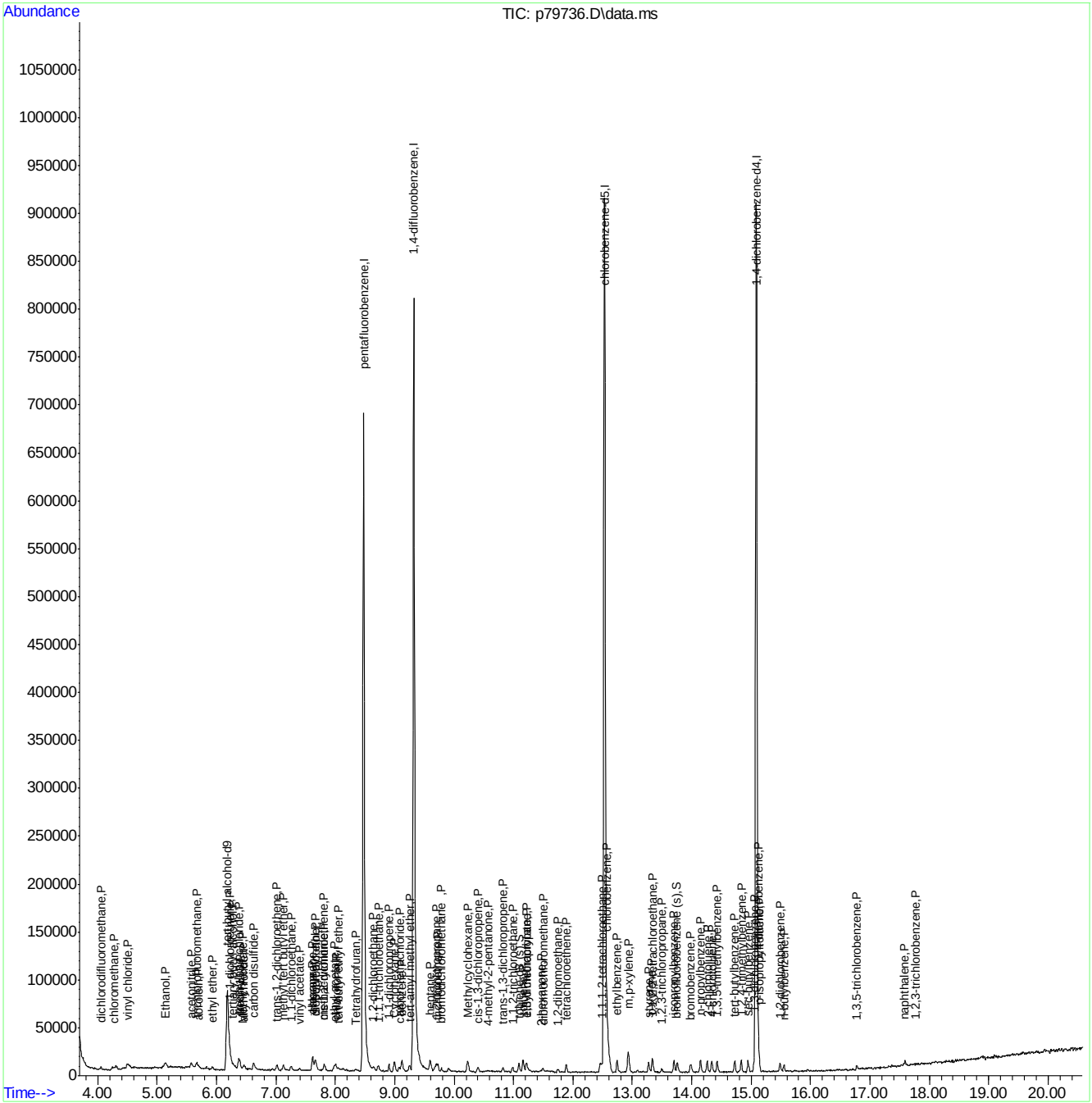
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47)	benzene	9.123	78	10990	0.56	ug/L		89
48)	1,2-dichloroethane	8.645	62	2998	0.44	ug/L		83
49)	tert-amyl methyl ether	9.251	73	4622	0.32	ug/L		80
50)	heptane	9.594	43	7359	0.93	ug/L	#	68
51)	trichloroethene	9.722	95	3110	0.61	ug/L		80
52)	1,2-dichloropropane	9.702	63	3621	0.61	ug/L		92
54)	bromodichloromethane	9.783	83	3349	0.49	ug/L		97
55)	Methylcyclohexane	10.234	83	4107	0.58	ug/L	#	84
59)	cis-1,3-dichloropropene	10.396	75	2689	0.40	ug/L		56
61)	4-methyl-2-pentanone	10.565	43	6646	0.93	ug/L	#	45
62)	toluene	11.157	92	5688	0.51	ug/L		89
63)	trans-1,3-dichloropropene	10.814	75	2552	0.45	ug/L		55
64)	1,1,2-trichloroethane	10.982	83	1943	0.51	ug/L		92
65)	ethyl methacrylate	11.218	69	3637	0.55	ug/L	#	1
67)	tetrachloroethene	11.885	166	2238	0.49	ug/L		83
68)	1,3-dichloropropane	11.218	76	3154	0.47	ug/L		81
69)	dibromochloromethane	11.501	129	1910	0.42	ug/L		93
70)	1,2-dibromoethane	11.743	107	1660	0.42	ug/L		95
71)	2-hexanone	11.467	43	1649	0.31	ug/L	#	25
72)	chlorobenzene	12.565	112	6557	0.58	ug/L		92
73)	1,1,1,2-tetrachloroethane	12.491	131	1991	0.49	ug/L	#	81
74)	ethylbenzene	12.740	91	12016	0.59	ug/L		98
75)	m,p-xylene	12.936	106	8419	1.16	ug/L		83
76)	o-xylene	13.333	106	3987	0.56	ug/L		87
77)	styrene	13.273	104	6920	0.59	ug/L		79
81)	isopropylbenzene	13.697	105	10644	0.71	ug/L		95
83)	bromobenzene	13.980	156	2786	0.61	ug/L		93
84)	1,1,2,2-tetrachloroethane	13.347	83	2710	0.53	ug/L		94
85)	1,2,3-trichloropropane	13.495	75	2552	0.51	ug/L		73
86)	n-propylbenzene	14.148	91	13603	0.72	ug/L		98
87)	2-chlorotoluene	14.263	91	8673	0.79	ug/L		95
88)	4-chlorotoluene	14.344	91	8625	0.75	ug/L		96
89)	1,3,5-trimethylbenzene	14.424	105	8884	0.65	ug/L		96
90)	tert-butylbenzene	14.721	91	5556	0.76	ug/L		78
91)	1,2,4-trimethylbenzene	14.835	105	8027	0.60	ug/L		92
92)	sec-butylbenzene	14.950	105	10793	0.67	ug/L		93
93)	1,3-dichlorobenzene	15.051	146	4646	0.62	ug/L		86
94)	p-isopropyltoluene	15.132	119	7783	0.61	ug/L		95
95)	1,4-dichlorobenzene	15.118	146	5317	0.68	ug/L		89
96)	1,2-dichlorobenzene	15.489	146	4233	0.59	ug/L		94
97)	n-butylbenzene	15.556	91	5826	0.53	ug/L		99
99)	1,3,5-trichlorobenzene	16.782	180	1906	0.44	ug/L		100
102)	naphthalene	17.577	128	2520	4.10	ug/L		100
103)	1,2,3-trichlorobenzene	17.766	180	275m	6.20	ug/L		

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79736.D
Acq On : 12 Sep 2014 4:26 pm
Operator : jaclynb
Sample : ic2607-0.5
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 15 08:37:25 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 08:37:10 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/17/14 14:44

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79737.D
Acq On : 12 Sep 2014 4:55 pm
Operator : jaclynb
Sample : ic2607-1
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 15 07:49:02 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:47:56 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.179	65	136977	50.00	ug/L	#	0.02
4) pentafluorobenzene	8.476	168	447007	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.325	114	606250	50.00	ug/L		0.00
66) chlorobenzene-d5	12.532	82	275998	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.085	152	219060	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	0.000	113	0d	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
60) toluene-d8 (s)	0.000	98	0d	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
82) bromofluorobenzene (s)	0.000	95	0d	0.00	ug/L		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
Target Compounds							Qvalue
5) dichlorodifluoromethane	4.050	85	6654	1.14	ug/L		89
6) chloromethane	4.279	50	6846	1.11	ug/L		93
7) vinyl chloride	4.495	62	4696	1.04	ug/L		83
8) bromomethane	4.946	96	1188m	1.14	ug/L		
9) chloroethane	5.101	64	2923	1.25	ug/L		91
10) ethyl ether	5.923	59	3574	1.14	ug/L		81
12) trichlorofluoromethane	5.674	101	7428	1.06	ug/L		98
13) freon-113	6.395	101	5052	1.35	ug/L		86
15) 1,1-dichloroethene	6.220	96	5742	1.44	ug/L		92
16) acetone	5.822	58	1588	2.02	ug/L		92
18) methylene chloride	6.368	84	6836	1.50	ug/L	#	77
19) methyl tert butyl ether	7.116	73	10589	1.22	ug/L		80
20) acrylonitrile	6.307	53	2431	1.40	ug/L	#	50
21) allyl chloride	6.462	41	7484	0.94	ug/L		83
22) trans-1,2-dichloroethene	7.021	96	4948	1.19	ug/L		85
23) iodomethane	6.280	142	874m	0.47	ug/L		
24) carbon disulfide	6.624	76	19938	1.29	ug/L		97
27) chloroprene	7.621	53	8196	1.23	ug/L		90
28) di-isopropyl ether	7.668	45	26519	1.36	ug/L		79
29) methacrylonitrile	7.796	41	3742	1.23	ug/L	#	65
32) 1,1-dichloroethane	7.257	63	10890	1.34	ug/L		95
33) tert-butyl ethyl ether	8.045	59	5498	0.96	ug/L		89
34) isobutyl alcohol	7.661	43	16811	4.96	ug/L		99
36) cis-1,2-dichloroethene	7.816	96	6067	1.29	ug/L		96
38) bromochloromethane	7.971	128	2493	1.46	ug/L	#	57
39) chloroform	8.011	83	10511	1.41	ug/L		90
41) Tetrahydrofuran	8.348	42	3362	2.10	ug/L		80
42) 1,1,1-trichloroethane	8.726	97	7608	1.20	ug/L		88
44) Cyclohexane	8.995	56	10896	1.31	ug/L	#	77
45) carbon tetrachloride	9.076	117	6370	1.27	ug/L		99
46) 1,1-dichloropropene	8.901	75	6928	1.30	ug/L		94
47) benzene	9.123	78	23078	1.32	ug/L		89
48) 1,2-dichloroethane	8.651	62	7830	1.46	ug/L		88
49) tert-amyl methyl ether	9.244	73	8820	1.32	ug/L	#	63

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79737.D
Acq On : 12 Sep 2014 4:55 pm
Operator : jaclynb
Sample : ic2607-1
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 15 07:49:02 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:47:56 2014
Response via : Initial Calibration

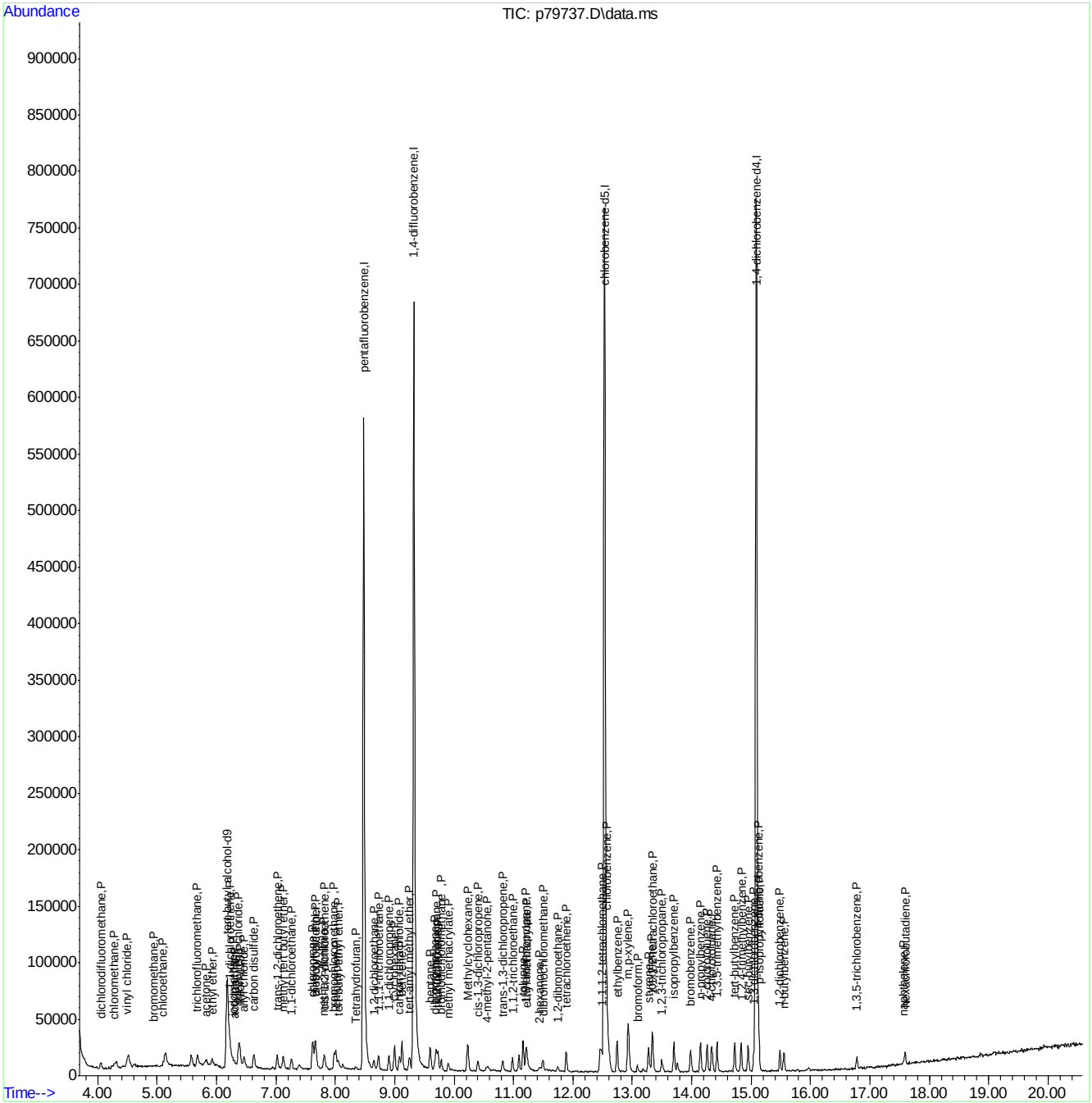
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
50) heptane	9.595	43	13516	1.41	ug/L		80
51) trichloroethene	9.723	95	5883	1.26	ug/L		86
52) 1,2-dichloropropane	9.702	63	6603	1.18	ug/L		92
53) dibromomethane	9.675	93	3214	1.27	ug/L		89
54) bromodichloromethane	9.783	83	7625	1.33	ug/L		94
55) Methylcyclohexane	10.228	83	8047	1.28	ug/L	#	61
57) methyl methacrylate	9.904	69	3450	1.16	ug/L	#	74
59) cis-1,3-dichloropropene	10.403	75	6296	1.17	ug/L		95
61) 4-methyl-2-pentanone	10.558	43	12865	2.30	ug/L	#	62
62) toluene	11.164	92	12344	1.28	ug/L		98
63) trans-1,3-dichloropropene	10.821	75	5798	1.25	ug/L		91
64) 1,1,2-trichloroethane	10.982	83	4065	1.21	ug/L		91
65) ethyl methacrylate	11.225	69	7890	1.38	ug/L	#	1
67) tetrachloroethene	11.885	166	5076	1.39	ug/L		91
68) 1,3-dichloropropane	11.211	76	7695	1.40	ug/L		86
69) dibromochloromethane	11.494	129	4710	1.33	ug/L		96
70) 1,2-dibromoethane	11.750	107	4639	1.54	ug/L		89
71) 2-hexanone	11.434	43	7367	1.74	ug/L		75
72) chlorobenzene	12.565	112	13004	1.30	ug/L		92
73) 1,1,1,2-tetrachloroethane	12.484	131	4466	1.32	ug/L		90
74) ethylbenzene	12.747	91	23532	1.31	ug/L		97
75) m,p-xylene	12.929	106	16490	2.56	ug/L		82
76) o-xylene	13.333	106	8368	1.34	ug/L		87
77) styrene	13.273	104	13241	1.25	ug/L		92
78) bromoform	13.091	173	3401	1.34	ug/L		84
81) isopropylbenzene	13.704	105	20944	1.63	ug/L		99
83) bromobenzene	13.980	156	5320	1.26	ug/L		95
84) 1,1,2,2-tetrachloroethane	13.347	83	6554	1.51	ug/L		84
85) 1,2,3-trichloropropane	13.495	75	5900	1.39	ug/L		100
86) n-propylbenzene	14.148	91	24232	1.28	ug/L		97
87) 2-chlorotoluene	14.256	91	16710	1.39	ug/L		100
88) 4-chlorotoluene	14.337	91	16750	1.38	ug/L		99
89) 1,3,5-trimethylbenzene	14.424	105	16675	1.30	ug/L		96
90) tert-butylbenzene	14.721	91	10657	1.39	ug/L		97
91) 1,2,4-trimethylbenzene	14.835	105	15780	1.31	ug/L		97
92) sec-butylbenzene	14.950	105	18770	1.23	ug/L		89
93) 1,3-dichlorobenzene	15.044	146	8858	1.29	ug/L		92
94) p-isopropyltoluene	15.132	119	14589	1.25	ug/L		96
95) 1,4-dichlorobenzene	15.118	146	8994	1.19	ug/L		97
96) 1,2-dichlorobenzene	15.482	146	8290	1.28	ug/L		95
97) n-butylbenzene	15.549	91	11020	1.15	ug/L		94
99) 1,3,5-trichlorobenzene	16.782	180	4223	1.22	ug/L		84
101) hexachlorobutadiene	17.591	225	2369	1.35	ug/L		79
102) naphthalene	17.570	128	3035	0.81	ug/L		100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79737.D
Acq On : 12 Sep 2014 4:55 pm
Operator : jaclynb
Sample : ic2607-1
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 15 07:49:02 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:47:56 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/17/14 14:44

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79738.D
Acq On : 12 Sep 2014 5:25 pm
Operator : jaclynb
Sample : ic2607-2
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 15 07:50:17 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:49:21 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.172	65	175728	50.00	ug/L	#	0.01
4) pentafluorobenzene	8.476	168	525313	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.325	114	712510	50.00	ug/L		0.00
66) chlorobenzene-d5	12.531	82	328304	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.084	152	260275	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.133	113	2792	0.65	ug/L		0.01
Spiked Amount 50.000	Range 70 - 130		Recovery = 1.30%#				
60) toluene-d8 (s)	11.090	98	11454	0.78	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 1.56%#				
82) bromofluorobenzene (s)	13.757	95	4073	0.59	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 1.18%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.260	59	9996	17.47	ug/L		98
3) Ethanol	5.135	45	15208	213.20	ug/L		91
5) dichlorodifluoromethane	4.057	85	14413	2.00	ug/L		97
6) chloromethane	4.286	50	13214	1.76	ug/L		98
7) vinyl chloride	4.495	62	10882	2.02	ug/L		86
8) bromomethane	4.953	96	1858	1.42	ug/L		74
9) chloroethane	5.094	64	6066	2.04	ug/L		99
10) ethyl ether	5.923	59	5781	1.50	ug/L		72
12) trichlorofluoromethane	5.681	101	18306	2.18	ug/L		99
13) freon-113	6.395	101	7474	1.52	ug/L		86
14) acrolein	5.694	56	7703	10.17	ug/L		88
15) 1,1-dichloroethene	6.219	96	7640	1.42	ug/L		87
16) acetone	5.829	58	2187	1.57	ug/L	#	79
17) Methyl Acetate	6.422	43	9252	1.78	ug/L	#	82
18) methylene chloride	6.374	84	9545	1.53	ug/L	#	62
19) methyl tert butyl ether	7.122	73	15575	1.42	ug/L		72
20) acrylonitrile	6.314	53	3608	1.47	ug/L	#	69
21) allyl chloride	6.462	41	13894	1.53	ug/L		76
22) trans-1,2-dichloroethene	7.021	96	7965	1.54	ug/L		95
23) iodomethane	6.280	142	1258m	0.78	ug/L		
24) carbon disulfide	6.630	76	27383	1.37	ug/L		95
26) vinyl acetate	7.385	43	21559	2.14	ug/L		77
27) chloroprene	7.614	53	12715	1.51	ug/L		91
28) di-isopropyl ether	7.668	45	40113	1.48	ug/L		79
29) methacrylonitrile	7.789	41	7350	1.84	ug/L	#	67
30) 2-butanone	7.688	72	566m	0.72	ug/L		
31) Hexane	7.627	41	21250	2.26	ug/L	#	93
32) 1,1-dichloroethane	7.264	63	16895	1.59	ug/L		95
33) tert-butyl ethyl ether	8.045	59	8179	1.24	ug/L		83
34) isobutyl alcohol	7.668	43	37952	9.57	ug/L		96
36) cis-1,2-dichloroethene	7.823	96	8268	1.36	ug/L		93
37) ethyl acetate	7.978	43	10356	2.05	ug/L	#	64
38) bromochloromethane	7.978	128	3762	1.52	ug/L	#	70
39) chloroform	8.011	83	15814	1.59	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79738.D
Acq On : 12 Sep 2014 5:25 pm
Operator : jaclynb
Sample : ic2607-2
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 15 07:50:17 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:49:21 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Tetrahydrofuran	8.341	42	4758	1.63	ug/L		66
42) 1,1,1-trichloroethane	8.732	97	11502	1.45	ug/L		92
44) Cyclohexane	9.002	56	16083	1.49	ug/L	#	71
45) carbon tetrachloride	9.082	117	9290	1.45	ug/L		95
46) 1,1-dichloropropene	8.907	75	10358	1.51	ug/L		89
47) benzene	9.123	78	33861	1.49	ug/L		94
48) 1,2-dichloroethane	8.645	62	10732	1.48	ug/L		92
49) tert-amyl methyl ether	9.251	73	13456	1.55	ug/L		85
50) heptane	9.594	43	14365	1.12	ug/L		83
51) trichloroethene	9.729	95	8453	1.42	ug/L		96
52) 1,2-dichloropropane	9.702	63	10272	1.48	ug/L		92
53) dibromomethane	9.675	93	5192	1.60	ug/L		82
54) bromodichloromethane	9.783	83	10922	1.46	ug/L		97
55) Methylcyclohexane	10.228	83	12048	1.49	ug/L	#	73
57) methyl methacrylate	9.897	69	5395	1.43	ug/L	#	67
59) cis-1,3-dichloropropene	10.396	75	10045	1.50	ug/L		94
61) 4-methyl-2-pentanone	10.544	43	17720	1.63	ug/L	#	68
62) toluene	11.157	92	18433	1.49	ug/L		94
63) trans-1,3-dichloropropene	10.814	75	8730	1.48	ug/L		98
64) 1,1,2-trichloroethane	10.982	83	5857	1.39	ug/L		95
65) ethyl methacrylate	11.204	69	11178	1.40	ug/L	#	1
67) tetrachloroethene	11.885	166	7446	1.52	ug/L		93
68) 1,3-dichloropropane	11.211	76	11715	1.58	ug/L		97
69) dibromochloromethane	11.494	129	7218	1.55	ug/L		97
70) 1,2-dibromoethane	11.743	107	6991	1.65	ug/L		90
71) 2-hexanone	11.427	43	8514	1.23	ug/L		83
72) chlorobenzene	12.565	112	20126	1.54	ug/L		98
73) 1,1,1,2-tetrachloroethane	12.484	131	6867	1.54	ug/L		91
74) ethylbenzene	12.740	91	35284	1.49	ug/L		98
75) m,p-xylene	12.929	106	24557	2.93	ug/L		94
76) o-xylene	13.340	106	11804	1.43	ug/L		98
77) styrene	13.266	104	19877	1.46	ug/L		89
78) bromoform	13.084	173	4911	1.46	ug/L		92
79) trans-1,4-dichloro-2-b...	13.508	53	1629	1.27	ug/L	#	12
81) isopropylbenzene	13.704	105	29306	1.46	ug/L		100
83) bromobenzene	13.980	156	8110	1.49	ug/L		90
84) 1,1,2,2-tetrachloroethane	13.347	83	9698	1.61	ug/L		96
85) 1,2,3-trichloropropane	13.495	75	8758	1.53	ug/L		79
86) n-propylbenzene	14.141	91	35717	1.45	ug/L		93
87) 2-chlorotoluene	14.256	91	22601	1.40	ug/L		97
88) 4-chlorotoluene	14.337	91	23212	1.43	ug/L		97
89) 1,3,5-trimethylbenzene	14.424	105	23760	1.42	ug/L		98
90) tert-butylbenzene	14.721	91	15267	1.48	ug/L		95
91) 1,2,4-trimethylbenzene	14.829	105	22823	1.44	ug/L		94
92) sec-butylbenzene	14.950	105	27307	1.40	ug/L		97
93) 1,3-dichlorobenzene	15.051	146	13137	1.47	ug/L		96
94) p-isopropyltoluene	15.132	119	20767	1.38	ug/L		98
95) 1,4-dichlorobenzene	15.111	146	13427	1.41	ug/L		92
96) 1,2-dichlorobenzene	15.482	146	12253	1.46	ug/L		89
97) n-butylbenzene	15.549	91	16352	1.37	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79738.D
Acq On : 12 Sep 2014 5:25 pm
Operator : jaclynb
Sample : ic2607-2
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 15 07:50:17 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:49:21 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
98) 1,2-dibromo-3-chloropr...	15.967	75	1053m	1.53	ug/L		
99) 1,3,5-trichlorobenzene	16.782	180	6407	1.45	ug/L		93
100) 1,2,4-trichlorobenzene	17.321	180	871m	0.27	ug/L		
101) hexachlorobutadiene	17.590	225	3545	1.45	ug/L		86
102) naphthalene	17.570	128	3874	0.96	ug/L		100
103) 1,2,3-trichlorobenzene	17.772	180	585m	0.23	ug/L		
104) 2-Methylnaphthalene	19.093	142	1530	1.20	ug/L		86
105) 1-Methylnaphthalene	19.093	142	1530	1.40	ug/L	#	75

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

7.6.15

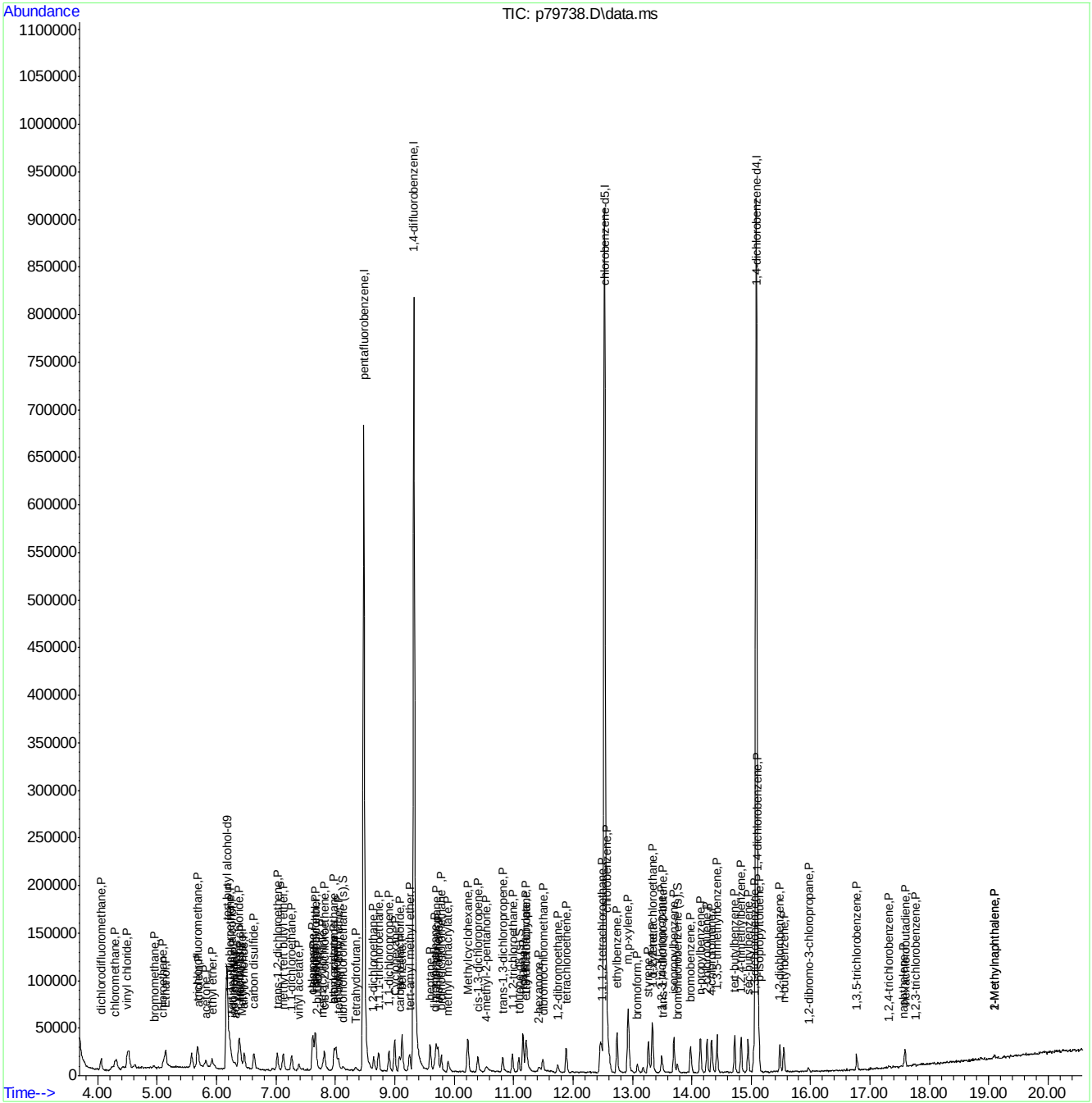
7

ACCUTEST LABORATORIES MC33908

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79738.D
Acq On : 12 Sep 2014 5:25 pm
Operator : jaclynb
Sample : ic2607-2
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 15 07:50:17 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:49:21 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/17/14 14:44

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79739.D
Acq On : 12 Sep 2014 5:55 pm
Operator : jaclynb
Sample : ic2607-5
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 15 07:50:54 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:50:34 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.166	65	178782	50.00	ug/L	#	0.00
4) pentafluorobenzene	8.476	168	520887	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.318	114	713676	50.00	ug/L		0.00
66) chlorobenzene-d5	12.525	82	330215	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.085	152	269337	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.126	113	21091	7.45	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 14.90%#				
60) toluene-d8 (s)	11.083	98	73207	6.27	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 12.54%#				
82) bromofluorobenzene (s)	13.751	95	24768	4.51	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 9.02%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.253	59	28401	52.08	ug/L		92
3) Ethanol	5.122	45	38834	518.02	ug/L		98
5) dichlorodifluoromethane	4.051	85	34069	4.78	ug/L		99
6) chloromethane	4.286	50	31825	4.41	ug/L		93
7) vinyl chloride	4.495	62	27063	5.05	ug/L		95
8) bromomethane	4.940	96	4575	3.89	ug/L	#	71
9) chloroethane	5.101	64	13544	4.57	ug/L		98
10) ethyl ether	5.923	59	15900	4.44	ug/L		81
11) acetonitrile	5.721	41	3243	5.72	ug/L	#	55
12) trichlorofluoromethane	5.674	101	44171	5.18	ug/L		99
13) freon-113	6.388	101	21538	4.70	ug/L		90
14) acrolein	5.688	56	18052	23.91	ug/L		88
15) 1,1-dichloroethene	6.220	96	20371	4.12	ug/L		97
16) acetone	5.816	58	5831	4.54	ug/L	#	53
17) Methyl Acetate	6.415	43	24342	5.00	ug/L	#	91
18) methylene chloride	6.375	84	25492	4.37	ug/L	#	61
19) methyl tert butyl ether	7.116	73	40104	3.98	ug/L		81
20) acrylonitrile	6.301	53	9878	4.46	ug/L		85
21) allyl chloride	6.462	41	39821	4.80	ug/L		86
22) trans-1,2-dichloroethene	7.021	96	20248	4.18	ug/L		91
23) iodomethane	6.280	142	4492	3.54	ug/L		86
24) carbon disulfide	6.631	76	69706	3.83	ug/L		99
25) propionitrile	7.318	54	3091	4.39	ug/L		100
26) vinyl acetate	7.378	43	43851	4.24	ug/L		89
27) chloroprene	7.607	53	34996	4.46	ug/L		98
28) di-isopropyl ether	7.661	45	110794	4.52	ug/L		82
29) methacrylonitrile	7.783	41	17923	4.66	ug/L		79
30) 2-butanone	7.688	72	2621	4.93	ug/L	#	1
31) Hexane	7.621	41	46572	4.69	ug/L	#	98
32) 1,1-dichloroethane	7.264	63	46434	4.65	ug/L		97
33) tert-butyl ethyl ether	8.039	59	19783	3.33	ug/L		89
34) isobutyl alcohol	7.661	43	92993	23.99	ug/L		96
35) 2,2-dichloropropane	8.086	77	2046	0.38	ug/L	#	60
36) cis-1,2-dichloroethene	7.809	96	23350	4.21	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79739.D
Acq On : 12 Sep 2014 5:55 pm
Operator : jaclynb
Sample : ic2607-5
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 15 07:50:54 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:50:34 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	7.971	43	22443	4.42	ug/L		71
38) bromochloromethane	7.978	128	10323	4.58	ug/L	#	66
39) chloroform	8.005	83	43409	4.63	ug/L		100
41) Tetrahydrofuran	8.335	42	10477	3.86	ug/L		75
42) 1,1,1-trichloroethane	8.726	97	34926	4.76	ug/L		91
44) Cyclohexane	8.995	56	44092	4.36	ug/L	#	75
45) carbon tetrachloride	9.076	117	29361	4.90	ug/L		97
46) 1,1-dichloropropene	8.901	75	29166	4.51	ug/L		94
47) benzene	9.116	78	94256	4.43	ug/L		98
48) 1,2-dichloroethane	8.645	62	29963	4.41	ug/L		99
49) tert-amyl methyl ether	9.244	73	32130	3.92	ug/L		81
50) heptane	9.595	43	39028	3.42	ug/L		76
51) trichloroethene	9.729	95	23552	4.25	ug/L		99
52) 1,2-dichloropropane	9.696	63	27747	4.26	ug/L		92
53) dibromomethane	9.669	93	14551	4.71	ug/L		84
54) bromodichloromethane	9.783	83	31027	4.44	ug/L		100
55) Methylcyclohexane	10.228	83	33414	4.42	ug/L	#	75
57) methyl methacrylate	9.891	69	16564	4.85	ug/L	#	53
58) 1,4-dioxane	9.884	88	420m	9.79	ug/L		
59) cis-1,3-dichloropropene	10.396	75	28653	4.56	ug/L		99
61) 4-methyl-2-pentanone	10.518	43	37763	3.70	ug/L	#	76
62) toluene	11.157	92	51471	4.44	ug/L		93
63) trans-1,3-dichloropropene	10.814	75	24101	4.36	ug/L		96
64) 1,1,2-trichloroethane	10.976	83	17756	4.55	ug/L		98
65) ethyl methacrylate	11.205	69	30491	4.24	ug/L	#	1
67) tetrachloroethene	11.885	166	22000	4.74	ug/L		91
68) 1,3-dichloropropane	11.211	76	33534	4.75	ug/L		95
69) dibromochloromethane	11.488	129	21753	4.91	ug/L		93
70) 1,2-dibromoethane	11.744	107	19651	4.83	ug/L		94
71) 2-hexanone	11.413	43	32849	5.43	ug/L		75
72) chlorobenzene	12.565	112	54202	4.36	ug/L		92
73) 1,1,1,2-tetrachloroethane	12.485	131	19716	4.67	ug/L		94
74) ethylbenzene	12.741	91	96472	4.33	ug/L		98
75) m,p-xylene	12.922	106	67545	8.59	ug/L		89
76) o-xylene	13.333	106	32346	4.19	ug/L		97
77) styrene	13.266	104	52826	4.14	ug/L		95
78) bromoform	13.084	173	14726	4.66	ug/L		99
79) trans-1,4-dichloro-2-b...	13.502	53	5574	5.29	ug/L	#	37
81) isopropylbenzene	13.697	105	79760	4.22	ug/L		96
83) bromobenzene	13.973	156	21369	4.05	ug/L		93
84) 1,1,2,2-tetrachloroethane	13.340	83	25523	4.30	ug/L		98
85) 1,2,3-trichloropropane	13.495	75	24753	4.45	ug/L		100
86) n-propylbenzene	14.142	91	96201	4.06	ug/L		97
87) 2-chlorotoluene	14.256	91	60483	3.91	ug/L		94
88) 4-chlorotoluene	14.330	91	63127	4.04	ug/L		93
89) 1,3,5-trimethylbenzene	14.425	105	68087	4.23	ug/L		94
90) tert-butylbenzene	14.721	91	40515	4.06	ug/L		89
91) 1,2,4-trimethylbenzene	14.829	105	65126	4.28	ug/L		94
92) sec-butylbenzene	14.950	105	78784	4.22	ug/L		99
93) 1,3-dichlorobenzene	15.044	146	35103	4.06	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79739.D
Acq On : 12 Sep 2014 5:55 pm
Operator : jaclynb
Sample : ic2607-5
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 15 07:50:54 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:50:34 2014
Response via : Initial Calibration

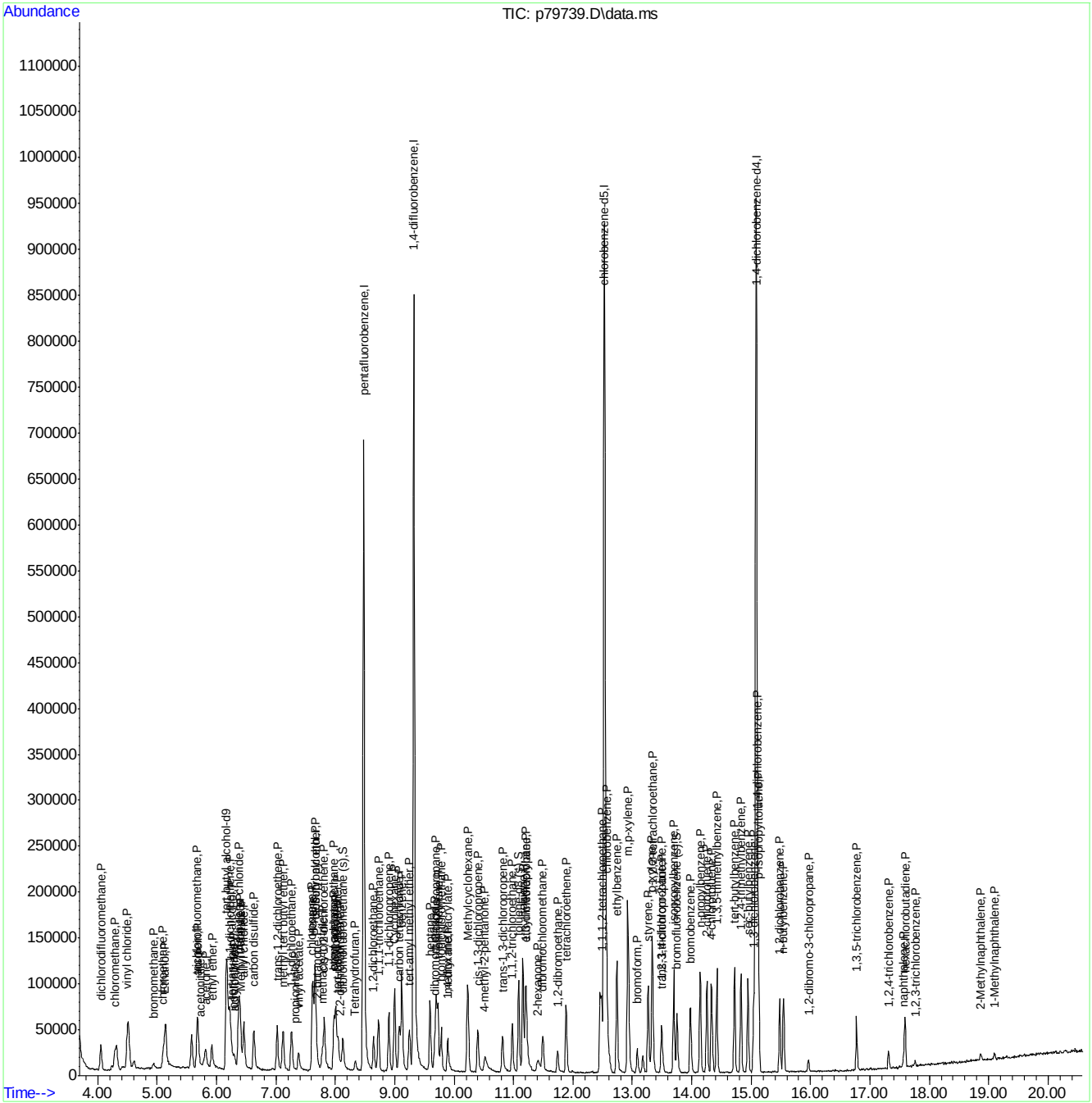
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	p-isopropyltoluene	15.125	119	60146	4.19	ug/L	98
95)	1,4-dichlorobenzene	15.112	146	37019	4.05	ug/L	97
96)	1,2-dichlorobenzene	15.482	146	33792	4.17	ug/L	97
97)	n-butylbenzene	15.543	91	52096	4.57	ug/L	94
98)	1,2-dibromo-3-chloropr...	15.967	75	3302	5.25	ug/L	92
99)	1,3,5-trichlorobenzene	16.776	180	19091	4.49	ug/L	98
100)	1,2,4-trichlorobenzene	17.314	180	6171	3.22	ug/L	93
101)	hexachlorobutadiene	17.591	225	10473	4.55	ug/L	97
102)	naphthalene	17.570	128	7167	2.08	ug/L	100
103)	1,2,3-trichlorobenzene	17.759	180	2290	1.57	ug/L	98
104)	2-Methylnaphthalene	18.864	142	3967	2.73	ug/L	94
105)	1-Methylnaphthalene	19.093	142	3616	2.66	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79739.D
Acq On : 12 Sep 2014 5:55 pm
Operator : jaclynb
Sample : ic2607-5
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 15 07:50:54 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:50:34 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES MC33908

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/17/14 14:44

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79740.D
Acq On : 12 Sep 2014 6:25 pm
Operator : jaclynb
Sample : ic2607-10
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 15 07:51:28 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:51:17 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.166	65	178312	50.00	ug/L	#	0.00
4) pentafluorobenzene	8.476	168	539841	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.318	114	727414	50.00	ug/L		0.00
66) chlorobenzene-d5	12.525	82	344775	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.085	152	283698	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.126	113	43711	12.80	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 25.60%#				
60) toluene-d8 (s)	11.083	98	148778	11.75	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 23.50%#				
82) bromofluorobenzene (s)	13.751	95	48459	8.59	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 17.18%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.247	59	55425	100.51	ug/L		93
3) Ethanol	5.122	45	75970	1004.00	ug/L		100
5) dichlorodifluoromethane	4.051	85	60130	8.21	ug/L		100
6) chloromethane	4.286	50	58658	8.04	ug/L		98
7) vinyl chloride	4.495	62	47463	8.53	ug/L		97
8) bromomethane	4.933	96	9120	7.93	ug/L		96
9) chloroethane	5.095	64	23088	7.65	ug/L		91
10) ethyl ether	5.916	59	34277	9.45	ug/L		85
11) acetonitrile	5.708	41	6756	10.73	ug/L		86
12) trichlorofluoromethane	5.674	101	79955	8.99	ug/L		100
13) freon-113	6.388	101	43734	9.32	ug/L		93
14) acrolein	5.687	56	25683	33.18	ug/L		97
15) 1,1-dichloroethene	6.220	96	40090	8.11	ug/L		95
16) acetone	5.815	58	11569	8.90	ug/L	#	66
17) Methyl Acetate	6.415	43	49592	9.83	ug/L	#	87
18) methylene chloride	6.375	84	50964	8.64	ug/L	#	60
19) methyl tert butyl ether	7.116	73	78325	7.82	ug/L		77
20) acrylonitrile	6.300	53	20374	9.12	ug/L		82
21) allyl chloride	6.455	41	88338	10.37	ug/L		82
22) trans-1,2-dichloroethene	7.021	96	41591	8.56	ug/L		88
23) iodomethane	6.280	142	10518	8.63	ug/L		94
24) carbon disulfide	6.624	76	138879	7.72	ug/L		100
25) propionitrile	7.304	54	6607	9.64	ug/L		100
26) vinyl acetate	7.372	43	93012	9.14	ug/L		94
27) chloroprene	7.607	53	72191	9.07	ug/L		96
28) di-isopropyl ether	7.661	45	235733	9.51	ug/L		84
29) methacrylonitrile	7.782	41	34160	8.71	ug/L		76
30) 2-butanone	7.675	72	6856	12.49	ug/L	#	74
31) Hexane	7.621	41	99624	9.88	ug/L	#	94
32) 1,1-dichloroethane	7.257	63	97357	9.54	ug/L		98
33) tert-butyl ethyl ether	8.038	59	39701	6.91	ug/L		92
34) isobutyl alcohol	7.661	43	205168	51.60	ug/L		100
35) 2,2-dichloropropane	8.086	77	12602	4.22	ug/L		99
36) cis-1,2-dichloroethene	7.809	96	47111	8.47	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79740.D
Acq On : 12 Sep 2014 6:25 pm
Operator : jaclynb
Sample : ic2607-10
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 15 07:51:28 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:51:17 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	ethyl acetate	7.964	43	57589	11.39	ug/L		88
38)	bromochloromethane	7.971	128	22211	9.71	ug/L	#	57
39)	chloroform	8.005	83	90489	9.46	ug/L		99
41)	Tetrahydrofuran	8.335	42	25153	9.48	ug/L		73
42)	1,1,1-trichloroethane	8.726	97	75588	10.04	ug/L		95
44)	Cyclohexane	8.995	56	92058	9.17	ug/L	#	74
45)	carbon tetrachloride	9.076	117	61553	10.12	ug/L		98
46)	1,1-dichloropropene	8.901	75	61930	9.59	ug/L		99
47)	benzene	9.116	78	199185	9.40	ug/L		99
48)	1,2-dichloroethane	8.638	62	62449	9.23	ug/L		99
49)	tert-amyl methyl ether	9.244	73	56695	7.09	ug/L		80
50)	heptane	9.595	43	87985	8.08	ug/L		73
51)	trichloroethene	9.723	95	51565	9.41	ug/L		94
52)	1,2-dichloropropane	9.696	63	58660	9.11	ug/L		100
53)	dibromomethane	9.675	93	29248	9.40	ug/L		94
54)	bromodichloromethane	9.783	83	65945	9.46	ug/L		95
55)	Methylcyclohexane	10.228	83	70998	9.43	ug/L	#	77
56)	2-chloroethyl vinyl ether	10.228	63	461m	6.78	ug/L		
57)	methyl methacrylate	9.891	69	33595	9.72	ug/L	#	64
58)	1,4-dioxane	9.884	88	1536	50.47	ug/L		92
59)	cis-1,3-dichloropropene	10.396	75	62124	9.88	ug/L		99
61)	4-methyl-2-pentanone	10.504	43	69005	7.10	ug/L		86
62)	toluene	11.157	92	112265	9.71	ug/L		94
63)	trans-1,3-dichloropropene	10.814	75	52436	9.55	ug/L		96
64)	1,1,2-trichloroethane	10.975	83	38208	9.78	ug/L		96
65)	ethyl methacrylate	11.191	69	60730	8.61	ug/L	#	60
67)	tetrachloroethene	11.885	166	45336	9.45	ug/L		94
68)	1,3-dichloropropane	11.211	76	71284	9.76	ug/L		99
69)	dibromochloromethane	11.487	129	46372	10.06	ug/L		100
70)	1,2-dibromoethane	11.743	107	40345	9.56	ug/L		96
71)	2-hexanone	11.393	43	58537	9.07	ug/L		81
72)	chlorobenzene	12.559	112	112239	8.88	ug/L		96
73)	1,1,1,2-tetrachloroethane	12.484	131	42335	9.74	ug/L		96
74)	ethylbenzene	12.740	91	201370	8.90	ug/L		100
75)	m,p-xylene	12.922	106	144745	18.14	ug/L		94
76)	o-xylene	13.333	106	69967	8.96	ug/L		97
77)	styrene	13.266	104	113287	8.80	ug/L		90
78)	bromoform	13.084	173	31538	9.70	ug/L		97
79)	trans-1,4-dichloro-2-b...	13.495	53	12012	10.72	ug/L	#	85
81)	isopropylbenzene	13.697	105	168879	8.82	ug/L		95
83)	bromobenzene	13.980	156	45124	8.45	ug/L		96
84)	1,1,2,2-tetrachloroethane	13.340	83	53637	8.83	ug/L		100
85)	1,2,3-trichloropropane	13.495	75	51818	9.04	ug/L		100
86)	n-propylbenzene	14.142	91	204623	8.51	ug/L		99
87)	2-chlorotoluene	14.256	91	123701	7.94	ug/L		94
88)	4-chlorotoluene	14.330	91	131265	8.30	ug/L		99
89)	1,3,5-trimethylbenzene	14.418	105	143518	8.73	ug/L		97
90)	tert-butylbenzene	14.721	91	84889	8.40	ug/L		89
91)	1,2,4-trimethylbenzene	14.829	105	140778	9.04	ug/L		98
92)	sec-butylbenzene	14.943	105	169769	8.92	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79740.D
Acq On : 12 Sep 2014 6:25 pm
Operator : jaclynb
Sample : ic2607-10
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 15 07:51:28 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:51:17 2014
Response via : Initial Calibration

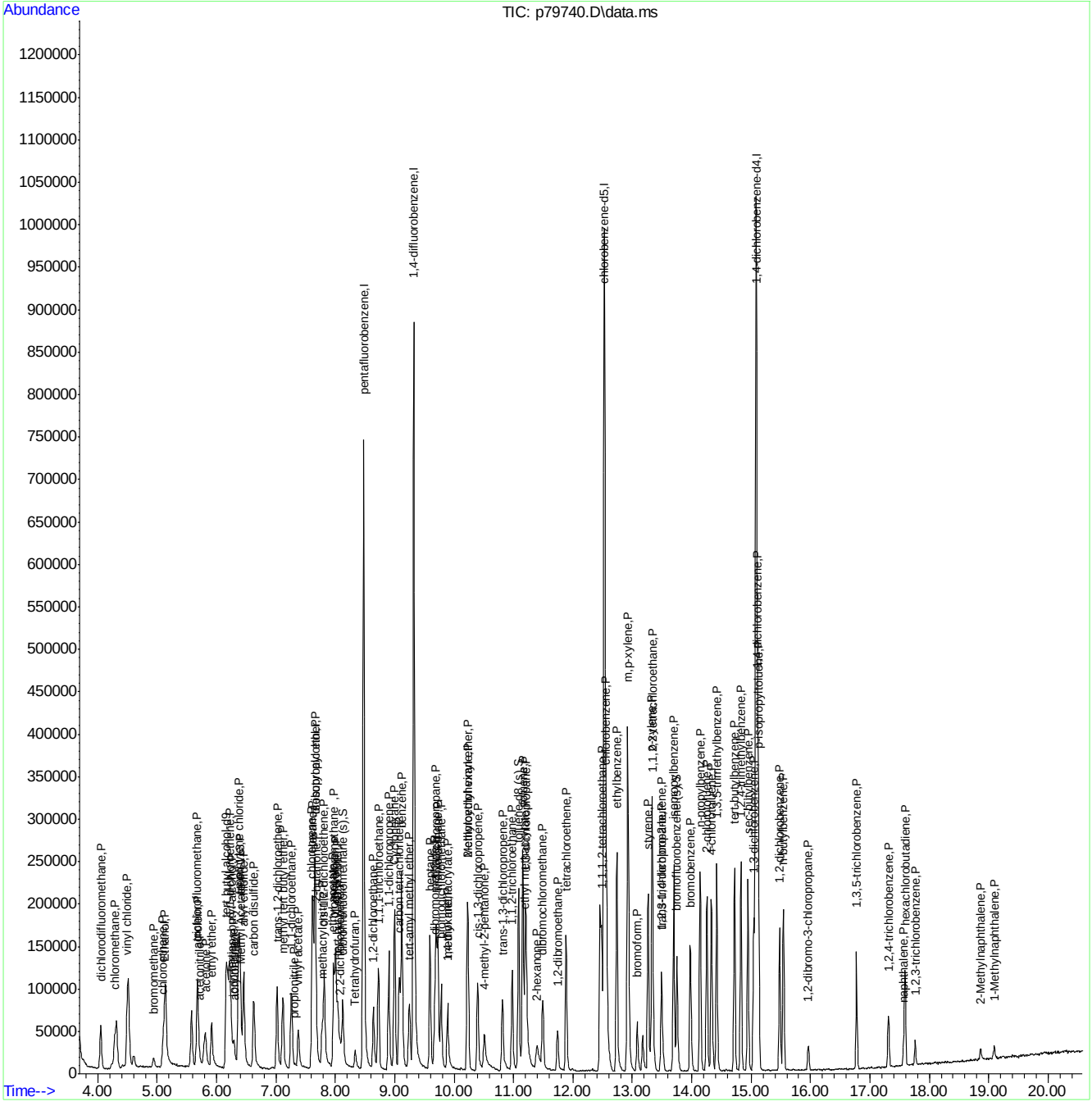
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.044	146	73930	8.43	ug/L	96
94) p-isopropyltoluene	15.125	119	133433	9.12	ug/L	97
95) 1,4-dichlorobenzene	15.112	146	78966	8.53	ug/L	97
96) 1,2-dichlorobenzene	15.482	146	72704	8.80	ug/L	98
97) n-butylbenzene	15.543	91	115356	9.77	ug/L	99
98) 1,2-dibromo-3-chloropr...	15.960	75	7142	10.61	ug/L	94
99) 1,3,5-trichlorobenzene	16.776	180	42650	9.72	ug/L	99
100) 1,2,4-trichlorobenzene	17.314	180	20011	11.25	ug/L	97
101) hexachlorobutadiene	17.591	225	21555	9.09	ug/L	86
102) naphthalene	17.564	128	14129	4.56	ug/L	100
103) 1,2,3-trichlorobenzene	17.759	180	9905	8.36	ug/L	90
104) 2-Methylnaphthalene	18.864	142	8221	5.21	ug/L	94
105) 1-Methylnaphthalene	19.093	142	7612	5.21	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79740.D
Acq On : 12 Sep 2014 6:25 pm
Operator : jaclynb
Sample : ic2607-10
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 15 07:51:28 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:51:17 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79741.D
Acq On : 12 Sep 2014 6:55 pm
Operator : jaclynb
Sample : ic2607-25
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 15 07:51:51 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:51:40 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.159	65	186872	50.00	ug/L	#	0.00
4) pentafluorobenzene	8.476	168	545654	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.318	114	740182	50.00	ug/L		0.00
66) chlorobenzene-d5	12.525	82	363871	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.085	152	301899	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.119	113	113044	30.61	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 61.22%#				
60) toluene-d8 (s)	11.083	98	385617	28.93	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 57.86%#				
82) bromofluorobenzene (s)	13.751	95	125462	21.50	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 43.00%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.240	59	141451	244.45	ug/L		94
3) Ethanol	5.115	45	185991	2343.07	ug/L		99
5) dichlorodifluoromethane	4.051	85	155859	21.69	ug/L		98
6) chloromethane	4.286	50	151162	21.18	ug/L		96
7) vinyl chloride	4.495	62	125782	22.93	ug/L		97
8) bromomethane	4.940	96	25338	22.73	ug/L		93
9) chloroethane	5.095	64	54809	18.70	ug/L		92
10) ethyl ether	5.910	59	103145	28.41	ug/L		80
11) acetonitrile	5.708	41	14102	21.63	ug/L		82
12) trichlorofluoromethane	5.674	101	204129	23.09	ug/L		95
13) freon-113	6.395	101	101519	21.65	ug/L		94
14) acrolein	5.681	56	70889	97.14	ug/L		98
15) 1,1-dichloroethene	6.220	96	92558	19.13	ug/L		97
16) acetone	5.809	58	27825	21.66	ug/L	#	56
17) Methyl Acetate	6.408	43	123795	24.38	ug/L	#	84
18) methylene chloride	6.368	84	122182	20.98	ug/L	#	60
19) methyl tert butyl ether	7.116	73	229077	23.48	ug/L		83
20) acrylonitrile	6.287	53	51079	23.03	ug/L		93
21) allyl chloride	6.455	41	250599	28.90	ug/L		82
22) trans-1,2-dichloroethene	7.015	96	98798	20.62	ug/L		86
23) iodomethane	6.280	142	38660	32.28	ug/L		92
24) carbon disulfide	6.624	76	328392	18.78	ug/L		100
25) propionitrile	7.284	54	16834	24.59	ug/L		100
26) vinyl acetate	7.372	43	246724	24.51	ug/L		91
27) chloroprene	7.607	53	175435	22.16	ug/L		90
28) di-isopropyl ether	7.654	45	582821	23.49	ug/L		87
29) methacrylonitrile	7.776	41	91072	23.59	ug/L		77
30) 2-butanone	7.668	72	19740	33.50	ug/L	#	25
31) Hexane	7.621	41	241352	23.75	ug/L	#	98
32) 1,1-dichloroethane	7.257	63	240698	23.52	ug/L		97
33) tert-butyl ethyl ether	8.038	59	128570	23.35	ug/L		89
34) isobutyl alcohol	7.654	43	500382	123.71	ug/L		100
35) 2,2-dichloropropane	8.079	77	89930	36.89	ug/L		95
36) cis-1,2-dichloroethene	7.809	96	116465	21.26	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79741.D
Acq On : 12 Sep 2014 6:55 pm
Operator : jaclynb
Sample : ic2607-25
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 15 07:51:51 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:51:40 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	7.958	43	121119	22.90	ug/L		98
38) bromochloromethane	7.971	128	54475	23.71	ug/L	#	63
39) chloroform	8.005	83	223040	23.28	ug/L		99
41) Tetrahydrofuran	8.328	42	57486	21.66	ug/L		75
42) 1,1,1-trichloroethane	8.726	97	184128	24.18	ug/L		95
44) Cyclohexane	8.995	56	216149	21.45	ug/L	#	73
45) carbon tetrachloride	9.076	117	153047	24.68	ug/L		97
46) 1,1-dichloropropene	8.901	75	149391	22.88	ug/L		99
47) benzene	9.116	78	484852	22.71	ug/L		99
48) 1,2-dichloroethane	8.638	62	160514	23.62	ug/L		98
49) tert-amyl methyl ether	9.244	73	132098	17.06	ug/L		80
50) heptane	9.588	43	207566	19.35	ug/L		75
51) trichloroethene	9.729	95	125124	22.66	ug/L		97
52) 1,2-dichloropropane	9.696	63	146444	22.69	ug/L		98
53) dibromomethane	9.669	93	74180	23.68	ug/L		91
54) bromodichloromethane	9.776	83	169271	24.09	ug/L		100
55) Methylcyclohexane	10.228	83	167106	22.02	ug/L	#	77
56) 2-chloroethyl vinyl ether	10.228	63	1663	28.64	ug/L	#	97
57) methyl methacrylate	9.884	69	86003	24.59	ug/L	#	59
58) 1,4-dioxane	9.884	88	4939	158.99	ug/L		79
59) cis-1,3-dichloropropene	10.389	75	170281	26.66	ug/L		98
61) 4-methyl-2-pentanone	10.497	43	160370	17.21	ug/L		87
62) toluene	11.151	92	277877	23.74	ug/L		95
63) trans-1,3-dichloropropene	10.807	75	135906	24.51	ug/L		96
64) 1,1,2-trichloroethane	10.976	83	97769	24.68	ug/L		95
65) ethyl methacrylate	11.191	69	156744	22.46	ug/L	#	58
67) tetrachloroethene	11.885	166	116072	23.14	ug/L		94
68) 1,3-dichloropropane	11.211	76	181667	23.67	ug/L		99
69) dibromochloromethane	11.487	129	122310	25.12	ug/L		99
70) 1,2-dibromoethane	11.737	107	104026	23.53	ug/L		99
71) 2-hexanone	11.360	43	134395	20.11	ug/L		85
72) chlorobenzene	12.559	112	290837	22.22	ug/L		96
73) 1,1,1,2-tetrachloroethane	12.484	131	108874	23.83	ug/L		94
74) ethylbenzene	12.740	91	519518	22.17	ug/L		99
75) m,p-xylene	12.922	106	376865	45.45	ug/L		98
76) o-xylene	13.333	106	183368	22.65	ug/L		92
77) styrene	13.259	104	298527	22.42	ug/L		92
78) bromoform	13.077	173	85656	25.08	ug/L		96
79) trans-1,4-dichloro-2-b...	13.495	53	32224	26.76	ug/L	#	58
81) isopropylbenzene	13.697	105	435129	21.87	ug/L		93
83) bromobenzene	13.973	156	119336	21.55	ug/L		92
84) 1,1,2,2-tetrachloroethane	13.340	83	134225	21.18	ug/L		100
85) 1,2,3-trichloropropane	13.488	75	134562	22.43	ug/L		99
86) n-propylbenzene	14.142	91	504173	20.21	ug/L		99
87) 2-chlorotoluene	14.249	91	316464	19.78	ug/L		97
88) 4-chlorotoluene	14.330	91	325543	19.91	ug/L		93
89) 1,3,5-trimethylbenzene	14.418	105	360356	21.05	ug/L		96
90) tert-butylbenzene	14.721	91	204619	19.54	ug/L		92
91) 1,2,4-trimethylbenzene	14.829	105	355373	21.80	ug/L		95
92) sec-butylbenzene	14.943	105	422687	21.25	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79741.D
Acq On : 12 Sep 2014 6:55 pm
Operator : jaclynb
Sample : ic2607-25
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 15 07:51:51 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:51:40 2014
Response via : Initial Calibration

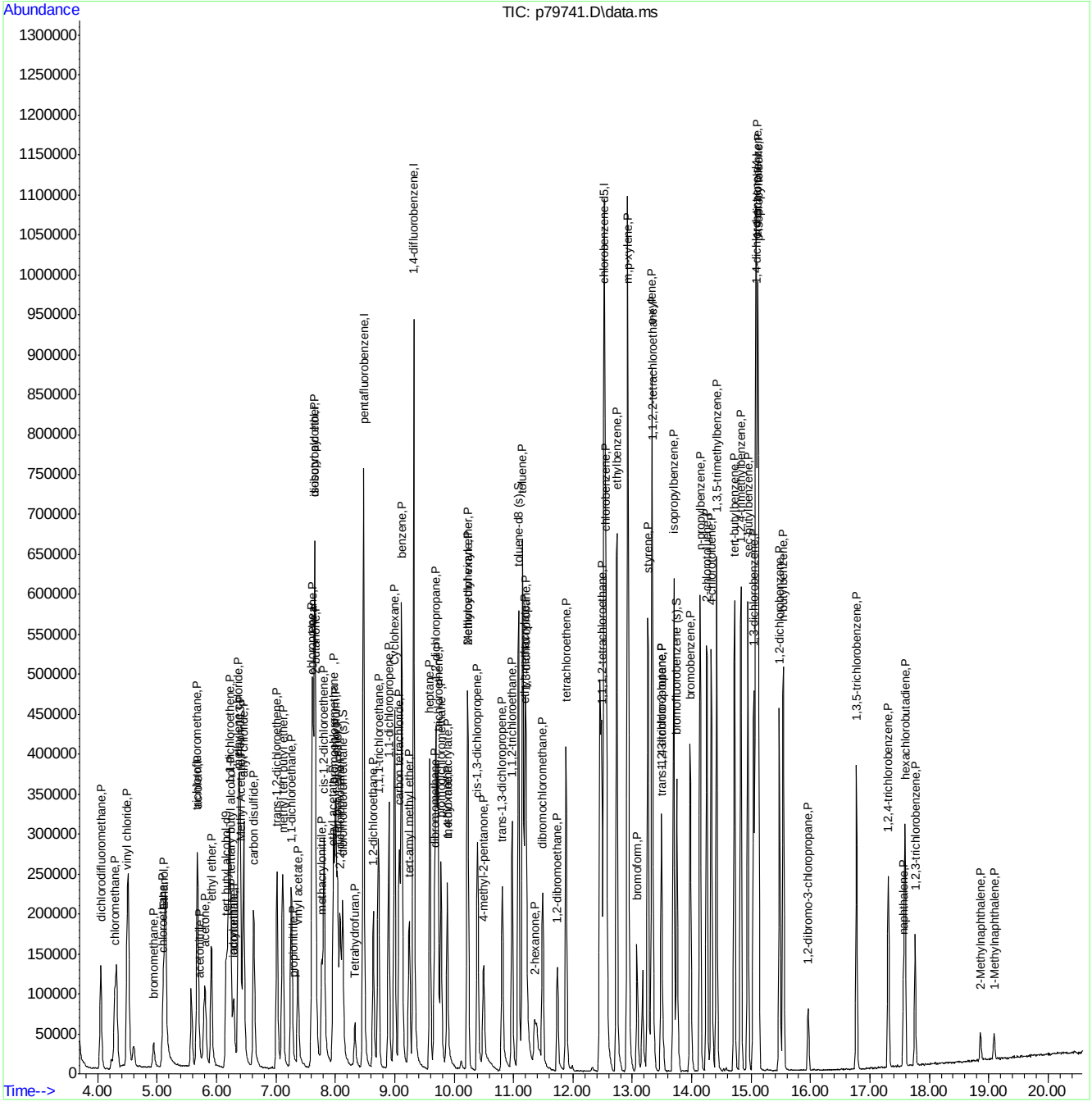
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.044	146	194443	21.40	ug/L	98
94) p-isopropyltoluene	15.118	119	348384	22.72	ug/L	98
95) 1,4-dichlorobenzene	15.112	146	203935	21.21	ug/L	97
96) 1,2-dichlorobenzene	15.475	146	190367	22.10	ug/L	97
97) n-butylbenzene	15.543	91	312224	24.94	ug/L	100
98) 1,2-dibromo-3-chloropr...	15.960	75	18713	25.73	ug/L	91
99) 1,3,5-trichlorobenzene	16.776	180	120525	25.93	ug/L	93
100) 1,2,4-trichlorobenzene	17.308	180	76370	39.13	ug/L	99
101) hexachlorobutadiene	17.591	225	57312	23.14	ug/L	89
102) naphthalene	17.564	128	66788	22.74	ug/L	100
103) 1,2,3-trichlorobenzene	17.759	180	50914	42.11	ug/L	93
104) 2-Methylnaphthalene	18.864	142	19582	11.54	ug/L	90
105) 1-Methylnaphthalene	19.093	142	17162	10.92	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79741.D
Acq On : 12 Sep 2014 6:55 pm
Operator : jaclynb
Sample : ic2607-25
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 15 07:51:51 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:51:40 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79742.D
Acq On : 12 Sep 2014 7:25 pm
Operator : jaclynb
Sample : icc2607-50
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 15 07:45:32 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Jun 09 07:58:57 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.159	65	186939	50.00	ug/L		#-0.01
4) pentafluorobenzene	8.476	168	547490	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.318	114	729738	50.00	ug/L		0.00
66) chlorobenzene-d5	12.525	82	378212	50.00	ug/L		-0.01
80) 1,4-dichlorobenzene-d4	15.085	152	312584	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.119	113	224933	40.46	ug/L		-0.01
Spiked Amount 50.000	Range 70 - 130		Recovery = 80.92%				
60) toluene-d8 (s)	11.083	98	758357	45.43	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 90.86%				
82) bromofluorobenzene (s)	13.751	95	262618	44.15	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 88.30%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.233	59	304386	529.73	ug/L		93
3) Ethanol	5.108	45	379412	3644.23	ug/L		99
5) dichlorodifluoromethane	4.051	85	304457	56.91	ug/L		99
6) chloromethane	4.280	50	302561	30.57	ug/L		98
7) vinyl chloride	4.488	62	248921	33.19	ug/L		96
8) bromomethane	4.940	96	64080	27.54	ug/L		99
9) chloroethane	5.095	64	108303	30.57	ug/L		99
10) ethyl ether	5.903	59	173385	31.68	ug/L		82
11) acetonitrile	5.701	41	29794	27.73	ug/L		83
12) trichlorofluoromethane	5.674	101	398617	49.02	ug/L		99
13) freon-113	6.395	101	199620	37.87	ug/L		96
14) acrolein	5.681	56	151662	161.35	ug/L		100
15) 1,1-dichloroethene	6.220	96	179040	35.03	ug/L		95
16) acetone	5.802	58	48099	26.55	ug/L	#	47
17) Methyl Acetate	6.402	43	270604	37.89	ug/L	#	85
18) methylene chloride	6.368	84	244520	41.91	ug/L	#	57
19) methyl tert butyl ether	7.109	73	565683	39.99	ug/L		82
20) acrylonitrile	6.287	53	106446	38.68	ug/L		88
21) allyl chloride	6.449	41	488241	43.56	ug/L		80
22) trans-1,2-dichloroethene	7.015	96	196259	36.97	ug/L		86
23) iodomethane	6.280	142	113582	35.37	ug/L		89
24) carbon disulfide	6.624	76	635905	40.03	ug/L		99
25) propionitrile	7.284	54	37028	39.80	ug/L		100
26) vinyl acetate	7.365	43	525980	40.33	ug/L		92
27) chloroprene	7.607	53	359012	34.38	ug/L		92
28) di-isopropyl ether	7.648	45	1194844	38.65	ug/L		88
29) methacrylonitrile	7.769	41	186051	36.81	ug/L		77
30) 2-butanone	7.661	72	41176	38.04	ug/L	#	17
31) Hexane	7.621	41	490528	36.51	ug/L	#	95
32) 1,1-dichloroethane	7.257	63	484344	38.88	ug/L		97
33) tert-butyl ethyl ether	8.032	59	422831	25.69	ug/L		89
34) isobutyl alcohol	7.654	43	1036763	185.72	ug/L		93
35) 2,2-dichloropropane	8.079	77	281525	48.67	ug/L		94
36) cis-1,2-dichloroethene	7.809	96	238266	40.15	ug/L		87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79742.D
Acq On : 12 Sep 2014 7:25 pm
Operator : jaclynb
Sample : icc2607-50
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 15 07:45:32 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Jun 09 07:58:57 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	7.958	43	263620	42.48	ug/L		99
38) bromochloromethane	7.971	128	104591	44.34	ug/L	#	64
39) chloroform	8.005	83	454887	42.19	ug/L		99
41) Tetrahydrofuran	8.328	42	98094	39.77	ug/L		75
42) 1,1,1-trichloroethane	8.726	97	370027	46.45	ug/L		93
44) Cyclohexane	8.995	56	419961	39.26	ug/L	#	74
45) carbon tetrachloride	9.076	117	302264	47.01	ug/L		96
46) 1,1-dichloropropene	8.901	75	292289	42.33	ug/L		96
47) benzene	9.116	78	970943	47.14	ug/L		99
48) 1,2-dichloroethane	8.638	62	336893	43.37	ug/L		97
49) tert-amyl methyl ether	9.238	73	328838	32.18	ug/L		80
50) heptane	9.588	43	397215	40.78	ug/L		76
51) trichloroethene	9.723	95	244351	46.89	ug/L		97
52) 1,2-dichloropropane	9.696	63	299921	44.55	ug/L		99
53) dibromomethane	9.669	93	159620	51.08	ug/L		95
54) bromodichloromethane	9.776	83	348675	49.89	ug/L		99
55) Methylcyclohexane	10.228	83	333151	46.07	ug/L	#	80
56) 2-chloroethyl vinyl ether	10.228	63	3412	39.49	ug/L	#	97
57) methyl methacrylate	9.884	69	178324	52.98	ug/L	#	57
58) 1,4-dioxane	9.877	88	10971	264.54	ug/L	#	54
59) cis-1,3-dichloropropene	10.389	75	373092	47.86	ug/L		100
61) 4-methyl-2-pentanone	10.491	43	337110	45.15	ug/L		88
62) toluene	11.151	92	574230	50.75	ug/L		98
63) trans-1,3-dichloropropene	10.807	75	296244	48.43	ug/L		98
64) 1,1,2-trichloroethane	10.976	83	204979	54.38	ug/L		98
65) ethyl methacrylate	11.184	69	343006	55.03	ug/L		73
67) tetrachloroethene	11.885	166	241145	49.34	ug/L		98
68) 1,3-dichloropropane	11.211	76	387191	49.14	ug/L		99
69) dibromochloromethane	11.487	129	262187	52.12	ug/L		99
70) 1,2-dibromoethane	11.737	107	219961	48.96	ug/L		98
71) 2-hexanone	11.339	43	289501	41.28	ug/L		86
72) chlorobenzene	12.559	112	612237	48.77	ug/L		95
73) 1,1,1,2-tetrachloroethane	12.484	131	231359	50.30	ug/L		96
74) ethylbenzene	12.740	91	1074257	50.52	ug/L		99
75) m,p-xylene	12.922	106	788824	98.78	ug/L		95
76) o-xylene	13.333	106	393424	50.24	ug/L		94
77) styrene	13.259	104	642761	52.61	ug/L		92
78) bromoform	13.077	173	191263	53.33	ug/L		98
79) trans-1,4-dichloro-2-b...	13.488	53	73692	47.28	ug/L	#	69
81) isopropylbenzene	13.697	105	918997	49.70	ug/L		95
83) bromobenzene	13.973	156	263410	52.09	ug/L		99
84) 1,1,2,2-tetrachloroethane	13.340	83	289560	44.63	ug/L		99
85) 1,2,3-trichloropropane	13.488	75	298056	46.68	ug/L		98
86) n-propylbenzene	14.142	91	1057633	48.72	ug/L		97
87) 2-chlorotoluene	14.249	91	666412	49.31	ug/L		96
88) 4-chlorotoluene	14.330	91	686867	48.70	ug/L		96
89) 1,3,5-trimethylbenzene	14.418	105	757042	47.32	ug/L		96
90) tert-butylbenzene	14.721	91	423097	47.59	ug/L		92
91) 1,2,4-trimethylbenzene	14.829	105	750259	48.38	ug/L		94
92) sec-butylbenzene	14.943	105	863188	46.00	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79742.D
Acq On : 12 Sep 2014 7:25 pm
Operator : jaclynb
Sample : icc2607-50
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 15 07:45:32 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Jun 09 07:58:57 2014
Response via : Initial Calibration

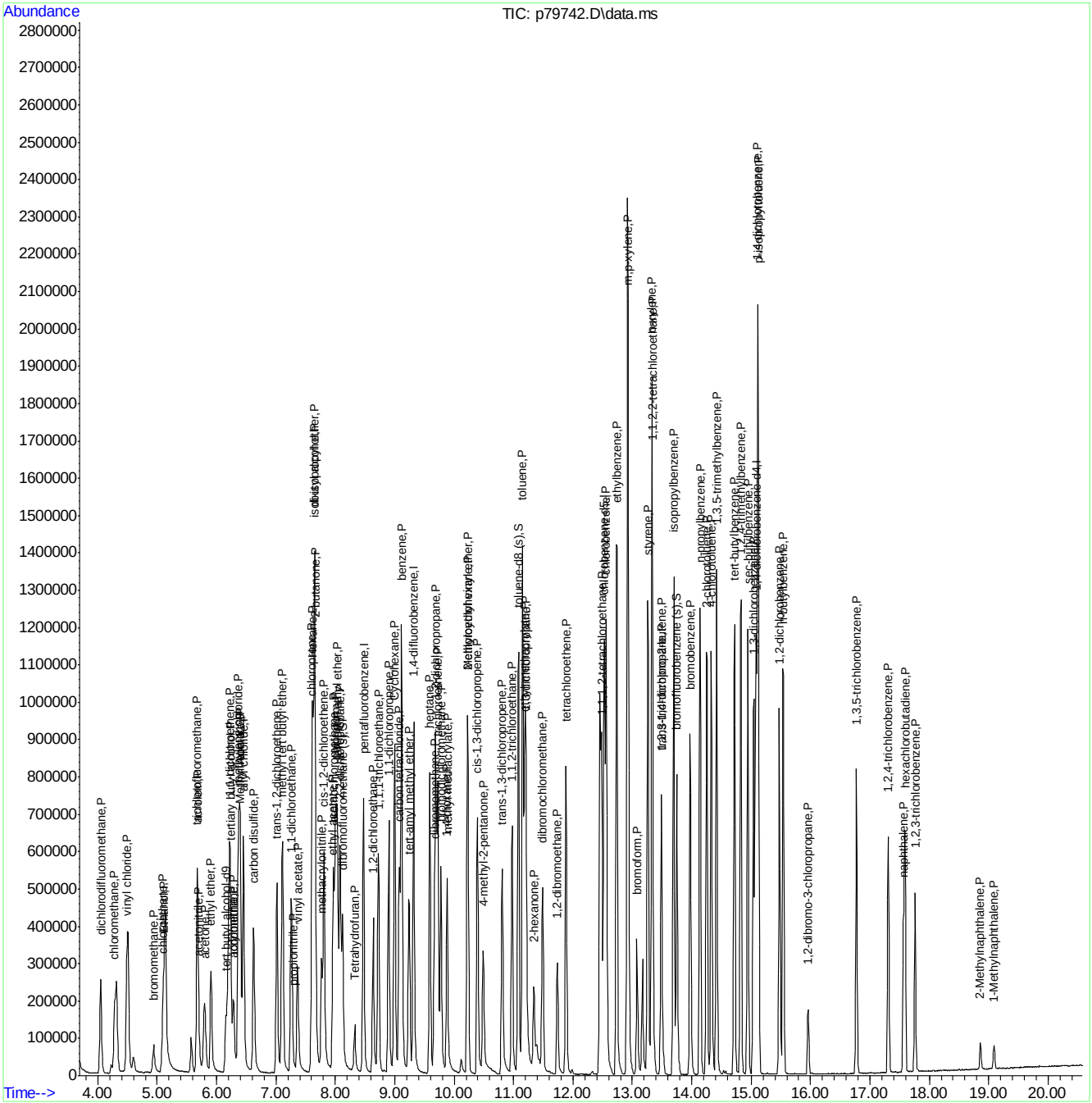
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	1,3-dichlorobenzene	15.044	146	418785	48.50	ug/L	95
94)	p-isopropyltoluene	15.118	119	723474	46.15	ug/L	98
95)	1,4-dichlorobenzene	15.112	146	432685	46.92	ug/L	94
96)	1,2-dichlorobenzene	15.475	146	410643	49.33	ug/L	98
97)	n-butylbenzene	15.536	91	665953	45.76	ug/L	99
98)	1,2-dibromo-3-chloropr...	15.960	75	41311	42.22	ug/L	83
99)	1,3,5-trichlorobenzene	16.776	180	262673	44.99	ug/L	98
100)	1,2,4-trichlorobenzene	17.308	180	196093	50.57	ug/L	97
101)	hexachlorobutadiene	17.591	225	125346	49.46	ug/L	92
102)	naphthalene	17.564	128	266451	68.04	ug/L	100
103)	1,2,3-trichlorobenzene	17.759	180	151693	63.20	ug/L	97
104)	2-Methylnaphthalene	18.857	142	38366	25.65	ug/L	99
105)	1-Methylnaphthalene	19.086	142	32866	25.26	ug/L	89

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79742.D
Acq On : 12 Sep 2014 7:25 pm
Operator : jaclynb
Sample : icc2607-50
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 15 07:45:32 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Jun 09 07:58:57 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79743.D
Acq On : 12 Sep 2014 7:55 pm
Operator : jaclynb
Sample : ic2607-100
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 15 07:52:12 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:52:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.152	65	197177	50.00	ug/L	#	0.00
4) pentafluorobenzene	8.470	168	578003	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.318	114	776252	50.00	ug/L		0.00
66) chlorobenzene-d5	12.525	82	396093	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.078	152	343605	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.119	113	488253	119.46	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 238.92%#				
60) toluene-d8 (s)	11.083	98	1628808	113.53	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 227.06%#				
82) bromofluorobenzene (s)	13.751	95	589743	90.93	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 181.86%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.233	59	620605	1020.98	ug/L		92
3) Ethanol	5.108	45	708231	8563.33	ug/L		99
5) dichlorodifluoromethane	4.051	85	626664	83.92	ug/L		100
6) chloromethane	4.280	50	630373	85.24	ug/L		99
7) vinyl chloride	4.482	62	510184	88.85	ug/L		96
8) bromomethane	4.940	96	190509	163.84	ug/L		99
9) chloroethane	5.088	64	218480	73.01	ug/L		100
10) ethyl ether	5.903	59	364874	93.05	ug/L		83
11) acetonitrile	5.701	41	61555	92.23	ug/L		89
12) trichlorofluoromethane	5.681	101	803126	86.72	ug/L		99
13) freon-113	6.395	101	434376	89.16	ug/L		97
14) acrolein	5.674	56	276971	372.13	ug/L		96
15) 1,1-dichloroethene	6.220	96	377053	76.12	ug/L		94
16) acetone	5.802	58	92479	69.50	ug/L	#	59
17) Methyl Acetate	6.395	43	566940	105.93	ug/L	#	84
18) methylene chloride	6.368	84	509985	84.61	ug/L	#	60
19) methyl tert butyl ether	7.102	73	1351695	131.92	ug/L		81
20) acrylonitrile	6.280	53	228711	98.63	ug/L		90
21) allyl chloride	6.455	41	934534	99.17	ug/L		81
22) trans-1,2-dichloroethene	7.015	96	421574	85.20	ug/L		84
23) iodomethane	6.280	142	284986	214.23	ug/L		89
24) carbon disulfide	6.624	76	1356203	75.91	ug/L		100
25) propionitrile	7.277	54	81995	113.55	ug/L		100
26) vinyl acetate	7.358	43	1178949	110.99	ug/L		91
27) chloroprene	7.607	53	773030	93.70	ug/L		91
28) di-isopropyl ether	7.648	45	2499093	96.05	ug/L		92
29) methacrylonitrile	7.762	41	425431	105.02	ug/L		77
30) 2-butanone	7.654	72	88566	132.86	ug/L	#	1
31) Hexane	7.628	41	1065013	99.95	ug/L	#	79
32) 1,1-dichloroethane	7.257	63	1021727	95.04	ug/L		98
33) tert-butyl ethyl ether	8.032	59	1401318	242.52	ug/L		89
34) isobutyl alcohol	7.648	43	2203878	515.27	ug/L		99
35) 2,2-dichloropropane	8.079	77	733639	253.90	ug/L		94
36) cis-1,2-dichloroethene	7.809	96	516204	90.90	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79743.D
Acq On : 12 Sep 2014 7:55 pm
Operator : jaclynb
Sample : ic2607-100
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 15 07:52:12 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:52:06 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	7.951	43	588520	106.84	ug/L		99
38) bromochloromethane	7.971	128	213934	88.65	ug/L	#	65
39) chloroform	8.005	83	975895	97.10	ug/L		100
41) Tetrahydrofuran	8.321	42	215210	78.31	ug/L		74
42) 1,1,1-trichloroethane	8.726	97	805714	100.35	ug/L		95
44) Cyclohexane	8.995	56	913636	88.24	ug/L	#	74
45) carbon tetrachloride	9.076	117	670905	103.33	ug/L		96
46) 1,1-dichloropropene	8.894	75	646650	95.60	ug/L		98
47) benzene	9.116	78	2053200	92.90	ug/L		100
48) 1,2-dichloroethane	8.638	62	737292	104.28	ug/L		97
49) tert-amyl methyl ether	9.238	73	1039606	134.08	ug/L		79
50) heptane	9.588	43	855518	78.58	ug/L		76
51) trichloroethene	9.723	95	522567	91.47	ug/L		97
52) 1,2-dichloropropane	9.689	63	634133	94.92	ug/L		99
53) dibromomethane	9.669	93	347725	106.63	ug/L		98
54) bromodichloromethane	9.776	83	749978	102.30	ug/L		100
55) Methylcyclohexane	10.228	83	719555	91.98	ug/L	#	78
56) 2-chloroethyl vinyl ether	10.228	63	7703	120.64	ug/L	#	93
57) methyl methacrylate	9.877	69	388258	106.15	ug/L	#	53
58) 1,4-dioxane	9.877	88	24750	711.34	ug/L		80
59) cis-1,3-dichloropropene	10.389	75	827855	122.42	ug/L		98
61) 4-methyl-2-pentanone	10.484	43	728649	78.63	ug/L		88
62) toluene	11.151	92	1229401	100.89	ug/L		98
63) trans-1,3-dichloropropene	10.807	75	676298	116.65	ug/L		96
64) 1,1,2-trichloroethane	10.975	83	431909	104.13	ug/L		99
65) ethyl methacrylate	11.184	69	757097	105.21	ug/L	#	72
67) tetrachloroethene	11.885	166	528382	97.81	ug/L		97
68) 1,3-dichloropropane	11.205	76	835087	100.72	ug/L		99
69) dibromochloromethane	11.487	129	572162	107.88	ug/L		98
70) 1,2-dibromoethane	11.737	107	480091	100.62	ug/L		96
71) 2-hexanone	11.333	43	612797	87.07	ug/L		86
72) chlorobenzene	12.559	112	1319765	94.13	ug/L		95
73) 1,1,1,2-tetrachloroethane	12.478	131	494843	100.18	ug/L		96
74) ethylbenzene	12.734	91	2345091	93.43	ug/L		99
75) m,p-xylene	12.922	106	1692311	189.95	ug/L		100
76) o-xylene	13.333	106	843908	97.07	ug/L		98
77) styrene	13.259	104	1367135	95.72	ug/L		94
78) bromoform	13.077	173	435811	117.19	ug/L		98
79) trans-1,4-dichloro-2-b...	13.488	53	178083	133.97	ug/L	#	48
81) isopropylbenzene	13.697	105	2036331	91.85	ug/L		95
83) bromobenzene	13.973	156	585294	94.72	ug/L		99
84) 1,1,2,2-tetrachloroethane	13.340	83	606444	85.97	ug/L		98
85) 1,2,3-trichloropropane	13.488	75	655208	97.38	ug/L		98
86) n-propylbenzene	14.142	91	2368004	85.74	ug/L		99
87) 2-chlorotoluene	14.249	91	1463083	82.80	ug/L		95
88) 4-chlorotoluene	14.330	91	1523373	84.31	ug/L		96
89) 1,3,5-trimethylbenzene	14.418	105	1683197	88.40	ug/L		96
90) tert-butylbenzene	14.721	91	954919	82.71	ug/L		91
91) 1,2,4-trimethylbenzene	14.829	105	1654982	90.84	ug/L		95
92) sec-butylbenzene	14.943	105	1920459	86.69	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79743.D
Acq On : 12 Sep 2014 7:55 pm
Operator : jaclynb
Sample : ic2607-100
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 15 07:52:12 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:52:06 2014
Response via : Initial Calibration

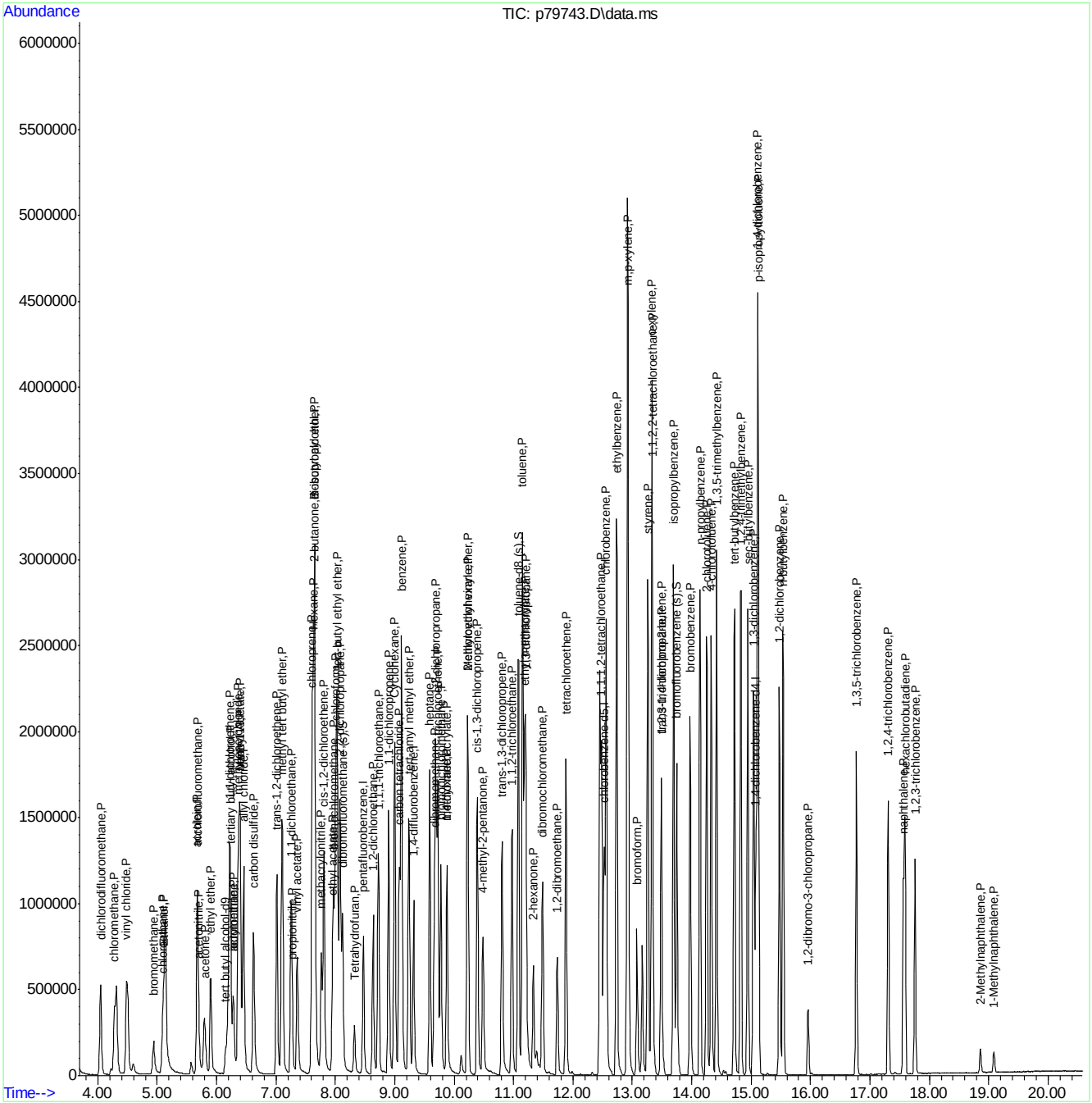
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.038	146	928389	91.66	ug/L	97
94) p-isopropyltoluene	15.118	119	1574600	91.41	ug/L	98
95) 1,4-dichlorobenzene	15.112	146	941220	87.93	ug/L	96
96) 1,2-dichlorobenzene	15.475	146	896619	93.01	ug/L	98
97) n-butylbenzene	15.536	91	1497111	105.11	ug/L	100
98) 1,2-dibromo-3-chloropr...	15.960	75	89517	107.52	ug/L	81
99) 1,3,5-trichlorobenzene	16.769	180	609059	114.53	ug/L	96
100) 1,2,4-trichlorobenzene	17.308	180	489833	198.14	ug/L	99
101) hexachlorobutadiene	17.591	225	303086	108.87	ug/L	93
102) naphthalene	17.564	128	799986	242.96	ug/L	100
103) 1,2,3-trichlorobenzene	17.759	180	398599	254.76	ug/L	97
104) 2-Methylnaphthalene	18.864	142	77367	40.70	ug/L	99
105) 1-Methylnaphthalene	19.086	142	64345	36.91	ug/L	88

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79743.D
Acq On : 12 Sep 2014 7:55 pm
Operator : jaclynb
Sample : ic2607-100
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 15 07:52:12 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:52:06 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79744.D
Acq On : 12 Sep 2014 8:24 pm
Operator : jaclynb
Sample : ic2607-200
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 15 07:52:29 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:52:24 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.152	65	185486	50.00	ug/L	#	0.00
4) pentafluorobenzene	8.470	168	577296	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.318	114	768992	50.00	ug/L		0.00
66) chlorobenzene-d5	12.525	82	388914	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.085	152	347608	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.119	113	1041401	247.09	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 494.18%#				
60) toluene-d8 (s)	11.083	98	3413693	235.63	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 471.26%#				
82) bromofluorobenzene (s)	13.751	95	1273034	196.57	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 393.14%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.233	59	1273842	2219.96	ug/L		90
3) Ethanol	5.115	45	1310924	17262.99	ug/L		99
5) dichlorodifluoromethane	4.044	85	1368891	187.31	ug/L		100
6) chloromethane	4.279	50	1497066	206.50	ug/L		97
7) vinyl chloride	4.475	62	927148	163.95	ug/L		96
8) bromomethane	4.940	96	455763	359.64	ug/L		99
9) chloroethane	5.088	64	441740	152.95	ug/L		97
10) ethyl ether	5.896	59	736540	189.71	ug/L		82
11) acetonitrile	5.701	41	131162	199.87	ug/L		88
12) trichlorofluoromethane	5.674	101	1726006	189.75	ug/L		99
13) freon-113	6.395	101	936486	195.10	ug/L		98
14) acrolein	5.674	56	579907	809.67	ug/L		95
15) 1,1-dichloroethene	6.220	96	806119	167.96	ug/L		91
16) acetone	5.802	58	181618	142.88	ug/L	#	54
17) Methyl Acetate	6.395	43	1150191	213.06	ug/L	#	85
18) methylene chloride	6.368	84	1076330	182.29	ug/L	#	59
19) methyl tert butyl ether	7.102	73	3036619	285.34	ug/L		83
20) acrylonitrile	6.280	53	481157	208.15	ug/L		91
21) allyl chloride	6.455	41	1576604	167.70	ug/L		80
22) trans-1,2-dichloroethene	7.014	96	911275	187.86	ug/L		82
23) iodomethane	6.280	142	559204	361.84	ug/L		89
24) carbon disulfide	6.624	76	2920224	168.74	ug/L		99
25) propionitrile	7.277	54	165842	223.87	ug/L		100
26) vinyl acetate	7.351	43	2731796	252.86	ug/L		91
27) chloroprene	7.601	53	1695461	207.40	ug/L		87
28) di-isopropyl ether	7.648	45	4913642	190.16	ug/L		88
29) methacrylonitrile	7.762	41	942933	231.40	ug/L		77
30) 2-butanone	7.654	72	186155	265.09	ug/L	#	28
31) Hexane	7.627	41	2215458	208.19	ug/L	#	75
32) 1,1-dichloroethane	7.257	63	2190037	205.25	ug/L		99
33) tert-butyl ethyl ether	8.032	59	3574199	525.68	ug/L		90
34) isobutyl alcohol	7.648	43	4489763	1046.43	ug/L		99
35) 2,2-dichloropropane	8.079	77	1701972	450.94	ug/L		95
36) cis-1,2-dichloroethene	7.809	96	1085477	193.58	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79744.D
Acq On : 12 Sep 2014 8:24 pm
Operator : jaclynb
Sample : ic2607-200
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 15 07:52:29 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:52:24 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	7.951	43	1290194	231.86	ug/L		99
38) bromochloromethane	7.971	128	448245	189.04	ug/L	#	65
39) chloroform	8.005	83	2059402	205.91	ug/L		100
41) Tetrahydrofuran	8.321	42	451694	169.82	ug/L		75
42) 1,1,1-trichloroethane	8.726	97	1781656	222.08	ug/L		95
44) Cyclohexane	9.002	56	1979506	195.87	ug/L	#	75
45) carbon tetrachloride	9.076	117	1519095	235.20	ug/L		95
46) 1,1-dichloropropene	8.894	75	1413557	212.13	ug/L		98
47) benzene	9.116	78	4249666	195.83	ug/L		99
48) 1,2-dichloroethane	8.631	62	1673415	237.65	ug/L		99
49) tert-amyl methyl ether	9.237	73	2708459	338.20	ug/L		79
50) heptane	9.588	43	1833913	174.71	ug/L		76
51) trichloroethene	9.723	95	1107877	197.86	ug/L		97
52) 1,2-dichloropropane	9.689	63	1287236	195.75	ug/L		99
53) dibromomethane	9.669	93	731053	224.44	ug/L		97
54) bromodichloromethane	9.776	83	1650713	226.63	ug/L		100
55) Methylcyclohexane	10.228	83	1552159	202.31	ug/L	#	76
56) 2-chloroethyl vinyl ether	10.228	63	18550	278.88	ug/L	#	87
57) methyl methacrylate	9.877	69	820642	224.51	ug/L	#	53
58) 1,4-dioxane	9.877	88	49809	1332.44	ug/L	#	59
59) cis-1,3-dichloropropene	10.389	75	1806656	262.32	ug/L		99
61) 4-methyl-2-pentanone	10.484	43	1589280	178.57	ug/L		89
62) toluene	11.151	92	2546564	210.72	ug/L		98
63) trans-1,3-dichloropropene	10.807	75	1531921	261.28	ug/L		97
64) 1,1,2-trichloroethane	10.975	83	906613	219.52	ug/L		99
65) ethyl methacrylate	11.184	69	1500666	208.95	ug/L		73
67) tetrachloroethene	11.885	166	1283166	242.59	ug/L		99
68) 1,3-dichloropropane	11.204	76	1720956	211.20	ug/L		100
69) dibromochloromethane	11.487	129	1247649	237.25	ug/L		100
70) 1,2-dibromoethane	11.737	107	1039324	221.67	ug/L		98
71) 2-hexanone	11.332	43	1367895	201.66	ug/L		86
72) chlorobenzene	12.559	112	2778888	203.35	ug/L		97
73) 1,1,1,2-tetrachloroethane	12.484	131	1063161	219.16	ug/L		98
74) ethylbenzene	12.740	91	4898712	200.42	ug/L		100
75) m,p-xylene	12.922	106	3504144	403.11	ug/L		93
76) o-xylene	13.333	106	1712717	201.39	ug/L		95
77) styrene	13.259	104	2888621	207.08	ug/L		96
78) bromoform	13.084	173	953633	255.67	ug/L		98
79) trans-1,4-dichloro-2-b...	13.488	53	412330	298.99	ug/L	#	42
81) isopropylbenzene	13.697	105	4295377	193.78	ug/L		94
83) bromobenzene	13.973	156	1269753	204.47	ug/L		97
84) 1,1,2,2-tetrachloroethane	13.340	83	1171113	167.03	ug/L		99
85) 1,2,3-trichloropropane	13.488	75	1392950	205.31	ug/L		97
86) n-propylbenzene	14.142	91	5027403	183.20	ug/L		98
87) 2-chlorotoluene	14.256	91	3126441	178.74	ug/L		95
88) 4-chlorotoluene	14.330	91	3282069	183.14	ug/L		95
89) 1,3,5-trimethylbenzene	14.418	105	3561761	187.62	ug/L		95
90) tert-butylbenzene	14.721	91	2076566	181.71	ug/L		94
91) 1,2,4-trimethylbenzene	14.829	105	3525642	193.51	ug/L		95
92) sec-butylbenzene	14.943	105	4134065	187.58	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79744.D
Acq On : 12 Sep 2014 8:24 pm
Operator : jaclynb
Sample : ic2607-200
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 15 07:52:29 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:52:24 2014
Response via : Initial Calibration

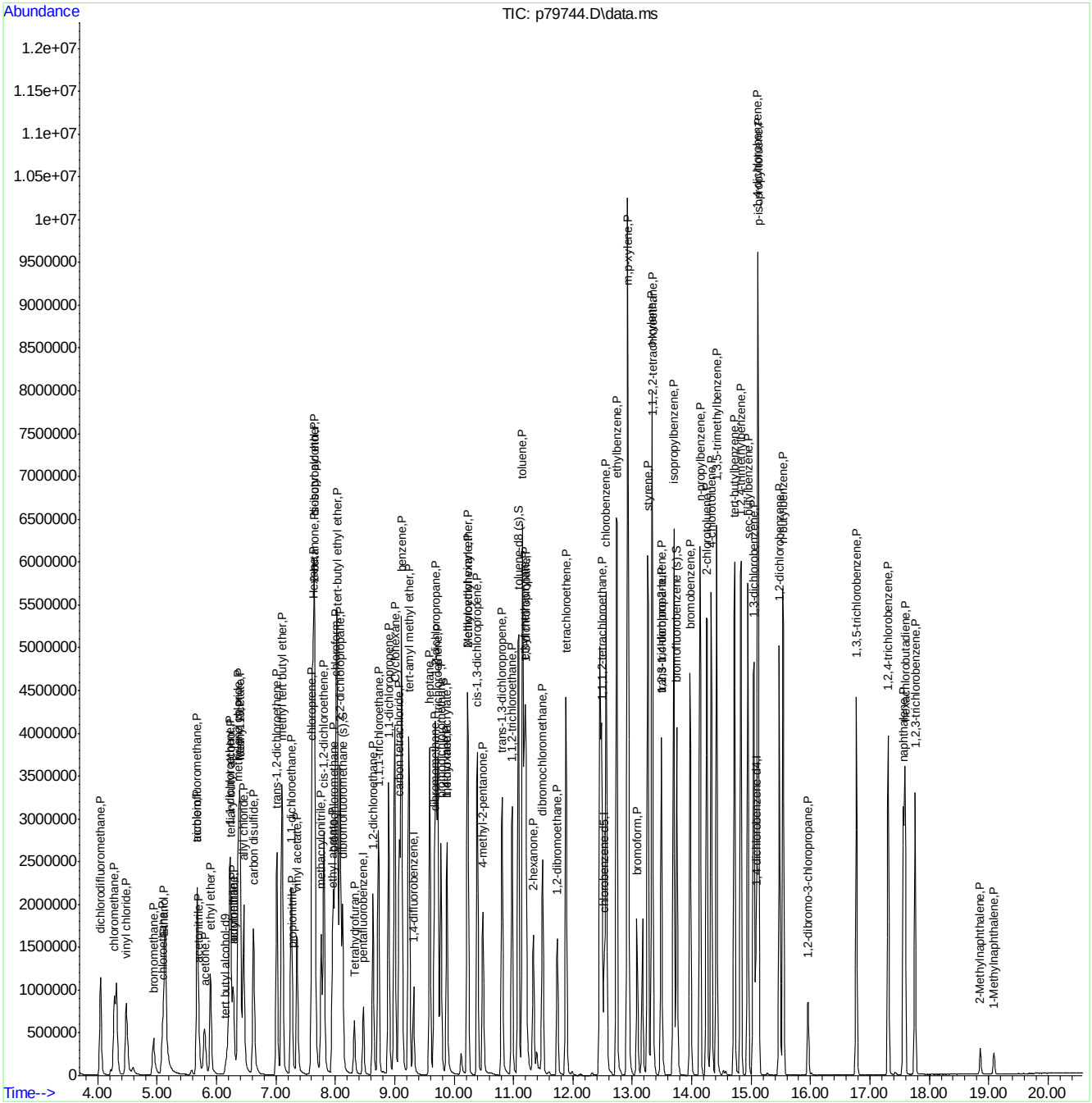
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	1,3-dichlorobenzene	15.044	146	2043021	201.48	ug/L	97
94)	p-isopropyltoluene	15.118	119	3380258	196.08	ug/L	97
95)	1,4-dichlorobenzene	15.112	146	2093038	196.24	ug/L	96
96)	1,2-dichlorobenzene	15.475	146	1981011	204.92	ug/L	97
97)	n-butylbenzene	15.536	91	3335882	230.03	ug/L	99
98)	1,2-dibromo-3-chloropr...	15.960	75	200901	235.58	ug/L	80
99)	1,3,5-trichlorobenzene	16.775	180	1484139	270.95	ug/L	99
100)	1,2,4-trichlorobenzene	17.308	180	1237371	425.20	ug/L	96
101)	hexachlorobutadiene	17.591	225	747475	262.08	ug/L	92
102)	naphthalene	17.564	128	2215035	552.20	ug/L	100
103)	1,2,3-trichlorobenzene	17.759	180	1058441	531.59	ug/L	97
104)	2-Methylnaphthalene	18.857	142	160768	86.27	ug/L	99
105)	1-Methylnaphthalene	19.086	142	133999	79.44	ug/L	90

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79744.D
Acq On : 12 Sep 2014 8:24 pm
Operator : jaclynb
Sample : ic2607-200
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 15 07:52:29 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:52:24 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79745.D
Acq On : 12 Sep 2014 8:57 pm
Operator : jaclynb
Sample : ic2607-400
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 15 07:52:50 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:52:44 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.173	65	180892	50.00	ug/L	#	0.01
4) pentafluorobenzene	8.470	168	629827	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.312	114	841839	50.00	ug/L		0.00
66) chlorobenzene-d5	12.525	82	420196	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.085	152	400017	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.126	113	2079345	437.50	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 875.00%#				
60) toluene-d8 (s)	11.083	98	6598684	406.99	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 813.98%#				
82) bromofluorobenzene (s)	13.751	95	2488494	334.63	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 669.26%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.247	59	2382668	4191.94	ug/L		91
3) Ethanol	5.162	45	2473604	34067.09	ug/L		98
5) dichlorodifluoromethane	4.044	85	2746058	346.86	ug/L		99
6) chloromethane	4.266	50	3310139	417.00	ug/L		98
7) vinyl chloride	4.468	62	1253388	207.31	ug/L		98
8) bromomethane	4.933	96	961462	632.31	ug/L		100
9) chloroethane	5.081	64	830824	270.76	ug/L		99
10) ethyl ether	5.896	59	1472916	349.74	ug/L		83
11) acetonitrile	5.701	41	337538	471.50	ug/L		90
12) trichlorofluoromethane	5.674	101	3364933	341.02	ug/L		99
13) freon-113	6.388	101	1869105	357.89	ug/L		95
14) acrolein	5.667	56	1157589	1517.54	ug/L		95
15) 1,1-dichloroethene	6.220	96	1605481	312.17	ug/L		91
16) acetone	5.802	58	364178	272.33	ug/L	#	54
17) Methyl Acetate	6.395	43	2177095	366.23	ug/L	#	86
18) methylene chloride	6.361	84	2065109	323.77	ug/L	#	59
19) methyl tert butyl ether	7.102	73	6077223	499.74	ug/L		84
20) acrylonitrile	6.280	53	971504	383.27	ug/L		91
21) allyl chloride	6.449	41	3364985	334.84	ug/L		80
22) trans-1,2-dichloroethene	7.015	96	1817056	345.68	ug/L	#	81
23) iodomethane	6.274	142	1012466	545.32	ug/L		91
24) carbon disulfide	6.617	76	5988615	322.78	ug/L		100
25) propionitrile	7.284	54	330216	400.62	ug/L		100
26) vinyl acetate	7.351	43	5218982	426.68	ug/L		91
27) chloroprene	7.601	53	3218701	359.41	ug/L		86
28) di-isopropyl ether	7.648	45	8728145	311.52	ug/L		89
29) methacrylonitrile	7.762	41	1978941	436.57	ug/L		77
30) 2-butanone	7.661	72	351788	438.77	ug/L	#	94
31) Hexane	7.621	41	3986553	341.38	ug/L	#	82
32) 1,1-dichloroethane	7.257	63	4254096	364.37	ug/L		98
33) tert-butyl ethyl ether	8.025	59	6970091	795.67	ug/L		92
34) isobutyl alcohol	7.648	43	8157590	1732.65	ug/L		96
35) 2,2-dichloropropane	8.079	77	3398978	682.69	ug/L		96
36) cis-1,2-dichloroethene	7.810	96	2109939	346.13	ug/L		88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79745.D
Acq On : 12 Sep 2014 8:57 pm
Operator : jaclynb
Sample : ic2607-400
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 15 07:52:50 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:52:44 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	7.944	43	2618700	421.76	ug/L		98
38) bromochloromethane	7.971	128	902160	351.15	ug/L	#	72
39) chloroform	8.005	83	3855132	352.15	ug/L		99
41) Tetrahydrofuran	8.322	42	928395	326.07	ug/L		74
42) 1,1,1-trichloroethane	8.726	97	3702612	417.91	ug/L		95
44) Cyclohexane	8.995	56	3756510	340.32	ug/L	#	76
45) carbon tetrachloride	9.076	117	3125316	433.54	ug/L		95
46) 1,1-dichloropropene	8.894	75	2790206	379.92	ug/L		96
47) benzene	9.110	78	7896472	333.17	ug/L		100
48) 1,2-dichloroethane	8.631	62	3543514	450.27	ug/L		100
49) tert-amyl methyl ether	9.238	73	5692841	603.04	ug/L		79
50) heptane	9.588	43	3515697	310.31	ug/L		76
51) trichloroethene	9.723	95	2146713	350.64	ug/L		89
52) 1,2-dichloropropane	9.696	63	2213298	308.17	ug/L		100
53) dibromomethane	9.669	93	1367963	378.49	ug/L		90
54) bromodichloromethane	9.777	83	3341733	412.99	ug/L		99
55) Methylcyclohexane	10.228	83	3003198	357.10	ug/L	#	80
56) 2-chloroethyl vinyl ether	10.201	63	60542	770.64	ug/L	#	50
57) methyl methacrylate	9.878	69	1633818	402.13	ug/L	#	53
58) 1,4-dioxane	9.884	88	100012	2315.60	ug/L	#	64
59) cis-1,3-dichloropropene	10.390	75	3479419	446.04	ug/L		96
61) 4-methyl-2-pentanone	10.484	43	3300755	343.37	ug/L		89
62) toluene	11.151	92	4946197	371.66	ug/L		99
63) trans-1,3-dichloropropene	10.807	75	3063857	461.63	ug/L		96
64) 1,1,2-trichloroethane	10.976	83	1705126	373.09	ug/L		99
65) ethyl methacrylate	11.184	69	2693084	340.62	ug/L		75
67) tetrachloroethene	11.885	166	2636303	450.64	ug/L		96
68) 1,3-dichloropropane	11.211	76	3088540	348.65	ug/L		100
69) dibromochloromethane	11.488	129	2481018	427.82	ug/L		100
70) 1,2-dibromoethane	11.737	107	2022265	394.46	ug/L		96
71) 2-hexanone	11.333	43	2953204	402.55	ug/L		86
72) chlorobenzene	12.559	112	5415395	366.10	ug/L		93
73) 1,1,1,2-tetrachloroethane	12.485	131	2104728	397.34	ug/L		98
74) ethylbenzene	12.741	91	9284082	351.48	ug/L		97
75) m,p-xylene	12.922	106	7097077	755.00	ug/L		88
76) o-xylene	13.333	106	3411467	370.98	ug/L		90
77) styrene	13.259	104	5632283	372.25	ug/L		90
78) bromoform	13.084	173	1953446	470.19	ug/L		98
79) trans-1,4-dichloro-2-b...	13.495	53	852712	534.49	ug/L	#	20
81) isopropylbenzene	13.697	105	8263532	325.22	ug/L		93
83) bromobenzene	13.973	156	2628489	366.90	ug/L		88
84) 1,1,2,2-tetrachloroethane	13.340	83	2213698	279.48	ug/L		99
85) 1,2,3-trichloropropane	13.488	75	2635537	336.57	ug/L		96
86) n-propylbenzene	14.142	91	9584383	306.36	ug/L		94
87) 2-chlorotoluene	14.256	91	6023157	302.81	ug/L		89
88) 4-chlorotoluene	14.330	91	6366273	311.62	ug/L		90
89) 1,3,5-trimethylbenzene	14.418	105	7245160	333.94	ug/L		93
90) tert-butylbenzene	14.721	91	4203131	322.90	ug/L		87
91) 1,2,4-trimethylbenzene	14.829	105	7254910	347.28	ug/L		92
92) sec-butylbenzene	14.950	105	8470080	336.28	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79745.D
Acq On : 12 Sep 2014 8:57 pm
Operator : jaclynb
Sample : ic2607-400
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 15 07:52:50 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:52:44 2014
Response via : Initial Calibration

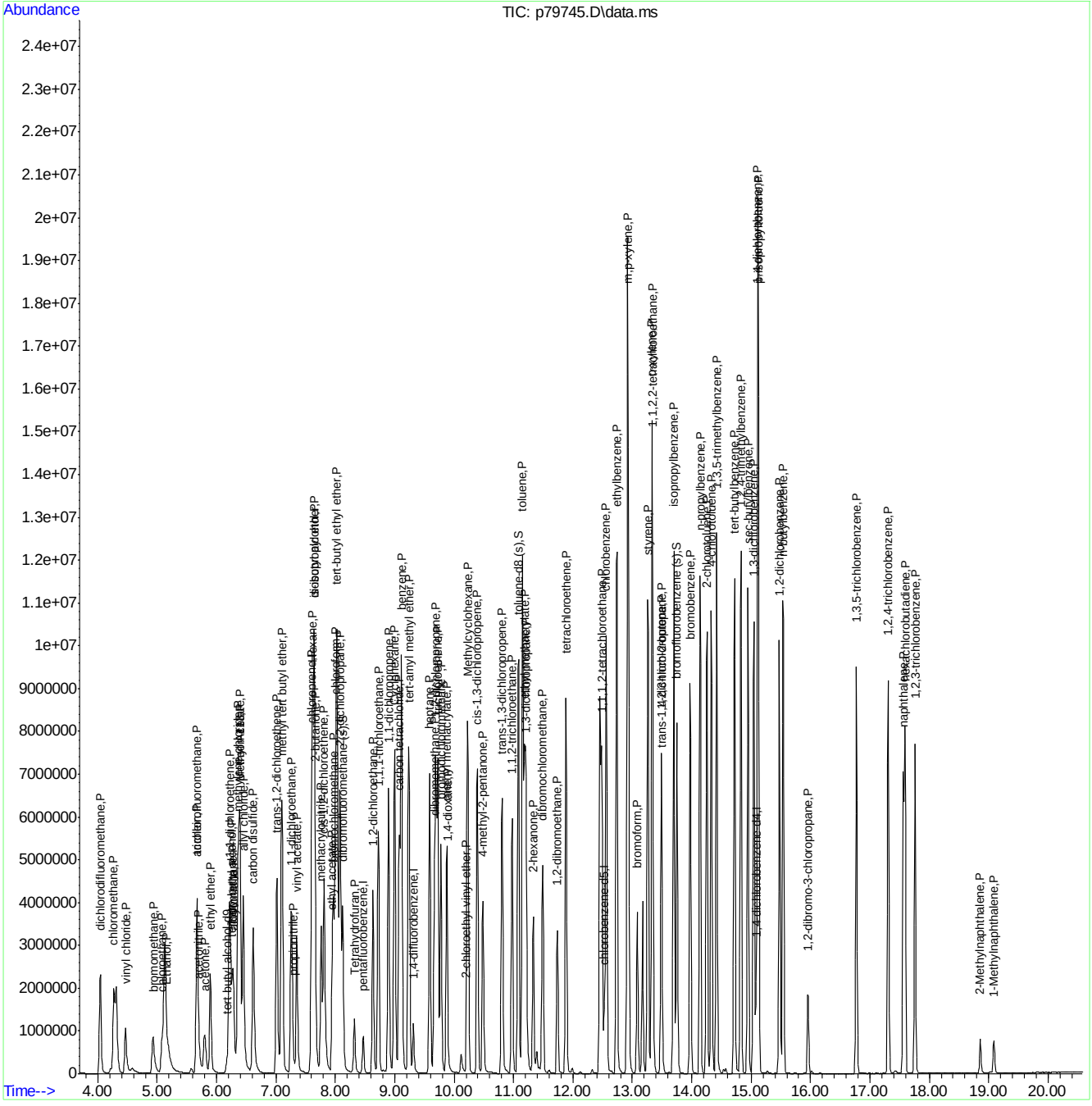
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	1,3-dichlorobenzene	15.044	146	4437610	379.98	ug/L	96
94)	p-isopropyltoluene	15.118	119	7455373	376.62	ug/L	94
95)	1,4-dichlorobenzene	15.112	146	4650375	379.68	ug/L	95
96)	1,2-dichlorobenzene	15.476	146	4269681	382.75	ug/L	98
97)	n-butylbenzene	15.536	91	6665493	392.86	ug/L	94
98)	1,2-dibromo-3-chloropr...	15.954	75	436295	433.56	ug/L	90
99)	1,3,5-trichlorobenzene	16.776	180	3362201	513.17	ug/L	98
100)	1,2,4-trichlorobenzene	17.308	180	2959078	761.18	ug/L	97
101)	hexachlorobutadiene	17.591	225	1730379	507.53	ug/L	91
102)	naphthalene	17.564	128	5141759	912.92	ug/L	100
103)	1,2,3-trichlorobenzene	17.759	180	2528691	892.28	ug/L	97
104)	2-Methylnaphthalene	18.857	142	428067	203.60	ug/L	98
105)	1-Methylnaphthalene	19.086	142	411280	218.30	ug/L	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140912\
Data File : p79745.D
Acq On : 12 Sep 2014 8:57 pm
Operator : jaclynb
Sample : ic2607-400
Misc : ms32693,msp2607,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 15 07:52:50 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Mon Sep 15 07:52:44 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/16/14 10:42

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140915\
Data File : p79759.D
Acq On : 15 Sep 2014 10:28 am
Operator : jaclynb
Sample : bs
Misc : ms32693,msp2608,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 16 09:57:06 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.159	65	133897	50.00	ug/L		#-0.02
4) pentafluorobenzene	8.476	168	519378	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.318	114	681368	50.00	ug/L		0.00
66) chlorobenzene-d5	12.525	82	332846	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.085	152	294978	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.119	113	239254	44.16	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 88.32%				
60) toluene-d8 (s)	11.083	98	843698	47.70	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.40%				
82) bromofluorobenzene (s)	13.751	95	278683	44.12	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 88.24%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.233	59	123800	292.50	ug/L	#	57
3) Ethanol	5.108	45	336027m	6370.23	ug/L		
5) dichlorodifluoromethane	4.044	85	245675	38.14	ug/L		100
6) chloromethane	4.279	50	320873	48.81	ug/L		97
7) vinyl chloride	4.488	62	245563	49.25	ug/L		96
8) bromomethane	4.940	96	82968m	64.46	ug/L		
9) chloroethane	5.088	64	127759m	63.61	ug/L		
10) ethyl ether	5.903	59	194076	56.59	ug/L		82
11) acetonitrile	5.701	41	32011	52.87	ug/L		88
12) trichlorofluoromethane	5.674	101	390387	48.70	ug/L		99
13) freon-113	6.395	101	214414	50.32	ug/L		98
14) acrolein	5.681	56	109279	190.55	ug/L		97
15) 1,1-dichloroethene	6.220	96	194654	54.91	ug/L		98
16) acetone	5.802	58	35358	36.60	ug/L	#	60
17) Methyl Acetate	6.401	43	296019	61.03	ug/L	#	84
18) methylene chloride	6.368	84	236220	49.48	ug/L	#	61
19) methyl tert butyl ether	7.109	73	507232	49.06	ug/L		83
20) acrylonitrile	6.287	53	89165	42.86	ug/L		88
21) allyl chloride	6.449	41	520600	63.98	ug/L		80
22) trans-1,2-dichloroethene	7.014	96	197529	46.20	ug/L		85
23) iodomethane	6.280	142	133929	56.45	ug/L		88
24) carbon disulfide	6.624	76	651160	50.56	ug/L		100
25) propionitrile	7.284	54	29741	43.74	ug/L		100
26) vinyl acetate	7.365	43	286746	28.19	ug/L		90
27) chloroprene	7.607	53	406839	55.65	ug/L		93
28) di-isopropyl ether	7.648	45	1136365	50.42	ug/L		86
29) methacrylonitrile	7.769	41	150093	39.75	ug/L		79
30) 2-butanone	7.661	72	28817	39.76	ug/L	#	1
31) Hexane	7.621	41	517547	54.75	ug/L	#	94
32) 1,1-dichloroethane	7.257	63	484578	50.78	ug/L		97
33) tert-butyl ethyl ether	8.032	59	438020	53.98	ug/L		89
34) isobutyl alcohol	7.654	43	965323	252.38	ug/L		99
35) 2,2-dichloropropane	8.079	77	304989	56.36	ug/L		94
36) cis-1,2-dichloroethene	7.809	96	233089	47.00	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140915\
Data File : p79759.D
Acq On : 15 Sep 2014 10:28 am
Operator : jaclynb
Sample : bs
Misc : ms32693,msp2608,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 16 09:57:06 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	7.958	43	229981	44.61	ug/L		98
38) bromochloromethane	7.971	128	99279	47.50	ug/L	#	66
39) chloroform	8.005	83	440535	49.39	ug/L		99
41) Tetrahydrofuran	8.328	42	87543	41.71	ug/L		72
42) 1,1,1-trichloroethane	8.726	97	376999	51.37	ug/L		95
44) Cyclohexane	8.995	56	457275	51.96	ug/L	#	75
45) carbon tetrachloride	9.076	117	310727	52.81	ug/L		96
46) 1,1-dichloropropene	8.901	75	317109	53.62	ug/L		96
47) benzene	9.116	78	931616	49.39	ug/L		99
48) 1,2-dichloroethane	8.638	62	318353	49.36	ug/L		96
49) tert-amyl methyl ether	9.244	73	322548	49.00	ug/L		82
50) heptane	9.588	43	400107	52.59	ug/L		76
51) trichloroethene	9.723	95	243146	49.68	ug/L		98
52) 1,2-dichloropropane	9.689	63	291105	51.26	ug/L		98
53) dibromomethane	9.669	93	144000	49.49	ug/L		99
54) bromodichloromethane	9.776	83	344454	52.42	ug/L		99
55) Methylcyclohexane	10.228	83	354781	52.69	ug/L	#	80
56) 2-chloroethyl vinyl ether	10.228	63	3718	61.54	ug/L	#	98
57) methyl methacrylate	9.877	69	147762	44.91	ug/L	#	47
58) 1,4-dioxane	9.884	88	4393m	115.71	ug/L		
59) cis-1,3-dichloropropene	10.389	75	360361	56.43	ug/L		98
61) 4-methyl-2-pentanone	10.490	43	265401	38.98	ug/L		87
62) toluene	11.151	92	555484	51.94	ug/L		99
63) trans-1,3-dichloropropene	10.807	75	292065	53.54	ug/L		98
64) 1,1,2-trichloroethane	10.975	83	187974	51.16	ug/L		97
65) ethyl methacrylate	11.184	69	277163	44.04	ug/L	#	71
67) tetrachloroethene	11.885	166	244850	52.18	ug/L		98
68) 1,3-dichloropropane	11.204	76	344148	49.68	ug/L		99
69) dibromochloromethane	11.487	129	241361	52.18	ug/L		99
70) 1,2-dibromoethane	11.737	107	194024	47.84	ug/L		98
71) 2-hexanone	11.346	43	208503m	38.39	ug/L		
72) chlorobenzene	12.559	112	582651	50.15	ug/L		95
73) 1,1,1,2-tetrachloroethane	12.478	131	221304	52.78	ug/L		96
74) ethylbenzene	12.734	91	1033783	50.02	ug/L		98
75) m,p-xylene	12.922	106	760263	102.68	ug/L		97
76) o-xylene	13.333	106	374629	51.81	ug/L		93
77) styrene	13.259	104	614045	51.59	ug/L		92
78) bromoform	13.077	173	165166	49.32	ug/L		98
79) trans-1,4-dichloro-2-b...	13.495	53	59232	42.71	ug/L	#	50
81) isopropylbenzene	13.697	105	913953	53.40	ug/L		95
83) bromobenzene	13.973	156	251986	48.10	ug/L		98
84) 1,1,2,2-tetrachloroethane	13.340	83	253218	43.35	ug/L		99
85) 1,2,3-trichloropropane	13.488	75	246445	43.37	ug/L		97
86) n-propylbenzene	14.142	91	1054082	48.85	ug/L		98
87) 2-chlorotoluene	14.249	91	641042	50.88	ug/L		94
88) 4-chlorotoluene	14.330	91	649122	49.43	ug/L		94
89) 1,3,5-trimethylbenzene	14.418	105	718404	45.66	ug/L		96
90) tert-butylbenzene	14.721	91	421198	50.22	ug/L		90
91) 1,2,4-trimethylbenzene	14.829	105	734054	48.29	ug/L		93
92) sec-butylbenzene	14.943	105	878098	48.04	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140915\
Data File : p79759.D
Acq On : 15 Sep 2014 10:28 am
Operator : jaclynb
Sample : bs
Misc : ms32693,msp2608,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 16 09:57:06 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

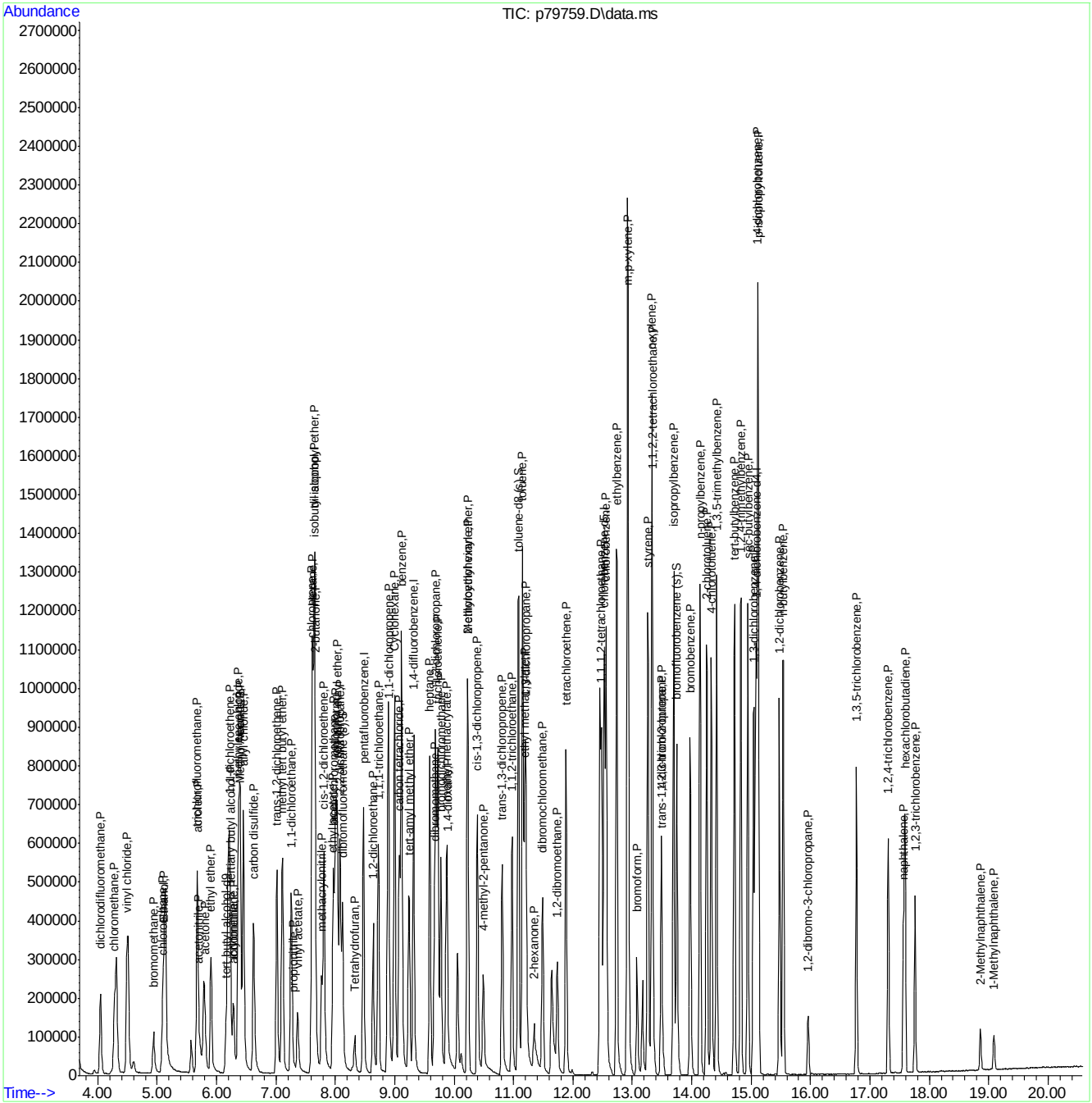
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	1,3-dichlorobenzene	15.044	146	407287	47.53	ug/L	96
94)	p-isopropyltoluene	15.118	119	726111	50.03	ug/L	97
95)	1,4-dichlorobenzene	15.112	146	421135	46.87	ug/L	99
96)	1,2-dichlorobenzene	15.475	146	395432	48.28	ug/L	97
97)	n-butylbenzene	15.536	91	657276	52.63	ug/L	100
98)	1,2-dibromo-3-chloropr...	15.960	75	34647	46.20	ug/L	78
99)	1,3,5-trichlorobenzene	16.775	180	263074	52.95	ug/L	99
100)	1,2,4-trichlorobenzene	17.308	180	189457	47.26	ug/L	97
101)	hexachlorobutadiene	17.591	225	132322	51.10	ug/L	95
102)	naphthalene	17.564	128	254252	49.61	ug/L	100
103)	1,2,3-trichlorobenzene	17.759	180	142895	45.08	ug/L	95
104)	2-Methylnaphthalene	18.864	142	59032	37.99	ug/L	94
105)	1-Methylnaphthalene	19.086	142	49189m	35.01	ug/L	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P140915\
Data File : p79759.D
Acq On : 15 Sep 2014 10:28 am
Operator : jaclynb
Sample : bs
Misc : ms32693,msp2608,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 16 09:57:06 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
10/06/14 09:31

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : bs
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:09:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.159	65	88974	50.00	ug/L		#-0.02
4) pentafluorobenzene	8.476	168	430392	50.00	ug/L		0.00
43) 1,4-difluorobenzene	9.318	114	510520	50.00	ug/L		0.00
66) chlorobenzene-d5	12.525	82	260558	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	15.078	152	286559	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.126	113	188913	42.08	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 84.16%				
60) toluene-d8 (s)	11.083	98	604980	45.65	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 91.30%				
82) bromofluorobenzene (s)	13.744	95	227920	37.14	ug/L		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 74.28%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.240	59	80418	285.93	ug/L	#	57
3) Ethanol	5.115	45	295016	8416.55	ug/L		98
5) dichlorodifluoromethane	4.057	85	266905	50.00	ug/L		98
6) chloromethane	4.279	50	259186	47.58	ug/L		98
7) vinyl chloride	4.495	62	241157m	58.37	ug/L		
8) bromomethane	4.946	96	53198	52.87	ug/L		94
9) chloroethane	5.095	64	116971	70.41	ug/L		100
10) ethyl ether	5.910	59	157465	55.41	ug/L		81
11) acetonitrile	5.701	41	32393	64.57	ug/L		84
12) trichlorofluoromethane	5.674	101	394130	59.33	ug/L		99
13) freon-113	6.395	101	167813	47.52	ug/L		94
14) acrolein	5.681	56	47198	99.32	ug/L		88
15) 1,1-dichloroethene	6.220	96	148096	50.36	ug/L		93
16) acetone	5.802	58	37753	47.16	ug/L	#	35
17) Methyl Acetate	6.401	43	240757	59.90	ug/L	#	84
18) methylene chloride	6.368	84	172562	43.62	ug/L	#	50
19) methyl tert butyl ether	7.109	73	426018	49.66	ug/L		82
20) acrylonitrile	6.287	53	63231	36.67	ug/L		91
21) allyl chloride	6.455	41	307304	45.57	ug/L		78
22) trans-1,2-dichloroethene	7.014	96	145989	41.20	ug/L		83
23) iodomethane	6.280	142	94737	48.83	ug/L		95
24) carbon disulfide	6.624	76	464955	43.56	ug/L		99
25) propionitrile	7.284	54	21812	38.72	ug/L		100
26) vinyl acetate	7.365	43	223230	26.49	ug/L		90
27) chloroprene	7.607	53	321929	53.14	ug/L		82
28) di-isopropyl ether	7.654	45	817196	43.76	ug/L		92
29) methacrylonitrile	7.769	41	136789	43.72	ug/L		74
30) 2-butanone	7.668	72	22640	37.70	ug/L	#	13
31) Hexane	7.621	41	418947	53.48	ug/L	#	84
32) 1,1-dichloroethane	7.257	63	362179	45.80	ug/L		97
33) tert-butyl ethyl ether	8.032	59	483331	64.07	ug/L		90
34) isobutyl alcohol	7.654	43	755414	238.34	ug/L		98
35) 2,2-dichloropropane	8.086	77	106199	28.54	ug/L		96
36) cis-1,2-dichloroethene	7.809	96	167894	40.86	ug/L		85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : bs
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:09:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) ethyl acetate	7.958	43	188710	44.18	ug/L		100
38) bromochloromethane	7.971	128	87311	50.42	ug/L	#	71
39) chloroform	8.005	83	350296	47.39	ug/L		98
41) Tetrahydrofuran	8.328	42	58841	33.83	ug/L		71
42) 1,1,1-trichloroethane	8.725	97	299661	49.27	ug/L		94
44) Cyclohexane	8.995	56	327355	49.64	ug/L	#	73
45) carbon tetrachloride	9.076	117	261521	59.32	ug/L		92
46) 1,1-dichloropropene	8.901	75	232568	52.48	ug/L		97
47) benzene	9.116	78	667499	47.23	ug/L		99
48) 1,2-dichloroethane	8.638	62	276419	57.20	ug/L		100
49) tert-amyl methyl ether	9.244	73	383331	69.76	ug/L		78
50) heptane	9.588	43	288227	50.56	ug/L		73
51) trichloroethene	9.722	95	184384	50.28	ug/L		93
52) 1,2-dichloropropane	9.696	63	201473	47.34	ug/L		100
53) dibromomethane	9.669	93	118006	54.13	ug/L		95
54) bromodichloromethane	9.776	83	279227	56.72	ug/L		99
55) Methylcyclohexane	10.228	83	247031	48.96	ug/L	#	79
56) 2-chloroethyl vinyl ether	10.228	63	3362	72.05	ug/L	#	84
57) methyl methacrylate	9.877	69	108220	43.90	ug/L	#	32
58) 1,4-dioxane	9.877	88	2766m	100.02	ug/L		
59) cis-1,3-dichloropropene	10.389	75	248025	51.83	ug/L		97
61) 4-methyl-2-pentanone	10.490	43	235682	46.20	ug/L		84
62) toluene	11.151	92	390737	48.76	ug/L		96
63) trans-1,3-dichloropropene	10.807	75	219078	53.60	ug/L		98
64) 1,1,2-trichloroethane	10.975	83	136425	49.56	ug/L		97
65) ethyl methacrylate	11.184	69	207811	44.07	ug/L	#	58
67) tetrachloroethene	11.885	166	204459	55.66	ug/L		98
68) 1,3-dichloropropane	11.204	76	256549	47.31	ug/L		99
69) dibromochloromethane	11.487	129	206089	56.91	ug/L		100
70) 1,2-dibromoethane	11.737	107	159473	50.23	ug/L		98
71) 2-hexanone	11.373	43	181243	42.63	ug/L		79
72) chlorobenzene	12.558	112	450294	49.51	ug/L		93
73) 1,1,1,2-tetrachloroethane	12.484	131	178696	54.44	ug/L		98
74) ethylbenzene	12.734	91	737898	45.60	ug/L		99
75) m,p-xylene	12.922	106	565281	97.53	ug/L		98
76) o-xylene	13.333	106	281942	49.81	ug/L		95
77) styrene	13.259	104	473052	50.77	ug/L		91
78) bromoform	13.077	173	156427	59.67	ug/L		96
79) trans-1,4-dichloro-2-b...	13.488	53	25070	23.09	ug/L	#	29
81) isopropylbenzene	13.690	105	705267	42.42	ug/L		95
83) bromobenzene	13.973	156	232146	45.61	ug/L		88
84) 1,1,2,2-tetrachloroethane	13.340	83	206020	36.31	ug/L		99
85) 1,2,3-trichloropropane	13.488	75	175460	31.78	ug/L		99
86) n-propylbenzene	14.135	91	843815	40.25	ug/L		98
87) 2-chlorotoluene	14.249	91	513857	41.98	ug/L		92
88) 4-chlorotoluene	14.330	91	549755	43.09	ug/L		91
89) 1,3,5-trimethylbenzene	14.418	105	608014	39.78	ug/L		95
90) tert-butylbenzene	14.721	91	357361	43.86	ug/L		86
91) 1,2,4-trimethylbenzene	14.829	105	606215	41.05	ug/L		95
92) sec-butylbenzene	14.943	105	713653	40.19	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : bs
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:09:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

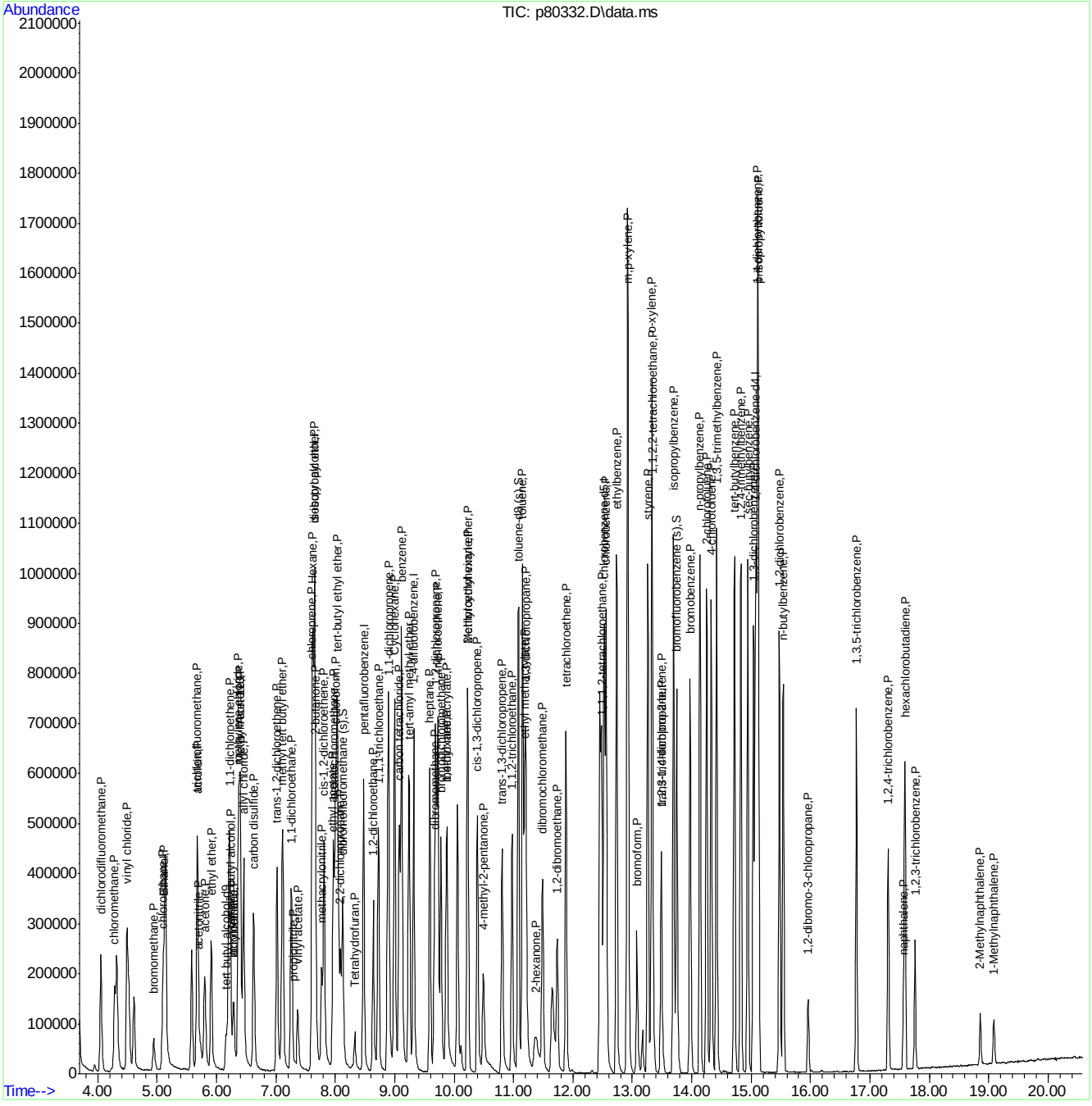
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	1,3-dichlorobenzene	15.037	146	380573	45.72	ug/L	98
94)	p-isopropyltoluene	15.118	119	588652	41.75	ug/L	98
95)	1,4-dichlorobenzene	15.112	146	386270	44.25	ug/L	94
96)	1,2-dichlorobenzene	15.475	146	366221	46.03	ug/L	98
97)	n-butylbenzene	15.543	91	459492	37.87	ug/L	93
98)	1,2-dibromo-3-chloropr...	15.960	75	31528	43.28	ug/L	86
99)	1,3,5-trichlorobenzene	16.775	180	244031	50.56	ug/L	96
100)	1,2,4-trichlorobenzene	17.308	180	142199	37.46	ug/L	95
101)	hexachlorobutadiene	17.591	225	129543	51.50	ug/L	96
102)	naphthalene	17.564	128	65473	17.93	ug/L	100
103)	1,2,3-trichlorobenzene	17.759	180	81850	29.42	ug/L	98
104)	2-Methylnaphthalene	18.857	142	55731	36.92	ug/L	100
105)	1-Methylnaphthalene	19.086	142	47233	34.60	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : bs
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

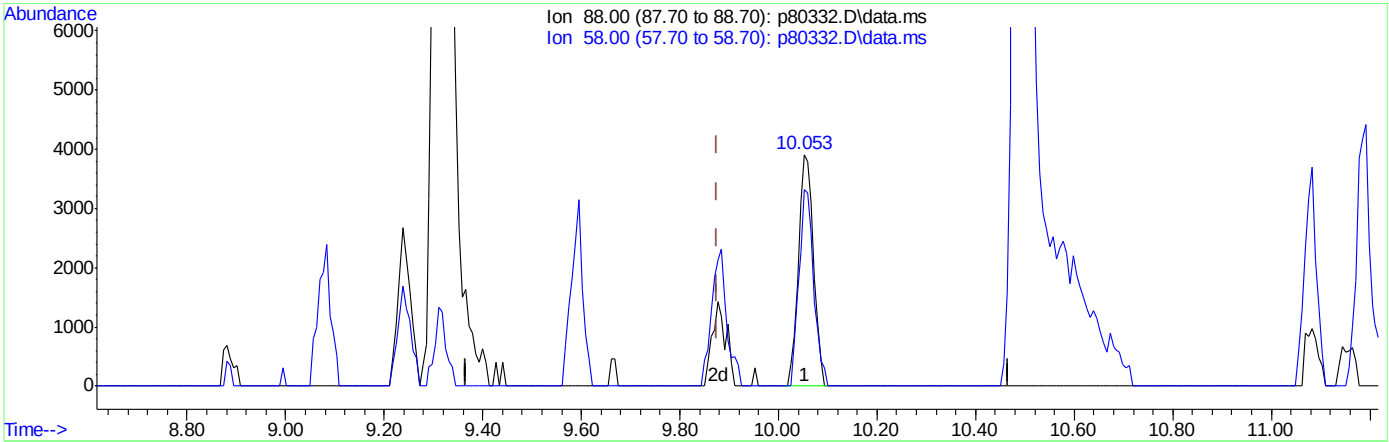
Quant Time: Oct 03 11:09:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration

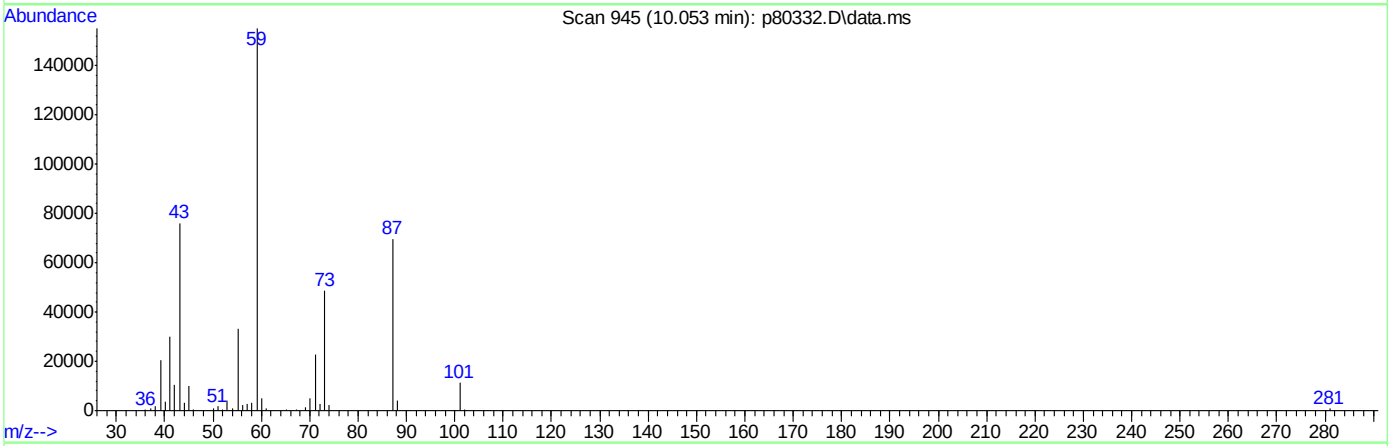


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : cc2607-50
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:08:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration





TIC: p80332.D\data.ms

(58) 1,4-dioxane (P)

10.053min (+0.176) 260.69ug/L

response 8147

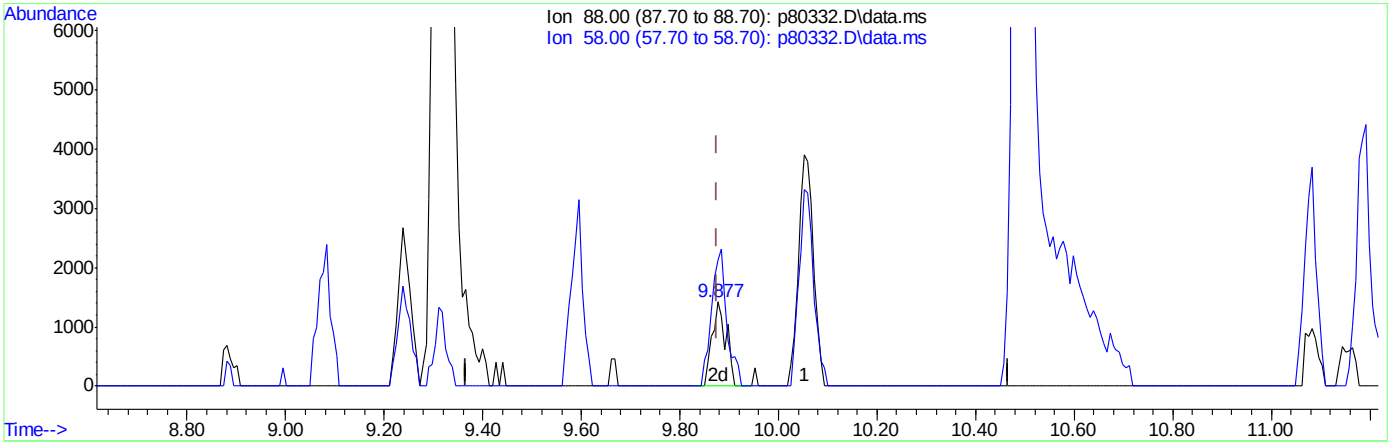
Ion	Exp%	Act%
88.00	100	100
58.00	83.70	85.00
0.00	0.00	0.00
0.00	0.00	0.00

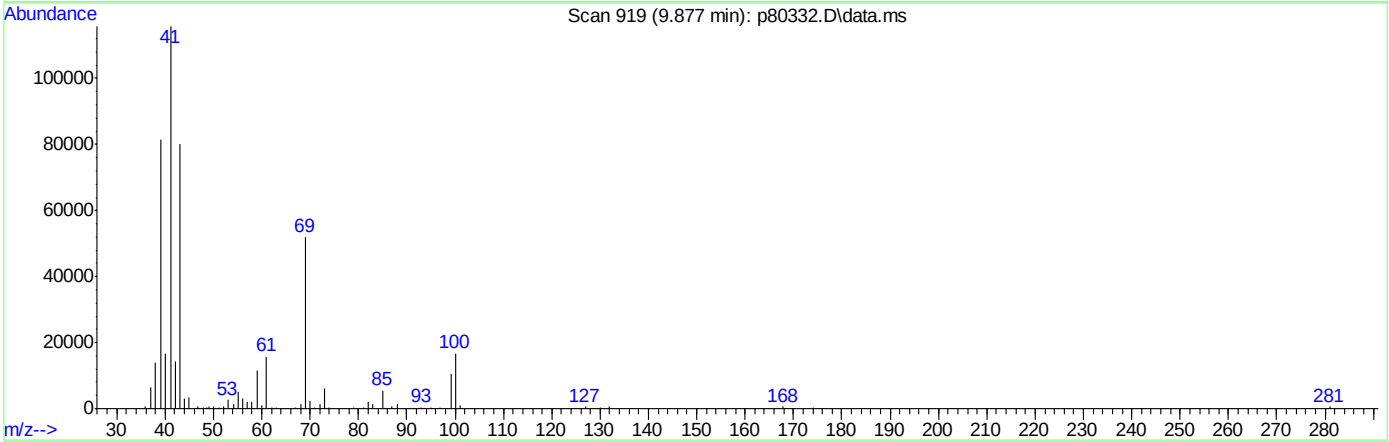
ACCUTEST LABORATORIES MC33908

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : cc2607-50
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:08:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration





TIC: p80332.D\data.ms

(58) 1,4-dioxane (P)

9.877min (+0.000) 100.02ug/L m

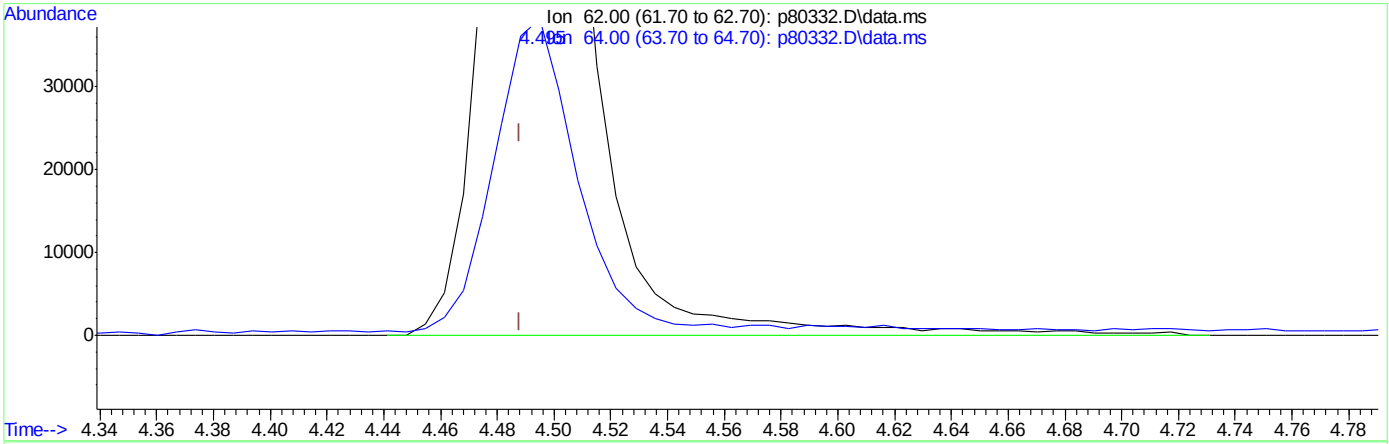
response 2766

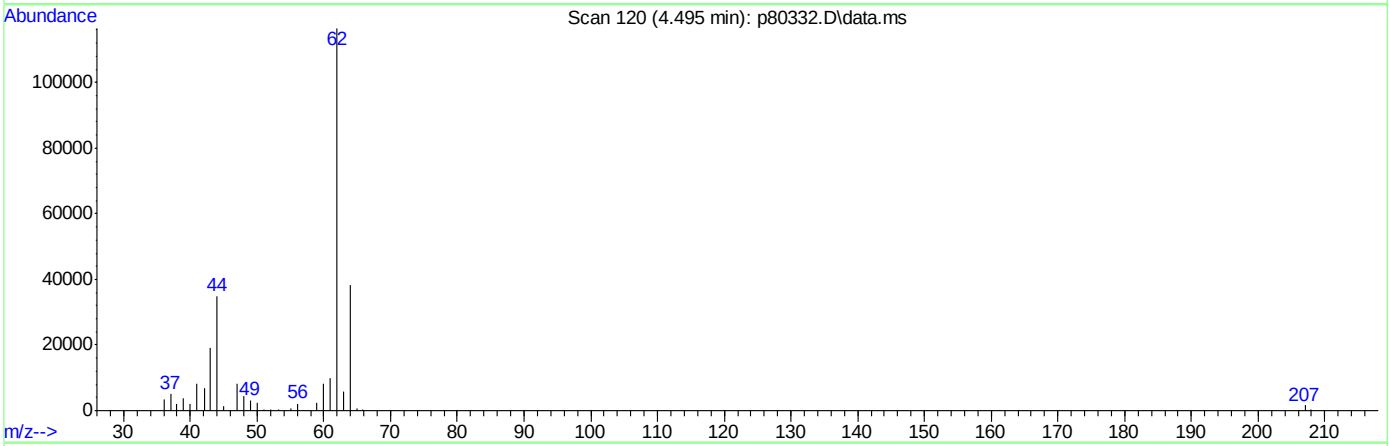
Ion	Exp%	Act%
88.00	100	100
58.00	83.70	149.30#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : cc2607-50
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:08:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration





TIC: p80332.D\data.ms

(7) vinyl chloride (P)

4.495min (+0.007) 61.10ug/L

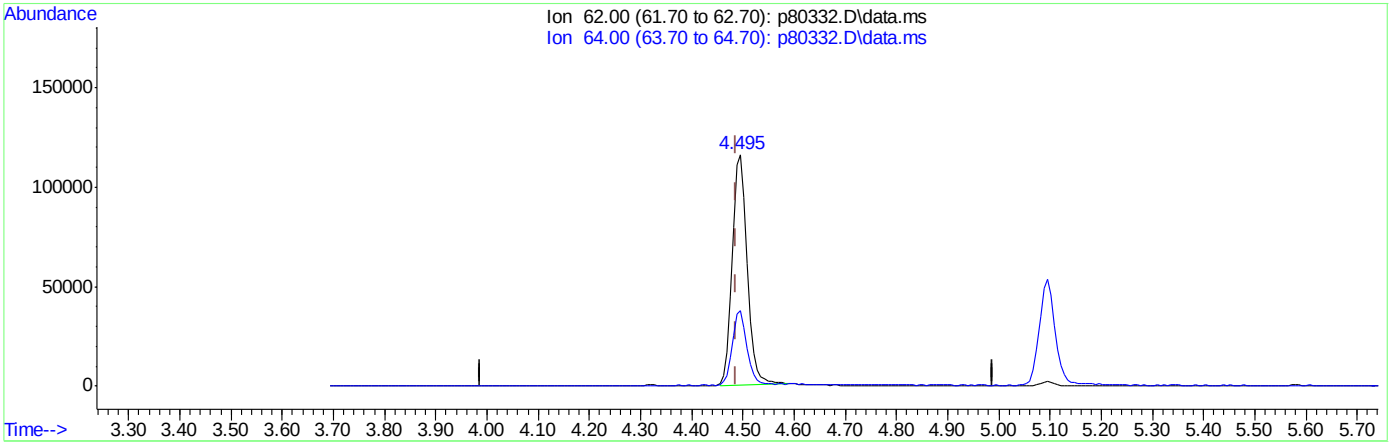
response 252441

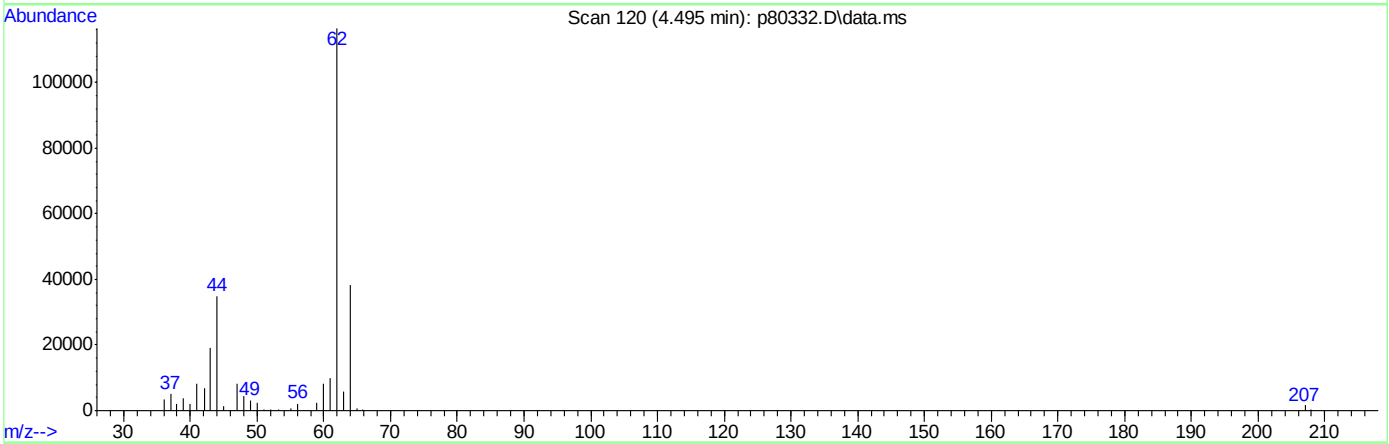
Ion	Exp%	Act%
62.00	100	100
64.00	33.00	32.21
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\P141003\
Data File : p80332.D
Acq On : 3 Oct 2014 10:19 am
Operator : garyk
Sample : cc2607-50
Misc : ms32875,msp2629,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:08:35 2014
Quant Method : C:\msdchem\1\methods\P140912W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 16 09:50:02 2014
Response via : Initial Calibration





TIC: p80332.D\data.ms

(7) vinyl chloride (P)

4.495min (+0.007) 58.37ug/L m

response 241157

Ion	Exp%	Act%
62.00	100	100
64.00	33.00	32.71
0.00	0.00	0.00
0.00	0.00	0.00

ACCUTEST LABORATORIES MC33908

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/02/14 12:39

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22111.D
Acq On : 29 Aug 2014 2:29 pm
Operator : GaryK
Sample : ic972-0.5
Misc : ms32529,msu972,,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 02 10:24:59 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

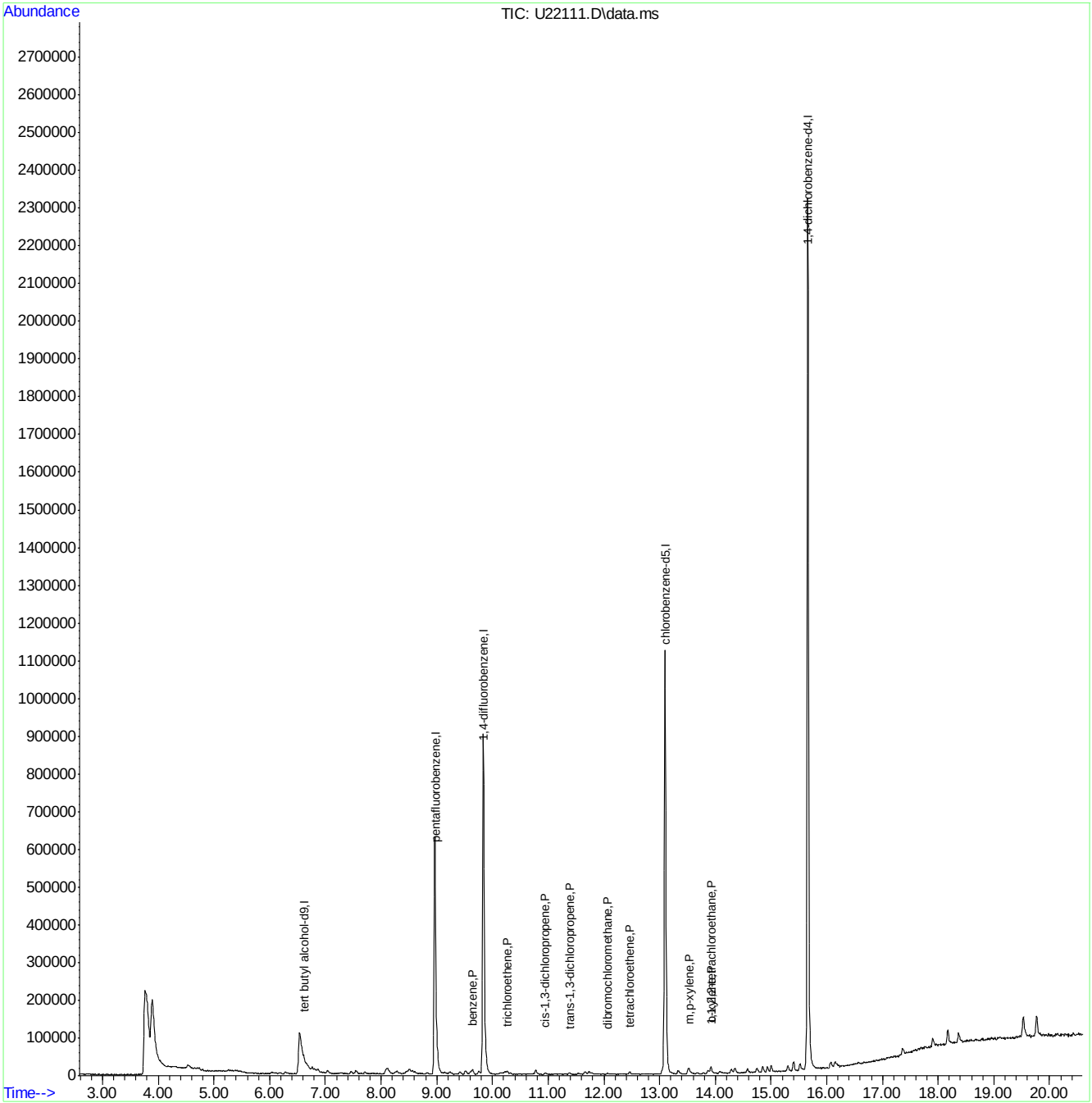
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.615	65	390123	50.00	ppb		0.00
4) pentafluorobenzene	8.975	168	544953	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.843	114	876732	50.00	ppb		0.00
66) chlorobenzene-d5	13.101	82	355842	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.663	152	697184	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	0.000	113	0d	0.00	ppb		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
60) toluene-d8 (s)	0.000	98	0d	0.00	ppb		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
82) bromofluorobenzene (s)	0.000	95	0d	0.00	ppb		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
Target Compounds							Qvalue
47) benzene	9.644	78	11245	0.57	ppb		93
51) trichloroethene	10.266	95	3337m	0.60	ppb		
59) cis-1,3-dichloropropene	10.947	75	2822	0.47	ppb		54
63) trans-1,3-dichloropropene	11.384	75	1942	0.48	ppb		78
67) tetrachloroethene	12.463	166	2393	0.49	ppb		82
69) dibromochloromethane	12.063	129	2310	0.48	ppb		78
75) m,p-xylene	13.527	106	8767	1.03	ppb		85
76) o-xylene	13.926	106	4070	0.41	ppb	#	74
84) 1,1,2,2-tetrachloroethane	13.930	83	3783	0.54	ppb		82

