

**DATA PACKAGE  
SEMI-VOLATILE ORGANICS**

**PROJECT NAME : FORMER SCHLUMBERGER SITE PRINCETON NJ**

**JACOBS ENGINEERING GROUP, INC.**

**412 Mt. Kemble Ave**

**Downtown Building**

**Morristown, NJ - 07960**

**Phone No: 9732670555**

**ORDER ID : N6070**

**ATTENTION : Doug Scott**



1) SEMI-VOLATILE DATA	2
2) Signature Page	4
3) Case Narrative	5
4) Qualifier Page	7
5) Conformance/Non Conformance	8
6) QA Checklist	10
7) Chronicle	11
8) Hit Summary	12
9) QC Data Summary For SVOC-SIMGroup1	13
9.1) Deuterated Monitoring Compound Summary	14
9.2) LCS/LCSD Summary	15
9.3) Method Blank Summary	17
9.4) GS/MS Tune Summary	18
9.5) Internal Standard Area and RT Summary	20
10) Sample Data	22
10.1) GW-BR-04-226-245-121422	23
10.2) OWBR-01-160-180-121422	35
10.3) OWBR-02-160-180-121422	47
10.4) OWBR-03-128-148-121422	59
11) Calibration Data Summary	70
11.1) Initial Calibration Data	71
11.1.1) BN120822	71
11.2) Continued Calibration Data	256
11.2.1) BN023280.D	256
12) QC Sample Data	282
12.1) Tune Raw Data	283
12.2) Method Blank Data	291
12.3) LCS Data	301
12.4) LCSD Data	325
13) Manual Integration	349
14) Analytical Runlogs	351
15) Extraction Logs	355
15.1) PB149692.pdf	355
15.2) PB149692IC.pdf	357
16) Standard Prep Logs	359

## Table Of Contents for N6070

17) Shipping Document	425
17.1) Chain Of Custody	426
17.2) ROC	427
17.3) Lab Certificate	429
17.4) Internal COC	430

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

## Cover Page

**Order ID :** N6070

**Project ID :** Former Schlumberger Site Princeton NJ

**Client :** JACOBS Engineering Group, Inc.

### Lab Sample Number

N6070-01  
N6070-02  
N6070-03  
N6070-04  
N6070-05

### Client Sample Number

GW-BR-04-226-245-121422  
TB-01-121422  
OWBR-01-160-180-121422  
OWBR-02-160-180-121422  
OWBR-03-128-148-121422

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

Signature : \_\_\_\_\_

Date: 12/29/2022

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



**CASE NARRATIVE**

**JACOBS Engineering Group, Inc.**

**Project Name: Former Schlumberger Site Princeton NJ**

**Project # N/A**

**Chemtech Project # N6070**

**Test Name: SVOC-SIMGroup1**

**A. Number of Samples and Date of Receipt:**

5 Water samples were received on 12/14/2022.

**B. Parameters**

According to the Chain of Custody document, the following analyses were requested: SVOC-SIMGroup1 and VOCMS Group3. This data package contains results for SVOC-SIMGroup1.

**C. Analytical Techniques:**

The samples were analyzed on instrument BNA\_N using GC Column ZB-SemiVolatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGAThe analysis of SVOC-SIMGroup1 was based on method 8270-Modified and extraction was done based on method 3510.

**D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for OWBR-03-128-148-121422 [Terphenyl-d14 - 142%] this compound did not meet the NJDKQP criteria but met the in-house criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD met criteria .

The Blank Spike met requirements for all samples .

The Blank Spike Duplicate met requirements for all samples .

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements .

The Continuous Calibration File ID BN023280.D met the requirements except for 2-Fluorophenol and Phenol-d6 , failure surrogate is not associated with the client list, as per criteria affected surrogates were passing, therefore no corrective action was taken.

The Tuning criteria met requirements.

**E. Additional Comments:**

The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.

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

**F. Manual Integration Comments:**

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

---

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

Signature \_\_\_\_\_

**DATA REPORTING QUALIFIERS- ORGANIC**

For reporting results, the following “ Results Qualifiers” are used:

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

# **CHEMTECH** 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012; NEW YORK LAB ID#: 11376

## **GC/MS SEMI-VOLATILE ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY**

CHEMTECH PROJECT NUMBER: N6070

MATRIX: Water

METHOD: 8270-Modified/3510

	NA	NO	YES
1. Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)			✓
2. GC/MS Tuning Specifications. DFTPP Meet Criteria. (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)			✓
3. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series.			✓
4. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series.			✓
5. GC/MS Calibration Requirements.		✓	
The Initial Calibration met the requirements .			
The Continuous Calibration File ID BN023280.D met the requirements except for 2-Fluorophenol and Phenol-d6 , failure surrogate is not associated with the client list, as per criteria affected surrogates were passing, therefore no corrective action was taken.			
6. Blank Contamination - If yes, list compounds and concentrations in each blank:			✓
7. Surrogate Recoveries Meet Criteria			✓
If not met, list those compounds and their recoveries which fall outside the acceptable ranges.			
The Surrogate recoveries met the acceptable criteria except for OWBR-03-128-148- 121422 [Terphenyl-d14 - 142%] this compound did not meet the NJDKQP criteria but met the in-house criteria.			

# **CHEMTECH** 284 Sheffield Street, Mountainside New Jersey 07092

NEW JERSEY LAB ID#: 20012: NEW YORK LAB ID#: 11376

## **GC/MS SEMI-VOLATILE ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY**

### **(CONTINUED)**

	NA	NO	YES
8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria			✓
If not met, list those compounds and their recoveries which fall outside the acceptable range.			
The Blank Spike met requirements for all samples .			
The Blank Spike Duplicate met requirements for all samples .			
9. Internal Standard Area/Retention Time Shift Meet Criteria			✓
Comments:			
10. Extraction Holding Time Met			✓
If not met, list number of days exceeded for each sample:			
11. Analysis Holding Time Met			✓
If not met, list number of days exceeded for each sample:			

#### ADDITIONAL COMMENTS:

The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.

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

\_\_\_\_\_  
QA REVIEW

\_\_\_\_\_  
Date

**APPENDIX A**

**QA REVIEW GENERAL DOCUMENTATION**

Project #: N6070

Completed

For thorough review, the report must have the following:

**GENERAL:**

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page) ✓

Check chain-of-custody for proper relinquish/return of samples ✓

Is the chain of custody signed and complete ✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts ✓

Collect information for each project id from server. Were all requirements followed ✓

**COVER PAGE:**

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page ✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody ✓

**CHAIN OF CUSTODY:**

Do requested analyses on Chain of Custody agree with form I results ✓

Do requested analyses on Chain of Custody agree with the log-in page ✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody ✓

Were the samples received within hold time ✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle ✓

**ANALYTICAL:**

Was method requirement followed? ✓

Was client requirement followed? ✓

Does the case narrative summarize all QC failure? ✓

All runlogs and manual integration are reviewed for requirements ✓

All manual calculations and /or hand notations verified ✓

1st Level QA Review Signature: SOHIL JODHANI

Date: 12/29/2022

2nd Level QA Review Signature: \_\_\_\_\_

Date: \_\_\_\_\_



### LAB CHRONICLE

<b>OrderID:</b> N6070	<b>OrderDate:</b> 12/14/2022 4:13:00 PM
<b>Client:</b> JACOBS Engineering Group, Inc.	<b>Project:</b> Former Schlumberger Site Princeton NJ
<b>Contact:</b> Doug Scott	<b>Location:</b> M11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
<b>N6070-01</b>	<b>GW-BR-04-226-245-1 21422</b>	<b>Water</b>			<b>12/14/22</b>			<b>12/14/22</b>
			SVOC-SIMGroup1	8270-Modified		12/16/22	12/19/22	
<b>N6070-03</b>	<b>OWBR-01-160-180-12 1422</b>	<b>Water</b>			<b>12/14/22</b>			<b>12/14/22</b>
			SVOC-SIMGroup1	8270-Modified		12/16/22	12/19/22	
<b>N6070-04</b>	<b>OWBR-02-160-180-12 1422</b>	<b>Water</b>			<b>12/14/22</b>			<b>12/14/22</b>
			SVOC-SIMGroup1	8270-Modified		12/16/22	12/19/22	
<b>N6070-05</b>	<b>OWBR-03-128-148-12 1422</b>	<b>Water</b>			<b>12/14/22</b>			<b>12/14/22</b>
			SVOC-SIMGroup1	8270-Modified		12/16/22	12/19/22	

**Hit Summary Sheet**  
SW-846

SDG No.: N6070

Client: JACOBS Engineering Group, Inc.

Sample ID	Client ID	Parameter	Concentration	C	MDL	RDL	Units
Client ID :	<b>GW-BR-04-226-245-121422</b>						
N6070-01	GW-BR-04-226-245-121	WATER	1,4-Dioxane	1.100	0.08	0.2	ug/L
			<b>Total Svoc :</b>		<b>1.10</b>		
			<b>Total Concentration:</b>		<b>1.10</b>		



QC  
SUMMARY

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### Surrogate Summary

SW-846

SDG No.: N6070

Client: JACOBS Engineering Group, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
N6070-01	GW-BR-04-226-245-121422	2-Methylnaphthalene-d10	0.4	0.20	50		30 (30)	150 (150)
		Fluoranthene-d10	0.4	0.27	68		30 (30)	150 (150)
		Nitrobenzene-d5	0.4	0.24	59		30 (11)	130 (175)
		2-Fluorobiphenyl	0.4	0.28	69		30 (10)	130 (175)
		Terphenyl-d14	0.4	0.34	84		30 (54)	130 (171)
N6070-03	OWBR-01-160-180-121422	2-Methylnaphthalene-d10	0.4	0.25	63		30 (30)	150 (150)
		Fluoranthene-d10	0.4	0.32	80		30 (30)	150 (150)
		Nitrobenzene-d5	0.4	0.35	88		30 (11)	130 (175)
		2-Fluorobiphenyl	0.4	0.34	85		30 (10)	130 (175)
		Terphenyl-d14	0.4	0.37	91		30 (54)	130 (171)
N6070-04	OWBR-02-160-180-121422	2-Methylnaphthalene-d10	0.4	0.25	61		30 (30)	150 (150)
		Fluoranthene-d10	0.4	0.25	61		30 (30)	150 (150)
		Nitrobenzene-d5	0.4	0.33	82		30 (11)	130 (175)
		2-Fluorobiphenyl	0.4	0.33	83		30 (10)	130 (175)
		Terphenyl-d14	0.4	0.23	56		30 (54)	130 (171)
N6070-05	OWBR-03-128-148-121422	2-Methylnaphthalene-d10	0.4	0.26	66		30 (30)	150 (150)
		Fluoranthene-d10	0.4	0.28	70		30 (30)	150 (150)
		Nitrobenzene-d5	0.4	0.36	89		30 (11)	130 (175)
		2-Fluorobiphenyl	0.4	0.40	99		30 (10)	130 (175)
		Terphenyl-d14	0.4	0.57	142	*	30 (54)	130 (171)
PB149692BL	PB149692BL	2-Methylnaphthalene-d10	0.4	0.37	94		30 (30)	150 (150)
		Fluoranthene-d10	0.4	0.37	93		30 (30)	150 (150)
		Nitrobenzene-d5	0.4	0.41	102		30 (11)	130 (175)
		2-Fluorobiphenyl	0.4	0.35	87		30 (10)	130 (175)
		Terphenyl-d14	0.4	0.46	114		30 (54)	130 (171)
PB149692BS	PB149692BS	2-Methylnaphthalene-d10	0.4	0.32	80		30 (30)	150 (150)
		Fluoranthene-d10	0.4	0.40	101		30 (30)	150 (150)
		Nitrobenzene-d5	0.4	0.42	104		30 (11)	130 (175)
		2-Fluorobiphenyl	0.4	0.36	90		30 (10)	130 (175)
		Terphenyl-d14	0.4	0.43	108		30 (54)	130 (171)
PB149692BSD	PB149692BSD	2-Methylnaphthalene-d10	0.4	0.37	94		30 (30)	150 (150)
		Fluoranthene-d10	0.4	0.41	103		30 (30)	150 (150)
		Nitrobenzene-d5	0.4	0.42	105		30 (11)	130 (175)
		2-Fluorobiphenyl	0.4	0.36	89		30 (10)	130 (175)
		Terphenyl-d14	0.4	0.42	105		30 (54)	130 (171)

( ) = LABORATORY INHOUSE LIMIT

**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**  
SW-846SDG No.: N6070Client: JACOBS Engineering Group, Inc.Analytical Method: 8270-Modified DataFile: BN023287.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Low	Limits	RPD
								Qual		High	
PB149692BS	1,4-Dioxane	0.4	0.40	ug/L	100				20 (60)	160 (132)	

() = LABORATORY INHOUSE LIMIT

**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**  
SW-846SDG No.: N6070Client: JACOBS Engineering Group, Inc.Analytical Method: 8270-Modified DataFile: BN023288.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Low	Limits	
								Qual		High	RPD
PB149692BSD	1,4-Dioxane	0.4	0.39	ug/L	98	3			20 (60)	160 (132)	20 (20)

() = LABORATORY INHOUSE LIMIT

## 4B

## SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB149692BL

Lab Name: CHEMTECHContract: JACO05Lab Code: CHEM Case No.: N6070SAS No.: N6070 SDG NO.: N6070Lab File ID: BN023281.DLab Sample ID: PB149692BLInstrument ID: BNA\_NDate Extracted: 12/16/2022Matrix: (soil/water) WaterDate Analyzed: 12/19/2022Level: (low/med) LOWTime Analyzed: 12:02

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
OWBR-02-160-180-121422	N6070-04	BN023284.D	12/19/2022
OWBR-03-128-148-121422	N6070-05	BN023285.D	12/19/2022
PB149692BS	PB149692BS	BN023287.D	12/19/2022
PB149692BSD	PB149692BSD	BN023288.D	12/19/2022
GW-BR-04-226-245-121422	N6070-01	BN023282.D	12/19/2022
OWBR-01-160-180-121422	N6070-03	BN023283.D	12/19/2022

COMMENTS:

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

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: JAC005  
 Lab Code: CHEM SAS No.: N6070 SDG NO.: N6070  
 Lab File ID: BN023092.D DFTPP Injection Date: 12/08/2022  
 Instrument ID: BNA\_N DFTPP Injection Time: 12:45

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	35.5
68	Less than 2.0% of mass 69	0.6 ( 1.6 ) 1
69	Mass 69 relative abundance	38.2
70	Less than 2.0% of mass 69	0.2 ( 0.5 ) 1
127	10.0 - 80.0% of mass 198	48.4
197	Less than 2.0% of mass 198	0.6
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	25.9
365	Greater than 1% of mass 198	3.1
441	Present, but less than mass 443	15.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	18.6 (20.8) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC0.1	SSTDICC0.1	BN023093.D	12/08/2022	14:00
SSTDICC0.2	SSTDICC0.2	BN023094.D	12/08/2022	14:37
SSTDICCC0.4	SSTDICCC0.4	BN023095.D	12/08/2022	15:13
SSTDICC0.8	SSTDICC0.8	BN023096.D	12/08/2022	15:50
SSTDICC1.6	SSTDICC1.6	BN023097.D	12/08/2022	16:26
SSTDICC3.2	SSTDICC3.2	BN023098.D	12/08/2022	17:03
SSTDICC5.0	SSTDICC5.0	BN023099.D	12/08/2022	17:40



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

5B

 SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
 DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: JAC005  
 Lab Code: CHEM SAS No.: N6070 SDG NO.: N6070  
 Lab File ID: BN023279.D DFTPP Injection Date: 12/19/2022  
 Instrument ID: BNA\_N DFTPP Injection Time: 10:45

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	32.4
68	Less than 2.0% of mass 69	0.5 ( 1.6 ) 1
69	Mass 69 relative abundance	36.0
70	Less than 2.0% of mass 69	0.2 ( 0.6 ) 1
127	10.0 - 80.0% of mass 198	46.3
197	Less than 2.0% of mass 198	0.8
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	27.9
365	Greater than 1% of mass 198	3.6
441	Present, but less than mass 443	17.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	16.9 ( 16.9 ) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC0.4	SSTDCCC0.4	BN023280.D	12/19/2022	11:22
PB149692BL	PB149692BL	BN023281.D	12/19/2022	12:02
GW-BR-04-226-245-121422	N6070-01	BN023282.D	12/19/2022	12:40
OWBR-01-160-180-121422	N6070-03	BN023283.D	12/19/2022	13:16
OWBR-02-160-180-121422	N6070-04	BN023284.D	12/19/2022	13:53
OWBR-03-128-148-121422	N6070-05	BN023285.D	12/19/2022	14:30
PB149692BS	PB149692BS	BN023287.D	12/19/2022	15:44
PB149692BSD	PB149692BSD	BN023288.D	12/19/2022	16:21

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH  
 Lab Code: CHEM Case No.: N6070 SAS No.: N6070 SDG NO.: N6070  
 EPA Sample No.: SSTDCCC0.4 Date Analyzed: 12/19/2022  
 Lab File ID: BN023280.D Time Analyzed: 11:22  
 Instrument ID: BNA\_N GC Column: ZB-GR ID: 0.25 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	7661	7.999	24904	10.82	15496	14.65
UPPER LIMIT	15322	8.499	49808	11.319	30992	15.145
LOWER LIMIT	3830.5	7.499	12452	10.319	7748	14.145
EPA SAMPLE NO.						
01 PB149692BL	8904	8.00	28123	10.82	17435	14.65
02 GW-BR-04-226-245-121422	6913	8.00	22753	10.82	14155	14.65
03 OWBR-01-160-180-121422	7610	8.01	24602	10.82	15939	14.65
04 OWBR-02-160-180-121422	7230	8.00	23777	10.82	14567	14.65
05 OWBR-03-128-148-121422	7020	8.00	22963	10.82	14454	14.65
06 PB149692BS	8509	8.01	26860	10.82	16157	14.65
07 PB149692BSD	8380	8.00	26080	10.82	15594	14.65

IS1 (DCB) = 1,4-Dichlorobenzene-d4  
 IS2 (NPT) = Naphthalene-d8  
 IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area  
 AREA LOWER LIMIT = -50% of internal standard area  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT  
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.  
 \* Values outside of QC limits.



8C

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH  
 Lab Code: CHEM Case No.: N6070 SAS No.: N6070 SDG NO.: N6070  
 EPA Sample No.: SSTDCCC0.4 Date Analyzed: 12/19/2022  
 Lab File ID: BN023280.D Time Analyzed: 11:22  
 Instrument ID: BNA\_N GC Column: ZB-GR ID: 0.25 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	33722	17.39	25842	21.58	18763	24.027
UPPER LIMIT	67444	17.89	51684	22.08	37526	24.527
LOWER LIMIT	16861	16.89	12921	21.08	9381.5	23.527
EPA SAMPLE NO.						
01 PB149692BL	38498	17.39	26428	21.58	19388	24.03
02 GW-BR-04-226-245-121422	30735	17.39	24364	21.58	17711	24.03
03 OWBR-01-160-180-121422	33981	17.39	27221	21.58	19632	24.03
04 OWBR-02-160-180-121422	32593	17.39	25059	21.58	17925	24.03
05 OWBR-03-128-148-121422	30794	17.39	23636	21.58	16694	24.03
06 PB149692BS	34289	17.39	26436	21.58	18732	24.03
07 PB149692BSD	33450	17.39	27783	21.58	19326	24.03

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.

\* Values outside of QC limits.

SAMPLE  
DATA

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## Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	12/14/22
Project:	Former Schlumberger Site Princeton NJ	Date Received:	12/14/22
Client Sample ID:	GW-BR-04-226-245-121422	SDG No.:	N6070
Lab Sample ID:	N6070-01	Matrix:	Water
Analytical Method:	SW8270SIM	% Moisture:	100
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN023282.D	1	12/16/22 08:59	12/19/22 12:40	PB149692

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
123-91-1	1,4-Dioxane	1.10		0.080	0.20	ug/L
<b>SURROGATES</b>						
7297-45-2	2-Methylnaphthalene-d10	0.20		30 (30) - 150 (150)	50%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.27		30 (30) - 150 (150)	68%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.24		30 (11) - 130 (175)	59%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.28		30 (10) - 130 (175)	69%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.34		30 (54) - 130 (171)	84%	SPK: 0.4
<b>INTERNAL STANDARDS</b>						
3855-82-1	1,4-Dichlorobenzene-d4	6910	7.999			
1146-65-2	Naphthalene-d8	22800	10.818			
15067-26-2	Acenaphthene-d10	14200	14.645			
1517-22-2	Phenanthrene-d10	30700	17.39			
1719-03-5	Chrysene-d12	24400	21.576			
1520-96-3	Perylene-d12	17700	24.028			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023282.D  
 Acq On : 19 Dec 2022 12:40  
 Operator : CG/JU  
 Sample : N6070-01  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 GW-BR-04-226-245-121422

Quant Time: Dec 19 15:45:27 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 19 15:44:58 2022  
 Response via : Initial Calibration

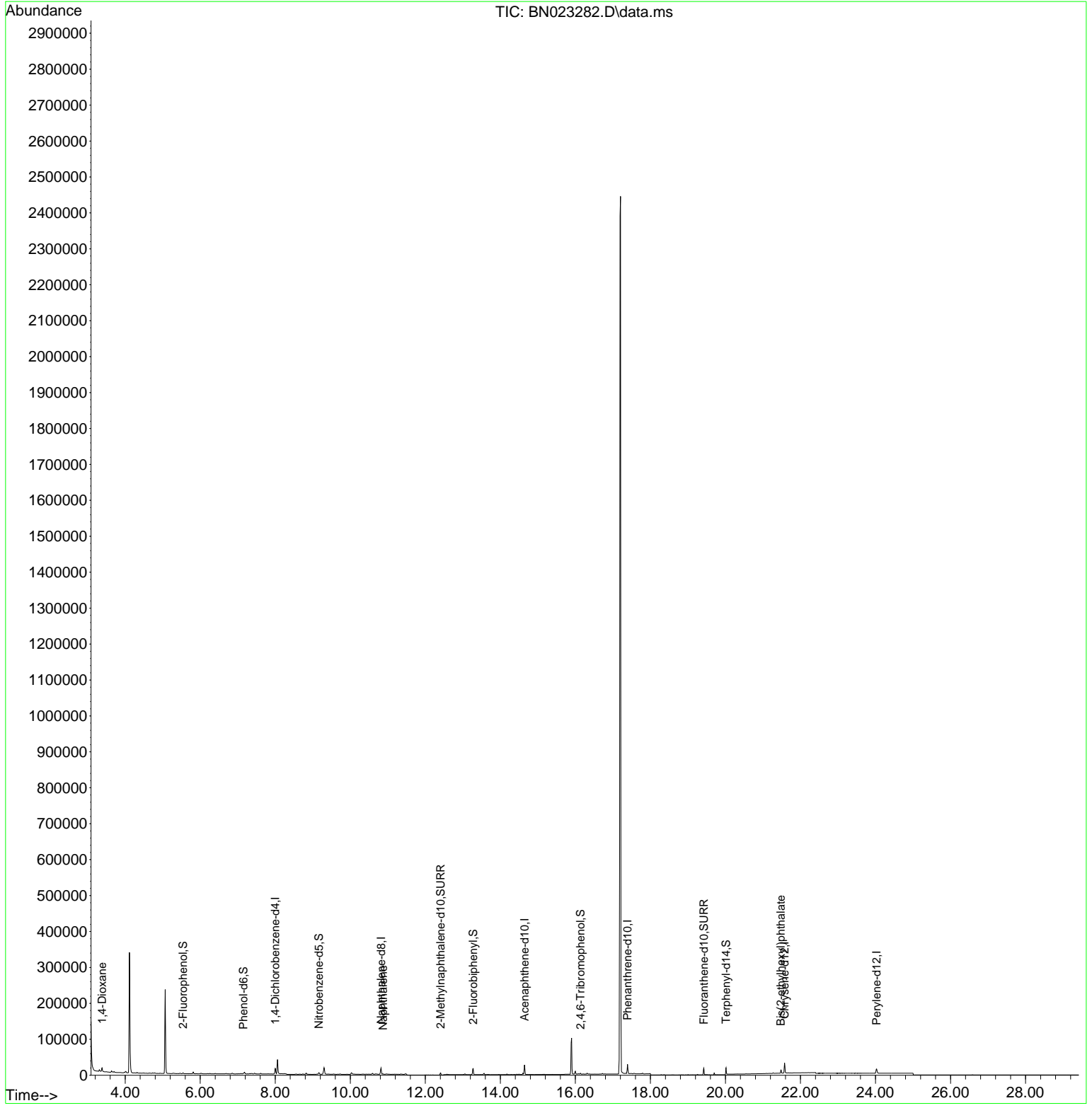
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
Internal Standards							
1) 1,4-Dichlorobenzene-d4	7.999	152	6913	0.400	ng	0.00	
7) Naphthalene-d8	10.818	136	22753	0.400	ng	0.00	
13) Acenaphthene-d10	14.645	164	14155	0.400	ng	0.00	
19) Phenanthrene-d10	17.390	188	30735	0.400	ng	# 0.00	
29) Chrysene-d12	21.576	240	24364	0.400	ng	# 0.00	
35) Perylene-d12	24.028	264	17711	0.400	ng	0.00	
System Monitoring Compounds							
4) 2-Fluorophenol	5.543	112	1515	0.118	ng	0.00	
5) Phenol-d6	7.154	99	1641	0.100	ng	0.00	
8) Nitrobenzene-d5	9.164	82	3529	0.235	ng	0.00	
11) 2-Methylnaphthalene-d10	12.405	152	7787	0.202	ng	0.00	
14) 2,4,6-Tribromophenol	16.136	330	1237	0.241	ng	0.00	
15) 2-Fluorobiphenyl	13.276	172	15703	0.278	ng	0.00	
27) Fluoranthene-d10	19.422	212	19451	0.270	ng	0.00	
31) Terphenyl-d14	20.017	244	13293	0.336	ng	0.00	
Target Compounds							
2) 1,4-Dioxane	3.384	88	7112	1.042	ng	#	84
9) Naphthalene	10.872	128	1338	0.023	ng	#	83
34) Bis(2-ethylhexyl)phtha...	21.477	149	9369	0.282	ng		98

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

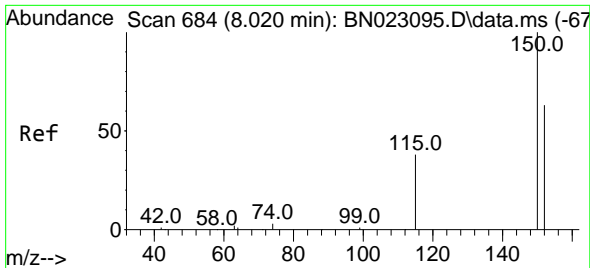
Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023282.D  
 Acq On : 19 Dec 2022 12:40  
 Operator : CG/JU  
 Sample : N6070-01  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 GW-BR-04-226-245-121422

Quant Time: Dec 19 15:45:27 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 19 15:44:58 2022  
 Response via : Initial Calibration

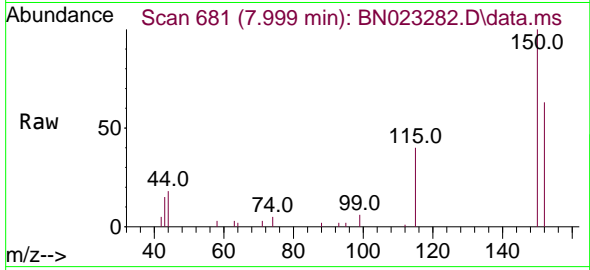


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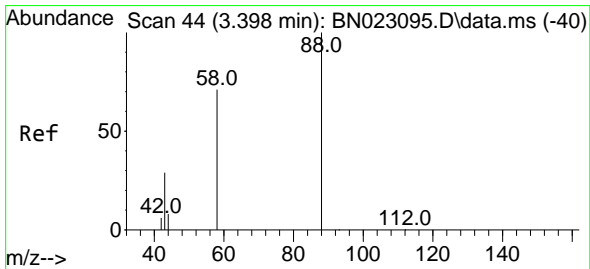
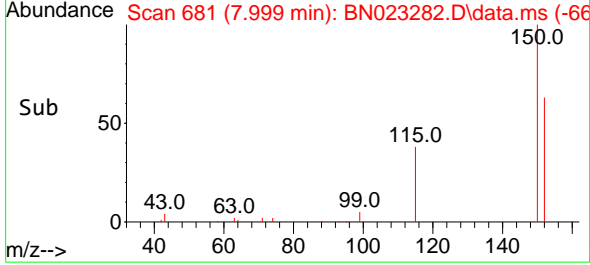
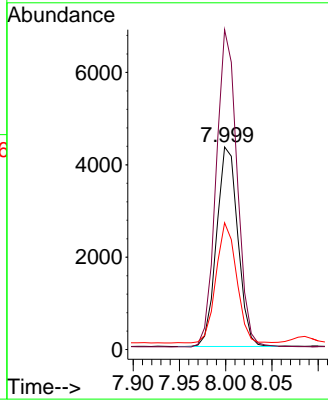


#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 7.999 min Scan# 684  
 Delta R.T. -0.000 min  
 Lab File: BN023282.D  
 Acq: 19 Dec 2022 12:40

Instrument :  
 BNA\_N  
 ClientSampleId :  
 GW-BR-04-226-245-121422

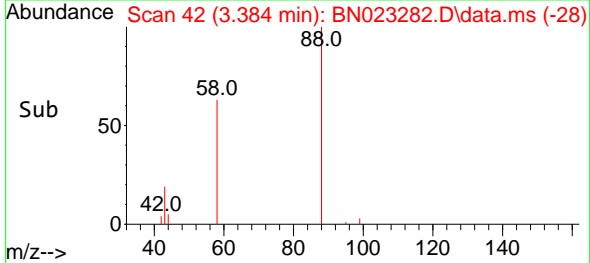
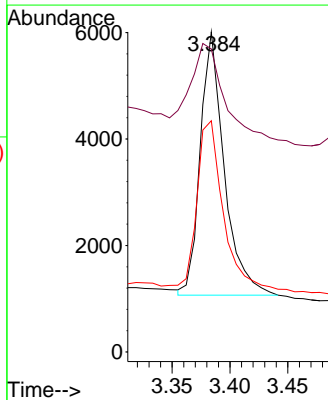
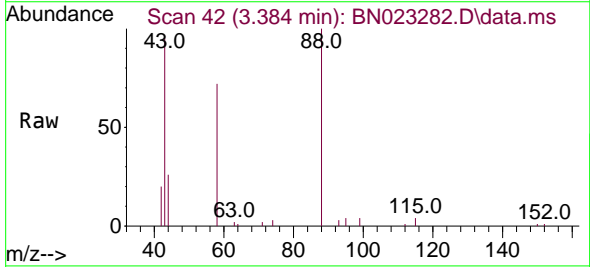


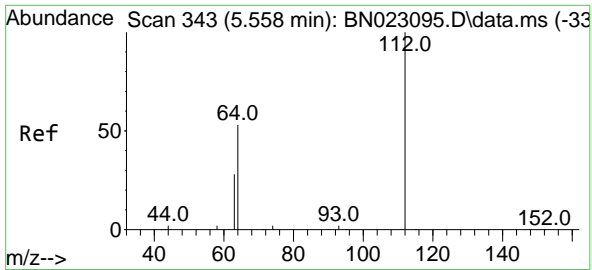
Tgt Ion:152 Resp: 6913  
 Ion Ratio Lower Upper  
 152 100  
 150 157.9 125.6 188.4  
 115 62.6 49.0 73.4



#2  
 1,4-Dioxane  
 Concen: 1.042 ng  
 RT: 3.384 min Scan# 42  
 Delta R.T. -0.000 min  
 Lab File: BN023282.D  
 Acq: 19 Dec 2022 12:40

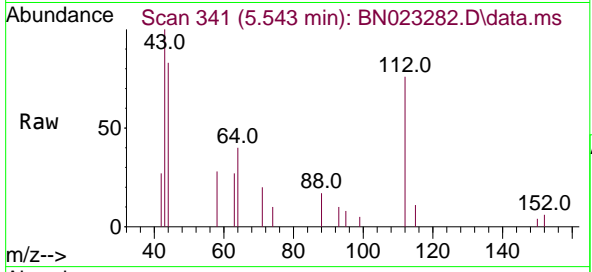
Tgt Ion: 88 Resp: 7112  
 Ion Ratio Lower Upper  
 88 100  
 43 53.1 23.3 34.9#  
 58 69.0 58.0 87.0





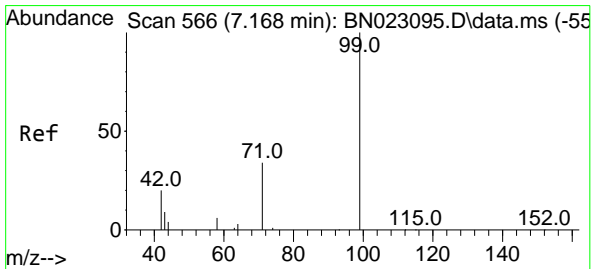
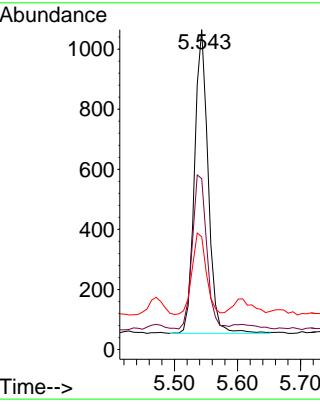
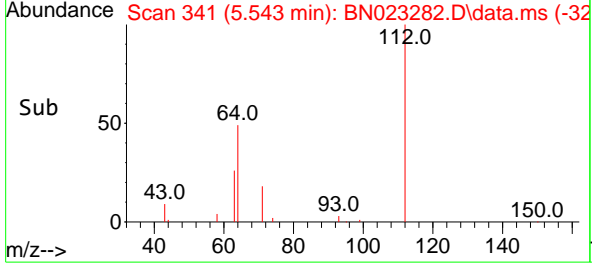
#4  
 2-Fluorophenol  
 Concen: 0.118 ng  
 RT: 5.543 min Scan# 341  
 Delta R.T. -0.000 min  
 Lab File: BN023282.D  
 Acq: 19 Dec 2022 12:40

Instrument :  
 BNA\_N  
 ClientSampleId :  
 GW-BR-04-226-245-121422

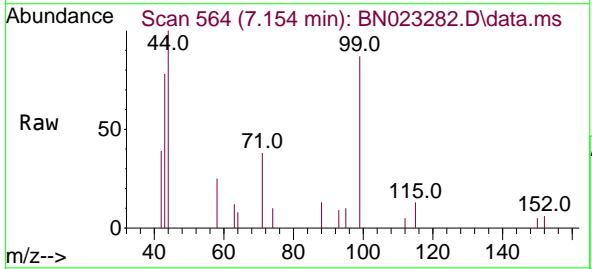


Tgt Ion: 112 Resp: 1515

Ion	Ratio	Lower	Upper
112	100		
64	53.3	44.4	66.6
63	27.7	23.7	35.5

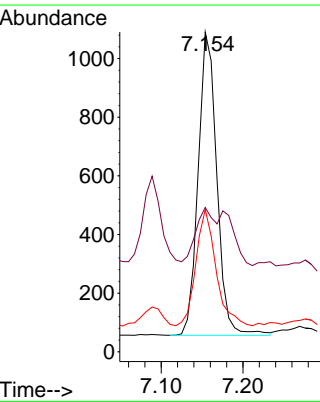
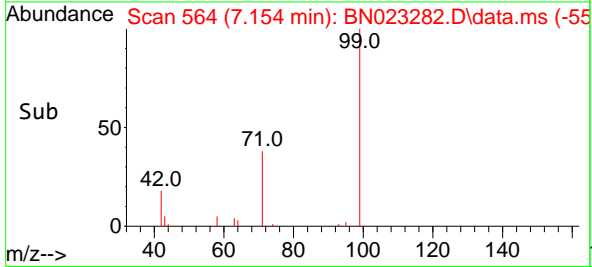


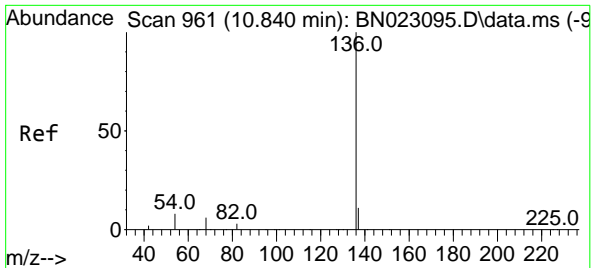
#5  
 Phenol-d6  
 Concen: 0.100 ng  
 RT: 7.154 min Scan# 564  
 Delta R.T. -0.000 min  
 Lab File: BN023282.D  
 Acq: 19 Dec 2022 12:40



Tgt Ion: 99 Resp: 1641

Ion	Ratio	Lower	Upper
99	100		
42	18.6	16.3	24.5
71	41.0	26.5	39.7



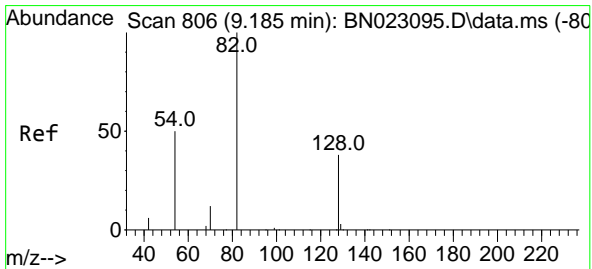
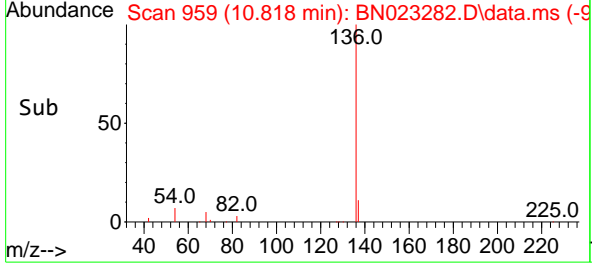
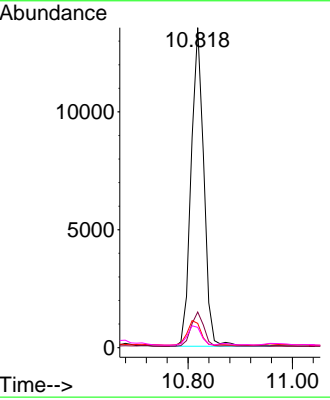
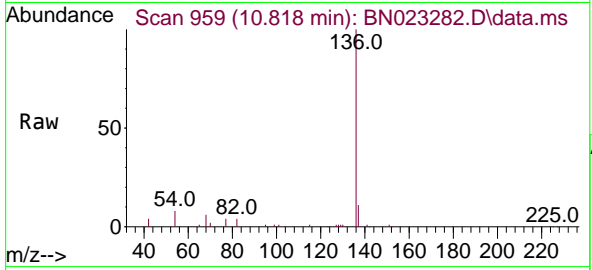


#7  
 Naphthalene-d8  
 Concen: 0.400 ng  
 RT: 10.818 min Scan# 91  
 Delta R.T. -0.000 min  
 Lab File: BN023282.D  
 Acq: 19 Dec 2022 12:40

Instrument : BNA\_N  
 ClientSampleId : GW-BR-04-226-245-121422

Tgt Ion: 136 Resp: 22753

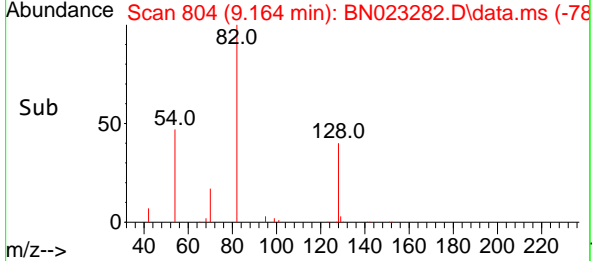
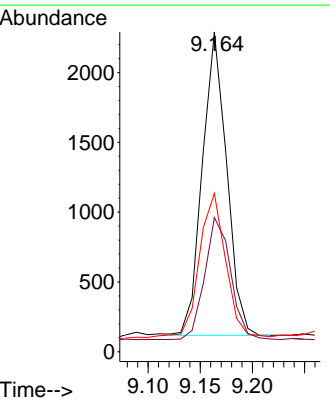
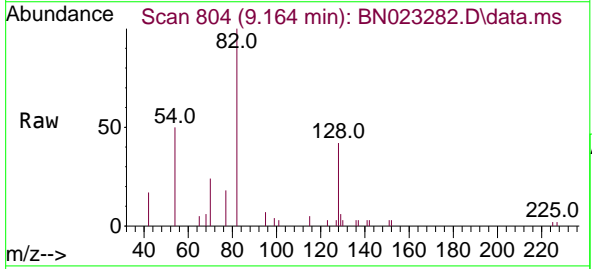
Ion	Ratio	Lower	Upper
136	100		
137	11.2	9.0	13.4
54	7.6	6.5	9.7
68	6.3	5.4	8.2



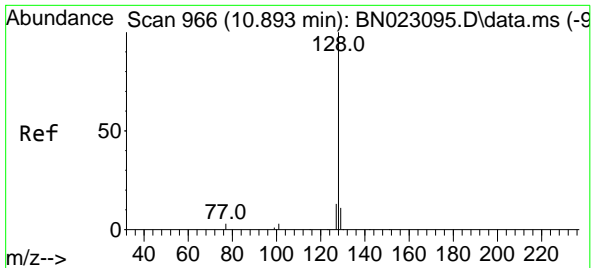
#8  
 Nitrobenzene-d5  
 Concen: 0.235 ng  
 RT: 9.164 min Scan# 804  
 Delta R.T. -0.000 min  
 Lab File: BN023282.D  
 Acq: 19 Dec 2022 12:40

Tgt Ion: 82 Resp: 3529

Ion	Ratio	Lower	Upper
82	100		
128	42.0	31.4	47.2
54	49.5	41.0	61.4





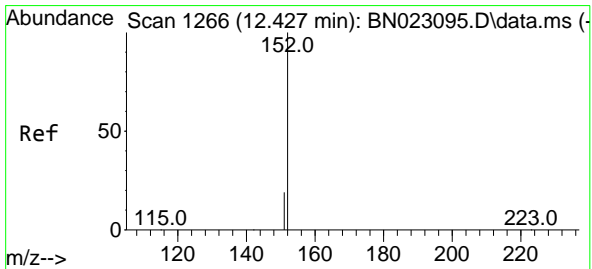
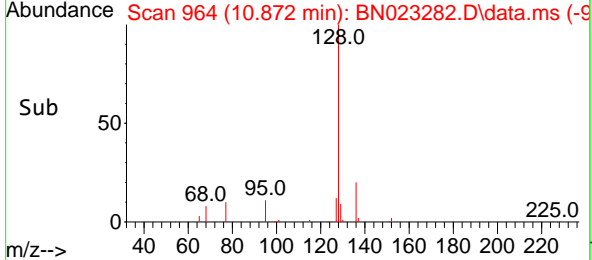
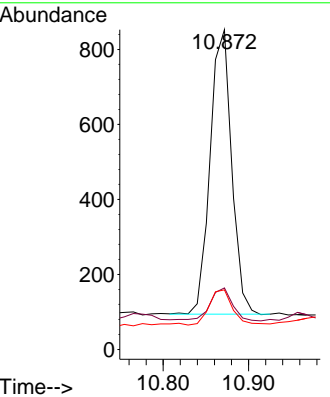
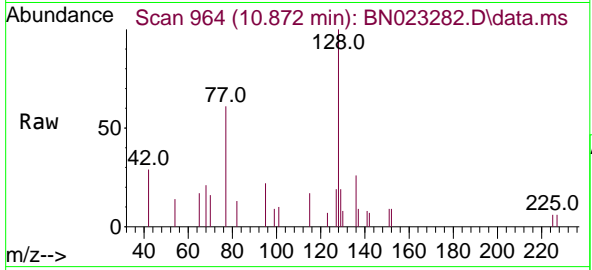


#9  
**Naphthalene**  
 Concen: 0.023 ng  
 RT: 10.872 min Scan# 964  
 Delta R.T. -0.000 min  
 Lab File: BN023282.D  
 Acq: 19 Dec 2022 12:40

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 GW-BR-04-226-245-121422

Tgt Ion:128 Resp: 1338

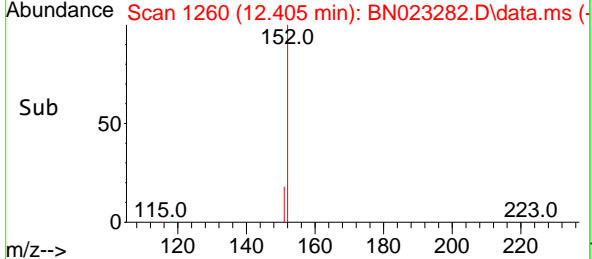
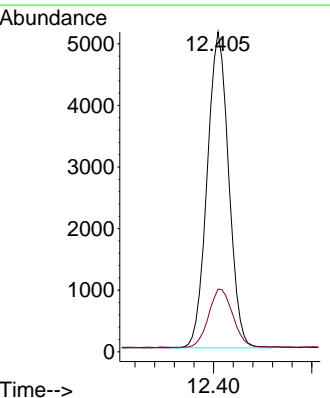
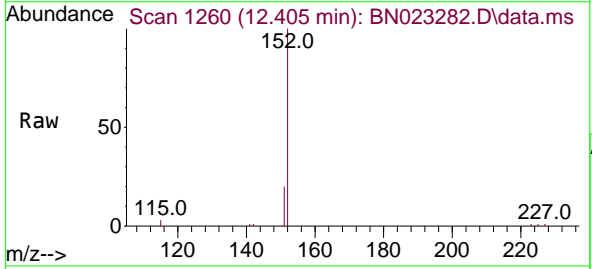
Ion	Ratio	Lower	Upper
128	100		
129	19.2	9.0	13.6#
127	18.6	10.5	15.7#

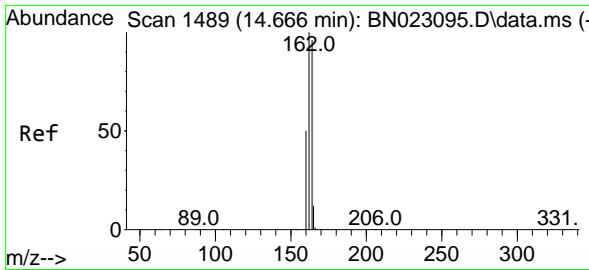


#11  
**2-Methylnaphthalene-d10**  
 Concen: 0.202 ng  
 RT: 12.405 min Scan# 1260  
 Delta R.T. -0.000 min  
 Lab File: BN023282.D  
 Acq: 19 Dec 2022 12:40

Tgt Ion:152 Resp: 7787

Ion	Ratio	Lower	Upper
152	100		
151	20.9	15.1	22.7

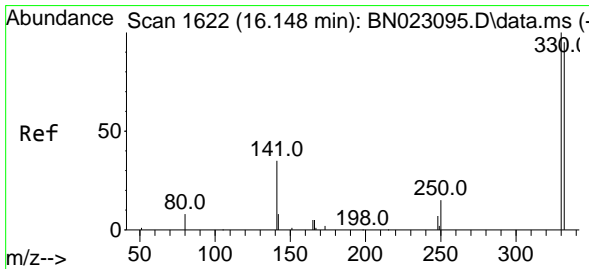
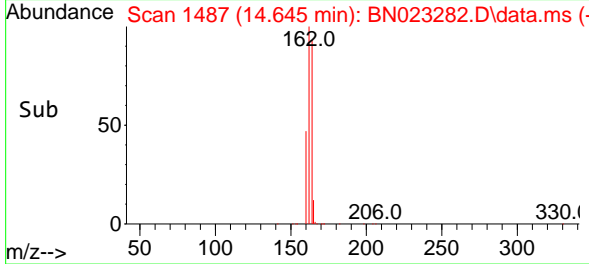
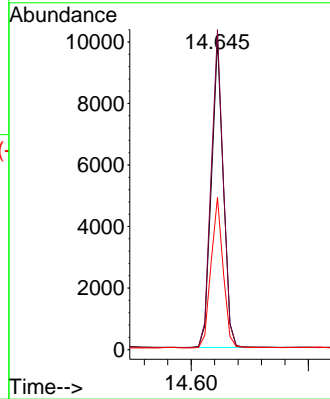
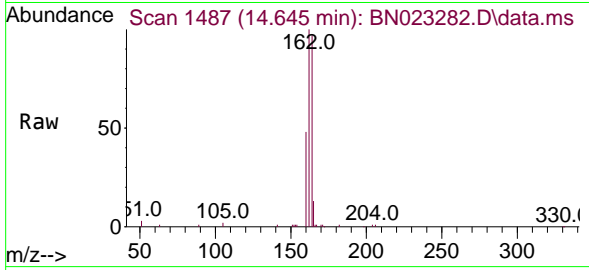




#13  
 Acenaphthene-d10  
 Concen: 0.400 ng  
 RT: 14.645 min Scan# 1487  
 Delta R.T. -0.000 min  
 Lab File: BN023282.D  
 Acq: 19 Dec 2022 12:40

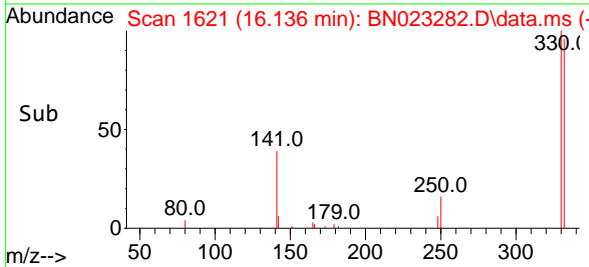
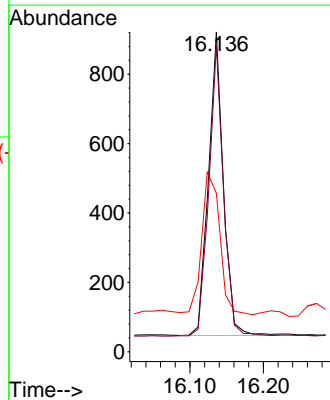
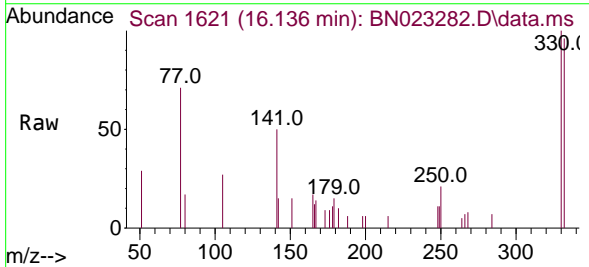
Instrument : BNA\_N  
 ClientSampleId : GW-BR-04-226-245-121422

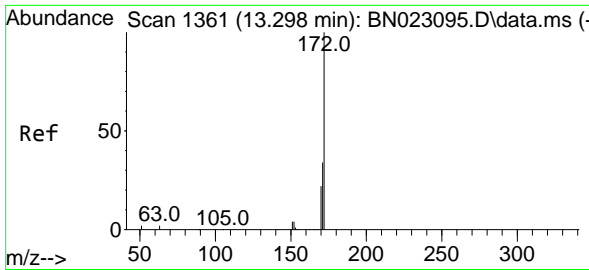
Tgt Ion	Resp	Lower	Upper
164	14155		
162	103.2	83.4	125.0
160	49.1	41.8	62.8



#14  
 2,4,6-Tribromophenol  
 Concen: 0.241 ng  
 RT: 16.136 min Scan# 1621  
 Delta R.T. -0.000 min  
 Lab File: BN023282.D  
 Acq: 19 Dec 2022 12:40

Tgt Ion	Resp	Lower	Upper
330	1237		
332	94.4	77.3	115.9
141	56.5	33.5	50.3

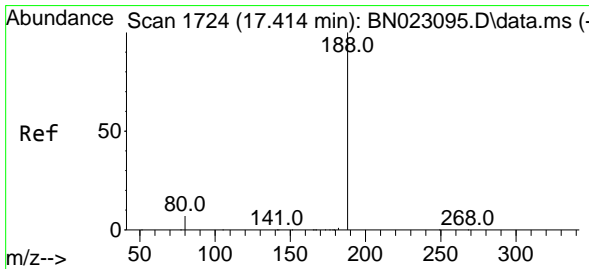
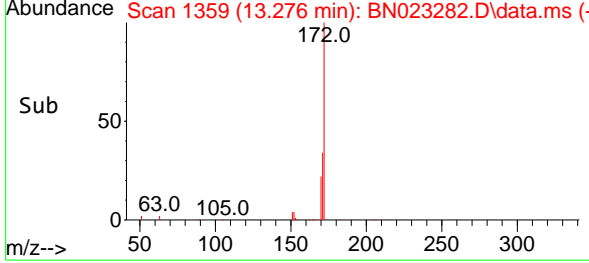
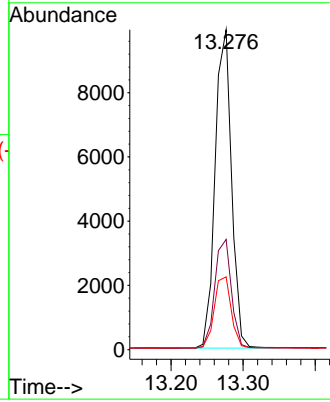
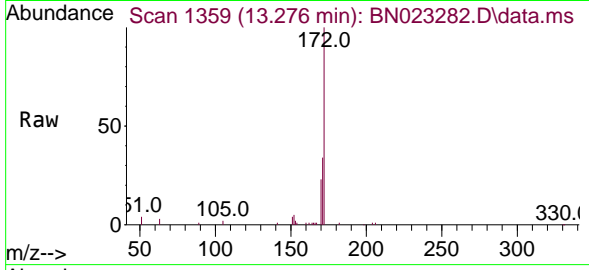




#15  
 2-Fluorobiphenyl  
 Concen: 0.278 ng  
 RT: 13.276 min Scan# 1361  
 Delta R.T. -0.000 min  
 Lab File: BN023282.D  
 Acq: 19 Dec 2022 12:40

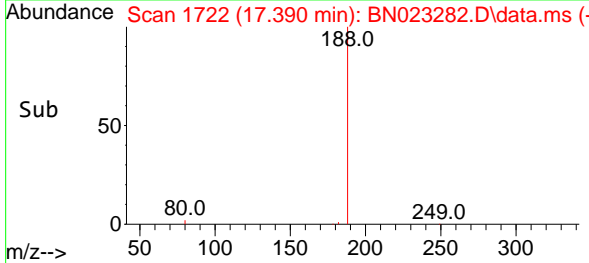
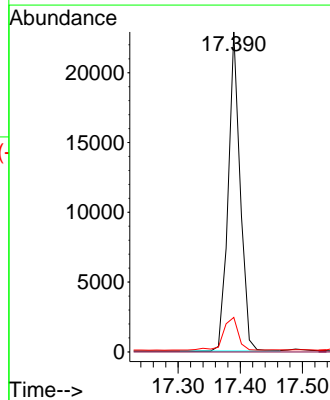
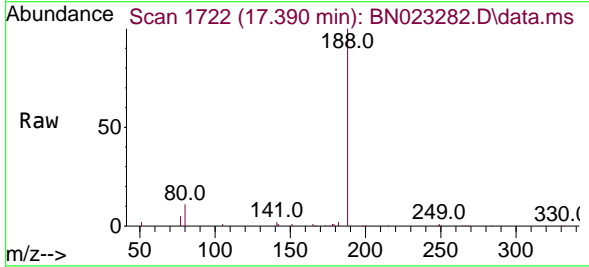
Instrument : BNA\_N  
 ClientSampleId : GW-BR-04-226-245-121422

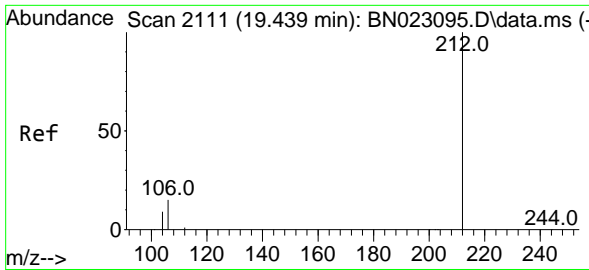
Tgt Ion	Resp	Lower	Upper
172	15703		
171	34.4	27.4	41.0
170	22.7	17.9	26.9



#19  
 Phenanthrene-d10  
 Concen: 0.400 ng  
 RT: 17.390 min Scan# 1722  
 Delta R.T. -0.000 min  
 Lab File: BN023282.D  
 Acq: 19 Dec 2022 12:40

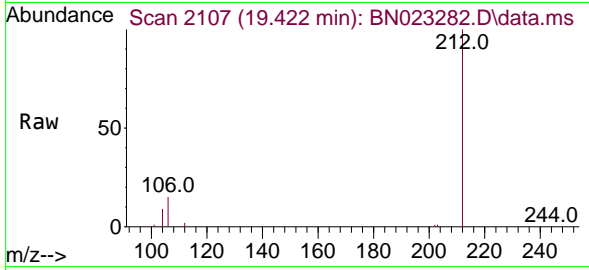
Tgt Ion	Resp	Lower	Upper
188	30735		
94	0.0	0.0	0.0
80	10.8	6.1	9.1#





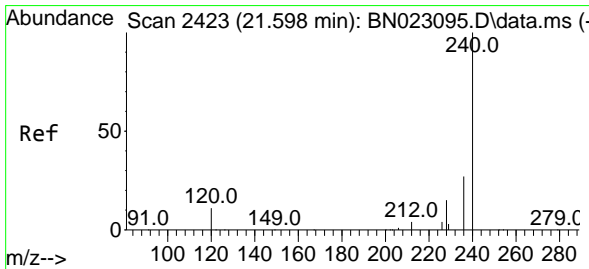
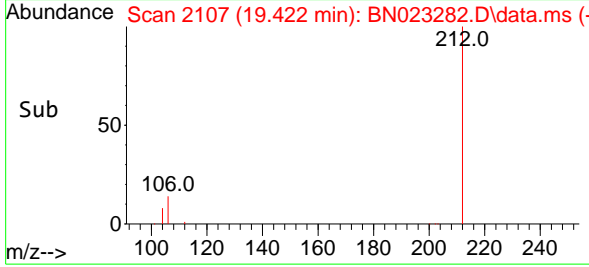
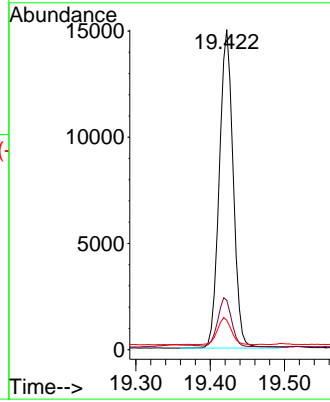
#27  
 Fluoranthene-d10  
 Concen: 0.270 ng  
 RT: 19.422 min Scan# 2111  
 Delta R.T. -0.000 min  
 Lab File: BN023282.D  
 Acq: 19 Dec 2022 12:40

Instrument :  
 BNA\_N  
 ClientSampleId :  
 GW-BR-04-226-245-121422



Tgt Ion: 212 Resp: 19451

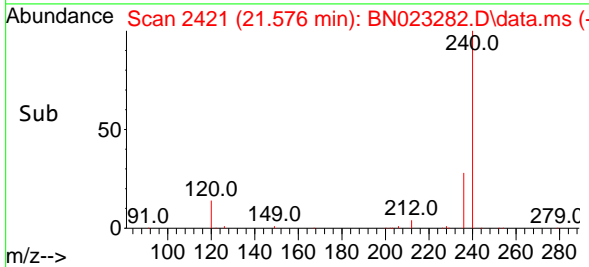
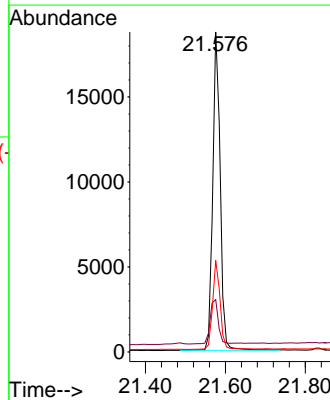
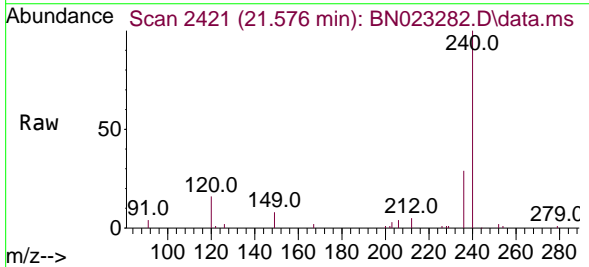
Ion	Ratio	Lower	Upper
212	100		
106	15.2	13.0	19.4
104	8.4	7.5	11.3

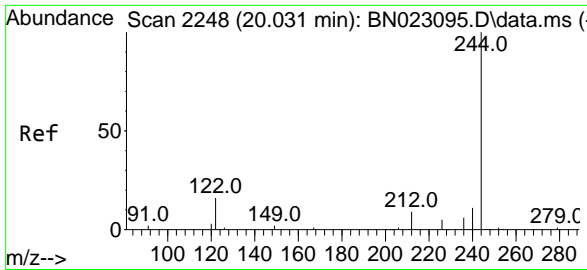


#29  
 Chrysene-d12  
 Concen: 0.400 ng  
 RT: 21.576 min Scan# 2421  
 Delta R.T. -0.005 min  
 Lab File: BN023282.D  
 Acq: 19 Dec 2022 12:40

Tgt Ion: 240 Resp: 24364

Ion	Ratio	Lower	Upper
240	100		
120	16.3	10.1	15.1#
236	28.6	22.2	33.4

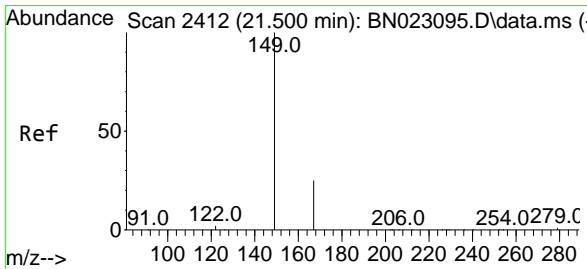
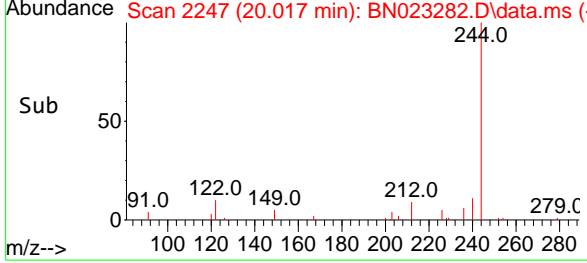
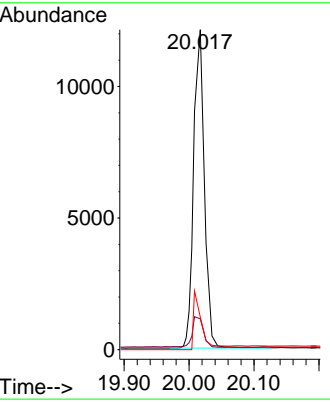
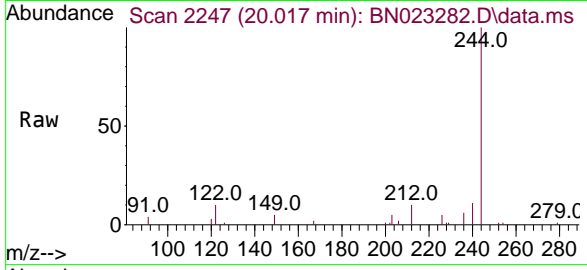




#31  
 Terphenyl-d14  
 Concen: 0.336 ng  
 RT: 20.017 min Scan# 2110  
 Delta R.T. 0.004 min  
 Lab File: BN023282.D  
 Acq: 19 Dec 2022 12:40

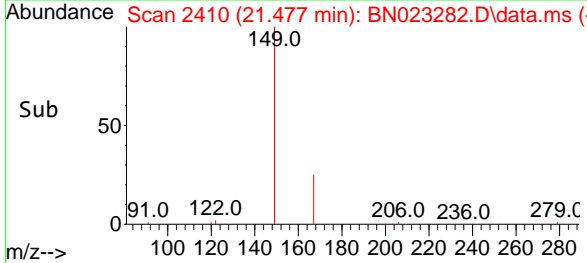
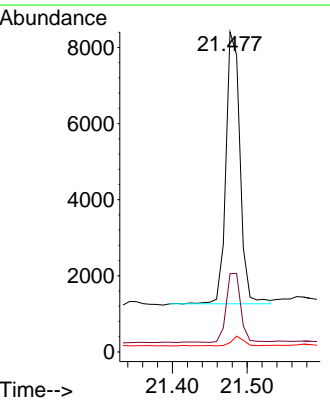
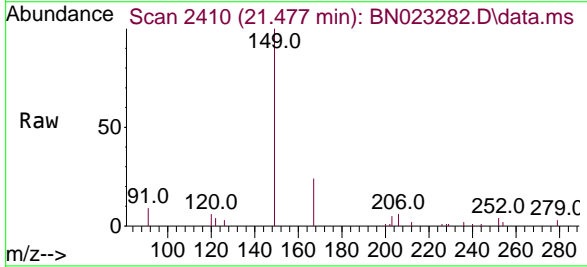
**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 GW-BR-04-226-245-121422

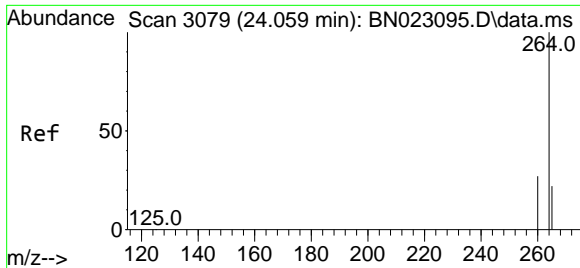
Tgt Ion	Resp	Lower	Upper
244	13293		
212	9.6	7.6	11.4
122	10.2	12.6	18.8



#34  
 Bis(2-ethylhexyl)phthalate  
 Concen: 0.282 ng  
 RT: 21.477 min Scan# 2410  
 Delta R.T. -0.005 min  
 Lab File: BN023282.D  
 Acq: 19 Dec 2022 12:40

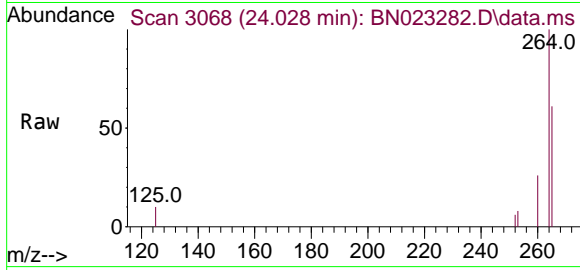
Tgt Ion	Resp	Lower	Upper
149	9369		
167	26.2	20.2	30.2
279	3.1	2.3	3.5





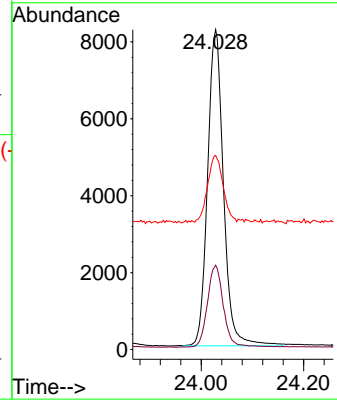
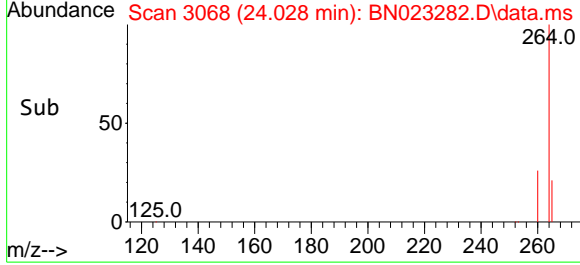
#35  
 Perylene-d12  
 Concen: 0.400 ng  
 RT: 24.028 min Scan# 30  
 Delta R.T. 0.001 min  
 Lab File: BN023282.D  
 Acq: 19 Dec 2022 12:40

Instrument :  
 BNA\_N  
 ClientSampleId :  
 GW-BR-04-226-245-121422



Tgt Ion:264 Resp: 17711

Ion	Ratio	Lower	Upper
264	100		
260	26.4	21.7	32.5
265	60.7	43.2	64.8



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

## Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	12/14/22
Project:	Former Schlumberger Site Princeton NJ	Date Received:	12/14/22
Client Sample ID:	OWBR-01-160-180-121422	SDG No.:	N6070
Lab Sample ID:	N6070-03	Matrix:	Water
Analytical Method:	SW8270SIM	% Moisture:	100
Sample Wt/Vol:	970 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN023283.D	1	12/16/22 08:59	12/19/22 13:16	PB149692

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
123-91-1	1,4-Dioxane	0.080	U	0.080	0.21	ug/L
<b>SURROGATES</b>						
7297-45-2	2-Methylnaphthalene-d10	0.25		30 (30) - 150 (150)	63%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.32		30 (30) - 150 (150)	80%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.35		30 (11) - 130 (175)	88%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.34		30 (10) - 130 (175)	85%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.37		30 (54) - 130 (171)	91%	SPK: 0.4
<b>INTERNAL STANDARDS</b>						
3855-82-1	1,4-Dichlorobenzene-d4	7610	8.006			
1146-65-2	Naphthalene-d8	24600	10.819			
15067-26-2	Acenaphthene-d10	15900	14.645			
1517-22-2	Phenanthrene-d10	34000	17.39			
1719-03-5	Chrysene-d12	27200	21.58			
1520-96-3	Perylene-d12	19600	24.027			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023283.D  
 Acq On : 19 Dec 2022 13:16  
 Operator : CG/JU  
 Sample : N6070-03  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-01-160-180-121422

Quant Time: Dec 19 15:45:30 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 19 15:44:58 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
Internal Standards							
1) 1,4-Dichlorobenzene-d4	8.006	152	7610	0.400	ng	0.00	
7) Naphthalene-d8	10.819	136	24602	0.400	ng	0.00	
13) Acenaphthene-d10	14.645	164	15939	0.400	ng	0.00	
19) Phenanthrene-d10	17.390	188	33981	0.400	ng	# 0.00	
29) Chrysene-d12	21.580	240	27221	0.400	ng	0.00	
35) Perylene-d12	24.027	264	19632	0.400	ng	0.00	
System Monitoring Compounds							
4) 2-Fluorophenol	5.543	112	1884	0.133	ng	0.00	
5) Phenol-d6	7.154	99	1822	0.101	ng	0.00	
8) Nitrobenzene-d5	9.164	82	5671	0.350	ng	0.00	
11) 2-Methylnaphthalene-d10	12.405	152	10482	0.251	ng	0.00	
14) 2,4,6-Tribromophenol	16.136	330	2615	0.452	ng	0.00	
15) 2-Fluorobiphenyl	13.277	172	21597	0.339	ng	0.00	
27) Fluoranthene-d10	19.422	212	25453	0.320	ng	0.00	
31) Terphenyl-d14	20.013	244	16176	0.366	ng	0.00	
Target Compounds							
9) Naphthalene	10.872	128	2309	0.037	ng	# 88	
24) Pentachlorophenol	17.042	266	239	0.029	ng	89	
25) Phenanthrene	17.427	178	3200	0.032	ng	# 94	
34) Bis(2-ethylhexyl)phtha...	21.482	149	4555	0.123	ng	99	

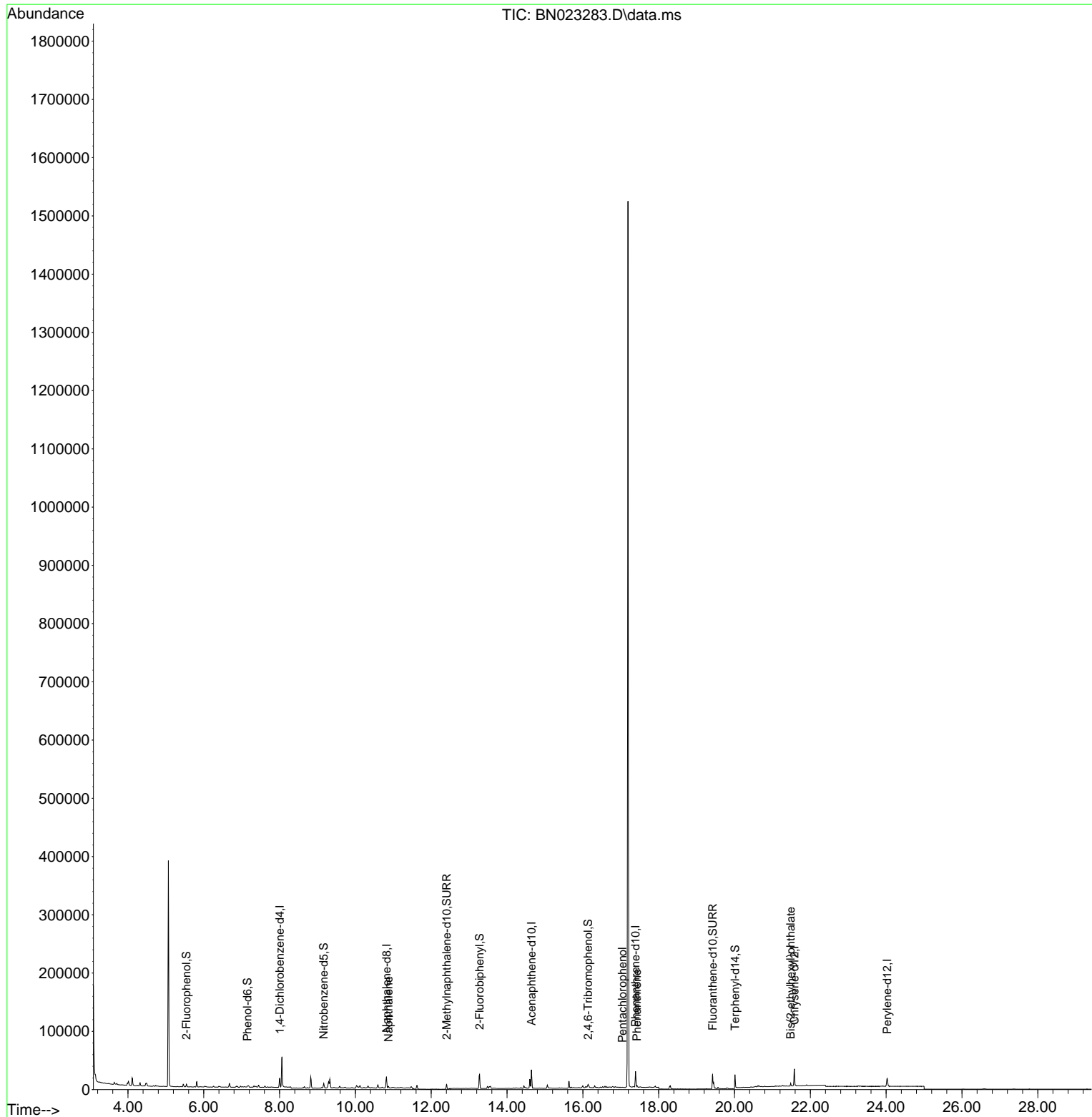
(#) = qualifier out of range (m) = manual integration (+) = signals summed



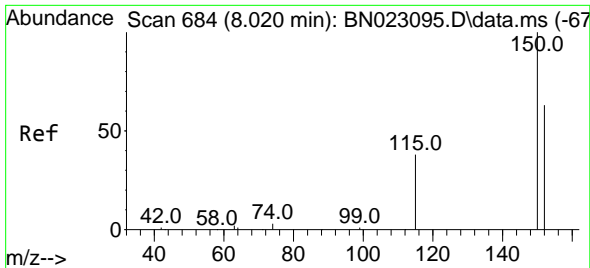
Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023283.D  
 Acq On : 19 Dec 2022 13:16  
 Operator : CG/JU  
 Sample : N6070-03  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 OWBR-01-160-180-121422

Quant Time: Dec 19 15:45:30 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 19 15:44:58 2022  
 Response via : Initial Calibration

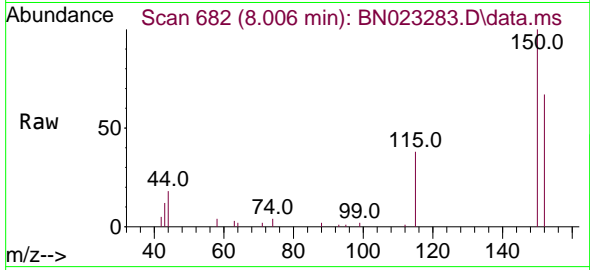


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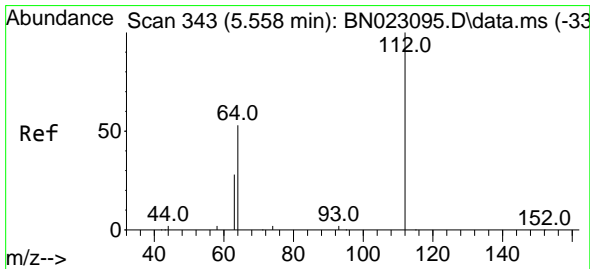
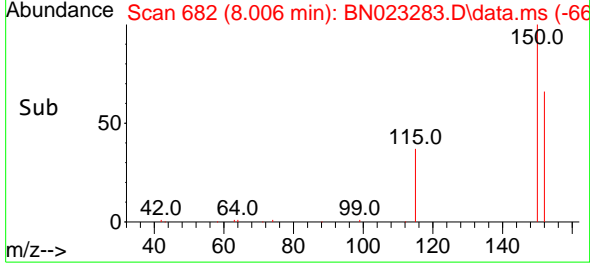
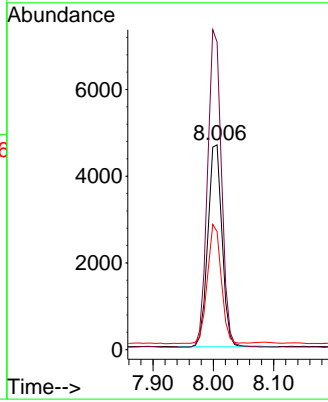


#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 8.006 min Scan# 684  
 Delta R.T. 0.007 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-01-160-180-121422

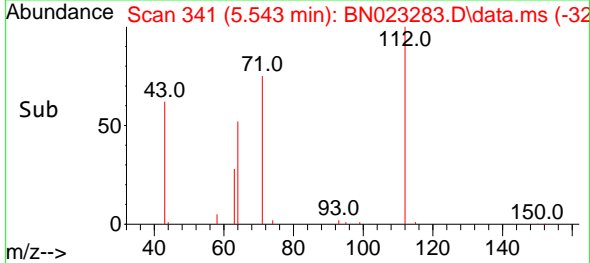
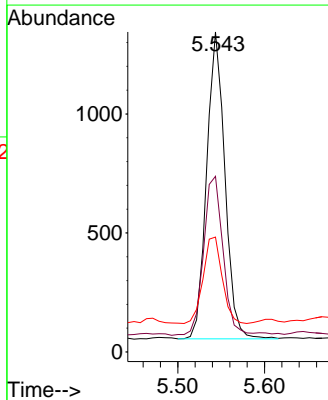
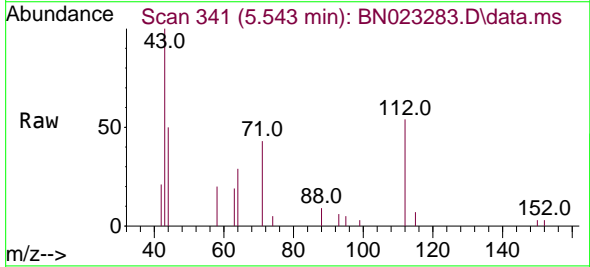


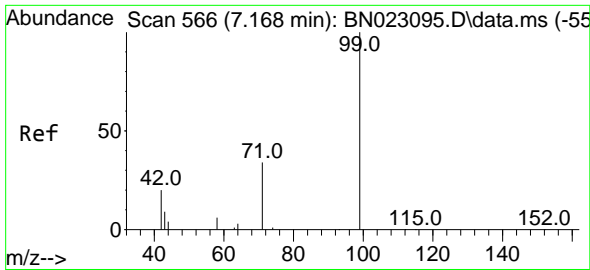
Tgt Ion:152 Resp: 7610  
 Ion Ratio Lower Upper  
 152 100  
 150 150.2 125.6 188.4  
 115 57.6 49.0 73.4



#4  
 2-Fluorophenol  
 Concen: 0.133 ng  
 RT: 5.543 min Scan# 341  
 Delta R.T. 0.000 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

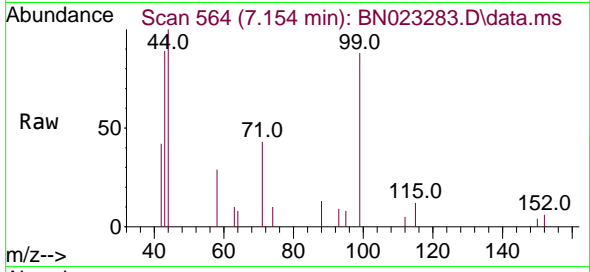
Tgt Ion:112 Resp: 1884  
 Ion Ratio Lower Upper  
 112 100  
 64 56.0 44.4 66.6  
 63 29.1 23.7 35.5





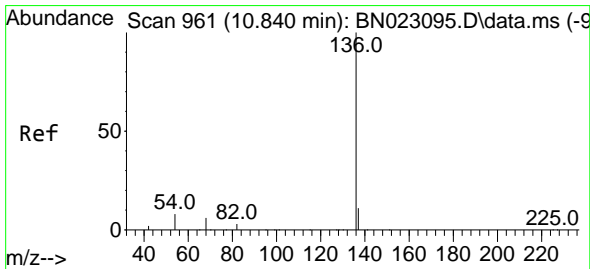
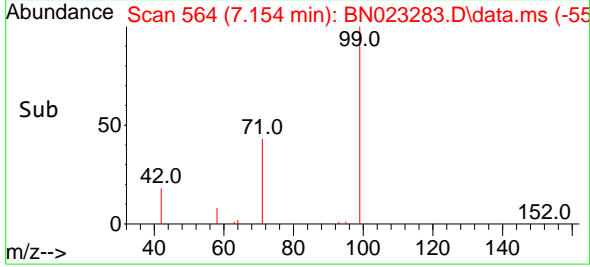
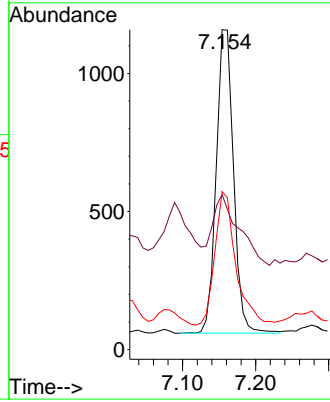
#5  
 Phenol-d6  
 Concen: 0.101 ng  
 RT: 7.154 min Scan# 564  
 Delta R.T. 0.000 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-01-160-180-121422



Tgt Ion: 99 Resp: 1822

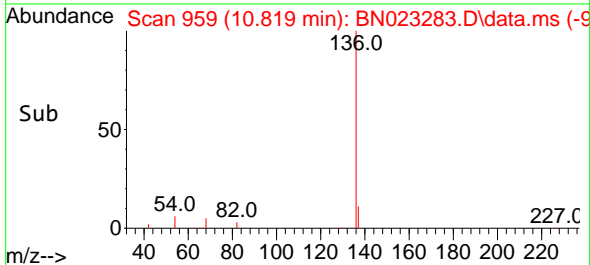
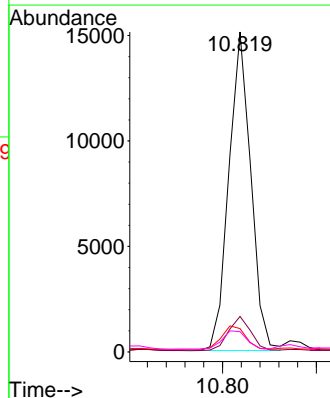
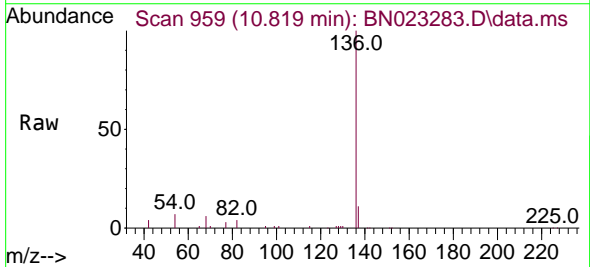
Ion	Ratio	Lower	Upper
99	100		
42	35.6	16.3	24.5#
71	53.2	26.5	39.7#

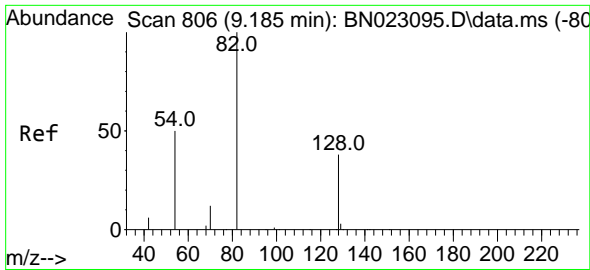


#7  
 Naphthalene-d8  
 Concen: 0.400 ng  
 RT: 10.819 min Scan# 959  
 Delta R.T. 0.000 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

Tgt Ion: 136 Resp: 24602

Ion	Ratio	Lower	Upper
136	100		
137	11.1	9.0	13.4
54	7.3	6.5	9.7
68	6.3	5.4	8.2



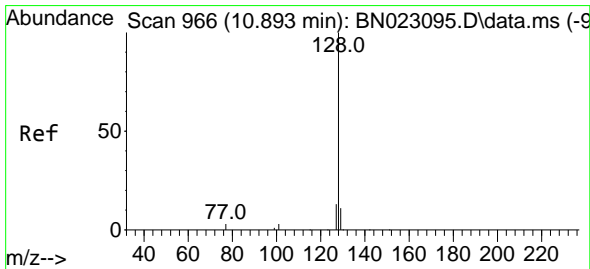
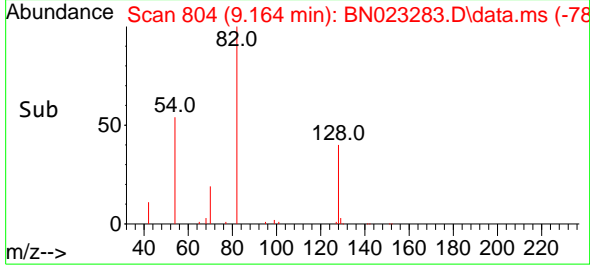
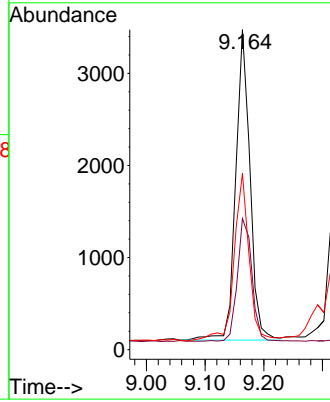
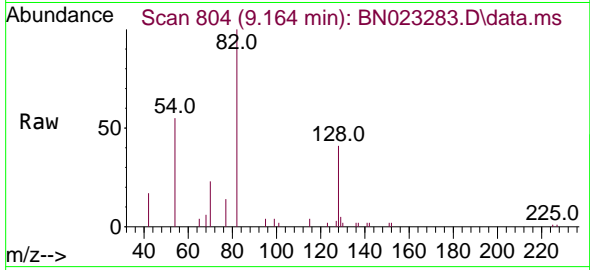


#8  
 Nitrobenzene-d5  
 Concen: 0.350 ng  
 RT: 9.164 min Scan# 804  
 Delta R.T. 0.000 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-01-160-180-121422

Tgt Ion: 82 Resp: 5671

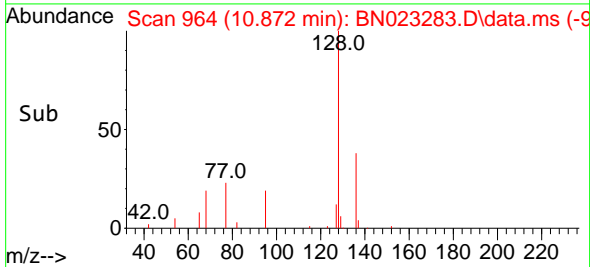
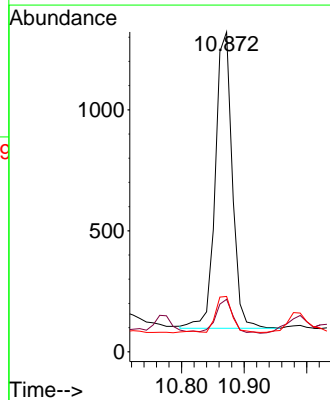
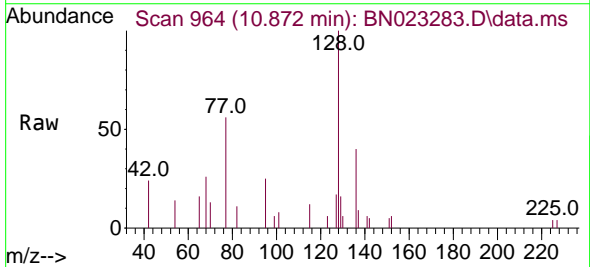
Ion	Ratio	Lower	Upper
82	100		
128	41.0	31.4	47.2
54	55.1	41.0	61.4

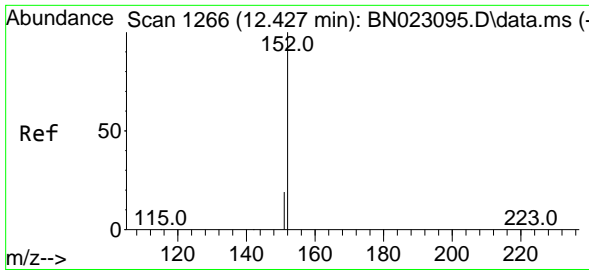


#9  
 Naphthalene  
 Concen: 0.037 ng  
 RT: 10.872 min Scan# 964  
 Delta R.T. 0.000 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

Tgt Ion: 128 Resp: 2309

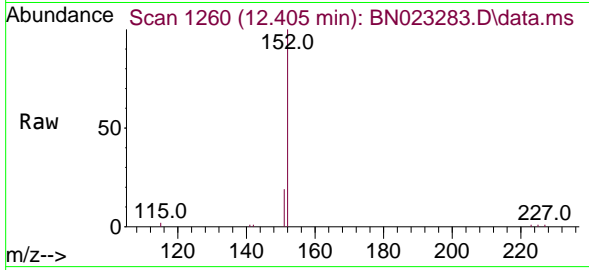
Ion	Ratio	Lower	Upper
128	100		
129	16.4	9.0	13.6#
127	17.3	10.5	15.7#



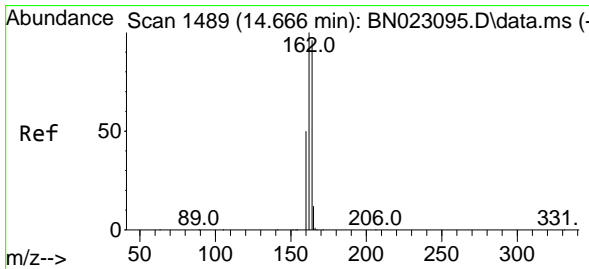
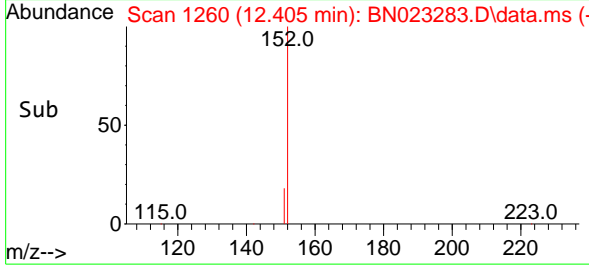
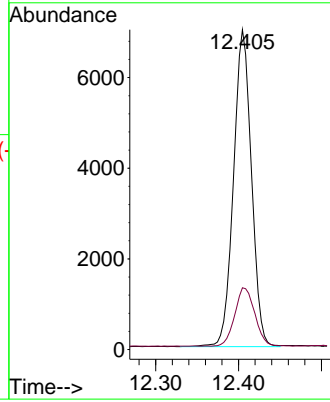


#11  
 2-Methylnaphthalene-d10  
 Concen: 0.251 ng  
 RT: 12.405 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-01-160-180-121422

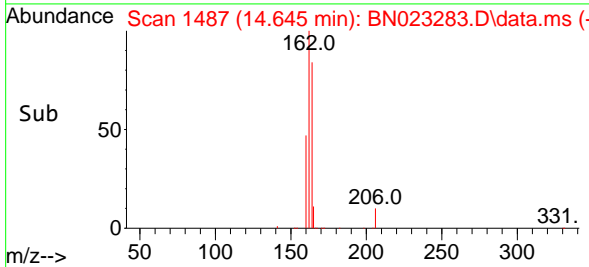
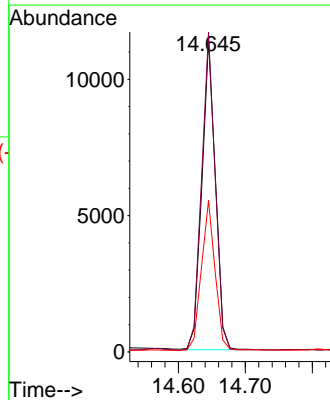
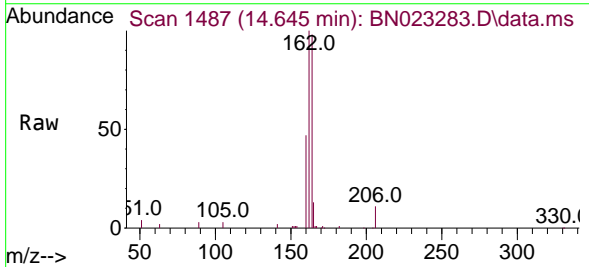


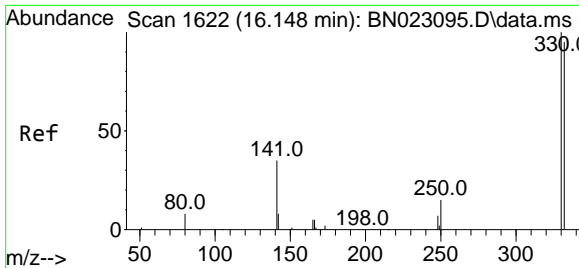
Tgt Ion:152 Resp: 10482  
 Ion Ratio Lower Upper  
 152 100  
 151 20.7 15.1 22.7



#13  
 Acenaphthene-d10  
 Concen: 0.400 ng  
 RT: 14.645 min Scan# 1487  
 Delta R.T. 0.000 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

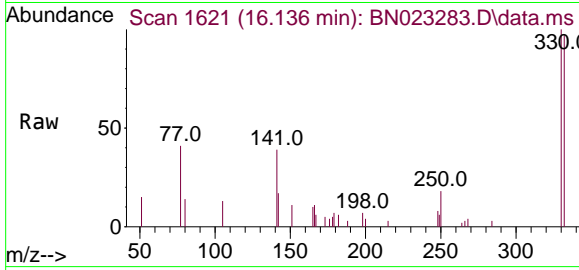
Tgt Ion:164 Resp: 15939  
 Ion Ratio Lower Upper  
 164 100  
 162 102.5 83.4 125.0  
 160 48.5 41.8 62.8



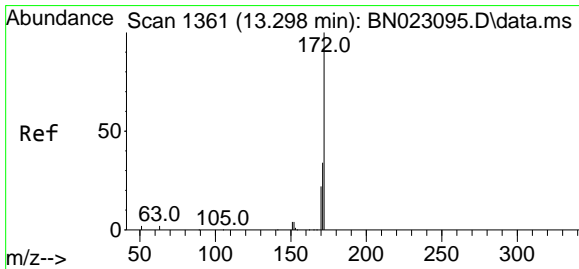
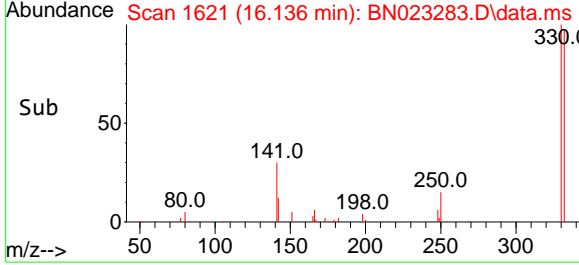
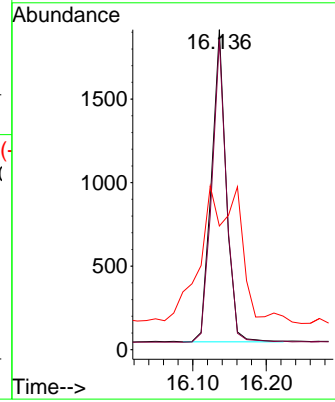


#14  
 2,4,6-Tribromophenol  
 Concen: 0.452 ng  
 RT: 16.136 min Scan# 1621  
 Delta R.T. 0.000 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 OWBR-01-160-180-121422

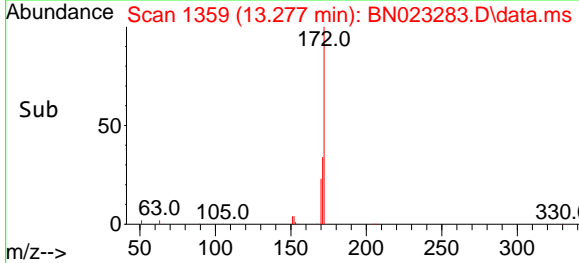
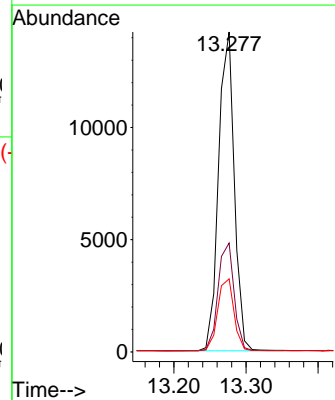
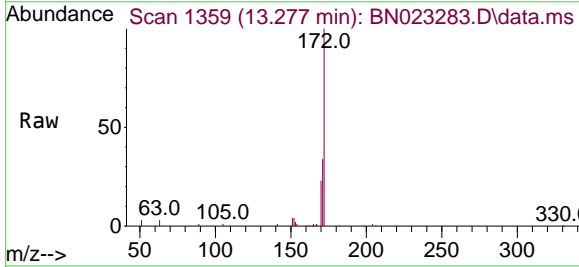


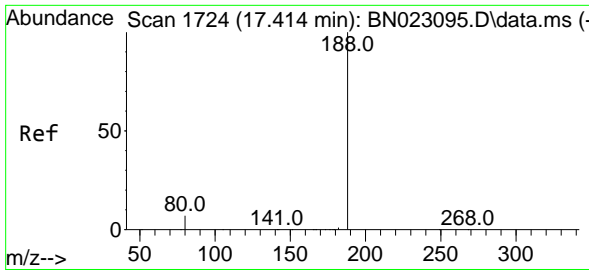
Tgt Ion:330 Resp: 2615  
 Ion Ratio Lower Upper  
 330 100  
 332 96.3 77.3 115.9  
 141 110.1 33.5 50.3#



#15  
 2-Fluorobiphenyl  
 Concen: 0.339 ng  
 RT: 13.277 min Scan# 1359  
 Delta R.T. 0.000 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

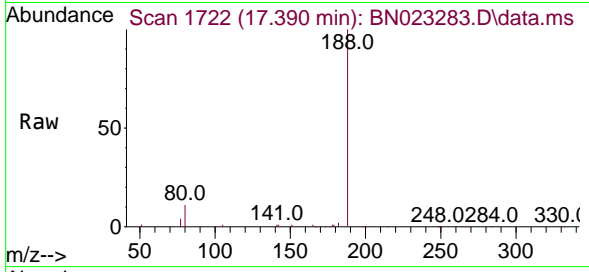
Tgt Ion:172 Resp: 21597  
 Ion Ratio Lower Upper  
 172 100  
 171 34.0 27.4 41.0  
 170 22.8 17.9 26.9





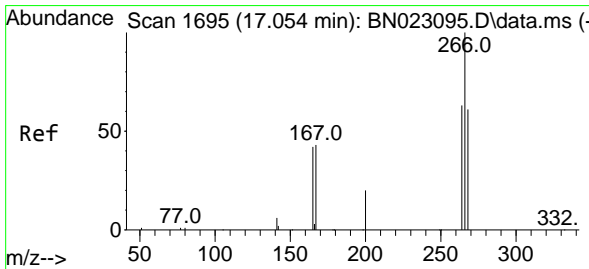
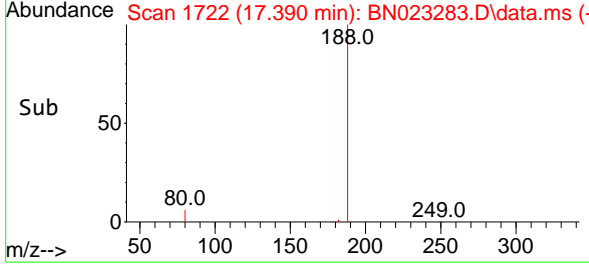
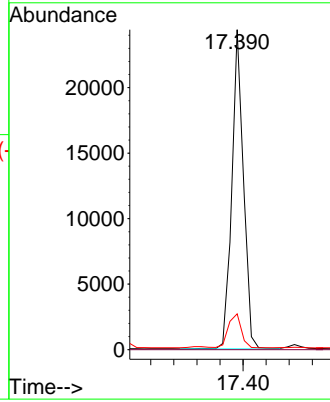
#19  
 Phenanthrene-d10  
 Concen: 0.400 ng  
 RT: 17.390 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-01-160-180-121422



Tgt Ion:188 Resp: 33981

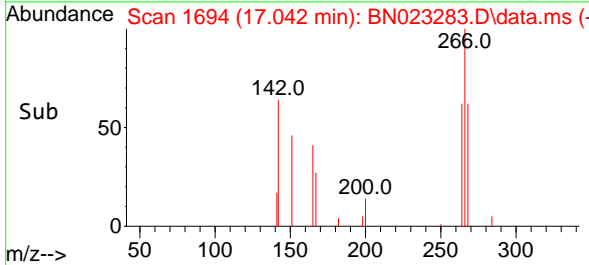
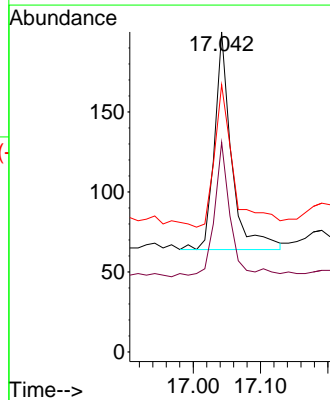
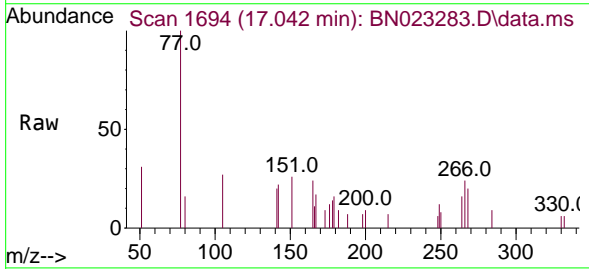
Ion	Ratio	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	11.2	6.1	9.1

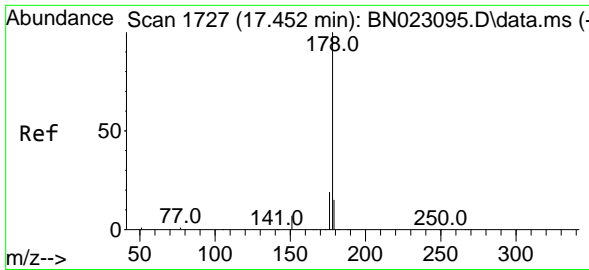


#24  
 Pentachlorophenol  
 Concen: 0.029 ng  
 RT: 17.042 min Scan# 1694  
 Delta R.T. 0.000 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

Tgt Ion:266 Resp: 239

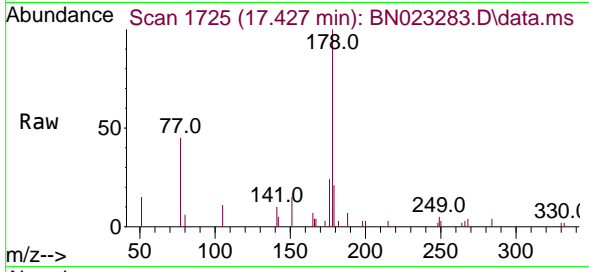
Ion	Ratio	Lower	Upper
266	100		
264	56.9	50.1	75.1
268	72.8	49.7	74.5



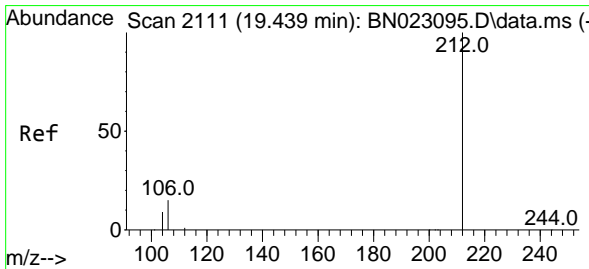
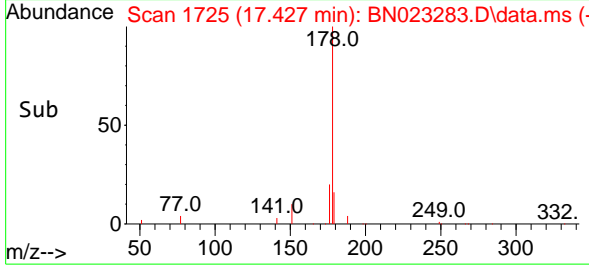
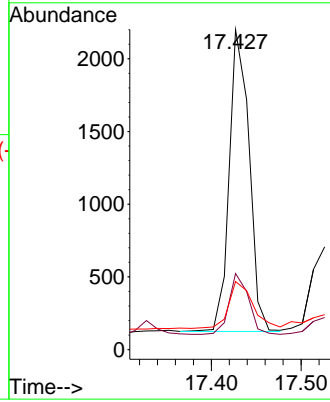


#25  
 Phenanthrene  
 Concen: 0.032 ng  
 RT: 17.427 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-01-160-180-121422

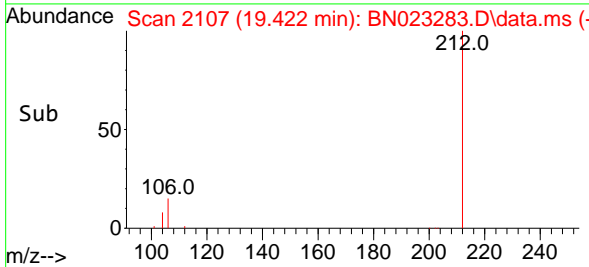
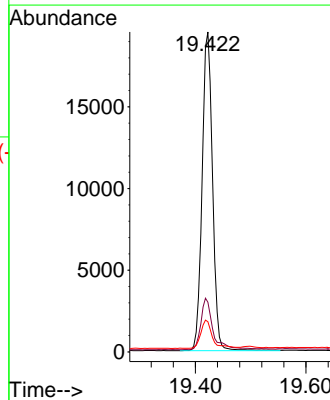
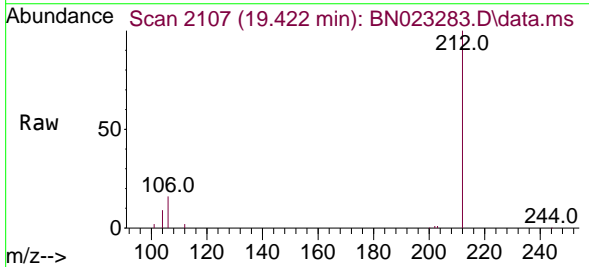


Tgt Ion:178 Resp: 3200  
 Ion Ratio Lower Upper  
 178 100  
 176 19.7 15.4 23.2  
 179 20.3 12.2 18.2#

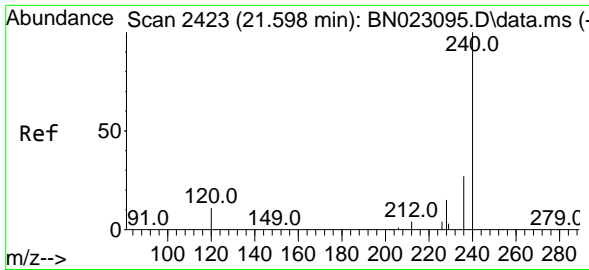


#27  
 Fluoranthene-d10  
 Concen: 0.320 ng  
 RT: 19.422 min Scan# 2107  
 Delta R.T. 0.000 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

Tgt Ion:212 Resp: 25453  
 Ion Ratio Lower Upper  
 212 100  
 106 18.8 13.0 19.4  
 104 9.7 7.5 11.3



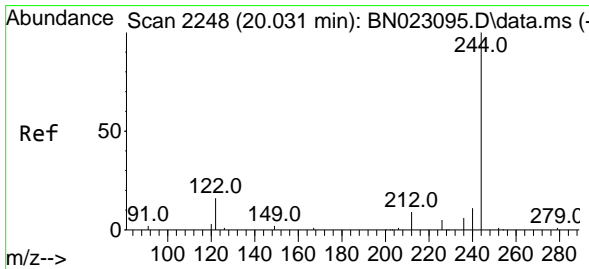
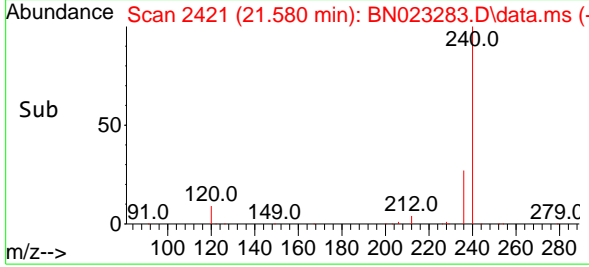
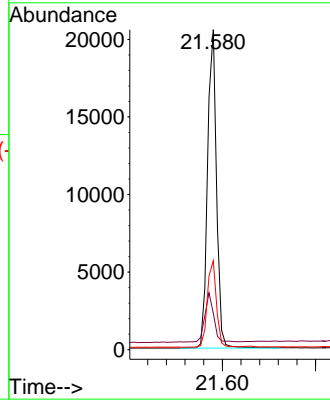
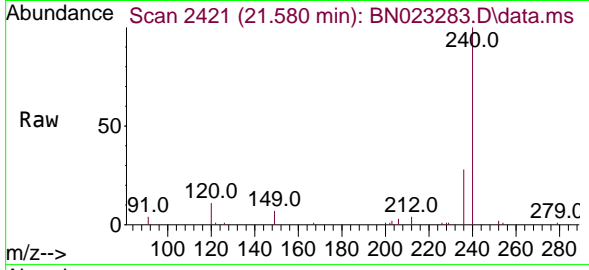




#29  
 Chrysene-d12  
 Concen: 0.400 ng  
 RT: 21.580 min Scan# 2421  
 Delta R.T. 0.000 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

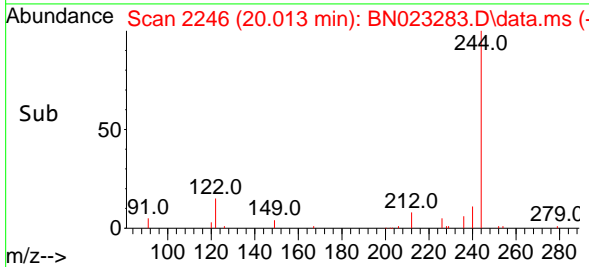
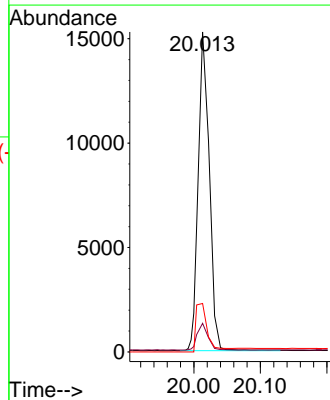
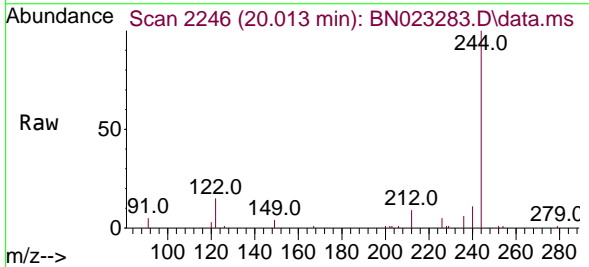
Instrument : BNA\_N  
 ClientSampleId : OWBR-01-160-180-121422

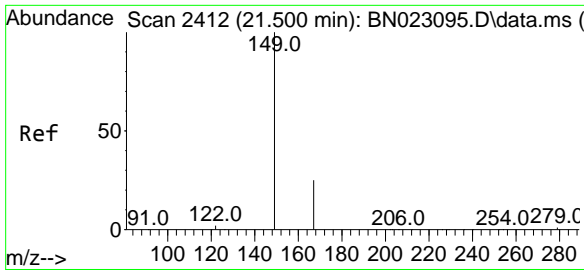
Tgt Ion	Resp	Lower	Upper
240	100		
120	11.3	10.1	15.1
236	27.8	22.2	33.4



#31  
 Terphenyl-d14  
 Concen: 0.366 ng  
 RT: 20.013 min Scan# 2246  
 Delta R.T. 0.000 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

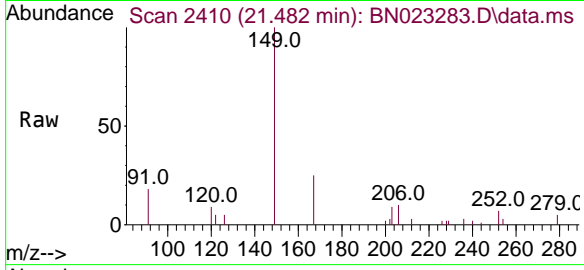
Tgt Ion	Resp	Lower	Upper
244	100		
212	8.9	7.6	11.4
122	15.1	12.6	18.8





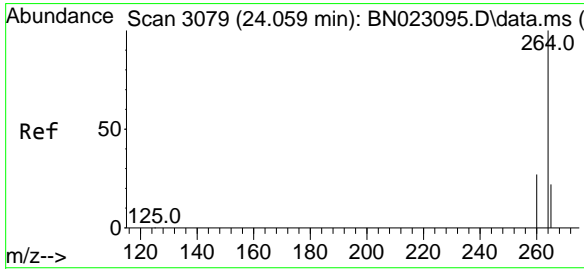
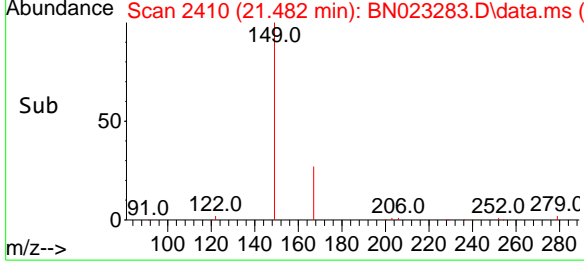
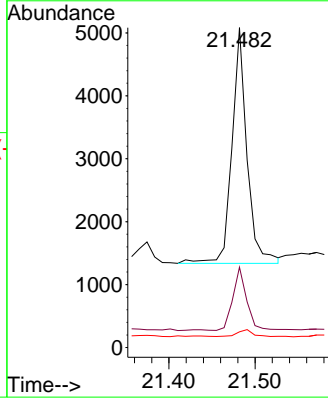
#34  
 Bis(2-ethylhexyl)phthalate  
 Concen: 0.123 ng  
 RT: 21.482 min Scan# 2410  
 Delta R.T. 0.000 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

Instrument : BNA\_N  
 ClientSampleId : OWBR-01-160-180-121422



Tgt Ion:149 Resp: 4555

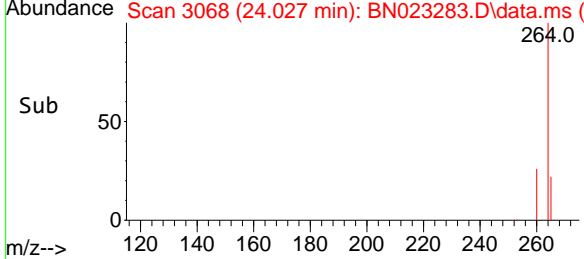
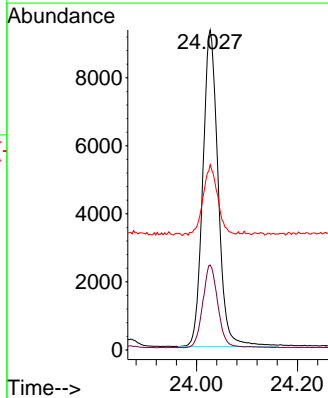
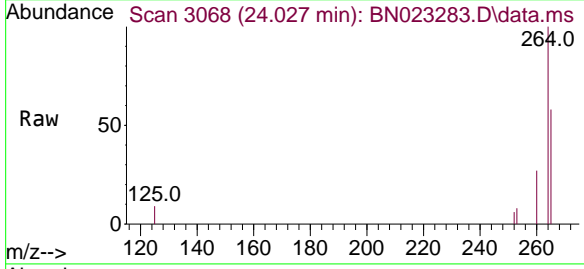
Ion	Ratio	Lower	Upper
149	100		
167	24.5	20.2	30.2
279	3.3	2.3	3.5



#35  
 Perylene-d12  
 Concen: 0.400 ng  
 RT: 24.027 min Scan# 3068  
 Delta R.T. 0.000 min  
 Lab File: BN023283.D  
 Acq: 19 Dec 2022 13:16

Tgt Ion:264 Resp: 19632

Ion	Ratio	Lower	Upper
264	100		
260	26.5	21.7	32.5
265	57.9	43.2	64.8





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

## Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	12/14/22
Project:	Former Schlumberger Site Princeton NJ	Date Received:	12/14/22
Client Sample ID:	OWBR-02-160-180-121422	SDG No.:	N6070
Lab Sample ID:	N6070-04	Matrix:	Water
Analytical Method:	SW8270SIM	% Moisture:	100
Sample Wt/Vol:	960 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN023284.D	1	12/16/22 08:59	12/19/22 13:53	PB149692

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
123-91-1	1,4-Dioxane	0.080	U	0.080	0.21	ug/L
<b>SURROGATES</b>						
7297-45-2	2-Methylnaphthalene-d10	0.25		30 (30) - 150 (150)	61%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.25		30 (30) - 150 (150)	61%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.33		30 (11) - 130 (175)	82%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.33		30 (10) - 130 (175)	83%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.23		30 (54) - 130 (171)	56%	SPK: 0.4
<b>INTERNAL STANDARDS</b>						
3855-82-1	1,4-Dichlorobenzene-d4	7230	7.999			
1146-65-2	Naphthalene-d8	23800	10.818			
15067-26-2	Acenaphthene-d10	14600	14.645			
1517-22-2	Phenanthrene-d10	32600	17.39			
1719-03-5	Chrysene-d12	25100	21.58			
1520-96-3	Perylene-d12	17900	24.027			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023284.D  
 Acq On : 19 Dec 2022 13:53  
 Operator : CG/JU  
 Sample : N6070-04  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-02-160-180-121422

Quant Time: Dec 19 15:45:32 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 19 15:44:58 2022  
 Response via : Initial Calibration

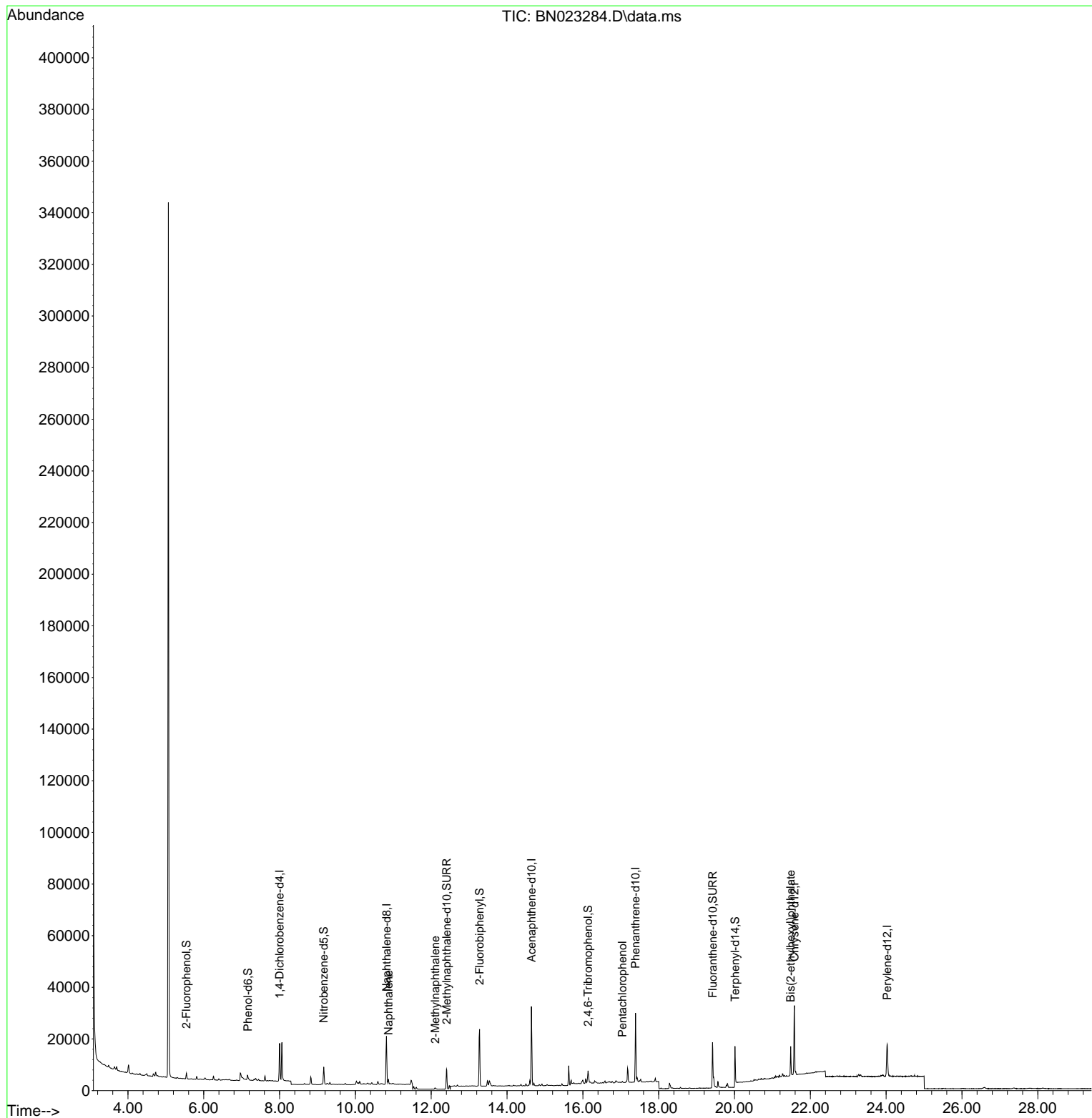
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
Internal Standards							
1) 1,4-Dichlorobenzene-d4	7.999	152	7230	0.400	ng	0.00	
7) Naphthalene-d8	10.818	136	23777	0.400	ng	0.00	
13) Acenaphthene-d10	14.645	164	14567	0.400	ng	0.00	
19) Phenanthrene-d10	17.390	188	32593	0.400	ng	# 0.00	
29) Chrysene-d12	21.580	240	25059	0.400	ng	0.00	
35) Perylene-d12	24.027	264	17925	0.400	ng	0.00	
System Monitoring Compounds							
4) 2-Fluorophenol	5.543	112	1659	0.123	ng	0.00	
5) Phenol-d6	7.161	99	1702	0.099	ng	0.00	
8) Nitrobenzene-d5	9.163	82	5160	0.329	ng	0.00	
11) 2-Methylnaphthalene-d10	12.405	152	9896	0.245	ng	0.00	
14) 2,4,6-Tribromophenol	16.136	330	2320	0.439	ng	0.00	
15) 2-Fluorobiphenyl	13.276	172	19464	0.334	ng	0.00	
27) Fluoranthene-d10	19.422	212	18662	0.245	ng	0.00	
31) Terphenyl-d14	20.013	244	9141	0.225	ng	0.00	
Target Compounds							
9) Naphthalene	10.872	128	2024	0.033	ng	# 89	
12) 2-Methylnaphthalene	12.102	142	701	0.078	ng	# 55	
24) Pentachlorophenol	17.042	266	226	0.029	ng	91	
34) Bis(2-ethylhexyl)phtha...	21.482	149	9694	0.284	ng	97	

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

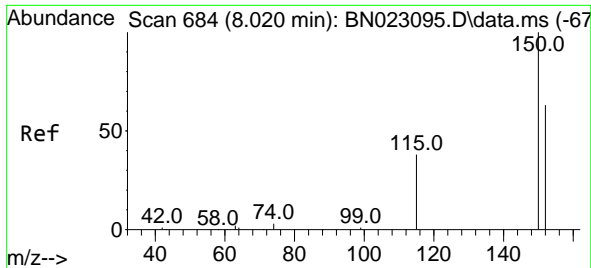
Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023284.D  
 Acq On : 19 Dec 2022 13:53  
 Operator : CG/JU  
 Sample : N6070-04  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 OWBR-02-160-180-121422

Quant Time: Dec 19 15:45:32 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 19 15:44:58 2022  
 Response via : Initial Calibration



- 1
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- 17

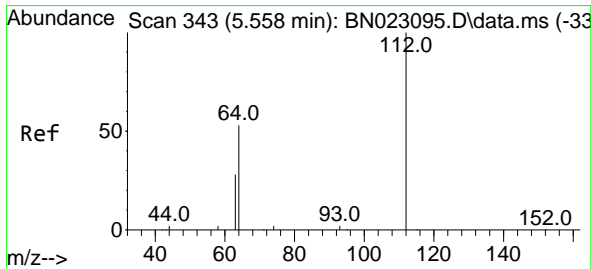
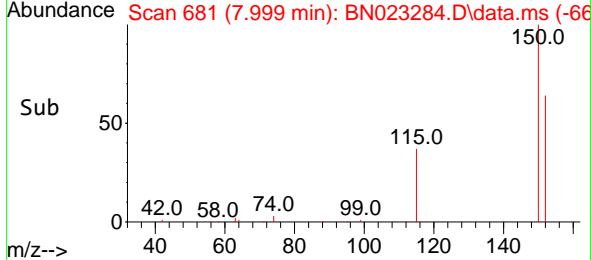
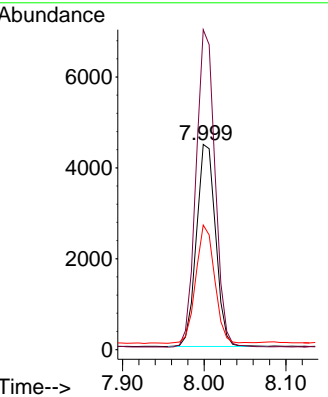
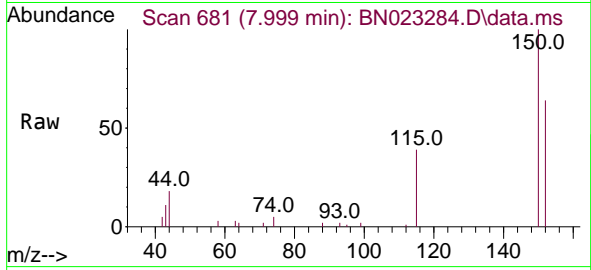


#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 7.999 min Scan# 681  
 Delta R.T. -0.000 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-02-160-180-121422

Tgt Ion:152 Resp: 7230

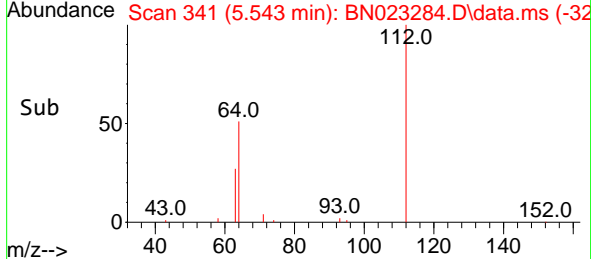
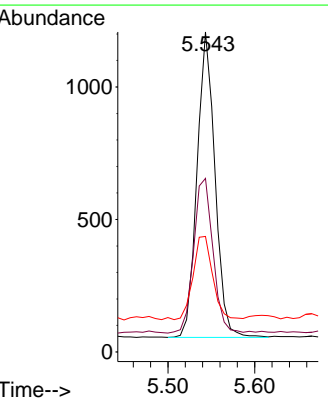
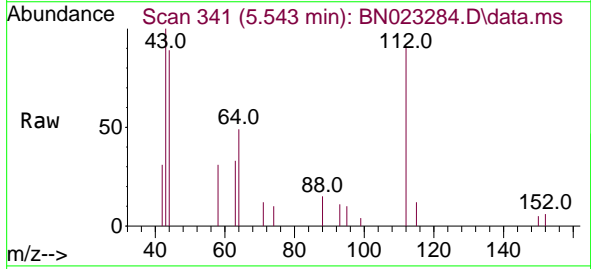
Ion	Ratio	Lower	Upper
152	100		
150	156.0	125.6	188.4
115	60.7	49.0	73.4

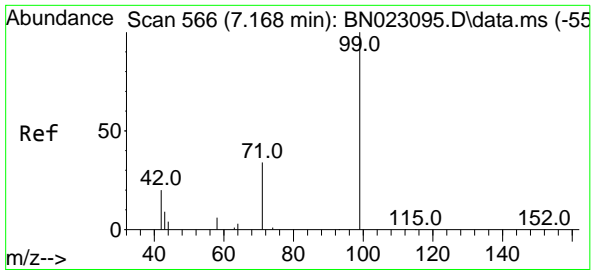


#4  
 2-Fluorophenol  
 Concen: 0.123 ng  
 RT: 5.543 min Scan# 341  
 Delta R.T. -0.000 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

