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December 22, 2016

SENT VIA: ELECTRONIC MAIL AND US MAIL

Mr. Jeffrey Thomas
Remedial Project Manager
U.S. Environmental Protection Agency
Hazardous Site Cleanup Division, 3HS23
1650 Arch Street
Philadelphia, PA 19103

RE: QUARTERLY PROGRESS REPORT FOR THE AVTEX FIBERS SUPERFUND SITE FOR THE PERIOD 1 JULY TO 30 SEPTEMBER 2016

Dear Mr. Thomas,

FMC Corporation (FMC) has enclosed one clipped copy of the Quarterly Progress Report for remedial activities undertaken by FMC at the Avtex Fibers Superfund Site, Front Royal, Virginia (Site). This Quarterly progress report addresses the reporting requirements in 1999 Consent Decree between the United States of America and FMC Corporation to conduct removal and remedial actions. In accordance with Section XI, Paragraph 45 of the Consent Decree, FMC has prepared this progress report to describe actions taken pursuant to the Consent Decree during the previous quarter.

If you have any questions or comments, please call me at 215-299-6047.

Sincerely,

Brian McGinnis
EHS, Remediation Manager

Enclosure (1)
cc: M. Payne, B. Kiracofe, VADEQ
S. Curran, Gannett Fleming
H. Philip, Parsons

QUARTERLY PROGRESS REPORT
for the Avtex Fibers Superfund Site, Front Royal, Virginia
for the Period July 1 to September 30, 2016

1.0 INTRODUCTION

FMC Corporation (FMC) has conducted removal and remedial activities at the Avtex Fibers Superfund Site, Front Royal, Virginia (Site). The removal action, remedial design, and remedial action activities were performed pursuant to the 1999 Consent Decree between the United States of America and FMC Corporation (effective 21 October 1999).

On August 29, 2014, USEPA issued a document titled, "Superfund Preliminary Close-out Report," which documented construction completion at the Site. The completion of construction at the Site marked its transition into the O&M phase. Full-scale operations and maintenance were achieved when the Groundwater and Leachate Treatment Plant (GLTP) began operating in continuous biological mode in September 2015. During the September 8, 2014 monthly call between EPA and FMC, EPA agreed that the former monthly progress reporting for the site could be reduced to quarterly during O&M phase as specified in paragraph 45 in Consent Decree. In accordance with Section XI, Paragraph 45 of the Consent Decree, FMC has prepared this progress report to describe actions taken pursuant to both the Areas of Concern (AOC) and Consent Decree during the months of July, August, and September 2016.

This report includes progress towards full completion of removal and remedial activities, and follows formatting consistent with previous reports. Daily operations and maintenance activities will be ongoing and will follow requirements in the Site-Wide O&M Plan (FMC, May 2015), which will include the Operations and Maintenance Manual Groundwater and Leachate Treatment Plant (Parsons, December 2014), and the Operations, Maintenance and Monitoring Manual Groundwater and Leachate Extraction System (Parsons, May 2015) with any major deviations reported in the sections below. The Site-Wide O&M Plan replaces prior response action specific O&M Plans, such as those presented in the various design documents.

In accordance with Section XI of the Consent Decree, this quarterly progress report contains the following:

- Description of actions taken during the previous quarter;
- Summary of data generated by FMC during the previous quarter;

- Actions scheduled for the next quarter;
- Description of problems and actions taken to mitigate the problems;
- Update on the schedule of actions and percentage completion of tasks;
- Modification to the Work Plans or other schedules; and
- Activities undertaken in support of the EPA Community Relations Plan.

Attachment 1 lists correspondence and deliverables transmitted from FMC or FMC contractors to EPA, and from EPA or EPA contractors to FMC for the previous quarter.

The remainder of the quarterly progress report is divided into six sections (these sections will be removed and updated when actions are completed for the section):

- *Section 2.0 – OU-7/ROD 5 RD/RA*. This section describes remedial design and remedial action activities being conducted under Paragraph 23 in the Consent Decree. The units covered under OU-7 include Viscose Basins (VB) 9-11, site-wide ground water and surface water.
- *Section 3.0 – OU-10/ROD 4 RD/RA*. This section describes remedial design and remedial action activities being conducted under Paragraph 24 in the Consent Decree. The units covered under OU-10 include VB 1-8, the New Landfill, Wastewater Treatment Plant (WWTP) Closure, and Plant Area Soils.
- *Section 4.0 - Non-Time-Critical Removal Actions (NTCRA) for the Buildings*. This section describes the activities being conducted under Paragraph 21.A in the Consent Decree. The scope of the NTCRA-Buildings project is to decontaminate the remaining structures and remove the sewers and manholes.
- *Section 5.0 - Basin Closure*. This section describes the activities being conducted as a NTCRA under Paragraph 22 of the Consent Decree. The scope of this action consists of the closure of the Sulfate Basins, WWTP Basins, Fly Ash Basins, and the Stockpile (Mountain).
- *Section 6.0 – Groundwater and Leachate Treatment Plant O&M*. This section describes the Operations and Maintenance (O&M) activities being conducted to address the discharge requirements for the GLTP.
- *Section 7.0 - Other Site Support Documents.* This section describes site-wide activities that cross over all of management units.
- *Section 8.0 – Community Relations Support*. This section describes activities undertaken in support of community relations in accordance with the Consent Decree requirement.

2.0 *OU-7/ROD 5 (VB 9-11, GROUND WATER, SURFACE WATER) REMEDIAL DESIGN/REMEDIAL ACTION*

2.1 *Actions Taken and Reports Prepared in Previous Period*

- Completed quarterly water level measurements as described in Section 2 of the GMP.
- Completed quarterly inspection as described in Section 5 of Part 1 of the Site-Wide O&M Plan.
- Completed quarterly monitoring of gas vents as described in Section 3.0 of Part 1 of the Site-Wide O&M Plan.
- Completed quarterly post-closure OU-7 and site perimeter real time air monitoring as required by Section 2.2 of the Air Monitoring Plan Operable Unit 7, Avtex Fibers Superfund Site, Front Royal, Virginia, October 2011. Hydrogen sulfide was detected at the instrument detection limit of 1 part per billion (ppb) at two locations (OU-7 Perimeter South and the Site Perimeter East). No other constituents were detected. The results are presented in in Attachment 2.

2.2 *Data Generated in Previous Period*

Laboratory results have been received for the stormwater sampling and the data are currently being validated. Laboratory results have been received for the annual groundwater sampling and the data are currently being evaluated. The annual groundwater results will be presented in the site-wide annual monitoring report.

As required by the Air Monitoring Plan, post construction quarterly air monitoring for hydrogen sulfide and organic vapor was completedA map showing the sample locations is provided in Attachment 2.

The following instruments were utilized to collect the real-time readings:

- Hydrogen Sulfide: Jerome 613X.
- Organic Vapor: MiniRAE 3000

Hydrogen sulfide was detected at the instrument detection limit of 1 part per billion (ppb) at two locations (OU-7 Perimeter South and the Site Perimeter East). No other constituents were detected. The results are presented in Attachment 2.

2.3 *Actions to be Completed Next Period*

- Complete quarterly water level measurements as described in Section 2 of the GMP.
- Complete quarterly inspection as described in Section 5 of Part 1 of the Site-Wide O&M Plan.
- Complete quarterly monitoring of gas vents as described in Section 3.0 of Part 1 of the Site-Wide O&M Plan.
- Complete quarterly post-closure OU-7 and site perimeter real time air monitoring and collect annual air samples as required by Section 2.2 of the Air Monitoring Plan Operable Unit 7, Avtex Fibers Superfund Site, Front Royal, Virginia, October 2011.
- Submit to EPA the ICIAP pursuant to Section 11.2.10 of the ROD.

2.4 *Problems Encountered and Remedies*

No problems were encountered during the previous period.

2.5 *Schedule Update*

All remedial design and remedial action work associated with OU-7 is complete based on EPA's approvals of the remedial action reports for the GLTP component and Viscose Basins 9-11 cap system and groundwater and leachate extraction component of OU-7.

3.0 *OU-10/ROD 4 (VB 1-8, NEW LANDFILL, PLANT AREA SOILS AND WWTP CLOSURE) REMEDIAL DESIGN/REMEDIAL ACTION*

3.1 *Actions Taken and Reports Prepared in Previous Period*

- Completed routine monitoring of gas vents as described in Section 3.0 of Part 1 of the Site-Wide O&M Plan.
- Completed quarterly inspection as described in Section 5 of Part 1 of the Site-Wide O&M Plan.

3.2 *Data Generated in Previous Period*

Laboratory results have been received for the annual groundwater sampling and the data are currently being validated. The results will be presented in the annual monitoring report.

3.3 Actions to be Completed Next Period

- Complete routine monitoring of gas vents as described in Section 3.0 of Part 1 of the Site-Wide O&M Plan.
- Complete quarterly inspection as described in Section 5 of Part 1 of the Site-Wide O&M Plan.

3.4 Problems Encountered and Remedies

No problems were encountered during the previous period.

3.5 Schedule Update

All remedial design and remedial action work associated with OU-10 is complete based on EPA's approvals of the remedial action reports for plant area soils, WWTP and VB 1-8 and New Landfill.

4.0 NON-TIME-CRITICAL REMOVAL ACTIONS (NTCRA) BUILDINGS

4.1 Actions Taken and Reports Prepared in Previous Period

- No actions were completed during the previous period because EPA issued a Certificate of Completion.

4.2 Data Generated in Previous Period

No new analytical data were generated during the previous month.

4.3 Actions to be Completed Next Period

- No actions will be completed during the next period because EPA issued a Certificate of Completion.

4.4 Problems Encountered and Remedies

No problems were encountered during the previous month.

4.5 Schedule Update

All removal action work associated with NTCRA-Buildings is complete.

5.0 NON-TIME-CRITICAL REMOVAL ACTIONS (NTCRA) - BASIN CLOSURE

5.1 Actions Taken and Reports Prepared in Previous Period

- Completed quarterly inspection as described in Section 5 of Part 1 of the Site-Wide O&M Plan.

- Completed routine monitoring of gas vents as described in Section 3.0 of Part 1 of the Site-Wide O&M Plan

5.2 Data Generated in Previous Period

Laboratory results have been received for the annual groundwater sampling and the data are currently being evaluated. The results will be presented in the annual monitoring report.

5.3 Actions to be Completed Next Period

- Complete quarterly inspection as described in Section 5 of Part 1 of the Site-Wide O&M Plan.

- Complete routine monitoring of gas vents as described in Section 3.0 of Part 1 of the Site-Wide O&M Plan

5.4 Problems Encountered and Remedies

No problems were encountered during the previous month.

5.5 Schedule Update

All removal action work associated with NTCRA-Basins is complete.

6.0 GROUNDWATER AND LEACHATE TREATMENT PLANT O&M

6.1 Actions Taken and Reports Prepared in Previous Period

- The GLTP operated and discharged to the South Fork Shenandoah River (River) for 91 days in from July 1 to September 30, 2016.

<u>Discharge Monitoring</u>

Discharge monitoring was completed as required by the July 24, 2014 VADEQ final Fact Sheet and Applicable or Relevant and Appropriate Requirements (ARARs) for the discharge of effluent from the GLTP. Discharge monitoring

included: flow, pH, TSS, BOD_5, and carbon disulfide. The daily and monthly flow and chemical data are listed in the Discharge Monitoring Reports (DMRs) submitted during the third quarter of 2016 provided in Attachment 3 and summarized below. We remain in the trouble shooting of operations and stabilization period.

Table 1.0 Summary of 3Q16 Effluent Sampling

	Permitted Limits	**July 2016 (month avg/ daily max)**	**August 2016 (month avg/ daily max)**	**September 2016 (month avg/ daily max)**
Flow(gpd)	0.396 MGD	0.100/0.134	0.117/0.140	0.108/0.118
pH (range)	6.5 – 9.0	7.21-7.77	6.92-7.79	7.09-7.36
TSS (mg/L)	40 / 130	1.2/4.8	0.8/1.6	1.4/2.4
BOD_5 (mg/L)	24 / 64	1.0/4.0	0.4/2.0	0.5/2.0
CS2 (ug/L)	No limit established. 0.1mg/l action level	<QL	<QL	<QL

*Where parameters non-detect, the value '0' was used for calculating average and maximum concentrations.

- *Flow*. Flow during discharge was monitored continuously. Additionally, flow rates for the lift stations, test wells and viscose basins for the months of July, August and September are provided in Table 3.2 (Attachment 3).
- *pH*. pH was monitored continuously during the days that discharge occurred. The pH monitoring results for each month are included in Attachment 3 with the monthly DMRs. The effluent pH was within the range of 6.5 to 9.0 specified in the ARARs.
- *TSS*. TSS was monitored weekly. The permitted monthly daily average limit for TSS of 40 mg/l and the permitted monthly maximum daily limit of 130 mg/l for TSS were not exceeded during this reporting period.
- *BOD_5.* BOD_5 was monitored weekly. The permitted monthly daily average limit for BOD_5 of 24 mg/l and the permitted monthly maximum daily limit of 64 mg/l for BOD_5 were not exceeded during this reporting period.
- *Carbon Disulfide.* Carbon Disulfide is monitored monthly and no limit is established in the ARARs. The results for the monthly sample collected in the first quarter of 2016 was less than the 0.1 mg/l monthly action level specified in the ARARs, as all results were non-detect with a reporting limit of 2.0 ug/l.

Rainfall Data

Table 3.1 (Attachment 3) shows that a total of 13.8 inches of precipitation fell on the Site during the third quarter 2016 (Jul., Aug., Sep.). The total precipitation for 2016 to-date is 27.2 inches, representing to-date 69% of the average Site total yearly precipitation (39.6 inches).

6.2 *Data Generated in Previous Period*

Discharge monitoring, rainfall data and flow totals for the lift stations, test wells and viscose basin are contained in Attachment 3. DMRs were submitted by the tenth of each month.

6.3 *Actions to be Taken Next Period*

- Continue GLTP startup and operate the GLTP biological system in continuous mode.
- Conduct the Whole Effluent Toxicity sampling per the ARARs (to meet at least one of the Applicability Criteria for a Facility to Perform Aquatic Toxicity Tests stipulated in Guidance Memorandum 00-2012 (Section IV.1.C))

6.4 *Problems Encountered and Remedies*

The pH effluent probe was replaced in March due to failure and inconsistencies.

6.5 *Schedule Update*

The GLTP will continue to operate in full continuous mode.

7.0 *OTHER SITE SUPPORT DOCUMENTS*

7.1 *Actions Taken and Reports Prepared in Previous Period*

- Quarterly inspections (e.g. seep areas, river berms, gas vents, etc.) and inspection reports completed.

7.2 *Actions to be Taken Next Period*

- Quarterly inspections (e.g. seep areas, river berms, gas vents, etc.) and inspection reports to be completed.

8.0 COMMUNITY RELATIONS SUPPORT

- No activity during the previous period.

ATTACHMENTS

1 Summary of Monthly Correspondence

2 OU-7 and Site Perimeter Air Monitoring Results

3 GLTP Discharge Monitoring and Information

Discharge Monitoring Reports, 1 July to 30 September 2016

Table 3.1 – Site Rainfall Data

Table 3.2 - Monthly Flow Totals Avtex Site Lift Stations, Test Wells and Viscose Basin

4 Preliminary Site-Wide Quarterly Inspection

Attachment 1
Summary of Quarterly Correspondence

ATTACHMENT 1 – LIST OF CORRESPONDENCE AND DELIVERABLES FOR THE PERIOD JULY 1, 2016 TO SEPTEMBER 30, 2016, AVTEX FIBERS SUPERFUND SITE, FRONT ROYAL, VIRGINIA

FMC to EPA

April 7, 2016. 1Q16 Quarterly Progress Report submitted to EPA.

July 10, 2016. 2Q16 Quarterly Progress Report Submitted to EPA.

FMC to VADEQ

July 8, 2016. Discharge Monitoring Report - June 2016 submitted to VADEQ and EPA

August 10, 2016. Discharge Monitoring Report – July 2016 submitted to VADEQ and EPA

September 9, 2016. Discharge Monitoring Report – August 2016 Revised submitted to VADEQ and EPA

Attachment 2

OU-7 and Site Perimeter Air Monitoring Results

TABLE

Air Monitoring Results
2016 Annual Post Construction Air Sampling
Avtex Fibers Superfund Site
Front Royal, Virginia

		EPA RSL (HQ=1)		2016AN-DOWNWIND			2016AN-PERIM-SW			2016AN-PERIM-DUP (DUPLICATE OF PERIM-SW)		
		Industrial	**Residential**	**Result**	**Result**	Data	**Result**	**Result**	Data	**Result**	**Result**	Data
CAS#	**Compound**	**µg/m³**	**µg/m³**	**µg/m³**	**ppbV**	Qualifier	**µg/m³**	**ppbV**	Qualifier	**µg/m³**	**ppbV**	Qualifier
7783-06-4	Hydrogen Sulfide	8.8	2.1	ND	ND		ND	ND		ND	ND	
463-58-1	Carbonyl Sulfide	4400	100	ND	ND		**13**	**5.1**	**J**	ND	ND	
74-93-1	Methyl Mercaptan	--	--	ND	ND		ND	ND		ND	ND	
75-08-1	Ethyl Mercaptan	--	--	ND	ND		ND	ND		ND	ND	
75-18-3	Dimethyl Sulfide	--	--	ND	ND		ND	ND		ND	ND	
75-15-0	Carbon Disulfide	3100	730	**11**	**3.5**		**20**	**6.5**		ND	ND	
75-33-2	Isopropyl Mercaptan	--	--	ND	ND		ND	ND		ND	ND	
75-66-1	tert-Butyl Mercaptan	--	--	ND	ND		ND	ND		ND	ND	
107-03-9	n-Propyl Mercaptan	--	--	ND	ND		ND	ND		ND	ND	
624-89-5	Ethyl Methyl Sulfide	--	--	ND	ND		ND	ND		ND	ND	
110-02-1	Thiophene	--	--	ND	ND		ND	ND		ND	ND	
513-44-0	Isobutyl Mercaptan	--	--	ND	ND		ND	ND		ND	ND	
352-93-2	Diethyl Sulfide	--	--	ND	ND		ND	ND		ND	ND	
109-79-5	n-Butyl Mercaptan	--	--	ND	ND		ND	ND		ND	ND	
624-92-0	Dimethyl Disulfide	--	--	ND	ND		**47**	**12**	**J**	ND	ND	**J**
616-44-4	3-Methylthiophene	--	--	ND	ND		ND	ND		ND	ND	
110-01-0	Tetrahydrothiophene	--	--	ND	ND		ND	ND		ND	ND	
638-02-8	2,5-Dimethylthiophene	--	--	ND	ND		ND	ND		ND	ND	
872-55-9	2-Ethylthiophene	--	--	ND	ND		ND	ND		ND	ND	
110-81-6	Diethyl Disulfide	--	--	ND	ND		ND	ND		ND	ND	

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
EPA RSL = US Environmental Protection Agency Regional Screening Level
HQ = Hazard quotient
Highlighted values exceed RSL

TABLE

Air Monitoring Results
2016 Annual Post Construction Air Sampling
Avtex Fibers Superfund Site
Front Royal, Virginia

		2016AN-PERIM-NE			2016AN-PERIM-E			2016AN-PERIM-N			2016AN-PERIM-NW		
		Result	**Result**	Data	**Result**	**Result**	Data	**Result**	**Result**	Data	**Result**	**Result**	Data
CAS#	**Compound**	**µg/m³**	**ppbV**	Qualifier	**µg/m³**	**ppbV**	Qualifier	**µg/m³**	**ppbV**	Qualifier	**µg/m³**	**ppbV**	Qualifier
7783-06-4	Hydrogen Sulfide	ND	ND		ND	ND		ND	ND		ND	ND	
463-58-1	Carbonyl Sulfide	ND	ND		ND	ND		ND	ND		ND	ND	
74-93-1	Methyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
75-08-1	Ethyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
75-18-3	Dimethyl Sulfide	ND	ND		ND	ND		ND	ND		ND	ND	
75-15-0	Carbon Disulfide	ND	ND		ND	ND		ND	ND		ND	ND	
75-33-2	Isopropyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
75-66-1	tert-Butyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
107-03-9	n-Propyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
624-89-5	Ethyl Methyl Sulfide	ND	ND		ND	ND		ND	ND		ND	ND	
110-02-1	Thiophene	ND	ND		ND	ND		ND	ND		ND	ND	
513-44-0	Isobutyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
352-93-2	Diethyl Sulfide	ND	ND		ND	ND		ND	ND		ND	ND	
109-79-5	n-Butyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
624-92-0	Dimethyl Disulfide	ND	ND		ND	ND		ND	ND		ND	ND	
616-44-4	3-Methylthiophene	ND	ND		ND	ND		ND	ND		ND	ND	
110-01-0	Tetrahydrothiophene	ND	ND		ND	ND		ND	ND		ND	ND	
638-02-8	2,5-Dimethylthiophene	ND	ND		ND	ND		ND	ND		ND	ND	
872-55-9	2-Ethylthiophene	ND	ND		ND	ND		ND	ND		ND	ND	
110-81-6	Diethyl Disulfide	ND	ND		ND	ND		ND	ND		ND	ND	

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
EPA RSL = US Environmental Protection Agency Regional Screening Level
HQ = Hazard quotient
Highlighted values exceed RSL

TABLE

Air Monitoring Results
2016 Annual Post Construction Air Sampling
Avtex Fibers Superfund Site
Front Royal, Virginia

		2016AN-PERIM-W			2016AN-PERIM-S			2016AN-PERIM-SE			2016AN-OU7-SE		
		Result	**Result**	Data	**Result**	**Result**	Data	**Result**	**Result**	Data	**Result**	**Result**	Data
CAS#	**Compound**	**µg/m³**	**ppbV**	Qualifier	**µg/m³**	**ppbV**	Qualifier	**µg/m³**	**ppbV**	Qualifier	**µg/m³**	**ppbV**	Qualifier
7783-06-4	Hydrogen Sulfide	ND	ND		ND	ND		ND	ND		ND	ND	
463-58-1	Carbonyl Sulfide	ND	ND		ND	ND		ND	ND		**7.1**	**2.9**	**J**
74-93-1	Methyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
75-08-1	Ethyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
75-18-3	Dimethyl Sulfide	ND	ND		ND	ND		ND	ND		ND	ND	
75-15-0	Carbon Disulfide	ND	ND		**6.2**	**2.0**	**J**	**4.6**	**1.5**	**J**	**11**	**3.6**	
75-33-2	Isopropyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
75-66-1	tert-Butyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
107-03-9	n-Propyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
624-89-5	Ethyl Methyl Sulfide	ND	ND		ND	ND		ND	ND		ND	ND	
110-02-1	Thiophene	ND	ND		ND	ND		ND	ND		ND	ND	
513-44-0	Isobutyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
352-93-2	Diethyl Sulfide	ND	ND		ND	ND		ND	ND		ND	ND	
109-79-5	n-Butyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
624-92-0	Dimethyl Disulfide	ND	ND		ND	ND		ND	ND		ND	ND	
616-44-4	3-Methylthiophene	ND	ND		ND	ND		ND	ND		ND	ND	
110-01-0	Tetrahydrothiophene	ND	ND		ND	ND		ND	ND		ND	ND	
638-02-8	2,5-Dimethylthiophene	ND	ND		ND	ND		ND	ND		ND	ND	
872-55-9	2-Ethylthiophene	ND	ND		ND	ND		ND	ND		ND	ND	
110-81-6	Diethyl Disulfide	ND	ND		ND	ND		ND	ND		ND	ND	

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
EPA RSL = US Environmental Protection Agency Regional Screening Level
HQ = Hazard quotient
Highlighted values exceed RSL

TABLE

Air Monitoring Results
2016 Annual Post Construction Air Sampling
Avtex Fibers Superfund Site
Front Royal, Virginia

		2016AN-OU7-S			2016AN-OU7-DUP (DUPLICATE OF OU7-S)			2016AN-OU7-NE			2016AN-OU7-NW		
		Result	**Result**	Data	**Result**	**Result**	Data	**Result**	**Result**	Data	**Result**	**Result**	Data
CAS#	**Compound**	**µg/m³**	**ppbV**	Qualifier	**µg/m³**	**ppbV**	Qualifier	**µg/m³**	**ppbV**	Qualifier	**µg/m³**	**ppbV**	Qualifier
7783-06-4	Hydrogen Sulfide	ND	ND		ND	ND		ND	ND		ND	ND	
463-58-1	Carbonyl Sulfide	**200**	**82**	**J**	ND	ND	**J**	ND	ND		ND	ND	
74-93-1	Methyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
75-08-1	Ethyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
75-18-3	Dimethyl Sulfide	ND	ND		ND	ND		ND	ND		ND	ND	
75-15-0	Carbon Disulfide	**210**	**67**	**J**	**5.5**	**1.8**	**J**	ND	ND		ND	ND	
75-33-2	Isopropyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
75-66-1	tert-Butyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
107-03-9	n-Propyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
624-89-5	Ethyl Methyl Sulfide	ND	ND		ND	ND		ND	ND		ND	ND	
110-02-1	Thiophene	ND	ND		ND	ND		ND	ND		ND	ND	
513-44-0	Isobutyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
352-93-2	Diethyl Sulfide	ND	ND		ND	ND		ND	ND		ND	ND	
109-79-5	n-Butyl Mercaptan	ND	ND		ND	ND		ND	ND		ND	ND	
624-92-0	Dimethyl Disulfide	**35**	**9.0**	**J**	ND	ND	**J**	ND	ND		ND	ND	
616-44-4	3-Methylthiophene	ND	ND		ND	ND		ND	ND		ND	ND	
110-01-0	Tetrahydrothiophene	ND	ND		ND	ND		ND	ND		ND	ND	
638-02-8	2,5-Dimethylthiophene	ND	ND		ND	ND		ND	ND		ND	ND	
872-55-9	2-Ethylthiophene	ND	ND		ND	ND		ND	ND		ND	ND	
110-81-6	Diethyl Disulfide	ND	ND		ND	ND		ND	ND		ND	ND	

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
EPA RSL = US Environmental Protection Agency Regional Screening Level
HQ = Hazard quotient
Highlighted values exceed RSL

TABLE

Air Monitoring Results
2016 Annual Post Construction Air Sampling
Avtex Fibers Superfund Site
Front Royal, Virginia

		2016AN-OU7-SW			2016AN-OU7-N		
		Result	**Result**	Data	**Result**	**Result**	Data
CAS#	**Compound**	**µg/m³**	**ppbV**	Qualifier	**µg/m³**	**ppbV**	Qualifier
7783-06-4	Hydrogen Sulfide	ND	ND		ND	ND	
463-58-1	Carbonyl Sulfide	ND	ND		ND	ND	
74-93-1	Methyl Mercaptan	ND	ND		ND	ND	
75-08-1	Ethyl Mercaptan	ND	ND		ND	ND	
75-18-3	Dimethyl Sulfide	ND	ND		ND	ND	
75-15-0	Carbon Disulfide	ND	ND		**8.0**	**2.6**	**J**
75-33-2	Isopropyl Mercaptan	ND	ND		ND	ND	
75-66-1	tert-Butyl Mercaptan	ND	ND		ND	ND	
107-03-9	n-Propyl Mercaptan	ND	ND		ND	ND	
624-89-5	Ethyl Methyl Sulfide	ND	ND		ND	ND	
110-02-1	Thiophene	ND	ND		ND	ND	
513-44-0	Isobutyl Mercaptan	ND	ND		ND	ND	
352-93-2	Diethyl Sulfide	ND	ND		ND	ND	
109-79-5	n-Butyl Mercaptan	ND	ND		ND	ND	
624-92-0	Dimethyl Disulfide	ND	ND		ND	ND	
616-44-4	3-Methylthiophene	ND	ND		ND	ND	
110-01-0	Tetrahydrothiophene	ND	ND		ND	ND	
638-02-8	2,5-Dimethylthiophene	ND	ND		ND	ND	
872-55-9	2-Ethylthiophene	ND	ND		ND	ND	
110-81-6	Diethyl Disulfide	ND	ND		ND	ND	

J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
EPA RSL = US Environmental Protection Agency Regional Screening Level
HQ = Hazard quotient
Highlighted values exceed RSL

Table 4 - Example Air Monitoring Form

Date: 8/10/16
Technician: M. Harden / K. Stuart

Gas Monitoring Devices:	Used (Y/N)	Calibrated (Y/N)	Date Calibrated	Initials
Jerome 631X (low-level H_2S)	Y	Y		MH
MiniRAE ~~PLUS~~ Light with 10.6 eV lamp	Y	Y	8/10/16	MH
CS2 Drager with qualitative ppm tube				
MiniRAE PLUS with LEL				

Air Samples Collected?
☒ yes
☐ no

Weather Conditions:

Precipitation (current)	☐ rain	☐ snow	☐ sleet	☐ mix	☐ other
	☐ light	☐ moderate	☐ heavy	☒ None	
Temperature (current)	90 F				
Wind Direction (blowing from)	☐ N	☐ NE	☐ E	☐ SE	☐ variable partly cloudy
	☐ S	☒ SW	☐ W	☐ NW	~~[illegible]~~
Approximate Wind Speed	8 mph				
Cloud Cover	☐ clear	☒ lt. clouds	☐ overcast	☐ foggy	
Barometric Pressure	30.14 inches				

Monitoring Location	Time	H_2S (ppm)	Organic (ppm)	CS2 (ppm)	Methane (%LEL)	Comments
OU-7 Perimeter						
N	1715	0	0			
NE	1700 ~~1520~~ MH	0	0			
SE	1645	0	0			
S	1650	0	0			
SW	1725	0	0			
NW	1715	0	0			
Site Perimeter						
N	1605	0	0			
NE	1520	0	0			
E	1540	0	0			
SE	1555	0	0			
S	1635	0	0			
SW	1626	0	0			
NW	1611	0	0			
Downwind (note location_____)	1735	0	0			

Entrance to plant ~~[illegible]~~ Lone tree

Summarize activities occurring on-site that might relate to air emissions:

FIGURE 1
AIR MONITORING LOCATIONS DURING OU-7 WORK
AVTEX FIBERS SUPERFUND SITE
FRONT ROYAL, VIRGINIA

LEGEND

PROPERTY BOUNDARY

SITE PERIMETER LOCATION

OU-7 PERIMETER LOCATION

NOTE: DOWNWIND LOCATION TO BE DETERMINED BASED ON FIELD CONDITIONS.

500 250 0 500

SCALE IN FEET

G:\CAD\Drawings\FMC_Avtex Front Royal\0122736\A207.dwg

MLB/4-6-11

ERM, INC.

Memorandum

November 16, 2016

To:	Michael Robinson	Ref. No.:	11119510-001
From:	Deb Andrasko/mkd/2-NF	Tel:	716 297 6150

Subject: **Analytical Results and Full Validation**
Annual Air Monitoring
FMC Avtex Fibers Superfund Site
Front Royal, Virginia
August 2016

1. Introduction

This document details a validation of analytical results for air samples collected in support of the Annual Air Monitoring at the Avtex Fibers Superfund site during August 2016. Samples were submitted to ALS Laboratory, located in Simi Valley, California. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Full Contract Laboratory Program (CLP) equivalent raw data deliverables were provided by the laboratory. Evaluation of the data was based on information obtained from the finished data sheets, raw data, chain of custody forms, calibration data, blank data, duplicate data, recovery data from laboratory control samples (LCS) samples, and field quality assurance/quality control (QA/QC) samples. The assessment of analytical and in-house data included checks for: data consistency (by observing comparability of duplicate analyses), adherence to accuracy and precision criteria, and transmittal errors.

The QA/QC criteria by which these data have been assessed are outlined in the analytical method referenced in Table 3 and applicable guidance from the document entitled "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review", USEPA 540-R-08-01, June 2008, subsequently referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analysis is summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were properly delivered and stored by the laboratory.

3. Initial Calibration – Gas Chromatograph (GC)

3.1 GC

In order to quantify organic compounds of interest by GC, calibration of the gas chromatograph over a specific concentration range must be performed. Initially, a calibration curve consisting of a minimum of five concentration levels is analyzed for the method recommended sulfur compounds. Linearity of the calibration curve is acceptable if all RSD values are less than or equal to 25.0 percent.

A retention time standard is analyzed during the initial calibration to identify the target compounds and establish retention time windows. These retention times are then used to identify all compounds of interest in subsequent analyses.

All initial calibration standards were analyzed at the required frequencies. All retention time windows and linearity criteria were satisfied as specified in the method.

4. Continuing Calibration – Gas Chromatograph

4.1 GC

To ensure that the calibration of the instrument for organic analyses by GC is valid throughout the sample analysis period, continuing calibration standards are analyzed and evaluated on a regular basis. To evaluate the continued linearity of the calibration, percent difference (%D) values are calculated and should not exceed 30%.

All continuing calibration standards were analyzed at the required frequency. All %D values and compound retention times met the above criteria indicating acceptable instrument calibration throughout the analysis period.

5. Laboratory Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

6. Laboratory Control Sample (LCS) Analyses

LCS are prepared and analyzed as samples to assess the analytical efficiencies of the method employed, independent of sample matrix effects.

For this study, LCS were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

The LCS contained the method recommended compounds. All LCS recoveries were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision.

7. Field QA/QC Samples

The field QA/QC consisted of 2 field duplicate sample sets.

7.1 Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, 2 field duplicate sample sets were collected and submitted "blind" to the laboratory, as specified in Table 1. The relative percent difference (RPDs) associated with these duplicate samples must be less than 25 percent for air samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one times the RL value for air samples.

Some of the field duplicate results did not show acceptable agreement. The associated results were qualified as estimated based on the indicated variability (see Table 4).

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's RL for each analyte. Positive analyte detections less than the RL but greater than the method detection limit (MDL) were reported as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 2.

9. Target Compound Identification

To minimize erroneous compound identification during organic analyses, qualitative criteria including compound retention time were evaluated according to the identification criteria established by the method. The samples identified in Table 1 were reviewed. The compounds reported adhered to the specified identification criteria.

10. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

Table 1

Sample Collection and Analysis Summary
Annual Air Monitoring
FMC Avtex Fibers Superfund Site
Front Royal, Virginia
August 2016

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis: Sulfur compounds (air)	Comments
2016AN-DOWNWIND	PERIM-DOWNWIND	Air	08/11/2016	13:52	X	
2016AN-PERIM-SW	PERIM-SW	Air	08/11/2016	14:35	X	
2016AN-PERIM-NE	PERIM-NE	Air	08/11/2016	13:40	X	
2016AN-OU7-SE	OU7-SE	Air	08/11/2016	15:21	X	
2016AN-PERIM-E	PERIM-E	Air	08/11/2016	14:00	X	
2016AN-OU7-S	OU7-S	Air	08/11/2016	14:57	X	
2016AN-PERIM-N	PERIM-N	Air	08/11/2016	14:12	X	
2016AN-PERIM-NW	PERIM-NW	Air	08/11/2016	14:18	X	
2016AN-OU7-NE	OUT-NE	Air	08/11/2016	15:36	X	
2016AN-PERIM-W	PERIM-W	Air	08/11/2016	14:26	X	
2016AN-PERIM-S	PERIM-S	Air	08/11/2016	14:45	X	
2016AN-PERIM-DUP	PERIM-SW	Air	08/11/2016	12:00	X	FD (2016AN-PERIM-SW)
2016AN-OU7-NW	OU7-NW	Air	08/11/2016	15:45	X	
2016AN-OU7-DUP	OU7-S	Air	08/11/2016	12:01	X	FD (2016AN-OU7-S)
2016AN-OU7-SW	OU7-SW	Air	08/11/2016	15:52	X	
2016AN-PERIM-SE	PERIM-SE	Air	08/11/2016	14:07	X	
2016AN-OU7-N	OU7-NW	Air	08/11/2016	15:40	X	

Notes:

FD - Field Duplicate sample of sample in parenthesis

Table 2

Analytical Results Summary
Annual Air Monitoring
FMC Avtex Fibers Superfund Site
Front Royal, Virginia
August 2016

Location ID:		OU7-NE	OU7-NW	OU7-NW	OU7-S	OU7-S	OU7-SE	OU7-SW
Sample Name:		2016AN-OU7-NE	2016AN-OU7-N	2016AN-OU7-NW	2016AN-OU7-S	2016AN-OU7-DUP	2016AN-OU7-SE	2016AN-OU7-SW
						Duplicate		
Parameters	**Unit**							
Sulfur Compounds								
1-Butanethiol (n-Butyl mercaptan)	$\mu g/m^3$	26 U	26 U	27 U	25 U	26 U	26 U	26 U
1-Isobutanethiol	$\mu g/m^3$	26 U	26 U	27 U	25 U	26 U	26 U	26 U
1-Propanethiol (Propyl mercaptan)	$\mu g/m^3$	22 U	22 U	23 U	21 U	22 U	22 U	22 U
2,5-Dimethylthiophene	$\mu g/m^3$	33 U	32 U	34 U	32 U	32 U	32 U	32 U
2-Ethylthiophene	$\mu g/m^3$	33 U	32 U	34 U	32 U	32 U	32 U	32 U
2-Methyl-2-propanethiol (tert-Butyl mercaptan)	$\mu g/m^3$	26 U	26 U	27 U	25 U	26 U	26 U	26 U
2-Propanethiol (Isopropyl mercaptan)	$\mu g/m^3$	22 U	22 U	23 U	21 U	22 U	22 U	22 U
3-Methylthiophene	$\mu g/m^3$	29 U	28 U	29 U	28 U	28 U	28 U	28 U
Carbon disulfide	$\mu g/m^3$	11 U	8.0 J	11 U	210 J	5.5 J	11	11 U
Carbonyl sulfide	$\mu g/m^3$	18 U	17 U	18 U	200 J	17 UJ	7.1 J	17 U
Diethyl disulfide	$\mu g/m^3$	18 U	18 U	18 U	17 U	18 U	18 U	18 U
Diethyl sulfide	$\mu g/m^3$	26 U	26 U	27 U	25 U	26 U	26 U	26 U
Ethyl mercaptan	$\mu g/m^3$	18 U	18 U	19 U	18 U	18 U	18 U	18 U
Hydrogen sulfide	$\mu g/m^3$	10 U	9.8 U	10 U	9.6 U	9.8 U	9.8 U	9.8 U
Methyl disulfide	$\mu g/m^3$	14 U	14 U	14 U	35 J	14 UJ	14 U	14 U
Methyl ethyl sulfide	$\mu g/m^3$	22 U	22 U	23 U	21 U	22 U	22 U	22 U
Methyl mercaptan	$\mu g/m^3$	14 U	14 U	14 U	14 U	14 U	14 U	14 U
Methyl sulfide	$\mu g/m^3$	18 U	18 U	19 U	18 U	18 U	18 U	18 U
Tetrahydro-Thiophene (Thiophane)	$\mu g/m^3$	26 U	25 U	26 U	25 U	25 U	25 U	25 U
Thiophene	$\mu g/m^3$	25 U	24 U	25 U	24 U	24 U	24 U	24 U

Table 2

Analytical Results Summary
Annual Air Monitoring
FMC Avtex Fibers Superfund Site
Front Royal, Virginia
August 2016

Location ID:		PERIM-DOWNWIND	PERIM-E	PERIM-N	PERIM-NE	PERIM-NW	PERIM-S
Sample Name:		2016AN-DOWNWIND	2016AN-PERIM-E	2016AN-PERIM-N	2016AN-PERIM-NE	2016AN-PERIM-NW	2016AN-PERIM-S
Parameters	**Unit**						
Sulfur Compounds							
1-Butanethiol (n-Butyl mercaptan)	µg/m^3	25 U	26 U	26 U	26 U	26 U	26 U
1-Isobutanethiol	µg/m^3	25 U	26 U	26 U	26 U	26 U	26 U
1-Propanethiol (Propyl mercaptan)	µg/m^3	21 U	22 U	22 U	22 U	22 U	22 U
2,5-Dimethylthiophene	µg/m^3	31 U	33 U	32 U	32 U	33 U	32 U
2-Ethylthiophene	µg/m^3	31 U	33 U	32 U	32 U	33 U	32 U
2-Methyl-2-propanethiol (tert-Butyl mercaptan)	µg/m^3	25 U	26 U	26 U	26 U	26 U	26 U
2-Propanethiol (Isopropyl mercaptan)	µg/m^3	21 U	22 U	22 U	22 U	22 U	22 U
3-Methylthiophene	µg/m^3	27 U	29 U	28 U	28 U	29 U	28 U
Carbon disulfide	µg/m^3	11	11 U	11 U	11 U	11 U	6.2 J
Carbonyl sulfide	µg/m^3	17 U	18 U	17 U	17 U	18 U	17 U
Diethyl disulfide	µg/m^3	17 U	18 U	18 U	18 U	18 U	17 U
Diethyl sulfide	µg/m^3	25 U	26 U	26 U	26 U	26 U	26 U
Ethyl mercaptan	µg/m^3	17 U	18 U	18 U	18 U	18 U	18 U
Hydrogen sulfide	µg/m^3	9.5 U	10 U	9.8 U	9.8 U	10 U	9.7 U
Methyl disulfide	µg/m^3	13 U	14 U	14 U	14 U	14 U	13 U
Methyl ethyl sulfide	µg/m^3	21 U	22 U	22 U	22 U	22 U	22 U
Methyl mercaptan	µg/m^3	13 U	14 U	14 U	14 U	14 U	14 U
Methyl sulfide	µg/m^3	17 U	18 U	18 U	18 U	18 U	18 U
Tetrahydro-Thiophene (Thiophane)	µg/m^3	25 U	26 U	25 U	25 U	26 U	25 U
Thiophene	µg/m^3	24 U	25 U	24 U	24 U	25 U	24 U

Table 2

Analytical Results Summary
Annual Air Monitoring
FMC Avtex Fibers Superfund Site
Front Royal, Virginia
August 2016

Location ID:		PERIM-SE	PERIM-SW	PERIM-SW	PERIM-W
Sample Name:		2016AN-PERIM-SE	2016AN-PERIM-SW	2016AN-PERIM-DUP	2016AN-PERIM-W
				Duplicate	
Parameters	**Unit**				
Sulfur Compounds					
1-Butanethiol (n-Butyl mercaptan)	µg/m^3	27 U	26 U	27 U	25 U
1-Isobutanethiol	µg/m^3	27 U	26 U	27 U	25 U
1-Propanethiol (Propyl mercaptan)	µg/m^3	23 U	22 U	23 U	21 U
2,5-Dimethylthiophene	µg/m^3	33 U	32 U	34 U	31 U
2-Ethylthiophene	µg/m^3	33 U	32 U	34 U	31 U
2-Methyl-2-propanethiol (tert-Butyl mercaptan)	µg/m^3	27 U	26 U	27 U	25 U
2-Propanethiol (Isopropyl mercaptan)	µg/m^3	23 U	22 U	23 U	21 U
3-Methylthiophene	µg/m^3	29 U	28 U	30 U	27 U
Carbon disulfide	µg/m^3	4.6 J	20	12 U	11 U
Carbonyl sulfide	µg/m^3	18 U	13 J	18 U	17 U
Diethyl disulfide	µg/m^3	18 U	18 U	18 U	17 U
Diethyl sulfide	µg/m^3	27 U	26 U	27 U	25 U
Ethyl mercaptan	µg/m^3	19 U	18 U	19 U	17 U
Hydrogen sulfide	µg/m^3	10 U	9.8 U	10 U	9.5 U
Methyl disulfide	µg/m^3	14 U	47 J	14 UJ	13 U
Methyl ethyl sulfide	µg/m^3	23 U	22 U	23 U	21 U
Methyl mercaptan	µg/m^3	14 U	14 U	15 U	13 U
Methyl sulfide	µg/m^3	19 U	18 U	19 U	17 U
Tetrahydro-Thiophene (Thiophane)	µg/m^3	26 U	25 U	27 U	25 U
Thiophene	µg/m^3	25 U	24 U	25 U	24 U

Notes:

J - Estimated concentration
U - Not detected at the associated reporting limit
UJ - Not detected, estimated reporting limit

Table 3

Analytical Methods
Annual Air Monitoring
FMC Avtex Fibers Superfund Site
Front Royal, Virginia
August 2016

Parameter	Method	Matrix	Collection to Analysis (Days)
Sulfur Compounds in Air	ASTM D 5504-12 (1)	Air	30

Notes:

ASTM - American Society for Testing and Materials

(1) - "ASTM Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence".

Table 4

Qualified Sample Data Due to Variability in Field Duplicate Results
Annual Air Monitoring
FMC Avtex Fibers Superfund Site
Front Royal, Virginia
August 2016

Parameter	Analyte	RPD	Sample ID	Qualified Result	Field Duplicate Sample ID	Qualified Result	Units
Sulfur Compounds in air	Carbon disulfide	190	2016AN-OU7-S	210 J	2016AN-OU7-DUP	5.5 J	ug/m^3
	Carbonyl sulfide	169	2016AN-OU7-S	200 J	2016AN-OU7-DUP	17 UJ	ug/m^3
	Methyl disulfide	86	2016AN-OU7-S	35 J	2016AN-OU7-DUP	14 UJ	ug/m^3
	Methyl disulfide	108	2016AN-PERIM-SW	47 J	2016AN-PERIM-DUP	14 UJ	ug/m^3

Notes:

RPD - Relative Percent Difference
J - Estimated concentration
UJ - Not detected; associated reporting limit is estimated

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LABORATORY REPORT

August 30, 2016

Michael Robinson, P.E.
Parsons Engineering Science
4701 Hedgemore Drive
Charlotte, NC 28270

RE: FMC-Avtex Fibers, Front Royal, VA / 449965

Dear Michael:

Enclosed are the results of the samples submitted to our laboratory on August 17, 2016. For your reference, these analyses have been assigned our service request number P1604037.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

By Sue Anderson at 3:25 pm, Aug 30, 2016

Sue Anderson
Project Manager

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Client: Parsons Engineering Science
Project: FMC-Avtex Fibers, Front Royal, VA / 449965

Service Request No: P1604037

CASE NARRATIVE

The samples were received intact under chain of custody on August 17, 2016 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Sulfur Analysis

The samples were analyzed for twenty sulfur compounds per ASTM D 5504-12 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). All compounds with the exception of hydrogen sulfide and carbonyl sulfide are quantitated against the initial calibration curve for methyl mercaptan. This method is included on the laboratory's NELAP scope of accreditation, however it is not part of the DoD-ELAP or AIHA-LAP, LLC accreditation.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

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ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
AIHA-LAP, LLC	http://www.aihaaccreditedlabs.org	101661
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0694
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Florida DOH (NELAP)	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E871020
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm	2014025
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	977273
New Jersey DEP (NELAP)	http://www.nj.gov/dep/oqa/	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-003
Pennsylvania DEP	http://www.depweb.state.pa.us/labs	68-03307 (Registration)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704413-16-7
Utah DOH (NELAP)	http://www.health.utah.gov/lab/labimp/certification/index.html	CA016272016-6
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: Parsons Engineering Science

Service Request: P1604037

Date Received: 8/17/2016
Time Received: 09:10

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pf1 (psig)	ASTM D 5504-12 - Sulfur Can
2016AN-DOWNWIND	P1604037-001	Air	8/11/2016	13:52	1SS00050	-0.36	4.88	X
2016AN-PERIM-SW	P1604037-002	Air	8/11/2016	14:35	1SS00148	-0.54	5.27	X
2016AN-PERIM-NE	P1604037-003	Air	8/11/2016	13:40	1SS00021	-0.54	5.33	X
2016AN-OU7-SE	P1604037-004	Air	8/11/2016	15:21	1SS00083	-0.50	5.29	X
2016AN-PERIM-E	P1604037-005	Air	8/11/2016	14:00	1SS00181	-0.67	5.37	X
2016AN-OU7-S	P1604037-006	Air	8/11/2016	14:57	1SS00096	-0.43	5.00	X
2016AN-PERIM-N	P1604037-008	Air	8/11/2016	14:12	1SS00109	-0.48	5.33	X
2016AN-PERIM-NW	P1604037-009	Air	8/11/2016	14:18	1SS00205	-0.26	5.92	X
2016AN-OU7-NE	P1604037-010	Air	8/11/2016	15:36	1SS00030	-0.54	5.49	X
2016AN-PERIM-W	P1604037-011	Air	8/11/2016	14:26	1SC01121	-0.26	5.11	X
2016AN-PERIM-S	P1604037-014	Air	8/11/2016	14:45	1SS00020	-0.45	5.15	X
2016AN-PERIM-DUP	P1604037-016	Air	8/11/2016	12:00	1SS00103	-0.65	6.03	X
2016AN-OU7-NW	P1604037-017	Air	8/11/2016	15:45	1SS00134	-0.60	6.02	X
2016AN-OU7-DUP	P1604037-019	Air	8/11/2016	12:01	1SS00123	-0.58	5.21	X
2016AN-OU7-SW	P1604037-020	Air	8/11/2016	15:52	1SS00155	-0.55	5.27	X
2016AN-PERIM-SE	P1604037-021	Air	8/11/2016	14:07	1SS00043	-0.72	5.70	X
2016AN-OU7-N	P1604037-022	Air	8/11/2016	15:40	1SS00088	-0.65	5.12	X

Air - Chain of Custody Record & Analytical Service Request

ALS
2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10-Day-Standard

ALS Project No. P1604037

ALS Contact:

Company Name & Address (Reporting Information): Parsons FMC, 4701 Hedgemore Drive, Charlotte, NC 28209

Project Name: FMC-Autex Fibers, Front Royal, VA

Project Number: 449965

Project Manager: Michael Robinson

P.O. # / Billing Information:

Phone: 704-558-4255

Fax:

Email Address for Result Reporting: Michael.Robinson@parsons.com

Sampler (Print & Sign): Ken Stuart [signature]

Analysis Method: Reduced Sulfur Compounds ASTM D 5504: 20 Sulfurs

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	Reduced Sulfur Compounds ASTM D 5504: 20 Sulfurs		Comments e.g. Actual Preservative or specific instructions
				~~1SS00203~~	~~SFC00025~~	~~0.12~~		No Negative Pressure			[signature] 8/10/16
2016AN-DOWNWIND	1	8/11/16	~~1630~~ 1352	1SS00050	SFC00131	-29.46		1L	X		Start Date - 8/10/16 Start Time - 1745
2016AN-PERIM-SW	2	8/11/16	~~1630~~ 1435	1SS00148	SFC00025	-26.92		1L	X		Start Date 8/10/16 Start Time - 1630
2016AN-Perim-NE	3	8/11/16	1340	1SS00021	SFC00196	-28.02		1L	X		Start Date - 8/10/16 Start Time - 1528
2016AN-OU7-SE	4	8/11/16	1521	1SS00083	SFC00184	-21.65		1L	X		Start Date - 8/10/16 Start Time - 1650
2016AN-PERIM-E	5	8/11/16	1400	1SS00181	SFC00126	-24.05		1L	X		Start Date - 8/10/16 Start Time - 1540
2016AN-OU7-S	6	8/11/16	1457	1SS00096	SFC00124	-29.42		1L	X		Start Date - 8/10/16 Start Time - 1656
2016AN-PERIM-E (backup)	7	8/11/16	1357	1SS00152	SFC00155	-28.63		1L	X		Start Date - 8/10/16 Start Time 1540
2016AN-PERIM-N	8	8/11/16	1412	1SS00109	SFC00088	-21.60		1L	X		Start Date - 8/10/16 Start Time - 1606
2016AN-PERIM-NW	9	8/11/16	1418	1SS00205	SFC03009	-28.80		1L	X		Start Date - 8/10/16 Start Time - 1613
2016AN-OU7-NE	10	8/11/16	1536	1SS00030	SFC00070	-29.62		1L	X		Start Date - 8/10/16 Start Time - 1710
2016AN-PERIM-W	11	8/11/16	1426	1SS01121	SFC00083	-19.56		1L	X		Start Date - 8/10/16 Start Time - 1621
2016AN-OU7-SW (backup)	12	8/11/16	1550	1SS00166	SFC00099	-29.64		1L	X		Start Date - 8/10/16 Start Time - 1730
2016AN-DOWNWIND (backup)	13	8/11/16	1344	1SS00202	SFC00157	-10.41		1L	X		Start Date - 8/10/16 Start Time - 1745

Report Tier Levels - please select
Tier I - Results (Default in not specified) ____
Tier II (Results + QC Summaries ____
Tier III (Results + QC & Calibration Summaries) ____
Tier IV (Date Validation Package) 10% Surcharge ____

EDD required YES / No
Type: ____ Units: ____

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
[signature]	8/11/16	1630			
Relinquished by: (Signature) FEDEX	Date:	Time:	Received by: (Signature) [signature]	Date: 8/11/16	Time: 0910

Cooler / Blank Temperature ____ °C

Air - Chain of Custody Record & Analytical Service Request

ALS
2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10-Day-Standard

ALS Project No. P160 4037

Company Name & Address (Reporting Information): Parsons FMC, 4701 Hedgemore Drive, Charlotte, NC 28209

Project Name: FMC - Avtex Fibers, Front Royal, VA

Project Number: 449965

ALS Contact:

Project Manager: Michael Robinson

P.O. # / Billing Information

Phone: 704-558-4255

Fax:

Email Address for Result Reporting: Mrchael.Robinson@Parsons.com

Sampler (Print & Sign): Ken Shuart

Analysis Method: Reduced Sulfur Compounds ASTM 5504: 20 Sulfur

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	Reduced Sulfur Compounds ASTM 5504: 20 Sulfur		Comments e.g. Actual Preservative or specific instructions
2016AN-PERIM-5	14	8/11/16	1445	1SS00020	SFC00089	-28.15		1L	X		Start Date-8/10/16 Start Time-1640
2016AN-PERIM-5 (Backup)	15	8/11/16	1447	1SC01038	SFC00134	-29.08		1L	X		Start Date-8/10/16 Start Time-1640
2016AN-PERIM-DUP	16	8/11/16	1200	1SS00103	SFC00056	-29.08		1L	X		Start Date-8/10/16 Start Time-1200
2016AN-OU7-NW	17	8/11/16	1545	1SS00134	SFC00027	-29.65		1L	X		Start Date-8/10/16 Start Time-1720
2016AN-OU7-NW (Backup)	18	8/11/16	1546	1SS00204	SFC00121	-29.57		1L	X		Start Date-8/10/16 Start Time-1720
2016AN-OU7-DUP	19	8/11/16	1201	1SS00123	SFC00119	-27.75		1L	X		Start Date-8/10/16 Start Time-1201
2016AN-OU7-SW	20	8/11/16	1552	1SS00155	SFC00054	-29.62		1L	X		Start Date-8/10/16 Start Time-1730
2016AN-Perim-SE	21	8/11/16	1407	1SS00043	SFC00128	-23.76		1L	X		Start Date-8/10/16 Start Time-1558
2016AN-OU7-N	22	8/11/16	1540	1SS00088	SFC00159	-29.61		1L	X		Start Date-8/10/16 Start Time-1715

Report Tier Levels - please select
Tier I - Results (Default in not specified) ____
Tier II (Results + QC Summaries ____
Tier III (Results + QC & Calibration Summaries) ____
Tier IV (Date Validation Package) 10% Surcharge ____

EDD required YES / No
Type: ____ Units: ____

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date: 8/11/16	Time: 1630	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date: 8/11/16	Time: 0910

Cooler / Blank Temperature ____ °C

ALS Environmental
Sample Acceptance Check Form

Client: GHD Services Inc. Work order: P1604037

Project: FMC-Avtex Fibers, Front Royal, VA / 449965

Sample(s) received on: 8/17/16 Date opened: 8/17/16 by: ADAVID

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Did **sample containers** arrive in good condition?	☒	☐	☐
3	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
4	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
5	Was **sample volume** received adequate for analysis?	☒	☐	☐
6	Are samples within specified holding times?	☒	☐	☐
7	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
8	Were **custody seals** on outside of cooler/Box/Container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
9	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1604037-001.01	1.0 L Source Silonite Canister					
P1604037-002.01	1.0 L Source Silonite Canister					
P1604037-003.01	1.0 L Source Silonite Canister					
P1604037-004.01	1.0 L Source Silonite Canister					
P1604037-005.01	1.0 L Source Silonite Canister					
P1604037-006.01	1.0 L Source Silonite Canister					
P1604037-007.01	1.0 L Source Silonite Canister					
P1604037-008.01	1.0 L Source Silonite Canister					
P1604037-009.01	1.0 L Source Silonite Canister					
P1604037-010.01	1.0 L Source Silonite Canister					
P1604037-011.01	1.0 L Source Can					
P1604037-012.01	1.0 L Source Silonite Canister					
P1604037-013.01	1.0 L Source Silonite Canister					
P1604037-014.01	1.0 L Source Silonite Canister					
P1604037-015.01	1.0 L Source Can					

Explain any discrepancies: (include lab sample ID numbers): _____

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

ALS Environmental
Sample Acceptance Check Form

Client: GHD Services Inc. Work order: P1604037

Project: FMC-Avtex Fibers, Front Royal, VA / 449965

Sample(s) received on: 8/17/16 Date opened: 8/17/16 by: ADAVID

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1604037-016.01	1.0 L Source Silonite Canister					
P1604037-017.01	1.0 L Source Silonite Canister					
P1604037-018.01	1.0 L Source Silonite Canister					
P1604037-019.01	1.0 L Source Silonite Canister					
P1604037-020.01	1.0 L Source Silonite Canister					
P1604037-021.01	1.0 L Source Silonite Canister					
P1604037-022.01	1.0 L Source Silonite Canister					
P1604037-023.01	1.0 L Source Silonite Canister					

Explain any discrepancies: (include lab sample ID numbers):

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **2016AN-DOWNWIND** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P1604037-001

Test Code: ASTM D 5504-12 Date Collected: 8/11/16
Instrument ID: Agilent 7890A/GC22/SCD Time Collected: 13:52
Analyst: Mike Conejo Date Received: 8/17/16
Sample Type: 1.0 L Silonite Summa Canister Date Analyzed: 8/17/16
Test Notes: Time Analyzed: 15:28
Container ID: 1SS00050 Volume(s) Analyzed: 1.0 ml(s)

Initial Pressure (psig): -0.36 Final Pressure (psig): 4.88

Canister Dilution Factor: 1.37

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	9.5	3.6	ND	6.9	2.6	
463-58-1	Carbonyl Sulfide	ND	17	5.7	ND	6.9	2.3	
74-93-1	Methyl Mercaptan	ND	13	3.2	ND	6.9	1.6	
75-08-1	Ethyl Mercaptan	ND	17	4.2	ND	6.9	1.6	
75-18-3	Dimethyl Sulfide	ND	17	4.2	ND	6.9	1.6	
75-15-0	Carbon Disulfide	**11**	11	2.6	**3.5**	3.4	0.82	
75-33-2	Isopropyl Mercaptan	ND	21	5.1	ND	6.9	1.6	
75-66-1	tert-Butyl Mercaptan	ND	25	6.1	ND	6.9	1.6	
107-03-9	n-Propyl Mercaptan	ND	21	5.1	ND	6.9	1.6	
624-89-5	Ethyl Methyl Sulfide	ND	21	5.1	ND	6.9	1.6	
110-02-1	Thiophene	ND	24	5.7	ND	6.9	1.6	
513-44-0	Isobutyl Mercaptan	ND	25	6.1	ND	6.9	1.6	
352-93-2	Diethyl Sulfide	ND	25	6.1	ND	6.9	1.6	
109-79-5	n-Butyl Mercaptan	ND	25	6.1	ND	6.9	1.6	
624-92-0	Dimethyl Disulfide	ND	13	3.2	ND	3.4	0.82	
616-44-4	3-Methylthiophene	ND	27	6.6	ND	6.9	1.6	
110-01-0	Tetrahydrothiophene	ND	25	5.9	ND	6.9	1.6	
638-02-8	2,5-Dimethylthiophene	ND	31	7.5	ND	6.9	1.6	
872-55-9	2-Ethylthiophene	ND	31	7.5	ND	6.9	1.6	
110-81-6	Diethyl Disulfide	ND	17	4.1	ND	3.4	0.82	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **2016AN-PERIM-SW** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P1604037-002

Test Code:	ASTM D 5504-12	Date Collected:	8/11/16
Instrument ID:	Agilent 7890A/GC22/SCD	Time Collected:	14:35
Analyst:	Mike Conejo	Date Received:	8/17/16
Sample Type:	1.0 L Silonite Summa Canister	Date Analyzed:	8/17/16
Test Notes:		Time Analyzed:	15:44
Container ID:	1SS00148	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -0.54 Final Pressure (psig): 5.27

Canister Dilution Factor: 1.41

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	9.8	3.7	ND	7.1	2.7	
463-58-1	Carbonyl Sulfide	**13**	17	5.9	**5.1**	7.1	2.4	**J**
74-93-1	Methyl Mercaptan	ND	14	3.3	ND	7.1	1.7	
75-08-1	Ethyl Mercaptan	ND	18	4.3	ND	7.1	1.7	
75-18-3	Dimethyl Sulfide	ND	18	4.3	ND	7.1	1.7	
75-15-0	Carbon Disulfide	**20**	11	2.6	**6.5**	3.5	0.85	
75-33-2	Isopropyl Mercaptan	ND	22	5.3	ND	7.1	1.7	
75-66-1	tert-Butyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
107-03-9	n-Propyl Mercaptan	ND	22	5.3	ND	7.1	1.7	
624-89-5	Ethyl Methyl Sulfide	ND	22	5.3	ND	7.1	1.7	
110-02-1	Thiophene	ND	24	5.8	ND	7.1	1.7	
513-44-0	Isobutyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
352-93-2	Diethyl Sulfide	ND	26	6.2	ND	7.1	1.7	
109-79-5	n-Butyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
624-92-0	Dimethyl Disulfide	**47**	14	3.3	**12**	3.5	0.85	
616-44-4	3-Methylthiophene	ND	28	6.8	ND	7.1	1.7	
110-01-0	Tetrahydrothiophene	ND	25	6.1	ND	7.1	1.7	
638-02-8	2,5-Dimethylthiophene	ND	32	7.8	ND	7.1	1.7	
872-55-9	2-Ethylthiophene	ND	32	7.8	ND	7.1	1.7	
110-81-6	Diethyl Disulfide	ND	18	4.2	ND	3.5	0.85	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **2016AN-PERIM-NE** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P1604037-003

Test Code:	ASTM D 5504-12	Date Collected:	8/11/16
Instrument ID:	Agilent 6890A/GC13/SCD	Time Collected:	13:40
Analyst:	Mike Conejo	Date Received:	8/17/16
Sample Type:	1.0 L Silonite Summa Canister	Date Analyzed:	8/17/16
Test Notes:		Time Analyzed:	15:45
Container ID:	1SS00021	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -0.54 Final Pressure (psig): 5.33

Canister Dilution Factor: 1.41

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	9.8	3.7	ND	7.1	2.7	
463-58-1	Carbonyl Sulfide	ND	17	5.9	ND	7.1	2.4	
74-93-1	Methyl Mercaptan	ND	14	3.3	ND	7.1	1.7	
75-08-1	Ethyl Mercaptan	ND	18	4.3	ND	7.1	1.7	
75-18-3	Dimethyl Sulfide	ND	18	4.3	ND	7.1	1.7	
75-15-0	Carbon Disulfide	ND	11	2.6	ND	3.5	0.85	
75-33-2	Isopropyl Mercaptan	ND	22	5.3	ND	7.1	1.7	
75-66-1	tert-Butyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
107-03-9	n-Propyl Mercaptan	ND	22	5.3	ND	7.1	1.7	
624-89-5	Ethyl Methyl Sulfide	ND	22	5.3	ND	7.1	1.7	
110-02-1	Thiophene	ND	24	5.8	ND	7.1	1.7	
513-44-0	Isobutyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
352-93-2	Diethyl Sulfide	ND	26	6.2	ND	7.1	1.7	
109-79-5	n-Butyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
624-92-0	Dimethyl Disulfide	ND	14	3.3	ND	3.5	0.85	
616-44-4	3-Methylthiophene	ND	28	6.8	ND	7.1	1.7	
110-01-0	Tetrahydrothiophene	ND	25	6.1	ND	7.1	1.7	
638-02-8	2,5-Dimethylthiophene	ND	32	7.8	ND	7.1	1.7	
872-55-9	2-Ethylthiophene	ND	32	7.8	ND	7.1	1.7	
110-81-6	Diethyl Disulfide	ND	18	4.2	ND	3.5	0.85	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **2016AN-OU7-SE** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P1604037-004

Test Code:	ASTM D 5504-12	Date Collected:	8/11/16
Instrument ID:	Agilent 6890A/GC13/SCD	Time Collected:	15:21
Analyst:	Mike Conejo	Date Received:	8/17/16
Sample Type:	1.0 L Silonite Summa Canister	Date Analyzed:	8/17/16
Test Notes:		Time Analyzed:	15:29
Container ID:	1SS00083	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -0.50 Final Pressure (psig): 5.29

Canister Dilution Factor: 1.41

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	9.8	3.7	ND	7.1	2.7	
463-58-1	Carbonyl Sulfide	**7.1**	17	5.9	**2.9**	7.1	2.4	**J**
74-93-1	Methyl Mercaptan	ND	14	3.3	ND	7.1	1.7	
75-08-1	Ethyl Mercaptan	ND	18	4.3	ND	7.1	1.7	
75-18-3	Dimethyl Sulfide	ND	18	4.3	ND	7.1	1.7	
75-15-0	Carbon Disulfide	**11**	11	2.6	**3.6**	3.5	0.85	
75-33-2	Isopropyl Mercaptan	ND	22	5.3	ND	7.1	1.7	
75-66-1	tert-Butyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
107-03-9	n-Propyl Mercaptan	ND	22	5.3	ND	7.1	1.7	
624-89-5	Ethyl Methyl Sulfide	ND	22	5.3	ND	7.1	1.7	
110-02-1	Thiophene	ND	24	5.8	ND	7.1	1.7	
513-44-0	Isobutyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
352-93-2	Diethyl Sulfide	ND	26	6.2	ND	7.1	1.7	
109-79-5	n-Butyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
624-92-0	Dimethyl Disulfide	ND	14	3.3	ND	3.5	0.85	
616-44-4	3-Methylthiophene	ND	28	6.8	ND	7.1	1.7	
110-01-0	Tetrahydrothiophene	ND	25	6.1	ND	7.1	1.7	
638-02-8	2,5-Dimethylthiophene	ND	32	7.8	ND	7.1	1.7	
872-55-9	2-Ethylthiophene	ND	32	7.8	ND	7.1	1.7	
110-81-6	Diethyl Disulfide	ND	18	4.2	ND	3.5	0.85	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **2016AN-PERIM-E** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P1604037-005

Test Code:	ASTM D 5504-12	Date Collected:	8/11/16
Instrument ID:	Agilent 7890A/GC22/SCD	Time Collected:	14:00
Analyst:	Mike Conejo	Date Received:	8/17/16
Sample Type:	1.0 L Silonite Summa Canister	Date Analyzed:	8/17/16
Test Notes:		Time Analyzed:	15:57
Container ID:	1SS00181	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -0.67 Final Pressure (psig): 5.37

Canister Dilution Factor: 1.43

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	10	3.8	ND	7.2	2.7	
463-58-1	Carbonyl Sulfide	ND	18	6.0	ND	7.2	2.4	
74-93-1	Methyl Mercaptan	ND	14	3.4	ND	7.2	1.7	
75-08-1	Ethyl Mercaptan	ND	18	4.4	ND	7.2	1.7	
75-18-3	Dimethyl Sulfide	ND	18	4.4	ND	7.2	1.7	
75-15-0	Carbon Disulfide	ND	11	2.7	ND	3.6	0.86	
75-33-2	Isopropyl Mercaptan	ND	22	5.3	ND	7.2	1.7	
75-66-1	tert-Butyl Mercaptan	ND	26	6.3	ND	7.2	1.7	
107-03-9	n-Propyl Mercaptan	ND	22	5.3	ND	7.2	1.7	
624-89-5	Ethyl Methyl Sulfide	ND	22	5.3	ND	7.2	1.7	
110-02-1	Thiophene	ND	25	5.9	ND	7.2	1.7	
513-44-0	Isobutyl Mercaptan	ND	26	6.3	ND	7.2	1.7	
352-93-2	Diethyl Sulfide	ND	26	6.3	ND	7.2	1.7	
109-79-5	n-Butyl Mercaptan	ND	26	6.3	ND	7.2	1.7	
624-92-0	Dimethyl Disulfide	ND	14	3.3	ND	3.6	0.86	
616-44-4	3-Methylthiophene	ND	29	6.9	ND	7.2	1.7	
110-01-0	Tetrahydrothiophene	ND	26	6.2	ND	7.2	1.7	
638-02-8	2,5-Dimethylthiophene	ND	33	7.9	ND	7.2	1.7	
872-55-9	2-Ethylthiophene	ND	33	7.9	ND	7.2	1.7	
110-81-6	Diethyl Disulfide	ND	18	4.3	ND	3.6	0.86	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **2016AN-OU7-S** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P1604037-006

Test Code:	ASTM D 5504-12	Date Collected:	8/11/16
Instrument ID:	Agilent 7890A/GC22/SCD	Time Collected:	14:57
Analyst:	Mike Conejo	Date Received:	8/17/16
Sample Type:	1.0 L Silonite Summa Canister	Date Analyzed:	8/17/16
Test Notes:		Time Analyzed:	16:15
Container ID:	1SS00096	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -0.43 Final Pressure (psig): 5.00

Canister Dilution Factor: 1.38

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	9.6	3.7	ND	6.9	2.6	
463-58-1	Carbonyl Sulfide	**200**	17	5.8	**82**	6.9	2.3	
74-93-1	Methyl Mercaptan	ND	14	3.3	ND	6.9	1.7	
75-08-1	Ethyl Mercaptan	ND	18	4.2	ND	6.9	1.7	
75-18-3	Dimethyl Sulfide	ND	18	4.2	ND	6.9	1.7	
75-15-0	Carbon Disulfide	**210**	11	2.6	**67**	3.5	0.83	
75-33-2	Isopropyl Mercaptan	ND	21	5.2	ND	6.9	1.7	
75-66-1	tert-Butyl Mercaptan	ND	25	6.1	ND	6.9	1.7	
107-03-9	n-Propyl Mercaptan	ND	21	5.2	ND	6.9	1.7	
624-89-5	Ethyl Methyl Sulfide	ND	21	5.2	ND	6.9	1.7	
110-02-1	Thiophene	ND	24	5.7	ND	6.9	1.7	
513-44-0	Isobutyl Mercaptan	ND	25	6.1	ND	6.9	1.7	
352-93-2	Diethyl Sulfide	ND	25	6.1	ND	6.9	1.7	
109-79-5	n-Butyl Mercaptan	ND	25	6.1	ND	6.9	1.7	
624-92-0	Dimethyl Disulfide	**35**	13	3.2	**9.0**	3.5	0.83	
616-44-4	3-Methylthiophene	ND	28	6.6	ND	6.9	1.7	
110-01-0	Tetrahydrothiophene	ND	25	6.0	ND	6.9	1.7	
638-02-8	2,5-Dimethylthiophene	ND	32	7.6	ND	6.9	1.7	
872-55-9	2-Ethylthiophene	ND	32	7.6	ND	6.9	1.7	
110-81-6	Diethyl Disulfide	ND	17	4.1	ND	3.5	0.83	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **2016AN-PERIM-N** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P1604037-008

Test Code:	ASTM D 5504-12	Date Collected:	8/11/16
Instrument ID:	Agilent 6890A/GC13/SCD	Time Collected:	14:12
Analyst:	Mike Conejo	Date Received:	8/17/16
Sample Type:	1.0 L Silonite Summa Canister	Date Analyzed:	8/17/16
Test Notes:		Time Analyzed:	16:15
Container ID:	1SS00109	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -0.48 Final Pressure (psig): 5.33

Canister Dilution Factor: 1.41

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	9.8	3.7	ND	7.1	2.7	
463-58-1	Carbonyl Sulfide	ND	17	5.9	ND	7.1	2.4	
74-93-1	Methyl Mercaptan	ND	14	3.3	ND	7.1	1.7	
75-08-1	Ethyl Mercaptan	ND	18	4.3	ND	7.1	1.7	
75-18-3	Dimethyl Sulfide	ND	18	4.3	ND	7.1	1.7	
75-15-0	Carbon Disulfide	ND	11	2.6	ND	3.5	0.85	
75-33-2	Isopropyl Mercaptan	ND	22	5.3	ND	7.1	1.7	
75-66-1	tert-Butyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
107-03-9	n-Propyl Mercaptan	ND	22	5.3	ND	7.1	1.7	
624-89-5	Ethyl Methyl Sulfide	ND	22	5.3	ND	7.1	1.7	
110-02-1	Thiophene	ND	24	5.8	ND	7.1	1.7	
513-44-0	Isobutyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
352-93-2	Diethyl Sulfide	ND	26	6.2	ND	7.1	1.7	
109-79-5	n-Butyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
624-92-0	Dimethyl Disulfide	ND	14	3.3	ND	3.5	0.85	
616-44-4	3-Methylthiophene	ND	28	6.8	ND	7.1	1.7	
110-01-0	Tetrahydrothiophene	ND	25	6.1	ND	7.1	1.7	
638-02-8	2,5-Dimethylthiophene	ND	32	7.8	ND	7.1	1.7	
872-55-9	2-Ethylthiophene	ND	32	7.8	ND	7.1	1.7	
110-81-6	Diethyl Disulfide	ND	18	4.2	ND	3.5	0.85	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **2016AN-PERIM-NW** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P1604037-009

Test Code:	ASTM D 5504-12	Date Collected:	8/11/16
Instrument ID:	Agilent 6890A/GC13/SCD	Time Collected:	14:18
Analyst:	Mike Conejo	Date Received:	8/17/16
Sample Type:	1.0 L Silonite Summa Canister	Date Analyzed:	8/17/16
Test Notes:		Time Analyzed:	16:34
Container ID:	1SS00205	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -0.26 Final Pressure (psig): 5.92

Canister Dilution Factor: 1.43

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	10	3.8	ND	7.2	2.7	
463-58-1	Carbonyl Sulfide	ND	18	6.0	ND	7.2	2.4	
74-93-1	Methyl Mercaptan	ND	14	3.4	ND	7.2	1.7	
75-08-1	Ethyl Mercaptan	ND	18	4.4	ND	7.2	1.7	
75-18-3	Dimethyl Sulfide	ND	18	4.4	ND	7.2	1.7	
75-15-0	Carbon Disulfide	ND	11	2.7	ND	3.6	0.86	
75-33-2	Isopropyl Mercaptan	ND	22	5.3	ND	7.2	1.7	
75-66-1	tert-Butyl Mercaptan	ND	26	6.3	ND	7.2	1.7	
107-03-9	n-Propyl Mercaptan	ND	22	5.3	ND	7.2	1.7	
624-89-5	Ethyl Methyl Sulfide	ND	22	5.3	ND	7.2	1.7	
110-02-1	Thiophene	ND	25	5.9	ND	7.2	1.7	
513-44-0	Isobutyl Mercaptan	ND	26	6.3	ND	7.2	1.7	
352-93-2	Diethyl Sulfide	ND	26	6.3	ND	7.2	1.7	
109-79-5	n-Butyl Mercaptan	ND	26	6.3	ND	7.2	1.7	
624-92-0	Dimethyl Disulfide	ND	14	3.3	ND	3.6	0.86	
616-44-4	3-Methylthiophene	ND	29	6.9	ND	7.2	1.7	
110-01-0	Tetrahydrothiophene	ND	26	6.2	ND	7.2	1.7	
638-02-8	2,5-Dimethylthiophene	ND	33	7.9	ND	7.2	1.7	
872-55-9	2-Ethylthiophene	ND	33	7.9	ND	7.2	1.7	
110-81-6	Diethyl Disulfide	ND	18	4.3	ND	3.6	0.86	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **2016AN-OU7-NE** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P1604037-010

Test Code:	ASTM D 5504-12	Date Collected:	8/11/16
Instrument ID:	Agilent 6890A/GC13/SCD	Time Collected:	15:36
Analyst:	Mike Conejo	Date Received:	8/17/16
Sample Type:	1.0 L Silonite Summa Canister	Date Analyzed:	8/17/16
Test Notes:		Time Analyzed:	16:47
Container ID:	1SS00030	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -0.54 Final Pressure (psig): 5.49

Canister Dilution Factor: 1.43

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	10	3.8	ND	7.2	2.7	
463-58-1	Carbonyl Sulfide	ND	18	6.0	ND	7.2	2.4	
74-93-1	Methyl Mercaptan	ND	14	3.4	ND	7.2	1.7	
75-08-1	Ethyl Mercaptan	ND	18	4.4	ND	7.2	1.7	
75-18-3	Dimethyl Sulfide	ND	18	4.4	ND	7.2	1.7	
75-15-0	Carbon Disulfide	ND	11	2.7	ND	3.6	0.86	
75-33-2	Isopropyl Mercaptan	ND	22	5.3	ND	7.2	1.7	
75-66-1	tert-Butyl Mercaptan	ND	26	6.3	ND	7.2	1.7	
107-03-9	n-Propyl Mercaptan	ND	22	5.3	ND	7.2	1.7	
624-89-5	Ethyl Methyl Sulfide	ND	22	5.3	ND	7.2	1.7	
110-02-1	Thiophene	ND	25	5.9	ND	7.2	1.7	
513-44-0	Isobutyl Mercaptan	ND	26	6.3	ND	7.2	1.7	
352-93-2	Diethyl Sulfide	ND	26	6.3	ND	7.2	1.7	
109-79-5	n-Butyl Mercaptan	ND	26	6.3	ND	7.2	1.7	
624-92-0	Dimethyl Disulfide	ND	14	3.3	ND	3.6	0.86	
616-44-4	3-Methylthiophene	ND	29	6.9	ND	7.2	1.7	
110-01-0	Tetrahydrothiophene	ND	26	6.2	ND	7.2	1.7	
638-02-8	2,5-Dimethylthiophene	ND	33	7.9	ND	7.2	1.7	
872-55-9	2-Ethylthiophene	ND	33	7.9	ND	7.2	1.7	
110-81-6	Diethyl Disulfide	ND	18	4.3	ND	3.6	0.86	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **2016AN-PERIM-W** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P1604037-011

Test Code:	ASTM D 5504-12	Date Collected:	8/11/16
Instrument ID:	Agilent 7890A/GC22/SCD	Time Collected:	14:26
Analyst:	Mike Conejo	Date Received:	8/17/16
Sample Type:	1.0 L Summa Canister	Date Analyzed:	8/17/16
Test Notes:		Time Analyzed:	16:32
Container ID:	1SC01121	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -0.26 Final Pressure (psig): 5.11

Canister Dilution Factor: 1.37

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	9.5	3.6	ND	6.9	2.6	
463-58-1	Carbonyl Sulfide	ND	17	5.7	ND	6.9	2.3	
74-93-1	Methyl Mercaptan	ND	13	3.2	ND	6.9	1.6	
75-08-1	Ethyl Mercaptan	ND	17	4.2	ND	6.9	1.6	
75-18-3	Dimethyl Sulfide	ND	17	4.2	ND	6.9	1.6	
75-15-0	Carbon Disulfide	ND	11	2.6	ND	3.4	0.82	
75-33-2	Isopropyl Mercaptan	ND	21	5.1	ND	6.9	1.6	
75-66-1	tert-Butyl Mercaptan	ND	25	6.1	ND	6.9	1.6	
107-03-9	n-Propyl Mercaptan	ND	21	5.1	ND	6.9	1.6	
624-89-5	Ethyl Methyl Sulfide	ND	21	5.1	ND	6.9	1.6	
110-02-1	Thiophene	ND	24	5.7	ND	6.9	1.6	
513-44-0	Isobutyl Mercaptan	ND	25	6.1	ND	6.9	1.6	
352-93-2	Diethyl Sulfide	ND	25	6.1	ND	6.9	1.6	
109-79-5	n-Butyl Mercaptan	ND	25	6.1	ND	6.9	1.6	
624-92-0	Dimethyl Disulfide	ND	13	3.2	ND	3.4	0.82	
616-44-4	3-Methylthiophene	ND	27	6.6	ND	6.9	1.6	
110-01-0	Tetrahydrothiophene	ND	25	5.9	ND	6.9	1.6	
638-02-8	2,5-Dimethylthiophene	ND	31	7.5	ND	6.9	1.6	
872-55-9	2-Ethylthiophene	ND	31	7.5	ND	6.9	1.6	
110-81-6	Diethyl Disulfide	ND	17	4.1	ND	3.4	0.82	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **2016AN-PERIM-S** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P1604037-014

Test Code:	ASTM D 5504-12	Date Collected:	8/11/16
Instrument ID:	Agilent 6890A/GC13/SCD	Time Collected:	14:45
Analyst:	Mike Conejo	Date Received:	8/17/16
Sample Type:	1.0 L Silonite Summa Canister	Date Analyzed:	8/18/16
Test Notes:		Time Analyzed:	09:09
Container ID:	1SS00020	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -0.45 Final Pressure (psig): 5.15

Canister Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	9.7	3.7	ND	7.0	2.6	
463-58-1	Carbonyl Sulfide	ND	17	5.8	ND	7.0	2.4	
74-93-1	Methyl Mercaptan	ND	14	3.3	ND	7.0	1.7	
75-08-1	Ethyl Mercaptan	ND	18	4.2	ND	7.0	1.7	
75-18-3	Dimethyl Sulfide	ND	18	4.2	ND	7.0	1.7	
75-15-0	Carbon Disulfide	**6.2**	11	2.6	**2.0**	3.5	0.83	**J**
75-33-2	Isopropyl Mercaptan	ND	22	5.2	ND	7.0	1.7	
75-66-1	tert-Butyl Mercaptan	ND	26	6.2	ND	7.0	1.7	
107-03-9	n-Propyl Mercaptan	ND	22	5.2	ND	7.0	1.7	
624-89-5	Ethyl Methyl Sulfide	ND	22	5.2	ND	7.0	1.7	
110-02-1	Thiophene	ND	24	5.7	ND	7.0	1.7	
513-44-0	Isobutyl Mercaptan	ND	26	6.2	ND	7.0	1.7	
352-93-2	Diethyl Sulfide	ND	26	6.2	ND	7.0	1.7	
109-79-5	n-Butyl Mercaptan	ND	26	6.2	ND	7.0	1.7	
624-92-0	Dimethyl Disulfide	ND	13	3.2	ND	3.5	0.83	
616-44-4	3-Methylthiophene	ND	28	6.7	ND	7.0	1.7	
110-01-0	Tetrahydrothiophene	ND	25	6.0	ND	7.0	1.7	
638-02-8	2,5-Dimethylthiophene	ND	32	7.7	ND	7.0	1.7	
872-55-9	2-Ethylthiophene	ND	32	7.7	ND	7.0	1.7	
110-81-6	Diethyl Disulfide	ND	17	4.2	ND	3.5	0.83	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **2016AN-PERIM-DUP** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P1604037-016

Test Code:	ASTM D 5504-12	Date Collected:	8/11/16
Instrument ID:	Agilent 6890A/GC13/SCD	Time Collected:	12:00
Analyst:	Mike Conejo	Date Received:	8/17/16
Sample Type:	1.0 L Silonite Summa Canister	Date Analyzed:	8/18/16
Test Notes:		Time Analyzed:	11:40
Container ID:	1SS00103	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -0.65 Final Pressure (psig): 6.03

Canister Dilution Factor: 1.48

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	10	3.9	ND	7.4	2.8	
463-58-1	Carbonyl Sulfide	ND	18	6.2	ND	7.4	2.5	
74-93-1	Methyl Mercaptan	ND	15	3.5	ND	7.4	1.8	
75-08-1	Ethyl Mercaptan	ND	19	4.5	ND	7.4	1.8	
75-18-3	Dimethyl Sulfide	ND	19	4.5	ND	7.4	1.8	
75-15-0	Carbon Disulfide	ND	12	2.8	ND	3.7	0.89	
75-33-2	Isopropyl Mercaptan	ND	23	5.5	ND	7.4	1.8	
75-66-1	tert-Butyl Mercaptan	ND	27	6.5	ND	7.4	1.8	
107-03-9	n-Propyl Mercaptan	ND	23	5.5	ND	7.4	1.8	
624-89-5	Ethyl Methyl Sulfide	ND	23	5.5	ND	7.4	1.8	
110-02-1	Thiophene	ND	25	6.1	ND	7.4	1.8	
513-44-0	Isobutyl Mercaptan	ND	27	6.5	ND	7.4	1.8	
352-93-2	Diethyl Sulfide	ND	27	6.5	ND	7.4	1.8	
109-79-5	n-Butyl Mercaptan	ND	27	6.5	ND	7.4	1.8	
624-92-0	Dimethyl Disulfide	ND	14	3.4	ND	3.7	0.89	
616-44-4	3-Methylthiophene	ND	30	7.1	ND	7.4	1.8	
110-01-0	Tetrahydrothiophene	ND	27	6.4	ND	7.4	1.8	
638-02-8	2,5-Dimethylthiophene	ND	34	8.1	ND	7.4	1.8	
872-55-9	2-Ethylthiophene	ND	34	8.1	ND	7.4	1.8	
110-81-6	Diethyl Disulfide	ND	18	4.4	ND	3.7	0.89	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **2016AN-OU7-NW** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P1604037-017

Test Code:	ASTM D 5504-12	Date Collected:	8/11/16
Instrument ID:	Agilent 6890A/GC13/SCD	Time Collected:	15:45
Analyst:	Mike Conejo	Date Received:	8/17/16
Sample Type:	1.0 L Silonite Summa Canister	Date Analyzed:	8/18/16
Test Notes:		Time Analyzed:	12:55
Container ID:	1SS00134	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -0.60 Final Pressure (psig): 6.02

Canister Dilution Factor: 1.47

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	10	3.9	ND	7.4	2.8	
463-58-1	Carbonyl Sulfide	ND	18	6.1	ND	7.4	2.5	
74-93-1	Methyl Mercaptan	ND	14	3.5	ND	7.4	1.8	
75-08-1	Ethyl Mercaptan	ND	19	4.5	ND	7.4	1.8	
75-18-3	Dimethyl Sulfide	ND	19	4.5	ND	7.4	1.8	
75-15-0	Carbon Disulfide	ND	11	2.7	ND	3.7	0.88	
75-33-2	Isopropyl Mercaptan	ND	23	5.5	ND	7.4	1.8	
75-66-1	tert-Butyl Mercaptan	ND	27	6.5	ND	7.4	1.8	
107-03-9	n-Propyl Mercaptan	ND	23	5.5	ND	7.4	1.8	
624-89-5	Ethyl Methyl Sulfide	ND	23	5.5	ND	7.4	1.8	
110-02-1	Thiophene	ND	25	6.1	ND	7.4	1.8	
513-44-0	Isobutyl Mercaptan	ND	27	6.5	ND	7.4	1.8	
352-93-2	Diethyl Sulfide	ND	27	6.5	ND	7.4	1.8	
109-79-5	n-Butyl Mercaptan	ND	27	6.5	ND	7.4	1.8	
624-92-0	Dimethyl Disulfide	ND	14	3.4	ND	3.7	0.88	
616-44-4	3-Methylthiophene	ND	29	7.1	ND	7.4	1.8	
110-01-0	Tetrahydrothiophene	ND	26	6.4	ND	7.4	1.8	
638-02-8	2,5-Dimethylthiophene	ND	34	8.1	ND	7.4	1.8	
872-55-9	2-Ethylthiophene	ND	34	8.1	ND	7.4	1.8	
110-81-6	Diethyl Disulfide	ND	18	4.4	ND	3.7	0.88	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **2016AN-OU7-DUP** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P1604037-019

Test Code:	ASTM D 5504-12	Date Collected:	8/11/16
Instrument ID:	Agilent 6890A/GC13/SCD	Time Collected:	12:01
Analyst:	Mike Conejo	Date Received:	8/17/16
Sample Type:	1.0 L Silonite Summa Canister	Date Analyzed:	8/18/16
Test Notes:		Time Analyzed:	11:53
Container ID:	1SS00123	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -0.58 Final Pressure (psig): 5.21

Canister Dilution Factor: 1.41

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	9.8	3.7	ND	7.1	2.7	
463-58-1	Carbonyl Sulfide	ND	17	5.9	ND	7.1	2.4	
74-93-1	Methyl Mercaptan	ND	14	3.3	ND	7.1	1.7	
75-08-1	Ethyl Mercaptan	ND	18	4.3	ND	7.1	1.7	
75-18-3	Dimethyl Sulfide	ND	18	4.3	ND	7.1	1.7	
75-15-0	Carbon Disulfide	**5.5**	11	2.6	**1.8**	3.5	0.85	**J**
75-33-2	Isopropyl Mercaptan	ND	22	5.3	ND	7.1	1.7	
75-66-1	tert-Butyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
107-03-9	n-Propyl Mercaptan	ND	22	5.3	ND	7.1	1.7	
624-89-5	Ethyl Methyl Sulfide	ND	22	5.3	ND	7.1	1.7	
110-02-1	Thiophene	ND	24	5.8	ND	7.1	1.7	
513-44-0	Isobutyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
352-93-2	Diethyl Sulfide	ND	26	6.2	ND	7.1	1.7	
109-79-5	n-Butyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
624-92-0	Dimethyl Disulfide	ND	14	3.3	ND	3.5	0.85	
616-44-4	3-Methylthiophene	ND	28	6.8	ND	7.1	1.7	
110-01-0	Tetrahydrothiophene	ND	25	6.1	ND	7.1	1.7	
638-02-8	2,5-Dimethylthiophene	ND	32	7.8	ND	7.1	1.7	
872-55-9	2-Ethylthiophene	ND	32	7.8	ND	7.1	1.7	
110-81-6	Diethyl Disulfide	ND	18	4.2	ND	3.5	0.85	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **2016AN-OU7-SW** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P1604037-020

Test Code:	ASTM D 5504-12	Date Collected:	8/11/16
Instrument ID:	Agilent 6890A/GC13/SCD	Time Collected:	15:52
Analyst:	Mike Conejo	Date Received:	8/17/16
Sample Type:	1.0 L Silonite Summa Canister	Date Analyzed:	8/18/16
Test Notes:		Time Analyzed:	13:43
Container ID:	1SS00155	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -0.55 Final Pressure (psig): 5.27

Canister Dilution Factor: 1.41

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	9.8	3.7	ND	7.1	2.7	
463-58-1	Carbonyl Sulfide	ND	17	5.9	ND	7.1	2.4	
74-93-1	Methyl Mercaptan	ND	14	3.3	ND	7.1	1.7	
75-08-1	Ethyl Mercaptan	ND	18	4.3	ND	7.1	1.7	
75-18-3	Dimethyl Sulfide	ND	18	4.3	ND	7.1	1.7	
75-15-0	Carbon Disulfide	ND	11	2.6	ND	3.5	0.85	
75-33-2	Isopropyl Mercaptan	ND	22	5.3	ND	7.1	1.7	
75-66-1	tert-Butyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
107-03-9	n-Propyl Mercaptan	ND	22	5.3	ND	7.1	1.7	
624-89-5	Ethyl Methyl Sulfide	ND	22	5.3	ND	7.1	1.7	
110-02-1	Thiophene	ND	24	5.8	ND	7.1	1.7	
513-44-0	Isobutyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
352-93-2	Diethyl Sulfide	ND	26	6.2	ND	7.1	1.7	
109-79-5	n-Butyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
624-92-0	Dimethyl Disulfide	ND	14	3.3	ND	3.5	0.85	
616-44-4	3-Methylthiophene	ND	28	6.8	ND	7.1	1.7	
110-01-0	Tetrahydrothiophene	ND	25	6.1	ND	7.1	1.7	
638-02-8	2,5-Dimethylthiophene	ND	32	7.8	ND	7.1	1.7	
872-55-9	2-Ethylthiophene	ND	32	7.8	ND	7.1	1.7	
110-81-6	Diethyl Disulfide	ND	18	4.2	ND	3.5	0.85	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **2016AN-PERIM-SE** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P1604037-021

Test Code:	ASTM D 5504-12	Date Collected:	8/11/16
Instrument ID:	Agilent 6890A/GC13/SCD	Time Collected:	14:07
Analyst:	Mike Conejo	Date Received:	8/17/16
Sample Type:	1.0 L Silonite Summa Canister	Date Analyzed:	8/18/16
Test Notes:		Time Analyzed:	13:30
Container ID:	1SS00043	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -0.72 Final Pressure (psig): 5.70

Canister Dilution Factor: 1.46

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	10	3.9	ND	7.3	2.8	
463-58-1	Carbonyl Sulfide	ND	18	6.1	ND	7.3	2.5	
74-93-1	Methyl Mercaptan	ND	14	3.4	ND	7.3	1.8	
75-08-1	Ethyl Mercaptan	ND	19	4.5	ND	7.3	1.8	
75-18-3	Dimethyl Sulfide	ND	19	4.5	ND	7.3	1.8	
75-15-0	Carbon Disulfide	**4.6**	11	2.7	**1.5**	3.7	0.88	**J**
75-33-2	Isopropyl Mercaptan	ND	23	5.5	ND	7.3	1.8	
75-66-1	tert-Butyl Mercaptan	ND	27	6.5	ND	7.3	1.8	
107-03-9	n-Propyl Mercaptan	ND	23	5.5	ND	7.3	1.8	
624-89-5	Ethyl Methyl Sulfide	ND	23	5.5	ND	7.3	1.8	
110-02-1	Thiophene	ND	25	6.0	ND	7.3	1.8	
513-44-0	Isobutyl Mercaptan	ND	27	6.5	ND	7.3	1.8	
352-93-2	Diethyl Sulfide	ND	27	6.5	ND	7.3	1.8	
109-79-5	n-Butyl Mercaptan	ND	27	6.5	ND	7.3	1.8	
624-92-0	Dimethyl Disulfide	ND	14	3.4	ND	3.7	0.88	
616-44-4	3-Methylthiophene	ND	29	7.0	ND	7.3	1.8	
110-01-0	Tetrahydrothiophene	ND	26	6.3	ND	7.3	1.8	
638-02-8	2,5-Dimethylthiophene	ND	33	8.0	ND	7.3	1.8	
872-55-9	2-Ethylthiophene	ND	33	8.0	ND	7.3	1.8	
110-81-6	Diethyl Disulfide	ND	18	4.4	ND	3.7	0.88	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **2016AN-OU7-N** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P1604037-022

Test Code:	ASTM D 5504-12	Date Collected:	8/11/16
Instrument ID:	Agilent 6890A/GC13/SCD	Time Collected:	15:40
Analyst:	Mike Conejo	Date Received:	8/17/16
Sample Type:	1.0 L Silonite Summa Canister	Date Analyzed:	8/18/16
Test Notes:		Time Analyzed:	13:56
Container ID:	1SS00088	Volume(s) Analyzed:	1.0 ml(s)

Initial Pressure (psig): -0.65 Final Pressure (psig): 5.12

Canister Dilution Factor: 1.41

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	9.8	3.7	ND	7.1	2.7	
463-58-1	Carbonyl Sulfide	ND	17	5.9	ND	7.1	2.4	
74-93-1	Methyl Mercaptan	ND	14	3.3	ND	7.1	1.7	
75-08-1	Ethyl Mercaptan	ND	18	4.3	ND	7.1	1.7	
75-18-3	Dimethyl Sulfide	ND	18	4.3	ND	7.1	1.7	
75-15-0	Carbon Disulfide	**8.0**	11	2.6	**2.6**	3.5	0.85	**J**
75-33-2	Isopropyl Mercaptan	ND	22	5.3	ND	7.1	1.7	
75-66-1	tert-Butyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
107-03-9	n-Propyl Mercaptan	ND	22	5.3	ND	7.1	1.7	
624-89-5	Ethyl Methyl Sulfide	ND	22	5.3	ND	7.1	1.7	
110-02-1	Thiophene	ND	24	5.8	ND	7.1	1.7	
513-44-0	Isobutyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
352-93-2	Diethyl Sulfide	ND	26	6.2	ND	7.1	1.7	
109-79-5	n-Butyl Mercaptan	ND	26	6.2	ND	7.1	1.7	
624-92-0	Dimethyl Disulfide	ND	14	3.3	ND	3.5	0.85	
616-44-4	3-Methylthiophene	ND	28	6.8	ND	7.1	1.7	
110-01-0	Tetrahydrothiophene	ND	25	6.1	ND	7.1	1.7	
638-02-8	2,5-Dimethylthiophene	ND	32	7.8	ND	7.1	1.7	
872-55-9	2-Ethylthiophene	ND	32	7.8	ND	7.1	1.7	
110-81-6	Diethyl Disulfide	ND	18	4.2	ND	3.5	0.85	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **Method Blank** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P160817-MB

Test Code: ASTM D 5504-12 Date Collected: NA
Instrument ID: Agilent 6890A/GC13/SCD Time Collected: NA
Analyst: Mike Conejo Date Received: NA
Sample Type: 1.0 L Silonite Summa Canister Date Analyzed: 8/17/16
Test Notes: Time Analyzed: 09:09
Volume(s) Analyzed: 1.0 ml(s)

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	2.6	ND	5.0	1.9	
463-58-1	Carbonyl Sulfide	ND	12	4.2	ND	5.0	1.7	
74-93-1	Methyl Mercaptan	ND	9.8	2.4	ND	5.0	1.2	
75-08-1	Ethyl Mercaptan	ND	13	3.0	ND	5.0	1.2	
75-18-3	Dimethyl Sulfide	ND	13	3.0	ND	5.0	1.2	
75-15-0	Carbon Disulfide	ND	7.8	1.9	ND	2.5	0.60	
75-33-2	Isopropyl Mercaptan	ND	16	3.7	ND	5.0	1.2	
75-66-1	tert-Butyl Mercaptan	ND	18	4.4	ND	5.0	1.2	
107-03-9	n-Propyl Mercaptan	ND	16	3.7	ND	5.0	1.2	
624-89-5	Ethyl Methyl Sulfide	ND	16	3.7	ND	5.0	1.2	
110-02-1	Thiophene	ND	17	4.1	ND	5.0	1.2	
513-44-0	Isobutyl Mercaptan	ND	18	4.4	ND	5.0	1.2	
352-93-2	Diethyl Sulfide	ND	18	4.4	ND	5.0	1.2	
109-79-5	n-Butyl Mercaptan	ND	18	4.4	ND	5.0	1.2	
624-92-0	Dimethyl Disulfide	ND	9.6	2.3	ND	2.5	0.60	
616-44-4	3-Methylthiophene	ND	20	4.8	ND	5.0	1.2	
110-01-0	Tetrahydrothiophene	ND	18	4.3	ND	5.0	1.2	
638-02-8	2,5-Dimethylthiophene	ND	23	5.5	ND	5.0	1.2	
872-55-9	2-Ethylthiophene	ND	23	5.5	ND	5.0	1.2	
110-81-6	Diethyl Disulfide	ND	12	3.0	ND	2.5	0.60	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **Method Blank**
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965**

ALS Project ID: P1604037
ALS Sample ID: P160817-MB

Test Code: ASTM D 5504-12
Instrument ID: Agilent 7890A/GC22/SCD
Analyst: Mike Conejo
Sample Type: 1.0 L Silonite Summa Canister
Test Notes:

Date Collected: NA
Time Collected: NA
Date Received: NA
Date Analyzed: 8/17/16
Time Analyzed: 08:12
Volume(s) Analyzed: 1.0 ml(s)

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	2.6	ND	5.0	1.9	
463-58-1	Carbonyl Sulfide	ND	12	4.2	ND	5.0	1.7	
74-93-1	Methyl Mercaptan	ND	9.8	2.4	ND	5.0	1.2	
75-08-1	Ethyl Mercaptan	ND	13	3.0	ND	5.0	1.2	
75-18-3	Dimethyl Sulfide	ND	13	3.0	ND	5.0	1.2	
75-15-0	Carbon Disulfide	ND	7.8	1.9	ND	2.5	0.60	
75-33-2	Isopropyl Mercaptan	ND	16	3.7	ND	5.0	1.2	
75-66-1	tert-Butyl Mercaptan	ND	18	4.4	ND	5.0	1.2	
107-03-9	n-Propyl Mercaptan	ND	16	3.7	ND	5.0	1.2	
624-89-5	Ethyl Methyl Sulfide	ND	16	3.7	ND	5.0	1.2	
110-02-1	Thiophene	ND	17	4.1	ND	5.0	1.2	
513-44-0	Isobutyl Mercaptan	ND	18	4.4	ND	5.0	1.2	
352-93-2	Diethyl Sulfide	ND	18	4.4	ND	5.0	1.2	
109-79-5	n-Butyl Mercaptan	ND	18	4.4	ND	5.0	1.2	
624-92-0	Dimethyl Disulfide	ND	9.6	2.3	ND	2.5	0.60	
616-44-4	3-Methylthiophene	ND	20	4.8	ND	5.0	1.2	
110-01-0	Tetrahydrothiophene	ND	18	4.3	ND	5.0	1.2	
638-02-8	2,5-Dimethylthiophene	ND	23	5.5	ND	5.0	1.2	
872-55-9	2-Ethylthiophene	ND	23	5.5	ND	5.0	1.2	
110-81-6	Diethyl Disulfide	ND	12	3.0	ND	2.5	0.60	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Parsons Engineering Science**
Client Sample ID: **Method Blank**
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965**

ALS Project ID: P1604037
ALS Sample ID: P160818-MB

Test Code: ASTM D 5504-12
Instrument ID: Agilent 6890A/GC13/SCD
Analyst: Mike Conejo
Sample Type: 1.0 L Silonite Summa Canister
Test Notes:

Date Collected: NA
Time Collected: NA
Date Received: NA
Date Analyzed: 8/18/16
Time Analyzed: 08:50
Volume(s) Analyzed: 1.0 ml(s)

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	2.6	ND	5.0	1.9	
463-58-1	Carbonyl Sulfide	ND	12	4.2	ND	5.0	1.7	
74-93-1	Methyl Mercaptan	ND	9.8	2.4	ND	5.0	1.2	
75-08-1	Ethyl Mercaptan	ND	13	3.0	ND	5.0	1.2	
75-18-3	Dimethyl Sulfide	ND	13	3.0	ND	5.0	1.2	
75-15-0	Carbon Disulfide	ND	7.8	1.9	ND	2.5	0.60	
75-33-2	Isopropyl Mercaptan	ND	16	3.7	ND	5.0	1.2	
75-66-1	tert-Butyl Mercaptan	ND	18	4.4	ND	5.0	1.2	
107-03-9	n-Propyl Mercaptan	ND	16	3.7	ND	5.0	1.2	
624-89-5	Ethyl Methyl Sulfide	ND	16	3.7	ND	5.0	1.2	
110-02-1	Thiophene	ND	17	4.1	ND	5.0	1.2	
513-44-0	Isobutyl Mercaptan	ND	18	4.4	ND	5.0	1.2	
352-93-2	Diethyl Sulfide	ND	18	4.4	ND	5.0	1.2	
109-79-5	n-Butyl Mercaptan	ND	18	4.4	ND	5.0	1.2	
624-92-0	Dimethyl Disulfide	ND	9.6	2.3	ND	2.5	0.60	
616-44-4	3-Methylthiophene	ND	20	4.8	ND	5.0	1.2	
110-01-0	Tetrahydrothiophene	ND	18	4.3	ND	5.0	1.2	
638-02-8	2,5-Dimethylthiophene	ND	23	5.5	ND	5.0	1.2	
872-55-9	2-Ethylthiophene	ND	23	5.5	ND	5.0	1.2	
110-81-6	Diethyl Disulfide	ND	12	3.0	ND	2.5	0.60	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Parsons Engineering Science**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P160817-LCS