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22111.D
Acq On : 29 Aug 2014 2:29 pm
Operator : GaryK
Sample : ic972-0.5
Misc : ms32529,msu972,,,,5,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 02 10:24:59 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22112.D
Acq On : 29 Aug 2014 2:56 pm
Operator : GaryK
Sample : ic972-1
Misc : ms32529,msu972,,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 02 10:29:06 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

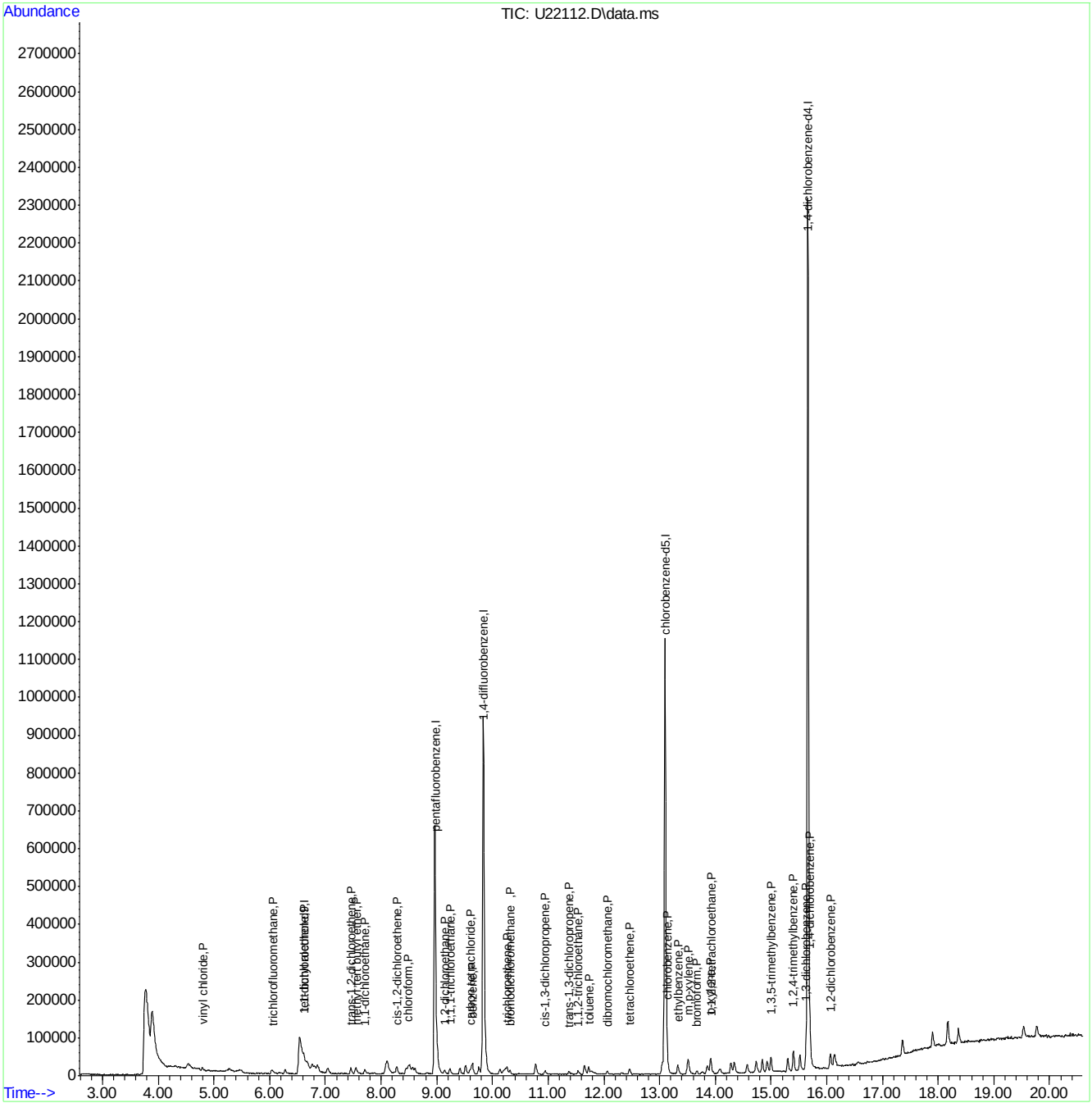
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.624	65	376420	50.00	ppb		0.01
4) pentafluorobenzene	8.976	168	564596	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.843	114	915399	50.00	ppb		0.00
66) chlorobenzene-d5	13.100	82	357211	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.663	152	684045	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	0.000	113	0d	0.00	ppb		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
60) toluene-d8 (s)	0.000	98	0d	0.00	ppb		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
82) bromofluorobenzene (s)	0.000	95	0d	0.00	ppb		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
Target Compounds							Qvalue
7) vinyl chloride	4.796	62	11529	0.98	ppb		92
12) trichlorofluoromethane	6.057	101	10912	0.90	ppb		76
15) 1,1-dichloroethene	6.629	96	8196	1.40	ppb		97
19) methyl tert butyl ether	7.561	73	17405	1.14	ppb		98
22) trans-1,2-dichloroethene	7.471	96	8722	1.34	ppb	#	76
33) 1,1-dichloroethane	7.717	63	14058	1.08	ppb		95
37) cis-1,2-dichloroethene	8.294	96	9543	1.32	ppb		80
39) chloroform	8.491	83	12047	1.09	ppb		85
42) 1,1,1-trichloroethane	9.238	97	9755	0.98	ppb		80
45) carbon tetrachloride	9.602	117	8731	1.04	ppb		100
47) benzene	9.642	78	24505	1.18	ppb		99
48) 1,2-dichloroethane	9.146	62	9148	1.20	ppb		95
51) trichloroethene	10.262	95	6687	1.16	ppb		76
54) bromodichloromethane	10.319	83	7204	1.05	ppb		99
59) cis-1,3-dichloropropene	10.950	75	6039	0.96	ppb		88
62) toluene	11.731	92	10614	1.02	ppb		90
63) trans-1,3-dichloropropene	11.376	75	4389	1.04	ppb		99
64) 1,1,2-trichloroethane	11.541	83	3117	1.16	ppb		92
67) tetrachloroethene	12.461	166	4932	1.01	ppb		92
69) dibromochloromethane	12.064	129	5603	1.16	ppb		95
72) chlorobenzene	13.135	112	14785	1.18	ppb		92
74) ethylbenzene	13.331	91	23447	1.16	ppb		88
75) m,p-xylene	13.516	106	18917	2.22	ppb		99
76) o-xylene	13.918	106	10242	1.03	ppb	#	77
78) bromoform	13.668	173	3610	1.01	ppb		84
84) 1,1,2,2-tetrachloroethane	13.925	83	8044	1.16	ppb		80
89) 1,3,5-trimethylbenzene	15.004	105	27836	0.94	ppb		87
91) 1,2,4-trimethylbenzene	15.405	105	30869	1.02	ppb		99
93) 1,3-dichlorobenzene	15.626	146	21431	1.12	ppb		94
95) 1,4-dichlorobenzene	15.690	146	23568	1.16	ppb		93
96) 1,2-dichlorobenzene	16.073	146	22064	1.08	ppb		93

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22112.D
Acq On : 29 Aug 2014 2:56 pm
Operator : GaryK
Sample : ic972-1
Misc : ms32529,msu972,,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 02 10:29:06 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration



Manual Integrations APPROVED
(compounds with "m" flag)
Tomasz Torski
09/22/14 11:41

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22113.D
Acq On : 29 Aug 2014 3:24 pm
Operator : GaryK
Sample : ic972-2
Misc : ms32529,msu972,,,,5,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 19 08:59:52 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.622	65	376350	50.00	ppb		0.01
4) pentafluorobenzene	8.975	168	563285	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.842	114	911784m	50.00	ppb		0.00
66) chlorobenzene-d5	13.099	82	360417	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.662	152	688343	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	0.000	113	0d	0.00	ppb		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
60) toluene-d8 (s)	0.000	98	0d	0.00	ppb		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
82) bromofluorobenzene (s)	0.000	95	0d	0.00	ppb		
Spiked Amount 50.000	Range 70 - 130		Recovery =	0.00%#			
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.689	59	16319m	27.78	ppb		
3) Ethanol	5.609	45	30282	350.80	ppb	#	39
5) dichlorodifluoromethane	4.320	85	15694	1.70	ppb		89
6) chloromethane	4.549	50	36913	2.22	ppb		96
7) vinyl chloride	4.797	62	20884	1.78	ppb		94
8) bromomethane	5.275	96	12723	2.22	ppb		80
9) chloroethane	5.413	64	7960	1.73	ppb		95
12) trichlorofluoromethane	6.056	101	21520	1.77	ppb		99
15) 1,1-dichloroethene	6.633	96	14517	2.49	ppb		84
18) methylene chloride	6.772	84	14243	2.21	ppb		95
19) methyl tert butyl ether	7.559	73	33185	2.18	ppb		89
22) trans-1,2-dichloroethene	7.465	96	15101	2.33	ppb		86
28) di-isopropyl ether	8.132	45	59681	2.15	ppb		91
33) 1,1-dichloroethane	7.716	63	27954	2.16	ppb		96
34) tert-butyl ethyl ether	8.521	59	44849	2.07	ppb		97
37) cis-1,2-dichloroethene	8.285	96	15451	2.15	ppb		98
39) chloroform	8.490	83	23623	2.15	ppb		99
42) 1,1,1-trichloroethane	9.237	97	20059	2.02	ppb		95
45) carbon tetrachloride	9.602	117	16731	1.99	ppb		93
47) benzene	9.641	78	46105	2.23	ppb		98
48) 1,2-dichloroethane	9.142	62	17758	2.33	ppb		94
49) tert-amyl methyl ether	9.759	73	30941	2.25	ppb		88
51) trichloroethene	10.262	95	12529	2.18	ppb		71
52) 1,2-dichloropropane	10.232	63	12135	2.12	ppb		91
53) dibromomethane	10.203	93	7545	2.30	ppb		95
54) bromodichloromethane	10.317	83	13651	2.00	ppb		94
59) cis-1,3-dichloropropene	10.944	75	12339	1.98	ppb		93
62) toluene	11.724	92	19923	1.92	ppb		98
63) trans-1,3-dichloropropene	11.372	75	8557	2.03	ppb		95
64) 1,1,2-trichloroethane	11.537	83	5482	2.05	ppb		81
67) tetrachloroethene	12.458	166	9514	1.93	ppb		92
69) dibromochloromethane	12.061	129	10466	2.15	ppb		91
70) 1,2-dibromoethane	12.318	107	8105	2.27	ppb		98
72) chlorobenzene	13.135	112	27773	2.19	ppb		86

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22113.D
Acq On : 29 Aug 2014 3:24 pm
Operator : GaryK
Sample : ic972-2
Misc : ms32529,msu972,,,,5,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 19 08:59:52 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

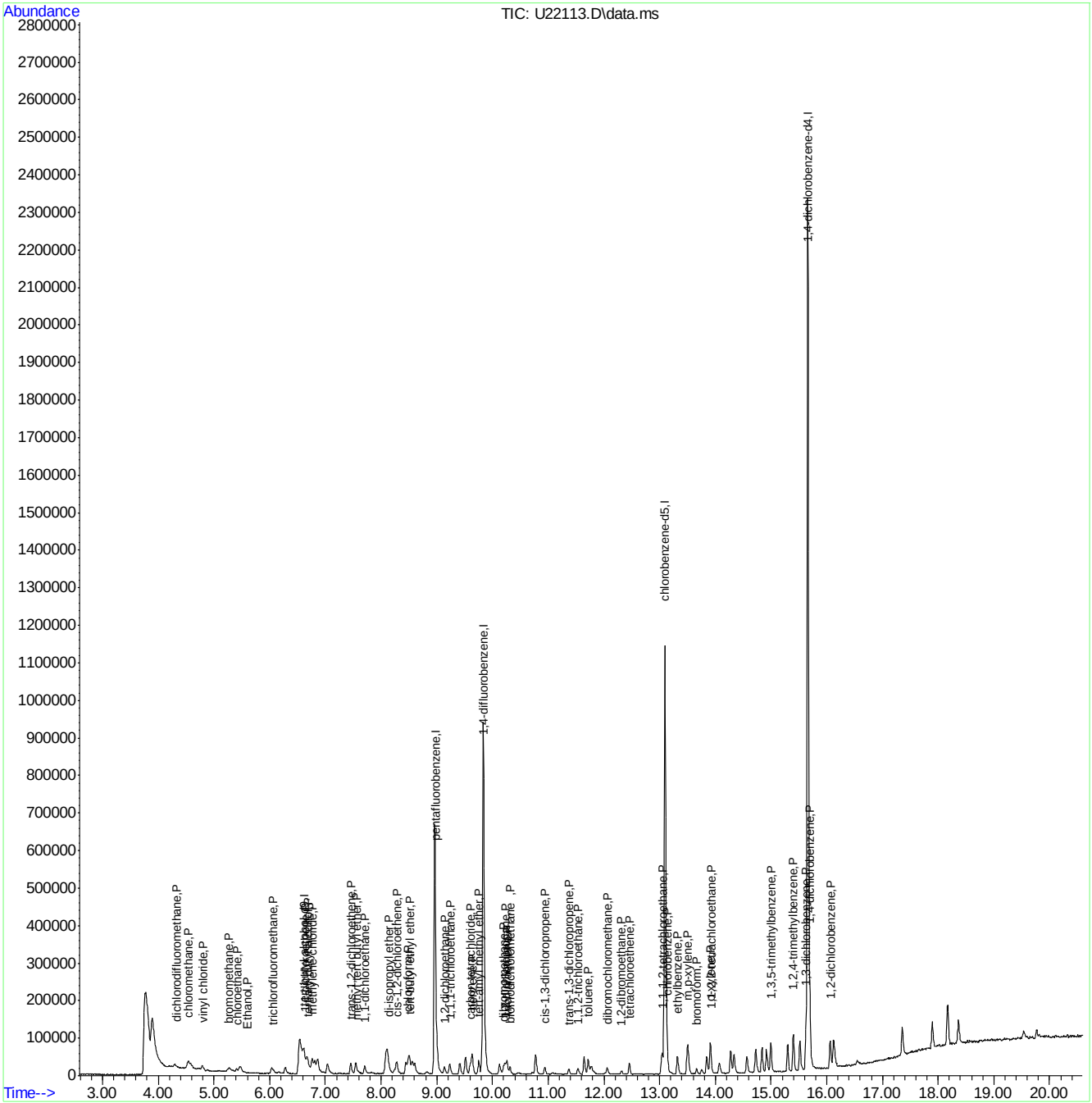
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
73) 1,1,1,2-tetrachloroethane	13.052	131	13402	2.08	ppb		90
74) ethylbenzene	13.325	91	44228	2.16	ppb		91
75) m,p-xylene	13.508	106	37496	4.37	ppb	#	80
76) o-xylene	13.914	106	20912	2.08	ppb		84
78) bromoform	13.666	173	8081	2.24	ppb		97
84) 1,1,2,2-tetrachloroethane	13.920	83	15448	2.22	ppb		94
89) 1,3,5-trimethylbenzene	15.000	105	54248	1.82	ppb		98
91) 1,2,4-trimethylbenzene	15.403	105	59816	1.96	ppb		94
93) 1,3-dichlorobenzene	15.625	146	39541	2.05	ppb		93
95) 1,4-dichlorobenzene	15.690	146	44634	2.18	ppb		98
96) 1,2-dichlorobenzene	16.069	146	42156	2.06	ppb		93

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22113.D
Acq On : 29 Aug 2014 3:24 pm
Operator : GaryK
Sample : ic972-2
Misc : ms32529,msu972,,,,5,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 19 08:59:52 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/22/14 11:41

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22114.D
Acq On : 29 Aug 2014 3:51 pm
Operator : GaryK
Sample : ic972-5
Misc : ms32529,msu972,,,,5,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 19 09:01:06 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.617	65	367368	50.00	ppb		0.00
4) pentafluorobenzene	8.974	168	542812	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.842	114	897658	50.00	ppb		0.00
66) chlorobenzene-d5	13.098	82	354110	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.661	152	683558	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.612	113	35950	5.37	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	10.74%#			
60) toluene-d8 (s)	11.645	98	84535	5.24	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	10.48%#			
82) bromofluorobenzene (s)	14.333	95	44680	5.49	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	10.98%#			
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.682	59	38506m	67.16	ppb		
3) Ethanol	5.602	45	55950	663.99	ppb	#	39
5) dichlorodifluoromethane	4.328	85	47698	5.35	ppb		79
6) chloromethane	4.548	50	95128	5.94	ppb		93
7) vinyl chloride	4.798	62	60395	5.35	ppb		98
8) bromomethane	5.276	96	31219	5.64	ppb		98
9) chloroethane	5.416	64	23459	5.28	ppb		99
10) ethyl ether	6.289	59	31802	5.75	ppb		82
11) acetonitrile	6.112	41	9565	12.19	ppb	#	21
12) trichlorofluoromethane	6.058	101	61246	5.24	ppb		98
13) freon-113	6.825	101	34904	5.06	ppb		93
14) acrolein	6.057	56	12651	29.48	ppb		92
15) 1,1-dichloroethene	6.631	96	32262	5.74	ppb		95
17) Methyl Acetate	6.823	43	35598m	5.73	ppb		
18) methylene chloride	6.775	84	34308	5.53	ppb		91
19) methyl tert butyl ether	7.562	73	81690	5.57	ppb		89
20) acrylonitrile	6.702	53	16212	5.42	ppb		93
21) allyl chloride	6.876	41	77378	5.60	ppb		97
22) trans-1,2-dichloroethene	7.466	96	35399	5.67	ppb		94
23) iodomethane	6.684	142	65333	5.39	ppb		100
24) carbon disulfide	7.049	76	102735	5.55	ppb		96
25) propionitrile	8.081	54	2923	4.97	ppb		100
26) vinyl acetate	7.838	43	26107m	5.49	ppb		
27) chloroprene	8.082	53	57707	5.35	ppb		97
28) di-isopropyl ether	8.129	45	146687	5.48	ppb		99
29) methacrylonitrile	8.248	41	20770	5.06	ppb		93
30) 2-butanone	8.149	72	2961	4.07	ppb	#	33
31) Ethyl Acetate	8.124	43	120847	5.20	ug/L		94
32) Hexane	8.107	41	63570	5.51	ppb	#	91
33) 1,1-dichloroethane	7.716	63	67530	5.40	ppb		99
34) tert-butyl ethyl ether	8.518	59	110847	5.30	ppb		97
35) isobutyl alcohol	8.545	43	24158	29.57	ppb	#	1
36) 2,2-dichloropropane	8.572	77	44625	5.53	ppb		91
37) cis-1,2-dichloroethene	8.288	96	39277	5.66	ppb		89

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22114.D
Acq On : 29 Aug 2014 3:51 pm
Operator : GaryK
Sample : ic972-5
Misc : ms32529,msu972,,,,5,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 19 09:01:06 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) bromochloromethane	8.451	128	20372	5.50	ppb	#	85
39) chloroform	8.490	83	59343	5.60	ppb		97
41) Tetrahydrofuran	8.848	42	14592	6.82	ppb		68
42) 1,1,1-trichloroethane	9.238	97	51700	5.39	ppb		96
44) Cyclohexane	9.524	56	74267	5.76	ppb		99
45) carbon tetrachloride	9.602	117	46728	5.66	ppb		98
46) 1,1-dichloropropene	9.416	75	39458	5.77	ppb		90
47) benzene	9.640	78	115227	5.67	ppb		95
48) 1,2-dichloroethane	9.143	62	43322m	5.77	ppb		
49) tert-amyl methyl ether	9.761	73	74295m	5.49	ppb		
50) heptane	10.135	43	51316	5.66	ppb	#	59
51) trichloroethene	10.261	95	31205	5.52	ppb		78
52) 1,2-dichloropropane	10.230	63	31297	5.56	ppb		99
53) dibromomethane	10.203	93	18317	5.67	ppb		93
54) bromodichloromethane	10.316	83	35382	5.25	ppb		93
55) Methylcyclohexane	10.778	83	51897	5.71	ppb		87
56) 2-chloroethyl vinyl ether	10.721	63	9513	5.13	ppb		92
57) methyl methacrylate	10.453	69	8587	4.95	ppb	#	64
59) cis-1,3-dichloropropene	10.942	75	30398	4.95	ppb		92
61) 4-methyl-2-pentanone	11.118	43	33370	5.85	ppb	#	44
62) toluene	11.718	92	50784	4.98	ppb		90
63) trans-1,3-dichloropropene	11.367	75	21587	5.21	ppb		97
64) 1,1,2-trichloroethane	11.533	83	13809	5.25	ppb		97
65) ethyl methacrylate	11.783	69	19626	5.24	ppb	#	1
67) tetrachloroethene	12.456	166	25220	5.21	ppb		92
68) 1,3-dichloropropane	11.772	76	25640	5.46	ppb		99
69) dibromochloromethane	12.057	129	24901	5.20	ppb		94
70) 1,2-dibromoethane	12.312	107	19629	5.58	ppb		91
71) 2-hexanone	11.994	43	15799m	4.74	ppb		
72) chlorobenzene	13.134	112	68644	5.52	ppb		87
73) 1,1,1,2-tetrachloroethane	13.052	131	34628	5.47	ppb		97
74) ethylbenzene	13.317	91	112983	5.63	ppb		91
75) m,p-xylene	13.500	106	93988	11.14	ppb		83
76) o-xylene	13.909	106	53327	5.41	ppb		92
77) styrene	13.843	104	73965m	5.65	ppb		
78) bromoform	13.663	173	18505	5.23	ppb		97
79) trans-1,4-dichloro-2-b...	14.073	53	10302	5.23	ppb		96
81) isopropylbenzene	14.275	105	143059	4.74	ppb		96
83) bromobenzene	14.564	156	41523	5.24	ppb	#	81
84) 1,1,2,2-tetrachloroethane	13.916	83	36085	5.22	ppb		97
85) 1,2,3-trichloropropane	14.070	75	35685	5.11	ppb		97
86) n-propylbenzene	14.721	91	168456	5.15	ppb		93
87) 2-chlorotoluene	14.835	91	109136	5.19	ppb		83
88) 4-chlorotoluene	14.916	91	111268	5.24	ppb		85
89) 1,3,5-trimethylbenzene	14.996	105	142233	4.82	ppb		92
90) tert-butylbenzene	15.298	91	68765	4.21	ppb		88
91) 1,2,4-trimethylbenzene	15.401	105	151117	4.99	ppb		97
92) sec-butylbenzene	15.522	105	180769	4.73	ppb		93
93) 1,3-dichlorobenzene	15.624	146	99062	5.17	ppb		99
94) p-isopropyltoluene	15.706	119	176855	5.10	ppb		93

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22114.D
Acq On : 29 Aug 2014 3:51 pm
Operator : GaryK
Sample : ic972-5
Misc : ms32529,msu972,,,,5,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 19 09:01:06 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

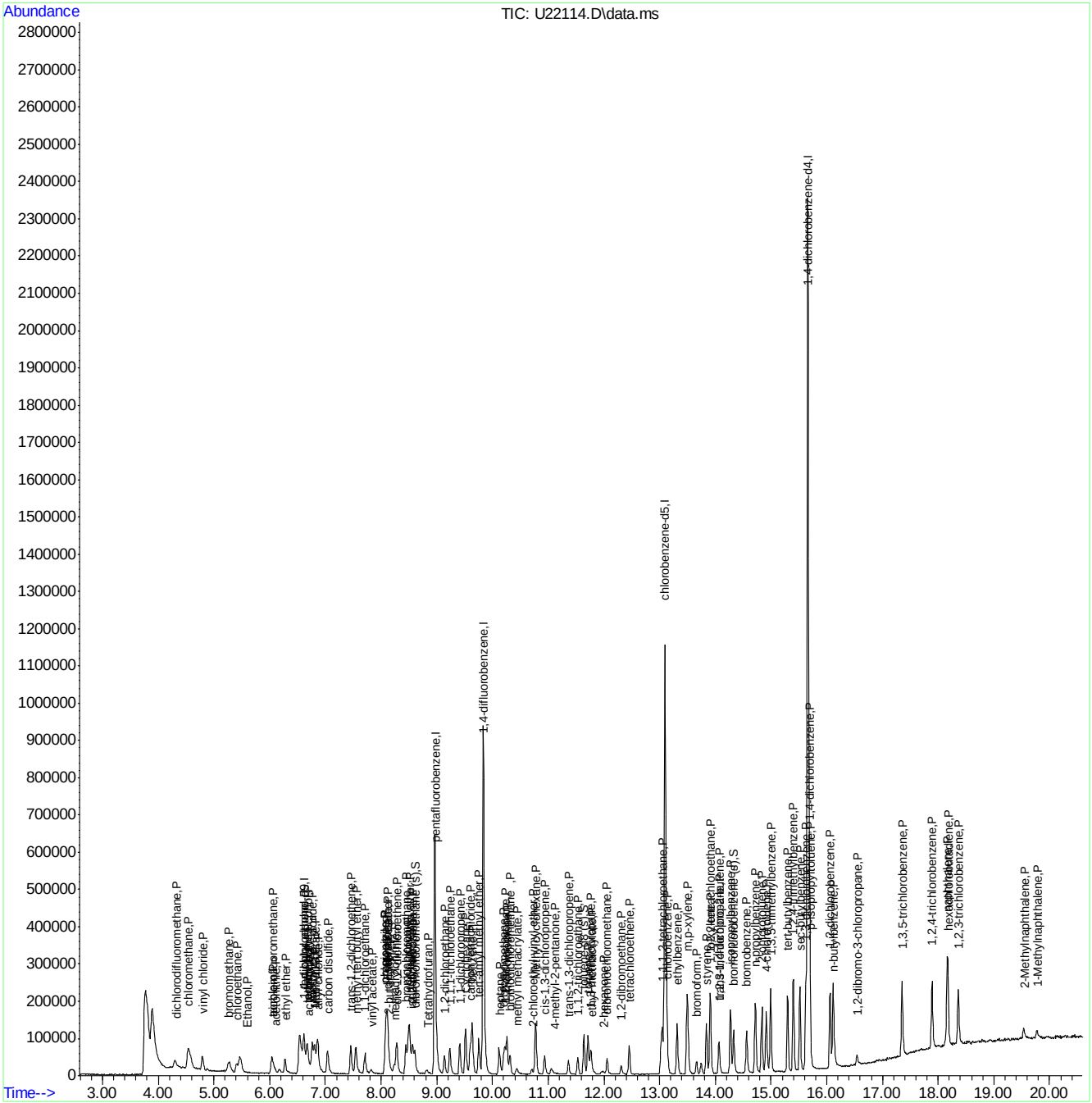
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
95)	1,4-dichlorobenzene	15.690	146	108713	5.34	ppb		99
96)	1,2-dichlorobenzene	16.064	146	105733	5.20	ppb		96
97)	n-butylbenzene	16.126	91	167385	5.23	ppb		87
98)	1,2-dibromo-3-chloropr...	16.557	75	9927	6.26	ppb	#	60
99)	1,3,5-trichlorobenzene	17.356	180	76099	5.21	ug/L		96
100)	1,2,4-trichlorobenzene	17.895	180	67240	5.07	ppb		94
101)	hexachlorobutadiene	18.179	225	34240	5.56	ppb		95
102)	naphthalene	18.164	128	150863	5.03	ppb		100
103)	2-Methylnaphthalene	19.551	142	25426m	3.13	ug/L		
104)	1-Methylnaphthalene	19.780	142	17484m	4.22	ug/L		
105)	1,2,3-trichlorobenzene	18.368	180	58736	5.17	ppb		95

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22114.D
Acq On : 29 Aug 2014 3:51 pm
Operator : GaryK
Sample : ic972-5
Misc : ms32529,msu972,,,,5,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 19 09:01:06 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/22/14 11:41

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22115.D
Acq On : 29 Aug 2014 4:18 pm
Operator : GaryK
Sample : ic972-10
Misc : ms32529,msu972,,,,5,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 19 09:01:29 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.622	65	342170	50.00	ppb		0.01
4) pentafluorobenzene	8.974	168	520859	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.841	114	858810	50.00	ppb		0.00
66) chlorobenzene-d5	13.098	82	356572	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.660	152	688503	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.612	113	72547	11.29	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 22.58%#				
60) toluene-d8 (s)	11.641	98	170083	11.03	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 22.06%#				
82) bromofluorobenzene (s)	14.328	95	88347	10.77	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 21.54%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.689	59	72277m	135.35	ppb		
3) Ethanol	5.604	45	93528	1191.69	ppb		97
5) dichlorodifluoromethane	4.330	85	96147	11.23	ppb		99
6) chloromethane	4.551	50	183898	11.97	ppb		98
7) vinyl chloride	4.803	62	123113	11.36	ppb		97
8) bromomethane	5.281	96	63079	11.88	ppb		100
9) chloroethane	5.420	64	46743	10.97	ppb		98
10) ethyl ether	6.291	59	59150	11.14	ppb		96
11) acetonitrile	6.070	41	10148m	13.48	ppb		
12) trichlorofluoromethane	6.060	101	120866	10.77	ppb		98
13) freon-113	6.829	101	65214	9.85	ppb		85
14) acrolein	6.067	56	24442	59.36	ppb		92
15) 1,1-dichloroethene	6.630	96	57254	10.61	ppb		94
16) acetone	6.184	58	12548m	9.20	ppb		
17) Methyl Acetate	6.810	43	57190m	9.59	ppb		
18) methylene chloride	6.777	84	68828	11.57	ppb	#	83
19) methyl tert butyl ether	7.567	73	164688	11.70	ppb		90
20) acrylonitrile	6.695	53	29053m	10.12	ppb		
21) allyl chloride	6.873	41	150534	11.35	ppb		89
22) trans-1,2-dichloroethene	7.467	96	66841	11.15	ppb		91
23) iodomethane	6.688	142	133532	11.48	ppb		98
24) carbon disulfide	7.051	76	194172	10.93	ppb		97
25) propionitrile	8.081	54	6258	11.08	ppb		100
26) vinyl acetate	7.832	43	44846m	9.83	ppb		
27) chloroprene	8.084	53	110933	10.72	ppb		98
28) di-isopropyl ether	8.125	45	289187	11.27	ppb		89
29) methacrylonitrile	8.250	41	40176	10.20	ppb		92
30) 2-butanone	8.146	72	6866	9.83	ppb	#	84
31) Ethyl Acetate	8.123	43	242620	10.88	ug/L		95
32) Hexane	8.106	41	121327	10.97	ppb	#	77
33) 1,1-dichloroethane	7.717	63	135695	11.32	ppb		96
34) tert-butyl ethyl ether	8.518	59	226121	11.27	ppb		97
35) isobutyl alcohol	8.538	43	48285m	61.59	ppb		
36) 2,2-dichloropropane	8.573	77	83895	10.84	ppb		90

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22115.D
Acq On : 29 Aug 2014 4:18 pm
Operator : GaryK
Sample : ic972-10
Misc : ms32529,msu972,,,,5,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 19 09:01:29 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) cis-1,2-dichloroethene	8.287	96	75992	11.41	ppb		96
38) bromochloromethane	8.453	128	40283	11.33	ppb		89
39) chloroform	8.490	83	117331	11.55	ppb		94
41) Tetrahydrofuran	8.852	42	23342	11.38	ppb		80
42) 1,1,1-trichloroethane	9.238	97	95907	10.43	ppb		96
44) Cyclohexane	9.524	56	139255	11.28	ppb		96
45) carbon tetrachloride	9.602	117	85312	10.80	ppb		96
46) 1,1-dichloropropene	9.416	75	72724	11.11	ppb		93
47) benzene	9.640	78	221791	11.41	ppb		97
48) 1,2-dichloroethane	9.142	62	84822	11.81	ppb		100
49) tert-amyl methyl ether	9.755	73	149118m	11.52	ppb		
50) heptane	10.130	43	98350	11.33	ppb	#	65
51) trichloroethene	10.261	95	60376	11.16	ppb		83
52) 1,2-dichloropropane	10.229	63	59686	11.09	ppb		97
53) dibromomethane	10.203	93	35961	11.64	ppb		98
54) bromodichloromethane	10.315	83	70378	10.92	ppb		95
55) Methylcyclohexane	10.777	83	99084	11.40	ppb		90
56) 2-chloroethyl vinyl ether	10.703	63	17245m	9.72	ppb		
57) methyl methacrylate	10.439	69	17142	10.33	ppb		86
58) 1,4-dioxane	10.441	88	1592	53.63	ppb		96
59) cis-1,3-dichloropropene	10.939	75	62015	10.55	ppb		89
61) 4-methyl-2-pentanone	11.079	43	62706m	11.48	ppb		
62) toluene	11.714	92	102060	10.45	ppb		92
63) trans-1,3-dichloropropene	11.363	75	44105	11.13	ppb		94
64) 1,1,2-trichloroethane	11.531	83	29548	11.74	ppb		98
65) ethyl methacrylate	11.761	69	41055	11.45	ppb	#	1
67) tetrachloroethene	12.454	166	49267	10.10	ppb		92
68) 1,3-dichloropropane	11.767	76	54468	11.52	ppb		97
69) dibromochloromethane	12.055	129	51694	10.71	ppb		97
70) 1,2-dibromoethane	12.309	107	40702	11.50	ppb		97
71) 2-hexanone	11.967	43	42227m	12.58	ppb		
72) chlorobenzene	13.133	112	143089	11.42	ppb		91
73) 1,1,1,2-tetrachloroethane	13.051	131	69873	10.97	ppb		96
74) ethylbenzene	13.312	91	225686	11.16	ppb		89
75) m,p-xylene	13.496	106	191229	22.52	ppb		88
76) o-xylene	13.906	106	112008	11.28	ppb		91
77) styrene	13.839	104	164932	12.50	ppb		99
78) bromoform	13.662	173	41100	11.54	ppb		96
79) trans-1,4-dichloro-2-b...	14.066	53	22437	11.32	ppb		88
81) isopropylbenzene	14.271	105	294129	9.67	ppb		99
83) bromobenzene	14.560	156	86841	10.87	ppb	#	80
84) 1,1,2,2-tetrachloroethane	13.914	83	77955	11.20	ppb		99
85) 1,2,3-trichloropropane	14.065	75	77696	11.04	ppb		97
86) n-propylbenzene	14.717	91	348274	10.57	ppb		91
87) 2-chlorotoluene	14.832	91	224628	10.60	ppb		86
88) 4-chlorotoluene	14.911	91	234229	10.94	ppb		85
89) 1,3,5-trimethylbenzene	14.993	105	299593	10.07	ppb		95
90) tert-butylbenzene	15.296	91	149411	9.08	ppb		89
91) 1,2,4-trimethylbenzene	15.400	105	318904	10.45	ppb		97
92) sec-butylbenzene	15.520	105	380449	9.88	ppb		94

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22115.D
Acq On : 29 Aug 2014 4:18 pm
Operator : GaryK
Sample : ic972-10
Misc : ms32529,msu972,,,,5,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 19 09:01:29 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

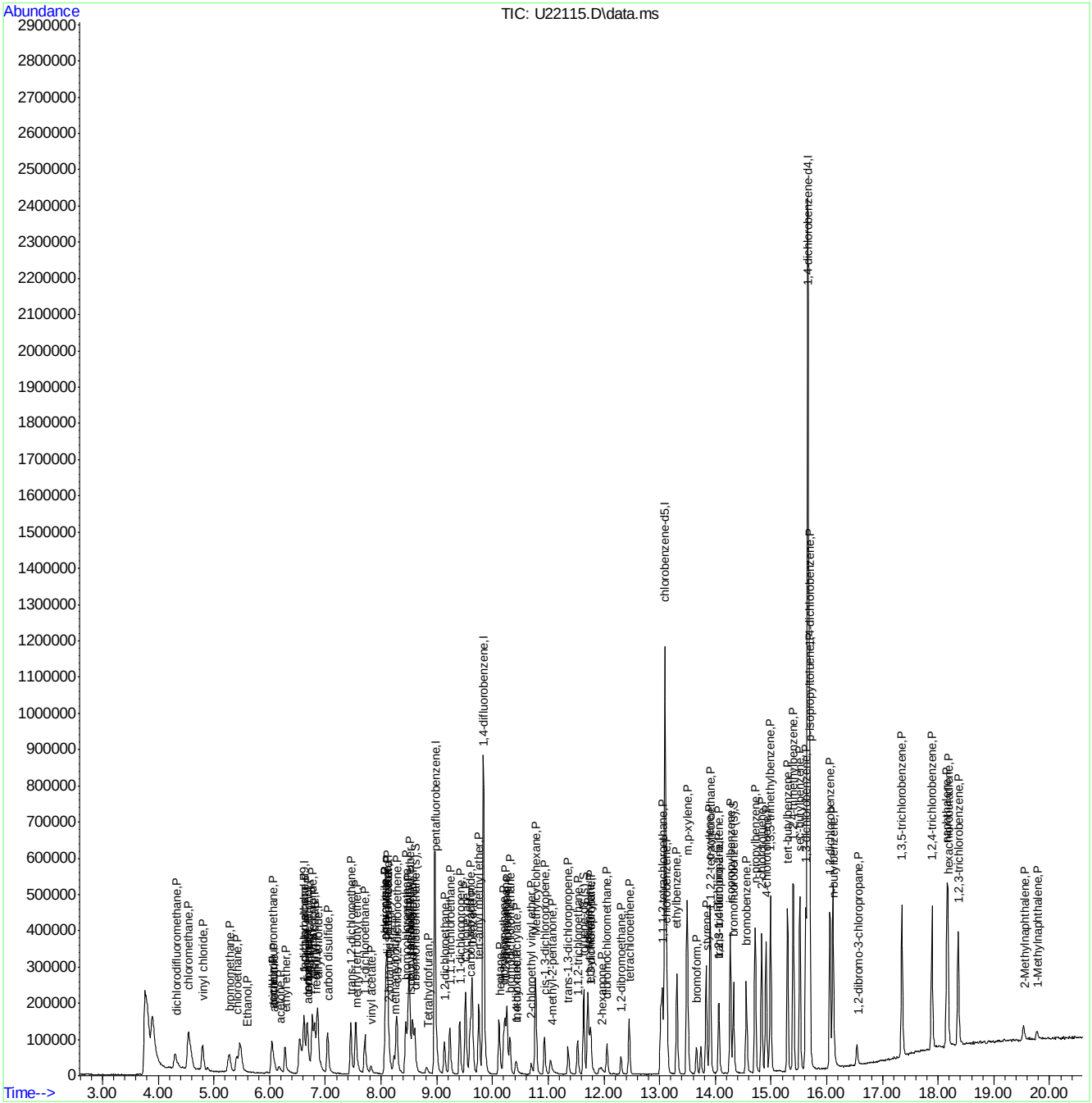
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	1,3-dichlorobenzene	15.622	146	209260	10.85	ppb		97
94)	p-isopropyltoluene	15.696	119	355754	10.19	ppb		91
95)	1,4-dichlorobenzene	15.689	146	224833	10.96	ppb		99
96)	1,2-dichlorobenzene	16.060	146	222874	10.89	ppb		95
97)	n-butylbenzene	16.119	91	345839	10.72	ppb		83
98)	1,2-dibromo-3-chloropr...	16.564	75	18997	11.90	ppb	#	36
99)	1,3,5-trichlorobenzene	17.353	180	155940	10.60	ug/L		95
100)	1,2,4-trichlorobenzene	17.892	180	142040	10.63	ppb		95
101)	hexachlorobutadiene	18.177	225	65546	10.57	ppb		94
102)	naphthalene	18.159	128	313564	10.38	ppb		100
103)	2-Methylnaphthalene	19.549	142	34560	4.22	ug/L		99
104)	1-Methylnaphthalene	19.780	142	17863m	4.28	ug/L		
105)	1,2,3-trichlorobenzene	18.365	180	122464	10.71	ppb		98

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22115.D
Acq On : 29 Aug 2014 4:18 pm
Operator : GaryK
Sample : ic972-10
Misc : ms32529,msu972,,,,5,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 19 09:01:29 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/22/14 11:41

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22116.D
Acq On : 29 Aug 2014 4:45 pm
Operator : GaryK
Sample : ic972-25
Misc : ms32529,msu972,,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 19 09:01:54 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.613	65	367161	50.00	ppb		0.00
4) pentafluorobenzene	8.973	168	544177	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.840	114	930857	50.00	ppb		0.00
66) chlorobenzene-d5	13.095	82	423531	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.659	152	698578	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.611	113	170880	25.46	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 50.92%#				
60) toluene-d8 (s)	11.638	98	464454	27.78	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 55.56%#				
82) bromofluorobenzene (s)	14.325	95	223549	26.87	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 53.74%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.689	59	184912m	322.71	ppb		
3) Ethanol	5.600	45	227530m	2701.74	ppb		
5) dichlorodifluoromethane	4.324	85	235607	26.34	ppb		95
6) chloromethane	4.548	50	434047	27.05	ppb		98
7) vinyl chloride	4.803	62	299749	26.47	ppb		96
8) bromomethane	5.282	96	151168	27.25	ppb		90
9) chloroethane	5.421	64	115925	26.05	ppb		100
10) ethyl ether	6.289	59	147243	26.53	ppb		88
11) acetonitrile	6.064	41	23506m	29.89	ppb		
12) trichlorofluoromethane	6.061	101	302554	25.81	ppb		99
13) freon-113	6.833	101	180687	26.12	ppb		90
14) acrolein	6.062	56	62335	144.91	ppb		92
15) 1,1-dichloroethene	6.633	96	151841	26.94	ppb		92
16) acetone	6.219	58	41880	29.40	ppb		97
17) Methyl Acetate	6.826	43	162564	26.09	ppb	#	88
18) methylene chloride	6.779	84	169283	27.23	ppb		85
19) methyl tert butyl ether	7.563	73	393665	26.78	ppb		87
20) acrylonitrile	6.706	53	80210	26.73	ppb		100
21) allyl chloride	6.876	41	382236	27.60	ppb		93
22) trans-1,2-dichloroethene	7.466	96	168683	26.93	ppb		94
23) iodomethane	6.687	142	330149	27.17	ppb		100
24) carbon disulfide	7.051	76	496443	26.74	ppb		97
25) propionitrile	8.083	54	15640	26.51	ppb		100
26) vinyl acetate	7.827	43	115431	24.21	ppb		95
27) chloroprene	8.082	53	285965	26.44	ppb		96
28) di-isopropyl ether	8.122	45	720395	26.87	ppb		96
29) methacrylonitrile	8.243	41	109210	26.54	ppb		95
30) 2-butanone	8.138	72	20475	28.07	ppb	#	70
31) Ethyl Acetate	8.119	43	614208	26.36	ug/L		96
32) Hexane	8.105	41	304005	26.30	ppb	#	80
33) 1,1-dichloroethane	7.717	63	336936	26.90	ppb		98
34) tert-butyl ethyl ether	8.517	59	552517	26.37	ppb		99
35) isobutyl alcohol	8.541	43	109360	133.52	ppb	#	65
36) 2,2-dichloropropane	8.574	77	215339	26.62	ppb		90

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22116.D
Acq On : 29 Aug 2014 4:45 pm
Operator : GaryK
Sample : ic972-25
Misc : ms32529,msu972,,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 19 09:01:54 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) cis-1,2-dichloroethene	8.288	96	191260	27.49	ppb		93
38) bromochloromethane	8.452	128	99272	26.71	ppb		90
39) chloroform	8.490	83	283291	26.68	ppb		94
41) Tetrahydrofuran	8.832	42	56452	26.34	ppb		84
42) 1,1,1-trichloroethane	9.240	97	250923	26.12	ppb		94
44) Cyclohexane	9.524	56	364647	27.26	ppb		94
45) carbon tetrachloride	9.603	117	234718	27.41	ppb		99
46) 1,1-dichloropropene	9.415	75	187309	26.41	ppb		90
47) benzene	9.639	78	570527	27.09	ppb		94
48) 1,2-dichloroethane	9.140	62	210155	27.01	ppb		99
49) tert-amyl methyl ether	9.763	73	391594	27.92	ppb		94
50) heptane	10.121	43	257606	27.39	ppb	#	61
51) trichloroethene	10.259	95	155597	26.53	ppb		78
52) 1,2-dichloropropane	10.227	63	158387	27.15	ppb		99
53) dibromomethane	10.201	93	94303	28.16	ppb		94
54) bromodichloromethane	10.313	83	186763	26.75	ppb		99
55) Methylcyclohexane	10.776	83	260724	27.68	ppb		90
56) 2-chloroethyl vinyl ether	10.701	63	65161	33.89	ppb		97
57) methyl methacrylate	10.424	69	58021	32.27	ppb		83
58) 1,4-dioxane	10.453	88	4873	151.46	ppb	#	62
59) cis-1,3-dichloropropene	10.935	75	185778	29.16	ppb		88
61) 4-methyl-2-pentanone	11.048	43	161742	27.32	ppb		94
62) toluene	11.710	92	302402	28.57	ppb		100
63) trans-1,3-dichloropropene	11.356	75	142898	33.28	ppb		98
64) 1,1,2-trichloroethane	11.528	83	86366	31.66	ppb		97
65) ethyl methacrylate	11.743	69	121368	31.22	ppb	#	1
67) tetrachloroethene	12.452	166	142758	24.64	ppb		89
68) 1,3-dichloropropane	11.762	76	162260	28.89	ppb		94
69) dibromochloromethane	12.053	129	152823	26.67	ppb		96
70) 1,2-dibromoethane	12.305	107	121455	28.89	ppb		97
71) 2-hexanone	11.945	43	137659	34.53	ppb		98
72) chlorobenzene	13.131	112	399042	26.82	ppb		89
73) 1,1,1,2-tetrachloroethane	13.051	131	187615	24.79	ppb		98
74) ethylbenzene	13.308	91	631190	26.29	ppb		94
75) m,p-xylene	13.492	106	534722	53.01	ppb		84
76) o-xylene	13.904	106	298925	25.35	ppb		90
77) styrene	13.832	104	429471	27.41	ppb		100
78) bromoform	13.659	173	110266	26.06	ppb		98
79) trans-1,4-dichloro-2-b...	14.060	53	57061	24.23	ppb		95
81) isopropylbenzene	14.268	105	818889	26.54	ppb		98
83) bromobenzene	14.556	156	222303	27.43	ppb	#	80
84) 1,1,2,2-tetrachloroethane	13.911	83	191447	27.11	ppb		99
85) 1,2,3-trichloropropane	14.060	75	188722	26.44	ppb		100
86) n-propylbenzene	14.713	91	914597	27.36	ppb		95
87) 2-chlorotoluene	14.830	91	577661	26.87	ppb		85
88) 4-chlorotoluene	14.908	91	592295	27.28	ppb		86
89) 1,3,5-trimethylbenzene	14.990	105	807048	26.73	ppb		94
90) tert-butylbenzene	15.295	91	430873	25.81	ppb		85
91) 1,2,4-trimethylbenzene	15.399	105	831671	26.87	ppb		100
92) sec-butylbenzene	15.518	105	1042946	26.70	ppb		94

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22116.D
Acq On : 29 Aug 2014 4:45 pm
Operator : GaryK
Sample : ic972-25
Misc : ms32529,msu972,,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 19 09:01:54 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

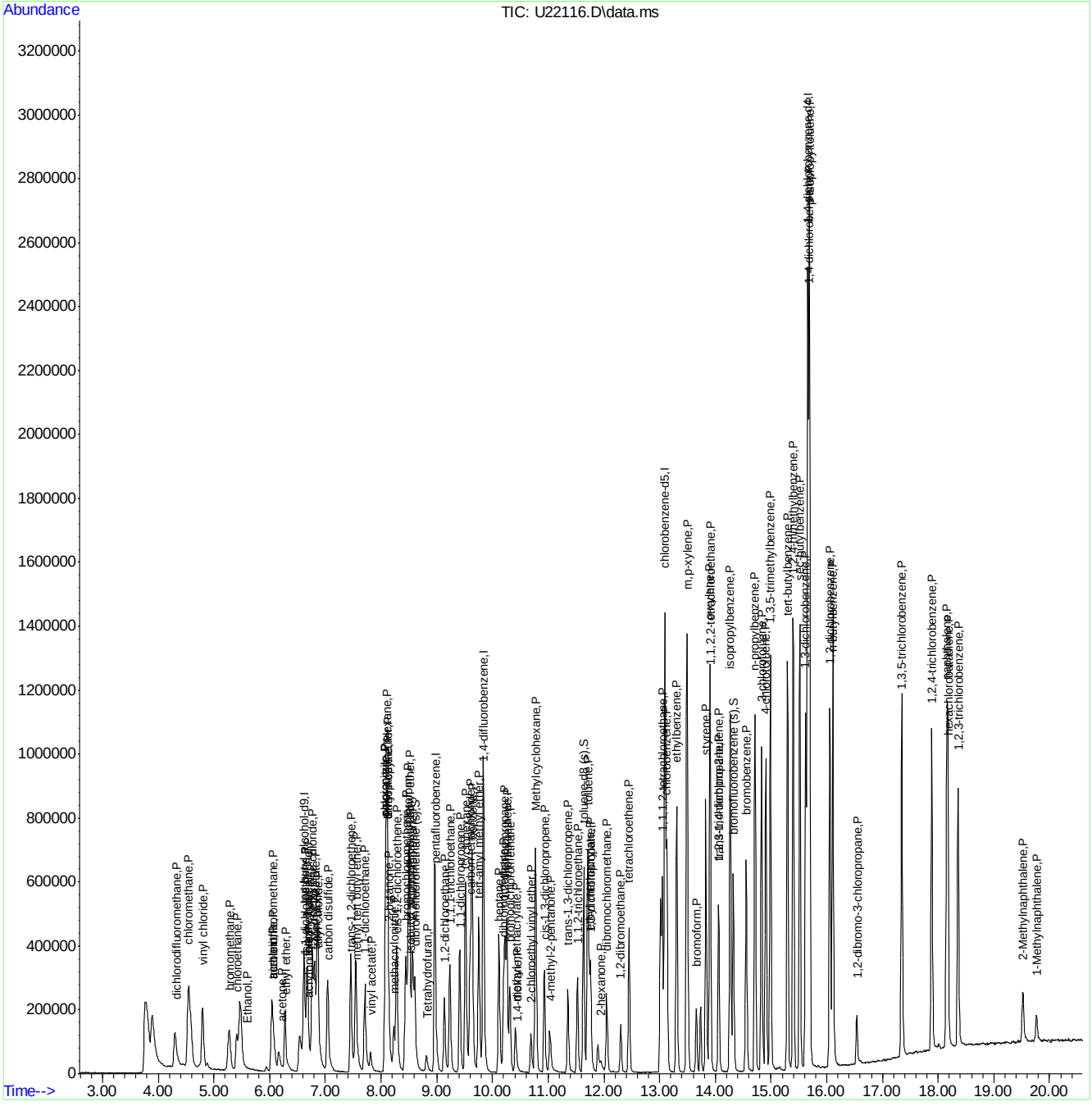
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	1,3-dichlorobenzene	15.621	146	512963	26.22	ppb	98
94)	p-isopropyltoluene	15.692	119	938142	26.49	ppb	93
95)	1,4-dichlorobenzene	15.688	146	545484	26.20	ppb	99
96)	1,2-dichlorobenzene	16.058	146	536413	25.83	ppb	98
97)	n-butylbenzene	16.113	91	869904	26.58	ppb	85
98)	1,2-dibromo-3-chloropr...	16.543	75	42218	26.06	ppb	77
99)	1,3,5-trichlorobenzene	17.350	180	394560	26.43	ug/L	95
100)	1,2,4-trichlorobenzene	17.889	180	357838	26.40	ppb	93
101)	hexachlorobutadiene	18.176	225	167019	26.55	ppb	96
102)	naphthalene	18.156	128	790272	25.78	ppb	100
103)	2-Methylnaphthalene	19.531	142	112122	13.51	ug/L	99
104)	1-Methylnaphthalene	19.774	142	59395	14.02	ug/L	97
105)	1,2,3-trichlorobenzene	18.362	180	305695	26.35	ppb	95

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22116.D
Acq On : 29 Aug 2014 4:45 pm
Operator : GaryK
Sample : ic972-25
Misc : ms32529,msu972,,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 19 09:01:54 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration



U22117.D

Manual Integrations APPROVED (compounds with "m" flag)

Tomasz Torski
09/22/14 11:41

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22117.D
Acq On : 29 Aug 2014 5:12 pm
Operator : GaryK
Sample : icc972-50
Misc : ms32529,msu972,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 19 09:02:19 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.612	65	369259	50.00	ppb		0.00
4) pentafluorobenzene	8.971	168	566242	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.839	114	1016200	50.00	ppb		0.00
66) chlorobenzene-d5	13.094	82	406880	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.659	152	701420	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.610	113	349234	50.00	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 100.00%				
60) toluene-d8 (s)	11.636	98	912670	50.00	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 100.00%				
82) bromofluorobenzene (s)	14.324	95	417750	50.00	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 100.00%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.696	59	360184m	625.02	ppb		
3) Ethanol	5.606	45	423354m	4998.44	ppb		
5) dichlorodifluoromethane	4.322	85	465374	50.00	ppb		98
6) chloromethane	4.548	50	834935	50.00	ppb		99
7) vinyl chloride	4.804	62	589197	50.00	ppb		97
8) bromomethane	5.280	96	288604	50.00	ppb		95
9) chloroethane	5.420	64	231551	50.00	ppb		95
10) ethyl ether	6.287	59	288723	50.00	ppb		95
11) acetonitrile	6.064	41	41750m	51.01	ppb		
12) trichlorofluoromethane	6.060	101	609873	50.00	ppb		98
13) freon-113	6.834	101	359939	50.00	ppb		91
14) acrolein	6.061	56	111903	250.00	ppb		92
15) 1,1-dichloroethene	6.628	96	293207	50.00	ppb		100
16) acetone	6.216	58	74101	50.00	ppb	#	55
17) Methyl Acetate	6.821	43	324429	50.04	ppb	#	85
18) methylene chloride	6.776	84	323497	50.00	ppb		88
19) methyl tert butyl ether	7.559	73	764938	50.00	ppb		90
20) acrylonitrile	6.700	53	156106	50.00	ppb		97
21) allyl chloride	6.870	41	720647	50.00	ppb		93
22) trans-1,2-dichloroethene	7.464	96	325858	50.00	ppb		95
23) iodomethane	6.685	142	632101	50.00	ppb		100
24) carbon disulfide	7.050	76	966063	50.00	ppb		97
25) propionitrile	8.081	54	30696	50.00	ppb		100
26) vinyl acetate	7.819	43	248044	50.00	ppb		99
27) chloroprene	8.080	53	562635	50.00	ppb		97
28) di-isopropyl ether	8.119	45	1394934	50.00	ppb		96
29) methacrylonitrile	8.237	41	214093	50.00	ppb		95
30) 2-butanone	8.135	72	37951	50.00	ppb	#	34
31) Ethyl Acetate	8.116	43	1212159	50.00	ug/L		98
32) Hexane	8.102	41	601347	50.00	ppb	#	91
33) 1,1-dichloroethane	7.715	63	651718	50.00	ppb		100
34) tert-butyl ethyl ether	8.515	59	1090245	50.00	ppb		98
35) isobutyl alcohol	8.536	43	213071	250.00	ppb	#	45
36) 2,2-dichloropropane	8.573	77	420869	50.00	ppb		92

ACCUTEST LABORATORIES MC33908

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22117.D
Acq On : 29 Aug 2014 5:12 pm
Operator : GaryK
Sample : icc972-50
Misc : ms32529,msu972,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 19 09:02:19 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) cis-1,2-dichloroethene	8.285	96	362018	50.00	ppb		98
38) bromochloromethane	8.451	128	193341	50.00	ppb	#	87
39) chloroform	8.489	83	552355	50.00	ppb		97
41) Tetrahydrofuran	8.833	42	111521	50.00	ppb		90
42) 1,1,1-trichloroethane	9.239	97	499894	50.00	ppb		96
44) Cyclohexane	9.523	56	730134	50.00	ppb		90
45) carbon tetrachloride	9.602	117	467407	50.00	ppb		100
46) 1,1-dichloropropene	9.414	75	387183	50.00	ppb		91
47) benzene	9.637	78	1149557	50.00	ppb		97
48) 1,2-dichloroethane	9.139	62	424764	50.00	ppb		100
49) tert-amyl methyl ether	9.760	73	765558	50.00	ppb		91
50) heptane	10.118	43	513394	50.00	ppb	#	58
51) trichloroethene	10.258	95	320090	50.00	ppb		74
52) 1,2-dichloropropane	10.225	63	318469	50.00	ppb		100
53) dibromomethane	10.200	93	182796	50.00	ppb		95
54) bromodichloromethane	10.312	83	381143	50.00	ppb		99
55) Methylcyclohexane	10.775	83	514098	50.00	ppb		88
56) 2-chloroethyl vinyl ether	10.697	63	104952	50.00	ppb		96
57) methyl methacrylate	10.417	69	98144	50.00	ppb	#	79
58) 1,4-dioxane	10.452	88	8781	250.00	ppb		88
59) cis-1,3-dichloropropene	10.933	75	347809	50.00	ppb		92
61) 4-methyl-2-pentanone	11.048	43	323290	50.03	ppb		93
62) toluene	11.709	92	577701	50.00	ppb		96
63) trans-1,3-dichloropropene	11.354	75	234345	50.00	ppb		95
64) 1,1,2-trichloroethane	11.525	83	148916	50.00	ppb		97
65) ethyl methacrylate	11.739	69	212178	50.00	ppb	#	61
67) tetrachloroethene	12.451	166	278298	50.00	ppb		96
68) 1,3-dichloropropane	11.761	76	269786	50.00	ppb		92
69) dibromochloromethane	12.051	129	275277	50.00	ppb		97
70) 1,2-dibromoethane	12.303	107	201965	50.00	ppb		97
71) 2-hexanone	11.912	43	191508	50.00	ppb		98
72) chlorobenzene	13.131	112	714572	50.00	ppb		89
73) 1,1,1,2-tetrachloroethane	13.050	131	363556	50.00	ppb		98
74) ethylbenzene	13.307	91	1153346	50.00	ppb		93
75) m,p-xylene	13.490	106	969089	100.00	ppb		86
76) o-xylene	13.903	106	566487	50.00	ppb		87
77) styrene	13.831	104	752699	50.00	ppb		99
78) bromoform	13.658	173	203228	50.00	ppb		99
79) trans-1,4-dichloro-2-b...	14.058	53	113099	50.00	ppb		92
81) isopropylbenzene	14.267	105	1548923	50.00	ppb		97
83) bromobenzene	14.555	156	406885	50.00	ppb	#	78
84) 1,1,2,2-tetrachloroethane	13.910	83	354477	50.00	ppb		98
85) 1,2,3-trichloropropane	14.058	75	358380	50.00	ppb		100
86) n-propylbenzene	14.713	91	1678476	50.00	ppb		93
87) 2-chlorotoluene	14.830	91	1079298	50.00	ppb		83
88) 4-chlorotoluene	14.906	91	1090112	50.00	ppb		86
89) 1,3,5-trimethylbenzene	14.990	105	1515552	50.00	ppb		93
90) tert-butylbenzene	15.295	91	838073	50.00	ppb		87
91) 1,2,4-trimethylbenzene	15.398	105	1554140	50.00	ppb		97
92) sec-butylbenzene	15.518	105	1960826	50.00	ppb		93

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22117.D
Acq On : 29 Aug 2014 5:12 pm
Operator : GaryK
Sample : icc972-50
Misc : ms32529,msu972,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 19 09:02:19 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

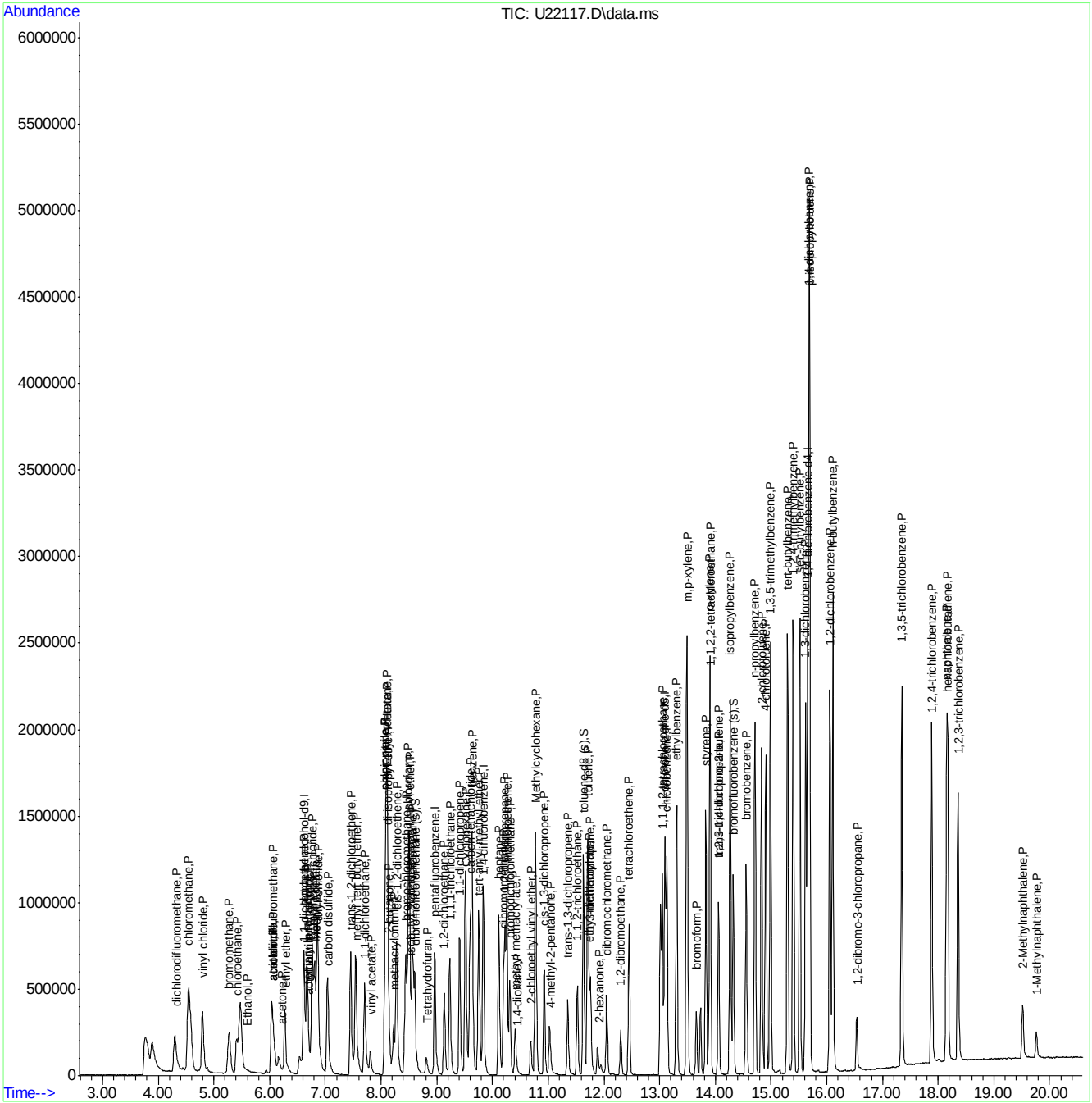
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	1,3-dichlorobenzene	15.620	146	982210	50.00	ppb		97
94)	p-isopropyltoluene	15.691	119	1778004	50.00	ppb		95
95)	1,4-dichlorobenzene	15.688	146	1045201	50.00	ppb		99
96)	1,2-dichlorobenzene	16.056	146	1042707	50.00	ppb		98
97)	n-butylbenzene	16.110	91	1642936	50.00	ppb		88
98)	1,2-dibromo-3-chloropr...	16.543	75	81329	50.00	ppb	#	71
99)	1,3,5-trichlorobenzene	17.349	180	749495	50.00	ug/L		96
100)	1,2,4-trichlorobenzene	17.888	180	680587	50.00	ppb		94
101)	hexachlorobutadiene	18.176	225	315769	50.00	ppb		98
102)	naphthalene	18.154	128	1539187	50.00	ppb		100
103)	2-Methylnaphthalene	19.526	142	208361	25.00	ug/L		98
104)	1-Methylnaphthalene	19.772	142	106311	25.00	ug/L		98
105)	1,2,3-trichlorobenzene	18.361	180	582508	50.00	ppb		93

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22117.D
Acq On : 29 Aug 2014 5:12 pm
Operator : GaryK
Sample : icc972-50
Misc : ms32529,msu972,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 19 09:02:19 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES MC33908

Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/22/14 11:41

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22118.D
Acq On : 29 Aug 2014 5:40 pm
Operator : GaryK
Sample : ic972-100
Misc : ms32529,msu972,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 09:02:46 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.616	65	380883	50.00	ppb		0.00
4) pentafluorobenzene	8.971	168	580964	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.839	114	1055808	50.00	ppb		0.00
66) chlorobenzene-d5	13.095	82	453020	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.659	152	764370	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.610	113	739723	103.22	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	206.44%#			
60) toluene-d8 (s)	11.635	98	2127643	112.19	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	224.38%#			
82) bromofluorobenzene (s)	14.323	95	990432	108.78	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	217.56%#			
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.689	59	769380m	1294.34	ppb		
3) Ethanol	5.600	45	911868m	10437.64	ppb		
5) dichlorodifluoromethane	4.329	85	947223	99.19	ppb		96
6) chloromethane	4.553	50	1769063	103.26	ppb		98
7) vinyl chloride	4.809	62	1236302	102.26	ppb		97
8) bromomethane	5.281	96	619705	104.64	ppb		92
9) chloroethane	5.421	64	479745	100.97	ppb		99
10) ethyl ether	6.284	59	612199	103.33	ppb		90
11) acetonitrile	6.070	41	93852m	111.77	ppb		
12) trichlorofluoromethane	6.061	101	1272735	101.70	ppb		98
13) freon-113	6.839	101	745080	100.88	ppb		89
14) acrolein	6.065	56	236361	514.67	ppb		100
15) 1,1-dichloroethene	6.630	96	591855	98.37	ppb		97
16) acetone	6.221	58	158508	104.24	ppb	#	78
17) Methyl Acetate	6.821	43	684169	102.85	ppb	#	76
18) methylene chloride	6.778	84	678908	102.27	ppb		86
19) methyl tert butyl ether	7.560	73	1656227	105.52	ppb		90
20) acrylonitrile	6.701	53	333128	104.00	ppb		97
21) allyl chloride	6.870	41	1514260	102.40	ppb		93
22) trans-1,2-dichloroethene	7.463	96	665254	99.49	ppb		95
23) iodomethane	6.686	142	1342952	103.54	ppb		99
24) carbon disulfide	7.050	76	1975615	99.66	ppb		98
25) propionitrile	8.082	54	64908	103.05	ppb		100
26) vinyl acetate	7.816	43	495806	97.41	ppb		97
27) chloroprene	8.079	53	1177979	102.03	ppb		95
28) di-isopropyl ether	8.118	45	3008552	105.11	ppb		96
29) methacrylonitrile	8.235	41	455786	103.75	ppb		95
30) 2-butanone	8.130	72	81723	104.94	ppb	#	1
31) Ethyl Acetate	8.115	43	2562322	103.01	ug/L		96
32) Hexane	8.101	41	1250094	101.31	ppb	#	90
33) 1,1-dichloroethane	7.715	63	1374109	102.75	ppb		100
34) tert-butyl ethyl ether	8.515	59	2374068	106.12	ppb		99
35) isobutyl alcohol	8.536	43	465067	531.84	ppb	#	62
36) 2,2-dichloropropane	8.575	77	871535	100.92	ppb		90

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22118.D
Acq On : 29 Aug 2014 5:40 pm
Operator : GaryK
Sample : ic972-100
Misc : ms32529,msu972,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 09:02:46 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) cis-1,2-dichloroethene	8.285	96	764940	102.97	ppb		96
38) bromochloromethane	8.451	128	420595	106.01	ppb	#	86
39) chloroform	8.489	83	1182242	104.31	ppb		94
41) Tetrahydrofuran	8.829	42	230637	100.78	ppb		89
42) 1,1,1-trichloroethane	9.239	97	1040763	101.46	ppb		97
44) Cyclohexane	9.525	56	1500377	98.89	ppb		91
45) carbon tetrachloride	9.602	117	970881	99.96	ppb		98
46) 1,1-dichloropropene	9.413	75	803682	99.89	ppb		92
47) benzene	9.637	78	2415202	101.11	ppb		97
48) 1,2-dichloroethane	9.138	62	914579	103.62	ppb		100
49) tert-amyl methyl ether	9.759	73	1663069	104.54	ppb		93
50) heptane	10.117	43	1077572	101.01	ppb	#	58
51) trichloroethene	10.258	95	692636	104.14	ppb		75
52) 1,2-dichloropropane	10.225	63	715799	108.17	ppb		100
53) dibromomethane	10.199	93	404030	106.37	ppb		97
54) bromodichloromethane	10.312	83	846601	106.89	ppb		96
55) Methylcyclohexane	10.775	83	1072691	100.41	ppb		90
56) 2-chloroethyl vinyl ether	10.692	63	270997	124.26	ppb		97
57) methyl methacrylate	10.412	69	247263	121.24	ppb		87
58) 1,4-dioxane	10.450	88	22250	609.71	ppb		74
59) cis-1,3-dichloropropene	10.932	75	843344	116.69	ppb		88
61) 4-methyl-2-pentanone	11.030	43	718728	107.05	ppb		96
62) toluene	11.708	92	1351718	112.60	ppb		99
63) trans-1,3-dichloropropene	11.352	75	605672	124.38	ppb		94
64) 1,1,2-trichloroethane	11.525	83	368170	118.98	ppb		97
65) ethyl methacrylate	11.732	69	508189	115.26	ppb		84
67) tetrachloroethene	12.450	166	634417	102.37	ppb		95
68) 1,3-dichloropropane	11.759	76	680404	113.26	ppb		92
69) dibromochloromethane	12.050	129	679870	110.91	ppb		99
70) 1,2-dibromoethane	12.302	107	497361	110.59	ppb		99
71) 2-hexanone	11.895	43	481076	112.81	ppb		98
72) chlorobenzene	13.130	112	1748368	109.88	ppb		88
73) 1,1,1,2-tetrachloroethane	13.050	131	842512	104.07	ppb		98
74) ethylbenzene	13.305	91	2709145	105.49	ppb		93
75) m,p-xylene	13.490	106	2293651	212.58	ppb		85
76) o-xylene	13.903	106	1322930	104.87	ppb		87
77) styrene	13.830	104	1870640	111.61	ppb		98
78) bromoform	13.658	173	509309	112.54	ppb		100
79) trans-1,4-dichloro-2-b...	14.055	53	290339	115.28	ppb		89
81) isopropylbenzene	14.267	105	3565905	105.63	ppb		96
83) bromobenzene	14.554	156	985401	111.12	ppb	#	79
84) 1,1,2,2-tetrachloroethane	13.909	83	842649	109.07	ppb		98
85) 1,2,3-trichloropropane	14.056	75	888480	113.75	ppb		98
86) n-propylbenzene	14.712	91	3847916	105.19	ppb		92
87) 2-chlorotoluene	14.830	91	2493732	106.01	ppb		83
88) 4-chlorotoluene	14.905	91	2568536	108.11	ppb		85
89) 1,3,5-trimethylbenzene	14.989	105	3515008	106.41	ppb		93
90) tert-butylbenzene	15.295	91	1946337	106.56	ppb		85
91) 1,2,4-trimethylbenzene	15.399	105	3572564	105.47	ppb		98
92) sec-butylbenzene	15.518	105	4493378	105.14	ppb		93

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22118.D
Acq On : 29 Aug 2014 5:40 pm
Operator : GaryK
Sample : ic972-100
Misc : ms32529,msu972,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 09:02:46 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.620	146	2285231	106.75	ppb	98
94) p-isopropyltoluene	15.690	119	4045809	104.40	ppb	93
95) 1,4-dichlorobenzene	15.688	146	2403974	105.53	ppb	99
96) 1,2-dichlorobenzene	16.056	146	2351772	103.49	ppb	96
97) n-butylbenzene	16.108	91	3639203	101.63	ppb	86
98) 1,2-dibromo-3-chloropr...	16.540	75	180170	101.64	ppb	73
99) 1,3,5-trichlorobenzene	17.348	180	1607212	98.39	ug/L	95
100) 1,2,4-trichlorobenzene	17.887	180	1487671	100.29	ppb	93
101) hexachlorobutadiene	18.176	225	673469	97.86	ppb	95
102) naphthalene	18.154	128	3363019	100.25	ppb	100
103) 2-Methylnaphthalene	19.523	142	345820	38.08	ug/L	98
104) 1-Methylnaphthalene	19.771	142	155581	33.57	ug/L	97
105) 1,2,3-trichlorobenzene	18.360	180	1268831	99.94	ppb	93

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

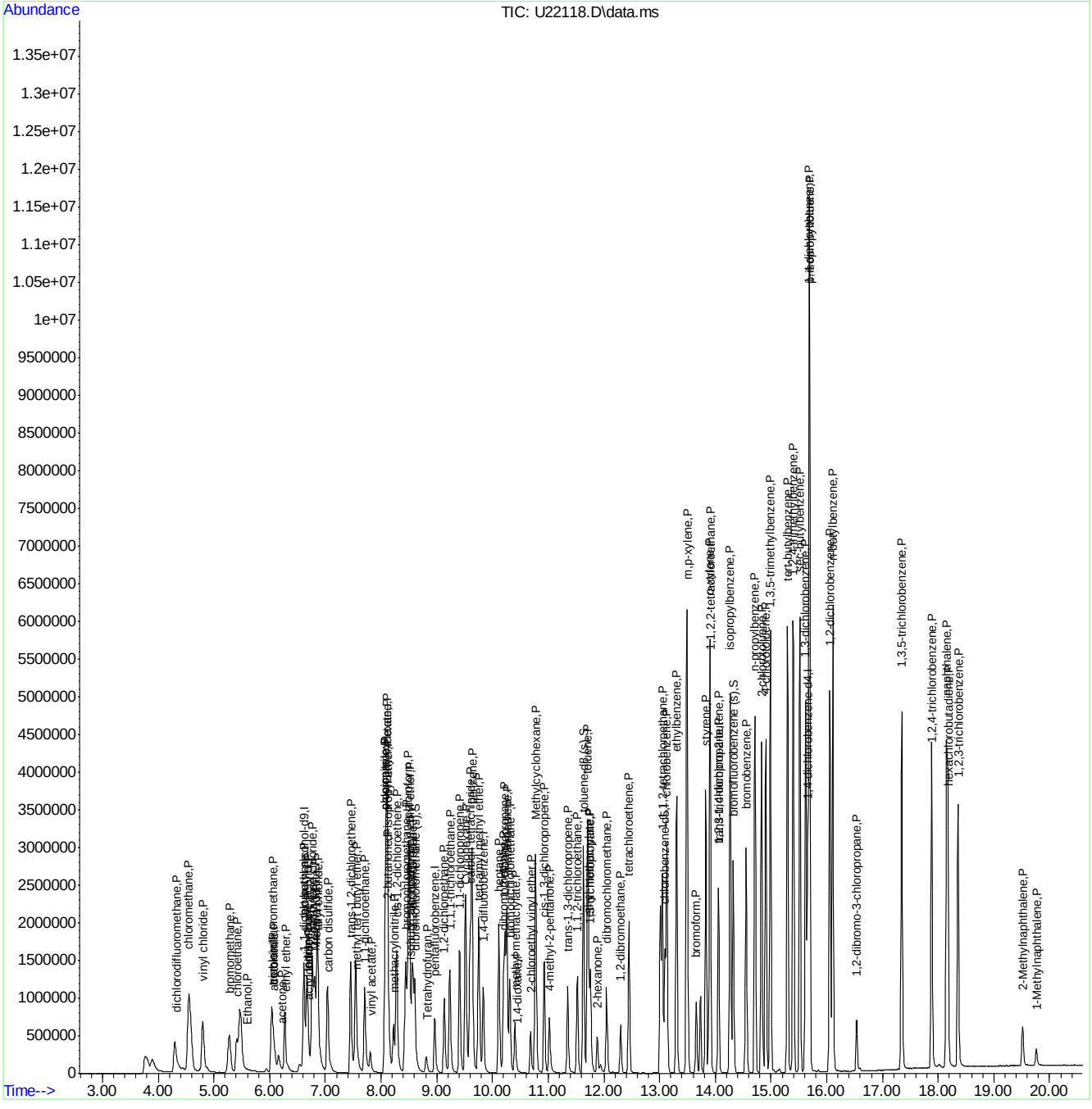
7.6.32

7

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22118.D
Acq On : 29 Aug 2014 5:40 pm
Operator : GaryK
Sample : ic972-100
Misc : ms32529,msu972,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 19 09:02:46 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration



Manual Integrations APPROVED
(compounds with "m" flag)
Tomasz Torski
09/22/14 11:41

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22119.D
Acq On : 29 Aug 2014 6:07 pm
Operator : GaryK
Sample : ic972-200
Misc : ms32529,msu972,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 19 09:03:12 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.592	65	396339	50.00	ppb		-0.02
4) pentafluorobenzene	8.970	168	596357	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.838	114	1109911	50.00	ppb		0.00
66) chlorobenzene-d5	13.095	82	531107	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.661	152	819517	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.610	113	1507648	204.95	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	409.90%#			
60) toluene-d8 (s)	11.635	98	4647709	233.12	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	466.24%#			
82) bromofluorobenzene (s)	14.324	95	2172949	222.60	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery =	445.20%#			
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.682	59	1623079m	2624.06	ppb		
3) Ethanol	5.561	45	1773498	19508.59	ppb		97
5) dichlorodifluoromethane	4.325	85	1976036	201.59	ppb		95
6) chloromethane	4.553	50	3575770	203.32	ppb		99
7) vinyl chloride	4.807	62	2499733	201.42	ppb		97
8) bromomethane	5.282	96	1309912	215.48	ppb		93
9) chloroethane	5.419	64	971934	199.28	ppb		98
10) ethyl ether	6.282	59	1235047	203.08	ppb		93
11) acetonitrile	6.063	41	198895m	230.75	ppb		
12) trichlorofluoromethane	6.060	101	2619297	203.90	ppb		98
13) freon-113	6.837	101	1581722	208.63	ppb		90
14) acrolein	6.054	56	530819	1126.01	ppb		92
15) 1,1-dichloroethene	6.628	96	1228873	198.97	ppb		96
16) acetone	6.207	58	331488	212.38	ppb	#	84
17) Methyl Acetate	6.811	43	1379128	201.97	ppb	#	88
18) methylene chloride	6.777	84	1390643	204.09	ppb		87
19) methyl tert butyl ether	7.557	73	3357000	208.35	ppb		89
20) acrylonitrile	6.691	53	684288	208.11	ppb		93
21) allyl chloride	6.868	41	3072860	202.44	ppb		94
22) trans-1,2-dichloroethene	7.462	96	1392186	202.83	ppb		95
23) iodomethane	6.685	142	2772960	208.27	ppb		100
24) carbon disulfide	7.049	76	4074483	200.23	ppb		98
25) propionitrile	8.081	54	129350	200.06	ppb		100
26) vinyl acetate	7.812	43	1042925	199.61	ppb		99
27) chloroprene	8.078	53	2433576	205.34	ppb		95
28) di-isopropyl ether	8.118	45	6048027	205.84	ppb		95
29) methacrylonitrile	8.232	41	947993	210.22	ppb		95
30) 2-butanone	8.126	72	177101	221.55	ppb	#	7
31) Ethyl Acetate	8.113	43	5230923	204.87	ug/L		97
32) Hexane	8.101	41	2533004	199.98	ppb		91
33) 1,1-dichloroethane	7.714	63	2807100	204.49	ppb		99
34) tert-butyl ethyl ether	8.514	59	4824294	210.08	ppb		99
35) isobutyl alcohol	8.534	43	937329	1044.25	ppb		98
36) 2,2-dichloropropane	8.574	77	1770721	199.74	ppb		90

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22119.D
Acq On : 29 Aug 2014 6:07 pm
Operator : GaryK
Sample : ic972-200
Misc : ms32529,msu972,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 19 09:03:12 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) cis-1,2-dichloroethene	8.284	96	1555650	204.01	ppb		96
38) bromochloromethane	8.450	128	868552	213.27	ppb	#	86
39) chloroform	8.489	83	2415682	207.63	ppb		96
41) Tetrahydrofuran	8.824	42	475650	202.49	ppb		90
42) 1,1,1-trichloroethane	9.239	97	2157090	204.86	ppb		96
44) Cyclohexane	9.525	56	3143197	197.07	ppb		91
45) carbon tetrachloride	9.602	117	2044721	200.26	ppb		99
46) 1,1-dichloropropene	9.412	75	1672383	197.73	ppb		92
47) benzene	9.636	78	5000809	199.15	ppb		97
48) 1,2-dichloroethane	9.138	62	1874600	202.03	ppb		99
49) tert-amyl methyl ether	9.758	73	3391069	202.78	ppb		91
50) heptane	10.116	43	2212233	197.26	ppb	#	57
51) trichloroethene	10.258	95	1439588	205.89	ppb		74
52) 1,2-dichloropropane	10.224	63	1506211	216.51	ppb		100
53) dibromomethane	10.198	93	837607	209.77	ppb		96
54) bromodichloromethane	10.312	83	1784015	214.28	ppb		96
55) Methylcyclohexane	10.776	83	2281953	203.20	ppb		91
56) 2-chloroethyl vinyl ether	10.690	63	622418	271.49	ppb		97
57) methyl methacrylate	10.407	69	546886	255.09	ppb		81
58) 1,4-dioxane	10.441	88	45964	1198.13	ppb		83
59) cis-1,3-dichloropropene	10.931	75	1841144	242.33	ppb		91
61) 4-methyl-2-pentanone	11.024	43	1549688	219.56	ppb		96
62) toluene	11.707	92	2992745	237.15	ppb		100
63) trans-1,3-dichloropropene	11.351	75	1361789	266.02	ppb		96
64) 1,1,2-trichloroethane	11.525	83	817148	251.20	ppb		96
65) ethyl methacrylate	11.727	69	1088324	234.81	ppb		91
67) tetrachloroethene	12.450	166	1440823	198.31	ppb		95
68) 1,3-dichloropropane	11.759	76	1514984	215.10	ppb		91
69) dibromochloromethane	12.050	129	1519638	211.46	ppb		97
70) 1,2-dibromoethane	12.302	107	1114025	211.29	ppb		99
71) 2-hexanone	11.885	43	1096680	219.35	ppb		98
72) chlorobenzene	13.130	112	3992226	214.00	ppb		88
73) 1,1,1,2-tetrachloroethane	13.051	131	1827978	192.60	ppb		98
74) ethylbenzene	13.305	91	6075118	201.77	ppb		91
75) m,p-xylene	13.490	106	5251633	415.16	ppb		82
76) o-xylene	13.904	106	2933155	198.34	ppb		86
77) styrene	13.830	104	4207996	214.15	ppb		99
78) bromoform	13.658	173	1109710	209.16	ppb		99
79) trans-1,4-dichloro-2-b...	14.055	53	643768	218.03	ppb		88
81) isopropylbenzene	14.268	105	7903204	218.36	ppb		95
83) bromobenzene	14.554	156	2151740	226.31	ppb	#	79
84) 1,1,2,2-tetrachloroethane	13.910	83	1792528	216.41	ppb		99
85) 1,2,3-trichloropropane	14.056	75	1912538	228.38	ppb		100
86) n-propylbenzene	14.713	91	8418860	214.65	ppb		91
87) 2-chlorotoluene	14.831	91	5397828	214.03	ppb		82
88) 4-chlorotoluene	14.906	91	5600521	219.86	ppb		85
89) 1,3,5-trimethylbenzene	14.990	105	7644922	215.87	ppb		93
90) tert-butylbenzene	15.296	91	4231192	216.06	ppb		88
91) 1,2,4-trimethylbenzene	15.400	105	7646086	210.54	ppb		96
92) sec-butylbenzene	15.520	105	9661378	210.86	ppb		92

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22119.D
Acq On : 29 Aug 2014 6:07 pm
Operator : GaryK
Sample : ic972-200
Misc : ms32529,msu972,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 19 09:03:12 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

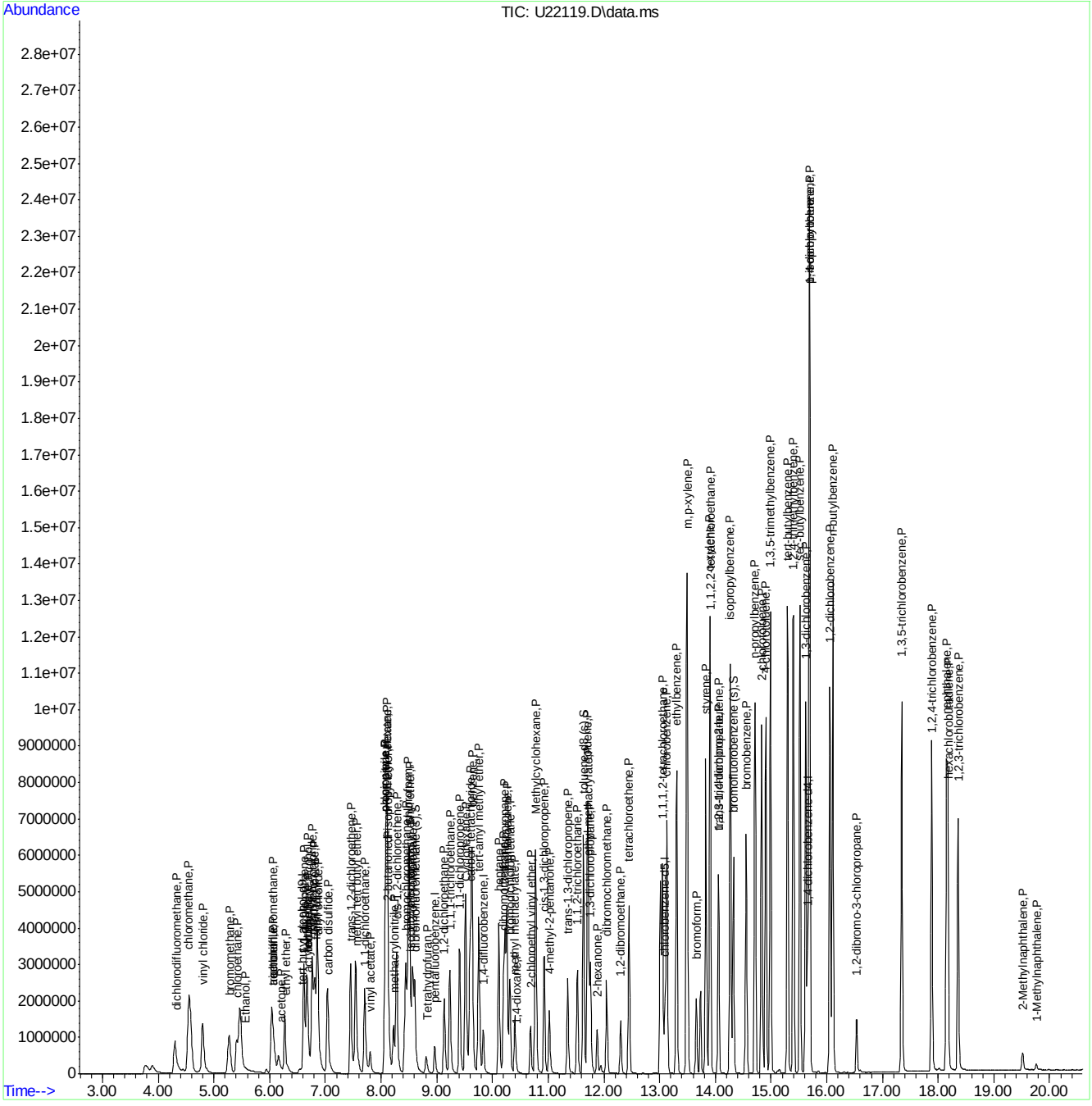
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	1,3-dichlorobenzene	15.622	146	4827434	210.33	ppb		99
94)	p-isopropyltoluene	15.691	119	8574549	206.38	ppb		94
95)	1,4-dichlorobenzene	15.689	146	4862637	199.10	ppb		99
96)	1,2-dichlorobenzene	16.057	146	4856158	199.31	ppb		96
97)	n-butylbenzene	16.108	91	7685774	200.20	ppb		85
98)	1,2-dibromo-3-chloropr...	16.539	75	371212	195.33	ppb	#	73
99)	1,3,5-trichlorobenzene	17.348	180	3347609	191.14	ug/L		95
100)	1,2,4-trichlorobenzene	17.887	180	3085369	194.01	ppb		93
101)	hexachlorobutadiene	18.177	225	1391472	188.58	ppb		94
102)	naphthalene	18.153	128	6826678	189.81	ppb		100
103)	2-Methylnaphthalene	19.524	142	332644	34.16	ug/L		98
104)	1-Methylnaphthalene	19.772	142	113417	22.83	ug/L		99
105)	1,2,3-trichlorobenzene	18.360	180	2533444	186.12	ppb		95

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22119.D
Acq On : 29 Aug 2014 6:07 pm
Operator : GaryK
Sample : ic972-200
Misc : ms32529,msu972,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 19 09:03:12 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Tomasz Torski
09/22/14 11:41

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22120.D
Acq On : 29 Aug 2014 6:34 pm
Operator : GaryK
Sample : ic972-400
Misc : ms32529,msu972,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 19 09:04:05 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.641	65	439633	50.00	ppb		0.03
4) pentafluorobenzene	8.970	168	666782	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.838	114	1262752	50.00	ppb		0.00
66) chlorobenzene-d5	13.097	82	639037	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.663	152	856494	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.612	113	3239561	393.87	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 787.74%#				
60) toluene-d8 (s)	11.636	98	10837168	477.79	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 955.58%#				
82) bromofluorobenzene (s)	14.326	95	5038093	493.83	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 987.66%#				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.722	59	3608171m	5258.93	ppb		
3) Ethanol	5.626	45	3772143m	37407.60	ppb		
5) dichlorodifluoromethane	4.325	85	4122767	376.16	ppb		94
6) chloromethane	4.560	50	6484811	329.79	ppb		98
7) vinyl chloride	4.809	62	4960874	357.51	ppb		97
8) bromomethane	5.284	96	2649172	389.76	ppb		94
9) chloroethane	5.420	64	2000194	366.79	ppb		99
10) ethyl ether	6.283	59	2628301	386.53	ppb		91
11) acetonitrile	6.063	41	365653m	379.40	ppb		
12) trichlorofluoromethane	6.061	101	5504747	383.25	ppb		99
13) freon-113	6.837	101	3267650	385.47	ppb		91
14) acrolein	6.066	56	1112795	2111.21	ppb		92
15) 1,1-dichloroethene	6.628	96	2548412	369.05	ppb		95
16) acetone	6.225	58	648719	371.72	ppb	#	79
17) Methyl Acetate	6.820	43	2989034	391.51	ppb	#	78
18) methylene chloride	6.777	84	2876840	377.60	ppb		87
19) methyl tert butyl ether	7.561	73	7134662	396.04	ppb		88
20) acrylonitrile	6.699	53	1456934	396.29	ppb		95
21) allyl chloride	6.870	41	6372798	375.49	ppb		95
22) trans-1,2-dichloroethene	7.464	96	2896302	377.40	ppb		95
23) iodomethane	6.686	142	5757395	386.75	ppb		99
24) carbon disulfide	7.049	76	8294187	364.55	ppb		97
25) propionitrile	8.081	54	279909	387.19	ppb		100
26) vinyl acetate	7.812	43	2310456	395.51	ppb		98
27) chloroprene	8.079	53	5124175	386.71	ppb		95
28) di-isopropyl ether	8.119	45	12615996	384.02	ppb		97
29) methacrylonitrile	8.234	41	2069000	410.34	ppb		95
30) 2-butanone	8.130	72	369627	413.55	ppb	#	1
31) Ethyl Acetate	8.115	43	10934849	383.04	ug/L		98
32) Hexane	8.101	41	5309045	374.87	ppb	#	92
33) 1,1-dichloroethane	7.715	63	5874071	382.71	ppb		100
34) tert-butyl ethyl ether	8.517	59	10192817	396.97	ppb		98
35) isobutyl alcohol	8.541	43	2057940	2050.53	ppb	#	7
36) 2,2-dichloropropane	8.576	77	3603064	363.51	ppb		89

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22120.D
Acq On : 29 Aug 2014 6:34 pm
Operator : GaryK
Sample : ic972-400
Misc : ms32529,msu972,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 19 09:04:05 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) cis-1,2-dichloroethene	8.285	96	3254831	381.76	ppb		97
38) bromochloromethane	8.453	128	1836503	403.33	ppb	#	84
39) chloroform	8.490	83	5037202	387.22	ppb		95
41) Tetrahydrofuran	8.832	42	1080380	411.35	ppb		90
42) 1,1,1-trichloroethane	9.241	97	4565288	387.77	ppb		97
44) Cyclohexane	9.527	56	6636194	365.72	ppb		91
45) carbon tetrachloride	9.603	117	4329852	372.74	ppb		100
46) 1,1-dichloropropene	9.412	75	3593312	373.43	ppb		92
47) benzene	9.637	78	10704748	374.69	ppb		98
48) 1,2-dichloroethane	9.139	62	4055572	384.18	ppb		100
49) tert-amyl methyl ether	9.760	73	7305116	383.95	ppb		92
50) heptane	10.117	43	4789135	375.35	ppb	#	57
51) trichloroethene	10.259	95	3197876	401.99	ppb		76
52) 1,2-dichloropropane	10.226	63	3452037	436.15	ppb		100
53) dibromomethane	10.200	93	1856973	408.76	ppb		94
54) bromodichloromethane	10.313	83	4007586	423.08	ppb		97
55) Methylcyclohexane	10.776	83	4745231	371.40	ppb		90
56) 2-chloroethyl vinyl ether	10.689	63	1610455	617.43	ppb		97
57) methyl methacrylate	10.408	69	1395238	572.03	ppb		82
58) 1,4-dioxane	10.451	88	100314	2298.36	ppb		87
59) cis-1,3-dichloropropene	10.931	75	4364466	504.92	ppb		89
61) 4-methyl-2-pentanone	11.025	43	3756229	467.76	ppb		97
62) toluene	11.708	92	7038901	490.27	ppb		97
63) trans-1,3-dichloropropene	11.352	75	3400927	583.95	ppb		95
64) 1,1,2-trichloroethane	11.526	83	1986528	536.77	ppb		97
65) ethyl methacrylate	11.727	69	2798542	530.72	ppb		92
67) tetrachloroethene	12.450	166	3443219	393.88	ppb		93
68) 1,3-dichloropropane	11.760	76	3735967	440.85	ppb		91
69) dibromochloromethane	12.051	129	3681712	425.78	ppb		98
70) 1,2-dibromoethane	12.303	107	2711543	427.42	ppb		99
71) 2-hexanone	11.881	43	2716234	451.53	ppb		97
72) chlorobenzene	13.132	112	9567458	426.25	ppb		90
73) 1,1,1,2-tetrachloroethane	13.052	131	4195979	367.43	ppb		98
74) ethylbenzene	13.306	91	13957638	385.27	ppb		84
75) m,p-xylene	13.492	106	12100707	795.04	ppb	#	62
76) o-xylene	13.906	106	6635402	372.90	ppb	#	80
77) styrene	13.832	104	9853826	416.77	ppb		97
78) bromoform	13.660	173	2635541	412.85	ppb		99
79) trans-1,4-dichloro-2-b...	14.056	53	1524608	429.15	ppb	#	82
81) isopropylbenzene	14.270	105	16165558	427.35	ppb		86
83) bromobenzene	14.556	156	4885126	491.62	ppb	#	80
84) 1,1,2,2-tetrachloroethane	13.913	83	3949144	456.18	ppb		99
85) 1,2,3-trichloropropane	14.058	75	4380686	500.52	ppb		99
86) n-propylbenzene	14.715	91	16764822	408.99	ppb		74
87) 2-chlorotoluene	14.833	91	11578363	439.27	ppb		80
88) 4-chlorotoluene	14.907	91	12135029	455.82	ppb		82
89) 1,3,5-trimethylbenzene	14.992	105	15306713	413.56	ppb		84
90) tert-butylbenzene	15.298	91	8865821	433.17	ppb		97
91) 1,2,4-trimethylbenzene	15.402	105	15251761	401.84	ppb		87
92) sec-butylbenzene	15.523	105	17504614	365.54	ppb		72

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22120.D
Acq On : 29 Aug 2014 6:34 pm
Operator : GaryK
Sample : ic972-400
Misc : ms32529,msu972,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 19 09:04:05 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration

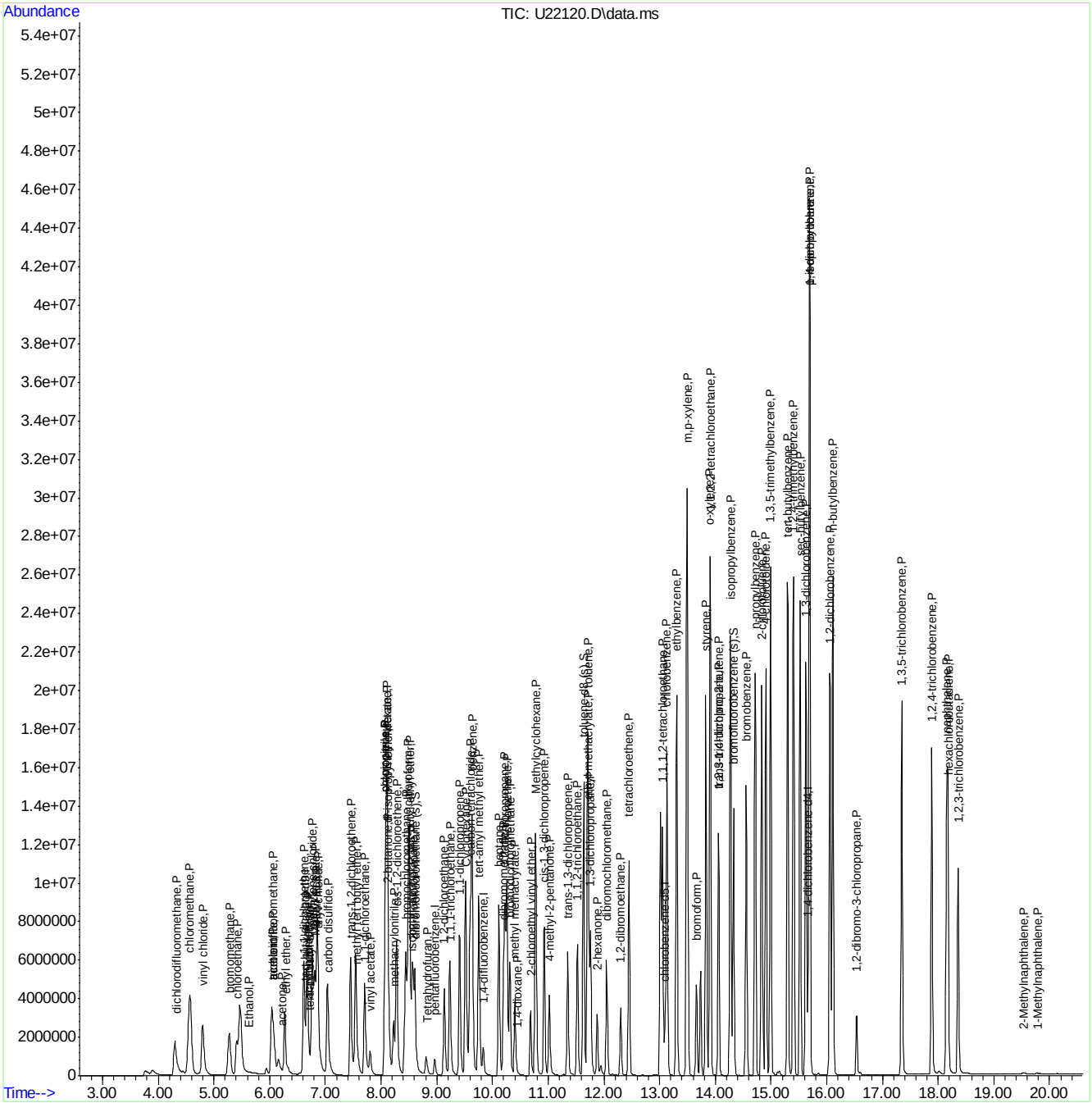
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	1,3-dichlorobenzene	15.625	146	9989558	416.45	ppb		99
94)	p-isopropyltoluene	15.693	119	15936200	367.01	ppb		90
95)	1,4-dichlorobenzene	15.691	146	9542651	373.85	ppb		96
96)	1,2-dichlorobenzene	16.059	146	9816742	385.50	ppb		95
97)	n-butylbenzene	16.110	91	14528060	362.09	ppb		77
98)	1,2-dibromo-3-chloropr...	16.537	75	769234	387.29	ppb	#	72
99)	1,3,5-trichlorobenzene	17.350	180	6624444	361.91	ug/L		95
100)	1,2,4-trichlorobenzene	17.888	180	5903418	355.18	ppb		93
101)	hexachlorobutadiene	18.178	225	2661684	345.15	ppb		95
102)	naphthalene	18.154	128	12352799	328.62	ppb		100
103)	2-Methylnaphthalene	19.538	142	38527	3.79	ug/L		98
104)	1-Methylnaphthalene	19.777	142	12426	2.39	ug/L		93
105)	1,2,3-trichlorobenzene	18.361	180	3960783	278.42	ppb		94

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22120.D
Acq On : 29 Aug 2014 6:34 pm
Operator : GaryK
Sample : ic972-400
Misc : ms32529,msu972,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 19 09:04:05 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Sep 02 10:18:45 2014
Response via : Initial Calibration



Manual Integrations APPROVED
(compounds with "m" flag)
Tomasz Torski
09/22/14 11:41

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22123.D
Acq On : 29 Aug 2014 7:56 pm
Operator : GaryK
Sample : icv972-50
Misc : ms32529,msu972,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 19 09:11:43 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.608	65	411703	50.00	ppb		0.00
4) pentafluorobenzene	8.972	168	568184	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.840	114	980026	50.00	ppb		0.00
66) chlorobenzene-d5	13.094	82	424659	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.659	152	765552	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.611	113	361373	49.69	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 99.38%				
60) toluene-d8 (s)	11.636	98	949806	48.77	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.54%				
82) bromofluorobenzene (s)	14.324	95	469844	46.93	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 93.86%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.695	59	254346m	300.24	ppb		
3) Ethanol	5.579	45	440532m	4680.09	ppb		
5) dichlorodifluoromethane	4.321	85	445611	47.51	ppb		97
6) chloromethane	4.549	50	899660	50.82	ppb		98
7) vinyl chloride	4.801	62	596246	50.10	ppb		97
8) bromomethane	5.277	96	315523	50.60	ppb		97
9) chloroethane	5.420	64	267780	57.75	ppb		97
10) ethyl ether	6.287	59	300466	49.46	ppb		93
11) acetonitrile	6.070	41	55284m	61.61	ppb		
12) trichlorofluoromethane	6.060	101	586442	48.26	ppb		95
13) freon-113	6.833	101	355924	48.88	ppb		88
14) acrolein	6.058	56	179926	362.44	ppb		92
15) 1,1-dichloroethene	6.632	96	307737	47.86	ppb		97
16) acetone	6.211	58	66327	43.65	ppb		90
17) Methyl Acetate	6.819	43	402359	60.41	ppb	#	91
18) methylene chloride	6.778	84	347001	50.63	ppb		87
19) methyl tert butyl ether	7.560	73	796353	48.26	ppb		90
20) acrylonitrile	6.697	53	165588	51.14	ppb		94
21) allyl chloride	6.874	41	759734	50.14	ppb		95
22) trans-1,2-dichloroethene	7.467	96	344191	48.41	ppb		95
23) iodomethane	6.686	142	658790	49.41	ppb		99
24) carbon disulfide	7.051	76	994266	50.00	ppb		97
25) propionitrile	8.081	54	33129	52.57	ppb		100
26) vinyl acetate	7.819	43	404866	81.22	ppb		98
27) chloroprene	8.081	53	629027	54.06	ppb		94
28) di-isopropyl ether	8.120	45	1447532	49.16	ppb		98
29) methacrylonitrile	8.239	41	207647	46.93	ppb		94
30) 2-butanone	8.135	72	32889	42.51	ppb	#	1
31) Ethyl Acetate	8.115	43	1173151	46.92	ug/L	#	56
32) Hexane	8.103	41	594720	47.90	ppb		92
33) 1,1-dichloroethane	7.716	63	703065	51.17	ppb		99
34) tert-butyl ethyl ether	8.515	59	1163607	50.77	ppb		99
35) isobutyl alcohol	8.518	43	158921	170.80	ppb		84
36) 2,2-dichloropropane	8.574	77	421335	48.69	ppb		89

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22123.D
Acq On : 29 Aug 2014 7:56 pm
Operator : GaryK
Sample : icv972-50
Misc : ms32529,msu972,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 19 09:11:43 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) cis-1,2-dichloroethene	8.287	96	380537	48.25	ppb		94
38) bromochloromethane	8.452	128	204409	49.60	ppb	#	85
39) chloroform	8.490	83	577082	49.01	ppb		98
41) Tetrahydrofuran	8.831	42	112847	46.41	ppb		90
42) 1,1,1-trichloroethane	9.238	97	503390	49.29	ppb		96
44) Cyclohexane	9.523	56	741350	50.76	ppb		91
45) carbon tetrachloride	9.602	117	474865	51.11	ppb		100
46) 1,1-dichloropropene	9.414	75	397181	51.40	ppb		93
47) benzene	9.637	78	1128457	47.40	ppb		95
48) 1,2-dichloroethane	9.140	62	434196	48.75	ppb		100
49) tert-amyl methyl ether	9.760	73	800032	50.91	ppb		92
50) heptane	10.118	43	490862m	47.56	ppb		
51) trichloroethene	10.259	95	321315	48.12	ppb		75
52) 1,2-dichloropropane	10.225	63	330850	49.97	ppb		100
53) dibromomethane	10.200	93	187312	48.80	ppb		95
54) bromodichloromethane	10.312	83	397535	51.46	ppb		96
55) Methylcyclohexane	10.776	83	547331	52.65	ppb		92
56) 2-chloroethyl vinyl ether	10.696	63	114454	48.25	ppb		99
57) methyl methacrylate	10.413	69	100018	44.93	ppb		81
58) 1,4-dioxane	10.427	88	5929m	153.29	ppb		
59) cis-1,3-dichloropropene	10.933	75	355927	49.38	ppb		90
61) 4-methyl-2-pentanone	11.036	43	322231	46.71	ppb		98
62) toluene	11.709	92	585452	48.74	ppb		98
63) trans-1,3-dichloropropene	11.354	75	262872	51.93	ppb		96
64) 1,1,2-trichloroethane	11.526	83	163687	49.01	ppb		92
65) ethyl methacrylate	11.734	69	220243	46.54	ppb		88
67) tetrachloroethene	12.451	166	280249	48.27	ppb		95
68) 1,3-dichloropropane	11.761	76	284387	45.85	ppb		92
69) dibromochloromethane	12.052	129	305176	50.10	ppb		99
70) 1,2-dibromoethane	12.304	107	219862	47.49	ppb		98
71) 2-hexanone	11.903	43	182474	40.24	ppb		100
72) chlorobenzene	13.131	112	778226	47.77	ppb		88
73) 1,1,1,2-tetrachloroethane	13.050	131	405089	52.43	ppb		97
74) ethylbenzene	13.307	91	1230113	48.10	ppb		93
75) m,p-xylene	13.491	106	1053228	97.93	ppb		85
76) o-xylene	13.904	106	617356	51.75	ppb		91
77) styrene	13.831	104	860473	49.76	ppb		98
78) bromoform	13.658	173	240501	53.26	ppb		98
79) trans-1,4-dichloro-2-b...	14.057	53	137032	54.44	ppb		92
81) isopropylbenzene	14.267	105	1701369	48.97	ppb		97
83) bromobenzene	14.555	156	467161	47.80	ppb	#	78
84) 1,1,2,2-tetrachloroethane	13.910	83	417456	49.45	ppb		99
85) 1,2,3-trichloropropane	14.058	75	433788	50.32	ppb		99
86) n-propylbenzene	14.712	91	1887153	49.20	ppb		94
87) 2-chlorotoluene	14.830	91	1213290	48.71	ppb		82
88) 4-chlorotoluene	14.906	91	1221839	47.59	ppb		85
89) 1,3,5-trimethylbenzene	14.990	105	1646611	49.39	ppb		93
90) tert-butylbenzene	15.295	91	908880	49.60	ppb		86
91) 1,2,4-trimethylbenzene	15.399	105	1754835	50.45	ppb		97
92) sec-butylbenzene	15.518	105	2182735	50.84	ppb		93

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22123.D
Acq On : 29 Aug 2014 7:56 pm
Operator : GaryK
Sample : icv972-50
Misc : ms32529,msu972,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 19 09:11:43 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

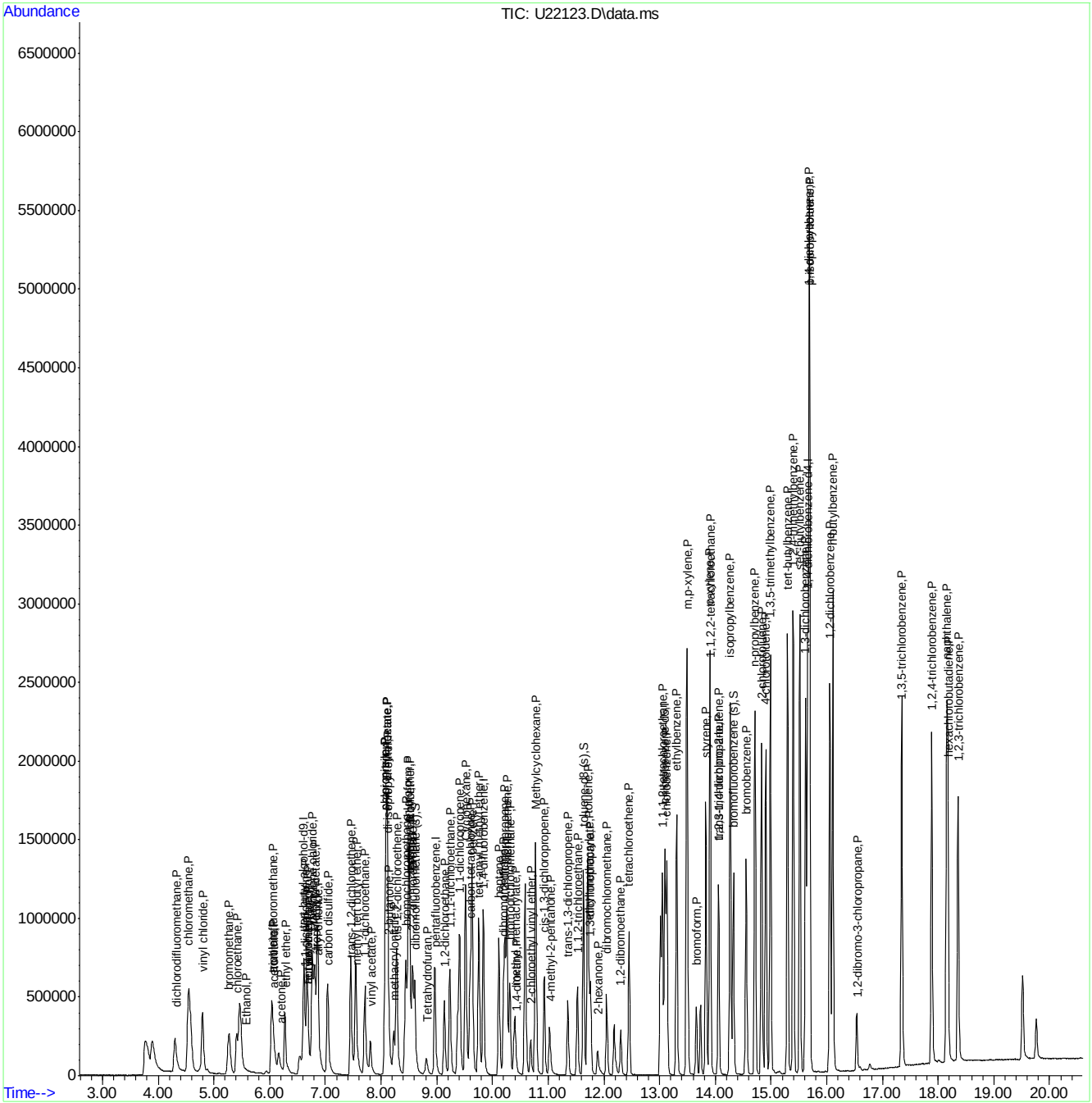
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	1,3-dichlorobenzene	15.620	146	1101323	48.80	ppb		98
94)	p-isopropyltoluene	15.691	119	1967804	50.04	ppb		94
95)	1,4-dichlorobenzene	15.688	146	1171329	48.94	ppb		99
96)	1,2-dichlorobenzene	16.057	146	1167265	49.78	ppb		97
97)	n-butylbenzene	16.109	91	1782296	48.97	ppb		87
98)	1,2-dibromo-3-chloropr...	16.554	75	100060	52.99	ppb	#	71
99)	1,3,5-trichlorobenzene	17.349	180	826776	50.51	ug/L		97
100)	1,2,4-trichlorobenzene	17.889	180	741904	49.98	ppb		93
101)	hexachlorobutadiene	18.177	225	346073	50.09	ppb		95
102)	naphthalene	18.154	128	1824877	55.52	ppb		100
103)	2-Methylnaphthalene	19.523	142	368947	Below Cal			98
104)	1-Methylnaphthalene	19.768	142	178601	Below Cal			97
105)	1,2,3-trichlorobenzene	18.361	180	638285	51.78	ppb		94

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140829\
Data File : U22123.D
Acq On : 29 Aug 2014 7:56 pm
Operator : GaryK
Sample : icv972-50
Misc : ms32529,msu972,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 19 09:11:43 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration



Manual Integrations APPROVED
(compounds with "m" flag)
Tomasz Torski
09/30/14 09:07

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22713.D
Acq On : 29 Sep 2014 8:51 am
Operator : GaryK
Sample : cc972-50
Misc : ms32826,msu990,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 29 09:14:58 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.663	65	249920	50.00	ppb		0.05
4) pentafluorobenzene	8.967	168	546318	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.837	114	974839	50.00	ppb		0.00
66) chlorobenzene-d5	13.093	82	525663	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.661	152	724843	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.611	113	322159	46.08	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 92.16%				
60) toluene-d8 (s)	11.635	98	1070581	55.26	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 110.52%				
82) bromofluorobenzene (s)	14.323	95	562952	59.39	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 118.78%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.284	59	254440	494.77	ppb		94
3) Ethanol	5.687	45	375775	6656.39	ppb		85
5) dichlorodifluoromethane	4.309	85	310055	34.38	ppb		96
6) chloromethane	4.557	50	782419	45.97	ppb		100
7) vinyl chloride	4.804	62	549826	48.04	ppb		100
8) bromomethane	5.273	96	259755	43.33	ppb		96
9) chloroethane	5.412	64	193418	43.38	ppb		95
10) ethyl ether	6.284	59	254440	43.56	ppb		90
11) acetonitrile	6.104	41	42959m	48.64	ppb		
12) trichlorofluoromethane	6.068	101	539564	46.18	ppb		100
13) freon-113	6.824	101	350238	50.02	ppb		90
14) acrolein	6.080	56	82584	173.02	ppb		92
15) 1,1-dichloroethene	6.627	96	275446	44.55	ppb		98
16) acetone	6.246	58	52799	36.14	ppb	#	19
17) Methyl Acetate	6.832	43	286301	44.71	ppb	#	67
18) methylene chloride	6.780	84	313905	47.63	ppb		85
19) methyl tert butyl ether	7.563	73	761472	48.00	ppb		89
20) acrylonitrile	6.733	53	146767	47.14	ppb		86
21) allyl chloride	6.870	41	595197	40.85	ppb		97
22) trans-1,2-dichloroethene	7.462	96	300762	44.00	ppb		89
23) iodomethane	6.688	142	599961	46.80	ppb		98
24) carbon disulfide	7.052	76	868173	45.40	ppb		98
25) propionitrile	8.077	54	30556	50.43	ppb		100
26) vinyl acetate	7.815	43	630972	131.64	ppb		100
27) chloroprene	8.077	53	520216	46.50	ppb		95
28) di-isopropyl ether	8.116	45	1332960	47.08	ppb		99
29) methacrylonitrile	8.237	41	194810	45.79	ppb		97
30) 2-butanone	8.131	72	32739	44.01	ppb	#	41
31) Ethyl Acetate	8.113	43	1137571	47.32	ug/L	#	58
32) Hexane	8.100	41	598664	50.15	ppb	#	83
33) 1,1-dichloroethane	7.714	63	609608	46.14	ppb		98
34) tert-butyl ethyl ether	8.513	59	1146473	52.02	ppb		98
35) isobutyl alcohol	8.540	43	253332	283.17	ppb	#	19
36) 2,2-dichloropropane	8.570	77	415338	49.92	ppb		90

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22713.D
Acq On : 29 Sep 2014 8:51 am
Operator : GaryK
Sample : cc972-50
Misc : ms32826,msu990,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 29 09:14:58 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) cis-1,2-dichloroethene	8.285	96	342173	45.12	ppb		96
38) bromochloromethane	8.455	128	185280	46.76	ppb	#	85
39) chloroform	8.488	83	547262	48.34	ppb		95
41) Tetrahydrofuran	8.845	42	106232	45.44	ppb		99
42) 1,1,1-trichloroethane	9.236	97	503249	51.25	ppb		97
44) Cyclohexane	9.523	56	681444	46.91	ppb		94
45) carbon tetrachloride	9.600	117	456711	49.42	ppb		98
46) 1,1-dichloropropene	9.411	75	368095	47.89	ppb		89
47) benzene	9.636	78	1133069	47.84	ppb		99
48) 1,2-dichloroethane	9.138	62	429126	48.44	ppb		100
49) tert-amyl methyl ether	9.759	73	821580	52.56	ppb		91
50) heptane	10.114	43	571427	55.67	ppb	#	54
51) trichloroethene	10.258	95	328247	49.42	ppb		73
52) 1,2-dichloropropane	10.224	63	341812	51.90	ppb		100
53) dibromomethane	10.201	93	198879	52.09	ppb		96
54) bromodichloromethane	10.313	83	417331	54.30	ppb		99
55) Methylcyclohexane	10.774	83	526569	50.92	ppb		96
56) 2-chloroethyl vinyl ether	10.693	63	157256	65.21	ppb		94
57) methyl methacrylate	10.412	69	137559	62.12	ppb		92
58) 1,4-dioxane	10.457	88	12070	313.72	ppb	#	55
59) cis-1,3-dichloropropene	10.932	75	419140	58.46	ppb		89
61) 4-methyl-2-pentanone	11.030	43	367049	53.49	ppb		99
62) toluene	11.707	92	694242	58.11	ppb		93
63) trans-1,3-dichloropropene	11.353	75	351507	69.81	ppb		98
64) 1,1,2-trichloroethane	11.527	83	208323	62.71	ppb		93
65) ethyl methacrylate	11.732	69	304563	64.70	ppb		86
67) tetrachloroethene	12.450	166	354421	49.32	ppb		98
68) 1,3-dichloropropane	11.760	76	380238	49.53	ppb		91
69) dibromochloromethane	12.052	129	385036	51.07	ppb		98
70) 1,2-dibromoethane	12.304	107	297312	51.88	ppb		97
71) 2-hexanone	11.887	43	278835	49.67	ppb		100
72) chlorobenzene	13.130	112	1003191	49.75	ppb		89
73) 1,1,1,2-tetrachloroethane	13.050	131	430988	45.06	ppb		98
74) ethylbenzene	13.305	91	1657223	52.35	ppb		94
75) m,p-xylene	13.489	106	1439758	108.15	ppb		88
76) o-xylene	13.903	106	763772	51.72	ppb		90
77) styrene	13.830	104	1183886	55.31	ppb		98
78) bromoform	13.659	173	316448	56.62	ppb		100
79) trans-1,4-dichloro-2-b...	14.056	53	205587	65.98	ppb	#	73
81) isopropylbenzene	14.266	105	2074218	63.05	ppb		98
83) bromobenzene	14.555	156	595294	64.33	ppb	#	76
84) 1,1,2,2-tetrachloroethane	13.912	83	445533	55.74	ppb		99
85) 1,2,3-trichloropropane	14.057	75	527095	64.57	ppb		99
86) n-propylbenzene	14.712	91	2414655	66.48	ppb		95
87) 2-chlorotoluene	14.831	91	1392176	59.03	ppb		83
88) 4-chlorotoluene	14.906	91	1488100	61.21	ppb		86
89) 1,3,5-trimethylbenzene	14.990	105	1892470	59.95	ppb		96
90) tert-butylbenzene	15.295	91	999282	57.60	ppb		87
91) 1,2,4-trimethylbenzene	15.399	105	1863725	56.59	ppb		100
92) sec-butylbenzene	15.517	105	2436084m	59.92	ppb		

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22713.D
Acq On : 29 Sep 2014 8:51 am
Operator : GaryK
Sample : cc972-50
Misc : ms32826,msu990,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 29 09:14:58 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

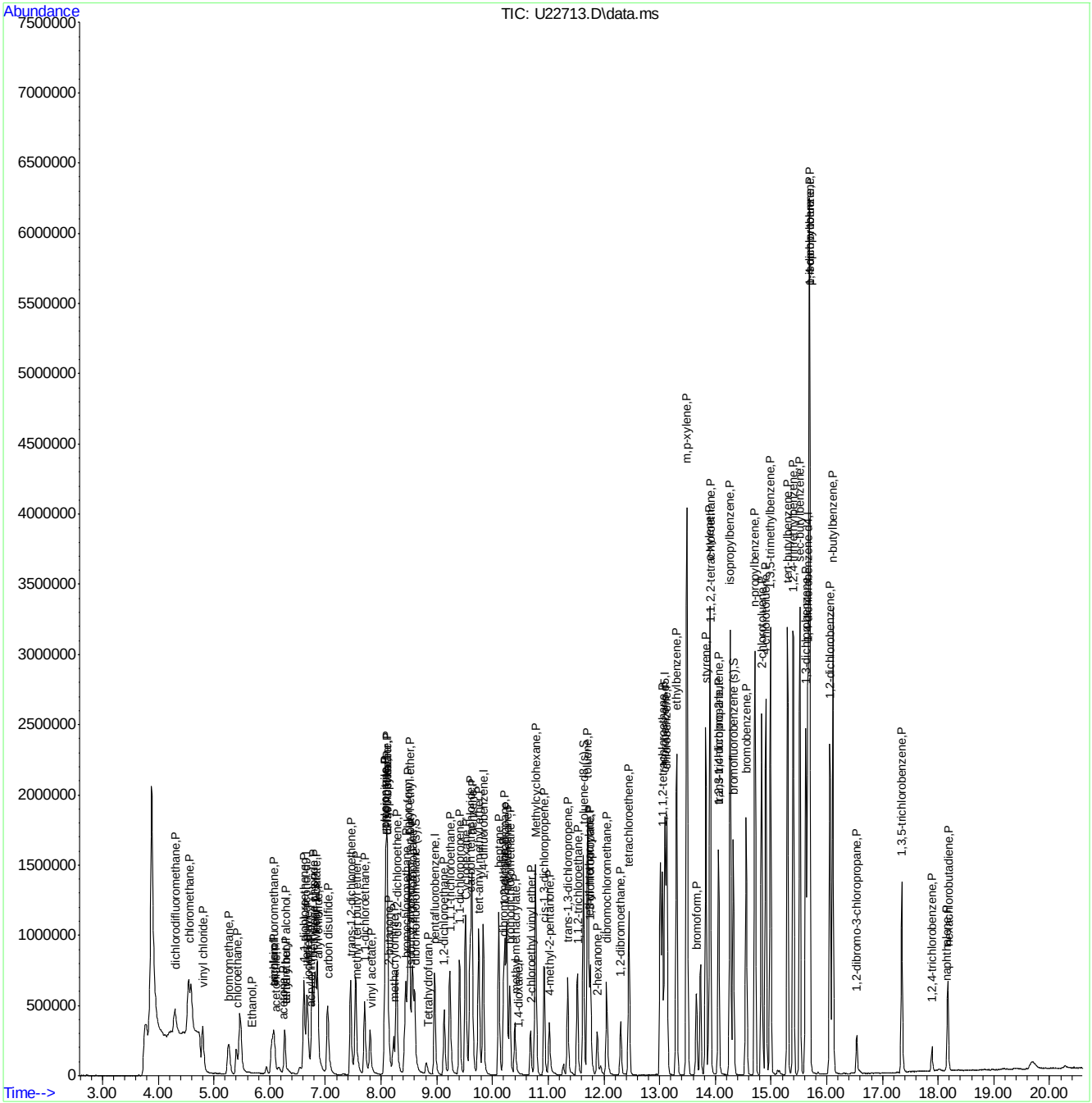
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	1,3-dichlorobenzene	15.622	146	1143145	53.50	ppb		98
94)	p-isopropyltoluene	15.691	119	2112359	56.73	ppb		94
95)	1,4-dichlorobenzene	15.689	146	1201993	53.05	ppb		98
96)	1,2-dichlorobenzene	16.058	146	1060503	47.76	ppb		97
97)	n-butylbenzene	16.109	91	1892064	54.91	ppb		91
98)	1,2-dibromo-3-chloropr...	16.540	75	58382	32.65	ppb	#	72
99)	1,3,5-trichlorobenzene	17.350	180	452664	29.21	ug/L		95
100)	1,2,4-trichlorobenzene	17.890	180	58778	4.18	ppb		99
101)	hexachlorobutadiene	18.176	225	117098	17.90	ppb		98
102)	naphthalene	18.159	128	45860	1.47	ppb		100

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22713.D
Acq On : 29 Sep 2014 8:51 am
Operator : GaryK
Sample : cc972-50
Misc : ms32826,msu990,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

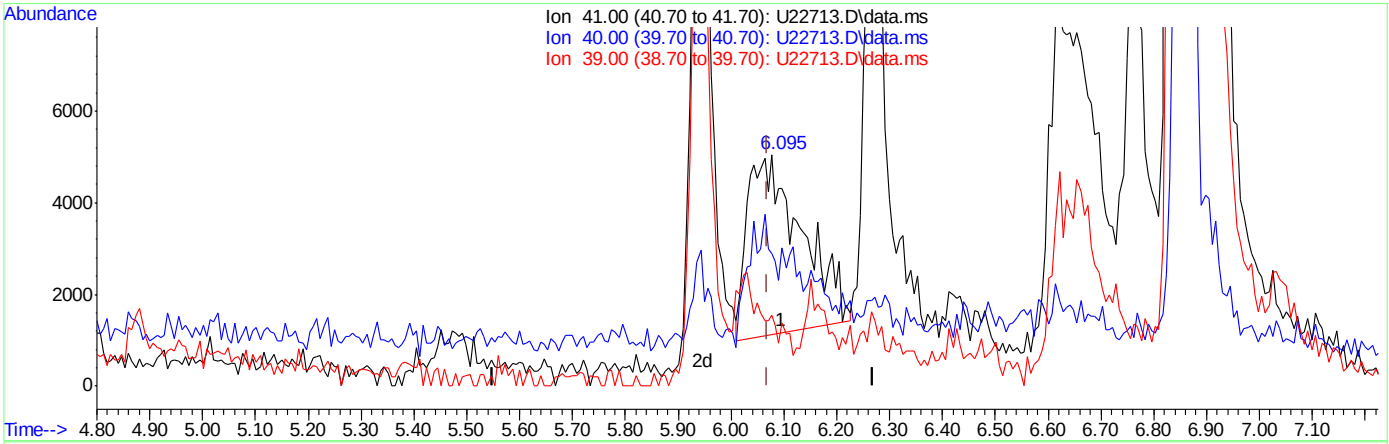
Quant Time: Sep 29 09:14:58 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

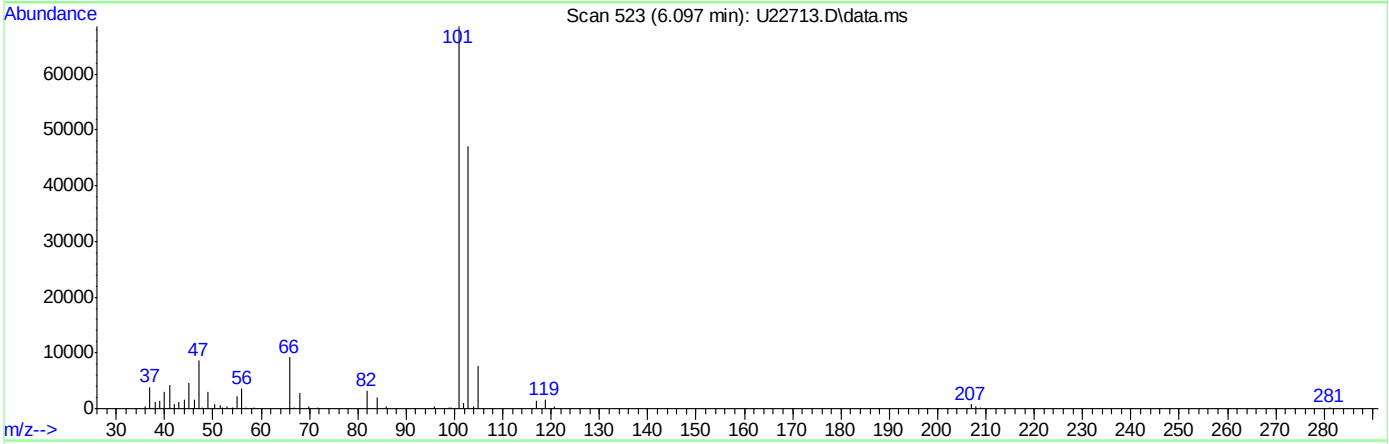


Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22713.D
Acq On : 29 Sep 2014 8:51 am
Operator : GaryK
Sample : cc972-50
Misc : ms32826,msu990,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 29 09:12:20 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22713.D\data.ms

(11) acetonitrile (P)

6.095min (+0.025) 29.48ppb

response 27892

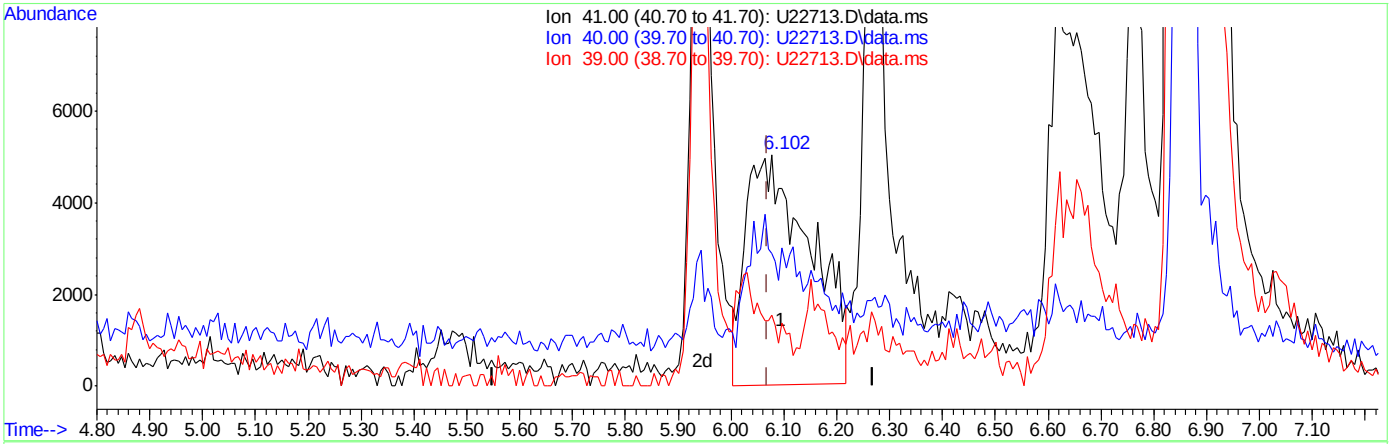
Ion	Exp%	Act%
41.00	100	100
40.00	92.30	75.13
39.00	24.50	1.87
0.00	0.00	0.00

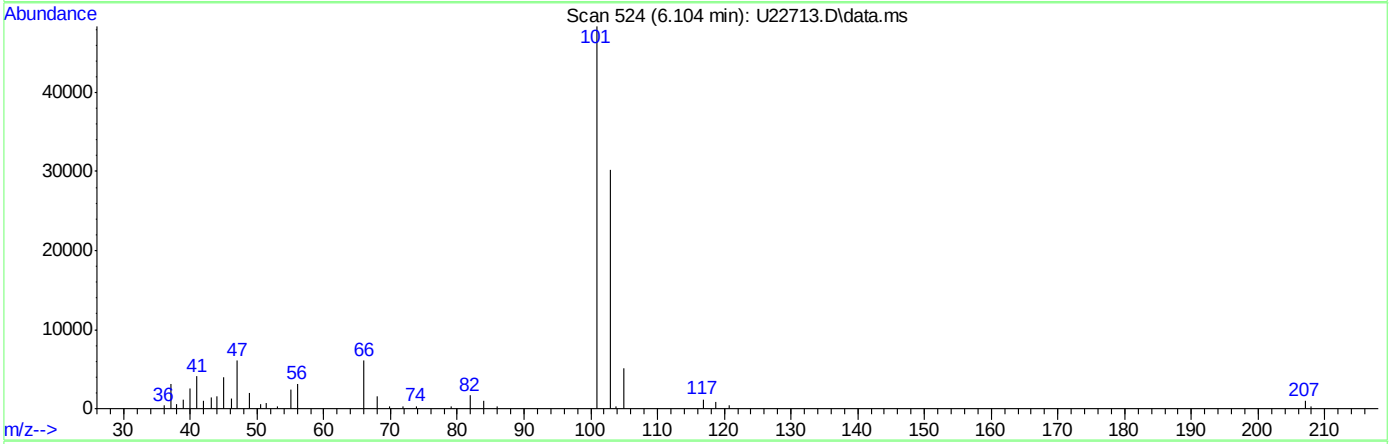
U22713.D edits: acetonitrile

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22713.D
Acq On : 29 Sep 2014 8:51 am
Operator : GaryK
Sample : cc972-50
Misc : ms32826,msu990,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 29 09:12:20 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22713.D\data.ms

(11) acetonitrile (P)

6.104min (+0.034) 48.64ppb m

response 42959

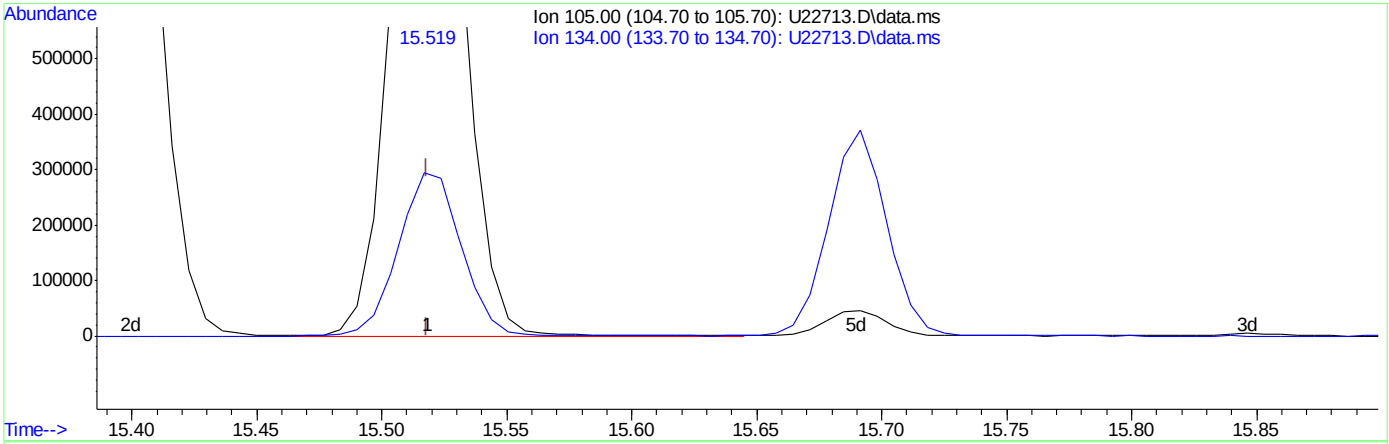
Ion	Exp%	Act%
41.00	100	100
40.00	92.30	63.49
39.00	24.50	27.84
0.00	0.00	0.00

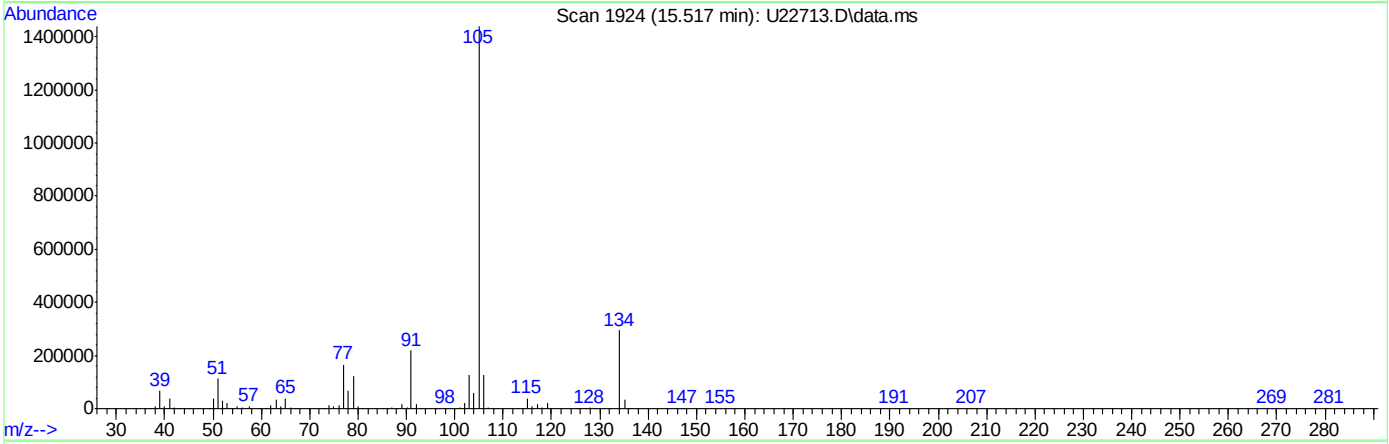
U22713.D edits: acetonitrile

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22713.D
Acq On : 29 Sep 2014 8:51 am
Operator : GaryK
Sample : cc972-50
Misc : ms32826,msu990,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 29 09:12:44 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22713.D\data.ms

(92) sec-butylbenzene (P)

15.519min (+0.001) 60.10ppb

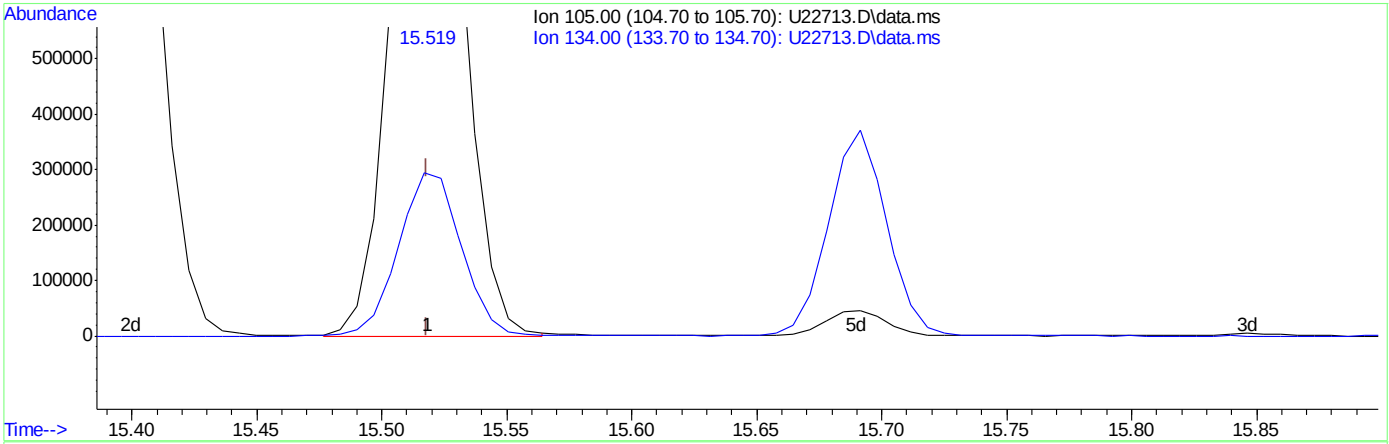
response 2443297

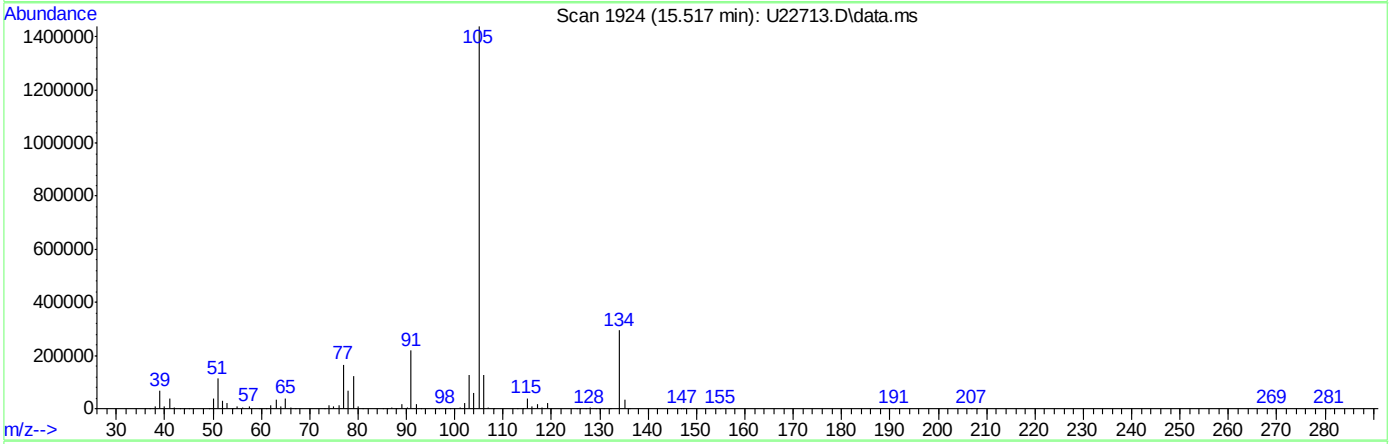
Ion	Exp%	Act%
105.00	100	100
134.00	18.60	20.46
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U140929\
Data File : U22713.D
Acq On : 29 Sep 2014 8:51 am
Operator : GaryK
Sample : cc972-50
Misc : ms32826,msu990,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 29 09:12:44 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22713.D\data.ms

(92) sec-butylbenzene (P)

15.517min (-0.001) 59.92ppb m

response 2436084

Ion	Exp%	Act%
105.00	100	100
134.00	18.60	20.45
0.00	0.00	0.00
0.00	0.00	0.00

U22713.D edits: sec-butylbenzene

Manual Integrations APPROVED
(compounds with "m" flag)
Tomasz Torski
10/03/14 09:16

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22756.D
Acq On : 2 Oct 2014 8:16 am
Operator : GaryK
Sample : cc972-50
Misc : ms32871,msu992,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 02 15:45:46 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.691	65	249452	50.00	ppb		0.08
4) pentafluorobenzene	8.967	168	599572	50.00	ppb		0.00
43) 1,4-difluorobenzene	9.836	114	1042811	50.00	ppb		0.00
66) chlorobenzene-d5	13.092	82	414771	50.00	ppb	#	0.00
80) 1,4-dichlorobenzene-d4	15.657	152	500463	50.00	ppb		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.611	113	345406	45.01	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 90.02%				
60) toluene-d8 (s)	11.634	98	1081792	52.20	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 104.40%				
82) bromofluorobenzene (s)	14.321	95	344995	52.72	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 105.44%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	6.655	59	105381m	205.30	ppb		
3) Ethanol	5.673	45	283559m	4984.15	ppb		
5) dichlorodifluoromethane	4.314	85	538065	54.37	ppb		90
6) chloromethane	4.561	50	1113465	59.60	ppb		95
7) vinyl chloride	4.807	62	725374	57.75	ppb		98
8) bromomethane	5.282	96	357138	54.28	ppb		92
9) chloroethane	5.416	64	293225	59.93	ppb		98
10) ethyl ether	6.289	59	308448	48.12	ppb		90
11) acetonitrile	6.111	41	35682	35.36	ppb	#	62
12) trichlorofluoromethane	6.069	101	648877	50.60	ppb		100
13) freon-113	6.832	101	393117	51.16	ppb		93
14) acrolein	6.094	56	49332	94.17	ppb		92
15) 1,1-dichloroethene	6.626	96	316882	46.70	ppb		97
16) acetone	6.231	58	21120	13.17	ppb	#	48
17) Methyl Acetate	6.847	43	459756	65.42	ppb	#	85
18) methylene chloride	6.784	84	350292	48.43	ppb		86
19) methyl tert butyl ether	7.570	73	820264	47.11	ppb		90
20) acrylonitrile	6.742	53	170032	49.76	ppb		93
21) allyl chloride	6.870	41	755810	47.27	ppb		95
22) trans-1,2-dichloroethene	7.462	96	340241	45.35	ppb		92
23) iodomethane	6.690	142	687705	48.88	ppb		100
24) carbon disulfide	7.055	76	1115797	53.17	ppb		98
25) propionitrile	8.077	54	37636	56.60	ppb		100
26) vinyl acetate	7.818	43	438225	83.31	ppb		95
27) chloroprene	8.077	53	675687	55.03	ppb		87
28) di-isopropyl ether	8.117	45	1510984	48.63	ppb		95
29) methacrylonitrile	8.245	41	252799	54.15	ppb		93
30) 2-butanone	8.134	72	23170	28.38	ppb	#	1
31) Ethyl Acetate	8.111	43	1235160	46.82	ug/L	#	51
32) Hexane	8.099	41	685042	52.29	ppb	#	79
33) 1,1-dichloroethane	7.715	63	709326	48.92	ppb		97
34) tert-butyl ethyl ether	8.517	59	1275263	52.73	ppb		99
35) isobutyl alcohol	8.525	43	246334	250.89	ppb		95
36) 2,2-dichloropropane	8.573	77	459428	50.32	ppb		91

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22756.D
Acq On : 2 Oct 2014 8:16 am
Operator : GaryK
Sample : cc972-50
Misc : ms32871,msu992,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 02 15:45:46 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	cis-1,2-dichloroethene	8.286	96	366211	44.00	ppb		98
38)	bromochloromethane	8.456	128	200580	46.12	ppb		91
39)	chloroform	8.488	83	588696	47.38	ppb		99
41)	Tetrahydrofuran	8.855	42	132266	51.55	ppb		93
42)	1,1,1-trichloroethane	9.236	97	539980	50.11	ppb		97
44)	Cyclohexane	9.522	56	760332	48.93	ppb		92
45)	carbon tetrachloride	9.600	117	487634	49.33	ppb		99
46)	1,1-dichloropropene	9.410	75	415624	50.55	ppb		91
47)	benzene	9.635	78	1212274	47.85	ppb		97
48)	1,2-dichloroethane	9.137	62	482902	50.96	ppb		98
49)	tert-amyl methyl ether	9.761	73	841443	50.33	ppb		88
50)	heptane	10.111	43	616245m	56.12	ppb		
51)	trichloroethene	10.256	95	365215	51.40	ppb		77
52)	1,2-dichloropropane	10.224	63	380865	54.06	ppb		99
53)	dibromomethane	10.200	93	208550	51.06	ppb		94
54)	bromodichloromethane	10.312	83	444162	54.03	ppb		97
55)	Methylcyclohexane	10.772	83	538591	48.69	ppb		89
56)	2-chloroethyl vinyl ether	10.695	63	188737	72.57	ppb		97
57)	methyl methacrylate	10.415	69	145058	61.23	ppb	#	71
58)	1,4-dioxane	10.418	88	1636	39.75	ppb	#	23
59)	cis-1,3-dichloropropene	10.932	75	445288	58.06	ppb		91
61)	4-methyl-2-pentanone	11.034	43	373588	50.89	ppb		95
62)	toluene	11.706	92	678616	53.10	ppb		95
63)	trans-1,3-dichloropropene	11.354	75	351216	65.21	ppb		95
64)	1,1,2-trichloroethane	11.526	83	190209	53.52	ppb		92
65)	ethyl methacrylate	11.732	69	267004	53.03	ppb		79
67)	tetrachloroethene	12.448	166	325117	57.33	ppb		98
68)	1,3-dichloropropane	11.760	76	345547	57.04	ppb		94
69)	dibromochloromethane	12.051	129	317065	53.30	ppb		96
70)	1,2-dibromoethane	12.304	107	245781	54.35	ppb		98
71)	2-hexanone	11.897	43	184239	41.60	ppb		93
72)	chlorobenzene	13.129	112	778050	48.90	ppb		89
73)	1,1,1,2-tetrachloroethane	13.049	131	369926	49.02	ppb		98
74)	ethylbenzene	13.304	91	1281644	51.31	ppb		95
75)	m,p-xylene	13.488	106	1044355	99.42	ppb		89
76)	o-xylene	13.901	106	570580	48.97	ppb		89
77)	styrene	13.829	104	754491	44.67	ppb		99
78)	bromoform	13.657	173	191499	43.42	ppb		99
79)	trans-1,4-dichloro-2-b...	14.055	53	112751	45.86	ppb		89
81)	isopropylbenzene	14.264	105	1581737	69.64	ppb		100
83)	bromobenzene	14.552	156	363448	56.88	ppb	#	77
84)	1,1,2,2-tetrachloroethane	13.908	83	313116	56.74	ppb		99
85)	1,2,3-trichloropropane	14.056	75	328171	58.23	ppb		99
86)	n-propylbenzene	14.710	91	1661691	66.27	ppb		94
87)	2-chlorotoluene	14.828	91	992927	60.98	ppb		84
88)	4-chlorotoluene	14.904	91	924158	55.06	ppb		85
89)	1,3,5-trimethylbenzene	14.987	105	1403756	64.41	ppb		97
90)	tert-butylbenzene	15.293	91	798653	66.67	ppb		88
91)	1,2,4-trimethylbenzene	15.396	105	1432373	62.99	ppb		99
92)	sec-butylbenzene	15.516	105	1905094	67.87	ppb		95

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22756.D
Acq On : 2 Oct 2014 8:16 am
Operator : GaryK
Sample : cc972-50
Misc : ms32871,msu992,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 02 15:45:46 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration

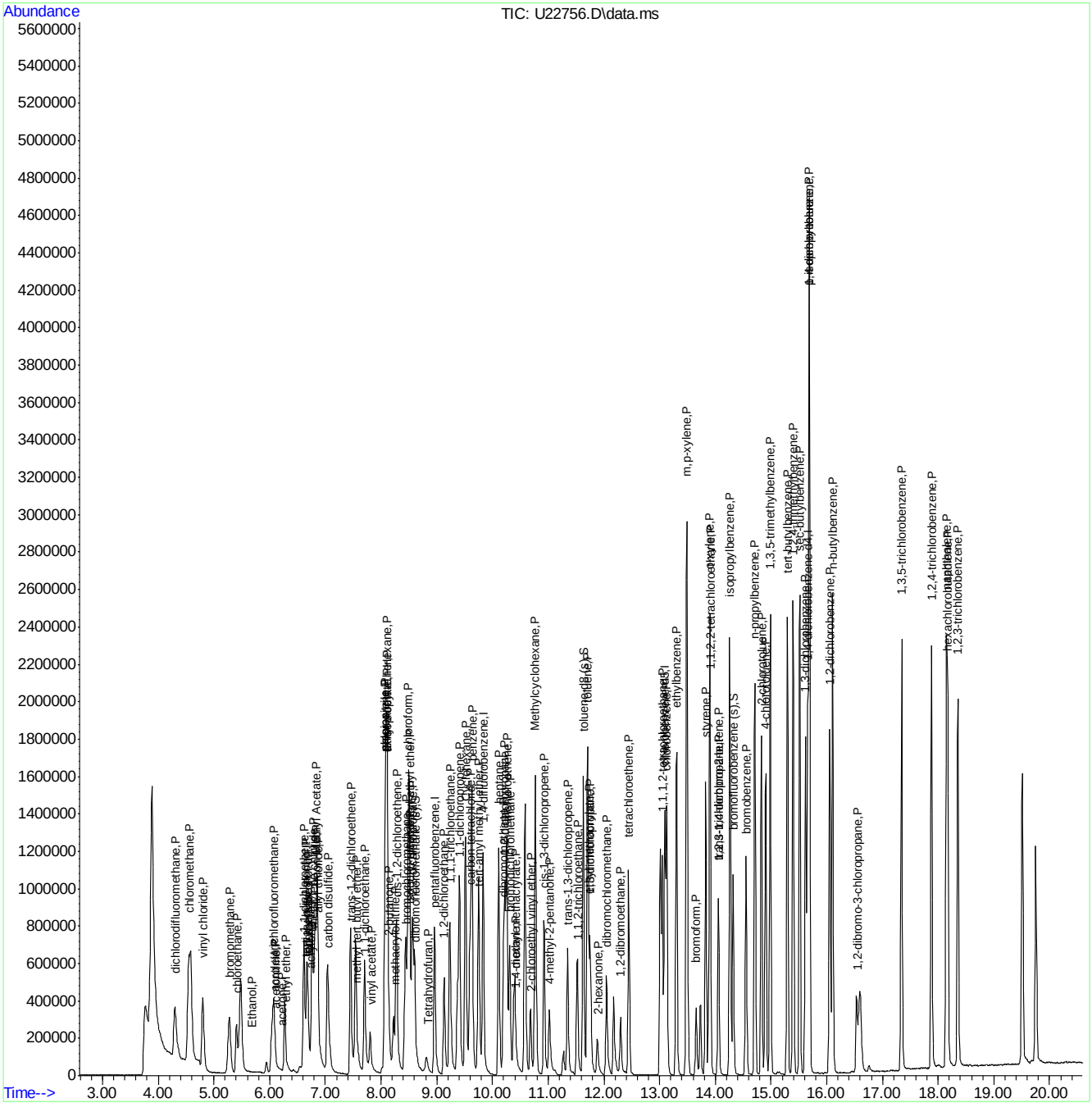
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) 1,3-dichlorobenzene	15.618	146	781131	52.95	ppb		98
94) p-isopropyltoluene	15.688	119	1632527	63.50	ppb		95
95) 1,4-dichlorobenzene	15.685	146	808916	51.70	ppb		99
96) 1,2-dichlorobenzene	16.054	146	862154	56.24	ppb		96
97) n-butylbenzene	16.106	91	1469153	61.75	ppb		90
98) 1,2-dibromo-3-chloropr...	16.544	75	94686	76.70	ppb	#	62
99) 1,3,5-trichlorobenzene	17.345	180	770671	72.02	ug/L		95
100) 1,2,4-trichlorobenzene	17.884	180	750836	77.38	ppb		92
101) hexachlorobutadiene	18.173	225	340185	75.32	ppb		96
102) naphthalene	18.150	128	1785843	83.12	ppb		100
103) 2-Methylnaphthalene	19.513	142	919068	Below Cal			97
104) 1-Methylnaphthalene	19.760	142	726789	Below Cal			97
105) 1,2,3-trichlorobenzene	18.357	180	675706	83.86	ppb		94

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

Quantitation Report (QT Reviewed)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22756.D
Acq On : 2 Oct 2014 8:16 am
Operator : GaryK
Sample : cc972-50
Misc : ms32871,msu992,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

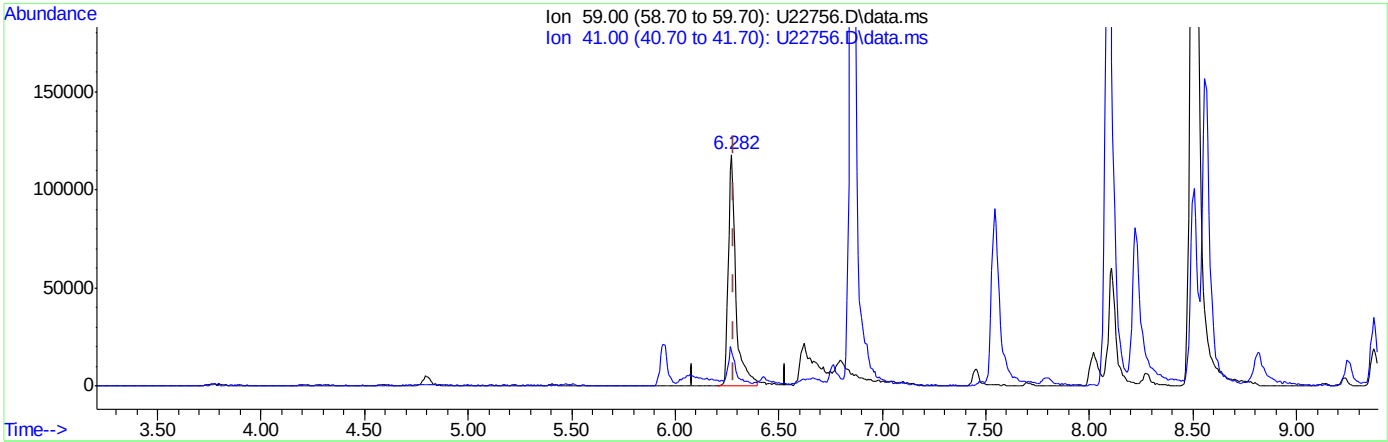
Quant Time: Oct 02 15:45:46 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22756.D
Acq On : 2 Oct 2014 8:16 am
Operator : GaryK
Sample : bs
Misc : ms32817,msu992,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 02 08:40:28 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration



TIC: U22756.D\data.ms

(2) tertiary butyl alcohol (P)

6.285min (-0.001) 576.97ppb m

response 296154

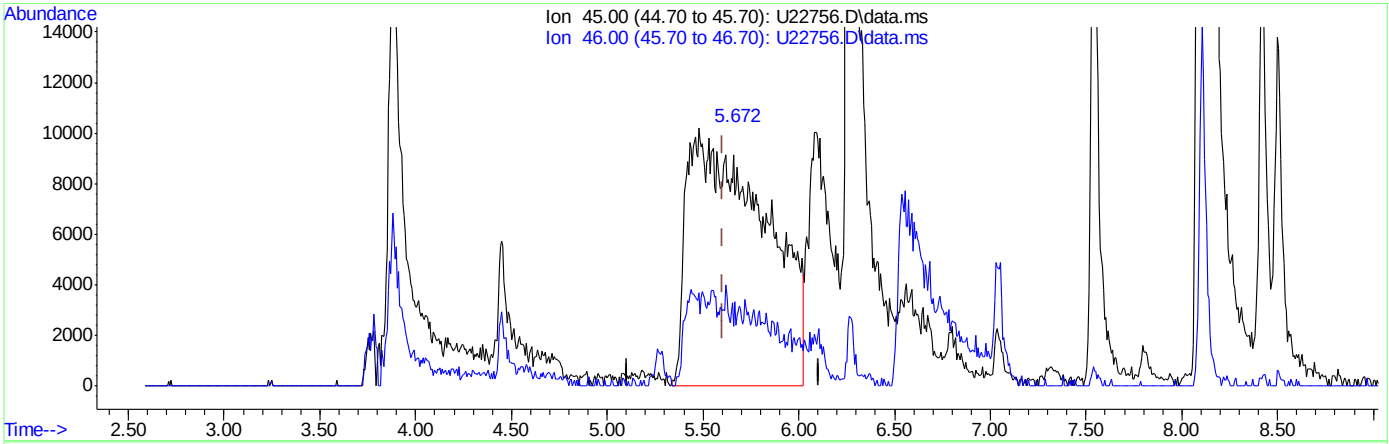
Ion	Exp%	Act%
59.00	100	100
41.00	12.70	17.13
0.00	0.00	0.00
0.00	0.00	0.00

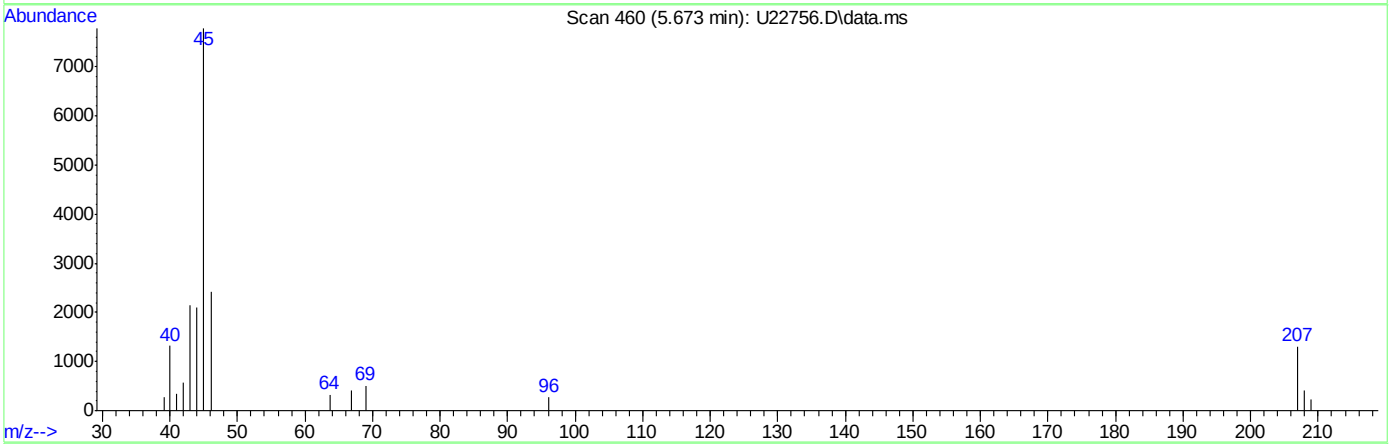
U22756.D edits: tertiary butyl alcohol

Quantitation Report (Qedit)

Data Path : D:\msdchem\1\data\U141002\
Data File : U22756.D
Acq On : 2 Oct 2014 8:16 am
Operator : GaryK
Sample : bs
Misc : ms32871,msu992,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 02 15:45:04 2014
Quant Method : D:\msdchem\1\methods\U140829W.m
Quant Title : SW-846 Method 8260
QLast Update : Fri Sep 19 09:05:29 2014
Response via : Initial Calibration





TIC: U22756.D\data.ms

(3) Ethanol (P)

5.673min (+0.067) 4984.15ppb m

response 283559

Ion	Exp%	Act%
45.00	100	100
46.00	35.30	31.13
0.00	0.00	0.00
0.00	0.00	0.00

Accutest Laboratories of New England, Inc. **Instrument: GCMS N**

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Lot #	Description	Conc
MS9911	8260CC	200ug/mL
926	CCgas	200
910	BS	200
904	BSgas	200
840	IS	125
895	SS	200

Daily Saved File

Tune file 1:	N90385
Tune file 2:	NA
Initial Cal:	9/18/14
ID File:	N140918W.M
ICAL Verified:	KD
Sequence verified:	KD

Date: 9/18/14

Batch ID: MSN3345

Analysts KD

Signature:

*Note: If sample matrix is soil – method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
N90385	bfb	NA	MS9895	Curve	15	W	5mL	NA	1:1	NA	√√
86	test 0.5	2,1	MS9911/926		16						OK
87	test 5	↓	↓		17						OK
88	test 400	↓	↓		18						OK
89	blank	NA	NA		19						-
90	blank	↓	↓		20						-
91	IC3345-0.5	2,1	MS9911/926		21						√√
92	-1				22						√√
93	-2				23						√√
94	-5				24						√√
95	-10				25						√√
96	-25				26						√√
97	IC3345-50				27						√√
98	IC3345-100				28						√√
99	-200				29						√√
N90400	-400				30						√√
01	Blank	NA	NA		31						ICC
02	↓	↓	↓		32						Stopped
03	ICV3345-50	2,2	MS9910/904		33						
04	↓	↓	↓		34						
05	Blank	NA	NA		35						
06	↓	↓	↓	↓	36	↓	↓	↓	↓	↓	↓

KD

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil.
Sample amount is reported in grams (wet) for soil and oil, mls for water

MS001-05 Date: 07/22/13

Review:

ACCUTEST LABORATORIES MC33908

Accutest Laboratories of New England, Inc. **Instrument: GCMS N**

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Lot #	Description	Conc
MS9911	8260CC	200ug/ml
926	CCgas	
910	BS	
904	BSgas	
905	IS+SS	125ug/mL

Daily Saved File

Tune file 1:	N90407
Tune file 2:	9/18/14
Initial Cal:	N140918W.M
ID File:	(Tune file 2: NA)
ICAL Verified:	KD
Sequence verified:	GK

Date: 9/19/14

Batch ID: MSN3345

Analysts KD

Signature:

*Note: If sample matrix is soil – method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
N90406	blank	NA	NA	NA	15	NA	5mL	NA	1:1	NA	-
07	BS (CC)	2,2	MS9910/904		16						ICV √√
08	BSD	↓	↓		17						-
09	iblk	NA	NA		18						-
10	mb	↓	↓	↓	19	↓				↓	√√
11	MC33464-9	2	MS32776	RCP	20	WTB				<2	√√
12	MC33644-8	1			21						√√
13	MC33645-1	1			22	↓					√√
14	MC33644-1	11			23	GW					√√
15	-4	10			24						√√
16	-5	12			25						√√
17	-7	12			26						√√
18	-3	9			27		↓		↓		√√
19	↓ -2	11			28		500mL		1:10		RR1:5 odil
20	MC33645-2	1			29						RR1:1 odil
21	↓ -4	2			30		↓				RR1:2 odil
22	MC33464-1	2			31		5mL		1:1		√√
23	-2	2			32						√√
24	-3	2			33						√√
25	-4	1			34						√√
26	-5	2			35						√√
27	-6	2			36						√√
28	-7	1			37						√√
29	↓ -8	1			38						√√
30	MC33646-1	6	↓	↓	39	↓					√√
31	Blank	NA	NA	NA	40	NA			↓		√√
32					41				NA		-
33					42						-
34					43						-
35					44						-
36	↓	↓	↓	↓	45	↓	↓	↓	↓	↓	-

= Matrix: Designate **W** for water, **S** for soil, **O** for oil.
ple amount is reported in grams (wet) for soil and oil, mls for water.