Tgt Ion:112 Resp: 1659

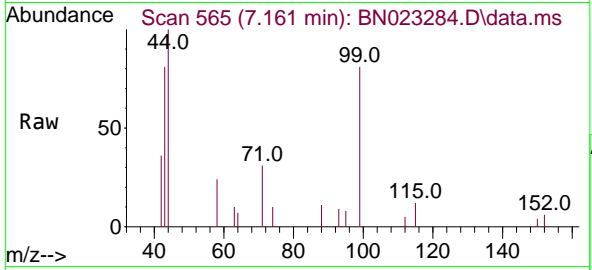
Ion	Ratio	Lower	Upper
112	100		
64	54.2	44.4	66.6
63	29.8	23.7	35.5





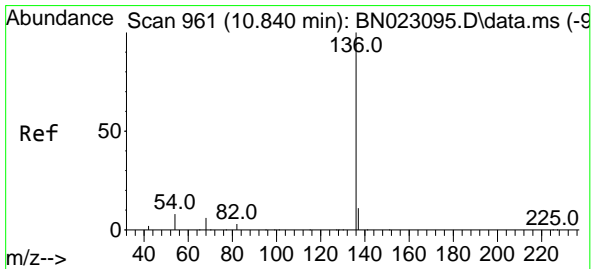
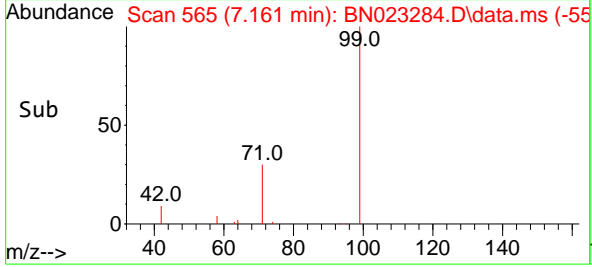
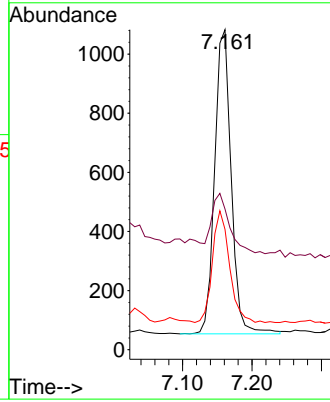
#5  
 Phenol-d6  
 Concen: 0.099 ng  
 RT: 7.161 min Scan# 50  
 Delta R.T. 0.007 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-02-160-180-121422



Tgt Ion: 99 Resp: 1702

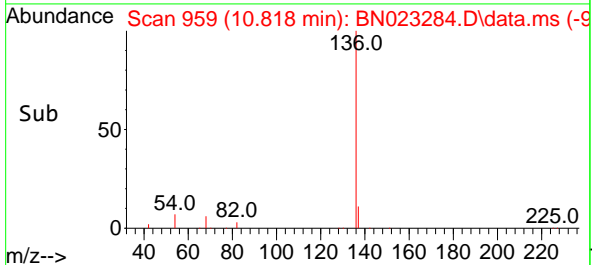
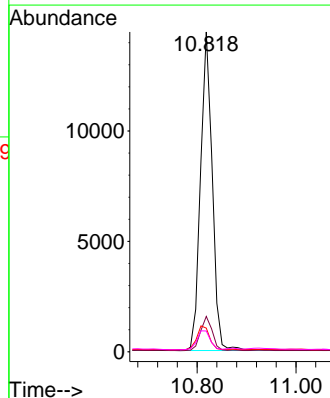
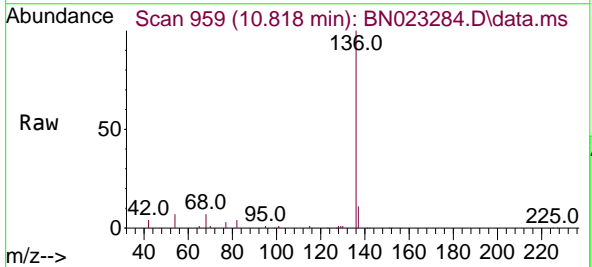
Ion	Ratio	Lower	Upper
99	100		
42	21.2	16.3	24.5
71	38.0	26.5	39.7

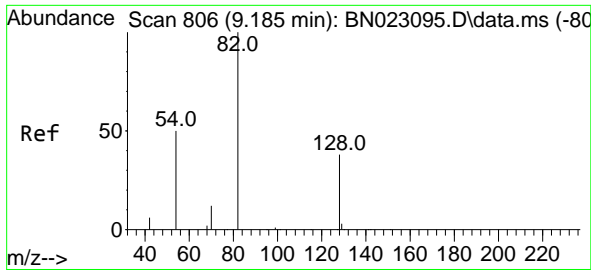


#7  
 Naphthalene-d8  
 Concen: 0.400 ng  
 RT: 10.818 min Scan# 959  
 Delta R.T. -0.000 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

Tgt Ion: 136 Resp: 23777

Ion	Ratio	Lower	Upper
136	100		
137	11.1	9.0	13.4
54	7.4	6.5	9.7
68	6.5	5.4	8.2

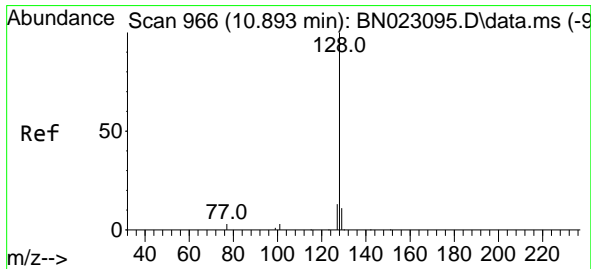
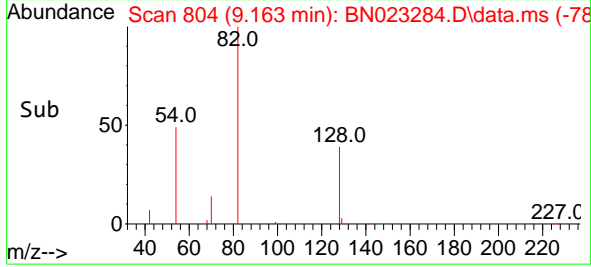
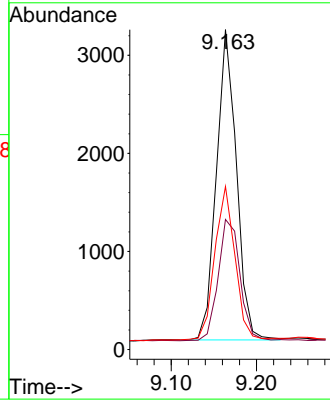
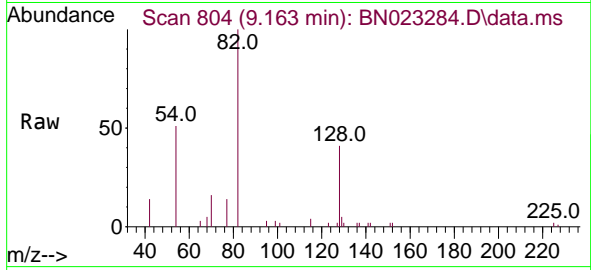




#8  
 Nitrobenzene-d5  
 Concen: 0.329 ng  
 RT: 9.163 min Scan# 804  
 Delta R.T. -0.000 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

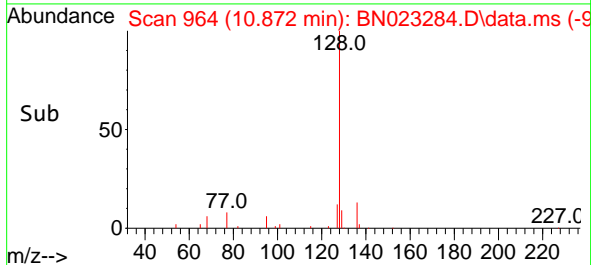
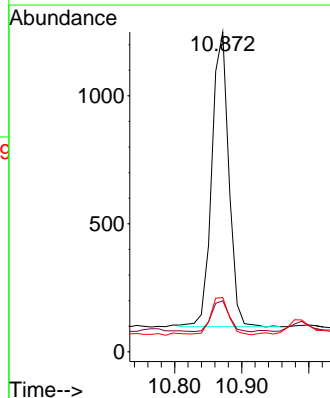
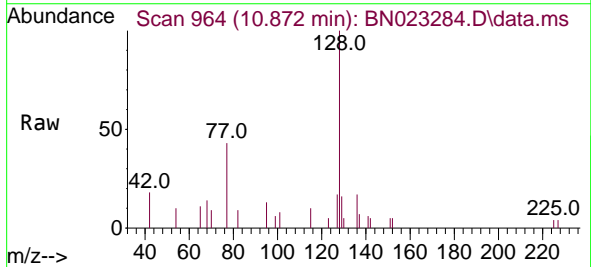
Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-02-160-180-121422

Tgt Ion:	82	Resp:	5160
Ion Ratio	Lower	Upper	
82	100		
128	40.7	31.4	47.2
54	51.0	41.0	61.4

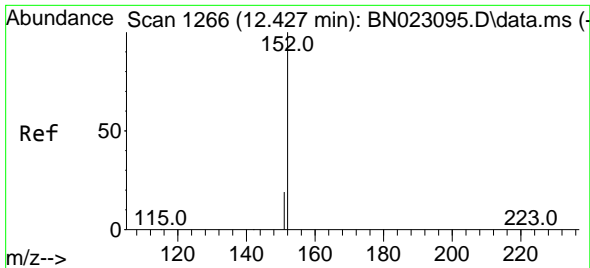


#9  
 Naphthalene  
 Concen: 0.033 ng  
 RT: 10.872 min Scan# 964  
 Delta R.T. -0.000 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

Tgt Ion:	128	Resp:	2024
Ion Ratio	Lower	Upper	
128	100		
129	15.9	9.0	13.6#
127	17.0	10.5	15.7#





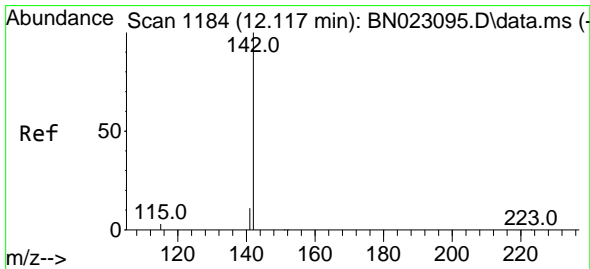
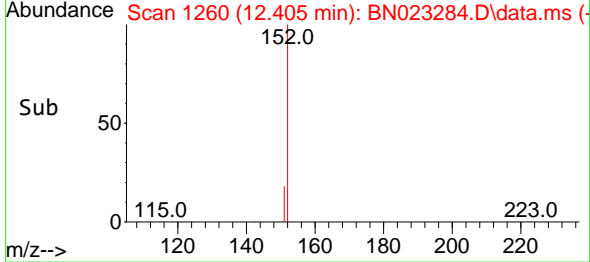
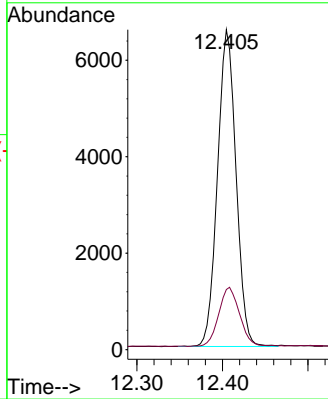
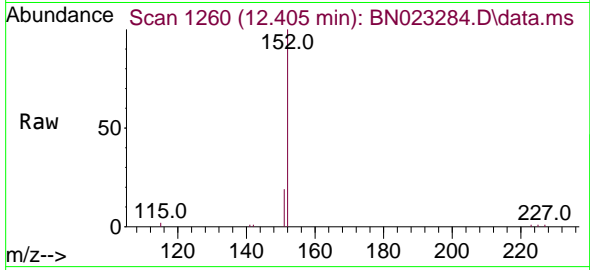


#11  
 2-Methylnaphthalene-d10  
 Concen: 0.245 ng  
 RT: 12.405 min Scan# 1180  
 Delta R.T. -0.000 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 OWBR-02-160-180-121422

Tgt Ion:152 Resp: 9896

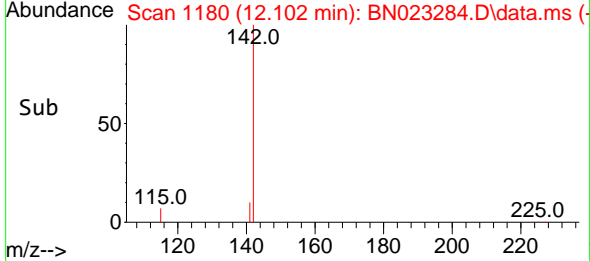
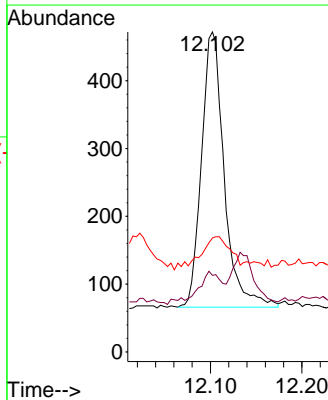
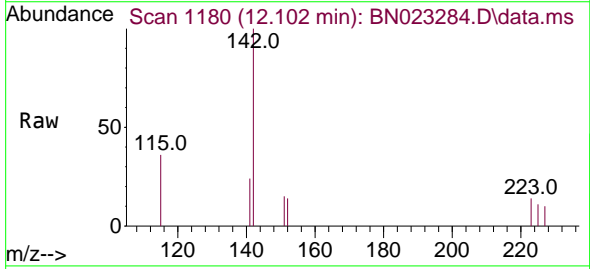
Ion	Ratio	Lower	Upper
152	100		
151	21.2	15.1	22.7

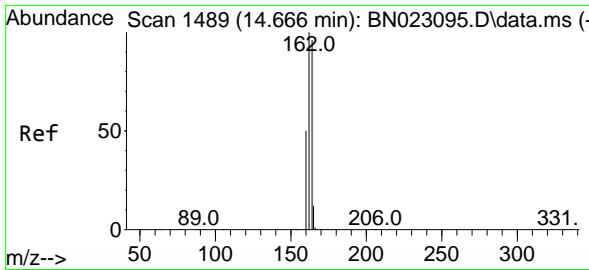


#12  
 2-Methylnaphthalene  
 Concen: 0.078 ng  
 RT: 12.102 min Scan# 1180  
 Delta R.T. -0.000 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

Tgt Ion:142 Resp: 701

Ion	Ratio	Lower	Upper
142	100		
141	23.9	10.9	16.3#
115	35.6	5.7	8.5#

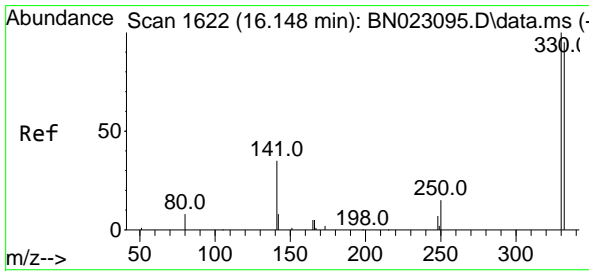
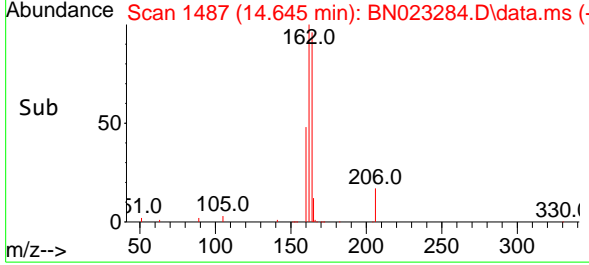
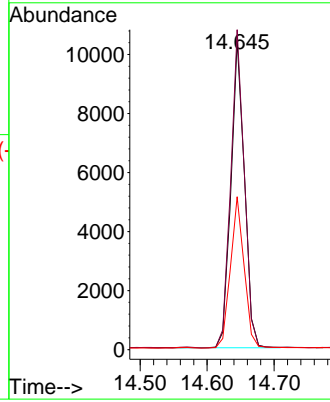
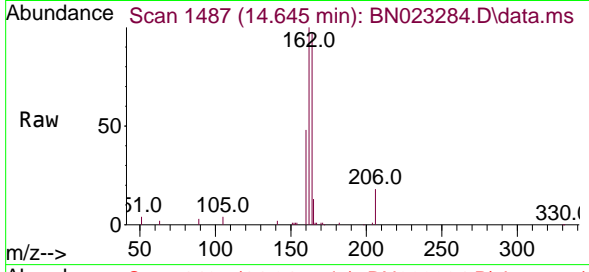




#13  
 Acenaphthene-d10  
 Concen: 0.400 ng  
 RT: 14.645 min Scan# 1487  
 Delta R.T. -0.000 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

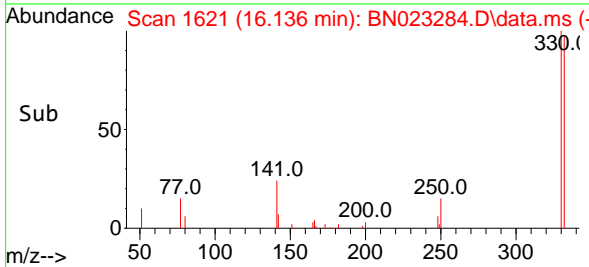
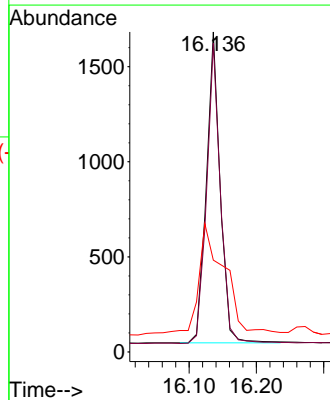
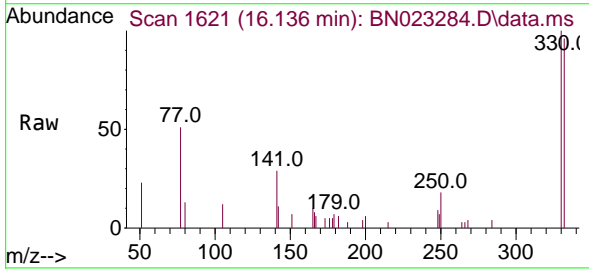
Instrument : BNA\_N  
 ClientSampleId : OWBR-02-160-180-121422

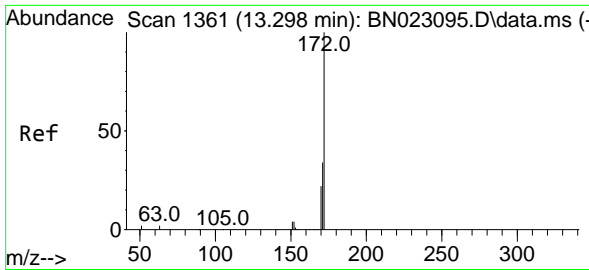
Tgt Ion	Resp	Lower	Upper
164	14567		
162	103.5	83.4	125.0
160	49.4	41.8	62.8



#14  
 2,4,6-Tribromophenol  
 Concen: 0.439 ng  
 RT: 16.136 min Scan# 1621  
 Delta R.T. -0.000 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

Tgt Ion	Resp	Lower	Upper
330	2320		
332	97.0	77.3	115.9
141	62.6	33.5	50.3

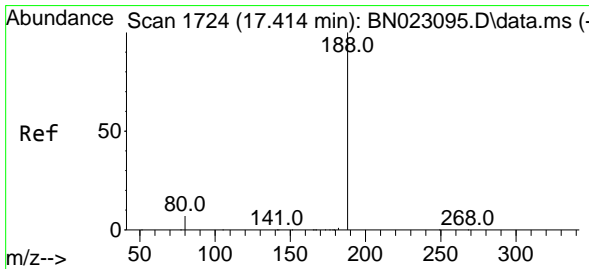
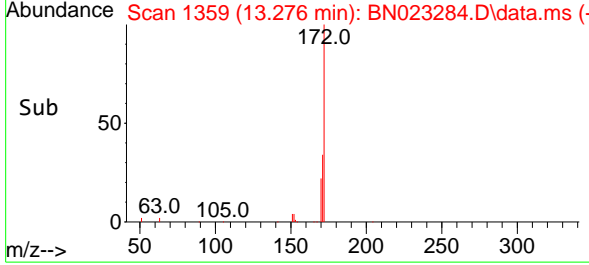
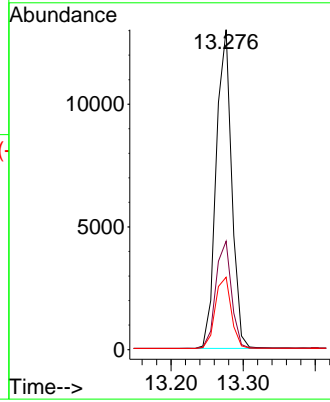
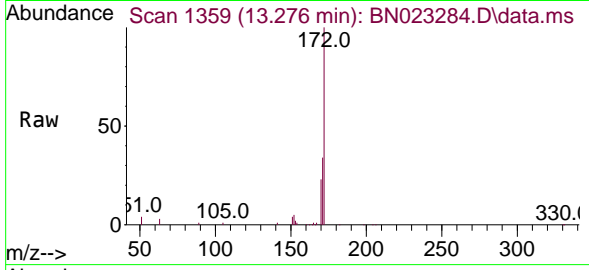




#15  
 2-Fluorobiphenyl  
 Concen: 0.334 ng  
 RT: 13.276 min Scan# 1361  
 Delta R.T. -0.000 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

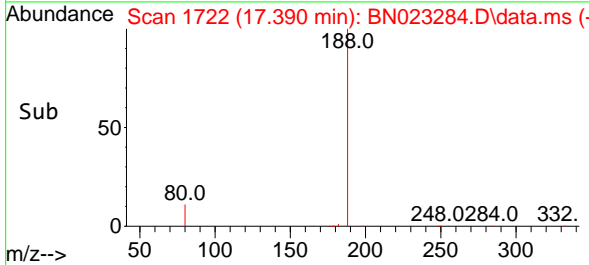
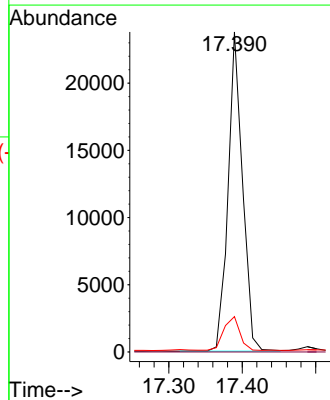
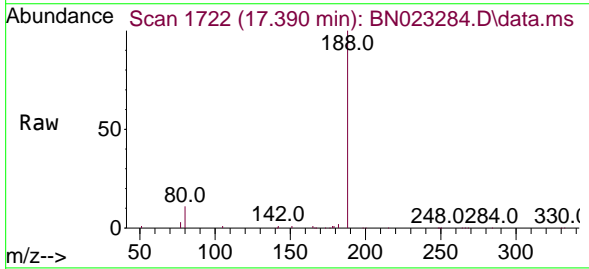
Instrument : BNA\_N  
 ClientSampleId : OWBR-02-160-180-121422

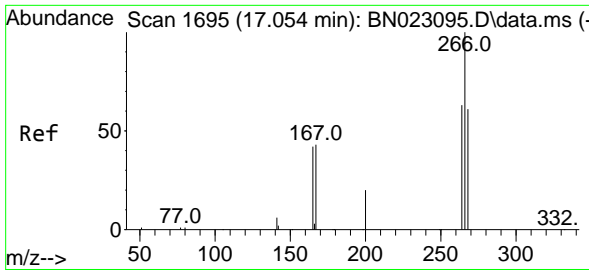
Tgt Ion	Resp	Lower	Upper
172	19464		
171	33.9	27.4	41.0
170	22.6	17.9	26.9



#19  
 Phenanthrene-d10  
 Concen: 0.400 ng  
 RT: 17.390 min Scan# 1722  
 Delta R.T. -0.000 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

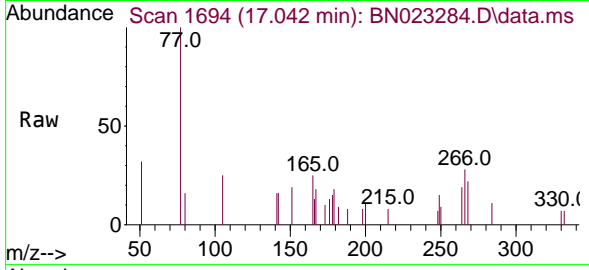
Tgt Ion	Resp	Lower	Upper
188	32593		
94	0.0	0.0	0.0
80	11.0	6.1	9.1#





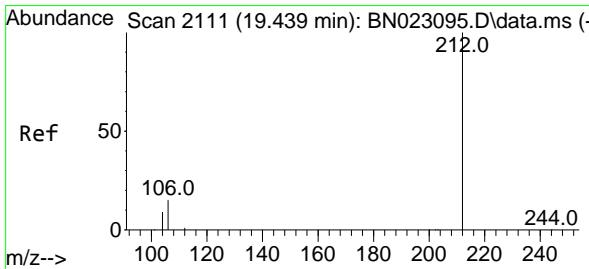
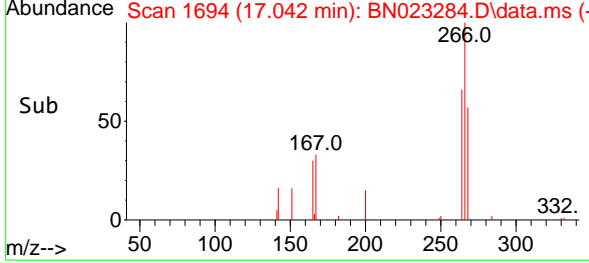
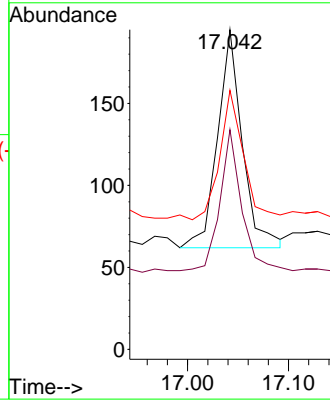
#24  
 Pentachlorophenol  
 Concen: 0.029 ng  
 RT: 17.042 min Scan# 1107  
 Delta R.T. -0.000 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-02-160-180-121422



Tgt Ion: 266 Resp: 226

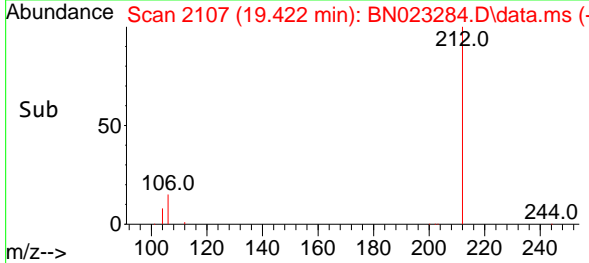
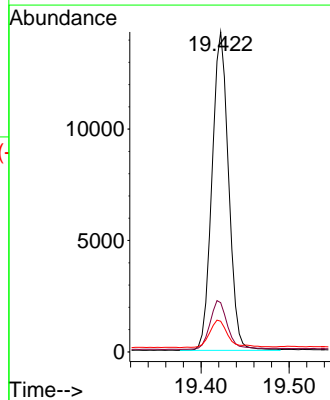
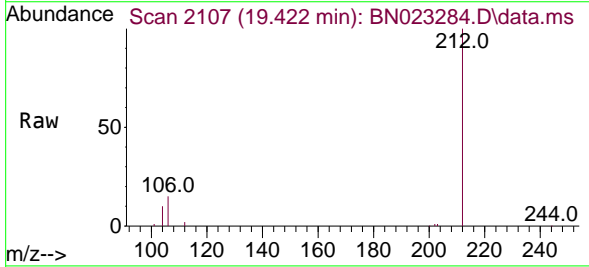
Ion	Ratio	Lower	Upper
266	100		
264	56.2	50.1	75.1
268	54.9	49.7	74.5

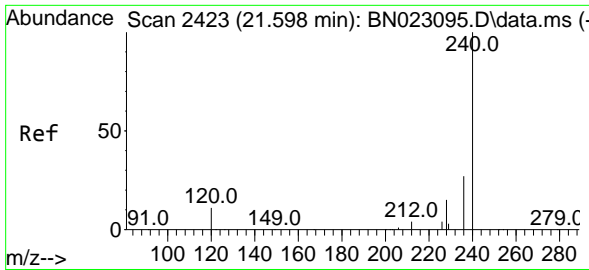


#27  
 Fluoranthene-d10  
 Concen: 0.245 ng  
 RT: 19.422 min Scan# 2107  
 Delta R.T. -0.000 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

Tgt Ion: 212 Resp: 18662

Ion	Ratio	Lower	Upper
212	100		
106	16.2	13.0	19.4
104	9.8	7.5	11.3

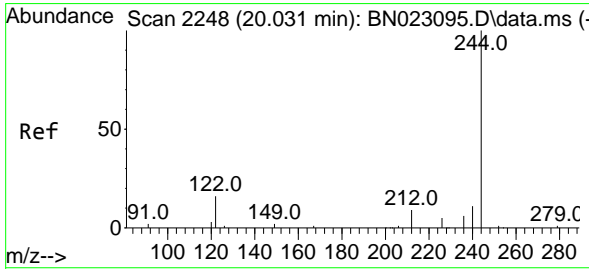
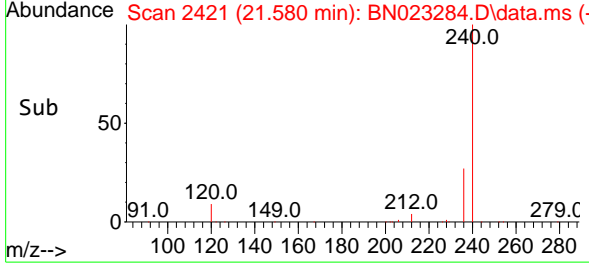
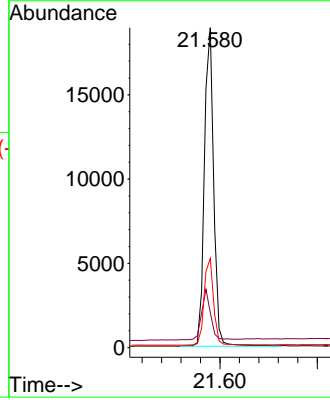
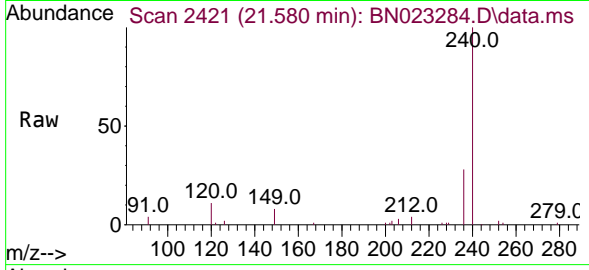




#29  
 Chrysene-d12  
 Concen: 0.400 ng  
 RT: 21.580 min Scan# 2421  
 Delta R.T. -0.000 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

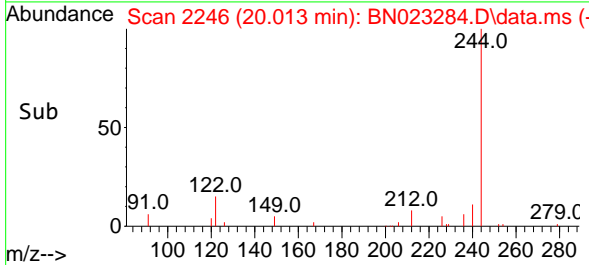
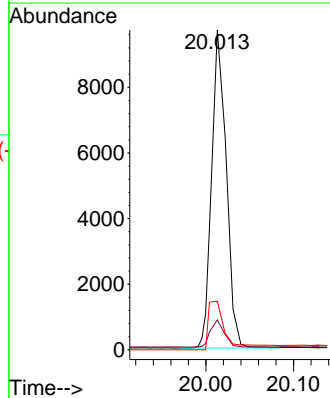
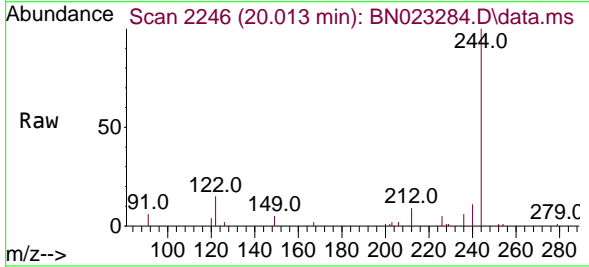
Instrument : BNA\_N  
 ClientSampleId : OWBR-02-160-180-121422

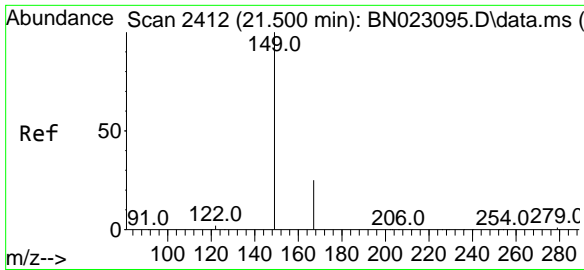
Tgt Ion	Ratio	Lower	Upper
240	100		
120	10.9	10.1	15.1
236	27.9	22.2	33.4



#31  
 Terphenyl-d14  
 Concen: 0.225 ng  
 RT: 20.013 min Scan# 2246  
 Delta R.T. -0.000 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

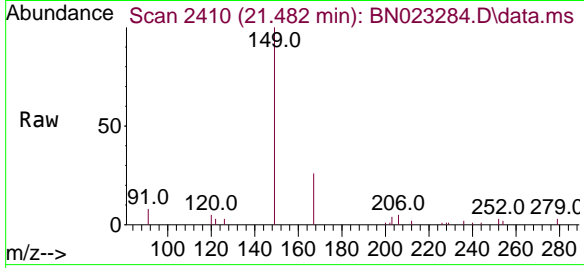
Tgt Ion	Ratio	Lower	Upper
244	100		
212	9.4	7.6	11.4
122	15.2	12.6	18.8





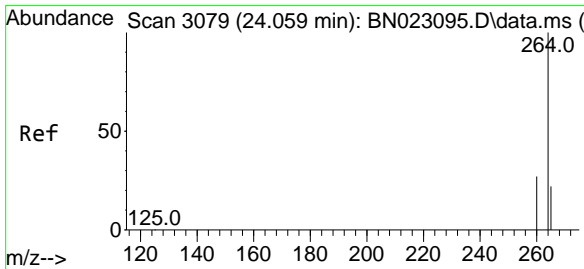
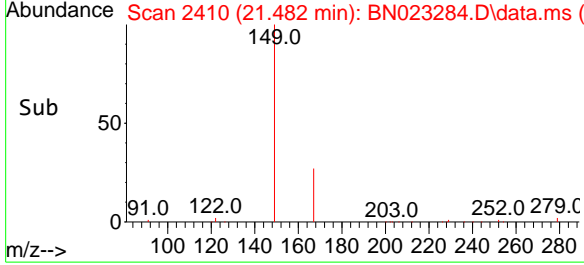
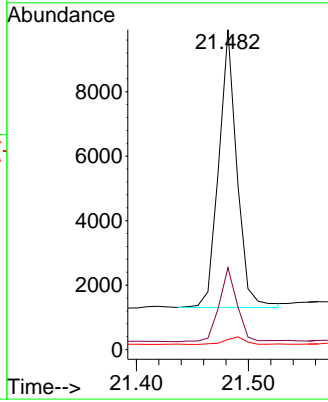
#34  
 Bis(2-ethylhexyl)phthalate  
 Concen: 0.284 ng  
 RT: 21.482 min Scan# 2410  
 Delta R.T. -0.000 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

Instrument : BNA\_N  
 ClientSampleId : OWBR-02-160-180-121422



Tgt Ion:149 Resp: 9694

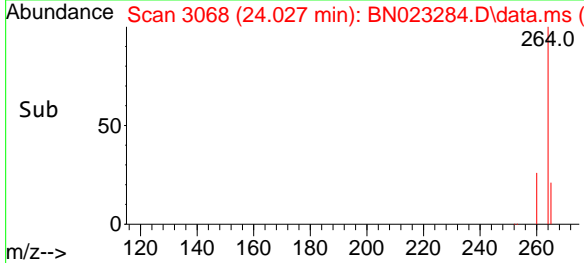
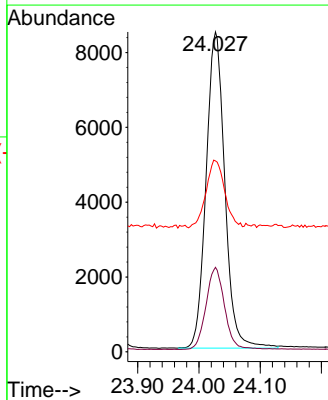
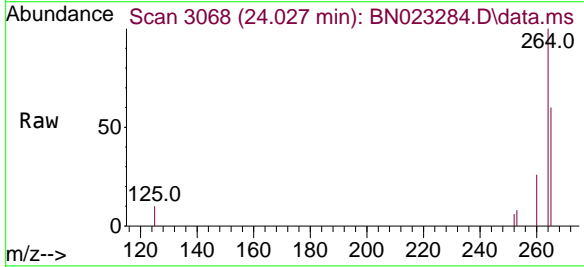
Ion	Ratio	Lower	Upper
149	100		
167	26.8	20.2	30.2
279	3.0	2.3	3.5



#35  
 Perylene-d12  
 Concen: 0.400 ng  
 RT: 24.027 min Scan# 3068  
 Delta R.T. -0.000 min  
 Lab File: BN023284.D  
 Acq: 19 Dec 2022 13:53

Tgt Ion:264 Resp: 17925

Ion	Ratio	Lower	Upper
264	100		
260	26.4	21.7	32.5
265	59.7	43.2	64.8



**Report of Analysis**

Client:	JACOBS Engineering Group, Inc.	Date Collected:	12/14/22
Project:	Former Schlumberger Site Princeton NJ	Date Received:	12/14/22
Client Sample ID:	OWBR-03-128-148-121422	SDG No.:	N6070
Lab Sample ID:	N6070-05	Matrix:	Water
Analytical Method:	SW8270SIM	% Moisture:	100
Sample Wt/Vol:	960 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN023285.D	1	12/16/22 08:59	12/19/22 14:30	PB149692

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
123-91-1	1,4-Dioxane	0.080	U	0.080	0.21	ug/L
<b>SURROGATES</b>						
7297-45-2	2-Methylnaphthalene-d10	0.26		30 (30) - 150 (150)	66%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.28		30 (30) - 150 (150)	70%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.36		30 (11) - 130 (175)	89%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.40		30 (10) - 130 (175)	99%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.57	*	30 (54) - 130 (171)	142%	SPK: 0.4
<b>INTERNAL STANDARDS</b>						
3855-82-1	1,4-Dichlorobenzene-d4	7020	7.999			
1146-65-2	Naphthalene-d8	23000	10.819			
15067-26-2	Acenaphthene-d10	14500	14.645			
1517-22-2	Phenanthrene-d10	30800	17.39			
1719-03-5	Chrysene-d12	23600	21.58			
1520-96-3	Perylene-d12	16700	24.027			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023285.D  
 Acq On : 19 Dec 2022 14:30  
 Operator : CG/JU  
 Sample : N6070-05  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-03-128-148-121422

Quant Time: Dec 19 15:45:34 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 19 15:44:58 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
Internal Standards							
1) 1,4-Dichlorobenzene-d4	7.999	152	7020	0.400	ng	0.00	
7) Naphthalene-d8	10.819	136	22963	0.400	ng	0.00	
13) Acenaphthene-d10	14.645	164	14454	0.400	ng	0.00	
19) Phenanthrene-d10	17.390	188	30794	0.400	ng	# 0.00	
29) Chrysene-d12	21.580	240	23636	0.400	ng	0.00	
35) Perylene-d12	24.027	264	16694	0.400	ng	0.00	
System Monitoring Compounds							
4) 2-Fluorophenol	5.543	112	1954	0.149	ng	0.00	
5) Phenol-d6	7.161	99	1902	0.114	ng	0.00	
8) Nitrobenzene-d5	9.164	82	5386	0.356	ng	0.00	
11) 2-Methylnaphthalene-d10	12.405	152	10278	0.264	ng	0.00	
14) 2,4,6-Tribromophenol	16.136	330	2348	0.448	ng	0.00	
15) 2-Fluorobiphenyl	13.277	172	22823	0.395	ng	0.00	
27) Fluoranthene-d10	19.422	212	20341	0.282	ng	0.00	
31) Terphenyl-d14	20.013	244	21854	0.569	ng	0.00	
Target Compounds							
9) Naphthalene	10.872	128	2464	0.042	ng	# 87	
34) Bis(2-ethylhexyl)phtha...	21.482	149	3364	0.104	ng	95	

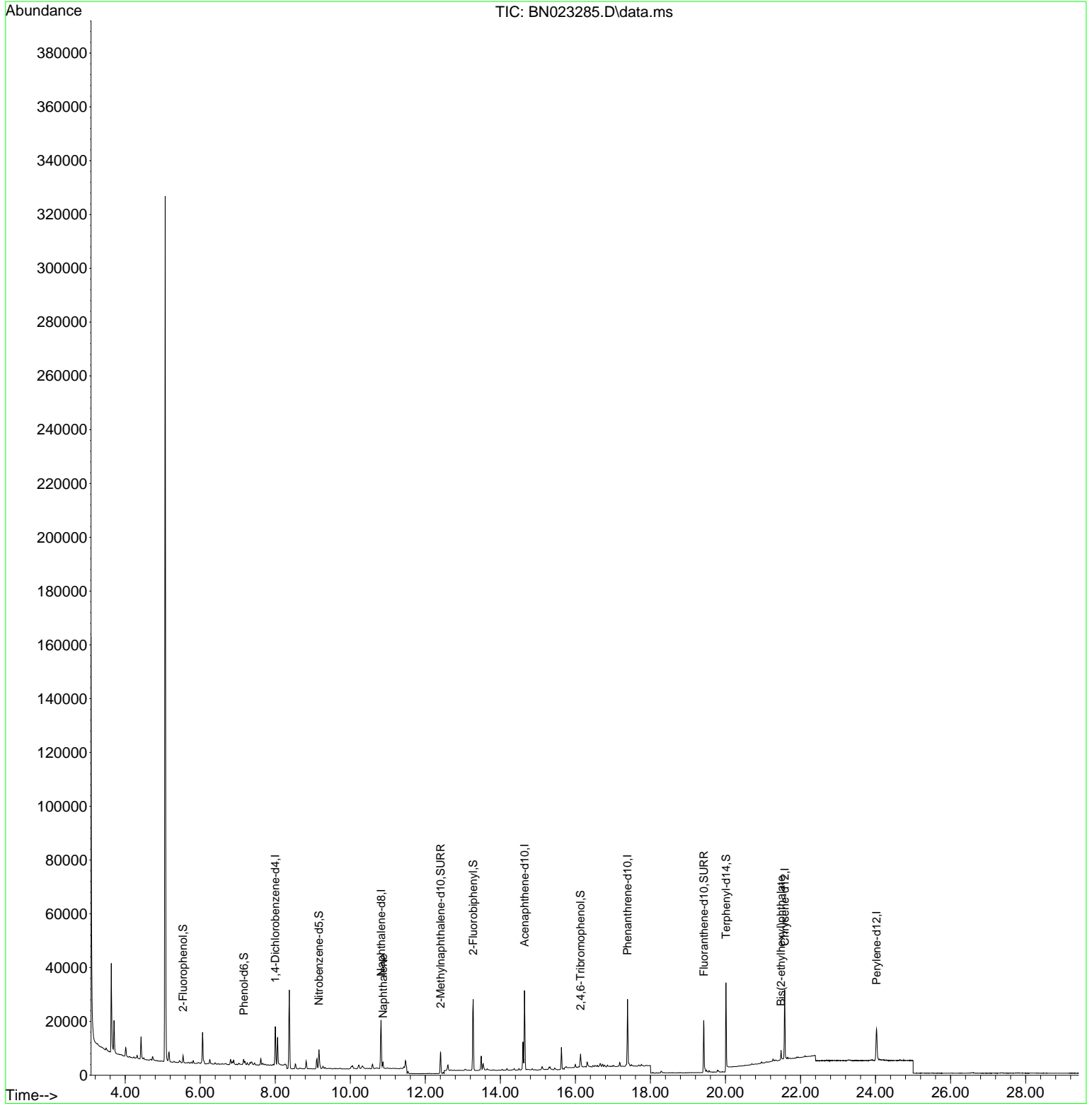
(#) = qualifier out of range (m) = manual integration (+) = signals summed



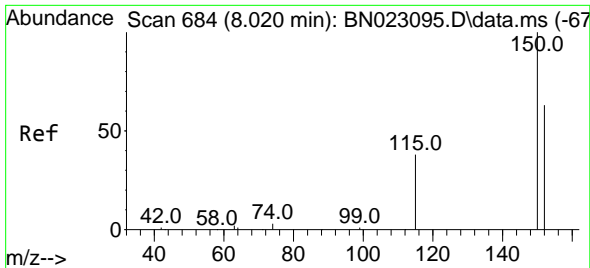
Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
Data File : BN023285.D  
Acq On : 19 Dec 2022 14:30  
Operator : CG/JU  
Sample : N6070-05  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

**Instrument :**  
BNA\_N  
**ClientSampleId :**  
OWBR-03-128-148-121422

Quant Time: Dec 19 15:45:34 2022  
Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
QLast Update : Mon Dec 19 15:44:58 2022  
Response via : Initial Calibration

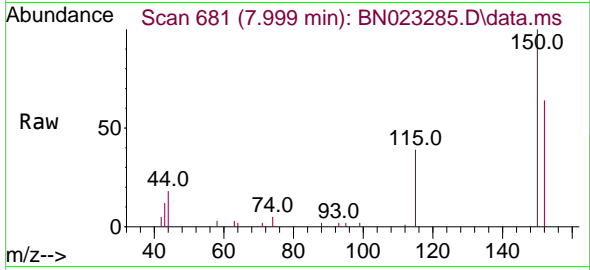


- 1
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- 17

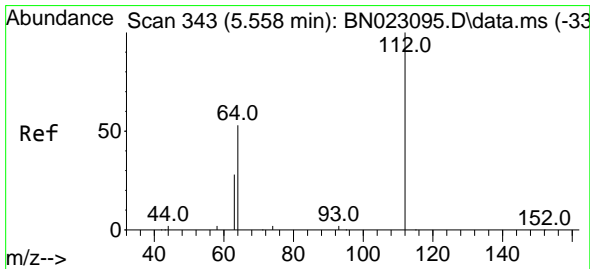
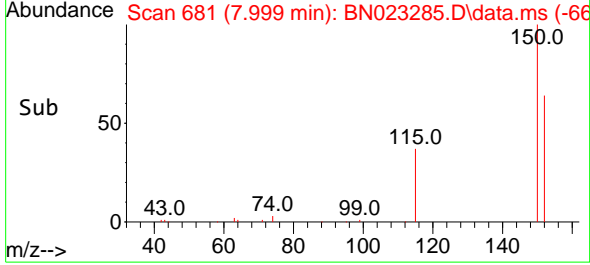
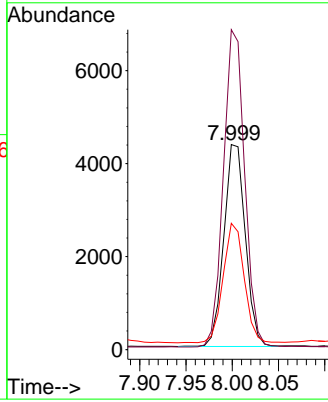


#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 7.999 min Scan# 681  
 Delta R.T. -0.000 min  
 Lab File: BN023285.D  
 Acq: 19 Dec 2022 14:30

Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-03-128-148-121422

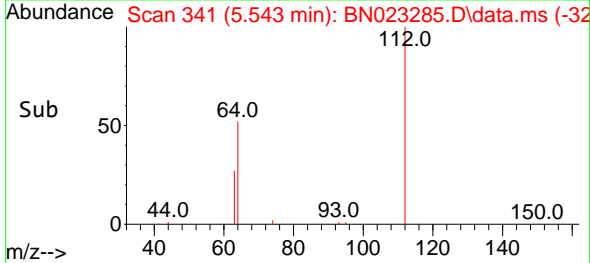
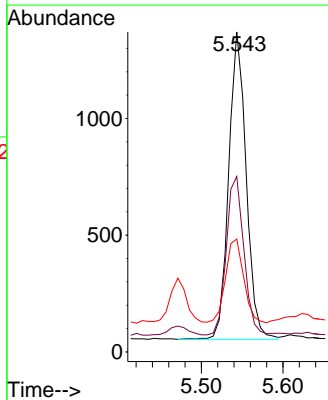
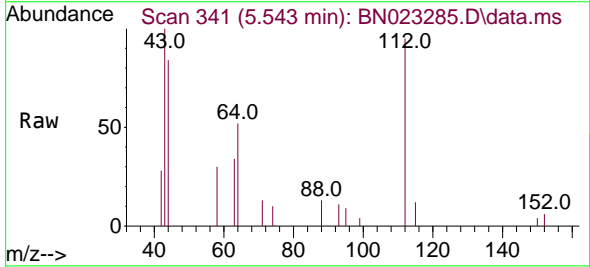


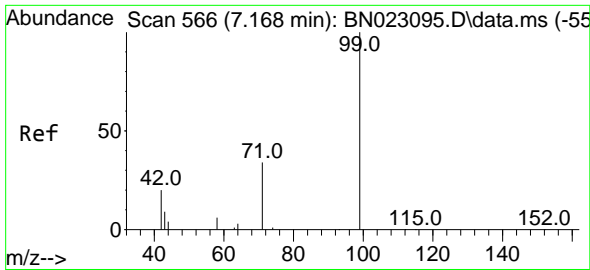
Tgt Ion:152 Resp: 7020  
 Ion Ratio Lower Upper  
 152 100  
 150 156.1 125.6 188.4  
 115 61.6 49.0 73.4



#4  
 2-Fluorophenol  
 Concen: 0.149 ng  
 RT: 5.543 min Scan# 341  
 Delta R.T. 0.000 min  
 Lab File: BN023285.D  
 Acq: 19 Dec 2022 14:30

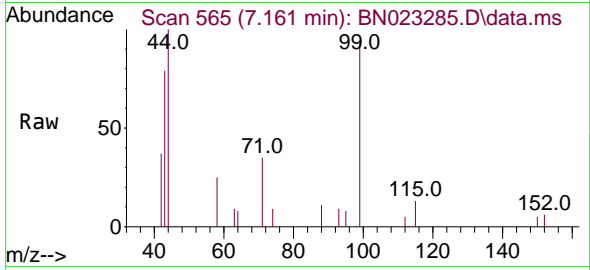
Tgt Ion:112 Resp: 1954  
 Ion Ratio Lower Upper  
 112 100  
 64 51.9 44.4 66.6  
 63 28.1 23.7 35.5





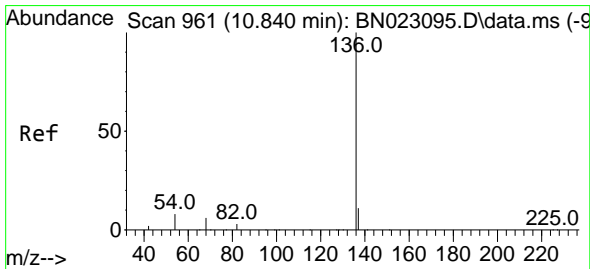
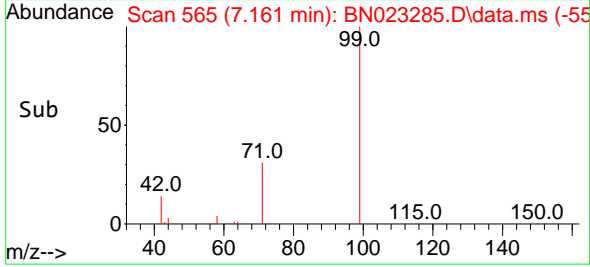
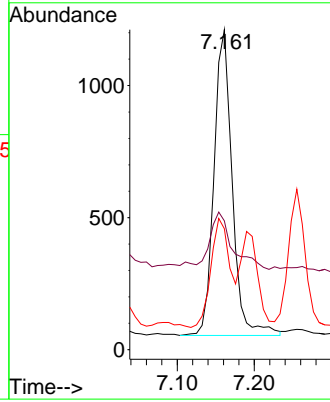
#5  
 Phenol-d6  
 Concen: 0.114 ng  
 RT: 7.161 min Scan# 50  
 Delta R.T. 0.007 min  
 Lab File: BN023285.D  
 Acq: 19 Dec 2022 14:30

Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-03-128-148-121422



Tgt Ion: 99 Resp: 1902

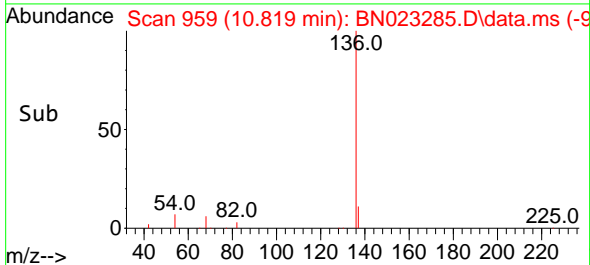
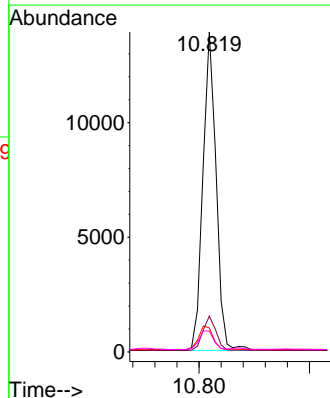
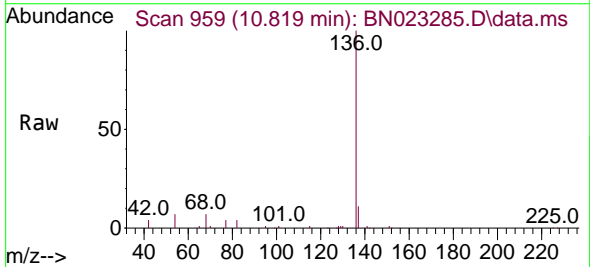
Ion	Ratio	Lower	Upper
99	100		
42	25.8	16.3	24.5#
71	37.9	26.5	39.7

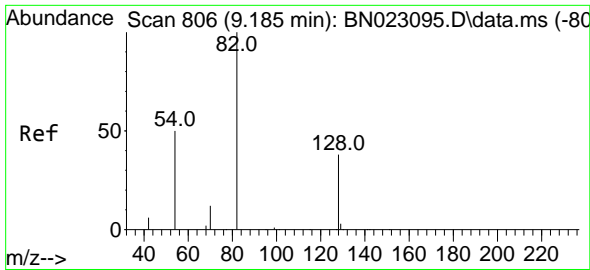


#7  
 Naphthalene-d8  
 Concen: 0.400 ng  
 RT: 10.819 min Scan# 959  
 Delta R.T. 0.000 min  
 Lab File: BN023285.D  
 Acq: 19 Dec 2022 14:30

Tgt Ion: 136 Resp: 22963

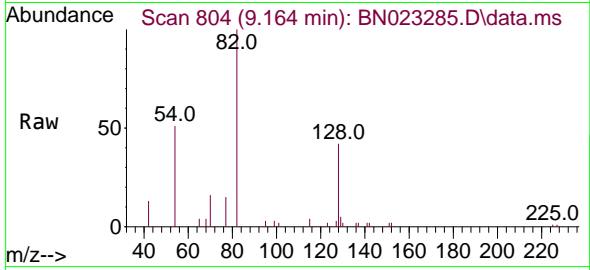
Ion	Ratio	Lower	Upper
136	100		
137	11.2	9.0	13.4
54	7.5	6.5	9.7
68	6.5	5.4	8.2





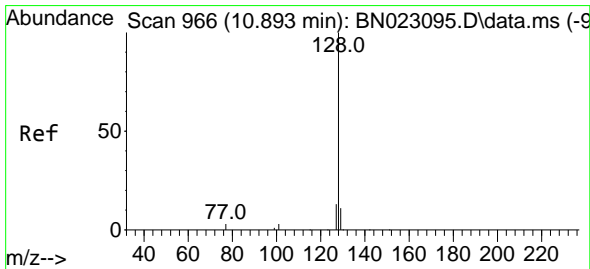
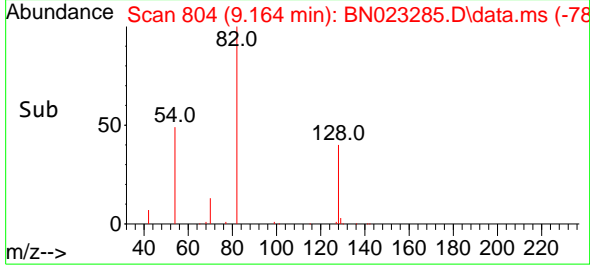
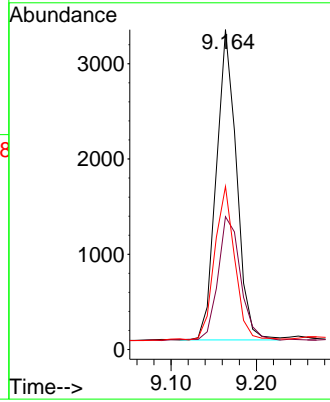
#8  
 Nitrobenzene-d5  
 Concen: 0.356 ng  
 RT: 9.164 min Scan# 804  
 Delta R.T. 0.000 min  
 Lab File: BN023285.D  
 Acq: 19 Dec 2022 14:30

Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-03-128-148-121422



Tgt Ion: 82 Resp: 5386

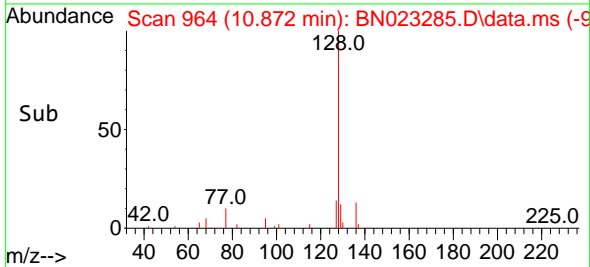
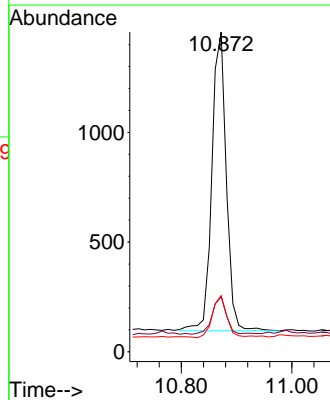
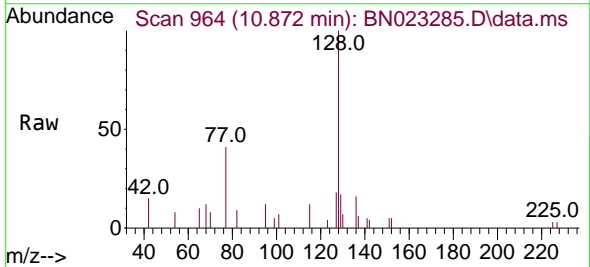
Ion	Ratio	Lower	Upper
82	100		
128	41.5	31.4	47.2
54	51.0	41.0	61.4

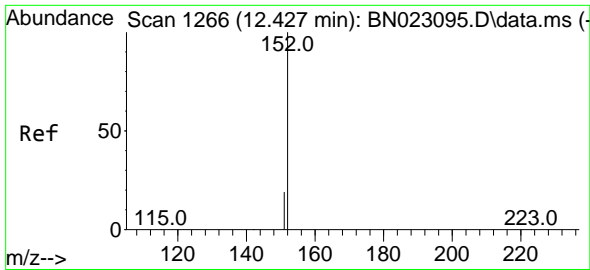


#9  
 Naphthalene  
 Concen: 0.042 ng  
 RT: 10.872 min Scan# 964  
 Delta R.T. 0.000 min  
 Lab File: BN023285.D  
 Acq: 19 Dec 2022 14:30

Tgt Ion: 128 Resp: 2464

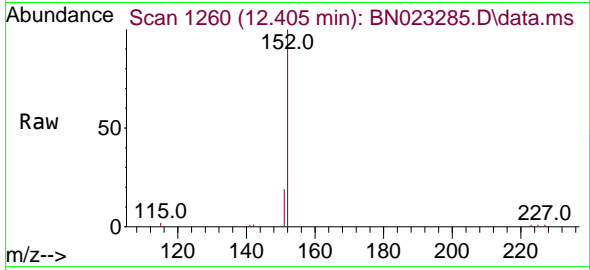
Ion	Ratio	Lower	Upper
128	100		
129	17.2	9.0	13.6#
127	17.6	10.5	15.7#



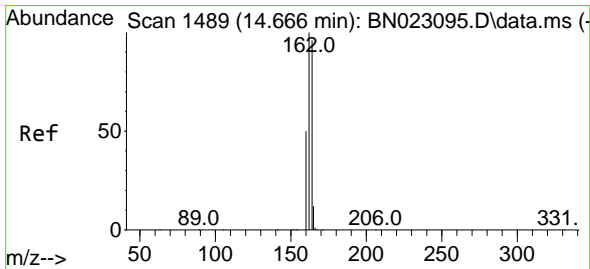
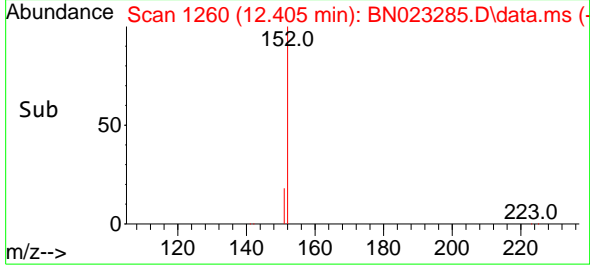
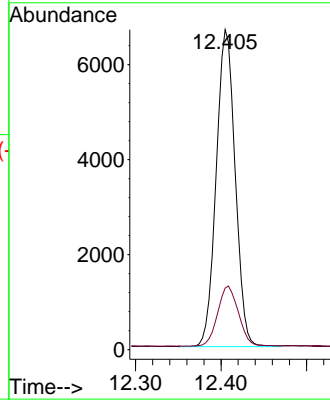


#11  
 2-Methylnaphthalene-d10  
 Concen: 0.264 ng  
 RT: 12.405 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: BN023285.D  
 Acq: 19 Dec 2022 14:30

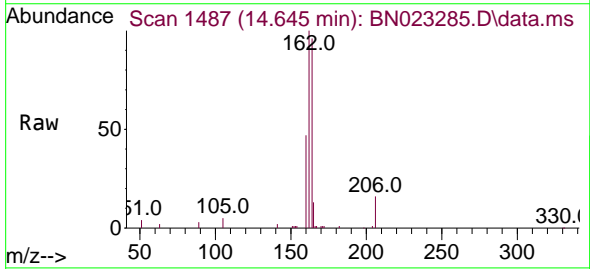
Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-03-128-148-121422



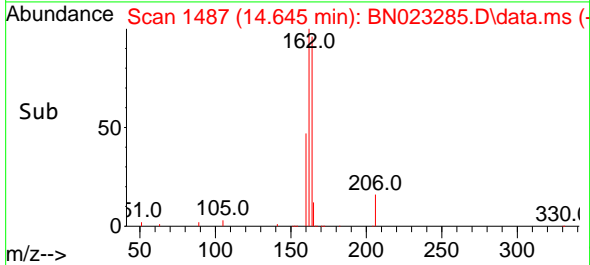
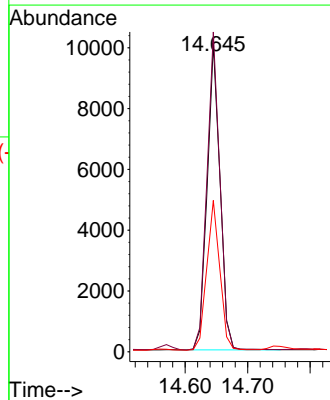
Tgt Ion:152 Resp: 10278  
 Ion Ratio Lower Upper  
 152 100  
 151 20.9 15.1 22.7

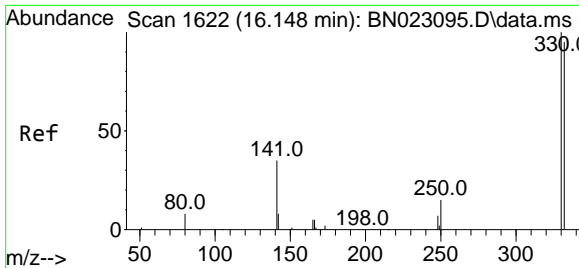


#13  
 Acenaphthene-d10  
 Concen: 0.400 ng  
 RT: 14.645 min Scan# 1487  
 Delta R.T. 0.000 min  
 Lab File: BN023285.D  
 Acq: 19 Dec 2022 14:30



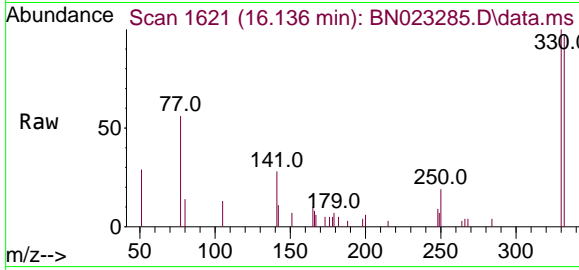
Tgt Ion:164 Resp: 14454  
 Ion Ratio Lower Upper  
 164 100  
 162 104.0 83.4 125.0  
 160 49.2 41.8 62.8



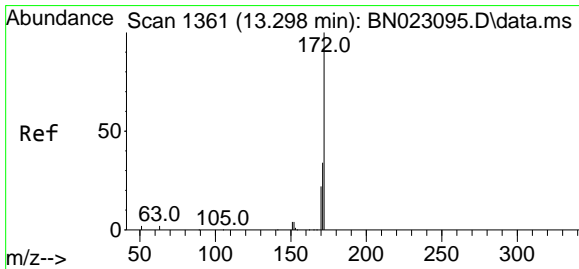
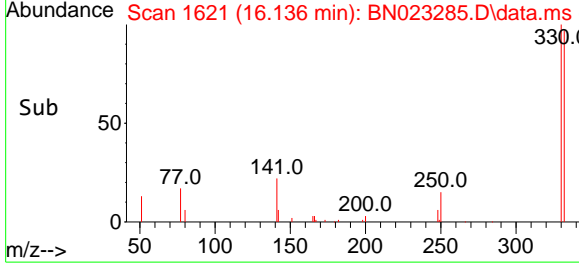
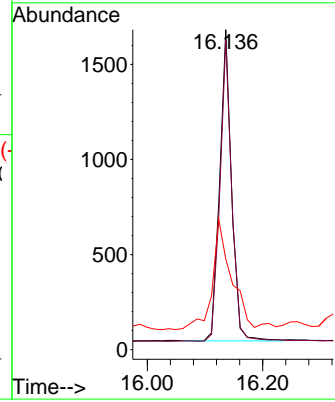


#14  
 2,4,6-Tribromophenol  
 Concen: 0.448 ng  
 RT: 16.136 min Scan# 1621  
 Delta R.T. 0.000 min  
 Lab File: BN023285.D  
 Acq: 19 Dec 2022 14:30

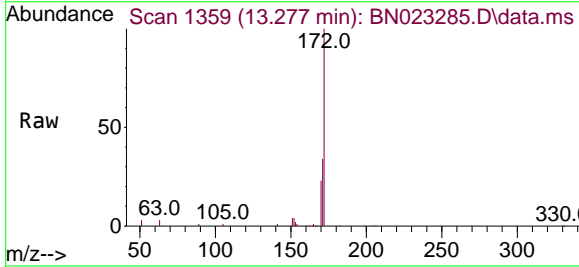
Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-03-128-148-121422



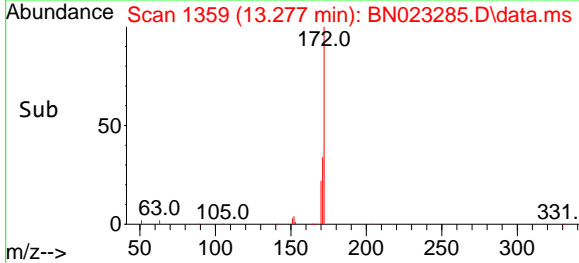
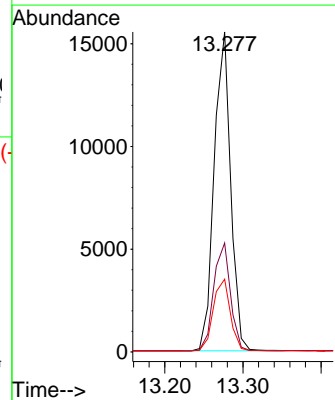
Tgt Ion:330 Resp: 2348  
 Ion Ratio Lower Upper  
 330 100  
 332 96.0 77.3 115.9  
 141 55.0 33.5 50.3#

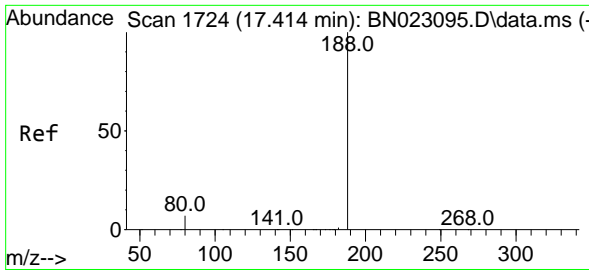


#15  
 2-Fluorobiphenyl  
 Concen: 0.395 ng  
 RT: 13.277 min Scan# 1359  
 Delta R.T. 0.000 min  
 Lab File: BN023285.D  
 Acq: 19 Dec 2022 14:30



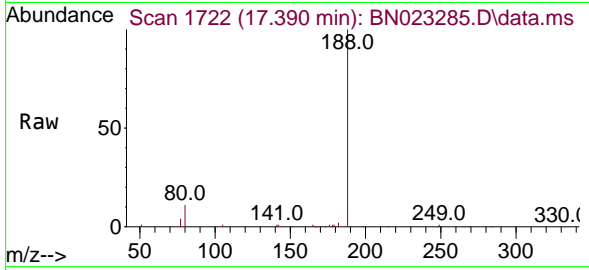
Tgt Ion:172 Resp: 22823  
 Ion Ratio Lower Upper  
 172 100  
 171 34.0 27.4 41.0  
 170 22.7 17.9 26.9





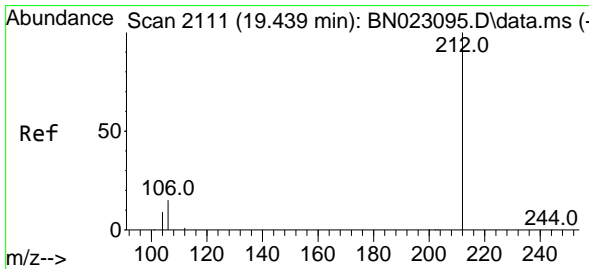
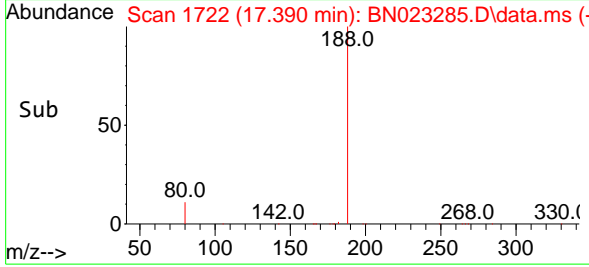
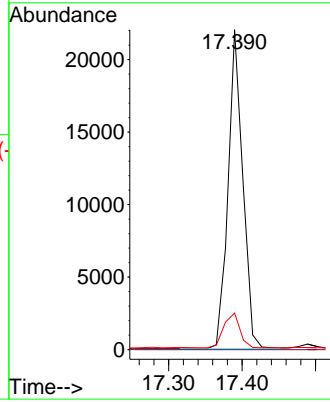
#19  
 Phenanthrene-d10  
 Concen: 0.400 ng  
 RT: 17.390 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: BN023285.D  
 Acq: 19 Dec 2022 14:30

Instrument :  
 BNA\_N  
 ClientSampleId :  
 OWBR-03-128-148-121422



Tgt Ion:188 Resp: 30794

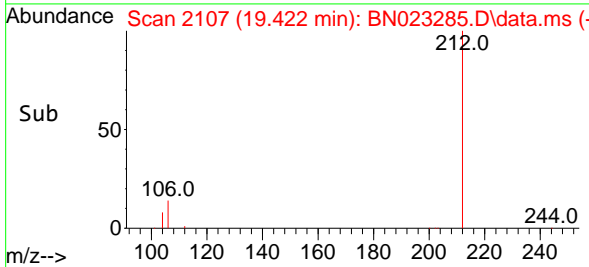
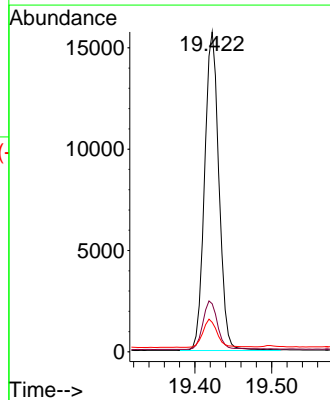
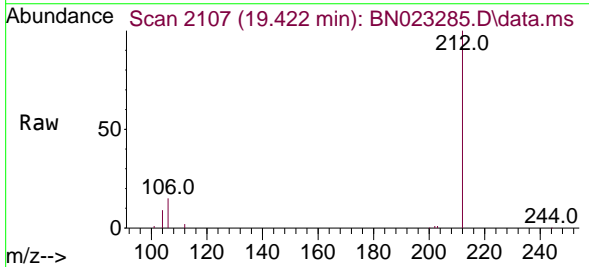
Ion	Ratio	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	11.4	6.1	9.1#

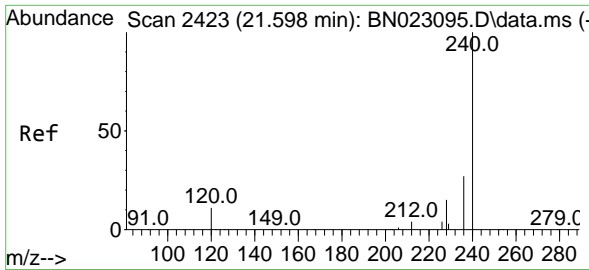


#27  
 Fluoranthene-d10  
 Concen: 0.282 ng  
 RT: 19.422 min Scan# 2107  
 Delta R.T. 0.000 min  
 Lab File: BN023285.D  
 Acq: 19 Dec 2022 14:30

Tgt Ion:212 Resp: 20341

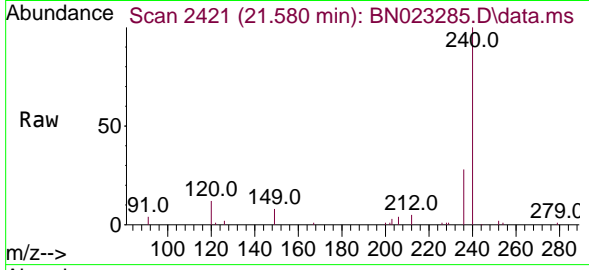
Ion	Ratio	Lower	Upper
212	100		
106	16.0	13.0	19.4
104	8.8	7.5	11.3





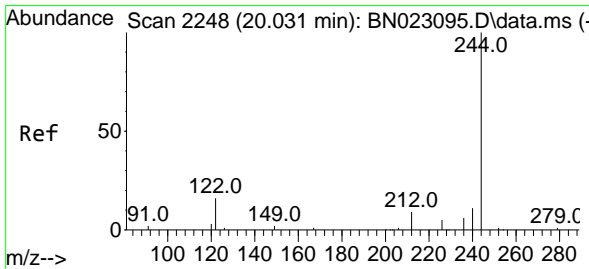
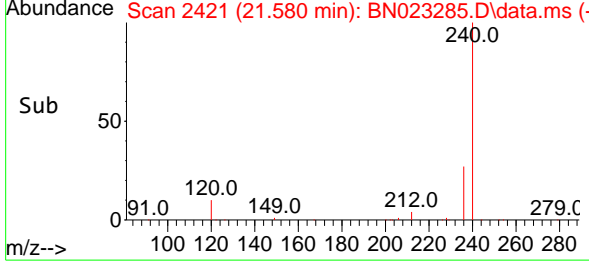
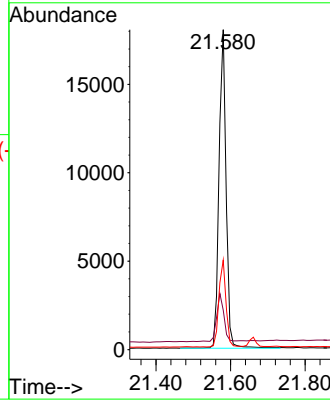
#29  
 Chrysene-d12  
 Concen: 0.400 ng  
 RT: 21.580 min Scan# 2421  
 Delta R.T. 0.000 min  
 Lab File: BN023285.D  
 Acq: 19 Dec 2022 14:30

Instrument : BNA\_N  
 ClientSampleId : OWBR-03-128-148-121422



Tgt Ion:240 Resp: 23636

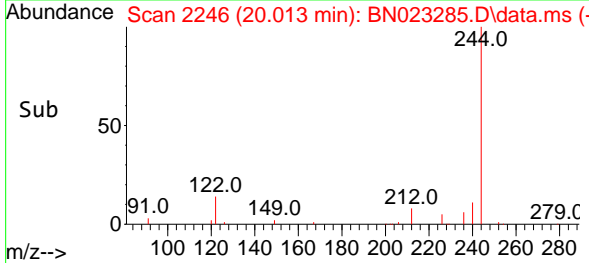
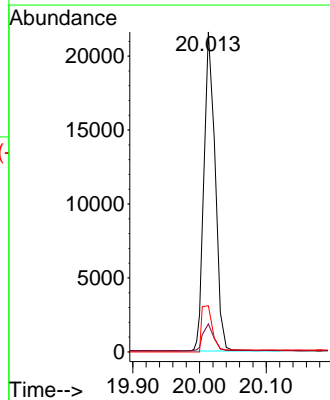
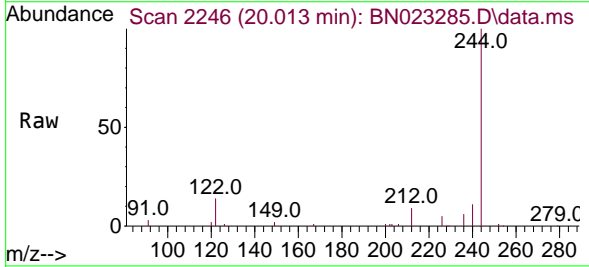
Ion	Ratio	Lower	Upper
240	100		
120	12.3	10.1	15.1
236	28.0	22.2	33.4



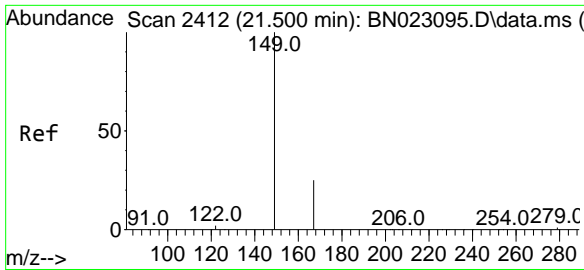
#31  
 Terphenyl-d14  
 Concen: 0.569 ng  
 RT: 20.013 min Scan# 2246  
 Delta R.T. 0.000 min  
 Lab File: BN023285.D  
 Acq: 19 Dec 2022 14:30

Tgt Ion:244 Resp: 21854

Ion	Ratio	Lower	Upper
244	100		
212	8.7	7.6	11.4
122	14.4	12.6	18.8





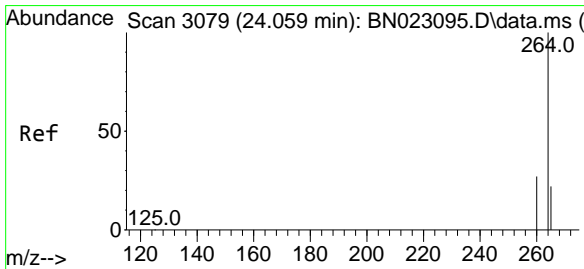
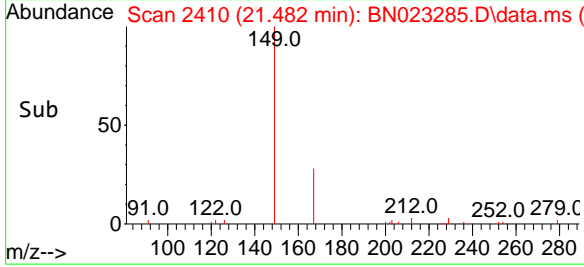
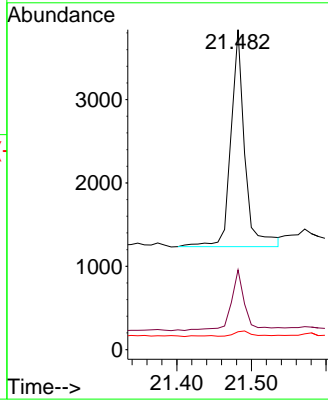
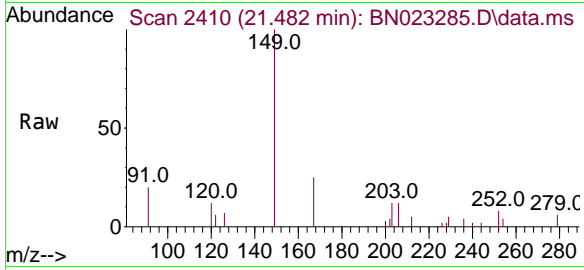


#34  
 Bis(2-ethylhexyl)phthalate  
 Concen: 0.104 ng  
 RT: 21.482 min Scan# 2410  
 Delta R.T. 0.000 min  
 Lab File: BN023285.D  
 Acq: 19 Dec 2022 14:30

Instrument : BNA\_N  
 ClientSampleId : OWBR-03-128-148-121422

Tgt Ion:149 Resp: 3364

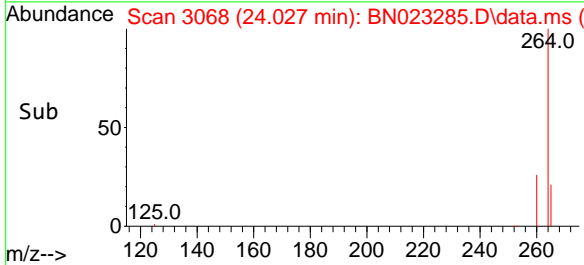
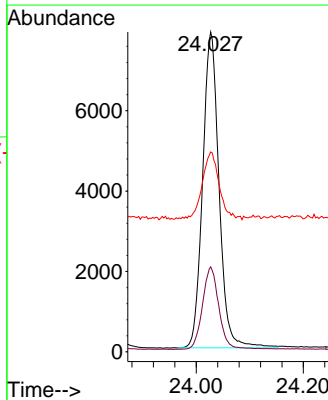
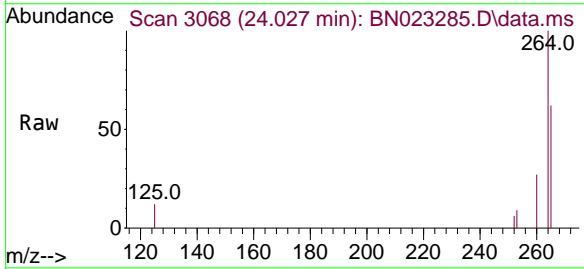
Ion	Ratio	Lower	Upper
149	100		
167	28.2	20.2	30.2
279	3.1	2.3	3.5



#35  
 Perylene-d12  
 Concen: 0.400 ng  
 RT: 24.027 min Scan# 3068  
 Delta R.T. 0.000 min  
 Lab File: BN023285.D  
 Acq: 19 Dec 2022 14:30

Tgt Ion:264 Resp: 16694

Ion	Ratio	Lower	Upper
264	100		
260	26.6	21.7	32.5
265	62.5	43.2	64.8



# CALIBRATION SUMMARY

- 1
- 2
- 3
- 4
- 5
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Method Path : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\  
 Method File : 8270-SIM-BN120822.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Fri Dec 09 07:44:40 2022  
 Response Via : Initial Calibration

## Calibration Files

0.1 =BN023093.D 0.2 =BN023094.D 0.4 =BN023095.D 0.8 =BN023096.D 1.6 =BN023097.D 3.2 =BN023098.D 5.0 =BN023099.D

Compound	0.1	0.2	0.4	0.8	1.6	3.2	5.0	Avg	%RSD
-----									
1) I 1,4-Dichlorobenzen...	-----ISTD-----								
2) 1,4-Dioxane	0.393	0.400	0.405	0.382	0.418	0.392	0.373	0.395	3.74
3) n-Nitrosodimet...	0.318	0.315	0.373	0.374	0.456	0.446	0.433	0.388	15.15
4) S 2-Fluorophenol	0.767	0.723	0.748	0.680	0.776	0.767	0.753	0.745	4.51
5) S Phenol-d6	0.921	0.885	0.915	0.858	1.005	1.020	1.025	0.947	7.25
6) bis(2-Chloroet...	1.107	1.088	1.102	1.015	1.122	1.071	1.026	1.076	3.82
7) I Naphthalene-d8	-----ISTD-----								
8) S Nitrobenzene-d5	0.247	0.244	0.248	0.251	0.278	0.285	0.291	0.264	7.65
9) Naphthalene	0.987	0.990	0.998	1.000	1.056	1.059	1.041	1.019	3.14
10) Hexachlorobuta...	0.190	0.192	0.195	0.193	0.201	0.197	0.190	0.194	1.99
11) SURR2-Methylnaphth...	0.585	0.655	0.642	0.662	0.713	0.748	0.743	0.678	8.72
12) 2-Methylnaphth...	0.135	0.135	0.147	0.154	0.187			0.152	14.17
13) I Acenaphthene-d10	-----ISTD-----								
14) S 2,4,6-Tribromo...	0.120	0.122	0.132	0.133	0.156	0.172	0.182	0.145	17.17
15) S 2-Fluorobiphenyl	1.569	1.574	1.607	1.555	1.668	1.615	1.598	1.598	2.36
16) Acenaphthylene	1.353	1.379	1.474	1.517	1.773	1.868	1.916	1.611	14.63
17) Acenaphthene	1.102	1.106	1.151	1.145	1.252	1.263	1.269	1.184	6.31
18) Fluorene	1.177	1.221	1.293	1.285	1.427	1.434	1.439	1.325	8.19
19) I Phenanthrene-d10	-----ISTD-----								
20) 4,6-Dinitro-2-...	0.040	0.046	0.048	0.061	0.071	0.077	0.057		25.87
21) 4-Bromophenyl-...	0.196	0.197	0.204	0.204	0.229	0.231	0.233	0.213	7.78
22) Hexachlorobenzene	0.256	0.267	0.280	0.276	0.296	0.293	0.288	0.280	5.23
23) Atrazine	0.125	0.127	0.134	0.138	0.163	0.180	0.187	0.150	17.12
24) Pentachlorophenol	0.093	0.078	0.080	0.084	0.102	0.116	0.126	0.097	19.10
25) Phenanthrene	1.143	1.111	1.147	1.148	1.255	1.275	1.265	1.192	5.85
26) Anthracene	0.816	0.824	0.859	0.893	1.037	1.098	1.122	0.950	13.91
27) SURRFluoranthene-d10	0.825	0.854	0.882	0.896	1.002	1.039	1.056	0.936	10.03
28) Fluoranthene	1.088	1.131	1.201	1.251	1.411	1.437	1.415	1.276	11.35
29) I Chrysene-d12	-----ISTD-----								
30) Pyrene	1.375	1.424	1.448	1.426	1.527	1.527	1.525	1.464	4.21
31) S Terphenyl-d14	0.612	0.577	0.684	0.650	0.690	0.663	0.671	0.649	6.32
32) Benzo(a)anthra...	1.163	1.164	1.199	1.229	1.381	1.422	1.462	1.289	9.99
33) Chrysene	1.436	1.392	1.442	1.434	1.529	1.463	1.447	1.449	2.87
34) Bis(2-ethylhex...	0.505	0.506	0.489	0.485	0.539	0.591	0.700	0.545	14.22
35) I Perylene-d12	-----ISTD-----								

Method Path : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\  
Method File : 8270-SIM-BN120822.M

36)	Indeno(1,2,3-c...	1.483	1.452	1.693	1.753	2.038	2.051	2.079	1.793	14.98
37)	Benzo(b)fluora...	1.359	1.402	1.594	1.651	1.849	1.874	1.879	1.658	13.29
38)	Benzo(k)fluora...	1.286	1.378	1.611	1.675	1.933	1.955	1.947	1.684	16.49
39) C	Benzo(a)pyrene	1.135	1.009	1.111	1.151	1.375	1.444	1.482	1.244	14.93
40)	Dibenzo(a,h)an...	1.148	1.144	1.370	1.422	1.663	1.655	1.672	1.439	16.24
41)	Benzo(g,h,i)pe...	1.219	1.295	1.512	1.538	1.731	1.716	1.748	1.537	13.90

-----  
(#) = Out of Range

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN120822\  
 Data File : BN023093.D  
 Acq On : 08 Dec 2022 14:00  
 Operator : CG/JU  
 Sample : SSTDICC0.1  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.1

Quant Time: Dec 09 07:27:34 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:25:53 2022  
 Response via : Initial Calibration

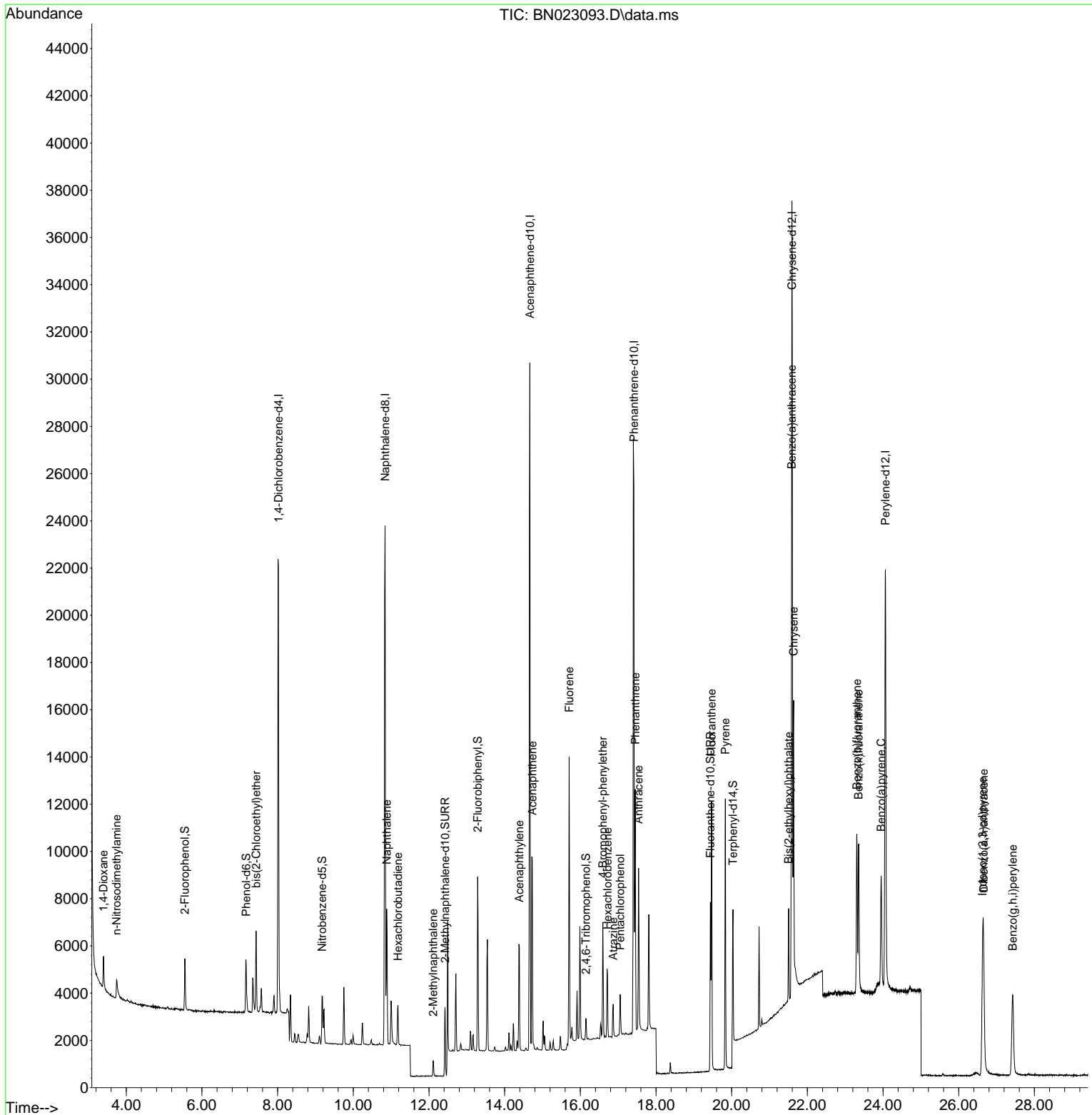
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) 1,4-Dichlorobenzene-d4	8.020	152	9714	0.400 ng	0.00	
7) Naphthalene-d8	10.839	136	29087	0.400 ng	# 0.00	
13) Acenaphthene-d10	14.666	164	16291	0.400 ng	0.00	
19) Phenanthrene-d10	17.414	188	36859	0.400 ng	0.00	
29) Chrysene-d12	21.593	240	29376	0.400 ng	# 0.00	
35) Perylene-d12	24.060	264	26107	0.400 ng	# 0.00	
System Monitoring Compounds						
4) 2-Fluorophenol	5.550	112	1863	0.083 ng	0.00	
5) Phenol-d6	7.168	99	2237	0.079 ng	0.00	
8) Nitrobenzene-d5	9.174	82	1799	0.082 ng	-0.01	
11) 2-Methylnaphthalene-d10	12.423	152	4254	0.077 ng	0.00	
14) 2,4,6-Tribromophenol	16.148	330	489	0.071 ng	0.00	
15) 2-Fluorobiphenyl	13.287	172	6390	0.088 ng	-0.01	
27) Fluoranthene-d10	19.439	212	7606	0.075 ng	0.00	
31) Terphenyl-d14	20.035	244	4494	0.081 ng	0.00	
Target Compounds						
2) 1,4-Dioxane	3.398	88	955	0.079 ng		98
3) n-Nitrosodimethylamine	3.745	42	772	0.066 ng		96
6) bis(2-Chloroethyl)ether	7.435	93	2688	0.086 ng		98
9) Naphthalene	10.882	128	7179	0.083 ng		97
10) Hexachlorobutadiene	11.181	225	1383	0.085 ng	#	99
12) 2-Methylnaphthalene	12.113	142	983	0.074 ng	#	77
16) Acenaphthylene	14.388	152	5509	0.072 ng		100
17) Acenaphthene	14.730	154	4487	0.080 ng		99
18) Fluorene	15.703	166	4794	0.077 ng		99
21) 4-Bromophenyl-phenylether	16.595	248	1805	0.081 ng		99
22) Hexachlorobenzene	16.719	284	2356	0.082 ng		98
23) Atrazine	16.868	200	1151	0.071 ng	#	96
24) Pentachlorophenol	17.054	266	861	0.102 ng		98
25) Phenanthrene	17.451	178	10530	0.085 ng		99
26) Anthracene	17.538	178	7515	0.075 ng		100
28) Fluoranthene	19.468	202	10024	0.074 ng		100
30) Pyrene	19.831	202	10098	0.082 ng		100
32) Benzo(a)anthracene	21.584	228	8542	0.079 ng		99
33) Chrysene	21.638	228	10544	0.087 ng		99
34) Bis(2-ethylhexyl)phtha...	21.504	149	3706	0.079 ng		98
36) Indeno(1,2,3-cd)pyrene	26.630	276	9677	0.070 ng	#	82
37) Benzo(b)fluoranthene	23.306	252	8869	0.074 ng	#	85
38) Benzo(k)fluoranthene	23.355	252	8393	0.069 ng	#	87
39) Benzo(a)pyrene	23.949	252	7407	0.077 ng	#	77
40) Dibenzo(a,h)anthracene	26.656	278	7491	0.068 ng		94
41) Benzo(g,h,i)perylene	27.425	276	7959	0.071 ng		96

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

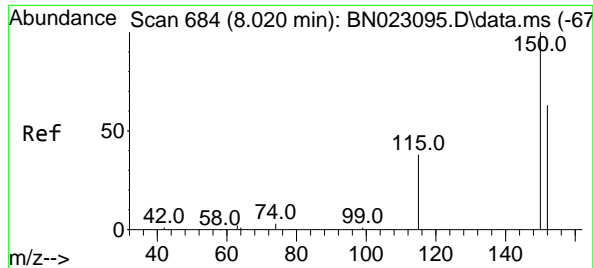
Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN120822\  
 Data File : BN023093.D  
 Acq On : 08 Dec 2022 14:00  
 Operator : CG/JU  
 Sample : SSTDIC0.1  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDIC0.1

Quant Time: Dec 09 07:27:34 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:25:53 2022  
 Response via : Initial Calibration



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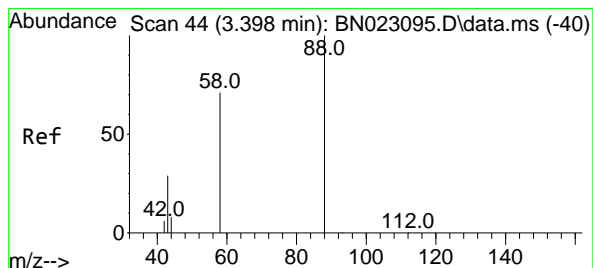
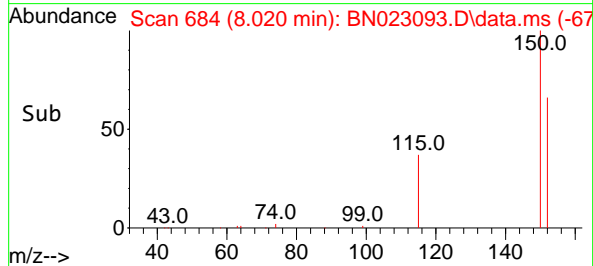
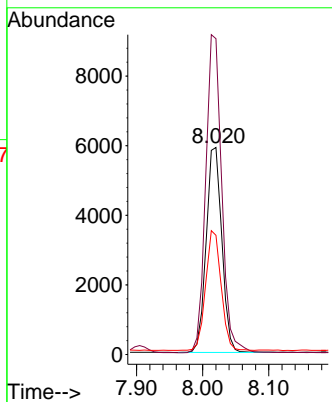
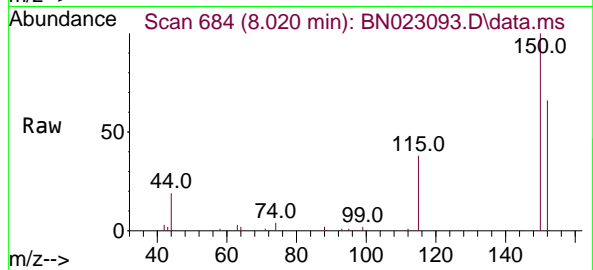


#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 8.020 min Scan# 684  
 Delta R.T. 0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.1

Tgt Ion:152 Resp: 9714

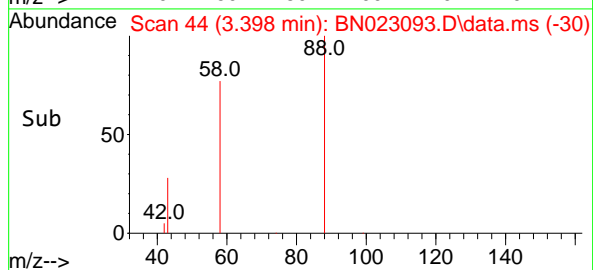
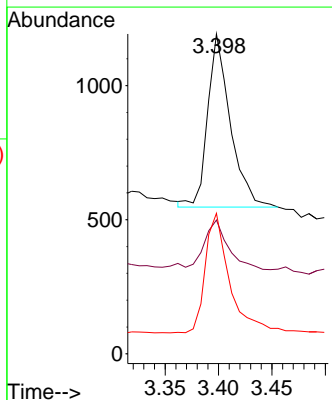
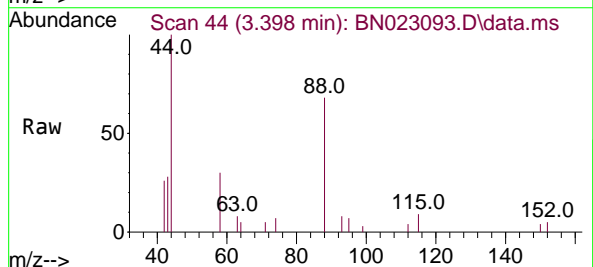
Ion	Ratio	Lower	Upper
152	100		
150	152.5	125.6	188.4
115	57.6	49.0	73.4

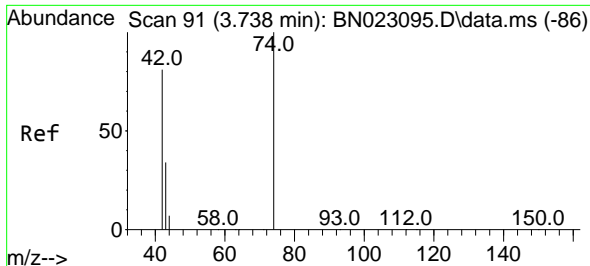


#2  
 1,4-Dioxane  
 Concen: 0.079 ng  
 RT: 3.398 min Scan# 44  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Tgt Ion: 88 Resp: 955

Ion	Ratio	Lower	Upper
88	100		
43	31.8	23.3	34.9
58	72.9	58.0	87.0



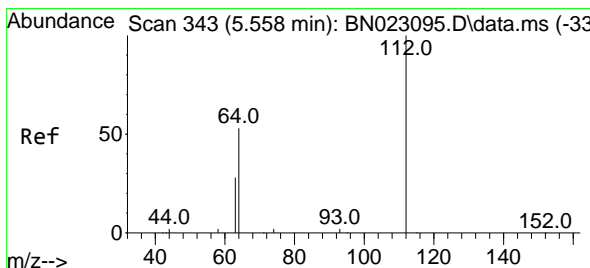
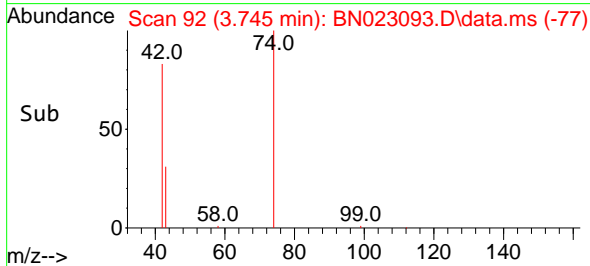
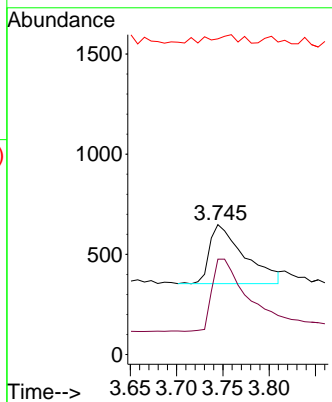
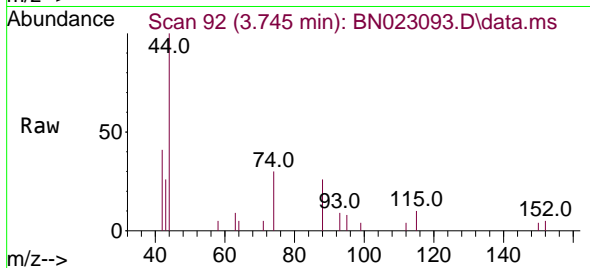


#3  
 n-Nitrosodimethylamine  
 Concen: 0.066 ng  
 RT: 3.745 min Scan# 91  
 Delta R.T. 0.007 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.1

Tgt Ion: 42 Resp: 772

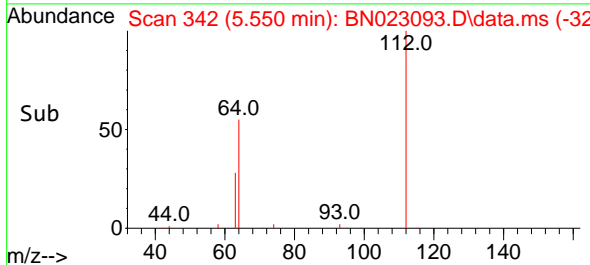
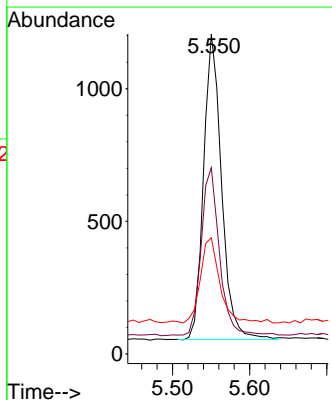
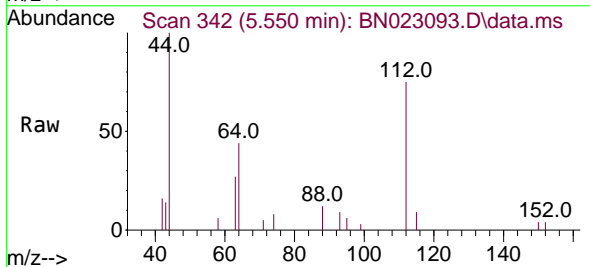
Ion	Ratio	Lower	Upper
42	100		
74	124.9	95.8	143.6
44	10.5	8.4	12.6



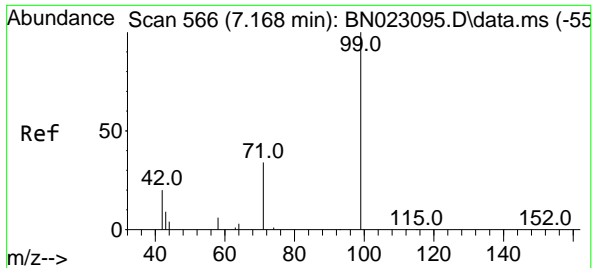
#4  
 2-Fluorophenol  
 Concen: 0.083 ng  
 RT: 5.550 min Scan# 342  
 Delta R.T. -0.007 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Tgt Ion: 112 Resp: 1863

Ion	Ratio	Lower	Upper
112	100		
64	56.0	44.4	66.6
63	30.5	23.7	35.5



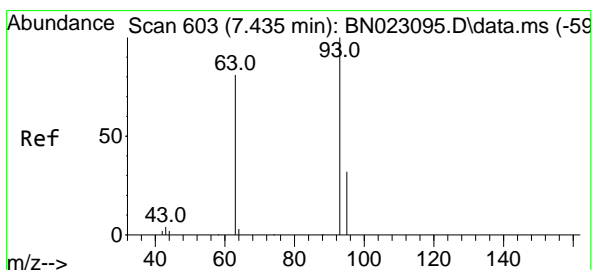
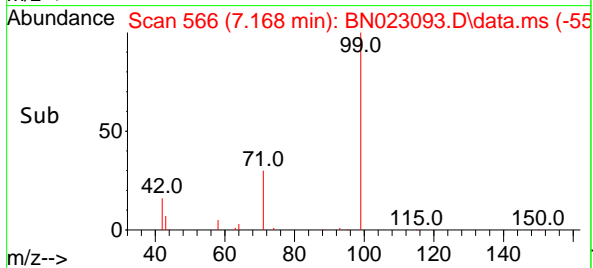
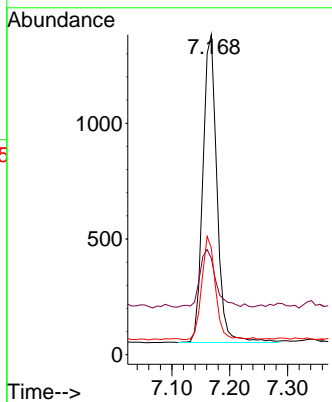
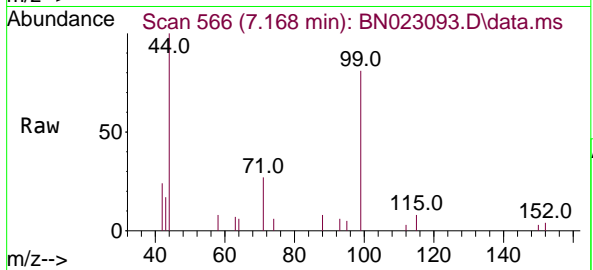




#5  
 Phenol-d6  
 Concen: 0.079 ng  
 RT: 7.168 min Scan# 566  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

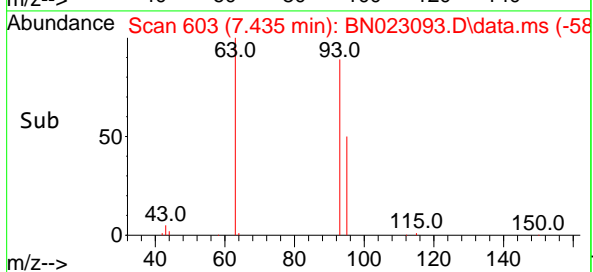
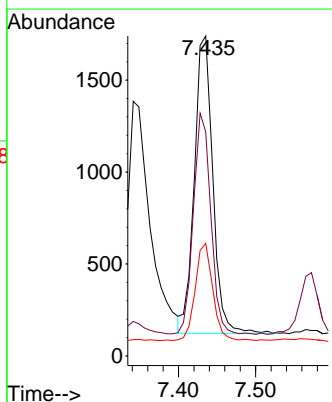
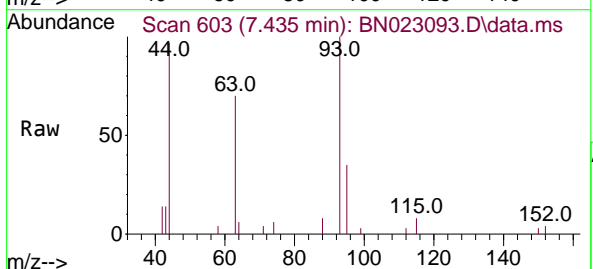
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.1

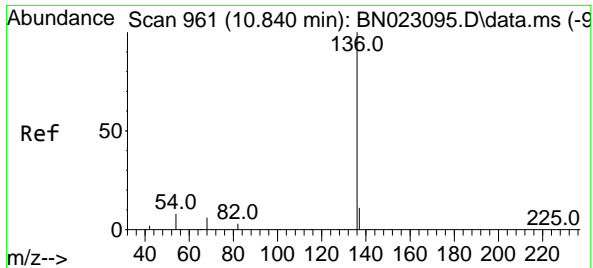
Tgt Ion	Resp	Ion Ratio	Lower	Upper
99	2237	100		
42	20.8	16.3	24.5	
71	32.1	26.5	39.7	



#6  
 bis(2-Chloroethyl)ether  
 Concen: 0.086 ng  
 RT: 7.435 min Scan# 603  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Tgt Ion	Resp	Ion Ratio	Lower	Upper
93	2688	100		
63	70.5	58.1	87.1	
95	31.3	25.2	37.8	



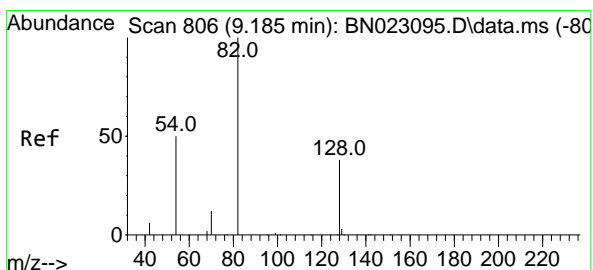
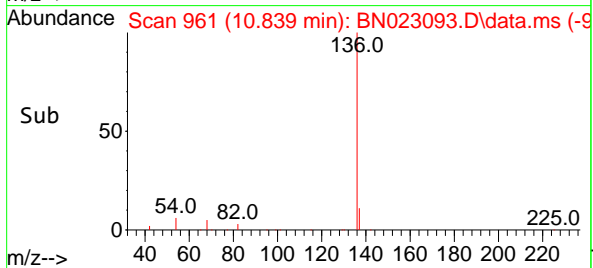
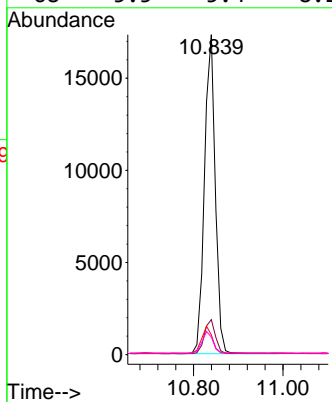
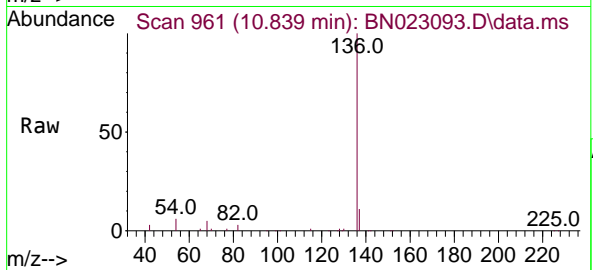


#7  
 Naphthalene-d8  
 Concen: 0.400 ng  
 RT: 10.839 min Scan# 90  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Instrument : BNA\_N  
 Client Sample Id : SSTDICC0.1

Tgt Ion: 136 Resp: 29087

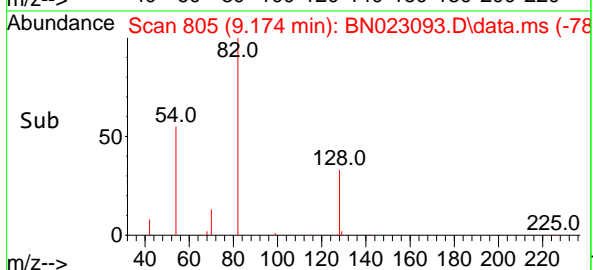
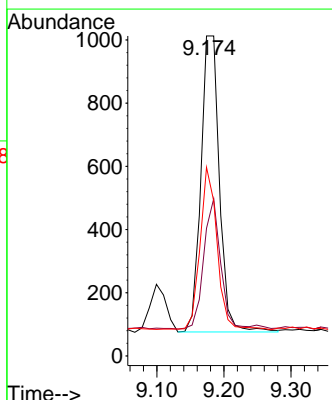
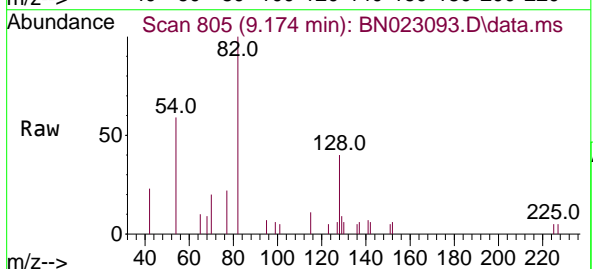
Ion	Ratio	Lower	Upper
136	100		
137	10.9	9.0	13.4
54	6.2	6.5	9.7#
68	5.5	5.4	8.2

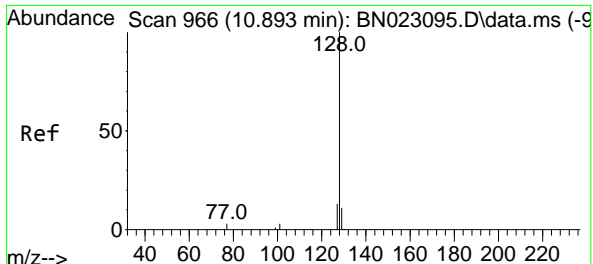


#8  
 Nitrobenzene-d5  
 Concen: 0.082 ng  
 RT: 9.174 min Scan# 805  
 Delta R.T. -0.011 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Tgt Ion: 82 Resp: 1799

Ion	Ratio	Lower	Upper
82	100		
128	39.9	31.4	47.2
54	58.9	41.0	61.4



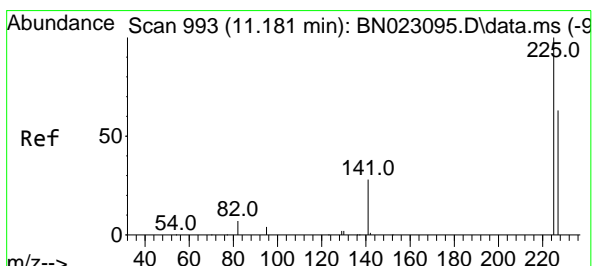
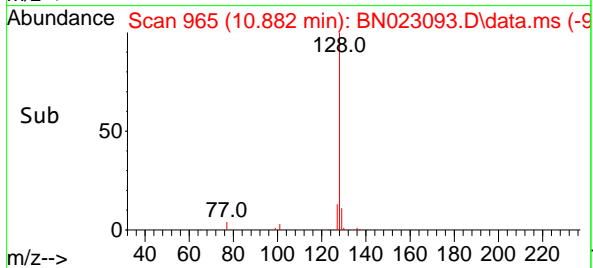
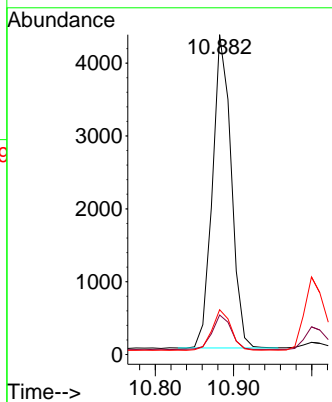
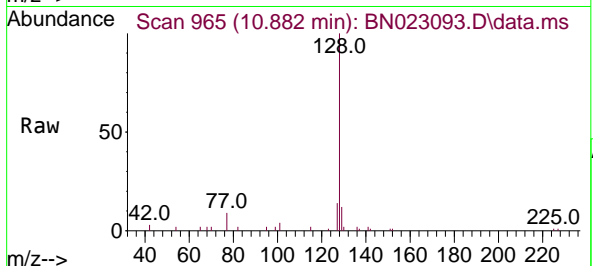


#9  
 Naphthalene  
 Concen: 0.083 ng  
 RT: 10.882 min Scan# 965  
 Delta R.T. -0.011 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.1

Tgt Ion:128 Resp: 7179

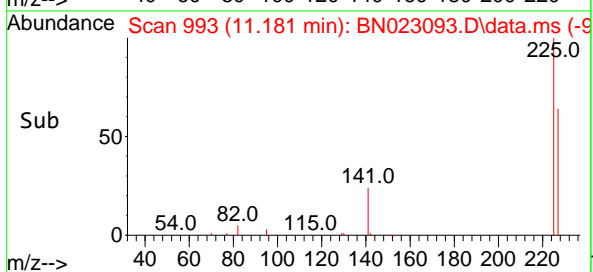
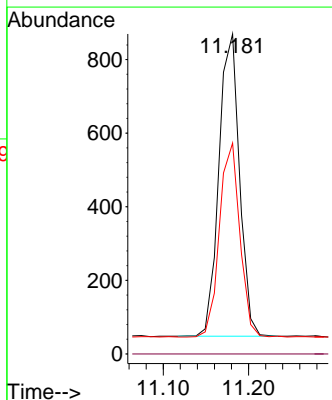
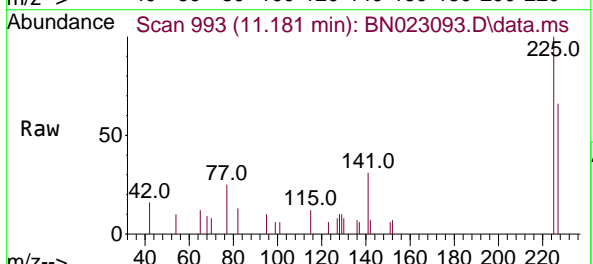
Ion	Ratio	Lower	Upper
128	100		
129	12.4	9.0	13.6
127	14.0	10.5	15.7

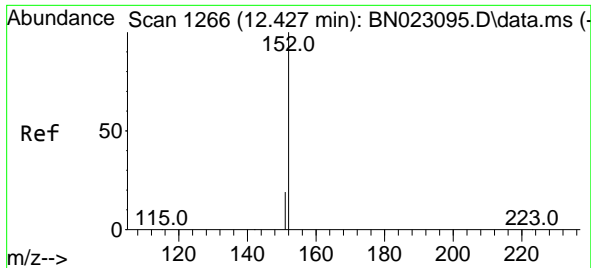


#10  
 Hexachlorobutadiene  
 Concen: 0.085 ng  
 RT: 11.181 min Scan# 993  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Tgt Ion:225 Resp: 1383

Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	63.5	51.1	76.7

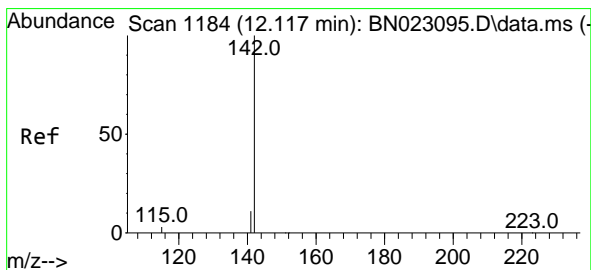
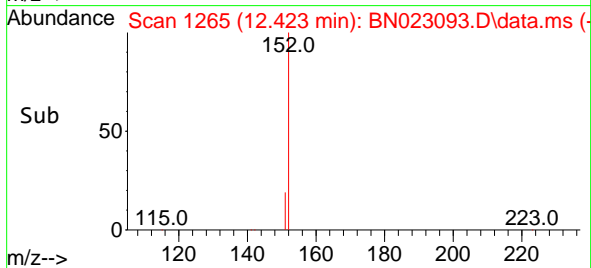
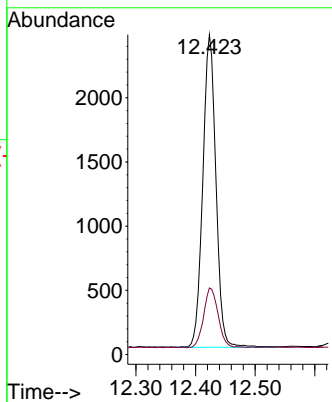
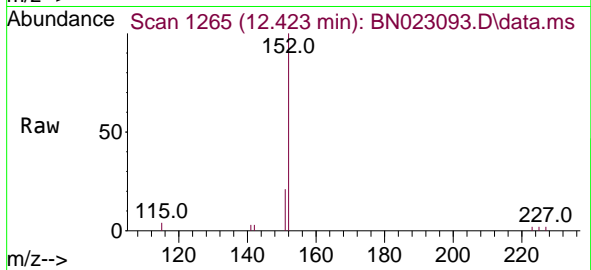




#11  
 2-Methylnaphthalene-d10  
 Concen: 0.077 ng  
 RT: 12.423 min Scan# 1183  
 Delta R.T. -0.004 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

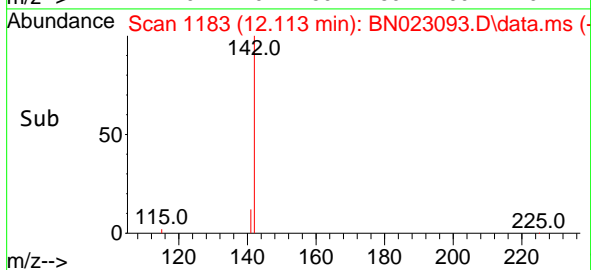
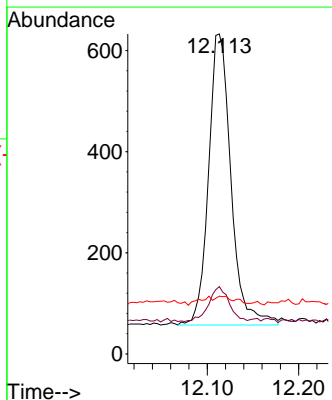
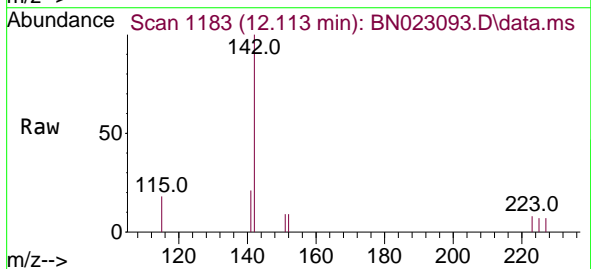
Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.1

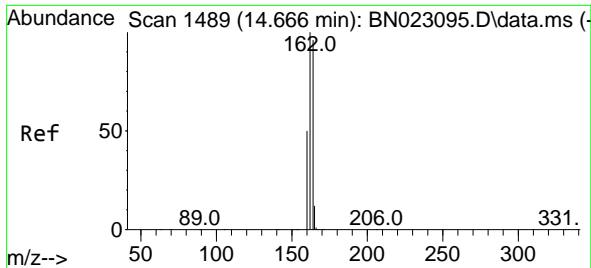
Tgt Ion:152 Resp: 4254  
 Ion Ratio Lower Upper  
 152 100  
 151 18.7 15.1 22.7



#12  
 2-Methylnaphthalene  
 Concen: 0.074 ng  
 RT: 12.113 min Scan# 1183  
 Delta R.T. -0.004 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Tgt Ion:142 Resp: 983  
 Ion Ratio Lower Upper  
 142 100  
 141 21.0 10.9 16.3#  
 115 18.0 5.7 8.5#





#13  
 Acenaphthene-d10  
 Concen: 0.400 ng  
 RT: 14.666 min Scan# 1489  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Instrument :

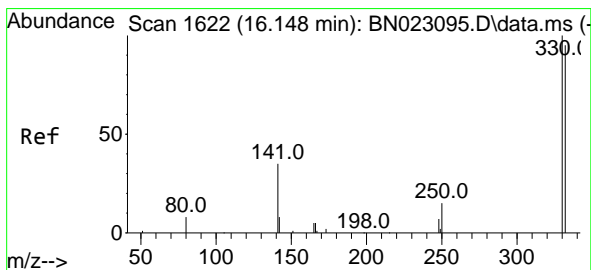
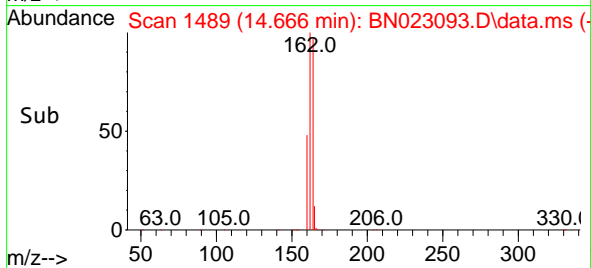
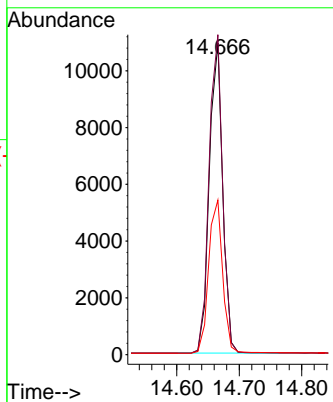
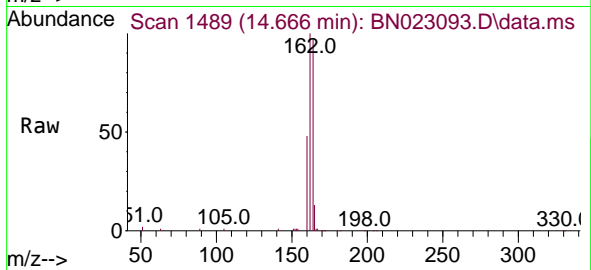
BNA\_N

ClientSampleId :

SSTDICC0.1

Tgt Ion:164 Resp: 16291

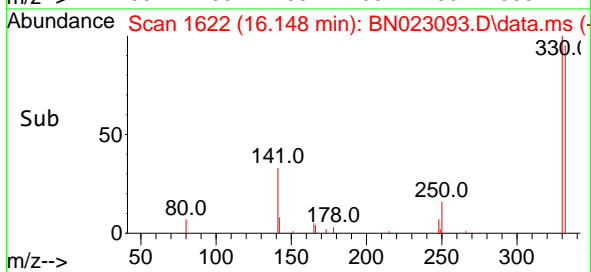
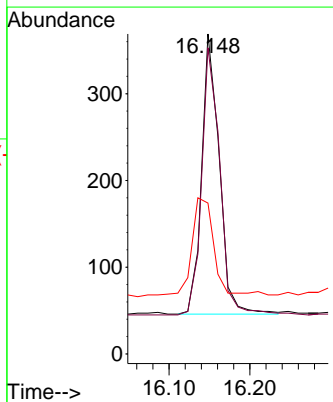
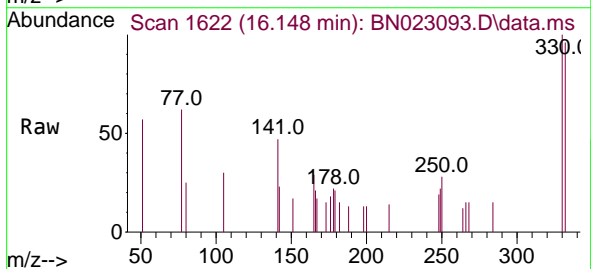
Ion	Ratio	Lower	Upper
164	100		
162	102.7	83.4	125.0
160	49.6	41.8	62.8

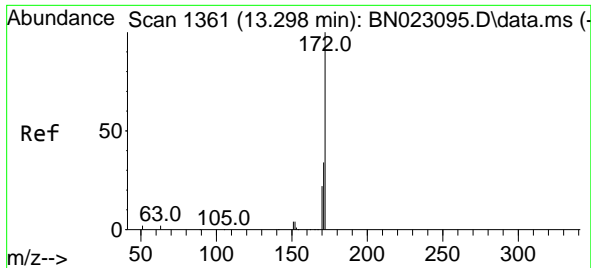


#14  
 2,4,6-Tribromophenol  
 Concen: 0.071 ng  
 RT: 16.148 min Scan# 1622  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Tgt Ion:330 Resp: 489