Test Code: ASTM D 5504-12 Date Collected: NA
Instrument ID: Agilent 6890A/GC13/SCD Date Received: NA
Analyst: Mike Conejo Date Analyzed: 8/17/16
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: NA ml(s)
Test Notes:

CAS #	Compound	Spike Amount ppbV	Result ppbV	% Recovery	ALS Acceptance Limits	Data Qualifier
7783-06-4	Hydrogen Sulfide	1,000	**1,110**	**111**	75-148	
463-58-1	Carbonyl Sulfide	1,000	**1,090**	**109**	70-137	
74-93-1	Methyl Mercaptan	1,000	**1,080**	**108**	72-139	

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Parsons Engineering Science**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P160817-LCS

Test Code: ASTM D 5504-12 Date Collected: NA
Instrument ID: Agilent 7890A/GC22/SCD Date Received: NA
Analyst: Mike Conejo Date Analyzed: 8/17/16
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: NA ml(s)
Test Notes:

CAS #	Compound	Spike Amount ppbV	Result ppbV	% Recovery	ALS Acceptance Limits	Data Qualifier
7783-06-4	Hydrogen Sulfide	1,000	**874**	**87**	75-148	
463-58-1	Carbonyl Sulfide	1,000	**911**	**91**	70-137	
74-93-1	Methyl Mercaptan	1,000	**894**	**89**	72-139	

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Parsons Engineering Science**
Client Sample ID: **Lab Control Sample** ALS Project ID: P1604037
Client Project ID: **FMC-Avtex Fibers, Front Royal, VA / 449965** ALS Sample ID: P160818-LCS

Test Code: ASTM D 5504-12 Date Collected: NA
Instrument ID: Agilent 6890A/GC13/SCD Date Received: NA
Analyst: Mike Conejo Date Analyzed: 8/18/16
Sample Type: 1.0 L Silonite Summa Canister Volume(s) Analyzed: NA ml(s)
Test Notes:

CAS #	**Compound**	Spike Amount ppbV	**Result ppbV**	**% Recovery**	ALS Acceptance Limits	Data Qualifier
7783-06-4	Hydrogen Sulfide	1,000	**1,020**	**102**	75-148	
463-58-1	Carbonyl Sulfide	1,000	**1,070**	**107**	70-137	
74-93-1	Methyl Mercaptan	1,000	**1,020**	**102**	72-139	

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171618.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 3:28 pm
Operator : MC
Sample : 4037-001 1ml
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 14:08:34 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
Target Compounds							
1)	Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb	
2)	W	Carbonyl_Sulfide	0.000	0	N.D.	ppb	
3)	T	Methyl_Mercaptan	0.000	0	N.D.	ppb	
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb	
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb	
6)	T	Carbon_Disulfide	3.425	214737	2.578	ppb	m
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb	
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb	
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb	
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb	
11)	T	Thiophene	0.000	0	N.D.	ppb	
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb	
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb	
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb	
15)	T	Dimethyl_Disulfide	0.000	0	N.D.	ppb	
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb	
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb	
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb	
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb	
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb	
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb	
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb	

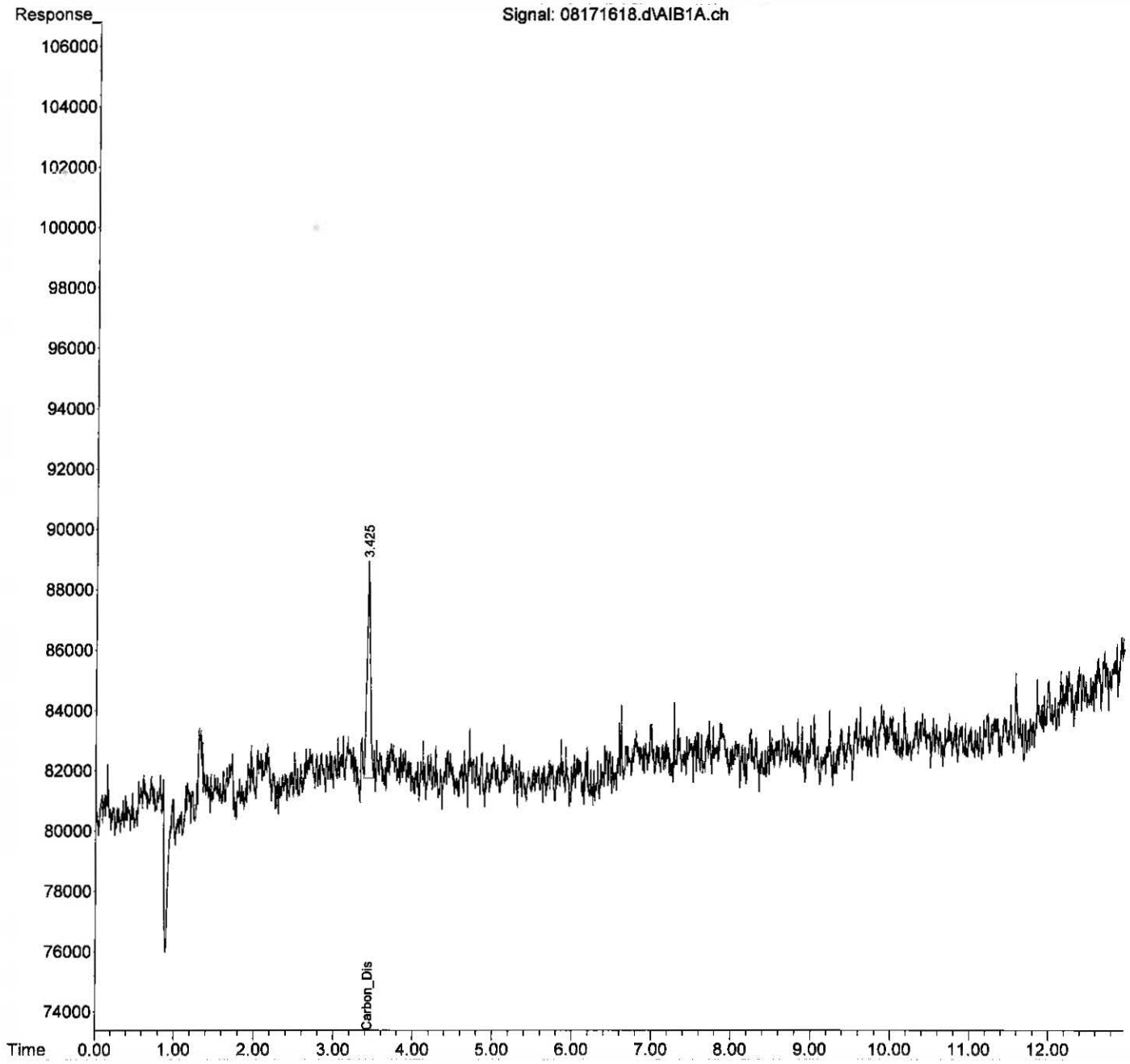
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171618.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 3:28 pm
Operator : MC
Sample : 4037-001 1ml
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 14:08:34 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

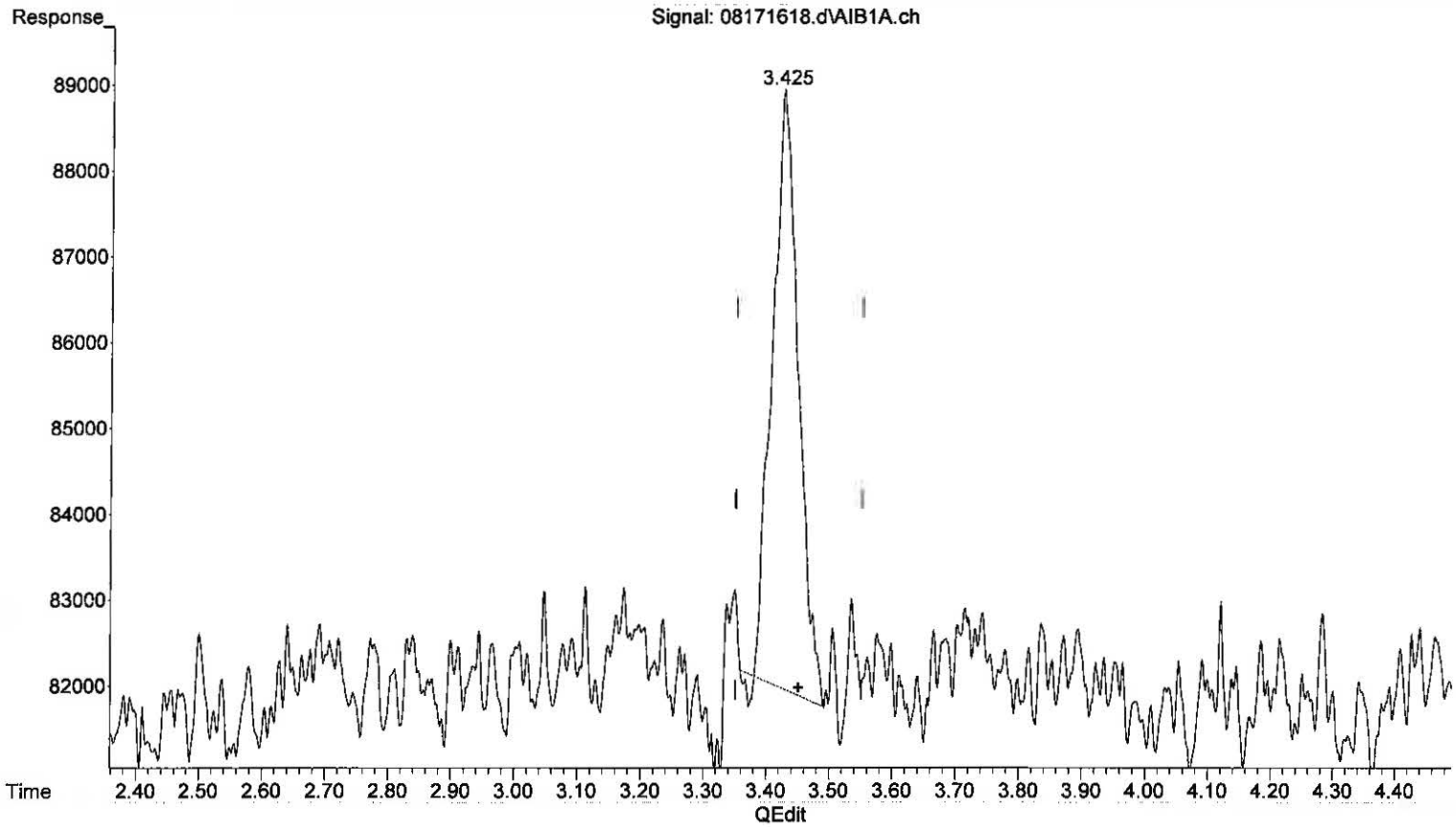


Quantitation Report (Qedit)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171618.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 3:28 pm
Operator : MC
Sample : 4037-001 1ml
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 15:47:02 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



(6) Carbon_Disulfide (T)

3.426min 2.410 ppb

response 200753

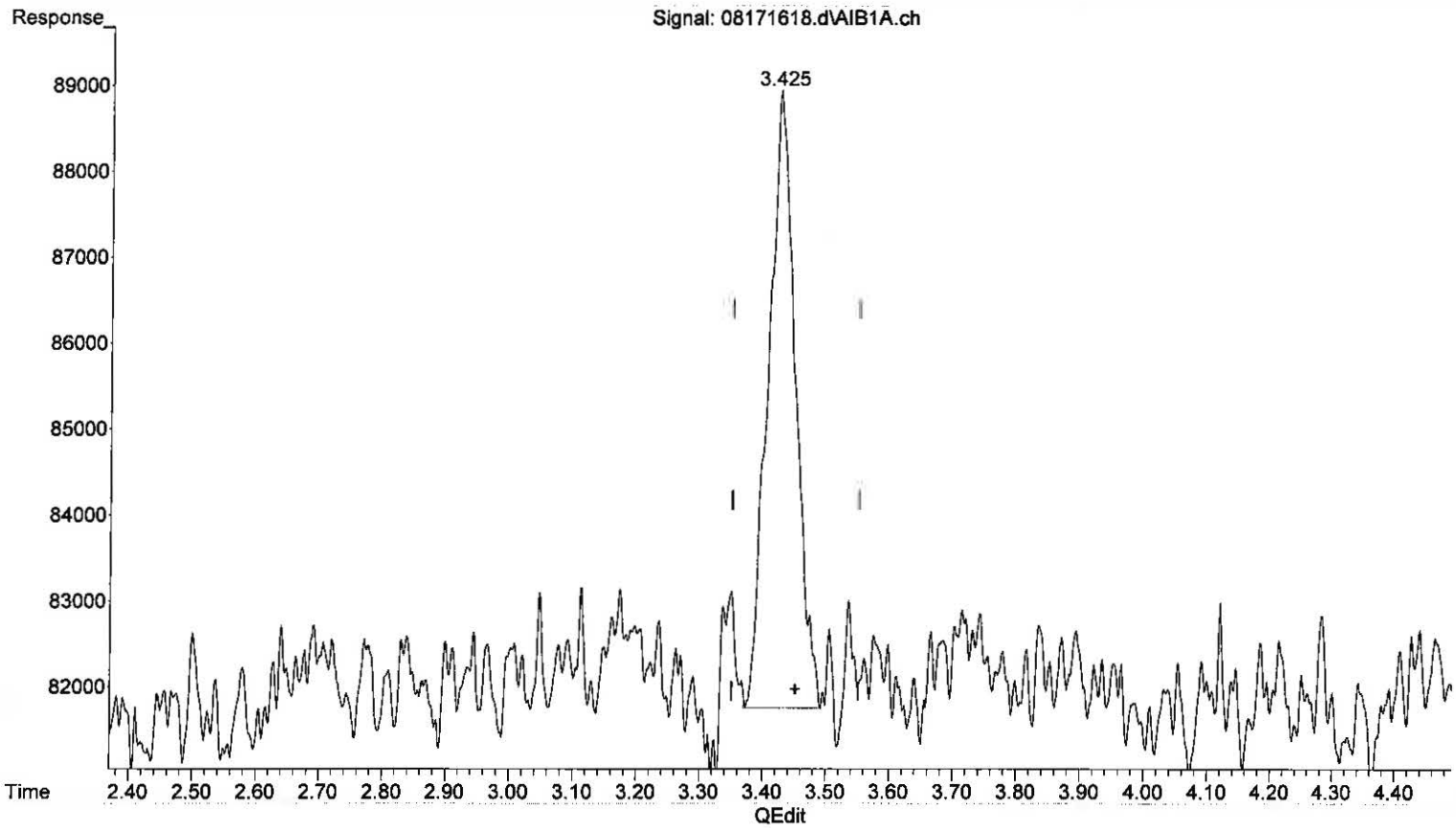
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171618.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 3:28 pm
Operator : MC
Sample : 4037-001 1ml
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 15:47:02 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



(6) Carbon_Disulfide (T)

3.425min 2.578 ppb m

response 214737

MC 8/19/16

BL

8/19/16

(+) = Expected Retention Time

GC22_Quan 02262016.M Fri Aug 19 14:08:38 2016

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171619.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 3:44 pm
Operator : MC
Sample : 4037-002 1ml
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 14:15:10 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
Target Compounds							
1)	Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb	
2)	W	Carbonyl_Sulfide	1.324f	162005	3.648	ppb	m
3)	T	Methyl_Mercaptan	0.000	0	N.D.	ppb	
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb	
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb	
6)	T	Carbon_Disulfide	3.420	381150	4.576	ppb	m
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb	
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb	
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb	
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb	
11)	T	Thiophene	0.000	0	N.D.	ppb	
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb	
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb	
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb	
15)	T	Dimethyl_Disulfide	6.409	719111	8.633	ppb	m
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb	
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb	
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb	
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb	
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb	
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb	
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb	

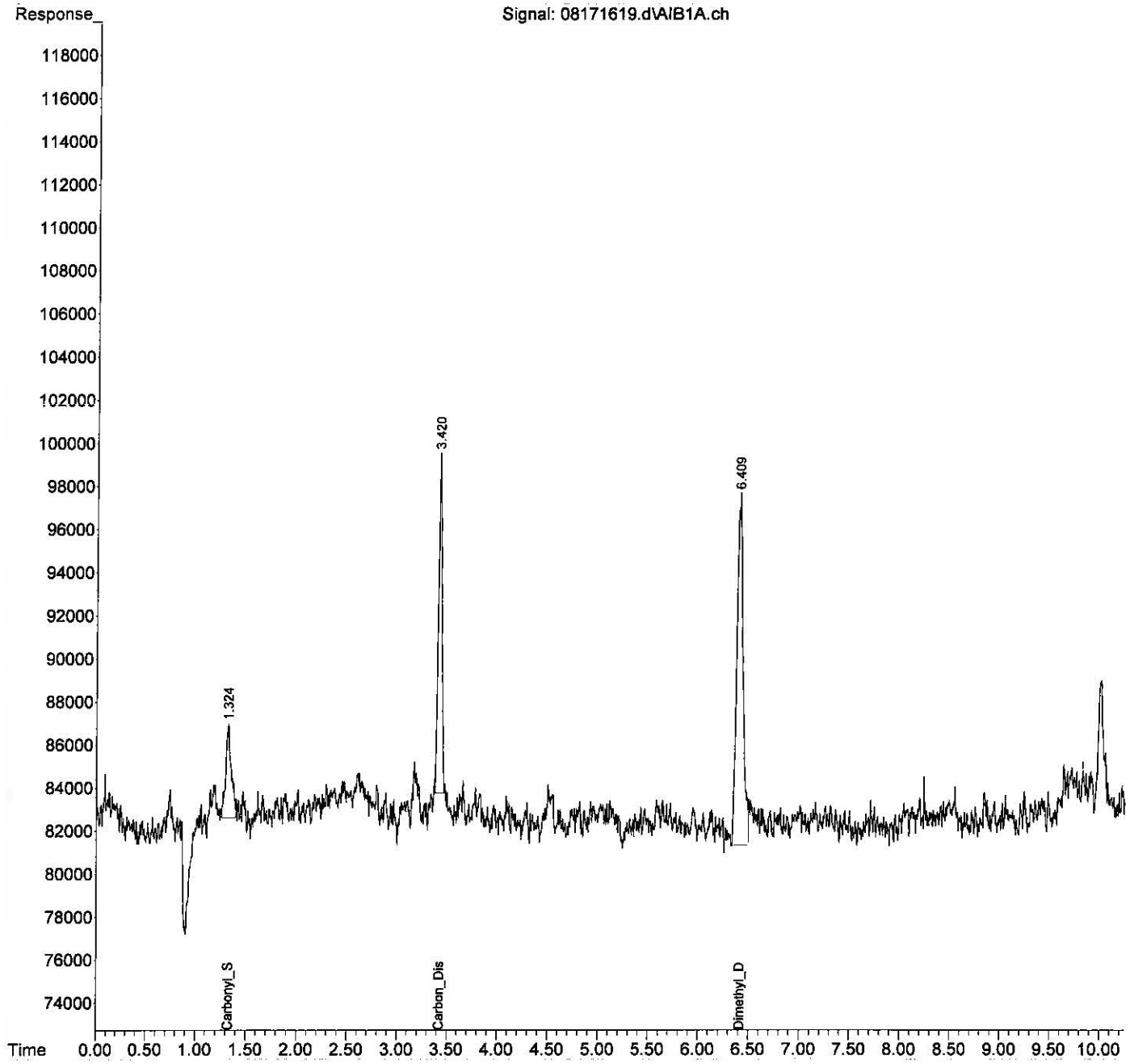
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171619.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 3:44 pm
Operator : MC
Sample : 4037-002 1ml
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 14:15:10 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

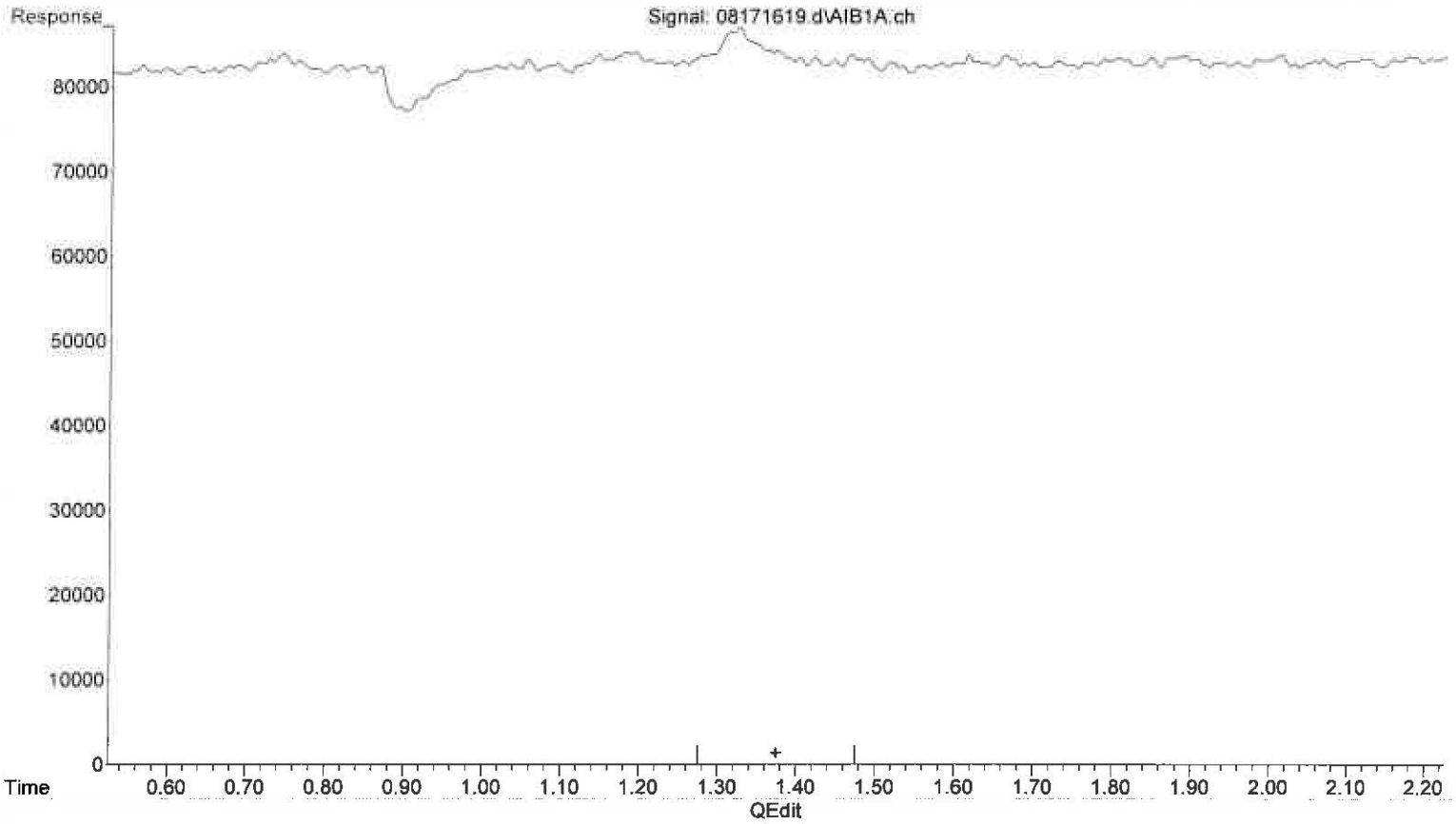


Quantitation Report (Qedit)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171619.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 3:44 pm
Operator : MC
Sample : 4037-002 1ml
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 15:55:04 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



(2) Carbonyl_Sulfide (W)

1.375min 0.000 ppb

response 0

(+) = Expected Retention Time

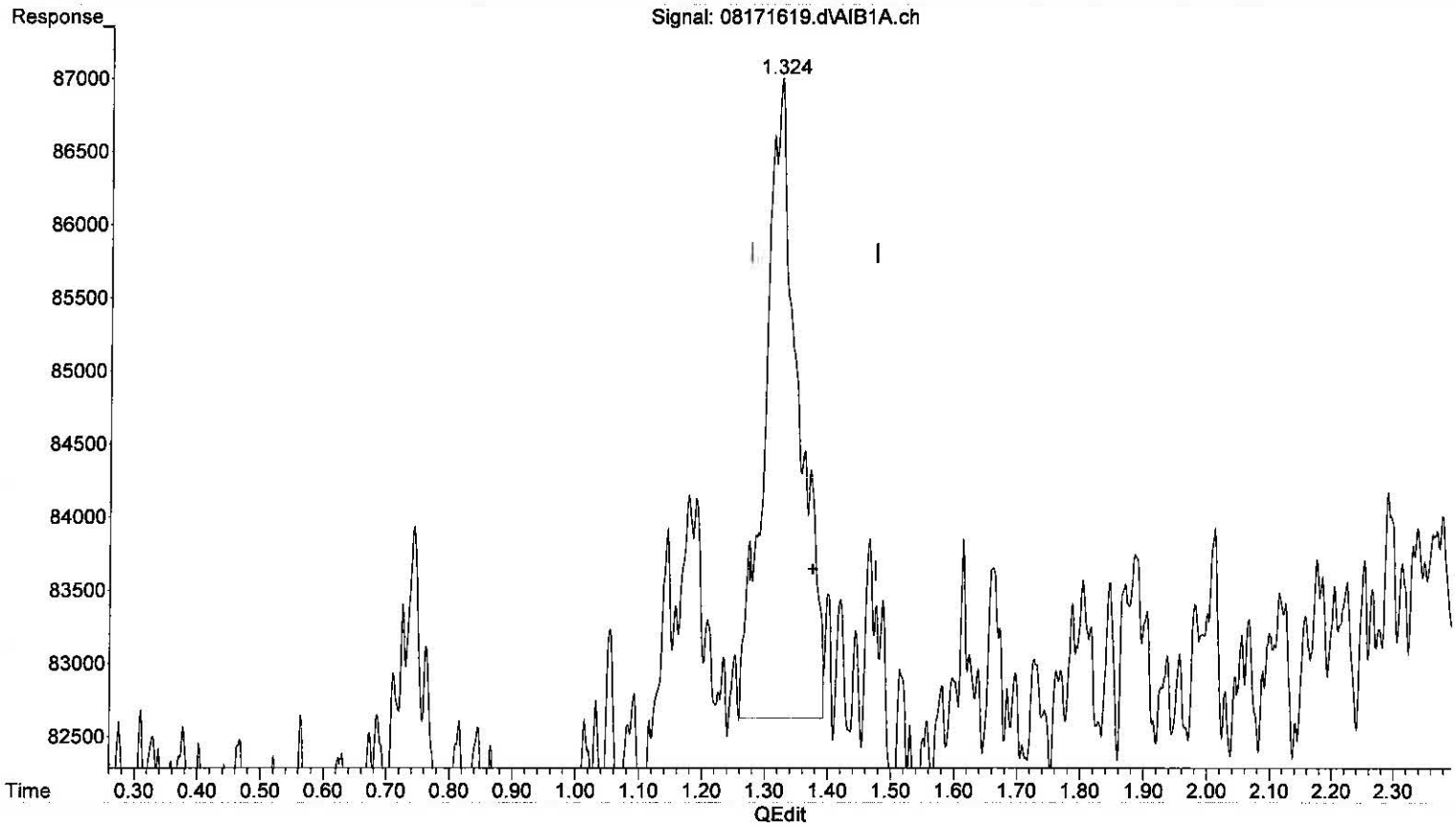
GC22_Quan 02262016.M Fri Aug 19 14:14:21 2016 Page: 1

Quantitation Report (Qedit)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171619.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 3:44 pm
Operator : MC
Sample : 4037-002 1ml
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 15:55:04 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



(2) Carbonyl_Sulfide (W)

1.324min 3.648 ppb m

response 162005

MP 8/19/16

MP

8/19/16

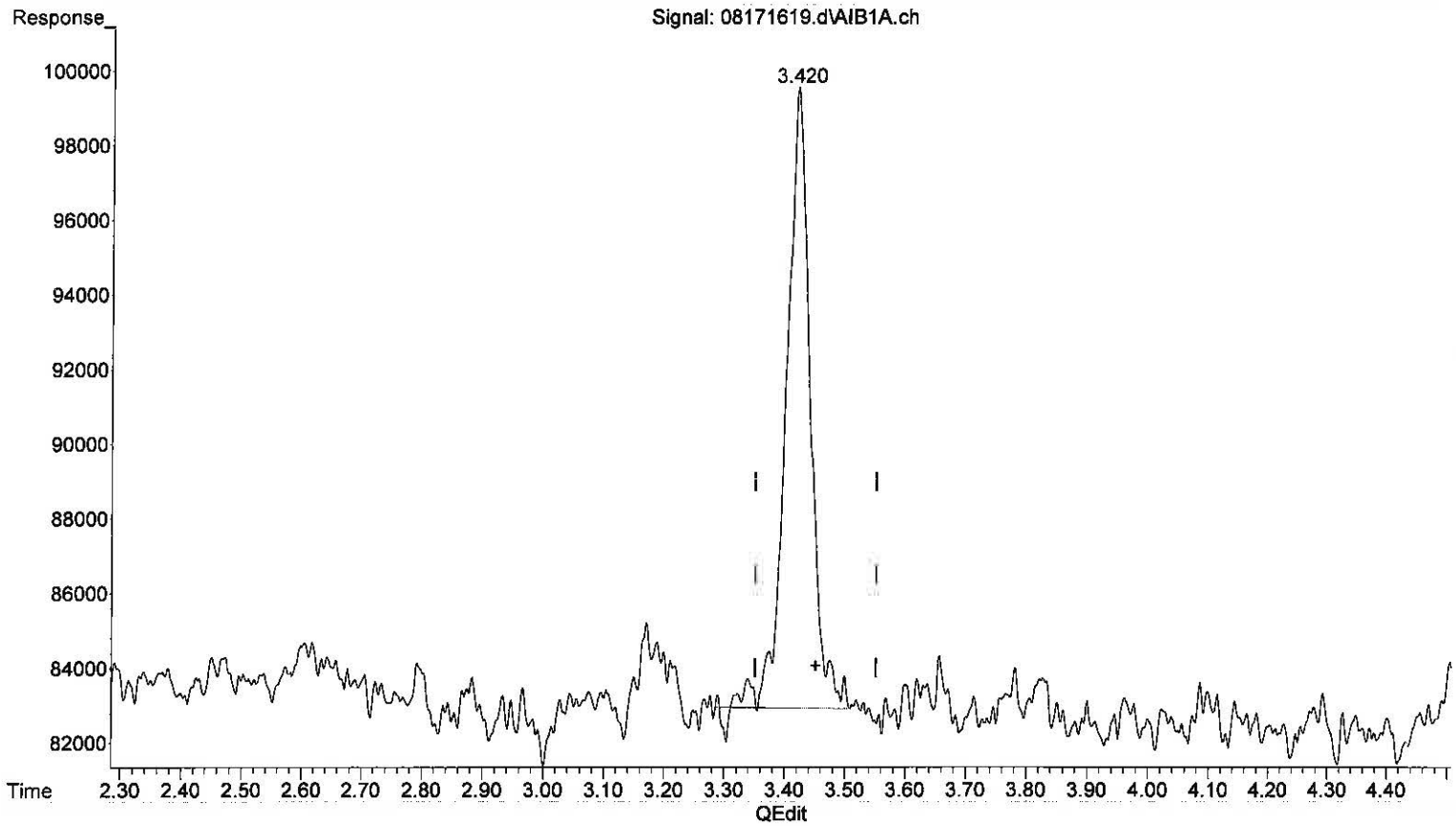
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171619.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 3:44 pm
Operator : MC
Sample : 4037-002 1ml
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 15:55:04 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



(6) Carbon_Disulfide (T)

3.421min 5.534 ppb

response 460942

(+) = Expected Retention Time

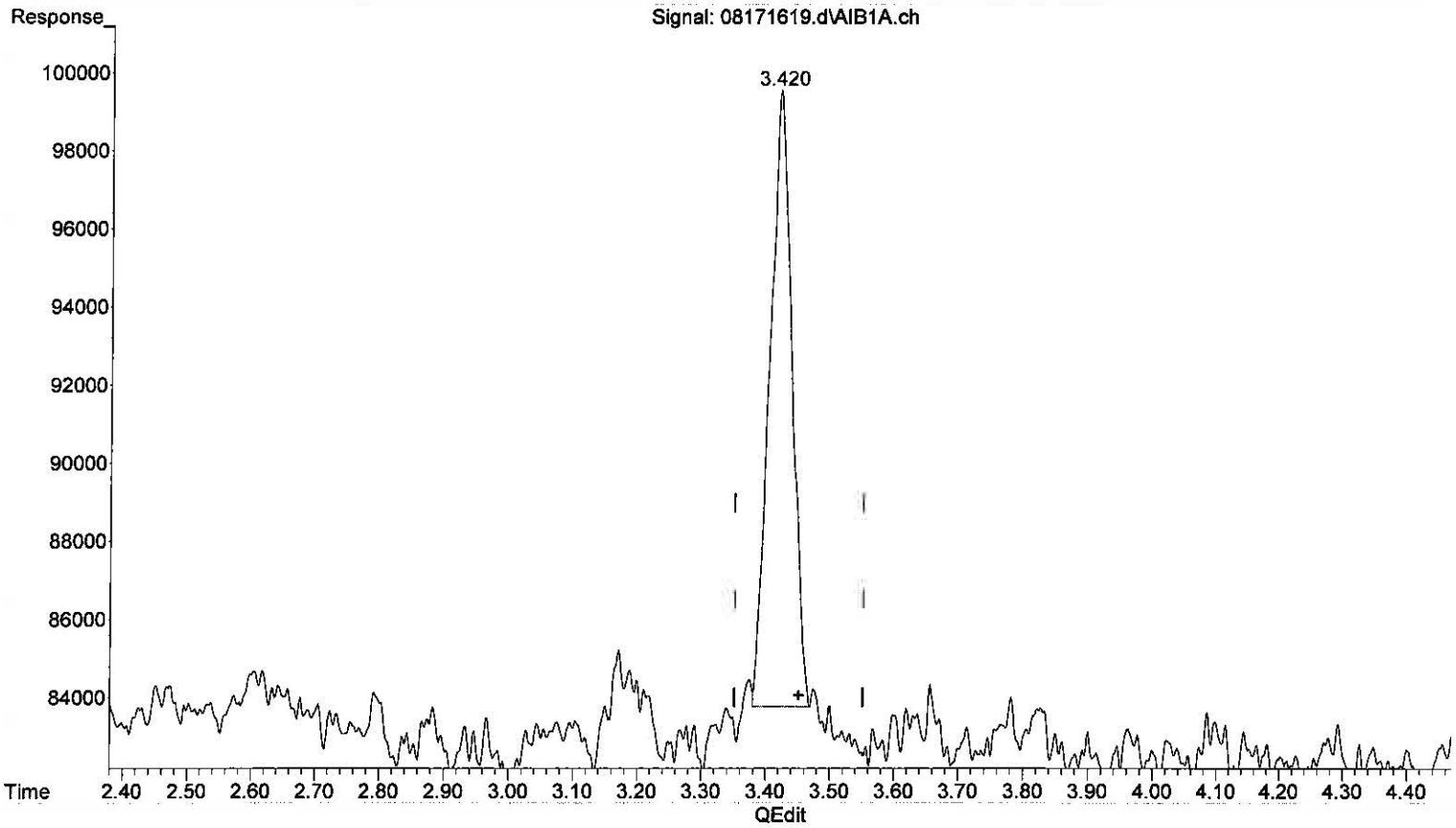
GC22_Quan 02262016.M Fri Aug 19 14:14:38 2016

Quantitation Report (Qedit)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171619.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 3:44 pm
Operator : MC
Sample : 4037-002 1ml
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 15:55:04 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



(6) Carbon_Disulfide (T)

3.420min 4.576 ppb m

response 381150

MC 8/19/16

BL

AM 8/19/16

(+) = Expected Retention Time

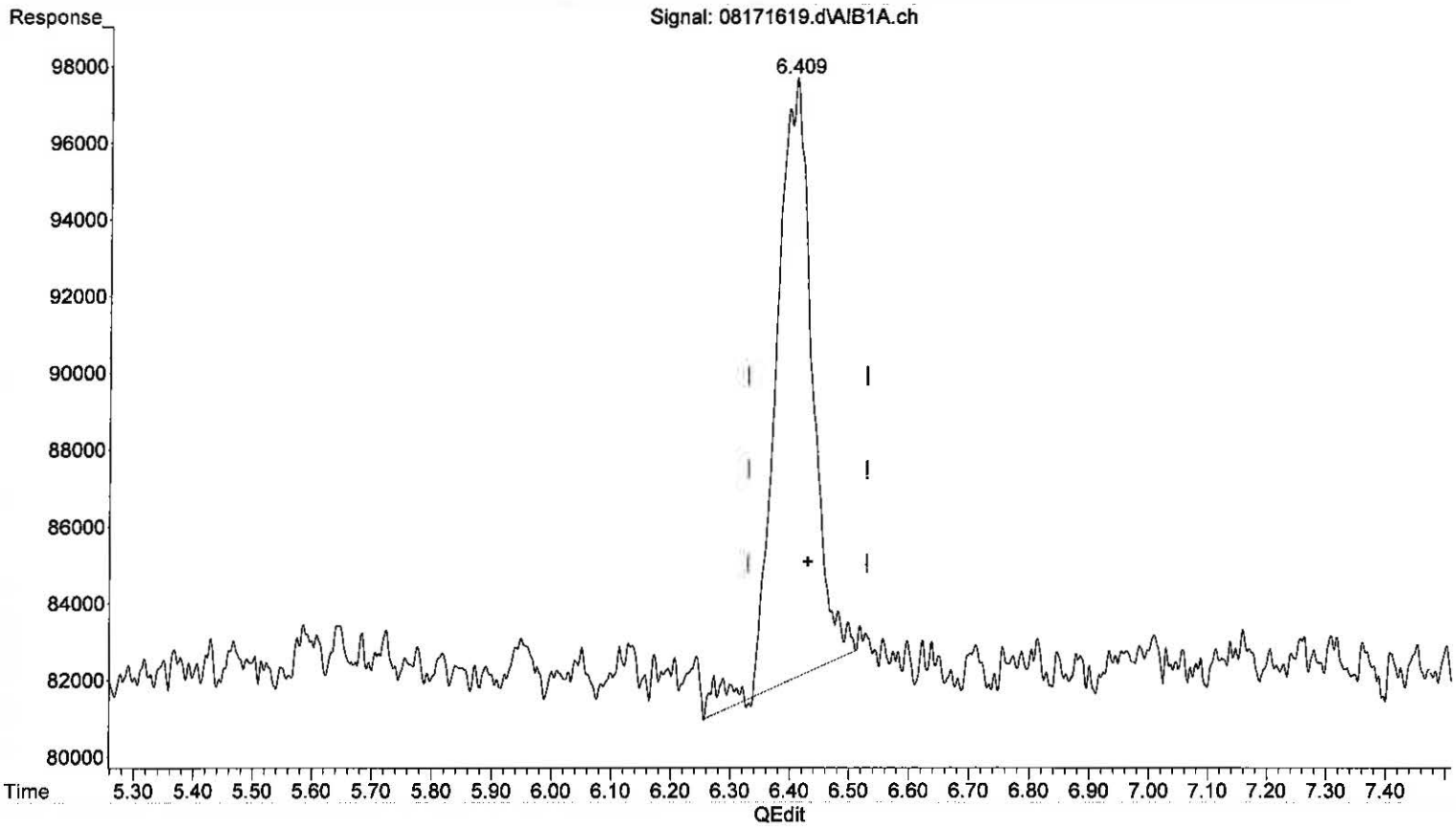
GC22_Quan 02262016.M Fri Aug 19 14:14:52 2016 Page: 1

Quantitation Report (Qedit)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171619.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 3:44 pm
Operator : MC
Sample : 4037-002 1ml
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 14:14:47 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



(15) Dimethyl_Disulfide (T)

6.410min 8.018 ppb

response 667883

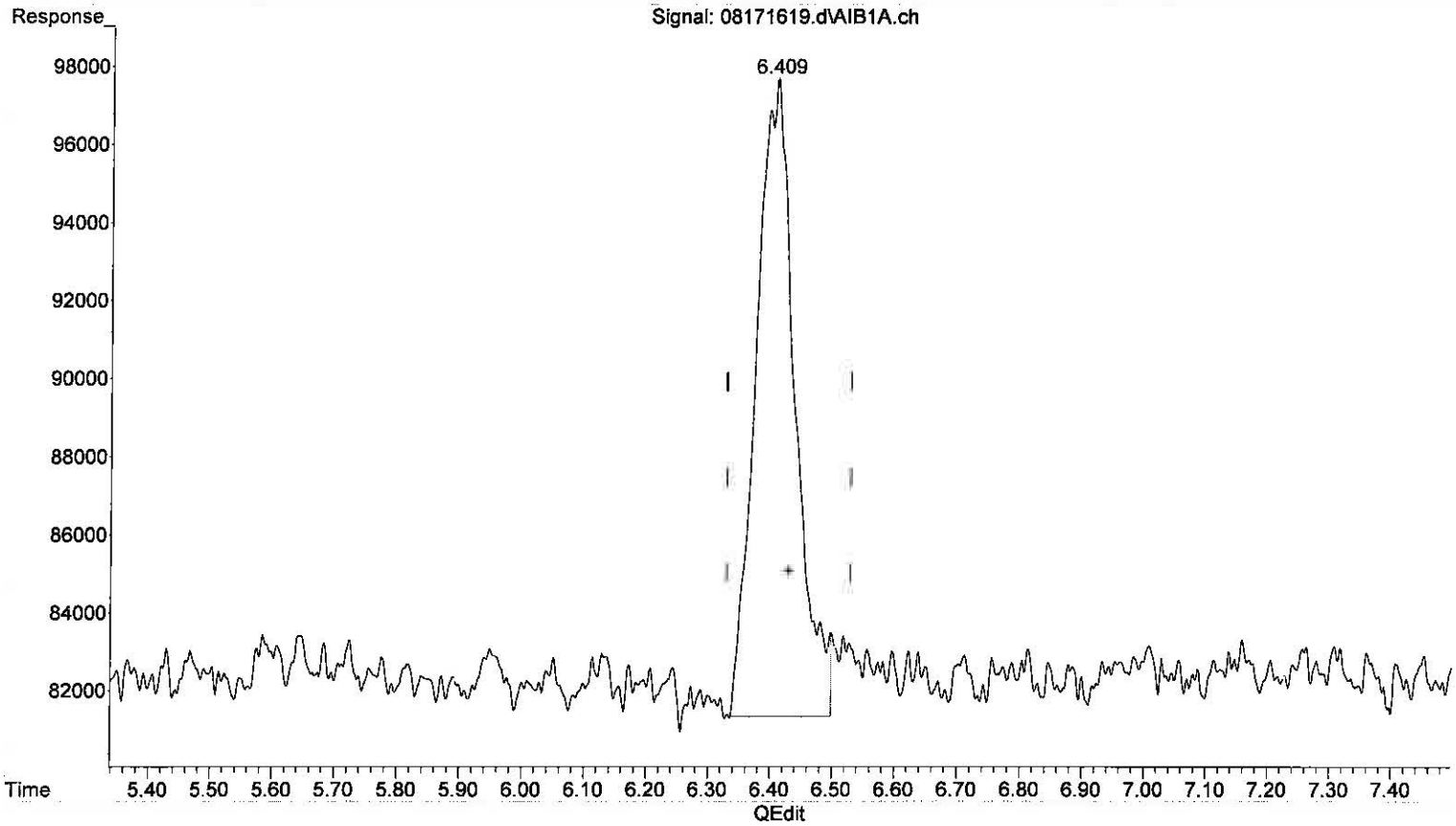
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171619.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 3:44 pm
Operator : MC
Sample : 4037-002 1ml
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 14:14:47 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



(15) Dimethyl_Disulfide (T)
6.409min 8.633 ppb m
response 719111

MY 8/19/16
BLL
8/19/16

(+) = Expected Retention Time
GC22_Quan 02262016.M Fri Aug 19 14:15:14 2016

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171620.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 3:45 pm
Operator : MC
Sample : 4037-003 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:58:34 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb
2)	W	Carbonyl_Sulfide	0.000	0	N.D.	ppb
3)	T	Methyl_Mercaptan	0.000	0	N.D.	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

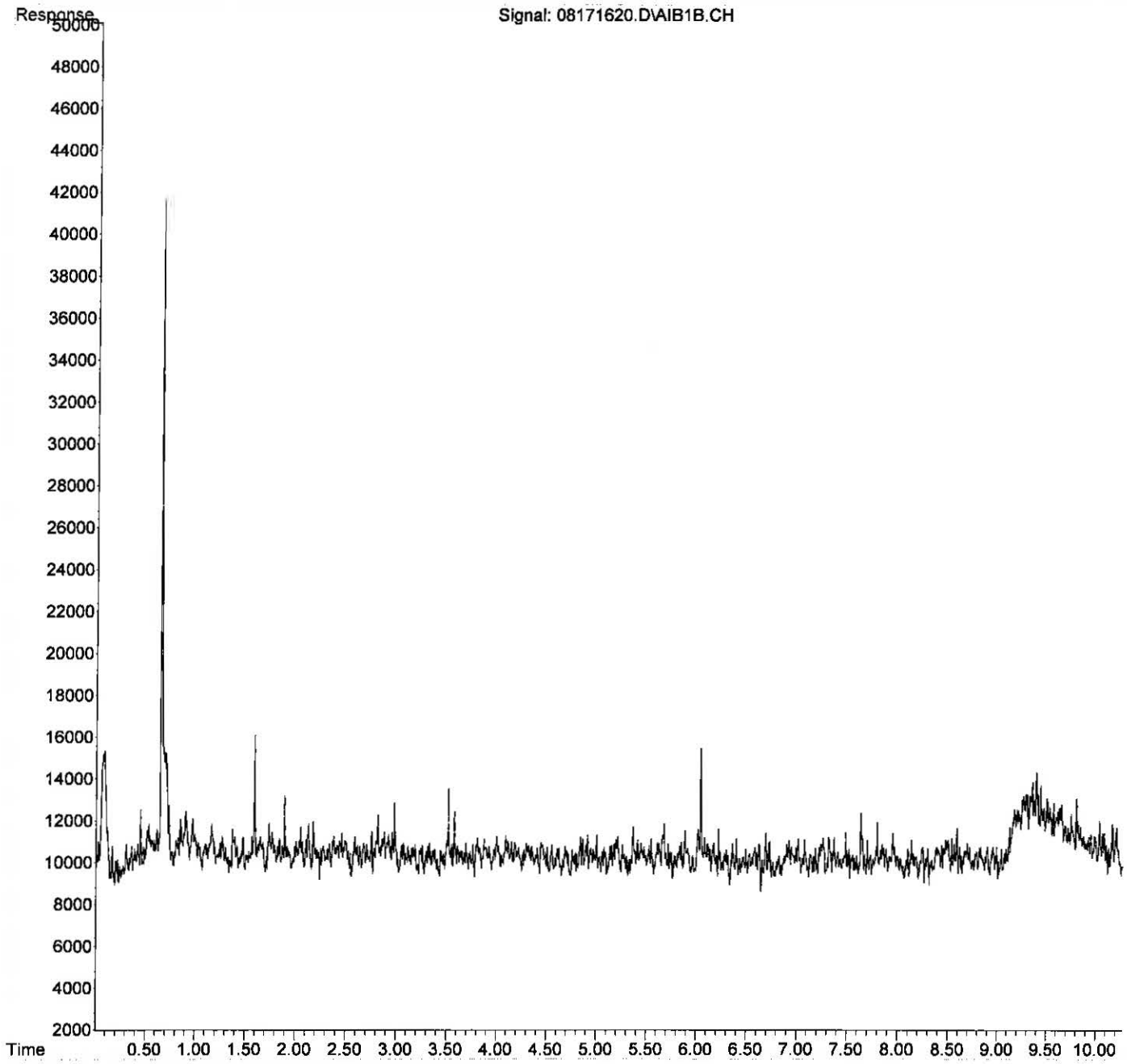
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171620.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 3:45 pm
Operator : MC
Sample : 4037-003 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:58:34 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171619.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 3:29 pm
Operator : MC
Sample : 4037-004 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:57:55 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
Target Compounds							
1)	Z	Hydrogen_Sulfide	0.863	91279	1.461	ppb	m
2)	W	Carbonyl_Sulfide	0.980	144475	2.063	ppb	m
3)	T	Methyl_Mercaptan	0.000	0	N.D.	ppb	
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb	
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb	
6)	T	Carbon_Disulfide	2.894	344338	2.567	ppb	m
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb	
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb	
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb	
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb	
11)	T	Thiophene	0.000	0	N.D.	ppb	
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb	
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb	
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb	
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb	
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb	
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb	
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb	
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb	
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb	
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb	
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb	

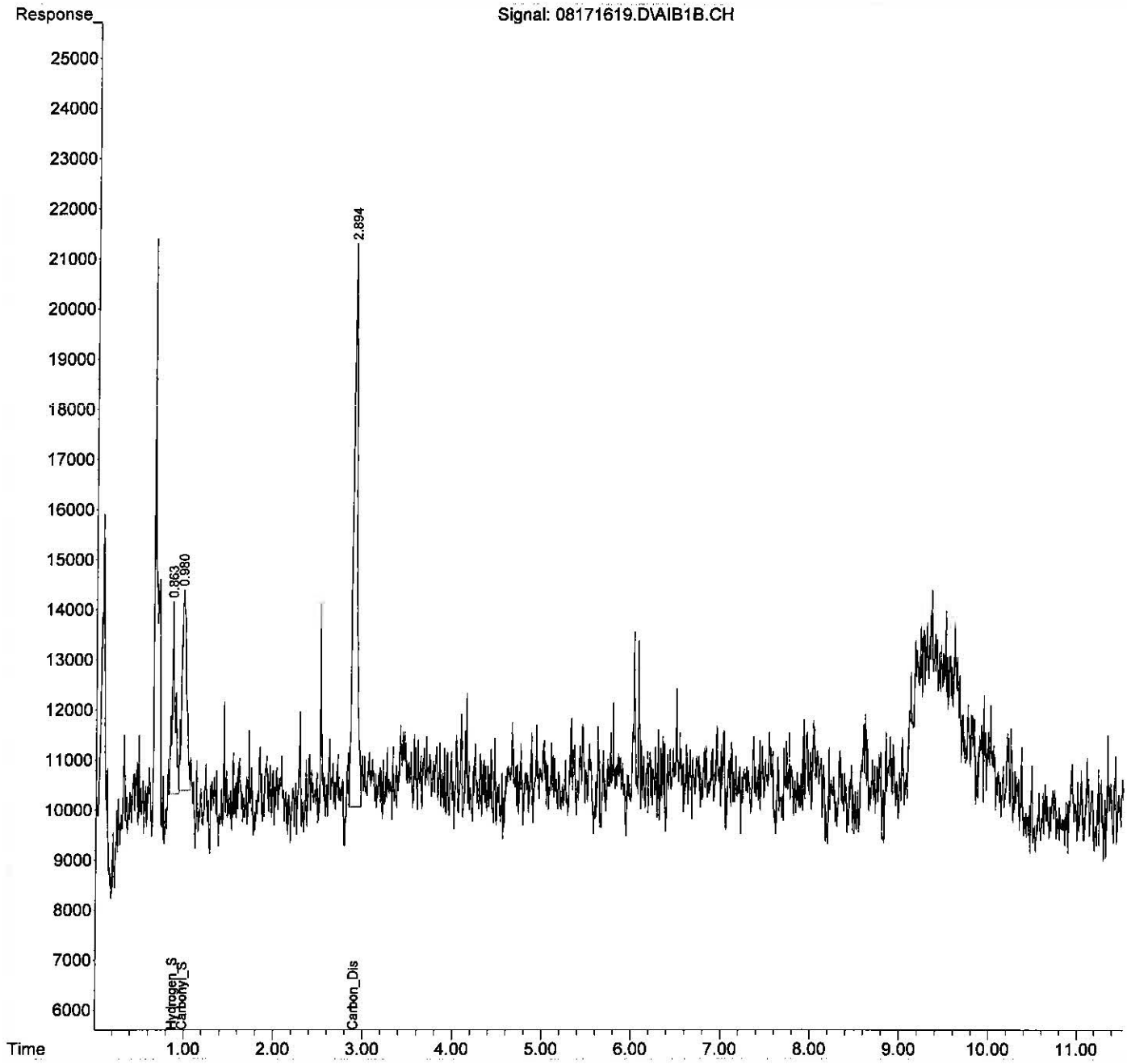
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171619.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 3:29 pm
Operator : MC
Sample : 4037-004 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:57:55 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

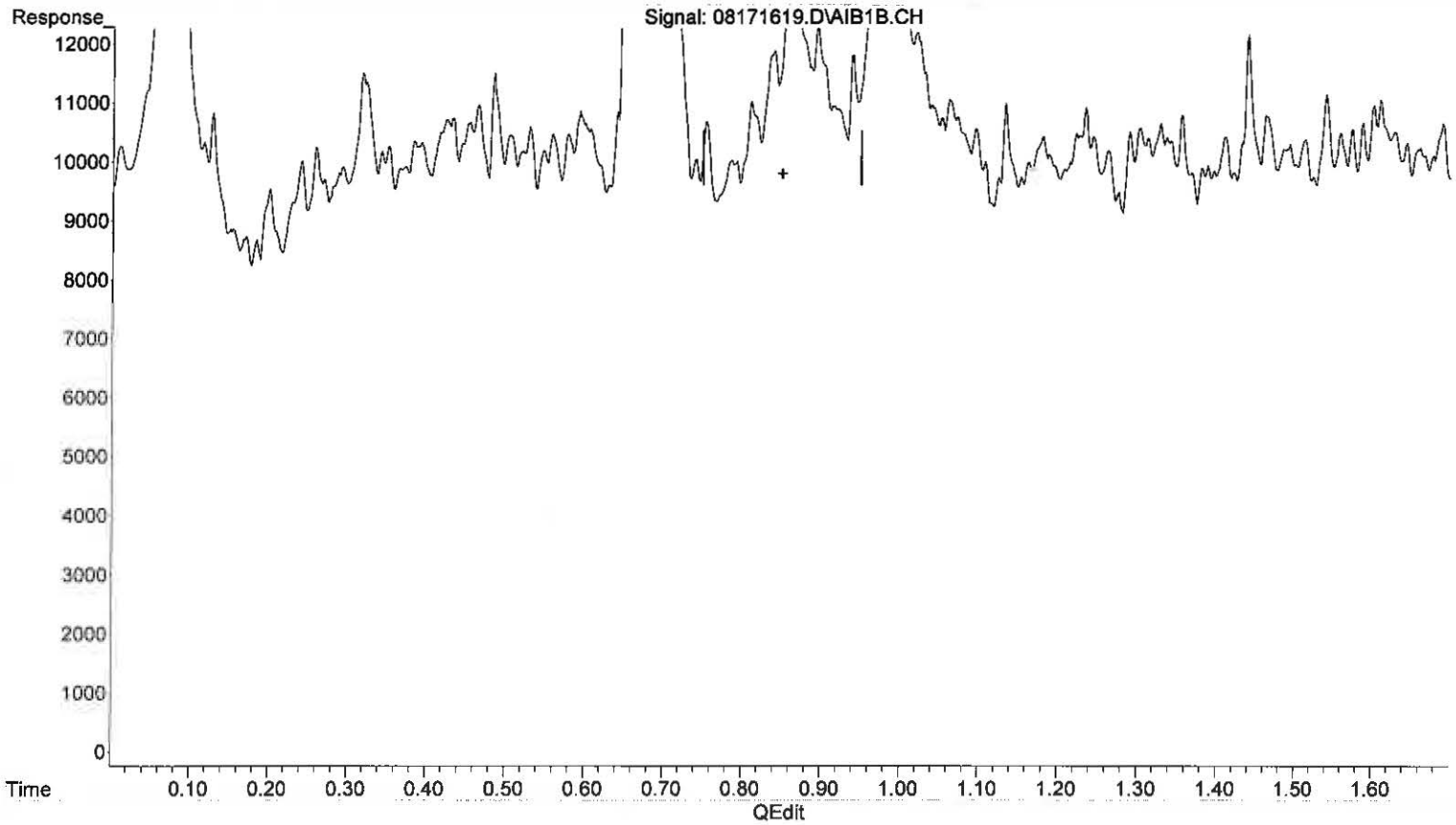


Quantitation Report (Qedit)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171619.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 3:29 pm
Operator : MC
Sample : 4037-004 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:57:15 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



(1) Hydrogen_Sulfide (Z)

0.850min 0.000 ppb

response 0

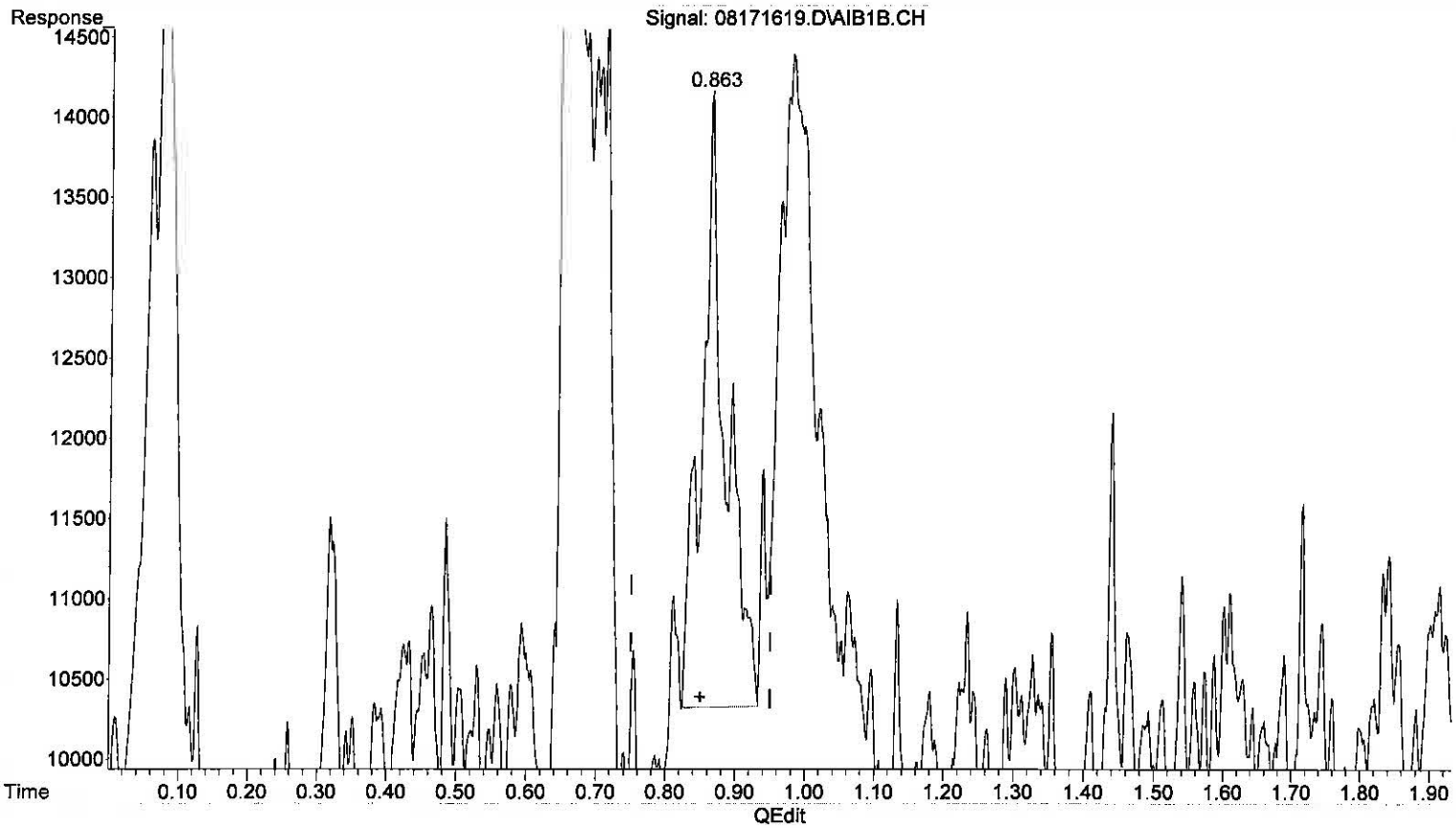
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171619.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 3:29 pm
Operator : MC
Sample : 4037-004 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:57:15 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



(1) Hydrogen_Sulfide (Z)

0.863min 1.461 ppb m

response 91279

8/19/16

8/19/16

(+) = Expected Retention Time

GC13_030216.M Fri Aug 19 13:57:35 2016

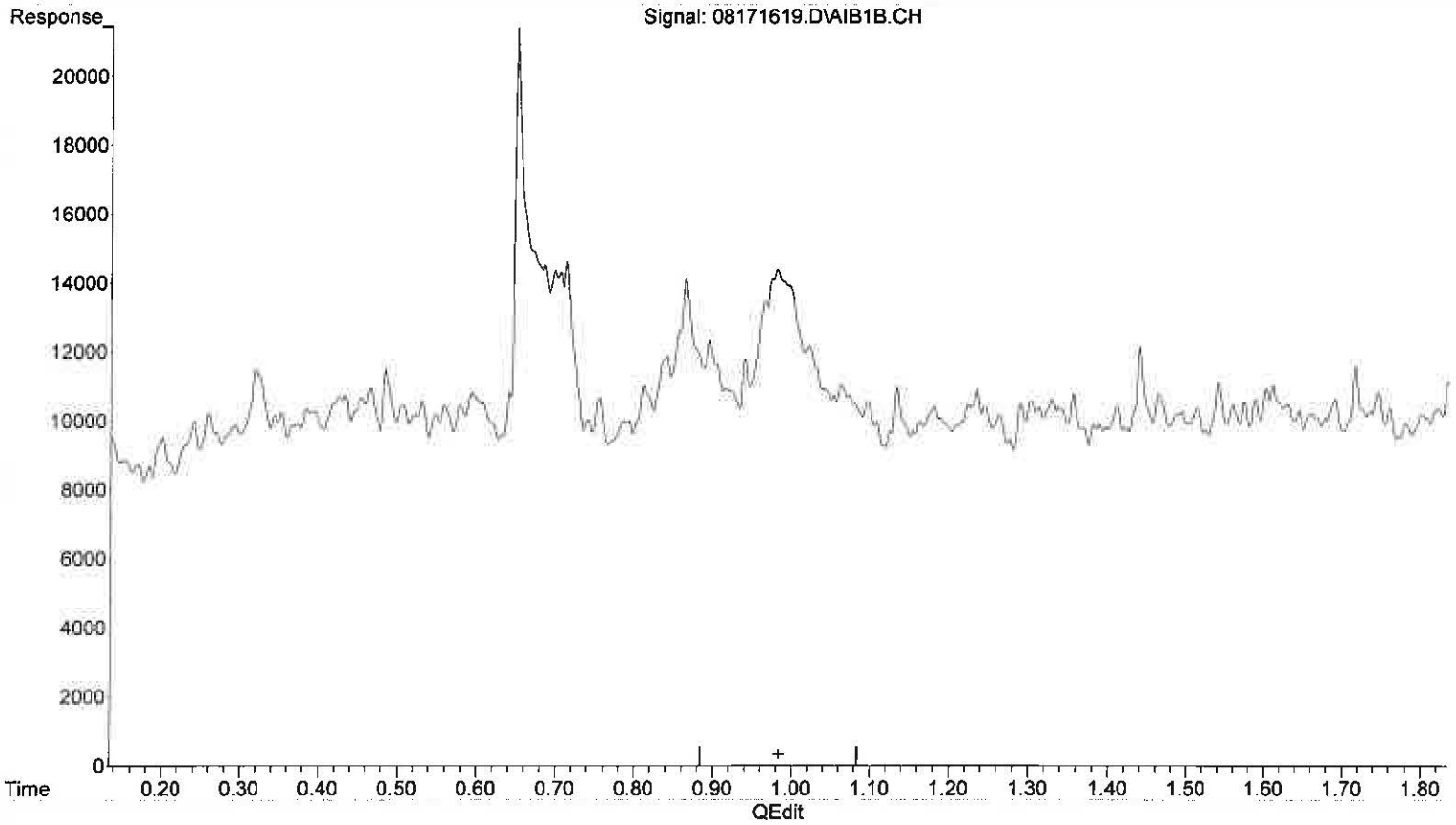
Page: 1

Quantitation Report (Qedit)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171619.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 3:29 pm
Operator : MC
Sample : 4037-004 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:57:15 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



(2) Carbonyl_Sulfide (W)

0.984min 0.000 ppb

response 0

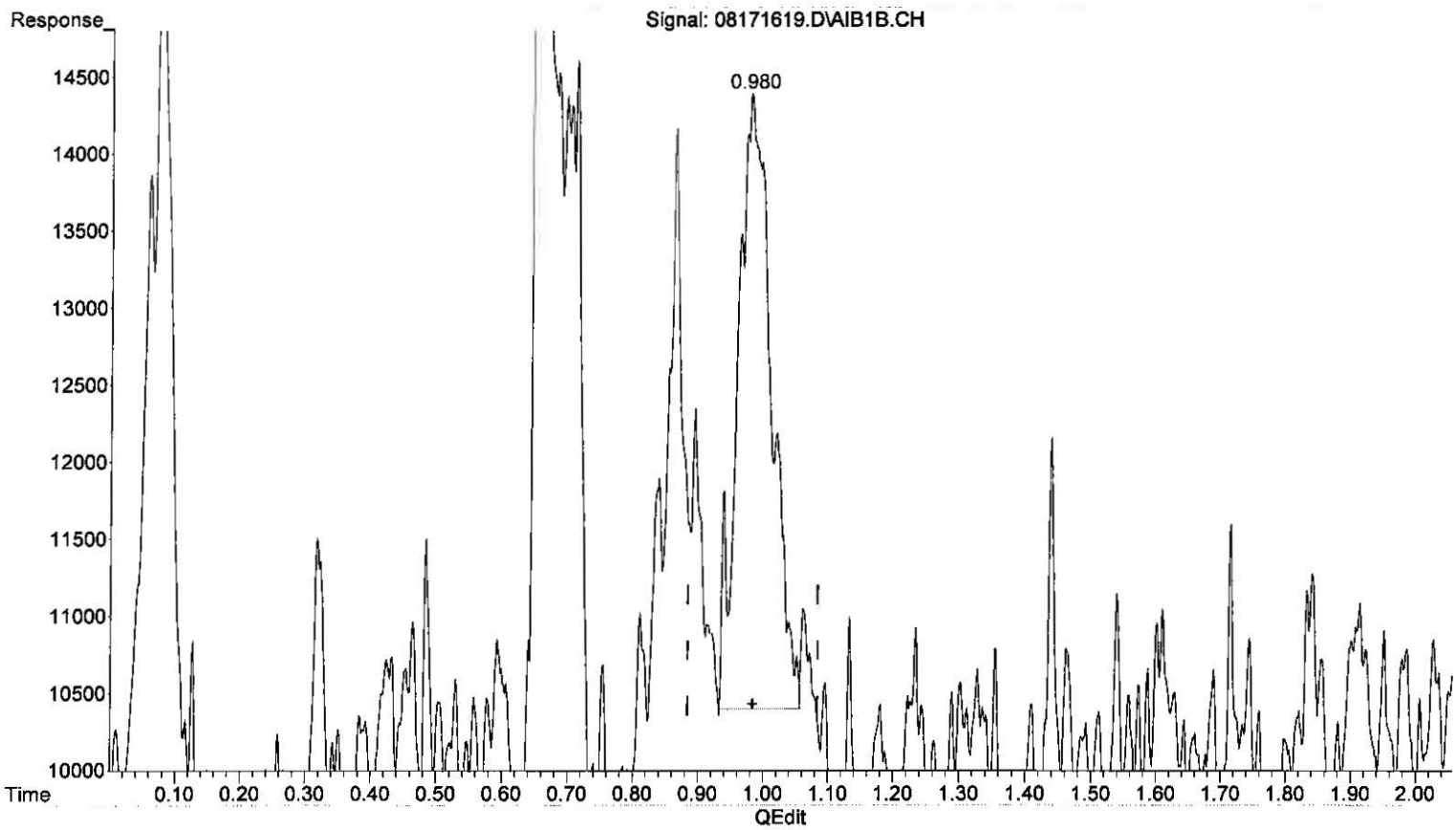
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171619.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 3:29 pm
Operator : MC
Sample : 4037-004 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:57:15 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



(2) Carbonyl_Sulfide (W)

0.980min 2.063 ppb m

response 144475

MC 8/19/16

MP

AM 8/19/16

(+) = Expected Retention Time

GC13_030216.M Fri Aug 19 13:57:46 2016

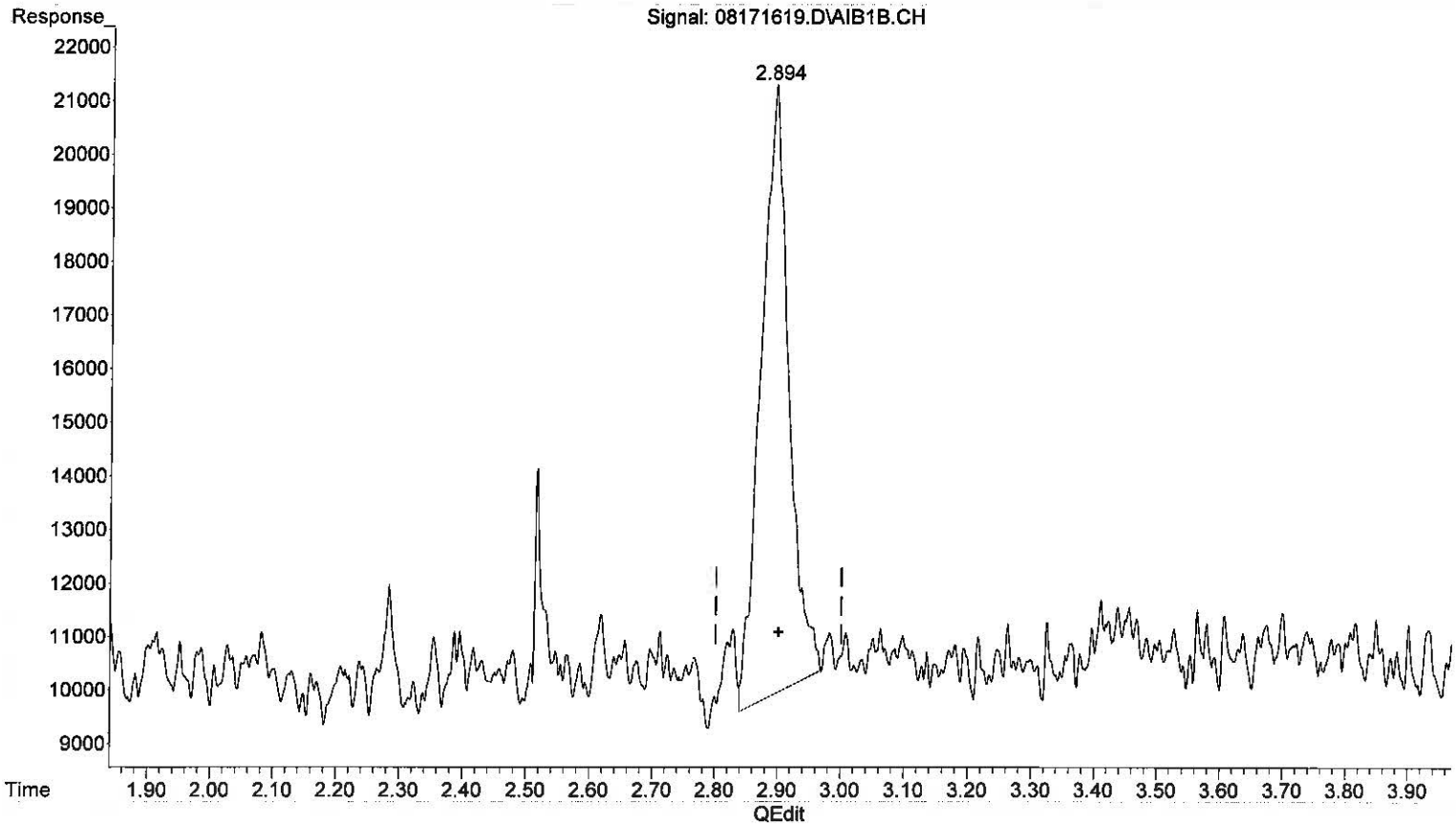
Page: 1

Quantitation Report (Qedit)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171619.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 3:29 pm
Operator : MC
Sample : 4037-004 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:57:15 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



(6) Carbon_Disulfide (T)

2.894min 2.614 ppb

response 350671

(+) = Expected Retention Time

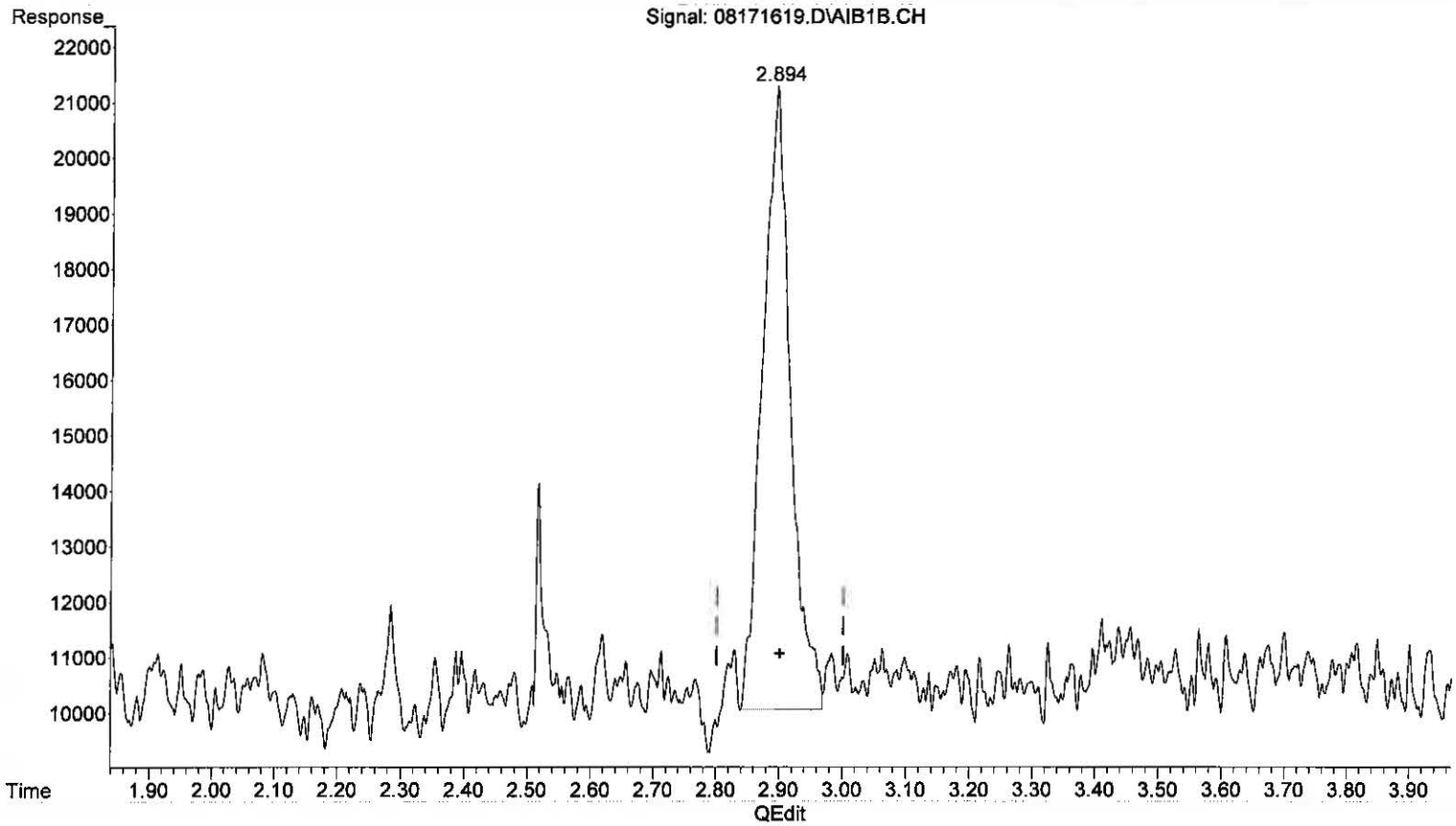
GC13_030216.M Fri Aug 19 13:57:50 2016

Quantitation Report (Qedit)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171619.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 3:29 pm
Operator : MC
Sample : 4037-004 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:57:15 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



(6) Carbon_Disulfide (T)
2.894min 2.567 ppb m
response 344338

MC 8/19/16

BL

8/19/16

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171620.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 3:57 pm
Operator : MC
Sample : 4037-005 1ml
Misc :
ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 14:18:31 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb
2)	W	Carbonyl_Sulfide	0.000	0	N.D.	ppb
3)	T	Methyl_Mercaptan	0.000	0	N.D.	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	T	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

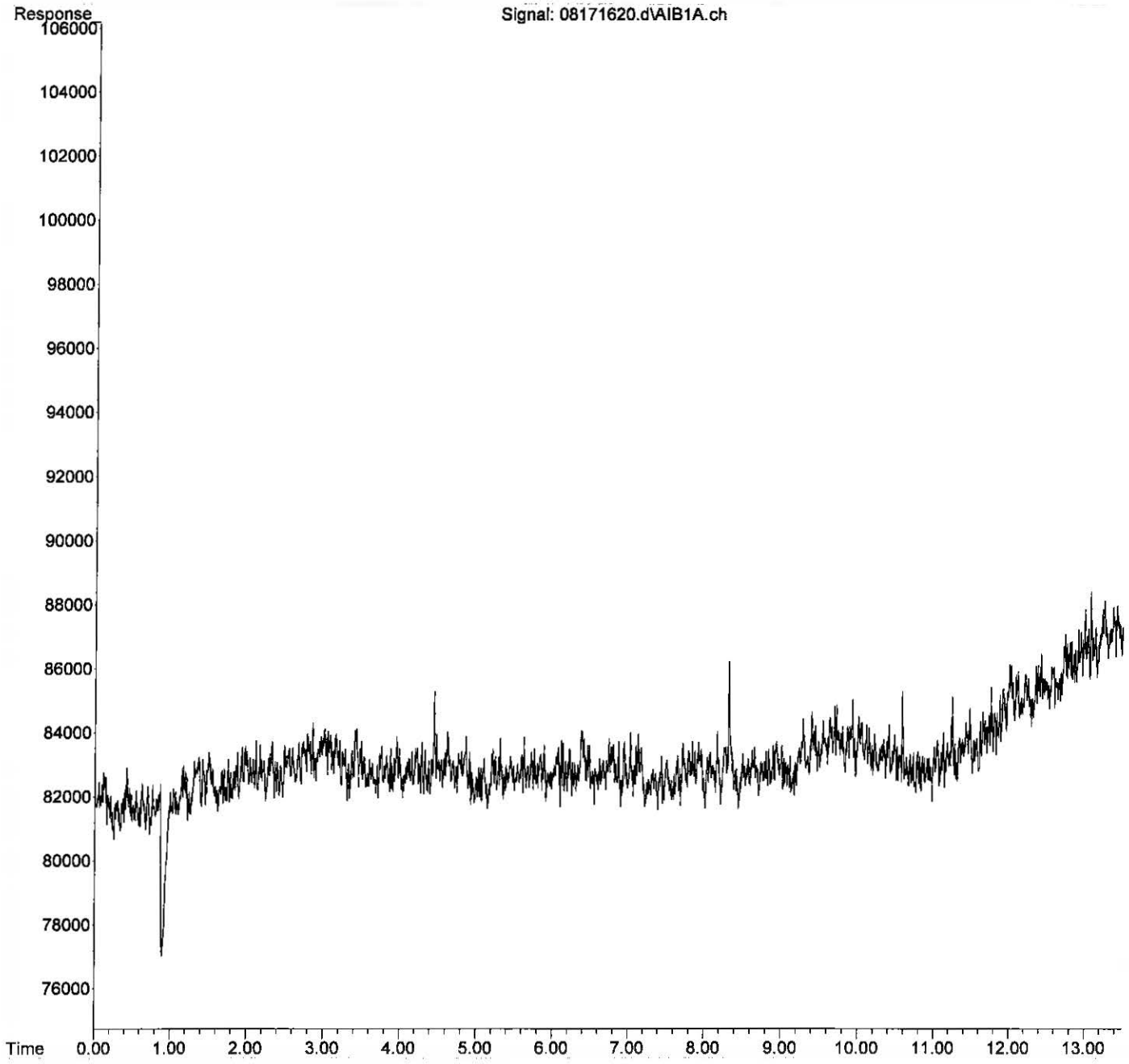
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171620.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 3:57 pm
Operator : MC
Sample : 4037-005 1ml
Misc :
ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 14:18:31 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171621.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 4:15 pm
Operator : MC
Sample : 4037-006 1ml
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 14:18:55 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
Target Compounds							
1)	Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb	
2)	W	Carbonyl_Sulfide	1.317f	2622781	59.054	ppb	m
3)	T	Methyl_Mercaptan	0.000	0	N.D.	ppb	
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb	
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb	
6)	T	Carbon_Disulfide	3.415	4017792	48.234	ppb	
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb	
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb	
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb	
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb	
11)	T	Thiophene	0.000	0	N.D.	ppb	
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb	
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb	
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb	
15)	T	Dimethyl_Disulfide	6.391	543257	6.522	ppb	
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb	
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb	
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb	
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb	
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb	
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb	
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb	

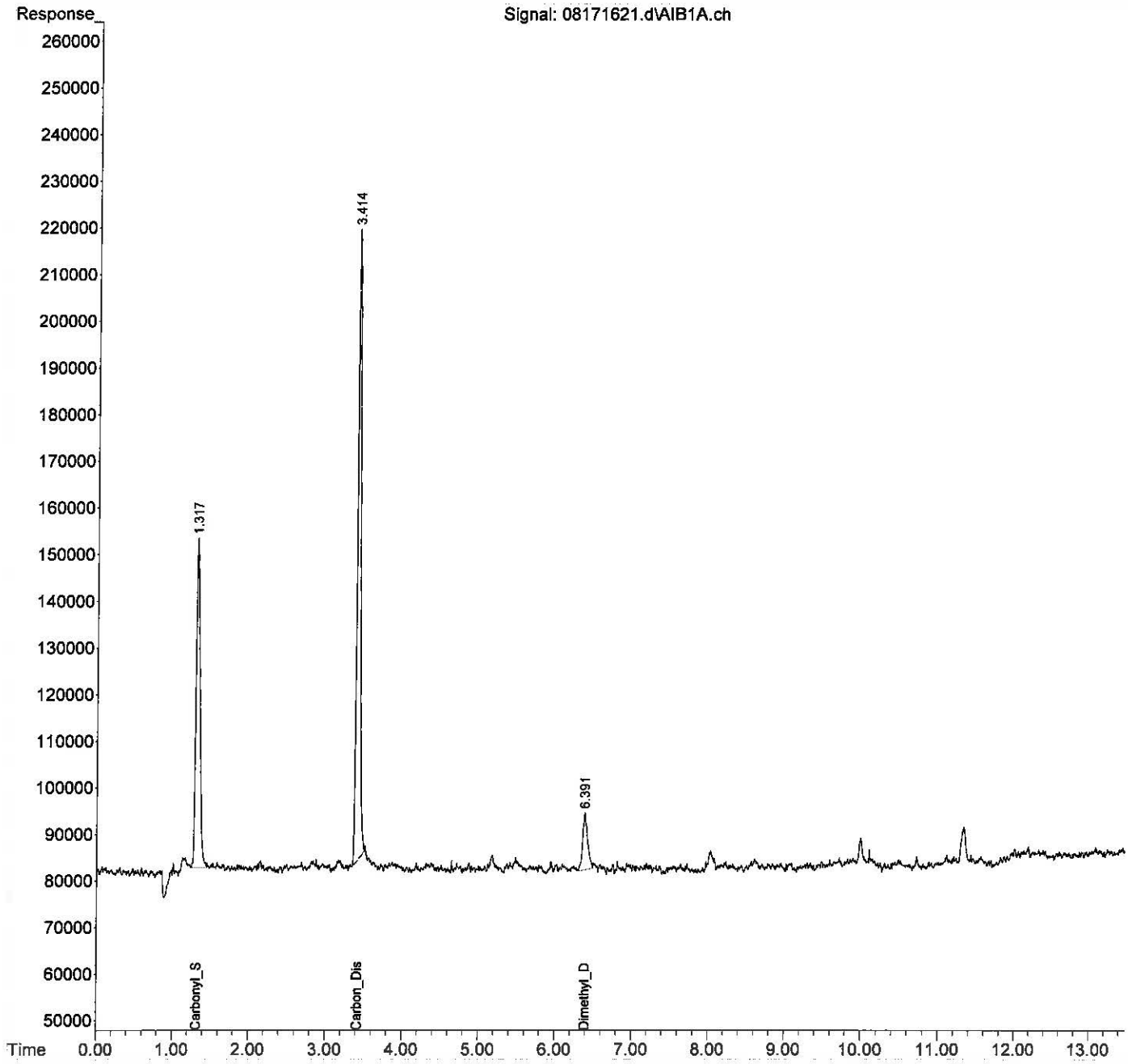
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171621.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 4:15 pm
Operator : MC
Sample : 4037-006 1ml
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 14:18:55 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

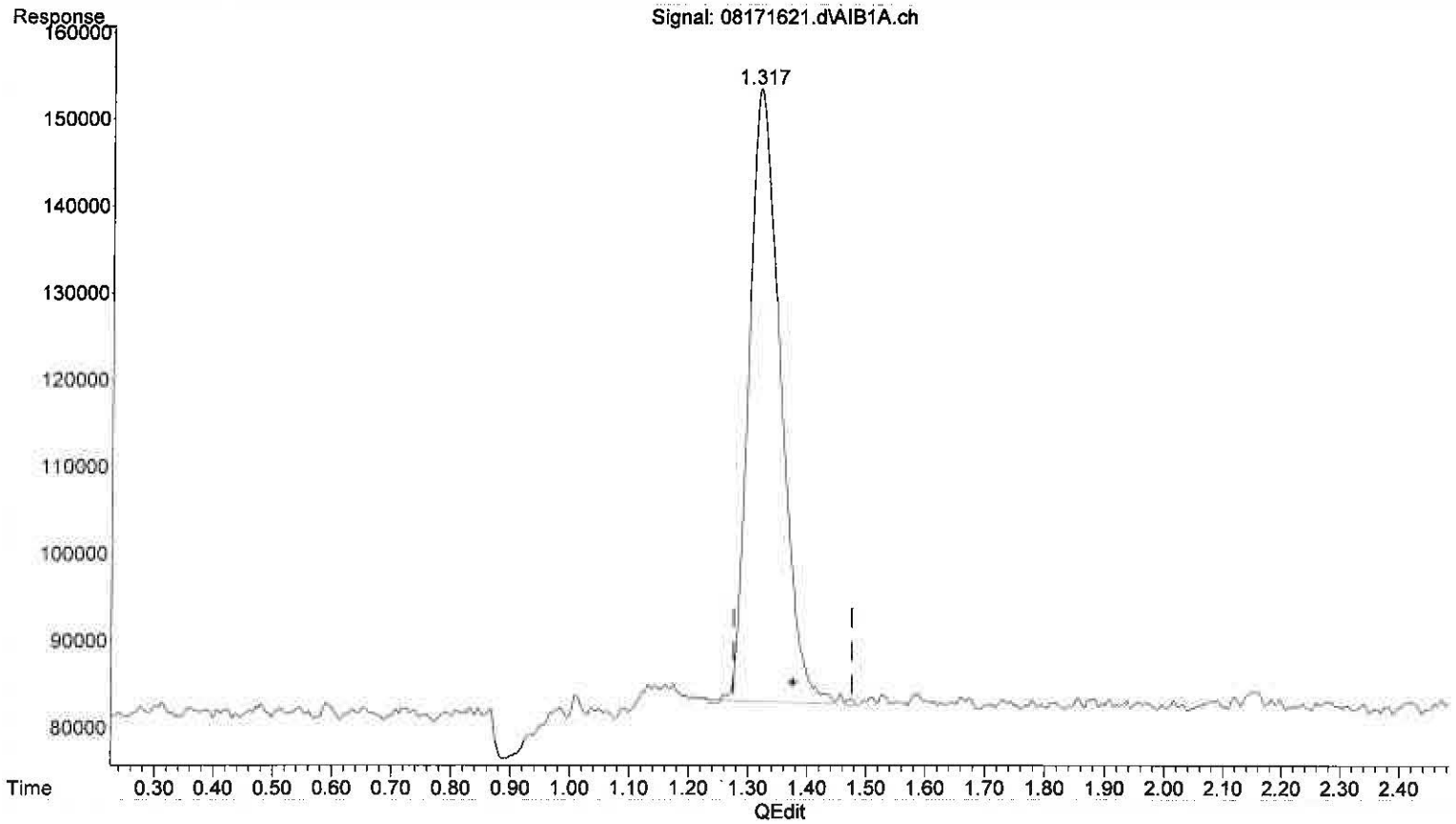


Quantitation Report (Qedit)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171621.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 4:15 pm
Operator : MC
Sample : 4037-006 1ml
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 16:28:51 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



(2) Carbonyl_Sulfide (W)

1.318min 58.826 ppb

response 2612662

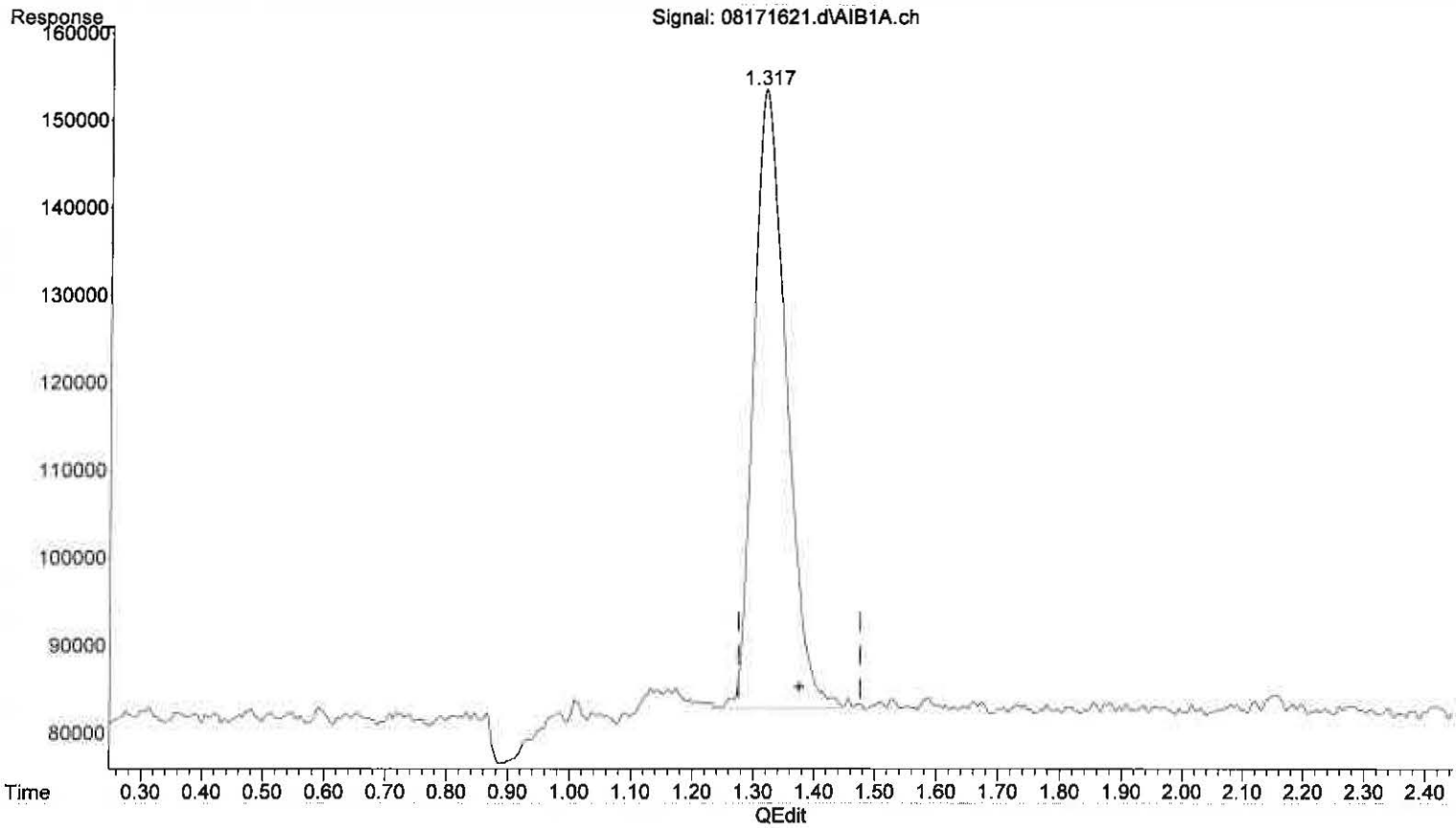
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171621.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 4:15 pm
Operator : MC
Sample : 4037-006 1ml
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 16:28:51 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



(2) Carbonyl_Sulfide (W)

1.317min 59.054 ppb m

response 2622781

MC 8/19/16

BL

8/19/16

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171622.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 4:15 pm
Operator : MC
Sample : 4037-008 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autointl.e
Quant Time: Aug 19 13:59:37 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1) Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb
2) W	Carbonyl_Sulfide	0.000	0	N.D.	ppb
3) T	Methyl_Mercaptan	0.000	0	N.D.	ppb
4) T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5) T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6) T	Carbon_Disulfide	0.000	0	N.D.	ppb
7) T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8) T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9) T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10) T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11) T	Thiophene	0.000	0	N.D.	ppb
12) T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13) T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14) t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15) t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16) T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17) t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18) T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19) t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20) T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21) T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22) T	Methyltrisulfide	0.000	0	N.D.	ppb

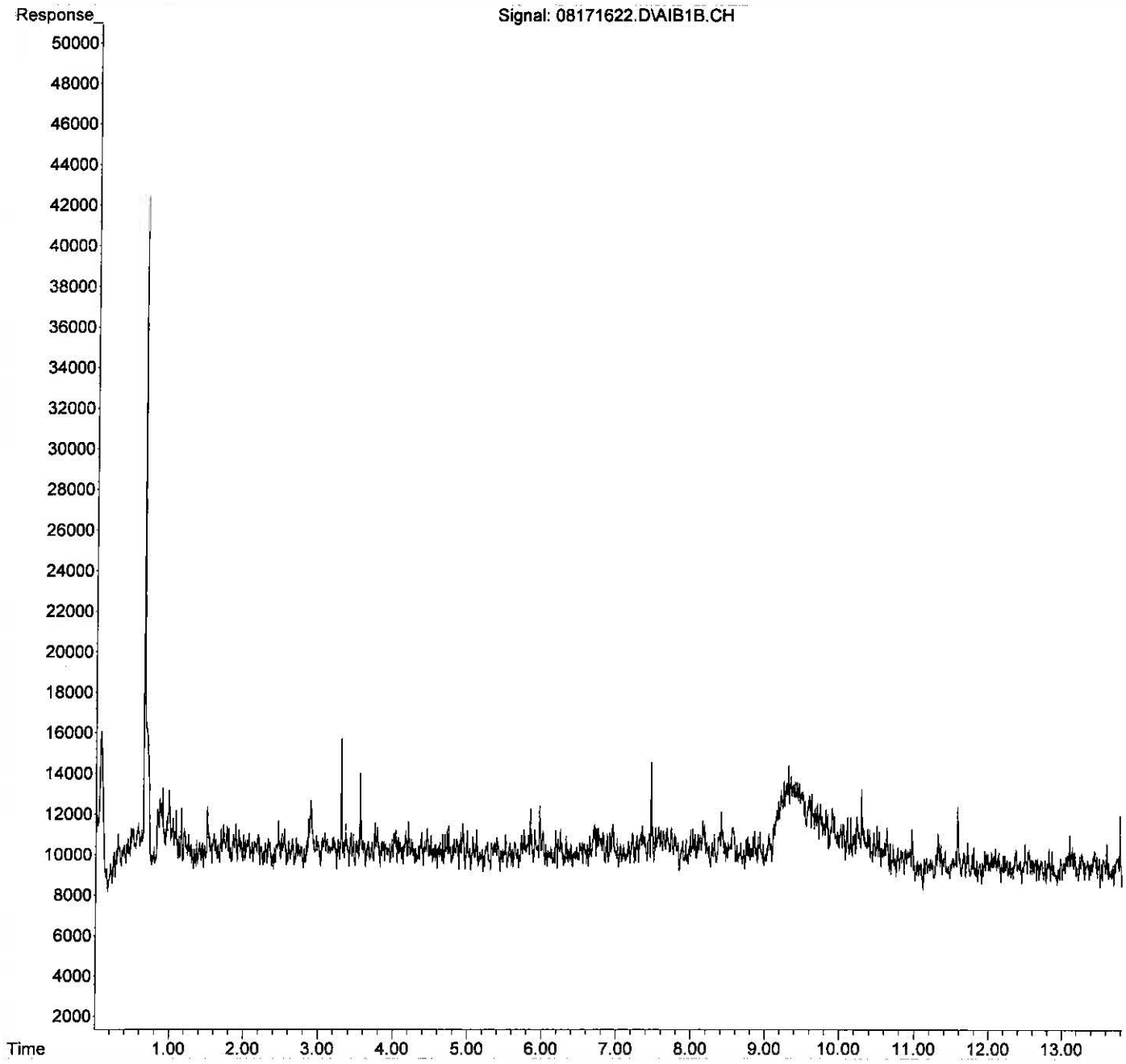
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171622.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 4:15 pm
Operator : MC
Sample : 4037-008 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:59:37 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171623.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 4:34 pm
Operator : MC
Sample : 4037-009 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:59:52 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1) Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb
2) W	Carbonyl_Sulfide	0.000	0	N.D.	ppb
3) T	Methyl_Mercaptan	0.000	0	N.D.	ppb
4) T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5) T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6) T	Carbon_Disulfide	0.000	0	N.D.	ppb
7) T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8) T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9) T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10) T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11) T	Thiophene	0.000	0	N.D.	ppb
12) T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13) T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14) t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15) t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16) T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17) t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18) T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19) t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20) T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21) T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22) T	Methyltrisulfide	0.000	0	N.D.	ppb

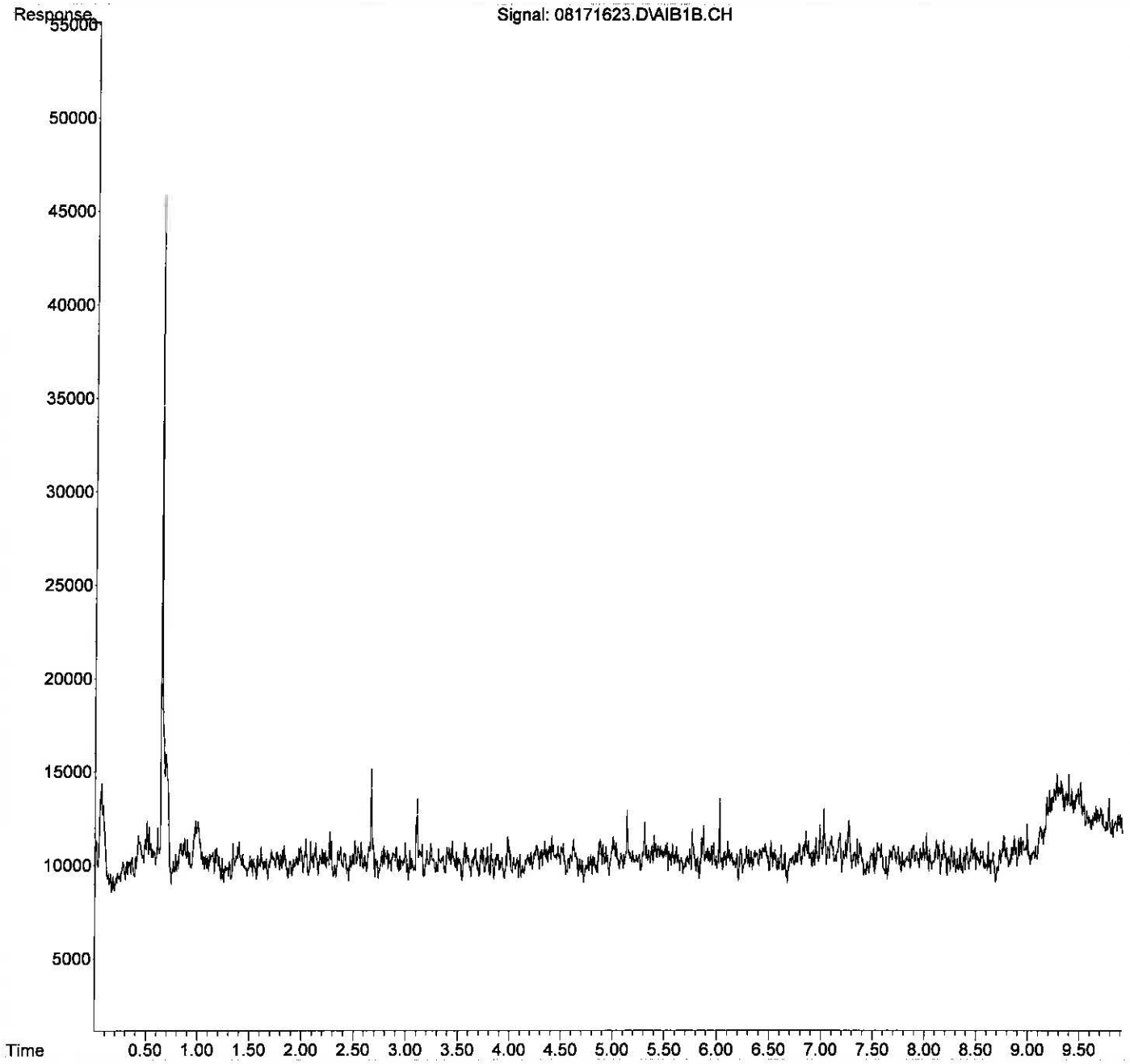
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171623.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 4:34 pm
Operator : MC
Sample : 4037-009 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:59:52 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171624.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 4:47 pm
Operator : MC
Sample : 4037-010 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 14:00:08 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb
2)	W	Carbonyl_Sulfide	0.000	0	N.D.	ppb
3)	T	Methyl_Mercaptan	0.000	0	N.D.	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