1-05 Date: 07/22/13

Review:

Accutest Laboratories of New England, Inc. **Instrument: GCMS N**

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Lot #	Description	Conc
MS9911	8260 cc	200ug/mL
926	cc gas	"
910	bs	
904	bs gas	"
941	TS/SS	125ug/mL

Daily Saved File

Tune file 1:	N90785
Tune file 2:	N/A
Initial Cal:	9/18/14
ID File:	N140918
ICAL Verified:	KD
Sequence verified:	GK

Date: 10/1/14

Batch ID: MSN3359

Analysts JSB

Signature: JB

*Note: If sample matrix is soil – method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
N90784	CC3345-5	2,1	MS9911 2 MS9926 1	8260	15	N/A	5mL	N/A	1:1	N/A	✓
785	bs	3,2	MS9910 3 MS9904 2		16						✓✓ bfb cc/bs
786	bsd	1	1		17						✓
787	lblk	N/A	N/A		18						✓
788	mb	1	1	1	19	1				1	✓✓
789	HC33936-16	2	MS32850	TCL42	20	GW				<2	✓✓
790	1 -14	3	1	1	21						✓✓
791	HC33911-3	2	MS32845	STAR	22						✓✓
792	HC33921-36	3	MS32817	BTX	23						✓✓
793	HC33908-6	5			24		1		1		✓✓
794	1 -4	4	1	1	25		50ml		1:100		✓✓
795	HC33939-1	2	MS32862	STD, MTBE	26		5mL		1:1		✓✓
796	-2	3			27						✓✓
797	-4	2			28						✓✓
798	-5	3			29						✓✓
799	-6	1			30						✓✓
800	-7	2			31						✓✓
801	-8	2			32						✓✓
802	-10	3			33		1		1		✓✓ RR
803	-9	2			34		1mL		1:5		O.D. RR 1:5
804	-11	3			35		5mL		1:1		✓✓ RR
805	-12	2			36		1mL		1:5		✓✓ RR
806	1 -3	1	1	1	37		5mL		1:1		RR 1:1 C.O.
807	HC33936-16ms	2	MS32850	TCL42	38		1mL		1:5		✓✓
808	1 -16msd	2	1	1	39	1	1		1	1	✓✓

MTX = Matrix: Designate W for water, S for soil, O for oil.
Sample amount is reported in grams (wet) for soil and oil, mls for ~~water~~

MS001-05 Date: 07/22/13

Review: 10/1/14

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7.7.2

7

Accutest Laboratories of New England, Inc. **Instrument: GCMS P**

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Lot #	Description	Conc
HS9911	8260 cc	200ug/mL
889	ccgas	
910	bs	
904	bsgas	
912	IS	50ug/mL
895	SS	200ug/mL

Daily Saved File

Tune file 1:	P79735
Tune file 2:	N/A
Initial Cal:	9/12/14
ID File:	P140912
ICAL Verified:	N/A
Sequence verified:	JSB

Date: 9/12/14

Batch ID: MSP2607

Analysts JSB

Signature: JSB

*Note: If sample matrix is soil – method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#282513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
P79735	bfb	1	MS9895	8260	8	N/A	5mL	N/A	1:1	N/A	✓✓
736	ICV2607-0.5	1,2	MS9911 1 MS9869 2		9						✓✓
737	-1				10						✓✓
738	-2				11						✓✓
739	-5				12						✓✓
740	-10				13						✓✓
741	-25				14						✓✓
742	ICC2607-50				15						✓✓
743	ICA2607-100				16						✓✓
744	-200				17						✓✓
745	-400				18						✓✓
746	lblk	N/A	N/A		19						✓
747	lblk				20						✓
748	lblk				21						✓
749	ICV2607-50	1,1	MS9910 1 MS9904 1		22						RR
750	-50				23						
751	lblk	N/A	N/A		24						✓
752	lblk				25						✓
753	lblk				26						✓

9/12/14

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil.
Sample amount is reported in grams (wet) for soil and oil, mls for water.

MS001-05 Date: 07/22/13

Review:

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Accutest Laboratories of New England, Inc. **Instrument: GCMS P**

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Lot #	Description	Conc
MS9911	8260 cc	200ug/mL
889	cc gas	"
910	bs	
904	bs gas	"
880	IS/SS	50ug/mL

Daily Saved File

Tune file 1:	P79759
Tune file 2:	
Initial Cal:	9/12/14
ID File:	P14912
ICAL Verified:	P79759
Sequence verified:	KD

Date: 9/15/14

Batch ID: MSP2608

Analysts JSB

Signature: JSB

*Note: If sample matrix is soil – method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
P79754	lblk	N/A	N/A	8260	1	N/A	5mL	N/A	1:1	N/A	✓
755	lblk	"			2						✓
756	lblk	N/A			3						✓
757	cc2607-50	1,2	MS9911 1 MS9889 2		4						✓
758	bs	1,1	MS9910 1 MS9904 1		5						✓
759	bsd	"	"		6						bfb/cc/icv/bs
760	lblk	N/A	N/A		7						✓
761	mb	"	"		8						✓✓
762	MC33508-1	1	MS32729	RCP	9	WTB				<2	✓✓
763	MC33509-1	1			10	"					✓✓
764	MC33511-1	5			11	GW					✓✓
765	-3	5			12						✓✓
766	-5	5			13						✓✓
767	MC33508-2	1			14						✓✓
768	-4	3			15						RRc1:20✓✓
769	-6	1			16						RRc1:20✓✓
770	-8	1			17						RRc1:1C.O.
771	-10	1			18						RRc1:20✓✓
772	-12	1			19						RRc1:100✓✓
773	-14	1			20						RRc1:20✓✓
774	-16	2			21					72	RRc1:1 C.O.
775	-18	3			22					<2	RRc1:20✓✓
776	-20	2			23						RRc1:100✓✓
777	-22	2			24						RRc1:1C.O.
778	MC33509-2	5			25						"
779	-4	4			26						✓✓
780	-6	4			27						RRc1:20✓✓
781	-8	4			28						RRc1:1C.O.

9/15/14

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil.
Sample amount is reported in grams (wet) for soil and oil, mls for water.

MS001-05 Date: 07/22/13

Review:

ACCUTEST LABORATORIES MC33908

Accutest Laboratories of New England, Inc. **Instrument: GCMS P**

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Lot #	Description	Conc
MS9880	V8260 ISTS	50ug/ml
9911	cc mix	200ug/ml
9926	cc gas	
9910	bs mix	
9927	bs gas	

Daily Saved File

Tune file 1:	P80332
Tune file 2:	
Initial Cal:	9-12-14
ID File:	P140912
ICAL Verified:	P79759
Sequence verified:	KO

Date: 10-3-14

Batch ID: MSP2629

Analysts GK

Signature: Gary Kennedy

*Note: If sample matrix is soil – method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
P80329	blk	—	—	V8260	1	W	5mL	—	1X	—	
30	cc2607-50	3,2	MS9911 9926		2						
31	bs	3,1	MS9910 9927		3						
32	bsd	↓	↓		4						✓✓✓ 10:19am
33	blk	—	—		5						
34	MB		↓	↓	6	↓			↓		✓
35	gp18211-161		TCLP	MS32886	7	S			10X		✓
36	mc33972-1				8				100X		✓
37	↓ 2				9						✓
38	mc34038-1				10						✓
39	2				11						✓
40	3				12						✓
41	↓ 4				13						✓
42	~~gp18211-151~~ EXP	1	MTBE	MS32875	14	W			20X	↓	mc33981-1* ✓
43	mc33981-7	1	BTXm	↓	15				1X	<2	✓
44	mc34017-3	2	BTX	MS32888	16						✓
45	-4	1			17						✓
46	-5	↓	↓	↓	18				↓		✓
47	mc33981-7	MS 3	BTXm	MS32875	19				5X		✓
48	↓ -7	MSD ↓	↓	↓	20				↓	↓	✓
49	gp18211-151	—	TCLP	MS32886	21				100X	—	✓
50	mc33908-7	4	Benz	MS32877	22				20X	<2	✓
51	-8	5			23				↓		✓
52	↓ -11	↓	↓	↓	24						✓
53	mc33984-3	2	BTX	MS32875	25				1X		✓
54	mc34017-2	↓		MS32888	26				↓		20X Benz, EB
55	— -1	3	↓		27				10X	↓	✓ 10:03pm
56	blk	—	—		28				1X	—	
57		↓	↓		29				↓		
58	↓	↓	↓	↓	30	↓	↓	↓	↓	↓	

MTX = Matrix: Designate W for water, S for soil, O for oil.
Sample amount is reported in grams (wet) for soil and oil, mls for water.

MS001-05 Date: 07/22/13

Review:

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Accutest Laboratories of New England, Inc. **Instrument: GCMS U**

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Lot #	Description	Conc
MS9847	V8260 ISS	25ug/ml
9895	SS	200ug/ml
9881	CC MIX	
9860	CC gas	
9886	BS MIX	
9892	BS gas	
9887	BS CXY5	

Daily Saved File

Tune file 1:	U22110
Tune file 2:	—
Initial Cal:	8-29-14
ID File:	U140829w.m
ICAL Verified:	U22123
Sequence verified:	OK

Date: 8-29-14

Batch ID: MSU972

Analysts GK

Signature:

*Note: If sample matrix is soil – method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
U22103	blk	—	V.A	V8260	1	W	5mL	NA	1X	NA	
04	test 0.5	2,2			2						
05	5				3						
06	5				4						
07	400				5						
08	blk	—			6						
09					7						
10	BFB Tune	1	MS9881 9860		8						✓ 2:02pm
11	ic972-0.5	2,2			9						✓
12	-1				10						✓
13	-2				11						✓
14	-5				12						✓
15	-10				13						✓
16	-25				14						✓
17	ICC -50				15						✓
18	-100				16						✓
19	-200				17						✓
20	-400				18						✓
21	blk	—	—		19						✓
22					20						✓
23	ICV972-50	1,1,1	MS9886 9892		21						✓ 7:56pm
24					22						
25	blk	—	—		23						
26					24						
27					25						

MTX = Matrix: Designate W for water, S for soil, O for oil.

Sample amount is reported in grams (wet) for soil and oil, mls for water.

MS001-05 Date: 07/22/13

Review:

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7.7.6

7

Accutest Laboratories of New England, Inc. **Instrument: GCMS U**

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Lot #	Description	Conc
MS 9849	V8260 35155	250ug/ml
9881	CC MIX	200ug/ml
9860	cc gas	
9886	bs mix	
9892	bs gas	
9887	bs oxys	

Daily Saved File

Tune file 1:	U22130
Tune file 2:	—
Initial Cal:	8-29-14
ID File:	U140829w.m
ICAL Verified:	U22123
Sequence verified:	KO

Date: 9-2-14

Batch ID: MSU972

Analysts GK

Signature:

*Note: If sample matrix is soil – method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
U22128	blk	—	—	V8260	1	W	5mL	NA	1X	NA	
29	↓	↓	↓	↓	2	↓	↓	↓	↓	↓	
30	CC972-50	2,2	MS 9881 9860		3						✓✓ 10:22AM
31	bs	1,1,1	MS 9886 9892		4						✓
32	bsd	↓	↓		5						✓
33	blk	—	—		6						
34	MB	↓	↓	↓	7					↓	✓
35	MC33209-10	2	MS32637	SL	8					12	✓
36	↓ -11	3		↓	9						✓
37	MC33223-1	7		STD+MTBE	10						✓
38	-2	8			11						✓
39	-3	↓			12						✓
40	-4	7			13						✓
41	↓ -5	↓		↓	14						✓
42	MC33209-12	2		SL	15						✓
43	MC33251-1	1		MCP	16				↓		✓
44	MC33209-10	MS		SL	17				5X		✓
45	↓ -10	MSD		↓	18				↓		✓
46	MC33251-3	2		MCP	19				1X		✓
47	↓ -2	1		↓	20				5X		clean 1x
48	MC33238-1	2		STD+MTBE	21				1X		✓
49	MC33223-6	8		↓	22				↓		✓
50	MC33251-4	1		MCP	23				↓		✓
51	MC33078-1	3		STAR	24				10X		✓
52	2	1			25				5X		✓
53	3	3			26				10X	↓	200x MP, O
54	↓ 4	4	↓	↓	27				2X	>2	5X out tune overcal
55	blk	—	—	—	28				1X	—	clean
56	↓	↓	↓	↓	29	↓	↓	↓	↓	↓	↓
57	↓	↓	↓	↓	30	↓	↓	↓	↓	↓	↓

MTX = Matrix: Designate W for water, S for soil, O for oil.
Sample amount is reported in grams (wet) for soil and oil, mls for water.

Review:

ACCUTEST LABORATORIES MC33908

Accutest Laboratories of New England, Inc. **Instrument: GCMS U**

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Lot #	Description	Conc
MS9903	V8260 IS/SS	25ug/ml
9911	ccmix	200ug/ml
9926	ccgas	
9910	bsmix	
9927	bsgas	

Daily Saved File

Tune file 1:	U22713
Tune file 2:	
Initial Cal:	8-29-14
ID File:	U140829w.m
ICAL Verified:	U22123
Sequence verified:	

Date: 9-29-14

Batch ID: MSU990

Analysts GK

Signature:

*Note: If sample matrix is soil – method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
U22712	blk	—	—	V8260	1	W	5m~	—	1X	—	
13	CC972-50	31	MS 9911 9926		2						✓✓8:51Am
14	bs	31	MS 9910 9927		3						✓
15	bsd	↓	↓		4						
16	blk	—	—		5						
17	MB	↓	↓	↓	6					↓	✓TB 14of4 targets
18	MC33921-38	3	MS32817	BTX	7					12	✓
19	MC33655-2	1		BTXM	8						✓
20	MC33658-2	↓			9						✓
21	MC33659-2	2			10						✓
22	MC33660-2				11						✓
23	MC33661-2	↓			12						✓
24	MC33655-1	4			13						✓
25	MC33658-1	↓			14						✓
26	MC33659-1	5			15						✓
27	MC33660-1	4			16						✓
28	MC33661-1	4		↓	17						✓
29	MC33908-3	10		BTX	18						✓
30	MC33921-33	3			19						✓
31	↓ -34	2			20						✓
32	MC33908-5	4			21						✓
33	-2	2			22				↓		✓
34	-3	MS 13/14/15			23						✓
35	-3	MSD			24				↓		✓
36	MC33921-36	2			25				5X		1X heavy %D
37	↓ -35	↓			26						✓
38	MC33908-4	5			27					↓	100X benzene
39	↓ -6	6		↓	28				↓	>2	1X heavy %D
40	blk	—		—	29				1X	—	
41					30						
↓ 42	↓	↓	↓	↓	31	↓	↓	↓	↓	↓	

MTX = Matrix: Designate W for water, S for soil, O for oil.
Sample amount is reported in grams (wet) for soil and oil, mls for water.

MS001-05 Date: 07/22/13

Review:

ACCUTEST LABORATORIES MC33908

Accutest Laboratories of New England, Inc. **Instrument: GCMS U**

VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Lot #	Description	Conc
MS9903	V8260 18/53	250
9910	03	200
9927	03 GAS	L

Daily Saved File

Tune file 1:	V22755
Tune file 2:	N/A
Initial Cal:	8/29/14
ID File:	V140829s2.M
ICAL Verified:	V22112
Sequence verified:	GK

Date: 10/2/14

Batch ID: MSV992

Analysts: II

Signature:

*Note: If sample matrix is soil -- method SW846 5035 used for preparation. SW846 5030 is purge and trap method for soil and water

pH paper LOT#202513 exp: 1/15/2016

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	% Sol	Dil. Fact.	pH	Comments
V22755	IBLK2				1	W	5ml	—	1:1		
56	CC972-50/DX				2						✓✓
57	DSH				3						✓✓
58	IBLK2				4						
59	MH				5						✓✓
60	MC33871-9	9	MS32871	DTEXM	6					CL	✓✓
61	10	10			7						✓✓
62	MC33908-14	14		DTEX	8						✓✓
63	MC33944-6	3		DTEXMT	9						✓✓
64	7	5			10						✓✓
65	MC33861-3	3		DTEXCRTEX	11						✓✓
66	6	3			12						✓✓
67	MC33908-9	6		DTEX	13						✓✓
68	10	4			14					22	✓✓
69	12	4			15					CL	✓✓
70	13	4			16						✓✓
71	MC33861-2	3		DTEXMTEX	17						✓✓
72	1	3		DTEXMX	18						✓✓
73	5	5			19						✓✓
74	4	4			20						✓✓
75	MC33908-8	6		DTEX	21						1:10 RE
76	11	4			22						1:10 RE
77	7	5			23		↓		↓		1:10 RE
78	4MS				24		5ml		1:5		✓✓
79	4MD				25		5ml		1:5	✓	✓ ISV RR
80	IBLK2	—	—	—	26		5ml		1:1		
81					27						
82					28						
83					29						
84	↓	↓	↓	↓	30	↓	↓	↓	↓		

MTX = Matrix: Designate W for water, S for soil, O for oil.
Sample amount is reported in grams (wet) for soil and oil, mls for water.

MS001-05 Date: 07/22/13

Review:

ACCUTEST LABORATORIES MC33908

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP39993-MB	F76567.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC33908-1, MC33908-3, MC33908-4, MC33908-5, MC33908-6, MC33908-7, MC33908-8, MC33908-9, MC33908-10, MC33908-11, MC33908-12, MC33908-13

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.0	0.32	ug/l	
208-96-8	Acenaphthylene	ND	2.0	0.21	ug/l	
120-12-7	Anthracene	ND	2.0	0.19	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.0	0.49	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.0	0.16	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.0	0.25	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	0.83	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.0	0.87	ug/l	
218-01-9	Chrysene	ND	2.0	0.17	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	0.64	ug/l	
206-44-0	Fluoranthene	ND	2.0	0.45	ug/l	
86-73-7	Fluorene	ND	2.0	0.21	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	0.82	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.26	ug/l	
91-20-3	Naphthalene	ND	2.0	0.30	ug/l	
85-01-8	Phenanthrene	ND	2.0	0.14	ug/l	
129-00-0	Pyrene	ND	2.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	67%	30-130%
321-60-8	2-Fluorobiphenyl	65%	30-130%
1718-51-0	Terphenyl-d14	83%	30-130%

Blank Spike Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP39993-BS	F76568.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC33908-1, MC33908-3, MC33908-4, MC33908-5, MC33908-6, MC33908-7, MC33908-8, MC33908-9, MC33908-10, MC33908-11, MC33908-12, MC33908-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	48.1	96	40-140
208-96-8	Acenaphthylene	50	44.7	89	40-140
120-12-7	Anthracene	50	47.8	96	40-140
56-55-3	Benzo(a)anthracene	50	54.6	109	40-140
50-32-8	Benzo(a)pyrene	50	50.2	100	40-140
205-99-2	Benzo(b)fluoranthene	50	54.5	109	40-140
191-24-2	Benzo(g,h,i)perylene	50	55.0	110	40-140
207-08-9	Benzo(k)fluoranthene	50	47.5	95	40-140
218-01-9	Chrysene	50	50.0	100	40-140
53-70-3	Dibenzo(a,h)anthracene	50	57.0	114	40-140
206-44-0	Fluoranthene	50	53.3	107	40-140
86-73-7	Fluorene	50	51.6	103	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	49.1	98	40-140
91-57-6	2-Methylnaphthalene	50	43.9	88	40-140
91-20-3	Naphthalene	50	41.6	83	40-140
85-01-8	Phenanthrene	50	49.7	99	40-140
129-00-0	Pyrene	50	50.1	100	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	78%	30-130%
321-60-8	2-Fluorobiphenyl	75%	30-130%
1718-51-0	Terphenyl-d14	87%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP39993-MS	F76569.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
OP39993-MSD	F76570.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
MC33908-3	F76571.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358

The QC reported here applies to the following samples: **Method:** SW846 8270D

MC33908-1, MC33908-3, MC33908-4, MC33908-5, MC33908-6, MC33908-7, MC33908-8, MC33908-9, MC33908-10, MC33908-11, MC33908-12, MC33908-13

CAS No.	Compound	MC33908-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		55.6	36.8	66	56.8	50.6	89	32* [a]	40-140/20
208-96-8	Acenaphthylene	ND		55.6	34.2	62	56.8	47.5	84	33* [a]	40-140/20
120-12-7	Anthracene	ND		55.6	46.8	84	56.8	50.0	88	7	40-140/20
56-55-3	Benzo(a)anthracene	ND		55.6	52.0	94	56.8	54.6	96	5	40-140/20
50-32-8	Benzo(a)pyrene	ND		55.6	48.4	87	56.8	51.7	91	7	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		55.6	54.4	98	56.8	56.0	99	3	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		55.6	52.5	95	56.8	55.8	98	6	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		55.6	44.7	80	56.8	48.8	86	9	40-140/20
218-01-9	Chrysene	ND		55.6	48.0	86	56.8	50.5	89	5	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		55.6	54.9	99	56.8	58.4	103	6	40-140/20
206-44-0	Fluoranthene	ND		55.6	52.7	95	56.8	56.4	99	7	40-140/20
86-73-7	Fluorene	ND		55.6	43.4	78	56.8	53.6	94	21* [a]	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		55.6	47.4	85	56.8	49.5	87	4	40-140/20
91-57-6	2-Methylnaphthalene	ND		55.6	32.0	58	56.8	46.0	81	36* [a]	40-140/20
91-20-3	Naphthalene	ND		55.6	31.6	57	56.8	44.3	78	33* [a]	40-140/20
85-01-8	Phenanthrene	ND		55.6	48.4	87	56.8	52.5	92	8	40-140/20
129-00-0	Pyrene	ND		55.6	48.5	87	56.8	50.6	89	4	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC33908-3	Limits
4165-60-0	Nitrobenzene-d5	53%	76%	68%	30-130%
321-60-8	2-Fluorobiphenyl	54%	75%	69%	30-130%
1718-51-0	Terphenyl-d14	71%	77%	82%	30-130%

(a) High RPD due to possible matrix interference and/or sample heterogeneity.

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3320-DFTPP
Lab File ID: F75538.D
Instrument ID: GCMSF
Injection Date: 08/25/14
Injection Time: 16:05

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	33576	53.7		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	32680	52.3		Pass
70	Less than 2.0% of mass 69	170	0.27	(0.52) [a]	Pass
127	40.0 - 60.0% of mass 198	34320	54.9		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	62472	100.0		Pass
199	5.0 - 9.0% of mass 198	5334	8.54		Pass
275	10.0 - 30.0% of mass 198	15115	24.2		Pass
365	1.0 - 100.0% of mass 198	1342	2.15		Pass
441	Present, but less than mass 443	6548	10.5	(92.9) [b]	Pass
442	40.0 - 100.0% of mass 198	34520	55.3		Pass
443	17.0 - 23.0% of mass 442	7051	11.3	(20.4) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSF3355-IC3355	F75541A.D	08/25/14	17:34	01:29	Initial cal 2
MSF3320-IC3320	F75541.D	08/25/14	17:34	01:29	Initial cal 2
MSF3355-IC3355	F75542A.D	08/25/14	17:57	01:52	Initial cal 5
MSF3320-IC3320	F75542.D	08/25/14	17:57	01:52	Initial cal 5
MSF3355-IC3355	F75543A.D	08/25/14	18:20	02:15	Initial cal 10
MSF3320-IC3320	F75543.D	08/25/14	18:20	02:15	Initial cal 10
MSF3320-IC3320	F75544.D	08/25/14	18:43	02:38	Initial cal 20
MSF3355-IC3355	F75544A.D	08/25/14	18:43	02:38	Initial cal 20
MSF3320-ICC3320	F75545.D	08/25/14	19:06	03:01	Initial cal 50
MSF3355-ICC3355	F75545A.D	08/25/14	19:06	03:01	Initial cal 50
MSF3320-IC3320	F75546.D	08/25/14	19:29	03:24	Initial cal 80
MSF3355-IC3355	F75546A.D	08/25/14	19:29	03:24	Initial cal 80
MSF3355-IC3355	F75547A.D	08/25/14	19:52	03:47	Initial cal 120
MSF3320-IC3320	F75547.D	08/25/14	19:52	03:47	Initial cal 120
MSF3320-IC3320	F75548.D	08/25/14	20:15	04:10	Initial cal 160
MSF3355-IC3355	F75548A.D	08/25/14	20:15	04:10	Initial cal 160
MSF3355-ICV3355	F75549A.D	08/25/14	20:38	04:33	Initial cal verification 50
MSF3320-ICV3320	F75549.D	08/25/14	20:38	04:33	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3358-DFTPP
Lab File ID: F76561.D
Instrument ID: GCMSF
Injection Date: 10/02/14
Injection Time: 07:44

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	50269	40.4		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	51933	41.8		Pass
70	Less than 2.0% of mass 69	183	0.15	(0.35) [a]	Pass
127	40.0 - 60.0% of mass 198	55853	44.9		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	124275	100.0		Pass
199	5.0 - 9.0% of mass 198	8542	6.87		Pass
275	10.0 - 30.0% of mass 198	35661	28.7		Pass
365	0.8 - 100.0% of mass 198	3537	2.85		Pass
441	Present, but less than mass 443	14949	12.0	(69.0) [b]	Pass
442	40.0 - 100.0% of mass 198	110080	88.6		Pass
443	17.0 - 23.0% of mass 442	21669	17.4	(19.7) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSF3358-CC3320	F76562.D	10/02/14	08:07	00:23	Continuing cal 50
ZZZZZZ	F76563.D	10/02/14	08:30	00:46	(unrelated sample)
ZZZZZZ	F76564.D	10/02/14	08:53	01:09	(unrelated sample)
ZZZZZZ	F76565.D	10/02/14	09:16	01:32	(unrelated sample)
ZZZZZZ	F76566.D	10/02/14	09:39	01:55	(unrelated sample)
OP39993-MB	F76567.D	10/02/14	10:02	02:18	Method Blank
OP39993-BS	F76568.D	10/02/14	10:25	02:41	Blank Spike
OP39993-MS	F76569.D	10/02/14	10:48	03:04	Matrix Spike
OP39993-MSD	F76570.D	10/02/14	11:11	03:27	Matrix Spike Duplicate
MC33908-3	F76571.D	10/02/14	11:34	03:50	MW-13R
MC33908-1	F76572.D	10/02/14	11:57	04:13	MW-15
MC33908-4	F76573.D	10/02/14	12:20	04:36	MW-12R
MC33908-5	F76574.D	10/02/14	12:43	04:59	MW-16R
MC33908-6	F76575.D	10/02/14	13:06	05:22	MW-9
MC33908-7	F76576.D	10/02/14	13:29	05:45	MW-8R
MC33908-8	F76577.D	10/02/14	13:52	06:08	MW-10R
MC33908-9	F76578.D	10/02/14	14:15	06:31	MW-11
MC33908-10	F76579.D	10/02/14	14:38	06:54	MW-4R
MC33908-11	F76580.D	10/02/14	15:01	07:17	NGO-DUP092314

Instrument Performance Check (DFTPP)

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample:	MSF3358-DFTPP	**Injection Date:**	10/02/14
Lab File ID:	F76561.D	**Injection Time:**	07:44
Instrument ID:	GCMSF		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MC33908-12	F76581.D	10/02/14	15:24	07:40	MW-14R
MC33908-13	F76582.D	10/02/14	15:47	08:03	MW-17
ZZZZZZ	F76583.D	10/02/14	16:10	08:26	(unrelated sample)
ZZZZZZ	F76584.D	10/02/14	16:33	08:49	(unrelated sample)
ZZZZZZ	F76585.D	10/02/14	16:56	09:12	(unrelated sample)
OP40038-MB	F76586.D	10/02/14	17:19	09:35	Method Blank
OP40038-BS	F76587.D	10/02/14	17:42	09:58	Blank Spike
OP40038-MS	F76588.D	10/02/14	18:05	10:21	Matrix Spike
OP40038-MSD	F76589.D	10/02/14	18:28	10:44	Matrix Spike Duplicate
MC33928-1	F76590.D	10/02/14	18:51	11:07	(used for QC only; not part of job MC33908)
ZZZZZZ	F76591.D	10/02/14	19:14	11:30	(unrelated sample)
ZZZZZZ	F76592.D	10/02/14	19:37	11:53	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-DFTPP
Lab File ID: R39637.D
Instrument ID: GCMSR
Injection Date: 09/11/14
Injection Time: 10:51

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	128280	45.2		Pass
68	Less than 2.0% of mass 69	1682	0.59	(1.35) [a]	Pass
69	Mass 69 relative abundance	124608	43.9		Pass
70	Less than 2.0% of mass 69	582	0.21	(0.47) [a]	Pass
127	40.0 - 60.0% of mass 198	139584	49.2		Pass
197	Less than 1.0% of mass 198	1108	0.39		Pass
198	Base peak, 100% relative abundance	283776	100.0		Pass
199	5.0 - 9.0% of mass 198	18784	6.62		Pass
275	10.0 - 30.0% of mass 198	58872	20.7		Pass
365	1.0 - 100.0% of mass 198	6790	2.39		Pass
441	Present, but less than mass 443	24504	8.63	(87.0) [b]	Pass
442	40.0 - 100.0% of mass 198	151744	53.5		Pass
443	17.0 - 23.0% of mass 442	28160	9.92	(18.6) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSR1461-IC1461	R39638.D	09/11/14	11:30	00:39	Initial cal 2
MSR1461-IC1461	R39639.D	09/11/14	11:55	01:04	Initial cal 5
MSR1461-IC1461	R39640.D	09/11/14	12:19	01:28	Initial cal 10
MSR1461-IC1461	R39641.D	09/11/14	12:43	01:52	Initial cal 20
MSR1461-ICC1461	R39642.D	09/11/14	13:08	02:17	Initial cal 50
MSR1461-IC1461	R39643.D	09/11/14	13:32	02:41	Initial cal 80
MSR1461-IC1461	R39644.D	09/11/14	13:56	03:05	Initial cal 120
MSR1461-IC1461	R39645.D	09/11/14	14:21	03:30	Initial cal 160
MSR1461-ICV1461	R39648A.D	09/11/14	15:40	04:49	Initial cal verification 50
OP39764-MB	R39649.D	09/11/14	16:03	05:12	Method Blank
OP39764-BS	R39650.D	09/11/14	16:27	05:36	Blank Spike
ZZZZZZ	R39651.D	09/11/14	16:52	06:01	(unrelated sample)
ZZZZZZ	R39652.D	09/11/14	17:16	06:25	(unrelated sample)
ZZZZZZ	R39653.D	09/11/14	17:40	06:49	(unrelated sample)
ZZZZZZ	R39654.D	09/11/14	18:05	07:14	(unrelated sample)
ZZZZZZ	R39655.D	09/11/14	18:29	07:38	(unrelated sample)
OP39750-MB	R39656.D	09/11/14	18:53	08:02	Method Blank
OP39750-BS	R39657.D	09/11/14	19:18	08:27	Blank Spike
OP39750-MS	R39658.D	09/11/14	19:42	08:51	Matrix Spike

Instrument Performance Check (DFTPP)

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample:	MSR1461-DFTPP	**Injection Date:**	09/11/14
Lab File ID:	R39637.D	**Injection Time:**	10:51
Instrument ID:	GCMSR		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
OP39750-MSD	R39659.D	09/11/14	20:06	09:15	Matrix Spike Duplicate
MC33200-17	R39660.D	09/11/14	20:31	09:40	(used for QC only; not part of job MC33908)
ZZZZZZ	R39661.D	09/11/14	20:55	10:04	(unrelated sample)
ZZZZZZ	R39662.D	09/11/14	21:19	10:28	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1476-DFTPP
Lab File ID: R40111.D
Instrument ID: GCMSR
Injection Date: 10/03/14
Injection Time: 14:00

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	112761	32.6		Pass
68	Less than 2.0% of mass 69	1813	0.52	(1.40) [a]	Pass
69	Mass 69 relative abundance	129443	37.5		Pass
70	Less than 2.0% of mass 69	683	0.20	(0.53) [a]	Pass
127	40.0 - 60.0% of mass 198	163403	47.3		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	345557	100.0		Pass
199	5.0 - 9.0% of mass 198	23071	6.68		Pass
275	10.0 - 30.0% of mass 198	83024	24.0		Pass
365	1.0 - 100.0% of mass 198	9692	2.80		Pass
441	Present, but less than mass 443	44525	12.9	(81.1) [b]	Pass
442	40.0 - 100.0% of mass 198	283307	82.0		Pass
443	17.0 - 23.0% of mass 442	54917	15.9	(19.4) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MSR1476-CC1461	R40114.D	10/03/14	14:50	00:50	Continuing cal 50
OP40066-MB	R40115.D	10/03/14	15:16	01:16	Method Blank
OP40066-LB	R40115A.D	10/03/14	15:16	01:16	Leachate Blank
OP40066-BS	R40116.D	10/03/14	15:41	01:41	Blank Spike
OP40066-MS	R40117.D	10/03/14	16:06	02:06	Matrix Spike
OP40066-MSD	R40118.D	10/03/14	16:31	02:31	Matrix Spike Duplicate
MC33972-1	R40119.D	10/03/14	16:56	02:56	(used for QC only; not part of job MC33908)
ZZZZZZ	R40120.D	10/03/14	17:21	03:21	(unrelated sample)
ZZZZZZ	R40121.D	10/03/14	17:46	03:46	(unrelated sample)
ZZZZZZ	R40122.D	10/03/14	18:10	04:10	(unrelated sample)
ZZZZZZ	R40123.D	10/03/14	18:35	04:35	(unrelated sample)
ZZZZZZ	R40124.D	10/03/14	18:59	04:59	(unrelated sample)
OP40045-MB	R40125.D	10/03/14	19:24	05:24	Method Blank
OP40045-BS	R40126.D	10/03/14	19:48	05:48	Blank Spike
OP40045-MS	R40127.D	10/03/14	20:13	06:13	Matrix Spike
OP40045-MSD	R40128.D	10/03/14	20:37	06:37	Matrix Spike Duplicate
MC33992-3	R40129.D	10/03/14	21:02	07:02	(used for QC only; not part of job MC33908)
ZZZZZZ	R40130.D	10/03/14	21:26	07:26	(unrelated sample)
ZZZZZZ	R40131.D	10/03/14	21:50	07:50	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample:	MSR1476-DFTPP	**Injection Date:**	10/03/14
Lab File ID:	R40111.D	**Injection Time:**	14:00
Instrument ID:	GCMSR		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	R40132.D	10/03/14	22:15	08:15	(unrelated sample)
ZZZZZZ	R40133.D	10/03/14	22:39	08:39	(unrelated sample)
ZZZZZZ	R40134.D	10/03/14	23:04	09:04	(unrelated sample)
ZZZZZZ	R40135.D	10/03/14	23:28	09:28	(unrelated sample)
ZZZZZZ	R40136.D	10/03/14	23:53	09:53	(unrelated sample)
ZZZZZZ	R40137.D	10/04/14	00:18	10:18	(unrelated sample)
MC33908-6	R40138.D	10/04/14	00:43	10:43	MW-9
ZZZZZZ	R40139.D	10/04/14	01:07	11:07	(unrelated sample)

Semivolatile Internal Standard Area Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std: MSF3358-CC3320 **Injection Date:** 10/02/14
Lab File ID: F76562.D **Injection Time:** 08:07
Instrument ID: GCMSF **Method:** SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	110915	3.18	414492	4.21	246185	5.70	429117	6.94	484765	9.25	456368	10.70
Upper Limit [a]	221830	3.68	828984	4.71	492370	6.20	858234	7.44	969530	9.75	912736	11.20
Lower Limit [b]	55458	2.68	207246	3.71	123093	5.20	214559	6.44	242383	8.75	228184	10.20
Lab Sample ID	**IS 1 AREA**	**RT**	**IS 2 AREA**	**RT**	**IS 3 AREA**	**RT**	**IS 4 AREA**	**RT**	**IS 5 AREA**	**RT**	**IS 6 AREA**	**RT**
ZZZZZZ	142754	3.18	524352	4.20	305762	5.69	513866	6.94	532804	9.24	507961	10.70
ZZZZZZ	143682	3.18	518106	4.21	310631	5.69	514984	6.94	552605	9.25	597755	10.71
ZZZZZZ	135482	3.18	486704	4.21	289810	5.70	498861	6.94	550932	9.25	600253	10.71
ZZZZZZ	127075	3.18	459976	4.21	279349	5.69	467265	6.94	525321	9.24	569588	10.70
OP39993-MB	129407	3.18	476712	4.21	297042	5.70	516197	6.94	601458	9.24	622556	10.70
OP39993-BS	135414	3.18	497447	4.21	305750	5.70	544559	6.94	623013	9.25	644770	10.70
OP39993-MS	138076	3.18	504841	4.21	310232	5.70	544539	6.94	633339	9.25	646499	10.70
OP39993-MSD	128250	3.18	467010	4.21	287204	5.70	511968	6.94	599848	9.25	609185	10.70
MC33908-3	118086	3.18	439437	4.21	269625	5.70	477248	6.94	542207	9.24	563603	10.70
MC33908-1	125051	3.18	457820	4.21	280011	5.70	494491	6.94	571099	9.24	580326	10.70
MC33908-4	125354	3.18	456976	4.21	283124	5.69	496543	6.94	568044	9.24	575214	10.70
MC33908-5	125038	3.18	461125	4.21	284057	5.69	496116	6.94	568731	9.24	588589	10.70
MC33908-6	120517	3.18	455495	4.21	276592	5.70	483276	6.94	567215	9.24	583144	10.70
MC33908-7	116085	3.18	428207	4.21	263843	5.69	462320	6.94	530782	9.24	551524	10.70
MC33908-8	113348	3.18	418960	4.21	256701	5.69	444621	6.94	547689	9.24	541003	10.70
MC33908-9	116813	3.18	426971	4.20	266588	5.69	467062	6.94	537841	9.24	545704	10.70
MC33908-10	121640	3.18	444630	4.21	278300	5.70	487035	6.94	561813	9.24	590014	10.70
MC33908-11	119115	3.18	444161	4.21	270474	5.70	476144	6.94	555920	9.24	574113	10.70
MC33908-12	119643	3.18	442878	4.20	266102	5.69	470313	6.94	549950	9.24	568090	10.70
MC33908-13	111915	3.18	411935	4.21	250889	5.70	441876	6.94	509930	9.24	520630	10.70
ZZZZZZ	118304	3.19	437124	4.22	265154	5.70	467465	6.94	535426	9.24	565015	10.70
ZZZZZZ	118186	3.18	432539	4.21	274636	5.70	481478	6.95	547311	9.24	557950	10.70
ZZZZZZ	117632	3.18	438039	4.21	268390	5.70	464967	6.94	528269	9.24	550865	10.70
OP40038-MB	122639	3.18	449780	4.20	274271	5.69	469739	6.94	556728	9.24	569826	10.70
OP40038-BS	116910	3.18	432602	4.21	261441	5.70	456005	6.94	545614	9.25	558314	10.70
OP40038-MS	116043	3.18	429551	4.21	255390	5.70	449433	6.94	533466	9.24	556260	10.70
OP40038-MSD	120850	3.18	433306	4.21	264950	5.70	456126	6.94	530622	9.25	554984	10.70
MC33928-1	123010	3.18	441314	4.20	270901	5.69	477453	6.94	543581	9.24	570530	10.70
ZZZZZZ	118135	3.18	434587	4.21	263706	5.69	460529	6.94	537433	9.24	562218	10.70
ZZZZZZ	115789	3.18	417089	4.20	257145	5.69	448312	6.94	525885	9.24	548865	10.70

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10

Semivolatile Internal Standard Area Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std:	MSF3358-CC3320	**Injection Date:**	10/02/14
Lab File ID:	F76562.D	**Injection Time:**	08:07
Instrument ID:	GCMSF	**Method:**	SW846 8270D

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT

IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

8.5.1

8

Semivolatile Internal Standard Area Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std: MSR1476-CC1461 **Injection Date:** 10/03/14
Lab File ID: R40114.D **Injection Time:** 14:50
Instrument ID: GCMSR **Method:** SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	309149	4.42	1148430	5.51	680155	7.03	1136288	8.31	1187780	10.66	1074085	12.16
Upper Limit [a]	618298	4.92	2296860	6.01	1360310	7.53	2272576	8.81	2375560	11.16	2148170	12.66
Lower Limit [b]	154575	3.92	574215	5.01	340078	6.53	568144	7.81	593890	10.16	537043	11.66
Lab Sample ID	**IS 1 AREA**	**RT**	**IS 2 AREA**	**RT**	**IS 3 AREA**	**RT**	**IS 4 AREA**	**RT**	**IS 5 AREA**	**RT**	**IS 6 AREA**	**RT**
OP40066-MB	400428	4.41	1464891	5.51	874747	7.03	1455629	8.31	1473122	10.65	1359638	12.16
OP40066-LB	400428	4.41	1464891	5.51	874747	7.03	1455629	8.31	1473122	10.65	1359638	12.16
OP40066-BS	395024	4.41	1444601	5.51	847260	7.03	1410061	8.31	1431891	10.66	1311357	12.17
OP40066-MS	371592	4.41	1372073	5.51	827014	7.03	1395893	8.31	1454458	10.66	1339128	12.17
OP40066-MSD	361337	4.42	1332940	5.51	791307	7.03	1326978	8.31	1336602	10.66	1239305	12.16
MC33972-1	375560	4.41	1372407	5.51	799968	7.03	1329993	8.30	1269898	10.65	1177836	12.16
ZZZZZZ	390875	4.41	1447920	5.51	858385	7.03	1415647	8.30	1371414	10.65	1287775	12.16
ZZZZZZ	360380	4.42	1316509	5.51	794480	7.03	1194253	8.32	1375763	10.67	1484089	12.19
ZZZZZZ	384574	4.42	1373989	5.51	800356	7.03	1126108	8.32	1347045	10.68	1485822	12.20
ZZZZZZ	343783	4.42	1253719	5.51	740359	7.03	1224131	8.31	1220371	10.66	1202375	12.17
ZZZZZZ	352127	4.42	1304868	5.51	768453	7.03	1298742	8.31	1303182	10.66	1257936	12.17
OP40045-MB	341644	4.42	1246896	5.51	732760	7.03	1194664	8.31	1166321	10.65	1121477	12.17
OP40045-BS	340727	4.42	1259993	5.51	745371	7.03	1265383	8.31	1293500	10.66	1184663	12.17
OP40045-MS	353259	4.42	1300433	5.51	761264	7.03	1275517	8.31	1270540	10.66	1172516	12.17
OP40045-MSD	374463	4.42	1359028	5.51	786823	7.03	1300855	8.31	1288921	10.66	1187915	12.17
MC33992-3	326999	4.42	1219450	5.51	709989	7.03	1136846	8.31	1094023	10.65	1042837	12.16
ZZZZZZ	320478	4.42	1177864	5.51	692194	7.03	1146356	8.31	1124519	10.65	1065684	12.16
ZZZZZZ	338703	4.42	1254391	5.51	724708	7.03	1221210	8.31	1168479	10.65	1110110	12.16
ZZZZZZ	367570	4.41	1344471	5.51	782188	7.03	1286412	8.31	1243171	10.65	1179061	12.17
ZZZZZZ	376822	4.41	1363064	5.51	793664	7.03	1291814	8.31	1225803	10.65	1179853	12.17
ZZZZZZ	357034	4.43	1295835	5.51	754197	7.03	1228154	8.31	1150563	10.65	1103137	12.16
ZZZZZZ	377784	4.42	1366438	5.51	775256	7.03	1249967	8.31	1192891	10.65	1148997	12.17
ZZZZZZ	354055	4.41	1283652	5.51	751261	7.03	1222065	8.31	1190555	10.65	1148478	12.17
ZZZZZZ	353285	4.41	1283362	5.51	738448	7.03	1198554	8.31	1171846	10.65	1101568	12.16
MC33908-6	339842	4.41	1249389	5.51	716974	7.03	1167324	8.31	1135901	10.65	1078161	12.16
ZZZZZZ	322294	4.42	1204416	5.51	723472	7.03	1188442	8.31	1171954	10.65	1098770	12.16

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Check Std:	MSR1476-CC1461	**Injection Date:**	10/03/14
Lab File ID:	R40114.D	**Injection Time:**	14:50
Instrument ID:	GCMSR	**Method:**	SW846 8270D

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Method: SW846 8270D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC33908-1	F76572.D	57	60	85
MC33908-3	F76571.D	68	69	82
MC33908-4	F76573.D	77	73	71
MC33908-5	F76574.D	60	53	74
MC33908-6	R40138.D	78	71	69
MC33908-6	F76575.D	70	62	64
MC33908-7	F76576.D	53	48	75
MC33908-8	F76577.D	67	59	75
MC33908-9	F76578.D	68	61	58
MC33908-10	F76579.D	50	50	51
MC33908-11	F76580.D	60	57	58
MC33908-12	F76581.D	69	66	57
MC33908-13	F76582.D	57	53	58
OP39993-BS	F76568.D	78	75	87
OP39993-MB	F76567.D	67	65	83
OP39993-MS	F76569.D	53	54	71
OP39993-MSD	F76570.D	76	75	77

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	30-130%
S2 = 2-Fluorobiphenyl	30-130%
S3 = Terphenyl-d14	30-130%

Initial Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3320-ICC3320
Lab FileID: F75545.D

Response Factor Report MSF

Method : W:\2\METHODS\F140825_8270.m (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Thu Sep 04 10:01:23 2014
Response via : Initial Calibration

Calibration Files
50 =f75545.D 5 =f75542.D 10 =f75543.D 20 =f75544.D
80 =f75546.D 2 =f75541.D 120 =f75547.D 160 =f75548.D

Compound	50	5	10	20	80	2	120	160	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	ISTD									
2) N-Nitrosodim	0.940	0.835	0.850	0.921	0.913	0.749	0.922	0.885	0.877	7.23
3) 1,4-Dioxane	0.630	0.554	0.577	0.609	0.604	0.534	0.620	0.612	0.592	5.71
4) Pyridine	1.693	1.375	1.555	1.658	1.634	1.361	1.637	1.583	1.562	8.14
5) Aniline	2.213	1.827	1.941	2.181	2.127		2.161	2.045	2.071	6.85
6) 2-Fluorophen	1.369	1.234	1.232	1.330	1.362	1.201	1.376	1.347	1.307	5.49
7) bis(2-Chloro	1.349	1.247	1.205	1.295	1.309	1.145	1.298	1.266	1.264	5.12
8) Phenol-d5	1.654	1.615	1.493	1.678	1.624	1.490	1.713	1.642	1.614	5.04
9) Phenol	1.824	1.711	1.663	1.817	1.797	1.501	1.807	1.730	1.731	6.33
10) 2-Chlorophen	1.447	1.350	1.295	1.432	1.406	1.222	1.442	1.369	1.370	5.80
11) 1,3-Dichloro	1.600	1.553	1.458	1.582	1.542	1.353	1.572	1.507	1.521	5.37
12) 1,4-Dichloro	1.660	1.505	1.521	1.596	1.597	1.413	1.610	1.568	1.559	4.94
13) 1,2-Dichloro	1.513	1.451	1.397	1.511	1.498	1.349	1.496	1.439	1.457	4.09
14) Benzyl alcoh	0.966	0.893	0.878	0.959	0.957	0.834	0.969	0.938	0.924	5.40
15) bis(2-chloro	1.714	1.758	1.599	1.701	1.625	1.702	1.647	1.578	1.665	3.77
16) o-cresol	1.342	1.227	1.254	1.326	1.315	1.075	1.341	1.266	1.268	7.02
17) Acetophenone	2.018	1.865	1.832	2.061	2.022	1.737	2.092	1.973	1.950	6.41
18) Hexachloroet	0.589	0.554	0.538	0.568	0.578	0.526	0.586	0.563	0.563	3.97
19) N-Nitroso-di	0.981	0.920	0.868	0.977	0.963	0.847	0.980	0.922	0.932	5.63
20) m+p-cresols	1.410	1.308	1.252	1.386	1.389	1.240	1.424	1.347	1.344	5.27
21) 4-methylphen	1.410	1.308	1.252	1.386	1.389	1.240	1.424	1.347	1.344	5.27
22) I Naphthalene-d8	ISTD									
23) Nitrobenzene	0.389	0.367	0.359	0.389	0.400	0.357	0.407	0.387	0.382	4.89
24) Nitrobenzene	0.392	0.384	0.377	0.388	0.403	0.366	0.391	0.376	0.385	2.98
25) Isophorone	0.699	0.668	0.647	0.705	0.708	0.599	0.700	0.659	0.673	5.59
26) 2-Nitropheno	0.207	0.184	0.181	0.198	0.216	0.153	0.216	0.205	0.195	11.02
27) 2,4-Dimethyl	0.383	0.363	0.369	0.384	0.386	0.344	0.382	0.360	0.371	4.03
28) bis(2-Chloro	0.439	0.407	0.402	0.431	0.435	0.386	0.435	0.406	0.417	4.73
29) Benzoic acid	0.304		0.187	0.277	0.289		0.273	0.267	0.266	15.37
30) 2,4-Dichloro	0.314	0.288	0.295	0.319	0.322	0.267	0.322	0.304	0.304	6.44
31) 1,2,4-Trichl	0.344	0.331	0.323	0.336	0.349	0.294	0.342	0.326	0.331	5.23
32) Naphthalene	1.064	1.015	0.999	1.058	1.070	0.942	1.052	0.999	1.025	4.31
33) 2,6-Dichloro	0.326	0.298	0.285	0.310	0.326		0.323	0.304	0.310	5.06
34) 4-Chloroanil	0.459	0.375	0.398	0.457	0.469		0.461	0.440	0.437	8.31
35) Hexachlorobu	0.188	0.176	0.179	0.187	0.192	0.162	0.191	0.179	0.182	5.52
36) 4-Chloro-3-m	0.330	0.315	0.290	0.327	0.335	0.288	0.334	0.318	0.317	5.86
37) 2-Methylnaph	0.742	0.687	0.694	0.750	0.759	0.652	0.744	0.701	0.716	5.30
38) 1-methylnaph	0.689	0.628	0.624	0.700	0.701	0.641	0.708	0.671	0.670	5.16
39) I Acenaphthene-d10	ISTD									
40) Hexachlorocy	0.340	0.275	0.283	0.320	0.340	0.249	0.333	0.327	0.308	11.24
41) 1,2,4,5-Tetr	0.592	0.578	0.555	0.601	0.600	0.545	0.594	0.579	0.581	3.58
42) 2,4,6-Trichl	0.397	0.359	0.351	0.377	0.393	0.296	0.388	0.384	0.368	9.07
43) 2,4,5-Trichl	0.422	0.384	0.377	0.410	0.434	0.353	0.422	0.409	0.401	6.89
44) 2-Fluorobiph	1.369	1.322	1.286	1.358	1.374	1.229	1.361	1.314	1.327	3.77

Initial Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3320-ICC3320
Lab FileID: F75545.D

45) 2-Chloronaph	1.154	1.155	1.062	1.120	1.140	0.987	1.095	1.070	1.098	5.22
46) Acenaphthyle	1.666	1.613	1.544	1.628	1.651	1.393	1.602	1.560	1.582	5.51
47) Dimethylphth	1.283	1.213	1.175	1.268	1.278	1.034	1.253	1.204	1.213	6.79
48) 2,6-Dinitrot	0.305	0.215	0.242	0.283	0.308		0.296	0.297	0.278	12.83
49) Acenaphthene	1.213	1.126	1.134	1.187	1.189	1.078	1.148	1.125	1.150	3.82
50) 2,4-Dinitrop	0.188			0.157	0.209		0.217	0.215	0.197	12.81
51) Dibenzofuran	1.723	1.627	1.595	1.696	1.726	1.415	1.677	1.620	1.635	6.19
52) 2,4-Dinitrot	0.405	0.312	0.336	0.379	0.407		0.390	0.387	0.374	9.64
53) 4-Nitropheno	0.271		0.237	0.266	0.273		0.269	0.262	0.263	5.02
54) 2,3,4,6-Tetr	0.372	0.329	0.322	0.359	0.376	0.291	0.368	0.360	0.347	8.62
55) Fluorene	1.330	1.234	1.211	1.298	1.319	1.058	1.278	1.243	1.246	6.98
56) 4-Chlorophen	0.665	0.614	0.629	0.638	0.655	0.533	0.639	0.621	0.624	6.52
57) Diethylphtha	1.249	1.207	1.116	1.237	1.228		1.203	1.169	1.201	3.80
58) 2-nitroanili	0.413	0.335	0.339	0.374	0.407	0.257	0.403	0.398	0.366	14.56
59) 3-nitroanili	0.351	0.277	0.273	0.326	0.351	0.224	0.340	0.335	0.310	14.94
60) 4-nitroanili	0.340	0.264	0.282	0.323	0.347	0.225	0.339	0.335	0.307	14.58
61) I Phenanthrene-d10	ISTD									
62) 4,6-Dinitro-	0.157		0.112	0.149	0.163		0.166	0.160	0.151	13.40
63) n-Nitrosodip	0.576	0.542	0.531	0.566	0.567		0.558	0.534	0.553	3.21
64) 1,2-Diphenyl	0.769	0.795	0.731	0.757	0.761	0.693	0.741	0.713	0.745	4.39
65) 2,4,6-Tribro	0.112	0.092	0.102	0.110	0.117	0.102	0.119	0.116	0.109	8.54
66) 4-Bromopheny	0.235	0.215	0.216	0.222	0.229	0.186	0.227	0.218	0.219	6.74
67) Hexachlorobe	0.235	0.228	0.215	0.226	0.232	0.185	0.229	0.224	0.222	7.28
68) Pentachlorop	0.193	0.160	0.159	0.183	0.201	0.132	0.205	0.198	0.179	14.57
69) Pentachloron	0.083	0.071	0.077	0.083	0.087	0.058	0.090	0.087	0.080	13.16
70) Phenanthrene	1.152	1.108	1.093	1.136	1.125	1.007	1.109	1.052	1.097	4.32
71) Anthracene	1.167	1.107	1.088	1.169	1.148	1.026	1.113	1.076	1.112	4.40
72) Carbazole	1.093	1.032	0.997	1.070	1.080	0.912	1.065	1.021	1.034	5.69
73) Di-n-butylph	1.319	1.187	1.207	1.276	1.312	1.055	1.289	1.226	1.234	7.07
74) Fluoranthene	1.268	1.165	1.141	1.236	1.258	1.002	1.252	1.195	1.190	7.44
75) I Chrysene-d12	ISTD									
76) Benzidine	0.429	0.187	0.256	0.428	0.414	0.199	0.378	0.342	0.329	30.88
---- Quadratic regression ---- Coefficient = 0.9994										
Response Ratio = -0.03624 + 0.50917 *A + -0.03954 *A^2										
77) Pyrene	1.205	1.176	1.123	1.183	1.206	1.018	1.122	1.086	1.140	5.77
78) Terphenyl-d1	0.895	0.820	0.839	0.905	0.891	0.772	0.851	0.836	0.851	5.27
79) 3,3'-Dimethy	0.443	0.381	0.308	0.454	0.426	0.365	0.402	0.331	0.389	13.48
80) Butylbenzylp	0.509	0.446	0.461	0.490	0.512	0.381	0.482	0.477	0.470	8.94
81) 3,3'-Dichlor	0.427	0.312	0.342	0.405	0.429	0.279	0.403	0.392	0.374	14.98
82) Benzo[a]anth	1.103	1.011	1.026	1.082	1.109	0.853	1.049	1.033	1.033	7.86
83) Chrysene	1.122	1.061	1.033	1.099	1.119	0.967	1.047	1.028	1.059	4.98
84) bis(2-Ethylh	0.721	0.610	0.636	0.684	0.728	0.481	0.688	0.684	0.654	12.30
85) I Perylene-d12	ISTD									
86) Di-n-octylph	1.290	0.906	1.008	1.205	1.309	0.718	1.279	1.209	1.116	19.31
87) Benzo[b]fluo	1.141	0.957	0.977	1.128	1.152	0.757	1.169	1.158	1.055	13.88
88) Benzo[k]fluo	1.284	1.086	1.148	1.167	1.235	1.021	1.147	1.048	1.142	7.85
89) Benzo[a]pyre	1.117	0.968	1.001	1.073	1.103	0.842	1.100	1.046	1.031	8.95
90) Indeno[1,2,3	1.388	1.073	1.171	1.285	1.407	0.888	1.413	1.387	1.252	15.37
91) Dibenz[a,h]a	1.148	0.934	0.920	1.049	1.180	0.798	1.176	1.146	1.044	13.78
92) Benzo[g,h,i]	1.161	1.039	1.070	1.143	1.208	0.897	1.228	1.207	1.119	10.02
93) I Acenaphthene-d10a	ISTD									
94) 1,1-Biphenyl									0.000#	-1.00

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

8.7.1

8

Initial Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3320-ICC3320
Lab FileID: F75545.D

F140825_8270.m Thu Sep 04 10:02:12 2014

Initial Calibration Verification

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3320-ICV3320
Lab FileID: F75549.D

Evaluate Continuing Calibration Report

Data File : F:\1\DATA\F140825\f75549.D Vial: 9
Acq On : 25 Aug 2014 8:38 pm Operator: williamk
Sample : icv3320-50 Inst : MSF
Misc : op39496,msf3320,,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : W:\2\METHODS\F140825_8270.m (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Thu Sep 04 10:01:23 2014
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	115	0.00	4.46
2	T	N-Nitrosodimethylamine	0.877	0.902	-2.9	111	0.00	2.62
3	T	1,4-Dioxane		----------NA----------				
4	T	Pyridine	1.562	1.604	-2.7	109	0.00	2.63
5	T	Aniline	2.071	1.699	18.0	88	0.00	4.23
6	S	2-Fluorophenol	1.307	1.386	-6.0	117	0.00	3.51
7	T	bis(2-Chloroethyl)ether	1.264	1.311	-3.7	112	0.00	4.27
8	S	Phenol-d5	1.614	1.619	-0.3	113	0.00	4.18
9	C	Phenol	1.731	1.832	-5.8	116	0.00	4.19
10	M	2-Chlorophenol	1.370	1.469	-7.2	117	0.00	4.32
11	T	1,3-Dichlorobenzene	1.521	1.618	-6.4	117	0.00	4.43
12	C	1,4-Dichlorobenzene	1.559	1.627	-4.4	113	0.00	4.47
13	T	1,2-Dichlorobenzene	1.457	1.533	-5.2	117	0.00	4.63
14	T	Benzyl alcohol	0.924	0.899	2.7	107	0.00	4.57
15	T	bis(2-chloroisopropyl)eth	1.665	1.862	-11.8	125	0.00	4.69
16	T	o-cresol	1.268	1.341	-5.8	115	0.00	4.67
17	T	Acetophenone	1.950	1.897	2.7	108	0.00	4.80
18	T	Hexachloroethane	0.563	0.580	-3.0	114	0.00	4.88
19	P	N-Nitroso-di-n-propylamin	0.932	0.991	-6.3	116	0.00	4.81
20	T	m+p-cresols	1.344	1.427	-6.2	117	0.00	4.78
21		4-methylphenol	1.344	1.427	-6.2	117	0.00	4.78
22	I	Naphthalene-d8	1.000	1.000	0.0	111	0.00	5.52
23	S	Nitrobenzene-d5	0.382	0.405	-6.0	115	0.00	4.93
24	T	Nitrobenzene	0.385	0.400	-3.9	113	0.00	4.94
25	T	Isophorone	0.673	0.637	5.3	101	0.00	5.13
26	C	2-Nitrophenol	0.195	0.218	-11.8	117	0.00	5.21
27	T	2,4-Dimethylphenol	0.371	0.394	-6.2	114	0.00	5.22
28	T	bis(2-Chloroethoxy)methan	0.417	0.415	0.5	105	0.00	5.30
29	T	Benzoic acid	0.266	0.331	-24.4#	121	0.00	5.30
30	C	2,4-Dichlorophenol	0.304	0.335	-10.2	119	0.00	5.40
31		1,2,4-Trichlorobenzene	0.331	0.351	-6.0	113	0.00	5.48
32	T	Naphthalene	1.025	1.061	-3.5	111	0.00	5.53
33	T	2,6-Dichlorophenol	0.310	0.331	-6.8	113	0.00	5.60
34	T	4-Chloroaniline	0.437	0.320	26.8#	77	0.00	5.59
35	C	Hexachlorobutadiene	0.182	0.199	-9.3	117	0.00	5.68
36	C	4-Chloro-3-methylphenol	0.317	0.343	-8.2	115	0.00	5.99
37	T	2-Methylnaphthalene	0.716	0.722	-0.8	108	0.00	6.12
38		1-methylnaphthalene	0.670	0.670	0.0	108	0.00	6.22
39	I	Acenaphthene-d10	1.000	1.000	0.0	112	0.00	7.05
40	P	Hexachlorocyclopentadiene	0.308	0.276	10.4	91	0.00	6.31

Initial Calibration Verification

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3320-ICV3320
Lab FileID: F75549.D

41	T	1,2,4,5-Tetrachlorobenzen	0.581	0.588	-1.2	111	0.00	6.30
42	C	2,4,6-Trichlorophenol	0.368	0.419	-13.9	118	0.00	6.39
43	T	2,4,5-Trichlorophenol	0.401	0.446	-11.2	118	0.00	6.42
44	S	2-Fluorobiphenyl	1.327	1.372	-3.4	112	0.00	6.45
45	T	2-Chloronaphthalene	1.098	1.184	-7.8	114	0.00	6.55
46	M	Acenaphthylene	1.582	1.520	3.9	102	0.00	6.92
47	T	Dimethylphthalate	1.213	1.223	-0.8	106	0.00	6.83
48	T	2,6-Dinitrotoluene	0.278	0.278	0.0	102	0.00	6.90
49	C	Acenaphthene	1.150	1.180	-2.6	109	0.00	7.07
50	P	2,4-Dinitrophenol	0.197	0.192	2.5	114	0.00	7.10
51	T	Dibenzofuran	1.635	1.614	1.3	105	0.00	7.21
52	M	2,4-Dinitrotoluene	0.374	0.382	-2.1	105	0.00	7.24
53	P	4-Nitrophenol	0.263	0.265	-0.8	109	0.00	7.15
54	T	2,3,4,6-Tetrachlorophenol	0.347	0.372	-7.2	112	0.00	7.35
55	T	Fluorene	1.246	1.294	-3.9	109	0.00	7.51
56	T	4-Chlorophenyl-phenylethe	0.624	0.637	-2.1	107	0.00	7.50
57	T	Diethylphthalate	1.201	1.169	2.7	104	0.00	7.44
58	T	2-nitroaniline	0.366	0.381	-4.1	103	0.00	6.66
59	T	3-nitroaniline	0.310	0.254	18.1	81	0.00	7.02
60	T	4-nitroaniline	0.307	0.285	7.2	93	0.00	7.56
61	I	Phenanthrene-d10	1.000	1.000	0.0	104	0.00	8.33
62	T	4,6-Dinitro-2-methylpheno	0.151	0.172	-13.9	113	0.00	7.59
63	C	n-Nitrosodiphenylamine	0.553	0.536	3.1	97	0.00	7.61
64	T	1,2-Diphenylhydrazine	0.745	0.799	-7.2	108	0.00	7.64
65	S	2,4,6-Tribromophenol	0.109	0.120	-10.1	111	0.00	7.74
66	T	4-Bromophenyl-phenylether	0.219	0.239	-9.1	105	0.00	7.92
67	T	Hexachlorobenzene	0.222	0.247	-11.3	109	0.00	8.07
68	C	Pentachlorophenol	0.179	0.189	-5.6	102	0.00	8.22
69	T	Pentachloronitrobenzene	0.080	0.085	-6.3	106	0.00	8.29
70	T	Phenanthrene	1.097	1.150	-4.8	104	0.00	8.35
71	T	Anthracene	1.112	1.127	-1.3	100	0.00	8.39
72	T	Carbazole	1.034	1.034	0.0	98	0.00	8.53
73	T	Di-n-butylphthalate	1.234	1.230	0.3	97	0.00	8.85
74	C	Fluoranthene	1.190	1.250	-5.0	102	0.00	9.43
75	I	Chrysene-d12	1.000	1.000	0.0	103	0.00	10.98
		----------	Amount	Calc.	%Drift	----------		
76	T	Benzidine	50.000	37.642	24.7#	78	0.00	9.55
		----------	AvgRF	CCRF	%Dev	----------		
77	M	Pyrene	1.140	1.168	-2.5	100	0.00	9.66
78	S	Terphenyl-d14	0.851	0.888	-4.3	102	0.00	9.80
79	T	3,3'-Dimethylbenzidine		----------NA----------				
80	T	Butylbenzylphthalate	0.470	0.488	-3.8	99	0.00	10.33
81	T	3,3'-Dichlorobenzidine	0.374	0.326	12.8	78	0.00	10.94
82	T	Benzo[a]anthracene	1.033	1.092	-5.7	102	0.00	10.96
83	T	Chrysene	1.059	1.045	1.3	96	0.00	11.01
84	T	bis(2-Ethylhexyl)phthalat	0.654	0.693	-6.0	99	0.00	11.00
85	I	Perylene-d12	1.000	1.000	0.0	103	0.00	12.72
86	C	Di-n-octylphthalate	1.116	1.196	-7.2	96	0.00	11.73
87	T	Benzo[b]fluoranthene	1.055	1.137	-7.8	103	0.00	12.26
88	T	Benzo[k]fluoranthene	1.142	1.132	0.9	91	0.00	12.29
89	C	Benzo[a]pyrene	1.031	1.068	-3.6	99	0.00	12.65
90	T	Indeno[1,2,3-cd]pyrene	1.252	1.383	-10.5	103	0.00	14.13
91	T	Dibenz[a,h]anthracene	1.044	1.146	-9.8	103	0.00	14.14
92	T	Benzo[g,h,i]perylene	1.119	1.199	-7.1	107	0.00	14.52

Initial Calibration Verification

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3320-ICV3320
Lab FileID: F75549.D

```
93 I   Acenaphthene-d10a           1.000   1.000      0.0  112   0.00    7.05
94 T   1,1-Biphenyl                        ----------NA----------
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------

   (#) = Out of Range               SPCC's out = 0  CCC's out = 0
    f75545.D   F140825_8270.m       Thu Sep 04 10:02:48 2014
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Continuing Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3358-CC3320
Lab FileID: F76562.D

Evaluate Continuing Calibration Report

Data File : F:\1\DATA\F141002\f76562.D Vial: 100
Acq On : 2 Oct 2014 8:07 am Operator: williamk
Sample : cc3320-50 Inst : MSF
Misc : op39496,msf3358,,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : W:\2\METHODS\F140825_8270.m (RTE Integrator)
Title : SW-846 Method 8270
Last Update : Thu Oct 02 08:19:12 2014
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	115	-0.04	3.18
2	T	N-Nitrosodimethylamine	0.877	0.862	1.7	105	-0.04	1.36
3	T	1,4-Dioxane		----------NA----------				
4	T	Pyridine	1.562	1.520	2.7	103	-0.04	1.35
5	T	Aniline	2.071	1.924	7.1	100	-0.04	2.97
6	S	2-Fluorophenol	1.307	1.321	-1.1	111	-0.04	2.27
7	T	bis(2-Chloroethyl)ether	1.264	1.199	5.1	102	-0.04	3.03
8	S	Phenol-d5	1.614	1.647	-2.0	114	-0.04	2.98
9	C	Phenol	1.731	1.909	-10.3	120	-0.04	2.99
10	M	2-Chlorophenol	1.370	1.457	-6.4	115	-0.04	3.05
11	T	1,3-Dichlorobenzene	1.521	1.653	-8.7	118	-0.04	3.15
12	C	1,4-Dichlorobenzene	1.559	1.692	-8.5	117	-0.04	3.19
13	T	1,2-Dichlorobenzene	1.457	1.573	-8.0	119	-0.04	3.34
14	T	Benzyl alcohol	0.924	0.921	0.3	109	-0.04	3.33
15	T	bis(2-chloroisopropyl)eth	1.665	1.541	7.4	103	-0.04	3.44
16	T	o-cresol	1.268	1.333	-5.1	114	-0.04	3.45
17	T	Acetophenone	1.950	1.958	-0.4	111	-0.04	3.53
18	T	Hexachloroethane	0.563	0.623	-10.7	121	-0.04	3.57
19	P	N-Nitroso-di-n-propylamin	0.932	0.964	-3.4	113	-0.04	3.56
20	T	m+p-cresols	1.344	1.404	-4.5	114	-0.04	3.57
21		4-methylphenol	1.344	1.404	-4.5	114	-0.04	3.57
22	I	Naphthalene-d8	1.000	1.000	0.0	112	-0.04	4.21
23	S	Nitrobenzene-d5	0.382	0.389	-1.8	112	-0.04	3.65
24	T	Nitrobenzene	0.385	0.389	-1.0	111	-0.04	3.66
25	T	Isophorone	0.673	0.677	-0.6	109	-0.04	3.85
26	C	2-Nitrophenol	0.195	0.225	-15.4	122	-0.04	3.92
27	T	2,4-Dimethylphenol	0.371	0.382	-3.0	112	-0.04	3.99
28	T	bis(2-Chloroethoxy)methan	0.417	0.424	-1.7	108	-0.04	4.06
29	T	Benzoic acid	0.266	0.316	-18.8	117	-0.04	4.12
30	C	2,4-Dichlorophenol	0.304	0.351	-15.5	126	-0.04	4.12
31		1,2,4-Trichlorobenzene	0.331	0.381	-15.1	124	-0.04	4.18
32	T	Naphthalene	1.025	1.099	-7.2	116	-0.04	4.23
33	T	2,6-Dichlorophenol	0.310	0.351	-13.2	121	-0.04	4.31
34	T	4-Chloroaniline	0.437	0.471	-7.8	115	-0.04	4.31
35	C	Hexachlorobutadiene	0.182	0.218	-19.8	130	-0.04	4.38
36	C	4-Chloro-3-methylphenol	0.317	0.330	-4.1	112	-0.04	4.74
37	T	2-Methylnaphthalene	0.716	0.779	-8.8	118	-0.04	4.80
38		1-methylnaphthalene	0.670	0.707	-5.5	115	-0.04	4.89
39	I	Acenaphthene-d10	1.000	1.000	0.0	113	-0.04	5.70
40	P	Hexachlorocyclopentadiene	0.308	0.367	-19.2	122	-0.04	5.00

Continuing Calibration Summary

Job Number: MC33908 **Sample:** MSF3358-CC3320
Account: BBLNYS Arcadis **Lab FileID:** F76562.D
Project: National Grid, 10 King Street, Ogdensburg, NY

41	T	1,2,4,5-Tetrachlorobenzen	0.581	0.680	-17.0	130	-0.04	4.98
42	C	2,4,6-Trichlorophenol	0.368	0.449	-22.0	128	-0.04	5.08
43	T	2,4,5-Trichlorophenol	0.401	0.479	-19.5	128	-0.04	5.11
44	S	2-Fluorobiphenyl	1.327	1.474	-11.1	122	-0.04	5.15
45	T	2-Chloronaphthalene	1.098	1.227	-11.7	120	-0.04	5.21
46	M	Acenaphthylene	1.582	1.753	-10.8	119	-0.04	5.56
47	T	Dimethylphthalate	1.213	1.372	-13.1	121	-0.04	5.54
48	T	2,6-Dinitrotoluene	0.278	0.328	-18.0	122	-0.04	5.60
49	C	Acenaphthene	1.150	1.273	-10.7	118	-0.04	5.73
50	P	2,4-Dinitrophenol	0.197	0.185	6.1	111	-0.04	5.79
51	T	Dibenzofuran	1.635	1.834	-12.2	120	-0.04	5.86
52	M	2,4-Dinitrotoluene	0.374	0.421	-12.6	117	-0.04	5.92
53	P	4-Nitrophenol	0.263	0.264	-0.4	110	-0.04	5.89
54	T	2,3,4,6-Tetrachlorophenol	0.347	0.419	-20.7#	127	-0.04	6.02
55	T	Fluorene	1.246	1.411	-13.2	120	-0.04	6.15
56	T	4-Chlorophenyl-phenylethe	0.624	0.722	-15.7	123	-0.04	6.17
57	T	Diethylphthalate	1.201	1.364	-13.6	123	-0.04	6.15
58	T	2-nitroaniline	0.366	0.428	-16.9	117	-0.04	5.35
59	T	3-nitroaniline	0.310	0.364	-17.4	117	-0.04	5.71
60	T	4-nitroaniline	0.307	0.350	-14.0	116	-0.04	6.24
61	I	Phenanthrene-d10	1.000	1.000	0.0	115	-0.04	6.94
62	T	4,6-Dinitro-2-methylpheno	0.151	0.162	-7.3	118	-0.04	6.27
63	C	n-Nitrosodiphenylamine	0.553	0.584	-5.6	116	-0.04	6.29
64	T	1,2-Diphenylhydrazine	0.745	0.799	-7.2	119	-0.04	6.30
65	S	2,4,6-Tribromophenol	0.109	0.142	-30.3#	145	-0.04	6.38
66	T	4-Bromophenyl-phenylether	0.219	0.261	-19.2	127	-0.04	6.58
67	T	Hexachlorobenzene	0.222	0.276	-24.3#	134	-0.04	6.69
68	C	Pentachlorophenol	0.179	0.228	-27.4#	136	-0.04	6.86
69	T	Pentachloronitrobenzene	0.080	0.099	-23.8#	137	-0.04	6.92
70	T	Phenanthrene	1.097	1.198	-9.2	119	-0.04	6.96
71	T	Anthracene	1.112	1.209	-8.7	119	-0.04	7.00
72	T	Carbazole	1.034	1.136	-9.9	119	-0.04	7.16
73	T	Di-n-butylphthalate	1.234	1.362	-10.4	118	-0.04	7.54
74	C	Fluoranthene	1.190	1.337	-12.4	121	-0.05	7.98
75	I	Chrysene-d12	1.000	1.000	0.0	118	-0.05	9.25
		----------	Amount	Calc.	%Drift		----------	
76	T	Benzidine	50.000	40.672	18.7	97	-0.04	8.13
		----------	AvgRF	CCRF	%Dev		----------	
77	M	Pyrene	1.140	1.266	-11.1	124	-0.05	8.17
78	S	Terphenyl-d14	0.851	0.941	-10.6	124	-0.05	8.34
79	T	3,3'-Dimethylbenzidine	0.389	0.458	-17.7	122	-0.05	8.76
80	T	Butylbenzylphthalate	0.470	0.516	-9.8	120	-0.05	8.81
81	T	3,3'-Dichlorobenzidine	0.374	0.484	-29.4#	134	-0.05	9.25
82	T	Benzo[a]anthracene	1.033	1.160	-12.3	124	-0.05	9.23
83	T	Chrysene	1.059	1.167	-10.2	123	-0.05	9.27
84	T	bis(2-Ethylhexyl)phthalat	0.654	0.728	-11.3	119	-0.05	9.38
85	I	Perylene-d12	1.000	1.000	0.0	119	-0.06	10.70
86	C	Di-n-octylphthalate	1.116	1.315	-17.8	121	-0.05	10.00
87	T	Benzo[b]fluoranthene	1.055	1.266	-20.0#	132	-0.06	10.31
88	T	Benzo[k]fluoranthene	1.142	1.292	-13.1	120	-0.06	10.34
89	C	Benzo[a]pyrene	1.031	1.188	-15.2	126	-0.06	10.64
90	T	Indeno[1,2,3-cd]pyrene	1.252	1.277	-2.0	109	-0.07	11.79
91	T	Dibenz[a,h]anthracene	1.044	1.213	-16.2	125	-0.07	11.81
92	T	Benzo[g,h,i]perylene	1.119	1.270	-13.5	130	-0.07	12.03

Continuing Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSF3358-CC3320
Lab FileID: F76562.D

93	I	Acenaphthene-d10a	1.000	1.000	0.0	113	-0.04	5.70
94	T	1,1-Biphenyl	0.000	0.020#	0.0	0#	-0.39	8.13

(#) = Out of Range SPCC's out = 0 CCC's out = 1
f76531.D F140825_8270.m Fri Oct 03 11:48:43 2014

Initial Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-ICC1461
Lab FileID: R39642.D

Response Factor Report MSR

Method : W:\1\methods\R140911_8270A.m (RTE Integrator)
Title : SW-864 Method 8270
Last Update : Fri Sep 26 12:46:03 2014
Response via : Initial Calibration

Calibration Files
160 =R39645a.D 120 =R39644a.D 80 =R39929.D 20 =R39641a.D
5 =R39639a.D 2 =R39638a.D 10 =R39640a.D 50 =R39642a.D

Compound	160	120	80	20	5	2	10	50	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	ISTD									
2) 1,4-Dioxane	0.653	0.644	0.640	0.629	0.589	0.575	0.609	0.653	0.624	4.77
3) N-nitrosodim	1.080	1.050	1.039	0.931	0.699		0.844	1.042	0.955	14.65
4) Pyridine	1.863	1.841	1.835	1.787	1.461	1.233	1.616	1.916	1.694	14.14
5) Aniline	2.363	2.406	2.434	2.415	2.087	1.813	2.246	2.524	2.286	10.20
6) 2-Fluorophen	1.502	1.485	1.477	1.383	1.201	1.172	1.278	1.462	1.370	9.84
7) bis(2-Chloro	1.310	1.299	1.319	1.300	1.213	1.195	1.248	1.356	1.280	4.36
8) Phenol-d5	1.899	1.890	1.894	1.847	1.646	1.557	1.717	1.904	1.794	7.58
9) Phenol	2.220	2.246	2.296	2.055	1.826	1.742	1.915	2.163	2.058	10.11
10) 2-Chlorophen	1.559	1.542	1.545	1.466	1.320	1.270	1.371	1.533	1.451	7.90
11) 1,3-Dichloro	1.556	1.546	1.583	1.520	1.458	1.439	1.473	1.621	1.524	4.18
12) 1,4-Dichloro	1.594	1.599	1.631	1.587	1.489	1.477	1.535	1.681	1.574	4.43
13) 1,2-Dichloro	1.486	1.501	1.529	1.484	1.398	1.393	1.408	1.557	1.470	4.26
14) Benzyl alcoh	1.118	1.112	1.119	1.029	0.876	0.826	0.961	1.109	1.019	11.59
15) bis(2-chloro	2.100	2.156	2.165	2.224	2.113	2.059	2.174	2.237	2.154	2.82
16) o-cresol	1.533	1.494	1.521	1.455	1.317	1.318	1.371	1.545	1.444	6.62
17) Acetophenone	1.963	1.939	2.021	2.259	1.987	1.891	2.081	2.259	2.050	6.86
18) Hexachloroet	0.667	0.663	0.670	0.616	0.571	0.591	0.591	0.667	0.629	6.61
19) N-Nitroso-di	0.945	1.119	1.130	1.156	1.044	0.982	1.088	1.174	1.080	7.64
20) m+p-cresols	1.390	1.368	1.426	1.601	1.395	1.337	1.468	1.578	1.445	6.72
21) 4-methylphen	1.390	1.368	1.426	1.601	1.395	1.337	1.468	1.578	1.445	6.72
22) I Naphthalene-d8	ISTD									
23) Nitrobenzene	0.444	0.439	0.438	0.407	0.355	0.344	0.378	0.437	0.405	10.08
24) Nitrobenzene	0.443	0.440	0.448	0.429	0.388	0.355	0.406	0.459	0.421	8.42
25) Isophorone	0.799	0.791	0.804	0.770	0.676	0.641	0.729	0.824	0.754	8.76
26) 2-Nitropheno	0.210	0.203	0.202	0.164			0.143	0.191	0.186	14.20
27) 2,4-Dimethyl	0.400	0.397	0.405	0.384	0.354	0.346	0.369	0.415	0.384	6.58
28) bis(2-Chloro	0.484	0.482	0.497	0.480	0.444	0.431	0.461	0.513	0.474	5.72
29) Benzoic acid	0.321	0.292	0.288	0.248			0.200	0.313	0.277	16.40
30) 2,4-Dichloro	0.323	0.318	0.324	0.289	0.243	0.230	0.268	0.323	0.289	13.33
31) 1,2,4-Trichl	0.331	0.330	0.336	0.301	0.275	0.274	0.286	0.334	0.308	8.91
32) Naphthalene	1.021	1.032	1.074	1.096	1.033	1.041	1.065	1.154	1.064	4.15
33) 2,6-Dichloro	0.302	0.303	0.316	0.301	0.263	0.244	0.281	0.330	0.293	9.70
34) 4-Chloroanil	0.442	0.452	0.477	0.471	0.389	0.362	0.445	0.511	0.444	10.81
35) Hexachlorobu	0.178	0.177	0.178	0.152	0.137	0.139	0.144	0.173	0.160	11.66
36) 4-Chloro-3-m	0.353	0.349	0.353	0.322	0.279	0.264	0.309	0.356	0.323	11.22
37) 2-Methylnaph	0.726	0.737	0.763	0.752	0.681	0.671	0.716	0.801	0.731	5.82
38) 1-Methylnaph	0.684	0.687	0.711	0.708	0.643	0.629	0.667	0.742	0.684	5.45
39) 1,2,4,5-Tetr	0.340	0.339	0.341	0.300	0.262	0.260	0.277	0.336	0.307	11.90
40) Caprolactam	0.217	0.235	0.237	0.218	0.174	0.150	0.197	0.240	0.209	15.60
41) I Acenaphthene-d10	ISTD									
42) Pentachloron	0.177	0.177	0.172	0.133			0.115	0.162	0.156	16.72
43) Hexachlorocy	0.330	0.324	0.328	0.262	0.203		0.228	0.317	0.285	18.69
44) 2,4,6-Trichl	0.415	0.403	0.398	0.328	0.269	0.243	0.304	0.380	0.342	19.29

Initial Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-ICC1461
Lab FileID: R39642.D

45)	2,4,5-Trichl	0.443	0.437	0.435	0.364	0.317	0.267	0.337	0.421	0.377	17.53
46)	2-Fluorobiph	1.312	1.308	1.337	1.309	1.175	1.175	1.219	1.405	1.280	6.42
47)	2-Chloronaph	1.133	1.145	1.172	1.096	0.992	0.960	1.028	1.208	1.092	8.19
48)	Acenaphthyle	1.666	1.676	1.720	1.669	1.476	1.381	1.561	1.821	1.621	8.70
49)	Dimethylphth	1.294	1.274	1.282	1.178	1.055	1.015	1.116	1.310	1.190	9.79
50)	2,4-Dinitrot	0.396	0.392	0.385	0.295			0.257	0.360	0.348	16.68
51)	Acenaphthene	1.146	1.145	1.180	1.182	1.074	1.063	1.117	1.262	1.146	5.61
52)	2,4-Dinitrop	0.171	0.155	0.140	0.081	0.045		0.061	0.116	0.110	44.17

---- Quadratic regression ---- Coefficient = 0.9970
Response Ratio = -0.00636 + 0.08870 *A + 0.02253 *A^2

53)	Dibenzofuran	1.622	1.649	1.712	1.650	1.503	1.487	1.562	1.801	1.623	6.48
54)	2,6-Dinitrot	0.306	0.297	0.289	0.231			0.203	0.277	0.267	15.36
55)	4-Nitropheno	0.328	0.320	0.315	0.274	0.196		0.233	0.315	0.283	18.03
56)	2,3,4,6-Tetr	0.353	0.342	0.333	0.268	0.209		0.243	0.317	0.295	18.74
57)	Fluorene	1.211	1.247	1.316	1.364	1.193	1.137	1.270	1.458	1.274	8.06
58)	4-Chlorophen	0.586	0.602	0.627	0.617	0.521	0.522	0.559	0.682	0.590	9.31
59)	Diethylphtha	1.322	1.322	1.334	1.218	1.081	1.034	1.156	1.356	1.228	10.19
60)	2-nitroanili	0.460	0.446	0.441	0.359			0.308	0.429	0.407	14.77
61)	3-nitroanili	0.379	0.370	0.363	0.308			0.275	0.357	0.342	12.09
62)	4-nitroanili	0.409	0.397	0.386	0.332			0.293	0.385	0.367	12.17
63)	1,1'-Bipheny	1.438	1.457	1.518	1.515	1.381	1.362	1.445	1.623	1.467	5.69

64) I Phenanthrene-d10 ----------ISTD----------

65)	4,6-Dinitro-	0.141	0.130	0.122	0.079	0.049		0.063	0.104	0.098	35.82

---- Quadratic regression ---- Coefficient = 0.9976
Response Ratio = -0.00544 + 0.08715 *A + 0.01483 *A^2

66)	n-Nitrosodip	0.556	0.564	0.577	0.551	0.495	0.479	0.520	0.599	0.543	7.60
67)	1,2-Diphenyl	0.864	0.896	0.943	0.985	0.899	0.824	0.944	1.031	0.923	7.20
68)	2,4,6-Tribro	0.109	0.102	0.097	0.081	0.061		0.070	0.092	0.087	19.74
69)	4-Bromopheny	0.217	0.214	0.209	0.181	0.159	0.154	0.169	0.208	0.189	13.82
70)	Hexachlorobe	0.218	0.212	0.210	0.183	0.164	0.158	0.169	0.205	0.190	12.73
71)	Pentachlorop	0.190	0.185	0.181	0.133			0.111	0.169	0.162	19.85
72)	Phenanthrene	1.071	1.097	1.131	1.138	1.055	1.038	1.077	1.218	1.103	5.25
73)	Anthracene	1.080	1.109	1.148	1.154	1.025	0.973	1.076	1.246	1.101	7.61
74)	Carbazole	1.083	1.103	1.133	1.127	1.001	0.963	1.050	1.222	1.085	7.48
75)	Di-n-butylph	1.261	1.316	1.389	1.353	1.104	0.998	1.231	1.525	1.272	12.99
76)	Fluoranthene	1.171	1.184	1.198	1.139	0.984	0.956	1.056	1.279	1.121	10.00
77)	Atrazine	0.184	0.184	0.184	0.169	0.141	0.131	0.156	0.189	0.167	13.25

78) I Chrysene-d12 ----------ISTD----------

79)	Benzidine	0.455	0.466	0.473	0.385	0.219	0.206	0.315	0.485	0.375	30.70

---- Quadratic regression ---- Coefficient = 0.9970
Response Ratio = -0.02180 + 0.47637 *A + -0.00223 *A^2

80)	3,3-Dimethyl	0.436	0.451	0.488	0.334			0.285	0.470	0.411	19.92
81)	Pyrene	1.307	1.335	1.366	1.332	1.180	1.110	1.225	1.426	1.285	8.15
82)	Terphenyl-d1	0.928	0.936	0.946	0.847	0.734	0.702	0.767	0.930	0.849	11.89
83)	Butylbenzylp	0.652	0.671	0.685	0.600	0.472	0.412	0.535	0.685	0.589	17.83
84)	3,3'-Dichlor	0.463	0.466	0.468	0.358	0.297		0.323	0.434	0.401	18.32
85)	Benzo[a]anth	1.237	1.237	1.230	1.138	1.040	1.038	1.089	1.227	1.155	7.74
86)	Chrysene	1.188	1.205	1.231	1.172	1.046	1.003	1.077	1.283	1.150	8.50
87)	bis(2-Ethylh	0.848	0.876	0.929	0.885	0.631	0.538	0.760	1.005	0.809	19.37

88) I Perylene-d12 ----------ISTD----------

89)	Di-n-octylph	1.753	1.768	1.815	1.523	1.139		1.242	1.843	1.583	18.26
90)	Benzo[b]fluo	1.440	1.344	1.295	1.118	0.951	0.886	0.999	1.259	1.161	17.42
91)	Benzo[k]fluo	1.299	1.322	1.352	1.188	1.018	1.019	1.066	1.365	1.204	12.52
92)	Benzo[a]pyre	1.284	1.243	1.227	1.063	0.894	0.837	0.947	1.207	1.088	16.19

Initial Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-ICC1461
Lab FileID: R39642.D

```
93) Indeno[1,2,3 1.569 1.509 1.474 1.259 1.074 1.006 1.129 1.434 1.307  16.67
94) Dibenz[a,h]a 1.290 1.259 1.239 1.024 0.871 0.842 0.909 1.190 1.078  17.38
95) Benzo[g,h,i] 1.237 1.203 1.188 1.047 0.893 0.854 0.956 1.176 1.069  14.25

96)     1,4-Dichlorobenzene-d ----------------ISTD--------------------
97) Benzaldehyde 0.464 0.546 0.624 0.366            0.293 0.601 0.482  27.46
            ---- Quadratic regression ----  Coefficient =  0.9977
              Response Ratio = -0.19189 + 0.89475 *A + -0.09525 *A^2

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

          R140911_8270A.m        Fri Sep 26 12:46:52 2014
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8.7.4

8

Initial Calibration Verification

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-ICV1461
Lab FileID: R39648A.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\R140911\R39648a.D Vial: 10
Acq On : 11 Sep 2014 3:40 pm Operator: williamk
Sample : icv1461-50 Inst : MSR
Misc : op39525,msr1461,,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : W:\1\methods\R140911_8270A.m (RTE Integrator)
Title : SW-864 Method 8270
Last Update : Fri Sep 26 12:54:48 2014
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	141	0.00	5.41
2		1,4-Dioxane		----------NA----------				
3		N-nitrosodimethylamine	0.955	0.980	-2.6	133	0.00	3.05
4	T	Pyridine	1.694	1.768	-4.4	130	0.00	3.10
5	T	Aniline	2.286	2.049	10.4	114	0.00	5.14
6	S	2-Fluorophenol	1.370	1.475	-7.7	142	0.00	4.30
7	T	bis(2-Chloroethyl)ether	1.280	1.265	1.2	131	0.00	5.19
8	S	Phenol-d5	1.794	1.826	-1.8	135	0.00	5.10
9	C	Phenol	2.058	2.003	2.7	131	0.00	5.11
10	M	2-Chlorophenol	1.451	1.440	0.8	132	0.00	5.23
11	T	1,3-Dichlorobenzene	1.524	1.572	-3.1	137	0.00	5.37
12	C	1,4-Dichlorobenzene	1.574	1.591	-1.1	133	0.00	5.43
13	T	1,2-Dichlorobenzene	1.470	1.493	-1.6	135	0.00	5.56
14	T	Benzyl alcohol	1.019	1.024	-0.5	130	0.00	5.54
15	T	bis(2-chloroisopropyl)eth	2.154	2.573	-19.5	162	0.00	5.65
16	T	o-cresol	1.444	1.407	2.6	128	0.00	5.63
17	T	Acetophenone	2.050	2.011	1.9	126	0.00	5.76
18	T	Hexachloroethane	0.629	0.633	-0.6	134	0.00	5.85
19	P	N-Nitroso-di-n-propylamin	1.080	1.124	-4.1	135	0.00	5.77
20	T	m+p-cresols	1.445	1.402	3.0	125	0.00	5.76
21		4-methylphenol	1.445	1.402	3.0	125	0.00	5.76
22	I	Naphthalene-d8	1.000	1.000	0.0	143	0.00	6.51
23	S	Nitrobenzene-d5	0.405	0.423	-4.4	138	0.00	5.89
24	T	Nitrobenzene	0.421	0.423	-0.5	132	0.00	5.91
25	T	Isophorone	0.754	0.704	6.6	122	0.00	6.12
26	C	2-Nitrophenol	0.186	0.184	1.1	137	0.00	6.18
27	T	2,4-Dimethylphenol	0.384	0.377	1.8	129	0.00	6.22
28	T	bis(2-Chloroethoxy)methan	0.474	0.462	2.5	128	0.00	6.30
29	T	Benzoic acid	0.277	0.283	-2.2	129	0.00	6.33
30	C	2,4-Dichlorophenol	0.289	0.302	-4.5	134	0.00	6.39
31	M	1,2,4-Trichlorobenzene	0.308	0.313	-1.6	134	0.00	6.46
32	T	Naphthalene	1.064	1.055	0.8	130	0.00	6.53
33	T	2,6-Dichlorophenol	0.293	0.299	-2.0	129	0.00	6.58
34	T	4-Chloroaniline	0.444	0.385	13.3	108	0.00	6.58
35	C	Hexachlorobutadiene	0.160	0.168	-5.0	138	0.00	6.64
36	C	4-Chloro-3-methylphenol	0.323	0.322	0.3	129	0.00	7.00
37	T	2-Methylnaphthalene	0.731	0.723	1.1	129	0.00	7.13
38	T	1-Methylnaphthalene	0.684	0.689	-0.7	133	0.00	7.22
39	T	1,2,4,5-Tetrachlorobenzen	0.307	0.317	-3.3	135	0.00	7.28
40		Caprolactam	0.209	0.225	-7.7	134	0.00	6.92

Initial Calibration Verification

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-ICV1461
Lab FileID: R39648A.D

41	I	Acenaphthene-d10	1.000	1.000	0.0	144	0.00	8.05
42	T	Pentachloronitrobenzene	0.156	0.152	2.6	136	0.00	9.20
43	P	Hexachlorocyclopentadiene	0.285	0.245	14.0	111	0.00	7.27
44	C	2,4,6-Trichlorophenol	0.342	0.357	-4.4	135	0.00	7.38
45	T	2,4,5-Trichlorophenol	0.377	0.384	-1.9	131	0.00	7.41
46	S	2-Fluorobiphenyl	1.280	1.304	-1.9	134	0.00	7.45
47	T	2-Chloronaphthalene	1.092	1.181	-8.2	141	0.00	7.56
48	M	Acenaphthylene	1.621	1.577	2.7	125	0.00	7.93
49	T	Dimethylphthalate	1.190	1.208	-1.5	133	0.00	7.81
50	T	2,4-Dinitrotoluene	0.348	0.357	-2.6	143	0.00	8.22
51	C	Acenaphthene	1.146	1.159	-1.1	132	0.00	8.08
		----------	Amount	Calc.	%Drift	----------		
52	P	2,4-Dinitrophenol	50.000	54.327	-8.7	154	0.00	8.10
		----------	AvgRF	CCRF	%Dev	----------		
53	T	Dibenzofuran	1.623	1.610	0.8	129	0.00	8.23
54	M	2,6-Dinitrotoluene	0.267	0.262	1.9	136	0.00	7.86
55	P	4-Nitrophenol	0.283	0.300	-6.0	137	0.00	8.16
56	T	2,3,4,6-Tetrachlorophenol	0.295	0.293	0.7	133	0.00	8.34
57	T	Fluorene	1.274	1.334	-4.7	132	0.00	8.53
58	T	4-Chlorophenyl-phenylethe	0.590	0.602	-2.0	127	0.00	8.53
59	T	Diethylphthalate	1.228	1.259	-2.5	134	0.00	8.43
60	T	2-nitroaniline	0.407	0.402	1.2	135	0.00	7.65
61	T	3-nitroaniline	0.342	0.244	28.7#	98	0.00	8.01
62	T	4-nitroaniline	0.367	0.333	9.3	125	0.00	8.55
63		1,1'-Biphenyl	1.467	1.453	1.0	129	0.00	7.54
64	I	Phenanthrene-d10	1.000	1.000	0.0	140	0.00	9.36
		----------	Amount	Calc.	%Drift	----------		
65	T	4,6-Dinitro-2-methylpheno	50.000	56.105	-12.2	158	0.00	8.58
		----------	AvgRF	CCRF	%Dev	----------		
66	C	n-Nitrosodiphenylamine	0.543	0.521	4.1	122	0.00	8.63
67	T	1,2-Diphenylhydrazine	0.923	0.988	-7.0	134	0.00	8.67
68	S	2,4,6-Tribromophenol	0.087	0.095	-9.2	144	0.00	8.74
69	T	4-Bromophenyl-phenylether	0.189	0.200	-5.8	135	0.00	8.96
70	T	Hexachlorobenzene	0.190	0.202	-6.3	138	0.00	9.01
71	C	Pentachlorophenol	0.162	0.149	8.0	123	0.00	9.18
72	T	Phenanthrene	1.103	1.132	-2.6	130	0.00	9.38
73	T	Anthracene	1.101	1.120	-1.7	126	0.00	9.42
74	T	Carbazole	1.085	1.113	-2.6	128	0.00	9.56
75	T	Di-n-butylphthalate	1.272	1.347	-5.9	124	0.00	9.87
76	C	Fluoranthene	1.121	1.203	-7.3	132	0.00	10.44
77		Atrazine	0.167	0.204	-22.2#	152	0.00	9.11
78	I	Chrysene-d12	1.000	1.000	0.0	144	0.00	11.97
		----------	Amount	Calc.	%Drift	----------		
79	T	Benzidine	50.000	55.004	-10.0	150	0.00	10.57
		----------	AvgRF	CCRF	%Dev	----------		
80		3,3-Dimethylbenzidine		----------NA----------				
81	M	Pyrene	1.285	1.251	2.6	127	0.00	10.66
82	S	Terphenyl-d14	0.849	0.868	-2.2	135	0.00	10.82
83	T	Butylbenzylphthalate	0.589	0.606	-2.9	128	0.00	11.33
84	T	3,3'-Dichlorobenzidine	0.401	0.341	15.0	114	0.00	11.93
85	T	Benzo[a]anthracene	1.155	1.165	-0.9	137	0.00	11.96
86	T	Chrysene	1.150	1.118	2.8	126	0.00	12.00

8.7.5

8

Initial Calibration Verification

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1461-ICV1461
Lab FileID: R39648A.D

87	T	bis(2-Ethylhexyl)phthalat	0.809	0.882	-9.0	127	0.00	12.00
88	I	Perylene-d12	1.000	1.000	0.0	145	0.00	13.69
89	C	Di-n-octylphthalate	1.583	1.626	-2.7	128	0.00	12.79
90	T	Benzo[b]fluoranthene	1.161	1.171	-0.9	135	0.00	13.23
91	T	Benzo[k]fluoranthene	1.204	1.196	0.7	127	0.00	13.27
92	C	Benzo[a]pyrene	1.088	1.080	0.7	130	0.00	13.62
93	T	Indeno[1,2,3-cd]pyrene	1.307	1.309	-0.2	132	0.00	15.01
94	T	Dibenz[a,h]anthracene	1.078	1.092	-1.3	133	0.00	15.04
95	T	Benzo[g,h,i]perylene	1.069	1.059	0.9	130	0.00	15.39
96		1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	141	0.00	5.41
			Amount	Calc.	%Drift			
97		Benzaldehyde	50.000	40.710	18.6	115	0.00	5.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
R39648a.D R140911_8270A.m Fri Sep 26 12:54:54 2014

8.7.5

8

Continuing Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1476-CC1461
Lab FileID: R40114.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\R141003\R40114.D Vial: 100
Acq On : 3 Oct 2014 2:50 pm Operator: williamk
Sample : cc1461-50 Inst : MSR
Misc : op39867,msr1476,,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : W:\1\methods\R140911_8270A.m (RTE Integrator)
Title : SW-864 Method 8270
Last Update : Thu Oct 02 07:21:49 2014
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	123	-0.10	4.42
2		1,4-Dioxane		----------NA----------				
3		N-nitrosodimethylamine	0.955	0.831	13.0	98	-0.14	1.72
4	T	Pyridine	1.694	1.501	11.4	97	-0.14	1.74
5	T	Aniline	2.286	2.023	11.5	99	-0.10	4.14
6	S	2-Fluorophenol	1.370	1.359	0.8	115	-0.11	3.26
7	T	bis(2-Chloroethyl)ether	1.280	1.141	10.9	104	-0.09	4.22
8	S	Phenol-d5	1.794	1.651	8.0	107	-0.09	4.15
9	C	Phenol	2.058	1.817	11.7	104	-0.09	4.16
10	M	2-Chlorophenol	1.451	1.481	-2.1	119	-0.10	4.23
11	T	1,3-Dichlorobenzene	1.524	1.571	-3.1	120	-0.10	4.36
12	C	1,4-Dichlorobenzene	1.574	1.625	-3.2	119	-0.10	4.43
13	T	1,2-Dichlorobenzene	1.470	1.519	-3.3	120	-0.10	4.56
14	T	Benzyl alcohol	1.019	0.940	7.8	104	-0.09	4.56
15	T	bis(2-chloroisopropyl)eth	2.154	1.764	18.1	97	-0.09	4.69
16	T	o-cresol	1.444	1.393	3.5	111	-0.09	4.68
17	T	Acetophenone	2.050	1.973	3.8	108	-0.09	4.78
18	T	Hexachloroethane	0.629	0.658	-4.6	122	-0.10	4.85
19	P	N-Nitroso-di-n-propylamin	1.080	0.930	13.9	98	-0.09	4.80
20	T	m+p-cresols	1.445	1.396	3.4	109	-0.09	4.82
21		4-methylphenol	1.445	1.396	3.4	109	-0.09	4.82
22	I	Naphthalene-d8	1.000	1.000	0.0	118	-0.10	5.51
23	S	Nitrobenzene-d5	0.405	0.416	-2.7	113	-0.09	4.91
24	T	Nitrobenzene	0.421	0.420	0.2	108	-0.10	4.92
25	T	Isophorone	0.754	0.730	3.2	105	-0.09	5.14
26	C	2-Nitrophenol	0.186	0.214	-15.1	132	-0.10	5.19
27	T	2,4-Dimethylphenol	0.384	0.380	1.0	108	-0.09	5.27
28	T	bis(2-Chloroethoxy)methan	0.474	0.456	3.8	105	-0.09	5.35
29	T	Benzoic acid	0.277	0.233	15.9	88	-0.09	5.41
30	C	2,4-Dichlorophenol	0.289	0.338	-17.0	124	-0.09	5.41
31	M	1,2,4-Trichlorobenzene	0.308	0.367	-19.2	130	-0.10	5.47
32	T	Naphthalene	1.064	1.076	-1.1	110	-0.10	5.53
33	T	2,6-Dichlorophenol	0.293	0.331	-13.0	119	-0.10	5.60
34	T	4-Chloroaniline	0.444	0.465	-4.7	108	-0.09	5.60
35	C	Hexachlorobutadiene	0.160	0.212	-32.5#	145	-0.10	5.65
36	C	4-Chloro-3-methylphenol	0.323	0.330	-2.2	110	-0.09	6.05
37	T	2-Methylnaphthalene	0.731	0.763	-4.4	113	-0.10	6.13
38	T	1-Methylnaphthalene	0.684	0.707	-3.4	113	-0.10	6.22
39	T	1,2,4,5-Tetrachlorobenzen	0.307	0.377	-22.8#	133	-0.10	6.28
40		Caprolactam	0.209	0.203	2.9	100	-0.09	5.94

Continuing Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1476-CC1461
Lab FileID: R40114.D

41	I	Acenaphthene-d10	1.000	1.000	0.0	121	-0.10	7.03
42	T	Pentachloronitrobenzene	0.156	0.186	-19.2	140	-0.10	8.16
43	P	Hexachlorocyclopentadiene	0.285	0.332	-16.5	127	-0.10	6.28
44	C	2,4,6-Trichlorophenol	0.342	0.420	-22.8	134	-0.10	6.39
45	T	2,4,5-Trichlorophenol	0.377	0.434	-15.1	125	-0.10	6.43
46	S	2-Fluorobiphenyl	1.280	1.388	-8.4	120	-0.10	6.47
47	T	2-Chloronaphthalene	1.092	1.151	-5.4	115	-0.10	6.55
48	M	Acenaphthylene	1.621	1.768	-9.1	118	-0.10	6.90
49	T	Dimethylphthalate	1.190	1.337	-12.4	124	-0.10	6.84
50	T	2,4-Dinitrotoluene	0.348	0.393	-12.9	132	-0.10	7.22
51	C	Acenaphthene	1.146	1.189	-3.8	114	-0.10	7.06
			Amount	Calc.	%Drift			
52	P	2,4-Dinitrophenol	50.000	58.445	-16.9	143	-0.10	7.11
			AvgRF	CCRF	%Dev			
53	T	Dibenzofuran	1.623	1.769	-9.0	119	-0.10	7.21
54	M	2,6-Dinitrotoluene	0.267	0.301	-12.7	132	-0.10	6.88
55	P	4-Nitrophenol	0.283	0.248	12.4	96	-0.10	7.19
56	T	2,3,4,6-Tetrachlorophenol	0.295	0.367	-24.4#	140	-0.10	7.32
57	T	Fluorene	1.274	1.372	-7.7	114	-0.10	7.50
58	T	4-Chlorophenyl-phenylethe	0.590	0.696	-18.0	124	-0.10	7.52
59	T	Diethylphthalate	1.228	1.366	-11.2	122	-0.10	7.45
60	T	2-nitroaniline	0.407	0.436	-7.1	123	-0.10	6.66
61	T	3-nitroaniline	0.342	0.365	-6.7	124	-0.10	7.02
62	T	4-nitroaniline	0.367	0.366	0.3	115	-0.10	7.55
63		1,1'-Biphenyl	1.467	1.508	-2.8	113	-0.10	6.55
64	I	Phenanthrene-d10	1.000	1.000	0.0	123	-0.11	8.31
			Amount	Calc.	%Drift			
65	T	4,6-Dinitro-2-methylpheno	50.000	59.155	-18.3	148	-0.10	7.57
			AvgRF	CCRF	%Dev			
66	C	n-Nitrosodiphenylamine	0.543	0.587	-8.1	121	-0.10	7.63
67	T	1,2-Diphenylhydrazine	0.923	0.839	9.1	100	-0.10	7.66
68	S	2,4,6-Tribromophenol	0.087	0.121	-39.1#	162	-0.10	7.71
69	T	4-Bromophenyl-phenylether	0.189	0.233	-23.3#	138	-0.10	7.94
70	T	Hexachlorobenzene	0.190	0.249	-31.1#	149	-0.10	7.97
71	C	Pentachlorophenol	0.162	0.190	-17.3	139	-0.10	8.16
72	T	Phenanthrene	1.103	1.185	-7.4	120	-0.11	8.33
73	T	Anthracene	1.101	1.210	-9.9	120	-0.10	8.37
74	T	Carbazole	1.085	1.173	-8.1	118	-0.10	8.53
75	T	Di-n-butylphthalate	1.272	1.449	-13.9	117	-0.10	8.87
76	C	Fluoranthene	1.121	1.317	-17.5	127	-0.11	9.35
77		Atrazine	0.167	0.143	14.4	93	-0.10	8.12
78	I	Chrysene-d12	1.000	1.000	0.0	134	-0.13	10.66
			Amount	Calc.	%Drift			
79	T	Benzidine	50.000	40.058	19.9	100	-0.11	9.50
			AvgRF	CCRF	%Dev			
80		3,3-Dimethylbenzidine	0.411	0.450	-9.5	128	0.00	10.14
81	M	Pyrene	1.285	1.339	-4.2	126	-0.11	9.54
82	S	Terphenyl-d14	0.849	0.919	-8.2	132	-0.10	9.71
83	T	Butylbenzylphthalate	0.589	0.606	-2.9	118	-0.11	10.17
84	T	3,3'-Dichlorobenzidine	0.401	0.471	-17.5	145	-0.13	10.65
85	T	Benzo[a]anthracene	1.155	1.190	-3.0	130	-0.13	10.64
86	T	Chrysene	1.150	1.161	-1.0	121	-0.13	10.68

Continuing Calibration Summary

Job Number: MC33908
Account: BBLNYS Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Sample: MSR1476-CC1461
Lab FileID: R40114.D

87	T	bis(2-Ethylhexyl)phthalat	0.809	0.844	-4.3	112	-0.12	10.77
88	I	Perylene-d12	1.000	1.000	0.0	137	-0.16	12.16
89	C	Di-n-octylphthalate	1.583	1.607	-1.5	120	-0.13	11.47
90	T	Benzo[b]fluoranthene	1.161	1.235	-6.4	134	-0.15	11.76
91	T	Benzo[k]fluoranthene	1.204	1.326	-10.1	133	-0.15	11.80
92	C	Benzo[a]pyrene	1.088	1.190	-9.4	135	-0.16	12.10
93	T	Indeno[1,2,3-cd]pyrene	1.307	1.094	16.3	105	-0.17	13.27
94	T	Dibenz[a,h]anthracene	1.078	1.159	-7.5	133	-0.17	13.31
95	T	Benzo[g,h,i]perylene	1.069	1.189	-11.2	139	-0.17	13.53
96		1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	123	-0.10	4.42
		----------	Amount	Calc.	%Drift		----------	
97		Benzaldehyde			NA			

(#) = Out of Range SPCC's out = 0 CCC's out = 1
R39642a.D R140911_8270A.m Mon Oct 06 07:32:23 2014

8.7.6

8

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76572.D
Acq On : 2 Oct 2014 11:57 am
Operator : williamk
Sample : mc33908-1
Misc : op39993,msf3358,950,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 02 14:43:10 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

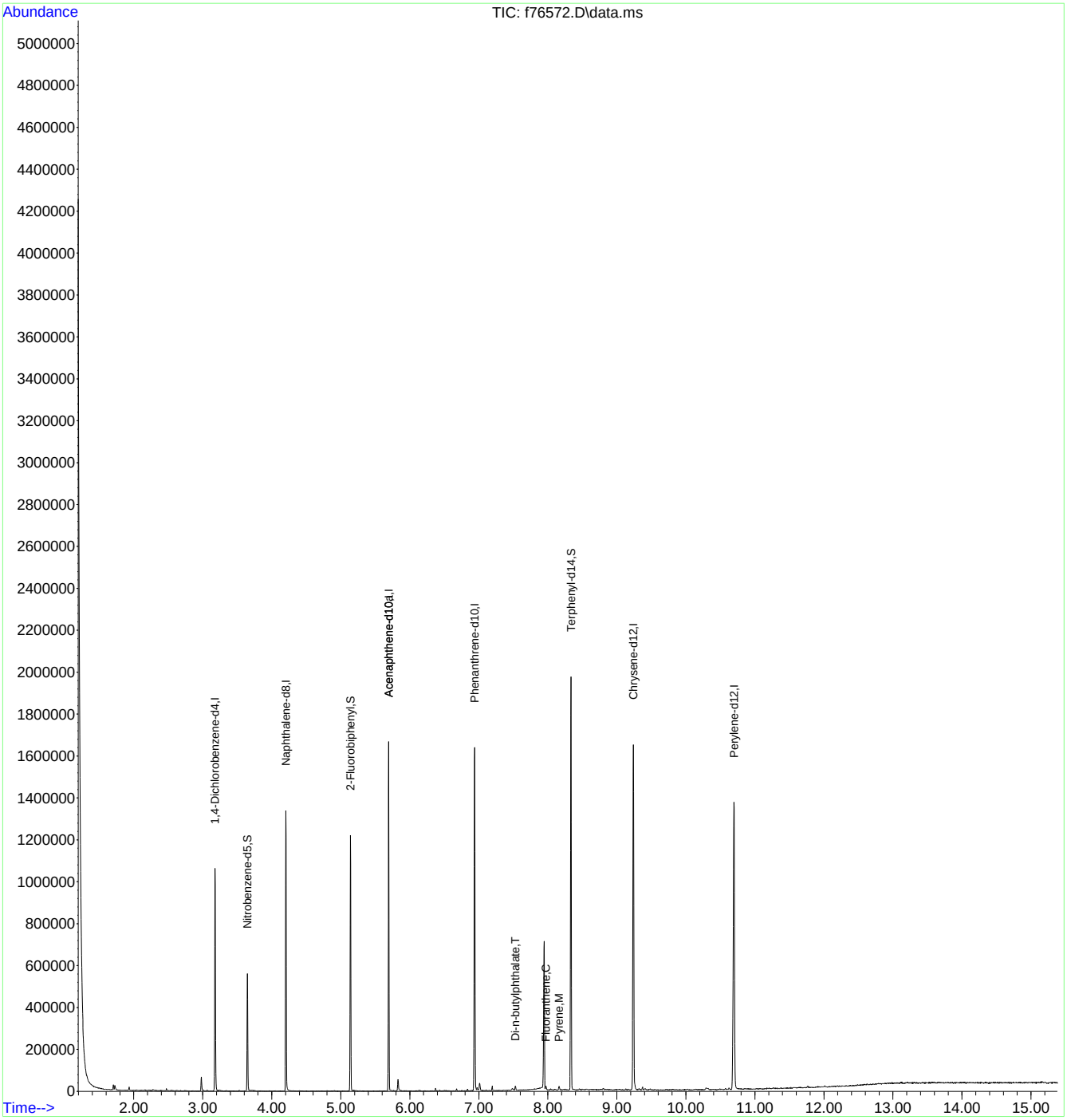
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.178	152	125051	40.00	ppm	-0.04
22) Naphthalene-d8	4.205	136	457820	40.00	ppm	-0.04
39) Acenaphthene-d10	5.695	164	280011	40.00	ppm	-0.04
61) Phenanthrene-d10	6.940	188	494491	40.00	ppm	-0.05
75) Chrysene-d12	9.240	240	571099	40.00	ppm	-0.06
85) Perylene-d12	10.696	264	580326	40.00	ppm	-0.07
93) Acenaphthene-d10a	5.695	164	280011	40.00	ppm	-0.04
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 100.000	Range 21 - 110		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 100.000	Range 10 - 110		Recovery =	0.00%#		
23) Nitrobenzene-d5	3.646	82	124972	28.59	ppm	-0.04
Spiked Amount 50.000	Range 34 - 114		Recovery =	57.18%		
44) 2-Fluorobiphenyl	5.139	172	279227	30.07	ppm	-0.05
Spiked Amount 50.000	Range 43 - 116		Recovery =	60.14%		
65) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
78) Terphenyl-d14	8.337	244	513957	42.30	ppm	-0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	84.60%		
Target Compounds						Qvalue
73) Di-n-butylphthalate	7.530	149	8049	0.53	ppm	98
74) Fluoranthene	7.971	202	6185	0.42	ppm	93
77) Pyrene	8.160	202	5373	0.33	ppm	92

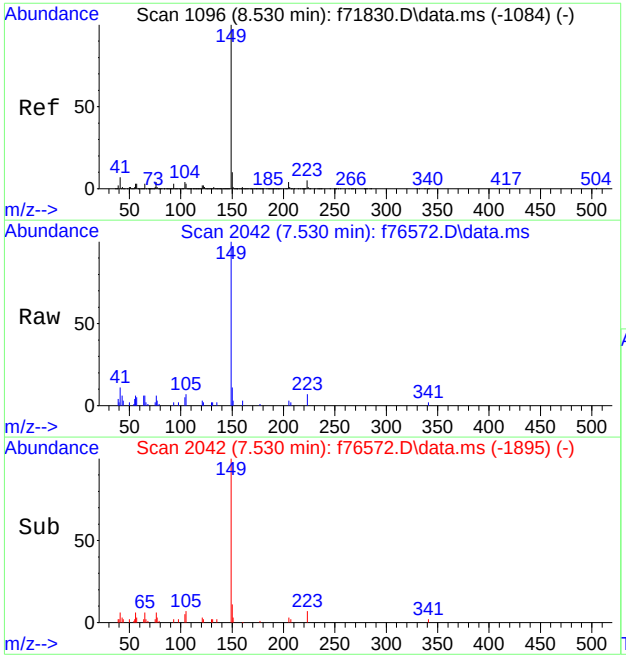
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76572.D
Acq On : 2 Oct 2014 11:57 am
Operator : williamk
Sample : mc33908-1
Misc : op39993,msf3358,950,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 02 14:43:10 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

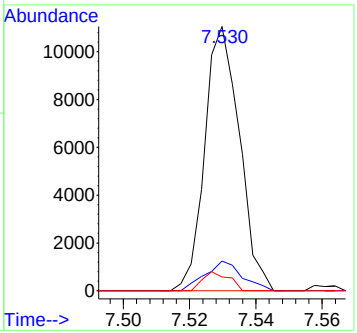


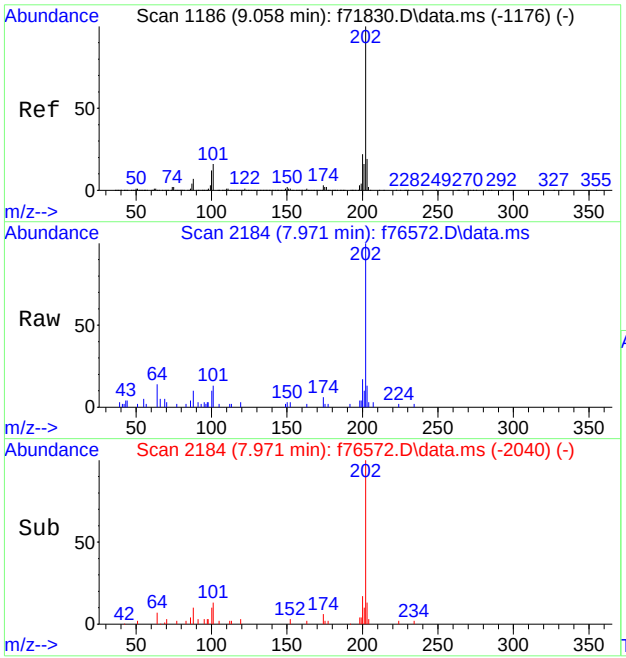


#73
Di-n-butylphthalate
Concen: 0.53 ppm
RT: 7.530 min Scan# 2042
Delta R.T. -0.045 min
Lab File: f76572.D
Acq: 2 Oct 2014 11:57 am

Tgt Ion:149 Resp: 8049

Ion	Ratio	Lower	Upper
149	100		
150	11.2	0.0	40.3
104	5.2	0.0	34.5

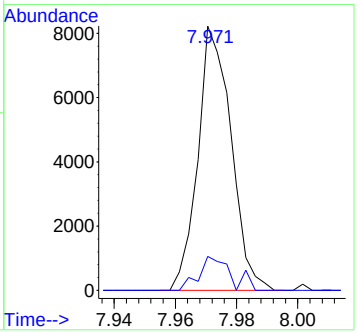




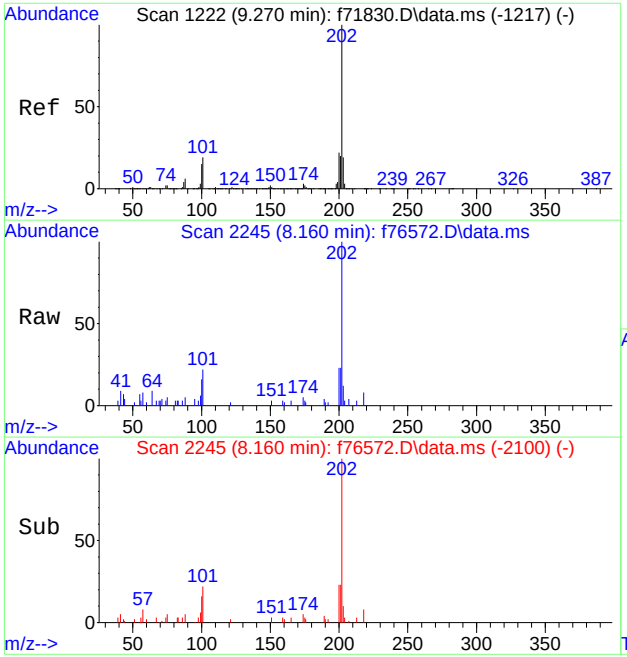
#74
Fluoranthene
Concen: 0.42 ppm
RT: 7.971 min Scan# 2184
Delta R.T. -0.054 min
Lab File: f76572.D
Acq: 2 Oct 2014 11:57 am

Tgt Ion:202 Resp: 6185

Ion	Ratio	Lower	Upper
202	100		
101	12.8	0.0	45.9



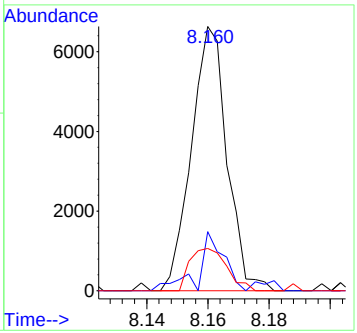
ACCUTEST LABORATORIES
MC33908



#77
Pyrene
Concen: 0.33 ppm
RT: 8.160 min Scan# 2245
Delta R.T. -0.051 min
Lab File: f76572.D
Acq: 2 Oct 2014 11:57 am

Tgt Ion:202 Resp: 5373

Ion	Ratio	Lower	Upper
202	100		
101	22.3	0.0	47.8
100	16.0	0.0	44.2



Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76571.D
Acq On : 2 Oct 2014 11:34 am
Operator : williamk
Sample : mc33908-3
Misc : op39993,msf3358,860,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 02 14:42:35 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

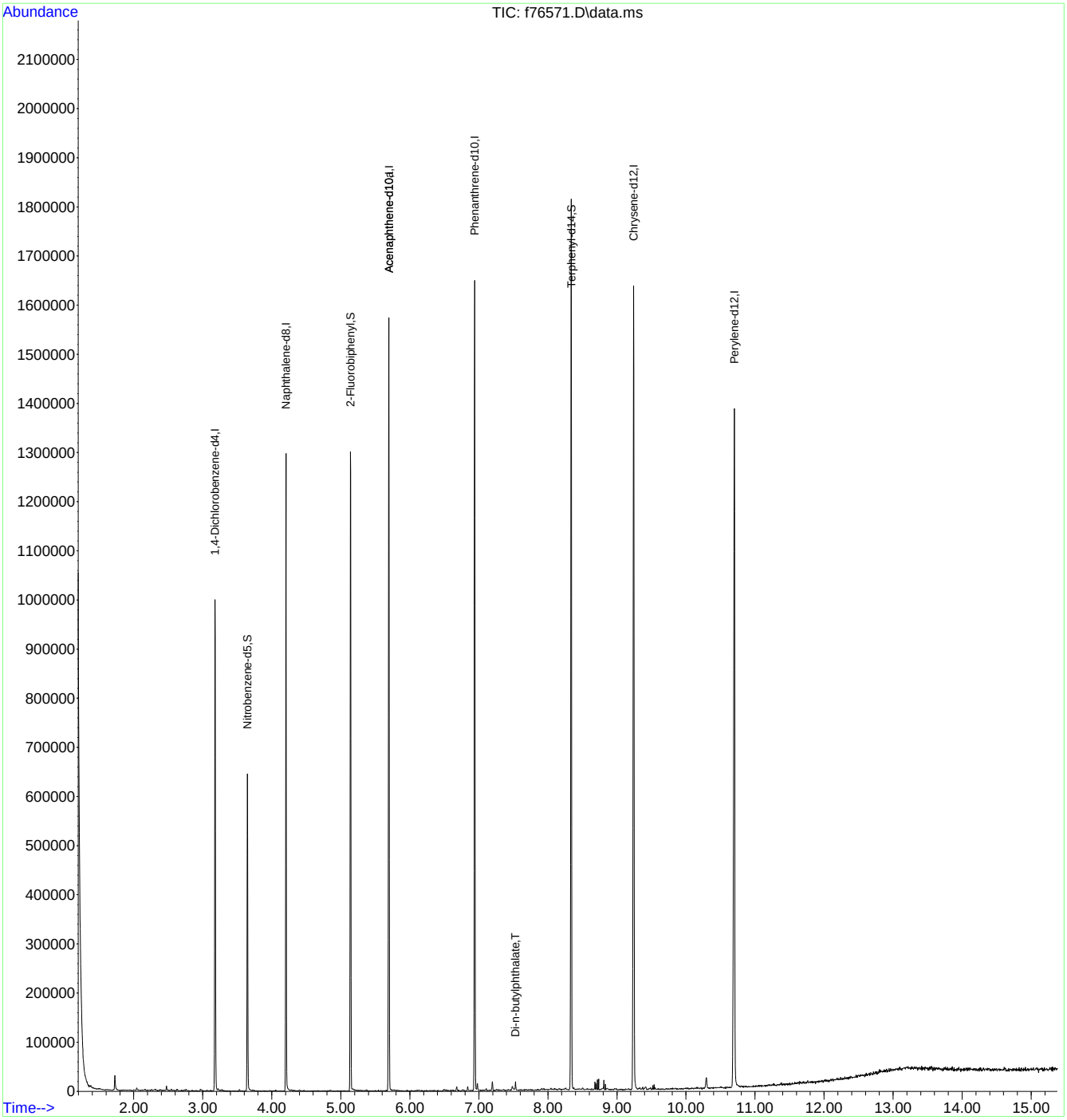
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.178	152	118086	40.00	ppm	-0.04
22) Naphthalene-d8	4.205	136	439437	40.00	ppm	-0.04
39) Acenaphthene-d10	5.695	164	269625	40.00	ppm	-0.04
61) Phenanthrene-d10	6.940	188	477248	40.00	ppm	-0.04
75) Chrysene-d12	9.240	240	542207	40.00	ppm	-0.06
85) Perylene-d12	10.699	264	563603	40.00	ppm	-0.06
93) Acenaphthene-d10a	5.695	164	269625	40.00	ppm	-0.04
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 100.000	Range 21 - 110		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 110		Recovery =	0.00%#		
23) Nitrobenzene-d5	3.647	82	141977	33.84	ppm	-0.04
Spiked Amount 50.000	Range 34 - 114		Recovery =	67.68%		
44) 2-Fluorobiphenyl	5.140	172	308798	34.53	ppm	-0.04
Spiked Amount 50.000	Range 43 - 116		Recovery =	69.06%		
65) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
78) Terphenyl-d14	8.337	244	475782	41.25	ppm	-0.04
Spiked Amount 50.000	Range 33 - 141		Recovery =	82.50%		
Target Compounds						Qvalue
73) Di-n-butylphthalate	7.530	149	7131	0.48	ppm	94

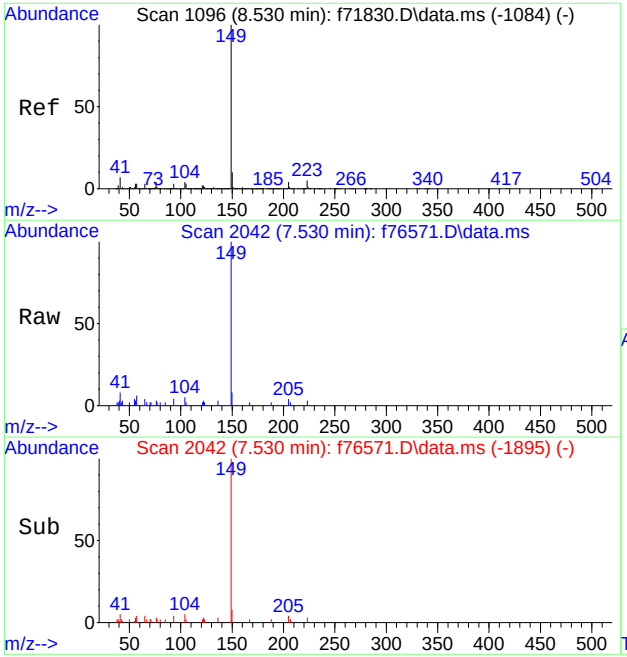
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76571.D
Acq On : 2 Oct 2014 11:34 am
Operator : williamk
Sample : mc33908-3
Misc : op39993,msf3358,860,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 02 14:42:35 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

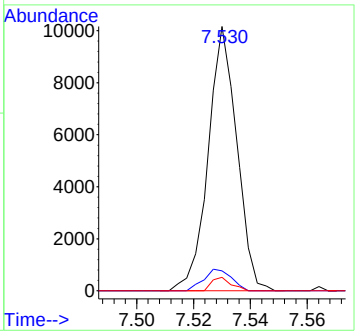




#73
Di-n-butylphthalate
Concen: 0.48 ppm
RT: 7.530 min Scan# 2042
Delta R.T. -0.045 min
Lab File: f76571.D
Acq: 2 Oct 2014 11:34 am

Tgt Ion:149 Resp: 7131

Ion	Ratio	Lower	Upper
149	100		
150	7.6	0.0	40.3
104	5.1	0.0	34.5



Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76573.D
Acq On : 2 Oct 2014 12:20 pm
Operator : williamk
Sample : mc33908-4
Misc : op39993,msf3358,900,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 02 14:44:55 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

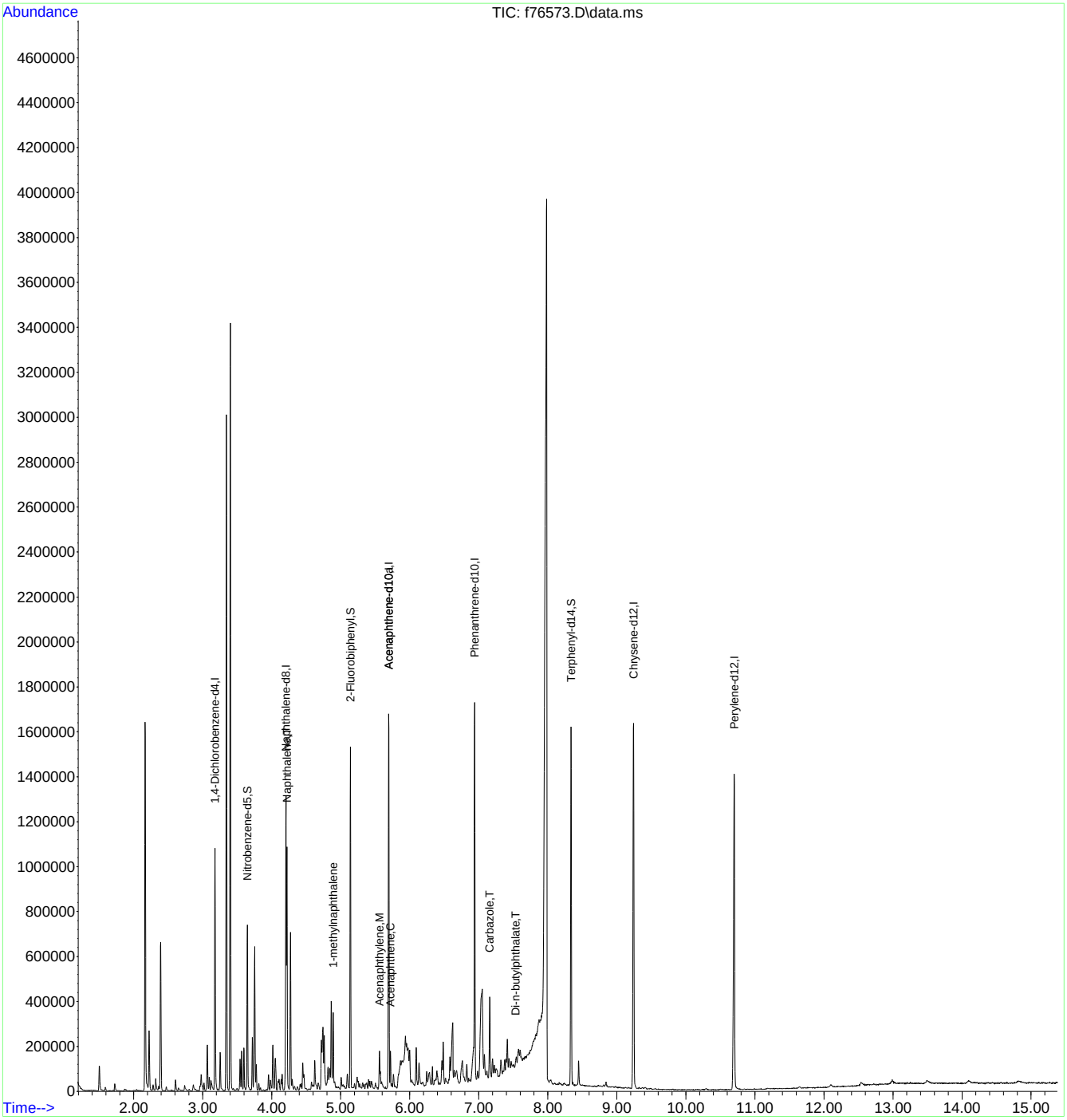
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.179	152	125354	40.00	ppm	-0.04
22) Naphthalene-d8	4.207	136	456976	40.00	ppm	-0.04
39) Acenaphthene-d10	5.694	164	283124	40.00	ppm	-0.04
61) Phenanthrene-d10	6.942	188	496543	40.00	ppm	-0.04
75) Chrysene-d12	9.242	240	568044	40.00	ppm	-0.06
85) Perylene-d12	10.698	264	575214	40.00	ppm	-0.06
93) Acenaphthene-d10a	5.694	164	283124	40.00	ppm	-0.04
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 100.000	Range 21 - 110		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 110		Recovery =	0.00%#		
23) Nitrobenzene-d5	3.648	82	168621	38.65	ppm	-0.04
Spiked Amount 50.000	Range 34 - 114		Recovery =	77.30%		
44) 2-Fluorobiphenyl	5.141	172	343560	36.59	ppm	-0.04
Spiked Amount 50.000	Range 43 - 116		Recovery =	73.18%		
65) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
78) Terphenyl-d14	8.336	244	430456	35.62	ppm	-0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	71.24%		
Target Compounds						Qvalue
32) Naphthalene	4.223	128	324166	27.69	ppm	97
38) 1-methylnaphthalene	4.890	142	61730	8.06	ppm	94
46) Acenaphthylene	5.560	152	48012	4.29	ppm	98
49) Acenaphthene	5.719	153	24606	3.02	ppm	99
72) Carbazole	7.156	167	112825	8.79	ppm	99
73) Di-n-butylphthalate	7.535	149	8615	0.56	ppm	97

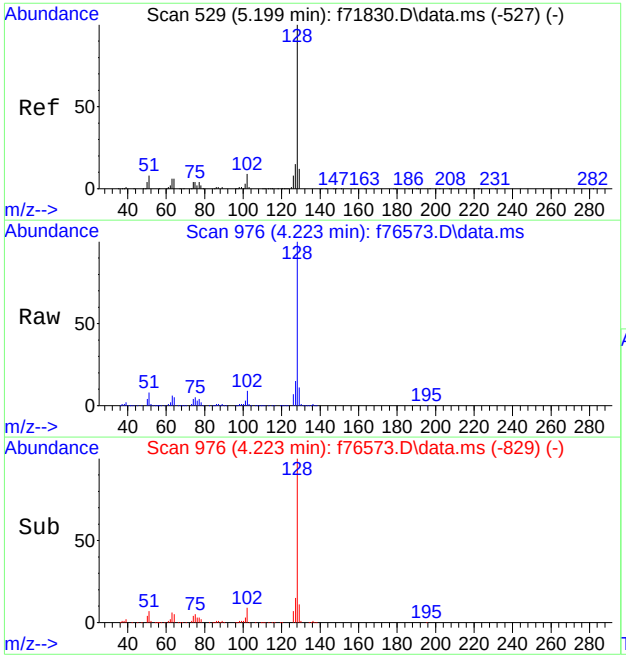
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76573.D
Acq On : 2 Oct 2014 12:20 pm
Operator : williamk
Sample : mc33908-4
Misc : op39993,msf3358,900,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 02 14:44:55 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

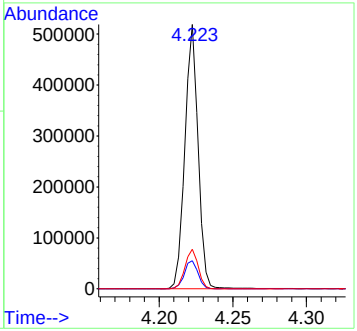


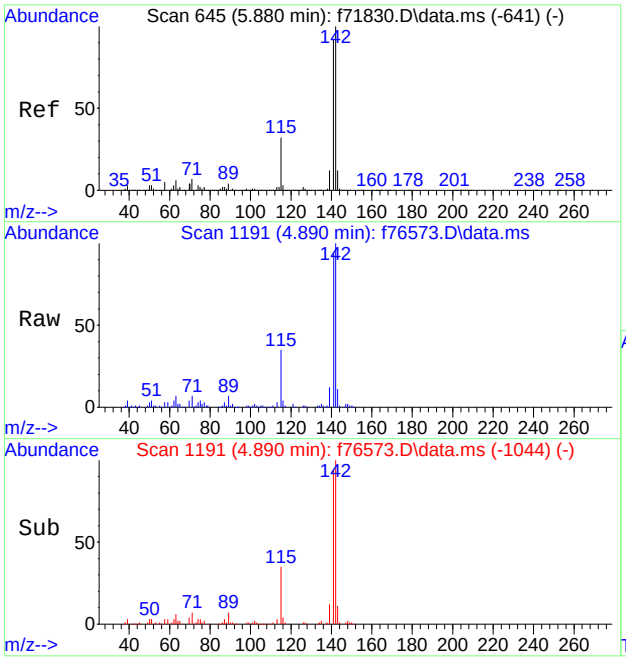


#32
Naphthalene
Concen: 27.69 ppm
RT: 4.223 min Scan# 976
Delta R.T. -0.043 min
Lab File: f76573.D
Acq: 2 Oct 2014 12:20 pm

Tgt Ion:128 Resp: 324166

Ion	Ratio	Lower	Upper
128	100		
129	10.7	0.0	41.8
127	14.9	0.0	44.0

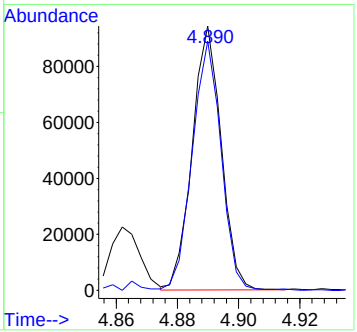


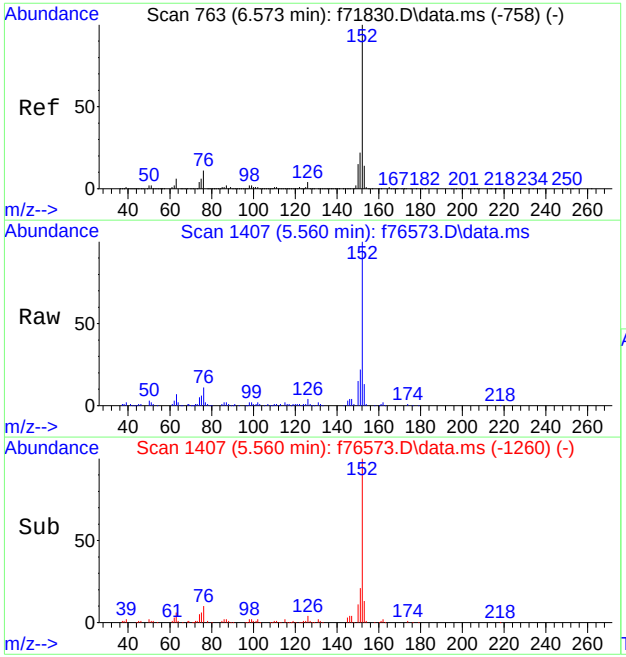


#38
1-methylnaphthalene
Concen: 8.06 ppm
RT: 4.890 min Scan# 1191
Delta R.T. -0.043 min
Lab File: f76573.D
Acq: 2 Oct 2014 12:20 pm

Tgt Ion:142 Resp: 61730

Ion	Ratio	Lower	Upper
142	100		
141	93.9	71.0	106.4

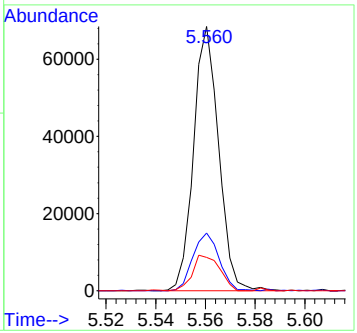


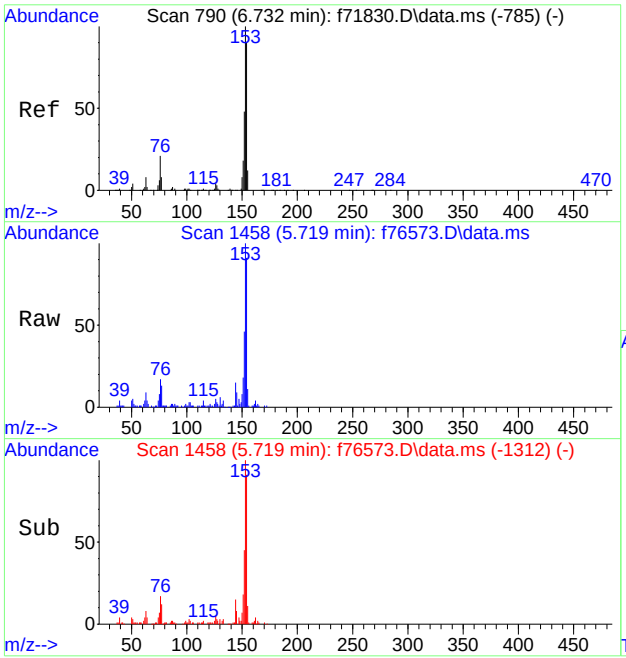


#46
Acenaphthylene
Concen: 4.29 ppm
RT: 5.560 min Scan# 1407
Delta R.T. -0.043 min
Lab File: f76573.D
Acq: 2 Oct 2014 12:20 pm

Tgt Ion:152 Resp: 48012

Ion	Ratio	Lower	Upper
152	100		
151	21.9	0.0	51.6
153	12.7	0.0	43.9

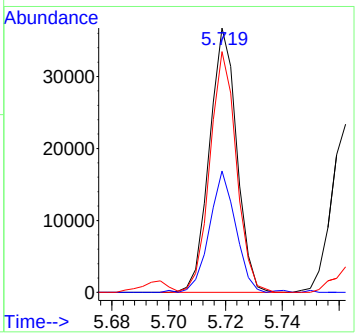


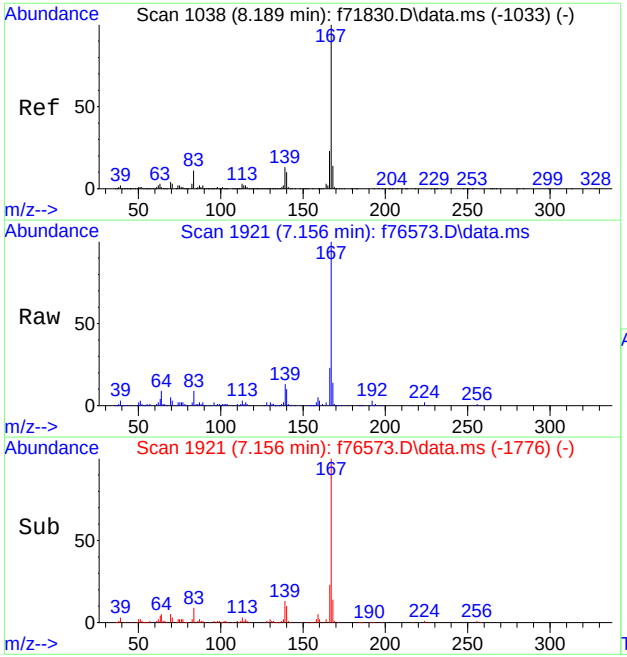


#49
Acenaphthene
Concen: 3.02 ppm
RT: 5.719 min Scan# 1458
Delta R.T. -0.046 min
Lab File: f76573.D
Acq: 2 Oct 2014 12:20 pm

Tgt Ion:153 Resp: 24606

Ion	Ratio	Lower	Upper
153	100		
152	45.9	17.6	77.6
154	91.0	60.3	120.3

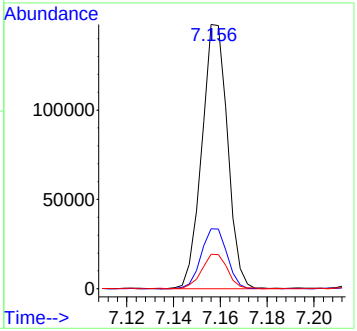


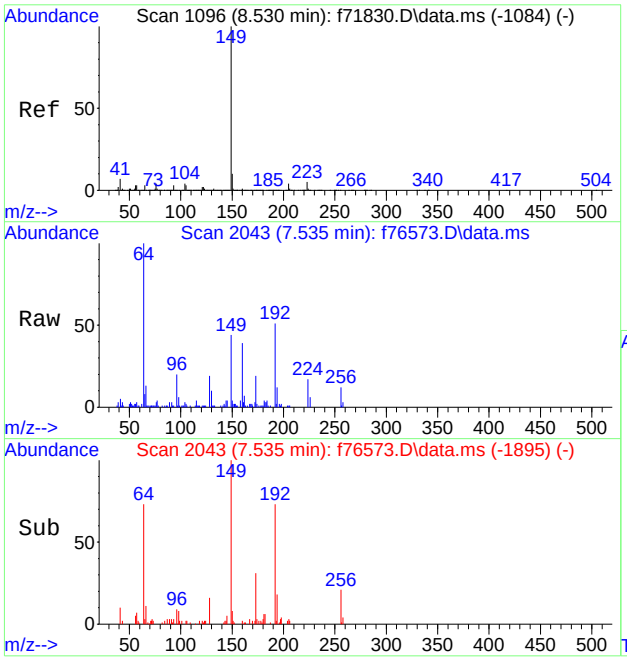


#72
Carbazole
Concen: 8.79 ppm
RT: 7.156 min Scan# 1921
Delta R.T. -0.049 min
Lab File: f76573.D
Acq: 2 Oct 2014 12:20 pm

Tgt Ion:167 Resp: 112825

Ion	Ratio	Lower	Upper
167	100		
166	22.7	0.0	52.4
139	13.0	0.0	42.5

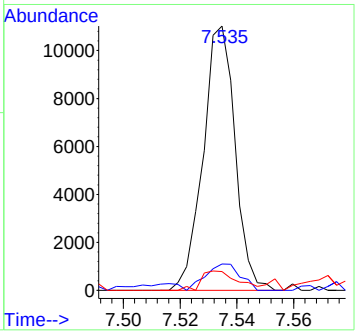




#73
Di-n-butylphthalate
Concen: 0.56 ppm
RT: 7.535 min Scan# 2043
Delta R.T. -0.040 min
Lab File: f76573.D
Acq: 2 Oct 2014 12:20 pm

Tgt Ion:149 Resp: 8615

Ion	Ratio	Lower	Upper
149	100		
150	9.9	0.0	40.3
104	7.1	0.0	34.5



Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76574.D
Acq On : 2 Oct 2014 12:43 pm
Operator : williamk
Sample : mc33908-5
Misc : op39993,msf3358,940,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 02 14:45:27 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

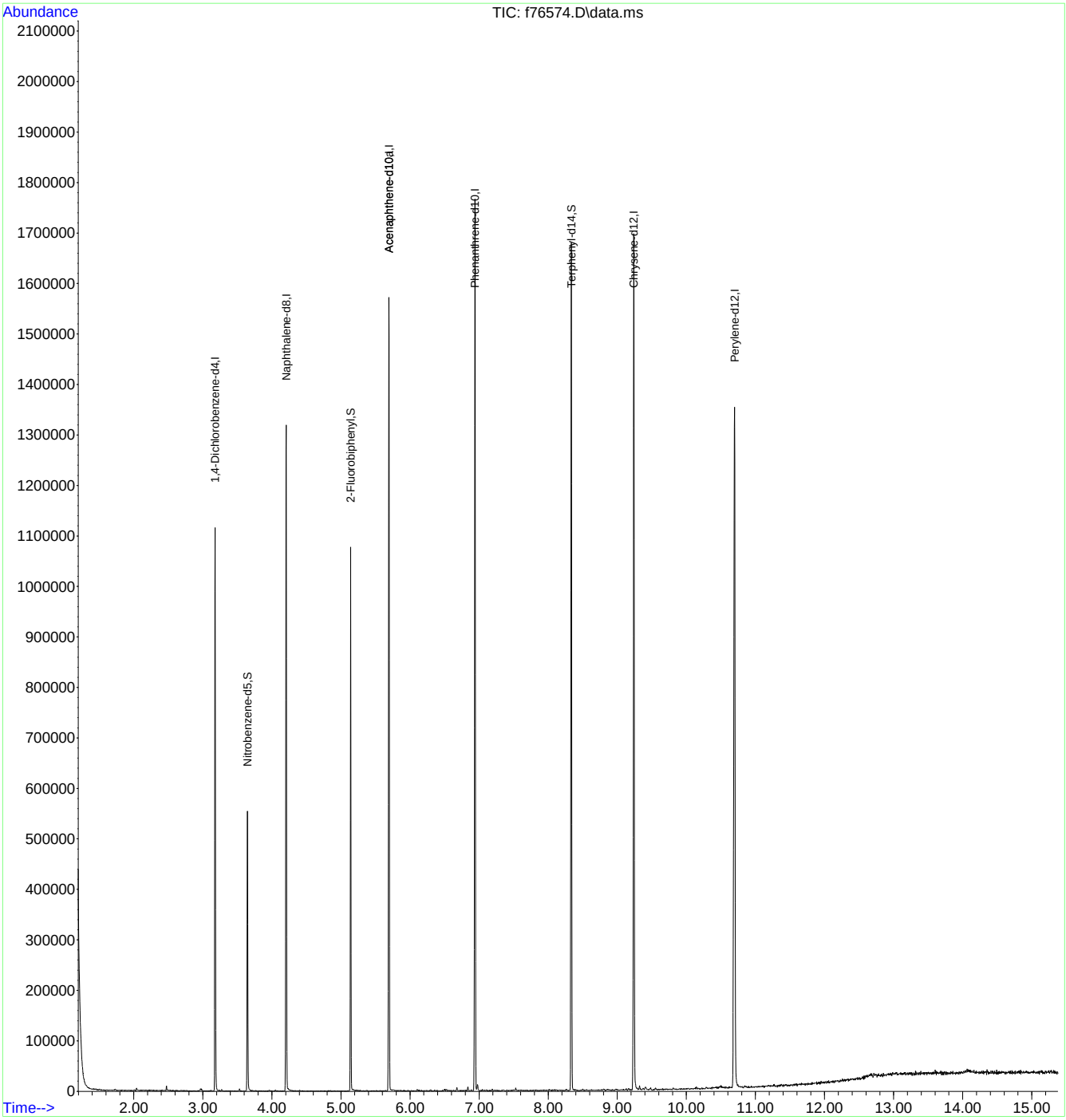
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.180	152	125038	40.00	ppm	-0.04
22) Naphthalene-d8	4.207	136	461125	40.00	ppm	-0.04
39) Acenaphthene-d10	5.694	164	284057	40.00	ppm	-0.04
61) Phenanthrene-d10	6.939	188	496116	40.00	ppm	-0.05
75) Chrysene-d12	9.239	240	568731	40.00	ppm	-0.06
85) Perylene-d12	10.698	264	588589	40.00	ppm	-0.06
93) Acenaphthene-d10a	5.694	164	284057	40.00	ppm	-0.04
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 100.000	Range 21 - 110		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 110		Recovery =	0.00%#		
23) Nitrobenzene-d5	3.649	82	131146	29.79	ppm	-0.04
Spiked Amount 50.000	Range 34 - 114		Recovery =	59.58%		
44) 2-Fluorobiphenyl	5.142	172	248072	26.33	ppm	-0.04
Spiked Amount 50.000	Range 43 - 116		Recovery =	52.66%		
65) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
78) Terphenyl-d14	8.336	244	447041	36.95	ppm	-0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	73.90%		
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76574.D
Acq On : 2 Oct 2014 12:43 pm
Operator : williamk
Sample : mc33908-5
Misc : op39993,msf3358,940,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 02 14:45:27 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration



F140825_8270.m Fri Oct 03 11:50:10 2014 Page: 2

Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
10/08/14 12:17

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76575.D
Acq On : 2 Oct 2014 1:06 pm
Operator : williamk
Sample : mc33908-6
Misc : op39993,msf3358,860,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 02 14:46:58 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

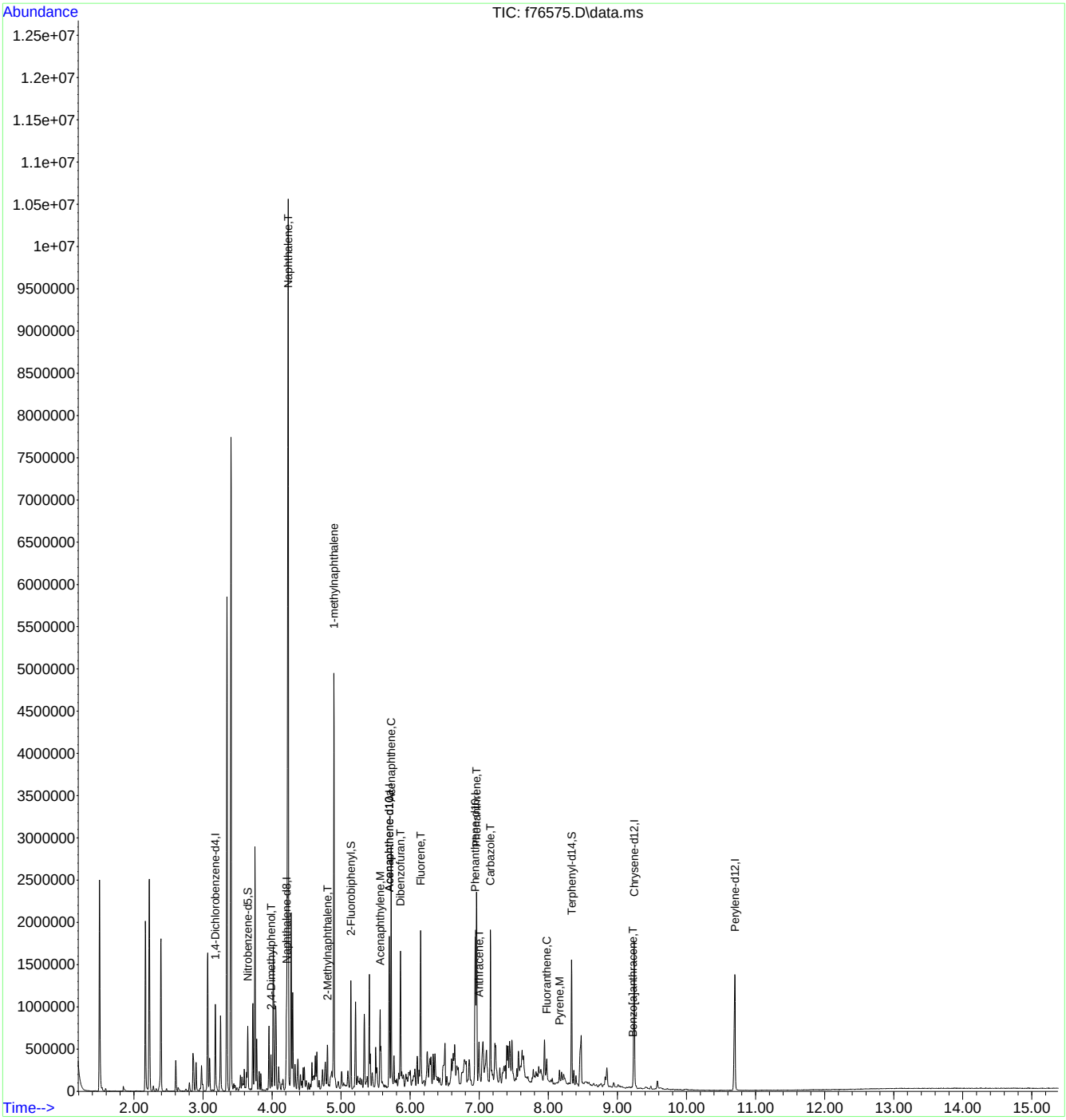
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.180	152	120517	40.00	ppm	-0.04
22) Naphthalene-d8	4.210	136	455495	40.00	ppm	-0.04
39) Acenaphthene-d10	5.697	164	276592	40.00	ppm	-0.04
61) Phenanthrene-d10	6.942	188	483276	40.00	ppm	-0.04
75) Chrysene-d12	9.242	240	567215	40.00	ppm	-0.06
85) Perylene-d12	10.701	264	583144	40.00	ppm	-0.06
93) Acenaphthene-d10a	5.697	164	276592	40.00	ppm	-0.04
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 100.000	Range 21 - 110		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 110		Recovery =	0.00%#		
23) Nitrobenzene-d5	3.649	82	151613	34.87	ppm	-0.04
Spiked Amount 50.000	Range 34 - 114		Recovery =	69.74%		
44) 2-Fluorobiphenyl	5.142	172	286282	31.21	ppm	-0.04
Spiked Amount 50.000	Range 43 - 116		Recovery =	62.42%		
65) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
78) Terphenyl-d14	8.336	244	387160	32.08	ppm	-0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	64.16%		
Target Compounds						Qvalue
27) 2,4-Dimethylphenol	3.987	107	71692	16.95	ppm	95
32) Naphthalene	4.235	128	4310097	369.33	ppm	96
37) 2-Methylnaphthalene	4.800	142	96111	11.79	ppm	98
38) 1-methylnaphthalene	4.896	142	1070893	140.28	ppm	94
46) Acenaphthylene	5.564	152	276863	25.31	ppm	98
49) Acenaphthene	5.725	153	518402	65.18	ppm	97
51) Dibenzofuran	5.859	168	534304	47.26	ppm	97
55) Fluorene	6.151	166	412697	47.89	ppm	97
70) Phenanthrene	6.961	178	580269	43.76	ppm	99
71) Anthracene	6.995	178	124198	9.25	ppm	93
72) Carbazole	7.163	167	586526	46.96	ppm	99
74) Fluoranthene	7.976	202	73937	5.14	ppm	93
77) Pyrene	8.162	202	48928	3.03	ppm	92
82) Benzo[a]anthracene	9.224	228	4390m	0.30	ppm	

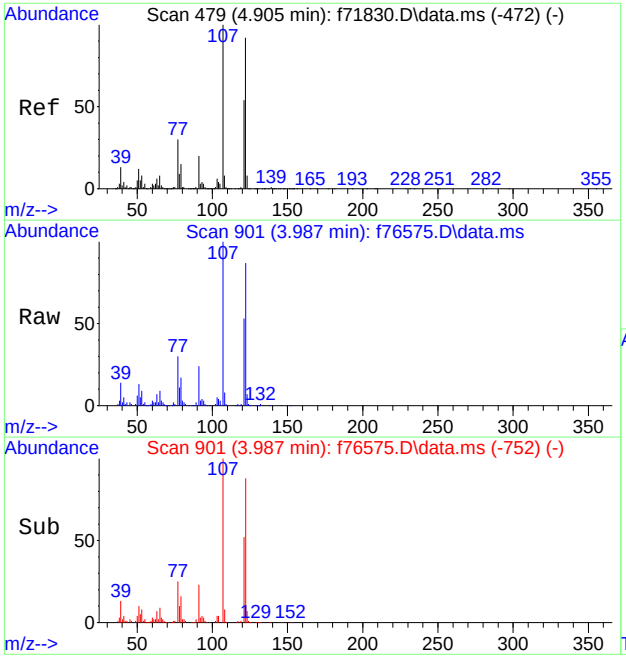
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76575.D
Acq On : 2 Oct 2014 1:06 pm
Operator : williamk
Sample : mc33908-6
Misc : op39993,msf3358,860,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 02 14:46:58 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