Ion	Ratio	Lower	Upper
330	100		
332	98.4	77.3	115.9
141	40.9	33.5	50.3



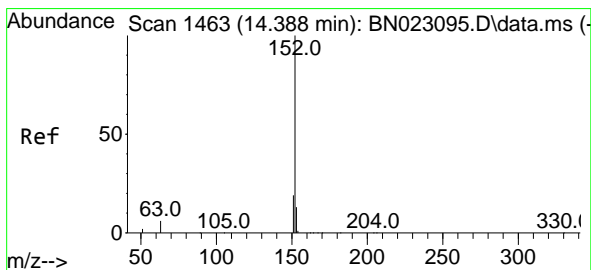
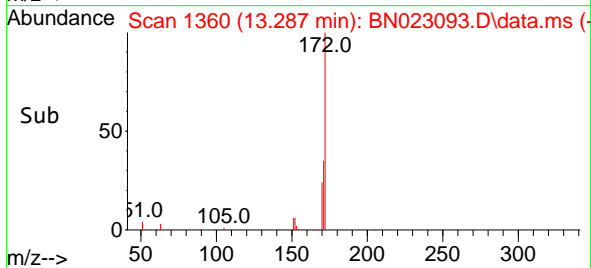
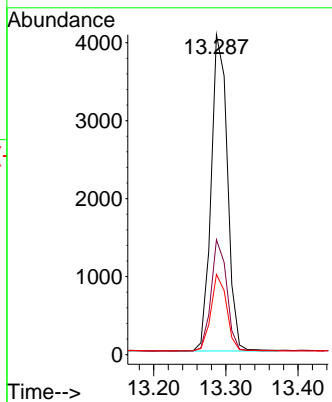
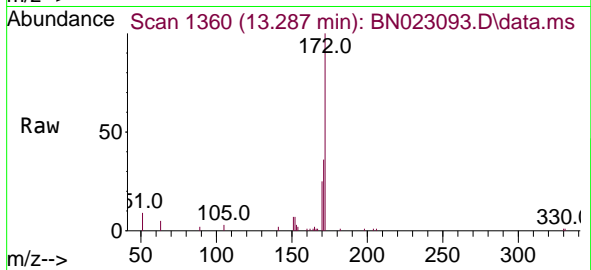


#15  
 2-Fluorobiphenyl  
 Concen: 0.088 ng  
 RT: 13.287 min Scan# 1360  
 Delta R.T. -0.011 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.1

Tgt Ion:172 Resp: 6390

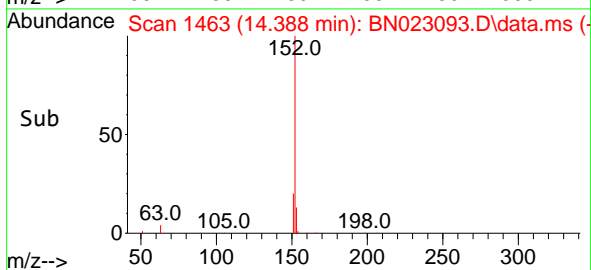
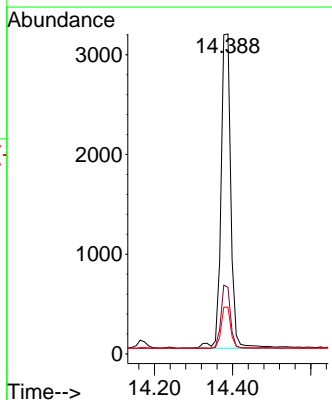
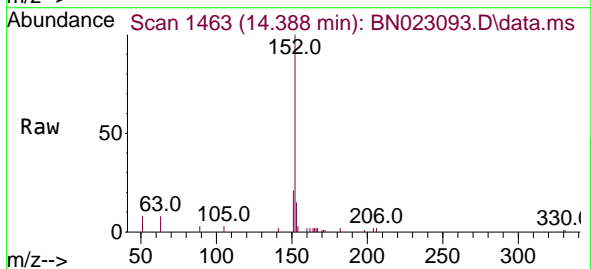
Ion	Ratio	Lower	Upper
172	100		
171	35.9	27.4	41.0
170	25.1	17.9	26.9

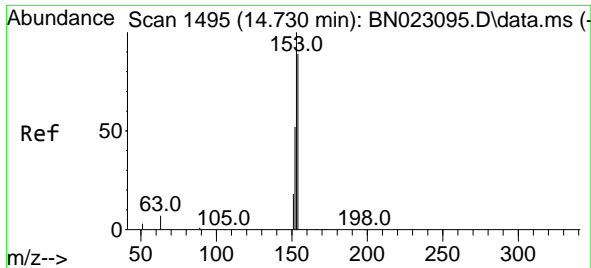


#16  
 Acenaphthylene  
 Concen: 0.072 ng  
 RT: 14.388 min Scan# 1463  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Tgt Ion:152 Resp: 5509

Ion	Ratio	Lower	Upper
152	100		
151	19.4	15.4	23.2
153	13.2	10.3	15.5

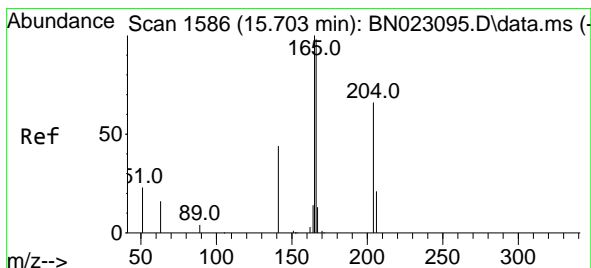
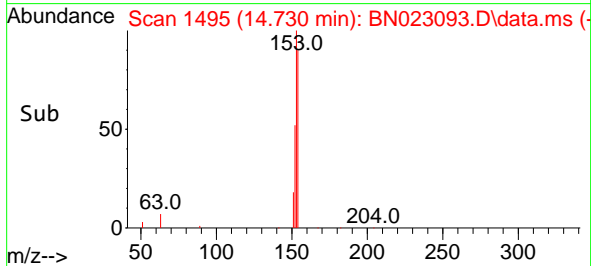
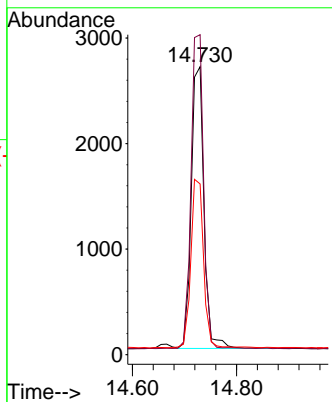
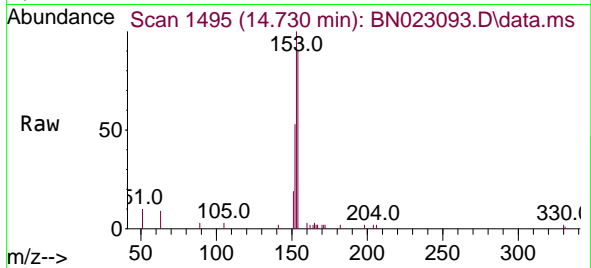




#17  
 Acenaphthene  
 Concen: 0.080 ng  
 RT: 14.730 min Scan# 1495  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

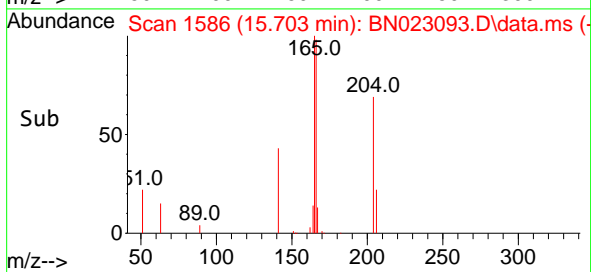
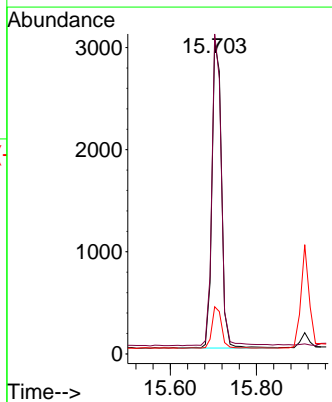
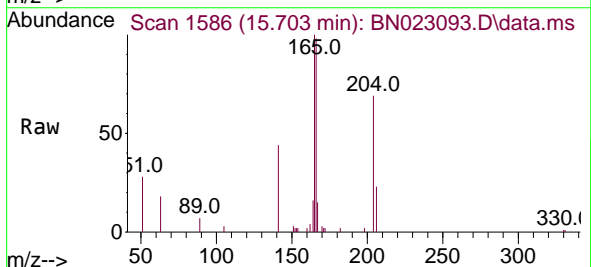
Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.1

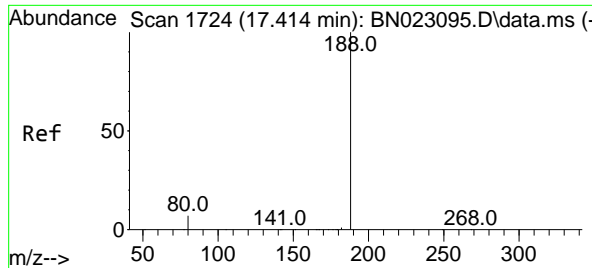
Tgt Ion	Resp	Lower	Upper
154	4487		
153	109.9	88.6	132.8
152	59.5	48.1	72.1



#18  
 Fluorene  
 Concen: 0.077 ng  
 RT: 15.703 min Scan# 1586  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Tgt Ion	Resp	Lower	Upper
166	4794		
165	100.7	79.8	119.6
167	13.7	10.6	16.0

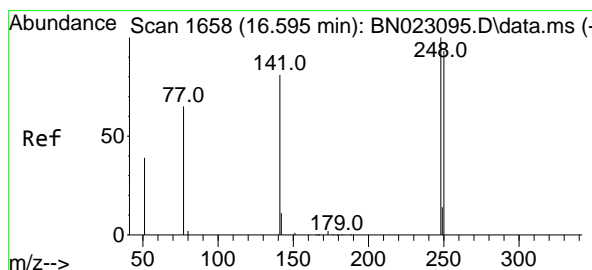
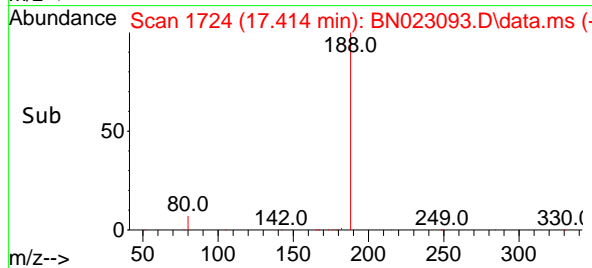
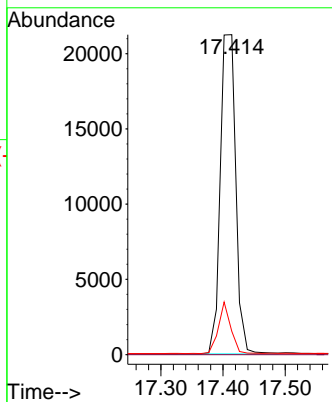
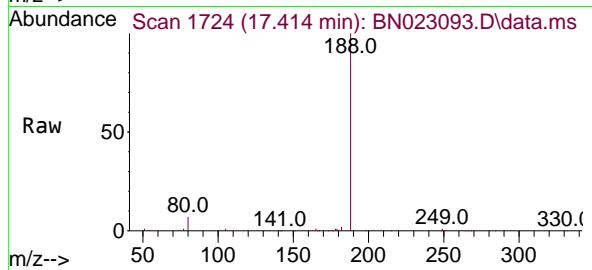




#19  
 Phenanthrene-d10  
 Concen: 0.400 ng  
 RT: 17.414 min Scan# 11  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

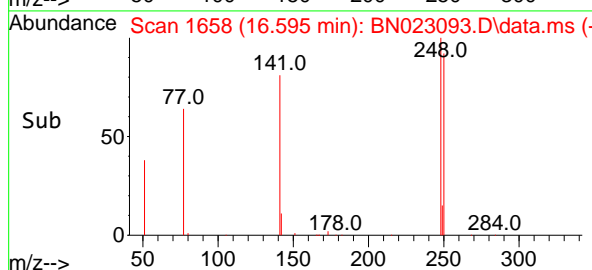
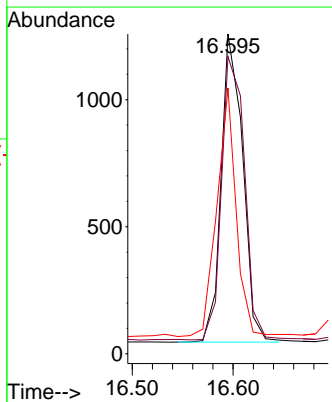
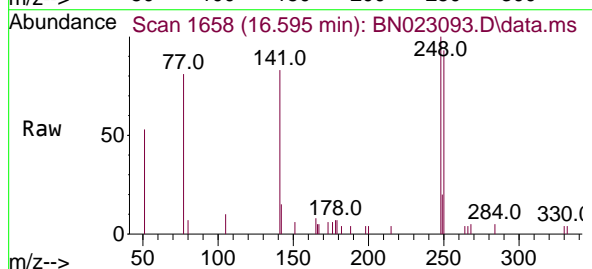
Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.1

Tgt Ion	Resp	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	7.3	6.1	9.1

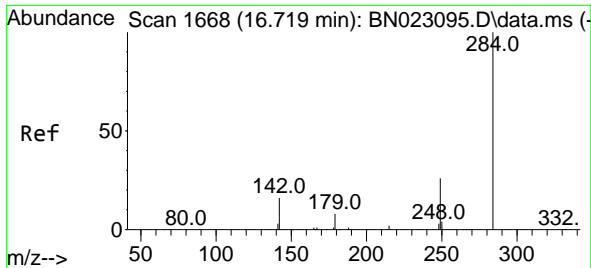


#21  
 4-Bromophenyl-phenylether  
 Concen: 0.081 ng  
 RT: 16.595 min Scan# 1658  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Tgt Ion	Resp	Lower	Upper
248	100		
250	92.9	74.3	111.5
141	83.1	65.0	97.6

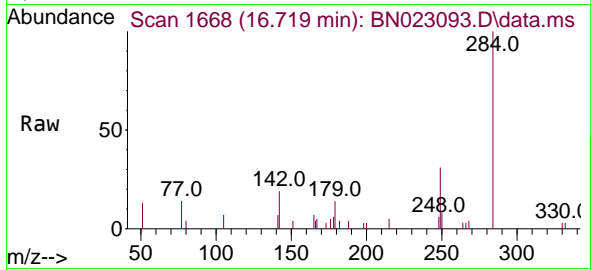






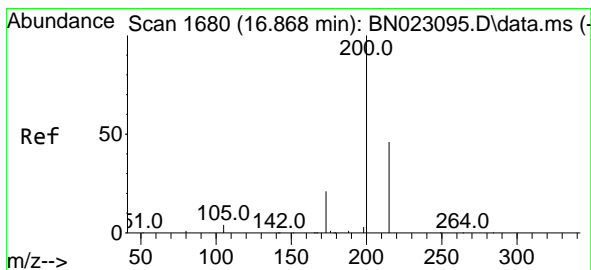
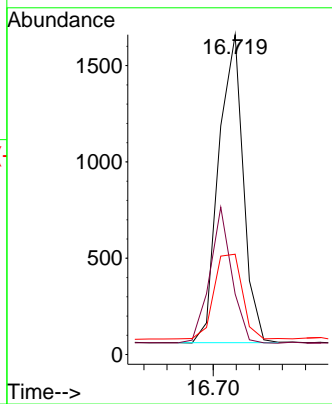
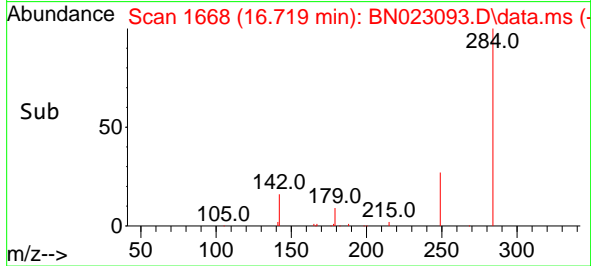
#22  
 Hexachlorobenzene  
 Concen: 0.082 ng  
 RT: 16.719 min Scan# 1668  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Instrument : BNA\_N  
 Client Sample Id : SSTDICC0.1

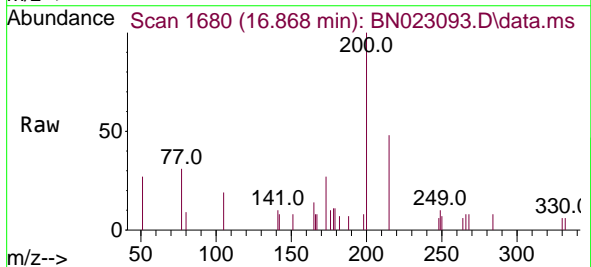


Tgt Ion: 284 Resp: 2356

Ion	Ratio	Lower	Upper
284	100		
142	39.7	31.0	46.4
249	31.7	24.4	36.6

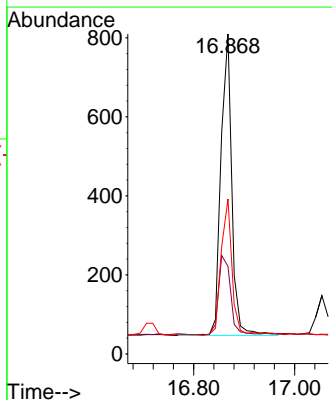
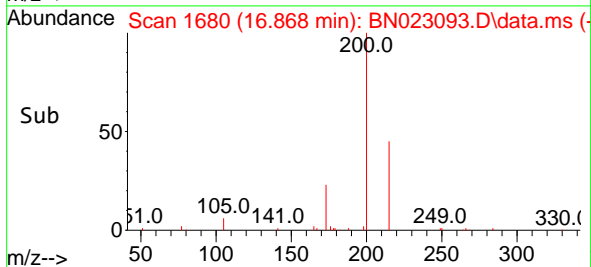


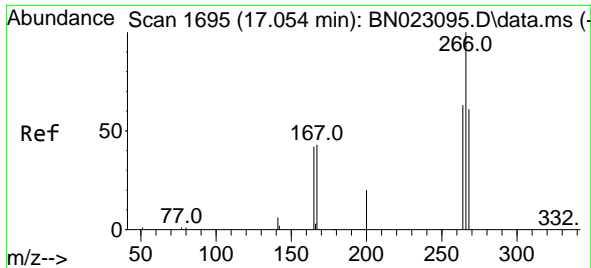
#23  
 Atrazine  
 Concen: 0.071 ng  
 RT: 16.868 min Scan# 1680  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00



Tgt Ion: 200 Resp: 1151

Ion	Ratio	Lower	Upper
200	100		
173	27.4	18.2	27.4#
215	48.4	38.0	57.0





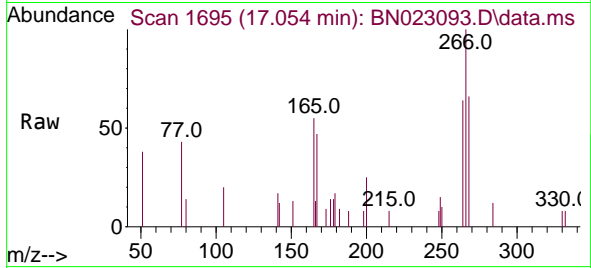
#24  
 Pentachlorophenol  
 Concen: 0.102 ng  
 RT: 17.054 min Scan# 1695  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Instrument :

BNA\_N

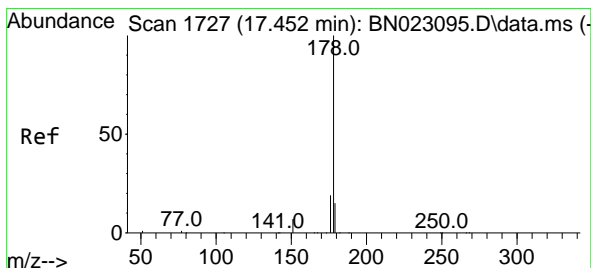
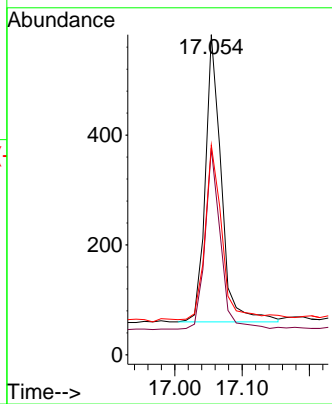
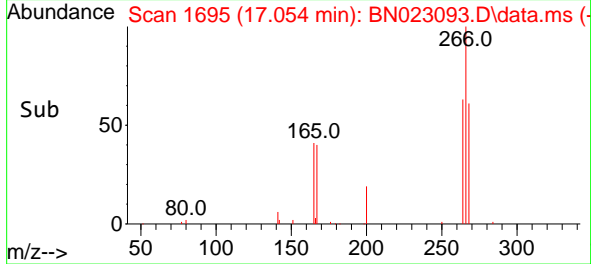
ClientSampleId :

SSTDIC0.1

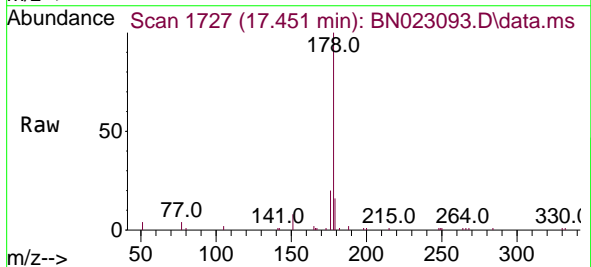


Tgt Ion: 266 Resp: 861

Ion	Ratio	Lower	Upper
266	100		
264	60.6	50.1	75.1
268	63.9	49.7	74.5

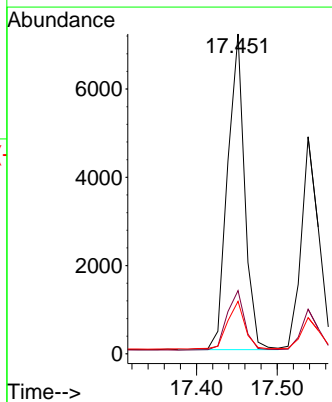
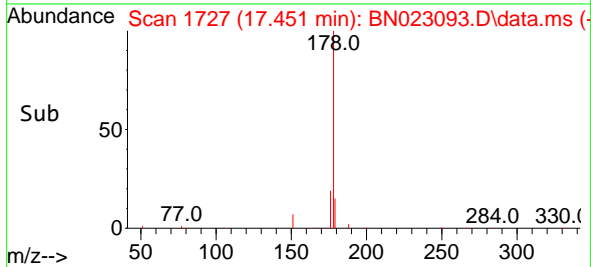


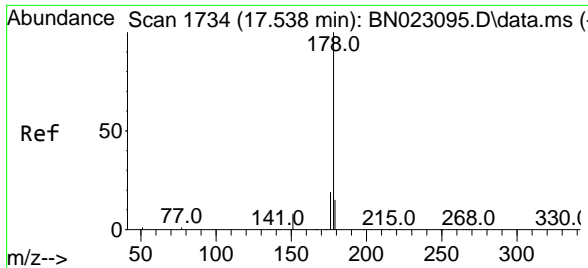
#25  
 Phenanthrene  
 Concen: 0.085 ng  
 RT: 17.451 min Scan# 1727  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00



Tgt Ion: 178 Resp: 10530

Ion	Ratio	Lower	Upper
178	100		
176	19.5	15.4	23.2
179	15.7	12.2	18.2

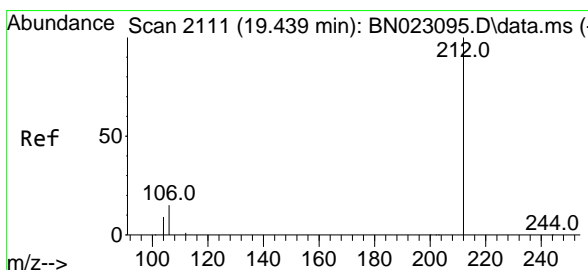
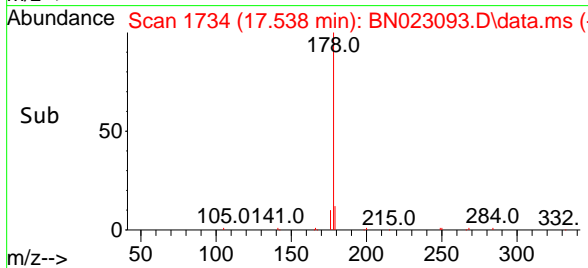
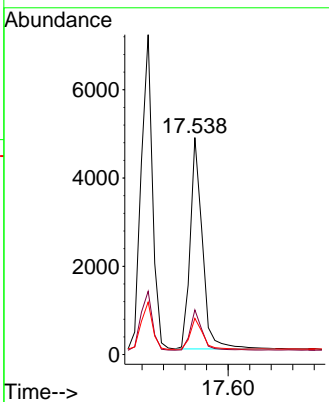
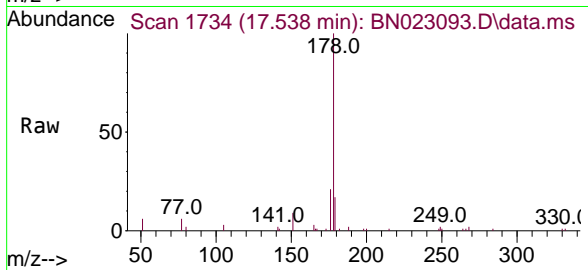




#26  
 Anthracene  
 Concen: 0.075 ng  
 RT: 17.538 min Scan# 11  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

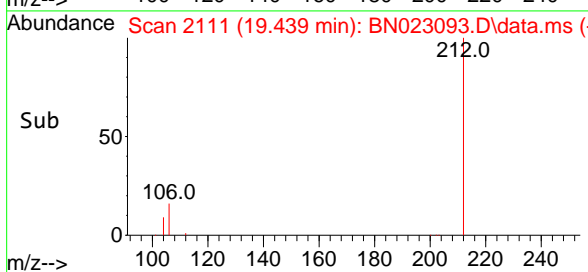
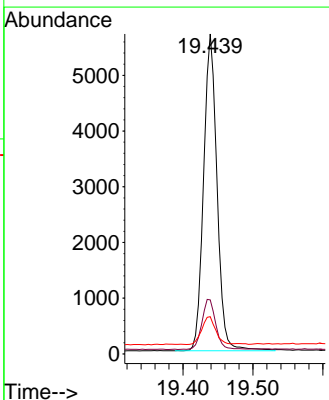
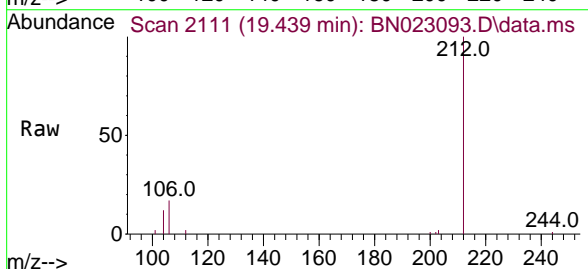
Instrument : BNA\_N  
 ClientSampleId : SSTDIC0.1

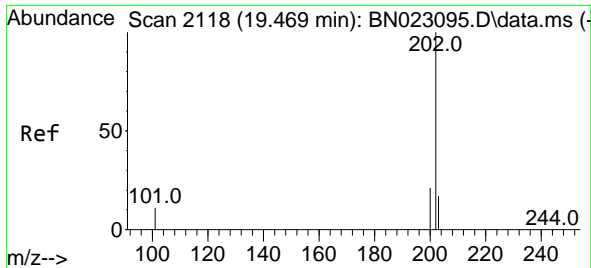
Tgt Ion	Resp	Ion Ratio	Lower	Upper
178	7515	100		
176	18.7	15.1	15.1	22.7
179	15.2	12.2	12.2	18.4



#27  
 Fluoranthene-d10  
 Concen: 0.075 ng  
 RT: 19.439 min Scan# 2111  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Tgt Ion	Resp	Ion Ratio	Lower	Upper
212	7606	100		
106	16.3	13.0	13.0	19.4
104	9.1	7.5	7.5	11.3

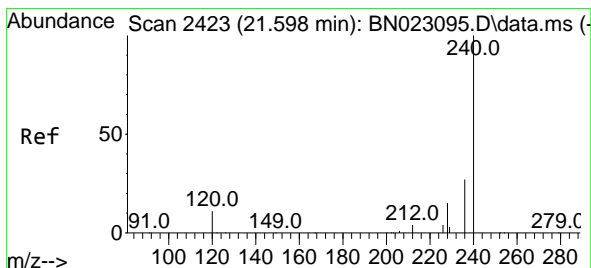
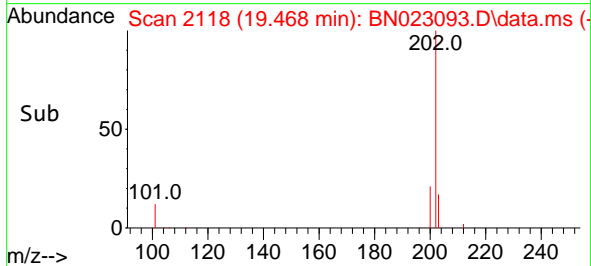
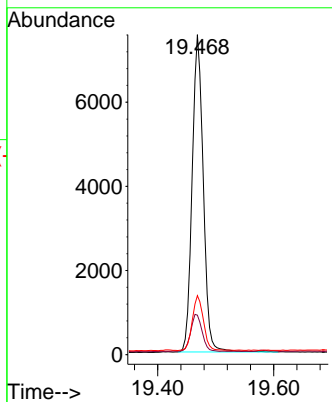
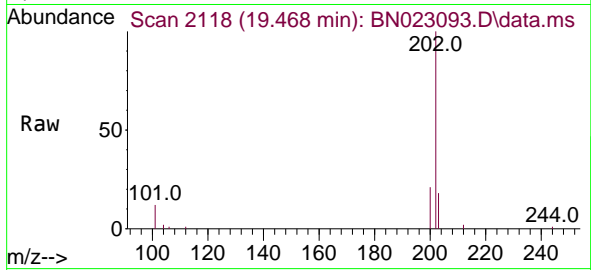




#28  
 Fluoranthene  
 Concen: 0.074 ng  
 RT: 19.468 min Scan# 2118  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

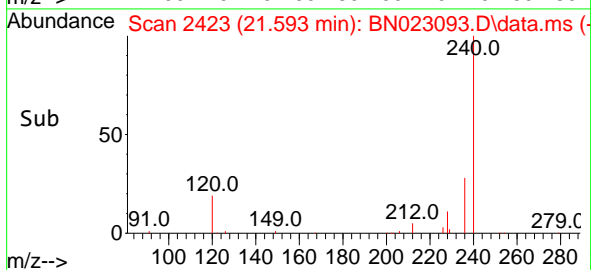
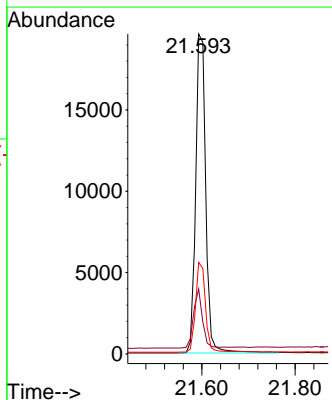
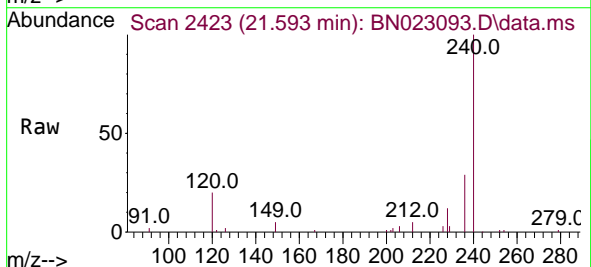
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.1

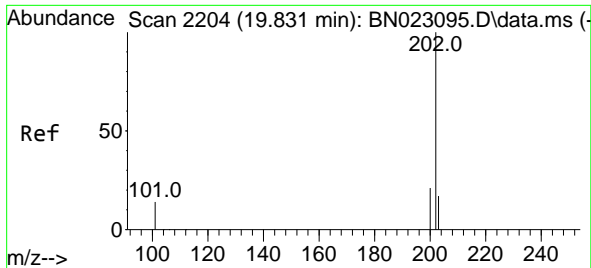
Tgt Ion	Resp	Lower	Upper
202	10024		
101	11.8	9.7	14.5
203	17.1	13.8	20.6



#29  
 Chrysene-d12  
 Concen: 0.400 ng  
 RT: 21.593 min Scan# 2423  
 Delta R.T. -0.005 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Tgt Ion	Resp	Lower	Upper
240	29376		
120	20.3	10.1	15.1#
236	28.6	22.2	33.4



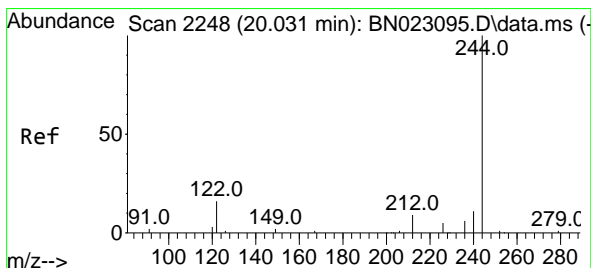
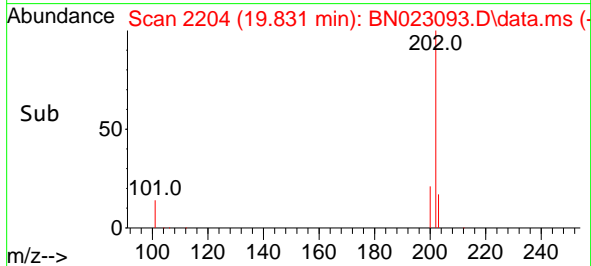
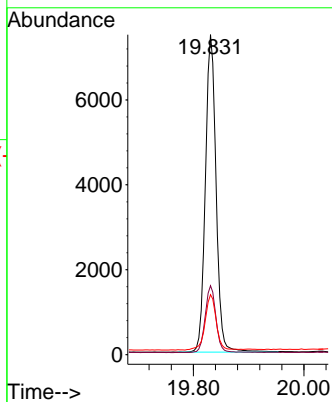
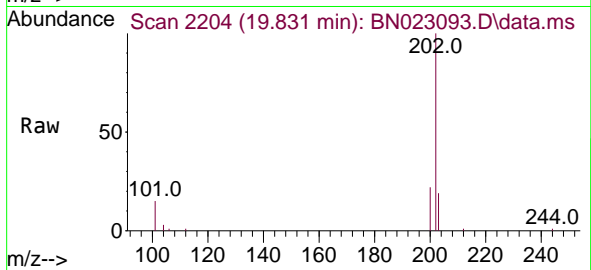


#30  
 Pyrene  
 Concen: 0.082 ng  
 RT: 19.831 min Scan# 21  
 Delta R.T. -0.000 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.1

Tgt Ion:202 Resp: 10098

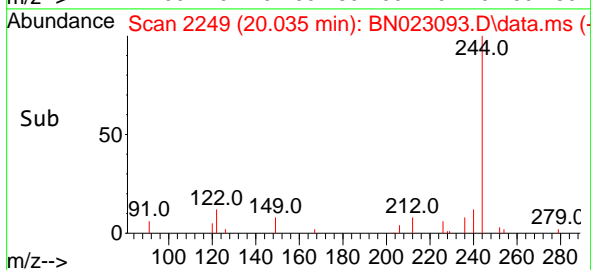
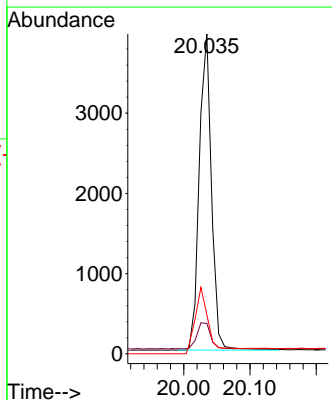
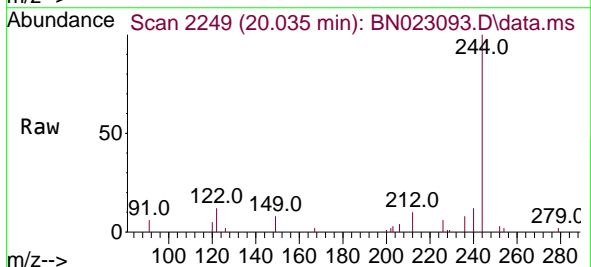
Ion	Ratio	Lower	Upper
202	100		
200	20.9	16.9	25.3
203	18.0	14.2	21.4

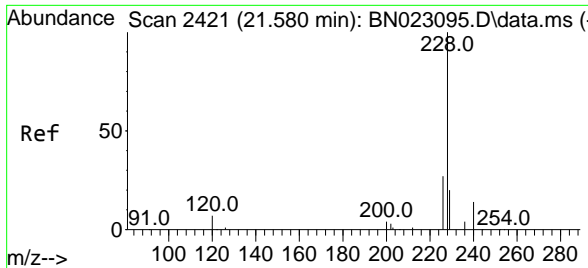


#31  
 Terphenyl-d14  
 Concen: 0.081 ng  
 RT: 20.035 min Scan# 2249  
 Delta R.T. 0.004 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Tgt Ion:244 Resp: 4494

Ion	Ratio	Lower	Upper
244	100		
212	9.5	7.6	11.4
122	12.3	12.6	18.8#



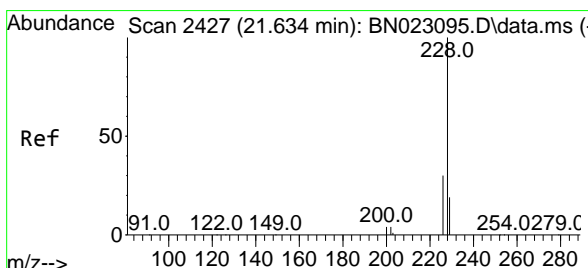
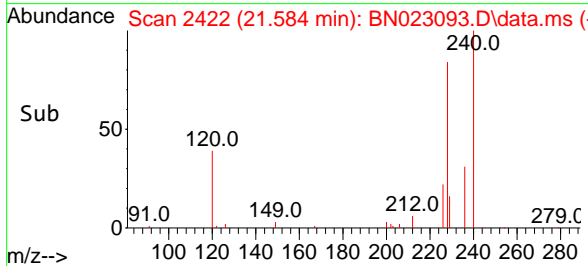
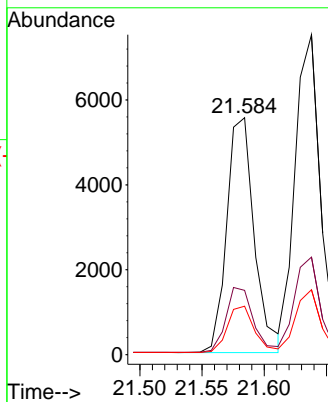
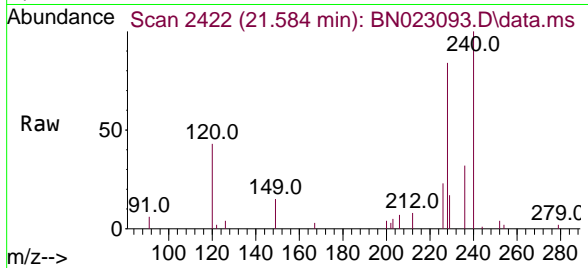


#32  
 Benzo(a)anthracene  
 Concen: 0.079 ng  
 RT: 21.584 min Scan# 2421  
 Delta R.T. 0.004 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.1

Tgt Ion:228 Resp: 8542

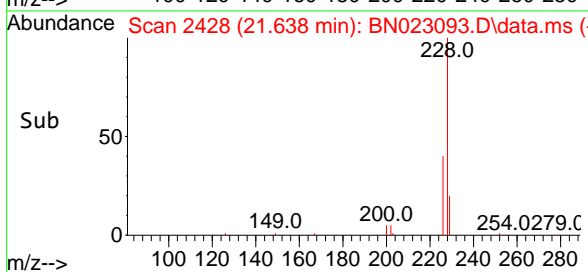
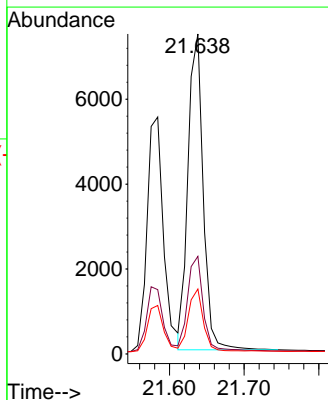
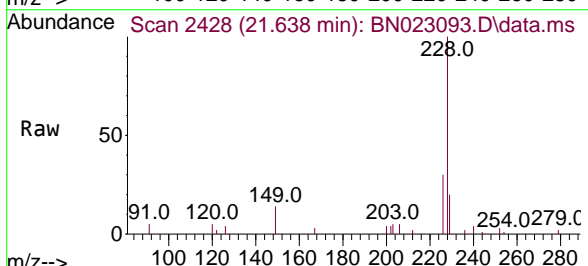
Ion	Ratio	Lower	Upper
228	100		
226	27.1	22.0	33.0
229	20.5	15.8	23.8

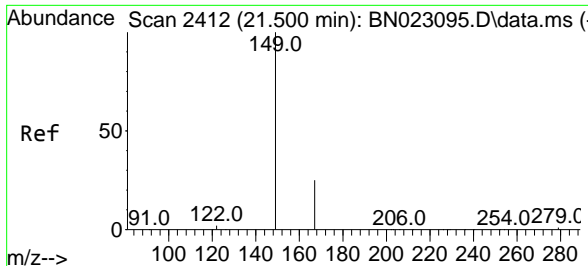


#33  
 Chrysene  
 Concen: 0.087 ng  
 RT: 21.638 min Scan# 2428  
 Delta R.T. 0.004 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Tgt Ion:228 Resp: 10544

Ion	Ratio	Lower	Upper
228	100		
226	30.5	24.4	36.6
229	20.3	15.6	23.4

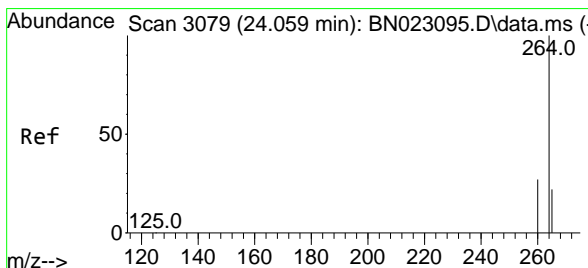
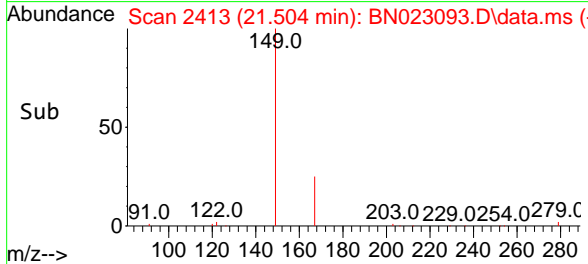
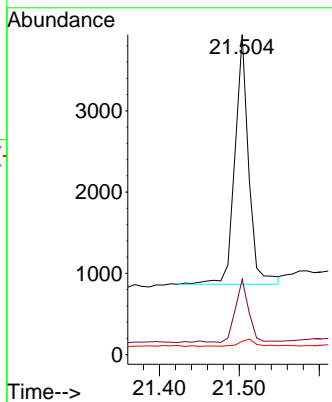
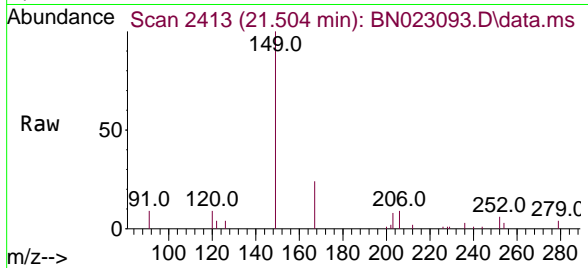




#34  
 Bis(2-ethylhexyl)phthalate  
 Concen: 0.079 ng  
 RT: 21.504 min Scan# 2413  
 Delta R.T. 0.004 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

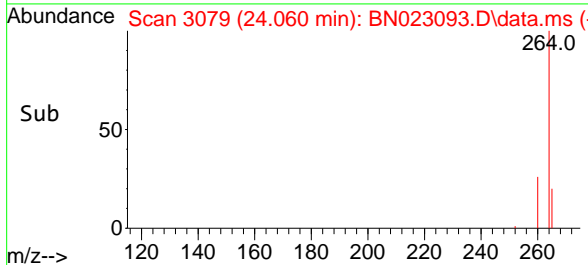
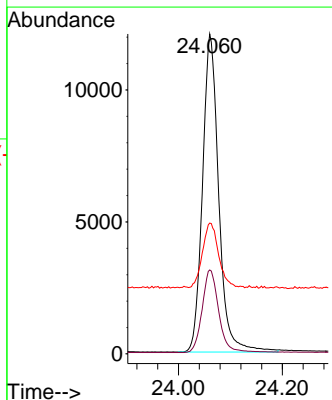
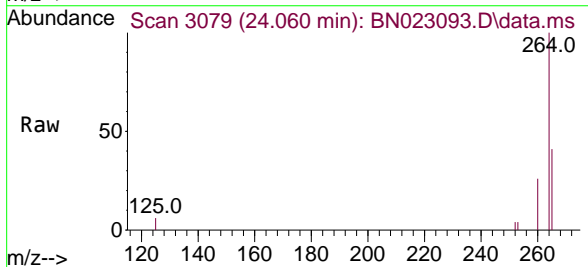
Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.1

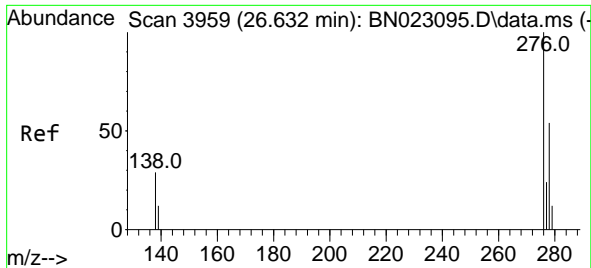
Tgt Ion	Resp	Lower	Upper
149	100		
167	24.0	20.2	30.2
279	3.0	2.3	3.5



#35  
 Perylene-d12  
 Concen: 0.400 ng  
 RT: 24.060 min Scan# 3079  
 Delta R.T. 0.001 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Tgt Ion	Resp	Lower	Upper
264	100		
260	26.2	21.7	32.5
265	40.9	43.2	64.8#

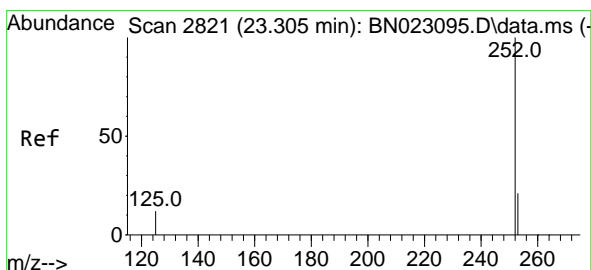
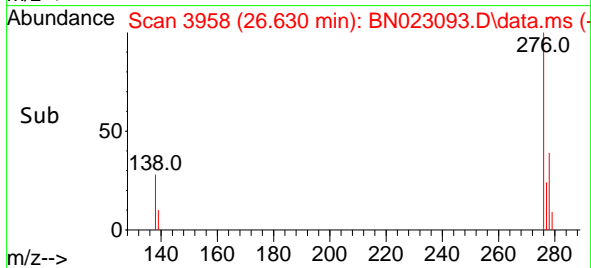
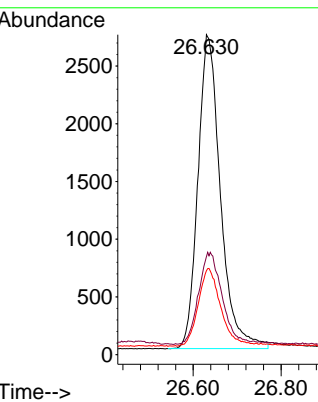
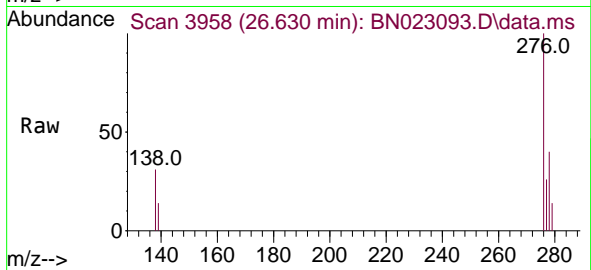




#36  
 Indeno(1,2,3-cd)pyrene  
 Concen: 0.070 ng  
 RT: 26.630 min Scan# 3959  
 Delta R.T. -0.002 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

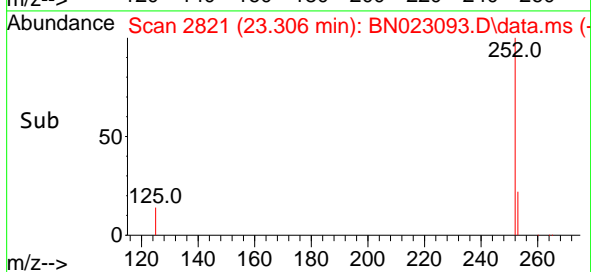
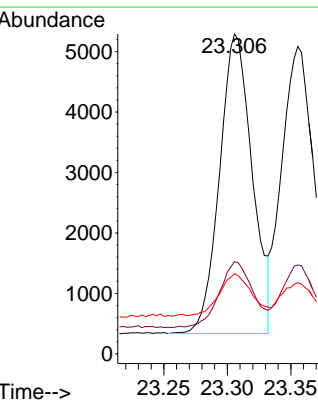
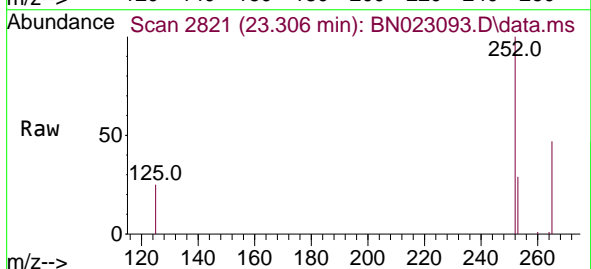
Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.1

Tgt Ion	Resp	Ion Ratio	Lower	Upper
276	9677	100		
138		13.9	25.0	37.6#
277		24.8	19.8	29.8

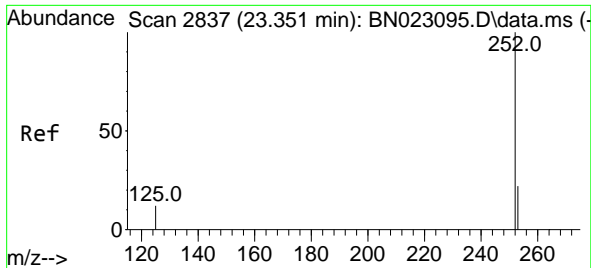


#37  
 Benzo(b)fluoranthene  
 Concen: 0.074 ng  
 RT: 23.306 min Scan# 2821  
 Delta R.T. 0.001 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Tgt Ion	Resp	Ion Ratio	Lower	Upper
252	8869	100		
253		28.8	19.0	28.4#
125		25.0	12.8	19.2#





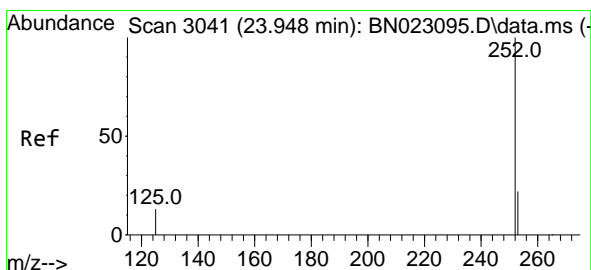
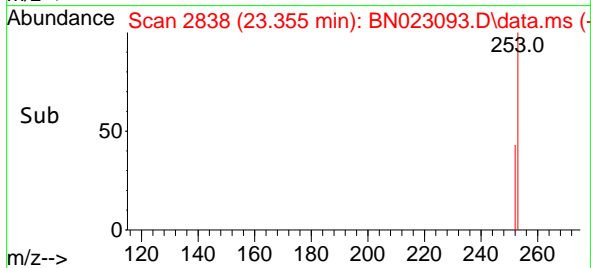
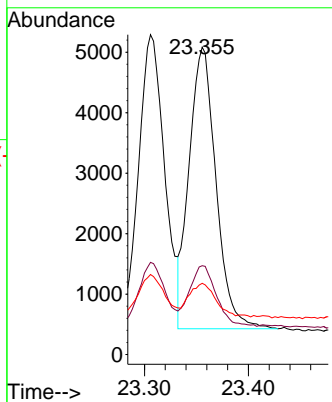
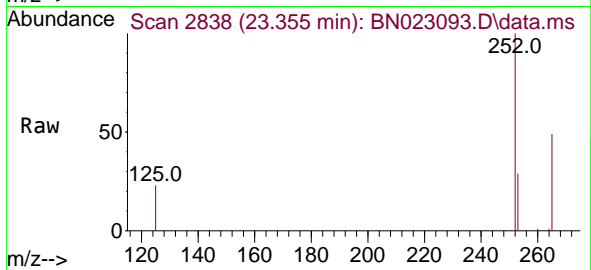


#38  
 Benzo(k)fluoranthene  
 Concen: 0.069 ng  
 RT: 23.355 min Scan# 2837  
 Delta R.T. 0.004 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.1

Tgt Ion:252 Resp: 8393

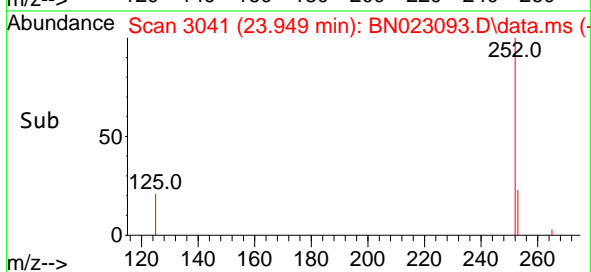
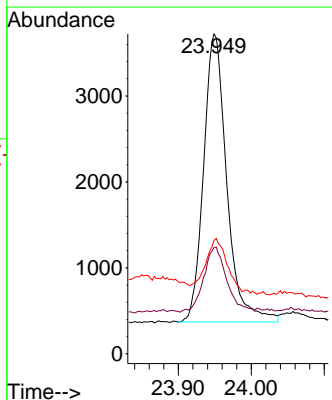
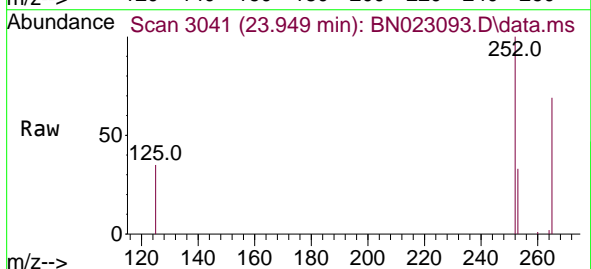
Ion	Ratio	Lower	Upper
252	100		
253	28.9	19.1	28.7#
125	23.2	12.5	18.7#

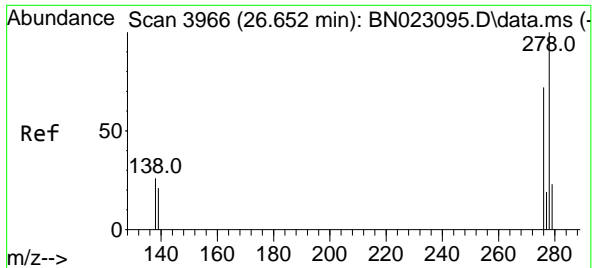


#39  
 Benzo(a)pyrene  
 Concen: 0.077 ng  
 RT: 23.949 min Scan# 3041  
 Delta R.T. 0.001 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Tgt Ion:252 Resp: 7407

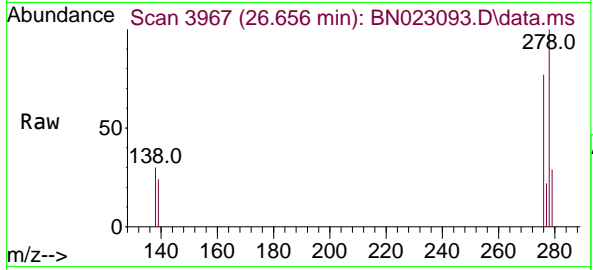
Ion	Ratio	Lower	Upper
252	100		
253	33.2	20.6	30.8#
125	35.5	15.8	23.8#





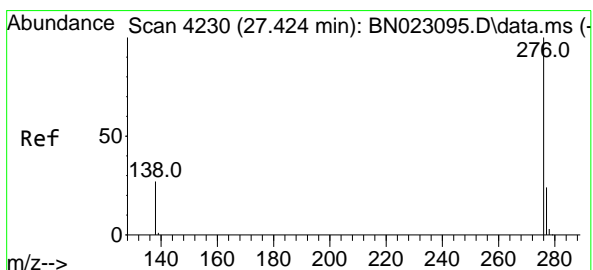
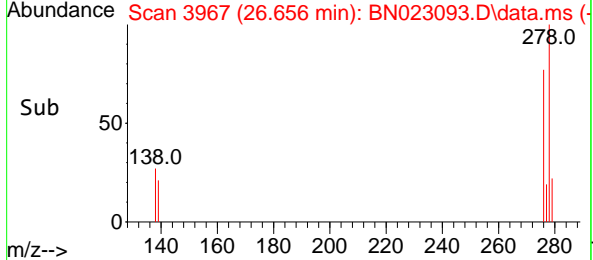
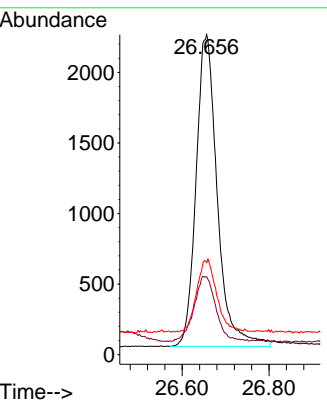
#40  
 Dibenzo(a,h)anthracene  
 Concen: 0.068 ng  
 RT: 26.656 min Scan# 3967  
 Delta R.T. 0.004 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00

Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.1

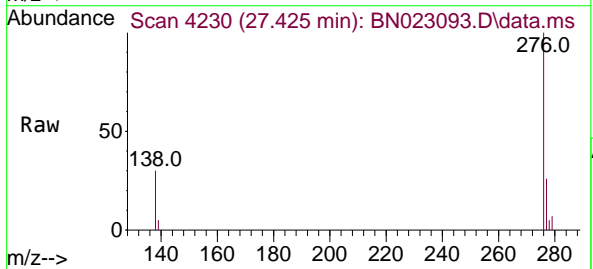


Tgt Ion: 278 Resp: 7491

Ion	Ratio	Lower	Upper
278	100		
139	24.3	17.5	26.3
279	28.7	20.5	30.7

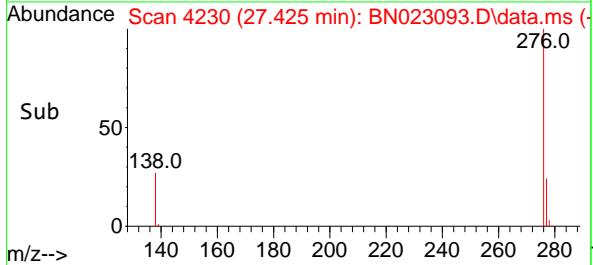
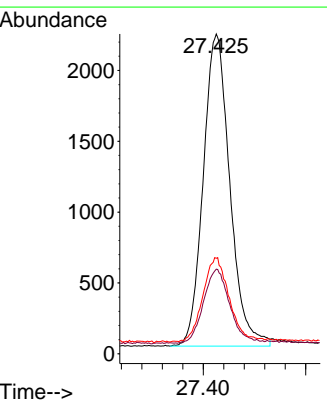


#41  
 Benzo(g,h,i)perylene  
 Concen: 0.071 ng  
 RT: 27.425 min Scan# 4230  
 Delta R.T. 0.001 min  
 Lab File: BN023093.D  
 Acq: 08 Dec 2022 14:00



Tgt Ion: 276 Resp: 7959

Ion	Ratio	Lower	Upper
276	100		
277	26.5	19.9	29.9
138	29.9	22.2	33.2



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN120822\  
 Data File : BN023094.D  
 Acq On : 08 Dec 2022 14:37  
 Operator : CG/JU  
 Sample : SSTDICC0.2  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.2

Quant Time: Dec 09 07:27:50 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:25:53 2022  
 Response via : Initial Calibration

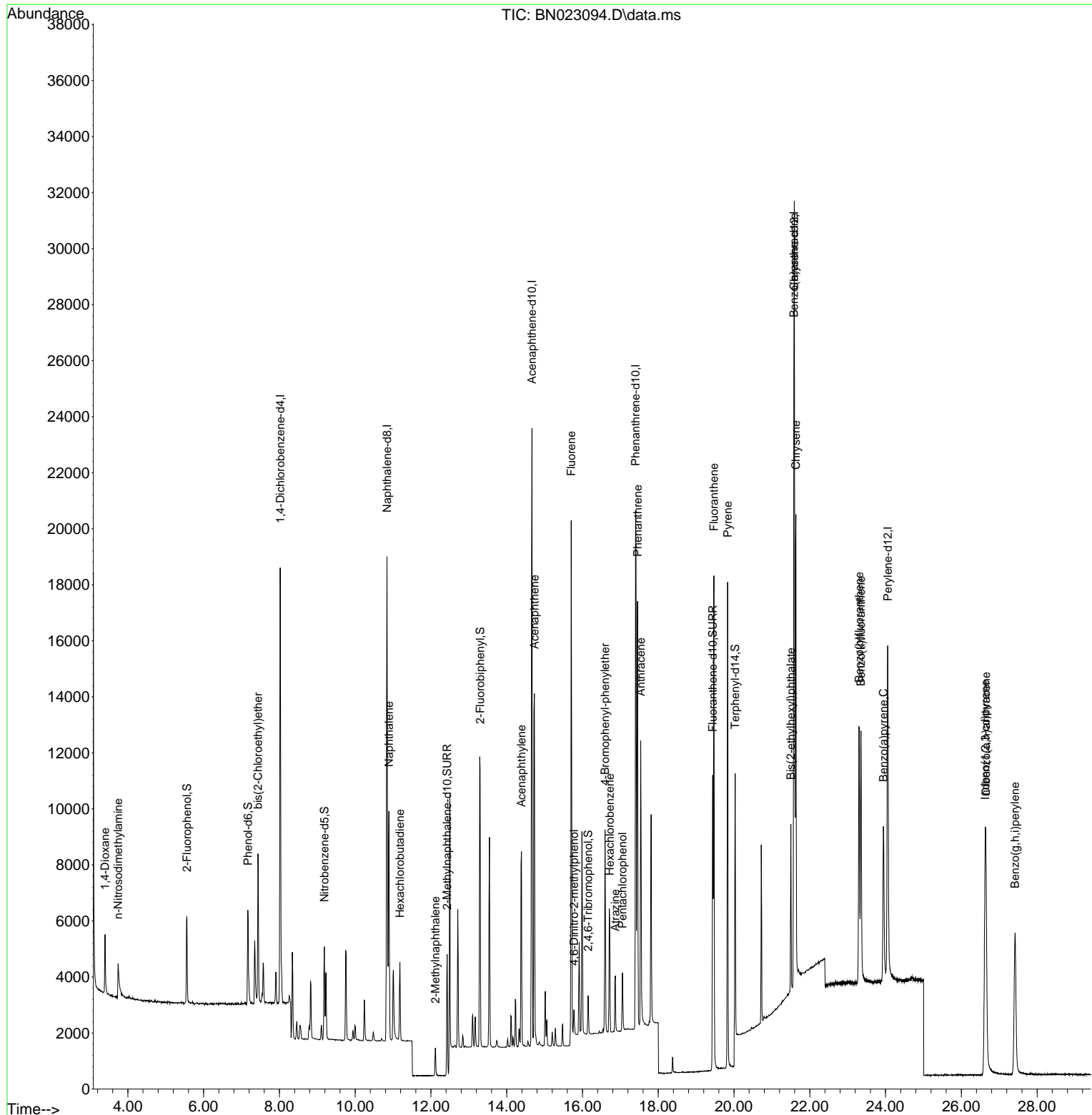
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) 1,4-Dichlorobenzene-d4	8.020	152	7299	0.400 ng	0.00	
7) Naphthalene-d8	10.840	136	21832	0.400 ng	0.00	
13) Acenaphthene-d10	14.666	164	12180	0.400 ng	0.00	
19) Phenanthrene-d10	17.402	188	27325	0.400 ng	#-0.01	
29) Chrysene-d12	21.589	240	21585	0.400 ng	# 0.00	
35) Perylene-d12	24.056	264	17922	0.400 ng	0.00	
System Monitoring Compounds						
4) 2-Fluorophenol	5.558	112	2640	0.156 ng	0.00	
5) Phenol-d6	7.168	99	3230	0.152 ng	0.00	
8) Nitrobenzene-d5	9.185	82	2667	0.163 ng	0.00	
11) 2-Methylnaphthalene-d10	12.427	152	7153	0.174 ng	0.00	
14) 2,4,6-Tribromophenol	16.148	330	740	0.144 ng	0.00	
15) 2-Fluorobiphenyl	13.298	172	9585	0.177 ng	0.00	
27) Fluoranthene-d10	19.439	212	11666	0.156 ng	0.00	
31) Terphenyl-d14	20.031	244	6228	0.152 ng	0.00	
Target Compounds						
2) 1,4-Dioxane	3.398	88	1459	0.161 ng		Qvalue 99
3) n-Nitrosodimethylamine	3.745	42	1148	0.130 ng	#	96
6) bis(2-Chloroethyl)ether	7.435	93	3970	0.169 ng		98
9) Naphthalene	10.893	128	10803	0.167 ng		99
10) Hexachlorobutadiene	11.181	225	2100	0.173 ng	#	100
12) 2-Methylnaphthalene	12.117	142	1474	0.149 ng	#	90
16) Acenaphthylene	14.388	152	8400	0.147 ng		99
17) Acenaphthene	14.730	154	6737	0.162 ng		100
18) Fluorene	15.703	166	7437	0.159 ng		99
20) 4,6-Dinitro-2-methylph...	15.776	198	547	0.148 ng	#	84
21) 4-Bromophenyl-phenylether	16.595	248	2698	0.164 ng		98
22) Hexachlorobenzene	16.719	284	3650	0.171 ng		99
23) Atrazine	16.868	200	1729	0.144 ng		95
24) Pentachlorophenol	17.054	266	1064	0.169 ng		96
25) Phenanthrene	17.451	178	15180	0.165 ng		99
26) Anthracene	17.538	178	11253	0.152 ng		99
28) Fluoranthene	19.469	202	15457	0.154 ng		99
30) Pyrene	19.831	202	15365	0.171 ng		99
32) Benzo(a)anthracene	21.580	228	12565	0.158 ng		99
33) Chrysene	21.634	228	15019	0.169 ng		99
34) Bis(2-ethylhexyl)phtha...	21.500	149	5458	0.159 ng		98
36) Indeno(1,2,3-cd)pyrene	26.629	276	13007	0.137 ng		99
37) Benzo(b)fluoranthene	23.302	252	12559	0.153 ng	#	93
38) Benzo(k)fluoranthene	23.351	252	12349	0.147 ng	#	93
39) Benzo(a)pyrene	23.942	252	9043	0.136 ng	#	88
40) Dibenzo(a,h)anthracene	26.646	278	10252	0.136 ng		98
41) Benzo(g,h,i)perylene	27.418	276	11608	0.150 ng		100

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

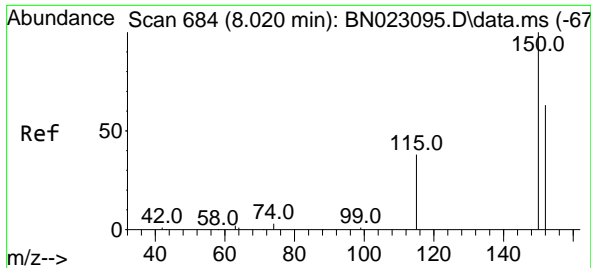
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 Data File : BN023094.D  
 Acq On : 08 Dec 2022 14:37  
 Operator : CG/JU  
 Sample : SSTDICC0.2  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.2

Quant Time: Dec 09 07:27:50 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:25:53 2022  
 Response via : Initial Calibration



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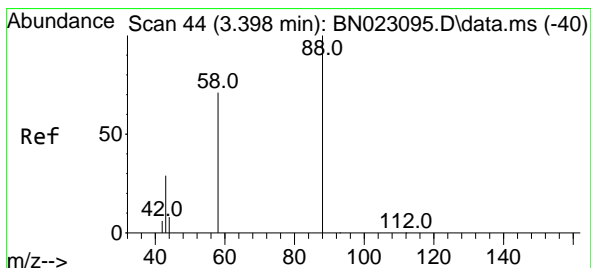
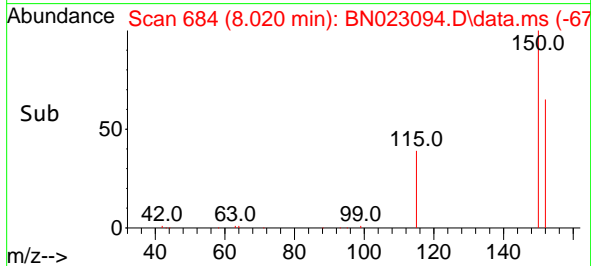
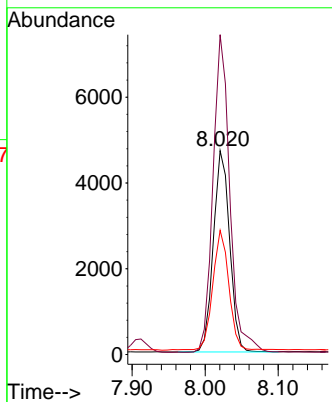
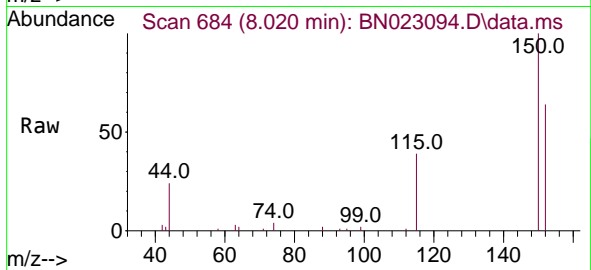


#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 8.020 min Scan# 68  
 Delta R.T. 0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.2

Tgt Ion:152 Resp: 7299

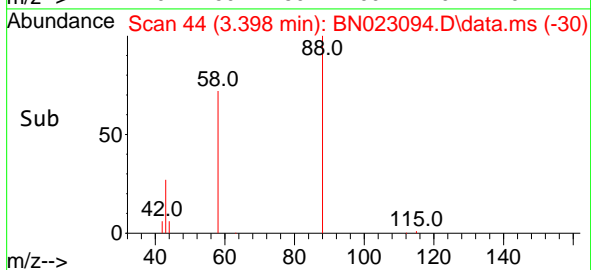
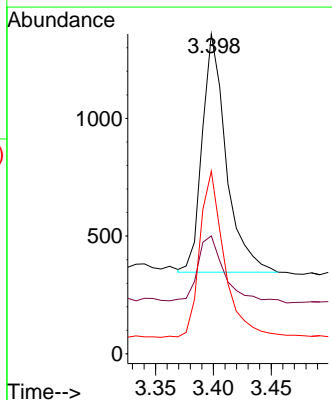
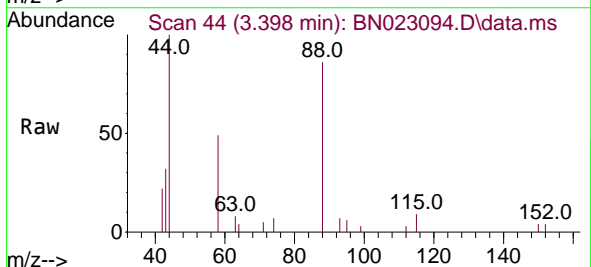
Ion	Ratio	Lower	Upper
152	100		
150	156.9	125.6	188.4
115	60.9	49.0	73.4

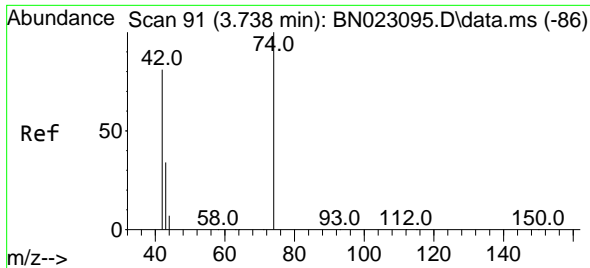


#2  
 1,4-Dioxane  
 Concen: 0.161 ng  
 RT: 3.398 min Scan# 44  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Tgt Ion: 88 Resp: 1459

Ion	Ratio	Lower	Upper
88	100		
43	29.1	23.3	34.9
58	71.4	58.0	87.0

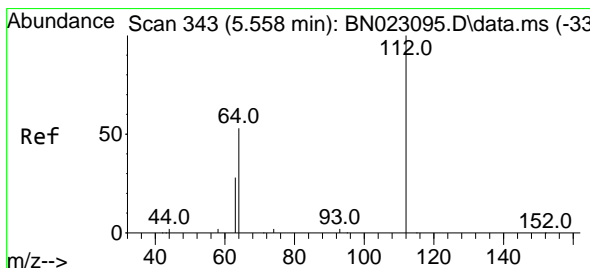
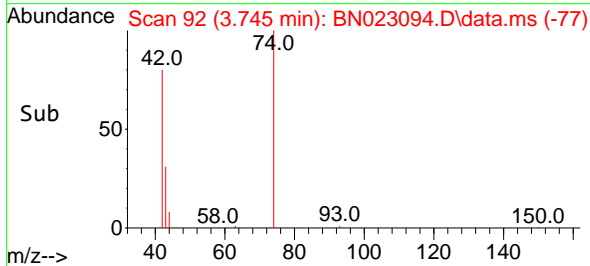
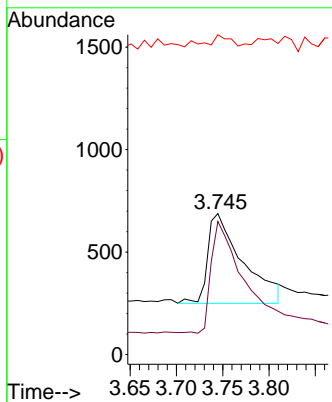
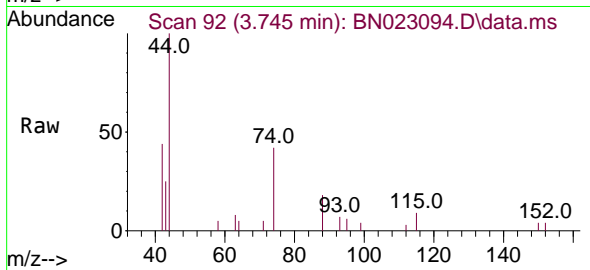




#3  
 n-Nitrosodimethylamine  
 Concen: 0.130 ng  
 RT: 3.745 min Scan# 91  
 Delta R.T. 0.007 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

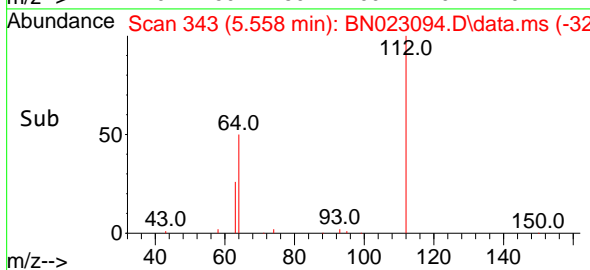
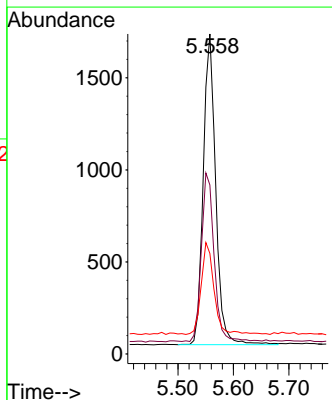
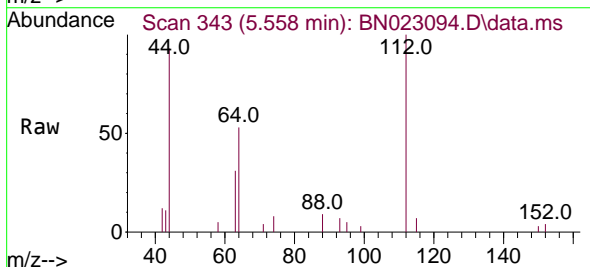
Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.2

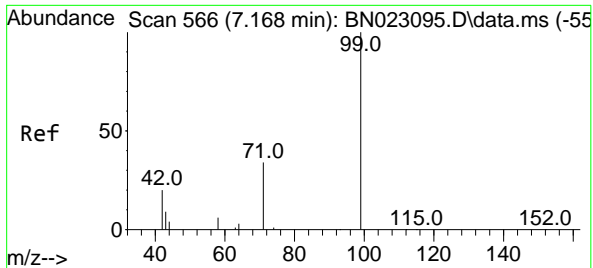
Tgt Ion	Resp	Ion Ratio	Lower	Upper
42	1148	100		
74		115.8	95.8	143.6
44		4.8	8.4	12.6



#4  
 2-Fluorophenol  
 Concen: 0.156 ng  
 RT: 5.558 min Scan# 343  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

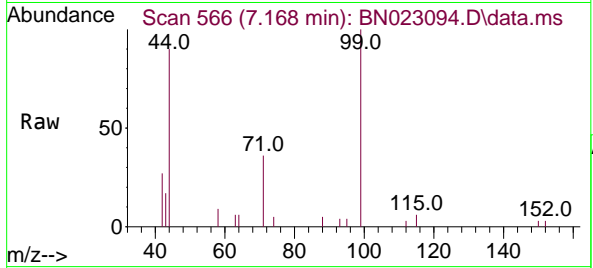
Tgt Ion	Resp	Ion Ratio	Lower	Upper
112	2640	100		
64		55.3	44.4	66.6
63		30.6	23.7	35.5





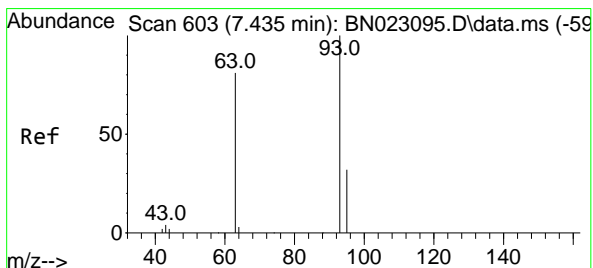
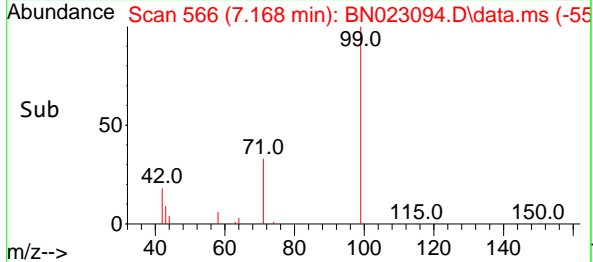
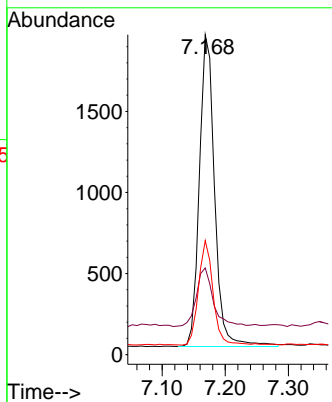
#5  
 Phenol-d6  
 Concen: 0.152 ng  
 RT: 7.168 min Scan# 566  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.2



Tgt Ion: 99 Resp: 3230

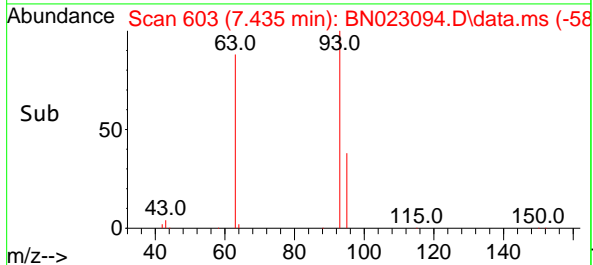
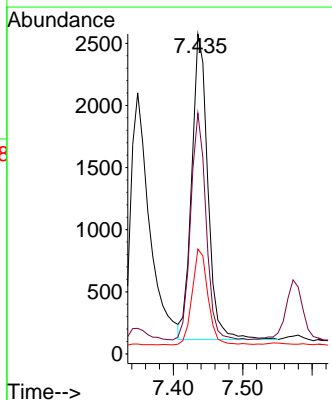
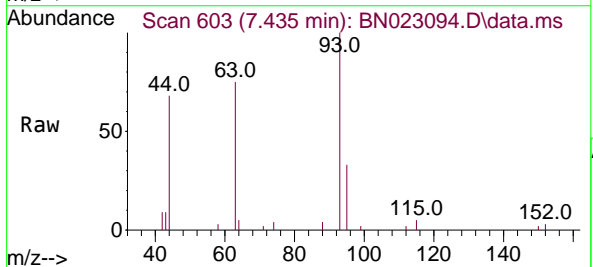
Ion	Ratio	Lower	Upper
99	100		
42	21.0	16.3	24.5
71	31.9	26.5	39.7

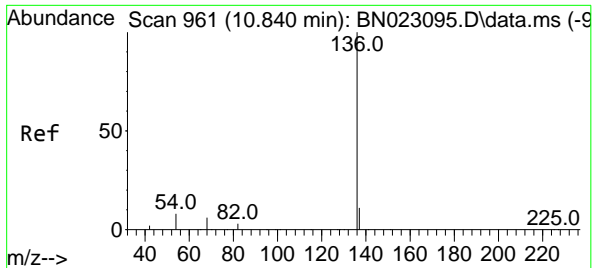


#6  
 bis(2-Chloroethyl)ether  
 Concen: 0.169 ng  
 RT: 7.435 min Scan# 603  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Tgt Ion: 93 Resp: 3970

Ion	Ratio	Lower	Upper
93	100		
63	70.7	58.1	87.1
95	30.8	25.2	37.8



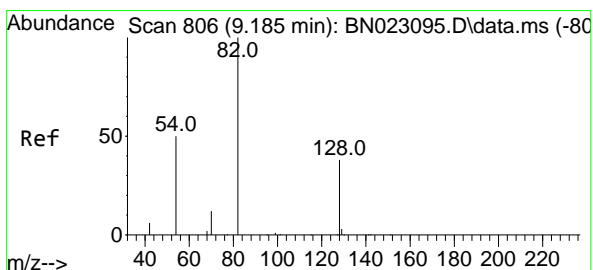
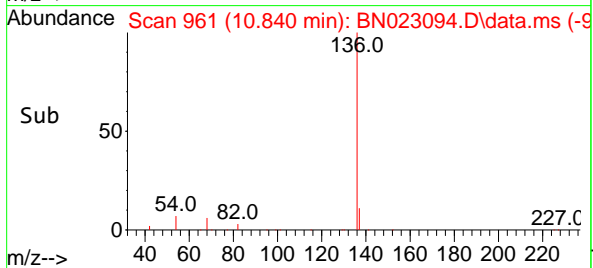
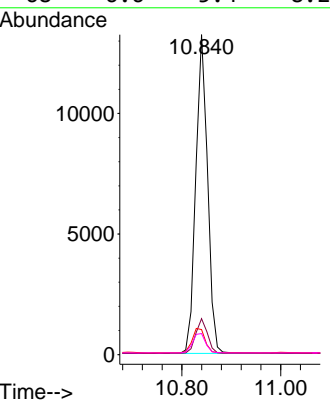
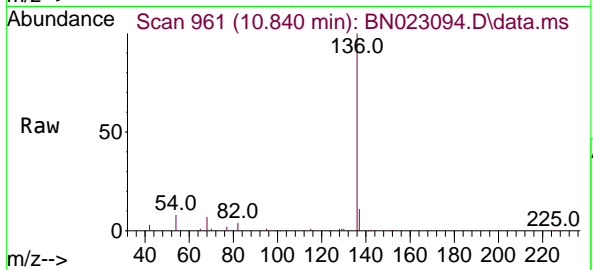


#7  
 Naphthalene-d8  
 Concen: 0.400 ng  
 RT: 10.840 min Scan# 961  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Instrument : BNA\_N  
 Client Sample Id : SSTDICC0.2

Tgt Ion: 136 Resp: 21832

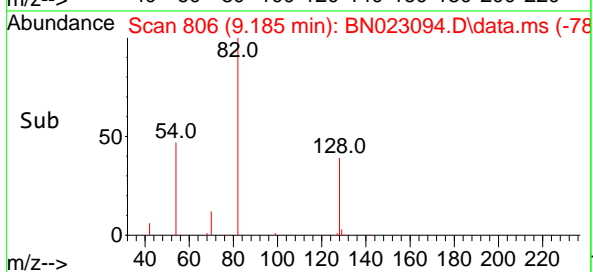
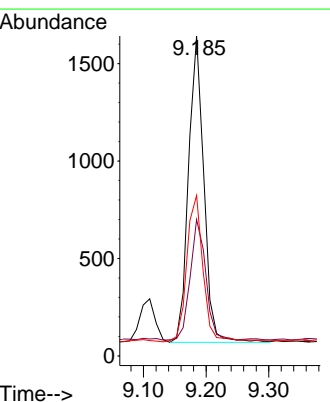
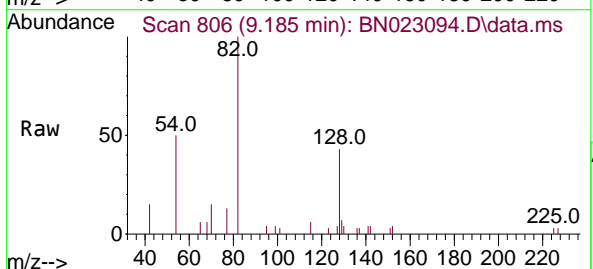
Ion	Ratio	Lower	Upper
136	100		
137	11.2	9.0	13.4
54	7.8	6.5	9.7
68	6.6	5.4	8.2



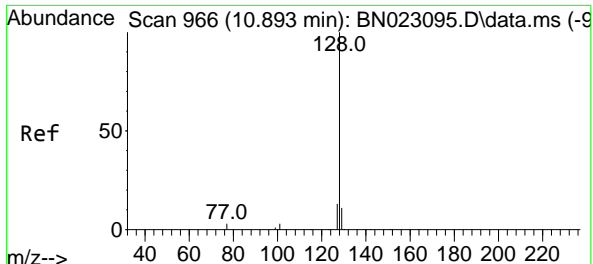
#8  
 Nitrobenzene-d5  
 Concen: 0.163 ng  
 RT: 9.185 min Scan# 806  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Tgt Ion: 82 Resp: 2667

Ion	Ratio	Lower	Upper
82	100		
128	42.6	31.4	47.2
54	50.1	41.0	61.4





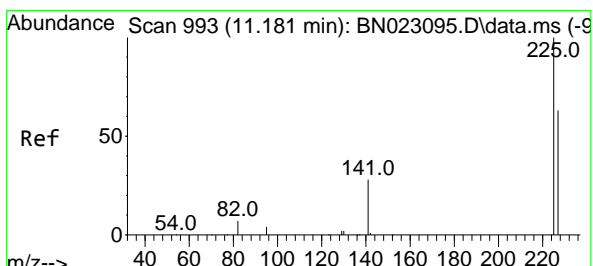
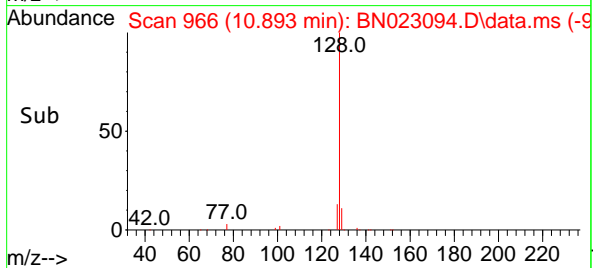
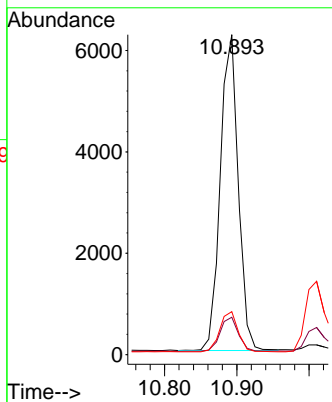
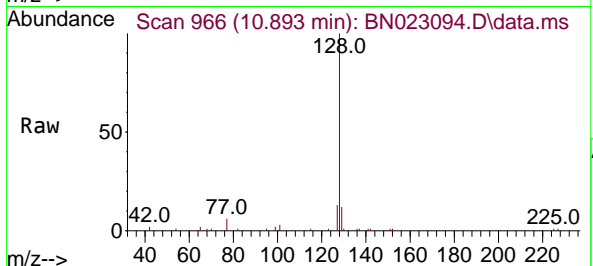


#9  
 Naphthalene  
 Concen: 0.167 ng  
 RT: 10.893 min Scan# 966  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Instrument : BNA\_N  
 Client Sample Id : SSTDICC0.2

Tgt Ion:128 Resp: 10803

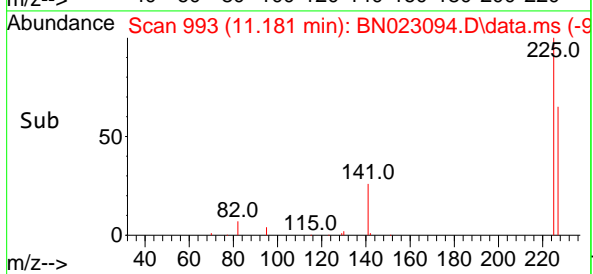
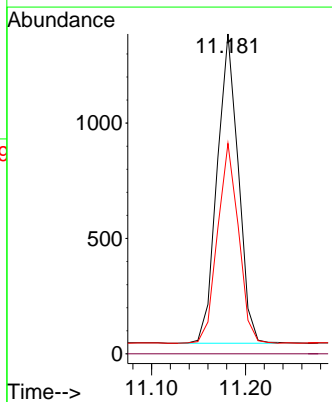
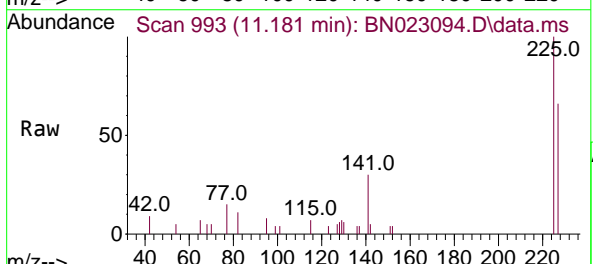
Ion	Ratio	Lower	Upper
128	100		
129	11.7	9.0	13.6
127	13.4	10.5	15.7

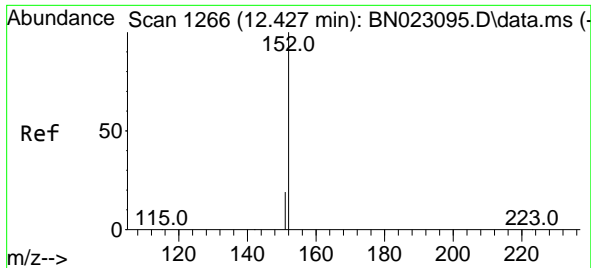


#10  
 Hexachlorobutadiene  
 Concen: 0.173 ng  
 RT: 11.181 min Scan# 993  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Tgt Ion:225 Resp: 2100

Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	63.9	51.1	76.7

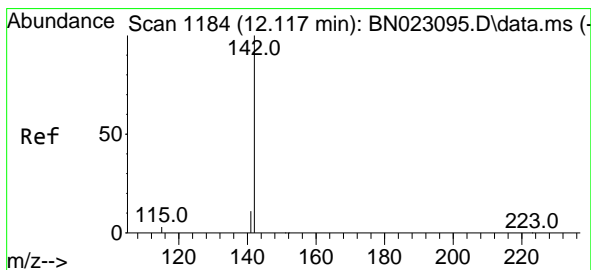
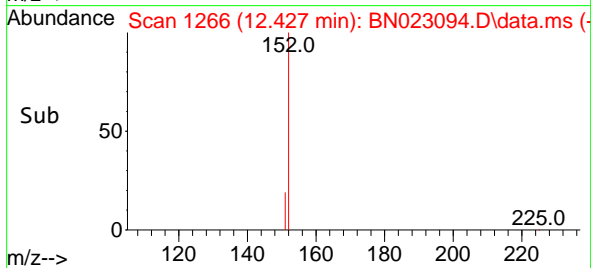
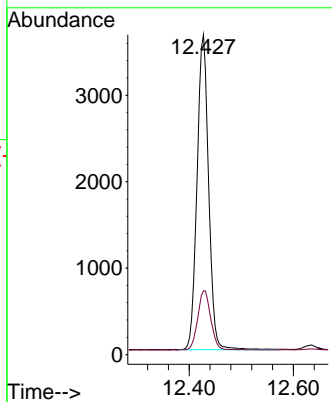
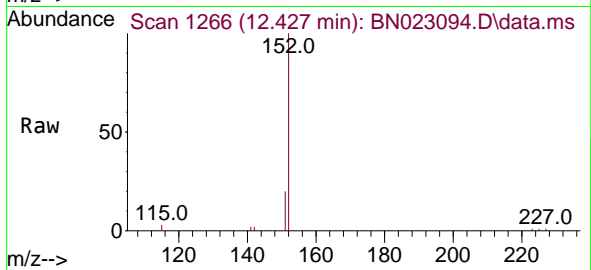




#11  
 2-Methylnaphthalene-d10  
 Concen: 0.174 ng  
 RT: 12.427 min Scan# 11  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

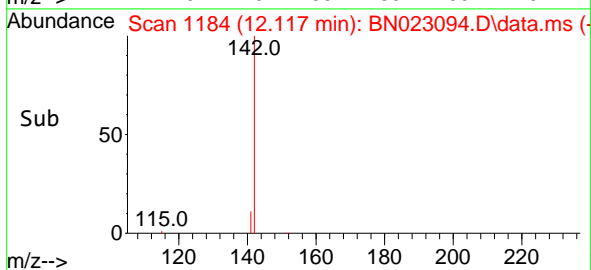
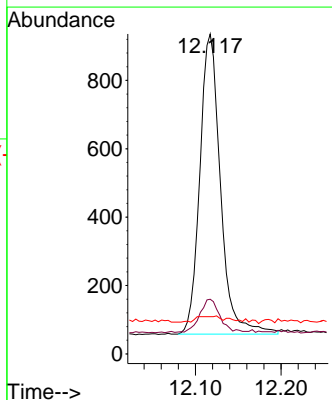
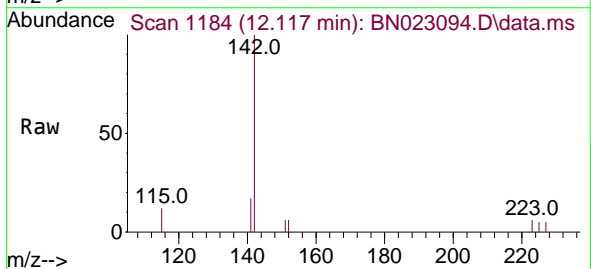
Instrument :  
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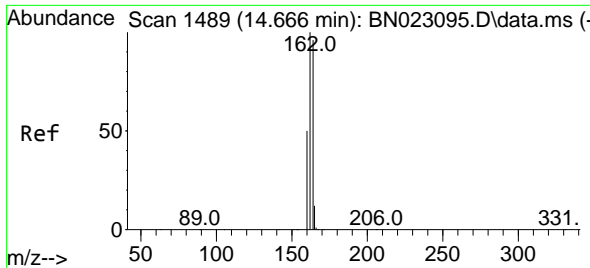
Tgt Ion:152 Resp: 7153  
 Ion Ratio Lower Upper  
 152 100  
 151 16.7 15.1 22.7



#12  
 2-Methylnaphthalene  
 Concen: 0.149 ng  
 RT: 12.117 min Scan# 1184  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Tgt Ion:142 Resp: 1474  
 Ion Ratio Lower Upper  
 142 100  
 141 17.1 10.9 16.3#  
 115 11.6 5.7 8.5#





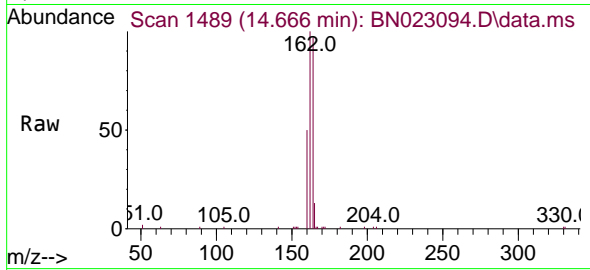
#13  
 Acenaphthene-d10  
 Concen: 0.400 ng  
 RT: 14.666 min Scan# 1489  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Instrument :

BNA\_N

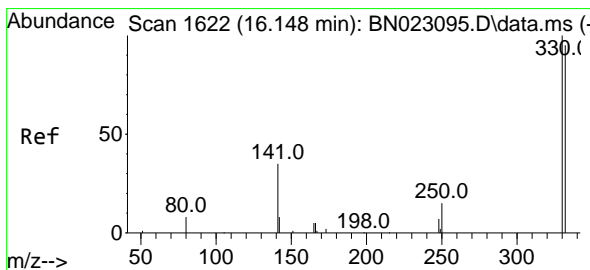
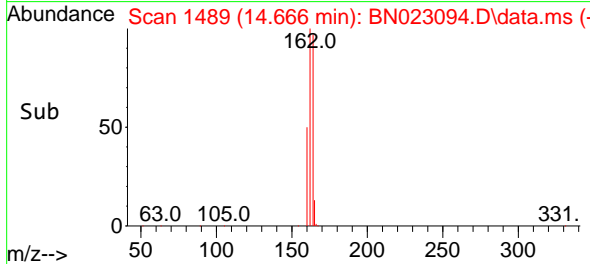
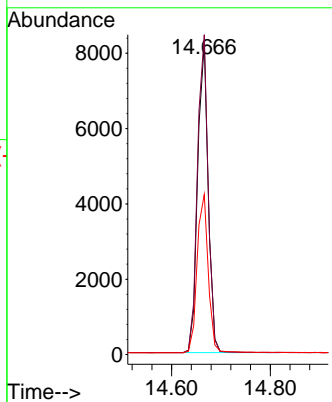
ClientSampleId :

SSTDIC0.2



Tgt Ion:164 Resp: 12180

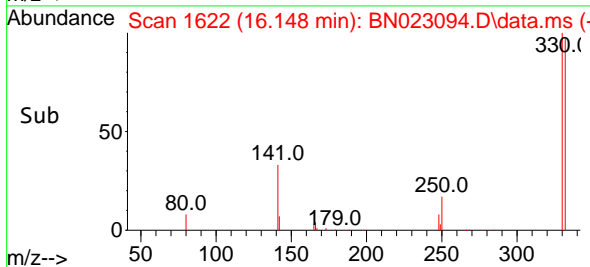
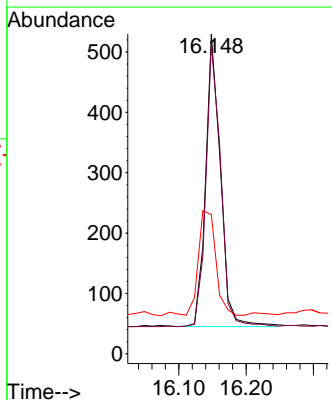
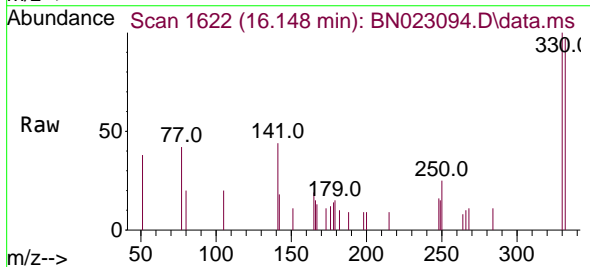
Ion	Ratio	Lower	Upper
164	100		
162	102.8	83.4	125.0
160	51.4	41.8	62.8

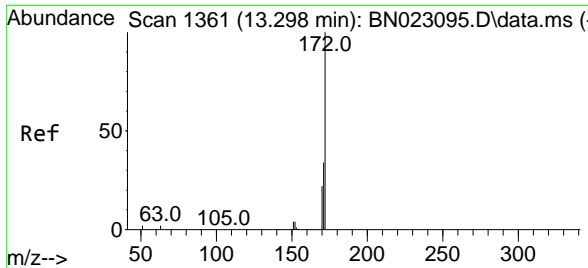


#14  
 2,4,6-Tribromophenol  
 Concen: 0.144 ng  
 RT: 16.148 min Scan# 1622  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Tgt Ion:330 Resp: 740

Ion	Ratio	Lower	Upper
330	100		
332	96.4	77.3	115.9
141	43.1	33.5	50.3



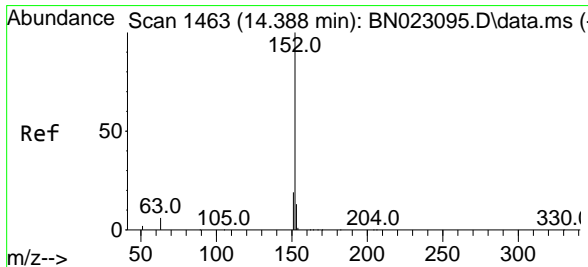
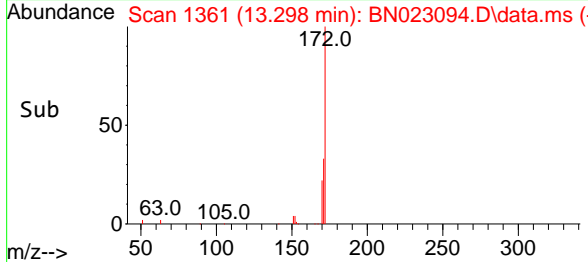
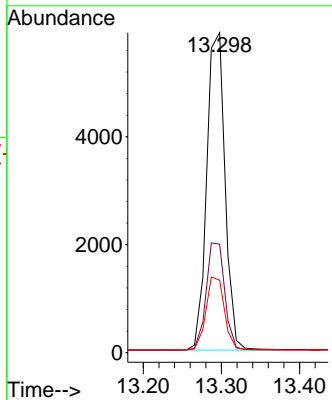
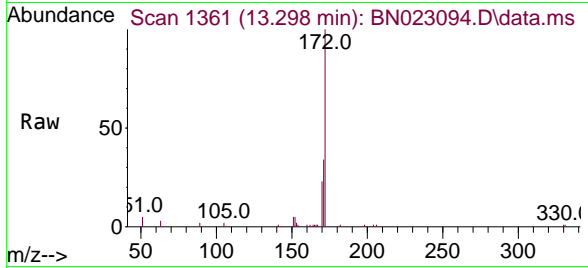


#15  
2-Fluorobiphenyl  
Concen: 0.177 ng  
RT: 13.298 min Scan# 1361  
Delta R.T. -0.000 min  
Lab File: BN023094.D  
Acq: 08 Dec 2022 14:37

Instrument : BNA\_N  
ClientSampleId : SSTDICC0.2

Tgt Ion:172 Resp: 9585

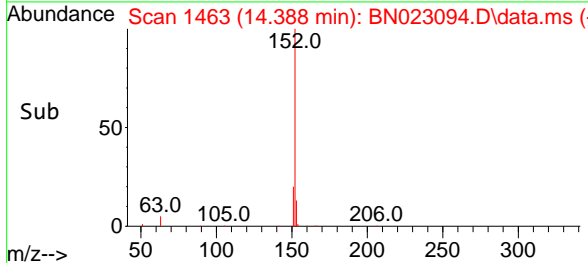
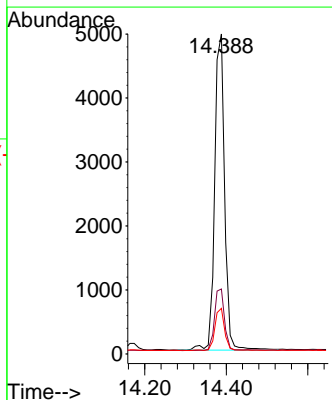
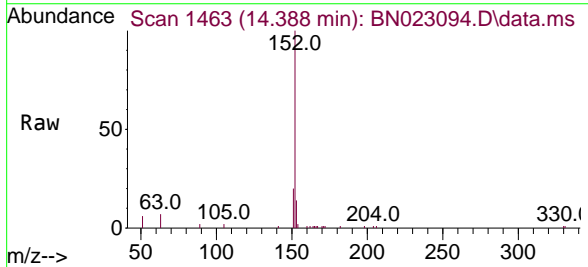
Ion	Ratio	Lower	Upper
172	100		
171	33.9	27.4	41.0
170	22.6	17.9	26.9

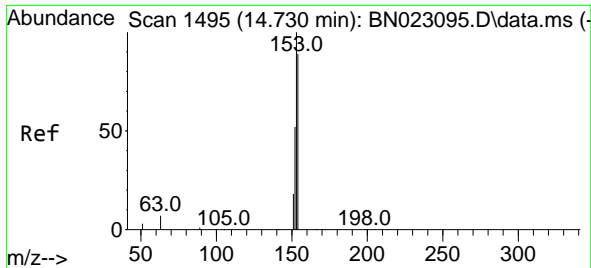


#16  
Acenaphthylene  
Concen: 0.147 ng  
RT: 14.388 min Scan# 1463  
Delta R.T. -0.000 min  
Lab File: BN023094.D  
Acq: 08 Dec 2022 14:37

Tgt Ion:152 Resp: 8400

Ion	Ratio	Lower	Upper
152	100		
151	19.7	15.4	23.2
153	12.9	10.3	15.5



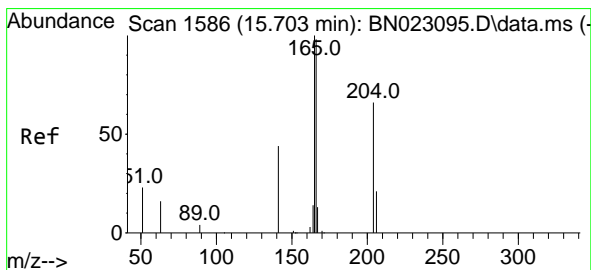
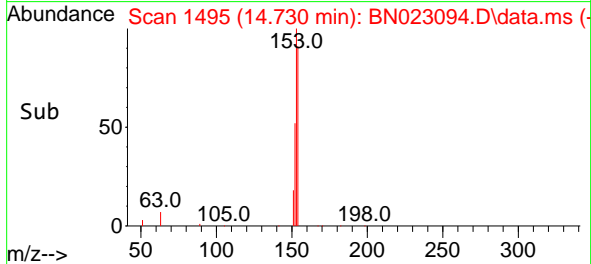
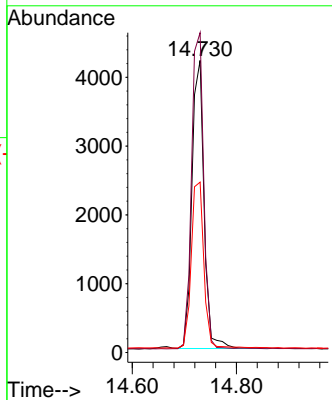
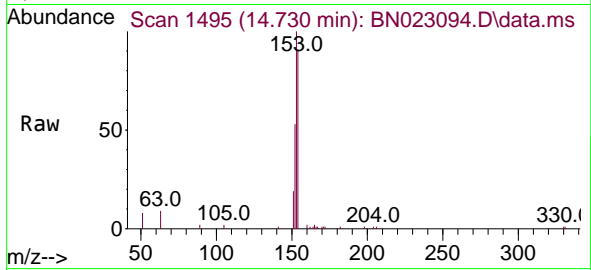


#17  
 Acenaphthene  
 Concen: 0.162 ng  
 RT: 14.730 min Scan# 1495  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.2

Tgt Ion:154 Resp: 6737

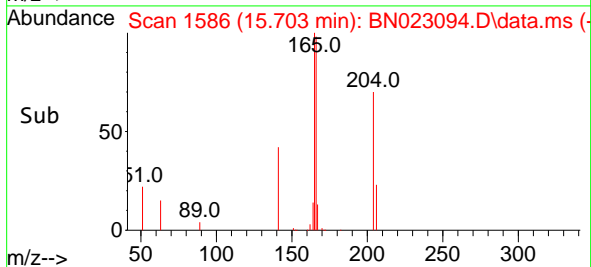
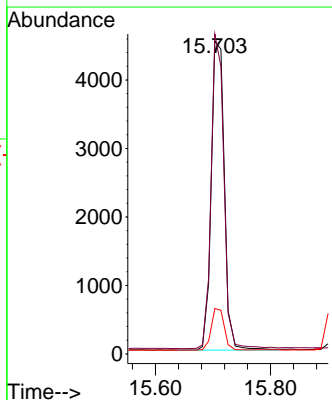
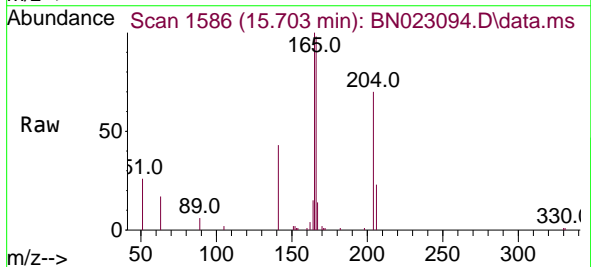
Ion	Ratio	Lower	Upper
154	100		
153	110.4	88.6	132.8
152	59.7	48.1	72.1

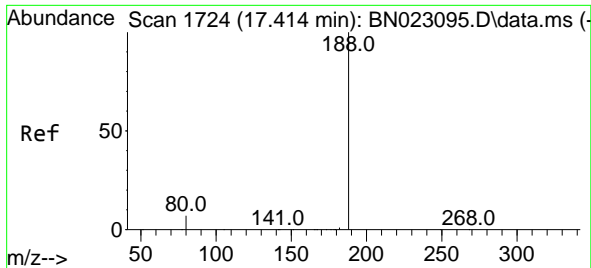


#18  
 Fluorene  
 Concen: 0.159 ng  
 RT: 15.703 min Scan# 1586  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Tgt Ion:166 Resp: 7437

Ion	Ratio	Lower	Upper
166	100		
165	100.3	79.8	119.6
167	12.9	10.6	16.0

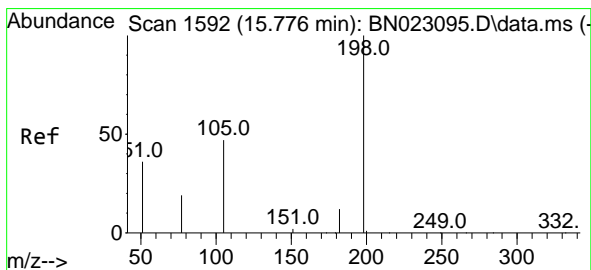
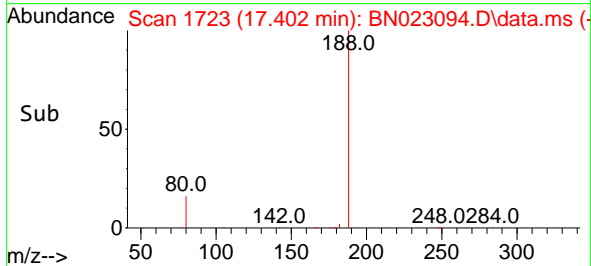
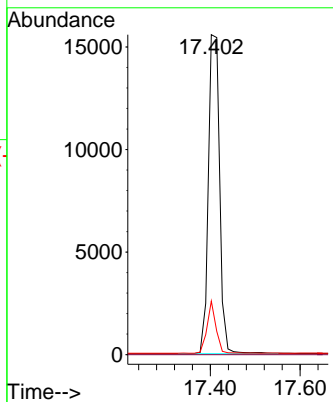
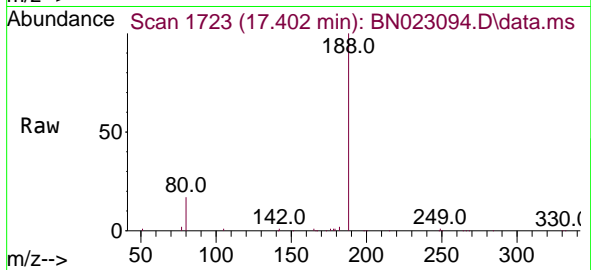




#19  
 Phenanthrene-d10  
 Concen: 0.400 ng  
 RT: 17.402 min Scan# 11  
 Delta R.T. -0.012 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

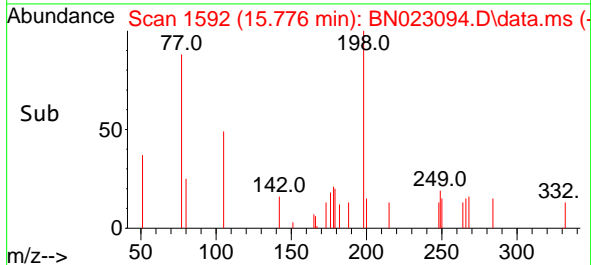
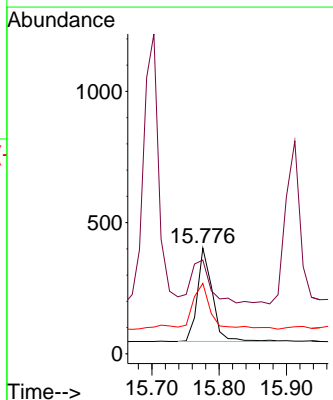
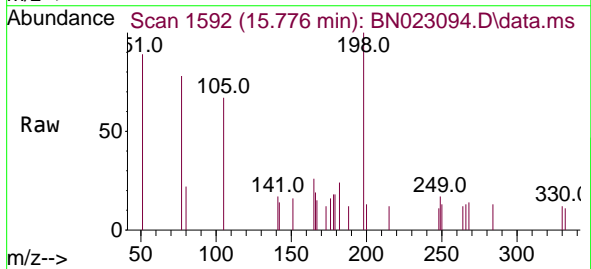
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.2

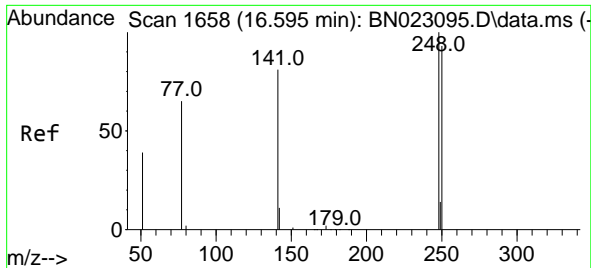
Tgt Ion	Resp	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	16.7	6.1	9.1#



#20  
 4,6-Dinitro-2-methylphenol  
 Concen: 0.148 ng  
 RT: 15.776 min Scan# 1592  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Tgt Ion	Resp	Lower	Upper
198	100		
51	88.6	57.0	85.4#
105	66.5	47.2	70.8



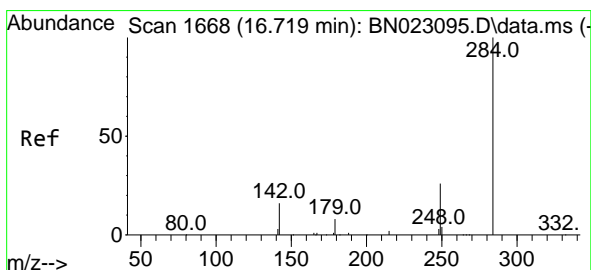
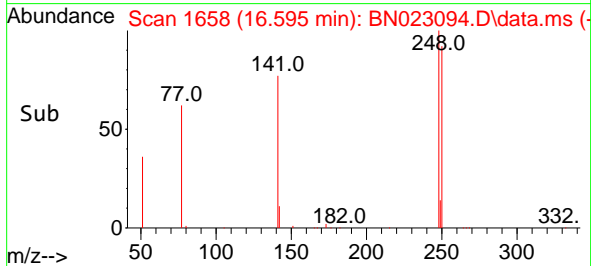
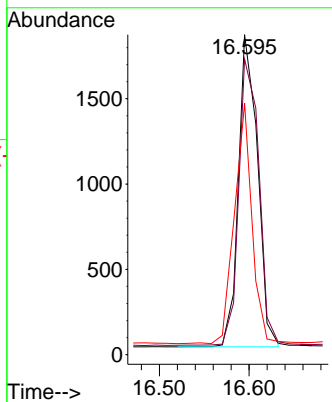
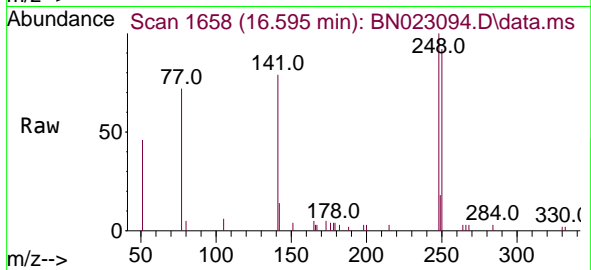


#21  
 4-Bromophenyl-phenylether  
 Concen: 0.164 ng  
 RT: 16.595 min Scan# 1658  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.2

Tgt Ion:248 Resp: 2698

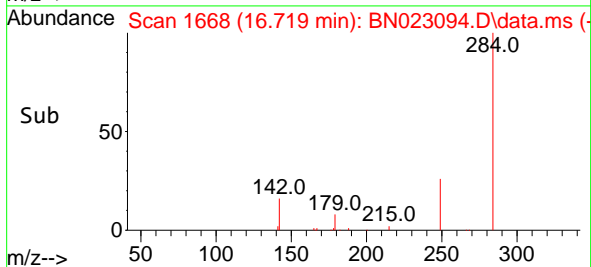
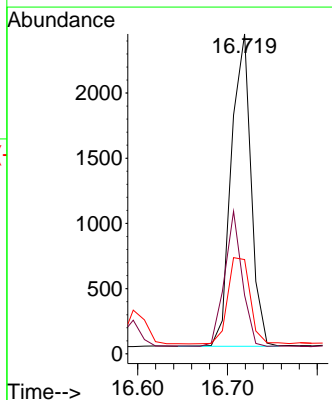
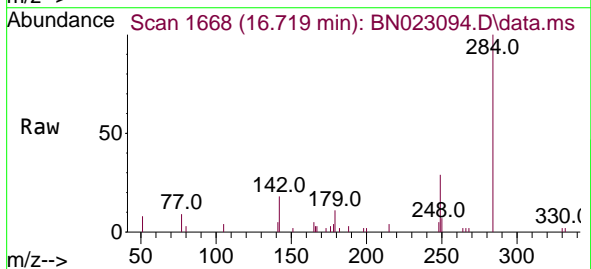
Ion	Ratio	Lower	Upper
248	100		
250	92.3	74.3	111.5
141	78.6	65.0	97.6

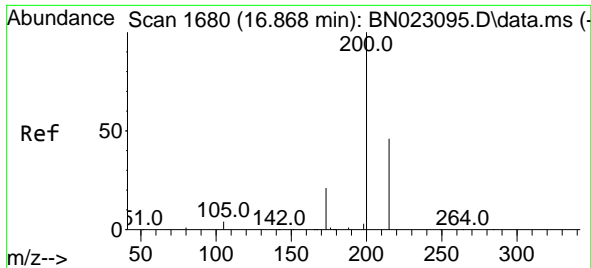


#22  
 Hexachlorobenzene  
 Concen: 0.171 ng  
 RT: 16.719 min Scan# 1668  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Tgt Ion:284 Resp: 3650

Ion	Ratio	Lower	Upper
284	100		
142	38.6	31.0	46.4
249	31.1	24.4	36.6

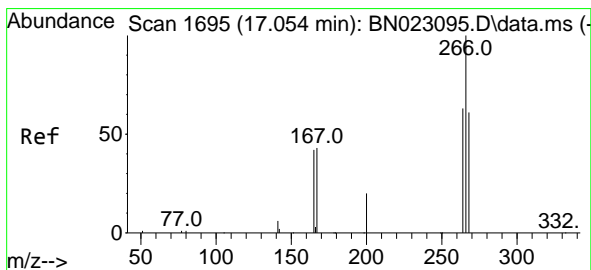
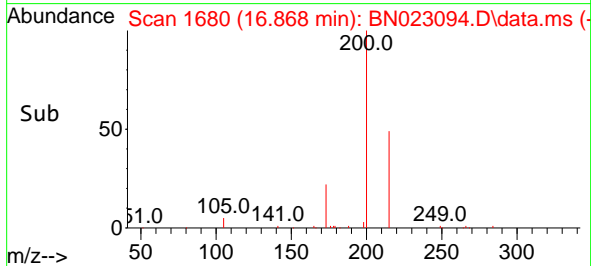
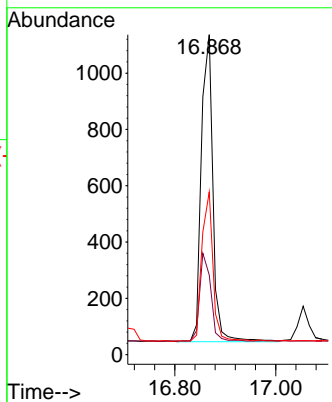
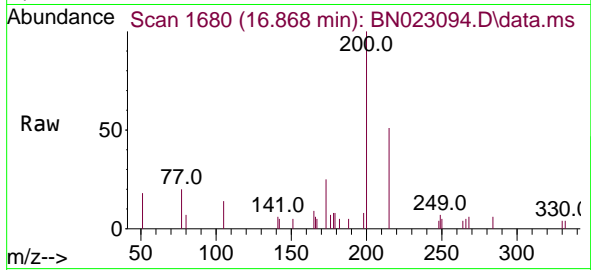




#23  
**Atrazine**  
 Concen: 0.144 ng  
 RT: 16.868 min Scan# 1680  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

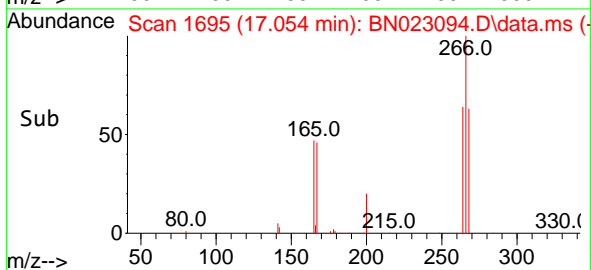
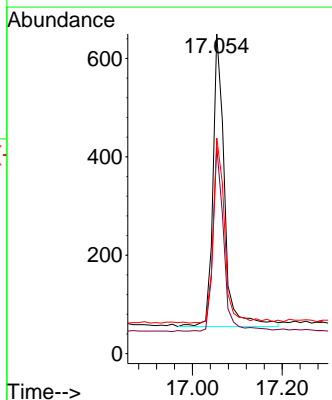
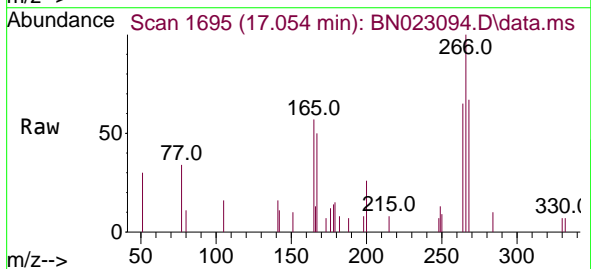
**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 SSTDICC0.2

Tgt Ion	Resp	Lower	Upper
200	1729	100	
173	24.9	18.2	27.4
215	50.8	38.0	57.0

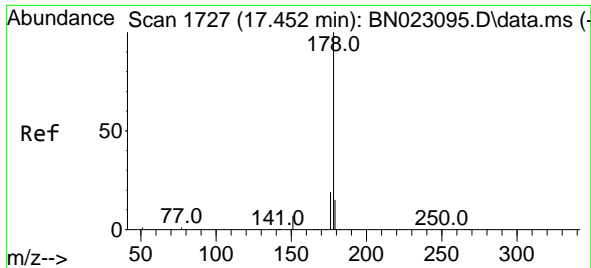


#24  
**Pentachlorophenol**  
 Concen: 0.169 ng  
 RT: 17.054 min Scan# 1695  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Tgt Ion	Resp	Lower	Upper
266	1064	100	
264	58.0	50.1	75.1
268	63.0	49.7	74.5



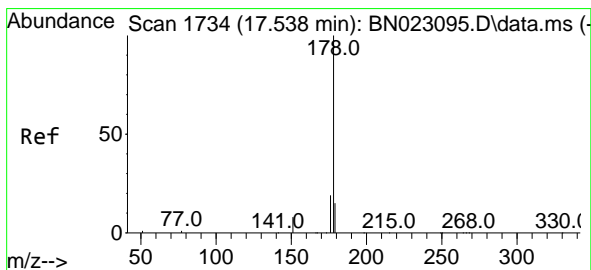
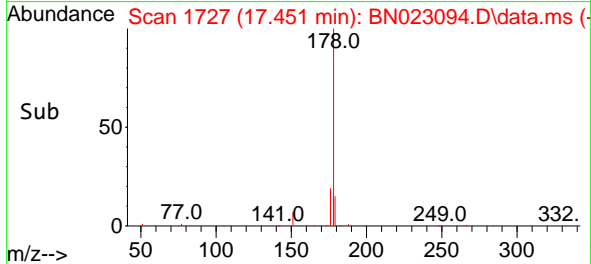
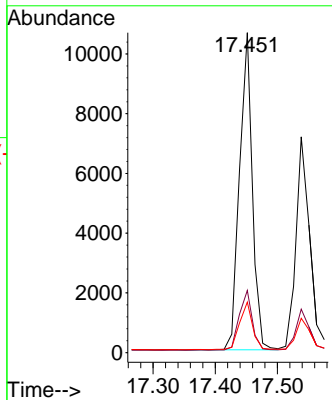
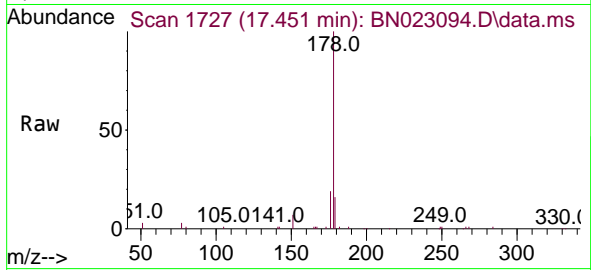




#25  
 Phenanthrene  
 Concen: 0.165 ng  
 RT: 17.451 min Scan# 1727  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

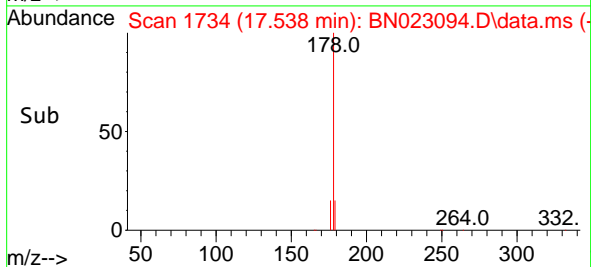
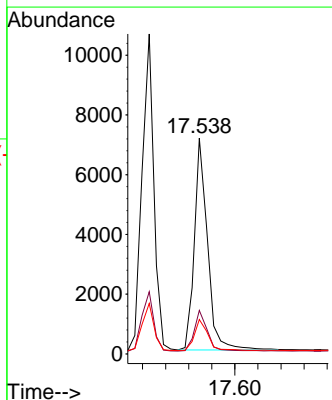
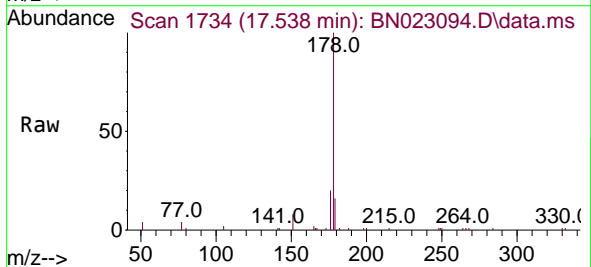
Instrument : BNA\_N  
 Client Sample Id : SSTDICC0.2

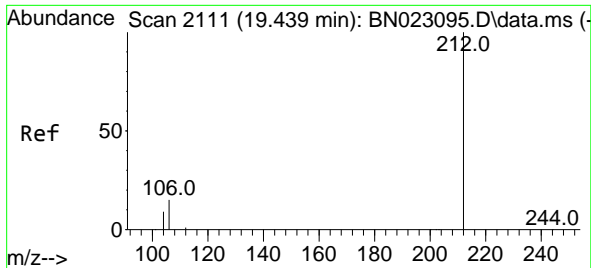
Tgt Ion	Resp	Lower	Upper
178	15180		
176	19.0	15.4	23.2
179	15.4	12.2	18.2



#26  
 Anthracene  
 Concen: 0.152 ng  
 RT: 17.538 min Scan# 1734  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Tgt Ion	Resp	Lower	Upper
178	11253		
176	18.8	15.1	22.7
179	14.7	12.2	18.4