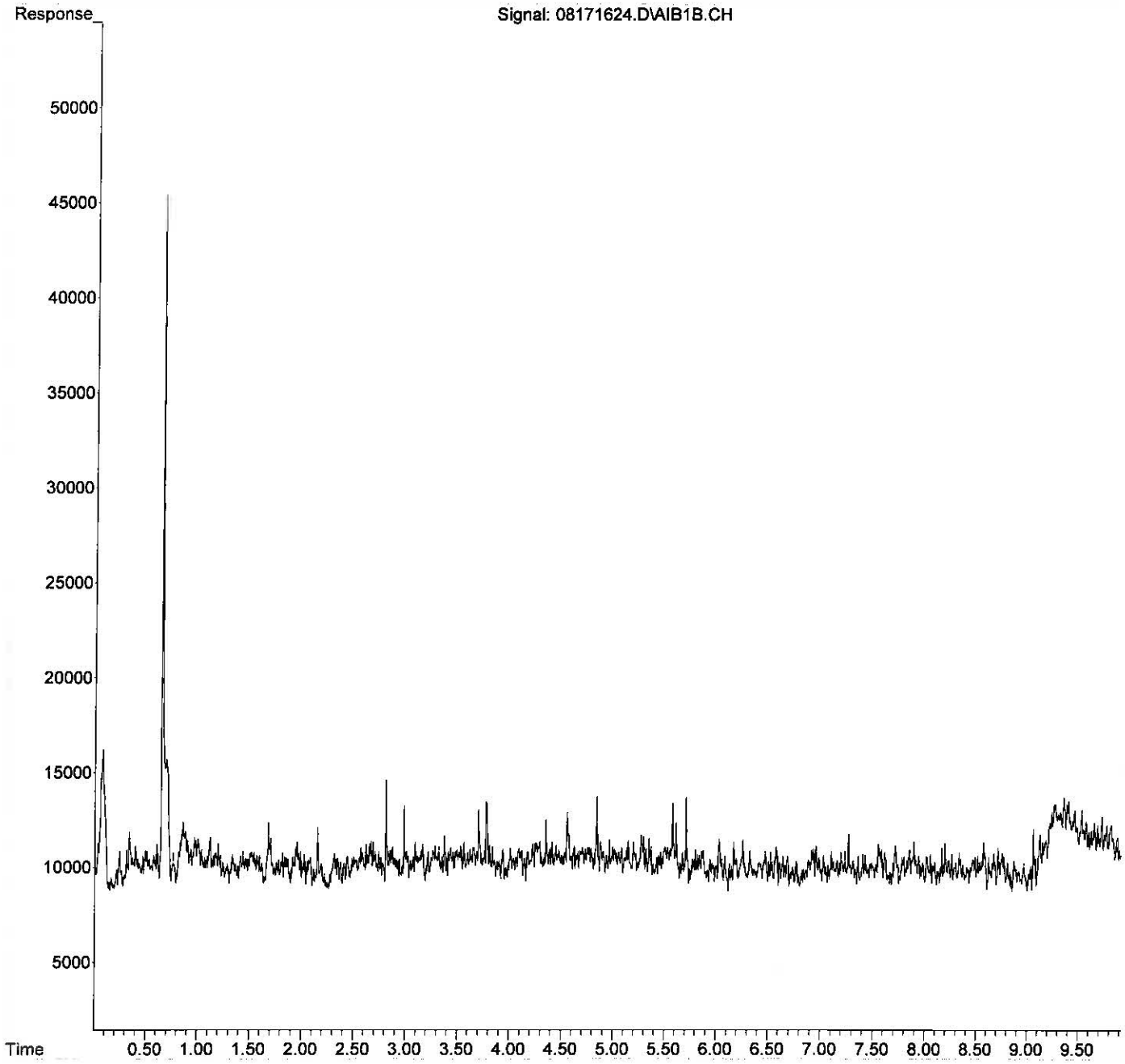
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171624.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 4:47 pm
Operator : MC
Sample : 4037-010 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 14:00:08 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171622.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 4:32 pm
Operator : MC
Sample : 4037-011 1ml
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 14:19:23 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb
2)	W	Carbonyl_Sulfide	0.000	0	N.D.	ppb
3)	T	Methyl_Mercaptan	0.000	0	N.D.	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	T	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

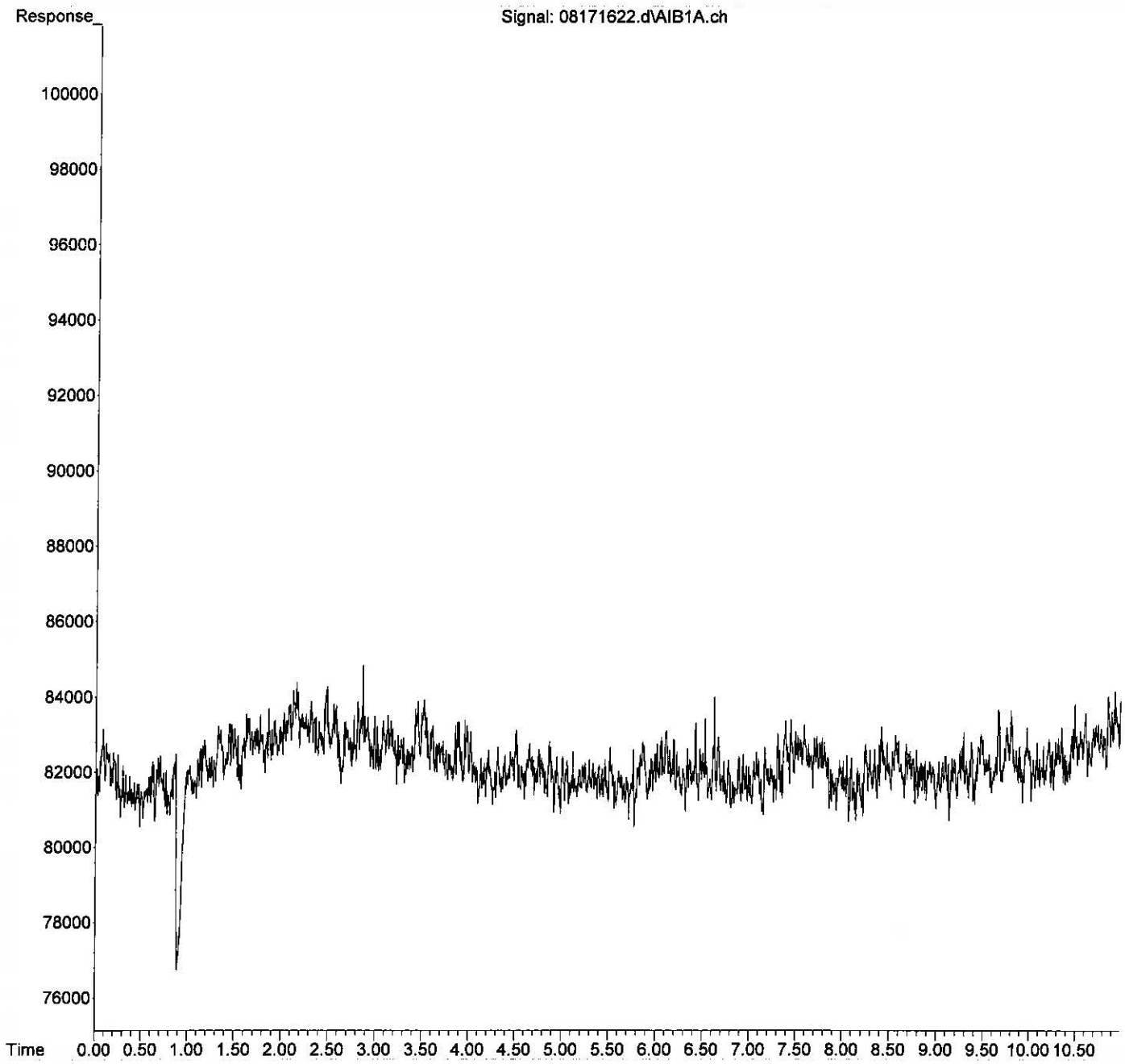
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171622.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 4:32 pm
Operator : MC
Sample : 4037-011 1ml
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 14:19:23 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181606.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 9:09 am
Operator : MC
Sample : 4037-014 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 11:46:02 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
Target Compounds							
1)	Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb	
2)	W	Carbonyl_Sulfide	0.000	0	N.D.	ppb	
3)	T	Methyl_Mercaptan	0.000	0	N.D.	ppb	
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb	
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb	
6)	T	Carbon_Disulfide	2.883	192978	1.439	ppb	m
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb	
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb	
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb	
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb	
11)	T	Thiophene	0.000	0	N.D.	ppb	
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb	
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb	
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb	
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb	
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb	
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb	
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb	
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb	
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb	
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb	
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb	

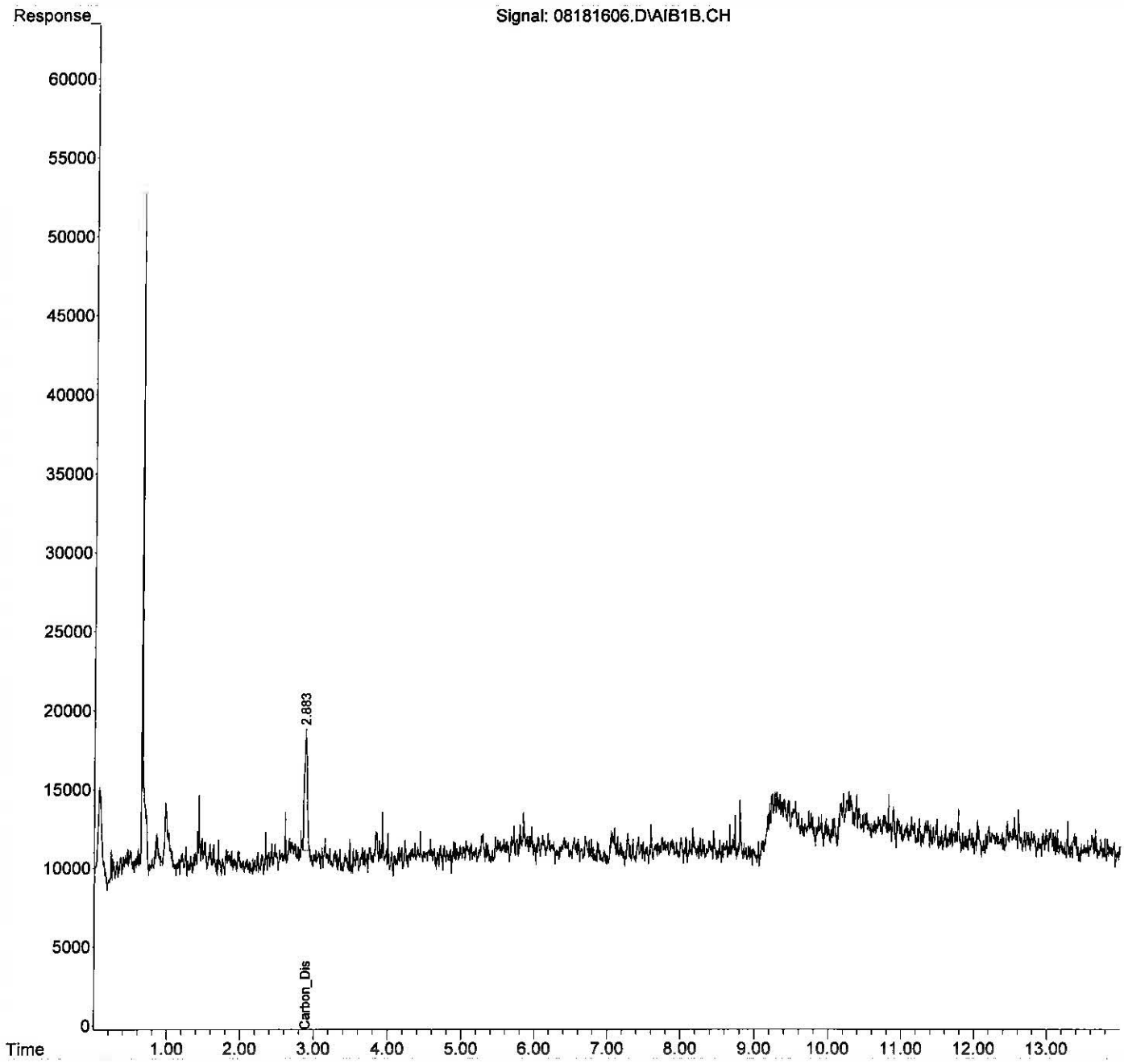
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181606.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 9:09 am
Operator : MC
Sample : 4037-014 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 11:46:02 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

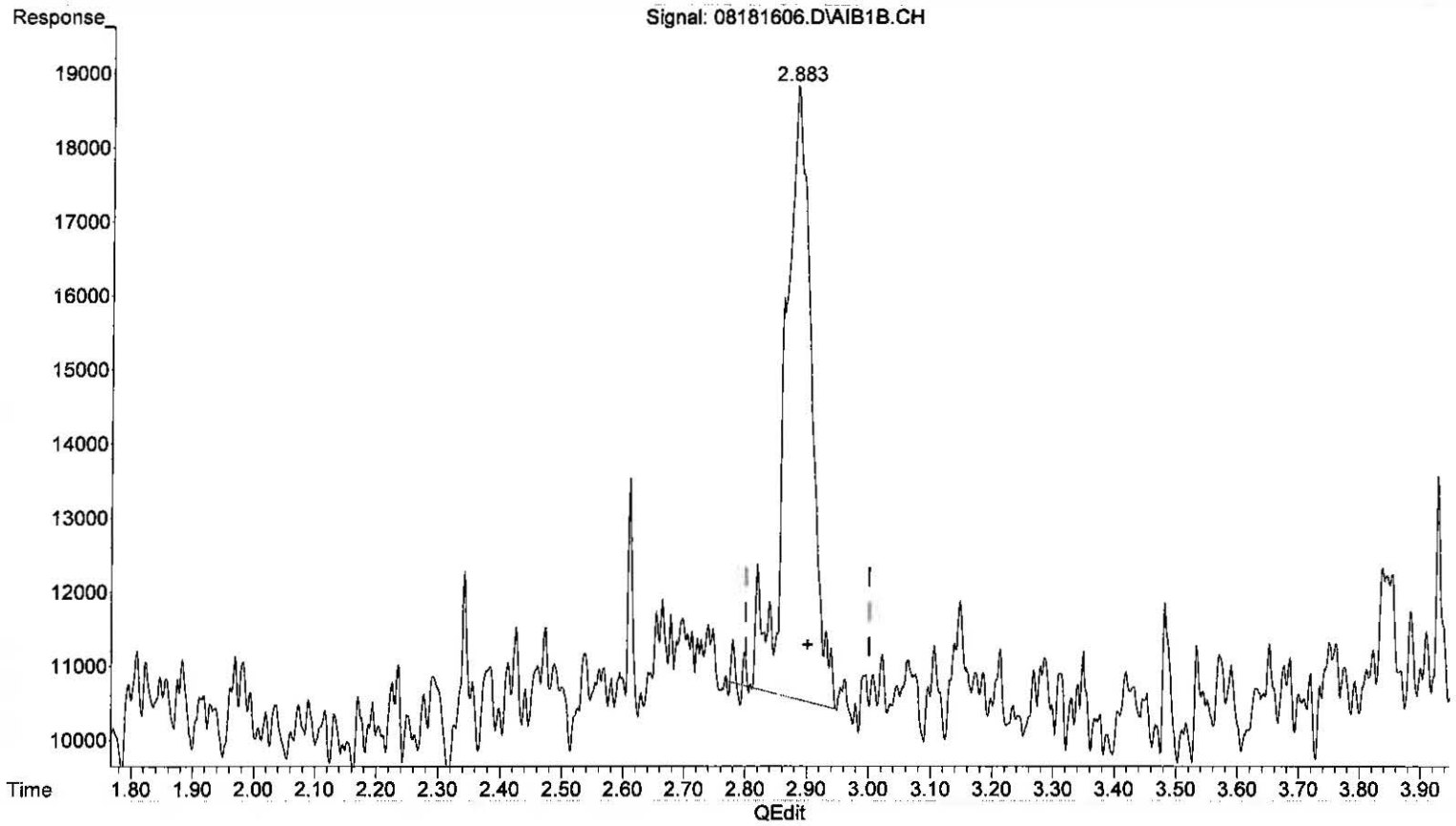


Quantitation Report (Qedit)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181606.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 9:09 am
Operator : MC
Sample : 4037-014 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 11:45:48 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



(6) Carbon_Disulfide (T)

2.884min 1.856 ppb

response 248956

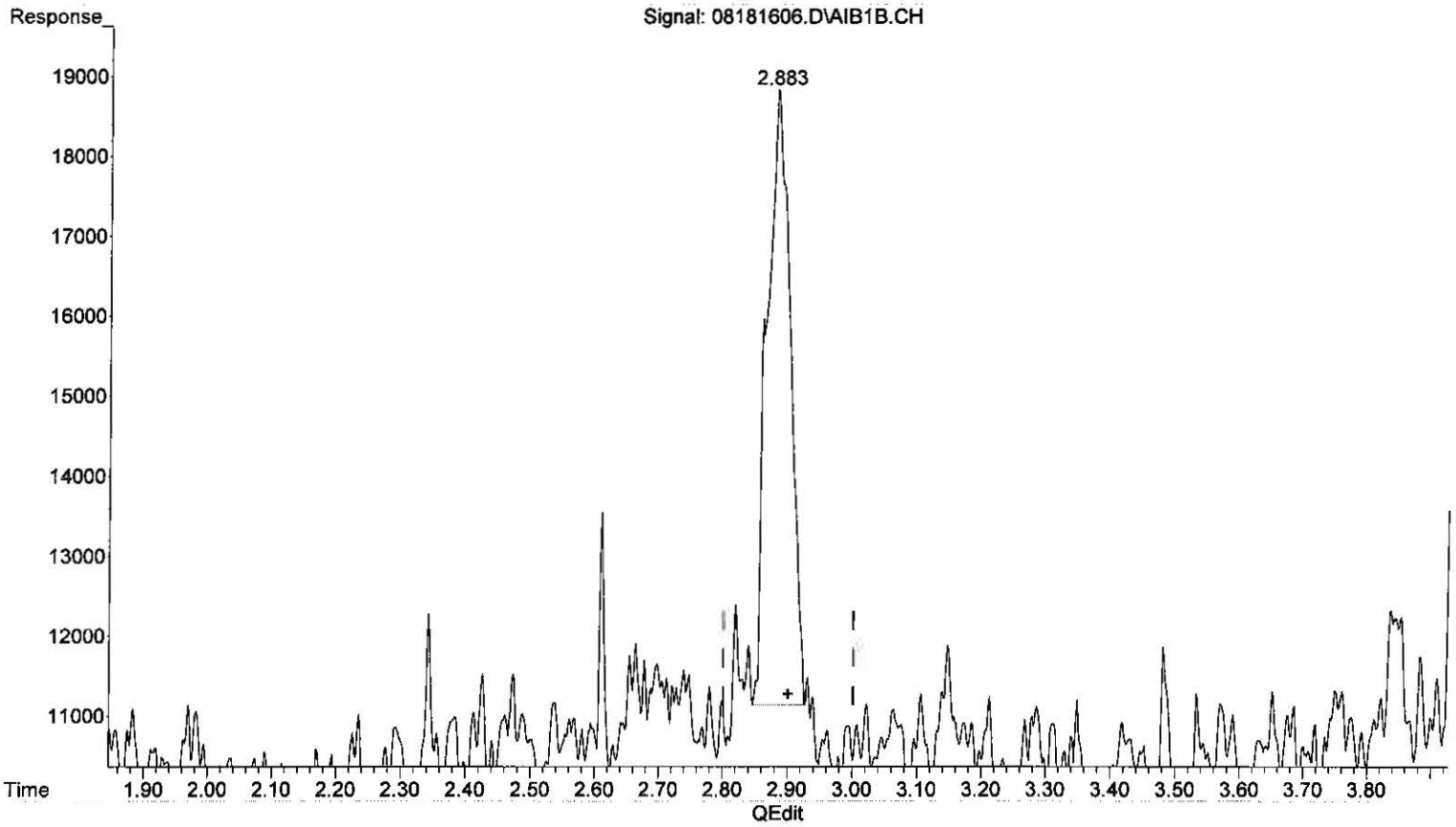
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181606.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 9:09 am
Operator : MC
Sample : 4037-014 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 11:45:48 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



(6) Carbon_Disulfide (T)
2.883min 1.439 ppb m
response 192978

8/19/16

8/19/16

(+) = Expected Retention Time
GC13_030216.M Fri Aug 19 11:46:06 2016 Page: 1

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181616.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 11:40 am
Operator : MC
Sample : 4037-016 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 11:55:43 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb
2)	W	Carbonyl_Sulfide	0.000	0	N.D.	ppb
3)	T	Methyl_Mercaptan	0.000	0	N.D.	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

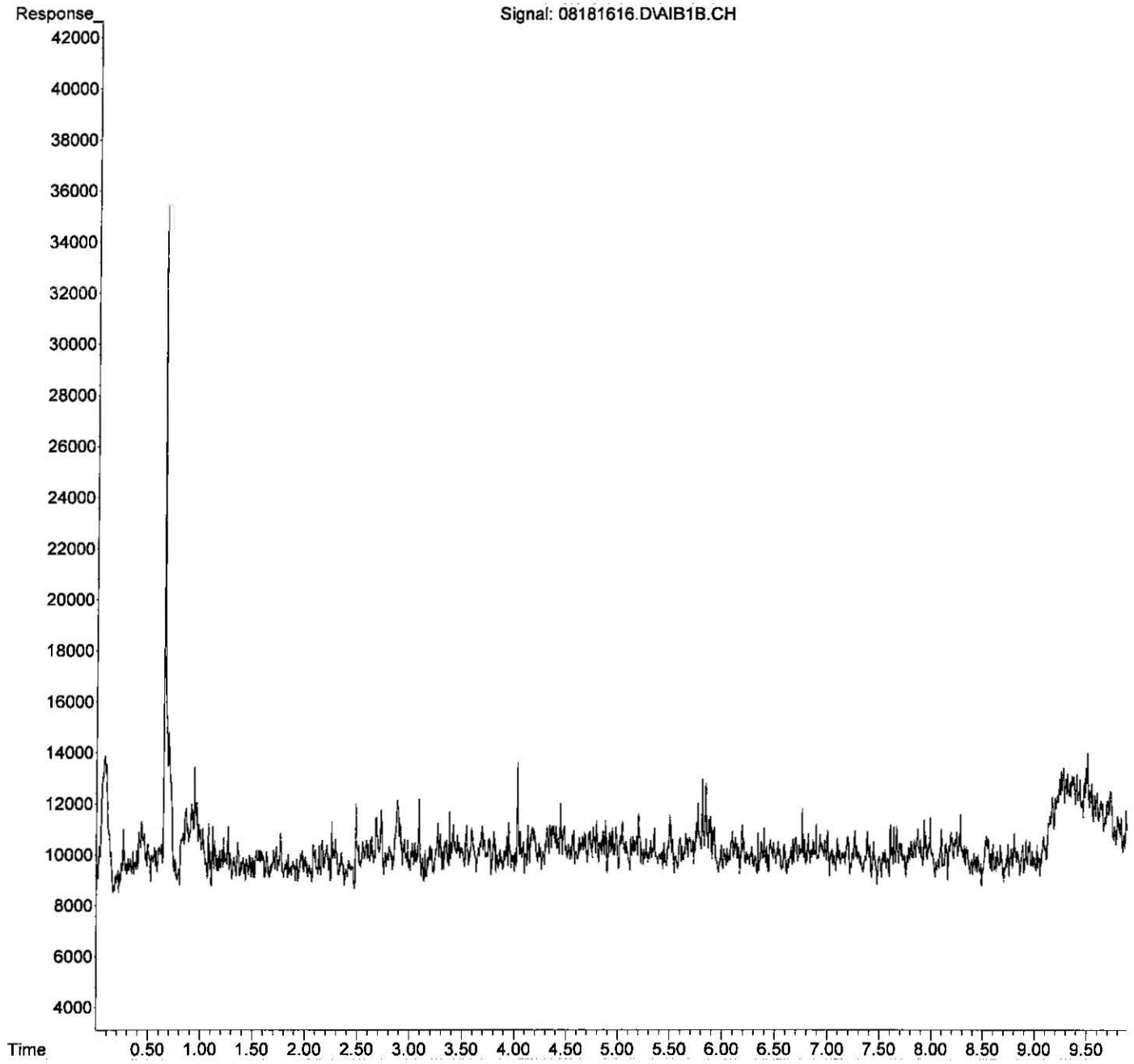
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181616.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 11:40 am
Operator : MC
Sample : 4037-016 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 11:55:43 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181621.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 12:55 pm
Operator : MC
Sample : 4037-017 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 11:57:22 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb
2)	W	Carbonyl_Sulfide	0.000	0	N.D.	ppb
3)	T	Methyl_Mercaptan	0.000	0	N.D.	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

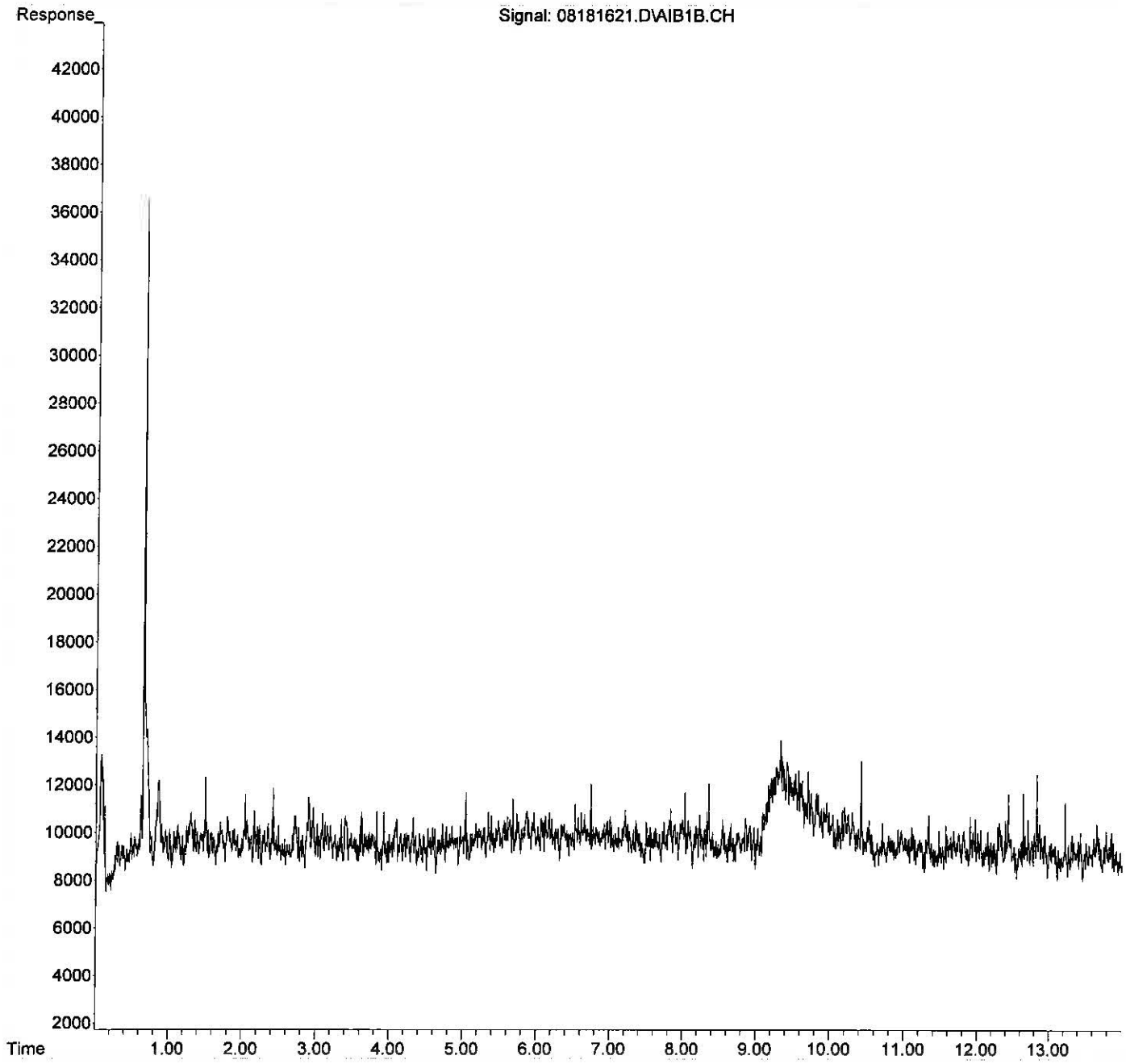
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181621.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 12:55 pm
Operator : MC
Sample : 4037-017 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 11:57:22 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181617.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 11:53 am
Operator : MC
Sample : 4037-019 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 11:56:17 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
Target Compounds							
1)	Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb	
2)	W	Carbonyl_Sulfide	0.000	0	N.D.	ppb	
3)	T	Methyl_Mercaptan	0.000	0	N.D.	ppb	
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb	
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb	
6)	T	Carbon_Disulfide	2.885	169157	1.261	ppb	m
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb	
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb	
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb	
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb	
11)	T	Thiophene	0.000	0	N.D.	ppb	
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb	
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb	
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb	
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb	
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb	
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb	
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb	
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb	
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb	
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb	
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb	

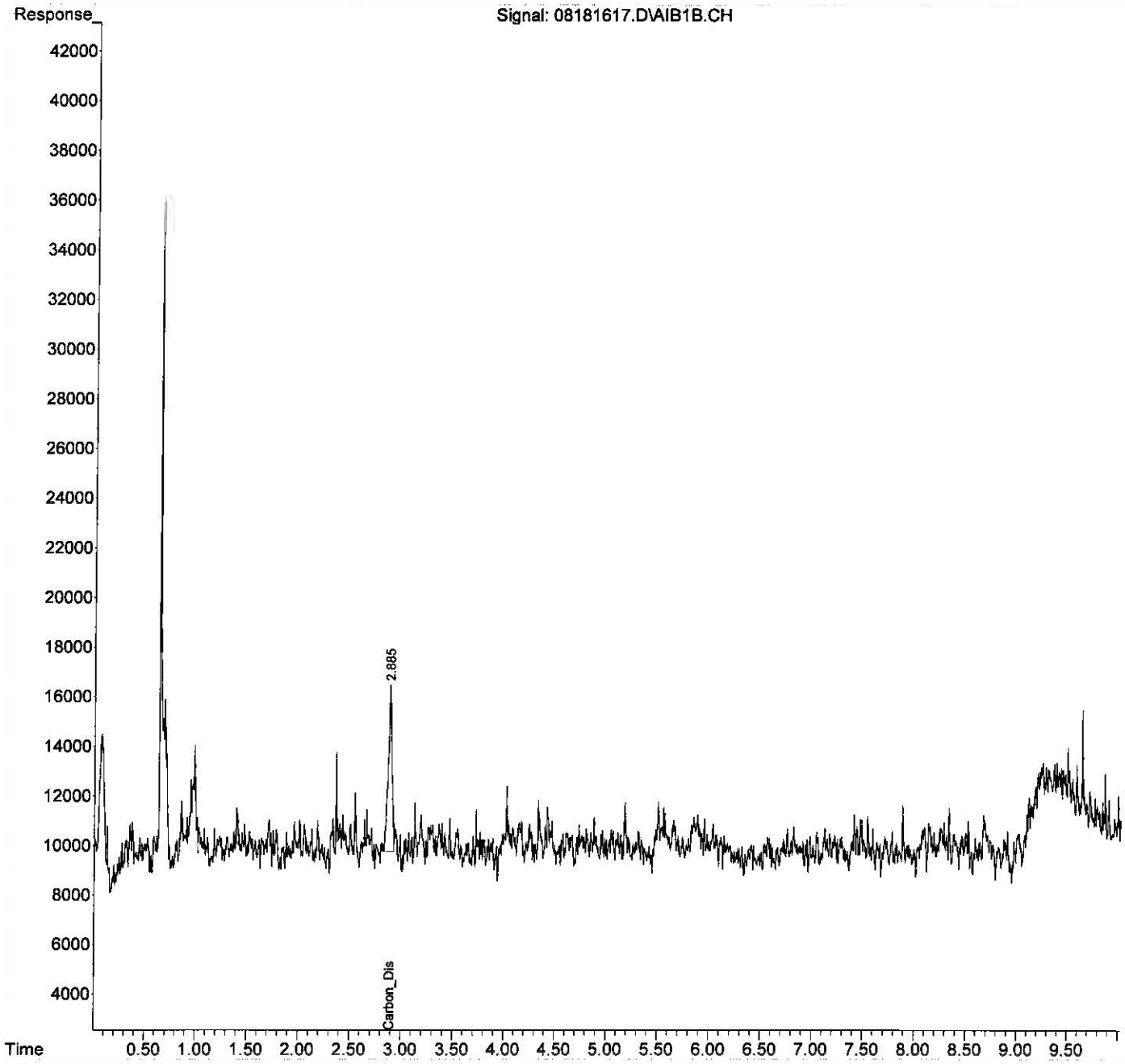
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181617.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 11:53 am
Operator : MC
Sample : 4037-019 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 11:56:17 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

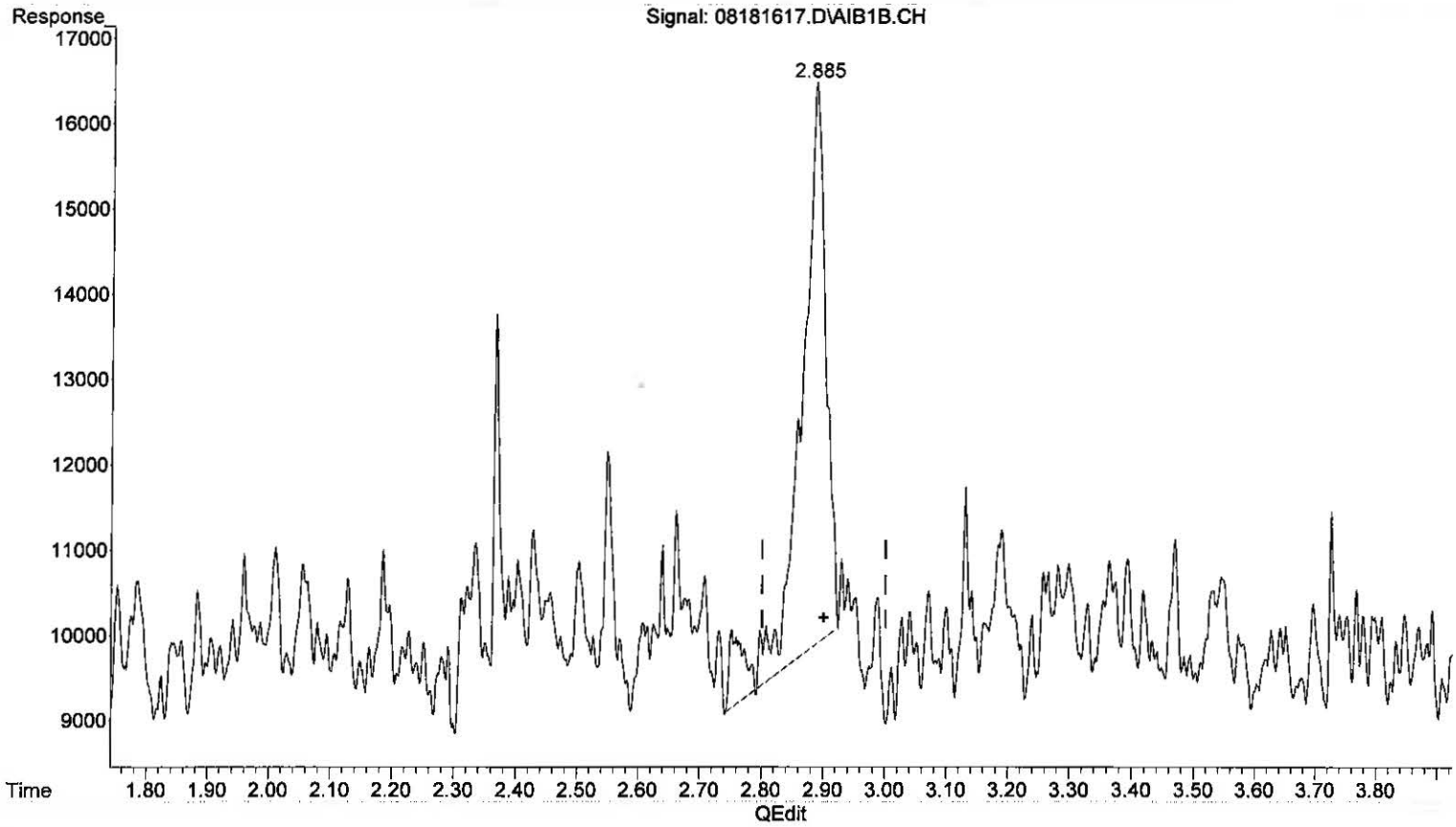


Quantitation Report (Qedit)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181617.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 11:53 am
Operator : MC
Sample : 4037-019 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 11:56:00 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



(6) Carbon_Disulfide (T)

2.887min 1.411 ppb

response 189238

(+) = Expected Retention Time

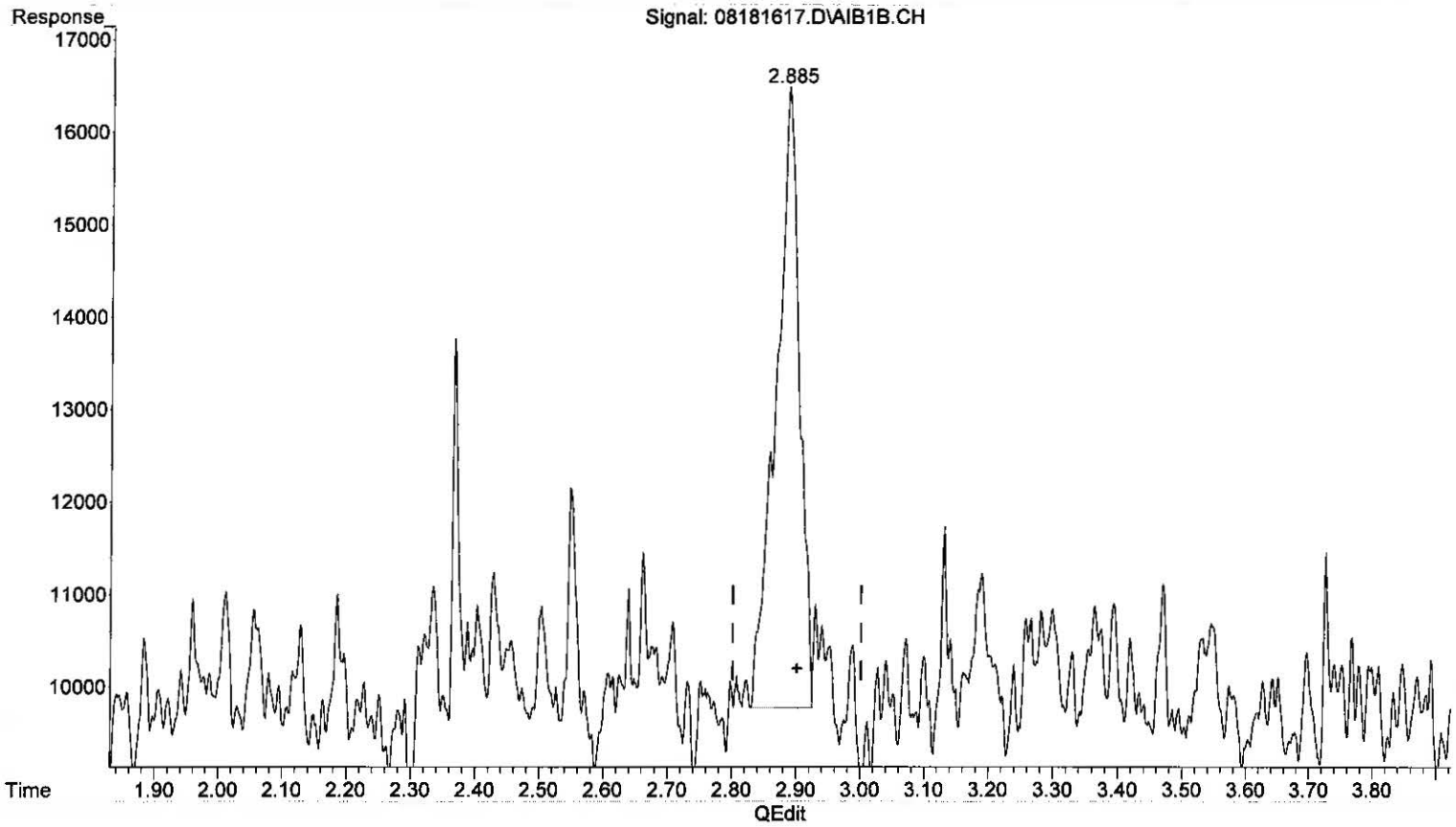
GC13_030216.M Fri Aug 19 11:56:07 2016 Page: 1

Quantitation Report (Qedit)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181617.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 11:53 am
Operator : MC
Sample : 4037-019 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 11:56:00 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



(6) Carbon_Disulfide (T)

2.885min 1.261 ppb m

response 169157

MC 8/19/16

BC

8/19/16

(+) = Expected Retention Time

GC13_030216.M Fri Aug 19 11:56:20 2016

Page: 1

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181623.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 1:43 pm
Operator : MC
Sample : 4037-020 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:37:53 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb
2)	W	Carbonyl_Sulfide	0.000	0	N.D.	ppb
3)	T	Methyl_Mercaptan	0.000	0	N.D.	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

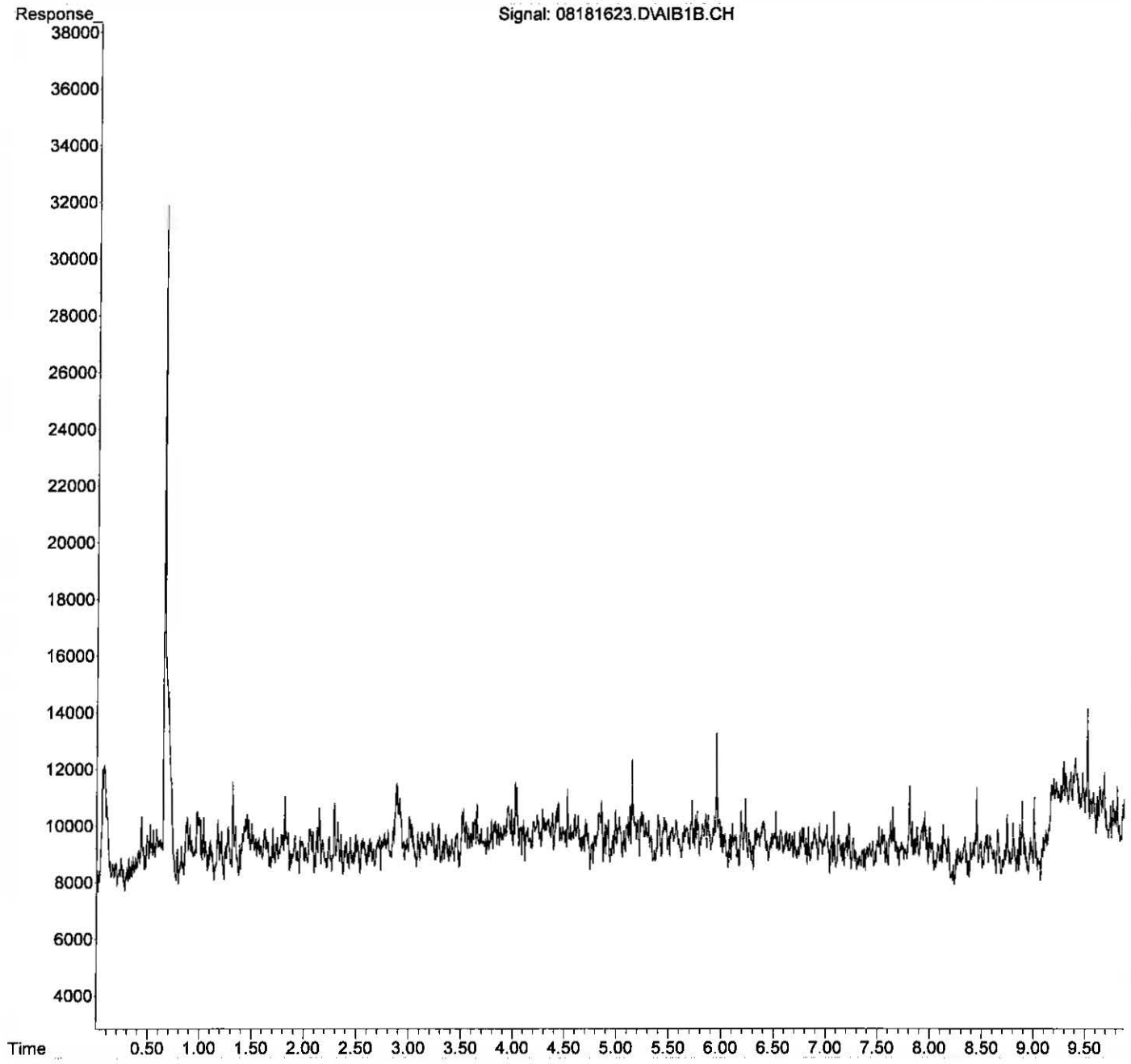
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181623.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 1:43 pm
Operator : MC
Sample : 4037-020 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:37:53 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181622.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 1:30 pm
Operator : MC
Sample : 4037-021 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:37:27 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
Target Compounds							
1)	Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb	
2)	W	Carbonyl_Sulfide	0.000	0	N.D.	ppb	
3)	T	Methyl_Mercaptan	0.000	0	N.D.	ppb	
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb	
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb	
6)	T	Carbon_Disulfide	2.894	135990	1.014	ppb	m
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb	
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb	
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb	
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb	
11)	T	Thiophene	0.000	0	N.D.	ppb	
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb	
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb	
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb	
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb	
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb	
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb	
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb	
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb	
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb	
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb	
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb	

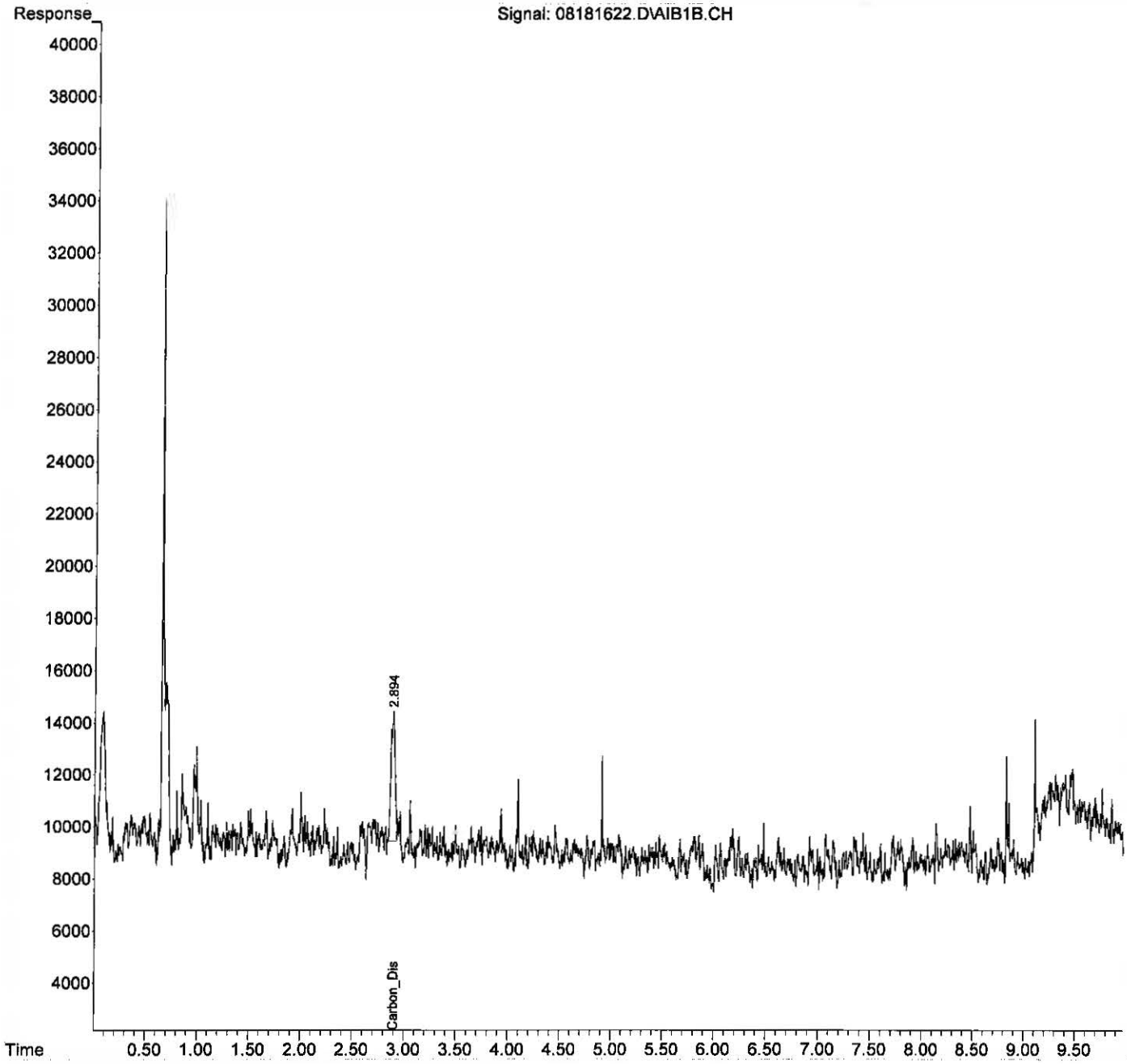
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181622.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 1:30 pm
Operator : MC
Sample : 4037-021 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:37:27 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

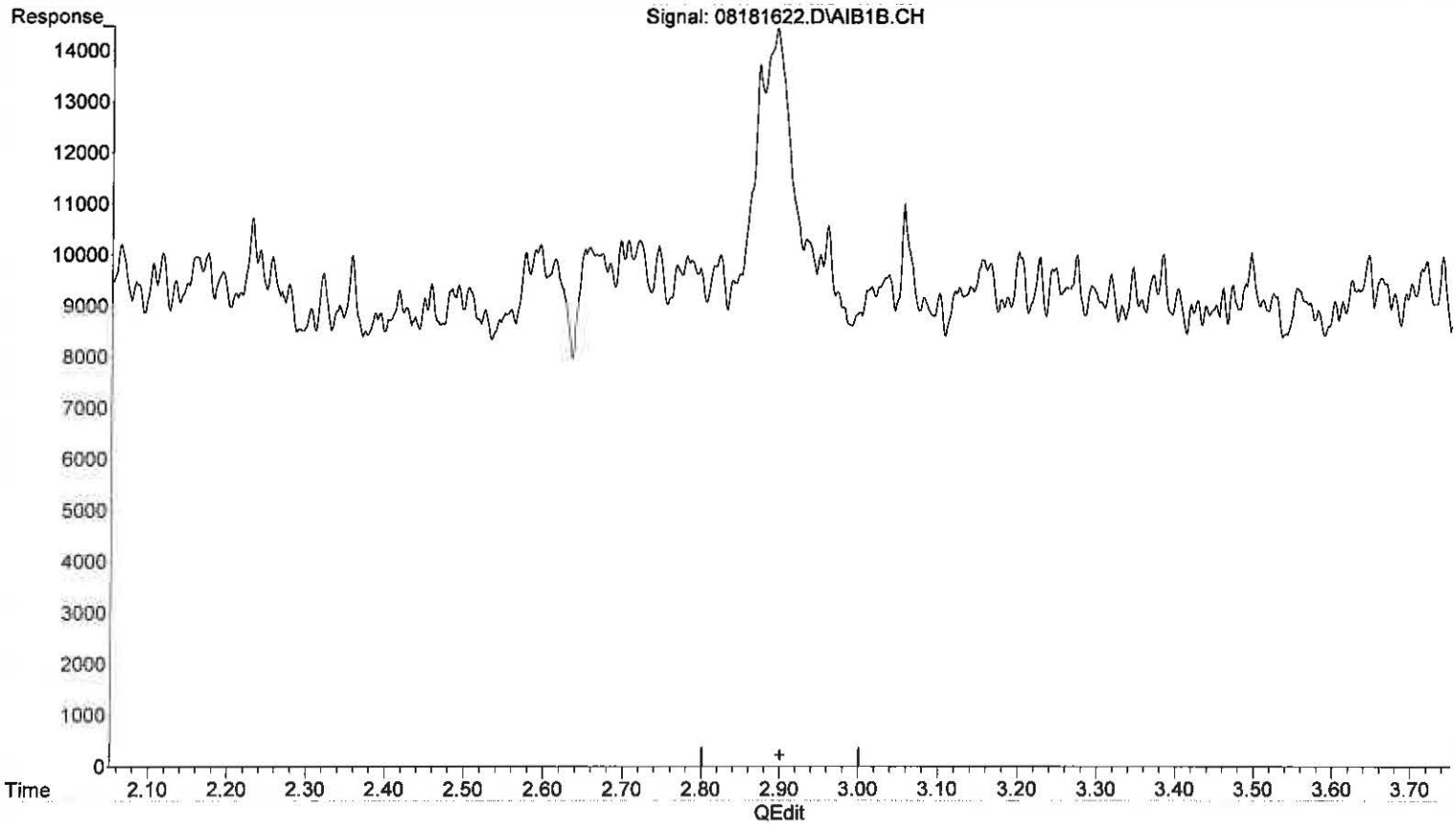


Quantitation Report (Qedit)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181622.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 1:30 pm
Operator : MC
Sample : 4037-021 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 11:59:42 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



(6) Carbon_Disulfide (T)

2.901min 0.000 ppb

response 0

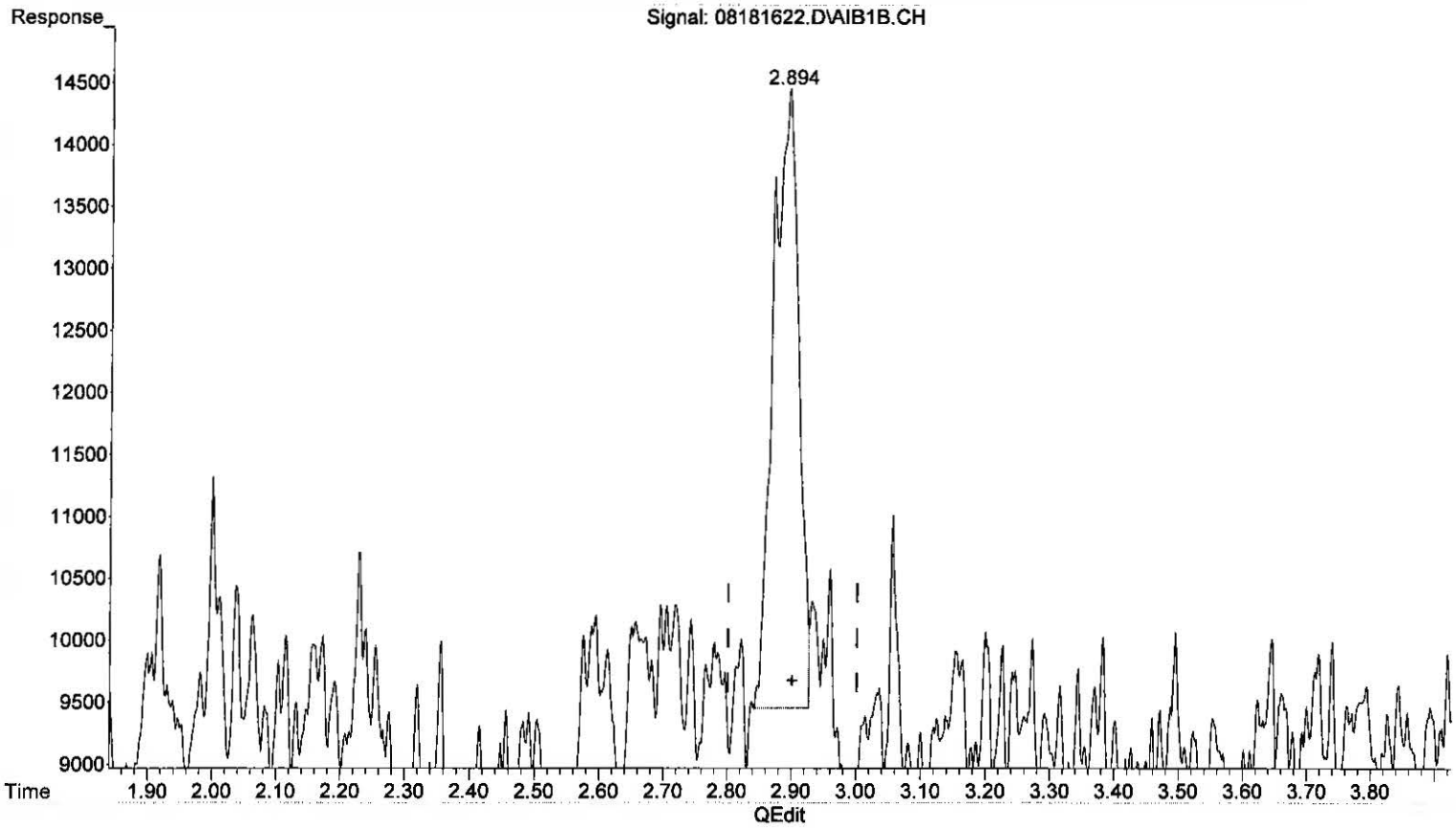
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181622.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 1:30 pm
Operator : MC
Sample : 4037-021 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 11:59:42 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



(6) Carbon_Disulfide (T)
2.894min 1.014 ppb m
response 135990

MC 8/19/16
MO 8/19/16

(+) = Expected Retention Time
GC13_030216.M Fri Aug 19 13:37:32 2016 Page: 1

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181624.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 1:56 pm
Operator : MC
Sample : 4037-022 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:38:57 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
Target Compounds							
1)	Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb	
2)	W	Carbonyl_Sulfide	0.972	104927	1.498	ppb	m
3)	T	Methyl_Mercaptan	0.000	0	N.D.	ppb	
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb	
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb	
6)	T	Carbon_Disulfide	2.891	245640	1.831	ppb	m
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb	
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb	
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb	
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb	
11)	T	Thiophene	0.000	0	N.D.	ppb	
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb	
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb	
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb	
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb	
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb	
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb	
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb	
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb	
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb	
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb	
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb	

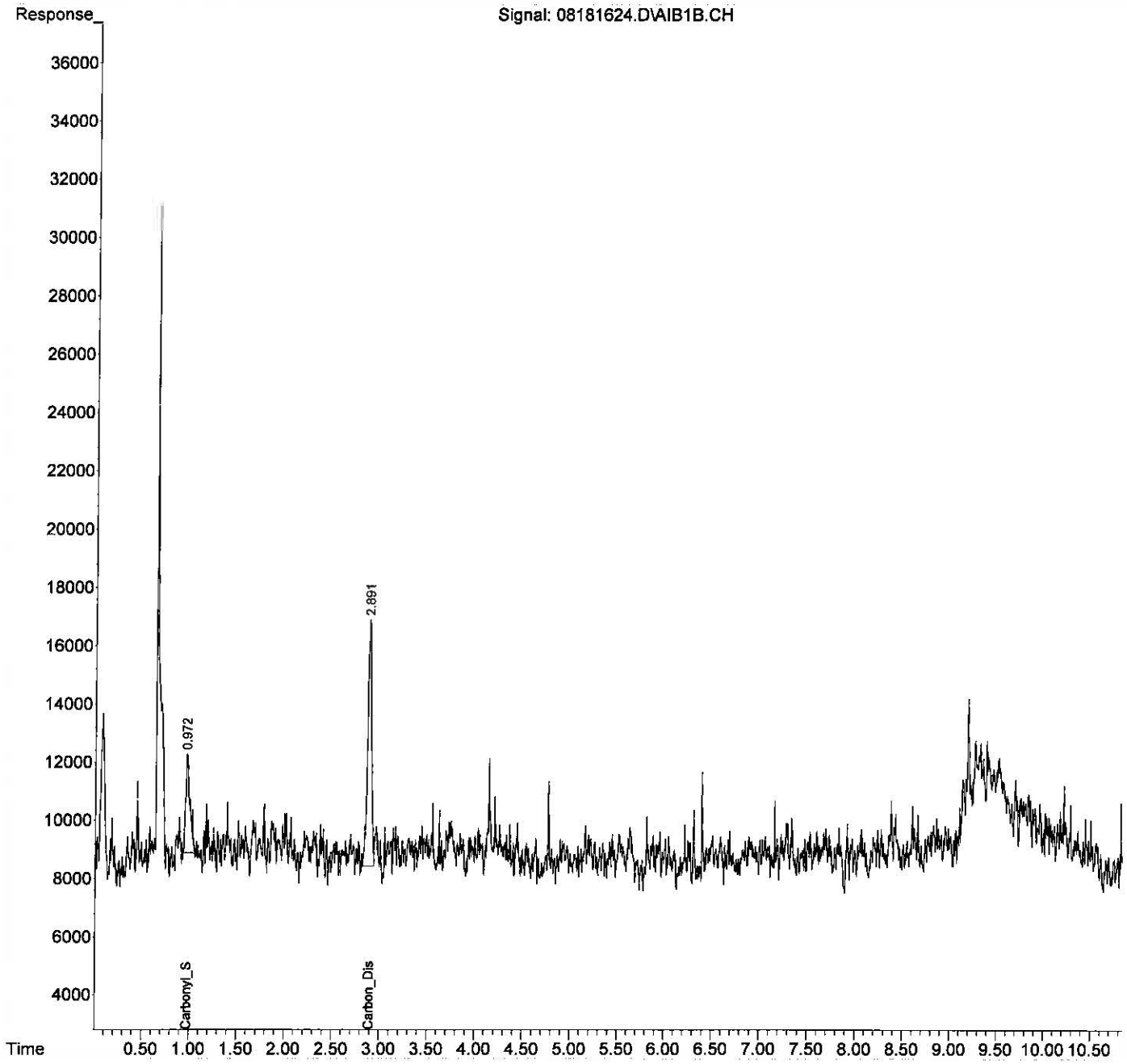
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181624.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 1:56 pm
Operator : MC
Sample : 4037-022 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:38:57 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

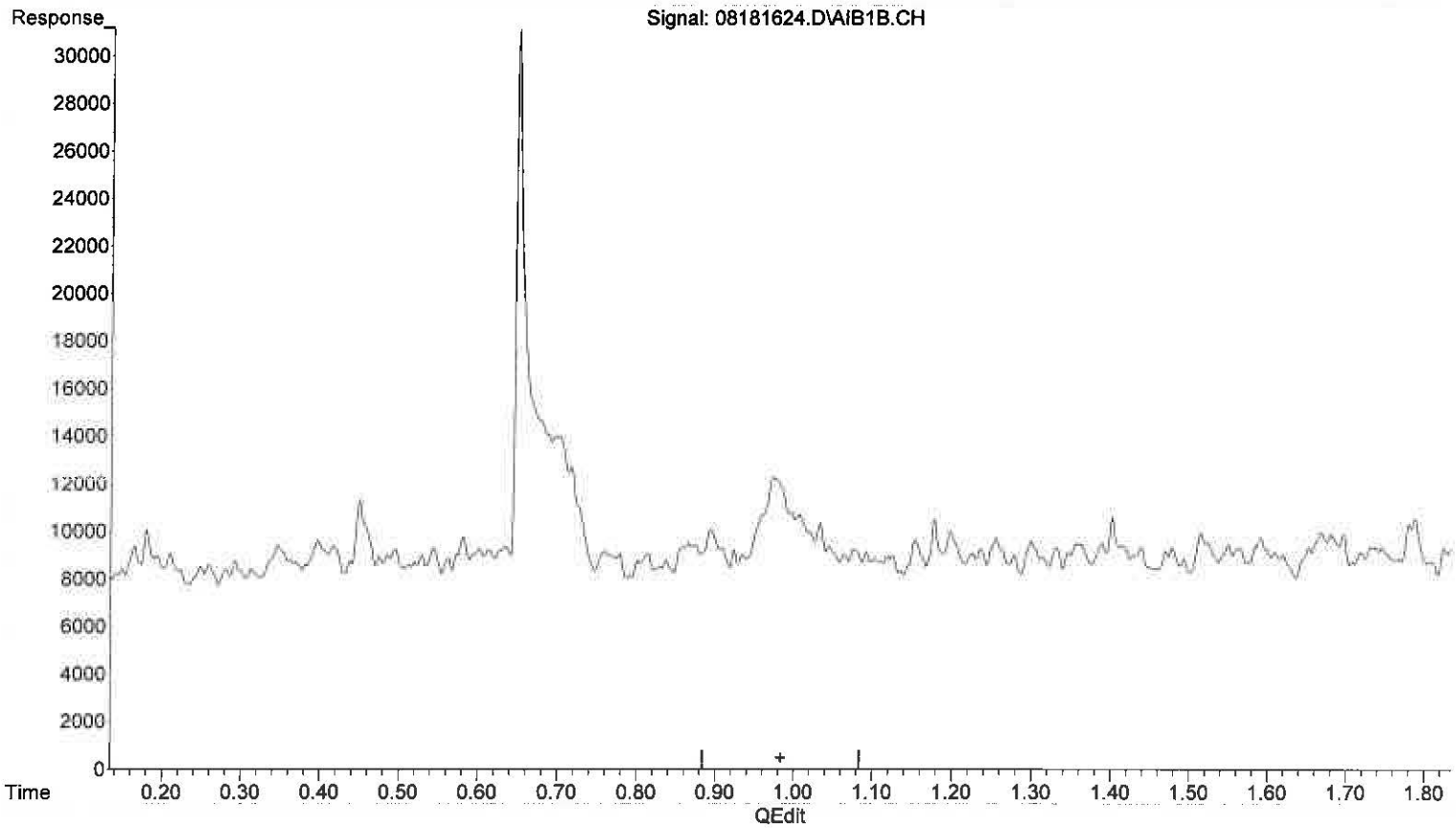


Quantitation Report (Qedit)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181624.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 1:56 pm
Operator : MC
Sample : 4037-022 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:38:14 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



(2) Carbonyl_Sulfide (W)

0.984min 0.000 ppb

response 0

(+) = Expected Retention Time

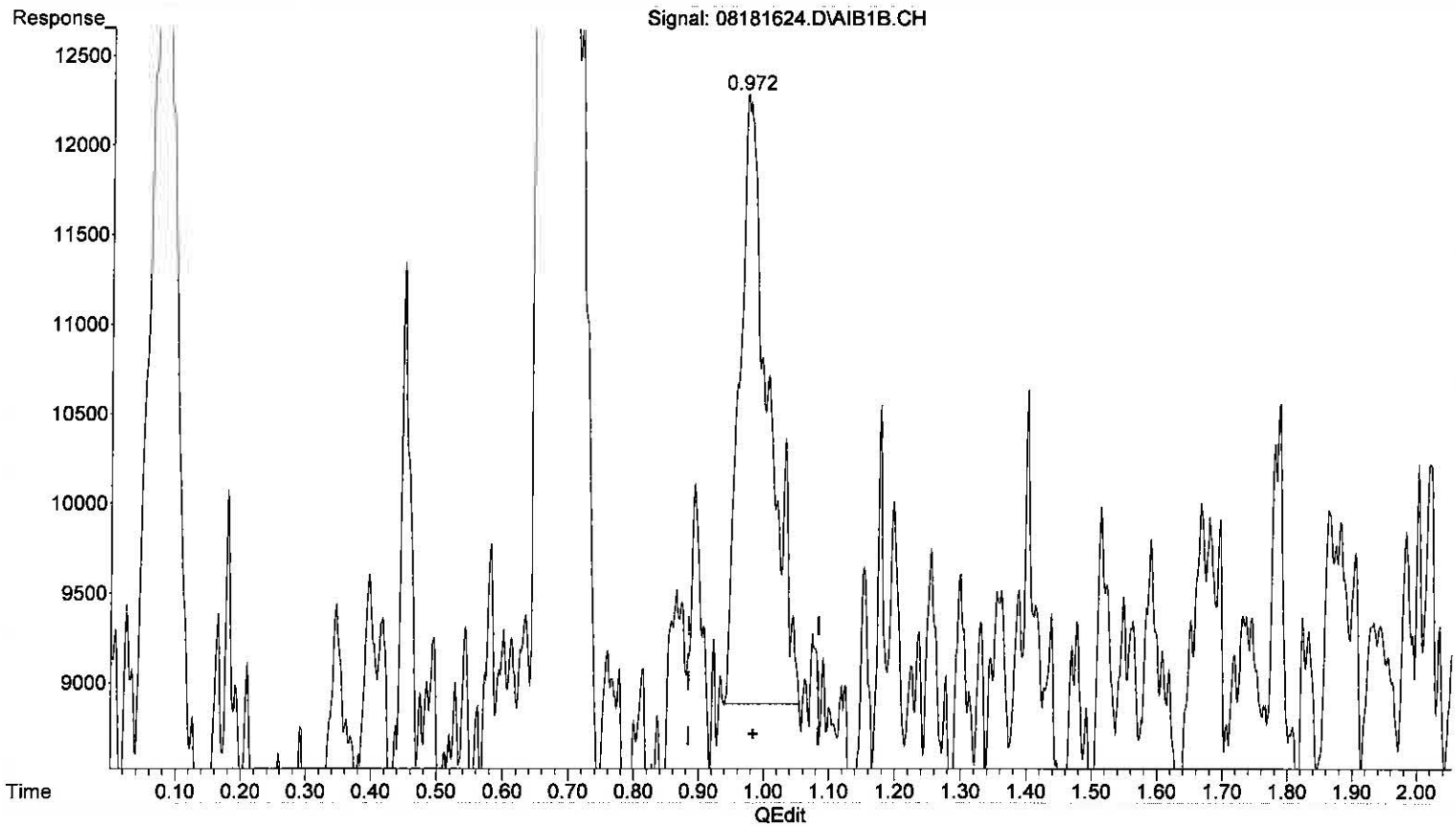
GC13_030216.M Fri Aug 19 13:38:21 2016 Page: 1

Quantitation Report (Qedit)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181624.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 1:56 pm
Operator : MC
Sample : 4037-022 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:38:14 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



(2) Carbonyl_Sulfide (W)

0.972min 1.498 ppb m

response 104927

8/19/16

8/19/16

(+) = Expected Retention Time

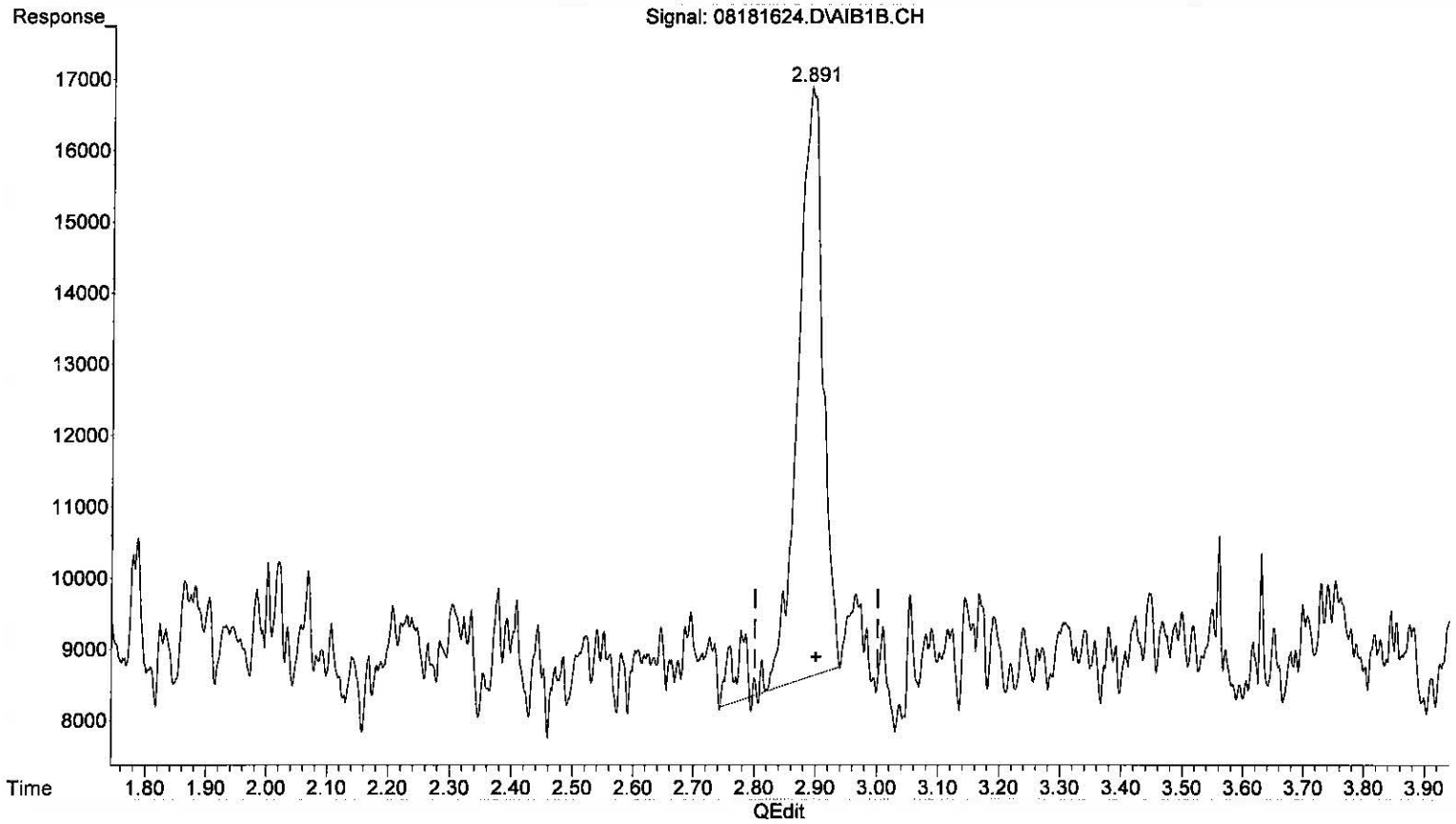
GC13_030216.M Fri Aug 19 13:38:44 2016 Page: 1

Quantitation Report (Qedit)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181624.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 1:56 pm
Operator : MC
Sample : 4037-022 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:38:14 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



(6) Carbon_Disulfide (T)

2.894min 1.868 ppb

response 250537

(+) = Expected Retention Time

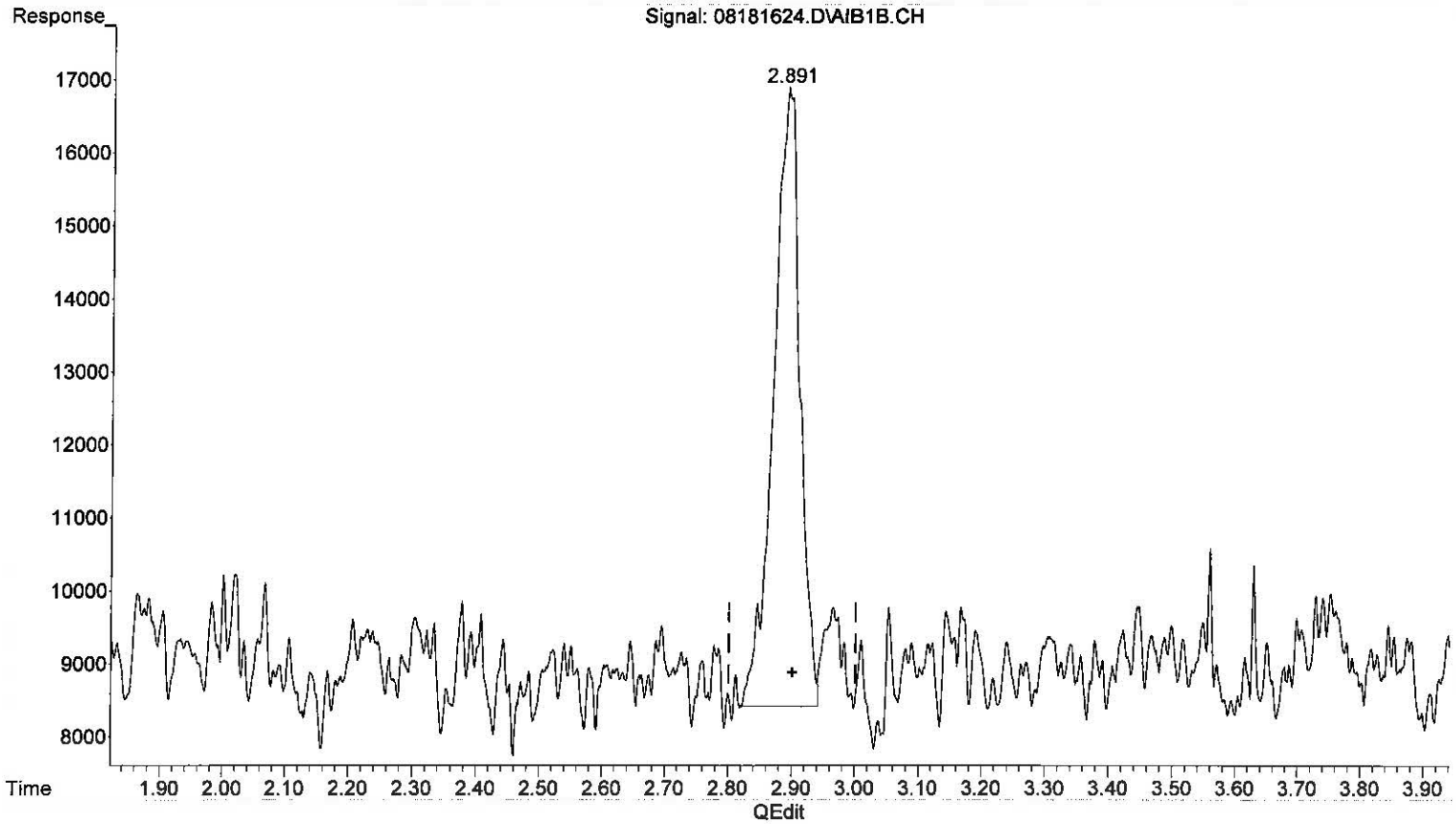
GC13_030216.M Fri Aug 19 13:38:48 2016

Quantitation Report (Qedit)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181624.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 1:56 pm
Operator : MC
Sample : 4037-022 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 13:38:14 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



(6) Carbon_Disulfide (T)
2.891min 1.831 ppb m
response 245640

MC 8/19
BL
8/19/16

(+) = Expected Retention Time
GC13_030216.M Fri Aug 19 13:39:00 2016 Page: 1

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171606.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 9:09 am
Operator : MC
Sample : mb 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 09:27:03 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb
2)	W	Carbonyl_Sulfide	0.000	0	N.D.	ppb
3)	T	Methyl_Mercaptan	0.000	0	N.D.	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

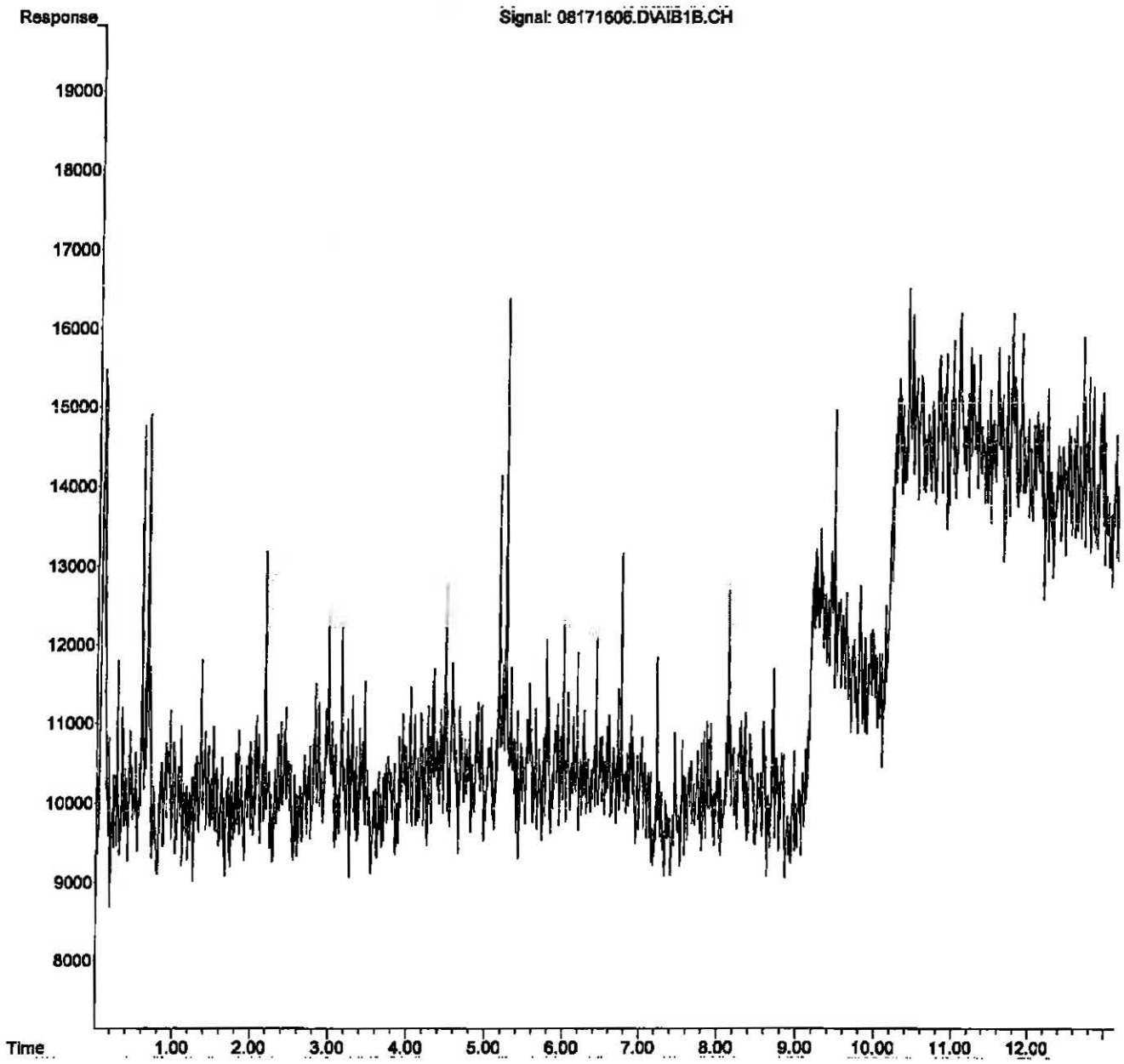
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171606.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 9:09 am
Operator : MC
Sample : mb 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 09:27:03 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171606.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 8:12 am
Operator : MC
Sample : mb 1ml
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 11:54:07 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1) Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb
2) W	Carbonyl_Sulfide	0.000	0	N.D.	ppb
3) T	Methyl_Mercaptan	0.000	0	N.D.	ppb
4) T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5) T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6) T	Carbon_Disulfide	0.000	0	N.D.	ppb
7) T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8) T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9) T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10) T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11) T	Thiophene	0.000	0	N.D.	ppb
12) T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13) T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14) T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15) T	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16) T	2-Methylthiophene	0.000	0	N.D.	ppb
17) T	3-Methylthiophene	0.000	0	N.D.	ppb
18) T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19) T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb
20) T	2-Ethylthiophene	0.000	0	N.D.	ppb
21) T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22) T	Methyltrisulfide	0.000	0	N.D.	ppb

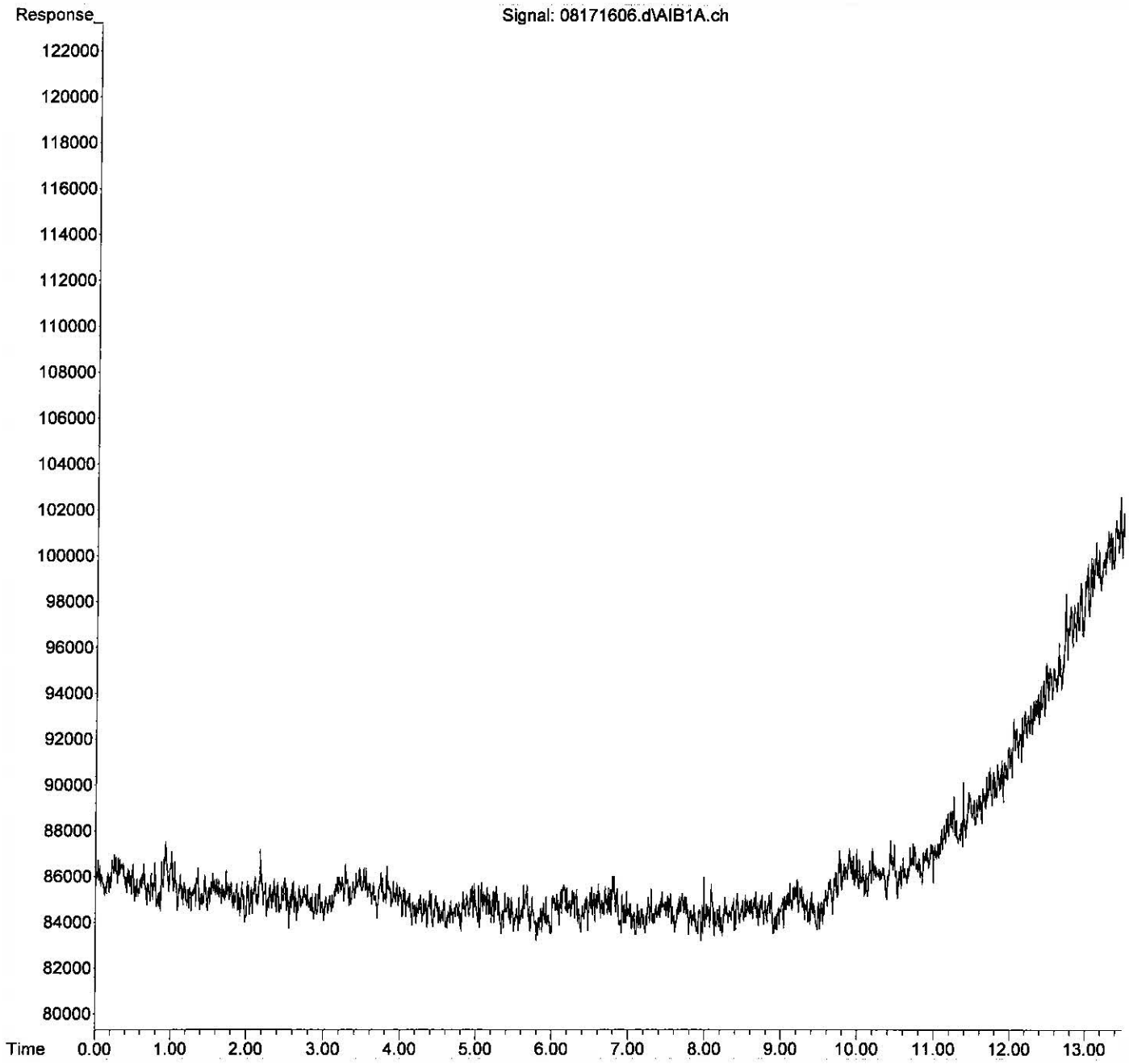
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171606.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 8:12 am
Operator : MC
Sample : mb 1ml
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 11:54:07 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181605.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 8:50 am
Operator : MC
Sample : mb 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 09:04:19 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.000	0	N.D.	ppb
2)	W	Carbonyl_Sulfide	0.000	0	N.D.	ppb
3)	T	Methyl_Mercaptan	0.000	0	N.D.	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

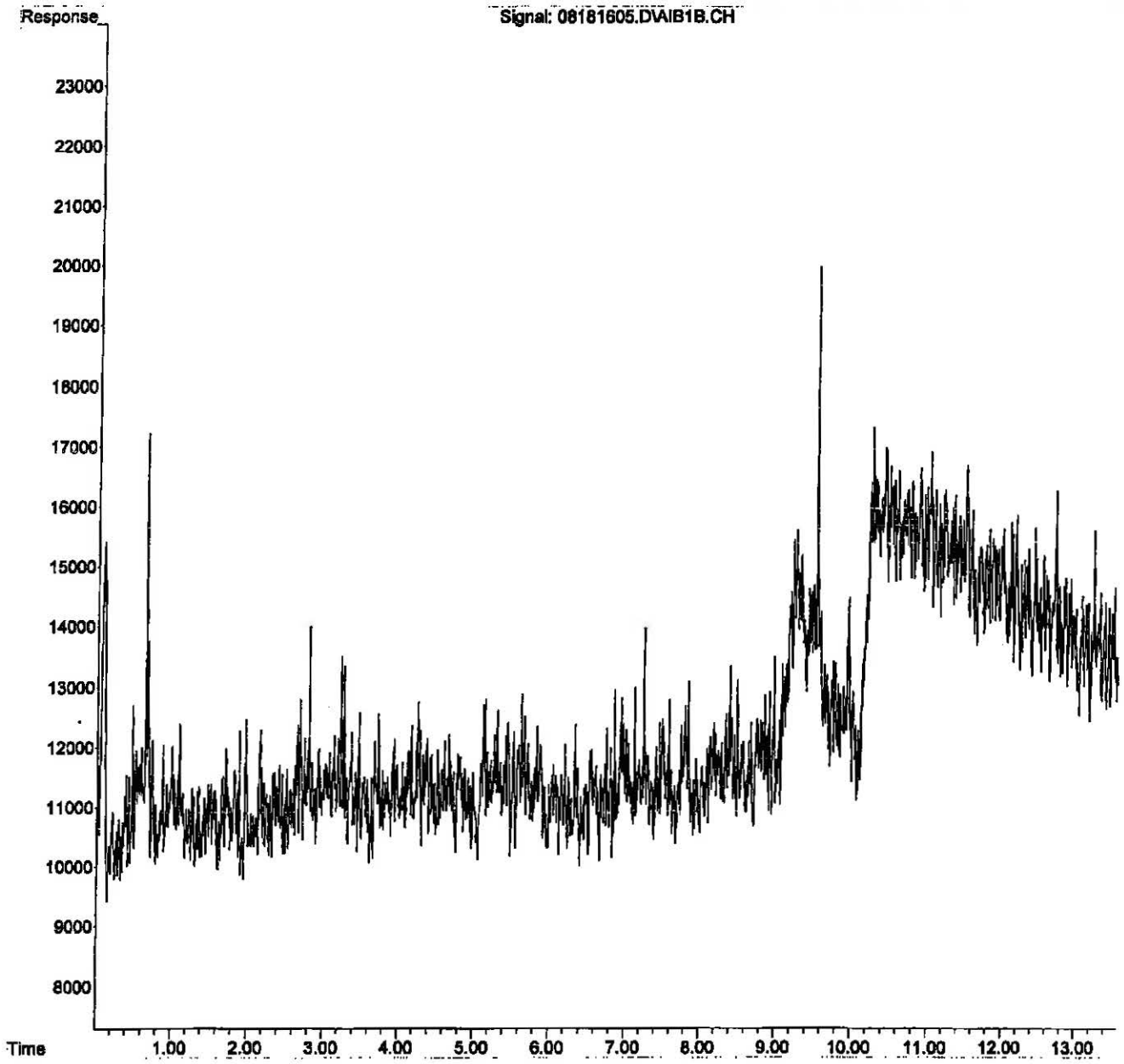
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181605.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 8:50 am
Operator : MC
Sample : mb 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 19 09:04:19 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171603.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 8:29 am
Operator : MC
Sample : lcs s30-08031602
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 09:26:22 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.847	69144419	1106.894	ppb
2)	W	Carbonyl_Sulfide	0.980	76462202	1091.658	ppb
3)	T	Methyl_Mercaptan	1.687	72298456	1077.973	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

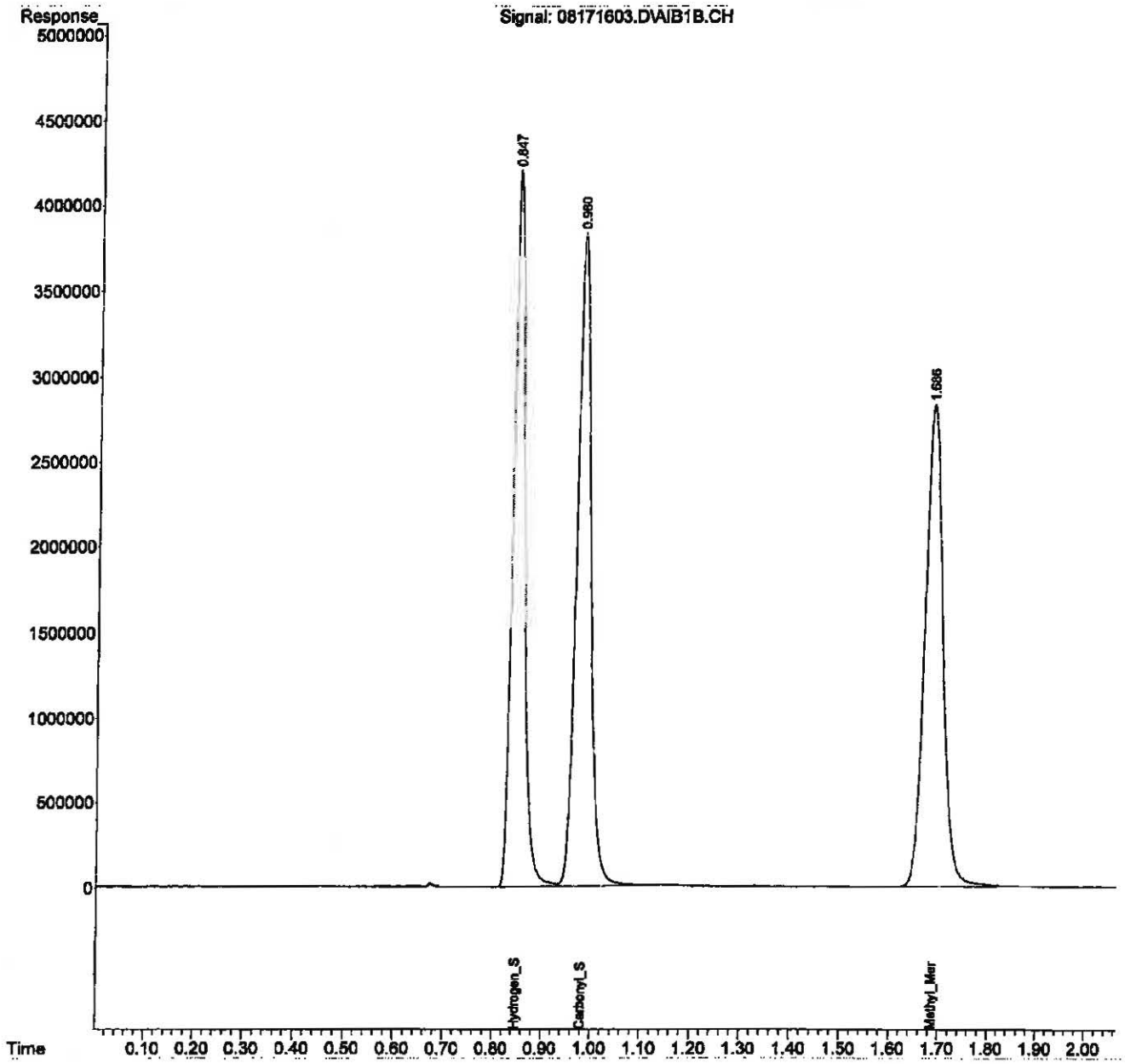
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171603.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 8:29 am
Operator : MC
Sample : lcs s30-08031602
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 09:26:22 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171603.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 7:48 am
Operator : MC
Sample : lcs s30-08031602
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 11:52:29 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	1.192	36058652	874.354	ppb
2)	W	Carbonyl_Sulfide	1.370	40470907	911.235	ppb
3)	T	Methyl_Mercaptan	2.188	37236228	894.050	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	T	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

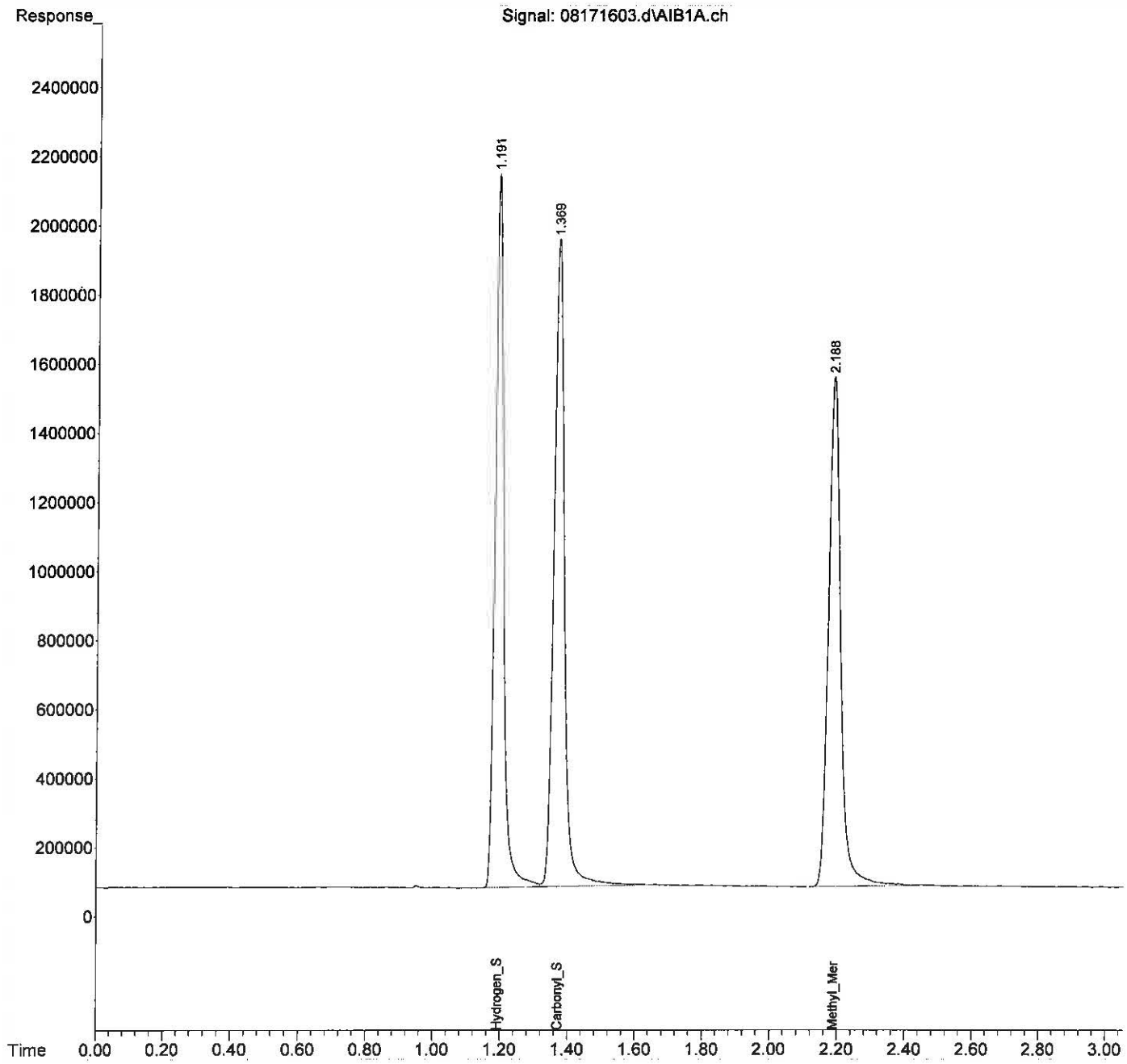
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171603.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 7:48 am
Operator : MC
Sample : lcs s30-08031602
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 11:52:29 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181602.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 8:23 am
Operator : MC
Sample : lcs s30-08031602
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 15:22:01 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.848	63798384	1021.312	ppb
2)	W	Carbonyl_Sulfide	0.981	75228241	1074.040	ppb
3)	T	Methyl_Mercaptan	1.689	68581065	1022.547	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

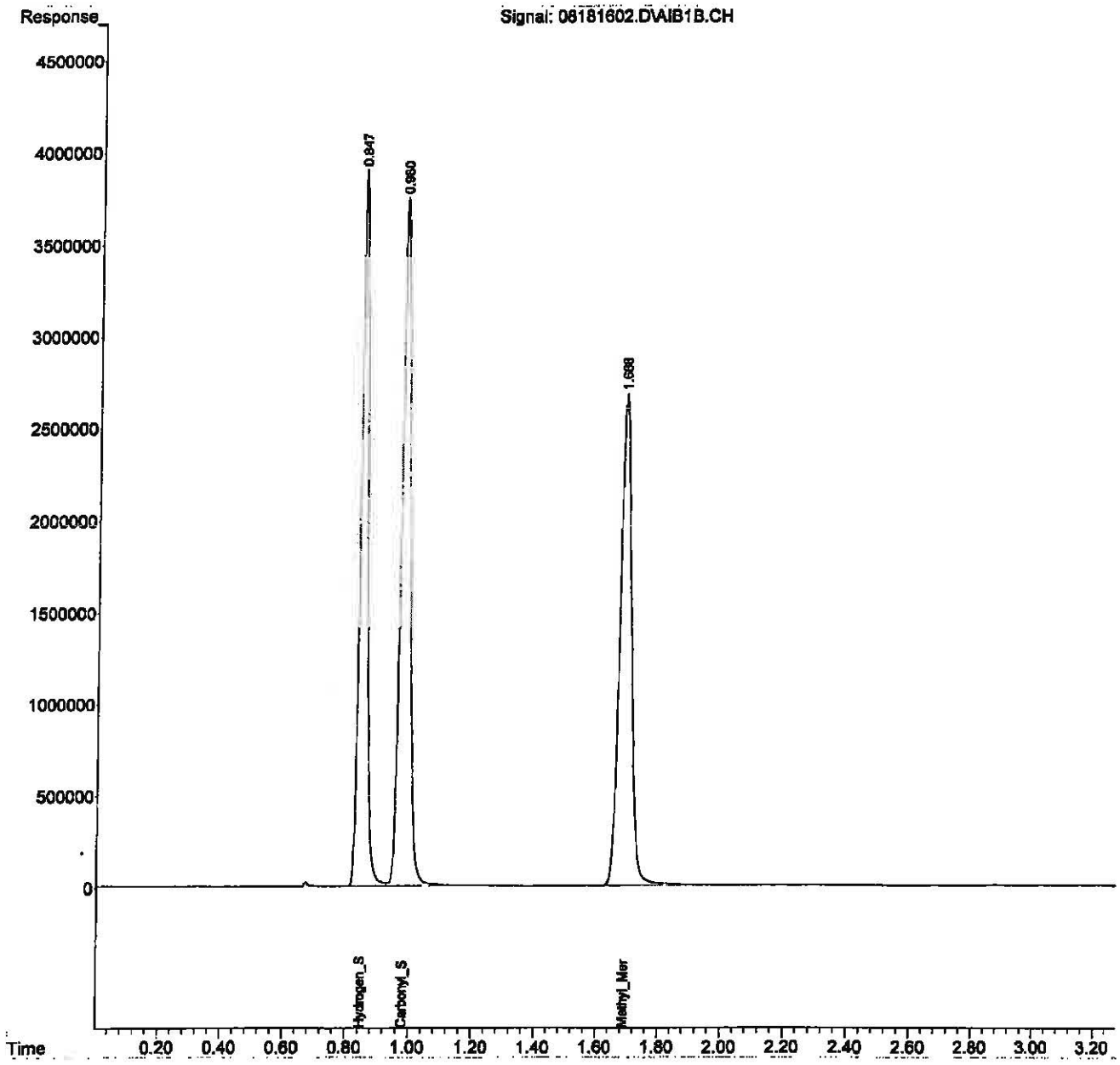
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181602.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 8:23 am
Operator : MC
Sample : lcs s30-08031602
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 15:22:01 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Response Factor Report GC #22

