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Vapor Intrusion Sampling Report for 5768 W Morris St

IDEM VRP No. 6150101

Fabric Care Center
5760 W Morris St
Indianapolis, IN 46241

Prepared By

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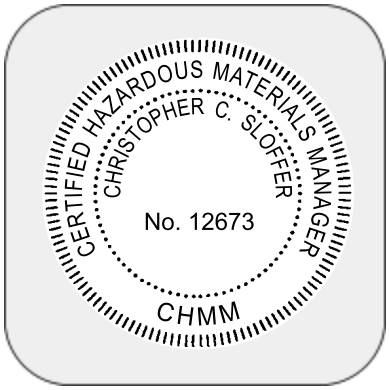
Reviewed By

Chris Sloffer, CHMM #12673

June 26, 2024



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1 Introduction

1.1 Purpose

The Environmental Liability and Asset Management Group ("The ELAM Group") submitted a Remediation Work Plan ("RWP") to the Indiana Department of Environmental Management ("IDEM") for the Fabric Care Center facility ("Facility") (ELAM 2023a). Based on its review of the RWP, IDEM made a specific request for a baseline vapor intrusion ("VI") sampling event within the Facility prior to implementation of the planned active remedy (ELAM 2023b). IDEM further requested that the ensuing documentation of the baseline VI sampling event be submitted to IDEM as an RWP Addendum that would include revisions to the RWP, if necessary, based on the data.

Accordingly, The ELAM Group conducted a baseline VI sampling event and reported the results in an RWP Addendum intended to be incorporated with the RWP for IDEM's Public Notice period (ELAM 2023c). Based on IDEM's review of the RWP Addendum (IDEM 2023), IDEM recommended that additional exterior soil gas ("SGe") samples be collected from historical sample locations SG-01 through SG-05 (located between the Facility and the western adjoining property located at 5768 W Morris St). The purpose of the recommended sample collection is to determine the potential for vapor intrusion ("VI") at the neighboring Halal Market (5768 W Morris St) where no sub-slab soil gas ("SGss") sampling has been conducted to date. Alternatively, IDEM indicated that paired VI sampling inside the Halal Market could be conducted during the same time frame.

In response, The ELAM Group submitted an Additional Investigation Scope of Work to IDEM (ELAM 2024), indicating that the following additional investigation activities would be conducted for the property located at 5768 W Morris St:

> *"Secure access" and "VI Sample Collection,[1] including the preparation of a field work plan, installation of 4 SGss sample ports, pre-VI sampling chemical inventory and removal (if possible) at least 48 hours before sampling, collection of 4 SGss, 4 indoor air ("IA"), 1 field duplicate ("FD") and 1 outdoor air ("OA") samples into individually-certified 6-Liter Summa canisters through an 8-hour time-weighted average ("TWA") air*

[1] Alternatively, in the event that necessary access was not obtained, The ELAM Group planned to collect another round of exterior soil gas samples from sample ports SG-01 through SG-05.

intake valve, and laboratory analysis of the air samples for volatile organic compounds ("VOCs") via Method TO-15"

This VI Sampling Report for 5768 W Morris St documents these activities, including field procedures, results, analysis and recommendations associated with the winter worst-case sampling event that occurred on 3/28/24.

1.2 Site Description

The Facility is located at 5760 W Morris St on the west side of Indianapolis in Marion County, Indiana ("Site"). Figure 1 shows the location of the Property, and Figure 2a shows a generalized Site Plan with all of the investigation locations referenced in the RWP. The Halal Market is located at 5768 W Morris St, which is the adjoining property to the west of the Facility.

The Halal Market building, where the VI sampling occurred, currently consists of a one-story commercial store located in a commercial and residential setting next to a two-story coin laundry and dry cleaning operation that historically used tetrachloroethylene ("PCE") in dry cleaning machines ("DCMs"). The following areas are present within the Halal Market building: sales room and service counter, meat processing area, storage area and offices. The front of the building has two entrance doors, which suggests that the building may be split into two suites. However, this is not the case and all of the areas are accessible via the western entrance door that allows customers to enter the sales room and service counter area of the Halal Market building.

1.3 Release-Related Chemicals

As presented in the RWP (ELAM 2023a), the Release-Related Chemicals ("RRCs") for the Facility are chlorinated volatile organic compounds ("cVOCs") related to the dry cleaning solvent tetrachloroethylene ("PCE"). Specifically, cVOCs include PCE, trichloroethene ("TCE"), cis-1,2-dichloroethene ("cDCE"), trans-1,2-dichloroethene ("tDCE") and vinyl chloride ("VC").

1.4 Rationale

Based on IDEM's review of the RWP Addendum, IDEM recommended that additional sample collection activities be conducted for the purpose of determining the potential for VI at the neighboring Halal Market (5768 W Morris St) where no SGss sampling had been conducted to date. Access was secured on 3/25/24, sample ports were installed on 3/26/24 and VI samples were collected on 3/28/24. In addition to the planned paired VI samples recommended by IDEM, an SGe sample port (SG-06) was installed between the Facility and the Halal Market building and a sample collected from this SGe sample port based upon a request from the property owner.[2] The sample locations are depicted on the Site Plan included as Figure 2.

[2] Please note that historical SGe sample locations SG-01 through SG-05 are no longer present. Based on documentation obtained from the previous environmental consultant, each of the five temporary soil gas sampling points installed on the east side of the Halal Market building were installed to a depth of approximately 5 feet below ground surface using a 0.5-inch outer diameter hand auger and constructed of the following materials: a stainless steel vapor implant, teflon-lined tubing, sand and hydrated bentonite.

2 Field Procedures

2.1 General

The planned field activities were executed on 3/26/24 and 3/28/24. Preparation activities occurred on 3/26/24 and consisted of (1) the installation of SGss sample ports, (2) the installation of an SGe sample port and (3) a review of the chemicals used within the Halal Market building. Sample collection activities occurred on 3/28/24 and consisted of (4) the collection of 8-hour TWA, paired SGss/IA samples and (5) the collection of a 5-minute SGe sample. A summary of the air samples collected is provided below. The sample collection field documentation is provided in Appendix A.

Sample Season	Date of Sample Collection	Location	Sub-slab Soil Gas ("SGss"), ("SG") Sample Locations	Indoor Air ("IA") Sample Locations	Exterior Soil Gas ("SGe") Sample Location
Winter Heating 2024	3/28/24	1st Floor	SGss-1 SGss-2 SGss-3 SGss-4	IA-1 IA-1 IA-3 plus FD1 IA-4	SG-06

The field procedures for SGe, SGss and IA sample collection are specified in the *Quality Assurance Project Plan* ("QAPP") included with the RWP (ELAM 2023a). However, the SGss and SGe port installation and purge procedures are not specified therein and are therefore specified in the following subsection.

2.2 SGss Installation and Purge Procedures

The port installation and port integrity testing associated with permanent SGss sample ports SGss-1, SGss-2, SGss-3 and SGss-4, as well as SGe sample port SG-06, are outlined below.

2.2.1 SGss Port Installation Procedure

Threaded Vapor Pin® sub-slab sample ports were installed by an ELAM scientist below surface grade as follows:

1. Construct a recessed portion of the port using a drill to partially penetrate the concrete approximately 1 inch using a 1.5-inch diameter drill bit
2. Within the recessed hole, drill a smaller 0.625-inch diameter hole
3. Insert a Vapor Pin® sample port through the 0.625-inch hole as follows:
    a. Don a clean, unused silicone sleeve onto a clean, unused stainless steel sample port
    b. Drive the assembled sleeve and port through the concrete with Vapor Pin® tooling
    c. Inspect the sleeve and port for proper sealing
    d. Affix a cap to the Vapor Pin barb to seal the sample port when not in use
4. Screw a threaded stainless steel flush-mount cover into the threaded portion of the Vapor Pin® to protect the recessed port when not in use

2.2.2 SGss Port Integrity Testing and Air Purging Procedure

Following installation and also prior to sampling, the integrity of each sample port seal was inspected by an ELAM scientist with a water dam test. During the water dam test, soil gas was purged through the tubing. The procedures for the water dam test and purging are as follows:

1. Remove the stainless steel cover
2. Pour distilled water into the recessed area of the port
3. Monitor the water level while purging one liter (“1L”) of soil gas from the sample port as follows:
    a. Using a hand-operated transfer pump, disposable polyethylene (“PE”) tubing will be connected between the barbed fitting of the sample port and the barbed fitting of the transfer pump intake and another piece of PE tubing will be connected between the barbed fitting of the effluent end of the transfer pump and the barbed fitting of a 1L Tedlar bag
    b. After purging 1L of soil gas into the Tedlar bag, the valve on the Tedlar bag will be sealed

c. The air within the Tedlar bag will then be expelled outdoors, downwind of the sampling area

4. If the water level does not change, the seal is intact and sampling may proceed
5. If the water level lowers, the area around the port will be sealed with quick-drying cement and/or the port will be removed, the old silicone sleeve will be discarded and replaced with an unused silicone sleeve, the port will be re-installed per Section 2.2.1 and then re-tested until a seal is found to be intact[3]
6. After the water dam test is complete, the water will be evacuated from the recessed area

2.2.3 Exterior Soil Gas Sample Port Installation

The SGe port was installed by advancing a hand auger to approximately 5 feet below ground surface ("bgs") and constructing the shallow SGe sample port within the open borehole. The soil gas implant tip was attached to Teflon™ tubing that extended to the surface, was surrounded by clean silica filter sand, and had a hydrated bentonite seal installed above the filter pack sand. The SGe sample port was finished at the surface with masterflex tubing and 0.5-inch diameter PVC collar to seal the top of the sample tubing. A 6-inch diameter manway set in concrete was used to protect the sample port.

Following installation, the SGe sample port was developed by purging approximately 1L of soil gas from the SGe sample port using a manual hand pump and Tedlar bag. In addition, the SGe sample port was surveyed for elevation to the nearest 0.01 feet relative to the existing monitoring well network. An SGe sample port construction diagram for SG-06 is included in Appendix B.

2.3 Field Procedure Deviations

No deviations from the planned activities occurred during sample collection activities.

[3] If a seal could not have been established, an entirely new SGss port would have been installed within 1 foot of the original location.

2.4 Laboratory Analysis of Samples

Following the completion of field activities, the air samples and associated quality assurance/quality control ("QA/QC") samples were submitted to Envision Laboratories, Inc. located in Indianapolis, Indiana, for analysis of volatile organic compounds ("VOCs") using United States Environmental Protection Agency ("USEPA") Method TO-15 (USEPA 2019). Because these samples are related to investigation, a Level IV laboratory data package was requested from the laboratory.

3 Results

3.1 Air Analytical Results

The laboratory analytical report, with associated Level IV data package, is included in Appendix C. The analytical results for SGss and IA samples are summarized in Table 1 and the analytical results for the SGe sample are summarized in Table 2. The analytical results are depicted on Figure 3. The following sections discuss the QA/QC of the analytical data obtained during the VI sample collection event.

3.2 QA/QC Results

The QA/QC data associated with the air samples were evaluated to assess the quality of the VI data in relation to its intended use of documenting the presence of dry cleaning RRCs in air samples collected during the VI sampling event.

3.2.1 Method Blank

VOCs were not detected in the method blank associated with the sampling event. Therefore, no cross-contamination during laboratory analysis is suspected.

3.2.2 Field Duplicate

A FD sample, identified as FD-1, was collected at the same time as sample IA-3. FD-1 and IA-3 contained no detections above the respective laboratory reporting limits ("RLs"). Consequently, a relative percent difference ("RPD") could not be calculated, as summarized in the table below. The data are presented in micrograms per cubic meter ("µg/m^3").

Worst-case Sample Season	**Constituent**	**MDL** ($\mu g/m^3$)	**Sample IA6 Concentration** ($\mu g/m^3$)	**Duplicate FD1 Concentration** ($\mu g/m^3$)	**Duplicate Pair Results >RL and >5x MDL?** (Y/N)	**RPD** (%)
Winter 2024	cVOCs	varies	<RL	<RL	N	Unable to calculate

3.2.3 Potential Indoor Air Contaminants

The pre-sampling inspection did not identify any chemicals that contained potential IA contaminants that could impact the IA analytical results and should therefore be removed at least 48 hours prior to sampling. Furthermore, VOCs were not detected in the IA samples. Based on the absence of any RRCs in the IA samples, no cross-contamination from an IA source during sample collection is suspected.

3.2.4 Potential Outdoor Air Contaminants

VOCs were not detected in the outdoor air (“OA”) sample associated with the sampling event. Based on the absence of any RRCs in the OA sample, no cross-contamination from an OA source during sample collection is suspected.

4 Analysis

The laboratory analytical report, with associated Level IV data package, is included in Appendix C. The analytical results for SGss and IA samples are summarized in Table 1 and the analytical results for the SGe sample are summarized in Table 2. The analytical results are depicted on Figure 3. The following sections discuss the analysis of the analytical data obtained during the VI sample collection event relative to the remedial action objectives ("RAOs") for areas where potential exposure is not prevented by an institutional control.

4.1 IA Analysis

The analytical results for the IA samples collected in the Halal Market were compared to the respective Residential Indoor Air Published Levels ("RIA PLs") and Residential Indoor Air Action Levels ("RIA ALs")[4] in IDEM's Risk-based Closure Guide ("R2") (IDEM 2022, 2024). Review of the laboratory analytical data indicates that no VOC was detected at concentrations above the laboratory RLs in the VI samples collected from the Halal Market, and the RLs are lower than the RIA PLs.

4.2 SGss Analysis

The analytical results for the SGss samples collected in the Halal Market were compared to the respective Residential Sub-slab Soil Gas Published Levels ("RSGss PLs") in IDEM's R2 (IDEM 2022, 2024). Review of the laboratory analytical data indicates that PCE was detected at concentrations above the laboratory RLs in the SGss samples collected from the Halal Market.

The detected concentrations of PCE in samples SGss-1 (29.2 µg/m^3) and SGss-2 (14.0 µg/m^3) are each below the RSGss PL of 1,000 µg/m^3. The detected concentration of TCE in sample SGss-1 (35.2 µg/m^3) is below the RSGss PL of 70 µg/m^3.

[4] IDEM defines the RIA AL for a chemical as ten times that chemical's RIA PL. Exceedances of the RIA AL warrant prompt action to reduce exposures.

4.3 SGe Analysis

The analytical results for the SGe sample collected from the area between the Facility and the Halal Market were compared to the respective Residential Shallow Exterior Soil Gas Published Levels ("RSGe PLs") in IDEM's R2 (IDEM 2022, 2024). Review of the laboratory analytical data indicates that PCE was detected at a concentration above the laboratory RL in the SGe sample collected from the area between the Facility and the Halal Market.

The detected concentration of PCE in sample SG-06 (1,180 µg/m^3) is approximately three times the Shallow RSGe PL of 400 µg/m^3.

4.4 Comparison to R2

According to IDEM's R2, the VI data collected from the Halal Market could be interpreted to fall into either Scenario 1 or Scenario 3 (IDEM 2022, 2024). In this case, the Scenario 1 interpretation is based on the observation that both the SGss and IA concentrations are below their applicable published levels. According to IDEM, if both rounds of paired IA/SGss sample data are below IDEM applicable published levels, then neither a vapor remedy nor additional sampling is necessary. Alternately, the Scenario 3 interpretation is based on the observation that the SGe concentration is greater than two times the Shallow RSGe PL and the IA concentrations are below their applicable published levels. This Scenario recommends remedy or continued monitoring for VI until a remedy proves either necessary or unnecessary. Regardless of the Scenario 1 or Scenario 3 interpretation, a second sampling event must be completed during summer worst-case conditions in order to conduct a full vapor intrusion assessment ("VIA") of the Halal Market building.

5 Recommendation

This VI Sampling Report for 5768 W Morris St was prepared to document VI sample collection activities at the adjoining Halal Market property. The results from the paired SGss/IA sampling event indicate that the VI data for the Halal Market have met IDEM's Scenario 1 specified in R2. According to IDEM, if both rounds of paired IA/SGss sample data are below IDEM applicable published levels, then neither a vapor remedy nor additional sampling is necessary. However, the results from the SGe sample indicate that IDEM's Scenario 3 specified in R2 might be applicable. This Scenario recommends remedy or continued monitoring for VI until a remedy proves either necessary or unnecessary. Regardless of the Scenario 1 or Scenario 3 interpretation, a second sampling event must be completed during summer worst-case conditions in order to conduct a full VIA of the Halal Market building.

6 References

ELAM, 2023a, *Remediation Work Plan - Revision 3*, Fabric Care Center, VRP #6150101, 7/19/23, IDEM VFC Document No. 83506495 (URL last verified 6/18/24).

ELAM, 2023b, *VI Investigation - Fabric Care Center*, Personal Communication, *FROM:* Claire Fredin (IDEM), *TO:* James Hogan (IDEM), 8/22/23.

ELAM, 2023c, *RWP Addendum,* Fabric Care Center, VRP #6150101, 10/13/23, IDEM VFC Document No. 83544583 (URL last verified 6/18/24).

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IDEM, 2022, *Risk-based Closure Guide*, 7/8/22, IDEM: https://www.in.gov/idem/files/nrpd_waste-0046-r2_attch.pdf (URL last verified 6/18/24).

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IDEM, 2024, *2024 Published Level Table 1*, 3/1/24, IDEM: https://www.in.gov/idem/cleanups/files/risk-based_closure_table_2024_01.pdf (URL last verified 6/18/24).

USEPA, 2019, *Method TO-15A: Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially Prepared Canisters and Analyzed by Gas Chromatography-Mass Spectrometry (GC-MS)*, United States Environmental Protection Agency, September 2019.

Table

Table 1. Vapor Intrusion Analytical Results (cVOCs)

Fabric Care Center

5760 West Morris Street, Indianapolis, IN 46241

IDEM VRP No: 6150101

Address	Season	Sample Location	Sample ID	Type	Date	PCE	TCE	cDCE	tDCE	VC	Chloroform
					Chemical Abstracts Service Registry Number (CASRN)	127-18-4	79-01-6	156-59-2	156-60-5	75-01-4	67-66-3
					Residential Indoor Air Action Level (RIA AL) (ug/m3)	400	20	400	400	20	10
					Residential Indoor Air Published Level (RIA PL) (ug/m3)	40	2	40	40	2	1
					Residential Subslab Soil Gas Published Level (RSGss PL) (ug/m3)	1,000	70	1,000	1,000	60	40
Halal Market 5768 W Morris St (Commercial)	Winter Heating Season 2024	1st Floor	IA1:A032824	Indoor Air	03/28/24	<3.19	<1.07	<19.8	<39.6	<1.28	<0.83
			SS1:A032824	Subslab Soil Gas	03/28/24	29.2	<1.07	<19.8	<39.6	<1.28	<0.83
			IA2:A032824	Indoor Air	03/28/24	<3.19	<1.07	<19.8	<39.6	<1.28	<0.83
			SS2:A032824	Subslab Soil Gas	03/28/24	14.0	<1.07	<19.8	<39.6	<1.28	<0.83
			IA3:A032824	Indoor Air	03/28/24	<3.19	<1.07	<19.8	<39.6	<1.28	<0.83
			FD1:A032824	Indoor Air	03/28/24	<3.19	<1.07	<19.8	<39.6	<1.28	<0.83
			SS3:A032824	Subslab Soil Gas	03/28/24	<3.19	<1.07	<19.8	<39.6	<1.28	<0.83
			IA4:A032824	Indoor Air	03/28/24	<3.19	<1.07	<19.8	<39.6	<1.28	<0.83
			SS4:A032824	Subslab Soil Gas	03/28/24	<3.19	<1.07	<19.8	<39.6	<1.28	<0.83
		Outside	OA1:A032824	Outdoor Air	03/28/24	<3.19	<1.07	<19.8	<39.6	<1.28	<0.83

Notes:

1. Air analytical results are presented in micrograms per cubic meter (ug/m3).
2. Gray shading indicates that air sample collected from below grade sample point.
3. A bold font style and yellow shading indicates that the concentration exceeds the applicable 2024 IDEM R2 Residential Indoor Air Published Level or Residential Subslab Soil Gas Published Level.
4. A bold font style and red shading indicates that the concentration exceeds the applicable 2024 IDEM R2 Residential Indoor Air Action Level.
5. Winter Heating Season is when building windows and doors are closed and the building heating system is in operation (when indoor air temperature is consistently at least ten degrees higher than the outdoor temperature).
6. Summer Cooling Season is when building windows and doors are closed and the building cooling system is in operation.

Table 2. Exterior Soil Gas Analytical Results (cVOCs)

Fabric Care Center

5760 West Morris Street, Indianapolis, IN 46241

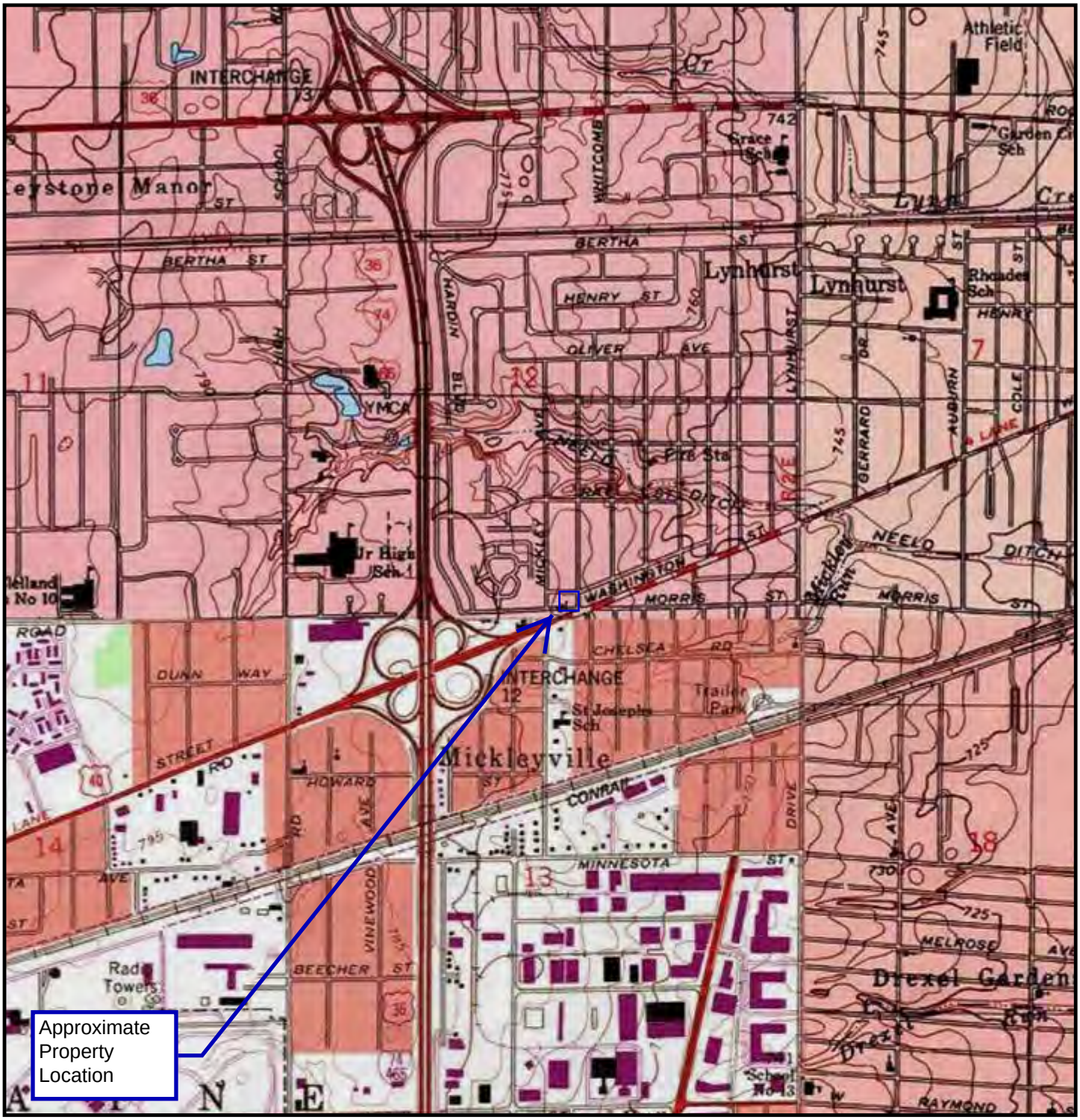
IDEM VRP No: 6150101

Address	Season	Sample Location	Sample ID	Type	Date	PCE	TCE	cDCE	tDCE	VC
					Chemical Abstracts Service Registry Number (CASRN)	127-18-4	79-01-6	156-59-2	156-60-5	75-01-4
					Shallow Residential Exterior Soil Gas Published Level (Shallow RSGe PL) (ug/m3)	400	20	400	400	20
Halal Market 5768 W Morris St (Commercial)	Winter Heating Season 2024	SG-01	SG-01_SG_200616	Soil Gas	06/16/20	54.8	<1.2	<1.8	<1.8	<0.57
		SG-02	SG-02_SG_200616	Soil Gas	06/16/20	102	<1.2	<1.8	<1.8	<0.57
		DUP-01	DUP-01_SG_200616	Soil Gas	06/16/20	71.2	1.5	<1.4	1.8	<0.44
		SG-03	SG-03_SG_200616	Soil Gas	06/16/20	379	<6.9	<10.2	<10.2	<3.3
		SG-04	SG-04_SG_200616	Soil Gas	06/16/20	150	<1.3	<1.8	<1.8	<0.60
		SG-05	SG-05_SG_200616	Soil Gas	06/16/20	49.6	<1.1	<1.6	<1.6	<0.50
		SG-06	SG06:A032824	Soil Gas	3/28/24	**1,180**	<10.7	<198	<396	<12.8

Notes:

1. Air analytical results are presented in micrograms per cubic meter (ug/m3).
2. Gray shading indicates that air sample collected from below grade sample point.
3. A bold font style and yellow shading indicates that the concentration exceeds the applicable 2024 IDEM R2 Shallow Residential Exterior Soil Gas Published Level.
4. Winter Heating Season is when building windows and doors are closed and the building heating system is in operation (when indoor air temperature is consistently at least ten degrees higher than the outdoor temperature).
5. Summer Cooling Season is when building windows and doors are closed and the building cooling system is in operation.

Figures



LEGEND

Approximate Property Location

TheELAMGroup

SITE NAME:	Fabric Care Center
ADDRESS:	5760 W Morris St
CITY:	Indianapolis
STATE:	Indiana
ZIP CODE:	46241
COUNTY:	Marion
TOWNSHIP NAME:	Wayne
TOWNSHIP LINE:	T15N
RANGE LINE:	R2E
SECTION:	12
UTM Coordinates:	16S 563480m E 4400340m N

Source: https://dnrmaps.dnr.in.gov/apps/oilgaswells/

Figure No: 1

Title: Property Location Map

Scale: 1:24,000 (1 inch = 2,000 ft)

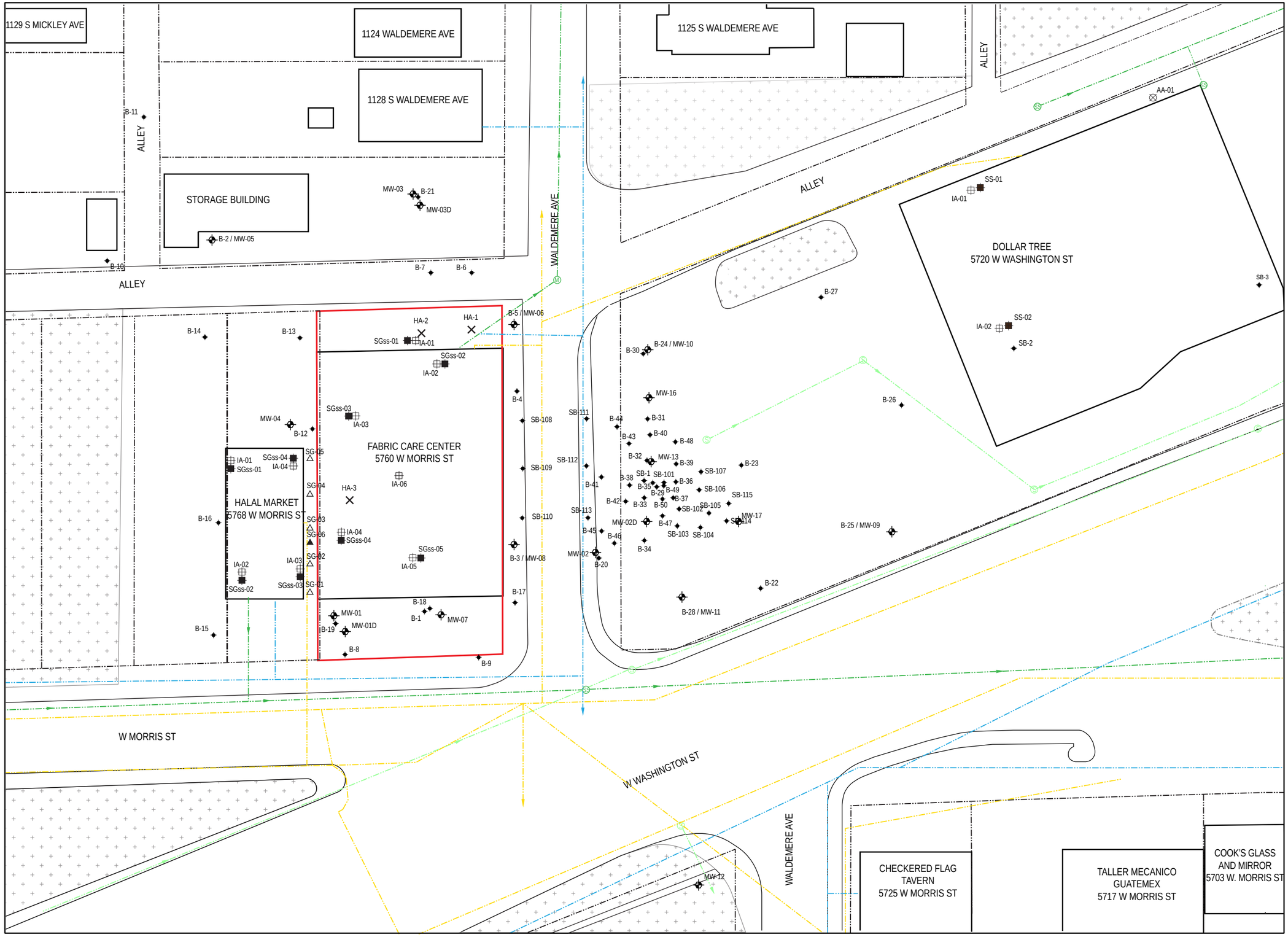
Project No: INMI5760M8.7

Report: VI Sampling Report

Drawn By: The ELAM Group

Date: 6/18/24

0 1,000 2,000 feet



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LEGEND

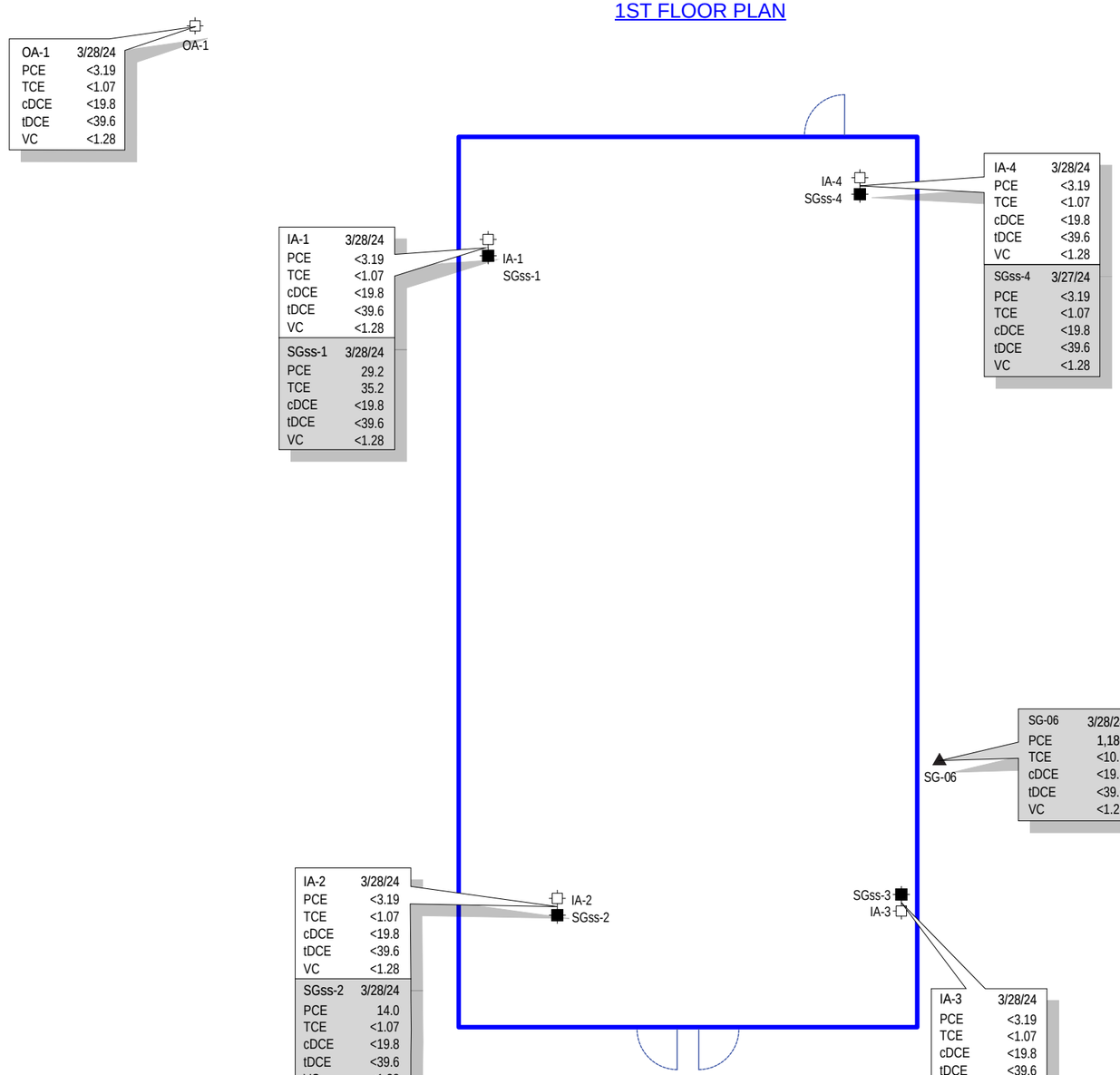
- Subject Site Property Line
- Off-site Property Line
- Storm Sewer
- Sanitary Sewer
- Water
- Gas
- Grass
- Monitoring Well
- Soil Boring
- Hand Auger
- Indoor Air
- Subslab Vapor
- Outdoor Air
- Soil Gas port
- Former Soil Gas port

N

0 20 40 feet

Figure No:	2
Title:	Site Plan
Scale:	1:480 (1 in = 40 ft)
Project No:	INMI5760M
Report:	VI Sampling Report
Drawn by:	The ELAM Group
Date:	6/10/24

1ST FLOOR PLAN



	RIA AL	RIA PL	RSGss PL	Shallow RSGe PL
PCE:	400	40	1,000	400
TCE:	20	2	70	20
cDCE:	400	40	1,000	400
tDCE:	400	40	1,000	400
VC:	20	2	60	20

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LEGEND

- IA Sampling Point
- SGss Gas Sampling Point
- Soil Gas port

Notes:

1. Building plan shown is located at 5768 W Morris St. Indianapolis, IN.
2. **Bold** result indicates exceedance of applicable Published Level.
3. **Bold** and underline indicates exceedance of applicable Action Level.

PCE	Tetrachloroethene
TCE	Trichloroethene
cDCE	cis-1,2-Dichloroethene
tDCE	trans-1.2-Dichloroethene
VC	Vinyl Chloride
RIA AL	Residential Indoor Air Action Level
RIA PL	Residential Indoor Air Published Level
RSGss PL	Residential Subslab Soil Gas Published Level
RSGe PL	Residential Shallow Exterior Soil Gas Published Level

(Values reported in µg/m³)

N

0 5 10 feet

Figure No: 3

Title: Winter Season VI Analytical Data

Scale: 1:120 (1 in = 10 ft)

Project No: INMI5760M

Report: VI Sampling Report

Drawn by: The ELAM Group

Date: 6/10/24

Appendix A

VI Sample Collection Field Documentation

TheELAMGroup

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Fax: 317-567-9022

VAPOR INTRUSION ASSESSMENT BUILDING SURVEY

PROJECT NAME:	Fabric Care Center	**DATE:**	3/26/2024
PROJECT NUMBER:	INMD5760 m	**PERSONNEL:**	CS/JM
PHASE:	~~8.5~~ 8.5	**PROJECT MANAGER:**	CS
PROJECT ADDRESS:	5760 W Morris St Indianapolis		
IDEM PROGRAM ID:	VRP 6150101		

PART I: GENERAL INFORMATION

Chemicals of Concern (check applicable options):

- ☒ Chlorinated Solvents
- ☐ Petroleum Hydrocarbons
- ☐ Other (specify):

Rationale for Vapor Intrusion Assessment (check applicable options):

- ☐ Odor Complaint
- ☐ Soil Impacts Greater Than Applicable Screening Levels
- ☐ Groundwater Impacts Greater Than Applicable Screening Levels
- ☒ Other (specify): IDEM Request for Sample collection @ 5760 W Morris St

Anticipated Vapor Intrusion Assessment Activities (check applicable options):

- ☒ Install Sample Port(s) (circle applicable options): (Soil Gas) / Sewer Gas / (Subslab Vapor)
- ☒ Document Building Characteristics
- ☒ Complete Chemical Inventory
- ☒ Collect Vapor Intrusion Assessment Samples (circle applicable options): 3/28/24 JM
  (Soil Gas) / Sewer Gas / (Subslab Vapor) / Crawl Space Air / (Indoor Air)
- ☐ Other (specify):

PART II: BUILDING CHARACTERISTICS

A. General Information

Property Address: 5768 W Morris St Indianapolis

Year Constructed: ~~1965~~ 1961

Use of Structure (circle applicable options): Residential / Commercial / Industrial / Multi-unit

Floors Above Grade: 1 Ceiling Height (feet): 10

Type of Construction (circle applicable options): Basement / Crawl Space / (Slab on Grade)

Subslab Vapor/Moisture Barrier Present? Yes / No / (Unknown)

Radon Mitigation System Present? Yes / (No)

B. Basement Details (if applicable)

Depth Below Grade (feet): Not Applicable Area:

Walls (circle applicable options): Block / Poured / Other (specify):

Walls Cracked? Yes / No Walls Sealed? Yes / No

Floor (circle applicable options): Dirt/Stones / Concrete Slab / Other (specify):

Floor Cracked? Yes / No Floor Sealed? Yes / No

Sump Present? Yes / No Water in Sump? Yes / No

Water Intrusion? Yes / No If yes, describe:

C. Heating/Cooling

Type of Heating System Used (check applicable options):

- [x] Furnace Heated Air Circulation
- [ ] Hot Water Boiler / Radiators
- [ ] Steam Boiler / Radiators
- [ ] Heat Pump
- [ ] Space Heater(s)
- [ ] Electric Baseboards
- [ ] Fireplace / Stove
- [ ] Other (specify):

Type of Cooling System Used (check applicable options):

- [x] Central Air Conditioning
- [ ] Window-mounted Air Conditioning
- [ ] Whole House Fan
- [ ] Portable Fans
- [ ] Other (specify):

Fuel Type (check applicable options):

- [x] Electricity
- [x] Natural Gas
- [ ] Propane
- [ ] Fuel Oil
- [ ] Wood
- [ ] Coal
- [ ] Kerosene
- [ ] Other (specify):

D. Utilities

Type	Source (circle one)	Floor Penetration (circle one)
Water	Public / Private	Yes / No
Sewer	Public / Private	Yes / No
Electricity	Overhead / Underground	Yes / No
Gas	Public / Private / Not Applicable	Yes / No
Communications	Overhead / Underground	Yes / No

Floor Drain(s) Present?: Yes / No

Cleanout Plug(s) Intact? Yes / No Not Applicable

Additional Information (if applicable):

PART III: OCCUPANT INFORMATION

OCCUPANT NAME	AGE	SEX	OCCUPATION
Halal Market Workers		M / F	
		M / F	
Customers		M / F	
		M / F	
		M / F	
		M / F	
		M / F	
		M / F	

Potential Background Contaminant(s):

Do any occupants of the building smoke? Yes / No (circled: No)

If yes, when was the last time someone smoked in the building?: unknown

Attached Garage? Yes / No (circled: No)

If yes, are vehicles stored in garage? Yes / No

If yes, gasoline / gas-powered equipment stored in garage? Yes / No

Dry cleaned items brought into structure? Yes / No (circled: Yes)

If yes, how often?: 3 times per year

When was the last dry cleaned garment brought home?: greater than 6 months

Do any occupants use solvents in work? Yes / No (circled: No)

What type?:

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

Are pesticides applied in / around the structure? Yes / No (circled: No)

What type?:

If yes, when was the most recent application?:

Has there ever been a fire in the building? Yes / No (circled: No)

If yes, when?:

Painting or staining completed in the building during the last 6 months? Yes / No (circled: No)

If yes, when?:

If yes, which room(s)?:

PART IV: CHEMICAL INVENTORY

Complete Chemical Inventory Form(s) to Identify:

- potential contamination sources found in the building (including attached garages)
- the location of the potential source(s) (floor & room), and
- whether the item was removed from the building 48 hours prior to the indoor air sampling event.

Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the start of the indoor air sampling event.