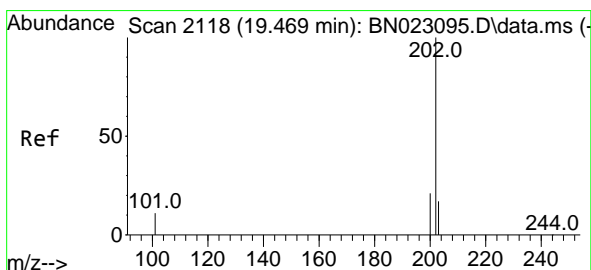
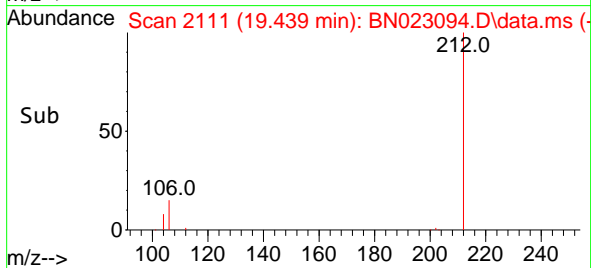
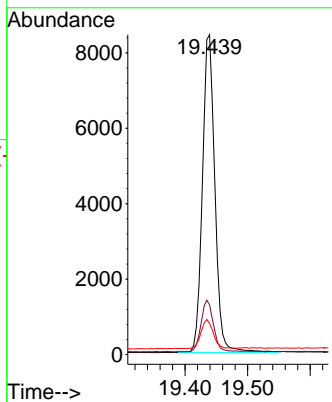
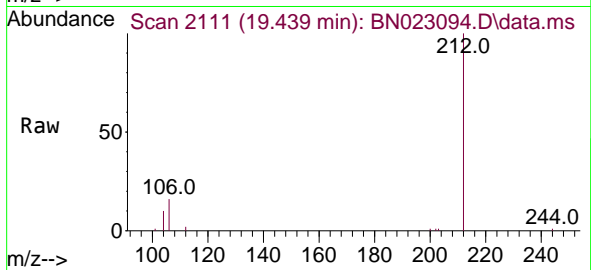




#27  
 Fluoranthene-d10  
 Concen: 0.156 ng  
 RT: 19.439 min Scan# 2111  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

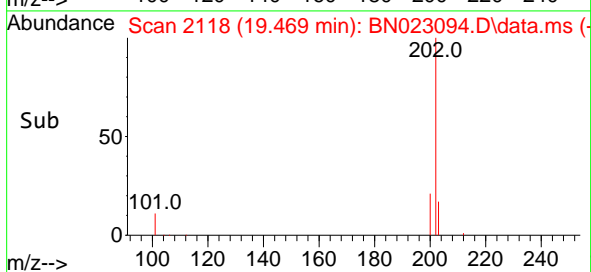
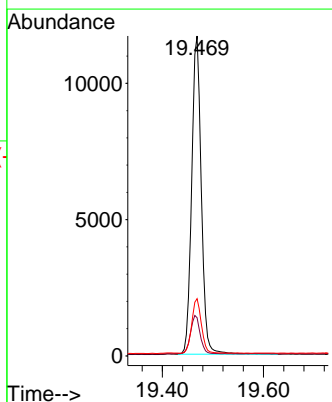
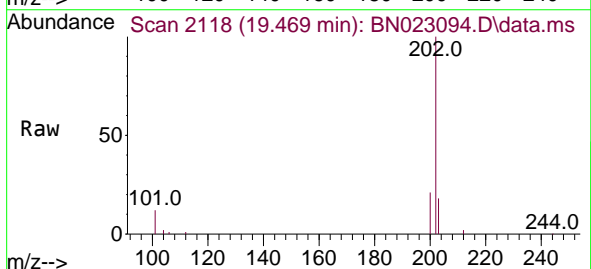
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.2

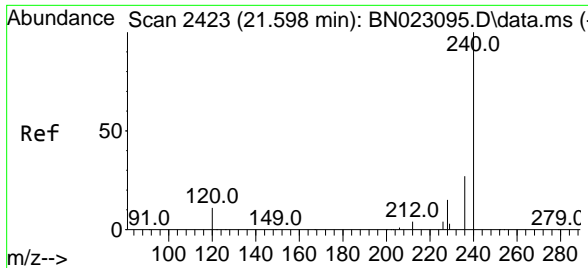
Tgt Ion	Resp	Lower	Upper
212	11666		
106	16.1	13.0	19.4
104	9.0	7.5	11.3



#28  
 Fluoranthene  
 Concen: 0.154 ng  
 RT: 19.469 min Scan# 2118  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Tgt Ion	Resp	Lower	Upper
202	15457		
101	12.6	9.7	14.5
203	17.0	13.8	20.6



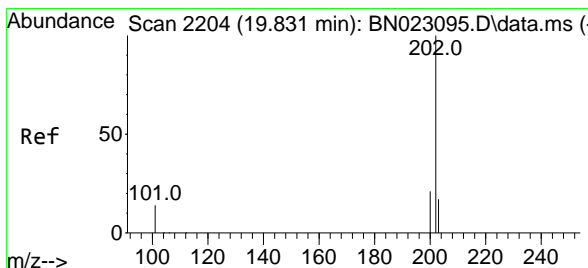
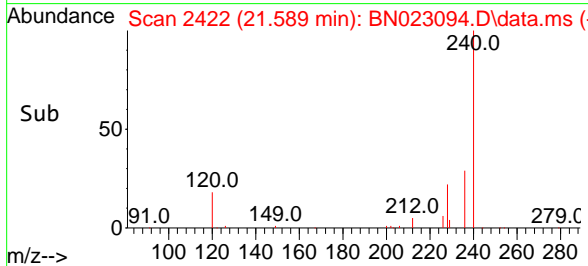
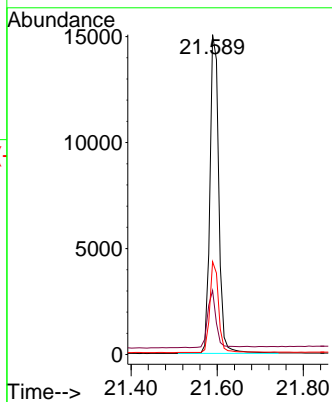
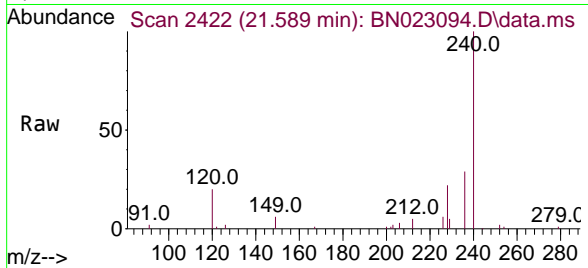


#29  
 Chrysene-d12  
 Concen: 0.400 ng  
 RT: 21.589 min Scan# 2422  
 Delta R.T. -0.009 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.2

Tgt Ion:240 Resp: 21585

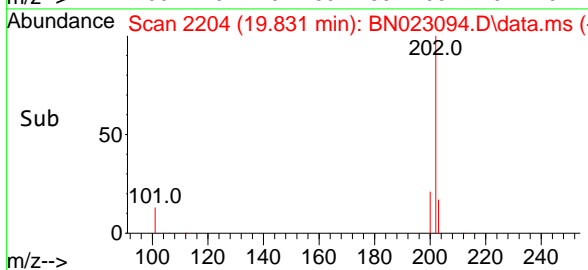
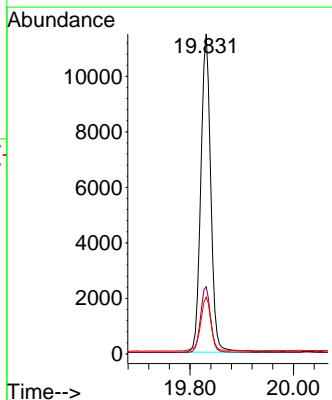
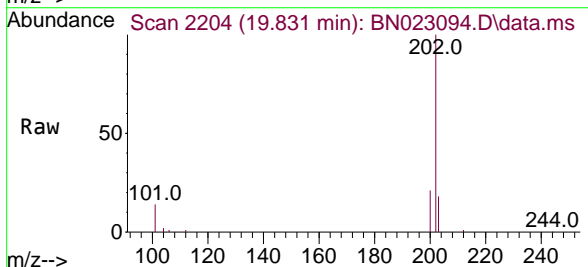
Ion	Ratio	Lower	Upper
240	100		
120	20.0	10.1	15.1#
236	29.0	22.2	33.4

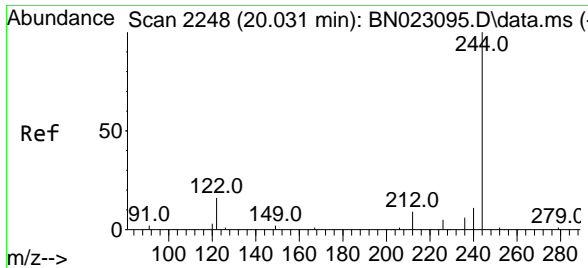


#30  
 Pyrene  
 Concen: 0.171 ng  
 RT: 19.831 min Scan# 2204  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Tgt Ion:202 Resp: 15365

Ion	Ratio	Lower	Upper
202	100		
200	20.7	16.9	25.3
203	17.4	14.2	21.4



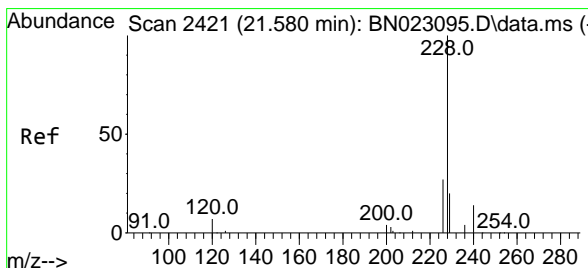
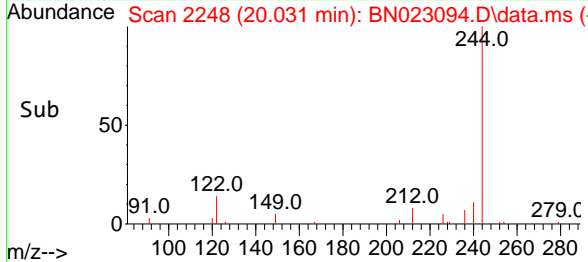
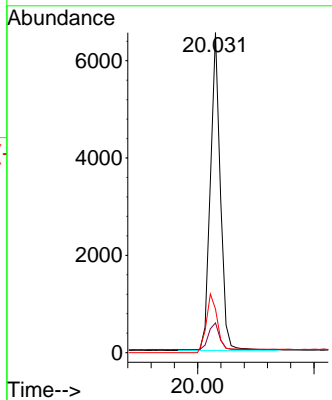
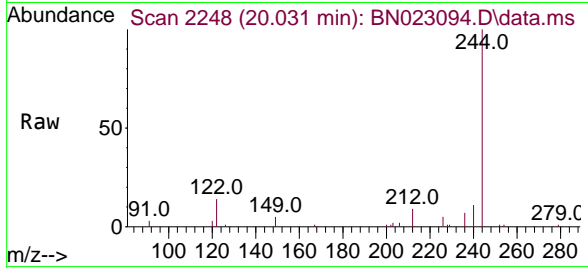


#31  
 Terphenyl-d14  
 Concen: 0.152 ng  
 RT: 20.031 min Scan# 21  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.2

Tgt Ion:244 Resp: 6228

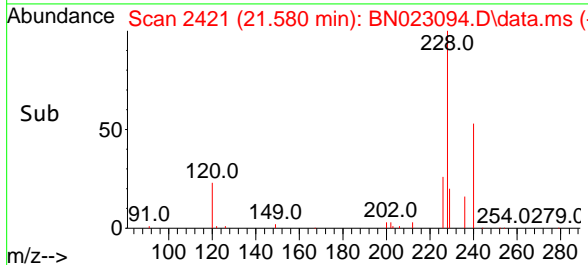
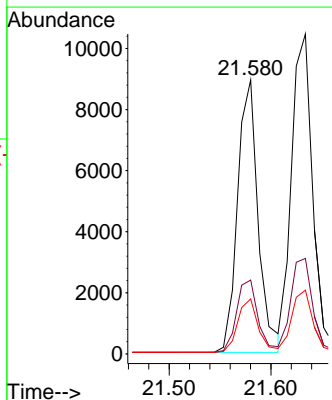
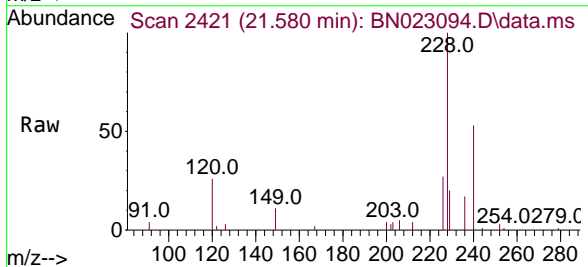
Ion	Ratio	Lower	Upper
244	100		
212	9.3	7.6	11.4
122	13.6	12.6	18.8

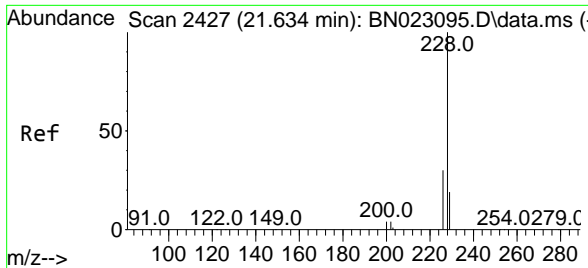


#32  
 Benzo(a)anthracene  
 Concen: 0.158 ng  
 RT: 21.580 min Scan# 2421  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Tgt Ion:228 Resp: 12565

Ion	Ratio	Lower	Upper
228	100		
226	27.0	22.0	33.0
229	20.0	15.8	23.8

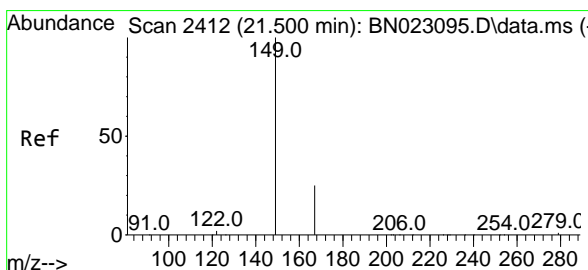
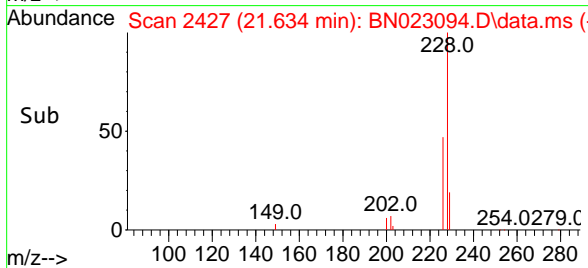
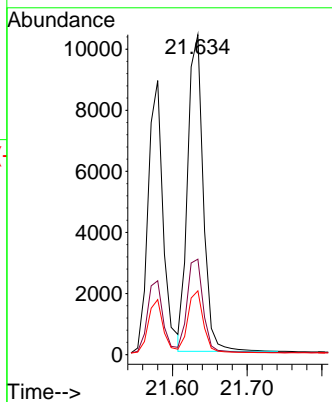
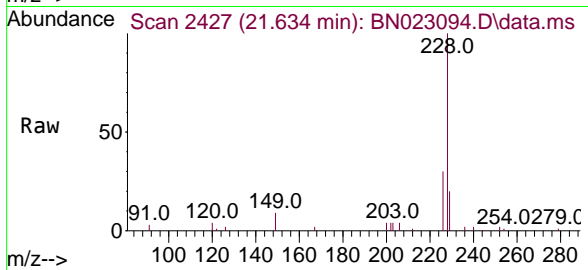




#33  
 Chrysene  
 Concen: 0.169 ng  
 RT: 21.634 min Scan# 2427  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

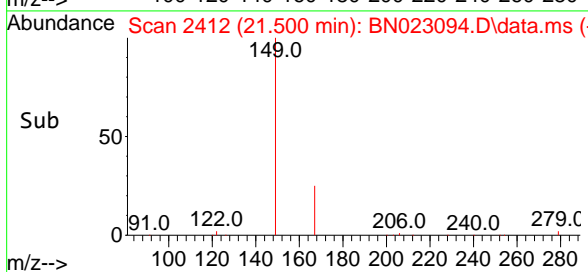
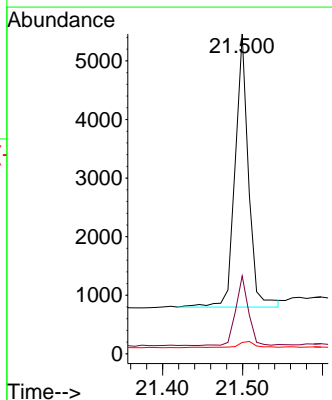
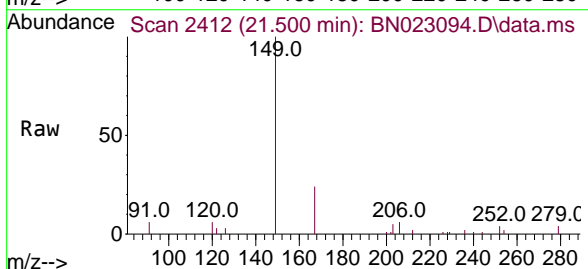
Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.2

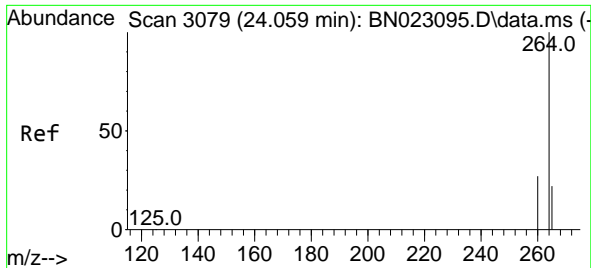
Tgt Ion	Resp	Lower	Upper
228	15019		
226	29.8	24.4	36.6
229	19.9	15.6	23.4



#34  
 Bis(2-ethylhexyl)phthalate  
 Concen: 0.159 ng  
 RT: 21.500 min Scan# 2412  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Tgt Ion	Resp	Lower	Upper
149	5458		
167	23.9	20.2	30.2
279	3.4	2.3	3.5

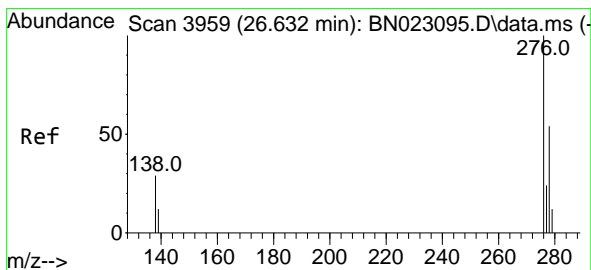
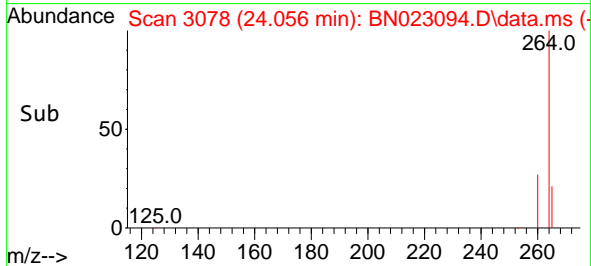
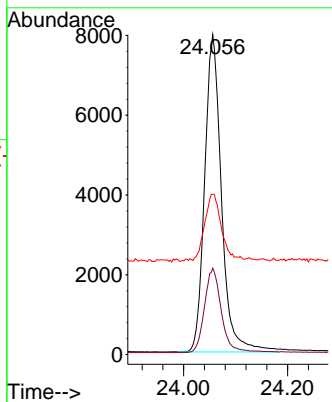
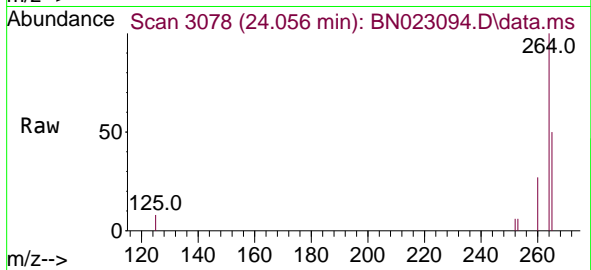




#35  
 Perylene-d12  
 Concen: 0.400 ng  
 RT: 24.056 min Scan# 3078  
 Delta R.T. -0.003 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

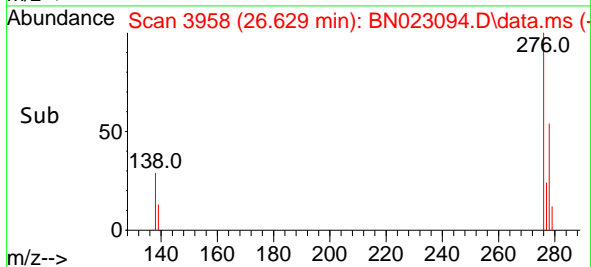
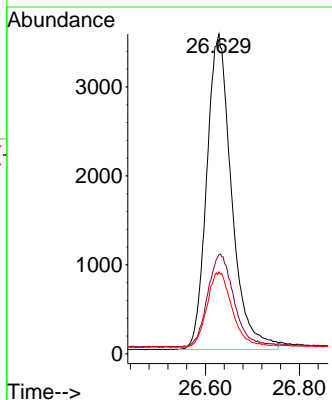
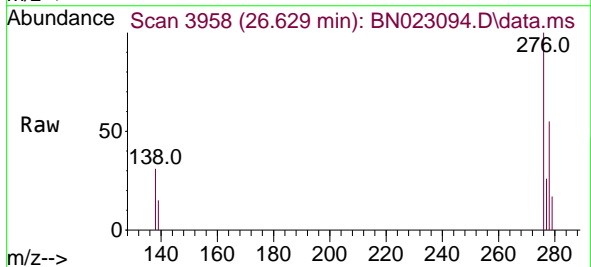
Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.2

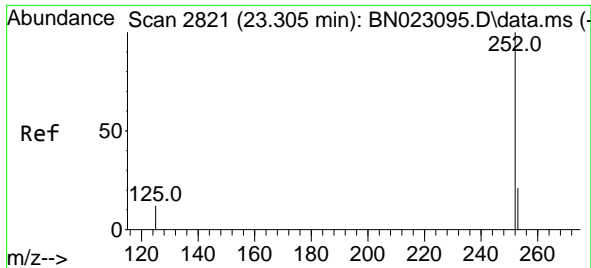
Tgt Ion	Resp	Lower	Upper
264	17922		
260	27.0	21.7	32.5
265	50.1	43.2	64.8



#36  
 Indeno(1,2,3-cd)pyrene  
 Concen: 0.137 ng  
 RT: 26.629 min Scan# 3958  
 Delta R.T. -0.003 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

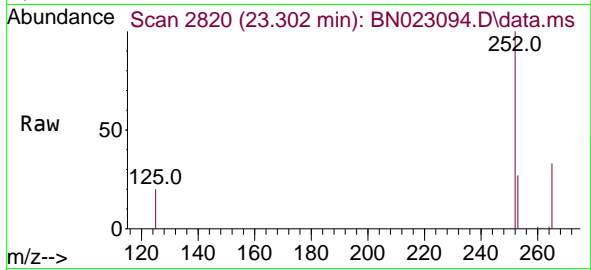
Tgt Ion	Resp	Lower	Upper
276	13007		
138	30.8	25.0	37.6
277	24.3	19.8	29.8



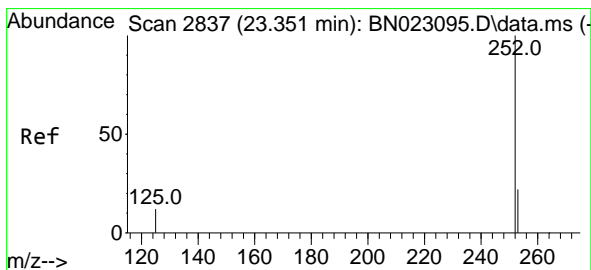
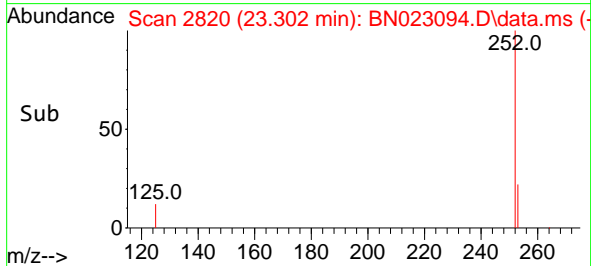
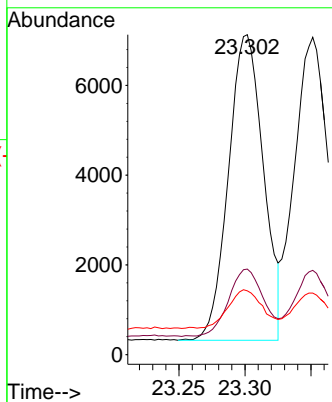


#37  
 Benzo(b)fluoranthene  
 Concen: 0.153 ng  
 RT: 23.302 min Scan# 2820  
 Delta R.T. -0.003 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.2

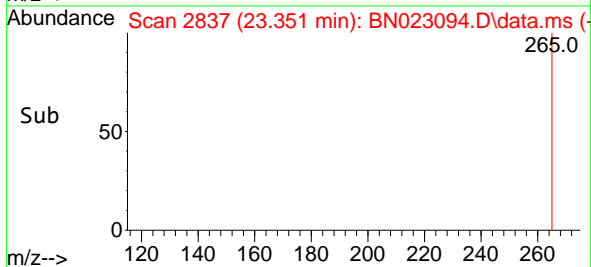
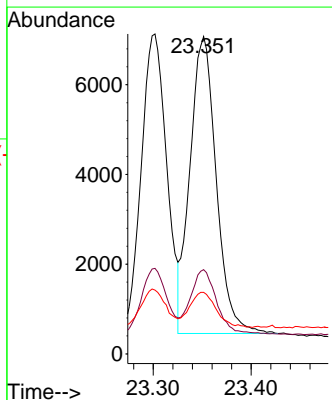
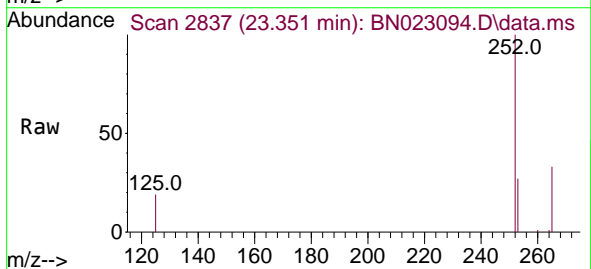


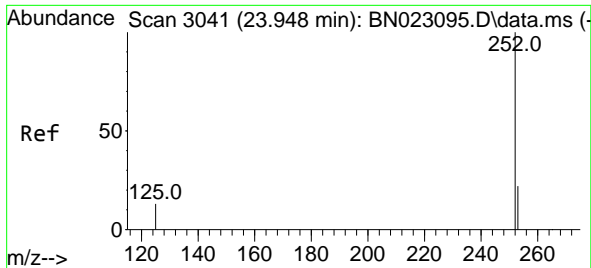
Tgt Ion:252 Resp: 12559  
 Ion Ratio Lower Upper  
 252 100  
 253 26.7 19.0 28.4  
 125 19.9 12.8 19.2#



#38  
 Benzo(k)fluoranthene  
 Concen: 0.147 ng  
 RT: 23.351 min Scan# 2837  
 Delta R.T. -0.000 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

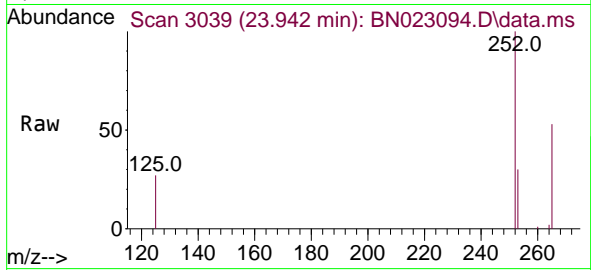
Tgt Ion:252 Resp: 12349  
 Ion Ratio Lower Upper  
 252 100  
 253 26.6 19.1 28.7  
 125 19.4 12.5 18.7#



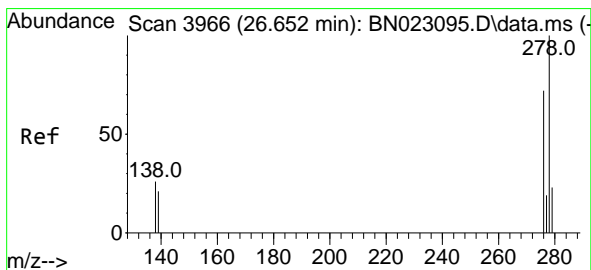
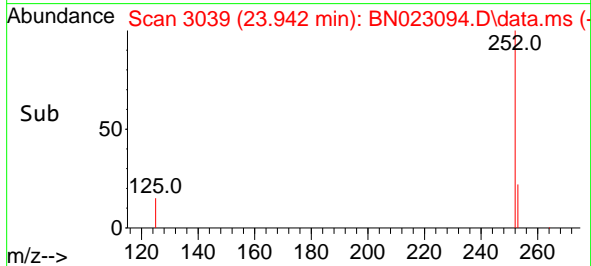
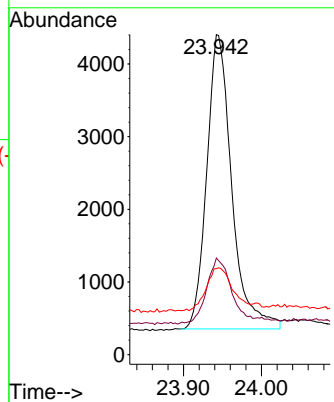


#39  
 Benzo(a)pyrene  
 Concen: 0.136 ng  
 RT: 23.942 min Scan# 3041  
 Delta R.T. -0.006 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.2

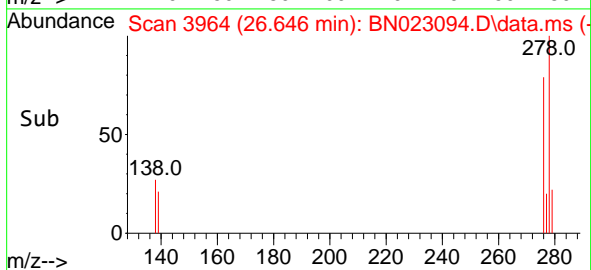
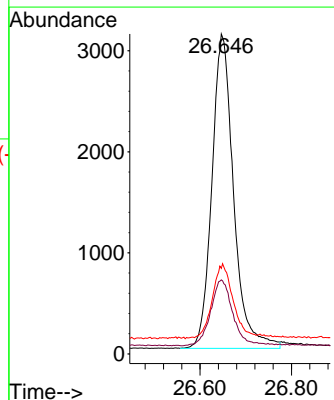
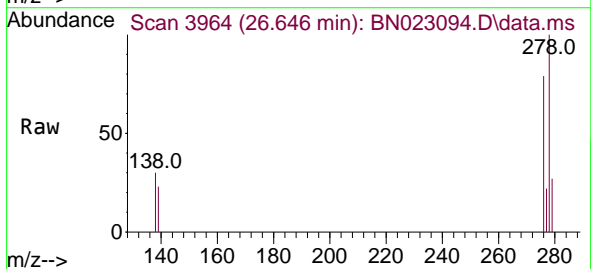


Tgt Ion:252 Resp: 9043  
 Ion Ratio Lower Upper  
 252 100  
 253 30.2 20.6 30.8  
 125 26.9 15.8 23.8#

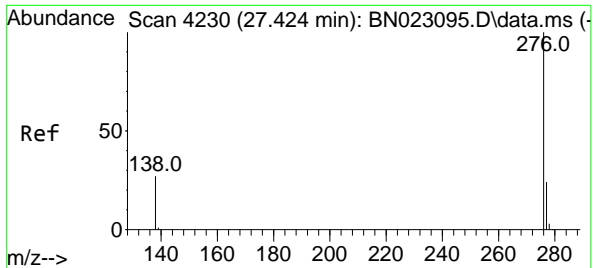


#40  
 Dibenzo(a,h)anthracene  
 Concen: 0.136 ng  
 RT: 26.646 min Scan# 3964  
 Delta R.T. -0.006 min  
 Lab File: BN023094.D  
 Acq: 08 Dec 2022 14:37

Tgt Ion:278 Resp: 10252  
 Ion Ratio Lower Upper  
 278 100  
 139 23.1 17.5 26.3  
 279 26.7 20.5 30.7

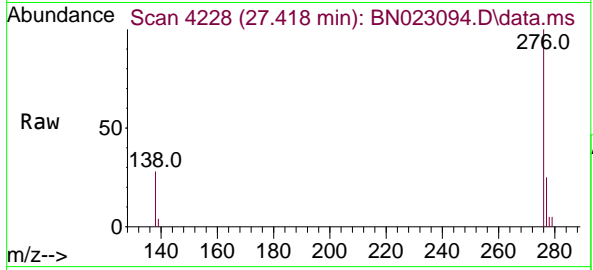






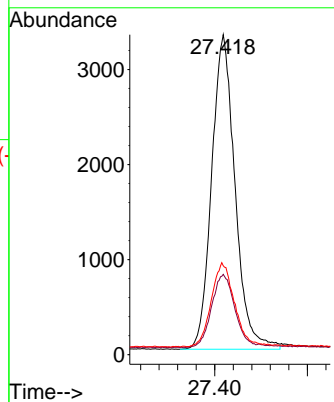
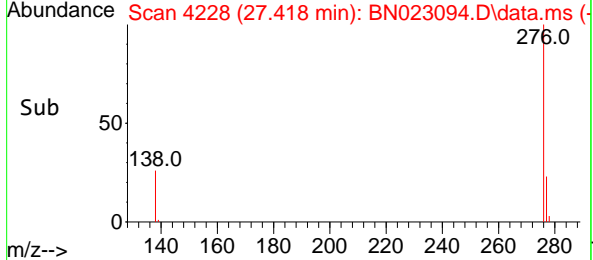
#41  
Benzo(g,h,i)perylene  
Concen: 0.150 ng  
RT: 27.418 min Scan# 41  
Delta R.T. -0.006 min  
Lab File: BN023094.D  
Acq: 08 Dec 2022 14:37

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.2



Tgt Ion:276 Resp: 11608

Ion	Ratio	Lower	Upper
276	100		
277	25.1	19.9	29.9
138	27.8	22.2	33.2



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Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN120822\  
 Data File : BN023095.D  
 Acq On : 08 Dec 2022 15:13  
 Operator : CG/JU  
 Sample : SSTDICCC0.4  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICCC0.4

Quant Time: Dec 09 07:28:06 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:25:53 2022  
 Response via : Initial Calibration

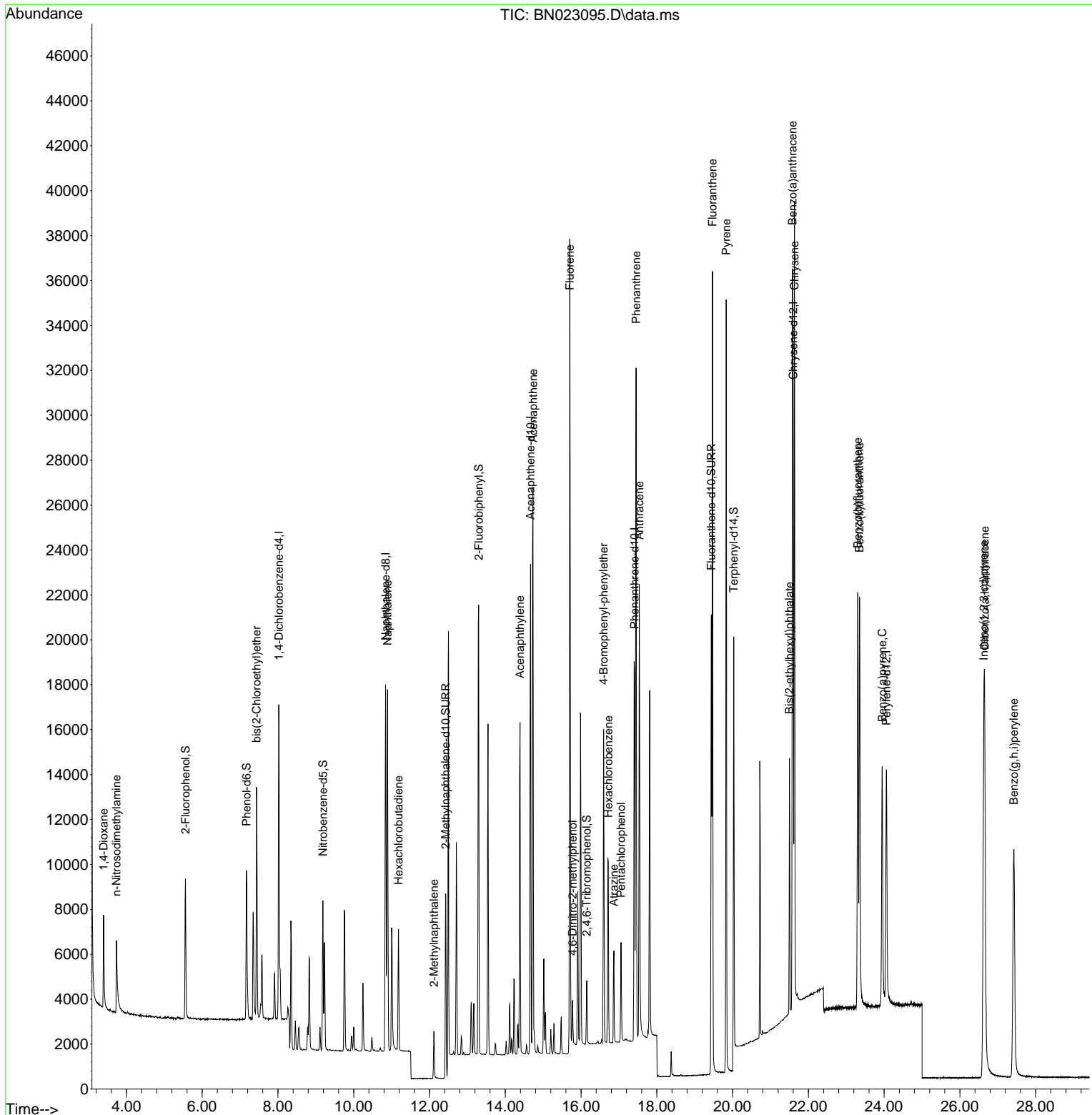
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) 1,4-Dichlorobenzene-d4	8.020	152	6900	0.400 ng	0.00	
7) Naphthalene-d8	10.840	136	20701	0.400 ng	0.00	
13) Acenaphthene-d10	14.666	164	11453	0.400 ng	0.00	
19) Phenanthrene-d10	17.414	188	25275	0.400 ng	0.00	
29) Chrysene-d12	21.598	240	20569	0.400 ng	0.00	
35) Perylene-d12	24.059	264	15521	0.400 ng	0.00	
System Monitoring Compounds						
4) 2-Fluorophenol	5.558	112	5158	0.323 ng	0.00	
5) Phenol-d6	7.168	99	6316	0.315 ng	0.00	
8) Nitrobenzene-d5	9.185	82	5132	0.330 ng	0.00	
11) 2-Methylnaphthalene-d10	12.427	152	13294	0.340 ng	0.00	
14) 2,4,6-Tribromophenol	16.148	330	1509	0.312 ng	0.00	
15) 2-Fluorobiphenyl	13.298	172	18409	0.362 ng	0.00	
27) Fluoranthene-d10	19.439	212	22299	0.322 ng	0.00	
31) Terphenyl-d14	20.031	244	14076	0.361 ng	0.00	
Target Compounds						
2) 1,4-Dioxane	3.398	88	2794	0.327 ng	100	Qvalue
3) n-Nitrosodimethylamine	3.738	42	2572	0.307 ng	100	
6) bis(2-Chloroethyl)ether	7.435	93	7602	0.343 ng	100	
9) Naphthalene	10.893	128	20658	0.336 ng	100	
10) Hexachlorobutadiene	11.181	225	4047	0.351 ng	# 100	
12) 2-Methylnaphthalene	12.117	142	3041	0.324 ng	100	
16) Acenaphthylene	14.388	152	16880	0.314 ng	100	
17) Acenaphthene	14.730	154	13187	0.336 ng	100	
18) Fluorene	15.703	166	14809	0.337 ng	100	
20) 4,6-Dinitro-2-methylph...	15.776	198	1159	0.339 ng	100	
21) 4-Bromophenyl-phenylether	16.595	248	5161	0.339 ng	100	
22) Hexachlorobenzene	16.719	284	7088	0.358 ng	100	
23) Atrazine	16.868	200	3382	0.305 ng	100	
24) Pentachlorophenol	17.054	266	2029	0.349 ng	100	
25) Phenanthrene	17.452	178	28996	0.340 ng	100	
26) Anthracene	17.538	178	21713	0.316 ng	100	
28) Fluoranthene	19.469	202	30350	0.327 ng	100	
30) Pyrene	19.831	202	29786	0.347 ng	100	
32) Benzo(a)anthracene	21.580	228	24652	0.325 ng	100	
33) Chrysene	21.634	228	29670	0.350 ng	100	
34) Bis(2-ethylhexyl)phtha...	21.500	149	10060	0.307 ng	100	
36) Indeno(1,2,3-cd)pyrene	26.632	276	26282	0.319 ng	100	
37) Benzo(b)fluoranthene	23.305	252	24739	0.349 ng	100	
38) Benzo(k)fluoranthene	23.351	252	24998	0.344 ng	100	
39) Benzo(a)pyrene	23.948	252	17239	0.300 ng	100	
40) Dibenzo(a,h)anthracene	26.652	278	21269	0.326 ng	100	
41) Benzo(g,h,i)perylene	27.424	276	23466	0.351 ng	100	

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

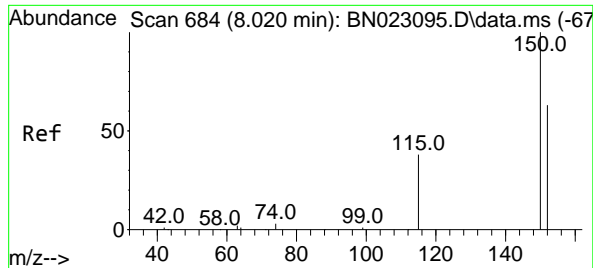
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 Data File : BN023095.D  
 Acq On : 08 Dec 2022 15:13  
 Operator : CG/JU  
 Sample : SSTDICCC0.4  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICCC0.4

Quant Time: Dec 09 07:28:06 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:25:53 2022  
 Response via : Initial Calibration



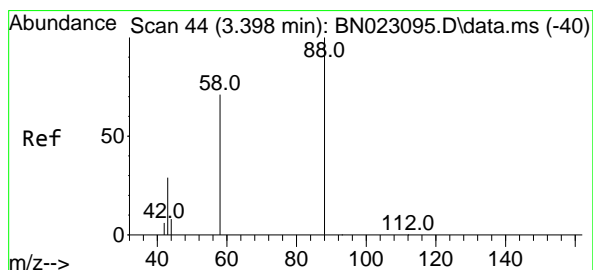
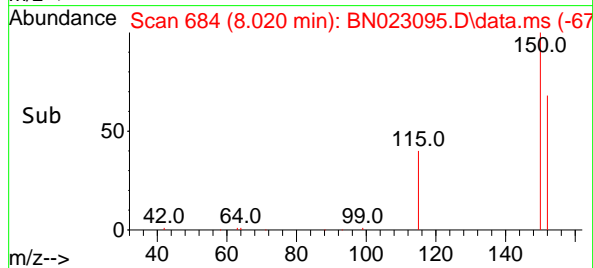
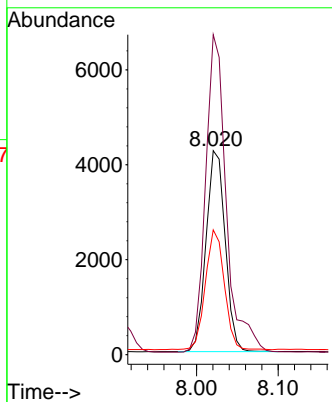
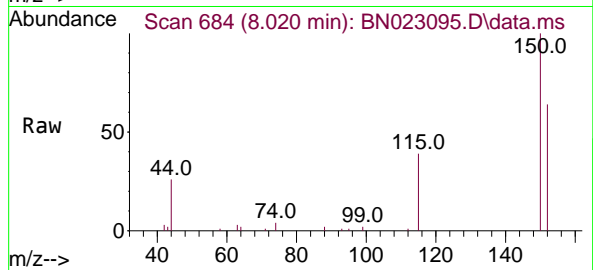
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#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 8.020 min Scan# 684  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

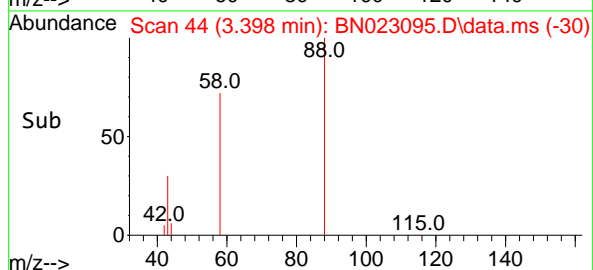
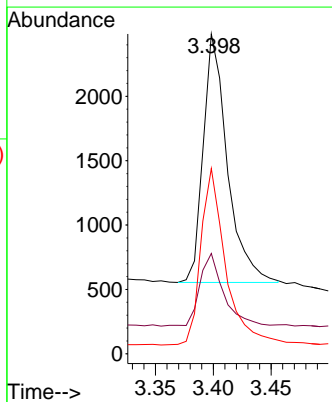
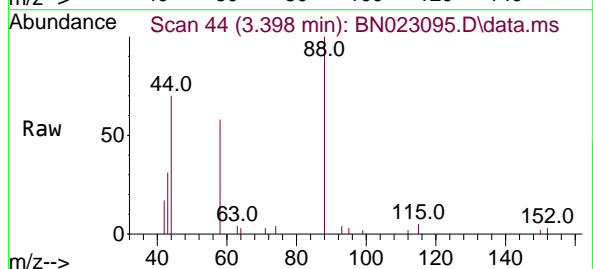
Instrument : BNA\_N  
 ClientSampleId : SSTDICCC0.4

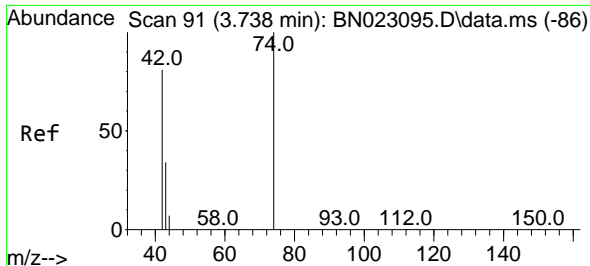
Tgt Ion	Resp	Ion Ratio	Lower	Upper
152	6900	100		
150	157.0	125.6	188.4	
115	61.2	49.0	73.4	



#2  
 1,4-Dioxane  
 Concen: 0.327 ng  
 RT: 3.398 min Scan# 44  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion	Resp	Ion Ratio	Lower	Upper
88	2794	100		
43	29.1	23.3	34.9	
58	72.9	58.0	87.0	



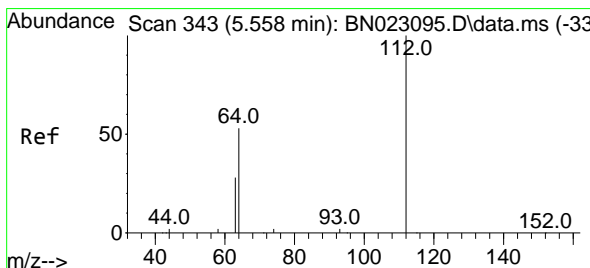
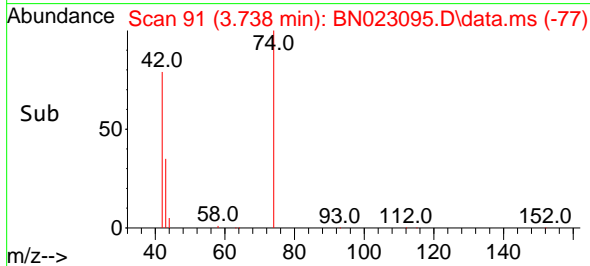
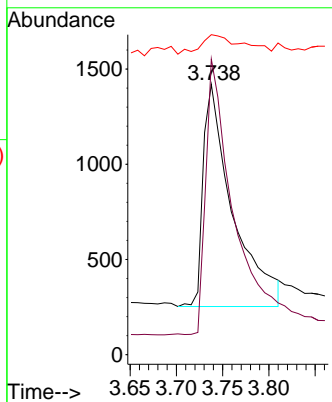
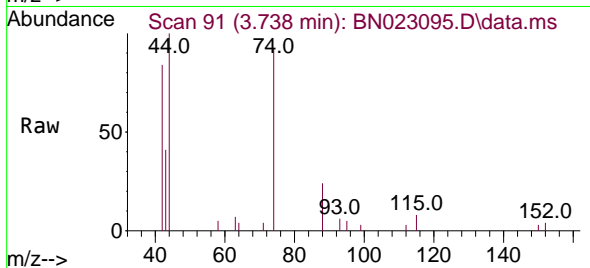


#3  
n-Nitrosodimethylamine  
Concen: 0.307 ng  
RT: 3.738 min Scan# 91  
Delta R.T. 0.000 min  
Lab File: BN023095.D  
Acq: 08 Dec 2022 15:13

Instrument : BNA\_N  
ClientSampleId : SSTDICCC0.4

Tgt Ion: 42 Resp: 2572

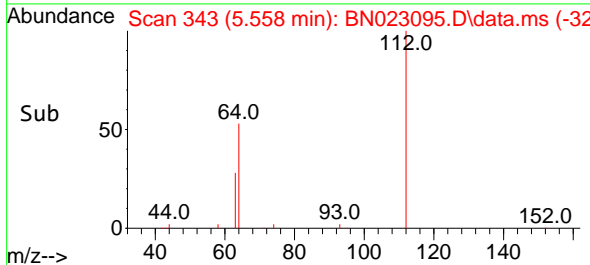
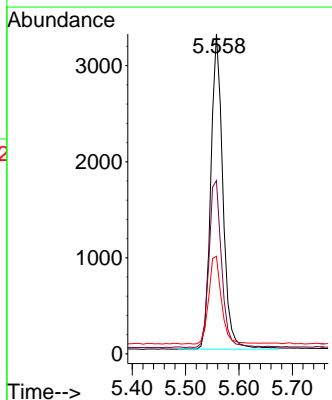
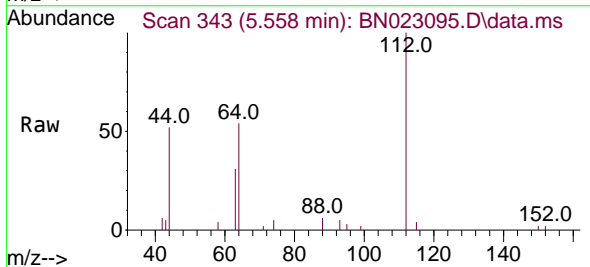
Ion	Ratio	Lower	Upper
42	100		
74	119.8	95.8	143.6
44	10.3	8.4	12.6

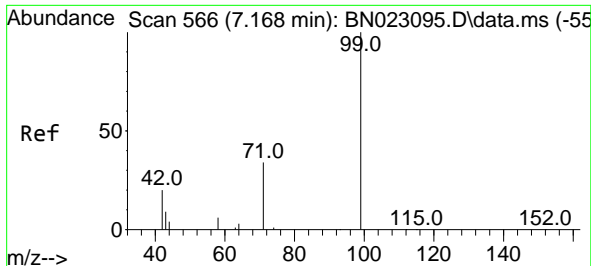


#4  
2-Fluorophenol  
Concen: 0.323 ng  
RT: 5.558 min Scan# 343  
Delta R.T. 0.000 min  
Lab File: BN023095.D  
Acq: 08 Dec 2022 15:13

Tgt Ion: 112 Resp: 5158

Ion	Ratio	Lower	Upper
112	100		
64	55.5	44.4	66.6
63	29.6	23.7	35.5

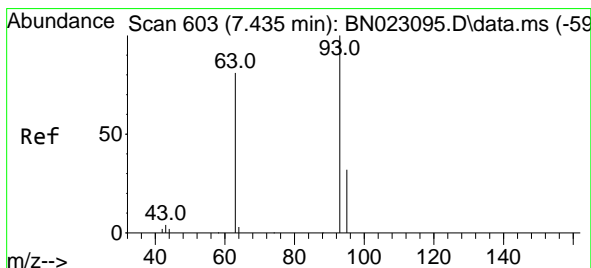
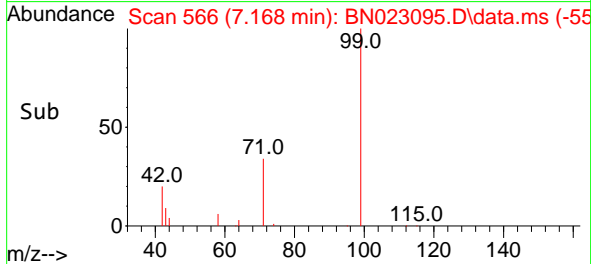
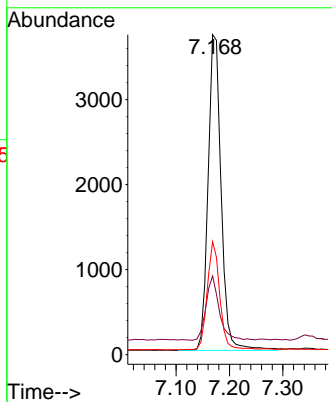
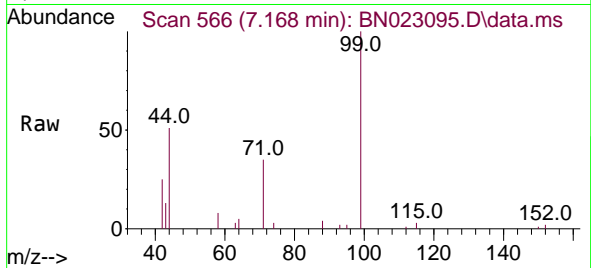




#5  
 Phenol-d6  
 Concen: 0.315 ng  
 RT: 7.168 min Scan# 566  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

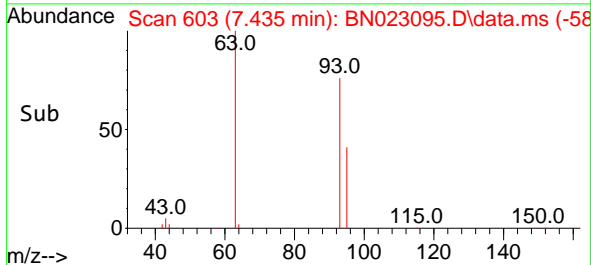
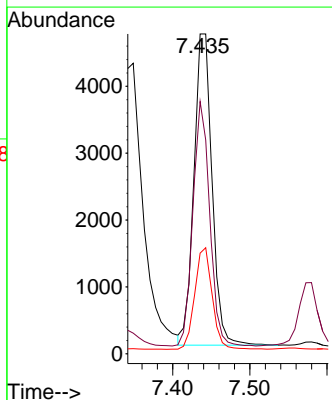
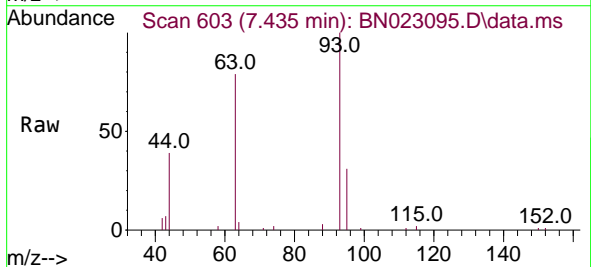
Instrument : BNA\_N  
 ClientSampleId : SSTDICCC0.4

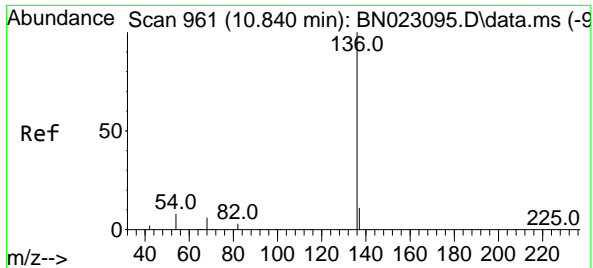
Tgt Ion	Resp	Ion Ratio	Lower	Upper
99	6316	100		
42		20.4	16.3	24.5
71		33.1	26.5	39.7



#6  
 bis(2-Chloroethyl)ether  
 Concen: 0.343 ng  
 RT: 7.435 min Scan# 603  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion	Resp	Ion Ratio	Lower	Upper
93	7602	100		
63		72.6	58.1	87.1
95		31.5	25.2	37.8



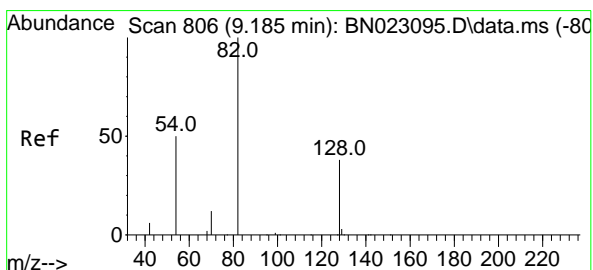
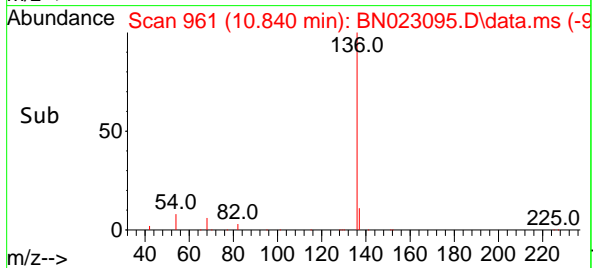
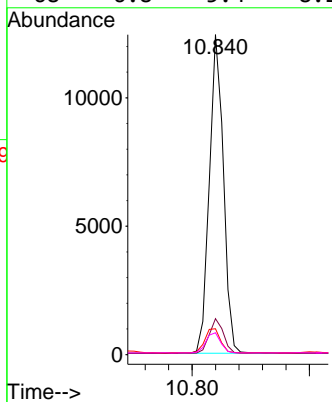
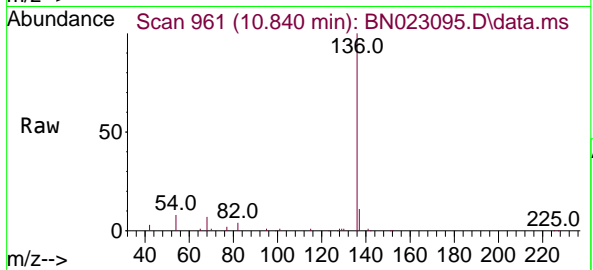


#7  
 Naphthalene-d8  
 Concen: 0.400 ng  
 RT: 10.840 min Scan# 961  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Instrument : BNA\_N  
 ClientSampleId : SSTDICCC0.4

Tgt Ion:136 Resp: 20701

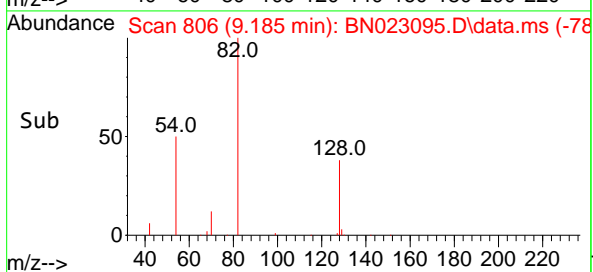
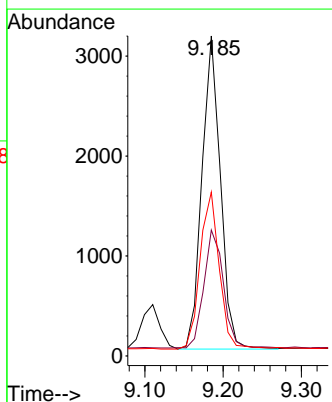
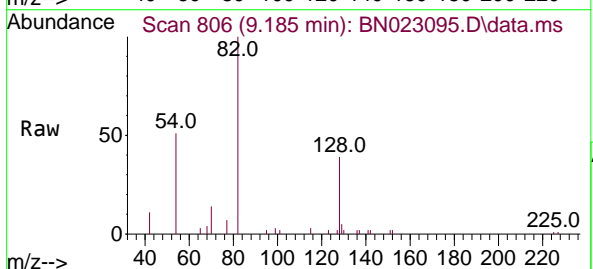
Ion	Ratio	Lower	Upper
136	100		
137	11.2	9.0	13.4
54	8.1	6.5	9.7
68	6.8	5.4	8.2

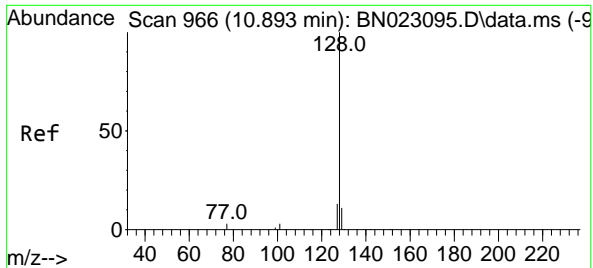


#8  
 Nitrobenzene-d5  
 Concen: 0.330 ng  
 RT: 9.185 min Scan# 806  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion: 82 Resp: 5132

Ion	Ratio	Lower	Upper
82	100		
128	39.3	31.4	47.2
54	51.2	41.0	61.4



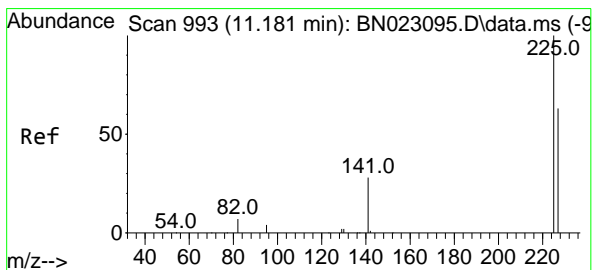
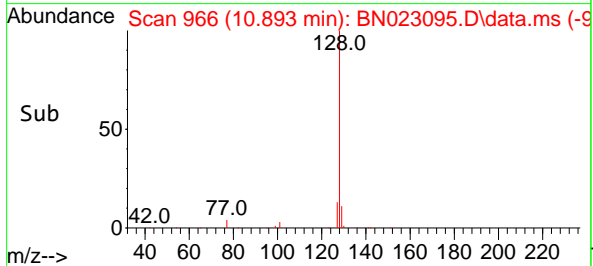
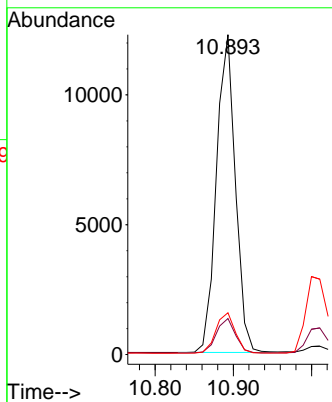
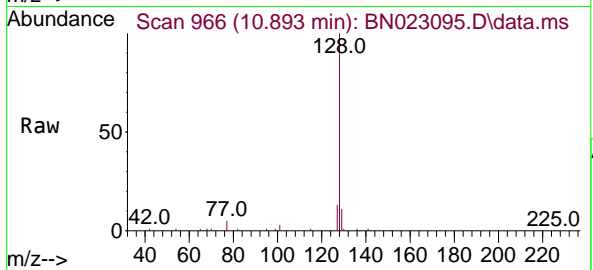


#9  
**Naphthalene**  
 Concen: 0.336 ng  
 RT: 10.893 min Scan# 966  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 SSTDICCC0.4

Tgt Ion:128 Resp: 20658

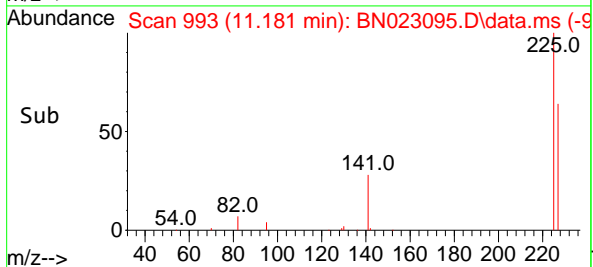
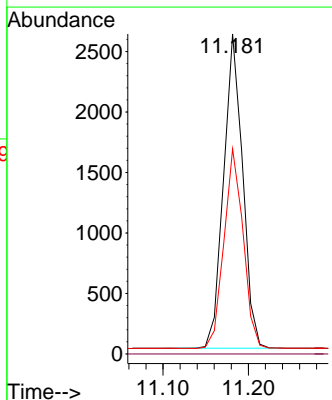
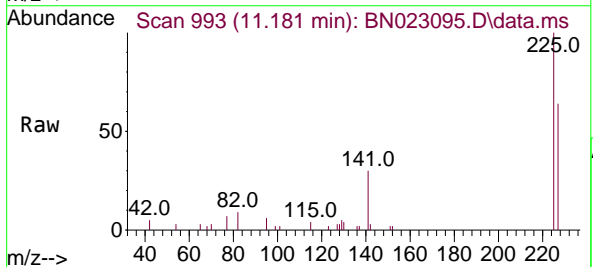
Ion	Ratio	Lower	Upper
128	100		
129	11.3	9.0	13.6
127	13.1	10.5	15.7



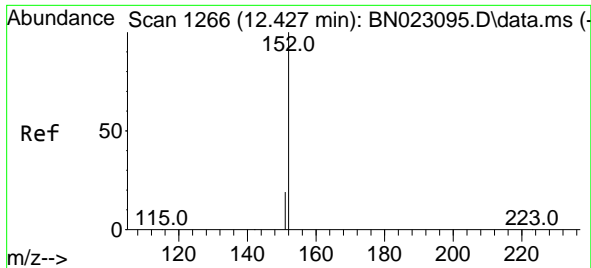
#10  
**Hexachlorobutadiene**  
 Concen: 0.351 ng  
 RT: 11.181 min Scan# 993  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion:225 Resp: 4047

Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	63.9	51.1	76.7



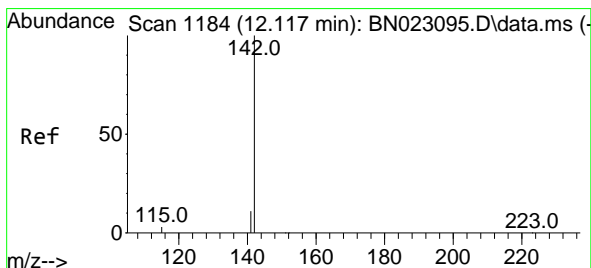
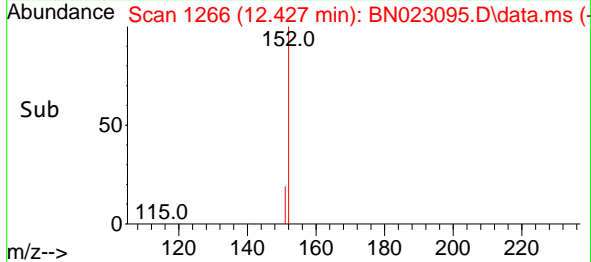
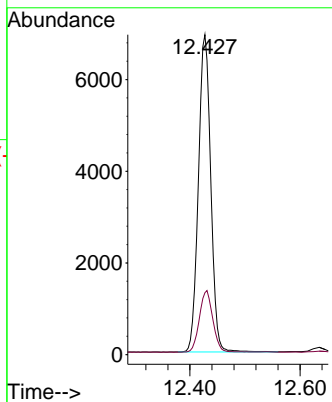
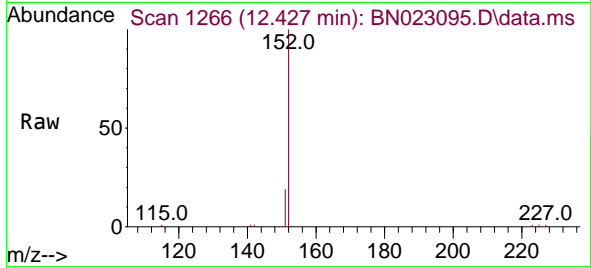




#11  
 2-Methylnaphthalene-d10  
 Concen: 0.340 ng  
 RT: 12.427 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

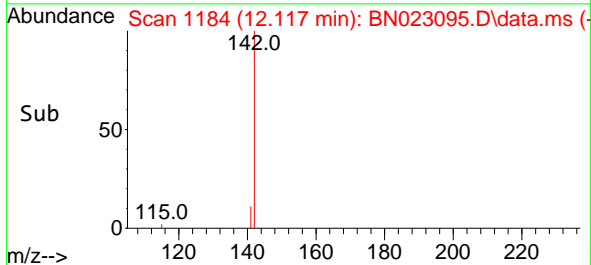
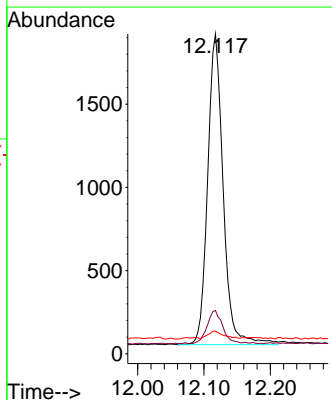
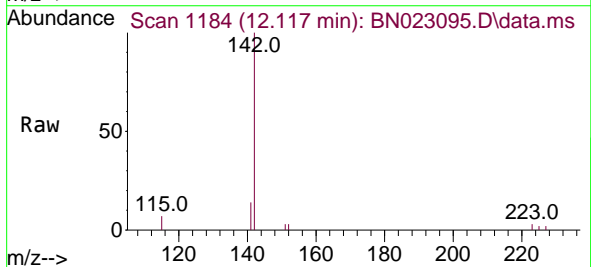
Instrument : BNA\_N  
 ClientSampleId : SSTDICCC0.4

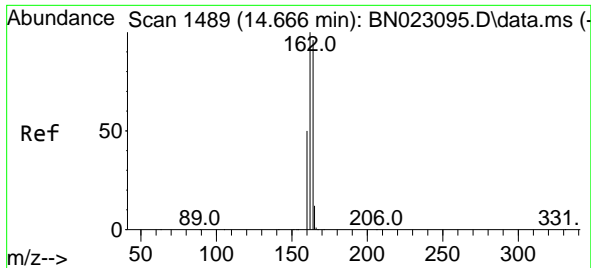
Tgt Ion:152 Resp: 13294  
 Ion Ratio Lower Upper  
 152 100  
 151 18.9 15.1 22.7



#12  
 2-Methylnaphthalene  
 Concen: 0.324 ng  
 RT: 12.117 min Scan# 1184  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion:142 Resp: 3041  
 Ion Ratio Lower Upper  
 142 100  
 141 13.6 10.9 16.3  
 115 7.1 5.7 8.5

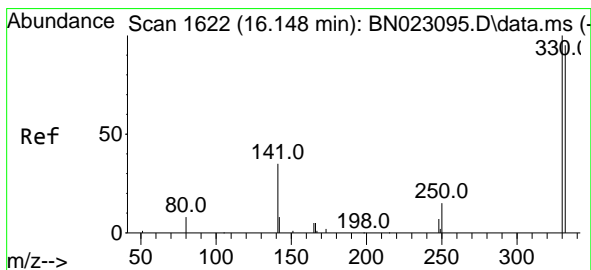
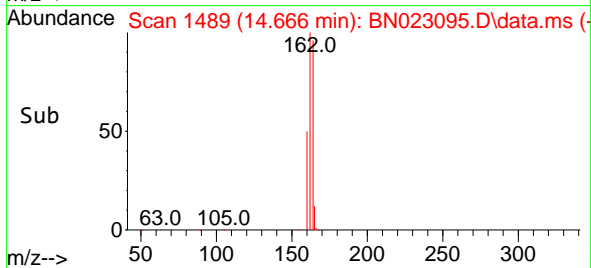
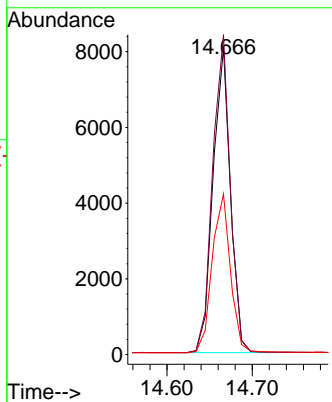
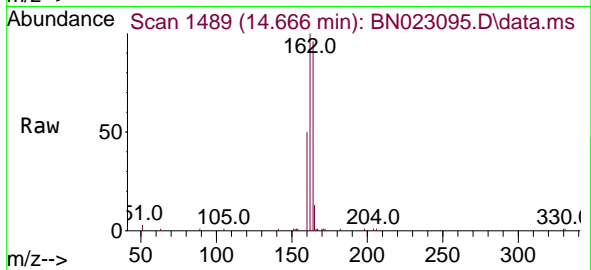




#13  
 Acenaphthene-d10  
 Concen: 0.400 ng  
 RT: 14.666 min Scan# 1489  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

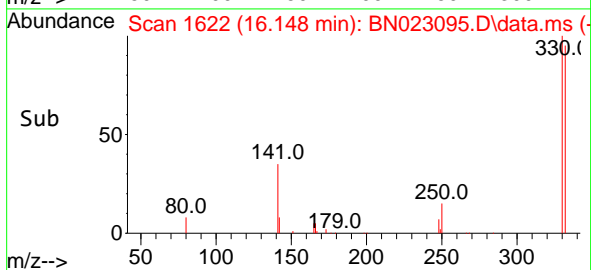
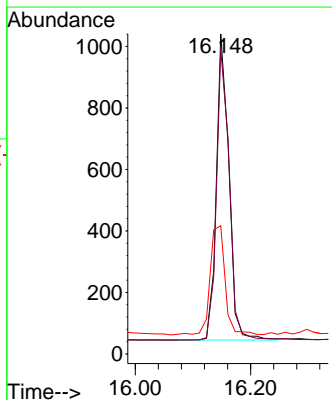
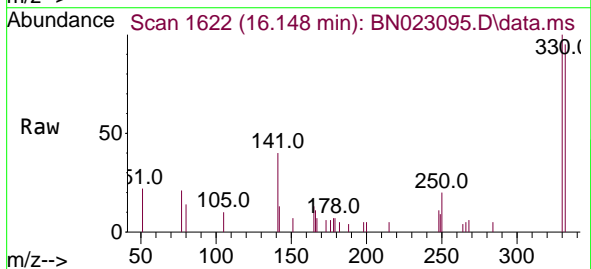
Instrument : BNA\_N  
 ClientSampleId : SSTDICCC0.4

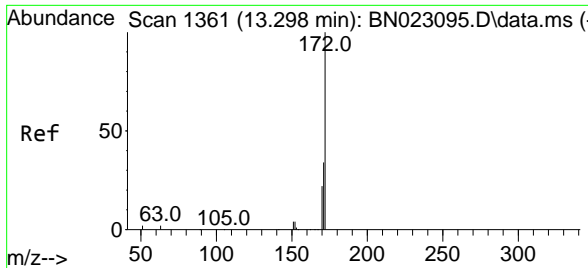
Tgt Ion	Resp	Ion Ratio	Lower	Upper
164	11453	100		
162	104.2	83.4	125.0	
160	52.3	41.8	62.8	



#14  
 2,4,6-Tribromophenol  
 Concen: 0.312 ng  
 RT: 16.148 min Scan# 1622  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion	Resp	Ion Ratio	Lower	Upper
330	1509	100		
332	96.6	77.3	115.9	
141	41.9	33.5	50.3	

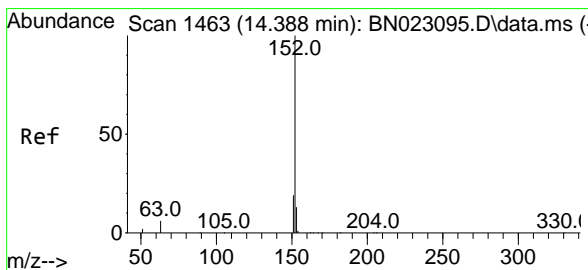
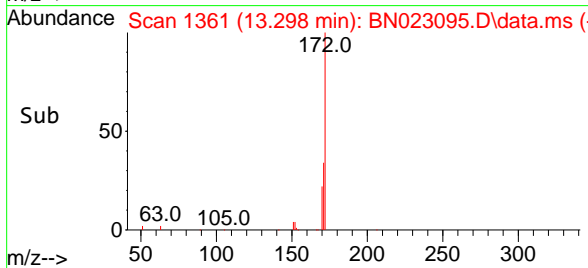
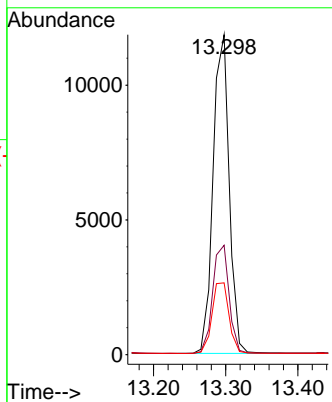
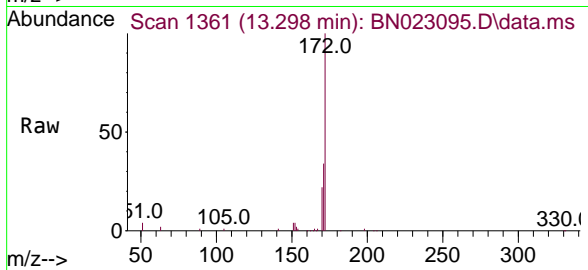




#15  
 2-Fluorobiphenyl  
 Concen: 0.362 ng  
 RT: 13.298 min Scan# 1361  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

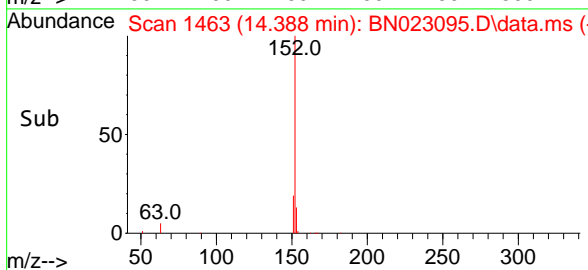
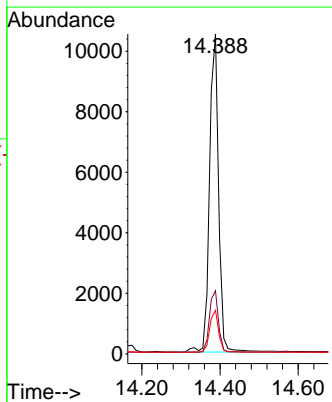
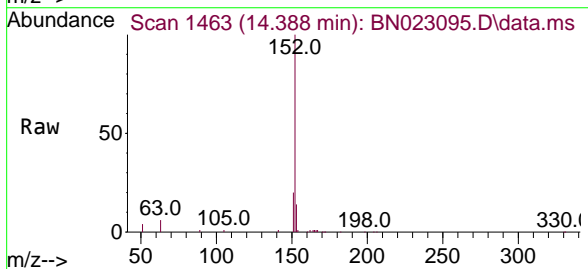
Instrument : BNA\_N  
 ClientSampleId : SSTDICCC0.4

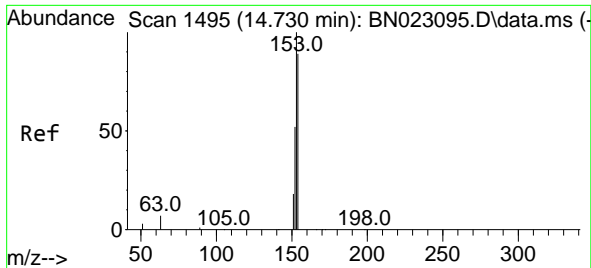
Tgt Ion	Resp	Lower	Upper
172	18409	100	100
171	34.2	27.4	41.0
170	22.4	17.9	26.9



#16  
 Acenaphthylene  
 Concen: 0.314 ng  
 RT: 14.388 min Scan# 1463  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion	Resp	Lower	Upper
152	16880	100	100
151	19.3	15.4	23.2
153	12.9	10.3	15.5



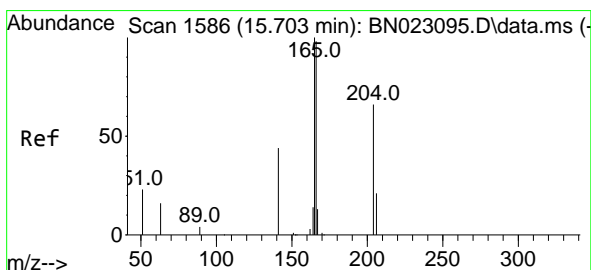
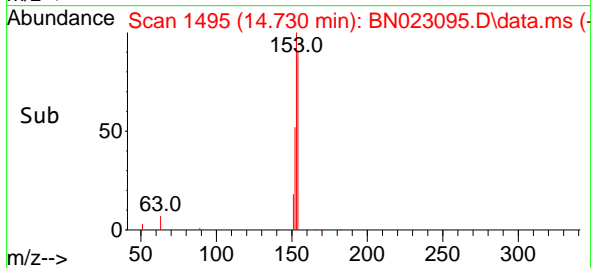
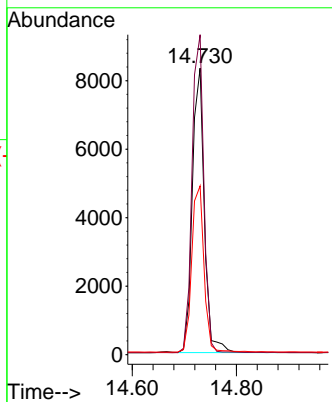
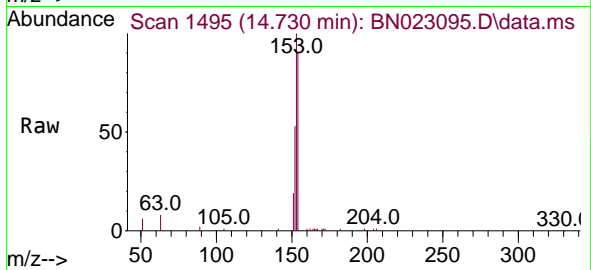


#17  
 Acenaphthene  
 Concen: 0.336 ng  
 RT: 14.730 min Scan# 1495  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Instrument : BNA\_N  
 ClientSampleId : SSTDICCC0.4

Tgt Ion:154 Resp: 13187

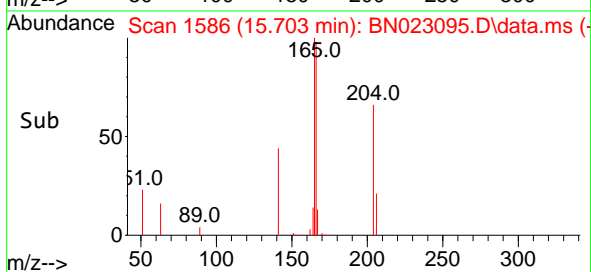
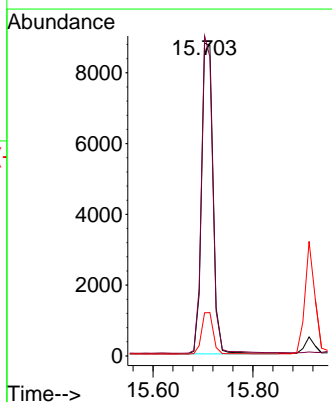
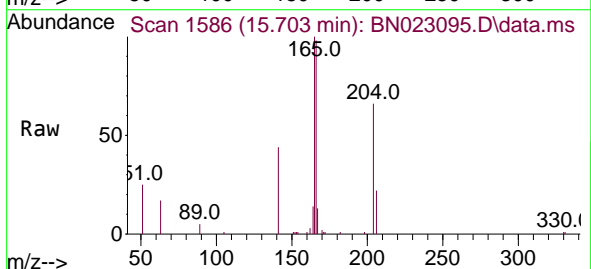
Ion	Ratio	Lower	Upper
154	100		
153	110.7	88.6	132.8
152	60.1	48.1	72.1

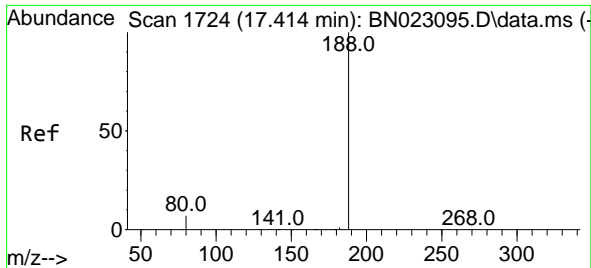


#18  
 Fluorene  
 Concen: 0.337 ng  
 RT: 15.703 min Scan# 1586  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion:166 Resp: 14809

Ion	Ratio	Lower	Upper
166	100		
165	99.2	79.8	119.6
167	13.3	10.6	16.0

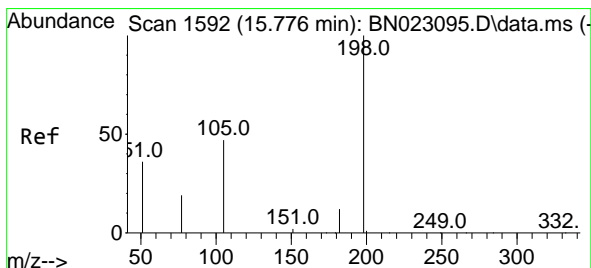
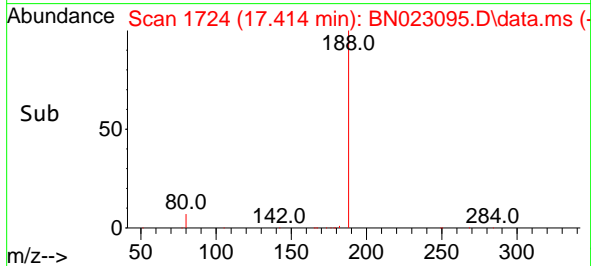
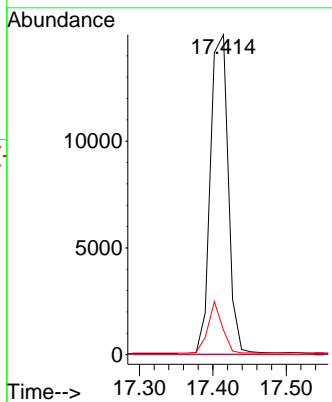
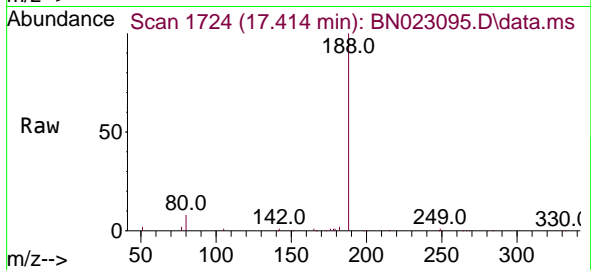




#19  
 Phenanthrene-d10  
 Concen: 0.400 ng  
 RT: 17.414 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

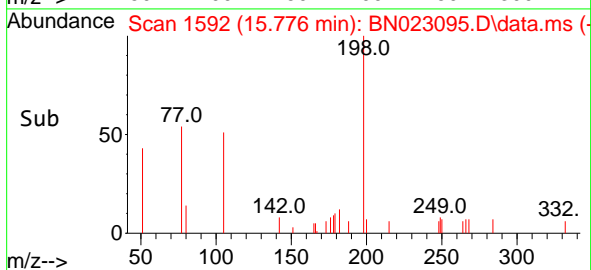
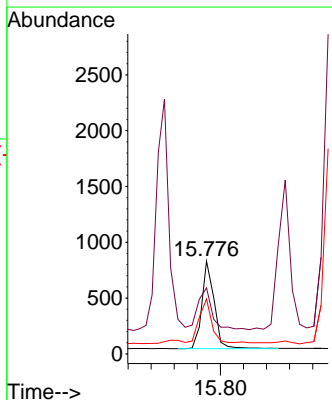
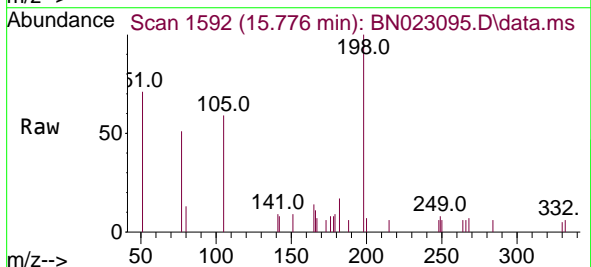
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICCC0.4

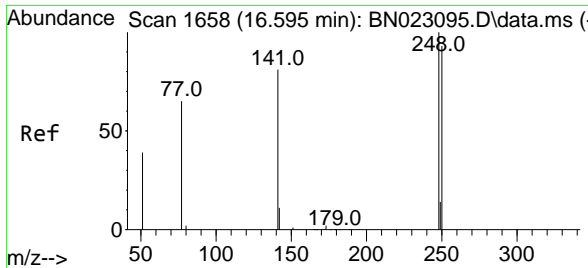
Tgt Ion	Resp	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	7.6	6.1	9.1



#20  
 4,6-Dinitro-2-methylphenol  
 Concen: 0.339 ng  
 RT: 15.776 min Scan# 1592  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

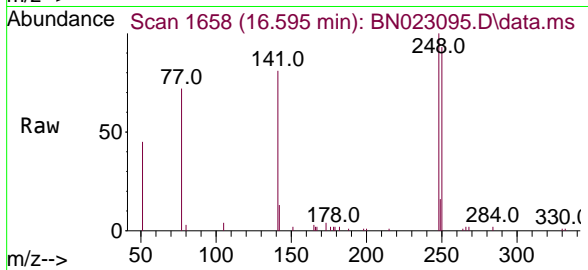
Tgt Ion	Resp	Lower	Upper
198	100		
51	71.2	57.0	85.4
105	59.0	47.2	70.8





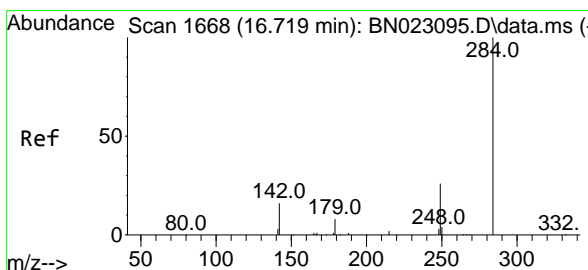
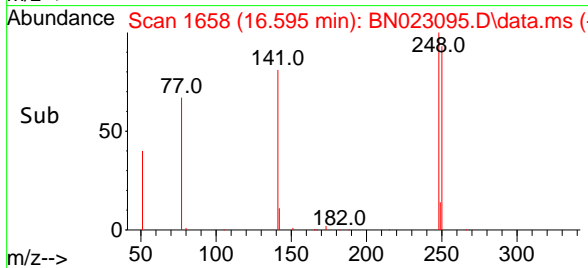
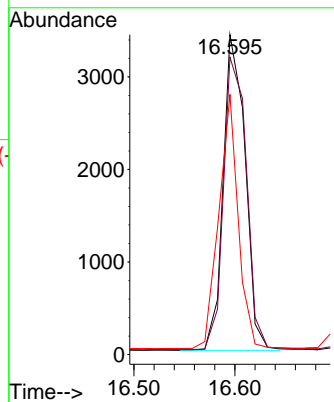
#21  
 4-Bromophenyl-phenylether  
 Concen: 0.339 ng  
 RT: 16.595 min Scan# 1658  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Instrument : BNA\_N  
 ClientSampleId : SSTDICCC0.4



Tgt Ion: 248 Resp: 5161

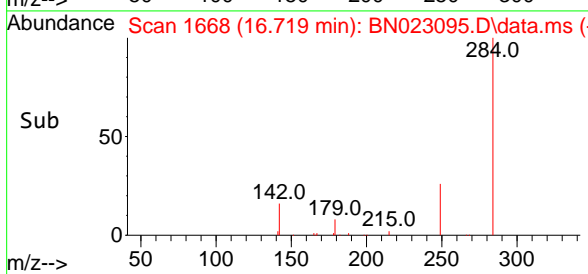
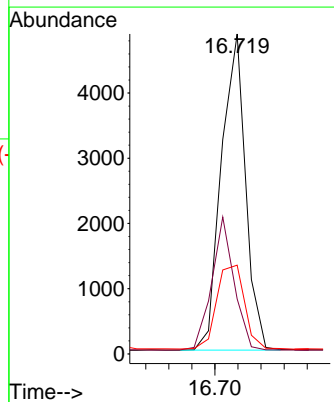
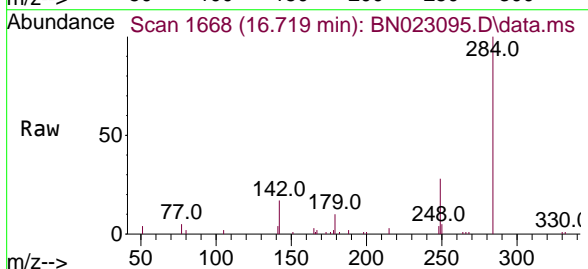
Ion	Ratio	Lower	Upper
248	100		
250	92.9	74.3	111.5
141	81.3	65.0	97.6

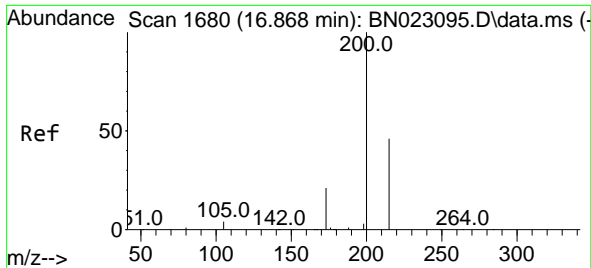


#22  
 Hexachlorobenzene  
 Concen: 0.358 ng  
 RT: 16.719 min Scan# 1668  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion: 284 Resp: 7088

Ion	Ratio	Lower	Upper
284	100		
142	38.7	31.0	46.4
249	30.5	24.4	36.6

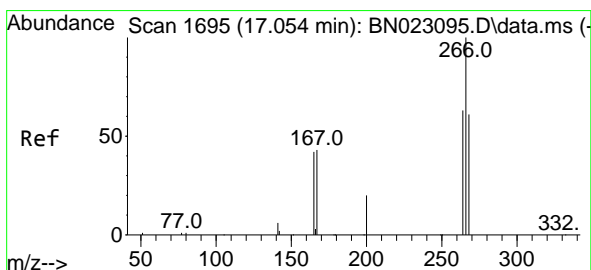
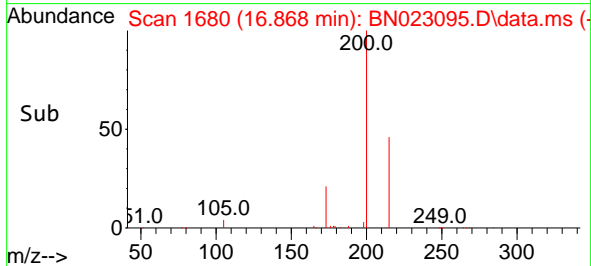
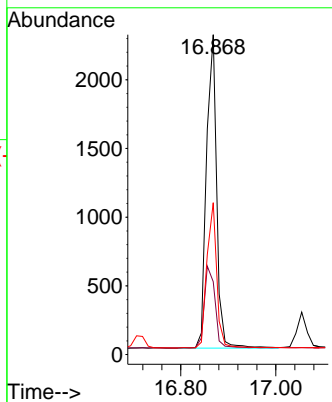
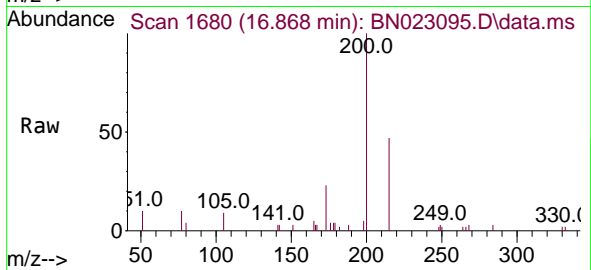




#23  
**Atrazine**  
 Concen: 0.305 ng  
 RT: 16.868 min Scan# 1680  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

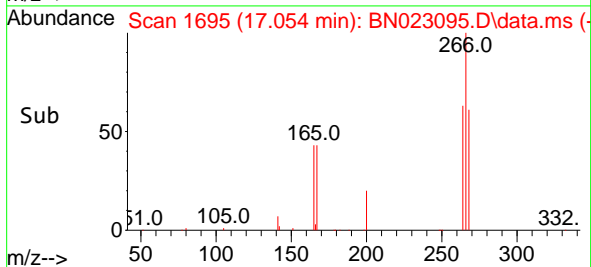
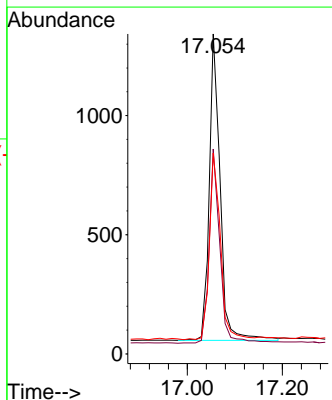
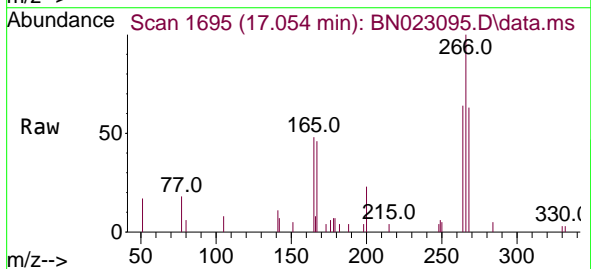
**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 SSTDICCC0.4

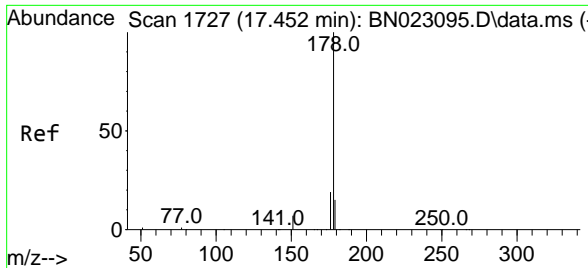
Tgt Ion	Resp	Lower	Upper
200	3382	100	100
173	22.8	18.2	27.4
215	47.5	38.0	57.0



#24  
**Pentachlorophenol**  
 Concen: 0.349 ng  
 RT: 17.054 min Scan# 1695  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion	Resp	Lower	Upper
266	2029	100	100
264	62.6	50.1	75.1
268	62.1	49.7	74.5

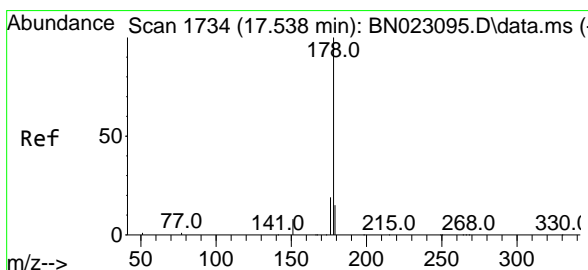
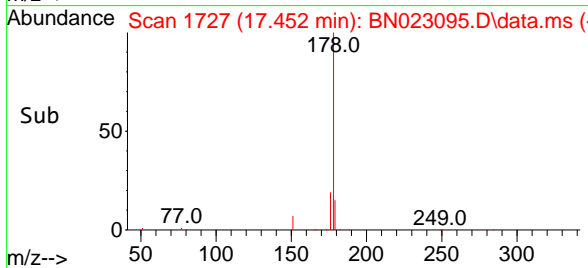
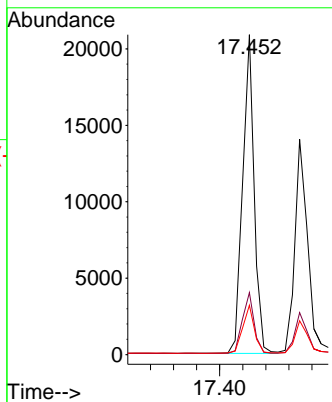
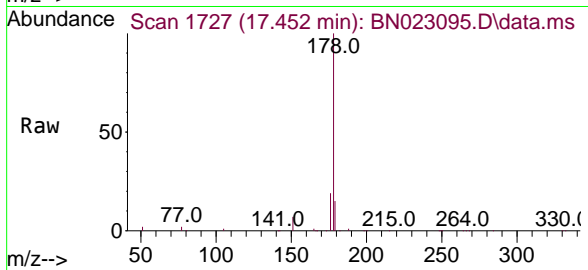




#25  
 Phenanthrene  
 Concen: 0.340 ng  
 RT: 17.452 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

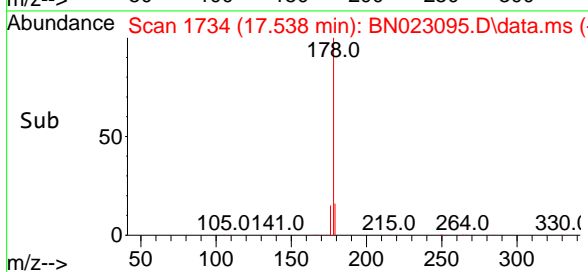
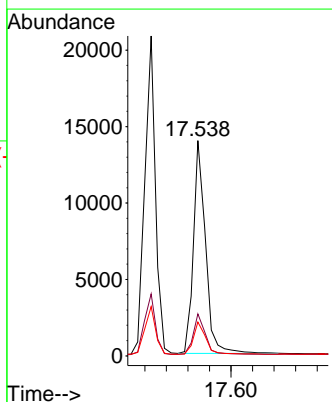
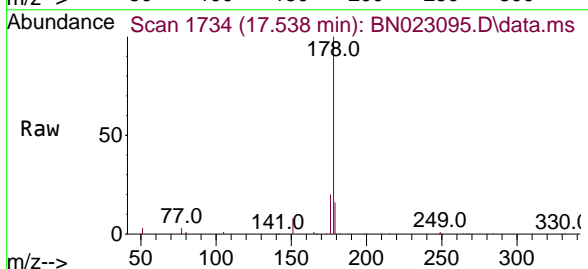
Instrument : BNA\_N  
 ClientSampleId : SSTDICCC0.4

Tgt Ion	Resp	Lower	Upper
178	28996		
176	19.3	15.4	23.2
179	15.2	12.2	18.2

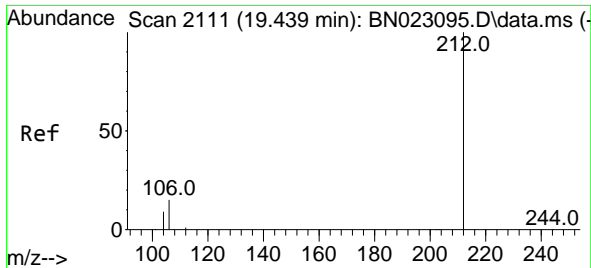


#26  
 Anthracene  
 Concen: 0.316 ng  
 RT: 17.538 min Scan# 1734  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion	Resp	Lower	Upper
178	21713		
176	18.9	15.1	22.7
179	15.3	12.2	18.4



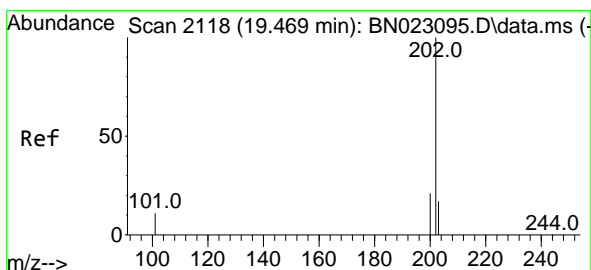
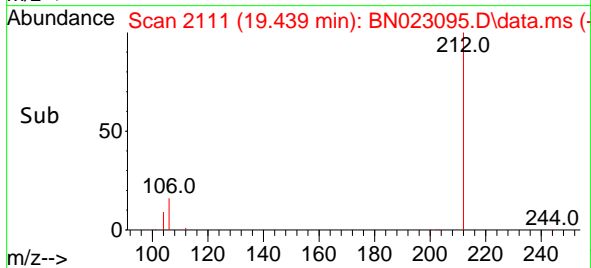
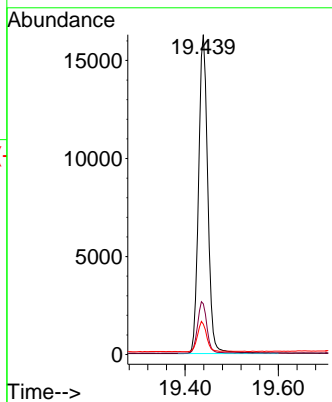
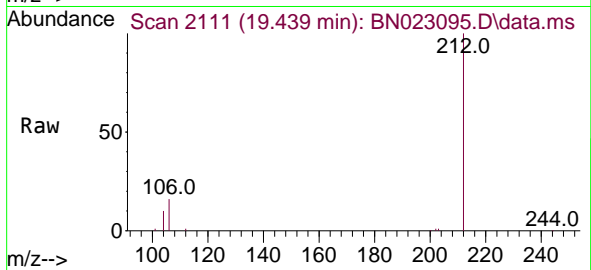




#27  
 Fluoranthene-d10  
 Concen: 0.322 ng  
 RT: 19.439 min Scan# 2111  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

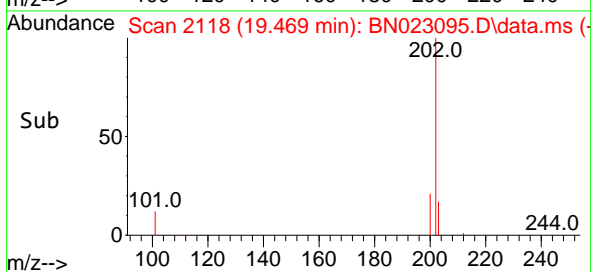
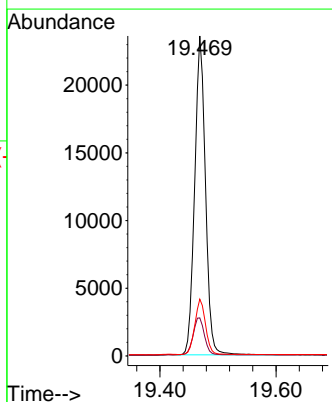
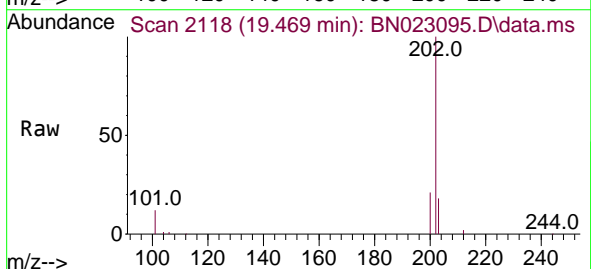
Instrument : BNA\_N  
 Client Sample Id : BN023095.D  
 SSTDICCC0.4

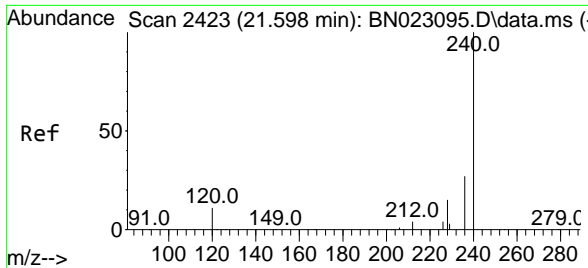
Tgt Ion	Resp	Lower	Upper
212	22299		
106	16.2	13.0	19.4
104	9.4	7.5	11.3



#28  
 Fluoranthene  
 Concen: 0.327 ng  
 RT: 19.469 min Scan# 2118  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion	Resp	Lower	Upper
202	30350		
101	12.1	9.7	14.5
203	17.2	13.8	20.6



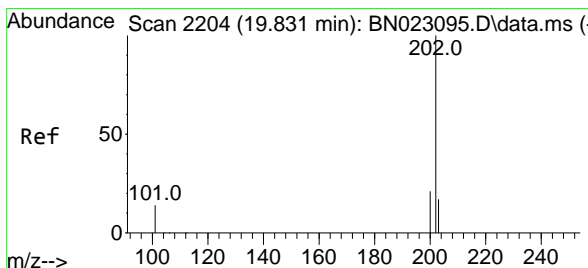
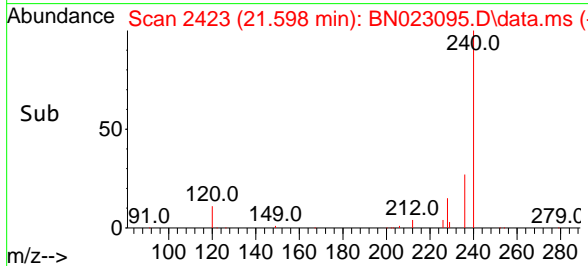
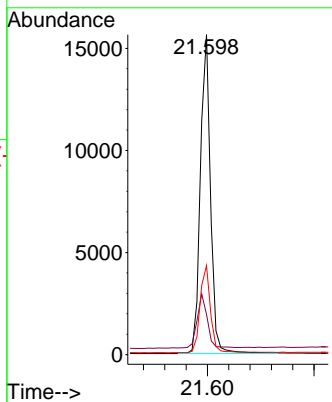
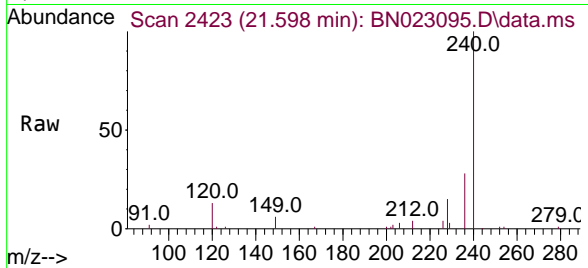


#29  
 Chrysene-d12  
 Concen: 0.400 ng  
 RT: 21.598 min Scan# 24  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICCC0.4

Tgt Ion:240 Resp: 20569

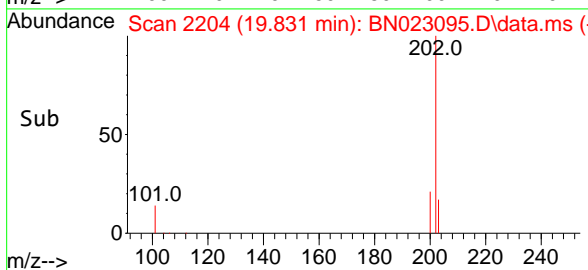
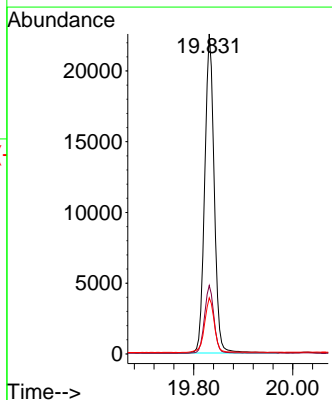
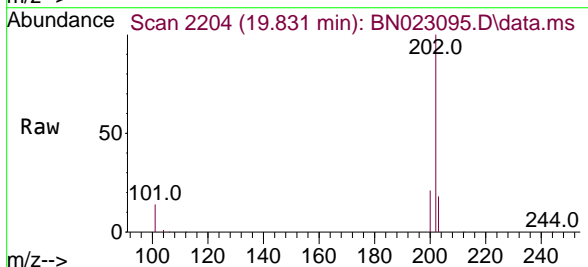
Ion	Ratio	Lower	Upper
240	100		
120	12.6	10.1	15.1
236	27.8	22.2	33.4

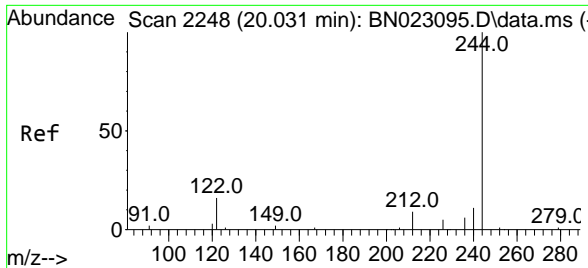


#30  
 Pyrene  
 Concen: 0.347 ng  
 RT: 19.831 min Scan# 2204  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion:202 Resp: 29786

Ion	Ratio	Lower	Upper
202	100		
200	21.1	16.9	25.3
203	17.8	14.2	21.4



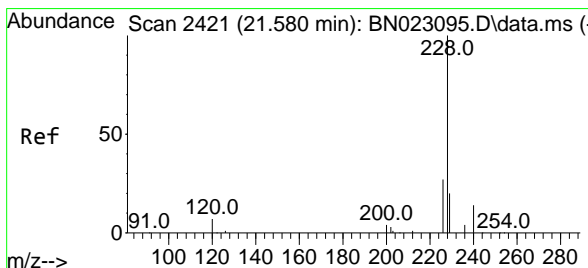
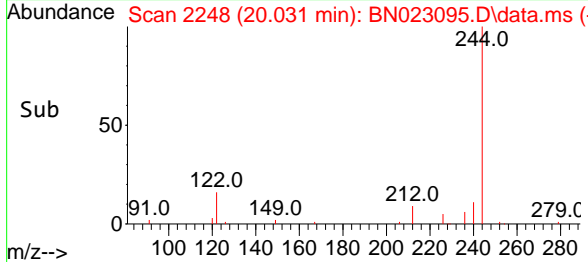
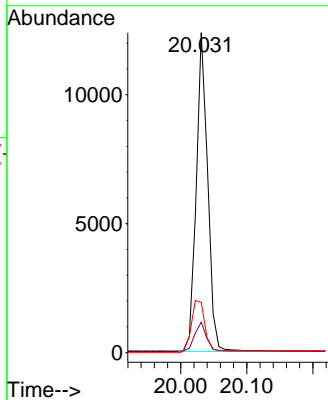
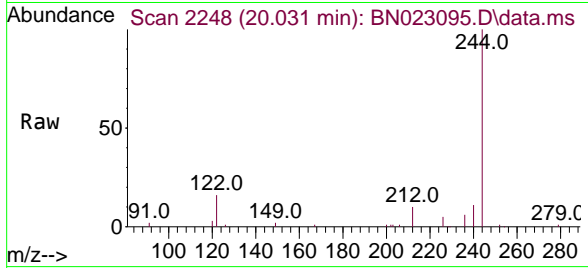


#31  
 Terphenyl-d14  
 Concen: 0.361 ng  
 RT: 20.031 min Scan# 21  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICCC0.4

Tgt Ion:244 Resp: 14076

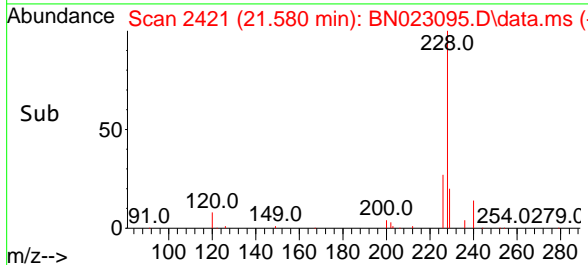
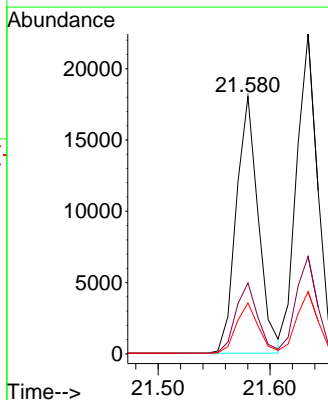
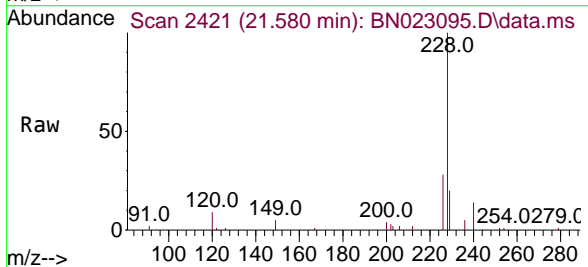
Ion	Ratio	Lower	Upper
244	100		
212	9.5	7.6	11.4
122	15.7	12.6	18.8

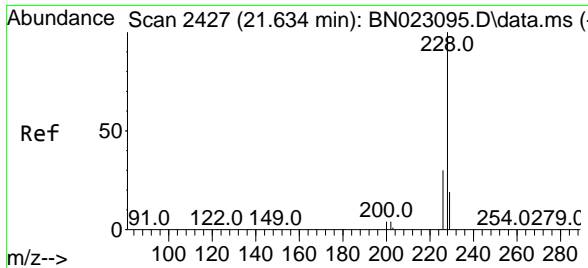


#32  
 Benzo(a)anthracene  
 Concen: 0.325 ng  
 RT: 21.580 min Scan# 2421  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion:228 Resp: 24652

Ion	Ratio	Lower	Upper
228	100		
226	27.5	22.0	33.0
229	19.8	15.8	23.8

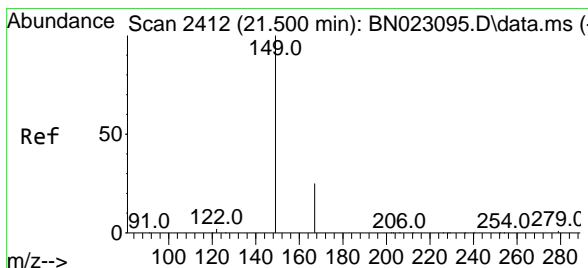
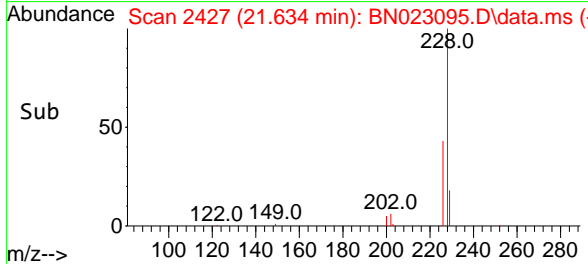
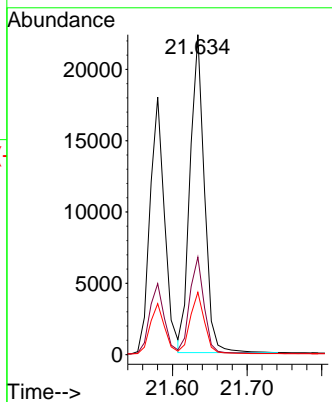
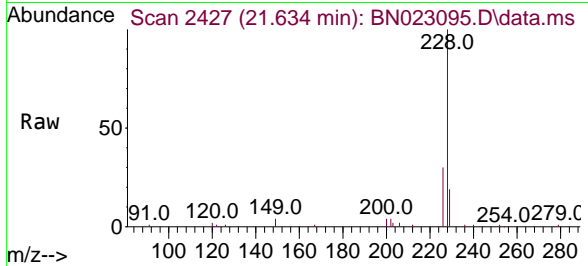




#33  
 Chrysene  
 Concen: 0.350 ng  
 RT: 21.634 min Scan# 2427  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

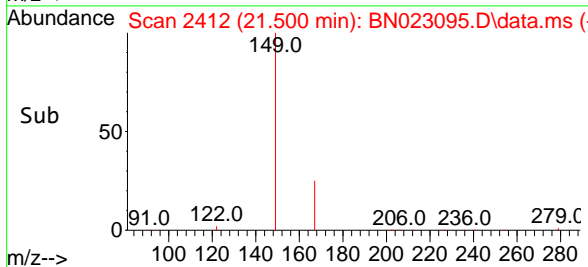
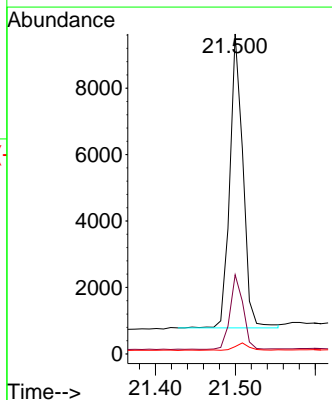
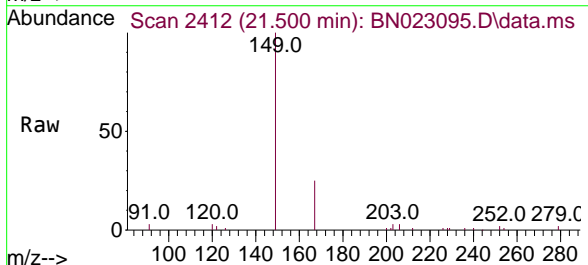
Instrument : BNA\_N  
 ClientSampleId : SSTDICCC0.4

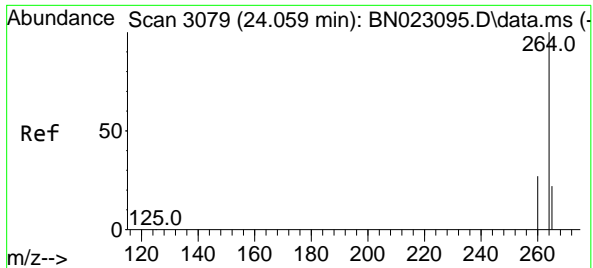
Tgt Ion	Resp	Lower	Upper
228	29670	100	100
226	30.5	24.4	36.6
229	19.5	15.6	23.4



#34  
 Bis(2-ethylhexyl)phthalate  
 Concen: 0.307 ng  
 RT: 21.500 min Scan# 2412  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion	Resp	Lower	Upper
149	10060	100	100
167	25.2	20.2	30.2
279	2.9	2.3	3.5

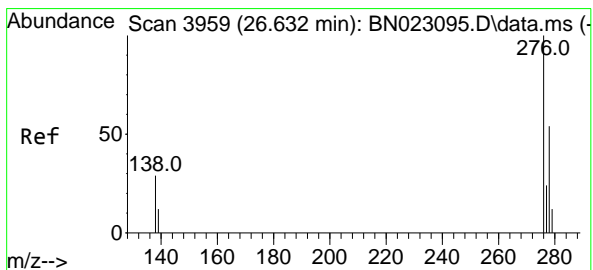
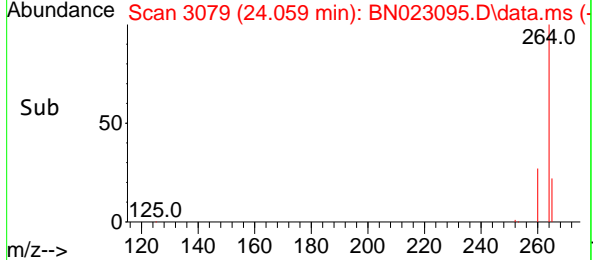
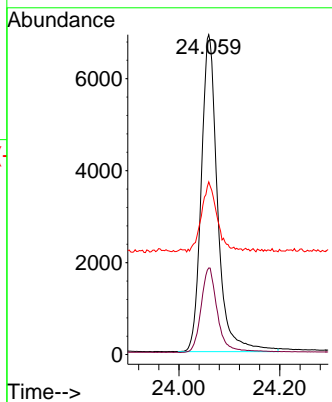
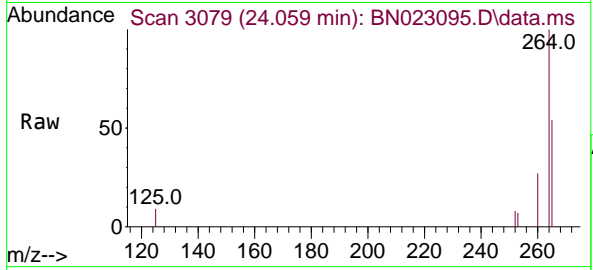




#35  
 Perylene-d12  
 Concen: 0.400 ng  
 RT: 24.059 min Scan# 3079  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

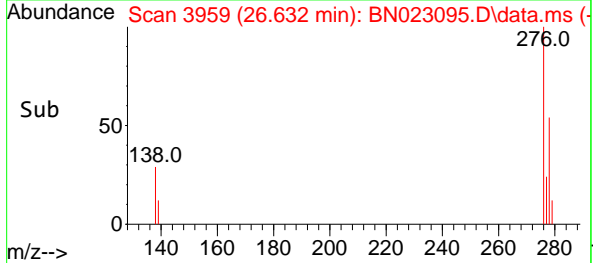
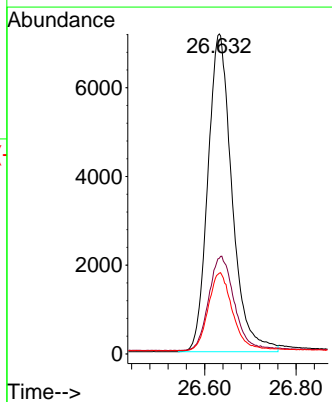
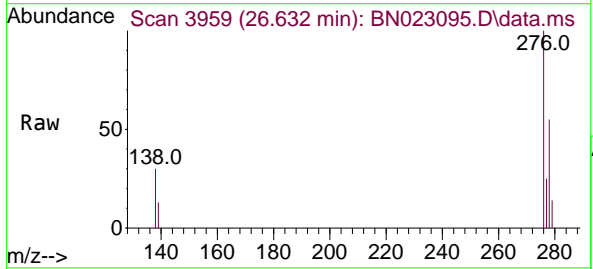
Instrument : BNA\_N  
 ClientSampleId : SSTDICCC0.4

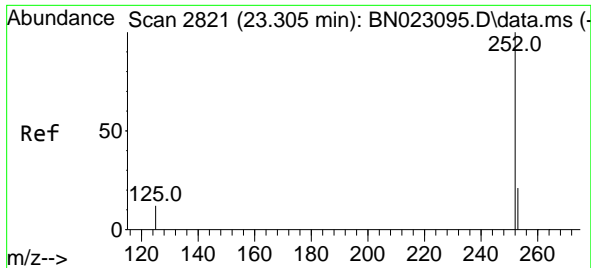
Tgt Ion	Resp	Lower	Upper
264	100		
260	27.1	21.7	32.5
265	54.0	43.2	64.8



#36  
 Indeno(1,2,3-cd)pyrene  
 Concen: 0.319 ng  
 RT: 26.632 min Scan# 3959  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion	Resp	Lower	Upper
276	100		
138	31.4	25.0	37.6
277	24.8	19.8	29.8



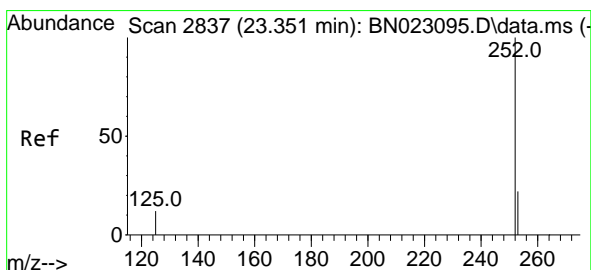
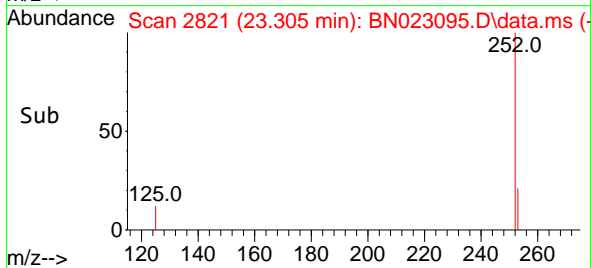
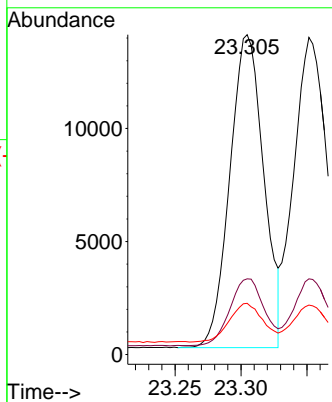
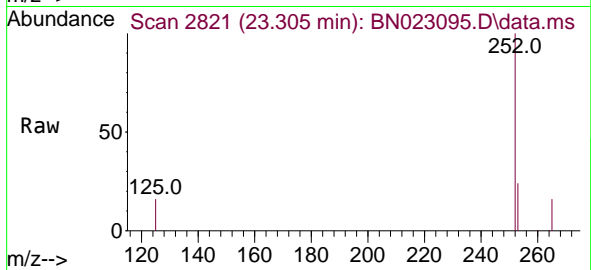


#37  
 Benzo(b)fluoranthene  
 Concen: 0.349 ng  
 RT: 23.305 min Scan# 2821  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Instrument : BNA\_N  
 ClientSampleId : SSTDICCC0.4

Tgt Ion:252 Resp: 24739

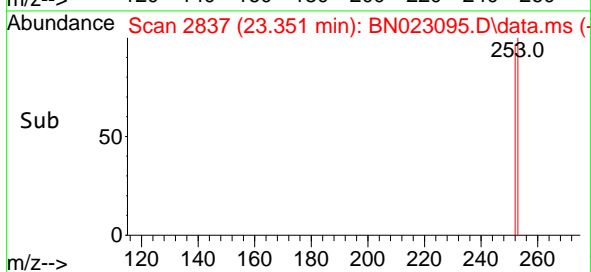
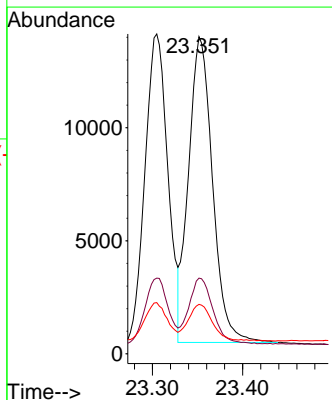
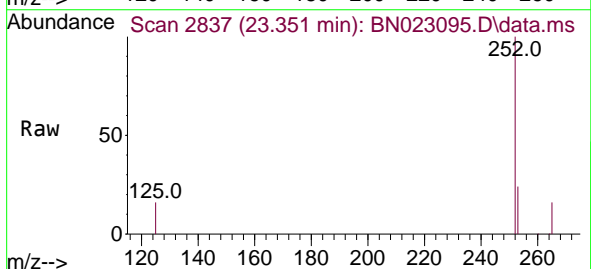
Ion	Ratio	Lower	Upper
252	100		
253	23.7	19.0	28.4
125	16.0	12.8	19.2

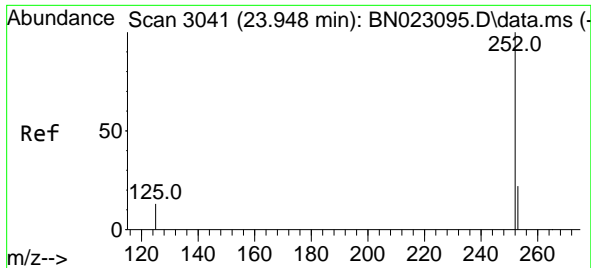


#38  
 Benzo(k)fluoranthene  
 Concen: 0.344 ng  
 RT: 23.351 min Scan# 2837  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion:252 Resp: 24998