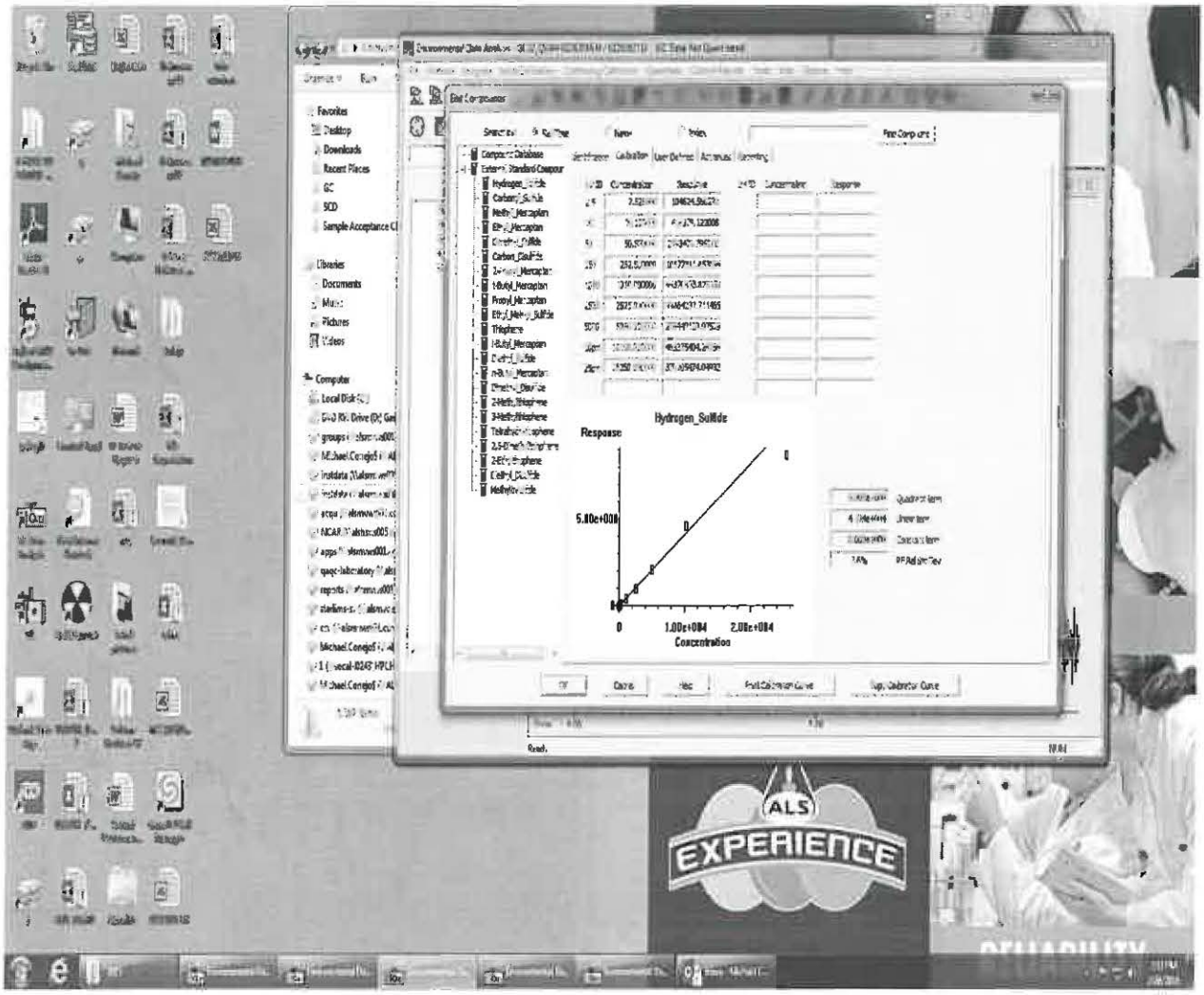
Method Path : J:\GC22\METHODS\
Method File : GC22_Quan 02262016.M
Title : 20 Sulfurs Initial Calibration
Last Update : Fri Feb 26 14:51:03 2016
Response Via : Initial Calibration

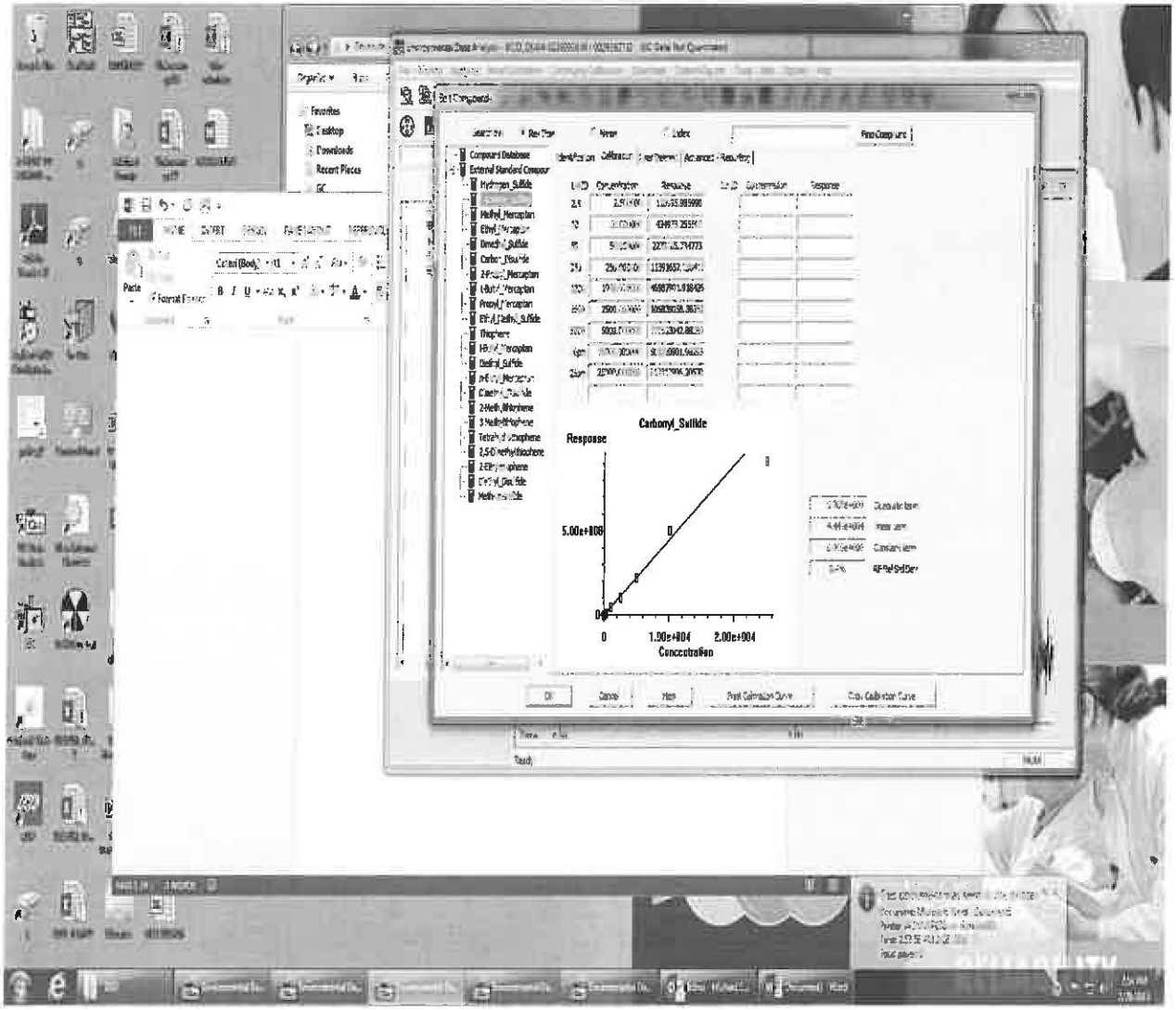
Calibration Files
2.5 =02261603.d 10 =02261604.d 50 =02261605.d
250 =02261606.d 1000 =02261607.d 2500 =02261608.d

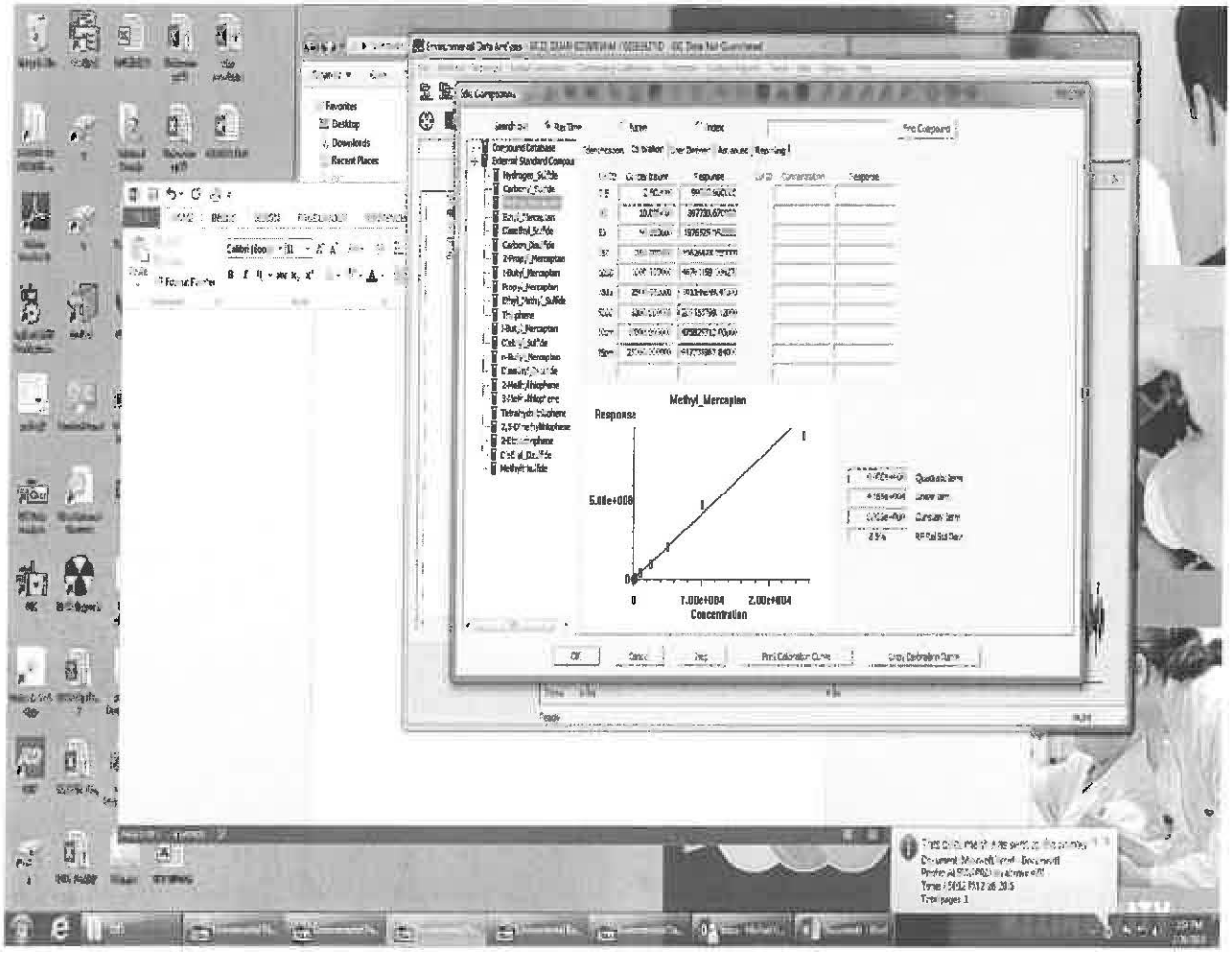
		Compound	2.5	10	50	250	1000	2500	Avg		%RSD
1)	Z	Hydrogen_Sulfide	4.144	4.129	4.145	4.189	4.393	3.955	4.124	E4	7.57
2)	W	Carbonyl_Sulfide	4.440	4.350	4.556	4.557	4.699	4.234	4.441	E4	8.41
3)	T	Methyl_Mercaptan	3.969	3.977	3.953	4.251	4.676	4.046	4.165	E4	8.48
4)	T	Ethyl_Mercaptan	3.969	3.977	3.953	4.251	4.676	4.046	4.165	E4	8.48
5)	T	Dimethyl_Sulfide	3.969	3.977	3.953	4.251	4.676	4.046	4.165	E4	8.48
6)	T	Carbon_Disulfide	7.938	7.955	7.906	8.501	9.352	8.092	8.330	E4	8.48
7)	T	2-Propyl_Merc...	3.969	3.977	3.953	4.251	4.676	4.046	4.165	E4	8.48
8)	T	t-Butyl_Merca...	3.969	3.977	3.953	4.251	4.676	4.046	4.165	E4	8.48
9)	T	Propyl_Mercaptan	3.969	3.977	3.953	4.251	4.676	4.046	4.165	E4	8.48
10)	T	Ethyl_Methyl_...	3.969	3.977	3.953	4.251	4.676	4.046	4.165	E4	8.48
11)	T	Thiophene	3.969	3.977	3.953	4.251	4.676	4.046	4.165	E4	8.48
12)	T	i-Butyl_Merca...	3.969	3.977	3.953	4.251	4.676	4.046	4.165	E4	8.48
13)	T	Diethyl_Sulfide	3.969	3.977	3.953	4.251	4.676	4.046	4.165	E4	8.48
14)	T	n-Butyl_Merca...	3.969	3.977	3.953	4.251	4.676	4.046	4.165	E4	8.48
15)	T	Dimethyl_Disu...	7.938	7.955	7.906	8.501	9.352	8.092	8.330	E4	8.48
16)	T	2-Methylthiop...	3.969	3.977	3.953	4.251	4.676	4.046	4.165	E4	8.48
17)	T	3-Methylthiop...	3.969	3.977	3.953	4.251	4.676	4.046	4.165	E4	8.48
18)	T	Tetrahydrothi...	3.969	3.977	3.953	4.251	4.676	4.046	4.165	E4	8.48
19)	T	2,5-Dimethylt...	3.969	3.977	3.953	4.251	4.676	4.046	4.165	E4	8.48
20)	T	2-Ethylthiophene	3.969	3.977	3.953	4.251	4.676	4.046	4.165	E4	8.48
21)	T	Diethyl_Disul...	7.938	7.955	7.906	8.501	9.352	8.092	8.330	E4	8.48
22)	T	Methyltrisulfide	7.938	7.955	7.906	8.501	9.352	8.092	8.330	E4	8.48

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

GC22_Quan 02262016.M Fri Feb 26 14:52:33 2016


Hydrogen_Sulfide
Response
5.00e+008
0
1.00e+084
2.00e+084
Concentration
ALS
EXPERIENCE


Carbonyl_Sulfide
Response
5.00e+008
0
0
1.00e+004
2.00e+004
Concentration


Methyl_Mercaptan
Response
5.00e+006
0
1.00e+004
2.00e+004
Concentration

Calibration Status Report GC #22

Method Path : J:\GC22\METHODS\
Method File : GC22_Quan 02262016.M
Title : 20 Sulfurs Initial Calibration
Last Update : Fri Feb 26 14:51:03 2016
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	2.5	1	0	J:\GC22\DATA\SCD\2016_02\26\02261603.d
2	10	5	0	J:\GC22\DATA\SCD\2016_02\26\02261604.d
3	50	25	0	J:\GC22\DATA\SCD\2016_02\26\02261605.d
4	250	125	0	J:\GC22\DATA\SCD\2016_02\26\02261606.d
5	1000	500	0	J:\GC22\DATA\SCD\2016_02\26\02261607.d
6	2500	1250	0	J:\GC22\DATA\SCD\2016_02\26\02261608.d
7	5000	2500	0	J:\GC22\DATA\SCD\2016_02\26\02261609.d
8	10pm	5000	0	J:\GC22\DATA\SCD\2016_02\26\02261610.d
9	25pm	12500	0	J:\GC22\DATA\SCD\2016_02\26\02261611.d

#	ID	Update Time	Quant Time	Acquisition Time
1	2.5	Feb 26 09:50 2016	Feb 26 09:45 2016	26 Feb 2016 9:19
2	10	Feb 26 09:50 2016	Feb 26 09:44 2016	26 Feb 2016 9:26
3	50	Feb 26 14:21 2016	Feb 26 14:21 2016	26 Feb 2016 9:30 am
4	250	Feb 26 14:22 2016	Feb 26 14:21 2016	26 Feb 2016 9:36 am
5	1000	Feb 26 14:22 2016	Feb 26 14:22 2016	26 Feb 2016 9:41 am
6	2500	Feb 26 14:23 2016	Feb 26 14:22 2016	26 Feb 2016 9:47 am
7	5000	Feb 26 14:23 2016	Feb 26 14:23 2016	26 Feb 2016 9:52 am
8	10pm	Feb 26 14:24 2016	Feb 26 14:24 2016	26 Feb 2016 9:57 am
9	25pm	Feb 26 14:25 2016	Feb 26 14:25 2016	26 Feb 2016 10:30 am

GC22_Quan 02262016.M Fri Feb 26 14:52:58 2016

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261603.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 9:19 am
Operator : MC
Sample : Std 2.5ppb S11-02231601 25ul
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 09:54:50 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 09:52:24 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	1.184	136282	3.482	ppb
2)	W	Carbonyl_Sulfide	1.363	94256	2.273	ppb
3)	T	Methyl_Mercaptan	2.193	129631	3.351	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	T	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

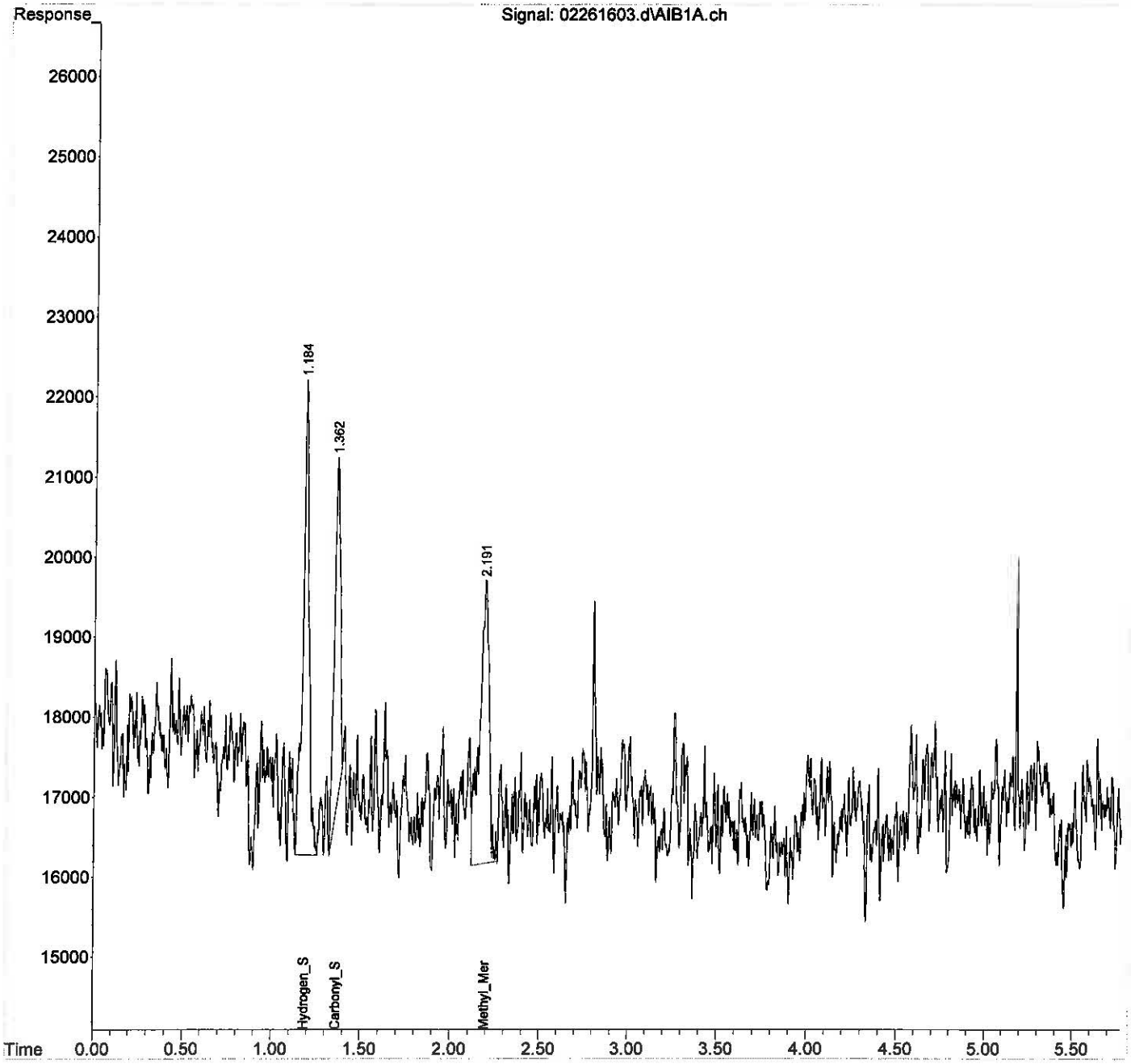
MC 2/26/

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261603.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 9:19 am
Operator : MC
Sample : Std 2.5ppb S11-02231601 25ul
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 09:54:50 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 09:52:24 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261604.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 9:26 am
Operator : MC
Sample : Std 10ppb S11-02231601 100ul
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 09:55:07 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 09:52:24 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	1.157	461077	11.781	ppb
2)	W	Carbonyl_Sulfide	1.335	511769	12.340	ppb
3)	T	Methyl_Mercaptan	2.160	428644	11.081	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	T	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

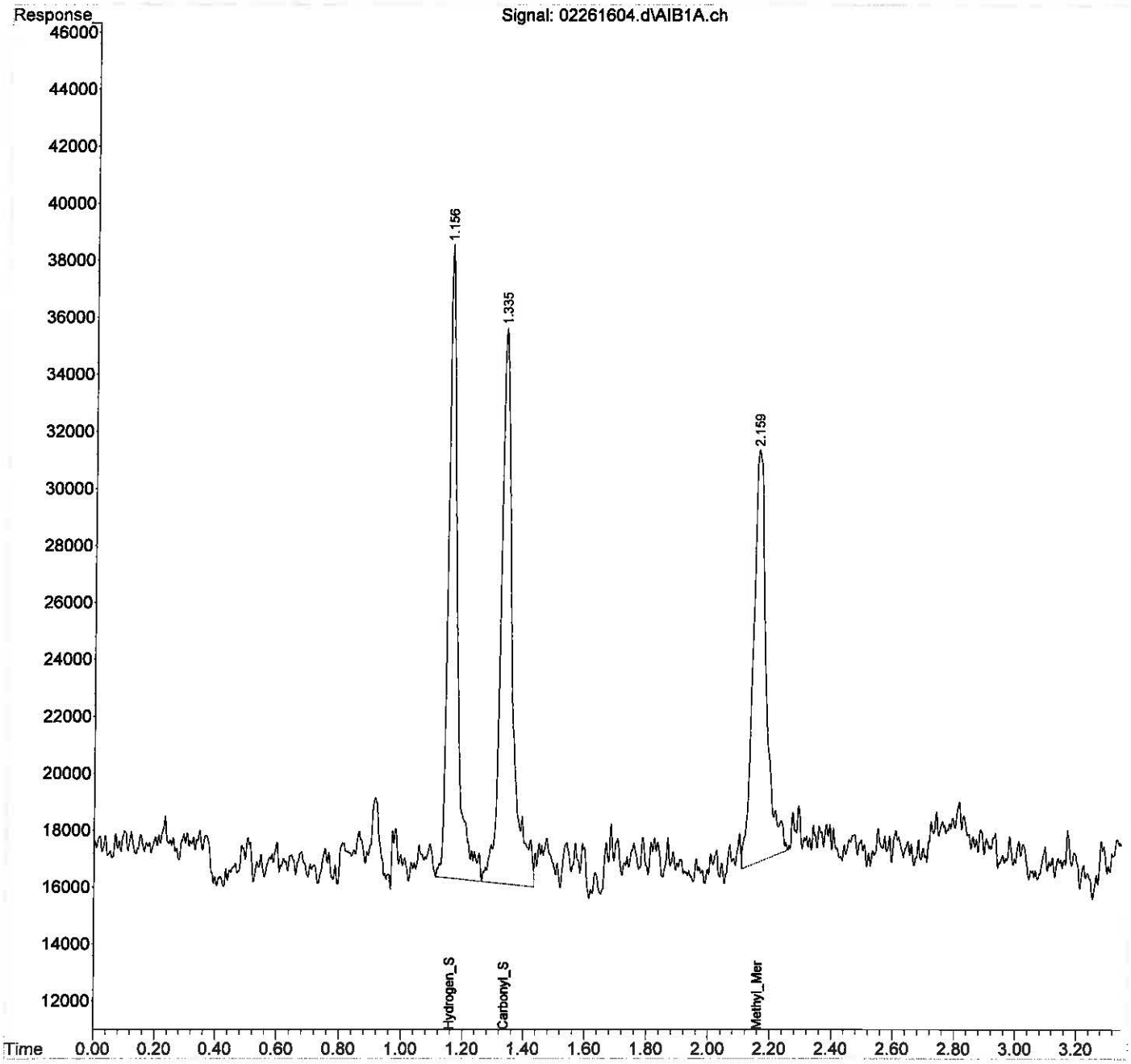
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261604.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 9:26 am
Operator : MC
Sample : Std 10ppb S11-02231601 100ul
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 09:55:07 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 09:52:24 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261605.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 9:30 am
Operator : MC
Sample : Std 50ppb S11-02231601 500ul
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:21:02 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 09:52:24 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
Target Compounds							
1)	Z	Hydrogen_Sulfide	1.087f	2093471	53.492	ppb	m
2)	W	Carbonyl_Sulfide	1.261f	2278106	54.932	ppb	
3)	T	Methyl_Mercaptan	2.082f	1976525	51.096	ppb	
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb	
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb	
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb	
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb	
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb	
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb	
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb	
11)	T	Thiophene	0.000	0	N.D.	ppb	
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb	
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb	
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb	
15)	T	Dimethyl_Disulfide	0.000	0	N.D.	ppb	
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb	
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb	
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb	
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb	
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb	
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb	
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb	

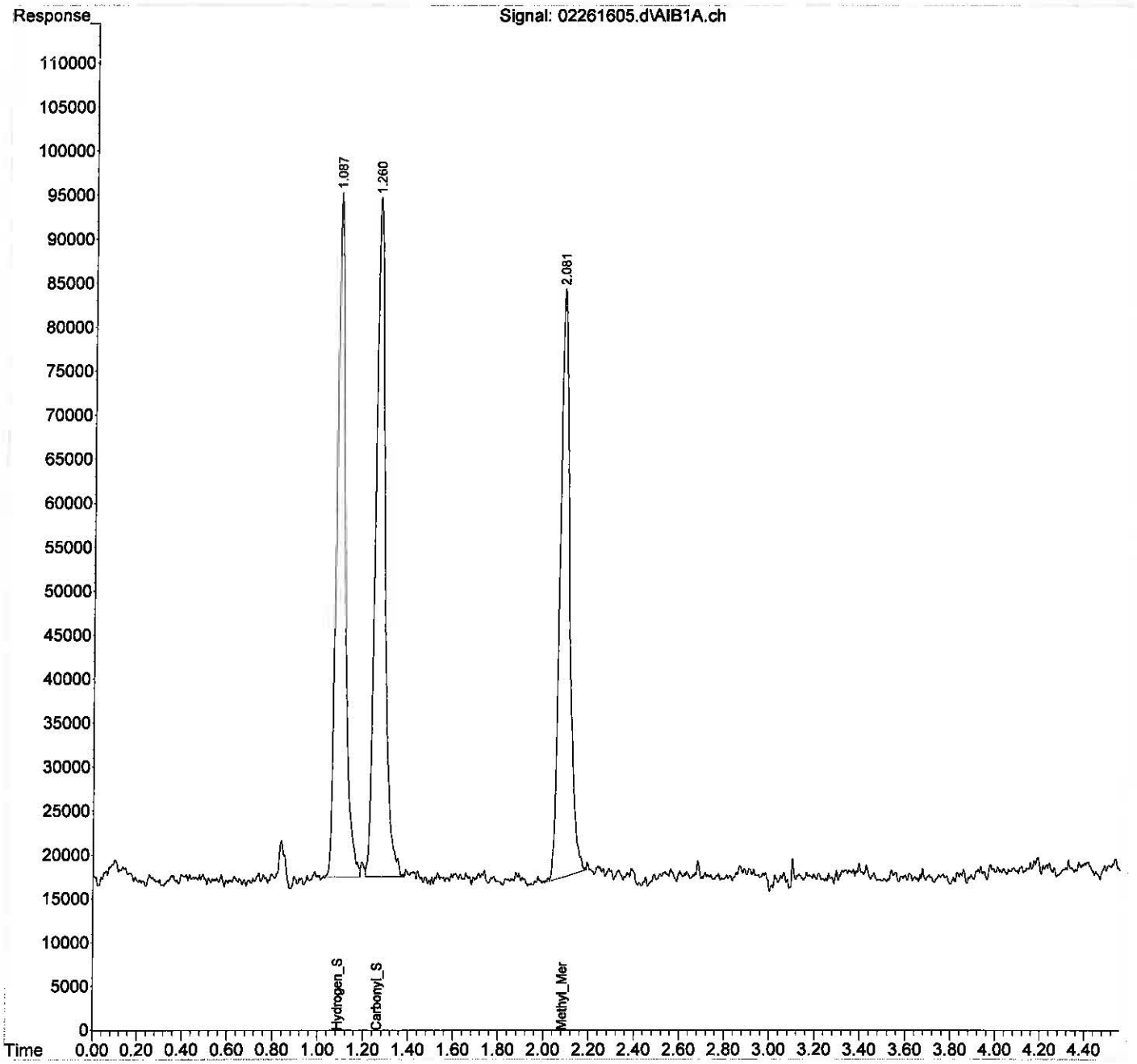
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261605.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 9:30 am
Operator : MC
Sample : Std 50ppb S11-02231601 500ul
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:21:02 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 09:52:24 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

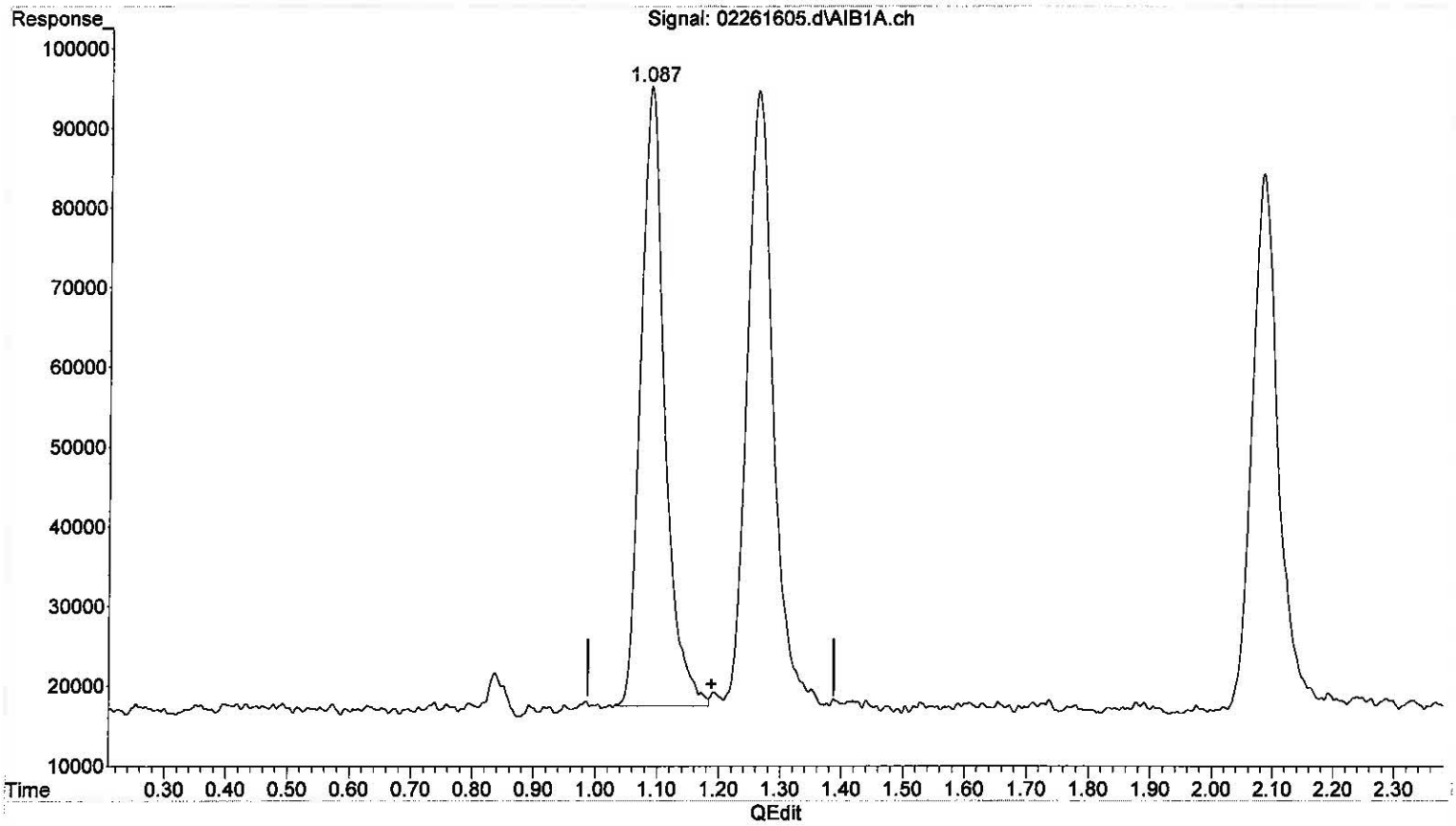


Quantitation Report (Qedit)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261605.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 9:30 am
Operator : MC
Sample : Std 50ppb S11-02231601 500ul
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 09:55:18 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 09:52:24 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



(1) Hydrogen_Sulfide (Z)
1.087min 53.492 ppb m
response 2093471

MC 2/26/16
WP

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261606.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 9:36 am
Operator : MC
Sample : Std 250ppb S11-02171604 25ul
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:21:56 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 14:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	1.199	10577312	256.480	ppb
2)	W	Carbonyl_Sulfide	1.379	11391657	256.492	ppb
3)	T	Methyl_Mercaptan	2.209	10626473	255.423	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	T	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

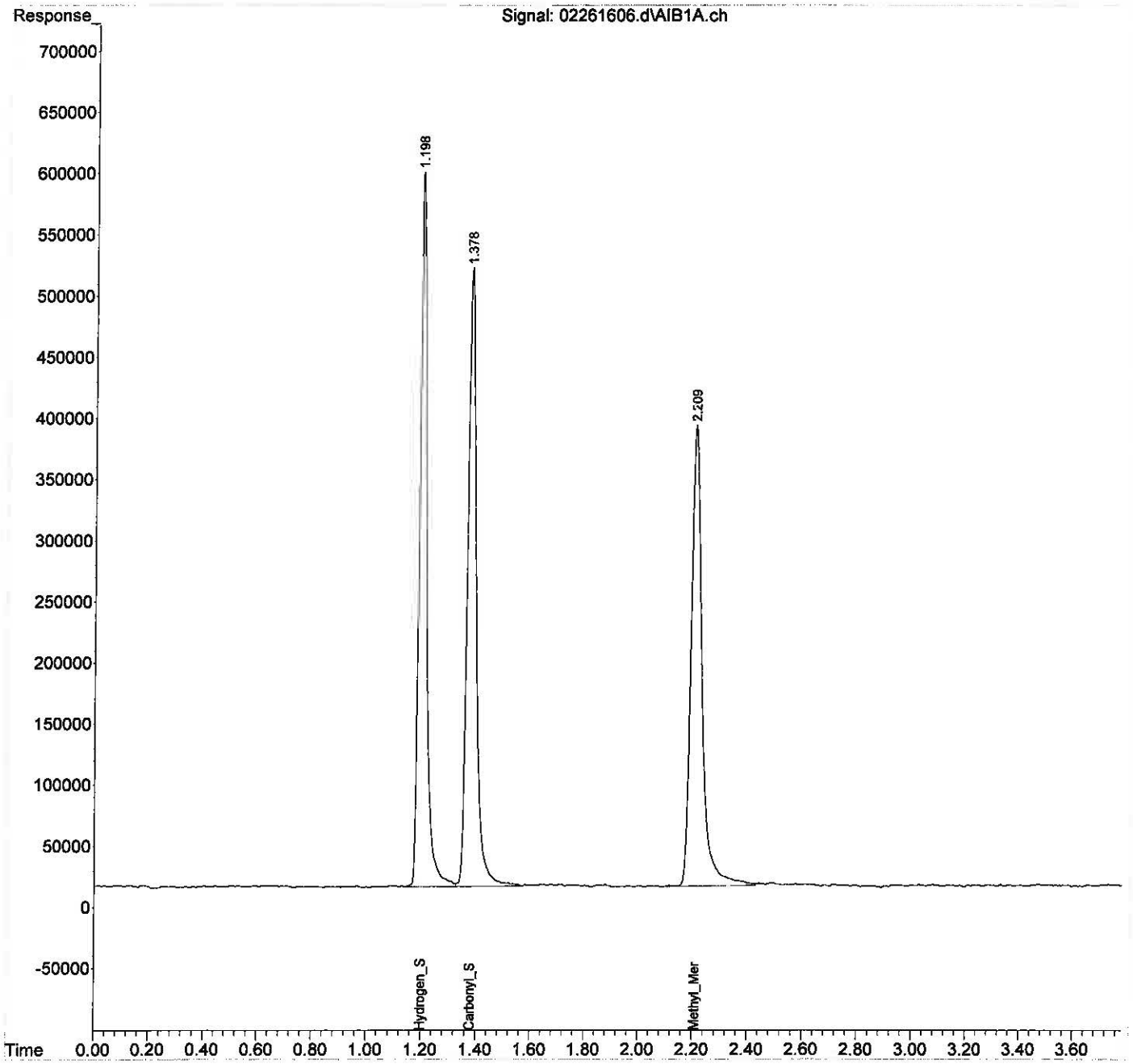
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261606.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 9:36 am
Operator : MC
Sample : Std 250ppb S11-02171604 25ul
Misc :
ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:21:56 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 14:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261607.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 9:41 am
Operator : MC
Sample : Std 1000ppb S11-02171604 100ul
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:22:24 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 14:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	1.190	44370804	1075.908	ppb
2)	W	Carbonyl_Sulfide	1.370	46987902	1057.970	ppb
3)	T	Methyl_Mercaptan	2.203	46761159	1123.972	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	3.483	246643	2.964	ppb
7)	T	2-Propyl_Mercaptan	3.483f	246643	5.928	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	T	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

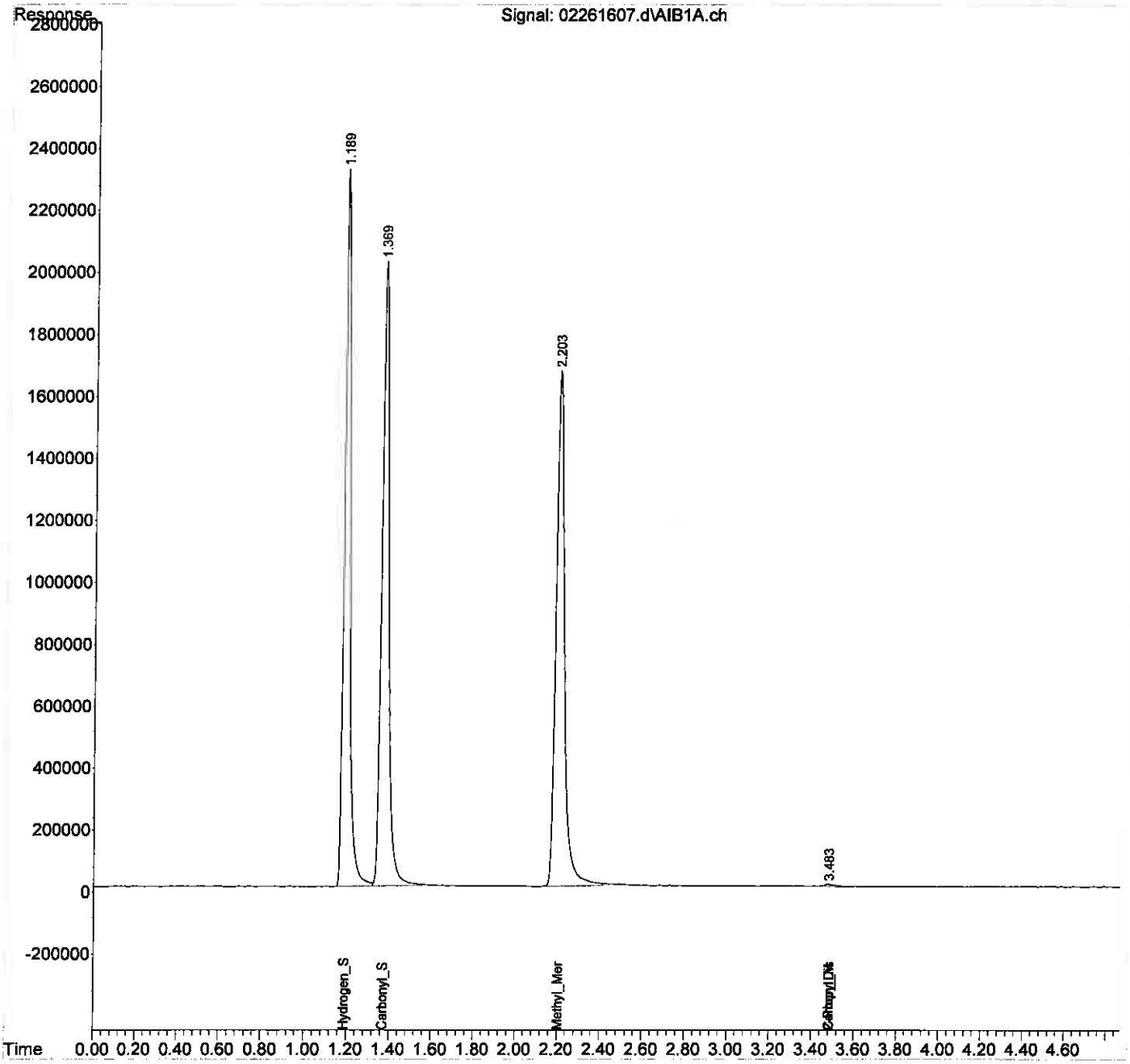
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261607.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 9:41 am
Operator : MC
Sample : Std 1000ppb S11-02171604 100ul
Misc :
ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:22:24 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 14:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261608.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 9:47 am
Operator : MC
Sample : Std 2500ppb S11-02171604 250ul
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:22:55 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 14:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	1.180	99864238	2421.520	ppb
2)	W	Carbonyl_Sulfide	1.362	105839058	2383.051	ppb
3)	T	Methyl_Mercaptan	2.199	101144849	2428.509	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	3.479	360388	4.939	ppb
7)	T	2-Propyl_Mercaptan	3.479f	360388	9.879	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	T	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

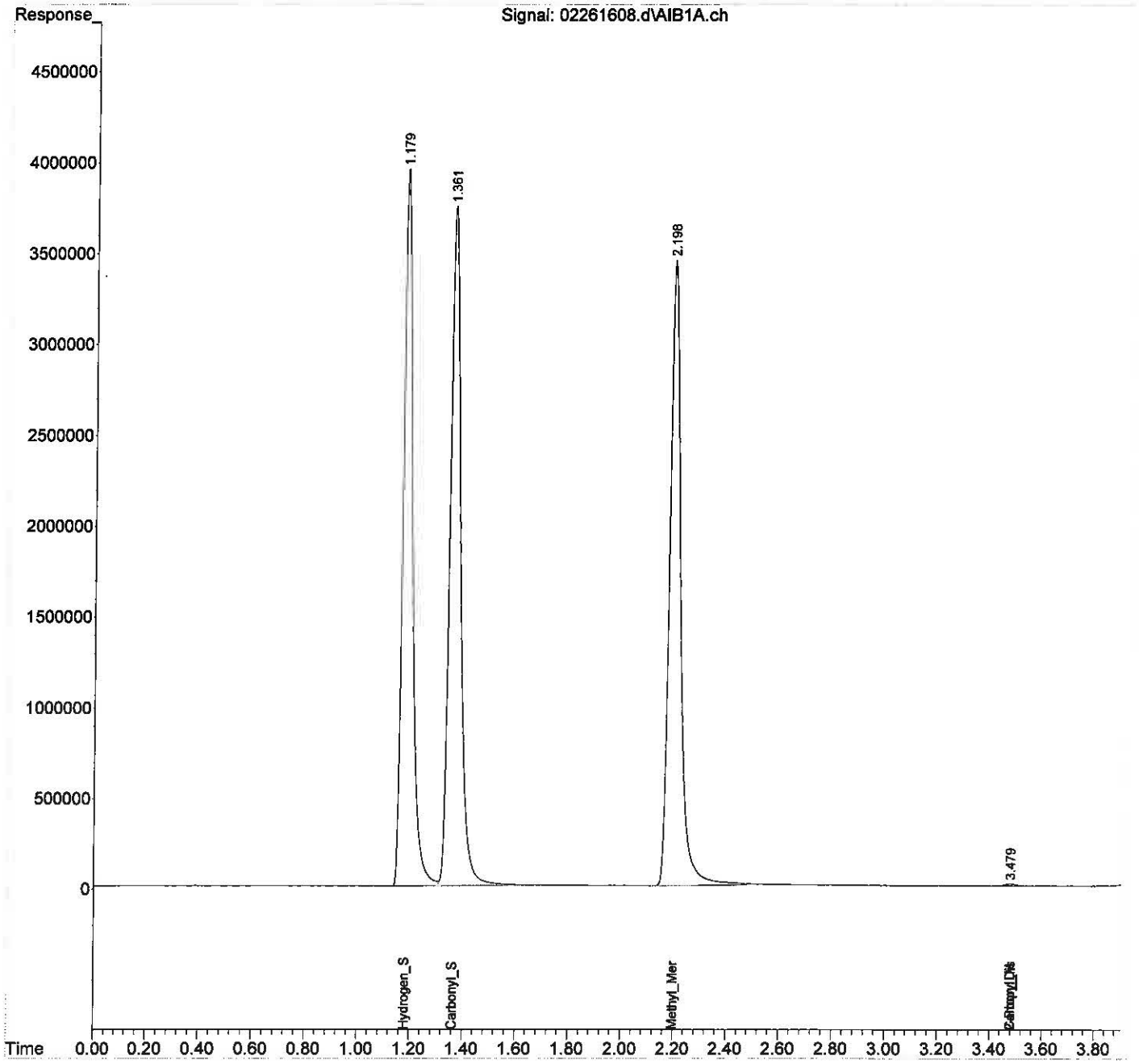
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261608.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 9:47 am
Operator : MC
Sample : Std 2500ppb S11-02171604 250ul
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:22:55 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 14:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261609.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 9:52 am
Operator : MC
Sample : Std 5000ppb S11-02171604 500ul
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:23:21 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 14:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	1.166	208449120	5054.498	ppb
2)	W	Carbonyl_Sulfide	1.349	222533043	5010.508	ppb
3)	T	Methyl_Mercaptan	2.190	209153799	5021.826	ppb
4)	T	Ethyl_Mercaptan	3.219f	99174	2.384	ppb
5)	T	Dimethyl_Sulfide	3.219	99174	2.384	ppb
6)	T	Carbon_Disulfide	3.468	436746	6.824	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	T	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

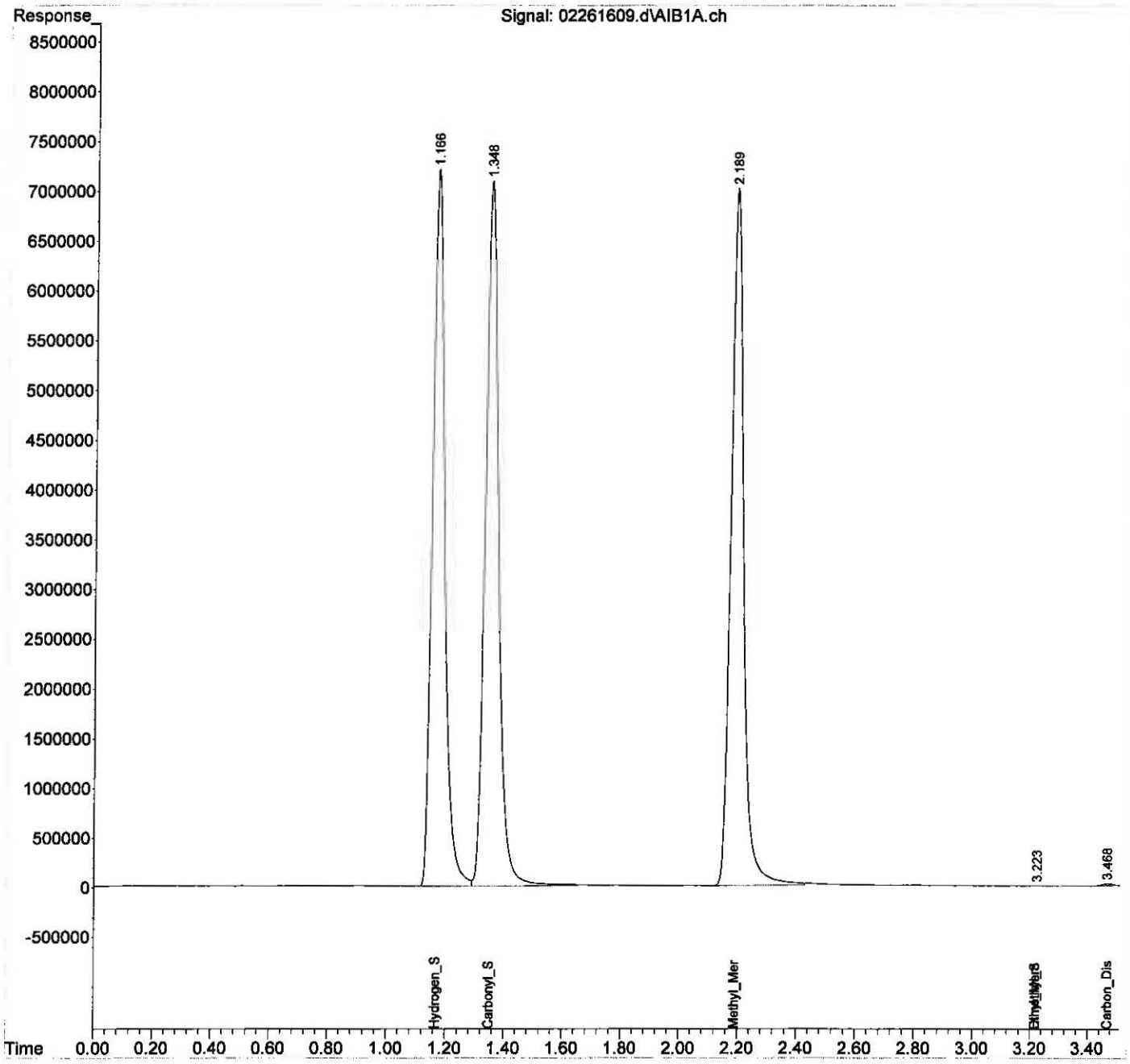
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261609.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 9:52 am
Operator : MC
Sample : Std 5000ppb S11-02171604 500ul
Misc :
ALS Vial : 8 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:23:21 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 14:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261610.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 9:57 am
Operator : MC
Sample : Std 10000ppb S11-02171604 1ml
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:24:32 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 14:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	1.122	463335404	11235.011	ppb
2)	W	Carbonyl_Sulfide	1.309	503320902	11332.670	ppb
3)	T	Methyl_Mercaptan	2.165	475826713	11424.698	ppb
4)	T	Ethyl_Mercaptan	3.199f	199742	5.405	ppb
5)	T	Dimethyl_Sulfide	3.218	278600	7.538	ppb
6)	T	Carbon_Disulfide	3.451	2291591	41.874	ppb
7)	T	2-Propyl_Mercaptan	3.606	1488208	46.505	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	5.396f	2755043	66.221	ppb
12)	T	i-Butyl_Mercaptan	5.396	2755043	66.221	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	T	Dimethyl_Disulfide	6.442	5536873	66.543	ppb
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	9.731f	449397	5.401	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

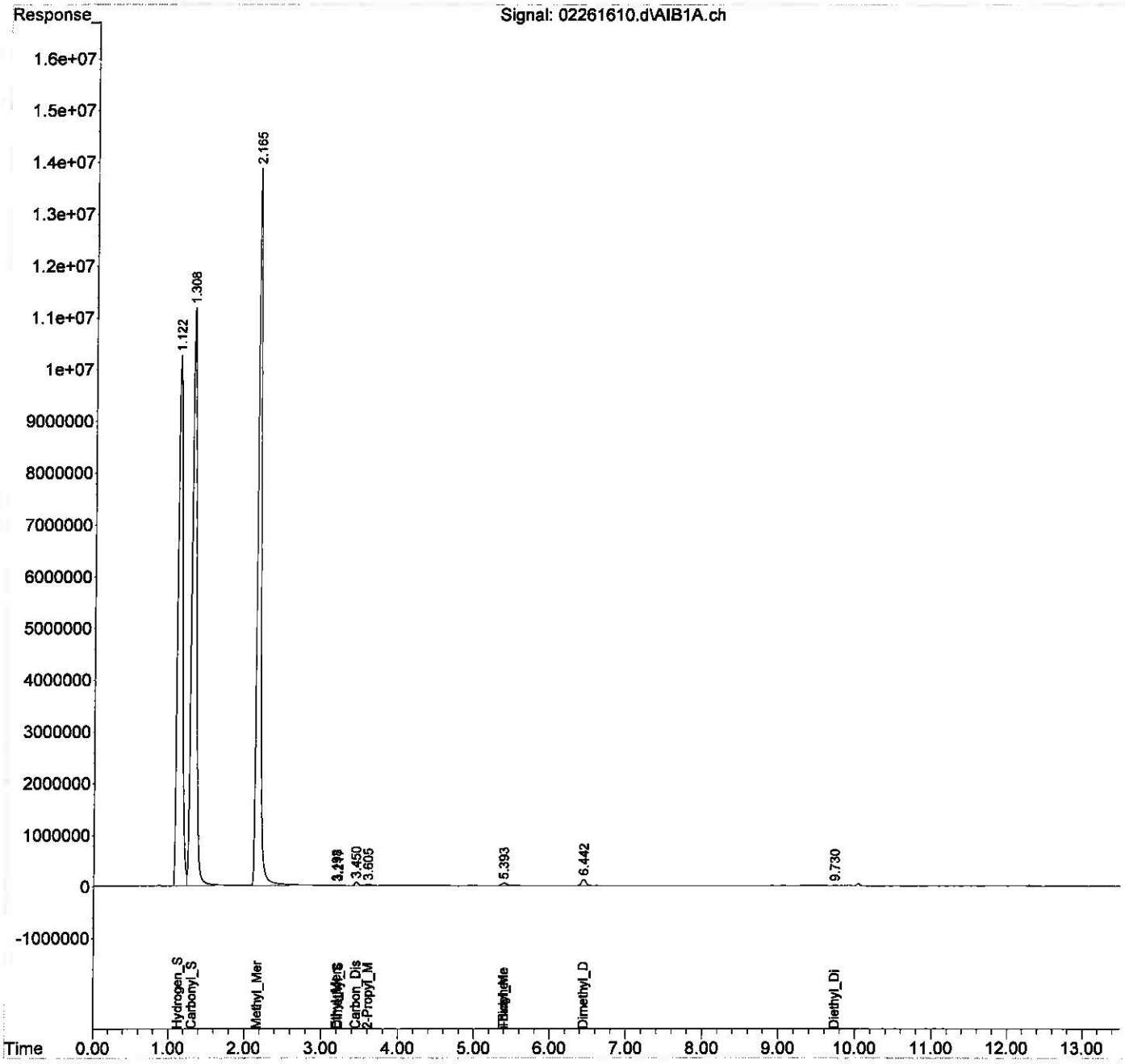
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261610.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 9:57 am
Operator : MC
Sample : Std 10000ppb S11-02171604 1ml
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:24:32 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 14:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261611.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 10:30 am
Operator : MC
Sample : Std 25ppm S30-11031401 25ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:25:01 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 14:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	1.153	870205474	21100.843	ppb
2)	W	Carbonyl_Sulfide	1.329	913317906	20564.078	ppb
3)	T	Methyl_Mercaptan	2.150	917735964	22035.030	ppb
4)	T	Ethyl_Mercaptan	3.016	161344	5.094	ppb
5)	T	Dimethyl_Sulfide	3.169	618937	19.541	ppb
6)	T	Carbon_Disulfide	3.408	3204956	72.505	ppb
7)	T	2-Propyl_Mercaptan	3.641	50483	1.889	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	T	n-Butyl_Mercaptan	6.071f	55232	1.328	ppb
15)	T	Dimethyl_Disulfide	6.363f	8137293	111.843	ppb
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	10.731f	78362	0.942	ppb

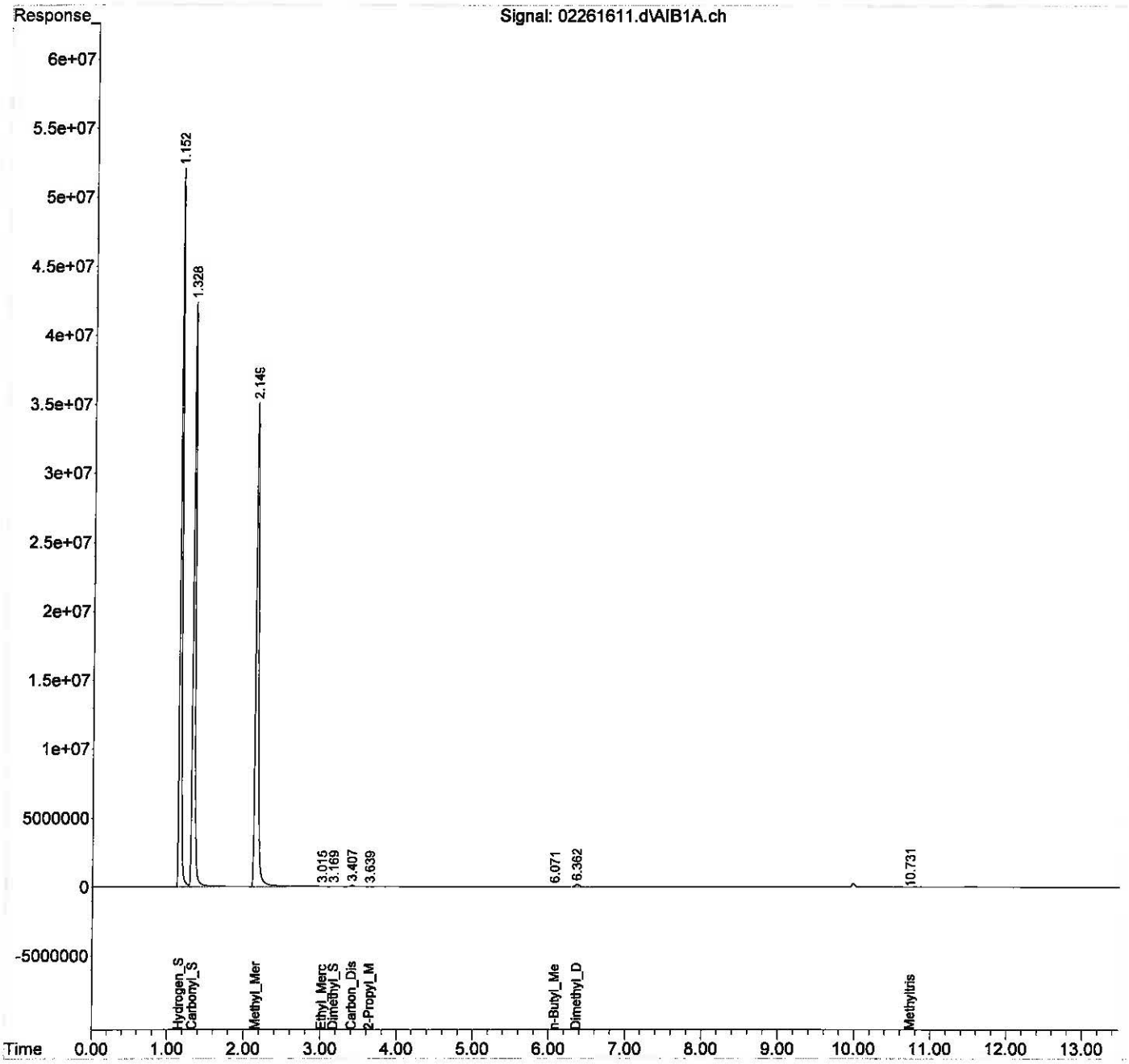
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261611.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 10:30 am
Operator : MC
Sample : Std 25ppm S30-11031401 25ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:25:01 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 14:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261613.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 11:49 am
Operator : MC
Sample : RT
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:25:45 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 14:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1) Z	Hydrogen_Sulfide	1.189	79068953	1917.273	ppb
2) W	Carbonyl_Sulfide	1.369	56957406	1282.441	ppb
3) T	Methyl_Mercaptan	2.202	54799240	1315.741	ppb
4) T	Ethyl_Mercaptan	3.040	57774849	2093.674	ppb
5) T	Dimethyl_Sulfide	3.229	58481891	2119.072	ppb
6) T	Carbon_Disulfide	3.477	50853673	1409.695	ppb
7) T	2-Propyl_Mercaptan	3.667	59798570	2639.841	ppb
8) T	t-Butyl_Mercaptan	4.156	60019224	1442.649	ppb
9) T	Propyl_Mercaptan	4.337	49336372	1185.871	ppb
10) T	Ethyl_Methyl_Sulfide	4.412	59619697	1433.046	ppb
11) T	Thiophene	5.244	53055751	1459.696	ppb
12) T	i-Butyl_Mercaptan	5.384	55692574	1532.242	ppb
13) T	Diethyl_Sulfide	5.735	54746302	1315.907	ppb
14) T	n-Butyl_Mercaptan	5.948	46560947	1240.802	ppb
15) T	Dimethyl_Disulfide	6.467	21968889	339.704	ppb
16) T	2-Methylthiophene	7.002	49369490	1186.667	ppb
17) T	3-Methylthiophene	7.131	50727910	1219.319	ppb
18) T	Tetrahydrothiophene	7.591	47868334	1150.585	ppb
19) T	2,5-Dimethylthiophene	8.713	40126115	964.489	ppb
20) T	2-Ethylthiophene	8.794	45141979	1085.053	ppb
21) T	Diethyl_Disulfide	9.529	19301265	265.700	ppb
22) T	Methyltrisulfide	10.855	2583472	34.423	ppb

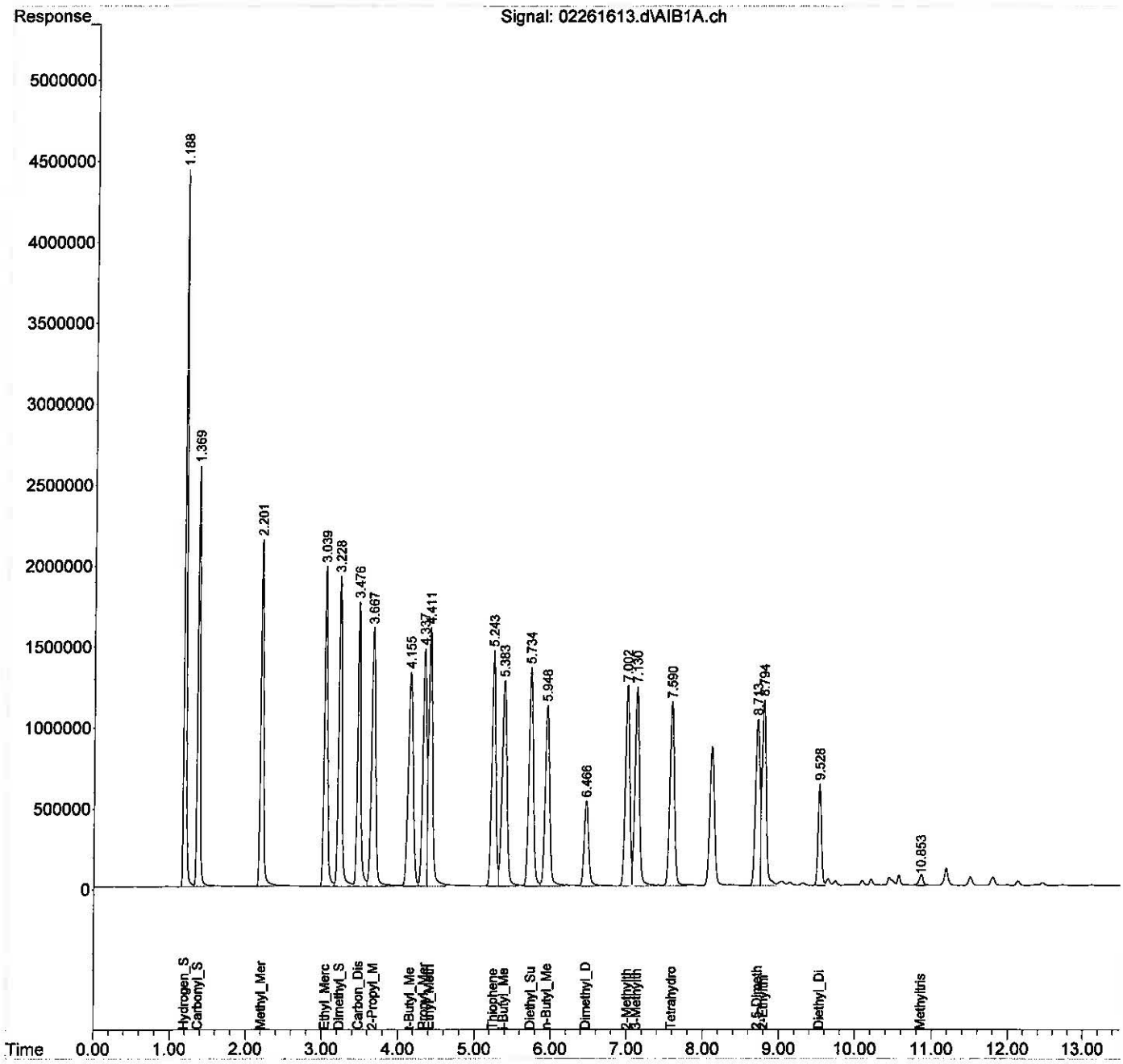
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261613.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 11:49 am
Operator : MC
Sample : RT
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:25:45 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 14:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261612.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 11:40 am
Operator : MC
Sample : ICV S30-02241602 1000ppb
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:25:27 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 14:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units		% recovery
							actual	~~% DIFF~~ 2/26/16
Target		Compounds						
1)	Z	Hydrogen_Sulfide	1.192	43714802	1060.002	ppb	1000	106%
2)	W	Carbonyl_Sulfide	1.373	46664677	1050.692	ppb	1000	105%
3)	T	Methyl_Mercaptan	2.206	44736653	1074.136	ppb	1000	107%
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb		
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb		
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb		
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb		
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb		
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb		
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb		
11)	T	Thiophene	5.182	652926	17.964	ppb		
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb		
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb		
14)	T	n-Butyl_Mercaptan	6.162f	67357	1.795	ppb		
15)	T	Dimethyl_Disulfide	0.000	0	N.D.	ppb		
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb		
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb		
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb		
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb		
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb		
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb		
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb		

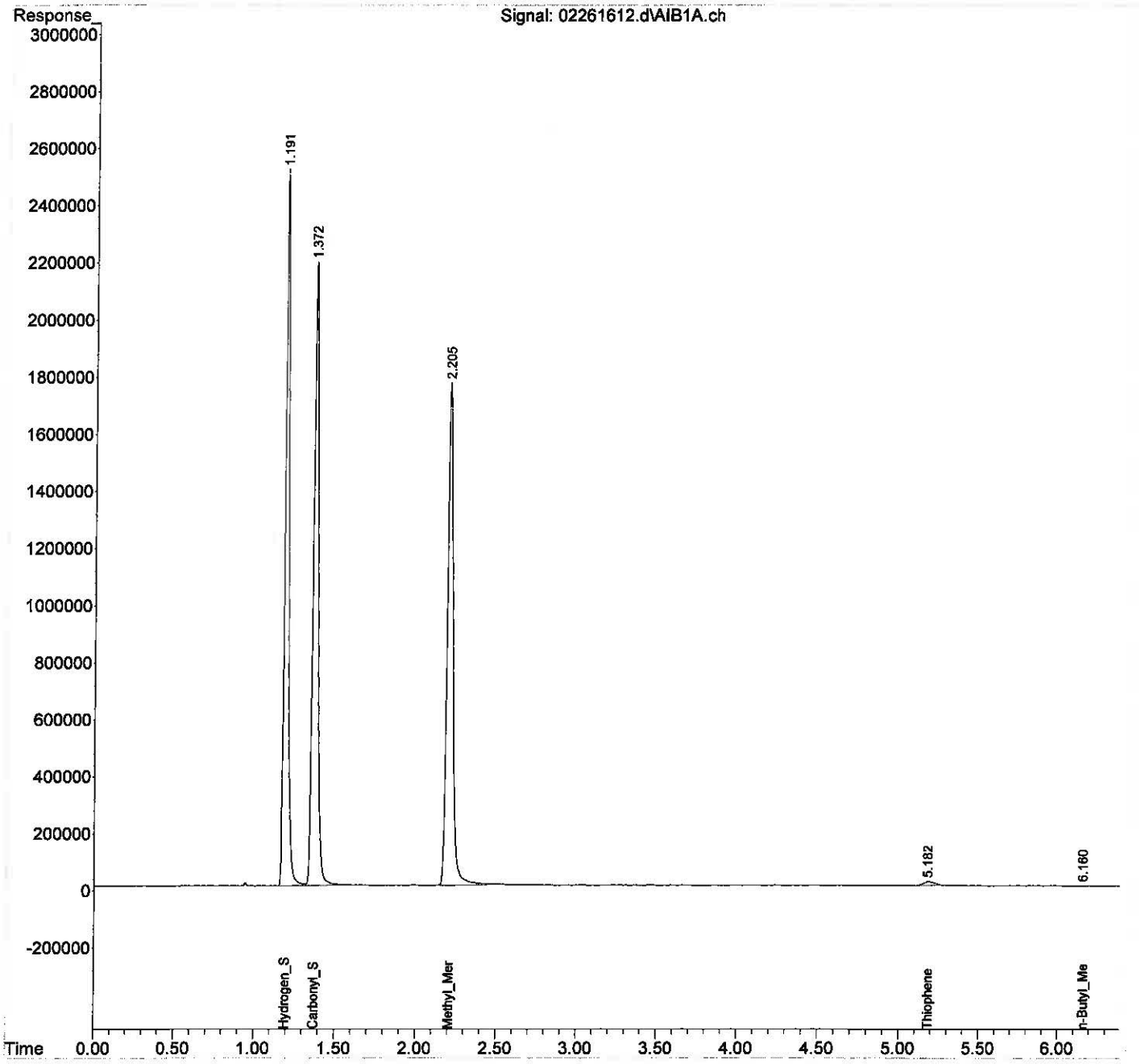
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_02\26\
Data File : 02261612.d
Signal(s) : AIB1A.ch
Acq On : 26 Feb 2016 11:40 am
Operator : MC
Sample : ICV S30-02241602 1000ppb
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Feb 26 14:25:27 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : 20 Sulfurs Initial Calibration
QLast Update : Fri Feb 26 14:17:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Response Factor Report HP G1530A

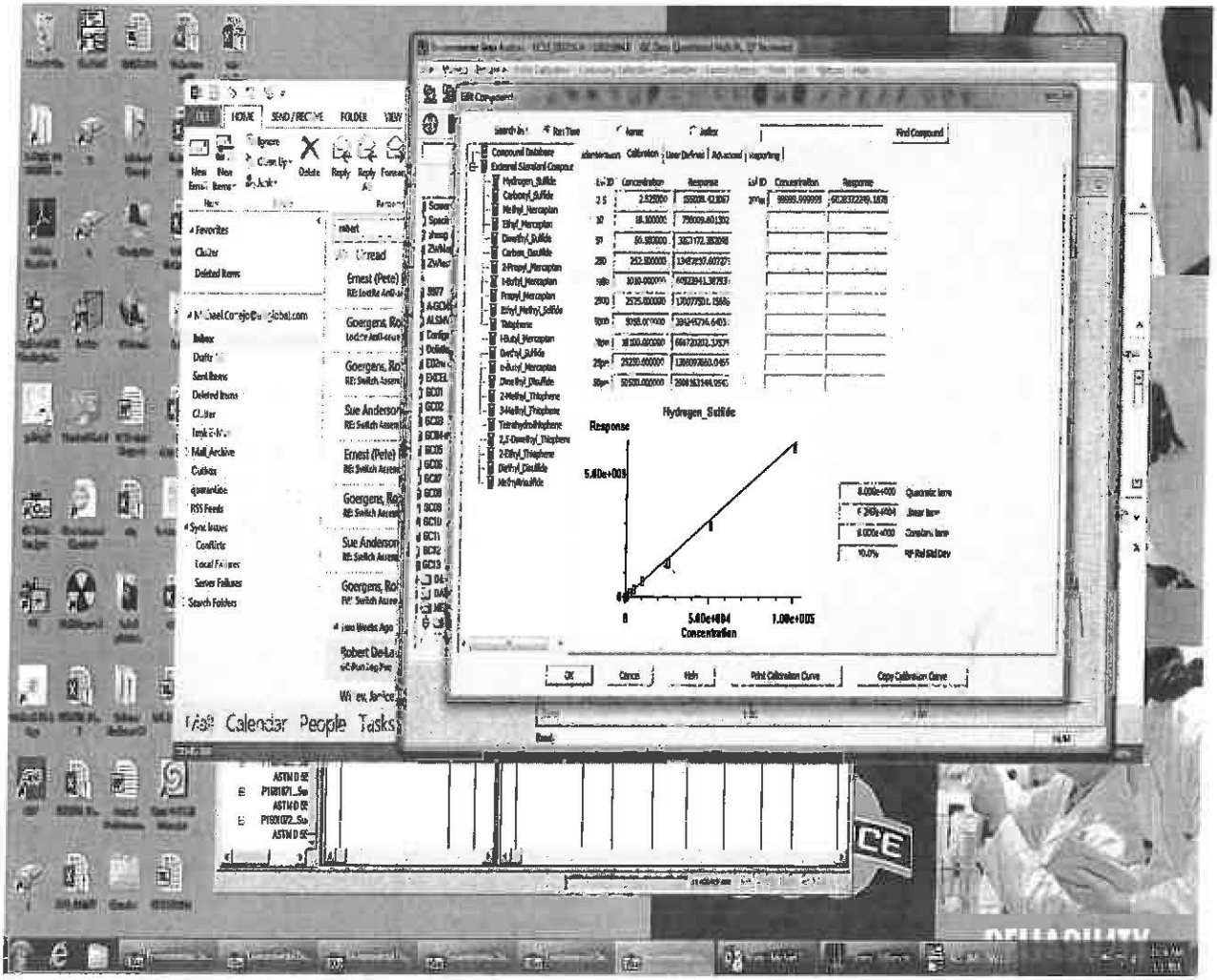
Method Path : J:\GC13\METHODS\
Method File : GC13_030216.M
Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
Last Update : Tue May 03 15:14:01 2016
Response Via : Initial Calibration

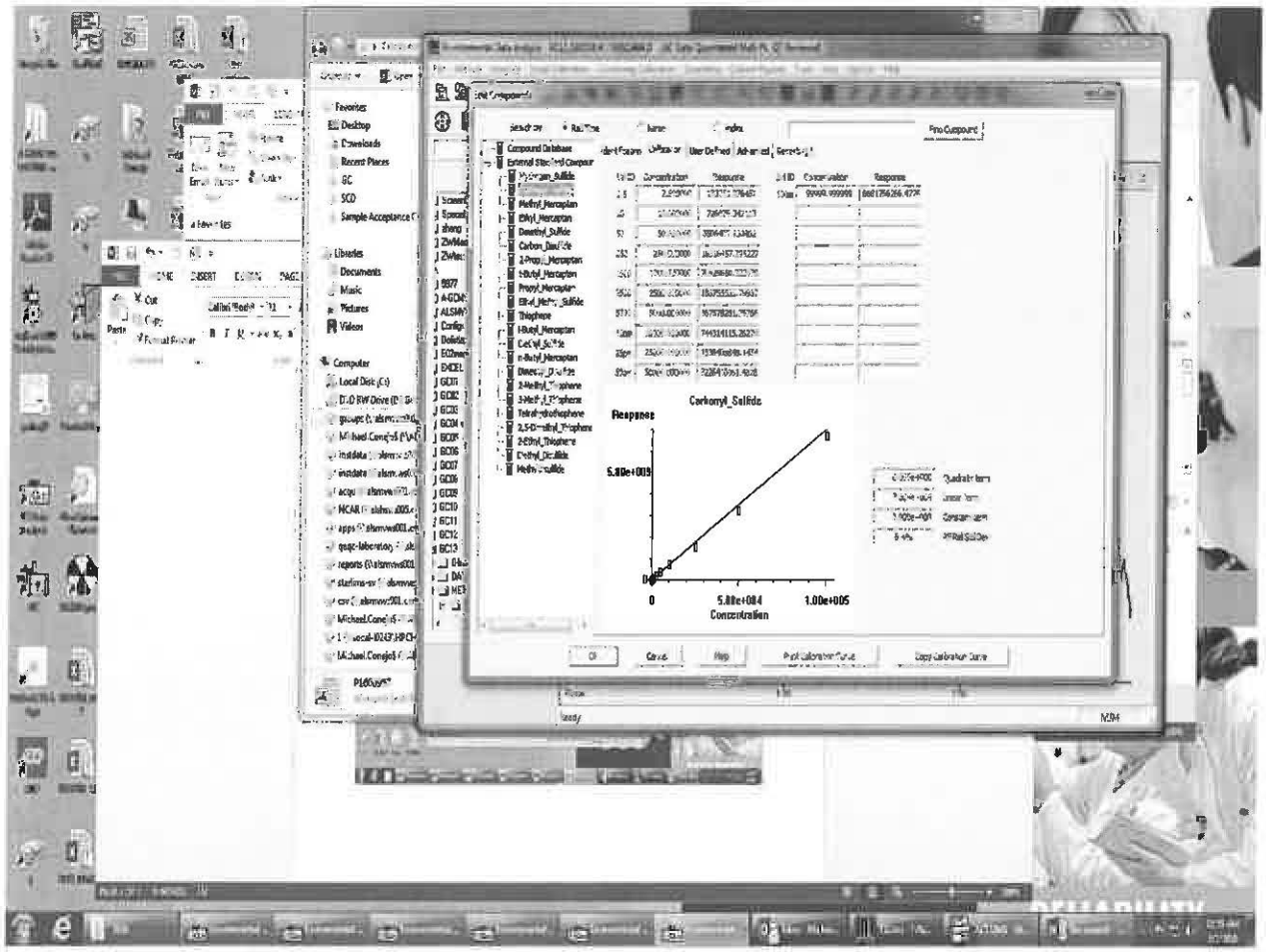
Calibration Files
2.5 =03021604.D 10 =03021605.D 50 =03021606.D
250 =03021607.D 1000 =03021608.D 2500 =03021609.D

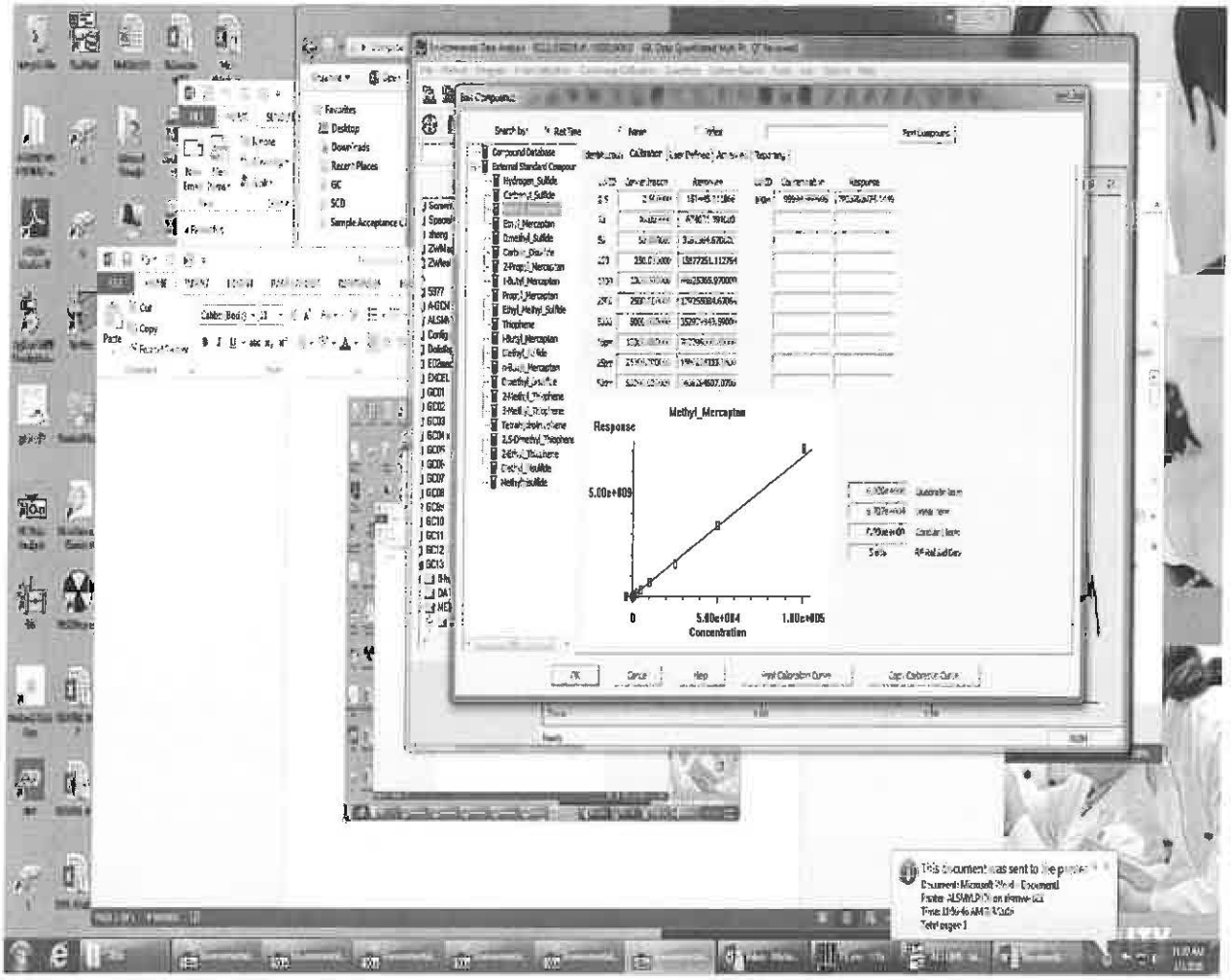
		Compound	2.5	10	50	250	1000	2500	Avg		%RSD
1)	Z	Hydrogen_Sulfide	6.139	7.485	6.511	5.330	6.032	6.736	6.247	E4	9.97
2)	W	Carbonyl_Sulfide	7.330	7.261	7.013	6.727	7.083	7.550	7.004	E4	6.38
3)	T	Methyl_Mercaptan	6.058	6.748	6.363	6.351	6.863	7.170	6.707	E4	5.78
4)	T	Ethyl_Mercaptan	6.058	6.748	6.363	6.351	6.863	7.170	6.707	E4	5.78
5)	T	Dimethyl_Sulfide	6.058	6.748	6.363	6.351	6.863	7.170	6.707	E4	5.78
6)	T	Carbon_Disulfide	1.212	1.350	1.273	1.270	1.373	1.434	1.341	E5	5.78
7)	T	2-Propyl_Merc...	6.058	6.748	6.363	6.351	6.863	7.170	6.707	E4	5.78
8)	T	t-Butyl_Merca...	6.058	6.748	6.363	6.351	6.863	7.170	6.707	E4	5.78
9)	T	Propyl_Mercaptan	6.058	6.748	6.363	6.351	6.863	7.170	6.707	E4	5.78
10)	T	Ethyl_Methyl_...	6.058	6.748	6.363	6.351	6.863	7.170	6.707	E4	5.78
11)	T	Thiophene	6.058	6.748	6.363	6.351	6.863	7.170	6.707	E4	5.78
12)	T	i-Butyl_Merca...	6.058	6.748	6.363	6.351	6.863	7.170	6.707	E4	5.78
13)	T	Diethyl_Sulfide	6.058	6.748	6.363	6.351	6.863	7.170	6.707	E4	5.78
14)	t	n-Butyl_Merca...	6.058	6.748	6.363	6.351	6.863	7.170	6.707	E4	5.78
15)	t	Dimethyl_Disu...	1.212	1.350	1.273	1.270	1.373	1.434	1.341	E5	5.78
16)	T	2-Methyl_Thio...	6.058	6.748	6.363	6.351	6.863	7.170	6.707	E4	5.78
17)	t	3-Methyl_Thio...	6.058	6.748	6.363	6.351	6.863	7.170	6.707	E4	5.78
18)	T	Tetrahydrothi...	6.058	6.748	6.363	6.351	6.863	7.170	6.707	E4	5.78
19)	t	2,5-Dimethyl_...	6.058	6.748	6.363	6.351	6.863	7.170	6.707	E4	5.78
20)	T	2-Ethyl_Thiop...	6.058	6.748	6.363	6.351	6.863	7.170	6.707	E4	5.78
21)	T	Diethyl_Disul...	1.212	1.350	1.273	1.270	1.373	1.434	1.341	E5	5.78
22)	T	Methyltrisulfide	1.212	1.350	1.273	1.270	1.373	1.434	1.341	E5	5.78

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

GC13_030216.M Tue May 03 15:29:12 2016


Hydrogen_Sulfide
Response
Concentration
Mail Calendar People Tasks


Carbonyl_Sulfide
Response
5.00e+005
0
5.00e+004
1.00e+005
Concentration


Methyl_Mercaptan
Response
5.00e+009
0
5.00e+004
1.00e+005
Concentration

Calibration Status Report HP G1530A

Method Path : J:\GC13\METHODS\
Method File : GC13_030216.M
Title : 20 Sulfurs
Last Update : Wed Mar 02 12:32:01 2016
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	2.5	3	0	J:\GC13\DATA\SCD\2016_03\02\03021604.D
2	10	10	0	J:\GC13\DATA\SCD\2016_03\02\03021605.D
3	50	50	0	J:\GC13\DATA\SCD\2016_03\02\03021606.D
4	250	250	0	J:\GC13\DATA\SCD\2016_03\02\03021607.D
5	1000	1000	0	J:\GC13\DATA\SCD\2016_03\02\03021608.D
6	2500	2500	0	J:\GC13\DATA\SCD\2016_03\02\03021609.D
7	5000	5000	0	J:\GC13\DATA\SCD\2016_03\02\03021610.D
8	10pm	10000	0	J:\GC13\DATA\SCD\2016_03\02\03021611.D
9	25pm	25000	0	J:\GC13\DATA\SCD\2016_03\02\03021612.D
10	50pm	50000	0	J:\GC13\DATA\SCD\2016_03\02\03021613.D
11	100m	100000	0	J:\GC13\DATA\SCD\2016_03\02\03021614.D

#	ID	Update Time	Quant Time	Acquisition Time
1	2.5	Mar 02 11:50 2016	Mar 02 11:47 2016	02 Mar 2016 11:27
2	10	Mar 02 11:51 2016	Mar 02 11:48 2016	02 Mar 2016 11:36
3	50	Mar 02 11:52 2016	Mar 02 11:52 2016	02 Mar 2016 11:41
4	250	Mar 02 11:54 2016	Mar 02 11:52 2016	02 Mar 2016 11:45
5	1000	Mar 02 11:55 2016	Mar 02 11:54 2016	02 Mar 2016 11:49
6	2500	Mar 02 11:58 2016	Mar 02 11:57 2016	02 Mar 2016 11:53
7	5000	Mar 02 12:01 2016	Mar 02 12:01 2016	02 Mar 2016 11:57
8	10pm	Mar 02 12:05 2016	Mar 02 12:05 2016	02 Mar 2016 12:00
9	25pm	Mar 02 12:09 2016	Mar 02 12:09 2016	02 Mar 2016 12:04
10	50pm	Mar 02 12:14 2016	Mar 02 12:14 2016	02 Mar 2016 12:08
11	100m	Mar 02 12:20 2016	Mar 02 12:20 2016	02 Mar 2016 12:13

GC13_030216.M Thu Mar 03 11:45:28 2016

Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021604.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 11:27 am
Operator : MC
Sample : 2.5ppb S11-0302160225ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 11:47:52 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Feb 17 15:56:38 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
Target Compounds							
1)	Z	Hydrogen_Sulfide	0.850	155008	1.495	ppb	m
2)	W	Carbonyl_Sulfide	0.984	183251	1.573	ppb	m
3)	T	Methyl_Mercaptan	1.710	151445	1.414	ppb	
4)	T	Ethyl_Mercaptan	2.590f	29959	0.280	ppb	
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb	
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb	
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb	
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb	
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb	
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb	
11)	T	Thiophene	0.000	0	N.D.	ppb	
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb	
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb	
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb	
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb	
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb	
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb	
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb	
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb	
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb	
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb	
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

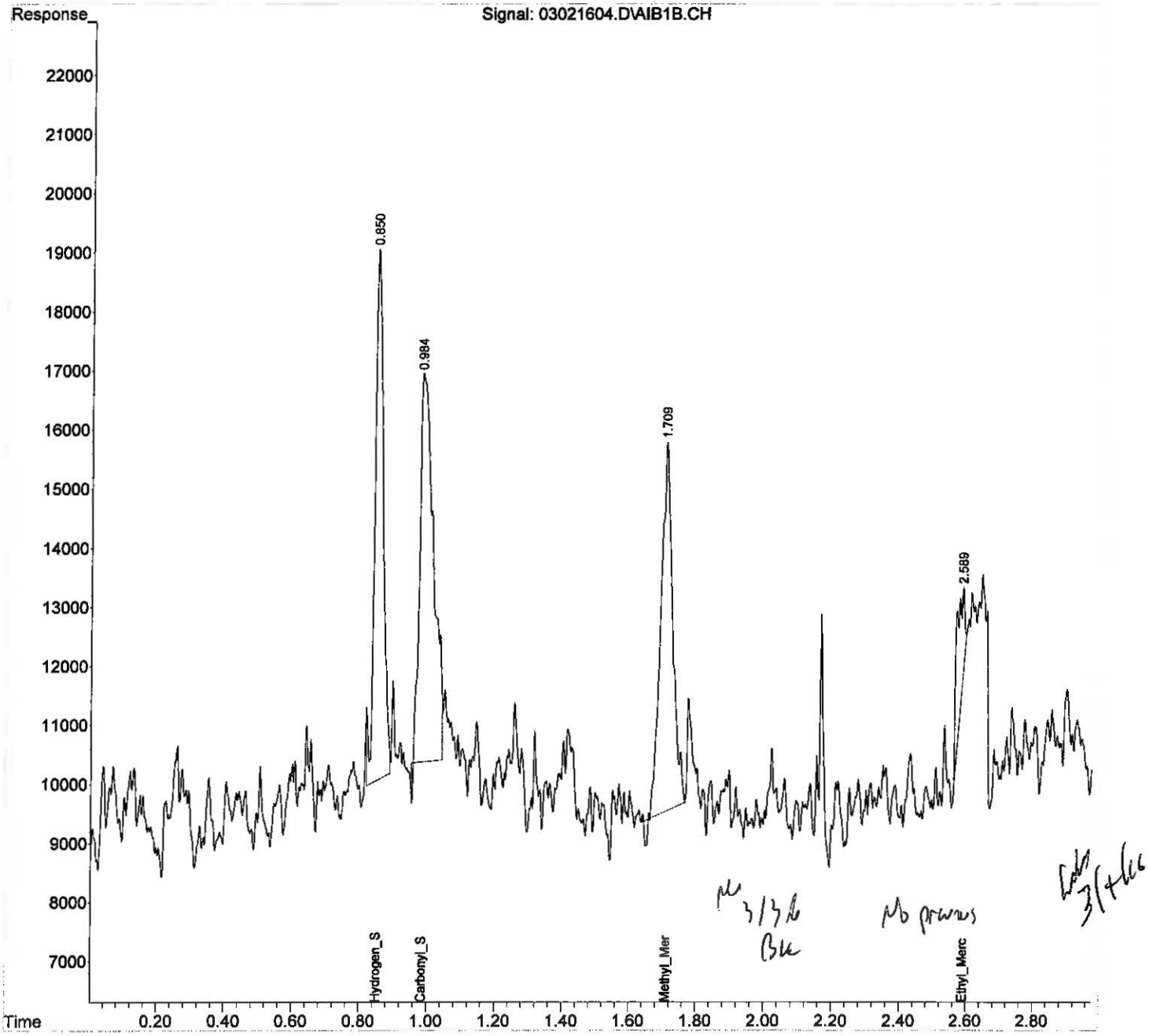
3/3/16

Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021604.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 11:27 am
Operator : MC
Sample : 2.5ppb S11-0302160225ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 11:47:52 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Feb 17 15:56:38 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021605.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 11:36 am
Operator : MC
Sample : 10ppb S11-03021602 100ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 11:48:48 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Feb 17 15:56:38 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
Target Compounds							
1)	Z	Hydrogen_Sulfide	0.851	756010	7.289	ppb	m
2)	W	Carbonyl_Sulfide	0.986	726076	6.234	ppb	m
3)	T	Methyl_Mercaptan	1.706	674831	6.301	ppb	m
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb	
5)	T	Dimethyl_Sulfide	2.788f	43131	0.403	ppb	
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb	
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb	
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb	
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb	
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb	
11)	T	Thiophene	0.000	0	N.D.	ppb	
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb	
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb	
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb	
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb	
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb	
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb	
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb	
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb	
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb	
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb	
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb	

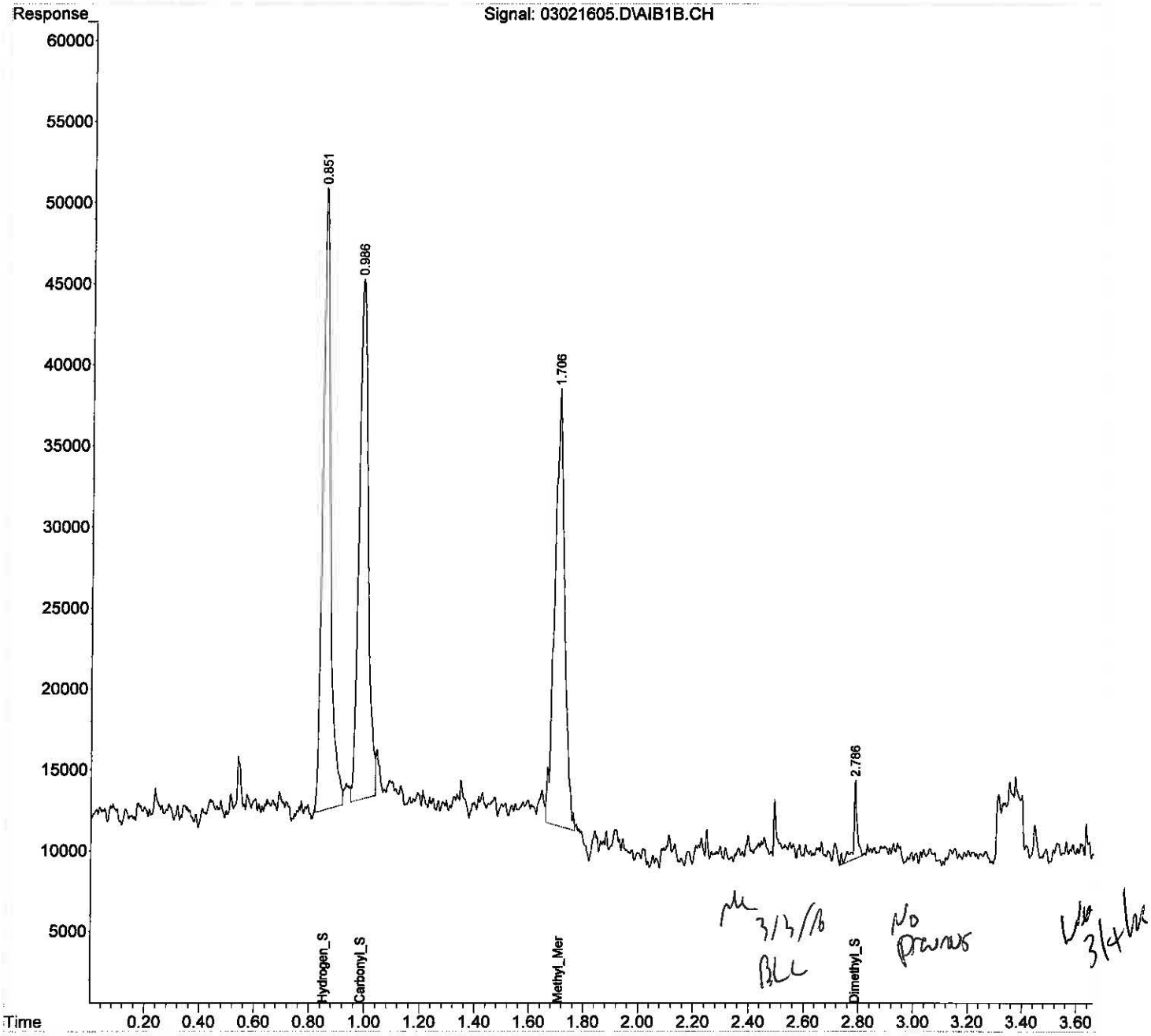
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021605.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 11:36 am
Operator : MC
Sample : 10ppb S11-03021602 100ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 11:48:48 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Feb 17 15:56:38 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



3/3/16 BLC

No previous

3/4/16

Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021606.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 11:41 am
Operator : MC
Sample : 50ppb S11-03021602 500ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 11:52:08 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 11:51:20 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
Target Compounds							
1)	Z	Hydrogen_Sulfide	0.848	3288172	47.792	ppb	
2)	W	Carbonyl_Sulfide	0.982	3506410	48.063	ppb	
3)	T	Methyl_Mercaptan	1.701	3181365	49.685	ppb	m
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb	
5)	T	Dimethyl_Sulfide	2.692	186087	43.145	ppb	
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb	
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb	
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb	
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb	
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb	
11)	T	Thiophene	0.000	0	N.D.	ppb	
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb	
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb	
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb	
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb	
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb	
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb	
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb	
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb	
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb	
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb	
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb	

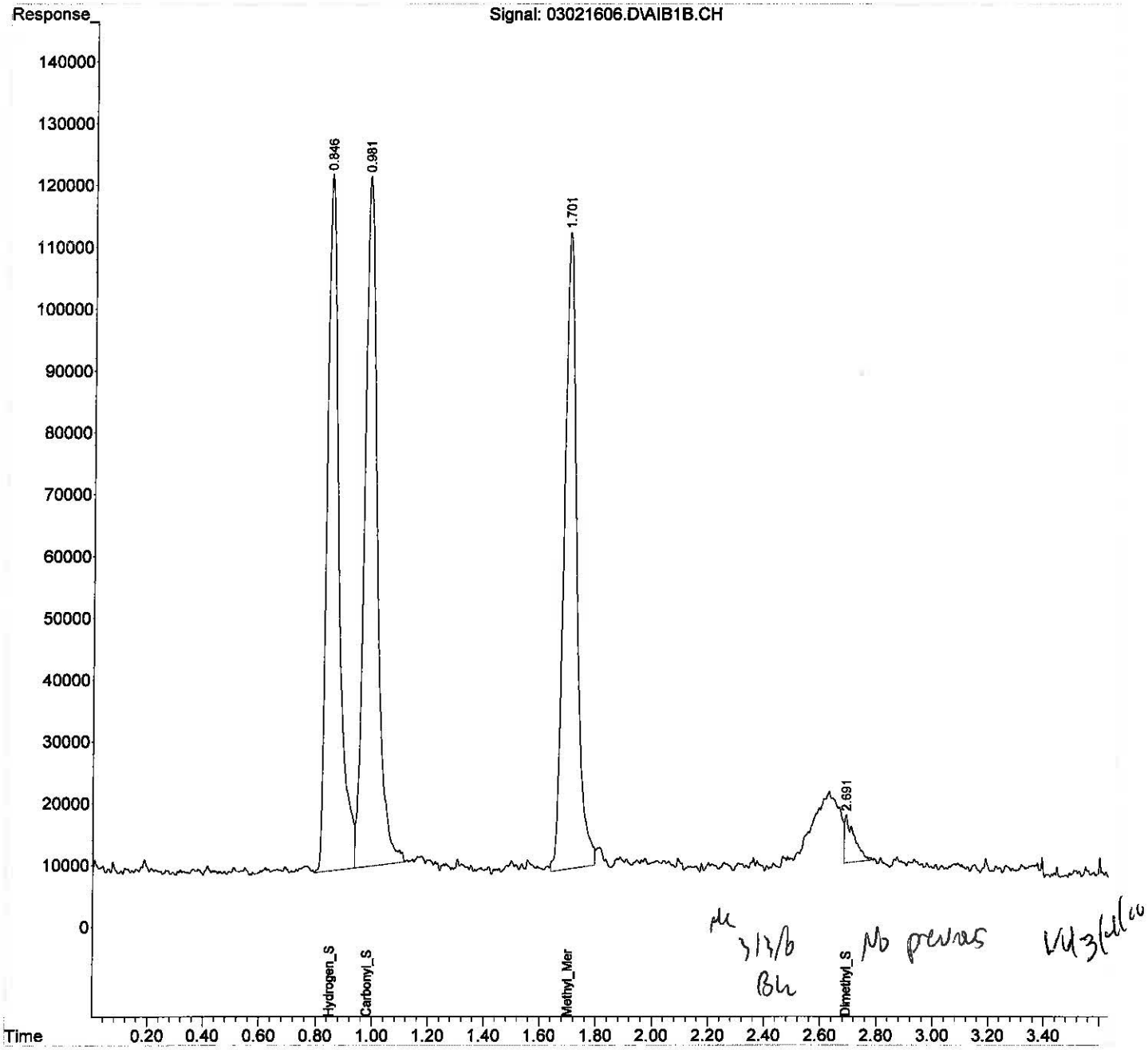
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021606.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 11:41 am
Operator : MC
Sample : 50ppb S11-03021602 500ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 11:52:08 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 11:51:20 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