Date: 3/24/2024
Project Number: INWB5760m
Building Survey Address: 5768 W Morris St
Page 6 of 8

Chemical Name	Container type/size	Location	VOCs	cVOCs	Removed
Tide Hygienic Clean	1.14 Gallon	Kitchen	Y / (N)	Y / (N)	Y / (N)
Bathroom Cleaner	0.25 Gallon	Kitchen	Y / (N)	Y / (N)	Y / (N)
Laundry Detergent	42 oz	Kitchen	Y / (N)	Y / (N)	Y / (N)
Laundry Detergent	42 oz	Kitchen	Y / (N)	Y / (N)	Y / (N)
Lysol mold & mildew Remover	32 oz	Kitchen	Y / (N)	Y / (N)	Y / (N)
Cloralen Bleach	32 oz	Kitchen	Y / (N)	Y / (N)	Y / (N)
Sure Scents lavender	10 oz	Kitchen	Y / (N)	Y / (N)	Y / (N)
Dawn Professional	1 gallon	Kitchen	Y / (N)	Y / (N)	Y / (N)
			Y / N	Y / N	Y / N
			Y / N	Y / N	Y / N
			Y / N	Y / N	Y / N
			Y / N	Y / N	Y / N
			Y / N	Y / N	Y / N
			Y / N	Y / N	Y / N
			Y / N	Y / N	Y / N
			Y / N	Y / N	Y / N
			Y / N	Y / N	Y / N
			Y / N	Y / N	Y / N
			Y / N	Y / N	Y / N
			Y / N	Y / N	Y / N
			Y / N	Y / N	Y / N
			Y / N	Y / N	Y / N
			Y / N	Y / N	Y / N

PART V: SAMPLE INFORMATION

Record sample details on *Summa Canister Air Sampling Form* and attach to this *Vapor Intrusion Assessment Building Survey*

Record sample details on *Chain of Custody Form* and attach to this *Vapor Intrusion Assessment Building Survey*

Describe current conditions of the structure during the collection of vapor intrusion assessment samples:

- ❑ Windows / doors closed, and heating/cooling system operational
- ☒ Windows / doors closed, and heating/cooling system not operational
- ❑ Windows / doors open, and heating/cooling system not operational
- ❑ Other (specify):

Identify / describe nearby potential air contamination sources found outside the building, such as dry cleaners, automotive maintenance facility, fueling station, industrial property, etc.:

Dry cleaners located next door

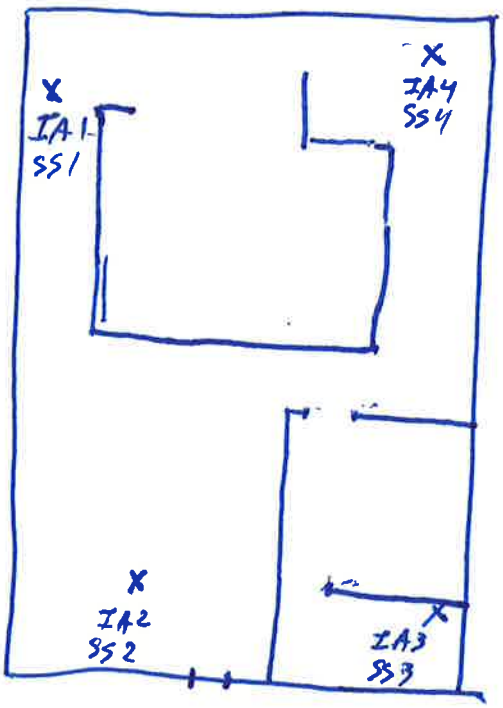
Date: 3/28/24

Project Number: 1UM15760M

Building Survey Address: 5768w Morris St

Page 8 of 8

Provide a sketch or description of sample locations, with sample IDs:



Attach other field notes and any potentially relevant information to this *Vapor Intrusion Assessment Building Survey*

Upload photographs associated with this *Vapor Intrusion Assessment Building Survey* to the project file

SUMMA CANISTER AIR SAMPLING FORM

TheELAMGroup

GENERAL INFORMATION

SITE: IN MI 5760M

SAMPLING ADDRESS: 5768 W Morris ST Indy, IN 46241

SAMPLING EVENT (circle one): SUMMERTIME (WINTERTIME)

TEMPERATURE (F): 31° BAROMETRIC PRESSURE: 30.23 PRECIPITATION (circle one): Y (N)

WIND DIRECTION (circle one): N NE E SE S (SW) W NW

SAMPLING PERSONNEL ID & AFFILIATION: Jadd Moffett ELAM

SAMPLING INFORMATION

SAMPLE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
IA01:A032824	4654	07435	SHUT IN TEST	3/28/24	848	-29
			INITIAL		944	-29
TYPE (circle one) / METHOD (circle one) / SOURCE (circle one) / VALVE (circle one)			1		1041	-26
			2		1153	-23
400 mL / TO-14A / (Air) / 24 hour			6		1555	-10
1 L / (TO-15) / SGss / (8 hour)			7		1658	-6
(6 L) / TO-15 SIM / SGe / 200 ml/min			FINAL		1753	-4

SAMPLE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
SS1:A032824	11068	04140	SHUT IN TEST	3/28/24	848	-29
			INITIAL		944	-29
TYPE (circle one) / METHOD (circle one) / SOURCE (circle one) / VALVE (circle one)			1		1044	-26
			2		1153	-23
400 mL / TO-14A / Air / 24 hour			6		1555	-11
1 L / (TO-15) / (SGss) / (8 hour)			7		1658	-8
(6 L) / TO-15 SIM / SGe / 200 ml/min			FINAL		1753	-5

SAMPLE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
IA02:A032824	10346	05308	SHUT IN TEST	3/28/24	850	-29
			INITIAL		947	-29
TYPE (circle one) / METHOD (circle one) / SOURCE (circle one) / VALVE (circle one)			1		1050	-27
			2		1154	-24
400 mL / TO-14A / (Air) / 24 hour			6		1557	-13
1 L / (TO-15) / SGss / (8 hour)			7		1659	-9
(6 L) / TO-15 SIM / SGe / 200 ml/min			FINAL		1756	-6

SAMPLE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
SS2:A032824	14625	07309	SHUT IN TEST	3/28/24	850	-29
			INITIAL		947	-29
TYPE (circle one) / METHOD (circle one) / SOURCE (circle one) / VALVE (circle one)			1		1050	-27
			2		1154	-24
400 mL / TO-14A / Air / 24 hour			6		1557	-13
1 L / (TO-15) / (SGss) / (8 hour)			7		1659	-9
(6 L) / TO-15 SIM / SGe / 200 ml/min			FINAL		1756	-6

(1) Pressure reading recording guidelines for various time-weighted average (TWA) valves:

a. 24-hour TWA: Initial, Hour 1, Hour 2, Hour 22, Hour 23, and Final

b. 8-hour TWA: Initial, Hour 1, Hour 2, Hour 6, Hour 7, and Final

b. 200 mL/min: Initial and Final (5 min for 1 L, and 30 min for 6 L)

SUMMA CANISTER AIR SAMPLING FORM

TheELAMGroup

GENERAL INFORMATION

SITE: IN MI 5766 fm

SAMPLING ADDRESS: 5768 W Morris ST Ind, IN 46241

SAMPLING EVENT (circle one): SUMMERTIME (WINTERTIME)

TEMPERATURE (F): 31° BAROMETRIC PRESSURE: 30.23 PRECIPITATION (circle one): Y (N)

WIND DIRECTION (circle one): N NE E SE S (SW) W NW

SAMPLING PERSONNEL ID & AFFILIATION: JM ELAM

SAMPLING INFORMATION

SAMPLE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
IA03:A032824	4684	07301	SHUT IN TEST	3/28/24	915	-29
			INITIAL	↓	951	-29
TYPE (circle one) / METHOD (circle one)	SOURCE (circle one)	VALVE (circle one)	1		1055	-26
			2		1156	-23
400 mL / TO-14A	(Air)	24 hour	6		1559	-16
1 L / (TO-15)	SGss	(8 hour)	7		1700	-12
(6 L) / TO-15 SIM	SGe	200 ml/min	FINAL	↓	1800	-7

SAMPLE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
FD1:A032824	15563	05303	SHUT IN TEST	3/28/24	925	-29
			INITIAL	↓	951	-29
TYPE (circle one) / METHOD (circle one)	SOURCE (circle one)	VALVE (circle one)	1		1055	-26
			2		1156	-25
400 mL / TO-14A	(Air)	24 hour	6		1559	-15
1 L / (TO-15)	SGss	(8 hour)	7		1700	-11
(6 L) / TO-15 SIM	SGe	200 ml/min	FINAL	↓	1800	-6

SAMPLE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
SS3:A032824	10025	04007	SHUT IN TEST	3/28/24	916	-30+
			INITIAL	↓	951	-30+
TYPE (circle one) / METHOD (circle one)	SOURCE (circle one)	VALVE (circle one)	1		1055	-28
			2		1156	-24
400 mL / TO-14A	Air	24 hour	6		1559	-16
1 L / (TO-15)	(SGss)	(8 hour)	7		1700	-13
(6 L) / TO-15 SIM	SGe	200 ml/min	FINAL	↓	1800	-9

SAMPLE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
IA04:A032824	11089	07250	SHUT IN TEST	3/28/24	920	-30
			INITIAL	↓	955	-30
TYPE (circle one) / METHOD (circle one)	SOURCE (circle one)	VALVE (circle one)	1		1055	-28
			2		1157	-25
400 mL / TO-14A	(Air)	24 hour	6		1558	-14
1 L / (TO-15)	SGss	(8 hour)	7		1701	-10
(6 L) / TO-15 SIM	SGe	200 ml/min	FINAL	↓	1803	-7

(1) Pressure reading recording guidelines for various time-weighted average (TWA) valves:

a. 24-hour TWA: Initial, Hour 1, Hour 2, Hour 22, Hour 23, and Final

b. 8-hour TWA: Initial, Hour 1, Hour 2, Hour 6, Hour 7, and Final

b. 200 mL/min: Initial and Final (5 min for 1 L, and 30 min for 6 L)

SUMMA CANISTER AIR SAMPLING FORM

TheELAMGroup

GENERAL INFORMATION

SITE: INM157601M

SAMPLING ADDRESS: 5768W Morris ST Indy, IN 46241

SAMPLING EVENT (circle one): SUMMERTIME (WINTERTIME)

TEMPERATURE (F): 31° BAROMETRIC PRESSURE: 30.23 PRECIPITATION (circle one): Y (N)

WIND DIRECTION (circle one): N NE E SE S (SW) W NW

SAMPLING PERSONNEL ID & AFFILIATION: JM ELAM

SAMPLING INFORMATION

SAMPLE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
SS4:A032824	11074	04648	SHUT IN TEST	3/28/24	920	-30
			INITIAL		955	-30
TYPE (circle one)	METHOD (circle one)	SOURCE (circle one)	VALVE (circle one)	1		1055	-27
				2		1157	-23
400 mL	TO-14A	Air	24 hour	6		1257 1558	-14
1 L	(TO-15)	(SGss)	(8 hour)	7		1701	-11
(6 L)	TO-15 SIM	SGe	200 ml/min	FINAL		1903	-7

SAMPLE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
OA1:A032824	91515	02225	SHUT IN TEST	3/28/24	1058	-30
			INITIAL		1100	-36
TYPE (circle one)	METHOD (circle one)	SOURCE (circle one)	VALVE (circle one)	1		1200	-28
				2		1300	-26
400 mL	TO-14A	(Air)	24 hour	6		1657	-14
1 L	(TO-15)	SGss	(8 hour)	7		1758	-11
(6 L)	TO-15 SIM	SGe	200 ml/min	FINAL		1858	-8

SAMPLE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
SG6:A032824	84046	0676	SHUT IN TEST	3/28/24	1016	-28
			INITIAL		1020	-26
TYPE (circle one)	METHOD (circle one)	SOURCE (circle one)	VALVE (circle one)	1		1021	-22
				2		1022	-19
400 mL	TO-14A	Air	24 hour	3		1023	-16
(1 L)	(TO-15)	SGss	8 hour	4		1024	-11
6 L	TO-15 SIM	(SGe)	(200 ml/min)	FINAL		1025	-4

SAMPLE ID	CANISTER #	FLOW CTRL #	READING (1)	DATE	TIME	CAN P ("Hg)
			SHUT IN TEST			
			INITIAL			
TYPE (circle one)	METHOD (circle one)	SOURCE (circle one)	VALVE (circle one)				
400 mL	TO-14A	Air	24 hour				
1 L	TO-15	SGss	8 hour				
6 L	TO-15 SIM	SGe	200 ml/min	FINAL			

(1) Pressure reading recording guidelines for various time-weighted average (TWA) valves:

a. 24-hour TWA: Initial, Hour 1, Hour 2, Hour 22, Hour 23, and Final

b. 8-hour TWA: Initial, Hour 1, Hour 2, Hour 6, Hour 7, and Final

b. 200 mL/min: Initial and Final (5 min for 1 L, and 30 min for 6 L)

TheELAMGroup

Date: 3/28/24
Project: 1WM1 5760M8.5
Personnel: JM

Soil Gas Sample Form

Sample Location: SG-6 Purge Volume: 1000 (mL)

Temperature: 31° (°F) Barometric Pressure: 30.23 (in Hg)

Precipitation (circle one): Y (N) Wind Direction (circle one): N (NE) E SE S SW W NW

Shut in Test

Time	Pressure (in Hg)	Notes
1010	-28	
1016	-28	

Helium Leak Test

Time	Helium Concentration in Shroud While Purging	Notes
1016	47	
1020	12	

Helium Concentration in Purged Soil Gas: 0.0 %

VOC Concentration in Purged Soil Gas:

Sample Information

Sample ID		Canister #	Flow Control #	Field Data	Time	Pressure (in Hg)
SG6:403 28 24		84046	0076	initial	1020	-28
Type	Method	Source	Valve			
1 L Summa	TO-15	SGe	200 mL/min	final	1025	-4

NOTES:

EnvisionAir Proj#:_____ Page 1 of 2 V65

CHAIN OF CUSTODY RECORD

EnvisionAir | 1441 Sadlier Circle West Drive | Indianapolis, IN 46239 | Phone: (317) 351-0885 | Fax: (317) 351-0882

Client: The ELAN Group	P.O. Number: INMI5760M 8.5
Report Address: 161 Lakeview Dr Noblesville, IN	Project Name or Number: INMI5760M
Report To: Jason Oland	Sampled by: JMoffett
Phone:	QA/QC Required: (circle if applicable) **Level III** **Level IV**
Invoice Address: Accounts_payable@elangroup.com	Reporting Units needed: (circle) **ug/m³** **mg/m³** **PPBV** **PPMV**
Desired TAT: (Please Circle One) **1 day** **2 days** **3 days** **Std (5 bus. days)**	Media type: 1LC = 1 Liter Canister; 6LC = 6 Liter Canister; TB = Tedlar Bag; TD = Thermal Desorption Tube

REQUESTED PARAMETERS

TO-15 Full List | TO-15 Short List (Specify in notes)

ENVISIONAIR

Sampling Type:
Soil-Gas: ☐
Sub-Slab: ☐
Indoor-Air: ☐

www.envision-air.com

Canister Pressure / Vacuum

Air Sample ID	Media Type (see code above)	Coll. Date (Grab/Comp Start)	Coll. Time (Grab/Comp Start)	Coll. Date (Comp. End)	Coll. Time (Comp. End)	TO-15 Full List	TO-15 Short List (Specify in notes)			Canister Serial #	Flow Controller Serial #	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)	EnvisionAir Sample Number
IA1 A032824	6LC	3/28	944	3/28	1753	X				4654	07435	-29	-4		
IA2 A032824	6LC	3/28	947	3/28	1756	X				10346	05308	-29	-6		
IA3 A032824	6LC	3/28	951	3/28	1400	X				4684	07301	-29	-7		
IA4 A032824	6LC	3/28	955	3/28	1403	X				11049	07256	-30	-7		
SS1: A032824	6LC	3/28	944	3/28	1753	X				11068	04140	-29	-5		
SS2: A032824	6LC	3/28	947	3/28	1756	X				19625	07309	-29	-6		
SS3: A032824	6LC	3/28	951	3/28	1400	X				10015	08067	-30+	-9		
SS4: A032824	6LC	3/28	955	3/28	1403	X				11074	~~0644~~ 08404	-30	-7		
FD1: A032824	6LC	3/28	951	3/28	1400	X				15563	05303	~~-29~~ -30+	-6		
~~AO1: A032824~~	6LC	3/28	1100	3/28	1858	X				9515	02225	-30	-8		

Comments: DA1: A032824

Relinquished by:	Date	Time	Received by:	Date	Time
Jason Moffett	4/1/24	1300		4/1/24	1300

EnvisionAir Proj#:_____ Page 2 of 2 JGS

CHAIN OF CUSTODY RECORD

EnvisionAir | 1441 Sadlier Circle West Drive | Indianapolis, IN 46239 | Phone: (317) 351-0885 | Fax: (317) 351-0882

Client: The ELAM Group	P.O. Number: INMI5760M8.5
Report Address: 101 Lakeview Dr Noblesville, IN	Project Name or Number: INMI5760M
Report To: Jason Oland	Sampled by: J Moffett
Phone:	QA/QC Required: (circle if applicable) **Level III** **Level IV**
Invoice Address: accounts.payable@elamusa.com	Reporting Units needed: (circle) **ug/m³** **mg/m³** **PPBV** **PPMV**
Desired TAT: (Please Circle One) **1 day** **2 days** **3 days** **Std (5 bus. days)**	Media type: 1LC = 1 Liter Canister, 6LC = 6 Liter Canister, TB = Tedlar Bag, TD = Thermal Desorption Tube

REQUESTED PARAMETERS

TO-15 Full List | TO-15 Short List (Specify in notes)

ENVISIONAIR

Sampling Type:
Soil-Gas: ☑
Sub-Slab: ☐
Indoor-Air: ☐

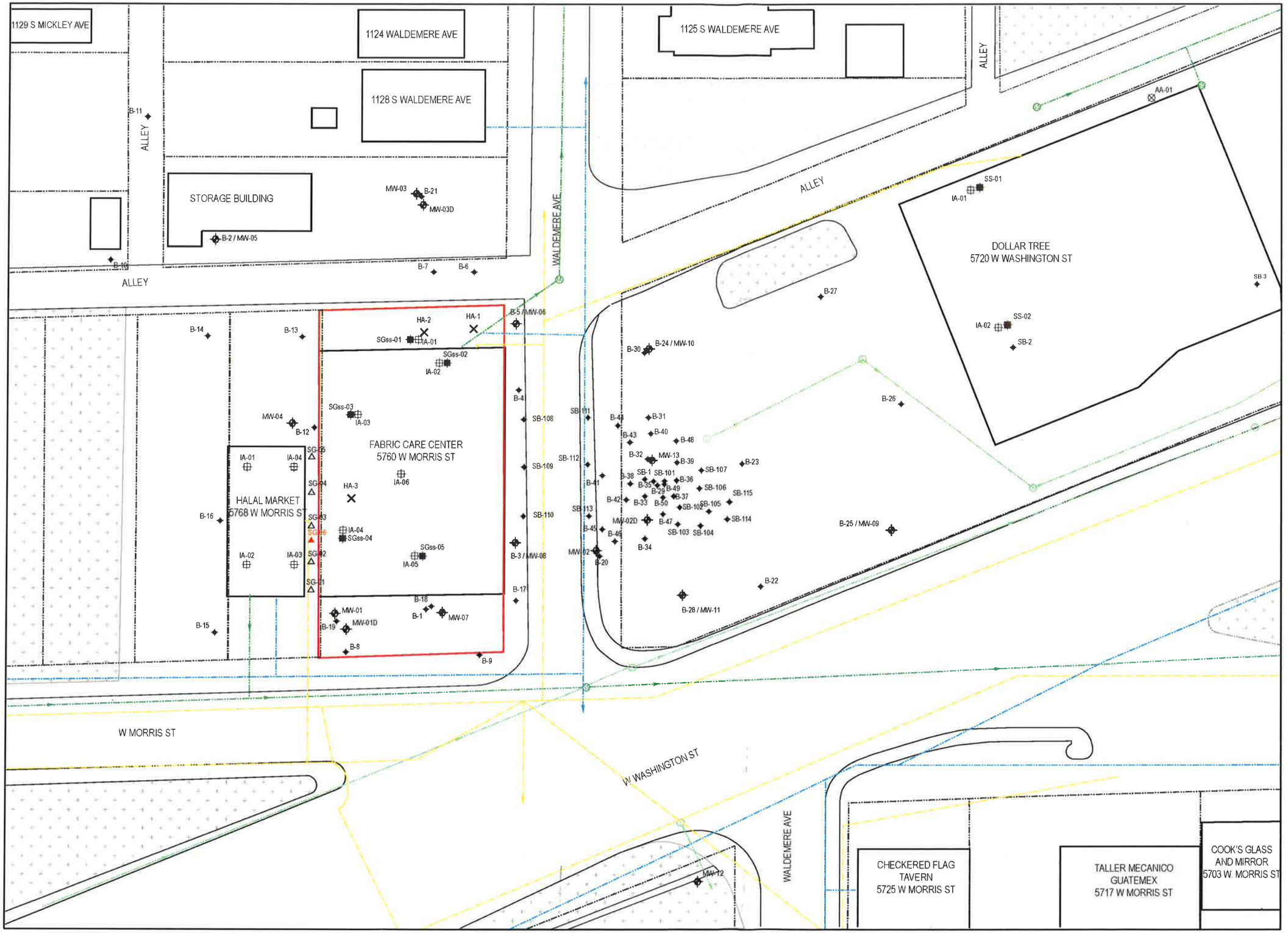
www.envision-air.com

Canister Pressure / Vacuum

Air Sample ID	Media Type (see code above)	Coll. Date (Grab/Comp Start)	Coll. Time (Grab/Comp Start)	Coll. Date (Comp. End)	Coll. Time (Comp. End)					Canister Serial #	Flow Controller Serial #	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)	EnvisionAir Sample Number
SG06: A03.24.24	1LC	3/28	1028	3/28	1028	X				04046	0076	-28	-4		

Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
Judd Moffett	4/1/24	1300		4/1/24	1300



TheELAMGroup

LEGEND

- Subject Site Property Line
- Off-site Property Line
- Storm Sewer
- Sanitary Sewer
- Water
- Gas
- Grass
- Monitoring Well
- Soil Boring
- Hand Auger
- Indoor Air
- Subslab Vapor
- Outdoor Air
- Soil Gas port
- Former Soil Gas port
- Planned Soil Gas port

N

0 20 40 feet

Figure No:	1
Title:	Site Plan
Scale:	1:480 (1 in = 40 ft)
Project No:	INMI5760M
Report:	Q4 2023 QMR
Drawn by:	The ELAM Group
Date:	01/29/24

Parcel Number	
9003419	
County	Marion, IN
Township	WAYNE
Corporation	
District	
Plat	
Map	00000000000
Alt Parcel	49-12-12-111-061.000-930
Property Class	429
Tax District	930
Neighborhood	9400331-washington st girl school to lynhurst

Property Address
5766 W MORRIS ST
INDIANAPOLIS, IN 46241

Topography	Pub. Utilities	Street or Rd.	Neighborhood
☐ Level	☐ Water	☑ Paved	☐ Improving
☐ High	☐ Sewer	☐ Unpaved	☐ Static
☐ Low	☐ Gas	☐ Proposed	☐ Declining
☐ Rolling	☐ Electricity	☐ Sidewalk	☑ Other
☐ Swampy	☐	☐ Alley	☐ Blighted

Ownership
Name
RAINS, JOHN F

Address
1310 S NORFOLK ST
INDIANAPOLIS, IN 46241-3413

Account	2094958		
Book		Page	

Legal
BILTMORE GARDENS L758

Transfer of Ownership Year 2023 Card 1

Date	Grantor	Valid	Amount	Type
Nov 21, 2012	RAINS, PAULA - Jan 01, 1900	Y	0.00	Straight

VALUATION RECORD

Assessment Year		2023	2022	2021
Reason for Change				
Land	Homestead-C1	0	0	0
	Residential-C2	0	0	0
	Non-Residential-C3	39,300	39,300	35,700
	Total Land	39,300	39,300	35,700
Improvements	Homestead-C1	0	0	0
	Residential-C2	0	0	0
	Non-Residential-C3	46,500	46,500	42,200
	Total Imp	46,500	46,500	42,200
Total Assessed Value:		85,800	85,800	77,900

Property Sub Class: COM OTR RETAIL STRUCTURES-429

PRINTED FROM MARION COUNTY, INDIANA

Memorandum

LAND DATA AND COMPUTATIONS

Land Type	Actual Frontage	Effective Frontage	Effective Depth	Factor	Base Rate	Adjusted Rate	Estimated Value	Influence Factor	Land Value
		Acreage / Sq. Ft.							
11			6000		5.50	5.50	36000	0 : -19	39270
Total Acreage		0.14						Total Land Value	39300

Land Type

F Front Lot
R Rear Lot
1 Comm. Ind. Land
11 Primary
12 Secondary
13 Undeveloped usable
14 Undeveloped Unusable
2 Classified Land
3 Undeveloped Land
4 Tillable Land
5 Non-tillable Land
6 Woodland
7 Other Farmland
8 Ag Support Land
81 Legal Ditch
82 Public Road
83 Utility Trans. Tower
9 Homesite
91 Res. Excess Acres
92 Ag Excess Acres

Influence Factors

0	Other	5	Misimprovement
1	Topography	6	Restrictions
2	Under Improved	7	Traffic Flow
3	Excess Frontage	8	View
4	Shape or Size	9	Corner Infl.

Roof Type
BUILT-UP

Walls				
Frame or equal	✓			
Brick or equal				
Metal or equal				
Open				

Framing				
Wood Joist				
Fire Resistant	✓			
Fireproof Steel				
Reinf. Concrete				

Flooring				
Softwood				
Hardwood				
Parquet				
Carpet				
Unfinished				
Other				

Finish Type				
Unfinished				
Semifinished				
Finished Open	✓			
Finished Divided				

Heating & Air Conditioning				
No Heating				
Central Warm Air				
Hot Water or Steam				
Unit Heating				
Central Air	✓			
Package or Unit Air				
Sprinkler				

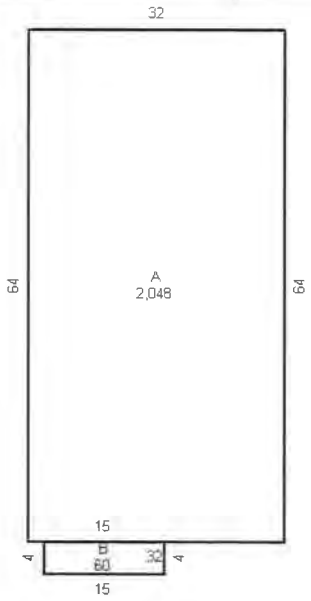
Plumbing	#	TF
Full Baths		
Half Baths		
Extra fixtures		4
	Total	4

Other Fixtures			
Wash Fountains	G/F	ES	SS
Circular 36"			
Circular 54"			
Semi-circular 36"			
Semi-circular 54"			
Industrial Gang Sinks			
4' long 4 man			
8' long 8 man			
Shower-Column			
Circular, 5 per			
Semi-circular, 3 per			
Corner, 2 per			
Shower Multi-Stall			
Circular, 5 per			
Semi-circular, 3 per			
Corner, 2 per			

	#Fixtures
Gang Shower Heads	
Drinking Fountains	
Refrigerated Water Coolers with Hot & Cold Water	
Emergency Shower	
Eye Wash	

Sketch

Parcel Number	9003419	Commercial	Card 1



Use	M:General							
Pricing Key	GCM							
S.F. Area	2048							
Effective Perimeter L/F	192							
P.A.R	9							
Average Size / Units	2048 / 1	/		/		/		
Section Level	HT	RATE	HT	RATE	HT	RATE	HT	RATE
1	10	109.30						
Frame / PE Adj [+ -]	0.00							
Wall Ht. Adj. [+ -]	-6.44							
BASE PRICE	102.86							
B.P.A. %	1.00							
Sub-total	102.86							
Ceiling	0.00							
Interior Finish	0.00							
Division Walls	0.00							
Lighting	0.00							
Heating/Air Cond.	0.00/0.00	/		/		/		
Sprinkler	0.00							
S.F. Price	102.86							
Area	2048							
Sub-total	210660							
Plumbing	6400							
Unit Finish								
Special Features	1300							
Exterior Features								
TOTAL BASE	218360							
Grade Factor	1.00							
Location Multiplier	1.00							
Reproduction Cost	218360							
Phys Dep/ Yr Blt /Cond	80 / 1961 / A	/ /		/ /		/ /		
Obsolescence	0							
Remainder Value	43670							

SUMMARY OF IMPROVEMENTS

Use	Ht.	Const Type	Grd	Year Const	Efftv Year	Cnd	Base Rate	Feat	Adj Rate	No. Un.	Size or Area	LCM	Rplc Cost	Dep Obs	REM Val	% Cmp	Trend Factor	True Tax Value	Val. Adj. / Sound Val.
Building											2048	1.00			43670	100	105	45900	
Paving -Asph		52-in on 5	C	1961	1961	F	2.81	0	2.81	1	1000	1.00	2810	80/	560	100	105	600	

SUMMARY OF SPECIAL FEATURES / EXTERIOR FEATURES

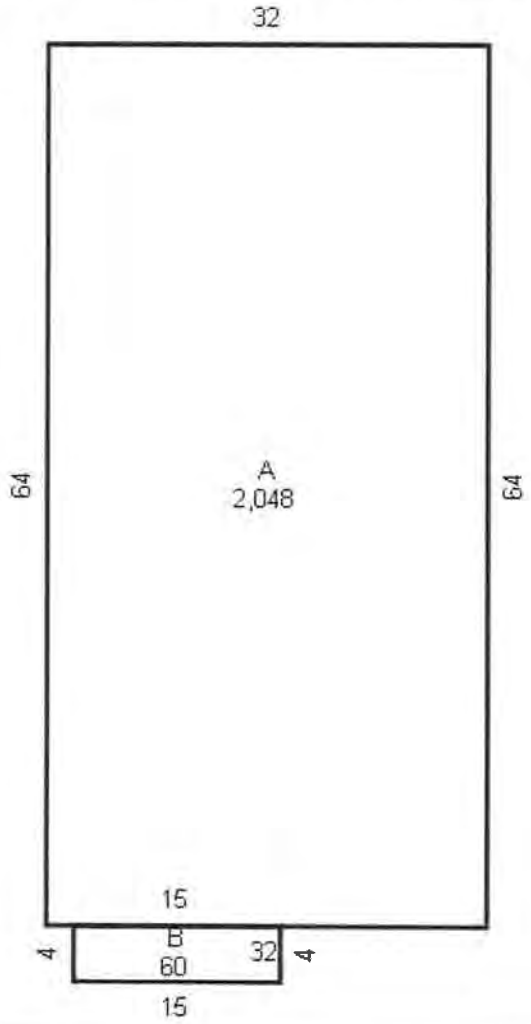
	Canopy-	0 Low	C	1961	1961	A			21.67	1	60	1.00	1300	/					

Card Improvement Total	46460
Total Improvement Value	46460

SKETCH/AREA TABLE ADDENDUM

Parcel Number	
9003419	
Year 2023	Card 1
Property Address	
5766 W MORRIS ST	

SKETCH/AREA TABLE ADDENDUM



AREA CALCULATIONS SUMMARY

Name	Description	Size (Sqft)
	Total Sqft.	

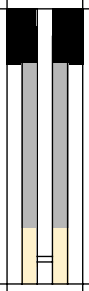
Appendix B

Exterior Soil Gas Sample Port Construction Diagram

IDEM VRP NO:	**6150101**			*SITE ADDRESS:*	5760 W Morris St, Indianapolis, IN 46231		
IDEM PROJECT MANAGER:	Claire Fredin			*X, Y COORDINATES:*			
LOGGED BY:	Chris Sloffer and Jadda Moffett	*DATE:*	3/26/24	*WEATHER:*	54 F, Cloudy and Windy		*LOCATION ID*
CHECKED BY & LPG NO:	James Hogan, LPG No. 2166	*DATE:*	6/19/24	*EQUIP, MODEL, CAL., BG.:*	NA		**SG-06**
CONTRACTOR:	The ELAM Group			*EQUIP, MODEL, CAL., BG.:*	NA		*SHEET*
DRILLER NAME & LICENSE NO:	Chris Sloffer, Water Well Drilling License No. 2128 WD			*EQUIP, MODEL, CAL., BG.:*	NA		**1 OF 1**
DRILL METHOD/EQUIPMENT:	Hand Auger			*WATER:*	NA	NA	NA
SAMPLING METHOD:	Not Applicable ("NA")			*TIME:*	NA	NA	NA
BOREHOLE DIAMETER:	2-inch			*DATE:*	NA	NA	NA
TYPE OF DRILL FLUIDS:	None			*DEPTH:*	NA	NA	NA

DRILLING START/FINISH

TIME:	1545	*TIME:*	1640
DATE	3/26/24	*DATE:*	3/26/24

ELEVATION (ft. amsl)	DEPTH (ft.)	BLOW COUNTS (6"/12"/6")	DRIVE	RECOVERY	SAMPLE NUMBER	PID (ppm)	LOG SAMPLE	LAB SAMPLE	SOIL GRAPH	DESCRIPTION	BOREHOLE CONSTRUCTION	AIR MONITORING TIME	AIR MONITORING FID	AIR MONITORING LEL
768.65	0									Note: Shallow soil gas implant installed via hand auger Steel Flushmount Manway in Concrete Pad 0' - 1.0'				
	1													
	2									Benseal 1.0' - 4.0'				
	3													
	4									Sand 4.0' - 5.0' Soil Gas Implant 4.5' - 4.6'				
763.65	5													
	6													
	7													
	8													
	9													
758.65	10													
	11													
	12													
	13													
	14													
753.65	15													
	16													
	17													
	18													
	19													
748.65	20													

CONSTRUCTION INFO	*DIA.*	*COMPOSITION/TYPE*	*LENGTH (ft)*	*SURVEY INFORMATION*	*TOP*	*BOTTOM*	*DEPTH(S)*	*LAB SAMPLE ID*	*DATE*	*TIME*	*S/G/A*	*PRES*
BOREHOLE/GROUND SURFACE:	2"	Hand Auger	5	*GROUND SURFACE:*	768.65	763.65	0' - 5'					
WELL CASING:	0.25"	TEF Tubing	4.5	*WELL CASING:*	768.65	764.15	0' - 4.5'					
WELL SCREEN (incl. slot size):	0.25"	SGe Implant	0.1	*WELL SCREEN:*	764.15	764.05	4.5' - 4.6'					
JOINTS BT CASING SEGMENTS:	NA	NA	NA	*JOINTS B/T CASINGS:*	NA	NA	NA					
SAND FILTER PACK:	2"	#5 Quartz Sand	1	*SAND FILTER PACK:*	764.65	763.65	4.0' - 5.0'					
BENTONITE SEAL:	2"	Benseal	3	*BENTONITE SEAL:*	767.65	764.65	1.0' - 4.0'					
ANNULAR FILL/GROUT:	NA	NA	NA	*ANNULAR FILL/GROUT:*	NA	NA	NA					
SURFACE SEAL:	12"	Concrete	1	*SURFACE SEAL:*	768.65	767.65	0' - 1.0'					
PROTECTIVE CASING	6"	Steel Flushmount Manway		*PROTECTIVE CASING:*	768.65	767.65	0' - 1.0'					

Form meets requirements of IDEM's WASTE-053-NPD found here: http://www.in.gov/idem/files/nrpd_waste-0053.pdf (link last verified 9/23/15). The form format is the property of The ELAM Group.

Appendix C

Laboratory Analytical Report with Level IV Data Package

EnvisionAir
1441 Sadlier Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
Fax: 317-351-0882
www.envision-air.com

Mr. Jason Oland
The ELAM Group
161 Lakeview Drive
Suite B
Noblesville, IN 46060

April 12, 2024

EnvisionAir Project Number: 2024-187
Client Project Name: INMI5760M

Dear Mr. Oland,

Please find the attached analytical report for the samples received April 1, 2024. All test methods performed were fully compliant with local, state, and federal EPA methods unless otherwise noted. The project was analyzed as requested on the enclosed chain of custody record. Please review the comments section for additional information about your results or Quality Control data.

Feel free to contact me if you have any questions or comments regarding your analytical report or service.

Thank you for your business. EnvisionAir looks forward to working with you on your next project.

Yours Sincerely,

David Norris
Project Manager
EnvisionAir, LLC

EnvisionAir
1441 Sadlier Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
Fax: 317-351-0882
www.envision-air.com

Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Sample Summary

Canister Pressure / Vacuum

Laboratory Sample Number:	Sample Description:	Matrix:	START Date Collected:	START Time Collected:	End Date Collected:	End Time Collected:	Date Received:	Time Received	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)
24-998	IA1:A032824	A	3/28/24	9:44	3/28/24	17:53	4/1/24	13:00	29	4	4
24-999	IA2:A032824	A	3/28/24	9:47	3/28/24	17:56	4/1/24	13:00	29	6	6
24-1000	IA3:A032824	A	3/28/24	9:51	3/28/24	18:00	4/1/24	13:00	29	7	7
24-1001	IA4:A032824	A	3/28/24	9:55	3/28/24	18:03	4/1/24	13:00	30	7	7
24-1002	SS1:A032824	A	3/28/24	9:44	3/28/24	17:53	4/1/24	13:00	29	5	5
24-1003	SS2:A032824	A	3/28/24	9:47	3/28/24	17:56	4/1/24	13:00	29	6	6
24-1004	SS3:A032824	A	3/28/24	9:51	3/28/24	18:00	4/1/24	13:00	30	9	9
24-1005	SS4:A032824	A	3/28/24	9:55	3/28/24	18:03	4/1/24	13:00	30	7	7
24-1006	FD1:A032824	A	3/28/24	9:51	3/28/24	18:00	4/1/24	13:00	29	6	6
24-1007	OA1:A032824	A	3/28/24	11:00	3/28/24	18:58	4/1/24	13:00	30	8	8
24-1008	SG06:A032824	A	3/28/24	10:28	3/28/24	10:25	4/1/24	13:00	28	4	4

EnvisionAir
1441 Sadlier Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
Fax: 317-351-0882
www.envision-air.com

Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: IA1:A032824

EnvisionAir Sample Number: 24-998
Sample Matrix: AIR

Sample Collection START Date/Time: 3/28/24 9:44
Sample Collection END Date/Time: 3/28/24 17:53
Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	

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Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	98%		
Analysis Date/Time:	4-3-24/21:43		
Analyst Initials	tjg		

EnvisionAir
1441 Sadlier Circle West Drive
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Ph: 317-351-0885
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www.envision-air.com

Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: IA2:A032824

EnvisionAir Sample Number: 24-999
Sample Matrix: AIR

Sample Collection START Date/Time: 3/28/24 9:47
Sample Collection END Date/Time: 3/28/24 17:56
Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	

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Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	106%		
Analysis Date/Time:	4-3-24/22:27		
Analyst Initials	tjg		

EnvisionAir
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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: IA3:A032824

EnvisionAir Sample Number: 24-1000
Sample Matrix: AIR

Sample Collection START Date/Time: 3/28/24 9:51
Sample Collection END Date/Time: 3/28/24 18:00
Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	

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Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	100%		
Analysis Date/Time:	4-3-24/23:11		
Analyst Initials	tjg		

EnvisionAir
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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: IA4:A032824

EnvisionAir Sample Number: 24-1001
Sample Matrix: AIR

Sample Collection START Date/Time: 3/28/24 9:55
Sample Collection END Date/Time: 3/28/24 18:03
Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	

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Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	97%		
Analysis Date/Time:	4-4-24/02:06		
Analyst Initials	tjg		

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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: SS1:A032824

EnvisionAir Sample Number: 24-1002
Sample Matrix: AIR

Sample Collection START Date/Time: 3/28/24 9:44
Sample Collection END Date/Time: 3/28/24 17:53
Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	

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Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	**29.2**	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	104%		
Analysis Date/Time:	4-3-24/23:54		
Analyst Initials	tjg		

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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: SS2:A032824

EnvisionAir Sample Number: 24-1003
Sample Matrix: AIR

Sample Collection START Date/Time: 3/28/24 9:47
Sample Collection END Date/Time: 3/28/24 17:56
Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	

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Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	**14.0**	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	101%		
Analysis Date/Time:	4-4-24/00:38		
Analyst Initials	tjg		

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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: SS3:A032824

EnvisionAir Sample Number: 24-1004
Sample Matrix: AIR

Sample Collection START Date/Time: 3/28/24 9:51
Sample Collection END Date/Time: 3/28/24 18:00
Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	

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Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	98%		
Analysis Date/Time:	4-4-24/01:22		
Analyst Initials	tjg		

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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: SS4:A032824

EnvisionAir Sample Number: 24-1005
Sample Matrix: AIR

Sample Collection START Date/Time: 3/28/24 9:55
Sample Collection END Date/Time: 3/28/24 18:03
Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	

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Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	116%		
Analysis Date/Time:	4-4-24/02:51		
Analyst Initials	tjg		

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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: FD1:A032824

EnvisionAir Sample Number: 24-1006
Sample Matrix: AIR

Sample Collection START Date/Time: 3/28/24 9:51
Sample Collection END Date/Time: 3/28/24 18:00
Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	

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Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	102%		
Analysis Date/Time:	4-4-24/03:37		
Analyst Initials	tjg		

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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: OA1:A032824

EnvisionAir Sample Number: 24-1007
Sample Matrix: AIR

Sample Collection START Date/Time: 3/28/24 11:00
Sample Collection END Date/Time: 3/28/24 18:58
Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	

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Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 54.1	54.1	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
Naphthalene	< 0.524	0.524	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	105%		
Analysis Date/Time:	4-3-24/21:00		
Analyst Initials	tjg		

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Client Name: THE ELAM GROUP

Project ID: INMI5760M

Client Project Manager: JASON OLAND

EnvisionAir Project Number: 2024-187

Analytical Method: TO-15
Analytical Batch: 040324AIR

Client Sample ID: SG06:A032824

EnvisionAir Sample Number: 24-1008
Sample Matrix: AIR

Sample Collection START Date/Time: 3/28/24 10:28
Sample Collection END Date/Time: 3/28/24 10:25
Sample Received Date/Time: 4/1/24 13:00

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 4920	4920	
4-Methyl-2-pentanone (MIBK)	< 20500	20500	
1,1,1-Trichloroethane	< 5460	5460	
1,1,2,2-Tetrachloroethane	< 3.36	3.36	1
1,1,2-Trichloroethane	< 2.10	2.10	1
1,1-Dichloroethane	< 40.5	40.5	
1,1-Dichloroethene	< 1980	1980	
1,2,4-Trichlorobenzene	< 7.42	7.42	
1,2,4-Trimethylbenzene	< 49.2	49.2	
1,2-dibromoethane (EDB)	< 0.32	0.32	1
1,2-Dichlorobenzene	< 601	601	
1,2-Dichloroethane	< 4.05	4.05	
1,2-Dichloropropane	< 4.62	4.62	
1,3,5-Trimethylbenzene	< 49.2	49.2	
1,3-Butadiene	< 2.21	2.21	
1,3-Dichlorobenzene	< 601	601	
1,4-Dichlorobenzene	< 6.01	6.01	
1,4-Dioxane	< 18.0	18.0	
2-Butanone (MEK)	< 29500	29500	
2-Hexanone	< 205	205	
Acetone	< 23800	23800	
Benzene	< 16.0	16.0	
Benzyl Chloride	< 4.14	4.14	1
Bromodichloromethane	< 5.36	5.36	1
Bromoform	< 103	103	
Bromomethane	< 38.8	38.8	
Carbon Disulfide	< 3110	3110	
Carbon Tetrachloride	< 6.29	6.29	
Chlorobenzene	< 230	230	
Chloroethane	< 132	132	

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Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
Chloroform	< 8.30	8.30	
Chloromethane	< 206	206	
cis-1,2-Dichloroethene	< 198	198	
cis-1,3-Dichloropropene	< 45.4	45.4	
Cyclohexane	< 55100	55100	
Dibromochloromethane	< 8.52	8.52	
Dichlorodifluoromethane	< 495	495	
Ethyl Acetate	< 541	541	
Ethylbenzene	< 86.8	86.8	
Hexachloro-1,3-butadiene	< 10.7	10.7	
Isooctane	< 4670	4670	
m,p-Xylene	< 434	434	
Methylene Chloride	< 417	417	
Methyl-tert-butyl ether	< 361	361	
N-Heptane	< 4100	4100	
N-Hexane	< 1760	1760	
Naphthalene	< 5.24	5.24	
o-Xylene	< 434	434	
Propylene	< 1720	1720	
Styrene	< 4260	4260	
Tetrachloroethene	**1,180**	31.9	
Tetrahydrofuran	< 2950	2950	
Toluene	< 37700	37700	
trans-1,2-Dichloroethene	< 396	396	
trans-1,3-Dichloropropene	< 45.4	45.4	
Trichloroethene	< 10.7	10.7	
Trichlorofluoromethane	< 5620	5620	
Vinyl Acetate	< 1760	1760	
Vinyl Bromide	< 4.37	4.37	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	107%		
Analysis Date/Time:	4-4-24/07:04		
Analyst Initials	tjg		