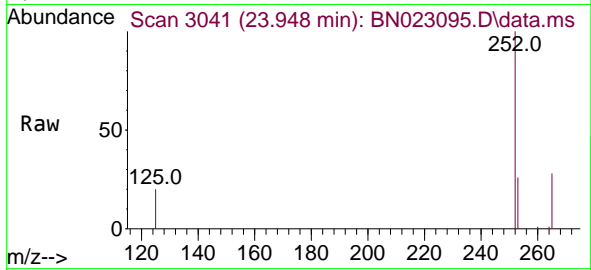
Ion	Ratio	Lower	Upper
252	100		
253	23.9	19.1	28.7
125	15.6	12.5	18.7





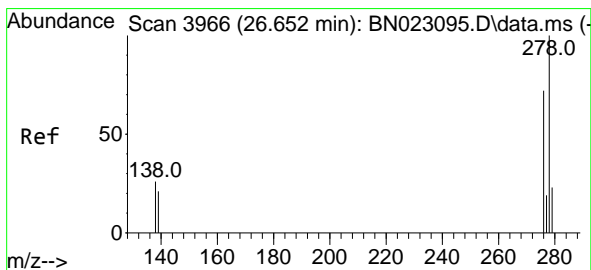
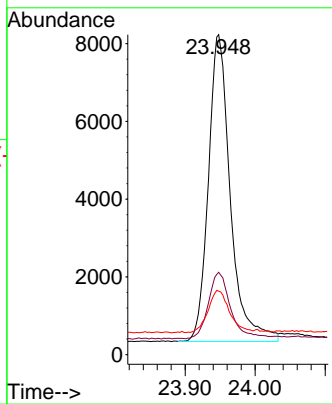
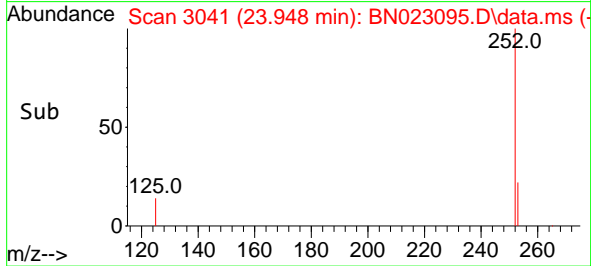
#39  
 Benzo(a)pyrene  
 Concen: 0.300 ng  
 RT: 23.948 min Scan# 3041  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Instrument : BNA\_N  
 ClientSampleId : SSTDICCC0.4



Tgt Ion: 252 Resp: 17239

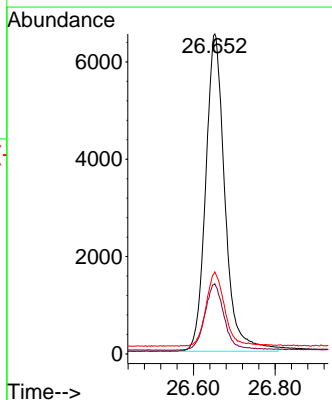
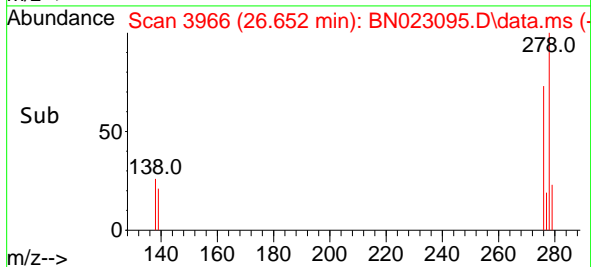
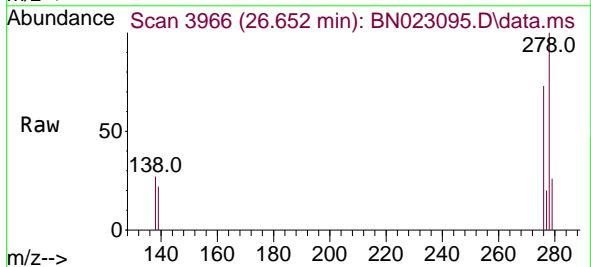
Ion	Ratio	Lower	Upper
252	100		
253	25.7	20.6	30.8
125	19.8	15.8	23.8

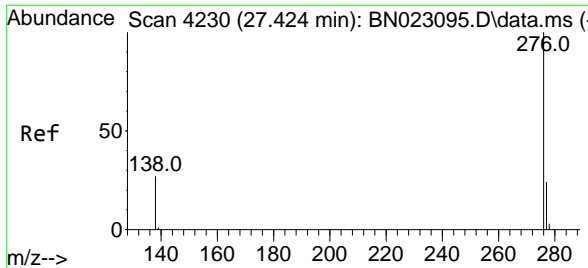


#40  
 Dibenzo(a,h)anthracene  
 Concen: 0.326 ng  
 RT: 26.652 min Scan# 3966  
 Delta R.T. 0.000 min  
 Lab File: BN023095.D  
 Acq: 08 Dec 2022 15:13

Tgt Ion: 278 Resp: 21269

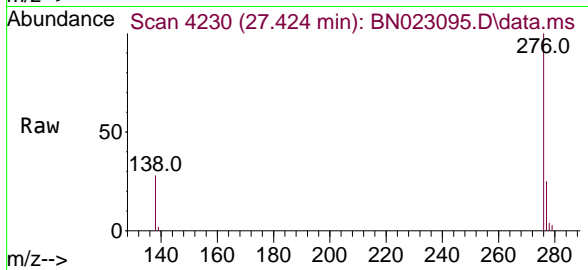
Ion	Ratio	Lower	Upper
278	100		
139	21.9	17.5	26.3
279	25.6	20.5	30.7



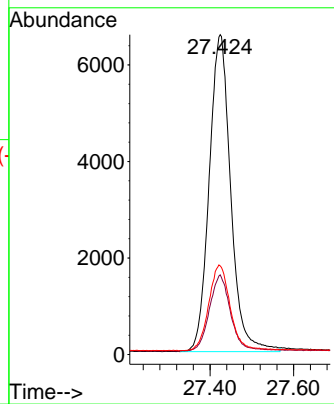
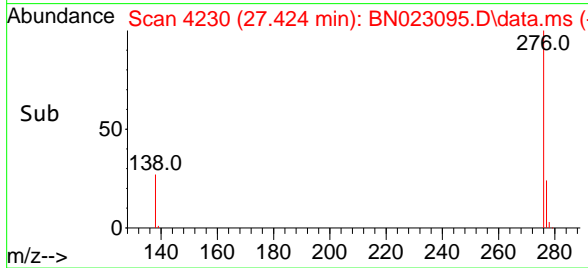


#41  
Benzo(g,h,i)perylene  
Concen: 0.351 ng  
RT: 27.424 min Scan# 41  
Delta R.T. 0.000 min  
Lab File: BN023095.D  
Acq: 08 Dec 2022 15:13

Instrument : BNA\_N  
ClientSampleId : SSTDICCC0.4



Tgt Ion	Resp	Ion Ratio	Lower	Upper
276	23466	100		
277		24.9	19.9	29.9
138		27.7	22.2	33.2





Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN120822\  
 Data File : BN023096.D  
 Acq On : 08 Dec 2022 15:50  
 Operator : CG/JU  
 Sample : SSTDICC0.8  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.8

Quant Time: Dec 09 07:28:23 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:25:53 2022  
 Response via : Initial Calibration

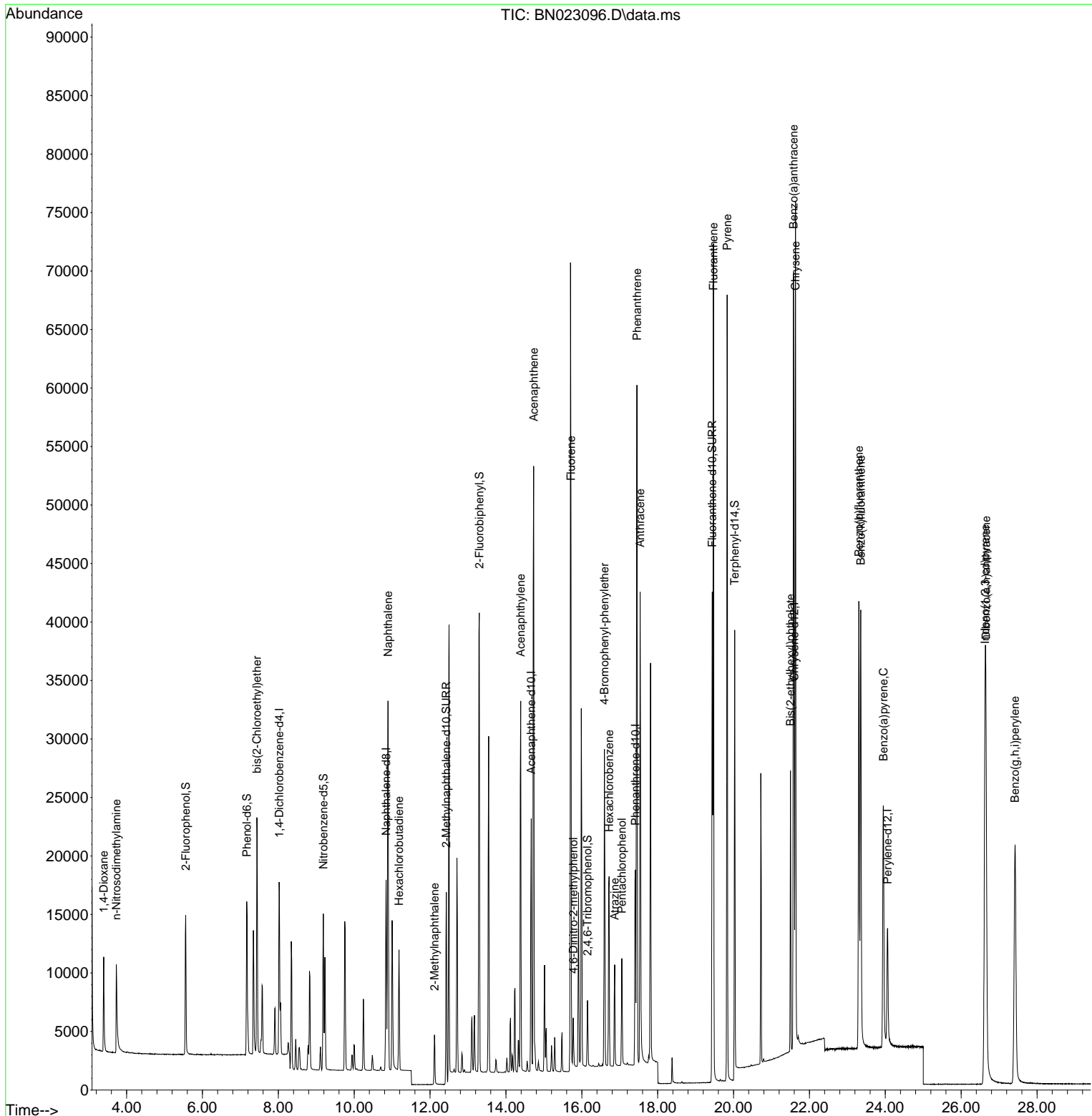
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) 1,4-Dichlorobenzene-d4	8.020	152	7156	0.400 ng	0.00	
7) Naphthalene-d8	10.840	136	20210	0.400 ng	0.00	
13) Acenaphthene-d10	14.666	164	11426	0.400 ng	0.00	
19) Phenanthrene-d10	17.414	188	24706	0.400 ng	0.00	
29) Chrysene-d12	21.598	240	20806	0.400 ng	0.00	
35) Perylene-d12	24.059	264	15181	0.400 ng	0.00	
System Monitoring Compounds						
4) 2-Fluorophenol	5.558	112	9728	0.588 ng	0.00	
5) Phenol-d6	7.168	99	12278	0.590 ng	0.00	
8) Nitrobenzene-d5	9.185	82	10150	0.669 ng	0.00	
11) 2-Methylnaphthalene-d10	12.427	152	26746	0.701 ng	0.00	
14) 2,4,6-Tribromophenol	16.148	330	3033	0.628 ng	0.00	
15) 2-Fluorobiphenyl	13.298	172	35533	0.701 ng	0.00	
27) Fluoranthene-d10	19.439	212	44274	0.654 ng	0.00	
31) Terphenyl-d14	20.031	244	27028	0.684 ng	0.00	
Target Compounds						
2) 1,4-Dioxane	3.398	88	5467	0.616 ng		99
3) n-Nitrosodimethylamine	3.730	42	5353	0.617 ng	#	98
6) bis(2-Chloroethyl)ether	7.435	93	14530	0.632 ng		98
9) Naphthalene	10.893	128	40429	0.674 ng		100
10) Hexachlorobutadiene	11.181	225	7814	0.694 ng	#	100
12) 2-Methylnaphthalene	12.117	142	6224	0.678 ng	#	96
16) Acenaphthylene	14.388	152	34662	0.645 ng		100
17) Acenaphthene	14.730	154	26163	0.669 ng		99
18) Fluorene	15.714	166	29372	0.669 ng		99
20) 4,6-Dinitro-2-methylph...	15.776	198	2377	0.711 ng		91
21) 4-Bromophenyl-phenylether	16.595	248	10088	0.678 ng		95
22) Hexachlorobenzene	16.719	284	13630	0.705 ng		99
23) Atrazine	16.868	200	6823	0.630 ng		99
24) Pentachlorophenol	17.054	266	4149	0.731 ng		99
25) Phenanthrene	17.452	178	56706	0.681 ng		100
26) Anthracene	17.538	178	44125	0.657 ng		100
28) Fluoranthene	19.469	202	61820	0.680 ng		99
30) Pyrene	19.831	202	59340	0.684 ng		100
32) Benzo(a)anthracene	21.580	228	51136	0.666 ng		100
33) Chrysene	21.634	228	59672	0.695 ng		100
34) Bis(2-ethylhexyl)phtha...	21.500	149	20192	0.608 ng		99
36) Indeno(1,2,3-cd)pyrene	26.629	276	53216	0.660 ng		99
37) Benzo(b)fluoranthene	23.302	252	50131	0.722 ng		96
38) Benzo(k)fluoranthene	23.354	252	50862	0.715 ng		96
39) Benzo(a)pyrene	23.948	252	34953	0.622 ng		95
40) Dibenzo(a,h)anthracene	26.652	278	43165	0.676 ng		99
41) Benzo(g,h,i)perylene	27.418	276	46710	0.715 ng		99

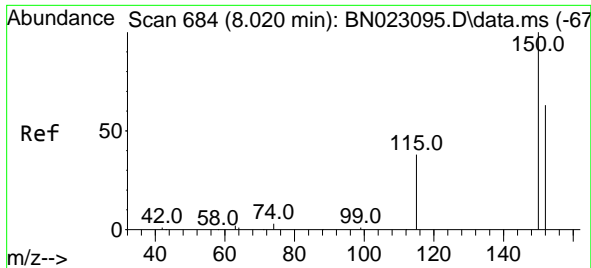
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN120822\  
 Data File : BN023096.D  
 Acq On : 08 Dec 2022 15:50  
 Operator : CG/JU  
 Sample : SSTDICC0.8  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.8

Quant Time: Dec 09 07:28:23 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:25:53 2022  
 Response via : Initial Calibration



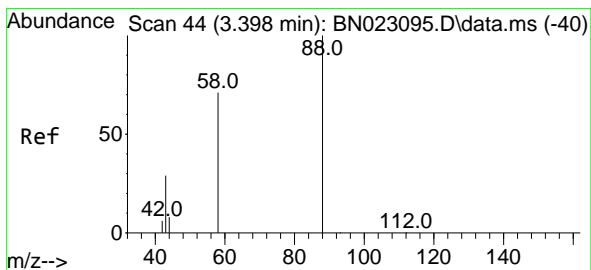
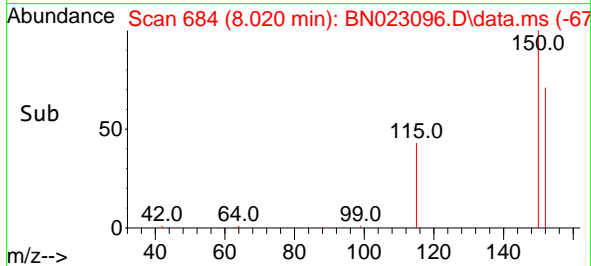
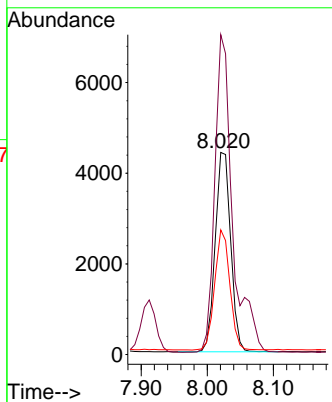
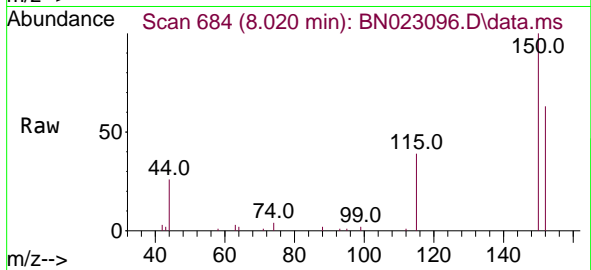


#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 8.020 min Scan# 684  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.8

Tgt Ion:152 Resp: 7156

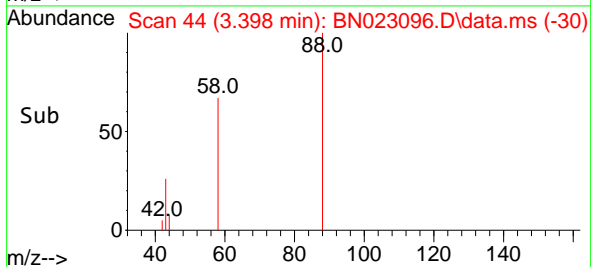
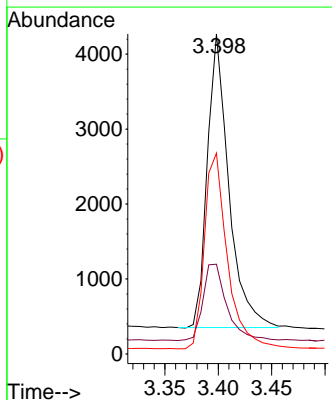
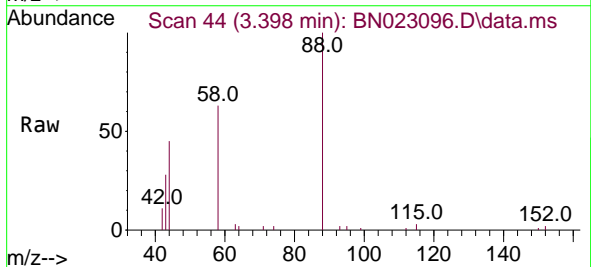
Ion	Ratio	Lower	Upper
152	100		
150	158.3	125.6	188.4
115	61.7	49.0	73.4

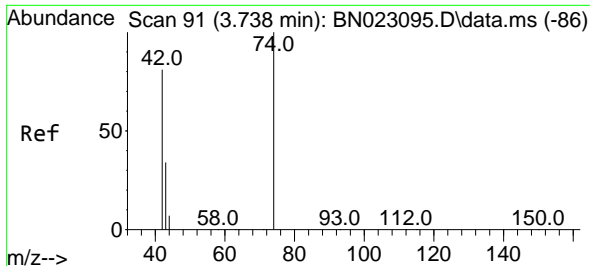


#2  
 1,4-Dioxane  
 Concen: 0.616 ng  
 RT: 3.398 min Scan# 44  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Tgt Ion: 88 Resp: 5467

Ion	Ratio	Lower	Upper
88	100		
43	28.9	23.3	34.9
58	71.5	58.0	87.0

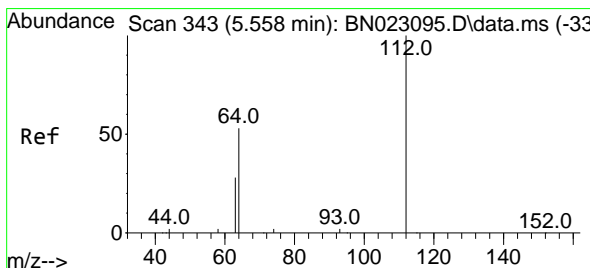
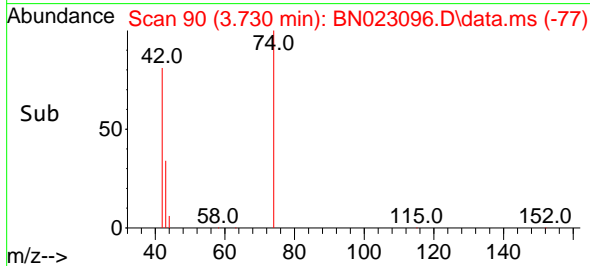
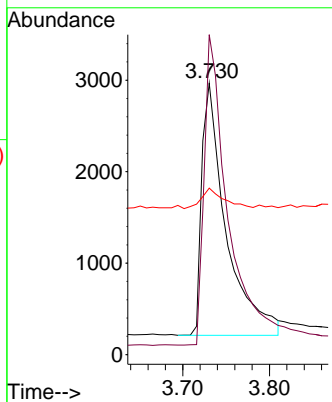
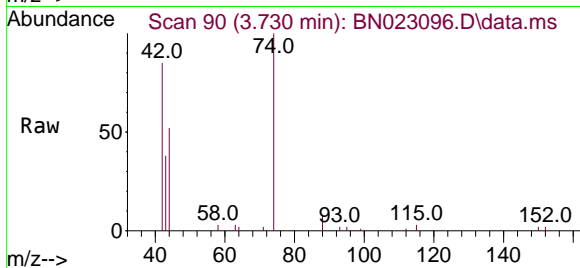




#3  
 n-Nitrosodimethylamine  
 Concen: 0.617 ng  
 RT: 3.730 min Scan# 90  
 Delta R.T. -0.007 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

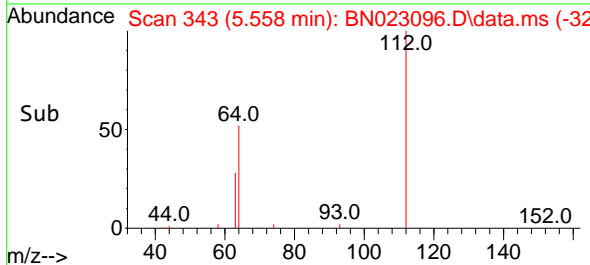
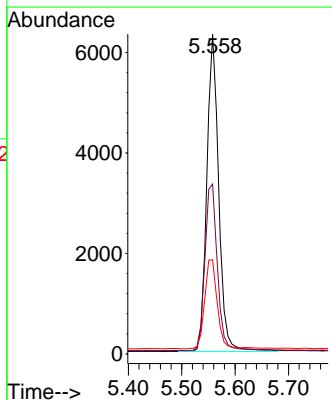
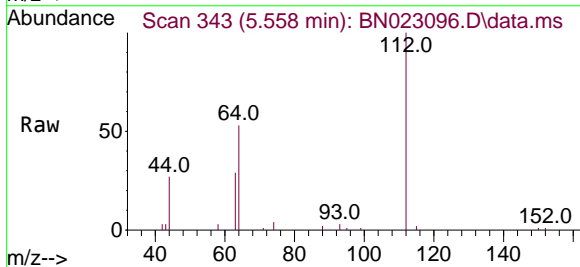
Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.8

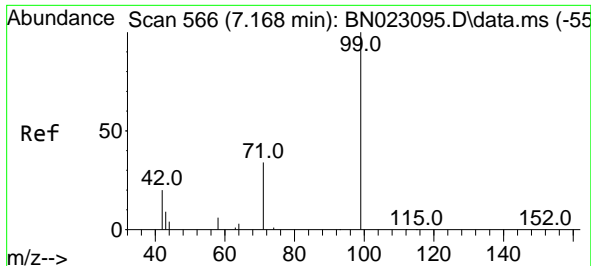
Tgt Ion	Resp	Lower	Upper
42	5353		
42	100		
74	121.4	95.8	143.6
44	7.5	8.4	12.6



#4  
 2-Fluorophenol  
 Concen: 0.588 ng  
 RT: 5.558 min Scan# 343  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Tgt Ion	Resp	Lower	Upper
112	9728		
112	100		
64	55.5	44.4	66.6
63	29.7	23.7	35.5

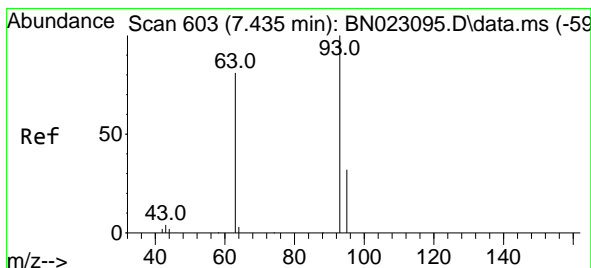
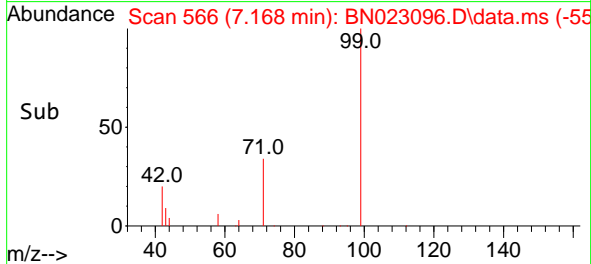
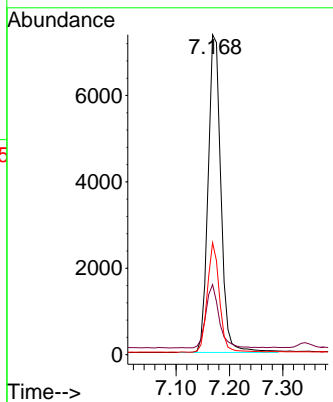
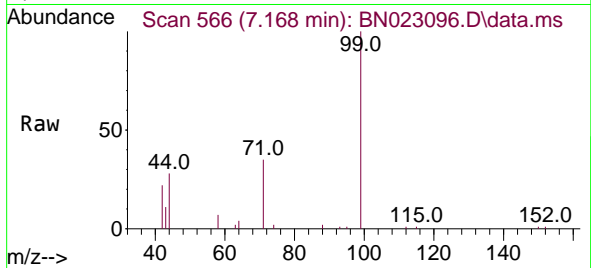




#5  
 Phenol-d6  
 Concen: 0.590 ng  
 RT: 7.168 min Scan# 566  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

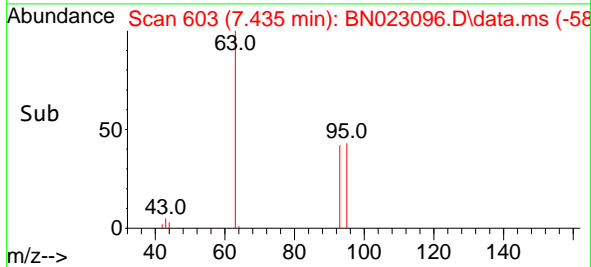
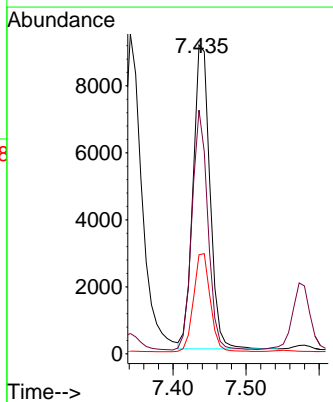
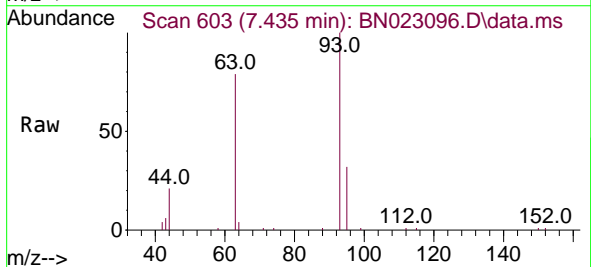
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.8

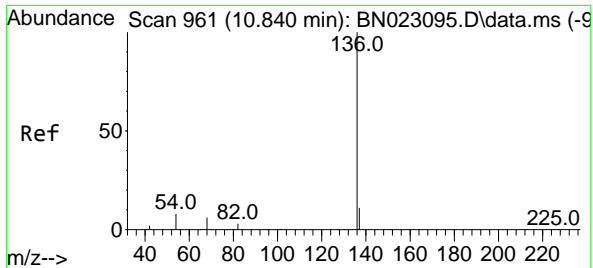
Tgt Ion	Resp	Ion Ratio	Lower	Upper
99	12278	100		
42	20.5	16.3	24.5	
71	32.8	26.5	39.7	



#6  
 bis(2-Chloroethyl)ether  
 Concen: 0.632 ng  
 RT: 7.435 min Scan# 603  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Tgt Ion	Resp	Ion Ratio	Lower	Upper
93	14530	100		
63	74.5	58.1	87.1	
95	32.2	25.2	37.8	



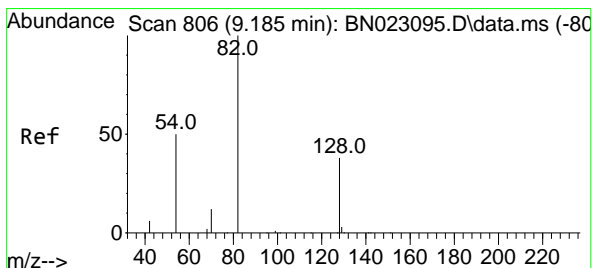
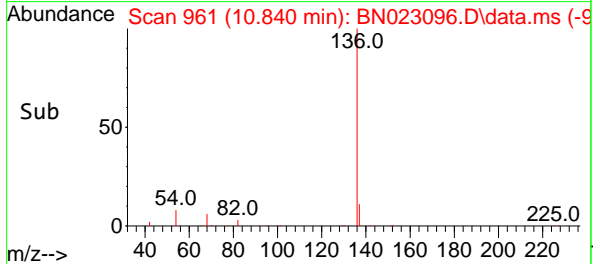
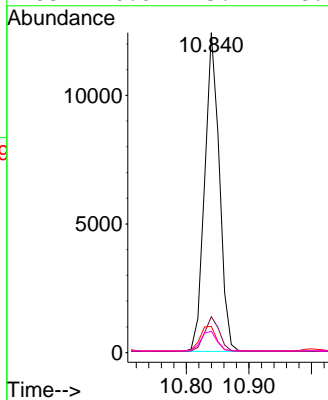
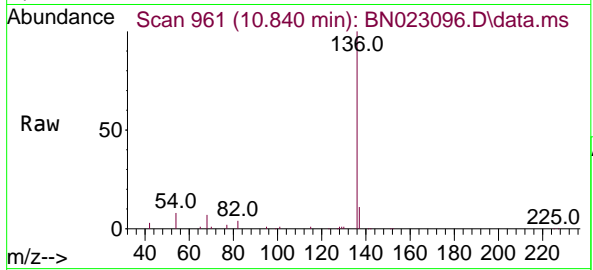


#7  
 Naphthalene-d8  
 Concen: 0.400 ng  
 RT: 10.840 min Scan# 961  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.8

Tgt Ion:136 Resp: 20210

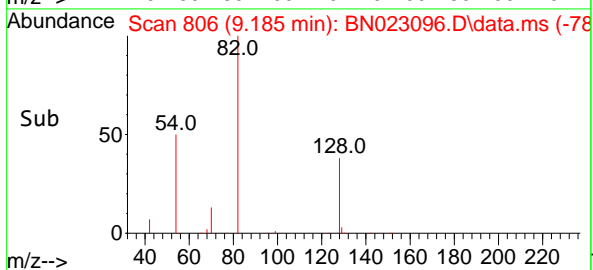
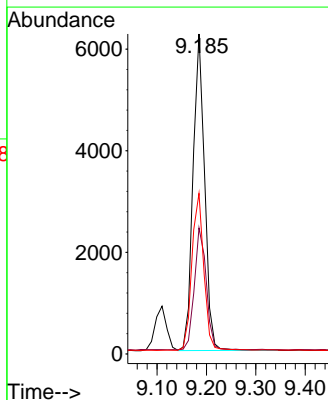
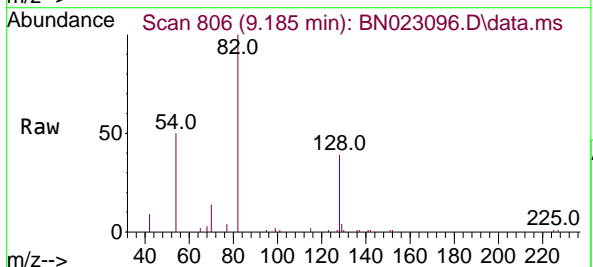
Ion	Ratio	Lower	Upper
136	100		
137	11.2	9.0	13.4
54	8.2	6.5	9.7
68	6.6	5.4	8.2

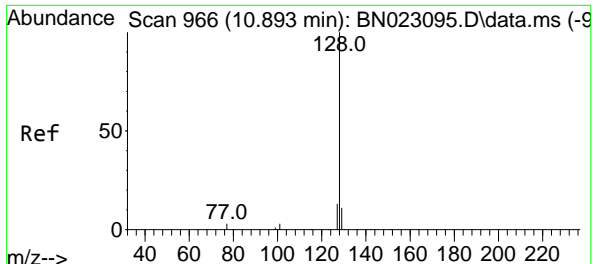


#8  
 Nitrobenzene-d5  
 Concen: 0.669 ng  
 RT: 9.185 min Scan# 806  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Tgt Ion: 82 Resp: 10150

Ion	Ratio	Lower	Upper
82	100		
128	39.4	31.4	47.2
54	50.2	41.0	61.4



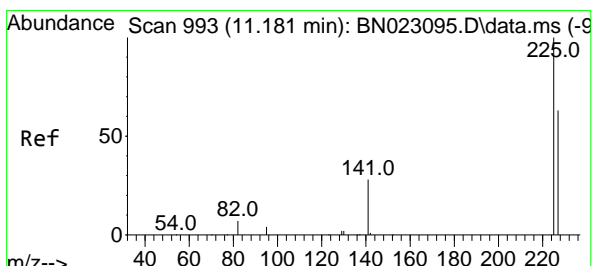
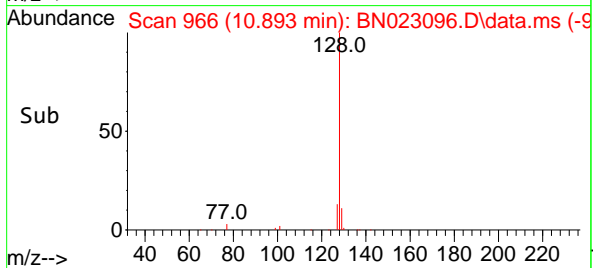
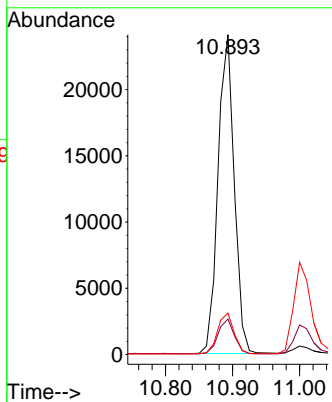
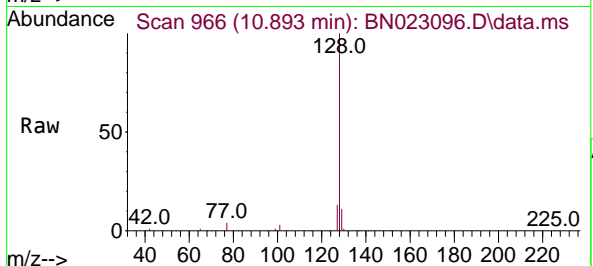


#9  
**Naphthalene**  
 Concen: 0.674 ng  
 RT: 10.893 min Scan# 900  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 SSTDICC0.8

Tgt Ion:128 Resp: 40429

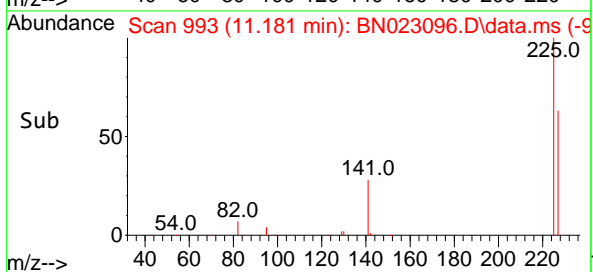
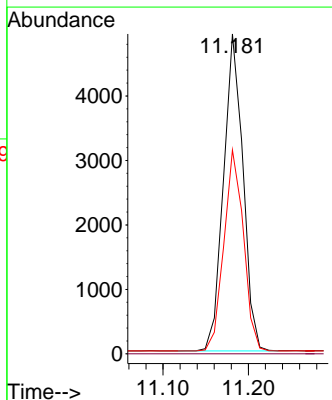
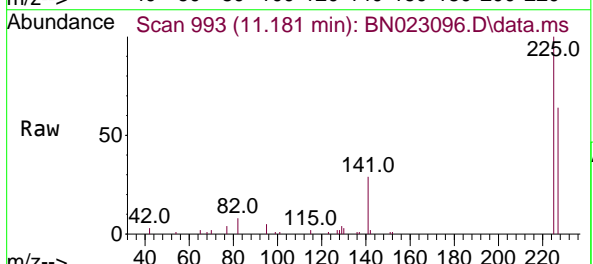
Ion	Ratio	Lower	Upper
128	100		
129	11.1	9.0	13.6
127	13.0	10.5	15.7

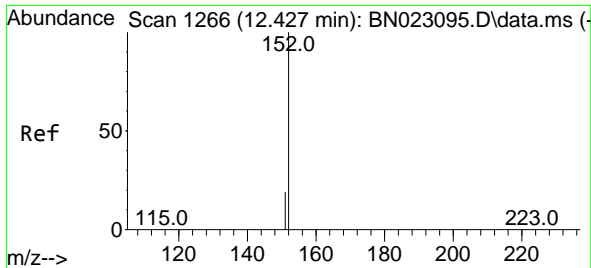


#10  
**Hexachlorobutadiene**  
 Concen: 0.694 ng  
 RT: 11.181 min Scan# 993  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Tgt Ion:225 Resp: 7814

Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	63.7	51.1	76.7

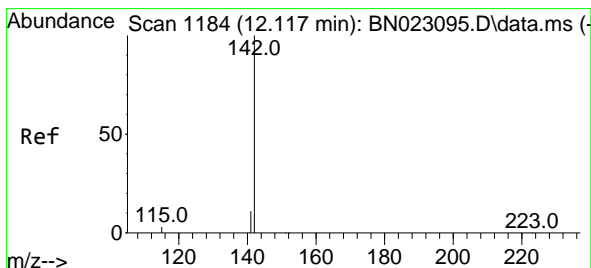
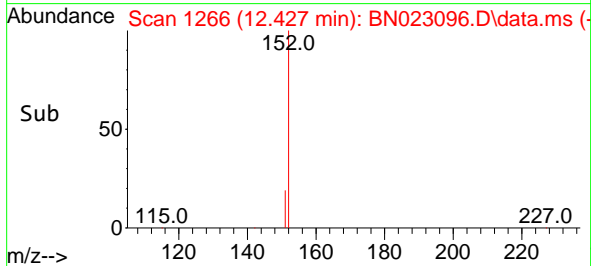
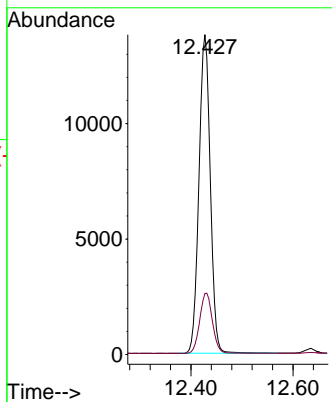
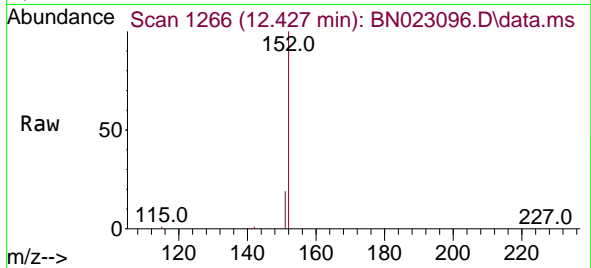




#11  
 2-Methylnaphthalene-d10  
 Concen: 0.701 ng  
 RT: 12.427 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

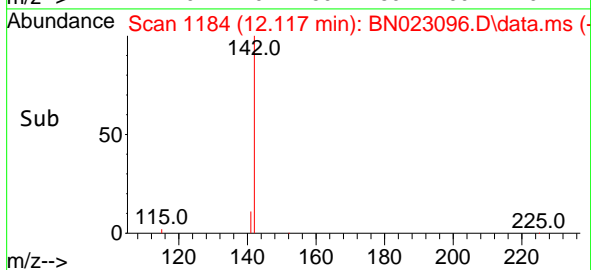
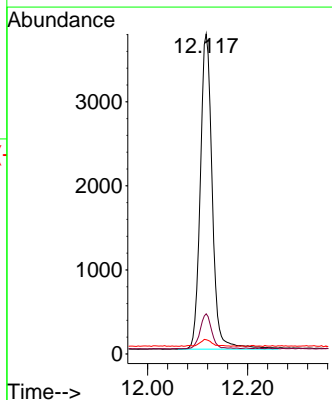
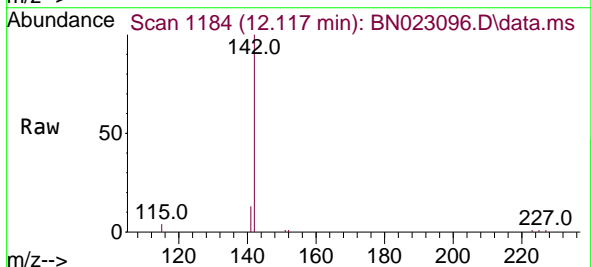
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.8

Tgt Ion:152 Resp: 26746  
 Ion Ratio Lower Upper  
 152 100  
 151 17.6 15.1 22.7

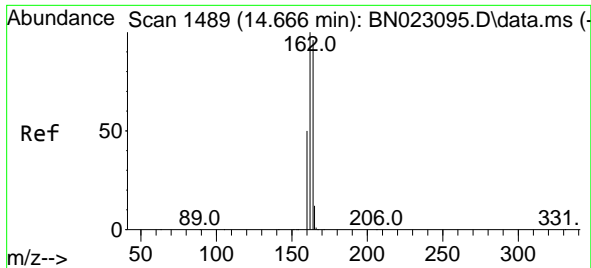


#12  
 2-Methylnaphthalene  
 Concen: 0.678 ng  
 RT: 12.117 min Scan# 1184  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Tgt Ion:142 Resp: 6224  
 Ion Ratio Lower Upper  
 142 100  
 141 12.5 10.9 16.3  
 115 4.4 5.7 8.5#



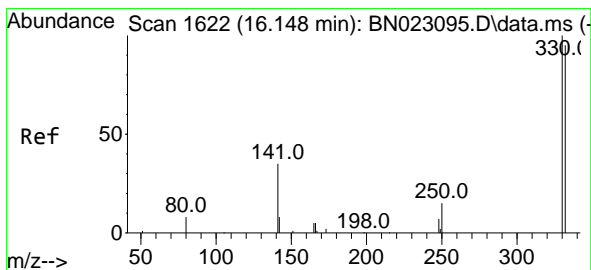
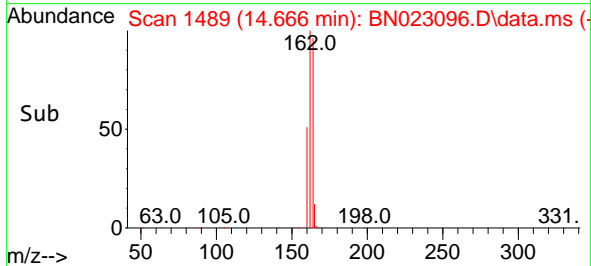
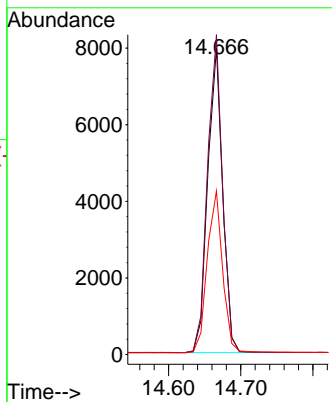
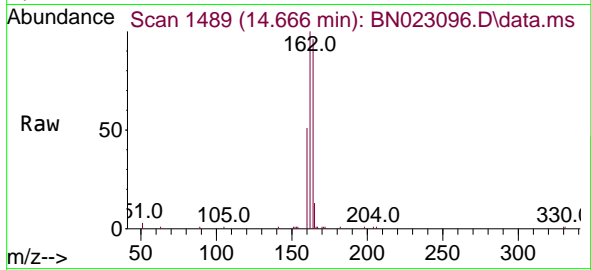




#13  
 Acenaphthene-d10  
 Concen: 0.400 ng  
 RT: 14.666 min Scan# 1489  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

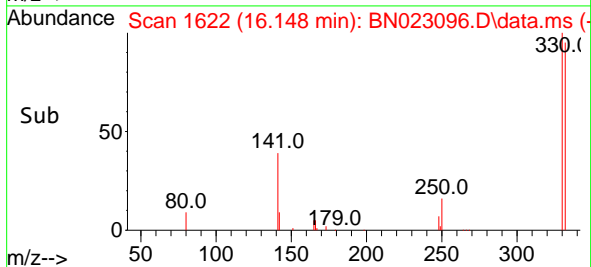
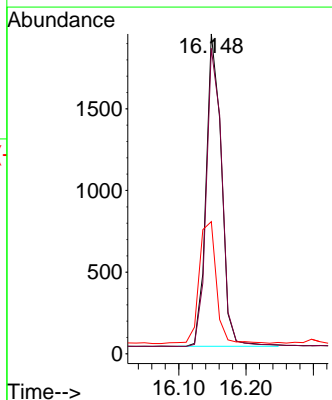
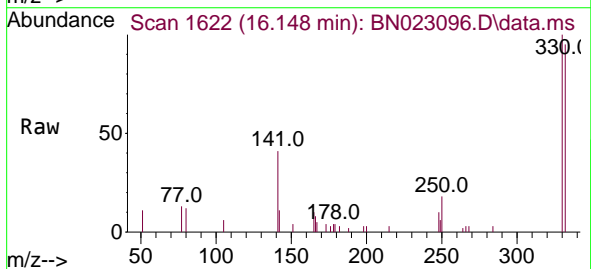
Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.8

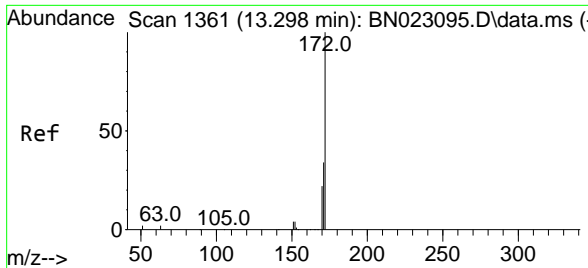
Tgt Ion	Resp	Lower	Upper
164	11426		
162	104.3	83.4	125.0
160	53.4	41.8	62.8



#14  
 2,4,6-Tribromophenol  
 Concen: 0.628 ng  
 RT: 16.148 min Scan# 1622  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Tgt Ion	Resp	Lower	Upper
330	3033		
332	97.2	77.3	115.9
141	43.5	33.5	50.3

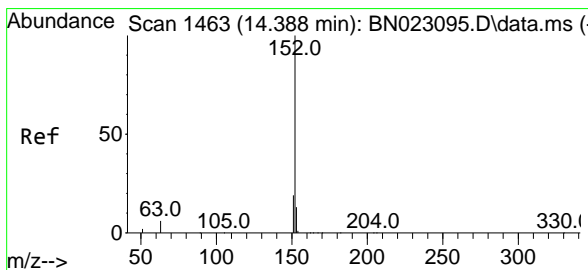
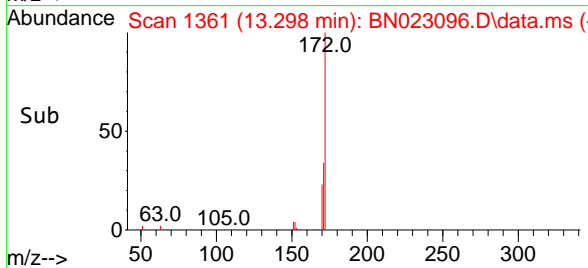
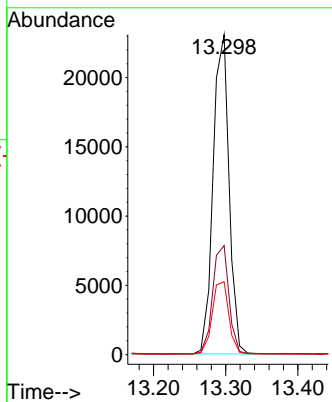
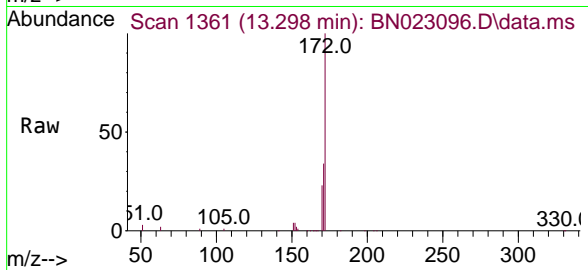




#15  
 2-Fluorobiphenyl  
 Concen: 0.701 ng  
 RT: 13.298 min Scan# 1361  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

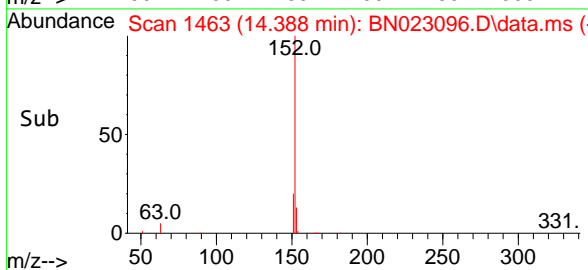
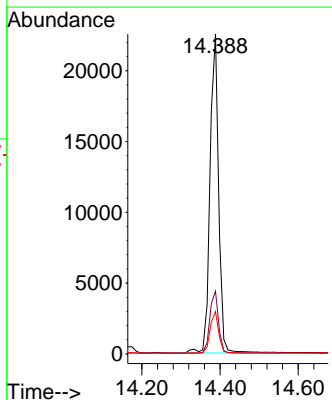
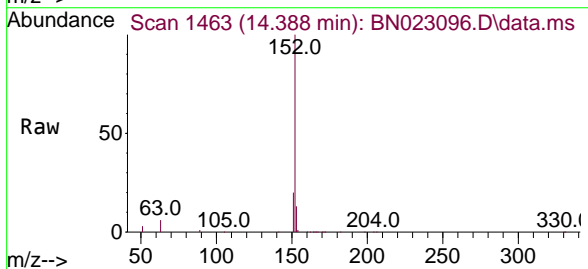
Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.8

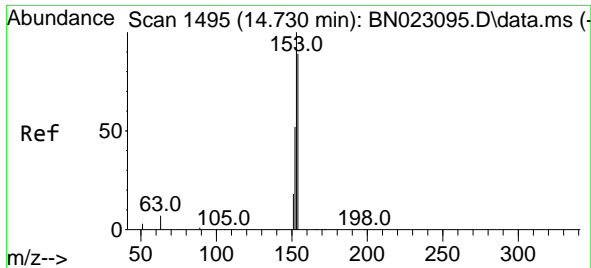
Tgt Ion	Resp	Lower	Upper
172	35533	100	100
171	34.1	27.4	41.0
170	22.8	17.9	26.9



#16  
 Acenaphthylene  
 Concen: 0.645 ng  
 RT: 14.388 min Scan# 1463  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Tgt Ion	Resp	Lower	Upper
152	34662	100	100
151	19.5	15.4	23.2
153	12.9	10.3	15.5

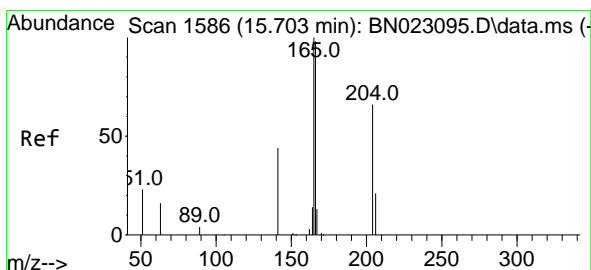
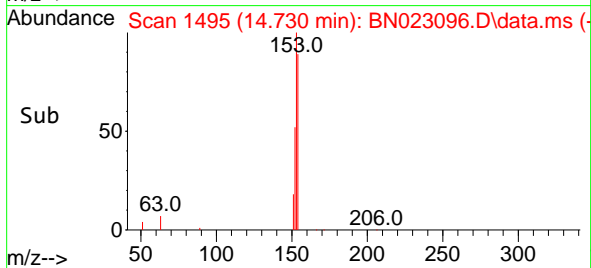
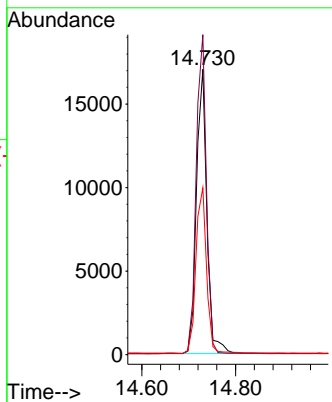
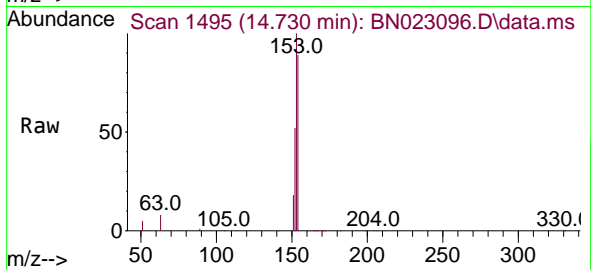




#17  
 Acenaphthene  
 Concen: 0.669 ng  
 RT: 14.730 min Scan# 1495  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

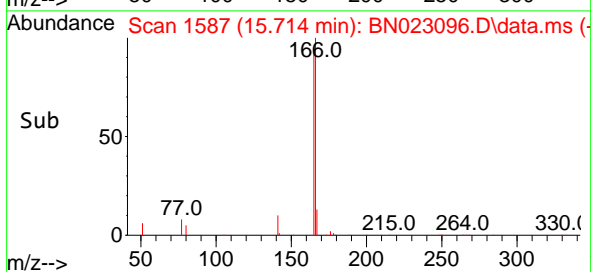
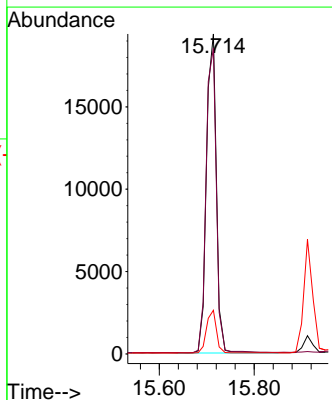
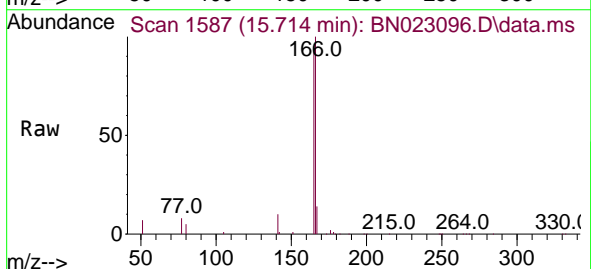
Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.8

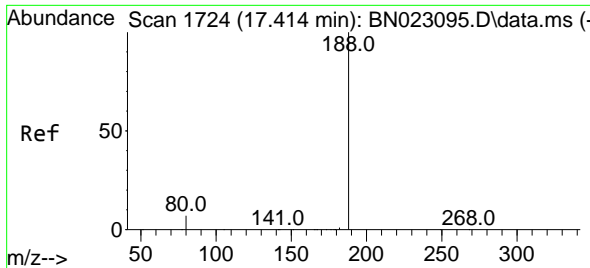
Tgt Ion	Resp	Lower	Upper
154	26163		
153	109.9	88.6	132.8
152	59.4	48.1	72.1



#18  
 Fluorene  
 Concen: 0.669 ng  
 RT: 15.714 min Scan# 1587  
 Delta R.T. 0.011 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Tgt Ion	Resp	Lower	Upper
166	29372		
165	99.0	79.8	119.6
167	13.3	10.6	16.0

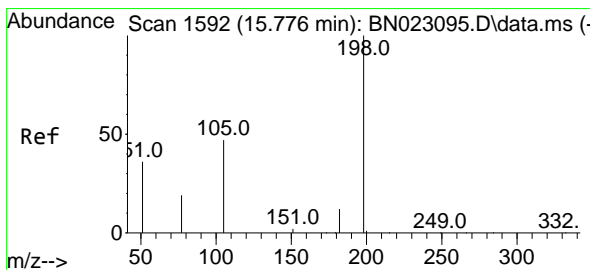
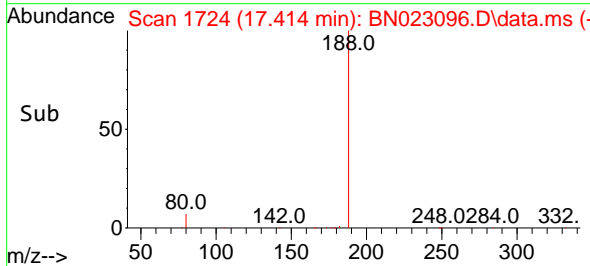
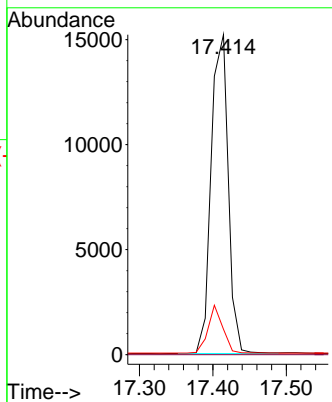
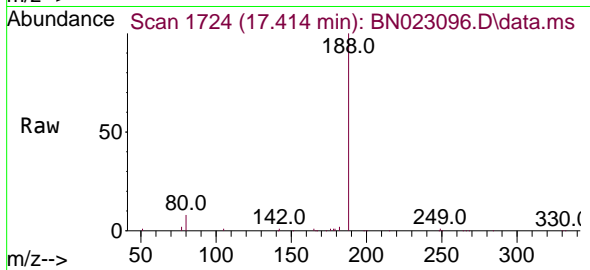




#19  
 Phenanthrene-d10  
 Concen: 0.400 ng  
 RT: 17.414 min Scan# 1724  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

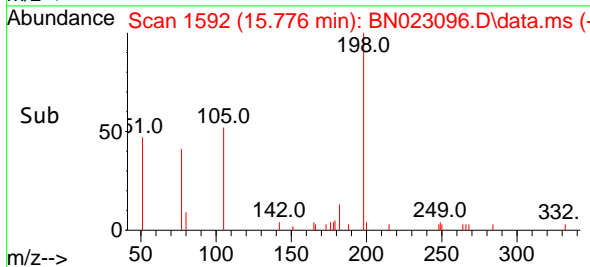
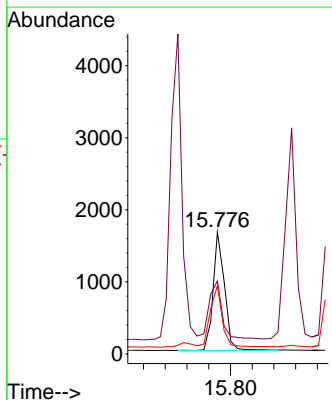
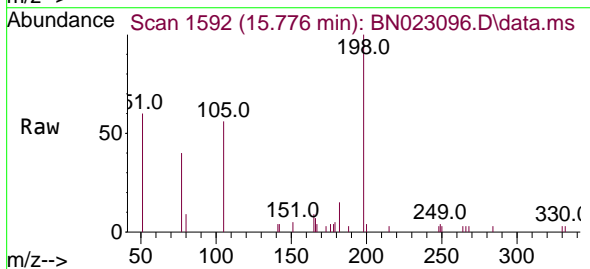
Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.8

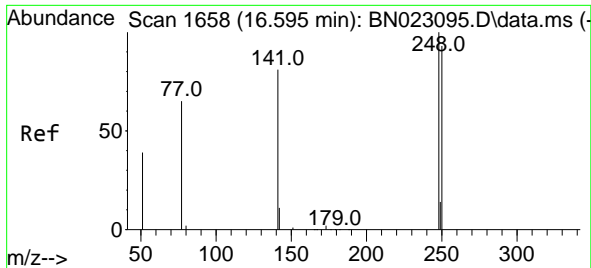
Tgt Ion	Resp	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	7.9	6.1	9.1



#20  
 4,6-Dinitro-2-methylphenol  
 Concen: 0.711 ng  
 RT: 15.776 min Scan# 1592  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Tgt Ion	Resp	Lower	Upper
198	100		
51	60.0	57.0	85.4
105	56.2	47.2	70.8



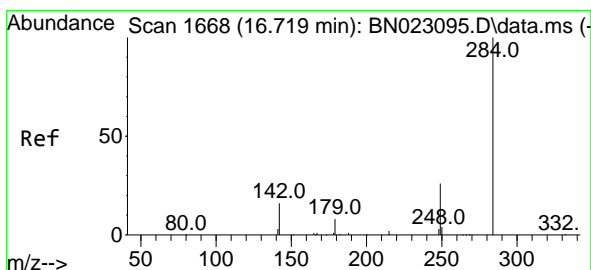
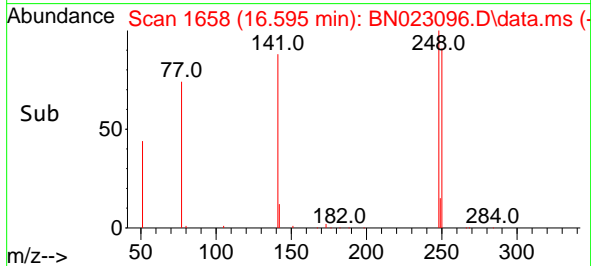
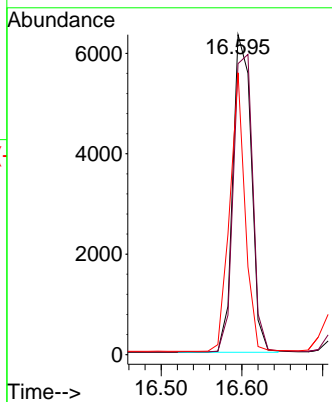
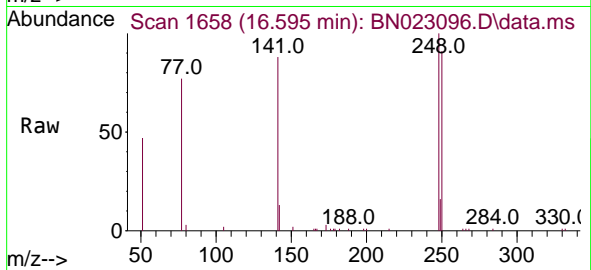


#21  
 4-Bromophenyl-phenylether  
 Concen: 0.678 ng  
 RT: 16.595 min Scan# 1658  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.8

Tgt Ion:248 Resp: 10088

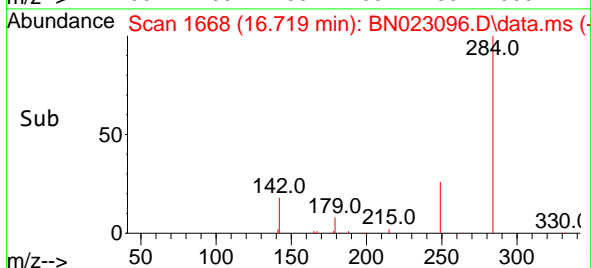
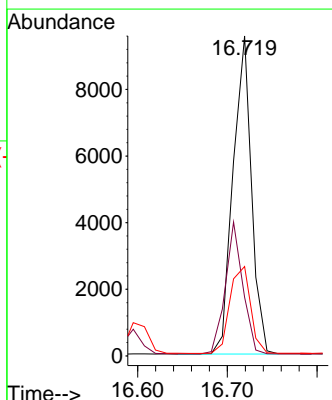
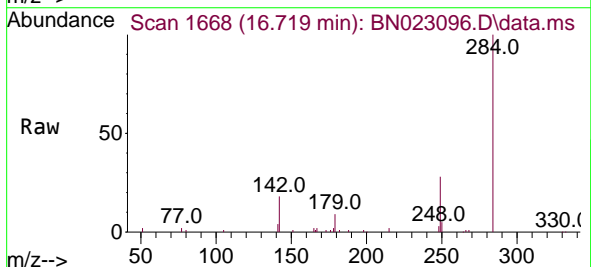
Ion	Ratio	Lower	Upper
248	100		
250	90.9	74.3	111.5
141	88.1	65.0	97.6

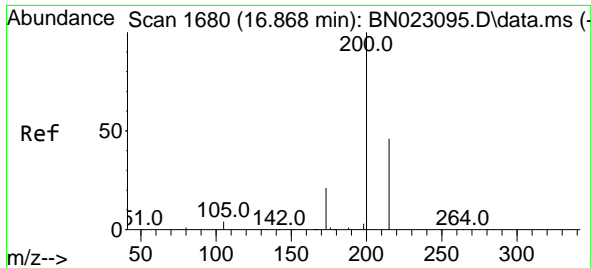


#22  
 Hexachlorobenzene  
 Concen: 0.705 ng  
 RT: 16.719 min Scan# 1668  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Tgt Ion:284 Resp: 13630

Ion	Ratio	Lower	Upper
284	100		
142	39.3	31.0	46.4
249	30.6	24.4	36.6



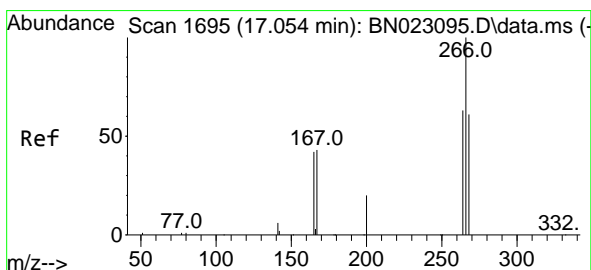
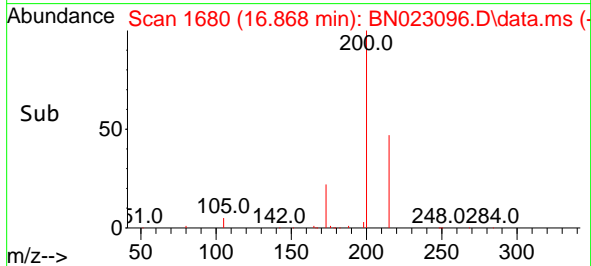
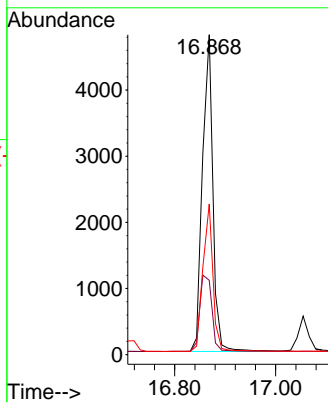
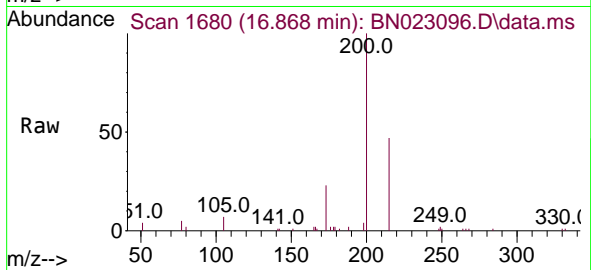


#23  
 Atrazine  
 Concen: 0.630 ng  
 RT: 16.868 min Scan# 1680  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.8

Tgt Ion:200 Resp: 6823

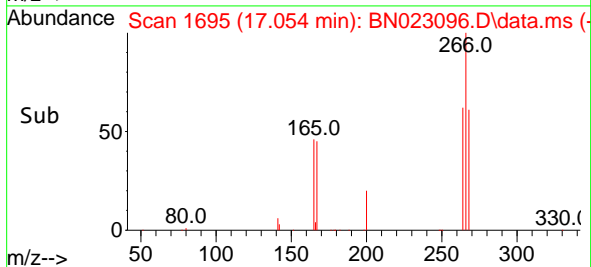
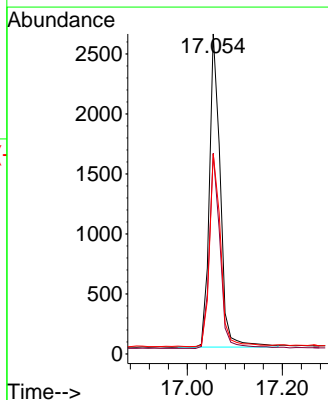
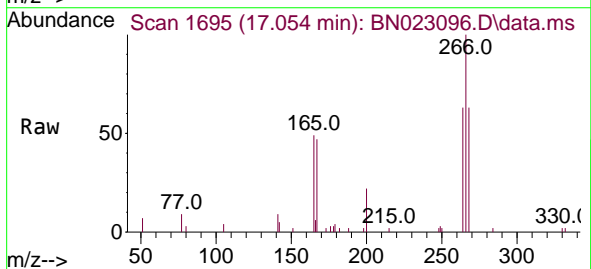
Ion	Ratio	Lower	Upper
200	100		
173	23.2	18.2	27.4
215	47.1	38.0	57.0

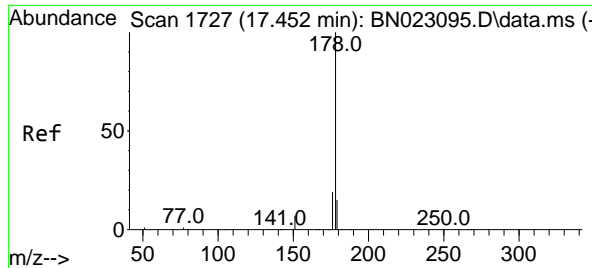


#24  
 Pentachlorophenol  
 Concen: 0.731 ng  
 RT: 17.054 min Scan# 1695  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Tgt Ion:266 Resp: 4149

Ion	Ratio	Lower	Upper
266	100		
264	61.8	50.1	75.1
268	62.8	49.7	74.5

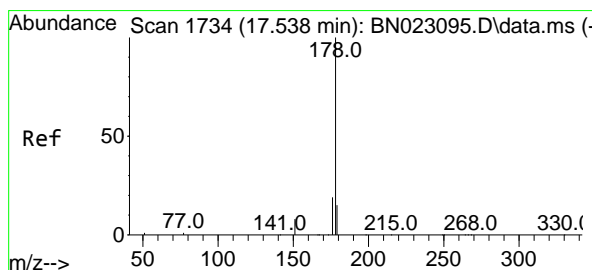
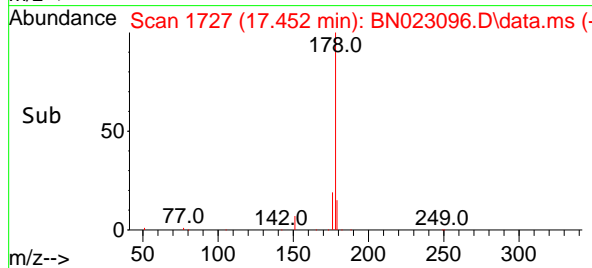
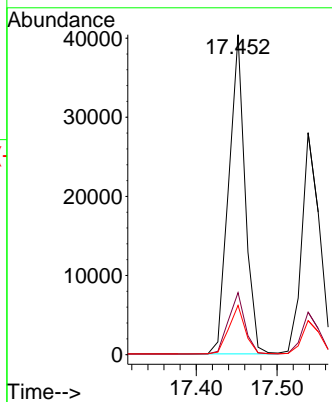
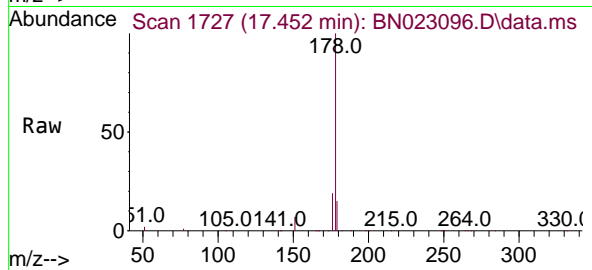




#25  
 Phenanthrene  
 Concen: 0.681 ng  
 RT: 17.452 min Scan# 1727  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

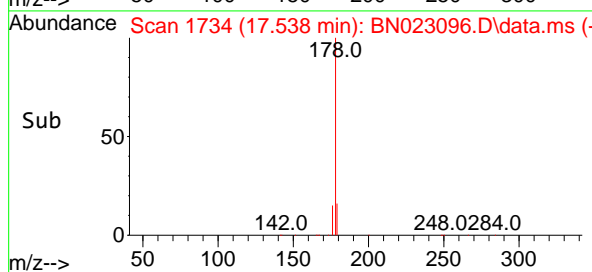
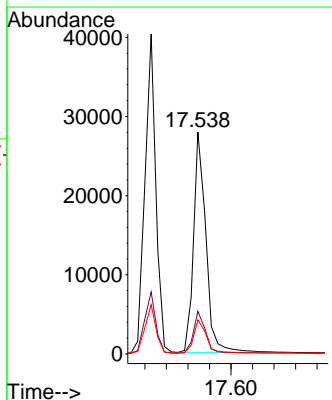
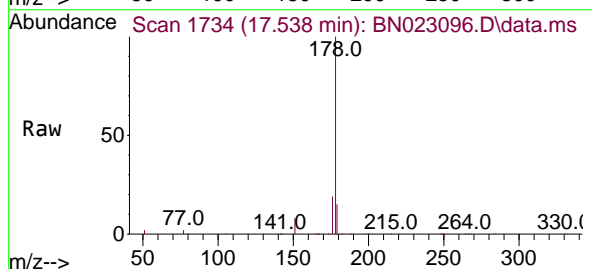
Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.8

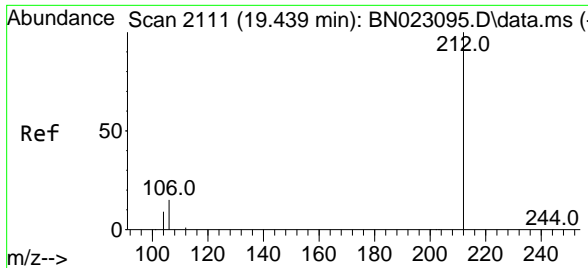
Tgt Ion	Resp	Lower	Upper
178	100		
176	19.5	15.4	23.2
179	15.2	12.2	18.2



#26  
 Anthracene  
 Concen: 0.657 ng  
 RT: 17.538 min Scan# 1734  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Tgt Ion	Resp	Lower	Upper
178	100		
176	18.7	15.1	22.7
179	15.2	12.2	18.4



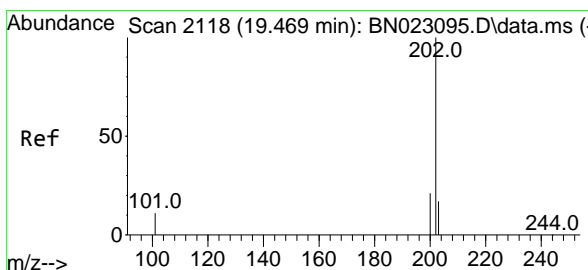
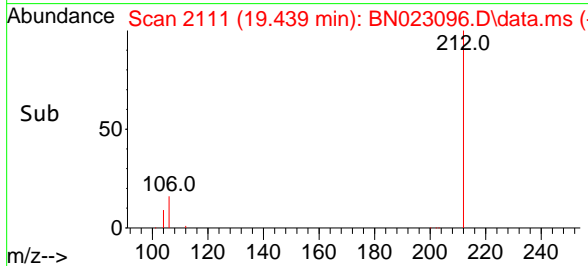
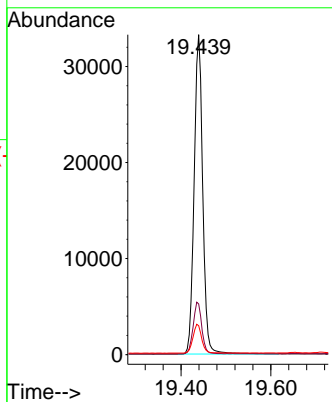
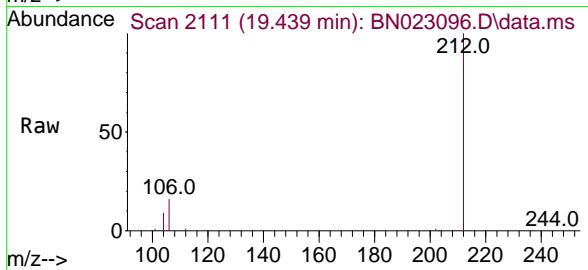


#27  
 Fluoranthene-d10  
 Concen: 0.654 ng  
 RT: 19.439 min Scan# 2111  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Instrument : BNA\_N  
 Client SampleId : SSTDICC0.8

Tgt Ion:212 Resp: 44274

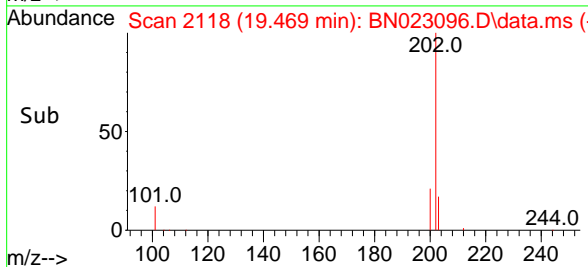
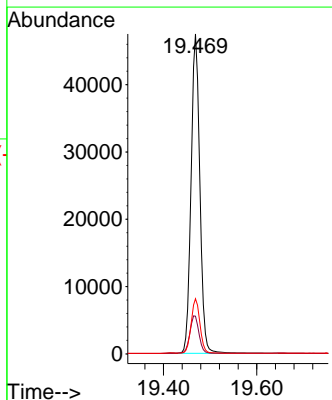
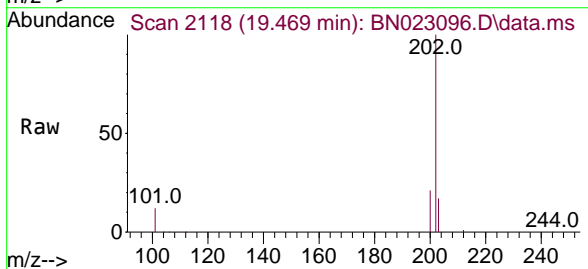
Ion	Ratio	Lower	Upper
212	100		
106	16.2	13.0	19.4
104	9.2	7.5	11.3



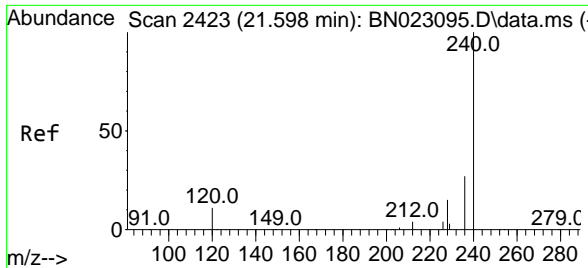
#28  
 Fluoranthene  
 Concen: 0.680 ng  
 RT: 19.469 min Scan# 2118  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Tgt Ion:202 Resp: 61820

Ion	Ratio	Lower	Upper
202	100		
101	12.4	9.7	14.5
203	17.0	13.8	20.6

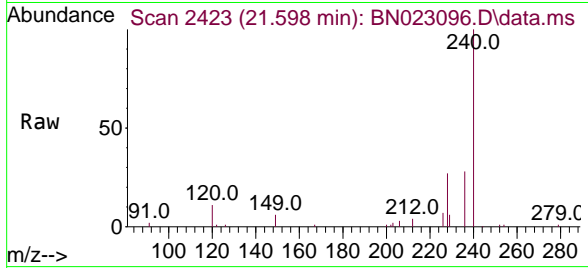




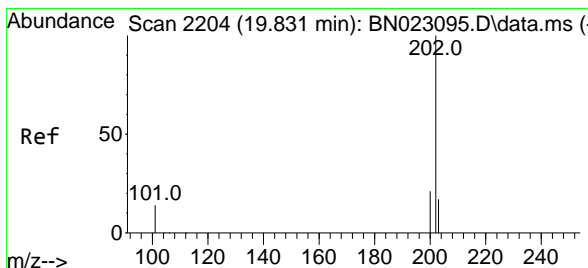
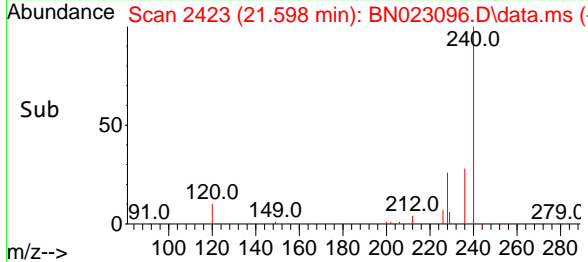
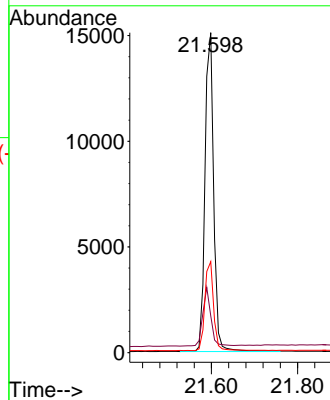


#29  
 Chrysene-d12  
 Concen: 0.400 ng  
 RT: 21.598 min Scan# 24  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.8

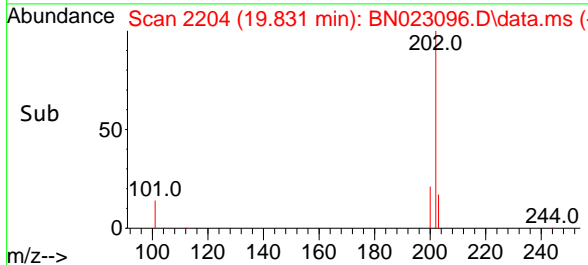
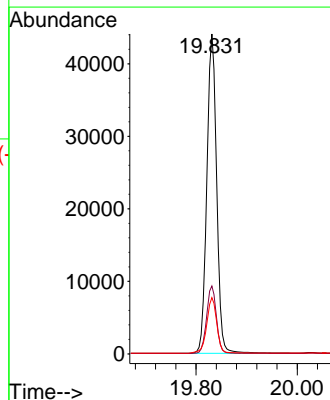
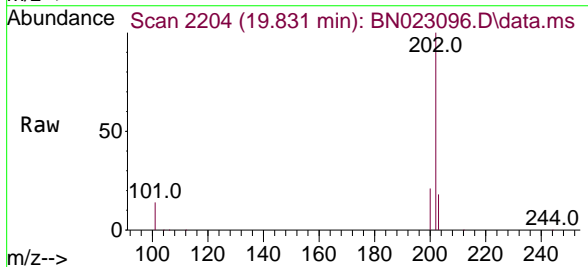


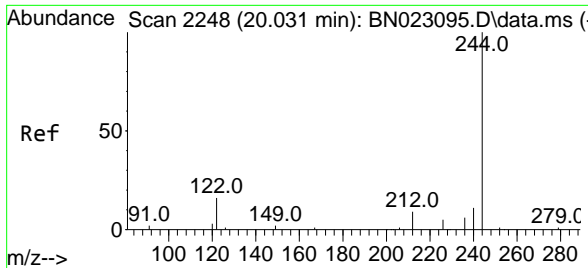
Tgt Ion:240 Resp: 20806  
 Ion Ratio Lower Upper  
 240 100  
 120 11.5 10.1 15.1  
 236 28.4 22.2 33.4



#30  
 Pyrene  
 Concen: 0.684 ng  
 RT: 19.831 min Scan# 2204  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

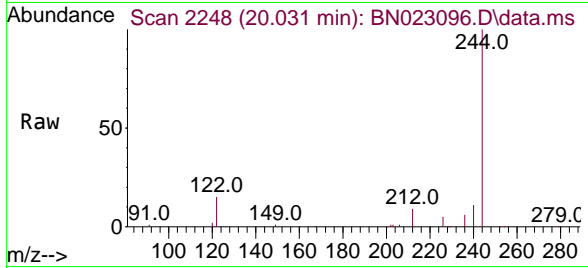
Tgt Ion:202 Resp: 59340  
 Ion Ratio Lower Upper  
 202 100  
 200 21.2 16.9 25.3  
 203 17.8 14.2 21.4



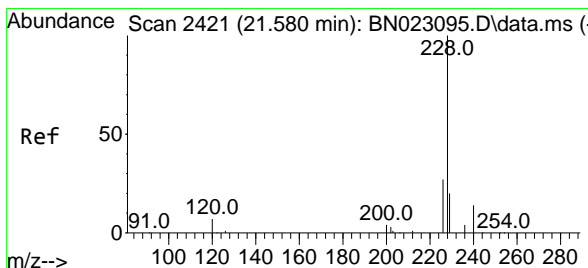
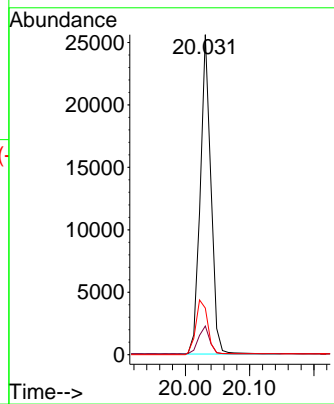
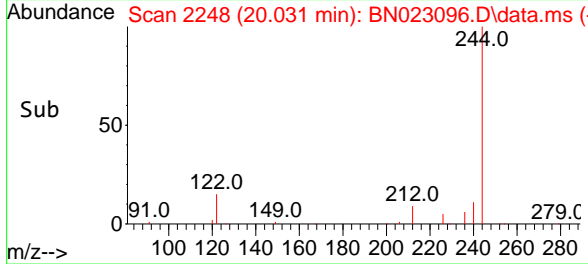


#31  
 Terphenyl-d14  
 Concen: 0.684 ng  
 RT: 20.031 min Scan# 21  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

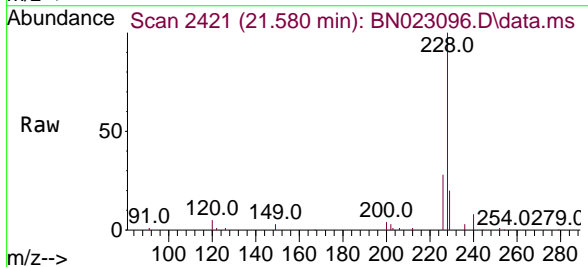
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC0.8



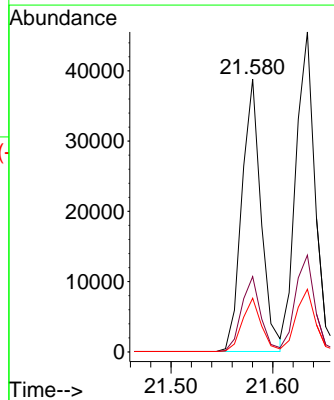
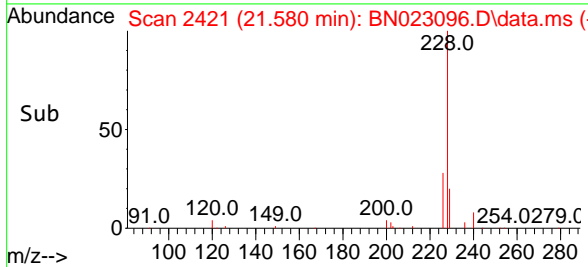
Tgt Ion:244 Resp: 27028  
 Ion Ratio Lower Upper  
 244 100  
 212 8.9 7.6 11.4  
 122 14.5 12.6 18.8

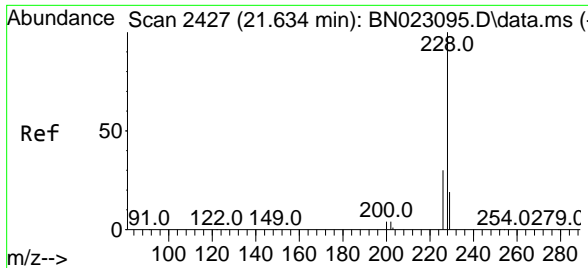


#32  
 Benzo(a)anthracene  
 Concen: 0.666 ng  
 RT: 21.580 min Scan# 2421  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50



Tgt Ion:228 Resp: 51136  
 Ion Ratio Lower Upper  
 228 100  
 226 27.6 22.0 33.0  
 229 19.7 15.8 23.8

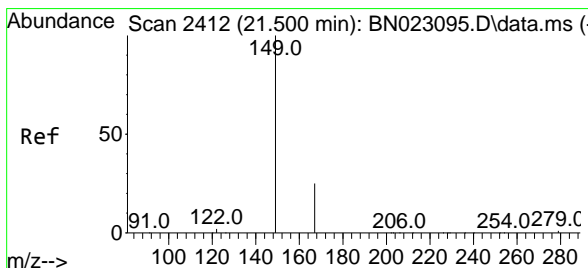
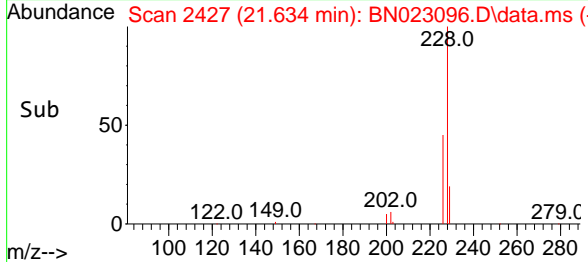
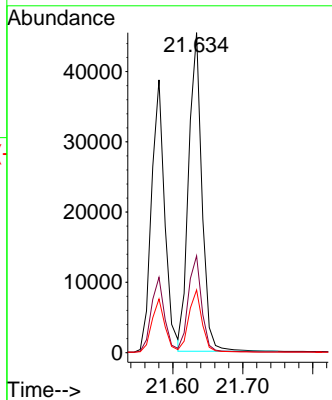
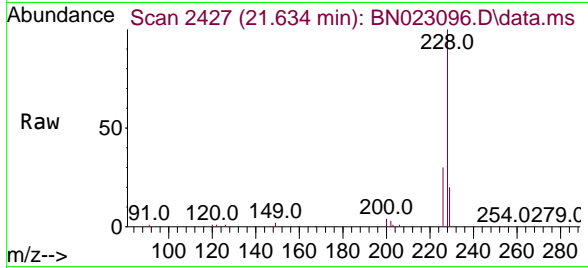




#33  
 Chrysene  
 Concen: 0.695 ng  
 RT: 21.634 min Scan# 2427  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

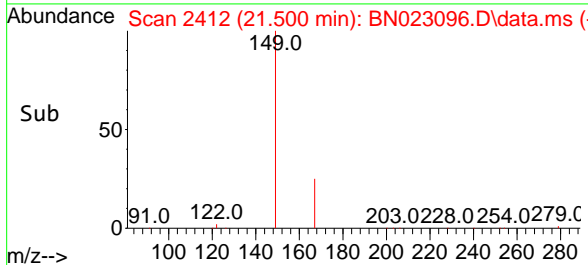
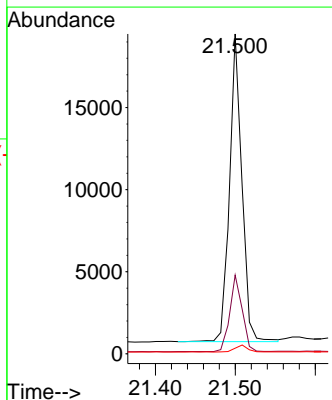
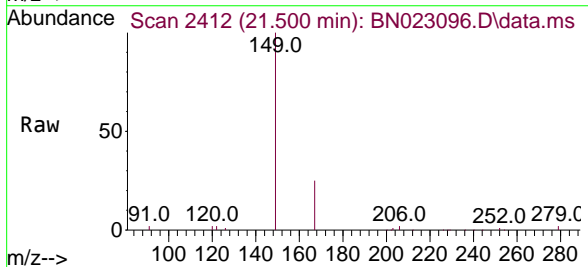
Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.8

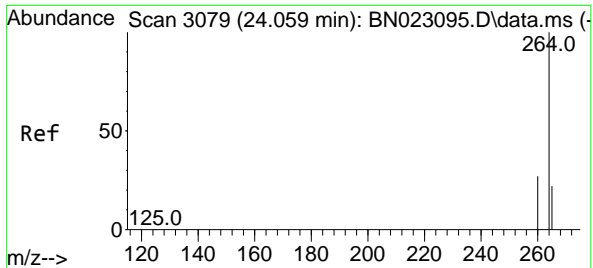
Tgt Ion	Resp	Lower	Upper
228	100		
226	30.2	24.4	36.6
229	19.6	15.6	23.4



#34  
 Bis(2-ethylhexyl)phthalate  
 Concen: 0.608 ng  
 RT: 21.500 min Scan# 2412  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Tgt Ion	Resp	Lower	Upper
149	100		
167	25.0	20.2	30.2
279	2.4	2.3	3.5

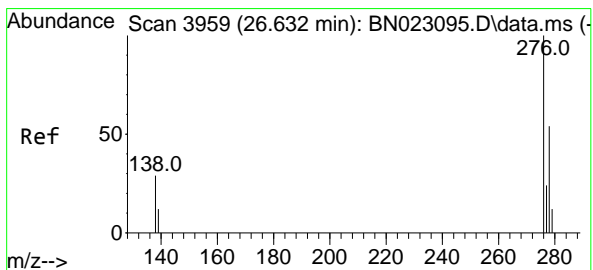
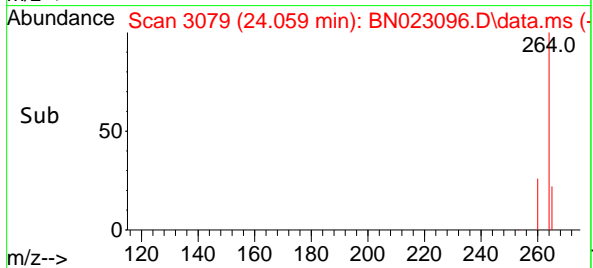
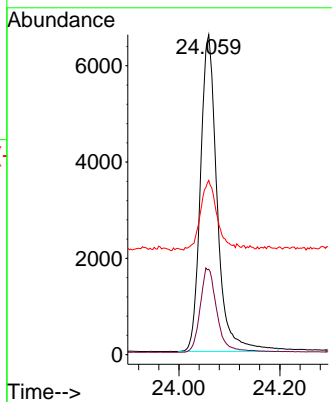
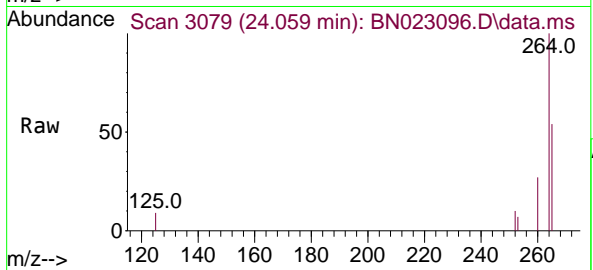




#35  
 Perylene-d12  
 Concen: 0.400 ng  
 RT: 24.059 min Scan# 3079  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

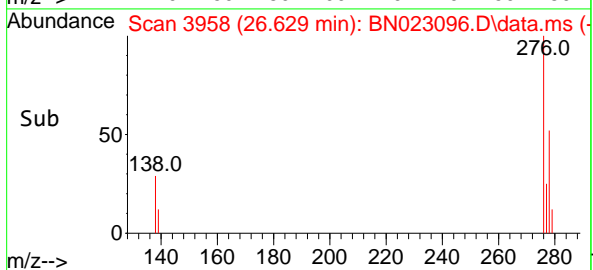
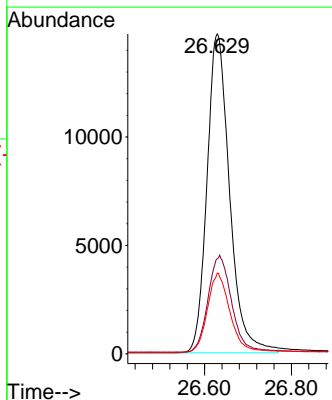
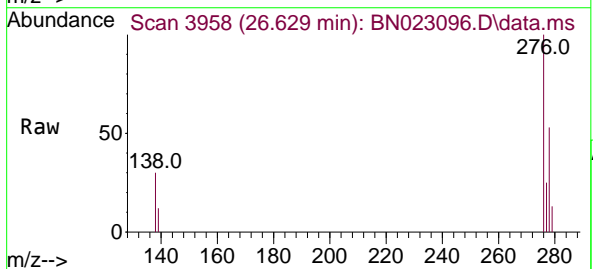
Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.8

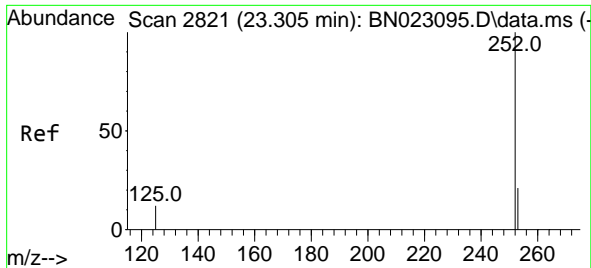
Tgt Ion	Resp	Lower	Upper
264	15181		
260	100	26.7	32.5
265	100	54.5	64.8



#36  
 Indeno(1,2,3-cd)pyrene  
 Concen: 0.660 ng  
 RT: 26.629 min Scan# 3958  
 Delta R.T. -0.003 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

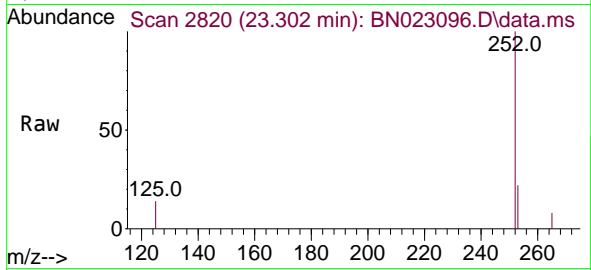
Tgt Ion	Resp	Lower	Upper
276	53216		
138	100	31.6	37.6
277	100	24.6	29.8



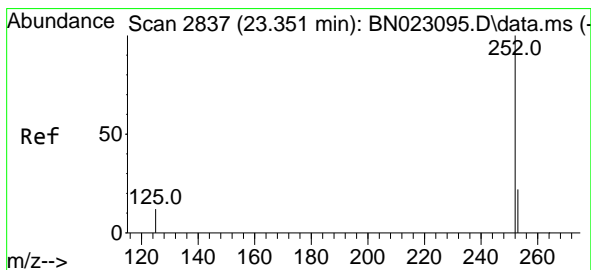
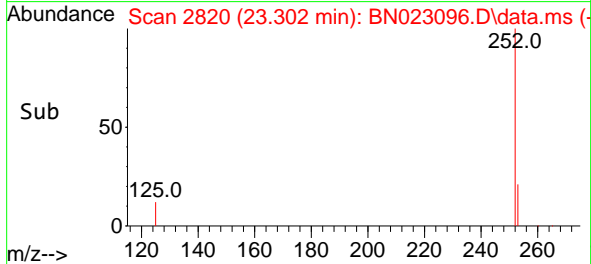
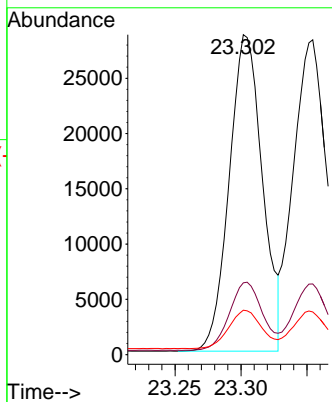


#37  
 Benzo(b)fluoranthene  
 Concen: 0.722 ng  
 RT: 23.302 min Scan# 2821  
 Delta R.T. -0.003 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.8

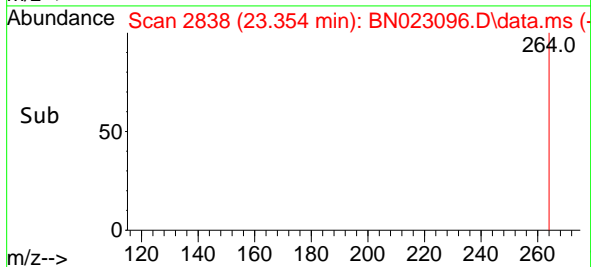
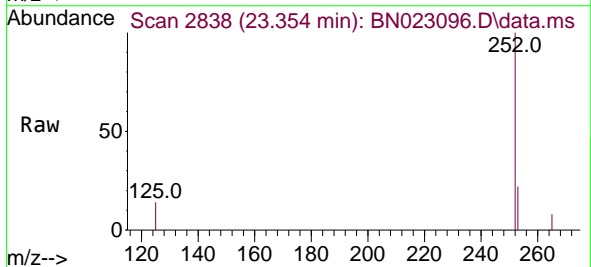
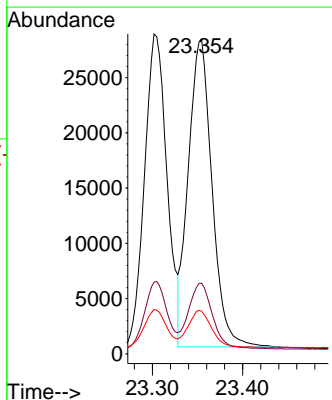


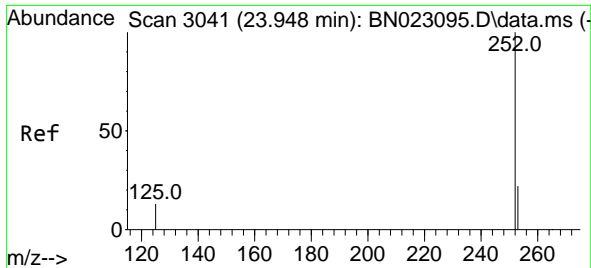
Tgt Ion:252 Resp: 50131  
 Ion Ratio Lower Upper  
 252 100  
 253 22.4 19.0 28.4  
 125 13.9 12.8 19.2



#38  
 Benzo(k)fluoranthene  
 Concen: 0.715 ng  
 RT: 23.354 min Scan# 2838  
 Delta R.T. 0.003 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

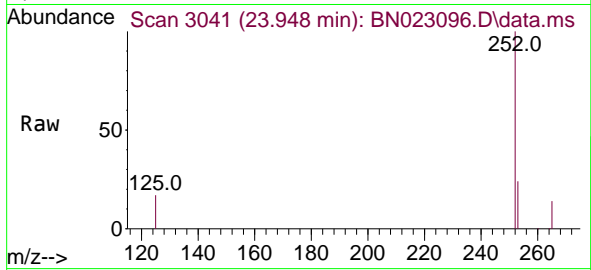
Tgt Ion:252 Resp: 50862  
 Ion Ratio Lower Upper  
 252 100  
 253 22.4 19.1 28.7  
 125 13.5 12.5 18.7





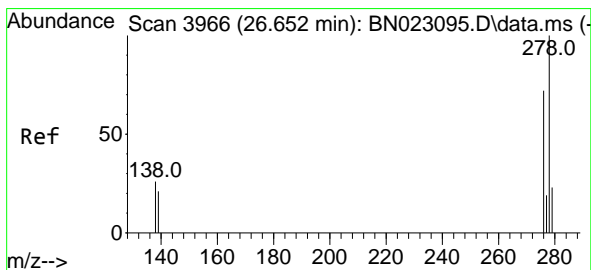
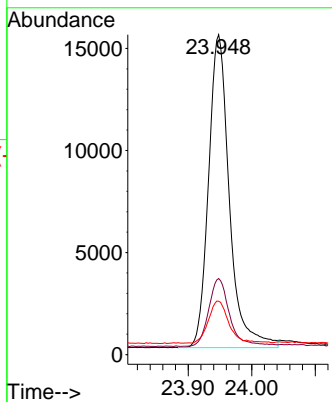
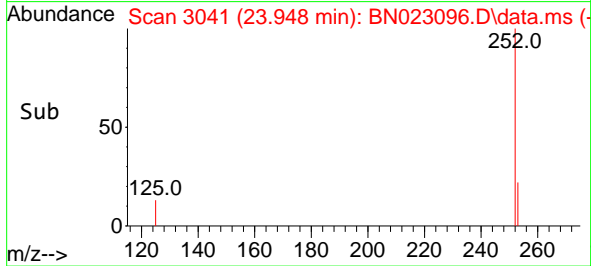
#39  
 Benzo(a)pyrene  
 Concen: 0.622 ng  
 RT: 23.948 min Scan# 3041  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50

Instrument : BNA\_N  
 ClientSampleId : SSTDICC0.8

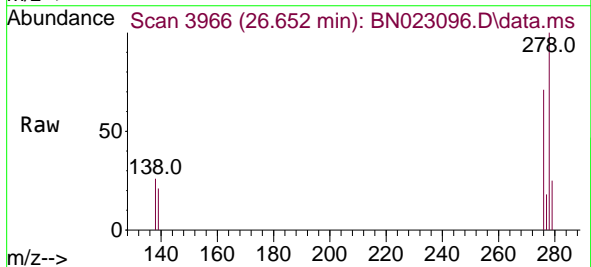


Tgt Ion: 252 Resp: 34953

Ion	Ratio	Lower	Upper
252	100		
253	23.8	20.6	30.8
125	16.7	15.8	23.8

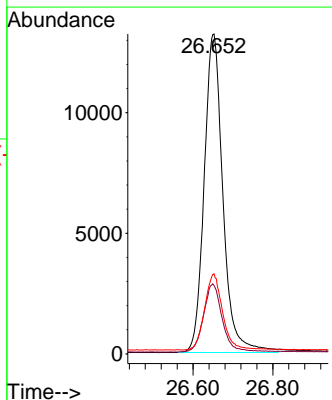
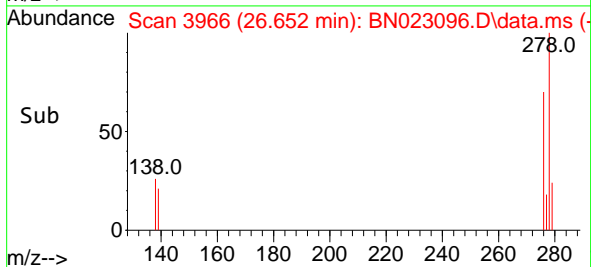


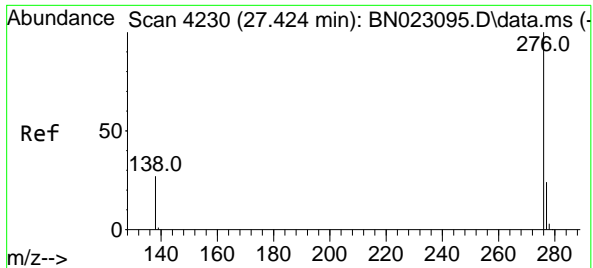
#40  
 Dibenzo(a,h)anthracene  
 Concen: 0.676 ng  
 RT: 26.652 min Scan# 3966  
 Delta R.T. 0.000 min  
 Lab File: BN023096.D  
 Acq: 08 Dec 2022 15:50



Tgt Ion: 278 Resp: 43165

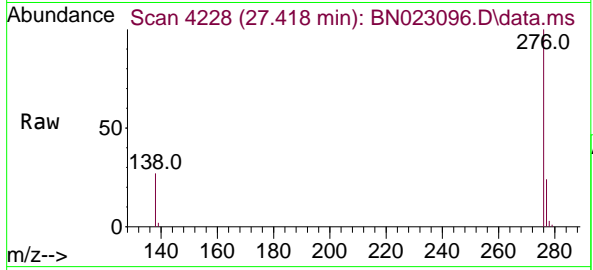
Ion	Ratio	Lower	Upper
278	100		
139	21.4	17.5	26.3
279	25.0	20.5	30.7





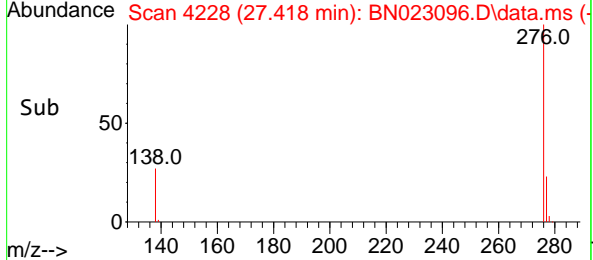
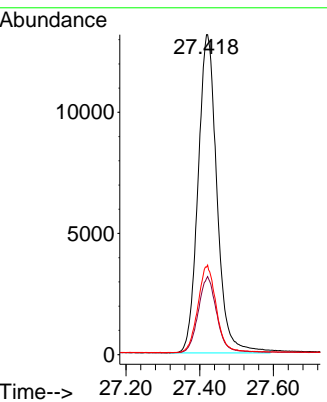
#41  
Benzo(g,h,i)perylene  
Concen: 0.715 ng  
RT: 27.418 min Scan# 41  
Delta R.T. -0.006 min  
Lab File: BN023096.D  
Acq: 08 Dec 2022 15:50

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC0.8



Tgt Ion: 276 Resp: 46710

Ion	Ratio	Lower	Upper
276	100		
277	23.8	19.9	29.9
138	27.3	22.2	33.2



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Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN120822\  
 Data File : BN023097.D  
 Acq On : 08 Dec 2022 16:26  
 Operator : CG/JU  
 Sample : SSTDICC1.6  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC1.6

Quant Time: Dec 09 07:28:39 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:25:53 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) 1,4-Dichlorobenzene-d4	8.021	152	7961	0.400 ng	0.00	
7) Naphthalene-d8	10.840	136	23515	0.400 ng	0.00	
13) Acenaphthene-d10	14.666	164	13256	0.400 ng	0.00	
19) Phenanthrene-d10	17.414	188	27793	0.400 ng	0.00	
29) Chrysene-d12	21.598	240	24897	0.400 ng	0.00	
35) Perylene-d12	24.059	264	17546	0.400 ng	0.00	
System Monitoring Compounds						
4) 2-Fluorophenol	5.558	112	24725	1.343 ng	0.00	
5) Phenol-d6	7.168	99	32018	1.383 ng	0.00	
8) Nitrobenzene-d5	9.185	82	26154	1.482 ng	0.00	
11) 2-Methylnaphthalene-d10	12.427	152	67111	1.512 ng	0.00	
14) 2,4,6-Tribromophenol	16.148	330	8264	1.476 ng	0.00	
15) 2-Fluorobiphenyl	13.298	172	88442	1.503 ng	0.00	
27) Fluoranthene-d10	19.439	212	111381	1.463 ng	0.00	
31) Terphenyl-d14	20.031	244	68689	1.454 ng	0.00	
Target Compounds						
2) 1,4-Dioxane	3.398	88	13318	1.349 ng		98
3) n-Nitrosodimethylamine	3.723	42	14509	1.503 ng	#	99
6) bis(2-Chloroethyl)ether	7.436	93	35736	1.398 ng		97
9) Naphthalene	10.893	128	99339	1.424 ng		99
10) Hexachlorobutadiene	11.182	225	18899	1.443 ng	#	100
12) 2-Methylnaphthalene	12.117	142	17618	1.651 ng	#	92
16) Acenaphthylene	14.388	152	94028	1.509 ng		100
17) Acenaphthene	14.730	154	66404	1.463 ng		99
18) Fluorene	15.703	166	75662	1.486 ng		99
20) 4,6-Dinitro-2-methylph...	15.776	198	6771	1.801 ng	#	81
21) 4-Bromophenyl-phenylether	16.595	248	25451	1.520 ng		98
22) Hexachlorobenzene	16.719	284	32935	1.515 ng		99
23) Atrazine	16.868	200	18156	1.490 ng		99
24) Pentachlorophenol	17.055	266	11351	1.778 ng		99
25) Phenanthrene	17.452	178	139569	1.490 ng		100
26) Anthracene	17.539	178	115325	1.528 ng		100
28) Fluoranthene	19.469	202	156823	1.534 ng		100
30) Pyrene	19.831	202	152036	1.465 ng		100
32) Benzo(a)anthracene	21.580	228	137563	1.497 ng		99
33) Chrysene	21.634	228	152270	1.482 ng		100
34) Bis(2-ethylhexyl)phtha...	21.500	149	53634	1.350 ng		99
36) Indeno(1,2,3-cd)pyrene	26.632	276	143051	1.534 ng		100
37) Benzo(b)fluoranthene	23.305	252	129768	1.618 ng	#	94
38) Benzo(k)fluoranthene	23.355	252	135698	1.651 ng		95
39) Benzo(a)pyrene	23.948	252	96478	1.485 ng	#	91
40) Dibenzo(a,h)anthracene	26.650	278	116720	1.582 ng		97
41) Benzo(g,h,i)perylene	27.421	276	121454	1.608 ng		98

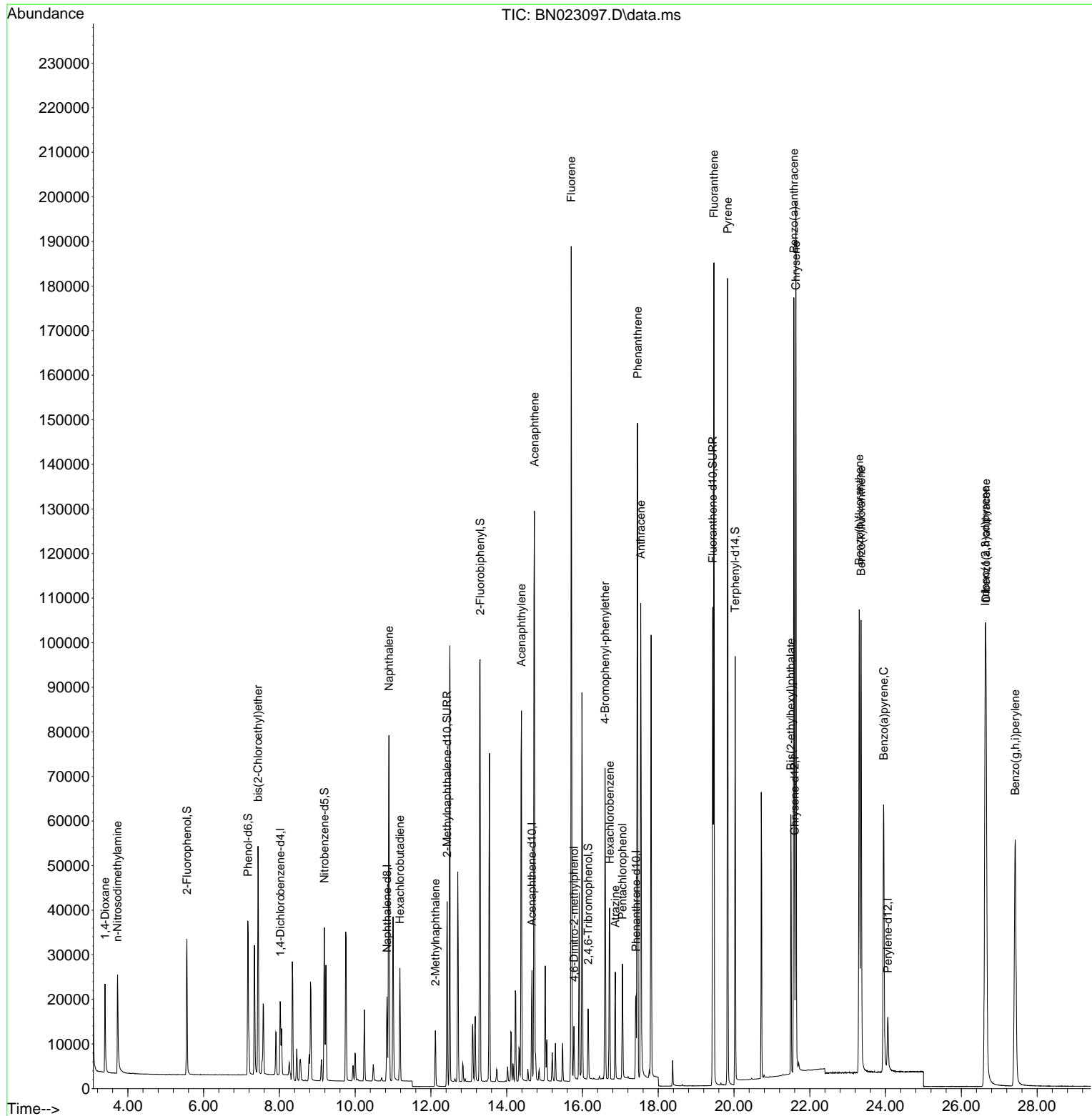
(#) = qualifier out of range (m) = manual integration (+) = signals summed



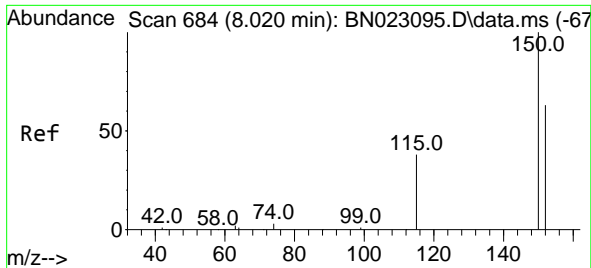
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 Data File : BN023097.D  
 Acq On : 08 Dec 2022 16:26  
 Operator : CG/JU  
 Sample : SSTDICC1.6  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC1.6

Quant Time: Dec 09 07:28:39 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:25:53 2022  
 Response via : Initial Calibration



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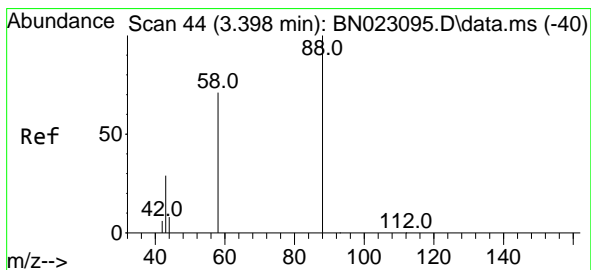
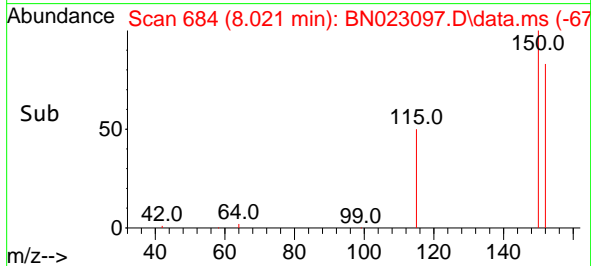
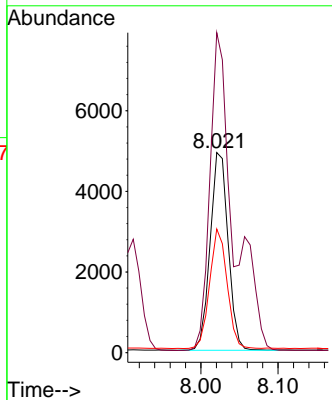
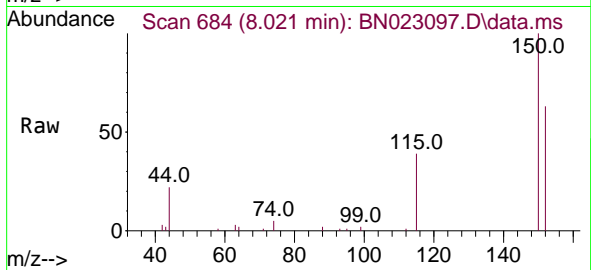


#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 8.021 min Scan# 68  
 Delta R.T. 0.001 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC1.6

Tgt Ion:152 Resp: 7961

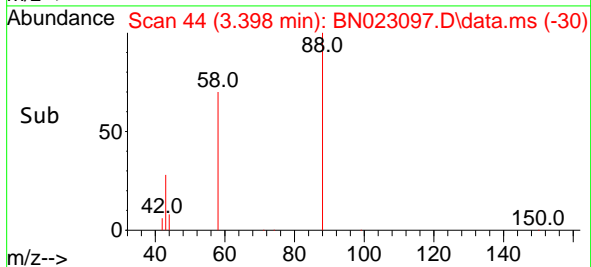
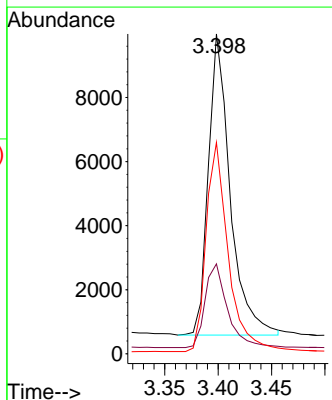
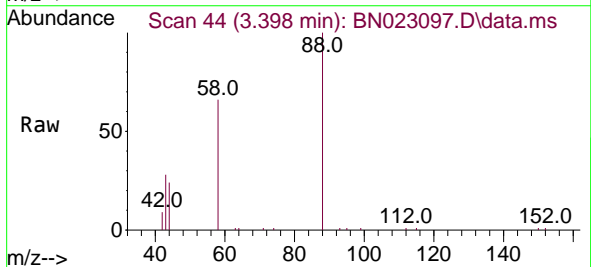
Ion	Ratio	Lower	Upper
152	100		
150	159.9	125.6	188.4
115	61.8	49.0	73.4

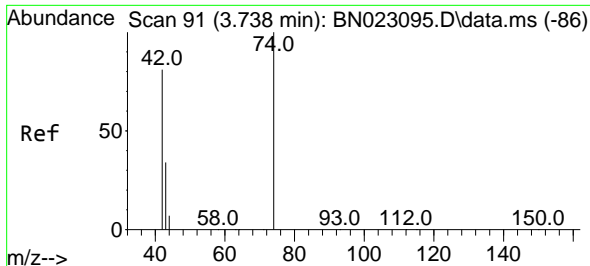


#2  
 1,4-Dioxane  
 Concen: 1.349 ng  
 RT: 3.398 min Scan# 44  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion: 88 Resp: 13318

Ion	Ratio	Lower	Upper
88	100		
43	28.6	23.3	34.9
58	70.2	58.0	87.0

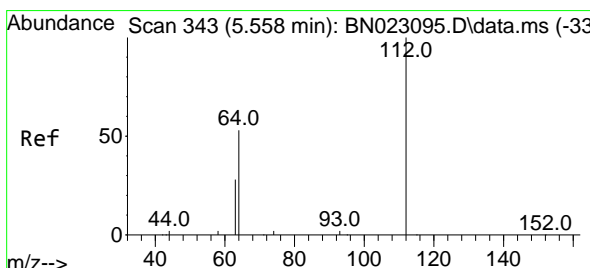
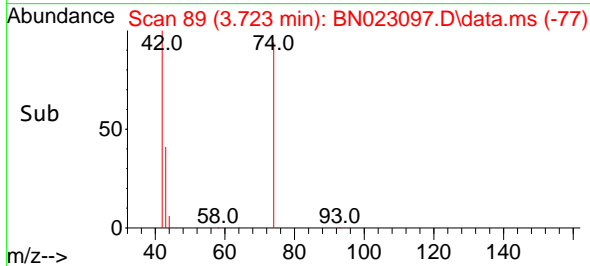
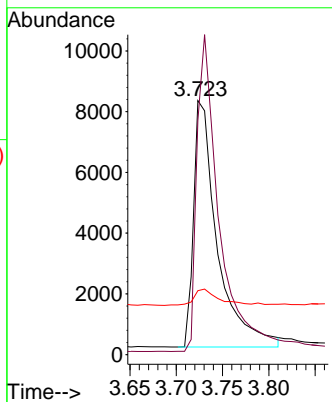
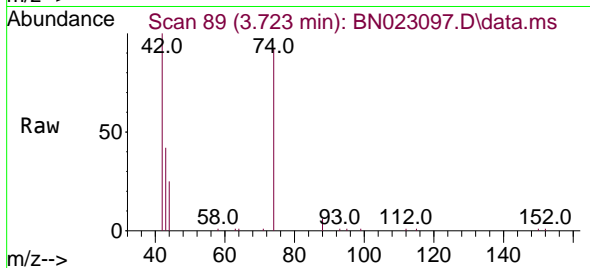




#3  
 n-Nitrosodimethylamine  
 Concen: 1.503 ng  
 RT: 3.723 min Scan# 89  
 Delta R.T. -0.014 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

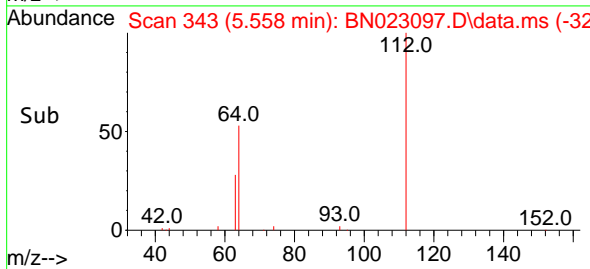
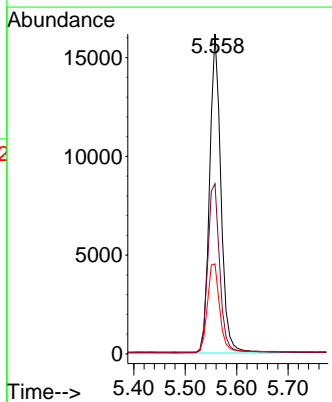
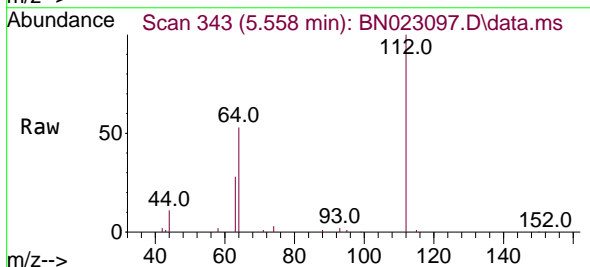
Instrument : BNA\_N  
 ClientSampleId : SSTDICC1.6

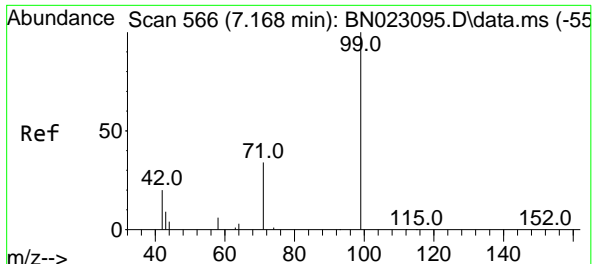
Tgt Ion	Resp	Lower	Upper
42	14509		
42	100		
74	120.3	95.8	143.6
44	6.7	8.4	12.6



#4  
 2-Fluorophenol  
 Concen: 1.343 ng  
 RT: 5.558 min Scan# 343  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion	Resp	Lower	Upper
112	24725		
112	100		
64	56.0	44.4	66.6
63	29.6	23.7	35.5

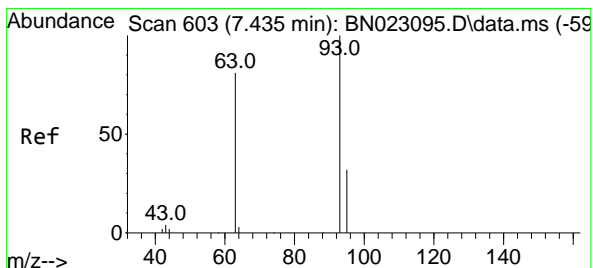
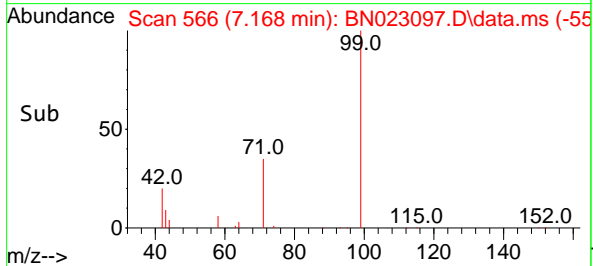
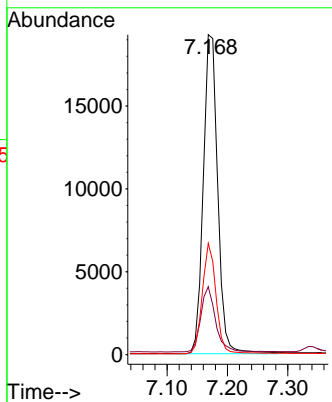
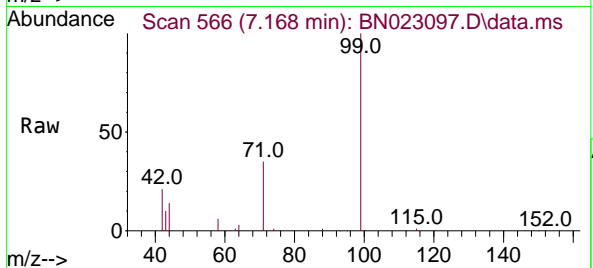




#5  
 Phenol-d6  
 Concen: 1.383 ng  
 RT: 7.168 min Scan# 566  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