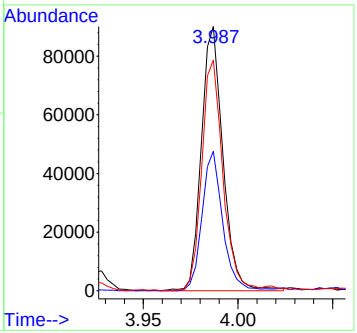


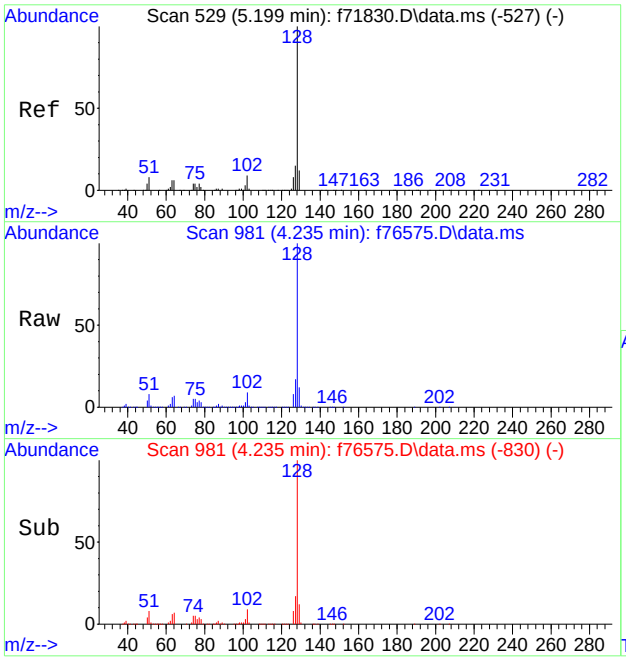


#27
2,4-Dimethylphenol
Concen: 16.95 ppm
RT: 3.987 min Scan# 901
Delta R.T. -0.037 min
Lab File: f76575.D
Acq: 2 Oct 2014 1:06 pm

Tgt Ion:107 Resp: 71692

Ion	Ratio	Lower	Upper
107	100		
121	52.8	24.9	84.9
122	87.0	62.7	122.7

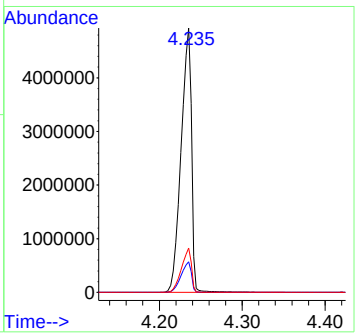


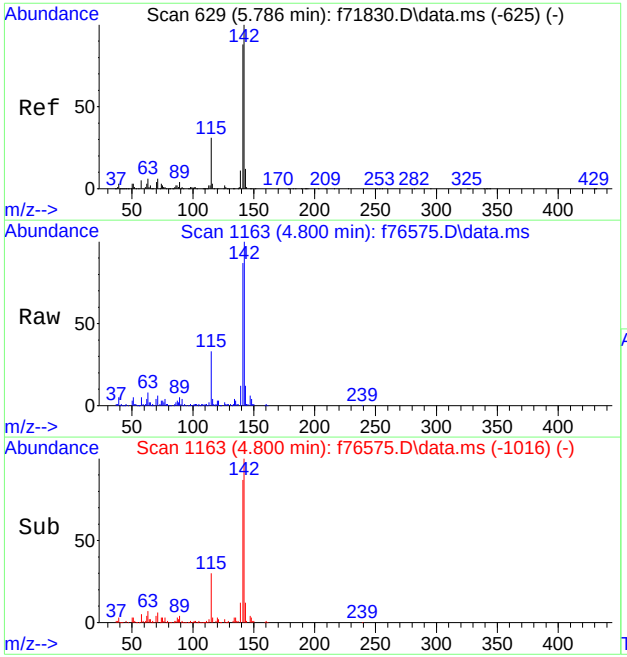


#32
Naphthalene
Concen: 369.33 ppm
RT: 4.235 min Scan# 981
Delta R.T. -0.031 min
Lab File: f76575.D
Acq: 2 Oct 2014 1:06 pm

Tgt Ion:128 Resp: 4310097

Ion	Ratio	Lower	Upper
128	100		
129	11.6	0.0	41.8
127	16.7	0.0	44.0

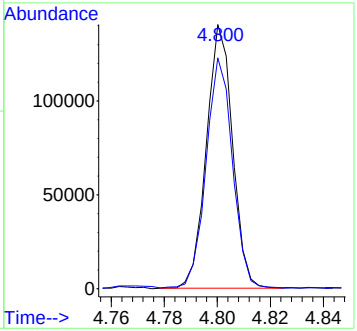


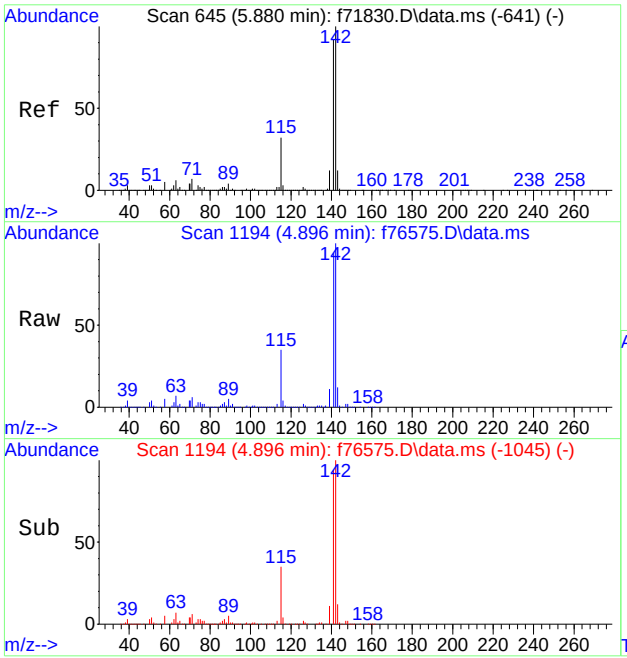


#37
2-Methylnaphthalene
Concen: 11.79 ppm
RT: 4.800 min Scan# 1163
Delta R.T. -0.043 min
Lab File: f76575.D
Acq: 2 Oct 2014 1:06 pm

Tgt Ion:142 Resp: 96111

Ion	Ratio	Lower	Upper
142	100		
141	87.2	58.7	118.7

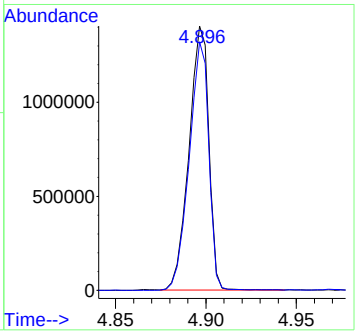


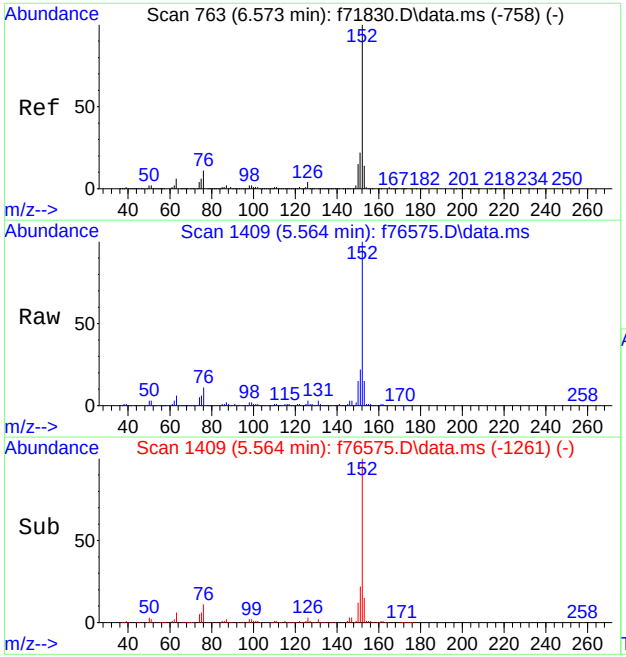


#38
1-methylnaphthalene
Concen: 140.28 ppm
RT: 4.896 min Scan# 1194
Delta R.T. -0.037 min
Lab File: f76575.D
Acq: 2 Oct 2014 1:06 pm

Tgt Ion:142 Resp: 1070893

Ion	Ratio	Lower	Upper
142	100		
141	94.1	71.0	106.4

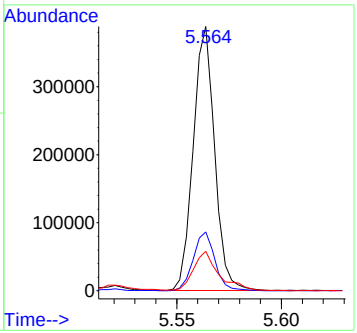


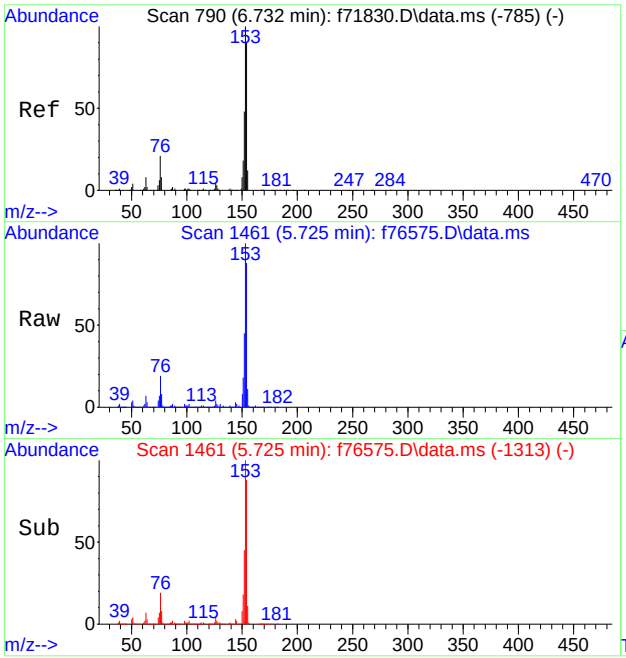


#46
Acenaphthylene
Concen: 25.31 ppm
RT: 5.564 min Scan# 1409
Delta R.T. -0.040 min
Lab File: f76575.D
Acq: 2 Oct 2014 1:06 pm

Tgt Ion:152 Resp: 276863

Ion	Ratio	Lower	Upper
152	100		
151	22.3	0.0	51.6
153	14.9	0.0	43.9

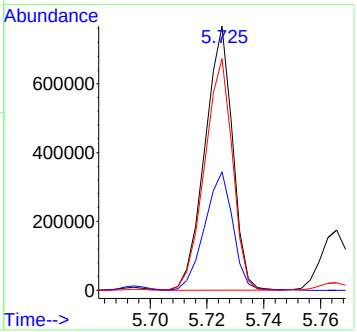


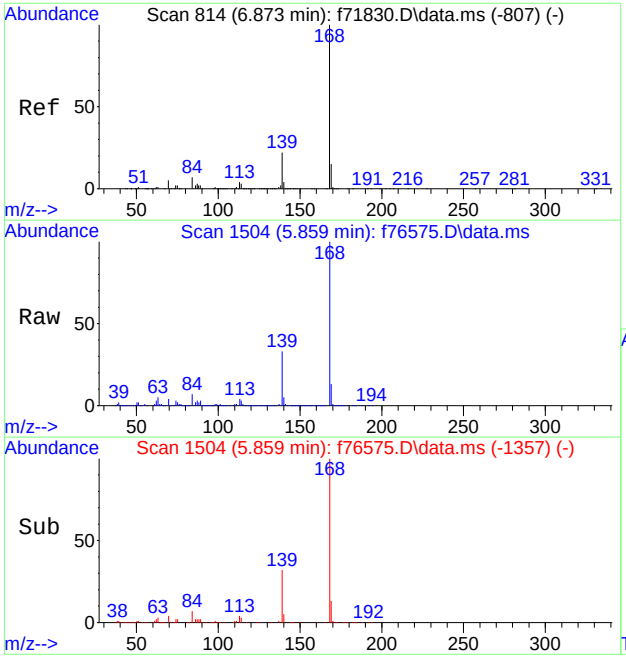


#49
Acenaphthene
Concen: 65.18 ppm
RT: 5.725 min Scan# 1461
Delta R.T. -0.040 min
Lab File: f76575.D
Acq: 2 Oct 2014 1:06 pm

Tgt Ion:153 Resp: 518402

Ion	Ratio	Lower	Upper
153	100		
152	44.7	17.6	77.6
154	87.6	60.3	120.3

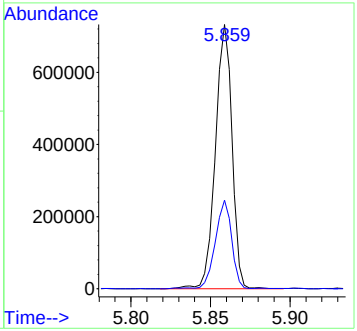


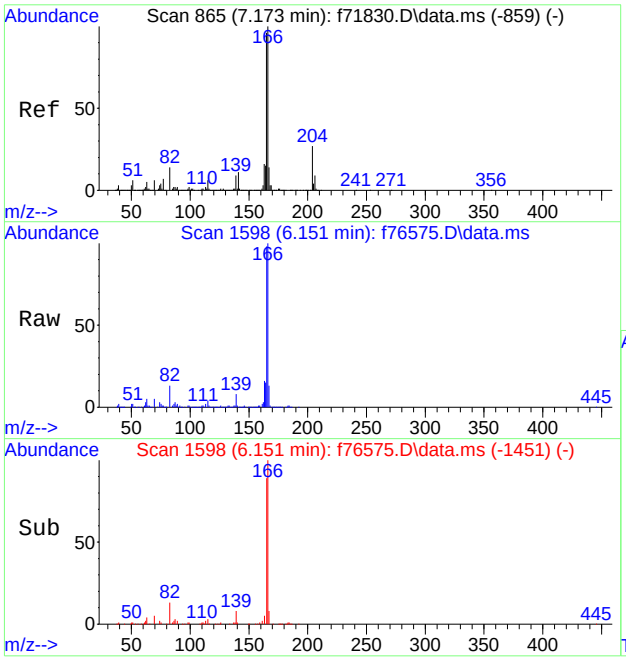


#51
Dibenzofuran
Concen: 47.26 ppm
RT: 5.859 min Scan# 1504
Delta R.T. -0.043 min
Lab File: f76575.D
Acq: 2 Oct 2014 1:06 pm

Tgt Ion:168 Resp: 534304

Ion	Ratio	Lower	Upper
168	100		
139	33.4	5.3	65.3

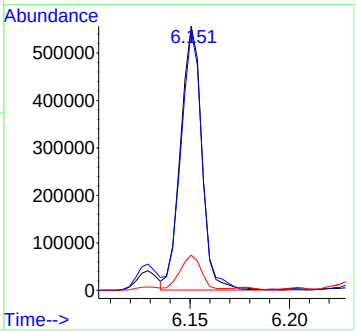


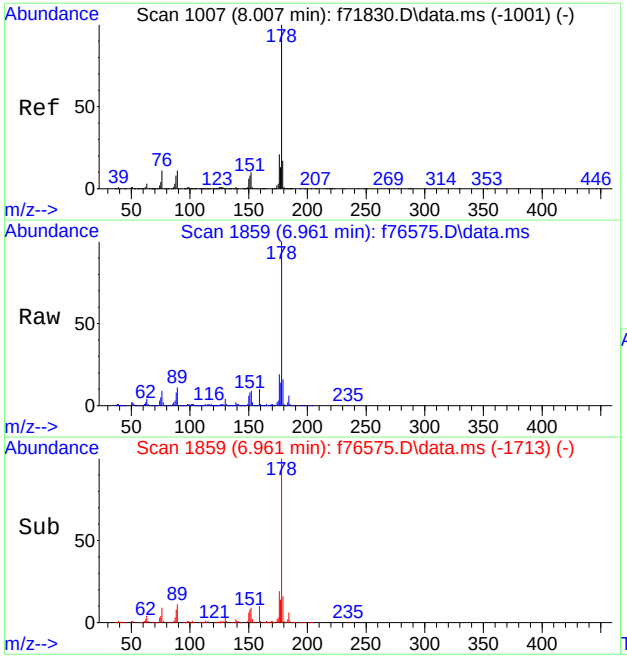


#55
Fluorene
Concen: 47.89 ppm
RT: 6.151 min Scan# 1598
Delta R.T. -0.043 min
Lab File: f76575.D
Acq: 2 Oct 2014 1:06 pm

Tgt Ion:166 Resp: 412697

Ion	Ratio	Lower	Upper
166	100		
165	98.2	65.7	125.7
167	12.8	0.0	44.0

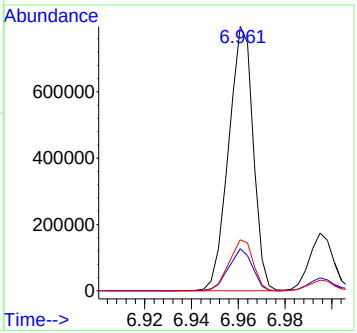


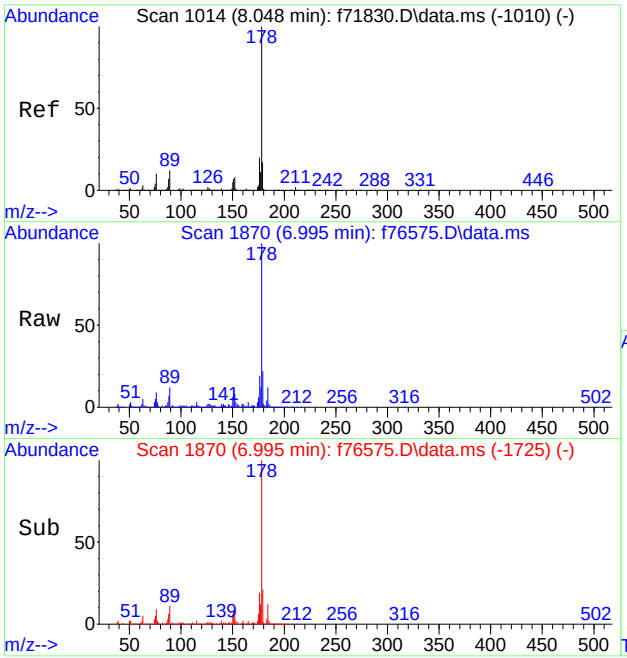


#70
Phenanthrene
Concen: 43.76 ppm
RT: 6.961 min Scan# 1859
Delta R.T. -0.046 min
Lab File: f76575.D
Acq: 2 Oct 2014 1:06 pm

Tgt Ion:178 Resp: 580269

Ion	Ratio	Lower	Upper
178	100		
179	15.9	0.0	46.3
176	19.3	0.0	50.0

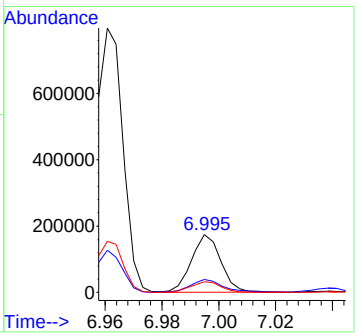


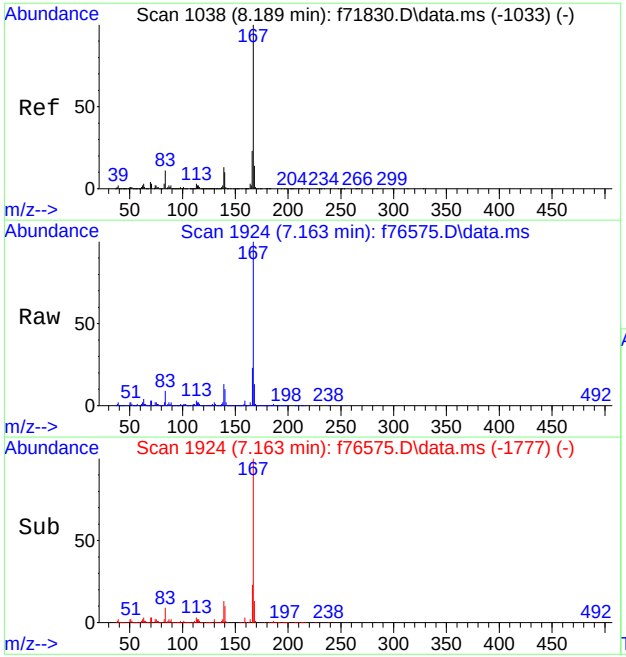


#71
Anthracene
Concen: 9.25 ppm
RT: 6.995 min Scan# 1870
Delta R.T. -0.049 min
Lab File: f76575.D
Acq: 2 Oct 2014 1:06 pm

Tgt Ion:178 Resp: 124198

Ion	Ratio	Lower	Upper
178	100		
179	22.1	0.0	46.7
176	18.6	0.0	49.6

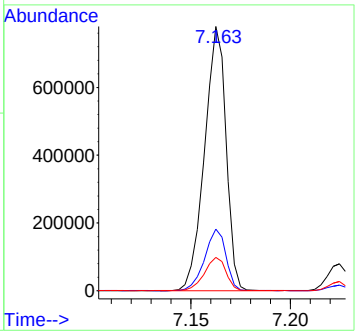


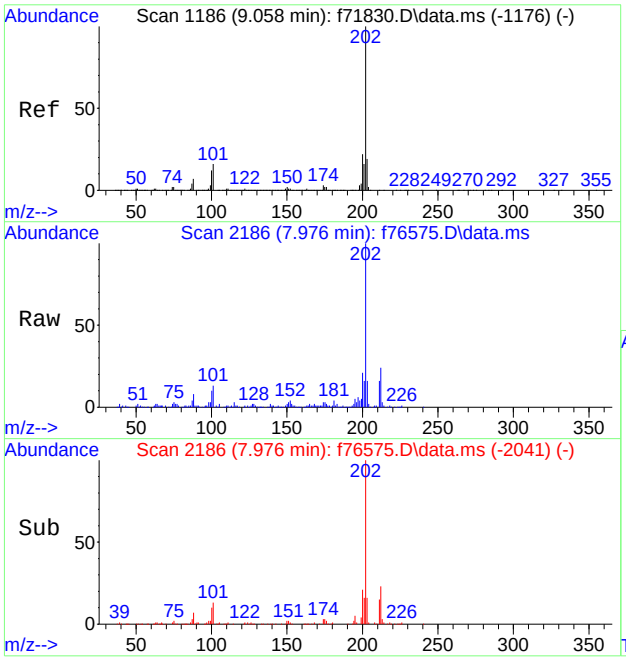


#72
Carbazole
Concen: 46.96 ppm
RT: 7.163 min Scan# 1924
Delta R.T. -0.043 min
Lab File: f76575.D
Acq: 2 Oct 2014 1:06 pm

Tgt Ion:167 Resp: 586526

Ion	Ratio	Lower	Upper
167	100		
166	23.3	0.0	52.4
139	12.6	0.0	42.5

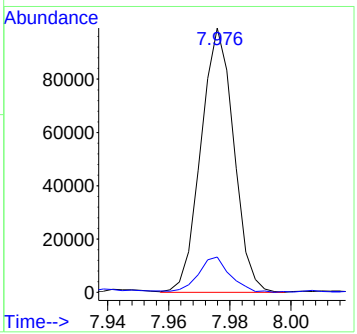


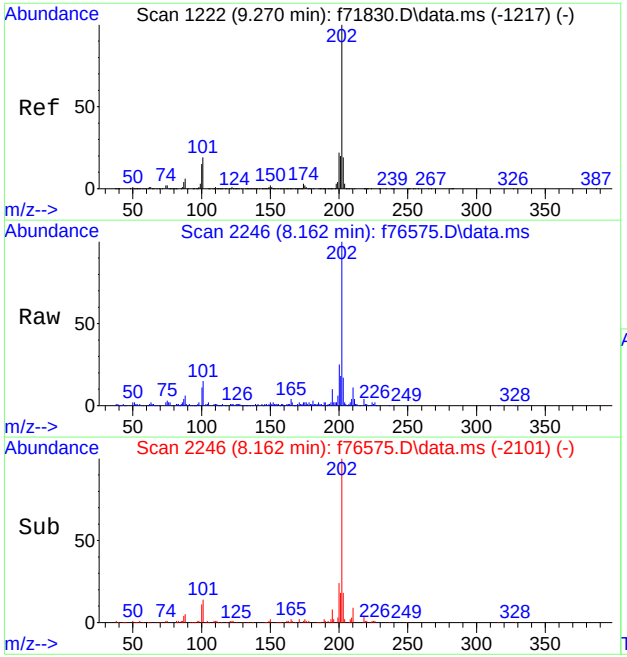


#74
Fluoranthene
Concen: 5.14 ppm
RT: 7.976 min Scan# 2186
Delta R.T. -0.049 min
Lab File: f76575.D
Acq: 2 Oct 2014 1:06 pm

Tgt Ion:202 Resp: 73937

Ion	Ratio	Lower	Upper
202	100		
101	13.0	0.0	45.9

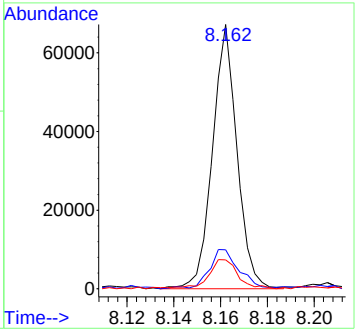


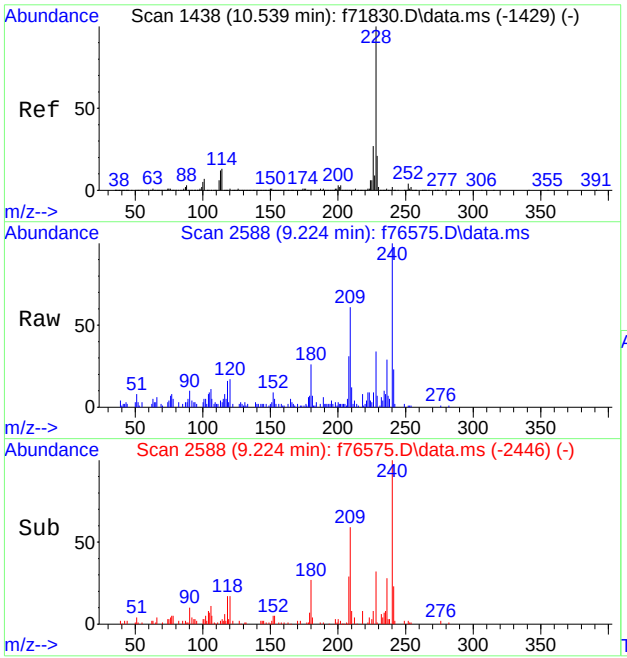


#77
Pyrene
Concen: 3.03 ppm
RT: 8.162 min Scan# 2246
Delta R.T. -0.049 min
Lab File: f76575.D
Acq: 2 Oct 2014 1:06 pm

Tgt Ion:202 Resp: 48928

Ion	Ratio	Lower	Upper
202	100		
101	14.7	0.0	47.8
100	10.5	0.0	44.2

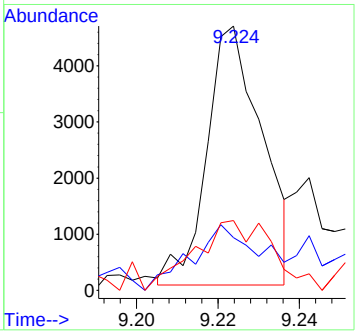




#82
Benzo[a]anthracene
Concen: 0.30 ppm m
RT: 9.224 min Scan# 2588
Delta R.T. -0.058 min
Lab File: f76575.D
Acq: 2 Oct 2014 1:06 pm

Tgt Ion:228 Resp: 4390

Ion	Ratio	Lower	Upper
228	100		
229	20.0	0.0	51.0
226	26.4	0.0	57.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141003\
Data File : R40138.D
Acq On : 4 Oct 2014 12:43 am
Operator : williamk
Sample : mc33908-6
Misc : op39993,msr1476,860,,,1,5
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 06 08:34:37 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Mon Oct 06 07:46:07 2014
Response via : Initial Calibration

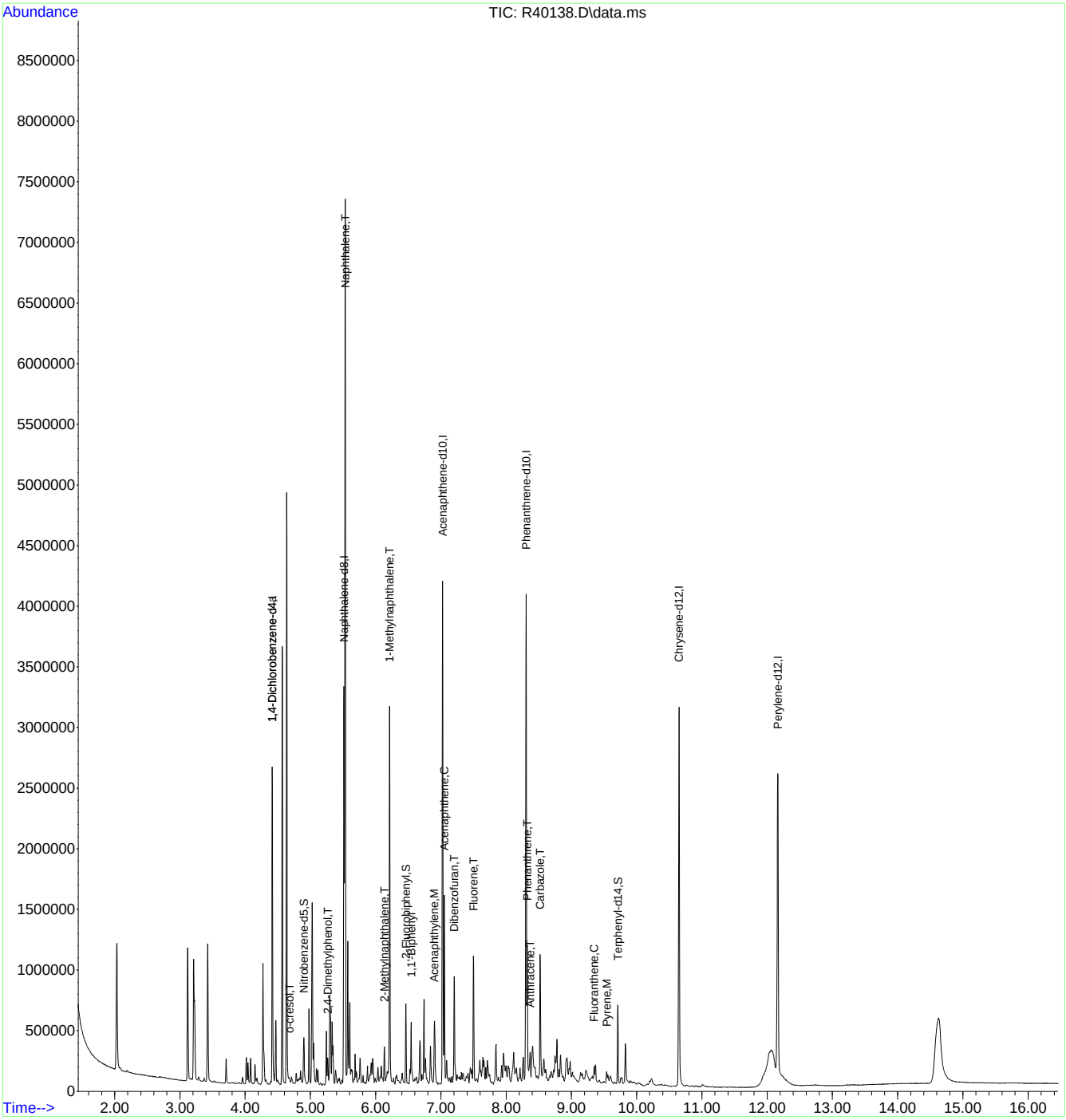
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.414	152	339842	40.00	ug/mL	0.00
22) Naphthalene-d8	5.515	136	1249389	40.00	ug/mL	0.00
41) Acenaphthene-d10	7.025	164	716974	40.00	ug/mL	0.00
64) Phenanthrene-d10	8.306	188	1167324	40.00	ug/mL	0.00
78) Chrysene-d12	10.649	240	1135901	40.00	ug/mL	0.00
88) Perylene-d12	12.163	264	1078161	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	4.414	152	339842	40.00	ug/mL	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0d	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery = 0.00%#			
8) Phenol-d5	0.000	99	0d	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery = 0.00%#			
23) Nitrobenzene-d5	4.899	82	98392	7.77	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 15.54%#			
46) 2-Fluorobiphenyl	6.463	172	162277	7.07	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 14.14%#			
68) 2,4,6-Tribromophenol	0.000	330	0	0.00	ug/mL	
Spiked Amount 100.000	Range 30 - 130		Recovery = 0.00%#			
82) Terphenyl-d14	9.711	244	167320	6.94	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 13.88%#			
Target Compounds						Qvalue
16) o-cresol	4.679	108	4636	0.38	ug/mL	83
27) 2,4-Dimethylphenol	5.266	107	44035	3.67	ug/mL	93
32) Naphthalene	5.533	128	2595742	78.08	ug/mL	98
37) 2-Methylnaphthalene	6.133	142	58269	2.55	ug/mL	96
38) 1-Methylnaphthalene	6.214	142	639766	29.95	ug/mL	99
48) Acenaphthylene	6.898	152	167072	5.75	ug/mL	97
51) Acenaphthene	7.053	153	293294	14.28	ug/mL	97
53) Dibenzofuran	7.202	168	296628	10.20	ug/mL	98
57) Fluorene	7.498	166	232031	10.16	ug/mL	95
63) 1,1'-Biphenyl	6.543	154	127290	4.84	ug/mL	98
72) Phenanthrene	8.324	178	308394	9.58	ug/mL	98
73) Anthracene	8.368	178	66802	2.08	ug/mL	97
74) Carbazole	8.520	167	323051	10.20	ug/mL	98
76) Fluoranthene	9.347	202	36660	1.12	ug/mL	89
81) Pyrene	9.540	202	25731	0.71	ug/mL	93

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

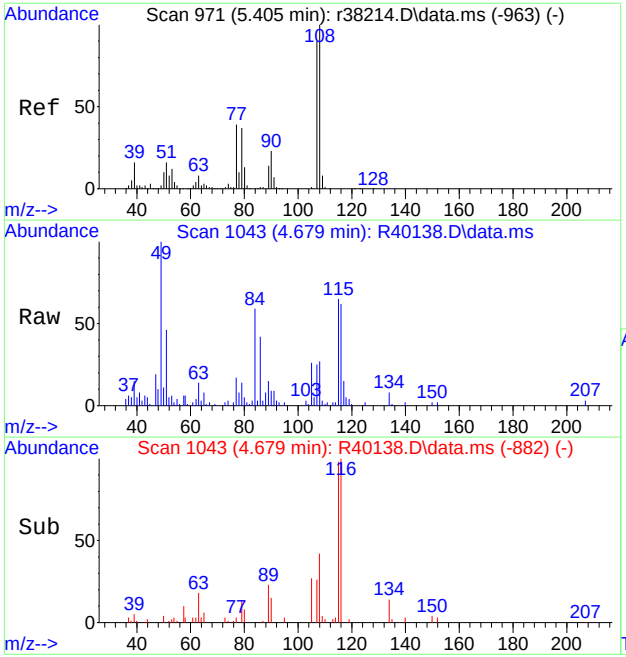
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141003\
Data File : R40138.D
Acq On : 4 Oct 2014 12:43 am
Operator : williamk
Sample : mc33908-6
Misc : op39993,msr1476,860,,,1,5
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 06 08:34:37 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Mon Oct 06 07:46:07 2014
Response via : Initial Calibration



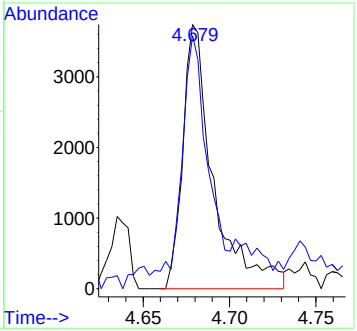
R140911_8270A.m Wed Oct 08 11:43:39 2014 Page: 2

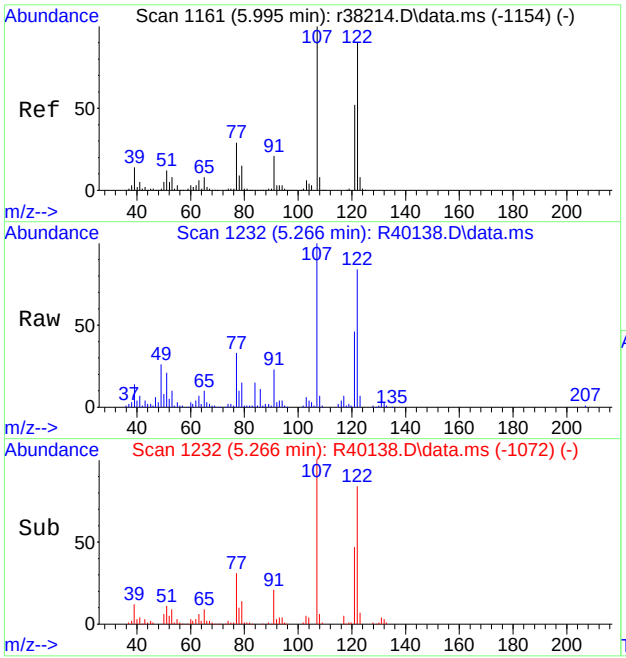


#16
o-cresol
Concen: 0.38 ug/mL
RT: 4.679 min Scan# 1043
Delta R.T. -0.000 min
Lab File: R40138.D
Acq: 4 Oct 2014 12:43 am

Tgt Ion:108 Resp: 4636

Ion	Ratio	Lower	Upper
108	100		
107	89.1	76.6	136.6

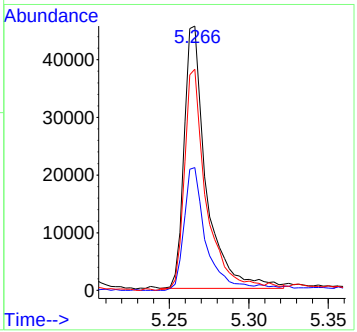


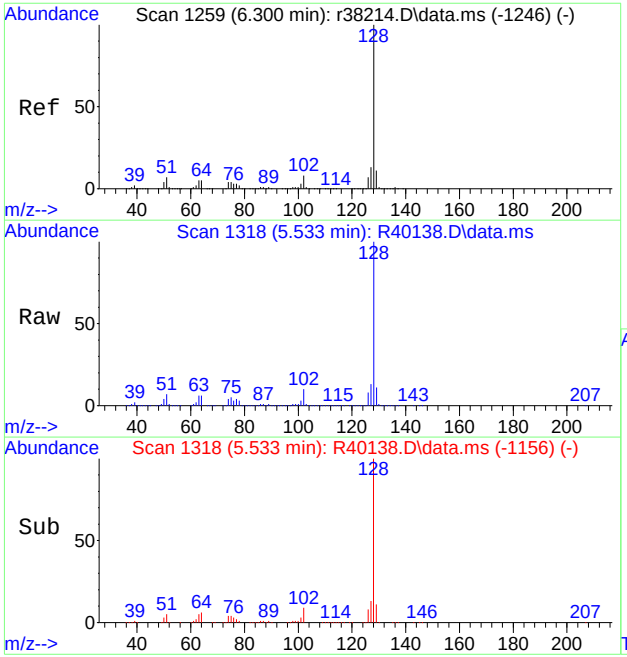


#27
2,4-Dimethylphenol
Concen: 3.67 ug/mL
RT: 5.266 min Scan# 1232
Delta R.T. -0.003 min
Lab File: R40138.D
Acq: 4 Oct 2014 12:43 am

Tgt Ion:107 Resp: 44035

Ion	Ratio	Lower	Upper
107	100		
121	46.8	22.0	82.0
122	84.0	59.9	119.9

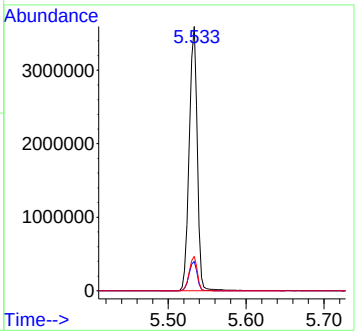


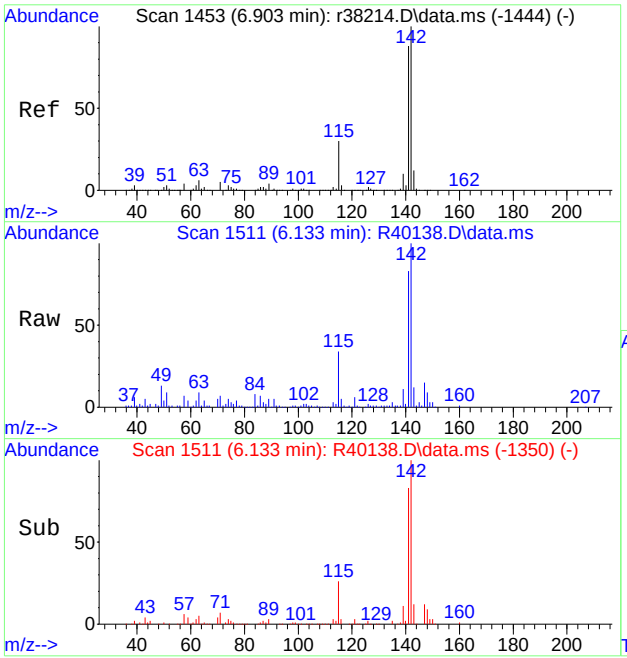


#32
Naphthalene
Concen: 78.08 ug/mL
RT: 5.533 min Scan# 1318
Delta R.T. 0.003 min
Lab File: R40138.D
Acq: 4 Oct 2014 12:43 am

Tgt Ion:128 Resp: 2595742

Ion	Ratio	Lower	Upper
128	100		
129	11.1	0.0	40.1
127	13.1	0.0	42.3

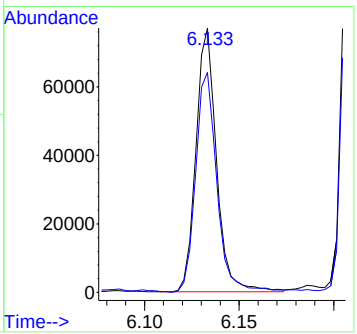


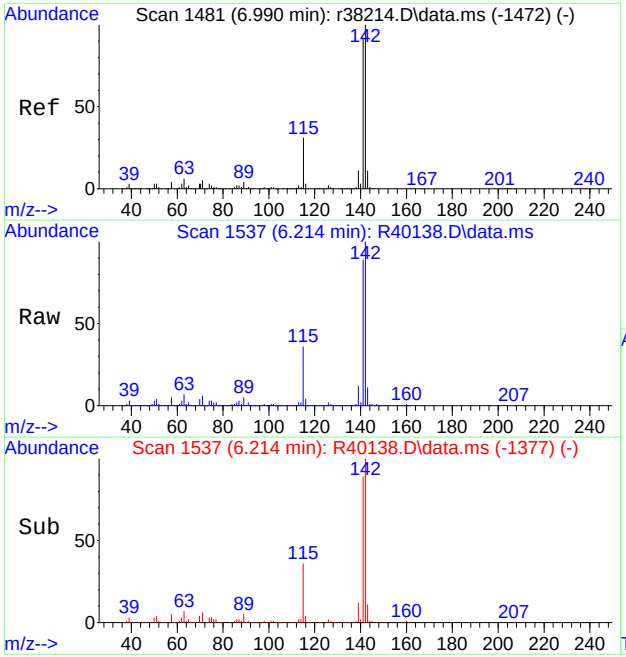


#37
2-Methylnaphthalene
Concen: 2.55 ug/mL
RT: 6.133 min Scan# 1511
Delta R.T. -0.000 min
Lab File: R40138.D
Acq: 4 Oct 2014 12:43 am

Tgt Ion:142 Resp: 58269

Ion	Ratio	Lower	Upper
142	100		
141	83.1	57.2	117.2

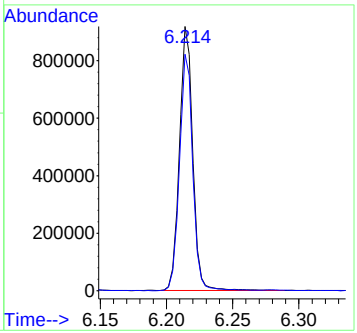


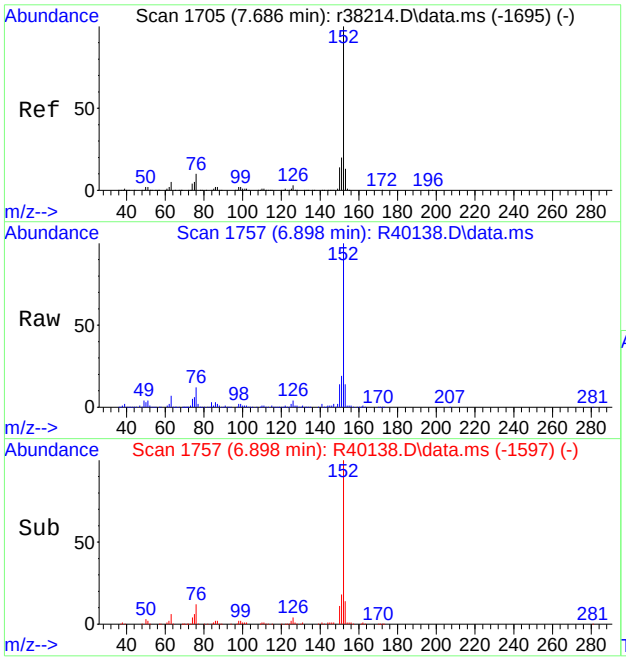


#38
1-Methylnaphthalene
Concen: 29.95 ug/mL
RT: 6.214 min Scan# 1537
Delta R.T. -0.003 min
Lab File: R40138.D
Acq: 4 Oct 2014 12:43 am

Tgt Ion:142 Resp: 639766

Ion	Ratio	Lower	Upper
142	100		
141	89.5	70.0	110.0

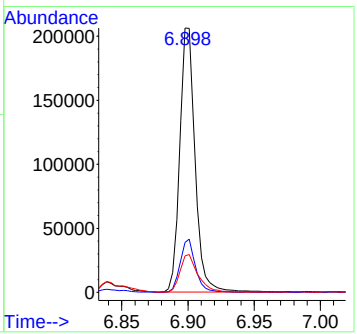


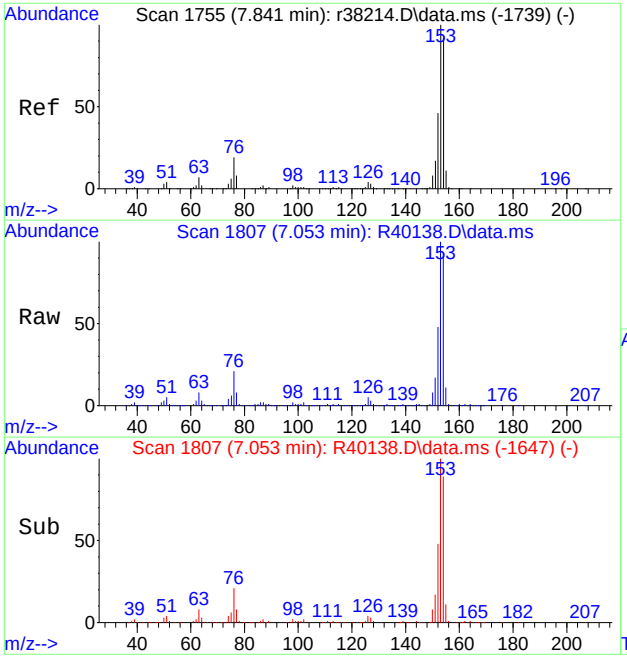


#48
Acenaphthylene
Concen: 5.75 ug/mL
RT: 6.898 min Scan# 1757
Delta R.T. -0.003 min
Lab File: R40138.D
Acq: 4 Oct 2014 12:43 am

Tgt Ion:152 Resp: 167072

Ion	Ratio	Lower	Upper
152	100		
151	18.9	0.0	50.4
153	13.8	0.0	42.9

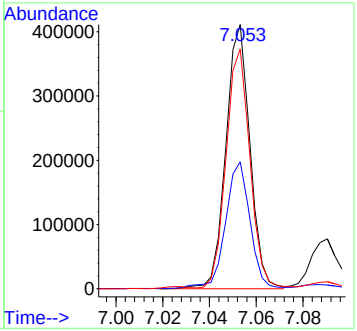


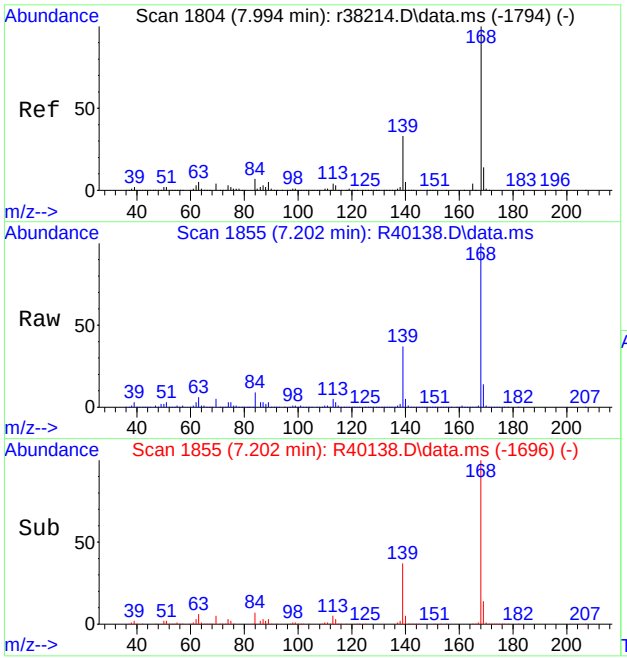


#51
Acenaphthene
Concen: 14.28 ug/mL
RT: 7.053 min Scan# 1807
Delta R.T. -0.003 min
Lab File: R40138.D
Acq: 4 Oct 2014 12:43 am

Tgt Ion:153 Resp: 293294

Ion	Ratio	Lower	Upper
153	100		
152	48.0	16.5	76.5
154	90.4	57.4	117.4

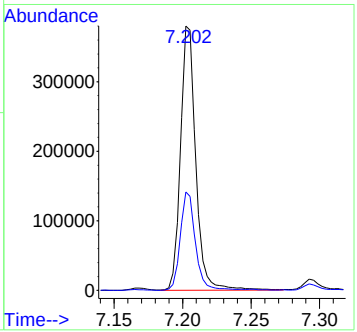


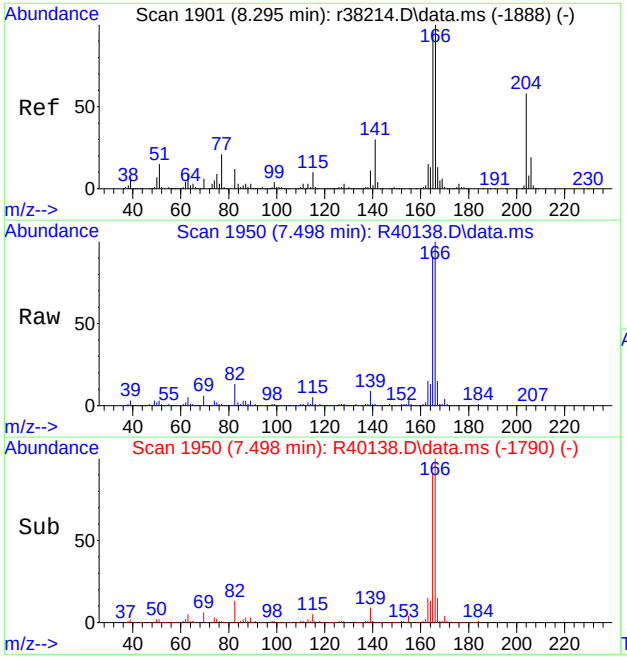


#53
Dibenzofuran
Concen: 10.20 ug/mL
RT: 7.202 min Scan# 1855
Delta R.T. -0.006 min
Lab File: R40138.D
Acq: 4 Oct 2014 12:43 am

Tgt Ion:168 Resp: 296628

Ion	Ratio	Lower	Upper
168	100		
139	37.2	8.7	68.7

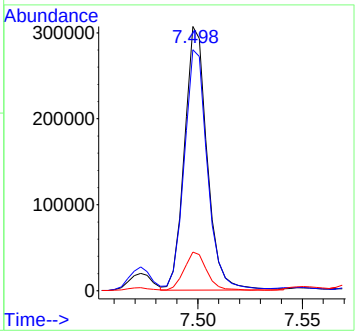


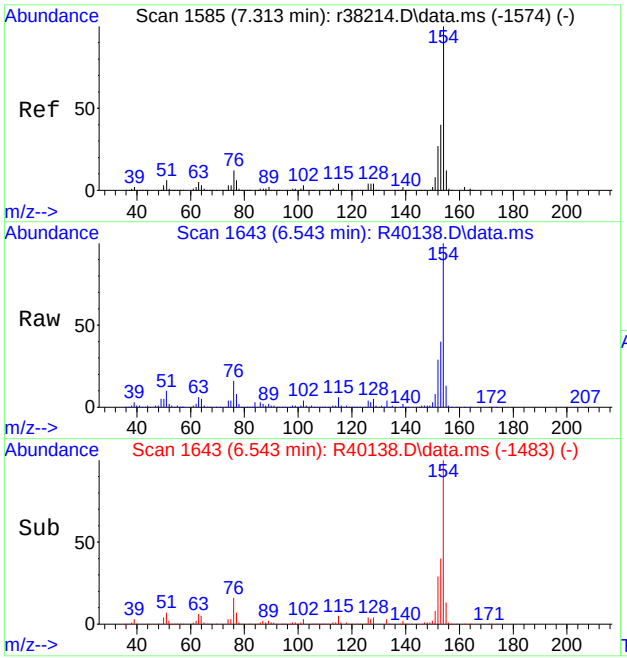


#57
Fluorene
Concen: 10.16 ug/mL
RT: 7.498 min Scan# 1950
Delta R.T. -0.003 min
Lab File: R40138.D
Acq: 4 Oct 2014 12:43 am

Tgt Ion:166 Resp: 232031

Ion	Ratio	Lower	Upper
166	100		
165	90.8	65.6	125.6
167	14.4	0.0	43.4

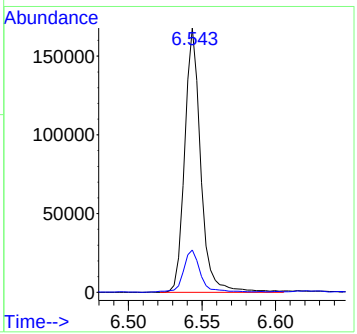




#63
1,1'-Biphenyl
Concen: 4.84 ug/mL
RT: 6.543 min Scan# 1643
Delta R.T. -0.003 min
Lab File: R40138.D
Acq: 4 Oct 2014 12:43 am

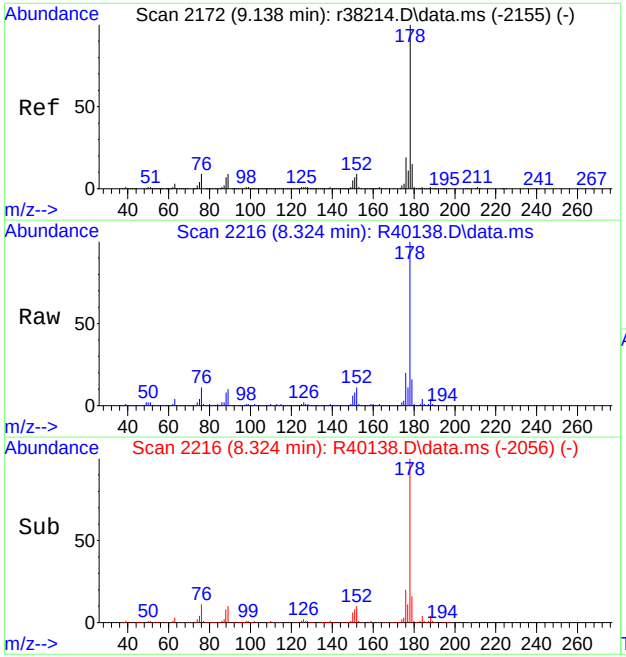
Tgt Ion:154 Resp: 127290

Ion	Ratio	Lower	Upper
154	100		
76	15.9	12.1	18.1



9.16

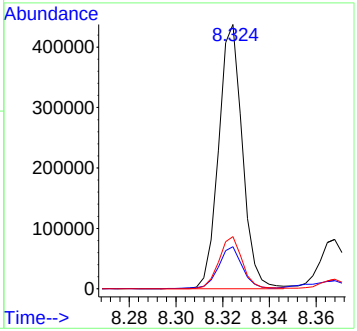
6

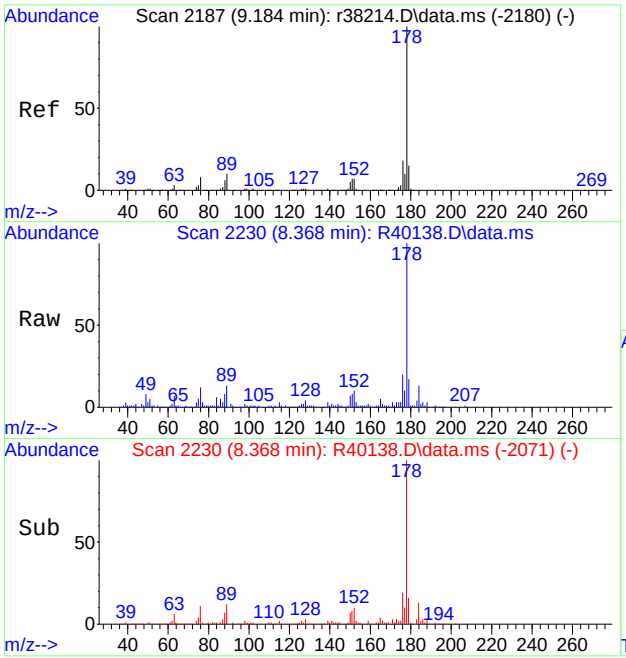


#72
Phenanthrene
Concen: 9.58 ug/mL
RT: 8.324 min Scan# 2216
Delta R.T. -0.003 min
Lab File: R40138.D
Acq: 4 Oct 2014 12:43 am

Tgt Ion:178 Resp: 308394

Ion	Ratio	Lower	Upper
178	100		
179	15.9	0.0	45.2
176	19.7	0.0	48.6

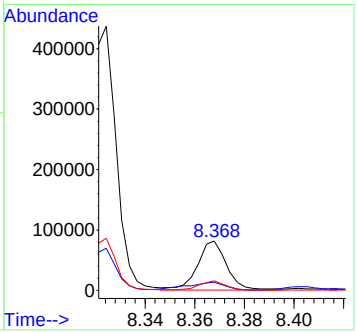




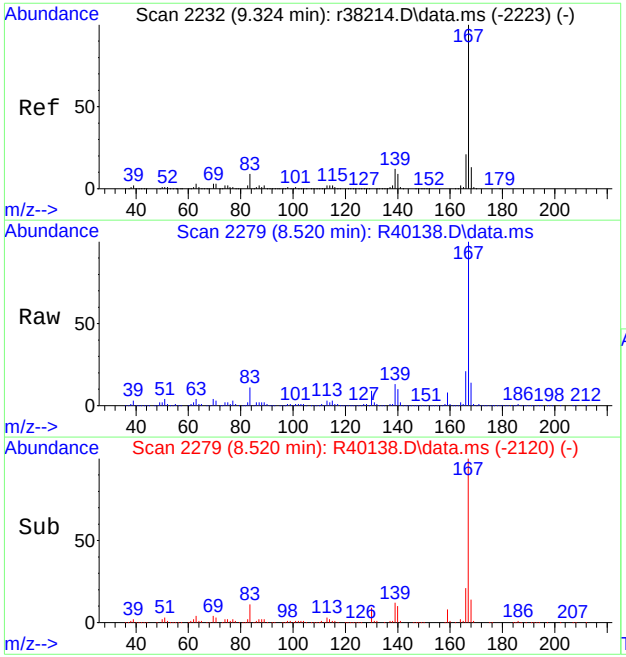
#73
Anthracene
Concen: 2.08 ug/mL
RT: 8.368 min Scan# 2230
Delta R.T. -0.006 min
Lab File: R40138.D
Acq: 4 Oct 2014 12:43 am

Tgt Ion:178 Resp: 66802

Ion	Ratio	Lower	Upper
178	100		
179	14.2	0.0	45.9
176	19.4	0.0	48.6



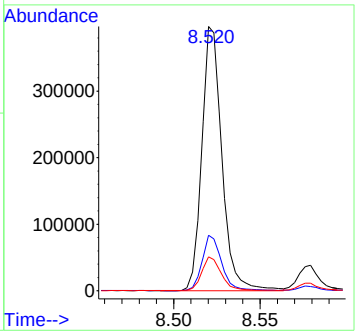
9.1.6

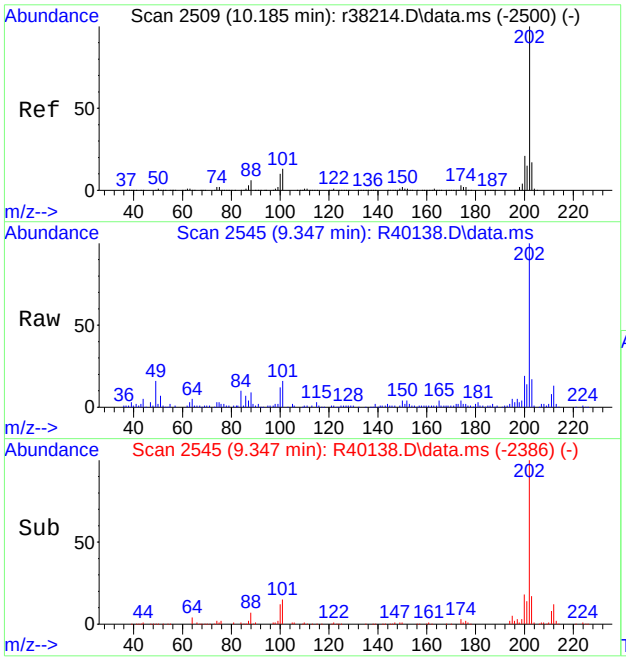


#74
Carbazole
Concen: 10.20 ug/mL
RT: 8.520 min Scan# 2279
Delta R.T. -0.006 min
Lab File: R40138.D
Acq: 4 Oct 2014 12:43 am

Tgt Ion:167 Resp: 323051

Ion	Ratio	Lower	Upper
167	100		
166	20.9	0.0	50.4
139	12.7	0.0	41.6

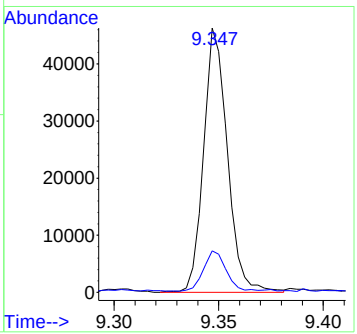


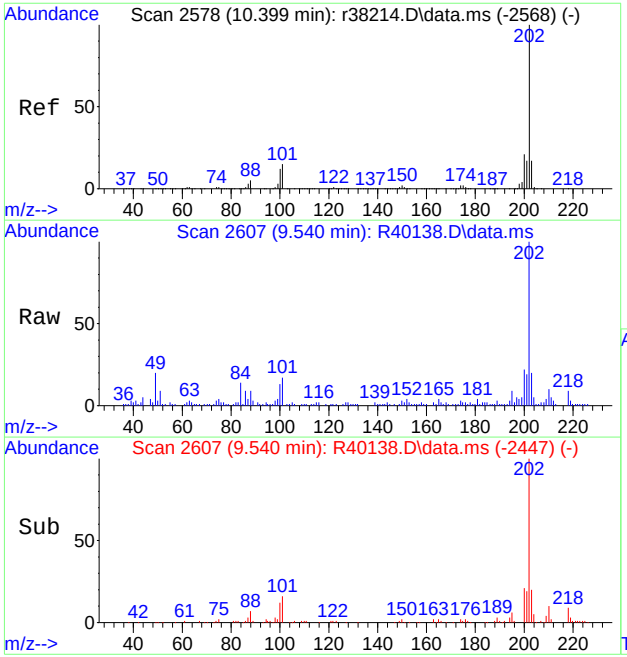


#76
Fluoranthene
Concen: 1.12 ug/mL
RT: 9.347 min Scan# 2545
Delta R.T. -0.006 min
Lab File: R40138.D
Acq: 4 Oct 2014 12:43 am

Tgt Ion:202 Resp: 36660

Ion	Ratio	Lower	Upper
202	100		
101	15.0	0.0	41.0

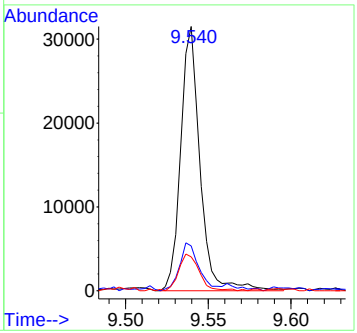




#81
Pyrene
Concen: 0.71 ug/mL
RT: 9.540 min Scan# 2607
Delta R.T. -0.003 min
Lab File: R40138.D
Acq: 4 Oct 2014 12:43 am

Tgt Ion:202 Resp: 25731

Ion	Ratio	Lower	Upper
202	100		
101	17.0	0.0	43.1
100	12.3	0.0	40.6



9.1.6

6

Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
10/08/14 11:28

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76576.D
Acq On : 2 Oct 2014 1:29 pm
Operator : williamk
Sample : mc33908-7
Misc : op39993,msf3358,860,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 02 14:47:55 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

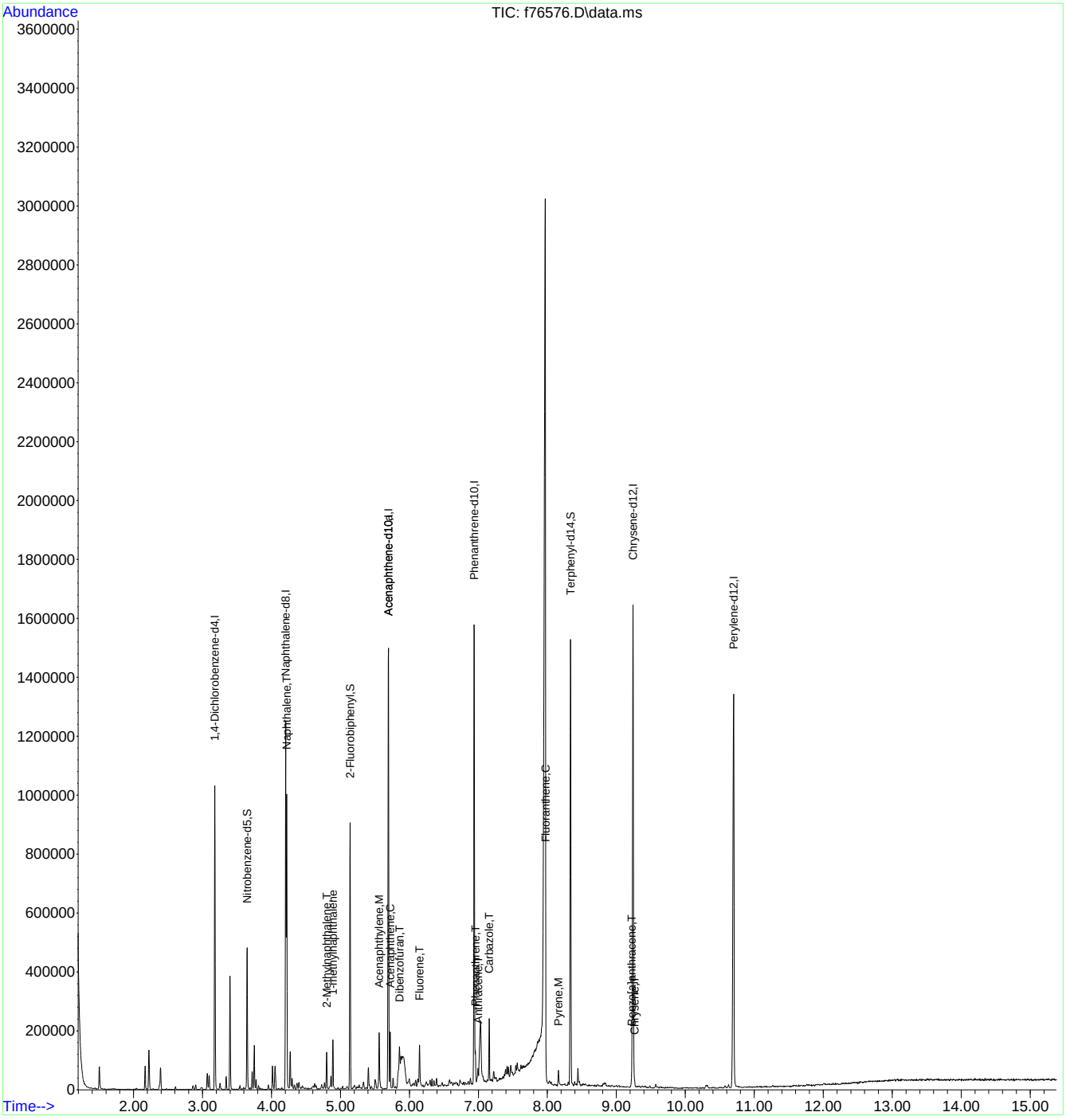
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.179	152	116085	40.00	ppm	-0.04
22) Naphthalene-d8	4.206	136	428207	40.00	ppm	-0.04
39) Acenaphthene-d10	5.693	164	263843	40.00	ppm	-0.04
61) Phenanthrene-d10	6.938	188	462320	40.00	ppm	-0.05
75) Chrysene-d12	9.241	240	530782	40.00	ppm	-0.06
85) Perylene-d12	10.700	264	551524	40.00	ppm	-0.06
93) Acenaphthene-d10a	5.693	164	263843	40.00	ppm	-0.04
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 100.000	Range 21 - 110		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 110		Recovery =	0.00%#		
23) Nitrobenzene-d5	3.648	82	107991	26.42	ppm	-0.04
Spiked Amount 50.000	Range 34 - 114		Recovery =	52.84%		
44) 2-Fluorobiphenyl	5.141	172	210776	24.09	ppm	-0.04
Spiked Amount 50.000	Range 43 - 116		Recovery =	48.18%		
65) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
78) Terphenyl-d14	8.335	244	424146	37.56	ppm	-0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	75.12%		
Target Compounds						Qvalue
32) Naphthalene	4.222	128	310009	28.26	ppm	97
37) 2-Methylnaphthalene	4.799	142	24541	3.20	ppm	97
38) 1-methylnaphthalene	4.889	142	32085	4.47	ppm	93
46) Acenaphthylene	5.560	152	60138	5.76	ppm	98
49) Acenaphthene	5.721	153	36568	4.82	ppm	96
51) Dibenzofuran	5.855	168	22670	2.10	ppm	96
55) Fluorene	6.146	166	30942	3.76	ppm	96
70) Phenanthrene	6.957	178	29949	2.36	ppm	98
71) Anthracene	6.994	178	10433m	0.81	ppm	
72) Carbazole	7.155	167	65443	5.48	ppm	99
74) Fluoranthene	7.975	202	17436	1.27	ppm	96
77) Pyrene	8.161	202	14874	0.98	ppm	96
82) Benzo[a]anthracene	9.223	228	6437m	0.47	ppm	
83) Chrysene	9.263	228	4660m	0.33	ppm	

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

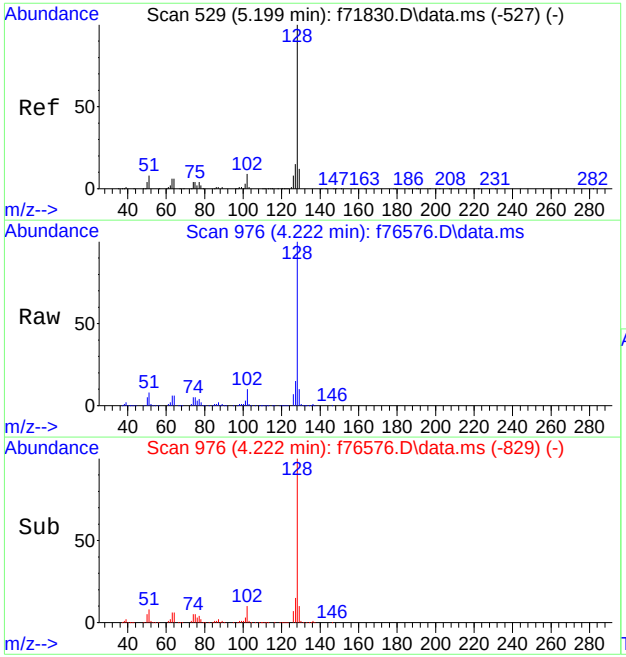
Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76576.D
Acq On : 2 Oct 2014 1:29 pm
Operator : williamk
Sample : mc33908-7
Misc : op39993,msf3358,860,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 02 14:47:55 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration



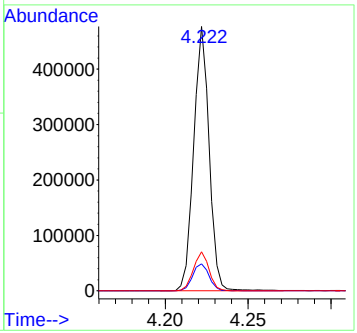
ACCUTEST LABORATORIES MC33908

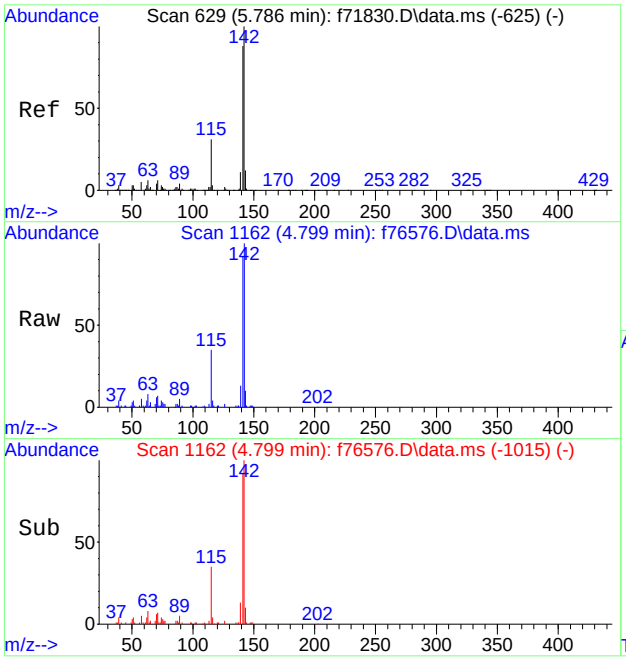


#32
Naphthalene
Concen: 28.26 ppm
RT: 4.222 min Scan# 976
Delta R.T. -0.044 min
Lab File: f76576.D
Acq: 2 Oct 2014 1:29 pm

Tgt Ion:128 Resp: 310009

Ion	Ratio	Lower	Upper
128	100		
129	10.2	0.0	41.8
127	14.8	0.0	44.0

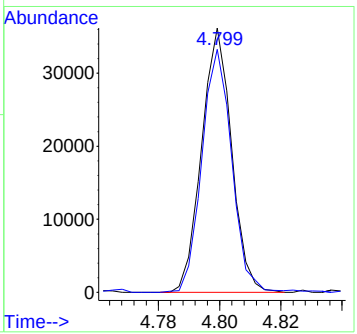


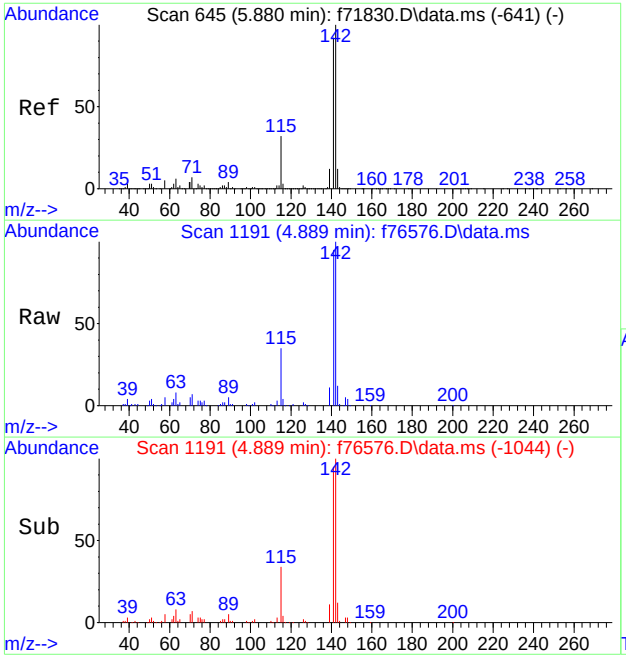


#37
2-Methylnaphthalene
Concen: 3.20 ppm
RT: 4.799 min Scan# 1162
Delta R.T. -0.044 min
Lab File: f76576.D
Acq: 2 Oct 2014 1:29 pm

Tgt Ion:142 Resp: 24541

Ion	Ratio	Lower	Upper
142	100		
141	91.9	58.7	118.7

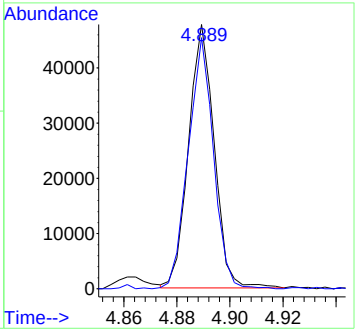


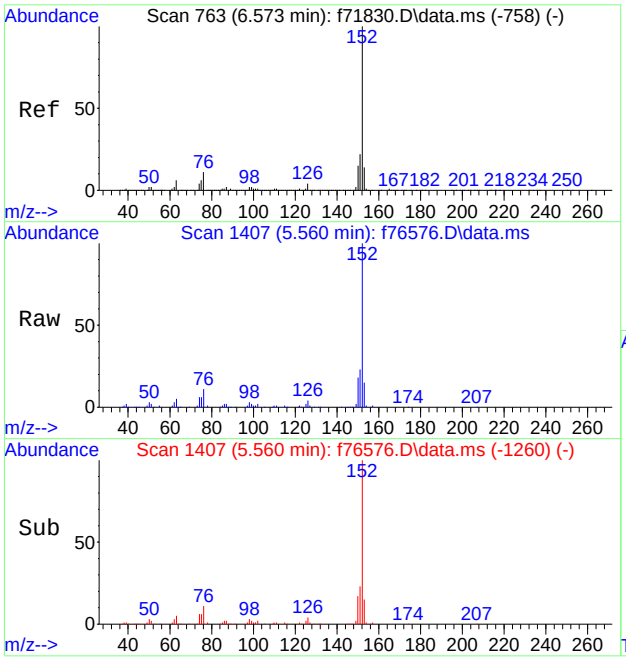


#38
1-methylnaphthalene
Concen: 4.47 ppm
RT: 4.889 min Scan# 1191
Delta R.T. -0.044 min
Lab File: f76576.D
Acq: 2 Oct 2014 1:29 pm

Tgt Ion:142 Resp: 32085

Ion	Ratio	Lower	Upper
142	100		
141	95.2	71.0	106.4

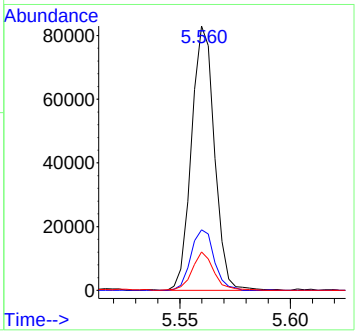


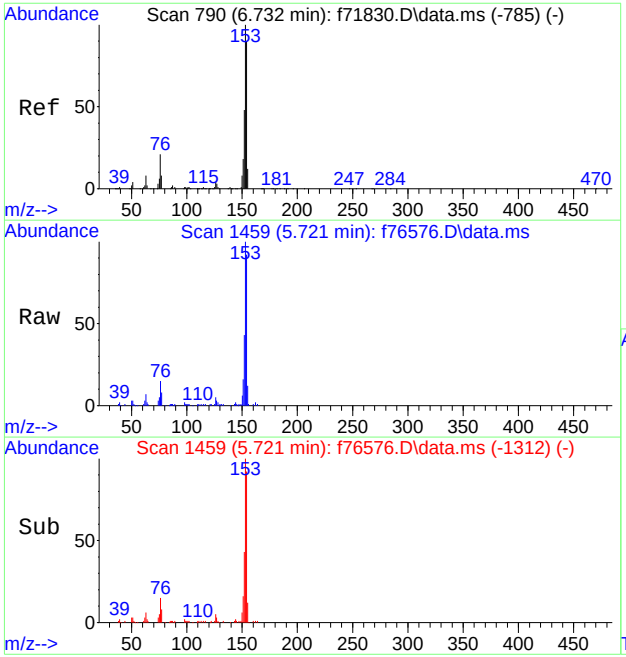


#46
Acenaphthylene
Concen: 5.76 ppm
RT: 5.560 min Scan# 1407
Delta R.T. -0.044 min
Lab File: f76576.D
Acq: 2 Oct 2014 1:29 pm

Tgt Ion:152 Resp: 60138

Ion	Ratio	Lower	Upper
152	100		
151	23.0	0.0	51.6
153	14.6	0.0	43.9

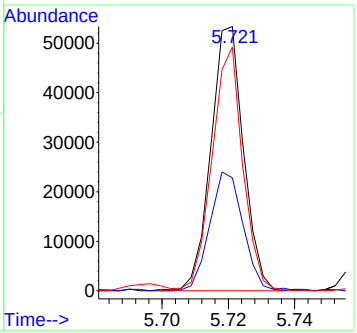


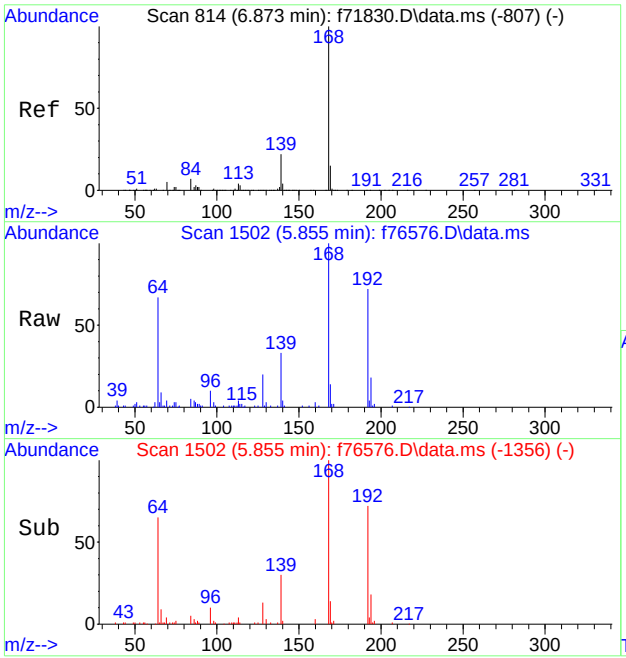


#49
Acenaphthene
Concen: 4.82 ppm
RT: 5.721 min Scan# 1459
Delta R.T. -0.044 min
Lab File: f76576.D
Acq: 2 Oct 2014 1:29 pm

Tgt Ion:153 Resp: 36568

Ion	Ratio	Lower	Upper
153	100		
152	42.1	17.6	77.6
154	91.7	60.3	120.3

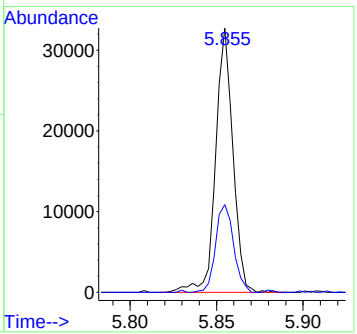


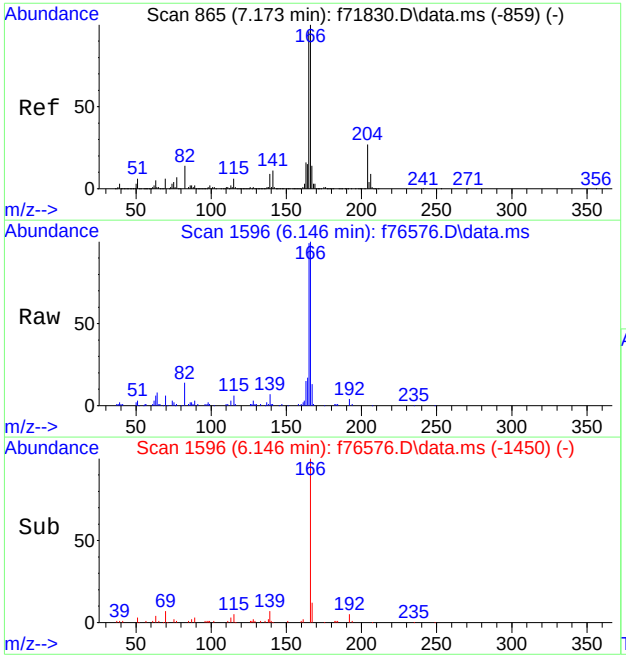


#51
Dibenzofuran
Concen: 2.10 ppm
RT: 5.855 min Scan# 1502
Delta R.T. -0.047 min
Lab File: f76576.D
Acq: 2 Oct 2014 1:29 pm

Tgt Ion:168 Resp: 22670

Ion	Ratio	Lower	Upper
168	100		
139	33.2	5.3	65.3

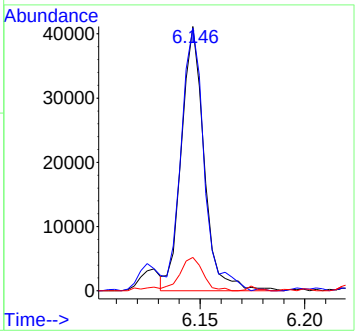


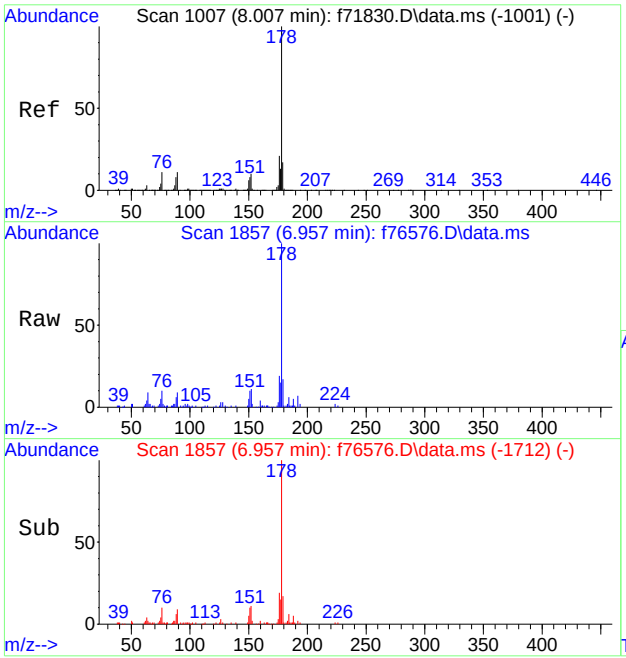


#55
Fluorene
Concen: 3.76 ppm
RT: 6.146 min Scan# 1596
Delta R.T. -0.047 min
Lab File: f76576.D
Acq: 2 Oct 2014 1:29 pm

Tgt Ion:166 Resp: 30942

Ion	Ratio	Lower	Upper
166	100		
165	99.5	65.7	125.7
167	12.1	0.0	44.0

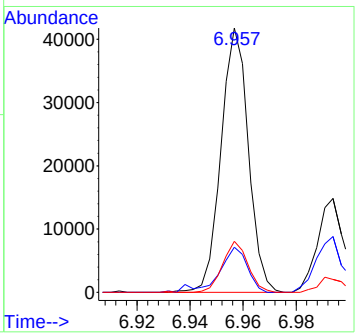


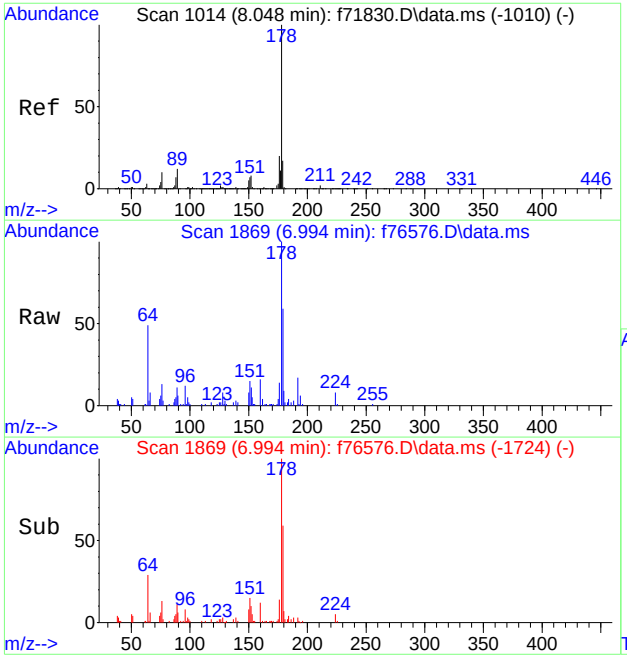


#70
Phenanthrene
Concen: 2.36 ppm
RT: 6.957 min Scan# 1857
Delta R.T. -0.050 min
Lab File: f76576.D
Acq: 2 Oct 2014 1:29 pm

Tgt Ion:178 Resp: 29949

Ion	Ratio	Lower	Upper
178	100		
179	17.1	0.0	46.3
176	19.4	0.0	50.0

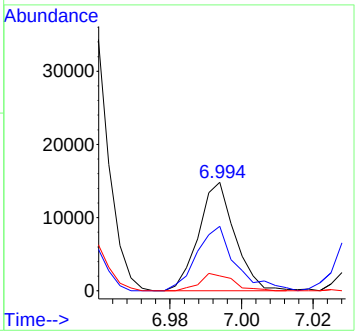


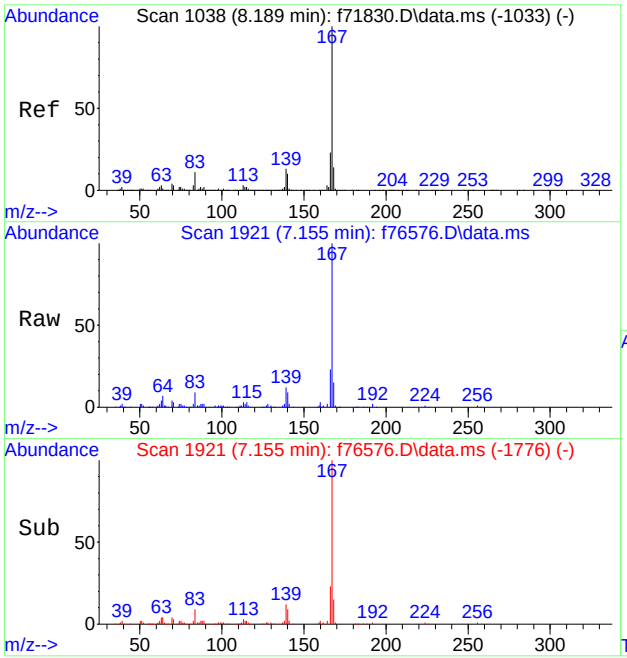


#71
Anthracene
Concen: 0.81 ppm m
RT: 6.994 min Scan# 1869
Delta R.T. -0.050 min
Lab File: f76576.D
Acq: 2 Oct 2014 1:29 pm

Tgt Ion:178 Resp: 10433

Ion	Ratio	Lower	Upper
178	100		
179	59.4	0.0	46.7#
176	13.8	0.0	49.6

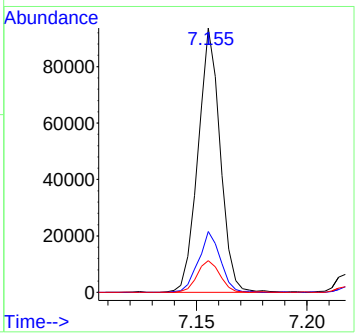


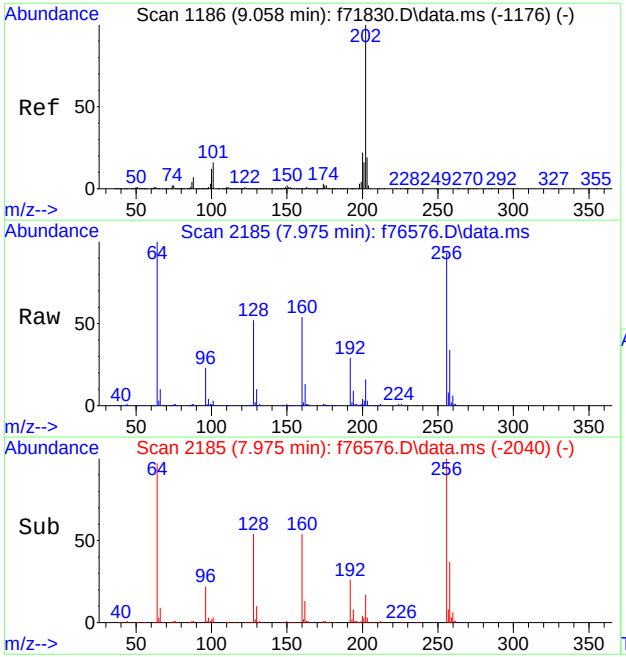


#72
Carbazole
Concen: 5.48 ppm
RT: 7.155 min Scan# 1921
Delta R.T. -0.050 min
Lab File: f76576.D
Acq: 2 Oct 2014 1:29 pm

Tgt Ion:167 Resp: 65443

Ion	Ratio	Lower	Upper
167	100		
166	23.1	0.0	52.4
139	12.0	0.0	42.5

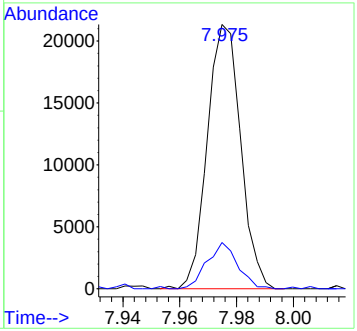


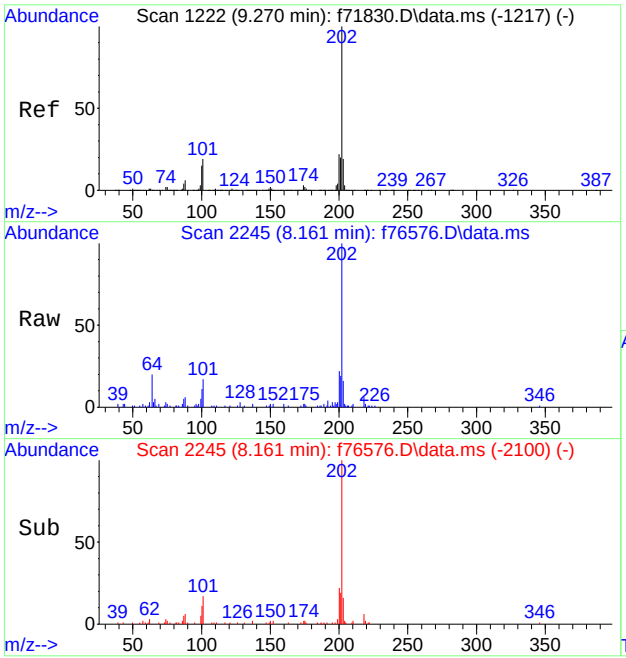


#74
Fluoranthene
Concen: 1.27 ppm
RT: 7.975 min Scan# 2185
Delta R.T. -0.050 min
Lab File: f76576.D
Acq: 2 Oct 2014 1:29 pm

Tgt Ion:202 Resp: 17436

Ion	Ratio	Lower	Upper
202	100		
101	17.5	0.0	45.9

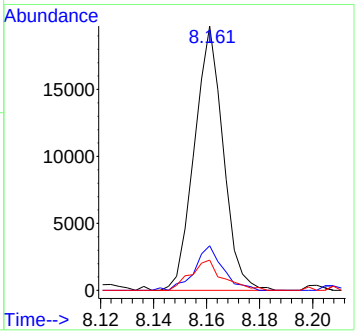


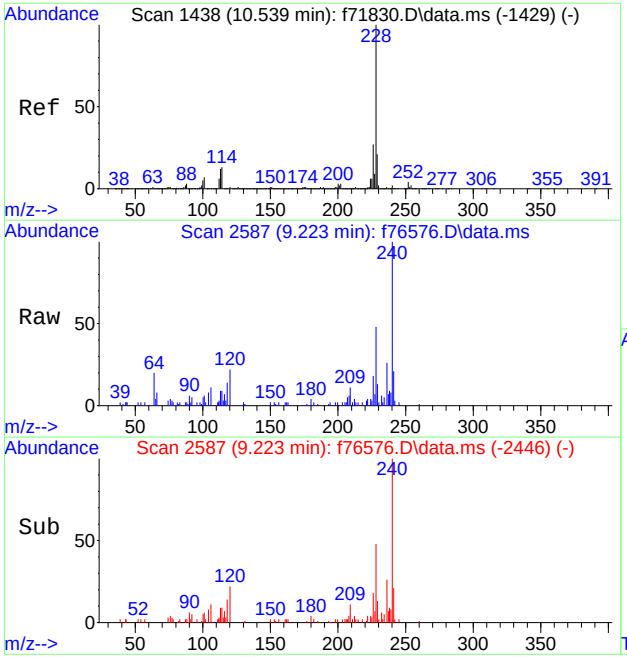


#77
Pyrene
Concen: 0.98 ppm
RT: 8.161 min Scan# 2245
Delta R.T. -0.050 min
Lab File: f76576.D
Acq: 2 Oct 2014 1:29 pm

Tgt Ion:202 Resp: 14874

Ion	Ratio	Lower	Upper
202	100		
101	16.9	0.0	47.8
100	11.4	0.0	44.2

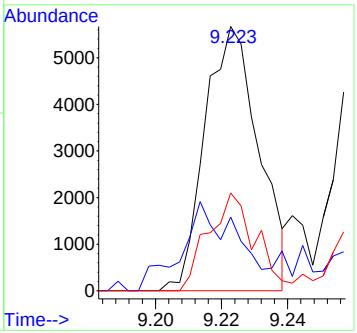


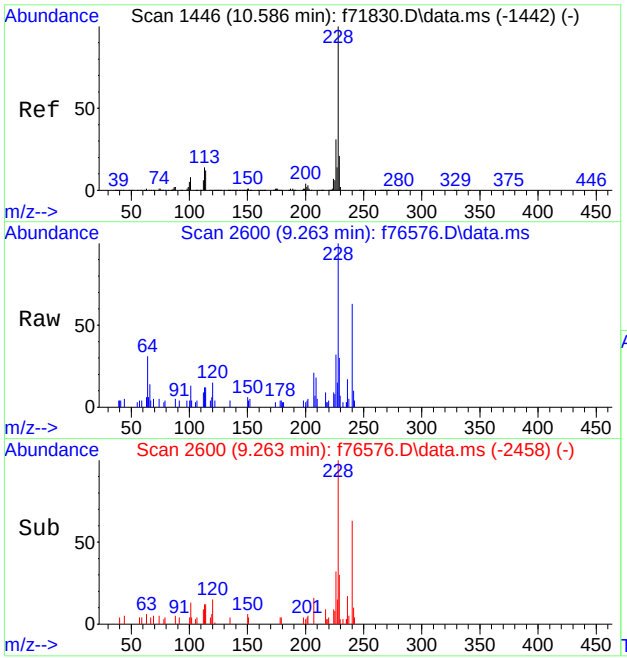


#82
Benzo[a]anthracene
Concen: 0.47 ppm m
RT: 9.223 min Scan# 2587
Delta R.T. -0.059 min
Lab File: f76576.D
Acq: 2 Oct 2014 1:29 pm

Tgt Ion:228 Resp: 6437

Ion	Ratio	Lower	Upper
228	100		
229	27.9	0.0	51.0
226	37.0	0.0	57.8

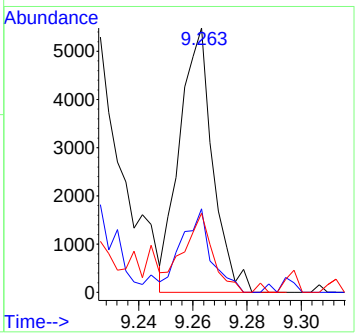




#83
Chrysene
Concen: 0.33 ppm m
RT: 9.263 min Scan# 2600
Delta R.T. -0.059 min
Lab File: f76576.D
Acq: 2 Oct 2014 1:29 pm

Tgt Ion:228 Resp: 4660

Ion	Ratio	Lower	Upper
228	100		
226	31.6	0.5	60.5
229	29.9	0.0	50.9



Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
10/08/14 11:28

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76577.D
Acq On : 2 Oct 2014 1:52 pm
Operator : williamk
Sample : mc33908-8
Misc : op39993,msf3358,860,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 02 14:49:01 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.179	152	113348	40.00	ppm	-0.04
22) Naphthalene-d8	4.207	136	418960	40.00	ppm	-0.04
39) Acenaphthene-d10	5.694	164	256701	40.00	ppm	-0.04
61) Phenanthrene-d10	6.938	188	444621	40.00	ppm	-0.05
75) Chrysene-d12	9.242	240	547689	40.00	ppm	-0.06
85) Perylene-d12	10.698	264	541003	40.00	ppm	-0.07
93) Acenaphthene-d10a	5.694	164	256701	40.00	ppm	-0.04
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 100.000	Range 21 - 110		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 110		Recovery =	0.00%#		
23) Nitrobenzene-d5	3.648	82	134773	33.70	ppm	-0.04
Spiked Amount 50.000	Range 34 - 114		Recovery =	67.40%		
44) 2-Fluorobiphenyl	5.141	172	252930	29.71	ppm	-0.04
Spiked Amount 50.000	Range 43 - 116		Recovery =	59.42%		
65) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
78) Terphenyl-d14	8.335	244	437009	37.51	ppm	-0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	75.02%		
Target Compounds						Qvalue
16) o-cresol	3.443	108	6300	1.75	ppm	99
32) Naphthalene	4.222	128	179651	16.74	ppm	97
38) 1-methylnaphthalene	4.890	142	115945	16.51	ppm	98
46) Acenaphthylene	5.560	152	52061	5.13	ppm	98
49) Acenaphthene	5.718	153	61082	8.28	ppm	95
51) Dibenzofuran	5.855	168	28201	2.69	ppm	92
55) Fluorene	6.147	166	26871m	3.36	ppm	
70) Phenanthrene	6.957	178	13267	1.09	ppm	99
71) Anthracene	6.994	178	1830m	0.15	ppm	
72) Carbazole	7.156	167	140781	12.25	ppm	99

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

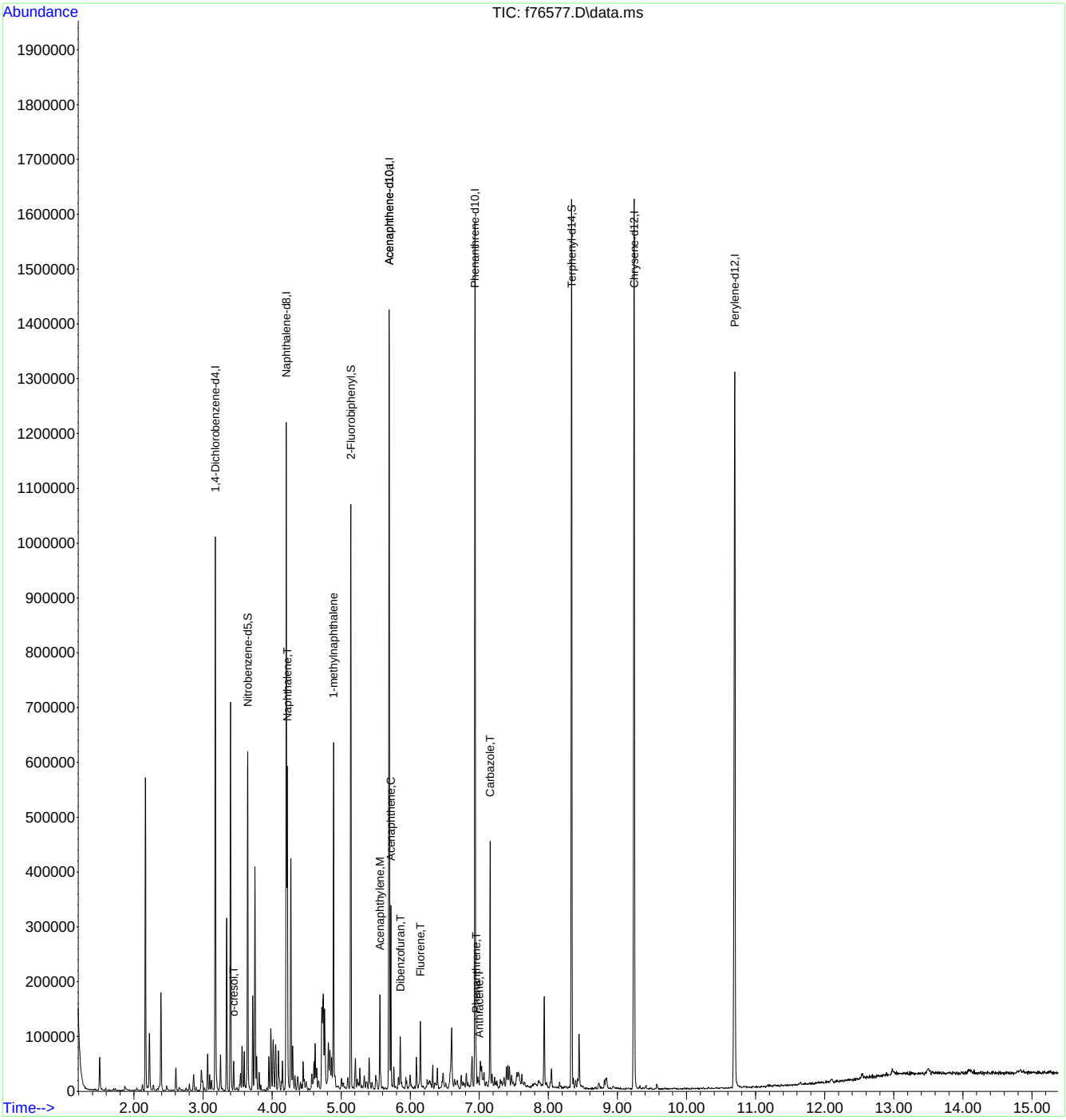
9.1.8

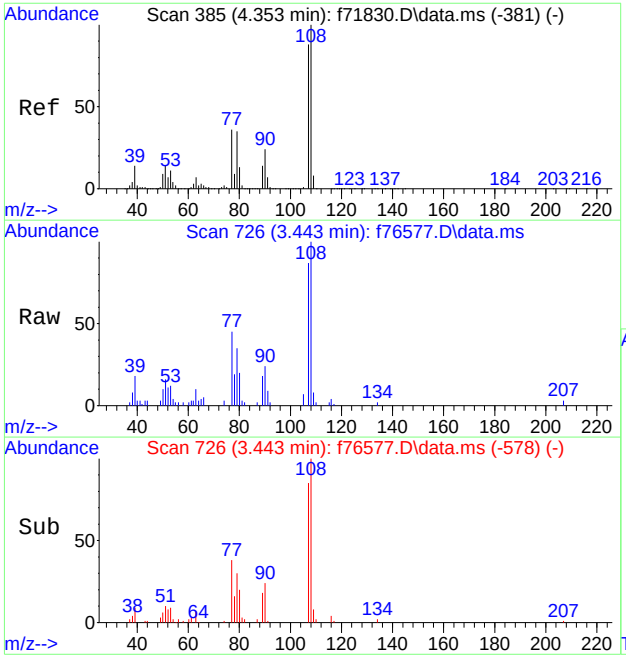
9

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76577.D
Acq On : 2 Oct 2014 1:52 pm
Operator : williamk
Sample : mc33908-8
Misc : op39993,msf3358,860,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 02 14:49:01 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

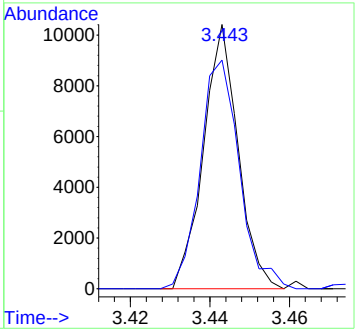


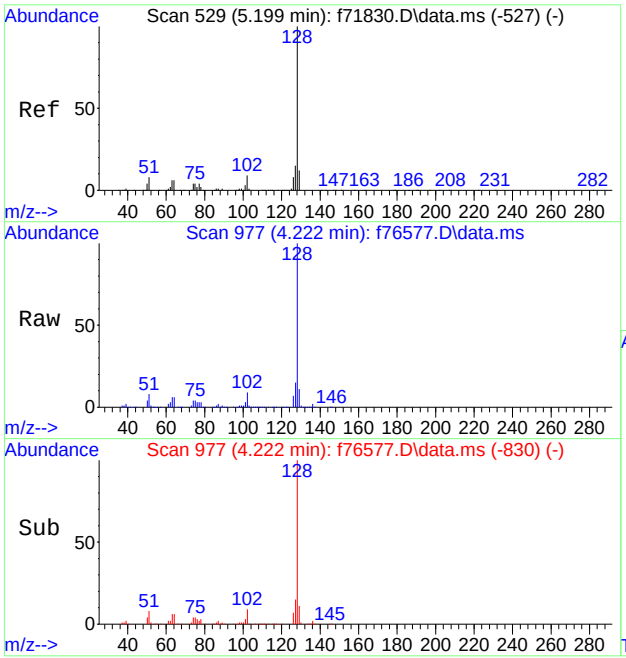


#16
o-cresol
Concen: 1.75 ppm
RT: 3.443 min Scan# 726
Delta R.T. -0.040 min
Lab File: f76577.D
Acq: 2 Oct 2014 1:52 pm

Tgt Ion:108 Resp: 6300

Ion	Ratio	Lower	Upper
108	100		
107	86.5	57.7	117.7

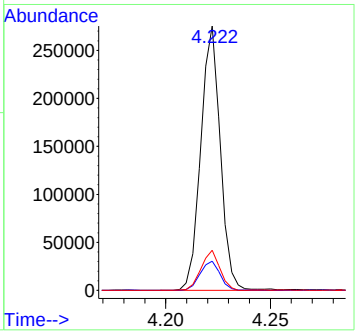


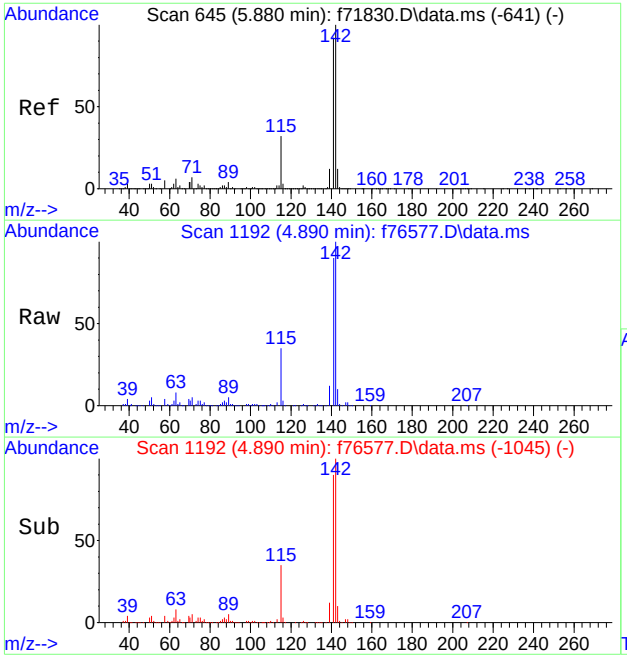


#32
Naphthalene
Concen: 16.74 ppm
RT: 4.222 min Scan# 977
Delta R.T. -0.044 min
Lab File: f76577.D
Acq: 2 Oct 2014 1:52 pm

Tgt Ion:128 Resp: 179651

Ion	Ratio	Lower	Upper
128	100		
129	11.0	0.0	41.8
127	15.2	0.0	44.0

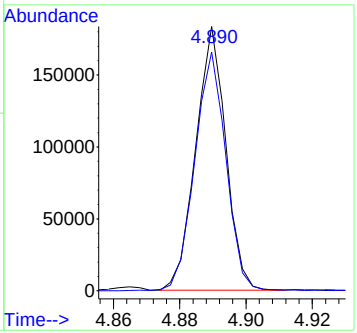


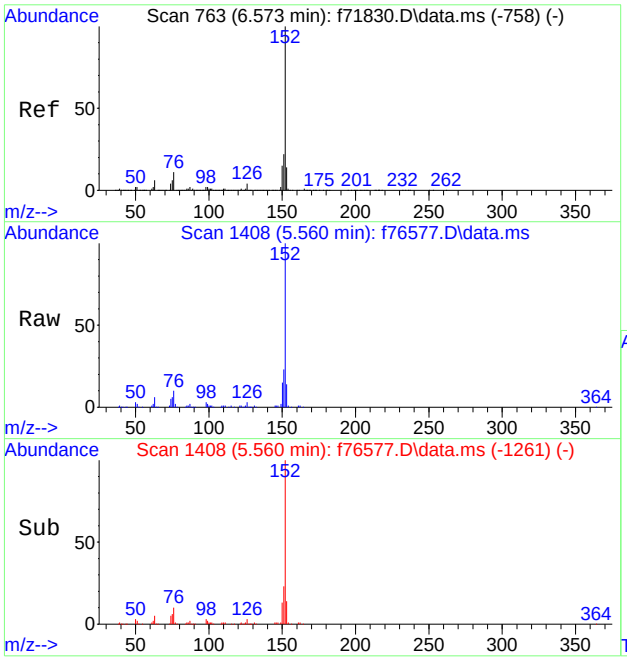


#38
1-methylnaphthalene
Concen: 16.51 ppm
RT: 4.890 min Scan# 1192
Delta R.T. -0.044 min
Lab File: f76577.D
Acq: 2 Oct 2014 1:52 pm

Tgt Ion:142 Resp: 115945

Ion	Ratio	Lower	Upper
142	100		
141	90.2	71.0	106.4

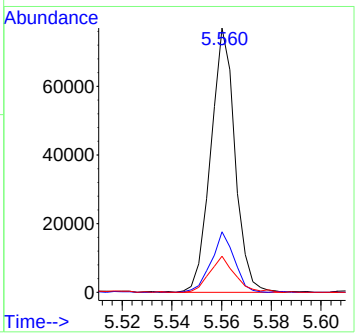


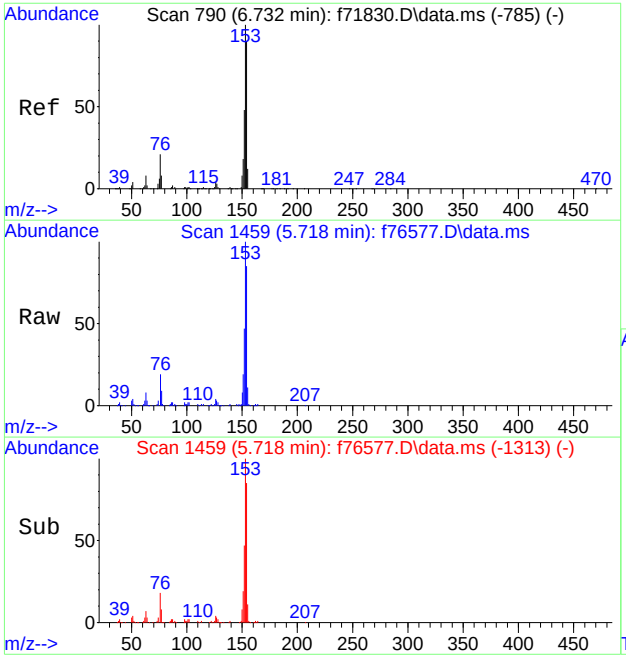


#46
Acenaphthylene
Concen: 5.13 ppm
RT: 5.560 min Scan# 1408
Delta R.T. -0.044 min
Lab File: f76577.D
Acq: 2 Oct 2014 1:52 pm

Tgt Ion:152 Resp: 52061

Ion	Ratio	Lower	Upper
152	100		
151	22.7	0.0	51.6
153	13.7	0.0	43.9

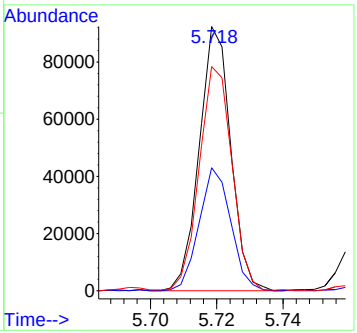


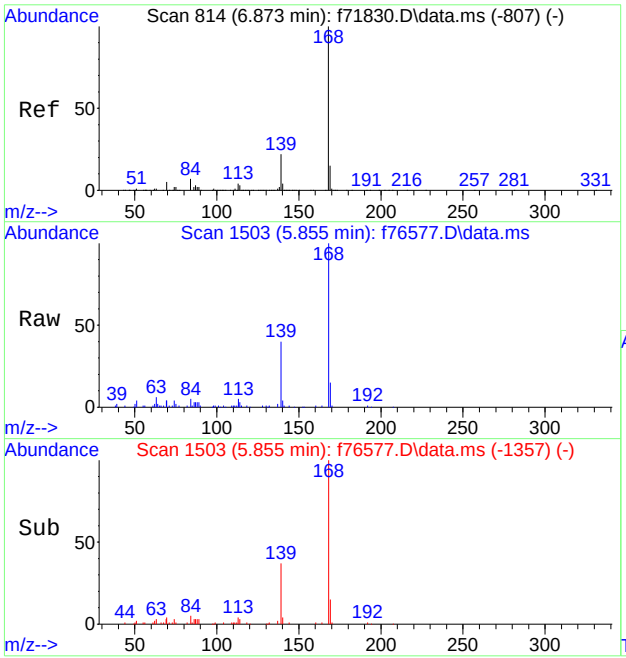


#49
Acenaphthene
Concen: 8.28 ppm
RT: 5.718 min Scan# 1459
Delta R.T. -0.047 min
Lab File: f76577.D
Acq: 2 Oct 2014 1:52 pm

Tgt Ion:153 Resp: 61082

Ion	Ratio	Lower	Upper
153	100		
152	46.6	17.6	77.6
154	84.5	60.3	120.3

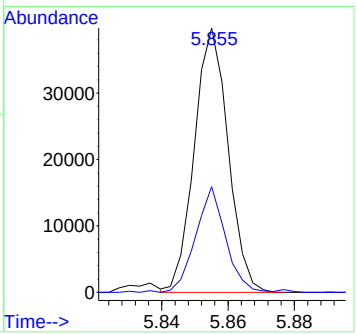


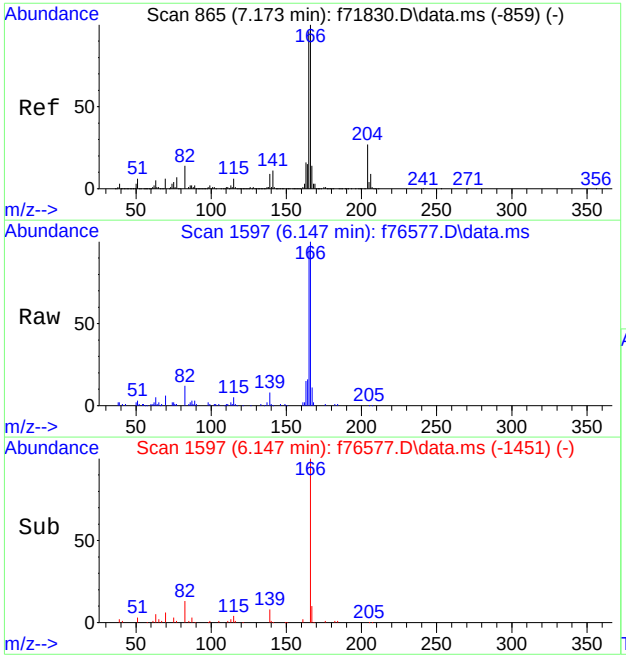


#51
Dibenzofuran
Concen: 2.69 ppm
RT: 5.855 min Scan# 1503
Delta R.T. -0.047 min
Lab File: f76577.D
Acq: 2 Oct 2014 1:52 pm

Tgt Ion:168 Resp: 28201

Ion	Ratio	Lower	Upper
168	100		
139	39.9	5.3	65.3

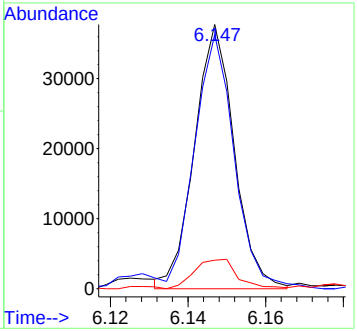


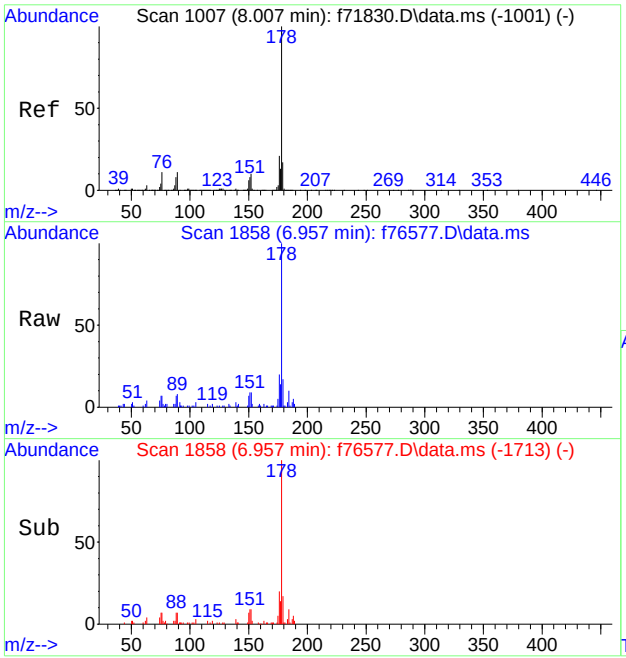


#55
Fluorene
Concen: 3.36 ppm m
RT: 6.147 min Scan# 1597
Delta R.T. -0.047 min
Lab File: f76577.D
Acq: 2 Oct 2014 1:52 pm

Tgt Ion:166 Resp: 26871

Ion	Ratio	Lower	Upper
166	100		
165	96.1	65.7	125.7
167	10.8	0.0	44.0

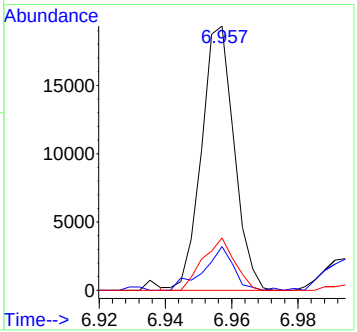


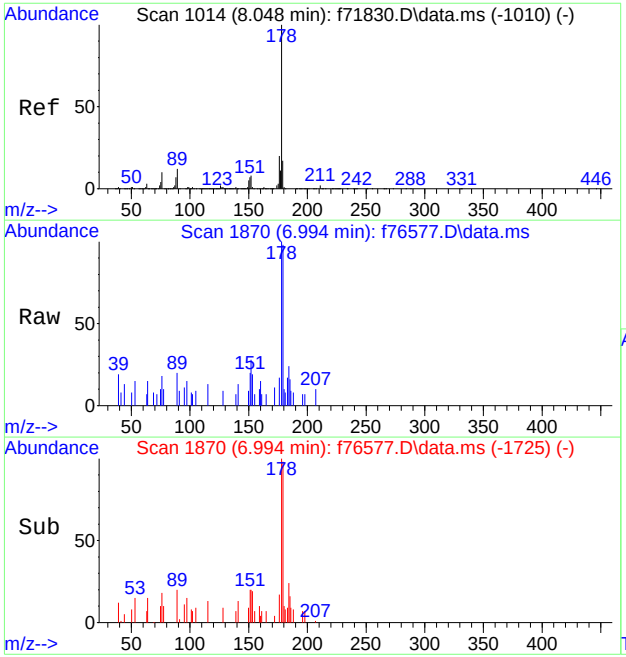


#70
Phenanthrene
Concen: 1.09 ppm
RT: 6.957 min Scan# 1858
Delta R.T. -0.050 min
Lab File: f76577.D
Acq: 2 Oct 2014 1:52 pm

Tgt Ion:178 Resp: 13267

Ion	Ratio	Lower	Upper
178	100		
179	16.6	0.0	46.3
176	19.8	0.0	50.0

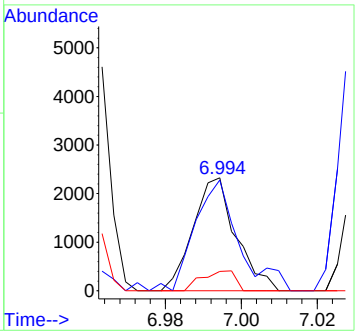


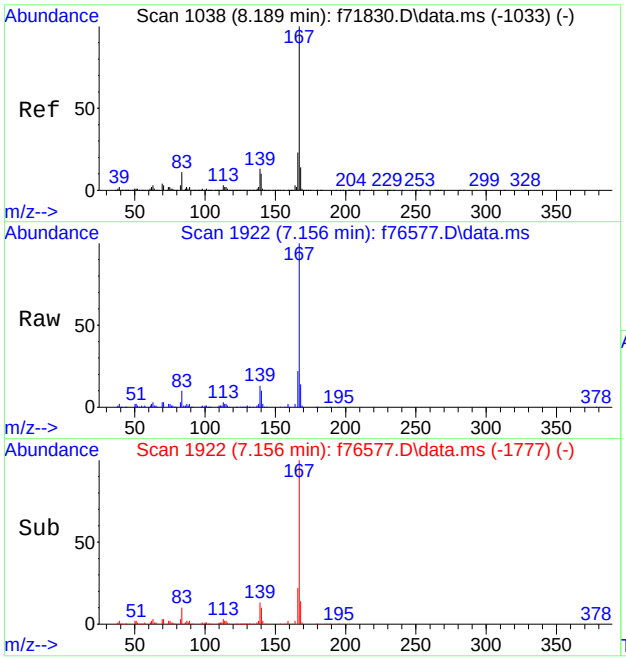


#71
Anthracene
Concen: 0.15 ppm m
RT: 6.994 min Scan# 1870
Delta R.T. -0.050 min
Lab File: f76577.D
Acq: 2 Oct 2014 1:52 pm

Tgt Ion:178 Resp: 1830

Ion	Ratio	Lower	Upper
178	100		
179	98.0	0.0	46.7#
176	17.2	0.0	49.6

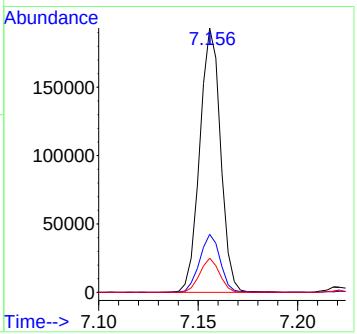




#72
Carbazole
Concen: 12.25 ppm
RT: 7.156 min Scan# 1922
Delta R.T. -0.050 min
Lab File: f76577.D
Acq: 2 Oct 2014 1:52 pm

Tgt Ion:167 Resp: 140781

Ion	Ratio	Lower	Upper
167	100		
166	21.9	0.0	52.4
139	13.0	0.0	42.5



Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76578.D
Acq On : 2 Oct 2014 2:15 pm
Operator : williamk
Sample : mc33908-9
Misc : op39993,msf3358,910,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 02 14:49:35 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

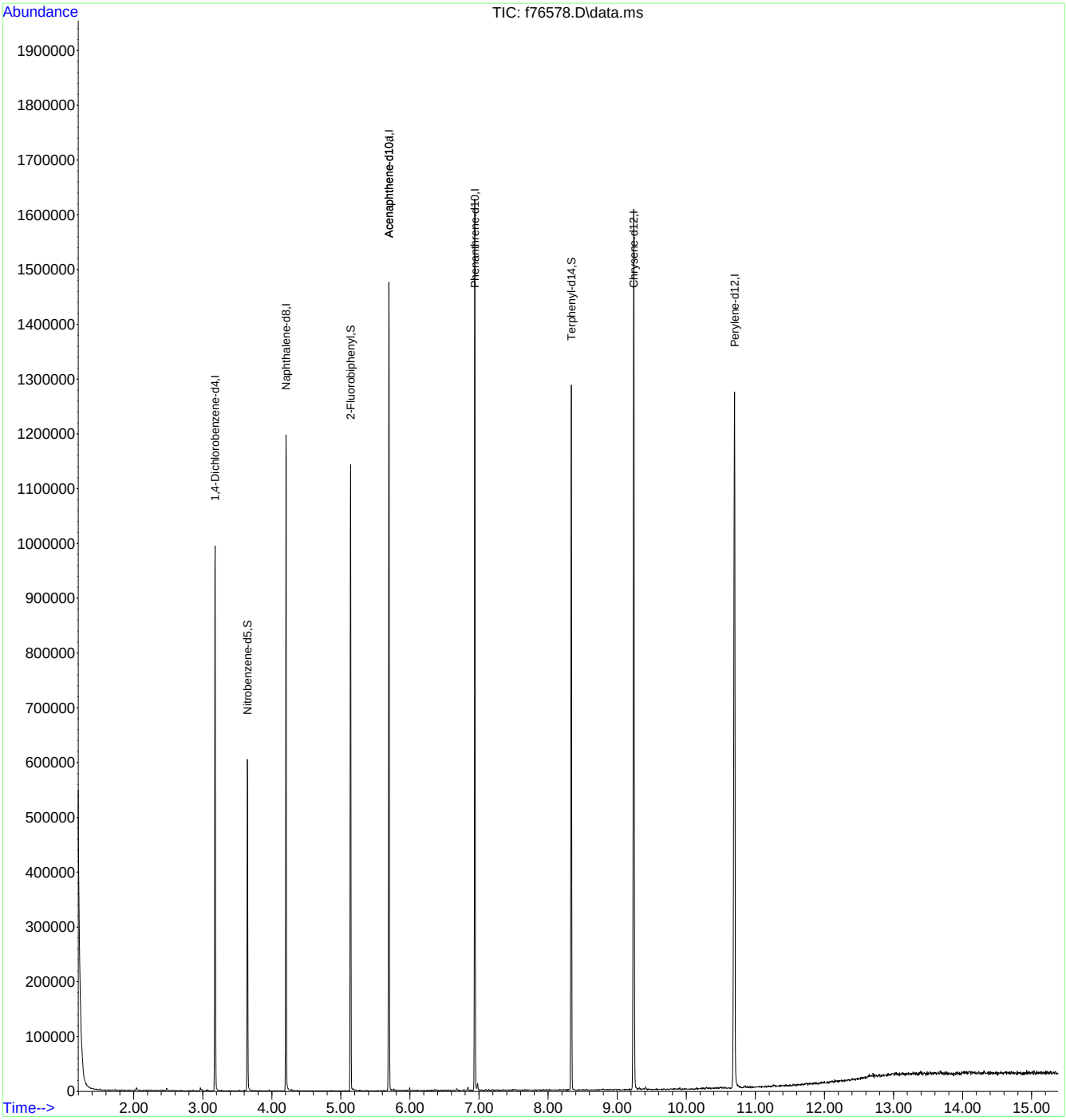
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.179	152	116813	40.00	ppm	-0.04
22) Naphthalene-d8	4.204	136	426971	40.00	ppm	-0.04
39) Acenaphthene-d10	5.694	164	266588	40.00	ppm	-0.04
61) Phenanthrene-d10	6.939	188	467062	40.00	ppm	-0.05
75) Chrysene-d12	9.239	240	537841	40.00	ppm	-0.06
85) Perylene-d12	10.698	264	545704	40.00	ppm	-0.07
93) Acenaphthene-d10a	5.694	164	266588	40.00	ppm	-0.04
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 100.000	Range 21 - 110		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 110		Recovery =	0.00%#		
23) Nitrobenzene-d5	3.645	82	138178	33.90	ppm	-0.04
Spiked Amount 50.000	Range 34 - 114		Recovery =	67.80%		
44) 2-Fluorobiphenyl	5.141	172	270328	30.57	ppm	-0.04
Spiked Amount 50.000	Range 43 - 116		Recovery =	61.14%		
65) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
78) Terphenyl-d14	8.336	244	331534	28.98	ppm	-0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	57.96%		
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76578.D
Acq On : 2 Oct 2014 2:15 pm
Operator : williamk
Sample : mc33908-9
Misc : op39993,msf3358,910,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 02 14:49:35 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76579.D
Acq On : 2 Oct 2014 2:38 pm
Operator : williamk
Sample : mc33908-10
Misc : op39993,msf3358,680,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 02 15:35:10 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

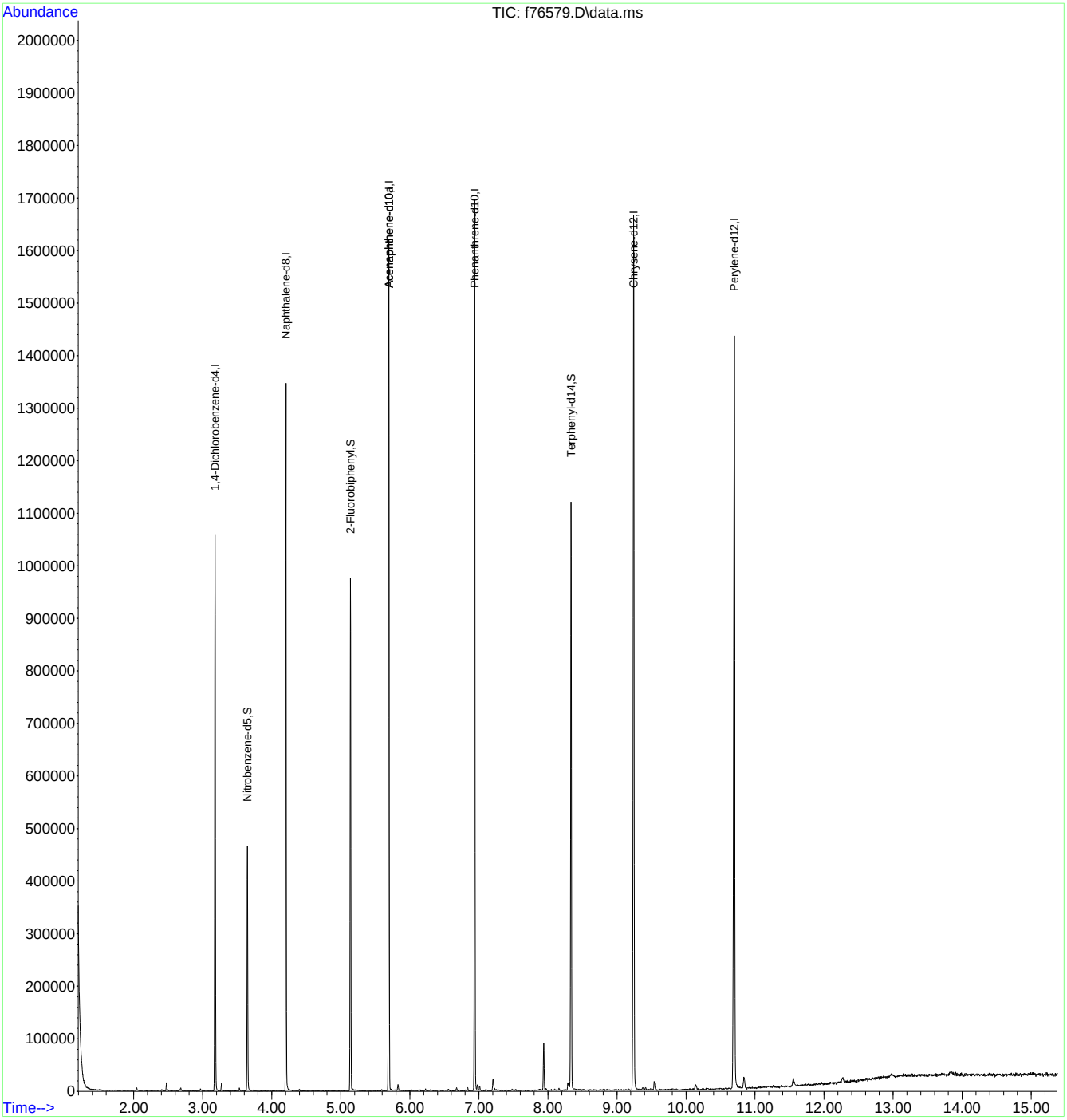
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.178	152	121640	40.00	ppm	-0.04
22) Naphthalene-d8	4.205	136	444630	40.00	ppm	-0.04
39) Acenaphthene-d10	5.695	164	278300	40.00	ppm	-0.04
61) Phenanthrene-d10	6.940	188	487035	40.00	ppm	-0.05
75) Chrysene-d12	9.240	240	561813	40.00	ppm	-0.06
85) Perylene-d12	10.699	264	590014	40.00	ppm	-0.06
93) Acenaphthene-d10a	5.695	164	278300	40.00	ppm	-0.04
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 100.000	Range 21 - 110		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 110		Recovery =	0.00%#		
23) Nitrobenzene-d5	3.646	82	106727	25.14	ppm	-0.04
Spiked Amount 50.000	Range 34 - 114		Recovery =	50.28%		
44) 2-Fluorobiphenyl	5.140	172	231755	25.11	ppm	-0.05
Spiked Amount 50.000	Range 43 - 116		Recovery =	50.22%		
65) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
78) Terphenyl-d14	8.334	244	306948	25.68	ppm	-0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	51.36%		
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76579.D
Acq On : 2 Oct 2014 2:38 pm
Operator : williamk
Sample : mc33908-10
Misc : op39993,msf3358,680,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 02 15:35:10 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
10/08/14 11:28

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76580.D
Acq On : 2 Oct 2014 3:01 pm
Operator : williamk
Sample : mc33908-11
Misc : op39993,msf3358,880,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 02 15:36:14 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.181	152	119115	40.00	ppm	-0.04
22) Naphthalene-d8	4.205	136	444161	40.00	ppm	-0.04
39) Acenaphthene-d10	5.695	164	270474	40.00	ppm	-0.04
61) Phenanthrene-d10	6.940	188	476144	40.00	ppm	-0.05
75) Chrysene-d12	9.243	240	555920	40.00	ppm	-0.05
85) Perylene-d12	10.699	264	574113	40.00	ppm	-0.06
93) Acenaphthene-d10a	5.695	164	270474	40.00	ppm	-0.04
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 100.000	Range 21 - 110		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 110		Recovery =	0.00%#		
23) Nitrobenzene-d5	3.646	82	128037	30.20	ppm	-0.04
Spiked Amount 50.000	Range 34 - 114		Recovery =	60.40%		
44) 2-Fluorobiphenyl	5.140	172	256119	28.55	ppm	-0.05
Spiked Amount 50.000	Range 43 - 116		Recovery =	57.10%		
65) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
78) Terphenyl-d14	8.334	244	340713	28.81	ppm	-0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	57.62%		
Target Compounds						Qvalue
32) Naphthalene	4.221	128	132301	11.63	ppm	97
38) 1-methylnaphthalene	4.891	142	102118	13.72	ppm	92
46) Acenaphthylene	5.562	152	29036m	2.71	ppm	
49) Acenaphthene	5.720	153	53783	6.92	ppm	97
51) Dibenzofuran	5.854	168	25095	2.27	ppm	95
55) Fluorene	6.148	166	23366	2.77	ppm	95
70) Phenanthrene	6.956	178	11165	0.85	ppm	94
72) Carbazole	7.157	167	113085	9.19	ppm	99

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

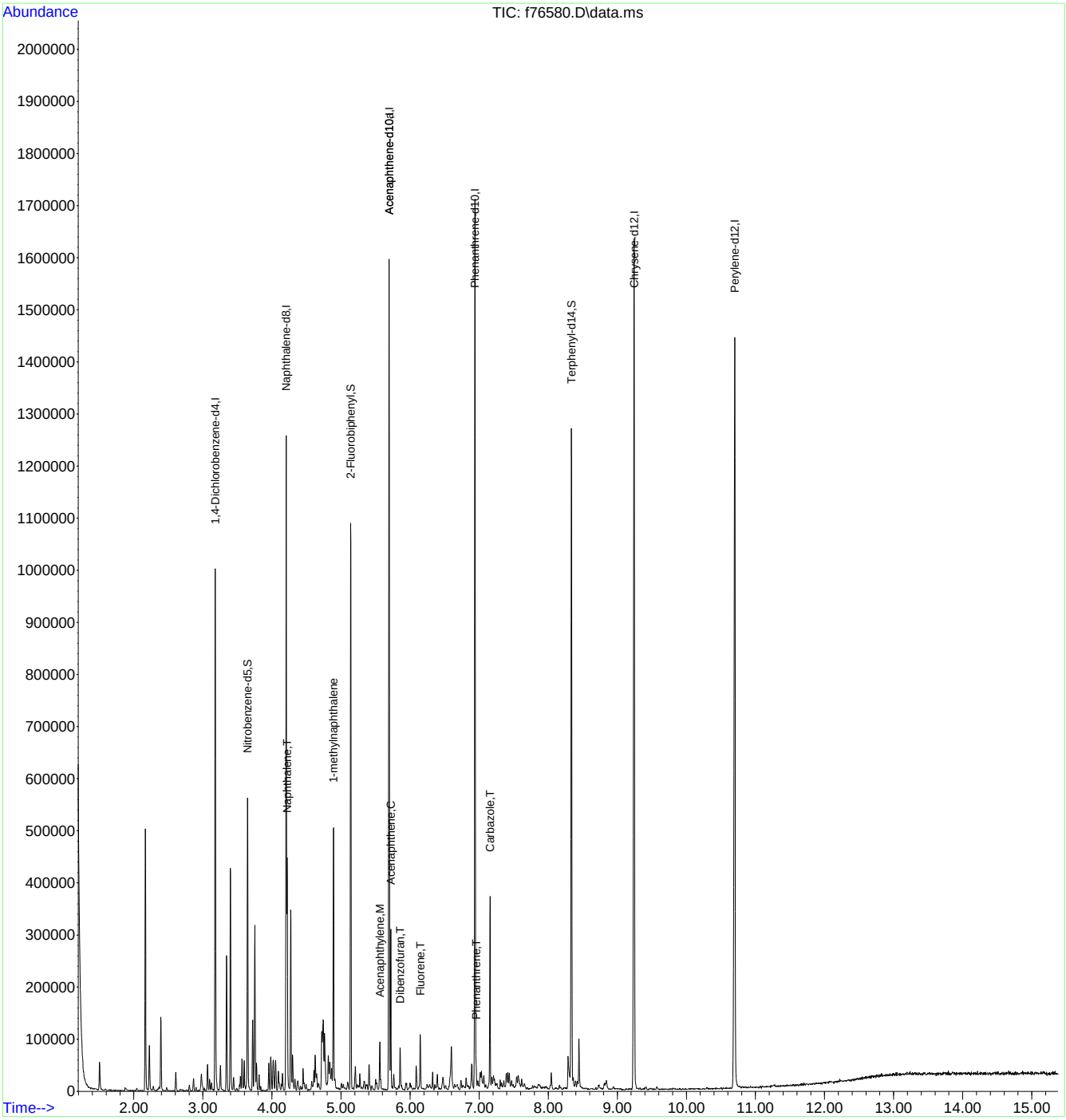
9.1.11

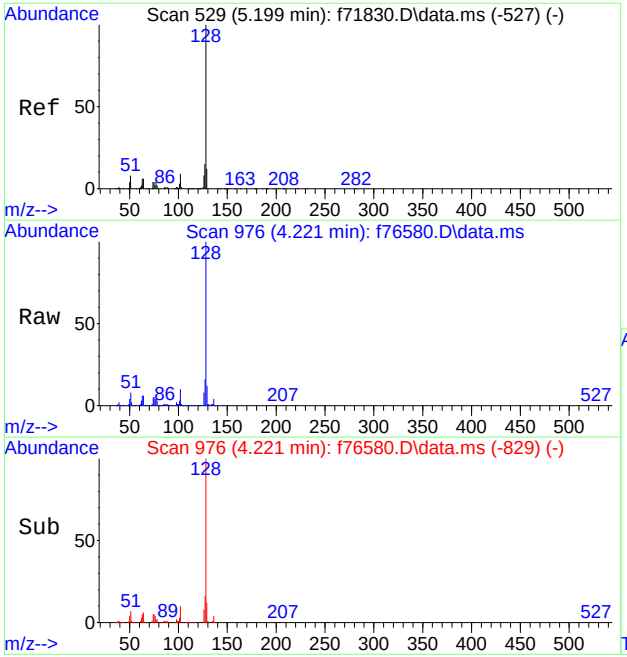
9

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76580.D
Acq On : 2 Oct 2014 3:01 pm
Operator : williamk
Sample : mc33908-11
Misc : op39993,msf3358,880,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 02 15:36:14 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

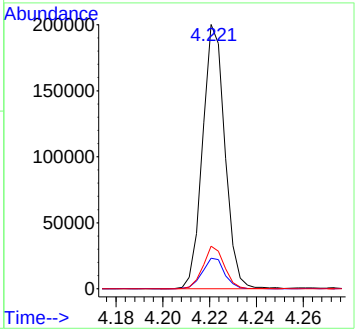


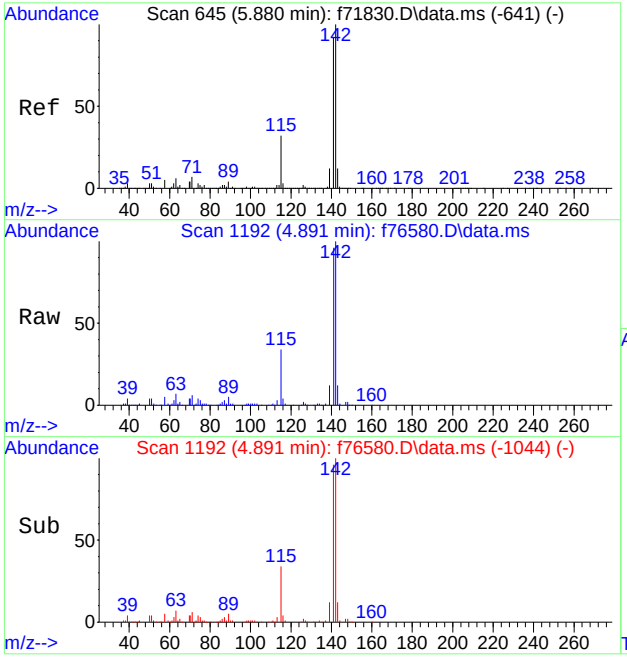


#32
Naphthalene
Concen: 11.63 ppm
RT: 4.221 min Scan# 976
Delta R.T. -0.045 min
Lab File: f76580.D
Acq: 2 Oct 2014 3:01 pm

Tgt Ion:128 Resp: 132301

Ion	Ratio	Lower	Upper
128	100		
129	11.6	0.0	41.8
127	16.2	0.0	44.0

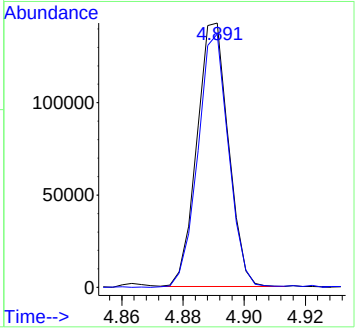


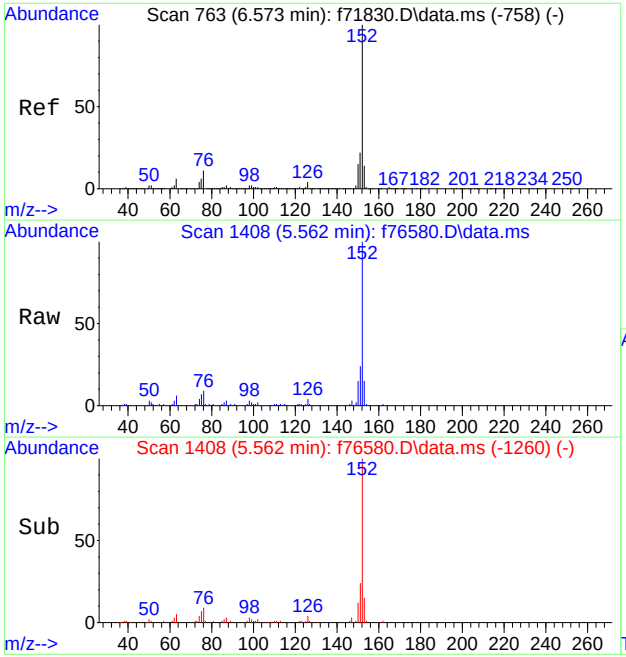


#38
1-methylnaphthalene
Concen: 13.72 ppm
RT: 4.891 min Scan# 1192
Delta R.T. -0.042 min
Lab File: f76580.D
Acq: 2 Oct 2014 3:01 pm

Tgt Ion:142 Resp: 102118

Ion	Ratio	Lower	Upper
142	100		
141	95.9	71.0	106.4

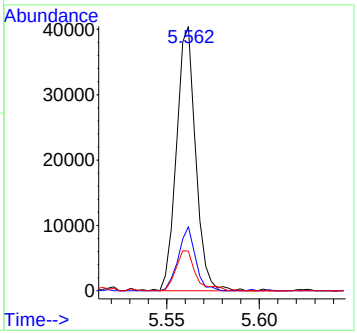


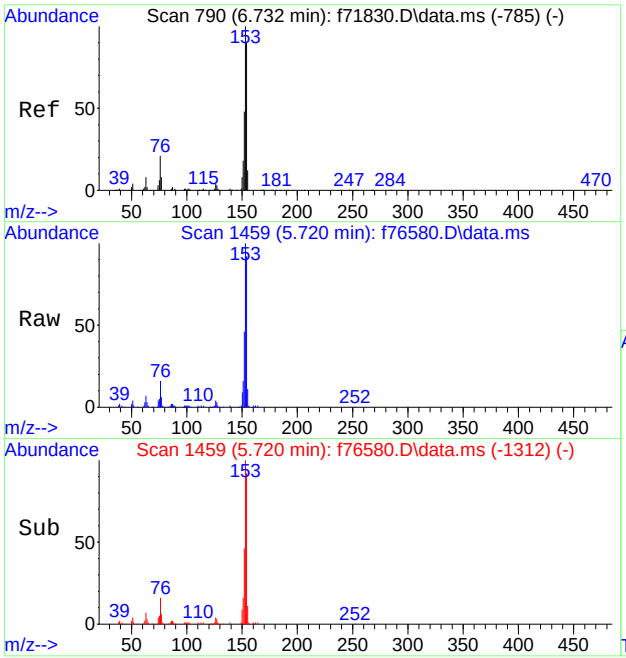


#46
Acenaphthylene
Concen: 2.71 ppm m
RT: 5.562 min Scan# 1408
Delta R.T. -0.042 min
Lab File: f76580.D
Acq: 2 Oct 2014 3:01 pm

Tgt Ion:152 Resp: 29036

Ion	Ratio	Lower	Upper
152	100		
151	24.3	0.0	51.6
153	15.0	0.0	43.9

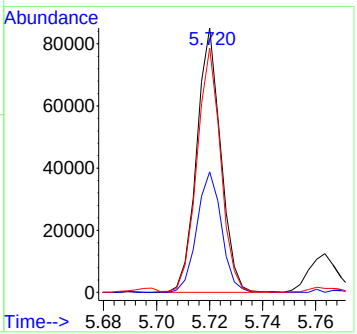


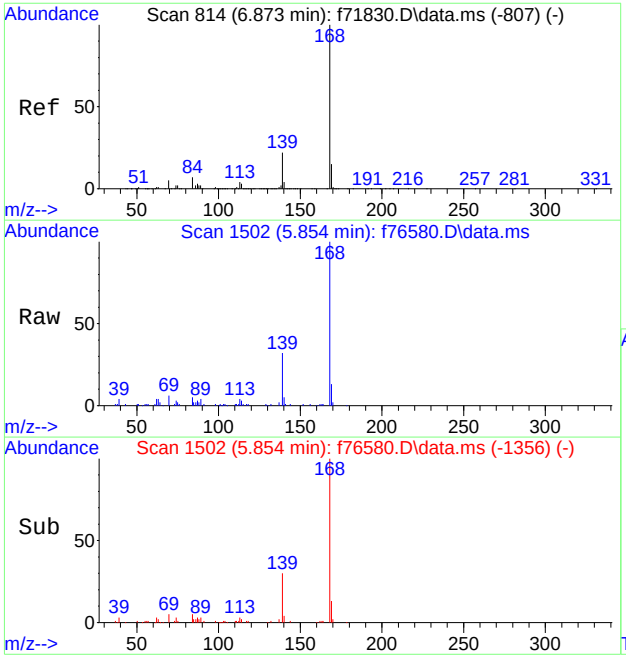


#49
Acenaphthene
Concen: 6.92 ppm
RT: 5.720 min Scan# 1459
Delta R.T. -0.045 min
Lab File: f76580.D
Acq: 2 Oct 2014 3:01 pm

Tgt Ion:153 Resp: 53783

Ion	Ratio	Lower	Upper
153	100		
152	45.5	17.6	77.6
154	92.4	60.3	120.3

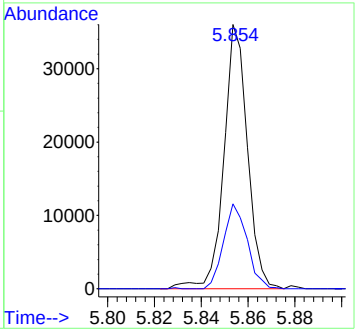


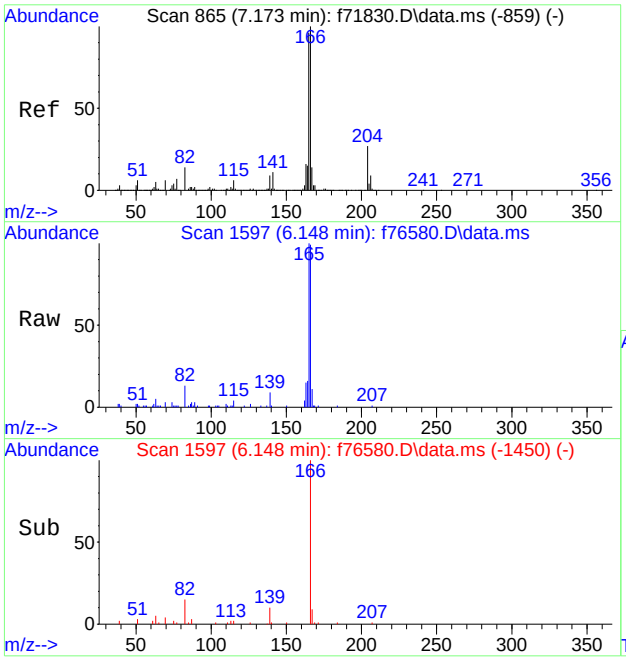


#51
Dibenzofuran
Concen: 2.27 ppm
RT: 5.854 min Scan# 1502
Delta R.T. -0.048 min
Lab File: f76580.D
Acq: 2 Oct 2014 3:01 pm

Tgt Ion:168 Resp: 25095

Ion	Ratio	Lower	Upper
168	100		
139	32.1	5.3	65.3

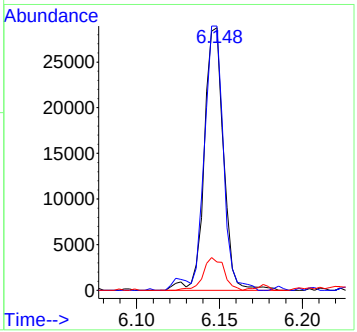


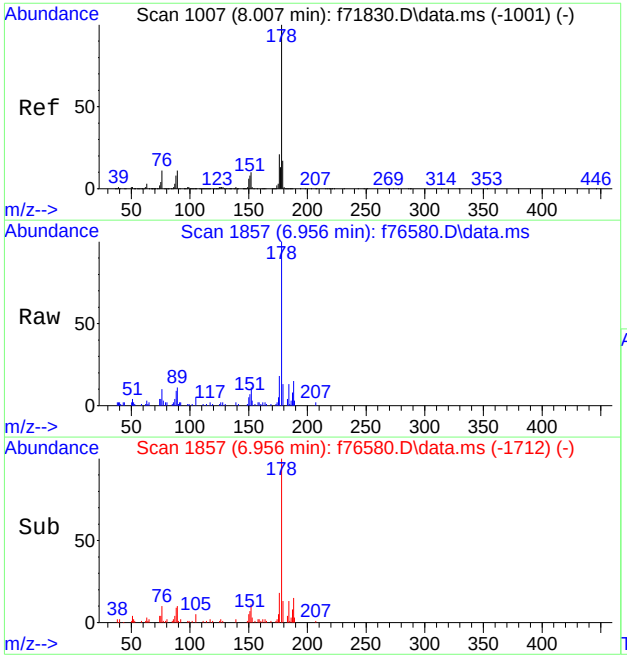


#55
Fluorene
Concen: 2.77 ppm
RT: 6.148 min Scan# 1597
Delta R.T. -0.045 min
Lab File: f76580.D
Acq: 2 Oct 2014 3:01 pm

Tgt Ion:166 Resp: 23366

Ion	Ratio	Lower	Upper
166	100		
165	100.7	65.7	125.7
167	10.8	0.0	44.0

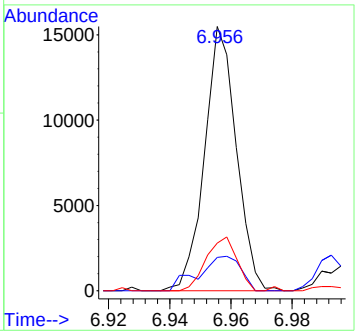


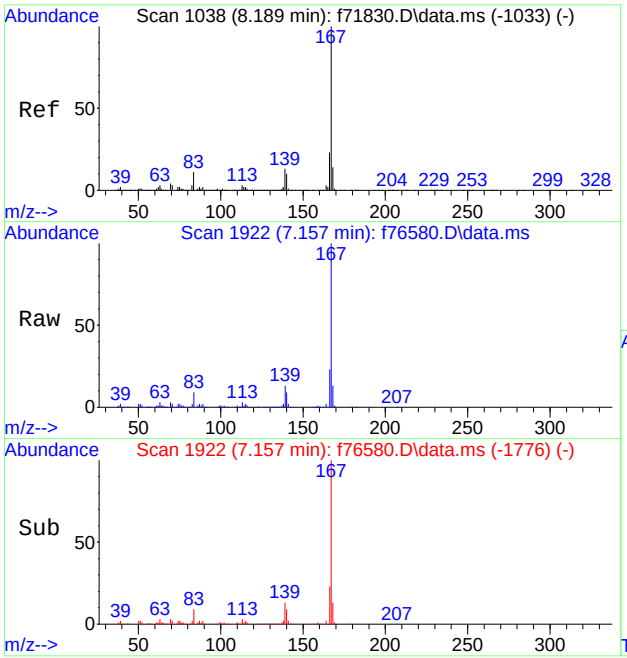


#70
Phenanthrene
Concen: 0.85 ppm
RT: 6.956 min Scan# 1857
Delta R.T. -0.051 min
Lab File: f76580.D
Acq: 2 Oct 2014 3:01 pm

Tgt Ion:178 Resp: 11165

Ion	Ratio	Lower	Upper
178	100		
179	12.7	0.0	46.3
176	18.0	0.0	50.0

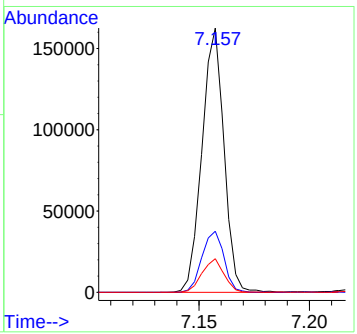




#72
Carbazole
Concen: 9.19 ppm
RT: 7.157 min Scan# 1922
Delta R.T. -0.048 min
Lab File: f76580.D
Acq: 2 Oct 2014 3:01 pm

Tgt Ion:167 Resp: 113085

Ion	Ratio	Lower	Upper
167	100		
166	23.1	0.0	52.4
139	12.8	0.0	42.5



Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76581.D
Acq On : 2 Oct 2014 3:24 pm
Operator : williamk
Sample : mc33908-12
Misc : op39993,msf3358,920,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 03 09:48:10 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