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Analytical Report

TO-15 Quality Control Data

EnvisionAir Batch Number: 040324AIR

Method Blank (MB):	MB Results (ppbv)	Reporting Limit (ppbv)	Flags
4-Ethyltoluene	< 100	100	
4-Methyl-2-pentanone (MIBK)	< 500	500	
1,1,1-Trichloroethane	< 100	100	
1,1,2,2-Tetrachloroethane	< 0.049	0.049	1
1,1,2-Trichloroethane	< 0.038	0.038	1
1,1-Dichloroethane	< 1	1	
1,1-Dichloroethene	< 50	50	
1,2,4-Trichlorobenzene	< 0.1	0.1	
1,2,4-Trimethylbenzene	< 1	1	
1,2-dibromoethane (EDB)	< 0.0041	0.0041	1
1,2-Dichlorobenzene	< 10	10	
1,2-Dichloroethane	< 0.1	0.1	
1,2-Dichloropropane	< 0.1	0.1	
1,3,5-Trimethylbenzene	< 1	1	
1,3-Butadiene	< 0.1	0.1	
1,3-Dichlorobenzene	< 10	10	
1,4-Dichlorobenzene	< 0.1	0.1	
1,4-Dioxane	< 0.5	0.5	
2-Butanone (MEK)	< 1000	1000	
2-Hexanone	< 5	5	
Acetone	< 1000	1000	
Benzene	< 0.5	0.5	
Benzyl Chloride	< 0.08	0.08	1
Bromodichloromethane	< 0.08	0.08	1
Bromoform	< 1	1	
Bromomethane	< 1	1	
Carbon Disulfide	< 100	100	
Carbon Tetrachloride	< 0.1	0.1	
Chlorobenzene	< 5	5	
Chloroethane	< 5	5	
Chloroform	< 0.17	0.17	
Chloromethane	< 10	10	
cis-1,2-Dichloroethene	< 5	5	
cis-1,3-Dichloropropene	< 1	1	
Cyclohexane	< 1600	1600	
Dibromochloromethane	< 0.1	0.1	
Dichlorodifluoromethane	< 10	10	
Ethyl Acetate	< 15	15	
Ethylbenzene	< 2	2	
Hexachloro-1,3-butadiene	< 0.1	0.1	
Isooctane	< 100	100	
m,p-Xylene	< 10	10	
Methylene Chloride	< 12	12	
Methyl-tert-butyl ether	< 10	10	
N-Heptane	< 100	100	
N-Hexane	< 50	50	
Naphthalene	< 0.1	0.1	
o-Xylene	< 10	10	
Propylene	< 100	100	
Styrene	< 100	100	
Tetrachloroethene	< 0.47	0.47	
Tetrahydrofuran	< 100	100	

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Analytical Report

Method Blank (MB):	MB Results (ppbv)	Reporting Limit (ppbv)	Flags
Toluene	< 1000	1000	
trans-1,2-Dichloroethene	< 10	10	
trans-1,3-Dichloropropene	< 1	1	
Trichloroethene	< 0.2	0.2	
Trichlorofluoromethane	< 100	100	
Vinyl Acetate	< 50	50	
Vinyl Bromide	< 0.1	0.1	
Vinyl Chloride	< 0.5	0.5	
4-bromofluorobenzene (surrogate)	97%		
Analysis Date/Time:	4-3-24/19:41		
Analyst Initials	tjg		

LCS/LCSD	LCS Results (ppbv)	LCSD Results (ppbv)	LCS/D Conc(ppbv)	LCS Rec.	LCSD Rec.	RPD	Flag
Propylene	9.24	9.3	10	92%	93%	0.6%	
Dichlorodifluoromethane	9.96	10	10	100%	100%	0.4%	
Chloromethane	10.1	9.62	10	101%	96%	4.9%	
Vinyl Chloride	9.85	9.5	10	99%	95%	3.6%	
1,3-Butadiene	10.5	8.85	10	105%	89%	17.1%	
Bromomethane	10.6	9.03	10	106%	90%	16.0%	
Chloroethane	9.95	8.65	10	100%	87%	14.0%	
Vinyl Bromide	10.3	9.4	10	103%	94%	9.1%	
Trichlorofluoromethane	10.7	10	10	107%	100%	6.8%	
Acetone	10.3	9.68	10	103%	97%	6.2%	
1,1-Dichloroethene	10.5	10.9	10	105%	109%	3.7%	
Methylene Chloride	10.7	10.3	10	107%	103%	3.8%	
Carbon Disulfide	9.67	10.2	10	97%	102%	5.3%	
trans-1,2-Dichloroethene	10.6	9.87	10	106%	99%	7.1%	
Methyl-tert-butyl ether	10.6	8.8	10	106%	88%	18.6%	
1,1-Dichloroethane	10.1	9.48	10	101%	95%	6.3%	
Vinyl Acetate	10.6	9.58	10	106%	96%	10.1%	
N-Hexane	10.2	10.9	10	102%	109%	6.6%	
2-Butanone (MEK)	9.64	10	10	96%	100%	3.7%	
cis-1,2-Dichloroethene	9.91	10.4	10	99%	104%	4.8%	
Ethyl Acetate	9.97	10.3	10	100%	103%	3.3%	
Chloroform	9.57	10.1	10	96%	101%	5.4%	
Tetrahydrofuran	10.4	9.58	10	104%	96%	8.2%	
1,2-Dichloroethane	9.17	9.66	10	92%	97%	5.2%	
1,1,1-Trichloroethane	9.11	9.13	10	91%	91%	0.2%	
Carbon Tetrachloride	9.69	9.5	10	97%	95%	2.0%	
Benzene	10.1	9.66	10	101%	97%	4.5%	
Cyclohexane	9.39	9.86	10	94%	99%	4.9%	
1,2-Dichloropropane	10.5	9.74	10	105%	97%	7.5%	
Trichloroethene	10.4	10.2	10	104%	102%	1.9%	
Bromodichloromethane	9.75	9.54	10	98%	95%	2.2%	
1,4-Dioxane	9.58	9.44	10	96%	94%	1.5%	
Isooctane	10.2	10.1	10	102%	101%	1.0%	
N-Heptane	10.6	10.3	10	106%	103%	2.9%	
cis-1,3-Dichloropropene	10.1	9.93	10	101%	99%	1.7%	
4-Methyl-2-pentanone (MIBK)	9.78	10.4	10	98%	104%	6.1%	
trans-1,3-Dichloropropene	10.1	9.98	10	101%	100%	1.2%	
1,1,2-Trichloroethane	9.85	9.27	10	99%	93%	6.1%	
Toluene	10.3	10.2	10	103%	102%	1.0%	
2-Hexanone	11	10.9	10	110%	109%	0.9%	
Dibromochloromethane	9.84	10.4	10	98%	104%	5.5%	
1,2-dibromoethane (EDB)	9.08	9.41	10	91%	94%	3.6%	
Tetrachloroethene	9.05	9.47	10	91%	95%	4.5%	
Chlorobenzene	9.48	9.72	10	95%	97%	2.5%	
Ethylbenzene	9.87	10.4	10	99%	104%	5.2%	
m,p-Xylene	20.1	20.9	20	101%	105%	3.9%	
Bromoform	8.55	9.44	10	86%	94%	9.9%	

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Analytical Report

LCS/LCSD	LCS Results (ppbv)	LCSD Results (ppbv)	LCS/D Conc(ppbv)	LCS Rec.	LCSD Rec.	RPD	Flag
Styrene	10.7	10.3	10	107%	103%	3.8%	
1,1,2,2-Tetrachloroethane	10.1	9.96	10	101%	100%	1.4%	
o-Xylene	9.73	10.3	10	97%	103%	5.7%	
4-Ethyltoluene	10.6	10.5	10	106%	105%	0.9%	
1,3,5-Trimethylbenzene	10.2	10.3	10	102%	103%	1.0%	
1,2,4-Trimethylbenzene	10.2	9.86	10	102%	99%	3.4%	
1,3-Dichlorobenzene	8.74	9.64	10	87%	96%	9.8%	
Benzyl Chloride	9.16	10.4	10	92%	104%	12.7%	
1,4-Dichlorobenzene	9.63	10.5	10	96%	105%	8.6%	
1,2-Dichlorobenzene	9.73	10.4	10	97%	104%	6.7%	
1,2,4-Trichlorobenzene	9.51	10.1	10	95%	101%	6.0%	
Naphthalene	9.41	10.2	10	94%	102%	8.1%	
Hexachloro-1,3-butadiene	9.58	10.3	10	96%	103%	7.2%	
4-bromofluorobenzene (surrogate)	103%	94%					
Analysis Date/Time:	4-3-24/18:14	4-3-24/18:59					
Analyst Initials	tjg	tjg					

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Flag Number	Comments
1	Reporting limit is supported by MDL. TJG

EnvisionAir Proj#: 2024-187 Page 1 of 2 Rev

CHAIN OF CUSTODY RECORD

EnvisionAir | 1441 Sadlier Circle West Drive | Indianapolis, IN 46239 | Phone: (317) 351-0885 | Fax: (317) 351-0882

Client: The ELAN Group	P.O. Number: INM15760M 8.5
Report Address: 161 Lakeview Dr Noblesville, IN	Project Name or Number: INM15760M
Report To: Jason Oland	Sampled by: JMoffett
Phone:	QA/QC Required: (circle if applicable) Level III Level IV
Invoice Address: accounts.payable@elanusa.com	Reporting Units needed: (circle) ug/m³ mg/m³ PPBV PPMV
Desired TAT: (Please Circle One) 1 day 2 days 3 days Std (5 bus. days)	Media type: 1LC = 1 Liter Canister; 6LC = 6 Liter Canister; TB = Tedlar Bag; TD = Thermal Desorption Tube

REQUESTED PARAMETERS

TO-15 Full List | TO-15 Short List (Specify in notes)

ENVISIONAIR

Sampling Type:
Soil-Gas: ☑
Sub-Slab: ☐
Indoor-Air: ☐

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Air Sample ID	Media Type (see code above)	Coll. Date (Grab/Comp Start)	Coll. Time (Grab/Comp Start)	Coll. Date (Comp. End)	Coll. Time (Comp. End)	TO-15 Full List	TO-15 Short List (Specify in notes)			Canister Pressure / Vacuum: Canister Serial #	Flow Controller Serial #	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)	EnvisionAir Sample Number
IA1: A032824	6LC	3/28	944	3/28	1753	X				4654	07435	-29	-4	-4	24-998
IA2: A032824	6LC	3/28	947	3/28	1756	X				10346	05308	-29	-6	-6	999
IA3: A032824	6LC	3/28	951	3/28	1800	X				4684	07301	-29	-7	-7	1000
IA4: A032824	6LC	3/28	955	3/28	1803	X				11089	07256	-30	-7	-7	1001
SS1: A032824	6LC	3/28	944	3/28	1753	X				11068	04140	-29	-5	-5	1002
SS2: A032824	6LC	3/28	947	3/28	1756	X				19625	07309	-29	-6	-6	1003
SS3: A032824	6LC	3/28	951	3/28	1800	X				10025	08067	-30+	-9	-9	1004
SS4: A032824	6LC	3/28	955	3/28	1803	X				11074	~~04148~~ 04648	-30	-7	-7	1005
FD1: A032824	6LC	3/28	951	3/28	1800	X				15563	05303	~~-29~~ -30	-6	-6	1006
~~A01: A032824~~	6LC	3/28	1100	3/28	1858	X				9151S	0225	-30	-8	-8	1007

Comments: DA1: A032824

Relinquished by:	Date	Time	Received by:	Date	Time
Jason Moffett	4/1/24	1300	SPL	4/1/24	1300

EnvisionAir Proj#: 2024-187 Page 2 of 2 JGS

CHAIN OF CUSTODY RECORD

EnvisionAir | 1441 Sadlier Circle West Drive | Indianapolis, IN 46239 | Phone: (317) 351-0885 | Fax: (317) 351-0882

30 of 130

Client: The ELAM Group	P.O. Number: INM15760M8.5
Report Address: 61 Lakeview Dr Noblesville, IN	Project Name or Number: INM15760/4
Report To: Jason Oland	Sampled by: JMoffett
Phone:	QA/QC Required: (circle if applicable) Level III (Level IV)
Invoice Address: accounts.payable@elamusa.com	Reporting Units needed: (circle) (µg/m³) mg/m³ PPBV PPMV
Desired TAT: (Please Circle One) 1 day 2 days 3 days (Std (5 bus. days))	Media type: 1LC = 1 Liter Canister; 6LC = 6 Liter Canister; TB = Tedlar Bag; TD = Thermal Desorption Tube

REQUESTED PARAMETERS

TO-15 Full List

TO-15 Short List (Specify in notes)

ENVISIONAIR

Sampling Type:
Soil-Gas: ☑
Sub-Slab: ☑
Indoor-Air: ☑

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Canister Pressure / Vacuum

Air Sample ID	Media Type (see code above)	Coll. Date (Grab/Comp Start)	Coll. Time (Grab/Comp Start)	Coll. Date (Comp. End)	Coll. Time (Comp. End)					Canister Serial #	Flow Controller Serial #	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)	EnvisionAir Sample Number
SG06: A032824	1LC	3/28	1028	3/28	1025	X				84046	0676	-28	-4	-4	24-1008

Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
Jadda Moffett	4/1/24	1300	SH	4/1/24	1300

2024-187
LEVEL IV

ENVISIONAIR

TO-15 VOC

- Sequence Log

Injection Log

Directory: C:\HPCHEM\1\DATA\040324

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0101001.D	1.	BFB TUNE	TO-15 ANALYSIS	3 Apr 2024 16:44
2	2	0201002.D	1.	BFB/CCV 10PPBV	TO-15 ANALYSIS	3 Apr 2024 17:29
3	3	0301003.D	1.	LCS 10PPBV	TO-15 ANALYSIS	3 Apr 2024 18:14
4	4	0401004.D	1.	LCSDD 10PPBV	TO-15 ANALYSIS	3 Apr 2024 18:59
5	5	0501005.D	1.	METHOD BLANK	TO-15 ANALYSIS	3 Apr 2024 19:41
6	6	0601006.D	1.	METHOD BLANK	TO-15 ANALYSIS	3 Apr 2024 20:23
7	7	0701001.D	1.	24-1007 OA	TO-15 ANALYSIS	3 Apr 2024 21:00
8		0701007.D	1.			
9	8	0801002.D	1.	24-998	TO-15 ANALYSIS	3 Apr 2024 21:43
10	9	0901003.D	1.	24-999	TO-15 ANALYSIS	3 Apr 2024 22:27
11	10	1001004.D	1.	24-1000	TO-15 ANALYSIS	3 Apr 2024 23:11
12	11	1101005.D	1.	24-1002	TO-15 ANALYSIS	3 Apr 2024 23:54
13	12	1201006.D	1.	24-1003	TO-15 ANALYSIS	4 Apr 2024 00:38
14	13	1301007.D	1.	24-1004	TO-15 ANALYSIS	4 Apr 2024 01:22
15	14	1401008.D	1.	24-1001	TO-15 ANALYSIS	4 Apr 2024 02:06
16	15	1501009.D	1.	24-1005	TO-15 ANALYSIS	4 Apr 2024 02:51
17	16	1601010.D	1.	24-1006	TO-15 ANALYSIS	4 Apr 2024 03:37
18	17	1701011.D	1.	LCSDD 10PPBV	TO-15 ANALYSIS	4 Apr 2024 04:24
19	18	1801012.D	1.	24-921:40	TO-15 ANALYSIS	4 Apr 2024 05:02
20	19	1901013.D	1.	24-924:200	TO-15 ANALYSIS	4 Apr 2024 05:43
21	19	1901015.D	1.	24-1008:10	TO-15 ANALYSIS	4 Apr 2024 07:04
22	20	2001014.D	1.	24-931:80	TO-15 ANALYSIS	4 Apr 2024 06:24
23	20	2001016.D	1.	24-985:10	TO-15 ANALYSIS	4 Apr 2024 07:45
24	21	2101017.D	1.	24-986:10	TO-15 ANALYSIS	4 Apr 2024 08:25
25	22	2201018.D	1.	24-987:10	TO-15 ANALYSIS	4 Apr 2024 09:05
26	23	2301019.D	1.	LCSDD 10PPBV	TO-15 ANALYSIS	4 Apr 2024 09:46
27	24	2401020.D	1.	CSI	TO-15 ANALYSIS	4 Apr 2024 10:31
28	25	2501021.D	1.	CSI	TO-15 ANALYSIS	4 Apr 2024 11:10
29	26	2601001.D	1.	24-988:10	TO-15 ANALYSIS	4 Apr 2024 11:58

Injection Log

Directory: C:\HPCHEM\1\DATA\040324

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
30		2601022.D	1.			
31	27	2701002.D	1.	24-989:10	TO-15 ANALYSIS	4 Apr 2024 12:39
32	28	2801003.D	1.	24-1009:10	TO-15 ANALYSIS	4 Apr 2024 13:19
33	29	2901004.D	1.	24-1010:10	TO-15 ANALYSIS	4 Apr 2024 13:59
34	30	3001005.D	1.	24-1011:10	TO-15 ANALYSIS	4 Apr 2024 14:41
35	31	3101006.D	1.	24-1012:10	TO-15 ANALYSIS	4 Apr 2024 15:26
36	32	3201007.D	1.	24-1013:10	TO-15 ANALYSIS	4 Apr 2024 16:11
37	33	3301008.D	1.	24-1014:10	TO-15 ANALYSIS	4 Apr 2024 16:54
38	34	3401009.D	1.	LCSDD 10PPBV	TO-15 ANALYSIS	4 Apr 2024 17:39

ENVISIONAIR

TO-15 VOC
Initial Calibration Data

- Tune
- Initial Calibration Summary
- Initial Calibration Quant Reports
- Initial Calibration Verification Summary

Injection Log

Directory: C:\HPCHEM\1\DATA\031424C

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0101001.D	1.	24-706:40 D	TO-15 ANALYSIS	14 Mar 2024 09:20
2	2	0201002.D	1.	10PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 10:04
3	3	0301003.D	1.	0.1PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 10:52
4	4	0401004.D	1.	0.2PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 11:34
5	5	0501005.D	1.	0.5PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 12:17
6	6	0601006.D	1.	1PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 13:04
7	7	0701007.D	1.	1PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 13:46
8	8	0801008.D	1.	2PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 14:28
9	9	0901009.D	1.	5PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 15:12
10	10	1001010.D	1.	10PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 15:57
11	11	1101011.D	1.	20PPBV TO-15 ICAL	TO-15 ANALYSIS	14 Mar 2024 16:46
12	12	1201012.D	1.	10PPBV TO-15 ICAL VER	TO-15 ANALYSIS	14 Mar 2024 17:30
13	13	1301013.D	1.	LCS 10PPBV	TO-15 ANALYSIS	14 Mar 2024 18:14
14	14	1401014.D	1.	LCSD 10PPBV	TO-15 ANALYSIS	14 Mar 2024 18:58
15	15	1501015.D	1.	METHOD BLANK	TO-15 ANALYSIS	14 Mar 2024 19:40
16	16	1601016.D	1.	CSI-2539	TO-15 ANALYSIS	14 Mar 2024 20:22
17	17	1701017.D	1.	24-726:10	TO-15 ANALYSIS	14 Mar 2024 21:04
18	18	1801018.D	1.	24-727:10	TO-15 ANALYSIS	14 Mar 2024 21:46
19	19	1901019.D	1.	24-728:10	TO-15 ANALYSIS	14 Mar 2024 22:28
20	20	2001020.D	1.	24-729:10	TO-15 ANALYSIS	14 Mar 2024 23:11
21	21	2101021.D	1.	24-730:10	TO-15 ANALYSIS	14 Mar 2024 23:53
22	22	2201022.D	1.	24-731:10	TO-15 ANALYSIS	15 Mar 2024 00:35
23	23	2301023.D	1.	24-739:10	TO-15 ANALYSIS	15 Mar 2024 01:17
24	24	2401024.D	1.	24-738:10	TO-15 ANALYSIS	15 Mar 2024 01:58
25	25	2501025.D	1.	24-737:10	TO-15 ANALYSIS	15 Mar 2024 02:40
26	26	2601026.D	1.	24-736:10	TO-15 ANALYSIS	15 Mar 2024 03:21
27	27	2701027.D	1.	LCSDD 10PPBV	TO-15 ANALYSIS	15 Mar 2024 04:05
28	28	2801028.D	1.	24-726:40	TO-15 ANALYSIS	15 Mar 2024 04:46
29	29	2901029.D	1.	24-727:40	TO-15 ANALYSIS	15 Mar 2024 05:27

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration

Calibration Files
10 =1001010.D 0.1 =0301003.D 5 =0901009.D
2 =0801008.D 1 =0701007.D 0.5 =0501005.D

		Compound	10	0.1	5	2	1	0.5	Avg	%RSD
1)	T	Bromochloromethane (I	ISTD							
2)	T	Propylene	0.355	0.405	0.379	0.428	0.327	0.297	0.372	11.70
3)	T	Dichlorodifluoromet	3.016	2.799	3.077	2.904	2.606	2.354	2.758	9.00
4)	T	Chloromethane	0.720	0.643	0.645	0.657	0.748	0.768	0.724	9.91
5)	T	Vinyl Chloride	0.892	0.729	0.926	0.867	0.916	1.042	0.877	10.79
6)	T	1,3-Butadiene	0.519	0.517	0.519	0.474	0.409	0.490	0.486	8.60
7)	T	Bromomethane	1.119	0.973	1.217	1.028	0.940	0.948	1.041	9.05
8)	T	Chloroethane	0.421	0.433	0.425	0.442	0.481	0.418	0.444	5.55
9)	T	Vinyl Bromide	0.947	1.149	1.002	0.943	1.030	1.055	0.992	9.05
10)	T	Trichlorofluorometh	2.722	2.705	2.885	2.472	2.344	2.452	2.522	9.70
11)	T	Acetone	1.403	1.810	1.468	1.454	1.619	1.584	1.631	12.72
12)		Isopropyl Alcohol (	1.234	1.114	1.125	1.173	1.382	0.847	1.155	13.13
13)		1,1-Dichloroethene	1.543	1.746	1.562	1.325	1.443	1.393	1.474	9.24
14)	T	Methylene Chloride	0.915	1.087	0.929	0.810	0.823	0.654	0.858	14.53
15)	T	Carbon Disulfide	2.958	2.737	3.032	2.769	2.579	2.875	2.733	9.84
16)	T	trans-1,2-Dichloroe	1.081	1.065	1.116	1.014	0.898	0.942	0.991	9.08
17)	T	Methyl-tert-butyl e	2.677	3.036	2.589	2.382	2.472	2.727	2.659	7.36
18)	T	1,1-Dichloroethane	1.644	1.655	1.750	1.418	1.688	1.581	1.686	9.16
19)	T	Vinyl Acetate	1.991	2.036	1.809	1.925	1.810	1.548	1.908	9.69
20)	T	N-Hexane	0.938	0.879	0.999	1.062	1.056	1.116	1.042	12.00
21)	T	2-Butanone (MEK)	1.173	1.050	1.303	1.264	1.346	1.090	1.233	9.40
22)	T	cis-1,2-Dichloroeth	1.215	0.997	1.297	1.055	1.057	1.087	1.107	8.95
23)	T	Ethyl Acetate	1.624	1.525	1.609	1.451	1.477	1.420	1.554	7.82
24)	T	Chloroform	2.327	2.247	2.501	2.153	2.029	1.907	2.163	8.78
25)	T	1,4-Difluorobenzene (	ISTD							
26)	T	Tetrahydrofuran	0.188	0.188	0.171	0.169	0.199	0.227	0.193	9.66
27)	T	1,2-Dichloroethane	0.368	0.365	0.398	0.375	0.366	0.381	0.384	5.70
28)	T	1,1,1-Trichloroetha	0.558	0.601	0.612	0.618	0.588	0.544	0.578	6.85
29)	T	1,1-Dichloropropene	0.360	0.478	0.379	0.374	0.393	0.471	0.410	10.92
30)	T	Carbon Tetrachlorid	0.550	0.633	0.537	0.493	0.458	0.542	0.542	10.20
31)	T	Benzene	0.595	0.537	0.601	0.555	0.520	0.649	0.592	8.45
32)	T	Cyclohexane	0.360	0.468	0.353	0.376	0.428	0.319	0.379	13.25
33)	T	1,2-Dichloropropane	0.183	0.214	0.188	0.170	0.161	0.181	0.188	10.21
34)	T	Trichloroethene	0.305	0.315	0.303	0.294	0.277	0.268	0.296	6.89
35)	T	Bromodichloromethan	0.544	0.543	0.518	0.478	0.518	0.544	0.533	5.60
36)	T	1,4-Dioxane	0.149	0.160	0.126	0.135	0.149	0.150	0.151	10.39
37)	T	Isooctane	0.763	0.932	0.744	0.816	0.629	0.720	0.793	13.85
38)	T	N-Heptane	0.262	0.264	0.262	0.228	0.207	0.218	0.250	11.84
39)	T	cis-1,3-Dichloropro	0.320	0.279	0.324	0.326	0.338	0.386	0.337	11.49
40)	T	4-Methyl-2-Penanone	0.378	0.270	0.355	0.328	0.284	0.336	0.331	13.34
41)	T	trans-1,3-Dichlorop	0.360	0.381	0.379	0.312	0.310	0.319	0.359	11.34
42)	T	1,1,2-Trichloroetha	0.209	0.256	0.214	0.202	0.193	0.227	0.226	12.73
43)	T	Toluene	0.655	0.620	0.698	0.639	0.494	0.595	0.612	9.69
44)	T	2-Hexanone	0.350	0.415	0.318	0.349	0.358	0.364	0.372	11.59
45)	I	Chlorobenzene-d5 (IS)	ISTD							
46)	T	Dibromochloromethan	0.591	0.618	0.603	0.499	0.458	0.481	0.543	11.03
47)	T	1,2-Dibromoethane (	0.543	0.431	0.533	0.565	0.577	0.528	0.521	9.04
48)	T	Tetrachloroethene	0.503	0.579	0.482	0.488	0.492	0.417	0.488	9.29
49)	T	Chlorobenzene	0.738	0.714	0.737	0.682	0.581	0.656	0.671	8.93
50)	T	Ethylbenzene	0.994	0.759	1.089	0.923	1.019	0.973	0.986	11.40
51)	T	m,p-Xylene	0.967	0.882	0.940	0.889	0.810	0.753	0.863	8.53
52)	T	Bromoform	0.659	0.717	0.621	0.580	0.600	0.524	0.622	9.88
53)	T	Styrene	0.561	0.501	0.565	0.487	0.505	0.451	0.529	9.32
54)	T	1,1,2,2-Tetrachloro	0.658	0.611	0.668	0.632	0.603	0.533	0.610	8.17
55)	T	o-Xylene	0.443	0.394	0.439	0.411	0.376	0.378	0.405	6.31
56)	S	4-Bromofluorobenzen	0.778	0.688	0.750	0.733	0.702	0.751	0.723	4.91
57)	T	4-Ethyltoluene	1.179	1.065	1.156	1.067	0.956	0.950	1.060	9.39
58)	T	1,3,5-Trimethylbenz	1.001	0.937	0.987	0.874	0.773	0.828	0.897	9.04
59)	T	1,2,4-Trimethylbenz	0.963	0.949	0.917	0.827	0.783	0.916	0.888	8.68
60)	T	1,3-Dichlorobenzene	0.666	0.666	0.636	0.555	0.467	0.647	0.608	12.68
61)	T	Benzyl Chloride	0.847	0.730	0.824	0.705	0.666	0.852	0.773	9.46
62)	T	1,4-Dichlorobenzene	0.354	0.391	0.334	0.334	0.273	0.355	0.336	10.59
63)	T	1,2-Dichlorobenzene	0.625	0.513	0.642	0.540	0.482	0.542	0.561	10.86
64)	T	1,2,4-Trichlorobenz	0.083	0.092	0.079	0.092	0.088	0.060	0.084	13.05

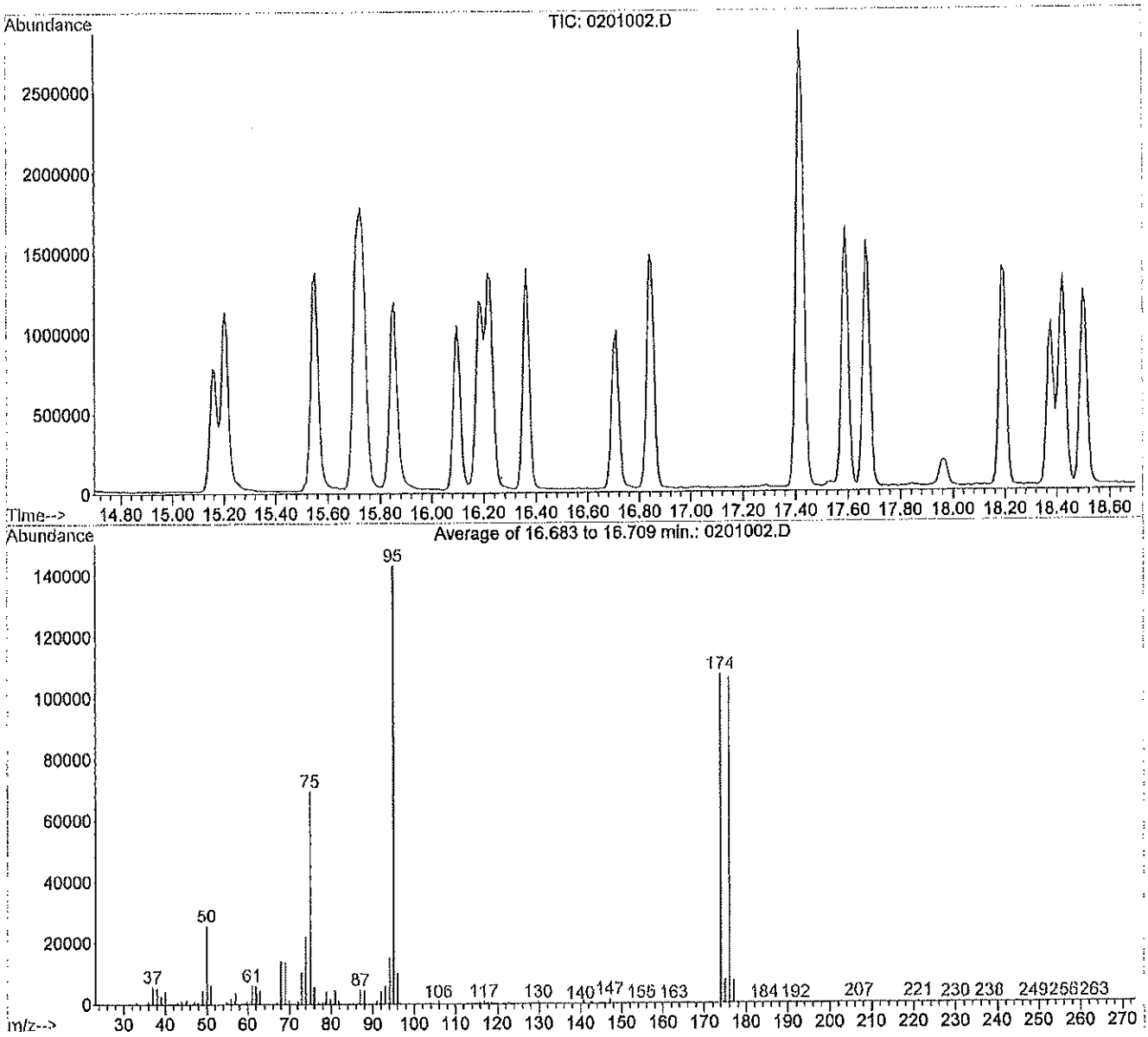
65)		Naphthalene	0.099	0.094	0.100	0.090	0.095	0.098	0.100	8.98
66)	T	Hexachloro-1,3-buta	0.212	0.165	0.219	0.205	0.247	0.208	0.206	12.42

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

031424AI.M Thu Mar 28 06:22:00 2024 6890

Data File : C:\HPCHEM\1\DATA\031424C\0201002.D
Acq On : 14 Mar 2024 10:04 am
Sample : 10PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION

Vial: 2
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00



Spectrum Information: Average of 16.683 to 16.709 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.9	25582	PASS
75	95	30	60	48.5	69334	PASS
95	95	100	100	100.0	142962	PASS
96	95	2	9	7.0	10022	PASS
173	174	0.00	2	0.1	63	PASS
174	95	50	100	75.0	107200	PASS
175	174	5	9	7.2	7699	PASS
176	174	95	101	98.9	106052	PASS
177	176	5	9	7.2	7644	PASS

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\0301003.D Vial: 3
Acq On : 14 Mar 2024 10:52 am Operator: TJG
Sample : 0.1PPBV TO-15 ICAL Inst : GC/MS Ins
Misc : TO-15 ANALYSIS Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 15 4:39 2024 Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 14 14:20:21 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS)	9.28	128	91153	5.00	ppbv		0.00
25) 1,4-Difluorobenzene (IS)	11.01	114	394902	5.00	ppbv		0.00
45) Chlorobenzene-d5 (IS)	15.15	117	349029	5.00	ppbv		0.00
System Monitoring Compounds							
56) 4-Bromofluorobenzene (SURR	16.70	95	333766	7.40	ppbv		0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 148.00%#				
Target Compounds							Qvalue
2) Propylene	4.26	39	1139	0.14	ppbv		
3) Dichlorodifluoromethane	4.34	85	4682	0.11	ppbv		
4) Chloromethane	4.58	50	2373	0.14	ppbv		
5) Vinyl Chloride	4.87	62	1989	0.12	ppbv		
6) 1,3-Butadiene	5.03	39	943	0.11	ppbv		
7) Bromomethane	5.38	94	2173	0.13	ppbv		
8) Chloroethane	5.60	64	1289	0.15	ppbv		
9) Vinyl Bromide	6.01	106	594	0.04	ppbv	#	51
10) Trichlorofluoromethane	6.47	101	4631	0.12	ppbv	#	53
11) Acetone	6.20	43	4299m	0.15	ppbv		
12) Isopropyl Alcohol (IPA)	6.42	45	1531	0.06	ppbv	#	55
13) 1,1-Dichloroethene	7.11	61	3483	0.13	ppbv		
14) Methylene Chloride	7.24	84	1981m	0.12	ppbv		
15) Carbon Disulfide	7.61	76	3580	0.07	ppbv	#	100
16) trans-1,2-Dichloroethene	8.13	96	941	0.05	ppbv	#	82
17) Methyl-tert-butyl ether	8.32	73	5434	0.13	ppbv		
18) 1,1-Dichloroethane	8.32	63	3017	0.10	ppbv		
19) Vinyl Acetate	8.38	43	4712	0.11	ppbv		
20) N-Hexane	9.28	57	1603	0.09	ppbv		
21) 2-Butanone (MEK)	8.63	43	2914	0.09	ppbv		
22) cis-1,2-Dichloroethene	9.10	61	1817	0.07	ppbv	#	79
23) Ethyl Acetate	9.22	43	1181	0.04	ppbv	#	70
24) Chloroform	9.37	83	3097	0.09	ppbv	#	83
26) Tetrahydrofuran	9.82	42	1787m	0.10	ppbv		
27) 1,2-Dichloroethane	10.07	62	2102	0.08	ppbv	#	93
28) 1,1,1-Trichloroethane	10.34	97	2117	0.06	ppbv	#	73
29) 1,1-Dichloropropene	12.94	75	4006	0.14	ppbv	#	89
30) Carbon Tetrachloride	10.91	117	4206	0.11	ppbv		
31) Benzene	10.77	78	4239	0.10	ppbv		
32) Cyclohexane	11.00	56	2095	0.07	ppbv		
33) 1,2-Dichloropropane	11.49	63	1691	0.09	ppbv		
34) Trichloroethene	11.71	95	2487	0.12	ppbv	#	83
35) Bromodichloromethane	11.66	83	3489m	0.10	ppbv		
36) 1,4-Dioxane	11.65	88	867	0.08	ppbv	#	29
37) Isooctane	11.75	57	6360	0.09	ppbv		
38) N-Heptane	11.93	43	2189	0.09	ppbv		
39) cis-1,3-Dichloropropene	12.48	75	3754	0.13	ppbv		
40) 4-Methyl-2-Penanone (MIBK)	12.45	43	4131	0.12	ppbv		
41) trans-1,3-Dichloropropene	12.94	75	4006	0.12	ppbv	#	60
42) 1,1,2-Trichloroethane	13.13	83	2020	0.11	ppbv		
43) Toluene	13.44	91	5199	0.10	ppbv		
44) 2-Hexanone	13.63	43	3280	0.10	ppbv		
46) Dibromochloromethane	13.85	129	2717	0.08	ppbv	#	91
47) 1,2-Dibromoethane (EDB)	14.11	107	4529m	0.12	ppbv		
48) Tetrachloroethene	14.55	166	3343	0.10	ppbv	#	81
49) Chlorobenzene	15.19	112	4385	0.09	ppbv	#	90
50) Ethylbenzene	15.55	91	4399	0.05	ppbv	#	56
51) m,p-Xylene	15.71	91	13315	0.24	ppbv		92
52) Bromoform	15.85	173	5257	0.13	ppbv	#	83
53) Styrene	16.09	104	4465m	0.10	ppbv		

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\0301003.D
Acq On : 14 Mar 2024 10:52 am
Sample : 0.1PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 15 4:39 2024

Vial: 3
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 14 14:20:21 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
54) 1,1,2,2-Tetrachloroethane	16.18	83	6767	0.12 ppbv #	90
55) o-Xylene	16.22	106	2847	0.09 ppbv #	79
57) 4-Ethyltoluene	17.59	105	12431	0.15 ppbv #	93
58) 1,3,5-Trimethylbenzene	17.66	105	9542	0.14 ppbv	
59) 1,2,4-Trimethylbenzene	18.19	105	8623	0.12 ppbv	
60) 1,3-Dichlorobenzene	18.41	146	6650	0.15 ppbv	
61) Benzyl Chloride	18.38	91	8094	0.13 ppbv	
62) 1,4-Dichlorobenzene	18.50	148	2431	0.11 ppbv	
63) 1,2-Dichlorobenzene	18.96	146	5781	0.15 ppbv	
64) 1,2,4-Trichlorobenzene	21.54	180	1039	0.14 ppbv	
65) Naphthalene	21.73	128	766m	0.11 ppbv	
66) Hexachloro-1,3-butadiene	22.28	225	2955	0.14 ppbv	

(#) = qualifier out of range (m) = manual integration

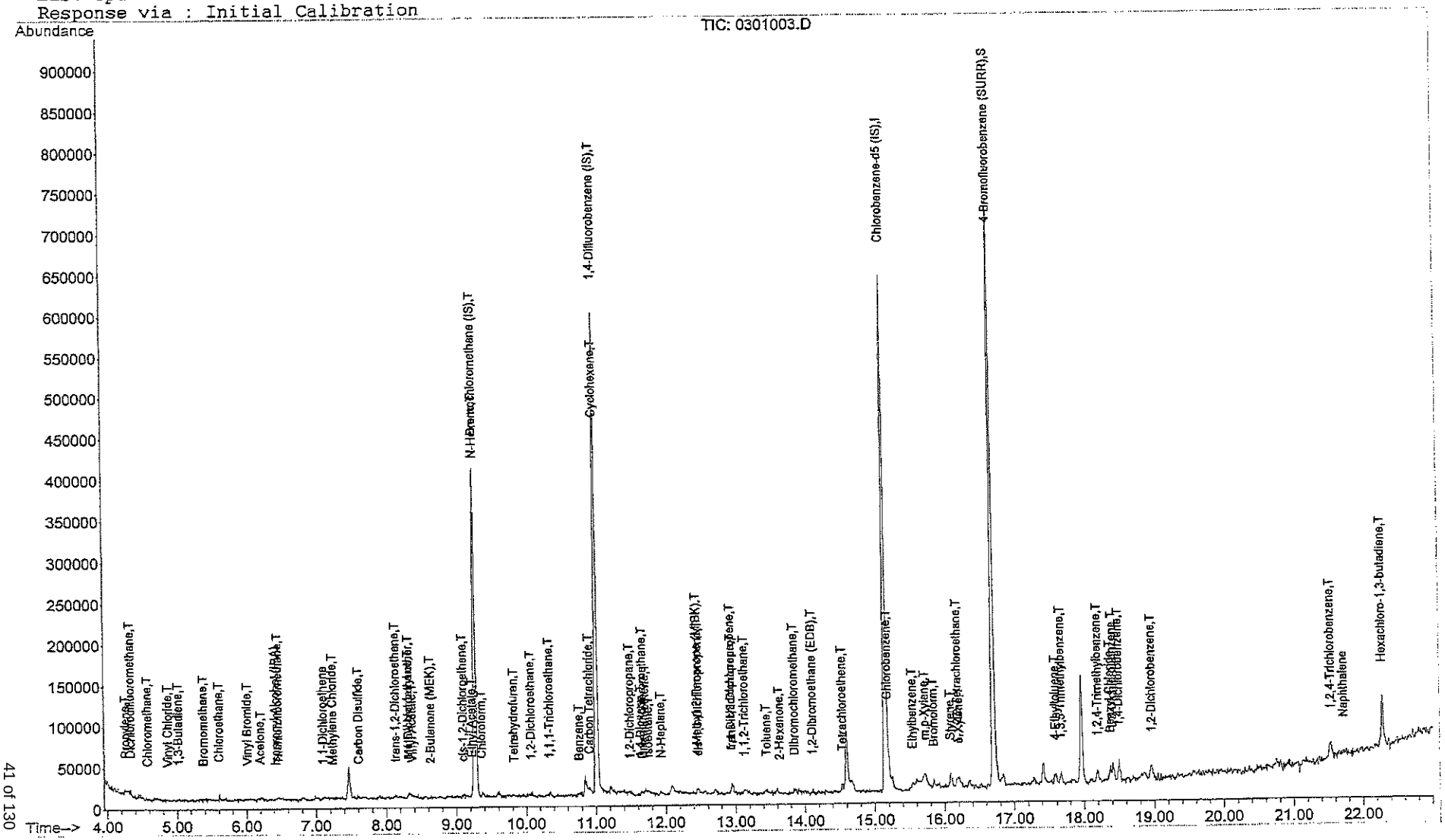
Quantitation Report

Data File : C:\HPCHEM\1\DATA\031424C\0301003.D
Acq On : 14 Mar 2024 10:52 am
Sample : 0.1PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 15 4:39 2024

Vial: 3
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



0301003.D 031424AI.M Thu Mar 28 06:22:24 2024 6890

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\0401004.D
Acq On : 14 Mar 2024 11:34 am
Sample : 0.2PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 15 4:40 2024

Vial: 4
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 14 14:17:25 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Bromochloromethane (IS)	9.27	128	110409	5.00 ppbv		0.00
25) 1,4-Difluorobenzene (IS)	11.02	114	349238	5.00 ppbv		0.00
45) Chlorobenzene-d5 (IS)	15.16	117	537189	5.00 ppbv		0.00
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.70	95	381855	6.02 ppbv		0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 120.40%			
Target Compounds						Qvalue
2) Propylene	4.24	39	2058	0.19 ppbv		
3) Dichlorodifluoromethane	4.33	85	10160	0.18 ppbv		
4) Chloromethane	4.61	50	3320	0.13 ppbv		
5) Vinyl Chloride	4.89	62	3390	0.15 ppbv		
6) 1,3-Butadiene	5.02	39	1955	0.17 ppbv		
7) Bromomethane	5.39	94	3934	0.18 ppbv		
8) Chloroethane	5.59	64	2097	0.18 ppbv		
9) Vinyl Bromide	6.01	106	3136	0.15 ppbv	#	82
10) Trichlorofluoromethane	6.48	101	8499	0.17 ppbv		
11) Acetone	6.21	43	8938	0.27 ppbv		
12) Isopropyl Alcohol (IPA)	6.44	45	5726	0.18 ppbv		
13) 1,1-Dichloroethene	7.12	61	6182	0.17 ppbv	#	40
14) Methylene Chloride	7.21	84	3564	0.16 ppbv	#	82
15) Carbon Disulfide	7.61	76	8568	0.13 ppbv		
16) trans-1,2-Dichloroethene	8.14	96	3870	0.16 ppbv		
17) Methyl-tert-butyl ether	8.34	73	11743	0.23 ppbv	#	78
18) 1,1-Dichloroethane	8.33	63	5512	0.14 ppbv	#	75
19) Vinyl Acetate	8.38	43	7498	0.13 ppbv		96
20) N-Hexane	9.31	57	2702	0.11 ppbv	#	82
21) 2-Butanone (MEK)	8.64	43	4999	0.11 ppbv		95
22) cis-1,2-Dichloroethene	9.12	61	4645	0.13 ppbv		92
23) Ethyl Acetate	9.23	43	2939	0.08 ppbv	#	61
24) Chloroform	9.38	83	8975	0.21 ppbv	#	94
26) Tetrahydrofuran	9.75	42	4366m	0.22 ppbv		
27) 1,2-Dichloroethane	10.08	62	5214m	0.21 ppbv		
28) 1,1,1-Trichloroethane	10.34	97	8223	0.28 ppbv	#	82
29) 1,1-Dichloropropene	12.94	75	6390	0.23 ppbv	#	80
30) Carbon Tetrachloride	10.93	117	6900	0.19 ppbv		98
31) Benzene	10.76	78	9064	0.23 ppbv		92
32) Cyclohexane	11.01	56	6622	0.26 ppbv		
33) 1,2-Dichloropropane	11.51	63	3000	0.15 ppbv		
34) Trichloroethene	11.71	95	3878	0.19 ppbv		
35) Bromodichloromethane	11.66	83	6491	0.19 ppbv	#	95
36) 1,4-Dioxane	11.64	88	2383	0.23 ppbv		
37) Isooctane	11.74	57	13452	0.18 ppbv		
38) N-Heptane	11.94	43	4925	0.20 ppbv		
39) cis-1,3-Dichloropropene	12.47	75	5388	0.19 ppbv	#	65
40) 4-Methyl-2-Penanone (MIBK)	12.46	43	6197	0.18 ppbv		
41) trans-1,3-Dichloropropene	12.94	75	6816	0.20 ppbv		
42) 1,1,2-Trichloroethane	13.14	83	3299	0.19 ppbv		99
43) Toluene	13.45	91	9053	0.18 ppbv	#	91
44) 2-Hexanone	13.60	43	6356m	0.20 ppbv		
46) Dibromochloromethane	13.86	129	5409	0.10 ppbv	#	80
47) 1,2-Dibromoethane (EDB)	14.10	107	5808	0.09 ppbv	#	92
48) Tetrachloroethene	14.53	166	6723	0.12 ppbv		94
49) Chlorobenzene	15.20	112	10808	0.14 ppbv		90
50) Ethylbenzene	15.55	91	18279	0.13 ppbv		98
51) m,p-Xylene	15.71	91	23902	0.26 ppbv		93
52) Bromoform	15.85	173	7776	0.12 ppbv	#	98
53) Styrene	16.10	104	12644	0.17 ppbv		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\0401004.D
Acq On : 14 Mar 2024 11:34 am
Sample : 0.2PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 15 4:40 2024