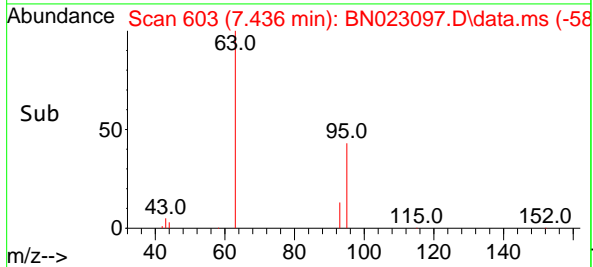
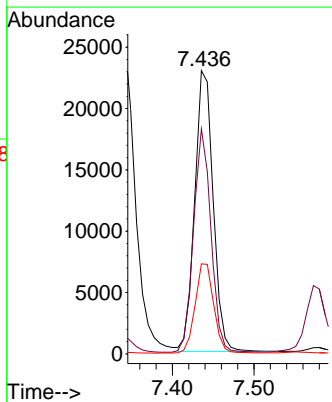
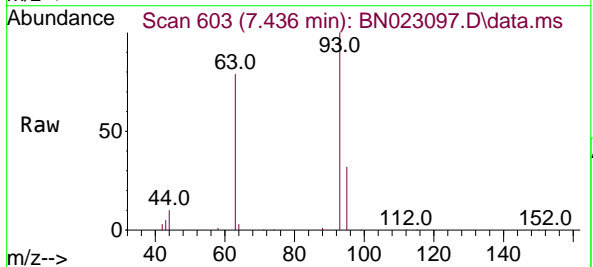
Instrument : BNA\_N  
 Client Sample Id : SSTDICC1.6

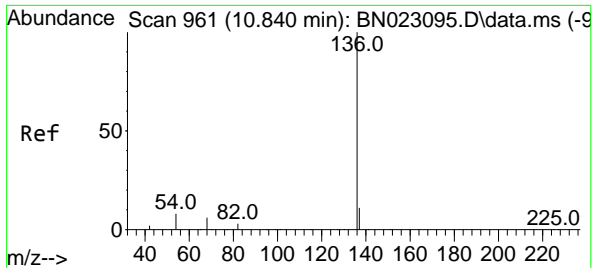
Tgt Ion	Resp	Ion Ratio	Lower	Upper
99	32018	100		
42	20.9	16.3	16.3	24.5
71	33.0	26.5	26.5	39.7



#6  
 bis(2-Chloroethyl)ether  
 Concen: 1.398 ng  
 RT: 7.436 min Scan# 603  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion	Resp	Ion Ratio	Lower	Upper
93	35736	100		
63	75.2	58.1	58.1	87.1
95	32.2	25.2	25.2	37.8



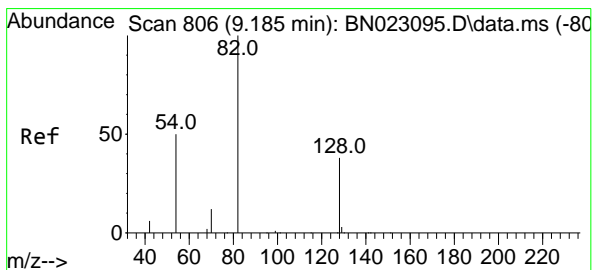
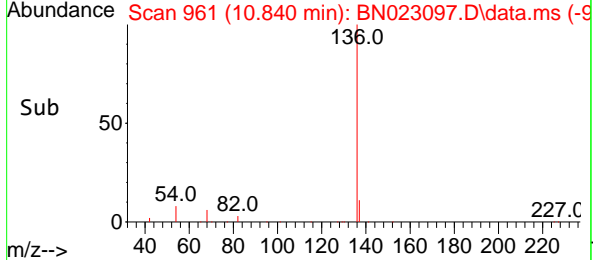
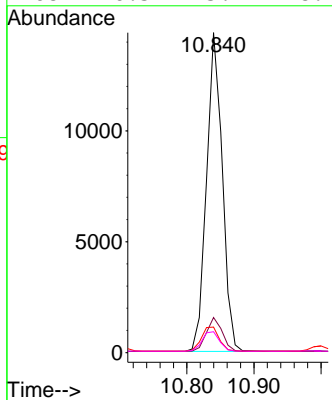
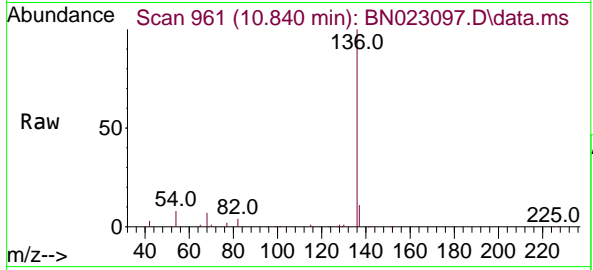


#7  
 Naphthalene-d8  
 Concen: 0.400 ng  
 RT: 10.840 min Scan# 961  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Instrument : BNA\_N  
 ClientSampleId : SSTDICC1.6

Tgt Ion:136 Resp: 23515

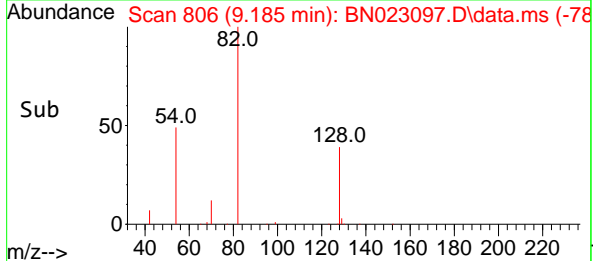
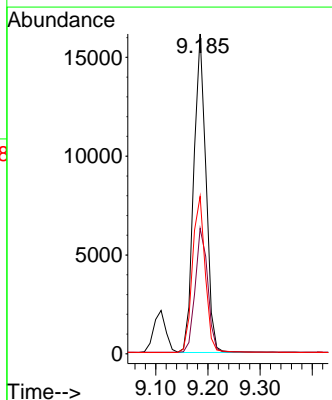
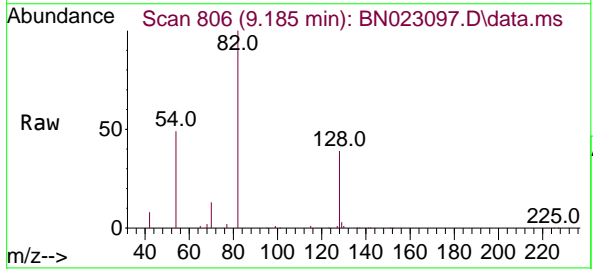
Ion	Ratio	Lower	Upper
136	100		
137	11.0	9.0	13.4
54	8.0	6.5	9.7
68	6.5	5.4	8.2

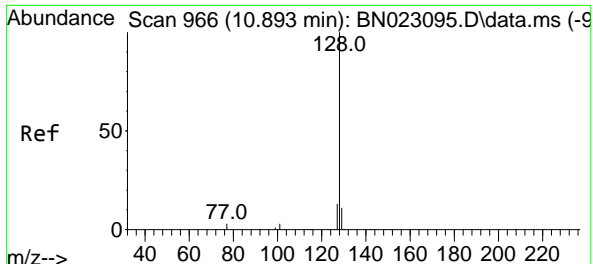


#8  
 Nitrobenzene-d5  
 Concen: 1.482 ng  
 RT: 9.185 min Scan# 806  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion: 82 Resp: 26154

Ion	Ratio	Lower	Upper
82	100		
128	39.2	31.4	47.2
54	49.2	41.0	61.4



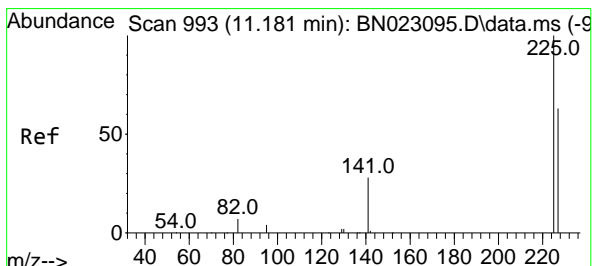
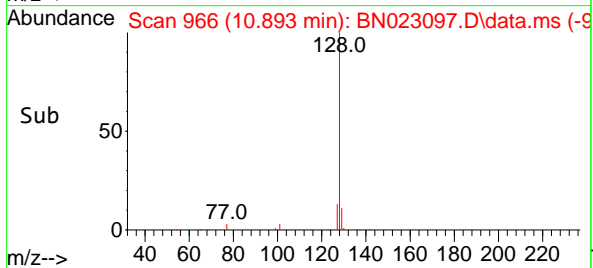
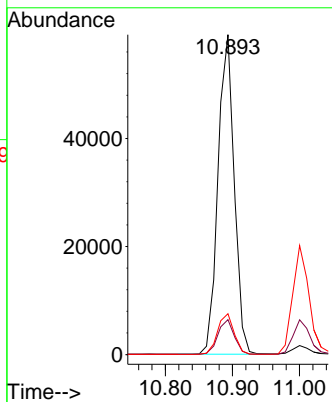
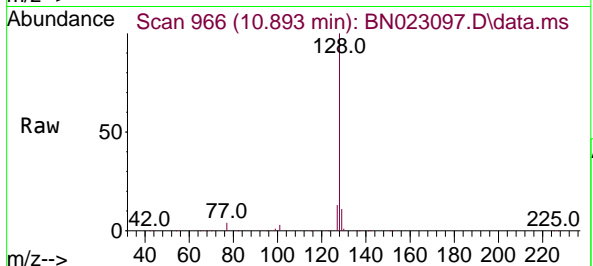


#9  
 Naphthalene  
 Concen: 1.424 ng  
 RT: 10.893 min Scan# 90  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC1.6

Tgt Ion:128 Resp: 99339

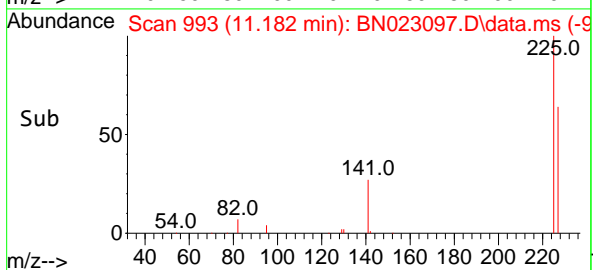
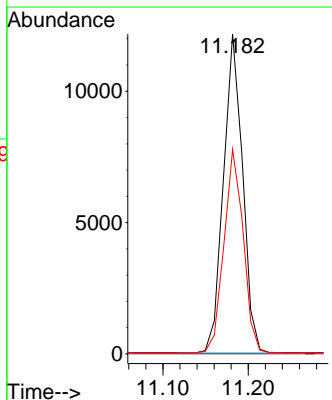
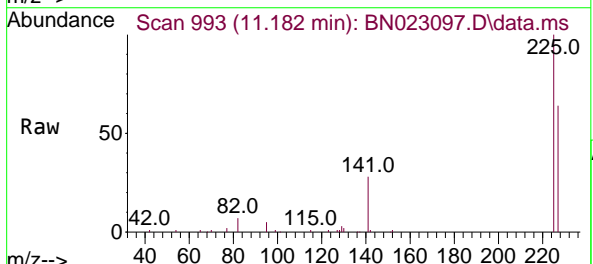
Ion	Ratio	Lower	Upper
128	100		
129	11.0	9.0	13.6
127	12.8	10.5	15.7

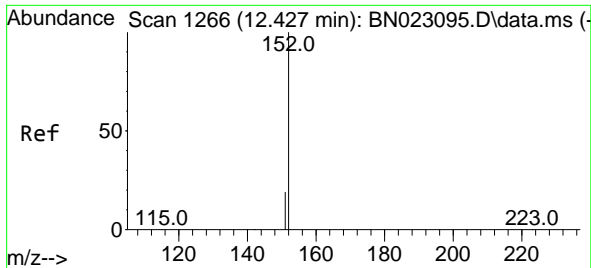


#10  
 Hexachlorobutadiene  
 Concen: 1.443 ng  
 RT: 11.182 min Scan# 993  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion:225 Resp: 18899

Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	64.1	51.1	76.7

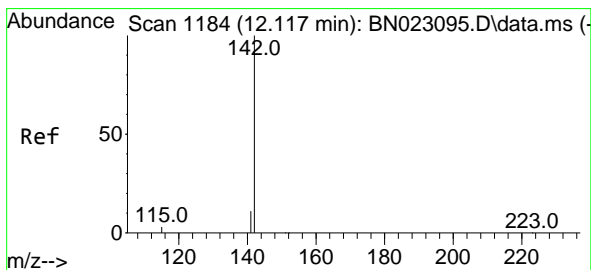
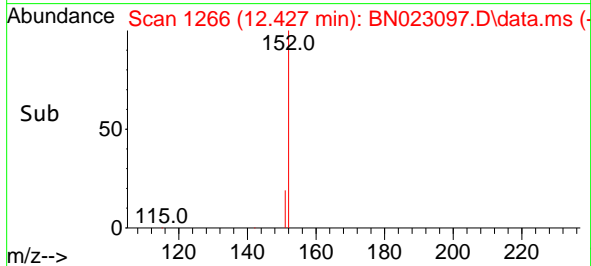
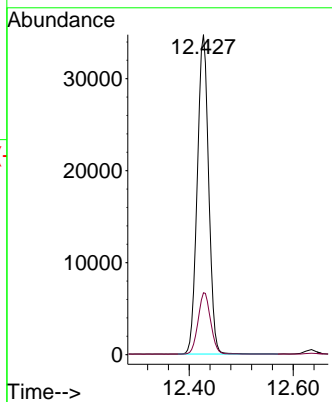
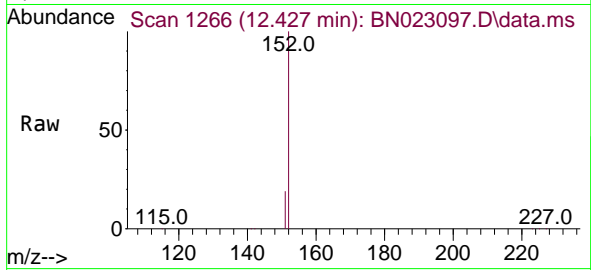




#11  
 2-Methylnaphthalene-d10  
 Concen: 1.512 ng  
 RT: 12.427 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

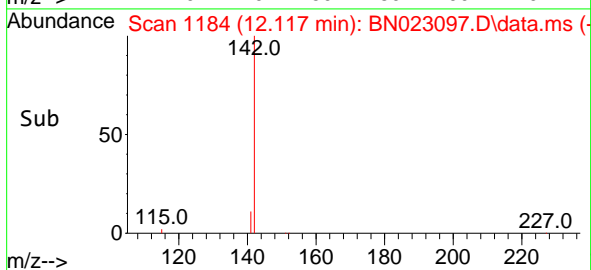
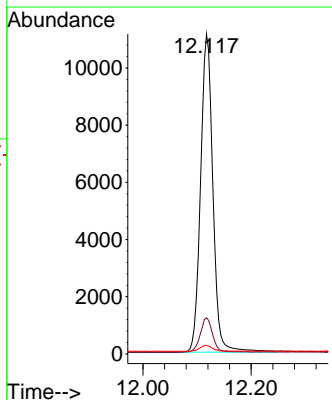
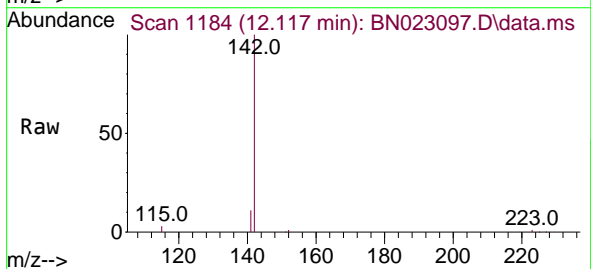
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC1.6

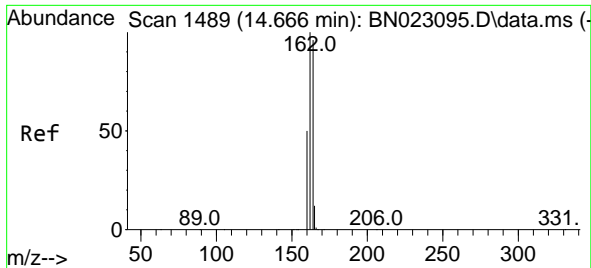
Tgt Ion:152 Resp: 67111  
 Ion Ratio Lower Upper  
 152 100  
 151 21.9 15.1 22.7



#12  
 2-Methylnaphthalene  
 Concen: 1.651 ng  
 RT: 12.117 min Scan# 1184  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion:142 Resp: 17618  
 Ion Ratio Lower Upper  
 142 100  
 141 11.3 10.9 16.3  
 115 2.6 5.7 8.5#

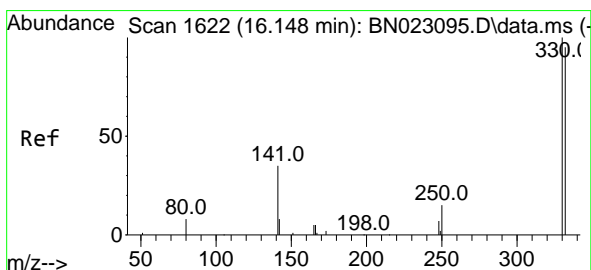
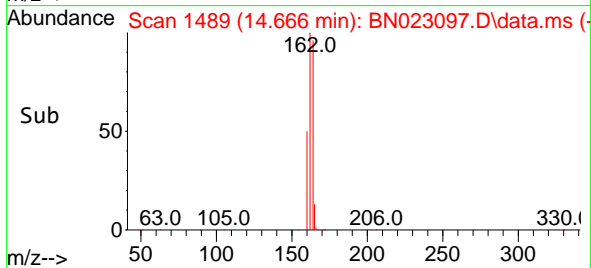
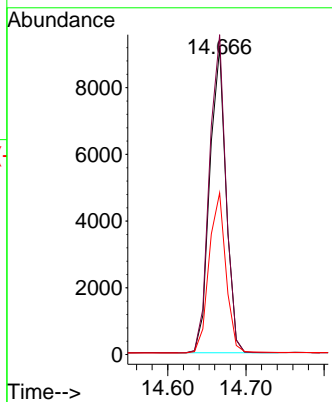
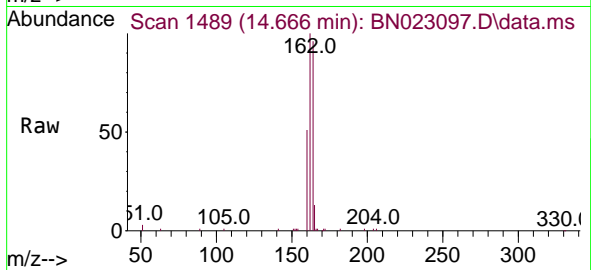




#13  
 Acenaphthene-d10  
 Concen: 0.400 ng  
 RT: 14.666 min Scan# 1489  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

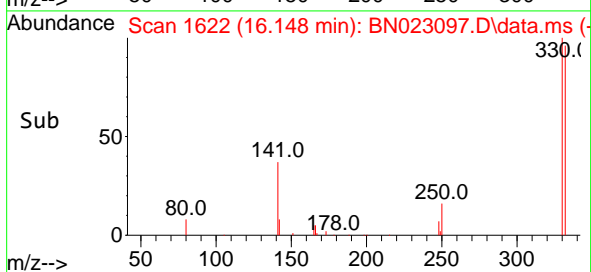
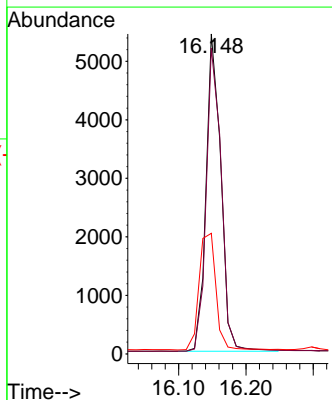
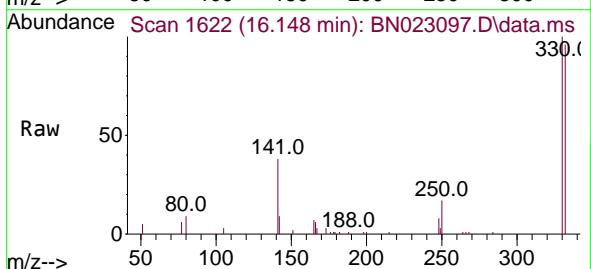
Instrument : BNA\_N  
 ClientSampleId : SSTDICC1.6

Tgt Ion	Resp	Lower	Upper
164	13256		
162	104.3	83.4	125.0
160	52.7	41.8	62.8

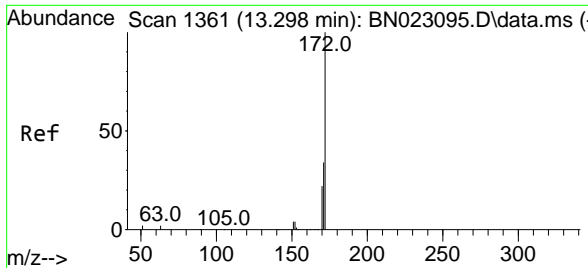


#14  
 2,4,6-Tribromophenol  
 Concen: 1.476 ng  
 RT: 16.148 min Scan# 1622  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion	Resp	Lower	Upper
330	8264		
332	97.1	77.3	115.9
141	41.8	33.5	50.3





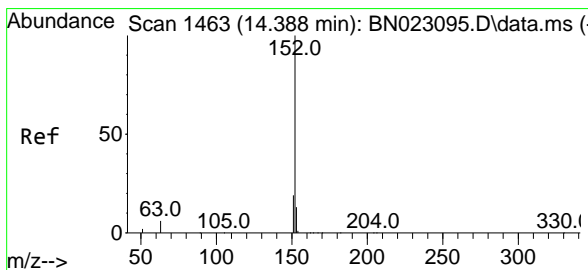
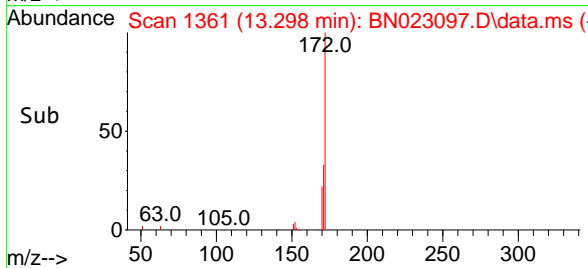
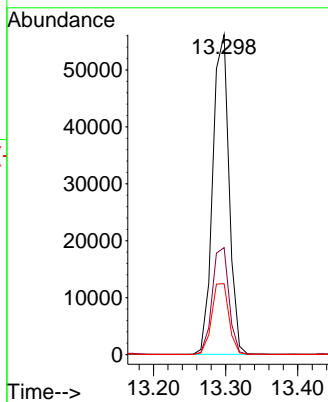
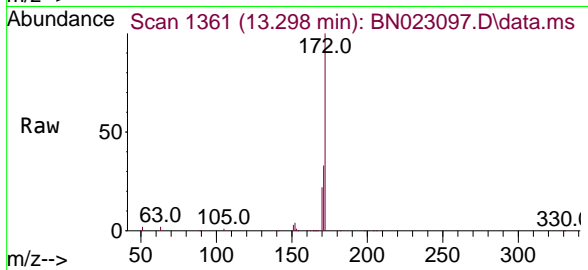


#15  
 2-Fluorobiphenyl  
 Concen: 1.503 ng  
 RT: 13.298 min Scan# 1361  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC1.6

Tgt Ion:172 Resp: 88442

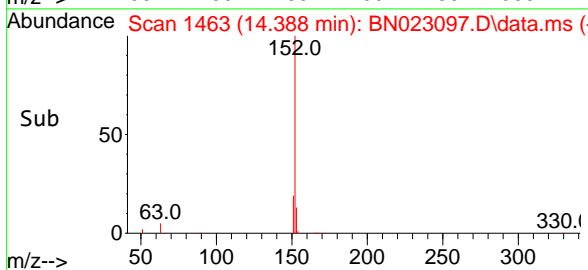
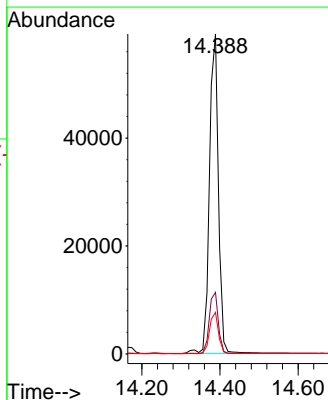
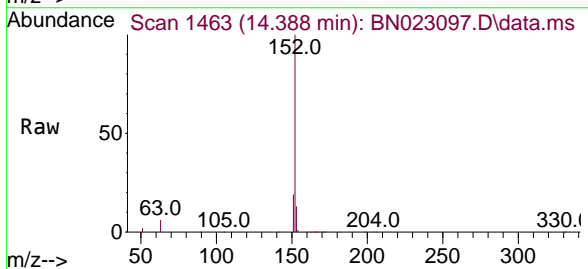
Ion	Ratio	Lower	Upper
172	100		
171	33.4	27.4	41.0
170	22.2	17.9	26.9

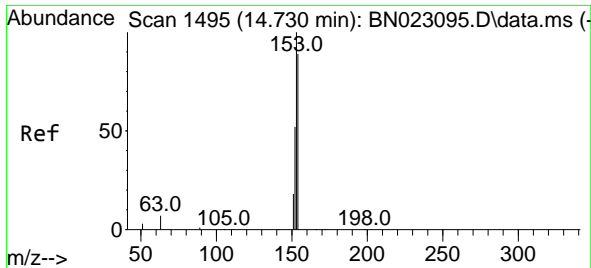


#16  
 Acenaphthylene  
 Concen: 1.509 ng  
 RT: 14.388 min Scan# 1463  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion:152 Resp: 94028

Ion	Ratio	Lower	Upper
152	100		
151	19.5	15.4	23.2
153	12.9	10.3	15.5

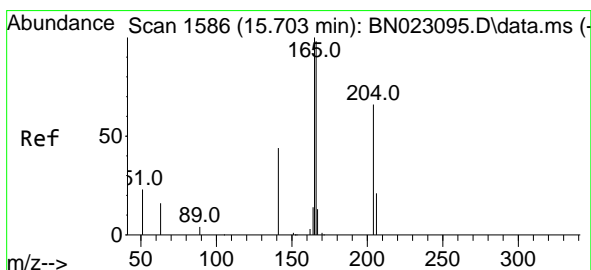
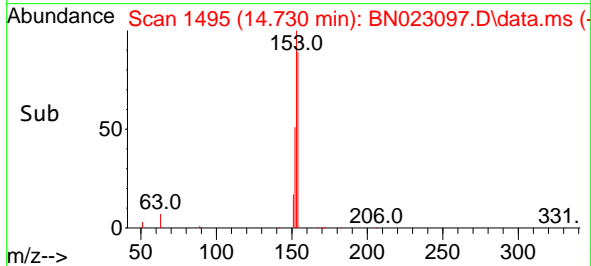
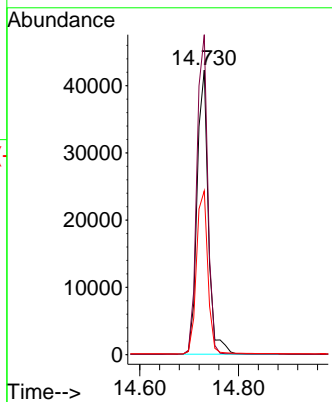
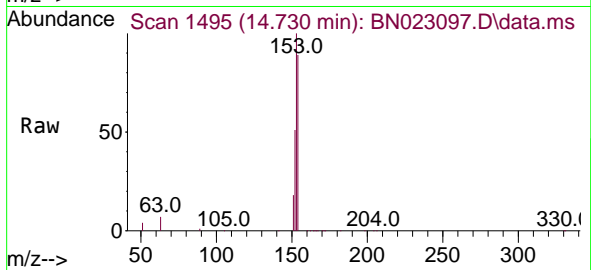




#17  
 Acenaphthene  
 Concen: 1.463 ng  
 RT: 14.730 min Scan# 1495  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

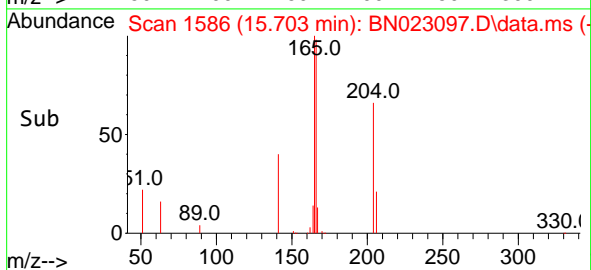
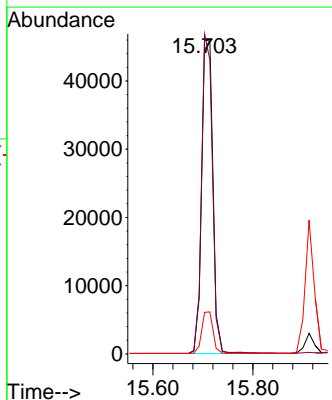
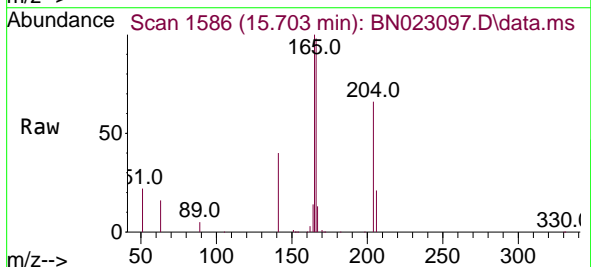
Instrument : BNA\_N  
 ClientSampleId : SSTDICC1.6

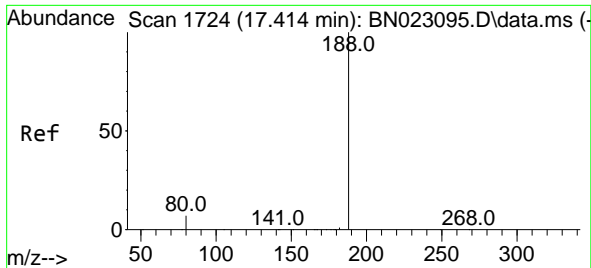
Tgt Ion	Resp	Lower	Upper
154	66404		
153	109.7	88.6	132.8
152	58.4	48.1	72.1



#18  
 Fluorene  
 Concen: 1.486 ng  
 RT: 15.703 min Scan# 1586  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion	Resp	Lower	Upper
166	75662		
165	99.1	79.8	119.6
167	12.7	10.6	16.0



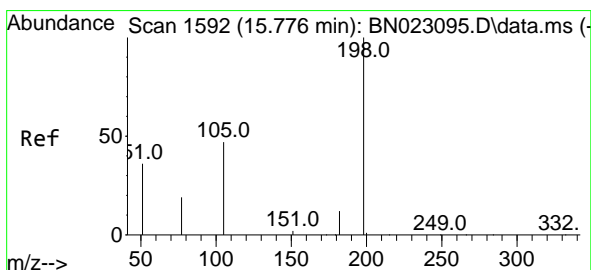
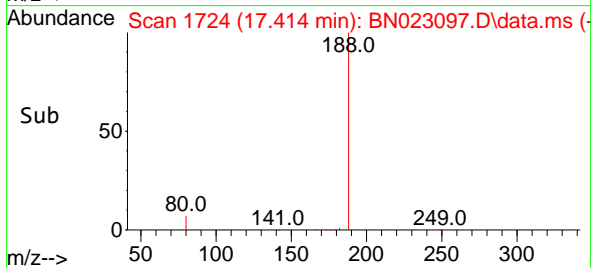
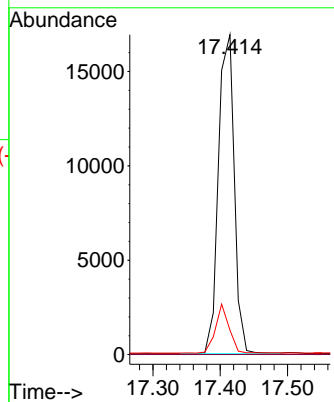
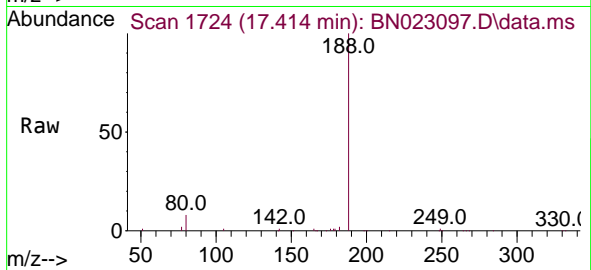


#19  
 Phenanthrene-d10  
 Concen: 0.400 ng  
 RT: 17.414 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC1.6

Tgt Ion:188 Resp: 27793

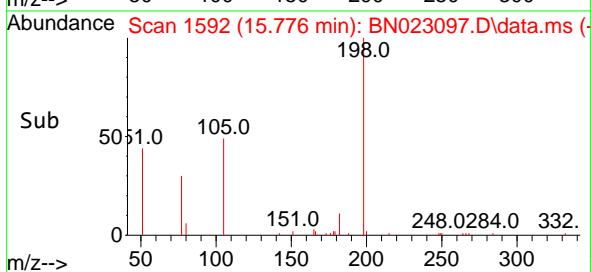
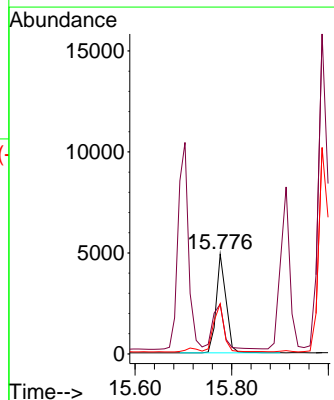
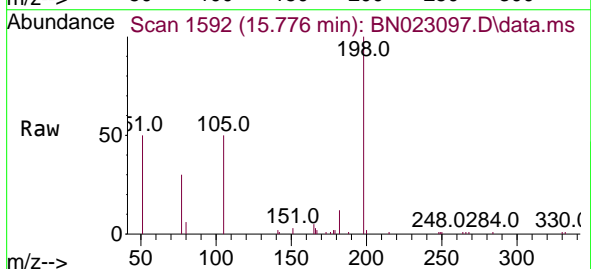
Ion	Ratio	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	7.6	6.1	9.1

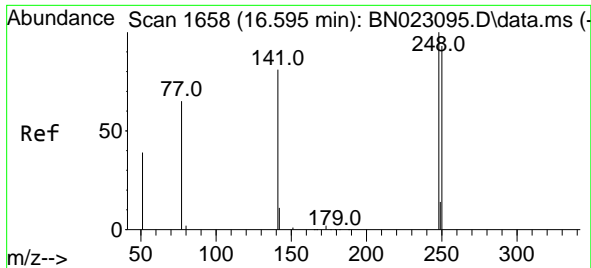


#20  
 4,6-Dinitro-2-methylphenol  
 Concen: 1.801 ng  
 RT: 15.776 min Scan# 1592  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion:198 Resp: 6771

Ion	Ratio	Lower	Upper
198	100		
51	49.8	57.0	85.4#
105	50.3	47.2	70.8



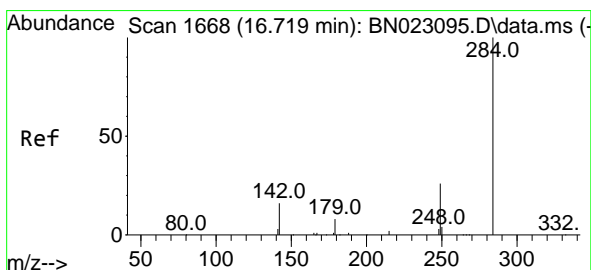
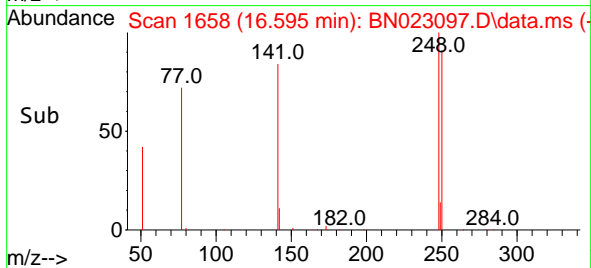
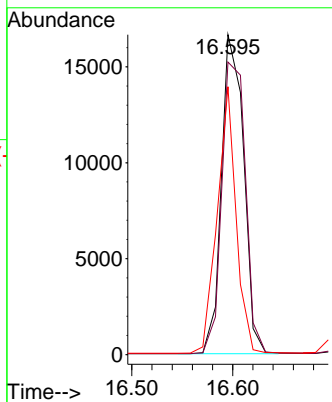
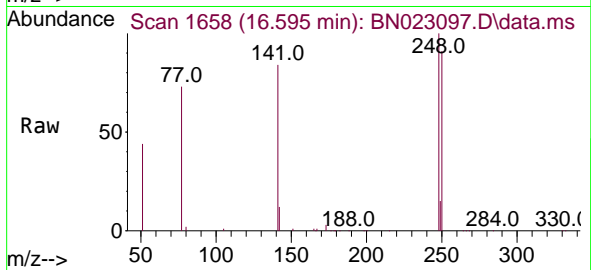


#21  
 4-Bromophenyl-phenylether  
 Concen: 1.520 ng  
 RT: 16.595 min Scan# 1658  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC1.6

Tgt Ion:248 Resp: 25451

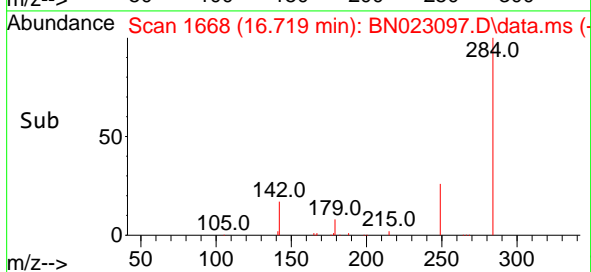
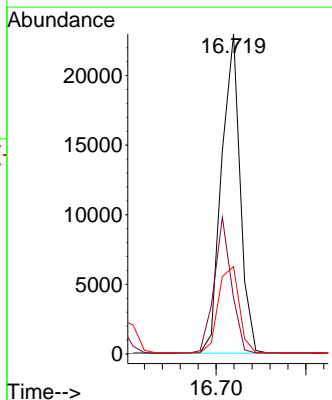
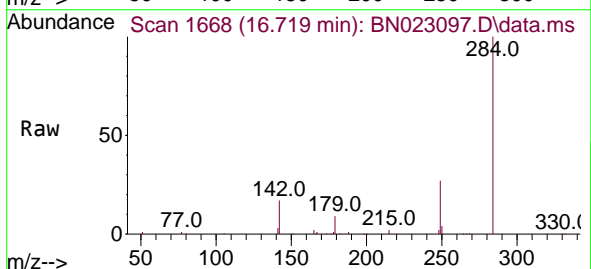
Ion	Ratio	Lower	Upper
248	100		
250	91.4	74.3	111.5
141	83.7	65.0	97.6

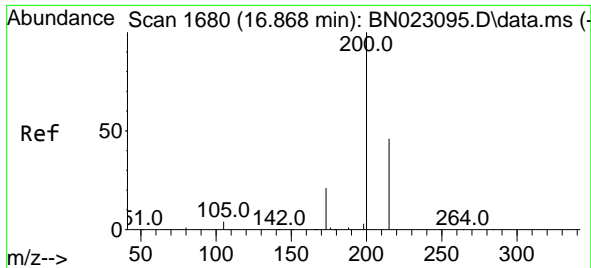


#22  
 Hexachlorobenzene  
 Concen: 1.515 ng  
 RT: 16.719 min Scan# 1668  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion:284 Resp: 32935

Ion	Ratio	Lower	Upper
284	100		
142	39.6	31.0	46.4
249	30.5	24.4	36.6

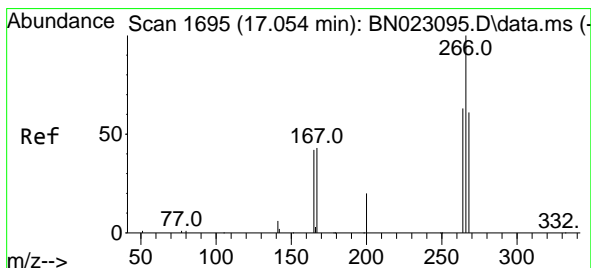
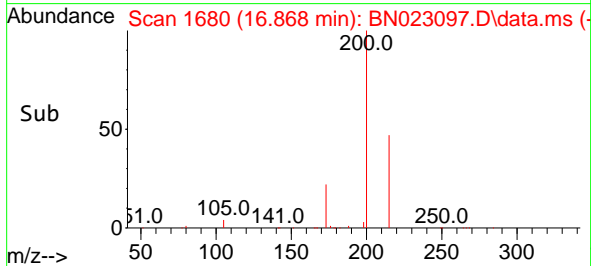
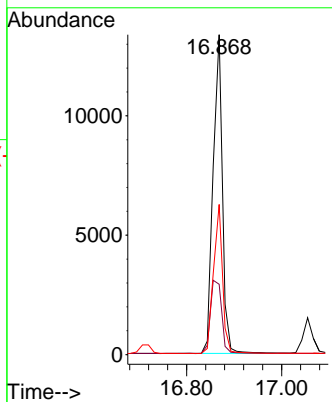
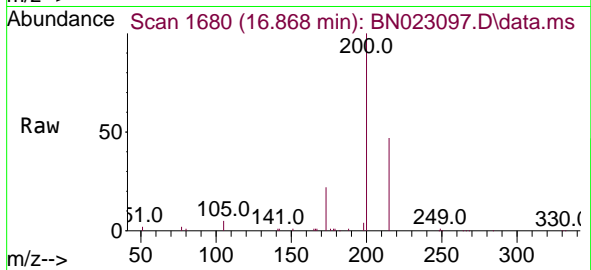




#23  
**Atrazine**  
 Concen: 1.490 ng  
 RT: 16.868 min Scan# 1680  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

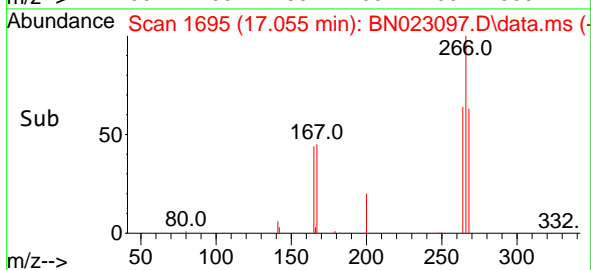
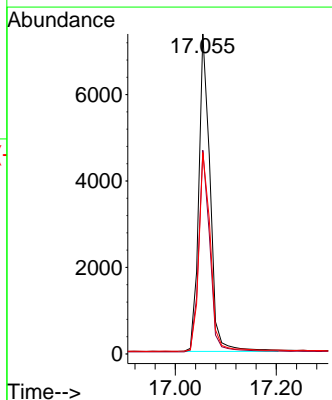
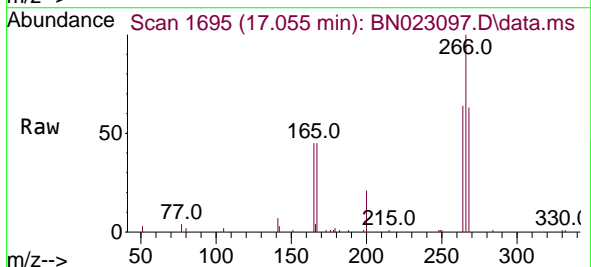
Instrument : BNA\_N  
 Client Sample Id : BN023097.D  
 SSTDICC1.6

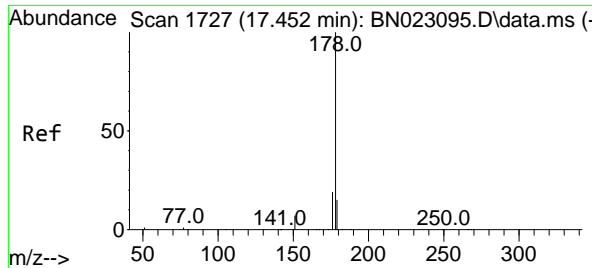
Tgt Ion	Resp	Lower	Upper
200	18156	100	
173	22.0	18.2	27.4
215	46.9	38.0	57.0



#24  
**Pentachlorophenol**  
 Concen: 1.778 ng  
 RT: 17.055 min Scan# 1695  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion	Resp	Lower	Upper
266	11351	100	
264	62.8	50.1	75.1
268	63.9	49.7	74.5

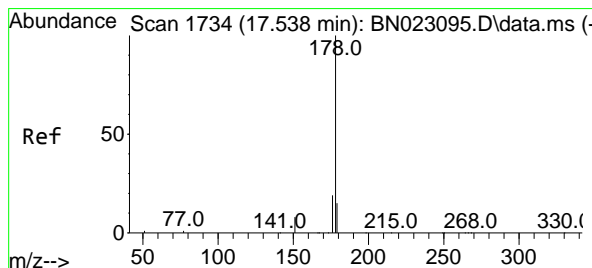
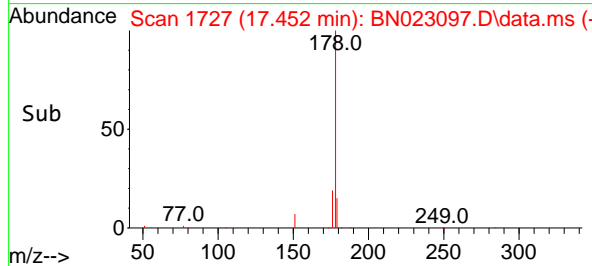
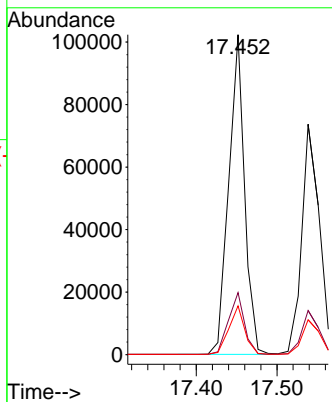
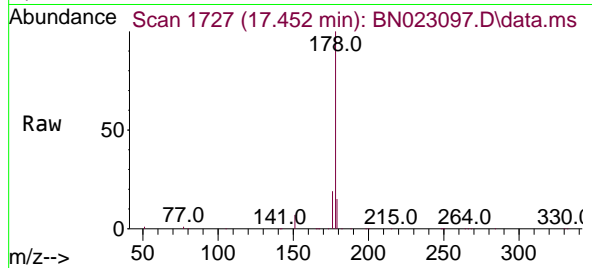




#25  
 Phenanthrene  
 Concen: 1.490 ng  
 RT: 17.452 min Scan# 1727  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

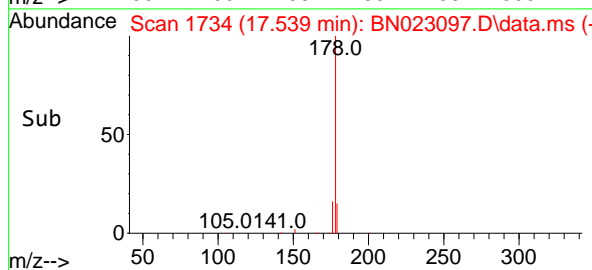
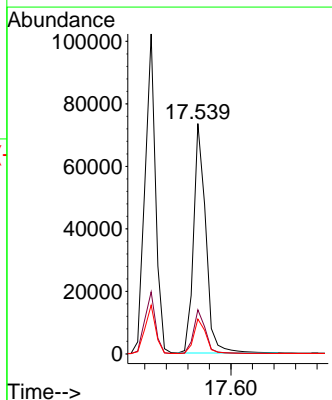
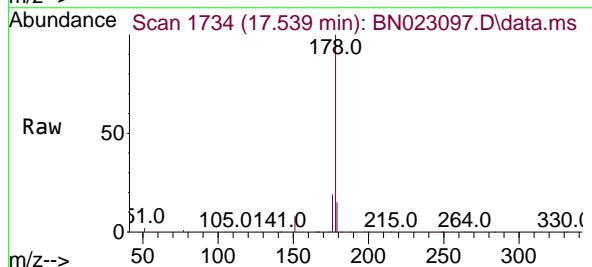
Instrument : BNA\_N  
 ClientSampleId : SSTDICC1.6

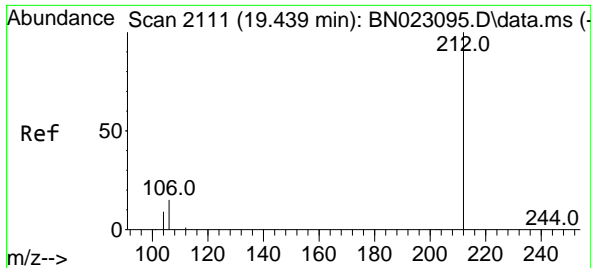
Tgt Ion	Resp	Lower	Upper
178	139569		
176	19.4	15.4	23.2
179	15.2	12.2	18.2



#26  
 Anthracene  
 Concen: 1.528 ng  
 RT: 17.539 min Scan# 1734  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion	Resp	Lower	Upper
178	115325		
176	18.8	15.1	22.7
179	15.2	12.2	18.4



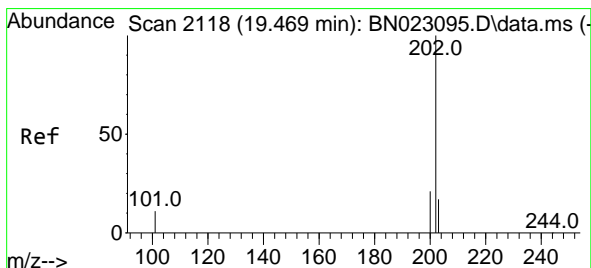
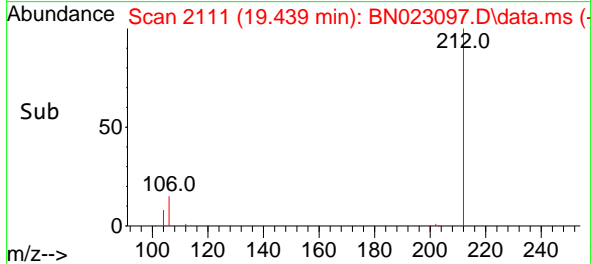
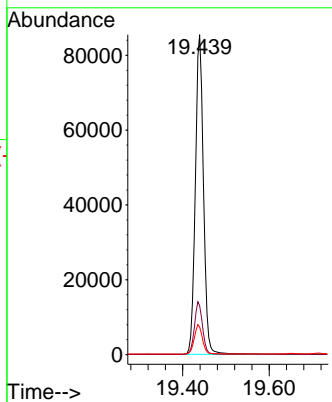
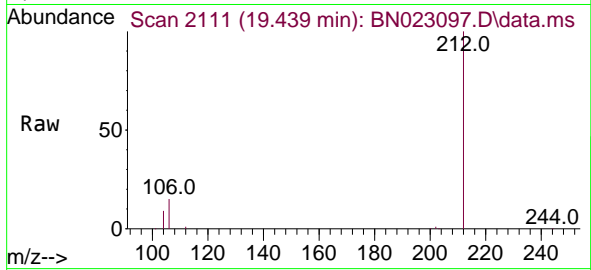


#27  
 Fluoranthene-d10  
 Concen: 1.463 ng  
 RT: 19.439 min Scan# 2111  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC1.6

Tgt Ion:212 Resp: 111381

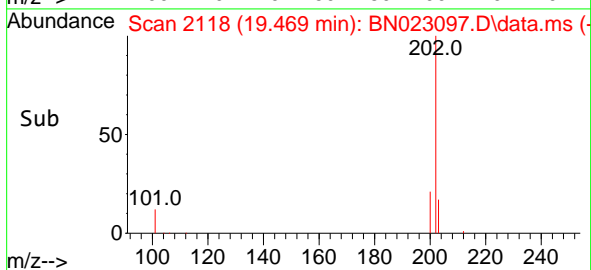
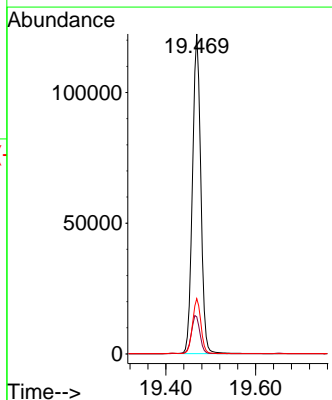
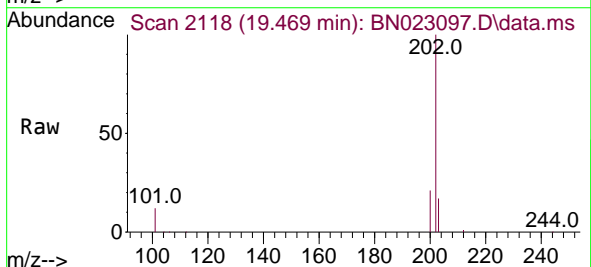
Ion	Ratio	Lower	Upper
212	100		
106	16.4	13.0	19.4
104	9.2	7.5	11.3

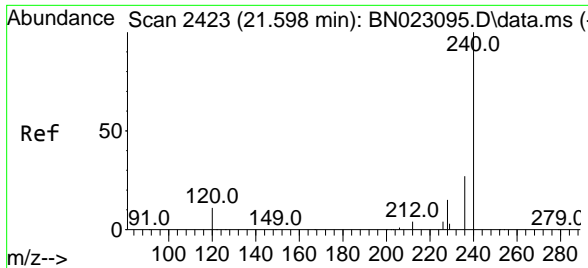


#28  
 Fluoranthene  
 Concen: 1.534 ng  
 RT: 19.469 min Scan# 2118  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion:202 Resp: 156823

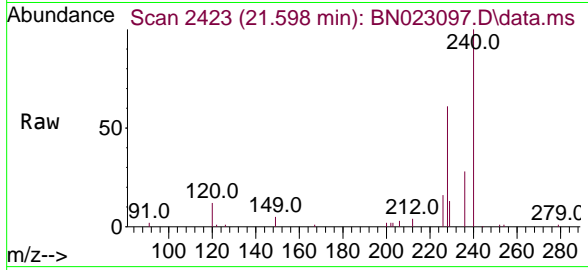
Ion	Ratio	Lower	Upper
202	100		
101	12.4	9.7	14.5
203	17.2	13.8	20.6



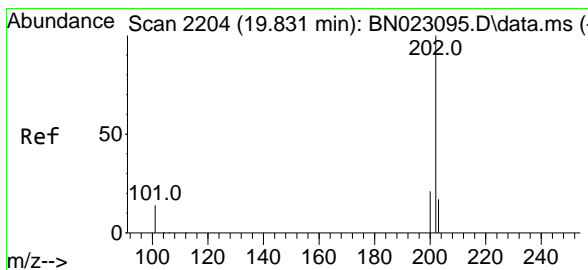
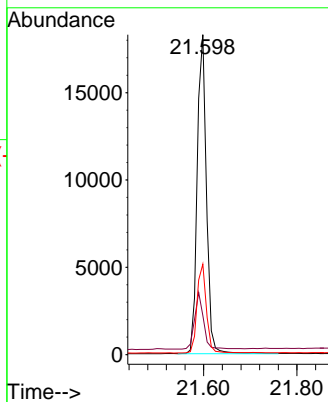
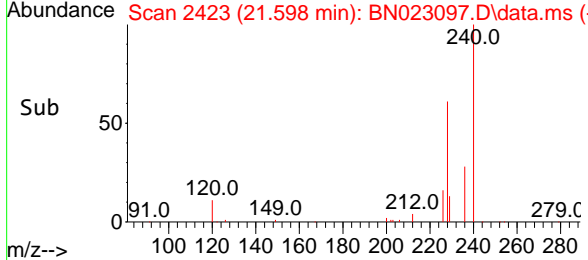


#29  
 Chrysene-d12  
 Concen: 0.400 ng  
 RT: 21.598 min Scan# 2423  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

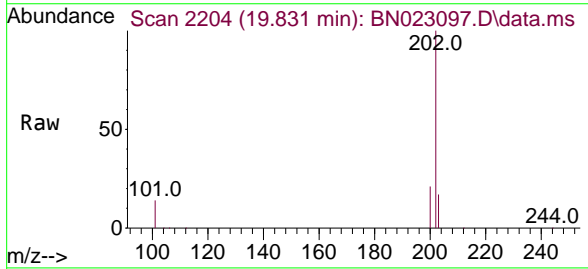
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC1.6



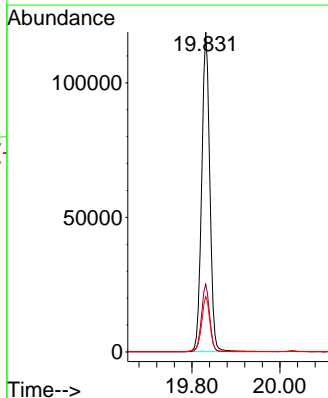
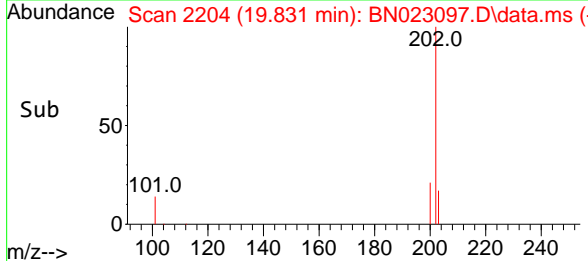
Tgt Ion:240 Resp: 24897  
 Ion Ratio Lower Upper  
 240 100  
 120 12.2 10.1 15.1  
 236 28.3 22.2 33.4



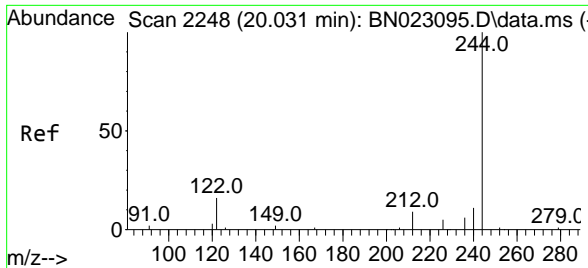
#30  
 Pyrene  
 Concen: 1.465 ng  
 RT: 19.831 min Scan# 2204  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26



Tgt Ion:202 Resp: 152036  
 Ion Ratio Lower Upper  
 202 100  
 200 21.2 16.9 25.3  
 203 17.7 14.2 21.4





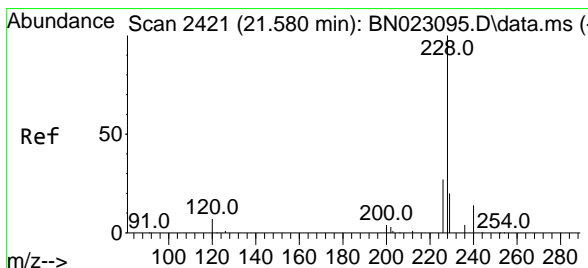
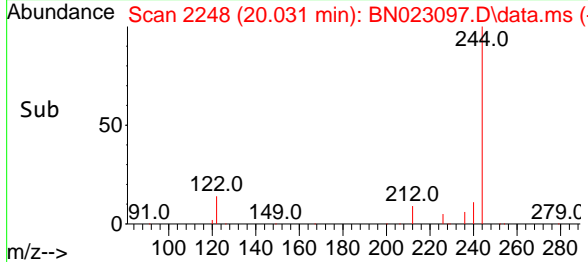
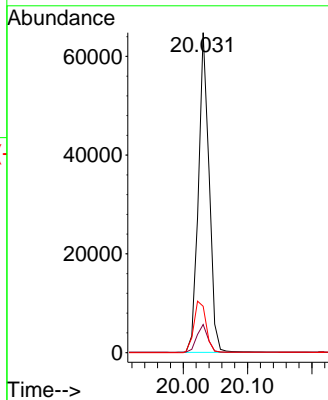
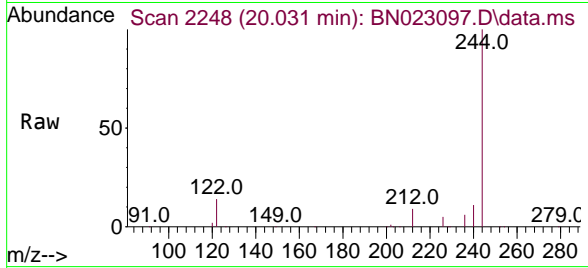


#31  
 Terphenyl-d14  
 Concen: 1.454 ng  
 RT: 20.031 min Scan# 21  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC1.6

Tgt Ion:244 Resp: 68689

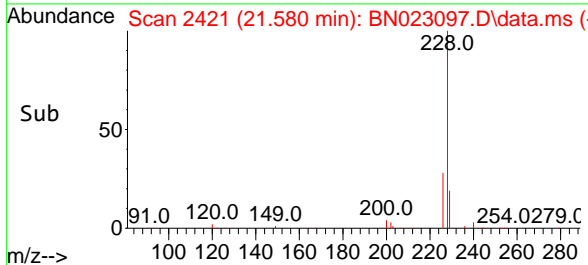
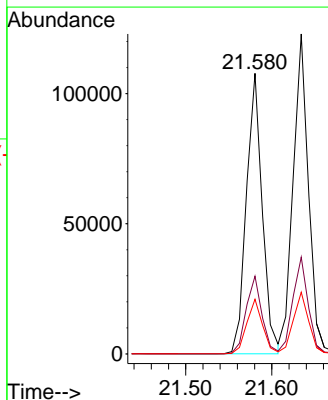
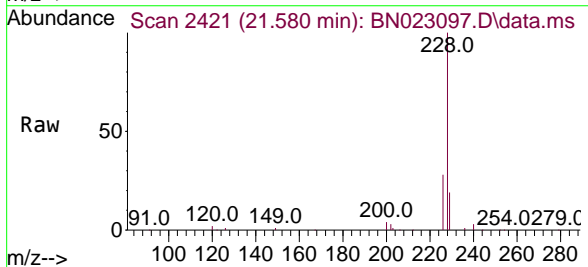
Ion	Ratio	Lower	Upper
244	100		
212	8.8	7.6	11.4
122	14.5	12.6	18.8

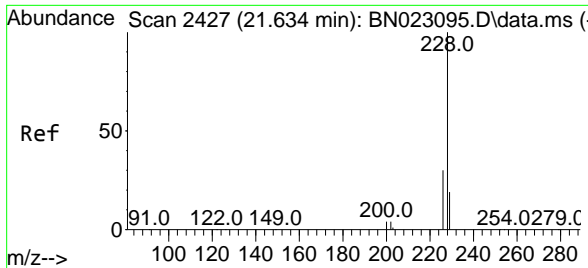


#32  
 Benzo(a)anthracene  
 Concen: 1.497 ng  
 RT: 21.580 min Scan# 2421  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion:228 Resp: 137563

Ion	Ratio	Lower	Upper
228	100		
226	27.7	22.0	33.0
229	19.5	15.8	23.8

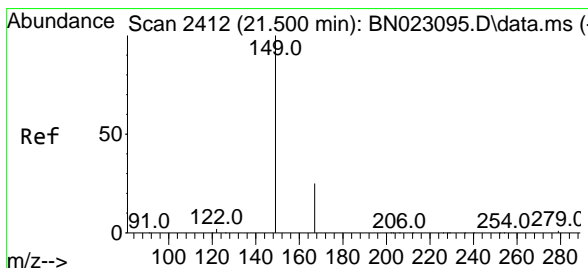
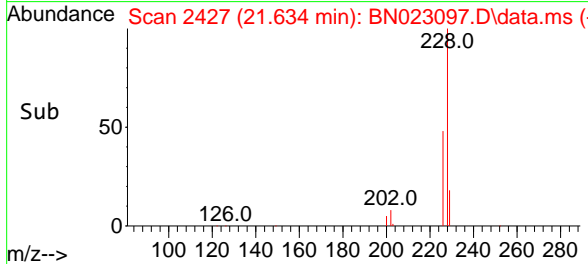
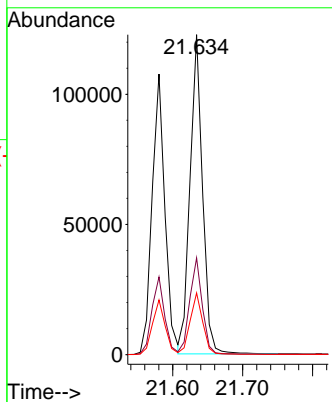
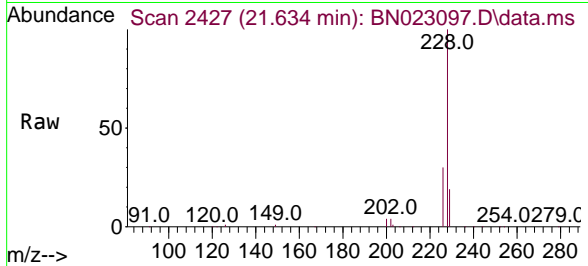




#33  
 Chrysene  
 Concen: 1.482 ng  
 RT: 21.634 min Scan# 2427  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

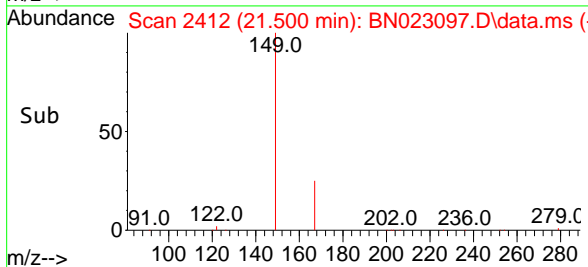
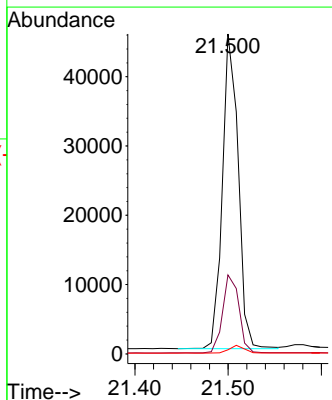
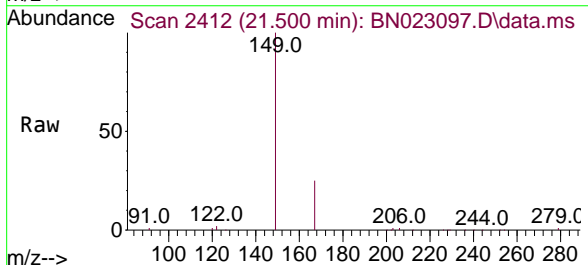
Instrument : BNA\_N  
 ClientSampleId : BN023097.D  
 SSTDICC1.6

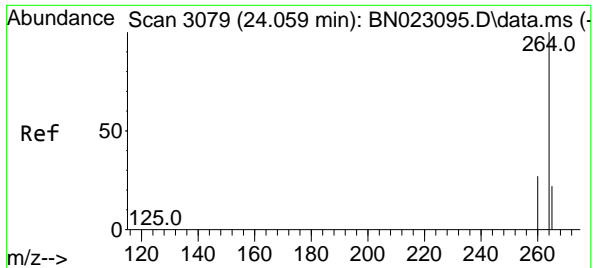
Tgt Ion	Resp	Lower	Upper
228	152270		
226	30.2	24.4	36.6
229	19.3	15.6	23.4



#34  
 Bis(2-ethylhexyl)phthalate  
 Concen: 1.350 ng  
 RT: 21.500 min Scan# 2412  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

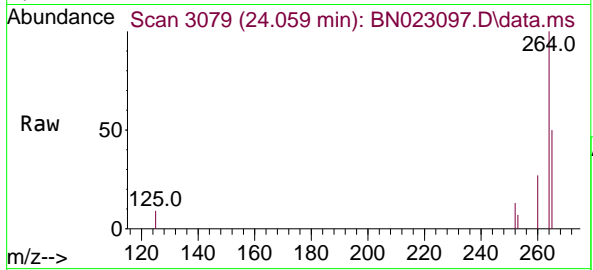
Tgt Ion	Resp	Lower	Upper
149	53634		
167	25.6	20.2	30.2
279	2.4	2.3	3.5





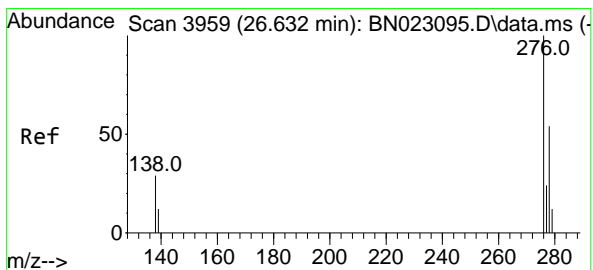
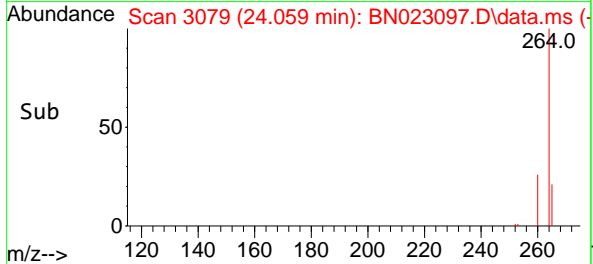
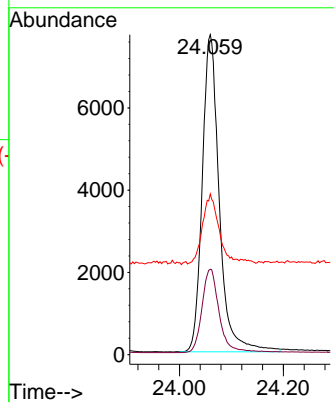
#35  
 Perylene-d12  
 Concen: 0.400 ng  
 RT: 24.059 min Scan# 3079  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC1.6



Tgt Ion: 264 Resp: 17546

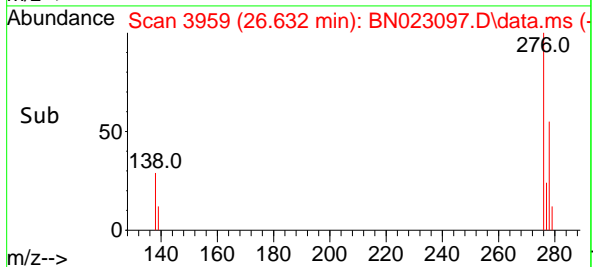
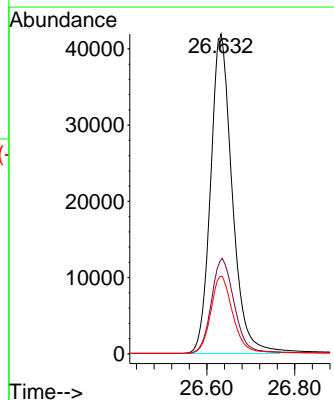
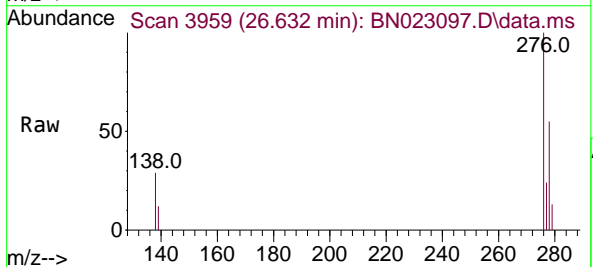
Ion	Ratio	Lower	Upper
264	100		
260	26.7	21.7	32.5
265	50.2	43.2	64.8

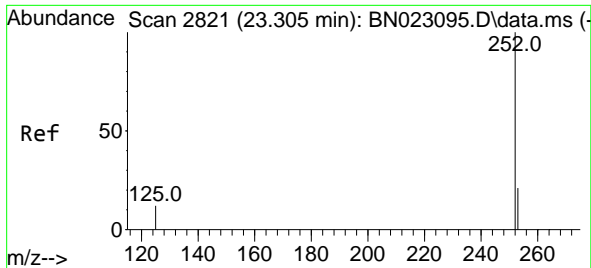


#36  
 Indeno(1,2,3-cd)pyrene  
 Concen: 1.534 ng  
 RT: 26.632 min Scan# 3959  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion: 276 Resp: 143051

Ion	Ratio	Lower	Upper
276	100		
138	31.4	25.0	37.6
277	24.7	19.8	29.8



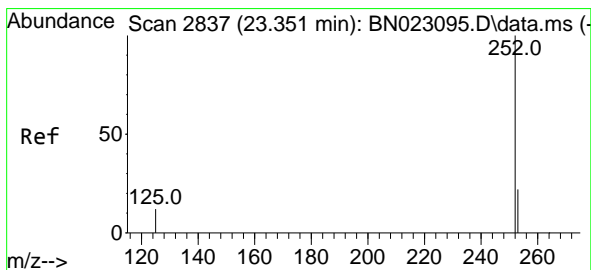
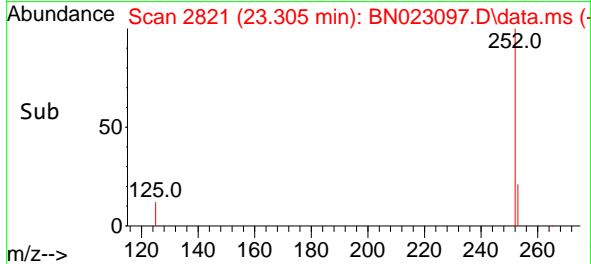
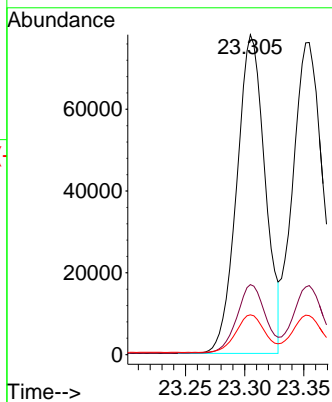
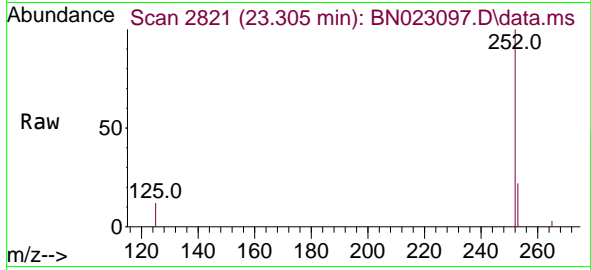


#37  
 Benzo(b)fluoranthene  
 Concen: 1.618 ng  
 RT: 23.305 min Scan# 2821  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Instrument : BNA\_N  
 ClientSampleId : SSTDICC1.6

Tgt Ion:252 Resp: 129768

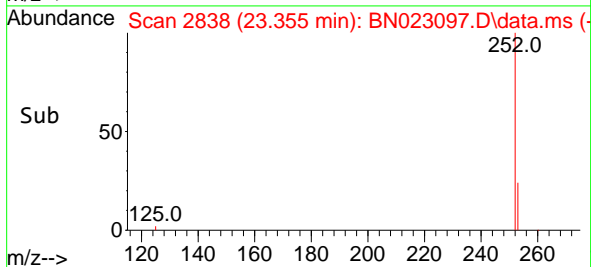
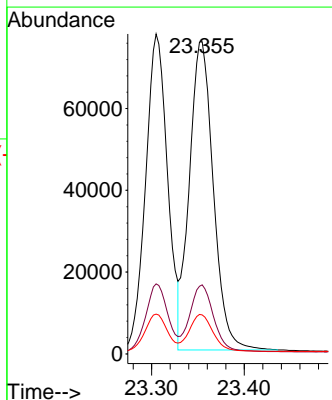
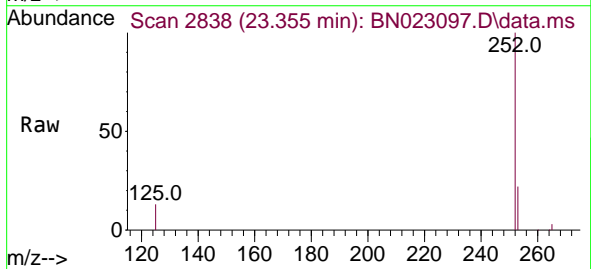
Ion	Ratio	Lower	Upper
252	100		
253	21.9	19.0	28.4
125	12.5	12.8	19.2#

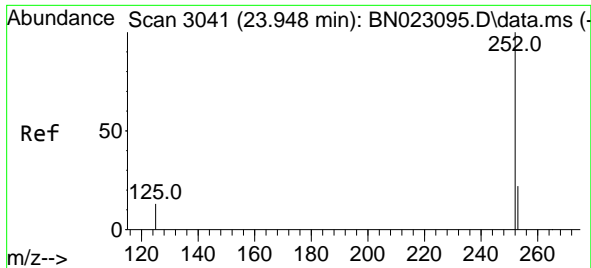


#38  
 Benzo(k)fluoranthene  
 Concen: 1.651 ng  
 RT: 23.355 min Scan# 2838  
 Delta R.T. 0.003 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion:252 Resp: 135698

Ion	Ratio	Lower	Upper
252	100		
253	22.1	19.1	28.7
125	12.5	12.5	18.7



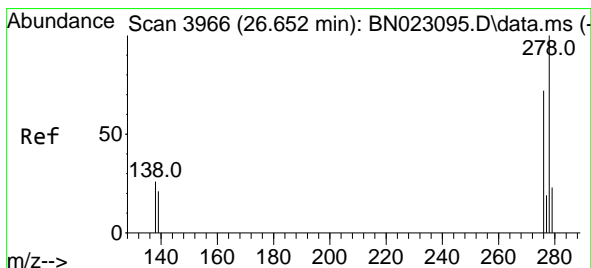
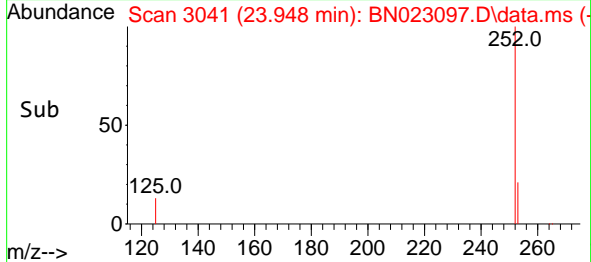
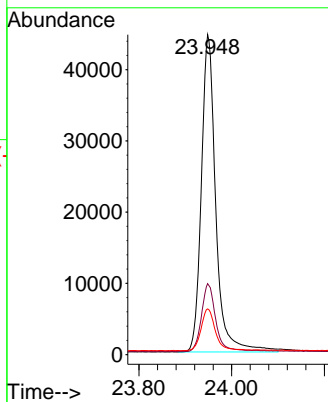
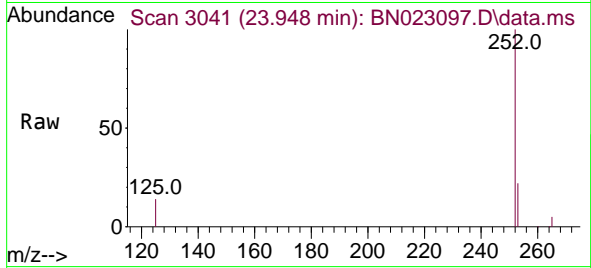


#39  
 Benzo(a)pyrene  
 Concen: 1.485 ng  
 RT: 23.948 min Scan# 3041  
 Delta R.T. 0.000 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Instrument : BNA\_N  
 ClientSampleId : SSTDICC1.6

Tgt Ion:252 Resp: 96478

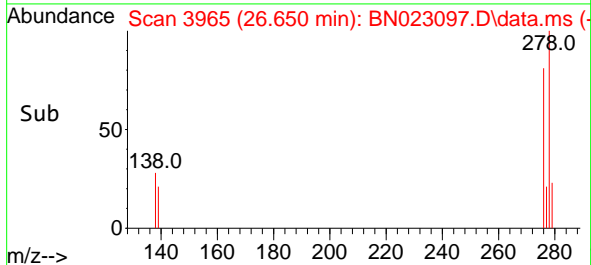
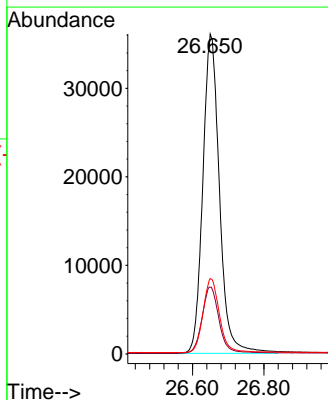
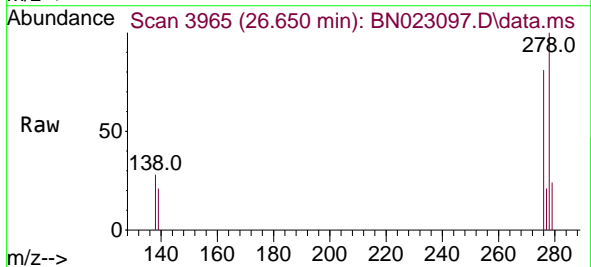
Ion	Ratio	Lower	Upper
252	100		
253	22.2	20.6	30.8
125	14.3	15.8	23.8#

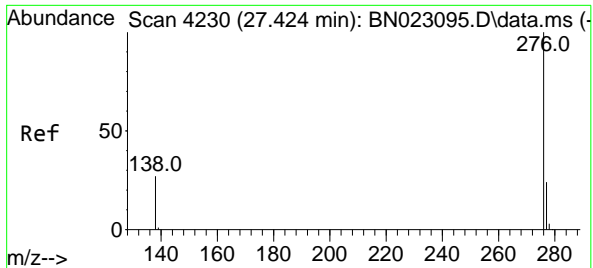


#40  
 Dibenzo(a,h)anthracene  
 Concen: 1.582 ng  
 RT: 26.650 min Scan# 3965  
 Delta R.T. -0.003 min  
 Lab File: BN023097.D  
 Acq: 08 Dec 2022 16:26

Tgt Ion:278 Resp: 116720

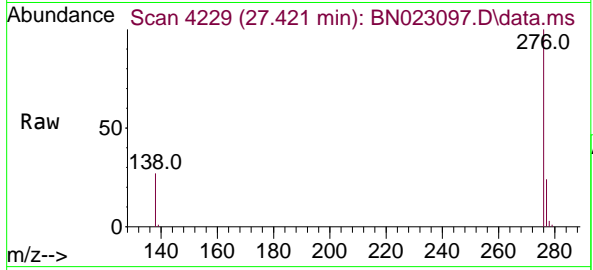
Ion	Ratio	Lower	Upper
278	100		
139	20.9	17.5	26.3
279	23.5	20.5	30.7





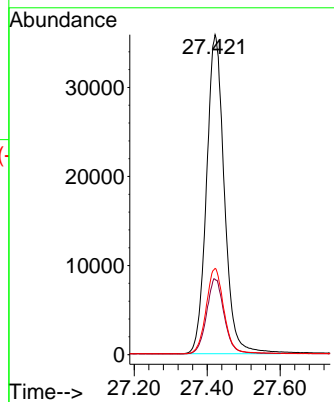
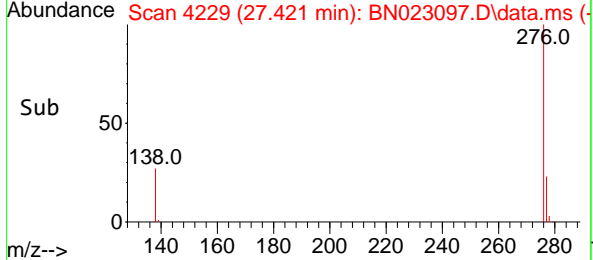
#41  
Benzo(g,h,i)perylene  
Concen: 1.608 ng  
RT: 27.421 min Scan# 41  
Delta R.T. -0.003 min  
Lab File: BN023097.D  
Acq: 08 Dec 2022 16:26

Instrument :  
BNA\_N  
ClientSampleId :  
SSTDICC1.6



Tgt Ion:276 Resp: 121454

Ion	Ratio	Lower	Upper
276	100		
277	23.5	19.9	29.9
138	26.9	22.2	33.2



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- 17

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN120822\  
 Data File : BN023098.D  
 Acq On : 08 Dec 2022 17:03  
 Operator : CG/JU  
 Sample : SSTDICC3.2  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC3.2

Quant Time: Dec 09 07:28:55 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:25:53 2022  
 Response via : Initial Calibration

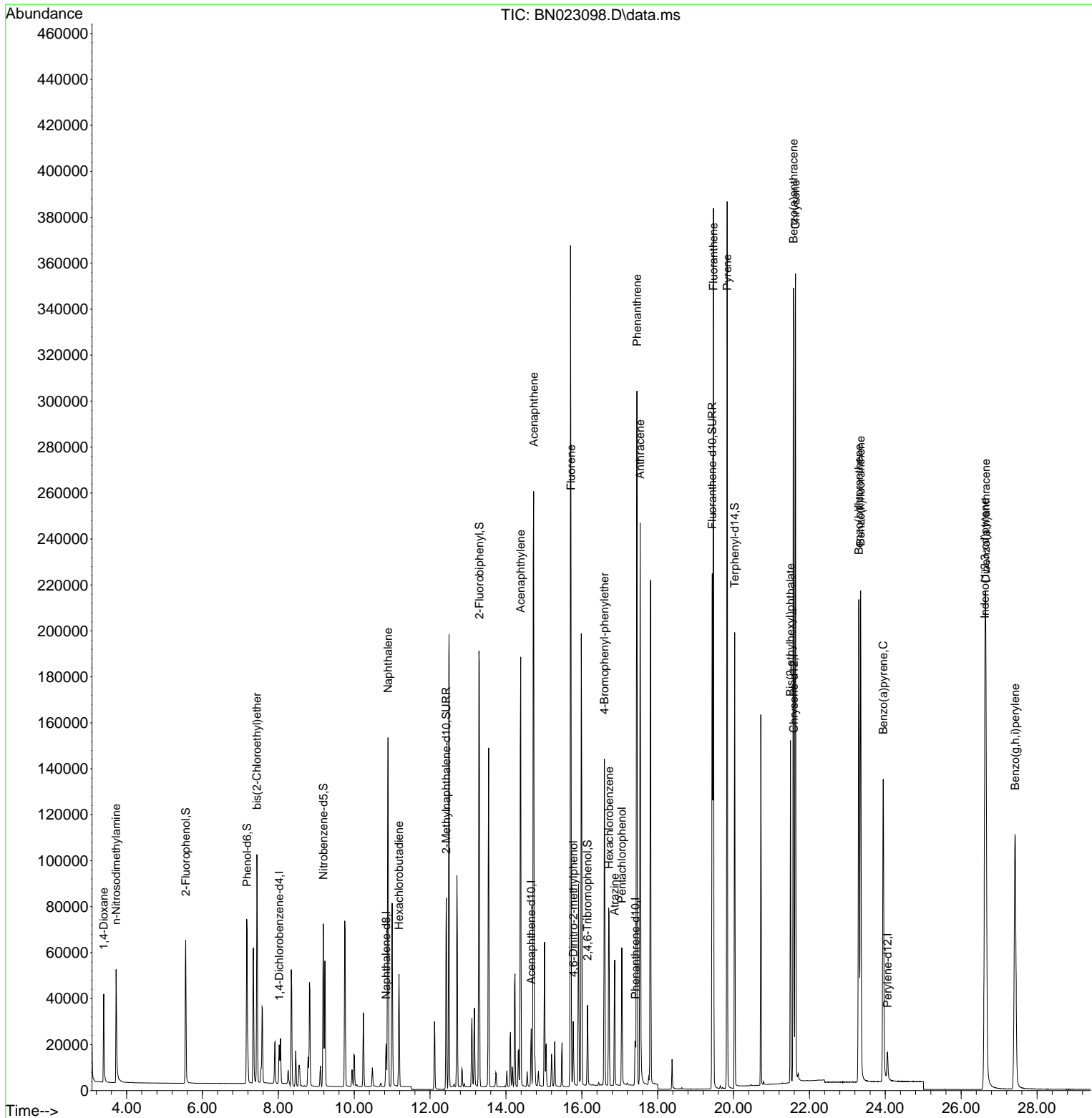
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) 1,4-Dichlorobenzene-d4	8.020	152	8090	0.400 ng	0.00	
7) Naphthalene-d8	10.840	136	23133	0.400 ng	0.00	
13) Acenaphthene-d10	14.666	164	13470	0.400 ng	0.00	
19) Phenanthrene-d10	17.414	188	28191	0.400 ng	0.00	
29) Chrysene-d12	21.589	240	26247	0.400 ng	# 0.00	
35) Perylene-d12	24.056	264	17877	0.400 ng	0.00	
System Monitoring Compounds						
4) 2-Fluorophenol	5.558	112	49643	2.653 ng	0.00	
5) Phenol-d6	7.175	99	65990	2.805 ng	0.00	
8) Nitrobenzene-d5	9.185	82	52766	3.040 ng	0.00	
11) 2-Methylnaphthalene-d10	12.427	152	138357	3.168 ng	0.00	
14) 2,4,6-Tribromophenol	16.148	330	18487	3.249 ng	0.00	
15) 2-Fluorobiphenyl	13.298	172	173988	2.910 ng	0.00	
27) Fluoranthene-d10	19.439	212	234419	3.037 ng	0.00	
31) Terphenyl-d14	20.031	244	139156	2.793 ng	0.00	
Target Compounds						
2) 1,4-Dioxane	3.398	88	25353	2.527 ng		Qvalue 98
3) n-Nitrosodimethylamine	3.723	42	28858	2.941 ng	#	96
6) bis(2-Chloroethyl)ether	7.435	93	69322	2.669 ng		98
9) Naphthalene	10.893	128	195994	2.856 ng		99
10) Hexachlorobutadiene	11.181	225	36427	2.827 ng	#	100
16) Acenaphthylene	14.388	152	201290	3.180 ng		100
17) Acenaphthene	14.730	154	136104	2.951 ng		97
18) Fluorene	15.714	166	154549	2.988 ng		99
20) 4,6-Dinitro-2-methylph...	15.776	198	16007	4.197 ng	#	81
21) 4-Bromophenyl-phenylether	16.595	248	52085	3.067 ng		98
22) Hexachlorobenzene	16.719	284	66183	3.001 ng		100
23) Atrazine	16.868	200	40499	3.278 ng		98
24) Pentachlorophenol	17.054	266	26196	4.044 ng		99
25) Phenanthrene	17.452	178	287541	3.026 ng		100
26) Anthracene	17.538	178	247626	3.234 ng		100
28) Fluoranthene	19.469	202	324068	3.126 ng		100
30) Pyrene	19.831	202	320665	2.930 ng		100
32) Benzo(a)anthracene	21.580	228	298657	3.082 ng		99
33) Chrysene	21.634	228	307277	2.838 ng		99
34) Bis(2-ethylhexyl)phtha...	21.500	149	124141	2.965 ng		99
36) Indeno(1,2,3-cd)pyrene	26.626	276	293290	3.087 ng		100
37) Benzo(b)fluoranthene	23.302	252	268022	3.280 ng	#	94
38) Benzo(k)fluoranthene	23.351	252	279632	3.339 ng	#	94
39) Benzo(a)pyrene	23.945	252	206454	3.118 ng	#	90
40) Dibenzo(a,h)anthracene	26.649	278	236723	3.149 ng		97
41) Benzo(g,h,i)perylene	27.421	276	245390	3.189 ng		98

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

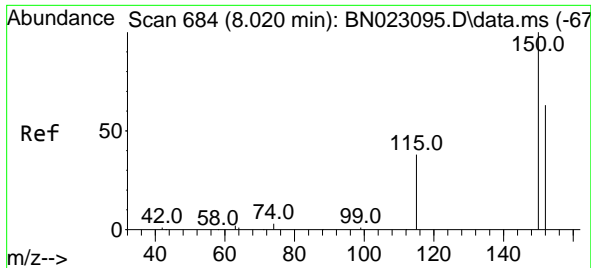
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 Data File : BN023098.D  
 Acq On : 08 Dec 2022 17:03  
 Operator : CG/JU  
 Sample : SSTDICC3.2  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC3.2

Quant Time: Dec 09 07:28:55 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:25:53 2022  
 Response via : Initial Calibration

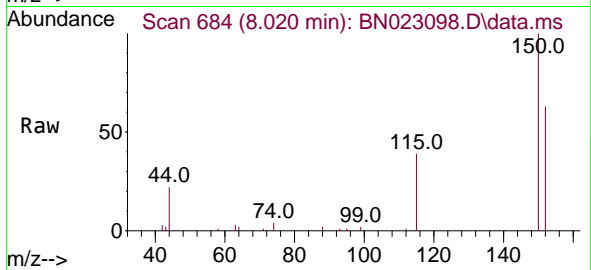




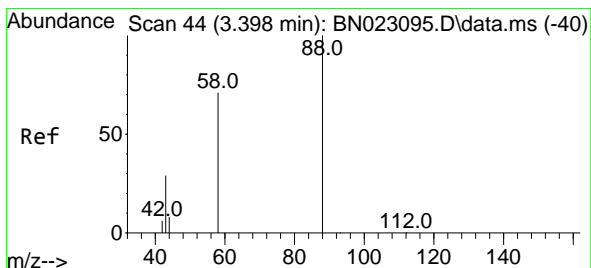
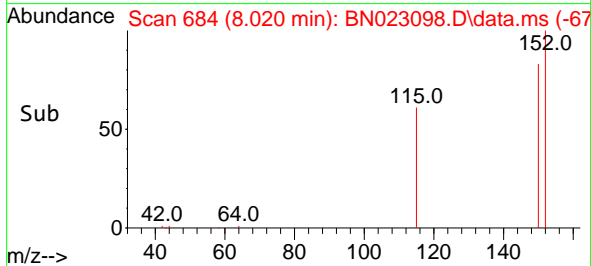
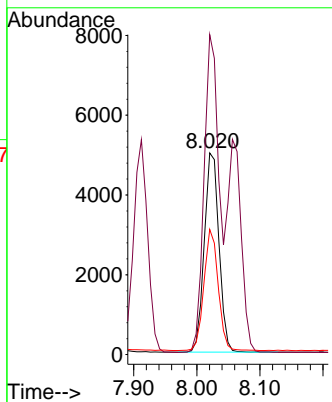


#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 8.020 min Scan# 68  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC3.2

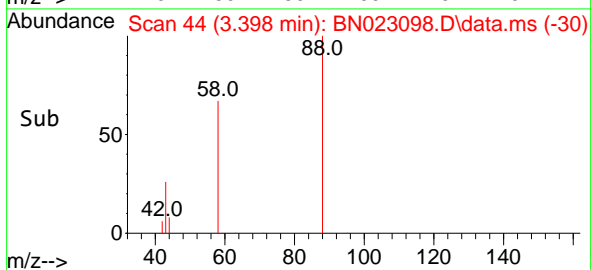
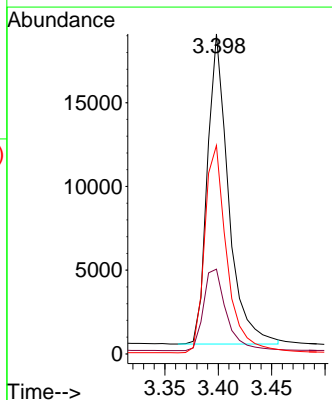
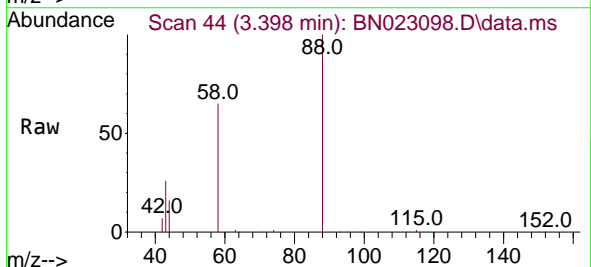


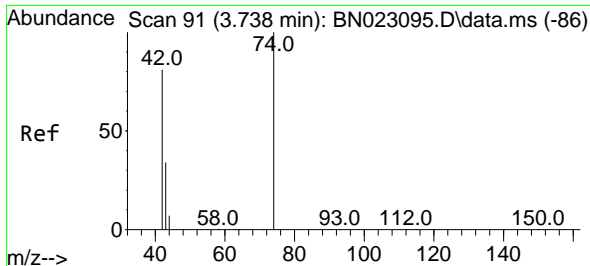
Tgt Ion:152 Resp: 8090  
 Ion Ratio Lower Upper  
 152 100  
 150 158.7 125.6 188.4  
 115 62.1 49.0 73.4



#2  
 1,4-Dioxane  
 Concen: 2.527 ng  
 RT: 3.398 min Scan# 44  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion: 88 Resp: 25353  
 Ion Ratio Lower Upper  
 88 100  
 43 28.7 23.3 34.9  
 58 70.4 58.0 87.0



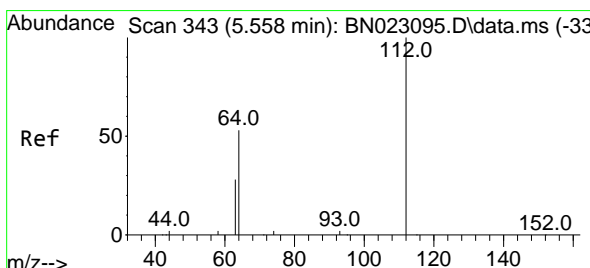
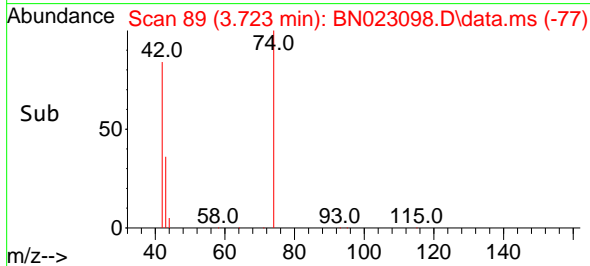
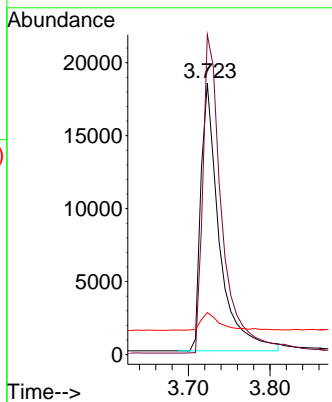
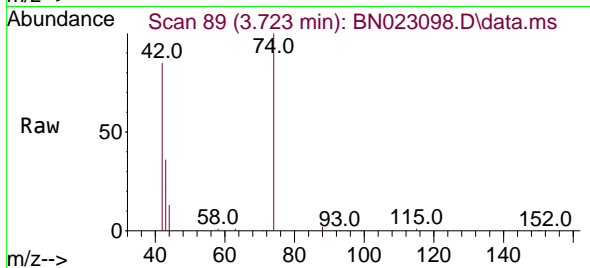


#3  
n-Nitrosodimethylamine  
Concen: 2.941 ng  
RT: 3.723 min Scan# 89  
Delta R.T. -0.014 min  
Lab File: BN023098.D  
Acq: 08 Dec 2022 17:03

Instrument :  
BNA\_N  
Client Sample Id :  
SSTDICC3.2

Tgt Ion: 42 Resp: 28858

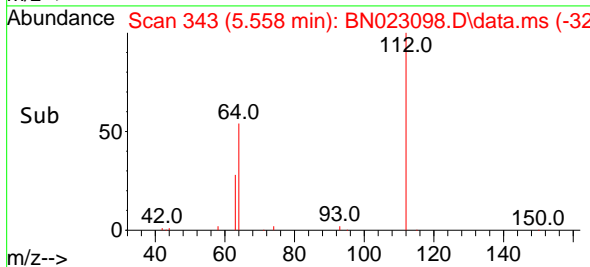
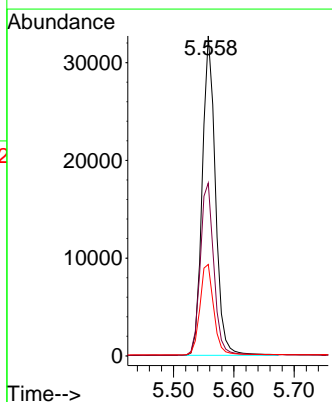
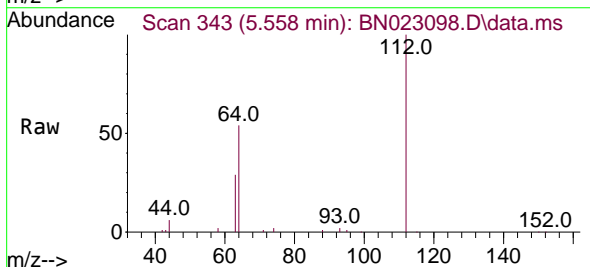
Ion	Ratio	Lower	Upper
42	100		
74	123.3	95.8	143.6
44	7.1	8.4	12.6

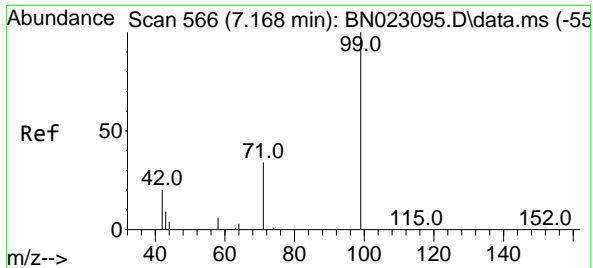


#4  
2-Fluorophenol  
Concen: 2.653 ng  
RT: 5.558 min Scan# 343  
Delta R.T. 0.000 min  
Lab File: BN023098.D  
Acq: 08 Dec 2022 17:03

Tgt Ion: 112 Resp: 49643

Ion	Ratio	Lower	Upper
112	100		
64	55.8	44.4	66.6
63	29.8	23.7	35.5

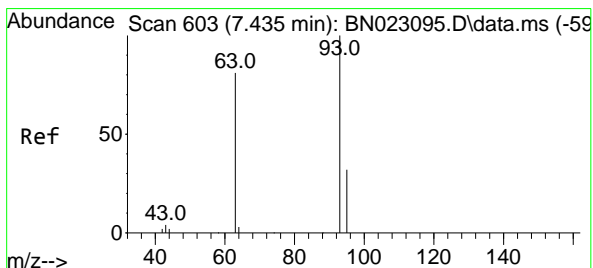
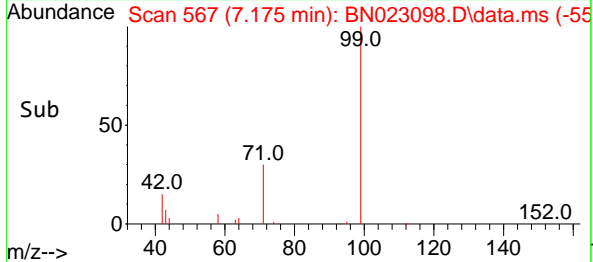
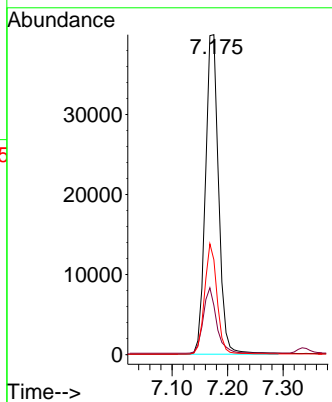
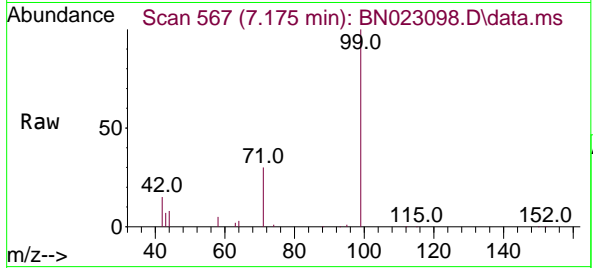




#5  
 Phenol-d6  
 Concen: 2.805 ng  
 RT: 7.175 min Scan# 567  
 Delta R.T. 0.007 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

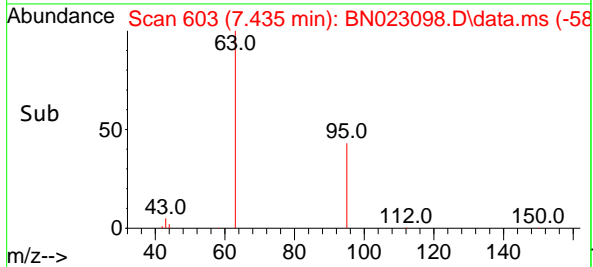
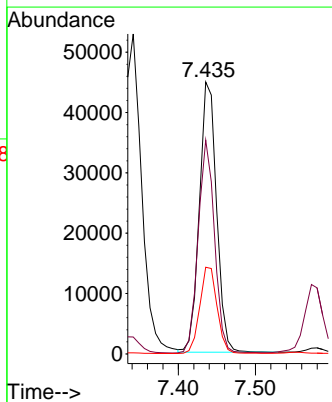
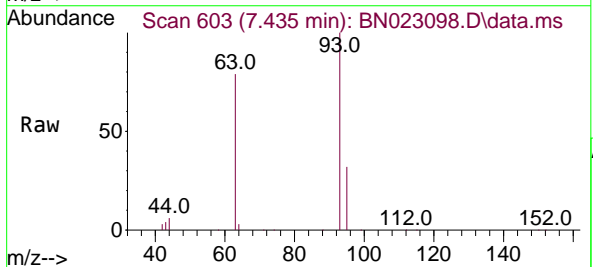
Instrument : BNA\_N  
 ClientSampleId : SSTDICC3.2

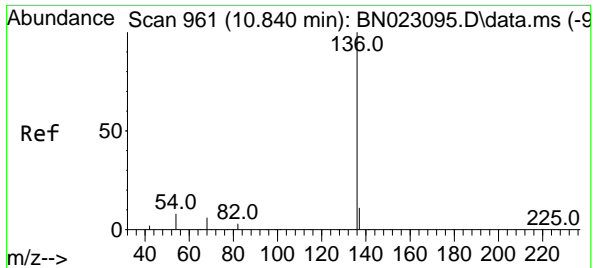
Tgt Ion	Resp	Ion Ratio	Lower	Upper
99	65990	100		
42	20.8	16.3	24.5	
71	32.7	26.5	39.7	



#6  
 bis(2-Chloroethyl)ether  
 Concen: 2.669 ng  
 RT: 7.435 min Scan# 603  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion	Resp	Ion Ratio	Lower	Upper
93	69322	100		
63	74.9	58.1	87.1	
95	32.3	25.2	37.8	



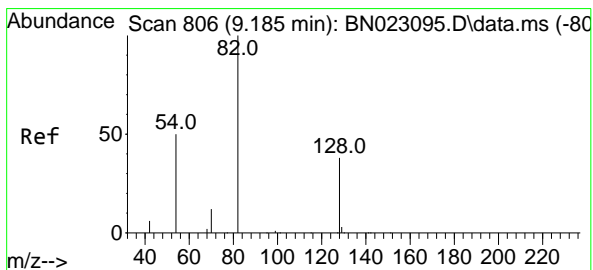
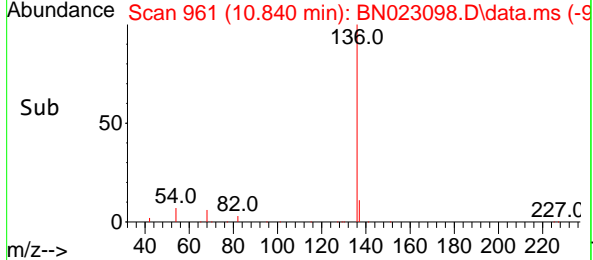
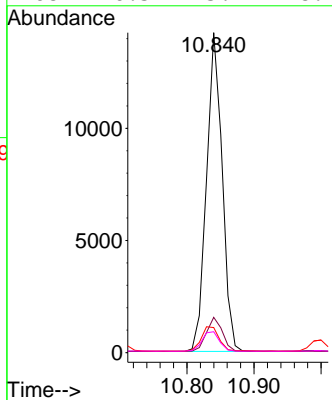
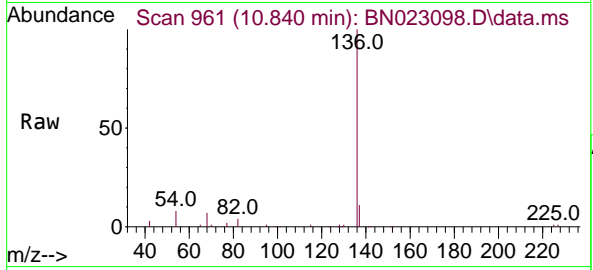


#7  
 Naphthalene-d8  
 Concen: 0.400 ng  
 RT: 10.840 min Scan# 961  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Instrument : BNA\_N  
 Client Sample Id : SSTDICC3.2

Tgt Ion:136 Resp: 23133

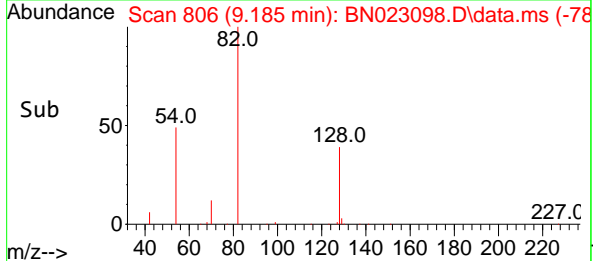
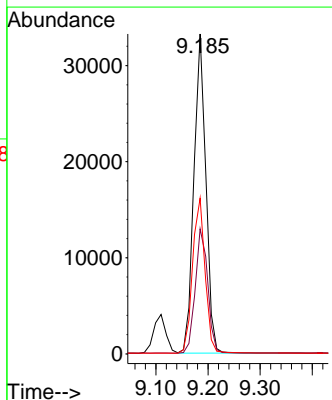
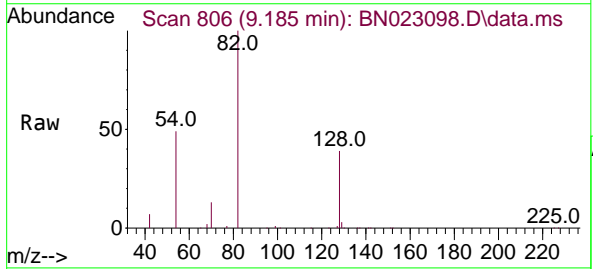
Ion	Ratio	Lower	Upper
136	100		
137	11.0	9.0	13.4
54	7.9	6.5	9.7
68	6.5	5.4	8.2

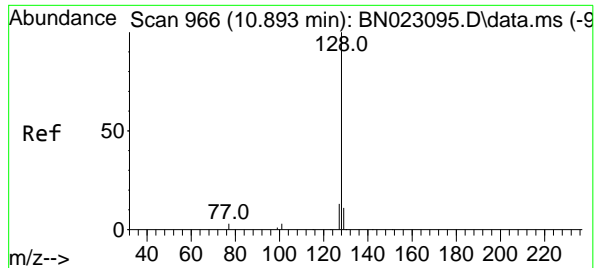


#8  
 Nitrobenzene-d5  
 Concen: 3.040 ng  
 RT: 9.185 min Scan# 806  
 Delta R.T. -0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion: 82 Resp: 52766

Ion	Ratio	Lower	Upper
82	100		
128	39.1	31.4	47.2
54	48.7	41.0	61.4



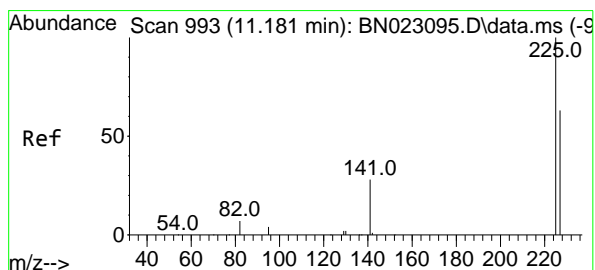
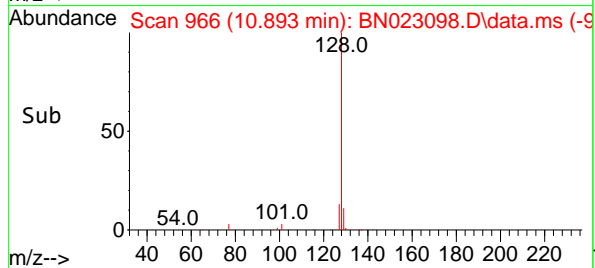
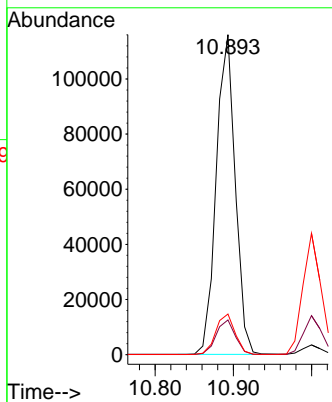
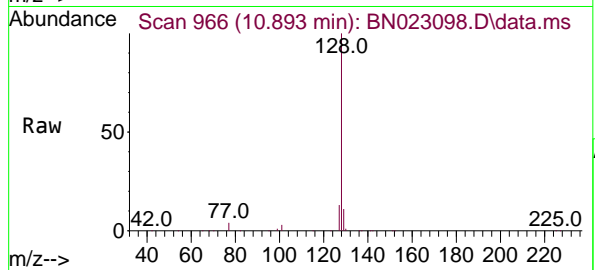


#9  
**Naphthalene**  
 Concen: 2.856 ng  
 RT: 10.893 min Scan# 966  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

**Instrument :** BNA\_N  
**ClientSampleId :** SSTDICC3.2

Tgt Ion:128 Resp: 195994

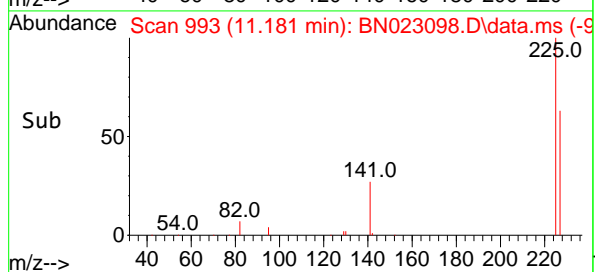
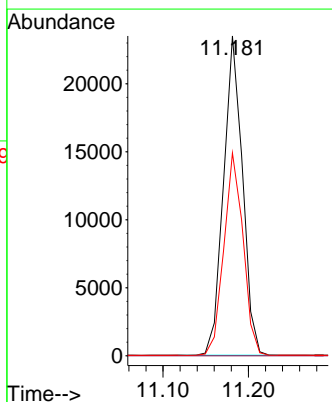
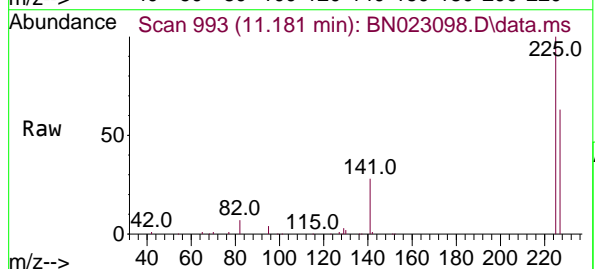
Ion	Ratio	Lower	Upper
128	100		
129	10.9	9.0	13.6
127	12.7	10.5	15.7

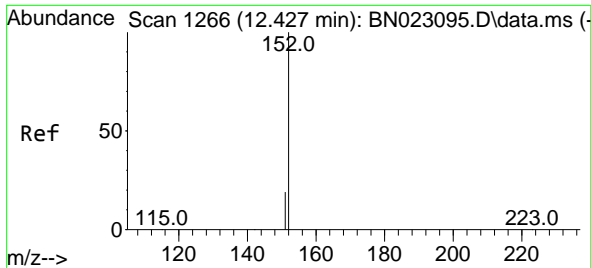


#10  
**Hexachlorobutadiene**  
 Concen: 2.827 ng  
 RT: 11.181 min Scan# 993  
 Delta R.T. -0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion:225 Resp: 36427

Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	64.0	51.1	76.7

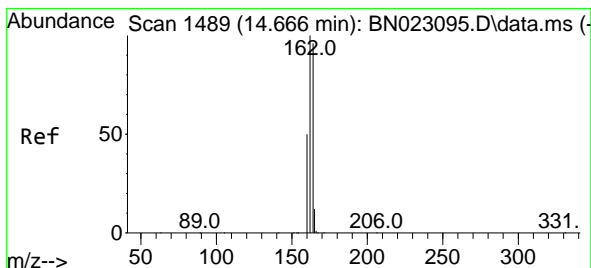
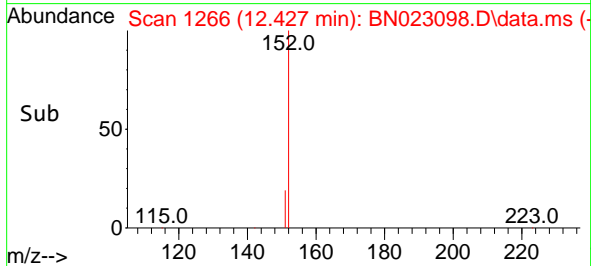
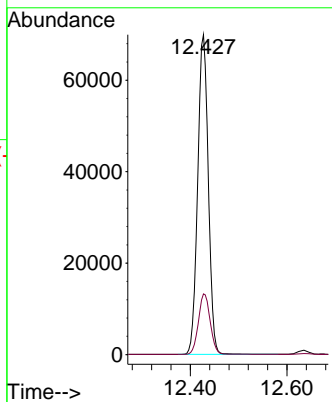
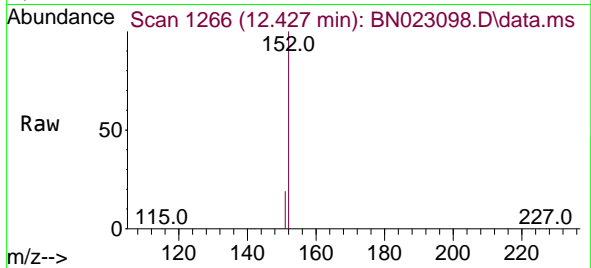




#11  
 2-Methylnaphthalene-d10  
 Concen: 3.168 ng  
 RT: 12.427 min Scan# 1266  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

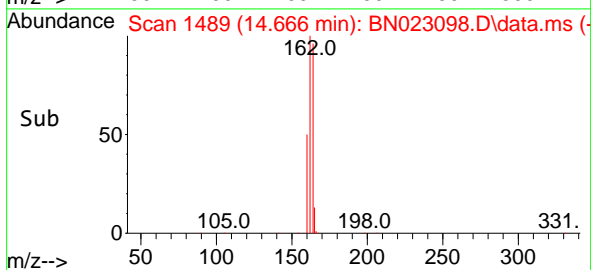
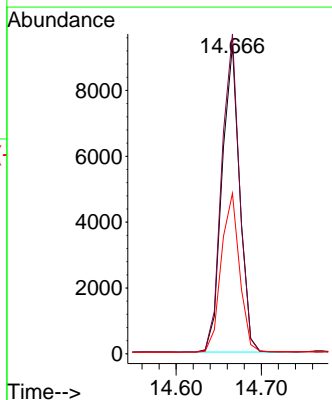
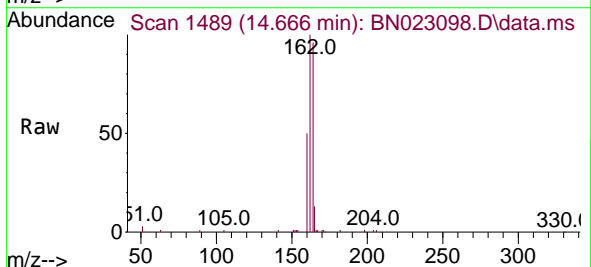
Instrument : BNA\_N  
 ClientSampleId : SSTDICC3.2

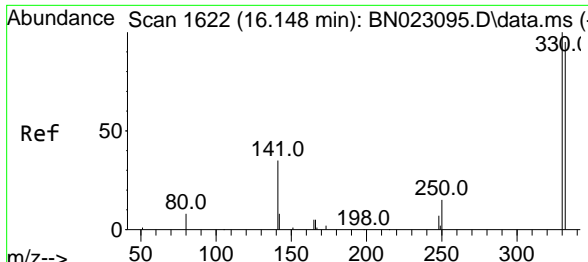
Tgt Ion:152 Resp: 138357  
 Ion Ratio Lower Upper  
 152 100  
 151 19.7 15.1 22.7



#13  
 Acenaphthene-d10  
 Concen: 0.400 ng  
 RT: 14.666 min Scan# 1489  
 Delta R.T. -0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion:164 Resp: 13470  
 Ion Ratio Lower Upper  
 164 100  
 162 103.7 83.4 125.0  
 160 52.0 41.8 62.8



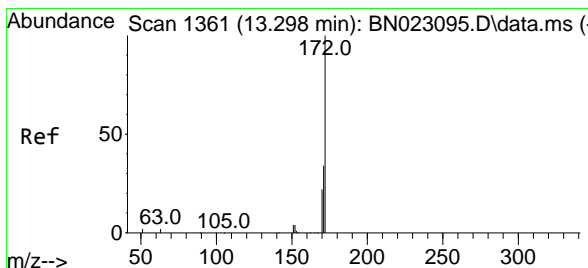
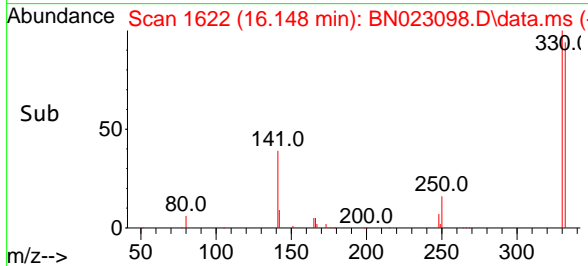
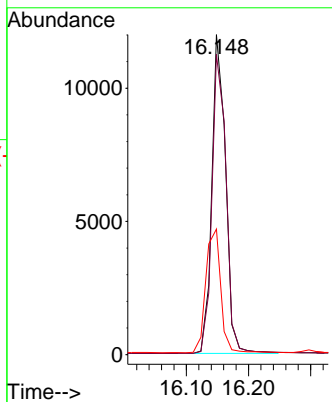
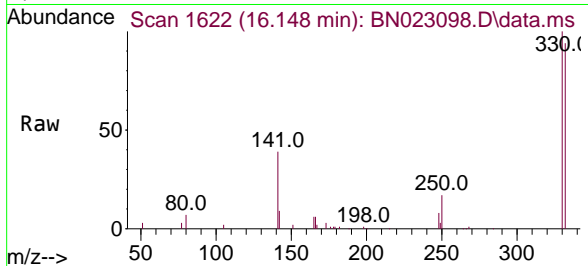


#14  
 2,4,6-Tribromophenol  
 Concen: 3.249 ng  
 RT: 16.148 min Scan# 1622  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC3.2

Tgt Ion:330 Resp: 18487

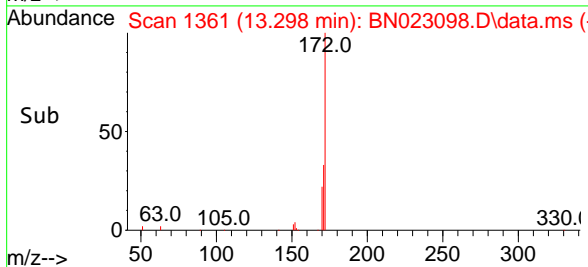
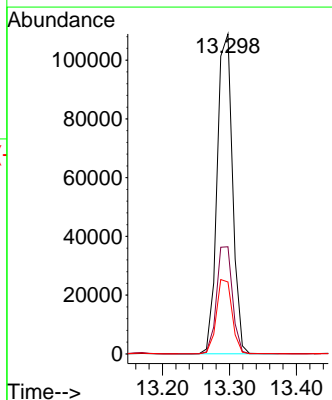
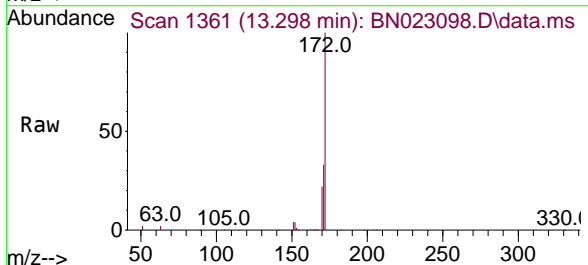
Ion	Ratio	Lower	Upper
330	100		
332	96.4	77.3	115.9
141	41.8	33.5	50.3

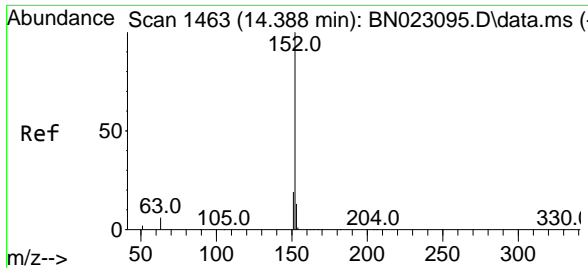


#15  
 2-Fluorobiphenyl  
 Concen: 2.910 ng  
 RT: 13.298 min Scan# 1361  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion:172 Resp: 173988

Ion	Ratio	Lower	Upper
172	100		
171	33.5	27.4	41.0
170	22.5	17.9	26.9

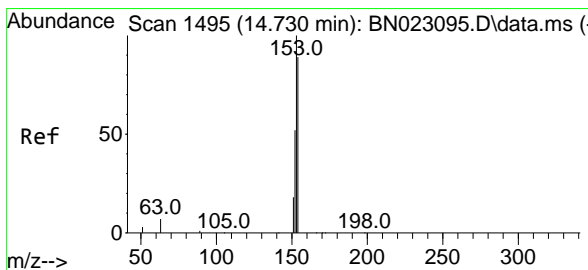
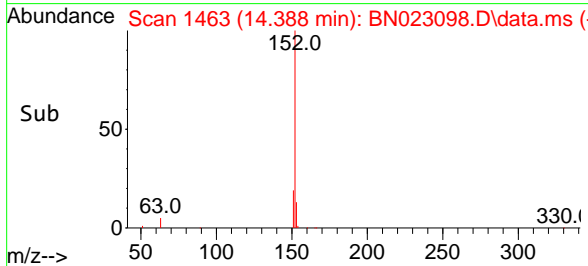
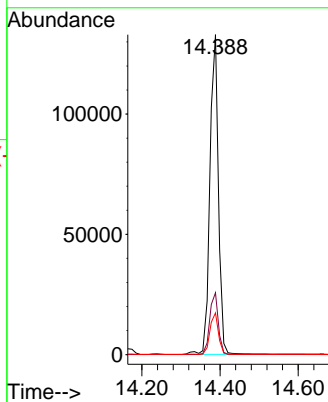
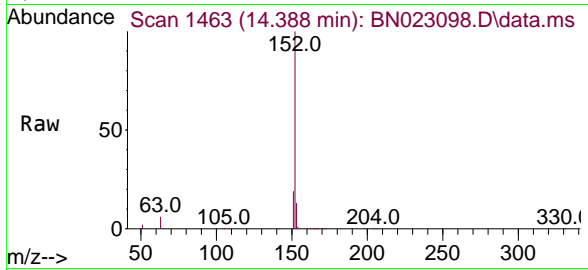




#16  
 Acenaphthylene  
 Concen: 3.180 ng  
 RT: 14.388 min Scan# 1463  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

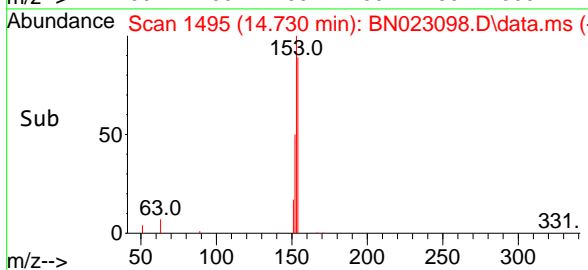
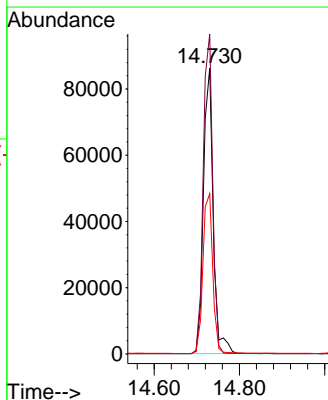
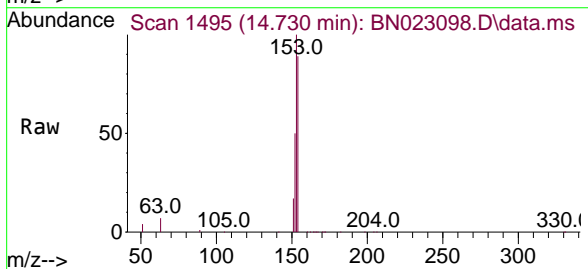
Instrument : BNA\_N  
 Client Sample Id : SSTDICC3.2

Tgt Ion	Resp	Lower	Upper
152	100		
151	19.4	15.4	23.2
153	13.0	10.3	15.5

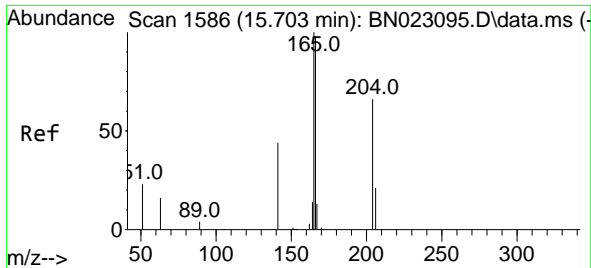


#17  
 Acenaphthene  
 Concen: 2.951 ng  
 RT: 14.730 min Scan# 1495  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion	Resp	Lower	Upper
154	100		
153	108.9	88.6	132.8
152	56.7	48.1	72.1



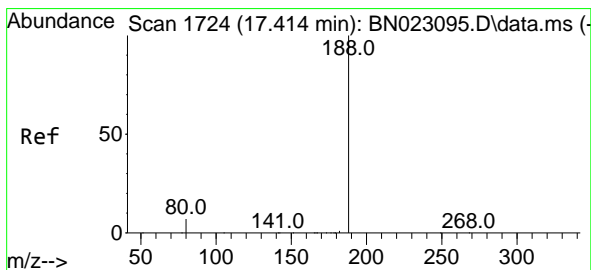
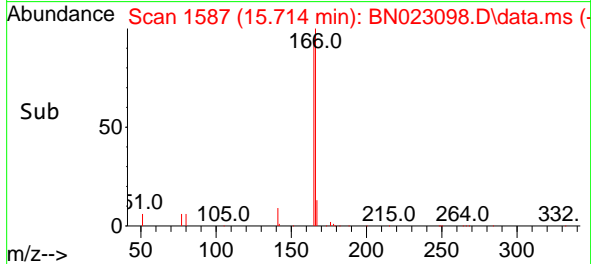
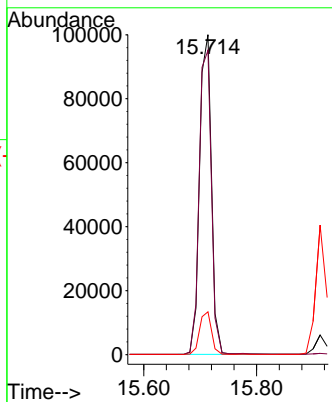
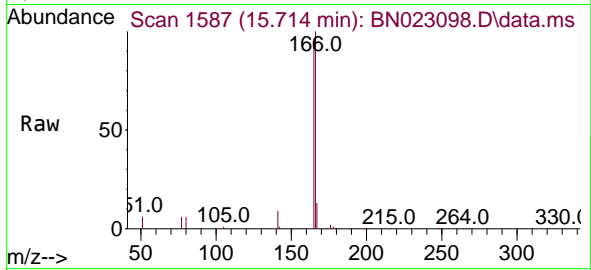