ML 3/3/16 No previous VU 3/4/16
BL

Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021607.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 11:45 am
Operator : MC
Sample : 250ppbS11- 03021601 25ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 11:52:33 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 11:52:22 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.851	13457888	198.525	ppb
2)	W	Carbonyl_Sulfide	0.986	16816957	233.530	ppb
3)	T	Methyl_Mercaptan	1.704	15877251	248.485	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

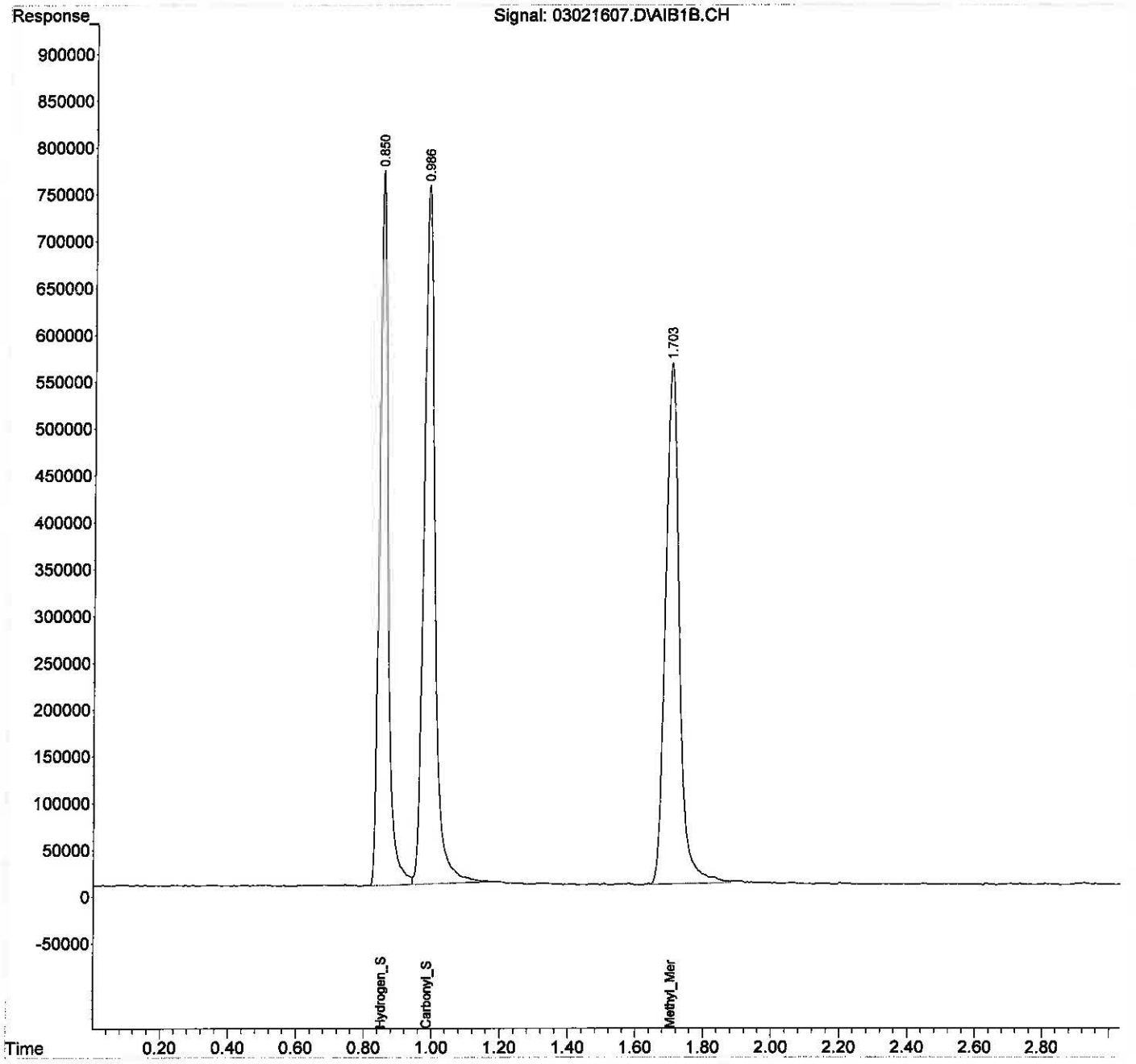
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021607.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 11:45 am
Operator : MC
Sample : 250ppbS11- 03021601 25ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 11:52:33 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 11:52:22 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021608.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 11:49 am
Operator : MC
Sample : 1000ppb S11-03021601 100ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 13:51:20 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 12:32:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.848	60923941	966.480	ppb
2)	W	Carbonyl_Sulfide	0.983	70829650	1011.241	ppb
3)	T	Methyl_Mercaptan	1.701	68625366	1023.207	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

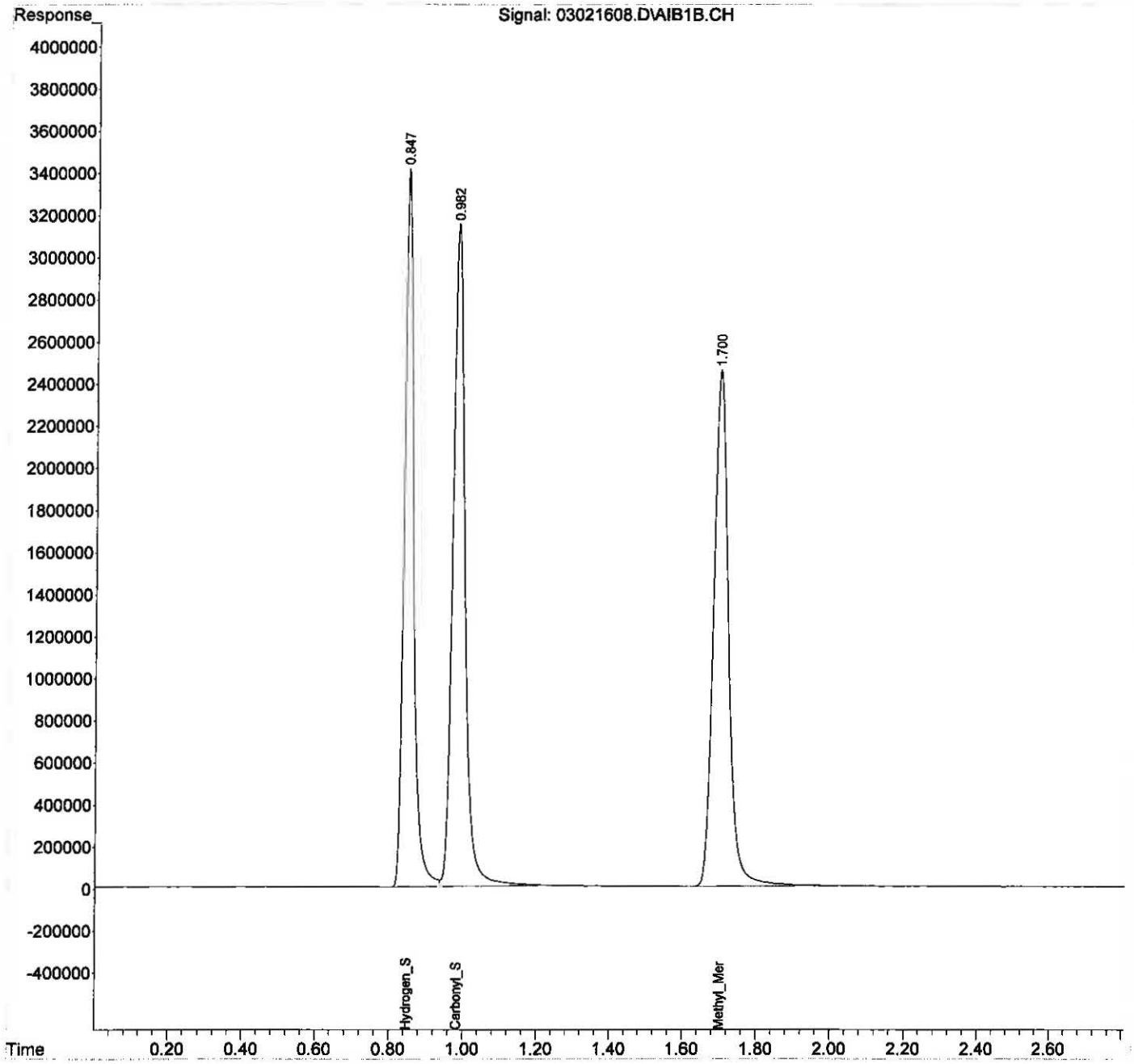
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021608.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 11:49 am
Operator : MC
Sample : 1000ppb S11-03021601 100ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 13:51:20 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 12:32:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021609.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 11:53 am
Operator : MC
Sample : 2500ppb S11-03021601 250ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 13:52:48 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 12:32:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.845	170077501	2698.061	ppb
2)	W	Carbonyl_Sulfide	0.981	188755506	2694.879	ppb
3)	T	Methyl_Mercaptan	1.700	179255085	2672.701	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	2.908	542676	8.091	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

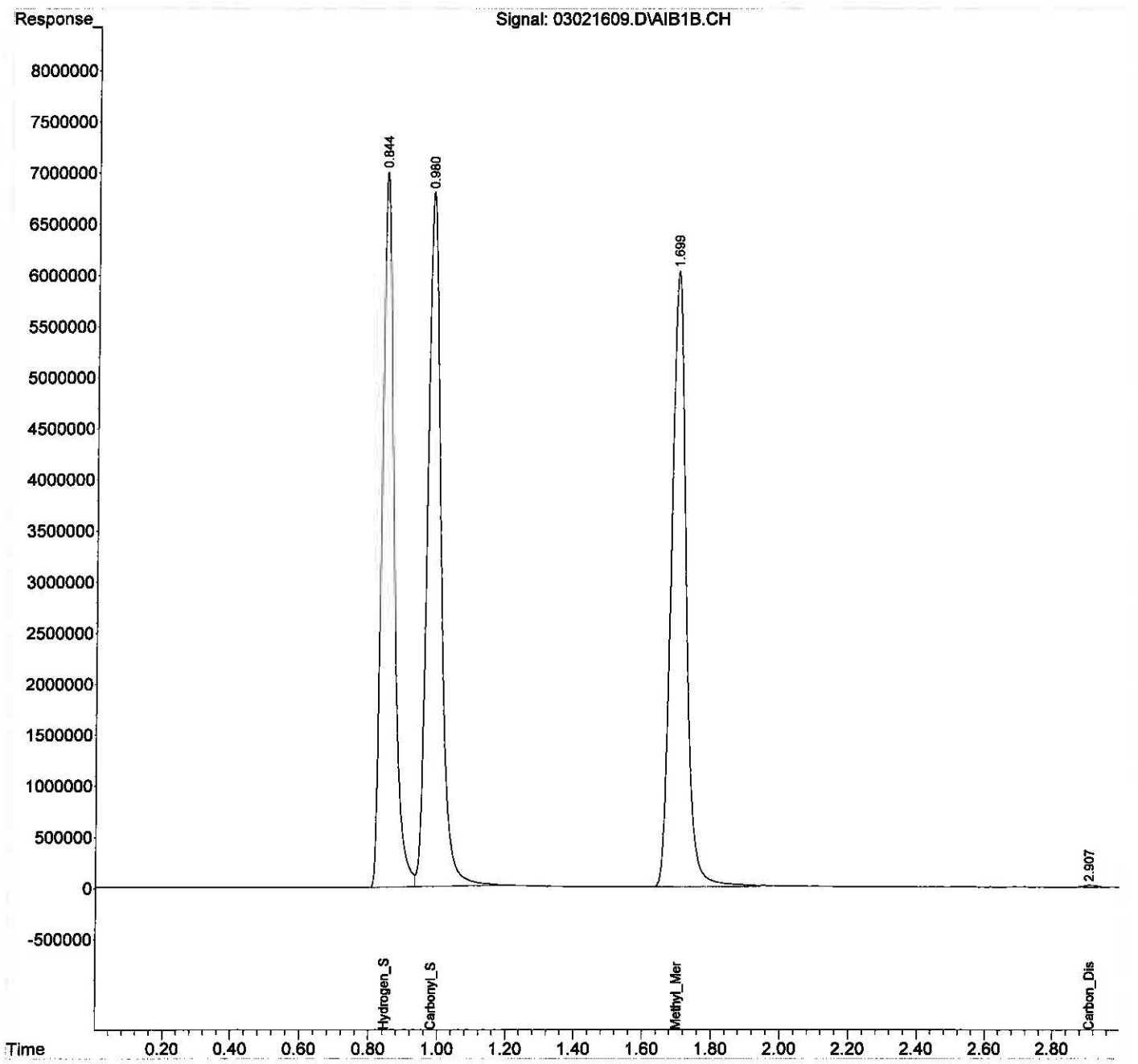
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021609.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 11:53 am
Operator : MC
Sample : 2500ppb S11-03021601 250ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 13:52:48 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 12:32:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021610.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 11:57 am
Operator : MC
Sample : 5000ppb S11-03021601 500ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 12:01:12 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 11:58:08 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.833	334245717	5193.454	ppb
2)	W	Carbonyl_Sulfide	0.970	367578252	5133.345	ppb
3)	T	Methyl_Mercaptan	1.692	352979844	5354.603	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	2.692	216055	53.780	ppb
6)	T	Carbon_Disulfide	2.907	1134685	5227.264	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

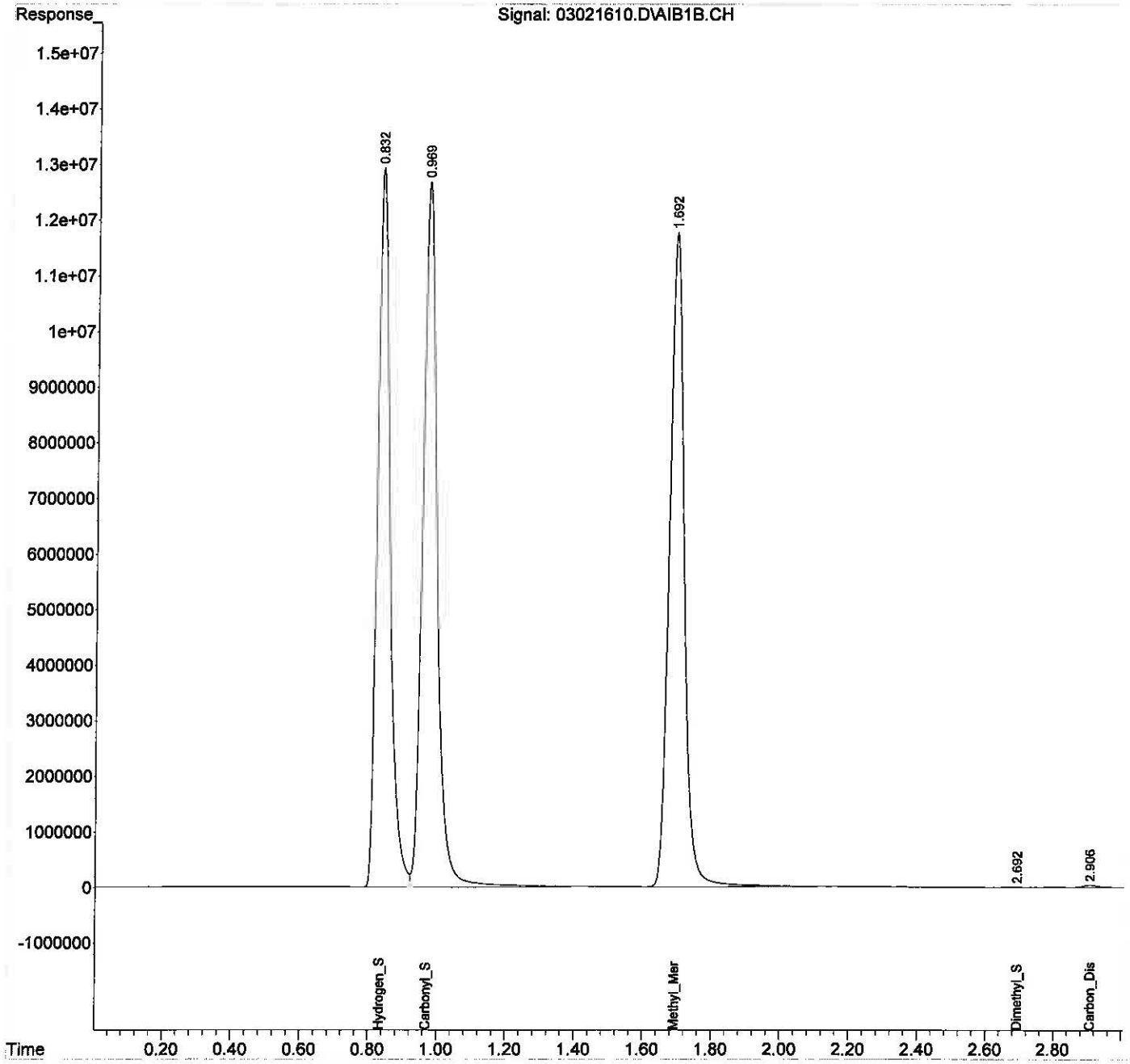
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021610.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 11:57 am
Operator : MC
Sample : 5000ppb S11-03021601 500ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 12:01:12 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 11:58:08 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021611.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 12:00 pm
Operator : MC
Sample : 10ppm S11-03021601 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 12:05:10 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 12:01:28 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.848	666720202	10302.442	ppb
2)	W	Carbonyl_Sulfide	0.984	744314115	10355.127	ppb
3)	T	Methyl_Mercaptan	1.704	702296001	10546.774	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	2.693	226440	84.095	ppb
6)	T	Carbon_Disulfide	2.913	2223163	10014.082	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

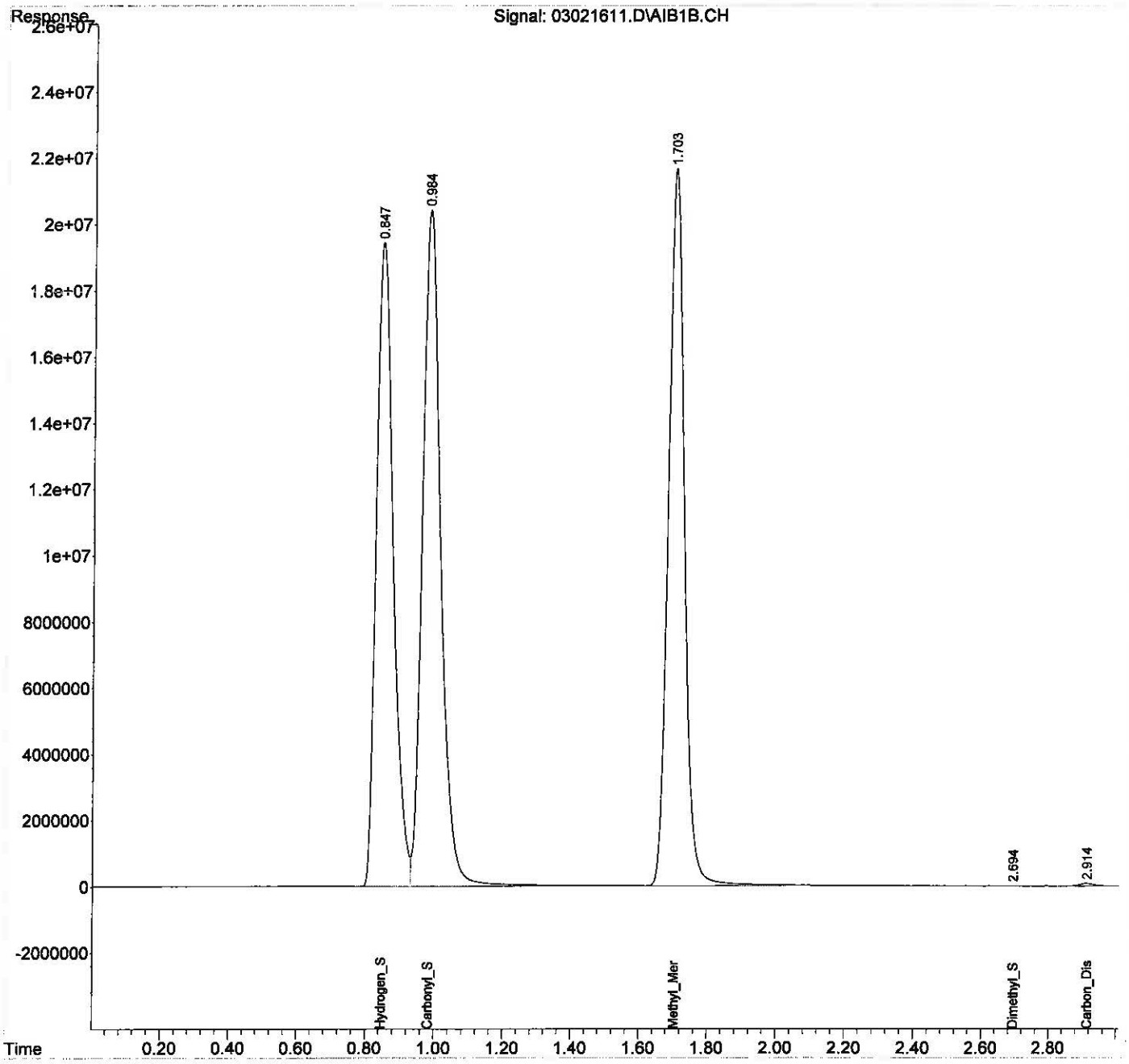
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021611.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 12:00 pm
Operator : MC
Sample : 10ppm S11-03021601 1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 12:05:10 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 12:01:28 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_03\02\
Data File : 03021612.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 12:04 pm
Operator : MC
Sample : 25ppm S30-11031401 25ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 13:09:09 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 12:07:47 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.850	1386097660	21337.898	ppb
2)	W	Carbonyl_Sulfide	0.985	1538408848	21308.229	ppb
3)	T	Methyl_Mercaptan	1.700	1560233333	23271.845	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	2.694	419001	6.917	ppb
6)	T	Carbon_Disulfide	2.909	5845671	96.498	ppb
7)	T	2-Propyl_Mercaptan	3.051f	797865	13.171	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

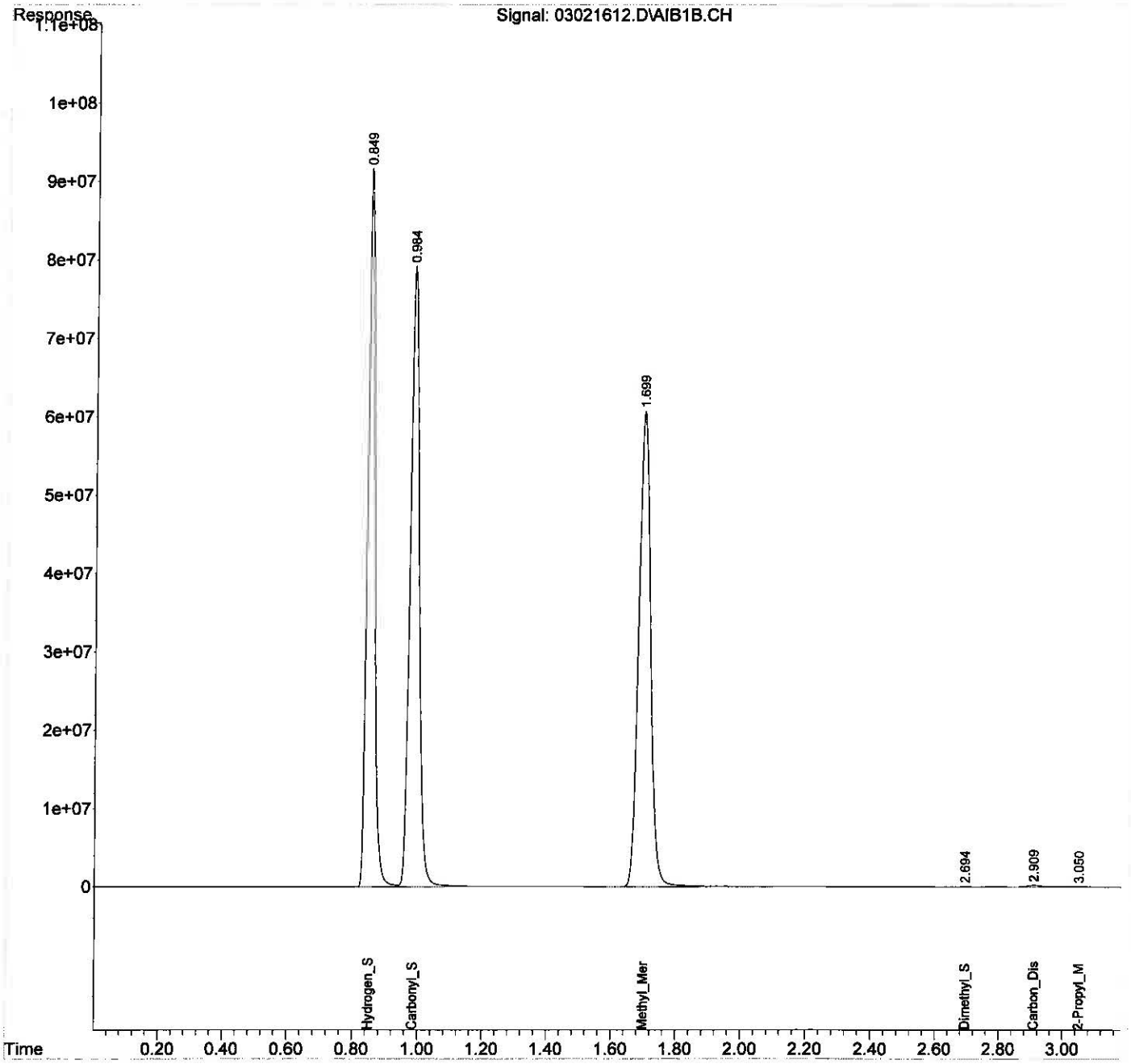
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_03\02\
Data File : 03021612.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 12:04 pm
Operator : MC
Sample : 25ppm S30-11031401 25ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 13:09:09 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 12:07:47 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_03\02\
Data File : 03021613.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 12:08 pm
Operator : MC
Sample : 50ppm S30-11031401 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 13:14:19 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 12:12:30 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
Target Compounds							
1)	Z	Hydrogen_Sulfide	0.849	2900163145	45384.439	ppb	
2)	W	Carbonyl_Sulfide	0.984	3226410061	45433.908	ppb	
3)	T	Methyl_Mercaptan	1.700	3408294607	51230.307	ppb	
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb	
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb	d
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb	d
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb	
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb	
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb	
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb	
11)	T	Thiophene	0.000	0	N.D.	ppb	
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb	
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb	
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb	
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb	
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb	
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb	
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb	
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb	
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb	
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb	
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb	

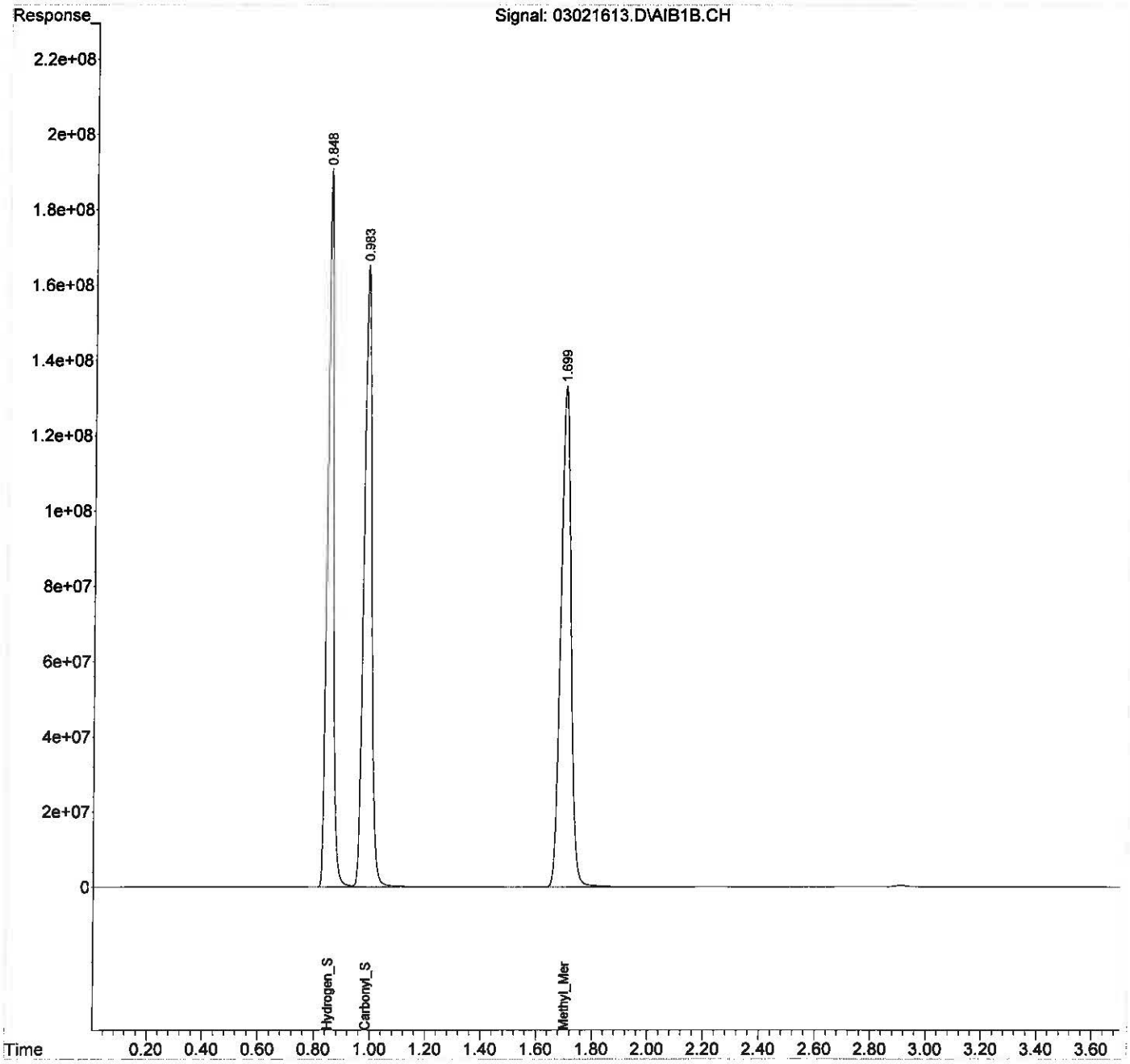
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_03\02\
Data File : 03021613.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 12:08 pm
Operator : MC
Sample : 50ppm S30-11031401 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 13:14:19 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 12:12:30 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_03\02\
Data File : 03021614.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 12:13 pm
Operator : MC
Sample : 100ppm S30-11031401 100ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 13:20:21 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 12:17:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
Target Compounds							
1)	Z	Hydrogen_Sulfide	0.846	6028372249	95216.507	ppb	
2)	W	Carbonyl_Sulfide	0.981	6681756266	94958.849	ppb	
3)	T	Methyl_Mercaptan	1.698	7083203074	106206.771	ppb	
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb	d
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb	d
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb	d
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb	d
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb	d
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb	d
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb	d
11)	T	Thiophene	0.000	0	N.D.	ppb	
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb	
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb	
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb	
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb	
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb	
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb	
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb	
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb	
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb	
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb	
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb	

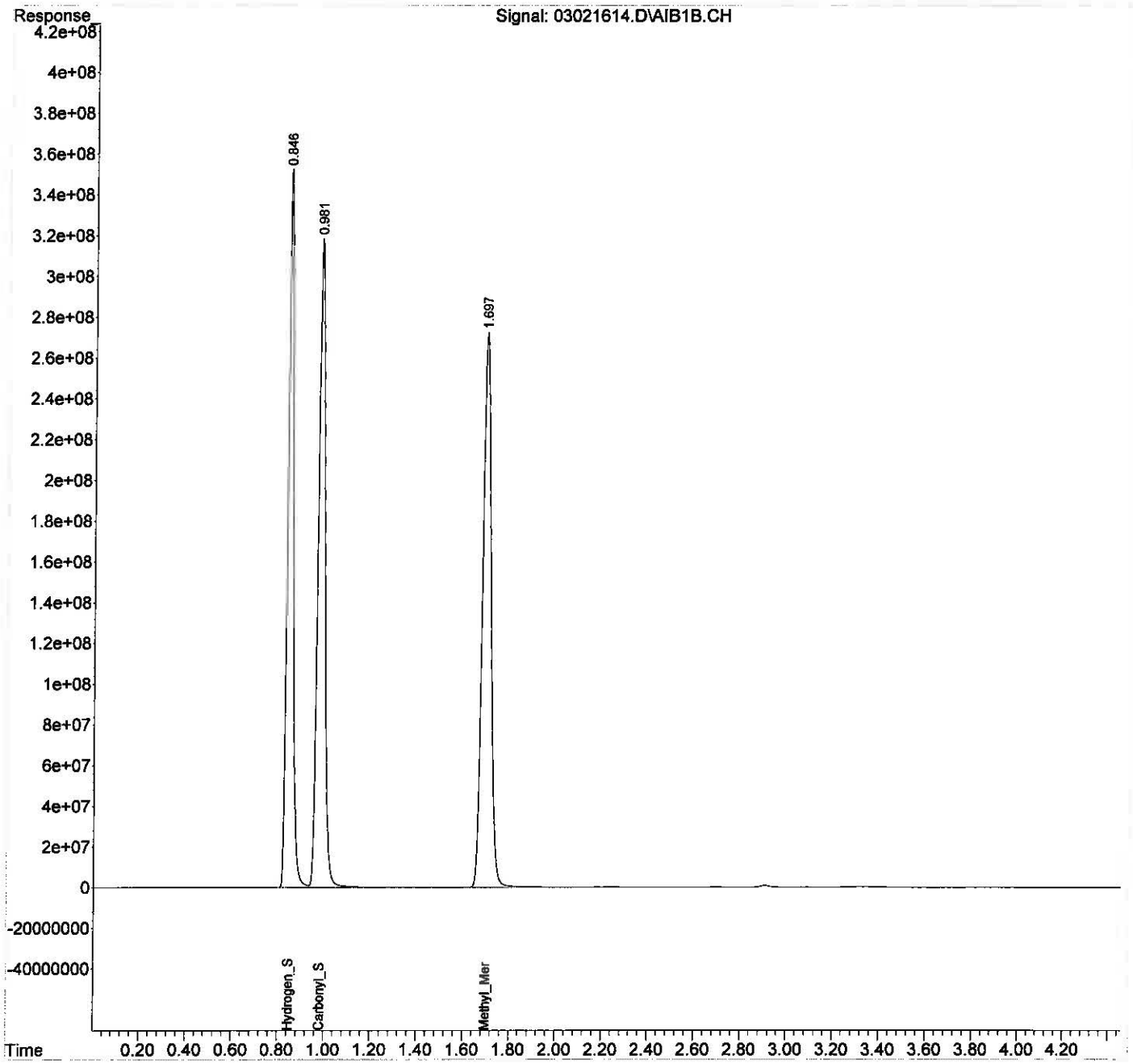
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_03\02\
Data File : 03021614.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 12:13 pm
Operator : MC
Sample : 100ppm S30-11031401 100ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 13:20:21 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 12:17:56 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021615.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 12:19 pm
Operator : MC
Sample : RT
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 12:36:15 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 12:32:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.848	126924093	2013.488	ppb
2)	W	Carbonyl_Sulfide	0.984	87210398	1245.111	ppb
3)	T	Methyl_Mercaptan	1.699	102751642	1532.031	ppb
4)	T	Ethyl_Mercaptan	2.515	108203445	1613.318	ppb
5)	T	Dimethyl_Sulfide	2.694	109139117	1627.269	ppb
6)	T	Carbon_Disulfide	2.907	98408921	1467.281	ppb
7)	T	2-Propyl_Mercaptan	3.118	106586789	1589.214	ppb
8)	T	t-Butyl_Mercaptan	3.603	184963068	2757.807	ppb
9)	T	Propyl_Mercaptan	3.773	105570874	1574.066	ppb
10)	T	Ethyl_Methyl_Sulfide	3.850	115614352	1723.815	ppb
11)	T	Thiophene	4.672	103435859	1542.233	ppb
12)	T	i-Butyl_Mercaptan	4.819	105396675	1571.469	ppb
13)	T	Diethyl_Sulfide	5.181	104879434	1563.757	ppb
14)	t	n-Butyl_Mercaptan	5.388	90781991	1353.563	ppb
15)	t	Dimethyl_Disulfide	5.893	43091567	642.497	ppb
16)	T	2-Methyl_Thiophene	6.437	99140705	1478.192	ppb
17)	t	3-Methyl_Thiophene	6.565	104393401	1556.510	ppb
18)	T	Tetrahydrothiophene	7.008	102172387	1523.395	ppb
19)	t	2,5-Dimethyl_Thiophene	8.152	86643711	1291.861	ppb
20)	T	2-Ethyl_Thiophene	8.242	101961782	1520.255	ppb
21)	T	Diethyl_Disulfide	9.133	55832635	832.467	ppb
22)	T	Methyltrisulfide	9.816	3148495	46.944	ppb

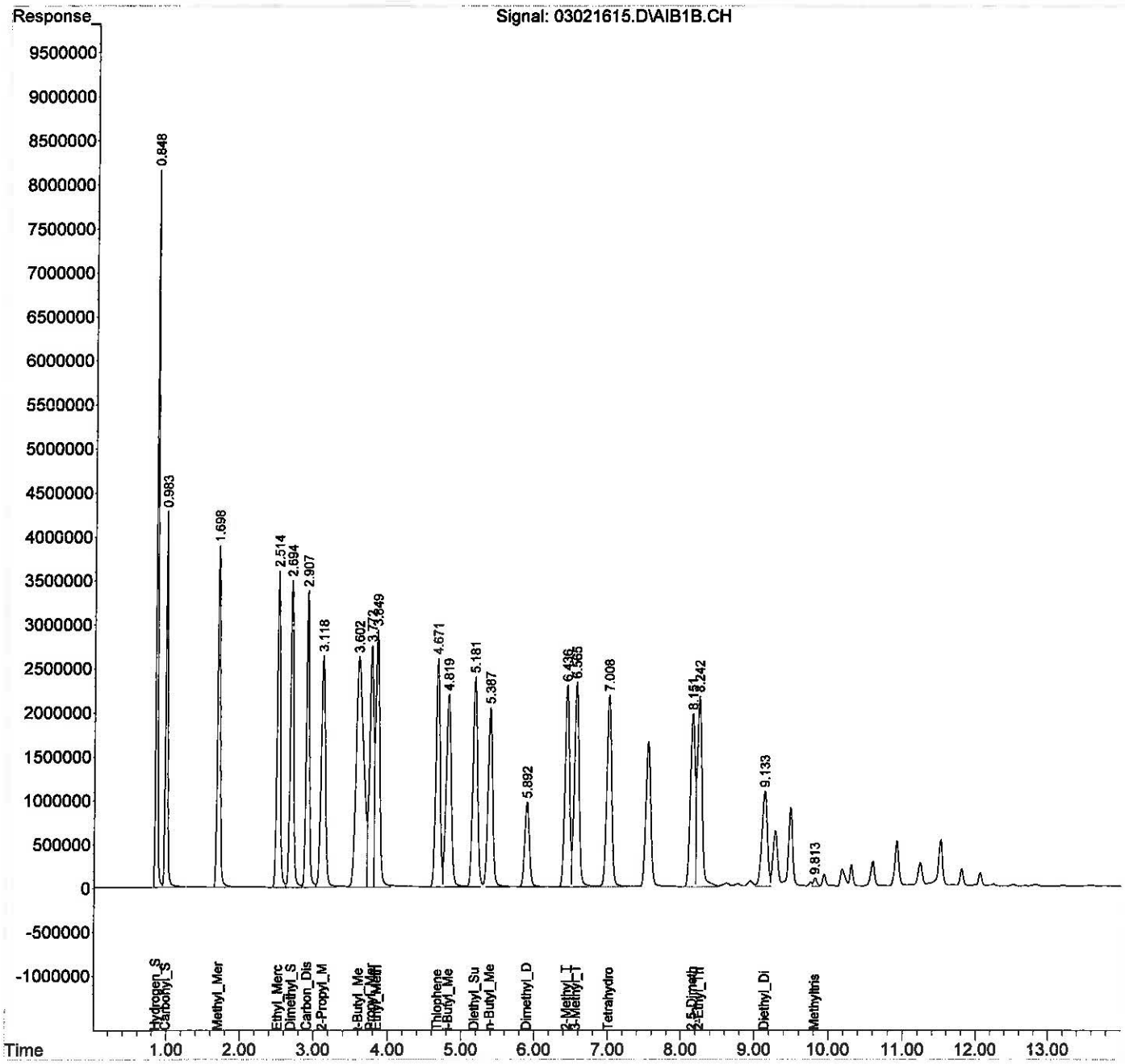
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021615.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 12:19 pm
Operator : MC
Sample : RT
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 12:36:15 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 12:32:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021616.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 12:38 pm
Operator : MC
Sample : ICV S30-02241602
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 12:43:52 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 12:32:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	%R
Target Compounds							
1)	Z	Hydrogen_Sulfide	0.849	69423216	1101.310	ppb	110.131 %
2)	W	Carbonyl_Sulfide	0.985	75695693	1080.714	ppb	108.0714 %
3)	T	Methyl_Mercaptan	1.706	73290985	1092.772	ppb	109.2772 %
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb	
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb	
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb	
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb	
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb	
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb	
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb	
11)	T	Thiophene	0.000	0	N.D.	ppb	
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb	
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb	
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb	
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb	
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb	
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb	
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb	
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb	
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb	
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb	
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb	

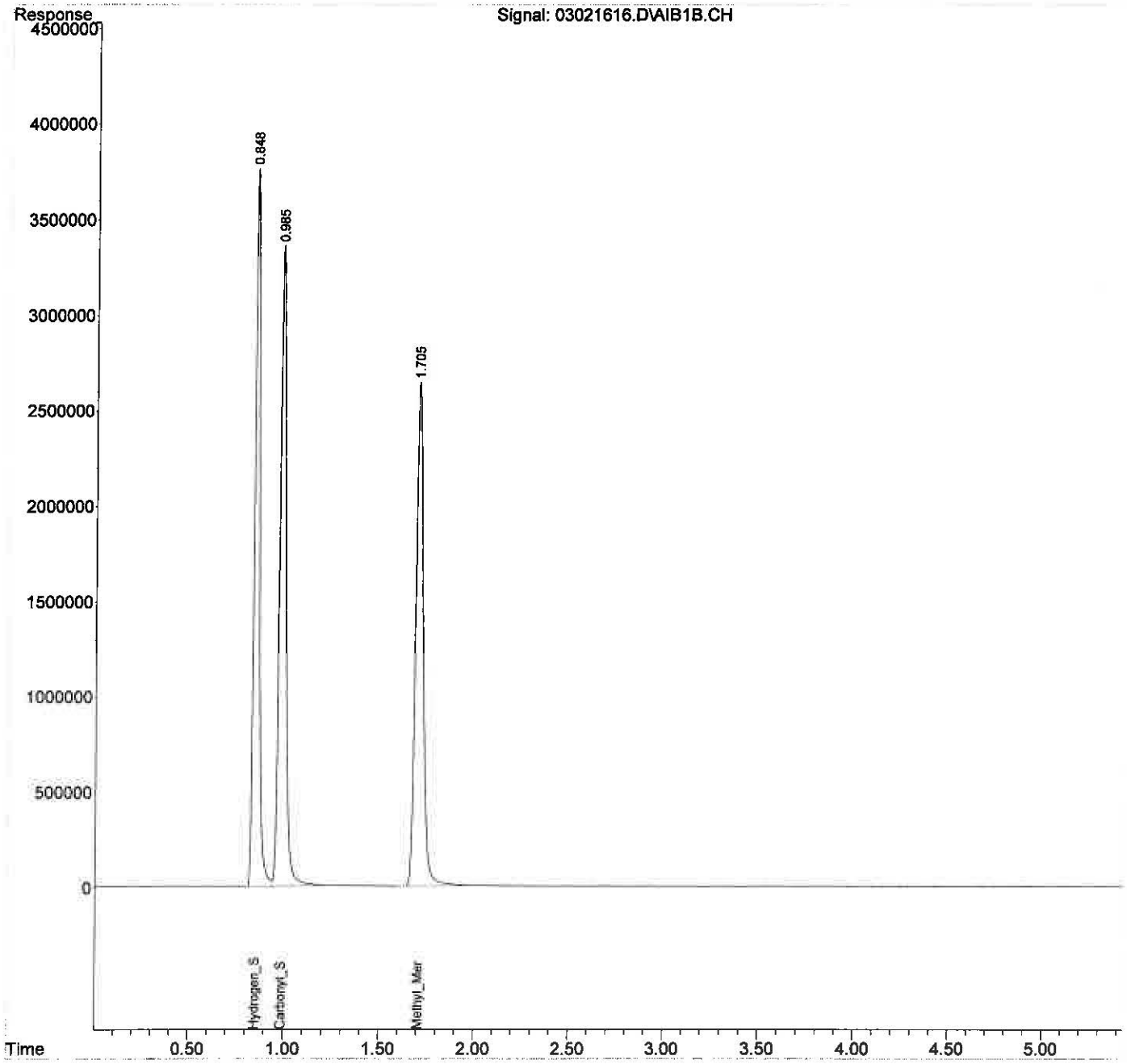
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : I:\GC13\DATA\SCD\2016_03\02\
Data File : 03021616.D
Signal(s) : AIB1B.CH
Acq On : 02 Mar 2016 12:38 pm
Operator : MC
Sample : ICV S30-02241602
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 02 12:43:52 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : 20 Sulfurs
QLast Update : Wed Mar 02 12:32:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



ALS Environmental

REPORT SUMMARY

Method : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
Client : GHD Services
Analyst : MC

Service Request : P1604037
Instrument : GC13
Date Acquired : 8/17/16

Compounds	MDL	RL	MB QC		Dry Wall QC		Lab Dup		
			MB					dup	%RSD
Sample Information :	ppb	ppb	mb 1ml				0	0	
Inj. Vol. (ml)	1.0	1.0	1.00		1.0	1.0	1.0	1.0	
Dilution	1.0	1.0	1.00		1.0	1.0	1.0	1.0	
PI:	1.0	1.0	1.0		1.0	1.0	1.0	1.0	
PI:	1.0	1.0	1.0		1.0	1.0	1.0	1.0	
PIPf DF:	1.0	1.0	1.0		1.0	1.0	1.0	1.0	
Hydrogen_Sulfide	1.900	5.000	ND	P					
Carbonyl_Sulfide	1.700	5.000	ND	P					
Methyl_Mercaptan	1.200	5.000	ND	P					
Ethyl_Mercaptan	1.200	5.000	ND	P					
Dimethyl_Sulfide	1.200	5.000	ND	P					
Carbon_Disulfide	0.600	2.500	ND	P					
2-Propyl_Mercaptan	1.200	5.000	ND	P					
t-Butyl_Mercaptan	1.200	5.000	ND	P					
Propyl_Mercaptan	1.200	5.000	ND	P					
Ethyl_Methyl_Sulfide	1.200	5.000	ND	P					
Thiophene	1.200	5.000	ND	P					
i-Butyl_Mercaptan	1.200	5.000	ND	P					
Diethyl_Sulfide	1.200	5.000	ND	P					
n-Butyl_Mercaptan	1.200	5.000	ND	P					
Dimethyl_Disulfide	0.600	2.500	ND	P					
2-Methylthiophene	1.200	5.000	ND	P					
3-Methylthiophene	1.200	5.000	ND	P					
Tetrahydrothiophene	1.200	5.000	ND	P					
2,5-Dimethylthiophene	1.200	5.000	ND	P					
2-Ethylthiophene	1.200	5.000	ND	P					
Diethyl_Disulfide	0.600	2.500	ND	P					
Methyltrisulfide	0.600	2.500	ND	P					
Acqisition Time			9:09 AM						
DataFile			08171606.D						

Continuing Calibration Standards Summary (ppbv)

	ppbv	% Diff	ppbv	% Diff	ppbv	% Diff	ppbv	% Diff	ppbv	% Diff	ppbv	% Diff	ppbv	% Diff
Sample Information :	std s30-08031601		std s30-08031601		std s30-08031601		std s30-08031601							
Inj. Vol. (ml)	0.10		0.10		0.10		0.10		0.10		0.10		0.10	
Hydrogen_Sulfide	843.78	16.5%	611.283	19.7%	832.708	17.6%	1324.455	31.1%						
Carbonyl_Sulfide	802.99	19.7%	799.323	20.1%	851.917	14.8%	1371.059	37.1%						
Methyl_Mercaptan	776.03	22.4%	784.825	21.5%	847.344	15.3%	1324.484	32.4%						
Dimethyl_Sulfide	8:26 AM		9:46 AM		12:49 PM		5:00 PM							
Carbon_Disulfide	08171602.D		08171608.D		08171618.D		08171625.D							

LCS / LCS Dup Summary (ppbv)

	ppbv	%R		ppbv	% R	%RPD	Actual
Hydrogen_Sulfide	1106.89	110.7%					1000.00
Carbonyl_Sulfide	1091.66	109.2%					1000.00
Methyl_Mercaptan	1077.97	107.8%					1000.00
Acqisition Time	8:29 AM						
DataFile	08171603.D						

KBM 8/19/16

MC 8/19/16

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171602.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 8:26 am
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 08:28:57 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.847	52708495	843.780	ppb
2)	W	Carbonyl_Sulfide	0.980	56243214	802.989	ppb
3)	T	Methyl_Mercaptan	1.688	52047129	776.025	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

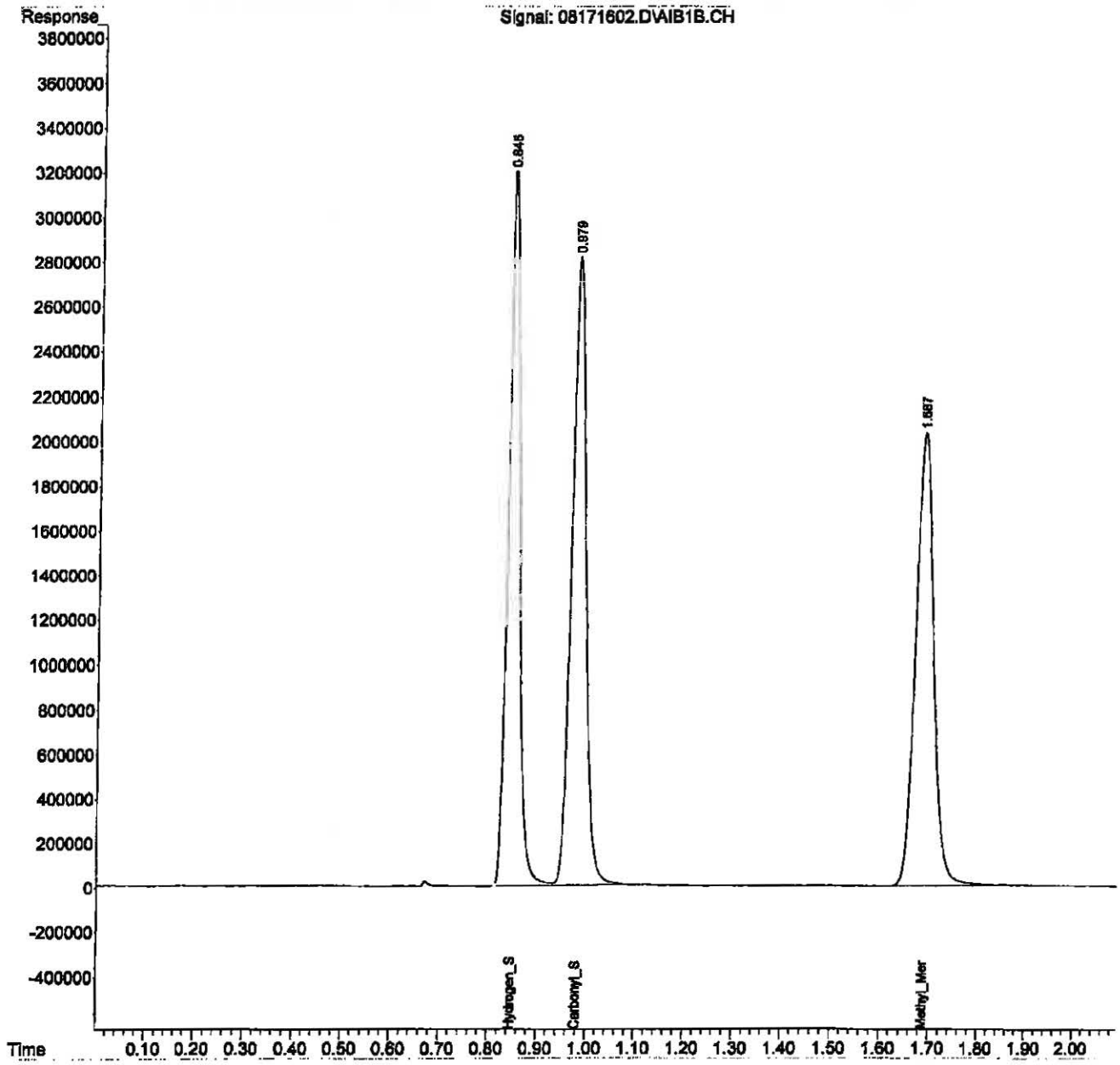
MC 8/18/16

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171602.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 8:26 am
Operator : MC
Sample : std s30-08031601
Misc
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 08:28:57 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171608.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 9:46 am
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 09:54:15 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.847	50678462	811.283	ppb
2)	W	Carbonyl_Sulfide	0.980	55986406	799.323	ppb
3)	T	Methyl_Mercaptan	1.689	52637352	784.825	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	2.882	216684	1.615	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	5.877	381780	2.846	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

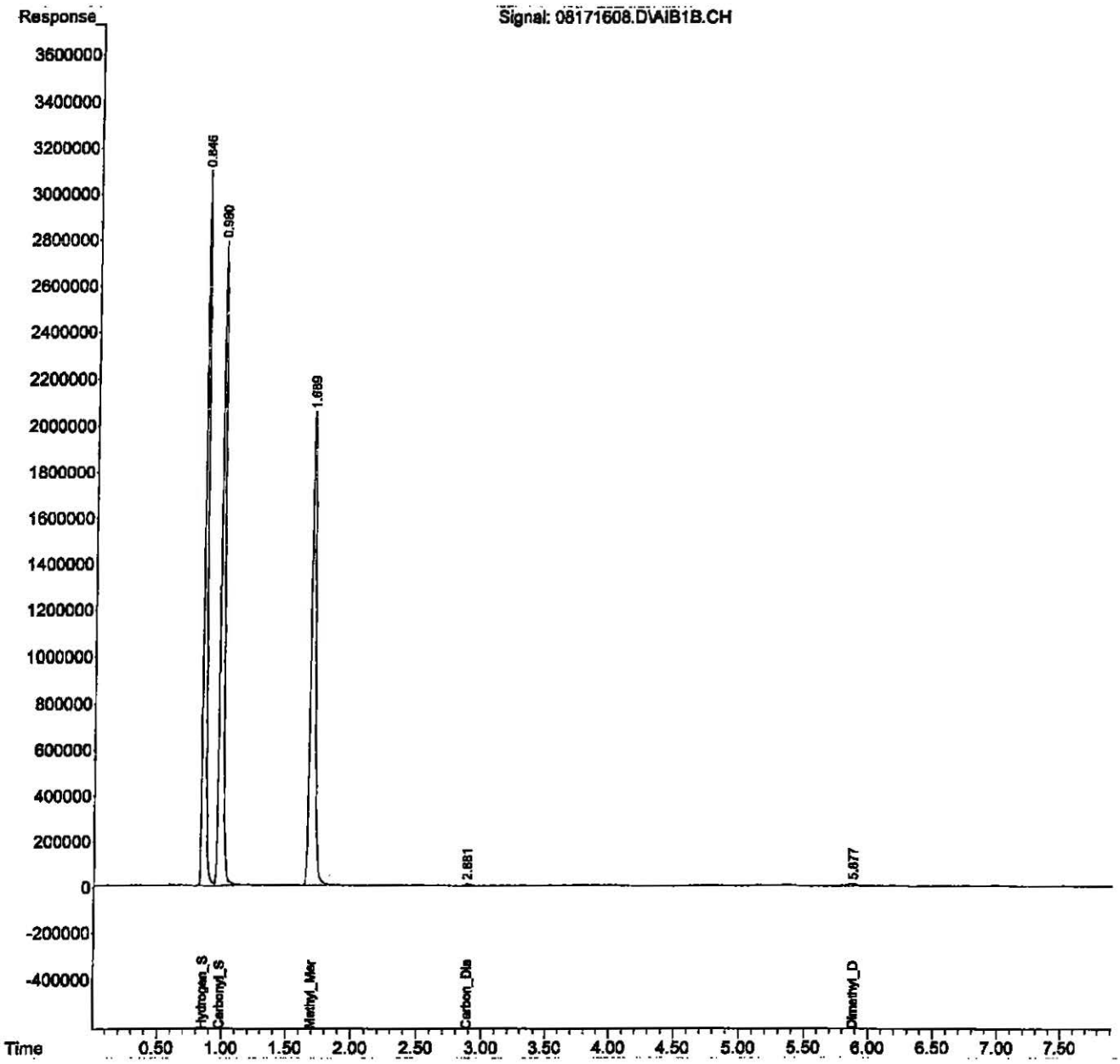
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171608.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 9:46 am
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 09:54:15 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171618.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 12:49 pm
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 12:51:26 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.842	52016800	832.708	ppb
2)	W	Carbonyl_Sulfide	0.975	59670242	851.917	ppb
3)	T	Methyl_Mercaptan	1.686	56830421	847.344	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

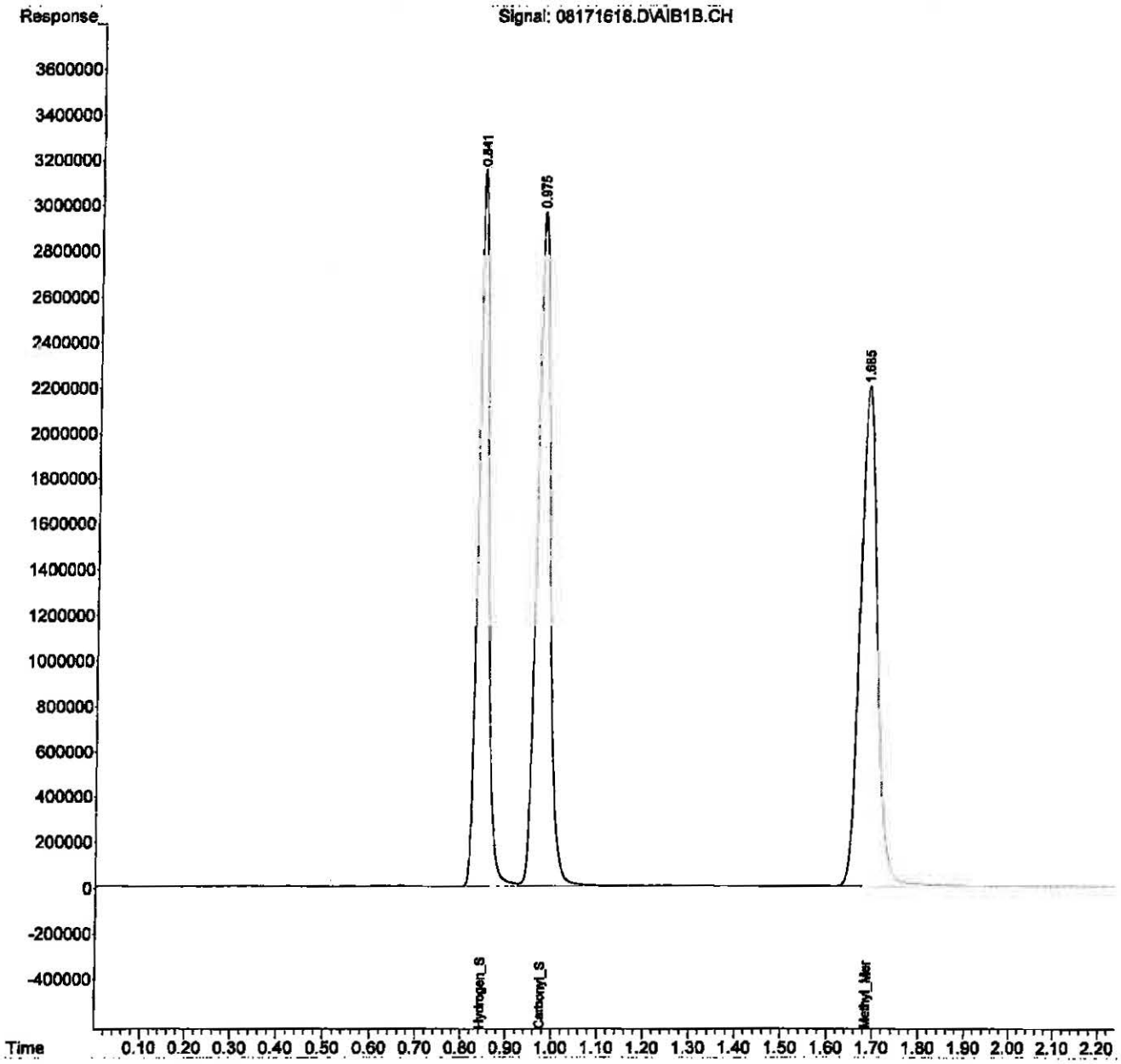
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171618.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 12:49 pm
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 12:51:26 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171626.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 5:05 pm
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 09:27:51 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.847	67824985	1085.772	ppb
2)	W	Carbonyl_Sulfide	0.980	77644756	1108.541	ppb
3)	T	Methyl_Mercaptan	1.687	71942152	1072.661	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

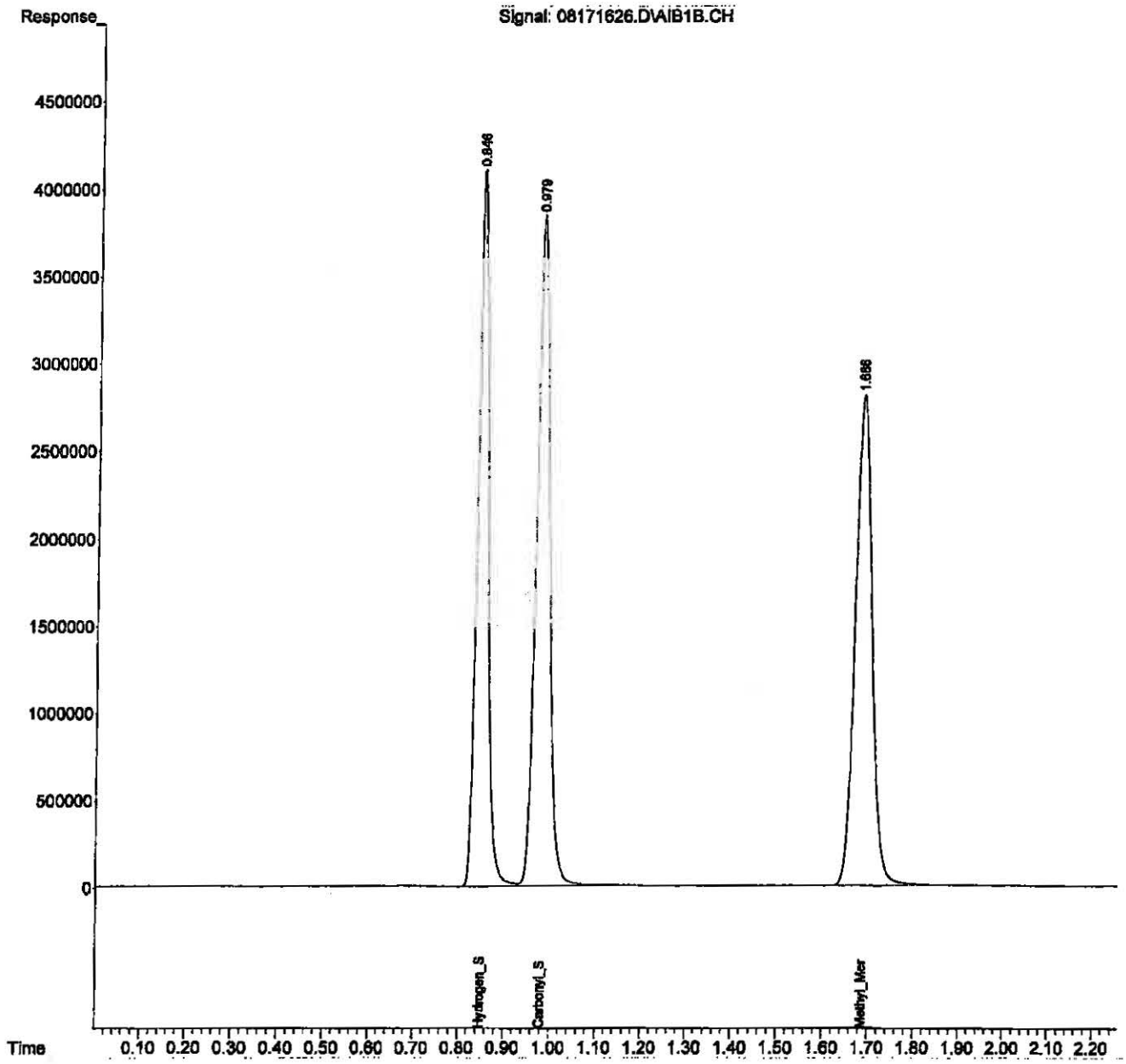
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\17\
Data File : 08171626.D
Signal(s) : AIB1B.CH
Acq On : 17 Aug 2016 5:05 pm
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 09:27:51 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



ALS Environmental

REPORT SUMMARY

Method : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
Client : GHD Services
Analyst : MC

Service Request : P1604037
Instrument : GC #22
Date Acquired : 8/17/16

Compounds	MDL	RL	MB QC		Dry Wall QC		Lab Dup			Continuing Calibration Standards Summary (ppbv)													
			MB					dup	%RSD	ppbv	% Diff	ppbv	% Diff	ppbv	% Diff	ppbv	% Diff	ppbv	% Diff	ppbv	% Diff	ppbv	% Diff
Sample Information :	ppb	ppb	mb 1ml				0	0		std s30-08031601		std s30-08031601		std s30-08031601		std s30-08031601							
Inj. Vol. (ml)	1.0	1.0	1.00		1.0	1.0	1.0	1.0		0.10		0.10		0.10		0.10		0.10		0.10		0.10	
Dilution	1.0	1.0	1.00		1.0	1.0	1.0	1.0															
PI:	1.0	1.0	1.0		1.0	1.0	1.0	1.0															
PI:	1.0	1.0	1.0		1.0	1.0	1.0	1.0															
PIPf DF:	1.0	1.0	1.0		1.0	1.0	1.0	1.0															
Hydrogen_Sulfide	1.900	5.000	ND	P						789.44	21.8%	987.999	2.2%	1071.387	6.1%	1184.421	17.3%						
Carbonyl_Sulfide	1.700	5.000	ND	P						800.56	19.9%	1026.473	2.6%	1140.110	14.0%	1243.268	24.3%						
Methyl_Mercaptan	1.200	5.000	ND	P						801.74	19.8%	1002.486	0.2%	1100.507	10.1%	1220.784	22.1%						
Ethyl_Mercaptan	1.200	5.000	ND	P																			
Dimethyl_Sulfide	1.200	5.000	ND	P						7:44 AM		9:06 AM		11:36 AM		5:09 PM							
Carbon_Disulfide	0.600	2.500	ND	P						08171602.d		08171609.d		08171617.d		08171625.d							
2-Propyl_Mercaptan	1.200	5.000	ND	P																			
t-Butyl_Mercaptan	1.200	5.000	ND	P																			
Propyl_Mercaptan	1.200	5.000	ND	P																			
Ethyl_Methyl_Sulfide	1.200	5.000	ND	P																			
Thiophene	1.200	5.000	ND	P																			
i-Butyl_Mercaptan	1.200	5.000	ND	P																			
Diethyl_Sulfide	1.200	5.000	ND	P																			
n-Butyl_Mercaptan	1.200	5.000	ND	P																			
Dimethyl_Disulfide	0.600	2.500	ND	P																			
2-Methylthiophene	1.200	5.000	ND	P																			
3-Methylthiophene	1.200	5.000	ND	P																			
Tetrahydrothiophene	1.200	5.000	ND	P																			
2,5-Dimethylthiophene	1.200	5.000	ND	P																			
2-Ethylthiophene	1.200	5.000	ND	P																			
Diethyl_Disulfide	0.600	2.500	ND	P																			
Methyltrisulfide	0.600	2.500	ND	P																			
Acqisition Time			8:12 AM																				
DataFile			08171606.d																				

LCS / LCS Dup Summary (ppbv)

	ppbv	%R		ppbv	%R	%RPD	Actual
Hydrogen_Sulfide	874.35	87.4%					1000.00
Carbonyl_Sulfide	911.24	91.1%					1000.00
Methyl_Mercaptan	894.05	89.4%					1000.00
Acqisition Time	7:48 AM						
DataFile	08171603.d						

8/19/16

8/19/16

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171602.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 7:44 am
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 07:48:04 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	1.194	32556863	789.443	ppb
2)	W	Carbonyl_Sulfide	1.372	35555256	800.555	ppb
3)	T	Methyl_Mercaptan	2.190	33391601	801.739	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	T	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

MC 8/19/16

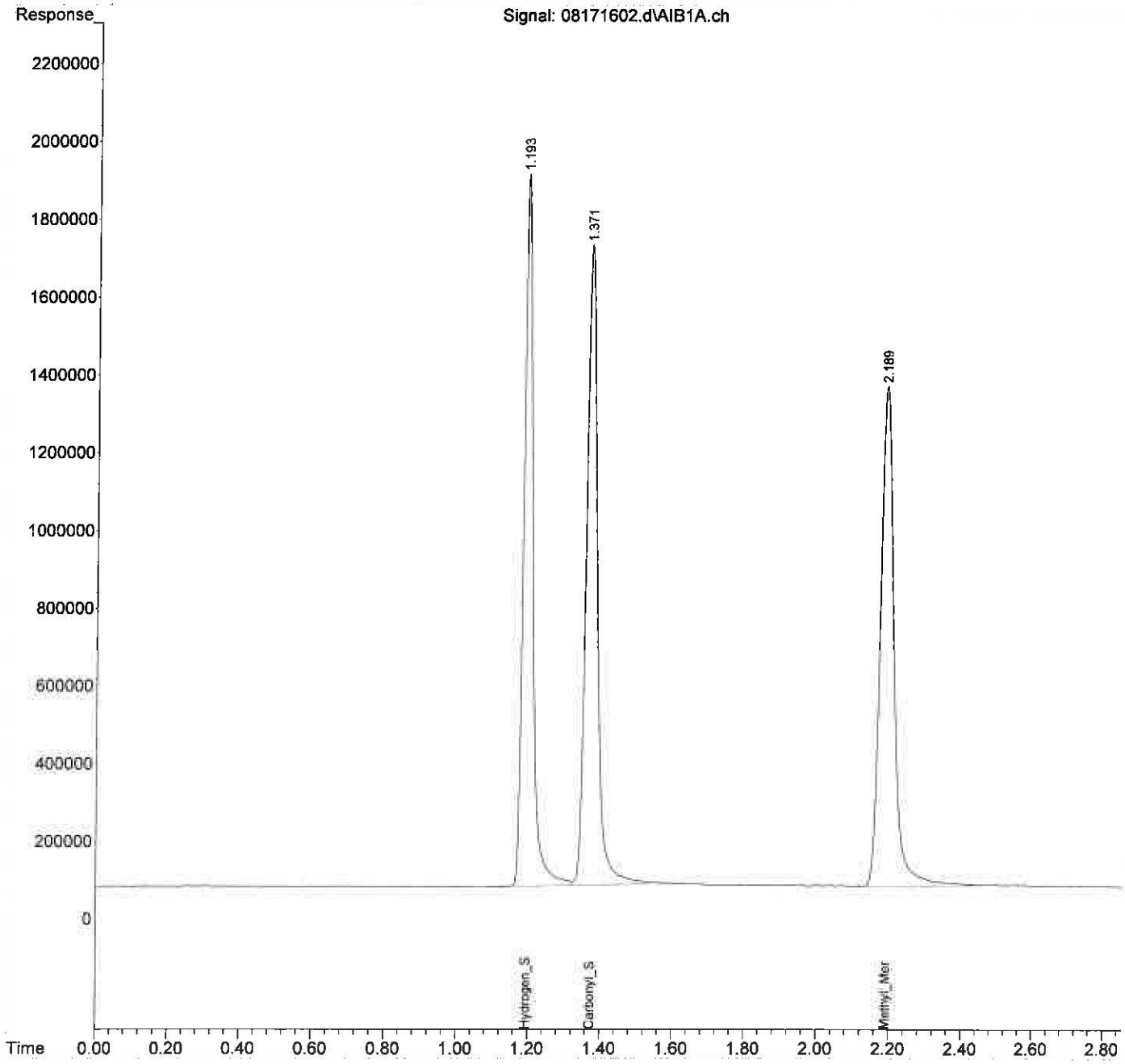
8/19/16

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171602.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 7:44 am
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 07:48:04 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171607.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 8:30 am
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 08:47:31 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	1.183	36522293	885.597	ppb
2)	W	Carbonyl_Sulfide	1.360	41321753	930.392	ppb
3)	T	Methyl_Mercaptan	2.176	37916816	910.391	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	T	Dimethyl_Disulfide	6.418	423009	5.078	ppb
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

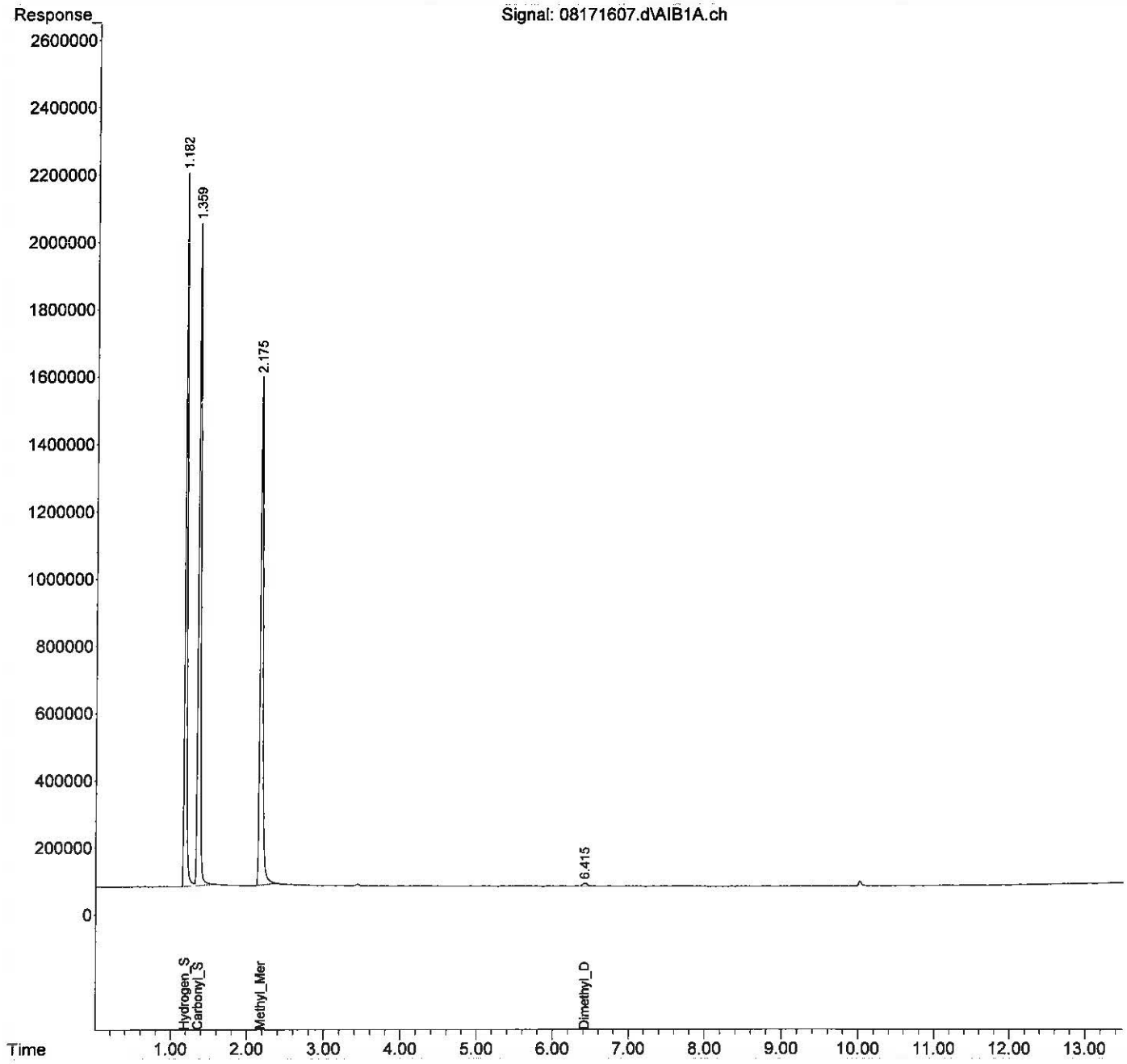
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171607.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 8:30 am
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 08:47:31 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171609.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 9:06 am
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 11:54:32 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	1.185	40745393	987.999	ppb
2)	W	Carbonyl_Sulfide	1.361	45589041	1026.473	ppb
3)	T	Methyl_Mercaptan	2.176	41752501	1002.486	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	3.432	272191	3.268	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	T	Dimethyl_Disulfide	6.433	370104	4.443	ppb
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

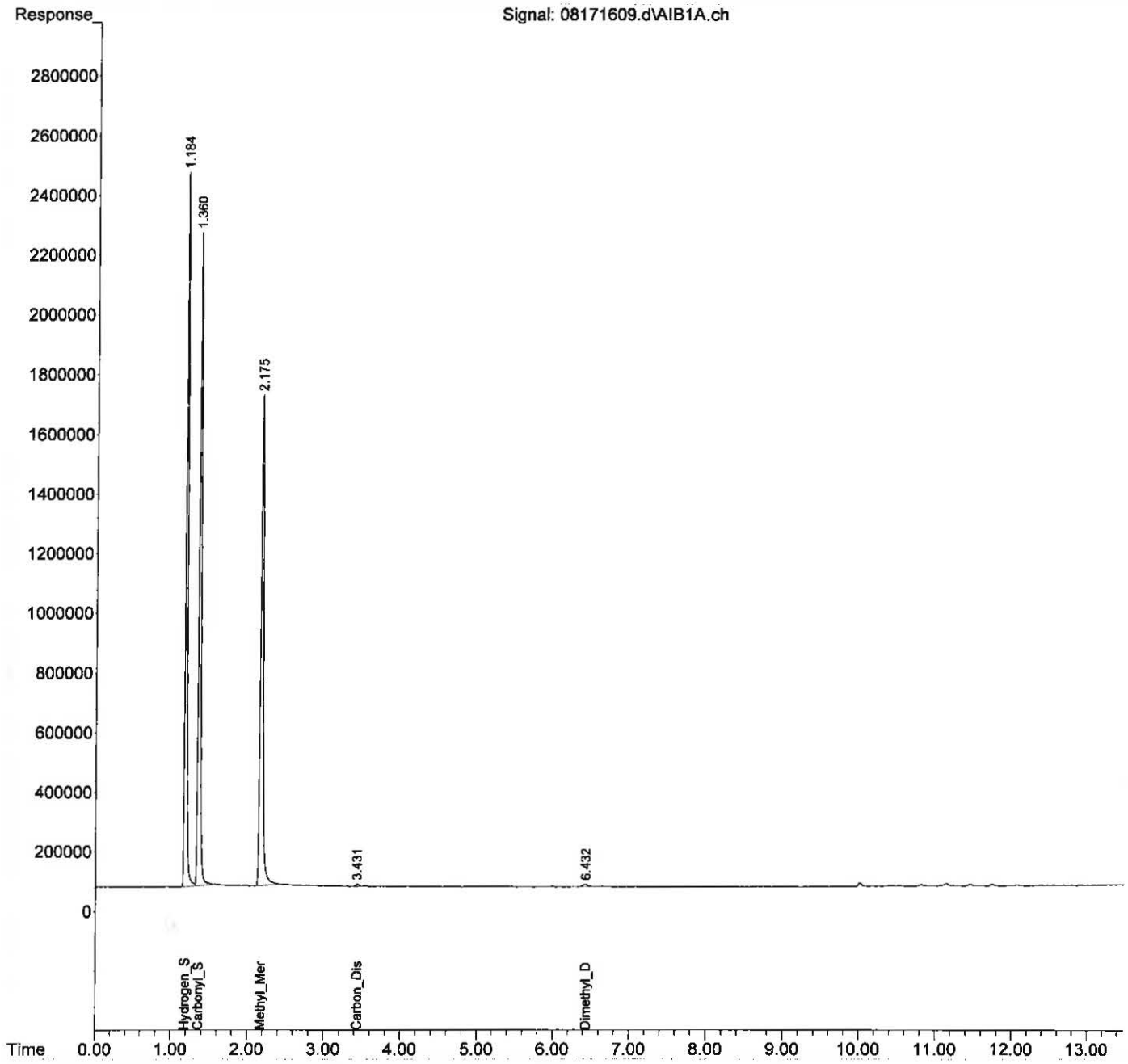
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171609.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 9:06 am
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 11:54:32 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171617.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 11:36 am
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 11:41:13 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	1.177	44184322	1071.387	ppb
2)	W	Carbonyl_Sulfide	1.352	50636017	1140.110	ppb
3)	T	Methyl_Mercaptan	2.166	45834951	1100.507	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	3.422	225666	2.709	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	T	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

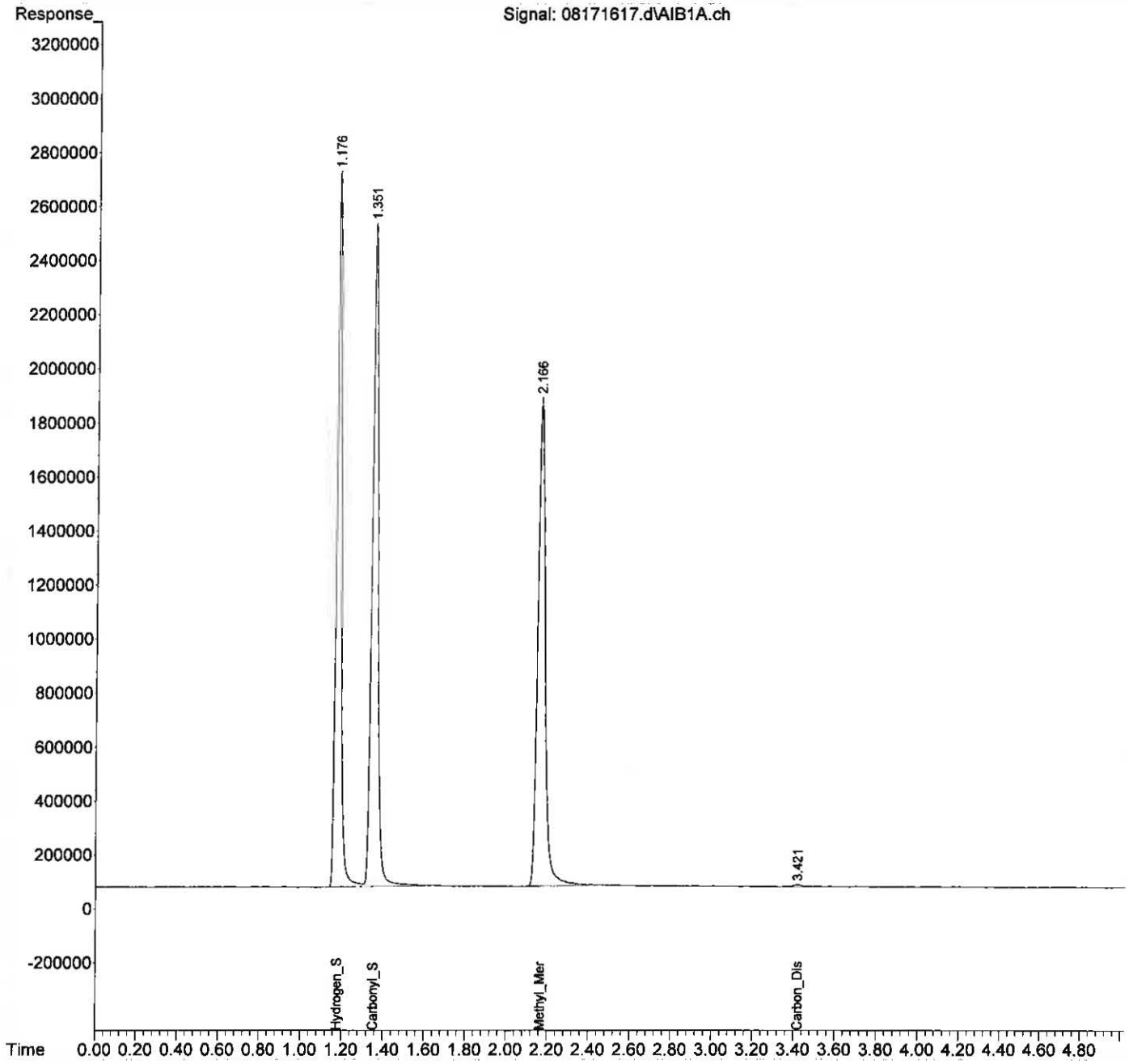
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171617.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 11:36 am
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 11:41:13 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171625.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 5:09 pm
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 25 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 17:11:50 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
Target Compounds							
1)	Z	Hydrogen_Sulfide	1.114f	48845888	1184.421	ppb	
2)	W	Carbonyl_Sulfide	1.284f	55217589	1243.268	ppb	
3)	T	Methyl_Mercaptan	2.083f	50844374	1220.784	ppb	m
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb	
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb	
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb	
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb	
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb	
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb	
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb	
11)	T	Thiophene	0.000	0	N.D.	ppb	
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb	
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb	
14)	T	n-Butyl_Mercaptan	0.000	0	N.D.	ppb	
15)	T	Dimethyl_Disulfide	0.000	0	N.D.	ppb	
16)	T	2-Methylthiophene	0.000	0	N.D.	ppb	
17)	T	3-Methylthiophene	0.000	0	N.D.	ppb	
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb	
19)	T	2,5-Dimethylthiophene	0.000	0	N.D.	ppb	
20)	T	2-Ethylthiophene	0.000	0	N.D.	ppb	
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb	
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb	

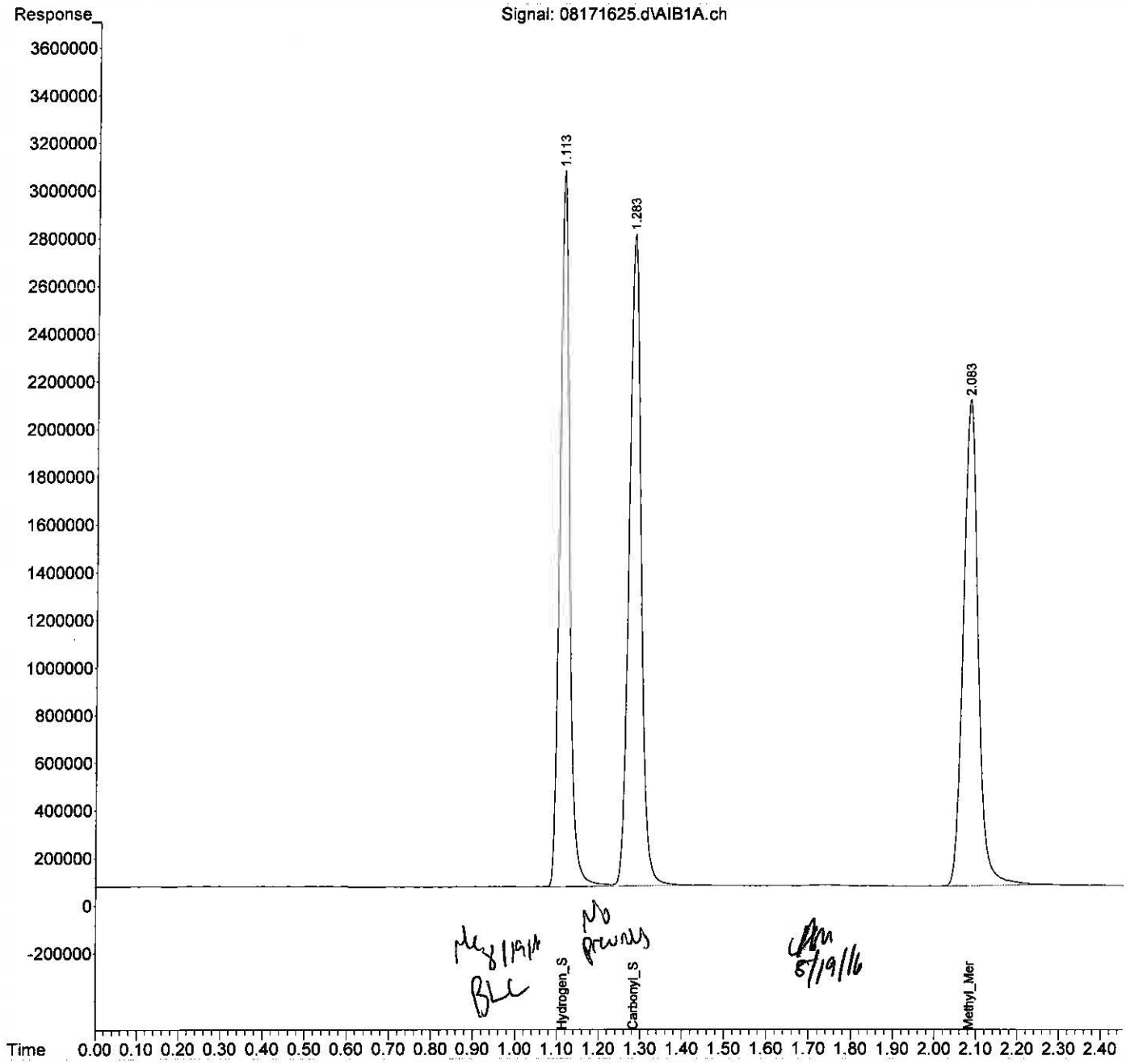
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC22\DATA\SCD\2016_08\17\
Data File : 08171625.d
Signal(s) : AIB1A.ch
Acq On : 17 Aug 2016 5:09 pm
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 25 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 17 17:11:50 2016
Quant Method : J:\GC22\METHODS\GC22_Quan 02262016.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Fri Feb 26 14:51:03 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :



ALS Environmental

REPORT SUMMARY

Method : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
Client : GHD Services
Analyst : MC

Service Request : P1604037
Instrument : GC13
Date Acquired : 8/18/16

Compounds	MDL	RL	MB QC		Dry Wall QC		Lab Dup		
			MB					dup	%RSD
Sample Information :	ppb	ppb	mb 1ml				0	0	
Inj. Vol. (ml)	1.0	1.0	1.00		1.0	1.0	1.0	1.0	
Dilution	1.0	1.0	1.00		1.0	1.0	1.0	1.0	
PI:	1.0	1.0	1.0		1.0	1.0	1.0	1.0	
PI:	1.0	1.0	1.0		1.0	1.0	1.0	1.0	
PiPf DF:	1.0	1.0	1.0		1.0	1.0	1.0	1.0	
Hydrogen_Sulfide	1.900	5.000	ND	P					
Carbonyl_Sulfide	1.700	5.000	ND	P					
Methyl_Mercaptan	1.200	5.000	ND	P					
Ethyl_Mercaptan	1.200	5.000	ND	P					
Dimethyl_Sulfide	1.200	5.000	ND	P					
Carbon_Disulfide	0.600	2.500	ND	P					
2-Propyl_Mercaptan	1.200	5.000	ND	P					
t-Butyl_Mercaptan	1.200	5.000	ND	P					
Propyl_Mercaptan	1.200	5.000	ND	P					
Ethyl_Methyl_Sulfide	1.200	5.000	ND	P					
Thiophene	1.200	5.000	ND	P					
i-Butyl_Mercaptan	1.200	5.000	ND	P					
Diethyl_Sulfide	1.200	5.000	ND	P					
n-Butyl_Mercaptan	1.200	5.000	ND	P					
Dimethyl_Disulfide	0.600	2.500	ND	P					
2-Methylthiophene	1.200	5.000	ND	P					
3-Methylthiophene	1.200	5.000	ND	P					
Tetrahydrothiophene	1.200	5.000	ND	P					
2,5-Dimethylthiophene	1.200	5.000	ND	P					
2-Ethylthiophene	1.200	5.000	ND	P					
Diethyl_Disulfide	0.600	2.500	ND	P					
Methyltrisulfide	0.600	2.500	ND	P					
Acqisition Time			8:50 AM						
DataFile			08181605.D						

Continuing Calibration Standards Summary (ppbv)

Compounds	ppbv	% Diff	ppbv	% Diff	ppbv	% Diff	ppbv	% Diff	ppbv	% Diff	ppbv	% Diff	ppbv	% Diff
Sample Information :	std s30-08031601		std s30-08031601		std s30-08031601									
Inj. Vol. (ml)	0.10		0.10		0.10		0.10		0.10		0.10		0.10	
Hydrogen_Sulfide	1245.68	23.3%	886.139	12.3%	816.370	19.2%								
Carbonyl_Sulfide	1278.96	27.9%	909.401	9.1%	822.087	17.8%								
Methyl_Mercaptan	1246.13	24.6%	879.897	12.0%	804.490	19.6%								
Acqisition Time	8:19 AM		11:26 AM		3:22 PM									
DataFile	08181601.D		08181615.D		08181630.D									

LCS / LCS Dup Summary (ppbv)

	ppbv	%R		ppbv	%R	%RPD	Actual
Hydrogen_Sulfide	1021.31	102.1%					1000.00
Carbonyl_Sulfide	1074.04	107.4%					1000.00
Methyl_Mercaptan	1022.55	102.3%					1000.00
Acqisition Time	8:23 AM						
DataFile	08181602.D						

GM 8/19/16 MC 8/19/16

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181601.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 8:19 am
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 08:22:33 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.846	77813949	1245.679	ppb
2)	W	Carbonyl_Sulfide	0.980	89581136	1278.958	ppb
3)	T	Methyl_Mercaptan	1.688	83576467	1246.129	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	2.889	300418	2.240	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

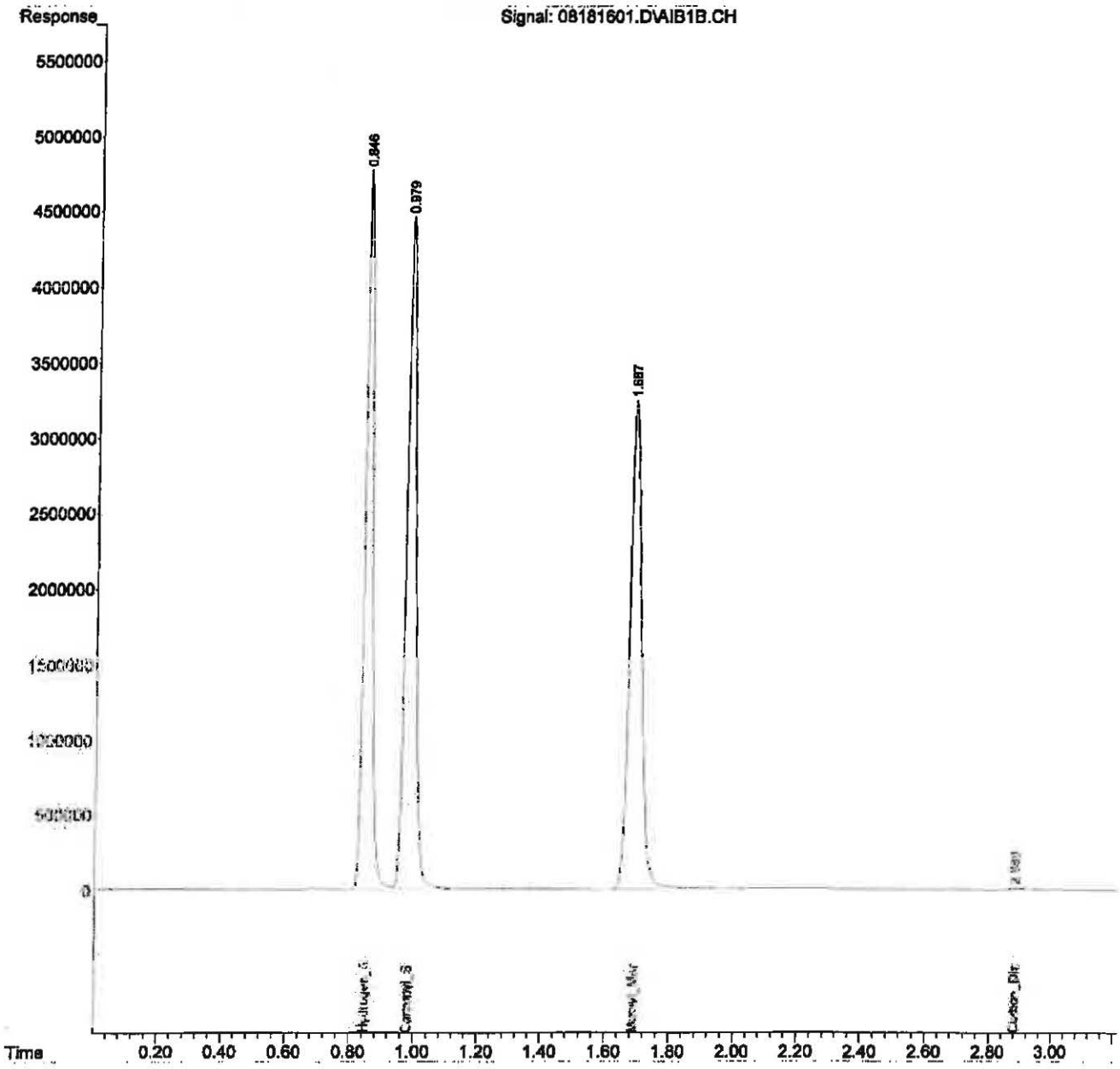
MC 8/19/16

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181601.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 8:19 am
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 08:22:33 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181615.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 11:26 am
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 11:29:02 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.846	55354507	886.139	ppb
2)	W	Carbonyl_Sulfide	0.979	63696540	909.401	ppb
3)	T	Methyl_Mercaptan	1.686	59013739	879.897	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

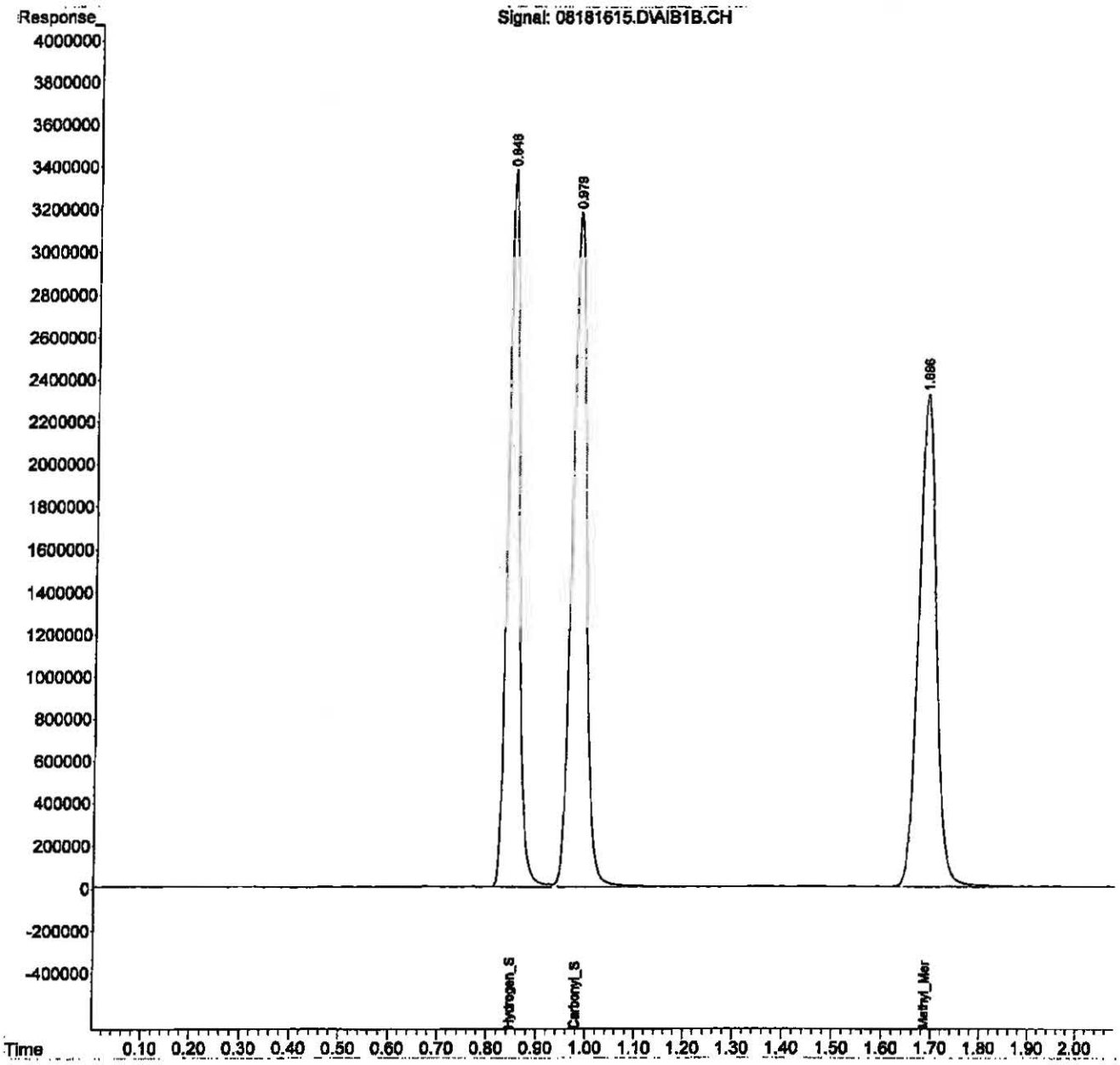
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181615.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 11:26 am
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 11:29:02 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH20 SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181630.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 3:22 pm
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 15:25:08 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
Target Compounds						
1)	Z	Hydrogen_Sulfide	0.847	50996255	816.370	ppb
2)	W	Carbonyl_Sulfide	0.981	57580839	822.087	ppb
3)	T	Methyl_Mercaptan	1.690	53956267	804.490	ppb
4)	T	Ethyl_Mercaptan	0.000	0	N.D.	ppb
5)	T	Dimethyl_Sulfide	0.000	0	N.D.	ppb
6)	T	Carbon_Disulfide	0.000	0	N.D.	ppb
7)	T	2-Propyl_Mercaptan	0.000	0	N.D.	ppb
8)	T	t-Butyl_Mercaptan	0.000	0	N.D.	ppb
9)	T	Propyl_Mercaptan	0.000	0	N.D.	ppb
10)	T	Ethyl_Methyl_Sulfide	0.000	0	N.D.	ppb
11)	T	Thiophene	0.000	0	N.D.	ppb
12)	T	i-Butyl_Mercaptan	0.000	0	N.D.	ppb
13)	T	Diethyl_Sulfide	0.000	0	N.D.	ppb
14)	t	n-Butyl_Mercaptan	0.000	0	N.D.	ppb
15)	t	Dimethyl_Disulfide	0.000	0	N.D.	ppb
16)	T	2-Methyl_Thiophene	0.000	0	N.D.	ppb
17)	t	3-Methyl_Thiophene	0.000	0	N.D.	ppb
18)	T	Tetrahydrothiophene	0.000	0	N.D.	ppb
19)	t	2,5-Dimethyl_Thiophene	0.000	0	N.D.	ppb
20)	T	2-Ethyl_Thiophene	0.000	0	N.D.	ppb
21)	T	Diethyl_Disulfide	0.000	0	N.D.	ppb
22)	T	Methyltrisulfide	0.000	0	N.D.	ppb