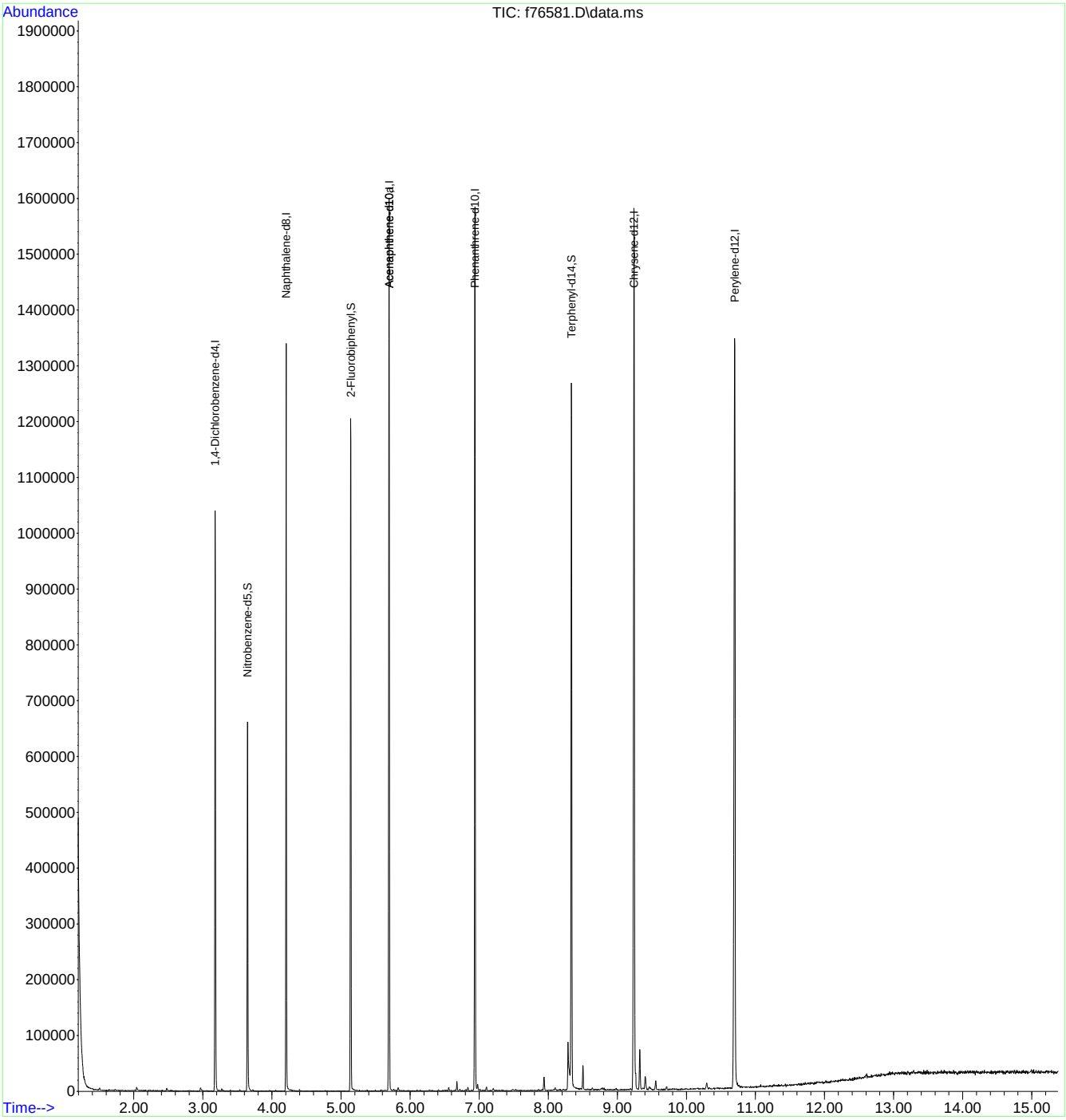
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.177	152	119643	40.00	ppm	-0.04
22) Naphthalene-d8	4.205	136	442878	40.00	ppm	-0.04
39) Acenaphthene-d10	5.695	164	266102	40.00	ppm	-0.04
61) Phenanthrene-d10	6.940	188	470313	40.00	ppm	-0.05
75) Chrysene-d12	9.240	240	549950	40.00	ppm	-0.06
85) Perylene-d12	10.699	264	568090	40.00	ppm	-0.06
93) Acenaphthene-d10a	5.695	164	266102	40.00	ppm	-0.04
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 100.000	Range 21 - 110		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 110		Recovery =	0.00%#		
23) Nitrobenzene-d5	3.646	82	145759	34.48	ppm	-0.04
Spiked Amount 50.000	Range 34 - 114		Recovery =	68.96%		
44) 2-Fluorobiphenyl	5.142	172	291548	33.04	ppm	-0.04
Spiked Amount 50.000	Range 43 - 116		Recovery =	66.08%		
65) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
78) Terphenyl-d14	8.334	244	331939	28.37	ppm	-0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	56.74%		
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76581.D
Acq On : 2 Oct 2014 3:24 pm
Operator : williamk
Sample : mc33908-12
Misc : op39993,msf3358,920,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 03 09:48:10 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration



F140825_8270.m Fri Oct 03 11:50:35 2014 Page: 2

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76582.D
Acq On : 2 Oct 2014 3:47 pm
Operator : williamk
Sample : mc33908-13
Misc : op39993,msf3358,910,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 03 09:49:03 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

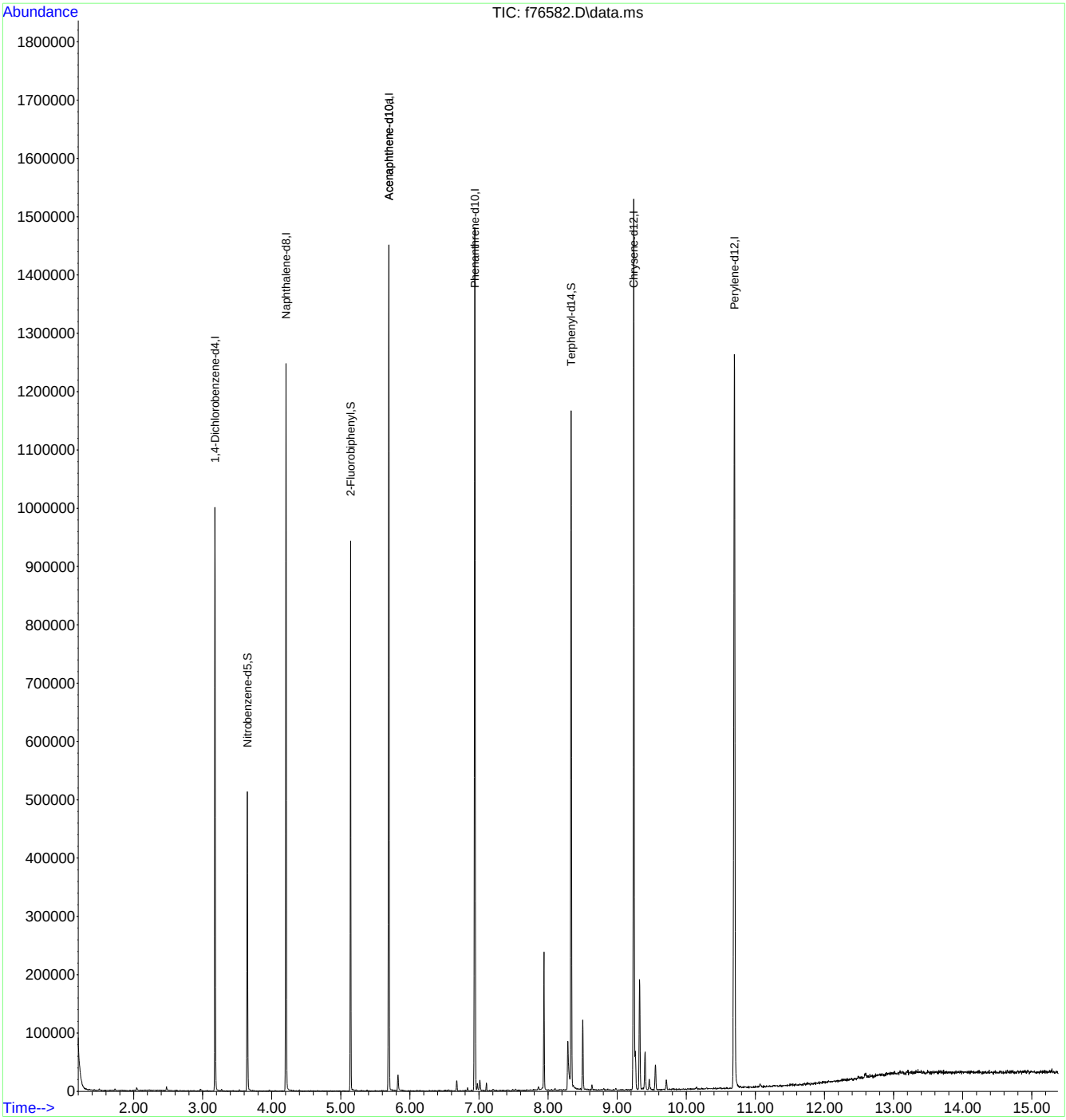
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.178	152	111915	40.00	ppm	-0.04
22) Naphthalene-d8	4.205	136	411935	40.00	ppm	-0.04
39) Acenaphthene-d10	5.695	164	250889	40.00	ppm	-0.04
61) Phenanthrene-d10	6.937	188	441876	40.00	ppm	-0.05
75) Chrysene-d12	9.240	240	509930	40.00	ppm	-0.06
85) Perylene-d12	10.696	264	520630	40.00	ppm	-0.07
93) Acenaphthene-d10a	5.695	164	250889	40.00	ppm	-0.04
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 100.000	Range 21 - 110		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 110		Recovery =	0.00%#		
23) Nitrobenzene-d5	3.646	82	112794	28.68	ppm	-0.04
Spiked Amount 50.000	Range 34 - 114		Recovery =	57.36%		
44) 2-Fluorobiphenyl	5.139	172	220954	26.55	ppm	-0.05
Spiked Amount 50.000	Range 43 - 116		Recovery =	53.10%		
65) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
78) Terphenyl-d14	8.334	244	312704	28.83	ppm	-0.05
Spiked Amount 50.000	Range 33 - 141		Recovery =	57.66%		
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76582.D
Acq On : 2 Oct 2014 3:47 pm
Operator : williamk
Sample : mc33908-13
Misc : op39993,msf3358,910,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 03 09:49:03 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76567.D
Acq On : 2 Oct 2014 10:02 am
Operator : williamk
Sample : op39993-mb
Misc : op39993,msf3358,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 02 14:39:04 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.180	152	129407	40.00	ppm	-0.04
22) Naphthalene-d8	4.207	136	476712	40.00	ppm	-0.04
39) Acenaphthene-d10	5.697	164	297042	40.00	ppm	-0.04
61) Phenanthrene-d10	6.939	188	516197	40.00	ppm	-0.05
75) Chrysene-d12	9.243	240	601458	40.00	ppm	-0.06
85) Perylene-d12	10.702	264	622556	40.00	ppm	-0.06
93) Acenaphthene-d10a	5.697	164	297042	40.00	ppm	-0.04
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 100.000	Range 21 - 110		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 110		Recovery =	0.00%#		
23) Nitrobenzene-d5	3.649	82	152365	33.48	ppm	-0.04
Spiked Amount 50.000	Range 34 - 114		Recovery =	66.96%		
44) 2-Fluorobiphenyl	5.142	172	320082	32.49	ppm	-0.04
Spiked Amount 50.000	Range 43 - 116		Recovery =	64.98%		
65) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
78) Terphenyl-d14	8.339	244	529784	41.40	ppm	-0.04
Spiked Amount 50.000	Range 33 - 141		Recovery =	82.80%		
Target Compounds						Qvalue

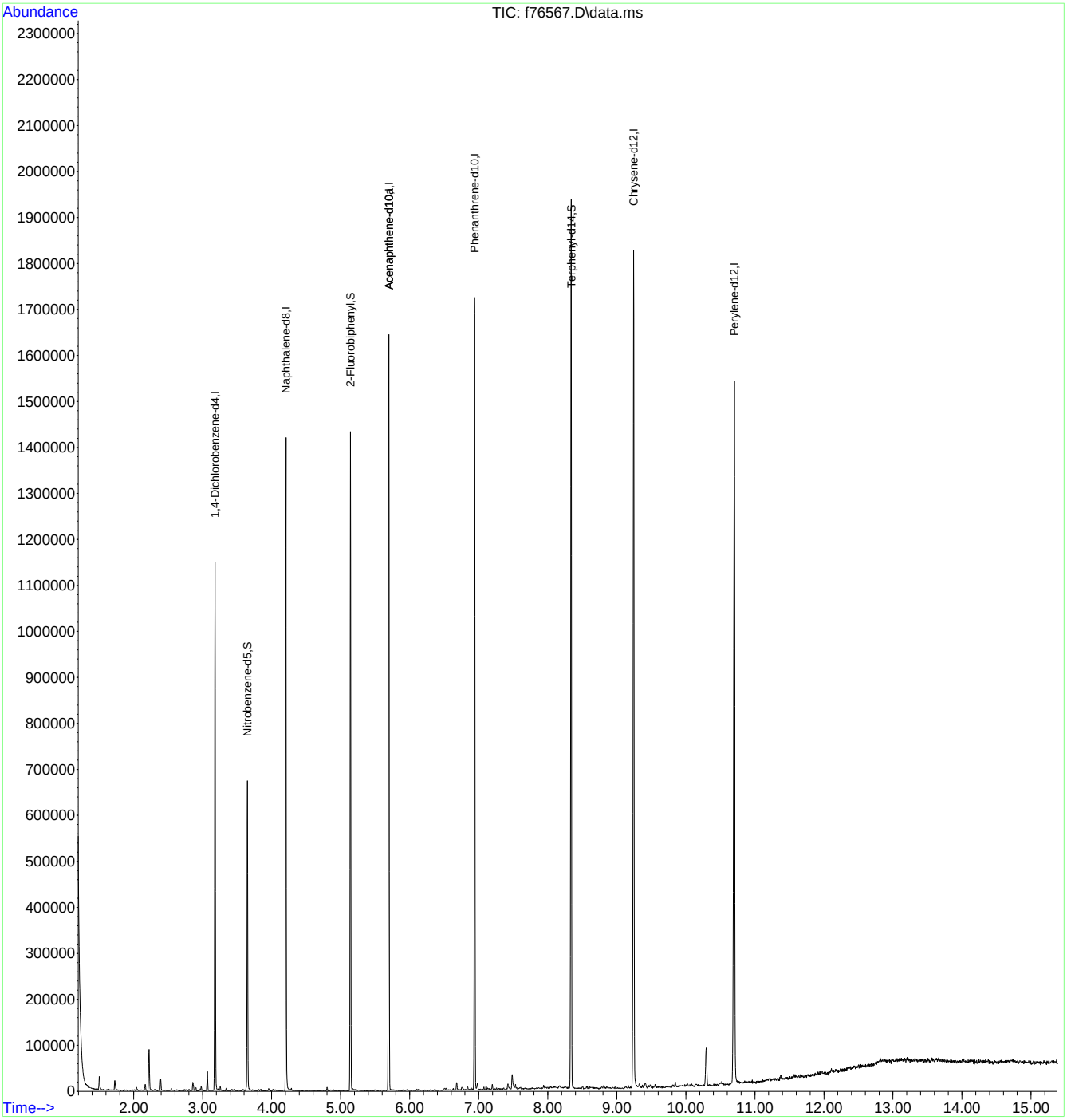
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ACCUTEST LABORATORIES MC33908

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76567.D
Acq On : 2 Oct 2014 10:02 am
Operator : williamk
Sample : op39993-mb
Misc : op39993,msf3358,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 02 14:39:04 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76568.D
Acq On : 2 Oct 2014 10:25 am
Operator : williamk
Sample : op39993-bs
Misc : op39993,msf3358,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 02 14:40:31 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.180	152	135414	40.00	ppm	-0.04
22) Naphthalene-d8	4.207	136	497447	40.00	ppm	-0.04
39) Acenaphthene-d10	5.698	164	305750	40.00	ppm	-0.04
61) Phenanthrene-d10	6.942	188	544559	40.00	ppm	-0.04
75) Chrysene-d12	9.249	240	623013	40.00	ppm	-0.05
85) Perylene-d12	10.705	264	644770	40.00	ppm	-0.06
93) Acenaphthene-d10a	5.698	164	305750	40.00	ppm	-0.04
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 100.000	Range 21 - 110		Recovery = 0.00%#			
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 110		Recovery = 0.00%#			
23) Nitrobenzene-d5	3.649	82	185658	39.10	ppm	-0.04
Spiked Amount 50.000	Range 34 - 114		Recovery = 78.20%			
44) 2-Fluorobiphenyl	5.142	172	381063	37.58	ppm	-0.04
Spiked Amount 50.000	Range 43 - 116		Recovery = 75.16%			
65) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 123		Recovery = 0.00%#			
78) Terphenyl-d14	8.339	244	575765	43.44	ppm	-0.04
Spiked Amount 50.000	Range 33 - 141		Recovery = 86.88%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	1.361	74	49029	16.52	ppm	86
4) Pyridine	1.355	79	125641	23.76	ppm	97
5) Aniline	2.972	93	199110	28.40	ppm	99
7) bis(2-Chloroethyl)ether	3.025	93	173951	40.64	ppm	93
11) 1,3-Dichlorobenzene	3.149	146	179551	34.88	ppm	98
12) 1,4-Dichlorobenzene	3.192	146	184505	34.97	ppm	97
13) 1,2-Dichlorobenzene	3.338	146	177634	36.02	ppm	99
14) Benzyl alcohol	3.326	108	81004	25.89	ppm	91
15) bis(2-chloroisopropyl)...	3.447	45	240839	42.72	ppm	94
17) Acetophenone	3.531	105	284542	43.11	ppm	84
18) Hexachloroethane	3.577	117	62337	32.72	ppm	87
19) N-Nitroso-di-n-propyla...	3.559	70	141089	44.70	ppm	96
24) Nitrobenzene	3.664	77	210670	44.03	ppm	96
25) Isophorone	3.847	82	344075	41.09	ppm	91
28) bis(2-Chloroethoxy)met...	4.059	93	226088	43.55	ppm	97
31) 1,2,4-Trichlorobenzene	4.180	180	167945	40.84	ug/mL	96
32) Naphthalene	4.226	128	529986	41.58	ppm	97
34) 4-Chloroaniline	4.310	127	237791	43.76	ppm	100
35) Hexachlorobutadiene	4.384	225	93033	41.17	ppm	98
37) 2-Methylnaphthalene	4.804	142	391081	43.92	ppm	98
38) 1-methylnaphthalene	4.894	142	365997	43.90	ppm	93
40) Hexachlorocyclopentadiene	4.999	237	56578	24.00	ppm	96
41) 1,2,4,5-Tetrachloroben...	4.980	216	205955	46.41	ppm	96
45) 2-Chloronaphthalene	5.210	162	403826	48.12	ppm	99
46) Acenaphthylene	5.564	152	540661	44.71	ppm	99
47) Dimethylphthalate	5.542	163	190046	20.49	ppm	98
48) 2,6-Dinitrotoluene	5.595	165	108094	50.86	ppm	91
49) Acenaphthene	5.725	153	422849	48.10	ppm	98
51) Dibenzofuran	5.859	168	607584	48.62	ppm	97
52) 2,4-Dinitrotoluene	5.921	165	144117	50.46	ppm	91
55) Fluorene	6.151	166	492007	51.64	ppm	98
56) 4-Chlorophenyl-phenyle...	6.169	204	242769	50.88	ppm	99
57) Diethylphthalate	6.145	149	361908	39.41	ppm	97
58) 2-nitroaniline	5.353	138	144821	51.80	ppm	88

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76568.D
Acq On : 2 Oct 2014 10:25 am
Operator : williamk
Sample : op39993-bs
Misc : op39993,msf3358,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 02 14:40:31 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

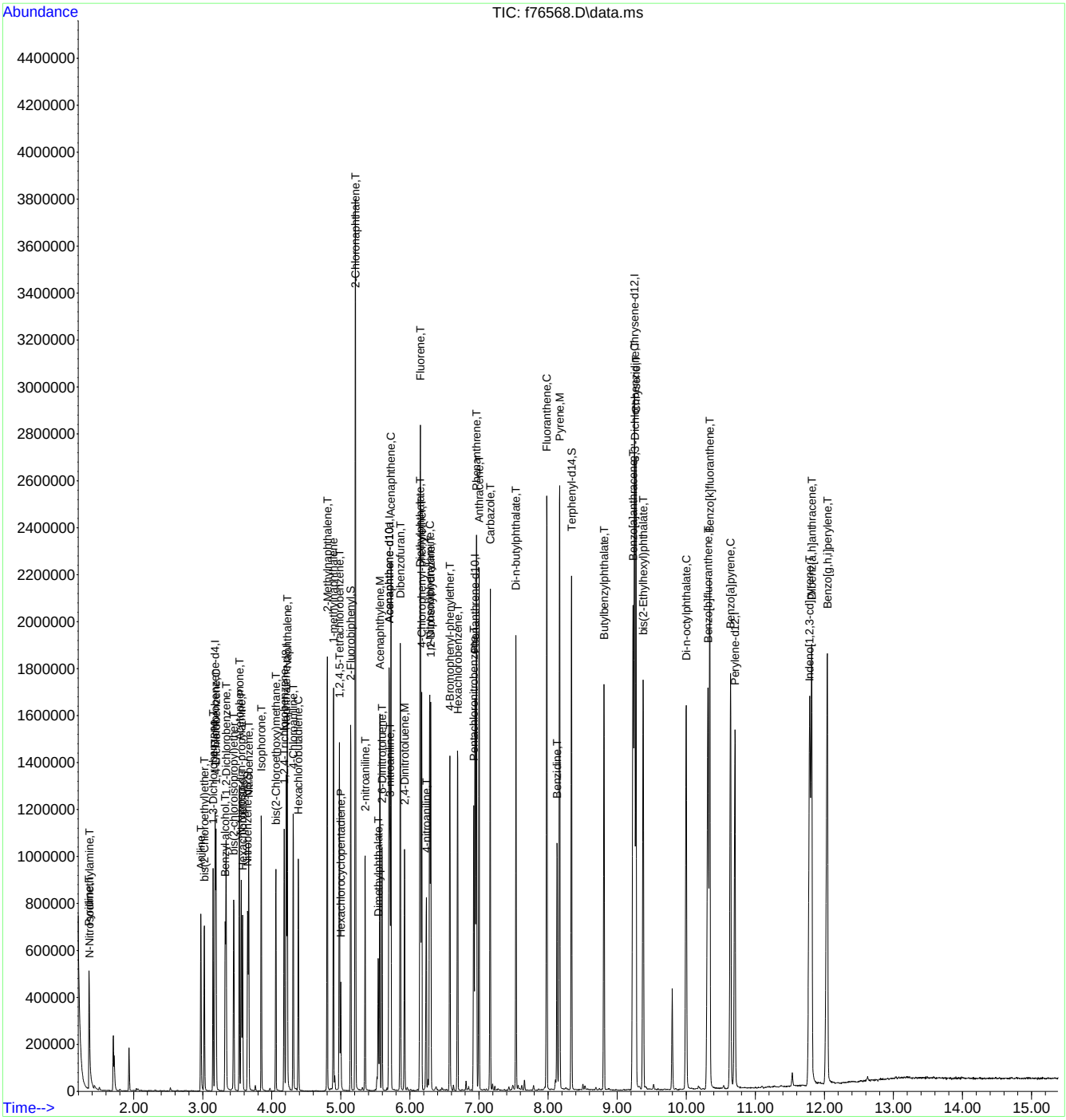
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
59) 3-nitroaniline	5.710	138	121050	51.16	ppm	96
60) 4-nitroaniline	6.238	138	115030	49.05	ppm	99
63) n-Nitrosodiphenylamine	6.287	169	333679	44.29	ppm	99
64) 1,2-Diphenylhydrazine	6.300	77	490070	48.31	ppm	97
66) 4-Bromophenyl-phenylether	6.579	248	157390	52.88	ppm	96
67) Hexachlorobenzene	6.691	284	168655	55.86	ppm	97
69) Pentachloronitrobenzene	6.924	237	63294	58.47	ppm	91
70) Phenanthrene	6.964	178	742594	49.70	ppm	97
71) Anthracene	7.001	178	723462	47.80	ppm	96
72) Carbazole	7.163	167	708939	50.38	ppm	98
73) Di-n-butylphthalate	7.535	149	811390	48.30	ppm	99
74) Fluoranthene	7.979	202	862688	53.27	ppm	92
76) Benzidine	8.128	184	341692	50.98	ppm	96
77) Pyrene	8.169	202	889951	50.13	ppm	93
80) Butylbenzylphthalate	8.808	149	363742	49.72	ppm	99
81) 3,3'-Dichlorobenzidine	9.255	252	308815	53.07	ppm	98
82) Benzo[a]anthracene	9.230	228	878675	54.60	ppm	97
83) Chrysene	9.274	228	824622	49.97	ppm	98
84) bis(2-Ethylhexyl)phtha...	9.376	149	529347	51.97	ppm	96
86) Di-n-octylphthalate	10.000	149	906346	50.40	ppm	100
87) Benzo[b]fluoranthene	10.314	252	926166	54.46	ppm	98
88) Benzo[k]fluoranthene	10.342	252	875225	47.55	ppm	98
89) Benzo[a]pyrene	10.643	252	834249	50.19	ppm	98
90) Indeno[1,2,3-cd]pyrene	11.785	276	991500	49.15	ppm	87
91) Dibenz[a,h]anthracene	11.816	278	959218	57.00	ppm	97
92) Benzo[g,h,i]perylene	12.043	276	992270	55.00	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76568.D
Acq On : 2 Oct 2014 10:25 am
Operator : williamk
Sample : op39993-bs
Misc : op39993,msf3358,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 02 14:40:31 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
10/08/14 11:28

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76569.D
Acq On : 2 Oct 2014 10:48 am
Operator : williamk
Sample : op39993-ms
Misc : op39993,msf3358,900,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 02 14:41:25 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.180	152	138076	40.00	ppm	-0.04
22) Naphthalene-d8	4.207	136	504841	40.00	ppm	-0.04
39) Acenaphthene-d10	5.697	164	310232	40.00	ppm	-0.04
61) Phenanthrene-d10	6.942	188	544539	40.00	ppm	-0.04
75) Chrysene-d12	9.248	240	633339	40.00	ppm	-0.05
85) Perylene-d12	10.704	264	646499	40.00	ppm	-0.06
93) Acenaphthene-d10a	5.697	164	310232	40.00	ppm	-0.04
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 100.000	Range 21 - 110		Recovery =	0.00%#		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 110		Recovery =	0.00%#		
23) Nitrobenzene-d5	3.648	82	127210	26.40	ppm	-0.04
Spiked Amount 50.000	Range 34 - 114		Recovery =	52.80%		
44) 2-Fluorobiphenyl	5.141	172	277523	26.97	ppm	-0.04
Spiked Amount 50.000	Range 43 - 116		Recovery =	53.94%		
65) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 123		Recovery =	0.00%#		
78) Terphenyl-d14	8.339	244	478912	35.54	ppm	-0.04
Spiked Amount 50.000	Range 33 - 141		Recovery =	71.08%		
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	1.364	74	38228	12.63	ppm	86
4) Pyridine	1.354	79	85660	15.89	ppm	97
5) Aniline	2.972	93	138933	19.44	ppm	95
7) bis(2-Chloroethyl)ether	3.021	93	115842	26.54	ppm	90
11) 1,3-Dichlorobenzene	3.148	146	117621	22.41	ppm	96
12) 1,4-Dichlorobenzene	3.192	146	123105	22.88	ppm	99
13) 1,2-Dichlorobenzene	3.338	146	117985	23.46	ppm	99
14) Benzyl alcohol	3.325	108	58121	18.22	ppm	92
15) bis(2-chloroisopropyl)...	3.446	45	158766	27.62	ppm	94
17) Acetophenone	3.527	105	188500	28.01	ppm	85
18) Hexachloroethane	3.577	117	39111	20.14	ppm	91
19) N-Nitroso-di-n-propyla...	3.555	70	91873	28.55	ppm	93
24) Nitrobenzene	3.661	77	142136	29.27	ppm	92
25) Isophorone	3.847	82	230749	27.16	ppm	91
28) bis(2-Chloroethoxy)met...	4.055	93	152374	28.92	ppm	97
31) 1,2,4-Trichlorobenzene	4.179	180	111670	26.76	ug/mL	98
32) Naphthalene	4.223	128	367398	28.40	ppm	98
34) 4-Chloroaniline	4.309	127	161278	29.24	ppm	100
35) Hexachlorobutadiene	4.384	225	57446	25.05	ppm	96
37) 2-Methylnaphthalene	4.800	142	259985	28.77	ppm	100
38) 1-methylnaphthalene	4.890	142	250408	29.60	ppm	96
40) Hexachlorocyclopentadiene	4.999	237	31140	13.02	ppm	97
41) 1,2,4,5-Tetrachloroben...	4.980	216	136256	30.26	ppm	98
45) 2-Chloronaphthalene	5.210	162	276667	32.49	ppm	96
46) Acenaphthylene	5.564	152	378111	30.82	ppm	99
47) Dimethylphthalate	5.542	163	210457	22.36	ppm	99
48) 2,6-Dinitrotoluene	5.595	165	94881	44.00	ppm	92
49) Acenaphthene	5.722	153	295566	33.13	ppm	99
51) Dibenzofuran	5.859	168	436825	34.45	ppm	99
52) 2,4-Dinitrotoluene	5.921	165	139578	48.17	ppm	95
55) Fluorene	6.150	166	377293	39.03	ppm	96
56) 4-Chlorophenyl-phenyle...	6.169	204	180625	37.31	ppm	100
57) Diethylphthalate	6.144	149	363526	39.02	ppm	96
58) 2-nitroaniline	5.349	138	120099	42.33	ppm	82

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76569.D
Acq On : 2 Oct 2014 10:48 am
Operator : williamk
Sample : op39993-ms
Misc : op39993,msf3358,900,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 02 14:41:25 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

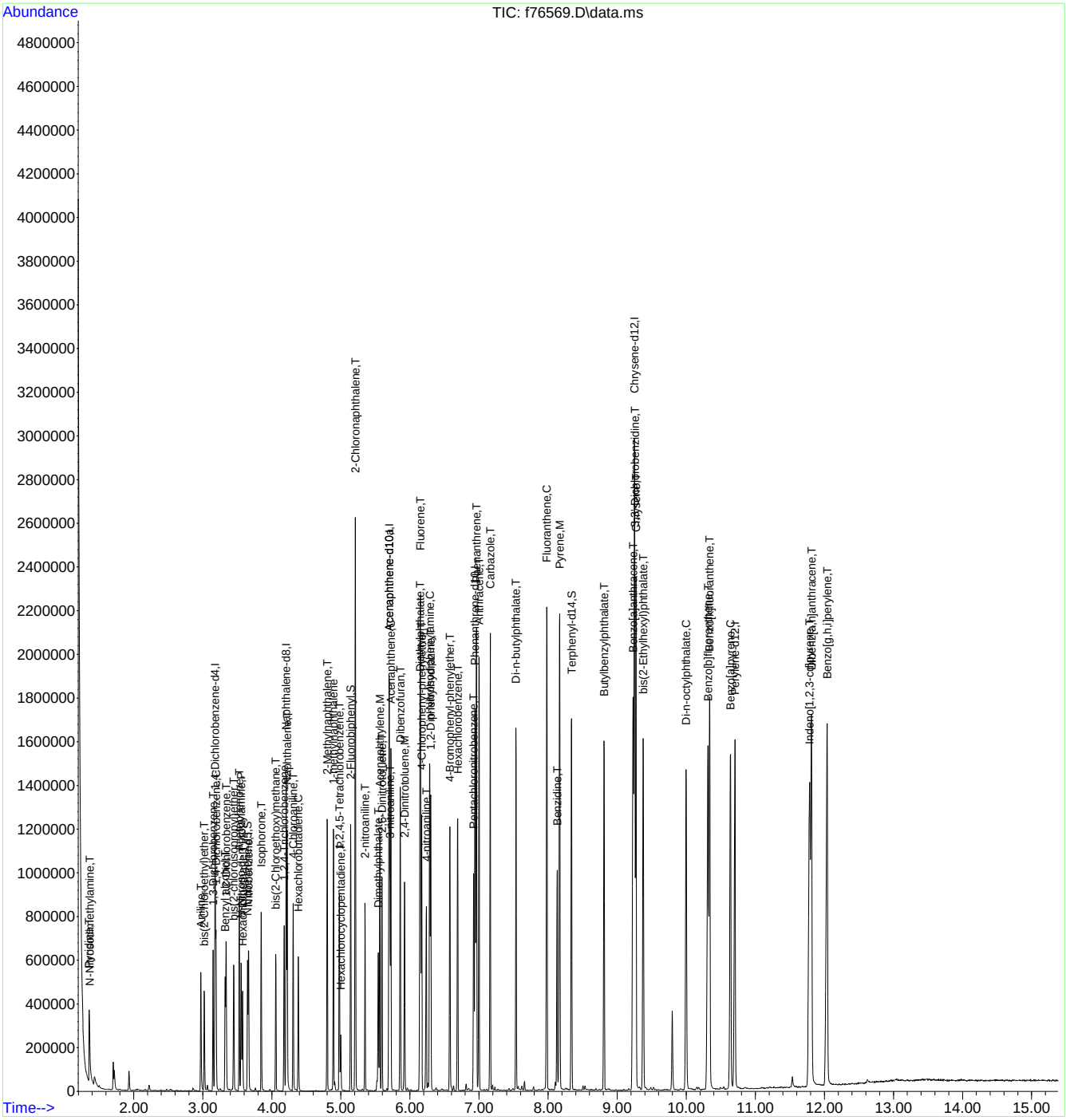
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
59)	3-nitroaniline	5.709	138	109914	45.78	ppm	97
60)	4-nitroaniline	6.237	138	111289	46.77	ppm	97
63)	n-Nitrosodiphenylamine	6.287	169	292073	38.77	ppm	97
64)	1,2-Diphenylhydrazine	6.299	77	401931	39.62	ppm	96
66)	4-Bromophenyl-phenylether	6.579	248	131761	44.27	ppm	96
67)	Hexachlorobenzene	6.690	284	146541	48.54	ppm	97
69)	Pentachloronitrobenzene	6.920	237	55148	50.94	ppm	91
70)	Phenanthrene	6.964	178	650482	43.54	ppm	97
71)	Anthracene	7.001	178	636838m	42.08	ppm	
72)	Carbazole	7.162	167	680939	48.39	ppm	98
73)	Di-n-butylphthalate	7.535	149	730030	43.46	ppm	98
74)	Fluoranthene	7.979	202	767434	47.39	ppm	94
76)	Benzidine	8.131	184	315224	46.07	ppm	95
77)	Pyrene	8.168	202	787042	43.61	ppm	95
80)	Butylbenzylphthalate	8.808	149	328965	44.23	ppm	97
81)	3,3'-Dichlorobenzidine	9.255	252	289054	48.86	ppm	95
82)	Benzo[a]anthracene	9.230	228	766279	46.84	ppm	98
83)	Chrysene	9.273	228	724829	43.21	ppm	98
84)	bis(2-Ethylhexyl)phtha...	9.376	149	460485	44.47	ppm	96
86)	Di-n-octylphthalate	9.996	149	784857	43.53	ppm	99
87)	Benzo[b]fluoranthene	10.313	252	835299	48.99	ppm	97
88)	Benzo[k]fluoranthene	10.338	252	742604	40.23	ppm	96
89)	Benzo[a]pyrene	10.642	252	726280	43.58	ppm	97
90)	Indeno[1,2,3-cd]pyrene	11.785	276	862424	42.63	ppm	84
91)	Dibenz[a,h]anthracene	11.812	278	833962	49.43	ppm	97
92)	Benzo[g,h,i]perylene	12.039	276	853875	47.21	ppm	98

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

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76569.D
Acq On : 2 Oct 2014 10:48 am
Operator : williamk
Sample : op39993-ms
Misc : op39993,msf3358,900,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 02 14:41:25 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76570.D
Acq On : 2 Oct 2014 11:11 am
Operator : williamk
Sample : op39993-msd
Misc : op39993,msf3358,880,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 02 14:42:03 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.180	152	128250	40.00	ppm	-0.04
22) Naphthalene-d8	4.208	136	467010	40.00	ppm	-0.04
39) Acenaphthene-d10	5.698	164	287204	40.00	ppm	-0.04
61) Phenanthrene-d10	6.943	188	511968	40.00	ppm	-0.04
75) Chrysene-d12	9.246	240	599848	40.00	ppm	-0.05
85) Perylene-d12	10.702	264	609185	40.00	ppm	-0.06
93) Acenaphthene-d10a	5.698	164	287204	40.00	ppm	-0.04
System Monitoring Compounds						
6) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 100.000	Range 21 - 110		Recovery = 0.00%#			
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 110		Recovery = 0.00%#			
23) Nitrobenzene-d5	3.649	82	168356	37.76	ppm	-0.04
Spiked Amount 50.000	Range 34 - 114		Recovery = 75.52%			
44) 2-Fluorobiphenyl	5.142	172	355332	37.30	ppm	-0.04
Spiked Amount 50.000	Range 43 - 116		Recovery = 74.60%			
65) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 123		Recovery = 0.00%#			
78) Terphenyl-d14	8.337	244	490982	38.47	ppm	-0.05
Spiked Amount 50.000	Range 33 - 141		Recovery = 76.94%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	1.361	74	50422	17.94	ppm	82
4) Pyridine	1.355	79	119724	23.91	ppm	97
5) Aniline	2.972	93	177288	26.70	ppm	92
7) bis(2-Chloroethyl)ether	3.022	93	151226	37.31	ppm	92
11) 1,3-Dichlorobenzene	3.149	146	155453	31.88	ppm	100
12) 1,4-Dichlorobenzene	3.193	146	162459	32.51	ppm	97
13) 1,2-Dichlorobenzene	3.339	146	155148	33.22	ppm	99
14) Benzyl alcohol	3.326	108	76072	25.67	ppm	88
15) bis(2-chloroisopropyl)...	3.447	45	212387	39.77	ppm	96
17) Acetophenone	3.528	105	248771	39.79	ppm	84
18) Hexachloroethane	3.575	117	52083	28.87	ppm	93
19) N-Nitroso-di-n-propyla...	3.556	70	122836	41.09	ppm	97
24) Nitrobenzene	3.665	77	184349	41.04	ppm	98
25) Isophorone	3.848	82	302454	38.48	ppm	94
28) bis(2-Chloroethoxy)met...	4.056	93	195478	40.11	ppm	99
31) 1,2,4-Trichlorobenzene	4.180	180	145213	37.61	ug/mL	93
32) Naphthalene	4.223	128	466839	39.02	ppm	98
34) 4-Chloroaniline	4.310	127	204325	40.05	ppm	100
35) Hexachlorobutadiene	4.385	225	77133	36.36	ppm	99
37) 2-Methylnaphthalene	4.804	142	338121	40.45	ppm	99
38) 1-methylnaphthalene	4.894	142	323891	41.38	ppm	98
40) Hexachlorocyclopentadiene	4.999	237	44024	19.88	ppm	96
41) 1,2,4,5-Tetrachloroben...	4.981	216	177243	42.52	ppm	98
45) 2-Chloronaphthalene	5.211	162	347276	44.05	ppm	98
46) Acenaphthylene	5.564	152	474725	41.79	ppm	98
47) Dimethylphthalate	5.540	163	242604	27.85	ppm	98
48) 2,6-Dinitrotoluene	5.595	165	100065	50.13	ppm	95
49) Acenaphthene	5.726	153	367549	44.51	ppm	98
51) Dibenzofuran	5.859	168	523882	44.63	ppm	96
52) 2,4-Dinitrotoluene	5.921	165	137563	51.28	ppm	94
55) Fluorene	6.151	166	422184	47.18	ppm	97
56) 4-Chlorophenyl-phenyle...	6.170	204	203799	45.47	ppm	98
57) Diethylphthalate	6.145	149	375751	43.56	ppm	97
58) 2-nitroaniline	5.350	138	128323	48.86	ppm	83

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76570.D
Acq On : 2 Oct 2014 11:11 am
Operator : williamk
Sample : op39993-msd
Misc : op39993,msf3358,880,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 02 14:42:03 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

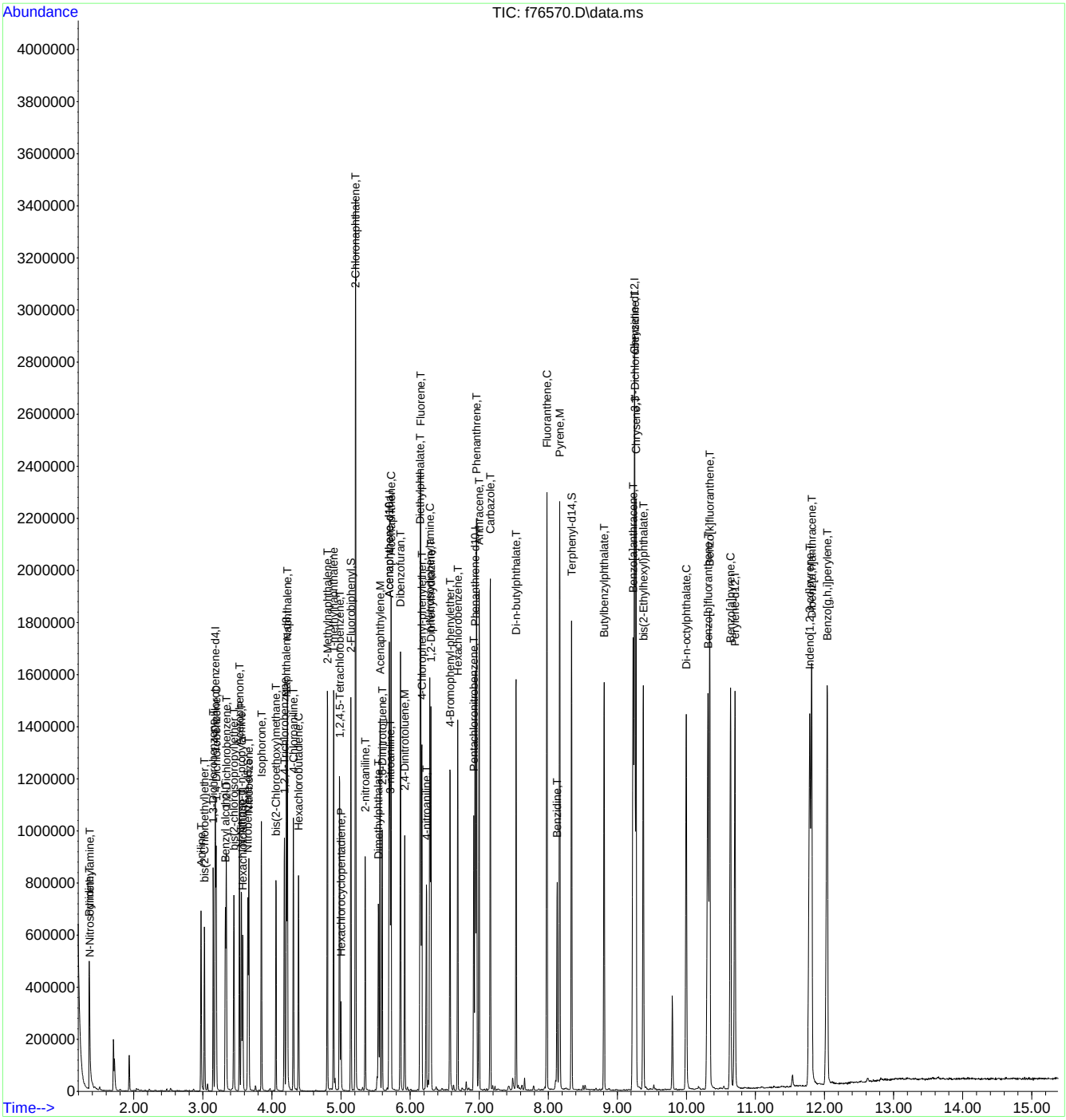
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
59) 3-nitroaniline	5.710	138	111862	50.33	ppm	94
60) 4-nitroaniline	6.235	138	108098	49.07	ppm	97
63) n-Nitrosodiphenylamine	6.285	169	300797	42.47	ppm	95
64) 1,2-Diphenylhydrazine	6.300	77	434648	45.57	ppm	97
66) 4-Bromophenyl-phenylether	6.580	248	139344	49.80	ppm	91
67) Hexachlorobenzene	6.688	284	147342	51.91	ppm	98
69) Pentachloronitrobenzene	6.921	237	51760	50.86	ppm	92
70) Phenanthrene	6.961	178	648771	46.19	ppm	97
71) Anthracene	6.999	178	626214	44.01	ppm	98
72) Carbazole	7.163	167	657947	49.73	ppm	98
73) Di-n-butylphthalate	7.536	149	722399	45.74	ppm	98
74) Fluoranthene	7.980	202	755710	49.63	ppm	93
76) Benzidine	8.129	184	252216	38.80	ppm	96
77) Pyrene	8.166	202	760647	44.50	ppm	95
80) Butylbenzylphthalate	8.808	149	319251	45.32	ppm	97
81) 3,3'-Dichlorobenzidine	9.252	252	275088	49.10	ppm	99
82) Benzo[a]anthracene	9.227	228	744192	48.03	ppm	99
83) Chrysene	9.271	228	705385	44.40	ppm	97
84) bis(2-Ethylhexyl)phtha...	9.376	149	445943	45.47	ppm	96
86) Di-n-octylphthalate	9.997	149	765427	45.05	ppm	99
87) Benzo[b]fluoranthene	10.311	252	792226	49.31	ppm	97
88) Benzo[k]fluoranthene	10.339	252	747375	42.97	ppm	97
89) Benzo[a]pyrene	10.640	252	714870	45.52	ppm	96
90) Indeno[1,2,3-cd]pyrene	11.785	276	829689	43.53	ppm	87
91) Dibenz[a,h]anthracene	11.813	278	817460	51.42	ppm	97
92) Benzo[g,h,i]perylene	12.037	276	837279	49.12	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76570.D
Acq On : 2 Oct 2014 11:11 am
Operator : williamk
Sample : op39993-msd
Misc : op39993,msf3358,880,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 02 14:42:03 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

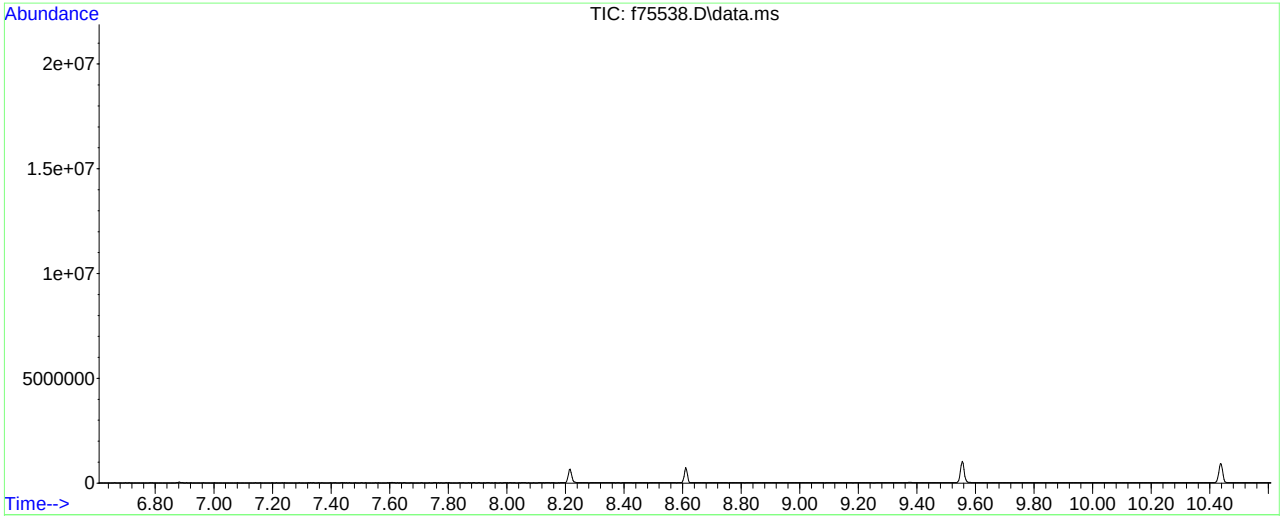


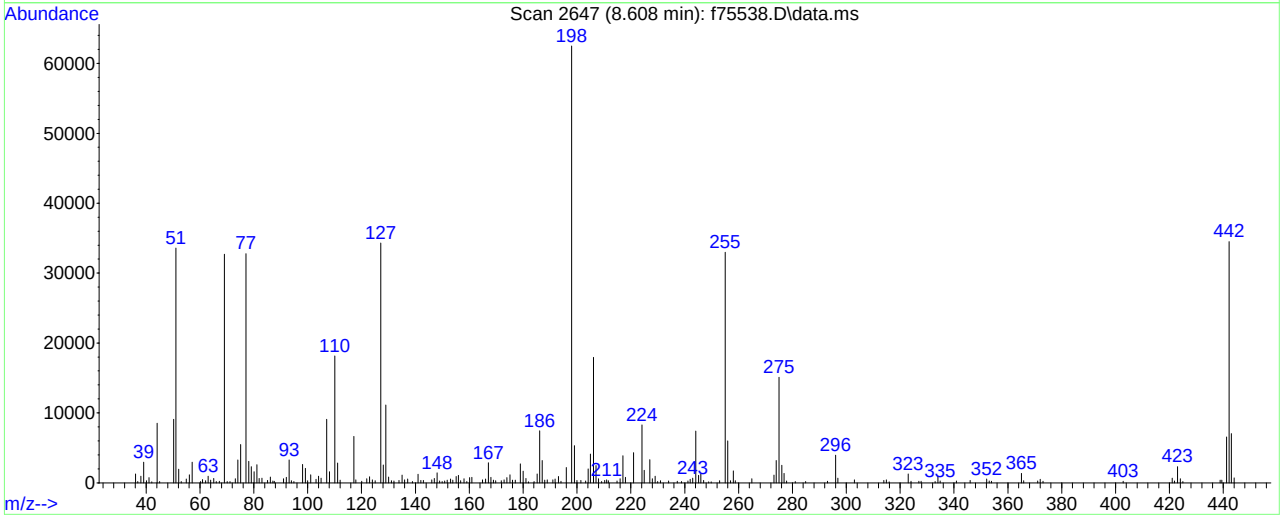
DFTPP

Data File : F:\1\DATA\F140825\f75538.D
Acq On : 25 Aug 2014 4:05 pm
Sample : dftpp
Misc : op39496,msf3320,1000,,,1,1
MS Integration Params: rteint.p

Vial: 99
Operator: williamk
Inst : MSF
Multiplr: 1.00

Method : W:\1\methods\dftppeval.m (RTE Integrator)
Title : DFTPP and Tune Evaluation





Spectrum Information: Scan 2647

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	53.7	33576	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	52.3	32680	PASS
70	69	0.00	2	0.5	170	PASS
127	198	40	60	54.9	34320	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	62472	PASS
199	198	5	9	8.5	5334	PASS
275	198	10	30	24.2	15115	PASS
365	198	1	100	2.1	1342	PASS
441	443	0.01	100	92.9	6548	PASS
442	198	40	100	55.3	34520	PASS
443	442	17	23	20.4	7051	PASS

f75538.D dftppeval.m Tue Aug 26 07:56:26 2014

Scan 2647 (8.608 min): f75538.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1260	52.10	1961	66.10	199	80.10	1582
36.90	168	53.00	195	67.20	220	81.10	2569
38.10	936	54.90	548	69.10	32680	82.00	626
39.10	2951	56.10	1152	70.10	170	83.00	664
40.10	299	57.10	2966	71.10	188	85.10	326
41.10	759	60.20	188	73.10	571	86.10	813
42.10	158	61.00	482	74.10	3275	87.10	264
44.10	8530	62.10	319	75.10	5471	87.60	211
45.00	196	63.00	952	77.10	32784	91.00	583
50.20	9079	64.00	390	78.10	3061	92.10	784
51.10	33576	65.10	626	79.10	2322	93.10	3273

Scan 2647 (8.608 min): f75538.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.90	308	110.10	18136	128.10	2533	142.00	347
94.90	170	111.10	2812	129.00	11138	143.00	338
98.10	2610	112.00	373	130.00	818	146.10	415
99.10	2049	117.10	6645	131.10	319	147.00	608
100.00	288	117.90	429	132.00	254	148.10	1411
101.10	1166	120.10	207	133.90	362	149.00	271
103.10	516	121.90	603	135.00	1102	149.90	170
104.00	951	123.00	873	136.00	438	150.90	278
105.00	656	124.00	436	137.10	559	151.80	374
107.10	9074	125.10	288	138.90	180	153.00	560
108.10	1590	127.10	34320	141.00	1230	153.90	368

Scan 2647 (8.608 min): f75538.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
155.10	887	169.00	367	182.00	155	196.00	2170
156.00	1049	169.80	311	184.10	182	198.00	62472
156.80	306	171.90	291	185.20	1270	199.00	5334
158.00	575	172.90	423	186.10	7433	200.00	345
159.10	192	174.00	761	187.10	3182	201.40	361
160.10	755	175.10	1167	188.00	370	203.20	270
161.00	797	176.00	385	188.90	426	204.10	1997
164.90	421	177.10	390	191.00	423	205.00	4099
166.10	558	179.00	2724	191.90	527	206.10	17944
167.10	2867	180.00	1669	193.10	922	207.10	2469
168.00	800	181.00	641	194.00	212	208.00	596

Scan 2647 (8.608 min): f75538.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
209.10	177	227.00	3293	244.10	7389	258.80	321
210.30	345	228.00	593	245.10	1067	264.90	564
211.00	436	229.00	927	246.00	1261	273.10	1122
211.60	310	230.00	191	247.00	333	274.00	3189
214.90	251	231.00	285	248.90	159	275.00	15115
216.00	594	234.00	277	249.80	156	276.10	2489
217.00	3856	237.20	209	253.00	309	276.90	1333
218.00	766	238.80	180	255.00	32984	277.80	247
221.00	4299	241.20	271	256.00	6015	281.10	169
224.10	8287	242.00	484	257.00	306	284.90	182
225.00	1791	243.00	655	258.00	1696	293.00	242

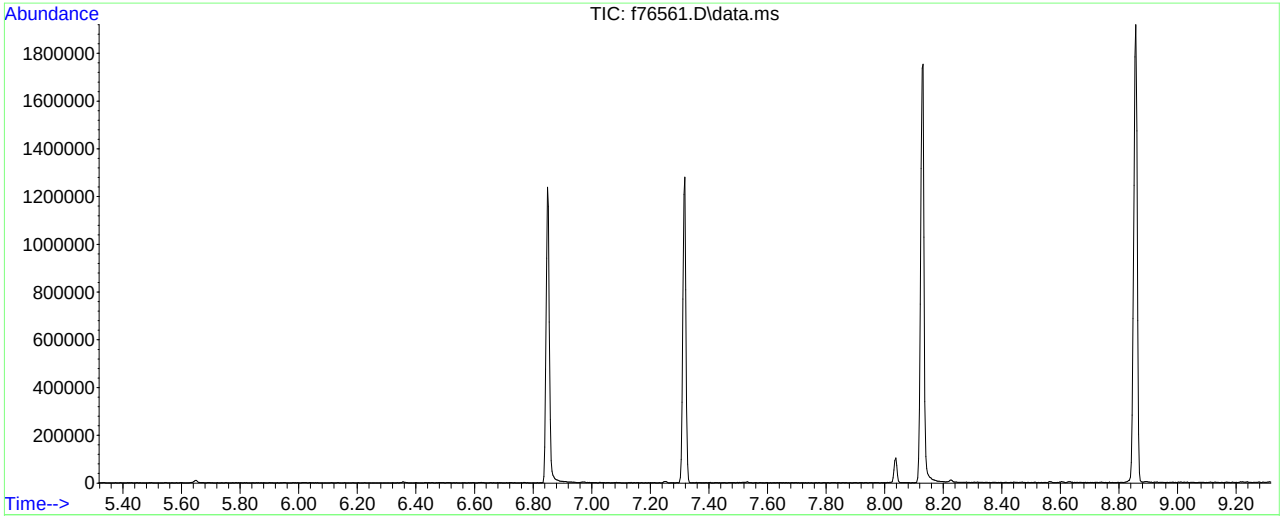
Scan 2647 (8.608 min): f75538.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
296.00	3936	334.00	959	373.00	221	443.00	7051
296.90	645	334.90	279	402.80	211	444.00	704
303.00	404	340.90	274	421.00	676		
313.90	355	346.00	341	421.80	267		
314.90	429	352.10	553	423.00	2320		
315.90	161	353.10	247	424.00	586		
323.00	1274	353.90	220	425.00	167		
324.00	231	365.00	1342	438.80	372		
326.90	243	365.90	290	439.40	375		
327.80	204	371.10	264	441.20	6548		
333.00	193	372.00	519	442.10	34520		

SW-846 Method 8270

```
Data File : F:\1\DATA\F141002\f76561.D                Vial: 99
Acq On    :  2 Oct 2014   7:44 am                  Operator: williamk
Sample    : dftpp                                  Inst    : MSF
Misc      : op39496,msf3358,,,,1,1                 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method    : W:\2\METHODS\F140825_8270.m (RTE Integrator)
Title     : SW-846 Method 8270
```



Spectrum Information: Average of 7.315 to 7.321 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	40.4	50269	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	41.8	51933	PASS
70	69	0.00	2	0.4	183	PASS
127	198	40	60	44.9	55853	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	124275	PASS
199	198	5	9	6.9	8542	PASS
275	198	10	30	28.7	35661	PASS
365	198	0.80	100	2.8	3537	PASS
441	443	0.01	100	69.0	14949	PASS
442	198	40	100	88.6	110080	PASS
443	442	17	23	19.7	21669	PASS

f76561.D F140825_8270.m Fri Oct 03 11:48:35 2014

Average of 7.315 to 7.321 min.: f76561.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	134	50.20	14323	64.10	281	78.10	3342
37.00	172	51.10	50269	65.05	838	79.10	4050
37.70	109	52.05	2442	66.10	89	80.10	3040
38.05	607	53.00	68	67.10	86	81.10	3856
38.30	144	55.15	512	69.10	51933	82.05	1065
39.10	4048	56.10	1627	70.10	183	83.00	806
40.05	348	57.10	3368	72.50	56	83.80	57
41.10	254	58.00	190	73.10	189	85.10	799
44.00	40	61.10	824	74.10	4999	86.00	1349
45.10	188	62.05	759	75.10	7313	87.00	454
48.10	59	63.10	2064	77.05	52377	88.10	183

Average of 7.315 to 7.321 min.: f76561.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
89.10	52	99.80	92	112.05	675	123.90	236
91.05	975	100.05	310	112.90	63	124.05	528
92.10	1102	101.05	1995	113.20	50	125.00	752
93.10	5727	102.00	62	114.10	56	127.10	55853
94.00	363	103.05	758	117.10	12096	128.10	4941
95.10	130	104.05	1442	118.05	876	129.10	21622
95.60	54	105.00	1234	119.05	191	130.05	1908
96.00	130	107.10	16248	119.95	325	131.00	396
97.00	70	108.05	2432	120.90	69	131.95	297
98.10	4847	110.10	29072	122.05	847	132.95	123
99.10	3446	111.10	5051	123.05	1553	134.10	698

Average of 7.315 to 7.321 min.: f76561.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
135.05	1473	146.00	821	155.05	1812	163.10	105
136.05	682	147.05	1525	156.10	2572	163.90	102
137.05	769	148.00	3383	156.95	702	165.00	1292
137.90	158	148.95	753	157.60	228	166.10	942
139.00	63	150.10	121	158.00	561	167.05	5412
139.95	179	150.90	158	159.00	230	168.05	2357
141.00	2930	151.10	56	159.20	147	168.95	443
142.00	1006	151.60	346	159.90	514	170.00	242
143.00	769	152.10	140	160.05	650	170.85	285
144.00	146	153.00	888	161.00	1655	171.90	414
145.05	119	153.95	953	162.00	318	172.90	361

Average of 7.315 to 7.321 min.: f76561.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
173.10	301	184.05	325	194.90	98	207.00	4089
174.00	1330	185.05	2704	196.10	5113	208.00	1194
175.05	2390	186.10	17599	198.00	124275	208.95	386
176.05	796	187.00	4551	199.00	8542	210.10	409
177.05	1116	188.05	418	199.95	757	210.30	358
178.10	248	189.00	1071	201.45	875	210.90	601
179.00	4454	189.90	151	202.10	91	211.10	917
180.00	3026	191.10	706	203.05	1135	212.00	157
181.05	1564	192.05	1700	204.10	4208	215.00	335
182.05	227	193.05	1428	205.10	8765	216.00	329
183.20	51	194.00	443	206.10	32677	217.00	7531

Average of 7.315 to 7.321 min.: f76561.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
218.05	1105	229.05	1404	237.80	68	247.90	80
219.00	66	230.00	238	238.90	158	248.95	471
221.05	9077	231.00	578	239.95	164	251.40	87
221.90	498	232.00	68	240.20	59	251.80	83
223.05	2288	232.80	93	240.90	196	252.80	167
224.05	18467	234.00	405	241.20	330	255.00	72659
225.05	4817	234.80	82	242.00	1081	256.00	9978
225.90	358	235.00	379	244.10	14778	256.90	294
226.20	258	235.90	159	245.05	1943	257.05	541
227.00	6552	236.10	99	246.00	2555	258.00	3526
228.05	990	237.00	728	246.95	782	258.95	449

Average of 7.315 to 7.321 min.: f76561.D\data.ms

F140825_8270.m Fri Oct 03 11:14:04 2014

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
259.80	54	274.05	6674	284.90	405	300.80	61
260.80	67	275.00	35661	285.50	87	301.85	162
263.90	166	276.00	4789	288.50	82	302.95	988
264.95	1541	277.00	2457	289.40	53	304.05	236
265.90	96	277.90	371	290.90	55	310.00	68
267.00	93	278.90	88	291.85	105	314.05	526
269.80	73	279.70	61	292.95	577	315.00	995
271.00	91	282.10	58	293.95	173	315.90	258
271.50	59	282.95	341	296.00	8052	316.10	579
272.10	83	283.90	111	297.00	1288	318.90	53
273.00	2340	284.15	239	298.00	57	321.05	483

Average of 7.315 to 7.321 min.: f76561.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
321.80	151	332.90	496	354.05	881	373.90	58
322.00	68	334.05	1926	355.10	87	382.95	462
323.00	3102	335.05	564	358.95	134	384.10	121
324.00	532	336.40	63	365.00	3537	389.90	218
324.20	210	340.95	500	366.00	538	390.95	186
325.00	85	345.95	470	367.00	73	394.90	51
325.90	75	346.90	140	369.80	66	400.80	95
326.95	506	350.50	91	370.10	66	401.95	408
328.00	260	351.90	231	371.00	244	403.00	827
329.10	68	352.05	648	372.00	1561	403.95	468
332.00	175	353.00	612	373.00	528	418.40	54

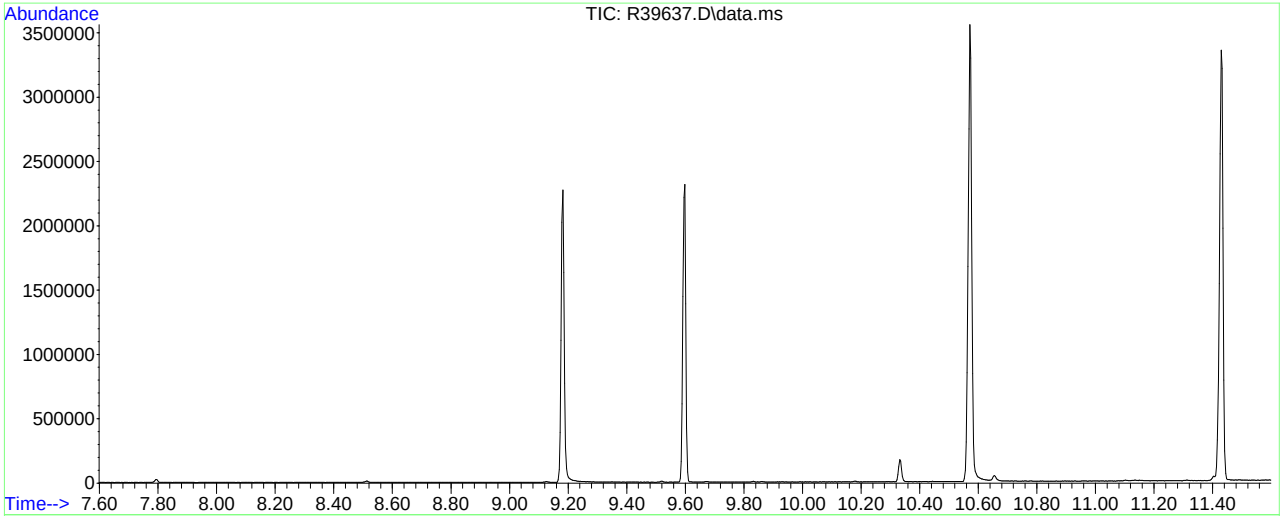
Average of 7.315 to 7.321 min.: f76561.D\data.ms
dftpp
Modified:subtracted

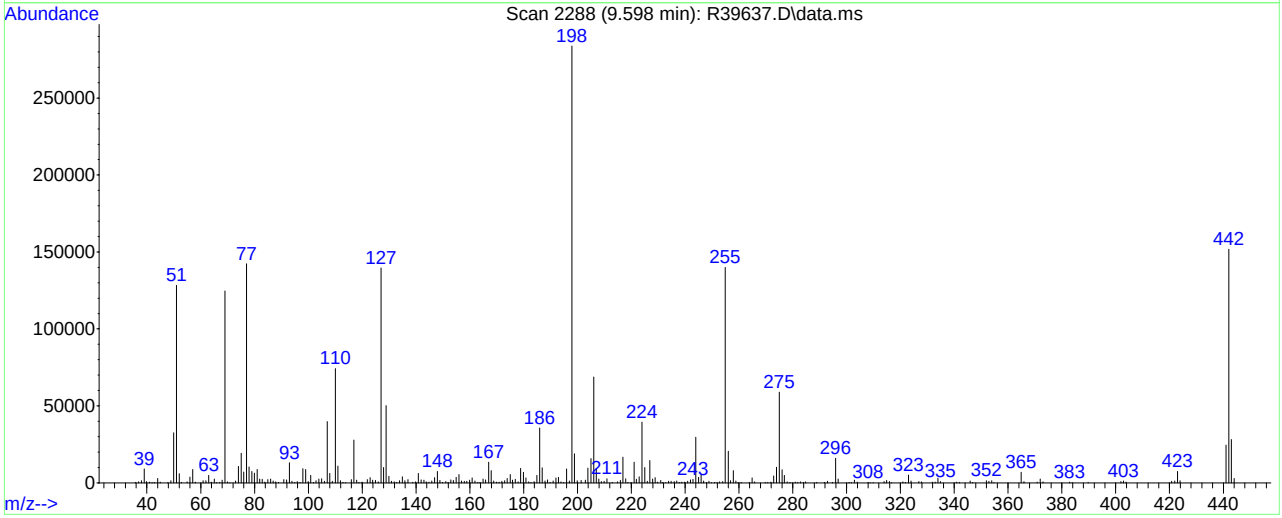
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
421.05	1058	443.00	21669				
421.90	265	444.05	2082				
423.05	6198	444.90	257				
424.00	1281						
425.00	73						
437.30	55						
438.10	56						
438.90	303						
439.50	201						
441.10	14949						
442.05	110080						

DFTPP

Data File : C:\msdchem\1\data\R140911\R39637.D Vial: 99
Acq On : 11 Sep 2014 10:51 am Operator: williamk
Sample : dftpp Inst : MSR
Misc : op39525,msr1461,,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : W:\2\METHODS\DFTPP.m (RTE Integrator)
Title : DFTPP and Tune Evaluation





Spectrum Information: Scan 2288

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.2	128280	PASS
68	69	0.00	2	1.3	1682	PASS
69	198	0.00	100	43.9	124608	PASS
70	69	0.00	2	0.5	582	PASS
127	198	40	60	49.2	139584	PASS
197	198	0.00	1	0.4	1108	PASS
198	198	100	100	100.0	283776	PASS
199	198	5	9	6.6	18784	PASS
275	198	10	30	20.7	58872	PASS
365	198	1	100	2.4	6790	PASS
441	443	0.01	100	87.0	24504	PASS
442	198	40	100	53.5	151744	PASS
443	442	17	23	18.6	28160	PASS

R39637.D DFTPP.m Thu Sep 11 16:34:00 2014

Scan 2288 (9.598 min): R39637.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.80	273	48.90	1424	63.00	4911	75.00	19184
36.90	681	50.00	32512	63.90	525	76.00	6962
38.00	1465	51.00	128280	65.00	2414	77.00	142336
39.00	9048	52.00	5986	65.90	161	78.00	10323
39.90	787	52.90	318	67.00	240	79.00	7471
41.00	479	54.90	665	68.00	1682	79.90	6217
41.90	250	56.00	3796	69.00	124608	81.00	8582
42.90	232	57.00	8681	69.90	582	81.90	2401
44.00	2768	58.00	422	70.90	168	82.90	2331
45.00	451	60.90	1446	73.00	1291	83.80	498
47.80	156	61.90	1382	74.00	10725	84.90	2125

Scan 2288 (9.598 min): R39637.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.00	2507	98.00	9259	108.90	1020	121.90	2185
86.90	1157	99.00	8709	110.00	74208	122.90	3357
87.90	604	99.90	873	111.00	10784	123.90	1823
88.90	342	100.90	4841	111.90	1464	124.90	1556
90.90	2053	101.90	304	112.80	322	126.00	604
91.90	2000	102.90	1445	113.80	162	127.00	139584
93.00	13073	103.90	2553	116.00	2089	128.00	9984
93.90	960	104.90	2750	116.90	27800	128.90	50128
94.90	291	106.00	1066	117.90	1796	129.90	4277
95.90	848	107.00	39720	118.80	224	130.90	1094
96.90	264	108.00	6071	119.90	554	131.90	561

Scan 2288 (9.598 min): R39637.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
132.80	310	144.80	452	156.00	5401	167.00	13436
133.90	1340	145.90	1168	156.90	1284	167.90	7965
134.90	3985	146.90	3296	157.90	1089	168.90	1209
135.90	1445	147.90	7320	158.90	941	169.90	396
137.00	2080	148.90	1634	159.90	1797	170.90	516
138.80	195	149.80	361	160.90	3168	171.90	958
139.80	629	151.10	766	161.90	1158	172.90	1356
140.90	6036	151.90	277	162.90	298	173.90	2836
141.90	1944	152.90	1846	163.80	360	175.00	5337
142.90	1738	153.90	1617	164.90	2453	175.90	1714
143.80	562	154.90	3518	165.90	1919	176.90	2211

Scan 2288 (9.598 min): R39637.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
177.90	721	188.90	1974	199.90	1455	212.90	286
178.90	9442	189.80	298	201.40	1496	214.90	625
179.90	6916	190.90	1231	202.90	1728	215.90	1571
180.90	3165	192.00	3276	203.90	9563	216.90	16752
181.90	601	192.90	3536	205.00	15741	217.90	2565
182.70	258	193.90	720	206.00	68696	218.80	198
183.90	808	194.90	378	207.00	9137	219.80	181
184.90	4819	195.90	9003	207.90	2440	221.00	13447
186.00	35592	197.00	1108	208.90	741	221.90	2335
186.90	9760	197.90	283776	209.90	987	222.90	4000
187.90	1213	198.90	18784	210.90	2751	224.00	39496

Scan 2288 (9.598 min): R39637.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
225.00	9933	235.90	742	246.90	1210	257.90	8014
225.90	1022	236.90	1275	247.90	270	258.80	1155
226.90	14419	237.80	210	248.90	1064	259.70	242
227.90	2439	238.80	493	249.80	162	260.80	304
228.90	3409	239.80	495	250.90	235	263.80	248
229.80	406	240.90	994	251.90	184	264.90	3242
230.90	1530	242.00	1923	252.80	681	265.80	600
231.70	222	242.90	2304	254.00	829	269.80	226
232.80	175	244.00	29544	254.90	140032	270.70	219
233.90	933	245.00	3572	256.00	20536	271.90	436
234.80	975	245.90	5170	256.90	1464	272.90	4454

Scan 2288 (9.598 min): R39637.D\data.ms

R140911_8270.m Thu Sep 11 16:32:24 2014

dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
273.90	10126	288.80	243	308.70	164	327.80	631
275.00	58872	291.80	288	309.90	175	331.90	422
276.00	8410	292.90	971	313.90	841	332.90	393
276.90	4869	294.80	351	314.90	1511	333.90	2963
277.90	711	295.90	16019	315.90	872	334.90	899
278.90	246	296.90	2479	316.80	166	340.90	472
280.90	480	300.90	241	320.90	698	342.00	221
281.90	237	301.80	309	321.90	280	345.90	1159
282.90	624	302.90	1655	323.00	5060	346.80	358
283.90	343	303.90	409	323.90	1201	352.00	1300
284.80	674	308.00	210	326.90	780	352.90	1098

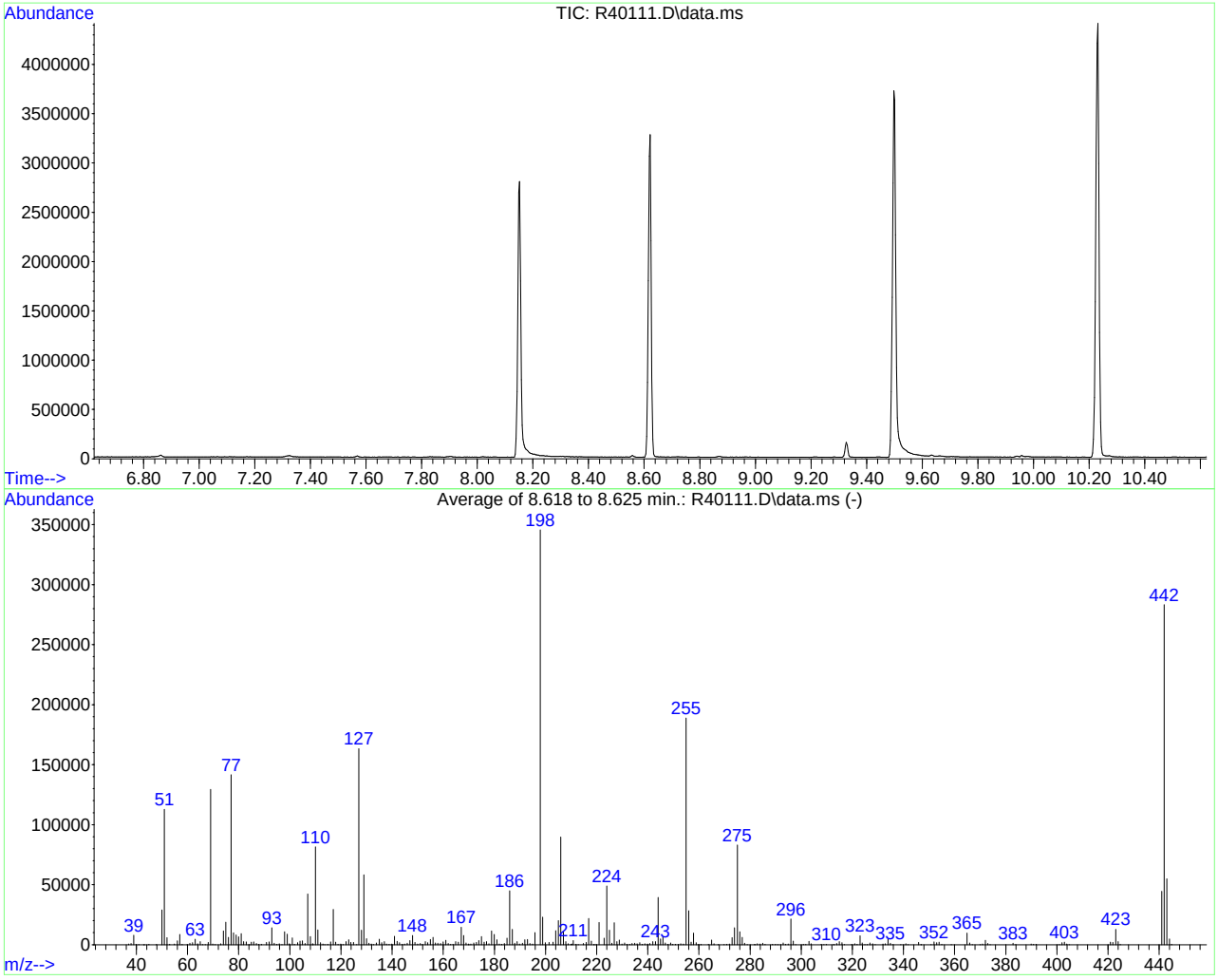
Scan 2288 (9.598 min): R39637.D\data.ms
dftpp

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
353.90	1383	402.90	1269				
354.80	166	403.80	389				
364.90	6790	420.80	1006				
365.90	862	421.90	1126				
370.80	385	423.00	7353				
371.90	2427	423.90	1466				
373.00	615	441.00	24504				
382.90	525	442.00	151744				
383.80	187	443.00	28160				
389.80	202	444.00	2844				
401.90	920						

DFTPP

Data File : C:\msdchem\1\data\R141003\R40111.D Vial: 99
Acq On : 3 Oct 2014 2:00 pm Operator: williamk
Sample : dftpp Inst : MSR
Misc : op39867,msr1476,,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : W:\1\methods\dftppeval.m (RTE Integrator)
Title : DFTPP and Tune Evaluation



Spectrum Information: Average of 8.618 to 8.625 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.6	112761	PASS
68	69	0.00	2	1.4	1813	PASS
69	198	0.00	100	37.5	129443	PASS
70	69	0.00	2	0.5	683	PASS
127	198	40	60	47.3	163403	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	345557	PASS
199	198	5	9	6.7	23071	PASS
275	198	10	30	24.0	83024	PASS
365	198	1	100	2.8	9692	PASS
441	443	0.01	100	81.1	44525	PASS
442	198	40	100	82.0	283307	PASS
443	442	17	23	19.4	54917	PASS

R40111.D dftppeval.m Mon Oct 06 07:28:11 2014

Average of 8.618 to 8.625 min.: R40111.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	567	52.95	344	65.95	191	78.00	9819
37.95	1108	54.90	499	66.90	60	79.00	8041
38.95	7945	56.00	3333	68.05	1813	80.00	6479
39.85	202	56.95	8517	69.00	129443	81.00	9258
40.95	98	57.90	385	69.90	683	81.90	2594
42.85	10	59.85	111	70.80	76	82.95	2346
44.90	320	60.90	1336	72.95	868	83.90	2
47.80	101	62.00	1764	74.00	11340	84.95	2047
50.00	28928	63.00	4599	75.00	18656	85.90	2269
50.95	112761	63.95	720	76.00	6209	86.95	1104
52.00	5845	65.00	2577	77.00	141525	87.85	371

Average of 8.618 to 8.625 min.: R40111.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.90	248	101.00	5666	111.00	12325	121.95	2595
90.90	1978	101.80	326	111.95	1570	123.00	4180
91.95	2307	103.00	1671	112.95	502	123.90	1917
93.00	14144	104.00	3084	113.70	54	124.95	1839
93.90	1193	104.95	3122	114.80	263	126.10	190
94.90	401	105.95	1070	115.95	2257	127.00	163403
95.90	747	107.00	42229	117.00	29376	128.00	12045
96.95	230	108.00	6743	117.90	2196	129.00	58253
98.00	10702	108.90	752	118.85	405	129.95	4926
99.00	8826	109.10	464	119.90	555	130.90	1126
99.85	793	110.00	81432	120.85	204	131.85	600

Average of 8.618 to 8.625 min.: R40111.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
132.70	238	143.90	462	154.95	4290	165.95	2239
133.90	1521	144.85	583	156.00	6002	167.00	14640
134.95	4575	145.95	1301	156.95	1353	168.00	7617
135.95	1678	146.95	3482	157.90	1315	168.95	1439
137.00	2457	147.95	7774	158.95	949	169.85	470
137.85	578	148.95	1978	159.95	2312	170.10	92
138.80	258	149.95	590	161.00	3713	170.80	618
139.85	597	151.00	1102	161.90	1069	171.90	1400
140.95	6986	151.80	409	162.90	344	172.95	1820
141.95	2783	152.95	2473	163.85	449	173.95	3405
142.90	1791	153.95	1772	164.85	2563	175.00	6704

Average of 8.618 to 8.625 min.: R40111.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
175.95	2042	187.00	12711	198.90	23071	210.30	664
176.90	2491	187.95	1290	199.90	1662	210.90	3369
177.90	819	188.90	2550	201.40	1975	211.90	273
178.90	11541	189.85	482	202.90	2063	212.85	235
179.95	8455	190.95	1206	204.00	11583	214.85	898
180.95	4111	191.90	4029	205.00	20165	215.95	1860
181.95	676	192.95	4340	206.00	89768	216.90	21808
182.85	386	193.90	931	206.95	10698	217.90	3096
183.85	995	194.90	506	207.95	2597	218.90	202
184.95	5476	195.90	10148	208.85	695	219.10	62
186.00	44845	197.90	345557	209.90	434	219.80	177

Average of 8.618 to 8.625 min.: R40111.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
220.95	18506	232.90	328	244.00	39323	255.00	188843
222.90	5385	233.85	1020	245.00	4731	256.00	28341
224.00	49016	234.90	1289	245.95	6664	256.95	2095
225.00	12189	235.85	836	246.90	1382	257.90	9774
225.90	1198	236.90	1608	247.90	331	258.90	1722
226.90	18347	237.80	252	248.90	1410	259.85	260
227.90	2536	238.85	726	249.80	290	260.80	285
228.90	3914	239.85	563	250.85	247	263.75	420
229.85	671	240.85	1046	251.90	374	264.95	3987
230.95	1542	241.95	2623	252.85	766	265.85	790
231.85	319	243.00	2646	253.90	476	267.60	74

Average of 8.618 to 8.625 min.: R40111.D\data.ms

R140911_8270A.m Fri Oct 03 15:11:31 2014

dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
269.90	162	282.00	70	294.95	466	312.70	66
270.85	437	282.90	873	295.95	21331	312.85	144
271.90	547	283.90	482	296.90	2986	313.90	1071
272.95	5798	284.90	1156	297.80	206	314.90	2593
273.95	14171	285.85	268	300.85	317	315.95	1570
275.00	83024	288.80	290	301.80	397	316.85	228
275.95	10746	289.90	245	303.00	2683	319.70	55
276.95	6182	290.90	140	303.85	780	320.90	719
277.90	1183	291.90	165	307.85	328	321.85	269
278.85	179	292.90	1381	308.90	74	323.00	7472
281.70	62	293.85	340	309.85	359	323.90	1408

Average of 8.618 to 8.625 min.: R40111.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
324.90	125	340.95	761	364.90	9692	390.90	401
325.80	117	341.90	163	365.85	1358	391.90	264
326.85	1429	345.90	1904	366.90	106	400.95	214
327.90	711	346.80	161	369.90	64	401.95	1626
329.00	53	347.00	96	370.85	526	402.95	2092
331.95	489	350.80	50	372.00	3783	403.90	584
332.90	738	351.95	2286	372.95	909	404.80	59
333.95	4583	352.95	1773	373.90	66	420.95	2056
334.90	1131	353.95	2125	382.90	1184	421.90	1902
335.90	214	354.95	363	383.85	237	423.00	12751
338.90	127	358.75	199	389.90	475	423.95	2482

Average of 8.618 to 8.625 min.: R40111.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
424.80	242						
441.00	44525						
442.00	283307						
443.00	54917						
444.00	4701						
444.85	362						

Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
09/04/14 10:25

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75541.D
Sample : ic3320-2
Misc : op39496,msf3320,,,,1,1
ALS Vial : 1 Sample Multiplier: 1
Acq On : 25 Aug 2014 5:34 pm Operator: williamk

Quant Time: Sep 04 09:51:32 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.460	152	105430	40.00	ppm	0.00
22) Naphthalene-d8	5.516	136	389681	40.00	ppm	0.00
39) Acenaphthene-d10	7.046	164	228950	40.00	ppm	0.00
61) Phenanthrene-d10	8.331	188	380734	40.00	ppm	0.00
75) Chrysene-d12	10.979	240	406828	40.00	ppm	0.00
85) Perylene-d12	12.721	264	378163	40.00	ppm	0.00
93) Acenaphthene-d10a	7.046	164	228950	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.504	112	6332	1.82	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 1.82%#			
8) Phenol-d5	4.178	99	7855	1.83	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 1.83%#			
23) Nitrobenzene-d5	4.929	82	6959	1.85	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 3.70%#			
44) 2-Fluorobiphenyl	6.447	172	14070	1.83	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 3.66%#			
65) 2,4,6-Tribromophenol	7.738	330	1946m	1.86	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 1.86%#			
78) Terphenyl-d14	9.796	244	15695	1.79	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 3.58%#			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.619	74	3949m	1.674	ppm	
3) 1,4-Dioxane	2.393	88	2816m	1.778	ug/l	
4) Pyridine	2.647	79	7173	1.711	ppm	85
5) Aniline	4.230	93	8257	1.513	ppm	97
7) bis(2-Chloroethyl)ether	4.265	93	6034	1.787	ppm	98
9) Phenol	4.187	94	7915	1.702	ppm	87
10) 2-Chlorophenol	4.317	128	6442	1.756	ppm	84
11) 1,3-Dichlorobenzene	4.432	146	7130	1.751	ppm	85
12) 1,4-Dichlorobenzene	4.469	146	7446	1.788	ppm	96
13) 1,2-Dichlorobenzene	4.625	146	7110	1.832	ppm	95
14) Benzyl alcohol	4.572	108	4397m	1.780	ppm	
15) bis(2-chloroisopropyl)...	4.693	45	8971	2.050	ppm	94
16) o-cresol	4.662	108	5666m	1.659	ppm	
17) Acetophenone	4.795	105	9154	1.754	ppm	91
18) Hexachloroethane	4.876	117	2773m	1.852	ppm	
19) N-Nitroso-di-n-propyla...	4.808	70	4466m	1.794	ppm	
20) m+p-cresols	4.777	108	13071	3.644	ppm	92
21) 4-methylphenol	4.777	108	13071	3.643	ppm	92
24) Nitrobenzene	4.944	77	7137	1.890	ppm	88
25) Isophorone	5.128	82	11678	1.752	ppm	86
26) 2-Nitrophenol	5.211	139	2979m	1.523	ppm	
27) 2,4-Dimethylphenol	5.218	107	6710	1.836	ppm	86
28) bis(2-Chloroethoxy)met...	5.305	93	7518m	2.271	ppm	
29) Benzoic acid	5.255	105	1477m	0.624	ppm	
30) 2,4-Dichlorophenol	5.398	162	5205	1.728	ppm	97
31) 1,2,4-Trichlorobenzene	5.478	180	5733	1.752	ug/mL	93
32) Naphthalene	5.534	128	18352	1.817	ppm	95
33) 2,6-Dichlorophenol	5.596	162	5082	1.680	ppm	95
34) 4-Chloroaniline	5.590	127	6576	1.545	ppm	100
35) Hexachlorobutadiene	5.677	225	3160m	1.758	ppm	

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75541.D
Sample : ic3320-2
Misc : op39496,msf3320,,,,1,1
ALS Vial : 1 Sample Multiplier: 1
Acq On : 25 Aug 2014 5:34 pm Operator: williamk

Quant Time: Sep 04 09:51:32 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

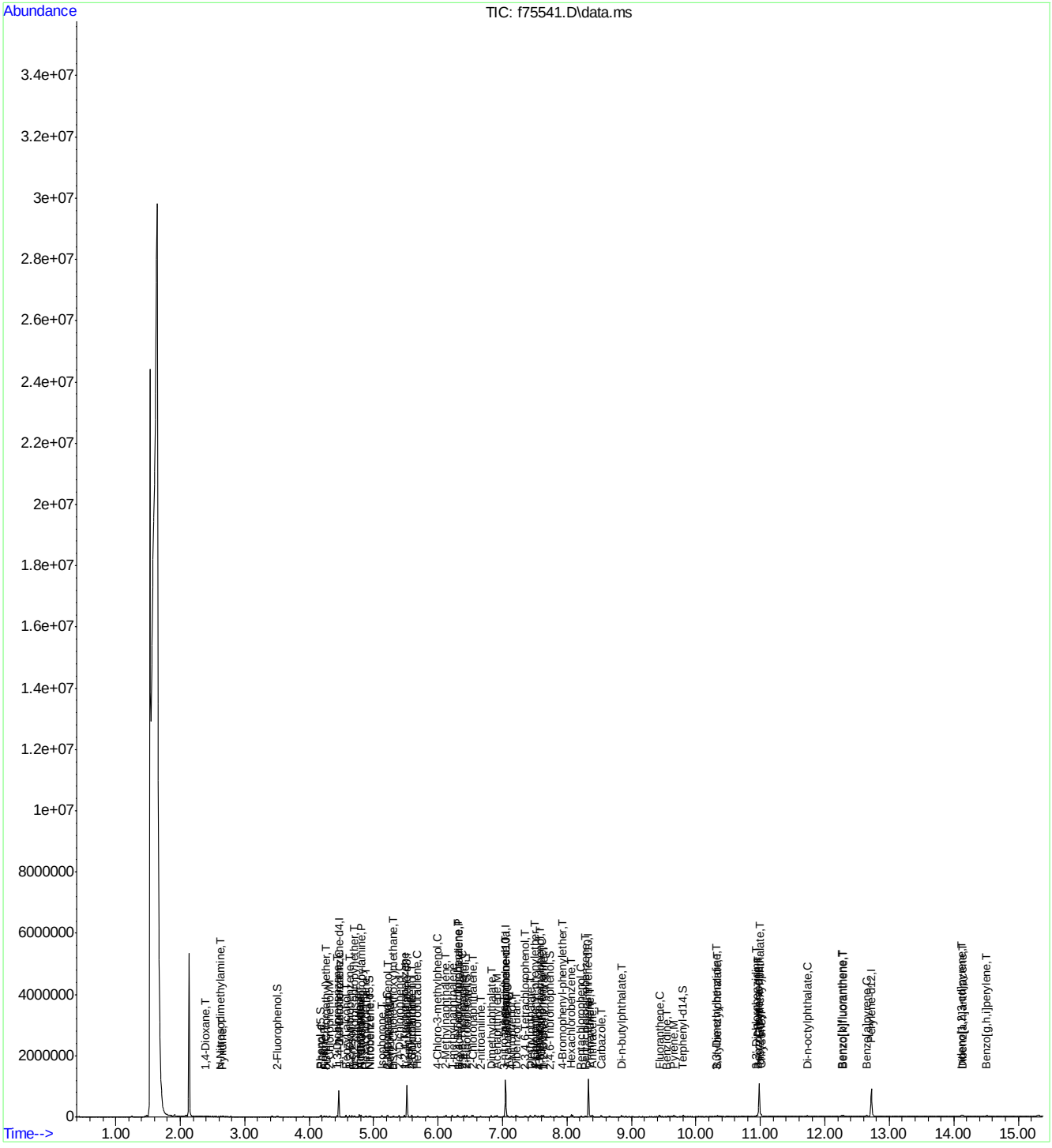
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36)	4-Chloro-3-methylphenol	5.984	107	5617	1.795	ppm		79
37)	2-Methylnaphthalene	6.121	142	12707	1.796	ppm		95
38)	1-methylnaphthalene	6.217	142	12496	1.902	ppm		97
40)	Hexachlorocyclopentadiene	6.313	237	2852m	1.572	ppm		
41)	1,2,4,5-Tetrachloroben...	6.301	216	6244	1.863	ppm		97
42)	2,4,6-Trichlorophenol	6.382	196	3383m	1.562	ppm		
43)	2,4,5-Trichlorophenol	6.413	196	4037m	1.723	ppm		
45)	2-Chloronaphthalene	6.543	162	11300	1.772	ppm		97
46)	Acenaphthylene	6.916	152	15944	1.731	ppm		97
47)	Dimethylphthalate	6.826	163	11832	1.668	ppm		96
48)	2,6-Dinitrotoluene	7.049	165	29838	18.750	ppm	#	38
49)	Acenaphthene	7.074	153	12341	1.858	ppm		93
51)	Dibenzofuran	7.207	168	16203	1.699	ppm		95
53)	4-Nitrophenol	7.139	65	2588m	1.719	ppm		
54)	2,3,4,6-Tetrachlorophenol	7.353	232	3328m	1.638	ppm		
55)	Fluorene	7.512	166	12108	1.661	ppm		98
56)	4-Chlorophenyl-phenyle...	7.499	204	6096	1.671	ppm		89
57)	Diethylphthalate	7.434	149	11793	1.715	ppm		97
58)	2-nitroaniline	6.658	138	2944m	1.349	ppm		
59)	3-nitroaniline	7.018	138	2563m	1.391	ppm		
60)	4-nitroaniline	7.555	138	2573m	1.411	ppm		
62)	4,6-Dinitro-2-methylph...	7.589	198	989m	0.728	ppm		
63)	n-Nitrosodiphenylamine	7.608	169	9217	1.750	ppm		99
64)	1,2-Diphenylhydrazine	7.636	77	13186	1.840	ppm		96
66)	4-Bromophenyl-phenylether	7.928	248	3550m	1.671	ppm		
67)	Hexachlorobenzene	8.064	284	3515m	1.626	ppm		
68)	Pentachlorophenol	8.216	266	2506m	1.415	ppm		
69)	Pentachloronitrobenzene	8.288	237	1111m	1.414	ppm		
70)	Phenanthrene	8.353	178	19166	1.813	ppm		87
71)	Anthracene	8.390	178	19535	1.825	ppm		97
72)	Carbazole	8.530	167	17362	1.735	ppm		94
73)	Di-n-butylphthalate	8.846	149	20080	1.675	ppm		98
74)	Fluoranthene	9.433	202	19080	1.648	ppm		97
76)	Benzidine	9.554	184	4045m	1.144	ppm		
77)	Pyrene	9.660	202	20702m	1.759	ppm		
79)	3,3'-Dimethylbenzidine	10.315	212	7415	1.860	ppm		98
80)	Butylbenzylphthalate	10.330	149	7752	1.581	ppm		81
81)	3,3'-Dichlorobenzidine	10.939	252	5669	1.440	ppm		87
82)	Benzo[a]anthracene	10.957	228	17357m	1.612	ppm		
83)	Chrysene	11.010	228	19660	1.803	ppm		94
84)	bis(2-Ethylhexyl)phtha...	10.995	149	9779	1.417	ppm		98
86)	Di-n-octylphthalate	11.730	149	13575	1.225	ppm		90
87)	Benzo[b]fluoranthene	12.261	252	14319	1.380	ppm		95
88)	Benzo[k]fluoranthene	12.286	252	19298m	1.761	ppm		
89)	Benzo[a]pyrene	12.649	252	15926	1.592	ppm		94
90)	Indeno[1,2,3-cd]pyrene	14.114	276	16788	1.362	ppm		83
91)	Dibenz[a,h]anthracene	14.130	278	15094	1.480	ppm		96
92)	Benzo[g,h,i]perylene	14.512	276	16960m	1.376	ppm		

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

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75541.D
Sample : ic3320-2
Misc : op39496,msf3320,,,,1,1
ALS Vial : 1 Sample Multiplier: 1
Acq On : 25 Aug 2014 5:34 pm Operator: williamk

Quant Time: Sep 04 09:51:32 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



ACCUTEST LABORATORIES MC33908

Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
09/04/14 10:25

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75542.D
Sample : ic3320-5
Misc : op39496,msf3320,,,,1,1
ALS Vial : 2 Sample Multiplier: 1
Acq On : 25 Aug 2014 5:57 pm Operator: williamk

Quant Time: Sep 04 09:51:18 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.459	152	102259	40.00	ppm	0.00
22) Naphthalene-d8	5.514	136	381849	40.00	ppm	0.00
39) Acenaphthene-d10	7.045	164	212429	40.00	ppm	0.00
61) Phenanthrene-d10	8.330	188	350313	40.00	ppm	0.00
75) Chrysene-d12	10.978	240	370974	40.00	ppm	0.00
85) Perylene-d12	12.719	264	352528	40.00	ppm	0.00
93) Acenaphthene-d10a	7.045	164	212429	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.503	112	15772	4.62	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 4.62%#			
8) Phenol-d5	4.176	99	20640	4.94	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 4.94%#			
23) Nitrobenzene-d5	4.927	82	17509	4.72	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 9.44%#			
44) 2-Fluorobiphenyl	6.445	172	35101	4.92	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 9.84%#			
65) 2,4,6-Tribromophenol	7.737	330	4034m	4.09	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 4.09%#			
78) Terphenyl-d14	9.795	244	38023	4.72	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 9.44%#			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.615	74	10671	4.612	ppm	66
3) 1,4-Dioxane	2.394	88	7084	4.553	ug/l #	75
4) Pyridine	2.636	79	17579	4.227	ppm	86
5) Aniline	4.229	93	23354	4.327	ppm	97
7) bis(2-Chloroethyl)ether	4.263	93	15944	4.846	ppm	88
9) Phenol	4.186	94	21868	4.824	ppm	90
10) 2-Chlorophenol	4.316	128	17253	4.826	ppm	89
11) 1,3-Dichlorobenzene	4.434	146	19854	5.032	ppm	96
12) 1,4-Dichlorobenzene	4.471	146	19243	4.728	ppm	99
13) 1,2-Dichlorobenzene	4.626	146	18551	4.917	ppm	93
14) Benzyl alcohol	4.570	108	11421	4.730	ppm	95
15) bis(2-chloroisopropyl)...	4.691	45	22467	5.346	ppm	95
16) o-cresol	4.660	108	15688m	2.243	ppm	
17) Acetophenone	4.797	105	23843	4.665	ppm	88
18) Hexachloroethane	4.875	117	7077	4.854	ppm	88
19) N-Nitroso-di-n-propyla...	4.803	70	11763	4.851	ppm	90
20) m+p-cresols	4.775	108	33430	9.546	ppm	93
21) 4-methylphenol	4.775	108	33430	9.545	ppm	93
24) Nitrobenzene	4.943	77	18317	4.942	ppm	91
25) Isophorone	5.126	82	31903	4.866	ppm	90
26) 2-Nitrophenol	5.210	139	8760	4.506	ppm	83
27) 2,4-Dimethylphenol	5.216	107	17308	4.805	ppm	93
28) bis(2-Chloroethoxy)met...	5.303	93	19408m	5.966	ppm	
29) Benzoic acid	5.253	105	4904m	1.930	ppm	
30) 2,4-Dichlorophenol	5.396	162	13732	4.600	ppm	91
31) 1,2,4-Trichlorobenzene	5.477	180	15797	4.915	ug/mL	93
32) Naphthalene	5.533	128	48429	4.876	ppm	99
33) 2,6-Dichlorophenol	5.595	162	14244	4.776	ppm	92
34) 4-Chloroaniline	5.589	127	17884	4.188	ppm	100
35) Hexachlorobutadiene	5.676	225	8398	4.732	ppm	92

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75542.D
Sample : ic3320-5
Misc : op39496,msf3320,,,,1,1
ALS Vial : 2 Sample Multiplier: 1
Acq On : 25 Aug 2014 5:57 pm Operator: williamk

Quant Time: Sep 04 09:51:18 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

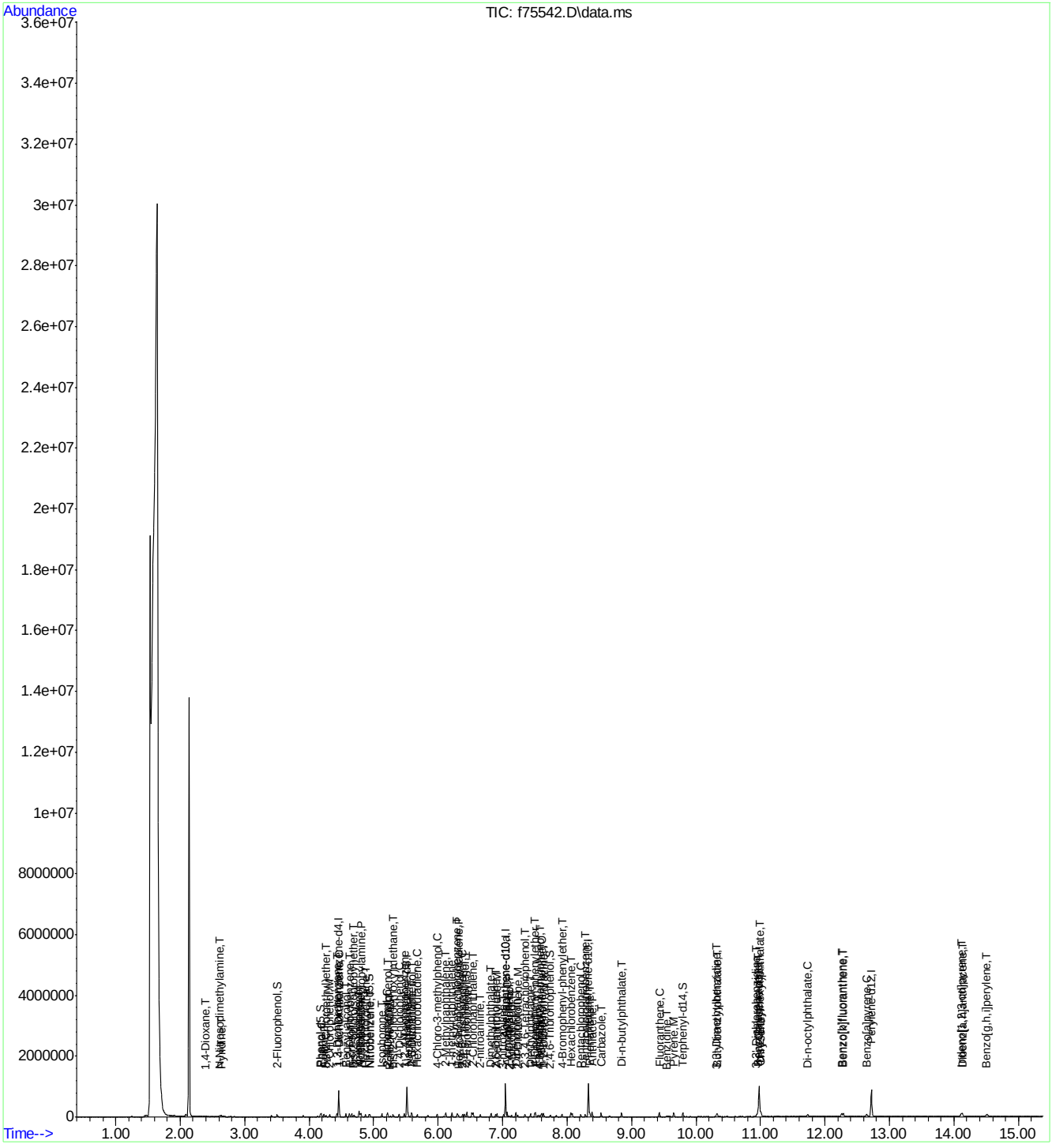
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36)	4-Chloro-3-methylphenol	5.986	107	15023	4.883	ppm		81
37)	2-Methylnaphthalene	6.119	142	32775	4.686	ppm		95
38)	1-methylnaphthalene	6.216	142	29990	4.605	ppm		94
40)	Hexachlorocyclopentadiene	6.315	237	7297	4.242	ppm		99
41)	1,2,4,5-Tetrachloroben...	6.300	216	15346	4.924	ppm		96
42)	2,4,6-Trichlorophenol	6.380	196	9529	4.701	ppm		95
43)	2,4,5-Trichlorophenol	6.411	196	10204	4.647	ppm		98
45)	2-Chloronaphthalene	6.542	162	30673	5.218	ppm		99
46)	Acenaphthylene	6.914	152	42818	5.013	ppm		97
47)	Dimethylphthalate	6.821	163	32203	4.876	ppm		97
48)	2,6-Dinitrotoluene	6.892	165	5697m	3.717	ppm		
49)	Acenaphthene	7.072	153	29910	4.830	ppm		94
50)	2,4-Dinitrophenol	7.100	184	1698m	1.769	ppm		
51)	Dibenzofuran	7.209	168	43211	4.864	ppm		97
52)	2,4-Dinitrotoluene	7.234	165	8288	4.065	ppm		90
53)	4-Nitrophenol	7.138	65	6361	4.554	ppm		83
54)	2,3,4,6-Tetrachlorophenol	7.349	232	8745	4.585	ppm		96
55)	Fluorene	7.510	166	32776	4.822	ppm		97
56)	4-Chlorophenyl-phenyle...	7.498	204	16294	4.785	ppm		92
57)	Diethylphthalate	7.433	149	32055	5.029	ppm		97
58)	2-nitroaniline	6.657	138	8897	4.306	ppm	#	59
59)	3-nitroaniline	7.013	138	7352	4.204	ppm		83
60)	4-nitroaniline	7.551	138	7015	4.032	ppm		82
62)	4,6-Dinitro-2-methylph...	7.585	198	3887m	2.927	ppm		
63)	n-Nitrosodiphenylamine	7.606	169	23736	4.882	ppm		95
64)	1,2-Diphenylhydrazine	7.634	77	34828	5.333	ppm		98
66)	4-Bromophenyl-phenylether	7.926	248	9432	4.797	ppm		97
67)	Hexachlorobenzene	8.066	284	9963	5.011	ppm		97
68)	Pentachlorophenol	8.215	266	7009	4.202	ppm		93
69)	Pentachloronitrobenzene	8.286	237	3119m	4.218	ppm		
70)	Phenanthrene	8.351	178	48499	4.985	ppm		95
71)	Anthracene	8.389	178	48482	4.911	ppm		98
72)	Carbazole	8.528	167	45169	4.891	ppm		97
73)	Di-n-butylphthalate	8.845	149	51959	4.665	ppm		97
74)	Fluoranthene	9.432	202	51013	4.754	ppm		91
76)	Benzidine	9.550	184	8654	2.491	ppm		89
77)	Pyrene	9.655	202	54550	5.097	ppm		95
79)	3,3'-Dimethylbenzidine	10.313	212	17660	4.835	ppm		95
80)	Butylbenzylphthalate	10.329	149	20704	4.573	ppm		91
81)	3,3'-Dichlorobenzidine	10.937	252	14458	3.902	ppm		96
82)	Benzo[a]anthracene	10.956	228	46877m	4.739	ppm		
83)	Chrysene	11.006	228	49200	4.938	ppm		91
84)	bis(2-Ethylhexyl)phtha...	10.993	149	28294	4.422	ppm		94
86)	Di-n-octylphthalate	11.732	149	39944	3.725	ppm		98
87)	Benzo[b]fluoranthene	12.260	252	42187	4.271	ppm		98
88)	Benzo[k]fluoranthene	12.285	252	47854m	4.635	ppm		
89)	Benzo[a]pyrene	12.651	252	42657	4.510	ppm		95
90)	Indeno[1,2,3-cd]pyrene	14.116	276	47302	4.000	ppm		85
91)	Dibenz[a,h]anthracene	14.128	278	41154	4.233	ppm		90
92)	Benzo[g,h,i]perylene	14.507	276	45806m	3.873	ppm		

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

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75542.D
Sample : ic3320-5
Misc : op39496,msf3320,,,,1,1
ALS Vial : 2 Sample Multiplier: 1
Acq On : 25 Aug 2014 5:57 pm Operator: williamk

Quant Time: Sep 04 09:51:18 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
09/04/14 10:25

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75543.D
Sample : ic3320-10
Misc : op39496,msf3320,,,,1,1
ALS Vial : 3 Sample Multiplier: 1
Acq On : 25 Aug 2014 6:20 pm Operator: williamk

Quant Time: Sep 04 09:51:05 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.460	152	103006	40.00	ppm	0.00
22) Naphthalene-d8	5.516	136	374990	40.00	ppm	0.00
39) Acenaphthene-d10	7.046	164	216887	40.00	ppm	0.00
61) Phenanthrene-d10	8.331	188	361858	40.00	ppm	0.00
75) Chrysene-d12	10.979	240	383884	40.00	ppm	0.00
85) Perylene-d12	12.721	264	359346	40.00	ppm	0.00
93) Acenaphthene-d10a	7.046	164	216887	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.504	112	31722	9.08	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 9.08%#			
8) Phenol-d5	4.175	99	38447	8.98	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 8.98%#			
23) Nitrobenzene-d5	4.929	82	33668	9.11	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 18.22%#			
44) 2-Fluorobiphenyl	6.447	172	69745	9.49	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 18.98%#			
65) 2,4,6-Tribromophenol	7.742	330	9206	8.85	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 8.85%#			
78) Terphenyl-d14	9.797	244	80501	9.59	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 19.18%#			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.613	74	21881	9.275	ppm	84
3) 1,4-Dioxane	2.390	88	14860	9.385	ug/l #	78
4) Pyridine	2.629	79	40047	9.477	ppm	90
5) Aniline	4.231	93	49971	9.045	ppm	96
7) bis(2-Chloroethyl)ether	4.262	93	31035	9.246	ppm	92
9) Phenol	4.184	94	42812	9.260	ppm	91
10) 2-Chlorophenol	4.314	128	33349	9.125	ppm	85
11) 1,3-Dichlorobenzene	4.432	146	37533	9.339	ppm	98
12) 1,4-Dichlorobenzene	4.473	146	39157	9.467	ppm	95
13) 1,2-Dichlorobenzene	4.625	146	35984	9.369	ppm	95
14) Benzyl alcohol	4.572	108	22617	9.170	ppm	93
15) bis(2-chloroisopropyl)...	4.693	45	41172	9.672	ppm	92
16) o-cresol	4.662	108	32302m	4.508	ppm	
17) Acetophenone	4.796	105	47173	9.011	ppm	86
18) Hexachloroethane	4.876	117	13860	9.332	ppm	97
19) N-Nitroso-di-n-propyla...	4.805	70	22352	8.997	ppm	94
20) m+p-cresols	4.777	108	64486	17.970	ppm	95
21) 4-methylphenol	4.777	108	64486	17.969	ppm	95
24) Nitrobenzene	4.945	77	35366	9.662	ppm	96
25) Isophorone	5.125	82	60701	9.321	ppm	95
26) 2-Nitrophenol	5.209	139	16932	8.674	ppm	89
27) 2,4-Dimethylphenol	5.218	107	34585	9.734	ppm	89
28) bis(2-Chloroethoxy)met...	5.305	93	37672m	11.725	ppm	
29) Benzoic acid	5.261	105	17536	6.633	ppm	84
30) 2,4-Dichlorophenol	5.395	162	27682	9.340	ppm	93
31) 1,2,4-Trichlorobenzene	5.479	180	30235	9.499	ug/mL	96
32) Naphthalene	5.534	128	93656	9.527	ppm	97
33) 2,6-Dichlorophenol	5.597	162	26742	8.974	ppm	96
34) 4-Chloroaniline	5.587	127	37295	8.700	ppm	100
35) Hexachlorobutadiene	5.677	225	16738	9.527	ppm	97

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75543.D
Sample : ic3320-10
Misc : op39496,msf3320,,,,1,1
ALS Vial : 3 Sample Multiplier: 1
Acq On : 25 Aug 2014 6:20 pm Operator: williamk

Quant Time: Sep 04 09:51:05 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

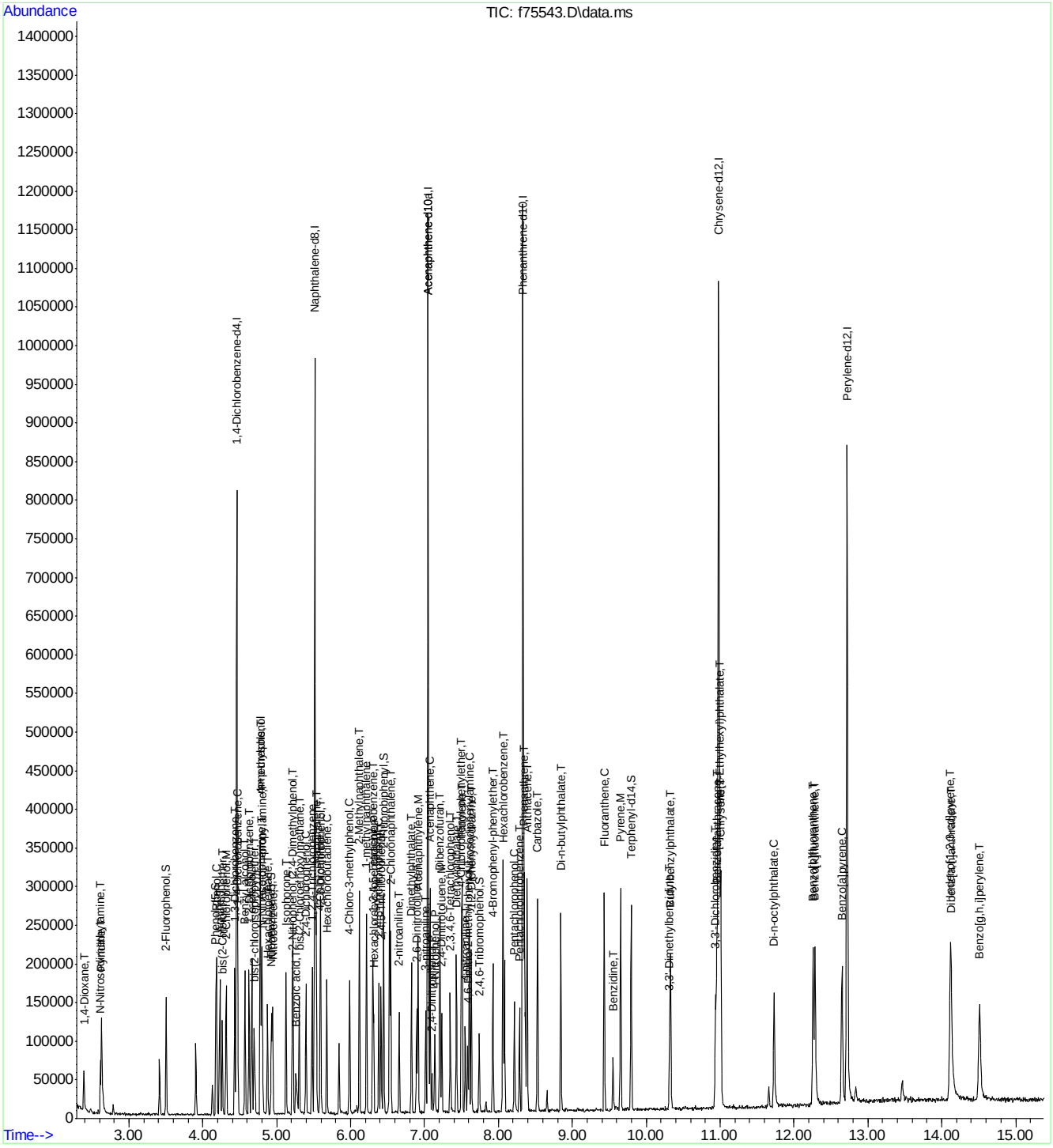
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36)	4-Chloro-3-methylphenol	5.985	107	27198	8.825	ppm	94
37)	2-Methylnaphthalene	6.118	142	65017	9.366	ppm	97
38)	1-methylnaphthalene	6.214	142	58513	8.995	ppm	99
40)	Hexachlorocyclopentadiene	6.314	237	15336	8.516	ppm	93
41)	1,2,4,5-Tetrachloroben...	6.301	216	30084	9.354	ppm	98
42)	2,4,6-Trichlorophenol	6.382	196	19051	9.062	ppm	99
43)	2,4,5-Trichlorophenol	6.413	196	20435	8.957	ppm	90
45)	2-Chloronaphthalene	6.543	162	57603	9.521	ppm	97
46)	Acenaphthylene	6.913	152	83696	9.520	ppm	97
47)	Dimethylphthalate	6.823	163	63725	9.349	ppm	97
48)	2,6-Dinitrotoluene	6.894	165	13142	8.137	ppm	93
49)	Acenaphthene	7.074	153	61475	9.669	ppm	99
50)	2,4-Dinitrophenol	7.102	184	5316	4.971	ppm	90
51)	Dibenzofuran	7.208	168	86461	9.444	ppm	95
52)	2,4-Dinitrotoluene	7.233	165	18193	8.526	ppm	90
53)	4-Nitrophenol	7.139	65	12864	8.848	ppm	82
54)	2,3,4,6-Tetrachlorophenol	7.350	232	17445	8.774	ppm	96
55)	Fluorene	7.509	166	65668	9.363	ppm	98
56)	4-Chlorophenyl-phenyle...	7.496	204	34107	9.772	ppm	98
57)	Diethylphthalate	7.431	149	60524	9.172	ppm	97
58)	2-nitroaniline	6.658	138	18395	8.503	ppm	81
59)	3-nitroaniline	7.018	138	14820	8.027	ppm	77
60)	4-nitroaniline	7.555	138	15265	8.359	ppm	89
62)	4,6-Dinitro-2-methylph...	7.586	198	10097	6.991	ppm	100
63)	n-Nitrosodiphenylamine	7.608	169	48015	9.477	ppm	99
64)	1,2-Diphenylhydrazine	7.633	77	66093	9.759	ppm	96
66)	4-Bromophenyl-phenylether	7.925	248	19531	9.543	ppm	100
67)	Hexachlorobenzene	8.064	284	19460	9.377	ppm	94
68)	Pentachlorophenol	8.213	266	14378	8.077	ppm	96
69)	Pentachloronitrobenzene	8.285	237	6927	8.904	ppm	92
70)	Phenanthrene	8.350	178	98858	9.805	ppm	96
71)	Anthracene	8.387	178	98449	9.589	ppm	96
72)	Carbazole	8.530	167	90227	9.356	ppm	99
73)	Di-n-butylphthalate	8.847	149	109175	9.393	ppm	98
74)	Fluoranthene	9.430	202	103264	9.190	ppm	95
76)	Benzidine	9.551	184	24559	6.424	ppm	87
77)	Pyrene	9.654	202	107792	9.681	ppm	99
79)	3,3'-Dimethylbenzidine	10.315	212	29580	7.499	ppm	96
80)	Butylbenzylphthalate	10.327	149	44275	9.349	ppm	95
81)	3,3'-Dichlorobenzidine	10.939	252	32855	8.330	ppm	92
82)	Benzo[a]anthracene	10.958	228	98503	9.551	ppm	97
83)	Chrysene	11.010	228	99145	9.544	ppm	95
84)	bis(2-Ethylhexyl)phtha...	10.995	149	60996	9.071	ppm	97
86)	Di-n-octylphthalate	11.731	149	90588	8.012	ppm	99
87)	Benzo[b]fluoranthene	12.258	252	87748	8.496	ppm	99
88)	Benzo[k]fluoranthene	12.283	252	103171m	9.764	ppm	
89)	Benzo[a]pyrene	12.649	252	89948	9.207	ppm	97
90)	Indeno[1,2,3-cd]pyrene	14.118	276	105160	8.506	ppm	97
91)	Dibenz[a,h]anthracene	14.127	278	82689	8.075	ppm	94
92)	Benzo[g,h,i]perylene	14.512	276	96119m	7.775	ppm	

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

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75543.D
Sample : ic3320-10
Misc : op39496,msf3320,,,,1,1
ALS Vial : 3 Sample Multiplier: 1
Acq On : 25 Aug 2014 6:20 pm Operator: williamk

Quant Time: Sep 04 09:51:05 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
09/04/14 10:25

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75544.D
Sample : ic3320-20
Misc : op39496,msf3320,,,,1,1
ALS Vial : 4 Sample Multiplier: 1
Acq On : 25 Aug 2014 6:43 pm Operator: williamk

Quant Time: Sep 04 09:50:49 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.461	152	99570	40.00	ppm	0.00
22) Naphthalene-d8	5.516	136	382219	40.00	ppm	0.00
39) Acenaphthene-d10	7.047	164	230496	40.00	ppm	0.00
61) Phenanthrene-d10	8.332	188	395824	40.00	ppm	0.00
75) Chrysene-d12	10.980	240	435577	40.00	ppm	0.00
85) Perylene-d12	12.721	264	408530	40.00	ppm	0.00
93) Acenaphthene-d10a	7.047	164	230496	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.505	112	66234	19.51	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 19.51%#			
8) Phenol-d5	4.178	99	83529	20.24	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 20.24%			
23) Nitrobenzene-d5	4.929	82	74292	19.65	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 39.30%			
44) 2-Fluorobiphenyl	6.447	172	156470	20.05	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 40.10%#			
65) 2,4,6-Tribromophenol	7.739	330	21816	18.99	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 18.99%			
78) Terphenyl-d14	9.797	244	197052	20.86	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 41.72%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.617	74	45843	20.129	ppm	91
3) 1,4-Dioxane	2.390	88	30309	19.754	ug/l #	76
4) Pyridine	2.629	79	82556	20.265	ppm	93
5) Aniline	4.231	93	108588	20.417	ppm	93
7) bis(2-Chloroethyl)ether	4.265	93	64470	19.837	ppm	94
9) Phenol	4.187	94	90484	20.310	ppm	90
10) 2-Chlorophenol	4.315	128	71282	20.223	ppm	89
11) 1,3-Dichlorobenzene	4.433	146	78747	20.340	ppm	98
12) 1,4-Dichlorobenzene	4.473	146	79432	19.834	ppm	98
13) 1,2-Dichlorobenzene	4.625	146	75244	20.336	ppm	99
14) Benzyl alcohol	4.572	108	47727	20.023	ppm	89
15) bis(2-chloroisopropyl)...	4.693	45	84699	20.735	ppm	95
16) o-cresol	4.662	108	66037m	9.525	ppm	
17) Acetophenone	4.796	105	102584	20.341	ppm	88
18) Hexachloroethane	4.877	117	28281	19.625	ppm	98
19) N-Nitroso-di-n-propyla...	4.808	70	48641	20.320	ppm	94
20) m+p-cresols	4.777	108	137977	39.722	ppm	100
21) 4-methylphenol	4.777	108	137977	39.719	ppm	100
24) Nitrobenzene	4.945	77	74179	19.854	ppm	92
25) Isophorone	5.125	82	134715	20.370	ppm	92
26) 2-Nitrophenol	5.209	139	37818	18.773	ppm	88
27) 2,4-Dimethylphenol	5.218	107	73341	20.314	ppm	95
28) bis(2-Chloroethoxy)met...	5.305	93	82326m	25.039	ppm	
29) Benzoic acid	5.277	105	52902	19.542	ppm	96
30) 2,4-Dichlorophenol	5.395	162	60969	20.227	ppm	95
31) 1,2,4-Trichlorobenzene	5.476	180	64184	19.731	ug/mL	96
32) Naphthalene	5.535	128	202121	20.215	ppm	96
33) 2,6-Dichlorophenol	5.597	162	59231	19.380	ppm	98
34) 4-Chloroaniline	5.591	127	87390	20.002	ppm	100
35) Hexachlorobutadiene	5.678	225	35717	19.932	ppm	93

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75544.D
Sample : ic3320-20
Misc : op39496,msf3320,,,,1,1
ALS Vial : 4 Sample Multiplier: 1
Acq On : 25 Aug 2014 6:43 pm Operator: williamk

Quant Time: Sep 04 09:50:49 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36)	4-Chloro-3-methylphenol	5.988	107	62493	19.869	ppm	95
37)	2-Methylnaphthalene	6.118	142	143304	20.316	ppm	100
38)	1-methylnaphthalene	6.215	142	133815	20.228	ppm	99
40)	Hexachlorocyclopentadiene	6.314	237	36898	19.108	ppm	98
41)	1,2,4,5-Tetrachloroben...	6.301	216	69276	20.335	ppm	93
42)	2,4,6-Trichlorophenol	6.382	196	43455	19.316	ppm	97
43)	2,4,5-Trichlorophenol	6.413	196	47281	19.379	ppm	99
45)	2-Chloronaphthalene	6.544	162	129084	20.094	ppm	96
46)	Acenaphthylene	6.913	152	187621	20.102	ppm	99
47)	Dimethylphthalate	6.826	163	146172	20.222	ppm	99
48)	2,6-Dinitrotoluene	6.894	165	32638	18.785	ppm	95
49)	Acenaphthene	7.074	153	136836	20.316	ppm	96
50)	2,4-Dinitrophenol	7.102	184	18085	15.139	ppm	78
51)	Dibenzofuran	7.208	168	195476	20.113	ppm	95
52)	2,4-Dinitrotoluene	7.233	165	43635	19.061	ppm	92
53)	4-Nitrophenol	7.140	65	30660	19.803	ppm	89
54)	2,3,4,6-Tetrachlorophenol	7.351	232	41387	19.487	ppm	94
55)	Fluorene	7.512	166	149609	20.089	ppm	99
56)	4-Chlorophenyl-phenyle...	7.500	204	73528	19.779	ppm	97
57)	Diethylphthalate	7.435	149	142535	20.408	ppm	98
58)	2-nitroaniline	6.658	138	43083	18.449	ppm	76
59)	3-nitroaniline	7.019	138	37565	18.943	ppm	84
60)	4-nitroaniline	7.556	138	37232	18.990	ppm	80
62)	4,6-Dinitro-2-methylph...	7.587	198	29569	18.420	ppm	100
63)	n-Nitrosodiphenylamine	7.608	169	112005	20.264	ppm	96
64)	1,2-Diphenylhydrazine	7.636	77	149829	20.281	ppm	93
66)	4-Bromophenyl-phenylether	7.925	248	43933	19.531	ppm	96
67)	Hexachlorobenzene	8.065	284	44758	19.647	ppm	95
68)	Pentachlorophenol	8.217	266	36165	18.247	ppm	97
69)	Pentachloronitrobenzene	8.285	237	16469	19.197	ppm	89
70)	Phenanthrene	8.353	178	224801	20.481	ppm	96
71)	Anthracene	8.391	178	231267	20.746	ppm	95
72)	Carbazole	8.530	167	211693	20.085	ppm	98
73)	Di-n-butylphthalate	8.847	149	252515	19.828	ppm	98
74)	Fluoranthene	9.434	202	244592	19.875	ppm	95
76)	Benzidine	9.552	184	93243	21.907	ppm	94
77)	Pyrene	9.657	202	257681	20.498	ppm	96
79)	3,3'-Dimethylbenzidine	10.315	212	98933	22.703	ppm	97
80)	Butylbenzylphthalate	10.331	149	106635	19.805	ppm	96
81)	3,3'-Dichlorobenzidine	10.939	252	88261	19.653	ppm	100
82)	Benzo[a]anthracene	10.958	228	235564	20.163	ppm	98
83)	Chrysene	11.011	228	239267	20.375	ppm	97
84)	bis(2-Ethylhexyl)phtha...	10.995	149	148968	19.408	ppm	98
86)	Di-n-octylphthalate	11.728	149	246127	18.947	ppm	97
87)	Benzo[b]fluoranthene	12.259	252	230494	19.539	ppm	98
88)	Benzo[k]fluoranthene	12.287	252	238345	19.802	ppm	95
89)	Benzo[a]pyrene	12.650	252	219076	19.656	ppm	97
90)	Indeno[1,2,3-cd]pyrene	14.118	276	262541	18.376	ppm	96
91)	Dibenz[a,h]anthracene	14.127	278	214263	18.046	ppm	96
92)	Benzo[g,h,i]perylene	14.512	276	233409m	16.337	ppm	

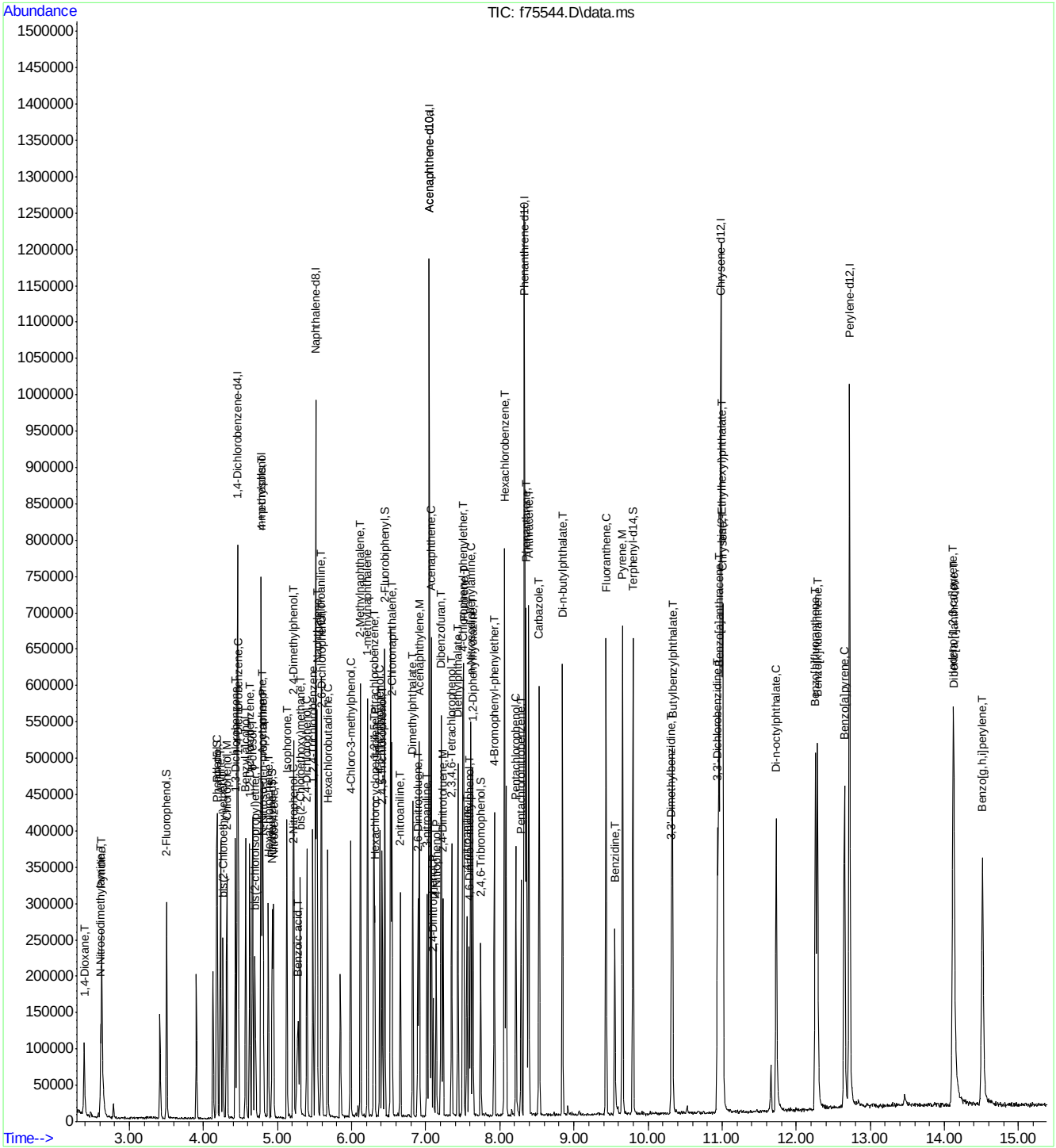
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ACCUTEST LABORATORIES MC33908

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75544.D
Sample : ic3320-20
Misc : op39496,msf3320,,,,1,1
ALS Vial : 4 Sample Multiplier: 1
Acq On : 25 Aug 2014 6:43 pm Operator: williamk

Quant Time: Sep 04 09:50:49 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75545.D
Sample : icc3320-50
Misc : op39496,msf3320,,,,1,1
ALS Vial : 5 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:06 pm Operator: williamk

Quant Time: Sep 04 09:55:30 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.459	152	96757	40.00	ppm	0.00
22) Naphthalene-d8	5.518	136	369811	40.00	ppm	0.00
39) Acenaphthene-d10	7.048	164	218020	40.00	ppm	0.00
61) Phenanthrene-d10	8.333	188	374412	40.00	ppm	0.00
75) Chrysene-d12	10.981	240	411207	40.00	ppm	0.00
85) Perylene-d12	12.720	264	384272	40.00	ppm	0.00
93) Acenaphthene-d10a	7.048	164	218020	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.506	112	165618	52.40	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 52.40%			
8) Phenol-d5	4.180	99	200080	51.26	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 51.26%			
23) Nitrobenzene-d5	4.931	82	179836	50.94	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 101.88%			
44) 2-Fluorobiphenyl	6.449	172	373055	51.59	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 103.18%			
65) 2,4,6-Tribromophenol	7.743	330	52451	51.52	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 51.52%			
78) Terphenyl-d14	9.799	244	460249	52.61	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 105.22%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.612	74	113687	53.604	ppm	86
3) 1,4-Dioxane	2.389	88	76170	53.150	ug/l #	81
4) Pyridine	2.621	79	204775	54.198	ppm	95
5) Aniline	4.233	93	267674	53.440	ppm	94
7) bis(2-Chloroethyl)ether	4.264	93	163159	53.350	ppm	96
9) Phenol	4.189	94	220637	52.682	ppm	89
10) 2-Chlorophenol	4.316	128	175049	52.809	ppm	89
11) 1,3-Dichlorobenzene	4.431	146	193521	52.606	ppm	98
12) 1,4-Dichlorobenzene	4.472	146	200749	53.244	ppm	99
13) 1,2-Dichlorobenzene	4.627	146	182939	51.913	ppm	99
14) Benzyl alcohol	4.574	108	116892	52.279	ppm	91
15) bis(2-chloroisopropyl)...	4.695	45	207300	51.458	ppm	95
16) o-cresol	4.664	108	162251	52.889	ppm	97
17) Acetophenone	4.798	105	244011	51.737	ppm	88
18) Hexachloroethane	4.875	117	71209	52.316	ppm	99
19) N-Nitroso-di-n-propyla...	4.810	70	118701	52.633	ppm	94
20) m+p-cresols	4.782	108	341137	104.897	ppm	99
21) 4-methylphenol	4.782	108	341137	104.897	ppm	99
24) Nitrobenzene	4.947	77	181399	51.002	ppm	96
25) Isophorone	5.127	82	323293	51.938	ppm	91
26) 2-Nitrophenol	5.210	139	95681	53.134	ppm	89
27) 2,4-Dimethylphenol	5.220	107	177163	51.599	ppm	96
28) bis(2-Chloroethoxy)met...	5.307	93	202851	65.290	ppm	99
29) Benzoic acid	5.300	105	140361	57.037	ppm	98
30) 2,4-Dichlorophenol	5.397	162	144992	51.611	ppm	99
31) 1,2,4-Trichlorobenzene	5.477	180	158939	51.991	ug/mL	99
32) Naphthalene	5.536	128	491984	51.926	ppm	97
33) 2,6-Dichlorophenol	5.598	162	150679	52.502	ppm	96
34) 4-Chloroaniline	5.592	127	212364	52.568	ppm	100
35) Hexachlorobutadiene	5.679	225	86762	51.645	ppm	97

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75545.D
Sample : icc3320-50
Misc : op39496,msf3320,,,,1,1
ALS Vial : 5 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:06 pm Operator: williamk

Quant Time: Sep 04 09:55:30 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

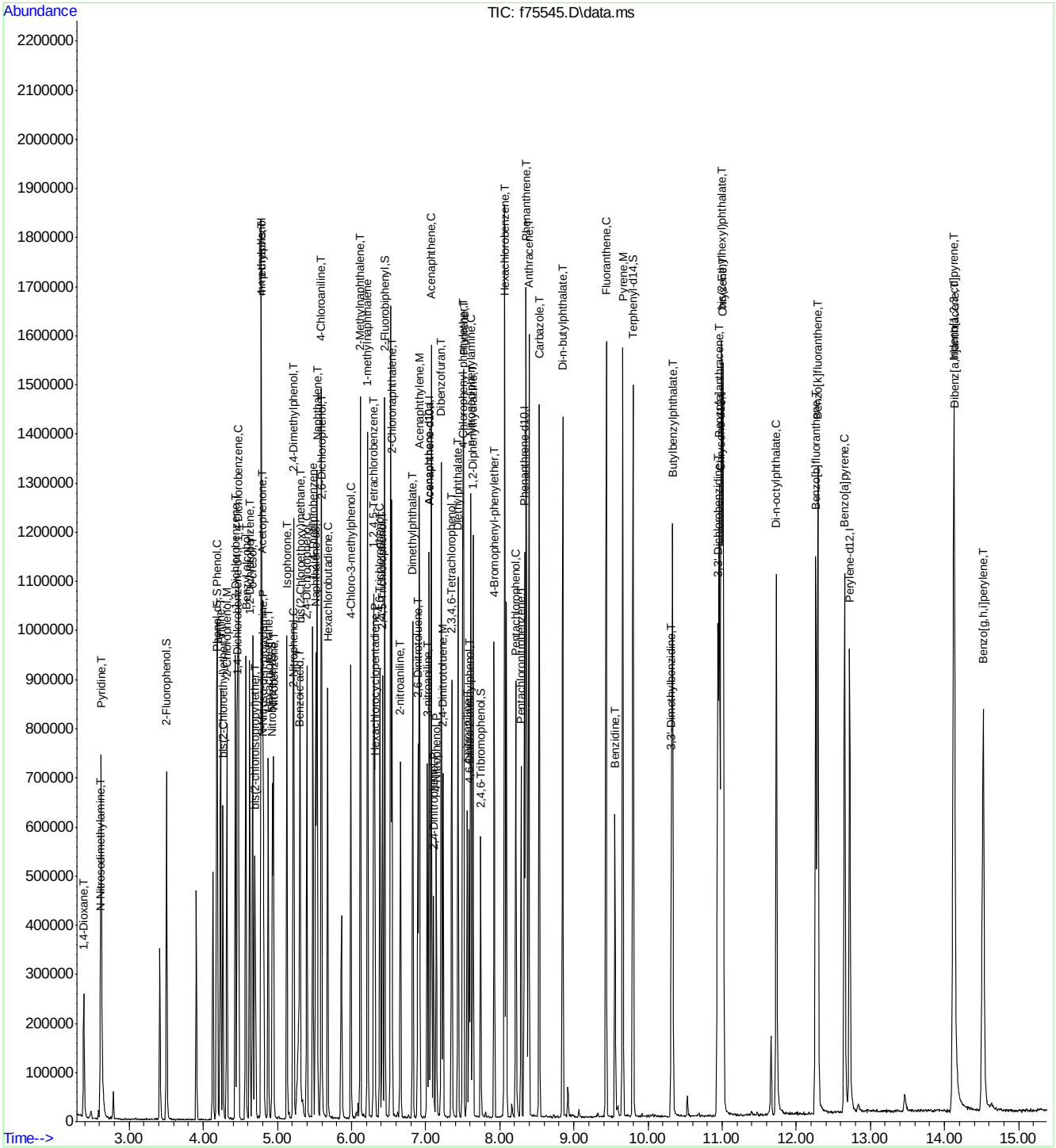
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) 4-Chloro-3-methylphenol	5.990	107	152427	51.993	ppm	92
37) 2-Methylnaphthalene	6.120	142	342956	51.807	ppm	99
38) 1-methylnaphthalene	6.216	142	318597	51.403	ppm	97
40) Hexachlorocyclopentadiene	6.316	237	92618	55.095	ppm	97
41) 1,2,4,5-Tetrachloroben...	6.300	216	161238	50.959	ppm	97
42) 2,4,6-Trichlorophenol	6.384	196	108060	53.866	ppm	95
43) 2,4,5-Trichlorophenol	6.415	196	115110	52.606	ppm	97
45) 2-Chloronaphthalene	6.545	162	314478	52.548	ppm	95
46) Acenaphthylene	6.915	152	454079	52.662	ppm	99
47) Dimethylphthalate	6.828	163	349660	52.868	ppm	99
48) 2,6-Dinitrotoluene	6.896	165	82999	54.771	ppm	88
49) Acenaphthene	7.076	153	330631	52.743	ppm	95
50) 2,4-Dinitrophenol	7.104	184	51293	47.715	ppm	84
51) Dibenzofuran	7.210	168	469582	52.695	ppm	100
52) 2,4-Dinitrotoluene	7.234	165	110246	54.136	ppm	92
53) 4-Nitrophenol	7.144	65	73916	51.564	ppm	91
54) 2,3,4,6-Tetrachlorophenol	7.352	232	101272	53.562	ppm	97
55) Fluorene	7.514	166	362471	53.358	ppm	98
56) 4-Chlorophenyl-phenyle...	7.501	204	181356	53.304	ppm	100
57) Diethylphthalate	7.436	149	340318	51.978	ppm	99
58) 2-nitroaniline	6.660	138	112570	56.462	ppm	79
59) 3-nitroaniline	7.020	138	95562	56.636	ppm	88
60) 4-nitroaniline	7.560	138	92621	55.387	ppm	86
62) 4,6-Dinitro-2-methylph...	7.588	198	73701	52.034	ppm	100
63) n-Nitrosodiphenylamine	7.610	169	269621	52.055	ppm	98
64) 1,2-Diphenylhydrazine	7.638	77	359985	51.613	ppm	95
66) 4-Bromophenyl-phenylether	7.927	248	110131	53.822	ppm	97
67) Hexachlorobenzene	8.066	284	110107	53.040	ppm	96
68) Pentachlorophenol	8.218	266	90152	53.854	ppm	99
69) Pentachloronitrobenzene	8.290	237	38942	52.320	ppm	92
70) Phenanthrene	8.355	178	538923	52.463	ppm	97
71) Anthracene	8.392	178	545949	52.463	ppm	98
72) Carbazole	8.532	167	511371	52.852	ppm	99
73) Di-n-butylphthalate	8.849	149	617474	53.465	ppm	99
74) Fluoranthene	9.435	202	593381	53.288	ppm	96
76) Benzidine	9.553	184	220578	49.803	ppm	96
77) Pyrene	9.659	202	619534	52.868	ppm	96
79) 3,3'-Dimethylbenzidine	10.314	212	227779	57.002	ppm	96
80) Butylbenzylphthalate	10.329	149	261416	54.139	ppm	95
81) 3,3'-Dichlorobenzidine	10.941	252	219586	57.174	ppm	98
82) Benzo[a]anthracene	10.960	228	567130	53.390	ppm	97
83) Chrysene	11.012	228	576729	52.953	ppm	98
84) bis(2-Ethylhexyl)phtha...	10.994	149	370657	55.133	ppm	99
86) Di-n-octylphthalate	11.729	149	619857	57.834	ppm	97
87) Benzo[b]fluoranthene	12.263	252	548149	54.084	ppm	98
88) Benzo[k]fluoranthene	12.291	252	616841	56.226	ppm	97
89) Benzo[a]pyrene	12.654	252	536460	54.155	ppm	97
90) Indeno[1,2,3-cd]pyrene	14.126	276	666875	55.464	ppm	100
91) Dibenz[a,h]anthracene	14.132	278	551272	54.967	ppm	96
92) Benzo[g,h,i]perylene	14.523	276	557539	51.857	ppm	98

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

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75545.D
Sample : icc3320-50
Misc : op39496,msf3320,,,,1,1
ALS Vial : 5 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:06 pm Operator: williamk

Quant Time: Sep 04 09:55:30 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
09/04/14 10:25

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75546.D
Sample : ic3320-80
Misc : op39496,msf3320,,,,1,1
ALS Vial : 6 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:29 pm Operator: williamk

Quant Time: Sep 04 09:50:15 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.461	152	103675	40.00	ppm	0.00
22) Naphthalene-d8	5.520	136	385739	40.00	ppm	0.00
39) Acenaphthene-d10	7.047	164	233957	40.00	ppm	0.00
61) Phenanthrene-d10	8.335	188	405706	40.00	ppm	0.00
75) Chrysene-d12	10.983	240	451143	40.00	ppm	0.00
85) Perylene-d12	12.722	264	426947	40.00	ppm	0.00
93) Acenaphthene-d10a	7.047	164	233957	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.505	112	282480	79.59	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 79.59%			
8) Phenol-d5	4.182	99	336663	78.52	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 78.52%			
23) Nitrobenzene-d5	4.933	82	308805	82.31	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 164.62%#			
44) 2-Fluorobiphenyl	6.451	172	642958	80.30	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 160.60%#			
65) 2,4,6-Tribromophenol	7.745	330	94609	82.78	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 82.78%			
78) Terphenyl-d14	9.800	244	803660	79.78	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 159.56%#			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.617	74	189287	77.694	ppm	88
3) 1,4-Dioxane	2.387	88	125256	76.735	ug/l #	81
4) Pyridine	2.623	79	338773	77.199	ppm	96
5) Aniline	4.235	93	441031	76.885	ppm	91
7) bis(2-Chloroethyl)ether	4.266	93	271389	77.617	ppm	94
9) Phenol	4.194	94	372660	78.816	ppm	93
10) 2-Chlorophenol	4.318	128	291527	77.714	ppm	92
11) 1,3-Dichlorobenzene	4.433	146	319816	77.117	ppm	99
12) 1,4-Dichlorobenzene	4.474	146	331096	76.962	ppm	99
13) 1,2-Dichlorobenzene	4.629	146	310518	79.206	ppm	100
14) Benzyl alcohol	4.576	108	198489	79.237	ppm	88
15) bis(2-chloroisopropyl)...	4.694	45	336999	75.859	ppm	96
16) o-cresol	4.666	108	272589m	37.287	ppm	
17) Acetophenone	4.803	105	419255m	130.920	ppm	
18) Hexachloroethane	4.877	117	119755	78.476	ppm	96
19) N-Nitroso-di-n-propyla...	4.818	70	199618	78.443	ppm	96
20) m+p-cresols	4.787	108	575954	156.303	ppm	99
21) 4-methylphenol	4.787	108	575954	156.252	ppm	99
24) Nitrobenzene	4.949	77	310952	81.780	ppm	95
25) Isophorone	5.129	82	545912	80.669	ppm	93
26) 2-Nitrophenol	5.212	139	166491	83.411	ppm	92
27) 2,4-Dimethylphenol	5.222	107	297869	80.595	ppm	96
28) bis(2-Chloroethoxy)met...	5.309	93	335435m	98.549	ppm	
29) Benzoic acid	5.315	105	223321m	76.267	ppm	
30) 2,4-Dichlorophenol	5.399	162	248415	82.128	ppm	97
31) 1,2,4-Trichlorobenzene	5.479	180	269591	81.308	ug/mL	96
32) Naphthalene	5.535	128	825271	80.408	ppm	98
33) 2,6-Dichlorophenol	5.597	162	251793	80.103	ppm	94
34) 4-Chloroaniline	5.594	127	361620	81.626	ppm	100
35) Hexachlorobutadiene	5.678	225	148395	81.987	ppm	98

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75546.D
Sample : ic3320-80
Misc : op39496,msf3320,,,,1,1
ALS Vial : 6 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:29 pm Operator: williamk

Quant Time: Sep 04 09:50:15 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

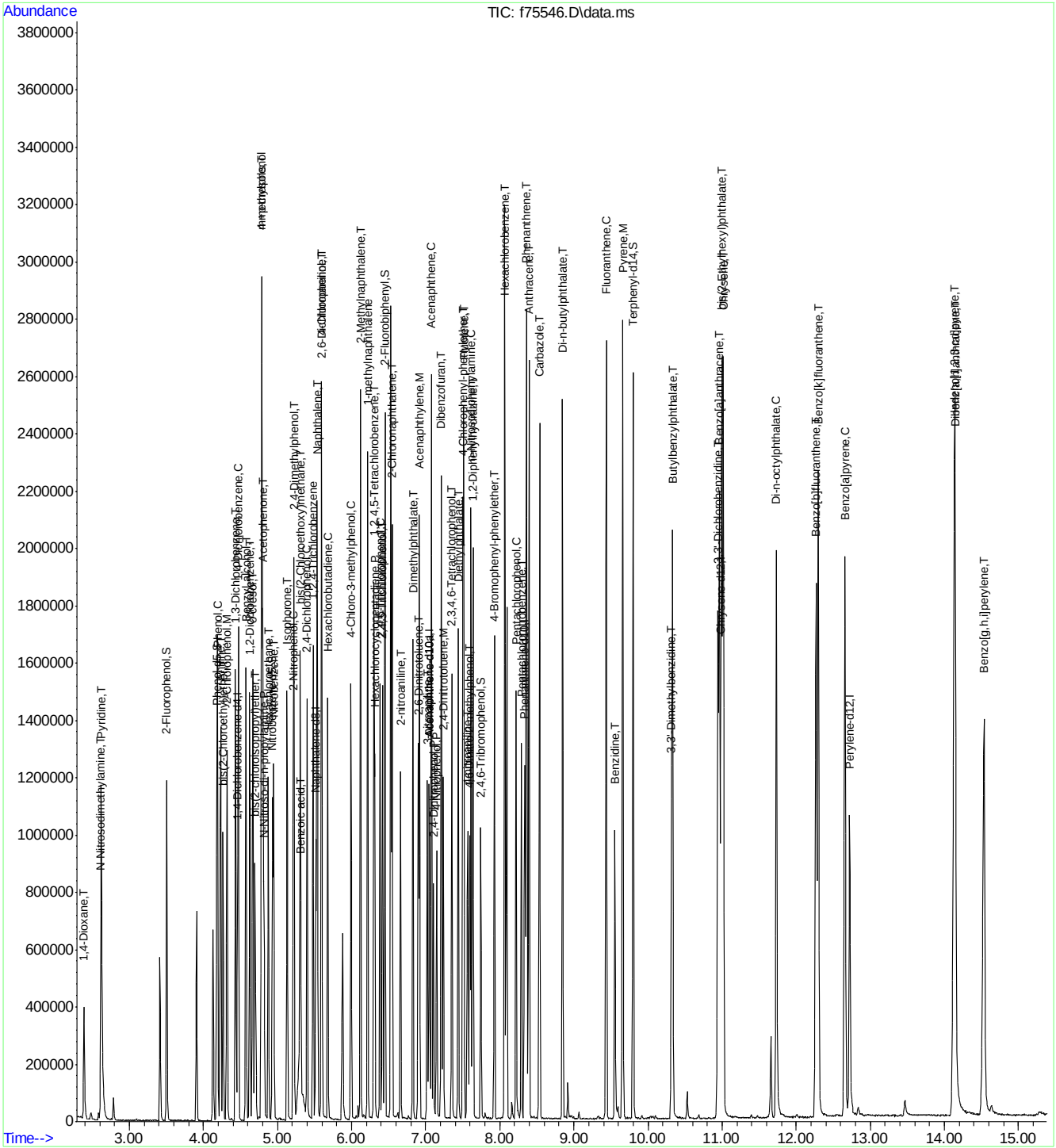
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36)	4-Chloro-3-methylphenol	5.992	107	258353	81.247	ppm	92
37)	2-Methylnaphthalene	6.122	142	585540	81.104	ppm	98
38)	1-methylnaphthalene	6.218	142	540787	81.366	ppm	96
40)	Hexachlorocyclopentadiene	6.314	237	159282	80.131	ppm	96
41)	1,2,4,5-Tetrachloroben...	6.302	216	280879	81.167	ppm	99
42)	2,4,6-Trichlorophenol	6.386	196	184109	79.385	ppm	94
43)	2,4,5-Trichlorophenol	6.420	196	203146	81.073	ppm	93
45)	2-Chloronaphthalene	6.547	162	533300	79.015	ppm	97
46)	Acenaphthylene	6.917	152	772671	79.285	ppm	99
47)	Dimethylphthalate	6.830	163	597883	79.671	ppm	99
48)	2,6-Dinitrotoluene	6.901	165	144214	80.959	ppm	97
49)	Acenaphthene	7.078	153	556463	78.419	ppm	99
50)	2,4-Dinitrophenol	7.106	184	97695	88.745	ppm	88
51)	Dibenzofuran	7.212	168	807780	80.152	ppm	99
52)	2,4-Dinitrotoluene	7.239	165	190327	80.439	ppm	97
53)	4-Nitrophenol	7.146	65	127539	80.396	ppm	91
54)	2,3,4,6-Tetrachlorophenol	7.354	232	175705	80.840	ppm	97
55)	Fluorene	7.513	166	616990	79.311	ppm	99
56)	4-Chlorophenyl-phenyle...	7.500	204	306372	78.713	ppm	96
57)	Diethylphthalate	7.441	149	574621	78.695	ppm	100
58)	2-nitroaniline	6.662	138	190523	78.860	ppm	72
59)	3-nitroaniline	7.025	138	164437	80.176	ppm	93
60)	4-nitroaniline	7.569	138	162447	81.721	ppm	97
62)	4,6-Dinitro-2-methylph...	7.593	198	131863	81.544	ppm	100
63)	n-Nitrosodiphenylamine	7.612	169	459877	78.766	ppm	97
64)	1,2-Diphenylhydrazine	7.640	77	617876	79.116	ppm	98
66)	4-Bromophenyl-phenylether	7.929	248	186036	77.898	ppm	95
67)	Hexachlorobenzene	8.068	284	188436	78.958	ppm	97
68)	Pentachlorophenol	8.220	266	163345	81.981	ppm	97
69)	Pentachloronitrobenzene	8.292	237	70838	83.916	ppm	88
70)	Phenanthrene	8.357	178	912682	78.139	ppm	97
71)	Anthracene	8.394	178	931739	78.609	ppm	98
72)	Carbazole	8.537	167	876440	78.971	ppm	99
73)	Di-n-butylphthalate	8.847	149	1064203	79.447	ppm	98
74)	Fluoranthene	9.437	202	1020859	79.261	ppm	96
76)	Benzidine	9.555	184	373986	77.291	ppm	96
77)	Pyrene	9.661	202	1087740	80.086	ppm	97
79)	3,3'-Dimethylbenzidine	10.316	212	384121	77.049	ppm	98
80)	Butylbenzylphthalate	10.331	149	461641	80.683	ppm	95
81)	3,3'-Dichlorobenzidine	10.943	252	386823	80.486	ppm	97
82)	Benzo[a]anthracene	10.961	228	1000283	80.584	ppm	97
83)	Chrysene	11.017	228	1009926	80.007	ppm	97
84)	bis(2-Ethylhexyl)phtha...	10.996	149	657263	81.017	ppm	99
86)	Di-n-octylphthalate	11.731	149	1117555	81.136	ppm	99
87)	Benzo[b]fluoranthene	12.268	252	983562	80.749	ppm	98
88)	Benzo[k]fluoranthene	12.299	252	1054442	76.928	ppm	96
89)	Benzo[a]pyrene	12.659	252	941466	78.977	ppm	97
90)	Indeno[1,2,3-cd]pyrene	14.134	276	1201050	81.050	ppm	99
91)	Dibenz[a,h]anthracene	14.146	278	1007651	82.258	ppm	98
92)	Benzo[g,h,i]perylene	14.534	276	1031920m	69.636	ppm	

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

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75546.D
Sample : ic3320-80
Misc : op39496,msf3320,,,,1,1
ALS Vial : 6 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:29 pm Operator: williamk

Quant Time: Sep 04 09:50:15 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



F75547.D

Manual Integrations APPROVED (compounds with "m" flag)

Sona Liskova
09/04/14 10:25

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75547.D
Sample : ic3320-120
Misc : op39496,msf3320,,,,1,1
ALS Vial : 7 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:52 pm Operator: williamk

Quant Time: Sep 04 09:49:59 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.461	152	101057	40.00	ppm	0.00
22) Naphthalene-d8	5.519	136	385554	40.00	ppm	0.00
39) Acenaphthene-d10	7.050	164	238239	40.00	ppm	0.00
61) Phenanthrene-d10	8.335	188	406506	40.00	ppm	0.00
75) Chrysene-d12	10.986	240	474687	40.00	ppm	0.00
85) Perylene-d12	12.724	264	442197	40.00	ppm	0.00
93) Acenaphthene-d10a	7.050	164	238239	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.508	112	417246	120.92	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 120.92%#			
8) Phenol-d5	4.185	99	519314	125.42	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 125.42%#			
23) Nitrobenzene-d5	4.936	82	470596	123.71	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 247.42%#			
44) 2-Fluorobiphenyl	6.451	172	972634	119.07	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 238.14%#			
65) 2,4,6-Tribromophenol	7.745	330	145471	124.86	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 124.86%#			
78) Terphenyl-d14	9.800	244	1211305	114.44	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 228.88%#			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.617	74	279543	119.434	ppm	90
3) 1,4-Dioxane	2.390	88	187885	120.545	ug/l #	81
4) Pyridine	2.623	79	496156	118.059	ppm	93
5) Aniline	4.234	93	655184	119.504	ppm	94
7) bis(2-Chloroethyl)ether	4.268	93	393575	117.224	ppm	94
9) Phenol	4.197	94	547900	119.767	ppm	94
10) 2-Chlorophenol	4.321	128	437104	121.272	ppm	93
11) 1,3-Dichlorobenzene	4.436	146	476651	120.076	ppm	99
12) 1,4-Dichlorobenzene	4.473	146	488227	118.680	ppm	98
13) 1,2-Dichlorobenzene	4.628	146	453609	119.295	ppm	99
14) Benzyl alcohol	4.579	108	293737	120.875	ppm	89
15) bis(2-chloroisopropyl)...	4.694	45	499306	118.370	ppm	95
16) o-cresol	4.669	108	406435m	57.473	ppm	
17) Acetophenone	4.802	105	634220m	196.718	ppm	
18) Hexachloroethane	4.877	117	177629	120.565	ppm	98
19) N-Nitroso-di-n-propyla...	4.827	70	297167	120.979	ppm	96
20) m+p-cresols	4.790	108	863285	243.157	ppm	100
21) 4-methylphenol	4.790	108	863285	243.117	ppm	100
24) Nitrobenzene	4.951	77	452054	117.638	ppm	97
25) Isophorone	5.135	82	809425	119.167	ppm	94
26) 2-Nitrophenol	5.212	139	249635	122.514	ppm	93
27) 2,4-Dimethylphenol	5.225	107	441991	119.205	ppm	93
28) bis(2-Chloroethoxy)met...	5.308	93	502805m	148.040	ppm	
29) Benzoic acid	5.330	105	315939m	99.700	ppm	
30) 2,4-Dichlorophenol	5.401	162	372984	121.751	ppm	97
31) 1,2,4-Trichlorobenzene	5.482	180	395748	118.445	ug/mL	98
32) Naphthalene	5.538	128	1216749	118.306	ppm	97
33) 2,6-Dichlorophenol	5.600	162	373917	118.935	ppm	96
34) 4-Chloroaniline	5.597	127	532922	119.140	ppm	100
35) Hexachlorobutadiene	5.681	225	221443	120.903	ppm	96

ACCUTEST LABORATORIES MC33908

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75547.D
Sample : ic3320-120
Misc : op39496,msf3320,,,,1,1
ALS Vial : 7 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:52 pm Operator: williamk

Quant Time: Sep 04 09:49:59 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

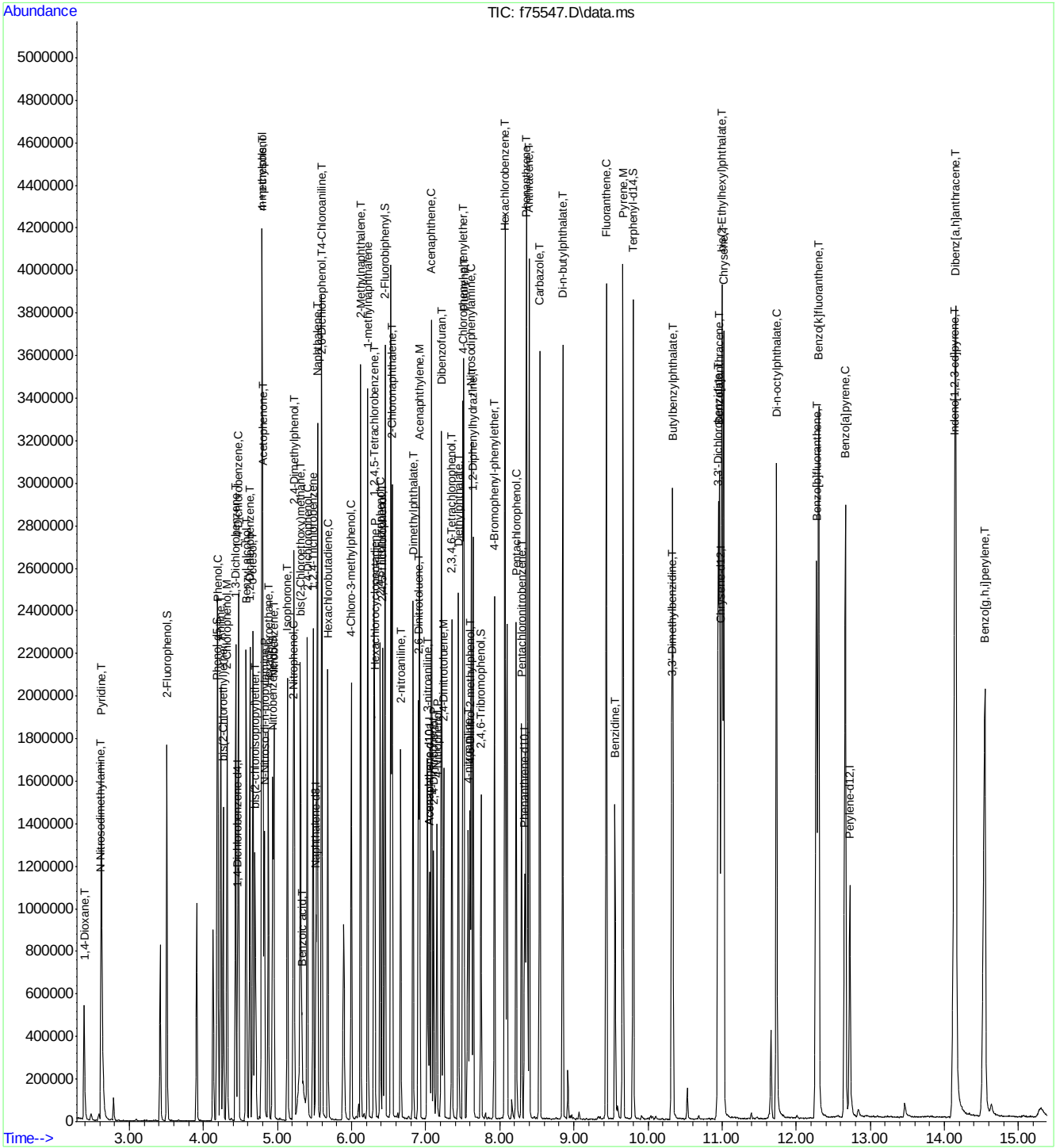
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36)	4-Chloro-3-methylphenol	5.994	107	386125	120.548	ppm	91
37)	2-Methylnaphthalene	6.122	142	860217	118.390	ppm	99
38)	1-methylnaphthalene	6.221	142	819298	122.285	ppm	96
40)	Hexachlorocyclopentadiene	6.314	237	238218	117.592	ppm	95
41)	1,2,4,5-Tetrachloroben...	6.302	216	424555	119.609	ppm	99
42)	2,4,6-Trichlorophenol	6.386	196	277101	117.787	ppm	96
43)	2,4,5-Trichlorophenol	6.420	196	301721	117.461	ppm	97
45)	2-Chloronaphthalene	6.547	162	782911	114.619	ppm	97
46)	Acenaphthylene	6.916	152	1144709	115.867	ppm	99
47)	Dimethylphthalate	6.829	163	895542	117.432	ppm	99
48)	2,6-Dinitrotoluene	6.901	165	211752	116.041	ppm	91
49)	Acenaphthene	7.078	153	820366	114.665	ppm	98
50)	2,4-Dinitrophenol	7.109	184	155342	131.393	ppm	92
51)	Dibenzofuran	7.214	168	1198300	116.653	ppm	99
52)	2,4-Dinitrotoluene	7.242	165	279076	115.511	ppm	92
53)	4-Nitrophenol	7.152	65	192394	118.804	ppm	89
54)	2,3,4,6-Tetrachlorophenol	7.354	232	262725	118.084	ppm	100
55)	Fluorene	7.515	166	913453	115.808	ppm	97
56)	4-Chlorophenyl-phenyle...	7.503	204	456843	116.197	ppm	98
57)	Diethylphthalate	7.441	149	859478	116.542	ppm	99
58)	2-nitroaniline	6.665	138	288017	117.911	ppm	81
59)	3-nitroaniline	7.025	138	242767	116.113	ppm	85
60)	4-nitroaniline	7.574	138	242349	118.451	ppm	91
62)	4,6-Dinitro-2-methylph...	7.596	198	202987	124.083	ppm	100
63)	n-Nitrosodiphenylamine	7.615	169	680404	117.212	ppm	99
64)	1,2-Diphenylhydrazine	7.640	77	904062	116.175	ppm	97
66)	4-Bromophenyl-phenylether	7.928	248	276520	117.096	ppm	97
67)	Hexachlorobenzene	8.068	284	279355	117.590	ppm	96
68)	Pentachlorophenol	8.220	266	250169	123.778	ppm	96
69)	Pentachloronitrobenzene	8.295	237	109365	126.212	ppm	93
70)	Phenanthrene	8.357	178	1352041	116.886	ppm	98
71)	Anthracene	8.397	178	1357360	115.295	ppm	98
72)	Carbazole	8.537	167	1298800	117.553	ppm	98
73)	Di-n-butylphthalate	8.850	149	1572505	117.569	ppm	98
74)	Fluoranthene	9.437	202	1526413	118.829	ppm	96
76)	Benzidine	9.555	184	538567	107.606	ppm	97
77)	Pyrene	9.664	202	1598430	111.789	ppm	99
79)	3,3'-Dimethylbenzidine	10.319	212	572004	111.093	ppm	99
80)	Butylbenzylphthalate	10.334	149	686630	113.568	ppm	97
81)	3,3'-Dichlorobenzidine	10.946	252	574209	113.205	ppm	99
82)	Benzo[a]anthracene	10.964	228	1494398	114.003	ppm	98
83)	Chrysene	11.020	228	1490814	112.241	ppm	98
84)	bis(2-Ethylhexyl)phtha...	10.998	149	979191	113.988	ppm	99
86)	Di-n-octylphthalate	11.734	149	1697135	118.126	ppm	98
87)	Benzo[b]fluoranthene	12.274	252	1551382	122.401	ppm	98
88)	Benzo[k]fluoranthene	12.302	252	1521424	109.267	ppm	97
89)	Benzo[a]pyrene	12.662	252	1459162	118.944	ppm	99
90)	Indeno[1,2,3-cd]pyrene	14.140	276	1874741	121.353	ppm	96
91)	Dibenz[a,h]anthracene	14.152	278	1560366	121.274	ppm	99
92)	Benzo[g,h,i]perylene	14.547	276	1628957m	105.443	ppm	