Vial: 4
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 14 14:17:25 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
54) 1,1,2,2-Tetrachloroethane	16.18	83	11634	0.12	ppbv	#	81
55) o-Xylene	16.23	106	6388	0.12	ppbv		87
57) 4-Ethyltoluene	17.58	105	26335	0.20	ppbv		93
58) 1,3,5-Trimethylbenzene	17.67	105	20055	0.19	ppbv	#	88
59) 1,2,4-Trimethylbenzene	18.19	105	20634	0.19	ppbv		93
60) 1,3-Dichlorobenzene	18.42	146	14710	0.22	ppbv		97
61) Benzyl Chloride	18.37	91	17818	0.18	ppbv	#	93
62) 1,4-Dichlorobenzene	18.51	148	6512	0.19	ppbv		
63) 1,2-Dichlorobenzene	18.97	146	13454	0.23	ppbv		
64) 1,2,4-Trichlorobenzene	21.52	180	2023	0.21	ppbv		
65) Naphthalene	21.75	128	1975	0.18	ppbv		
66) Hexachloro-1,3-butadiene	22.28	225	5780	0.16	ppbv		

(#) = qualifier out of range (m) = manual integration

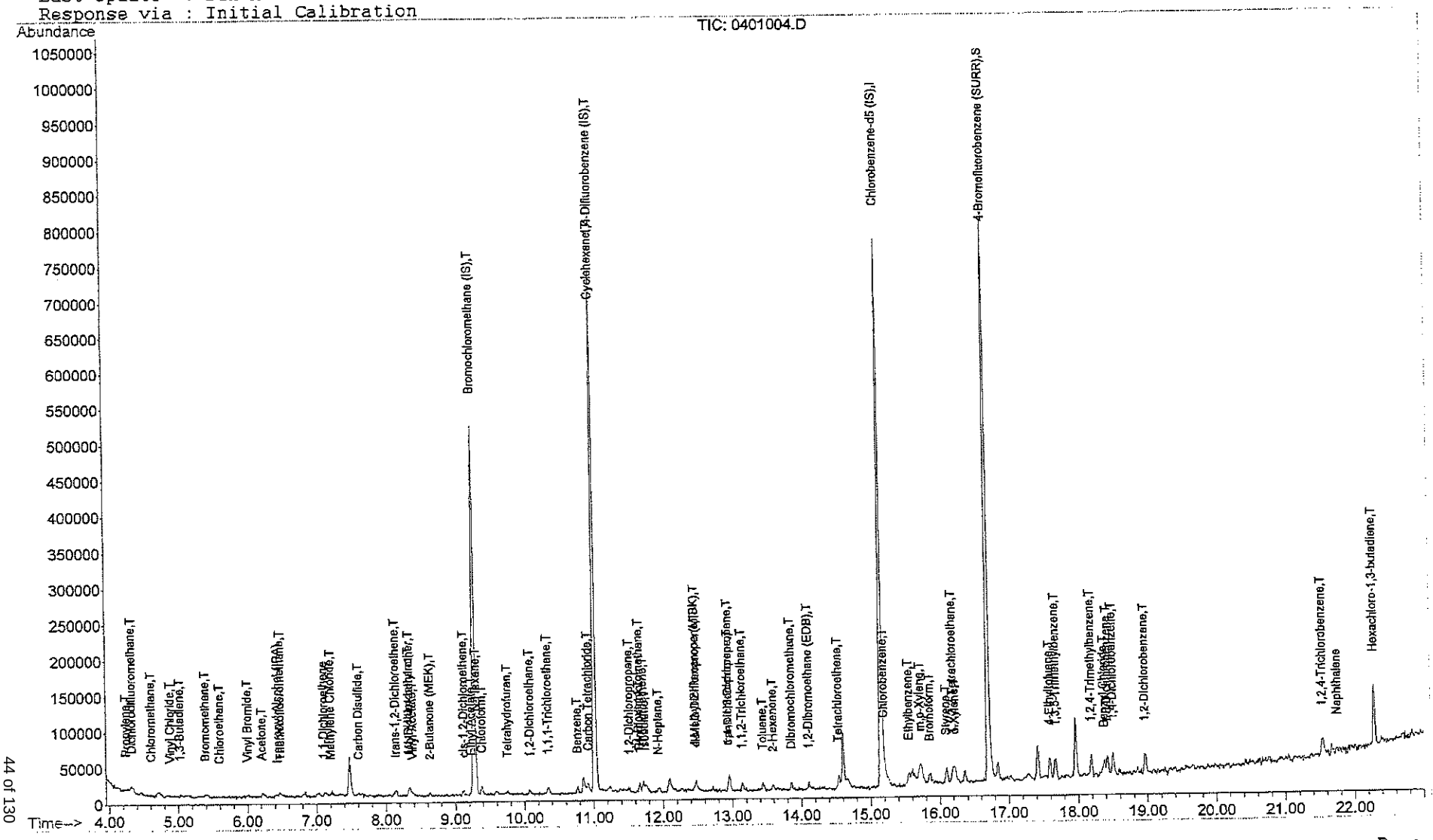
Quantitation Report

Data File : C:\HPCHEM\1\DATA\031424C\0401004.D
Acq On : 14 Mar 2024 11:34 am
Sample : 0.2PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 15 4:40 2024

Vial: 4
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\0501005.D
Acq On : 14 Mar 2024 12:17 pm
Sample : 0.5PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 14 14:17 2024

Vial: 5
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 07 12:12:11 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane (IS)	9.28	128	163138	5.00 ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.02	114	659069	5.00 ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.16	117	515570	5.00 ppbv	0.00
System Monitoring Compounds					
56) 4-Bromofluorobenzene (SURR	16.71	95	387377	6.72 ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 134.40%		
Target Compounds					Qvalue
2) Propylene	4.23	39	4838	0.27 ppbv #	28
3) Dichlorodifluoromethane	4.35	85	27397	0.32 ppbv #	84
4) Chloromethane	4.60	50	8531	0.22 ppbv	94
5) Vinyl Chloride	4.87	62	7007	0.19 ppbv	
6) 1,3-Butadiene	5.03	39	5991	0.33 ppbv	
7) Bromomethane	5.41	94	9465	0.27 ppbv #	75
8) Chloroethane	5.60	64	3815	0.20 ppbv #	70
9) Vinyl Bromide	6.01	106	8203	0.26 ppbv #	60
10) Trichlorofluoromethane	6.47	101	26238	0.34 ppbv #	62
11) Acetone	6.22	43	19841	0.39 ppbv #	84
12) Isopropyl Alcohol (IPA)	6.41	45	13814	0.27 ppbv	94
13) 1,1-Dichloroethene	7.13	61	13527	0.24 ppbv #	76
14) Methylene Chloride	7.22	84	10673	0.32 ppbv #	73
15) Carbon Disulfide	7.61	76	20900	0.20 ppbv #	100
16) trans-1,2-Dichloroethene	8.15	96	9363	0.25 ppbv #	10
17) Methyl-tert-butyl ether	8.34	73	22480	0.27 ppbv #	84
18) 1,1-Dichloroethane	8.33	63	14785	0.23 ppbv	95
19) Vinyl Acetate	8.39	43	15257	0.17 ppbv #	86
20) N-Hexane	9.31	57	9199	0.24 ppbv #	77
21) 2-Butanone (MEK)	8.63	43	11677	0.16 ppbv #	63
22) cis-1,2-Dichloroethene	9.13	61	11731	0.20 ppbv #	76
23) Ethyl Acetate	9.22	43	13164	0.23 ppbv #	87
24) Chloroform	9.39	83	21113	0.32 ppbv	92
26) Tetrahydrofuran	9.75	42	5967	0.15 ppbv #	57
27) 1,2-Dichloroethane	10.09	62	14098	0.30 ppbv #	80
28) 1,1,1-Trichloroethane	10.35	97	20873	0.36 ppbv #	90
29) 1,1-Dichloropropene	12.95	75	17026	0.31 ppbv	98
30) Carbon Tetrachloride	10.91	117	20851	0.30 ppbv	99
31) Benzene	10.77	78	22792	0.29 ppbv	97
32) Cyclohexane	11.01	56	10020m	0.19 ppbv	
33) 1,2-Dichloropropane	11.51	63	6938	0.17 ppbv #	76
34) Trichloroethene	11.72	95	11639	0.27 ppbv	98
35) Bromodichloromethane	11.67	83	20143	0.30 ppbv	96
36) 1,4-Dioxane	11.66	88	5906	0.29 ppbv #	30
37) Isooctane	11.75	57	27468	0.18 ppbv	99
38) N-Heptane	11.95	43	8369	0.17 ppbv #	85
39) cis-1,3-Dichloropropene	12.48	75	13439	0.23 ppbv	93
40) 4-Methyl-2-Penanone (MIBK)	12.47	43	14136	0.20 ppbv #	97
41) trans-1,3-Dichloropropene	12.95	75	17026	0.25 ppbv	96
42) 1,1,2-Trichloroethane	13.15	83	8935	0.26 ppbv	88
43) Toluene	13.45	91	25197	0.25 ppbv	97
44) 2-Hexanone	13.59	43	13961m	0.22 ppbv	
46) Dibromochloromethane	13.85	129	15793	0.28 ppbv	90
47) 1,2-Dibromoethane (EDB)	14.11	107	14202	0.21 ppbv	83
48) Tetrachloroethene	14.54	166	19499	0.36 ppbv	87
49) Chlorobenzene	15.21	112	24834	0.31 ppbv	92
50) Ethylbenzene	15.55	91	42172	0.30 ppbv #	95
51) m,p-Xylene	15.73	91	61664	0.65 ppbv	99
52) Bromoform	15.85	173	20029	0.32 ppbv #	91
53) Styrene	16.10	104	23257	0.31 ppbv	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\0501005.D
Acq On : 14 Mar 2024 12:17 pm
Sample : 0.5PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 14 14:17 2024

Vial: 5
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 07 12:12:11 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

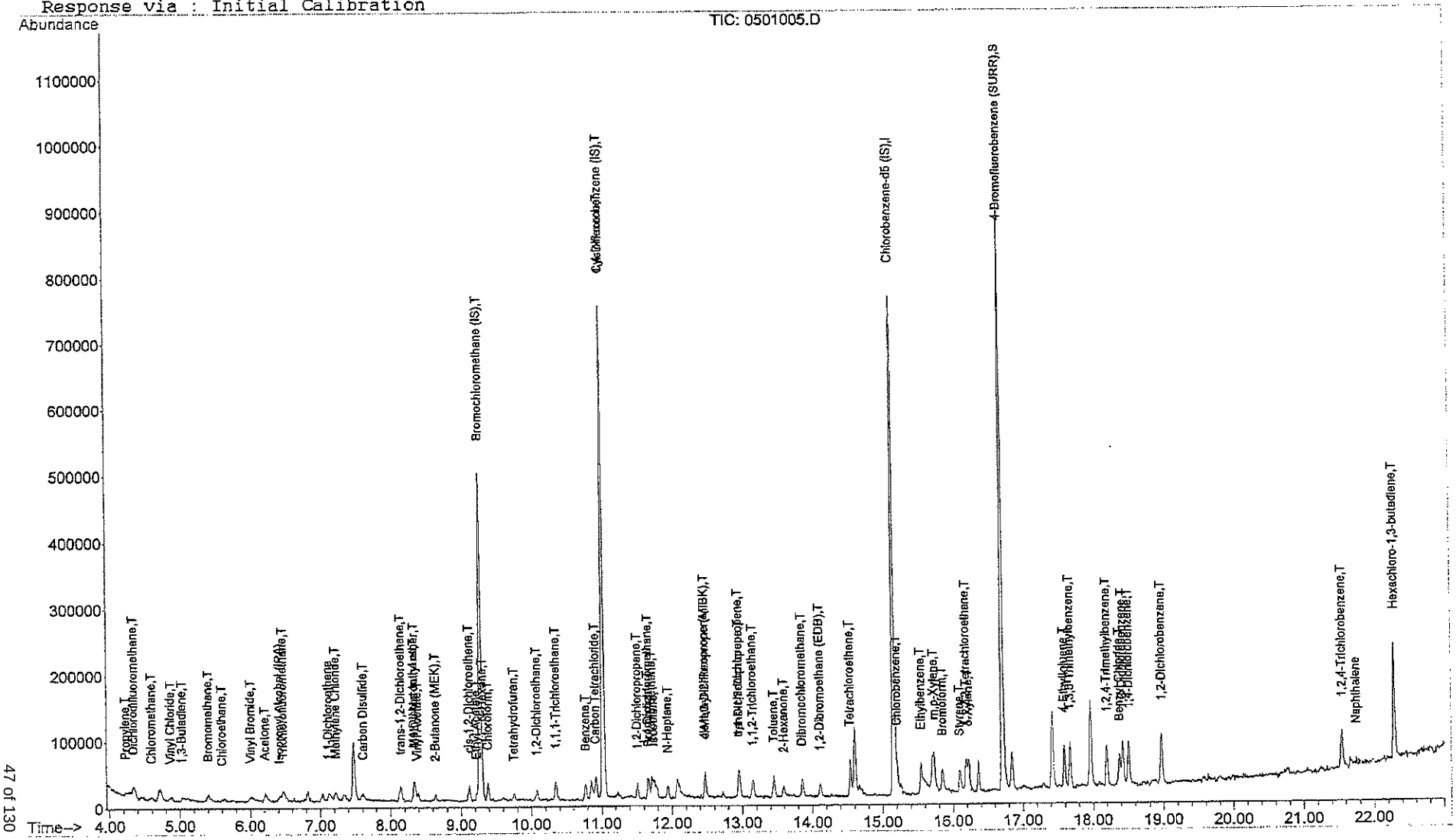
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
54) 1,1,2,2-Tetrachloroethane	16.19	83	27477	0.28 ppbv #	98
55) o-Xylene	16.23	106	15510	0.30 ppbv	99
57) 4-Ethyltoluene	17.60	105	48985	0.37 ppbv	98
58) 1,3,5-Trimethylbenzene	17.67	105	42713	0.40 ppbv #	91
59) 1,2,4-Trimethylbenzene	18.20	105	47250	0.44 ppbv	98
60) 1,3-Dichlorobenzene	18.43	146	33362	0.50 ppbv	94
61) Benzyl Chloride	18.38	91	43952	0.49 ppbv	99
62) 1,4-Dichlorobenzene	18.51	148	16799	0.53 ppbv	
63) 1,2-Dichlorobenzene	18.97	146	27957	0.49 ppbv	
64) 1,2,4-Trichlorobenzene	21.55	180	3069	0.32 ppbv	
65) Naphthalene	21.76	128	1934m	0.17 ppbv	
66) Hexachloro-1,3-butadiene	22.29	225	10708m	0.30 ppbv	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\031424C\0501005.D Vial: 5
Acq On : 14 Mar 2024 12:17 pm Operator: TJG
Sample : 0.5PPBV TO-15 ICAL Inst : GC/MS Ins
Misc : TO-15 ANALYSIS Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 14 14:17 2024 Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



0501005.D 031424AI.M Thu Mar 28 06:22:44 2024 6890

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\0701007.D
Acq On : 14 Mar 2024 1:46 pm
Sample : 1PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 15 4:20 2024

Vial: 7
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 14 14:22:54 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane (IS)	9.28	128	136574	5.00 ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.03	114	602395	5.00 ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.17	117	496235	5.00 ppbv	0.01
System Monitoring Compounds					
56) 4-Bromofluorobenzene (SURR	16.71	95	348227	5.23 ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 104.60%		
Target Compounds					Qvalue
2) Propylene	4.24	39	8922	0.76 ppbv #	53
3) Dichlorodifluoromethane	4.35	85	65184	1.12 ppbv #	71
4) Chloromethane	4.61	50	18443m	0.80 ppbv	
5) Vinyl Chloride	4.88	62	18218	0.82 ppbv #	78
6) 1,3-Butadiene	5.05	39	11172	0.94 ppbv #	59
7) Bromomethane	5.41	94	25685	1.05 ppbv #	90
8) Chloroethane	5.61	64	7136	0.62 ppbv #	80
9) Vinyl Bromide	6.02	106	21124	0.99 ppbv #	94
10) Trichlorofluoromethane	6.49	101	64013	1.13 ppbv #	98
11) Acetone	6.23	43	34223	0.79 ppbv #	95
12) Isopropyl Alcohol (IPA)	6.43	45	31141	1.00 ppbv #	79
13) 1,1-Dichloroethene	7.14	61	34420	0.96 ppbv	93
14) Methylene Chloride	7.23	84	22473	0.93 ppbv	94
15) Carbon Disulfide	7.61	76	65448	1.00 ppbv #	100
16) trans-1,2-Dichloroethene	8.16	96	24519	1.00 ppbv	94
17) Methyl-tert-butyl ether	8.35	73	57526	0.97 ppbv #	91
18) 1,1-Dichloroethane	8.34	63	39100	0.98 ppbv	98
19) Vinyl Acetate	8.39	43	49427m	0.89 ppbv	
20) N-Hexane	9.31	57	18849	0.82 ppbv	98
21) 2-Butanone (MEK)	8.65	43	30905	0.74 ppbv	97
22) cis-1,2-Dichloroethene	9.12	61	28877	0.82 ppbv	98
23) Ethyl Acetate	9.23	43	31356	0.85 ppbv #	93
24) Chloroform	9.38	83	55425	1.16 ppbv	95
26) Tetrahydrofuran	9.75	42	14024	0.58 ppbv #	84
27) 1,2-Dichloroethane	10.09	62	34054	0.92 ppbv	98
28) 1,1,1-Trichloroethane	10.36	97	44808	0.97 ppbv	99
29) 1,1-Dichloropropene	12.95	75	32377	0.74 ppbv	99
30) Carbon Tetrachloride	10.92	117	45137	0.86 ppbv	91
31) Benzene	10.77	78	52598	0.87 ppbv	99
32) Cyclohexane	11.04	56	31606	0.59 ppbv #	65
33) 1,2-Dichloropropane	11.52	63	14370	0.56 ppbv #	94
34) Trichloroethene	11.73	95	28411	0.88 ppbv	92
35) Bromodichloromethane	11.67	83	42432	0.86 ppbv	91
36) 1,4-Dioxane	11.65	88	13184	0.85 ppbv #	72
37) Isooctane	11.76	57	59776	0.62 ppbv #	81
38) N-Heptane	11.94	43	20975	0.67 ppbv	92
39) cis-1,3-Dichloropropene	12.48	75	30700	0.71 ppbv	94
40) 4-Methyl-2-Penanone (MIBK)	12.48	43	34190	0.69 ppbv	91
41) trans-1,3-Dichloropropene	12.95	75	32377	0.63 ppbv	97
42) 1,1,2-Trichloroethane	13.16	83	19271	0.77 ppbv	95
43) Toluene	13.45	91	59568	0.83 ppbv	98
44) 2-Hexanone	13.60	43	33151	0.71 ppbv	95
46) Dibromochloromethane	13.87	129	44489	0.96 ppbv	98
47) 1,2-Dibromoethane (EDB)	14.12	107	38265	0.75 ppbv	93
48) Tetrachloroethene	14.55	166	42866	0.95 ppbv	94
49) Chlorobenzene	15.22	112	57674	0.92 ppbv	98
50) Ethylbenzene	15.56	91	101176	0.94 ppbv #	97
51) m,p-Xylene	15.73	91	160719	2.02 ppbv	98
52) Bromoform	15.86	173	50522	0.92 ppbv	91
53) Styrene	16.11	104	41758	0.69 ppbv	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\0701007.D
Acq On : 14 Mar 2024 1:46 pm
Sample : 1PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 15 4:20 2024

Vial: 7
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 14 14:22:54 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
54) 1,1,2,2-Tetrachloroethane	16.19	83	59838	0.79	ppbv	#	93
55) o-Xylene	16.24	106	37295	0.93	ppbv		85
57) 4-Ethyltoluene	17.60	105	94853	0.79	ppbv		96
58) 1,3,5-Trimethylbenzene	17.68	105	76760	0.79	ppbv		90
59) 1,2,4-Trimethylbenzene	18.20	105	77663	0.80	ppbv		99
60) 1,3-Dichlorobenzene	18.43	146	46311	0.72	ppbv		92
61) Benzyl Chloride	18.39	91	66134	0.76	ppbv	#	97
62) 1,4-Dichlorobenzene	18.52	148	27064	0.88	ppbv		92
63) 1,2-Dichlorobenzene	18.97	146	47815	0.84	ppbv		93
64) 1,2,4-Trichlorobenzene	21.54	180	9901	0.95	ppbv		
65) Naphthalene	21.75	128	9392	0.95	ppbv		
66) Hexachloro-1,3-butadiene	22.28	225	14535	0.48	ppbv		

(#) = qualifier out of range (m) = manual integration

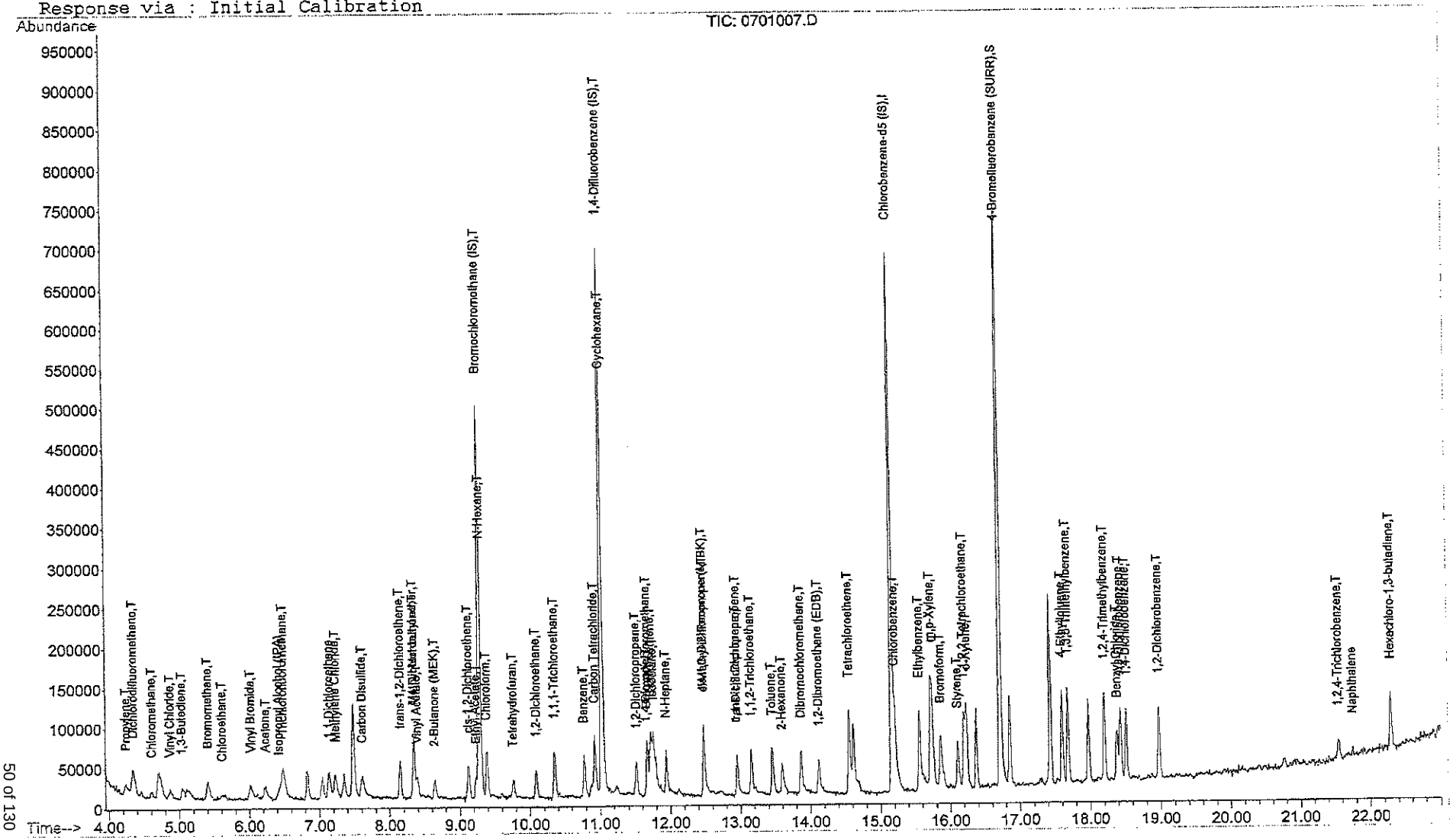
Quantitation Report

Data File : C:\HPCHEM\1\DATA\031424C\0701007.D
Acq On : 14 Mar 2024 1:46 pm
Sample : 1PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 15 4:20 2024

Vial: 7
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\0801008.D
Acq On : 14 Mar 2024 2:28 pm
Sample : 2PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 14 15:15 2024

Vial: 8
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 14 14:26:31 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS)	9.29	128	153020	5.00	ppbv		0.01
25) 1,4-Difluorobenzene (IS)	11.03	114	600710	5.00	ppbv		0.01
45) Chlorobenzene-d5 (IS)	15.17	117	520081	5.00	ppbv		0.01
System Monitoring Compounds							
56) 4-Bromofluorobenzene (SURR	16.72	95	381274	5.31	ppbv		0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 106.20%				
Target Compounds							Qvalue
2) Propylene	4.24	39	22188	1.91	ppbv		85
3) Dichlorodifluoromethane	4.36	85	153047	2.40	ppbv	#	73
4) Chloromethane	4.61	50	40184	1.93	ppbv	#	87
5) Vinyl Chloride	4.88	62	43841m	1.95	ppbv		
6) 1,3-Butadiene	5.05	39	28984m	2.30	ppbv		
7) Bromomethane	5.41	94	62902	2.34	ppbv	#	88
8) Chloroethane	5.61	64	21036	1.84	ppbv	#	91
9) Vinyl Bromide	6.02	106	55320	2.46	ppbv	#	92
10) Trichlorofluoromethane	6.49	101	151332	2.40	ppbv	#	97
11) Acetone	6.23	43	68979	1.44	ppbv	#	99
12) Isopropyl Alcohol (IPA)	6.43	45	68804	2.05	ppbv	#	94
13) 1,1-Dichloroethene	7.13	61	81121	2.11	ppbv		91
14) Methylene Chloride	7.23	84	49596	1.92	ppbv		96
15) Carbon Disulfide	7.61	76	159476	2.27	ppbv	#	100
16) trans-1,2-Dichloroethene	8.16	96	62092	2.40	ppbv		93
17) Methyl-tert-butyl ether	8.35	73	127808	1.98	ppbv	#	89
18) 1,1-Dichloroethane	8.35	63	86819	2.00	ppbv		99
19) Vinyl Acetate	8.40	43	87797	1.51	ppbv	#	91
20) N-Hexane	9.31	57	53188	2.20	ppbv		98
21) 2-Butanone (MEK)	8.65	43	77341	1.80	ppbv		98
22) cis-1,2-Dichloroethene	9.13	61	64566	1.76	ppbv		97
23) Ethyl Acetate	9.24	43	81059	2.09	ppbv		98
24) Chloroform	9.39	83	131754	2.45	ppbv		99
26) Tetrahydrofuran	9.76	42	40575	1.81	ppbv		97
27) 1,2-Dichloroethane	10.09	62	85018	2.33	ppbv		99
28) 1,1,1-Trichloroethane	10.36	97	118392	2.55	ppbv		100
29) 1,1-Dichloropropene	12.95	75	74882	1.80	ppbv		97
30) Carbon Tetrachloride	10.93	117	118523	2.32	ppbv		94
31) Benzene	10.78	78	133420	2.27	ppbv		99
32) Cyclohexane	11.05	56	68445	1.31	ppbv	#	82
33) 1,2-Dichloropropane	11.51	63	40774	1.78	ppbv		95
34) Trichloroethene	11.73	95	70582	2.24	ppbv		98
35) Bromodichloromethane	11.68	83	114806	2.40	ppbv		97
36) 1,4-Dioxane	11.67	88	30485	2.03	ppbv		96
37) Isooctane	11.76	57	156126	1.81	ppbv		91
38) N-Heptane	11.95	43	54772	1.93	ppbv		93
39) cis-1,3-Dichloropropene	12.49	75	90379	2.18	ppbv		97
40) 4-Methyl-2-Penanone (MIBK)	12.47	43	78722	1.71	ppbv		96
41) trans-1,3-Dichloropropene	12.95	75	74882	1.58	ppbv		98
42) 1,1,2-Trichloroethane	13.15	83	48536	2.05	ppbv		96
43) Toluene	13.46	91	153557	2.22	ppbv		98
44) 2-Hexanone	13.60	43	73979	1.71	ppbv		97
46) Dibromochloromethane	13.87	129	103720	2.16	ppbv		98
47) 1,2-Dibromoethane (EDB)	14.12	107	97573	1.98	ppbv		98
48) Tetrachloroethene	14.55	166	101568	2.17	ppbv		95
49) Chlorobenzene	15.22	112	141947	2.19	ppbv		97
50) Ethylbenzene	15.56	91	241161	2.18	ppbv		99
51) m,p-Xylene	15.74	91	370027	4.40	ppbv		100
52) Bromoform	15.86	173	110573	1.97	ppbv		96
53) Styrene	16.11	104	101319	1.71	ppbv		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\0801008.D
Acq On : 14 Mar 2024 2:28 pm
Sample : 2PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 14 15:15 2024

Vial: 8
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 14 14:26:31 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
54) 1,1,2,2-Tetrachloroethane	16.20	83	131497	1.73	ppbv		96
55) o-Xylene	16.24	106	85541	2.09	ppbv		96
57) 4-Ethyltoluene	17.60	105	221953	1.80	ppbv		99
58) 1,3,5-Trimethylbenzene	17.68	105	181745	1.81	ppbv		97
59) 1,2,4-Trimethylbenzene	18.20	105	171982	1.71	ppbv		95
60) 1,3-Dichlorobenzene	18.43	146	115505	1.78	ppbv		97
61) Benzyl Chloride	18.38	91	146587	1.65	ppbv		97
62) 1,4-Dichlorobenzene	18.51	148	69538	2.18	ppbv		97
63) 1,2-Dichlorobenzene	18.97	146	112266	1.89	ppbv		97
64) 1,2,4-Trichlorobenzene	21.55	180	25982	2.36	ppbv		92
65) Naphthalene	21.75	128	12782	1.24	ppbv	#	94
66) Hexachloro-1,3-butadiene	22.29	225	42735	1.51	ppbv		94

(#) = qualifier out of range (m) = manual integration

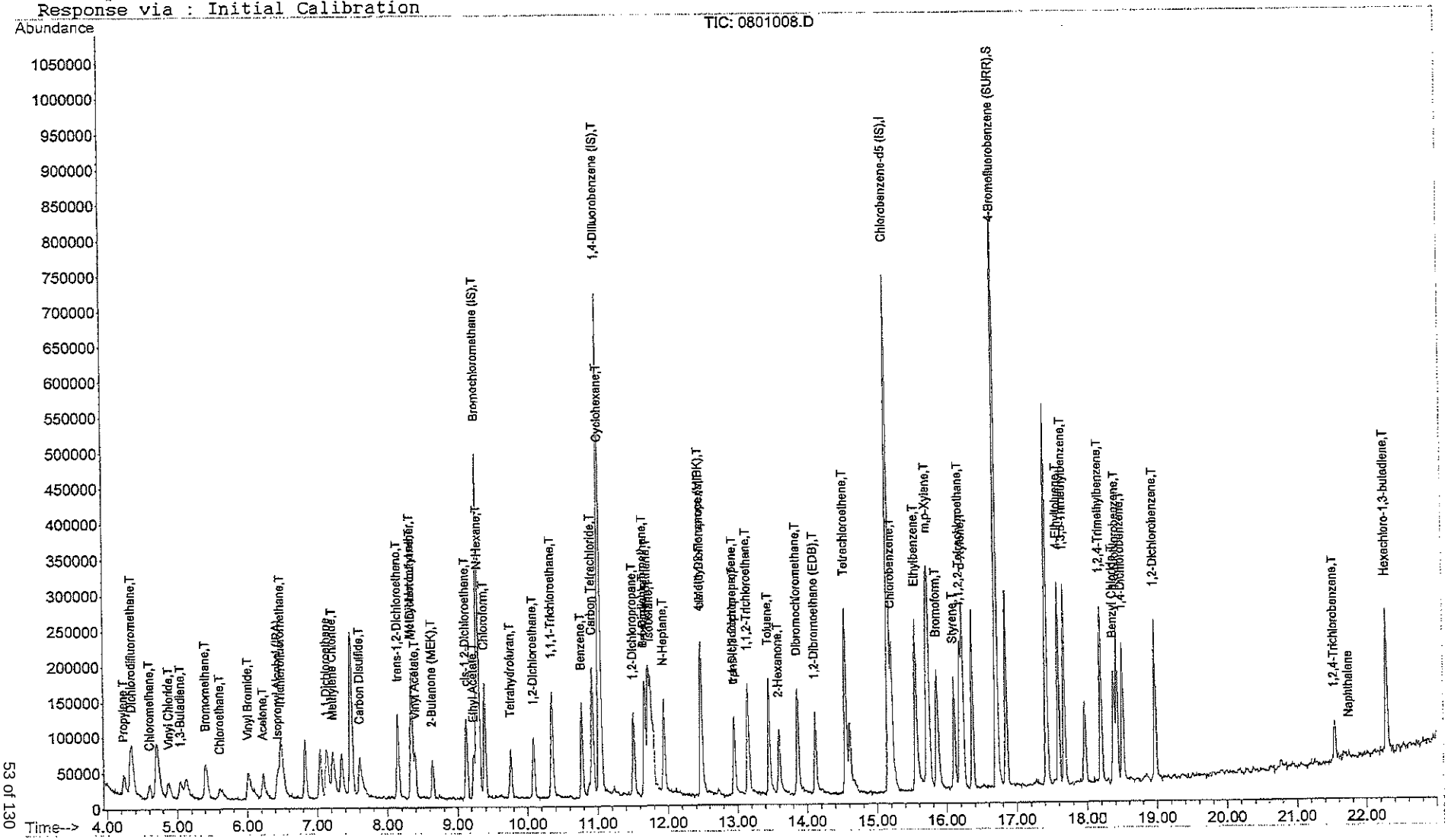
Quantitation Report

Data File : C:\HPCHEM\1\DATA\031424C\0801008.D
Acq On : 14 Mar 2024 2:28 pm
Sample : 2PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 14 15:15 2024

Vial: 8
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\0901009.D
Acq On : 14 Mar 2024 3:12 pm
Sample : 5PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 14 15:45 2024

Vial: 9
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 14 15:15:57 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS)	9.28	128	144113	5.00	ppbv		0.00
25) 1,4-Difluorobenzene (IS)	11.03	114	616419	5.00	ppbv		0.00
45) Chlorobenzene-d5 (IS)	15.16	117	508569	5.00	ppbv		0.00
System Monitoring Compounds							
56) 4-Bromofluorobenzene (SURR	16.72	95	381369	5.31	ppbv		0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 106.20%				
Target Compounds							Qvalue
2) Propylene	4.24	39	54575	5.00	ppbv		96
3) Dichlorodifluoromethane	4.34	85	443396	7.43	ppbv		100
4) Chloromethane	4.60	50	112980	6.46	ppbv	#	52
5) Vinyl Chloride	4.87	62	122414	6.38	ppbv		98
6) 1,3-Butadiene	5.05	39	74785	6.33	ppbv		92
7) Bromomethane	5.41	94	175440	7.11	ppbv		92
8) Chloroethane	5.60	64	61255	6.04	ppbv	#	81
9) Vinyl Bromide	6.02	106	162430	7.76	ppbv	#	94
10) Trichlorofluoromethane	6.48	101	415835	6.93	ppbv		98
11) Acetone	6.22	43	211529	4.87	ppbv	#	88
12) Isopropyl Alcohol (IPA)	6.43	45	192147	6.30	ppbv	#	94
13) 1,1-Dichloroethene	7.14	61	225038	6.27	ppbv		97
14) Methylene Chloride	7.22	84	133878	5.75	ppbv		98
15) Carbon Disulfide	7.61	76	436925	6.73	ppbv	#	100
16) trans-1,2-Dichloroethene	8.15	96	160892	6.70	ppbv		98
17) Methyl-tert-butyl ether	8.36	73	373156	6.26	ppbv	#	91
18) 1,1-Dichloroethane	8.34	63	252242	6.59	ppbv		99
19) Vinyl Acetate	8.39	43	260697	5.02	ppbv	#	93
20) N-Hexane	9.32	57	144014	6.47	ppbv		96
21) 2-Butanone (MEK)	8.64	43	207830	5.66	ppbv		99
22) cis-1,2-Dichloroethene	9.13	61	186895	5.74	ppbv		98
23) Ethyl Acetate	9.23	43	231860	6.67	ppbv		99
24) Chloroform	9.39	83	360488	6.98	ppbv		99
26) Tetrahydrofuran	9.76	42	105357	5.23	ppbv		97
27) 1,2-Dichloroethane	10.09	62	235139	6.30	ppbv		100
28) 1,1,1-Trichloroethane	10.35	97	323208	6.63	ppbv		97
29) 1,1-Dichloropropene	12.95	75	233699	5.65	ppbv		97
30) Carbon Tetrachloride	10.92	117	331055	6.38	ppbv		100
31) Benzene	10.78	78	370513	6.20	ppbv		99
32) Cyclohexane	11.06	56	157747	3.09	ppbv		96
33) 1,2-Dichloropropane	11.51	63	115826	5.25	ppbv		96
34) Trichloroethene	11.72	95	186861	5.85	ppbv		97
35) Bromodichloromethane	11.67	83	319330	6.59	ppbv		99
36) 1,4-Dioxane	11.66	88	77797	5.09	ppbv		97
37) Isooctane	11.76	57	458458	5.51	ppbv	#	95
38) N-Heptane	11.94	43	161577	5.88	ppbv		97
39) cis-1,3-Dichloropropene	12.49	75	233446	5.68	ppbv		95
40) 4-Methyl-2-Penanone (MIBK)	12.47	43	219006	4.92	ppbv		99
41) trans-1,3-Dichloropropene	12.95	75	233699	5.14	ppbv		96
42) 1,1,2-Trichloroethane	13.16	83	131929	5.70	ppbv		97
43) Toluene	13.45	91	430311	6.21	ppbv		100
44) 2-Hexanone	13.60	43	195870	4.77	ppbv		99
46) Dibromochloromethane	13.87	129	306681	6.68	ppbv		98
47) 1,2-Dibromoethane (EDB)	14.12	107	270996	6.02	ppbv		96
48) Tetrachloroethene	14.55	166	290956	6.40	ppbv		96
49) Chlorobenzene	15.21	112	374914	5.94	ppbv		99
50) Ethylbenzene	15.56	91	604020	5.73	ppbv		98
51) m,p-Xylene	15.73	91	955789	11.56	ppbv		99
52) Bromoform	15.86	173	315907	5.80	ppbv		99
53) Styrene	16.10	104	287376	5.09	ppbv		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\0901009.D
Acq On : 14 Mar 2024 3:12 pm
Sample : 5PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 14 15:45 2024

Vial: 9
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 14 15:15:57 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
54) 1,1,2,2-Tetrachloroethane	16.19	83	339820	4.75 ppbv	95
55) o-Xylene	16.23	106	223129	5.68 ppbv	98
57) 4-Ethyltoluene	17.60	105	587803	4.96 ppbv	97
58) 1,3,5-Trimethylbenzene	17.68	105	502146	5.24 ppbv	98
59) 1,2,4-Trimethylbenzene	18.20	105	466545	4.83 ppbv	100
60) 1,3-Dichlorobenzene	18.43	146	323602	5.19 ppbv	98
61) Benzyl Chloride	18.39	91	419029	4.96 ppbv	98
62) 1,4-Dichlorobenzene	18.51	148	193990	6.14 ppbv	96
63) 1,2-Dichlorobenzene	18.97	146	326418	5.66 ppbv	98
64) 1,2,4-Trichlorobenzene	21.55	180	94339	8.41 ppbv	98
65) Naphthalene	21.75	128	51023	5.29 ppbv	100
66) Hexachloro-1,3-butadiene	22.29	225	111578	4.31 ppbv	96