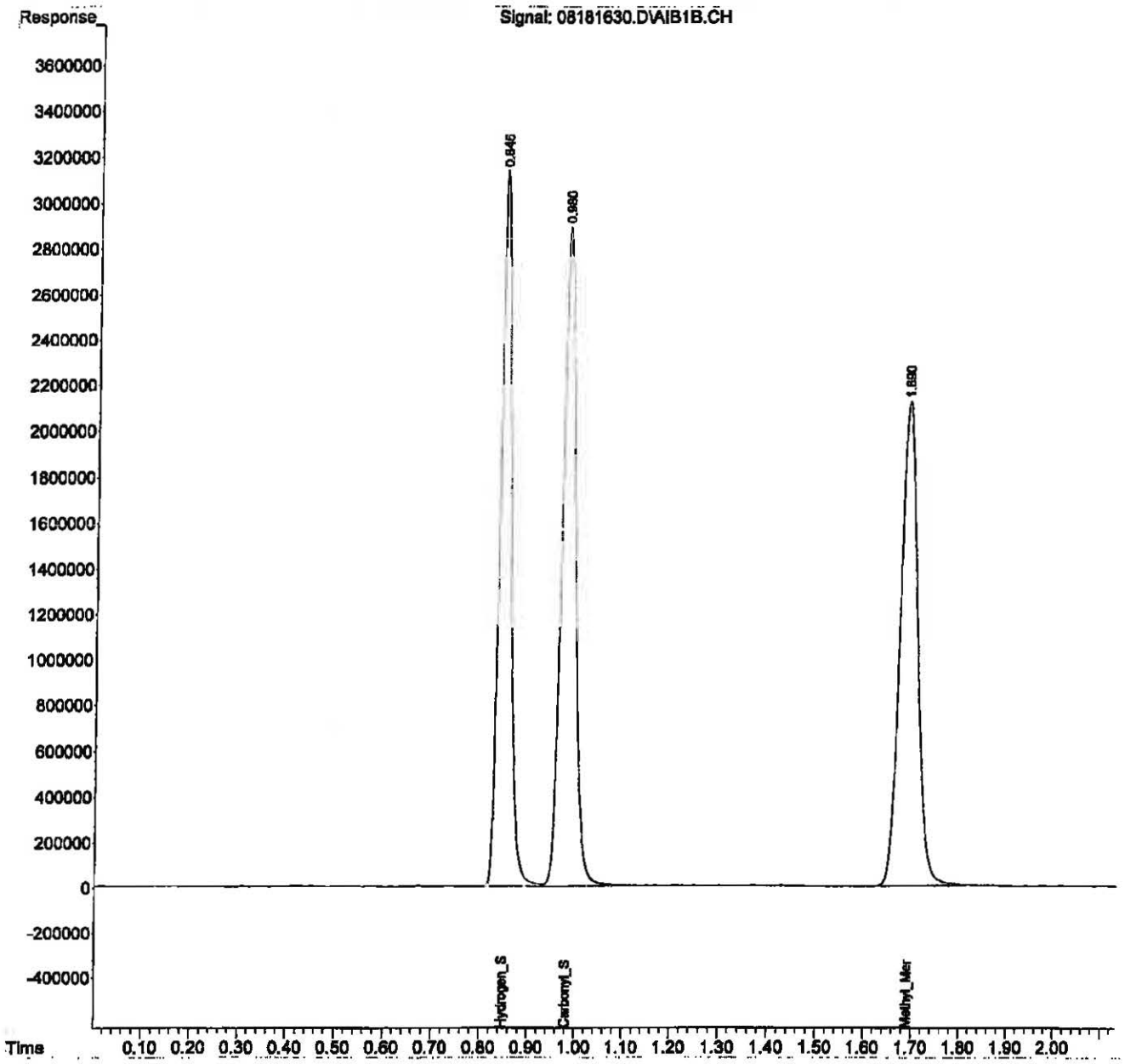
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC13\DATA\SCD\2016_08\18\
Data File : 08181630.D
Signal(s) : AIB1B.CH
Acq On : 18 Aug 2016 3:22 pm
Operator : MC
Sample : std s30-08031601
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Aug 18 15:25:08 2016
Quant Method : J:\GC13\METHODS\GC13_030216.M
Quant Title : ASTM D5504, VOA-S307M_SCD, VOA SH2O_SCD
QLast Update : Tue May 03 15:14:01 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



Injection Log

Directory: I:\GC22\DATA\SCD\2016_02\26\

	Sample ID	Date/Time	Acquisition Method	File Name	Misc Info	Operator	Vial
1	+1000ppb S11-02141603 100ul	2/26/16 8:54	GC22ACQ.M	02261601.D		MC	1
2	+1000ppb S11-02141603 100ul	2/26/16 9:02	GC22ACQ.M	02261602.D		MC	2
3	Std 2.5ppb S11-02231601 25ul	2/26/16 9:19	GC22ACQ.M	02261603.D		MC	3
4	Std 10ppb S11-02231601 100ul	2/26/16 9:26	GC22ACQ.M	02261604.D		MC	3
5	Std 50ppb S11-02231601 500ul	2/26/16 9:30	GC22ACQ.M	02261605.D		MC	4
6	Std 250ppb S11-02171604 25ul	2/26/16 9:36	GC22ACQ.M	02261606.D		MC	5
7	Std 1000ppb S11-02171604 100ul	2/26/16 9:41	GC22ACQ.M	02261607.D		MC	6
8	Std 2500ppb S11-02171604 250ul	2/26/16 9:47	GC22ACQ.M	02261608.D		MC	7
9	Std 5000ppb S11-02171604 500ul	2/26/16 9:52	GC22ACQ.M	02261609.D		MC	8
10	Std 10000ppb S11-02171604 1ml	2/26/16 9:57	GC22ACQ.M	02261610.D		MC	9
11	Std 25ppm S30-11031401 25ul	2/26/16 10:30	GC22ACQ.M	02261611.D		MC	1
12	ICV S30-02241602 1000ppb	2/26/16 11:40	GC22ACQ.M	02261612.D		MC	2
13	RT	2/26/16 11:49	GC22ACQ.M	02261613.D		MC	3
14	RT	2/26/16 12:05	GC22ACQ.M	02261614.D		MC	4
15	2.5ppb S11-02231601 MDL-1	2/26/16 13:04	GC22ACQ.M	02261615.D		MC	1
16	2.5ppb S11-02231601 MDL-2	2/26/16 13:08	GC22ACQ.M	02261616.D		MC	2
17	2.5ppb S11-02231601 MDL-3	2/26/16 13:11	GC22ACQ.M	02261617.D		MC	3
18	2.5ppb S11-02231601 MDL-4	2/26/16 13:15	GC22ACQ.M	02261618.D		MC	4
19	2.5ppb S11-02231601 MDL-5	2/26/16 13:25	GC22ACQ.M	02261619.D		MC	5
20	2.5ppb S11-02231601 MDL-6	2/26/16 13:30	GC22ACQ.M	02261620.D		MC	6
21	2.5ppb S11-02231601 MDL-7	2/26/16 13:34	GC22ACQ.M	02261621.D		MC	7
22	2.5ppb S11-02231601 MDL-8	2/26/16 13:37	GC22ACQ.M	02261622.D		MC	8
23	LOD 2.0ppb S11-02231601 20ul	2/26/16 13:41	GC22ACQ.M	02261623.D		MC	9
24	LOD 1.5ppb S11-02231601 20ul	2/26/16 13:45	GC22ACQ.M	02261624.D		MC	10
25	CCV 1000ppb S30-02241601	2/26/16 13:50	GC22ACQ.M	02261625.D		MC	11
26	0979-009 1ml	2/26/16 14:01	GC22ACQ.M	02261626.D		MC	12
27	0979-011 1ml	2/26/16 14:15	GC22ACQ.M	02261627.D		MC	13
28	0981-001 1ml	2/26/16 14:28	GC22ACQ.M	02261628.D		MC	14
29	0981-002 1ml	2/26/16 14:41	GC22ACQ.M	02261629.D		MC	15
30	0981-003 1ml	2/26/16 14:55	GC22ACQ.M	02261630.D		MC	16
31	0981-004 1ml	2/26/16 15:07	GC22ACQ.M	02261631.D		MC	17
32	0981-006 1ml	2/26/16 15:18	GC22ACQ.M	02261632.D		MC	18
33	0981-008 1ml	2/26/16 15:28	GC22ACQ.M	02261633.D		MC	19
34	0981-010 1ml	2/26/16 15:38	GC22ACQ.M	02261634.D		MC	20
35	0981-012 1ml	2/26/16 15:48	GC22ACQ.M	02261635.D		MC	21
36	QC 1SS00188 1ml	2/26/16 15:58	GC22ACQ.M	02261636.D		MC	22
37	std 1000ppb s30-02241601	2/26/16 16:11	GC22ACQ.M	02261637.D		MC	23
38	1003-001 1ml	2/26/16 16:20	GC22ACQ.M	02261638.D		MC	24

Injection Log

Directory: I:\GC13\DATA\SCD\2016_03\02\

	Sample ID	Date/Time	Acquisition Method	File Name	Misc Info	Operator	Comments
	Rt	3/2/16 10:29	GC13_SCD.M	03021601.D		MC	
	Rt	3/2/16 10:52	GC13_SCD.M	03021602.D		MC	
	Blank	3/2/16 11:22	GC13_SCD.M	03021603.D		MC	
	2.5ppb S11-0302160225ul	3/2/16 11:27	GC13_SCD.M	03021604.D		MC	
	10ppb S11-03021602 100ul	3/2/16 11:36	GC13_SCD.M	03021605.D		MC	
	50ppb S11-03021602 500ul	3/2/16 11:41	GC13_SCD.M	03021606.D		MC	
	250ppbS11-03021601 25ul	3/2/16 11:45	GC13_SCD.M	03021607.D		MC	
	1000ppb S11-03021601 100ul	3/2/16 11:49	GC13_SCD.M	03021608.D		MC	
	2500ppb S11-03021601 250ul	3/2/16 11:53	GC13_SCD.M	03021609.D		MC	
	5000ppb S11-03021601 500ul	3/2/16 11:57	GC13_SCD.M	03021610.D		MC	
	10ppm S11-03021601 1ml	3/2/16 12:00	GC13_SCD.M	03021611.D		MC	
	25ppm S30-11031401 25ul	3/2/16 12:04	GC13_SCD.M	03021612.D		MC	
	50ppm S30-11031401 50ul	3/2/16 12:08	GC13_SCD.M	03021613.D		MC	
	100ppm S30-11031401 100ul	3/2/16 12:13	GC13_SCD.M	03021614.D		MC	
	RT	3/2/16 12:19	GC13_SCD.M	03021615.D		MC	
	ICV S30-02241602	3/2/16 12:38	GC13_SCD.M	03021616.D		MC	
	MB 1ml N2	3/2/16 12:49	GC13_SCD.M	03021617.D		MC	
	2.5ppb MDL-1	3/2/16 13:07	GC13_SCD.M	03021618.D		MC	
	2.5ppb MDL-2	3/2/16 13:10	GC13_SCD.M	03021619.D		MC	
	2.5ppb MDL-3	3/2/16 13:14	GC13_SCD.M	03021620.D		MC	
	2.5ppb MDL-4	3/2/16 13:17	GC13_SCD.M	03021621.D		MC	
	2.5ppb MDL-5	3/2/16 13:20	GC13_SCD.M	03021622.D		MC	
	2.5ppb MDL-6	3/2/16 13:24	GC13_SCD.M	03021623.D		MC	
	baseline drop	3/2/16 13:27	GC13_SCD.M	03021624.D		MC	
	2.5ppb MDL-7	3/2/16 13:30	GC13_SCD.M	03021625.D		MC	
	2.5ppb MDL-9	3/2/16 13:34	GC13_SCD.M	03021626.D		MC	
	2.0ppb LOD	3/2/16 13:37	GC13_SCD.M	03021627.D		MC	
	1.5ppb LOD	3/2/16 13:41	GC13_SCD.M	03021628.D		MC	
	CCV S30-02241601	3/2/16 13:45	GC13_SCD.M	03021629.D		MC	
	S11-02171603	3/2/16 13:49	GC13_SCD.M	03021630.D		MC	
	S11-02171604	3/2/16 13:52	GC13_SCD.M	03021631.D		MC	

Injection Log

Directory: I:\GC13\DATA\SCD\2016_08\17\

	Sample ID	Date/Time	Acquisition Method	File Name	Misc Info	Operator	Comments
1	std s30-08031601	8/17/16 8:13	GC13_SCD.M	08171601.D		MC	Fail
2	std s30-08031601	8/17/16 8:26	GC13_SCD.M	08171602.D		MC	Pass
	lcs s30-08031602	8/17/16 8:29	GC13_SCD.M	08171603.D		MC	
	lcsd s30-08031602	8/17/16 8:32	GC13_SCD.M	08171604.D		MC	
	rt	8/17/16 8:51	GC13_SCD.M	08171605.D		MC	
	mb 1ml	8/17/16 9:09	GC13_SCD.M	08171606.D		MC	
	4023-001 0.2ml(x100)	8/17/16 9:27	GC13_SCD.M	08171607.D		MC	
#VALUE!	std s30-08031601	8/17/16 9:46	GC13_SCD.M	08171608.D		MC	Pass
	4025-001 1ml	8/17/16 10:08	GC13_SCD.M	08171609.D		MC	
	4025-002 1ml	8/17/16 10:21	GC13_SCD.M	08171610.D		MC	
	4025-003 1ml	8/17/16 10:41	GC13_SCD.M	08171611.D		MC	
	4025-004 1ml	8/17/16 10:59	GC13_SCD.M	08171612.D		MC	
	4025-005 1ml	8/17/16 11:16	GC13_SCD.M	08171613.D		MC	
	4026-004 1ml	8/17/16 11:36	GC13_SCD.M	08171614.D		MC	
	4026-003 1ml	8/17/16 11:55	GC13_SCD.M	08171615.D		MC	
	4026-002 1ml	8/17/16 12:14	GC13_SCD.M	08171616.D		MC	
	4026-001 1ml	8/17/16 12:30	GC13_SCD.M	08171617.D		MC	
#VALUE!	std s30-08031601	8/17/16 12:49	GC13_SCD.M	08171618.D		MC	Pass
	4037-004 1ml	8/17/16 15:29	GC13_SCD.M	08171619.D		MC	
	4037-003 1ml	8/17/16 15:45	GC13_SCD.M	08171620.D		MC	
	4037-007 1ml	8/17/16 15:58	GC13_SCD.M	08171621.D		MC	
	4037-008 1ml	8/17/16 16:15	GC13_SCD.M	08171622.D		MC	
	4037-009 1ml	8/17/16 16:34	GC13_SCD.M	08171623.D		MC	
	4037-010 1ml	8/17/16 16:47	GC13_SCD.M	08171624.D		MC	
#VALUE!	std s30-08031601	8/17/16 17:00	GC13_SCD.M	08171625.D		MC	Fail
#VALUE!	std s30-08031601	8/17/16 17:05	GC13_SCD.M	08171626.D		MC	Pass

Injection Log

Directory: I:\GC22\DATA\SCD\2016_08\17\

	Sample ID	Date/Time	Acquisition Method	File Name	Misc Info	Operator	Comments
	prime	8/17/16 7:41	GC22ACQ.M	08171601.D		MC	
#VALUE!	std s30-08031601	8/17/16 7:44	GC22ACQ.M	08171602.D		MC	Pass
	lcs s30-08031602	8/17/16 7:48	GC22ACQ.M	08171603.D		MC	
	lcsd s30-08031602	8/17/16 7:52	GC22ACQ.M	08171604.D		MC	
	rt	8/17/16 7:56	GC22ACQ.M	08171605.D		MC	
	mb 1ml	8/17/16 8:12	GC22ACQ.M	08171606.D		MC	
#VALUE!	std s30-08031601	8/17/16 8:30	GC22ACQ.M	08171607.D		MC	Pass
	4023-001 0.2ml(x100)	8/17/16 8:47	GC22ACQ.M	08171608.D		MC	
	std s30-08031601	8/17/16 9:06	GC22ACQ.M	08171609.D		MC	
	rt	8/17/16 9:23	GC22ACQ.M	08171610.D		MC	
	rt	8/17/16 9:40	GC22ACQ.M	08171611.D		MC	
	rt	8/17/16 9:57	GC22ACQ.M	08171612.D		MC	
	4032-001 1ml	8/17/16 11:04	GC22ACQ.M	08171613.D		MC	
	4032-002 1ml	8/17/16 11:08	GC22ACQ.M	08171614.D		MC	
	4032-003 1ml	8/17/16 11:12	GC22ACQ.M	08171615.D		MC	
	4032-004 1ml	8/17/16 11:17	GC22ACQ.M	08171616.D		MC	
#VALUE!	std s30-08031601	8/17/16 11:36	GC22ACQ.M	08171617.D		MC	Pass
	4037-001 1ml	8/17/16 15:28	GC22ACQ.M	08171618.D		MC	
	4037-002 1ml	8/17/16 15:44	GC22ACQ.M	08171619.D		MC	
	4037-005 1ml	8/17/16 15:57	GC22ACQ.M	08171620.D		MC	
	4037-006 1ml	8/17/16 16:15	GC22ACQ.M	08171621.D		MC	
	4037-011 1ml	8/17/16 16:32	GC22ACQ.M	08171622.D		MC	
	4037-012 1ml	8/17/16 16:46	GC22ACQ.M	08171623.D		MC	
#VALUE!	std s30-08031601	8/17/16 17:00	GC22ACQ.M	08171624.D		MC	Fail
#VALUE!	std s30-08031601	8/17/16 17:09	GC22ACQ.M	08171625.D		MC	Pass

Injection Log

Directory: I:\GC13\DATA\SCD\2016_08\18\

	Sample ID	Date/Time	Acquisition Method	File Name	Misc Info	Operator	Comments
1	std s30-08031601	8/18/16 8:19	GC13_SCD.M	08181601.D		MC	Pass
	lcs s30-08031602	8/18/16 8:23	GC13_SCD.M	08181602.D		MC	
	lcsd s30-08031602	8/18/16 8:27	GC13_SCD.M	08181603.D		MC	
	rt	8/18/16 8:32	GC13_SCD.M	08181604.D		MC	
	mb 1ml	8/18/16 8:50	GC13_SCD.M	08181605.D		MC	
	4037-014 1ml	8/18/16 9:09	GC13_SCD.M	08181606.D		MC	
	4037-013 1ml	8/18/16 9:28	GC13_SCD.M	08181607.D		MC	
	4037-015 1ml	8/18/16 9:44	GC13_SCD.M	08181608.D		MC	
	4047-003 1ml	8/18/16 9:58	GC13_SCD.M	08181609.D		MC	
	4047-006 1ml	8/18/16 10:12	GC13_SCD.M	08181610.D		MC	
	4047-002 1ml	8/18/16 10:30	GC13_SCD.M	08181611.D		MC	
	4047-004 1ml	8/18/16 10:47	GC13_SCD.M	08181612.D		MC	
	4047-007 1ml	8/18/16 11:00	GC13_SCD.M	08181613.D		MC	
	4047-005 1ml	8/18/16 11:13	GC13_SCD.M	08181614.D		MC	
#VALUE!	std s30-08031601	8/18/16 11:26	GC13_SCD.M	08181615.D		MC	Pass
	4037-016 1ml	8/18/16 11:40	GC13_SCD.M	08181616.D		MC	
	4037-019 1ml	8/18/16 11:53	GC13_SCD.M	08181617.D		MC	
	4047-001 1ml	8/18/16 12:06	GC13_SCD.M	08181618.D		MC	
	4048-001 0.1ml	8/18/16 12:19	GC13_SCD.M	08181619.D		MC	
	4037-018 1ml	8/18/16 12:37	GC13_SCD.M	08181620.D		MC	
	4037-017 1ml	8/18/16 12:55	GC13_SCD.M	08181621.D		MC	
	4037-021 1ml	8/18/16 13:30	GC13_SCD.M	08181622.D		MC	
	4037-020 1ml	8/18/16 13:43	GC13_SCD.M	08181623.D		MC	
	4037-022 1ml	8/18/16 13:56	GC13_SCD.M	08181624.D		MC	
	4036-001 0.1ml	8/18/16 14:10	GC13_SCD.M	08181625.D		MC	
	QC 1SS00169 1ml	8/18/16 14:25	GC13_SCD.M	08181626.D		MC	
	QC 1SS00113 1ml	8/18/16 14:37	GC13_SCD.M	08181627.D		MC	
	QC 1BV06793 1ml	8/18/16 14:55	GC13_SCD.M	08181628.D		MC	
	QC 1SS00111 1ml	8/18/16 15:08	GC13_SCD.M	08181629.D		MC	
#VALUE!	std s30-08031601	8/18/16 15:22	GC13_SCD.M	08181630.D		MC	Pass
	lcs s30-08031602	8/18/16 15:25	GC13_SCD.M	08181631.D		MC	
	lcs s30-08031602	8/18/16 15:28	GC13_SCD.M	08181632.D		MC	
	rt	8/18/16 15:31	GC13_SCD.M	08181633.D		MC	
	mb 1ml	8/18/16 15:50	GC13_SCD.M	08181634.D		MC	
	4055-001 1ml	8/18/16 16:03	GC13_SCD.M	08181635.D		MC	
	4029-001 1ml	8/18/16 16:24	GC13_SCD.M	08181636.D		MC	
	4029-002 1ml	8/18/16 16:37	GC13_SCD.M	08181637.D		MC	
	4061-001 1ml	8/18/16 16:53	GC13_SCD.M	08181638.D		MC	

Injection Log

Directory: I:\GC13\DATA\SCD\2016_08\18\

	Sample ID	Date/Time	Acquisition Method	File Name	Misc Info	Operator	Comments
	4061-002 1ml	8/18/16 17:06	GC13_SCD.M	08181639.D		MC	
	4061-003 1ml	8/18/16 17:20	GC13_SCD.M	08181640.D		MC	
#VALUE!	std s30-08031601	8/18/16 17:32	GC13_SCD.M	08181641.D		MC	Pass

Attachment 3

GLTP Discharge Monitoring and Information

FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104
USA

215.299.6000
fmc.com

Transmitted via Email

August 10, 2016

Department of Environmental Quality - CO
Office of Remediation Program
P.O. Box 1105
Richmond, VA 23218

Re: Submission of Discharge Monitoring Report – July 2016
Avtex Fibers Superfund Site
Front Royal, Virginia

Dear Ms Payne:

In accordance with the Applicable or Relevant and Appropriate Requirements (ARARs) and Fact Sheet provided July 22, 2014, FMC Corporation (FMC) is submitting the Discharge Monitoring Report (DMR) for the month of July 2016. The permit is for the discharge from the Groundwater and Leachate Treatment Plant (GLTP) located at 404 Kendrick Lane, Front Royal, VA. Analysis of effluent concentrations yielded results within the allowable limits for all parameters.

Please do not hesitate to call if there are any questions.

Sincerely,

FMC Corporation

Brian M. McGinnis, P.E.
Manager, Environmental Remediation

cc: via Email
Brandon Kiracofe, DEQ
Charlie Root, USEPA
Heather Philip, Parsons

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS: (Include Facility Name/Location if different)

OMB No. 2040-004

NAME:	Avtex Fibers		NA		004			**DMR MAILING ZIP CODE:**				23218	
ADDRESS:	404 Kendrick Lane		**PERMIT NUMBER**		**DISCHARGE NUMBER**								
	Front Royal, VA 22630							DESCRIPTION:					
			MONITORING PERIOD					GLTP EFFLUENT (OUTFALL 004)					
FACILITY:	AVTEX FIBERS		**YEAR**	**MO**	**DAY**		**YEAR**	**MO**	**DAY**	External Outfall			
LOCATION:	FRONT ROYAL, VA	**FROM**	16	07	01	TO	16	07	31			**No Discharge**	
ATTN:													

PARAMETER		QUANTITY OR LOADING VALUE	QUANTITY OR LOADING VALUE	UNITS	QUALITY OR CONCENTRATION VALUE	QUALITY OR CONCENTRATION VALUE	QUALITY OR CONCENTRATION VALUE	UNITS	NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
FLOW	SAMPLE MEASUREMENT	0.100	0.134	MGD	*****	*****	*****		0	CONTINUOUS	TIRE
00056 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	REPORT MONTHLY AV	REPORT DAILY MAX		******	******	******			CONTINUOUS	TIRE
PH	SAMPLE MEASUREMENT	*****	*****		7.2	*****	7.8		0	CONTINUOUS	GRAB
00400 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	******	******		6.5 MINIMUM	******	9.0 MAXIMUM	SU		CONTINUOUS	GRAB
BOD, 5-DAY	SAMPLE MEASUREMENT	0.4	1.7		*****	1.0	4.0		0	1/7	8 HC
00318 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	36 MONTHLY AV	96 DAILY MAX	kg/d	******	24 MONTHLY AV	64 DAILY MX	mg/L		1/7	8 HC
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	0.5	2.0		*****	1.2	4.8		0	1/7	8 HC
03603 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	60 MONTHLY AV	190 DAILY MAX	kg/d	******	40 MONTHLY AV	130 DAILY MX	mg/L		1/7	8 HC
CARBON DISULFIDE	SAMPLE MEASUREMENT	<QL	<QL		*****	<QL	<QL		0	1/30	8 HC
77041 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	NL MONTHLY AV	NL DAILY MAX	kg/d	******	NL MONTHLY AV	NL DAILY MX	mg/L		1/30	8 HC

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
Christina Kaba	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.			16	08	10
Director EHS Remediation/Governance						
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	215 AREA	299-6047 NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

Attachment: pH compliance monitoring summary (monthly)

Carbon disulfide: No limit established; monitored monthly; 0.1 mg/L action level

Avtex Fibers
Front Royal, VA
Outfall 004
July 2016 DMR

pH Calculations:

Date And Time	pH	Date And Time	pH	Date And Time	pH
7/1/2016 12:00 AM	7.16	7/2/2016 12:00 AM	7.16	7/3/2016 12:00 AM	7.16
7/1/2016 12:15 AM	7.16	7/2/2016 12:15 AM	7.16	7/3/2016 12:15 AM	7.16
7/1/2016 12:30 AM	7.16	7/2/2016 12:30 AM	7.16	7/3/2016 12:30 AM	7.16
7/1/2016 12:45 AM	7.16	7/2/2016 12:45 AM	7.16	7/3/2016 12:45 AM	7.16
7/1/2016 1:00 AM	7.16	7/2/2016 1:00 AM	7.16	7/3/2016 1:00 AM	7.16
7/1/2016 1:15 AM	7.16	7/2/2016 1:15 AM	7.16	7/3/2016 1:15 AM	7.16
7/1/2016 1:30 AM	7.16	7/2/2016 1:30 AM	7.16	7/3/2016 1:30 AM	7.16
7/1/2016 1:45 AM	7.16	7/2/2016 1:45 AM	7.16	7/3/2016 1:45 AM	7.16
7/1/2016 2:00 AM	7.16	7/2/2016 2:00 AM	7.16	7/3/2016 2:00 AM	7.16
7/1/2016 2:15 AM	7.16	7/2/2016 2:15 AM	7.16	7/3/2016 2:15 AM	7.16
7/1/2016 2:30 AM	7.16	7/2/2016 2:30 AM	7.16	7/3/2016 2:30 AM	7.16
7/1/2016 2:45 AM	7.16	7/2/2016 2:45 AM	7.16	7/3/2016 2:45 AM	7.16
7/1/2016 3:00 AM	7.16	7/2/2016 3:00 AM	7.16	7/3/2016 3:00 AM	7.16
7/1/2016 3:15 AM	7.16	7/2/2016 3:15 AM	7.16	7/3/2016 3:15 AM	7.16
7/1/2016 3:30 AM	7.16	7/2/2016 3:30 AM	7.16	7/3/2016 3:30 AM	7.16
7/1/2016 3:45 AM	7.16	7/2/2016 3:45 AM	7.16	7/3/2016 3:45 AM	7.16
7/1/2016 4:00 AM	7.16	7/2/2016 4:00 AM	7.16	7/3/2016 4:00 AM	7.16
7/1/2016 4:15 AM	7.16	7/2/2016 4:15 AM	7.16	7/3/2016 4:15 AM	7.16
7/1/2016 4:30 AM	7.16	7/2/2016 4:30 AM	7.16	7/3/2016 4:30 AM	7.16
7/1/2016 4:45 AM	7.16	7/2/2016 4:45 AM	7.16	7/3/2016 4:45 AM	7.16
7/1/2016 5:00 AM	7.16	7/2/2016 5:00 AM	7.16	7/3/2016 5:00 AM	7.16
7/1/2016 5:15 AM	7.16	7/2/2016 5:15 AM	7.16	7/3/2016 5:15 AM	7.16
7/1/2016 5:30 AM	7.16	7/2/2016 5:30 AM	7.16	7/3/2016 5:30 AM	7.16
7/1/2016 5:45 AM	7.16	7/2/2016 5:45 AM	7.16	7/3/2016 5:45 AM	7.16
7/1/2016 6:00 AM	7.16	7/2/2016 6:00 AM	7.16	7/3/2016 6:00 AM	7.16
7/1/2016 6:15 AM	7.16	7/2/2016 6:15 AM	7.16	7/3/2016 6:15 AM	7.16
7/1/2016 6:30 AM	7.16	7/2/2016 6:30 AM	7.16	7/3/2016 6:30 AM	7.16
7/1/2016 6:45 AM	7.16	7/2/2016 6:45 AM	7.16	7/3/2016 6:45 AM	7.16
7/1/2016 7:00 AM	7.16	7/2/2016 7:00 AM	7.16	7/3/2016 7:00 AM	7.16
7/1/2016 7:15 AM	7.16	7/2/2016 7:15 AM	7.16	7/3/2016 7:15 AM	7.16
7/1/2016 7:30 AM	7.16	7/2/2016 7:30 AM	7.16	7/3/2016 7:30 AM	7.16
7/1/2016 7:45 AM	7.16	7/2/2016 7:45 AM	7.16	7/3/2016 7:45 AM	7.16
7/1/2016 8:00 AM	7.16	7/2/2016 8:00 AM	7.16	7/3/2016 8:00 AM	7.16
7/1/2016 8:15 AM	7.16	7/2/2016 8:15 AM	7.16	7/3/2016 8:15 AM	7.16
7/1/2016 8:30 AM	7.16	7/2/2016 8:30 AM	7.16	7/3/2016 8:30 AM	7.16
7/1/2016 8:45 AM	7.16	7/2/2016 8:45 AM	7.16	7/3/2016 8:45 AM	7.16
7/1/2016 9:00 AM	7.16	7/2/2016 9:00 AM	7.16	7/3/2016 9:00 AM	7.16
7/1/2016 9:15 AM	7.16	7/2/2016 9:15 AM	7.16	7/3/2016 9:15 AM	7.16
7/1/2016 9:30 AM	7.16	7/2/2016 9:30 AM	7.16	7/3/2016 9:30 AM	7.16
7/1/2016 9:45 AM	7.16	7/2/2016 9:45 AM	7.16	7/3/2016 9:45 AM	7.16
7/1/2016 10:00 AM	7.16	7/2/2016 10:00 AM	7.16	7/3/2016 10:00 AM	7.16
7/1/2016 10:15 AM	7.16	7/2/2016 10:15 AM	7.16	7/3/2016 10:15 AM	7.16
7/1/2016 10:30 AM	7.16	7/2/2016 10:30 AM	7.16	7/3/2016 10:30 AM	7.16
7/1/2016 10:45 AM	7.16	7/2/2016 10:45 AM	7.16	7/3/2016 10:45 AM	7.16
7/1/2016 11:00 AM	7.16	7/2/2016 11:00 AM	7.16	7/3/2016 11:00 AM	7.16

7/1/2016 11:15 AM	7.16	7/2/2016 11:15 AM	7.16	7/3/2016 11:15 AM	7.16
7/1/2016 11:30 AM	7.16	7/2/2016 11:30 AM	7.16	7/3/2016 11:30 AM	7.16
7/1/2016 11:45 AM	7.16	7/2/2016 11:45 AM	7.16	7/3/2016 11:45 AM	7.16
7/1/2016 12:00 PM	7.16	7/2/2016 12:00 PM	7.16	7/3/2016 12:00 PM	7.16
7/1/2016 12:15 PM	7.16	7/2/2016 12:15 PM	7.16	7/3/2016 12:15 PM	7.16
7/1/2016 12:30 PM	7.16	7/2/2016 12:30 PM	7.16	7/3/2016 12:30 PM	7.16
7/1/2016 12:45 PM	7.16	7/2/2016 12:45 PM	7.16	7/3/2016 12:45 PM	7.16
7/1/2016 1:00 PM	7.16	7/2/2016 1:00 PM	7.16	7/3/2016 1:00 PM	7.16
7/1/2016 1:15 PM	7.16	7/2/2016 1:15 PM	7.16	7/3/2016 1:15 PM	7.16
7/1/2016 1:30 PM	7.16	7/2/2016 1:30 PM	7.16	7/3/2016 1:30 PM	7.16
7/1/2016 1:45 PM	7.16	7/2/2016 1:45 PM	7.16	7/3/2016 1:45 PM	7.16
7/1/2016 2:00 PM	7.16	7/2/2016 2:00 PM	7.16	7/3/2016 2:00 PM	7.16
7/1/2016 2:15 PM	7.16	7/2/2016 2:15 PM	7.16	7/3/2016 2:15 PM	7.16
7/1/2016 2:30 PM	7.16	7/2/2016 2:30 PM	7.16	7/3/2016 2:30 PM	7.16
7/1/2016 2:45 PM	7.16	7/2/2016 2:45 PM	7.16	7/3/2016 2:45 PM	7.16
7/1/2016 3:00 PM	7.16	7/2/2016 3:00 PM	7.16	7/3/2016 3:00 PM	7.16
7/1/2016 3:15 PM	7.16	7/2/2016 3:15 PM	7.16	7/3/2016 3:15 PM	7.16
7/1/2016 3:30 PM	7.16	7/2/2016 3:30 PM	7.16	7/3/2016 3:30 PM	7.16
7/1/2016 3:45 PM	7.16	7/2/2016 3:45 PM	7.16	7/3/2016 3:45 PM	7.16
7/1/2016 4:00 PM	7.16	7/2/2016 4:00 PM	7.16	7/3/2016 4:00 PM	7.16
7/1/2016 4:15 PM	7.16	7/2/2016 4:15 PM	7.16	7/3/2016 4:15 PM	7.16
7/1/2016 4:30 PM	7.16	7/2/2016 4:30 PM	7.16	7/3/2016 4:30 PM	7.16
7/1/2016 4:45 PM	7.16	7/2/2016 4:45 PM	7.16	7/3/2016 4:45 PM	7.16
7/1/2016 5:00 PM	7.16	7/2/2016 5:00 PM	7.16	7/3/2016 5:00 PM	7.16
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7/1/2016 5:30 PM	7.16	7/2/2016 5:30 PM	7.16	7/3/2016 5:30 PM	7.16
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7/1/2016 6:00 PM	7.16	7/2/2016 6:00 PM	7.16	7/3/2016 6:00 PM	7.16
7/1/2016 6:15 PM	7.16	7/2/2016 6:15 PM	7.16	7/3/2016 6:15 PM	7.16
7/1/2016 6:30 PM	7.16	7/2/2016 6:30 PM	7.16	7/3/2016 6:30 PM	7.16
7/1/2016 6:45 PM	7.16	7/2/2016 6:45 PM	7.16	7/3/2016 6:45 PM	7.16
7/1/2016 7:00 PM	7.16	7/2/2016 7:00 PM	7.16	7/3/2016 7:00 PM	7.16
7/1/2016 7:15 PM	7.16	7/2/2016 7:15 PM	7.16	7/3/2016 7:15 PM	7.16
7/1/2016 7:30 PM	7.16	7/2/2016 7:30 PM	7.16	7/3/2016 7:30 PM	7.16
7/1/2016 7:45 PM	7.16	7/2/2016 7:45 PM	7.16	7/3/2016 7:45 PM	7.16
7/1/2016 8:00 PM	7.16	7/2/2016 8:00 PM	7.16	7/3/2016 8:00 PM	7.16
7/1/2016 8:15 PM	7.16	7/2/2016 8:15 PM	7.16	7/3/2016 8:15 PM	7.16
7/1/2016 8:30 PM	7.16	7/2/2016 8:30 PM	7.16	7/3/2016 8:30 PM	7.16
7/1/2016 8:45 PM	7.16	7/2/2016 8:45 PM	7.16	7/3/2016 8:45 PM	7.16
7/1/2016 9:00 PM	7.16	7/2/2016 9:00 PM	7.16	7/3/2016 9:00 PM	7.16
7/1/2016 9:15 PM	7.16	7/2/2016 9:15 PM	7.16	7/3/2016 9:15 PM	7.16
7/1/2016 9:30 PM	7.16	7/2/2016 9:30 PM	7.16	7/3/2016 9:30 PM	7.16
7/1/2016 9:45 PM	7.16	7/2/2016 9:45 PM	7.16	7/3/2016 9:45 PM	7.16
7/1/2016 10:00 PM	7.16	7/2/2016 10:00 PM	7.16	7/3/2016 10:00 PM	7.16
7/1/2016 10:15 PM	7.16	7/2/2016 10:15 PM	7.16	7/3/2016 10:15 PM	7.16
7/1/2016 10:30 PM	7.16	7/2/2016 10:30 PM	7.16	7/3/2016 10:30 PM	7.16
7/1/2016 10:45 PM	7.16	7/2/2016 10:45 PM	7.16	7/3/2016 10:45 PM	7.16
7/1/2016 11:00 PM	7.16	7/2/2016 11:00 PM	7.16	7/3/2016 11:00 PM	7.16
7/1/2016 11:15 PM	7.16	7/2/2016 11:15 PM	7.16	7/3/2016 11:15 PM	7.16
7/1/2016 11:30 PM	7.16	7/2/2016 11:30 PM	7.16	7/3/2016 11:30 PM	7.16
7/1/2016 11:45 PM	7.16	7/2/2016 11:45 PM	7.16	7/3/2016 11:45 PM	7.16
AVG	-	AVG	-	AVG	-

Note: Issue with pH probe from June 29th through July 7th. Probe and transmitter control unit back online July 7th at 7:30PM. No discharge during the time that the unit was down.

Date And Time	pH	Date And Time	pH	Date And Time	pH
7/4/2016 12:00 AM	7.16	7/5/2016 12:00 AM	7.16	7/6/2016 12:00 AM	7.16
7/4/2016 12:15 AM	7.16	7/5/2016 12:15 AM	7.16	7/6/2016 12:15 AM	7.16
7/4/2016 12:30 AM	7.16	7/5/2016 12:30 AM	7.16	7/6/2016 12:30 AM	7.16
7/4/2016 12:45 AM	7.16	7/5/2016 12:45 AM	7.16	7/6/2016 12:45 AM	7.16
7/4/2016 1:00 AM	7.16	7/5/2016 1:00 AM	7.16	7/6/2016 1:00 AM	7.16
7/4/2016 1:15 AM	7.16	7/5/2016 1:15 AM	7.16	7/6/2016 1:15 AM	7.16
7/4/2016 1:30 AM	7.16	7/5/2016 1:30 AM	7.16	7/6/2016 1:30 AM	7.16
7/4/2016 1:45 AM	7.16	7/5/2016 1:45 AM	7.16	7/6/2016 1:45 AM	7.16
7/4/2016 2:00 AM	7.16	7/5/2016 2:00 AM	7.16	7/6/2016 2:00 AM	7.16
7/4/2016 2:15 AM	7.16	7/5/2016 2:15 AM	7.16	7/6/2016 2:15 AM	7.16
7/4/2016 2:30 AM	7.16	7/5/2016 2:30 AM	7.16	7/6/2016 2:30 AM	7.16
7/4/2016 2:45 AM	7.16	7/5/2016 2:45 AM	7.16	7/6/2016 2:45 AM	7.16
7/4/2016 3:00 AM	7.16	7/5/2016 3:00 AM	7.16	7/6/2016 3:00 AM	7.16
7/4/2016 3:15 AM	7.16	7/5/2016 3:15 AM	7.16	7/6/2016 3:15 AM	7.16
7/4/2016 3:30 AM	7.16	7/5/2016 3:30 AM	7.16	7/6/2016 3:30 AM	7.16
7/4/2016 3:45 AM	7.16	7/5/2016 3:45 AM	7.16	7/6/2016 3:45 AM	7.16
7/4/2016 4:00 AM	7.16	7/5/2016 4:00 AM	7.16	7/6/2016 4:00 AM	7.16
7/4/2016 4:15 AM	7.16	7/5/2016 4:15 AM	7.16	7/6/2016 4:15 AM	7.16
7/4/2016 4:30 AM	7.16	7/5/2016 4:30 AM	7.16	7/6/2016 4:30 AM	7.16
7/4/2016 4:45 AM	7.16	7/5/2016 4:45 AM	7.16	7/6/2016 4:45 AM	7.16
7/4/2016 5:00 AM	7.16	7/5/2016 5:00 AM	7.16	7/6/2016 5:00 AM	7.16
7/4/2016 5:15 AM	7.16	7/5/2016 5:15 AM	7.16	7/6/2016 5:15 AM	7.16
7/4/2016 5:30 AM	7.16	7/5/2016 5:30 AM	7.16	7/6/2016 5:30 AM	7.16
7/4/2016 5:45 AM	7.16	7/5/2016 5:45 AM	7.16	7/6/2016 5:45 AM	7.16
7/4/2016 6:00 AM	7.16	7/5/2016 6:00 AM	7.16	7/6/2016 6:00 AM	7.16
7/4/2016 6:15 AM	7.16	7/5/2016 6:15 AM	7.16	7/6/2016 6:15 AM	7.16
7/4/2016 6:30 AM	7.16	7/5/2016 6:30 AM	7.16	7/6/2016 6:30 AM	7.16
7/4/2016 6:45 AM	7.16	7/5/2016 6:45 AM	7.16	7/6/2016 6:45 AM	7.16
7/4/2016 7:00 AM	7.16	7/5/2016 7:00 AM	7.16	7/6/2016 7:00 AM	7.16
7/4/2016 7:15 AM	7.16	7/5/2016 7:15 AM	7.16	7/6/2016 7:15 AM	7.16
7/4/2016 7:30 AM	7.16	7/5/2016 7:30 AM	7.16	7/6/2016 7:30 AM	7.16
7/4/2016 7:45 AM	7.16	7/5/2016 7:45 AM	7.16	7/6/2016 7:45 AM	7.16
7/4/2016 8:00 AM	7.16	7/5/2016 8:00 AM	7.16	7/6/2016 8:00 AM	7.16
7/4/2016 8:15 AM	7.16	7/5/2016 8:15 AM	7.16	7/6/2016 8:15 AM	7.16
7/4/2016 8:30 AM	7.16	7/5/2016 8:30 AM	7.16	7/6/2016 8:30 AM	7.16
7/4/2016 8:45 AM	7.16	7/5/2016 8:45 AM	7.16	7/6/2016 8:45 AM	7.16
7/4/2016 9:00 AM	7.16	7/5/2016 9:00 AM	7.16	7/6/2016 9:00 AM	7.16
7/4/2016 9:15 AM	7.16	7/5/2016 9:15 AM	7.16	7/6/2016 9:15 AM	7.16
7/4/2016 9:30 AM	7.16	7/5/2016 9:30 AM	7.16	7/6/2016 9:30 AM	7.16
7/4/2016 9:45 AM	7.16	7/5/2016 9:45 AM	7.16	7/6/2016 9:45 AM	7.16
7/4/2016 10:00 AM	7.16	7/5/2016 10:00 AM	7.16	7/6/2016 10:00 AM	7.16
7/4/2016 10:15 AM	7.16	7/5/2016 10:15 AM	7.16	7/6/2016 10:15 AM	7.16
7/4/2016 10:30 AM	7.16	7/5/2016 10:30 AM	7.16	7/6/2016 10:30 AM	7.16
7/4/2016 10:45 AM	7.16	7/5/2016 10:45 AM	7.16	7/6/2016 10:45 AM	7.16
7/4/2016 11:00 AM	7.16	7/5/2016 11:00 AM	7.16	7/6/2016 11:00 AM	7.16
7/4/2016 11:15 AM	7.16	7/5/2016 11:15 AM	7.16	7/6/2016 11:15 AM	7.16
7/4/2016 11:30 AM	7.16	7/5/2016 11:30 AM	7.16	7/6/2016 11:30 AM	7.16
7/4/2016 11:45 AM	7.16	7/5/2016 11:45 AM	7.16	7/6/2016 11:45 AM	7.16
7/4/2016 12:00 PM	7.16	7/5/2016 12:00 PM	7.16	7/6/2016 12:00 PM	7.16
7/4/2016 12:15 PM	7.16	7/5/2016 12:15 PM	7.16	7/6/2016 12:15 PM	7.16
7/4/2016 12:30 PM	7.16	7/5/2016 12:30 PM	7.16	7/6/2016 12:30 PM	7.16
7/4/2016 12:45 PM	7.16	7/5/2016 12:45 PM	7.16	7/6/2016 12:45 PM	7.16
7/4/2016 1:00 PM	7.16	7/5/2016 1:00 PM	7.16	7/6/2016 1:00 PM	7.16
7/4/2016 1:15 PM	7.16	7/5/2016 1:15 PM	7.16	7/6/2016 1:15 PM	7.16
7/4/2016 1:30 PM	7.16	7/5/2016 1:30 PM	7.16	7/6/2016 1:30 PM	7.16
7/4/2016 1:45 PM	7.16	7/5/2016 1:45 PM	7.16	7/6/2016 1:45 PM	7.16
7/4/2016 2:00 PM	7.16	7/5/2016 2:00 PM	7.16	7/6/2016 2:00 PM	7.16
7/4/2016 2:15 PM	7.16	7/5/2016 2:15 PM	7.16	7/6/2016 2:15 PM	7.16
7/4/2016 2:30 PM	7.16	7/5/2016 2:30 PM	7.16	7/6/2016 2:30 PM	7.16
7/4/2016 2:45 PM	7.16	7/5/2016 2:45 PM	7.16	7/6/2016 2:45 PM	7.16
7/4/2016 3:00 PM	7.16	7/5/2016 3:00 PM	7.16	7/6/2016 3:00 PM	7.16
7/4/2016 3:15 PM	7.16	7/5/2016 3:15 PM	7.16	7/6/2016 3:15 PM	7.16
7/4/2016 3:30 PM	7.16	7/5/2016 3:30 PM	7.16	7/6/2016 3:30 PM	7.16
7/4/2016 3:45 PM	7.16	7/5/2016 3:45 PM	7.16	7/6/2016 3:45 PM	7.16
7/4/2016 4:00 PM	7.16	7/5/2016 4:00 PM	7.16	7/6/2016 4:00 PM	7.16
7/4/2016 4:15 PM	7.16	7/5/2016 4:15 PM	7.16	7/6/2016 4:15 PM	7.16
7/4/2016 4:30 PM	7.16	7/5/2016 4:30 PM	7.16	7/6/2016 4:30 PM	7.16
7/4/2016 4:45 PM	7.16	7/5/2016 4:45 PM	7.16	7/6/2016 4:45 PM	7.16
7/4/2016 5:00 PM	7.16	7/5/2016 5:00 PM	7.16	7/6/2016 5:00 PM	7.16
7/4/2016 5:15 PM	7.16	7/5/2016 5:15 PM	7.16	7/6/2016 5:15 PM	7.16

7/4/2016 5:30 PM	7.16	7/5/2016 5:30 PM	7.16	7/6/2016 5:30 PM	7.16
7/4/2016 5:45 PM	7.16	7/5/2016 5:45 PM	7.16	7/6/2016 5:45 PM	7.16
7/4/2016 6:00 PM	7.16	7/5/2016 6:00 PM	7.16	7/6/2016 6:00 PM	7.16
7/4/2016 6:15 PM	7.16	7/5/2016 6:15 PM	7.16	7/6/2016 6:15 PM	7.16
7/4/2016 6:30 PM	7.16	7/5/2016 6:30 PM	7.16	7/6/2016 6:30 PM	7.16
7/4/2016 6:45 PM	7.16	7/5/2016 6:45 PM	7.16	7/6/2016 6:45 PM	7.16
7/4/2016 7:00 PM	7.16	7/5/2016 7:00 PM	7.16	7/6/2016 7:00 PM	7.16
7/4/2016 7:15 PM	7.16	7/5/2016 7:15 PM	7.16	7/6/2016 7:15 PM	7.16
7/4/2016 7:30 PM	7.16	7/5/2016 7:30 PM	7.16	7/6/2016 7:30 PM	7.16
7/4/2016 7:45 PM	7.16	7/5/2016 7:45 PM	7.16	7/6/2016 7:45 PM	7.16
7/4/2016 8:00 PM	7.16	7/5/2016 8:00 PM	7.16	7/6/2016 8:00 PM	7.16
7/4/2016 8:15 PM	7.16	7/5/2016 8:15 PM	7.16	7/6/2016 8:15 PM	7.16
7/4/2016 8:30 PM	7.16	7/5/2016 8:30 PM	7.16	7/6/2016 8:30 PM	7.16
7/4/2016 8:45 PM	7.16	7/5/2016 8:45 PM	7.16	7/6/2016 8:45 PM	7.16
7/4/2016 9:00 PM	7.16	7/5/2016 9:00 PM	7.16	7/6/2016 9:00 PM	7.16
7/4/2016 9:15 PM	7.16	7/5/2016 9:15 PM	7.16	7/6/2016 9:15 PM	7.16
7/4/2016 9:30 PM	7.16	7/5/2016 9:30 PM	7.16	7/6/2016 9:30 PM	7.16
7/4/2016 9:45 PM	7.16	7/5/2016 9:45 PM	7.16	7/6/2016 9:45 PM	7.16
7/4/2016 10:00 PM	7.16	7/5/2016 10:00 PM	7.16	7/6/2016 10:00 PM	7.16
7/4/2016 10:15 PM	7.16	7/5/2016 10:15 PM	7.16	7/6/2016 10:15 PM	7.16
7/4/2016 10:30 PM	7.16	7/5/2016 10:30 PM	7.16	7/6/2016 10:30 PM	7.16
7/4/2016 10:45 PM	7.16	7/5/2016 10:45 PM	7.16	7/6/2016 10:45 PM	7.16
7/4/2016 11:00 PM	7.16	7/5/2016 11:00 PM	7.16	7/6/2016 11:00 PM	7.16
7/4/2016 11:15 PM	7.16	7/5/2016 11:15 PM	7.16	7/6/2016 11:15 PM	7.16
7/4/2016 11:30 PM	7.16	7/5/2016 11:30 PM	7.16	7/6/2016 11:30 PM	7.16
7/4/2016 11:45 PM	7.16	7/5/2016 11:45 PM	7.16	7/6/2016 11:45 PM	7.16
AVG	-	AVG	-	AVG	-

Note: Issue with pH probe from June 29th through July 7th. Probe and transmitter control unit back online July 7th at 7:30PM. No discharge during the time that the unit was down.

Date And Time	pH	Date And Time	pH	Date And Time	pH
7/7/2016 12:00 AM	7.16	7/8/2016 12:00 AM	7.30	7/9/2016 12:00 AM	7.32
7/7/2016 12:15 AM	7.16	7/8/2016 12:15 AM	7.30	7/9/2016 12:15 AM	7.31
7/7/2016 12:30 AM	7.16	7/8/2016 12:30 AM	7.29	7/9/2016 12:30 AM	7.31
7/7/2016 12:45 AM	7.16	7/8/2016 12:45 AM	7.29	7/9/2016 12:45 AM	7.31
7/7/2016 1:00 AM	7.16	7/8/2016 1:00 AM	7.29	7/9/2016 1:00 AM	7.30
7/7/2016 1:15 AM	7.16	7/8/2016 1:15 AM	7.29	7/9/2016 1:15 AM	7.30
7/7/2016 1:30 AM	7.16	7/8/2016 1:30 AM	7.33	7/9/2016 1:30 AM	7.29
7/7/2016 1:45 AM	7.16	7/8/2016 1:45 AM	7.33	7/9/2016 1:45 AM	7.29
7/7/2016 2:00 AM	7.16	7/8/2016 2:00 AM	7.33	7/9/2016 2:00 AM	7.28
7/7/2016 2:15 AM	7.16	7/8/2016 2:15 AM	7.32	7/9/2016 2:15 AM	7.27
7/7/2016 2:30 AM	7.16	7/8/2016 2:30 AM	7.32	7/9/2016 2:30 AM	7.28
7/7/2016 2:45 AM	7.16	7/8/2016 2:45 AM	7.31	7/9/2016 2:45 AM	7.27
7/7/2016 3:00 AM	7.16	7/8/2016 3:00 AM	7.31	7/9/2016 3:00 AM	7.27
7/7/2016 3:15 AM	7.16	7/8/2016 3:15 AM	7.31	7/9/2016 3:15 AM	7.26
7/7/2016 3:30 AM	7.16	7/8/2016 3:30 AM	7.30	7/9/2016 3:30 AM	7.25
7/7/2016 3:45 AM	7.16	7/8/2016 3:45 AM	7.30	7/9/2016 3:45 AM	7.24
7/7/2016 4:00 AM	7.16	7/8/2016 4:00 AM	7.30	7/9/2016 4:00 AM	7.24
7/7/2016 4:15 AM	7.16	7/8/2016 4:15 AM	7.29	7/9/2016 4:15 AM	7.24
7/7/2016 4:30 AM	7.16	7/8/2016 4:30 AM	7.29	7/9/2016 4:30 AM	7.24
7/7/2016 4:45 AM	7.16	7/8/2016 4:45 AM	7.29	7/9/2016 4:45 AM	7.24
7/7/2016 5:00 AM	7.16	7/8/2016 5:00 AM	7.29	7/9/2016 5:00 AM	7.25
7/7/2016 5:15 AM	7.16	7/8/2016 5:15 AM	7.29	7/9/2016 5:15 AM	7.33
7/7/2016 5:30 AM	7.16	7/8/2016 5:30 AM	7.28	7/9/2016 5:30 AM	7.32
7/7/2016 5:45 AM	7.16	7/8/2016 5:45 AM	7.28	7/9/2016 5:45 AM	7.30
7/7/2016 6:00 AM	7.16	7/8/2016 6:00 AM	7.33	7/9/2016 6:00 AM	7.32
7/7/2016 6:15 AM	7.16	7/8/2016 6:15 AM	7.34	7/9/2016 6:15 AM	7.35
7/7/2016 6:30 AM	7.16	7/8/2016 6:30 AM	7.33	7/9/2016 6:30 AM	7.32
7/7/2016 6:45 AM	7.16	7/8/2016 6:45 AM	7.32	7/9/2016 6:45 AM	7.27
7/7/2016 7:00 AM	7.16	7/8/2016 7:00 AM	7.31	7/9/2016 7:00 AM	7.26
7/7/2016 7:15 AM	7.16	7/8/2016 7:15 AM	7.31	7/9/2016 7:15 AM	7.26
7/7/2016 7:30 AM	7.16	7/8/2016 7:30 AM	7.30	7/9/2016 7:30 AM	7.25
7/7/2016 7:45 AM	7.16	7/8/2016 7:45 AM	7.30	7/9/2016 7:45 AM	7.24
7/7/2016 8:00 AM	7.16	7/8/2016 8:00 AM	7.31	7/9/2016 8:00 AM	7.23
7/7/2016 8:15 AM	7.16	7/8/2016 8:15 AM	7.30	7/9/2016 8:15 AM	7.22
7/7/2016 8:30 AM	7.16	7/8/2016 8:30 AM	7.28	7/9/2016 8:30 AM	7.22
7/7/2016 8:45 AM	7.16	7/8/2016 8:45 AM	7.27	7/9/2016 8:45 AM	7.27
7/7/2016 9:00 AM	7.16	7/8/2016 9:00 AM	7.25	7/9/2016 9:00 AM	7.28
7/7/2016 9:15 AM	7.16	7/8/2016 9:15 AM	7.25	7/9/2016 9:15 AM	7.28
7/7/2016 9:30 AM	7.16	7/8/2016 9:30 AM	7.26	7/9/2016 9:30 AM	7.27
7/7/2016 9:45 AM	7.16	7/8/2016 9:45 AM	7.24	7/9/2016 9:45 AM	7.27
7/7/2016 10:00 AM	7.16	7/8/2016 10:00 AM	7.23	7/9/2016 10:00 AM	7.27
7/7/2016 10:15 AM	7.16	7/8/2016 10:15 AM	7.28	7/9/2016 10:15 AM	7.25
7/7/2016 10:30 AM	7.16	7/8/2016 10:30 AM	7.31	7/9/2016 10:30 AM	7.25
7/7/2016 10:45 AM	7.16	7/8/2016 10:45 AM	7.31	7/9/2016 10:45 AM	7.24
7/7/2016 11:00 AM	7.16	7/8/2016 11:00 AM	7.29	7/9/2016 11:00 AM	7.26
7/7/2016 11:15 AM	7.16	7/8/2016 11:15 AM	7.28	7/9/2016 11:15 AM	7.31
7/7/2016 11:30 AM	7.16	7/8/2016 11:30 AM	7.27	7/9/2016 11:30 AM	7.28
7/7/2016 11:45 AM	7.16	7/8/2016 11:45 AM	7.27	7/9/2016 11:45 AM	7.26
7/7/2016 12:00 PM	7.16	7/8/2016 12:00 PM	7.27	7/9/2016 12:00 PM	7.25
7/7/2016 12:15 PM	7.16	7/8/2016 12:15 PM	7.30	7/9/2016 12:15 PM	7.26
7/7/2016 12:30 PM	7.16	7/8/2016 12:30 PM	7.30	7/9/2016 12:30 PM	7.25
7/7/2016 12:45 PM	7.16	7/8/2016 12:45 PM	7.33	7/9/2016 12:45 PM	7.24
7/7/2016 1:00 PM	7.16	7/8/2016 1:00 PM	7.32	7/9/2016 1:00 PM	7.21
7/7/2016 1:15 PM	7.16	7/8/2016 1:15 PM	7.29	7/9/2016 1:15 PM	7.28
7/7/2016 1:30 PM	7.16	7/8/2016 1:30 PM	7.28	7/9/2016 1:30 PM	7.29
7/7/2016 1:45 PM	7.16	7/8/2016 1:45 PM	7.29	7/9/2016 1:45 PM	7.29
7/7/2016 2:00 PM	7.16	7/8/2016 2:00 PM	7.29	7/9/2016 2:00 PM	7.30
7/7/2016 2:15 PM	7.16	7/8/2016 2:15 PM	7.29	7/9/2016 2:15 PM	7.29
7/7/2016 2:30 PM	7.16	7/8/2016 2:30 PM	7.27	7/9/2016 2:30 PM	7.30
7/7/2016 2:45 PM	7.16	7/8/2016 2:45 PM	7.30	7/9/2016 2:45 PM	7.29
7/7/2016 3:00 PM	7.16	7/8/2016 3:00 PM	7.30	7/9/2016 3:00 PM	7.28
7/7/2016 3:15 PM	7.16	7/8/2016 3:15 PM	7.31	7/9/2016 3:15 PM	7.28
7/7/2016 3:30 PM	7.16	7/8/2016 3:30 PM	7.33	7/9/2016 3:30 PM	7.27
7/7/2016 3:45 PM	7.16	7/8/2016 3:45 PM	7.33	7/9/2016 3:45 PM	7.33
7/7/2016 4:00 PM	7.16	7/8/2016 4:00 PM	7.33	7/9/2016 4:00 PM	7.31
7/7/2016 4:15 PM	7.16	7/8/2016 4:15 PM	7.32	7/9/2016 4:15 PM	7.29
7/7/2016 4:30 PM	7.16	7/8/2016 4:30 PM	7.32	7/9/2016 4:30 PM	7.29
7/7/2016 4:45 PM	7.16	7/8/2016 4:45 PM	7.31	7/9/2016 4:45 PM	7.28
7/7/2016 5:00 PM	7.16	7/8/2016 5:00 PM	7.31	7/9/2016 5:00 PM	7.28
7/7/2016 5:15 PM	7.16	7/8/2016 5:15 PM	7.34	7/9/2016 5:15 PM	7.28

7/7/2016 5:30 PM	7.16	7/8/2016 5:30 PM	7.33	7/9/2016 5:30 PM	7.28
7/7/2016 5:45 PM	7.16	7/8/2016 5:45 PM	7.30	7/9/2016 5:45 PM	7.27
7/7/2016 6:00 PM	7.16	7/8/2016 6:00 PM	7.30	7/9/2016 6:00 PM	7.30
7/7/2016 6:15 PM	7.16	7/8/2016 6:15 PM	7.28	7/9/2016 6:15 PM	7.31
7/7/2016 6:30 PM	7.16	7/8/2016 6:30 PM	7.29	7/9/2016 6:30 PM	7.31
7/7/2016 6:45 PM	7.16	7/8/2016 6:45 PM	7.28	7/9/2016 6:45 PM	7.32
7/7/2016 7:00 PM	7.16	7/8/2016 7:00 PM	7.28	7/9/2016 7:00 PM	7.31
7/7/2016 7:15 PM	7.16	7/8/2016 7:15 PM	7.28	7/9/2016 7:15 PM	7.31
7/7/2016 7:30 PM	7.30	7/8/2016 7:30 PM	7.31	7/9/2016 7:30 PM	7.30
7/7/2016 7:45 PM	7.30	7/8/2016 7:45 PM	7.31	7/9/2016 7:45 PM	7.29
7/7/2016 8:00 PM	7.30	7/8/2016 8:00 PM	7.31	7/9/2016 8:00 PM	7.28
7/7/2016 8:15 PM	7.30	7/8/2016 8:15 PM	7.31	7/9/2016 8:15 PM	7.33
7/7/2016 8:30 PM	7.30	7/8/2016 8:30 PM	7.31	7/9/2016 8:30 PM	7.32
7/7/2016 8:45 PM	7.30	7/8/2016 8:45 PM	7.31	7/9/2016 8:45 PM	7.30
7/7/2016 9:00 PM	7.33	7/8/2016 9:00 PM	7.31	7/9/2016 9:00 PM	7.29
7/7/2016 9:15 PM	7.32	7/8/2016 9:15 PM	7.31	7/9/2016 9:15 PM	7.29
7/7/2016 9:30 PM	7.31	7/8/2016 9:30 PM	7.30	7/9/2016 9:30 PM	7.29
7/7/2016 9:45 PM	7.30	7/8/2016 9:45 PM	7.31	7/9/2016 9:45 PM	7.29
7/7/2016 10:00 PM	7.31	7/8/2016 10:00 PM	7.31	7/9/2016 10:00 PM	7.29
7/7/2016 10:15 PM	7.30	7/8/2016 10:15 PM	7.30	7/9/2016 10:15 PM	7.31
7/7/2016 10:30 PM	7.30	7/8/2016 10:30 PM	7.29	7/9/2016 10:30 PM	7.31
7/7/2016 10:45 PM	7.31	7/8/2016 10:45 PM	7.29	7/9/2016 10:45 PM	7.31
7/7/2016 11:00 PM	7.29	7/8/2016 11:00 PM	7.28	7/9/2016 11:00 PM	7.30
7/7/2016 11:15 PM	7.31	7/8/2016 11:15 PM	7.28	7/9/2016 11:15 PM	7.30
7/7/2016 11:30 PM	7.30	7/8/2016 11:30 PM	7.28	7/9/2016 11:30 PM	7.29
7/7/2016 11:45 PM	7.30	7/8/2016 11:45 PM	7.27	7/9/2016 11:45 PM	7.29
AVG	7.30	AVG	7.30	AVG	7.28

Note: Issue with pH probe from June 29th through July 7th. Probe and transmitter control unit back online July 7th at 7:30PM. No discharge during the time that the unit was down. Data not included in average.

Date And Time	pH	Date And Time	pH	Date And Time	pH
7/10/2016 12:00 AM	7.29	7/11/2016 12:00 AM	7.30	7/12/2016 12:00 AM	7.37
7/10/2016 12:15 AM	7.30	7/11/2016 12:15 AM	7.30	7/12/2016 12:15 AM	7.37
7/10/2016 12:30 AM	7.28	7/11/2016 12:30 AM	7.30	7/12/2016 12:30 AM	7.37
7/10/2016 12:45 AM	7.29	7/11/2016 12:45 AM	7.30	7/12/2016 12:45 AM	7.36
7/10/2016 1:00 AM	7.29	7/11/2016 1:00 AM	7.30	7/12/2016 1:00 AM	7.36
7/10/2016 1:15 AM	7.29	7/11/2016 1:15 AM	7.28	7/12/2016 1:15 AM	7.35
7/10/2016 1:30 AM	7.28	7/11/2016 1:30 AM	7.34	7/12/2016 1:30 AM	7.35
7/10/2016 1:45 AM	7.28	7/11/2016 1:45 AM	7.34	7/12/2016 1:45 AM	7.34
7/10/2016 2:00 AM	7.28	7/11/2016 2:00 AM	7.33	7/12/2016 2:00 AM	7.36
7/10/2016 2:15 AM	7.28	7/11/2016 2:15 AM	7.33	7/12/2016 2:15 AM	7.34
7/10/2016 2:30 AM	7.27	7/11/2016 2:30 AM	7.32	7/12/2016 2:30 AM	7.34
7/10/2016 2:45 AM	7.32	7/11/2016 2:45 AM	7.31	7/12/2016 2:45 AM	7.34
7/10/2016 3:00 AM	7.32	7/11/2016 3:00 AM	7.31	7/12/2016 3:00 AM	7.34
7/10/2016 3:15 AM	7.31	7/11/2016 3:15 AM	7.30	7/12/2016 3:15 AM	7.34
7/10/2016 3:30 AM	7.31	7/11/2016 3:30 AM	7.30	7/12/2016 3:30 AM	7.34
7/10/2016 3:45 AM	7.31	7/11/2016 3:45 AM	7.31	7/12/2016 3:45 AM	7.34
7/10/2016 4:00 AM	7.30	7/11/2016 4:00 AM	7.30	7/12/2016 4:00 AM	7.34
7/10/2016 4:15 AM	7.30	7/11/2016 4:15 AM	7.30	7/12/2016 4:15 AM	7.34
7/10/2016 4:30 AM	7.29	7/11/2016 4:30 AM	7.30	7/12/2016 4:30 AM	7.39
7/10/2016 4:45 AM	7.28	7/11/2016 4:45 AM	7.30	7/12/2016 4:45 AM	7.39
7/10/2016 5:00 AM	7.27	7/11/2016 5:00 AM	7.30	7/12/2016 5:00 AM	7.39
7/10/2016 5:15 AM	7.29	7/11/2016 5:15 AM	7.30	7/12/2016 5:15 AM	7.38
7/10/2016 5:30 AM	7.28	7/11/2016 5:30 AM	7.30	7/12/2016 5:30 AM	7.37
7/10/2016 5:45 AM	7.28	7/11/2016 5:45 AM	7.29	7/12/2016 5:45 AM	7.36
7/10/2016 6:00 AM	7.28	7/11/2016 6:00 AM	7.34	7/12/2016 6:00 AM	7.36
7/10/2016 6:15 AM	7.28	7/11/2016 6:15 AM	7.35	7/12/2016 6:15 AM	7.35
7/10/2016 6:30 AM	7.28	7/11/2016 6:30 AM	7.34	7/12/2016 6:30 AM	7.35
7/10/2016 6:45 AM	7.28	7/11/2016 6:45 AM	7.33	7/12/2016 6:45 AM	7.36
7/10/2016 7:00 AM	7.28	7/11/2016 7:00 AM	7.32	7/12/2016 7:00 AM	7.35
7/10/2016 7:15 AM	7.29	7/11/2016 7:15 AM	7.31	7/12/2016 7:15 AM	7.35
7/10/2016 7:30 AM	7.32	7/11/2016 7:30 AM	7.30	7/12/2016 7:30 AM	7.35
7/10/2016 7:45 AM	7.32	7/11/2016 7:45 AM	7.29	7/12/2016 7:45 AM	7.35
7/10/2016 8:00 AM	7.32	7/11/2016 8:00 AM	7.31	7/12/2016 8:00 AM	7.35
7/10/2016 8:15 AM	7.31	7/11/2016 8:15 AM	7.29	7/12/2016 8:15 AM	7.35
7/10/2016 8:30 AM	7.32	7/11/2016 8:30 AM	7.29	7/12/2016 8:30 AM	7.34
7/10/2016 8:45 AM	7.32	7/11/2016 8:45 AM	7.28	7/12/2016 8:45 AM	7.34
7/10/2016 9:00 AM	7.32	7/11/2016 9:00 AM	7.28	7/12/2016 9:00 AM	7.39
7/10/2016 9:15 AM	7.31	7/11/2016 9:15 AM	7.28	7/12/2016 9:15 AM	7.39
7/10/2016 9:30 AM	7.30	7/11/2016 9:30 AM	7.27	7/12/2016 9:30 AM	7.39
7/10/2016 9:45 AM	7.31	7/11/2016 9:45 AM	7.27	7/12/2016 9:45 AM	7.38
7/10/2016 10:00 AM	7.30	7/11/2016 10:00 AM	7.30	7/12/2016 10:00 AM	7.38
7/10/2016 10:15 AM	7.29	7/11/2016 10:15 AM	7.31	7/12/2016 10:15 AM	7.38
7/10/2016 10:30 AM	7.29	7/11/2016 10:30 AM	7.31	7/12/2016 10:30 AM	7.37
7/10/2016 10:45 AM	7.28	7/11/2016 10:45 AM	7.31	7/12/2016 10:45 AM	7.37
7/10/2016 11:00 AM	7.28	7/11/2016 11:00 AM	7.32	7/12/2016 11:00 AM	7.37
7/10/2016 11:15 AM	7.28	7/11/2016 11:15 AM	7.32	7/12/2016 11:15 AM	7.40
7/10/2016 11:30 AM	7.26	7/11/2016 11:30 AM	7.32	7/12/2016 11:30 AM	7.41
7/10/2016 11:45 AM	7.31	7/11/2016 11:45 AM	7.31	7/12/2016 11:45 AM	7.38
7/10/2016 12:00 PM	7.31	7/11/2016 12:00 PM	7.31	7/12/2016 12:00 PM	7.37
7/10/2016 12:15 PM	7.32	7/11/2016 12:15 PM	7.32	7/12/2016 12:15 PM	7.37
7/10/2016 12:30 PM	7.33	7/11/2016 12:30 PM	7.33	7/12/2016 12:30 PM	7.37
7/10/2016 12:45 PM	7.34	7/11/2016 12:45 PM	7.33	7/12/2016 12:45 PM	7.37
7/10/2016 1:00 PM	7.33	7/11/2016 1:00 PM	7.33	7/12/2016 1:00 PM	7.37
7/10/2016 1:15 PM	7.32	7/11/2016 1:15 PM	7.33	7/12/2016 1:15 PM	7.37
7/10/2016 1:30 PM	7.32	7/11/2016 1:30 PM	7.33	7/12/2016 1:30 PM	7.40
7/10/2016 1:45 PM	7.33	7/11/2016 1:45 PM	7.32	7/12/2016 1:45 PM	7.43
7/10/2016 2:00 PM	7.33	7/11/2016 2:00 PM	7.31	7/12/2016 2:00 PM	7.42
7/10/2016 2:15 PM	7.35	7/11/2016 2:15 PM	7.32	7/12/2016 2:15 PM	7.42
7/10/2016 2:30 PM	7.33	7/11/2016 2:30 PM	7.35	7/12/2016 2:30 PM	7.41
7/10/2016 2:45 PM	7.31	7/11/2016 2:45 PM	7.38	7/12/2016 2:45 PM	7.42
7/10/2016 3:00 PM	7.30	7/11/2016 3:00 PM	7.32	7/12/2016 3:00 PM	7.42
7/10/2016 3:15 PM	7.30	7/11/2016 3:15 PM	7.32	7/12/2016 3:15 PM	7.41
7/10/2016 3:30 PM	7.30	7/11/2016 3:30 PM	7.33	7/12/2016 3:30 PM	7.40
7/10/2016 3:45 PM	7.30	7/11/2016 3:45 PM	7.34	7/12/2016 3:45 PM	7.44
7/10/2016 4:00 PM	7.30	7/11/2016 4:00 PM	7.35	7/12/2016 4:00 PM	7.43
7/10/2016 4:15 PM	7.31	7/11/2016 4:15 PM	7.35	7/12/2016 4:15 PM	7.41
7/10/2016 4:30 PM	7.33	7/11/2016 4:30 PM	7.35	7/12/2016 4:30 PM	7.40
7/10/2016 4:45 PM	7.34	7/11/2016 4:45 PM	7.34	7/12/2016 4:45 PM	7.40
7/10/2016 5:00 PM	7.33	7/11/2016 5:00 PM	7.34	7/12/2016 5:00 PM	7.40
7/10/2016 5:15 PM	7.33	7/11/2016 5:15 PM	7.36	7/12/2016 5:15 PM	7.39

7/10/2016 5:30 PM	7.33	7/11/2016 5:30 PM	7.35	7/12/2016 5:30 PM	7.40
7/10/2016 5:45 PM	7.33	7/11/2016 5:45 PM	7.34	7/12/2016 5:45 PM	7.38
7/10/2016 6:00 PM	7.32	7/11/2016 6:00 PM	7.33	7/12/2016 6:00 PM	7.42
7/10/2016 6:15 PM	7.31	7/11/2016 6:15 PM	7.33	7/12/2016 6:15 PM	7.42
7/10/2016 6:30 PM	7.32	7/11/2016 6:30 PM	7.33	7/12/2016 6:30 PM	7.43
7/10/2016 6:45 PM	7.34	7/11/2016 6:45 PM	7.33	7/12/2016 6:45 PM	7.43
7/10/2016 7:00 PM	7.33	7/11/2016 7:00 PM	7.33	7/12/2016 7:00 PM	7.41
7/10/2016 7:15 PM	7.31	7/11/2016 7:15 PM	7.33	7/12/2016 7:15 PM	7.41
7/10/2016 7:30 PM	7.31	7/11/2016 7:30 PM	7.35	7/12/2016 7:30 PM	7.40
7/10/2016 7:45 PM	7.31	7/11/2016 7:45 PM	7.35	7/12/2016 7:45 PM	7.40
7/10/2016 8:00 PM	7.31	7/11/2016 8:00 PM	7.35	7/12/2016 8:00 PM	7.40
7/10/2016 8:15 PM	7.31	7/11/2016 8:15 PM	7.34	7/12/2016 8:15 PM	7.42
7/10/2016 8:30 PM	7.29	7/11/2016 8:30 PM	7.35	7/12/2016 8:30 PM	7.42
7/10/2016 8:45 PM	7.34	7/11/2016 8:45 PM	7.35	7/12/2016 8:45 PM	7.41
7/10/2016 9:00 PM	7.33	7/11/2016 9:00 PM	7.35	7/12/2016 9:00 PM	7.40
7/10/2016 9:15 PM	7.33	7/11/2016 9:15 PM	7.34	7/12/2016 9:15 PM	7.40
7/10/2016 9:30 PM	7.33	7/11/2016 9:30 PM	7.34	7/12/2016 9:30 PM	7.40
7/10/2016 9:45 PM	7.33	7/11/2016 9:45 PM	7.35	7/12/2016 9:45 PM	7.40
7/10/2016 10:00 PM	7.32	7/11/2016 10:00 PM	7.34	7/12/2016 10:00 PM	7.40
7/10/2016 10:15 PM	7.32	7/11/2016 10:15 PM	7.34	7/12/2016 10:15 PM	7.40
7/10/2016 10:30 PM	7.31	7/11/2016 10:30 PM	7.34	7/12/2016 10:30 PM	7.42
7/10/2016 10:45 PM	7.31	7/11/2016 10:45 PM	7.34	7/12/2016 10:45 PM	7.43
7/10/2016 11:00 PM	7.30	7/11/2016 11:00 PM	7.33	7/12/2016 11:00 PM	7.42
7/10/2016 11:15 PM	7.31	7/11/2016 11:15 PM	7.33	7/12/2016 11:15 PM	7.42
7/10/2016 11:30 PM	7.31	7/11/2016 11:30 PM	7.33	7/12/2016 11:30 PM	7.42
7/10/2016 11:45 PM	7.31	7/11/2016 11:45 PM	7.33	7/12/2016 11:45 PM	7.41
AVG	7.31	AVG	7.32	AVG	7.38

Date And Time	pH	Date And Time	pH	Date And Time	pH
7/13/2016 12:00 AM	7.41	7/14/2016 12:00 AM	7.37	7/15/2016 12:00 AM	7.43
7/13/2016 12:15 AM	7.41	7/14/2016 12:15 AM	7.36	7/15/2016 12:15 AM	7.41
7/13/2016 12:30 AM	7.40	7/14/2016 12:30 AM	7.36	7/15/2016 12:30 AM	7.40
7/13/2016 12:45 AM	7.41	7/14/2016 12:45 AM	7.36	7/15/2016 12:45 AM	7.41
7/13/2016 1:00 AM	7.40	7/14/2016 1:00 AM	7.35	7/15/2016 1:00 AM	7.40
7/13/2016 1:15 AM	7.40	7/14/2016 1:15 AM	7.35	7/15/2016 1:15 AM	7.40
7/13/2016 1:30 AM	7.40	7/14/2016 1:30 AM	7.32	7/15/2016 1:30 AM	7.39
7/13/2016 1:45 AM	7.40	7/14/2016 1:45 AM	7.37	7/15/2016 1:45 AM	7.39
7/13/2016 2:00 AM	7.40	7/14/2016 2:00 AM	7.36	7/15/2016 2:00 AM	7.38
7/13/2016 2:15 AM	7.39	7/14/2016 2:15 AM	7.33	7/15/2016 2:15 AM	7.43
7/13/2016 2:30 AM	7.39	7/14/2016 2:30 AM	7.35	7/15/2016 2:30 AM	7.42
7/13/2016 2:45 AM	7.39	7/14/2016 2:45 AM	7.35	7/15/2016 2:45 AM	7.41
7/13/2016 3:00 AM	7.42	7/14/2016 3:00 AM	7.34	7/15/2016 3:00 AM	7.41
7/13/2016 3:15 AM	7.43	7/14/2016 3:15 AM	7.33	7/15/2016 3:15 AM	7.41
7/13/2016 3:30 AM	7.43	7/14/2016 3:30 AM	7.33	7/15/2016 3:30 AM	7.41
7/13/2016 3:45 AM	7.43	7/14/2016 3:45 AM	7.37	7/15/2016 3:45 AM	7.41
7/13/2016 4:00 AM	7.42	7/14/2016 4:00 AM	7.36	7/15/2016 4:00 AM	7.41
7/13/2016 4:15 AM	7.42	7/14/2016 4:15 AM	7.36	7/15/2016 4:15 AM	7.41
7/13/2016 4:30 AM	7.41	7/14/2016 4:30 AM	7.36	7/15/2016 4:30 AM	7.39
7/13/2016 4:45 AM	7.41	7/14/2016 4:45 AM	7.36	7/15/2016 4:45 AM	7.41
7/13/2016 5:00 AM	7.40	7/14/2016 5:00 AM	7.36	7/15/2016 5:00 AM	7.42
7/13/2016 5:15 AM	7.40	7/14/2016 5:15 AM	7.36	7/15/2016 5:15 AM	7.38
7/13/2016 5:30 AM	7.40	7/14/2016 5:30 AM	7.36	7/15/2016 5:30 AM	7.41
7/13/2016 5:45 AM	7.40	7/14/2016 5:45 AM	7.36	7/15/2016 5:45 AM	7.42
7/13/2016 6:00 AM	7.40	7/14/2016 6:00 AM	7.35	7/15/2016 6:00 AM	7.41
7/13/2016 6:15 AM	7.39	7/14/2016 6:15 AM	7.36	7/15/2016 6:15 AM	7.40
7/13/2016 6:30 AM	7.39	7/14/2016 6:30 AM	7.36	7/15/2016 6:30 AM	7.40
7/13/2016 6:45 AM	7.39	7/14/2016 6:45 AM	7.35	7/15/2016 6:45 AM	7.43
7/13/2016 7:00 AM	7.39	7/14/2016 7:00 AM	7.34	7/15/2016 7:00 AM	7.42
7/13/2016 7:15 AM	7.39	7/14/2016 7:15 AM	7.33	7/15/2016 7:15 AM	7.41
7/13/2016 7:30 AM	7.42	7/14/2016 7:30 AM	7.33	7/15/2016 7:30 AM	7.41
7/13/2016 7:45 AM	7.41	7/14/2016 7:45 AM	7.32	7/15/2016 7:45 AM	7.41
7/13/2016 8:00 AM	7.39	7/14/2016 8:00 AM	7.34	7/15/2016 8:00 AM	7.41
7/13/2016 8:15 AM	7.42	7/14/2016 8:15 AM	7.40	7/15/2016 8:15 AM	7.40
7/13/2016 8:30 AM	7.42	7/14/2016 8:30 AM	7.39	7/15/2016 8:30 AM	7.40
7/13/2016 8:45 AM	7.42	7/14/2016 8:45 AM	7.38	7/15/2016 8:45 AM	7.40
7/13/2016 9:00 AM	7.42	7/14/2016 9:00 AM	7.37	7/15/2016 9:00 AM	7.41
7/13/2016 9:15 AM	7.43	7/14/2016 9:15 AM	7.37	7/15/2016 9:15 AM	7.42
7/13/2016 9:30 AM	7.42	7/14/2016 9:30 AM	7.36	7/15/2016 9:30 AM	7.41
7/13/2016 9:45 AM	7.42	7/14/2016 9:45 AM	7.36	7/15/2016 9:45 AM	7.41
7/13/2016 10:00 AM	7.42	7/14/2016 10:00 AM	7.36	7/15/2016 10:00 AM	7.42
7/13/2016 10:15 AM	7.42	7/14/2016 10:15 AM	7.31	7/15/2016 10:15 AM	7.41
7/13/2016 10:30 AM	7.42	7/14/2016 10:30 AM	7.33	7/15/2016 10:30 AM	7.41
7/13/2016 10:45 AM	7.41	7/14/2016 10:45 AM	7.32	7/15/2016 10:45 AM	7.39
7/13/2016 11:00 AM	7.40	7/14/2016 11:00 AM	7.31	7/15/2016 11:00 AM	7.46
7/13/2016 11:15 AM	7.42	7/14/2016 11:15 AM	7.32	7/15/2016 11:15 AM	7.46
7/13/2016 11:30 AM	7.39	7/14/2016 11:30 AM	7.32	7/15/2016 11:30 AM	7.44
7/13/2016 11:45 AM	7.36	7/14/2016 11:45 AM	7.32	7/15/2016 11:45 AM	7.42
7/13/2016 12:00 PM	7.30	7/14/2016 12:00 PM	7.31	7/15/2016 12:00 PM	7.42
7/13/2016 12:15 PM	7.31	7/14/2016 12:15 PM	7.32	7/15/2016 12:15 PM	7.41
7/13/2016 12:30 PM	7.31	7/14/2016 12:30 PM	7.33	7/15/2016 12:30 PM	7.41
7/13/2016 12:45 PM	7.33	7/14/2016 12:45 PM	7.46	7/15/2016 12:45 PM	7.41
7/13/2016 1:00 PM	7.33	7/14/2016 1:00 PM	7.46	7/15/2016 1:00 PM	7.41
7/13/2016 1:15 PM	7.34	7/14/2016 1:15 PM	7.43	7/15/2016 1:15 PM	7.41
7/13/2016 1:30 PM	7.34	7/14/2016 1:30 PM	7.41	7/15/2016 1:30 PM	7.41
7/13/2016 1:45 PM	7.34	7/14/2016 1:45 PM	7.41	7/15/2016 1:45 PM	7.39
7/13/2016 2:00 PM	7.34	7/14/2016 2:00 PM	7.40	7/15/2016 2:00 PM	7.43
7/13/2016 2:15 PM	7.43	7/14/2016 2:15 PM	7.40	7/15/2016 2:15 PM	7.44
7/13/2016 2:30 PM	7.45	7/14/2016 2:30 PM	7.39	7/15/2016 2:30 PM	7.43
7/13/2016 2:45 PM	7.42	7/14/2016 2:45 PM	7.38	7/15/2016 2:45 PM	7.43
7/13/2016 3:00 PM	7.40	7/14/2016 3:00 PM	7.35	7/15/2016 3:00 PM	7.43
7/13/2016 3:15 PM	7.40	7/14/2016 3:15 PM	7.36	7/15/2016 3:15 PM	7.43
7/13/2016 3:30 PM	7.40	7/14/2016 3:30 PM	7.37	7/15/2016 3:30 PM	7.43
7/13/2016 3:45 PM	7.39	7/14/2016 3:45 PM	7.37	7/15/2016 3:45 PM	7.43
7/13/2016 4:00 PM	7.39	7/14/2016 4:00 PM	7.38	7/15/2016 4:00 PM	7.43
7/13/2016 4:15 PM	7.33	7/14/2016 4:15 PM	7.38	7/15/2016 4:15 PM	7.43
7/13/2016 4:30 PM	7.32	7/14/2016 4:30 PM	7.37	7/15/2016 4:30 PM	7.42
7/13/2016 4:45 PM	7.34	7/14/2016 4:45 PM	7.36	7/15/2016 4:45 PM	7.41
7/13/2016 5:00 PM	7.34	7/14/2016 5:00 PM	7.34	7/15/2016 5:00 PM	7.41
7/13/2016 5:15 PM	7.33	7/14/2016 5:15 PM	7.47	7/15/2016 5:15 PM	7.50

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7/13/2016 5:45 PM	7.34	7/14/2016 5:45 PM	7.43	7/15/2016 5:45 PM	7.45
7/13/2016 6:00 PM	7.33	7/14/2016 6:00 PM	7.42	7/15/2016 6:00 PM	7.45
7/13/2016 6:15 PM	7.32	7/14/2016 6:15 PM	7.41	7/15/2016 6:15 PM	7.44
7/13/2016 6:30 PM	7.31	7/14/2016 6:30 PM	7.40	7/15/2016 6:30 PM	7.44
7/13/2016 6:45 PM	7.31	7/14/2016 6:45 PM	7.40	7/15/2016 6:45 PM	7.45
7/13/2016 7:00 PM	7.30	7/14/2016 7:00 PM	7.40	7/15/2016 7:00 PM	7.45
7/13/2016 7:15 PM	7.30	7/14/2016 7:15 PM	7.40	7/15/2016 7:15 PM	7.45
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7/13/2016 7:45 PM	7.29	7/14/2016 7:45 PM	7.37	7/15/2016 7:45 PM	7.43
7/13/2016 8:00 PM	7.27	7/14/2016 8:00 PM	7.36	7/15/2016 8:00 PM	7.43
7/13/2016 8:15 PM	7.43	7/14/2016 8:15 PM	7.35	7/15/2016 8:15 PM	7.48
7/13/2016 8:30 PM	7.41	7/14/2016 8:30 PM	7.35	7/15/2016 8:30 PM	7.48
7/13/2016 8:45 PM	7.39	7/14/2016 8:45 PM	7.35	7/15/2016 8:45 PM	7.46
7/13/2016 9:00 PM	7.39	7/14/2016 9:00 PM	7.34	7/15/2016 9:00 PM	7.46
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7/13/2016 10:15 PM	7.32	7/14/2016 10:15 PM	7.41	7/15/2016 10:15 PM	7.45
7/13/2016 10:30 PM	7.33	7/14/2016 10:30 PM	7.41	7/15/2016 10:30 PM	7.45
7/13/2016 10:45 PM	7.33	7/14/2016 10:45 PM	7.41	7/15/2016 10:45 PM	7.46
7/13/2016 11:00 PM	7.32	7/14/2016 11:00 PM	7.40	7/15/2016 11:00 PM	7.46
7/13/2016 11:15 PM	7.38	7/14/2016 11:15 PM	7.40	7/15/2016 11:15 PM	7.45
7/13/2016 11:30 PM	7.38	7/14/2016 11:30 PM	7.40	7/15/2016 11:30 PM	7.45
7/13/2016 11:45 PM	7.37	7/14/2016 11:45 PM	7.40	7/15/2016 11:45 PM	7.46
AVG	7.38	AVG	7.37	AVG	7.42

Date And Time	pH	Date And Time	pH	Date And Time	pH
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7/16/2016 12:15 AM	7.45	7/17/2016 12:15 AM	7.47	7/18/2016 12:15 AM	7.50
7/16/2016 12:30 AM	7.45	7/17/2016 12:30 AM	7.46	7/18/2016 12:30 AM	7.49
7/16/2016 12:45 AM	7.46	7/17/2016 12:45 AM	7.46	7/18/2016 12:45 AM	7.49
7/16/2016 1:00 AM	7.45	7/17/2016 1:00 AM	7.46	7/18/2016 1:00 AM	7.48
7/16/2016 1:15 AM	7.45	7/17/2016 1:15 AM	7.46	7/18/2016 1:15 AM	7.48
7/16/2016 1:30 AM	7.45	7/17/2016 1:30 AM	7.46	7/18/2016 1:30 AM	7.48
7/16/2016 1:45 AM	7.45	7/17/2016 1:45 AM	7.50	7/18/2016 1:45 AM	7.47
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7/16/2016 2:45 AM	7.45	7/17/2016 2:45 AM	7.48	7/18/2016 2:45 AM	7.46
7/16/2016 3:00 AM	7.45	7/17/2016 3:00 AM	7.47	7/18/2016 3:00 AM	7.46
7/16/2016 3:15 AM	7.48	7/17/2016 3:15 AM	7.46	7/18/2016 3:15 AM	7.46
7/16/2016 3:30 AM	7.47	7/17/2016 3:30 AM	7.46	7/18/2016 3:30 AM	7.46
7/16/2016 3:45 AM	7.47	7/17/2016 3:45 AM	7.45	7/18/2016 3:45 AM	7.46
7/16/2016 4:00 AM	7.46	7/17/2016 4:00 AM	7.45	7/18/2016 4:00 AM	7.46
7/16/2016 4:15 AM	7.46	7/17/2016 4:15 AM	7.44	7/18/2016 4:15 AM	7.47
7/16/2016 4:30 AM	7.45	7/17/2016 4:30 AM	7.44	7/18/2016 4:30 AM	7.50
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7/16/2016 7:30 AM	7.45	7/17/2016 7:30 AM	7.47	7/18/2016 7:30 AM	7.45
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7/16/2016 5:00 PM	7.50	7/17/2016 5:00 PM	7.48	7/18/2016 5:00 PM	7.49
7/16/2016 5:15 PM	7.49	7/17/2016 5:15 PM	7.51	7/18/2016 5:15 PM	7.48

7/16/2016 5:30 PM	7.49	7/17/2016 5:30 PM	7.50	7/18/2016 5:30 PM	7.48
7/16/2016 5:45 PM	7.48	7/17/2016 5:45 PM	7.48	7/18/2016 5:45 PM	7.48
7/16/2016 6:00 PM	7.48	7/17/2016 6:00 PM	7.47	7/18/2016 6:00 PM	7.48
7/16/2016 6:15 PM	7.47	7/17/2016 6:15 PM	7.46	7/18/2016 6:15 PM	7.49
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7/16/2016 6:45 PM	7.49	7/17/2016 6:45 PM	7.46	7/18/2016 6:45 PM	7.48
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7/16/2016 7:15 PM	7.48	7/17/2016 7:15 PM	7.46	7/18/2016 7:15 PM	7.49
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7/16/2016 9:30 PM	7.50	7/17/2016 9:30 PM	7.49	7/18/2016 9:30 PM	7.47
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7/16/2016 10:30 PM	7.48	7/17/2016 10:30 PM	7.47	7/18/2016 10:30 PM	7.48
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7/16/2016 11:30 PM	7.47	7/17/2016 11:30 PM	7.46	7/18/2016 11:30 PM	7.48
7/16/2016 11:45 PM	7.47	7/17/2016 11:45 PM	7.46	7/18/2016 11:45 PM	7.48
AVG	7.47	AVG	7.47	AVG	7.47

Date And Time	pH	Date And Time	pH	Date And Time	pH
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7/19/2016 12:30 AM	7.47	7/20/2016 12:30 AM	7.48	7/21/2016 12:30 AM	7.49
7/19/2016 12:45 AM	7.47	7/20/2016 12:45 AM	7.47	7/21/2016 12:45 AM	7.48
7/19/2016 1:00 AM	7.46	7/20/2016 1:00 AM	7.47	7/21/2016 1:00 AM	7.53
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7/19/2016 1:45 AM	7.46	7/20/2016 1:45 AM	7.52	7/21/2016 1:45 AM	7.51
7/19/2016 2:00 AM	7.46	7/20/2016 2:00 AM	7.48	7/21/2016 2:00 AM	7.51
7/19/2016 2:15 AM	7.45	7/20/2016 2:15 AM	7.48	7/21/2016 2:15 AM	7.50
7/19/2016 2:30 AM	7.45	7/20/2016 2:30 AM	7.52	7/21/2016 2:30 AM	7.49
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7/19/2016 4:30 AM	7.48	7/20/2016 4:30 AM	7.48	7/21/2016 4:30 AM	7.52
7/19/2016 4:45 AM	7.48	7/20/2016 4:45 AM	7.48	7/21/2016 4:45 AM	7.50
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7/19/2016 5:15 AM	7.46	7/20/2016 5:15 AM	7.47	7/21/2016 5:15 AM	7.52
7/19/2016 5:30 AM	7.46	7/20/2016 5:30 AM	7.47	7/21/2016 5:30 AM	7.53
7/19/2016 5:45 AM	7.46	7/20/2016 5:45 AM	7.51	7/21/2016 5:45 AM	7.52
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7/19/2016 6:45 AM	7.46	7/20/2016 6:45 AM	7.50	7/21/2016 6:45 AM	7.49
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7/19/2016 9:00 AM	7.48	7/20/2016 9:00 AM	7.48	7/21/2016 9:00 AM	7.46
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7/19/2016 9:30 AM	7.47	7/20/2016 9:30 AM	7.46	7/21/2016 9:30 AM	7.49
7/19/2016 9:45 AM	7.47	7/20/2016 9:45 AM	7.46	7/21/2016 9:45 AM	7.50
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7/19/2016 11:00 AM	7.42	7/20/2016 11:00 AM	7.49	7/21/2016 11:00 AM	7.50
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7/19/2016 1:00 PM	7.49	7/20/2016 1:00 PM	7.52	7/21/2016 1:00 PM	7.46
7/19/2016 1:15 PM	7.49	7/20/2016 1:15 PM	7.49	7/21/2016 1:15 PM	7.46
7/19/2016 1:30 PM	7.49	7/20/2016 1:30 PM	7.49	7/21/2016 1:30 PM	7.51
7/19/2016 1:45 PM	7.48	7/20/2016 1:45 PM	7.48	7/21/2016 1:45 PM	7.52

7/19/2016 2:00 PM	7.49	7/20/2016 2:00 PM	7.48	7/21/2016 2:00 PM	7.53
7/19/2016 2:15 PM	7.53	7/20/2016 2:15 PM	7.48	7/21/2016 2:15 PM	7.54
7/19/2016 2:30 PM	7.50	7/20/2016 2:30 PM	7.47	7/21/2016 2:30 PM	7.54
7/19/2016 2:45 PM	7.46	7/20/2016 2:45 PM	7.47	7/21/2016 2:45 PM	7.54
7/19/2016 3:00 PM	7.47	7/20/2016 3:00 PM	7.46	7/21/2016 3:00 PM	7.54
7/19/2016 3:15 PM	7.47	7/20/2016 3:15 PM	7.51	7/21/2016 3:15 PM	7.53
7/19/2016 3:30 PM	7.47	7/20/2016 3:30 PM	7.52	7/21/2016 3:30 PM	7.57
7/19/2016 3:45 PM	7.47	7/20/2016 3:45 PM	7.53	7/21/2016 3:45 PM	7.55
7/19/2016 4:00 PM	7.47	7/20/2016 4:00 PM	7.52	7/21/2016 4:00 PM	7.53
7/19/2016 4:15 PM	7.47	7/20/2016 4:15 PM	7.52	7/21/2016 4:15 PM	7.52
7/19/2016 4:30 PM	7.47	7/20/2016 4:30 PM	7.52	7/21/2016 4:30 PM	7.52
7/19/2016 4:45 PM	7.49	7/20/2016 4:45 PM	7.52	7/21/2016 4:45 PM	7.51
7/19/2016 5:00 PM	7.51	7/20/2016 5:00 PM	7.53	7/21/2016 5:00 PM	7.51
7/19/2016 5:15 PM	7.51	7/20/2016 5:15 PM	7.53	7/21/2016 5:15 PM	7.51
7/19/2016 5:30 PM	7.51	7/20/2016 5:30 PM	7.51	7/21/2016 5:30 PM	7.51
7/19/2016 5:45 PM	7.51	7/20/2016 5:45 PM	7.50	7/21/2016 5:45 PM	7.51
7/19/2016 6:00 PM	7.50	7/20/2016 6:00 PM	7.50	7/21/2016 6:00 PM	7.54
7/19/2016 6:15 PM	7.49	7/20/2016 6:15 PM	7.49	7/21/2016 6:15 PM	7.51
7/19/2016 6:30 PM	7.49	7/20/2016 6:30 PM	7.49	7/21/2016 6:30 PM	7.51
7/19/2016 6:45 PM	7.51	7/20/2016 6:45 PM	7.49	7/21/2016 6:45 PM	7.53
7/19/2016 7:00 PM	7.50	7/20/2016 7:00 PM	7.49	7/21/2016 7:00 PM	7.54
7/19/2016 7:15 PM	7.49	7/20/2016 7:15 PM	7.47	7/21/2016 7:15 PM	7.54
7/19/2016 7:30 PM	7.48	7/20/2016 7:30 PM	7.51	7/21/2016 7:30 PM	7.54
7/19/2016 7:45 PM	7.48	7/20/2016 7:45 PM	7.50	7/21/2016 7:45 PM	7.53
7/19/2016 8:00 PM	7.48	7/20/2016 8:00 PM	7.49	7/21/2016 8:00 PM	7.53
7/19/2016 8:15 PM	7.48	7/20/2016 8:15 PM	7.49	7/21/2016 8:15 PM	7.54
7/19/2016 8:30 PM	7.48	7/20/2016 8:30 PM	7.52	7/21/2016 8:30 PM	7.54
7/19/2016 8:45 PM	7.48	7/20/2016 8:45 PM	7.50	7/21/2016 8:45 PM	7.53
7/19/2016 9:00 PM	7.51	7/20/2016 9:00 PM	7.51	7/21/2016 9:00 PM	7.52
7/19/2016 9:15 PM	7.49	7/20/2016 9:15 PM	7.51	7/21/2016 9:15 PM	7.52
7/19/2016 9:30 PM	7.48	7/20/2016 9:30 PM	7.49	7/21/2016 9:30 PM	7.52
7/19/2016 9:45 PM	7.47	7/20/2016 9:45 PM	7.50	7/21/2016 9:45 PM	7.52
7/19/2016 10:00 PM	7.51	7/20/2016 10:00 PM	7.50	7/21/2016 10:00 PM	7.51
7/19/2016 10:15 PM	7.50	7/20/2016 10:15 PM	7.49	7/21/2016 10:15 PM	7.51
7/19/2016 10:30 PM	7.49	7/20/2016 10:30 PM	7.49	7/21/2016 10:30 PM	7.53
7/19/2016 10:45 PM	7.49	7/20/2016 10:45 PM	7.49	7/21/2016 10:45 PM	7.54
7/19/2016 11:00 PM	7.49	7/20/2016 11:00 PM	7.49	7/21/2016 11:00 PM	7.53
7/19/2016 11:15 PM	7.49	7/20/2016 11:15 PM	7.49	7/21/2016 11:15 PM	7.53
7/19/2016 11:30 PM	7.48	7/20/2016 11:30 PM	7.49	7/21/2016 11:30 PM	7.53
7/19/2016 11:45 PM	7.48	7/20/2016 11:45 PM	7.49	7/21/2016 11:45 PM	7.52
AVG	7.48	AVG	7.49	AVG	7.51