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

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75547.D
Sample : ic3320-120
Misc : op39496,msf3320,,,,1,1
ALS Vial : 7 Sample Multiplier: 1
Acq On : 25 Aug 2014 7:52 pm Operator: williamk

Quant Time: Sep 04 09:49:59 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
09/04/14 10:25

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75548.D
Sample : ic3320-160
Misc : op39496,msf3320,,,,1,1
ALS Vial : 8 Sample Multiplier: 1
Acq On : 25 Aug 2014 8:15 pm Operator: williamk

Quant Time: Sep 04 09:49:22 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.460	152	102334	40.00	ppm	0.00
22) Naphthalene-d8	5.521	136	391107	40.00	ppm	0.00
39) Acenaphthene-d10	7.049	164	234590	40.00	ppm	0.00
61) Phenanthrene-d10	8.337	188	404973	40.00	ppm	0.00
75) Chrysene-d12	10.988	240	466073	40.00	ppm	0.00
85) Perylene-d12	12.726	264	456519	40.00	ppm	0.00
93) Acenaphthene-d10a	7.049	164	234590	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.507	112	551332	157.38	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 157.38%#			
8) Phenol-d5	4.186	99	672224	157.94	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 157.94%#			
23) Nitrobenzene-d5	4.938	82	605047	155.20	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 310.40%#			
44) 2-Fluorobiphenyl	6.453	172	1233168	153.71	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 307.42%#			
65) 2,4,6-Tribromophenol	7.747	330	187731	159.59	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 159.59%#			
78) Terphenyl-d14	9.805	244	1558245	152.29	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 304.58%#			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.616	74	362193	153.056	ppm	89
3) 1,4-Dioxane	2.386	88	250457	158.445	ug/l #	83
4) Pyridine	2.622	79	647910	153.070	ppm	94
5) Aniline	4.236	93	837095	150.987	ppm	94
7) bis(2-Chloroethyl)ether	4.270	93	518351	153.646	ppm	95
9) Phenol	4.199	94	708224	152.979	ppm	92
10) 2-Chlorophenol	4.320	128	560390	152.997	ppm	91
11) 1,3-Dichlorobenzene	4.435	146	616692	153.383	ppm	98
12) 1,4-Dichlorobenzene	4.475	146	642037	154.689	ppm	99
13) 1,2-Dichlorobenzene	4.627	146	589199	153.320	ppm	99
14) Benzyl alcohol	4.578	108	383822	155.596	ppm	93
15) bis(2-chloroisopropyl)...	4.696	45	645822	151.881	ppm	97
16) o-cresol	4.671	108	518255m	71.956	ppm	
17) Acetophenone	4.807	105	807445m	241.738	ppm	
18) Hexachloroethane	4.876	117	230642	154.352	ppm	100
19) N-Nitroso-di-n-propyla...	4.832	70	377367	151.301	ppm	97
20) m+p-cresols	4.795	108	1103087	305.485	ppm	100
21) 4-methylphenol	4.795	108	1103087	305.451	ppm	100
24) Nitrobenzene	4.953	77	588009	151.841	ppm	98
25) Isophorone	5.136	82	1031284	150.022	ppm	92
26) 2-Nitrophenol	5.214	139	320161	153.821	ppm	93
27) 2,4-Dimethylphenol	5.226	107	562938	150.000	ppm	95
28) bis(2-Chloroethoxy)met...	5.310	93	635107m	186.473	ppm	
29) Benzoic acid	5.341	105	417592	126.020	ppm	95
30) 2,4-Dichlorophenol	5.403	162	475078	152.135	ppm	98
31) 1,2,4-Trichlorobenzene	5.481	180	510464	151.263	ug/mL	96
32) Naphthalene	5.537	128	1563578	150.579	ppm	98
33) 2,6-Dichlorophenol	5.602	162	475207	149.449	ppm	96
34) 4-Chloroaniline	5.596	127	688441	152.086	ppm	100
35) Hexachlorobutadiene	5.680	225	279459	150.036	ppm	97

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75548.D
Sample : ic3320-160
Misc : op39496,msf3320,,,,1,1
ALS Vial : 8 Sample Multiplier: 1
Acq On : 25 Aug 2014 8:15 pm Operator: williamk

Quant Time: Sep 04 09:49:22 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

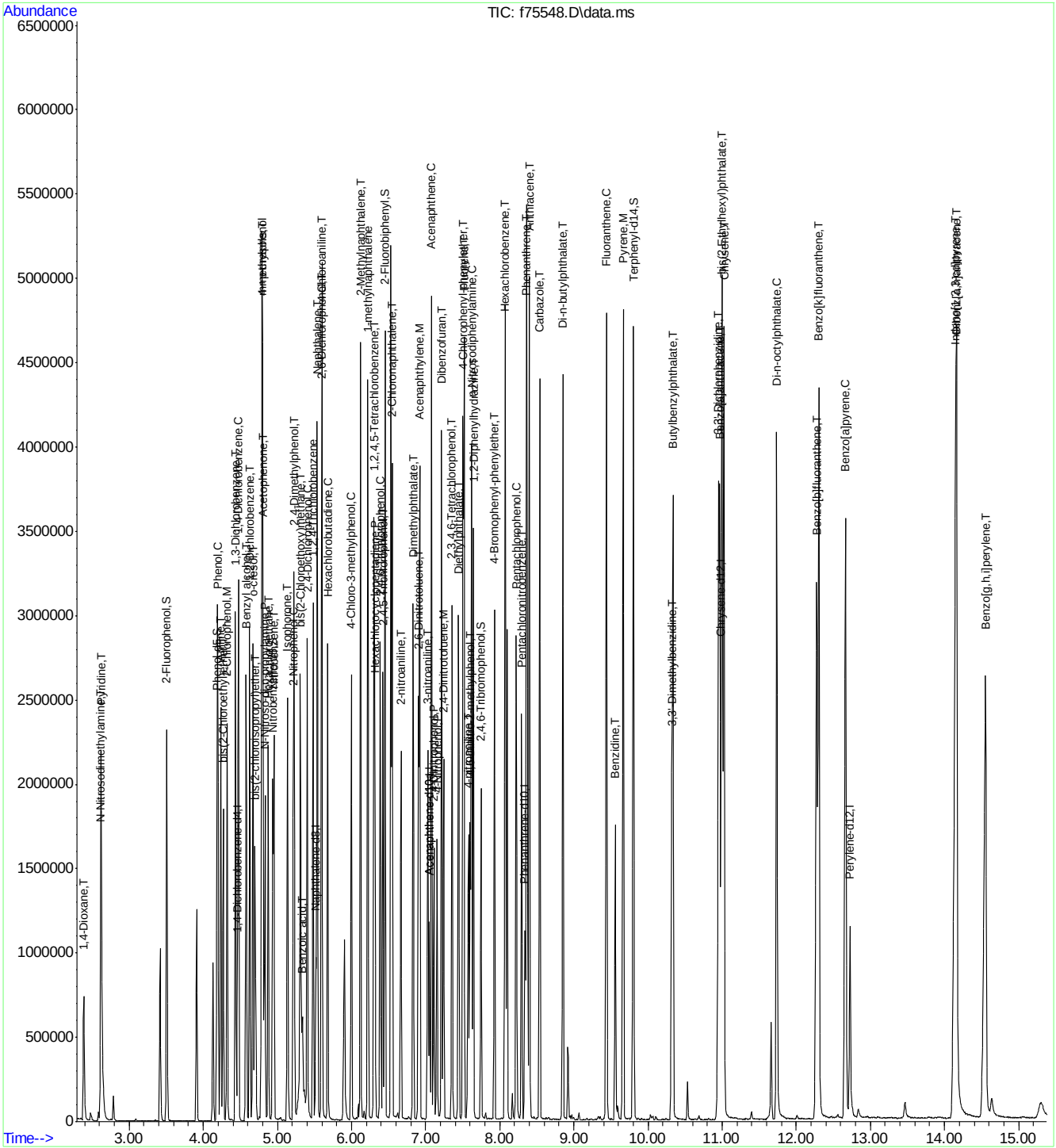
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36)	4-Chloro-3-methylphenol	5.999	107	497817	152.978	ppm	92
37)	2-Methylnaphthalene	6.124	142	1097261	149.539	ppm	99
38)	1-methylnaphthalene	6.220	142	1049223	153.406	ppm	93
40)	Hexachlorocyclopentadiene	6.316	237	306730	154.802	ppm	98
41)	1,2,4,5-Tetrachloroben...	6.304	216	543156	155.571	ppm	96
42)	2,4,6-Trichlorophenol	6.387	196	360299	156.496	ppm	99
43)	2,4,5-Trichlorophenol	6.425	196	383707	152.780	ppm	94
45)	2-Chloronaphthalene	6.549	162	1004183	151.566	ppm	97
46)	Acenaphthylene	6.918	152	1463566	152.193	ppm	99
47)	Dimethylphthalate	6.831	163	1129510	151.497	ppm	99
48)	2,6-Dinitrotoluene	6.903	165	278725	156.844	ppm	93
49)	Acenaphthene	7.080	153	1055826	152.126	ppm	99
50)	2,4-Dinitrophenol	7.111	184	201617	167.874	ppm	89
51)	Dibenzofuran	7.216	168	1520357	151.718	ppm	97
52)	2,4-Dinitrotoluene	7.244	165	363480	154.715	ppm	95
53)	4-Nitrophenol	7.157	65	245591	154.526	ppm	93
54)	2,3,4,6-Tetrachlorophenol	7.356	232	337372	154.818	ppm	99
55)	Fluorene	7.517	166	1166219	151.923	ppm	99
56)	4-Chlorophenyl-phenyle...	7.505	204	582852	152.161	ppm	97
57)	Diethylphthalate	7.446	149	1097140	152.547	ppm	99
58)	2-nitroaniline	6.667	138	373278	156.099	ppm	77
59)	3-nitroaniline	7.030	138	314129	154.247	ppm	88
60)	4-nitroaniline	7.579	138	314179	156.621	ppm	93
62)	4,6-Dinitro-2-methylph...	7.601	198	259950	157.716	ppm	100
63)	n-Nitrosodiphenylamine	7.620	169	864947	150.734	ppm	97
64)	1,2-Diphenylhydrazine	7.645	77	1155755	150.682	ppm	98
66)	4-Bromophenyl-phenylether	7.930	248	352729	151.152	ppm	99
67)	Hexachlorobenzene	8.070	284	363240	154.513	ppm	96
68)	Pentachlorophenol	8.222	266	321182	157.858	ppm	99
69)	Pentachloronitrobenzene	8.297	237	140246	159.707	ppm	92
70)	Phenanthrene	8.362	178	1703590	149.126	ppm	99
71)	Anthracene	8.399	178	1743172	150.595	ppm	98
72)	Carbazole	8.542	167	1654011	151.298	ppm	99
73)	Di-n-butylphthalate	8.852	149	1986378	150.088	ppm	98
74)	Fluoranthene	9.442	202	1935669	151.753	ppm	97
76)	Benzidine	9.557	184	637201	134.289	ppm	96
77)	Pyrene	9.665	202	2023815	147.519	ppm	100
79)	3,3'-Dimethylbenzidine	10.320	212	617605	125.266	ppm	98
80)	Butylbenzylphthalate	10.336	149	888676	152.427	ppm	96
81)	3,3'-Dichlorobenzidine	10.951	252	730037	149.407	ppm	98
82)	Benzo[a]anthracene	10.969	228	1925486	152.139	ppm	98
83)	Chrysene	11.025	228	1916824	150.219	ppm	98
84)	bis(2-Ethylhexyl)phtha...	11.000	149	1275417	153.784	ppm	99
86)	Di-n-octylphthalate	11.736	149	2207685	149.620	ppm	99
87)	Benzo[b]fluoranthene	12.276	252	2114052	160.491	ppm	99
88)	Benzo[k]fluoranthene	12.307	252	1913839	137.229	ppm	99
89)	Benzo[a]pyrene	12.667	252	1909748	151.234	ppm	99
90)	Indeno[1,2,3-cd]pyrene	14.151	276	2533385	158.248	ppm	93
91)	Dibenz[a,h]anthracene	14.164	278	2092898	157.004	ppm	98
92)	Benzo[g,h,i]perylene	14.555	276	2204002m	137.673	ppm	

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

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75548.D
Sample : ic3320-160
Misc : op39496,msf3320,,,,1,1
ALS Vial : 8 Sample Multiplier: 1
Acq On : 25 Aug 2014 8:15 pm Operator: williamk

Quant Time: Sep 04 09:49:22 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



ACCUTEST LABORATORIES MC33908

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75549.D
Sample : icv3320-50
Misc : op39496,msf3320,,,,1,1
ALS Vial : 9 Sample Multiplier: 1
Acq On : 25 Aug 2014 8:38 pm Operator: williamk

Quant Time: Sep 04 10:02:05 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.461	152	111495	40.00	ppm	0.00
22) Naphthalene-d8	5.516	136	410098	40.00	ppm	0.00
39) Acenaphthene-d10	7.046	164	243283	40.00	ppm	0.00
61) Phenanthrene-d10	8.335	188	388832	40.00	ppm	0.00
75) Chrysene-d12	10.983	240	422489	40.00	ppm	0.00
85) Perylene-d12	12.721	264	396260	40.00	ppm	0.00
93) Acenaphthene-d10a	7.046	164	243283	40.00	ppm	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	3.508	112	193098	53.02	ppm	0.00
Spiked Amount 100.000	Range 21 - 110		Recovery = 53.02%			
8) Phenol-d5	4.181	99	225677	50.18	ppm	0.00
Spiked Amount 100.000	Range 10 - 110		Recovery = 50.18%			
23) Nitrobenzene-d5	4.932	82	207579	53.02	ppm	0.00
Spiked Amount 50.000	Range 34 - 114		Recovery = 106.04%			
44) 2-Fluorobiphenyl	6.447	172	417090	51.69	ppm	0.00
Spiked Amount 50.000	Range 43 - 116		Recovery = 103.38%			
65) 2,4,6-Tribromophenol	7.742	330	58232	55.07	ppm	0.00
Spiked Amount 100.000	Range 10 - 123		Recovery = 55.07%			
78) Terphenyl-d14	9.797	244	468855	52.16	ppm	0.00
Spiked Amount 50.000	Range 33 - 141		Recovery = 104.32%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	2.617	74	125707	51.437	ppm	88
4) Pyridine	2.626	79	223526	51.341	ppm	98
5) Aniline	4.231	93	236775	41.022	ppm	94
7) bis(2-Chloroethyl)ether	4.265	93	182757	51.859	ppm	95
9) Phenol	4.191	94	255355	52.912	ppm	92
10) 2-Chlorophenol	4.318	128	204685	53.587	ppm	92
11) 1,3-Dichlorobenzene	4.433	146	225470	53.189	ppm	99
12) 1,4-Dichlorobenzene	4.473	146	226789	52.200	ppm	98
13) 1,2-Dichlorobenzene	4.625	146	213690	52.624	ppm	99
14) Benzyl alcohol	4.572	108	125252	48.613	ppm	88
15) bis(2-chloroisopropyl)...	4.693	45	259495	55.899	ppm	93
16) o-cresol	4.665	108	186939	52.882	ppm	97
17) Acetophenone	4.799	105	264402	48.650	ppm	87
18) Hexachloroethane	4.877	117	80840	51.541	ppm	88
19) N-Nitroso-di-n-propyla...	4.811	70	138093	53.138	ppm	96
20) m+p-cresols	4.783	108	397732	106.134	ppm	99
21) 4-methylphenol	4.783	108	397732	106.134	ppm	99
24) Nitrobenzene	4.945	77	204847	51.937	ppm	97
25) Isophorone	5.128	82	326524	47.304	ppm	92
26) 2-Nitrophenol	5.212	139	111668	55.921	ppm	92
27) 2,4-Dimethylphenol	5.221	107	202167	53.097	ppm	97
28) bis(2-Chloroethoxy)met...	5.305	93	212588	49.675	ppm	97
29) Benzoic acid	5.305	105	169466	62.099	ppm	91
30) 2,4-Dichlorophenol	5.398	162	171908	55.180	ppm	97
31) 1,2,4-Trichlorobenzene	5.479	180	180046	53.110	ug/mL	96
32) Naphthalene	5.535	128	543858	51.762	ppm	97
33) 2,6-Dichlorophenol	5.597	162	169744	53.335	ppm	96
34) 4-Chloroaniline	5.591	127	164245	36.663	ppm	100
35) Hexachlorobutadiene	5.677	225	101762	54.623	ppm	97
36) 4-Chloro-3-methylphenol	5.991	107	175702	54.044	ppm	87

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75549.D
Sample : icv3320-50
Misc : op39496,msf3320,,,,1,1
ALS Vial : 9 Sample Multiplier: 1
Acq On : 25 Aug 2014 8:38 pm Operator: williamk

Quant Time: Sep 04 10:02:05 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270

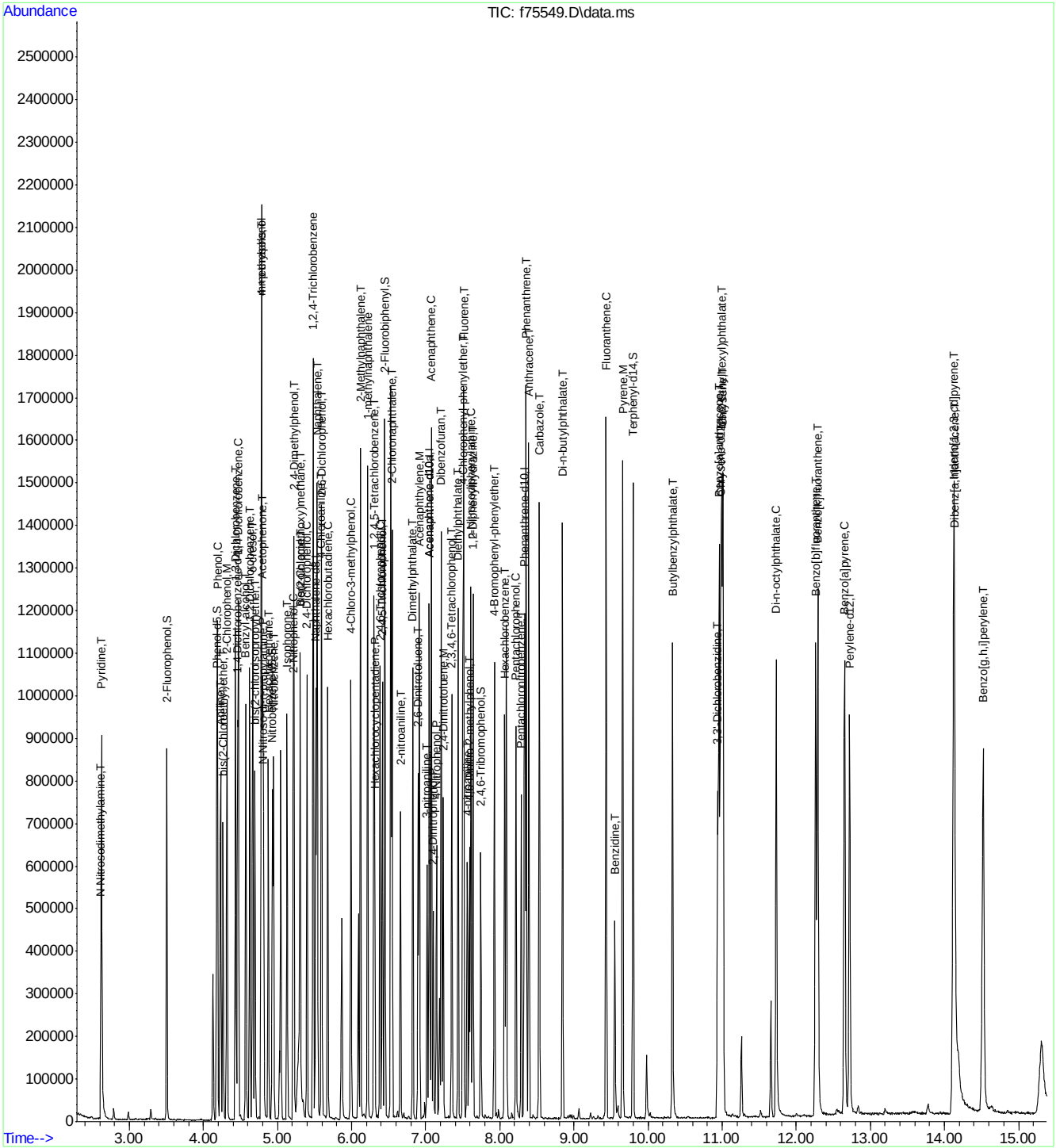
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37)	2-Methylnaphthalene	6.121	142	370163	50.424	ppm	100
38)	1-methylnaphthalene	6.218	142	343368	49.957	ppm	93
40)	Hexachlorocyclopentadiene	6.314	237	84083	44.824	ppm	98
41)	1,2,4,5-Tetrachloroben...	6.301	216	178866	50.660	ppm	98
42)	2,4,6-Trichlorophenol	6.385	196	127275	56.856	ppm	99
43)	2,4,5-Trichlorophenol	6.416	196	135593	55.532	ppm	97
45)	2-Chloronaphthalene	6.547	162	360043	53.914	ppm	99
46)	Acenaphthylene	6.916	152	462093	48.027	ppm	100
47)	Dimethylphthalate	6.826	163	371960	50.400	ppm	99
48)	2,6-Dinitrotoluene	6.897	165	84569	50.012	ppm	91
49)	Acenaphthene	7.074	153	358915	51.309	ppm	98
50)	2,4-Dinitrophenol	7.102	184	58385	48.673	ppm	96
51)	Dibenzofuran	7.211	168	490831	49.360	ppm	95
52)	2,4-Dinitrotoluene	7.236	165	116114	51.097	ppm	92
53)	4-Nitrophenol	7.146	65	80453	50.296	ppm	90
54)	2,3,4,6-Tetrachlorophenol	7.354	232	112983	53.551	ppm	94
55)	Fluorene	7.512	166	393610	51.925	ppm	97
56)	4-Chlorophenyl-phenyle...	7.500	204	193771	51.039	ppm	99
57)	Diethylphthalate	7.438	149	355626	48.675	ppm	99
58)	2-nitroaniline	6.662	138	115736	52.022	ppm	82
59)	3-nitroaniline	7.019	138	77099	40.949	ppm	90
60)	4-nitroaniline	7.562	138	86567	46.391	ppm	91
62)	4,6-Dinitro-2-methylph...	7.590	198	83488	56.757	ppm	100
63)	n-Nitrosodiphenylamine	7.611	169	260562	48.440	ppm	96
64)	1,2-Diphenylhydrazine	7.636	77	388393	53.621	ppm	99
66)	4-Bromophenyl-phenylether	7.925	248	116048	54.610	ppm	100
67)	Hexachlorobenzene	8.068	284	119874	55.604	ppm	98
68)	Pentachlorophenol	8.217	266	91986	52.912	ppm	98
69)	Pentachloronitrobenzene	8.288	237	41407	53.569	ppm	91
70)	Phenanthrene	8.353	178	559102	52.409	ppm	96
71)	Anthracene	8.394	178	547667	50.676	ppm	98
72)	Carbazole	8.533	167	502342	49.993	ppm	99
73)	Di-n-butylphthalate	8.847	149	597698	49.834	ppm	98
74)	Fluoranthene	9.434	202	607767	52.555	ppm	97
76)	Benzidine	9.552	184	172332	37.642	ppm	97
77)	Pyrene	9.660	202	616598	51.213	ppm	95
80)	Butylbenzylphthalate	10.331	149	257510	51.906	ppm	98
81)	3,3'-Dichlorobenzidine	10.939	252	172269	43.656	ppm	96
82)	Benzo[a]anthracene	10.961	228	576921	52.861	ppm	98
83)	Chrysene	11.011	228	551925	49.323	ppm	97
84)	bis(2-Ethylhexyl)phtha...	10.995	149	365875	52.969	ppm	98
86)	Di-n-octylphthalate	11.731	149	592553	53.614	ppm	99
87)	Benzo[b]fluoranthene	12.262	252	563265	53.894	ppm	97
88)	Benzo[k]fluoranthene	12.293	252	560814	49.573	ppm	98
89)	Benzo[a]pyrene	12.653	252	528846	51.771	ppm	99
90)	Indeno[1,2,3-cd]pyrene	14.127	276	684857	55.236	ppm	98
91)	Dibenz[a,h]anthracene	14.137	278	567858	54.908	ppm	97
92)	Benzo[g,h,i]perylene	14.522	276	594098	53.586	ppm	98

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

Quantitation Report (QT Reviewed)

Data File: F:\1\DATA\F140825\f75549.D
Sample : icv3320-50
Misc : op39496,msf3320,,,,1,1
ALS Vial : 9 Sample Multiplier: 1
Acq On : 25 Aug 2014 8:38 pm Operator: williamk

Quant Time: Sep 04 10:02:05 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270



ACCUTEST LABORATORIES MC33908

Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
10/03/14 12:23

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76562.D
Acq On : 2 Oct 2014 8:07 am
Operator : williamk
Sample : cc3320-50
Misc : op39496,msf3358,,,,1,1
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Oct 02 11:37:08 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.180	152	110915	40.00	ppm	-0.04
22) Naphthalene-d8	4.208	136	414492	40.00	ppm	-0.04
39) Acenaphthene-d10	5.698	164	246185	40.00	ppm	-0.04
61) Phenanthrene-d10	6.943	188	429117	40.00	ppm	-0.04
75) Chrysene-d12	9.246	240	484765	40.00	ppm	-0.05
85) Perylene-d12	10.702	264	456368	40.00	ppm	-0.06
93) Acenaphthene-d10a	5.698	164	246185	40.00	ppm	-0.04
System Monitoring Compounds						
6) 2-Fluorophenol	2.274	112	183115	50.54	ppm	-0.04
Spiked Amount 100.000	Range 21 - 110		Recovery = 50.54%			
8) Phenol-d5	2.982	99	228323	51.03	ppm	-0.04
Spiked Amount 100.000	Range 10 - 110		Recovery = 51.03%			
23) Nitrobenzene-d5	3.649	82	201418	50.90	ppm	-0.04
Spiked Amount 50.000	Range 34 - 114		Recovery = 101.80%			
44) 2-Fluorobiphenyl	5.145	172	453622	55.56	ppm	-0.04
Spiked Amount 50.000	Range 43 - 116		Recovery = 111.12%			
65) 2,4,6-Tribromophenol	6.381	330	76117m	65.23	ppm	-0.04
Spiked Amount 100.000	Range 10 - 123		Recovery = 65.23%			
78) Terphenyl-d14	8.336	244	569996	55.27	ppm	-0.05
Spiked Amount 50.000	Range 33 - 141		Recovery = 110.54%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	1.361	74	119566	49.18	ppm	83
4) Pyridine	1.352	79	210685	48.64	ppm	98
5) Aniline	2.972	93	266805	46.47	ppm	95
7) bis(2-Chloroethyl)ether	3.028	93	166249	47.42	ppm	95
9) Phenol	2.991	94	264702	55.14	ppm	87
10) 2-Chlorophenol	3.050	128	202006	53.16	ppm	94
11) 1,3-Dichlorobenzene	3.149	146	229195	54.35	ppm	98
12) 1,4-Dichlorobenzene	3.193	146	234601	54.28	ppm	100
13) 1,2-Dichlorobenzene	3.339	146	218134	54.00	ppm	99
14) Benzyl alcohol	3.329	108	127675	49.81	ppm	85
15) bis(2-chloroisopropyl)...	3.444	45	213661	46.27	ppm #	1
16) o-cresol	3.447	108	184849	52.56	ppm	97
17) Acetophenone	3.534	105	271452	50.21	ppm	85
18) Hexachloroethane	3.574	117	86433	55.39	ppm	94
19) N-Nitroso-di-n-propyla...	3.562	70	133630	51.69	ppm	95
20) m+p-cresols	3.571	108	389194	104.40	ppm	97
21) 4-methylphenol	3.571	108	389194	104.40	ppm	97
24) Nitrobenzene	3.664	77	201458	50.54	ppm	96
25) Isophorone	3.854	82	350882	50.29	ppm	93
26) 2-Nitrophenol	3.922	139	116415	57.68	ppm	97
27) 2,4-Dimethylphenol	3.987	107	197929	51.43	ppm	94
28) bis(2-Chloroethoxy)met...	4.059	93	219452	50.74	ppm	99
29) Benzoic acid	4.124	105	163902	59.42	ppm	97
30) 2,4-Dichlorophenol	4.121	162	182002	57.80	ppm	99
31) 1,2,4-Trichlorobenzene	4.180	180	197385	57.61	ug/mL	97
32) Naphthalene	4.226	128	569177	53.60	ppm	98
33) 2,6-Dichlorophenol	4.310	162	181950	56.56	ppm	95
34) 4-Chloroaniline	4.313	127	244031	53.89	ppm	100
35) Hexachlorobutadiene	4.385	225	113207m	60.12	ppm	
36) 4-Chloro-3-methylphenol	4.745	107	171226	52.11	ppm	95
37) 2-Methylnaphthalene	4.804	142	403861	54.43	ppm	100
38) 1-methylnaphthalene	4.894	142	366298	52.73	ppm	94
40) Hexachlorocyclopentadiene	4.999	237	112890m	59.47	ppm	
41) 1,2,4,5-Tetrachloroben...	4.981	216	209130	58.53	ppm	100

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76562.D
Acq On : 2 Oct 2014 8:07 am
Operator : williamk
Sample : cc3320-50
Misc : op39496,msf3358,,,,1,1
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Oct 02 11:37:08 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration

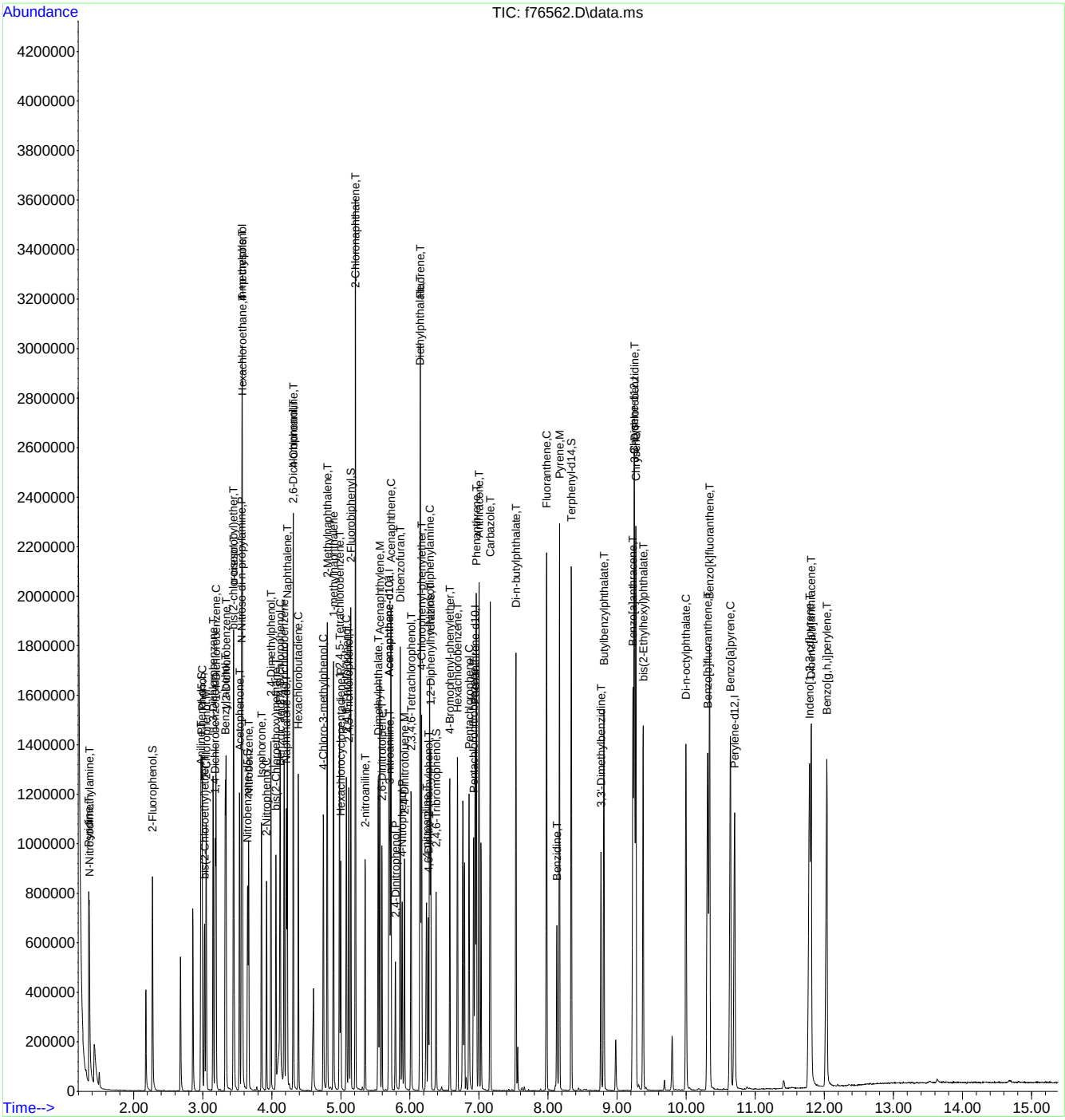
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) 2,4,6-Trichlorophenol	5.080	196	138091	60.96	ppm	98
43) 2,4,5-Trichlorophenol	5.114	196	147412	59.66	ppm	93
45) 2-Chloronaphthalene	5.210	162	377703	55.89	ppm	98
46) Acenaphthylene	5.564	152	539477	55.41	ppm	99
47) Dimethylphthalate	5.543	163	422332	56.55	ppm	99
48) 2,6-Dinitrotoluene	5.595	165	101083	59.07	ppm	95
49) Acenaphthene	5.726	153	391648	55.33	ppm	98
50) 2,4-Dinitrophenol	5.791	184	56948	46.91	ppm	89
51) Dibenzofuran	5.859	168	564508	56.10	ppm	98
52) 2,4-Dinitrotoluene	5.921	165	129504	56.32	ppm	87
53) 4-Nitrophenol	5.887	65	81208	50.17	ppm	89
54) 2,3,4,6-Tetrachlorophenol	6.018	232	128971m	60.41	ppm	
55) Fluorene	6.151	166	434174	56.60	ppm	98
56) 4-Chlorophenyl-phenyle...	6.170	204	222233	57.85	ppm	99
57) Diethylphthalate	6.148	149	419837	56.79	ppm	98
58) 2-nitroaniline	5.353	138	131808	58.55	ppm	86
59) 3-nitroaniline	5.707	138	111999	58.78	ppm	92
60) 4-nitroaniline	6.241	138	107745	57.06	ppm	98
62) 4,6-Dinitro-2-methylph...	6.266	198	86829	53.49	ppm	100
63) n-Nitrosodiphenylamine	6.288	169	313373	52.79	ppm	97
64) 1,2-Diphenylhydrazine	6.300	77	428343	53.58	ppm	95
66) 4-Bromophenyl-phenylether	6.579	248	140126	59.75	ppm	96
67) Hexachlorobenzene	6.688	284	148071	62.23	ppm	97
68) Pentachlorophenol	6.856	266	122190	63.69	ppm	99
69) Pentachloronitrobenzene	6.924	237	53296	62.48	ppm	93
70) Phenanthrene	6.964	178	642569	54.58	ppm	98
71) Anthracene	7.002	178	648399	54.36	ppm	98
72) Carbazole	7.163	167	609537	54.97	ppm	100
73) Di-n-butylphthalate	7.536	149	730384	55.18	ppm	98
74) Fluoranthene	7.979	202	717182	56.19	ppm	94
76) Benzidine	8.128	184	213586m	40.67	ppm	
77) Pyrene	8.166	202	767105	55.53	ppm	96
79) 3,3'-Dimethylbenzidine	8.765	212	277516	58.91	ppm	100
80) Butylbenzylphthalate	8.808	149	312420	54.88	ppm	97
81) 3,3'-Dichlorobenzidine	9.252	252	293157	64.75	ppm	98
82) Benzo[a]anthracene	9.227	228	703034	56.14	ppm	97
83) Chrysene	9.271	228	706881	55.05	ppm	98
84) bis(2-Ethylhexyl)phtha...	9.376	149	441399	55.69	ppm	98
86) Di-n-octylphthalate	9.997	149	750370m	58.95	ppm	
87) Benzo[b]fluoranthene	10.311	252	721996m	59.98	ppm	
88) Benzo[k]fluoranthene	10.339	252	737229	56.58	ppm	96
89) Benzo[a]pyrene	10.640	252	677974	57.63	ppm	98
90) Indeno[1,2,3-cd]pyrene	11.785	276	728537	51.02	ppm	87
91) Dibenz[a,h]anthracene	11.810	278	691820m	58.08	ppm	
92) Benzo[g,h,i]perylene	12.034	276	724246	56.72	ppm	99

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

Quantitation Report (QT Reviewed)

Data Path : F:\1\DATA\F141002\
Data File : f76562.D
Acq On : 2 Oct 2014 8:07 am
Operator : williamk
Sample : cc3320-50
Misc : op39496,msf3358,,,,1,1
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Oct 02 11:37:08 2014
Quant Method : W:\2\METHODS\F140825_8270.m
Quant Title : SW-846 Method 8270
QLast Update : Thu Oct 02 08:19:12 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39638.D
Acq On : 11 Sep 2014 11:30 am
Operator : williamk
Sample : ic1461-2
Misc : op39525,msr1461,,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 13:04:20 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:10 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.412	152	257002	40.00	ug/mL	0.00
22) Naphthalene-d8	6.509	136	1009828	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.047	164	586488	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.353	188	950088	40.00	ug/mL	0.00
78) Chrysene-d12	11.964	240	873439	40.00	ug/mL	0.00
88) Perylene-d12	13.682	264	808923	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.412	152	257002	40.00	ug/mL	# 0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.293	112	15061	1.70	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	1.70%#		
8) Phenol-d5	5.091	99	20003	1.69	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	1.69%#		
23) Nitrobenzene-d5	5.884	82	17371	1.69	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	3.38%#		
46) 2-Fluorobiphenyl	7.451	172	34454	1.80	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	3.60%#		
68) 2,4,6-Tribromophenol	8.734	330	2525	1.30	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	1.30%#		
82) Terphenyl-d14	10.810	244	30640	1.66	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	3.32%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.723	88	7387	1.83	ug/mL#	100
3) N-nitrosodimethylamine	3.068	74	5178	0.87	ug/mL#	82
4) Pyridine	3.137	79	15838	1.38	ug/mL	73
5) Aniline	5.129	93	23299	1.50	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.185	63	15358	1.84	ug/mL#	74
9) Phenol	5.104	94	22379	1.69	ug/mL	96
10) 2-Chlorophenol	5.228	128	16326	1.73	ug/mL	84
11) 1,3-Dichlorobenzene	5.362	146	18496	1.89	ug/mL	97
12) 1,4-Dichlorobenzene	5.424	146	18974	1.86	ug/mL	97
13) 1,2-Dichlorobenzene	5.555	146	17905	1.88	ug/mL	99
14) Benzyl alcohol	5.530	108	10612	1.61	ug/mL	91
15) bis(2-chloroisopropyl)...	5.645	45	26464	1.85	ug/mL	68
16) o-cresol	5.620	108	16935	1.81	ug/mL	74
17) Acetophenone	5.757	105	24300	1.67	ug/mL	79
18) Hexachloroethane	5.847	117	7594	1.92	ug/mL	86
19) N-Nitroso-di-n-propyla...	5.757	70	12625	1.70	ug/mL	77
20) m+p-cresols	5.750	108	34359	3.34	ug/mL	95
21) 4-methylphenol	5.750	108	34359	3.34	ug/mL	95
24) Nitrobenzene	5.900	77	17905	1.65	ug/mL	85
25) Isophorone	6.114	82	32373	1.67	ug/mL	93
26) 2-Nitrophenol	6.176	139	5524	1.33	ug/mL	77
27) 2,4-Dimethylphenol	6.210	107	17466	1.80	ug/mL	96
28) bis(2-Chloroethoxy)met...	6.294	93	21781	1.80	ug/mL	97
29) Benzoic acid	6.251	105	5919	0.94	ug/mL	84
30) 2,4-Dichlorophenol	6.384	162	11592	1.59	ug/mL	92
31) 1,2,4-Trichlorobenzene	6.456	180	13830	1.82	ug/mL	93
32) Naphthalene	6.527	128	52559	1.90	ug/mL	97
33) 2,6-Dichlorophenol	6.580	162	12330	1.62	ug/mL	96
34) 4-Chloroaniline	6.574	127	18286	1.54	ug/mL	100
35) Hexachlorobutadiene	6.636	225	7028	1.84	ug/mL	95
36) 4-Chloro-3-methylphenol	6.991	107	13332	1.64	ug/mL	86
37) 2-Methylnaphthalene	7.130	142	33886	1.78	ug/mL	98
38) 1-Methylnaphthalene	7.217	142	31756	1.78	ug/mL	98
39) 1,2,4,5-Tetrachloroben...	7.277	216	13106	1.73	ug/mL	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39638.D
Acq On : 11 Sep 2014 11:30 am
Operator : williamk
Sample : ic1461-2
Misc : op39525,msr1461,,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 13:04:20 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:10 2014
Response via : Initial Calibration

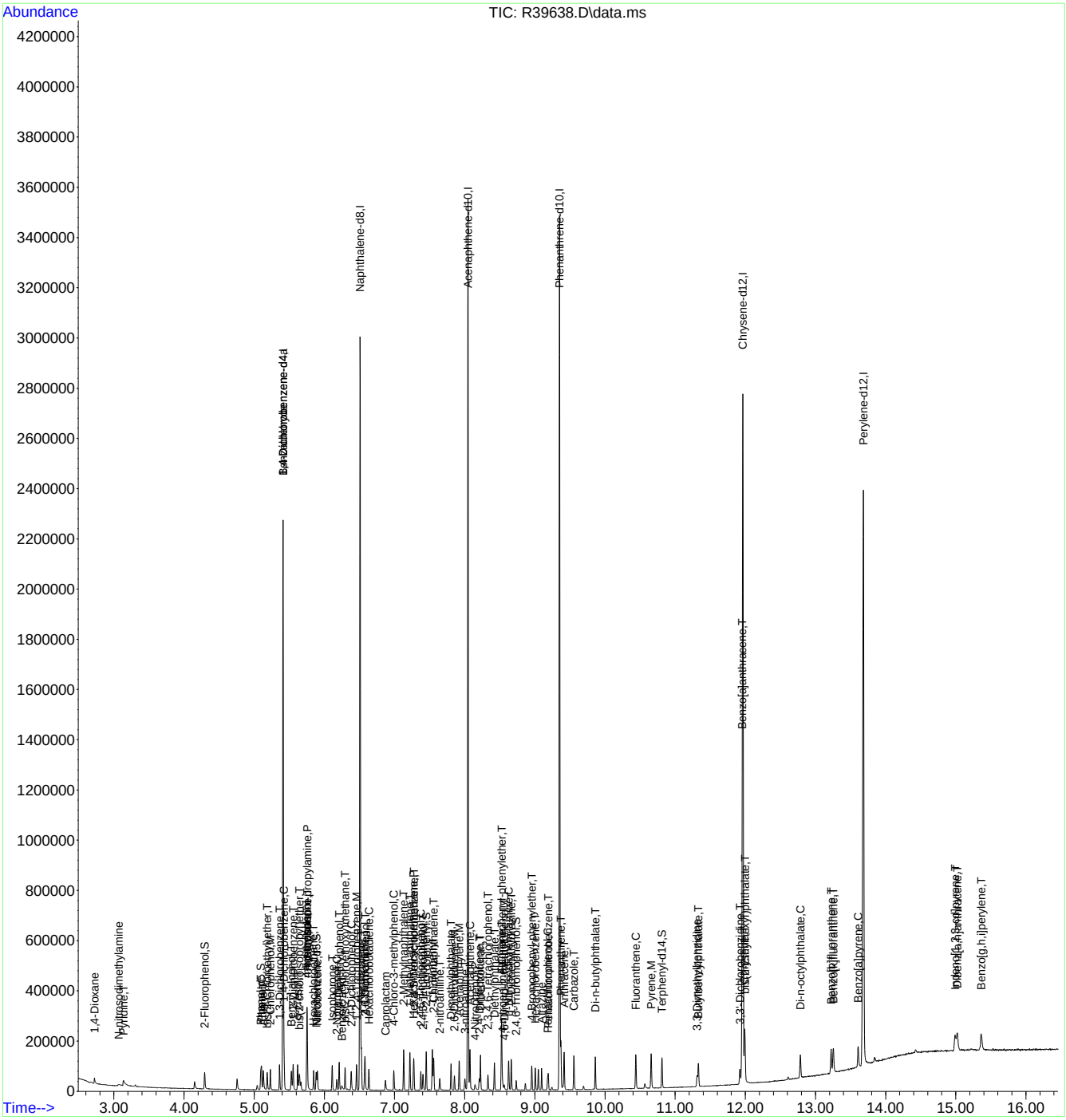
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Caprolactam	6.872	55	7579	1.37 ug/mL#	71
42) Pentachloronitrobenzene	9.191	237	2505	1.28 ug/mL	89
43) Hexachlorocyclopentadiene	7.270	237	5382	1.40 ug/mL	97
44) 2,4,6-Trichlorophenol	7.376	196	7118	1.48 ug/mL	94
45) 2,4,5-Trichlorophenol	7.407	196	7820	1.47 ug/mL	98
47) 2-Chloronaphthalene	7.556	162	28150	1.75 ug/mL	97
48) Acenaphthylene	7.920	152	40493	1.65 ug/mL	99
49) Dimethylphthalate	7.805	163	29774	1.72 ug/mL	98
50) 2,4-Dinitrotoluene	8.209	165	4681	1.08 ug/mL	78
51) Acenaphthene	8.075	153	31165	1.80 ug/mL	98
53) Dibenzofuran	8.224	168	43617	1.80 ug/mL	97
54) 2,6-Dinitrotoluene	7.855	165	4372	1.29 ug/mL	82
55) 4-Nitrophenol	8.150	65	4534	1.13 ug/mL#	71
56) 2,3,4,6-Tetrachlorophenol	8.330	232	5545	1.41 ug/mL	99
57) Fluorene	8.526	166	33333	1.67 ug/mL	100
58) 4-Chlorophenyl-phenyle...	8.526	204	15317	1.69 ug/mL	95
59) Diethylphthalate	8.423	149	30334	1.70 ug/mL	98
60) 2-nitroaniline	7.646	138	6276	1.19 ug/mL	90
61) 3-nitroaniline	8.004	138	5323	1.18 ug/mL	81
62) 4-nitroaniline	8.538	138	5950	1.22 ug/mL	93
63) 1,1'-Biphenyl	7.538	154	39949	1.80 ug/mL	93
65) 4,6-Dinitro-2-methylph...	8.563	198	1778	0.94 ug/mL	100
66) n-Nitrosodiphenylamine	8.629	169	22744	1.74 ug/mL	93
67) 1,2-Diphenylhydrazine	8.663	77	39158	1.67 ug/mL	96
69) 4-Bromophenyl-phenylether	8.955	248	7302	1.70 ug/mL	84
70) Hexachlorobenzene	9.008	284	7506	1.73 ug/mL	83
71) Pentachlorophenol	9.182	266	3889	1.23 ug/mL	96
72) Phenanthrene	9.371	178	49289	1.82 ug/mL	98
73) Anthracene	9.418	178	46208	1.69 ug/mL	98
74) Carbazole	9.555	167	45768	1.71 ug/mL	98
75) Di-n-butylphthalate	9.862	149	47413	1.48 ug/mL	98
76) Fluoranthene	10.437	202	45418	1.68 ug/mL	81
77) Atrazine	9.098	200	6245	1.56 ug/mL	89
80) 3,3-Dimethylbenzidine	11.311	212	14745	2.02 ug/mL	100
81) Pyrene	10.658	202	48479	1.67 ug/mL	81
83) Butylbenzylphthalate	11.329	149	17991	1.37 ug/mL	82
84) 3,3'-Dichlorobenzidine	11.923	252	11841	1.52 ug/mL	96
85) Benzo[a]anthracene	11.954	228	45334	1.82 ug/mL	97
86) Chrysene	11.992	228	43790	1.71 ug/mL	98
87) bis(2-Ethylhexyl)phtha...	11.998	149	23501	1.22 ug/mL	96
89) Di-n-octylphthalate	12.784	149	41443	1.35 ug/mL	99
90) Benzo[b]fluoranthene	13.222	252	35842	1.59 ug/mL	95
91) Benzo[k]fluoranthene	13.257	252	41220	1.72 ug/mL	96
92) Benzo[a]pyrene	13.608	252	33852	1.57 ug/mL	92
93) Indeno[1,2,3-cd]pyrene	14.991	276	40676	1.60 ug/mL	94
94) Dibenz[a,h]anthracene	15.022	278	34067	1.64 ug/mL	91
95) Benzo[g,h,i]perylene	15.364	276	34542	1.63 ug/mL	87
97) Benzaldehyde	5.412	77	12674	5.49 ug/mL	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39638.D
Acq On : 11 Sep 2014 11:30 am
Operator : williamk
Sample : ic1461-2
Misc : op39525,msr1461,,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 11 13:04:20 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:10 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39639.D
Acq On : 11 Sep 2014 11:55 am
Operator : williamk
Sample : ic1461-5
Misc : op39525,msr1461,,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 13:04:40 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:33 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.412	152	244776	40.00	ug/mL	0.00
22) Naphthalene-d8	6.509	136	956930	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.047	164	554274	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.353	188	890075	40.00	ug/mL	0.00
78) Chrysene-d12	11.960	240	813629	40.00	ug/mL	0.00
88) Perylene-d12	13.679	264	742206	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.412	152	244776	40.00	ug/mL #	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.293	112	36738	4.70	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	4.70%#		
8) Phenol-d5	5.092	99	50366	4.84	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	4.84%#		
23) Nitrobenzene-d5	5.884	82	42496	4.73	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	9.46%#		
46) 2-Fluorobiphenyl	7.451	172	81391	4.73	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	9.46%#		
68) 2,4,6-Tribromophenol	8.737	330	6826	4.54	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	4.54%#		
82) Terphenyl-d14	10.810	244	74678	4.74	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	9.48%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.720	88	18032	4.90	ug/mL#	100
3) N-nitrosodimethylamine	3.053	74	21388	5.24	ug/mL	91
4) Pyridine	3.121	79	44689	4.84	ug/mL	78
5) Aniline	5.129	93	63865	4.94	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.185	63	37106	4.86	ug/mL#	72
9) Phenol	5.104	94	55883	4.81	ug/mL	95
10) 2-Chlorophenol	5.231	128	40379	4.82	ug/mL	87
11) 1,3-Dichlorobenzene	5.362	146	44624	4.93	ug/mL	97
12) 1,4-Dichlorobenzene	5.424	146	45574	4.86	ug/mL	94
13) 1,2-Dichlorobenzene	5.555	146	42778	4.86	ug/mL	96
14) Benzyl alcohol	5.530	108	26817	4.73	ug/mL	97
15) bis(2-chloroisopropyl)...	5.645	45	64656	4.93	ug/mL	75
16) o-cresol	5.620	108	40308	4.75	ug/mL	79
17) Acetophenone	5.757	105	60782	4.79	ug/mL	82
18) Hexachloroethane	5.847	117	17475	4.73	ug/mL	85
19) N-Nitroso-di-n-propyla...	5.757	70	31955	4.88	ug/mL	76
20) m+p-cresols	5.750	108	85359	9.50	ug/mL	97
21) 4-methylphenol	5.750	108	85359	9.50	ug/mL	97
24) Nitrobenzene	5.900	77	46451	4.95	ug/mL	82
25) Isophorone	6.114	82	80816	4.79	ug/mL	97
26) 2-Nitrophenol	6.176	139	14747	4.50	ug/mL	86
27) 2,4-Dimethylphenol	6.210	107	42350	4.85	ug/mL	97
28) bis(2-Chloroethoxy)met...	6.294	93	53108	4.87	ug/mL	96
29) Benzoic acid	6.260	105	17567	4.02	ug/mL	93
30) 2,4-Dichlorophenol	6.385	162	29029	4.68	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.459	180	32882	4.78	ug/mL	96
32) Naphthalene	6.527	128	123580	4.84	ug/mL	98
33) 2,6-Dichlorophenol	6.580	162	31405	4.82	ug/mL	98
34) 4-Chloroaniline	6.574	127	46567	4.67	ug/mL	100
35) Hexachlorobutadiene	6.636	225	16338	4.70	ug/mL	97
36) 4-Chloro-3-methylphenol	6.991	107	33350	4.75	ug/mL	94
37) 2-Methylnaphthalene	7.130	142	81479	4.79	ug/mL	99
38) 1-Methylnaphthalene	7.217	142	76923	4.81	ug/mL	100
39) 1,2,4,5-Tetrachloroben...	7.277	216	31309	4.68	ug/mL	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39639.D
Acq On : 11 Sep 2014 11:55 am
Operator : williamk
Sample : ic1461-5
Misc : op39525,msr1461,,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 13:04:40 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:33 2014
Response via : Initial Calibration

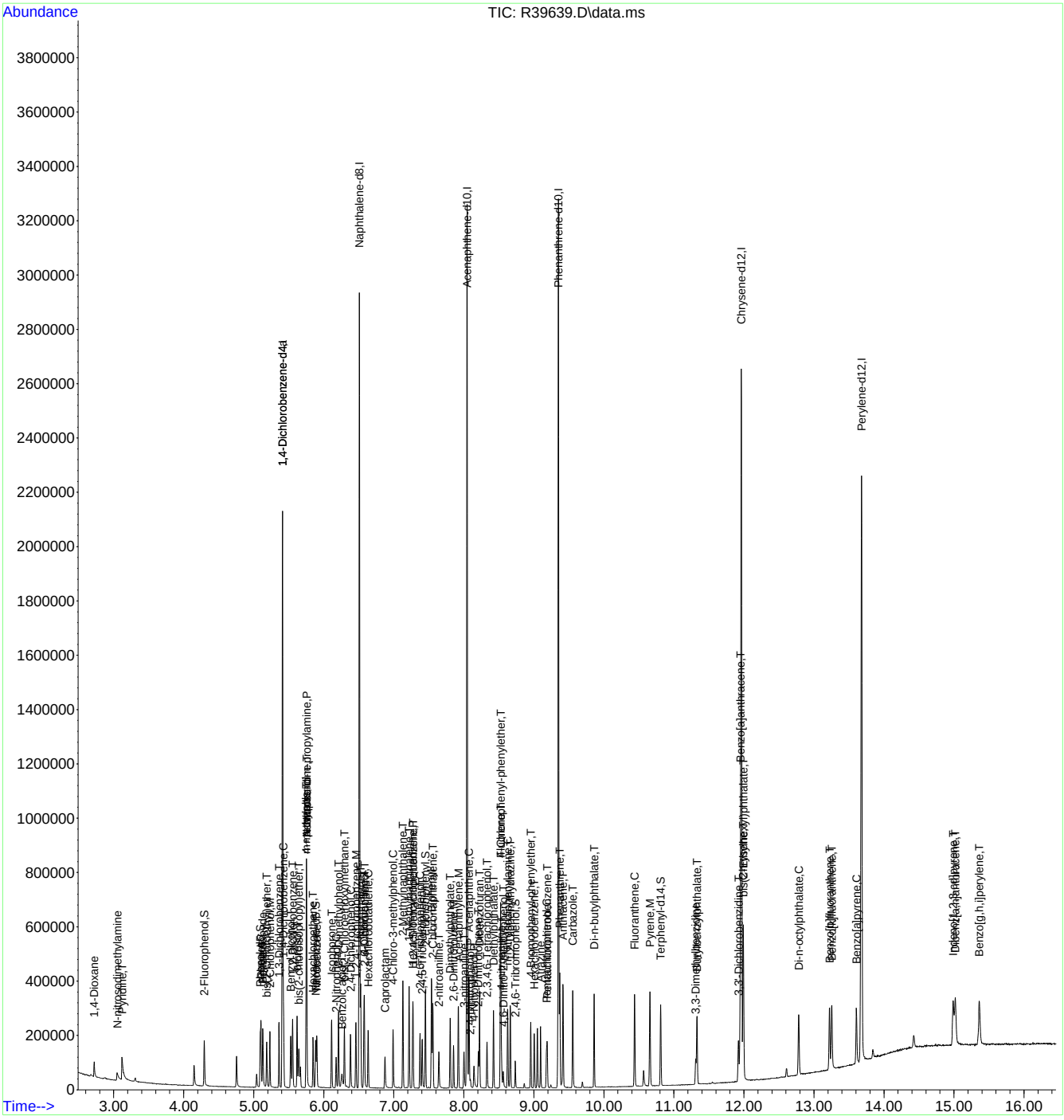
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Caprolactam	6.876	55	20813	4.72 ug/mL#	75
42) Pentachloronitrobenzene	9.191	237	6751	4.45 ug/mL	95
43) Hexachlorocyclopentadiene	7.270	237	14062	4.56 ug/mL	96
44) 2,4,6-Trichlorophenol	7.376	196	18619	4.71 ug/mL	97
45) 2,4,5-Trichlorophenol	7.407	196	21967	5.03 ug/mL	97
47) 2-Chloronaphthalene	7.556	162	68761	4.83 ug/mL	96
48) Acenaphthylene	7.923	152	102263	4.84 ug/mL	98
49) Dimethylphthalate	7.805	163	73096	4.81 ug/mL	99
50) 2,4-Dinitrotoluene	8.206	165	14080	4.47 ug/mL	86
51) Acenaphthene	8.072	153	74400	4.78 ug/mL	93
52) 2,4-Dinitrophenol	8.091	184	3121	2.77 ug/mL	92
53) Dibenzofuran	8.225	168	104112	4.79 ug/mL	96
54) 2,6-Dinitrotoluene	7.855	165	11663	4.43 ug/mL	87
55) 4-Nitrophenol	8.144	65	13557	4.57 ug/mL#	79
56) 2,3,4,6-Tetrachlorophenol	8.330	232	14481	4.58 ug/mL	93
57) Fluorene	8.526	166	82625	4.77 ug/mL	98
58) 4-Chlorophenyl-phenyle...	8.526	204	36105	4.57 ug/mL	96
59) Diethylphthalate	8.423	149	74869	4.80 ug/mL	98
60) 2-nitroaniline	7.643	138	17244	4.34 ug/mL	89
61) 3-nitroaniline	8.004	138	15004	4.43 ug/mL	82
62) 4-nitroaniline	8.535	138	16396	4.42 ug/mL	97
63) 1,1'-Biphenyl	7.538	154	95695	4.80 ug/mL#	93
65) 4,6-Dinitro-2-methylph...	8.563	198	5422	4.17 ug/mL	100
66) n-Nitrosodiphenylamine	8.629	169	55095	4.81 ug/mL	98
67) 1,2-Diphenylhydrazine	8.663	77	100009	4.97 ug/mL	95
69) 4-Bromophenyl-phenylether	8.955	248	17721	4.76 ug/mL	86
70) Hexachlorobenzene	9.008	284	18245	4.81 ug/mL	84
71) Pentachlorophenol	9.182	266	10116	4.23 ug/mL	96
72) Phenanthrene	9.371	178	117394	4.85 ug/mL	99
73) Anthracene	9.415	178	114082	4.82 ug/mL	99
74) Carbazole	9.555	167	111426	4.79 ug/mL	98
75) Di-n-butylphthalate	9.862	149	122855	4.70 ug/mL	99
76) Fluoranthene	10.437	202	109444	4.70 ug/mL	79
77) Atrazine	9.098	200	15651	4.68 ug/mL	100
80) 3,3-Dimethylbenzidine	11.311	212	28963	4.26 ug/mL	100
81) Pyrene	10.658	202	120034	4.83 ug/mL	83
83) Butylbenzylphthalate	11.329	149	48011	4.67 ug/mL	84
84) 3,3'-Dichlorobenzidine	11.923	252	30253	4.73 ug/mL	95
85) Benzo[a]anthracene	11.951	228	105790	4.78 ug/mL	97
86) Chrysene	11.992	228	106347	4.81 ug/mL	100
87) bis(2-Ethylhexyl)phtha...	11.995	149	64220	4.44 ug/mL	99
89) Di-n-octylphthalate	12.784	149	105693	4.47 ug/mL	98
90) Benzo[b]fluoranthene	13.222	252	88240	4.75 ug/mL	94
91) Benzo[k]fluoranthene	13.257	252	94441	4.61 ug/mL	96
92) Benzo[a]pyrene	13.608	252	82950	4.70 ug/mL	94
93) Indeno[1,2,3-cd]pyrene	14.988	276	99658	4.74 ug/mL	89
94) Dibenz[a,h]anthracene	15.019	278	80851	4.67 ug/mL	89
95) Benzo[g,h,i]perylene	15.361	276	82825	4.70 ug/mL	84
97) Benzaldehyde	5.129	77	1027	0.47 ug/mL	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39639.D
Acq On : 11 Sep 2014 11:55 am
Operator : williamk
Sample : ic1461-5
Misc : op39525,msr1461,,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 11 13:04:40 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:33 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Doug Yargeau
09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39640.D
Acq On : 11 Sep 2014 12:19 pm
Operator : williamk
Sample : ic1461-10
Misc : op39525,msr1461,,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 14:55:07 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:48 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.412	152	280146	40.00	ug/mL	0.00
22) Naphthalene-d8	6.512	136	1084816	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.047	164	632126	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.353	188	1020856	40.00	ug/mL	0.00
78) Chrysene-d12	11.964	240	954618	40.00	ug/mL	0.00
88) Perylene-d12	13.682	264	876707	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.412	152	280146	40.00	ug/mL #	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.296	112	89493	10.21	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	10.21%#		
8) Phenol-d5	5.095	99	120218	10.20	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	10.20%#		
23) Nitrobenzene-d5	5.884	82	102529	10.25	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	20.50%#		
46) 2-Fluorobiphenyl	7.451	172	192650	10.00	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	20.00%#		
68) 2,4,6-Tribromophenol	8.737	330	17863m	10.68	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	10.68%#		
82) Terphenyl-d14	10.810	244	183101	10.08	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	20.16%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.723	88	42642	10.19	ug/mL#	100
3) N-nitrosodimethylamine	3.043	74	59139	12.46	ug/mL	84
4) Pyridine	3.112	79	113162	10.82	ug/mL	79
5) Aniline	5.132	93	157278	10.67	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.185	63	87423	10.10	ug/mL#	74
9) Phenol	5.104	94	134098	10.22	ug/mL	97
10) 2-Chlorophenol	5.231	128	95992	10.14	ug/mL	86
11) 1,3-Dichlorobenzene	5.362	146	103137	10.00	ug/mL	97
12) 1,4-Dichlorobenzene	5.427	146	107492	10.11	ug/mL	98
13) 1,2-Dichlorobenzene	5.555	146	98627	9.88	ug/mL	99
14) Benzyl alcohol	5.530	108	67329	10.56	ug/mL	97
15) bis(2-chloroisopropyl)...	5.645	45	152270	10.20	ug/mL	75
16) o-cresol	5.620	108	96053	10.06	ug/mL	80
17) Acetophenone	5.757	105	145724	10.17	ug/mL	81
18) Hexachloroethane	5.847	117	41357	9.96	ug/mL	80
19) N-Nitroso-di-n-propyla...	5.757	70	76180	10.25	ug/mL	75
20) m+p-cresols	5.754	108	205674	20.33	ug/mL	100
21) 4-methylphenol	5.754	108	205674	20.33	ug/mL	100
24) Nitrobenzene	5.903	77	110067	10.38	ug/mL	89
25) Isophorone	6.114	82	197652	10.48	ug/mL	95
26) 2-Nitrophenol	6.176	139	38826	10.82	ug/mL	87
27) 2,4-Dimethylphenol	6.210	107	100095	10.21	ug/mL	97
28) bis(2-Chloroethoxy)met...	6.294	93	125115	10.21	ug/mL	99
29) Benzoic acid	6.276	105	54198	11.70	ug/mL	95
30) 2,4-Dichlorophenol	6.385	162	72614	10.56	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.459	180	77569	10.10	ug/mL	96
32) Naphthalene	6.528	128	288740	10.08	ug/mL	98
33) 2,6-Dichlorophenol	6.580	162	76203	10.44	ug/mL	98
34) 4-Chloroaniline	6.574	127	120817	10.93	ug/mL	100
35) Hexachlorobutadiene	6.636	225	38923	10.07	ug/mL	96
36) 4-Chloro-3-methylphenol	6.991	107	83820	10.72	ug/mL	91
37) 2-Methylnaphthalene	7.130	142	194228	10.21	ug/mL	97
38) 1-Methylnaphthalene	7.218	142	180893	10.11	ug/mL	99
39) 1,2,4,5-Tetrachloroben...	7.277	216	75140	10.12	ug/mL	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39640.D
Acq On : 11 Sep 2014 12:19 pm
Operator : williamk
Sample : ic1461-10
Misc : op39525,msr1461,,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 14:55:07 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:48 2014
Response via : Initial Calibration

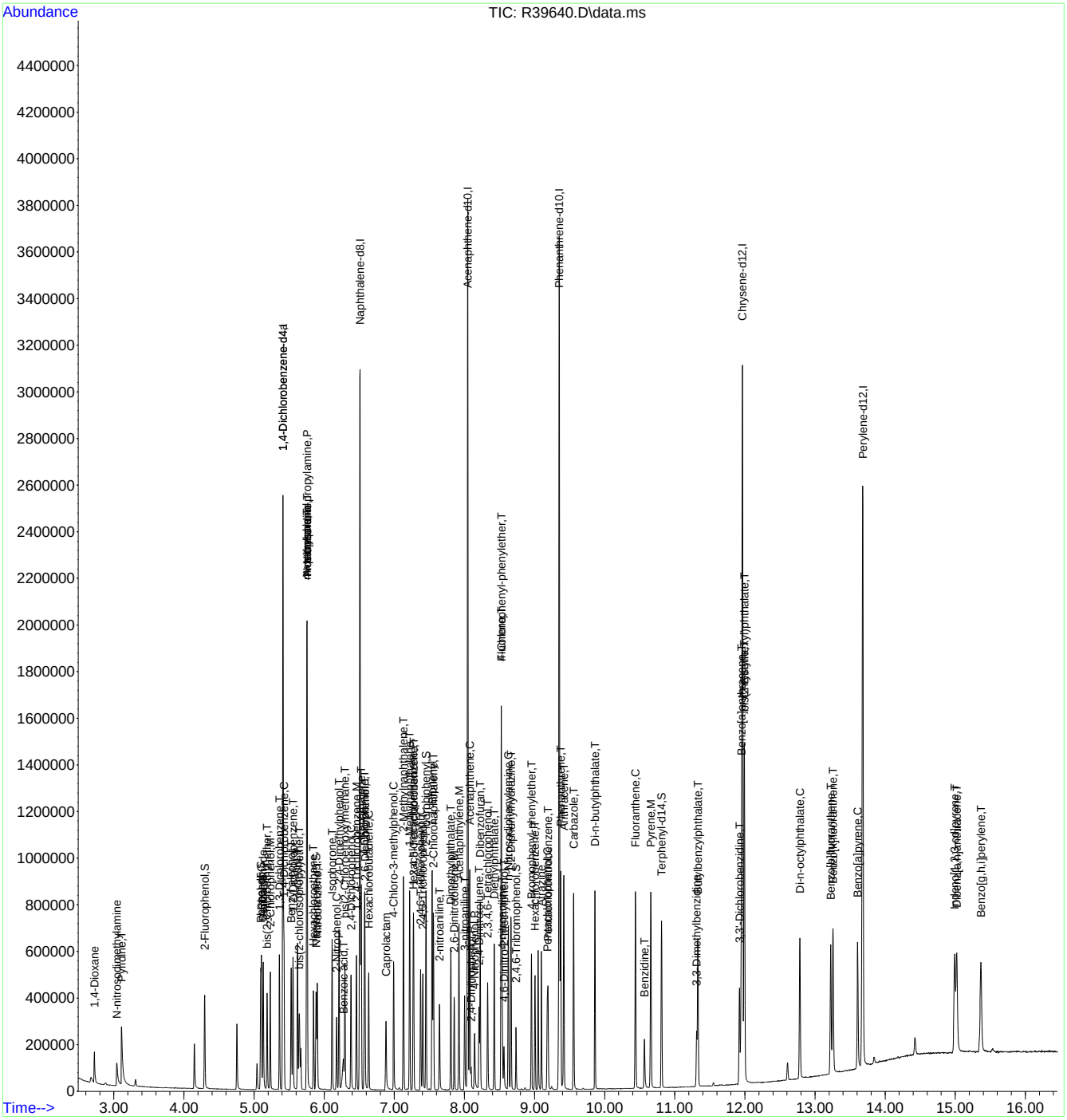
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Caprolactam	6.882	55	53519	10.91 ug/mL#	73
42) Pentachloronitrobenzene	9.191	237	18145	10.89 ug/mL	96
43) Hexachlorocyclopentadiene	7.270	237	35972	10.53 ug/mL	97
44) 2,4,6-Trichlorophenol	7.376	196	48043	10.87 ug/mL	94
45) 2,4,5-Trichlorophenol	7.407	196	53329	10.69 ug/mL	98
47) 2-Chloronaphthalene	7.556	162	162412	10.11 ug/mL	96
48) Acenaphthylene	7.923	152	246680	10.35 ug/mL	98
49) Dimethylphthalate	7.805	163	176316	10.31 ug/mL	100
50) 2,4-Dinitrotoluene	8.209	165	40662	11.73 ug/mL	99
51) Acenaphthene	8.075	153	176597	10.10 ug/mL	95
52) 2,4-Dinitrophenol	8.094	184	9660	9.67 ug/mL	91
53) Dibenzofuran	8.225	168	246809	10.10 ug/mL	96
54) 2,6-Dinitrotoluene	7.855	165	32118	11.12 ug/mL	95
55) 4-Nitrophenol	8.144	65	36832	11.21 ug/mL#	80
56) 2,3,4,6-Tetrachlorophenol	8.330	232	38390	10.95 ug/mL	97
57) Fluorene	8.526	166	200723	10.32 ug/mL	96
58) 4-Chlorophenyl-phenyle...	8.526	204	88401	10.11 ug/mL	97
59) Diethylphthalate	8.427	149	182706	10.41 ug/mL	99
60) 2-nitroaniline	7.646	138	48630	11.23 ug/mL	95
61) 3-nitroaniline	8.004	138	43423	11.68 ug/mL	86
62) 4-nitroaniline	8.538	138	46295	11.38 ug/mL	97
63) 1,1'-Biphenyl	7.541	154	228345	10.18 ug/mL	93
65) 4,6-Dinitro-2-methylph...	8.563	198	16198	11.50 ug/mL	100
66) n-Nitrosodiphenylamine	8.629	169	132610	10.23 ug/mL	98
67) 1,2-Diphenylhydrazine	8.663	77	240837	10.45 ug/mL	97
69) 4-Bromophenyl-phenylether	8.955	248	43102	10.25 ug/mL	87
70) Hexachlorobenzene	9.008	284	43159	10.05 ug/mL	81
71) Pentachlorophenol	9.182	266	28369	10.90 ug/mL	96
72) Phenanthrene	9.375	178	274888	10.00 ug/mL	99
73) Anthracene	9.418	178	274717	10.25 ug/mL	99
74) Carbazole	9.558	167	267933	10.19 ug/mL	97
75) Di-n-butylphthalate	9.863	149	314198	10.69 ug/mL	99
76) Fluoranthene	10.438	202	269461	10.29 ug/mL	81
77) Atrazine	9.098	200	39718	10.58 ug/mL	94
79) Benzidine	10.568	184	75114	11.11 ug/mL	98
80) 3,3-Dimethylbenzidine	11.311	212	67906m	9.19 ug/mL	
81) Pyrene	10.658	202	292293	10.14 ug/mL	83
83) Butylbenzylphthalate	11.330	149	127586	10.81 ug/mL	83
84) 3,3'-Dichlorobenzidine	11.923	252	76969	10.45 ug/mL	95
85) Benzo[a]anthracene	11.951	228	259800	10.15 ug/mL	99
86) Chrysene	11.992	228	256919	10.03 ug/mL	99
87) bis(2-Ethylhexyl)phtha...	11.995	149	181280	11.09 ug/mL	97
89) Di-n-octylphthalate	12.784	149	272134	10.10 ug/mL	100
90) Benzo[b]fluoranthene	13.222	252	218942	10.14 ug/mL	95
91) Benzo[k]fluoranthene	13.257	252	233603	9.91 ug/mL	95
92) Benzo[a]pyrene	13.608	252	207645	10.17 ug/mL	94
93) Indeno[1,2,3-cd]pyrene	14.994	276	247557	10.15 ug/mL	95
94) Dibenz[a,h]anthracene	15.022	278	199235	9.96 ug/mL	89
95) Benzo[g,h,i]perylene	15.367	276	209498	10.26 ug/mL	89
97) Benzaldehyde	5.129	77	2296	1.67 ug/mL	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39640.D
Acq On : 11 Sep 2014 12:19 pm
Operator : williamk
Sample : ic1461-10
Misc : op39525,msr1461,,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 11 14:55:07 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:04:48 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Doug Yargeau 09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39641.D
Acq On : 11 Sep 2014 12:43 pm
Operator : williamk
Sample : ic1461-20
Misc : op39525,msr1461,,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 14:23:01 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 12:53:08 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.412	152	276174	40.00	ug/mL	0.00
22) Naphthalene-d8	6.512	136	1092348	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.047	164	633083	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.356	188	1020366	40.00	ug/mL	0.00
78) Chrysene-d12	11.963	240	950309	40.00	ug/mL	0.00
88) Perylene-d12	13.679	264	860224	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.412	152	276174	40.00	ug/mL	# 0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.296	112	190965	22.98	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 22.98%#			
8) Phenol-d5	5.095	99	255023	23.06	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 23.06%#			
23) Nitrobenzene-d5	5.887	82	222359	21.27	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 42.54%			
46) 2-Fluorobiphenyl	7.454	172	414370	21.18	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 42.36%			
68) 2,4,6-Tribromophenol	8.737	330	41159m	16.67	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 16.67%#			
82) Terphenyl-d14	10.810	244	402638	23.57	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 47.14%			
Target Compounds						Qvalue
3) N-nitrosodimethylamine	3.034	74	128542	31.11	ug/mL	85
4) Pyridine	3.102	79	246775	31.30	ug/mL	77
5) Aniline	5.132	93	333494	25.19	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.185	63	179563	23.54	ug/mL#	72
9) Phenol	5.107	94	283788	23.52	ug/mL	96
10) 2-Chlorophenol	5.231	128	202436	22.52	ug/mL	87
11) 1,3-Dichlorobenzene	5.362	146	209839	21.36	ug/mL	99
12) 1,4-Dichlorobenzene	5.427	146	219172	21.54	ug/mL	96
13) 1,2-Dichlorobenzene	5.555	146	204964	21.28	ug/mL	97
14) Benzyl alcohol	5.530	108	142062	22.69	ug/mL	99
15) bis(2-chloroisopropyl)...	5.645	45	307133	25.02	ug/mL	75
16) o-cresol	5.623	108	200937	22.94	ug/mL	81
17) Acetophenone	5.760	105	311933	22.13	ug/mL	84
18) Hexachloroethane	5.847	117	85093	22.22	ug/mL	81
19) N-Nitroso-di-n-propyla...	5.760	70	159690	23.59	ug/mL	79
20) m+p-cresols	5.757	108	442114	47.37	ug/mL	97
21) 4-methylphenol	5.757	108	442114	47.37	ug/mL	97
24) Nitrobenzene	5.903	77	234567	22.07	ug/mL	88
25) Isophorone	6.117	82	420622	21.90	ug/mL	96
26) 2-Nitrophenol	6.176	139	89719	18.99	ug/mL	87
27) 2,4-Dimethylphenol	6.213	107	209722	20.82	ug/mL	99
28) bis(2-Chloroethoxy)met...	6.297	93	262388	23.81	ug/mL	98
29) Benzoic acid	6.291	105	135687	14.99	ug/mL	94
30) 2,4-Dichlorophenol	6.384	162	157655	19.79	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.459	180	164204	18.90	ug/mL	95
32) Naphthalene	6.530	128	598480	21.77	ug/mL	98
33) 2,6-Dichlorophenol	6.580	162	164330m	19.53	ug/mL	
34) 4-Chloroaniline	6.574	127	257262	22.07	ug/mL	100
35) Hexachlorobutadiene	6.636	225	82798	17.85	ug/mL	97
36) 4-Chloro-3-methylphenol	6.994	107	176115	19.72	ug/mL	94
37) 2-Methylnaphthalene	7.133	142	410826	20.80	ug/mL	99
38) 1-Methylnaphthalene	7.217	142	386663	20.39	ug/mL	97
39) 1,2,4,5-Tetrachloroben...	7.276	216	163968	17.76	ug/mL	98
40) Caprolactam	6.894	55	119264	18.35	ug/mL#	72

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39641.D
Acq On : 11 Sep 2014 12:43 pm
Operator : williamk
Sample : ic1461-20
Misc : op39525,msr1461,,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 14:23:01 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 12:53:08 2014
Response via : Initial Calibration

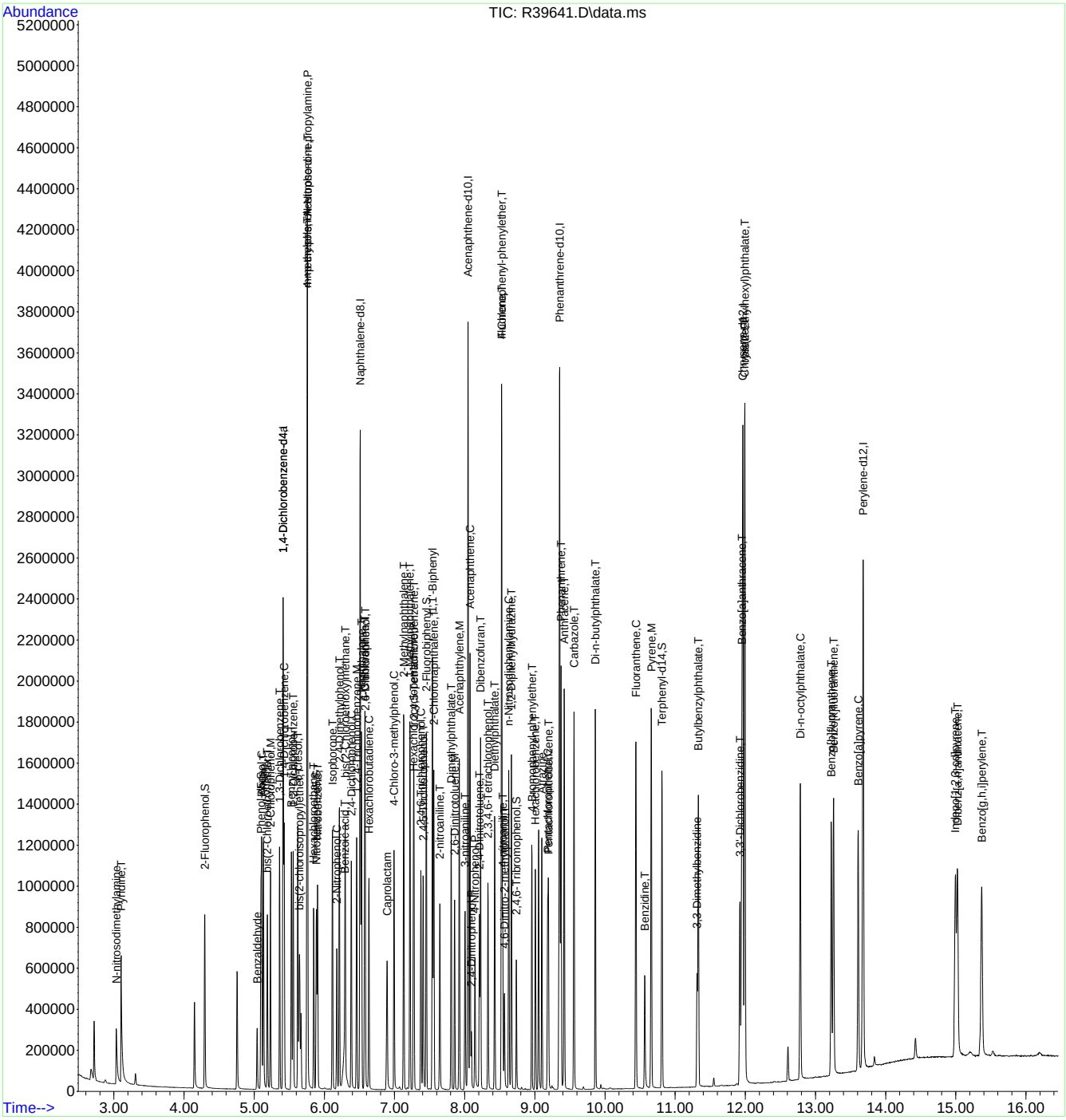
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Pentachloronitrobenzene	9.194	237	42242	14.99	ug/mL	96
43) Hexachlorocyclopentadiene	7.270	237	82945	24.35	ug/mL	99
44) 2,4,6-Trichlorophenol	7.376	196	103741	18.85	ug/mL	98
45) 2,4,5-Trichlorophenol	7.410	196	115128	19.22	ug/mL	98
47) 2-Chloronaphthalene	7.559	162	346989	21.06	ug/mL	96
48) Acenaphthylene	7.923	152	528384	21.56	ug/mL	99
49) Dimethylphthalate	7.808	163	372745	18.90	ug/mL	100
50) 2,4-Dinitrotoluene	8.209	165	93471	15.29	ug/mL	93
51) Acenaphthene	8.075	153	374048	21.48	ug/mL	95
52) 2,4-Dinitrophenol	8.094	184	25759	9.34	ug/mL#	51
53) Dibenzofuran	8.227	168	522196	20.51	ug/mL	95
54) 2,6-Dinitrotoluene	7.858	165	73126	17.27	ug/mL	98
55) 4-Nitrophenol	8.147	65	86603	15.65	ug/mL#	83
56) 2,3,4,6-Tetrachlorophenol	8.330	232	84682	16.24	ug/mL	99
57) Fluorene	8.526	166	431654	21.27	ug/mL	95
58) 4-Chlorophenyl-phenyle...	8.526	204	195337	19.62	ug/mL	97
59) Diethylphthalate	8.426	149	385638	19.19	ug/mL	98
60) 2-nitroaniline	7.646	138	113602	20.47	ug/mL	95
61) 3-nitroaniline	8.007	138	97337	18.97	ug/mL	96
62) 4-nitroaniline	8.541	138	105250	17.03	ug/mL	99
63) 1,1'-Biphenyl	7.541	154	479628	22.11	ug/mL	94
65) 4,6-Dinitro-2-methylph...	8.566	198	40486	12.97	ug/mL	100
66) n-Nitrosodiphenylamine	8.628	169	280863	22.00	ug/mL	98
67) 1,2-Diphenylhydrazine	8.666	77	502542	27.92	ug/mL	97
69) 4-Bromophenyl-phenylether	8.958	248	92387	20.26	ug/mL	92
70) Hexachlorobenzene	9.008	284	93395	18.03	ug/mL	81
71) Pentachlorophenol	9.182	266	67963	14.96	ug/mL	99
72) Phenanthrene	9.374	178	580402	20.90	ug/mL	98
73) Anthracene	9.418	178	588682	20.97	ug/mL	99
74) Carbazole	9.558	167	574895	20.15	ug/mL	97
75) Di-n-butylphthalate	9.862	149	690432	21.43	ug/mL	99
76) Fluoranthene	10.440	202	581107	17.52	ug/mL	84
77) Atrazine	9.101	200	86236	18.17	ug/mL	97
79) Benzidine	10.565	184	182719	18.31	ug/mL	99
80) 3,3-Dimethylbenzidine	11.311	212	158913	14.45	ug/mL	100
81) Pyrene	10.661	202	632715	24.84	ug/mL	85
83) Butylbenzylphthalate	11.329	149	284941	24.56	ug/mL	85
84) 3,3'-Dichlorobenzidine	11.923	252	169952	17.49	ug/mL	96
85) Benzo[a]anthracene	11.951	228	540839	21.20	ug/mL	97
86) Chrysene	11.991	228	556899	21.10	ug/mL	97
87) bis(2-Ethylhexyl)phtha...	11.995	149	420650	25.94	ug/mL	98
89) Di-n-octylphthalate	12.784	149	654873	27.62	ug/mL	100
90) Benzo[b]fluoranthene	13.225	252	480729	21.55	ug/mL	94
91) Benzo[k]fluoranthene	13.259	252	510889	21.23	ug/mL	96
92) Benzo[a]pyrene	13.611	252	457364	19.92	ug/mL	94
93) Indeno[1,2,3-cd]pyrene	14.994	276	541552	15.73	ug/mL	92
94) Dibenz[a,h]anthracene	15.025	278	440477	16.20	ug/mL	90
95) Benzo[g,h,i]perylene	15.370	276	450434	14.14	ug/mL	84
97) Benzaldehyde	5.042	77	49588m	260.57	ug/mL	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39641.D
Acq On : 11 Sep 2014 12:43 pm
Operator : williamk
Sample : ic1461-20
Misc : op39525,msr1461,,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 11 14:23:01 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 12:53:08 2014
Response via : Initial Calibration



9.6.14
9

Manual Integrations APPROVED (compounds with "m" flag)
Doug Yargeau 09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39642.D
Acq On : 11 Sep 2014 1:08 pm
Operator : williamk
Sample : icc1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 15:00:41 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:05:12 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.411	152	250700	40.00	ug/mL	0.00
22) Naphthalene-d8	6.512	136	970009	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.047	164	560852	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.356	188	923255	40.00	ug/mL	0.00
78) Chrysene-d12	11.970	240	887106	40.00	ug/mL	0.00
88) Perylene-d12	13.682	264	783651	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.411	152	250700	40.00	ug/mL	# 0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.296	112	458246	58.10	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 58.10%			
8) Phenol-d5	5.101	99	596544	56.27	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 56.27%			
23) Nitrobenzene-d5	5.890	82	529265	58.81	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 117.62%			
46) 2-Fluorobiphenyl	7.453	172	984795	57.60	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 115.20%			
68) 2,4,6-Tribromophenol	8.740	330	106332m	68.86	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 68.86%			
82) Terphenyl-d14	10.813	244	1031394	60.98	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 121.96%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.717	88	204640	54.37	ug/mL#	100
3) N-nitrosodimethylamine	3.034	74	326426	72.41	ug/mL	87
4) Pyridine	3.096	79	600351	62.85	ug/mL	76
5) Aniline	5.135	93	791023	58.97	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.191	63	425074	54.73	ug/mL#	74
9) Phenol	5.113	94	677679	57.38	ug/mL	96
10) 2-Chlorophenol	5.234	128	480528	56.51	ug/mL	88
11) 1,3-Dichlorobenzene	5.365	146	507864	55.03	ug/mL	98
12) 1,4-Dichlorobenzene	5.427	146	526695	55.21	ug/mL	97
13) 1,2-Dichlorobenzene	5.558	146	488001	54.79	ug/mL	99
14) Benzyl alcohol	5.536	108	347629	60.09	ug/mL	97
15) bis(2-chloroisopropyl)...	5.648	45	700979	52.20	ug/mL	76
16) o-cresol	5.626	108	484222	56.58	ug/mL	80
17) Acetophenone	5.763	105	708043	54.99	ug/mL	81
18) Hexachloroethane	5.850	117	209112	56.34	ug/mL	88
19) N-Nitroso-di-n-propyla...	5.766	70	367785	54.96	ug/mL	84
20) m+p-cresols	5.763	108	989229	108.83	ug/mL	98
21) 4-methylphenol	5.763	108	989229	108.83	ug/mL	98
24) Nitrobenzene	5.906	77	556465	58.16	ug/mL	89
25) Isophorone	6.120	82	999515	58.55	ug/mL	96
26) 2-Nitrophenol	6.179	139	231710	70.76	ug/mL	89
27) 2,4-Dimethylphenol	6.216	107	503691	57.18	ug/mL	98
28) bis(2-Chloroethoxy)met...	6.300	93	622517	56.51	ug/mL	99
29) Benzoic acid	6.316	105	379729	87.93	ug/mL	94
30) 2,4-Dichlorophenol	6.387	162	391045	62.70	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.462	180	404544	58.77	ug/mL	96
32) Naphthalene	6.530	128	1399693	54.52	ug/mL	97
33) 2,6-Dichlorophenol	6.583	162	400579	60.70	ug/mL	97
34) 4-Chloroaniline	6.577	127	619784	61.29	ug/mL	100
35) Hexachlorobutadiene	6.636	225	210115	60.71	ug/mL	96
36) 4-Chloro-3-methylphenol	7.000	107	431841	60.65	ug/mL	97
37) 2-Methylnaphthalene	7.133	142	970769	56.77	ug/mL	99
38) 1-Methylnaphthalene	7.220	142	899977	56.08	ug/mL	99
39) 1,2,4,5-Tetrachloroben...	7.279	216	406834	61.08	ug/mL	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39642.D
Acq On : 11 Sep 2014 1:08 pm
Operator : williamk
Sample : icc1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 15:00:41 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:05:12 2014
Response via : Initial Calibration

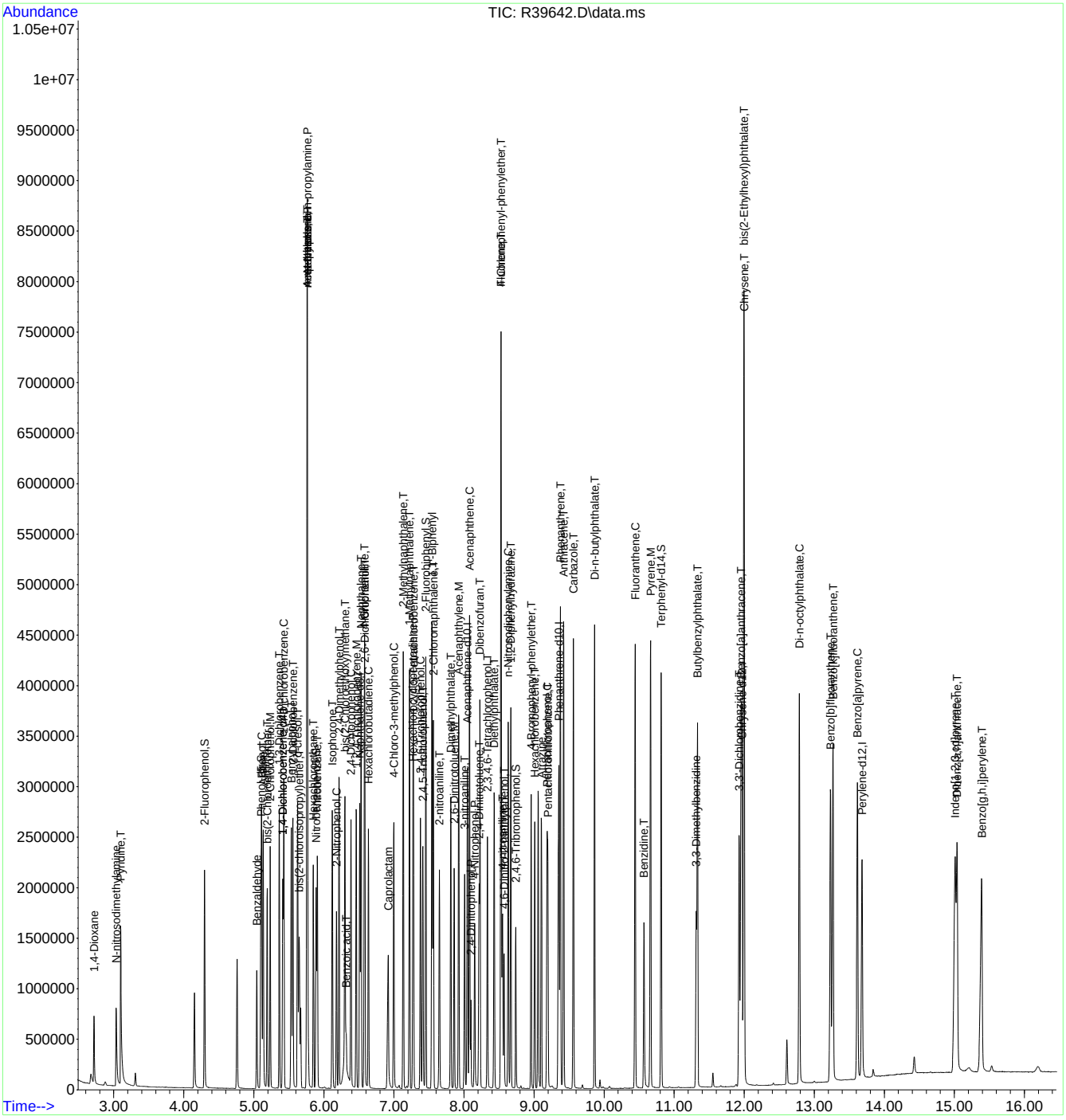
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Caprolactam	6.919	55	290891	64.86	ug/mL#	73
42) Pentachloronitrobenzene	9.197	237	113353	75.01	ug/mL	98
43) Hexachlorocyclopentadiene	7.270	237	222283	72.38	ug/mL	97
44) 2,4,6-Trichlorophenol	7.379	196	266679	66.55	ug/mL	99
45) 2,4,5-Trichlorophenol	7.413	196	295009	65.50	ug/mL	99
47) 2-Chloronaphthalene	7.562	162	847068	59.28	ug/mL	95
48) Acenaphthylene	7.926	152	1276376	59.82	ug/mL	100
49) Dimethylphthalate	7.811	163	918332	60.04	ug/mL	100
50) 2,4-Dinitrotoluene	8.215	165	252543	78.70	ug/mL	99
51) Acenaphthene	8.078	153	884870	56.91	ug/mL	96
52) 2,4-Dinitrophenol	8.097	184	81415	92.88	ug/mL	97
53) Dibenzofuran	8.227	168	1262533	58.08	ug/mL	98
54) 2,6-Dinitrotoluene	7.861	165	194076	73.66	ug/mL	100
55) 4-Nitrophenol	8.153	65	220502	73.41	ug/mL	82
56) 2,3,4,6-Tetrachlorophenol	8.333	232	222308	69.80	ug/mL	98
57) Fluorene	8.529	166	1022329	58.76	ug/mL	96
58) 4-Chlorophenyl-phenyle...	8.529	204	478417	61.48	ug/mL	96
59) Diethylphthalate	8.429	149	950296	60.39	ug/mL	99
60) 2-nitroaniline	7.649	138	300823	75.98	ug/mL	99
61) 3-nitroaniline	8.010	138	250537	72.91	ug/mL	97
62) 4-nitroaniline	8.551	138	269741	72.26	ug/mL	94
63) 1,1'-Biphenyl	7.544	154	1137642	56.90	ug/mL	95
65) 4,6-Dinitro-2-methylph...	8.572	198	119871m	90.72	ug/mL	
66) n-Nitrosodiphenylamine	8.631	169	690920	58.58	ug/mL	98
67) 1,2-Diphenylhydrazine	8.669	77	1190222	56.48	ug/mL	99
69) 4-Bromophenyl-phenylether	8.958	248	239707	62.66	ug/mL	91
70) Hexachlorobenzene	9.011	284	236793	60.87	ug/mL	86
71) Pentachlorophenol	9.185	266	195254	81.11	ug/mL	98
72) Phenanthrene	9.377	178	1405308	56.54	ug/mL	97
73) Anthracene	9.421	178	1437444	58.91	ug/mL	98
74) Carbazole	9.561	167	1410385	59.02	ug/mL	97
75) Di-n-butylphthalate	9.865	149	1759807	65.07	ug/mL	99
76) Fluoranthene	10.443	202	1476039	61.87	ug/mL	84
77) Atrazine	9.107	200	217705	63.22	ug/mL	95
79) Benzidine	10.568	184	537541	42.26	ug/mL	100
80) 3,3-Dimethylbenzidine	11.314	212	520774	78.14	ug/mL	100
81) Pyrene	10.664	202	1581189	58.84	ug/mL	84
83) Butylbenzylphthalate	11.332	149	759464	67.87	ug/mL	88
84) 3,3'-Dichlorobenzidine	11.926	252	481213	69.50	ug/mL	96
85) Benzo[a]anthracene	11.954	228	1360822	57.01	ug/mL	97
86) Chrysene	12.001	228	1422292	59.70	ug/mL	97
87) bis(2-Ethylhexyl)phtha...	11.998	149	1114181	71.40	ug/mL	99
89) Di-n-octylphthalate	12.787	149	1805058	74.78	ug/mL	100
90) Benzo[b]fluoranthene	13.235	252	1233155	63.68	ug/mL	95
91) Benzo[k]fluoranthene	13.269	252	1336908	63.62	ug/mL	96
92) Benzo[a]pyrene	13.617	252	1182666	64.53	ug/mL	93
93) Indeno[1,2,3-cd]pyrene	15.009	276	1404910	64.19	ug/mL	90
94) Dibenz[a,h]anthracene	15.037	278	1165428	65.25	ug/mL	90
95) Benzo[g,h,i]perylene	15.392	276	1151906	62.72	ug/mL	88
97) Benzaldehyde	5.042	77	194256m	218.55	ug/mL	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39642.D
Acq On : 11 Sep 2014 1:08 pm
Operator : williamk
Sample : icc1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 11 15:00:41 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:05:12 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Doug Yargeau
09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39643.D
Acq On : 11 Sep 2014 1:32 pm
Operator : williamk
Sample : ic1461-80
Misc : op39525,msr1461,,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 14:48:11 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:26:47 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.415	152	332351	40.00	ug/mL	0.00
22) Naphthalene-d8	6.515	136	1303434	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.050	164	761151	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.359	188	1277383	40.00	ug/mL	0.00
78) Chrysene-d12	11.976	240	1184924	40.00	ug/mL	0.01
88) Perylene-d12	13.688	264	1044778	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.415	152	332351	40.00	ug/mL	# 0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.299	112	981928	90.97	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 90.97%			
8) Phenol-d5	5.107	99	1259192	87.40	ug/mL	0.01
Spiked Amount 100.000	Range 30 - 130		Recovery = 87.40%			
23) Nitrobenzene-d5	5.896	82	1142471	91.26	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 182.52%#			
46) 2-Fluorobiphenyl	7.457	172	2035120	85.12	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 170.24%#			
68) 2,4,6-Tribromophenol	8.746	330	246747m	106.97	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 106.97%			
82) Terphenyl-d14	10.820	244	2241556	95.05	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 190.10%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.720	88	425739	83.86	ug/mL#	100
3) N-nitrosodimethylamine	3.043	74	690570	106.04	ug/mL	98
4) Pyridine	3.099	79	1219795	91.62	ug/mL	78
5) Aniline	5.138	93	1618102	87.84	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.194	63	876615	83.56	ug/mL#	74
9) Phenol	5.119	94	1525886	94.66	ug/mL	97
10) 2-Chlorophenol	5.237	128	1026696	88.77	ug/mL	89
11) 1,3-Dichlorobenzene	5.365	146	1052338	84.32	ug/mL	98
12) 1,4-Dichlorobenzene	5.430	146	1084358	83.99	ug/mL	96
13) 1,2-Dichlorobenzene	5.558	146	1016540	84.48	ug/mL	97
14) Benzyl alcohol	5.542	108	743831	93.22	ug/mL	97
15) bis(2-chloroisopropyl)...	5.651	45	1438960	80.12	ug/mL	77
16) o-cresol	5.629	108	1011060	86.83	ug/mL	82
17) Acetophenone	5.769	105	1343680	77.18	ug/mL	84
18) Hexachloroethane	5.850	117	445339	88.27	ug/mL	89
19) N-Nitroso-di-n-propyla...	5.791	70	750839	82.99	ug/mL	82
20) m+p-cresols	5.772	108	1895758	154.60	ug/mL	98
21) 4-methylphenol	5.772	108	1895758	154.60	ug/mL	98
24) Nitrobenzene	5.912	77	1168421	88.00	ug/mL	91
25) Isophorone	6.129	82	2094624	88.30	ug/mL	97
26) 2-Nitrophenol	6.182	139	526753	110.54	ug/mL	90
27) 2,4-Dimethylphenol	6.220	107	1056887	86.79	ug/mL	96
28) bis(2-Chloroethoxy)met...	6.304	93	1294461	85.23	ug/mL	99
29) Benzoic acid	6.350	105	749569m	112.15	ug/mL	
30) 2,4-Dichlorophenol	6.394	162	844746	95.93	ug/mL	97
31) 1,2,4-Trichlorobenzene	6.462	180	876313	91.53	ug/mL	95
32) Naphthalene	6.534	128	2799679	79.72	ug/mL	97
33) 2,6-Dichlorophenol	6.586	162	824766	89.19	ug/mL	98
34) 4-Chloroaniline	6.583	127	1244263	87.61	ug/mL	100
35) Hexachlorobutadiene	6.639	225	462966	95.46	ug/mL	97
36) 4-Chloro-3-methylphenol	7.006	107	921219	92.36	ug/mL	96
37) 2-Methylnaphthalene	7.136	142	1988777	84.27	ug/mL	98
38) 1-Methylnaphthalene	7.224	142	1854535	83.96	ug/mL	100
39) 1,2,4,5-Tetrachloroben...	7.283	216	888012	95.01	ug/mL	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39643.D
Acq On : 11 Sep 2014 1:32 pm
Operator : williamk
Sample : ic1461-80
Misc : op39525,msr1461,,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 14:48:11 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:26:47 2014
Response via : Initial Calibration

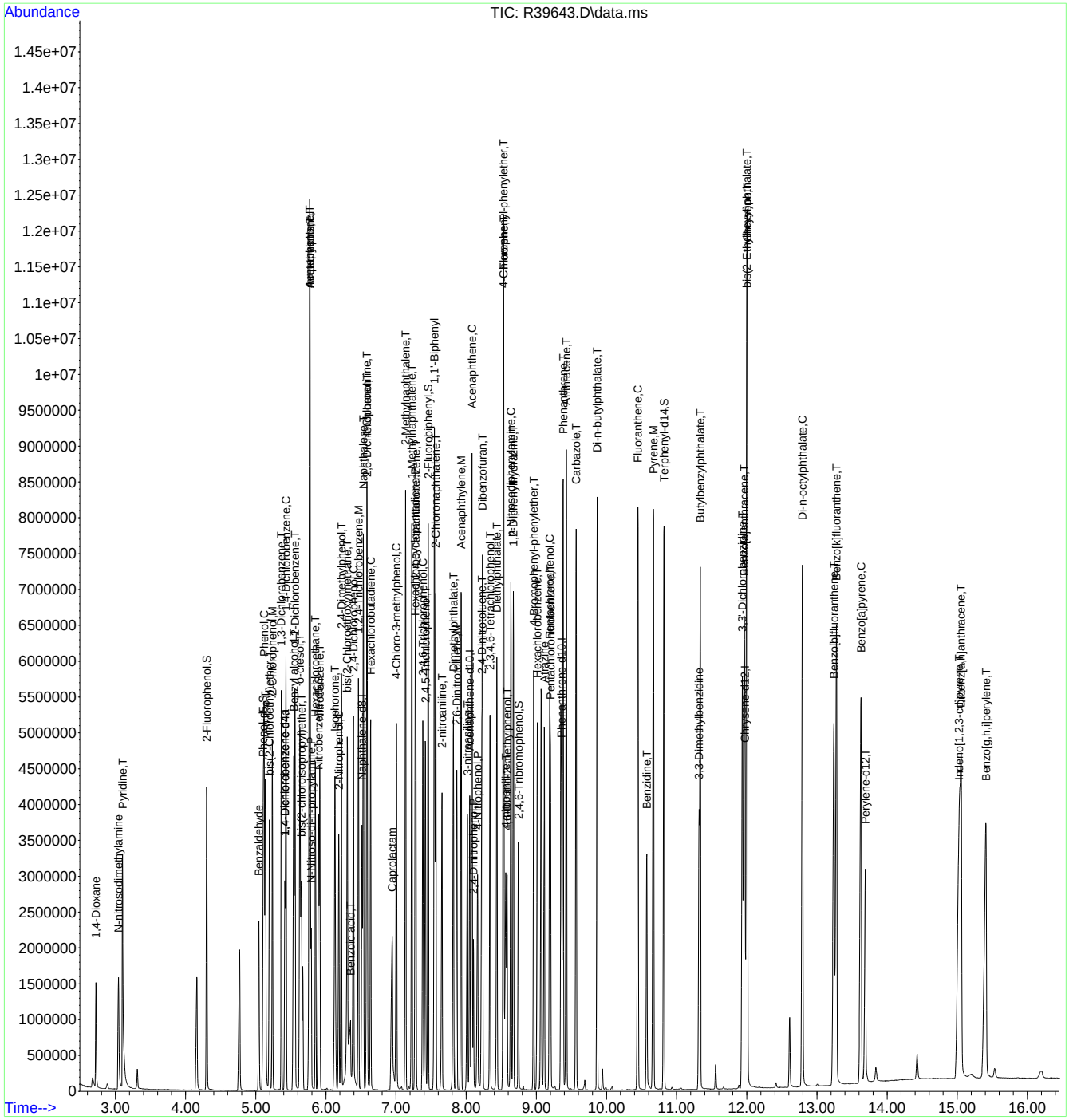
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Caprolactam	6.944	55	619095m	96.96	ug/mL	
42) Pentachloronitrobenzene	9.200	237	262535	116.37	ug/mL	98
43) Hexachlorocyclopentadiene	7.273	237	499398	109.97	ug/mL	98
44) 2,4,6-Trichlorophenol	7.382	196	606156	104.54	ug/mL	98
45) 2,4,5-Trichlorophenol	7.419	196	662037	101.99	ug/mL	99
47) 2-Chloronaphthalene	7.565	162	1784230	88.72	ug/mL	96
48) Acenaphthylene	7.929	152	2618891	87.02	ug/mL	99
49) Dimethylphthalate	7.817	163	1951514	90.38	ug/mL	99
50) 2,4-Dinitrotoluene	8.221	165	586511	120.81	ug/mL	91
51) Acenaphthene	8.081	153	1797003	82.87	ug/mL	94
52) 2,4-Dinitrophenol	8.103	184	213693	147.92	ug/mL#	70
53) Dibenzofuran	8.234	168	2605542	85.55	ug/mL	99
54) 2,6-Dinitrotoluene	7.867	165	440446	112.52	ug/mL	91
55) 4-Nitrophenol	8.162	65	478841	107.40	ug/mL	80
56) 2,3,4,6-Tetrachlorophenol	8.339	232	507450	108.79	ug/mL	99
57) Fluorene	8.535	166	2002795	81.95	ug/mL	97
58) 4-Chlorophenyl-phenyle...	8.532	204	955207	86.48	ug/mL	95
59) Diethylphthalate	8.436	149	2031211	91.31	ug/mL	99
60) 2-nitroaniline	7.656	138	670706	113.07	ug/mL	95
61) 3-nitroaniline	8.019	138	551907	108.41	ug/mL	95
62) 4-nitroaniline	8.563	138	587007	106.39	ug/mL	93
63) 1,1'-Biphenyl	7.547	154	2310361	82.86	ug/mL	98
65) 4,6-Dinitro-2-methylph...	8.582	198	312314	146.10	ug/mL	100
66) n-Nitrosodiphenylamine	8.638	169	1474733	87.37	ug/mL	98
67) 1,2-Diphenylhydrazine	8.672	77	2408594	80.52	ug/mL	100
69) 4-Bromophenyl-phenylether	8.961	248	533532	95.94	ug/mL	92
70) Hexachlorobenzene	9.014	284	537210	95.65	ug/mL	87
71) Pentachlorophenol	9.191	266	462962	123.62	ug/mL	99
72) Phenanthrene	9.384	178	2888365	81.85	ug/mL	97
73) Anthracene	9.427	178	2932747	83.89	ug/mL	98
74) Carbazole	9.567	167	2894280	84.49	ug/mL	96
75) Di-n-butylphthalate	9.869	149	3549061	89.46	ug/mL	98
76) Fluoranthene	10.447	202	3059865	88.50	ug/mL	83
77) Atrazine	9.116	200	471183	93.93	ug/mL	96
79) Benzidine	10.574	184	1121873	68.37	ug/mL	99
80) 3,3-Dimethylbenzidine	11.317	212	1156169	113.85	ug/mL	100
81) Pyrene	10.670	202	3236817	87.10	ug/mL	86
83) Butylbenzylphthalate	11.336	149	1623136	101.35	ug/mL	92
84) 3,3'-Dichlorobenzidine	11.935	252	1108486	111.19	ug/mL	97
85) Benzo[a]anthracene	11.960	228	2914527	88.92	ug/mL	97
86) Chrysene	12.007	228	2916759	88.23	ug/mL	96
87) bis(2-Ethylhexyl)phtha...	12.001	149	2200819	97.26	ug/mL	98
89) Di-n-octylphthalate	12.793	149	3792830	107.23	ug/mL	99
90) Benzo[b]fluoranthene	13.244	252	2706523	99.39	ug/mL	95
91) Benzo[k]fluoranthene	13.278	252	2825108	95.62	ug/mL	96
92) Benzo[a]pyrene	13.629	252	2564389	99.19	ug/mL	94
93) Indeno[1,2,3-cd]pyrene	15.025	276	3080138	99.89	ug/mL	93
94) Dibenz[a,h]anthracene	15.053	278	2588454	102.45	ug/mL	93
95) Benzo[g,h,i]perylene	15.410	276	2482984	96.49	ug/mL	88
97) Benzaldehyde	5.045	77	421168m	193.96	ug/mL	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39643.D
Acq On : 11 Sep 2014 1:32 pm
Operator : williamk
Sample : ic1461-80
Misc : op39525,msr1461,,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 11 14:48:11 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:26:47 2014
Response via : Initial Calibration



R140911_8270.m Fri Sep 12 10:51:37 2014 Page: 3

R39644.D

Manual Integrations APPROVED (compounds with "m" flag)

Doug Yargeau 09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39644.D
Acq On : 11 Sep 2014 1:56 pm
Operator : williamk
Sample : ic1461-120
Misc : op39525,msr1461,,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 14:56:26 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:54:35 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.415	152	287383	40.00	ug/mL	0.00
22) Naphthalene-d8	6.515	136	1131487	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.050	164	659837	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.359	188	1119316	40.00	ug/mL	0.00
78) Chrysene-d12	11.976	240	1056425	40.00	ug/mL	0.01
88) Perylene-d12	13.689	264	937831	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.415	152	287383	40.00	ug/mL	# 0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.302	112	1280295	134.10	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	134.10%#		
8) Phenol-d5	5.110	99	1629167	128.79	ug/mL	0.02
Spiked Amount 100.000	Range 30 - 130		Recovery =	128.79%		
23) Nitrobenzene-d5	5.900	82	1489365	133.90	ug/mL	0.01
Spiked Amount 50.000	Range 30 - 130		Recovery =	267.80%#		
46) 2-Fluorobiphenyl	7.460	172	2589454	123.61	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	247.22%#		
68) 2,4,6-Tribromophenol	8.747	330	341119m	158.91	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	158.91%#		
82) Terphenyl-d14	10.820	244	2967396	136.84	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	273.68%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.720	88	554966	125.41	ug/mL#	100
3) N-nitrosodimethylamine	3.043	74	905002	152.44	ug/mL	90
4) Pyridine	3.096	79	1586880	134.59	ug/mL	77
5) Aniline	5.141	93	2074060	128.12	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.197	63	1119798	122.54	ug/mL#	76
9) Phenol	5.126	94	1936277	134.80	ug/mL	96
10) 2-Chlorophenol	5.241	128	1329381	130.54	ug/mL	90
11) 1,3-Dichlorobenzene	5.368	146	1332622	122.38	ug/mL	98
12) 1,4-Dichlorobenzene	5.430	146	1378572	122.47	ug/mL	96
13) 1,2-Dichlorobenzene	5.561	146	1294153	123.23	ug/mL	98
14) Benzyl alcohol	5.545	108	958644	135.22	ug/mL	97
15) bis(2-chloroisopropyl)...	5.651	45	1858414	119.64	ug/mL	77
16) o-cresol	5.632	108	1288456	126.17	ug/mL	80
17) Acetophenone	5.772	105	1671761	111.71	ug/mL	86
18) Hexachloroethane	5.850	117	571328	128.74	ug/mL	90
19) N-Nitroso-di-n-propyla...	5.797	70	965088	122.59	ug/mL	85
20) m+p-cresols	5.778	108	2358389	223.68	ug/mL	96
21) 4-methylphenol	5.778	108	2358389	223.68	ug/mL	96
24) Nitrobenzene	5.915	77	1494131	127.51	ug/mL	93
25) Isophorone	6.136	82	2683682	128.10	ug/mL	98
26) 2-Nitrophenol	6.186	139	690505	156.93	ug/mL	91
27) 2,4-Dimethylphenol	6.223	107	1349130	125.85	ug/mL	96
28) bis(2-Chloroethoxy)met...	6.307	93	1635622	122.72	ug/mL	99
29) Benzoic acid	6.369	105	991971m	160.24	ug/mL	
30) 2,4-Dichlorophenol	6.397	162	1078486	136.55	ug/mL	95
31) 1,2,4-Trichlorobenzene	6.465	180	1120660	131.67	ug/mL	96
32) Naphthalene	6.537	128	3502097	114.94	ug/mL	97
33) 2,6-Dichlorophenol	6.590	162	1028328	125.69	ug/mL	98
34) 4-Chloroaniline	6.587	127	1533760	122.47	ug/mL	100
35) Hexachlorobutadiene	6.639	225	599971	138.06	ug/mL	97
36) 4-Chloro-3-methylphenol	7.012	107	1184949	133.41	ug/mL	98
37) 2-Methylnaphthalene	7.140	142	2502583	121.08	ug/mL	99
38) 1-Methylnaphthalene	7.227	142	2330552	120.55	ug/mL	100
39) 1,2,4,5-Tetrachloroben...	7.286	216	1151461	137.62	ug/mL	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39644.D
Acq On : 11 Sep 2014 1:56 pm
Operator : williamk
Sample : ic1461-120
Misc : op39525,msr1461,,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 14:56:26 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:54:35 2014
Response via : Initial Calibration

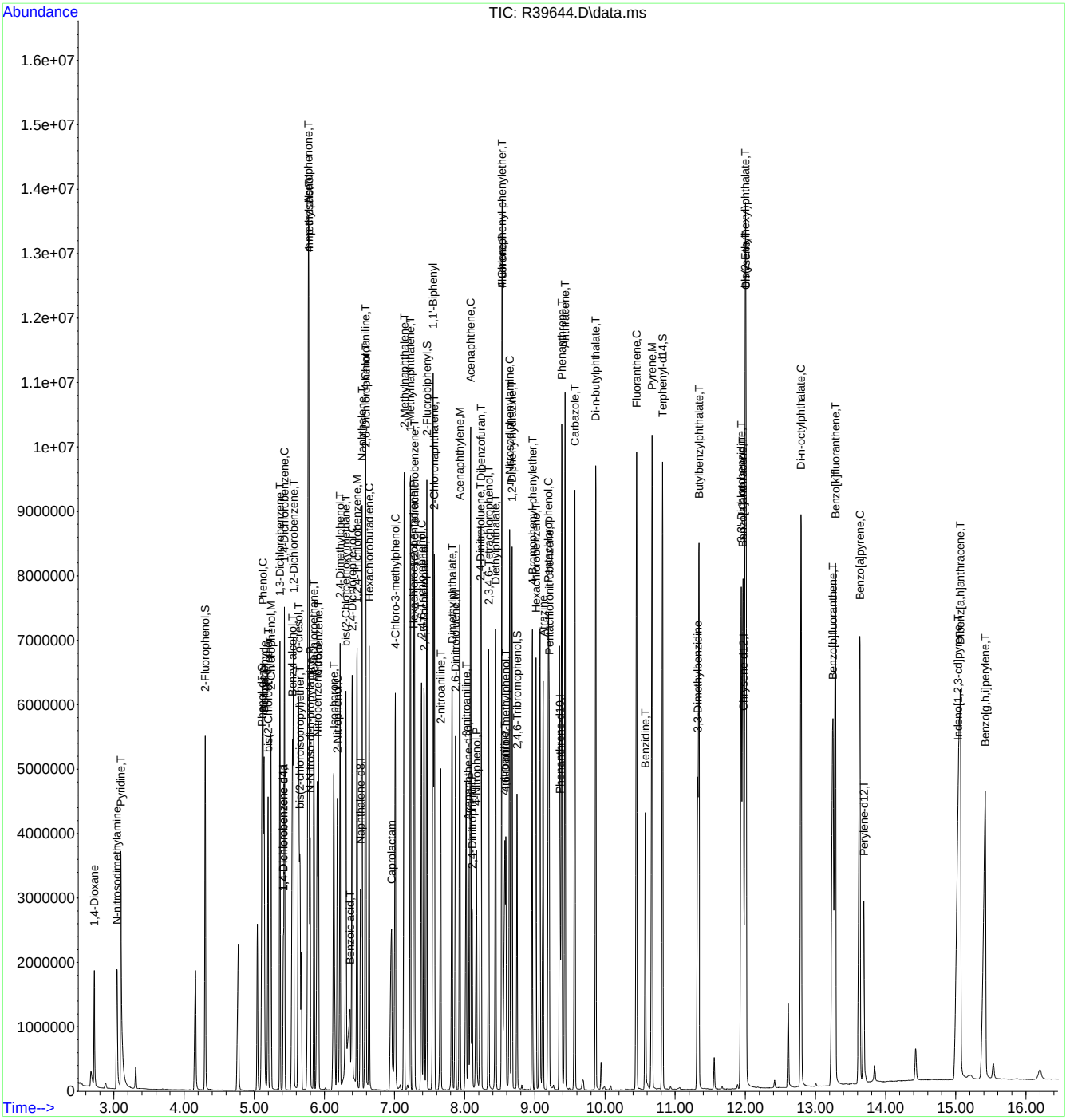
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Caprolactam	6.956	55	796915	138.87 ug/mL#	74
42) Pentachloronitrobenzene	9.204	237	351216	166.93 ug/mL	98
43) Hexachlorocyclopentadiene	7.273	237	642121	153.53 ug/mL	97
44) 2,4,6-Trichlorophenol	7.385	196	797640	150.97 ug/mL	97
45) 2,4,5-Trichlorophenol	7.423	196	864192	146.84 ug/mL	99
47) 2-Chloronaphthalene	7.566	162	2267284	127.72 ug/mL	96
48) Acenaphthylene	7.929	152	3317270	125.32 ug/mL	99
49) Dimethylphthalate	7.820	163	2521292	131.85 ug/mL	99
50) 2,4-Dinitrotoluene	8.224	165	776730	170.09 ug/mL	89
51) Acenaphthene	8.085	153	2266270	119.84 ug/mL	95
52) 2,4-Dinitrophenol	8.109	184	306653	209.32 ug/mL	89
53) Dibenzofuran	8.234	168	3263443	122.19 ug/mL	99
54) 2,6-Dinitrotoluene	7.870	165	588761	162.50 ug/mL	88
55) 4-Nitrophenol	8.169	65	633266	155.00 ug/mL	79
56) 2,3,4,6-Tetrachlorophenol	8.339	232	676461	157.82 ug/mL	100
57) Fluorene	8.535	166	2468675	116.06 ug/mL	96
58) 4-Chlorophenyl-phenyle...	8.532	204	1190785	122.70 ug/mL	95
59) Diethylphthalate	8.439	149	2617754	132.62 ug/mL	99
60) 2-nitroaniline	7.659	138	882324	160.53 ug/mL	95
61) 3-nitroaniline	8.022	138	732352	156.67 ug/mL	96
62) 4-nitroaniline	8.573	138	785732	155.71 ug/mL	90
63) 1,1'-Biphenyl	7.550	154	2884877	118.65 ug/mL	99
65) 4,6-Dinitro-2-methylph...	8.585	198	437016	205.06 ug/mL	100
66) n-Nitrosodiphenylamine	8.641	169	1894100	126.13 ug/mL	97
67) 1,2-Diphenylhydrazine	8.675	77	3007723	114.63 ug/mL	99
69) 4-Bromophenyl-phenylether	8.964	248	719188	142.85 ug/mL	95
70) Hexachlorobenzene	9.017	284	712890	140.28 ug/mL	91
71) Pentachlorophenol	9.191	266	620585	173.36 ug/mL	98
72) Phenanthrene	9.384	178	3682170	118.62 ug/mL	96
73) Anthracene	9.430	178	3725591	120.64 ug/mL	98
74) Carbazole	9.570	167	3702619	122.20 ug/mL	96
75) Di-n-butylphthalate	9.869	149	4420329	124.70 ug/mL	97
76) Fluoranthene	10.450	202	3974408	128.90 ug/mL	86
77) Atrazine	9.120	200	616405	136.27 ug/mL	98
79) Benzidine	10.574	184	1477078	107.83 ug/mL	99
80) 3,3-Dimethylbenzidine	11.320	212	1429673m	145.59 ug/mL	
81) Pyrene	10.671	202	4230351	125.82 ug/mL	87
83) Butylbenzylphthalate	11.339	149	2126299	142.57 ug/mL	93
84) 3,3'-Dichlorobenzidine	11.942	252	1477471	156.08 ug/mL	97
85) Benzo[a]anthracene	11.964	228	3920373	131.71 ug/mL	96
86) Chrysene	12.010	228	3817611	127.35 ug/mL	96
87) bis(2-Ethylhexyl)phtha...	12.001	149	2776673	132.86 ug/mL	98
89) Di-n-octylphthalate	12.793	149	4973740	148.25 ug/mL	99
90) Benzo[b]fluoranthene	13.247	252	3780213	148.65 ug/mL	95
91) Benzo[k]fluoranthene	13.284	252	3720544	135.87 ug/mL	96
92) Benzo[a]pyrene	13.636	252	3496585	144.88 ug/mL	95
93) Indeno[1,2,3-cd]pyrene	15.034	276	4246938	147.33 ug/mL	76
94) Dibenz[a,h]anthracene	15.062	278	3541866	149.19 ug/mL	93
95) Benzo[g,h,i]perylene	15.420	276	3384949	141.68 ug/mL	88
97) Benzaldehyde	5.141	77	21393	8.87 ug/mL#	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39644.D
Acq On : 11 Sep 2014 1:56 pm
Operator : williamk
Sample : ic1461-120
Misc : op39525,msr1461,,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 11 14:56:26 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 13:54:35 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES MC33908

Manual Integrations APPROVED (compounds with "m" flag)
Doug Yargeau 09/12/14 14:03

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39645.D
Acq On : 11 Sep 2014 2:21 pm
Operator : williamk
Sample : ic1461-160
Misc : op39525,msr1461,,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 14:55:55 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 14:24:04 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.415	152	278395	40.00	ug/mL	0.00
22) Naphthalene-d8	6.518	136	1101063	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.053	164	636613	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.359	188	1096324	40.00	ug/mL	0.00
78) Chrysene-d12	11.979	240	1041052	40.00	ug/mL	0.02
88) Perylene-d12	13.688	264	905471	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.415	152	278395	40.00	ug/mL #	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.305	112	1672455	177.85	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery =	177.85%#		
8) Phenol-d5	5.116	99	2114966	170.81	ug/mL	0.02
Spiked Amount 100.000	Range 30 - 130		Recovery =	170.81%#		
23) Nitrobenzene-d5	5.900	82	1955184	177.70	ug/mL	0.01
Spiked Amount 50.000	Range 30 - 130		Recovery =	355.40%#		
46) 2-Fluorobiphenyl	7.460	172	3342135	164.66	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery =	329.32%#		
68) 2,4,6-Tribromophenol	8.750	330	462007m	210.89	ug/mL	0.01
Spiked Amount 100.000	Range 30 - 130		Recovery =	210.89%#		
82) Terphenyl-d14	10.823	244	3862767	177.21	ug/mL	0.01
Spiked Amount 50.000	Range 30 - 130		Recovery =	354.42%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.720	88	726916	168.49	ug/mL#	100
3) N-nitrosodimethylamine	3.046	74	1202168	201.26	ug/mL	91
4) Pyridine	3.099	79	2074251	178.50	ug/mL	77
5) Aniline	5.144	93	2630997	166.16	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.197	63	1459219	164.34	ug/mL#	75
9) Phenol	5.129	94	2471946	174.57	ug/mL	88
10) 2-Chlorophenol	5.241	128	1735748	173.76	ug/mL	90
11) 1,3-Dichlorobenzene	5.368	146	1732924	163.81	ug/mL	97
12) 1,4-Dichlorobenzene	5.433	146	1775463	162.35	ug/mL	95
13) 1,2-Dichlorobenzene	5.561	146	1654452	162.00	ug/mL	97
14) Benzyl alcohol	5.548	108	1244582	177.99	ug/mL	96
15) bis(2-chloroisopropyl)...	5.651	45	2337664	155.41	ug/mL	79
16) o-cresol	5.635	108	1707143	171.31	ug/mL	81
17) Acetophenone	5.778	105	2186187	152.30	ug/mL	86
18) Hexachloroethane	5.853	117	742202	170.87	ug/mL	96
19) N-Nitroso-di-n-propyla...	5.803	70	1051586m	137.47	ug/mL	
20) m+p-cresols	5.781	108	3096330	306.12	ug/mL	99
21) 4-methylphenol	5.781	108	3096330	306.12	ug/mL	99
24) Nitrobenzene	5.918	77	1950398	169.53	ug/mL	93
25) Isophorone	6.142	82	3519505	170.99	ug/mL	99
26) 2-Nitrophenol	6.189	139	925510	207.05	ug/mL	93
27) 2,4-Dimethylphenol	6.229	107	1763787	167.91	ug/mL	96
28) bis(2-Chloroethoxy)met...	6.310	93	2133171	163.94	ug/mL	99
29) Benzoic acid	6.381	105	1411734m	223.64	ug/mL	
30) 2,4-Dichlorophenol	6.400	162	1420603	181.27	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.465	180	1459640	173.82	ug/mL	94
32) Naphthalene	6.537	128	4495512	152.54	ug/mL	96
33) 2,6-Dichlorophenol	6.593	162	1328982	165.80	ug/mL	99
34) 4-Chloroaniline	6.586	127	1946206	159.23	ug/mL	100
35) Hexachlorobutadiene	6.639	225	785349	181.80	ug/mL	97
36) 4-Chloro-3-methylphenol	7.018	107	1552779	176.84	ug/mL	98
37) 2-Methylnaphthalene	7.140	142	3197591	158.77	ug/mL	100
38) 1-Methylnaphthalene	7.227	142	3014520	160.13	ug/mL	100
39) 1,2,4,5-Tetrachloroben...	7.286	216	1499045	180.33	ug/mL	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39645.D
Acq On : 11 Sep 2014 2:21 pm
Operator : williamk
Sample : ic1461-160
Misc : op39525,msr1461,,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 14:55:55 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 14:24:04 2014
Response via : Initial Calibration

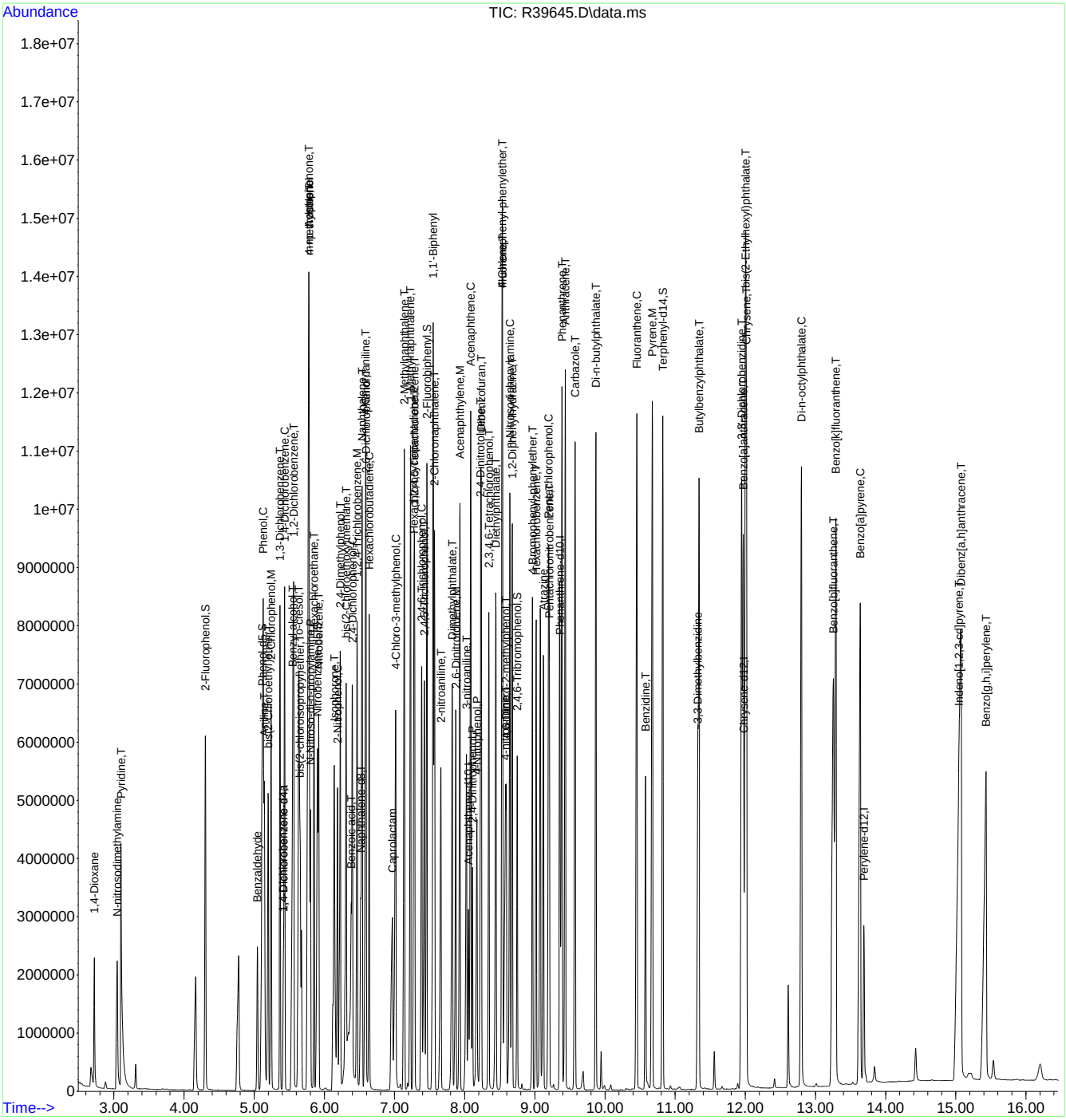
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Caprolactam	6.969	55	957910m	167.77 ug/mL	
42) Pentachloronitrobenzene	9.207	237	450967	210.40 ug/mL	98
43) Hexachlorocyclopentadiene	7.276	237	839716	200.11 ug/mL	97
44) 2,4,6-Trichlorophenol	7.388	196	1056956	199.97 ug/mL	96
45) 2,4,5-Trichlorophenol	7.426	196	1127745	192.47 ug/mL	99
47) 2-Chloronaphthalene	7.569	162	2884763	166.90 ug/mL	96
48) Acenaphthylene	7.932	152	4243637	165.12 ug/mL	98
49) Dimethylphthalate	7.820	163	3296656	176.20 ug/mL	99
50) 2,4-Dinitrotoluene	8.228	165	1009562	216.25 ug/mL	91
51) Acenaphthene	8.085	153	2917523	159.94 ug/mL	96
52) 2,4-Dinitrophenol	8.113	184	436684	274.85 ug/mL	80
53) Dibenzofuran	8.237	168	4130342	159.88 ug/mL	98
54) 2,6-Dinitrotoluene	7.876	165	780257	212.46 ug/mL	83
55) 4-Nitrophenol	8.175	65	835871	203.57 ug/mL	79
56) 2,3,4,6-Tetrachlorophenol	8.343	232	898206	207.84 ug/mL	99
57) Fluorene	8.538	166	3084075	150.99 ug/mL	96
58) 4-Chlorophenyl-phenyle...	8.535	204	1491850	158.82 ug/mL	93
59) Diethylphthalate	8.442	149	3366163	174.15 ug/mL	98
60) 2-nitroaniline	7.662	138	1171066	210.67 ug/mL	93
61) 3-nitroaniline	8.026	138	965980	205.23 ug/mL	96
62) 4-nitroaniline	8.579	138	1041927	205.29 ug/mL	90
63) 1,1'-Biphenyl	7.550	154	3663107	156.40 ug/mL	99
65) 4,6-Dinitro-2-methylph...	8.591	198	617300	268.54 ug/mL	100
66) n-Nitrosodiphenylamine	8.644	169	2439544	164.65 ug/mL	98
67) 1,2-Diphenylhydrazine	8.678	77	3788454	148.36 ug/mL	98
69) 4-Bromophenyl-phenylether	8.967	248	952465	188.04 ug/mL	95
70) Hexachlorobenzene	9.020	284	954972	187.34 ug/mL	95
71) Pentachlorophenol	9.194	266	833690	223.57 ug/mL	99
72) Phenanthrene	9.387	178	4696613	154.73 ug/mL	96
73) Anthracene	9.433	178	4736162	156.46 ug/mL	97
74) Carbazole	9.573	167	4749400	159.62 ug/mL	95
75) Di-n-butylphthalate	9.872	149	5530390	158.40 ug/mL	97
76) Fluoranthene	10.453	202	5135693	168.27 ug/mL	88
77) Atrazine	9.123	200	808728	179.07 ug/mL	98
79) Benzidine	10.577	184	1895280	150.69 ug/mL	99
80) 3,3-Dimethylbenzidine	11.320	212	1777391m	176.73 ug/mL	
81) Pyrene	10.674	202	5444553	163.19 ug/mL	88
83) Butylbenzylphthalate	11.339	149	2714101	179.84 ug/mL	92
84) 3,3'-Dichlorobenzidine	11.945	252	1929057	198.28 ug/mL	97
85) Benzo[a]anthracene	11.970	228	5152617	173.25 ug/mL	96
86) Chrysene	12.016	228	4946064	165.98 ug/mL	95
87) bis(2-Ethylhexyl)phtha...	12.004	149	3532506	168.94 ug/mL	96
89) Di-n-octylphthalate	12.800	149	6347429	189.58 ug/mL	99
90) Benzo[b]fluoranthene	13.256	252	5216535	205.45 ug/mL	95
91) Benzo[k]fluoranthene	13.291	252	4696056m	174.33 ug/mL	
92) Benzo[a]pyrene	13.639	252	4651332	193.87 ug/mL	95
93) Indeno[1,2,3-cd]pyrene	15.044	276	5681652	197.72 ug/mL	92
94) Dibenz[a,h]anthracene	15.075	278	4672357	197.00 ug/mL	95
95) Benzo[g,h,i]perylene	15.432	276	4480969	189.37 ug/mL	90
97) Benzaldehyde	5.045	77	517845m	262.02 ug/mL	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39645.D
Acq On : 11 Sep 2014 2:21 pm
Operator : williamk
Sample : ic1461-160
Misc : op39525,msr1461,,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 11 14:55:55 2014
Quant Method : W:\1\methods\R140911_8270.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Sep 11 14:24:04 2014
Response via : Initial Calibration



Manual Integrations APPROVED
(compounds with "m" flag)
Doug Yargeau
09/26/14 13:04

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39648a.D
Acq On : 11 Sep 2014 3:39 pm
Operator : williamk
Sample : icv1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 24 09:14:33 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Sep 24 09:08:51 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	5.415	152	353545	40.00	ug/mL	0.00
22) Naphthalene-d8	6.512	136	1384460	40.00	ug/mL	0.00
41) Acenaphthene-d10	8.050	164	807070m	40.00	ug/mL	0.00
64) Phenanthrene-d10	9.356	188	1294610m	40.00	ug/mL	0.00
78) Chrysene-d12	11.973	240	1281438	40.00	ug/mL	0.00
88) Perylene-d12	13.685	264	1135179	40.00	ug/mL	0.00
96) 1,4-Dichlorobenzene-d4a	5.415	152	353545	40.00	ug/mL	0.00
System Monitoring Compounds						
6) 2-Fluorophenol	4.299	112	651926	53.84	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 53.84%			
8) Phenol-d5	5.101	99	806970	50.89	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 50.89%			
23) Nitrobenzene-d5	5.890	82	731311	52.14	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 104.28%			
46) 2-Fluorobiphenyl	7.454	172	1315939m	50.96	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 101.92%			
68) 2,4,6-Tribromophenol	8.740	330	153547	54.37	ug/mL	0.00
Spiked Amount 100.000	Range 30 - 130		Recovery = 54.37%			
82) Terphenyl-d14	10.817	244	1389830	51.11	ug/mL	0.00
Spiked Amount 50.000	Range 30 - 130		Recovery = 102.22%			
Target Compounds						Qvalue
3) N-nitrosodimethylamine	3.046	74	433153	51.32	ug/mL	91
4) Pyridine	3.102	79	781198	52.18	ug/mL	76
5) Aniline	5.135	93	905638	44.82	ug/mL#	1
7) bis(2-Chloroethyl)ether	5.191	63	558952	49.40	ug/mL#	75
9) Phenol	5.113	94	885376	48.68	ug/mL	97
10) 2-Chlorophenol	5.234	128	636459	49.64	ug/mL	90
11) 1,3-Dichlorobenzene	5.365	146	694865	51.57	ug/mL	99
12) 1,4-Dichlorobenzene	5.427	146	703033	50.53	ug/mL	96
13) 1,2-Dichlorobenzene	5.558	146	659874	50.80	ug/mL	99
14) Benzyl alcohol	5.536	108	452332	50.23	ug/mL	99
15) bis(2-chloroisopropyl)...	5.651	45	1136947m	59.73	ug/mL	
16) o-cresol	5.626	108	621880	48.71	ug/mL	80
17) Acetophenone	5.763	105	888823	49.05	ug/mL	81
18) Hexachloroethane	5.850	117	279581	50.26	ug/mL	92
19) N-Nitroso-di-n-propyla...	5.769	70	496924	52.07	ug/mL	87
20) m+p-cresols	5.763	108	1239031	96.98	ug/mL	100
21) 4-methylphenol	5.763	108	1239031	96.98	ug/mL	100
24) Nitrobenzene	5.909	77	732495	50.26	ug/mL	93
25) Isophorone	6.123	82	1217512	46.64	ug/mL	96
26) 2-Nitrophenol	6.179	139	317969	49.47	ug/mL	89
27) 2,4-Dimethylphenol	6.217	107	652152	49.07	ug/mL	98
28) bis(2-Chloroethoxy)met...	6.301	93	799355	48.71	ug/mL	98
29) Benzoic acid	6.329	105	489656	51.08	ug/mL	91
30) 2,4-Dichlorophenol	6.388	162	523159	52.22	ug/mL	96
31) 1,2,4-Trichlorobenzene	6.462	180	541720	50.76	ug/mL	96
32) Naphthalene	6.531	128	1826494	49.58	ug/mL	97
33) 2,6-Dichlorophenol	6.583	162	517227	51.09	ug/mL	98
34) 4-Chloroaniline	6.577	127	666495	43.39	ug/mL	100
35) Hexachlorobutadiene	6.636	225	290085	52.51	ug/mL	99
36) 4-Chloro-3-methylphenol	7.000	107	556789	49.77	ug/mL	97
37) 2-Methylnaphthalene	7.134	142	1251411	49.47	ug/mL	99
38) 1-Methylnaphthalene	7.221	142	1193065	50.40	ug/mL	99
39) 1,2,4,5-Tetrachloroben...	7.280	216	547893	51.60	ug/mL	97
40) Caprolactam	6.922	55	389450	53.93	ug/mL#	73

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39648a.D
Acq On : 11 Sep 2014 3:39 pm
Operator : williamk
Sample : icv1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 24 09:14:33 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Sep 24 09:08:51 2014
Response via : Initial Calibration

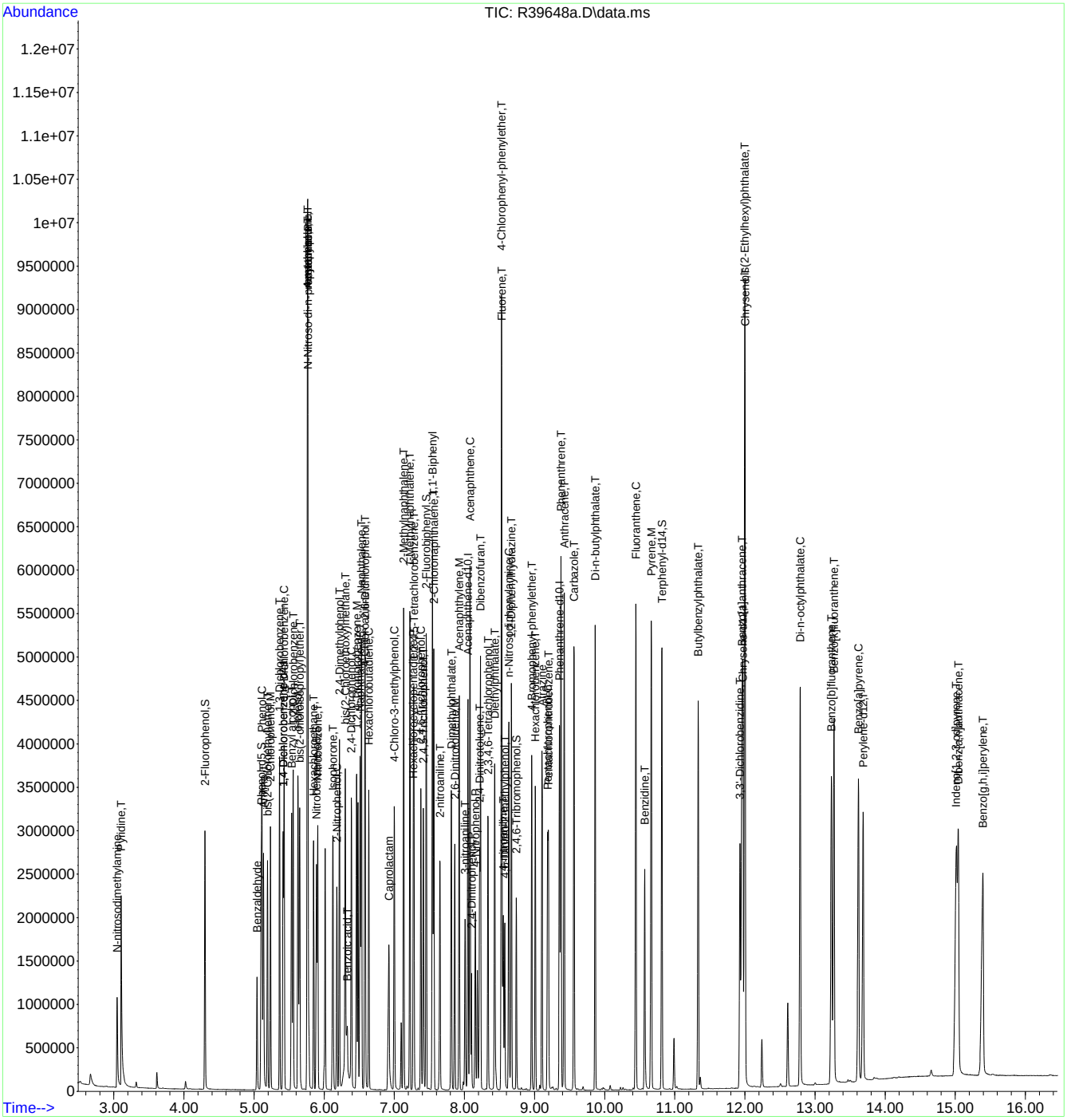
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) Pentachloronitrobenzene	9.197	237	153740m	48.80 ug/mL	
43) Hexachlorocyclopentadiene	7.270	237	247158	43.05 ug/mL	98
44) 2,4,6-Trichlorophenol	7.379	196	359753m	52.06 ug/mL	
45) 2,4,5-Trichlorophenol	7.413	196	387183m	50.83 ug/mL	
47) 2-Chloronaphthalene	7.562	162	1191687m	54.09 ug/mL	
48) Acenaphthylene	7.926	152	1590694m	48.63 ug/mL	
49) Dimethylphthalate	7.814	163	1218478m	50.73 ug/mL	
50) 2,4-Dinitrotoluene	8.215	165	360232m	51.34 ug/mL	
51) Acenaphthene	8.078	153	1169440m	50.57 ug/mL	
52) 2,4-Dinitrophenol	8.100	184	125628m	54.33 ug/mL	
53) Dibenzofuran	8.231	168	1624507m	49.61 ug/mL	
54) 2,6-Dinitrotoluene	7.864	165	263933m	48.93 ug/mL	
55) 4-Nitrophenol	8.156	65	302576m	53.03 ug/mL	
56) 2,3,4,6-Tetrachlorophenol	8.336	232	295543m	49.67 ug/mL	
57) Fluorene	8.532	166	1346083m	52.35 ug/mL	
58) 4-Chlorophenyl-phenyle...	8.529	204	607295m	51.05 ug/mL	
59) Diethylphthalate	8.433	149	1270369m	51.28 ug/mL	
60) 2-nitroaniline	7.653	138	405557m	49.39 ug/mL	
61) 3-nitroaniline	8.010	138	245726m	35.62 ug/mL	
62) 4-nitroaniline	8.554	138	336078m	45.40 ug/mL	
63) 1,1'-Biphenyl	7.544	154	1465400m	49.49 ug/mL	
65) 4,6-Dinitro-2-methylph...	8.576	198	188971m	56.11 ug/mL	
66) n-Nitrosodiphenylamine	8.635	169	843589	48.04 ug/mL	98
67) 1,2-Diphenylhydrazine	8.669	77	1599108m	53.52 ug/mL	
69) 4-Bromophenyl-phenylether	8.958	248	323268	52.89 ug/mL	90
70) Hexachlorobenzene	9.011	284	326677	53.13 ug/mL	86
71) Pentachlorophenol	9.185	266	240489	45.98 ug/mL	99
72) Phenanthrene	9.378	178	1831708	51.31 ug/mL	97
73) Anthracene	9.424	178	1812628m	50.85 ug/mL	
74) Carbazole	9.561	167	1800406m	51.26 ug/mL	
75) Di-n-butylphthalate	9.866	149	2179653	52.93 ug/mL	98
76) Fluoranthene	10.444	202	1947376	53.69 ug/mL	83
77) Atrazine	9.107	200	330145	61.00 ug/mL	97
79) Benzidine	10.571	184	806067	55.00 ug/mL	99
81) Pyrene	10.664	202	2003386	48.66 ug/mL	83
83) Butylbenzylphthalate	11.333	149	970676	51.46 ug/mL	89
84) 3,3'-Dichlorobenzidine	11.929	252	546637	42.52 ug/mL	98
85) Benzo[a]anthracene	11.957	228	1865974	50.45 ug/mL	97
86) Chrysene	12.004	228	1790841	48.60 ug/mL	98
87) bis(2-Ethylhexyl)phtha...	11.998	149	1412402	54.49 ug/mL	99
89) Di-n-octylphthalate	12.790	149	2307035	51.35 ug/mL	100
90) Benzo[b]fluoranthene	13.235	252	1661413	50.40 ug/mL	93
91) Benzo[k]fluoranthene	13.272	252	1697541	49.70 ug/mL	96
92) Benzo[a]pyrene	13.620	252	1533121	49.66 ug/mL	92
93) Indeno[1,2,3-cd]pyrene	15.013	276	1857671	50.09 ug/mL	92
94) Dibenz[a,h]anthracene	15.044	278	1549046	50.63 ug/mL	91
95) Benzo[g,h,i]perylene	15.395	276	1503188	49.53 ug/mL	87
97) Benzaldehyde	5.042	77	216974	40.71 ug/mL#	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R140911\
Data File : R39648a.D
Acq On : 11 Sep 2014 3:39 pm
Operator : williamk
Sample : icv1461-50
Misc : op39525,msr1461,,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 24 09:14:33 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Wed Sep 24 09:08:51 2014
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Sona Liskova
10/06/14 12:30

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141003\
Data File : R40114.D
Acq On : 3 Oct 2014 2:50 pm
Operator : williamk
Sample : cc1461-50
Misc : op39867,msr1476,,,,1,1
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Oct 06 07:32:15 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Oct 02 07:21:49 2014
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.418	152	309149	40.00	ug/mL	-0.10
22) Naphthalene-d8	5.515	136	1148430	40.00	ug/mL	-0.10
41) Acenaphthene-d10	7.028	164	680155	40.00	ug/mL	-0.10
64) Phenanthrene-d10	8.306	188	1136288	40.00	ug/mL	-0.11
78) Chrysene-d12	10.656	240	1187780	40.00	ug/mL	-0.13
88) Perylene-d12	12.163	264	1074085	40.00	ug/mL	-0.16
96) 1,4-Dichlorobenzene-d4a	4.418	152	309149	40.00	ug/mL	-0.10
System Monitoring Compounds						
6) 2-Fluorophenol	3.258	112	525042	49.59	ug/mL	-0.11
Spiked Amount 100.000	Range 30 - 130		Recovery = 49.59%			
8) Phenol-d5	4.150	99	638069	46.02	ug/mL	-0.09
Spiked Amount 100.000	Range 30 - 130		Recovery = 46.02%			
23) Nitrobenzene-d5	4.906	82	597270	51.33	ug/mL	-0.09
Spiked Amount 50.000	Range 30 - 130		Recovery = 102.66%			
46) 2-Fluorobiphenyl	6.466	172	1179654	54.20	ug/mL	-0.10
Spiked Amount 50.000	Range 30 - 130		Recovery = 108.40%			
68) 2,4,6-Tribromophenol	7.712	330	172531m	69.60	ug/mL	-0.10
Spiked Amount 100.000	Range 30 - 130		Recovery = 69.60%			
82) Terphenyl-d14	9.714	244	1364105	54.12	ug/mL	-0.10
Spiked Amount 50.000	Range 30 - 130		Recovery = 108.24%			
Target Compounds						Qvalue
3) N-nitrosodimethylamine	1.723	74	321106	43.51	ug/mL	92
4) Pyridine	1.735	79	580215	44.32	ug/mL	85
5) Aniline	4.138	93	781952	44.26	ug/mL#	1
7) bis(2-Chloroethyl)ether	4.219	63	440844m	44.56	ug/mL	
9) Phenol	4.163	94	702087	44.15	ug/mL	99
10) 2-Chlorophenol	4.234	128	572433	51.06	ug/mL	96
11) 1,3-Dichlorobenzene	4.362	146	607121	51.53	ug/mL	99
12) 1,4-Dichlorobenzene	4.430	146	627942	51.61	ug/mL	97
13) 1,2-Dichlorobenzene	4.557	146	587072	51.68	ug/mL	99
14) Benzyl alcohol	4.564	108	363152	46.12	ug/mL	98
15) bis(2-chloroisopropyl)...	4.688	45	681519m	40.95	ug/mL	
16) o-cresol	4.679	108	538337	48.22	ug/mL	79
17) Acetophenone	4.784	105	762324	48.11	ug/mL	98
18) Hexachloroethane	4.846	117	254313	52.28	ug/mL	98
19) N-Nitroso-di-n-propyla...	4.803	70	359279	43.05	ug/mL	92
20) m+p-cresols	4.822	108	1079139	96.60	ug/mL	99
21) 4-methylphenol	4.822	108	1079139	96.60	ug/mL	99
24) Nitrobenzene	4.921	77	602519	49.84	ug/mL	95
25) Isophorone	5.139	82	1047705	48.39	ug/mL	98
26) 2-Nitrophenol	5.195	139	306766	57.54	ug/mL	96
27) 2,4-Dimethylphenol	5.269	107	544838	49.42	ug/mL	96
28) bis(2-Chloroethoxy)met...	5.347	93	654423	48.07	ug/mL	98
29) Benzoic acid	5.409	105	334070	42.01	ug/mL	91
30) 2,4-Dichlorophenol	5.412	162	484964	58.36	ug/mL	99
31) 1,2,4-Trichlorobenzene	5.471	180	527259	59.56	ug/mL	97
32) Naphthalene	5.530	128	1544489	50.54	ug/mL	98
33) 2,6-Dichlorophenol	5.602	162	475093	56.57	ug/mL	99
34) 4-Chloroaniline	5.602	127	667230	52.37	ug/mL	100
35) Hexachlorobutadiene	5.651	225	304399m	66.43	ug/mL	
36) 4-Chloro-3-methylphenol	6.049	107	473242	51.00	ug/mL	98
37) 2-Methylnaphthalene	6.133	142	1095607	52.21	ug/mL	99
38) 1-Methylnaphthalene	6.217	142	1014375	51.66	ug/mL	98
39) 1,2,4,5-Tetrachloroben...	6.279	216	541376m	61.46	ug/mL	
40) Caprolactam	5.937	55	290999	48.58	ug/mL#	77

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141003\
Data File : R40114.D
Acq On : 3 Oct 2014 2:50 pm
Operator : williamk
Sample : cc1461-50
Misc : op39867,msr1476,,,,1,1
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Oct 06 07:32:15 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Oct 02 07:21:49 2014
Response via : Initial Calibration

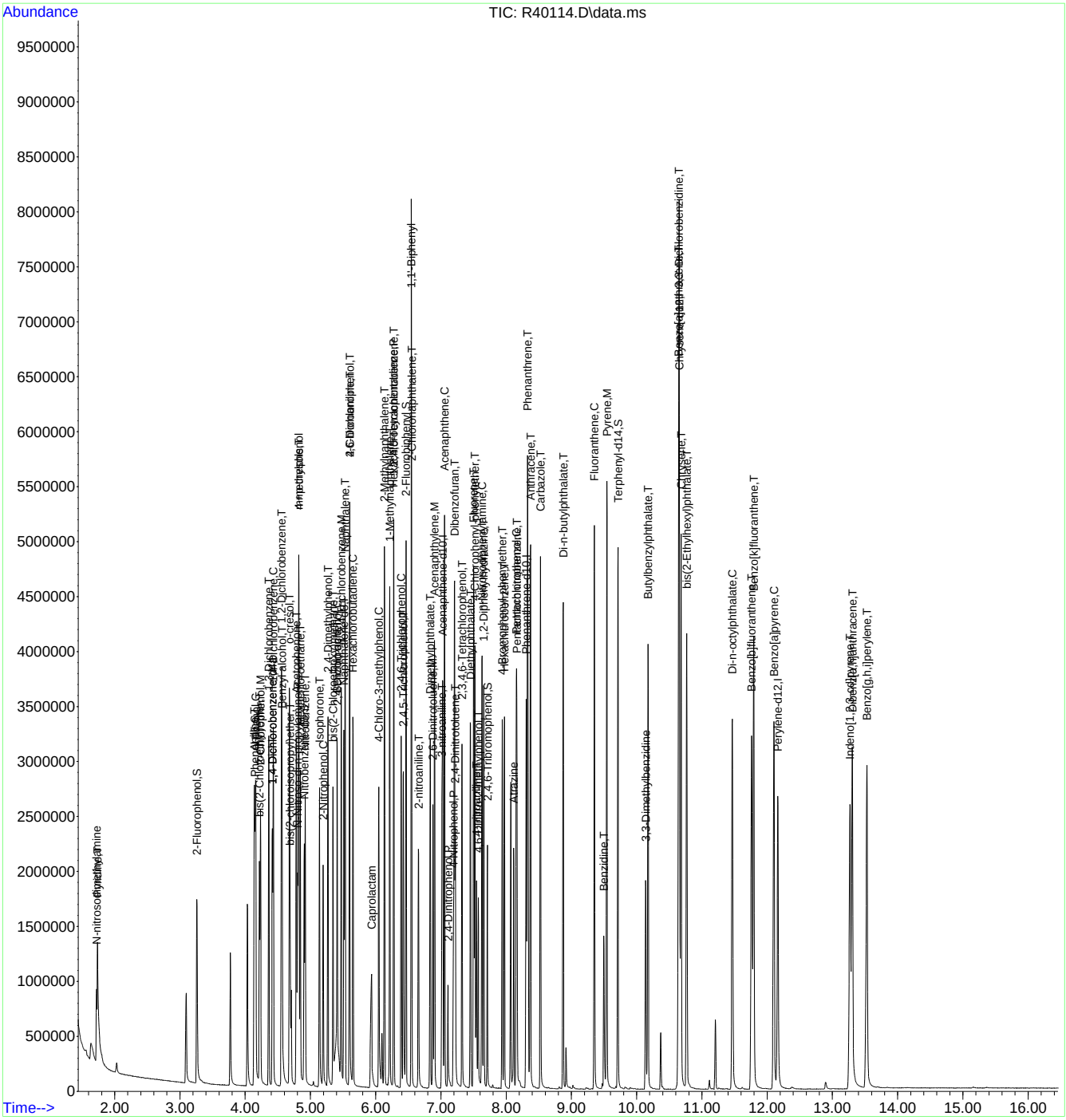
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) Pentachloronitrobenzene	8.163	237	158526m	59.70 ug/mL	
43) Hexachlorocyclopentadiene	6.276	237	282183	58.32 ug/mL	98
44) 2,4,6-Trichlorophenol	6.391	196	356957	61.30 ug/mL	97
45) 2,4,5-Trichlorophenol	6.425	196	368984m	57.48 ug/mL	
47) 2-Chloronaphthalene	6.553	162	978257	52.69 ug/mL	94
48) Acenaphthylene	6.901	152	1502886	54.52 ug/mL	99
49) Dimethylphthalate	6.836	163	1136572	56.15 ug/mL	100
50) 2,4-Dinitrotoluene	7.221	165	334040	56.49 ug/mL	87
51) Acenaphthene	7.056	153	1011287	51.89 ug/mL	96
52) 2,4-Dinitrophenol	7.109	184	116530	58.45 ug/mL	85
53) Dibenzofuran	7.209	168	1503962	54.50 ug/mL	97
54) 2,6-Dinitrotoluene	6.879	165	255571	56.22 ug/mL	79
55) 4-Nitrophenol	7.193	65	211273	43.94 ug/mL	76
56) 2,3,4,6-Tetrachlorophenol	7.324	232	311616m	62.14 ug/mL	
57) Fluorene	7.501	166	1166502	53.83 ug/mL	96
58) 4-Chlorophenyl-phenyle...	7.523	204	592011	59.05 ug/mL	93
59) Diethylphthalate	7.454	149	1161328	55.62 ug/mL	99
60) 2-nitroaniline	6.659	138	370941	53.60 ug/mL	85
61) 3-nitroaniline	7.016	138	310178	53.35 ug/mL	88
62) 4-nitroaniline	7.547	138	311119	49.87 ug/mL	81
63) 1,1'-Biphenyl	6.547	154	1282063	51.38 ug/mL	96
65) 4,6-Dinitro-2-methylph...	7.572	198	177114m	59.16 ug/mL	
66) n-Nitrosodiphenylamine	7.631	169	833717	54.09 ug/mL	99
67) 1,2-Diphenylhydrazine	7.656	77	1192004	45.45 ug/mL	99
69) 4-Bromophenyl-phenylether	7.939	248	330399m	61.58 ug/mL	
70) Hexachlorobenzene	7.973	284	353125m	65.44 ug/mL	
71) Pentachlorophenol	8.157	266	270559m	58.93 ug/mL	
72) Phenanthrene	8.328	178	1683517	53.73 ug/mL	98
73) Anthracene	8.374	178	1718913	54.94 ug/mL	98
74) Carbazole	8.526	167	1666112	54.04 ug/mL	98
75) Di-n-butylphthalate	8.875	149	2058375	56.95 ug/mL	99
76) Fluoranthene	9.353	202	1869987	58.74 ug/mL	95
77) Atrazine	8.116	200	202619	42.65 ug/mL	95
79) Benzidine	9.496	184	538093	40.06 ug/mL	99
80) 3,3-Dimethylbenzidine	10.140	212	668231	54.80 ug/mL	100
81) Pyrene	9.543	202	1988309	52.10 ug/mL	94
83) Butylbenzylphthalate	10.174	149	899501	51.44 ug/mL	97
84) 3,3'-Dichlorobenzidine	10.649	252	699601m	58.72 ug/mL	
85) Benzo[a]anthracene	10.643	228	1766351	51.52 ug/mL	98
86) Chrysene	10.680	228	1724032m	50.47 ug/mL	
87) bis(2-Ethylhexyl)phtha...	10.767	149	1252531	52.14 ug/mL	98
89) Di-n-octylphthalate	11.467	149	2158007	50.77 ug/mL	100
90) Benzo[b]fluoranthene	11.762	252	1657548	53.15 ug/mL	98
91) Benzo[k]fluoranthene	11.796	252	1779794	55.07 ug/mL	99
92) Benzo[a]pyrene	12.104	252	1597991	54.70 ug/mL	99
93) Indeno[1,2,3-cd]pyrene	13.269	276	1468488	41.85 ug/mL	93
94) Dibenz[a,h]anthracene	13.307	278	1555695	53.74 ug/mL	97
95) Benzo[g,h,i]perylene	13.531	276	1596528	55.60 ug/mL	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\R141003\
Data File : R40114.D
Acq On : 3 Oct 2014 2:50 pm
Operator : williamk
Sample : cc1461-50
Misc : op39867,msr1476,,,,1,1
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Oct 06 07:32:15 2014
Quant Method : W:\1\methods\R140911_8270A.m
Quant Title : SW-864 Method 8270
QLast Update : Thu Oct 02 07:21:49 2014
Response via : Initial Calibration



ACCUTEST LABORATORIES MC33908

Accutest Laboratories of New England, Inc.