(#) = qualifier out of range (m) = manual integration

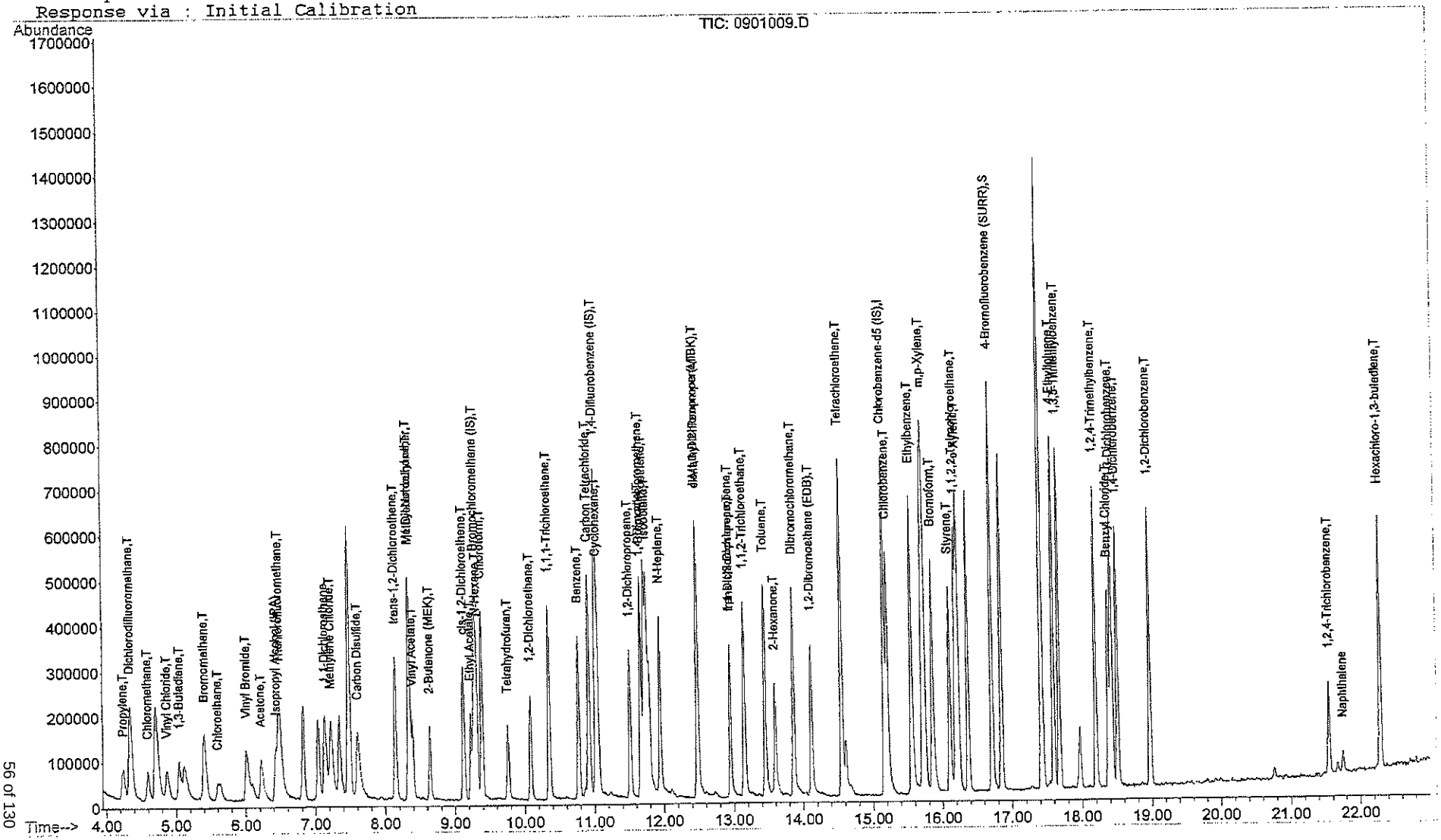
Quantitation Report

Data File : C:\HPCHEM\1\DATA\031424C\0901009.D
Acq On : 14 Mar 2024 3:12 pm
Sample : 5PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 14 15:45 2024

Vial: 9
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\1001010.D
Acq On : 14 Mar 2024 3:57 pm
Sample : 10PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 15 4:16 2024

Vial: 10
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Fri Mar 15 04:15:48 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS)	9.27	128	149192	5.00	ppbv		0.00
25) 1,4-Difluorobenzene (IS)	11.02	114	627089	5.00	ppbv		0.00
45) Chlorobenzene-d5 (IS)	15.16	117	508163	5.00	ppbv		0.00
System Monitoring Compounds							
56) 4-Bromofluorobenzene (SURR	16.71	95	395123	5.23	ppbv		0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 104.60%				
Target Compounds							Qvalue
2) Propylene	4.24	39	105980	9.79	ppbv		100
3) Dichlorodifluoromethane	4.34	85	899996	13.87	ppbv		100
4) Chloromethane	4.58	50	214824	13.08	ppbv		100
5) Vinyl Chloride	4.87	62	256024	14.17	ppbv		100
6) 1,3-Butadiene	5.04	39	139008	12.21	ppbv		100
7) Bromomethane	5.40	94	333821	13.00	ppbv		100
8) Chloroethane	5.61	64	125699	13.33	ppbv		100
9) Vinyl Bromide	6.01	106	322423	12.54	ppbv		100
10) Trichlorofluoromethane	6.48	101	812132	12.59	ppbv		100
11) Acetone	6.21	43	418762	9.84	ppbv		100
12) Isopropyl Alcohol (IPA)	6.43	45	368216	12.43	ppbv		100
13) 1,1-Dichloroethene	7.13	61	460362	13.32	ppbv		100
14) Methylene Chloride	7.22	84	273150	11.87	ppbv		100
15) Carbon Disulfide	7.61	76	882471	13.75	ppbv	#	100
16) trans-1,2-Dichloroethene	8.14	96	322518	13.36	ppbv		100
17) Methyl-tert-butyl ether	8.34	73	798830	12.75	ppbv		100
18) 1,1-Dichloroethane	8.33	63	490538	13.19	ppbv		100
19) Vinyl Acetate	8.39	43	594184	13.72	ppbv		100
20) N-Hexane	9.31	57	279743	13.64	ppbv		100
21) 2-Butanone (MEK)	8.63	43	453729	13.90	ppbv		100
22) cis-1,2-Dichloroethene	9.11	61	362670	12.60	ppbv		100
23) Ethyl Acetate	9.22	43	484548	15.03	ppbv		100
24) Chloroform	9.38	83	694226	12.64	ppbv		100
26) Tetrahydrofuran	9.75	42	215892	13.27	ppbv		100
27) 1,2-Dichloroethane	10.08	62	460979	12.19	ppbv		100
28) 1,1,1-Trichloroethane	10.35	97	699541	13.23	ppbv		100
29) 1,1-Dichloropropene	12.94	75	451177	11.12	ppbv		100
30) Carbon Tetrachloride	10.92	117	689274	13.00	ppbv		100
31) Benzene	10.77	78	746846	12.52	ppbv		100
32) Cyclohexane	11.05	56	320893	6.74	ppbv		100
33) 1,2-Dichloropropane	11.51	63	229313	12.13	ppbv		100
34) Trichloroethene	11.71	95	382249	11.86	ppbv		100
35) Bromodichloromethane	11.66	83	682084	13.83	ppbv		100
36) 1,4-Dioxane	11.66	88	177209	11.94	ppbv		100
37) Isooctane	11.75	57	886995	12.74	ppbv		100
38) N-Heptane	11.94	43	329010	13.36	ppbv		100
39) cis-1,3-Dichloropropene	12.47	75	494966	12.25	ppbv		100
40) 4-Methyl-2-Penanone (MIBK)	12.47	43	474103	11.75	ppbv		100
41) trans-1,3-Dichloropropene	12.94	75	451177	10.86	ppbv		100
42) 1,1,2-Trichloroethane	13.15	83	262403	11.97	ppbv		100
43) Toluene	13.44	91	885102	12.92	ppbv		100
44) 2-Hexanone	13.59	43	438808	12.10	ppbv		100
46) Dibromochloromethane	13.86	129	654207	13.86	ppbv		100
47) 1,2-Dibromoethane (EDB)	14.11	107	552338	13.05	ppbv		100
48) Tetrachloroethene	14.54	166	584966	12.47	ppbv		100
49) Chlorobenzene	15.20	112	749902	12.04	ppbv		100
50) Ethylbenzene	15.55	91	1259745	12.50	ppbv		100
51) m,p-Xylene	15.73	91	1965597	24.09	ppbv		100
52) Bromoform	15.85	173	669899	12.21	ppbv		100
53) Styrene	16.10	104	632801	11.70	ppbv		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\1001010.D
Acq On : 14 Mar 2024 3:57 pm
Sample : 10PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 15 4:16 2024

Vial: 10
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Fri Mar 15 04:15:48 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
54) 1,1,2,2-Tetrachloroethane	16.18	83	668258	10.48	ppbv	100
55) o-Xylene	16.23	106	450675	11.80	ppbv	100
57) 4-Ethyltoluene	17.59	105	1197821	10.42	ppbv	100
58) 1,3,5-Trimethylbenzene	17.67	105	1017735	10.79	ppbv	100
59) 1,2,4-Trimethylbenzene	18.19	105	979084	10.65	ppbv	100
60) 1,3-Dichlorobenzene	18.42	146	676514	10.60	ppbv	100
61) Benzyl Chloride	18.38	91	860937	10.48	ppbv	100
62) 1,4-Dichlorobenzene	18.50	148	409648	12.00	ppbv	100
63) 1,2-Dichlorobenzene	18.97	146	635616	10.64	ppbv	100
64) 1,2,4-Trichlorobenzene	21.54	180	234136	17.51	ppbv	100
65) Naphthalene	21.75	128	186602	19.01	ppbv	100
66) Hexachloro-1,3-butadiene	22.28	225	215324	9.47	ppbv	100

(#) = qualifier out of range (m) = manual integration

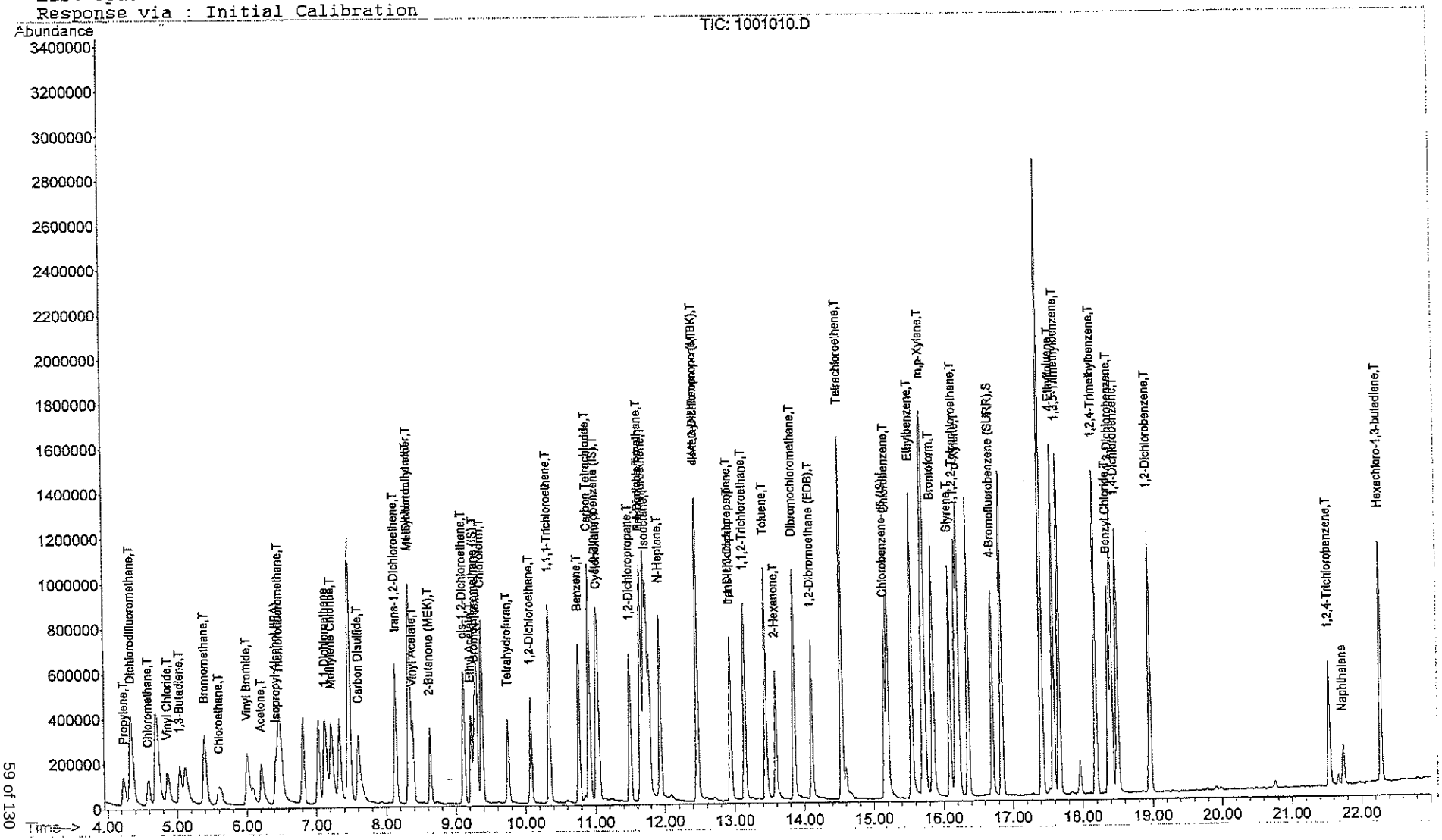
Quantitation Report

Data File : C:\HPCHEM\1\DATA\031424C\1001010.D
Acq On : 14 Mar 2024 3:57 pm
Sample : 10PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 15 4:16 2024

Vial: 10
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



1001010.D 031424AI.M Thu Mar 28 06:23:20 2024 6890

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\1101011.D
Acq On : 14 Mar 2024 4:46 pm
Sample : 20PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 15 4:14 2024

Vial: 11
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Fri Mar 15 04:13:10 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.27	128	142878	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.02	114	568079	5.00	ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.15	117	484274	5.00	ppbv	-0.01
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.70	95	387123	5.53	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 110.60%			
Target Compounds						Qvalue
2) Propylene	4.23	39	203478	19.09	ppbv	97
3) Dichlorodifluoromethane	4.33	85	1706589	28.11	ppbv	99
4) Chloromethane	4.58	50	382509	23.42	ppbv	99
5) Vinyl Chloride	4.85	62	475127	25.71	ppbv	98
6) 1,3-Butadiene	5.03	39	257525	22.25	ppbv	94
7) Bromomethane	5.39	94	645640	25.84	ppbv	95
8) Chloroethane	5.60	64	249663	25.52	ppbv #	85
9) Vinyl Bromide	6.01	106	661199	31.25	ppbv	98
10) Trichlorofluoromethane	6.47	101	1621003	26.32	ppbv	99
11) Acetone	6.21	43	798162	18.57	ppbv #	97
12) Isopropyl Alcohol (IPA)	6.42	45	749204	25.16	ppbv #	99
13) 1,1-Dichloroethene	7.11	61	900238	26.10	ppbv	98
14) Methylene Chloride	7.22	84	544965	24.25	ppbv	96
15) Carbon Disulfide	7.59	76	1662184	25.74	ppbv #	100
16) trans-1,2-Dichloroethene	8.13	96	612216	25.21	ppbv	99
17) Methyl-tert-butyl ether	8.34	73	1526874	25.02	ppbv #	96
18) 1,1-Dichloroethane	8.32	63	902350	23.83	ppbv	99
19) Vinyl Acetate	8.38	43	1420737	31.62	ppbv #	94
20) N-Hexane	9.30	57	533770	24.99	ppbv	99
21) 2-Butanone (MEK)	8.62	43	832142	23.80	ppbv	99
22) cis-1,2-Dichloroethene	9.10	61	714755	23.60	ppbv	99
23) Ethyl Acetate	9.22	43	893318	27.27	ppbv	99
24) Chloroform	9.37	83	1372484	26.18	ppbv	96
26) Tetrahydrofuran	9.74	42	399346	24.01	ppbv	100
27) 1,2-Dichloroethane	10.07	62	891456	26.13	ppbv	98
28) 1,1,1-Trichloroethane	10.34	97	1359567	29.67	ppbv	99
29) 1,1-Dichloropropene	12.94	75	894561	23.99	ppbv	97
30) Carbon Tetrachloride	10.91	117	1360363	28.64	ppbv	99
31) Benzene	10.76	78	1425357	26.20	ppbv	97
32) Cyclohexane	11.04	56	585072	12.95	ppbv	96
33) 1,2-Dichloropropane	11.50	63	441036	23.57	ppbv	99
34) Trichloroethene	11.71	95	741685	25.32	ppbv	98
35) Bromodichloromethane	11.66	83	1322587	29.83	ppbv	99
36) 1,4-Dioxane	11.65	88	347920	25.94	ppbv	99
37) Isooctane	11.74	57	1765409	25.69	ppbv	95
38) N-Heptane	11.93	43	605078	25.24	ppbv	96
39) cis-1,3-Dichloropropene	12.47	75	936294	25.20	ppbv	99
40) 4-Methyl-2-Penanone (MIBK)	12.46	43	893485	23.33	ppbv	99
41) trans-1,3-Dichloropropene	12.94	75	894561	22.83	ppbv	97
42) 1,1,2-Trichloroethane	13.14	83	516491	25.11	ppbv	100
43) Toluene	13.45	91	1646783	25.94	ppbv	99
44) 2-Hexanone	13.58	43	830815	23.61	ppbv	99
46) Dibromochloromethane	13.85	129	1295063	29.50	ppbv	100
47) 1,2-Dibromoethane (EDB)	14.11	107	1113013	26.95	ppbv	100
48) Tetrachloroethene	14.54	166	1103139	25.29	ppbv	98
49) Chlorobenzene	15.20	112	1363715	22.54	ppbv	99
50) Ethylbenzene	15.54	91	2291344	23.28	ppbv	97
51) m,p-Xylene	15.73	91	3636527	46.24	ppbv	99
52) Bromoform	15.85	173	1312365	25.14	ppbv	100
53) Styrene	16.10	104	1237869	23.67	ppbv	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\1101011.D
Acq On : 14 Mar 2024 4:46 pm
Sample : 20PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 15 4:14 2024

Vial: 11
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Fri Mar 15 04:13:10 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
54) 1,1,2,2-Tetrachloroethane	16.18	83	1256861	19.40 ppbv	99
55) o-Xylene	16.22	106	833038	22.45 ppbv	94
57) 4-Ethyltoluene	17.59	105	2256915	20.10 ppbv	98
58) 1,3,5-Trimethylbenzene	17.67	105	1924263	21.13 ppbv	99
59) 1,2,4-Trimethylbenzene	18.19	105	1805269	20.29 ppbv	99
60) 1,3-Dichlorobenzene	18.42	146	1251455	20.53 ppbv	99
61) Benzyl Chloride	18.37	91	1675141	21.19 ppbv	98
62) 1,4-Dichlorobenzene	18.50	148	780691	24.92 ppbv	96
63) 1,2-Dichlorobenzene	18.97	146	1193727	21.27 ppbv	99
64) 1,2,4-Trichlorobenzene	21.54	180	281437	23.00 ppbv	
65) Naphthalene	21.74	128	232267m	24.65 ppbv	
66) Hexachloro-1,3-butadiene	22.28	225	405285	17.39 ppbv	97

(#) = qualifier out of range (m) = manual integration

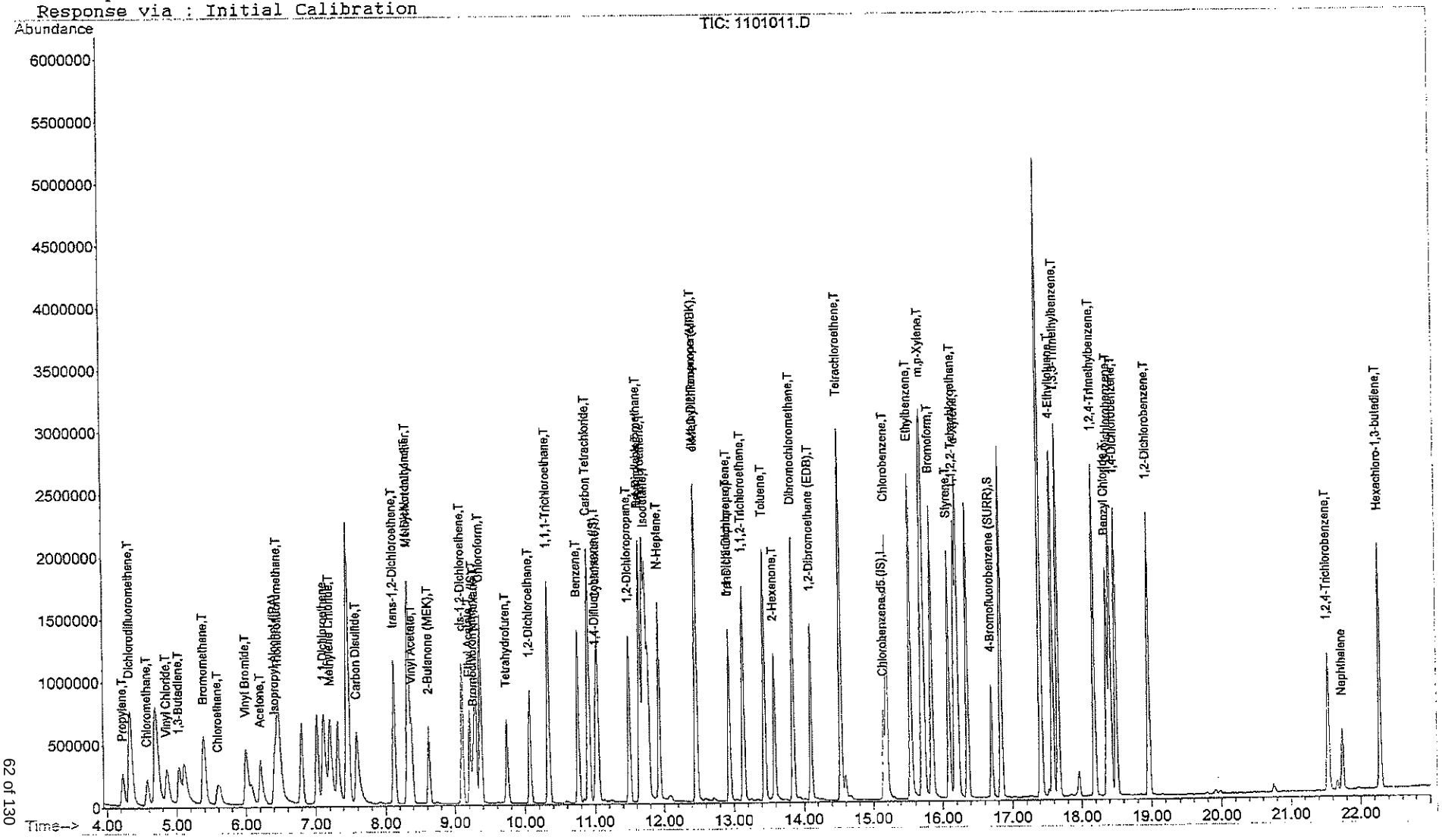
Quantitation Report

Data File : C:\HPCHEM\1\DATA\031424C\1101011.D
Acq On : 14 Mar 2024 4:46 pm
Sample : 20PPBV TO-15 ICAL
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 15 4:14 2024

Vial: 11
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



1101011.D 031424AI.M Thu Mar 28 06:23:27 2024 6890

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\031424C\1201012.D
Acq On : 14 Mar 2024 5:30 pm
Sample : 10PPBV TO-15 ICAL VER
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p

Vial: 12
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	T	Bromochloromethane (IS)	1.000	1.000	0.0	89	0.00
2	T	Propylene	0.372	0.352	5.4	88	-0.01
3	T	Dichlorodifluoromethane	2.758	3.082	-11.7	90	0.00
4	T	Chloromethane	0.724	0.677	6.5	83	0.01
5	T	Vinyl Chloride	0.877	0.828	5.6	82	-0.01
6	T	1,3-Butadiene	0.486	0.476	2.1	81	-0.01
7	T	Bromomethane	1.041	0.919	11.7	73	0.00
8	T	Chloroethane	0.444	0.443	0.2	93	0.00
9	T	Vinyl Bromide	0.992	0.965	2.7	90	0.00
10	T	Trichlorofluoromethane	2.522	2.485	1.5	81	-0.01
11	T	Acetone	1.631	1.429	12.4	90	0.00
12		Isopropyl Alcohol (IPA)	1.155	1.125	2.6	81	-0.01
13		1,1-Dichloroethene	1.474	1.599	-8.5	92	0.00
14	T	Methylene Chloride	0.858	0.936	-9.1	91	0.00
15	T	Carbon Disulfide	2.733	2.930	-7.2	88	-0.01
16	T	trans-1,2-Dichloroethene	0.991	0.991	0.0	81	0.00
17	T	Methyl-tert-butyl ether	2.659	2.690	-1.2	89	0.00
18	T	1,1-Dichloroethane	1.686	1.622	3.8	87	0.00
19	T	Vinyl Acetate	1.908	1.981	-3.8	88	-0.01
20	T	N-Hexane	1.042	0.931	10.7	88	0.00
21	T	2-Butanone (MEK)	1.233	1.348	-9.3	102	0.00
22	T	cis-1,2-Dichloroethene	1.107	1.179	-6.5	86	0.00
23	T	Ethyl Acetate	1.554	1.562	-0.5	85	0.00
24	T	Chloroform	2.163	2.209	-2.1	84	0.00
25	T	1,4-Difluorobenzene (IS)	1.000	1.000	0.0	88	0.00
26	T	Tetrahydrofuran	0.193	0.177	8.3	83	-0.01
27	T	1,2-Dichloroethane	0.384	0.380	1.0	91	0.00
28	T	1,1,1-Trichloroethane	0.578	0.590	-2.1	93	0.00
29	T	1,1-Dichloropropene	0.410	0.377	8.0	92	0.00
30	T	Carbon Tetrachloride	0.542	0.575	-6.1	92	0.00
31	T	Benzene	0.592	0.593	-0.2	88	0.00
32	T	Cyclohexane	0.379	0.383	-1.1	94	0.00
33	T	1,2-Dichloropropane	0.188	0.173	8.0	83	0.00
34	T	Trichloroethene	0.296	0.323	-9.1	93	0.00
35	T	Bromodichloromethane	0.533	0.559	-4.9	91	0.00
36	T	1,4-Dioxane	0.151	0.145	4.0	86	-0.01
37	T	Isooctane	0.793	0.730	7.9	84	0.00
38	T	N-Heptane	0.250	0.249	0.4	84	0.00
39	T	cis-1,3-Dichloropropene	0.337	0.370	-9.8	102	0.00
40	T	4-Methyl-2-Penanone (MIBK)	0.331	0.365	-10.3	85	0.00
41	T	trans-1,3-Dichloropropene	0.359	0.377	-5.0	92	0.00
42	T	1,1,2-Trichloroethane	0.226	0.218	3.5	92	0.00
43	T	Toluene	0.612	0.706	-15.4	95	0.00
44	T	2-Hexanone	0.372	0.345	7.3	87	0.00
45	I	Chlorobenzene-d5 (IS)	1.000	1.000	0.0	97	0.00
46	T	Dibromochloromethane	0.543	0.574	-5.7	94	0.00
47	T	1,2-Dibromoethane (EDB)	0.521	0.518	0.6	93	0.00
48	T	Tetrachloroethene	0.488	0.494	-1.2	95	0.00
49	T	Chlorobenzene	0.671	0.677	-0.9	89	0.00
50	T	Ethylbenzene	0.986	1.078	-9.3	105	0.00
51	T	m,p-Xylene	0.863	0.900	-4.3	90	0.00
52	T	Bromoform	0.622	0.639	-2.7	94	0.00
53	T	Styrene	0.529	0.617	-16.6	107	0.00
54	T	1,1,2,2-Tetrachloroethane	0.610	0.631	-3.4	93	0.00
55	T	o-Xylene	0.405	0.421	-4.0	92	0.00
56	S	4-Bromofluorobenzene (SURR)	0.723	0.756	-4.6	94	0.00
57	T	4-Ethyltoluene	1.060	1.128	-6.4	93	0.00
58	T	1,3,5-Trimethylbenzene	0.897	0.937	-4.5	91	0.00
59	T	1,2,4-Trimethylbenzene	0.888	0.918	-3.4	92	0.00
60	T	1,3-Dichlorobenzene	0.608	0.634	-4.3	93	0.00

61	T	Benzyl Chloride	0.773	0.834	-7.9	96	0.00
62	T	1,4-Dichlorobenzene	0.336	0.375	-11.6	103	0.00
63	T	1,2-Dichlorobenzene	0.561	0.601	-7.1	93	0.00
64	T	1,2,4-Trichlorobenzene	0.084	0.088	-4.8	104	0.00
65		Naphthalene	0.100	0.091	9.0	89	0.00
66	T	Hexachloro-1,3-butadiene	0.206	0.204	1.0	94	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1001010.D 031424AI.M Thu Mar 28 06:23:30 2024 6890

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\1201012.D
Acq On : 14 Mar 2024 5:30 pm
Sample : 10PPBV TO-15 ICAL VER
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 17 18:34 2024

Vial: 12
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Bromochloromethane (IS)	9.27	128	132052	5.00 ppbv		0.00
25) 1,4-Difluorobenzene (IS)	11.01	114	553013	5.00 ppbv		0.00
45) Chlorobenzene-d5 (IS)	15.16	117	493339	5.00 ppbv		0.00
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.70	95	373182	5.23 ppbv		0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 104.60%			
Target Compounds						Qvalue
2) Propylene	4.23	39	92858	9.45 ppbv		96
3) Dichlorodifluoromethane	4.34	85	813964	11.18 ppbv		99
4) Chloromethane	4.59	50	178858	9.35 ppbv		
5) Vinyl Chloride	4.86	62	218656	9.44 ppbv		
6) 1,3-Butadiene	5.03	39	125685	9.79 ppbv		
7) Bromomethane	5.40	94	242650	8.83 ppbv		96
8) Chloroethane	5.60	64	117029	9.97 ppbv		
9) Vinyl Bromide	6.01	106	254970	9.73 ppbv		99
10) Trichlorofluoromethane	6.47	101	656218	9.85 ppbv		
11) Acetone	6.21	43	377521	8.76 ppbv		96
12) Isopropyl Alcohol (IPA)	6.41	45	297138	9.74 ppbv		
13) 1,1-Dichloroethene	7.13	61	422255	10.85 ppbv		96
14) Methylene Chloride	7.22	84	247319	10.92 ppbv		94
15) Carbon Disulfide	7.60	76	773796	10.72 ppbv	#	100
16) trans-1,2-Dichloroethene	8.14	96	261640m	9.99 ppbv		
17) Methyl-tert-butyl ether	8.34	73	710457	10.12 ppbv	#	97
18) 1,1-Dichloroethane	8.33	63	428291	9.62 ppbv		99
19) Vinyl Acetate	8.38	43	523228	10.38 ppbv		99
20) N-Hexane	9.30	57	245940	8.94 ppbv		99
21) 2-Butanone (MEK)	8.63	43	355987	10.93 ppbv		
22) cis-1,2-Dichloroethene	9.12	61	311271	10.65 ppbv		
23) Ethyl Acetate	9.22	43	412490	10.05 ppbv		99
24) Chloroform	9.37	83	583522	10.22 ppbv		
26) Tetrahydrofuran	9.74	42	195626	9.17 ppbv		
27) 1,2-Dichloroethane	10.07	62	420647	9.90 ppbv		97
28) 1,1,1-Trichloroethane	10.35	97	652882	10.22 ppbv		98
29) 1,1-Dichloropropene	12.94	75	416823	9.20 ppbv		96
30) Carbon Tetrachloride	10.91	117	635610	10.61 ppbv		99
31) Benzene	10.77	78	655739	10.02 ppbv		98
32) Cyclohexane	11.04	56	423552m	10.10 ppbv		
33) 1,2-Dichloropropane	11.50	63	190956	9.18 ppbv	#	91
34) Trichloroethene	11.71	95	357402	10.93 ppbv		97
35) Bromodichloromethane	11.66	83	618570	10.50 ppbv		98
36) 1,4-Dioxane	11.65	88	160213	9.61 ppbv		97
37) Isooctane	11.74	57	807176	9.20 ppbv	#	94
38) N-Heptane	11.94	43	275690	9.95 ppbv		98
39) cis-1,3-Dichloropropene	12.47	75	408909	10.97 ppbv		
40) 4-Methyl-2-Penanone (MIBK)	12.46	43	403850	11.05 ppbv		96
41) trans-1,3-Dichloropropene	12.94	75	416823	10.50 ppbv		98
42) 1,1,2-Trichloroethane	13.14	83	241214	9.65 ppbv		97
43) Toluene	13.44	91	781097	11.53 ppbv		98
44) 2-Hexanone	13.59	43	381241	9.27 ppbv		99
46) Dibromochloromethane	13.85	129	566438	10.57 ppbv		
47) 1,2-Dibromoethane (EDB)	14.11	107	510997	9.95 ppbv		99
48) Tetrachloroethene	14.54	166	487042	10.11 ppbv		
49) Chlorobenzene	15.20	112	668109	10.09 ppbv		99
50) Ethylbenzene	15.55	91	1063931	10.93 ppbv		
51) m,p-Xylene	15.73	91	1775912	20.86 ppbv		100
52) Bromoform	15.85	173	630843	10.28 ppbv		100
53) Styrene	16.10	104	608440	11.66 ppbv		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\031424C\1201012.D
Acq On : 14 Mar 2024 5:30 pm
Sample : 10PPBV TO-15 ICAL VER
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 17 18:34 2024

Vial: 12
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
54) 1,1,2,2-Tetrachloroethane	16.18	83	622538	10.34 ppbv	99
55) o-Xylene	16.22	106	415334	10.40 ppbv	92
57) 4-Ethyltoluene	17.59	105	1113309	10.65 ppbv	100
58) 1,3,5-Trimethylbenzene	17.67	105	924042	10.45 ppbv	100
59) 1,2,4-Trimethylbenzene	18.19	105	905411	10.34 ppbv	99
60) 1,3-Dichlorobenzene	18.42	146	625916	10.43 ppbv	99
61) Benzyl Chloride	18.37	91	822709	10.79 ppbv	99
62) 1,4-Dichlorobenzene	18.50	148	369782	11.17 ppbv	90
63) 1,2-Dichlorobenzene	18.97	146	592982	10.71 ppbv	98
64) 1,2,4-Trichlorobenzene	21.54	180	87316	10.50 ppbv	
65) Naphthalene	21.74	128	89767	9.13 ppbv	
66) Hexachloro-1,3-butadiene	22.28	225	201670	9.91 ppbv	99

(#) = qualifier out of range (m) = manual integration

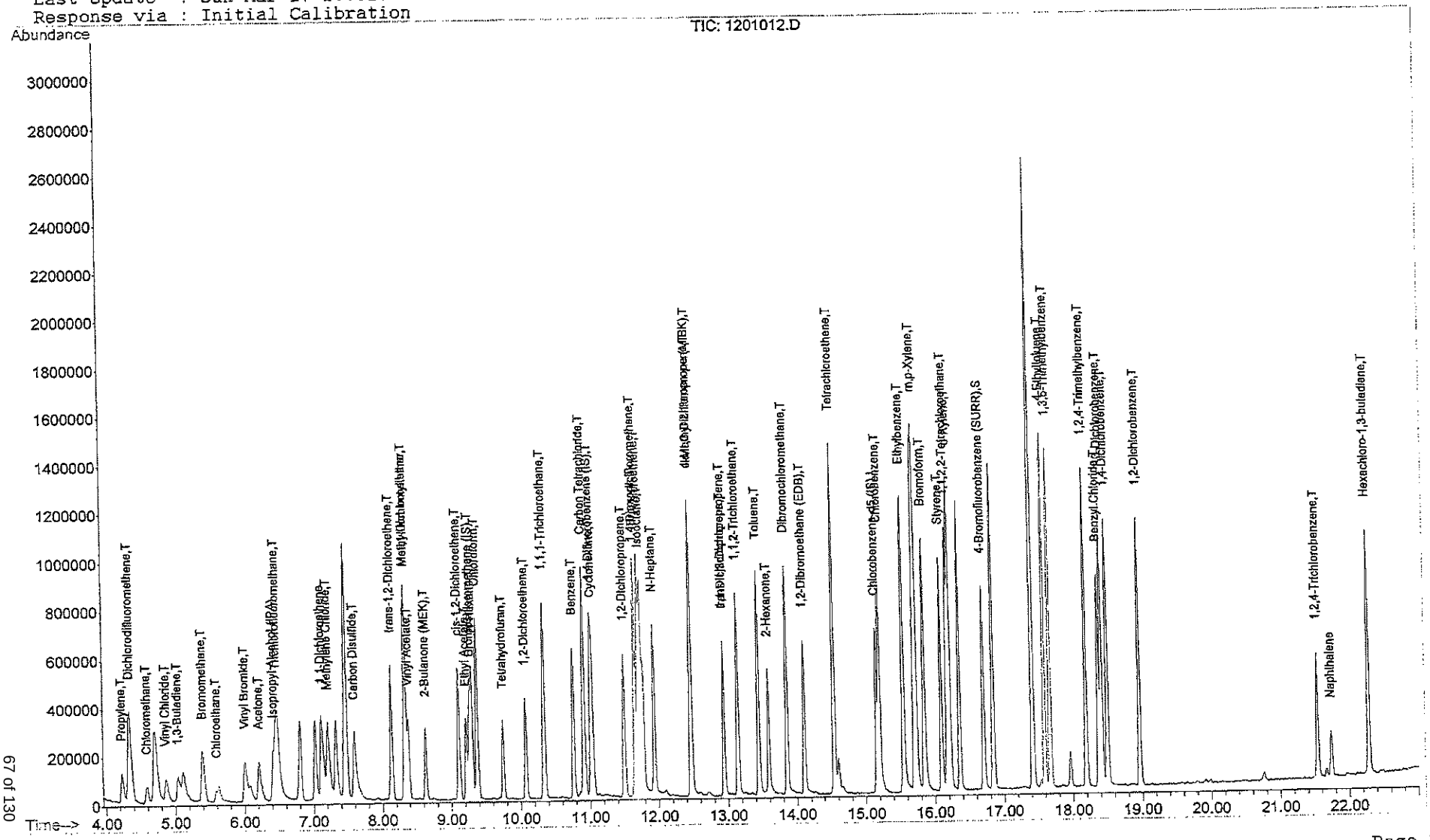
Quantitation Report

Data File : C:\HPCHEM\1\DATA\031424C\1201012.D
Acq On : 14 Mar 2024 5:30 pm
Sample : 10PPBV TO-15 ICAL VER
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Mar 17 18:34 2024

Vial: 12
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



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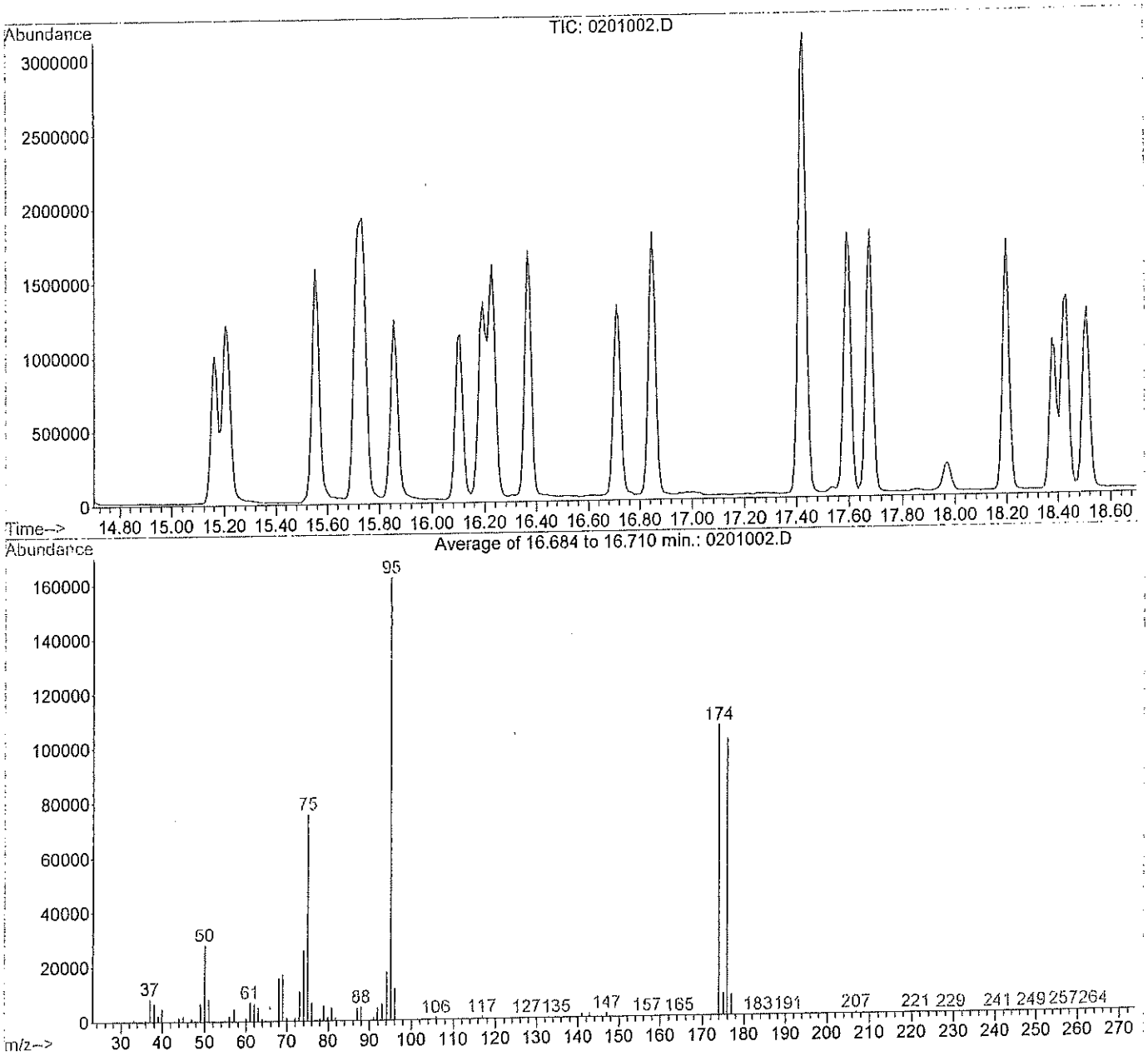
TO-15 VOC
Continuing Calibration Data

- Tune Data
- Continuing Calibration Verification Summary
- Continuing Calibration Verification (CCV) Quant Report
- Internal Standard Area Summary

Data File : C:\HPCHEM\1\DATA\040324\0201002.D
Acq On : 3 Apr 2024 5:29 pm
Sample : BFB/CCV 10PPBV
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION

Vial: 2
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00



Spectrum Information: Average of 16.684 to 16.710 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	27875	PASS
75	95	30	60	46.7	75620	PASS
95	95	100	100	100.0	162002	PASS
96	95	2	9	7.0	11421	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	65.6	106242	PASS
175	174	5	9	7.5	8001	PASS
176	174	95	101	95.1	101072	PASS
177	176	5	9	7.4	7521	PASS

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\040324\0201002.D
Acq On : 3 Apr 2024 5:29 pm
Sample : BFB/CCV 10PPBV
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p