Date And Time	pH	Date And Time	pH	Date And Time	pH
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7/22/2016 12:15 AM	7.52	7/23/2016 12:15 AM	7.55	7/24/2016 12:15 AM	7.61
7/22/2016 12:30 AM	7.52	7/23/2016 12:30 AM	7.55	7/24/2016 12:30 AM	7.62
7/22/2016 12:45 AM	7.51	7/23/2016 12:45 AM	7.55	7/24/2016 12:45 AM	7.61
7/22/2016 1:00 AM	7.51	7/23/2016 1:00 AM	7.55	7/24/2016 1:00 AM	7.60
7/22/2016 1:15 AM	7.51	7/23/2016 1:15 AM	7.55	7/24/2016 1:15 AM	7.60
7/22/2016 1:30 AM	7.51	7/23/2016 1:30 AM	7.57	7/24/2016 1:30 AM	7.59
7/22/2016 1:45 AM	7.51	7/23/2016 1:45 AM	7.57	7/24/2016 1:45 AM	7.59
7/22/2016 2:00 AM	7.50	7/23/2016 2:00 AM	7.56	7/24/2016 2:00 AM	7.60
7/22/2016 2:15 AM	7.50	7/23/2016 2:15 AM	7.56	7/24/2016 2:15 AM	7.60
7/22/2016 2:30 AM	7.50	7/23/2016 2:30 AM	7.56	7/24/2016 2:30 AM	7.60
7/22/2016 2:45 AM	7.52	7/23/2016 2:45 AM	7.56	7/24/2016 2:45 AM	7.60
7/22/2016 3:00 AM	7.55	7/23/2016 3:00 AM	7.54	7/24/2016 3:00 AM	7.59
7/22/2016 3:15 AM	7.51	7/23/2016 3:15 AM	7.55	7/24/2016 3:15 AM	7.59
7/22/2016 3:30 AM	7.49	7/23/2016 3:30 AM	7.57	7/24/2016 3:30 AM	7.59
7/22/2016 3:45 AM	7.54	7/23/2016 3:45 AM	7.56	7/24/2016 3:45 AM	7.59
7/22/2016 4:00 AM	7.55	7/23/2016 4:00 AM	7.56	7/24/2016 4:00 AM	7.59
7/22/2016 4:15 AM	7.53	7/23/2016 4:15 AM	7.56	7/24/2016 4:15 AM	7.59
7/22/2016 4:30 AM	7.53	7/23/2016 4:30 AM	7.56	7/24/2016 4:30 AM	7.61
7/22/2016 4:45 AM	7.52	7/23/2016 4:45 AM	7.56	7/24/2016 4:45 AM	7.61
7/22/2016 5:00 AM	7.52	7/23/2016 5:00 AM	7.56	7/24/2016 5:00 AM	7.59
7/22/2016 5:15 AM	7.52	7/23/2016 5:15 AM	7.56	7/24/2016 5:15 AM	7.62
7/22/2016 5:30 AM	7.51	7/23/2016 5:30 AM	7.56	7/24/2016 5:30 AM	7.63
7/22/2016 5:45 AM	7.51	7/23/2016 5:45 AM	7.58	7/24/2016 5:45 AM	7.62
7/22/2016 6:00 AM	7.51	7/23/2016 6:00 AM	7.59	7/24/2016 6:00 AM	7.61
7/22/2016 6:15 AM	7.50	7/23/2016 6:15 AM	7.57	7/24/2016 6:15 AM	7.60
7/22/2016 6:30 AM	7.50	7/23/2016 6:30 AM	7.59	7/24/2016 6:30 AM	7.59
7/22/2016 6:45 AM	7.50	7/23/2016 6:45 AM	7.60	7/24/2016 6:45 AM	7.60
7/22/2016 7:00 AM	7.50	7/23/2016 7:00 AM	7.60	7/24/2016 7:00 AM	7.60
7/22/2016 7:15 AM	7.50	7/23/2016 7:15 AM	7.59	7/24/2016 7:15 AM	7.59
7/22/2016 7:30 AM	7.52	7/23/2016 7:30 AM	7.58	7/24/2016 7:30 AM	7.59
7/22/2016 7:45 AM	7.54	7/23/2016 7:45 AM	7.58	7/24/2016 7:45 AM	7.59
7/22/2016 8:00 AM	7.54	7/23/2016 8:00 AM	7.59	7/24/2016 8:00 AM	7.58
7/22/2016 8:15 AM	7.53	7/23/2016 8:15 AM	7.58	7/24/2016 8:15 AM	7.58
7/22/2016 8:30 AM	7.53	7/23/2016 8:30 AM	7.57	7/24/2016 8:30 AM	7.57
7/22/2016 8:45 AM	7.53	7/23/2016 8:45 AM	7.56	7/24/2016 8:45 AM	7.56
7/22/2016 9:00 AM	7.53	7/23/2016 9:00 AM	7.55	7/24/2016 9:00 AM	7.61
7/22/2016 9:15 AM	7.54	7/23/2016 9:15 AM	7.55	7/24/2016 9:15 AM	7.62
7/22/2016 9:30 AM	7.53	7/23/2016 9:30 AM	7.54	7/24/2016 9:30 AM	7.61
7/22/2016 9:45 AM	7.53	7/23/2016 9:45 AM	7.54	7/24/2016 9:45 AM	7.60
7/22/2016 10:00 AM	7.52	7/23/2016 10:00 AM	7.54	7/24/2016 10:00 AM	7.59
7/22/2016 10:15 AM	7.49	7/23/2016 10:15 AM	7.57	7/24/2016 10:15 AM	7.61
7/22/2016 10:30 AM	7.50	7/23/2016 10:30 AM	7.57	7/24/2016 10:30 AM	7.59
7/22/2016 10:45 AM	7.49	7/23/2016 10:45 AM	7.54	7/24/2016 10:45 AM	7.60
7/22/2016 11:00 AM	7.49	7/23/2016 11:00 AM	7.57	7/24/2016 11:00 AM	7.62
7/22/2016 11:15 AM	7.48	7/23/2016 11:15 AM	7.59	7/24/2016 11:15 AM	7.63
7/22/2016 11:30 AM	7.47	7/23/2016 11:30 AM	7.59	7/24/2016 11:30 AM	7.60
7/22/2016 11:45 AM	7.46	7/23/2016 11:45 AM	7.59	7/24/2016 11:45 AM	7.59
7/22/2016 12:00 PM	7.47	7/23/2016 12:00 PM	7.59	7/24/2016 12:00 PM	7.59
7/22/2016 12:15 PM	7.48	7/23/2016 12:15 PM	7.59	7/24/2016 12:15 PM	7.58
7/22/2016 12:30 PM	7.49	7/23/2016 12:30 PM	7.59	7/24/2016 12:30 PM	7.57
7/22/2016 12:45 PM	7.50	7/23/2016 12:45 PM	7.61	7/24/2016 12:45 PM	7.57
7/22/2016 1:00 PM	7.50	7/23/2016 1:00 PM	7.60	7/24/2016 1:00 PM	7.56
7/22/2016 1:15 PM	7.50	7/23/2016 1:15 PM	7.58	7/24/2016 1:15 PM	7.59
7/22/2016 1:30 PM	7.50	7/23/2016 1:30 PM	7.56	7/24/2016 1:30 PM	7.61
7/22/2016 1:45 PM	7.49	7/23/2016 1:45 PM	7.56	7/24/2016 1:45 PM	7.62
7/22/2016 2:00 PM	7.48	7/23/2016 2:00 PM	7.55	7/24/2016 2:00 PM	7.63
7/22/2016 2:15 PM	7.48	7/23/2016 2:15 PM	7.56	7/24/2016 2:15 PM	7.63
7/22/2016 2:30 PM	7.48	7/23/2016 2:30 PM	7.56	7/24/2016 2:30 PM	7.63
7/22/2016 2:45 PM	7.48	7/23/2016 2:45 PM	7.56	7/24/2016 2:45 PM	7.63
7/22/2016 3:00 PM	7.59	7/23/2016 3:00 PM	7.60	7/24/2016 3:00 PM	7.62
7/22/2016 3:15 PM	7.55	7/23/2016 3:15 PM	7.62	7/24/2016 3:15 PM	7.62
7/22/2016 3:30 PM	7.53	7/23/2016 3:30 PM	7.63	7/24/2016 3:30 PM	7.61
7/22/2016 3:45 PM	7.52	7/23/2016 3:45 PM	7.64	7/24/2016 3:45 PM	7.68
7/22/2016 4:00 PM	7.52	7/23/2016 4:00 PM	7.63	7/24/2016 4:00 PM	7.66
7/22/2016 4:15 PM	7.51	7/23/2016 4:15 PM	7.64	7/24/2016 4:15 PM	7.64
7/22/2016 4:30 PM	7.51	7/23/2016 4:30 PM	7.63	7/24/2016 4:30 PM	7.62
7/22/2016 4:45 PM	7.49	7/23/2016 4:45 PM	7.61	7/24/2016 4:45 PM	7.62
7/22/2016 5:00 PM	7.54	7/23/2016 5:00 PM	7.61	7/24/2016 5:00 PM	7.61
7/22/2016 5:15 PM	7.55	7/23/2016 5:15 PM	7.66	7/24/2016 5:15 PM	7.61

7/22/2016 5:30 PM	7.55	7/23/2016 5:30 PM	7.64	7/24/2016 5:30 PM	7.61
7/22/2016 5:45 PM	7.55	7/23/2016 5:45 PM	7.62	7/24/2016 5:45 PM	7.61
7/22/2016 6:00 PM	7.56	7/23/2016 6:00 PM	7.61	7/24/2016 6:00 PM	7.61
7/22/2016 6:15 PM	7.56	7/23/2016 6:15 PM	7.61	7/24/2016 6:15 PM	7.64
7/22/2016 6:30 PM	7.55	7/23/2016 6:30 PM	7.61	7/24/2016 6:30 PM	7.64
7/22/2016 6:45 PM	7.57	7/23/2016 6:45 PM	7.60	7/24/2016 6:45 PM	7.64
7/22/2016 7:00 PM	7.56	7/23/2016 7:00 PM	7.62	7/24/2016 7:00 PM	7.64
7/22/2016 7:15 PM	7.54	7/23/2016 7:15 PM	7.64	7/24/2016 7:15 PM	7.64
7/22/2016 7:30 PM	7.53	7/23/2016 7:30 PM	7.64	7/24/2016 7:30 PM	7.63
7/22/2016 7:45 PM	7.54	7/23/2016 7:45 PM	7.63	7/24/2016 7:45 PM	7.63
7/22/2016 8:00 PM	7.54	7/23/2016 8:00 PM	7.64	7/24/2016 8:00 PM	7.62
7/22/2016 8:15 PM	7.54	7/23/2016 8:15 PM	7.63	7/24/2016 8:15 PM	7.65
7/22/2016 8:30 PM	7.54	7/23/2016 8:30 PM	7.63	7/24/2016 8:30 PM	7.64
7/22/2016 8:45 PM	7.54	7/23/2016 8:45 PM	7.62	7/24/2016 8:45 PM	7.62
7/22/2016 9:00 PM	7.54	7/23/2016 9:00 PM	7.61	7/24/2016 9:00 PM	7.62
7/22/2016 9:15 PM	7.56	7/23/2016 9:15 PM	7.61	7/24/2016 9:15 PM	7.61
7/22/2016 9:30 PM	7.56	7/23/2016 9:30 PM	7.60	7/24/2016 9:30 PM	7.61
7/22/2016 9:45 PM	7.55	7/23/2016 9:45 PM	7.59	7/24/2016 9:45 PM	7.61
7/22/2016 10:00 PM	7.56	7/23/2016 10:00 PM	7.59	7/24/2016 10:00 PM	7.60
7/22/2016 10:15 PM	7.55	7/23/2016 10:15 PM	7.62	7/24/2016 10:15 PM	7.60
7/22/2016 10:30 PM	7.54	7/23/2016 10:30 PM	7.64	7/24/2016 10:30 PM	7.59
7/22/2016 10:45 PM	7.55	7/23/2016 10:45 PM	7.62	7/24/2016 10:45 PM	7.62
7/22/2016 11:00 PM	7.54	7/23/2016 11:00 PM	7.61	7/24/2016 11:00 PM	7.60
7/22/2016 11:15 PM	7.56	7/23/2016 11:15 PM	7.60	7/24/2016 11:15 PM	7.60
7/22/2016 11:30 PM	7.56	7/23/2016 11:30 PM	7.60	7/24/2016 11:30 PM	7.62
7/22/2016 11:45 PM	7.55	7/23/2016 11:45 PM	7.60	7/24/2016 11:45 PM	7.62
AVG	7.52	AVG	7.59	AVG	7.61

Date And Time	pH	Date And Time	pH	Date And Time	pH
7/25/2016 12:00 AM	7.60	7/26/2016 12:00 AM	7.56	7/27/2016 12:00 AM	7.53
7/25/2016 12:15 AM	7.59	7/26/2016 12:15 AM	7.55	7/27/2016 12:15 AM	7.52
7/25/2016 12:30 AM	7.59	7/26/2016 12:30 AM	7.55	7/27/2016 12:30 AM	7.53
7/25/2016 12:45 AM	7.59	7/26/2016 12:45 AM	7.55	7/27/2016 12:45 AM	7.55
7/25/2016 1:00 AM	7.58	7/26/2016 1:00 AM	7.55	7/27/2016 1:00 AM	7.53
7/25/2016 1:15 AM	7.58	7/26/2016 1:15 AM	7.57	7/27/2016 1:15 AM	7.52
7/25/2016 1:30 AM	7.58	7/26/2016 1:30 AM	7.56	7/27/2016 1:30 AM	7.51
7/25/2016 1:45 AM	7.58	7/26/2016 1:45 AM	7.55	7/27/2016 1:45 AM	7.51
7/25/2016 2:00 AM	7.57	7/26/2016 2:00 AM	7.54	7/27/2016 2:00 AM	7.51
7/25/2016 2:15 AM	7.59	7/26/2016 2:15 AM	7.54	7/27/2016 2:15 AM	7.53
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7/25/2016 2:45 AM	7.58	7/26/2016 2:45 AM	7.55	7/27/2016 2:45 AM	7.52
7/25/2016 3:00 AM	7.58	7/26/2016 3:00 AM	7.54	7/27/2016 3:00 AM	7.52
7/25/2016 3:15 AM	7.59	7/26/2016 3:15 AM	7.54	7/27/2016 3:15 AM	7.51
7/25/2016 3:30 AM	7.60	7/26/2016 3:30 AM	7.54	7/27/2016 3:30 AM	7.51
7/25/2016 3:45 AM	7.59	7/26/2016 3:45 AM	7.55	7/27/2016 3:45 AM	7.51
7/25/2016 4:00 AM	7.59	7/26/2016 4:00 AM	7.54	7/27/2016 4:00 AM	7.51
7/25/2016 4:15 AM	7.57	7/26/2016 4:15 AM	7.54	7/27/2016 4:15 AM	7.53
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7/25/2016 4:45 AM	7.57	7/26/2016 4:45 AM	7.53	7/27/2016 4:45 AM	7.53
7/25/2016 5:00 AM	7.57	7/26/2016 5:00 AM	7.54	7/27/2016 5:00 AM	7.52
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7/25/2016 5:30 AM	7.58	7/26/2016 5:30 AM	7.54	7/27/2016 5:30 AM	7.52
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7/25/2016 6:00 AM	7.57	7/26/2016 6:00 AM	7.53	7/27/2016 6:00 AM	7.51
7/25/2016 6:15 AM	7.57	7/26/2016 6:15 AM	7.51	7/27/2016 6:15 AM	7.50
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7/25/2016 6:45 AM	7.57	7/26/2016 6:45 AM	7.55	7/27/2016 6:45 AM	7.50
7/25/2016 7:00 AM	7.56	7/26/2016 7:00 AM	7.54	7/27/2016 7:00 AM	7.50
7/25/2016 7:15 AM	7.56	7/26/2016 7:15 AM	7.54	7/27/2016 7:15 AM	7.50
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7/25/2016 7:45 AM	7.58	7/26/2016 7:45 AM	7.55	7/27/2016 7:45 AM	7.51
7/25/2016 8:00 AM	7.59	7/26/2016 8:00 AM	7.55	7/27/2016 8:00 AM	7.51
7/25/2016 8:15 AM	7.60	7/26/2016 8:15 AM	7.55	7/27/2016 8:15 AM	7.51
7/25/2016 8:30 AM	7.60	7/26/2016 8:30 AM	7.53	7/27/2016 8:30 AM	7.50
7/25/2016 8:45 AM	7.60	7/26/2016 8:45 AM	7.52	7/27/2016 8:45 AM	7.50
7/25/2016 9:00 AM	7.59	7/26/2016 9:00 AM	7.52	7/27/2016 9:00 AM	7.49
7/25/2016 9:15 AM	7.58	7/26/2016 9:15 AM	7.51	7/27/2016 9:15 AM	7.54
7/25/2016 9:30 AM	7.61	7/26/2016 9:30 AM	7.50	7/27/2016 9:30 AM	7.54
7/25/2016 9:45 AM	7.59	7/26/2016 9:45 AM	7.49	7/27/2016 9:45 AM	7.54
7/25/2016 10:00 AM	7.57	7/26/2016 10:00 AM	7.49	7/27/2016 10:00 AM	7.54
7/25/2016 10:15 AM	7.55	7/26/2016 10:15 AM	7.54	7/27/2016 10:15 AM	7.53
7/25/2016 10:30 AM	7.55	7/26/2016 10:30 AM	7.53	7/27/2016 10:30 AM	7.54
7/25/2016 10:45 AM	7.54	7/26/2016 10:45 AM	7.50	7/27/2016 10:45 AM	7.54
7/25/2016 11:00 AM	7.53	7/26/2016 11:00 AM	7.54	7/27/2016 11:00 AM	7.53
7/25/2016 11:15 AM	7.52	7/26/2016 11:15 AM	7.55	7/27/2016 11:15 AM	7.54
7/25/2016 11:30 AM	7.53	7/26/2016 11:30 AM	7.55	7/27/2016 11:30 AM	7.53
7/25/2016 11:45 AM	7.57	7/26/2016 11:45 AM	7.56	7/27/2016 11:45 AM	7.50
7/25/2016 12:00 PM	7.58	7/26/2016 12:00 PM	7.56	7/27/2016 12:00 PM	7.49
7/25/2016 12:15 PM	7.59	7/26/2016 12:15 PM	7.55	7/27/2016 12:15 PM	7.49
7/25/2016 12:30 PM	7.59	7/26/2016 12:30 PM	7.55	7/27/2016 12:30 PM	7.49
7/25/2016 12:45 PM	7.58	7/26/2016 12:45 PM	7.57	7/27/2016 12:45 PM	7.48
7/25/2016 1:00 PM	7.58	7/26/2016 1:00 PM	7.57	7/27/2016 1:00 PM	7.48
7/25/2016 1:15 PM	7.58	7/26/2016 1:15 PM	7.55	7/27/2016 1:15 PM	7.51
7/25/2016 1:30 PM	7.58	7/26/2016 1:30 PM	7.53	7/27/2016 1:30 PM	7.54
7/25/2016 1:45 PM	7.58	7/26/2016 1:45 PM	7.53	7/27/2016 1:45 PM	7.54
7/25/2016 2:00 PM	7.60	7/26/2016 2:00 PM	7.53	7/27/2016 2:00 PM	7.55
7/25/2016 2:15 PM	7.60	7/26/2016 2:15 PM	7.53	7/27/2016 2:15 PM	7.55
7/25/2016 2:30 PM	7.58	7/26/2016 2:30 PM	7.52	7/27/2016 2:30 PM	7.55
7/25/2016 2:45 PM	7.56	7/26/2016 2:45 PM	7.50	7/27/2016 2:45 PM	7.55
7/25/2016 3:00 PM	7.56	7/26/2016 3:00 PM	7.55	7/27/2016 3:00 PM	7.55
7/25/2016 3:15 PM	7.57	7/26/2016 3:15 PM	7.56	7/27/2016 3:15 PM	7.53
7/25/2016 3:30 PM	7.57	7/26/2016 3:30 PM	7.57	7/27/2016 3:30 PM	7.53
7/25/2016 3:45 PM	7.57	7/26/2016 3:45 PM	7.57	7/27/2016 3:45 PM	7.57
7/25/2016 4:00 PM	7.57	7/26/2016 4:00 PM	7.57	7/27/2016 4:00 PM	7.56
7/25/2016 4:15 PM	7.58	7/26/2016 4:15 PM	7.56	7/27/2016 4:15 PM	7.54
7/25/2016 4:30 PM	7.58	7/26/2016 4:30 PM	7.56	7/27/2016 4:30 PM	7.53
7/25/2016 4:45 PM	7.58	7/26/2016 4:45 PM	7.55	7/27/2016 4:45 PM	7.53
7/25/2016 5:00 PM	7.56	7/26/2016 5:00 PM	7.55	7/27/2016 5:00 PM	7.52
7/25/2016 5:15 PM	7.59	7/26/2016 5:15 PM	7.58	7/27/2016 5:15 PM	7.52

7/25/2016 5:30 PM	7.60	7/26/2016 5:30 PM	7.57	7/27/2016 5:30 PM	7.52
7/25/2016 5:45 PM	7.61	7/26/2016 5:45 PM	7.55	7/27/2016 5:45 PM	7.52
7/25/2016 6:00 PM	7.61	7/26/2016 6:00 PM	7.54	7/27/2016 6:00 PM	7.52
7/25/2016 6:15 PM	7.60	7/26/2016 6:15 PM	7.54	7/27/2016 6:15 PM	7.55
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7/25/2016 6:45 PM	7.60	7/26/2016 6:45 PM	7.53	7/27/2016 6:45 PM	7.51
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7/25/2016 7:15 PM	7.58	7/26/2016 7:15 PM	7.53	7/27/2016 7:15 PM	7.53
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7/25/2016 7:45 PM	7.57	7/26/2016 7:45 PM	7.55	7/27/2016 7:45 PM	7.52
7/25/2016 8:00 PM	7.57	7/26/2016 8:00 PM	7.55	7/27/2016 8:00 PM	7.52
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7/25/2016 9:30 PM	7.58	7/26/2016 9:30 PM	7.55	7/27/2016 9:30 PM	7.51
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7/25/2016 10:15 PM	7.58	7/26/2016 10:15 PM	7.53	7/27/2016 10:15 PM	7.51
7/25/2016 10:30 PM	7.57	7/26/2016 10:30 PM	7.53	7/27/2016 10:30 PM	7.54
7/25/2016 10:45 PM	7.57	7/26/2016 10:45 PM	7.53	7/27/2016 10:45 PM	7.53
7/25/2016 11:00 PM	7.57	7/26/2016 11:00 PM	7.52	7/27/2016 11:00 PM	7.51
7/25/2016 11:15 PM	7.57	7/26/2016 11:15 PM	7.52	7/27/2016 11:15 PM	7.54
7/25/2016 11:30 PM	7.56	7/26/2016 11:30 PM	7.52	7/27/2016 11:30 PM	7.54
7/25/2016 11:45 PM	7.56	7/26/2016 11:45 PM	7.54	7/27/2016 11:45 PM	7.54
AVG	7.58	AVG	7.54	AVG	7.52

Date And Time	pH	Date And Time	pH	Date And Time	pH
7/28/2016 12:00 AM	7.53	7/29/2016 12:00 AM	7.48	7/30/2016 12:00 AM	7.34
7/28/2016 12:15 AM	7.53	7/29/2016 12:15 AM	7.48	7/30/2016 12:15 AM	7.34
7/28/2016 12:30 AM	7.52	7/29/2016 12:30 AM	7.48	7/30/2016 12:30 AM	7.34
7/28/2016 12:45 AM	7.51	7/29/2016 12:45 AM	7.48	7/30/2016 12:45 AM	7.34
7/28/2016 1:00 AM	7.51	7/29/2016 1:00 AM	7.48	7/30/2016 1:00 AM	7.34
7/28/2016 1:15 AM	7.51	7/29/2016 1:15 AM	7.47	7/30/2016 1:15 AM	7.34
7/28/2016 1:30 AM	7.50	7/29/2016 1:30 AM	7.52	7/30/2016 1:30 AM	7.33
7/28/2016 1:45 AM	7.50	7/29/2016 1:45 AM	7.51	7/30/2016 1:45 AM	7.33
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7/28/2016 2:15 AM	7.49	7/29/2016 2:15 AM	7.50	7/30/2016 2:15 AM	7.33
7/28/2016 2:30 AM	7.49	7/29/2016 2:30 AM	7.50	7/30/2016 2:30 AM	7.33
7/28/2016 2:45 AM	7.49	7/29/2016 2:45 AM	7.49	7/30/2016 2:45 AM	7.33
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7/28/2016 3:15 AM	7.48	7/29/2016 3:15 AM	7.48	7/30/2016 3:15 AM	7.33
7/28/2016 3:30 AM	7.48	7/29/2016 3:30 AM	7.47	7/30/2016 3:30 AM	7.33
7/28/2016 3:45 AM	7.47	7/29/2016 3:45 AM	7.49	7/30/2016 3:45 AM	7.33
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7/28/2016 4:15 AM	7.47	7/29/2016 4:15 AM	7.48	7/30/2016 4:15 AM	7.33
7/28/2016 4:30 AM	7.46	7/29/2016 4:30 AM	7.48	7/30/2016 4:30 AM	7.33
7/28/2016 4:45 AM	7.46	7/29/2016 4:45 AM	7.48	7/30/2016 4:45 AM	7.33
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7/28/2016 5:15 AM	7.51	7/29/2016 5:15 AM	7.48	7/30/2016 5:15 AM	7.33
7/28/2016 5:30 AM	7.51	7/29/2016 5:30 AM	7.48	7/30/2016 5:30 AM	7.33
7/28/2016 5:45 AM	7.50	7/29/2016 5:45 AM	7.49	7/30/2016 5:45 AM	7.33
7/28/2016 6:00 AM	7.50	7/29/2016 6:00 AM	7.52	7/30/2016 6:00 AM	7.33
7/28/2016 6:15 AM	7.50	7/29/2016 6:15 AM	7.51	7/30/2016 6:15 AM	7.52
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7/28/2016 6:45 AM	7.49	7/29/2016 6:45 AM	7.50	7/30/2016 6:45 AM	7.49
7/28/2016 7:00 AM	7.49	7/29/2016 7:00 AM	7.50	7/30/2016 7:00 AM	7.48
7/28/2016 7:15 AM	7.49	7/29/2016 7:15 AM	7.49	7/30/2016 7:15 AM	7.47
7/28/2016 7:30 AM	7.50	7/29/2016 7:30 AM	7.49	7/30/2016 7:30 AM	7.46
7/28/2016 7:45 AM	7.52	7/29/2016 7:45 AM	7.48	7/30/2016 7:45 AM	7.46
7/28/2016 8:00 AM	7.52	7/29/2016 8:00 AM	7.48	7/30/2016 8:00 AM	7.46
7/28/2016 8:15 AM	7.53	7/29/2016 8:15 AM	7.49	7/30/2016 8:15 AM	7.45
7/28/2016 8:30 AM	7.51	7/29/2016 8:30 AM	7.49	7/30/2016 8:30 AM	7.47
7/28/2016 8:45 AM	7.50	7/29/2016 8:45 AM	7.48	7/30/2016 8:45 AM	7.46
7/28/2016 9:00 AM	7.51	7/29/2016 9:00 AM	7.48	7/30/2016 9:00 AM	7.44
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7/28/2016 9:30 AM	7.50	7/29/2016 9:30 AM	7.48	7/30/2016 9:30 AM	7.43
7/28/2016 9:45 AM	7.52	7/29/2016 9:45 AM	7.48	7/30/2016 9:45 AM	7.43
7/28/2016 10:00 AM	7.52	7/29/2016 10:00 AM	7.48	7/30/2016 10:00 AM	7.42
7/28/2016 10:15 AM	7.51	7/29/2016 10:15 AM	7.50	7/30/2016 10:15 AM	7.43
7/28/2016 10:30 AM	7.50	7/29/2016 10:30 AM	7.51	7/30/2016 10:30 AM	7.44
7/28/2016 10:45 AM	7.50	7/29/2016 10:45 AM	7.50	7/30/2016 10:45 AM	7.44
7/28/2016 11:00 AM	7.49	7/29/2016 11:00 AM	7.50	7/30/2016 11:00 AM	7.48
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7/28/2016 11:45 AM	7.46	7/29/2016 11:45 AM	7.50	7/30/2016 11:45 AM	7.46
7/28/2016 12:00 PM	7.49	7/29/2016 12:00 PM	7.52	7/30/2016 12:00 PM	7.46
7/28/2016 12:15 PM	7.51	7/29/2016 12:15 PM	7.51	7/30/2016 12:15 PM	7.46
7/28/2016 12:30 PM	7.51	7/29/2016 12:30 PM	7.50	7/30/2016 12:30 PM	7.46
7/28/2016 12:45 PM	7.51	7/29/2016 12:45 PM	7.50	7/30/2016 12:45 PM	7.46
7/28/2016 1:00 PM	7.51	7/29/2016 1:00 PM	7.49	7/30/2016 1:00 PM	7.46
7/28/2016 1:15 PM	7.51	7/29/2016 1:15 PM	7.50	7/30/2016 1:15 PM	7.47
7/28/2016 1:30 PM	7.51	7/29/2016 1:30 PM	7.50	7/30/2016 1:30 PM	7.53
7/28/2016 1:45 PM	7.50	7/29/2016 1:45 PM	7.49	7/30/2016 1:45 PM	7.50
7/28/2016 2:00 PM	7.51	7/29/2016 2:00 PM	7.50	7/30/2016 2:00 PM	7.49

7/28/2016 2:15 PM	7.52	7/29/2016 2:15 PM	7.50	7/30/2016 2:15 PM	7.50
7/28/2016 2:30 PM	7.51	7/29/2016 2:30 PM	7.51	7/30/2016 2:30 PM	7.50
7/28/2016 2:45 PM	7.50	7/29/2016 2:45 PM	7.48	7/30/2016 2:45 PM	7.51
7/28/2016 3:00 PM	7.49	7/29/2016 3:00 PM	7.47	7/30/2016 3:00 PM	7.51
7/28/2016 3:15 PM	7.49	7/29/2016 3:15 PM	7.46	7/30/2016 3:15 PM	7.53
7/28/2016 3:30 PM	7.57	7/29/2016 3:30 PM	7.45	7/30/2016 3:30 PM	7.54
7/28/2016 3:45 PM	7.54	7/29/2016 3:45 PM	7.45	7/30/2016 3:45 PM	7.58
7/28/2016 4:00 PM	7.52	7/29/2016 4:00 PM	7.45	7/30/2016 4:00 PM	7.57
7/28/2016 4:15 PM	7.51	7/29/2016 4:15 PM	7.44	7/30/2016 4:15 PM	7.57
7/28/2016 4:30 PM	7.51	7/29/2016 4:30 PM	7.43	7/30/2016 4:30 PM	7.57
7/28/2016 4:45 PM	7.51	7/29/2016 4:45 PM	7.42	7/30/2016 4:45 PM	7.57
7/28/2016 5:00 PM	7.50	7/29/2016 5:00 PM	7.41	7/30/2016 5:00 PM	7.57
7/28/2016 5:15 PM	7.51	7/29/2016 5:15 PM	7.41	7/30/2016 5:15 PM	7.57
7/28/2016 5:30 PM	7.50	7/29/2016 5:30 PM	7.41	7/30/2016 5:30 PM	7.59
7/28/2016 5:45 PM	7.50	7/29/2016 5:45 PM	7.41	7/30/2016 5:45 PM	7.59
7/28/2016 6:00 PM	7.49	7/29/2016 6:00 PM	7.40	7/30/2016 6:00 PM	7.59
7/28/2016 6:15 PM	7.49	7/29/2016 6:15 PM	7.40	7/30/2016 6:15 PM	7.59
7/28/2016 6:30 PM	7.49	7/29/2016 6:30 PM	7.42	7/30/2016 6:30 PM	7.64
7/28/2016 6:45 PM	7.50	7/29/2016 6:45 PM	7.41	7/30/2016 6:45 PM	7.62
7/28/2016 7:00 PM	7.50	7/29/2016 7:00 PM	7.40	7/30/2016 7:00 PM	7.62
7/28/2016 7:15 PM	7.49	7/29/2016 7:15 PM	7.39	7/30/2016 7:15 PM	7.62
7/28/2016 7:30 PM	7.49	7/29/2016 7:30 PM	7.38	7/30/2016 7:30 PM	7.62
7/28/2016 7:45 PM	7.49	7/29/2016 7:45 PM	7.38	7/30/2016 7:45 PM	7.63
7/28/2016 8:00 PM	7.49	7/29/2016 8:00 PM	7.38	7/30/2016 8:00 PM	7.63
7/28/2016 8:15 PM	7.49	7/29/2016 8:15 PM	7.37	7/30/2016 8:15 PM	7.63
7/28/2016 8:30 PM	7.48	7/29/2016 8:30 PM	7.35	7/30/2016 8:30 PM	7.64
7/28/2016 8:45 PM	7.46	7/29/2016 8:45 PM	7.36	7/30/2016 8:45 PM	7.63
7/28/2016 9:00 PM	7.51	7/29/2016 9:00 PM	7.36	7/30/2016 9:00 PM	7.69
7/28/2016 9:15 PM	7.51	7/29/2016 9:15 PM	7.35	7/30/2016 9:15 PM	7.67
7/28/2016 9:30 PM	7.51	7/29/2016 9:30 PM	7.35	7/30/2016 9:30 PM	7.67
7/28/2016 9:45 PM	7.50	7/29/2016 9:45 PM	7.35	7/30/2016 9:45 PM	7.66
7/28/2016 10:00 PM	7.50	7/29/2016 10:00 PM	7.35	7/30/2016 10:00 PM	7.67
7/28/2016 10:15 PM	7.49	7/29/2016 10:15 PM	7.35	7/30/2016 10:15 PM	7.67
7/28/2016 10:30 PM	7.49	7/29/2016 10:30 PM	7.35	7/30/2016 10:30 PM	7.67
7/28/2016 10:45 PM	7.48	7/29/2016 10:45 PM	7.35	7/30/2016 10:45 PM	7.68
7/28/2016 11:00 PM	7.48	7/29/2016 11:00 PM	7.34	7/30/2016 11:00 PM	7.68
7/28/2016 11:15 PM	7.49	7/29/2016 11:15 PM	7.34	7/30/2016 11:15 PM	7.71
7/28/2016 11:30 PM	7.49	7/29/2016 11:30 PM	7.34	7/30/2016 11:30 PM	7.73
7/28/2016 11:45 PM	7.48	7/29/2016 11:45 PM	7.34	7/30/2016 11:45 PM	7.70
AVG	7.50	AVG	7.45	AVG	7.49

Date And Time	pH
7/31/2016 12:00 AM	7.70
7/31/2016 12:15 AM	7.69
7/31/2016 12:30 AM	7.70
7/31/2016 12:45 AM	7.70
7/31/2016 1:00 AM	7.70
7/31/2016 1:15 AM	7.70
7/31/2016 1:30 AM	7.70
7/31/2016 1:45 AM	7.73
7/31/2016 2:00 AM	7.75
7/31/2016 2:15 AM	7.72
7/31/2016 2:30 AM	7.72
7/31/2016 2:45 AM	7.72
7/31/2016 3:00 AM	7.72
7/31/2016 3:15 AM	7.72
7/31/2016 3:30 AM	7.72
7/31/2016 3:45 AM	7.73
7/31/2016 4:00 AM	7.77
7/31/2016 4:15 AM	7.76
7/31/2016 4:30 AM	7.76
7/31/2016 4:45 AM	7.75
7/31/2016 5:00 AM	7.74
7/31/2016 5:15 AM	7.74
7/31/2016 5:30 AM	7.73
7/31/2016 5:45 AM	7.74
7/31/2016 6:00 AM	7.73
7/31/2016 6:15 AM	7.73
7/31/2016 6:30 AM	7.73
7/31/2016 6:45 AM	7.73

MIN	**7.21**
MAX	**7.77**

7/31/2016 7:00 AM	7.72
7/31/2016 7:15 AM	7.72
7/31/2016 7:30 AM	7.72
7/31/2016 7:45 AM	7.72
7/31/2016 8:00 AM	7.76
7/31/2016 8:15 AM	7.76
7/31/2016 8:30 AM	7.76
7/31/2016 8:45 AM	7.75
7/31/2016 9:00 AM	7.74
7/31/2016 9:15 AM	7.74
7/31/2016 9:30 AM	7.74
7/31/2016 9:45 AM	7.73
7/31/2016 10:00 AM	7.73
7/31/2016 10:15 AM	7.72
7/31/2016 10:30 AM	7.71
7/31/2016 10:45 AM	7.70
7/31/2016 11:00 AM	7.69
7/31/2016 11:15 AM	7.68
7/31/2016 11:30 AM	7.68
7/31/2016 11:45 AM	7.72
7/31/2016 12:00 PM	7.74
7/31/2016 12:15 PM	7.67
7/31/2016 12:30 PM	7.69
7/31/2016 12:45 PM	7.72
7/31/2016 1:00 PM	7.72
7/31/2016 1:15 PM	7.73
7/31/2016 1:30 PM	7.72
7/31/2016 1:45 PM	7.73
7/31/2016 2:00 PM	7.74
7/31/2016 2:15 PM	7.76
7/31/2016 2:30 PM	7.76
7/31/2016 2:45 PM	7.74
7/31/2016 3:00 PM	7.74
7/31/2016 3:15 PM	7.73
7/31/2016 3:30 PM	7.73
7/31/2016 3:45 PM	7.73
7/31/2016 4:00 PM	7.73
7/31/2016 4:15 PM	7.73
7/31/2016 4:30 PM	7.71
7/31/2016 4:45 PM	7.74
7/31/2016 5:00 PM	7.73
7/31/2016 5:15 PM	7.70
7/31/2016 5:30 PM	7.74
7/31/2016 5:45 PM	7.72
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7/31/2016 6:15 PM	7.73
7/31/2016 6:30 PM	7.72
7/31/2016 6:45 PM	7.73
7/31/2016 7:00 PM	7.72
7/31/2016 7:15 PM	7.72
7/31/2016 7:30 PM	7.71
7/31/2016 7:45 PM	7.70
7/31/2016 8:00 PM	7.70
7/31/2016 8:15 PM	7.70
7/31/2016 8:30 PM	7.69
7/31/2016 8:45 PM	7.69
7/31/2016 9:00 PM	7.71
7/31/2016 9:15 PM	7.70
7/31/2016 9:30 PM	7.66
7/31/2016 9:45 PM	7.71
7/31/2016 10:00 PM	7.71
7/31/2016 10:15 PM	7.70
7/31/2016 10:30 PM	7.68
7/31/2016 10:45 PM	7.70
7/31/2016 11:00 PM	7.69
7/31/2016 11:15 PM	7.69
7/31/2016 11:30 PM	7.68
7/31/2016 11:45 PM	7.67
AVG	7.72

Avtex Fibers
Front Royal, VA
Outfall 004
July 2016 DMR

Sample Date	Sample ID	BOD, mg/L	BOD, kg/d	TSS, mg/L	TSS, kg/d
7/6/2016	AF7-6FE	0.0	0.00	0.0	0.00
7/14/2016	AF7-14FE	4.0	1.66	4.81	2.00
7/20/2016	AF7-20FE	0.0	0.00	0.0	0.00
7/27/2016	AF7-27FE	0.0	0.00	0.0	0.00
	Daily Maximum:	4.0	1.7	4.8	2.0
	Monthly Avg:	1.0	0.4	1.2	0.5

Monthly Average – Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in Part I.C.1 shall be determined as follows: All concentration data below the QL used for the analysis shall be treated as zero. All concentration data equal to or above the QL used for the analysis shall be treated as it is reported. An arithmetic average shall be calculated using all reported data for the month, including the defined zeros. This arithmetic average shall be reported on the Discharge Monitoring Report (DMR) as calculated. If all data are below the QL used for the analysis, then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported monthly average concentration is <QL, then report "<QL" for the quantity. Otherwise use the reported concentration data (including the defined zeros) and flow data for each sample day to determine the daily quantity and report the monthly average of the calculated daily quantities.

Daily Maximum – Compliance with the daily maximum limitations and/or reporting requirements for the parameters listed in Part I.C.1 shall be determined as follows: All concentration data below the QL used for the analysis shall be treated as zero. All concentration data equal to or above the QL used for the analysis shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each day during the reporting month. The maximum value of these daily averages thus determined shall be reported on the DMR as the Daily Maximum. If all data are below the QL used for the analysis, then the maximum value of the daily averages shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported daily maximum concentration is <QL, then report "<QL" for the quantity. Otherwise use the reported daily average concentrations (including the defined zeros) and corresponding daily flows to determine daily average quantities and report the maximum of the daily average quantities during the reporting month.

Loading Derivation
If 1 ppm (= 1 mg/L) and 1 MGD (= 1 MG/day)
--> (1 mg/L)(1 MG/day)(3.785 L/Gal)(10^6 Gal/MG)(1 lb/453,600 mg) = 8.34 lbs/day
--> lbs/day = ppm * 8.34 * MGD
--> kg/d = ppm * 8.34 * MGD * 0.4536*lb/d

Concentration Derivation
If 1 lb/d and 1 MGD (= 1 MG/day)
[(1 lbs/day)(453,600 mg/lb)] / [(1 MG/d)(10^6 Gal/MG)(3.785 L/Gal)]
--> ppm = lb/d * (1/8.34) * (1/MGD)

	BOD
7/6/2016	0
7/14/2016	1.660927821
7/20/2016	0
7/27/2016	0
AVG	0.415231955

	TSS
7/6/2016	0
7/14/2016	1.997265704
7/20/2016	0
7/27/2016	0
AVG	0.499316426

	CS2*
7/20/2016	<QL

*Note: CS2 EPA Test Method: 8260 MSV Low Level Analytical Method (EPA 8260)
Report Limit 2 ug/L
MDL 1.2 ug/L

FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104
USA

215.299.6000
fmc.com

Transmitted via Email

September 9, 2016

Department of Environmental Quality - CO
Office of Remediation Program
P.O. Box 1105
Richmond, VA 23218

Re: Submission of Discharge Monitoring Report – August 2016
Avtex Fibers Superfund Site
Front Royal, Virginia

Dear Ms Payne:

In accordance with the Applicable or Relevant and Appropriate Requirements (ARARs) and Fact Sheet provided July 22, 2014, FMC Corporation (FMC) is submitting the Discharge Monitoring Report (DMR) for the month of August 2016. The permit is for the discharge from the Groundwater and Leachate Treatment Plant (GLTP) located at 404 Kendrick Lane, Front Royal, VA. Analysis of effluent concentrations yielded results within the allowable limits for all parameters.

Please do not hesitate to call if there are any questions.

Sincerely,

FMC Corporation

Brian M. McGinnis, P.E.
Manager, Environmental Remediation

cc: via Email
Brandon Kiracofe, DEQ
Charlie Root, USEPA
Heather Philip, Parsons

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS: (Include Facility Name/Location if different) OMB No. 2040-004

NAME:	Avtex Fibers		NA		004		**DMR MAILING ZIP CODE:**		23218
ADDRESS:	404 Kendrick Lane		**PERMIT NUMBER**		**DISCHARGE NUMBER**				
	Front Royal, VA 22630						DESCRIPTION:		
			MONITORING PERIOD				GLTP EFFLUENT (OUTFALL 004)		
FACILITY:	AVTEX FIBERS		**YEAR**	**MO**	**DAY**		**YEAR**	**MO**	**DAY**	External Outfall
LOCATION:	FRONT ROYAL, VA	**FROM**	16	08	01	TO	16	08	31	**No Discharge**
ATTN:										

PARAMETER		QUANTITY OR LOADING VALUE	QUANTITY OR LOADING VALUE	QUANTITY OR LOADING UNITS	QUALITY OR CONCENTRATION VALUE	QUALITY OR CONCENTRATION VALUE	QUALITY OR CONCENTRATION VALUE	QUALITY OR CONCENTRATION UNITS	**NO. EX**	FREQUENCY OF ANALYSIS	**SAMPLE TYPE**
FLOW	**SAMPLE MEASUREMENT**	0.117	0.140	MGD	*****	*****	*****		0	CONTINUOUS	TIRE
00056 1 0 EFFLUENT GROSS	**PERMIT REQUIREMENT**	REPORT MONTHLY AV	REPORT DAILY MAX		******	******	******			CONTINUOUS	TIRE
PH	**SAMPLE MEASUREMENT**	*****	*****		6.9	*****	7.8	SU	0	CONTINUOUS	GRAB
00400 1 0 EFFLUENT GROSS	**PERMIT REQUIREMENT**	******	******		6.5 MINIMUM	******	9.0 MAXIMUM			CONTINUOUS	GRAB
BOD, 5-DAY	**SAMPLE MEASUREMENT**	0.2	1.1	kg/d	*****	0.4	2.0	mg/L	0	1/7	8 HC
00318 1 0 EFFLUENT GROSS	**PERMIT REQUIREMENT**	36 MONTHLY AV	96 DAILY MAX		******	24 MONTHLY AV	64 DAILY MX			1/7	8 HC
SOLIDS, TOTAL SUSPENDED	**SAMPLE MEASUREMENT**	0.4	0.7	kg/d	*****	0.8	1.6	mg/L	0	1/7	8 HC
03603 1 0 EFFLUENT GROSS	**PERMIT REQUIREMENT**	60 MONTHLY AV	190 DAILY MAX		******	40 MONTHLY AV	130 DAILY MX			1/7	8 HC
CARBON DISULFIDE	**SAMPLE MEASUREMENT**	<QL	<QL	kg/d	*****	<QL	<QL	mg/L	0	1/30	8 HC
77041 1 0 EFFLUENT GROSS	**PERMIT REQUIREMENT**	NL MONTHLY AV	NL DAILY MAX		******	NL MONTHLY AV	NL DAILY MX			1/30	8 HC

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
Brian McGinnis	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.	[signature]			16	09	09
Manager, Environmental Remediation		SIGNATURE OF PRINCIPAL EXECUTIVE	215	299-6047			
TYPED OR PRINTED		OFFICER OR AUTHORIZED AGENT	AREA	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

Attachment: pH compliance monitoring summary (monthly)

Carbon disulfide: No limit established; monitored monthly; 0.1 mg/L action level

EPA Form 3320-1 (Rev 01/06) Previous editions may be used.

Avtex Fibers
Front Royal, VA
Outfall 004
August 2016 DMR

pH Calculations:

Date And Time	pH	Date And Time	pH	Date And Time	pH
8/1/2016 12:00 AM	7.67	8/2/2016 12:00 AM	7.61	8/3/2016 12:00 AM	7.54
8/1/2016 12:15 AM	7.70	8/2/2016 12:15 AM	7.60	8/3/2016 12:15 AM	7.53
8/1/2016 12:30 AM	7.66	8/2/2016 12:30 AM	7.58	8/3/2016 12:30 AM	7.53
8/1/2016 12:45 AM	7.66	8/2/2016 12:45 AM	7.58	8/3/2016 12:45 AM	7.52
8/1/2016 1:00 AM	7.66	8/2/2016 1:00 AM	7.60	8/3/2016 1:00 AM	7.52
8/1/2016 1:15 AM	7.66	8/2/2016 1:15 AM	7.62	8/3/2016 1:15 AM	7.51
8/1/2016 1:30 AM	7.68	8/2/2016 1:30 AM	7.61	8/3/2016 1:30 AM	7.51
8/1/2016 1:45 AM	7.68	8/2/2016 1:45 AM	7.60	8/3/2016 1:45 AM	7.51
8/1/2016 2:00 AM	7.66	8/2/2016 2:00 AM	7.60	8/3/2016 2:00 AM	7.51
8/1/2016 2:15 AM	7.63	8/2/2016 2:15 AM	7.60	8/3/2016 2:15 AM	7.51
8/1/2016 2:30 AM	7.69	8/2/2016 2:30 AM	7.59	8/3/2016 2:30 AM	7.50
8/1/2016 2:45 AM	7.68	8/2/2016 2:45 AM	7.58	8/3/2016 2:45 AM	7.50
8/1/2016 3:00 AM	7.68	8/2/2016 3:00 AM	7.58	8/3/2016 3:00 AM	7.50
8/1/2016 3:15 AM	7.68	8/2/2016 3:15 AM	7.58	8/3/2016 3:15 AM	7.49
8/1/2016 3:30 AM	7.67	8/2/2016 3:30 AM	7.57	8/3/2016 3:30 AM	7.49
8/1/2016 3:45 AM	7.66	8/2/2016 3:45 AM	7.58	8/3/2016 3:45 AM	7.49
8/1/2016 4:00 AM	7.66	8/2/2016 4:00 AM	7.57	8/3/2016 4:00 AM	7.48
8/1/2016 4:15 AM	7.65	8/2/2016 4:15 AM	7.57	8/3/2016 4:15 AM	7.47
8/1/2016 4:30 AM	7.65	8/2/2016 4:30 AM	7.56	8/3/2016 4:30 AM	7.47
8/1/2016 4:45 AM	7.64	8/2/2016 4:45 AM	7.55	8/3/2016 4:45 AM	7.47
8/1/2016 5:00 AM	7.64	8/2/2016 5:00 AM	7.60	8/3/2016 5:00 AM	7.47
8/1/2016 5:15 AM	7.64	8/2/2016 5:15 AM	7.60	8/3/2016 5:15 AM	7.54
8/1/2016 5:30 AM	7.64	8/2/2016 5:30 AM	7.59	8/3/2016 5:30 AM	7.53
8/1/2016 5:45 AM	7.63	8/2/2016 5:45 AM	7.59	8/3/2016 5:45 AM	7.52
8/1/2016 6:00 AM	7.63	8/2/2016 6:00 AM	7.57	8/3/2016 6:00 AM	7.51
8/1/2016 6:15 AM	7.63	8/2/2016 6:15 AM	7.57	8/3/2016 6:15 AM	7.51
8/1/2016 6:30 AM	7.64	8/2/2016 6:30 AM	7.57	8/3/2016 6:30 AM	7.51
8/1/2016 6:45 AM	7.66	8/2/2016 6:45 AM	7.57	8/3/2016 6:45 AM	7.50
8/1/2016 7:00 AM	7.66	8/2/2016 7:00 AM	7.56	8/3/2016 7:00 AM	7.50
8/1/2016 7:15 AM	7.66	8/2/2016 7:15 AM	7.56	8/3/2016 7:15 AM	7.47
8/1/2016 7:30 AM	7.65	8/2/2016 7:30 AM	7.55	8/3/2016 7:30 AM	7.53
8/1/2016 7:45 AM	7.65	8/2/2016 7:45 AM	7.54	8/3/2016 7:45 AM	7.51
8/1/2016 8:00 AM	7.65	8/2/2016 8:00 AM	7.53	8/3/2016 8:00 AM	7.49
8/1/2016 8:15 AM	7.63	8/2/2016 8:15 AM	7.52	8/3/2016 8:15 AM	7.49
8/1/2016 8:30 AM	7.62	8/2/2016 8:30 AM	7.52	8/3/2016 8:30 AM	7.49
8/1/2016 8:45 AM	7.62	8/2/2016 8:45 AM	7.51	8/3/2016 8:45 AM	7.52
8/1/2016 9:00 AM	7.62	8/2/2016 9:00 AM	7.57	8/3/2016 9:00 AM	7.53
8/1/2016 9:15 AM	7.60	8/2/2016 9:15 AM	7.54	8/3/2016 9:15 AM	7.52
8/1/2016 9:30 AM	7.58	8/2/2016 9:30 AM	7.53	8/3/2016 9:30 AM	7.50
8/1/2016 9:45 AM	7.56	8/2/2016 9:45 AM	7.53	8/3/2016 9:45 AM	7.53
8/1/2016 10:00 AM	7.54	8/2/2016 10:00 AM	7.55	8/3/2016 10:00 AM	7.50
8/1/2016 10:15 AM	7.57	8/2/2016 10:15 AM	7.55	8/3/2016 10:15 AM	7.49
8/1/2016 10:30 AM	7.61	8/2/2016 10:30 AM	7.56	8/3/2016 10:30 AM	7.48
8/1/2016 10:45 AM	7.56	8/2/2016 10:45 AM	7.57	8/3/2016 10:45 AM	7.48
8/1/2016 11:00 AM	7.58	8/2/2016 11:00 AM	7.57	8/3/2016 11:00 AM	7.47

8/1/2016 11:15 AM	7.62	8/2/2016 11:15 AM	7.58	8/3/2016 11:15 AM	7.47
8/1/2016 11:30 AM	7.63	8/2/2016 11:30 AM	7.57	8/3/2016 11:30 AM	7.47
8/1/2016 11:45 AM	7.63	8/2/2016 11:45 AM	7.56	8/3/2016 11:45 AM	7.46
8/1/2016 12:00 PM	7.63	8/2/2016 12:00 PM	7.55	8/3/2016 12:00 PM	7.49
8/1/2016 12:15 PM	7.63	8/2/2016 12:15 PM	7.54	8/3/2016 12:15 PM	7.50
8/1/2016 12:30 PM	7.63	8/2/2016 12:30 PM	7.53	8/3/2016 12:30 PM	7.47
8/1/2016 12:45 PM	7.64	8/2/2016 12:45 PM	7.53	8/3/2016 12:45 PM	7.46
8/1/2016 1:00 PM	7.63	8/2/2016 1:00 PM	7.52	8/3/2016 1:00 PM	7.46
8/1/2016 1:15 PM	7.61	8/2/2016 1:15 PM	7.52	8/3/2016 1:15 PM	7.49
8/1/2016 1:30 PM	7.60	8/2/2016 1:30 PM	7.56	8/3/2016 1:30 PM	7.50
8/1/2016 1:45 PM	7.60	8/2/2016 1:45 PM	7.58	8/3/2016 1:45 PM	7.50
8/1/2016 2:00 PM	7.59	8/2/2016 2:00 PM	7.59	8/3/2016 2:00 PM	7.50
8/1/2016 2:15 PM	7.56	8/2/2016 2:15 PM	7.59	8/3/2016 2:15 PM	7.50
8/1/2016 2:30 PM	7.56	8/2/2016 2:30 PM	7.59	8/3/2016 2:30 PM	7.50
8/1/2016 2:45 PM	7.55	8/2/2016 2:45 PM	7.59	8/3/2016 2:45 PM	7.50
8/1/2016 3:00 PM	7.60	8/2/2016 3:00 PM	7.59	8/3/2016 3:00 PM	7.50
8/1/2016 3:15 PM	7.60	8/2/2016 3:15 PM	7.57	8/3/2016 3:15 PM	7.49
8/1/2016 3:30 PM	7.60	8/2/2016 3:30 PM	7.56	8/3/2016 3:30 PM	7.47
8/1/2016 3:45 PM	7.61	8/2/2016 3:45 PM	7.55	8/3/2016 3:45 PM	7.53
8/1/2016 4:00 PM	7.63	8/2/2016 4:00 PM	7.55	8/3/2016 4:00 PM	7.50
8/1/2016 4:15 PM	7.64	8/2/2016 4:15 PM	7.54	8/3/2016 4:15 PM	7.48
8/1/2016 4:30 PM	7.64	8/2/2016 4:30 PM	7.54	8/3/2016 4:30 PM	7.48
8/1/2016 4:45 PM	7.64	8/2/2016 4:45 PM	7.54	8/3/2016 4:45 PM	7.48
8/1/2016 5:00 PM	7.64	8/2/2016 5:00 PM	7.53	8/3/2016 5:00 PM	7.48
8/1/2016 5:15 PM	7.65	8/2/2016 5:15 PM	7.53	8/3/2016 5:15 PM	7.47
8/1/2016 5:30 PM	7.64	8/2/2016 5:30 PM	7.54	8/3/2016 5:30 PM	7.47
8/1/2016 5:45 PM	7.62	8/2/2016 5:45 PM	7.55	8/3/2016 5:45 PM	7.48
8/1/2016 6:00 PM	7.61	8/2/2016 6:00 PM	7.52	8/3/2016 6:00 PM	7.49
8/1/2016 6:15 PM	7.60	8/2/2016 6:15 PM	7.53	8/3/2016 6:15 PM	7.47
8/1/2016 6:30 PM	7.60	8/2/2016 6:30 PM	7.55	8/3/2016 6:30 PM	7.47
8/1/2016 6:45 PM	7.60	8/2/2016 6:45 PM	7.53	8/3/2016 6:45 PM	7.47
8/1/2016 7:00 PM	7.60	8/2/2016 7:00 PM	7.52	8/3/2016 7:00 PM	7.46
8/1/2016 7:15 PM	7.60	8/2/2016 7:15 PM	7.52	8/3/2016 7:15 PM	7.46
8/1/2016 7:30 PM	7.62	8/2/2016 7:30 PM	7.51	8/3/2016 7:30 PM	7.47
8/1/2016 7:45 PM	7.62	8/2/2016 7:45 PM	7.52	8/3/2016 7:45 PM	7.47
8/1/2016 8:00 PM	7.61	8/2/2016 8:00 PM	7.60	8/3/2016 8:00 PM	7.47
8/1/2016 8:15 PM	7.62	8/2/2016 8:15 PM	7.60	8/3/2016 8:15 PM	7.50
8/1/2016 8:30 PM	7.62	8/2/2016 8:30 PM	7.57	8/3/2016 8:30 PM	7.51
8/1/2016 8:45 PM	7.61	8/2/2016 8:45 PM	7.56	8/3/2016 8:45 PM	7.48
8/1/2016 9:00 PM	7.60	8/2/2016 9:00 PM	7.55	8/3/2016 9:00 PM	7.47
8/1/2016 9:15 PM	7.60	8/2/2016 9:15 PM	7.55	8/3/2016 9:15 PM	7.47
8/1/2016 9:30 PM	7.60	8/2/2016 9:30 PM	7.55	8/3/2016 9:30 PM	7.47
8/1/2016 9:45 PM	7.61	8/2/2016 9:45 PM	7.54	8/3/2016 9:45 PM	7.47
8/1/2016 10:00 PM	7.61	8/2/2016 10:00 PM	7.54	8/3/2016 10:00 PM	7.47
8/1/2016 10:15 PM	7.60	8/2/2016 10:15 PM	7.55	8/3/2016 10:15 PM	7.47
8/1/2016 10:30 PM	7.60	8/2/2016 10:30 PM	7.56	8/3/2016 10:30 PM	7.48
8/1/2016 10:45 PM	7.59	8/2/2016 10:45 PM	7.54	8/3/2016 10:45 PM	7.49
8/1/2016 11:00 PM	7.59	8/2/2016 11:00 PM	7.53	8/3/2016 11:00 PM	7.54
8/1/2016 11:15 PM	7.59	8/2/2016 11:15 PM	7.56	8/3/2016 11:15 PM	7.49
8/1/2016 11:30 PM	7.59	8/2/2016 11:30 PM	7.56	8/3/2016 11:30 PM	7.48
8/1/2016 11:45 PM	7.58	8/2/2016 11:45 PM	7.54	8/3/2016 11:45 PM	7.48
AVG	7.62	AVG	7.56	AVG	7.49

Date And Time	pH	Date And Time	pH	Date And Time	pH
8/4/2016 12:00 AM	7.48	8/5/2016 12:00 AM	7.39	8/6/2016 12:00 AM	7.25
8/4/2016 12:15 AM	7.48	8/5/2016 12:15 AM	7.37	8/6/2016 12:15 AM	7.25
8/4/2016 12:30 AM	7.48	8/5/2016 12:30 AM	7.36	8/6/2016 12:30 AM	7.25
8/4/2016 12:45 AM	7.49	8/5/2016 12:45 AM	7.36	8/6/2016 12:45 AM	7.32
8/4/2016 1:00 AM	7.54	8/5/2016 1:00 AM	7.36	8/6/2016 1:00 AM	7.33
8/4/2016 1:15 AM	7.54	8/5/2016 1:15 AM	7.35	8/6/2016 1:15 AM	7.32
8/4/2016 1:30 AM	7.52	8/5/2016 1:30 AM	7.35	8/6/2016 1:30 AM	7.31
8/4/2016 1:45 AM	7.50	8/5/2016 1:45 AM	7.35	8/6/2016 1:45 AM	7.28
8/4/2016 2:00 AM	7.50	8/5/2016 2:00 AM	7.34	8/6/2016 2:00 AM	7.24
8/4/2016 2:15 AM	7.50	8/5/2016 2:15 AM	7.41	8/6/2016 2:15 AM	7.31
8/4/2016 2:30 AM	7.50	8/5/2016 2:30 AM	7.37	8/6/2016 2:30 AM	7.32
8/4/2016 2:45 AM	7.49	8/5/2016 2:45 AM	7.35	8/6/2016 2:45 AM	7.31
8/4/2016 3:00 AM	7.49	8/5/2016 3:00 AM	7.34	8/6/2016 3:00 AM	7.28
8/4/2016 3:15 AM	7.49	8/5/2016 3:15 AM	7.41	8/6/2016 3:15 AM	7.26
8/4/2016 3:30 AM	7.49	8/5/2016 3:30 AM	7.41	8/6/2016 3:30 AM	7.25
8/4/2016 3:45 AM	7.53	8/5/2016 3:45 AM	7.41	8/6/2016 3:45 AM	7.24
8/4/2016 4:00 AM	7.54	8/5/2016 4:00 AM	7.40	8/6/2016 4:00 AM	7.24
8/4/2016 4:15 AM	7.50	8/5/2016 4:15 AM	7.39	8/6/2016 4:15 AM	7.24
8/4/2016 4:30 AM	7.50	8/5/2016 4:30 AM	7.36	8/6/2016 4:30 AM	7.23
8/4/2016 4:45 AM	7.49	8/5/2016 4:45 AM	7.35	8/6/2016 4:45 AM	7.23
8/4/2016 5:00 AM	7.50	8/5/2016 5:00 AM	7.34	8/6/2016 5:00 AM	7.23
8/4/2016 5:15 AM	7.55	8/5/2016 5:15 AM	7.33	8/6/2016 5:15 AM	7.30
8/4/2016 5:30 AM	7.54	8/5/2016 5:30 AM	7.33	8/6/2016 5:30 AM	7.26
8/4/2016 5:45 AM	7.54	8/5/2016 5:45 AM	7.33	8/6/2016 5:45 AM	7.23
8/4/2016 6:00 AM	7.53	8/5/2016 6:00 AM	7.32	8/6/2016 6:00 AM	7.22
8/4/2016 6:15 AM	7.51	8/5/2016 6:15 AM	7.32	8/6/2016 6:15 AM	7.30
8/4/2016 6:30 AM	7.50	8/5/2016 6:30 AM	7.31	8/6/2016 6:30 AM	7.30
8/4/2016 6:45 AM	7.50	8/5/2016 6:45 AM	7.39	8/6/2016 6:45 AM	7.29
8/4/2016 7:00 AM	7.50	8/5/2016 7:00 AM	7.34	8/6/2016 7:00 AM	7.29
8/4/2016 7:15 AM	7.50	8/5/2016 7:15 AM	7.30	8/6/2016 7:15 AM	7.28
8/4/2016 7:30 AM	7.49	8/5/2016 7:30 AM	7.40	8/6/2016 7:30 AM	7.27
8/4/2016 7:45 AM	7.49	8/5/2016 7:45 AM	7.40	8/6/2016 7:45 AM	7.27
8/4/2016 8:00 AM	7.48	8/5/2016 8:00 AM	7.39	8/6/2016 8:00 AM	7.27
8/4/2016 8:15 AM	7.54	8/5/2016 8:15 AM	7.38	8/6/2016 8:15 AM	7.28
8/4/2016 8:30 AM	7.50	8/5/2016 8:30 AM	7.37	8/6/2016 8:30 AM	7.27
8/4/2016 8:45 AM	7.48	8/5/2016 8:45 AM	7.37	8/6/2016 8:45 AM	7.27
8/4/2016 9:00 AM	7.48	8/5/2016 9:00 AM	7.35	8/6/2016 9:00 AM	7.23
8/4/2016 9:15 AM	7.48	8/5/2016 9:15 AM	7.32	8/6/2016 9:15 AM	7.21
8/4/2016 9:30 AM	7.53	8/5/2016 9:30 AM	7.32	8/6/2016 9:30 AM	7.19
8/4/2016 9:45 AM	7.53	8/5/2016 9:45 AM	7.31	8/6/2016 9:45 AM	7.17
8/4/2016 10:00 AM	7.52	8/5/2016 10:00 AM	7.30	8/6/2016 10:00 AM	7.16
8/4/2016 10:15 AM	7.52	8/5/2016 10:15 AM	7.29	8/6/2016 10:15 AM	7.22
8/4/2016 10:30 AM	7.54	8/5/2016 10:30 AM	7.29	8/6/2016 10:30 AM	7.23
8/4/2016 10:45 AM	7.54	8/5/2016 10:45 AM	7.27	8/6/2016 10:45 AM	7.23
8/4/2016 11:00 AM	7.54	8/5/2016 11:00 AM	7.35	8/6/2016 11:00 AM	7.24
8/4/2016 11:15 AM	7.54	8/5/2016 11:15 AM	7.33	8/6/2016 11:15 AM	7.24
8/4/2016 11:30 AM	7.54	8/5/2016 11:30 AM	7.29	8/6/2016 11:30 AM	7.22
8/4/2016 11:45 AM	7.54	8/5/2016 11:45 AM	7.28	8/6/2016 11:45 AM	7.22
8/4/2016 12:00 PM	7.54	8/5/2016 12:00 PM	7.35	8/6/2016 12:00 PM	7.24
8/4/2016 12:15 PM	7.54	8/5/2016 12:15 PM	7.37	8/6/2016 12:15 PM	7.22
8/4/2016 12:30 PM	7.54	8/5/2016 12:30 PM	7.37	8/6/2016 12:30 PM	7.19
8/4/2016 12:45 PM	7.54	8/5/2016 12:45 PM	7.37	8/6/2016 12:45 PM	7.19
8/4/2016 1:00 PM	7.54	8/5/2016 1:00 PM	7.36	8/6/2016 1:00 PM	7.19
8/4/2016 1:15 PM	7.54	8/5/2016 1:15 PM	7.35	8/6/2016 1:15 PM	7.14
8/4/2016 1:30 PM	7.54	8/5/2016 1:30 PM	7.34	8/6/2016 1:30 PM	7.18
8/4/2016 1:45 PM	7.79	8/5/2016 1:45 PM	7.32	8/6/2016 1:45 PM	7.21
8/4/2016 2:00 PM	7.55	8/5/2016 2:00 PM	7.30	8/6/2016 2:00 PM	7.20
8/4/2016 2:15 PM	7.58	8/5/2016 2:15 PM	7.29	8/6/2016 2:15 PM	7.27
8/4/2016 2:30 PM	7.63	8/5/2016 2:30 PM	7.28	8/6/2016 2:30 PM	7.23
8/4/2016 2:45 PM	7.57	8/5/2016 2:45 PM	7.28	8/6/2016 2:45 PM	7.20
8/4/2016 3:00 PM	7.48	8/5/2016 3:00 PM	7.28	8/6/2016 3:00 PM	7.22
8/4/2016 3:15 PM	7.47	8/5/2016 3:15 PM	7.28	8/6/2016 3:15 PM	7.26
8/4/2016 3:30 PM	7.45	8/5/2016 3:30 PM	7.28	8/6/2016 3:30 PM	7.27
8/4/2016 3:45 PM	7.44	8/5/2016 3:45 PM	7.35	8/6/2016 3:45 PM	7.27
8/4/2016 4:00 PM	7.43	8/5/2016 4:00 PM	7.36	8/6/2016 4:00 PM	7.27
8/4/2016 4:15 PM	7.43	8/5/2016 4:15 PM	7.36	8/6/2016 4:15 PM	7.27
8/4/2016 4:30 PM	7.42	8/5/2016 4:30 PM	7.35	8/6/2016 4:30 PM	7.26
8/4/2016 4:45 PM	7.42	8/5/2016 4:45 PM	7.35	8/6/2016 4:45 PM	7.26
8/4/2016 5:00 PM	7.41	8/5/2016 5:00 PM	7.34	8/6/2016 5:00 PM	7.25
8/4/2016 5:15 PM	7.45	8/5/2016 5:15 PM	7.33	8/6/2016 5:15 PM	7.25

8/4/2016 5:30 PM	7.45	8/5/2016 5:30 PM	7.32	8/6/2016 5:30 PM	7.27
8/4/2016 5:45 PM	7.41	8/5/2016 5:45 PM	7.33	8/6/2016 5:45 PM	7.26
8/4/2016 6:00 PM	7.39	8/5/2016 6:00 PM	7.33	8/6/2016 6:00 PM	7.24
8/4/2016 6:15 PM	7.45	8/5/2016 6:15 PM	7.31	8/6/2016 6:15 PM	7.26
8/4/2016 6:30 PM	7.47	8/5/2016 6:30 PM	7.30	8/6/2016 6:30 PM	7.28
8/4/2016 6:45 PM	7.46	8/5/2016 6:45 PM	7.29	8/6/2016 6:45 PM	7.24
8/4/2016 7:00 PM	7.46	8/5/2016 7:00 PM	7.29	8/6/2016 7:00 PM	7.22
8/4/2016 7:15 PM	7.45	8/5/2016 7:15 PM	7.28	8/6/2016 7:15 PM	7.22
8/4/2016 7:30 PM	7.43	8/5/2016 7:30 PM	7.28	8/6/2016 7:30 PM	7.19
8/4/2016 7:45 PM	7.41	8/5/2016 7:45 PM	7.28	8/6/2016 7:45 PM	7.26
8/4/2016 8:00 PM	7.42	8/5/2016 8:00 PM	7.34	8/6/2016 8:00 PM	7.26
8/4/2016 8:15 PM	7.42	8/5/2016 8:15 PM	7.29	8/6/2016 8:15 PM	7.26
8/4/2016 8:30 PM	7.41	8/5/2016 8:30 PM	7.28	8/6/2016 8:30 PM	7.26
8/4/2016 8:45 PM	7.41	8/5/2016 8:45 PM	7.27	8/6/2016 8:45 PM	7.25
8/4/2016 9:00 PM	7.41	8/5/2016 9:00 PM	7.27	8/6/2016 9:00 PM	7.25
8/4/2016 9:15 PM	7.40	8/5/2016 9:15 PM	7.33	8/6/2016 9:15 PM	7.23
8/4/2016 9:30 PM	7.39	8/5/2016 9:30 PM	7.35	8/6/2016 9:30 PM	7.22
8/4/2016 9:45 PM	7.38	8/5/2016 9:45 PM	7.34	8/6/2016 9:45 PM	7.22
8/4/2016 10:00 PM	7.38	8/5/2016 10:00 PM	7.33	8/6/2016 10:00 PM	7.22
8/4/2016 10:15 PM	7.40	8/5/2016 10:15 PM	7.31	8/6/2016 10:15 PM	7.21
8/4/2016 10:30 PM	7.43	8/5/2016 10:30 PM	7.30	8/6/2016 10:30 PM	7.21
8/4/2016 10:45 PM	7.43	8/5/2016 10:45 PM	7.28	8/6/2016 10:45 PM	7.21
8/4/2016 11:00 PM	7.42	8/5/2016 11:00 PM	7.27	8/6/2016 11:00 PM	7.21
8/4/2016 11:15 PM	7.42	8/5/2016 11:15 PM	7.26	8/6/2016 11:15 PM	7.27
8/4/2016 11:30 PM	7.41	8/5/2016 11:30 PM	7.26	8/6/2016 11:30 PM	7.24
8/4/2016 11:45 PM	7.40	8/5/2016 11:45 PM	7.26	8/6/2016 11:45 PM	7.22
AVG	7.49	AVG	7.33	AVG	7.25

Date And Time	pH	Date And Time	pH	Date And Time	pH
8/7/2016 12:00 AM	7.21	8/8/2016 12:00 AM	7.26	8/9/2016 12:00 AM	7.14
8/7/2016 12:15 AM	7.29	8/8/2016 12:15 AM	7.23	8/9/2016 12:15 AM	7.14
8/7/2016 12:30 AM	7.28	8/8/2016 12:30 AM	7.23	8/9/2016 12:30 AM	7.13
8/7/2016 12:45 AM	7.28	8/8/2016 12:45 AM	7.22	8/9/2016 12:45 AM	7.21
8/7/2016 1:00 AM	7.27	8/8/2016 1:00 AM	7.22	8/9/2016 1:00 AM	7.16
8/7/2016 1:15 AM	7.26	8/8/2016 1:15 AM	7.22	8/9/2016 1:15 AM	7.14
8/7/2016 1:30 AM	7.24	8/8/2016 1:30 AM	7.21	8/9/2016 1:30 AM	7.17
8/7/2016 1:45 AM	7.22	8/8/2016 1:45 AM	7.21	8/9/2016 1:45 AM	7.21
8/7/2016 2:00 AM	7.22	8/8/2016 2:00 AM	7.20	8/9/2016 2:00 AM	7.21
8/7/2016 2:15 AM	7.22	8/8/2016 2:15 AM	7.26	8/9/2016 2:15 AM	7.20
8/7/2016 2:30 AM	7.22	8/8/2016 2:30 AM	7.23	8/9/2016 2:30 AM	7.19
8/7/2016 2:45 AM	7.22	8/8/2016 2:45 AM	7.20	8/9/2016 2:45 AM	7.18
8/7/2016 3:00 AM	7.22	8/8/2016 3:00 AM	7.22	8/9/2016 3:00 AM	7.17
8/7/2016 3:15 AM	7.22	8/8/2016 3:15 AM	7.27	8/9/2016 3:15 AM	7.15
8/7/2016 3:30 AM	7.22	8/8/2016 3:30 AM	7.27	8/9/2016 3:30 AM	7.14
8/7/2016 3:45 AM	7.27	8/8/2016 3:45 AM	7.26	8/9/2016 3:45 AM	7.14
8/7/2016 4:00 AM	7.27	8/8/2016 4:00 AM	7.24	8/9/2016 4:00 AM	7.14
8/7/2016 4:15 AM	7.23	8/8/2016 4:15 AM	7.23	8/9/2016 4:15 AM	7.14
8/7/2016 4:30 AM	7.22	8/8/2016 4:30 AM	7.22	8/9/2016 4:30 AM	7.13
8/7/2016 4:45 AM	7.30	8/8/2016 4:45 AM	7.22	8/9/2016 4:45 AM	7.13
8/7/2016 5:00 AM	7.30	8/8/2016 5:00 AM	7.21	8/9/2016 5:00 AM	7.13
8/7/2016 5:15 AM	7.29	8/8/2016 5:15 AM	7.20	8/9/2016 5:15 AM	7.20
8/7/2016 5:30 AM	7.27	8/8/2016 5:30 AM	7.19	8/9/2016 5:30 AM	7.17
8/7/2016 5:45 AM	7.26	8/8/2016 5:45 AM	7.19	8/9/2016 5:45 AM	7.14
8/7/2016 6:00 AM	7.25	8/8/2016 6:00 AM	7.18	8/9/2016 6:00 AM	7.13
8/7/2016 6:15 AM	7.23	8/8/2016 6:15 AM	7.18	8/9/2016 6:15 AM	7.22
8/7/2016 6:30 AM	7.23	8/8/2016 6:30 AM	7.17	8/9/2016 6:30 AM	7.22
8/7/2016 6:45 AM	7.23	8/8/2016 6:45 AM	7.17	8/9/2016 6:45 AM	7.21
8/7/2016 7:00 AM	7.23	8/8/2016 7:00 AM	7.16	8/9/2016 7:00 AM	7.19
8/7/2016 7:15 AM	7.22	8/8/2016 7:15 AM	7.15	8/9/2016 7:15 AM	7.18
8/7/2016 7:30 AM	7.22	8/8/2016 7:30 AM	7.21	8/9/2016 7:30 AM	7.16
8/7/2016 7:45 AM	7.21	8/8/2016 7:45 AM	7.23	8/9/2016 7:45 AM	7.14
8/7/2016 8:00 AM	7.20	8/8/2016 8:00 AM	7.23	8/9/2016 8:00 AM	7.14
8/7/2016 8:15 AM	7.28	8/8/2016 8:15 AM	7.22	8/9/2016 8:15 AM	7.13
8/7/2016 8:30 AM	7.21	8/8/2016 8:30 AM	7.21	8/9/2016 8:30 AM	7.12
8/7/2016 8:45 AM	7.19	8/8/2016 8:45 AM	7.21	8/9/2016 8:45 AM	7.11
8/7/2016 9:00 AM	7.26	8/8/2016 9:00 AM	7.22	8/9/2016 9:00 AM	7.11
8/7/2016 9:15 AM	7.26	8/8/2016 9:15 AM	7.15	8/9/2016 9:15 AM	7.11
8/7/2016 9:30 AM	7.26	8/8/2016 9:30 AM	7.13	8/9/2016 9:30 AM	7.19
8/7/2016 9:45 AM	7.26	8/8/2016 9:45 AM	7.12	8/9/2016 9:45 AM	7.17
8/7/2016 10:00 AM	7.26	8/8/2016 10:00 AM	7.12	8/9/2016 10:00 AM	7.13
8/7/2016 10:15 AM	7.26	8/8/2016 10:15 AM	7.10	8/9/2016 10:15 AM	7.10
8/7/2016 10:30 AM	7.27	8/8/2016 10:30 AM	7.09	8/9/2016 10:30 AM	7.20
8/7/2016 10:45 AM	7.22	8/8/2016 10:45 AM	7.09	8/9/2016 10:45 AM	7.20
8/7/2016 11:00 AM	7.20	8/8/2016 11:00 AM	7.10	8/9/2016 11:00 AM	7.19
8/7/2016 11:15 AM	7.19	8/8/2016 11:15 AM	7.17	8/9/2016 11:15 AM	7.19
8/7/2016 11:30 AM	7.19	8/8/2016 11:30 AM	7.18	8/9/2016 11:30 AM	7.20
8/7/2016 11:45 AM	7.18	8/8/2016 11:45 AM	7.19	8/9/2016 11:45 AM	7.20
8/7/2016 12:00 PM	7.18	8/8/2016 12:00 PM	7.19	8/9/2016 12:00 PM	7.20
8/7/2016 12:15 PM	7.17	8/8/2016 12:15 PM	7.20	8/9/2016 12:15 PM	7.16
8/7/2016 12:30 PM	7.17	8/8/2016 12:30 PM	7.21	8/9/2016 12:30 PM	7.14
8/7/2016 12:45 PM	7.27	8/8/2016 12:45 PM	7.21	8/9/2016 12:45 PM	7.13
8/7/2016 1:00 PM	7.23	8/8/2016 1:00 PM	7.21	8/9/2016 1:00 PM	7.12
8/7/2016 1:15 PM	7.22	8/8/2016 1:15 PM	7.21	8/9/2016 1:15 PM	7.11
8/7/2016 1:30 PM	7.29	8/8/2016 1:30 PM	7.20	8/9/2016 1:30 PM	7.11
8/7/2016 1:45 PM	7.31	8/8/2016 1:45 PM	7.17	8/9/2016 1:45 PM	7.11
8/7/2016 2:00 PM	7.31	8/8/2016 2:00 PM	7.16	8/9/2016 2:00 PM	7.10
8/7/2016 2:15 PM	7.30	8/8/2016 2:15 PM	7.16	8/9/2016 2:15 PM	7.18
8/7/2016 2:30 PM	7.31	8/8/2016 2:30 PM	7.16	8/9/2016 2:30 PM	7.13
8/7/2016 2:45 PM	7.31	8/8/2016 2:45 PM	7.16	8/9/2016 2:45 PM	7.14
8/7/2016 3:00 PM	7.29	8/8/2016 3:00 PM	7.15	8/9/2016 3:00 PM	7.19
8/7/2016 3:15 PM	7.32	8/8/2016 3:15 PM	7.15	8/9/2016 3:15 PM	7.19
8/7/2016 3:30 PM	7.29	8/8/2016 3:30 PM	7.20	8/9/2016 3:30 PM	7.20
8/7/2016 3:45 PM	7.28	8/8/2016 3:45 PM	7.17	8/9/2016 3:45 PM	7.19
8/7/2016 4:00 PM	7.26	8/8/2016 4:00 PM	7.14	8/9/2016 4:00 PM	7.18
8/7/2016 4:15 PM	7.26	8/8/2016 4:15 PM	7.14	8/9/2016 4:15 PM	7.17
8/7/2016 4:30 PM	7.26	8/8/2016 4:30 PM	7.15	8/9/2016 4:30 PM	7.16
8/7/2016 4:45 PM	7.26	8/8/2016 4:45 PM	7.20	8/9/2016 4:45 PM	7.16
8/7/2016 5:00 PM	7.25	8/8/2016 5:00 PM	7.20	8/9/2016 5:00 PM	7.14
8/7/2016 5:15 PM	7.28	8/8/2016 5:15 PM	7.20	8/9/2016 5:15 PM	7.13

8/7/2016 5:30 PM	7.31	8/8/2016 5:30 PM	7.20	8/9/2016 5:30 PM	7.13
8/7/2016 5:45 PM	7.26	8/8/2016 5:45 PM	7.19	8/9/2016 5:45 PM	7.12
8/7/2016 6:00 PM	7.26	8/8/2016 6:00 PM	7.19	8/9/2016 6:00 PM	7.11
8/7/2016 6:15 PM	7.31	8/8/2016 6:15 PM	7.17	8/9/2016 6:15 PM	7.11
8/7/2016 6:30 PM	7.32	8/8/2016 6:30 PM	7.16	8/9/2016 6:30 PM	7.11
8/7/2016 6:45 PM	7.31	8/8/2016 6:45 PM	7.15	8/9/2016 6:45 PM	7.17
8/7/2016 7:00 PM	7.31	8/8/2016 7:00 PM	7.15	8/9/2016 7:00 PM	7.15
8/7/2016 7:15 PM	7.30	8/8/2016 7:15 PM	7.15	8/9/2016 7:15 PM	7.12
8/7/2016 7:30 PM	7.32	8/8/2016 7:30 PM	7.15	8/9/2016 7:30 PM	7.09
8/7/2016 7:45 PM	7.31	8/8/2016 7:45 PM	7.15	8/9/2016 7:45 PM	7.17
8/7/2016 8:00 PM	7.29	8/8/2016 8:00 PM	7.15	8/9/2016 8:00 PM	7.18
8/7/2016 8:15 PM	7.27	8/8/2016 8:15 PM	7.20	8/9/2016 8:15 PM	7.16
8/7/2016 8:30 PM	7.27	8/8/2016 8:30 PM	7.17	8/9/2016 8:30 PM	7.15
8/7/2016 8:45 PM	7.26	8/8/2016 8:45 PM	7.15	8/9/2016 8:45 PM	7.14
8/7/2016 9:00 PM	7.26	8/8/2016 9:00 PM	7.18	8/9/2016 9:00 PM	7.13
8/7/2016 9:15 PM	7.26	8/8/2016 9:15 PM	7.21	8/9/2016 9:15 PM	7.11
8/7/2016 9:30 PM	7.25	8/8/2016 9:30 PM	7.21	8/9/2016 9:30 PM	7.10
8/7/2016 9:45 PM	7.27	8/8/2016 9:45 PM	7.20	8/9/2016 9:45 PM	7.10
8/7/2016 10:00 PM	7.29	8/8/2016 10:00 PM	7.19	8/9/2016 10:00 PM	7.10
8/7/2016 10:15 PM	7.25	8/8/2016 10:15 PM	7.19	8/9/2016 10:15 PM	7.09
8/7/2016 10:30 PM	7.21	8/8/2016 10:30 PM	7.17	8/9/2016 10:30 PM	7.09
8/7/2016 10:45 PM	7.29	8/8/2016 10:45 PM	7.15	8/9/2016 10:45 PM	7.08
8/7/2016 11:00 PM	7.28	8/8/2016 11:00 PM	7.15	8/9/2016 11:00 PM	7.08
8/7/2016 11:15 PM	7.29	8/8/2016 11:15 PM	7.14	8/9/2016 11:15 PM	7.10
8/7/2016 11:30 PM	7.28	8/8/2016 11:30 PM	7.14	8/9/2016 11:30 PM	7.16
8/7/2016 11:45 PM	7.27	8/8/2016 11:45 PM	7.14	8/9/2016 11:45 PM	7.16
AVG	7.26	AVG	7.18	AVG	7.15

Date And Time	pH	Date And Time	pH	Date And Time	pH
8/10/2016 12:00 AM	7.14	8/11/2016 12:00 AM	7.02	8/12/2016 12:00 AM	7.04
8/10/2016 12:15 AM	7.14	8/11/2016 12:15 AM	7.01	8/12/2016 12:15 AM	7.04
8/10/2016 12:30 AM	7.13	8/11/2016 12:30 AM	7.00	8/12/2016 12:30 AM	7.04
8/10/2016 12:45 AM	7.12	8/11/2016 12:45 AM	7.00	8/12/2016 12:45 AM	7.04
8/10/2016 1:00 AM	7.12	8/11/2016 1:00 AM	6.99	8/12/2016 1:00 AM	7.03
8/10/2016 1:15 AM	7.11	8/11/2016 1:15 AM	6.99	8/12/2016 1:15 AM	7.10
8/10/2016 1:30 AM	7.10	8/11/2016 1:30 AM	6.99	8/12/2016 1:30 AM	7.09
8/10/2016 1:45 AM	7.08	8/11/2016 1:45 AM	6.99	8/12/2016 1:45 AM	7.09
8/10/2016 2:00 AM	7.07	8/11/2016 2:00 AM	6.99	8/12/2016 2:00 AM	7.08
8/10/2016 2:15 AM	7.07	8/11/2016 2:15 AM	7.05	8/12/2016 2:15 AM	7.08
8/10/2016 2:30 AM	7.06	8/11/2016 2:30 AM	7.00	8/12/2016 2:30 AM	7.07
8/10/2016 2:45 AM	7.06	8/11/2016 2:45 AM	6.99	8/12/2016 2:45 AM	7.07
8/10/2016 3:00 AM	7.05	8/11/2016 3:00 AM	6.98	8/12/2016 3:00 AM	7.07
8/10/2016 3:15 AM	7.05	8/11/2016 3:15 AM	7.05	8/12/2016 3:15 AM	7.05
8/10/2016 3:30 AM	7.05	8/11/2016 3:30 AM	7.05	8/12/2016 3:30 AM	7.05
8/10/2016 3:45 AM	7.13	8/11/2016 3:45 AM	7.04	8/12/2016 3:45 AM	7.04
8/10/2016 4:00 AM	7.13	8/11/2016 4:00 AM	7.04	8/12/2016 4:00 AM	7.04
8/10/2016 4:15 AM	7.10	8/11/2016 4:15 AM	7.03	8/12/2016 4:15 AM	7.04
8/10/2016 4:30 AM	7.11	8/11/2016 4:30 AM	7.02	8/12/2016 4:30 AM	7.03
8/10/2016 4:45 AM	7.11	8/11/2016 4:45 AM	7.01	8/12/2016 4:45 AM	7.03
8/10/2016 5:00 AM	7.10	8/11/2016 5:00 AM	7.00	8/12/2016 5:00 AM	7.02
8/10/2016 5:15 AM	7.09	8/11/2016 5:15 AM	6.99	8/12/2016 5:15 AM	7.09
8/10/2016 5:30 AM	7.08	8/11/2016 5:30 AM	6.99	8/12/2016 5:30 AM	7.04
8/10/2016 5:45 AM	7.08	8/11/2016 5:45 AM	6.99	8/12/2016 5:45 AM	7.03
8/10/2016 6:00 AM	7.08	8/11/2016 6:00 AM	6.99	8/12/2016 6:00 AM	7.04
8/10/2016 6:15 AM	7.05	8/11/2016 6:15 AM	6.99	8/12/2016 6:15 AM	7.10
8/10/2016 6:30 AM	7.05	8/11/2016 6:30 AM	6.99	8/12/2016 6:30 AM	7.09
8/10/2016 6:45 AM	7.04	8/11/2016 6:45 AM	7.05	8/12/2016 6:45 AM	7.08
8/10/2016 7:00 AM	7.04	8/11/2016 7:00 AM	7.05	8/12/2016 7:00 AM	7.08
8/10/2016 7:15 AM	7.03	8/11/2016 7:15 AM	7.05	8/12/2016 7:15 AM	7.07
8/10/2016 7:30 AM	7.02	8/11/2016 7:30 AM	7.05	8/12/2016 7:30 AM	7.06
8/10/2016 7:45 AM	7.02	8/11/2016 7:45 AM	7.05	8/12/2016 7:45 AM	7.04
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8/10/2016 8:15 AM	7.11	8/11/2016 8:15 AM	7.04	8/12/2016 8:15 AM	7.01
8/10/2016 8:30 AM	7.11	8/11/2016 8:30 AM	7.02	8/12/2016 8:30 AM	7.00
8/10/2016 8:45 AM	7.11	8/11/2016 8:45 AM	7.04	8/12/2016 8:45 AM	6.99
8/10/2016 9:00 AM	7.10	8/11/2016 9:00 AM	6.99	8/12/2016 9:00 AM	6.99
8/10/2016 9:15 AM	7.09	8/11/2016 9:15 AM	6.96	8/12/2016 9:15 AM	6.98
8/10/2016 9:30 AM	7.09	8/11/2016 9:30 AM	6.95	8/12/2016 9:30 AM	7.04
8/10/2016 9:45 AM	7.08	8/11/2016 9:45 AM	6.94	8/12/2016 9:45 AM	7.05
8/10/2016 10:00 AM	7.08	8/11/2016 10:00 AM	6.94	8/12/2016 10:00 AM	6.99
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8/10/2016 11:00 AM	7.03	8/11/2016 11:00 AM	7.02	8/12/2016 11:00 AM	7.04
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8/10/2016 1:00 PM	7.06	8/11/2016 1:00 PM	7.04	8/12/2016 1:00 PM	6.95
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8/10/2016 4:45 PM	7.00	8/11/2016 4:45 PM	7.09	8/12/2016 4:45 PM	7.05
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8/10/2016 7:15 PM	7.04	8/11/2016 7:15 PM	7.04	8/12/2016 7:15 PM	6.98
8/10/2016 7:30 PM	7.07	8/11/2016 7:30 PM	7.04	8/12/2016 7:30 PM	6.96
8/10/2016 7:45 PM	7.07	8/11/2016 7:45 PM	7.03	8/12/2016 7:45 PM	6.95
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8/10/2016 8:15 PM	7.02	8/11/2016 8:15 PM	7.06	8/12/2016 8:15 PM	6.93
8/10/2016 8:30 PM	7.02	8/11/2016 8:30 PM	7.05	8/12/2016 8:30 PM	6.93
8/10/2016 8:45 PM	7.01	8/11/2016 8:45 PM	7.04	8/12/2016 8:45 PM	6.92
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8/10/2016 11:15 PM	7.03	8/11/2016 11:15 PM	7.05	8/12/2016 11:15 PM	7.08
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8/10/2016 11:45 PM	7.02	8/11/2016 11:45 PM	7.04	8/12/2016 11:45 PM	7.05
AVG	7.06	AVG	7.03	AVG	7.03

Date And Time	pH	Date And Time	pH	Date And Time	pH
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8/13/2016 12:45 AM	7.05	8/14/2016 12:45 AM	7.10	8/15/2016 12:45 AM	7.16
8/13/2016 1:00 AM	7.04	8/14/2016 1:00 AM	7.10	8/15/2016 1:00 AM	7.15
8/13/2016 1:15 AM	7.04	8/14/2016 1:15 AM	7.09	8/15/2016 1:15 AM	7.15
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8/13/2016 1:00 PM	7.07	8/14/2016 1:00 PM	7.13	8/15/2016 1:00 PM	7.08
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8/13/2016 11:00 PM	7.14	8/14/2016 11:00 PM	7.11	8/15/2016 11:00 PM	7.20
8/13/2016 11:15 PM	7.14	8/14/2016 11:15 PM	7.11	8/15/2016 11:15 PM	7.20
8/13/2016 11:30 PM	7.13	8/14/2016 11:30 PM	7.10	8/15/2016 11:30 PM	7.17
8/13/2016 11:45 PM	7.12	8/14/2016 11:45 PM	7.10	8/15/2016 11:45 PM	7.16
AVG	7.07	AVG	7.12	AVG	7.13

Date And Time	pH	Date And Time	pH	Date And Time	pH
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8/16/2016 12:30 AM	7.22	8/17/2016 12:30 AM	7.29	8/18/2016 12:30 AM	7.27
8/16/2016 12:45 AM	7.21	8/17/2016 12:45 AM	7.28	8/18/2016 12:45 AM	7.27
8/16/2016 1:00 AM	7.20	8/17/2016 1:00 AM	7.28	8/18/2016 1:00 AM	7.26
8/16/2016 1:15 AM	7.20	8/17/2016 1:15 AM	7.28	8/18/2016 1:15 AM	7.26
8/16/2016 1:30 AM	7.19	8/17/2016 1:30 AM	7.27	8/18/2016 1:30 AM	7.25
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8/16/2016 3:45 AM	7.24	8/17/2016 3:45 AM	7.30	8/18/2016 3:45 AM	7.23
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8/16/2016 4:45 AM	7.26	8/17/2016 4:45 AM	7.28	8/18/2016 4:45 AM	7.21
8/16/2016 5:00 AM	7.25	8/17/2016 5:00 AM	7.27	8/18/2016 5:00 AM	7.21
8/16/2016 5:15 AM	7.24	8/17/2016 5:15 AM	7.27	8/18/2016 5:15 AM	7.20
8/16/2016 5:30 AM	7.23	8/17/2016 5:30 AM	7.27	8/18/2016 5:30 AM	7.20
8/16/2016 5:45 AM	7.22	8/17/2016 5:45 AM	7.27	8/18/2016 5:45 AM	7.20
8/16/2016 6:00 AM	7.21	8/17/2016 6:00 AM	7.27	8/18/2016 6:00 AM	7.20
8/16/2016 6:15 AM	7.20	8/17/2016 6:15 AM	7.26	8/18/2016 6:15 AM	7.20
8/16/2016 6:30 AM	7.20	8/17/2016 6:30 AM	7.24	8/18/2016 6:30 AM	7.20
8/16/2016 6:45 AM	7.20	8/17/2016 6:45 AM	7.33	8/18/2016 6:45 AM	7.30
8/16/2016 7:00 AM	7.19	8/17/2016 7:00 AM	7.28	8/18/2016 7:00 AM	7.29
8/16/2016 7:15 AM	7.19	8/17/2016 7:15 AM	7.27	8/18/2016 7:15 AM	7.28
8/16/2016 7:30 AM	7.19	8/17/2016 7:30 AM	7.26	8/18/2016 7:30 AM	7.27
8/16/2016 7:45 AM	7.19	8/17/2016 7:45 AM	7.33	8/18/2016 7:45 AM	7.27
8/16/2016 8:00 AM	7.21	8/17/2016 8:00 AM	7.33	8/18/2016 8:00 AM	7.26
8/16/2016 8:15 AM	7.27	8/17/2016 8:15 AM	7.32	8/18/2016 8:15 AM	7.26
8/16/2016 8:30 AM	7.20	8/17/2016 8:30 AM	7.31	8/18/2016 8:30 AM	7.26
8/16/2016 8:45 AM	7.20	8/17/2016 8:45 AM	7.30	8/18/2016 8:45 AM	7.25
8/16/2016 9:00 AM	7.25	8/17/2016 9:00 AM	7.29	8/18/2016 9:00 AM	7.25
8/16/2016 9:15 AM	7.25	8/17/2016 9:15 AM	7.29	8/18/2016 9:15 AM	7.25
8/16/2016 9:30 AM	7.24	8/17/2016 9:30 AM	7.28	8/18/2016 9:30 AM	7.23
8/16/2016 9:45 AM	7.24	8/17/2016 9:45 AM	7.26	8/18/2016 9:45 AM	7.23
8/16/2016 10:00 AM	7.23	8/17/2016 10:00 AM	7.26	8/18/2016 10:00 AM	7.24
8/16/2016 10:15 AM	7.23	8/17/2016 10:15 AM	7.27	8/18/2016 10:15 AM	7.25
8/16/2016 10:30 AM	7.23	8/17/2016 10:30 AM	7.30	8/18/2016 10:30 AM	7.26
8/16/2016 10:45 AM	7.21	8/17/2016 10:45 AM	7.30	8/18/2016 10:45 AM	7.26
8/16/2016 11:00 AM	7.19	8/17/2016 11:00 AM	7.28	8/18/2016 11:00 AM	7.27
8/16/2016 11:15 AM	7.18	8/17/2016 11:15 AM	7.27	8/18/2016 11:15 AM	7.27
8/16/2016 11:30 AM	7.17	8/17/2016 11:30 AM	7.27	8/18/2016 11:30 AM	7.28
8/16/2016 11:45 AM	7.16	8/17/2016 11:45 AM	7.33	8/18/2016 11:45 AM	7.28
8/16/2016 12:00 PM	7.15	8/17/2016 12:00 PM	7.34	8/18/2016 12:00 PM	7.29
8/16/2016 12:15 PM	7.15	8/17/2016 12:15 PM	7.33	8/18/2016 12:15 PM	7.32
8/16/2016 12:30 PM	7.15	8/17/2016 12:30 PM	7.34	8/18/2016 12:30 PM	7.33
8/16/2016 12:45 PM	7.24	8/17/2016 12:45 PM	7.34	8/18/2016 12:45 PM	7.32
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8/16/2016 2:15 PM	7.27	8/17/2016 2:15 PM	7.25	8/18/2016 2:15 PM	7.37
8/16/2016 2:30 PM	7.28	8/17/2016 2:30 PM	7.26	8/18/2016 2:30 PM	7.38
8/16/2016 2:45 PM	7.28	8/17/2016 2:45 PM	7.25	8/18/2016 2:45 PM	7.38
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8/16/2016 4:15 PM	7.28	8/17/2016 4:15 PM	7.35	8/18/2016 4:15 PM	7.44
8/16/2016 4:30 PM	7.28	8/17/2016 4:30 PM	7.37	8/18/2016 4:30 PM	7.44
8/16/2016 4:45 PM	7.27	8/17/2016 4:45 PM	7.37	8/18/2016 4:45 PM	7.44
8/16/2016 5:00 PM	7.27	8/17/2016 5:00 PM	7.36	8/18/2016 5:00 PM	7.45
8/16/2016 5:15 PM	7.26	8/17/2016 5:15 PM	7.36	8/18/2016 5:15 PM	7.45

8/16/2016 5:30 PM	7.29	8/17/2016 5:30 PM	7.35	8/18/2016 5:30 PM	7.46
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8/16/2016 6:00 PM	7.31	8/17/2016 6:00 PM	7.37	8/18/2016 6:00 PM	7.46
8/16/2016 6:15 PM	7.32	8/17/2016 6:15 PM	7.37	8/18/2016 6:15 PM	7.46
8/16/2016 6:30 PM	7.32	8/17/2016 6:30 PM	7.35	8/18/2016 6:30 PM	7.46
8/16/2016 6:45 PM	7.31	8/17/2016 6:45 PM	7.34	8/18/2016 6:45 PM	7.47
8/16/2016 7:00 PM	7.30	8/17/2016 7:00 PM	7.33	8/18/2016 7:00 PM	7.47
8/16/2016 7:15 PM	7.33	8/17/2016 7:15 PM	7.33	8/18/2016 7:15 PM	7.47
8/16/2016 7:30 PM	7.32	8/17/2016 7:30 PM	7.33	8/18/2016 7:30 PM	7.48
8/16/2016 7:45 PM	7.30	8/17/2016 7:45 PM	7.33	8/18/2016 7:45 PM	7.48
8/16/2016 8:00 PM	7.29	8/17/2016 8:00 PM	7.36	8/18/2016 8:00 PM	7.52
8/16/2016 8:15 PM	7.28	8/17/2016 8:15 PM	7.37	8/18/2016 8:15 PM	7.58
8/16/2016 8:30 PM	7.28	8/17/2016 8:30 PM	7.36	8/18/2016 8:30 PM	7.57
8/16/2016 8:45 PM	7.28	8/17/2016 8:45 PM	7.35	8/18/2016 8:45 PM	7.54
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8/16/2016 9:15 PM	7.27	8/17/2016 9:15 PM	7.34	8/18/2016 9:15 PM	7.50
8/16/2016 9:30 PM	7.31	8/17/2016 9:30 PM	7.33	8/18/2016 9:30 PM	7.49
8/16/2016 9:45 PM	7.28	8/17/2016 9:45 PM	7.33	8/18/2016 9:45 PM	7.48
8/16/2016 10:00 PM	7.27	8/17/2016 10:00 PM	7.32	8/18/2016 10:00 PM	7.48
8/16/2016 10:15 PM	7.27	8/17/2016 10:15 PM	7.32	8/18/2016 10:15 PM	7.47
8/16/2016 10:30 PM	7.30	8/17/2016 10:30 PM	7.31	8/18/2016 10:30 PM	7.47
8/16/2016 10:45 PM	7.32	8/17/2016 10:45 PM	7.30	8/18/2016 10:45 PM	7.46
8/16/2016 11:00 PM	7.31	8/17/2016 11:00 PM	7.30	8/18/2016 11:00 PM	7.46
8/16/2016 11:15 PM	7.31	8/17/2016 11:15 PM	7.30	8/18/2016 11:15 PM	7.53
8/16/2016 11:30 PM	7.31	8/17/2016 11:30 PM	7.29	8/18/2016 11:30 PM	7.49
8/16/2016 11:45 PM	7.30	8/17/2016 11:45 PM	7.29	8/18/2016 11:45 PM	7.46
AVG	7.24	AVG	7.31	AVG	7.34

Date And Time	pH	Date And Time	pH	Date And Time	pH
8/19/2016 12:00 AM	7.49	8/20/2016 12:00 AM	7.38	8/21/2016 12:00 AM	7.44
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8/19/2016 12:30 AM	7.51	8/20/2016 12:30 AM	7.36	8/21/2016 12:30 AM	7.43
8/19/2016 12:45 AM	7.51	8/20/2016 12:45 AM	7.35	8/21/2016 12:45 AM	7.50
8/19/2016 1:00 AM	7.50	8/20/2016 1:00 AM	7.35	8/21/2016 1:00 AM	7.46
8/19/2016 1:15 AM	7.50	8/20/2016 1:15 AM	7.35	8/21/2016 1:15 AM	7.44
8/19/2016 1:30 AM	7.49	8/20/2016 1:30 AM	7.35	8/21/2016 1:30 AM	7.50
8/19/2016 1:45 AM	7.46	8/20/2016 1:45 AM	7.35	8/21/2016 1:45 AM	7.51
8/19/2016 2:00 AM	7.45	8/20/2016 2:00 AM	7.35	8/21/2016 2:00 AM	7.50
8/19/2016 2:15 AM	7.45	8/20/2016 2:15 AM	7.43	8/21/2016 2:15 AM	7.49
8/19/2016 2:30 AM	7.44	8/20/2016 2:30 AM	7.38	8/21/2016 2:30 AM	7.49
8/19/2016 2:45 AM	7.44	8/20/2016 2:45 AM	7.37	8/21/2016 2:45 AM	7.48
8/19/2016 3:00 AM	7.43	8/20/2016 3:00 AM	7.37	8/21/2016 3:00 AM	7.46
8/19/2016 3:15 AM	7.43	8/20/2016 3:15 AM	7.44	8/21/2016 3:15 AM	7.45
8/19/2016 3:30 AM	7.42	8/20/2016 3:30 AM	7.44	8/21/2016 3:30 AM	7.44
8/19/2016 3:45 AM	7.50	8/20/2016 3:45 AM	7.43	8/21/2016 3:45 AM	7.43
8/19/2016 4:00 AM	7.45	8/20/2016 4:00 AM	7.42	8/21/2016 4:00 AM	7.43
8/19/2016 4:15 AM	7.42	8/20/2016 4:15 AM	7.41	8/21/2016 4:15 AM	7.43
8/19/2016 4:30 AM	7.47	8/20/2016 4:30 AM	7.39	8/21/2016 4:30 AM	7.43
8/19/2016 4:45 AM	7.50	8/20/2016 4:45 AM	7.38	8/21/2016 4:45 AM	7.42
8/19/2016 5:00 AM	7.50	8/20/2016 5:00 AM	7.38	8/21/2016 5:00 AM	7.47
8/19/2016 5:15 AM	7.49	8/20/2016 5:15 AM	7.37	8/21/2016 5:15 AM	7.48
8/19/2016 5:30 AM	7.48	8/20/2016 5:30 AM	7.38	8/21/2016 5:30 AM	7.44
8/19/2016 5:45 AM	7.46	8/20/2016 5:45 AM	7.38	8/21/2016 5:45 AM	7.43
8/19/2016 6:00 AM	7.45	8/20/2016 6:00 AM	7.38	8/21/2016 6:00 AM	7.47
8/19/2016 6:15 AM	7.42	8/20/2016 6:15 AM	7.38	8/21/2016 6:15 AM	7.51
8/19/2016 6:30 AM	7.42	8/20/2016 6:30 AM	7.39	8/21/2016 6:30 AM	7.50
8/19/2016 6:45 AM	7.41	8/20/2016 6:45 AM	7.39	8/21/2016 6:45 AM	7.49
8/19/2016 7:00 AM	7.40	8/20/2016 7:00 AM	7.44	8/21/2016 7:00 AM	7.49
8/19/2016 7:15 AM	7.40	8/20/2016 7:15 AM	7.47	8/21/2016 7:15 AM	7.48
8/19/2016 7:30 AM	7.39	8/20/2016 7:30 AM	7.46	8/21/2016 7:30 AM	7.46
8/19/2016 7:45 AM	7.39	8/20/2016 7:45 AM	7.46	8/21/2016 7:45 AM	7.44
8/19/2016 8:00 AM	7.45	8/20/2016 8:00 AM	7.46	8/21/2016 8:00 AM	7.43
8/19/2016 8:15 AM	7.43	8/20/2016 8:15 AM	7.46	8/21/2016 8:15 AM	7.43
8/19/2016 8:30 AM	7.39	8/20/2016 8:30 AM	7.45	8/21/2016 8:30 AM	7.42
8/19/2016 8:45 AM	7.38	8/20/2016 8:45 AM	7.44	8/21/2016 8:45 AM	7.42
8/19/2016 9:00 AM	7.45	8/20/2016 9:00 AM	7.45	8/21/2016 9:00 AM	7.42
8/19/2016 9:15 AM	7.45	8/20/2016 9:15 AM	7.41	8/21/2016 9:15 AM	7.41
8/19/2016 9:30 AM	7.43	8/20/2016 9:30 AM	7.39	8/21/2016 9:30 AM	7.42
8/19/2016 9:45 AM	7.41	8/20/2016 9:45 AM	7.37	8/21/2016 9:45 AM	7.50
8/19/2016 10:00 AM	7.41	8/20/2016 10:00 AM	7.36	8/21/2016 10:00 AM	7.44
8/19/2016 10:15 AM	7.41	8/20/2016 10:15 AM	7.35	8/21/2016 10:15 AM	7.42
8/19/2016 10:30 AM	7.43	8/20/2016 10:30 AM	7.35	8/21/2016 10:30 AM	7.50
8/19/2016 10:45 AM	7.39	8/20/2016 10:45 AM	7.34	8/21/2016 10:45 AM	7.50
8/19/2016 11:00 AM	7.37	8/20/2016 11:00 AM	7.35	8/21/2016 11:00 AM	7.49
8/19/2016 11:15 AM	7.36	8/20/2016 11:15 AM	7.45	8/21/2016 11:15 AM	7.48
8/19/2016 11:30 AM	7.36	8/20/2016 11:30 AM	7.41	8/21/2016 11:30 AM	7.48
8/19/2016 11:45 AM	7.35	8/20/2016 11:45 AM	7.43	8/21/2016 11:45 AM	7.48
8/19/2016 12:00 PM	7.33	8/20/2016 12:00 PM	7.48	8/21/2016 12:00 PM	7.49
8/19/2016 12:15 PM	7.32	8/20/2016 12:15 PM	7.48	8/21/2016 12:15 PM	7.46
8/19/2016 12:30 PM	7.32	8/20/2016 12:30 PM	7.48	8/21/2016 12:30 PM	7.46
8/19/2016 12:45 PM	7.42	8/20/2016 12:45 PM	7.49	8/21/2016 12:45 PM	7.46
8/19/2016 1:00 PM	7.43	8/20/2016 1:00 PM	7.48	8/21/2016 1:00 PM	7.45
8/19/2016 1:15 PM	7.45	8/20/2016 1:15 PM	7.49	8/21/2016 1:15 PM	7.45
8/19/2016 1:30 PM	7.46	8/20/2016 1:30 PM	7.49	8/21/2016 1:30 PM	7.45
8/19/2016 1:45 PM	7.45	8/20/2016 1:45 PM	7.49	8/21/2016 1:45 PM	7.44