#18  
 Fluorene  
 Concen: 2.988 ng  
 RT: 15.714 min Scan# 11  
 Delta R.T. 0.011 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

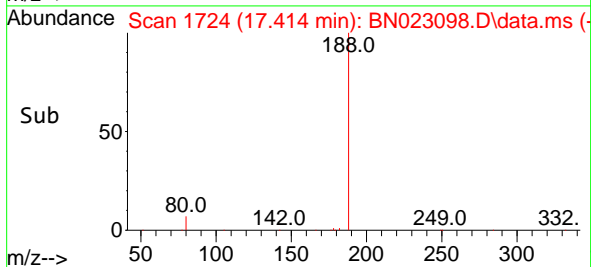
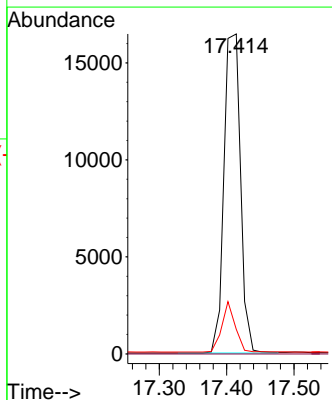
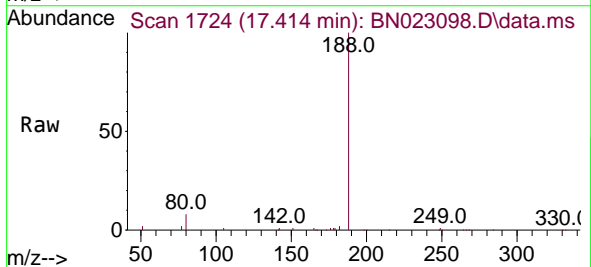
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC3.2

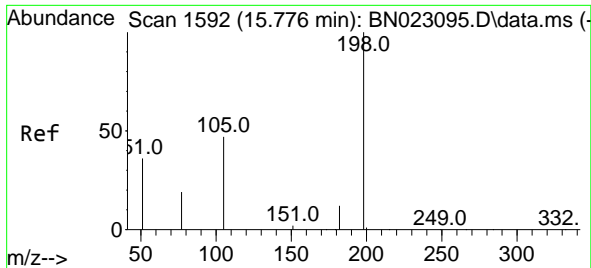
Tgt Ion	Resp	Lower	Upper
166	154549		
166	100		
165	98.3	79.8	119.6
167	12.9	10.6	16.0



#19  
 Phenanthrene-d10  
 Concen: 0.400 ng  
 RT: 17.414 min Scan# 1724  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion	Resp	Lower	Upper
188	28191		
188	100		
94	0.0	0.0	0.0
80	7.7	6.1	9.1

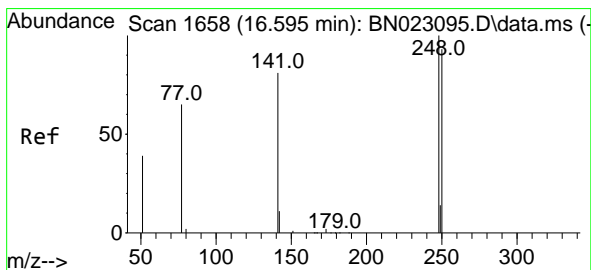
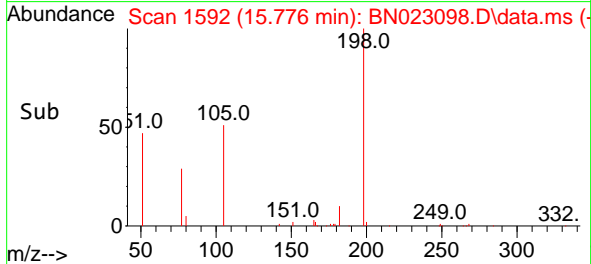
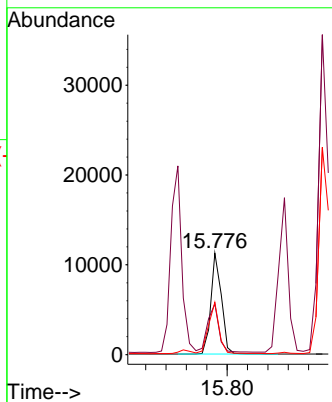
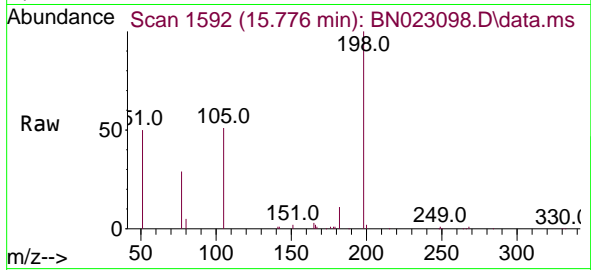




#20  
 4,6-Dinitro-2-methylphenol  
 Concen: 4.197 ng  
 RT: 15.776 min Scan# 1592  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

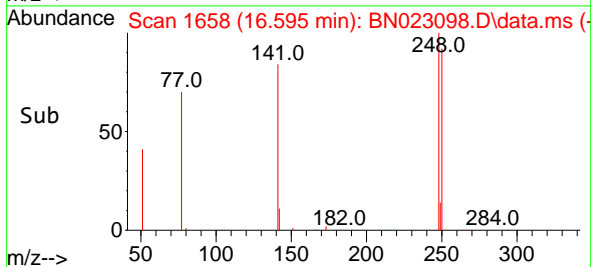
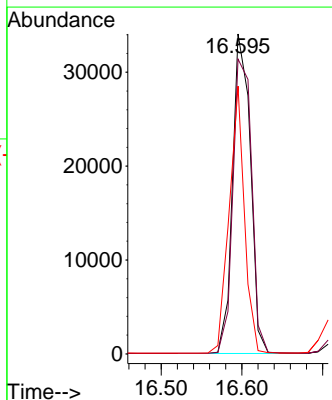
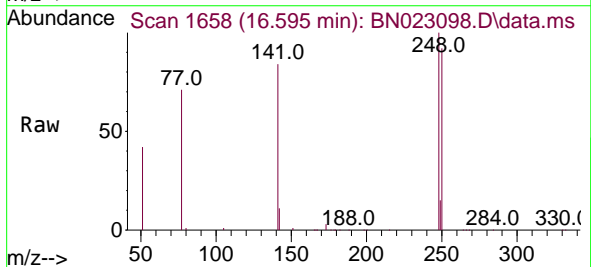
Instrument : BNA\_N  
 ClientSampleId : SSTDICC3.2

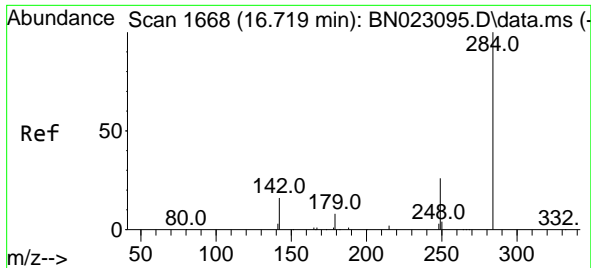
Tgt Ion	Resp	Ion Ratio	Lower	Upper
198	16007	100		
51	49.8	57.0	85.4#	
105	51.4	47.2	70.8	



#21  
 4-Bromophenyl-phenylether  
 Concen: 3.067 ng  
 RT: 16.595 min Scan# 1658  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion	Resp	Ion Ratio	Lower	Upper
248	52085	100		
250	92.1	74.3	111.5	
141	83.7	65.0	97.6	



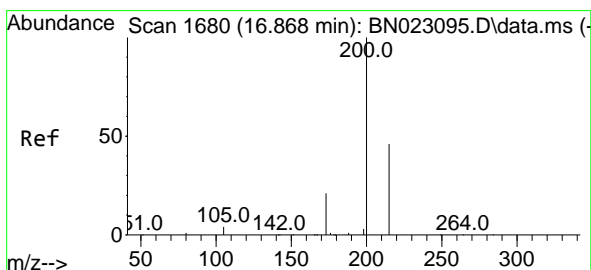
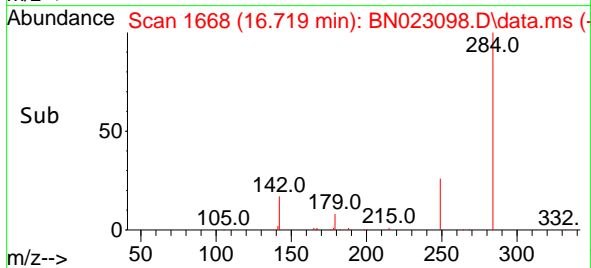
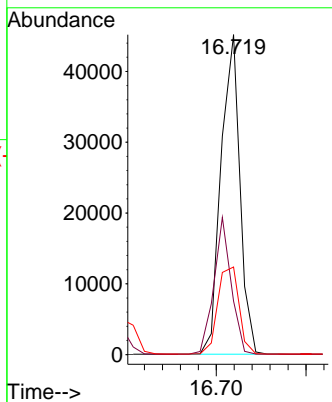
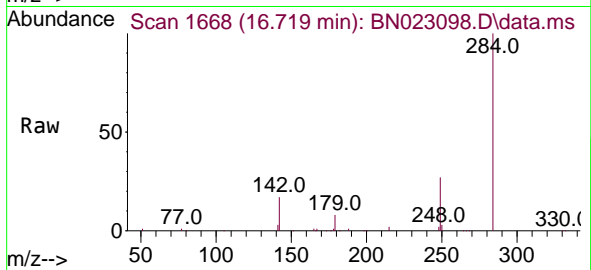


#22  
 Hexachlorobenzene  
 Concen: 3.001 ng  
 RT: 16.719 min Scan# 1668  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC3.2

Tgt Ion:284 Resp: 66183

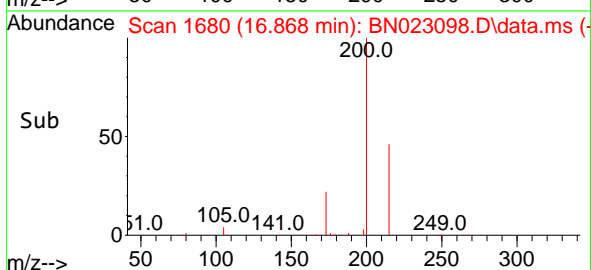
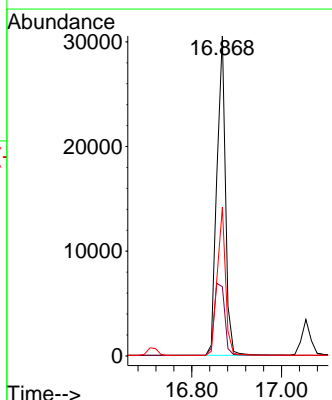
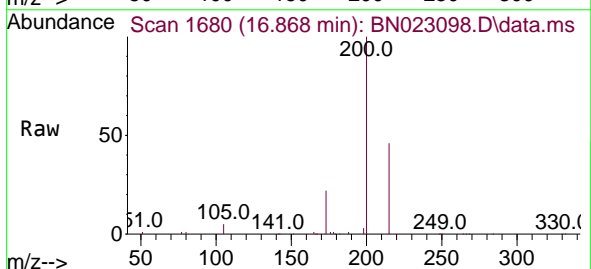
Ion	Ratio	Lower	Upper
284	100		
142	39.1	31.0	46.4
249	30.7	24.4	36.6

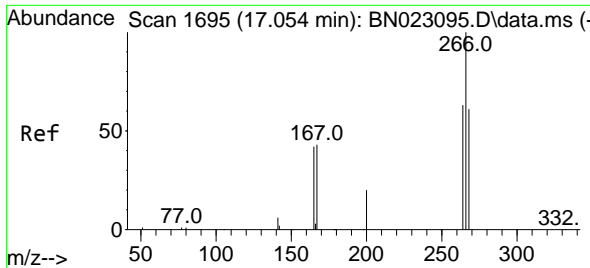


#23  
 Atrazine  
 Concen: 3.278 ng  
 RT: 16.868 min Scan# 1680  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion:200 Resp: 40499

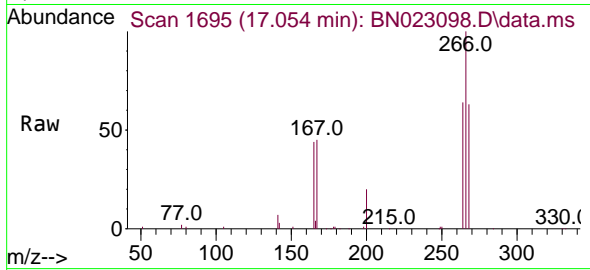
Ion	Ratio	Lower	Upper
200	100		
173	21.6	18.2	27.4
215	46.4	38.0	57.0



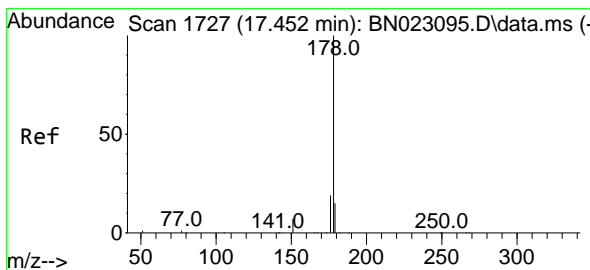
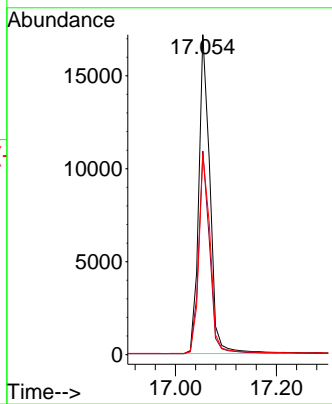
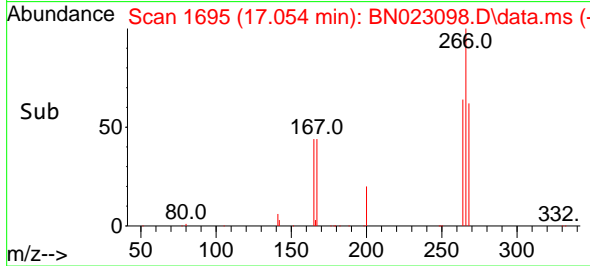


#24  
 Pentachlorophenol  
 Concen: 4.044 ng  
 RT: 17.054 min Scan# 1695  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

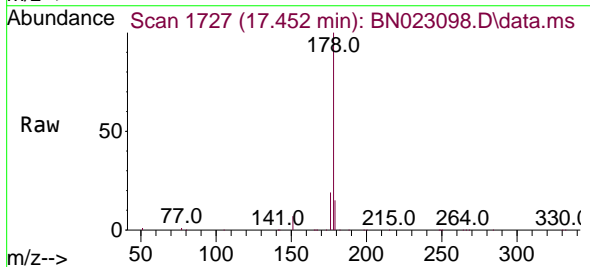
Instrument : BNA\_N  
 ClientSampleId : SSTDICC3.2



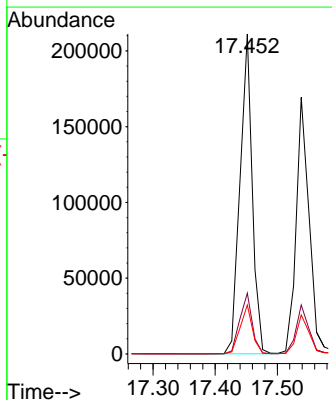
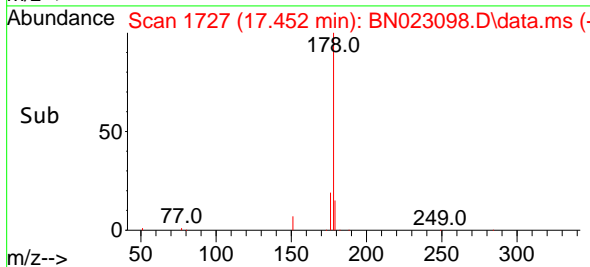
Tgt Ion:266 Resp: 26196  
 Ion Ratio Lower Upper  
 266 100  
 264 62.6 50.1 75.1  
 268 63.9 49.7 74.5

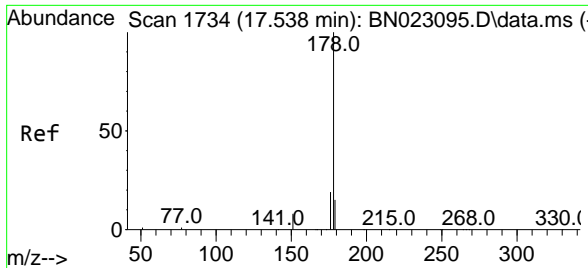


#25  
 Phenanthrene  
 Concen: 3.026 ng  
 RT: 17.452 min Scan# 1727  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03



Tgt Ion:178 Resp: 287541  
 Ion Ratio Lower Upper  
 178 100  
 176 19.3 15.4 23.2  
 179 15.2 12.2 18.2



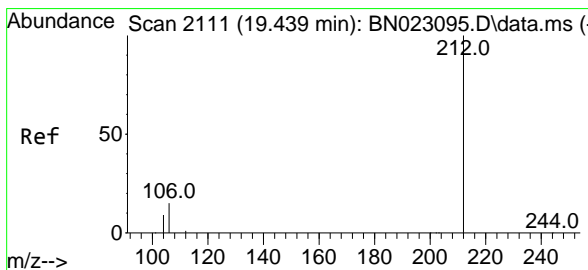
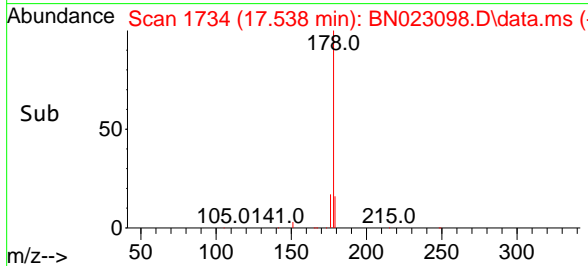
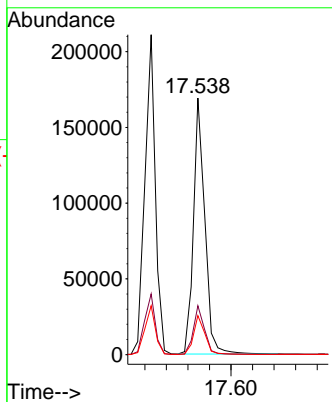
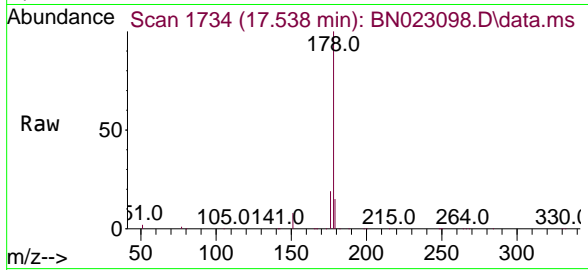


#26  
 Anthracene  
 Concen: 3.234 ng  
 RT: 17.538 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC3.2

Tgt Ion:178 Resp: 247626

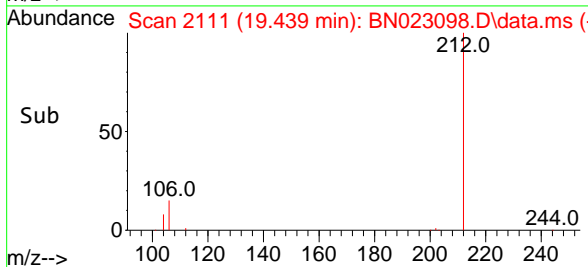
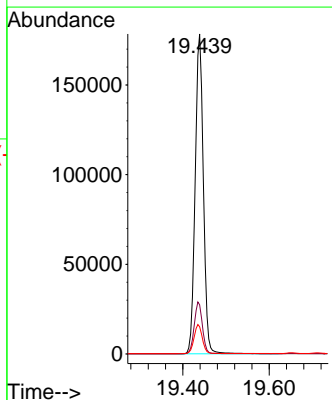
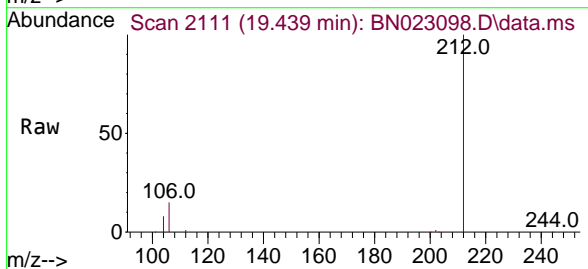
Ion	Ratio	Lower	Upper
178	100		
176	18.7	15.1	22.7
179	15.2	12.2	18.4

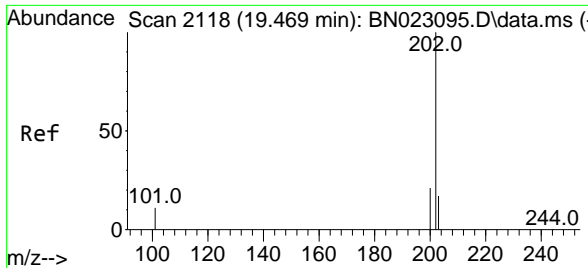


#27  
 Fluoranthene-d10  
 Concen: 3.037 ng  
 RT: 19.439 min Scan# 2111  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion:212 Resp: 234419

Ion	Ratio	Lower	Upper
212	100		
106	16.2	13.0	19.4
104	9.2	7.5	11.3



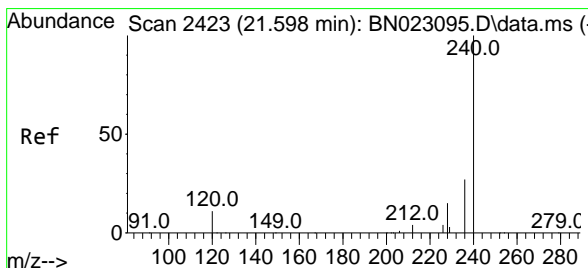
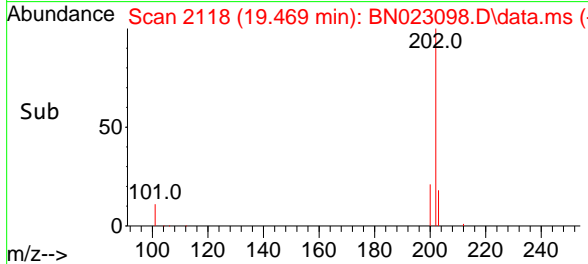
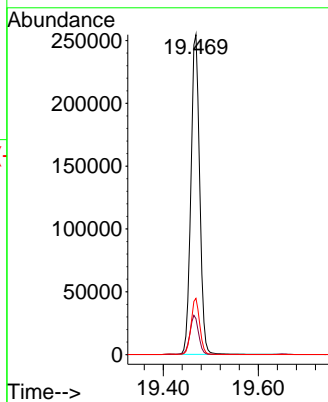
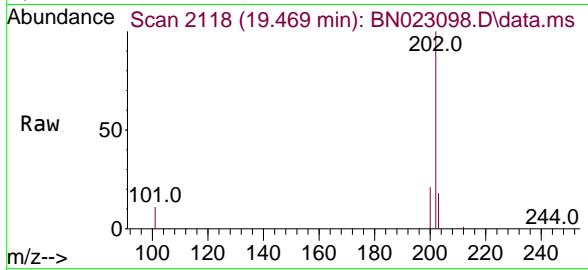


#28  
 Fluoranthene  
 Concen: 3.126 ng  
 RT: 19.469 min Scan# 2118  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC3.2

Tgt Ion: 202 Resp: 324068

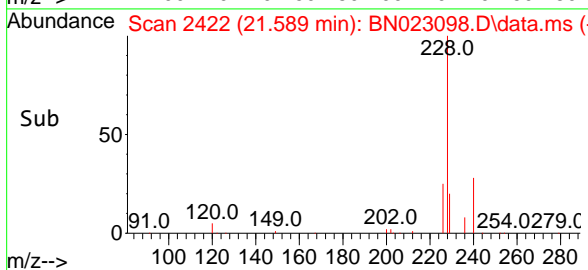
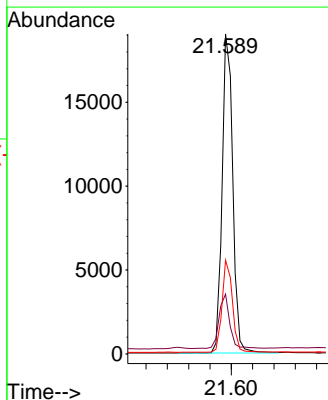
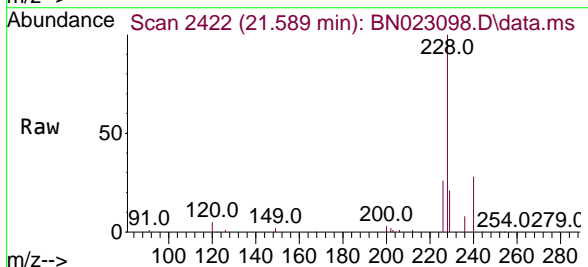
Ion	Ratio	Lower	Upper
202	100		
101	12.3	9.7	14.5
203	17.4	13.8	20.6

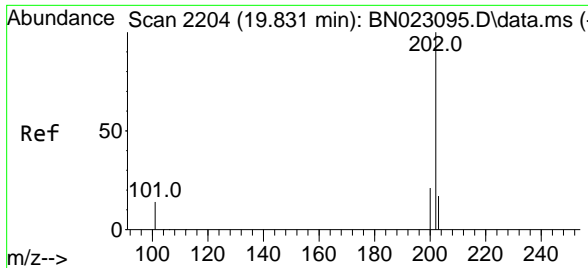


#29  
 Chrysene-d12  
 Concen: 0.400 ng  
 RT: 21.589 min Scan# 2422  
 Delta R.T. -0.009 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion: 240 Resp: 26247

Ion	Ratio	Lower	Upper
240	100		
120	18.7	10.1	15.1#
236	29.3	22.2	33.4



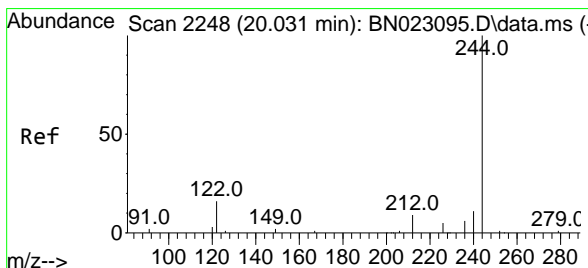
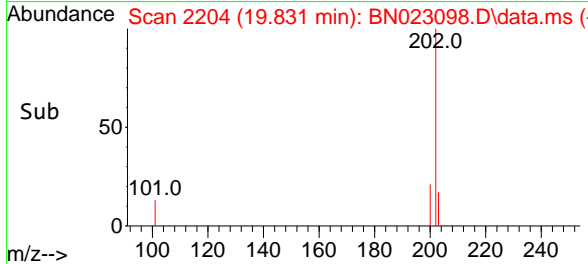
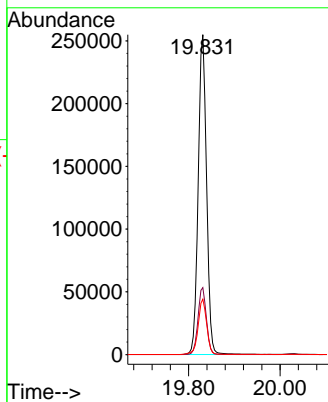
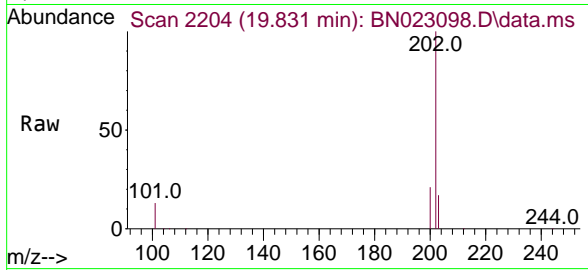


#30  
 Pyrene  
 Concen: 2.930 ng  
 RT: 19.831 min Scan# 21  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC3.2

Tgt Ion: 202 Resp: 320665

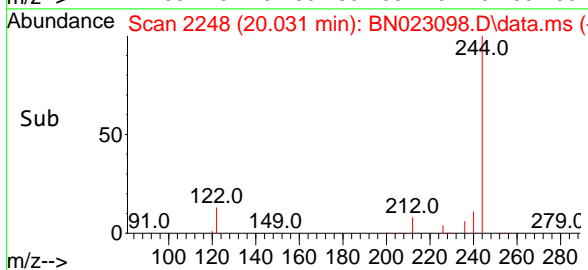
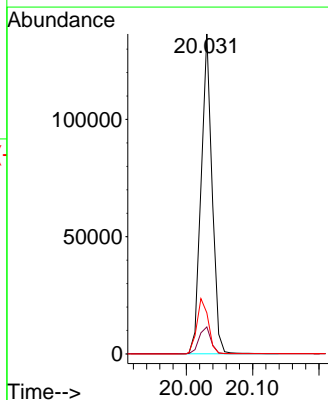
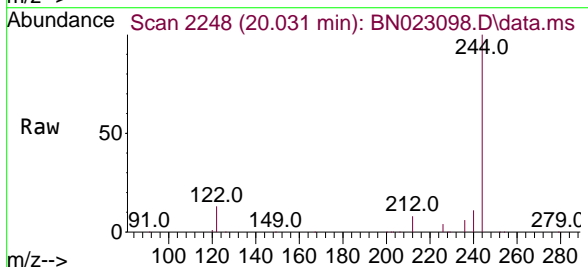
Ion	Ratio	Lower	Upper
202	100		
200	21.1	16.9	25.3
203	17.8	14.2	21.4

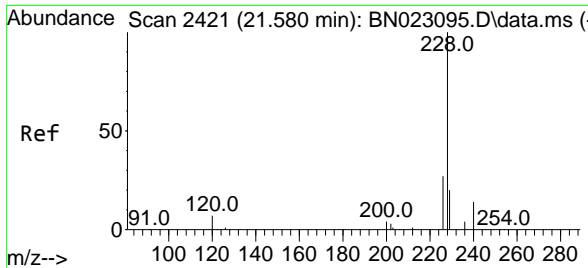


#31  
 Terphenyl-d14  
 Concen: 2.793 ng  
 RT: 20.031 min Scan# 2248  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion: 244 Resp: 139156

Ion	Ratio	Lower	Upper
244	100		
212	8.4	7.6	11.4
122	12.8	12.6	18.8



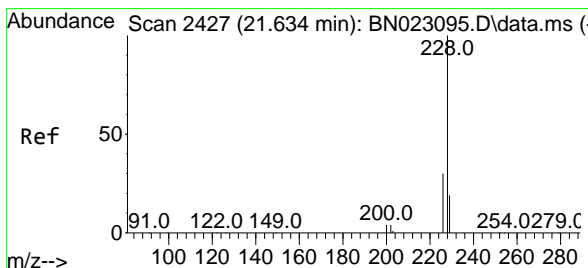
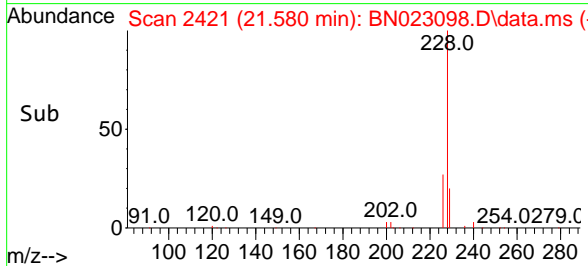
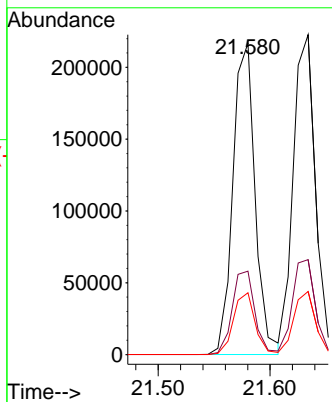
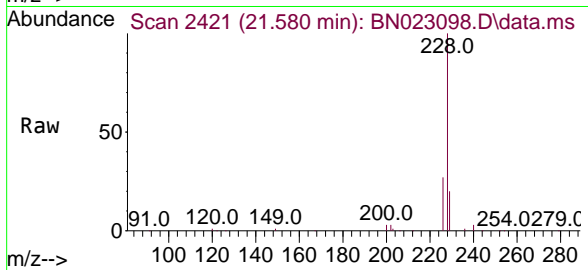


#32  
 Benzo(a)anthracene  
 Concen: 3.082 ng  
 RT: 21.580 min Scan# 2421  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Instrument : BNA\_N  
 ClientSampleId : SSTDICC3.2

Tgt Ion:228 Resp: 298657

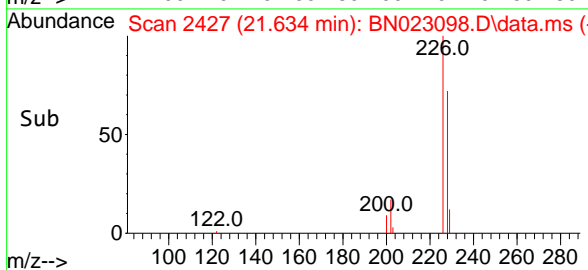
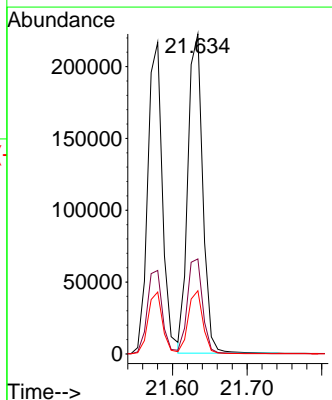
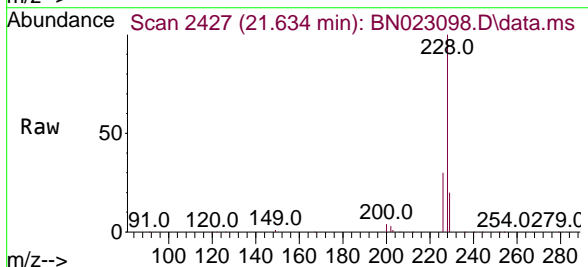
Ion	Ratio	Lower	Upper
228	100		
226	26.8	22.0	33.0
229	19.8	15.8	23.8



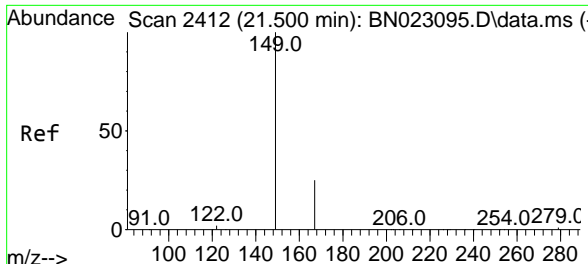
#33  
 Chrysene  
 Concen: 2.838 ng  
 RT: 21.634 min Scan# 2427  
 Delta R.T. -0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion:228 Resp: 307277

Ion	Ratio	Lower	Upper
228	100		
226	29.7	24.4	36.6
229	19.7	15.6	23.4





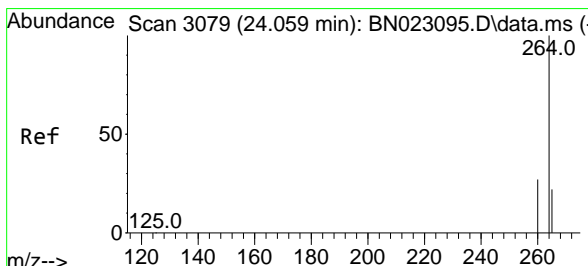
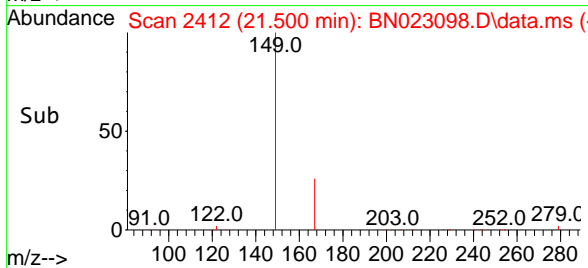
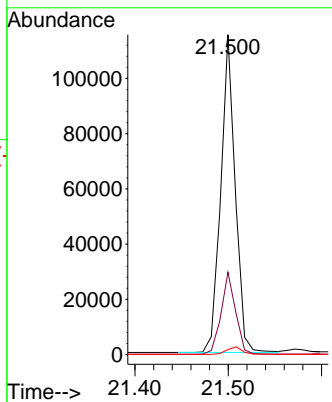
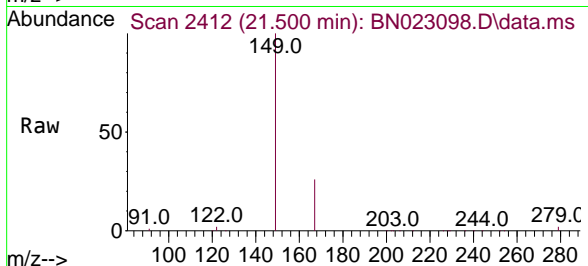


#34  
 Bis(2-ethylhexyl)phthalate  
 Concen: 2.965 ng  
 RT: 21.500 min Scan# 2412  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Instrument : BNA\_N  
 ClientSampleId : SSTDICC3.2

Tgt Ion:149 Resp: 124141

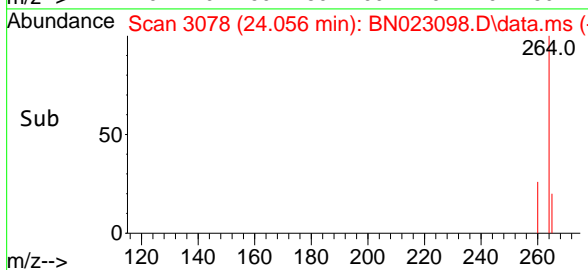
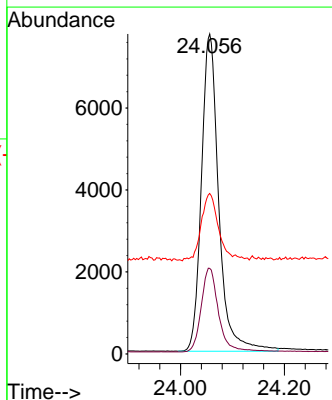
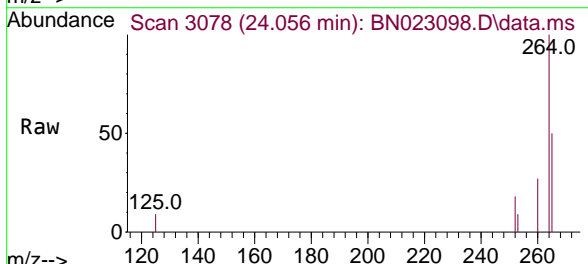
Ion	Ratio	Lower	Upper
149	100		
167	25.7	20.2	30.2
279	2.5	2.3	3.5

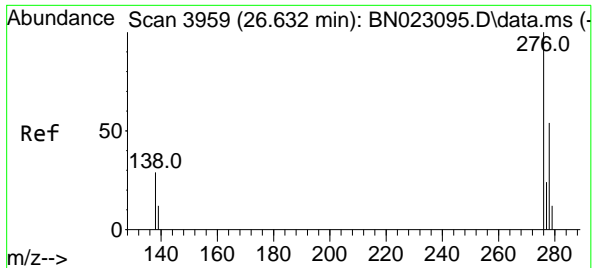


#35  
 Perylene-d12  
 Concen: 0.400 ng  
 RT: 24.056 min Scan# 3078  
 Delta R.T. -0.003 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion:264 Resp: 17877

Ion	Ratio	Lower	Upper
264	100		
260	26.7	21.7	32.5
265	50.1	43.2	64.8



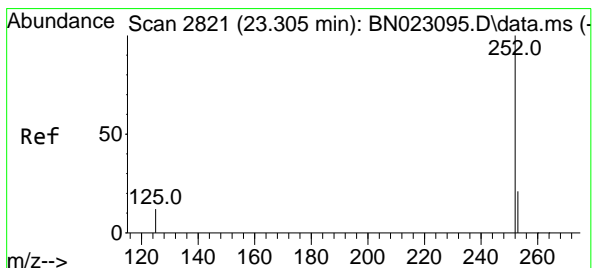
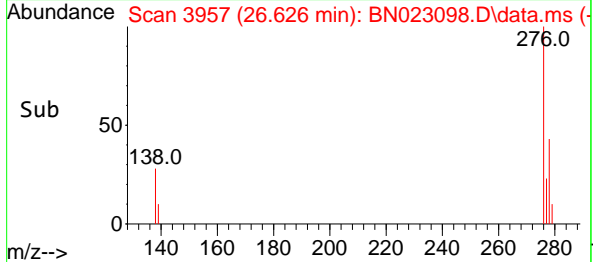
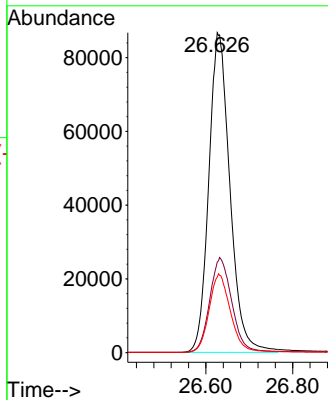
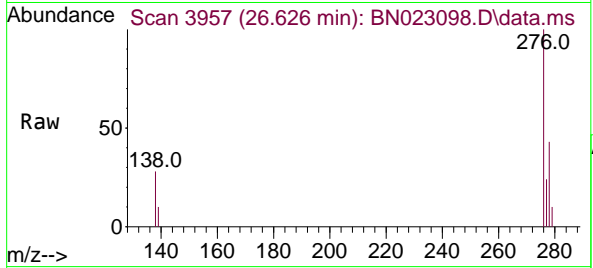


#36  
 Indeno(1,2,3-cd)pyrene  
 Concen: 3.087 ng  
 RT: 26.626 min Scan# 3959  
 Delta R.T. -0.006 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC3.2

Tgt Ion:276 Resp: 293290

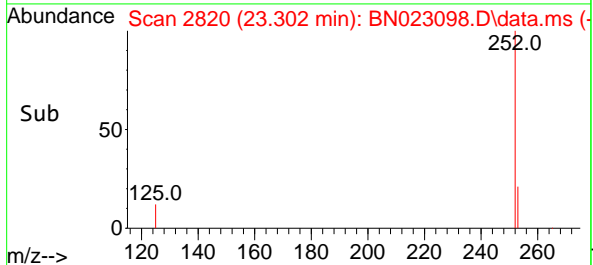
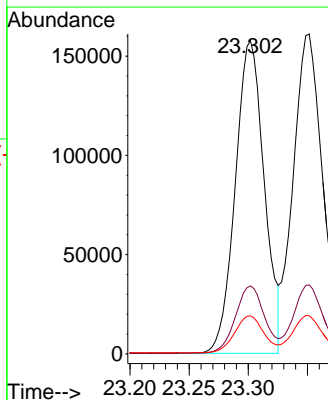
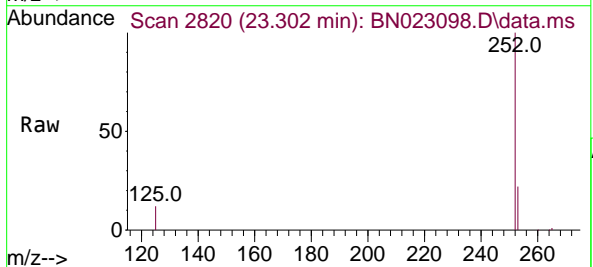
Ion	Ratio	Lower	Upper
276	100		
138	30.9	25.0	37.6
277	24.7	19.8	29.8

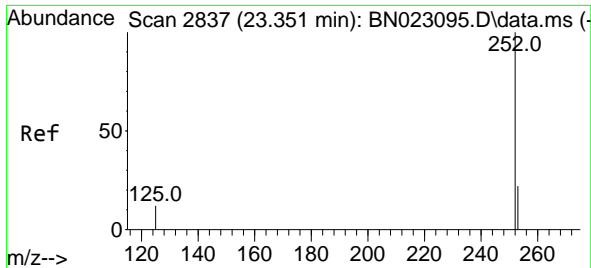


#37  
 Benzo(b)fluoranthene  
 Concen: 3.280 ng  
 RT: 23.302 min Scan# 2820  
 Delta R.T. -0.003 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion:252 Resp: 268022

Ion	Ratio	Lower	Upper
252	100		
253	21.6	19.0	28.4
125	12.1	12.8	19.2#

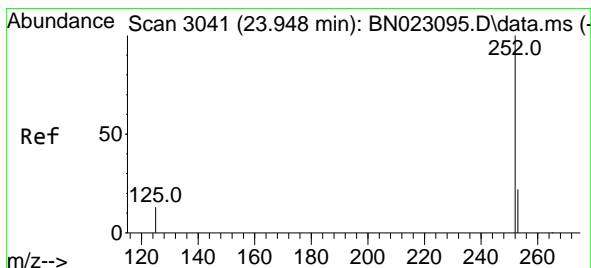
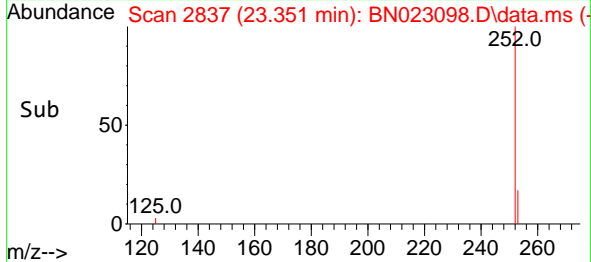
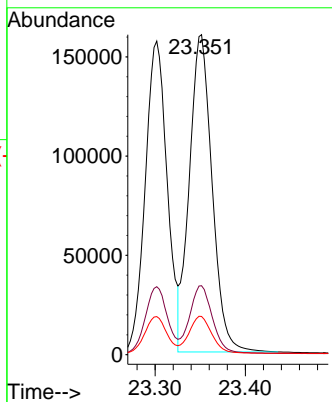
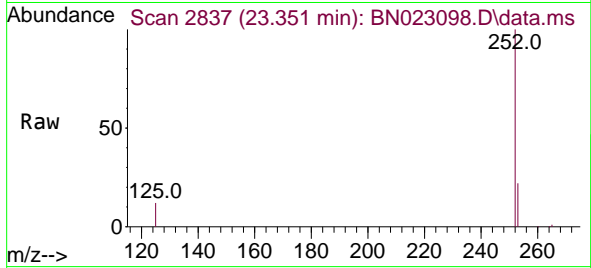




#38  
 Benzo(k)fluoranthene  
 Concen: 3.339 ng  
 RT: 23.351 min Scan# 2837  
 Delta R.T. 0.000 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

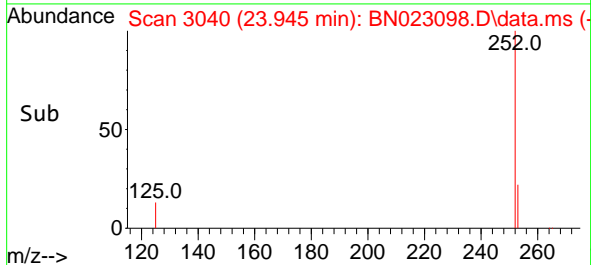
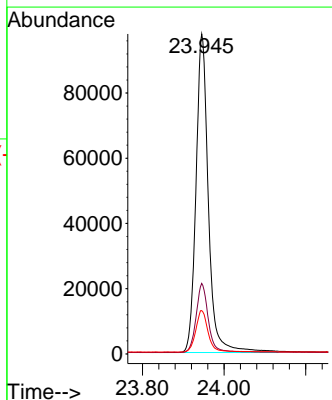
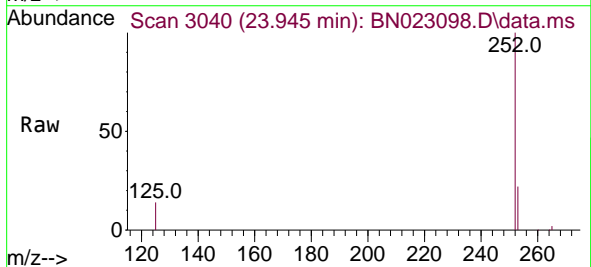
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC3.2

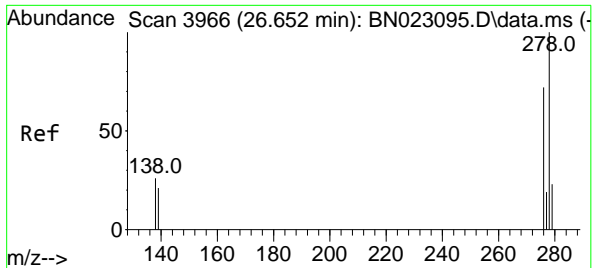
Tgt Ion:252 Resp: 279632  
 Ion Ratio Lower Upper  
 252 100  
 253 21.6 19.1 28.7  
 125 11.9 12.5 18.7#



#39  
 Benzo(a)pyrene  
 Concen: 3.118 ng  
 RT: 23.945 min Scan# 3040  
 Delta R.T. -0.003 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion:252 Resp: 206454  
 Ion Ratio Lower Upper  
 252 100  
 253 22.0 20.6 30.8  
 125 13.5 15.8 23.8#



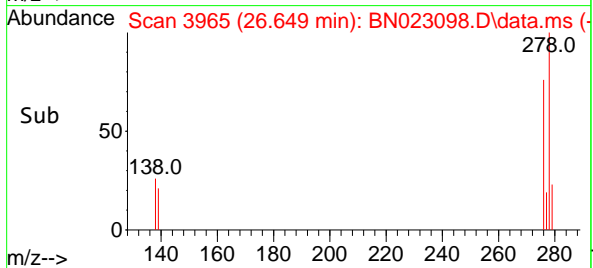
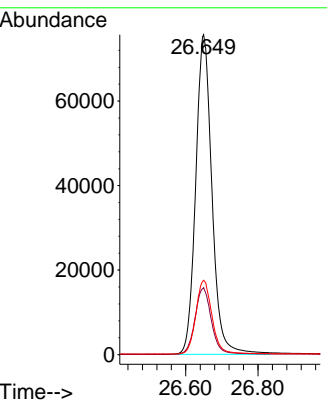
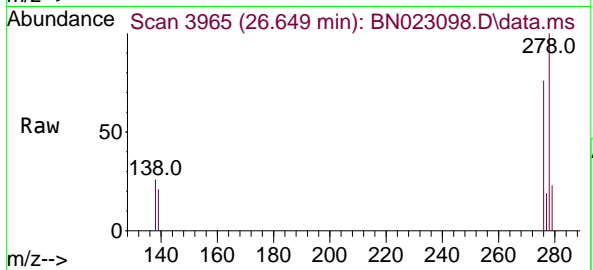


#40  
 Dibenzo(a,h)anthracene  
 Concen: 3.149 ng  
 RT: 26.649 min Scan# 3965  
 Delta R.T. -0.003 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Instrument : BNA\_N  
 ClientSampleId : SSTDICC3.2

Tgt Ion:278 Resp: 236723

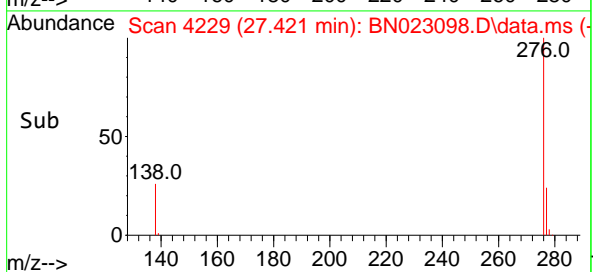
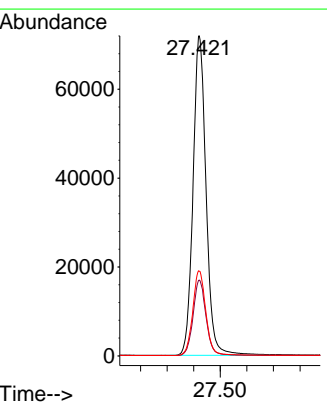
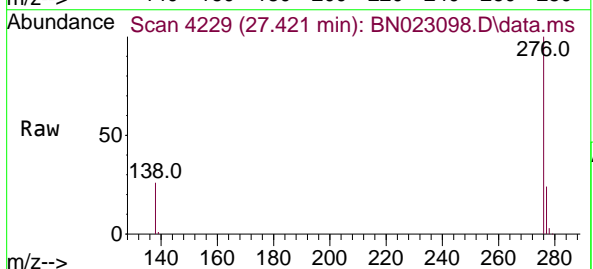
Ion	Ratio	Lower	Upper
278	100		
139	20.9	17.5	26.3
279	23.2	20.5	30.7



#41  
 Benzo(g,h,i)perylene  
 Concen: 3.189 ng  
 RT: 27.421 min Scan# 4229  
 Delta R.T. -0.003 min  
 Lab File: BN023098.D  
 Acq: 08 Dec 2022 17:03

Tgt Ion:276 Resp: 245390

Ion	Ratio	Lower	Upper
276	100		
277	23.7	19.9	29.9
138	26.5	22.2	33.2



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN120822\  
 Data File : BN023099.D  
 Acq On : 08 Dec 2022 17:40  
 Operator : CG/JU  
 Sample : SSTDICC5.0  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

## Instrument :

BNA\_N

## ClientSampleId :

SSTDICC5.0

## Manual Integrations

## APPROVED

Reviewed By :Christian Giraldo 12/13/2022  
 Supervised By :Jagrut Upadhyay 12/13/2022

Quant Time: Dec 09 07:29:11 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:25:53 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) 1,4-Dichlorobenzene-d4	8.021	152	8360	0.400	ng	0.00	
7) Naphthalene-d8	10.840	136	23462	0.400	ng	0.00	
13) Acenaphthene-d10	14.666	164	13758	0.400	ng	0.00	
19) Phenanthrene-d10	17.402	188	28616	0.400	ng	#-0.01	
29) Chrysene-d12	21.589	240	26816	0.400	ng	# 0.00	
35) Perylene-d12	24.053	264	18277	0.400	ng	0.00	
System Monitoring Compounds							
4) 2-Fluorophenol	5.558	112	78686	4.070	ng	0.00	
5) Phenol-d6	7.168	99	107140	4.407	ng	0.00	
8) Nitrobenzene-d5	9.185	82	85223	4.841	ng	0.00	
11) 2-Methylnaphthalene-d10	12.427	152	217799	4.917	ng	0.00	
14) 2,4,6-Tribromophenol	16.148	330	31378	5.398	ng	0.00	
15) 2-Fluorobiphenyl	13.298	172	274850	4.501	ng	0.00	
27) Fluoranthene-d10	19.439	212	377753	4.821	ng	0.00	
31) Terphenyl-d14	20.031	244	224844	4.418	ng	0.00	
Target Compounds							
2) 1,4-Dioxane	3.398	88	39029m	3.765	ng		Qvalue
3) n-Nitrosodimethylamine	3.723	42	45253	4.463	ng	#	96
6) bis(2-Chloroethyl)ether	7.436	93	107173	3.993	ng		98
9) Naphthalene	10.893	128	305357	4.387	ng		99
10) Hexachlorobutadiene	11.182	225	55800	4.270	ng	#	100
16) Acenaphthylene	14.388	152	329503	5.096	ng		100
17) Acenaphthene	14.730	154	218157	4.631	ng		96
18) Fluorene	15.714	166	247542	4.685	ng		98
20) 4,6-Dinitro-2-methylph...	15.776	198	27445	7.089	ng	#	79
21) 4-Bromophenyl-phenylether	16.595	248	83257	4.830	ng		98
22) Hexachlorobenzene	16.719	284	103010	4.601	ng		100
23) Atrazine	16.868	200	66765	5.323	ng		98
24) Pentachlorophenol	17.055	266	45088	6.858	ng		99
25) Phenanthrene	17.452	178	452445	4.690	ng		100
26) Anthracene	17.539	178	401356	5.163	ng		100
28) Fluoranthene	19.469	202	506003	4.809	ng		100
30) Pyrene	19.831	202	511132	4.571	ng		100
32) Benzo(a)anthracene	21.571	228	490036	4.950	ng		99
33) Chrysene	21.634	228	485095	4.385	ng		99
34) Bis(2-ethylhexyl)phtha...	21.500	149	234584	5.484	ng		99
36) Indeno(1,2,3-cd)pyrene	26.629	276	474956	4.890	ng		99
37) Benzo(b)fluoranthene	23.299	252	429250	5.138	ng	#	94
38) Benzo(k)fluoranthene	23.352	252	444851	5.195	ng	#	94
39) Benzo(a)pyrene	23.945	252	338522	5.001	ng	#	90
40) Dibenzo(a,h)anthracene	26.647	278	381911	4.970	ng		97
41) Benzo(g,h,i)perylene	27.421	276	399388	5.077	ng		97

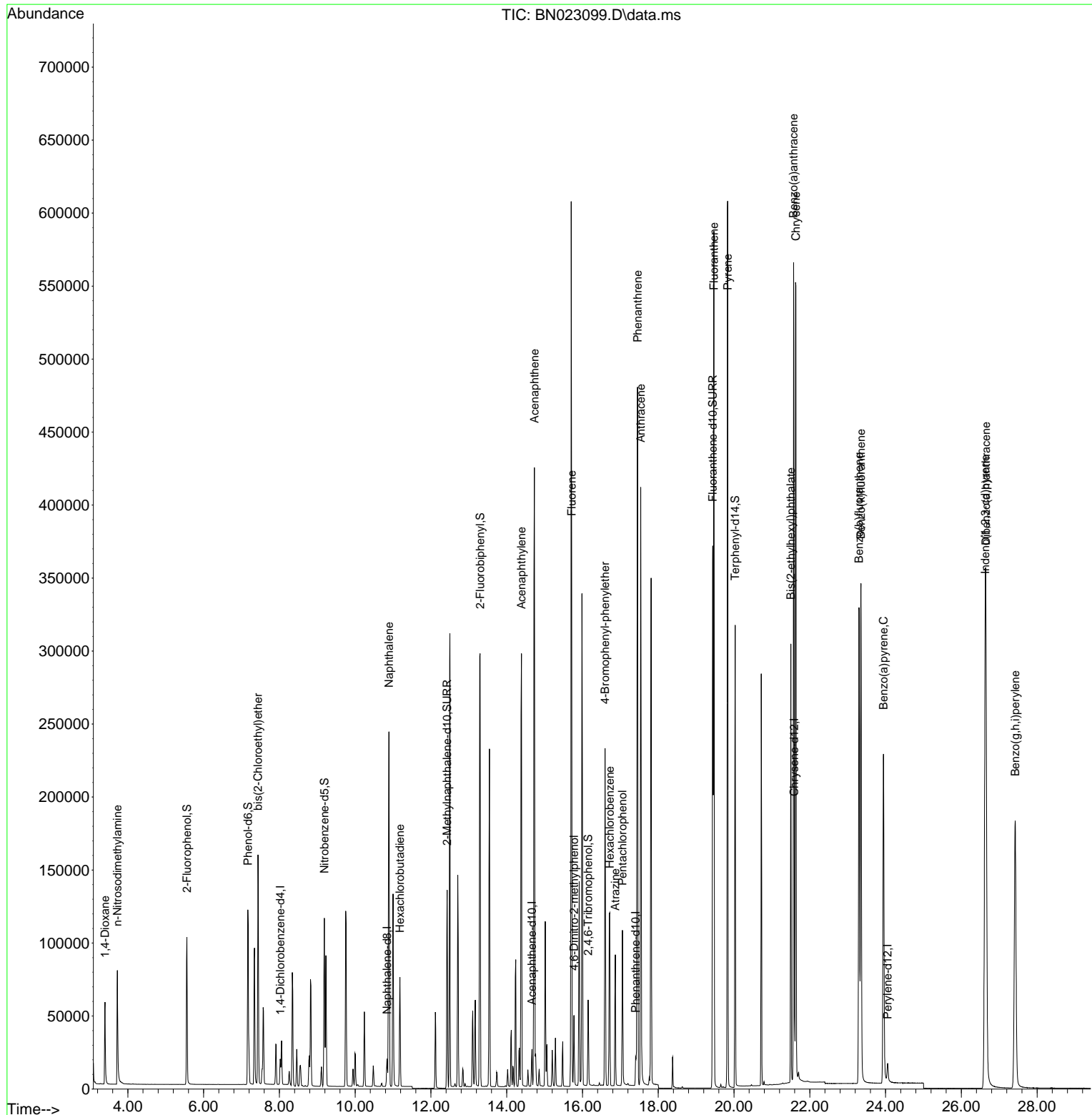
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN120822\  
 Data File : BN023099.D  
 Acq On : 08 Dec 2022 17:40  
 Operator : CG/JU  
 Sample : SSTDICC5.0  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

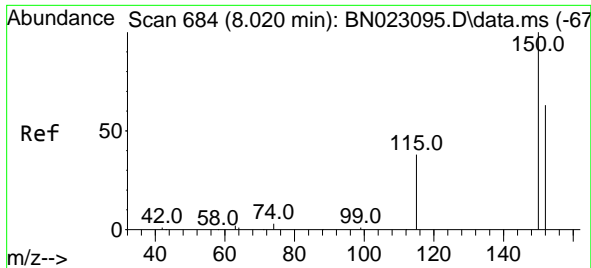
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC5.0

Quant Time: Dec 09 07:29:11 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:25:53 2022  
 Response via : Initial Calibration

Manual Integrations  
**APPROVED**  
 Reviewed By :Christian Giraldo 12/13/2022  
 Supervised By :Jagrut Upadhyay 12/13/2022

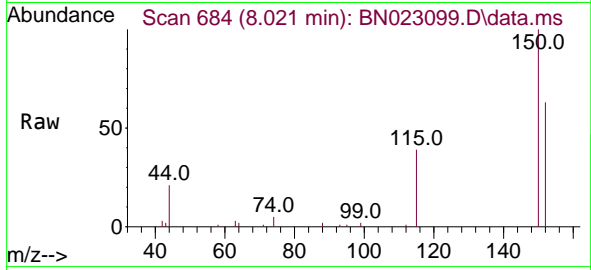


- 1
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- 15
- 16
- 17



#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 8.021 min Scan# 684  
 Delta R.T. 0.001 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

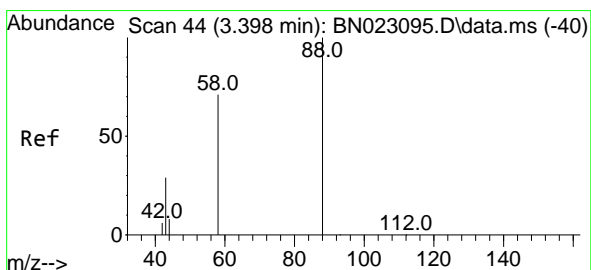
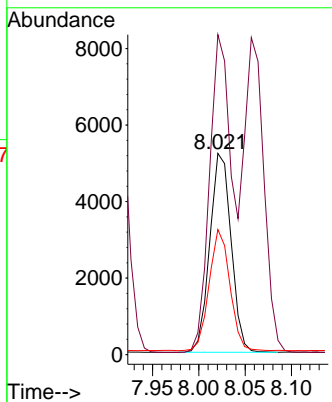
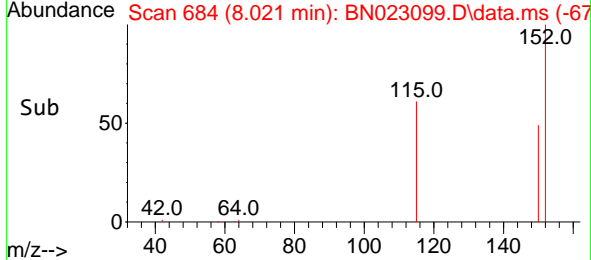
Instrument :  
 BNA\_N  
 Client Sample Id :  
 SSTDICC5.0



Tgt Ion: 152 Resp: 8360  
 Ion Ratio Lower Upper  
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 150 159.0 125.6 188.4  
 115 62.1 49.0 73.4

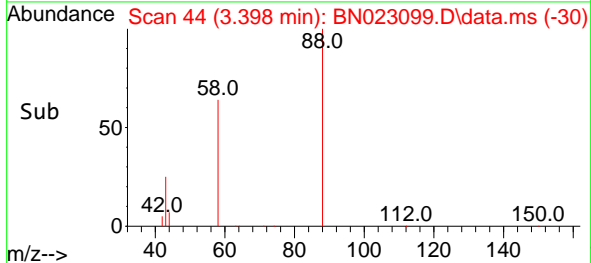
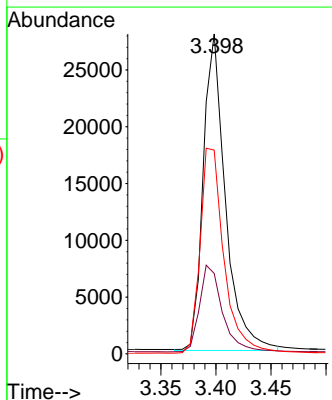
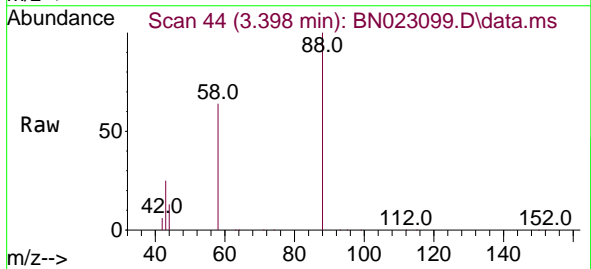
Manual Integrations  
 APPROVED

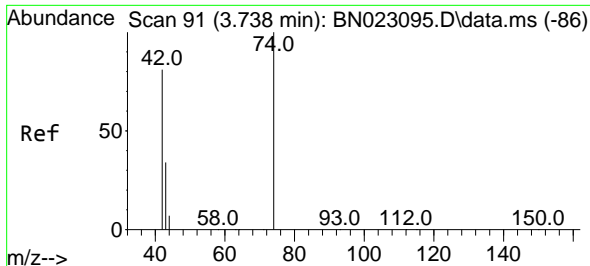
Reviewed By : Christian Giraldo 12/13/2022  
 Supervised By : Jagrut Upadhyay 12/13/2022



#2  
 1,4-Dioxane  
 Concen: 3.765 ng m  
 RT: 3.398 min Scan# 44  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

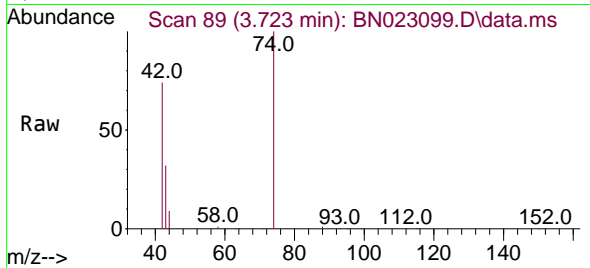
Tgt Ion: 88 Resp: 39029  
 Ion Ratio Lower Upper  
 88 100  
 43 28.3 23.3 34.9  
 58 69.5 58.0 87.0





#3  
 n-Nitrosodimethylamine  
 Concen: 4.463 ng  
 RT: 3.723 min Scan# 89  
 Delta R.T. -0.014 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

Instrument :  
 BNA\_N  
 Client Sample Id :  
 SSTDICC5.0

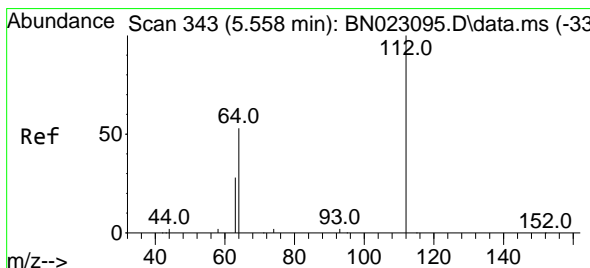
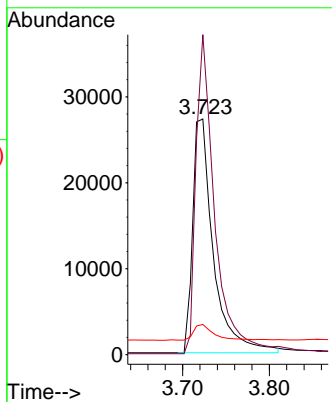
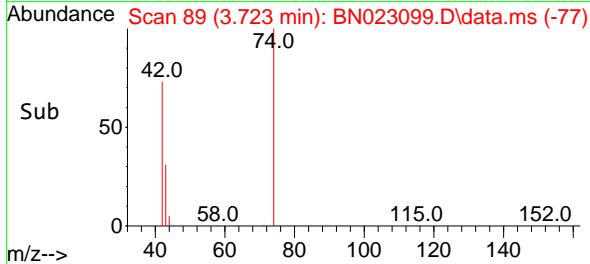


Tgt Ion: 42 Resp: 4525

Ion	Ratio	Lower	Upper
42	100		
74	123.1	95.8	143.6
44	6.9	8.4	12.6

Manual Integrations  
 APPROVED

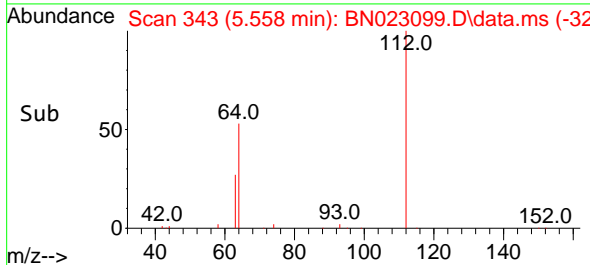
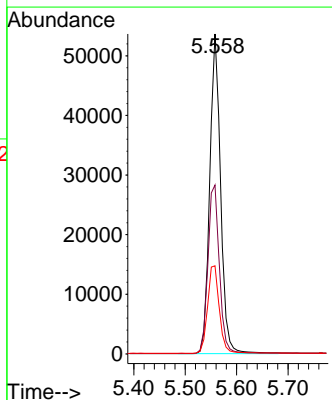
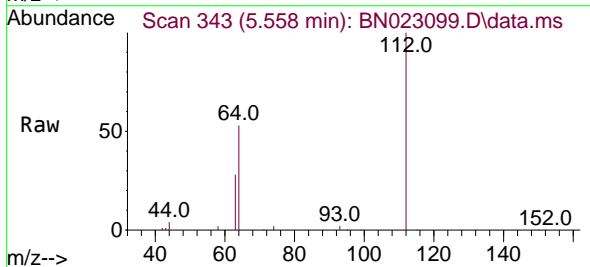
Reviewed By :Christian Giraldo 12/13/2022  
 Supervised By :Jagrut Upadhyay 12/13/2022



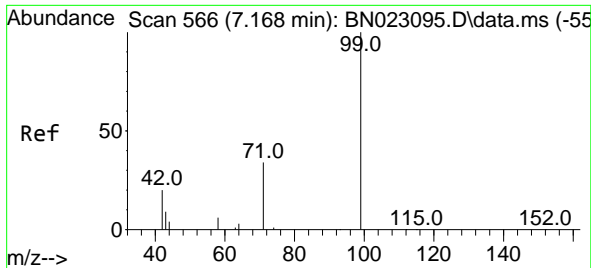
#4  
 2-Fluorophenol  
 Concen: 4.070 ng  
 RT: 5.558 min Scan# 343  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

Tgt Ion:112 Resp: 78686

Ion	Ratio	Lower	Upper
112	100		
64	55.8	44.4	66.6
63	29.5	23.7	35.5

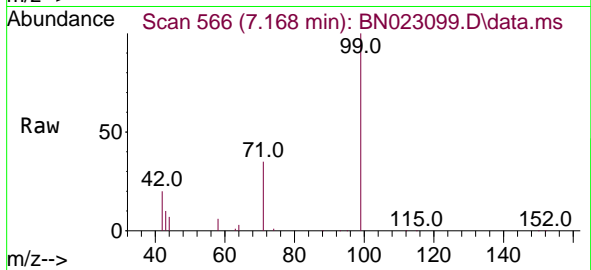






#5  
 Phenol-d6  
 Concen: 4.407 ng  
 RT: 7.168 min Scan# 566  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

Instrument :  
 BNA\_N  
 Client Sample Id :  
 SSTDICC5.0

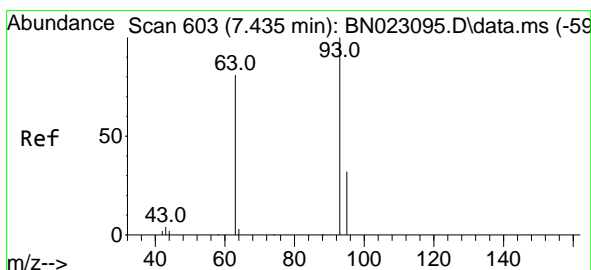
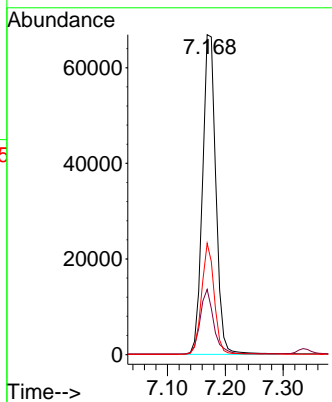
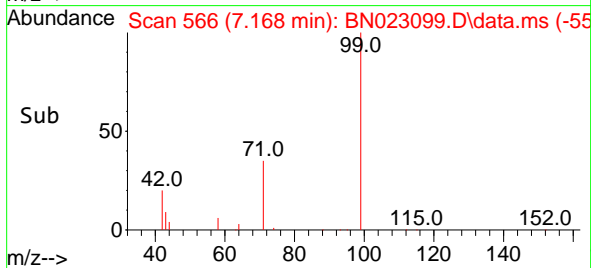


Tgt Ion: 99 Resp: 107140

Ion	Ratio	Lower	Upper
99	100		
42	20.4	16.3	24.5
71	32.8	26.5	39.7

Manual Integrations  
**APPROVED**

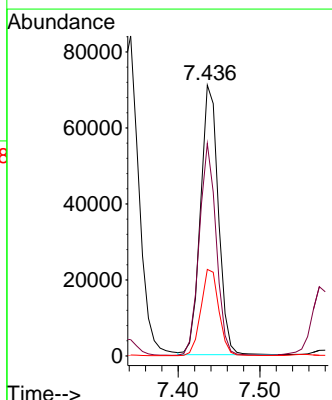
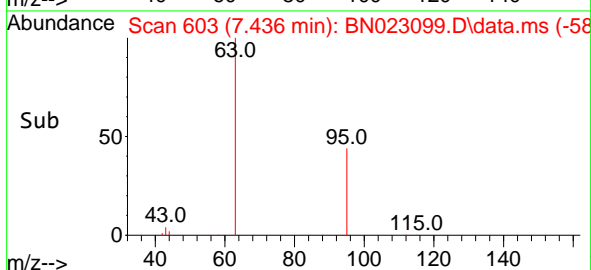
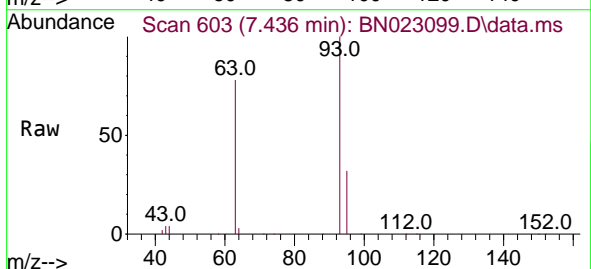
Reviewed By :Christian Giraldo 12/13/2022  
 Supervised By :Jagrut Upadhyay 12/13/2022

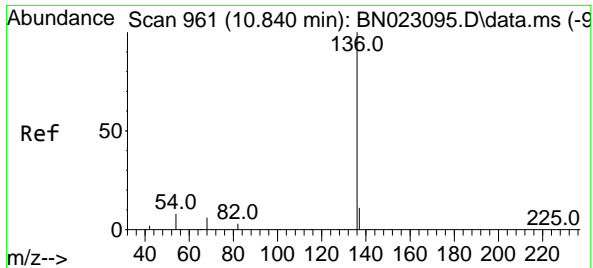


#6  
 bis(2-Chloroethyl)ether  
 Concen: 3.993 ng  
 RT: 7.436 min Scan# 603  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

Tgt Ion: 93 Resp: 107173

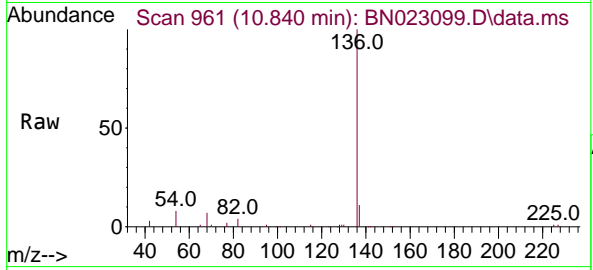
Ion	Ratio	Lower	Upper
93	100		
63	74.7	58.1	87.1
95	32.3	25.2	37.8





#7  
 Naphthalene-d8  
 Concen: 0.400 ng  
 RT: 10.840 min Scan# 961  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

Instrument : BNA\_N  
 Client Sample Id : SSTDICC5.0

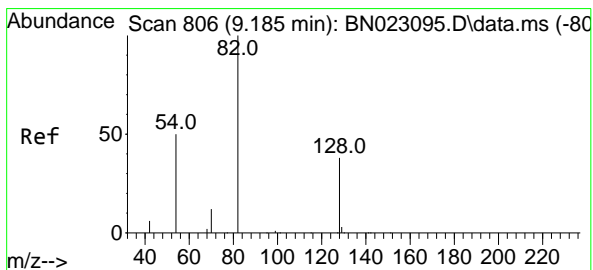
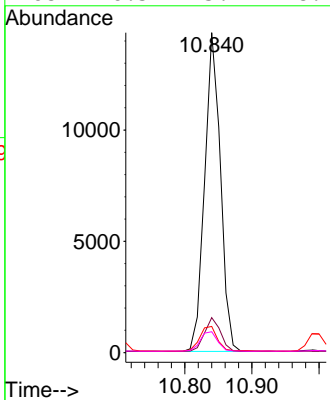
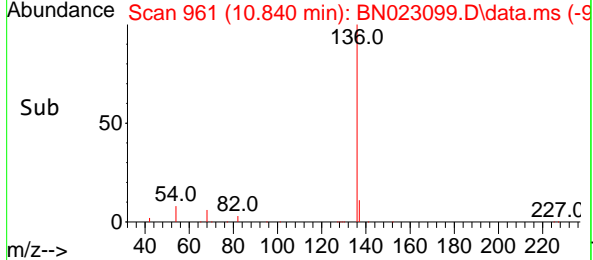


Tgt Ion: 136 Resp: 23462

Ion	Ratio	Lower	Upper
136	100		
137	10.9	9.0	13.4
54	8.2	6.5	9.7
68	6.5	5.4	8.2

Manual Integrations  
 APPROVED

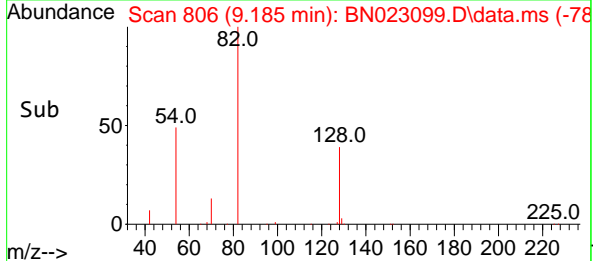
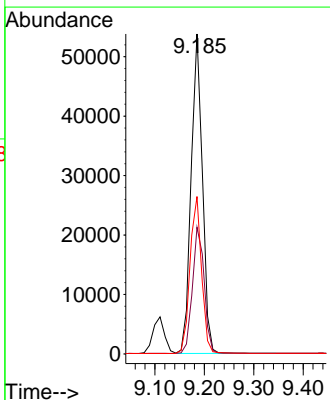
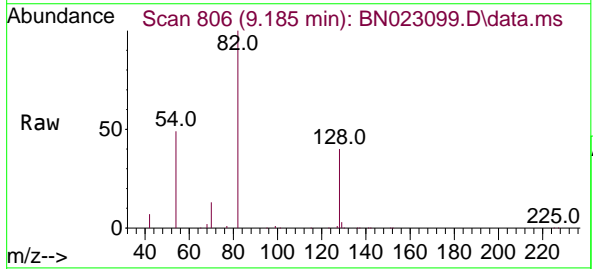
Reviewed By : Christian Giraldo 12/13/2022  
 Supervised By : Jagrut Upadhyay 12/13/2022

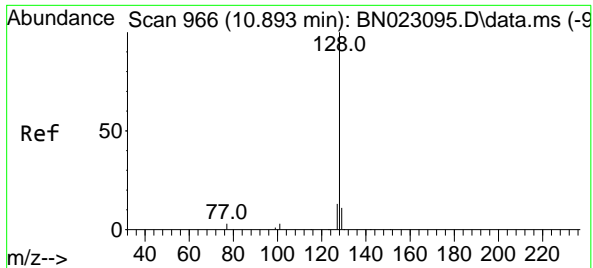


#8  
 Nitrobenzene-d5  
 Concen: 4.841 ng  
 RT: 9.185 min Scan# 806  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

Tgt Ion: 82 Resp: 85223

Ion	Ratio	Lower	Upper
82	100		
128	39.6	31.4	47.2
54	49.2	41.0	61.4





#9  
Naphthalene  
Concen: 4.387 ng  
RT: 10.893 min Scan# 966  
Delta R.T. 0.000 min  
Lab File: BN023099.D  
Acq: 08 Dec 2022 17:40

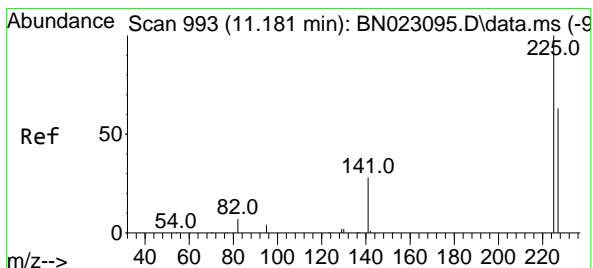
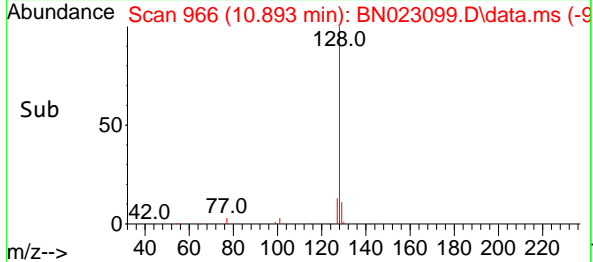
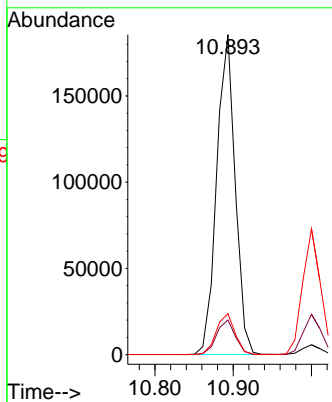
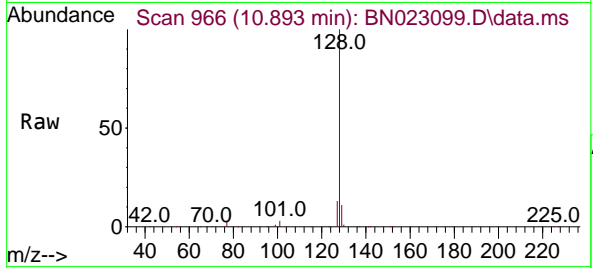
Instrument :  
BNA\_N  
Client Sample Id :  
SSTDICC5.0

Tgt Ion:128 Resp: 30535

Ion	Ratio	Lower	Upper
128	100		
129	10.8	9.0	13.6
127	12.8	10.5	15.7

Manual Integrations  
APPROVED

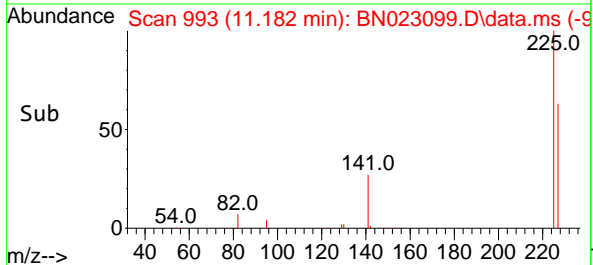
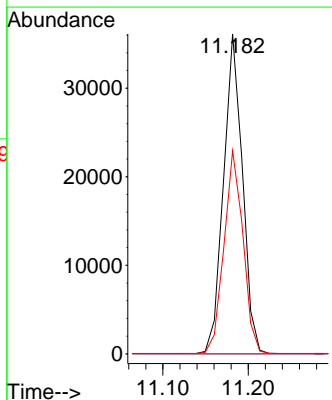
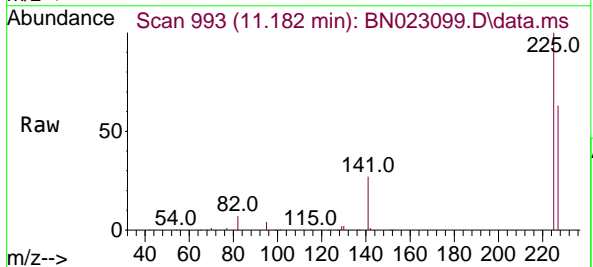
Reviewed By :Christian Giraldo 12/13/2022  
Supervised By :Jagrut Upadhyay 12/13/2022

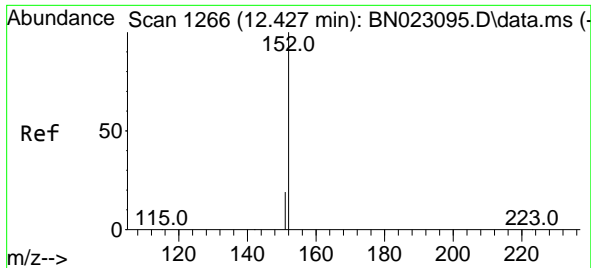


#10  
Hexachlorobutadiene  
Concen: 4.270 ng  
RT: 11.182 min Scan# 993  
Delta R.T. 0.000 min  
Lab File: BN023099.D  
Acq: 08 Dec 2022 17:40

Tgt Ion:225 Resp: 55800

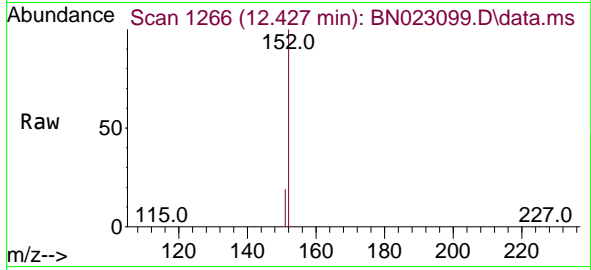
Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	63.8	51.1	76.7





#11  
 2-Methylnaphthalene-d10  
 Concen: 4.917 ng  
 RT: 12.427 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

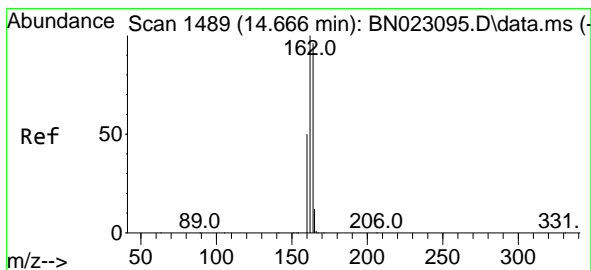
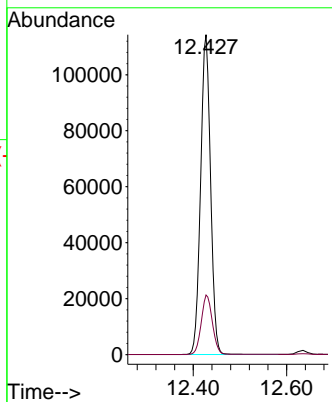
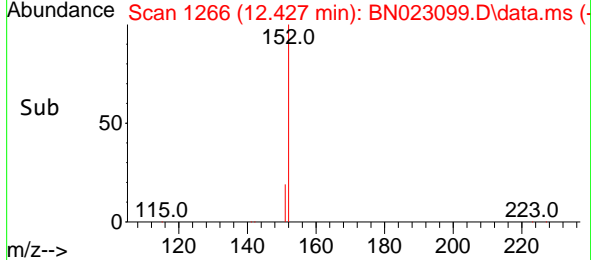
Instrument :  
 BNA\_N  
 Client Sample Id :  
 SSTDICC5.0



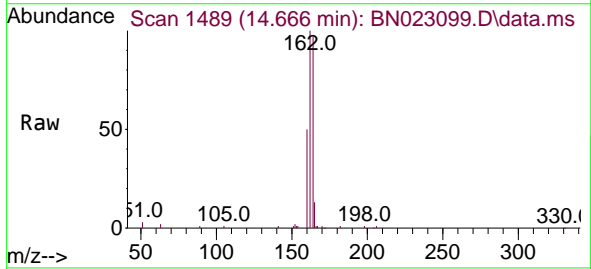
Tgt Ion: 152 Resp: 217799  
 Ion Ratio Lower Upper  
 152 100  
 151 20.3 15.1 22.7

Manual Integrations  
 APPROVED

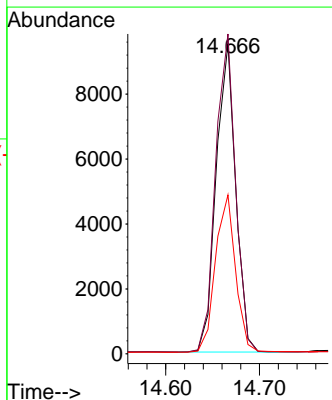
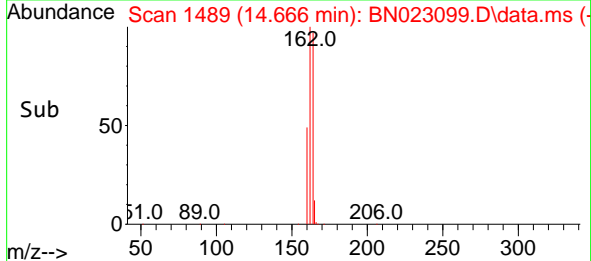
Reviewed By : Christian Giraldo 12/13/2022  
 Supervised By : Jagrut Upadhyay 12/13/2022

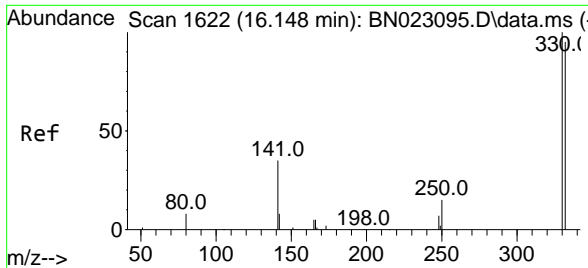


#13  
 Acenaphthene-d10  
 Concen: 0.400 ng  
 RT: 14.666 min Scan# 1489  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40



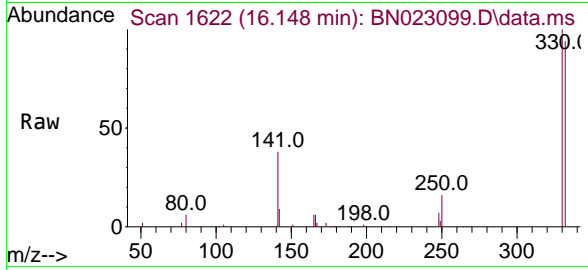
Tgt Ion: 164 Resp: 13758  
 Ion Ratio Lower Upper  
 164 100  
 162 103.1 83.4 125.0  
 160 51.2 41.8 62.8





#14  
 2,4,6-Tribromophenol  
 Concen: 5.398 ng  
 RT: 16.148 min Scan# 1622  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

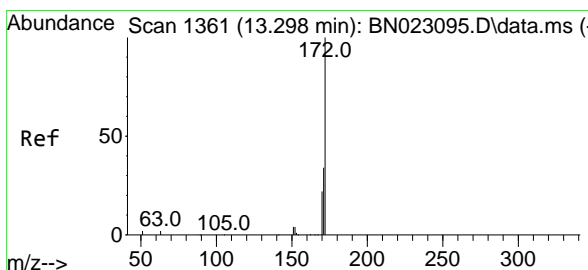
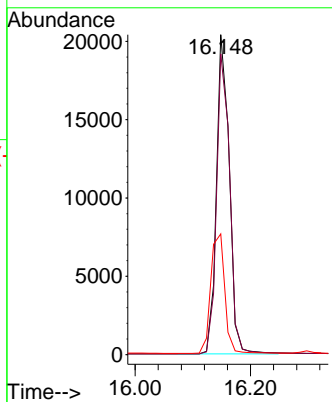
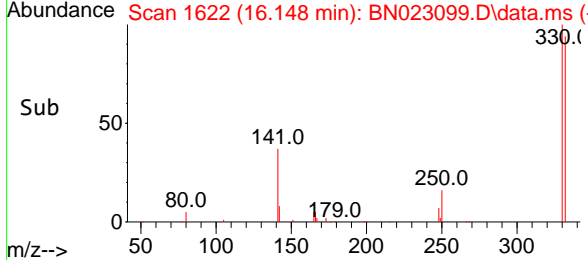
Instrument :  
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 Client Sample Id :  
 SSTDICC5.0



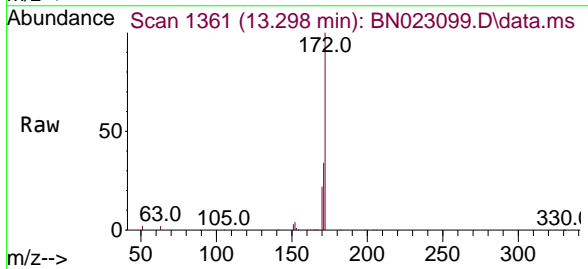
Tgt Ion: 330 Resp: 31378  
 Ion Ratio Lower Upper  
 330 100  
 332 96.2 77.3 115.9  
 141 41.2 33.5 50.3

Manual Integrations  
**APPROVED**

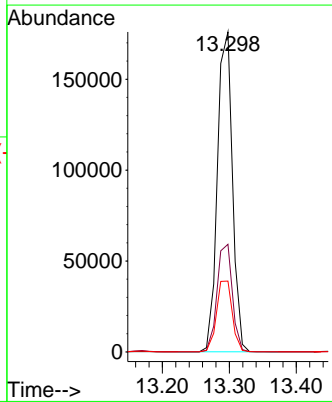
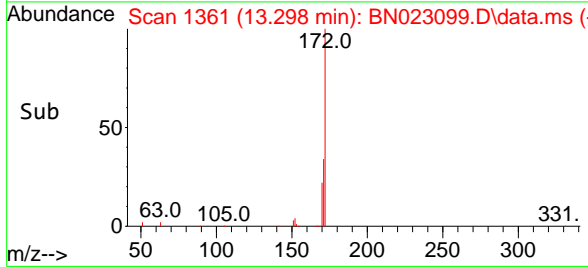
Reviewed By : Christian Giraldo 12/13/2022  
 Supervised By : Jagrut Upadhyay 12/13/2022

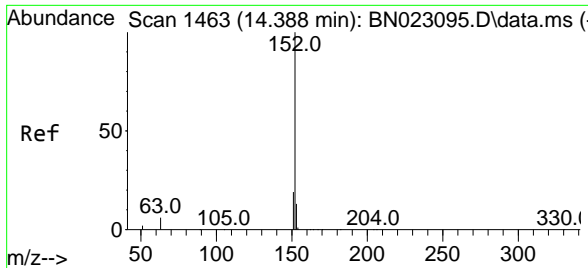


#15  
 2-Fluorobiphenyl  
 Concen: 4.501 ng  
 RT: 13.298 min Scan# 1361  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40



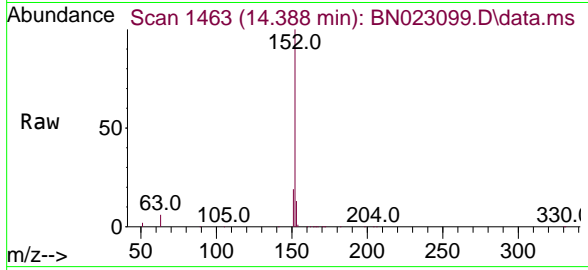
Tgt Ion: 172 Resp: 274850  
 Ion Ratio Lower Upper  
 172 100  
 171 33.6 27.4 41.0  
 170 22.1 17.9 26.9





#16  
 Acenaphthylene  
 Concen: 5.096 ng  
 RT: 14.388 min Scan# 1463  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

Instrument : BNA\_N  
 Client Sample Id : SSTDICC5.0

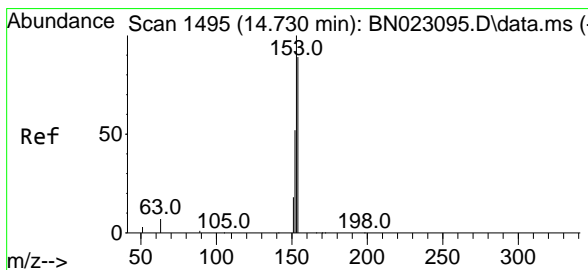
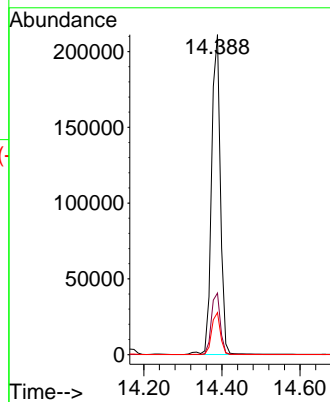
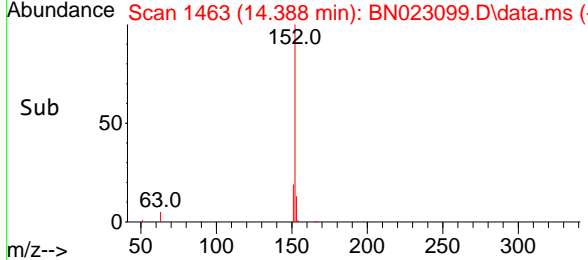


Tgt Ion: 152 Resp: 329503

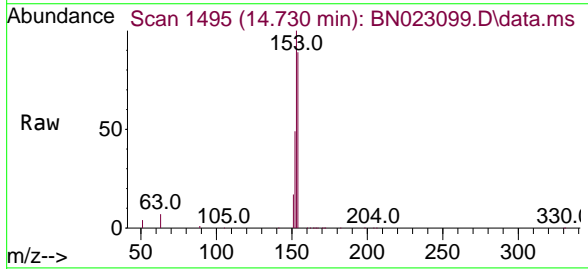
Ion	Ratio	Lower	Upper
152	100		
151	19.4	15.4	23.2
153	13.0	10.3	15.5

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 Supervised By : Jagrut Upadhyay 12/13/2022

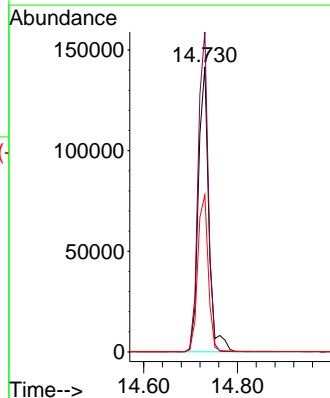
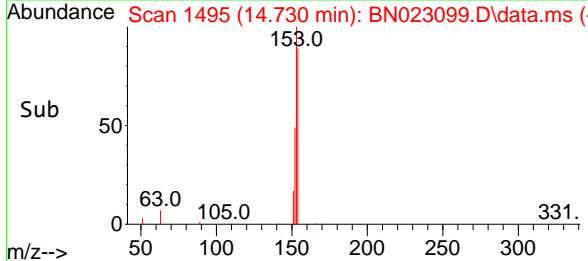


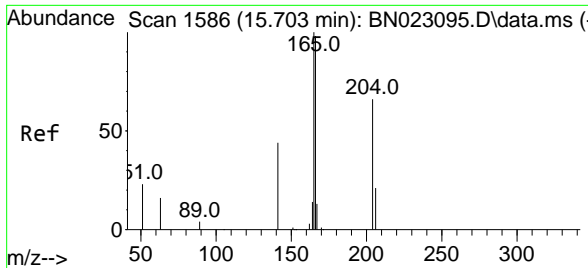
#17  
 Acenaphthene  
 Concen: 4.631 ng  
 RT: 14.730 min Scan# 1495  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40



Tgt Ion: 154 Resp: 218157

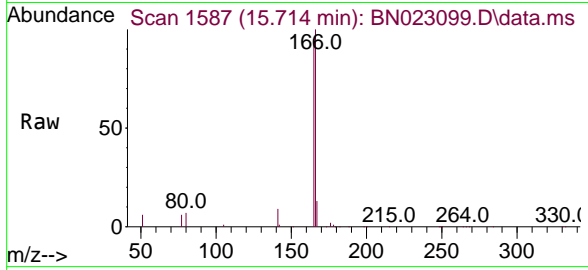
Ion	Ratio	Lower	Upper
154	100		
153	108.2	88.6	132.8
152	55.1	48.1	72.1





#18  
 Fluorene  
 Concen: 4.685 ng  
 RT: 15.714 min Scan# 11  
 Delta R.T. 0.011 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

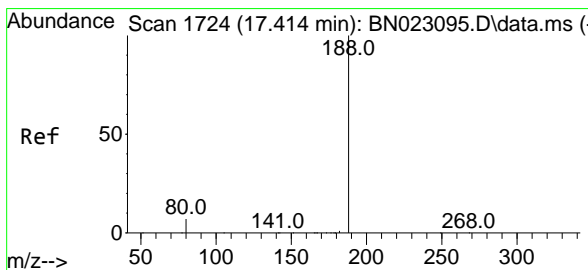
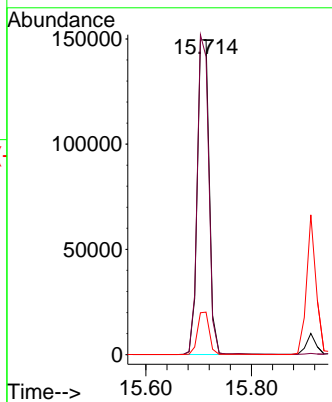
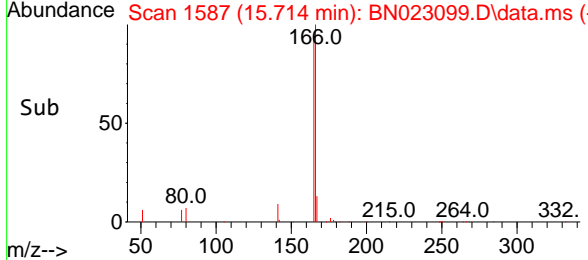
Instrument :  
 BNA\_N  
 Client Sample Id :  
 SSTDICC5.0



Tgt Ion:166 Resp: 24754  
 Ion Ratio Lower Upper  
 166 100  
 165 97.3 79.8 119.6  
 167 12.8 10.6 16.0

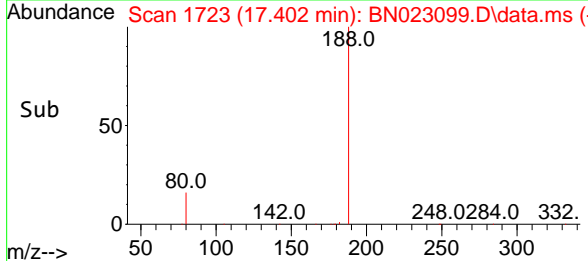
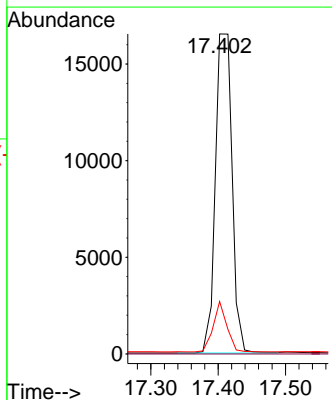
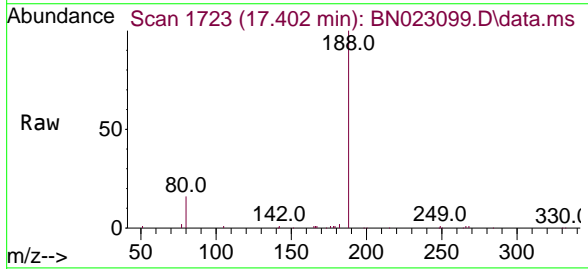
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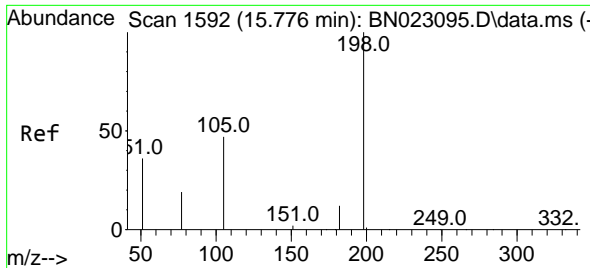
Reviewed By :Christian Giraldo 12/13/2022  
 Supervised By :Jagrut Upadhyay 12/13/2022



#19  
 Phenanthrene-d10  
 Concen: 0.400 ng  
 RT: 17.402 min Scan# 1723  
 Delta R.T. -0.012 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

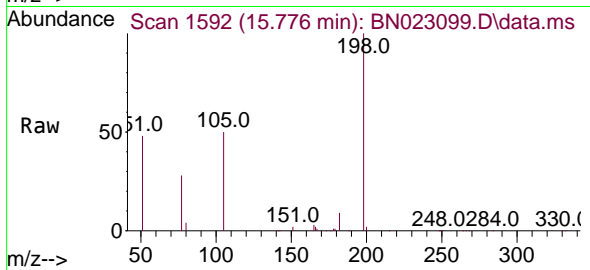
Tgt Ion:188 Resp: 28616  
 Ion Ratio Lower Upper  
 188 100  
 94 0.0 0.0 0.0  
 80 16.4 6.1 9.1#





#20  
 4,6-Dinitro-2-methylphenol  
 Concen: 7.089 ng  
 RT: 15.776 min Scan# 1592  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC5.0

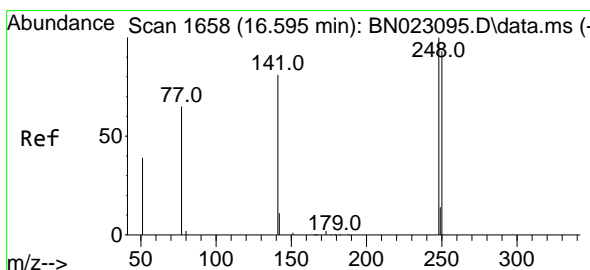
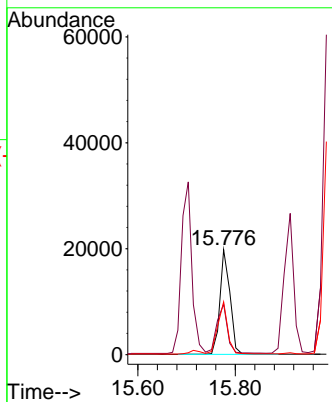
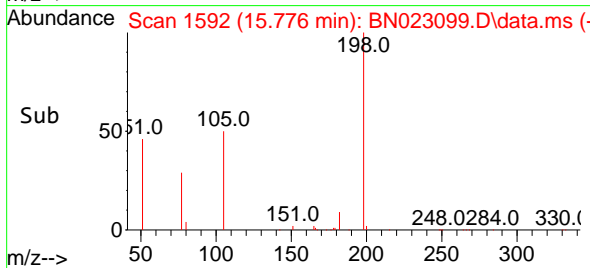


Tgt Ion:198 Resp: 27445

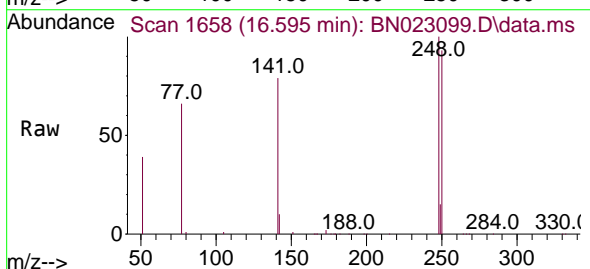
Ion	Ratio	Lower	Upper
198	100		
51	48.2	57.0	85.4
105	50.2	47.2	70.8

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 Supervised By :Jagrut Upadhyay 12/13/2022

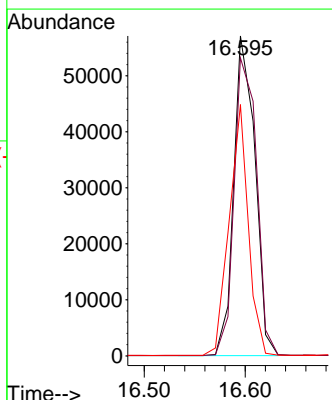
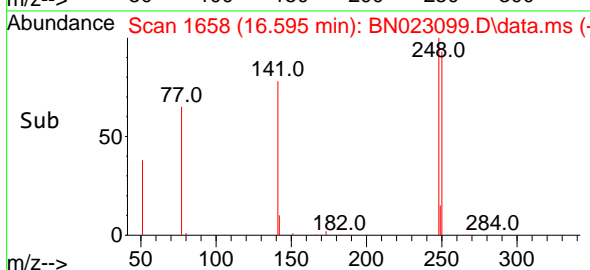


#21  
 4-Bromophenyl-phenylether  
 Concen: 4.830 ng  
 RT: 16.595 min Scan# 1658  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

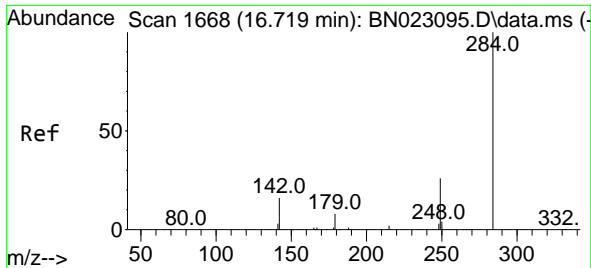


Tgt Ion:248 Resp: 83257

Ion	Ratio	Lower	Upper
248	100		
250	93.2	74.3	111.5
141	78.5	65.0	97.6

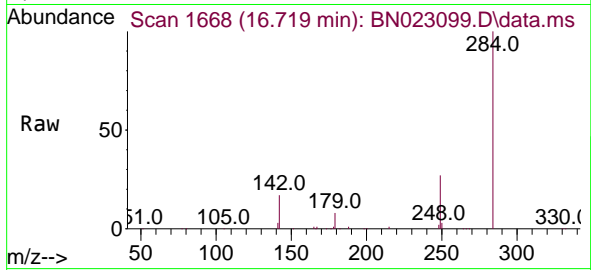






#22  
 Hexachlorobenzene  
 Concen: 4.601 ng  
 RT: 16.719 min Scan# 1668  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

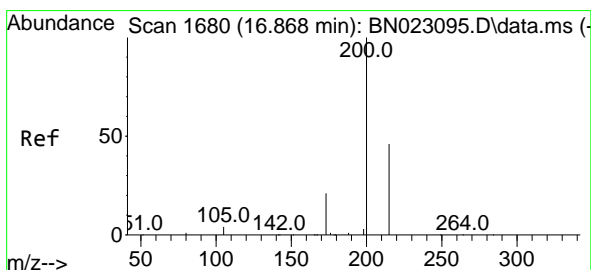
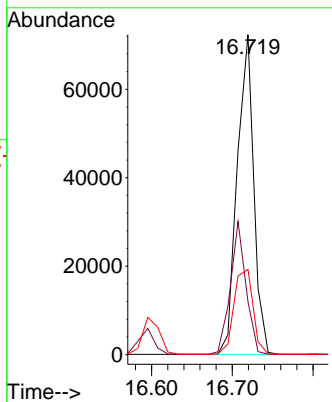
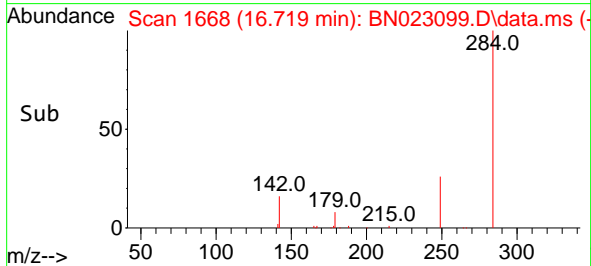
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC5.0



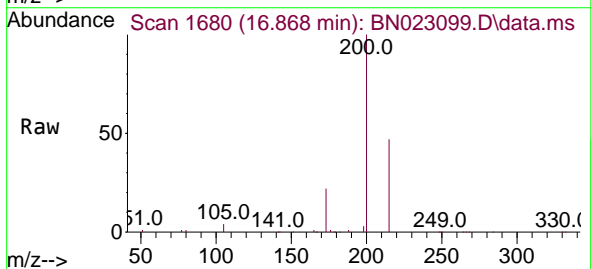
Tgt Ion:284 Resp: 103010  
 Ion Ratio Lower Upper  
 284 100  
 142 39.1 31.0 46.4  
 249 30.5 24.4 36.6

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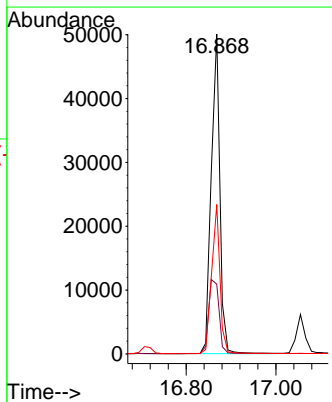
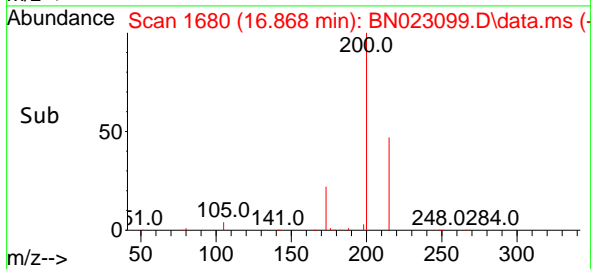
Reviewed By :Christian Giraldo 12/13/2022  
 Supervised By :Jagrut Upadhyay 12/13/2022

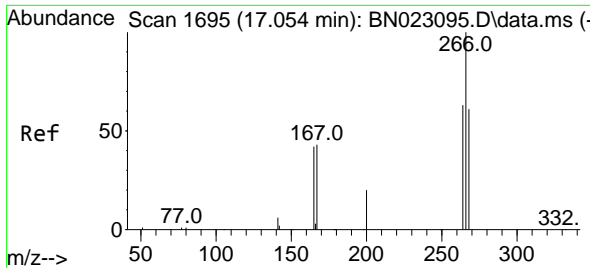


#23  
 Atrazine  
 Concen: 5.323 ng  
 RT: 16.868 min Scan# 1680  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40



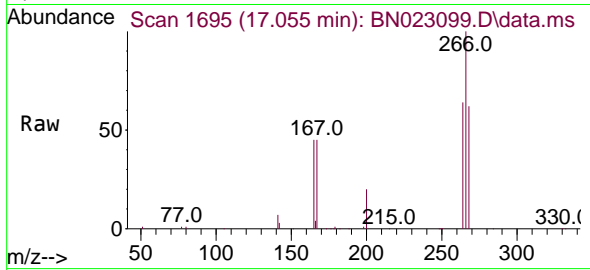
Tgt Ion:200 Resp: 66765  
 Ion Ratio Lower Upper  
 200 100  
 173 21.8 18.2 27.4  
 215 46.7 38.0 57.0





#24  
 Pentachlorophenol  
 Concen: 6.858 ng  
 RT: 17.055 min Scan# 1695  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

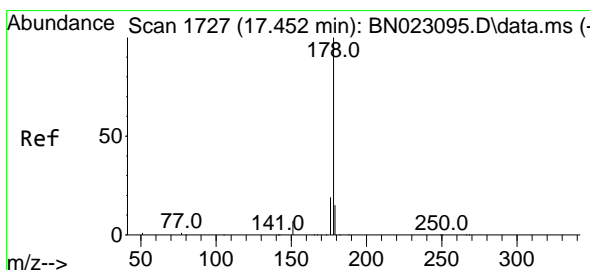
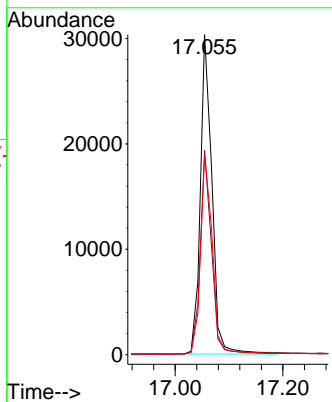
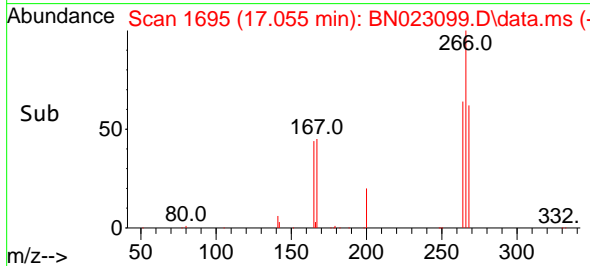
Instrument : BNA\_N  
 Client Sample Id : SSTDICC5.0



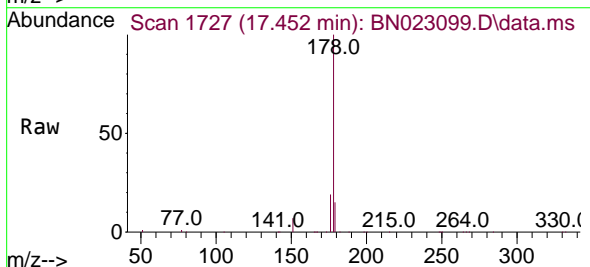
Tgt Ion: 266 Resp: 45088  
 Ion Ratio Lower Upper  
 266 100  
 264 62.4 50.1 75.1  
 268 63.6 49.7 74.5

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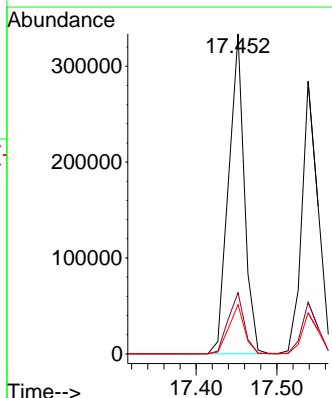
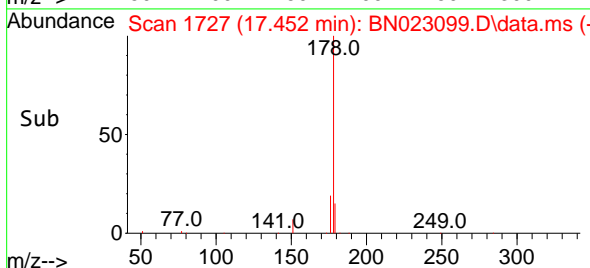
Reviewed By : Christian Giraldo 12/13/2022  
 Supervised By : Jagrut Upadhyay 12/13/2022

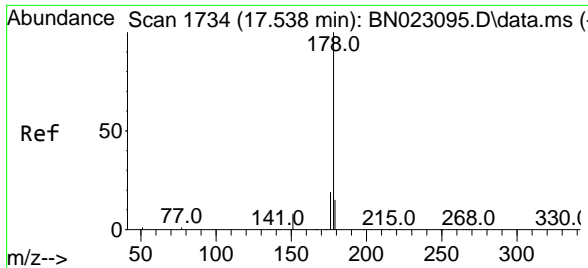


#25  
 Phenanthrene  
 Concen: 4.690 ng  
 RT: 17.452 min Scan# 1727  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40



Tgt Ion: 178 Resp: 452445  
 Ion Ratio Lower Upper  
 178 100  
 176 19.4 15.4 23.2  
 179 15.3 12.2 18.2





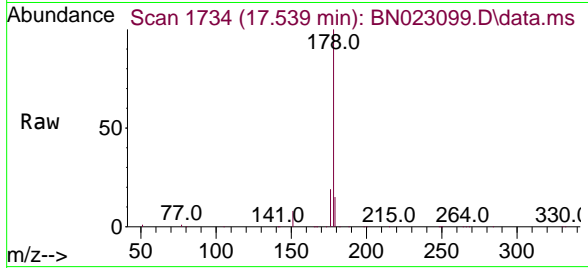
#26  
 Anthracene  
 Concen: 5.163 ng  
 RT: 17.539 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

Instrument :

BNA\_N

Client Sample Id :

SSTDICC5.0

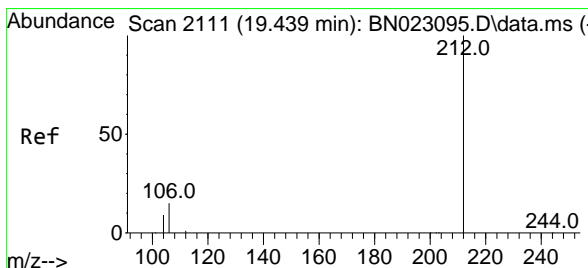
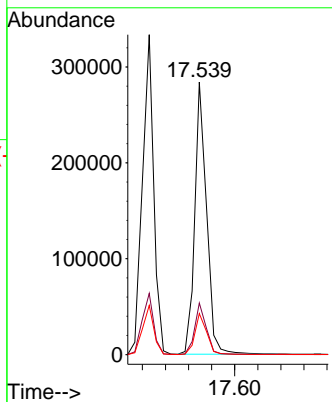
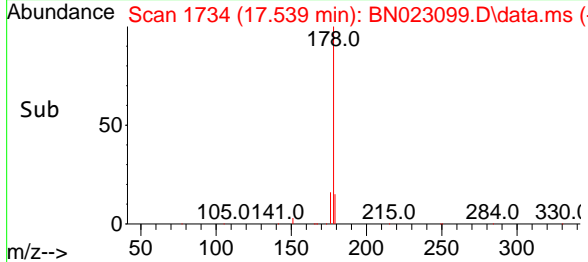


Tgt Ion:178 Resp: 401356  
 Ion Ratio Lower Upper  
 178 100  
 176 18.7 15.1 22.7  
 179 15.2 12.2 18.4

Manual Integrations

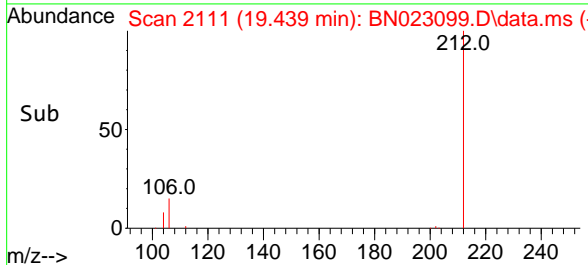
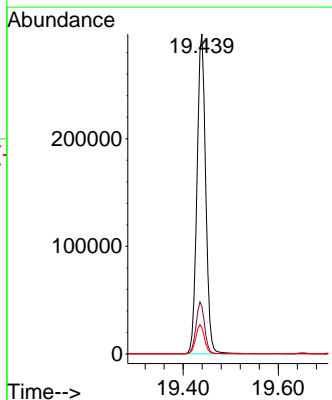
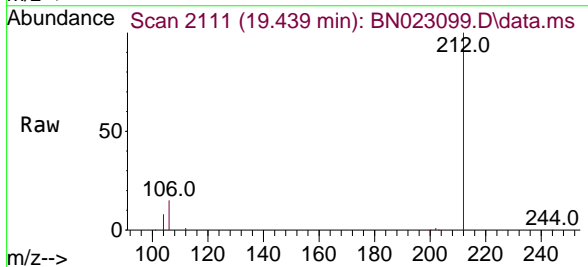
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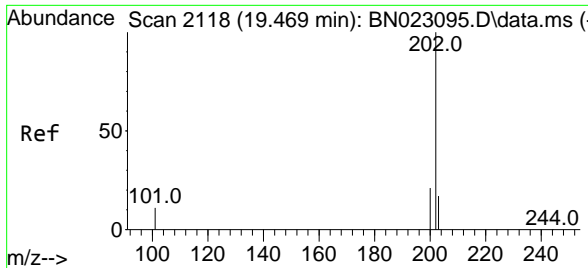
Reviewed By :Christian Giraldo 12/13/2022  
 Supervised By :Jagrut Upadhyay 12/13/2022



#27  
 Fluoranthene-d10  
 Concen: 4.821 ng  
 RT: 19.439 min Scan# 2111  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

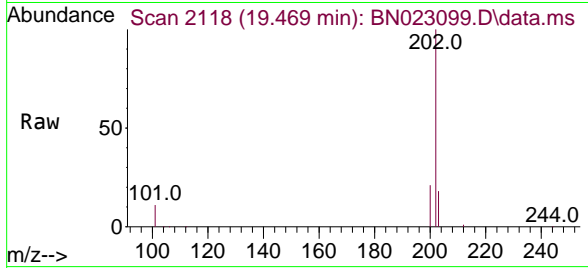
Tgt Ion:212 Resp: 377753  
 Ion Ratio Lower Upper  
 212 100  
 106 16.1 13.0 19.4  
 104 9.0 7.5 11.3





#28  
 Fluoranthene  
 Concen: 4.809 ng  
 RT: 19.469 min Scan# 2118  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

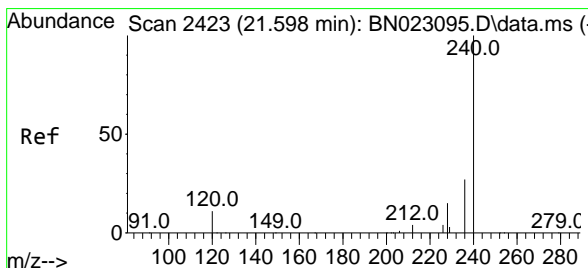
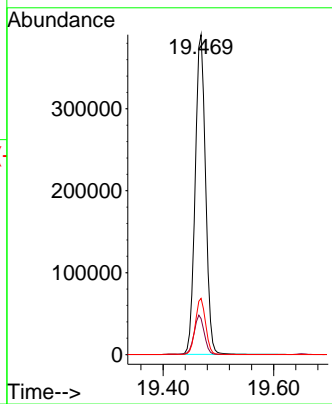
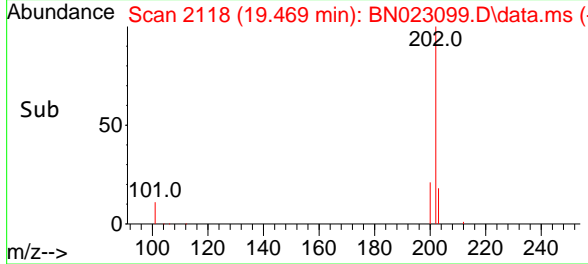
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC5.0



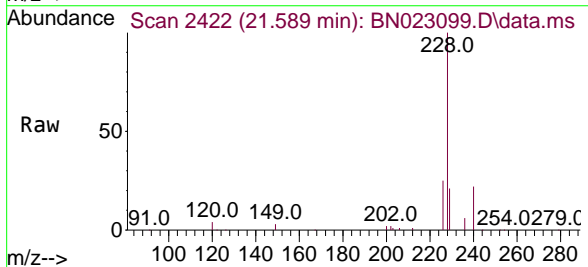
Tgt Ion:202 Resp: 506003  
 Ion Ratio Lower Upper  
 202 100  
 101 12.3 9.7 14.5  
 203 17.4 13.8 20.6

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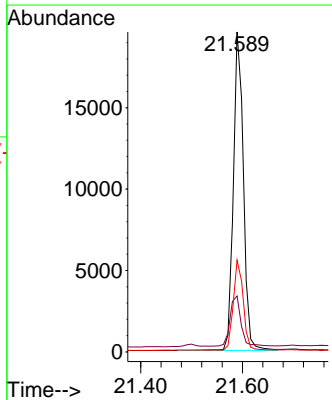
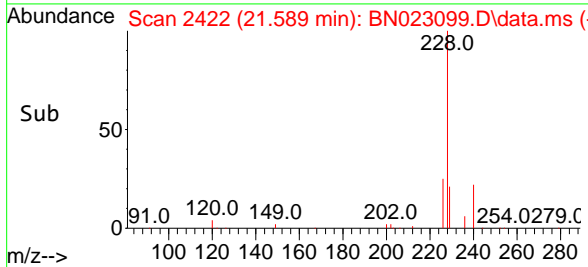
Reviewed By :Christian Giraldo 12/13/2022  
 Supervised By :Jagrut Upadhyay 12/13/2022

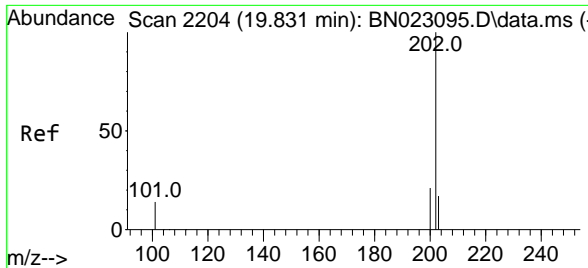


#29  
 Chrysene-d12  
 Concen: 0.400 ng  
 RT: 21.589 min Scan# 2422  
 Delta R.T. -0.009 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40