Instrument: GCMS F

GCMS Analysis Log - Extractables

Run Date: 8/25/14 **Analyst Signature:** WK

Standard Data

Lot #	Description	Conc
MS61803	DFTPP	50 ng/mL
MS61397	ABN270 CCV, SVS	80
MS61347	ABN270 ICV, SVS	40,80
MS61261	ABN270 ICV, SVS	50

Column Information: Front ZB-5MS

Rear N/A

Sequence File: F140825.S

Quantitation Methods: DFTPP.M

F140825_8270.M

Instrument Run Batches: MSF3320

Inj. Vol:

Data Acquisition Methods: F8270FACT.M Inj. Vol: 1µl

ICAL verified: Sequence verified: WK 8/26/14

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Mult.	Comments
98	F7S537	BLANK	N/A		N/A	N/A	N/A	
99	S538	DFTPP						
100	S539	CC3320-90						
100	S540	CC3320-80						
1	S541	IC3320-2						
2	S542	-5						
3	S543	-10						
4	S544	-20						
5	S545	ICC3320-50						
6	S546	IC3320-80						
7	S547	-120						
8	S548	-160						
9	S549	ICV3320-50						

WK 8/26/14

MS002-04

Date: 8/29/06 Dilution Solvent: B+N DCM Lot: DL 934 **Review:**

ACCUTEST LABORATORIES MC33908

Accutest Laboratories of New England, Inc.

Instrument: GCMS F

GCMS Analysis Log - Extractables

Run Date: 10/02/14 **Analyst Signature:** WK

Standard Data

Lot #	Description	Conc
MSS1393	DFTPP	50 µg/mL
MSS1809	AB8270 Cal. Std.	50 ↓
MSS1743	AB8270 Int. Std.	4000 ↓

Column Information: Front ZB-5MS
Rear N/A
Sequence File: F141002.S
Quantitation Methods: DFTPP.M
F140825-8270.M
Instrument Run Batches: MSF3358
Inj. Vol:
Data Acquisition Methods: F8270PAST.M Inj. Vol: 1 µL

ICAL verified: Sequence verified: 10/02/14

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Mult.	Comments
98 X	F76560	BLANK	N/A		N/A	N/A	N/A	
99 X	561	DFTPP	↓		↓	↓	↓	
100 X	562	CC33220-50						
1 X	563	MC33009-1	OP39982		SOIL			
2 X	564	↓ -3	↓		↓			
3 X	565	-5						
4 X	566	↓ -7	↓		↓			
5 X	567	OP39993-MB	OP39993		AQ			
6 X	568	-BS						
7 X	569	-MS						
8 X	570	↓ -MSD						
9 X	571	MC33009-3						
10 X	572	-1						
11 X	573	-4						
12 X	574	-5						
13 X	575	-6						
14 X	576	-7						
15 X	577	-8						
16 X	578	-9						
17 X	579	-10						
18 X	580	-11						
19 X	581	-12						
20 X	582	↓ -13						
21 X	583	MC33911-15						
22 X	584	-2						
23 X	585	↓ -5	↓		↓			
24 X	586	OP40038-MB	OP40038		LEACHATE PW10			
25 X	587	-BS						
26 X	588	-MS						
27 X	589	↓ -MSD						
28 X	590	MC33028-1						
29 X	↓ 591	↓ -2	↓		↓	↓	↓	

MS002-04
Date: 8/29/06 Dilution Solvent: 8+3 DCM Lot: D# 188 **Review:**

ACCUTEST LABORATORIES MC33908

Accutest Laboratories of New England, Inc.

Instrument: GCMS F

GCMS Analysis Log - Extractables

Run Date: 10/2/14 **Analyst Signature:** WK

Standard Data

Lot #	Description	Conc
	Please Refer	
	to Page 1	

Column Information: Front
Rear
Sequence File:
Quantitation Methods: Please Refer
Instrument Run Batches: to Page 1
Inj. Vol:
Data Acquisition Methods:
Inj. Vol:

ICAL verified: Sequence verified: WK 10/3/14

Vial #		Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Mult.	Comments
30	X	F36592	MC33928-3	OP40088		LEACHATE FLUID	N/A	N/A	
31	X	593	OP30041-MB	OP40091		SOIL			
32	X	594	-BS1						
33	X	595	-BS2						
34	X	596	-BS3						
35	X	597	-BS4						

WK 10/3/14

MS002-04
Date: 8/29/06 Dilution Solvent: B+J DCM Lot: DL 1853 **Review:**

2

9.7.2 9

Accutest Laboratories of New England, Inc.

Instrument: GCMS R

GCMS Analysis Log - Extractables

Run Date: 9/11/14 **Analyst Signature:** WK

Standard Data

Lot#	Description	Conc
MSR1397	AB3270 Cal. Std.	80 ng/mL
MSR1346	AB3270 Int. Std.	50
MSR1810	AB3270 Surr. Std.	50
MSR1809	DFTPP	4000

Column Information: Front 5B-5MS
Rear N/A
Sequence File: R139911.S
Quantitation Methods: DFTPP.M
R139911_3270.M
Instrument Run Batches: MSR1461
Inj. Vol:
Data Acquisition Methods: R3270BFAST.M Inj. Vol: 1µL

ICAL verified:

Sequence verified: WK 9/12/14

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Mult.	Comments
99	R139630-631	~~BLANK~~	N/A		N/A	N/A	N/A	DFTPP WK 9/12
100	R139632-633	~~CL Std~~						
99	R139634	~~BLANK~~						DFTPP WK 9/12
100	R139635-636	~~CL Std~~						
99	R139637	DFTPP	MSR1397		N/A	N/A	N/A	
1	638	IC 1461-2						
2	639	-5						
3	640	-10						
4	641	-20						
5	642	ICC 1461-50						
6	643	IC 1461-80						
7	644	-120						
8	645	-160						
9	646	ICV 1460-50						
10	647	-50						
10	648	-50						
11	649	OP39761-MB	OP39761		Soil	N/A	N/A	
12	650	-BS						
13	651	MC39426-4						
14	652	-5						
15	653	-6						
16	654	-7						
17	655	MC39360-17						
18	656	OP39760-MB	OP39760		AQ			
19	657	-BS						
20	658	-MS						
21	659	-MSD						
22	660	MC39280-17						
23	661	MC39421-1						
24	662	-2						AR@50X
								WK 9/12/14

1S002-04
Date: 8/29/06 Dilution Solvent: B+J RLM Lot: DL130 **Review:**

ACCUTEST LABORATORIES MC33908

Accutest Laboratories of New England, Inc.

Instrument: GCMS R

GCMS Analysis Log - Extractables

Run Date: 10/3/14

Analyst Signature: MR / WK

Standard Data

Lot #	Description	Conc
MSS1392	DFTPP	50 ng/µL
MSS1809	8270 Cal. Std.	50 ↓
MSS1345	8270 Int. Std.	4000 ↓

Column Information: Front 30-SMS

Rear N/A

Sequence File: R141003.S

Quantitation Methods: DFTPP.M

R140911_8270.M

Instrument Run Batches: MSR1476

Inj. Vol:

Data Acquisition Methods: 8270FAST.M Inj. Vol: 1µL

ICAL verified:

Sequence verified: 10/6/14 MR

Vial #	Data File ID	Sample ID	Ext. Batch	Analysis	Matrix	Dilution	Mult.	Comments
98 X	R141110	BBLANK	N/A		N/A	N/A	N/A	* NO DATA IN DATA FILE R141103
99 X	111	DFTPP	↓		↓	↓	↓	* Solvent delay changed
100 X	112	CC14461-50						
100 X	113	CC14461-50						
1 X	115	OP40019-MB	OP40014		LEACHATE PW/D			
2 X	116	-BS						
3 X	117	-MS						
4 X	118	-MSD						
5 X	119	MC33932-1						
6 X	120	-2						
7 X	120	MC34033-1						
8 X	122	-2						
9 X	123	-3						
10 X	124	-4						
11 X	125	OP40045-MB	OP40045		AQ			
12 X	126	-BS						
13 X	127	-MS						
14 X	128	-MSD						
15 X	129	MC33992-3						
16 X	130	-1						
17 X	131	-2						
18 X	132	-4						
19 X	133	-5						
20 X	134	MC34016-1						* RB, E20X, talvic acid, Benzyl Alcohol over c.w.
21 X	135	-2						
22 X	136	-3						
23 X	137	-4						
24 X	138	MC33980-6	OP39993			5X		
25 X ↓	139	MC33811-15	↓		↓	5X	↓	
								WK 10/6/14

MS002-04

Date: 8/29/06 Dilution Solvent: DCM Lot: DL 183 **Review:**

ACCUTEST LABORATORIES MC33908

ACCUTEST LABORATORIES

Extracted by: AZ, MD Date/Time: 09/27/2014 12:00
Spike Witness: AZ Date/Time:
Concentrated by: FC 10/1/2014 Batch: OP39993
Fractionated by: Matrix: Aqueous
Extraction Method: SW846 3510C Analysis Method: 8270PAH

pH paper lot: C-396

Sample	Spike Addition Check (ID)	Bottle No.	Initial Volume (ml)	Final Volume (ml)	Acid pH	Base pH	*Cleanup/Comments (3660B, 3630, 3665, other)	Received by: Date:
OP39993 -MB	✓	N/A	1000	1ml	N/A	12		MR 10/2
-BS	✓	✓	1000					
MC33908-3 MS	✓	6	900					
-3MSD	✓	3	880					
-3	✓	1	860					
-1	✓	2	950					
-4	✓	2	900					
-5	✓	1	940					
-6	✓	1	860					
-7	✓	2	860					
-8	✓	2	860					
-9	✓	1	910					
-10	✓	1	680					
-11	✓	1	880					
-12	✓	2	920					
-13	✓	1	910					
MC33911-15	✓	1	990					
-2	✓	1	1000					
-5	✓	1	1000					

MS/MSD 10/2

Fraction	Spike ID	Bottle #	Lot #	Concentration	Vol (ml)
Surrogate: ABN	-	3	P07221	500 UG/ML	1.0 ml
Surrogate:					
Spike: BN	✓	3	P07241	500 UG/ML	1.0 ml
Spike: CLS8293	✓	1	P07118	2000 UG/ML	0.5 ml
Spike:					
Spike:					
Spike:					
Hexane Frac Volume:		NA	NA	NA	
Spike ID Witness Initials	AZ	Filter Paper Lot #	137888	Filtered By	AZ, MD
Form. Deriv. Oven in time:		Out Time:			

H2SO4:	
Ether:	
MeCl2:	DL188
Hexane:	
Acetone:	
Acetonitrile:	
Na Sulfate:	B-898
Silica:	
SPE MFG	
Copper:	
Hydromatrix:	
HCL:	
NaOH:	C505
Florisil:	

Concentrator Temp: 80°C ± 40°C Tray #: GC-20
Concentrator ID: 9 of 15 of 27 Lab Percent Humidity:

Reviewed By:

QP002-12 (03/27/13)
*Circle as applicable: 3660B = Cu cleanup; 3630 = Silica gel cleanup; 3665 = Acid cleanup; 3620 = Florisil Cleanup

New England ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC33908
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Cyanide	GP18216/GN48493	0.010	0.0	mg/l	0.1	0.0991	99.1	90-110%
Cyanide	GP18216/GN48493			mg/l	0.2	0.211	105.5	90-110%

Associated Samples:
Batch GP18216: MC33908-1, MC33908-3, MC33908-4, MC33908-5, MC33908-6, MC33908-7, MC33908-8, MC33908-9, MC33908-10, MC33908-11, MC33908-12, MC33908-13
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC33908
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Cyanide	GP18216/GN48493	MC33908-3	mg/l	0.0	0.0	0.0	0-20%

Associated Samples:
Batch GP18216: MC33908-1, MC33908-3, MC33908-4, MC33908-5, MC33908-6, MC33908-7, MC33908-8, MC33908-9, MC33908-10, MC33908-11, MC33908-12, MC33908-13
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC33908
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Cyanide	GP18216/GN48493	MC33908-3	mg/l	0.0	0.1	0.098	98.0	75-125%

Associated Samples:
Batch GP18216: MC33908-1, MC33908-3, MC33908-4, MC33908-5, MC33908-6, MC33908-7, MC33908-8, MC33908-9, MC33908-10, MC33908-11, MC33908-12, MC33908-13
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: MC33908
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

File ID: 100314W2.CN Date Analyzed: 10/03/14 Methods: SW846 9012
Analyst: MA Run ID: GN48493
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:35	GN48493-STD1	1		STDA0.50
10:36	GN48493-STD2	1		STDB0.30
10:37	GN48493-STD3	1		STDC0.20
10:38	GN48493-STD4	1		STDD0.10
10:39	GN48493-STD5	1		STDE0.030
10:40	GN48493-STD6	1		STDF0.010
10:41	GN48493-STD7	1		STDG0.00
11:19	GN48493-ICV1	1		
11:20	GN48493-ICB1	1		
11:21	GN48493-CCV1	1		
11:22	GN48493-CCB1	1		
11:23	GP18216-MB1	1		
11:24	GP18216-B1	1		
11:25	GP18216-B2	1		
11:27	GP18216-S1	1		
11:28	GP18216-D1	1		
11:29	MC33908-3	1		
11:30	ZZZZZZ	1		
11:31	ZZZZZZ	1		DNR, offscale
11:32	ZZZZZZ	1		
11:33	ZZZZZZ	1		
11:34	GN48493-CCV2	1		
11:35	GN48493-CCB2	1		
11:36	MC33908-1	1		
11:37	MC33908-4	1		
11:38	MC33908-5	1		
11:39	MC33908-6	1		
11:40	MC33908-7	1		
11:41	MC33908-8	1		
11:42	MC33908-9	1		
11:43	MC33908-10	1		
11:44	MC33908-11	1		
11:45	MC33908-12	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: MC33908
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

File ID: 100314W2.CN Date Analyzed: 10/03/14 Methods: SW846 9012
Analyst: MA Run ID: GN48493
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:46	GN48493-CCV3	1		
11:47	GN48493-CCB3	1		
11:48	MC33908-13	1		
11:50	ZZZZZZ	1		
11:51	ZZZZZZ	1		
11:52	ZZZZZZ	5		
11:53	GN48493-CCV4	1		
11:54	GN48493-CCB4	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: MC33908
Account: BBLNYS - Arcadis
Project: National Grid, 10 King Street, Ogdensburg, NY

File ID: 100314W2.CN Date Analyzed: 10/03/14 Methods: SW846 9012
Run ID: GN48493 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN48493-ICV1	Cyanide	0.21	0.010	0.0014	.2	105.0	90-110
GN48493-ICB1	Cyanide	-0.0050	0.010	0.0014			
GN48493-CCV1	Cyanide	0.31	0.010	0.0014	.3	103.3	90-110
GN48493-CCB1	Cyanide	-0.0053	0.010	0.0014			
GN48493-CCV2	Cyanide	0.31	0.010	0.0014	.3	103.3	90-110
GN48493-CCB2	Cyanide	-0.0056	0.010	0.0014			
GN48493-CCV3	Cyanide	0.31	0.010	0.0014	.3	103.3	90-110
GN48493-CCB3	Cyanide	-0.0053	0.010	0.0014			
GN48493-CCV4	Cyanide	0.31	0.010	0.0014	.3	103.3	90-110
GN48493-CCB4	Cyanide	-0.0055	0.010	0.0014			

(!) Outside of QC limits

New England ACCUTEST LABORATORIES

General Chemistry

Raw Data

ACCUTEST

Protected Worksheet MGN117-02
(Format edits must be done by Dept. manager)

Analyst	MEHDIA	**Test/Analysis**	CN SW846 9012
Date	10/3/14	**Analysis Batch ID**	GN48493
Instrument ID	LACHAT	**Prep Batch ID**	GP18216
File ID	100314W2.CN		

Reagents

Calib STD	GNSTD-	35269-CN	**Buffer**	RGT-	42460-CN
ICV	GNSTD-	35268-CN-2	**Carrier**	RGT-	42263-CN
CCV	GNSTD-	35269-CN-4	**Chloramine-T**	RGT-	42540-CN
Rhodanine indicator	RGT-	41630-CN	**Pyridine Barb. Acid**	RGT-	42541-CN
Silver Nitrate	RGT-	41629-CN	**CN STOCK STD**	GNSTD-	35270-CN-1

Standardization

Reagent/Stock Std:		NA ○		Cyanide ◉			
Volume of DI/Blank	250	Ml of AgNO3 for Blank	0	Volume of Std	250	Ml of AgNO3 for Stock	2.5
Conc. Of Stock Calib STD (mg/L)		1000					

Sample ID	Bot#	pH	Sample ID	Bot#	pH	Sample ID	Bot#	pH	Sample ID	Bot#	pH

COMMENTS

Cyanide stock standardization was performed on 10/03/14.

QC Review **Date:** 10/7/14

ACCUTEST

Distillation

Protected Worksheet MGN127-01

(Format edits must be done by Dept. manager)

Analyst:	MEHDIA	Date	10/3/14	Batch ID	GP18216	Matrix	Aqueous
QC Sample	MC33908-3	Balance ID	N/A	pH Meter ID	N/A	Block ID	MICRO

Analysis Type

CN EPA 335.4 ○	CN SW846 9010B ◉	CN-A SM21 4500CN-G/335.4 ○	CN-A SW846 9010 ○
PAC MADEP ○	CREAC Chap 7 ○	SREAC Chap7 ○	CNWAD SM20 4500CN-I ○

Sample ID	Bot #	ID	Interfere Chk CL	Interfere Chk S	Init. pH	SMPL Amt ML	DIST Vol ML	Start Time	End Time	Comments/Spike
GP18216-MB1		N/A	ND	ND	>12	6	6	10:05	10:35	
GP18216-B1		N/A	ND	ND	>12	6	6	10:05	10:35	0.10 ML OF SPIKE
GP18216-S1	7	N/A	ND	ND	>12	6	6	10:05	10:35	0.10 ML OF SPIKE
GP18216-D1	7	N/A	ND	ND	>12	6	6	10:05	10:35	
GP18216-B2		N/A	ND	ND	>12	6	6	10:05	10:35	0.20 ML OF SPIKE
MC33841-1	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33841-2	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33841-3	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33841-4	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-1	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-10	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-11	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33908-12	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33908-13	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-3	7	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-4	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33908-5	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-6	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33908-7	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33908-8	3	N/A	ND	+	>12	6	6	10:05	10:35	
MC33908-9	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33933-1	3	N/A	ND	ND	>12	6	6	10:05	10:35	
MC33933-2	3	N/A	ND	ND	>12	6	6	10:05	10:35	
ICV		N/A	ND	ND	>12	6	6	10:05	10:35	0.20 ML OF ICV SPIKE

MR 10-3-14

Reagent Lot # (Refer to Indivdual SOP for amounts added)

Sulfamic Acid	VENDOR-8715	Spike Solution	GNSTD-35267-CN-2
Conc. H2SO4	VENDOR-14810	ICV Stock Solution	GNSTD-35268-CN-2
NaOH	RGT-41908-CN	0.25N NAOH	RGT-42263-CN
MgCl2.6H2O	RGT-41169-CN	N/A	
Bismuth Nitrate	RGT-42539-CN	N/A	

Comment:

QC Review _____ Date 10/3/14

11.1 11

Author: chemistry

Date : 10/3/2014

Original Run Filename: OM_10-3-2014_11-18-43AM.QMN Created: 10/3/2014 11:18:43 AM
Original Run Author's Signature: [chemistry]
Current Run Filename: OM_10-3-2014_11-18-43AM.QMN Last Modified: 10/3/2014 11:55:54 AM
Current Run Author's Signature: [chemistry]
Description: Default New Run

Sample	Rep.	Channel 1 Cn (mg/L)	MDF
ICV	1	0.208	
Calibration:		Table/Fig. : 1	
ICB	1	-5.01e-3	
CCV	1	0.306	
CCB	1	-5.29e-3	
GP18216-MB1	1	-3.26e-3	
GP18216-B1	1	0.0991	
GP18216-B2	1	0.211	
GP18216-S1	1	0.0984	
GP18216-D1	1	7.18e-4	
MC33908-3	1	1.43e-4	
MC33841-1	1	0.0104	
MC33841-2	1	0.807	
MC33841-3	1	0.156	
MC33841-4	1	-1.61e-3	
CCV	1	0.306	
CCB	1	-5.57e-3	
MC33908-1	1	2.87e-3	
MC33908-4	1	0.193	
MC33908-5	1	0.0155	
MC33908-6	1	0.414	
MC33908-7	1	0.0588	
MC33908-8	1	0.421	
MC33908-9	1	0.249	
MC33908-10	1	0.0546	
MC33908-11	1	0.434	
MC33908-12	1	-2.18e-3	
CCV	1	0.306	
CCB	1	-5.29e-3	
MC33908-13	1	1.28e-4	
MC33933-1	1	-5.37e-5	
MC33933-2	1	-1.87e-4	
MC33841-2	1	0.180	5.00
CCV	1	0.308	
CCB	1	-5.48e-3	

Table : 1 (Cn)

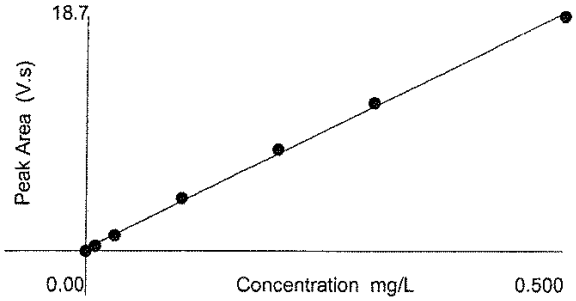
	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	0.500	1	18.7	1.22	0.0	1.7	0.491	10/3/2014	10:35:06 AM
2	0.300	1	11.8	0.769	0.0	-2.3	0.307	10/3/2014	10:36:11 AM
3	0.200	1	8.07	0.527	0.0	-4.2	0.208	10/3/2014	10:37:16 AM
4	0.100	1	4.18	0.275	0.0	-5.3	0.106	10/3/2014	10:38:20 AM
5	0.0300	1	1.24	0.0814	0.0	7.0	0.0277	10/3/2014	10:39:24 AM
6	0.0100	1	0.403	0.0267	0.0	29.9	5.65e-3	10/3/2014	10:40:29 AM
7	0.00	1	-0.0165	-2.88e-3			-5.46e-3	10/3/2014	10:41:33 AM

10/3/14

Author: chemistry

Date : 10/3/2014

Figure : 1 (Cn)



Area = 37.7 * Conc + 0.198
Conc = 0.0265 * Area - 5.02e-3
Correlation Coefficient (r) = 0.99930

Weighting : None

10/3/14

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National Grid – Ogdensburg

Data Usability Summary Report (DUSR)

OGDENSBURG, NEW YORK

Volatile Organic Compounds (VOC), Semivolatile Organic Compounds (SVOC), and Miscellaneous Analyses

SDGs #MC33841, MC33908, and MC33933

Analyses Performed By:
Accutest
Marlborough, Massachusetts

Report #22583R
Review Level: Tier III
Project: B0036671.0003.00001

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Groups (SDGs) # MC33841, MC33908, and MC33933 for samples collected in association with the National Grid Ogdensburg site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

SDG Number	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
						VOC	SVOC	PCB	MET	MISC
MC33933	MW-20R	MC33933-1	Water	9/25/2014		X	X			X
	MW-19R	MC33933-2	Water	9/25/2014		X	X			X
	TRIP BLANK	MC33933-3	Water	9/26/2014		X				
MC33841	MW-5R	MC33841-1	Water	9/22/2014		X	X			X
	MW-2	MC33841-2	Water	9/22/2014		X	X			X
	MW-15RS	MC33841-3	Water	9/22/2014		X	X			X
	MW-15RD	MC33841-4	Water	9/22/2014		X	X			X
	TRIP BLANK	MC33841-5	Water	9/23/2014		X				
MC33908	MW-15	MC33908-1	Water	9/24/2014		X	X			X
	MW-15	MC33908-2	Water	9/24/2014		X	X			X
	MW-13R	MC33908-3	Water	9/24/2014		X	X			X
	MW-12R	MC33908-4	Water	9/24/2014		X	X			X
	MW-16R	MC33908-5	Water	9/24/2014		X	X			X
	MW-9	MC33908-6	Water	9/24/2014		X	X			X
	MW-8R	MC33908-7	Water	9/24/2014		X	X			X
	MW-10R	MC33908-8	Water	9/23/2014		X	X			X
	MW-11	MC33908-9	Water	9/25/2014		X	X			X
	MW-4R	MC33908-10	Water	9/25/2014		X	X			X
	NGO-DUP092314	MC33908-11	Water	9/23/2014	MW-10R	X	X			X
	MW-14R	MC33908-12	Water	9/25/2014		X	X			X
	MW-17R	MC33908-13	Water	9/25/2014		X	X			X
	TRIP BLANK	MC33908-14	Water	9/25/2014		X				

Note:

1. MISC-Miscellaneous Parameter: Cyanide
2. The matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on sample location MW-13R for VOCs, SVOCs, and cyanide (SDG # MC33908).

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X	X		
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

10. The executed Chain-of-Custody (COC) form incorrectly identified sample MW-17R as MW-17. Manual revisions were made to both the report and data base to reflect the correct sample identification. No qualification of the data was necessary.

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 8260C and 8270D-SIM as referenced in NYSDEC-ASP. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999 and USEPA Region II SOPs associated with USEPA SW-846: Validating Volatile Organic Compounds by GC/MS SW-846 Method 8260B (SOP HW-24, Revision 2, October 2006) and Validating Semivolatile Organic Compounds by GC/MS SW-846 Method 8270D (SOP HW-22, Revision 3, October 2006).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected as unusable. The compound may or may not be present in the sample.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260C	Water	14 days from collection to analysis	Cool to <6°C; preserved to a pH of less than 2 s.u.

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD analysis exhibited recoveries within the control limits.

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-10R / NGO-DUP092314 (MC33908-1)	Benzene	1660	689	82.7%
	Toluene	3.1	4.2	AC
	Ethylbenzene	24.5	43.1	55.0%
	Xylene (total)	15.4	15.8	2.5%

AC Acceptable
NC Not compliant

The compounds Benzene and ethylbenzene associated with sample locations MW-10R and NGO-DUP092314 exhibited a field duplicate RPD greater than the control limit. The associated sample results from sample locations for the listed analyte were qualified as estimated.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
MW-8R	Benzene	--	546 D	546 D
MW12R	Benzene	--	2580 D	2580 D
MW-10R	Benzene	--	1660 D	1660 D
NGO-DUP092314	Benzene	--	689 D	689 D
MW-15RS	Benzene	--	753 D	753 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260C	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS)		X		X	
Matrix Spike Duplicate(MSD)		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X	X		
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present				X	

VOCs: SW-846 8260C	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270D-SIM	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to <6°C

All samples were extracted and analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks and equipment rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Target compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution are acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration Verification (ICV)

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration Verification (CCV)

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All sample locations exhibited acceptable recoveries.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All sample locations associated with internal standards exhibited acceptable responses.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

Sample locations associated with the MS/MSD exhibited recoveries within the control.

Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
MW-13R(MC33908-1)	Acenaphthene
	Acenaphthylene
	Fluorene
	2-Methylnaphthalene
	Naphthalene

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit recoveries within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

9. Field Duplicate Sample Analysis

The field duplicate sample analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-10R/ NGO-DUP092314 (MC33908-1)	Acenaphthene	9.6	7.9	AC
	Acenaphthylene	6.0	3.1	AC
	Anthracene	2.3 U	2.3 U	AC
	Benz(a)anthracene	2.3 U	2.3 U	AC
	Benzo(a)pyrene	2.3 U	2.3 U	AC
	Benzo(b)fluoranthene	2.3 U	2.3 U	AC
	Benzo(g,h,i)perylene	2.3 U	2.3 U	AC
	Benzo(k)fluoranthene	2.3 U	2.3 U	AC
	Chrysene	2.3 U	2.3 U	AC
	Dibenzo(a,h)anthracene	2.3 U	2.3 U	AC
	Fluoranthene	2.3 U	2.3 U	AC
	Fluorene	3.9	3.2	AC
	Indeno(1,2,3-cd)pyrene	2.3 U	2.3 U	AC

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
	2-Methylnaphthalene	2.3 U	2.3 U	AC
	Naphthalene	19.5	13.2	38.5%
	Phenanthrene	1.3	0.97	AC
	Pyrene	2.3 U	2.3 U	AC

AC Acceptable

The compound naphthalene associated with sample locations MW-10R and NGO-DUP092314 exhibited a field duplicate RPD greater than the control limit. The associated sample results from sample locations for the listed analyte were qualified as estimated.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
MW-9	Naphthalene	--	454 D	454 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270D-SIM	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding Times		X		X	
Reporting Limits (units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment/Field Blanks					X
Laboratory Control Sample (LCS) Accuracy (%R)		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD RPD		X	X		
Field/Laboratory Duplicate Sample RPD		X	X		
Surrogate Spike %R		X		X	
Dilution Factor		X		X	
Tier III Validation					
System Performance and Column Resolution		X		X	
Initial Calibration %RSDs		X		X	
Continuing Calibration RRFs		X		X	
Continuing Calibration %Ds		X		X	
Instrument Tune and Performance Check		X		X	
Ion Abundance Criteria for Each Instrument Used		X		X	
Internal Standards		X		X	
Compound Identification and Quantitation					
A. Reconstructed Ion Chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of Sample Compounds Within the Established RT Windows		X		X	
D. Quantitation transcriptions/calculations		X		X	
E. Reporting Limits Adjusted for Sample Dilutions		X		X	

%R Percent Recovery
RPD Relative Percent Difference
%RSD Relative Standard Deviation
%D Percent Differencel

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 9012B. Data were reviewed in accordance with USEPA National Functional Guidelines of July 2002.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

  B The reported value was obtained from a reading less than the contract-required detection limit (CRDL), but greater than or equal to the instrument detection limit (IDL).

- Quantitation (Q) Qualifiers

  E The reported value is estimated due to the presence of interference.

  N Spiked sample recovery is not within control limits.

  * Duplicate analysis is not within control limits.

- Validation Qualifiers

  J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

  UB Analyte considered non-detect at the listed value due to associated blank contamination.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

GENERAL CHEMISTRY ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Total Cyanide by SW-846 9012B	Water	14 days from collection to analysis	Cool to <6°C; preserved to a pH of greater than 12.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 and all initial calibration verification standard recoveries were within control limits.

All calibration standard recoveries were within the control limit.

4. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS/MSD Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of

four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier “N” will be removed.

The MS/MSD analysis exhibited recoveries within the control limits.

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices.

The laboratory duplicate exhibited recoveries within the control limits.
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5. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-10R / NGO-DUP092314 (MC33908-1)	Cyanide, Total	0.42	0.43	AC

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

6. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 80% and 120%.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: SW-846 9012B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate(MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
Initial calibration %RSD or correlation coefficient		X		X	
Continuing calibration %R		X		X	
Raw Data		X		X	
Transcription/calculation errors present				X	
Reporting limits adjusted to reflect sample dilutions		X		X	

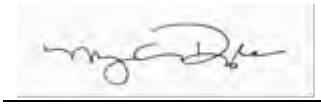
%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
MC33933	MW-20R	SW846	MC33933-1	Water	Yes	Yes	--	--	Yes	
	MW-19R	SW846	MC33933-2	Water	Yes	Yes	--	--	Yes	
	TRIP BLANK	SW846	MC33933-3	Water	Yes	--	--	--	--	
MC33841	MW-5R	SW846	MC33841-1	Water	Yes	Yes	--	--	Yes	
	MW-2	SW846	MC33841-2	Water	Yes	Yes	--	--	Yes	
	MW-15RS	SW846	MC33841-3	Water	Yes	Yes	--	--	Yes	Dilutions
	MW-15RD	SW846	MC33841-4	Water	Yes	Yes	--	--	Yes	
	TRIP BLANK	SW846	MC33841-5	Water	Yes	--	--	--	--	
MC33908	MW-15	SW846	MC33908-1	Water	Yes	Yes	--	--	Yes	
	MW-15	SW846	MC33908-2	Water	Yes	Yes	--	--	Yes	
	MW-13R	SW846	MC33908-3	Water	Yes	No	--	--	Yes	SVOC-MS/MSD/RPD
	MW-12R	SW846	MC33908-4	Water	Yes	Yes	--	--	Yes	Dilutions
	MW-16R	SW846	MC33908-5	Water	Yes	Yes	--	--	Yes	
	MW-9	SW846	MC33908-6	Water	Yes	Yes	--	--	Yes	
	MW-8R	SW846	MC33908-7	Water	Yes	Yes	--	--	Yes	Dilutions
	MW-10R	SW846	MC33908-8	Water	Yes	No	--	--	Yes	SVOC-Field Duplicate RPD, Dilutions
	MW-11	SW846	MC33908-9	Water	Yes	Yes	--	--	Yes	
	MW-4R	SW846	MC33908-10	Water	Yes	Yes	--	--	Yes	
	NGO-DUP092314	SW846	MC33908-11	Water	Yes	No	--	--	Yes	SVOC-Field Duplicate RPD
	MW-14R	SW846	MC33908-12	Water	Yes	Yes	--	--	Yes	Dilutions
	MW-17R	SW846	MC33908-13	Water	Yes	Yes	--	--	Yes	
	TRIP BLANK	SW846	MC33908-14	Water	Yes	--	--	--	--	

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable

Validation Performed By: Mary Ann Doyle

Signature: 

Date: November 10, 2014

Peer Review: Dennis Capria

Date: November 19, 2014

CHAIN OF CUSTODY /
CORRECTED SAMPLE ANALYSIS DATA SHEETS

22583

Accutest Laboratories

Report of Analysis

4.1
4

Client Sample ID:	MW-20R		
Lab Sample ID:	MC33933-1	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/27/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R40220.D	1	10/08/14	WK	09/29/14	OP40010	MSR1479
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.2	0.35	ug/l	
208-96-8	Acenaphthylene	ND	2.2	0.24	ug/l	
120-12-7	Anthracene	ND	2.2	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.54	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.92	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.97	ug/l	
218-01-9	Chrysene	ND	2.2	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.71	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.50	ug/l	
86-73-7	Fluorene	ND	2.2	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.92	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	ND	2.2	0.33	ug/l	
85-01-8	Phenanthrene	ND	2.2	0.15	ug/l	
129-00-0	Pyrene	ND	2.2	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	77%		30-130%
321-60-8	2-Fluorobiphenyl	68%		30-130%
1718-51-0	Terphenyl-d14	102%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-20R		
Lab Sample ID:	MC33933-1	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/27/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	10/03/14 11:50	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-19R		
Lab Sample ID:	MC33933-2	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/27/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V35121.D	1	10/01/14	AMY	n/a	n/a	MSV1277
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-19R		
Lab Sample ID:	MC33933-2	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/27/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R40221.D	1	10/08/14	WK	09/29/14	OP40010	MSR1479
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.2	0.35	ug/l	
208-96-8	Acenaphthylene	ND	2.2	0.24	ug/l	
120-12-7	Anthracene	ND	2.2	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.54	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.92	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.97	ug/l	
218-01-9	Chrysene	ND	2.2	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.71	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.50	ug/l	
86-73-7	Fluorene	ND	2.2	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.92	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	ND	2.2	0.33	ug/l	
85-01-8	Phenanthrene	ND	2.2	0.15	ug/l	
129-00-0	Pyrene	ND	2.2	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	66%		30-130%
321-60-8	2-Fluorobiphenyl	62%		30-130%
1718-51-0	Terphenyl-d14	101%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-19R		
Lab Sample ID:	MC33933-2	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/27/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	<0.010	0.010	mg/l	1	10/03/14 11:51	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	MC33933-3	Date Sampled:	09/26/14
Matrix:	AQ - Trip Blank Water	Date Received:	09/27/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V35061.D	1	09/29/14	AMY	n/a	n/a	MSV1275
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 1 OF 1

FED EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: MC33933

Client / Reporting Information

Company Name: ARCADIS
Street Address: 6723 Towpath Rd
City: Syracuse State: NY Zip: 13214
Project Contact: Doug Nadine E-mail:
Phone #: (315)-671-9377 Fax #:
Sampler(s) Name(s): Ryan Merrell Phone #: (315)399-3844

Project Information

Project Name: National Grid Ogdensburg
Street: King St
City: Ogdensburg, NY
Client PO#: B0036671.0003.0000
Project Manager: Mike Benoit

Billing Information (If different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention: PO#:

Requested Analysis (see TEST CODE sheet)

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Time	Sampled by	Matrix	# of bottles	HCl	H2SO4	NaOH	HNO3	NONE	DI Water	MEOH	ENCORE	Bottles	BTEX	PAH	Total Cyanide	LAB USE ONLY
-1	MW-20R		9/25/14	1530	RM	GW	6	3	1			2				3	3	2	1	
-2	MW-19R		9/25/14	1715	RM	GW	6	3	1			2				3	3	2	1	
-3	TRIP BLANK		9/26/14	—	—	TB	2									2	2			

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED - Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

17C, 11E, 1E2

Turnaround Time (Business days)

Approved By (Accutest PM): / Date:

- [X] Std. 10 Business Days
- [ ] Std. 5 Business Days (By Contract only)
- [ ] 3 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY

Emergency & Rush T/A data available VIA Labtrak

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [X] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] CT RCP
- [ ] MA MCP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [X] EDD Format Core
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

ACCUTEST SYRACUSE-SC

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Ryan Merrell	9/26/14 1200		2		2 FED EX
3	FED EX	9/27/14 10:00	3	4		4
5			5	Custody Seal #	Intact / Not Intact	Preserved where applicable: On Ice: 1.9c Cooler Temp:

5.1 5

MC33933: Chain of Custody
Page 1 of 2

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Accutest Laboratories

Report of Analysis

4.1

Client Sample ID:	MW-5R		
Lab Sample ID:	MC33841-1	Date Sampled:	09/22/14
Matrix:	AQ - Ground Water	Date Received:	09/24/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R40059.D	1	10/01/14	WK	09/25/14	OP39961	MSR1474
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	9.8	2.2	0.35	ug/l	
208-96-8	Acenaphthylene	6.6	2.2	0.24	ug/l	
120-12-7	Anthracene	0.50	2.2	0.21	ug/l	J
56-55-3	Benzo(a)anthracene	ND	2.2	0.54	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.92	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.97	ug/l	
218-01-9	Chrysene	ND	2.2	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.71	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.50	ug/l	
86-73-7	Fluorene	4.7	2.2	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.92	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	4.1	2.2	0.33	ug/l	
85-01-8	Phenanthrene	2.6	2.2	0.15	ug/l	
129-00-0	Pyrene	ND	2.2	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	78%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%
1718-51-0	Terphenyl-d14	96%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-5R		
Lab Sample ID:	MC33841-1	Date Sampled:	09/22/14
Matrix:	AQ - Ground Water	Date Received:	09/24/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.010	0.010	mg/l	1	10/03/14 11:30	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	MC33841-2	Date Sampled:	09/23/14
Matrix:	AQ - Ground Water	Date Received:	09/24/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	N90634.D	10	09/26/14	KD	n/a	n/a	MSN3353
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	60.9	5.0	3.2	ug/l	
108-88-3	Toluene	29.2	10	3.3	ug/l	
100-41-4	Ethylbenzene	ND	10	3.8	ug/l	
1330-20-7	Xylene (total)	23.0	10	3.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

(a) Elevated RL due to sample matrix.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	MC33841-2	Date Sampled:	09/23/14
Matrix:	AQ - Ground Water	Date Received:	09/24/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R40060.D	1	10/01/14	WK	09/25/14	OP39961	MSR1474
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1.8	2.2	0.35	ug/l	J
208-96-8	Acenaphthylene	7.7	2.2	0.23	ug/l	
120-12-7	Anthracene	1.7	2.2	0.20	ug/l	J
56-55-3	Benzo(a)anthracene	3.3	2.2	0.53	ug/l	
50-32-8	Benzo(a)pyrene	2.8	2.2	0.17	ug/l	
205-99-2	Benzo(b)fluoranthene	3.5	2.2	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	1.6	2.2	0.90	ug/l	J
207-08-9	Benzo(k)fluoranthene	1.4	2.2	0.95	ug/l	J
218-01-9	Chrysene	2.6	2.2	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.69	ug/l	
206-44-0	Fluoranthene	6.9	2.2	0.49	ug/l	
86-73-7	Fluorene	2.3	2.2	0.23	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	1.4	2.2	0.90	ug/l	J
91-57-6	2-Methylnaphthalene	5.8	2.2	0.29	ug/l	
91-20-3	Naphthalene	117	2.2	0.32	ug/l	
85-01-8	Phenanthrene	4.1	2.2	0.15	ug/l	
129-00-0	Pyrene	5.4	2.2	0.18	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	70%		30-130%
1718-51-0	Terphenyl-d14	80%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	MC33841-2	Date Sampled:	09/23/14
Matrix:	AQ - Ground Water	Date Received:	09/24/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.90	0.050	mg/l	5	10/03/14 11:52	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-15RS		
Lab Sample ID:	MC33841-3	Date Sampled:	09/22/14
Matrix:	AQ - Ground Water	Date Received:	09/24/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90613.D	1	09/26/14	KD	n/a	n/a	MSN3352
Run #2	N90636.D	50	09/26/14	KD	n/a	n/a	MSN3353

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	753	25	16	ug/l	D
108-88-3	Toluene	0.54	1.0	0.33	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%	98%	70-130%
2037-26-5	Toluene-D8	99%	102%	70-130%
460-00-4	4-Bromofluorobenzene	97%	99%	70-130%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15RS		
Lab Sample ID:	MC33841-3	Date Sampled:	09/22/14
Matrix:	AQ - Ground Water	Date Received:	09/24/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R40061.D	1	10/01/14	WK	09/25/14	OP39961	MSR1474
Run #2							

	Initial Volume	Final Volume
Run #1	850 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.4	0.37	ug/l	
208-96-8	Acenaphthylene	ND	2.4	0.25	ug/l	
120-12-7	Anthracene	ND	2.4	0.22	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.4	0.58	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.4	0.19	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.4	0.29	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.4	0.98	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.4	1.0	ug/l	
218-01-9	Chrysene	ND	2.4	0.19	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.4	0.75	ug/l	
206-44-0	Fluoranthene	ND	2.4	0.53	ug/l	
86-73-7	Fluorene	ND	2.4	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.4	0.97	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.4	0.31	ug/l	
91-20-3	Naphthalene	ND	2.4	0.35	ug/l	
85-01-8	Phenanthrene	ND	2.4	0.16	ug/l	
129-00-0	Pyrene	ND	2.4	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	70%		30-130%
321-60-8	2-Fluorobiphenyl	68%		30-130%
1718-51-0	Terphenyl-d14	88%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-15RS		
Lab Sample ID:	MC33841-3	Date Sampled:	09/22/14
Matrix:	AQ - Ground Water	Date Received:	09/24/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

4.3

4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.16	0.010	mg/l	1	10/03/14 11:32	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-15RD		
Lab Sample ID:	MC33841-4	Date Sampled:	09/22/14
Matrix:	AQ - Ground Water	Date Received:	09/24/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90633.D	1	09/26/14	KD	n/a	n/a	MSN3353
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.84	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15RD		
Lab Sample ID:	MC33841-4	Date Sampled:	09/22/14
Matrix:	AQ - Ground Water	Date Received:	09/24/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R40062.D	1	10/01/14	WK	09/25/14	OP39961	MSR1474
Run #2							

	Initial Volume	Final Volume
Run #1	860 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.3	0.37	ug/l	
208-96-8	Acenaphthylene	ND	2.3	0.25	ug/l	
120-12-7	Anthracene	ND	2.3	0.22	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.3	0.57	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.3	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.3	0.29	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.3	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.3	1.0	ug/l	
218-01-9	Chrysene	ND	2.3	0.19	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.3	0.74	ug/l	
206-44-0	Fluoranthene	ND	2.3	0.52	ug/l	
86-73-7	Fluorene	ND	2.3	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.3	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.3	0.30	ug/l	
91-20-3	Naphthalene	ND	2.3	0.34	ug/l	
85-01-8	Phenanthrene	ND	2.3	0.16	ug/l	
129-00-0	Pyrene	ND	2.3	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	79%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%
1718-51-0	Terphenyl-d14	89%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15RD		
Lab Sample ID:	MC33841-4	Date Sampled:	09/22/14
Matrix:	AQ - Ground Water	Date Received:	09/24/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	10/03/14 11:33	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	MC33841-5	Date Sampled:	09/23/14
Matrix:	AQ - Trip Blank Water	Date Received:	09/24/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90603.D	1	09/26/14	KD	n/a	n/a	MSN3352
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 1 OF 1

FED-Ex Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: MC33841

Client / Reporting Information

Company Name: ARCADIS
Street Address: 6723 Towpath Rd
City State Zip: Syracuse NY 13214
Project Contact: Doug Nodine | E-mail:
Phone #: (315)671-9377 (same) | Fax #:
Sampler(s) Name(s): Kasey Petrah 315-663-5505 | Phone #:

Project Information

Project Name: National Grid Ogdensburg
Street: King St
City: Ogdensburg, NY
Project #: BDO36671.0003.0000
Client PO#:
Project Manager: Mike Benoit

Billing Information (If different from Report to)

Company Name:
Street Address:
City State Zip:
Attention: PO#

Requested Analysis (see TEST CODE sheet)

Field ID / Point of Collection	MEOH Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	EnCore	Bottles	BTEX	PAH	Total Cyanide	LAB USE ONLY
-1 MW-5R		9/22/14	1805	KP	GW	6	3	1			2					3	2	1	
-2 MW-2		9/23/14	1400	KP	GW	6	3	1			2					3	2	1	
-3 MW-15RS		9/22/14	950	KP	GW	6	3	1			2					3	2	1	
-4 MW-15RD		9/22/14	1115	KP	GW	6	3	1			2					3	2	1	
-5 Trip Blank		9/23/14	—	—	TB	1	1									1			
																			564 10E, 17B

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB- Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Turnaround Time (Business days)

- [ ] Std. 10 Business Days
- [ ] Std. 5 Business Days (By Contract only)
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date: Confirm w/ PM or Doug Nodine

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] CT RCP
- [ ] MA MCP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

ACCUTEST SYRACUSE-SC

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Kasey Petrah	9/23/14 1500	1	2 FED EX	9-24-14 130	2
3	Relinquished by Sampler:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Intact / Not Intact	Preserved where applicable

On Ice: | Cooler Temp: 5.1 C

5.1 5

MC33841: Chain of Custody
Page 1 of 2

22583

Accutest LabLink@153326 15:12 14-Oct-2014

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	MC33908-1	Date Sampled:	09/24/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76572.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.1	0.33	ug/l	
208-96-8	Acenaphthylene	ND	2.1	0.23	ug/l	
120-12-7	Anthracene	ND	2.1	0.20	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.1	0.52	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.1	0.17	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.1	0.26	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.1	0.87	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.1	0.92	ug/l	
218-01-9	Chrysene	ND	2.1	0.17	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.1	0.67	ug/l	
206-44-0	Fluoranthene	ND	2.1	0.47	ug/l	
86-73-7	Fluorene	ND	2.1	0.22	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.1	0.87	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.1	0.28	ug/l	
91-20-3	Naphthalene	ND	2.1	0.31	ug/l	
85-01-8	Phenanthrene	ND	2.1	0.14	ug/l	
129-00-0	Pyrene	0.35	2.1	0.18	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	57%		30-130%
321-60-8	2-Fluorobiphenyl	60%		30-130%
1718-51-0	Terphenyl-d14	85%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	MC33908-1	Date Sampled:	09/24/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	10/03/14 11:36	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-15		
Lab Sample ID:	MC33908-2	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22733.D	1	09/29/14	GK	n/a	n/a	MSU990
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	105%		70-130%
460-00-4	4-Bromofluorobenzene	123%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-13R		
Lab Sample ID:	MC33908-3	Date Sampled:	09/24/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22729.D	1	09/29/14	GK	n/a	n/a	MSU990
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	124%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-13R		
Lab Sample ID:	MC33908-3	Date Sampled:	09/24/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76571.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	860 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.3	0.37	ug/l	J
208-96-8	Acenaphthylene	ND	2.3	0.25	ug/l	J
120-12-7	Anthracene	ND	2.3	0.22	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.3	0.57	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.3	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.3	0.29	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.3	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.3	1.0	ug/l	
218-01-9	Chrysene	ND	2.3	0.19	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.3	0.74	ug/l	
206-44-0	Fluoranthene	ND	2.3	0.52	ug/l	
86-73-7	Fluorene	ND	2.3	0.25	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.3	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.3	0.30	ug/l	J
91-20-3	Naphthalene	ND	2.3	0.34	ug/l	J
85-01-8	Phenanthrene	ND	2.3	0.16	ug/l	
129-00-0	Pyrene	ND	2.3	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	69%		30-130%
1718-51-0	Terphenyl-d14	82%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-13R		
Lab Sample ID:	MC33908-3	Date Sampled:	09/24/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	10/03/14 11:29	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-12R		
Lab Sample ID:	MC33908-4	Date Sampled:	09/24/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22738.D	5	09/29/14	GK	n/a	n/a	MSU990
Run #2	N90794.D	100	10/01/14	JB	n/a	n/a	MSN3359

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	2580	50	32	ug/l	D
108-88-3	Toluene	7.4	5.0	1.7	ug/l	
100-41-4	Ethylbenzene	131	5.0	1.9	ug/l	
1330-20-7	Xylene (total)	49.4	5.0	1.8	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%	94%	70-130%
2037-26-5	Toluene-D8	103%	100%	70-130%
460-00-4	4-Bromofluorobenzene	124%	93%	70-130%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-12R		
Lab Sample ID:	MC33908-4	Date Sampled:	09/24/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76573.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	3.4	2.2	0.35	ug/l	
208-96-8	Acenaphthylene	4.8	2.2	0.24	ug/l	
120-12-7	Anthracene	ND	2.2	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.54	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.92	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.97	ug/l	
218-01-9	Chrysene	ND	2.2	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.71	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.50	ug/l	
86-73-7	Fluorene	ND	2.2	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.92	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	30.8	2.2	0.33	ug/l	
85-01-8	Phenanthrene	ND	2.2	0.15	ug/l	
129-00-0	Pyrene	ND	2.2	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	77%		30-130%
321-60-8	2-Fluorobiphenyl	73%		30-130%
1718-51-0	Terphenyl-d14	71%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-12R		
Lab Sample ID:	MC33908-4	Date Sampled:	09/24/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.19	0.010	mg/l	1	10/03/14 11:37	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-16R		
Lab Sample ID:	MC33908-5	Date Sampled:	09/24/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22732.D	1	09/29/14	GK	n/a	n/a	MSU990
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	125%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-16R		
Lab Sample ID:	MC33908-5	Date Sampled:	09/24/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76574.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.1	0.34	ug/l	
208-96-8	Acenaphthylene	ND	2.1	0.23	ug/l	
120-12-7	Anthracene	ND	2.1	0.20	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.1	0.52	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.1	0.17	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.1	0.26	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.1	0.88	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.1	0.93	ug/l	
218-01-9	Chrysene	ND	2.1	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.1	0.68	ug/l	
206-44-0	Fluoranthene	ND	2.1	0.48	ug/l	
86-73-7	Fluorene	ND	2.1	0.23	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.1	0.88	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.1	0.28	ug/l	
91-20-3	Naphthalene	ND	2.1	0.32	ug/l	
85-01-8	Phenanthrene	ND	2.1	0.15	ug/l	
129-00-0	Pyrene	ND	2.1	0.18	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	60%		30-130%
321-60-8	2-Fluorobiphenyl	53%		30-130%
1718-51-0	Terphenyl-d14	74%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-16R		
Lab Sample ID:	MC33908-5	Date Sampled:	09/24/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.016	0.010	mg/l	1	10/03/14 11:38	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-9		
Lab Sample ID:	MC33908-6	Date Sampled:	09/24/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N90793.D	1	10/01/14	JB	n/a	n/a	MSN3359
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	284	0.50	0.32	ug/l	
108-88-3	Toluene	165	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	117	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	247	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-9		
Lab Sample ID:	MC33908-6	Date Sampled:	09/24/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76575.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2	R40138.D	5	10/04/14	WK	09/27/14	OP39993	MSR1476

	Initial Volume	Final Volume
Run #1	860 ml	1.0 ml
Run #2	860 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	75.8	2.3	0.37	ug/l	
208-96-8	Acenaphthylene	29.4	2.3	0.25	ug/l	
120-12-7	Anthracene	10.8	2.3	0.22	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.3	0.57	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.3	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.3	0.29	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.3	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.3	1.0	ug/l	
218-01-9	Chrysene	ND	2.3	0.19	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.3	0.74	ug/l	
206-44-0	Fluoranthene	6.0	2.3	0.52	ug/l	
86-73-7	Fluorene	55.7	2.3	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.3	0.96	ug/l	
91-57-6	2-Methylnaphthalene	13.7	2.3	0.30	ug/l	
91-20-3	Naphthalene	454	12	1.7	ug/l	D
85-01-8	Phenanthrene	50.9	2.3	0.16	ug/l	
129-00-0	Pyrene	3.5	2.3	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	70%	78%	30-130%
321-60-8	2-Fluorobiphenyl	62%	71%	30-130%
1718-51-0	Terphenyl-d14	64%	69%	30-130%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-9		
Lab Sample ID:	MC33908-6	Date Sampled:	09/24/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.41	0.010	mg/l	1	10/03/14 11:39	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-8R		
Lab Sample ID:	MC33908-7	Date Sampled:	09/24/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22777.D	1	10/02/14	GK	n/a	n/a	MSU992
Run #2	P80350.D	20	10/03/14	GK	n/a	n/a	MSP2629

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	546	10	6.3	ug/l	D
108-88-3	Toluene	10.0	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	13.2	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	18.9	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%	83%	70-130%
2037-26-5	Toluene-D8	95%	95%	70-130%
460-00-4	4-Bromofluorobenzene	105%	82%	70-130%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-8R		
Lab Sample ID:	MC33908-7	Date Sampled:	09/24/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76576.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	860 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	5.6	2.3	0.37	ug/l	
208-96-8	Acenaphthylene	6.7	2.3	0.25	ug/l	
120-12-7	Anthracene	0.94	2.3	0.22	ug/l	J
56-55-3	Benzo(a)anthracene	ND	2.3	0.57	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.3	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.3	0.29	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.3	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.3	1.0	ug/l	
218-01-9	Chrysene	0.39	2.3	0.19	ug/l	J
53-70-3	Dibenzo(a,h)anthracene	ND	2.3	0.74	ug/l	
206-44-0	Fluoranthene	1.5	2.3	0.52	ug/l	J
86-73-7	Fluorene	4.4	2.3	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.3	0.96	ug/l	
91-57-6	2-Methylnaphthalene	3.7	2.3	0.30	ug/l	
91-20-3	Naphthalene	32.9	2.3	0.34	ug/l	
85-01-8	Phenanthrene	2.7	2.3	0.16	ug/l	
129-00-0	Pyrene	1.1	2.3	0.20	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	53%		30-130%
321-60-8	2-Fluorobiphenyl	48%		30-130%
1718-51-0	Terphenyl-d14	75%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-8R		
Lab Sample ID:	MC33908-7	Date Sampled:	09/24/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.059	0.010	mg/l	1	10/03/14 11:40	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	MC33908-8	Date Sampled:	09/23/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22775.D	1	10/02/14	GK	n/a	n/a	MSU992
Run #2	P80351.D	20	10/03/14	GK	n/a	n/a	MSP2629

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1660	10	6.3	ug/l	J D
108-88-3	Toluene	3.1	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	24.5	1.0	0.38	ug/l	J
1330-20-7	Xylene (total)	15.4	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%	84%	70-130%
2037-26-5	Toluene-D8	94%	92%	70-130%
460-00-4	4-Bromofluorobenzene	103%	82%	70-130%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	MC33908-8	Date Sampled:	09/23/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76577.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	860 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	9.6	2.3	0.37	ug/l	
208-96-8	Acenaphthylene	6.0	2.3	0.25	ug/l	
120-12-7	Anthracene	ND	2.3	0.22	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.3	0.57	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.3	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.3	0.29	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.3	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.3	1.0	ug/l	
218-01-9	Chrysene	ND	2.3	0.19	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.3	0.74	ug/l	
206-44-0	Fluoranthene	ND	2.3	0.52	ug/l	
86-73-7	Fluorene	3.9	2.3	0.25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.3	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.3	0.30	ug/l	
91-20-3	Naphthalene	19.5	2.3	0.34	ug/l	J
85-01-8	Phenanthrene	1.3	2.3	0.16	ug/l	J
129-00-0	Pyrene	ND	2.3	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	67%		30-130%
321-60-8	2-Fluorobiphenyl	59%		30-130%
1718-51-0	Terphenyl-d14	75%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-10R		
Lab Sample ID:	MC33908-8	Date Sampled:	09/23/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.42	0.010	mg/l	1	10/03/14 11:41	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	MC33908-9	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22767.D	1	10/02/14	GK	n/a	n/a	MSU992
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	111%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	MC33908-9	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76578.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	910 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.2	0.35	ug/l	
208-96-8	Acenaphthylene	ND	2.2	0.24	ug/l	
120-12-7	Anthracene	ND	2.2	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.54	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.17	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.91	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.96	ug/l	
218-01-9	Chrysene	ND	2.2	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.70	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.49	ug/l	
86-73-7	Fluorene	ND	2.2	0.23	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.91	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	ND	2.2	0.33	ug/l	
85-01-8	Phenanthrene	ND	2.2	0.15	ug/l	
129-00-0	Pyrene	ND	2.2	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	61%		30-130%
1718-51-0	Terphenyl-d14	58%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11		
Lab Sample ID:	MC33908-9	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.25	0.010	mg/l	1	10/03/14 11:42	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-4R		
Lab Sample ID:	MC33908-10	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22768.D	1	10/02/14	GK	n/a	n/a	MSU992
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	106%		70-130%
460-00-4	4-Bromofluorobenzene	112%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4R		
Lab Sample ID:	MC33908-10	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76579.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	680 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.9	0.47	ug/l	
208-96-8	Acenaphthylene	ND	2.9	0.32	ug/l	
120-12-7	Anthracene	ND	2.9	0.28	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.9	0.72	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.9	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.9	0.36	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.9	1.2	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.9	1.3	ug/l	
218-01-9	Chrysene	ND	2.9	0.24	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.9	0.94	ug/l	
206-44-0	Fluoranthene	ND	2.9	0.66	ug/l	
86-73-7	Fluorene	ND	2.9	0.31	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.9	1.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.9	0.39	ug/l	
91-20-3	Naphthalene	ND	2.9	0.44	ug/l	
85-01-8	Phenanthrene	ND	2.9	0.20	ug/l	
129-00-0	Pyrene	ND	2.9	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	50%		30-130%
321-60-8	2-Fluorobiphenyl	50%		30-130%
1718-51-0	Terphenyl-d14	51%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4R		
Lab Sample ID:	MC33908-10	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.055	0.010	mg/l	1	10/03/14 11:43	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	NGO-DUP092314		
Lab Sample ID:	MC33908-11	Date Sampled:	09/23/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22776.D	1	10/02/14	GK	n/a	n/a	MSU992
Run #2	P80352.D	20	10/03/14	GK	n/a	n/a	MSP2629

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	689	10	6.3	ug/l	JD
108-88-3	Toluene	4.2	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	43.1	1.0	0.38	ug/l	J
1330-20-7	Xylene (total)	15.8	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%	85%	70-130%
2037-26-5	Toluene-D8	96%	94%	70-130%
460-00-4	4-Bromofluorobenzene	105%	84%	70-130%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NGO-DUP092314		
Lab Sample ID:	MC33908-11	Date Sampled:	09/23/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76580.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	880 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	7.9	2.3	0.36	ug/l	
208-96-8	Acenaphthylene	3.1	2.3	0.24	ug/l	
120-12-7	Anthracene	ND	2.3	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.3	0.56	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.3	0.18	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.3	0.28	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.3	0.94	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.3	0.99	ug/l	
218-01-9	Chrysene	ND	2.3	0.19	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.3	0.72	ug/l	
206-44-0	Fluoranthene	ND	2.3	0.51	ug/l	
86-73-7	Fluorene	3.2	2.3	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.3	0.94	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.3	0.30	ug/l	
91-20-3	Naphthalene	13.2	2.3	0.34	ug/l	J
85-01-8	Phenanthrene	0.97	2.3	0.16	ug/l	J
129-00-0	Pyrene	ND	2.3	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	60%		30-130%
321-60-8	2-Fluorobiphenyl	57%		30-130%
1718-51-0	Terphenyl-d14	58%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NGO-DUP092314		
Lab Sample ID:	MC33908-11	Date Sampled:	09/23/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.43	0.010	mg/l	1	10/03/14 11:44	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-14R		
Lab Sample ID:	MC33908-12	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22769.D	1	10/02/14	GK	n/a	n/a	MSU992
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	3.0	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	103%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-14R		
Lab Sample ID:	MC33908-12	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76581.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.2	0.35	ug/l	
208-96-8	Acenaphthylene	ND	2.2	0.23	ug/l	
120-12-7	Anthracene	ND	2.2	0.20	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.53	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.17	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.90	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.95	ug/l	
218-01-9	Chrysene	ND	2.2	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.69	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.49	ug/l	
86-73-7	Fluorene	ND	2.2	0.23	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.90	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	ND	2.2	0.32	ug/l	
85-01-8	Phenanthrene	ND	2.2	0.15	ug/l	
129-00-0	Pyrene	ND	2.2	0.18	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	66%		30-130%
1718-51-0	Terphenyl-d14	57%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-14R		
Lab Sample ID:	MC33908-12	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	<0.010	0.010	mg/l	1	10/03/14 11:45	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-17 R		
Lab Sample ID:	MC33908-13	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22770.D	1	10/02/14	GK	n/a	n/a	MSU992
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-17R		
Lab Sample ID:	MC33908-13	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
Method:	SW846 8270D SW846 3510C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F76582.D	1	10/02/14	WK	09/27/14	OP39993	MSF3358
Run #2							

	Initial Volume	Final Volume
Run #1	910 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.2	0.35	ug/l	
208-96-8	Acenaphthylene	ND	2.2	0.24	ug/l	
120-12-7	Anthracene	ND	2.2	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.2	0.54	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.2	0.17	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.2	0.27	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.2	0.91	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.2	0.96	ug/l	
218-01-9	Chrysene	ND	2.2	0.18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.2	0.70	ug/l	
206-44-0	Fluoranthene	ND	2.2	0.49	ug/l	
86-73-7	Fluorene	ND	2.2	0.23	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.2	0.91	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	0.29	ug/l	
91-20-3	Naphthalene	ND	2.2	0.33	ug/l	
85-01-8	Phenanthrene	ND	2.2	0.15	ug/l	
129-00-0	Pyrene	ND	2.2	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	57%		30-130%
321-60-8	2-Fluorobiphenyl	53%		30-130%
1718-51-0	Terphenyl-d14	58%		30-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-17 R		
Lab Sample ID:	MC33908-13	Date Sampled:	09/25/14
Matrix:	AQ - Ground Water	Date Received:	09/26/14
		Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	<0.010	0.010	mg/l	1	10/03/14 11:48	MA	SW846 9012

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	MC33908-14	Date Sampled:	09/25/14
Matrix:	AQ - Trip Blank Water	Date Received:	09/26/14
Method:	SW846 8260C	Percent Solids:	n/a
Project:	National Grid, 10 King Street, Ogdensburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U22762.D	1	10/02/14	GK	n/a	n/a	MSU992
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	103%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

3 coolers

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: MC33908

Client / Reporting Information	Project Information	Requested Analysis (see TEST CODE sheet)	Matrix Codes
Company Name: ARCADIS	Project Name: National Grid Ogdensburg		DW - Drinking Water, GW - Ground Water, WW - Water, SW - Surface Water, SO - Soil, SL - Sludge, SED - Sediment, OI - Oil, LIQ - Other Liquid, AIR - Air, SOL - Other Solid, WP - Wipe, FB - Field Blank, EB - Equipment Blank, RB - Rinse Blank, TB - Trip Blank
Street Address: 6723 Towpath Rd	Street: King St	Billing Information (if different from Report to)	
City, State, Zip: Syracuse NY 13214	City: Ogdensburg, NY	Company Name	
Project Contact, E-mail: Doug Nodine	Project #: B003667I.0003.00001	Street Address	
Phone #, Fax #: (315) 671-9877	Client PO#:	City, State, Zip	
Sampler(s) Name(s), Phone #: Kasey Petrah (315)663-5575	Project Manager: Mike Benoit	Attention, PO#	

#	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	None	DI Water	MeOH	Encore	Sonflex	BTEX	PAH	Total Cyanide	LAB USE ONLY
-1	MW-15		9/24/14	1800	RM	GW	3	Ø	1			2					Ø	2	-	
-2	MW-15		9/25/14	1330	RM	GW	3	3	Ø			Ø					3	Ø	Ø	
-3	MW-13R		9/24/14	1600	KP	GW	6	3	1			2					3	2	-	
-3S	MW-13R MS		9/24/14	1600	KP	GW	6	3	1			2					3	2	-	
-3SD	MW-13R MSD		9/24/14	1600	KP	GW	6	3	1			2					3	2	-	
-4	MW-12R		9/24/14	1310	RM	GW	6	3	1			2					3	2	-	
-5	MW-16R		9/24/14	1230	KP	GW	6	3	1			2					3	2	-	
-6	MW-9		9/24/14	1035	RM	GW	6	3	1			2					3	2	-	
-7	MW-8R		9/24/14	0850	KP	GW	6	3	1			2					3	2	-	17C,
-8	MW-10R		9/23/14	1440	KP	GW	6	3	1			2					3	2	-	183, 11B,
-9	MW-11		9/25/14	855	RM	GW	6	3	1			2					3	2	-	
-10	MW-4R		9/25/14	1030	RM	GW	6	3	1			2					3	2	-	

Turnaround Time (Business days)
- [X] Std. 10 Business Days
- [ ] Std. 5 Business Days (By Contract only)
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY

Emergency & Rush T/A data available VIA Labfax

Approved By (Accutest PM): / Date:

Data Deliverable Information
- [ ] Commercial "A" (Level 1)
- [X] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] CT RCP
- [ ] MA MCP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [X] EDD Format CORE
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

*Std 10 DAY TAT Applies to samples shipped on 9/23/14 ASwell

ACCUTEST SYRACUSE-SC

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Kasey Petrah	9/25/14 1530	1	2 FX	9-26-14 10:20	2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp.
5		5	Intact / Not Intact		8 / 0.4°C / 1.2°C

0.2°C

5.1 5

MC33908: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

FED EX Tracking #: | Accutest Quote #: | Accutest Job #: MC33908

Client / Reporting Information

Company Name: Arcadis
Street Address: 6723 Towpath Rd
City: Syracuse State: NY Zip: 13214
Project Contact: Doug Nodine E-mail:
Phone #: 315-671-9377 Fax #:
Sampler(s) Name(s): Kasey Petrich Phone #: 315-663-5375

Project Information

Project Name: National Grid Ogdensburg
Street: King St.
City: Ogdensburg State: NY
Project #: 30036671.00003.0000
Client PO#:
Project Manager: Mike Benoit

Billing Information (If different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention: PO#:

Requested Analysis (see TEST CODE sheet)

Field ID / Point of Collection	MEOH/DI* vol #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	H2SO4	HNO3	DI Water	MeOH	EnCore	Bisulfate	BTEX	Total Cyanide	PAH	LAB USE ONLY
NGO-DUP092314		9/23/14	—	KP	GW	6	3	1			2				3	1	2	
MW-14R		9/25/14	1330	BM	GW	6	3	1			2				3	1	2	
MW-17 R		9/25/14	1235	BM	GW	6	3	1			2				3	1	2	
Trip Blank		9/25/14	—	—	TB	1	1								1			

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED - Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] Std. 5 Business Days (By Contract only)
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY

Emergency & Rush T/A data available VIA Labtrak

Approved By (Accutest PM) / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [x] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] CT RCP
- [ ] MA MCP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [x] EDD Format CORE
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Kasey Petrich	9/25/14 1530	1	2 FX	9-26-14 1000	2 BL
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: 0.4°C 0.2°C 1.2°C
5		5	Intact / Not Intact		Cooler Temp.

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

ARCADIS U.S., Inc.
630 Plaza Drive
Suite 600
Highlands Ranch CO 80129

Report Date: November 09, 2017 23:53

Project: National Grid - Ogdensburg, NY

Account #: 03074
Group Number: 1865632
SDG: NGC04
PO Number: B0036671.0003
State of Sample Origin: NY

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To Arcadis

Attn: Doug Nodine

Respectfully Submitted,

Megan A. Moeller
Senior Specialist

(717) 556-7261

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
MW-17R Grab Groundwater	10/18/2017 13:25	9275797
MW-19R Grab Groundwater	10/18/2017 14:00	9275798
MW-14R Grab Groundwater	10/18/2017 14:35	9275799
MW-14R-MS Grab Groundwater	10/18/2017 14:35	9275800
MW-14R-MSD Grab Groundwater	10/18/2017 14:35	9275801
MW-14R-DUP Grab Groundwater	10/18/2017 14:35	9275802
MW-20R Grab Groundwater	10/18/2017 15:50	9275803
MW-11 Grab Groundwater	10/18/2017 16:15	9275804
DUP-1 Grab Groundwater	10/18/2017	9275805
MW-10R Grab Groundwater	10/19/2017 09:15	9275806
MW-15RS Grab Groundwater	10/19/2017 10:05	9275807
MW-15 Grab Groundwater	10/19/2017 11:10	9275808
MW-8R Grab Groundwater	10/19/2017 11:20	9275809
Trip Blank Grab Water	10/18/2017	9275810

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Project Name: National Grid - Ogdensburg, NY
ELLE Group #: 1865632

General Comments:

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client. The compliance signature is located on the cover page of the Analysis Reports.

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below.

Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are included in this data set.

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

For dual column analyses, the surrogate (for multi-surrogate tests, at least one surrogate) must be within the acceptance limits on at least one of the two columns.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Preservation requirements were not met.

Sample #: 9275808

> Preservation requirements were not met. The pH preservation of all non-volatile containers was checked upon receipt at the laboratory. The container for the following analysis was not within specification and was adjusted accordingly by the laboratory: Total Cyanide (water)

Analysis Specific Comments:

No additional comments are necessary.

Sample Description: **MW-17R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/18/2017 13:25
SDG#: NGC04-01

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275797
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	N.D.	0.5	0.1	1
14250	Acenaphthylene	208-96-8	N.D.	0.5	0.1	1
14250	Anthracene	120-12-7	N.D.	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.	0.5	0.1	1
14250	Fluorene	86-73-7	N.D.	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.	0.5	0.1	1
14250	Naphthalene	91-20-3	N.D.	0.5	0.1	1
14250	Phenanthrene	85-01-8	N.D.	0.5	0.1	1
14250	Pyrene	129-00-0	N.D.	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	N.D.	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 16:34	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 16:34	Anthony H Downey	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/06/2017 20:44	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:08	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-19R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/18/2017 14:00
SDG#: NGC04-02

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275798
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	N.D.	0.5	0.1	1
14250	Acenaphthylene	208-96-8	N.D.	0.5	0.1	1
14250	Anthracene	120-12-7	N.D.	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.	0.5	0.1	1
14250	Fluorene	86-73-7	N.D.	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.	0.5	0.1	1
14250	Naphthalene	91-20-3	N.D.	0.5	0.1	1
14250	Phenanthrene	85-01-8	N.D.	0.5	0.1	1
14250	Pyrene	129-00-0	N.D.	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	N.D.	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 14:45	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 14:45	Anthony H Downey	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/06/2017 21:11	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:09	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-14R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/18/2017 14:35
SDG#: NGC04-03BKG

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275799
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	48	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	N.D.	0.5	0.1	1
14250	Acenaphthylene	208-96-8	N.D.	0.5	0.1	1
14250	Anthracene	120-12-7	N.D.	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.	0.5	0.1	1
14250	Fluorene	86-73-7	N.D.	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.	0.5	0.1	1
14250	Naphthalene	91-20-3	N.D.	0.5	0.1	1
14250	Phenanthrene	85-01-8	N.D.	0.5	0.1	1
14250	Pyrene	129-00-0	N.D.	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	N.D.	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 13:18	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 13:18	Anthony H Downey	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/06/2017 21:39	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:10	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-14R-MS Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/18/2017 14:35
SDG#: NGC04-03MS

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275800
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	69	1	0.5	1
13130	Ethylbenzene	100-41-4	20	1	0.5	1
13130	Toluene	108-88-3	21	1	0.5	1
13130	Xylene (Total)	1330-20-7	58	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	44	0.5	0.1	1
14250	Acenaphthylene	208-96-8	44	0.5	0.1	1
14250	Anthracene	120-12-7	45	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	47	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	42	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	45	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	42	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	44	0.5	0.1	1
14250	Chrysene	218-01-9	48	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	44	0.5	0.1	1
14250	Fluoranthene	206-44-0	48	0.5	0.1	1
14250	Fluorene	86-73-7	45	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	54	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	42	0.5	0.1	1
14250	Naphthalene	91-20-3	40	0.5	0.1	1
14250	Phenanthrene	85-01-8	44	0.5	0.1	1
14250	Pyrene	129-00-0	44	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	0.16	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 13:39	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 13:39	Anthony H Downey	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/06/2017 22:06	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:12	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-14R-MSD Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/18/2017 14:35
SDG#: NGC04-03MSD

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275801
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	71	1	0.5	1
13130	Ethylbenzene	100-41-4	20	1	0.5	1
13130	Toluene	108-88-3	21	1	0.5	1
13130	Xylene (Total)	1330-20-7	62	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	44	0.5	0.1	1
14250	Acenaphthylene	208-96-8	45	0.5	0.1	1
14250	Anthracene	120-12-7	45	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	48	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	43	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	45	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	42	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	45	0.5	0.1	1
14250	Chrysene	218-01-9	48	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	45	0.5	0.1	1
14250	Fluoranthene	206-44-0	49	0.5	0.1	1
14250	Fluorene	86-73-7	46	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	54	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	43	0.5	0.1	1
14250	Naphthalene	91-20-3	42	0.5	0.1	1
14250	Phenanthrene	85-01-8	45	0.5	0.1	1
14250	Pyrene	129-00-0	44	0.5	0.1	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 14:01	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 14:01	Anthony H Downey	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/06/2017 22:34	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-14R-DUP Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/18/2017 14:35
SDG#: NGC04-03DUP

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275802
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	N.D.	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:16	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-20R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/18/2017 15:50
SDG#: NGC04-04

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275803
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	N.D.	0.5	0.1	1
14250	Acenaphthylene	208-96-8	N.D.	0.5	0.1	1
14250	Anthracene	120-12-7	N.D.	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.	0.5	0.1	1
14250	Fluorene	86-73-7	N.D.	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.	0.5	0.1	1
14250	Naphthalene	91-20-3	N.D.	0.5	0.1	1
14250	Phenanthrene	85-01-8	N.D.	0.5	0.1	1
14250	Pyrene	129-00-0	N.D.	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	N.D.	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 15:07	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 15:07	Anthony H Downey	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/06/2017 23:01	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:17	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-11 Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/18/2017 16:15
SDG#: NGC04-05

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275804
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	N.D.	0.5	0.1	1
14250	Acenaphthylene	208-96-8	N.D.	0.5	0.1	1
14250	Anthracene	120-12-7	N.D.	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.	0.5	0.1	1
14250	Fluorene	86-73-7	N.D.	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.	0.5	0.1	1
14250	Naphthalene	91-20-3	N.D.	0.5	0.1	1
14250	Phenanthrene	85-01-8	N.D.	0.5	0.1	1
14250	Pyrene	129-00-0	N.D.	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	0.31	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 15:29	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 15:29	Anthony H Downey	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/06/2017 23:29	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:18	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **DUP-1 Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/18/2017
SDG#: NGC04-06FD

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275805
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	49	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	N.D.	0.5	0.1	1
14250	Acenaphthylene	208-96-8	N.D.	0.5	0.1	1
14250	Anthracene	120-12-7	N.D.	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.	0.5	0.1	1
14250	Fluorene	86-73-7	N.D.	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.	0.5	0.1	1
14250	Naphthalene	91-20-3	N.D.	0.5	0.1	1
14250	Phenanthrene	85-01-8	N.D.	0.5	0.1	1
14250	Pyrene	129-00-0	N.D.	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	N.D.	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 15:50	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 15:50	Anthony H Downey	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/06/2017 23:56	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17302117101A	10/31/2017 02:09	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17302117101A	10/29/2017 10:45	James S Mathiot	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-10R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/19/2017 09:15
SDG#: NGC04-07

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275806
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	1,400	10	5	10
13130	Ethylbenzene	100-41-4	100	10	5	10
13130	Toluene	108-88-3	94	10	5	10
13130	Xylene (Total)	1330-20-7	65	10	5	10
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	24	0.5	0.1	1
14250	Acenaphthylene	208-96-8	23	0.5	0.1	1
14250	Anthracene	120-12-7	0.5	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.	0.5	0.1	1
14250	Fluorene	86-73-7	11	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	1	0.5	0.1	1
14250	Naphthalene	91-20-3	140	2	0.5	5
14250	Phenanthrene	85-01-8	2	0.5	0.1	1
14250	Pyrene	129-00-0	N.D.	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	0.19	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 18:44	Anthony H Downey	10
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 18:44	Anthony H Downey	10
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 00:23	Edward C Monborne	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 16:00	Kira N Klaassen	5
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:20	Joseph E McKenzie	1

*=This limit was used in the evaluation of the final result

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Sample Description: **MW-10R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/19/2017 09:15
SDG#: NGC04-07

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275806
ELLE Group #: 1865632
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-15RS Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/19/2017 10:05
SDG#: NGC04-08

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275807
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	170	5	3	5
13130	Ethylbenzene	100-41-4	N.D.	5	3	5
13130	Toluene	108-88-3	N.D.	5	3	5
13130	Xylene (Total)	1330-20-7	N.D.	5	3	5
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	N.D.	0.5	0.1	1
14250	Acenaphthylene	208-96-8	N.D.	0.5	0.1	1
14250	Anthracene	120-12-7	N.D.	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.	0.5	0.1	1
14250	Fluorene	86-73-7	N.D.	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.	0.5	0.1	1
14250	Naphthalene	91-20-3	N.D.	0.5	0.1	1
14250	Phenanthrene	85-01-8	N.D.	0.5	0.1	1
14250	Pyrene	129-00-0	N.D.	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	0.064	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 19:06	Anthony H Downey	5
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 19:06	Anthony H Downey	5
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 00:51	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:21	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-15 Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/19/2017 11:10
SDG#: NGC04-09

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275808
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	N.D.	0.5	0.1	1
14250	Acenaphthylene	208-96-8	N.D.	0.5	0.1	1
14250	Anthracene	120-12-7	N.D.	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	0.2 J	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	0.2 J	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	0.2 J	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	0.2 J	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	0.3 J	0.5	0.1	1
14250	Fluorene	86-73-7	N.D.	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.	0.5	0.1	1
14250	Naphthalene	91-20-3	N.D.	0.5	0.1	1
14250	Phenanthrene	85-01-8	0.1 J	0.5	0.1	1
14250	Pyrene	129-00-0	0.3 J	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	N.D.	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670
Preservation requirements were not met. The pH preservation of all non-volatile containers was checked upon receipt at the laboratory. The container for the following analysis was not within specification and was adjusted accordingly by the laboratory: Total Cyanide (water)

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 16:12	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 16:12	Anthony H Downey	1

*=This limit was used in the evaluation of the final result

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Sample Description: **MW-15 Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/19/2017 11:10
SDG#: NGC04-09

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275808
ELLE Group #: 1865632
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 01:18	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:22	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-8R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/19/2017 11:20
SDG#: NGC04-10

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275809
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	800	10	5	10
13130	Ethylbenzene	100-41-4	14	10	5	10
13130	Toluene	108-88-3	20	10	5	10
13130	Xylene (Total)	1330-20-7	27	10	5	10
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	10	0.5	0.1	1
14250	Acenaphthylene	208-96-8	10	0.5	0.1	1
14250	Anthracene	120-12-7	0.9	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	0.7	0.5	0.1	1
14250	Fluorene	86-73-7	7	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	3	0.5	0.1	1
14250	Naphthalene	91-20-3	51	0.5	0.1	1
14250	Phenanthrene	85-01-8	2	0.5	0.1	1
14250	Pyrene	129-00-0	0.5	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	0.32	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 19:28	Anthony H Downey	10
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 19:28	Anthony H Downey	10
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 01:45	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:24	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **Trip Blank Grab Water**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/18/2017
SDG#: NGC04-11TB

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275810
ELLE Group #: 1865632
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 12:56	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 12:56	Anthony H Downey	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: ARCADIS U.S., Inc. Group Number: 1865632
Reported: 11/09/2017 23:53

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	LOQ**	MDL
	ug/l	ug/l	ug/l
Batch number: F172971AA	Sample number(s): 9275797-9275801,9275803-9275810		
Benzene	N.D.	1	0.5
Ethylbenzene	N.D.	1	0.5
Toluene	N.D.	1	0.5
Xylene (Total)	N.D.	1	0.5
Batch number: 17297WAJ026	Sample number(s): 9275797-9275801,9275803-9275809		
Acenaphthene	N.D.	0.5	0.1
Acenaphthylene	N.D.	0.5	0.1
Anthracene	N.D.	0.5	0.1
Benzo(a)anthracene	N.D.	0.5	0.1
Benzo(a)pyrene	N.D.	0.5	0.1
Benzo(b)fluoranthene	N.D.	0.5	0.1
Benzo(g,h,i)perylene	N.D.	0.5	0.1
Benzo(k)fluoranthene	N.D.	0.5	0.1
Chrysene	N.D.	0.5	0.1
Dibenz(a,h)anthracene	N.D.	0.5	0.1
Fluoranthene	N.D.	0.5	0.1
Fluorene	N.D.	0.5	0.1
Indeno(1,2,3-cd)pyrene	N.D.	0.5	0.1
2-Methylnaphthalene	N.D.	0.5	0.1
Naphthalene	N.D.	0.5	0.1
Phenanthrene	N.D.	0.5	0.1
Pyrene	N.D.	0.5	0.1
	mg/l	mg/l	mg/l
Batch number: 17302117101A	Sample number(s): 9275805		
Total Cyanide (water)	N.D.	0.010	0.0050
Batch number: 17303117101A	Sample number(s): 9275797-9275800,9275802-9275804,9275806-9275809		
Total Cyanide (water)	N.D.	0.010	0.0050

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F172971AA	Sample number(s): 9275797-9275801,9275803-9275810								

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

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Quality Control Summary

Client Name: ARCADIS U.S., Inc.
Reported: 11/09/2017 23:53

Group Number: 1865632

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzene	20	19.42			97		78-120		
Ethylbenzene	20	19.06			95		78-120		
Toluene	20	19.33			97		80-120		
Xylene (Total)	60	57.11			95		80-120		
	ug/l	**ug/l**	**ug/l**	**ug/l**					
Batch number: 17297WAJ026	Sample number(s): 9275797-9275801,9275803-9275809								
Acenaphthene	50	43.08			86		68-112		
Acenaphthylene	50	43.64			87		67-111		
Anthracene	50	44.41			89		73-113		
Benzo(a)anthracene	50	46.29			93		74-124		
Benzo(a)pyrene	50	41.67			83		70-113		
Benzo(b)fluoranthene	50	44.95			90		72-117		
Benzo(g,h,i)perylene	50	43.63			87		64-117		
Benzo(k)fluoranthene	50	44.86			90		73-121		
Chrysene	50	47.58			95		75-120		
Dibenz(a,h)anthracene	50	45.7			91		68-121		
Fluoranthene	50	47.18			94		75-117		
Fluorene	50	44.37			89		68-112		
Indeno(1,2,3-cd)pyrene	50	54.99			110		67-117		
2-Methylnaphthalene	50	42.27			85		54-111		
Naphthalene	50	40.1			80		54-109		
Phenanthrene	50	43.08			86		72-110		
Pyrene	50	43.23			86		72-109		
	mg/l	**mg/l**	**mg/l**	**mg/l**					
Batch number: 17302117101A	Sample number(s): 9275805								
Total Cyanide (water)	0.200	0.202			101		90-110		
Batch number: 17303117101A	Sample number(s): 9275797-9275800,9275802-9275804,9275806-9275809								
Total Cyanide (water)	0.200	0.198			99		90-110		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F172971AA	Sample number(s): 9275797-9275801,9275803-9275810 UNSPK: 9275799									
Benzene	48.36	20	69.16	20	70.68	104	112	78-120	2	30
Ethylbenzene	N.D.	20	19.63	20	20.45	98	102	78-120	4	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: ARCADIS U.S., Inc. Group Number: 1865632
Reported: 11/09/2017 23:53

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Toluene	N.D.	20	20.81	20	21.03	104	105	80-120	1	30
Xylene (Total)	N.D.	60	58.17	60	61.62	97	103	80-120	6	30
	ug/l	**ug/l**	**ug/l**	**ug/l**	**ug/l**					
Batch number: 17297WAJ026	Sample number(s): 9275797-9275801,9275803-9275809 UNSPK: 9275799									
Acenaphthene	N.D.	50.4	43.55	50.2	43.89	86	87	68-112	1	30
Acenaphthylene	N.D.	50.4	43.69	50.2	44.53	87	89	67-111	2	30
Anthracene	N.D.	50.4	44.94	50.2	45.11	89	90	73-113	0	30
Benzo(a)anthracene	N.D.	50.4	47.44	50.2	47.9	94	95	74-124	1	30
Benzo(a)pyrene	N.D.	50.4	41.95	50.2	43.24	83	86	70-113	3	30
Benzo(b)fluoranthene	N.D.	50.4	44.6	50.2	44.82	88	89	72-117	0	30
Benzo(g,h,i)perylene	N.D.	50.4	42.44	50.2	42.39	84	84	64-117	0	30
Benzo(k)fluoranthene	N.D.	50.4	44.22	50.2	44.59	88	89	73-121	1	30
Chrysene	N.D.	50.4	47.98	50.2	47.99	95	96	75-120	0	30
Dibenz(a,h)anthracene	N.D.	50.4	44.35	50.2	44.54	88	89	68-121	0	30
Fluoranthene	N.D.	50.4	47.58	50.2	48.56	94	97	75-117	2	30
Fluorene	N.D.	50.4	44.94	50.2	45.83	89	91	68-112	2	30
Indeno(1,2,3-cd)pyrene	N.D.	50.4	53.91	50.2	54.27	107	108	67-117	1	30
2-Methylnaphthalene	N.D.	50.4	41.8	50.2	42.89	83	85	54-111	3	30
Naphthalene	N.D.	50.4	39.55	50.2	41.81	78	83	54-109	6	30
Phenanthrene	N.D.	50.4	43.52	50.2	44.52	86	89	72-110	2	30
Pyrene	N.D.	50.4	44.05	50.2	44.2	87	88	72-109	0	30
	mg/l	**mg/l**	**mg/l**	**mg/l**	**mg/l**					
Batch number: 17302117101A	Sample number(s): 9275805 UNSPK: P268532									
Total Cyanide (water)	N.D.	0.200	0.196			98		72-114		
Batch number: 17303117101A	Sample number(s): 9275797-9275800,9275802-9275804,9275806-9275809 UNSPK: 9275799									
Total Cyanide (water)	N.D.	0.200	0.163			81		72-114		

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 17302117101A	Sample number(s): 9275805 BKG: P268532			
Total Cyanide (water)	N.D.	N.D.	0 (1)	20
Batch number: 17303117101A	Sample number(s): 9275797-9275800,9275802-9275804,9275806-9275809 BKG: 9275799			

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: ARCADIS U.S., Inc. Group Number: 1865632
Reported: 11/09/2017 23:53

Laboratory Duplicate (continued)

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Total Cyanide (water)	N.D.	N.D.	0 (1)	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: BTEX 8260C
Batch number: F172971AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9275797	103	104	102	92
9275798	103	106	103	93
9275799	101	102	101	94
9275800	100	103	104	98
9275801	101	102	103	96
9275803	104	106	102	92
9275804	105	103	101	90
9275805	101	101	102	92
9275806	100	98	102	93
9275807	103	100	99	90
9275808	104	102	102	94
9275809	100	107	103	92
9275810	103	105	101	91
Blank	103	103	103	93
LCS	102	104	103	98
MS	100	103	104	98
MSD	101	102	103	96
Limits:	80-120	80-120	80-120	80-120

Analysis Name: PAHs 8270D
Batch number: 17297WAJ026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
9275797	54	58	56
9275798	75	72	54
9275799	72	68	62
9275800	80	81	71
9275801	85	83	73
9275803	72	71	56

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: ARCADIS U.S., Inc.
Reported: 11/09/2017 23:53

Group Number: 1865632

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: PAHs 8270D
Batch number: 17297WAJ026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
9275804	78	76	53
9275805	78	74	58
9275806	71	68	47
9275807	61	59	60
9275808	67	64	47
9275809	62	61	47
Blank	78	72	71
LCS	81	81	78
MS	80	81	71
MSD	85	83	73
Limits:	40-113	46-104	35-119

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

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Acct. # 3074 Group # 1865632 Sample # 9275797-810

COC # 551354

Client Information

Client: Arcadis	Acct. #:
Project Name/#: National Grid - Ogdensburg/B0036671.0003	PWSID #:
Project Manager: Mike Benoit	P.O. #:
Sampler: A. George, L. Mikochik	Quote #:
State where samples were collected: New York	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested — Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	BTEX 8260C (H)	PAHs 8270D (H)	Total Cyanide 9012B (B/NaOH)
MW-17R	10/18/17	1325	X		6	3	2	1
MW-19R	10/18/17	1400	X		6	3	2	1
MW-14R	10/18/17	1435	X		6	3	2	1
MW-14R-MS	10/18/17	1435	X		6	3	2	1
MW-14R-MSD	10/18/17	1435	X		6	3	2	1
MW-20R	10/18/17	1550	X		6	3	2	1
MW-11	10/18/17	1615	X		6	3	2	1
DUP-1-101817	10/18/17	/	X		6	3	2	1
MW-10R	10/19/17	0915	X		6	3	2	1
MW-15RS	10/19/17	1005	X		6	3	2	1

Preservation Codes

H=HCl	T=Thiosulfate
N=HNO_3	B=NaOH
S=H_2SO_4	P=H_3PO_4
F=Field Filtered	O=Other

Remarks

Page 1 of 2

For Lab Use Only

FSC: _____

SCR#: _____

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Date results are needed: _____

E-mail address: douglas.nadine@arcadis.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or (B) | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
C. A. Dage	10/19/17	1400			
			E. Fowler	10-20-17	940

EDD Required? (Yes) No

If yes, format: Arcadis CORE

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature upon receipt 0.9-1.1 °C

Environmental Analysis Request/Chain of Custody

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Acct. # 3074 Group # 1865632 Sample # 9275797-810

COC # 551353

Client Information

Client: Arcadis	Acct. #:
Project Name/#: National Grid - Ogdensburg / B003606.0003	PWSID #:
Project Manager: Mike Benoit	P.O. #:
Sampler: A. George, L. Mikoshik	Quote #:
State where samples were collected: New York	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Ground ☒ Potable ☐ Surface ☐ NPDES ☐ | Other: ___

Analysis Requested

Preservation and Filtration Codes

H | B/Ascorbic acid

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	BTEX 8260C	PAHs 8270D	Total Cyanide 9012B
MW-15	10/9/17	1110	X		6	3	2	1
MW-8R	10/9/17	1120	X		6	3	2	1
Trip blank	/	/	X		3	3		

For Lab Use Only

FSC: ___

SCR#: 214058

Preservation Codes

H=HCl	T=Thiosulfate
N=HNO_3	B=NaOH
S=H_2SO_4	P=H_3PO_4
F=Field Filtered	O=Other

Remarks

Page 2 of 2

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Date results are needed: ___

E-mail address: douglas.nodine@arcadis.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Edwin Hernandez	10/12/17	1445			
	10/9/17	1400			
			Received by	10-10-17	9:40

EDD Required? Yes No

If yes, format: Arcadis CORE

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:

UPS ___ FedEx ___ Other ___

Temperature upon receipt 0.9/1.1 °C

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Sample Administration Receipt Documentation Log

Doc Log ID: 198279

Group Number(s): 1865632

Client: Arcadis

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	10/20/2017 9:40
Number of Packages:	2	Number of Projects:	1
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace ≥ 6mm:	No
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	3
Samples Intact:	Yes	Trip Blank Type:	HCl
Missing Samples:	No	Air Quality Samples Present:	No
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Melvin Sanchez (8943) at 16:23 on 10/20/2017

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT131	0.9	DT	Wet	Y	Bagged	N
2	DT131	1.1	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mg**	milligram(s)
C	degrees Celsius	**mL**	milliliter(s)
cfu	colony forming units	**MPN**	Most Probable Number
CP Units	cobalt-chloroplatinate units	**N.D.**	non-detect
F	degrees Fahrenheit	**ng**	nanogram(s)
g	gram(s)	**NTU**	nephelometric turbidity units
IU	International Units	**pg/L**	picogram/liter
kg	kilogram(s)	**RL**	Reporting Limit
L	liter(s)	**TNTC**	Too Numerous To Count
lb.	pound(s)	**µg**	microgram(s)
m3	cubic meter(s)	**µL**	microliter(s)
meq	milliequivalents	**umhos/cm**	micromhos/cm

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

ARCADIS Design & Consultancy for natural and built assets

National Grid – Ogdensburg

DATA USABILITY SUMMARY REPORT

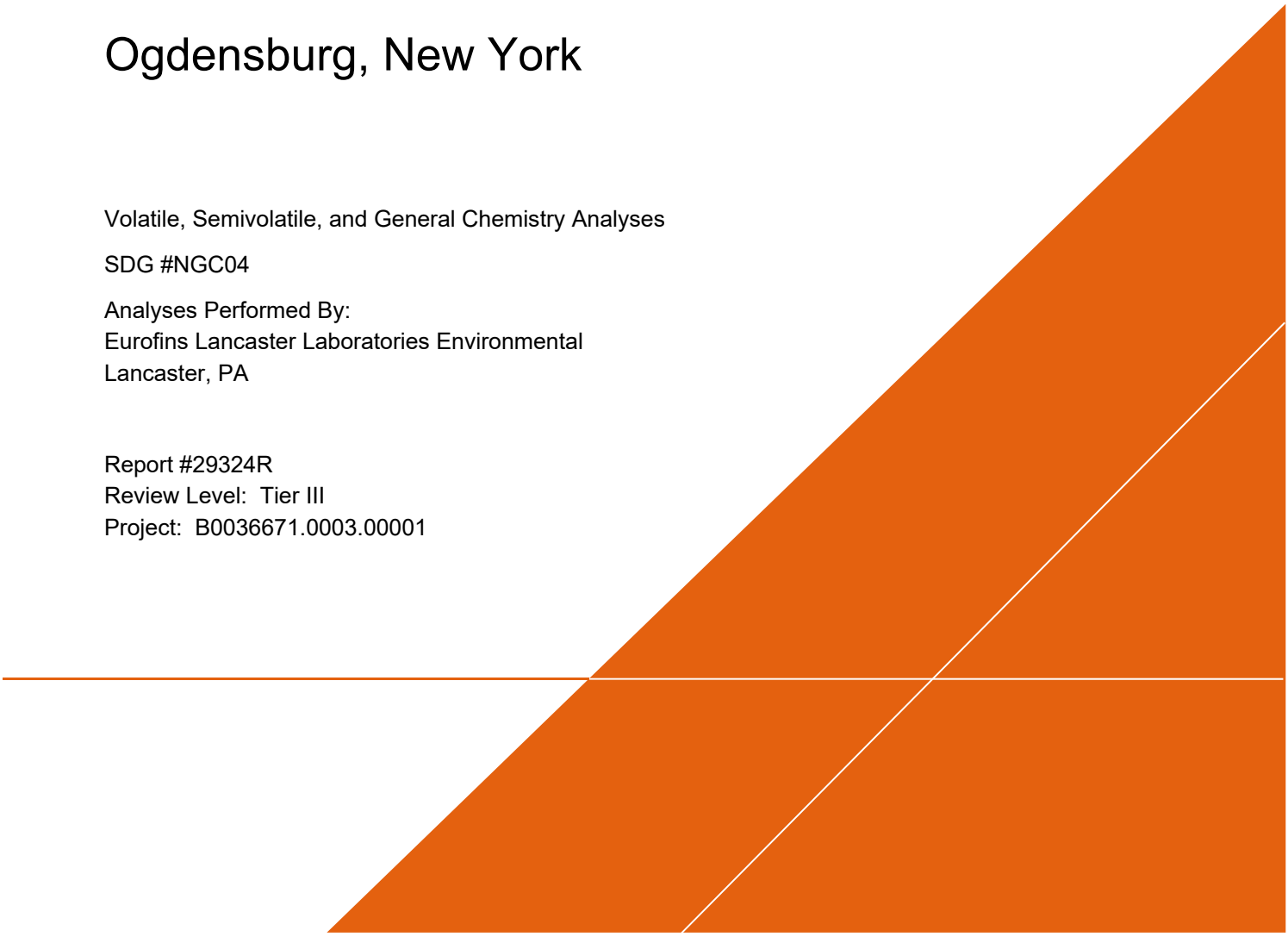
Ogdensburg, New York

Volatile, Semivolatile, and General Chemistry Analyses

SDG #NGC04

Analyses Performed By:
Eurofins Lancaster Laboratories Environmental
Lancaster, PA

Report #29324R
Review Level: Tier III
Project: B0036671.0003.00001



SUMMARY

This data usability summary report (DUSR) summarizes the review of Sample Delivery Group (SDG) # NGC04 for samples collected in association with the National Grid – Ogdensburg. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
MW-17R	9275797	Water	10/18/2017		X	X			X
MW-19R	9275798	Water	10/18/2017		X	X			X
MW-14R	9275799	Water	10/18/2017		X	X			X
MW-20R	9275803	Water	10/18/2017		X	X			X
MW-11	9275804	Water	10/18/2017		X	X			X
DUP-1FD	9275805	Water	10/18/2017	MW-14R	X	X			X
MW-10R	9275806	Water	10/19/2017		X	X			X
MW-15RS	9275807	Water	10/19/2017		X	X			X
MW-15	9275808	Water	10/19/2017		X	X			X
MW-8R	9275809	Water	10/19/2017		X	X			X
Trip Blank	9275810	Water	10/18/2017		X				

Note:

1. Miscellaneous analysis includes total cyanide.
2. Matrix spike/matrix spike duplicate was performed on sample location MW-14R for VOCs and SVOCs.
3. A Matrix spike/laboratory duplicate was performed on sample location MW-14R for Total Cyanide.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X	X		
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8.Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

Note:
QA - Quality Assurance

1 – The laboratory noted that for sample location MW-15 (Lab ID 9275808): Preservation requirements were not met. The pH preservation of all non-volatile containers was checked upon receipt at the laboratory. The container for the following analysis was not within specification and was adjusted accordingly by the laboratory: Total Cyanide (water)

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260C and 8270D. Data were reviewed in accordance with USEPA National Functional Guidelines (October 1999) and applicable Region II SOPs. USEPA NFGs and Region II SOPs were followed for qualification purposes.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times/Preservation

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis (preserved) 7 days from collection to analysis (non-preserved)	Cool to <6 °C; preserved to a pH of less than 2 s.u.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cool to <6 °C.

Note:
s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-14R /DUP-1FD	Benzene	48	49	2.0%

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS)		X		X	
Matrix Spike Duplicate(MSD)		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content	X				X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%RSD Relative standard deviation

%R Percent recovery

RPD Relative percent difference

%D Percent difference

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the SVOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-14R /DUP-1FD	All compounds	U	U	AC

Notes:
AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compounds that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
MW-10R	Naphthalene	-	140 D	140 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate(MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content	X				X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
F. Reconstructed ion chromatograms		X		X	
G. Quantitation Reports		X		X	
H. RT of sample compounds within the established RT windows		X		X	

SVOCs: SW-846 8270		Reported		Performance Acceptable		Not Required
		No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)						
I.	Quantitation transcriptions/calculations		X		X	
J.	Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%RSD Relative standard deviation

%R Percent recovery

RPD Relative percent difference

%D Percent difference

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 9012B. Data were reviewed in accordance with USEPA National Functional Guidelines of October 2004.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.
  - J The reported value was obtained from a reading less than the reporting limit (RL), but greater than or equal to the method detection limit (MDL).
- Quantitation (Q) Qualifiers
  - E The reported value is estimated due to the presence of interference.
  - N Spiked sample recovery is not within control limits.
  - * Duplicate analysis is not within control limits.
- Validation Qualifiers
  - J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
  - UB Analyte considered non-detect at the listed value due to associated blank contamination.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

GENERAL CHEMISTRY ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Total Cyanide by SW-846 9012B	Water	14 days from collection to analysis	Cool to <6 °C; preserved to a pH of greater than 12.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 and all initial calibration verification standard recoveries were within control limits.

All calibration standard recoveries were within the control limit.

4. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

The MS analysis performed on sample location MW-14R exhibited recoveries within the control limits.

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices and two times the RL for soil matrices.

The laboratory duplicate sample results exhibited RPD within the control limit.

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-14R /DUP-1FD	Total Cyanide	0.01 U	0.01 U	AC

Notes:
AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

6. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: EPA SW-846 7.3	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate(MSD) %R	X				X
MS/MSD Precision (RPD)	X				X
Field/Lab Duplicate (RPD)		X		X	
Dilution Factor		X		X	
Moisture Content	X				X
Tier III Validation					
Initial calibration %RSD or correlation coefficient		X		X	
Continuing calibration %R		X		X	
Raw Data					
Transcription/calculation errors present		X		X	
Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%RSD – relative standard deviation
%R - percent recovery
RPD - relative percent difference,

%D – difference

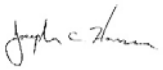
SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
NGC04	10/18/2017	USEPA/ SW846	MW-17R	Water	yes	yes	--	--	yes	
	10/18/2017	USEPA/ SW846	MW-19R	Water	yes	yes	--	--	yes	
	10/18/2017	USEPA/ SW846	MW-14R	Water	yes	yes	--	--	yes	
	10/18/2017	USEPA/ SW846	MW-20R	Water	yes	yes	--	--	yes	
	10/18/2017	USEPA/ SW846	MW-11	Water	yes	yes	--	--	yes	
	10/18/2017	USEPA/ SW846	DUP-1FD	Water	yes	yes	--	--	yes	
	10/19/2017	USEPA/ SW846	MW-10R	Water	yes	yes	--	--	yes	
	10/19/2017	USEPA/ SW846	MW-15RS	Water	yes	yes	--	--	yes	
	10/19/2017	USEPA/ SW846	MW-15	Water	yes	yes	--	--	yes	
	10/19/2017	USEPA/ SW846	MW-8R	Water	yes	yes	--	--	yes	
	10/18/2017	USEPA/ SW846	Trip Blank	Water	yes	--	--	--	--	

Note:

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Joseph C. Houser

SIGNATURE: 

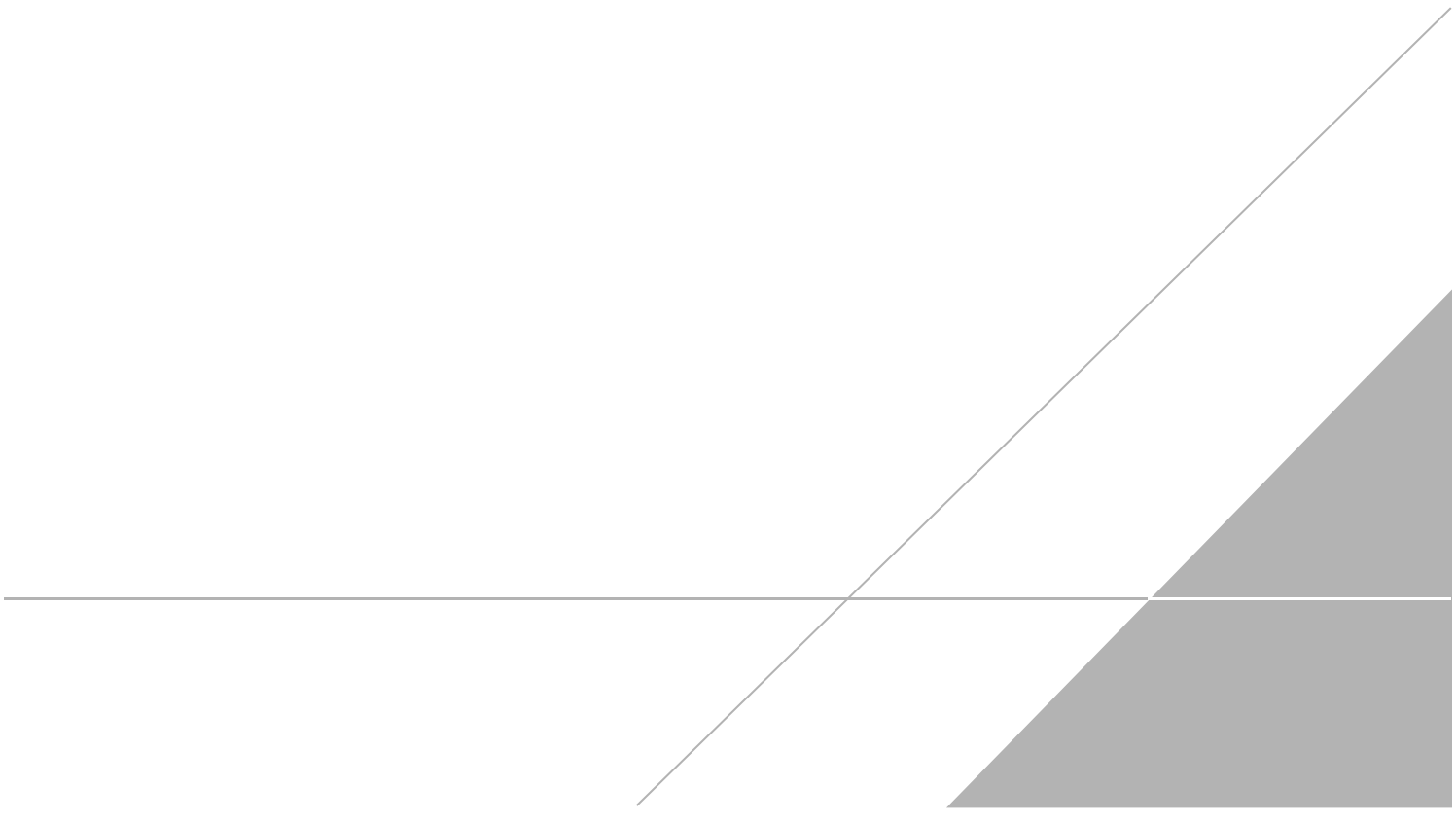
DATE: February 26, 2018

PEER REVIEW: Dennis Capria

DATE: March 5, 2018

CHAIN OF CUSTODY

CORRECTED SAMPLE ANALYSIS DATA SHEETS



Sample Description: **MW-17R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/18/2017 13:25
SDG#: NGC04-01

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275797
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	N.D.	0.5	0.1	1
14250	Acenaphthylene	208-96-8	N.D.	0.5	0.1	1
14250	Anthracene	120-12-7	N.D.	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.	0.5	0.1	1
14250	Fluorene	86-73-7	N.D.	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.	0.5	0.1	1
14250	Naphthalene	91-20-3	N.D.	0.5	0.1	1
14250	Phenanthrene	85-01-8	N.D.	0.5	0.1	1
14250	Pyrene	129-00-0	N.D.	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	N.D.	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 16:34	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 16:34	Anthony H Downey	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/06/2017 20:44	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:08	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-19R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/18/2017 14:00
SDG#: NGC04-02

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275798
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	N.D.	0.5	0.1	1
14250	Acenaphthylene	208-96-8	N.D.	0.5	0.1	1
14250	Anthracene	120-12-7	N.D.	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.	0.5	0.1	1
14250	Fluorene	86-73-7	N.D.	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.	0.5	0.1	1
14250	Naphthalene	91-20-3	N.D.	0.5	0.1	1
14250	Phenanthrene	85-01-8	N.D.	0.5	0.1	1
14250	Pyrene	129-00-0	N.D.	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	N.D.	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 14:45	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 14:45	Anthony H Downey	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/06/2017 21:11	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:09	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-14R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/18/2017 14:35
SDG#: NGC04-03BKG

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275799
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	48	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	N.D.	0.5	0.1	1
14250	Acenaphthylene	208-96-8	N.D.	0.5	0.1	1
14250	Anthracene	120-12-7	N.D.	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.	0.5	0.1	1
14250	Fluorene	86-73-7	N.D.	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.	0.5	0.1	1
14250	Naphthalene	91-20-3	N.D.	0.5	0.1	1
14250	Phenanthrene	85-01-8	N.D.	0.5	0.1	1
14250	Pyrene	129-00-0	N.D.	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	N.D.	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 13:18	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 13:18	Anthony H Downey	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/06/2017 21:39	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:10	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-20R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/18/2017 15:50
SDG#: NGC04-04

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275803
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	N.D.	0.5	0.1	1
14250	Acenaphthylene	208-96-8	N.D.	0.5	0.1	1
14250	Anthracene	120-12-7	N.D.	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.	0.5	0.1	1
14250	Fluorene	86-73-7	N.D.	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.	0.5	0.1	1
14250	Naphthalene	91-20-3	N.D.	0.5	0.1	1
14250	Phenanthrene	85-01-8	N.D.	0.5	0.1	1
14250	Pyrene	129-00-0	N.D.	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	N.D.	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 15:07	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 15:07	Anthony H Downey	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/06/2017 23:01	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:17	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-11 Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/18/2017 16:15
SDG#: NGC04-05

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275804
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	N.D.	0.5	0.1	1
14250	Acenaphthylene	208-96-8	N.D.	0.5	0.1	1
14250	Anthracene	120-12-7	N.D.	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.	0.5	0.1	1
14250	Fluorene	86-73-7	N.D.	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.	0.5	0.1	1
14250	Naphthalene	91-20-3	N.D.	0.5	0.1	1
14250	Phenanthrene	85-01-8	N.D.	0.5	0.1	1
14250	Pyrene	129-00-0	N.D.	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	0.31	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 15:29	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 15:29	Anthony H Downey	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/06/2017 23:29	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:18	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **DUP-1 Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/18/2017
SDG#: NGC04-06FD

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275805
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	49	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	N.D.	0.5	0.1	1
14250	Acenaphthylene	208-96-8	N.D.	0.5	0.1	1
14250	Anthracene	120-12-7	N.D.	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.	0.5	0.1	1
14250	Fluorene	86-73-7	N.D.	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.	0.5	0.1	1
14250	Naphthalene	91-20-3	N.D.	0.5	0.1	1
14250	Phenanthrene	85-01-8	N.D.	0.5	0.1	1
14250	Pyrene	129-00-0	N.D.	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	N.D.	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 15:50	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 15:50	Anthony H Downey	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/06/2017 23:56	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17302117101A	10/31/2017 02:09	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17302117101A	10/29/2017 10:45	James S Mathiot	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-10R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/19/2017 09:15
SDG#: NGC04-07

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275806
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	**ug/l**	
13130	Benzene	71-43-2	1,400		10	5	10
13130	Ethylbenzene	100-41-4	100		10	5	10
13130	Toluene	108-88-3	94		10	5	10
13130	Xylene (Total)	1330-20-7	65		10	5	10
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	24		0.5	0.1	1
14250	Acenaphthylene	208-96-8	23		0.5	0.1	1
14250	Anthracene	120-12-7	0.5		0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.		0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.		0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.		0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.		0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.		0.5	0.1	1
14250	Chrysene	218-01-9	N.D.		0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.		0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.		0.5	0.1	1
14250	Fluorene	86-73-7	11		0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	1		0.5	0.1	1
14250	Naphthalene	91-20-3	140	D	2	0.5	5
14250	Phenanthrene	85-01-8	2		0.5	0.1	1
14250	Pyrene	129-00-0	N.D.		0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**		**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	0.19		0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 18:44	Anthony H Downey	10
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 18:44	Anthony H Downey	10
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 00:23	Edward C Monborne	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 16:00	Kira N Klaassen	5
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:20	Joseph E McKenzie	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-10R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/19/2017 09:15
SDG#: NGC04-07

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275806
ELLE Group #: 1865632
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-15RS Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/19/2017 10:05
SDG#: NGC04-08

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275807
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	170	5	3	5
13130	Ethylbenzene	100-41-4	N.D.	5	3	5
13130	Toluene	108-88-3	N.D.	5	3	5
13130	Xylene (Total)	1330-20-7	N.D.	5	3	5
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	N.D.	0.5	0.1	1
14250	Acenaphthylene	208-96-8	N.D.	0.5	0.1	1
14250	Anthracene	120-12-7	N.D.	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.	0.5	0.1	1
14250	Fluorene	86-73-7	N.D.	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.	0.5	0.1	1
14250	Naphthalene	91-20-3	N.D.	0.5	0.1	1
14250	Phenanthrene	85-01-8	N.D.	0.5	0.1	1
14250	Pyrene	129-00-0	N.D.	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	0.064	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 19:06	Anthony H Downey	5
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 19:06	Anthony H Downey	5
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 00:51	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:21	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-15 Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/19/2017 11:10
SDG#: NGC04-09

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275808
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	N.D.	0.5	0.1	1
14250	Acenaphthylene	208-96-8	N.D.	0.5	0.1	1
14250	Anthracene	120-12-7	N.D.	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	0.2 J	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	0.2 J	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	0.2 J	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	0.2 J	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	0.3 J	0.5	0.1	1
14250	Fluorene	86-73-7	N.D.	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.	0.5	0.1	1
14250	Naphthalene	91-20-3	N.D.	0.5	0.1	1
14250	Phenanthrene	85-01-8	0.1 J	0.5	0.1	1
14250	Pyrene	129-00-0	0.3 J	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	N.D.	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670
Preservation requirements were not met. The pH preservation of all non-volatile containers was checked upon receipt at the laboratory. The container for the following analysis was not within specification and was adjusted accordingly by the laboratory: Total Cyanide (water)

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 16:12	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 16:12	Anthony H Downey	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-15 Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/19/2017 11:10
SDG#: NGC04-09

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275808
ELLE Group #: 1865632
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 01:18	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:22	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-8R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/19/2017 11:20
SDG#: NGC04-10

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275809
ELLE Group #: 1865632
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	800	10	5	10
13130	Ethylbenzene	100-41-4	14	10	5	10
13130	Toluene	108-88-3	20	10	5	10
13130	Xylene (Total)	1330-20-7	27	10	5	10
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	10	0.5	0.1	1
14250	Acenaphthylene	208-96-8	10	0.5	0.1	1
14250	Anthracene	120-12-7	0.9	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	0.7	0.5	0.1	1
14250	Fluorene	86-73-7	7	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	3	0.5	0.1	1
14250	Naphthalene	91-20-3	51	0.5	0.1	1
14250	Phenanthrene	85-01-8	2	0.5	0.1	1
14250	Pyrene	129-00-0	0.5	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	0.32	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 19:28	Anthony H Downey	10
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 19:28	Anthony H Downey	10
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 01:45	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17303117101A	10/31/2017 04:24	Joseph E McKenzie	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17303117101A	10/30/2017 16:30	Barbara A Washington	1

*=This limit was used in the evaluation of the final result

Sample Description: **Trip Blank Grab Water**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/20/2017 09:40
Collection Date/Time: 10/18/2017
SDG#: NGC04-11TB

ARCADIS U.S., Inc.
ELLE Sample #: WW 9275810
ELLE Group #: 1865632
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172971AA	10/24/2017 12:56	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172971AA	10/24/2017 12:56	Anthony H Downey	1

*=This limit was used in the evaluation of the final result

Environmental Analysis Request/Chain of Custody

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Acct. # 3074 Group # 1865632 Sample # 9275797-810

COC # 551354

Client Information

Client: Arcadis	Acct. #:
Project Name/#: National Grid - Ogdensburg/B0036671.0003	PWSID #:
Project Manager: Mike Benoit	P.O. #:
Sampler: A. George, L. Mikochik	Quote #:
State where samples were collected: New York	For Compliance: Yes ☐ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	BTEX 8260C (H)	PAHs 8270D (H)	Total Cyanide 9012B (B/NaOH)
MW-17R	10/18/17	1325	X		6	3	2	1
MW-19R	10/18/17	1400	X		6	3	2	1
MW-14R	10/18/17	1435	X		6	3	2	1
MW-14R-MS	10/18/17	1435	X		6	3	2	1
MW-14R-MSD	10/18/17	1435	X		6	3	2	1
MW-20R	10/18/17	1550	X		6	3	2	1
MW-11	10/18/17	1615	X		6	3	2	1
DUP-1-101817	10/18/17	/	X		6	3	2	1
MW-10R	10/19/17	0915	X		6	3	2	1
MW-15RS	10/19/17	1005	X		6	3	2	1

For Lab Use Only

FSC: _____

SCR#: _____

Preservation Codes

H=HCl	T=Thiosulfate
N=HNO_3	B=NaOH
S=H_2SO_4	P=H_3PO_4
F=Field Filtered	O=Other

Remarks

Page 1 of 2

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Date results are needed: _____

E-mail address: douglas.nadine@arcadis.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or (B) | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
C.F. Dige	10/19/17	1400			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time
			E Drake	10-20-17	940

EDD Required? (Yes) No

If yes, format: Arcadis CORE

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 0.9-1.1 °C

Environmental Analysis Request/Chain of Custody

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Acct. # 3074 Group # 1865632 Sample # 9275797-810

COC # 551353

Client Information

Client: Arcadis	Acct. #:
Project Name/#: National Grid - Ogdensburg / B003606.0003	PWSID #:
Project Manager: Mike Benoit	P.O. #:
Sampler: A. George, L. Mikoshik	Quote #:
State where samples were collected: New York	For Compliance: Yes ☐ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water: Ground ☒ Potable ☐ Surface ☐ NPDES ☐ | Other: ____

Analysis Requested

Preservation and Filtration Codes

H | B/Ascorbic acid

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	BTEX 8260C	PAHs 8270D	Total Cyanide 9012B
MW-15	10/9/17	1110	X		6	3	2	1
MW-8R	10/9/17	1120	X		6	3	2	1
Trip blank	/	/	X		3	3		

For Lab Use Only

FSC: ____

SCR#: 214058

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

Page 2 of 2

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Date results are needed: ____

E-mail address: douglas.nadine@arcadis.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

	Date	Time		Date	Time
Relinquished by: Edwin Hernandez	10/12/17	1445	Received by:		
Relinquished by:	10/9/17	1400	Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by:	10-10-17	9:40

EDD Required? Yes No

If yes, format: Arcadis CORE

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 0.9/1.1 °C

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

ARCADIS U.S., Inc.
630 Plaza Drive
Suite 600
Highlands Ranch CO 80129

Report Date: November 09, 2017 23:54

Project: National Grid - Ogdensburg, NY

Account #: 03074
Group Number: 1865956
SDG: NGC05
PO Number: B0036717.0003
State of Sample Origin: NY

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To Arcadis Attn: Doug Nodine

Respectfully Submitted,

Megan A. Moeller
Senior Specialist

(717) 556-7261

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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
MW-12R Grab Groundwater	10/19/2017 15:20	9277390
MW-9 Grab Groundwater	10/19/2017 16:00	9277391
MW-5R(R) Grab Groundwater	10/20/2017 08:50	9277392
MW-2R Grab Groundwater	10/20/2017 09:30	9277393
Trip Blank Water	10/19/2017	9277394

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Project Name: National Grid - Ogdensburg, NY
ELLE Group #: 1865956

General Comments:

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client. The compliance signature is located on the cover page of the Analysis Reports.

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below.

Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set.

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

For dual column analyses, the surrogate (for multi-surrogate tests, at least one surrogate) must be within the acceptance limits on at least one of the two columns.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

SW-846 8270D, GC/MS Semivolatiles

Sample #s: 9277393

Reporting limits were raised due to interference from the sample matrix.

Batch #: 17297WAJ026 (Sample number(s): 9277390-9277393 UNSPK: P275799)

The recovery(ies) for one or more surrogates were below the acceptance window for sample(s) 9277393

Sample Description: **MW-12R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/21/2017 10:00
Collection Date/Time: 10/19/2017 15:20
SDG#: NGC05-01

ARCADIS U.S., Inc.
ELLE Sample #: WW 9277390
ELLE Group #: 1865956
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	2,900	50	25	50
13130	Ethylbenzene	100-41-4	110	5	3	5
13130	Toluene	108-88-3	15	5	3	5
13130	Xylene (Total)	1330-20-7	83	5	3	5
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	4	0.5	0.1	1
14250	Acenaphthylene	208-96-8	7	0.5	0.1	1
14250	Anthracene	120-12-7	N.D.	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.	0.5	0.1	1
14250	Fluorene	86-73-7	0.3 J	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.	0.5	0.1	1
14250	Naphthalene	91-20-3	92	0.5	0.1	1
14250	Phenanthrene	85-01-8	N.D.	0.5	0.1	1
14250	Pyrene	129-00-0	N.D.	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	0.037	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172992AA	10/26/2017 17:12	Anthony H Downey	5
13130	BTEX 8260C	SW-846 8260C	1	F172992AA	10/26/2017 17:34	Anthony H Downey	50
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172992AA	10/26/2017 17:12	Anthony H Downey	5
01163	GC/MS VOA Water Prep	SW-846 5030C	2	F172992AA	10/26/2017 17:34	Anthony H Downey	50
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 02:13	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1

*=This limit was used in the evaluation of the final result

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Sample Description: **MW-12R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/21/2017 10:00
Collection Date/Time: 10/19/2017 15:20
SDG#: NGC05-01

ARCADIS U.S., Inc.
ELLE Sample #: WW 9277390
ELLE Group #: 1865956
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08255	Total Cyanide (water)	SW-846 9012B	1	17305117101A	11/01/2017 21:47	Samuel J Weaver	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17305117101A	11/01/2017 09:40	Nancy J Shoop	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-9 Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/21/2017 10:00
Collection Date/Time: 10/19/2017 16:00
SDG#: NGC05-02

ARCADIS U.S., Inc.
ELLE Sample #: WW 9277391
ELLE Group #: 1865956
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	**ug/l**	
13130	Benzene	71-43-2	340		2	1	2
13130	Ethylbenzene	100-41-4	140		2	1	2
13130	Toluene	108-88-3	85		2	1	2
13130	Xylene (Total)	1330-20-7	180		2	1	2
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	48		0.5	0.1	1
14250	Acenaphthylene	208-96-8	17		0.5	0.1	1
14250	Anthracene	120-12-7	8		0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	2		0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	1		0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	1		0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	0.4	J	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	0.5	J	0.5	0.1	1
14250	Chrysene	218-01-9	1		0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	0.2	J	0.5	0.1	1
14250	Fluoranthene	206-44-0	8		0.5	0.1	1
14250	Fluorene	86-73-7	38		0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	0.5		0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	1		0.5	0.1	1
14250	Naphthalene	91-20-3	72		0.5	0.1	1
14250	Phenanthrene	85-01-8	36		0.5	0.1	1
14250	Pyrene	129-00-0	5		0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**		**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	1.3		0.050	0.025	5

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172991AA	10/26/2017 18:30	Anthony H Downey	2
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172991AA	10/26/2017 18:30	Anthony H Downey	2
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 02:40	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17305117101A	11/01/2017 22:44	Samuel J Weaver	5
08256	Cyanide Water Distillation	SW-846 9012B	1	17305117101A	11/01/2017 09:40	Nancy J Shoop	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-5R(R) Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/21/2017 10:00
Collection Date/Time: 10/20/2017 08:50
SDG#: NGC05-03

ARCADIS U.S., Inc.
ELLE Sample #: WW 9277392
ELLE Group #: 1865956
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	440	20	10	20
13130	Ethylbenzene	100-41-4	26	2	1	2
13130	Toluene	108-88-3	70	2	1	2
13130	Xylene (Total)	1330-20-7	53	2	1	2
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	71	0.5	0.1	1
14250	Acenaphthylene	208-96-8	40	0.5	0.1	1
14250	Anthracene	120-12-7	8	0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.	0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.	0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.	0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.	0.5	0.1	1
14250	Chrysene	218-01-9	N.D.	0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	0.5	0.1	1
14250	Fluoranthene	206-44-0	6	0.5	0.1	1
14250	Fluorene	86-73-7	48	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	6	0.5	0.1	1
14250	Naphthalene	91-20-3	210	3	0.5	5
14250	Phenanthrene	85-01-8	41	0.5	0.1	1
14250	Pyrene	129-00-0	5	0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	0.055	0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172992AA	10/26/2017 17:56	Anthony H Downey	2
13130	BTEX 8260C	SW-846 8260C	1	F173073AA	11/03/2017 22:11	Kevin D Kelly	20
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172992AA	10/26/2017 17:56	Anthony H Downey	2
01163	GC/MS VOA Water Prep	SW-846 5030C	2	F173073AA	11/03/2017 22:11	Kevin D Kelly	20
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 03:08	Edward C Monborne	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 16:28	Kira N Klaassen	5

*=This limit was used in the evaluation of the final result

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Sample Description: **MW-5R(R) Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/21/2017 10:00
Collection Date/Time: 10/20/2017 08:50
SDG#: NGC05-03

ARCADIS U.S., Inc.
ELLE Sample #: WW 9277392
ELLE Group #: 1865956
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17305117101A	11/01/2017 21:49	Samuel J Weaver	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17305117101A	11/01/2017 09:40	Nancy J Shoop	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-2R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/21/2017 10:00
Collection Date/Time: 10/20/2017 09:30
SDG#: NGC05-04

ARCADIS U.S., Inc.
ELLE Sample #: WW 9277393
ELLE Group #: 1865956
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	120	1	0.5	1
13130	Ethylbenzene	100-41-4	3	1	0.5	1
13130	Toluene	108-88-3	44	1	0.5	1
13130	Xylene (Total)	1330-20-7	36	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	4 J	5	1	10
14250	Acenaphthylene	208-96-8	18	5	1	10
14250	Anthracene	120-12-7	3 J	5	1	10
14250	Benzo(a)anthracene	56-55-3	N.D.	5	1	10
14250	Benzo(a)pyrene	50-32-8	N.D.	5	1	10
14250	Benzo(b)fluoranthene	205-99-2	N.D.	5	1	10
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	5	1	10
14250	Benzo(k)fluoranthene	207-08-9	N.D.	5	1	10
14250	Chrysene	218-01-9	N.D.	5	1	10
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	5	1	10
14250	Fluoranthene	206-44-0	N.D.	5	1	10
14250	Fluorene	86-73-7	7	5	1	10
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	5	1	10
14250	2-Methylnaphthalene	91-57-6	20	5	1	10
14250	Naphthalene	91-20-3	270	5	1	10
14250	Phenanthrene	85-01-8	6	5	1	10
14250	Pyrene	129-00-0	N.D.	5	1	10
	Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	0.53	0.020	0.010	2

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172992AA	10/26/2017 12:06	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172992AA	10/26/2017 12:06	Anthony H Downey	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 16:56	Kira N Klaassen	10
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17305117101A	11/01/2017 22:45	Samuel J Weaver	2

*=This limit was used in the evaluation of the final result

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Sample Description: **MW-2R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/21/2017 10:00
Collection Date/Time: 10/20/2017 09:30
SDG#: NGC05-04

ARCADIS U.S., Inc.
ELLE Sample #: WW 9277393
ELLE Group #: 1865956
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08256	Cyanide Water Distillation	SW-846 9012B	1	17305117101A	11/01/2017 09:40	Nancy J Shoop	1

*=This limit was used in the evaluation of the final result

Sample Description: **Trip Blank Water**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/21/2017 10:00
Collection Date/Time: 10/19/2017
SDG#: NGC05-05TB

ARCADIS U.S., Inc.
ELLE Sample #: WW 9277394
ELLE Group #: 1865956
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172992AA	10/26/2017 11:44	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172992AA	10/26/2017 11:44	Anthony H Downey	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: ARCADIS U.S., Inc. Group Number: 1865956
Reported: 11/09/2017 23:54

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	LOQ**	MDL
	ug/l	ug/l	ug/l
Batch number: F172991AA	Sample number(s): 9277391		
Benzene	N.D.	1	0.5
Ethylbenzene	N.D.	1	0.5
Toluene	N.D.	1	0.5
Xylene (Total)	N.D.	1	0.5
Batch number: F172992AA	Sample number(s): 9277390,9277392-9277394		
Benzene	N.D.	1	0.5
Ethylbenzene	N.D.	1	0.5
Toluene	N.D.	1	0.5
Xylene (Total)	N.D.	1	0.5
Batch number: F173073AA	Sample number(s): 9277392		
Benzene	N.D.	1	0.5
Batch number: 17297WAJ026	Sample number(s): 9277390-9277393		
Acenaphthene	N.D.	0.5	0.1
Acenaphthylene	N.D.	0.5	0.1
Anthracene	N.D.	0.5	0.1
Benzo(a)anthracene	N.D.	0.5	0.1
Benzo(a)pyrene	N.D.	0.5	0.1
Benzo(b)fluoranthene	N.D.	0.5	0.1
Benzo(g,h,i)perylene	N.D.	0.5	0.1
Benzo(k)fluoranthene	N.D.	0.5	0.1
Chrysene	N.D.	0.5	0.1
Dibenz(a,h)anthracene	N.D.	0.5	0.1
Fluoranthene	N.D.	0.5	0.1
Fluorene	N.D.	0.5	0.1
Indeno(1,2,3-cd)pyrene	N.D.	0.5	0.1
2-Methylnaphthalene	N.D.	0.5	0.1
Naphthalene	N.D.	0.5	0.1
Phenanthrene	N.D.	0.5	0.1
Pyrene	N.D.	0.5	0.1
	mg/l	mg/l	mg/l
Batch number: 17305117101A	Sample number(s): 9277390-9277393		
Total Cyanide (water)	N.D.	0.010	0.0050

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: ARCADIS U.S., Inc.
Reported: 11/09/2017 23:54

Group Number: 1865956

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F172991AA	Sample number(s): 9277391								
Benzene	20	19.05			95		78-120		
Ethylbenzene	20	18.36			92		78-120		
Toluene	20	19.21			96		80-120		
Xylene (Total)	60	54.86			91		80-120		
Batch number: F172992AA	Sample number(s): 9277390,9277392-9277394								
Benzene	20	19.77			99		78-120		
Ethylbenzene	20	18.73			94		78-120		
Toluene	20	19.98			100		80-120		
Xylene (Total)	60	55.91			93		80-120		
Batch number: F173073AA	Sample number(s): 9277392								
Benzene	20	20.14	20	19.99	101	100	78-120	1	30
	ug/l	**ug/l**	**ug/l**	**ug/l**					
Batch number: 17297WAJ026	Sample number(s): 9277390-9277393								
Acenaphthene	50	43.08			86		68-112		
Acenaphthylene	50	43.64			87		67-111		
Anthracene	50	44.41			89		73-113		
Benzo(a)anthracene	50	46.29			93		74-124		
Benzo(a)pyrene	50	41.67			83		70-113		
Benzo(b)fluoranthene	50	44.95			90		72-117		
Benzo(g,h,i)perylene	50	43.63			87		64-117		
Benzo(k)fluoranthene	50	44.86			90		73-121		
Chrysene	50	47.58			95		75-120		
Dibenz(a,h)anthracene	50	45.7			91		68-121		
Fluoranthene	50	47.18			94		75-117		
Fluorene	50	44.37			89		68-112		
Indeno(1,2,3-cd)pyrene	50	54.99			110		67-117		
2-Methylnaphthalene	50	42.27			85		54-111		
Naphthalene	50	40.1			80		54-109		
Phenanthrene	50	43.08			86		72-110		
Pyrene	50	43.23			86		72-109		
	mg/l	**mg/l**	**mg/l**	**mg/l**					
Batch number: 17305117101A	Sample number(s): 9277390-9277393								
Total Cyanide (water)	0.200	0.197			99		90-110		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: ARCADIS U.S., Inc.
Reported: 11/09/2017 23:54

Group Number: 1865956

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F172991AA	Sample number(s): 9277391 UNSPK: P276203									
Benzene	N.D.	20	20.9	20	21.58	105	108	78-120	3	30
Ethylbenzene	N.D.	20	19.71	20	20.33	99	102	78-120	3	30
Toluene	N.D.	20	20.27	20	21.32	101	107	80-120	5	30
Xylene (Total)	N.D.	60	59.12	60	61.29	99	102	80-120	4	30
Batch number: F172992AA	Sample number(s): 9277390,9277392-9277394 UNSPK: P277705									
Benzene	N.D.	100	110.33	100	110.66	110	111	78-120	0	30
Ethylbenzene	N.D.	100	106.44	100	107.04	106	107	78-120	1	30
Toluene	N.D.	100	112.2	100	110.53	112	111	80-120	1	30
Xylene (Total)	N.D.	300	321.74	300	321.7	107	107	80-120	0	30
	ug/l	**ug/l**	**ug/l**	**ug/l**	**ug/l**					
Batch number: 17297WAJ026	Sample number(s): 9277390-9277393 UNSPK: P275799									
Acenaphthene	N.D.	50.4	43.55	50.2	43.89	86	87	68-112	1	30
Acenaphthylene	N.D.	50.4	43.69	50.2	44.53	87	89	67-111	2	30
Anthracene	N.D.	50.4	44.94	50.2	45.11	89	90	73-113	0	30
Benzo(a)anthracene	N.D.	50.4	47.44	50.2	47.9	94	95	74-124	1	30
Benzo(a)pyrene	N.D.	50.4	41.95	50.2	43.24	83	86	70-113	3	30
Benzo(b)fluoranthene	N.D.	50.4	44.6	50.2	44.82	88	89	72-117	0	30
Benzo(g,h,i)perylene	N.D.	50.4	42.44	50.2	42.39	84	84	64-117	0	30
Benzo(k)fluoranthene	N.D.	50.4	44.22	50.2	44.59	88	89	73-121	1	30
Chrysene	N.D.	50.4	47.98	50.2	47.99	95	96	75-120	0	30
Dibenz(a,h)anthracene	N.D.	50.4	44.35	50.2	44.54	88	89	68-121	0	30
Fluoranthene	N.D.	50.4	47.58	50.2	48.56	94	97	75-117	2	30
Fluorene	N.D.	50.4	44.94	50.2	45.83	89	91	68-112	2	30
Indeno(1,2,3-cd)pyrene	N.D.	50.4	53.91	50.2	54.27	107	108	67-117	1	30
2-Methylnaphthalene	N.D.	50.4	41.8	50.2	42.89	83	85	54-111	3	30
Naphthalene	N.D.	50.4	39.55	50.2	41.81	78	83	54-109	6	30
Phenanthrene	N.D.	50.4	43.52	50.2	44.52	86	89	72-110	2	30
Pyrene	N.D.	50.4	44.05	50.2	44.2	87	88	72-109	0	30
	mg/l	**mg/l**	**mg/l**	**mg/l**	**mg/l**					
Batch number: 17305117101A	Sample number(s): 9277390-9277393 UNSPK: P276658									
Total Cyanide (water)	N.D.	0.200	0.207			104		72-114		

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: ARCADIS U.S., Inc. Group Number: 1865956
Reported: 11/09/2017 23:54

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 17305117101A	Sample number(s): 9277390-9277393 BKG: P276658			
Total Cyanide (water)	N.D.	N.D.	0 (1)	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: BTEX 8260C
Batch number: F172991AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9277391	100	102	100	96
Blank	104	104	102	93
LCS	102	103	101	97
MS	103	103	101	97
MSD	102	105	100	96
Limits:	80-120	80-120	80-120	80-120

Analysis Name: BTEX 8260C
Batch number: F172992AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9277390	97	98	101	94
9277392	98	98	100	96
9277393	99	98	100	95
9277394	102	103	99	90
Blank	103	101	101	91
LCS	101	103	101	96
MS	102	102	101	98
MSD	100	104	100	98
Limits:	80-120	80-120	80-120	80-120

Analysis Name: PAHs 8270D
Batch number: 17297WAJ026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
9277390	69	66	49
9277391	52	49	52
9277392	61	60	54

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: ARCADIS U.S., Inc. Group Number: 1865956
Reported: 11/09/2017 23:54

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: PAHs 8270D
Batch number: 17297WAJ026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
9277393	47	50	34*
Blank	78	72	71
LCS	81	81	78
MS	80	81	71
MSD	85	83	73
Limits:	40-113	46-104	35-119

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

3074 | 1865956 | 9277390-94

ARCADIS
Infrastructure · Water · Environment · Buildings

ID#:

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Page 1 of 1

Lab Work Order #

Send Results to:

Contact & Company Name: Arcadis Doug Nodine
Telephone: 315 671 9377
Address: 110 W Fayette St Suite 300
Fax:
City: Syracuse State: NY Zip: 13202
E-mail Address: douglas.nodine@arcadis.com
Project Name/Location (City, State): National Grid/ Ogdensburg, NY
Project #: B003671.0003
Sampler's Printed Name: Austin George
Sampler's Signature: A George

Preservative	HCl		NaOH+ascorbic acid				
Filtered (✓)							
# of Containers	3	2	1				
Container Information							

Keys

Preservation Key:
A. H_2SO_4
B. HCL
C. HNO_3
D. NaOH
E. None
F. Other: _____
G. Other: _____
H. Other: _____

Container Information Key:
1. 40 ml Vial
2. 1 L Amber
3. 250 ml Plastic
4. 500 ml Plastic
5. Encore
6. 2 oz. Glass
7. 4 oz. Glass
8. 8 oz. Glass
9. Other: _____
10. Other: _____

Matrix Key:
SO - Soil
W - Water
T - Tissue
SE - Sediment
SL - Sludge
A - Air
NL - NAPL/Oil
SW - Sample Wipe
Other: _____

PARAMETER ANALYSIS & METHOD

Sample ID	Collection Date	Collection Time	Type (✓) Comp	Type (✓) Grab	Matrix	BTEX 8260C	PAHs 8270D	Total Cyanide 9012B	REMARKS
MW-12R	~~10/19/17~~ 10/20/17	1520		✓	GW	3	2	1	
MW-9	10/19/17	1600		✓	GW	3	2	1	
MW-SR(R)	10/20/17	0850		✓	GW	3	2	1	
MW-2R	10/20/17	0930		✓	GW	3	2	1	
Trip blanks	/	/		✓	W	3			

Special Instructions/Comments:
NY ASP Cat. B, Arcadis CORE EDD

☐ Special QA/QC Instructions(✓):

Laboratory Information and Receipt		Relinquished By	Received By	Relinquished By	Laboratory Received By
Lab Name:	Cooler Custody Seal (✓)	Printed Name: Austin George	Printed Name: Crystal Smith	Printed Name: Crystal Smith	Printed Name: Xavier Nieves
☒ Cooler packed with ice (✓)	☒ Intact ☐ Not Intact	Signature: A George	Signature:	Signature:	Signature:
Specify Turnaround Requirements:	Sample Receipt: 3.1	Firm: Arcadis	Firm/Courier: Eurofins	Firm/Courier: Eurofins	Firm: ELLE
Shipping Tracking #:	Condition/Cooler Temp: _____	Date/Time: 10/20/17 12:15	Date/Time: 10/20/17 15:45	Date/Time: 10/20/17 1545	Date/Time: 10/21/17 1000

20730826 CofC AR Form 01.12.2007

3.5 LO 3.5 IR 3.1 10/20/17 Distribution:

WHITE – Laboratory returns with results

YELLOW – Lab copy

PINK – Retained by ARCADIS

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Sample Administration Receipt Documentation Log

Doc Log ID: 198430

Group Number(s): 1865956

Client: Arcadis

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	10/21/2017 10:00
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	3
Paperwork Enclosed:	Yes	Trip Blank Type:	HCl
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Simon Nies (25112) at 17:47 on 10/21/2017

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-01	3.1	DT	Wet	Y	Loose	N

2425 New Holland Pike
Lancaster, PA 17605-2425
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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mg**	milligram(s)
C	degrees Celsius	**mL**	milliliter(s)
cfu	colony forming units	**MPN**	Most Probable Number
CP Units	cobalt-chloroplatinate units	**N.D.**	non-detect
F	degrees Fahrenheit	**ng**	nanogram(s)
g	gram(s)	**NTU**	nephelometric turbidity units
IU	International Units	**pg/L**	picogram/liter
kg	kilogram(s)	**RL**	Reporting Limit
L	liter(s)	**TNTC**	Too Numerous To Count
lb.	pound(s)	**µg**	microgram(s)
m3	cubic meter(s)	**µL**	microliter(s)
meq	milliequivalents	**umhos/cm**	micromhos/cm

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

ARCADIS Design & Consultancy for natural and built assets

National Grid – Ogdensburg

DATA USABILITY SUMMARY REPORT

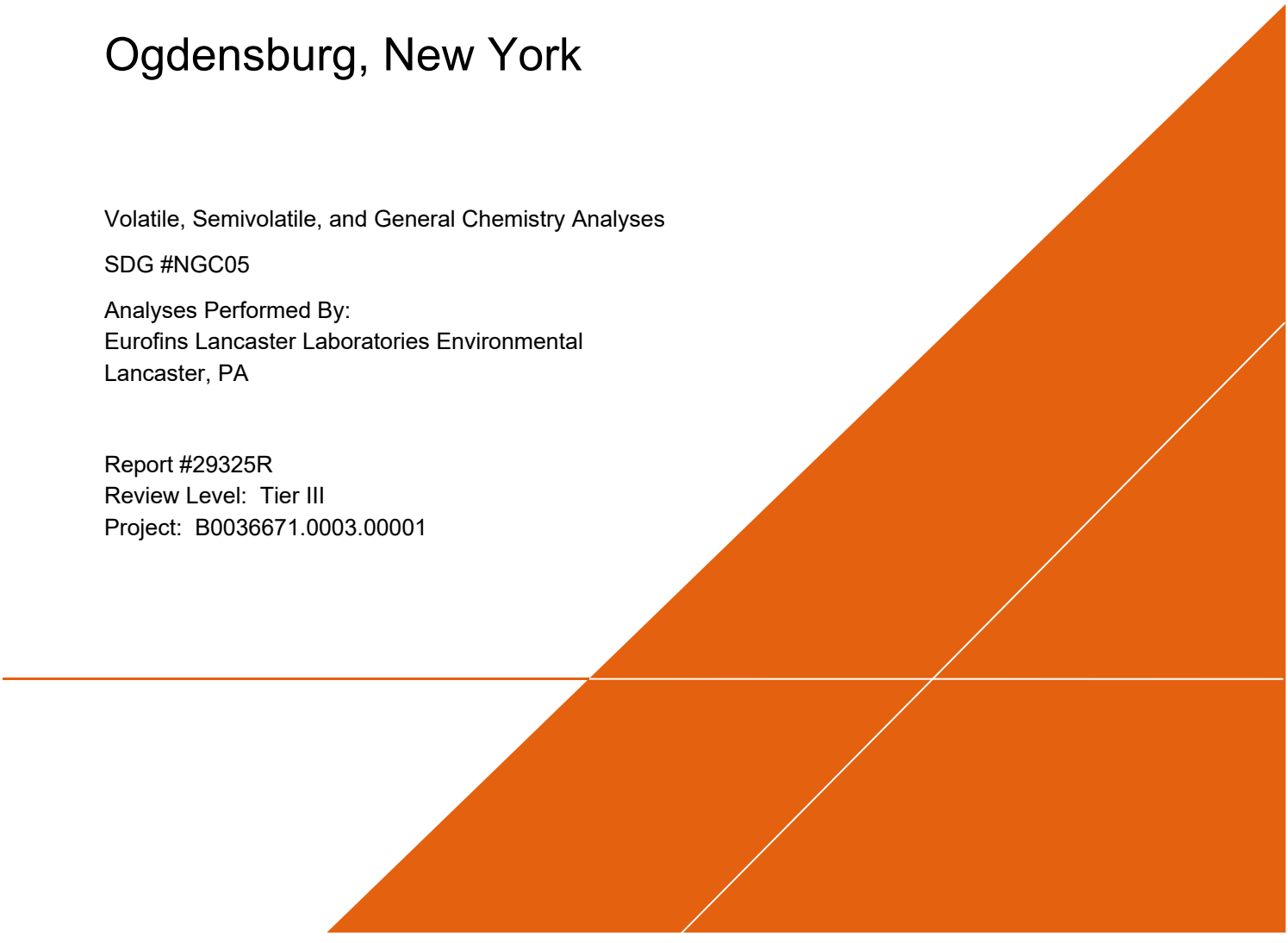
Ogdensburg, New York

Volatile, Semivolatile, and General Chemistry Analyses

SDG #NGC05

Analyses Performed By:
Eurofins Lancaster Laboratories Environmental
Lancaster, PA

Report #29325R
Review Level: Tier III
Project: B0036671.0003.00001



SUMMARY

This data usability summary report (DUSR) summarizes the review of Sample Delivery Group (SDG) # NGC05 for samples collected in association with the National Grid – Ogdensburg. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
MW-12R	9277390	Water	10/19/2017		X	X			X
MW-9	9277391	Water	10/19/2017		X	X			X
MW-5R(R)	9277392	Water	10/20/2017		X	X			X
MW-2R	9277393	Water	10/20/2017		X	X			X
Trip Blank	9277394	Water	10/19/2017		X				

Note:

1. Miscellaneous analysis includes total cyanide.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

Note:
QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260C and 8270D. Data were reviewed in accordance with USEPA National Functional Guidelines (October 1999) and applicable Region II SOPs. USEPA NFGs and Region II SOPs were followed for qualification purposes.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times/Preservation

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis (preserved) 7 days from collection to analysis (non-preserved)	Cool to <6 °C; preserved to a pH of less than 2 s.u.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cool to <6 °C.

Note:
s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

A MS/MSD analysis was not performed on a sample within this SDG.

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

A field duplicate was not performed on a sample within this SDG.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compounds that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
MW-12R	Benzene	-	2900 D	2900 D
MW-5R(R)	Benzene	-	440 D	440 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS)	X				X
Matrix Spike Duplicate(MSD)	X				X
MS/MSD Precision (RPD)	X				X
Field/Lab Duplicate (RPD)	X				X
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content	X				X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%RSD Relative standard deviation

%R Percent recovery

RPD Relative percent difference

%D Percent difference

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Surrogate	Recovery
MW-2R	Terphenyl-d14	< LL but > 10%
	Nitrobenzene-d5	AC
	2-Fluorobiphenyl	

Notes:
LL Lower control limit
AC Acceptable

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Surrogates diluted below the calibration curve due to the high concentration of a target compounds	Non-detect	J[1]
	Detect	

Note:
[1] A more concentrated analysis was not performed with surrogate compounds within the calibration range; therefore, no determination of extraction efficiency could be made.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the SVOC

exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

A MS/MSD analysis was not performed on a sample within this SDG.

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

A field duplicate was not performed on a sample within this SDG.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compounds that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
MW-5R(R)	Naphthalene	-	210 D	210 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS) %R	X				X
Matrix Spike Duplicate(MSD) %R	X				X
MS/MSD Precision (RPD)	X				X
Field/Lab Duplicate (RPD)	X				X
Surrogate Spike Recoveries		X	X		
Dilution Factor		X		X	
Moisture Content	X				X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
F. Reconstructed ion chromatograms		X		X	
G. Quantitation Reports		X		X	
H. RT of sample compounds within the established RT windows		X		X	

SVOCs: SW-846 8270		Reported		Performance Acceptable		Not Required
		No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)						
I.	Quantitation transcriptions/calculations		X		X	
J.	Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%RSD Relative standard deviation

%R Percent recovery

RPD Relative percent difference

%D Percent difference

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 9012B. Data were reviewed in accordance with USEPA National Functional Guidelines of October 2004.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.
  - J The reported value was obtained from a reading less than the reporting limit (RL), but greater than or equal to the method detection limit (MDL).
- Quantitation (Q) Qualifiers
  - E The reported value is estimated due to the presence of interference.
  - N Spiked sample recovery is not within control limits.
  - * Duplicate analysis is not within control limits.
- Validation Qualifiers
  - J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
  - UB Analyte considered non-detect at the listed value due to associated blank contamination.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

GENERAL CHEMISTRY ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Total Cyanide by SW-846 9012B	Water	14 days from collection to analysis	Cool to <6 °C; preserved to a pH of greater than 12.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Calibration

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 and all initial calibration verification standard recoveries were within control limits.

All calibration standard recoveries were within the control limit.

4. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

A MS analysis sample was not performed on a sample within this SDG.

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices and two times the RL for soil matrices.

The laboratory duplicate sample was not performed on a sample within this SDG.

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for soil matrices.

A field duplicate was not performed on a sample within this SDG.

6. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: EPA SW-846 7.3	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS) %R	X				X
Matrix Spike Duplicate(MSD) %R	X				X
MS/MSD Precision (RPD)	X				X
Field/Lab Duplicate (RPD)	X				X
Dilution Factor		X		X	
Moisture Content	X				X
Tier III Validation					
Initial calibration %RSD or correlation coefficient		X		X	
Continuing calibration %R		X		X	
Raw Data					
Transcription/calculation errors present		X		X	
Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:

%RSD – relative standard deviation
%R - percent recovery
RPD - relative percent difference,

%D – difference

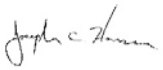
SAMPLE COMPLIANCE REPORT

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
NGC05	10/19/2017	USEPA/ SW846	MW-12R	Water	yes	yes	--	--	yes	
	10/19/2017	USEPA/ SW846	MW-9	Water	yes	yes	--	--	yes	
	10/20/2017	USEPA/ SW846	MW-5R(R)	Water	yes	yes	--	--	yes	
	10/20/2017	USEPA/ SW846	MW-2R	Water	yes	yes	--	--	yes	
	10/19/2017	USEPA/ SW846	Trip Blank	Water	yes	--	--	--	--	

Note:

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Joseph C. Houser

SIGNATURE: 

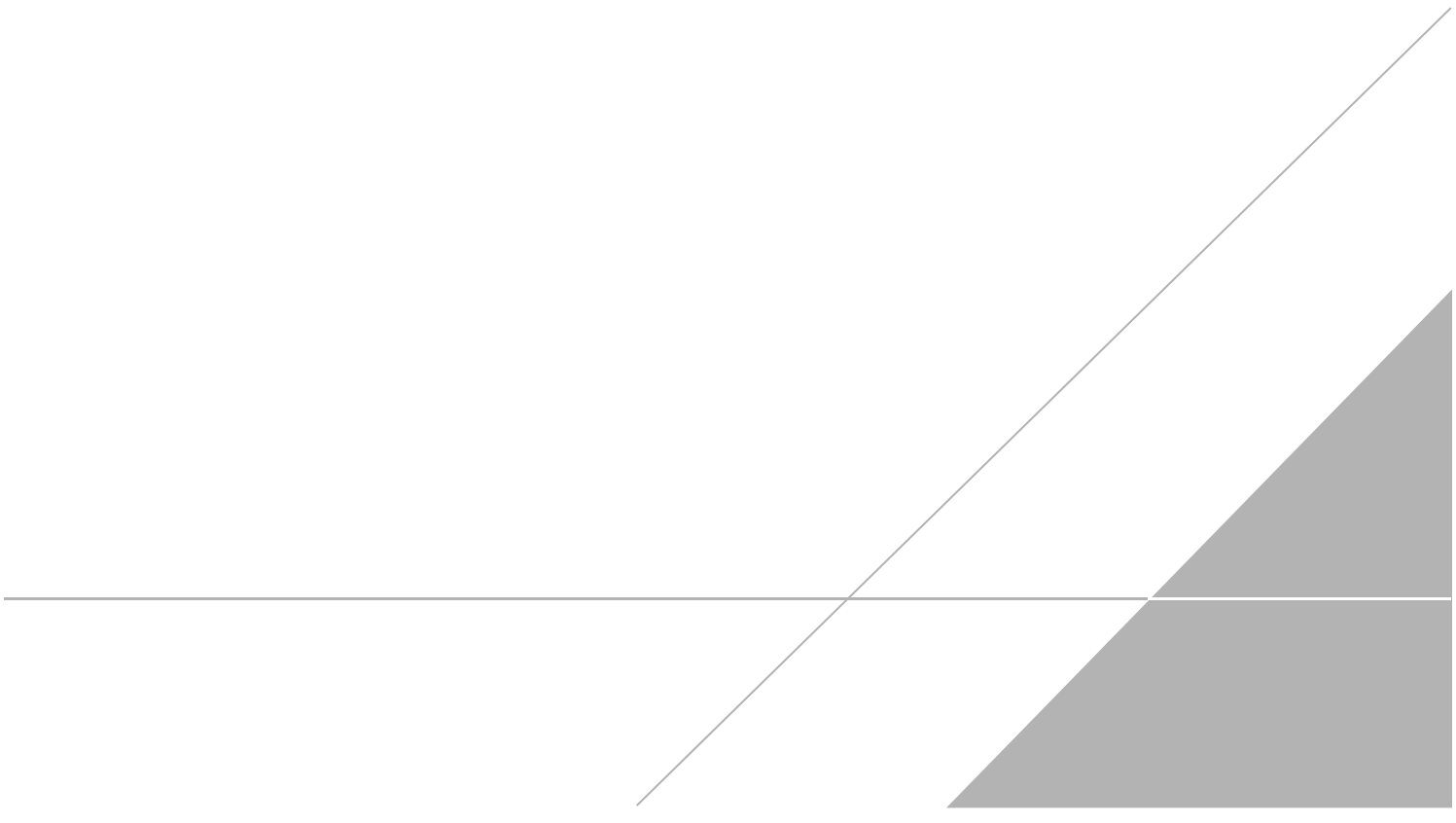
DATE: February 27, 2018

PEER REVIEW: Dennis Capria

DATE: March 5, 2018

CHAIN OF CUSTODY

CORRECTED SAMPLE ANALYSIS DATA SHEETS



Sample Description: **MW-12R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/21/2017 10:00
Collection Date/Time: 10/19/2017 15:20
SDG#: NGC05-01

ARCADIS U.S., Inc.
ELLE Sample #: WW 9277390
ELLE Group #: 1865956
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	**ug/l**	
13130	Benzene	71-43-2	2,900	D	50	25	50
13130	Ethylbenzene	100-41-4	110		5	3	5
13130	Toluene	108-88-3	15		5	3	5
13130	Xylene (Total)	1330-20-7	83		5	3	5
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	4		0.5	0.1	1
14250	Acenaphthylene	208-96-8	7		0.5	0.1	1
14250	Anthracene	120-12-7	N.D.		0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.		0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.		0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.		0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.		0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.		0.5	0.1	1
14250	Chrysene	218-01-9	N.D.		0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.		0.5	0.1	1
14250	Fluoranthene	206-44-0	N.D.		0.5	0.1	1
14250	Fluorene	86-73-7	0.3	J	0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	N.D.		0.5	0.1	1
14250	Naphthalene	91-20-3	92		0.5	0.1	1
14250	Phenanthrene	85-01-8	N.D.		0.5	0.1	1
14250	Pyrene	129-00-0	N.D.		0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**		**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	0.037		0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172992AA	10/26/2017 17:12	Anthony H Downey	5
13130	BTEX 8260C	SW-846 8260C	1	F172992AA	10/26/2017 17:34	Anthony H Downey	50
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172992AA	10/26/2017 17:12	Anthony H Downey	5
01163	GC/MS VOA Water Prep	SW-846 5030C	2	F172992AA	10/26/2017 17:34	Anthony H Downey	50
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 02:13	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-12R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/21/2017 10:00
Collection Date/Time: 10/19/2017 15:20
SDG#: NGC05-01

ARCADIS U.S., Inc.
ELLE Sample #: WW 9277390
ELLE Group #: 1865956
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08255	Total Cyanide (water)	SW-846 9012B	1	17305117101A	11/01/2017 21:47	Samuel J Weaver	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17305117101A	11/01/2017 09:40	Nancy J Shoop	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-9 Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/21/2017 10:00
Collection Date/Time: 10/19/2017 16:00
SDG#: NGC05-02

ARCADIS U.S., Inc.
ELLE Sample #: WW 9277391
ELLE Group #: 1865956
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	**ug/l**	
13130	Benzene	71-43-2	340		2	1	2
13130	Ethylbenzene	100-41-4	140		2	1	2
13130	Toluene	108-88-3	85		2	1	2
13130	Xylene (Total)	1330-20-7	180		2	1	2
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	48		0.5	0.1	1
14250	Acenaphthylene	208-96-8	17		0.5	0.1	1
14250	Anthracene	120-12-7	8		0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	2		0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	1		0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	1		0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	0.4	J	0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	0.5	J	0.5	0.1	1
14250	Chrysene	218-01-9	1		0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	0.2	J	0.5	0.1	1
14250	Fluoranthene	206-44-0	8		0.5	0.1	1
14250	Fluorene	86-73-7	38		0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	0.5		0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	1		0.5	0.1	1
14250	Naphthalene	91-20-3	72		0.5	0.1	1
14250	Phenanthrene	85-01-8	36		0.5	0.1	1
14250	Pyrene	129-00-0	5		0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**		**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	1.3		0.050	0.025	5

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172991AA	10/26/2017 18:30	Anthony H Downey	2
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172991AA	10/26/2017 18:30	Anthony H Downey	2
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 02:40	Edward C Monborne	1
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17305117101A	11/01/2017 22:44	Samuel J Weaver	5
08256	Cyanide Water Distillation	SW-846 9012B	1	17305117101A	11/01/2017 09:40	Nancy J Shoop	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-5R(R) Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/21/2017 10:00
Collection Date/Time: 10/20/2017 08:50
SDG#: NGC05-03

ARCADIS U.S., Inc.
ELLE Sample #: WW 9277392
ELLE Group #: 1865956
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	**ug/l**	
13130	Benzene	71-43-2	440	D	20	10	20
13130	Ethylbenzene	100-41-4	26		2	1	2
13130	Toluene	108-88-3	70		2	1	2
13130	Xylene (Total)	1330-20-7	53		2	1	2
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	71		0.5	0.1	1
14250	Acenaphthylene	208-96-8	40		0.5	0.1	1
14250	Anthracene	120-12-7	8		0.5	0.1	1
14250	Benzo(a)anthracene	56-55-3	N.D.		0.5	0.1	1
14250	Benzo(a)pyrene	50-32-8	N.D.		0.5	0.1	1
14250	Benzo(b)fluoranthene	205-99-2	N.D.		0.5	0.1	1
14250	Benzo(g,h,i)perylene	191-24-2	N.D.		0.5	0.1	1
14250	Benzo(k)fluoranthene	207-08-9	N.D.		0.5	0.1	1
14250	Chrysene	218-01-9	N.D.		0.5	0.1	1
14250	Dibenz(a,h)anthracene	53-70-3	N.D.		0.5	0.1	1
14250	Fluoranthene	206-44-0	6		0.5	0.1	1
14250	Fluorene	86-73-7	48		0.5	0.1	1
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		0.5	0.1	1
14250	2-Methylnaphthalene	91-57-6	6		0.5	0.1	1
14250	Naphthalene	91-20-3	210	D	3	0.5	5
14250	Phenanthrene	85-01-8	41		0.5	0.1	1
14250	Pyrene	129-00-0	5		0.5	0.1	1
Wet Chemistry	**SW-846 9012B**		**mg/l**		**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	0.055		0.010	0.0050	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172992AA	10/26/2017 17:56	Anthony H Downey	2
13130	BTEX 8260C	SW-846 8260C	1	F173073AA	11/03/2017 22:11	Kevin D Kelly	20
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172992AA	10/26/2017 17:56	Anthony H Downey	2
01163	GC/MS VOA Water Prep	SW-846 5030C	2	F173073AA	11/03/2017 22:11	Kevin D Kelly	20
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 03:08	Edward C Monborne	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 16:28	Kira N Klaassen	5

*=This limit was used in the evaluation of the final result

Sample Description: **MW-5R(R) Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/21/2017 10:00
Collection Date/Time: 10/20/2017 08:50
SDG#: NGC05-03

ARCADIS U.S., Inc.
ELLE Sample #: WW 9277392
ELLE Group #: 1865956
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17305117101A	11/01/2017 21:49	Samuel J Weaver	1
08256	Cyanide Water Distillation	SW-846 9012B	1	17305117101A	11/01/2017 09:40	Nancy J Shoop	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-2R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/21/2017 10:00
Collection Date/Time: 10/20/2017 09:30
SDG#: NGC05-04

ARCADIS U.S., Inc.
ELLE Sample #: WW 9277393
ELLE Group #: 1865956
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	120	1	0.5	1
13130	Ethylbenzene	100-41-4	3	1	0.5	1
13130	Toluene	108-88-3	44	1	0.5	1
13130	Xylene (Total)	1330-20-7	36	1	0.5	1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**	**ug/l**	**ug/l**	
14250	Acenaphthene	83-32-9	4 J	5	1	10
14250	Acenaphthylene	208-96-8	18	5	1	10
14250	Anthracene	120-12-7	3 J	5	1	10
14250	Benzo(a)anthracene	56-55-3	N.D.	5	1	10
14250	Benzo(a)pyrene	50-32-8	N.D.	5	1	10
14250	Benzo(b)fluoranthene	205-99-2	N.D.	5	1	10
14250	Benzo(g,h,i)perylene	191-24-2	N.D.	5	1	10
14250	Benzo(k)fluoranthene	207-08-9	N.D.	5	1	10
14250	Chrysene	218-01-9	N.D.	5	1	10
14250	Dibenz(a,h)anthracene	53-70-3	N.D.	5	1	10
14250	Fluoranthene	206-44-0	N.D.	5	1	10
14250	Fluorene	86-73-7	7	5	1	10
14250	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	5	1	10
14250	2-Methylnaphthalene	91-57-6	20	5	1	10
14250	Naphthalene	91-20-3	270	5	1	10
14250	Phenanthrene	85-01-8	6	5	1	10
14250	Pyrene	129-00-0	N.D.	5	1	10
	Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	Total Cyanide (water)	57-12-5	0.53	0.020	0.010	2

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172992AA	10/26/2017 12:06	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172992AA	10/26/2017 12:06	Anthony H Downey	1
14250	PAHs 8270D	SW-846 8270D	1	17297WAJ026	11/07/2017 16:56	Kira N Klaassen	10
07807	BNA Water Extraction	SW-846 3510C	1	17297WAJ026	10/25/2017 20:40	Kate E Lutte	1
08255	Total Cyanide (water)	SW-846 9012B	1	17305117101A	11/01/2017 22:45	Samuel J Weaver	2

*=This limit was used in the evaluation of the final result

Sample Description: **MW-2R Grab Groundwater**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/21/2017 10:00
Collection Date/Time: 10/20/2017 09:30
SDG#: NGC05-04

ARCADIS U.S., Inc.
ELLE Sample #: WW 9277393
ELLE Group #: 1865956
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08256	Cyanide Water Distillation	SW-846 9012B	1	17305117101A	11/01/2017 09:40	Nancy J Shoop	1

*=This limit was used in the evaluation of the final result

Sample Description: **Trip Blank Water**
National Grid - Ogdensburg, NY

Project Name: **National Grid - Ogdensburg, NY**

Submittal Date/Time: 10/21/2017 10:00
Collection Date/Time: 10/19/2017
SDG#: NGC05-05TB

ARCADIS U.S., Inc.
ELLE Sample #: WW 9277394
ELLE Group #: 1865956
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
13130	Benzene	71-43-2	N.D.	1	0.5	1
13130	Ethylbenzene	100-41-4	N.D.	1	0.5	1
13130	Toluene	108-88-3	N.D.	1	0.5	1
13130	Xylene (Total)	1330-20-7	N.D.	1	0.5	1

Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F172992AA	10/26/2017 11:44	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	F172992AA	10/26/2017 11:44	Anthony H Downey	1

*=This limit was used in the evaluation of the final result

3074 | 1865956 | 9277390-94

ARCADIS
Infrastructure · Water · Environment · Buildings

ID#:

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Page 1 of 1

Lab Work Order #

Send Results to:

Contact & Company Name: Arcadis Doug Nodine
Telephone: 315 671 9377
Address: 110 W Fayette St Suite 300
Fax:
City: Syracuse State: NY Zip: 13202
E-mail Address: douglas.nodine@arcadis.com
Project Name/Location (City, State): National Grid/ Ogdensburg, NY
Project #: B003671.0003
Sampler's Printed Name: Austin George
Sampler's Signature: A George

Preservative	HCl		NaOH+ascorbic acid				
Filtered (✓)							
# of Containers	3	2	1				
Container Information							

Keys

Preservation Key:
A. H_2SO_4
B. HCL
C. HNO_3
D. NaOH
E. None
F. Other: _____
G. Other: _____
H. Other: _____

Container Information Key:
1. 40 ml Vial
2. 1 L Amber
3. 250 ml Plastic
4. 500 ml Plastic
5. Encore
6. 2 oz. Glass
7. 4 oz. Glass
8. 8 oz. Glass
9. Other: _____
10. Other: _____

Matrix Key:
SO - Soil
W - Water
T - Tissue
SE - Sediment
SL - Sludge
A - Air
NL - NAPL/Oil
SW - Sample Wipe
Other: _____

PARAMETER ANALYSIS & METHOD

Sample ID	Collection Date	Collection Time	Type (✓) Comp	Type (✓) Grab	Matrix	BTEX 8260C	PAHs 8270D	Total Cyanide 9012B					REMARKS
MW-12R (APB)	~~10/19/17~~ 10/20/17	~~1520~~ 1520		✓	GW	3	2	1					
MW-9	10/19/17	1600		✓	GW	3	2	1					
MW-5R(R)	10/20/17	0850		✓	GW	3	2	1					
MW-2R	10/20/17	0930		✓	GW	3	2	1					
Trip blanks	″	″		✓	W	3							

Special Instructions/Comments:
NY ASP Cat. B, Arcadis CORE EDD

☐ Special QA/QC Instructions(✓):

Laboratory Information and Receipt		Relinquished By	Received By	Relinquished By	Laboratory Received By
Lab Name:	Cooler Custody Seal (✓)	Printed Name: Austin George	Printed Name: Crystal Smith	Printed Name: Crystal Smith	Printed Name: Xavier Nieves
☒ Cooler packed with ice (✓)	☒ Intact ☐ Not Intact	Signature: A George	Signature:	Signature:	Signature:
Specify Turnaround Requirements:	Sample Receipt: 3.1	Firm: Arcadis	Firm/Courier: Eurofins	Firm/Courier: Eurofins	Firm: ELLE
Shipping Tracking #:	Condition/Cooler Temp: _____	Date/Time: 10/20/17 12:15	Date/Time: 10/20/17 15:45	Date/Time: 10/20/17 1545	Date/Time: 10/21/17 1000

APPENDIX G

Generic Community Air Monitoring Plan

Appendix 1A
New York State Department of Health
Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

APPENDIX H

Generic Field Sampling Plan for Site Investigations at Manufactured Gas Plants

GENERIC
FIELD SAMPLING PLAN

FOR

SITE INVESTIGATIONS

AT

MANUFACTURED GAS PLANTS

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NOVEMBER 2002

Site Specific
Revisions Attached: Supplement No. ___ Date

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1.0 INTRODUCTION

This generic Field Sampling Plan (GFSP) has been prepared for Niagara Mohawk, a National Grid Company (NM) in response to the Voluntary Cleanup Order (VCO) (Index No. DO 0001 0011) between NM and the New York State Department of Environmental Conservation (NYSDEC). This document is intended to provide guidance for implementation of various types of environmental sampling activities that may be utilized during Site Investigation and/or Remedial Investigations, Interim Remedial Measures, Feasibility Studies, Remedial Designs, and/or Remedial Actions at MGP sites. The numbers and types of environmental samples to be collected are identified in the detailed respective Site-Specific Work Plans, to which this document is appended. If any discrepancy occurs between the Site Specific Work Plan and the Generic Work Plan/Field Sampling Plan then the Site Specific Work Plan will govern.