Vial: 2
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	T	Bromochloromethane (IS)	1.000	1.000	0.0	108	0.00
2	T	Propylene	0.372	0.330	11.3	100	0.00
3	T	Dichlorodifluoromethane	2.758	2.615	5.2	94	0.00
4	T	Chloromethane	0.724	0.722	0.3	109	0.01
5	T	Vinyl Chloride	0.877	0.796	9.2	97	0.00
6	T	1,3-Butadiene	0.486	0.522	-7.4	109	0.00
7	T	Bromomethane	1.041	1.033	0.8	100	0.00
8	T	Chloroethane	0.444	0.404	9.0	104	-0.01
9	T	Vinyl Bromide	0.992	0.999	-0.7	114	0.00
10	T	Trichlorofluoromethane	2.522	2.530	-0.3	101	0.00
11	T	Acetone	1.631	1.547	5.2	119	0.00
12		Isopropyl Alcohol (IPA)	1.155	1.190	-3.0	104	0.00
13		1,1-Dichloroethene	1.474	1.522	-3.3	107	0.00
14	T	Methylene Chloride	0.858	0.877	-2.2	104	0.00
15	T	Carbon Disulfide	2.733	2.749	-0.6	101	-0.01
16	T	trans-1,2-Dichloroethene	0.991	1.024	-3.3	103	0.00
17	T	Methyl-tert-butyl ether	2.659	2.676	-0.6	108	0.00
18	T	1,1-Dichloroethane	1.686	1.676	0.6	110	0.00
19	T	Vinyl Acetate	1.908	1.968	-3.1	107	0.00
20	T	N-Hexane	1.042	1.078	-3.5	124	0.00
21	T	2-Butanone (MEK)	1.233	1.245	-1.0	115	0.00
22	T	cis-1,2-Dichloroethene	1.107	1.150	-3.9	102	0.00
23	T	Ethyl Acetate	1.554	1.597	-2.8	106	0.00
24	T	Chloroform	2.163	2.310	-6.8	107	0.00
25	T	1,4-Difluorobenzene (IS)	1.000	1.000	0.0	112	0.00
26	T	Tetrahydrofuran	0.193	0.193	0.0	115	0.00
27	T	1,2-Dichloroethane	0.384	0.347	9.6	106	0.00
28	T	1,1,1-Trichloroethane	0.578	0.522	9.7	105	0.00
29	T	1,1-Dichloropropene	0.410	0.344	16.1	107	0.00
30	T	Carbon Tetrachloride	0.542	0.510	5.9	104	0.00
31	T	Benzene	0.592	0.595	-0.5	112	0.00
32	T	Cyclohexane	0.379	0.352	7.1	110	0.00
33	T	1,2-Dichloropropane	0.188	0.190	-1.1	116	0.00
34	T	Trichloroethene	0.296	0.295	0.3	108	0.00
35	T	Bromodichloromethane	0.533	0.518	2.8	107	0.00
36	T	1,4-Dioxane	0.151	0.145	4.0	109	0.00
37	T	Isooctane	0.793	0.798	-0.6	117	0.00
38	T	N-Heptane	0.250	0.248	0.8	106	0.00
39	T	cis-1,3-Dichloropropene	0.337	0.331	1.8	116	0.00
40	T	4-Methyl-2-Penanone (MIBK)	0.331	0.338	-2.1	100	0.00
41	T	trans-1,3-Dichloropropene	0.359	0.344	4.2	107	0.00
42	T	1,1,2-Trichloroethane	0.226	0.205	9.3	110	0.00
43	T	Toluene	0.612	0.602	1.6	103	0.00
44	T	2-Hexanone	0.372	0.401	-7.8	129	0.00
45	I	Chlorobenzene-d5 (IS)	1.000	1.000	0.0	121	0.00
46	T	Dibromochloromethane	0.543	0.531	2.2	109	0.00
47	T	1,2-Dibromoethane (EDB)	0.521	0.465	10.7	104	0.00
48	T	Tetrachloroethene	0.488	0.431	11.7	104	0.00
49	T	Chlorobenzene	0.671	0.616	8.2	101	0.00
50	T	Ethylbenzene	0.986	0.972	1.4	119	0.00
51	T	m,p-Xylene	0.863	0.885	-2.5	111	0.00
52	T	Bromoform	0.622	0.537	13.7	99	0.00
53	T	Styrene	0.529	0.544	-2.8	118	0.00
54	T	1,1,2,2-Tetrachloroethane	0.610	0.620	-1.6	114	0.00
55	T	o-Xylene	0.405	0.384	5.2	105	0.00
56	S	4-Bromofluorobenzene (SURR)	0.723	0.714	1.2	111	0.00
57	T	4-Ethyltoluene	1.060	1.112	-4.9	114	0.00
58	T	1,3,5-Trimethylbenzene	0.897	0.923	-2.9	112	0.00
59	T	1,2,4-Trimethylbenzene	0.888	0.912	-2.7	115	0.00
60	T	1,3-Dichlorobenzene	0.608	0.541	11.0	99	0.00

61	T	Benzyl Chloride	0.773	0.749	3.1	107	0.00
62	T	1,4-Dichlorobenzene	0.336	0.314	6.5	108	0.00
63	T	1,2-Dichlorobenzene	0.561	0.540	3.7	105	0.00
64	T	1,2,4-Trichlorobenzene	0.084	0.080	4.8	117	0.00
65		Naphthalene	0.100	0.094	6.0	115	0.00
66	T	Hexachloro-1,3-butadiene	0.206	0.196	4.9	112	0.02

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

1001010.D 031424AI.M Thu Apr 11 09:21:53 2024 6890

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\0201002.D
Acq On : 3 Apr 2024 5:29 pm
Sample : BFB/CCV 10PPBV
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 3 20:33 2024

Vial: 2
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 28 14:56:42 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS)	9.28	128	161500	5.00	ppbv		0.00
25) 1,4-Difluorobenzene (IS)	11.02	114	702786	5.00	ppbv		0.00
45) Chlorobenzene-d5 (IS)	15.16	117	616201	5.00	ppbv		0.00
System Monitoring Compounds							
56) 4-Bromofluorobenzene (SURR	16.71	95	439850	4.93	ppbv		0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 98.60%				
Target Compounds							Qvalue
2) Propylene	4.24	39	106435	8.85	ppbv		98
3) Dichlorodifluoromethane	4.34	85	844588	9.48	ppbv		100
4) Chloromethane	4.59	50	233258	9.97	ppbv		96
5) Vinyl Chloride	4.87	62	257255	9.08	ppbv		99
6) 1,3-Butadiene	5.05	39	168722	10.74	ppbv		
7) Bromomethane	5.39	94	333819	9.93	ppbv		97
8) Chloroethane	5.59	64	130584	9.10	ppbv		98
9) Vinyl Bromide	6.01	106	322810	10.07	ppbv		100
10) Trichlorofluoromethane	6.48	101	817273	10.03	ppbv		97
11) Acetone	6.21	43	499824	9.49	ppbv		96
12) Isopropyl Alcohol (IPA)	6.42	45	384325m	10.30	ppbv		
13) 1,1-Dichloroethene	7.13	61	491522	10.32	ppbv		93
14) Methylene Chloride	7.22	84	283337	10.23	ppbv		95
15) Carbon Disulfide	7.60	76	888075	10.06	ppbv	#	100
16) trans-1,2-Dichloroethene	8.14	96	330619	10.32	ppbv		95
17) Methyl-tert-butyl ether	8.34	73	864252	10.06	ppbv	#	96
18) 1,1-Dichloroethane	8.33	63	541388	9.94	ppbv		99
19) Vinyl Acetate	8.39	43	635611	10.31	ppbv		
20) N-Hexane	9.31	57	348276	10.35	ppbv		98
21) 2-Butanone (MEK)	8.63	43	401997	10.10	ppbv		
22) cis-1,2-Dichloroethene	9.11	61	371350	10.38	ppbv		
23) Ethyl Acetate	9.22	43	515683	10.28	ppbv		
24) Chloroform	9.38	83	746114	10.68	ppbv		97
26) Tetrahydrofuran	9.75	42	270991	10.00	ppbv		89
27) 1,2-Dichloroethane	10.08	62	487622	9.03	ppbv		98
28) 1,1,1-Trichloroethane	10.34	97	733591	9.03	ppbv		97
29) 1,1-Dichloropropene	12.94	75	483736	8.40	ppbv		96
30) Carbon Tetrachloride	10.92	117	717495	9.42	ppbv		98
31) Benzene	10.77	78	835926	10.05	ppbv		96
32) Cyclohexane	11.05	56	495177	9.29	ppbv		
33) 1,2-Dichloropropane	11.51	63	266694	10.08	ppbv		92
34) Trichloroethene	11.71	95	414059	9.96	ppbv		93
35) Bromodichloromethane	11.66	83	728277	9.72	ppbv		99
36) 1,4-Dioxane	11.65	88	203548	9.61	ppbv		90
37) Isooctane	11.75	57	1121947	10.07	ppbv		99
38) N-Heptane	11.94	43	348889	9.91	ppbv		
39) cis-1,3-Dichloropropene	12.48	75	465563	9.83	ppbv		
40) 4-Methyl-2-Penanone (MIBK)	12.47	43	475493	10.24	ppbv		
41) trans-1,3-Dichloropropene	12.94	75	483736	9.59	ppbv		96
42) 1,1,2-Trichloroethane	13.15	83	287615	9.06	ppbv		98
43) Toluene	13.45	91	846787	9.84	ppbv		
44) 2-Hexanone	13.59	43	564290	10.80	ppbv	#	96
46) Dibromochloromethane	13.86	129	654992	9.79	ppbv		99
47) 1,2-Dibromoethane (EDB)	14.11	107	573365	8.94	ppbv		99
48) Tetrachloroethene	14.55	166	531165	8.83	ppbv		93
49) Chlorobenzene	15.21	112	759370	9.18	ppbv		96
50) Ethylbenzene	15.55	91	1197673	9.85	ppbv		
51) m,p-Xylene	15.73	91	2181204	20.51	ppbv		96
52) Bromoform	15.85	173	662200	8.64	ppbv		100
53) Styrene	16.10	104	670283	10.28	ppbv		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\0201002.D
Acq On : 3 Apr 2024 5:29 pm
Sample : BFB/CCV 10PPBV
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 3 20:33 2024

Vial: 2
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

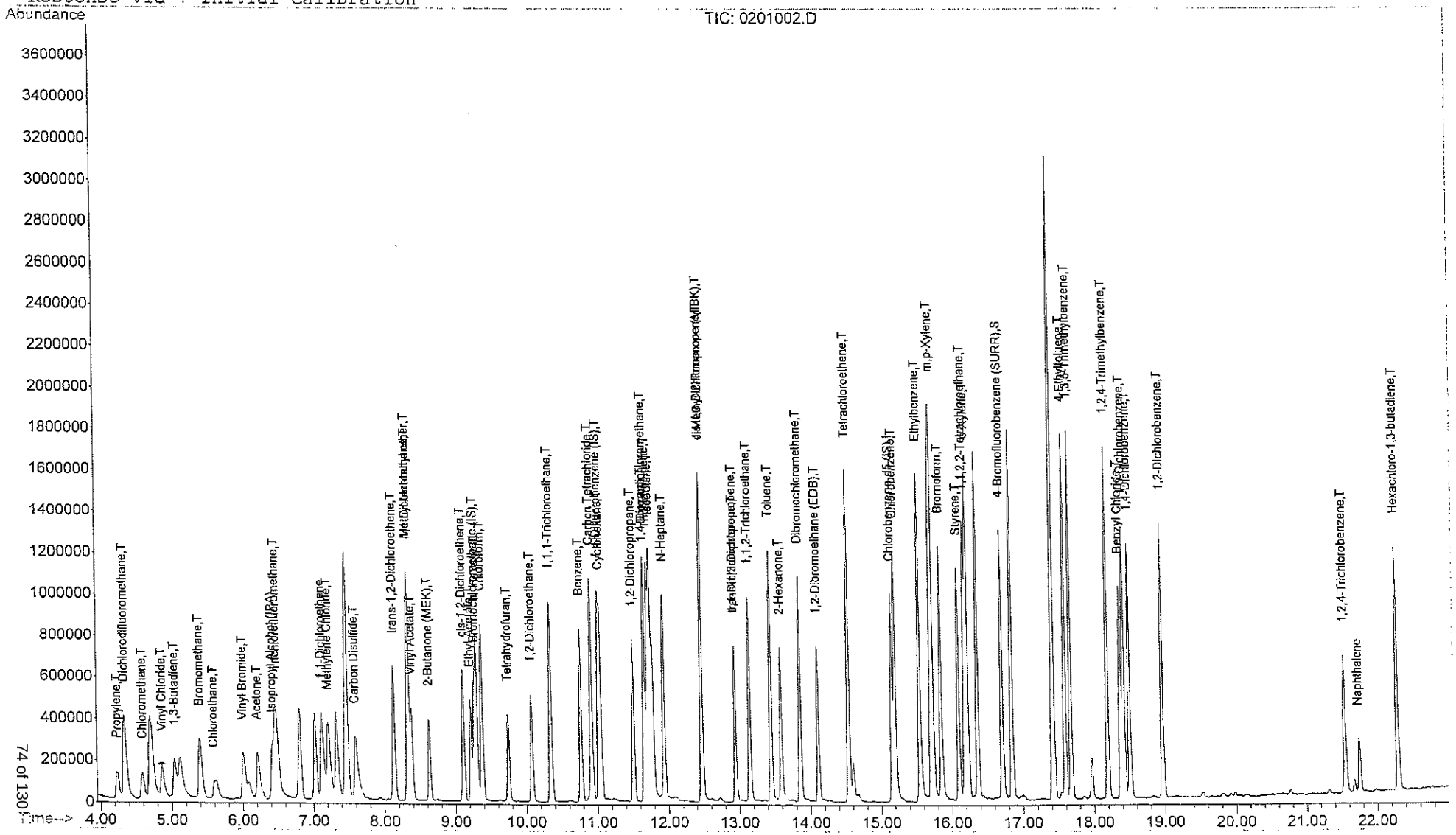
Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 28 14:56:42 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
54) 1,1,2,2-Tetrachloroethane	16.19	83	764253	10.16	ppbv	98
55) o-Xylene	16.23	106	473751	9.50	ppbv	87
57) 4-Ethyltoluene	17.59	105	1370795	10.49	ppbv	97
58) 1,3,5-Trimethylbenzene	17.68	105	1137534	10.30	ppbv	95
59) 1,2,4-Trimethylbenzene	18.20	105	1124244	10.28	ppbv	94
60) 1,3-Dichlorobenzene	18.43	146	667230	8.90	ppbv	98
61) Benzyl Chloride	18.38	91	923328	9.69	ppbv	99
62) 1,4-Dichlorobenzene	18.51	148	386851	9.35	ppbv	92
63) 1,2-Dichlorobenzene	18.97	146	665599	9.62	ppbv	97
64) 1,2,4-Trichlorobenzene	21.55	180	98749	9.51	ppbv	
65) Naphthalene	21.76	128	115298	9.39	ppbv	
66) Hexachloro-1,3-butadiene	22.30	225	242038	9.52	ppbv	98

Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\0201002.D Vial: 2
Acq On : 3 Apr 2024 5:29 pm Operator: TJG
Sample : BFB/CCV 10PPBV Inst : GC/MS Ins
Misc : TO-15 ANALYSIS Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 20:33 2024 Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



0201002.D 031424AI.M Thu Apr 11 09:22:00 2024 6890

GC/MS QA-QC Check Report

Tune File : C:\HPCHEM\1\DATA\040324\0201002.D
Tune Time : 3 Apr 2024 5:29 pm

Daily Calibration File : C:\HPCHEM\1\DATA\040324\0201002.D

			161500	702786	616201
File	Sample	Surrogate Recovery %	Internal Standard Responses		
0301003.D	LCS 10P	103	158057	699174	640363
0401004.D	LCSDD 10	94	131763	618784	539371
0501005.D	METHOD B	97	105838	529695	527321
0701001.D	24-1007	105	161163	713385	591243
0801002.D	24-998	98	158768	728874	623932
0901003.D	24-999	106	160606	722620	608003
1001004.D	24-1000	100	161409	708284	623757
1101005.D	24-1002	104	163155	734840	610403
1201006.D	24-1003	101	168221	734172	632053
1301007.D	24-1004	98	161100	731815	621865
1401008.D	24-1001	97	158192	750134	626762
1501009.D	24-1005	116	160093	763522	603124
1601010.D	24-1006	102	160107	514504	603017
1901015.D	24-1008	107	153634	690523	579942

t - fails 24hr time check * - fails criteria

Created: Fri Apr 12 00:30:21 2024 GC
MS Ins

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TO-15 VOC
Quality Control Data

- Method Blank (MB)
- Laboratory Control Standard (LCS)

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\0301003.D
Acq On : 3 Apr 2024 6:14 pm
Sample : LCS 10PPBV
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 3 20:35 2024

Vial: 3
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 28 14:56:42 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS)	9.28	128	158057	5.00	ppbv		0.00
25) 1,4-Difluorobenzene (IS)	11.03	114	699174	5.00	ppbv		0.00
45) Chlorobenzene-d5 (IS)	15.16	117	640363	5.00	ppbv		0.00
System Monitoring Compounds							
56) 4-Bromofluorobenzene (SURR	16.71	95	476821	5.15	ppbv		0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 103.00%				
Target Compounds							Qvalue
2) Propylene	4.24	39	108764	9.24	ppbv		98
3) Dichlorodifluoromethane	4.34	85	868561	9.96	ppbv		99
4) Chloromethane	4.59	50	230361	10.06	ppbv		100
5) Vinyl Chloride	4.86	62	273186	9.85	ppbv		99
6) 1,3-Butadiene	5.04	39	161969	10.54	ppbv		
7) Bromomethane	5.40	94	347630	10.57	ppbv		94
8) Chloroethane	5.59	64	139784	9.95	ppbv		98
9) Vinyl Bromide	6.01	106	324426	10.34	ppbv		98
10) Trichlorofluoromethane	6.47	101	849266	10.65	ppbv		99
11) Acetone	6.22	43	529664	10.27	ppbv	#	98
12) Isopropyl Alcohol (IPA)	6.42	45	340714	9.33	ppbv		
13) 1,1-Dichloroethene	7.13	61	490562	10.53	ppbv		95
14) Methylene Chloride	7.22	84	289393	10.67	ppbv		93
15) Carbon Disulfide	7.60	76	835212	9.67	ppbv		
16) trans-1,2-Dichloroethene	8.14	96	333115	10.63	ppbv		93
17) Methyl-tert-butyl ether	8.34	73	890460	10.59	ppbv	#	98
18) 1,1-Dichloroethane	8.33	63	540034	10.13	ppbv		99
19) Vinyl Acetate	8.39	43	640713	10.62	ppbv		
20) N-Hexane	9.31	57	336279	10.21	ppbv		97
21) 2-Butanone (MEK)	8.63	43	375755	9.64	ppbv		
22) cis-1,2-Dichloroethene	9.11	61	346778	9.91	ppbv		
23) Ethyl Acetate	9.22	43	489581	9.97	ppbv		
24) Chloroform	9.38	83	654064	9.57	ppbv		
26) Tetrahydrofuran	9.75	42	280422	10.40	ppbv		89
27) 1,2-Dichloroethane	10.08	62	492673	9.17	ppbv		97
28) 1,1,1-Trichloroethane	10.35	97	735618	9.11	ppbv		99
29) 1,1-Dichloropropene	12.95	75	504631	8.81	ppbv		97
30) Carbon Tetrachloride	10.92	117	734017	9.69	ppbv		100
31) Benzene	10.77	78	834309	10.08	ppbv		96
32) Cyclohexane	11.05	56	497690	9.39	ppbv		
33) 1,2-Dichloropropane	11.50	63	275421	10.47	ppbv		90
34) Trichloroethene	11.71	95	430069	10.40	ppbv		93
35) Bromodichloromethane	11.67	83	726168	9.75	ppbv		98
36) 1,4-Dioxane	11.66	88	201833	9.58	ppbv		89
37) Isooctane	11.75	57	1127809	10.17	ppbv	#	96
38) N-Heptane	11.94	43	371663	10.61	ppbv		
39) cis-1,3-Dichloropropene	12.48	75	476451	10.11	ppbv		
40) 4-Methyl-2-Penanone (MIBK)	12.47	43	452130	9.78	ppbv		
41) trans-1,3-Dichloropropene	12.95	75	504631	10.06	ppbv		97
42) 1,1,2-Trichloroethane	13.15	83	311209	9.85	ppbv		98
43) Toluene	13.45	91	879780	10.27	ppbv		
44) 2-Hexanone	13.59	43	570787	10.98	ppbv		95
46) Dibromochloromethane	13.86	129	684499	9.84	ppbv		99
47) 1,2-Dibromoethane (EDB)	14.11	107	605663	9.08	ppbv		99
48) Tetrachloroethene	14.55	166	565628	9.05	ppbv		97
49) Chlorobenzene	15.20	112	815017	9.48	ppbv		97
50) Ethylbenzene	15.55	91	1247375m	9.87	ppbv		
51) m,p-Xylene	15.72	91	2219380	20.09	ppbv		97
52) Bromoform	15.85	173	680888	8.55	ppbv		99
53) Styrene	16.11	104	723110	10.67	ppbv		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\0301003.D
Acq On : 3 Apr 2024 6:14 pm
Sample : LCS 10PPBV
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 3 20:35 2024

Vial: 3
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 28 14:56:42 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

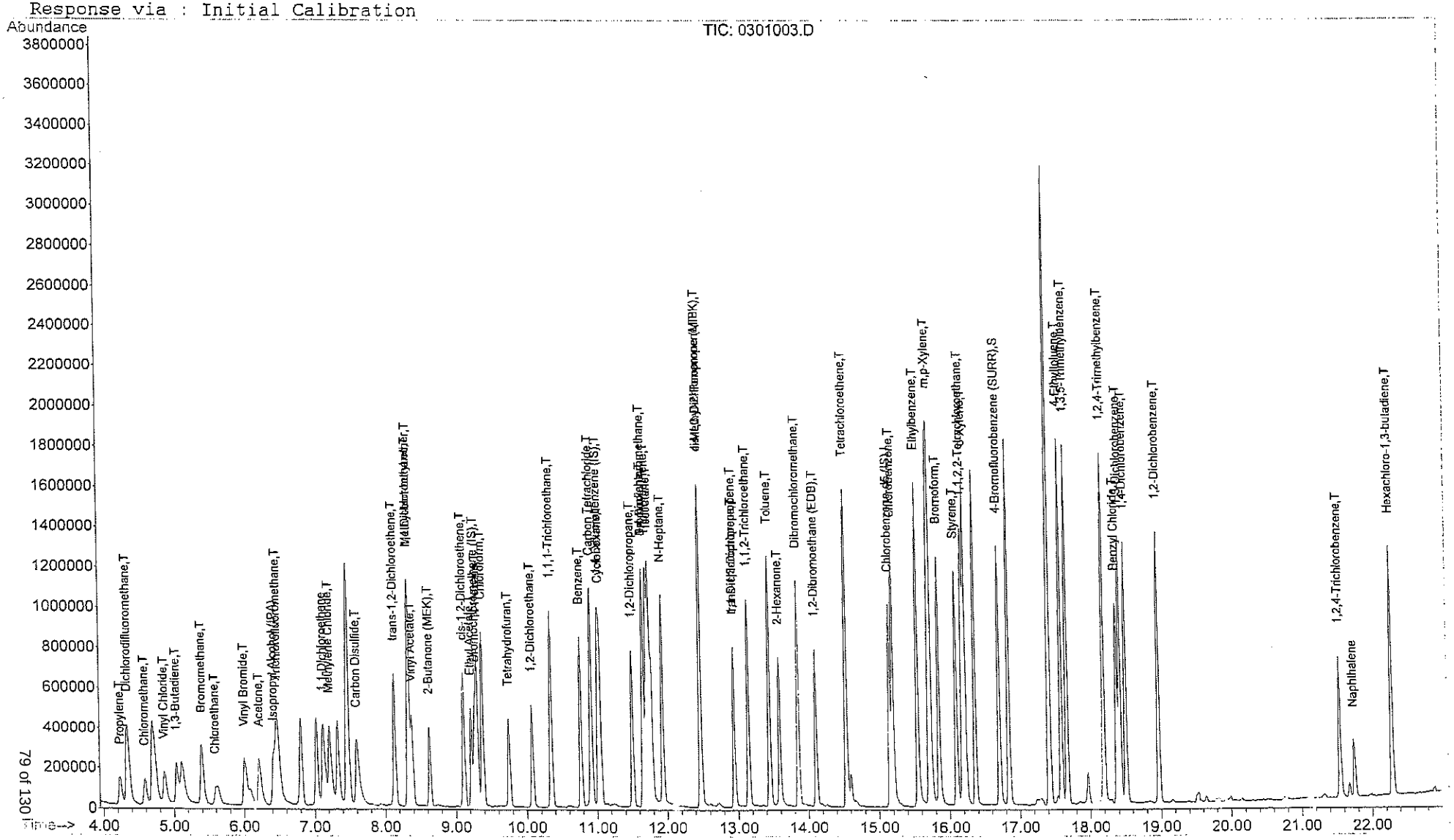
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
54) 1,1,2,2-Tetrachloroethane	16.19	83	789294	10.10	ppbv	98
55) o-Xylene	16.23	106	504558	9.73	ppbv	89
57) 4-Ethyltoluene	17.59	105	1441018	10.62	ppbv	96
58) 1,3,5-Trimethylbenzene	17.68	105	1171316	10.20	ppbv	95
59) 1,2,4-Trimethylbenzene	18.20	105	1162969	10.23	ppbv	96
60) 1,3-Dichlorobenzene	18.43	146	680559	8.74	ppbv	97
61) Benzyl Chloride	18.38	91	906368	9.16	ppbv	100
62) 1,4-Dichlorobenzene	18.51	148	413803	9.63	ppbv	92
63) 1,2-Dichlorobenzene	18.97	146	699063	9.73	ppbv	99
64) 1,2,4-Trichlorobenzene	21.55	180	102601	9.51	ppbv	
65) Naphthalene	21.75	128	120061	9.41	ppbv	
66) Hexachloro-1,3-butadiene	22.30	225	253269	9.58	ppbv	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\0301003.D Vial: 3
Acq On : 3 Apr 2024 6:14 pm Operator: TJG
Sample : LCS 10PPBV Inst : GC/MS Ins
Misc : TO-15 ANALYSIS Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 20:35 2024 Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\0401004.D
Acq On : 3 Apr 2024 6:59 pm
Sample : LCSDD 10PPBV
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 11 9:24 2024

Vial: 4
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 28 14:56:42 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS)	9.28	128	131763	5.00	ppbv		0.00
25) 1,4-Difluorobenzene (IS)	11.02	114	618784	5.00	ppbv		0.00
45) Chlorobenzene-d5 (IS)	15.17	117	539371	5.00	ppbv		0.00
System Monitoring Compounds							
56) 4-Bromofluorobenzene (SURR	16.72	95	364932	4.68	ppbv		0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 93.60%				
Target Compounds							Qvalue
2) Propylene	4.24	39	91260	9.30	ppbv		
3) Dichlorodifluoromethane	4.34	85	727084	10.00	ppbv		
4) Chloromethane	4.59	50	183582	9.62	ppbv		
5) Vinyl Chloride	4.87	62	219628	9.50	ppbv		
6) 1,3-Butadiene	5.04	39	113404	8.85	ppbv		
7) Bromomethane	5.41	94	247700	9.03	ppbv		
8) Chloroethane	5.61	64	101273	8.65	ppbv		
9) Vinyl Bromide	6.01	106	245677	9.40	ppbv		
10) Trichlorofluoromethane	6.48	101	664407	10.00	ppbv		
11) Acetone	6.23	43	416233	9.68	ppbv		
12) Isopropyl Alcohol (IPA)	6.43	45	311592	10.24	ppbv		
13) 1,1-Dichloroethene	7.13	61	422559	10.88	ppbv		98
14) Methylene Chloride	7.22	84	233013	10.31	ppbv		
15) Carbon Disulfide	7.61	76	736337	10.22	ppbv		
16) trans-1,2-Dichloroethene	8.14	96	257777	9.87	ppbv		
17) Methyl-tert-butyl ether	8.35	73	616695	8.80	ppbv		
18) 1,1-Dichloroethane	8.34	63	421253	9.48	ppbv		
19) Vinyl Acetate	8.39	43	481941	9.58	ppbv		
20) N-Hexane	9.31	57	298836	10.88	ppbv		98
21) 2-Butanone (MEK)	8.64	43	326162	10.04	ppbv		
22) cis-1,2-Dichloroethene	9.11	61	303276	10.40	ppbv		
23) Ethyl Acetate	9.23	43	420358	10.27	ppbv		
24) Chloroform	9.38	83	573167	10.06	ppbv		
26) Tetrahydrofuran	9.75	42	228708	9.58	ppbv		90
27) 1,2-Dichloroethane	10.08	62	458964	9.66	ppbv		
28) 1,1,1-Trichloroethane	10.36	97	652696	9.13	ppbv		
29) 1,1-Dichloropropene	12.95	75	486821	9.60	ppbv		
30) Carbon Tetrachloride	10.92	117	637101	9.50	ppbv		99
31) Benzene	10.78	78	707128	9.66	ppbv		97
32) Cyclohexane	11.05	56	462882	9.86	ppbv		
33) 1,2-Dichloropropane	11.51	63	226873	9.74	ppbv		94
34) Trichloroethene	11.72	95	372653	10.18	ppbv		94
35) Bromodichloromethane	11.67	83	629006	9.54	ppbv		98
36) 1,4-Dioxane	11.66	88	176132	9.44	ppbv		91
37) Isooctane	11.76	57	994122	10.13	ppbv	#	96
38) N-Heptane	11.95	43	319959	10.32	ppbv		
39) cis-1,3-Dichloropropene	12.48	75	414263	9.93	ppbv		
40) 4-Methyl-2-Penanone (MIBK)	12.47	43	425019	10.39	ppbv		
41) trans-1,3-Dichloropropene	12.95	75	443223	9.98	ppbv		98
42) 1,1,2-Trichloroethane	13.16	83	259103	9.27	ppbv		99
43) Toluene	13.45	91	773257m	10.20	ppbv		
44) 2-Hexanone	13.60	43	499090	10.85	ppbv		96
46) Dibromochloromethane	13.86	129	608465	10.39	ppbv		98
47) 1,2-Dibromoethane (EDB)	14.12	107	528449	9.41	ppbv		99
48) Tetrachloroethene	14.55	166	498774	9.47	ppbv		97
49) Chlorobenzene	15.21	112	703733	9.72	ppbv		96
50) Ethylbenzene	15.56	91	1106721	10.40	ppbv		
51) m,p-Xylene	15.73	91	1944467	20.89	ppbv		
52) Bromoform	15.86	173	633627	9.44	ppbv		99
53) Styrene	16.10	104	587769	10.30	ppbv		

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\0401004.D
Acq On : 3 Apr 2024 6:59 pm
Sample : LCSDD 10PPBV
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 11 9:24 2024

Vial: 4
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 28 14:56:42 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
54) 1,1,2,2-Tetrachloroethane	16.19	83	655385	9.96	ppbv	
55) o-Xylene	16.23	106	449856	10.30	ppbv	89
57) 4-Ethyltoluene	17.60	105	1197155	10.47	ppbv	
58) 1,3,5-Trimethylbenzene	17.68	105	996092	10.30	ppbv	
59) 1,2,4-Trimethylbenzene	18.20	105	943897	9.86	ppbv	
60) 1,3-Dichlorobenzene	18.43	146	632464	9.64	ppbv	97
61) Benzyl Chloride	18.39	91	863019	10.35	ppbv	99
62) 1,4-Dichlorobenzene	18.52	148	380979	10.53	ppbv	94
63) 1,2-Dichlorobenzene	18.97	146	626958	10.36	ppbv	98
64) 1,2,4-Trichlorobenzene	21.56	180	91741	10.09	ppbv	
65) Naphthalene	21.76	128	109184	10.16	ppbv	
66) Hexachloro-1,3-butadiene	22.30	225	228519	10.27	ppbv	99

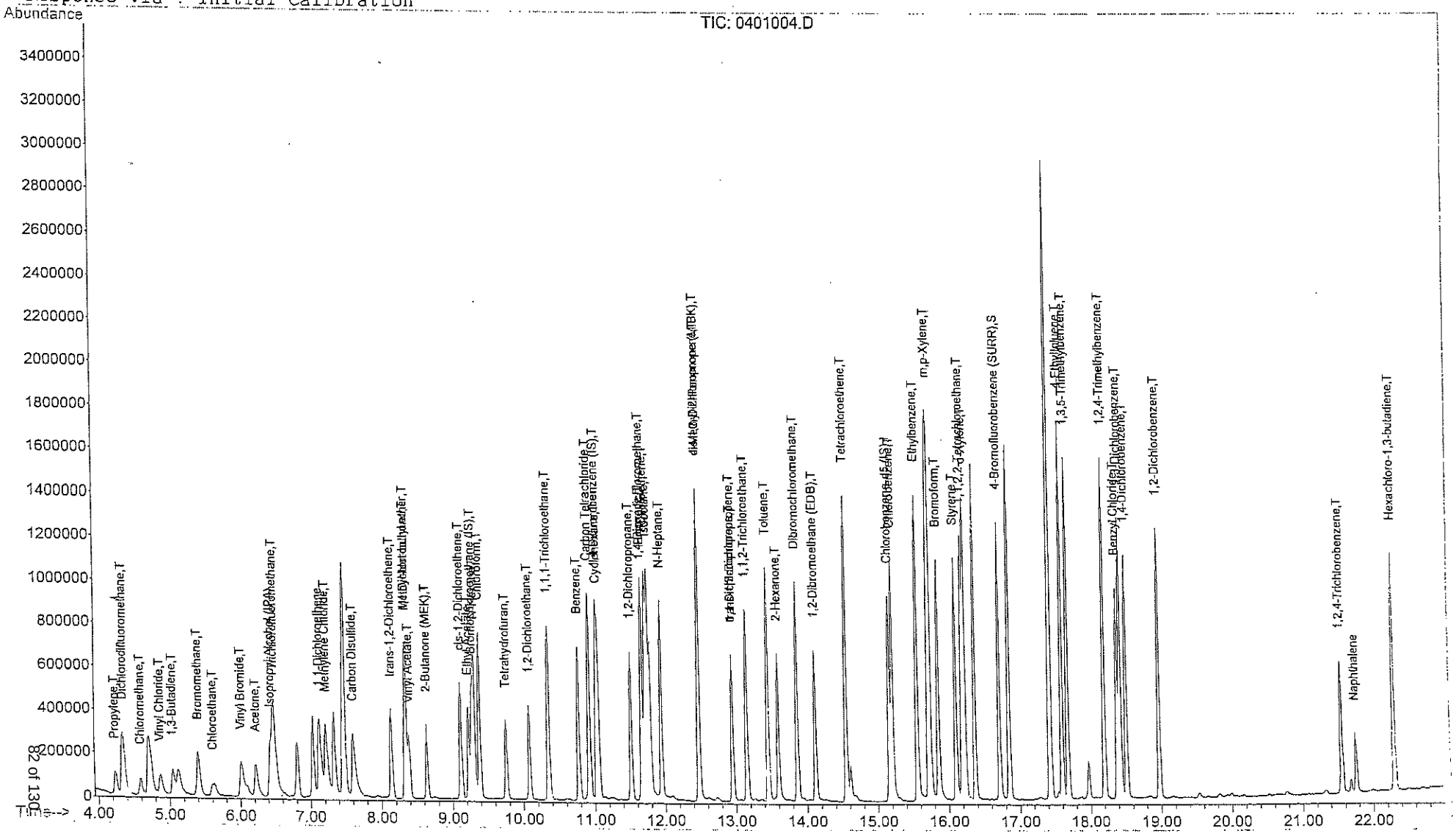
Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\0401004.D
Acq On : 3 Apr 2024 6:59 pm
Sample : LCSDD 10PPBV
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 11 9:24 2024

Vial: 4
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\0501005.D
Acq On : 3 Apr 2024 7:41 pm
Sample : METHOD BLANK
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 11 9:21 2024

Vial: 5
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.28	128	105838	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.02	114	529695	5.00	ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.15	117	527321	5.00	ppbv	0.00
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.70	95	369791	4.85	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 97.00%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration
0501005.D 031424AI.M Thu Apr 11 09:24:59 2024 6890

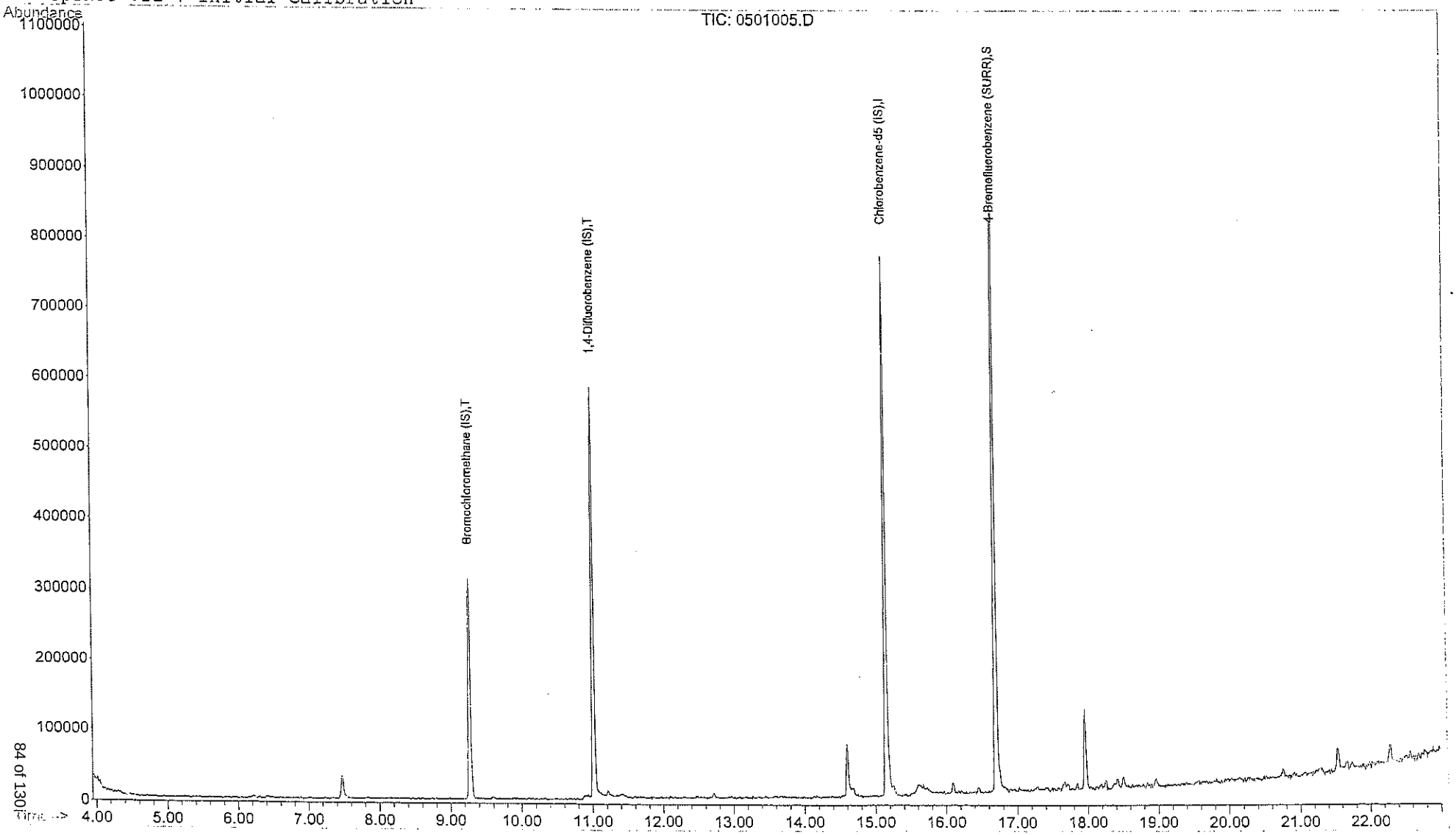
Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\0501005.D
Acq On : 3 Apr 2024 7:41 pm
Sample : METHOD BLANK
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 11 9:21 2024

Vial: 5
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



ENVISIONAIR

TO-15 VOC

- Raw Sample Data

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\0801002.D
Acq On : 3 Apr 2024 9:43 pm
Sample : 24-998
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:18 2024

Vial: 8
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.27	128	158768	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.02	114	728874	5.00	ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.16	117	623932	5.00	ppbv	0.00
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.71	95	442545	4.90	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 98.00%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration
0801002.D 031424AI.M Fri Apr 12 00:30:53 2024 6890

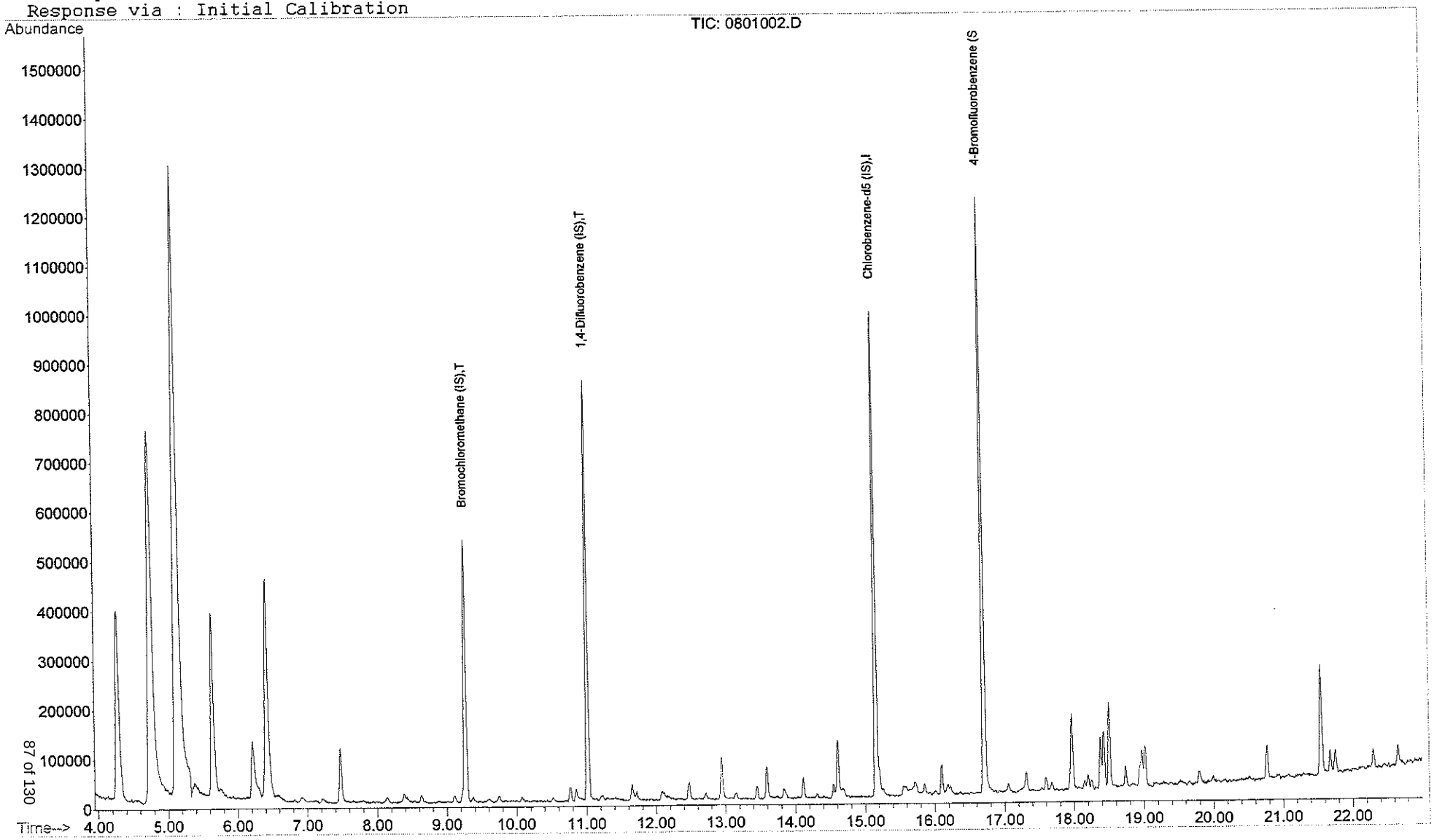
Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\0801002.D
Acq On : 3 Apr 2024 9:43 pm
Sample : 24-998
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:18 2024

Vial: 8
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\0901003.D
Acq On : 3 Apr 2024 10:27 pm
Sample : 24-999
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:19 2024

Vial: 9
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.26	128	160606	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.01	114	722620	5.00	ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.15	117	608003	5.00	ppbv	0.00
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.70	95	467180	5.31	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 106.20%			
Target Compounds						Qvalue
26) Tetrahydrofuran	9.74	42	104081	3.73	ppbv	87

(#) = qualifier out of range (m) = manual integration
0901003.D 031424AI.M Fri Apr 12 00:30:55 2024 6890