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8/19/2016 2:15 PM	7.45	8/20/2016 2:15 PM	7.44	8/21/2016 2:15 PM	7.48
8/19/2016 2:30 PM	7.44	8/20/2016 2:30 PM	7.43	8/21/2016 2:30 PM	7.46
8/19/2016 2:45 PM	7.44	8/20/2016 2:45 PM	7.42	8/21/2016 2:45 PM	7.42
8/19/2016 3:00 PM	7.42	8/20/2016 3:00 PM	7.42	8/21/2016 3:00 PM	7.43
8/19/2016 3:15 PM	7.41	8/20/2016 3:15 PM	7.43	8/21/2016 3:15 PM	7.49
8/19/2016 3:30 PM	7.40	8/20/2016 3:30 PM	7.43	8/21/2016 3:30 PM	7.50
8/19/2016 3:45 PM	7.40	8/20/2016 3:45 PM	7.49	8/21/2016 3:45 PM	7.50
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8/19/2016 4:15 PM	7.38	8/20/2016 4:15 PM	7.45	8/21/2016 4:15 PM	7.48
8/19/2016 4:30 PM	7.37	8/20/2016 4:30 PM	7.49	8/21/2016 4:30 PM	7.49
8/19/2016 4:45 PM	7.35	8/20/2016 4:45 PM	7.51	8/21/2016 4:45 PM	7.47
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8/19/2016 5:15 PM	7.34	8/20/2016 5:15 PM	7.50	8/21/2016 5:15 PM	7.45
8/19/2016 5:30 PM	7.33	8/20/2016 5:30 PM	7.49	8/21/2016 5:30 PM	7.44
8/19/2016 5:45 PM	7.44	8/20/2016 5:45 PM	7.48	8/21/2016 5:45 PM	7.44
8/19/2016 6:00 PM	7.35	8/20/2016 6:00 PM	7.49	8/21/2016 6:00 PM	7.43
8/19/2016 6:15 PM	7.37	8/20/2016 6:15 PM	7.49	8/21/2016 6:15 PM	7.43
8/19/2016 6:30 PM	7.39	8/20/2016 6:30 PM	7.46	8/21/2016 6:30 PM	7.48
8/19/2016 6:45 PM	7.41	8/20/2016 6:45 PM	7.45	8/21/2016 6:45 PM	7.47
8/19/2016 7:00 PM	7.41	8/20/2016 7:00 PM	7.44	8/21/2016 7:00 PM	7.44
8/19/2016 7:15 PM	7.39	8/20/2016 7:15 PM	7.44	8/21/2016 7:15 PM	7.47
8/19/2016 7:30 PM	7.40	8/20/2016 7:30 PM	7.44	8/21/2016 7:30 PM	7.49
8/19/2016 7:45 PM	7.40	8/20/2016 7:45 PM	7.44	8/21/2016 7:45 PM	7.48
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8/19/2016 8:15 PM	7.36	8/20/2016 8:15 PM	7.50	8/21/2016 8:15 PM	7.46
8/19/2016 8:30 PM	7.36	8/20/2016 8:30 PM	7.46	8/21/2016 8:30 PM	7.46
8/19/2016 8:45 PM	7.35	8/20/2016 8:45 PM	7.45	8/21/2016 8:45 PM	7.44
8/19/2016 9:00 PM	7.35	8/20/2016 9:00 PM	7.44	8/21/2016 9:00 PM	7.45
8/19/2016 9:15 PM	7.35	8/20/2016 9:15 PM	7.50	8/21/2016 9:15 PM	7.43
8/19/2016 9:30 PM	7.35	8/20/2016 9:30 PM	7.51	8/21/2016 9:30 PM	7.43
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8/19/2016 10:30 PM	7.38	8/20/2016 10:30 PM	7.47	8/21/2016 10:30 PM	7.41
8/19/2016 10:45 PM	7.42	8/20/2016 10:45 PM	7.45	8/21/2016 10:45 PM	7.41
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8/19/2016 11:30 PM	7.41	8/20/2016 11:30 PM	7.44	8/21/2016 11:30 PM	7.43
8/19/2016 11:45 PM	7.40	8/20/2016 11:45 PM	7.44	8/21/2016 11:45 PM	7.42
AVG	7.41	AVG	7.43	AVG	7.46

Date And Time	pH	Date And Time	pH	Date And Time	pH
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8/22/2016 12:15 AM	7.48	8/23/2016 12:15 AM	7.45	8/24/2016 12:15 AM	7.48
8/22/2016 12:30 AM	7.49	8/23/2016 12:30 AM	7.44	8/24/2016 12:30 AM	7.48
8/22/2016 12:45 AM	7.48	8/23/2016 12:45 AM	7.44	8/24/2016 12:45 AM	7.47
8/22/2016 1:00 AM	7.47	8/23/2016 1:00 AM	7.44	8/24/2016 1:00 AM	7.56
8/22/2016 1:15 AM	7.46	8/23/2016 1:15 AM	7.44	8/24/2016 1:15 AM	7.55
8/22/2016 1:30 AM	7.44	8/23/2016 1:30 AM	7.44	8/24/2016 1:30 AM	7.55
8/22/2016 1:45 AM	7.42	8/23/2016 1:45 AM	7.44	8/24/2016 1:45 AM	7.54
8/22/2016 2:00 AM	7.41	8/23/2016 2:00 AM	7.42	8/24/2016 2:00 AM	7.52
8/22/2016 2:15 AM	7.41	8/23/2016 2:15 AM	7.51	8/24/2016 2:15 AM	7.51
8/22/2016 2:30 AM	7.41	8/23/2016 2:30 AM	7.47	8/24/2016 2:30 AM	7.50
8/22/2016 2:45 AM	7.40	8/23/2016 2:45 AM	7.45	8/24/2016 2:45 AM	7.50
8/22/2016 3:00 AM	7.40	8/23/2016 3:00 AM	7.45	8/24/2016 3:00 AM	7.50
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8/22/2016 3:30 AM	7.39	8/23/2016 3:30 AM	7.53	8/24/2016 3:30 AM	7.47
8/22/2016 3:45 AM	7.48	8/23/2016 3:45 AM	7.52	8/24/2016 3:45 AM	7.47
8/22/2016 4:00 AM	7.43	8/23/2016 4:00 AM	7.51	8/24/2016 4:00 AM	7.46
8/22/2016 4:15 AM	7.41	8/23/2016 4:15 AM	7.50	8/24/2016 4:15 AM	7.46
8/22/2016 4:30 AM	7.49	8/23/2016 4:30 AM	7.48	8/24/2016 4:30 AM	7.46
8/22/2016 4:45 AM	7.49	8/23/2016 4:45 AM	7.46	8/24/2016 4:45 AM	7.46
8/22/2016 5:00 AM	7.48	8/23/2016 5:00 AM	7.45	8/24/2016 5:00 AM	7.46
8/22/2016 5:15 AM	7.46	8/23/2016 5:15 AM	7.45	8/24/2016 5:15 AM	7.54
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8/22/2016 6:30 AM	7.40	8/23/2016 6:30 AM	7.46	8/24/2016 6:30 AM	7.52
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8/22/2016 7:45 AM	7.39	8/23/2016 7:45 AM	7.54	8/24/2016 7:45 AM	7.46
8/22/2016 8:00 AM	7.37	8/23/2016 8:00 AM	7.53	8/24/2016 8:00 AM	7.44
8/22/2016 8:15 AM	7.47	8/23/2016 8:15 AM	7.51	8/24/2016 8:15 AM	7.43
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8/22/2016 9:30 AM	7.44	8/23/2016 9:30 AM	7.45	8/24/2016 9:30 AM	7.49
8/22/2016 9:45 AM	7.45	8/23/2016 9:45 AM	7.45	8/24/2016 9:45 AM	7.44
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8/22/2016 10:30 AM	7.43	8/23/2016 10:30 AM	7.42	8/24/2016 10:30 AM	7.48
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8/22/2016 2:15 PM	7.50	8/23/2016 2:15 PM	7.51	8/24/2016 2:15 PM	7.43
8/22/2016 2:30 PM	7.47	8/23/2016 2:30 PM	7.50	8/24/2016 2:30 PM	7.50
8/22/2016 2:45 PM	7.48	8/23/2016 2:45 PM	7.49	8/24/2016 2:45 PM	7.52
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8/22/2016 4:00 PM	7.43	8/23/2016 4:00 PM	7.55	8/24/2016 4:00 PM	7.48
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8/22/2016 5:15 PM	7.47	8/23/2016 5:15 PM	7.50	8/24/2016 5:15 PM	7.45

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8/22/2016 6:00 PM	7.41	8/23/2016 6:00 PM	7.52	8/24/2016 6:00 PM	7.43
8/22/2016 6:15 PM	7.50	8/23/2016 6:15 PM	7.51	8/24/2016 6:15 PM	7.43
8/22/2016 6:30 PM	7.51	8/23/2016 6:30 PM	7.49	8/24/2016 6:30 PM	7.44
8/22/2016 6:45 PM	7.50	8/23/2016 6:45 PM	7.48	8/24/2016 6:45 PM	7.50
8/22/2016 7:00 PM	7.50	8/23/2016 7:00 PM	7.48	8/24/2016 7:00 PM	7.51
8/22/2016 7:15 PM	7.48	8/23/2016 7:15 PM	7.48	8/24/2016 7:15 PM	7.49
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8/22/2016 8:15 PM	7.46	8/23/2016 8:15 PM	7.49	8/24/2016 8:15 PM	7.45
8/22/2016 8:30 PM	7.46	8/23/2016 8:30 PM	7.48	8/24/2016 8:30 PM	7.44
8/22/2016 8:45 PM	7.45	8/23/2016 8:45 PM	7.48	8/24/2016 8:45 PM	7.47
8/22/2016 9:00 PM	7.45	8/23/2016 9:00 PM	7.48	8/24/2016 9:00 PM	7.46
8/22/2016 9:15 PM	7.45	8/23/2016 9:15 PM	7.53	8/24/2016 9:15 PM	7.44
8/22/2016 9:30 PM	7.45	8/23/2016 9:30 PM	7.55	8/24/2016 9:30 PM	7.44
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8/22/2016 10:00 PM	7.51	8/23/2016 10:00 PM	7.53	8/24/2016 10:00 PM	7.42
8/22/2016 10:15 PM	7.50	8/23/2016 10:15 PM	7.52	8/24/2016 10:15 PM	7.42
8/22/2016 10:30 PM	7.50	8/23/2016 10:30 PM	7.51	8/24/2016 10:30 PM	7.42
8/22/2016 10:45 PM	7.50	8/23/2016 10:45 PM	7.48	8/24/2016 10:45 PM	7.45
8/22/2016 11:00 PM	7.46	8/23/2016 11:00 PM	7.48	8/24/2016 11:00 PM	7.46
8/22/2016 11:15 PM	7.49	8/23/2016 11:15 PM	7.48	8/24/2016 11:15 PM	7.42
8/22/2016 11:30 PM	7.50	8/23/2016 11:30 PM	7.47	8/24/2016 11:30 PM	7.41
8/22/2016 11:45 PM	7.50	8/23/2016 11:45 PM	7.47	8/24/2016 11:45 PM	7.48
AVG	7.45	AVG	7.49	AVG	7.47

Date And Time	pH	Date And Time	pH	Date And Time	pH
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8/25/2016 12:30 AM	7.46	8/26/2016 12:30 AM	7.37	8/27/2016 12:30 AM	7.28
8/25/2016 12:45 AM	7.46	8/26/2016 12:45 AM	7.36	8/27/2016 12:45 AM	7.36
8/25/2016 1:00 AM	7.45	8/26/2016 1:00 AM	7.36	8/27/2016 1:00 AM	7.32
8/25/2016 1:15 AM	7.44	8/26/2016 1:15 AM	7.35	8/27/2016 1:15 AM	7.31
8/25/2016 1:30 AM	7.43	8/26/2016 1:30 AM	7.35	8/27/2016 1:30 AM	7.31
8/25/2016 1:45 AM	7.41	8/26/2016 1:45 AM	7.35	8/27/2016 1:45 AM	7.30
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8/25/2016 7:45 AM	7.39	8/26/2016 7:45 AM	7.40	8/27/2016 7:45 AM	7.31
8/25/2016 8:00 AM	7.45	8/26/2016 8:00 AM	7.39	8/27/2016 8:00 AM	7.29
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8/25/2016 6:00 PM	7.44	8/26/2016 6:00 PM	7.39	8/27/2016 6:00 PM	7.31
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8/25/2016 11:15 PM	7.40	8/26/2016 11:15 PM	7.32	8/27/2016 11:15 PM	7.35
8/25/2016 11:30 PM	7.38	8/26/2016 11:30 PM	7.31	8/27/2016 11:30 PM	7.32
8/25/2016 11:45 PM	7.37	8/26/2016 11:45 PM	7.31	8/27/2016 11:45 PM	7.30
AVG	7.41	AVG	7.35	AVG	7.32

Date And Time	pH	Date And Time	pH	Date And Time	pH
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8/28/2016 12:30 AM	7.35	8/29/2016 12:30 AM	7.26	8/30/2016 12:30 AM	7.21
8/28/2016 12:45 AM	7.35	8/29/2016 12:45 AM	7.25	8/30/2016 12:45 AM	7.28
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8/28/2016 2:30 AM	7.28	8/29/2016 2:30 AM	7.27	8/30/2016 2:30 AM	7.23
8/28/2016 2:45 AM	7.28	8/29/2016 2:45 AM	7.25	8/30/2016 2:45 AM	7.24
8/28/2016 3:00 AM	7.28	8/29/2016 3:00 AM	7.31	8/30/2016 3:00 AM	7.22
8/28/2016 3:15 AM	7.28	8/29/2016 3:15 AM	7.31	8/30/2016 3:15 AM	7.21
8/28/2016 3:30 AM	7.27	8/29/2016 3:30 AM	7.31	8/30/2016 3:30 AM	7.21
8/28/2016 3:45 AM	7.35	8/29/2016 3:45 AM	7.30	8/30/2016 3:45 AM	7.20
8/28/2016 4:00 AM	7.30	8/29/2016 4:00 AM	7.29	8/30/2016 4:00 AM	7.20
8/28/2016 4:15 AM	7.28	8/29/2016 4:15 AM	7.28	8/30/2016 4:15 AM	7.20
8/28/2016 4:30 AM	7.28	8/29/2016 4:30 AM	7.27	8/30/2016 4:30 AM	7.20
8/28/2016 4:45 AM	7.32	8/29/2016 4:45 AM	7.25	8/30/2016 4:45 AM	7.25
8/28/2016 5:00 AM	7.35	8/29/2016 5:00 AM	7.25	8/30/2016 5:00 AM	7.26
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8/28/2016 5:30 AM	7.34	8/29/2016 5:30 AM	7.24	8/30/2016 5:30 AM	7.20
8/28/2016 5:45 AM	7.33	8/29/2016 5:45 AM	7.23	8/30/2016 5:45 AM	7.24
8/28/2016 6:00 AM	7.31	8/29/2016 6:00 AM	7.23	8/30/2016 6:00 AM	7.28
8/28/2016 6:15 AM	7.29	8/29/2016 6:15 AM	7.23	8/30/2016 6:15 AM	7.27
8/28/2016 6:30 AM	7.28	8/29/2016 6:30 AM	7.22	8/30/2016 6:30 AM	7.27
8/28/2016 6:45 AM	7.28	8/29/2016 6:45 AM	7.31	8/30/2016 6:45 AM	7.25
8/28/2016 7:00 AM	7.27	8/29/2016 7:00 AM	7.26	8/30/2016 7:00 AM	7.24
8/28/2016 7:15 AM	7.27	8/29/2016 7:15 AM	7.24	8/30/2016 7:15 AM	7.23
8/28/2016 7:30 AM	7.27	8/29/2016 7:30 AM	7.21	8/30/2016 7:30 AM	7.23
8/28/2016 7:45 AM	7.27	8/29/2016 7:45 AM	7.31	8/30/2016 7:45 AM	7.20
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8/28/2016 8:30 AM	7.33	8/29/2016 8:30 AM	7.30	8/30/2016 8:30 AM	7.18
8/28/2016 8:45 AM	7.33	8/29/2016 8:45 AM	7.29	8/30/2016 8:45 AM	7.18
8/28/2016 9:00 AM	7.31	8/29/2016 9:00 AM	7.29	8/30/2016 9:00 AM	7.18
8/28/2016 9:15 AM	7.30	8/29/2016 9:15 AM	7.23	8/30/2016 9:15 AM	7.17
8/28/2016 9:30 AM	7.30	8/29/2016 9:30 AM	7.22	8/30/2016 9:30 AM	7.25
8/28/2016 9:45 AM	7.29	8/29/2016 9:45 AM	7.21	8/30/2016 9:45 AM	7.23
8/28/2016 10:00 AM	7.27	8/29/2016 10:00 AM	7.20	8/30/2016 10:00 AM	7.19
8/28/2016 10:15 AM	7.26	8/29/2016 10:15 AM	7.19	8/30/2016 10:15 AM	7.22
8/28/2016 10:30 AM	7.24	8/29/2016 10:30 AM	7.19	8/30/2016 10:30 AM	7.25
8/28/2016 10:45 AM	7.27	8/29/2016 10:45 AM	7.18	8/30/2016 10:45 AM	7.25
8/28/2016 11:00 AM	7.25	8/29/2016 11:00 AM	7.24	8/30/2016 11:00 AM	7.25
8/28/2016 11:15 AM	7.23	8/29/2016 11:15 AM	7.28	8/30/2016 11:15 AM	7.25
8/28/2016 11:30 AM	7.21	8/29/2016 11:30 AM	7.29	8/30/2016 11:30 AM	7.26
8/28/2016 11:45 AM	7.20	8/29/2016 11:45 AM	7.29	8/30/2016 11:45 AM	7.26
8/28/2016 12:00 PM	7.22	8/29/2016 12:00 PM	7.29	8/30/2016 12:00 PM	7.27
8/28/2016 12:15 PM	7.23	8/29/2016 12:15 PM	7.29	8/30/2016 12:15 PM	7.24
8/28/2016 12:30 PM	7.23	8/29/2016 12:30 PM	7.29	8/30/2016 12:30 PM	7.22
8/28/2016 12:45 PM	7.32	8/29/2016 12:45 PM	7.30	8/30/2016 12:45 PM	7.20
8/28/2016 1:00 PM	7.28	8/29/2016 1:00 PM	7.30	8/30/2016 1:00 PM	7.19
8/28/2016 1:15 PM	7.25	8/29/2016 1:15 PM	7.31	8/30/2016 1:15 PM	7.18
8/28/2016 1:30 PM	7.32	8/29/2016 1:30 PM	7.30	8/30/2016 1:30 PM	7.17
8/28/2016 1:45 PM	7.33	8/29/2016 1:45 PM	7.26	8/30/2016 1:45 PM	7.16
8/28/2016 2:00 PM	7.34	8/29/2016 2:00 PM	7.24	8/30/2016 2:00 PM	7.20

8/28/2016 2:15 PM	7.34	8/29/2016 2:15 PM	7.23	8/30/2016 2:15 PM	7.26
8/28/2016 2:30 PM	7.34	8/29/2016 2:30 PM	7.22	8/30/2016 2:30 PM	7.27
8/28/2016 2:45 PM	7.34	8/29/2016 2:45 PM	7.23	8/30/2016 2:45 PM	7.28
8/28/2016 3:00 PM	7.33	8/29/2016 3:00 PM	7.22	8/30/2016 3:00 PM	7.27
8/28/2016 3:15 PM	7.35	8/29/2016 3:15 PM	7.29	8/30/2016 3:15 PM	7.26
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8/28/2016 4:00 PM	7.29	8/29/2016 4:00 PM	7.24	8/30/2016 4:00 PM	7.23
8/28/2016 4:15 PM	7.29	8/29/2016 4:15 PM	7.23	8/30/2016 4:15 PM	7.22
8/28/2016 4:30 PM	7.28	8/29/2016 4:30 PM	7.30	8/30/2016 4:30 PM	7.28
8/28/2016 4:45 PM	7.28	8/29/2016 4:45 PM	7.31	8/30/2016 4:45 PM	7.28
8/28/2016 5:00 PM	7.28	8/29/2016 5:00 PM	7.31	8/30/2016 5:00 PM	7.24
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8/28/2016 5:45 PM	7.29	8/29/2016 5:45 PM	7.29	8/30/2016 5:45 PM	7.21
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8/28/2016 6:15 PM	7.34	8/29/2016 6:15 PM	7.30	8/30/2016 6:15 PM	7.20
8/28/2016 6:30 PM	7.34	8/29/2016 6:30 PM	7.27	8/30/2016 6:30 PM	7.22
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8/28/2016 7:15 PM	7.30	8/29/2016 7:15 PM	7.24	8/30/2016 7:15 PM	7.26
8/28/2016 7:30 PM	7.34	8/29/2016 7:30 PM	7.24	8/30/2016 7:30 PM	7.25
8/28/2016 7:45 PM	7.33	8/29/2016 7:45 PM	7.24	8/30/2016 7:45 PM	7.24
8/28/2016 8:00 PM	7.30	8/29/2016 8:00 PM	7.23	8/30/2016 8:00 PM	7.23
8/28/2016 8:15 PM	7.29	8/29/2016 8:15 PM	7.29	8/30/2016 8:15 PM	7.22
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8/28/2016 8:45 PM	7.28	8/29/2016 8:45 PM	7.23	8/30/2016 8:45 PM	7.23
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8/28/2016 10:30 PM	7.27	8/29/2016 10:30 PM	7.26	8/30/2016 10:30 PM	7.19
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8/28/2016 11:45 PM	7.30	8/29/2016 11:45 PM	7.22	8/30/2016 11:45 PM	7.23
AVG	7.30	AVG	7.26	AVG	7.23

Date And Time	pH
8/31/2016 12:00 AM	7.22
8/31/2016 12:15 AM	7.17
8/31/2016 12:30 AM	7.23
8/31/2016 12:45 AM	7.23
8/31/2016 1:00 AM	7.23
8/31/2016 1:15 AM	7.22
8/31/2016 1:30 AM	7.20
8/31/2016 1:45 AM	7.19
8/31/2016 2:00 AM	7.18
8/31/2016 2:15 AM	7.18
8/31/2016 2:30 AM	7.17
8/31/2016 2:45 AM	7.17
8/31/2016 3:00 AM	7.17
8/31/2016 3:15 AM	7.17
8/31/2016 3:30 AM	7.17
8/31/2016 3:45 AM	7.24
8/31/2016 4:00 AM	7.24
8/31/2016 4:15 AM	7.24
8/31/2016 4:30 AM	7.23
8/31/2016 4:45 AM	7.22
8/31/2016 5:00 AM	7.21
8/31/2016 5:15 AM	7.20
8/31/2016 5:30 AM	7.20
8/31/2016 5:45 AM	7.19
8/31/2016 6:00 AM	7.20
8/31/2016 6:15 AM	7.18
8/31/2016 6:30 AM	7.17
8/31/2016 6:45 AM	7.17

MIN	**6.92**
MAX	**7.79**

8/31/2016 7:00 AM	7.16
8/31/2016 7:15 AM	7.16
8/31/2016 7:30 AM	7.16
8/31/2016 7:45 AM	7.16
8/31/2016 8:00 AM	7.22
8/31/2016 8:15 AM	7.24
8/31/2016 8:30 AM	7.24
8/31/2016 8:45 AM	7.23
8/31/2016 9:00 AM	7.22
8/31/2016 9:15 AM	7.21
8/31/2016 9:30 AM	7.20
8/31/2016 9:45 AM	7.20
8/31/2016 10:00 AM	7.19
8/31/2016 10:15 AM	7.18
8/31/2016 10:30 AM	7.18
8/31/2016 10:45 AM	7.16
8/31/2016 11:00 AM	7.16
8/31/2016 11:15 AM	7.16
8/31/2016 11:30 AM	7.18
8/31/2016 11:45 AM	7.22
8/31/2016 12:00 PM	7.22
8/31/2016 12:15 PM	7.19
8/31/2016 12:30 PM	7.16
8/31/2016 12:45 PM	7.23
8/31/2016 1:00 PM	7.24
8/31/2016 1:15 PM	7.23
8/31/2016 1:30 PM	7.24
8/31/2016 1:45 PM	7.24
8/31/2016 2:00 PM	7.24
8/31/2016 2:15 PM	7.23
8/31/2016 2:30 PM	7.23
8/31/2016 2:45 PM	7.23
8/31/2016 3:00 PM	7.22
8/31/2016 3:15 PM	7.25
8/31/2016 3:30 PM	7.22
8/31/2016 3:45 PM	7.19
8/31/2016 4:00 PM	7.19
8/31/2016 4:15 PM	7.19
8/31/2016 4:30 PM	7.18
8/31/2016 4:45 PM	7.18
8/31/2016 5:00 PM	7.16
8/31/2016 5:15 PM	7.23
8/31/2016 5:30 PM	7.25
8/31/2016 5:45 PM	7.25
8/31/2016 6:00 PM	7.24
8/31/2016 6:15 PM	7.24
8/31/2016 6:30 PM	7.23
8/31/2016 6:45 PM	7.22
8/31/2016 7:00 PM	7.20
8/31/2016 7:15 PM	7.17
8/31/2016 7:30 PM	7.25
8/31/2016 7:45 PM	7.25
8/31/2016 8:00 PM	7.21
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8/31/2016 8:45 PM	7.19
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8/31/2016 9:15 PM	7.19
8/31/2016 9:30 PM	7.20
8/31/2016 9:45 PM	7.24
8/31/2016 10:00 PM	7.19
8/31/2016 10:15 PM	7.22
8/31/2016 10:30 PM	7.23
8/31/2016 10:45 PM	7.22
8/31/2016 11:00 PM	7.21
8/31/2016 11:15 PM	7.21
8/31/2016 11:30 PM	7.20
8/31/2016 11:45 PM	7.20
AVG	7.21

Avtex Fibers
Front Royal, VA
Outfall 004
August 2016 DMR

Sample Date	Sample ID	BOD, mg/L	BOD, kg/d	TSS, mg/L	TSS, kg/d
8/3/2016	AF8-3FE	0.0	0.00	1.5	0.67
8/10/2016	AF8-10FE	0.0	0.00	1.60	0.71
8/18/2016	AF8-18FE	2.0	1.06	1.1	0.58
8/24/2016	AF8-24FE	0.0	0.00	0.0	0.00
8/31/2016	AF8-31FE	0.0	0.00	0.00	0.00
	Daily Maximum:	2.0	1.1	1.6	0.7
	Monthly Avg:	0.4	0.2	0.8	0.4

Monthly Average – Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in Part I.C.1 shall be determined as follows: All concentration data below the QL used for the analysis shall be treated as zero. All concentration data equal to or above the QL used for the analysis shall be treated as it is reported. An arithmetic average shall be calculated using all reported data for the month, including the defined zeros. This arithmetic average shall be reported on the Discharge Monitoring Report (DMR) as calculated. If all data are below the QL used for the analysis, then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported monthly average concentration is <QL, then report "<QL" for the quantity. Otherwise use the reported concentration data (including the defined zeros) and flow data for each sample day to determine the daily quantity and report the monthly average of the calculated daily quantities.

Daily Maximum – Compliance with the daily maximum limitations and/or reporting requirements for the parameters listed in Part I.C.1 shall be determined as follows: All concentration data below the QL used for the analysis shall be treated as zero. All concentration data equal to or above the QL used for the analysis shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each day during the reporting month. The maximum value of these daily averages thus determined shall be reported on the DMR as the Daily Maximum. If all data are below the QL used for the analysis, then the maximum value of the daily averages shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported daily maximum concentration is <QL, then report "<QL" for the quantity. Otherwise use the reported daily average concentrations (including the defined zeros) and corresponding daily flows to determine daily average quantities and report the maximum of the daily average quantities during the reporting month.

Loading Derivation
If 1 ppm (= 1 mg/L) and 1 MGD (= 1 MG/day)
--> (1 mg/L)(1 MG/day)(3.785 L/Gal)(10^6 Gal/MG)(1 lb/453,600 mg) = 8.34 lbs/day
--> lbs/day = ppm * 8.34 * MGD
--> kg/d = ppm * 8.34 * MGD * 0.4536*lb/d

Concentration Derivation
If 1 lb/d and 1 MGD (= 1 MG/day)
[(1 lbs/day)(453,600 mg/lb)] / [(1 MG/d)(10^6 Gal/MG)(3.785 L/Gal)]
--> ppm = lb/d * (1/8.34) * (1/MGD)

	BOD
8/3/2016	0
8/10/2016	0
8/18/2016	1.058482431
8/24/2016	0
8/31/2016	0
AVG	0.211696486

	TSS
8/3/2016	0.666759354
8/10/2016	0.706189007
8/18/2016	0.582165337
8/24/2016	0
8/31/2016	0
AVG	0.39102274

	CS2*
8/10/2016	<QL

*Note: CS2 EPA Test Method: 8260 MSV Low Level Analytical Method (EPA 8260)
Report Limit 2 ug/L
MDL 1.2 ug/L

FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104
USA

215.299.6000
fmc.com

Transmitted via Email

October 10, 2016

Department of Environmental Quality - CO
Office of Remediation Program
P.O. Box 1105
Richmond, VA 23218

Re: Submission of Discharge Monitoring Report – September 2016
Avtex Fibers Superfund Site
Front Royal, Virginia

Dear Ms Payne:

In accordance with the Applicable or Relevant and Appropriate Requirements (ARARs) and Fact Sheet provided July 22, 2014, FMC Corporation (FMC) is submitting the Discharge Monitoring Report (DMR) for the month of September 2016. The permit is for the discharge from the Groundwater and Leachate Treatment Plant (GLTP) located at 404 Kendrick Lane, Front Royal, VA. Analysis of effluent concentrations yielded results within the allowable limits for all parameters.

Please do not hesitate to call if there are any questions.

Sincerely,

FMC Corporation

Brian M. McGinnis, P.E.
Manager, Environmental Remediation

cc: via Email
Brandon Kiracofe, DEQ
Jeffrey Thomas, USEPA
Heather Philip, Parsons

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS: (Include Facility Name/Location if different) OMB No. 2040-004

NAME:	Avtex Fibers		NA				004			**DMR MAILING ZIP CODE:**	23218
ADDRESS:	404 Kendrick Lane		**PERMIT NUMBER**				**DISCHARGE NUMBER**				
	Front Royal, VA 22630									DESCRIPTION:	
			MONITORING PERIOD							GLTP EFFLUENT (OUTFALL 004)	
FACILITY:	AVTEX FIBERS		**YEAR**	**MO**	**DAY**		**YEAR**	**MO**	**DAY**	External Outfall	
LOCATION:	FRONT ROYAL, VA	**FROM**	16	09	01	TO	16	09	30		**No Discharge**
ATTN:											

PARAMETER		QUANTITY OR LOADING VALUE	QUANTITY OR LOADING VALUE	QUANTITY OR LOADING UNITS	QUALITY OR CONCENTRATION VALUE	QUALITY OR CONCENTRATION VALUE	QUALITY OR CONCENTRATION VALUE	QUALITY OR CONCENTRATION UNITS	**NO. EX**	FREQUENCY OF ANALYSIS	**SAMPLE TYPE**
FLOW	**SAMPLE MEASUREMENT**	0.108	0.118	MGD	*****	*****	*****		0	CONTINUOUS	TIRE
00056 1 0 EFFLUENT GROSS	**PERMIT REQUIREMENT**	REPORT MONTHLY AV	REPORT DAILY MAX		******	******	******			CONTINUOUS	TIRE
PH	**SAMPLE MEASUREMENT**	*****	*****		7.1	*****	7.4	SU	0	CONTINUOUS	GRAB
00400 1 0 EFFLUENT GROSS	**PERMIT REQUIREMENT**	******	******		6.5 MINIMUM	******	9.0 MAXIMUM			CONTINUOUS	GRAB
BOD, 5-DAY	**SAMPLE MEASUREMENT**	0.2	0.8	kg/d	*****	0.5	2.0	mg/L	0	1/7	8 HC
00318 1 0 EFFLUENT GROSS	**PERMIT REQUIREMENT**	36 MONTHLY AV	96 DAILY MAX		******	24 MONTHLY AV	64 DAILY MX			1/7	8 HC
SOLIDS, TOTAL SUSPENDED	**SAMPLE MEASUREMENT**	0.5	0.9	kg/d	*****	1.4	2.4	mg/L	0	1/7	8 HC
03603 1 0 EFFLUENT GROSS	**PERMIT REQUIREMENT**	60 MONTHLY AV	190 DAILY MAX		******	40 MONTHLY AV	130 DAILY MX			1/7	8 HC
CARBON DISULFIDE	**SAMPLE MEASUREMENT**	<QL	<QL	kg/d	*****	<QL	<QL	mg/L	0	1/30	8 HC
77041 1 0 EFFLUENT GROSS	**PERMIT REQUIREMENT**	NL MONTHLY AV	NL DAILY MAX		******	NL MONTHLY AV	NL DAILY MX			1/30	8 HC

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
Brian McGinnis	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.	[signature]			16	10	10
Manager, Environmental Remediation		SIGNATURE OF PRINCIPAL EXECUTIVE	215	299-6047			
TYPED OR PRINTED		OFFICER OR AUTHORIZED AGENT	AREA	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*

Attachment: pH compliance monitoring summary (monthly)

Carbon disulfide: No limit established; monitored monthly; 0.1 mg/L action level

EPA Form 3320-1 (Rev 01/06) Previous editions may be used.

Avtex Fibers
Front Royal, VA
Outfall 004
September 2016 DMR

pH Calculations:

Date And Time	pH	Date And Time	pH	Date And Time	pH
9/1/2016 12:00 AM	7.21	9/2/2016 12:00 AM	7.20	9/3/2016 12:00 AM	7.29
9/1/2016 12:15 AM		9/2/2016 12:15 AM	7.19	9/3/2016 12:15 AM	7.29
9/1/2016 12:30 AM	7.19	9/2/2016 12:30 AM	7.18	9/3/2016 12:30 AM	7.28
9/1/2016 12:45 AM	7.18	9/2/2016 12:45 AM	7.26	9/3/2016 12:45 AM	7.27
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9/1/2016 1:30 AM	7.18	9/2/2016 1:30 AM	7.20	9/3/2016 1:30 AM	7.24
9/1/2016 1:45 AM	7.18	9/2/2016 1:45 AM	7.27	9/3/2016 1:45 AM	7.22
9/1/2016 2:00 AM	7.15	9/2/2016 2:00 AM	7.28	9/3/2016 2:00 AM	7.21
9/1/2016 2:15 AM	7.23	9/2/2016 2:15 AM	7.27	9/3/2016 2:15 AM	7.21
9/1/2016 2:30 AM	7.23	9/2/2016 2:30 AM	7.26	9/3/2016 2:30 AM	7.20
9/1/2016 2:45 AM	7.23	9/2/2016 2:45 AM	7.25	9/3/2016 2:45 AM	7.20
9/1/2016 3:00 AM	7.22	9/2/2016 3:00 AM	7.24	9/3/2016 3:00 AM	7.20
9/1/2016 3:15 AM	7.22	9/2/2016 3:15 AM	7.21	9/3/2016 3:15 AM	7.20
9/1/2016 3:30 AM	7.21	9/2/2016 3:30 AM	7.21	9/3/2016 3:30 AM	7.25
9/1/2016 3:45 AM	7.20	9/2/2016 3:45 AM	7.20	9/3/2016 3:45 AM	7.27
9/1/2016 4:00 AM	7.20	9/2/2016 4:00 AM	7.20	9/3/2016 4:00 AM	7.22
9/1/2016 4:15 AM	7.21	9/2/2016 4:15 AM	7.20	9/3/2016 4:15 AM	7.21
9/1/2016 4:30 AM	7.19	9/2/2016 4:30 AM	7.20	9/3/2016 4:30 AM	7.28
9/1/2016 4:45 AM	7.18	9/2/2016 4:45 AM	7.20	9/3/2016 4:45 AM	7.30
9/1/2016 5:00 AM	7.18	9/2/2016 5:00 AM	7.19	9/3/2016 5:00 AM	7.29
9/1/2016 5:15 AM	7.18	9/2/2016 5:15 AM	7.28	9/3/2016 5:15 AM	7.27
9/1/2016 5:30 AM	7.17	9/2/2016 5:30 AM	7.23	9/3/2016 5:30 AM	7.26
9/1/2016 5:45 AM	7.17	9/2/2016 5:45 AM	7.21	9/3/2016 5:45 AM	7.25
9/1/2016 6:00 AM	7.17	9/2/2016 6:00 AM	7.28	9/3/2016 6:00 AM	7.25
9/1/2016 6:15 AM	7.18	9/2/2016 6:15 AM	7.29	9/3/2016 6:15 AM	7.21
9/1/2016 6:30 AM	7.24	9/2/2016 6:30 AM	7.28	9/3/2016 6:30 AM	7.21
9/1/2016 6:45 AM	7.19	9/2/2016 6:45 AM	7.27	9/3/2016 6:45 AM	7.20
9/1/2016 7:00 AM	7.18	9/2/2016 7:00 AM	7.25	9/3/2016 7:00 AM	7.20
9/1/2016 7:15 AM	7.22	9/2/2016 7:15 AM	7.24	9/3/2016 7:15 AM	7.20
9/1/2016 7:30 AM	7.25	9/2/2016 7:30 AM	7.24	9/3/2016 7:30 AM	7.20
9/1/2016 7:45 AM	7.25	9/2/2016 7:45 AM	7.21	9/3/2016 7:45 AM	7.20
9/1/2016 8:00 AM	7.24	9/2/2016 8:00 AM	7.20	9/3/2016 8:00 AM	7.18
9/1/2016 8:15 AM	7.23	9/2/2016 8:15 AM	7.20	9/3/2016 8:15 AM	7.28
9/1/2016 8:30 AM	7.22	9/2/2016 8:30 AM	7.19	9/3/2016 8:30 AM	7.28
9/1/2016 8:45 AM	7.21	9/2/2016 8:45 AM	7.19	9/3/2016 8:45 AM	7.27
9/1/2016 9:00 AM	7.22	9/2/2016 9:00 AM	7.19	9/3/2016 9:00 AM	7.26
9/1/2016 9:15 AM	7.19	9/2/2016 9:15 AM	7.19	9/3/2016 9:15 AM	7.26
9/1/2016 9:30 AM	7.18	9/2/2016 9:30 AM	7.26	9/3/2016 9:30 AM	7.24
9/1/2016 9:45 AM	7.18	9/2/2016 9:45 AM	7.23	9/3/2016 9:45 AM	7.22
9/1/2016 10:00 AM	7.18	9/2/2016 10:00 AM	7.21	9/3/2016 10:00 AM	7.22
9/1/2016 10:15 AM	7.18	9/2/2016 10:15 AM	7.20	9/3/2016 10:15 AM	7.22
9/1/2016 10:30 AM	7.18	9/2/2016 10:30 AM	7.27	9/3/2016 10:30 AM	7.22
9/1/2016 10:45 AM	7.18	9/2/2016 10:45 AM	7.28	9/3/2016 10:45 AM	7.20
9/1/2016 11:00 AM	7.24	9/2/2016 11:00 AM	7.27	9/3/2016 11:00 AM	7.19

9/1/2016 11:15 AM	7.22	9/2/2016 11:15 AM	7.27	9/3/2016 11:15 AM	7.19
9/1/2016 11:30 AM	7.19	9/2/2016 11:30 AM	7.28	9/3/2016 11:30 AM	7.19
9/1/2016 11:45 AM	7.22	9/2/2016 11:45 AM	7.28	9/3/2016 11:45 AM	7.19
9/1/2016 12:00 PM	7.27	9/2/2016 12:00 PM	7.27	9/3/2016 12:00 PM	7.18
9/1/2016 12:15 PM	7.28	9/2/2016 12:15 PM	7.26	9/3/2016 12:15 PM	7.18
9/1/2016 12:30 PM	7.28	9/2/2016 12:30 PM	7.25	9/3/2016 12:30 PM	7.27
9/1/2016 12:45 PM	7.27	9/2/2016 12:45 PM	7.23	9/3/2016 12:45 PM	7.29
9/1/2016 1:00 PM	7.26	9/2/2016 1:00 PM	7.23	9/3/2016 1:00 PM	7.29
9/1/2016 1:15 PM	7.26	9/2/2016 1:15 PM	7.22	9/3/2016 1:15 PM	7.28
9/1/2016 1:30 PM	7.27	9/2/2016 1:30 PM	7.22	9/3/2016 1:30 PM	7.28
9/1/2016 1:45 PM	7.24	9/2/2016 1:45 PM	7.22	9/3/2016 1:45 PM	7.29
9/1/2016 2:00 PM	7.23	9/2/2016 2:00 PM	7.21	9/3/2016 2:00 PM	7.29
9/1/2016 2:15 PM	7.21	9/2/2016 2:15 PM	7.30	9/3/2016 2:15 PM	7.27
9/1/2016 2:30 PM	7.21	9/2/2016 2:30 PM	7.25	9/3/2016 2:30 PM	7.27
9/1/2016 2:45 PM	7.19	9/2/2016 2:45 PM	7.23	9/3/2016 2:45 PM	7.25
9/1/2016 3:00 PM	7.19	9/2/2016 3:00 PM	7.30	9/3/2016 3:00 PM	7.26
9/1/2016 3:15 PM	7.19	9/2/2016 3:15 PM	7.29	9/3/2016 3:15 PM	7.24
9/1/2016 3:30 PM	7.21	9/2/2016 3:30 PM	7.29	9/3/2016 3:30 PM	7.22
9/1/2016 3:45 PM	7.27	9/2/2016 3:45 PM	7.28	9/3/2016 3:45 PM	7.21
9/1/2016 4:00 PM	7.28	9/2/2016 4:00 PM	7.27	9/3/2016 4:00 PM	7.20
9/1/2016 4:15 PM	7.27	9/2/2016 4:15 PM	7.26	9/3/2016 4:15 PM	7.20
9/1/2016 4:30 PM	7.26	9/2/2016 4:30 PM	7.26	9/3/2016 4:30 PM	7.20
9/1/2016 4:45 PM	7.25	9/2/2016 4:45 PM	7.25	9/3/2016 4:45 PM	7.17
9/1/2016 5:00 PM	7.24	9/2/2016 5:00 PM	7.24	9/3/2016 5:00 PM	7.26
9/1/2016 5:15 PM	7.23	9/2/2016 5:15 PM	7.23	9/3/2016 5:15 PM	7.22
9/1/2016 5:30 PM	7.21	9/2/2016 5:30 PM	7.22	9/3/2016 5:30 PM	7.20
9/1/2016 5:45 PM	7.20	9/2/2016 5:45 PM	7.22	9/3/2016 5:45 PM	7.24
9/1/2016 6:00 PM	7.24	9/2/2016 6:00 PM	7.22	9/3/2016 6:00 PM	7.27
9/1/2016 6:15 PM	7.24	9/2/2016 6:15 PM	7.21	9/3/2016 6:15 PM	7.26
9/1/2016 6:30 PM	7.22	9/2/2016 6:30 PM	7.20	9/3/2016 6:30 PM	7.25
9/1/2016 6:45 PM	7.21	9/2/2016 6:45 PM	7.28	9/3/2016 6:45 PM	7.25
9/1/2016 7:00 PM	7.21	9/2/2016 7:00 PM	7.24	9/3/2016 7:00 PM	7.24
9/1/2016 7:15 PM	7.20	9/2/2016 7:15 PM	7.22	9/3/2016 7:15 PM	7.23
9/1/2016 7:30 PM	7.20	9/2/2016 7:30 PM	7.24	9/3/2016 7:30 PM	7.23
9/1/2016 7:45 PM	7.20	9/2/2016 7:45 PM	7.29	9/3/2016 7:45 PM	7.22
9/1/2016 8:00 PM	7.21	9/2/2016 8:00 PM	7.29	9/3/2016 8:00 PM	7.21
9/1/2016 8:15 PM	7.18	9/2/2016 8:15 PM	7.28	9/3/2016 8:15 PM	7.20
9/1/2016 8:30 PM	7.27	9/2/2016 8:30 PM	7.26	9/3/2016 8:30 PM	7.20
9/1/2016 8:45 PM	7.27	9/2/2016 8:45 PM	7.25	9/3/2016 8:45 PM	7.19
9/1/2016 9:00 PM	7.26	9/2/2016 9:00 PM	7.25	9/3/2016 9:00 PM	7.19
9/1/2016 9:15 PM	7.24	9/2/2016 9:15 PM	7.22	9/3/2016 9:15 PM	7.19
9/1/2016 9:30 PM	7.24	9/2/2016 9:30 PM	7.22	9/3/2016 9:30 PM	7.19
9/1/2016 9:45 PM	7.22	9/2/2016 9:45 PM	7.21	9/3/2016 9:45 PM	7.25
9/1/2016 10:00 PM	7.22	9/2/2016 10:00 PM	7.21	9/3/2016 10:00 PM	7.21
9/1/2016 10:15 PM	7.23	9/2/2016 10:15 PM	7.21	9/3/2016 10:15 PM	7.18
9/1/2016 10:30 PM	7.24	9/2/2016 10:30 PM	7.21	9/3/2016 10:30 PM	7.27
9/1/2016 10:45 PM	7.21	9/2/2016 10:45 PM	7.21	9/3/2016 10:45 PM	7.26
9/1/2016 11:00 PM	7.21	9/2/2016 11:00 PM	7.17	9/3/2016 11:00 PM	7.26
9/1/2016 11:15 PM	7.20	9/2/2016 11:15 PM	7.28	9/3/2016 11:15 PM	7.24
9/1/2016 11:30 PM	7.20	9/2/2016 11:30 PM	7.24	9/3/2016 11:30 PM	7.23
9/1/2016 11:45 PM	7.20	9/2/2016 11:45 PM	7.19	9/3/2016 11:45 PM	7.23
AVG	7.22	AVG	7.24	AVG	7.23

Note communications loss at 12:15AM, no data recorded, not included in average.

Date And Time	pH	Date And Time	pH	Date And Time	pH
9/4/2016 12:00 AM	7.22	9/5/2016 12:00 AM	7.19	9/6/2016 12:00 AM	7.29
9/4/2016 12:15 AM	7.19	9/5/2016 12:15 AM	7.19	9/6/2016 12:15 AM	7.29
9/4/2016 12:30 AM	7.19	9/5/2016 12:30 AM	7.26	9/6/2016 12:30 AM	7.28
9/4/2016 12:45 AM	7.18	9/5/2016 12:45 AM	7.25	9/6/2016 12:45 AM	7.27
9/4/2016 1:00 AM	7.18	9/5/2016 1:00 AM	7.21	9/6/2016 1:00 AM	7.26
9/4/2016 1:15 AM	7.18	9/5/2016 1:15 AM	7.26	9/6/2016 1:15 AM	7.25
9/4/2016 1:30 AM	7.18	9/5/2016 1:30 AM	7.29	9/6/2016 1:30 AM	7.25
9/4/2016 1:45 AM	7.17	9/5/2016 1:45 AM	7.28	9/6/2016 1:45 AM	7.22
9/4/2016 2:00 AM	7.18	9/5/2016 2:00 AM	7.27	9/6/2016 2:00 AM	7.21
9/4/2016 2:15 AM	7.26	9/5/2016 2:15 AM	7.26	9/6/2016 2:15 AM	7.20
9/4/2016 2:30 AM	7.20	9/5/2016 2:30 AM	7.24	9/6/2016 2:30 AM	7.20
9/4/2016 2:45 AM	7.23	9/5/2016 2:45 AM	7.23	9/6/2016 2:45 AM	7.20
9/4/2016 3:00 AM	7.27	9/5/2016 3:00 AM	7.24	9/6/2016 3:00 AM	7.20
9/4/2016 3:15 AM	7.26	9/5/2016 3:15 AM	7.21	9/6/2016 3:15 AM	7.20
9/4/2016 3:30 AM	7.24	9/5/2016 3:30 AM	7.20	9/6/2016 3:30 AM	7.20
9/4/2016 3:45 AM	7.23	9/5/2016 3:45 AM	7.20	9/6/2016 3:45 AM	7.29
9/4/2016 4:00 AM	7.22	9/5/2016 4:00 AM	7.20	9/6/2016 4:00 AM	7.23
9/4/2016 4:15 AM	7.22	9/5/2016 4:15 AM	7.19	9/6/2016 4:15 AM	7.21
9/4/2016 4:30 AM	7.22	9/5/2016 4:30 AM	7.19	9/6/2016 4:30 AM	7.28
9/4/2016 4:45 AM	7.19	9/5/2016 4:45 AM	7.20	9/6/2016 4:45 AM	7.30
9/4/2016 5:00 AM	7.18	9/5/2016 5:00 AM	7.17	9/6/2016 5:00 AM	7.29
9/4/2016 5:15 AM	7.18	9/5/2016 5:15 AM	7.29	9/6/2016 5:15 AM	7.27
9/4/2016 5:30 AM	7.17	9/5/2016 5:30 AM	7.29	9/6/2016 5:30 AM	7.27
9/4/2016 5:45 AM	7.17	9/5/2016 5:45 AM	7.28	9/6/2016 5:45 AM	7.25
9/4/2016 6:00 AM	7.17	9/5/2016 6:00 AM	7.26	9/6/2016 6:00 AM	7.25
9/4/2016 6:15 AM	7.17	9/5/2016 6:15 AM	7.25	9/6/2016 6:15 AM	7.21
9/4/2016 6:30 AM	7.20	9/5/2016 6:30 AM	7.24	9/6/2016 6:30 AM	7.21
9/4/2016 6:45 AM	7.26	9/5/2016 6:45 AM	7.23	9/6/2016 6:45 AM	7.20
9/4/2016 7:00 AM	7.25	9/5/2016 7:00 AM	7.22	9/6/2016 7:00 AM	7.20
9/4/2016 7:15 AM	7.25	9/5/2016 7:15 AM	7.22	9/6/2016 7:15 AM	7.20
9/4/2016 7:30 AM	7.23	9/5/2016 7:30 AM	7.20	9/6/2016 7:30 AM	7.20
9/4/2016 7:45 AM	7.22	9/5/2016 7:45 AM	7.20	9/6/2016 7:45 AM	7.20
9/4/2016 8:00 AM	7.21	9/5/2016 8:00 AM	7.19	9/6/2016 8:00 AM	7.21
9/4/2016 8:15 AM	7.20	9/5/2016 8:15 AM	7.19	9/6/2016 8:15 AM	7.29
9/4/2016 8:30 AM	7.19	9/5/2016 8:30 AM	7.18	9/6/2016 8:30 AM	7.29
9/4/2016 8:45 AM	7.19	9/5/2016 8:45 AM	7.18	9/6/2016 8:45 AM	7.28
9/4/2016 9:00 AM	7.20	9/5/2016 9:00 AM	7.18	9/6/2016 9:00 AM	7.27
9/4/2016 9:15 AM	7.20	9/5/2016 9:15 AM	7.25	9/6/2016 9:15 AM	7.26
9/4/2016 9:30 AM	7.21	9/5/2016 9:30 AM	7.25	9/6/2016 9:30 AM	7.24
9/4/2016 9:45 AM	7.21	9/5/2016 9:45 AM	7.19	9/6/2016 9:45 AM	7.24
9/4/2016 10:00 AM	7.21	9/5/2016 10:00 AM	7.18	9/6/2016 10:00 AM	7.24
9/4/2016 10:15 AM	7.20	9/5/2016 10:15 AM	7.25	9/6/2016 10:15 AM	7.22
9/4/2016 10:30 AM	7.18	9/5/2016 10:30 AM	7.27	9/6/2016 10:30 AM	7.24
9/4/2016 10:45 AM	7.17	9/5/2016 10:45 AM	7.27	9/6/2016 10:45 AM	7.24
9/4/2016 11:00 AM	7.16	9/5/2016 11:00 AM	7.27	9/6/2016 11:00 AM	7.22
9/4/2016 11:15 AM	7.16	9/5/2016 11:15 AM	7.27	9/6/2016 11:15 AM	7.20
9/4/2016 11:30 AM	7.23	9/5/2016 11:30 AM	7.28	9/6/2016 11:30 AM	7.20
9/4/2016 11:45 AM	7.26	9/5/2016 11:45 AM	7.28	9/6/2016 11:45 AM	7.19
9/4/2016 12:00 PM	7.27	9/5/2016 12:00 PM	7.28	9/6/2016 12:00 PM	7.19
9/4/2016 12:15 PM	7.27	9/5/2016 12:15 PM	7.28	9/6/2016 12:15 PM	7.19
9/4/2016 12:30 PM	7.26	9/5/2016 12:30 PM	7.26	9/6/2016 12:30 PM	7.30
9/4/2016 12:45 PM	7.25	9/5/2016 12:45 PM	7.24	9/6/2016 12:45 PM	7.31
9/4/2016 1:00 PM	7.24	9/5/2016 1:00 PM	7.23	9/6/2016 1:00 PM	7.31
9/4/2016 1:15 PM	7.25	9/5/2016 1:15 PM	7.22	9/6/2016 1:15 PM	7.31
9/4/2016 1:30 PM	7.25	9/5/2016 1:30 PM	7.21	9/6/2016 1:30 PM	7.30
9/4/2016 1:45 PM	7.24	9/5/2016 1:45 PM	7.21	9/6/2016 1:45 PM	7.30
9/4/2016 2:00 PM	7.22	9/5/2016 2:00 PM	7.22	9/6/2016 2:00 PM	7.28
9/4/2016 2:15 PM	7.20	9/5/2016 2:15 PM	7.31	9/6/2016 2:15 PM	7.28
9/4/2016 2:30 PM	7.19	9/5/2016 2:30 PM	7.32	9/6/2016 2:30 PM	7.29
9/4/2016 2:45 PM	7.19	9/5/2016 2:45 PM	7.32	9/6/2016 2:45 PM	7.26
9/4/2016 3:00 PM	7.18	9/5/2016 3:00 PM	7.31	9/6/2016 3:00 PM	7.31
9/4/2016 3:15 PM	7.19	9/5/2016 3:15 PM	7.29	9/6/2016 3:15 PM	7.21
9/4/2016 3:30 PM	7.17	9/5/2016 3:30 PM	7.29	9/6/2016 3:30 PM	7.24
9/4/2016 3:45 PM	7.27	9/5/2016 3:45 PM	7.27	9/6/2016 3:45 PM	7.28
9/4/2016 4:00 PM	7.22	9/5/2016 4:00 PM	7.26	9/6/2016 4:00 PM	7.29
9/4/2016 4:15 PM	7.20	9/5/2016 4:15 PM	7.25	9/6/2016 4:15 PM	7.28
9/4/2016 4:30 PM	7.26	9/5/2016 4:30 PM	7.30	9/6/2016 4:30 PM	7.28
9/4/2016 4:45 PM	7.27	9/5/2016 4:45 PM	7.30	9/6/2016 4:45 PM	7.27
9/4/2016 5:00 PM	7.27	9/5/2016 5:00 PM	7.27	9/6/2016 5:00 PM	7.29
9/4/2016 5:15 PM	7.27	9/5/2016 5:15 PM	7.25	9/6/2016 5:15 PM	7.27

9/4/2016 5:30 PM	7.26	9/5/2016 5:30 PM	7.24	9/6/2016 5:30 PM	7.24
9/4/2016 5:45 PM	7.27	9/5/2016 5:45 PM	7.23	9/6/2016 5:45 PM	7.21
9/4/2016 6:00 PM	7.26	9/5/2016 6:00 PM	7.23	9/6/2016 6:00 PM	7.28
9/4/2016 6:15 PM	7.24	9/5/2016 6:15 PM	7.23	9/6/2016 6:15 PM	7.30
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9/4/2016 7:00 PM	7.21	9/5/2016 7:00 PM	7.30	9/6/2016 7:00 PM	7.28
9/4/2016 7:15 PM	7.21	9/5/2016 7:15 PM	7.30	9/6/2016 7:15 PM	7.27
9/4/2016 7:30 PM	7.21	9/5/2016 7:30 PM	7.29	9/6/2016 7:30 PM	7.29
9/4/2016 7:45 PM	7.21	9/5/2016 7:45 PM	7.27	9/6/2016 7:45 PM	7.28
9/4/2016 8:00 PM	7.19	9/5/2016 8:00 PM	7.26	9/6/2016 8:00 PM	7.25
9/4/2016 8:15 PM	7.27	9/5/2016 8:15 PM	7.25	9/6/2016 8:15 PM	7.24
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9/4/2016 8:45 PM	7.27	9/5/2016 8:45 PM	7.23	9/6/2016 8:45 PM	7.23
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9/4/2016 9:15 PM	7.25	9/5/2016 9:15 PM	7.25	9/6/2016 9:15 PM	7.23
9/4/2016 9:30 PM	7.24	9/5/2016 9:30 PM	7.23	9/6/2016 9:30 PM	7.19
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9/4/2016 10:00 PM	7.23	9/5/2016 10:00 PM	7.22	9/6/2016 10:00 PM	7.24
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9/4/2016 10:30 PM	7.21	9/5/2016 10:30 PM	7.22	9/6/2016 10:30 PM	7.26
9/4/2016 10:45 PM	7.20	9/5/2016 10:45 PM	7.21	9/6/2016 10:45 PM	7.29
9/4/2016 11:00 PM	7.20	9/5/2016 11:00 PM	7.21	9/6/2016 11:00 PM	7.28
9/4/2016 11:15 PM	7.20	9/5/2016 11:15 PM	7.27	9/6/2016 11:15 PM	7.27
9/4/2016 11:30 PM	7.19	9/5/2016 11:30 PM	7.24	9/6/2016 11:30 PM	7.25
9/4/2016 11:45 PM	7.19	9/5/2016 11:45 PM	7.21	9/6/2016 11:45 PM	7.25
AVG	7.22	AVG	7.24	AVG	7.25

Date And Time	pH	Date And Time	pH	Date And Time	pH
9/7/2016 12:00 AM	7.25	9/8/2016 12:00 AM	7.20	9/9/2016 12:00 AM	7.27
9/7/2016 12:15 AM	7.23	9/8/2016 12:15 AM	7.19	9/9/2016 12:15 AM	7.27
9/7/2016 12:30 AM	7.22	9/8/2016 12:30 AM	7.27	9/9/2016 12:30 AM	7.26
9/7/2016 12:45 AM	7.22	9/8/2016 12:45 AM	7.22	9/9/2016 12:45 AM	7.25
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AVG	7.25	AVG	7.23	AVG	7.23

Date And Time	pH	Date And Time	pH	Date And Time	pH
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AVG	7.22	AVG	7.22	AVG	7.23

Date And Time	pH	Date And Time	pH	Date And Time	pH
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AVG	7.25	AVG	7.26	AVG	7.26

Date And Time	pH	Date And Time	pH	Date And Time	pH
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AVG	7.25	AVG	7.26	AVG	7.26

Date And Time	pH	Date And Time	pH	Date And Time	pH
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AVG	7.23	AVG	7.23	AVG	7.26

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9/22/2016 11:30 PM	7.28	9/23/2016 11:30 PM	7.25	9/24/2016 11:30 PM	7.31
9/22/2016 11:45 PM	7.30	9/23/2016 11:45 PM	7.23	9/24/2016 11:45 PM	7.30
AVG	7.25	AVG	7.25	AVG	7.29

Date And Time	pH	Date And Time	pH	Date And Time	pH
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9/25/2016 12:45 AM	7.24	9/26/2016 12:45 AM	7.20	9/27/2016 12:45 AM	7.19
9/25/2016 1:00 AM	7.23	9/26/2016 1:00 AM	7.28	9/27/2016 1:00 AM	7.18
9/25/2016 1:15 AM	7.23	9/26/2016 1:15 AM	7.30	9/27/2016 1:15 AM	7.18
9/25/2016 1:30 AM	7.28	9/26/2016 1:30 AM	7.22	9/27/2016 1:30 AM	7.17
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AVG	7.26	AVG	7.23	AVG	7.16

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9/28/2016 6:45 PM	7.15	9/29/2016 6:45 PM	7.17	9/30/2016 6:45 PM	7.28
9/28/2016 7:00 PM	7.28	9/29/2016 7:00 PM	7.17	9/30/2016 7:00 PM	7.27
9/28/2016 7:15 PM	7.22	9/29/2016 7:15 PM	7.22	9/30/2016 7:15 PM	7.25
9/28/2016 7:30 PM	7.17	9/29/2016 7:30 PM	7.31	9/30/2016 7:30 PM	7.24
9/28/2016 7:45 PM	7.16	9/29/2016 7:45 PM	7.30	9/30/2016 7:45 PM	7.17
9/28/2016 8:00 PM	7.16	9/29/2016 8:00 PM	7.29	9/30/2016 8:00 PM	7.16
9/28/2016 8:15 PM	7.15	9/29/2016 8:15 PM	7.27	9/30/2016 8:15 PM	7.16
9/28/2016 8:30 PM	7.15	9/29/2016 8:30 PM	7.26	9/30/2016 8:30 PM	7.16
9/28/2016 8:45 PM	7.29	9/29/2016 8:45 PM	7.25	9/30/2016 8:45 PM	7.16
9/28/2016 9:00 PM	7.23	9/29/2016 9:00 PM	7.25	9/30/2016 9:00 PM	7.18
9/28/2016 9:15 PM	7.18	9/29/2016 9:15 PM	7.18	9/30/2016 9:15 PM	7.29
9/28/2016 9:30 PM	7.17	9/29/2016 9:30 PM	7.17	9/30/2016 9:30 PM	7.19
9/28/2016 9:45 PM	7.17	9/29/2016 9:45 PM	7.17	9/30/2016 9:45 PM	7.17
9/28/2016 10:00 PM	7.16	9/29/2016 10:00 PM	7.17	9/30/2016 10:00 PM	7.16
9/28/2016 10:15 PM	7.16	9/29/2016 10:15 PM	7.16	9/30/2016 10:15 PM	7.16
9/28/2016 10:30 PM	7.27	9/29/2016 10:30 PM	7.21	9/30/2016 10:30 PM	7.28
9/28/2016 10:45 PM	7.28	9/29/2016 10:45 PM	7.30	9/30/2016 10:45 PM	7.31
9/28/2016 11:00 PM	7.19	9/29/2016 11:00 PM	7.19	9/30/2016 11:00 PM	7.30
9/28/2016 11:15 PM	7.18	9/29/2016 11:15 PM	7.17	9/30/2016 11:15 PM	7.28
9/28/2016 11:30 PM	7.17	9/29/2016 11:30 PM	7.17	9/30/2016 11:30 PM	7.27
9/28/2016 11:45 PM	7.17	9/29/2016 11:45 PM	7.29	9/30/2016 11:45 PM	7.25
AVG	7.21	AVG	7.23	AVG	7.23

MIN	**7.09**
MAX	**7.36**

Avtex Fibers
Front Royal, VA
Outfall 004
September 2016 DMR

Sample Date	Sample ID	BOD, mg/L	BOD, kg/d	TSS, mg/L	TSS, kg/d
9/8/2016	AF9-8FE	0.0	0.00	1.3	0.55
9/14/2016	AF9-14FE	2.0	0.84	1.70	0.71
9/21/2016	AF9-21FE	0.0	0.00	2.4	0.90
9/28/2016	AF9-28FE	0.0	0.00	0.0	0.00
	Daily Maximum:	2.0	0.8	2.4	0.9
	Monthly Avg:	0.5	0.2	1.4	0.5

Monthly Average – Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in Part I.C.1 shall be determined as follows: All concentration data below the QL used for the analysis shall be treated as zero. All concentration data equal to or above the QL used for the analysis shall be treated as it is reported. An arithmetic average shall be calculated using all reported data for the month, including the defined zeros. This arithmetic average shall be reported on the Discharge Monitoring Report (DMR) as calculated. If all data are below the QL used for the analysis, then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported monthly average concentration is <QL, then report "<QL" for the quantity. Otherwise use the reported concentration data (including the defined zeros) and flow data for each sample day to determine the daily quantity and report the monthly average of the calculated daily quantities.

Daily Maximum – Compliance with the daily maximum limitations and/or reporting requirements for the parameters listed in Part I.C.1 shall be determined as follows: All concentration data below the QL used for the analysis shall be treated as zero. All concentration data equal to or above the QL used for the analysis shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each day during the reporting month. The maximum value of these daily averages thus determined shall be reported on the DMR as the Daily Maximum. If all data are below the QL used for the analysis, then the maximum value of the daily averages shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported daily maximum concentration is <QL, then report "<QL" for the quantity. Otherwise use the reported daily average concentrations (including the defined zeros) and corresponding daily flows to determine daily average quantities and report the maximum of the daily average quantities during the reporting month.

Loading Derivation
If 1 ppm (= 1 mg/L) and 1 MGD (= 1 MG/day)
--> (1 mg/L)(1 MG/day)(3.785 L/Gal)(10^6 Gal/MG)(1 lb/453,600 mg) = 8.34 lbs/day
--> lbs/day = ppm * 8.34 * MGD
--> kg/d = ppm * 8.34 * MGD * 0.4536*lb/d

Concentration Derivation
If 1 lb/d and 1 MGD (= 1 MG/day)
[(1 lbs/day)(453,600 mg/lb)] / [(1 MG/d)(10^6 Gal/MG)(3.785 L/Gal)]
--> ppm = lb/d * (1/8.34) * (1/MGD)

	BOD
9/8/2016	0
9/14/2016	0.835868788
9/21/2016	0
9/28/2016	0
AVG	0.208967197

	TSS
9/8/2016	0.545885945
9/14/2016	0.71048847
9/21/2016	0.898560364
9/28/2016	0
AVG	0.538733695

	CS2*
9/21/2016	<QL

*Note: CS2 EPA Test Method: 8260 MSV Low Level Analytical Method (EPA 8260)
Report Limit 2 ug/L
MDL 1.2 ug/L

Table 3.1

Site Rainfall Data Avtex Fibers Superfund Site 1 April - June 30, 2016

Month	Average Rainfall for Winchester, VA (in)*	Average Site Rainfall 1990-2013 (in)	2006 Actual Rainfall (in)	2007 Actual Rainfall (in)	2008 Actual Rainfall (in)	2009 Actual Rainfall (in)	2010 Actual Rainfall (in)	2011 Actual Rainfall (in)	2012 Actual Rainfall (in)	2013 Actual Rainfall (in)	2014 Actual Rainfall (in)	2015 Actual Rainfall (in)	2016 Actual Rainfall (in)	Percent of Average Site Rainfall (%)
January	2.4	2.7	2.0	1.2	1.0	1.4	3.35	0.9	2.0	3.8	1.1	1.4	1.2	46%
February	2.5	2.3	1.7	1.9	2.3	0.0	4.35	1.4	2.3	0.9	3.2	0.7	2.2	95%
March	3.1	3.6	0.1	3.7	2.9	1.5	5.7	4.6	1.9	3.9	2.3	1.7	1.0	27%
April	3.1	3.2	2.8	3.4	6.2	3.2	1.59	6.5	2.5	1.3	1.5	2.9	1.3	42%
May	3.7	3.8	1.0	1.9	5.2	5.8	3.25	5.6	3.6	2.4	7.2	1.6	3.9	102%
June	3.9	4.4	9.7	3.5	4.3	4.6	0.6	4.0	3.6	5.2	1.5	3.9	3.8	85%
July	3.9	3.4	2.2	1.7	3.8	3.0	1.8	3.1	4.3	1.9	4.6	1.8	5.4	158%
August	3.5	3.1	1.3	2.8	3.5	2.1	3.3	3.4	5.2	2.6	3.7	1.0	2.3	74%
September	3.1	4.7	6.1	2.0	4.3	1.3	5.7	5.5	4.9	2.5	1.6	3.6	6.1	130%
October	3.2	3.0	4.3	4.1	1.2	2.7	0.65	3.9	4.3	5.1	5.17	1.65		0%
November	3.1	2.9	5.2	1.6	2.5	3.7	1.8	3.0	1.1	1.6	1.83	1.36		0%
December	2.5	2.6	0.7	2.8	1.4	5.0	2.0	3.6	1.55	1.5	3.02	2.46		0%
Totals to Date	**37.9**	**39.6**	**36.9**	**30.4**	**38.5**	**34.2**	**34.1**	**45.2**	**37.0**	**32.8**	**36.7**	**24.1**	**27.2**	**69%**

* Source: National Climate Data Center TD 9641 Clim 81

Table 3.2 Monthly Flow Totals
Avtex Site Lift Stations, Test Wells and Viscose Basin

July 2016

Lift Stations Flow Report		Test Wells Flow Report				Viscose Basin Flow Report			
Date	Total LS Flow (MGD)	Date	TW1 Flow (MGD)	TW2 Flow (MGD)	TW3 Flow (MGD)	Date	VB9 Flow (MGD)	VB10 Flow (MGD)	VB 11 Flow (MGD)
7/1/2016	0.005	7/1/2016	0.062	0.019	0.000	7/1/2016	0.002	0.002	0.000
7/2/2016	0.000	7/2/2016	0.064	0.011	0.000	7/2/2016	0.002	0.002	0.000
7/3/2016	0.001	7/3/2016	0.063	0.033	0.000	7/3/2016	0.000	0.000	0.000
7/4/2016	0.007	7/4/2016	0.064	0.036	0.000	7/4/2016	0.002	0.002	0.000
7/5/2016	0.007	7/5/2016	0.064	0.013	0.000	7/5/2016	0.003	0.004	0.000
7/6/2016	0.003	7/6/2016	0.058	0.025	0.000	7/6/2016	0.003	0.004	0.000
7/7/2016	0.005	7/7/2016	0.064	0.032	0.000	7/7/2016	0.003	0.004	0.000
7/8/2016	0.005	7/8/2016	0.064	0.036	0.002	7/8/2016	0.003	0.004	0.000
7/9/2016	0.002	7/9/2016	0.064	0.035	0.002	7/9/2016	0.002	0.002	0.000
7/10/2016	0.001	7/10/2016	0.064	0.034	0.008	7/10/2016	0.001	0.001	0.000
7/11/2016	0.001	7/11/2016	0.064	0.034	0.011	7/11/2016	0.003	0.004	0.000
7/12/2016	0.007	7/12/2016	0.063	0.034	0.014	7/12/2016	0.003	0.004	0.000
7/13/2016	0.007	7/13/2016	0.061	0.033	0.017	7/13/2016	0.002	0.004	0.000
7/14/2016	0.001	7/14/2016	0.063	0.033	0.019	7/14/2016	0.003	0.004	0.000
7/15/2016	0.001	7/15/2016	0.063	0.033	0.026	7/15/2016	0.003	0.004	0.000
7/16/2016	0.001	7/16/2016	0.063	0.033	0.029	7/16/2016	0.003	0.004	0.000
7/17/2016	0.001	7/17/2016	0.063	0.032	0.029	7/17/2016	0.003	0.004	0.000
7/18/2016	0.001	7/18/2016	0.063	0.032	0.020	7/18/2016	0.002	0.004	0.000
7/19/2016	0.007	7/19/2016	0.063	0.032	0.023	7/19/2016	0.002	0.004	0.000
7/20/2016	0.007	7/20/2016	0.063	0.032	0.012	7/20/2016	0.002	0.004	0.000
7/21/2016	0.001	7/21/2016	0.063	0.032	0.026	7/21/2016	0.002	0.004	0.000
7/22/2016	0.001	7/22/2016	0.063	0.031	0.029	7/22/2016	0.002	0.004	0.000
7/23/2016	0.001	7/23/2016	0.063	0.031	0.029	7/23/2016	0.002	0.004	0.000
7/24/2016	0.001	7/24/2016	0.063	0.031	0.029	7/24/2016	0.002	0.004	0.000
7/25/2016	0.001	7/25/2016	0.063	0.031	0.029	7/25/2016	0.002	0.004	0.000
7/26/2016	0.000	7/26/2016	0.058	0.029	0.019	7/26/2016	0.002	0.004	0.000
7/27/2016	0.001	7/27/2016	0.063	0.032	0.006	7/27/2016	0.002	0.004	0.000
7/28/2016	0.007	7/28/2016	0.061	0.031	0.006	7/28/2016	0.001	0.003	0.000
7/29/2016	0.007	7/29/2016	0.063	0.031	0.001	7/29/2016	0.002	0.003	0.000
7/30/2016	0.009	7/30/2016	0.063	0.031	0.015	7/30/2016	0.002	0.002	0.000
7/31/2016	0.011	7/31/2016	0.063	0.031	0.028	7/31/2016	0.002	0.003	0.000

Table 3.2 Monthly Flow Totals
Avtex Site Lift Stations, Test Wells and Viscose Basin

August 2016

Lift Stations Flow Report		Test Wells Flow Report				Viscose Basin Flow Report			
Date	Total LS Flow (MGD)	Date	TW1 Flow (MGD)	TW2 Flow (MGD)	TW3 Flow (MGD)	Date	VB9 Flow (MGD)	VB10 Flow (MGD)	VB 11 Flow (MGD)
8/1/2016	0.011	8/1/2016	0.063	0.031	0.031	8/1/2016	0.001	0.003	0.000
8/2/2016	0.003	8/2/2016	0.063	0.031	0.031	8/2/2016	0.001	0.003	0.000
8/3/2016	0.008	8/3/2016	0.063	0.030	0.031	8/3/2016	0.001	0.001	0.000
8/4/2016	0.008	8/4/2016	0.063	0.030	0.031	8/4/2016	0.002	0.002	0.004
8/5/2016	0.001	8/5/2016	0.063	0.030	0.031	8/5/2016	0.003	0.004	0.005
8/6/2016	0.001	8/6/2016	0.063	0.030	0.030	8/6/2016	0.003	0.004	0.005
8/7/2016	0.001	8/7/2016	0.063	0.030	0.030	8/7/2016	0.003	0.002	0.004
8/8/2016	0.001	8/8/2016	0.063	0.030	0.030	8/8/2016	0.003	0.001	0.004
8/9/2016	0.001	8/9/2016	0.063	0.020	0.036	8/9/2016	0.002	0.001	0.003
8/10/2016	0.001	8/10/2016	0.059	0.028	0.042	8/10/2016	0.002	0.001	0.002
8/11/2016	0.000	8/11/2016	0.063	0.031	0.045	8/11/2016	0.002	0.001	0.002
8/12/2016	0.009	8/12/2016	0.063	0.031	0.023	8/12/2016	0.002	0.002	0.005
8/13/2016	0.009	8/13/2016	0.063	0.031	0.028	8/13/2016	0.002	0.003	0.006
8/14/2016	0.001	8/14/2016	0.063	0.030	0.031	8/14/2016	0.001	0.003	0.007
8/15/2016	0.001	8/15/2016	0.063	0.030	0.031	8/15/2016	0.000	0.003	0.007
8/16/2016	0.001	8/16/2016	0.057	0.028	0.020	8/16/2016	0.000	0.003	0.007
8/17/2016	0.002	8/17/2016	0.063	0.031	0.028	8/17/2016	0.002	0.002	0.006
8/18/2016	0.003	8/18/2016	0.061	0.023	0.030	8/18/2016	0.003	0.001	0.007
8/19/2016	0.003	8/19/2016	0.063	0.029	0.031	8/19/2016	0.003	0.000	0.007
8/20/2016	0.005	8/20/2016	0.063	0.031	0.031	8/20/2016	0.003	0.000	0.007
8/21/2016	0.005	8/21/2016	0.063	0.031	0.030	8/21/2016	0.003	0.000	0.007
8/22/2016	0.002	8/22/2016	0.063	0.031	0.030	8/22/2016	0.003	0.000	0.006
8/23/2016	0.001	8/23/2016	0.063	0.030	0.030	8/23/2016	0.001	0.000	0.003
8/24/2016	0.001	8/24/2016	0.063	0.030	0.030	8/24/2016	0.002	0.001	0.003
8/25/2016	0.001	8/25/2016	0.060	0.030	0.028	8/25/2016	0.004	0.001	0.000
8/26/2016	0.001	8/26/2016	0.063	0.030	0.030	8/26/2016	0.004	0.001	0.003
8/27/2016	0.001	8/27/2016	0.063	0.030	0.030	8/27/2016	0.001	0.001	0.007
8/28/2016	0.001	8/28/2016	0.063	0.030	0.030	8/28/2016	0.000	0.001	0.008
8/29/2016	0.001	8/29/2016	0.063	0.030	0.030	8/29/2016	0.000	0.001	0.008
8/30/2016	0.001	8/30/2016	0.063	0.030	0.030	8/30/2016	0.000	0.001	0.004
8/31/2016	0.005	8/31/2016	0.063	0.030	0.030	8/31/2016	0.000	0.001	0.007

Table 3.2 Monthly Flow Totals
Avtex Site Lift Stations, Test Wells and Viscose Basin

September 2016

Lift Stations Flow Report		Test Wells Flow Report				Viscose Basin Flow Report			
Date	Total LS Flow (MGD)	Date	TW1 Flow (MGD)	TW2 Flow (MGD)	TW3 Flow (MGD)	Date	VB9 Flow (MGD)	VB10 Flow (MGD)	VB 11 Flow (MGD)
9/1/2016	0.005	9/1/2016	0.063	0.030	0.030	9/1/2016	0.000	0.001	0.008
9/2/2016	0.001	9/2/2016	0.063	0.024	0.030	9/2/2016	0.000	0.001	0.008
9/3/2016	0.001	9/3/2016	0.063	0.028	0.030	9/3/2016	0.000	0.000	0.008
9/4/2016	0.001	9/4/2016	0.063	0.030	0.030	9/4/2016	0.000	0.000	0.008
9/5/2016	0.001	9/5/2016	0.063	0.030	0.029	9/5/2016	0.000	0.000	0.004
9/6/2016	0.001	9/6/2016	0.063	0.030	0.029	9/6/2016	0.001	0.000	0.005
9/7/2016	0.001	9/7/2016	0.063	0.029	0.029	9/7/2016	0.001	0.000	0.012
9/8/2016	0.001	9/8/2016	0.063	0.029	0.029	9/8/2016	0.001	0.001	0.013
9/9/2016	0.001	9/9/2016	0.063	0.029	0.029	9/9/2016	0.001	0.001	0.014
9/10/2016	0.001	9/10/2016	0.063	0.029	0.029	9/10/2016	0.001	0.001	0.014
9/11/2016	0.001	9/11/2016	0.062	0.029	0.029	9/11/2016	0.001	0.001	0.014
9/12/2016	0.001	9/12/2016	0.063	0.029	0.029	9/12/2016	0.001	0.000	0.014
9/13/2016	0.001	9/13/2016	0.063	0.029	0.029	9/13/2016	0.001	0.000	0.004
9/14/2016	0.001	9/14/2016	0.063	0.029	0.029	9/14/2016	0.001	0.000	0.000
9/15/2016	0.001	9/15/2016	0.063	0.029	0.029	9/15/2016	0.001	0.000	0.000
9/16/2016	0.001	9/16/2016	0.063	0.029	0.029	9/16/2016	0.001	0.000	0.000
9/17/2016	0.001	9/17/2016	0.063	0.029	0.029	9/17/2016	0.001	0.000	0.000
9/18/2016	0.001	9/18/2016	0.063	0.029	0.029	9/18/2016	0.001	0.000	0.000
9/19/2016	0.000	9/19/2016	0.063	0.029	0.029	9/19/2016	0.002	0.000	0.000
9/20/2016	0.001	9/20/2016	0.063	0.029	0.028	9/20/2016	0.003	0.000	0.000
9/21/2016	0.001	9/21/2016	0.063	0.028	0.028	9/21/2016	0.003	0.002	0.000
9/22/2016	0.001	9/22/2016	0.063	0.028	0.028	9/22/2016	0.003	0.006	0.000
9/23/2016	0.001	9/23/2016	0.063	0.028	0.028	9/23/2016	0.003	0.006	0.000
9/24/2016	0.001	9/24/2016	0.063	0.012	0.028	9/24/2016	0.003	0.005	0.000
9/25/2016	0.001	9/25/2016	0.063	0.027	0.028	9/25/2016	0.003	0.006	0.000
9/26/2016	0.000	9/26/2016	0.063	0.030	0.028	9/26/2016	0.003	0.006	0.000
9/27/2016	0.001	9/27/2016	0.063	0.029	0.028	9/27/2016	0.003	0.005	0.000
9/28/2016	0.001	9/28/2016	0.063	0.029	0.028	9/28/2016	0.003	0.004	0.000
9/29/2016	0.020	9/29/2016	0.062	0.027	0.011	9/29/2016	0.002	0.004	0.000
9/30/2016	0.028	9/30/2016	0.063	0.029	0.000	9/30/2016	0.002	0.003	0.000

Attachment 4

Preliminary Site-Wide Quarterly Inspection

Quarterly Inspection Report

Inpected by: M. Robinson / H. Lipomi
Date: 09-06-2016
Report No.: 2016-09
Areas Inspected: See Map

Questions	Response		Comments and Recommendations
1. Remediation/Restoration Areas			
Is settlement or standing water evident? If Yes, describe the degree of settlement(s) (slight, moderate, significant), record approximate dimensions, and indicate the location(s) on an attached map.	☐ Yes	☑ No	
Is erosion evident? If Yes, describe the type of erosion (rills, gullies), record approximate dimensions (length, width, depth) and indicate location(s) on an attached map.	☑ Yes	☐ No	Minor erosion noted in a few small areas (see map for locations and details)
Are potential leachate seeps evident or migration of contamination? If Yes, describe the nature (size, color, flow rate), record location on an attached map, and photograph. [Note: Check former seep areas in unnamed tributary north of VB 4-6, check pond area north of VB 9, and check other likely areas (e.g., embankments of VBs, SBs)]	☑ Yes	☐ No	See map for locations. Past areas of standing water all dry during this inspection. Potential seeps previously in the following locations were all dry: -South of LS2 -SE of VB-2&3 -NW of VB-7&8 (flowing ~0.25 L/min)
Do landfill/basin embankments show signs of erosion, failure (e.g., cracking, sloughing) or migration of contamination (e.g., seeps, exposed waste)? If Yes, describe the nature (type, size), record location on an attached map, and photograph [Note: Check river-side of embankments along river, if safe to do so.]	☐ Yes	☑ No	
Is vegetation distressed or are bare areas evident? If Yes, describe the type of disorder (distressed, sparsely vegetated, bare), record approximate dimensions and indicate location(s) on an attached map.	☑ Yes	☐ No	Isolated/minor bare areas noted. See map for locations

Quarterly Inspection Report

Inpected by: M. Robinson / H. Lipomi

Date: 09-06-2016

Report No.: 2016-09

Areas Inspected: See Map

Questions	Response		Comments and Recommendations
Is there woody vegetation greater than 2 inches in diameter or 5 feet in height on the cover system(s)? If Yes, describe where and actions to be taken (refer to Section 4.2 of the O&M Plan).	☑ Yes	☐ No	A few small trees noted. See map for locations
Is any other damage evident? If Yes, describe the type of damage(s) and indicate the location(s) on an attached map.	☑ Yes	☐ No	Large rills forming in roadway southwest of VB-10 (see map)
Are obstruction(s) (brush, debris, timber, leaves, sediment) interfering with the proper functioning of ditches, gutters or flumes? If Yes, describe the type(s) of obstruction(s) and indicate the location(s) on an attached map.	☑ Yes	☐ No	Minor obstructions at two locations: 1. Sediment building up at end of culvert southeast of VB-10 causing minor issues. Issue to be monitored. 2. Small brush causing minor obstruction of flow under roadway west of SB-2
Is sediment deposited in diversion berms, ditches gutters, flumes or culverts deeper than ¼ of the original channel depth (shown on the contract drawings) or culvert diameter? If Yes, record approximate dimensions and indicate locations on an attached map.	☐ Yes	☑ No	

Quarterly Inspection Report

Inpected by: M. Robinson / H. Lipomi

Date: 09-06-2016

Report No.: 2016-09

Areas Inspected: See Map

Questions	Response		Comments and Recommendations
2. Surface Water Drainage and Erosion Control System			
Is erosion evident? If Yes, describe the drainage structure inspected (ditch, gutter, flume, culvert, outfall, rip-rap), the type of erosion (rills, gullies, washouts, slope failure), record approximate dimensions (length, width, depth) and indicate location(s) on an attached map.	☑ Yes	☐ No	Minor erosion noted in a few isolated areas. See map for locations. Also previously mentioned erosion southwest of VB-10.
Is overall shape, configuration, and alignment of the drainageway as shown on the drawings? If No, describe the type of distortion (damaged, eroded, slope failure), record approximate dimensions and indicate location(s) on an attached map.	☑ Yes	☐ No	
Is erosion evident at drainage outlet aprons? If Yes, record approximate dimensions and indicate location(s) on an attached map.	☐ Yes	☑ No	

Inspection Checklist (check items that were inspected; document concerns noted; refer to attached Drawings for specific areas)

Viscos Basins 1-3

☑ Vegetation	☑ Erosion	☑ Settlement	☑ Gas Vents
☑ Culvert Inlets & outles	☑ Rip-rap channels	☑ Access road near unit	☐

Viscos Basins 4-6

☑ Vegetation	☑ Erosion	☑ Settlement	☑ Gas Vents
☑ Culvert Inlets & outles - N, E, & W of VB 4-6; - Pond W of VB 4-6	☑ Rip-rap channels	☑ Down chutes	☑ Gas Vent Filter & Fence
☑ Former seep area - N of VB 4-6	☑ LS #1 & #2 and Fencing	☑ Access road near unit	☐

Viscos Basins 7-8

☑ Vegetation	☑ Erosion	☑ Settlement	☑ Gas Vents
☑ Culvert Inlets & outles (between VB-1 and VB-7)	☑ Rip-rap channels	☑ Down chutes	☑ Leachate Collection Manhole (MW VB7)
☑ Access road near unit	☐	☐	☐

Viscos Basins 9-11

☑ Vegetation	☑ Erosion	☑ Settlement	☑ Gas Vents
☑ Drop inlests on VB-11	☑ Culver inlets & outlets (S&W VB-11; N VB-11 & VB-9; and SW VB-10)	☑ Rip-rap channels	☑ Down chutes
☑ Access road near unit	☑ Seep area in pond north of VB-9	☑ VB 9-11 fence and gates	☑ LS #4 and Fencing

New Landfill

☑ Vegetation	☑ Erosion	☑ Settlement	☑ Gas Vents
☑ Culvert inlets & outlets (NE & SE of NLF)	☑ Rip-rap channels	☑ Down chutes	☑ LS #3 and Fencing
☑ Access road near unit	☐	☐	☐

SB-1

☑ Vegetation	☑ Erosion	☑ Settlement	☑ Gas Vents
☑ Culvert inlets & outlets (NE SB-1; SB-2; SE SB-3; NE SB-4; & S SB-4)	☑ Rip-rap channels & outlets by River	☑ Down chutes (SB-1 & SB-4)	☐
☑ Access road near unit	☐	☐	☐

Inspection Checklist (check items that were inspected; document concerns noted; refer to attached Drawings for specific areas)

SB-2

☑ Vegetation	☑ Erosion	☑ Settlement	☑ Culvert inlets & Outlets (S & W Sides)
☑ Berms along River (site & river side)	☑ Rip-rap channels & outlets by River	☑ Access road near unit	☐

SB-3

☑ Vegetation	☑ Erosion	☑ Settlement	☑ Gas Vents
☑ Culvert inlets & Outlets (SE))	☑ Rip-rap channels & outlets by River	☑ Drop inlets (W side)	☑ Access Road near unit
☐	☐	☐	☐

SB-4

☑ Vegetation	☑ Erosion	☑ Settlement	☑ Gas Vents
☑ Culvert inlets & outlets (NE & S sides)	☑ Down chutes (S Side)	☑ Drop inlet (N side)	☑ Berms along River (site & river side)
☑ Access road near unit	☐	☐	☐

SB-5

☑ Vegetation	☑ Erosion	☑ Settlement	☑ Gas Vents
☑ Berms along River and E side	☑ Access Road near unit	☐	☐
☐	☐	☐	☐

FAB 1-3

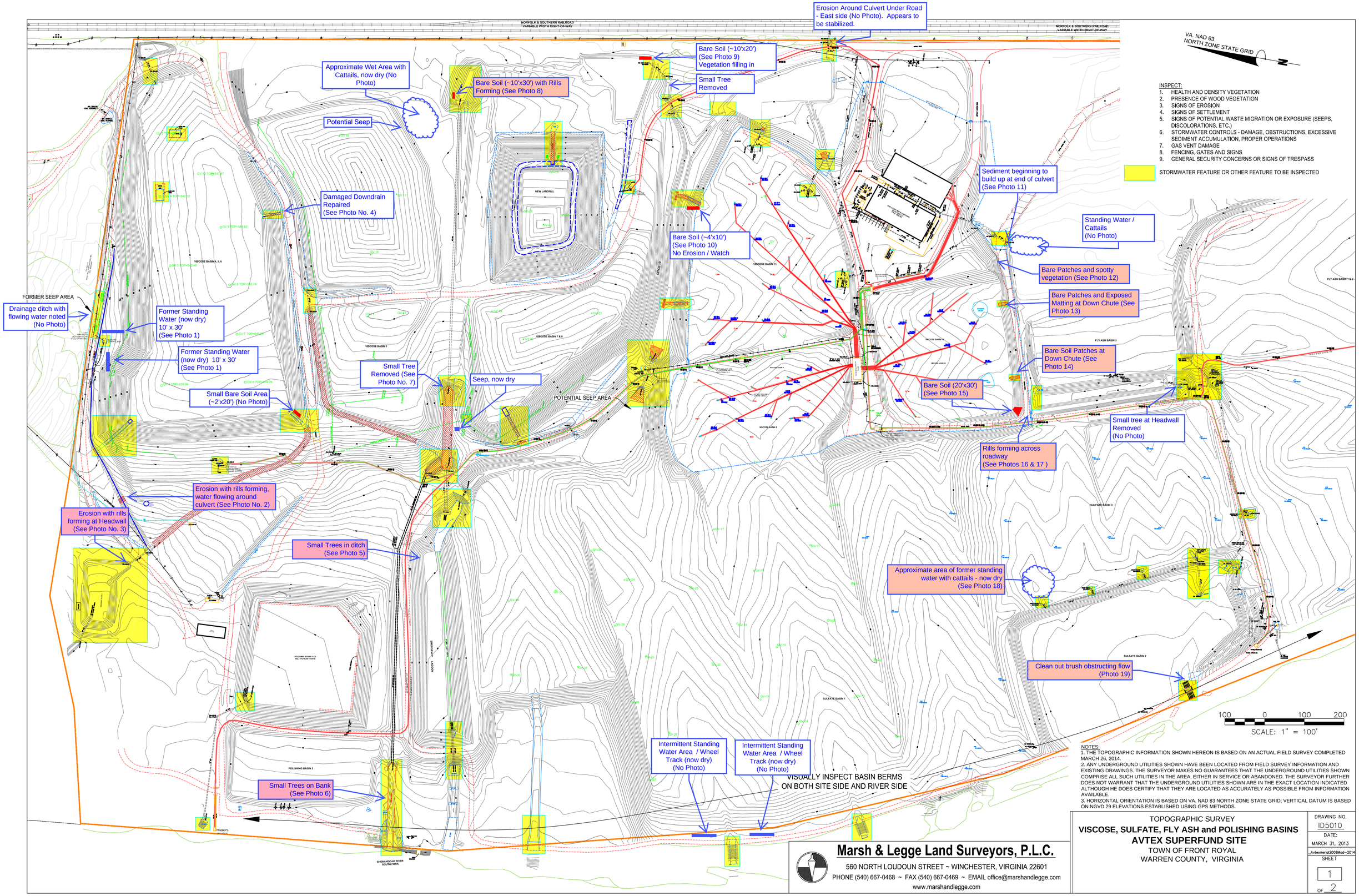
☑ Vegetation	☑ Erosion	☑ Settlement	☑ Culvert inlets & outlets (E & S FAB1-2; SW FAB3)
☑ Access Road near unit	☐	☐	☐

FAS & FARA

☑ Vegetation	☑ Erosion	☑ Settlement	☑ Culvert inlets & outlets (E & N FAS; E FARA)
☑ Access Road near unit	☐	☐	☐

EL, PB 1-2, PB-3

☑ Vegetation	☑ Erosion	☑ Settlement	☑ Rip-rap Channels
☑ Culvert inlets & outlets (E & W EL; NW PB-1-2; S PB-3)	☑ Access Road near unit	☐	☐



INSPECT:

1. HEALTH AND DENSITY VEGETATION
2. PRESENCE OF WOOD VEGETATION
3. SIGNS OF EROSION
4. SIGNS OF SETTLEMENT
5. SIGNS OF POTENTIAL WASTE MIGRATION OR EXPOSURE (SEEPS, DISCOLORATIONS, ETC.)
6. STORMWATER CONTROLS - DAMAGE, OBSTRUCTIONS, EXCESSIVE SEDIMENT ACCUMULATION, PROPER OPERATIONS
7. GAS VENT DAMAGE
8. FENCING, GATES AND SIGNS
9. GENERAL SECURITY CONCERNS OR SIGNS OF TRESPASS

STORMWATER FEATURE OR OTHER FEATURE TO BE INSPECTED

NOTES:

1. THE TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON AN ACTUAL FIELD SURVEY COMPLETED MARCH 26, 2014.
2. ANY UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.
3. HORIZONTAL ORIENTATION IS BASED ON VA. NAD 83 NORTH ZONE STATE GRID; VERTICAL DATUM IS BASED ON NGVD 29 ELEVATIONS ESTABLISHED USING GPS METHODS.

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www.marshandlegge.com

TOPOGRAPHIC SURVEY

VISCOSE, SULFATE, FLY ASH and POLISHING BASINS

AVTEX SUPERFUND SITE

TOWN OF FRONT ROYAL
WARREN COUNTY, VIRGINIA

DRAWING NO. ID5010
DATE: MARCH 31, 2013
_Avtexlarid2008Mod-2014
SHEET 1 OF 2

VA. NAD 83
NORTH ZONE STATE GRID

NORFOLK & SOUTHERN RAILROAD
VARIABLE WIDTH RIGHT-OF-WAY

See Sheet 1 of 2

FLY ASH BASIN 6

FLY ASH BASIN 1 & 2

SULFATE BASIN 5

FLY ASH BASIN 3

SULFATE BASIN 4

SULFATE BASIN 3

SULFATE BASIN 2

SHENANDOAH RIVER

VISUALLY INSPECT BASIN BERMS
ON BOTH SITE SIDE AND RIVER SIDE

INSPECT:

1. HEALTH AND DENSITY VEGETATION
2. PRESENCE OF WOOD VEGETATION
3. SIGNS OF EROSION
4. SIGNS OF SETTLEMENT
5. SIGNS OF POTENTIAL WASTE MIGRATION OR EXPOSURE (SEEPS, DISCOLORATIONS, ETC.)
6. STORMWATER CONTROLS - DAMAGE, OBSTRUCTIONS, EXCESSIVE SEDIMENT ACCUMULATION, PROPER OPERATIONS
7. GAS VENT DAMAGE
8. FENCING, GATES AND SIGNS
9. GENERAL SECURITY CONCERNS OR SIGNS OF TRESPASS

STORMWATER FEATURE OR OTHER FEATURE TO BE INSPECTED

100 0 100 200

SCALE: 1" = 100'

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TOPOGRAPHIC SURVEY

VISCOSE, SULFATE, FLY ASH and POLISHING BASINS

AVTEX SUPERFUND SITE

TOWN OF FRONT ROYAL

WARREN COUNTY, VIRGINIA

DRAWING NO. ID5010

DATE: MARCH 13, 2014

_Avtexterial2008Mod~2014

SHEET 2 OF 2

Quarterly Inspection Report Photographic Log
Avtex Superfund Site
Front Royal, Virginia

Photo Number: 1 ***Unit:*** *OU-10* **Basin/Landfill**: VB-4, 5, & 6

Date : 09/06/2016

Photo Description: Former area of standing water adjacent to LS-2 (now dry).

Photo Number: 2 ***Unit:*** OU-10 **Basin/Landfill:** VB-4, 5, & 6

Date : 09/06/2016

Photo Description: Rills forming south of VB-4, 5, &6 on edge of access road to LS-1.

Quarterly Inspection Report Photographic Log
Avtex Superfund Site
Front Royal, Virginia

Photo Number: 3 ***Unit:*** *OU-10* **Basin/Landfill**: VB-4, 5, & 6

Date : 09/06/2016

Photo Description:: Erosion with rills forming at edge of road located in the northeast corner of VB-1.

Photo Number: 4 ***Unit:*** OU-10 **Basin/Landfill:** VB-4, 5, & 6

Date : 09/06/2016

Photo Description: Minor damage to right side of the chute (rocks displaced) on the south side of VB-4, 5, and 6 has been repaired.

Quarterly Inspection Report Photographic Log
Avtex Superfund Site
Front Royal, Virginia

Photo Number: 5 ***Unit:*** *OU-10* **Basin/Landfill**: VB-1 / VB-7&8

Date : 09/06/2016

Photo Description: Small trees in the EL.

Photo Number: 6 ***Unit:*** OU-10 **Basin/Landfill:** VB-1 / VB-7&8

Date : 09/06/2016

Photo Description: Small Tree in bank of ditch

Quarterly Inspection Report Photographic Log
Avtex Superfund Site
Front Royal, Virginia

Photo Number: 7 ***Unit:*** *OU-10* **Basin/Landfill**: VB-1 / VB-7&8

Date : 09/06/2016

Photo Description: Small tree at headwall for drainage channel between VB-1 and VB-7&8 has been removed.

Photo Number: 8 ***Unit:*** OU-10 **Basin/Landfill:** VB-2&3

Date : 09/06/2016

Photo Description: Bare soil (~10' x30`) with rills southeast of VB-2&3.

Photo Number: 9 ***Unit:*** *OU-10* **Basin/Landfill**: NLF

Date : 09/06/2016

Photo Description: Bare soil (~10'x20') in the southeast corner of the basin located southeast of the NLF; continues to fill in with vegetation.

Photo Number: 10 ***Unit:*** OU-7 **Basin/Landfill:** VB-11

Date : 09/06/2016

Photo Description: Bare Soil (~4'x10') adjacent to downdrain north of VB-11.

Quarterly Inspection Report Photographic Log
Avtex Superfund Site
Front Royal, Virginia

Photo Number: 11 ***Unit:*** *OU-7* **Basin/Landfill**: VB-10

Date : 09/06/2016

Photo Description: Sediment building up at end of culvert under access road

Photo Number: 12 ***Unit:*** OU-7 **Basin/Landfill:** VB-10

Date : 09/06/2016

Photo Description: Bare patches and spotty vegetation in southeast corner of VB-10.

Quarterly Inspection Report Photographic Log
Avtex Superfund Site
Front Royal, Virginia

Photo Number: 13 ***Unit:*** *OU-7* **Basin/Landfill**: VB-10

Date : 09/06/2016

Photo Description: Bare patches and exposed matting at down chute in southeast corner of VB-10.

Photo Number: 14 ***Unit:*** OU-7 **Basin/Landfill:** VB-10

Date : 09/06/2016

Photo Description: Bare patches and exposed matting at down chute in southwest corner of VB-10.

Photo Number: 15 ***Unit:*** *OU-7* **Basin/Landfill**: VB-10

Date : 09/06/2016

Photo Description: Bare soil (~20'x30') at the southwest corner of VB-10.

Photo Number: 16 ***Unit:*** OU-7 **Basin/Landfill:** VB-10

Date : 09/06/2016

Photo Description: Rills forming across driveway in southwest corner of VB-11

Quarterly Inspection Report Photographic Log
Avtex Superfund Site
Front Royal, Virginia

Photo Number: 17 ***Unit:*** *OU-7* **Basin/Landfill**: VB-10

Date : 09/06/2016

Photo Description: Rills forming across driveway in southwest corner of VB-11.

Photo Number: 18 ***Unit:*** *NTCRA Basins* **Basin/Landfill:** SB-3

Date : 09/06/2016

Photo Description: Former wet area with cattails.

Quarterly Inspection Report Photographic Log
Avtex Superfund Site
Front Royal, Virginia

Photo Number: 19 ***Unit:*** *NTCRA Basins* **Basin/Landfill:** SB-2

Date : 09/06/2016

Photo Description: Clean out brush obstructing culvert.