During the performance of any investigation, references in all work products to dense nonaqueous phase liquids (DNAPL) and/or other MGP impacted media (i.e. soil, water, sediments, etc.) will be made using the terminology and descriptions presented in the USEPA documents entitled ***Ground Water Issue - Dense Nonaqueous Phase Liquids*** (Huling and Weaver; March 1991) and included as Attachment B.

2.0 GENERAL FIELD GUIDELINES

2.1 Underground Utilities

All underground utilities, including electric, telephone, cable TV, sewers, water, natural gas, etc., will be identified prior to any drilling and subsurface sampling. Underground Facilities Protective Organization (UFPO) will be contacted by phone at least 72 hours prior to field activities so their underground utilities can be marked at the Site. Other potential on-site hazards such as sharp objects, known subsurface structures, overhead power lines, and building hazards will be identified during the Site reconnaissance visit.

2.2 Sample Identification

Each sample will be given a unique identification as shown in Table 1. With this type of identification, no two samples will have the same label. Labels or tags identified as shown in Table 1 will be attached to each sample container. Labels or tags will be rendered waterproof by either covering the label with clear plastic wrapping tape or utilizing waterproof material for the tag or label.

2.3 Sampling Equipment

The following is a general list of equipment, which may be necessary for sample collection:

- Stainless steel spoons and bowls for mixing soil and sediment samples;
- Appropriate sample containers (and coolers) provided by the laboratory;
- Sample bottles (kept closed and in the laboratory-shipped coolers until the samples are collected);
- Reagent-grade preservatives and pH paper or meter (or pre-preserved sample containers) for aqueous samples;
- Chain-of-Custody labels, tags, seals, and record forms;
- Logbook, field sampling records, and indelible ink markers;
- Laboratory grade decontamination detergents (such as Alconox, Liquinox, etc.), reagent-grade solvents, and deionized, organic-free water to be used for decontaminating equipment between sampling stations;
- Squirt Bottles;
- Ruler and measuring tape;
- Garbage bags;
- Paper towels and/or baby wipes;
- Buckets, wash basins, and scrub brushes to be used for decontaminating equipment;
- Digital camera or camera and film to document sampling procedures and sample locations;
- Stakes and flagging tape and/or spray paint to identify sampling locations;

- Shipping labels and forms;
- Knife;
- Vermiculite or other packing/shipping material for sample bottles;
- Strapping tape;
- Clear plastic tape;
- Duct tape;
- Aluminum Foil;
- Reclosable plastic bags;
- Ice;
- Portable field instruments, which may include but not be limited to a pH meter, conductivity meter, turbidity meter, dissolved oxygen (DO) meter or multi-parameter flow through cell, photoionization detector (PID), and water level indicator;
- Combustible gas indicator (CGI);
- Poly-sheeting;
- Driller's jars (for archiving samples);
- Polypropylene or stainless steel bailers;
- Poly propylene rope and/or Teflon line; and
- Submersible, peristaltic and/or centrifugal pump and associated tubing.

Other sampling materials and equipment may be utilized as warranted by field conditions encountered at time of sampling and media to be samples. Appropriate health and safety equipment and PPE, as per the Generic Environmental Health and Safety (EHS) Plan (Volume II) will be used.

2.4 Field Records

The Project Manager will control all field logbooks. Each field logbook will receive a serialized number and be issued to the field operations leader (FOL). Field logbooks will be maintained by the FOL and other team members while in the field to provide a daily record of significant events, observations, and measurements during the field investigation. All entries will be signed and dated at the bottom of each page.

Information pertinent to the field investigation and/or sampling activities will be recorded in the logbooks. The logbooks will be bound with consecutively numbered pages. Entries in the logbook will include, at a minimum, the following information:

- Name and title of author, date and time of entry, and physical/environmental/weather conditions during field activity;
- Purpose of sampling activity;
- Location of sampling activity;
- Name and address of field contact;
- Name and title of field crew members;

- Name and title of any Site visitors;
- Sample media (soil, sediment, groundwater, etc.);
- Sample collection method;
- Number and volume of sample(s) collected;
- Description of sampling point(s);
- Volume of groundwater removed before sampling;
- Preservatives used;
- Date and time of collection;
- Sample identification number(s);
- Sample distribution (e.g., laboratory);
- Field observations;
- Any field measurements made, such as pH, temperature, turbidity, conductivity, water level, etc.;
- References for all maps and photographs of the sampling site(s);
- Information pertaining to sample documentation such as:
    - Bottle lot numbers
    - Dates and method of sample shipments
    - Chain-of-Custody Record numbers
    - Overnight Shipping Air Bill Number

All original data recorded in Field Logbooks, Sample Tags, and Chain-of-Custody records will be written with waterproof ink. None of these accountable, serialized documents will be destroyed.

If an error is made on an accountable document assigned to one individual, that individual will make all corrections simply by crossing a single line through the error, placing the initials of the individual making the correction and date next to the crossed out information and entering the correct information. The erroneous information will not be erased. All field personnel will be instructed as to the proper field logging techniques for maintaining the integrity of the documentation.

3.0 EQUIPMENT DECONTAMINATION

3.1 Drill Rig and Backhoe Decontamination

A decontamination pad will be constructed of high-density polyethylene sheeting, no less than 10-millimeters thick, on a prepared surface sloped to a sump. The sump must also be lined and of sufficient volume to contain at least 20 gallons of decontamination water. The size of the pad shall be of sufficient size to contain the fluids generated during the decontamination of on-site equipment. The decontamination pad will be no larger than the back of the drill rig, since the back of the drill rig will be the largest piece of equipment anticipated on-site. Sides of the pad will be bermed so that all decontamination water is contained. Upon completion of all field activities, the decontamination pad will be properly decommissioned. To accomplish decommissioning, all free liquids will be removed from the surface of the High Density Polyethylene (HDPE) sheeting, including the sump area, and allowed to air dry. The HDPE sheeting will then be cut to manageable size, folded or rolled, and placed in the waste container (usually a roll-off container or 55-gallon drum). The earthen material or wood timbers used to construct the containment berm will be inspected to ascertain if the material has come in contact with decontamination liquids during use. If they have, the materials will be disposed in the waste container for subsequent disposal at an appropriate facility. If the materials have not been in contact with decontamination liquids, they may be reused.

All equipment used in intrusive work including backhoe, drilling rig, augers, bits, tools, split-spoon samplers and tremie pipe will be cleaned with a high-pressure hot water or steam cleaning unit and scrubbed with a wire brush to remove dirt, grease, and oil before beginning field work and before leaving the project Site upon completion of the last sampling activity. All tools, drill rods, and augers will be placed on sawhorses or polyethylene plastic sheets following steam cleaning. Direct contact with the ground will be avoided. The back of the drill rig and all augers, rods, and tools will be decontaminated between each drilling location according to the above procedures. The backhoe bucket, arm, and any other part of the equipment, which may have contacted excavated soil, will be decontaminated between each test pit location. Tools, augers, and rods will be decontaminated between drilling monitoring wells.

Decontamination water collected in the sump of the decontamination pad will be at a minimum removed from the sump at intervals less than 90% of its capacity and prior to rain events. The liquids will be pumped to a 55-gallon drum and stored in an appropriate satellite storage area. All waste handling will be performed in accordance with waste handling regulations.

Unless sealed in manufacturers packaging, monitoring well casing and screens will be steam cleaned immediately before installation. The screen and casing shall then be wrapped in polyethylene plastic and transported from the designated decontamination area to the well location.

3.2 Sampling Equipment Decontamination

Prior to sampling, all non-dedicated/non-disposable equipment (i.e., bowls, spoons, and bailers) will be washed with potable water and a laboratory grade detergent (such as Alconox). Decontamination may take place at the sampling location as long as all liquids are contained in pails, buckets, 55-

gallon drums, etc. The sampling equipment will then be rinsed with potable water followed by a reagent-grade isopropanol rinse and finally a deionized water rinse. Additionally, all equipment used to collect samples for metals analysis will receive a nitric acid rinse followed by a deionized water rinse. Between rinses, equipment will be placed on polyethylene sheeting. At no time will decontaminated equipment be placed directly on the ground. Equipment will be wrapped in polyethylene plastic or aluminum foil for storage or transportation from the designated decontamination area to the sampling location, where appropriate.

4.0 SITE RECONNAISSANCE AND SCREENING

The following practices, procedures and methods will be utilized in carrying out all field activities if specified in the Site-Specific Work Plan.

4.1 Site Reconnaissance

Following the contact with UFPO and markout of subsurface utilities at the Site, Site reconnaissance will be performed. The Site reconnaissance will be attended by the NM Project Manager, the Consultant Project Manager and/or the FOL, and representatives of the NYSDEC and/or the NYSDOH. During this task, the NYSDEC-approved sampling locations, as outlined in the Site-Specific Work Plan, will be marked in the field with a wooden stake and/or spray paint. Conflicts with the NYSDEC-approved sampling locations, based on the utility markout, will be modified during this visit.

Prior to this Site visit, the property owner and/or company representative will be contacted by the NM Project Manager to meet at the Site. The property owner and/or company representative will be asked if subsurface structures exist on the property and will be asked to identify their locations. Subsurface structures will consist, but are not limited to the following: septic tanks, cesspools, underground irrigation lines, water supply wells, vaults, leaching fields, propane, oil, and/or fuel tanks, underground utilities installed by the owner, drainage lines, etc.

4.2 Metal Detector Survey

A metal detector survey may be conducted using the magnetic cable locator model MAC-51B (or equivalent); to locate unidentified underground utilities and possible buried drums or tanks. The area around each proposed subsurface investigation point may be checked with the MAC-51B (or equivalent) prior to any subsurface investigation. Initially, the locator will be tested on known locations of underground utilities to verify that it is functioning properly.

If there is no indication of buried utilities, drums, or tanks, then subsurface sampling will proceed. However, if the locator indicates the presence of a buried object, activities will not proceed in that location until the type of buried object is determined. If the object cannot be identified from surface or shallow digging, a test pit may be required to determine the identity of the buried object. If a test pit is required, the procedure and scope will be reviewed with the NM Project Manager prior to conducting the work.

The NM Project Manager will keep the property owner or company representative informed of planned Site activities.

4.3 PAH Field Screening

PAH screening of soil samples may be used to determine the extent of PAHs in soil and to optimize the location of samples for confirmatory laboratory analysis.

If PAH field screening is conducted at any Site, then adequate facilities will be provided for proper use of the PAH-specific immunoassay test. The individual responsible for conducting the immunoassay test in the field shall receive instruction in the proper use and storage of the test kit. The instructions for the PAH Field Screening Kit are provided as Attachment A of the Generic

Quality Assurance Project Plan (QAPP) (Volume II). The test is a simple procedure designed to test any type of soil sample for PAHs. The test uses a semi-quantitative, colorimetric method that incorporates immunoassay technology. The test is performed using tubes, which are coated with a chemical that specifically reacts with PAHs. To perform the test, the standards, samples and reagents are added in a step-wise manner to the coated tubes. The procedure results in a color change within each tube inversely proportional to the concentration of PAHs. The color in the tubes is read by inserting the tubes in a standardized color photometer. The test consists of the following three steps:

1. Sample Preparation: First, PAHs are extracted from the soil using a solvent. The extract is clarified using a disposable 0.45-micron filter tip.

2. Testing: After sample preparation, the PAH standards and the sample and the enzyme are added to the coated tubes. After 10 minutes incubation, the tubes are rinsed and color-developing reagents are added. Within a few minutes, color development occurs in the tubes.

3. Results Interpretation: The color of the sample tube is compared against the color of the standard tube using a photometer to determine if PAHs are present in the sample. The result will indicate concentrations in three ranges; less than 1 ppm, between 1 and 100 ppm, and over 100 ppm.

4.4 PCB Field Screening

Polychlorinated biphenyls (PCBs) screening of soil samples may be used to determine the extent of possible PCBs in soil and to optimize the location of samples for confirmatory laboratory analysis. The field screening may be conducted using a PCB-specific immunoassay test. The individual responsible for conducting the immunoassay test in the field shall receive instruction in the proper use and storage of the test kit. The instructions for the PCB Field Screening Kit are provided as Attachment A of the Generic Quality Assurance Project Plan (QAPP) (Volume II). The test is a simple procedure designed to test any type of soil sample for PCBs. The test uses a semi-quantitative, colorimetric method that incorporates immunoassay technology. The test is performed using tubes, which are coated with a chemical that specifically reacts with PCBs. To perform the test, the standards, samples and reagents are added in a step-wise manner to the coated tubes. The procedure results in a color change within each tube proportional to the concentration of PCB. The color in the tubes is read by inserting the tubes in a comparative photometer. The test consists of the following three steps:

1. Sample Preparation: First, PCBs are extracted from the soil using a solvent. The extract is clarified using a disposable 0.45-micron filter tip.

2. Testing: After sample preparation, the PCB standards and the sample are added to the coated tubes using dropper bottles. After 10 minutes incubation, the tubes are rinsed and color-developing reagents are added. Within a few minutes, color development occurs in the tubes.

3. Results Interpretation: The color of the sample tube is compared against the color of the standard tube using a photometer to determine the concentration of the sample. The result will indicate concentrations in 3 ranges; less than 5 ppm, between 5 and 50

ppm, and over 50 ppm. Also, with a dilution samples can be tested for over 500 ppm.

PCB specific screening with the eminase test kits will be utilized on-sites, which have historically been associated with either electrical equipment from a certain time period that employed the use of PCB oils or when records may reflect the use of PCBs at that facility. The test kits will be used as part of an overall analytical program, which will include laboratory analysis of on-site soils.

4.5 Private Water Supply Inventory

If off-site groundwater impacts are detected through the sampling program, or if specifically requested by the NYSDEC, than an inventory of private water supply sources within a one-half mile radius around the project Site will be researched. The research will be conducted by contacting the municipal Water Department (if one exists), the municipal engineer, the NYS Department of Health and consulting the *Atlas of Community Water System Sources*, and/or the United States Geologic Society (USGS).

5.0 SUBSURFACE BORING PROTOCOL

5.1 Drilling Methods and Sample Collection

Overburden

Soil borings, in general, will be drilled with hollow-stem augers or flush-joint casing. When advancing a soil boring, re-entry of the split-spoon sampler into the previously sampled interval shall not be permitted. Hollow-stem augers with center plug will be advanced at two-foot intervals, consistent with the split-spoon sampling pace. Alternative methods may be used at the geologist's discretion with the authorization of NM and NYSDEC. Split-spoon sampling will be conducted in accordance with ASTM Specification D-1586-84 for standard penetration test and split barrel sampling, unless otherwise authorized by the field geologist. Split-spoons will be decontaminated after each sample is collected.

A plywood sheet or other suitable basin (during mud or water rotary drilling) will be placed around the augers during drilling to contain soil cuttings/mud drilling and prevent them from contacting the ground surface. Soil cuttings will be placed in a 55-gallon steel drum or a roll-off container for subsequent sampling and disposal. Decontamination water and drilling mud/water will be placed in tanks and/or 55-gallon steel drums for proper disposal.

Boring Completion Methods

All soil borings will be completed by adding cement/bentonite grout, via tremie pipe, from the bottom of the borehole up to the ground surface as the augers are withdrawn. The grout will be mixed in the following relative proportions: 30 gallons of water to three 94-pound bags of cement to 25 pounds granular bentonite.

Geoprobe® Coring

If prescribed in the Site-Specific Work Plan, Geoprobe® coring will be performed in accordance with the manufacturer's specifications. An assembled Geoprobe Macro-Core® open-tube soil sampler, with a one use dedicated liner, will be driven one sampling interval (approximately 4 feet) into the subsurface then retrieved using a Geoprobe® soil probing machine. The collected soil core will be removed from the sampler along with the liner. The field geologist will classify and sample the soil located within the liner. Upon completion, the excess soil will be placed into a 55-gallon drum for disposal and the inner liner properly disposed. After decontamination, the Macro-Core sampler will be reassembled using a new liner. The clean sampler will then be advanced back down the same borehole to collect the next soil core interval.

Upon completion of sampling, the borehole will be grouted from the base of the borehole to ground surface. As the Geoprobe® piping is removed from the borehole, grout will be place in the Geoprobe® piping and allowed to flow out, via gravity, into the void left by the piping.

Procedures for geologic logging and field classification will be as presented in Section 5.2.

Shelby Tube Sampling

Shelby tube samples will be collected in accordance with the latest revision of ASTM D/587. When the desired sampling depth is reached, the hollow-stem auger or casing will be cleaned out using whatever method is preferred so as not to disturb the material to be sampled. The Shelby tube will be lowered to the bottom of the borehole, then advanced (pushed) via pressure without rotation by a continuous relatively rapid motion until 24 inches of penetration is achieved. At the discretion of the field geologist, a period of approximately 10 minutes, measured from the time of insertion, will be allowed to provide for sample adhesion to the tube walls. Prior to removal, the tube may be rotated two complete revolutions to shear the bottom of the sample from the native material.

Upon removal, the field geologist will log the tops and bottoms of the sample for soil classification. Samples recovered via Shelby tube will be preserved in conformance with the latest revision of ASTM D 4220. To preserve the natural moisture content of the samples, the tube ends will be sealed with a minimum of 0.50 inch of paraffin wax. Plastic slip caps will be applied at the ends of the sample tube, taped, then dipped and sealed in wax.

Rock Coring

Conventional or wire-line HX or NX coring will be used if rock drilling is specified in the Site-Specific Work Plan. Prior to drilling at such locations, a minimum 4-inch diameter, temporary steel casing or equivalent will be placed or locked into the top of bedrock. Rock coring will be conducted in accordance with the latest version of ASTM D2113. Upon retrieval, the core will be placed in a core box labeled as follows:

Outer Core Box and/or End Panels

1) Project/Site name
2) Site location
3) Boring/well number
4) Box number
5) Core run number and footage interval
6) Date

Inside Core Box Cover (in columns)

1) Boring/well number
2) Run number
3) Depth interval
4) Actual recovery
5) Rock quality degree (RQD) in percent
6) PID screening results where applicable
7) Comments

In addition, a geologist will be on-site during the drilling operations to fully describe each core,

including:

1) Color
2) Thickness of bedding
3) Rock type
4) Additional petrographic information
5) Texture
6) Weathering state
7) Structure
8) Detailed description of discontinuities and fillings
9) Formation name
10) Detailed description of visible impacts
11) Miscellaneous observations

Sample descriptions, PID readings, and drilling locations will be recorded in the field logbook.

5.2 Geologic Logging, Soil Classification and Documentation

The field geologist will log borehole geology in the field logbook and on field forms. All samples collected from the borehole will be classified in accordance with ASTM standards D2487 Standard Method for Classification of Soils for Engineering Purposes and D2488 Standard Practice for Description and Identification of Soils or using the Burmeister Method and classifying the soils using the Unified Soil Classification System. The field geologist will be on-site during the drilling operations to classify/log each sample in the field logbook and/or field forms including:

- Site;
- Boring number;
- Interval sampled;
- Date;
- Initials of sampling personnel;
- Drilling Company's Name;
- Soil type;
- Color;
- Feet of recovery;
- Moisture content;
- Texture;
- Grain size and shape;
- Relative density;
- Consistency;
- Visible evidence of residues; and

- Miscellaneous observations (including organic vapor readings).

If no recovery, or limited recovery, is observed in the sample, then a description regarding the lack of sample recovery should be provided on the log of boring, if evidence of an obstruction or equivalent can be identified. If no observable evidence is identified then no opinion or guess should be entered on the log of boring.

Figure 1 presents an example of a log of boring form to be completed. If this form is not utilized, the form used should be approved by the Consultant's Project Manager as well as NM's project manger.

Photo documentation

Photo documentation of the Site activities will be conducted consistently throughout the implementation of the field program. A photographic log will be created and maintained as part of the overall field program. Visually impact materials and/or distinct stratigraphic changes in the soil column will be included in the photographic documentation for the individual Sites.

6.0 MONITORING WELL INSTALLATION AND DEVELOPMENT

Monitoring wells will be installed at the locations identified in the Site-Specific Work Plan. After the completion of drilling and monitoring well installation, all wells will be developed prior to the collection of groundwater samples. The following procedures will be used to install and develop all monitoring wells.

6.1 Monitoring Well Specifications

Monitoring wells installed in unconsolidated deposits that do not penetrate a presumed confining layer will be constructed according to the following specifications:

- PVC or stainless steel 2-inch diameter threaded, flush-joint casing and screens with O-rings will be installed.
- Wells will be screened in the unconsolidated deposits. Screens will be approximately 10 feet in length, and slot openings will be 0.020 inch. Alternatives may be used at the discretion of the field geologist, based on Site-specific geologic conditions.
- A sump, up to 2 feet in length, may be attached to the bottom of the screen to collect dense nonaqueous phase liquids (DNAPLs), if appropriate. A sump will not be installed if DNAPL is not observed in the boring.
- The top of the casing will extend to approximately 2 to 3 feet above ground surface where possible, given Site-specific considerations. Otherwise, flush-mount casings will be used.
- Where appropriate, the annulus around the screens will be backfilled with silica sand (#1 Morie or equivalent), based on Site-specific geologic conditions and screen slot size, to a minimum height of 2 feet above the top of the screen.
- A bentonite pellet/chip seal or slurry (30 gallons water to 25 to 30 lbs. bentonite, or relative proportions) will be placed above the sand pack. The bentonite pellet/chip seal will be installed via gravity and allowed to hydrate for at least 1 hour before placement of grout above the seal. If the bentonite slurry method is used for installation of the seal, then a side discharging tremie pipe will be utilized for the installation of the bentonite seal. Where possible, the bentonite seal will be a minimum of 24-inches in depth, except in those instances where the top of the well screen is in close proximity to the ground surface. In these instances, the well will be completed in accordance with specifications provided by the field geologist, which will incorporate an adequate surface seal into the well design.
- A fine sand pack (Morie 00 or equivalent) approximately 1 foot thick will be placed above and below the bentonite seal to isolate it and to prevent mixing of components.
- The remainder of the annular space will be filled with a cement-bentonite grout up to the ground surface. The grout will be pumped from the bottom up. The grout will be mixed in the following relative proportions: 30 gallons of water to three 94-pound bags of cement to 25 pounds granular bentonite. The grout will be allowed to set for a minimum of 48 hours before wells are developed.

- Each monitoring well will have an expansion plug or plumbers plug and a 4-inch diameter, steel casing with a hinged, locking cap placed over the monitoring well. The protective casing will extend approximately 2 feet below ground surface and be cemented in place. In some areas, it may be necessary to provide flush mounted casings. All wells will have keyed-alike locks and the keys will be maintained by the NM project manager.
- A concrete surface pad (2 ft x 2 ft x 6-inch) will be sloped to channel water away from the well casing.
- A weep hole will be drilled at the base of the protective standpipe casing to allow any water between the inner and outer casing to drain. If a flush mounted protective casing is installed then a small diameter drainage tube will be installed in the side of the casing discharging to the surrounding subsurface soils.
- The flush mounted monitoring well protective casing will be a minimum 8-inch diameter box or equivalent. All flush mounted well risers will be capped with an expansion plug or plumbers plug.
- The top of the PVC well casing will be permanently marked/notched and surveyed to 0.01 foot, and elevations will be determined relative to a fixed benchmark or datum. The measuring point on all wells, the permanent mark/notch will be on the innermost PVC casing.
- Each outer casing will be permanently labeled using a steel hand stamp or equivalent (i.e. MW-4).

Modification of the above installation procedure will be subject to changes in the field. All field-executed changes will be communicated to the NYSDEC for their discussion and approval, if appropriate.

Based on field conditions and evaluation of the best methodology to ensure the integrity of the seal, the field geologist will select the best method (i.e. bentonite pellet via gravity or bentonite slurry via tremie) to install the bentonite seal above the sand pack.

Figure 3 shows details of an overburden monitoring well construction diagram for wells installed in unconsolidated material. Figure 2 shows details of a monitoring well installed with a flush mounted protective casing.

Figure 4 shows details of a typical double-cased monitoring well construction diagram for wells installed in unconsolidated soils that do penetrate a presumed confining layer. The decision to install double-cased wells will be made on a boring-specific basis by the field geologist. Double-cased wells will be installed when the boring for the monitoring well penetrates a presumed confining layer. The confining layer shall be defined as a minimum five (5) foot thick, predominantly clay unit which has been shown to be laterally continuous across the Site. In the event the field geologist and NM and NYSDEC Project Managers decide a reasonable possibility exists for contamination to be deposited in deeper, clean zones during the drilling and installation of a monitoring well, the well will be double-cased. The purpose of the steel protective casing will be to minimize the possibility that residual contamination is deposited at the depth of the screened interval during the drilling

process.

Monitoring wells that penetrate confining layers will be installed according to the following specifications:

- 6-inch inside diameter (ID) steel outer casings will be installed to a depth of at least 2 feet below the lower limit of observed or measured contamination and/or the confining layer. This casing will be grouted in place with cement to inhibit downward migration of contamination.
- The 6-inch casing will be installed through 6.25-inch ID hollow-stem augers. The augers will be filled with grout prior to their removal to ensure the integrity of the borehole and the grout seal. Then, the 6-inch casing will be installed into the grout and hydraulically pushed approximately 1-foot beyond the bottom of the boring. A 3–foot thick grout plug will be installed at the base of the 6-inch diameter pipe through which the borehole will be advanced. Potable water will be tremied to the bottom of the inside of the casing to dilute the grout, thereby allowing the grout to be more easily pumped out of the casing. The grout, pumped out of the casing, will be drummed and staged with other investigation-derived waste (IDW).
- The cement-bentonite grout remaining in the annulus between the casing and the formation will be allowed to set for at least 24 hours before drilling is continued. The drilling will then continue using 4-inch diameter flush-joint spin casing and potable water. All lubricant water will be containerized.
- The well will be constructed of 2-inch diameter PVC or stainless steel riser pipe and screen, sand pack, bentonite seal, grout, and surface casing as specified for single cased monitoring wells discussed above and in accordance with NYSDEC requirements. The bentonite seal may consist of pellets or a bentonite slurry mixture in proportions relative to 30 gallons of water to 25-30 pounds of bentonite. The grout mix will consist of 30 gallons water to three 94-pound bags of cement and 25 pounds of granular bentonite.

Monitoring wells to be installed as open holes in bedrock will be installed according to the following specifications:

- Advance each boring to the top of the bedrock surface. Borehole advancement will be conducted using 6¼-inch inner diameter (ID) continuous flight hollow-stem augers in 2-foot intervals, to permit the continuous collection of subsurface soil samples with carbon steel split-spoon samplers in accordance with Section 5.1. Confirmation of the bedrock surface depth will be based upon split-spoon and hollow stem auger refusal.
- Overbore the borehole to a 12-inch diameter borehole, in which to install a temporary 10-inch carbon steel overburden casing to bedrock, utilizing an appropriately sized tri-cone roller bit or thin wall bit. A 3–foot thick grout plug will be installed at the base of the 10-inch diameter pipe through which the borehole will be advanced, if appropriate.

- Subsequent to temporary casing installation, continue borehole advancement into the bedrock to a depth of 5 feet below the bedrock surface, first using the rock coring method for logging (see Section 5.1) and then overboring with a 9-inch outer diameter (OD) tri-cone roller bit via the water rotary method.
- Set a permanent 6-inch carbon steel casing 5-feet into the competent bedrock by the spin casing method.
- Backfill the annular space around the well casing with bentonite/cement slurry to the surface. The ratio of cement to bentonite for grouting will be approximately 30 gallons of water to three 94-pound bags of cement to every 25 pounds of granular bentonite.
- Remove the 10-inch temporary casing during pressure grouting. Allow grout to cure for at least 24 hours.
- Continue coring and then drilling in the borehole to the maximum anticipated total depth (i.e. 10 feet below the point where groundwater was encountered) and/or the depth where fracture zones indicate sufficient yield, first using the rock coring method and then overboring utilizing the water rotary method and a 5-inch OD tri-cone roller bit or equivalent.
- Complete the open hole monitoring well with a protective locking stick-up or flushmount box installed in a concrete pad as per Section 6.1.
- If the borehole extends to a depth greater than 25 feet below the bottom of the surface casing (due to depth and/or yield of groundwater), construct the monitoring well using 10 feet of 2-inch diameter Schedule 40 PVC or Schedule 5 stainless steel wire wound screen (0.010-inch slot or a slot size appropriate to the formation) and 2-inch diameter Schedule 40 PVC or Schedule 5 stainless steel riser pipe. For non-flushmounted wells, at least 2 to 3 feet of riser pipe must extend above the ground surface. Flushmounted wells will only be installed in high traffic areas, such as roadways, sidewalks, etc.
- Backfill the annular space to a minimum height of 2 feet above the top of screen with a sand pack. The sand pack shall be Morie #1 silica sand or equivalent (based on Site-specific geologic conditions and screen slot size). The remaining annular space will be filled with bentonite/cement grout up to the ground surface. The ratio of cement to bentonite for grouting will be approximately 30 gallons of water to three 94-pound bags of cement to every 25 pounds of granular bentonite.
- Complete the constructed monitoring well as described with a protective locking stickup or flushmount box installed in a concrete pad as per Section 6.1.

Modification of the above installation procedure will be subject to changes in the field. All field-executed changes will be communicated to the NYSDEC for their discussion and approval, if appropriate.

Characteristics of each newly installed well will be recorded on the appropriate well construction diagram. Each well will be identified with a well number placed on the inside of the well cap and on the outside of the protective casing or outside flush-mount cover. Each separate source of potable

water used for the drilling process will be sampled once for TCL/TAL compounds.

6.2 Monitoring Well Development

After a minimum of 24 hours after completion, the monitoring wells will be developed by one or a combination of the following techniques:

- Surging;
- Bailing;
- Using a centrifugal pump and dedicated polyethylene tubing;
- Positive displacement pumps and dedicated polyethylene tubing, and/or
- Other methods recommended by the field geologist and approved by the NM and NYSDEC Project Managers.

Development water will initially be monitored for organic vapors with a PID. In addition, the development water will be observed for the presence of non-aqueous phase liquids (NAPLs) or sheens. The development water will be contained in a tank and/or 55-gallon steel drums on-site. The purge water will be disposed of in accordance with NYSDEC requirements. The wells will be developed until the water in the well is reasonably free of visible sediment (<50 NTU if possible) or until pH, temperature and specific conductivity stabilize, assuming a minimum of 10 well volumes of water has been removed from the monitoring well during development. In no case will well development exceed 8 hours per well. Following development, wells will be allowed to recover for at least one week before groundwater is purged and sampled. All monitoring well development will be overseen by a field geologist and recorded in the field logbook.

6.3 In-Situ Hydraulic Conductivity Testing

In-situ hydraulic conductivity testing may be performed on selected monitoring wells as indicated in the Site-Specific Work Plan to obtain estimates of groundwater velocities and potential groundwater recovery rates for the aquifer. The objective of the hydrogeologic testing is to determine the hydraulic properties of the aquifer in the vicinity of the Site.

Slug tests may be conducted in selected monitoring wells utilizing the rising or falling head slug test technique. Rising head tests can be performed in unconfined and confined aquifers. Falling head tests should only be performed in confined aquifers. The slug tests will be performed by subjecting water-bearing units in the screened interval to a stress caused by the sudden displacement of the water level within the well. The rising head tests will be conducted as follows:

- Slugs and other downhole equipment will be decontaminated before and after each test by methods described in Section 3.2.
- Prior to conducting each slug test, the static water level in the well will be measured to the nearest 0.01 foot. Water levels will be measured during the test with an electric sounder (water level indicator) and with pressure transducers attached to a data logger, thereby providing water level measurements by two independent devices.
- A weighted slug of known volume will be inserted gently into the well below the water table. The water level will be measured until the water level returns to static

conditions.

- The slug will be suddenly withdrawn from the well and the water level recovery will be monitored at appropriate intervals until recovery is complete and stabilized.
- Wells, which were bailed dry during development, may not be able to provide meaningful data through slug tests. Tests will be terminated in wells which do not recover significantly (>80% of static level) within a certain amount time, at the discretion of the field geologist. These wells will be bailed dry and their recovery measured with an electronic water level indicator.

The falling head tests will be conducted as follows:

- Slugs and other downhole equipment will be decontaminated before and after each test by methods described in Section 3.2.
- Prior to conducting each slug test, the static water level in the well will be measured to the nearest 0.01 foot. Water levels will be measured during the test with an electronic sounder (water level indicator) and with pressure transducers attached to a data logger, thereby providing water level measurements by two independent devices.
- A weighted slug of known volume will be quickly inserted into the well below the water table. The water level will be measured until the water level returns to static conditions.
- The test will be terminated in wells which do not recover significantly (>80% of static level) within an unspecified time, at the discretion of the field geologist.

The slug test data will be analyzed using the Cooper, Bredehoeft, and Papadopulos (1967) type curve method or the Bouwer and Rice (1976, 1989) method. The Cooper et al. analysis assumes that the well penetrates a confined aquifer, and the Bouwer and Rice method applies where unconfined conditions are prevalent.

6.4 Well Abandonment

Unconsolidated monitoring wells will be abandoned in the following manner:

- Remove the protective casing and concrete pad.
- Over drill the well casing using hollow-stem augers or casing to at least one foot below the depth of the boring/well as indicated in the soil boring log.
- Remove the well casing from the hole. If the casing cannot be removed while the augers are in place, cutoff the casing at least two feet, and if possible five feet, below the ground surface.
- Add cement/bentonite grout via tremie pipe from the bottom of the augers as the augers are withdrawn.
- If the well casing cannot be overdrilled and removed, the well casing will be filled with cement/bentonite grout from the bottom up using a tremie pipe. The grout mixture will be as specified for the well installation (see Section 6.1).

- Add grout to the point where the casing was cut off. From that point up to ground surface, backfill with native soil material surrounding the boring/well.

Consolidated (bedrock) monitoring wells or open holes will be abandoned in the following manner:

- Remove the protective casing and concrete pad.
- Add cement/bentonite grout via tremie pipe from the bottom of the well up to the ground surface. The grout mixture will be as specified for the well installation (see Section 6.1).
- Add grout to the point where the casing was cut off. From that point up to ground surface, backfill with native soil material surrounding the boring/well.

6.5 Packer Testing

Attachment A presents the packer test procedures to be used in the event the hydraulic conductivity of a discrete bedrock zone is required for the purpose of determining the well screen interval of bedrock wells. Down-hole packer equipment will be decontaminated following the procedures in the FSP (see Section 3.1) prior to use at each location and prior to demobilization.

7.0 TEST PIT EXCAVATIONS

When specified in the Site-Specific Work Plan, test pits will be excavated using a rubber-tired or track backhoe. In the event deep excavations are anticipated, a track hoe will be utilized. Locations of test pits, if proposed in the Site-Specific Work Plan, will be finalized in the field, based on the location of potential source areas and existing underground utilities. If the prospective test pit location is covered by asphalt or concrete, the area will be saw cut prior to excavation. During excavation activities, personnel will stand upwind of the excavation area to the extent possible. Air monitoring will be conducted in accordance with the Generic EHS Plan (Volume II). Test pit materials will be logged, as well as photographed for future reference. Material removed from the test pit will be placed on polyethylene sheeting. Should sampling of excavated material be performed, samples will be collected with a decontaminated or a new disposable sampling tool, or equivalent, from the center of the backhoe bucket. Upon completion, the materials from the test pit will be placed back in the excavation in the reverse order in which it was excavated. The location and size of the test pit will be measured and described in the field logbook.

Visually clean soils, such as surface soils, will be segregated from soils that may be impacted. The visually clean soils will be used to cover the impacted soils/source materials when placed back in the excavation. At a minimum, the top two feet of back filled soil will be visually clean. If the original (top) two feet of soil is impacted or some portion of it is impacted then the soil will be replaced and/or supplemented with certified clean fill. Test pits will be backfilled as soon as possible after completion and in general prior to the cessation of activities at the end of the day. The closure of individual test pits, prior to work cessation at the end of the day, will be performed on a case by case basis utilizing criteria for the maintenance of safe working and overall Site conditions. For gravel roadways and parking areas, the backfill will be tamped down in 18-inch lifts. A 6-inch layer of clean run-of-crush gravel will be tamped in-placed as the final lift. For test pits located in asphalt-covered areas, the surface will be replaced with cold or hot asphalt mix, compacted by rolling, and trimmed flush with the adjoining surface. Test pits located in grass covered areas will be returned to original grade and reseeded. Following restoration of the excavation, the test pit will be staked/marked to facilitate subsequent location by surveying crews.

7.1 Underground Utilities

Potential for encountering underground utilities is part of any subsurface investigation, where test pitting will be utilized as part of the investigation. When performing test pitting in areas of suspected live underground utilities the test pits will be advanced by hand digging to a depth of five (5) feet below ground surface to confirm the location of the live utility. If investigation of abandoned underground utilities is required, then the parameters of the investigation will be specified in the Site Specific Work Plan.

If an abandoned under ground pipe/structure, associated historically with the former MGP operations, is encountered during the test pitting operation, then excavation activity will cease until the pipe or underground structure can be adequately investigated. The investigation of the piping will include the description of the pipe/structure construction, material, condition, orientation, dimension, and contents of the pipe/structure, if possible. If the piping/structure interior can not be readily

accessed then penetration of the underground utility may be necessary. Penetration of any underground utility should be conducted with the utmost care and consideration given for the utilization of proper tools (spark proof, beryllium coated, etc) for the task at hand. Once the interior of the pipe is accessible then a sample will be taken of the pipe contents, and sent to a laboratory for analysis.

If prior to initiation of test pitting activities, a live underground utility is identified in the area of anticipated test pitting, then the live underground line, if feasible, will be shut down. Consideration must be given to impacts to the facility operations prior to shutting down any active utility. (See the lockout tag out procedure section of the Generic HSP).

If during test pitting activities an unexpected live underground utility is encountered, excavation will cease, the orientation and dimensions of the underground utility will be recorded, and if possible, the live utility will be shielded from damage and test pitting will continue. If shielding is not possible then the test pit will be back filled and a new test pit attempted in the general vicinity of the initial location. When performing excavation activities next to a live underground utility, care will be taken not to undermine or impact the operation of the live underground utility. If a pipe or underground utility is accidentally severed, the owner of the utility, then NM, will immediately be notified. Liquid flows or electricity will be shut off immediately and appropriate repairs initiated as soon as possible. If a release of liquid occurs, the Consultant PM will notify NM who will then notify NYSDEC. All appropriate response actions will be implemented.

8.0 GROUNDWATER SAMPLING

The following is a step-by-step sampling procedure to be used to collect groundwater samples from the monitoring wells. Well sampling procedures will be recorded on the form shown in Figure 5. Sample management is detailed in the Generic QAPP (Volume II).

- Groundwater samples will not be collected until at minimum, one week following well development.
- Prior to sampling, measure the static water level from the surveyed well elevation mark on the top of the PVC or stainless steel casing with a decontaminated water level probe. The elevation of nearby surface water bodies will also be recorded using bulkheads, culverts, or other convenient structures as reference points in which the elevation is known. These relative measurements will be used to aid with interpreting the relationship between observed surface water and groundwater fluctuations. Record time, date, and measurement to nearest 0.01 foot and record in the field logbook.
- Decontaminate all field test equipment and meter probes prior to use on-site.
- Prior to collecting a round of groundwater elevations an oil/water interface probe will be used to determine the presence of LNAPL and DNAPL in the well.
- A round of groundwater elevations will be collected prior to the start of sample collection. The measurement at each well location will be made from the top of the PVC or stainless steel casing with a water level probe. The measurements will be made in as short a time frame as practical to minimize temporal fluctuations in hydraulic conditions.
- Place a plastic sheet on the ground to prevent contamination of the bailer rope and/or the tubing associated with the purging (pump) equipment.
- Purge the well by removing a minimum of 3 well volumes or at least one volume of saturated sand pack, whichever is greater or use the low flow sampling procedures below. Purging will be conducted with a teflon, stainless steel or disposable polyethylene bailer, or a centrifugal, submersible, peristaltic, or whale pump and dedicated polyethylene tubing, or other methods at the discretion of the field geologist, and with the prior approval of NM and NYSDEC. Purging of the well to stabilized parameters may be performed at between 100 to 500ml/min. If the well goes dry before the required volumes are removed, the well may be sampled when it recovers sufficiently.
- Collect volatile organic analyte (VOA) or BTEX samples with Teflon, stainless steel or dedicated polyethylene bailers lowered by a dedicated polypropylene and/or Teflon line or other methods as indicated. TCL SVOCs, PAHs, pesticide/PCBs, TAL metals, natural attenuation parameters, and other non-conventional parameters may be collected with Teflon, stainless steel, or dedicated polyethylene bailer or a submersible, or peristaltic pump using the low-flow sampling technique. Low flow well sampling will be at a rate less than or equal to 100ml/min.

Low-flow sampling procedures may be utilized to collect samples for metals analysis if sample turbidity is excessive. Low flow sampling will be performed according to USEPA (1998) guidance. The pump should be capable of throttling to a low flow rate suitable for sampling.

- Measure temperature, pH, turbidity, DO, and conductivity, at 5 to 10 minute intervals. When the parameters stabilize over 3 consecutive readings, sampling may commence. Record results in the field logbook prior to sample collection.
- Fill sample containers for VOCs or BTEX first. Sample containers for SVOCs and other analytes are then filled.
- After all samples are collected, dispose of polypropylene line and bailer, or other dedicated disposable sampling equipment.

9.0 SURFACE WATER SAMPLING

Surface water samples will be collected at the locations indicated in the Site-Specific Work Plan. Sample management is detailed in the Generic QAPP (Volume II). A decontaminated stainless steel or glass cup may be used to collect the water for these samples or the sample bottles may be directly dipped into the water. At no time will a sample jar, which contains preservative, be submerged in the sampling media. The sample should be collected from mid-depth by submersing the sampling device or sample container to a mid-depth position and opening the container and allowing it to fill. If this methodology does not work effectively then an alternative sampling device (i.e. bacon bomb etc) can be utilized. The stainless steel or glass cup will be decontaminated following the procedures outlined in Section 3.2. Surface water samples will be collected downstream first, and then progressing in an upstream direction. If sediment sampling is to be performed in conjunction with surface water sampling at corresponding locations, the surface water sample will be collected prior to the sediment sample.

Surface water flow measuring techniques will vary greatly based upon the existing field conditions. A discussion regarding the investigative techniques for collection of surface water flow measurements will be discussed in detail in the Site Specific Work Plan.

All Field data will be recorded in the logbook and on the sample log sheet (Figure 6).

10.0 SURFACE SOIL SAMPLING

Surface soil samples will be collected at the locations indicated in the Site-Specific Work Plan. Sample management is detailed in the Generic QAPP (Volume II). Samples will be collected using decontaminated stainless steel equipment or disposable sampling equipment. If the selected sampling location is in a vegetated area, the vegetation will be removed over a one square foot area prior to sample collection. The sample will be collected from within the top 2-inches of the exposed ground surface. Samples will be collected by hand digging into the soil with a pre-cleaned stainless steel trowel or a disposable sampling tool. All samples selected for laboratory analysis will be placed in the appropriate containers provided by the laboratory. Sample containers for volatile organic analysis will be filled first. Next, a sufficient amount of the remaining soil will be homogenized by mixing the sample in a decontaminated stainless steel bowl with a decontaminated steel trowel or disposable scoop. This composite sample will be analyzed for all remaining parameters identified in the Site-Specific Work Plan.

All samples collected for analysis will be placed immediately into laboratory sample jars and properly stored in a cooler with ice to 4^{o}C before transport to the laboratory.

Duplicate samples will be collected at the frequency detailed in the Generic QAPP by alternately filling two sets of sample containers. Composite samples may be required to obtain a sufficient soil volume.

In addition, surface soil samples will be described by including:

- Site;
- Location number;
- Interval sampled;
- Date;
- Initials of sampling personnel;
- Soil type;
- Color;
- Moisture content;
- Texture;
- Grain size and shape;
- Relative density;
- Consistency;
- Visible evidence of residues; and
- Miscellaneous observations (including organic vapor readings).

11.0 SUBSURFACE SOIL SAMPLING

11.1 Samples for Laboratory Analysis

Subsurface soil samples selected for laboratory analysis will be obtained from a standard 2-foot split-spoon or Geoprobe® samplers and placed in the appropriate containers provided by the laboratory. The soil samples will be collected from the 2-foot sampling interval (assuming full recovery) of the split-spoon. Additionally, the Geoprobe® methodology will utilize the standard 2-foot sampling interval. Sample containers for volatile organic analysis will be filled first. Samples for volatile analysis will be collected or biased toward the collection of that portion of the sample that exhibits the highest PID reading or as otherwise detailed in the Site-Specific Work Plan. Next, a sufficient amount of the remaining soil will be homogenized by mixing the sample in a decontaminated stainless steel bowl with a decontaminated stainless steel trowel or disposable scoop.

All samples collected for analysis will be placed immediately into sampling containers provided by the laboratory and properly stored on ice to 4^{o}C before transport to the laboratory. Sample management is detailed in the Generic QAPP (Volume II). In addition, a geologist will be on-site during the drilling operations to fully describe each sample including:

- Soil type and sorting;
- Color;
- Feet of recovery;
- Moisture content;
- Texture;
- Grain size and shape;
- Relative density;
- Consistency;
- Visible evidence of residues; and
- Miscellaneous observations.

Duplicate samples will be collected at the frequency detailed in the Generic QAPP by alternately filling two sets of sample containers.

11.2 Geotechnical Testing

When identified in the Site-Specific Work Plan, laboratory geotechnical testing will be performed on selected soil samples in accordance with appropriate ASTM standards. Geotechnical analysis will be performed on soil samples collected in Shelby tubes or in glass sampling containers including, but not limited to, the following tests: grain size and sieve analysis, total organic carbon, permeability, specific gravity, Atterberg Limits, porosity, moisture content, and bulk density.

12.0 SEDIMENT SAMPLING

Proposed sediment sampling locations are identified in the Site-Specific Work Plan. Sample management is detailed in the Generic QAPP (Volume II). Sample locations in surface waterways will be marked along the bank prior to sampling. For all sample locations, the distance from the waterline to the sample location will be measured and recorded in the field logbook. Sediment samples will be collected from the furthest downstream point, progressing toward the furthest upstream sampling location. Following the completion of sampling the sediment locations will be marked along the shoreline for subsequent location by a survey crew.

12.1 Shallow Sediment Samples

Shallow sediment samples collected in shallow water will be collected with a Wildco core sampler, clam shell, lexane tubes, hand auger, vibracore or split-spoon sampler. Where possible, rocks and vegetative material will be discarded, and care will be taken to retain fine materials, which tend to disperse when disturbed. Sampling personnel will stand downstream of the sampling point to minimize disturbance of the bottom sediments during collection. Equipment will be decontaminated between samples following procedures outlined in Section 3.2. Field data will be recorded on the field sampling records. Surface sediment samples will be collected from a depth interval of 0 to 6 inches (0 to 15 cm) using these same procedures as outlined above. Sediments, which are located near shore and are not submerged, will be collected with a decontaminated trowel or disposable sampling tool.

12.2 Deep Water Sediment Samples

Sediment sampling in deeper water and samples requiring retrieval from deeper depths will be obtained using a barge-mounted drilling system or similar watercraft. Either a tripod and cat-head assembly or a Vibracore system will be used on the barge to advance the sampling apparatus into the bottom sediments. The tripod and cat-head assembly will be equipped either with a five-foot long "California" split-spoon sampler or a standard 2-foot long split-spoon sampler for sample collection. Split spoon samplers can be fitted with a sediment sampling head or shoe to ensure adequate recovery of the sample. To keep the hole open for subsequent samples and to minimize cross-contamination, 3-inch spin casing will be advanced, with plug, into the sediment. The spin casing will be advanced in 2-foot increments prior to sampling. The sediment sampler will then be pushed ahead or below the base of the 3-inch spin casing. The spin casing will be pumped free of sediment after each sample is collected. When the casing is free of sediment, it will be advanced 2 additional feet in preparation for the next sample collection.

The Vibracore uses a vibrating motion to advance a barrel and flexible plastic liner to achieve sample collection. A “core catcher” retains the sediment sample upon retrieval. Samples will be obtained by cutting the plastic liner longitudinally using a knife, then the sediment samples will be placed in sampling jars, based on sampling interval compensating for compression.

Sediment samples will be visually classified for texture and screened for the evolution of organic vapors with a PID. Samples will be collected or biased toward the collection of that portion of the sample that exhibits the highest PID reading or as otherwise detailed in the Site-Specific Work Plan.

The sediment samples will be collected from the 2-foot sampling interval (assuming full recovery) of the split-spoon. Visible staining or contamination will be noted in the field logbook.

12.3 Sediment Probing

When identified in the Site Specific Work Plan, sediment probing will be utilized to evaluate the presence of NAPL in the stream bedding. The near-shore sediment probing will be performed on a Site by Site basis. In keeping with NYSDEC standard protocols requiring the observance of sheens on the adjacent water bodies during site investigations, with out disturbance by probing, will not be changed as a result of the implementation of a sediment probing investigation.

Implementation of a sediment probing investigation will involve the use of multiple sections of 3/8-inch to ½-inch threaded rod and associated threaded female couplings. The threaded rod will be pushed into the sediment at multiple locations in an attempt to disturb the near surface sediments as well as deeper sediments. Upon detection of any sheen a stake will be located along the shoreline to provide a marker for the subsequent location by a survey crew, if require by the Site specific Work Plan. Sediment probing can also be used to provide information on the depth of competent material below the soft surface sediments.

Personnel will stand downstream of the sampling point to minimize disturbance of the bottom sediments prior to utilizing the probe. Equipment will be decontaminated prior to use in the stream and post use, following procedures outlined in Section 3.2. Field data regarding the location, depth, odor, and description of the sheen will be recorded on the field logbook.

Sediment probing in deeper water and samples requiring retrieval from deeper depths will be obtained by utilizing a rowboat or similar watercraft.

13.0 AIR MONITORING

13.1 Ambient Air Monitoring

Air monitoring will be conducted with a photoionization detector (PID) and combustible gas indicator (CGI) during all drilling and intrusive activities. The PID will be used to monitor for organic vapors in the breathing zone, borehole, and along the Site's perimeter and to screen samples for analysis. The CGI measures the concentration of combustible gas or vapor in air, indicating the results as a percentage of the lower explosive limit (LEL) of the calibration gas. Action levels are identified in the Generic EHS Plan (Volume II).

PID and CGI readings will be recorded in the field logbook and on the soil-boring log during drilling activities. The PID and CGI are calibrated at least once each day and more frequently if needed with the manufacturer specified calibration gas. The detailed procedures for the PID and CGI operation and calibration are included in the Generic EHS Plan (Volume II).

13.2 Perimeter Air Sampling

Perimeter air sampling may be required during field activities at the Site. Air sampling may be required during test pit excavation and/or during soil excavation/removal associated with an IRM. The basis for such sampling will be outlined in the Site-Specific Work Plan.

Prior to the collection of air samples, air-sampling stations, commonly one (1) upgradient and two (2) downgradient will be set up at the Site perimeter. The location of these stations is based on daily wind direction during the field activities. A sample station would be setup so that the sample media (Summa canister, high volume sampler, whole air sampler or absorbent tube, etc.) would draw in air from approximately 2 to 4 feet above the ground surface. The sampling media would remain in place a maximum 24-hour period before it is shipped overnight to a laboratory for testing. Air samples are commonly analyzed for BTEX via Method TO-15 (summa canister using a whole air sampler) or TO-17 (using an absorbent tube) and PAHs via Method TO-13 (using a high volume sampler).

13.3 Building Interior Air Sampling for Volatile Organic Compounds (VOC)

When identified in the Site Specific Work Plan, building air sampling will be performed in the on-site buildings during follow up investigations. Interior air sample collection will be performed in the basement and on the first floor of buildings potentially impacted by on-site contaminants. Various collection techniques will be used based on the type of contamination anticipated and the requirements set forth in the USEPA ERT SOP # 1704, #2121, and # 2119. Interior air sampling will conform to NYSDOH indoor air sampling regulations and the off-site Laboratory will have the New York State Environmental Laboratory Approval Program (ELAP) certification.

The following procedure will be used for air sampling of VOCs, based on USEPA ERT SOP #1704:

I. Subatmospheric Pressure Sampling Using a Fixed Orifice, Capillary, or Adjustable Micrometering Valve

- Complete the appropriate information on the Canister Sampling Data Field Sheet.
- A canister, which is evacuated to 0.05 mm Hg and fitted with a flow restricting device, is opened to the atmosphere which contains the VOCs for sampling. The pressure differential causes the sample to flow into the canister.
- This technique can be used to collect grab samples having a duration of 10 to 30 seconds or time-integrated samples having a duration of 12 to 24 hours. The sampling duration is depends on the degree to which the flow is restricted.
- As the pressure approaches atmospheric pressure, a critical orifice flow regulator will cause a decrease in the flow rate.
- Record data on an appropriate data sheet and/or in the field logbook.

The following procedure will be used for air sampling of VOCs, and is based on USEPA ERT SOP #1704:

II. Subatmospheric Pressure Sampling or Pressurized Sampling Using a Mass Flow Controller/Vacuum Pump Arrangement (Andersen Sampler Model 87-100)

- Complete the appropriate information on the Canister Sampling Data Field Sheet.
- Open a canister, which is evacuated to 0.05 mm Hg and connected in line with the sampler, to the atmosphere, which contains the VOCs for sampling.
- A whole air sample will be drawn into the system through a stainless steel inlet tube by a direct drive blower motor assembly. A small portion of this whole air sample is drawn from the inlet tube by a specially modified inert vacuum pump in conjunction with a mass flow controller.
- The initially evacuated canister is filled by the action of the flow controlled pump to near atmospheric pressure (subatmosphereic pressure sampling) or a positive pressure not to exceed 25 psig (pressurized sampling).
- A digital time program is used to pre-select sample duration and start and stop times.
- Record data on an appropriate data sheet and/or in the field logbook.

The following procedure will be used for air sampling of SVOCs and/or pesticides/PCBs, and is based on USEPA ERT SOP #2121:

- Using a calibrated sampler, place the sampler in the desired location. The polyurethane foam (PUF) sampler should be in the breathing zone in order to prevent elevated results. It should be located in an unobstructed area, at a distance of twice the height of any obstruction to air flow but no closer than two meters to the obstacle.

- Assemble the sampling system by attaching the legs and magnehelic panel to the platform. Connect the motor to the platform, making sure that the gasket is placed between the motor and the platform. Plug the motor into the timer located on the magnehelic panel. Connect the magnehelic to the venturi with tubing. Adjust the exhaust hose to face downwind of the sampler.
- Put on clean surgical gloves.
- Place the loaded sampling module into the quick release fitting and engage by locking the two levers down securely. Remove the metal cover.
- Record the pump number, location, sample start time, time/counter at the start, and other pertinent information on an appropriate data sheet and/or in the field logbook.
- Plug in the unit. If necessary, adjust the magnehelic gauge by turning the ball valve in order to achieve the reading required to reach the target flow rate. Wait approximately two minutes for the magnehelic reading to stabilize.
- Allow the sampling system to operate for the predetermined duration. If the sampling system is in use for more than 24 hours, the initial calibration should be audited every 24 hours. If the resultant value for the check is +/- 7 percent of the initial calibration, the sampling system must be recalibrated.

The following procedure will be used for air sampling of metals, and is based on USEPA ERT SOP #2119:

- Record the actual flow rate. Insert Assemble the sampling trains with clean filter cassettes. Verify the pump calibration by removing the inlet plug from the cassette, attaching a rotameter with Tygon tubing and turning on the sampling pump. Check to make sure all the connections are tight.
- Record the actual flow rate on an appropriate data sheet and/or in the field logbook. Replace the inlet plug until ready to sample.
- Set the sampling pump timer (low volume pumps) for the predetermined sampling time, or record the elapsed timer on the data sheet/logbook. This will be determined based on the type of pump being used.
- Deploy sampling pumps at sampling locations. Remove the cassette cap or inlet plug from the cassette. Sampling for elements can be conducted with the cassettes open-faced (cassette cap removed) or closed-faced (only inlet port plug removed). Open-faced is preferred because it allows even loading of the filter cassette and should be used whenever high particulate concentrations are expected in order to allow greater particulate loading of the filter. Closed-faced sampling is performed when there is a possibility that the sample may be shaken and particulates may be lost.
- Turn on the sampling pump and let it run for the predetermined sampling period.
- After the sampling period is over, verify the sampling period by reading the sample run time (low volume pumps) or by checking the elapsed time on the counter

(medium volume pumps). Record the length of sampling time on the data sheet and/or in the field logbook. Turn off the pump.

- Verify the pump calibration by attaching a rotameter with Tygon tubing and turning on the sampling the inlet plug.
- Remove the sampling cassette from the sampling train and insert the outlet plug. Calculate sample volume.

14.0 GEOPHYSICAL AND SOIL GAS SURVEYS

When specified in the Site Specific Work Plan, geophysical and soil gas surveys will be carried out at the site with the primary objective being to delineate areas of possible subsurface impacts from former MGP operations. Delineation of impacted areas will allow for a more focused and efficient sampling program during subsequent phases. Sampling locations may be located downgradient of potential historical MGP operations areas to determine if these areas act as contaminant sources. Also, boring locations can be adjusted to avoid large subsurface metallic bodies, thereby minimizing the potential for release of hazardous material from buried containers, and avoiding the expense associated with multiple boring attempts due to subsurface refusal. Furthermore, additional valuable subsurface information may be derived from this study, including:

- Delineation of underground structures(i.e. holder, and tar well);
- Mapping of existing site utilities and former MGP utilities; and,
- Detection of underground storage tanks (USTs) and/or other potential contaminant source areas.

If potential historical MGP operations areas prove to act as contaminant sources, the results of the geophysical investigation may also provide important information necessary for an Interim Removal action.

14.1 Geophysical Survey GPR and TDEMI

Two geophysical methods can be used for the geophysical survey: Time-domain Electromagnetic Induction (TDEMI) and ground penetrating radar (GPR). TDEMI can detect ferrous and non-ferrous metallic objects, such as a single 55-gallon drum, at a depth of up to 3 m (10 ft) bgs; GPR can detect both metallic and non-metallic subsurface targets at depths varying from several centimeters up to 20 m (65 ft bgs) or more, dependent upon frequency of induced waves, soil conductivity, and presence of extremely reflective interfaces. GPR can also be utilized to locate void spaces, detect disturbed soil or differential fill, and map Site Stratigraphy.

The TDEMI system utilized at the site will be the Geonics EM61 High Sensitivity Metal Detector or similar equipment. The EM61 is a one-person portable system designed primarily for industrial site assessment. The EM61 is relatively insensitive to nearby surface cultural interferences such as buildings, powerlines, and fences, and has the ability to record digital data at 0.17 second intervals, which translates to a spatial sample density of approximately 0.17 m (0.55 ft) along the ground surface.

The GPR system utilized at the site will be the Geophysical Survey Systems, Inc. (GSSI) SIR-2, or equivalent and will be equipped with both 200 and 500 MHZ antennas. The GSSI SIR-2 is a monostatic GPR system, in which a single antenna is used as the transmitter and receiver. The antennas are shielded to ensure a high proportion of the energy produced is focused into the

subsurface, decreasing noise from surrounding fences, buildings, and other features. The GPR reflection section is displayed in real time as data is acquired, and an analog record is output by an in-the-field printer. Data is also digitally logged to a high-capacity drive at a rate of 32 scans/second, which translates to a spatial sample density of approximately 0.03 m (0.1 ft) along the ground surface.

Geophysical Survey Ground Penetrating Radar (GPR) and Time-Domain Electromagnetic Induction (TDEMI)

The geophysical investigation will encompass all areas suspected of former MGP operations. The survey area will be run over both paved and vegetative cover and will be divided into four (4) subplots ranging in size from 0.2 to 0.5 acres. The EM61 data will be acquired using a Leica system 530 Global Positioning System (GPS), or equivalent equipment, for navigational control. GPS data will be captured in one second intervals, utilizing the real-time kinematic (RTK) mode, which provides centimeter-grade positional accuracy. GPR data will be acquired along a pre-established orthogonal grid system, with line and station spacing appropriate for detection of targets of interest.

Concurrent with geophysical data acquisition, cultural features maps will be developed which will detail the location of potential interferences such as buildings, fences, utilities, etc. These maps will be utilized in the interpretation stage to more accurately assess the significance of geophysical anomalies observed in the data.

TDEMI data will be processed and interpreted using manufacturer-supplied software. TDEMI data will be interpolated to accurate State Name Planar coordinates with appropriate shifts and filters applied, and data extrapolated to a regularly spaced grid system using accepted mathematical methods. These data will then be displayed as high-resolution color maps. Proprietary software will then be utilized to isolate and characterize subsurface anomalies potentially related to steel structures or buried drums.

GPR data will be processed and interpreted using WINRAD and/or GRADIX software packages or equivalent. Processing may include "rubber sheeting" of data to appropriate coordinates, application of appropriate gains and filters, display of color-coded GPR sections, and advanced processing techniques, such as migration and deconvolution. Diffraction hyperbolas or other discrete anomalies will be identified and characterized and compared with locations of EM61 anomalies. GPR anomalies, which occur in areas free of EM61 anomalies can be attributed to non-metallic targets, and may be associated with plastic barrels.

A final report including description of data collected, maps of the geophysical data, and interpretation of these data will be included in the Final Report.

Geophysical Survey [Ground Penetrating Radar (GPR) and Time-Domain Electromagnetic Induction (TDEMI) Procedure

The geophysical survey will be conducted using the following procedure:

1. Clear the surface of the area to be surveyed (performed by clearing and grubbing subcontractor). This may include cutting underbrush to a height less than 0.3m (1 foot), removing trees less than 7.5 cm (3 inches) in diameter, removing brush, and mowing grasses greater than 0.6m (2 feet) in height. A sweep for metal objects on the ground surface will be conducted, and surficial metal identified will be noted and removed from the area of investigation.

2. Establish survey control within the investigation area. Survey markers will be installed both within and around the boundary of the survey area, and these points will be utilized to establish and calibrate the GPS base station.

3. Acquire data from each instrument from a test line prior to commencement of each day's activities. This test line will be performed over a known subsurface object or over a pre-placed object (such as a steel pipe).

4. Obtain GPS reading at a known survey point.

5. Begin survey at the southwest corner of the investigation area (or a subdivision of the investigation area) and progress northward (or eastward) until the area boundary or a major obstruction is encountered. TDEMI data will be acquired at a sampling rate of approximately 6 samples per second, which translates to a sample density of 1 sample every 0.17 meters (0.55 feet) based on an average walking pace. GPS data will be acquired concurrently with TDEMI data, at a rate of [1 sample] per second. GPR readings will be acquired at a sampling rate of approximately 32 scans per second, which translates to a sample density of 1 sample every 0.03 meters (0.1 feet) based on an average walking pace.

6. After reaching the grid boundary or obstruction, reverse direction, and acquire survey data in the opposite direction along a parallel line at the following line spacing**:** 1 meter (3 ft) for TDEMI readings and 2-meters (6 ft) for GPR readings.

7. Continue acquiring data in opposing directions, until the entire investigation area has been covered.

8. Acquire several lines of TDEMI data over a known linear metallic object placed upon the ground surface. This procedure will allow for accurate time shifting of geophysical data necessary for merging the geophysical and GPS data.

9. Acquire data from the test line subsequent to each day's activities, for quality assurance comparison.

10. Obtain GPS reading at known survey point for QA comparison.

14.2 Geophysical Survey Magnetometer and FDEMI

A geophysical investigation to delineate areas of possible subsurface impacts can be performed by utilizing two geophysical methods: magnetometry and frequency-domain electromagnetic induction (FDEMI).

Geophysical data will be collected using two instruments: a Geometrics G-858G magnetometer (configured as a vertical gradiometer and including a continuous-recording base station) and a Geonics EM31-MK2 ground conductivity meter or equivalent equipment. Positional data will be verified by utilizing a Leica System 530 GPS system, or equivalent, for navigational control. GPS data will be captured at one second intervals, utilizing the real-time kinematic (RTK) mode, which provides centimeter-grad positional accuracy**.**

Geophysical Survey Magnetometry and Frequency-Domain Electromagnetic Induction (FDEMI) Procedure

The geophysical survey will be conducted using the following data collection procedure:

1. Clear the surface of the area to be surveyed (performed by clearing and grubbing subcontractor). This may include cutting underbrush to a height less than 1 foot, removing trees less than 3 inches in diameter, removing brush, and mowing grasses greater than 2 feet in height. A sweep for metal objects on the ground surface will be conducted, and surficial metal identified will be noted and removed from the area of investigation.

2. Establish survey control within the investigation area. Survey markers will be installed both within and around the boundary of the survey area, and these points will be utilized to establish positional control, as well as calibrate the GPS base station.

3. Acquire data from a test line prior to commencement of each day's activities. This test line will be performed over a known subsurface object or over a pre-placed object (such as a steel pipe).

4. Set up magnetometer base station.

5. Begin survey at the southwest corner of the investigation area (or a subdivision of the investigation area) and progress northward (or eastward) until the area boundary or a major obstruction is encountered. Magnetometry data will be acquired at a sampling rate of approximately 10 samples per second, which translates to a sample density of 1 sample every 0.1 meters (0.33 feet) based on an average walking pace. FDEMI conductivity readings will be acquired at a sampling rate of approximately 2.5 samples per second, which translates to a sample density of 1 sample every 0.4 meters (1.3 feet) based on an average walking pace. GPS data will be acquired concurrently with geophysical data, at a rate of 1 sample per second.

6. After reaching the boundary or obstruction, reverse direction, and acquire survey data in the opposite direction along a parallel line at the following line spacing: 1 meter for magnetometer readings and 2 meters for conductivity readings.

7. Continue acquiring data in opposing directions, until the entire investigation area has been covered.

8. Acquire several lines of geophysical data for a known linear metallic object placed upon the ground surface. This procedure will allow for accurate time shifting of geophysical data necessary for merging the geophysical and GPS data.

9. Repeatedly (at least 3 times per day) revisit a calibration station and collect data with the EM31, in order to provide for an instrument drift correction.

10. Acquire data from the test line subsequent to each day's activities, for quality assurance comparison.

The geophysical data will be processed and interpreted using manufacturer-supplied software. Data will be interpolated to NYS State Plane coordinates, filtered as appropriate, extrapolated to a grid system, and displayed on maps of the Site.

14.3 Downhole Geophysics

Downhole gamma-ray geophysical logging, if required in the Site Specific Work Plan, will be conducted by a utilizing existing wells or soil borings as they are completed. Gamma-ray logging may be conducted in cased as well as uncased boreholes, and, because clays typically contain a higher percentage of gamma emitting minerals, can be useful for identification and correlation of clayey zones. The gamma-ray log can provide information on stratigraphic changes in the subsurface soils.

1. Be certain that the well has ample clearance for the gamma probe to pass without obstruction or binding. A dummy cylinder with the same diameter as the gamma log tool may be lowered downhole as a test for obstructions. Downhole may be performed if significant uncertainty exists. Wear appropriate health and safety equipment.

2. Set the tripod over the wellhead and park the mobile unit at a convenient location.

3. Slowly and carefully lower the probe to the bottom of the well with the logger recording the counts per second (cps) of gamma radiation. The descent is a "dry" run until the well bottom is attained.

4. Set the plotter so the gamma-ray logging is recorded on a graph. Set the upward speed at a constant rate. Bring the probe to the surface.

5. If the graph is successfully plotted, perform appropriate decontamination on the probe and the line and proceed to the next logging location.

14.4 Soil Gas Survey

A soil gas survey, if required by the Site Specific Work Plan, will be performed around the Site to delineate areas of possible subsurface impacts and potential source areas. A sampling grid of approximately 100 feet by 100 feet or depending on the size of the investigation area, will be utilized across a majority of the Site, with soil gas samples collected at the grid nodes. Additional soil gas samples will be collected at 25 foot by 25 foot grid nodes in the vicinity of the potential test pit locations, at 50 foot by 50 foot grid nodes around the east-northeast Site buildings, and at any other additional areas determined during the field investigation (e.g., elevated levels present during real-time sampling, etc.). Actual sampling locations will be adjusted in the field to ensure sample targeting of all suspected areas of subsurface impacts. A field gas chromatograph (GC) will be used to determine sample screening concentrations of volatile organic compounds (VOCs). Water table, barometric, and temperature changes can vary the results.

The FOL or his designee, will be present on-site during active soil gas collection activities. The following soil gas survey activities will occur:

- Location of the soil gas survey locations;
- Comparison of the field GC data with applicable quality assurance data to determine acceptability of results;
- Determination of the need for additional or a reduction in the number of soil gas survey points;
- Supervision of the topographic surveying to locate the sampling points;
- Review of the data analysis and evaluation from the soil gas survey report; and

- Recommendation for movement of the proposed field investigation sampling locations based on the soil gas survey results.

Soil Gas Survey Procedure

1. Record ambient air temperature and barometric pressure.

2. Drill a hole into the soil either by hand auger, rotary hammer, or driven rod (as conditions dictate), to roughly 4 to 5 feet in depth. The depth may be reduced based upon conditions at the Site at the time of sampling; all changes will be noted on Field Change Requests (see Section 13.0 of the QAPP).

3. Insert a probe, slightly smaller in diameter than the borehole, into the hole, and the hole will be sealed by packing soil around the expansion bulb at the probe top. The probe assembly will be selected by the soil gas crew and FOL, to provide the best probe assembly for the Site conditions. A typical assembly would consist of a 1/4-inch O.D. stainless steel probe, approximately 5-feet in length, and Teflon tubing, with a reducing tee and cap attached to the fitting.

4. Ensure/test vacuum with a gauge attached to the probe.

5. Extract soil gas through the probe via a vacuum pump connected to the tubing. Purge approximately 3 to 5 sample volumes prior to sampling to remove any introduced ambient contamination.

6. Remove the soil gas sample with a 500 uL gas-tight syringe or equivalent device, inserted into the tubing in front of the pump. This volume is adequate for achieving the required detection limit of 25 ug/L. If necessary, due to field conditions, the sample can be stored in a pressurized container.

7. Immediately inject the sample into the calibrated GC (see Step 8), and plot the chromatogram. Identify and quantify, based on standard peaks, any contaminants present in the soil gas sample.

8. Calibrate the GC prior to sample analysis. Initial instrument calibration should consist of a minimum of 3 concentration points (5 points are preferred), to demonstrate the working range and linearity. Linearity will be assumed if the ratio of the area response to the amount injected is constant over the working range (i.e., less than 20 percent Relative Standard Deviation). In addition, an initial verification of a less than 25 ug/L detection limit shall be run.

9. Check the sample probe for contamination between each sample location, by drawing ambient air through the probe via the pump, and checking that the response is not greater than background levels. If necessary, decontaminate the probes using methanol and deionized water, and then air drying.

Calibration standards will be run at the beginning and end of each sampling day, and a method blank shall be analyzed every 12 hours and after any highly contaminated samples to check for carry-over. In addition, an environmental field duplicate will be chosen and analyzed every 20 samples.

15.0 FIELD INSTRUMENTS

All field analytical equipment will be calibrated immediately prior to each day's use and more frequently if required. A calibration log will be created on which all equipment calibration will be recorded. Further details on calibration, precision, accuracy, etc. are provided in the Generic QAPP (Volume II). The calibration procedures will conform to manufacturer's standard instructions. This calibration will ensure that the equipment is functioning within the allowable tolerances established by the manufacturer and required by the project. If an equipment malfunction is identified during calibration then the malfunctioning equipment will be within 24-hours or applicable fieldwork will be terminated as necessary until the malfunctioning equipment is repaired or replaced. Records of all instrument calibration will be maintained by the Field Operations Leader (FOL) and will be subject to audit by the Project Quality Assurance Manager (PQAM). Copies of all of the instrument manuals will be maintained on-site by the FOL.

15.1 Portable Photoionization Detector

The photoionization detector (PID) will be equipped with a minimum 10.6 eV lamp. The PID should be capable of ionizing and detecting compounds with an ionization potential of less than 10.6 eV. This accounts for up to 73% of the volatile organic compounds on the NYSDEC ASP Target Compound List. Calibration will be performed at the beginning and end of each day of use with a standard calibration gas specified by the manufacturer. If the unit experiences abnormal perturbation or erratic readings, additional calibration will be required. All calibration data will be recorded in field logbooks and on calibration log sheets to be maintained on-site by the FOL.

A battery check will be completed at the beginning and end of each working day. If erratic readings are experienced, the battery will be checked for proper voltage. This information will also be recorded in field logbooks and on the calibration log sheets.

15.2 pH Meter

Calibration of the pH meter will be performed at the start of each day of use, and after very high or very low readings. National Institute of Standards and Technology - traceable standard buffer solutions, which bracket the expected pH range, will be used. The standards will most likely be pH of 7.0 and 10.0 standard units. The use of the pH calibration and slope knobs will be used to set the meter to display the value of the standard being checked. The pH meter readings during calibration must be within 0.1 of the reference solution. The calibration data will be recorded on calibration sheets maintained on-site by the FOL.

15.3 Specific Conductivity Meter

Calibration checks using the conductivity standard will be performed at the start of each day of use, after five to ten readings or after very high or low readings. The portable conductivity meter will be calibrated on a daily basis using a reference solution specified by the manufacturer. Readings must be within 5 percent to be acceptable. The thermometer of the meter will be calibrated against the

field laboratory thermometer on a weekly basis.

15.4 Turbidity Meter

Calibration using a turbidity standard will be performed at the start of each day of use and after very high or low readings. The portable turbidity meter will be calibrated using a reference solution specified by the manufacturer. The turbidity reading must be within ±2 NTU of the standard to be acceptable.

15.5 DO Meter

Calibration using a DO standard will be performed at the start of each day of use. The portable DO meter will be calibrated using a calibration solution specified by the manufacturer. The DO reading must be within 5% of the standard to be acceptable.

15.6 Combustible Gas Indicator

Calibration of the CGI will conform to the procedures prescribed in the Generic Environmental Health and Safety Plan (Volume II). Calibration will occur at the start of each day of use. The CGI

16.0 MANAGEMENT OF INVESTIGATION DERIVED WASTE

During the implementation of field activities, investigation derived wastes (IDW) will be generated at the Site. These IDWs will include the following: soil drilling mud/water, development and purge water, decontamination wash water, PPE, polysheeting, spent decontamination fluids, etc. Following the generation of these IDWs, they will be properly containerized in 55-gallon drums, frac tanks, agricultural poly tanks, and/or roll-off containers. PPE will be bagged and placed in 55-gallon drums. The containers will be properly labeled with the date of generation, the Site name, client name and address, contents of the containers, etc. Upon generation the IDW will be immediately containerized. The containers will be secured at the end of each day at the Site. The containers will be segregated on-site in a temporary fenced area and signs stating "Do Not Enter" will be posted on the fencing. Upon completion of the field activities, the containers will be sampled for disposal characteristics. IDW materials will be will be removed from the Site within 90 days of generation. Waste handling procedures and regulations will be strictly adhered to during all phases of waste handling.

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TABLES

Table 1
METHOD FOR IDENTIFYING AND LABELING SAMPLES

LLLL*	LL*	NN*	NN/NNNN*
Site	Sample Type	Sample Location	Depth/Time

Site :
Sample Type: Monitoring Well (MW), Surface Soil (SS), Subsurface Soil (SB), Sediment (SD), Surface Water (SW), Waste Water (WW), Solid Waste (WA)

Sample Number: Number referenced to a sample location map illustrated in the Site-Specific Work Plan.

* L = Letter
* N = Number

FIGURES

Figure 1

LOG OF BORING

(Page 1 of 1)

PROJECT:
PROJECT NO.:
LOCATION:

DATE STARTED:
DATE COMPLETED:
GEOLOGIST:
DRILLER:
DRILLING METHOD:

GW DEPTH:
ELEVATION:

Depth in feet	RECOVERY	USCS	GRAPHIC	DESCRIPTION	TIME	DATE	PID (ppm)	Sample I.D.	COMMENTS
0									
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									

Notes:

10-18-2001 P:\Front Street\Boring Logs\Blank BOR

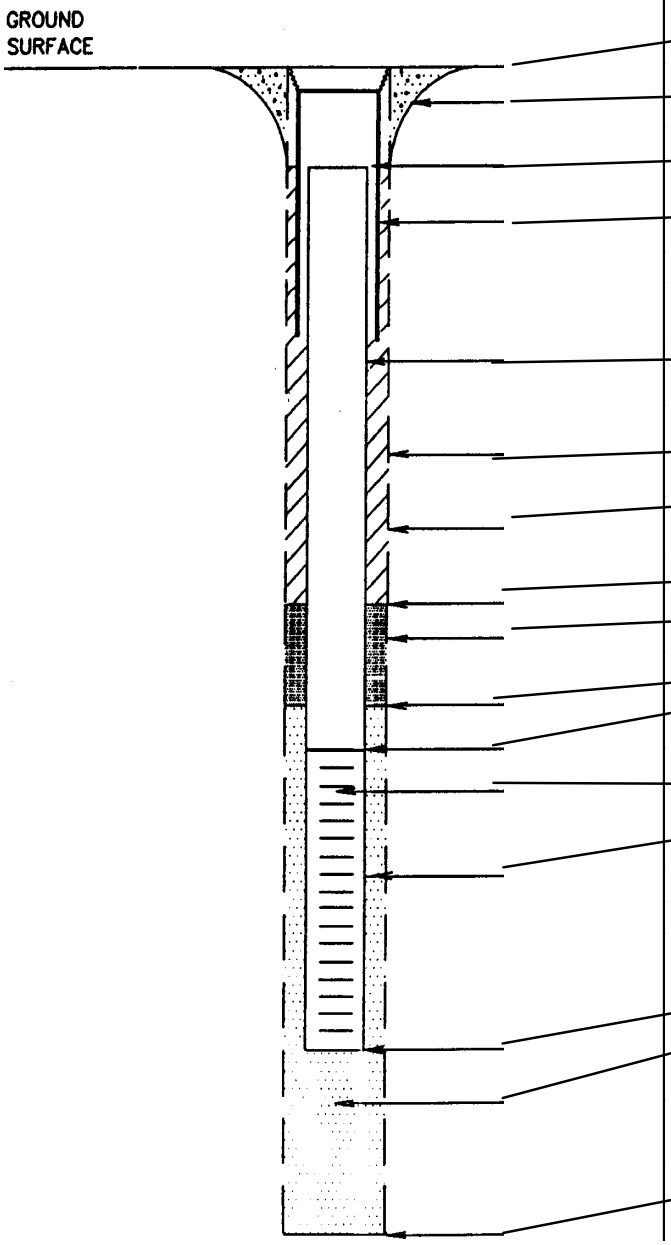
Figure 2

UNCONSOLIDATED WELL NO. _____

MONITORING WELL CONSTRUCTION DIAGRAM

PROJECT _____
PROJECT NO. _____
DATE _____ BORING NO.: _____
ELEVATION _____
LOGGED BY: _____

DRILLER _____
DRILLING METHOD _____
DEVELOPMENT METHOD _____



ELEVATION OF TOP OF SURFACE CASING: _____
TYPE OF SURFACE SEAL: _____
GROUND SURFACE ELEVATION: _____
ELEVATION OF TOP OF RISER: _____

I.D. OF SURFACE CASING: _____
TYPE OF SURFACE CASING: _____

RISER PIPE I.D. _____
TYPE OF RISER PIPE: _____

BOREHOLE DIAMETER: _____

TYPE OF BACKFILL: _____

ELEVATION/DEPTH TOP OF SEAL: _____
TYPE OF SEAL: _____

ELEVATION/DEPTH TOP OF SAND PACK: _____
ELEVATION/DEPTH TOP OF SCREEN: _____

TYPE OF SCREEN: _____
SLOT SIZE X LENGTH: _____
TYPE OF SAND PACK: _____

ELEVATION/DEPTH BOTTOM OF SCREEN: _____

ELEVATION/DEPTH BOTTOM OF SAND PACK: _____
TYPE OF BACKFILL BELOW OBSERVATION WELL: _____

ELEVATION/DEPTH OF HOLE:

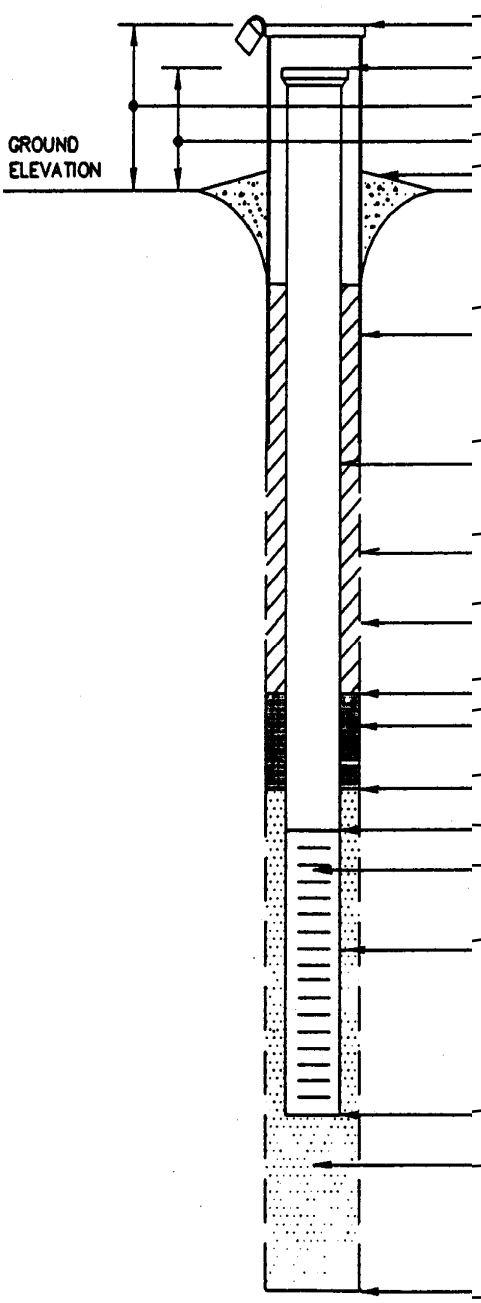
Figure 3

OVERBURDEN
MONITORING WELL
CONSTRUCTION DIAGRAM

WELL NO. _____

PROJECT _____
PROJECT NO. _____
DATE _____ BORING NO.: _____
ELEVATION _____
FIELD GEOLOGIST _____

DRILLER _____
DRILLING METHOD _____
DEVELOPMENT METHOD _____



ELEVATION OF TOP OF SURFACE CASING: _____
ELEVATION OF TOP OF RISER PIPE: _____
STICK-UP TOP OF SURFACE CASING: _____
STICK-UP RISER PIPE: _____
TYPE OF SURFACE SEAL: _____

I.D. OF SURFACE CASING: _____
TYPE OF SURFACE CASING: _____

RISER PIPE I.D. _____
TYPE OF RISER PIPE: _____

BOREHOLE DIAMETER: _____

TYPE OF BACKFILL: _____

ELEVATION/DEPTH TOP OF SEAL: _____
TYPE OF SEAL: _____

DEPTH TOP OF SAND PACK: _____

ELEVATION/DEPTH TOP OF SCREEN: _____
TYPE OF SCREEN: _____
SLOT SIZE X LENGTH: _____
TYPE OF SAND PACK: _____

ELEVATION/DEPTH BOTTOM OF SCREEN: _____
ELEVATION/DEPTH BOTTOM OF SAND PACK: _____
TYPE OF BACKFILL BELOW OBSERVATION WELL: _____

ELEVATION/DEPTH OF HOLE: _____

NOT TO SCALE

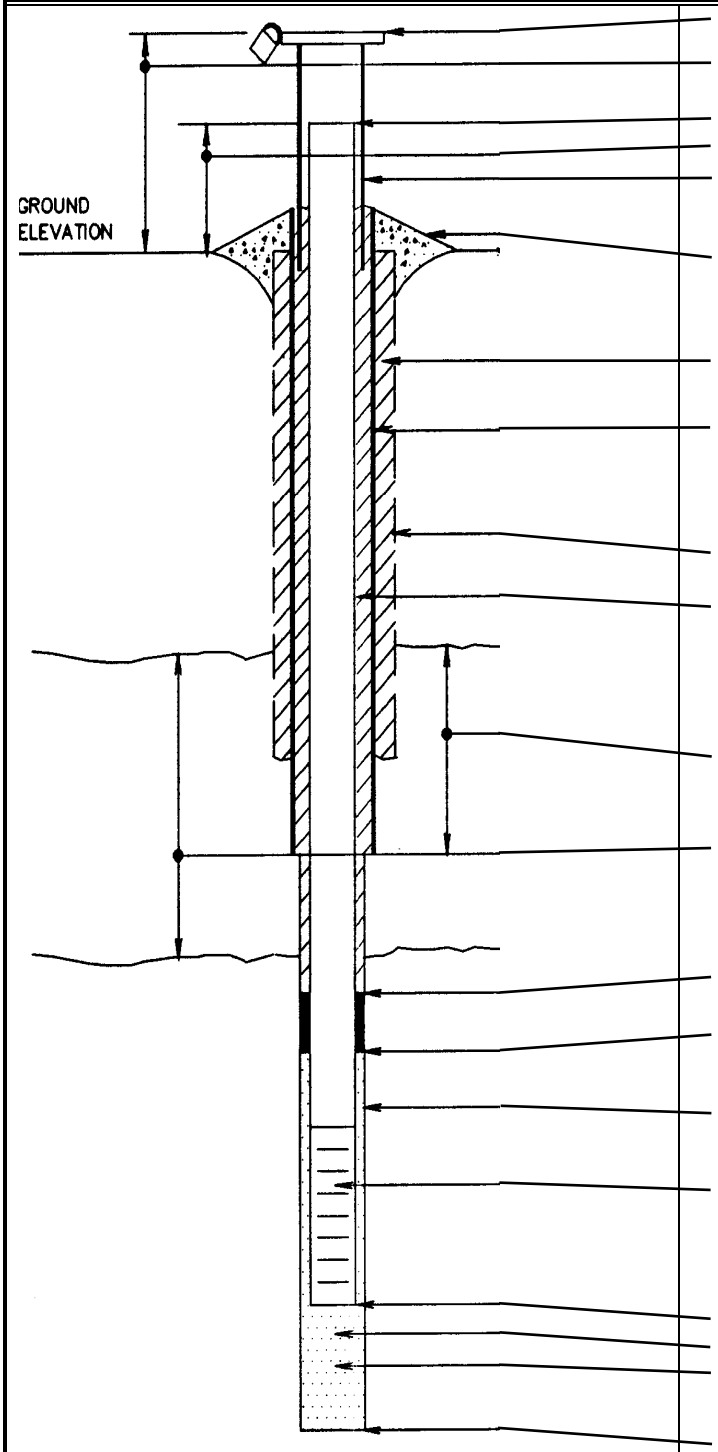
Figure 4

DOUBLE CASED
MONITORING WELL
CONSTRUCTION DIAGRAM

WELL NO. _____

PROJECT _____
PROJECT NO. _____
DATE _____ BORING NO.: _____
ELEVATION _____
FIELD
GEOLOGIST _____

DRILLER _____
DRILLING
METHOD _____
DEVELOPMENT
METHOD _____



ELEVATION OF TOP OF CASING: _____
STICK-UP OF CASING ABOVE GROUND SURFACE _____
ELEVATION OF TOP OF RISER PIPE: _____
STICK-UP RISER PIPE: _____
I.D. OF SURFACE CASING: _____
TYPE OF SURFACE CASING: _____
TYPE OF SURFACE SEAL: _____

TYPE OF BACKFILL: _____
I.D. OF UPPER AQUIFER CASING: _____
TYPE OF UPPER AQUIFER CASING: _____

BOREHOLE DIAMETER/DEPTH: _____

I.D.OF RISER: _____
TYPE OF RISER: _____

DEPTH CASING IS SET IN CONFINING LAYER: _____

APPROXIMATE THICKNESS OF CONFINING LAYER: _____

ELEVATION/DEPTH TOP OF SEAL: _____
TYPE OF SEAL: _____
DEPTH TOP OF SAND PACK: _____
TYPE OF SAND PACK: _____
BOREHOLE DIAMETER: _____

TYPE OF SCREEN: _____
SLOT SIZE X LENGTH: _____
I.D. OF SCREEN: _____

ELEVATION/DEPTH BOTTOM OF SCREEN: _____
ELEVATION/DEPTH BOTTOM OF SAND PACK: _____
TYPE OF BACKFILL BELOW OBSERVATION WELL: _____
ELEVATION/DEPTH OF HOLE: _____

NOT TO SCALE

Figure 5

WELL PURGE DATA SHEET

PROJECT NAME: _____
PROJECT No.: _____
DATE: _____

Well I.D.: _____

Casing Volume
Well Diameter (d) = _____ ft

Well Radius (r_w) = _____ ft

Well Depth (TD) = _____ ft

Static Water Level (WL)= _____ ft

Filter Pack Volume
Borehole Diameter (d_b) = _____ ft

Borehole Radius (r_b) = _____ ft

Depth to Top of Filter Pack (D_f) = _____ ft

P = estimated porosity of filter pack

Height of Water in Well (T):
T = TD (ft) - WL (ft)
T = _____ - _____
T = _____ ft

Height of Water in Filter Pack (T_F)
T_F = TD - WL[1](or TFP[2])
T_F = _____ - _____
T_F = _____ ft

Gallons of Water per Well Volume (Casing):
$V_C = 0.163 \times T(ft) \times r_w(in)^2$
$V_C = 0.163 \times$ ___ x ___ [2]
V_C = _____ gallons

Gallons of Water per Filter Pack Volume
$V_F = (0.163 \times r_b^2 - 0.163 \times r_w^2) \times T_F \times P$

$$\mathbf{V_T = V_C + V_F}$$

Total Volume Purged: Design = _____ gallons
Actual = _____ gallons

Water Quality:	pH (SU)	Spec. Conduct (umhos/cm)	Temp. (°C)	Eh (mV)	D.O. (ml/L)
Initial	_____	_____	_____	_____	_____
Volume 1	_____	_____	_____	_____	_____
Volume 2	_____	_____	_____	_____	_____
Volume 3	_____	_____	_____	_____	_____
Volume 4	_____	_____	_____	_____	_____
Volume 5	_____	_____	_____	_____	_____

Purge Method: ____ Suction Pump ____ Submersible Pump ____ Bailer ____ Other_____

Notes/Observations: _____
_____
_____

Sampler(s) Present: _____

1. From Top of Inner Casing
2. Top of Filter Pack - used if entire filter pack saturated

Figure 6

SAMPLE LOG SHEET

I. SAMPLE IDENTIFICATION

Project: _____ Project No.:
Client: _____ Project Manager: _____
Sample Name/Number: _____ Date: _____ Time: _____ Hrs
Sampling Location/Depth: _____ Type: _____ Grab _____ Composite
Sample Matrix: _____ Surface Water _____ Groundwater _____ Sediment
_____ Soil _____ Waste
_____ Other (Specify) _____

Sampled By: _____

II. SAMPLE SOURCE

_____ Well _____ Outfall _____ Leachate
_____ Drum _____ Boring _____ River/Stream
_____ Bldg/Structures _____ Tank _____ Impoundment
_____ Test Pit/Trench _____ Other (Specify) _____

Source Description _____

III. FIELD OBSERVATIONS/MEASUREMENTS

Appearance/Color: _____
Volatile Organic Analysis (VOA): _____ HNU _____ OVA _____ Other
VOA Readings: Off Sample _____ Respiratory Zone _____
LEL/O_2/H_2S Readings: LEL _____ O_2 _____ H_2S _____
Radioactivity (mR/hr): _____
pH: _____ Conductivity: _____ Temperature: _____
Salinity: _____ Other: _____
Observations: _____

IV. SAMPLE DISPOSITION

Preservation: _____
Laboratory Name: _____
Laboratory Location: _____ On-Site _____ Off-Site
Forwarded to Laboratory: Date: _____ Time: _____ Hrs
Laboratory Sample No.: _____
Chain of Custody No.: _____ Airbill No.: _____

V. ADDITIONAL REMARKS

ATTACHMENTS

ATTACHMENT A

ATTACHMENT B

PACKER TEST PROCEDURES

I. Introduction

Packer testing is a method used to estimate the hydraulic conductivity of discrete bedrock zones within an open-bedrock corehole or open-bedrock well/piezometer. A packer test involves tightly sealing off a selected interval in the bedrock hole, pumping clean water into the test interval under a specified head for a specified duration, and recording the volume of water pumped into the formation during the test duration. To allow interpretation of the flow characteristics (e.g., laminar or turbulent), the rock fracture response (e.g., dilation, washout, or void filling) and the representative conductivity value for the tested bedrock interval, five test increments are performed at three different head conditions. The hydraulic conductivity is calculated based on the observed test pumping rates, the total applied head values, the geometry of the tested interval, and the pattern of pumping rates achieved during each of the five test increments.

The following presents methods for both single and double packer testing.

II. Materials

The equipment used for packer testing consists of two assemblies:

(1) A packer apparatus consisting of inflatable rubber packer(s) and a length of perforated pipe; and
(2) A water system, including a water meter, pressure gauge and valves to adjust and maintain the water pressure and flow.

The following list of equipment to be used for packer testing is meant to serve only as a guide because actual site and borehole conditions may require modifications. The driller may provide much of the equipment. Typical equipment and materials used to perform packer testing include:

- Drill rig to install and remove the packer and water pipe;
- Packer (pneumatic or hydraulically actuated);
- Water pipe, ranging from 1 to 2 inches in diameter, depending on the permeability and surface area of the test section;
- Flow meter of the same diameter as the water pipe above;
- Pump, capacity to approximately 50 gpm;
- Storage tanks of appropriate volume for holding clean water for injection into test interval;
- Two pressure transducers, sized in accordance with the depth of the test interval and the excess injection pressure to be applied during the test;
- Compressed gas cylinders, regulators, and tubing for inflating pneumatic packers or alternative pressure source if hydraulically-actuated packers are used;
- Water swivel or elbow;
- Hose or piping of the same diameter as the water pipe;
- Electronic data logger for recording transducer output;
- Water level indicator or equivalent oil/water interface meter with 0.01 foot

increments;
- Stopwatch;
- Constant-head injection data sheets (an example is provided in Figure 1);
- Personal Protective Equipment (PPE) as required by the Site-specific EHS Plan;
- Decontamination supplies (as needed); and
- Field logbook.

III. Packer Apparatus Configurations

Either single-packer or double-packer configurations may be used to perform the packer test. The single-packer test typically is performed after each core run during the drilling of corehole. The packer is seated at the top of the interval of rock core just removed, and the newly exposed section of bedrock is tested. To remove sediment from the corehole wall, the corehole may be bailed, surged or swabbed prior to packer testing. The test should not be initiated, however, until the water level in the drill casing returns to the static level.

Single-packer tests may provide more reliable results than double-packer tests because if water leaks past a single, upper packer, the leak may be discerned by the recognition of a rising water level in the corehole or drill casing above the packer or by the appearance of water in the casing at the ground surface. In contract, if a double-packer configuration is used, leakage past the lower packer may enter a permeable corehole section below the lower packer without being recognized as leakage.

The double-packer configuration is used if discrete rock intervals are to be tested in a previously-drilled long open corehole. Two packers are placed in the corehole and inflated with the perforated portion of the pipe between the packers. The spacing between the packers, corresponding to the test interval length, typically is 5 to 0 feet. Specified bedrock intervals are tested starting from the bottom of the hole and working upwards at intervals selected by the supervising geologist/engineer.

IV. Water System

The water system typically is assembled with a bypass valve and line connected to the main water line before the water meter valve. The purposes of the bypass valve are (1) to dampen the surge of water produced by the action of the pump, thus providing a relatively constant flow rate and water pressure; and (2) to allow a pressure bypass so that relatively low pressures may be applied to the tested rock interval, if appropriate. A surge suppression tank may also be plumbed into the water system before the bypass line to help dampen pump surge affects.

A water meter valve and the water meter follow the bypass valve and line. Flow to the tested rock interval passes through the water meter valve and is recorded by the water meter. The bypass and water meter valves are used simultaneously to maintain the water in the line at the desired pressure. The maximum water pressure for a particular pumping rate is achieved with the meter valve fully opened and the bypass valve fully closed. The bypass valve should be used as much as possible, however, to utilize its surge damping effect.

The remainder of the water system apparatus consists of a check valve, a relief valve and line, a water pressure gauge, and finally a length of riser pipe connecting the perforated pipe and packer

assembly to the water supply apparatus. The pressure gauge indicates the water pressure in the apparatus at that location, rather than the pressure applied to the tested rock interval. The total head applied during a test consists of the gauge pressure plus the elevation head (the vertical distance between the pressure gauge and the static water level in the corehole), minus the frictional head loss between the pressure gauge and the perforated pipe where the water exits the apparatus and enters the tested rock interval. The magnitude of frictional head loss depends on the length of riser pipe used and the pumping rate, and is best determined empirically by calibrating the test assembly in the field. Alternately, frictional losses may be estimated based on hydraulics equation such as the Hazen-Williams equation (Meritt, 1983), which relates head loss to pipe geometry and flow rate.

V. Packer Test Apparatus Calibration

The frictional head loss in the riser pipe assembly should be determined in the field by a calibration process to obtain a reliable estimate of the total head applied to the test interval. The calibration is performed by pumping water through the apparatus at a constant pressure and flow rate for a specified duration, typically a few minutes. The gauge pressure, total flow volume, pumping duration, and riser pipe length are recorded, and the procedure is repeated at a different flow rate. The process is repeated at several flow rates that span the representative range of flow rates achievable by the pump.

The calibration is performed with the water system and packer apparatus laid out horizontally along the ground surface. The packer(s) remain deflated during the calibration procedure to avoid rupturing. The perforated section of pipe is supported slightly above the ground surface so that water may drain freely during pumping through the test assembly. The perforated pipe section and the pressure gauge are situated at approximately equal elevation during the calibration to eliminate the elevation head between the pressure gauge and the perforated pipe section. Because the elevation head is zero, the pressure gauge measurements obtained during calibration indicate only the frictional head loss in the pipe assembly.

The calibration process should be repeated and a separate set of gauge pressure versus pumping rate data generated for each total length of riser pipe used during actual packer testing. The calibration procedure may be performed after the appropriate riser-pipe lengths are identified by the performance of packer tests. The data of gauge pressure versus pumping rate are later plotted on a X-Y axis. A best-fit power-law regression curve is calculated for each data set to determine the mathematical relationship between pumping rate and frictional loss. During hydraulic conductivity calculation, frictional head loss for each observed flow rate is estimated from the plot of calibration data corresponding to the length of riser pipe used during the test.

VI. Test Gauge Pressure Calculation

Appropriate test pressures to be used during each of the five test increments are calculated as follows:

(1) Calculate the maximum gauge pressure, to be used during test increment #3 as:

P_3 (psi) = 0.75 x Depth of Test Section Midpoint (feet)

(2) Calculate the gauge pressures to be used during the other test increments as:

$P_1 = P_5 = 0.4 \times P_3$ and

$P_2 = P_4 = 0.7 \times P_3$.

VII. Packer Test Procedures

Prior to testing a given bedrock interval, the corehole identification number, the depth of the test interval, the static depth to water in the corehole, the gauge height above ground surface, and the length of riser pipe used in the apparatus are recorded on a packer test data log. After the packer(s) have been seated at the desired interval, the remainder of the test is performed as follows:

1. Open the bypass valve completely with the water meter valve closed.

2. Start the pump or open other water supply.

3. Open the meter valve slowly to allow water to flow and pressure to build. If this valve is completely opened and additional pressure is still needed, it may be obtained by slowly closing off the bypass valve, thus forcing more water through the water meter valve.

4. After the desired pressure for a desired given test increment has been achieved, record the time and volume form the totalizing water meter.

5. To perform a test increment, record the water meter reading at one minute intervals for 5 to 10 minutes of continuous pumping. Check the gauge to ensure the pressure remains constant throughout the test increment, and adjust the flow valves as needed to maintain constant pressure.

6. Adjust the valves in the water system to achieve the calculated appropriate pressure for the next test increment, and repeat steps #4 and #5 above.

7. If the appropriate test interval gauge pressure cannot be achieved due to a highly-permeable tested bedrock interval, the maximum achieved gauge pressure and the pumping rate data for the five minute test increment should be recorded.

8. The packer test for a given bedrock interval is complete after all five test increments have been performed.

9. Record the test data on the packer test data log.

VIII. Packer Test Data Reduction

Packer test data are reduced to develop estimates of hydraulic conductivity for each tested interval based on standard data reduction procedures (United States Bureau of Reclamation, 1974; Houlsby,

1976). Data are entered into an automatic packer-test data reduction spreadsheet program. The spreadsheet calculates the hydraulic conductivity from each of the five test increments for each tested bedrock interval as:

$$K = Cp\ Q/H$$

where:

K = hydraulic conductivity (feet per year);
Q = flow rate (gallons per minute);
H = total head applied during test (feet); and
Cp = packer coefficient.

Based on equations published in the Earth Manual (United States Bureau of Reclamation 1974), the packer coefficient can be calculated from:

$$Cp = [70267 \ln (L/r)] / 2\pi L$$

where:

L = length of the tested bedrock interval (feet); and
r = radius of tested bedrock corehole (feet).

In addition to the hydraulic conductivity value, the packer test reduction spreadsheet calculates a Ludgeon value (Houlsby, 1976) for each of the five test increments. The five Ludgeon values are evaluated to interpret the type of flow and bedrock formation response and most representative calculated hydraulic conductivity value for the tested bedrock interval from the following list:

(1) Laminar Flow
Indication: Ludgeon values are approximately equal.
Conductivity: Average of values from five test increments.

(2) Turbulent Flow
Indication: Ludgeon value from increment #3 is less than those from the lower pressure increments, which are approximately equal in value.
Conductivity: Value from increment #3.

(3) Dilation of Bedrock Fractures
Indication: Ludgeon value from increment #3 is greater than those from the lower pressure increments which are approximately equal in value.
Conductivity: Average value from increments #1 and #5.

(4) Wash-out of Fracture Filling Materials
Indication: Progressive increase in five Ludgeon values without any return to lower values during increments #4 and #5.
Conductivity: Value from increment #1.

(5) Void Filling
Indication: Progressive decrease in five Ludgeon values without any return to values during increments #4 and #5.

Conductivity: Value from increment #5.

REFERENCES

Houlsby, A.C., 1976, Routine Interpretation of the Ludgeon Water-Test, Q. Jl. Engng. Geol. Vol. 9, pp. 303-313.

Meritt, F.S., 1983, Standard Handbook for Civil Engineers, McGraw-Hill, New York.

United States Bureau of Reclamation, 1974, Earth Manual, 2nd Edition, Department of the Interior, Denver, Colorado, pp. 573-578.

FIGURE 1
TYPICAL CONSTANT-HEAD INJECTION TEST
DATA SHEET

SITE:	ENV. CONSULTING FIRM:
BOREHOLE NO.:	FIELD PERSONNEL:
LOCATION:	DATE:
	TEST NO:
Pilot hole diameter:	Pretest water level:
Top of test section:	Product layer thickness:
Bottom of test section:	Reference point:
ID of water pipe:	Elevation of reference point:
Packer type:	Transducer type:
Length of packer:	Transducer calibration:
Depth to packer bottom:	Flowmeter:
Pretest water pressure (Po):	Start reading:
Packer inflation pressure:	End reading:

S#	Pt	t	Q	delta Q
Step No.	Test Section Pressure (psi)	Time from Start of Test (min)	Flow Rate (gpm)	Change in Flow Rate between Readings (gpm)

APPENDIX I

Generic Quality Assurance Project Plan for Site Investigations at Non-Owned Former MGP Sites

GENERIC
QUALITY ASSURANCE PROJECT PLAN

FOR

SITE INVESTIGATIONS

AT NON-OWNED FORMER MGP SITES

Prepared for:
Niagara Mohawk
300 Erie Boulevard West
Syracuse, New York

Prepared By:
Foster Wheeler Environmental Corporation
One Park Place
300 South State Street, Suite 620
Syracuse, New York

NOVEMBER 2002

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Attachment 2	Field PAH and PCB Soil Test Technical Guides and Test Kit Instructions

1.0 GENERAL

This Generic Quality Assurance Project Plan (QAPP) has been prepared to specify procedures that will provide data of known, documented quality, and which will be legally defensible, should the need exist. This document specifically supplements the Generic Field Sampling Plan (FSP), also attached as an appendix to a Site-Specific Work Plan. To the extent discrepancies exist between this Generic QAPP and the Site-Specific Work Plan, the Site-Specific Work Plan shall control.

2.0 PROJECT DESCRIPTION

The project sites are Former Non-owned Manufactured Gas Plant (MGP) sites. The purpose of the investigations is to gather sufficient data to enable the New York State Department of Environmental Conservation (NYSDEC) and Niagara Mohawk, a National Grid Company (NM) to characterize chemical substances which are or may be present at the Sites and to enable the NYSDEC and NM to determine whether such substances pose a significant threat to public health or the environment. This document can also be used to support a Site Management Plan (SMP).

The data collected as a result of these investigations will be used to support the Site Characterizations and Remedial Investigation/Feasibility Studies (RI/FS) as described in the Site-Specific Work Plans. The types, numbers, and locations of environmental samples to be collected are also described in the Site-Specific Work Plans. Field procedures for all environmental sampling activities are detailed in the FSP or SMP.

3.0 PROJECT ORGANIZATION

The project organization is described in detail in the Site-Specific Work Plan. The project organization describes the relationship between the NM Project Manager, NYSDEC Project Manager, NM's Engineering Consultant, and subcontractors (e.g. laboratories, data validators, drillers, etc.).

For the purpose of quality control, the Engineering Consultant's Project Quality Assurance Manager (PQAM) will be responsible for review of data upon receipt from the analytical laboratory. The PQAM will assure that data validation screening is performed by trained and experienced data validators using the applicable criteria specified in the most current NYSDEC ~~2001~~ Analytical Services Protocol (ASP). For the purposes of this document, all references to ASP indicate the most current ~~2001~~ NYSDEC Analytical Services Protocol. The specific requirements for data validation screening are given in Section 9.3. The PQAM will be responsible for ensuring that all analytical data are in conformance with requirements of this QAPP.

4.0 QA/QC OBJECTIVES FOR MEASUREMENT OF DATA

The overall quality assurance (QA) objective for the project is to develop and implement procedures which will provide data of known, documented quality. Field and laboratory quality assurance/quality control (QA/QC) requirements defined in the NYSDEC ASP and other applicable guidelines ensure acceptable levels of data quality will be maintained throughout the sampling and analysis program.

The QA/QC objectives for all measurement data include precision, accuracy, representativeness, completeness, and comparability. The data reduction, validation, and reporting scheme is presented in Figure 1. The quality assurance samples to be collected (type and frequency of collection) are specified in the Site-SpecificWork Plans.

4.1 Precision

Precision is an expression of the reproducibility of measurements of the same parameter under a given set of conditions. Specifically, it is a quantitative measurement of the variability of a group of measurements compared to their average value (USEPA, 1987). Precision is usually stated in terms of standard deviation, but other estimates such as the coefficient of variation (relative standard deviation), range (maximum value minus minimum value), and relative range are common. For this project, precision will be evaluated by recording duplicate measurements of the same parameter on similar sample aliquots under the same conditions and calculating the relative percent difference (RPD) between the values. The formula for calculating RPD is presented in Section 13.2.

RPDs can only be calculated when the duplicate samples both contain detectable concentrations of the analyte. If an analyte is considered not detected at the detection limit, then RPD cannot be calculated. Instead, the results of the analysis of the two-spiked laboratory samples will be used to determine precision.

Measurement data for this project will include field data as well as laboratory analytical data. Laboratory precision will be performed according to the requirements described in the associated analytical methods. The field measurement data may include immunoassay polycyclic aromatic hydrocarbon (PAH) and/or polychlorinated biphenyl (PCB) screening, pH, conductivity, temperature, turbidity, organic vapor readings, and water level measurements. The objective for precision of field data collection methods is to take replicate (minimum of two for every 20 samples) measurements for field parameters to determine the reproducibility of the measurements.

Precision of the immunoassay screening will be evaluated by the field analysis of replicate samples as equivalent levels of PAHs/PCBs. As the screening is not quantitative (i.e., the screening determines if the constituents are present above or below standard values and does not provide a numeric result), RPDs cannot be calculated on the field-analyzed samples. Therefore, measurement of equivalent levels of constituent (i.e., detected below the same standard or within the same range of two standards) will be considered as denoted precision of the screening test.

For the pH meter, precision will be tested by multiple readings in the medium of concern. Consecutive readings should agree within 0.1 pH units after the instrument has been field calibrated

with standard buffers before each use. The thermometer will be visually inspected prior to each use to ensure its condition is satisfactory. Consecutive measurements of a given sample should agree to within 1°Celsius. After calibration, the conductivity meter will be tested for precision at ± 1% of full-scale, depending on the meter/scale. The organic vapors will be measured using a Photovac Microtip (or equivalent) photoionization detector (PID). Daily background and upwind readings of drilling and sampling activities will be measured prior to commencing work and at periodic intervals throughout each day's activities. The natural variation/fluctuation in measurements at background or upwind locations will be used for baseline background values, and the variability will be noted. Water level indicator readings will be precise within 0.01 feet for duplicate measurements or additional water level measurements will be collected to determine whether the difference is due to operator or instrument error. Turbidity measurements will be calibrated to a precision of ± 2% nephelometric turbidity units (NTUs).

4.2 Accuracy

Accuracy is a measure of the difference between a measured value and the "true" or accepted reference value. The accuracy of an analytical procedure is best determined by the analysis of a sample containing a known quantity of material and is expressed as the percent of the known quantity, which is recovered, or measured. The recovery of a given analyte is dependent upon the sample matrix, method of analysis, and the specific compound or element being determined. The concentration of the analyte relative to the detection limit of the analytical method is also a major factor in determining the accuracy of the measurement. Concentrations of analytes that are close to the detection limits are less accurate because they are affected by such factors as instrument "noise". Higher concentrations will not be as affected by instrument or other variables and thus will be more accurate.

The accuracy of laboratory-measured data will be evaluated by determining the percent recovery of both matrix and blank spike samples as described in Section 13.1. For the measurement of organics by gas chromatography (GC) or GC/mass spectroscopy (MS), the recovery of a surrogate spiked into each sample, blank, and standard will also be used to assess accuracy.

Accuracy between the immunoassay screening and the laboratory analytical results will be evaluated by the confirmatory testing of 10 percent (i.e., one in ten) of the environmental samples at the off-site laboratory. The rate of potential false positives and negatives should be less than 15 percent. Screening samples will not be spiked in the field by the addition of known parameter concentrations. However, the confirmatory samples sent to the off-site laboratory will undergo surrogate spiking and recovery evaluation and, to the extent possible, may be chosen as the site-specific matrix spike sample(s) for additional accuracy determination.

The objective for accuracy of the other field measurements is to achieve and maintain factory equipment specifications for the field equipment. Field measurements cannot be assessed for accuracy by spiking the medium with the analytical parameter and measuring the increase in response; therefore, these instruments can only be assessed for accuracy by the response to a known sample (such as a calibration standard) used to standardize them. The pH meter, conductivity meter,

and turbidity meter are calibrated with solutions traceable to the National Institute of Standards and Technology (NIST, formerly the National Bureau of Standards).

All volatile organic detectors (such as the PID) will be calibrated to an appropriate standard daily prior to use.

4.3 Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is a qualitative parameter that is most concerned with the proper design of the sampling program. Samples must be representative of the environmental media being sampled. Selection of sample locations and sampling procedures will incorporate consideration of obtaining the most representative sample possible.

Field and laboratory procedures will be performed in such a manner as to ensure, to the degree that is technically possible, that the data derived represents the in-place quality of the material sampled. Every effort will be made to ensure chemical compounds will not be introduced into the sample via sample containers, handling, or analysis. Decontamination of sampling devices and digging equipment will be performed between samples as outlined in the FSP. Laboratory sample containers will be thoroughly cleaned in accordance with procedures outlined in Section 5.2. Analysis of field blanks, trip blanks, and method blanks will also be performed to monitor for potential sample contamination from field and laboratory procedures.

The assessment of representativeness also must consider the degree of heterogeneity in the material from which the samples are collected. Sampling heterogeneity will be evaluated through the analysis of field duplicate samples, coded to ensure the samples are treated and analyzed as separate samples. The analytical laboratory will make every reasonable effort to assure the samples are adequately homogenized prior to taking aliquots for analysis, so the reported results are representative of the sample received. Many means of homogenization expose the sample to significant risk of contamination or loss through volatilization, and these should be avoided if possible.

Chain-of-custody procedures will be followed to document that contamination of samples has not occurred during container preparation, shipment, and sampling. Details of blank/duplicate and chain-of-custody procedures are presented in Sections 5.3 and 6.1.

4.4 Completeness

Completeness is defined as the percentage of measurements made which are judged to be valid. The QC objective for completeness is generation of valid data for 100 percent of the analysis requested. Any data deficiencies and their impact on project goals will be evaluated during data validation and discussed in the Data Usability Summary Report (DUSR) (see Section 9.3.2).

4.5 Comparability

Comparability expresses the degree of confidence with which one data set can be compared to another. The comparability of all data collected for this project will be ensured by:

- Using identified standard methods for both sampling and analysis phases of this project;
- Ensuring traceability of all analytical standards and/or source materials to USEPA or NIST;
- Verifying all calibrations with an independently prepared standard from a source other than that used for calibration;
- Using standard reporting units and reporting formats including the reporting of QC data;
- The validation of all analytical results, including the use of data qualifiers in all cases where appropriate; and
- The requirement that all validated flags be used any time an analytical result is used for any purpose whatsoever.

These steps will ensure all future users of either the data or the conclusions drawn from them will be able to judge the comparability of these data and conclusions.

5.0 SAMPLING PROCEDURES

5.1 Sampling Program

The objective of the sampling program is to provide current data concerning the presence and nature and extent of MGP-related impacts in ~~contamination of~~ groundwater, surface water, soils (surface and subsurface), and/or sediment. Sampling and analysis may include as identified in the Site-Specific Work Plan:

- groundwater samples
- surface water samples
- sediment samples
- surface and/or subsurface soil samples
- air samples

5.2 Sampling Procedures and Handling

Sample Container Preparation

Sample containers will be properly washed and decontaminated by the factory or laboratory prior to use. All preservatives will be added to containers prior to shipment by the laboratory. The types of containers and preservation techniques are shown in Table 1. Records of the sources of bottles and preservatives will be kept by the analytical laboratory.

Methods of Sampling

As a minimum, sampling procedures will be in accordance with the most recent NYSDEC or USEPA guidelines and/or regulations, as appropriate. Alternate techniques will be utilized when such guidelines and/or regulations are inappropriate or non-existent. Alternate techniques will be implemented only after consultation with NYSDEC, whenever possible.

Referenced sampling procedures are listed below. All procedures will be the latest in effect as of the date of this Generic QAPP; however, must be verified/updated by the party performing the sampling.

- USEPA - 600-4-79-020, "Methods for Chemical Analysis of Water and Wastes"
- National Water Well Association - "Manual of Ground-water Sampling Procedures"
- USEPA - 600-4-83-040, "Characterization of Hazardous Waste Sites - a Methods Manual: Volume II. Available Sampling Methods"
- USEPA - OSWER - 9950.1 "RCRA Ground-water Monitoring Technical Enforcement Guidance Document"
- USEPA - 540/S-95/504, “Low-Flow (Minimal Drawdown) Ground Water Sampling Procedures”
- NYSDEC – “Technical and Administrative Guidance Memoranda” (TAGMs)

All sampling methods are explained in detail in the FSP.

5.3 Quality Assurance Samples

Field Quality Control Samples

To assess field sampling and decontamination performance, two types of "blanks" will be collected and submitted to the laboratory for analyses. The blanks will include:

Trip Blank - A trip blank will be prepared by the laboratory, and will consist of 40-ml volatile organic analysis (VOA) vials containing distilled, deionized water which accompanies the other sample bottles into the field and back to the laboratory. A trip blank will be included with each shipment of water samples for which analysis for Target Compound List (TCL) volatiles or benzene, toluene, ethylbenzene and total xylenes (BTEX) is planned. The trip blank will be analyzed for TCL volatile organic compounds or BTEX to assess any contamination introduced as a result of sampling and transport, handling and storage.

Equipment Blank - Equipment blanks will be taken at a minimum frequency of one per 20 field samples per sample matrix as specified in the Site-SpecificWork Plan. Equipment blanks are used to determine the effectiveness of the decontamination procedures for sampling equipment. It is a sample of deionized, distilled water provided by the laboratory, which has passed through or over the sampling apparatus. It is usually collected as a last step in the decontamination procedure, prior to collecting a sample. The equipment blanks will be analyzed for the same parameters as the matrix being sampled.

In addition, the precision of field sampling procedures will be assessed by collecting coded field duplicates and matrix spike (MS)/matrix spike duplicates (MSD)/matrix duplicates (MD).

The duplicates will consist of:

Field Duplicate - To determine the reproducibility and homogeneity of samples, coded field duplicates will be collected. The samples are termed "coded" because they will be labeled in such a manner that the laboratory will not be able to determine that they are a duplicate sample. This will eliminate any possible bias that could arise. The frequency of collection of these samples is one per 20 field samples as specified in the Site-SpecificWork Plans. The criteria for assessing coded field duplicates are given in Section 6.0.

Matrix Spike/Matrix Spike Duplicate/Matrix Duplicate (MS/MSD/MD) - MS/MSD/MD samples (MSD for organics; MD for inorganics) will be collected at a frequency of one pair per 20 field samples per seven day sample delivery group (SDG). The reproducibility and homogeneity of the samples can be assessed by determining the RPD for both spike and non-spike compounds as described in Section 13.0. The MS, MSD, and MD samples should be Site-Specific, unless otherwise authorized by the

Engineering Consultant's Project Manager and/or PQAM after consultation with NM and NYSDEC personnel whenever possible.

6.0 SAMPLE TRACKING AND CUSTODY

Sample chain-of-custody (COC) will be initiated by the laboratory with selection and preparation of the sample containers. To reduce the chance for error, the number of personnel handling the samples will be minimized.

In-situ or on-site monitoring data will be controlled and entered in permanent logbooks. Personnel involved in the COC and transfer of samples will be trained on the purpose and procedures prior to implementation.

Evidence of sample traceability and integrity will be provided by COC procedures. These procedures document the sample traceability from the selection and preparation of the sample containers by the laboratory, to sample collection, to sample shipment, to laboratory receipt and analysis. The sample custody flowchart is shown in Figure 2. A sample will be considered to be in a person's custody if the sample is:

- In a person's possession;
- Maintained in view after possession is accepted and documented;
- Locked and tagged with custody seals so that no one can tamper with it after having been in physical custody; or
- In a secured area which is restricted to authorized personnel.

6.1 Field Sample Custody

A COC record will accompany the sample from time of collection to receipt by the analytical laboratory. If samples are split and sent to different laboratories, COC records will be sent with each sample. The "remarks" column on the COC will be used to record specific considerations associated with sample acquisition such as: sample type, container type, sample preservation methods, and analyses to be performed. Two copies of this record will accompany the samples to the laboratory. The laboratory will maintain one file copy, and the completed original will be returned to the Engineering Consultant’s Project Manager.

Individual sample containers, provided by the laboratory, will be used for shipping/couriering samples. The shipping containers are insulated, and ice will be used to maintain samples at approximately four degrees Celsius until samples are returned and in the custody of the laboratory. All sample bottles within each shipping container will be individually labeled and controlled.

Each sample shipping container will be assigned a unique identification number by the laboratory, and will be marked with indelible ink on the outside of the shipping container. This number will be recorded on the COC record. The field sampler will indicate each individual sample designation/location number in the space provided on the appropriate COC form for each sample collected. The shipping container will then be closed, and a seal provided by the laboratory affixed to the latch. This seal must be broken to open the container. Tampering may be indicated if the seal is broken before receipt at the laboratory. The laboratory will contact the FOL or Engineering

Consultant's Project Manager, and the associated samples will not be analyzed if tampering is apparent.

6.2 Laboratory Sample Custody

The FOL will notify the laboratory of upcoming field sampling activities and the subsequent transfer of samples to the laboratory. This notification will include information concerning the number and type of samples to be shipped as well as the anticipated date of arrival.

The laboratory sample program will meet the following criteria:

- The laboratory will designate a sample custodian who is responsible for maintaining custody of the samples and for maintaining all associated records documenting that custody.
- Upon receipt of the samples, the custodian will check the original chain-of-custody documents and compare them with the labeled contents of each sample container for correctness and traceability. The sample custodian will sign the COC record and record the date and time received.
- Care will be exercised to annotate any labeling or descriptive errors. In the event of any discrepancy in documentation, the laboratory will immediately contact the Engineering Consultant's Project Manager and/or PQAM as part of the corrective action process. A qualitative assessment of each sample container will be performed to note any anomalies, such as broken or leaking bottles. That assessment will be recorded as part of the incoming COC procedure.
- The samples will be stored in a secured area at a temperature of approximately four degrees Celsius until analyses are to commence.
- A laboratory tracking record will accompany the sample or sample fraction through final analysis for control.
- A copy of the tracking form will accompany the laboratory report and will become a permanent part of the project records.

6.3 Sample Tracking System

A sample tracking system will be implemented to monitor the status of sampling events and laboratory analysis of samples. Sample numbers, types, analytical parameters, sampling dates, and sample delivery group (SDG) designations for samples, and required due dates for receipt of analytical results will be entered into the system. The Engineering Consultant's Project Manager will use the tracking system to monitor the project sampling schedules and the status of analytical reports, and to implement any penalty clauses for late delivery per standard laboratory subcontracts when necessary.

A description of the sample tracking system follows:

1. For each day that samples are collected, the Field Operations Lead (FOL) or designee will complete a COC form listing all appropriate samples.
2. The FOL or designee will retain the client copy of the COC, and forward the laboratory copy of the COC with the sample shipment.
3. The FOL or designee will fax copies of the completed COC form and Daily Status and Monitoring Report to the Engineering Consultant's PM. The Engineering Consultant's PM or a designated employee will confirm sample shipment with the laboratory and resolve any sample transfer issues.
4. The status of analytical results will be tracked by the Engineering Consultant's PM or designee using the information provided on the completed COC form and Daily Status and Monitoring Report. The information shall be summarized in a computerized database, as warranted.

Upon receipt of the analytical results from the laboratory, the Engineering Consultant's PM or designee will review the data package for completeness and contract compliance. The Engineering Consultant's PM will then forward the result package to the data validator for validation. The data validator shall be required to submit a complete set of validated data to the Engineering Consultant's PM within 60 days of receipt of the data package report.

The Engineering Consultant's Project Manager or a designated representative will maintain day-to-day contact with the laboratory concerning specific samples and analyses directly or by assignment.

7.0 CALIBRATION PROCEDURES AND FREQUENCY

7.1 Field Instrumentation Calibration

The FOL will be responsible for ensuring that instrumentation are of the proper range, type and accuracy for the test being performed, and that all of the equipment are calibrated at their required frequencies, according to their specific calibration protocols/procedures.

All field measurement instruments must be calibrated according to the manufacturer's instructions prior to the commencement of the day's activities. Exceptions to this requirement shall be permitted only for instruments that have fixed calibrations pre-set by the equipment manufacturer. Calibration information shall be documented on instrument calibration and maintenance log sheets or in a designated field logbook. The calibration information (log sheet or logbook) shall be maintained at the site during the on-site investigation and, once the field work is completed, shall be placed in the Engineering Consultant's project files. Information to be recorded includes the date, the operator, and the calibration standards (concentration, manufacturer, lot number, expiration date, etc.). All project personnel using measuring equipment or instruments in the field shall be trained in the calibration and usage of the equipment, and are personally responsible for ensuring that the equipment has been properly calibrated prior to its use.

In addition, all field instruments must undergo response verification checks at the end of the day's activities and at any other time that the user suspects or detects anomalies in the data being generated. Verification checks may also be performed at the request of NM or NYSDEC representatives. The checks consist of exposing the instrument to a known source of analyte (e.g., the calibration solution), and verifying a response. If an unacceptable instrument response is obtained during the check (i.e., not within specifications), the data shall be labeled suspect, the problem documented in the site logbook, and appropriate corrective action taken.

Any equipment found to be out of calibration shall be re-calibrated. When instrumentation is found to be out of calibration or damaged, an evaluation shall be made to ascertain the validity of previous test results since the last calibration check. If it is necessary to ensure the acceptability of suspect items, the originally required tests shall be repeated (if possible), using properly calibrated equipment, to acquire replacement data for the measurement in question.

Any instrument consistently found to be out of calibration shall be repaired or replaced within 24 hours or field work will be terminated until the malfunctioning equipment is repaired/replaced.

7.2 Laboratory Instrumentation Calibration

Personnel at the laboratory will be responsible for ensuring that analytical instrumentation are of the proper range, type and accuracy for the test being performed, and that all of the equipment are calibrated at their required frequencies, according to specific protocols/procedures.

Off-site laboratory equipment shall be calibrated using certified/nationally recognized standards and according to the applicable methodologies and the laboratory Standard Operating Procedures (SOPs). In addition, these methods/procedures specify the appropriate operations to follow during calibration or when any instrument is found to be out of calibration.

8.0 ANALYTICAL PROCEDURES

All off-site laboratory samples will be analyzed according to the methods provided in Exhibit D of the NYSDEC ASP. QA/QC procedures given in Exhibit E and I of the ASP will be followed. Regardless of the method used, all analytical and extraction holding times must meet the NYSDEC ASP requirements for that analytical group (i.e., volatile analyses, including BTEX, have a holding time of seven days, if unpreserved). Holding times will be calculated from verified time of sample receipt at the laboratory. For NYSDEC ASP, samples must be received at the laboratory within 48 hours of sample collection. The analytical laboratory chosen for the project will be certified, and must maintain certification, under the New York State Department of Health's Environmental Laboratory Approval Program for analyses of solid and hazardous waste. The breakdown of investigative samples is detailed in the Site-Specific Work Plan. Laboratory analytical methods and quantitation limits are presented in Tables 2 and 3 of this Generic QAPP. The method detection limits (MDLs) for the analytes will be specified by the laboratory selected for the project based on its most recent MDL studies, and subject to approval by the NYSDEC.

Field screening samples will be analyzed according to the NYSDEC ASP and the manufacturer's instructions. Unless site-specific requirements dictate a change in concentration limits (which would be explained within the Site-Specific Work Plan), the standard levels for the PAH and PCB screening will be 1 ppm and 10 ppm. The test system user shall be technically qualified individual who has received training in the immunoassay analysis requirements, procedures and potential risks prior to field screening of samples. Use of the field screening test kits will only occur in a controlled environment, following the storage and handling procedures outlined in the NYSDEC ASP and the manufacturer's instructions. Additional technical information on the field screening testing are presented in Attachments 1 and 2.

9.0 DATA REDUCTION, VALIDATION, AND REPORTING

The criteria used to identify and quantify the analytes will be those specified for the applicable methods in the ASP.

The data package provided by the laboratory will contain all items specified in the ASP, as appropriate to the analyses performed. Category B reporting will be used.

9.1 Chain-of-Custody Records

Completed copies of the COC records accompanying each sample from time of initial bottle preparation to completion of analysis shall be attached to the report of analytical testing.

9.2 Data Handling

One complete copy and one additional copy of the analytical data summary report will be provided by the laboratory. One set of the analytical data will be forwarded directly to the data validator by the laboratory. The Engineering Consultant's Project Manager will immediately arrange for filing of the complete package, after the QA/QC reviewer checks the package to ensure all deliverables have been provided. The second data summary report will be used to generate summary tables. These tables will form the foundation of a working database for assessment of the site contamination condition.

The Engineering Consultant's Project Manager will maintain close contact with the QA/QC reviewer to ensure all non-conformance issues are acted upon prior to data manipulation and assessment routines. Once the QA/QC review has been completed, the Engineering Consultant's Project Manager may direct the team leaders or others to initiate and finalize the analytical data assessment.

9.3 Data Validation

9.3.1 Full Data Validation

Data validation is a basic step in the control and processing of the project data generated by the laboratory. The data validation process will consist of a systematic review of the analytical results and QC documentation, and will be performed in accordance with the guidelines identified in Section 9.3.1. All off-site laboratory data will undergo full validation, unless otherwise stated in the Site-Specific Work Plan. On the basis of this review, the data validator will make judgments and express concerns and comments on the quality and limitations of specific data, as well as on the validity of the overall data package. The data validator will prepare documentation of his or her review and conclusions in a Data Usability Summary Report (DUSR; see Section 9.3.2).

The data validator will inform the Engineering Consultant's Project Manager of data quality and limitations, and assist the Project Manager in interacting with the laboratory to correct data omissions and deficiencies. The laboratory may be required to rerun or resubmit data depending on the extent of the deficiencies, and their importance in meeting the data quality objectives within the overall context of the project. The validated laboratory data will be reduced into a computerized tabulation which will be suitable for inclusion in the Site Characterization and RI Reports and will

be designed to facilitate comparison and evaluation of the data. The data tabulations will be sorted by classes of constituents and by sample matrix. Each individual table will present the following information:

- Sample matrix, designations, and locations;
- Sample dates;
- Constituents for which positive results were obtained;
- Reported constituent concentrations in the field and/or trip blanks associated with the samples;
- Constituent concentration units;
- Name and location of laboratory which performed the analyses;
- Data qualifiers provided by the laboratory; and
- Data qualifiers and comments provided by the data validator, if any.

9.3.2 Data Usability Summary Report (DUSR)

A Data Usability Summary Report (DUSR) will be prepared after reviewing and evaluating the analytical data. The parameters to be evaluated in reference to compliance with the analytical method protocols includes all sample chain-of-custody forms, holding times, raw data (instrument print out data and chromatograms), calibrations, blanks, spikes, controls, surrogate recoveries, duplicates and sample data. If available, the field sampling notes should also be reviewed and any quality control problems should be evaluated as to their effect on the usability of the sample data.

The DUSR will describe the samples and analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems will be described and their effect on the data will be discussed in the DUSR.

Resampling/reanalysis recommendations, if applicable, will be made. Data qualifications are documented for each sample analyte following the NYSDEC ASP guidelines.

This work will be performed by trained and experienced data validators who meet the NYSDEC approval criteria. The Environmental Scientist preparing the DUSR must submit a resume to the NYSDEC Quality Assurance Unit documenting relevant experience in environmental sampling and analysis methods and data review and documentation of a Bachelors Degree in Natural Science or Engineering. The results of the data validation screening (i.e. missed holding times or data rejected due to blank contamination) will be incorporated into the data summary tables used in the final investigative report. The DUSR identifies data gaps caused by non-compliant or rejected data, and will indicate what steps have been or will be taken to fill these gaps.

10.0 INTERNAL QUALITY CONTROL CHECKS AND FREQUENCY

10.1 Quality Assurance Batching

Each set of samples will be analyzed concurrently with calibration standards, method blanks, MS, MSD or MD, and QC check samples (if required by the protocol). The MS/MSD/MD samples will be designated by the field personnel. If no MS/MSD/MD samples have been designated, then the laboratory must contact the Project Quality Assurance Officer (PQAO) or Engineering Consultant's Project Manager for corrective action.

10.2 Organic Standards and Surrogates

All standard and surrogate compounds are checked by the method of mass spectrometry for correct identification and gas chromatography for degree of purity and concentration. When the compounds pass the identity and purity tests, they are certified for use in standard and surrogate solutions. Concentrations of the solutions are checked for accuracy before release for laboratory use. Standard solutions are replaced monthly or earlier based upon data indicating deterioration.

10.3 Laboratory Quality Control Samples

The quality control samples included are detailed below.

Method Blanks/Preparation Blanks: Analyses for organic compounds (method blank) and inorganics (preparation blank) include a blank analysis of the laboratory reagent water. The blank is analyzed with each set of samples or more often as required to verify that contamination has not occurred during the analytical process. The concentration of target compounds in the blanks must be less than or equal to the method detection limits specified in the ASP for the selected method of analysis.

Matrix Spike/Matrix Spike Duplicate Analysis - This analysis is used to determine the effects of matrix interference on analytical results. Spikes of analytes are added to aliquots of sample matrix in the manner specified in the ASP. Selected samples are spiked to determine accuracy as a percentage recovery of the analyte from the sample matrix and precision as RPD between the MS and MSD samples. A matrix duplicate is prepared in the same manner as the matrix spike sample.

Analytical Duplicate Samples - Replicate samples are aliquots of a single sample that are split on arrival at the laboratory, or upon analysis. Significant differences between two replicates, split in a controlled laboratory environment, will result in flagging the affected analytical results.

Surrogate Spike Analyses - Surrogate spike analyses are used to determine the efficiency of recovery of organic analytes in the sample preparations and analyses. Calculated percentage recovery of the spike is used as a measure of the accuracy of the total analytical method.

Laboratory Control Sample/ (Spike Blank) - For each method which requires a laboratory control sample (LCS) or spike blank, a LCS spike blank will be prepared with each quality control batch and analyzed according to criteria specified in the ASP. These samples support an assessment of the ability of the analytical procedure to generate a correct result without matrix effects or interference affecting the analysis.

11.0 QUALITY ASSURANCE PERFORMANCE AUDITS AND SYSTEM AUDITS

Quality assurance audits may be performed by the Project Quality Assurance Manager (PQAM) or personnel designated by the PQAM. The PQAM and his or her designees function as an independent body and report directly to Engineering Consultant's quality assurance management. The PQAM may plan, schedule, and approve system and performance audits based upon the Engineering Consultant's procedure customized to the project requirements. These audits may be implemented to evaluate the capability and performance of project and subcontractor personnel, items, activities, and documentation of the measurement system(s). At times, the PQAM may request additional personnel with specific expertise from company and/or project groups to assist in conducting performance audits.

Formal audits encompass documented activities performed by qualified lead auditors to a written procedure or checklists to objectively verify that quality assurance requirements have been developed, documented, and instituted in accordance with contractual and project criteria. Formal audits may be performed on project and subcontractor work at various locations.

Audit reports will be written by lead auditors after gathering and evaluating all resultant data. Items, activities, and documents determined by lead auditors to be in noncompliance will be identified at exit interviews conducted with the involved management. Noncompliances will be logged, documented, and controlled through audit findings which are attached to and are a part of the integral audit report. These audit finding forms will then be directed to management to satisfactorily resolve the noncompliance in a specified and timely manner. All audit checklists, audit reports, audit findings, and acceptable resolutions must be approved by the PQAM prior to issue. QA verification of acceptable resolutions will be determined by re-audit or documented surveillance of the item or activity. Upon verification acceptance, the PQAM will close out the audit report and findings.

It is the Engineering Consultant's Project Manager's overall responsibility to verify that all corrective actions necessary to resolve audit findings are acted upon promptly and satisfactorily. Audit reports must be submitted to the Engineering Consultant's Project Manager within 15 days of completion of the audit. Serious deficiencies must be reported to the Engineering Consultant's Project Manager within 24 hours.

Serious deficiencies identified during an audit will be reported to NM and NYSDEC as part of the DUSR or Site investigation and/or RI Reports.

11.1 System Audits

System audits, performed by the PQAM or designated auditors, may encompass evaluation of measurement system components to ascertain their appropriate selection and application. In addition, field and laboratory quality control procedures and associated documentation may be audited. These audits may be performed once during the performance of the project. However, if conditions adverse to quality are detected or if the Engineering Consultant's Project Manager requests the PQAM to perform unscheduled audits, these activities will be instituted.

11.2 Performance Audits

In accordance with the requirements for NYSDOH ELAP CLP certification, the laboratory will participate in all performance evaluation testing.

Also, one field audit may be performed by the PQAM or designated auditor during collection of the field samples to verify that field samplers are following established sampling procedures. Performance of a field audit will be based on the type of investigation activities being performed, the length of the field project, and any available information concerning prior inspections of the project or sampling team. The Site-Specific Work Plan will provide details on the performance of a field audit.

12.0 PREVENTIVE MAINTENANCE PROCEDURES AND SCHEDULES

12.1 Preventive Maintenance Procedures

Equipment, instruments, tools, gauges, and other items requiring preventive maintenance will be serviced in accordance with the manufacturer's specified recommendations and written procedure developed by the operators. Analytical instruments will be serviced at intervals recommended by the manufacturer. An instrument repair/maintenance log book will be kept for each instrument, and this log will be available on-site during field activities and, at the completion of the investigation, be placed in the project files. Entries include the date of service, type of problem encountered, corrective action taken, and initials and affiliation of the person providing the service.

The instrument use log book will be monitored by the analysts to detect any degradation of instrument performance. Changes in response factors or sensitivity are used as indications of potential problems. These are brought to the attention of the laboratory supervisor and preventive maintenance or service is scheduled to minimize down time. Back-up instrumentation and an inventory of critical spare parts are maintained to minimize delays in completion of analyses.

Use of equipment in need of repair will not be allowed, and field work will be terminated until the malfunction is repaired or the instrument replaced.

12.2 Schedules

Written procedures, where applicable, will identify the schedule for servicing critical items in order to minimize the downtime of the measurement system. It will be the responsibility of the operator to adhere to this maintenance schedule and to arrange any necessary and prompt service as required. Service to the equipment, instruments, tools, gauges, etc. shall be performed by qualified personnel.

12.3 Records

Logs shall be established to record and control maintenance and service procedures and schedules. All maintenance records will be documented and traceable to the specific equipment, instruments, tools, and gauges. Records produced shall be reviewed, maintained, and filed by the operators at the laboratories and by the data and sample control personnel when and if equipment, instruments, tools, and gauges are used at the sites. The Engineering Consultant’s Project Manager or the PQAM may audit these records to verify complete adherence to these procedures.

12.4 Spare Parts

Where appropriate, a list of critical spare parts will be identified by the operator in consultation with the equipment manufacturer. These spare parts will be stored for availability and use in order to reduce the downtime. In lieu of maintaining an inventory of spare parts, a service contract for rapid instrument repair or backup instruments will be available.

13.0 ASSESSMENT PROCEDURES FOR DATA ACCEPTABILITY

Procedures used to assess data precision and accuracy will be in accordance with the appropriate laboratory method, and as periodically updated.

13.1 Accuracy

The percent recovery is calculated as below:

$$\% = \frac{Ss - So}{S} \times 100$$

So = The background value, i.e.; the value obtained by analyzing the sample

S = Concentration of the spike added to the sample

Ss = Value obtained by analyzing the sample with the spike added

% = Percent Recovery

13.2 Precision

The relative percent difference (RPD) is calculated as below:

$$RPD = \frac{|V1 - V2|}{0.5\,(V1 + V2)} \times 100$$

V1, V2 = The two values obtained by analyzing the duplicate samples

13.3 Completeness

Completeness is the measure of the amount of valid data obtained from a measurement system compared to the total amount expected to be obtained under ideal conditions. A target of 100 percent completeness, calculated for each analysis method, has been established as the overall project objective.

$$PC = \frac{NA}{NI} \times 100$$

where:

PC = Percent completeness
NA = Actual number of valid analytical results obtained
NI = Theoretical number of results obtainable under ideal conditions

14.0 CORRECTIVE ACTION

The following procedures have been established to assure that conditions adverse to quality, such as malfunctions, deficiencies, deviations, and errors, are promptly investigated, documented, evaluated, and corrected.

When a significant condition adverse to quality is noted on-site, at the laboratory, or at a subcontractor location, the cause of the condition will be determined and corrective action taken to preclude repetition. Condition identification, cause, reference documents, and corrective action planned to be taken will be documented and reported to the FOL, Engineering Consultant's Project Manager, and involved subcontractor management, at a minimum. Implementation of corrective action is verified by documented follow-up action. All project personnel have the responsibility, as part of the normal work duties, to promptly identify, solicit approved correction, and report conditions adverse to quality.

At a minimum, corrective actions may be initiated:

- When predetermined acceptance standards are not attained
- When procedure or data compiled are determined deficient
- When equipment or instrumentation is found faulty
- When samples and test results are questionably traceable
- When quality assurance requirements have been violated
- When designated approvals have been circumvented
- As a result of system and performance audits
- As a result of a management assessment
- As a result of laboratory/inter-field comparison studies
- As required by NM
- As required by NYSDEC ASP, 2001

Procedure Description

Project management and staff, such as field investigation teams, remedial response planning personnel, and laboratory groups, monitor on-going work performance in the normal course of daily responsibilities.

Work may be audited at Engineering Consultant's office, Site, laboratory, and subcontractor locations by the PQAM and/or designated auditor. Items, activities, or documents ascertained to be in noncompliance with quality assurance requirements will be documented and corrective actions mandated through audit finding sheets attached to the audit report. Audit findings are logged, maintained, and controlled by the PQAM (Section 11.0).

Technicians assigned quality assurance functions will also control noncompliance corrective actions by having the responsibility of issuing and controlling an appropriate Corrective Action Request Form. All project personnel may identify a noncompliance; however, the technician is responsible for documenting, numbering, logging, and verifying the closeout action. It is the Engineering Consultant's Project Manager's responsibility to verify that all recommended corrective actions are produced, accepted, and received in a timely manner.

The Corrective Action Request (CAR) identifies the adverse condition, reference document(s), and recommended corrective action(s) to be administered. The issued CAR is directed to the responsible manager in charge of the item or activity for action. The individual to whom the CAR is addressed returns the requested response promptly to the technician in charge, affixing his signature and date to the corrective action block, after stating the cause of the conditions and corrective action to be taken. The technician maintains the log for status control of CARs and responses, confirms the adequacy of the intended corrective action, and verifies its implementation. The technician will issue and distribute CARs to specified personnel, including the originator, responsible project management involved with the condition, the Engineering Consultant's Project Manager, involved subcontractor, and the FOL, at a minimum. CARs are transmitted to the project file for the records.

15.0 QUALITY ASSURANCE REPORTS

Quality assurance reports to management may consist of the reports on audits, reports on correction of deficiencies found in audits, a final QA report on field sampling activities, and the data validation report.

At the end of the project, the PQAM may submit a lessons leaned report to the Engineering Consultant's Project Manager which will discuss the QA activities. That report may include discussions of any conditions adverse or potentially adverse to quality, such as responses to the findings of any field or laboratory audits; any field, laboratory, or sample conditions which necessitated a departure from the methods or procedures specified in this QAPP; field sampling errors; and any missed holding times or problems with laboratory QC acceptance criteria; and the associated corrective actions undertaken. This report shall not preclude immediate notification to project management of such problems when timely notice can reduce the loss or potential loss of quality, time, effort, or expense.

These reports, if prepared, shall be reviewed by the Engineering Consultant's Project Manager for completeness and the appropriateness of any corrective actions, and they shall be retained in the project files.

In the final investigative report, laboratory and field QC data will be presented, including a summary of QA activities and any problems and/or comments associated with the analytical and sampling effort. Any corrective actions taken in the field, results of any audits, and any modifications to laboratory protocols will be discussed.

Attachment 1

NYSDEC ASP Methods 4035 (PAHs) and 4020 (PCBs)

Attachment 2

Field PAH and PCB Soil Test Technical Guides and Test Kit Instructions

TABLE 3
TARGET ANALYTES AND CONTRACT REQUIRED QUANTITATION (CRQ) LIMITS[1]

	Contract Required Quantitation Limit Water Samples (ug/L)	Contract Required Quantitation Limit Soil Samples (ug/kg)
NYSDEC ASP TCL Volatile Organic Compounds (by 2001-1)		
Acetone	10	10
Benzene	10	10
Bromodichloromethane	10	10
Bromoform	10	10
Bromomethane	10	10
2-Butanone	10	10
Carbon disulfide	10	10
Carbon tetrachloride	10	10
Chlorobenzene	10	10
Chloroethane	10	10
Chloroform	10	10
Chloromethane	10	10
Dibromochloromethane	10	10
1,1-Dichloroethane	10	10
1,2-Dichloroethane	10	10
1,1-Dichloroethene	10	10
1,2-Dichloroethene (cis and trans)	10	10
1,2-Dichloropropane	10	10
cis-1,3-Dichloropropene	10	10
trans-1,3-Dichloropropene	10	10
Ethylbenzene	10	10
2-Hexanone	10	10
4-Methyl-2-pentanone	10	10
Methylene chloride	10	10
Styrene	10	10
1,1,2,2-Tetrachloroethane	10	10
Tetrachloroethene	10	10
Toluene	10	10
1,1,1-Trichloroethane	10	10
1,1,2-Trichloroethane	10	10
Trichloroethene	10	10
Vinyl chloride	10	10
Total Xylenes	10	10

NOTES

1. Specific detection limits are highly matrix dependent. The detection limits listed herein are provided for guidance and may not always be achievable. Quantitation limits listed for soil are based on wet weight.
2. If the information provided in this table differs from the most recent version of the ASP (2001), the ASP requirements will take precedence. In addition, if site-specific requirements dictate a change in quantitation limits, the Site-Specific Work Plan (which will include this information) will take precedence.

TABLE 3 (Cont'd)
TARGET ANALYTES AND CRQ LIMITS[1]

	Contract Required Quantitation Limit Water Samples(ug/L)	Contract Required Quantitation Limit Soil Samples(ug/kg)
NYSDEC ASP TCL - Semivolatile Organic Compounds (by 2001-2) Base/Neutral Extractables		
Acenaphthene	10	330
Acenaphthylene	10	330
Anthracene	10	330
Benzo(a)anthracene	10	330
Benzo(b)fluoranthene	10	330
Benzo(k)fluoranthene	10	330
Benzo(g,h,i)perylene	10	330
Benzo(a)pyrene	10	330
bis(2-Chloroethoxy)methane	10	330
bis(2-Chloroethyl)ether	10	330
bis(2-ethylhexyl)phthalate	10	330
4-Bromophenyl phenyl ether	10	330
Butyl benzyl phthalate	10	330
Carbazole	10	330
4-Chloroaniline	10	330
2-Chloronaphthalene	10	330
4-Chlorophenyl phenyl ether	10	330
Chrysene	10	330
Dibenz(a,h)anthracene	10	330
Dibenzofuran	10	330
Di-n-butylphthalate	10	330
1,2-Dichlorobenzene	10	330
1,3-Dichlorobenzene	10	330
1,4-Dichlorobenzene	10	330
3,3'-Dichlorobenzidine	10	330
Diethyl phthalate	10	330
Dimethyl phthalate	10	330
2,4-Dinitrotoluene	10	330

NOTES

1. Specific detection limits are highly matrix dependent. The detection limits listed herein are provided for guidance and may not always be achievable. Quantitation limits listed for soil are based on wet weight.
2. If the information provided in this table differs from the most recent version of the ASP (2001), the ASP requirements will take precedence. In addition, if site-specific requirements dictate a change in quantitation limits, the Site-Specific Work Plan (which will include this information) will take precedence.

TABLE 3 (Cont'd)
TARGET ANALYTES AND CRQ LIMITS[1]

	Contract Required Quantitation Limit Water Samples(ug/L)	Contract Required Quantitation Limit Soil Samples(ug/kg)
NYSDEC ASP TCL - Semivolatile Organic Compounds (by 2001-2, Cont.)		
2,6-Dinitrotoluene	10	330
Di-n-octylphthalate	10	330
Fluoranthene	10	330
Fluorene	10	330
Hexachlorobenzene	10	330
Hexachlorobutadiene	10	330
Hexachlorocyclopentadiene	10	330
Hexachloroethane	10	330
Indeno(1,2,3-cd)pyrene	10	330
Isophorone	10	330
2-methyl Naphthalene	10	330
Naphthalene	10	330
2-Nitroaniline	25	800
3-Nitroaniline	25	800
4-Nitroaniline	25	800
Nitrobenzene	10	330
N-Nitroso-diphenylamine	10	330
N-Nitroso-dipropylamine	10	330
2,2' Oxybis(1-chloropropane)	10	330
Phenanthrene	10	330
Pyrene	10	330
1,2,4-Trichlorobenzene	10	330

NOTES

1. Specific detection limits are highly matrix dependent. The detection limits listed herein are provided for guidance and may not always be achievable. Quantitation limits listed for soil are based on wet weight.
2. If the information provided in this table differs from the most recent version of the ASP (2001), the ASP requirements will take precedence. In addition, if site-specific requirements dictate a change in quantitation limits, the Site-Specific Work Plan (which will include this information) will take precedence.

TABLE 3 (Cont'd)
TARGET ANALYTES AND CRQ LIMITS[1]

	Contract Required Quantitation Limit Water Samples(ug/L)	Contract Required Quantitation Limit Soil Samples(ug/kg)
NYSDEC ASP TCL - Semivolatile Organic Compounds (by 2001-2, Cont.) **Acid Extractables (cont.)**		
4-Chloro-3-methylphenol	10	330
2-Chlorophenol	10	330
2,4-Dichlorophenol	10	330
2,4-Dimethylphenol	10	330
4,6-Dinitro-2-methylphenol	25	800
2,4-Dinitrophenol	25	800
2-Methylphenol	10	330
4-Methylphenol	10	330
2-Nitrophenol	10	330
4-Nitrophenol	25	800
Pentachlorophenol	25	800
Phenol	10	330
2,4,5-Trichlorophenol	25	800
2,4,6-Trichlorophenol	10	330
NYSDEC ASP TCL Pesticides and PCBs (by 2001-3)		
Aldrin	0.05	1.7
alpha-BHC	0.05	1.7
beta-BHC	0.05	1.7
delta-BHC	0.05	1.7
gamma-BHC (Lindane)	0.05	1.7
Chlordane (alpha &/or gamma)	0.05	1.7
4,4'-DDD	0.10	3.3
4,4'-DDE	0.10	3.3
4,4'-DDT	0.10	3.3
Dieldrin	0.10	3.3
Endosulfan I	0.05	1.7
Endosulfan II	0.10	3.3
Endosulfan sulfate	0.10	3.3

NOTES

1. Specific detection limits are highly matrix dependent. The detection limits listed herein are provided for guidance and may not always be achievable. Quantitation limits listed for soil are based on wet weight.
2. If the information provided in this table differs from the most recent version of the ASP (2001), the ASP requirements will take precedence. In addition, if site-specific requirements dictate a change in quantitation limits, the Site-Specific Work Plan (which will include this information) will take precedence.

TABLE 3 (Cont'd)
TARGET ANALYTES AND CRQ LIMITS[1]

	Contract Required Quantitation Limit Water Samples(ug/L)	Contract Required Quantitation Limit Soil Samples(ug/kg)
NYSDEC ASP TCL - Pesticides and PCBs (by 2001-3, Cont.)		
Endrin	0.10	3.3
Endrin Aldehyde	0.10	3.3
Endrin Ketone	0.10	3.3
Heptachlor	0.05	1.7
Heptachlor Epoxide	0.05	1.7
Methoxychlor	0.50	17.0
Toxaphene	5.0	170.0
Aroclor-1016	1.0	33.0
Aroclor-1221	2.0	67.0
Aroclor-1232	1.0	33.0
Aroclor-1242	1.0	33.0
Aroclor-1248	1.0	33.0
Aroclor-1254	1.0	33.0
Aroclor-1260	1.0	33.0
NYSDEC ASP TAL Metals and Cyanide (by CLP-M)		
Aluminum	200	
Antimony	60	
Arsenic	10	
Barium	200	
Beryllium	5	
Cadmium	5	
Calcium	5000	
Chromium	10	
Cobalt	50	
Copper	25	
Iron	100	
Lead	3	
Magnesium	5000	

NOTES

1. Specific detection limits are highly matrix dependent. The detection limits listed herein are provided for guidance and may not always be achievable. Quantitation limits listed for soil are based on wet weight.
2. If the information provided in this table differs from the most recent version of the ASP (2001), the ASP requirements will take precedence. In addition, if site-specific requirements dictate a change in quantitation limits, the Site-Specific Work Plan (which will include this information) will take precedence.

TABLE 3 (Cont'd.)
TARGET ANALYTES AND CRQ LIMITS[1]

	Contract Required Quantitation Limit Water Samples(ug/L)	Contract Required Quantitation Limit Soil Samples(ug/kg)
NYSDEC ASP TAL Metals and Cyanide (by CLP-M) (Cont.)		
Manganese	15	
Mercury	0.2	
Nickel	40	
Potassium	5000	
Selenium	5	
Silver	10	
Sodium	5000	
Thallium	10	
Vanadium	50	
Zinc	20	
Cyanide	10	

NOTES

1. Specific detection limits are highly matrix dependent. The detection limits listed herein are provided for guidance and may not always be achievable. Quantitation limits listed for soil are based on wet weight.
2. If the information provided in this table differs from the most recent version of the ASP (2001), the ASP requirements will take precedence. In addition, if site-specific requirements dictate a change in quantitation limits, the Site-Specific Work Plan (which will include this information) will take precedence.

These CRQLs are the instrument detection limits obtained in pure water that must be met using the procedure in Exhibit E. The quantitation limits for samples may be considerably higher depending on the sample matrix.

TABLE 1
SAMPLE CONTAINERIZATION

Analysis	Bottle Type	Preservation[1]	Holding Time[2]
Aqueous Samples			
Volatile Organics (BTEX)	40 ml glass vial with Teflon-lined septa	Cool to 4°C	7 days
PCBs/Pesticides	1000 ml amber glass	Cool to 4°C	5 days*
Semivolatile Organics (PAHs)	1000 ml amber glass	Cool to 4°C	5 days*
Metals	1000 ml polyethene	HNO_3 to pH <2	6 months (Mercury 26 days)
Cyanide	1000 ml polyethene	NaOH to pH >12	12 days
Soil & Sediment Samples			
Volatile Organics (BTEX)	Wide-mouth glass w/ teflon-lined septa [3]	Cool to 4°C	7 days
Semivolatile Organics (PAHs)	Wide-mouth glass w/ teflon cap [3]	Cool to 4°C	5 days*
Pesticide/PCBs	Wide-mouth glass w/ teflon cap [3]	Cool to 4°C	5 days*
Metals, Cyanide	Wide mouth glass w/ teflon cap [3]	Cool to 4°C	Metals - 6 months Mercury - 26 days Cyanide - 12 days

NOTES

1. All samples to be preserved in ice at 4°C during collection and transport.
2. Days from verified time of sample receipt (VTSR) by the laboratory.
3. Sized appropriately for the analytical method.
4. If the information provided in this table differs from the most recent version of the ASP (2001), the ASP requirements will take precedence. In addition, if site-specific requirements dictate a change in containerization requirements, the Site-Specific Work Plan (which will include this information) will take precedence.

* Extraction of water samples for pesticides/PCB analysis by separating funnel must be completed within five days of VTSR. Continuous liquid-liquid extraction is the required extraction for water samples for semivolatiles. Continuous liquid-liquid extraction of water samples, or sonication or soxhlet procedures for semivolatile and pesticides/PCB analyses, shall be started within five days. If a re-extraction and reanalysis must be performed, the extraction must start within 10 days and completed within 12 days of VTSR. Extracts of either water or soil/sediment samples must be analyzed within 40 days of VTSR.

TABLE 2
LABORATORY ANALYSIS PROGRAM

Matrix	Parameter [1]	Analytical Method [2]
Water	BTEX	Method 8260B*
	VOC	2001-1
	SVOC	2001-2
	PAHs	Method 8270C*
	PCBs and Pesticides	2001-3
	Metals	CLP-M (various for individual metals)
	Cyanide	CLP-M
Soil & Sediments	BTEX	Method 8260B*
	VOC	2001-1
	SVOC	2001-2
	PAHs	Method 8270C*
	Pesticides and PCBs	2001-3
	Metals	CLP-M (various for individual metals)
	Cyanide	CLP-M
	TCLP	Method 1311; Method Series 7000, 8000
Waste Characteristics		Methods 1010/1020A; 9040B/9041A; Section 7.3

NOTES

1. Abbreviations: BTEX = Benzene, Toluene, Ethylbenzene, Xylene; VOCs = Volatile organic compounds; SVOCs = Semivolatile organic compounds; PAHs = Polycyclic aromatic Hydrocarbons; TCLP = Toxicity Characteristic Leaching Procedure; PCBs = Polychlorinated Biphenyls; CLP = Contract Laboratory Program.
2. NYSDEC Analytical Services Protocol, 2001, Category B deliverables.
   Analyses must meet NYSDEC ASP holding time specified for Methods in Exhibit I Part II.
3. If the information provided in this table differs from the most recent version of the ASP (2001), the ASP requirements will take precedence. In addition, if site-specific requirements dictate a change in analytical requirements, the Site-Specific Work Plan (which will include this information) will take precedence

* BTEX and PAH analyses must meet NYSDEC ASP holding time specified for Methods 2001-1 and 2001-2, respectively.

Figure 1 Data Reduction, Validation and Reporting

Figure 2 Sample Custody

APPENDIX J

Site-Wide Inspection Form

SITE-WIDE INSPECTION FORM

NATIONAL GRID
OGDENSBURG (KING STREET) NON-OWNED FORMER MANUFACTURED GAS PLANT SITE
CITY OF OGDENSBURG, ST. LAWRENCE COUNTY, NEW YORK
NYSDEC SITE NO. V00479

Date and Time of Inspection: _____

Inspector (Name, Title, and Affiliation): _____

Weather Conditions: _____

Describe repairs, maintenance, or corrective actions implemented since previous inspection: _____

_____

_____

_____

_____

ATTACH PHOTOGRAPHS OF AREAS OR ITEMS INSTALLED, REPAIRED, OR REPLACED

General Site Conditions:

	Acceptable	Unacceptable
Pavement and Sidewalks	_____	_____
Lawns	_____	_____
Trees	_____	_____
Perimeter Fencing and Gates	_____	_____

Monitoring Wells:

	Acceptable	Unacceptable
Outer Casing/Cover	_____	_____
Cement/Concrete Surface Seal	_____	_____
Well Lock	_____	_____
Well Plug	_____	_____

Soil Cover System:

Any signs/evidence of ground-intrusive activities (e.g., excavating, trenching, etc.), soil disturbance regardless of quantity/extent, erosion, settlement, bare or sparsely-vegetated areas, or other conditions affecting the thickness or integrity of the soil cover system?

☐ No ☐ Yes; describe: _____

ATTACH PHOTOGRAPHS OF AREAS OF DISTURBANCE

Any signs/evidence of use of the Site in a manner inconsistent with the deed restriction?

☐ No ☐ Yes; describe: _____

ATTACH PHOTOGRAPHS OF AREAS OF NON-COMPLIANCE

Describe any repairs, maintenance, or corrective actions required to correct observed deficiencies: _____

ATTACH PHOTOGRAPHS OF DEFICIENT AREAS OR ITEMS OBSERVED DURING THE INSPECTION

Inspector's Signature:

Signature: _____ Date: _____

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