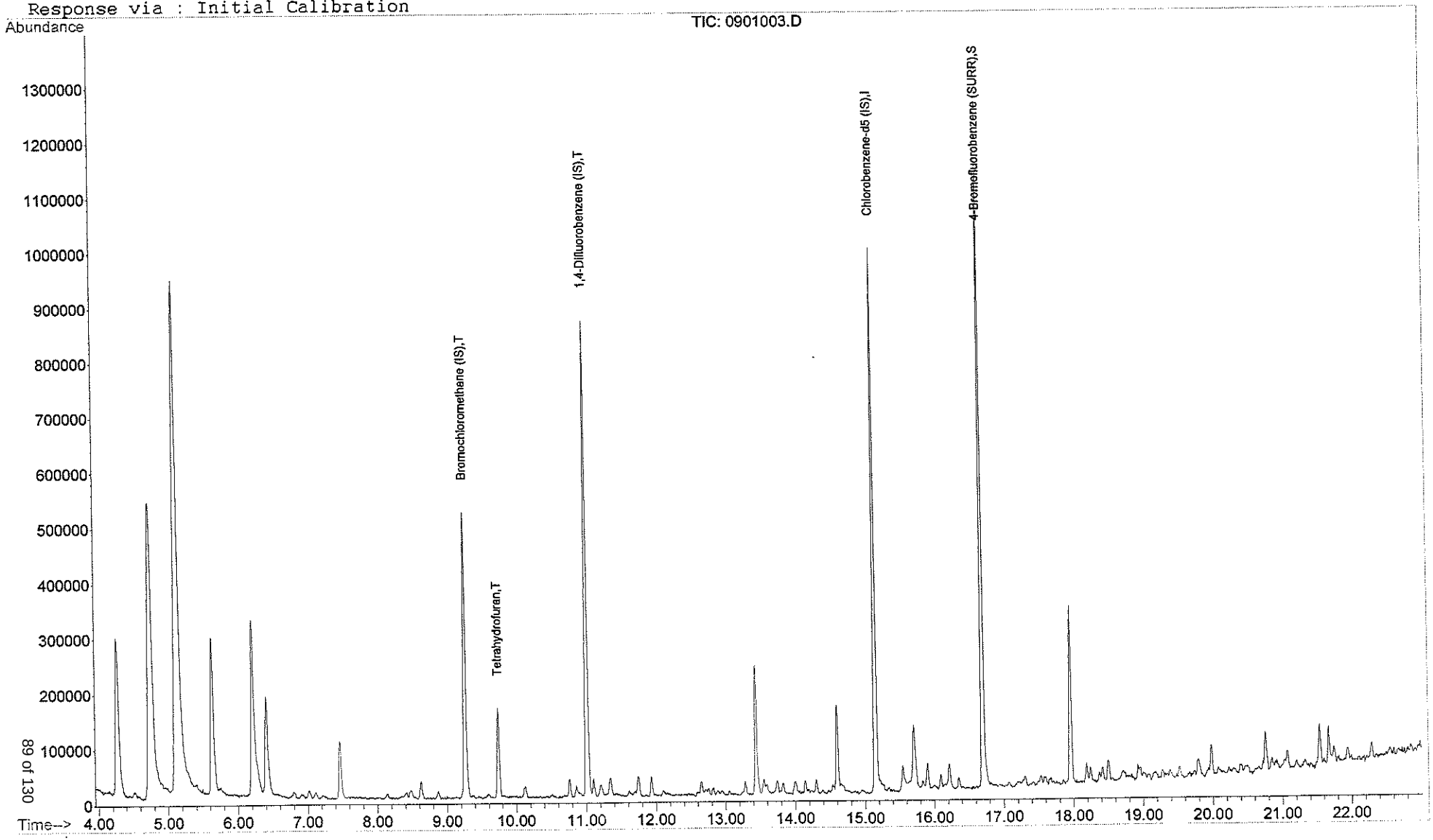
Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\0901003.D
Acq On : 3 Apr 2024 10:27 pm
Sample : 24-999
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:19 2024

Vial: 9
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\1001004.D
Acq On : 3 Apr 2024 11:11 pm
Sample : 24-1000
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:19 2024

Vial: 10
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.26	128	161409	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.01	114	708284	5.00	ppbv	-0.01
45) Chlorobenzene-d5 (IS)	15.14	117	623757	5.00	ppbv	-0.02
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.69	95	449532	4.98	ppbv	-0.02
Spiked Amount 5.000	Range 62 - 145		Recovery = 99.60%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration

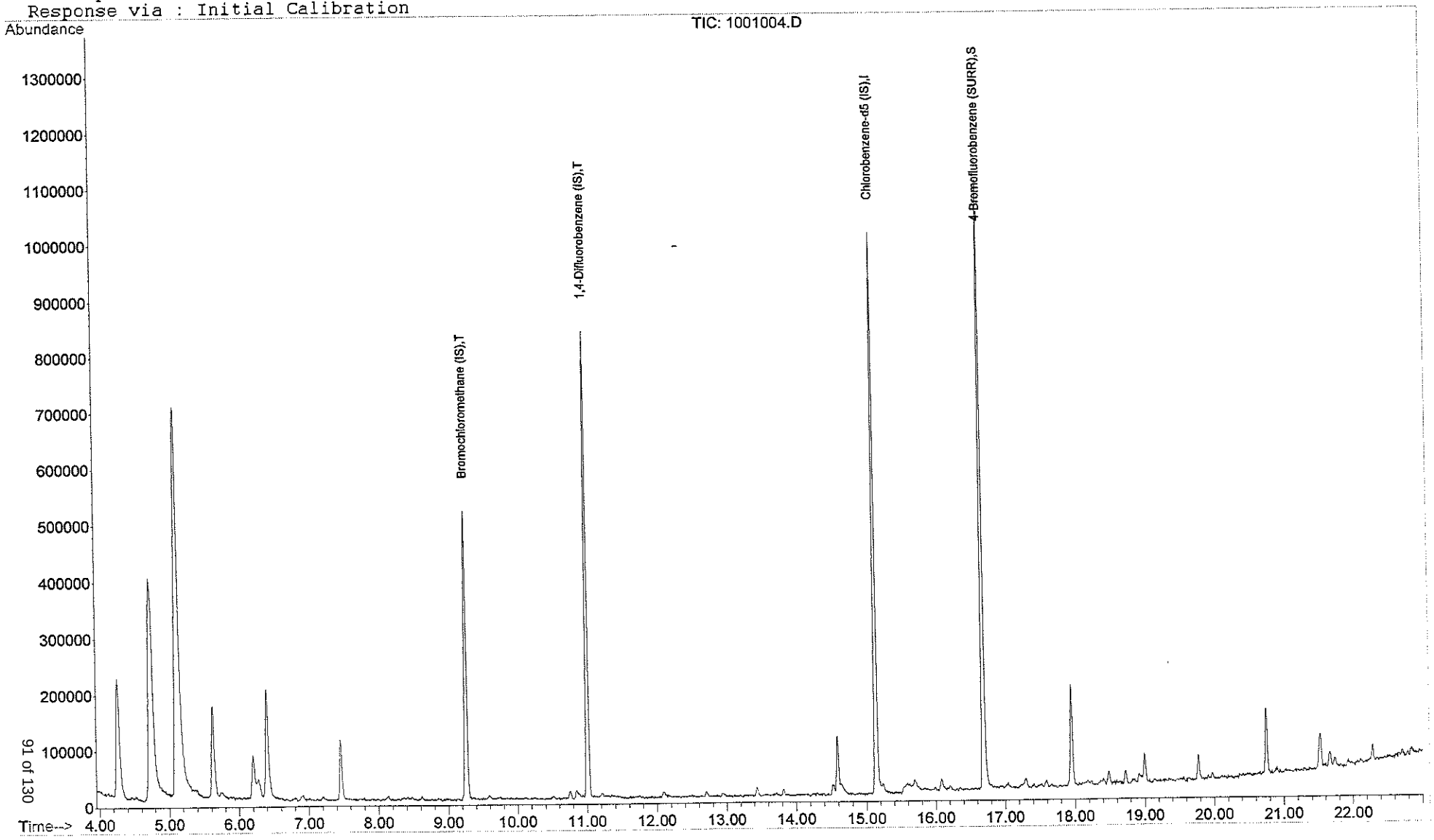
Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\1001004.D
Acq On : 3 Apr 2024 11:11 pm
Sample : 24-1000
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:19 2024

Vial: 10
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\1401008.D
Acq On : 4 Apr 2024 2:06 am
Sample : 24-1001
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:23 2024

Vial: 14
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.26	128	158192	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.01	114	750134	5.00	ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.15	117	626762	5.00	ppbv	-0.01
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.70	95	439548	4.85	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 97.00%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration
1401008.D 031424AI.M Fri Apr 12 00:31:05 2024 6890

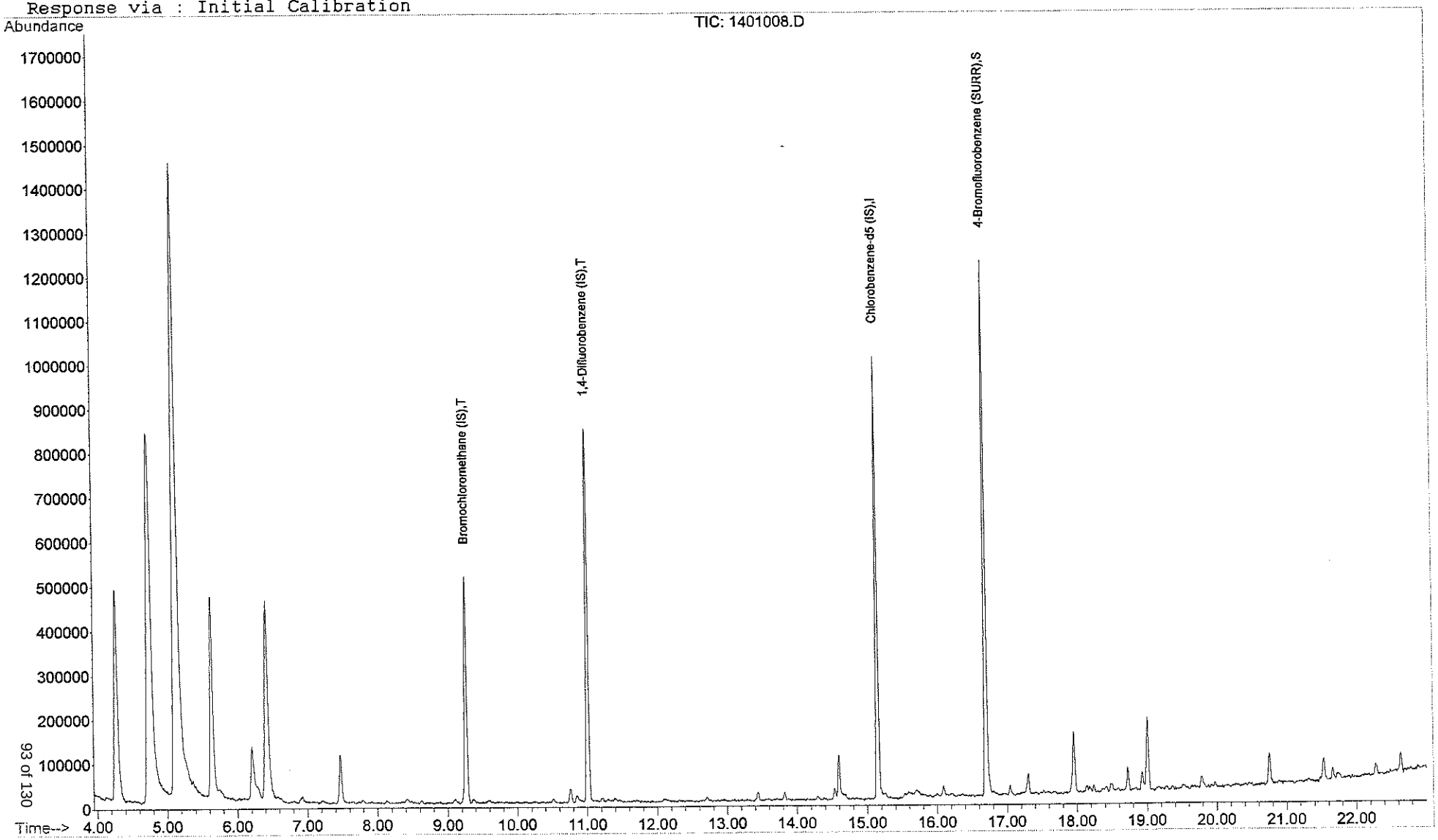
Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\1401008.D
Acq On : 4 Apr 2024 2:06 am
Sample : 24-1001
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:23 2024

Vial: 14
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\1101005.D
Acq On : 3 Apr 2024 11:54 pm
Sample : 24-1002
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:20 2024

Vial: 11
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.26	128	163155	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.01	114	734840	5.00	ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.15	117	610403	5.00	ppbv	-0.01
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.69	95	457856	5.19	ppbv	-0.02
Spiked Amount 5.000	Range 62 - 145		Recovery = 103.80%			
Target Compounds						Qvalue
26) Tetrahydrofuran	9.73	42	120241	4.24	ppbv	91
48) Tetrachloroethene	14.53	166	256663	4.31	ppbv	95

(#) = qualifier out of range (m) = manual integration

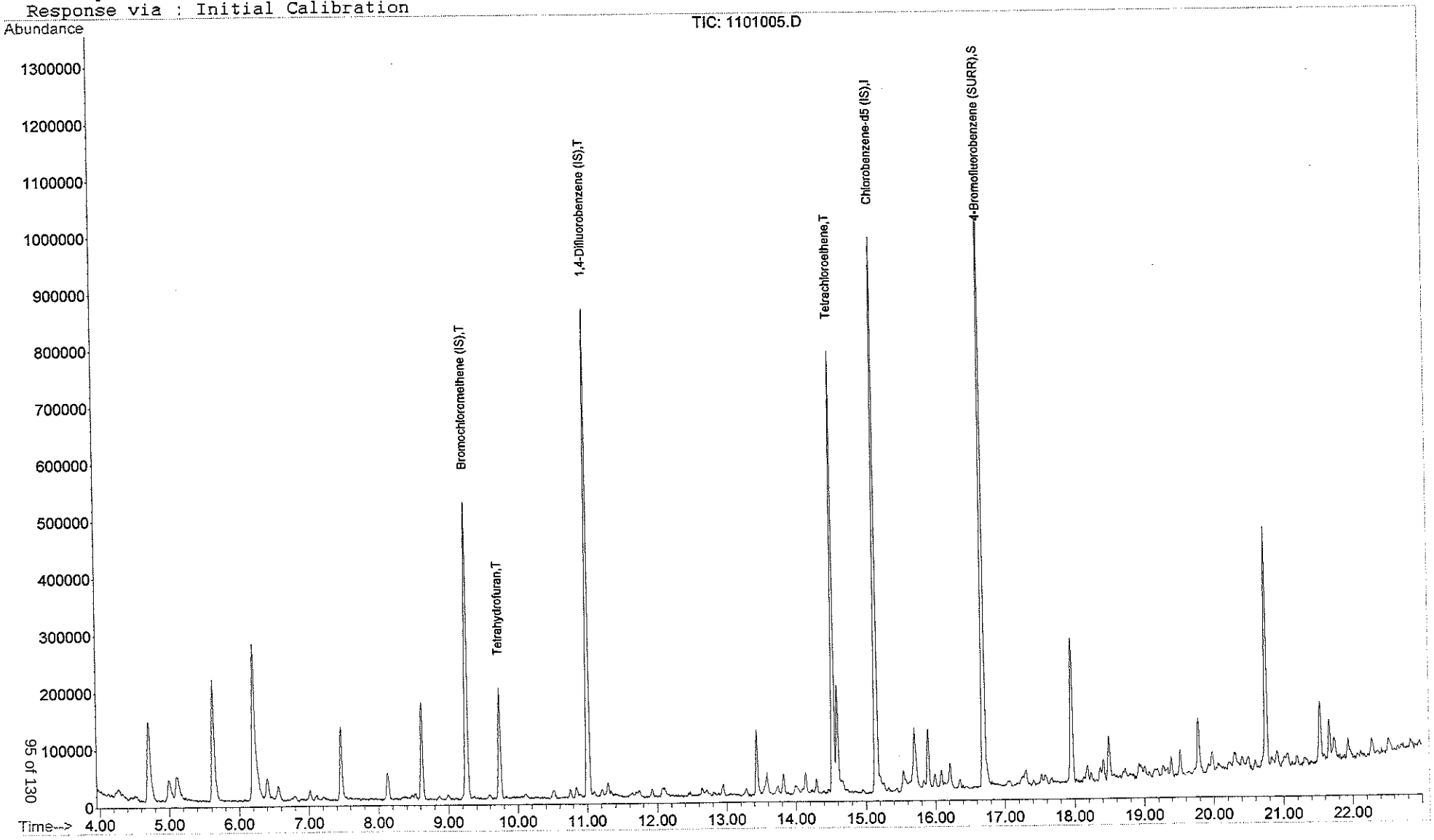
Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\1101005.D
Acq On : 3 Apr 2024 11:54 pm
Sample : 24-1002
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:20 2024

Vial: 11
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\1201006.D
Acq On : 4 Apr 2024 12:38 am
Sample : 24-1003
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:22 2024

Vial: 12
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS)	9.26	128	168221	5.00	ppbv		-0.01
25) 1,4-Difluorobenzene (IS)	11.01	114	734172	5.00	ppbv		-0.01
45) Chlorobenzene-d5 (IS)	15.15	117	632053	5.00	ppbv		-0.01
System Monitoring Compounds							
56) 4-Bromofluorobenzene (SURR	16.70	95	459658	5.03	ppbv		0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 100.60%				
Target Compounds							Qvalue
26) Tetrahydrofuran	9.74	42	128641	4.54	ppbv		88
31) Benzene	10.76	78	19877	0.23	ppbv	#	92
48) Tetrachloroethene	14.53	166	127776	2.07	ppbv		
50) Ethylbenzene	15.53	91	34032	0.27	ppbv	#	96

(#) = qualifier out of range (m) = manual integration

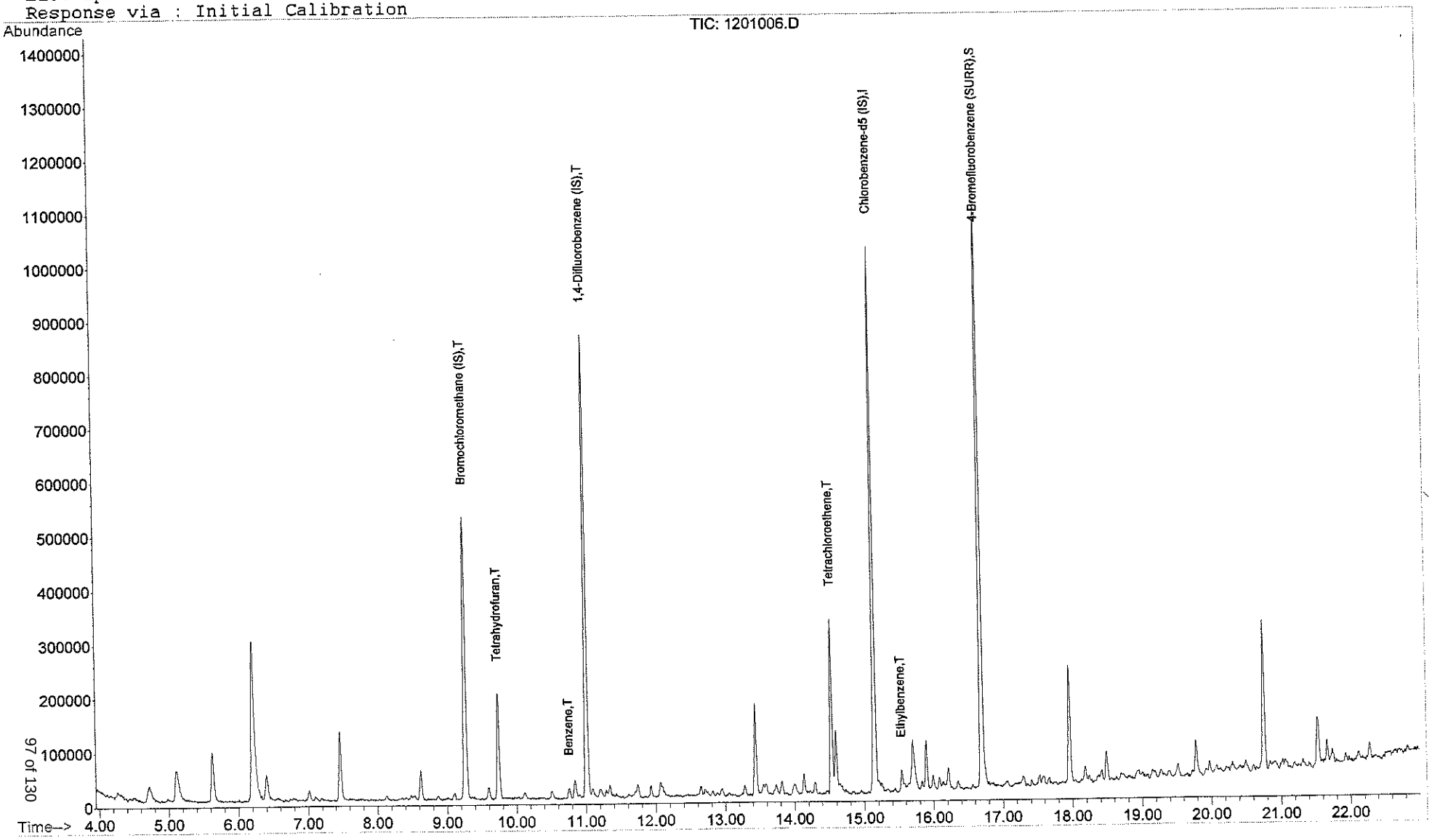
Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\1201006.D
Acq On : 4 Apr 2024 12:38 am
Sample : 24-1003
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:22 2024

Vial: 12
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\1301007.D
Acq On : 4 Apr 2024 1:22 am
Sample : 24-1004
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:22 2024

Vial: 13
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.26	128	161100	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.01	114	731815	5.00	ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.15	117	621865	5.00	ppbv	0.00
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.70	95	440273	4.89	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 97.80%			
Target Compounds						Qvalue
26) Tetrahydrofuran	9.74	42	65811	2.33	ppbv	# 88

(#) = qualifier out of range (m) = manual integration

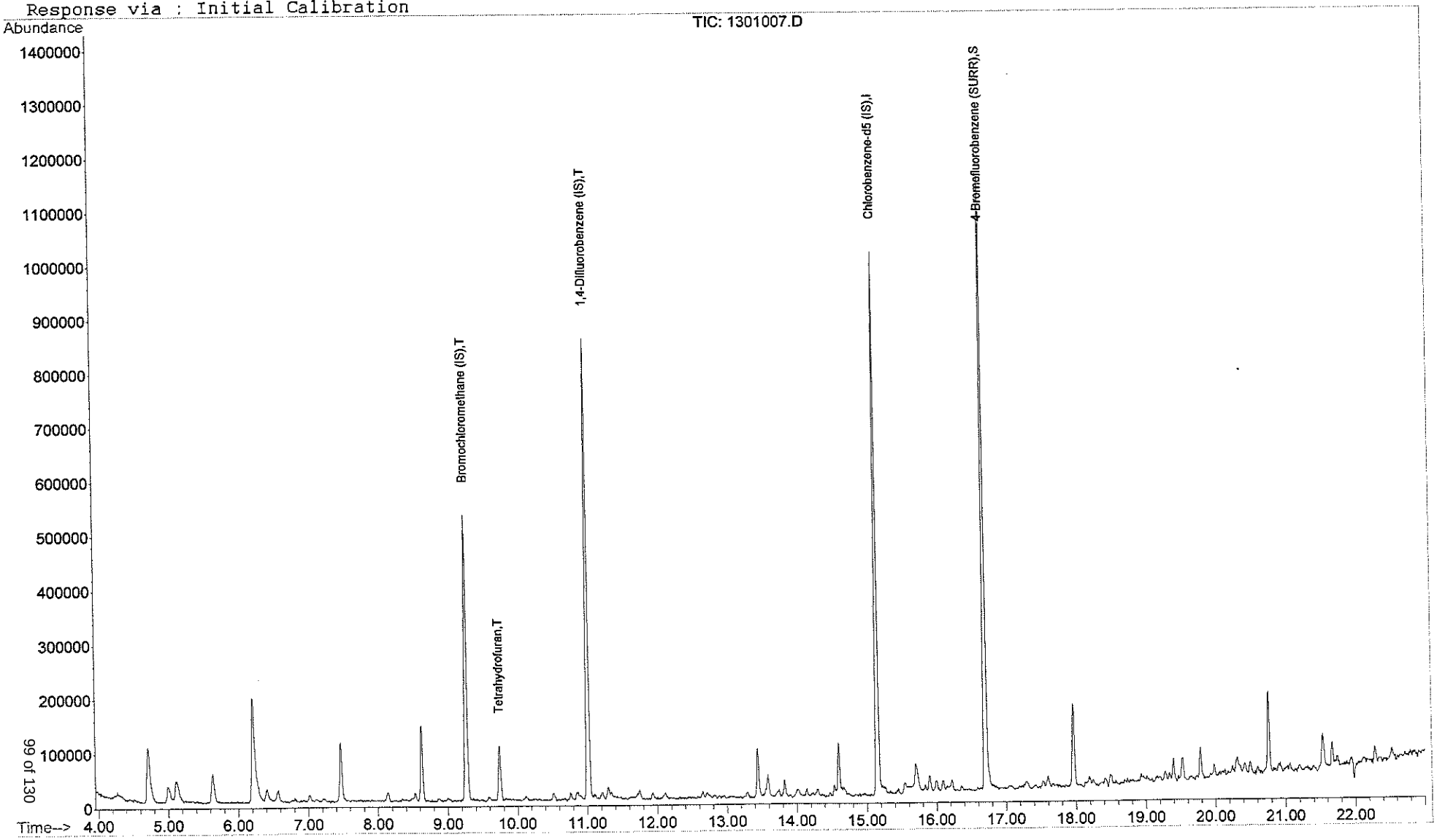
Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\1301007.D
Acq On : 4 Apr 2024 1:22 am
Sample : 24-1004
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:22 2024

Vial: 13
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\1501009.D
Acq On : 4 Apr 2024 2:51 am
Sample : 24-1005
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:26 2024

Vial: 15
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.27	128	160093	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.01	114	763522	5.00	ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.15	117	603124	5.00	ppbv	0.00
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.70	95	507949	5.82	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 116.40%			
Target Compounds						Qvalue
26) Tetrahydrofuran	9.75	42	68319	2.32	ppbv	# 87

(#) = qualifier out of range (m) = manual integration
1501009.D 031424AI.M Fri Apr 12 00:31:27 2024 6890

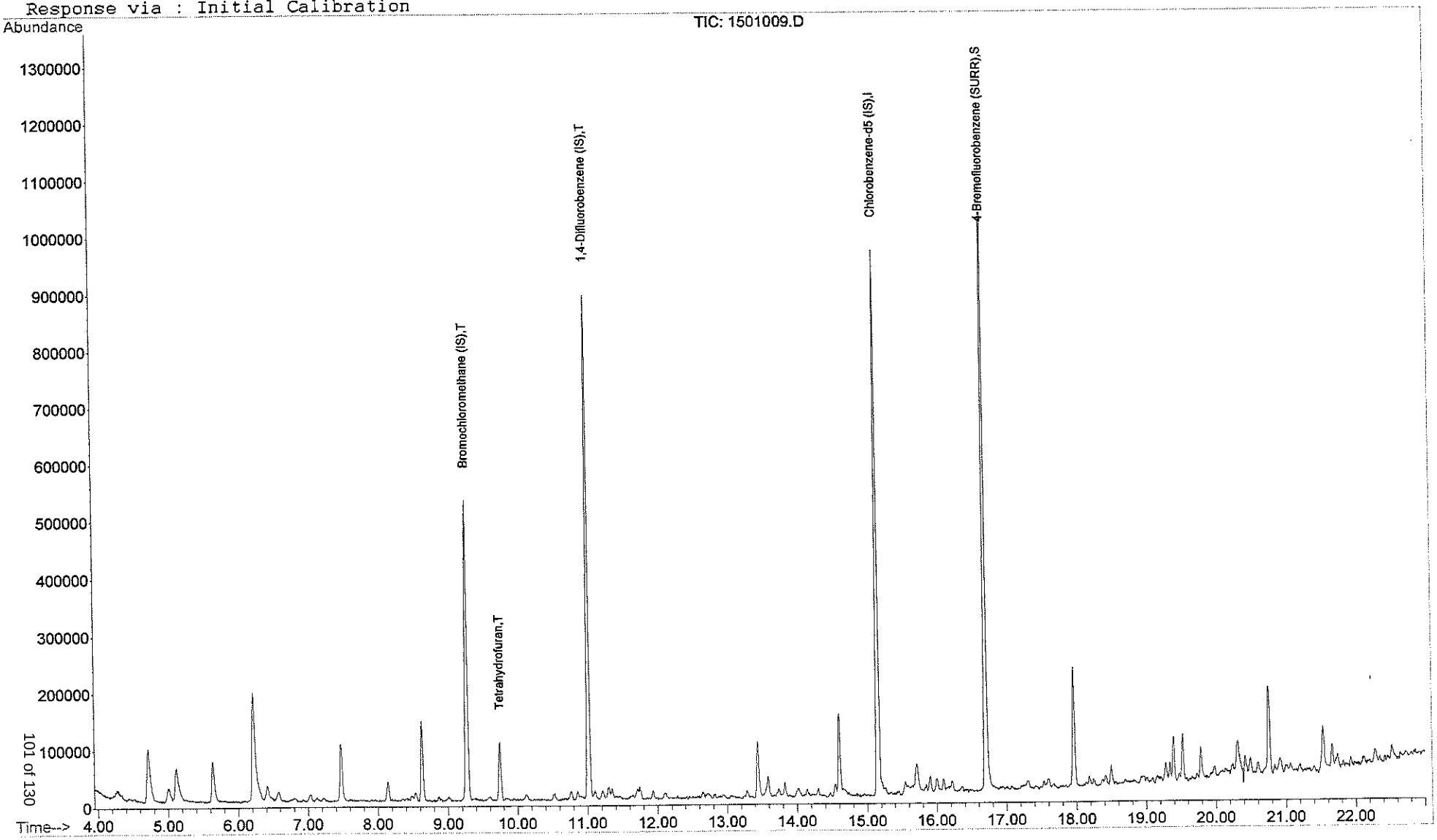
Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\1501009.D
Acq On : 4 Apr 2024 2:51 am
Sample : 24-1005
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:26 2024

Vial: 15
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\1601010.D
Acq On : 4 Apr 2024 3:37 am
Sample : 24-1006
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:27 2024

Vial: 16
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.26	128	160107	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.01	114	514504	5.00	ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.15	117	603017	5.00	ppbv	-0.01
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.70	95	442983	5.08	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 101.60%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration
1601010.D 031424AI.M Fri Apr 12 00:31:36 2024 6890

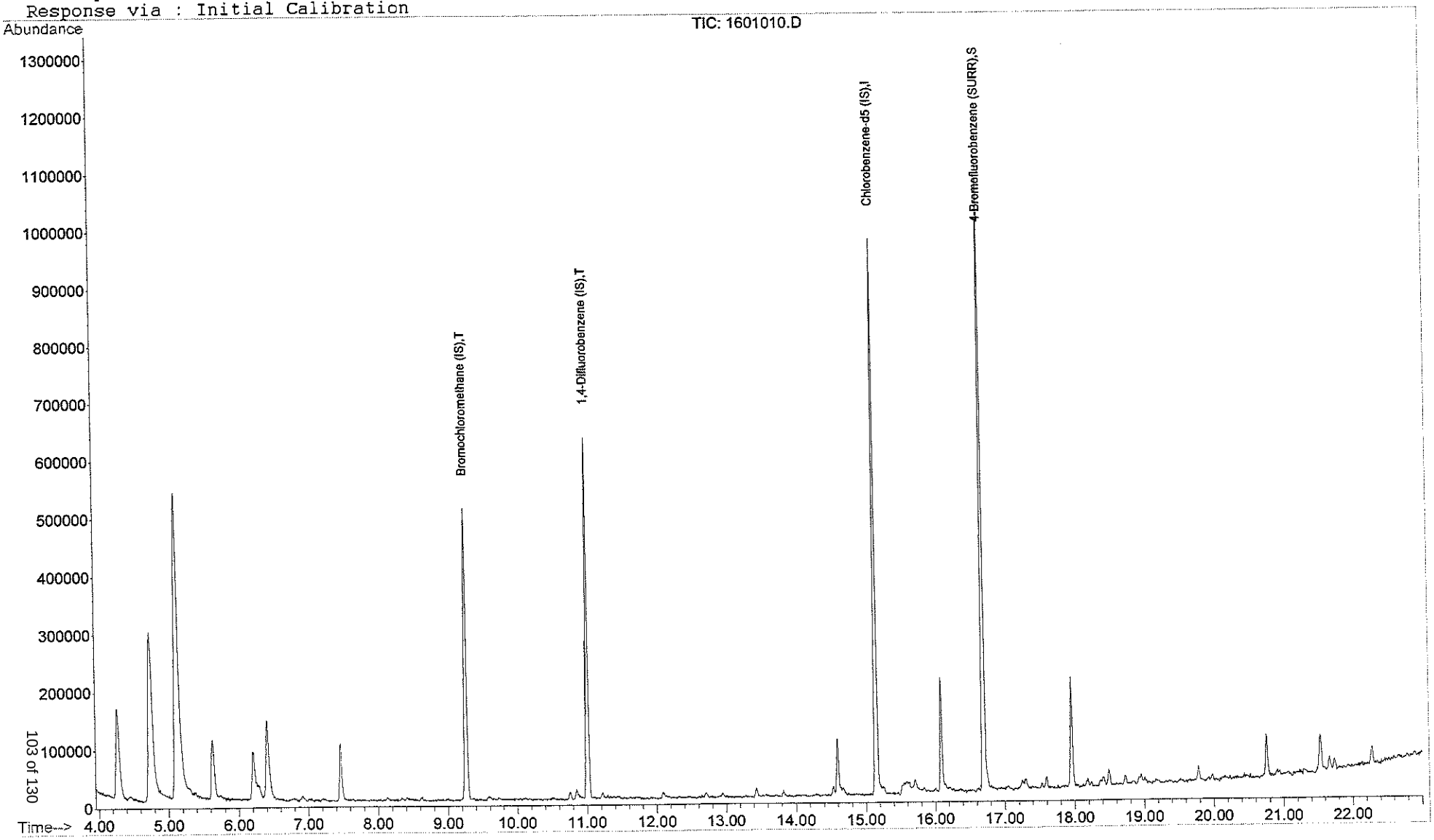
Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\1601010.D
Acq On : 4 Apr 2024 3:37 am
Sample : 24-1006
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:27 2024

Vial: 16
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\0701001.D
Acq On : 3 Apr 2024 9:00 pm
Sample : 24-1007 OA
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:17 2024

Vial: 7
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Thu Mar 28 14:56:42 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.27	128	161163	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.01	114	713385	5.00	ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.15	117	591243	5.00	ppbv	-0.01
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.69	95	446930	5.23	ppbv	-0.02
Spiked Amount 5.000	Range 62 - 145		Recovery = 104.60%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration
0701001.D 031424AI.M Fri Apr 12 00:31:45 2024 6890

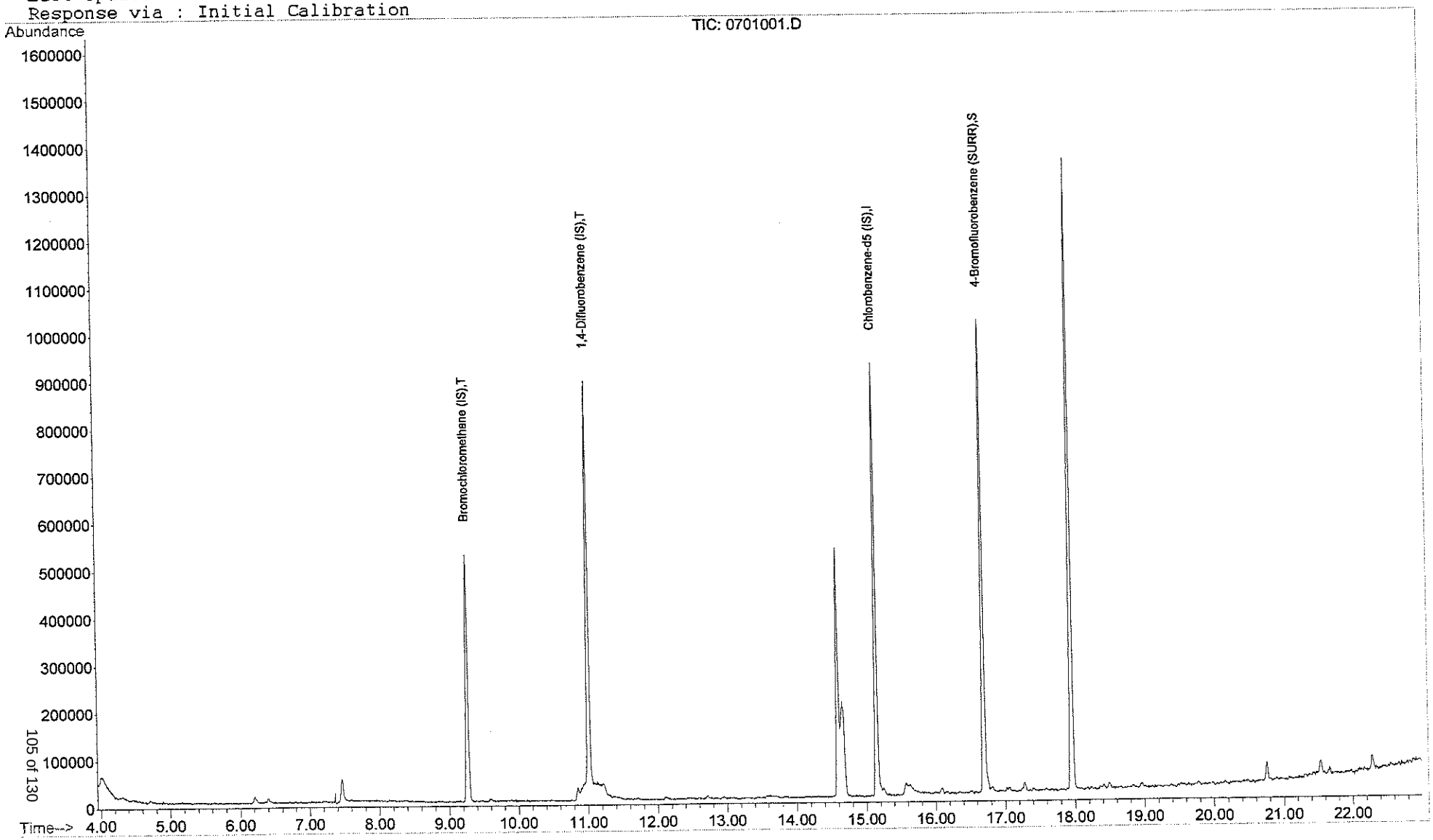
Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\0701001.D
Acq On : 3 Apr 2024 9:00 pm
Sample : 24-1007 OA
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:17 2024

Vial: 7
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\040324\1901015.D
Acq On : 4 Apr 2024 7:04 am
Sample : 24-1008:10
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:28 2024

Vial: 19
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.26	128	153634	5.00	ppbv	-0.01
25) 1,4-Difluorobenzene (IS)	11.01	114	690523	5.00	ppbv	-0.01
45) Chlorobenzene-d5 (IS)	15.15	117	579942	5.00	ppbv	-0.01
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.70	95	448127	5.34	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 106.80%			
Target Compounds						Qvalue
48) Tetrachloroethene	14.53	166	982986	17.37	ppbv	94

(#) = qualifier out of range (m) = manual integration

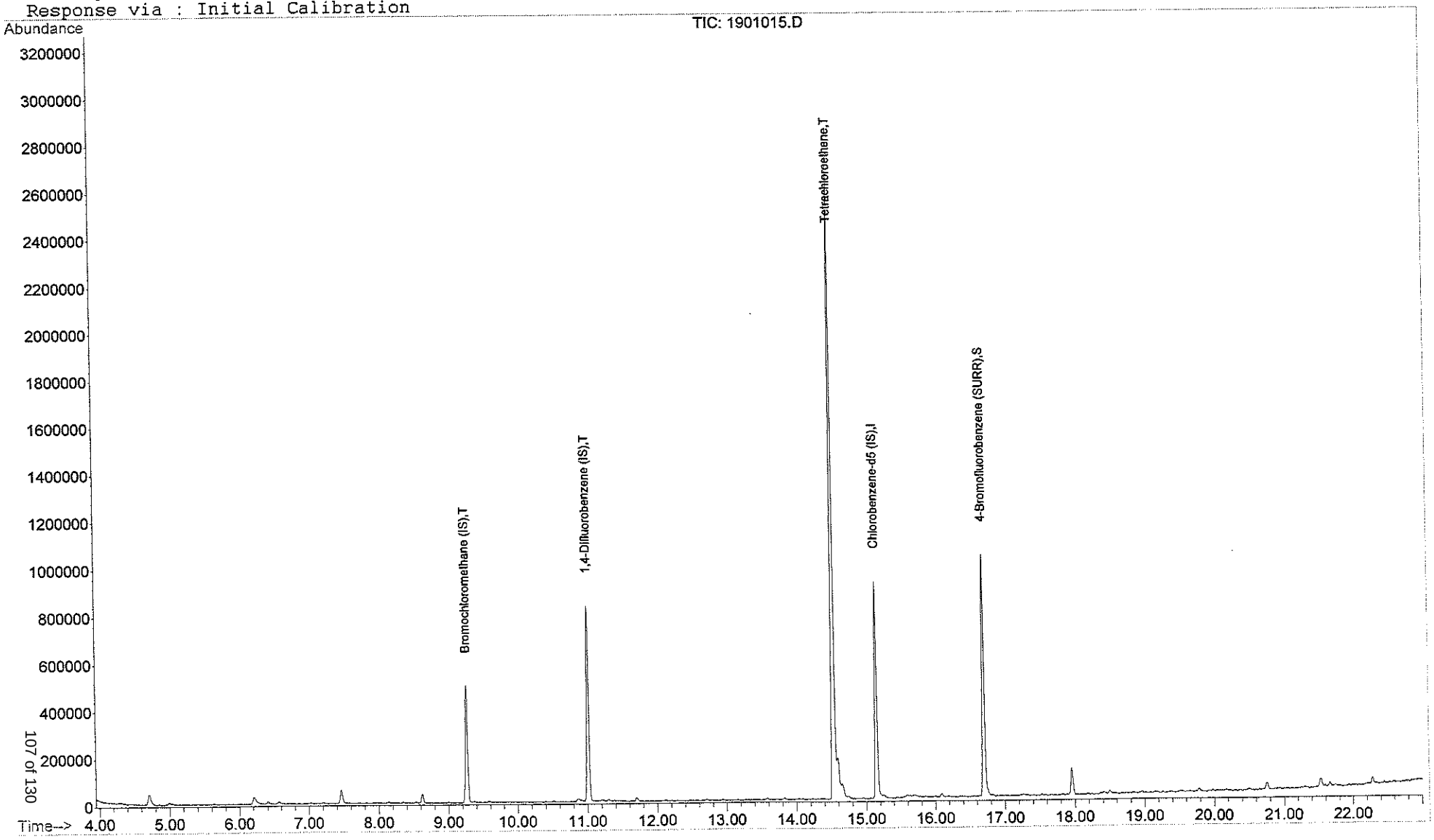
Quantitation Report

Data File : C:\HPCHEM\1\DATA\040324\1901015.D
Acq On : 4 Apr 2024 7:04 am
Sample : 24-1008:10
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 12 0:28 2024

Vial: 19
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



ENVISIONAIR

TO-15 Certified Canister

- Cleaned Canister Verification Data

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032124\6401015.D
Acq On : 23 Mar 2024 10:03 am
Sample : CSI-11089
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:20 2024

Vial: 64
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.29	128	152681	5.00	ppbv	0.02
25) 1,4-Difluorobenzene (IS)	11.02	114	652440	5.00	ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.16	117	535365	5.00	ppbv	0.00
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.71	95	401249	5.18	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 103.60%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration

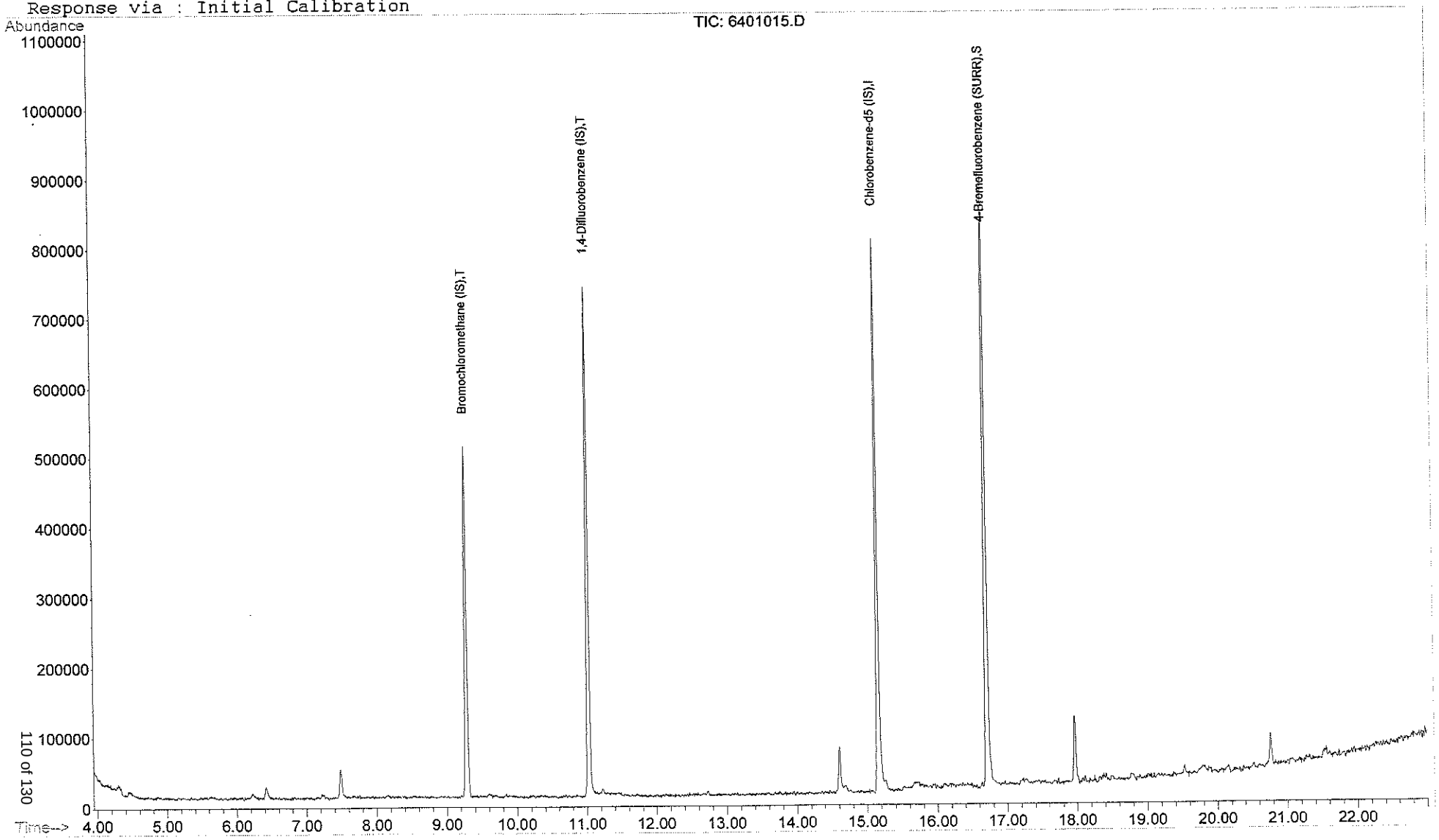
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032124\6401015.D
Acq On : 23 Mar 2024 10:03 am
Sample : CSI-11089
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:20 2024

Vial: 64
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



6401015.D 031424AI.M Wed Apr 17 13:22:19 2024 6890

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032124\6501016.D
Acq On : 23 Mar 2024 10:45 am
Sample : CSI-10025
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:21 2024

Vial: 65
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.30	128	152183	5.00	ppbv	0.02
25) 1,4-Difluorobenzene (IS)	11.04	114	629540	5.00	ppbv	0.02
45) Chlorobenzene-d5 (IS)	15.17	117	559041	5.00	ppbv	0.01
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.72	95	404548	5.00	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 100.00%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration

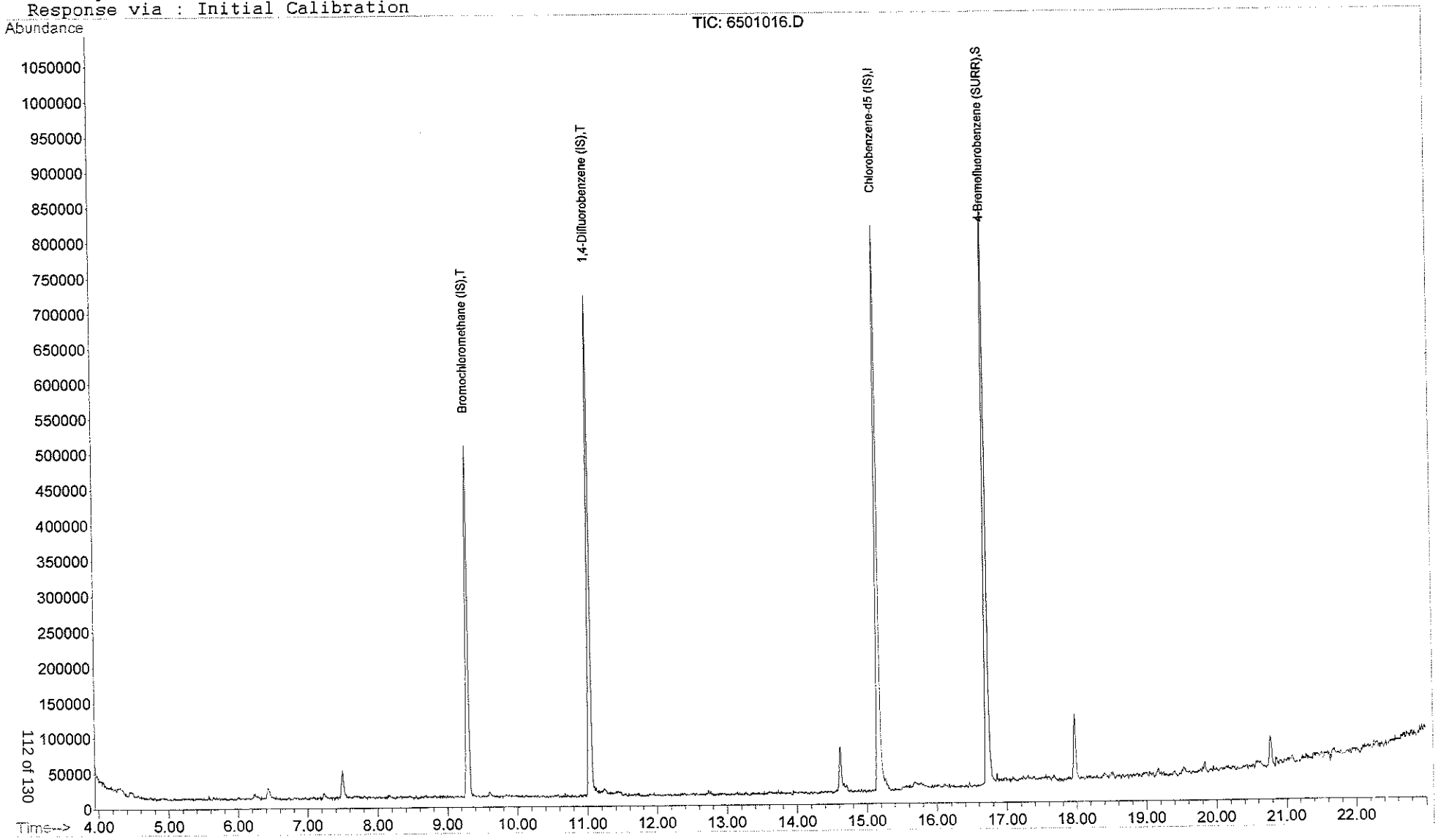
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032124\6501016.D
Acq On : 23 Mar 2024 10:45 am
Sample : CSI-10025
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:21 2024

Vial: 65
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032124\6601017.D
Acq On : 23 Mar 2024 11:27 am
Sample : CSI-11068
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:21 2024

Vial: 66
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.29	128	147764	5.00	ppbv	0.02
25) 1,4-Difluorobenzene (IS)	11.03	114	599477	5.00	ppbv	0.01
45) Chlorobenzene-d5 (IS)	15.16	117	530924	5.00	ppbv	0.00
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.71	95	386063	5.03	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 100.60%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration

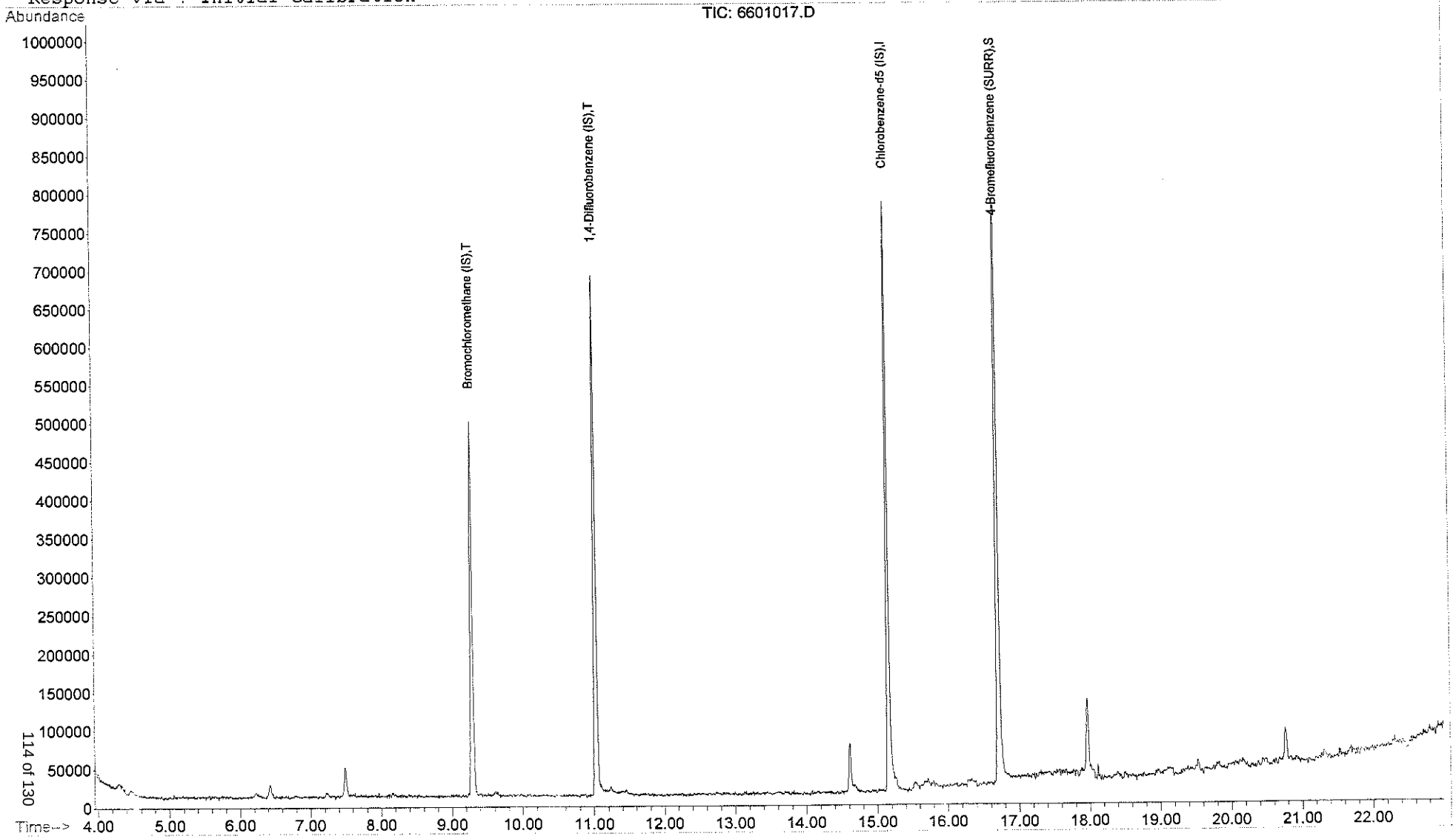
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032124\6601017.D
Acq On : 23 Mar 2024 11:27 am
Sample : CSI-11068
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:21 2024

Vial: 66
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032124\6701018.D
Acq On : 23 Mar 2024 12:08 pm
Sample : CSI-11074
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:21 2024

Vial: 67
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.28	128	145156	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.02	114	618706	5.00	ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.16	117	537186	5.00	ppbv	0.00
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.71	95	388733	5.00	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 100.00%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration
6701018.D 031424AI.M Wed Apr 17 13:22:29 2024 6890

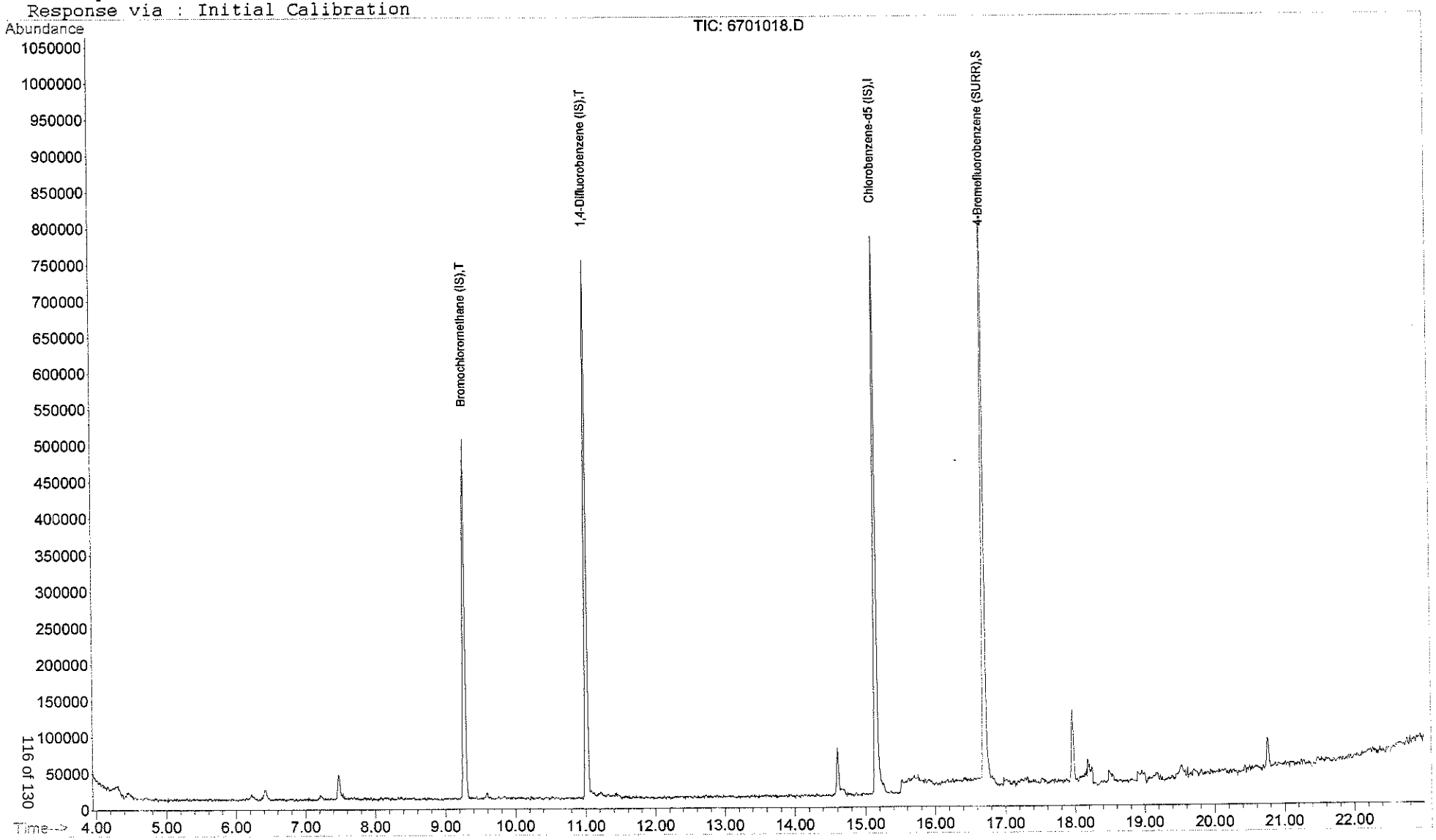
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032124\6701018.D
Acq On : 23 Mar 2024 12:08 pm
Sample : CSI-11074
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:21 2024

Vial: 67
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



6701018.D 031424AI.M Wed Apr 17 13:22:29 2024 6890

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032424\0601006.D
Acq On : 24 Mar 2024 1:21 pm
Sample : CSI-84046-BATCH
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:23 2024

Vial: 6
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.29	128	133332	5.00	ppbv	0.02
25) 1,4-Difluorobenzene (IS)	11.03	114	650502	5.00	ppbv	0.01
45) Chlorobenzene-d5 (IS)	15.17	117	634373	5.00	ppbv	0.00
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.72	95	471247	5.14	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 102.80%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration

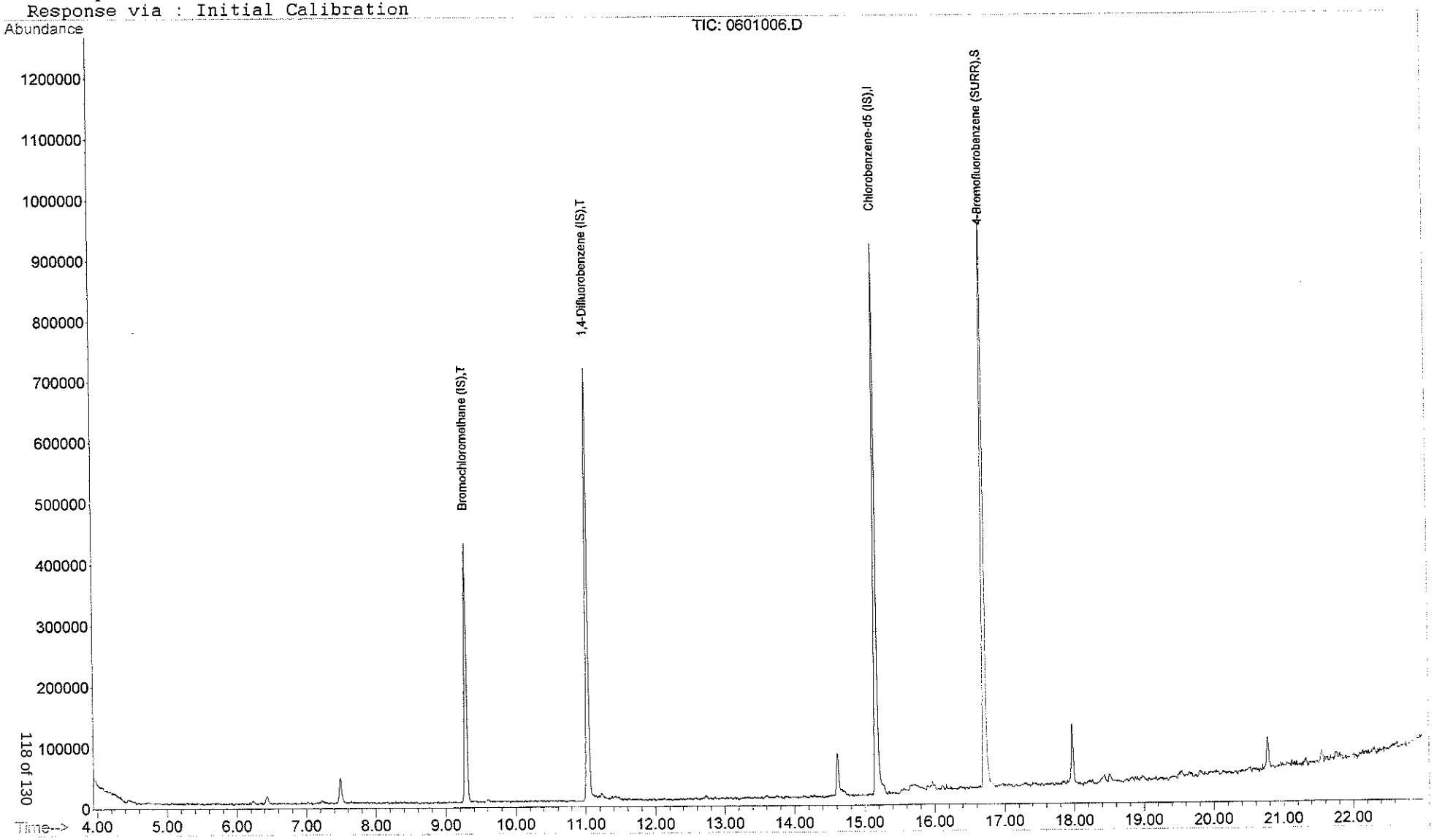
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032424\0601006.D
Acq On : 24 Mar 2024 1:21 pm
Sample : CSI-84046-BATCH
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:23 2024

Vial: 6
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032424\3101012.D
Acq On : 25 Mar 2024 7:22 am
Sample : CSI-10346
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:17 2024

Vial: 31
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.27	128	140216	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.01	114	620991	5.00	ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.15	117	511149	5.00	ppbv	0.00
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.71	95	377534	5.11	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 102.20%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration

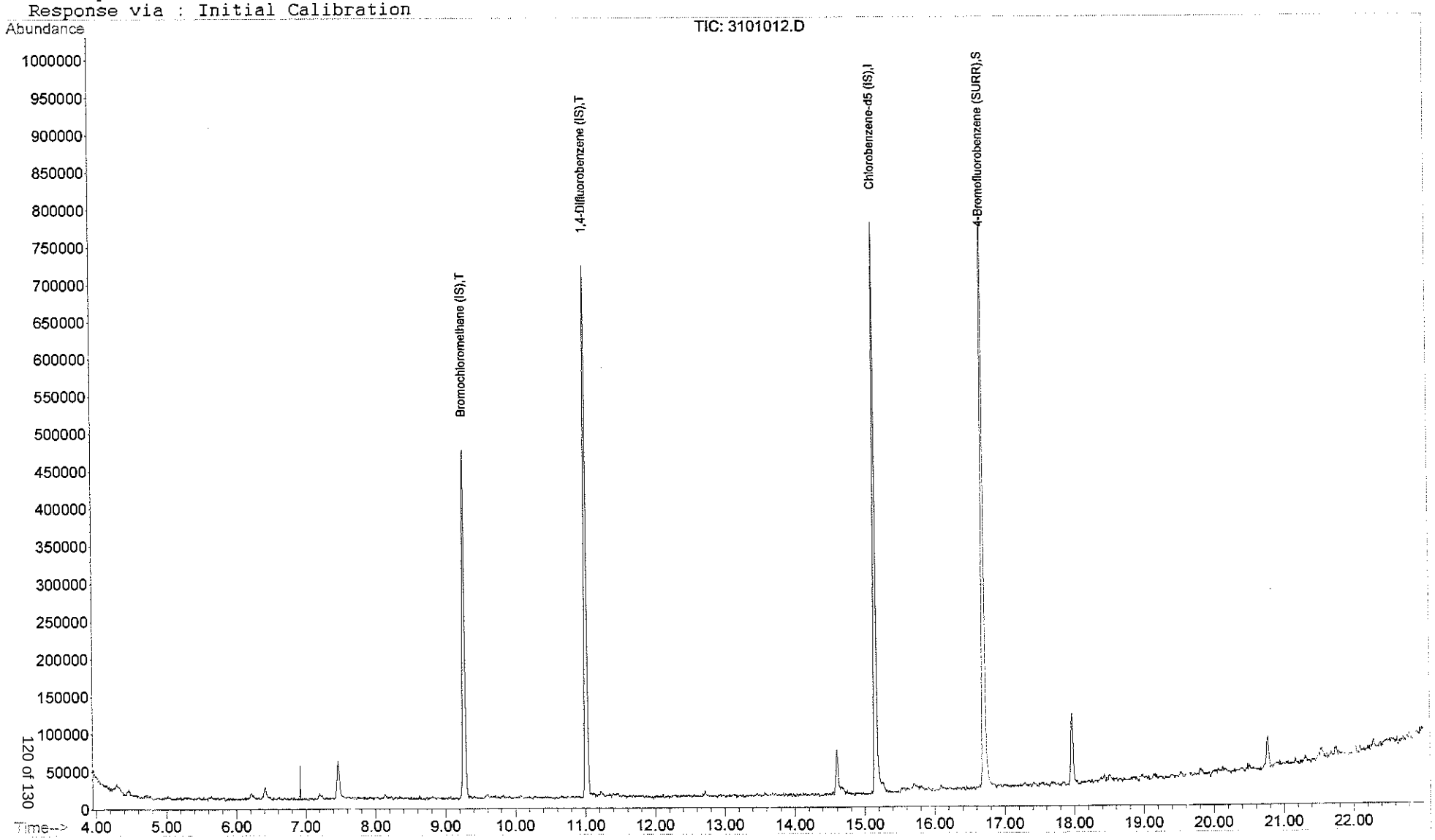
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032424\3101012.D
Acq On : 25 Mar 2024 7:22 am
Sample : CSI-10346
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:17 2024

Vial: 31
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032424\3201013.D
Acq On : 25 Mar 2024 8:07 am
Sample : CSI-91515
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:18 2024

Vial: 32
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

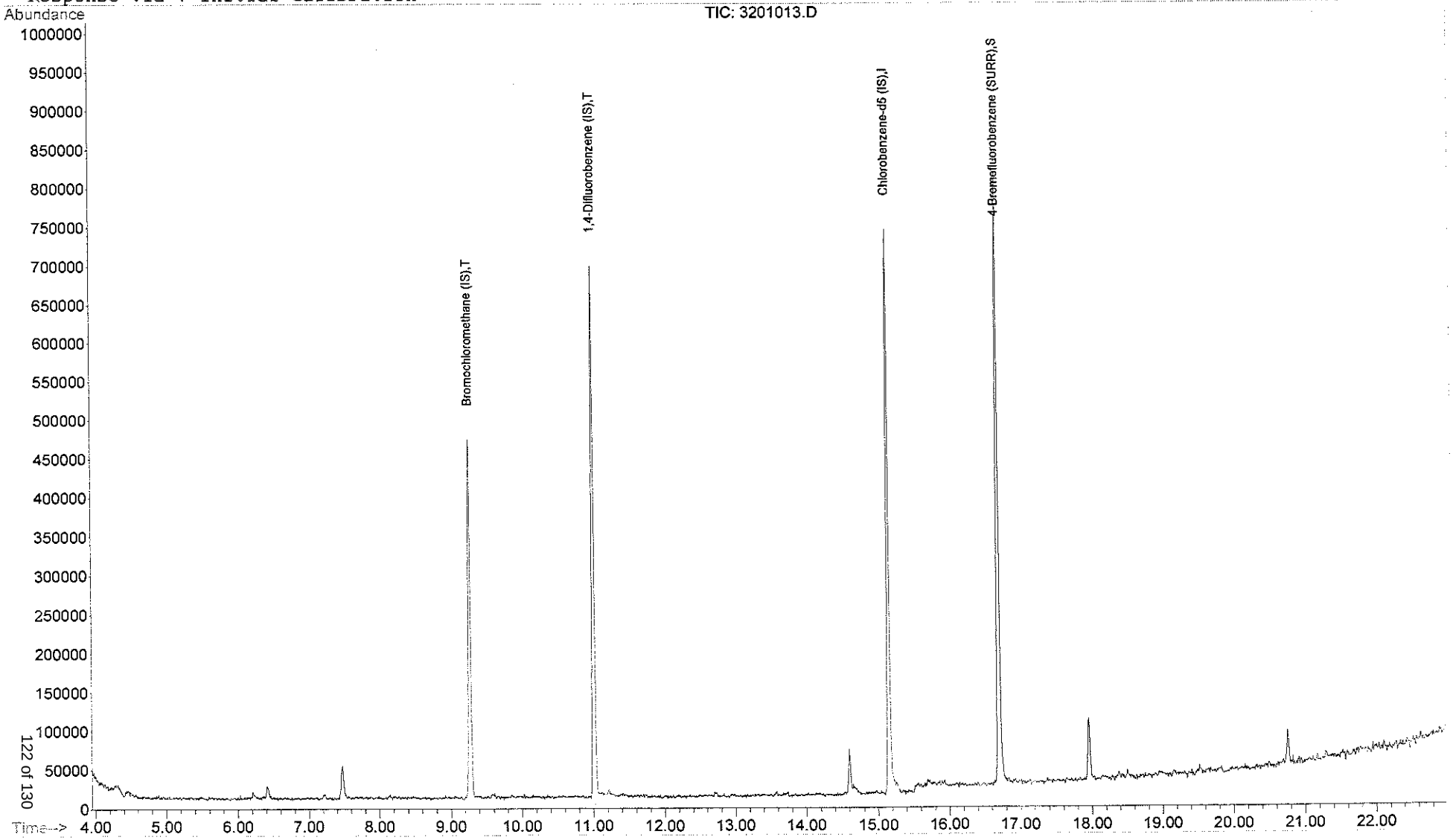
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.28	128	140896	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.02	114	617590	5.00	ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.15	117	496903	5.00	ppbv	0.00
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.70	95	372717	5.19	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 103.80%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032424\3201013.D Vial: 32
Acq On : 25 Mar 2024 8:07 am Operator: TJG
Sample : CSI-91515 Inst : GC/MS Ins
Misc : TO-15 ANALYSIS Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 17 13:18 2024 Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032424\3301014.D
Acq On : 25 Mar 2024 8:50 am
Sample : CSI-4684
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:18 2024

Vial: 33
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.27	128	140823	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.01	114	619525	5.00	ppbv	-0.01
45) Chlorobenzene-d5 (IS)	15.15	117	494216	5.00	ppbv	-0.01
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.70	95	359746	5.03	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 100.60%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration

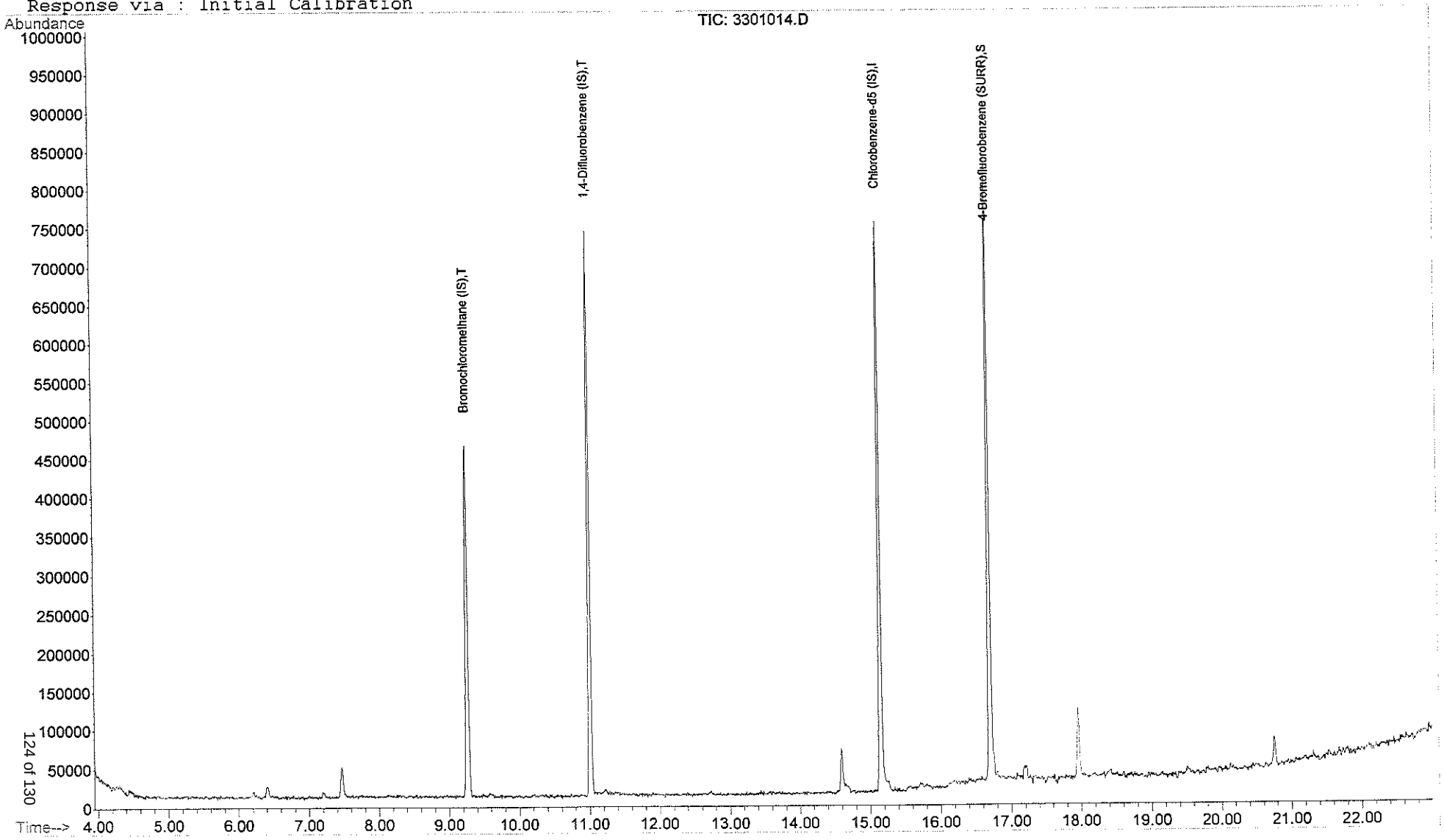
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032424\3301014.D
Acq On : 25 Mar 2024 8:50 am
Sample : CSI-4684
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:18 2024

Vial: 33
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032424\3401015.D
Acq On : 25 Mar 2024 9:33 am
Sample : CSI-19625
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:19 2024

Vial: 34
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.28	128	136752	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.02	114	590214	5.00	ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.16	117	477676	5.00	ppbv	0.00
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.71	95	350225	5.07	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 101.40%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration

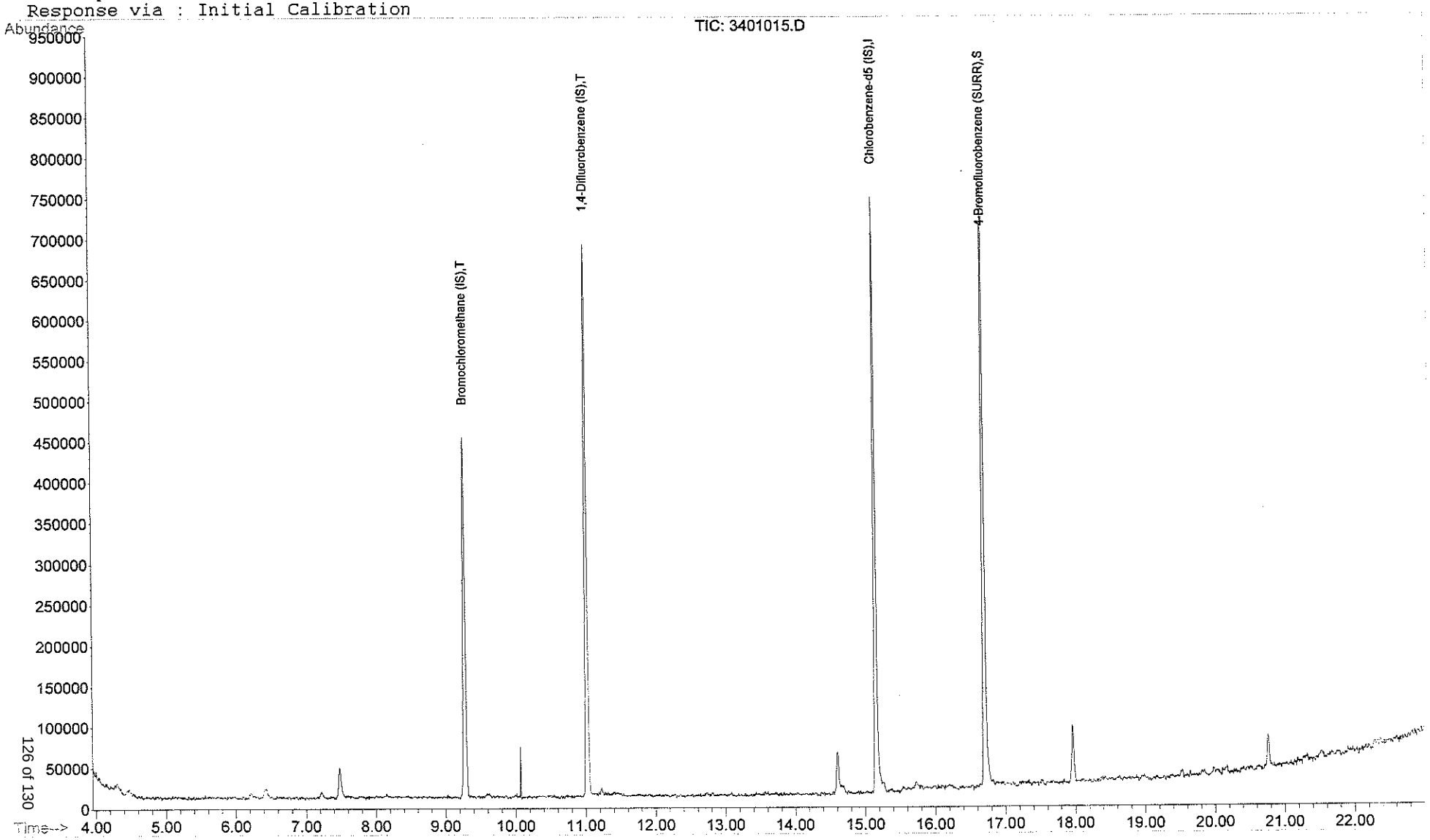
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032424\3401015.D
Acq On : 25 Mar 2024 9:33 am
Sample : CSI-19625
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:19 2024

Vial: 34
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



3401015.D 031424AI.M Wed Apr 17 13:23:35 2024 6890

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032424\3501016.D
Acq On : 25 Mar 2024 10:17 am
Sample : CSI-4654
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:19 2024

Vial: 35
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.27	128	141202	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.01	114	597335	5.00	ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.16	117	488094	5.00	ppbv	0.00
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.70	95	346997	4.91	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 98.20%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration
3501016.D 031424AI.M Wed Apr 17 13:23:37 2024 6890

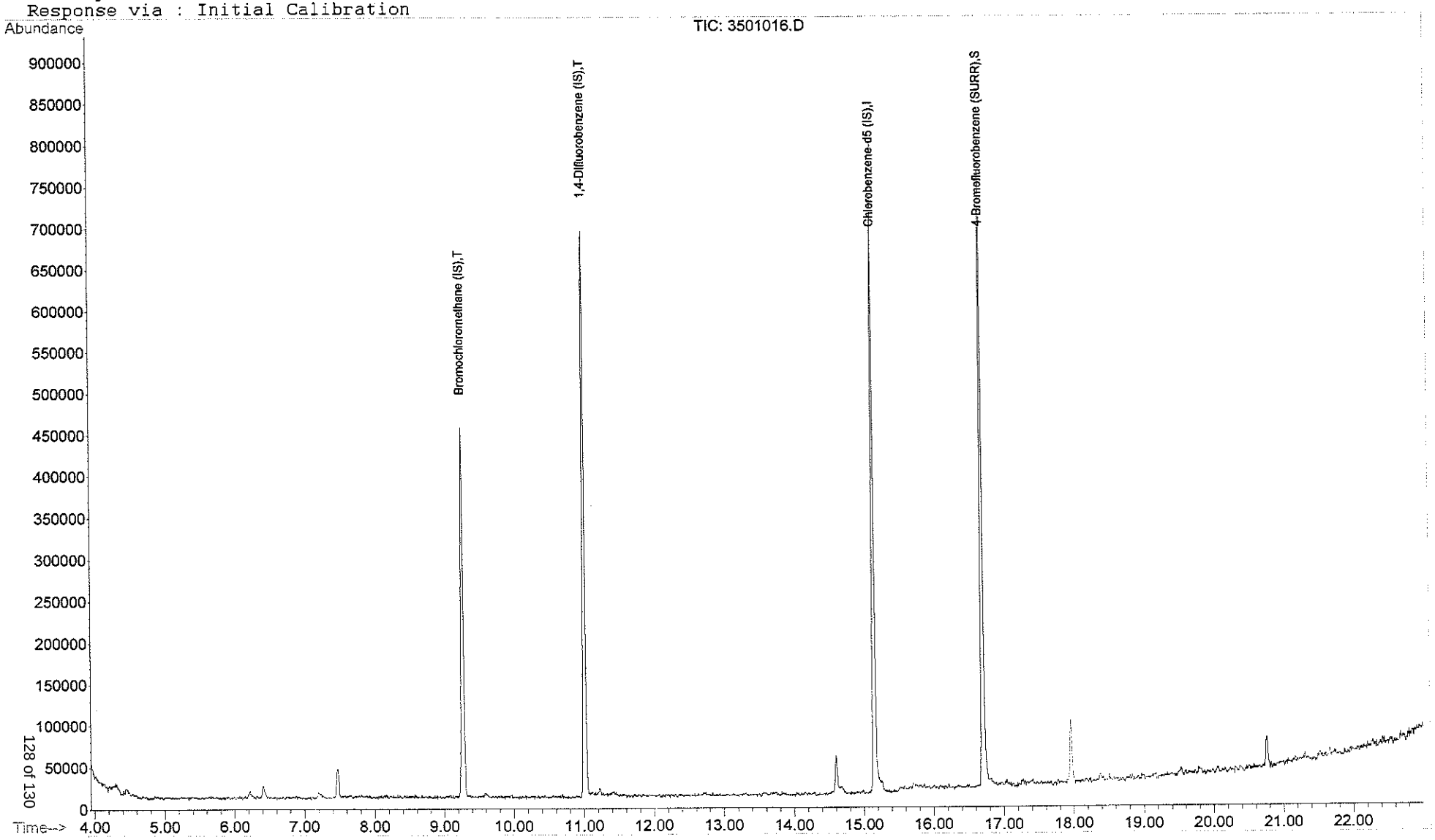
Quantitation Report

Data File : C:\HPCHEM\1\DATA\032424\3501016.D
Acq On : 25 Mar 2024 10:17 am
Sample : CSI-4654
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:19 2024

Vial: 35
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\032424\3601017.D
Acq On : 25 Mar 2024 11:01 am
Sample : CSI-15563
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:19 2024

Vial: 36
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Quant Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration
DataAcq Meth : ENTECH1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS)	9.28	128	135682	5.00	ppbv	0.00
25) 1,4-Difluorobenzene (IS)	11.02	114	580200	5.00	ppbv	0.00
45) Chlorobenzene-d5 (IS)	15.16	117	487643	5.00	ppbv	0.00
System Monitoring Compounds						
56) 4-Bromofluorobenzene (SURR	16.71	95	336169	4.77	ppbv	0.00
Spiked Amount 5.000	Range 62 - 145		Recovery = 95.40%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration
3601017.D 031424AI.M Wed Apr 17 13:23:41 2024 6890

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032424\3601017.D
Acq On : 25 Mar 2024 11:01 am
Sample : CSI-15563
Misc : TO-15 ANALYSIS
MS Integration Params: rteint.p
Quant Time: Apr 17 13:19 2024

Vial: 36
Operator: TJG
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 031424AI.RES

Method : C:\HPCHEM\1\METHODS\031424AI.M (RTE Integrator)
Title : Method TO-15 CALIBRATION
Last Update : Sun Mar 17 18:31:02 2024
Response via : Initial Calibration