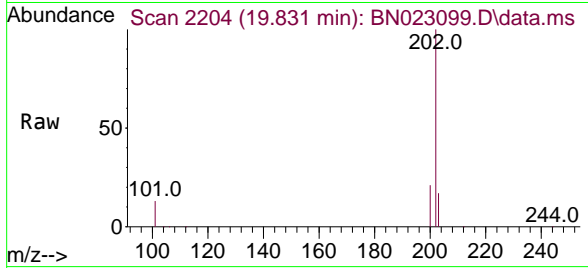
Tgt Ion:240 Resp: 26816  
 Ion Ratio Lower Upper  
 240 100  
 120 17.5 10.1 15.1#  
 236 28.6 22.2 33.4





#30  
 Pyrene  
 Concen: 4.571 ng  
 RT: 19.831 min Scan# 21  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC5.0

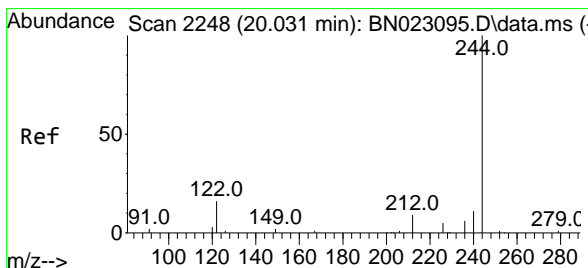
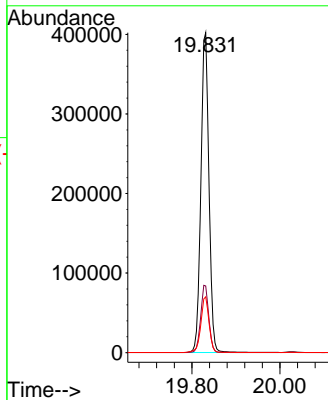
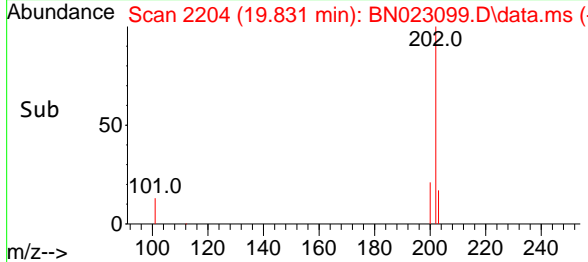


Tgt Ion: 202 Resp: 511132

Ion	Ratio	Lower	Upper
202	100		
200	21.1	16.9	25.3
203	17.8	14.2	21.4

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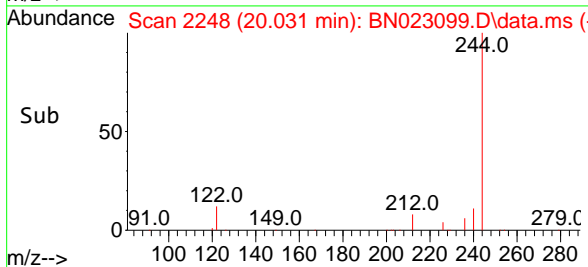
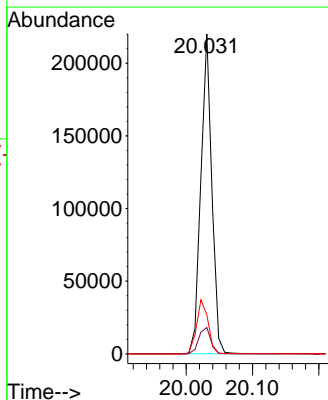
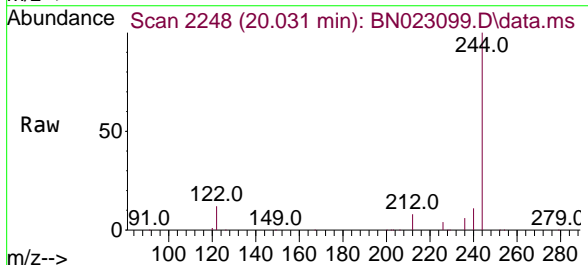
Reviewed By : Christian Giraldo 12/13/2022  
 Supervised By : Jagrut Upadhyay 12/13/2022

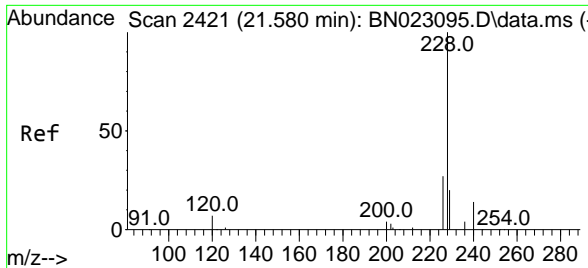


#31  
 Terphenyl-d14  
 Concen: 4.418 ng  
 RT: 20.031 min Scan# 2248  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

Tgt Ion: 244 Resp: 224844

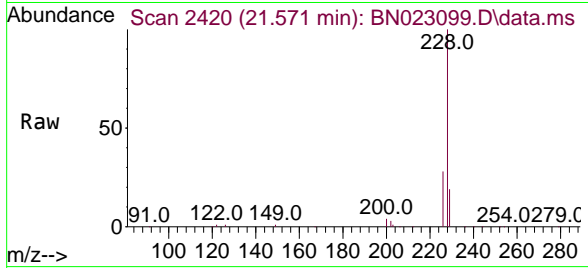
Ion	Ratio	Lower	Upper
244	100		
212	8.2	7.6	11.4
122	12.2	12.6	18.8#





#32  
 Benzo(a)anthracene  
 Concen: 4.950 ng  
 RT: 21.571 min Scan# 2421  
 Delta R.T. -0.009 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

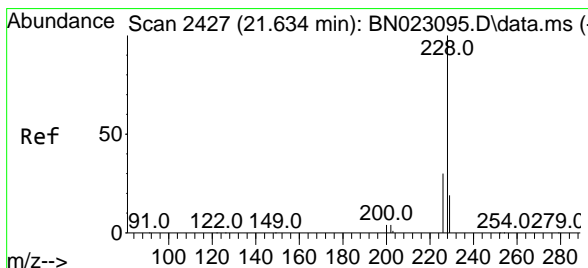
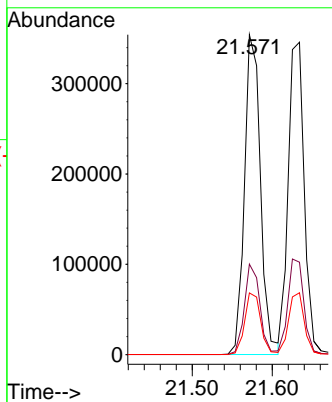
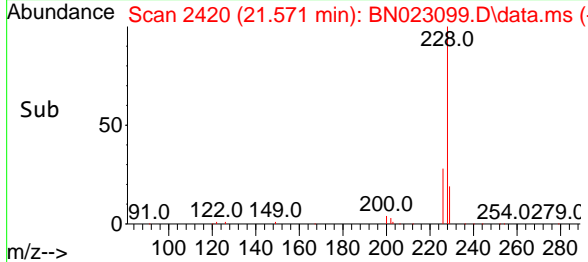
Instrument : BNA\_N  
 Client Sample Id : SSTDICC5.0



Tgt Ion: 228 Resp: 490036  
 Ion Ratio Lower Upper  
 228 100  
 226 28.3 22.0 33.0  
 229 19.3 15.8 23.8

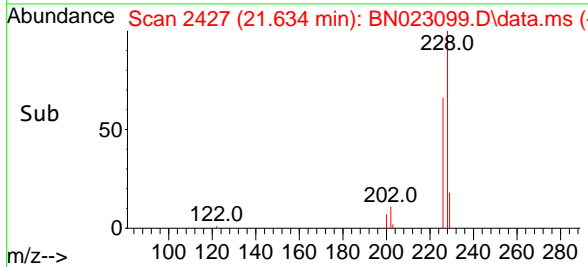
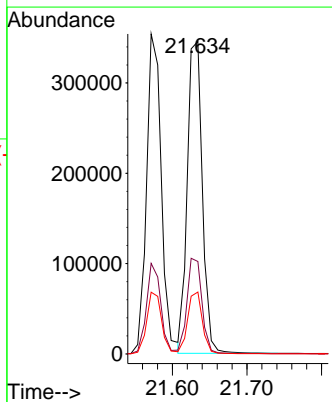
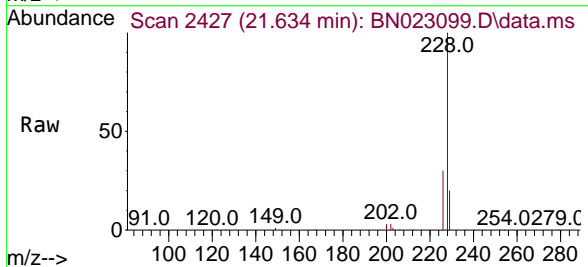
Manual Integrations  
 APPROVED

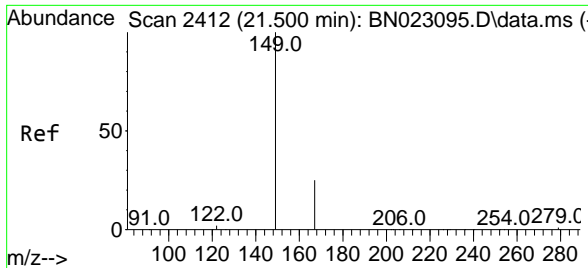
Reviewed By : Christian Giraldo 12/13/2022  
 Supervised By : Jagrut Upadhyay 12/13/2022



#33  
 Chrysene  
 Concen: 4.385 ng  
 RT: 21.634 min Scan# 2427  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

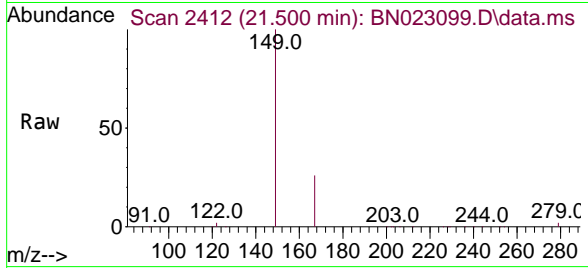
Tgt Ion: 228 Resp: 485095  
 Ion Ratio Lower Upper  
 228 100  
 226 29.6 24.4 36.6  
 229 19.8 15.6 23.4





#34  
 Bis(2-ethylhexyl)phthalate  
 Concen: 5.484 ng  
 RT: 21.500 min Scan# 2412  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

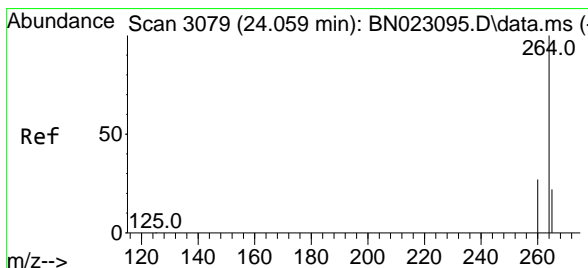
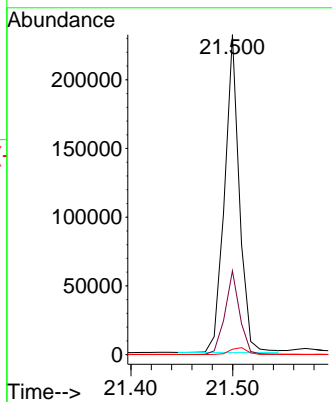
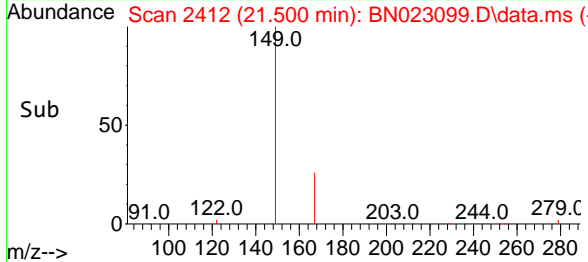
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC5.0



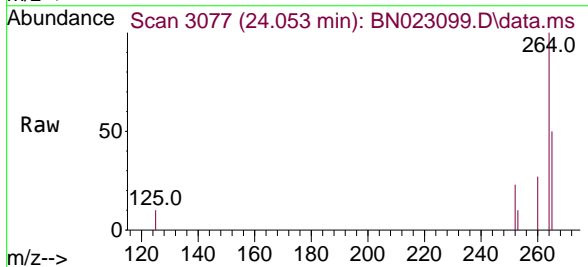
Tgt Ion:149 Resp: 234584  
 Ion Ratio Lower Upper  
 149 100  
 167 25.9 20.2 30.2  
 279 2.4 2.3 3.5

Manual Integrations  
 APPROVED

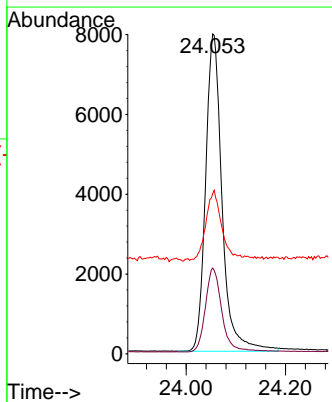
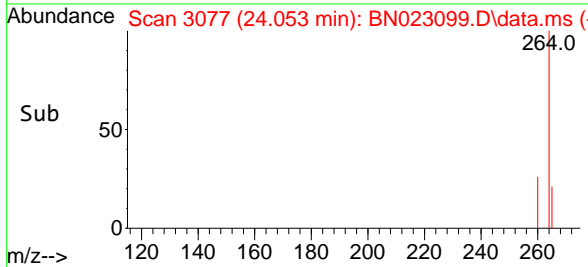
Reviewed By :Christian Giraldo 12/13/2022  
 Supervised By :Jagrut Upadhyay 12/13/2022

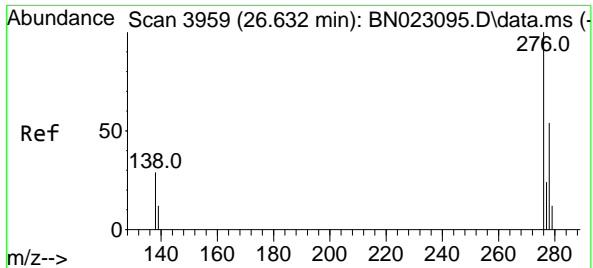


#35  
 Perylene-d12  
 Concen: 0.400 ng  
 RT: 24.053 min Scan# 3077  
 Delta R.T. -0.006 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40



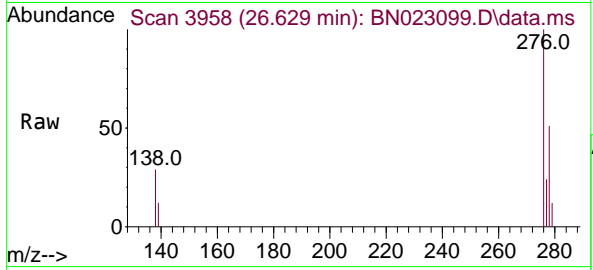
Tgt Ion:264 Resp: 18277  
 Ion Ratio Lower Upper  
 264 100  
 260 26.8 21.7 32.5  
 265 50.1 43.2 64.8





#36  
 Indeno(1,2,3-cd)pyrene  
 Concen: 4.890 ng  
 RT: 26.629 min Scan# 3958  
 Delta R.T. -0.003 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

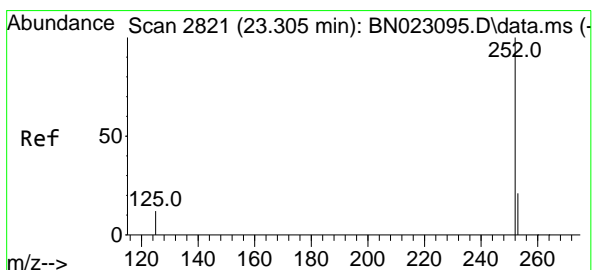
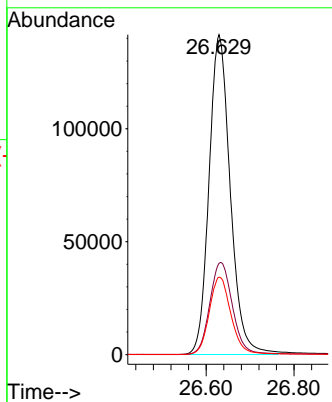
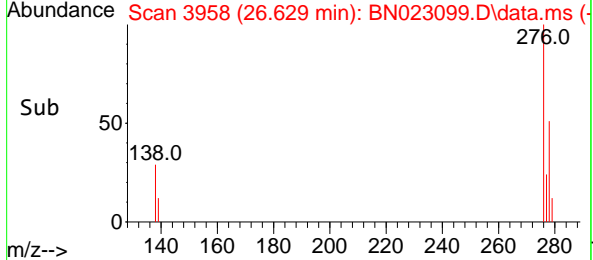
Instrument :  
 BNA\_N  
 Client Sample Id :  
 SSTDICC5.0



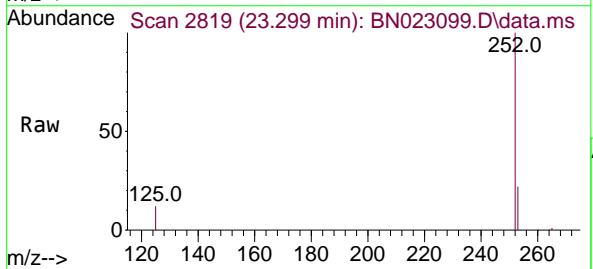
Tgt Ion: 276 Resp: 474956  
 Ion Ratio Lower Upper  
 276 100  
 138 30.7 25.0 37.6  
 277 24.8 19.8 29.8

Manual Integrations  
 APPROVED

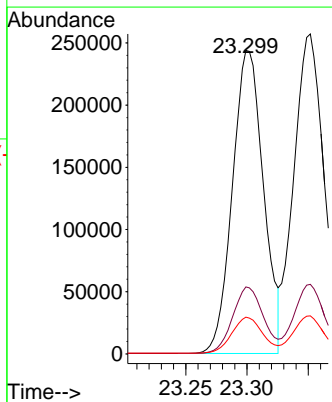
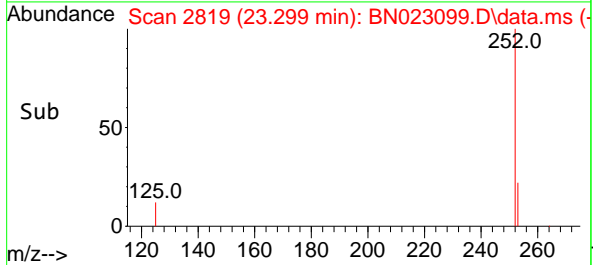
Reviewed By : Christian Giraldo 12/13/2022  
 Supervised By : Jagrut Upadhyay 12/13/2022



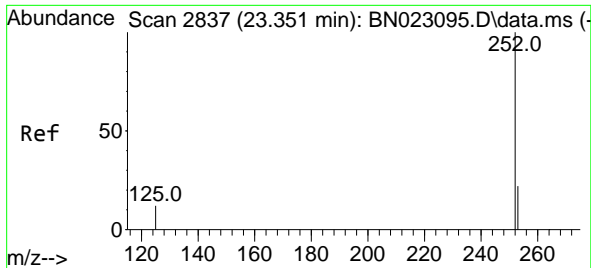
#37  
 Benzo(b)fluoranthene  
 Concen: 5.138 ng  
 RT: 23.299 min Scan# 2819  
 Delta R.T. -0.006 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40



Tgt Ion: 252 Resp: 429250  
 Ion Ratio Lower Upper  
 252 100  
 253 22.1 19.0 28.4  
 125 12.1 12.8 19.2#

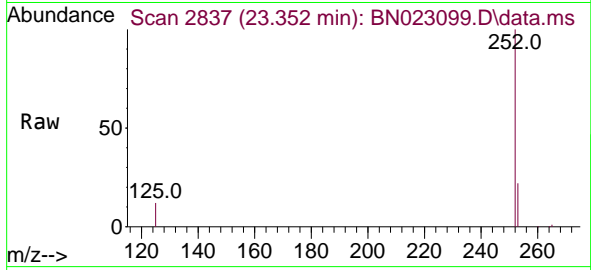






#38  
 Benzo(k)fluoranthene  
 Concen: 5.195 ng  
 RT: 23.352 min Scan# 2837  
 Delta R.T. 0.000 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

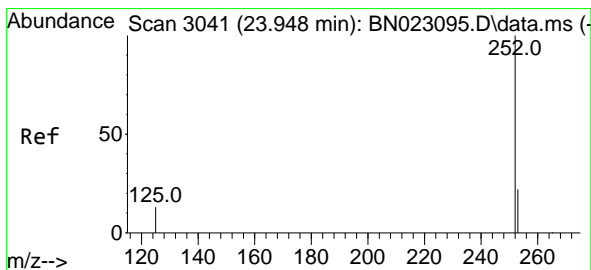
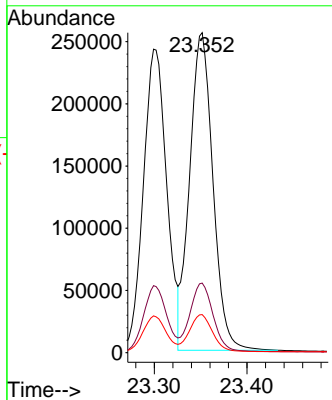
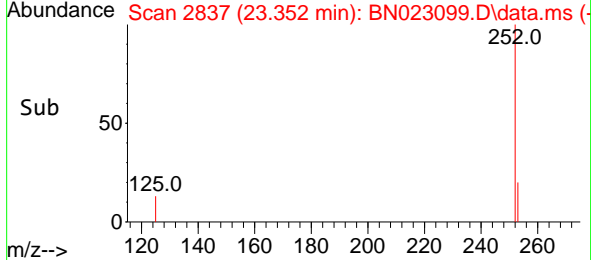
Instrument : BNA\_N  
 Client Sample Id : SSTDICC5.0



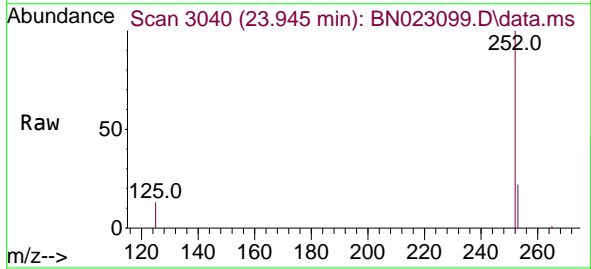
Tgt Ion:252 Resp: 444852  
 Ion Ratio Lower Upper  
 252 100  
 253 21.8 19.1 28.7  
 125 11.9 12.5 18.7

Manual Integrations  
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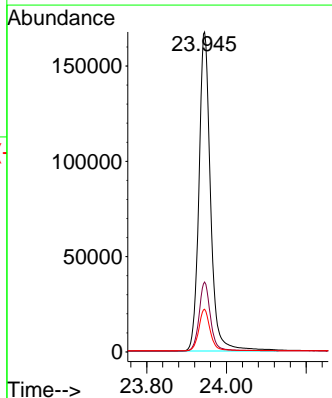
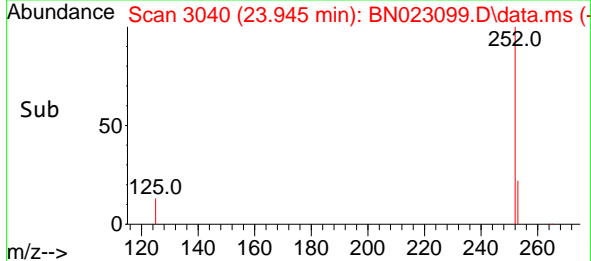
Reviewed By :Christian Giraldo 12/13/2022  
 Supervised By :Jagrut Upadhyay 12/13/2022

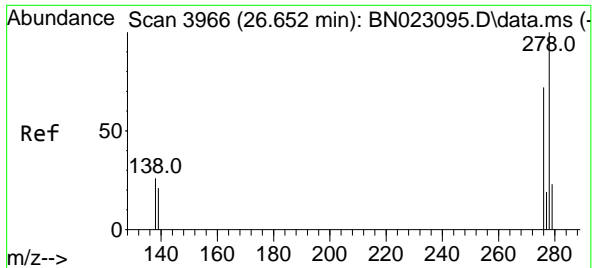


#39  
 Benzo(a)pyrene  
 Concen: 5.001 ng  
 RT: 23.945 min Scan# 3040  
 Delta R.T. -0.003 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40



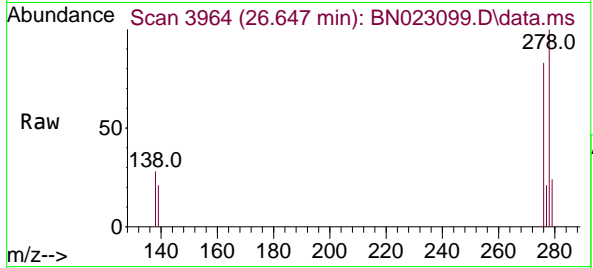
Tgt Ion:252 Resp: 338522  
 Ion Ratio Lower Upper  
 252 100  
 253 21.8 20.6 30.8  
 125 13.3 15.8 23.8





#40  
 Dibenzo(a,h)anthracene  
 Concen: 4.970 ng  
 RT: 26.647 min Scan# 3964  
 Delta R.T. -0.006 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

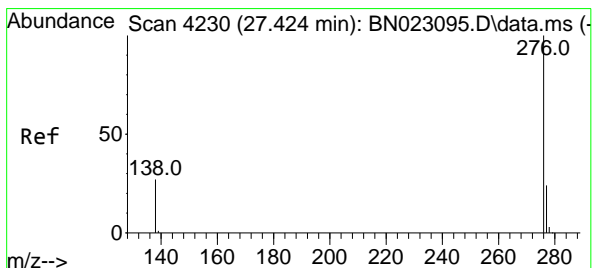
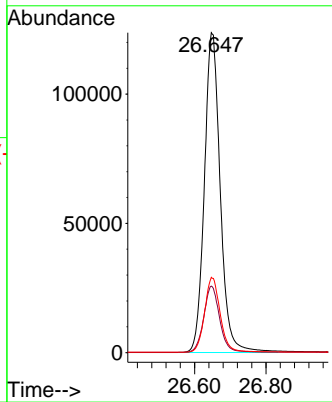
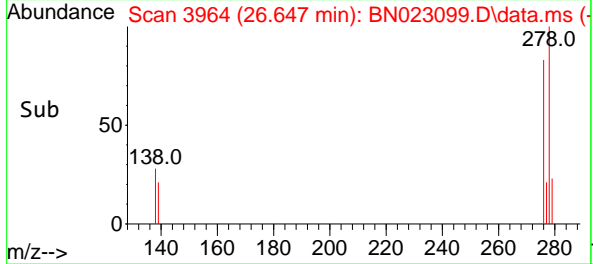
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDICC5.0



Tgt Ion:278 Resp: 38191  
 Ion Ratio Lower Upper  
 278 100  
 139 20.8 17.5 26.3  
 279 23.5 20.5 30.7

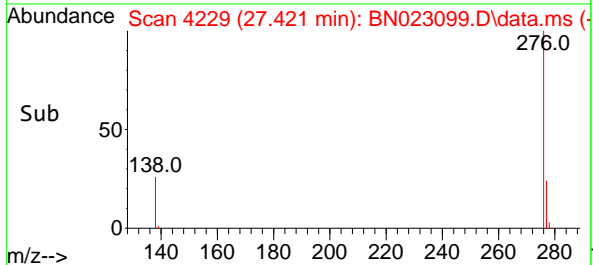
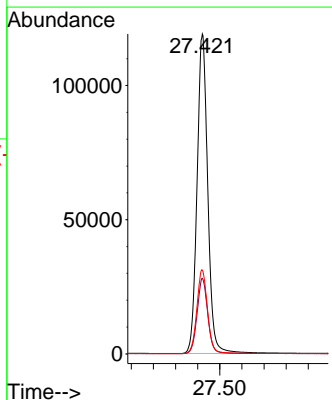
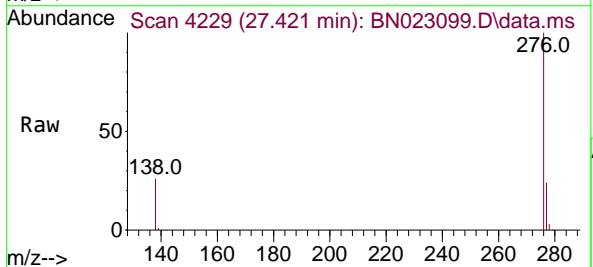
Manual Integrations  
 APPROVED

Reviewed By :Christian Giraldo 12/13/2022  
 Supervised By :Jagrut Upadhyay 12/13/2022



#41  
 Benzo(g,h,i)perylene  
 Concen: 5.077 ng  
 RT: 27.421 min Scan# 4229  
 Delta R.T. -0.003 min  
 Lab File: BN023099.D  
 Acq: 08 Dec 2022 17:40

Tgt Ion:276 Resp: 399388  
 Ion Ratio Lower Upper  
 276 100  
 277 23.6 19.9 29.9  
 138 26.2 22.2 33.2



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN120822\  
 Data File : BN023100.D  
 Acq On : 08 Dec 2022 18:17  
 Operator : CG/JU  
 Sample : SSTDICV0.4  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 ICVBN120822

Quant Time: Dec 09 07:47:50 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:44:40 2022  
 Response via : Initial Calibration

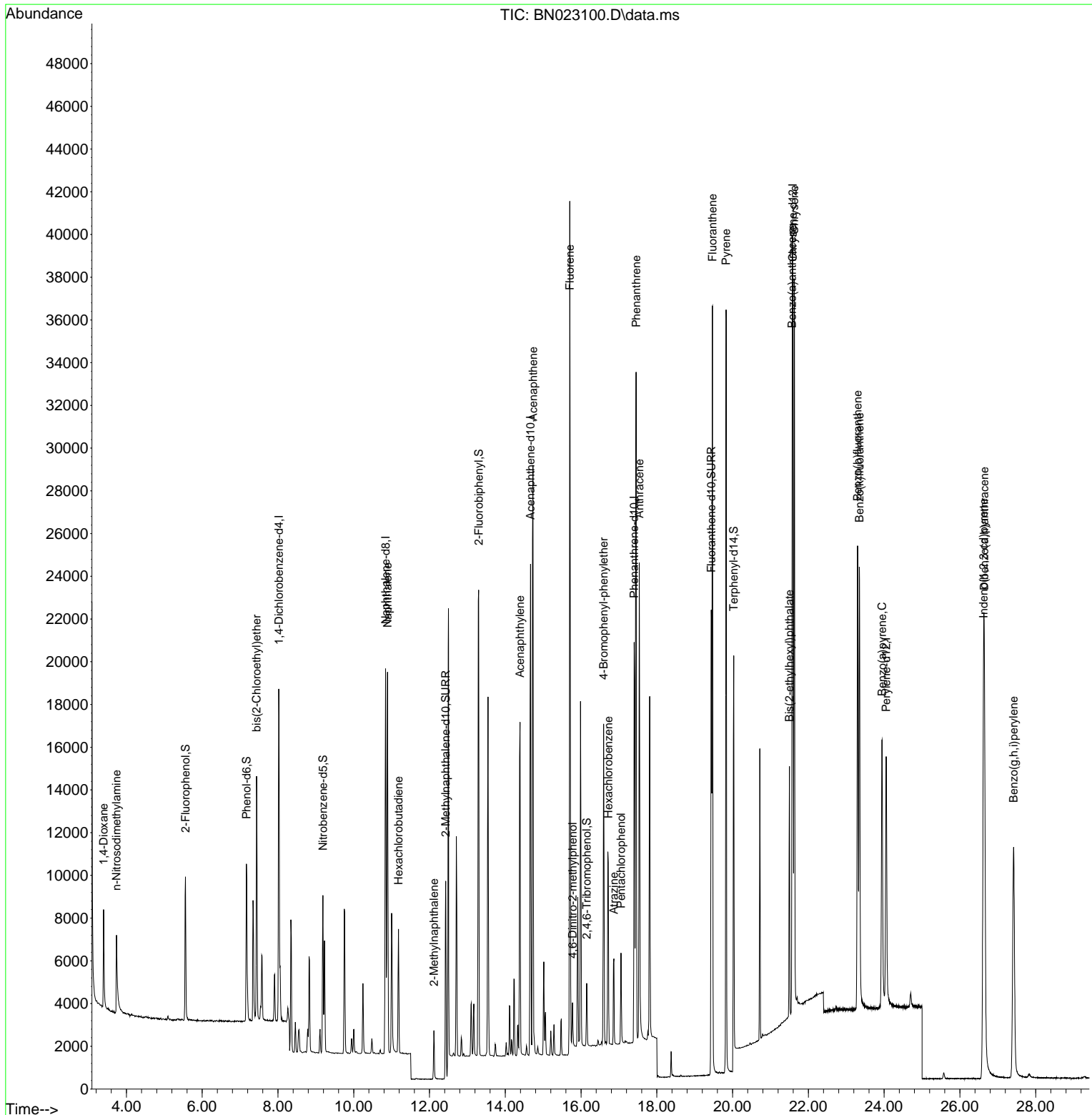
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) 1,4-Dichlorobenzene-d4	8.021	152	7612	0.400 ng	0.00	
7) Naphthalene-d8	10.840	136	22566	0.400 ng	0.00	
13) Acenaphthene-d10	14.666	164	12449	0.400 ng	0.00	
19) Phenanthrene-d10	17.402	188	27164	0.400 ng	#-0.01	
29) Chrysene-d12	21.589	240	22009	0.400 ng	# 0.00	
35) Perylene-d12	24.053	264	17542	0.400 ng	0.00	
System Monitoring Compounds						
4) 2-Fluorophenol	5.558	112	5566	0.393 ng	0.00	
5) Phenol-d6	7.168	99	6971	0.387 ng	0.00	
8) Nitrobenzene-d5	9.185	82	5658	0.381 ng	0.00	
11) 2-Methylnaphthalene-d10	12.427	152	15694	0.410 ng	0.00	
14) 2,4,6-Tribromophenol	16.148	330	1561	0.346 ng	0.00	
15) 2-Fluorobiphenyl	13.298	172	20220	0.407 ng	0.00	
27) Fluoranthene-d10	19.439	212	24017	0.378 ng	0.00	
31) Terphenyl-d14	20.031	244	14543	0.407 ng	0.00	
Target Compounds						
2) 1,4-Dioxane	3.398	88	3062	0.408 ng	99	Qvalue
3) n-Nitrosodimethylamine	3.738	42	2878	0.390 ng	99	
6) bis(2-Chloroethyl)ether	7.436	93	8241	0.403 ng	98	
9) Naphthalene	10.893	128	22785	0.396 ng	100	
10) Hexachlorobutadiene	11.182	225	4421	0.404 ng	# 100	
12) 2-Methylnaphthalene	12.117	142	3243	0.379 ng	99	
16) Acenaphthylene	14.388	152	18308	0.365 ng	100	
17) Acenaphthene	14.730	154	14119	0.383 ng	99	
18) Fluorene	15.703	166	15779	0.383 ng	100	
20) 4,6-Dinitro-2-methylph...	15.776	198	1113	0.440 ng	98	
21) 4-Bromophenyl-phenylether	16.595	248	5541	0.382 ng	99	
22) Hexachlorobenzene	16.719	284	7695	0.405 ng	100	
23) Atrazine	16.868	200	3573	0.350 ng	99	
24) Pentachlorophenol	17.055	266	1977	0.300 ng	98	
25) Phenanthrene	17.452	178	31445	0.388 ng	100	
26) Anthracene	17.539	178	23419	0.363 ng	99	
28) Fluoranthene	19.469	202	32800	0.378 ng	100	
30) Pyrene	19.827	202	31897	0.396 ng	100	
32) Benzo(a)anthracene	21.571	228	25864	0.365 ng	98	
33) Chrysene	21.625	228	31807	0.399 ng	98	
34) Bis(2-ethylhexyl)phtha...	21.500	149	10468	0.349 ng	100	
36) Indeno(1,2,3-cd)pyrene	26.623	276	31454	0.400 ng	100	
37) Benzo(b)fluoranthene	23.299	252	28324	0.389 ng	99	
38) Benzo(k)fluoranthene	23.346	252	27995	0.379 ng	99	
39) Benzo(a)pyrene	23.942	252	20767	0.381 ng	96	
40) Dibenzo(a,h)anthracene	26.644	278	25035	0.397 ng	99	
41) Benzo(g,h,i)perylene	27.418	276	24921	0.370 ng	99	

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

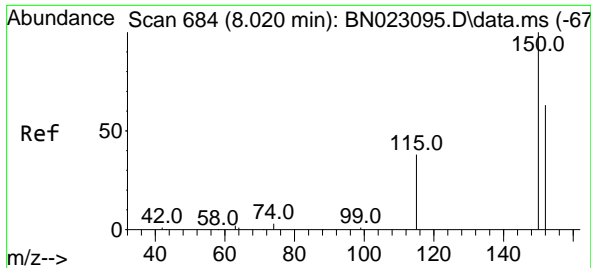
Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN120822\  
 Data File : BN023100.D  
 Acq On : 08 Dec 2022 18:17  
 Operator : CG/JU  
 Sample : SSTDICV0.4  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 ICVBN120822

Quant Time: Dec 09 07:47:50 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:44:40 2022  
 Response via : Initial Calibration

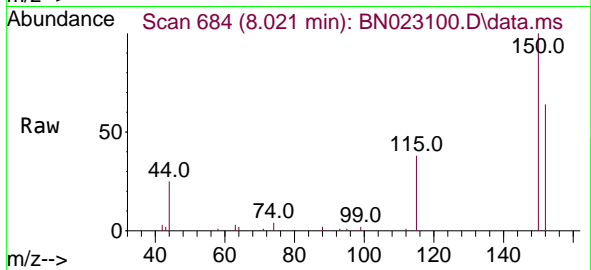


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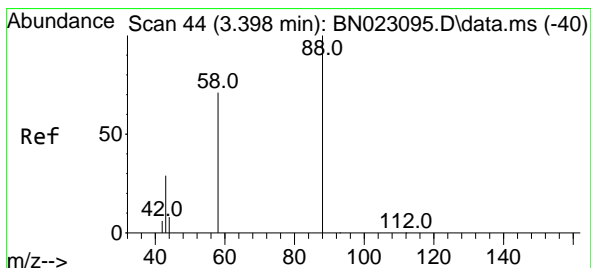
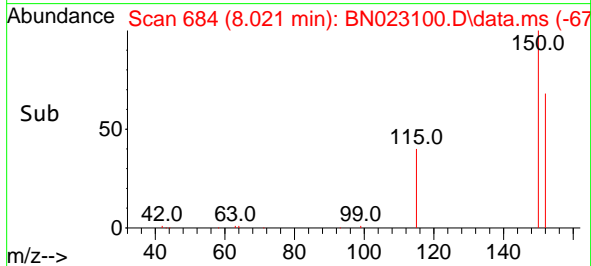
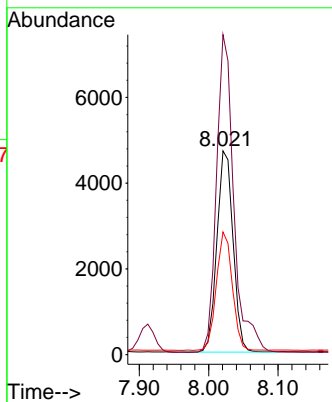


#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 8.021 min Scan# 68  
 Delta R.T. 0.001 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Instrument :  
 BNA\_N  
 ClientSampleId :  
 ICVBN120822

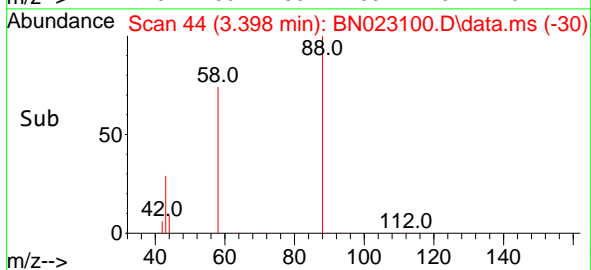
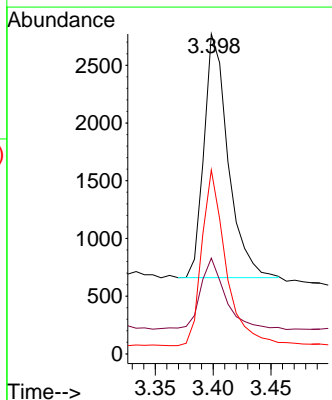
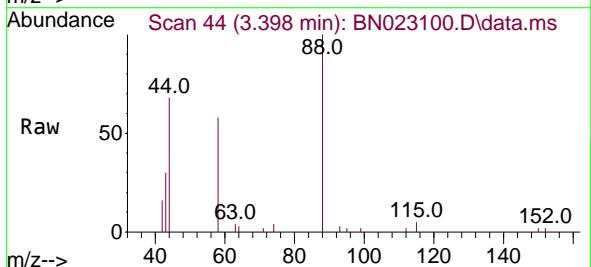


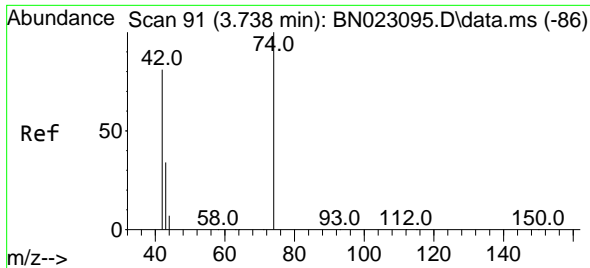
Tgt Ion:152 Resp: 7612  
 Ion Ratio Lower Upper  
 152 100  
 150 157.1 125.6 188.4  
 115 60.2 49.0 73.4



#2  
 1,4-Dioxane  
 Concen: 0.408 ng  
 RT: 3.398 min Scan# 44  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion: 88 Resp: 3062  
 Ion Ratio Lower Upper  
 88 100  
 43 29.9 23.3 34.9  
 58 72.0 58.0 87.0



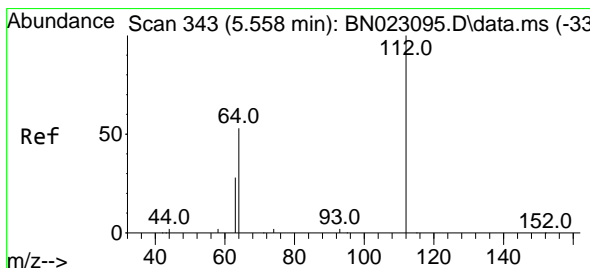
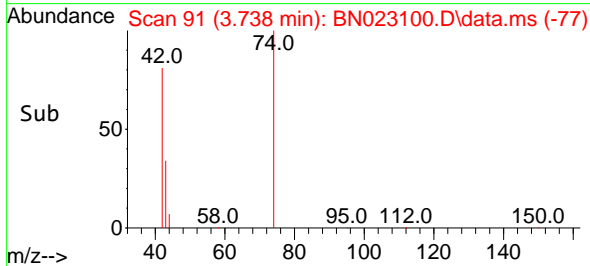
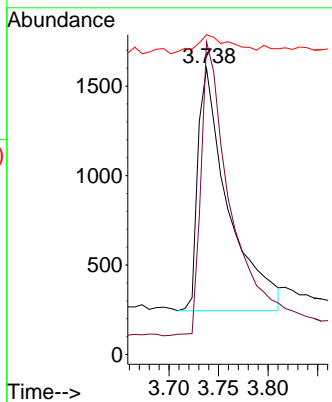
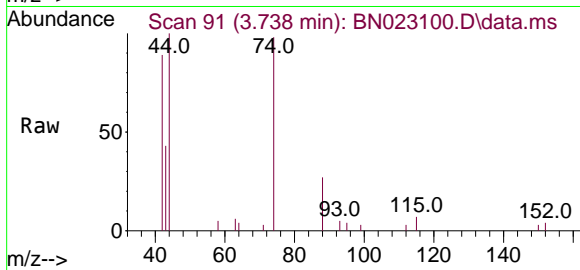


#3  
 n-Nitrosodimethylamine  
 Concen: 0.390 ng  
 RT: 3.738 min Scan# 91  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Instrument :  
 BNA\_N  
 Client SampleId :  
 ICVBN120822

Tgt Ion: 42 Resp: 2878

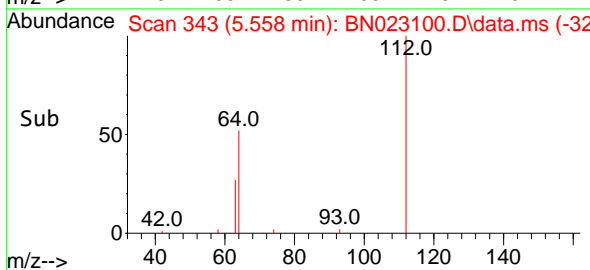
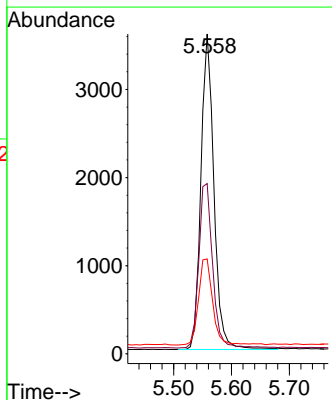
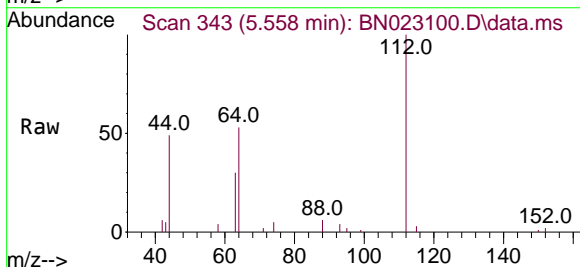
Ion	Ratio	Lower	Upper
42	100		
74	120.6	95.8	143.6
44	9.0	8.4	12.6

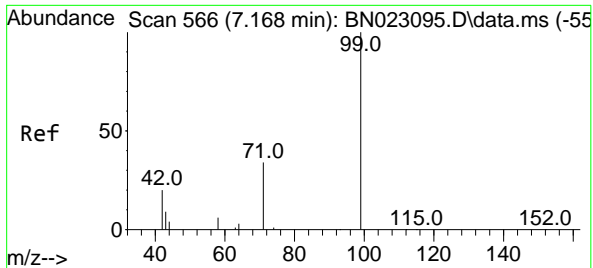


#4  
 2-Fluorophenol  
 Concen: 0.393 ng  
 RT: 5.558 min Scan# 343  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion: 112 Resp: 5566

Ion	Ratio	Lower	Upper
112	100		
64	55.6	44.4	66.6
63	29.7	23.7	35.5

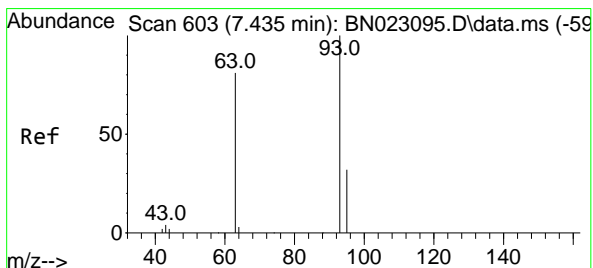
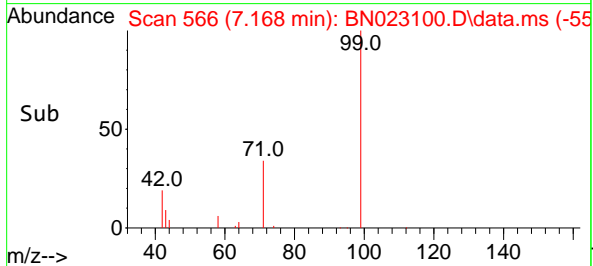
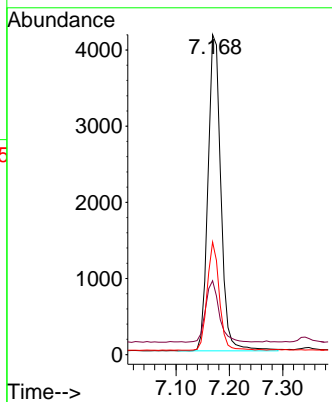
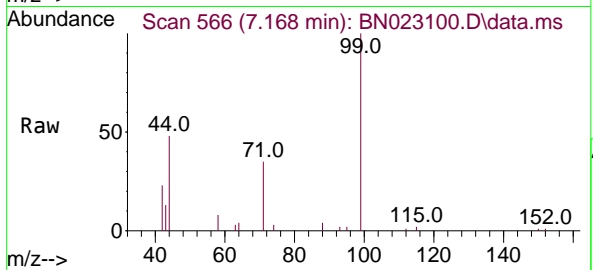




#5  
 Phenol-d6  
 Concen: 0.387 ng  
 RT: 7.168 min Scan# 566  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

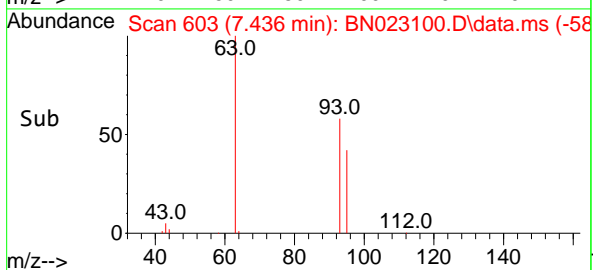
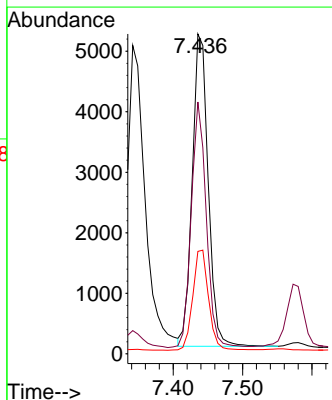
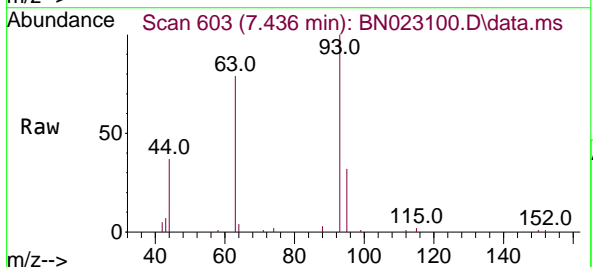
Instrument :  
 BNA\_N  
 ClientSampleId :  
 ICVBN120822

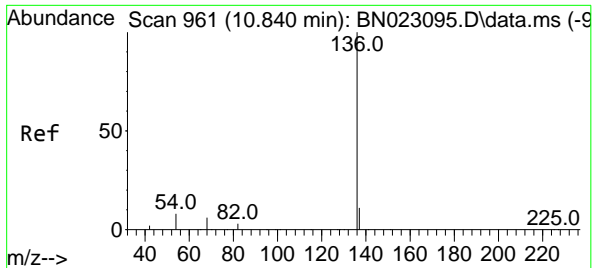
Tgt Ion	Resp	Ion Ratio	Lower	Upper
99	6971	100		
42	20.5	16.3	24.5	
71	32.3	26.5	39.7	



#6  
 bis(2-Chloroethyl)ether  
 Concen: 0.403 ng  
 RT: 7.436 min Scan# 603  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion	Resp	Ion Ratio	Lower	Upper
93	8241	100		
63	74.4	58.1	87.1	
95	31.9	25.2	37.8	



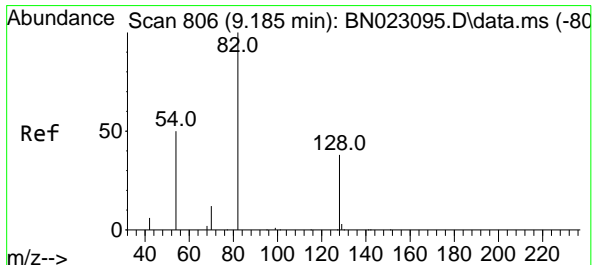
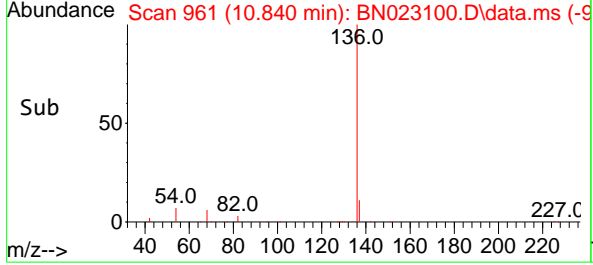
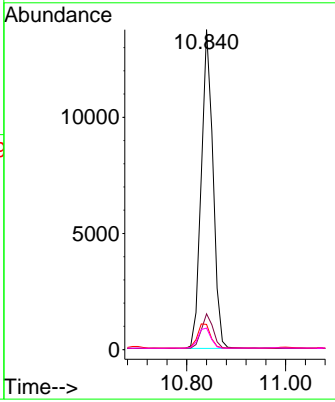
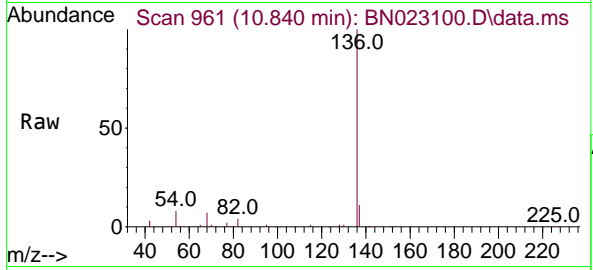


#7  
Naphthalene-d8  
Concen: 0.400 ng  
RT: 10.840 min Scan# 961  
Delta R.T. 0.000 min  
Lab File: BN023100.D  
Acq: 08 Dec 2022 18:17

Instrument : BNA\_N  
Client Sample Id : ICVBN120822

Tgt Ion: 136 Resp: 22566

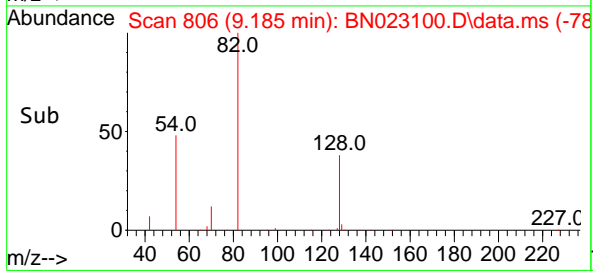
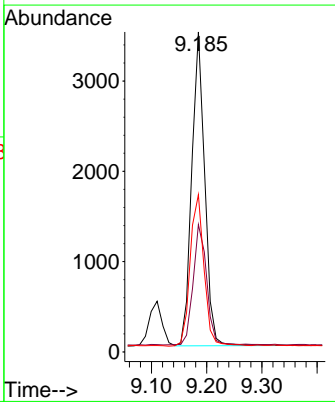
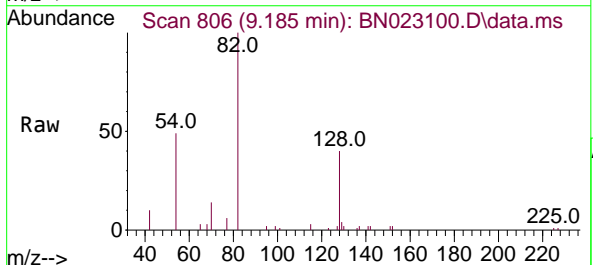
Ion	Ratio	Lower	Upper
136	100		
137	11.2	9.0	13.4
54	7.9	6.5	9.7
68	6.7	5.4	8.2



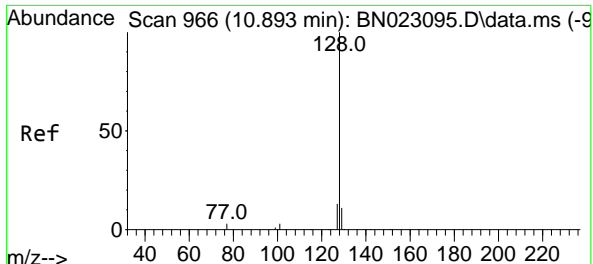
#8  
Nitrobenzene-d5  
Concen: 0.381 ng  
RT: 9.185 min Scan# 806  
Delta R.T. 0.000 min  
Lab File: BN023100.D  
Acq: 08 Dec 2022 18:17

Tgt Ion: 82 Resp: 5658

Ion	Ratio	Lower	Upper
82	100		
128	39.8	31.4	47.2
54	49.1	41.0	61.4





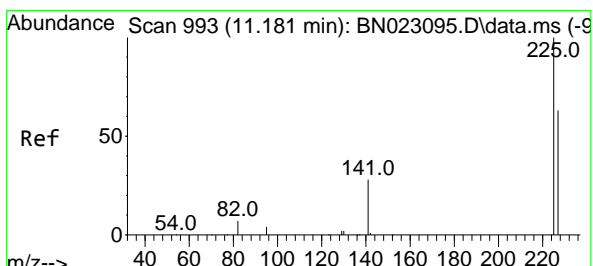
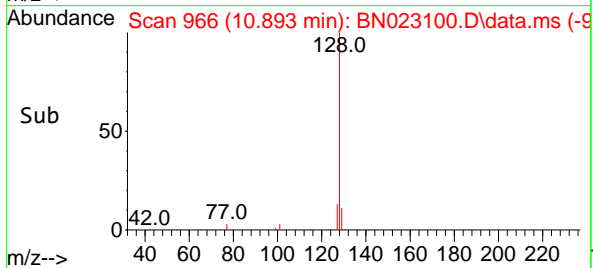
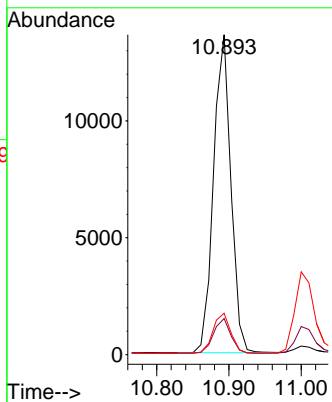
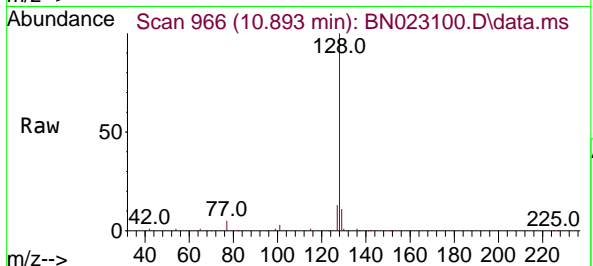


#9  
 Naphthalene  
 Concen: 0.396 ng  
 RT: 10.893 min Scan# 966  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Instrument : BNA\_N  
 Client Sample Id : ICVBN120822

Tgt Ion:128 Resp: 22785

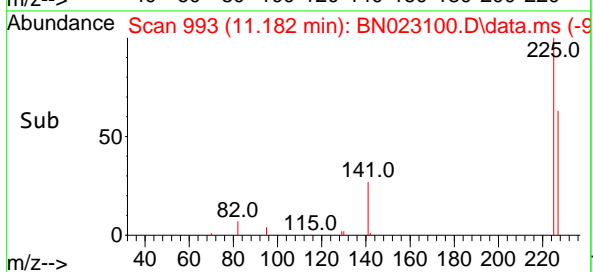
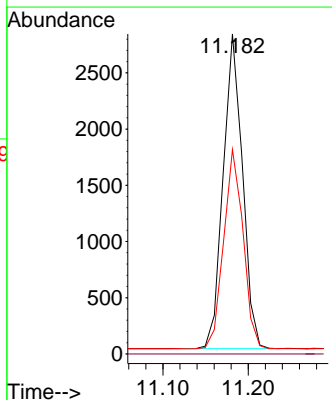
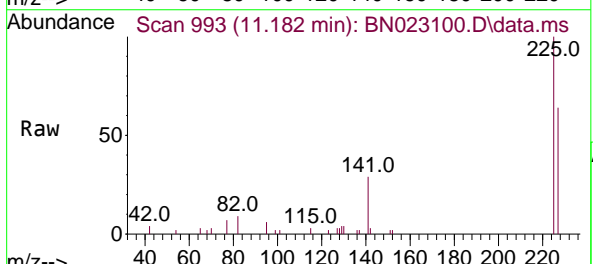
Ion	Ratio	Lower	Upper
128	100		
129	11.3	9.0	13.6
127	12.9	10.5	15.7

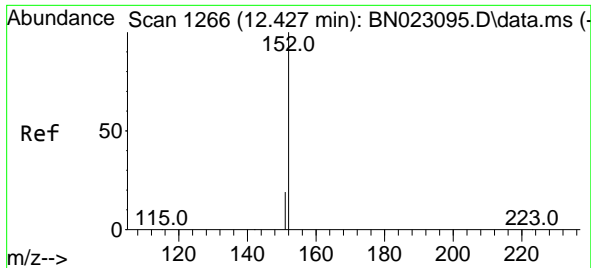


#10  
 Hexachlorobutadiene  
 Concen: 0.404 ng  
 RT: 11.182 min Scan# 993  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion:225 Resp: 4421

Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	63.5	51.1	76.7

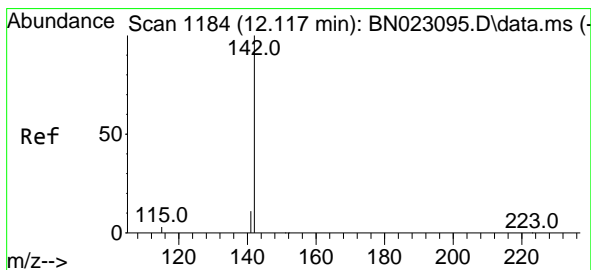
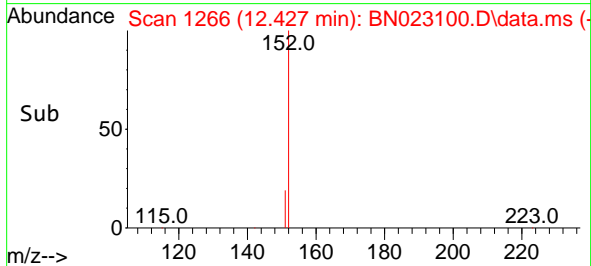
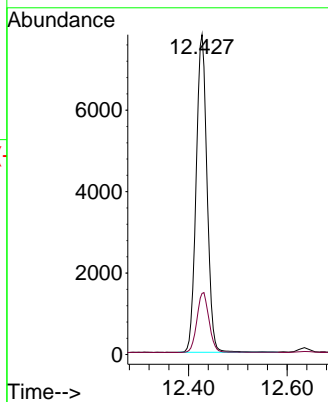
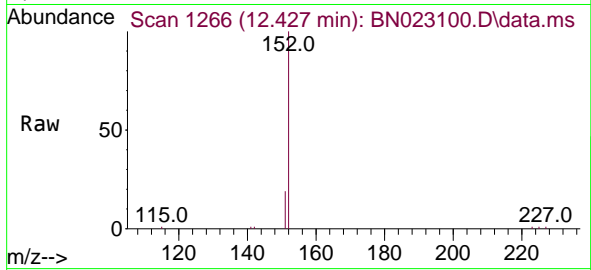




#11  
 2-Methylnaphthalene-d10  
 Concen: 0.410 ng  
 RT: 12.427 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

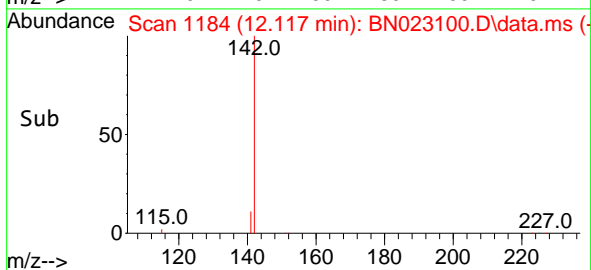
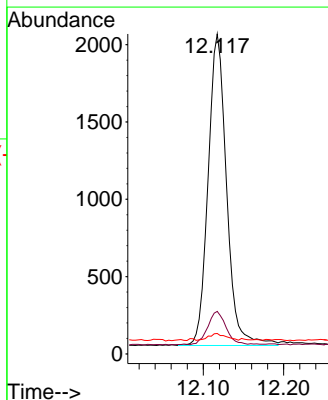
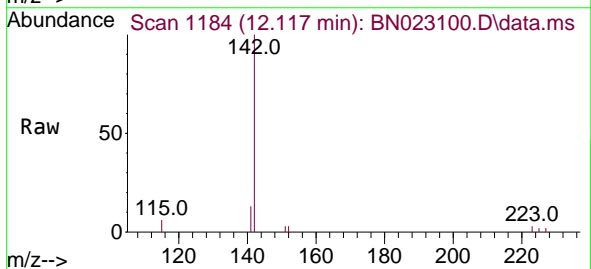
Instrument :  
 BNA\_N  
 ClientSampleId :  
 ICVBN120822

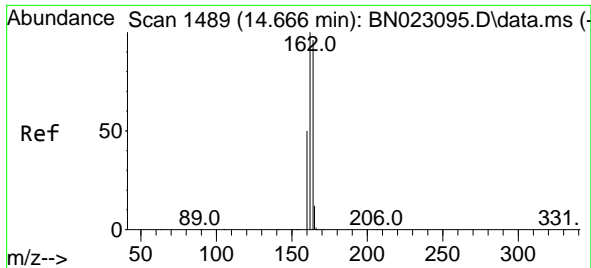
Tgt Ion:152 Resp: 15694  
 Ion Ratio Lower Upper  
 152 100  
 151 15.9 15.1 22.7



#12  
 2-Methylnaphthalene  
 Concen: 0.379 ng  
 RT: 12.117 min Scan# 1184  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion:142 Resp: 3243  
 Ion Ratio Lower Upper  
 142 100  
 141 13.3 10.9 16.3  
 115 6.4 5.7 8.5

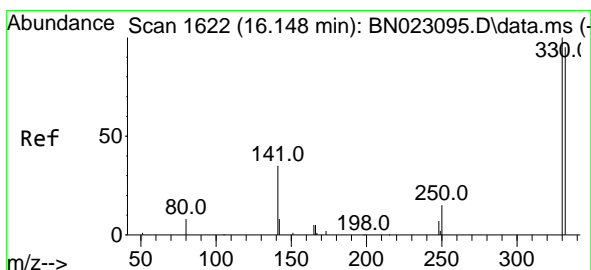
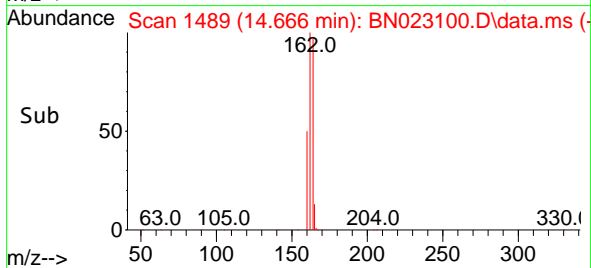
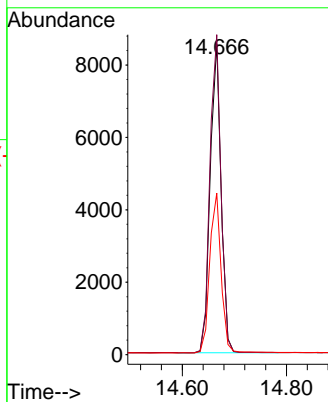
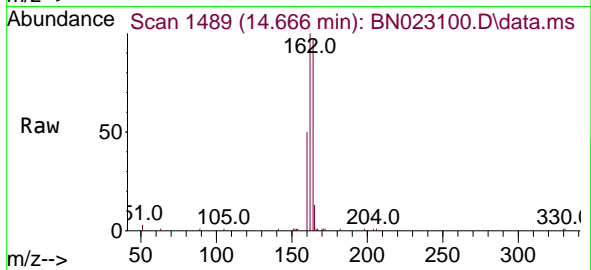




#13  
 Acenaphthene-d10  
 Concen: 0.400 ng  
 RT: 14.666 min Scan# 1489  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

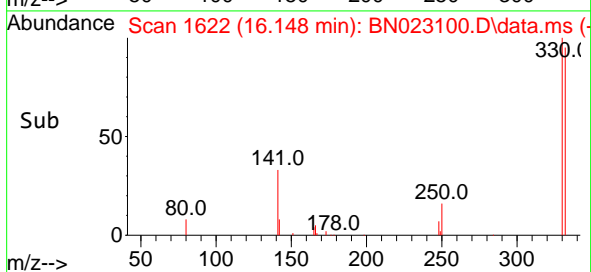
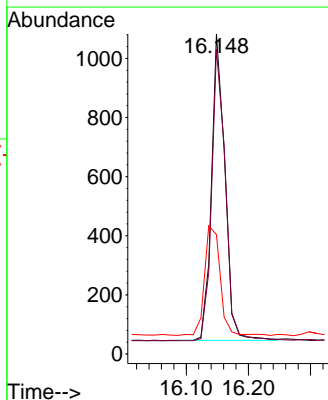
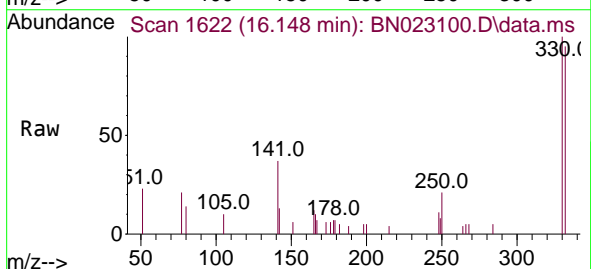
Instrument : BNA\_N  
 ClientSampleId : ICVBN120822

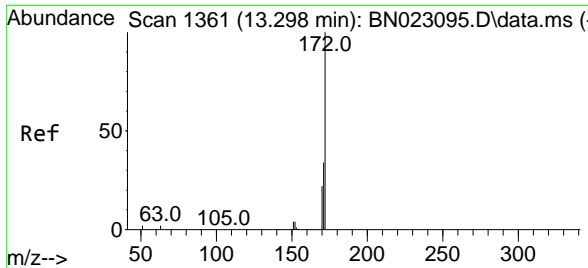
Tgt Ion	Resp	Lower	Upper
164	12449		
162	102.9	83.4	125.0
160	51.9	41.8	62.8



#14  
 2,4,6-Tribromophenol  
 Concen: 0.346 ng  
 RT: 16.148 min Scan# 1622  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion	Resp	Lower	Upper
330	1561		
332	97.1	77.3	115.9
141	41.2	33.5	50.3

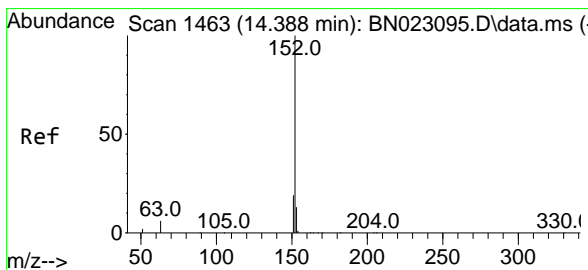
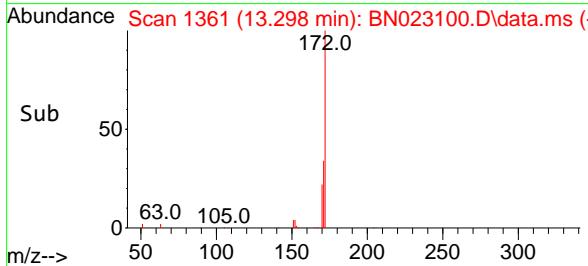
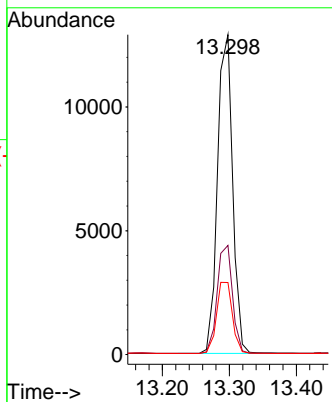
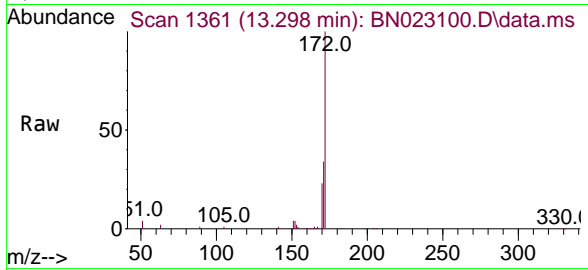




#15  
 2-Fluorobiphenyl  
 Concen: 0.407 ng  
 RT: 13.298 min Scan# 1361  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

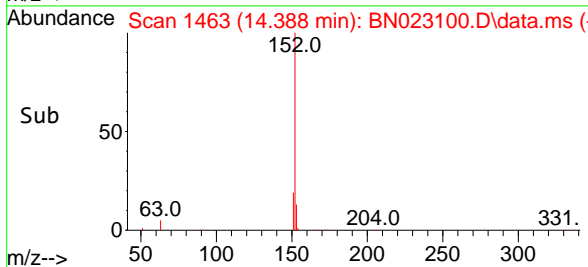
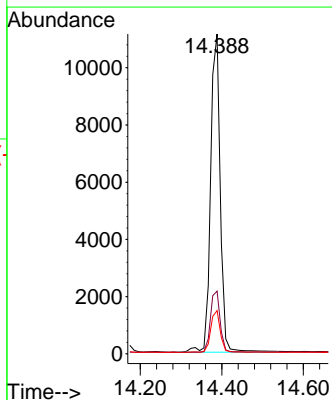
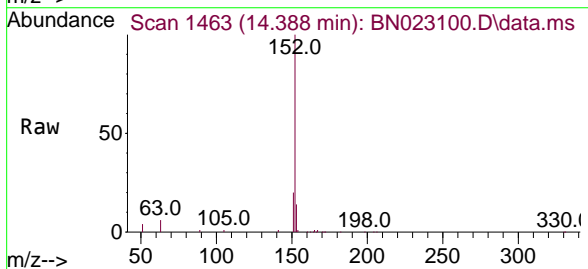
Instrument : BNA\_N  
 ClientSampleId : ICVBN120822

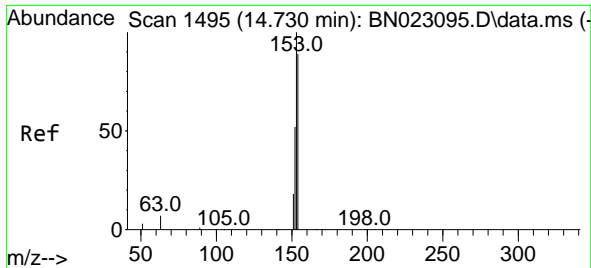
Tgt Ion	Resp	Lower	Upper
172	20220		
171	34.1	27.4	41.0
170	22.5	17.9	26.9



#16  
 Acenaphthylene  
 Concen: 0.365 ng  
 RT: 14.388 min Scan# 1463  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion	Resp	Lower	Upper
152	18308		
151	19.5	15.4	23.2
153	12.9	10.3	15.5



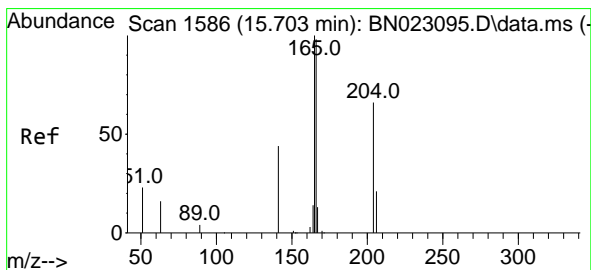
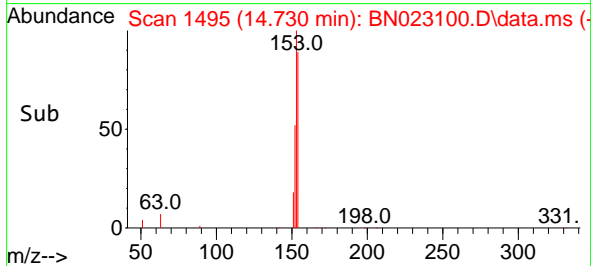
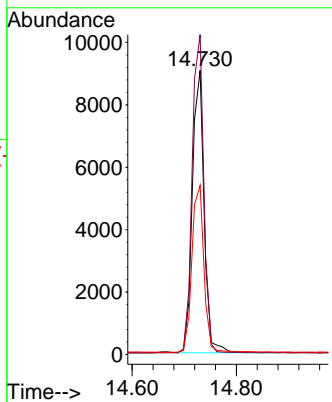
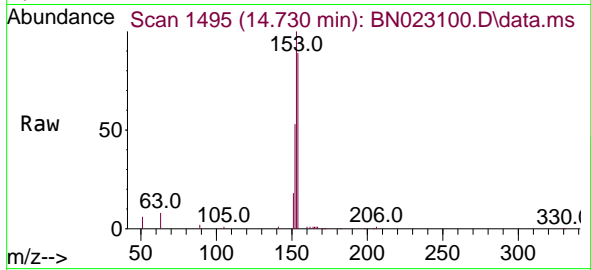


#17  
 Acenaphthene  
 Concen: 0.383 ng  
 RT: 14.730 min Scan# 1495  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Instrument : BNA\_N  
 ClientSampleId : ICVBN120822

Tgt Ion:154 Resp: 14119

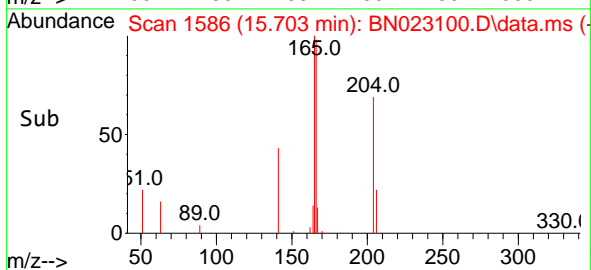
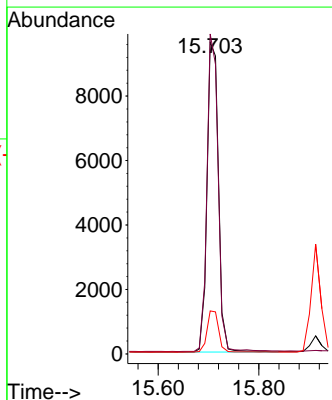
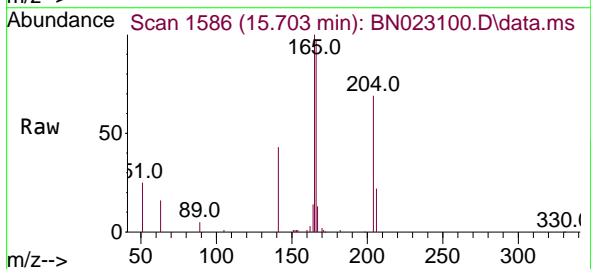
Ion	Ratio	Lower	Upper
154	100		
153	111.9	88.6	132.8
152	60.6	48.1	72.1

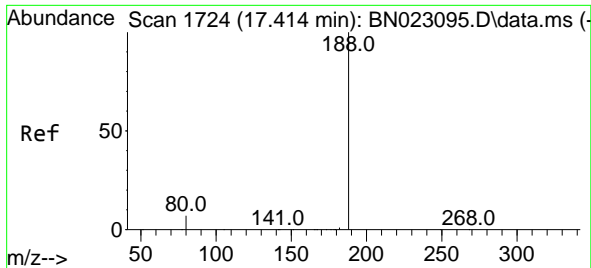


#18  
 Fluorene  
 Concen: 0.383 ng  
 RT: 15.703 min Scan# 1586  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion:166 Resp: 15779

Ion	Ratio	Lower	Upper
166	100		
165	99.9	79.8	119.6
167	13.8	10.6	16.0



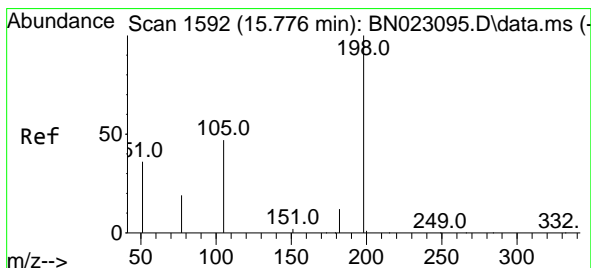
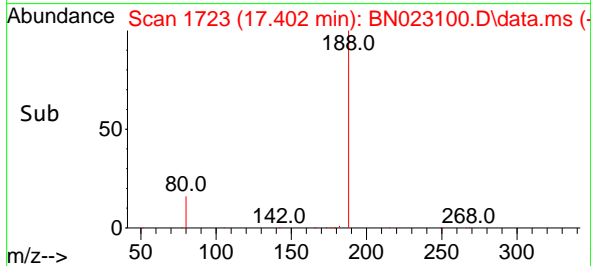
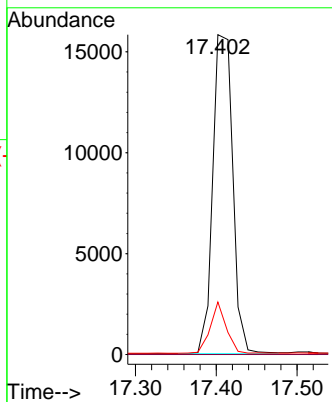
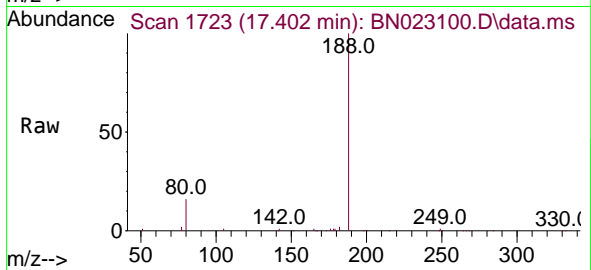


#19  
 Phenanthrene-d10  
 Concen: 0.400 ng  
 RT: 17.402 min Scan# 11  
 Delta R.T. -0.012 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Instrument :  
 BNA\_N  
 ClientSampleId :  
 ICVBN120822

Tgt Ion:188 Resp: 27164

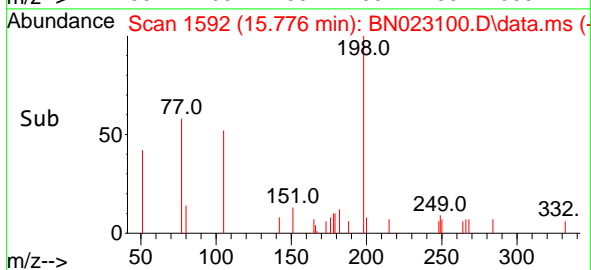
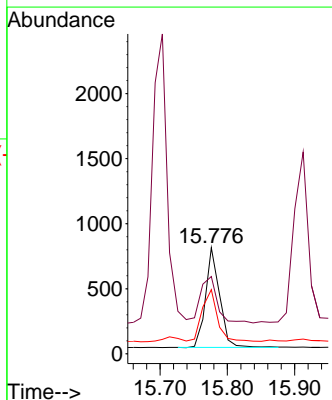
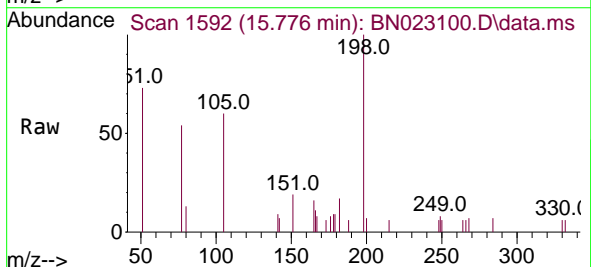
Ion	Ratio	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	16.4	6.1	9.1#

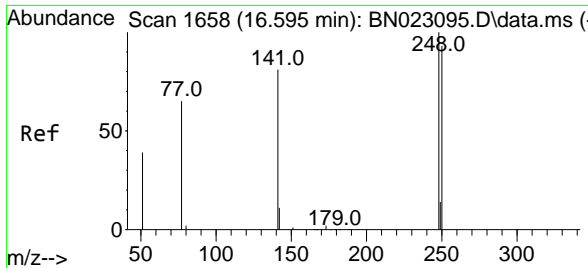


#20  
 4,6-Dinitro-2-methylphenol  
 Concen: 0.440 ng  
 RT: 15.776 min Scan# 1592  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion:198 Resp: 1113

Ion	Ratio	Lower	Upper
198	100		
51	72.8	57.0	85.4
105	60.4	47.2	70.8



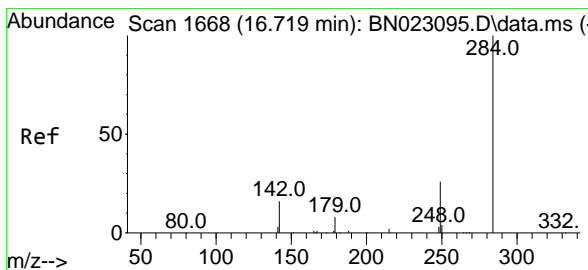
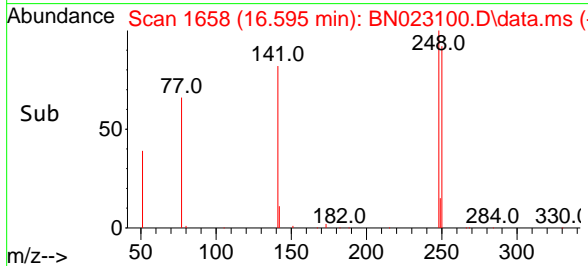
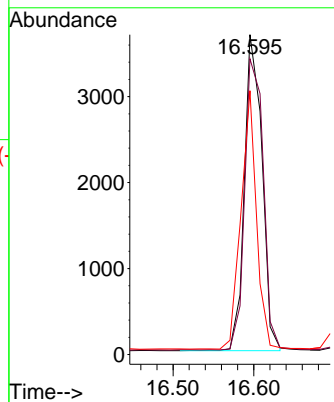
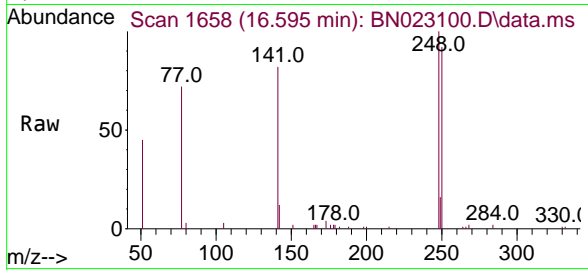


#21  
 4-Bromophenyl-phenylether  
 Concen: 0.382 ng  
 RT: 16.595 min Scan# 1658  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Instrument :  
 BNA\_N  
 ClientSampleId :  
 ICVBN120822

Tgt Ion:248 Resp: 5541

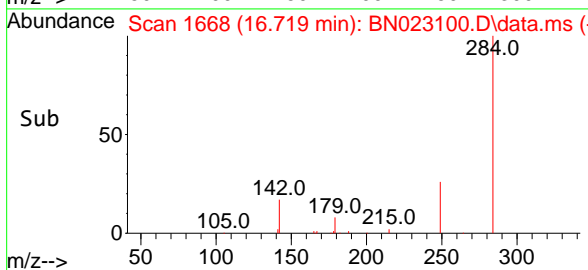
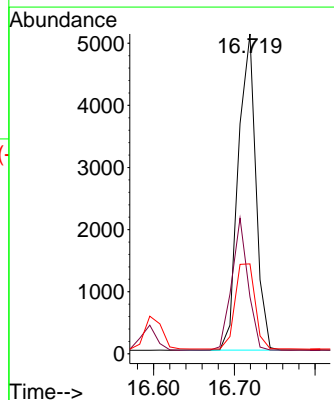
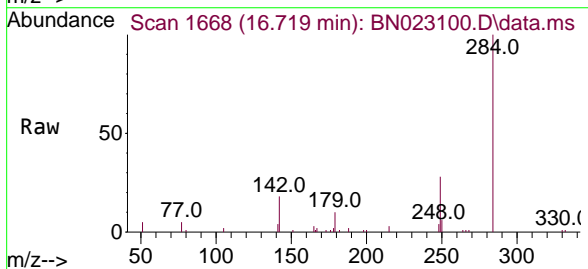
Ion	Ratio	Lower	Upper
248	100		
250	92.4	74.3	111.5
141	82.5	65.0	97.6

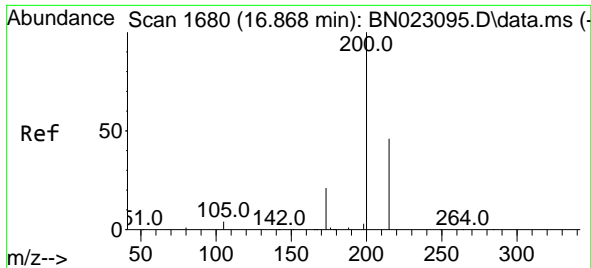


#22  
 Hexachlorobenzene  
 Concen: 0.405 ng  
 RT: 16.719 min Scan# 1668  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion:284 Resp: 7695

Ion	Ratio	Lower	Upper
284	100		
142	38.7	31.0	46.4
249	30.6	24.4	36.6

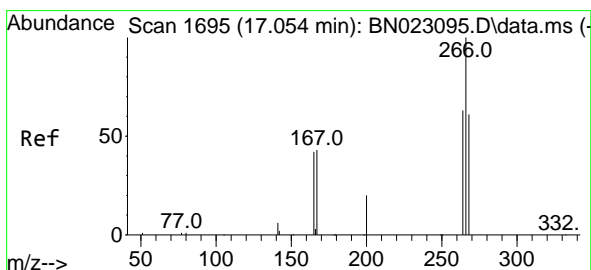
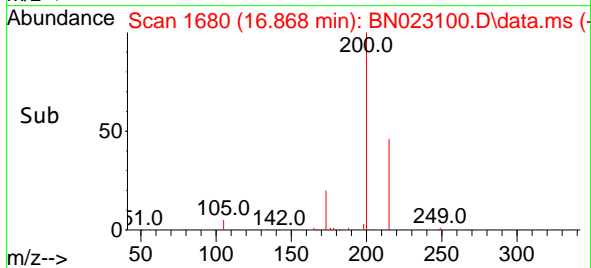
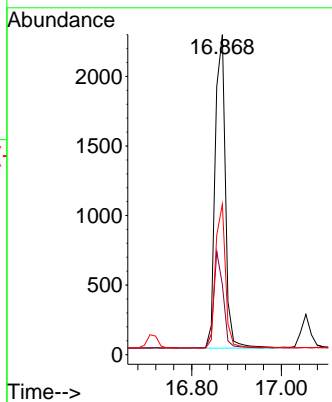
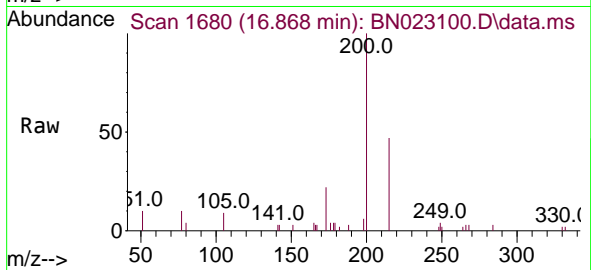




#23  
 Atrazine  
 Concen: 0.350 ng  
 RT: 16.868 min Scan# 1680  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

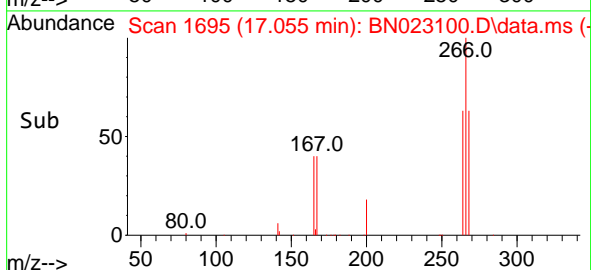
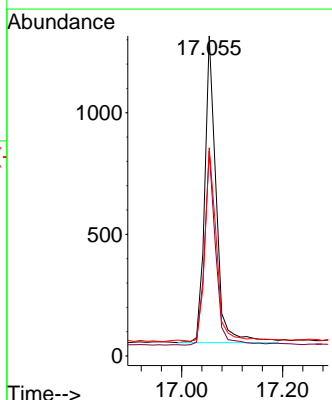
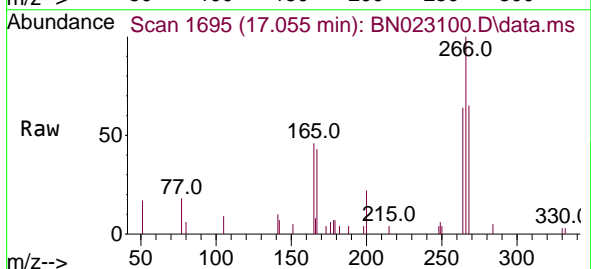
Instrument : BNA\_N  
 ClientSampleId : ICVBN120822

Tgt Ion	Resp	Lower	Upper
200	3573	100	100
173	21.8	18.2	27.4
215	47.0	38.0	57.0

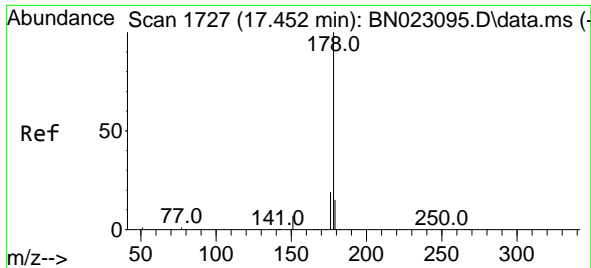


#24  
 Pentachlorophenol  
 Concen: 0.300 ng  
 RT: 17.055 min Scan# 1695  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion	Resp	Lower	Upper
266	1977	100	100
264	61.5	50.1	75.1
268	63.3	49.7	74.5



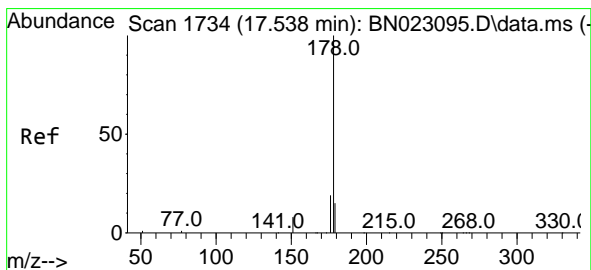
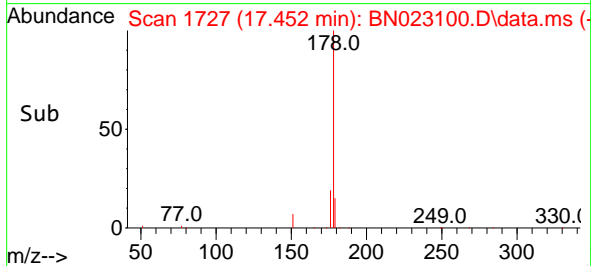
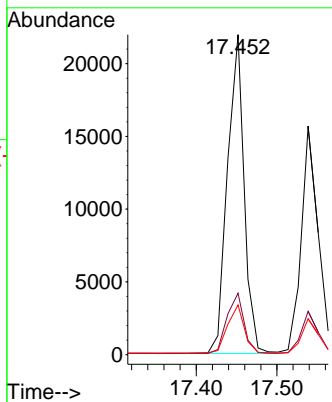
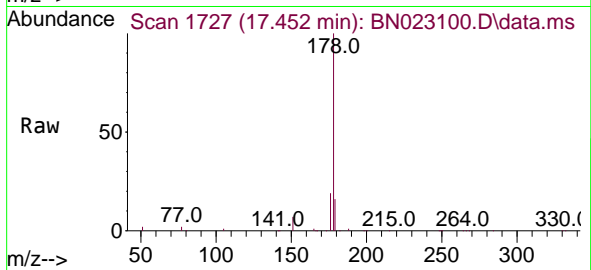




#25  
 Phenanthrene  
 Concen: 0.388 ng  
 RT: 17.452 min Scan# 1727  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

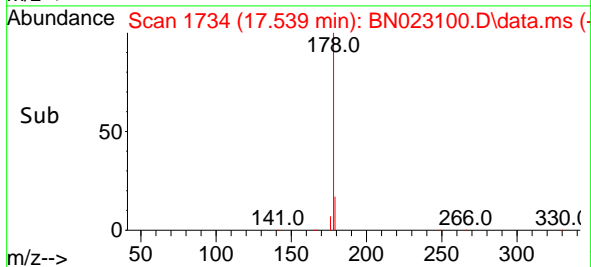
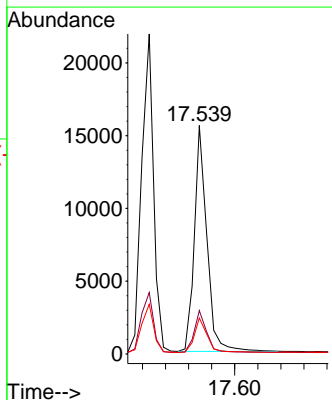
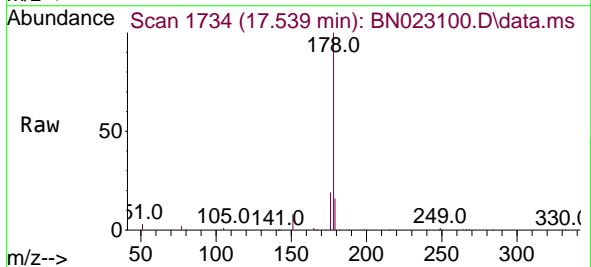
Instrument : BNA\_N  
 ClientSampleId : ICVBN120822

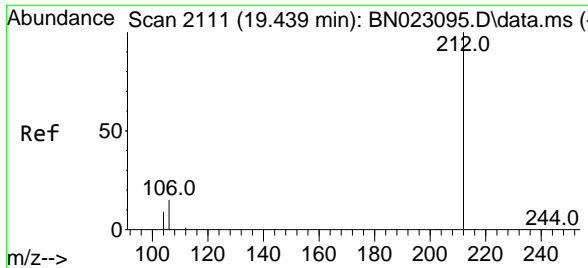
Tgt Ion	Resp	Lower	Upper
178	31445		
176	19.4	15.4	23.2
179	15.2	12.2	18.2



#26  
 Anthracene  
 Concen: 0.363 ng  
 RT: 17.539 min Scan# 1734  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion	Resp	Lower	Upper
178	23419		
176	18.4	15.1	22.7
179	15.5	12.2	18.4



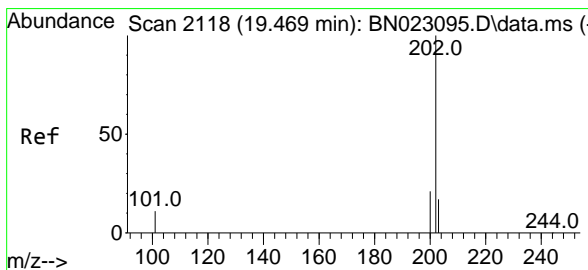
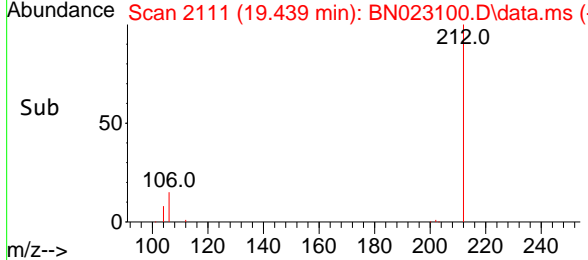
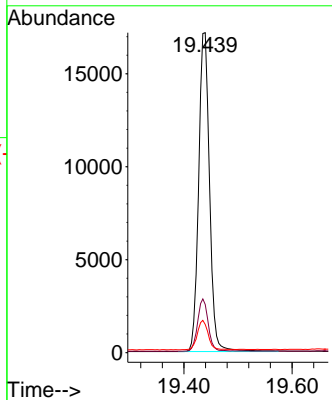
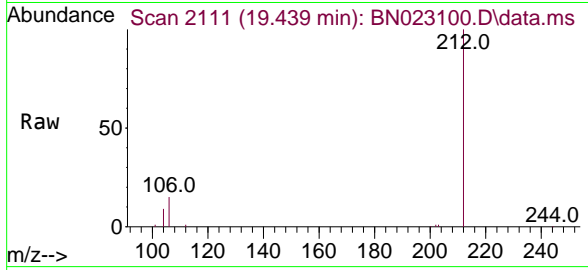


#27  
 Fluoranthene-d10  
 Concen: 0.378 ng  
 RT: 19.439 min Scan# 2111  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Instrument : BNA\_N  
 ClientSampleId : ICVBN120822

Tgt Ion:212 Resp: 24017

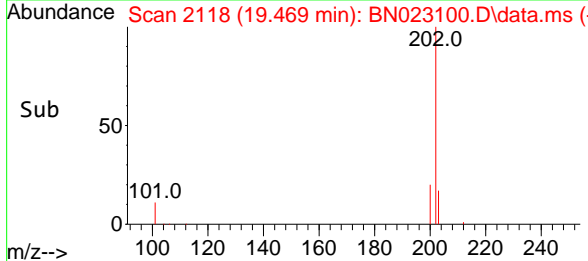
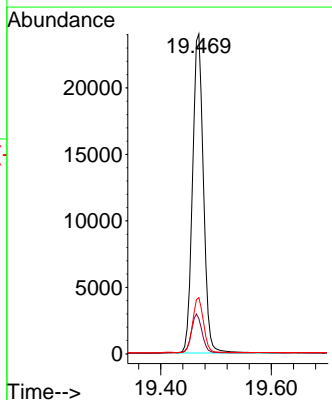
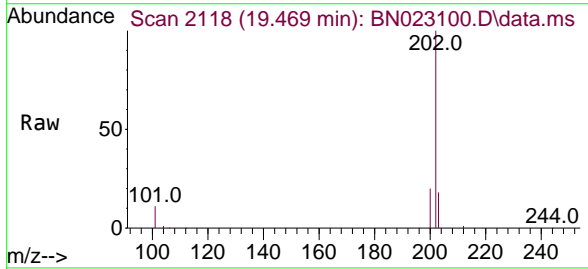
Ion	Ratio	Lower	Upper
212	100		
106	16.0	13.0	19.4
104	9.1	7.5	11.3

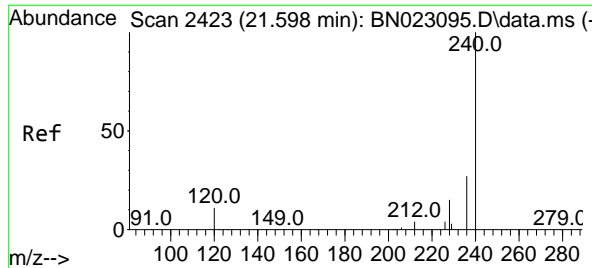


#28  
 Fluoranthene  
 Concen: 0.378 ng  
 RT: 19.469 min Scan# 2118  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion:202 Resp: 32800

Ion	Ratio	Lower	Upper
202	100		
101	12.3	9.7	14.5
203	17.1	13.8	20.6



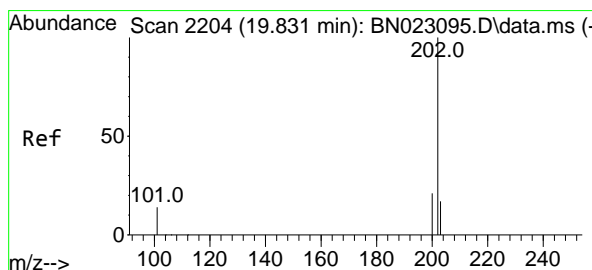
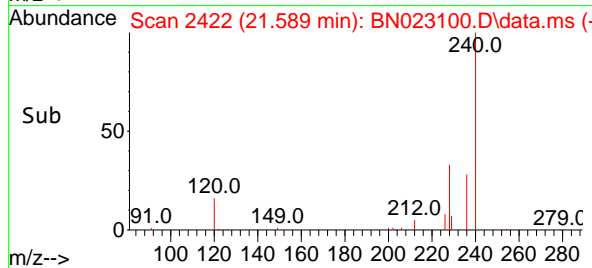
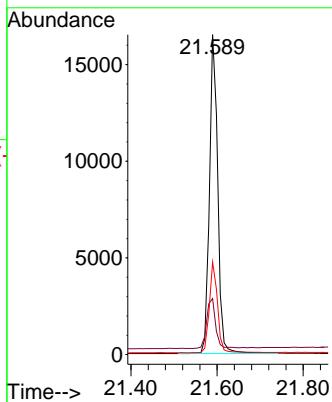
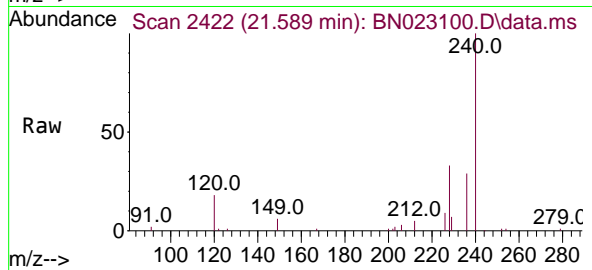


#29  
 Chrysene-d12  
 Concen: 0.400 ng  
 RT: 21.589 min Scan# 24  
 Delta R.T. -0.009 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Instrument :  
 BNA\_N  
 ClientSampleId :  
 ICVBN120822

Tgt Ion:240 Resp: 22009

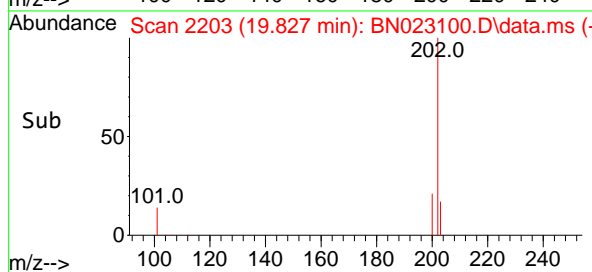
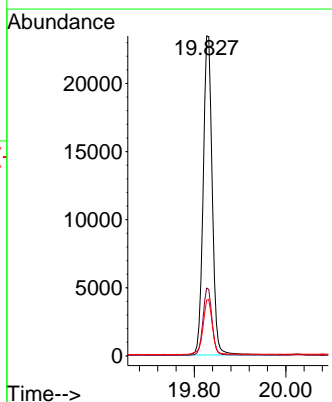
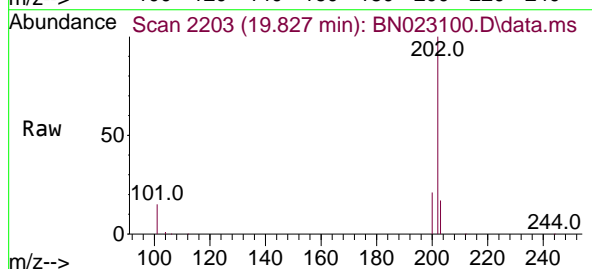
Ion	Ratio	Lower	Upper
240	100		
120	17.5	10.1	15.1#
236	28.9	22.2	33.4

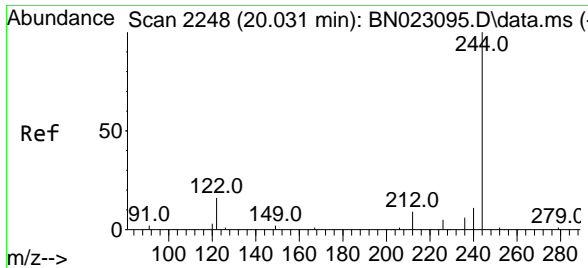


#30  
 Pyrene  
 Concen: 0.396 ng  
 RT: 19.827 min Scan# 2203  
 Delta R.T. -0.004 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion:202 Resp: 31897

Ion	Ratio	Lower	Upper
202	100		
200	20.9	16.9	25.3
203	17.7	14.2	21.4

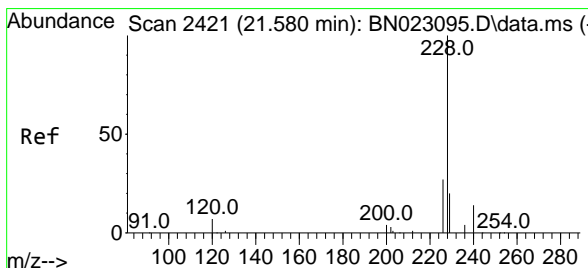
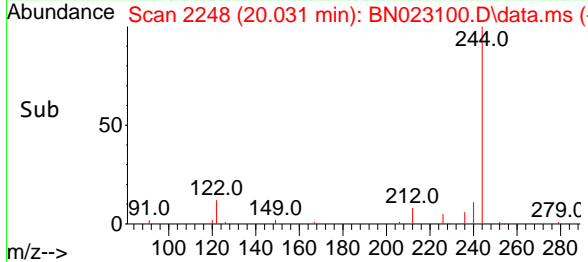
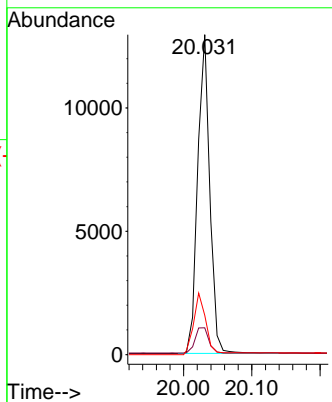
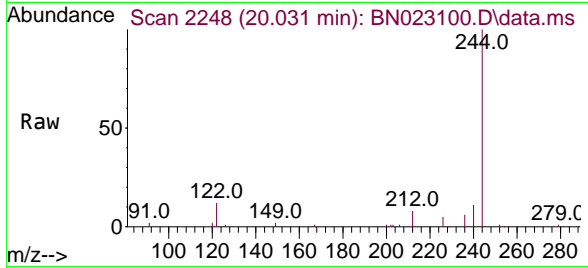




#31  
 Terphenyl-d14  
 Concen: 0.407 ng  
 RT: 20.031 min Scan# 21  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

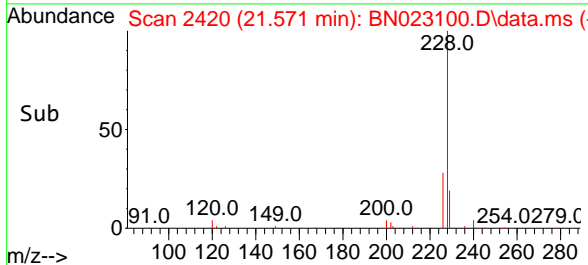
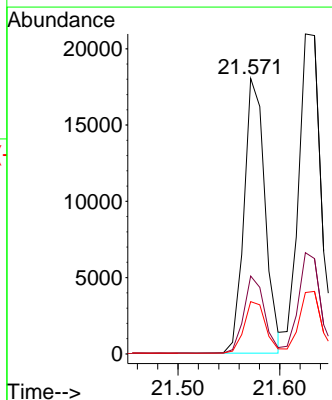
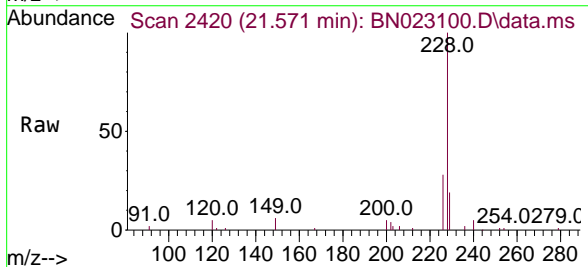
Instrument :  
 BNA\_N  
 ClientSampleId :  
 ICVBN120822

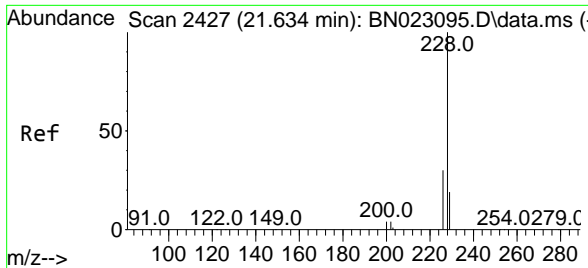
Tgt Ion	Resp	Lower	Upper
244	14543		
212	8.4	7.6	11.4
122	12.3	12.6	18.8#



#32  
 Benzo(a)anthracene  
 Concen: 0.365 ng  
 RT: 21.571 min Scan# 2420  
 Delta R.T. -0.009 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion	Resp	Lower	Upper
228	25864		
226	28.3	22.0	33.0
229	19.0	15.8	23.8



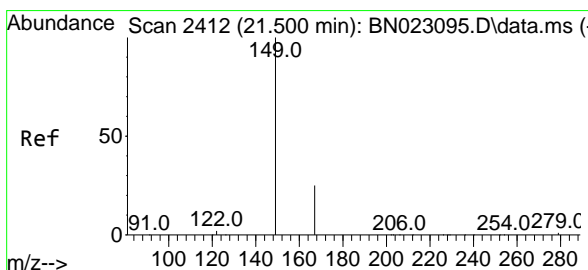
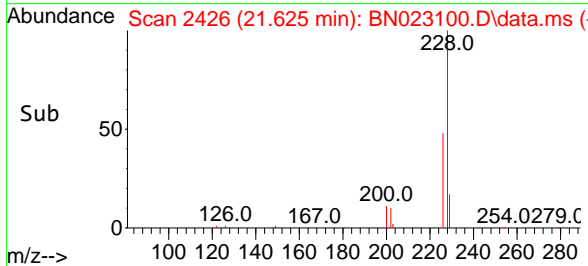
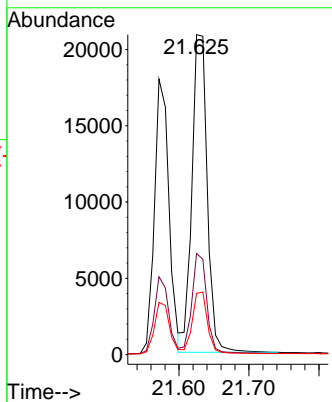
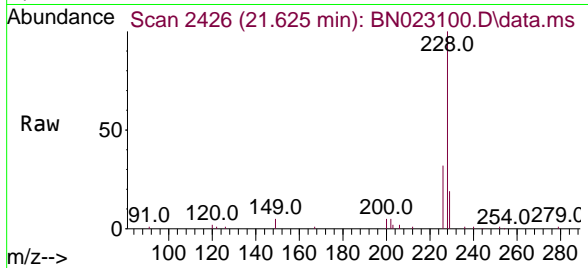


#33  
 Chrysene  
 Concen: 0.399 ng  
 RT: 21.625 min Scan# 2426  
 Delta R.T. -0.009 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Instrument :  
 BNA\_N  
 ClientSampleId :  
 ICVBN120822

Tgt Ion: 228 Resp: 31807

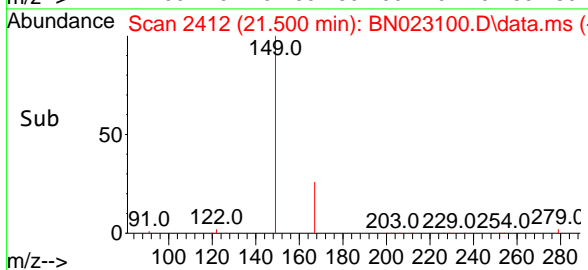
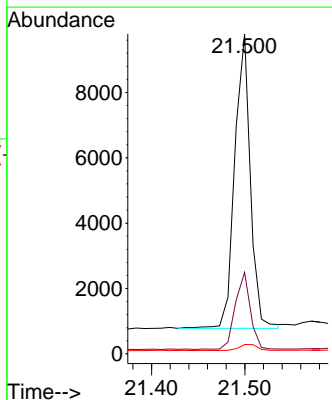
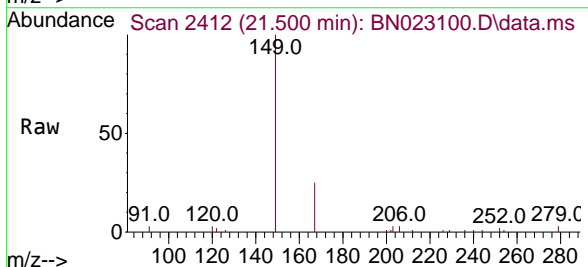
Ion	Ratio	Lower	Upper
228	100		
226	31.6	24.4	36.6
229	19.2	15.6	23.4

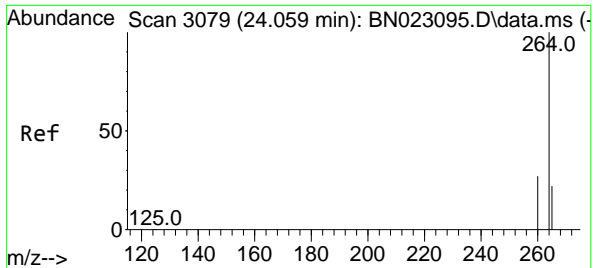


#34  
 Bis(2-ethylhexyl)phthalate  
 Concen: 0.349 ng  
 RT: 21.500 min Scan# 2412  
 Delta R.T. 0.000 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion: 149 Resp: 10468

Ion	Ratio	Lower	Upper
149	100		
167	25.4	20.2	30.2
279	2.5	2.3	3.5



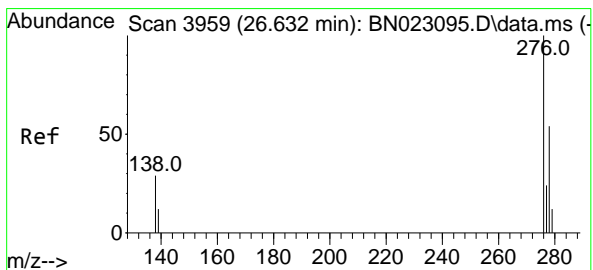
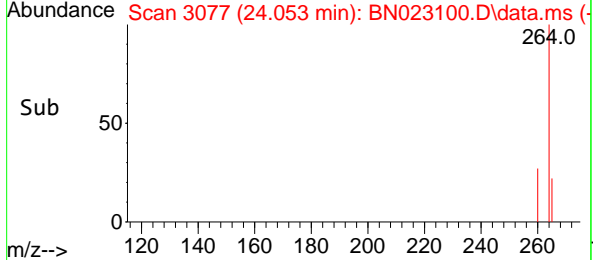
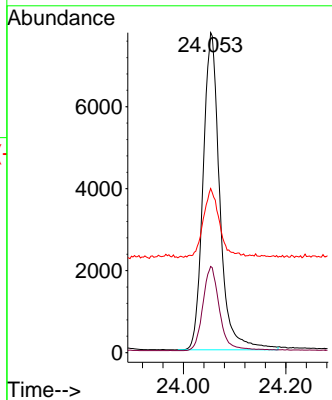
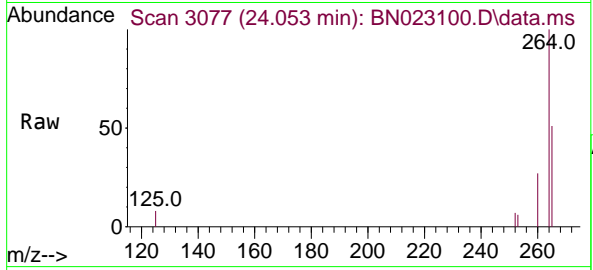


#35  
 Perylene-d12  
 Concen: 0.400 ng  
 RT: 24.053 min Scan# 3077  
 Delta R.T. -0.006 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Instrument : BNA\_N  
 ClientSampleId : ICVBN120822

Tgt Ion:264 Resp: 17542

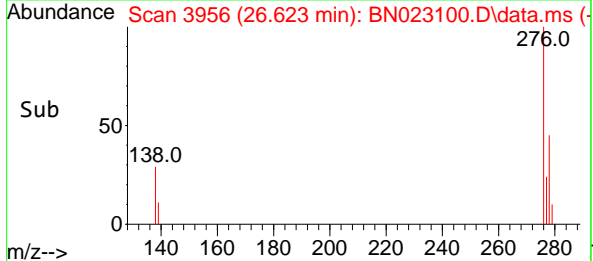
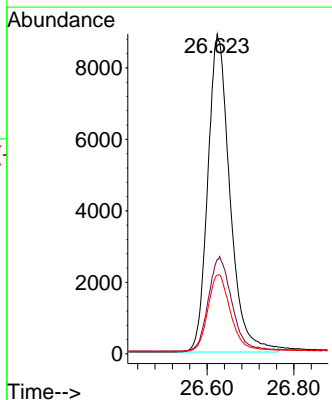
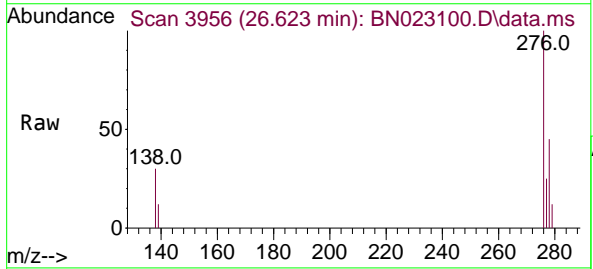
Ion	Ratio	Lower	Upper
264	100		
260	26.9	21.7	32.5
265	51.3	43.2	64.8

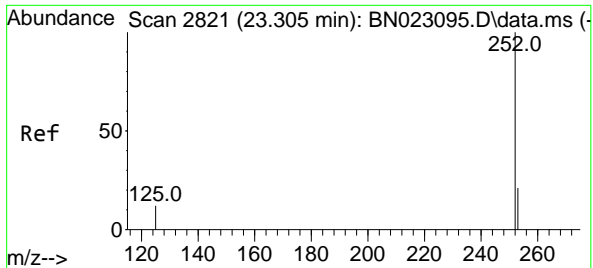


#36  
 Indeno(1,2,3-cd)pyrene  
 Concen: 0.400 ng  
 RT: 26.623 min Scan# 3956  
 Delta R.T. -0.009 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion:276 Resp: 31454

Ion	Ratio	Lower	Upper
276	100		
138	31.3	25.0	37.6
277	24.6	19.8	29.8



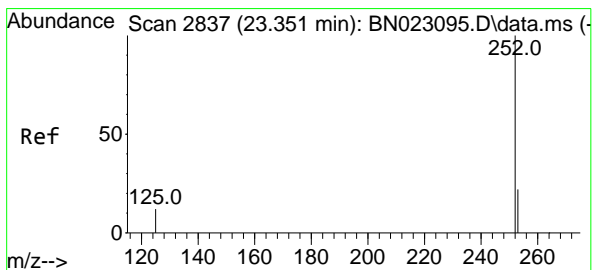
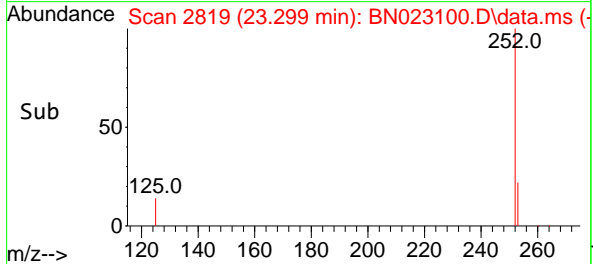
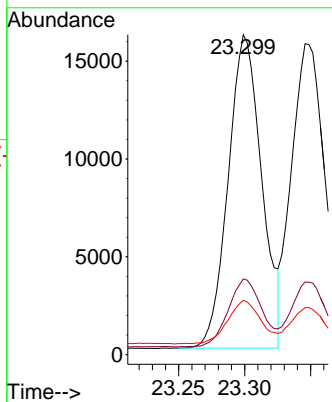
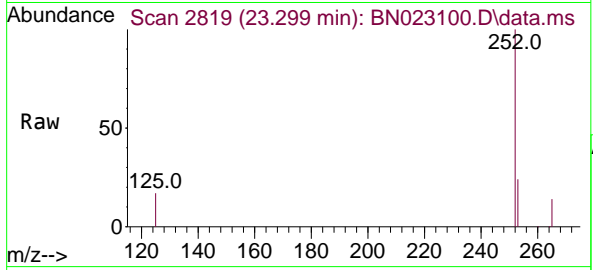


#37  
 Benzo(b)fluoranthene  
 Concen: 0.389 ng  
 RT: 23.299 min Scan# 2819  
 Delta R.T. -0.006 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Instrument : BNA\_N  
 Client Sample Id : ICVBN120822

Tgt Ion:252 Resp: 28324

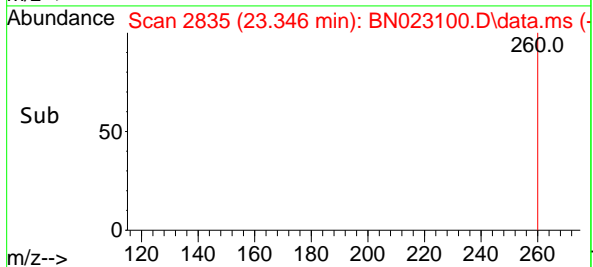
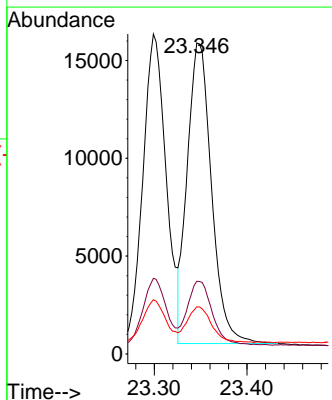
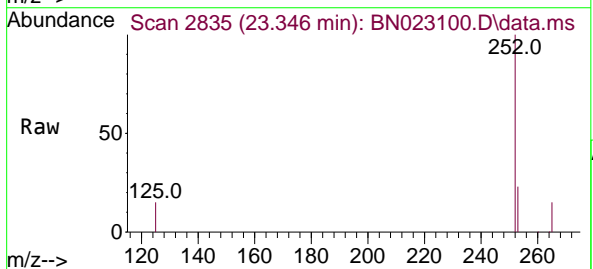
Ion	Ratio	Lower	Upper
252	100		
253	23.6	19.0	28.4
125	16.9	12.8	19.2

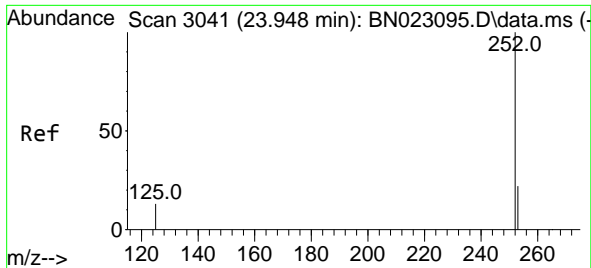


#38  
 Benzo(k)fluoranthene  
 Concen: 0.379 ng  
 RT: 23.346 min Scan# 2835  
 Delta R.T. -0.006 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion:252 Resp: 27995

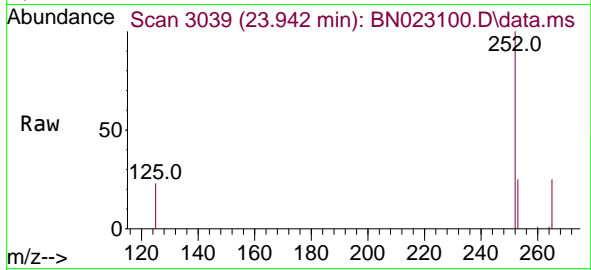
Ion	Ratio	Lower	Upper
252	100		
253	23.3	19.1	28.7
125	15.1	12.5	18.7



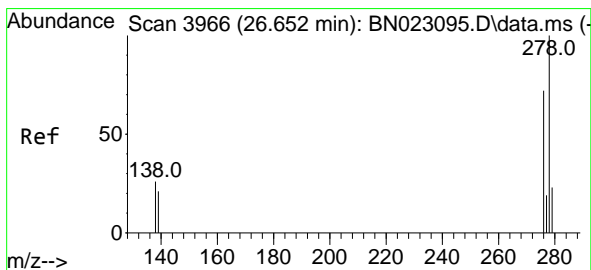
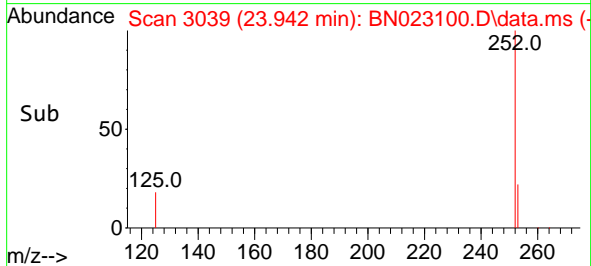
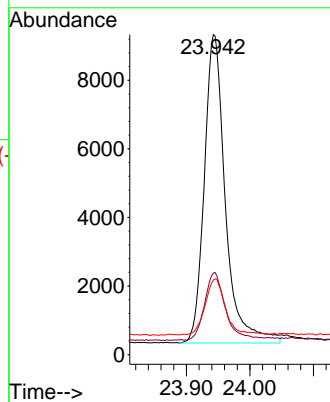


#39  
 Benzo(a)pyrene  
 Concen: 0.381 ng  
 RT: 23.942 min Scan# 3041  
 Delta R.T. -0.006 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Instrument :  
 BNA\_N  
 ClientSampleId :  
 ICVBN120822

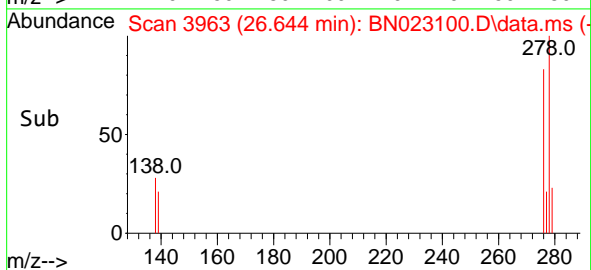
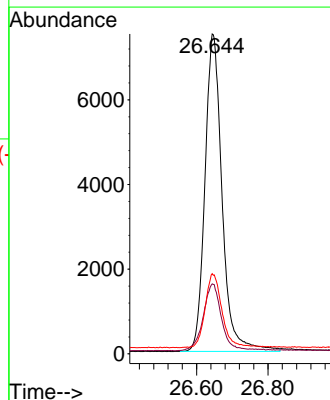
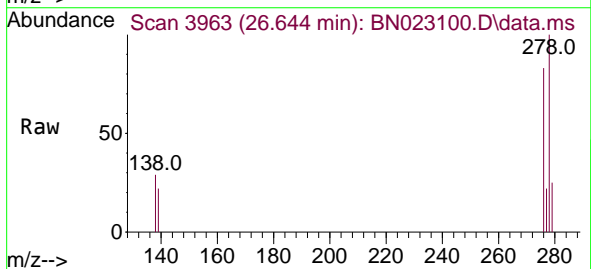


Tgt Ion:252 Resp: 20767  
 Ion Ratio Lower Upper  
 252 100  
 253 25.4 20.6 30.8  
 125 23.3 15.8 23.8

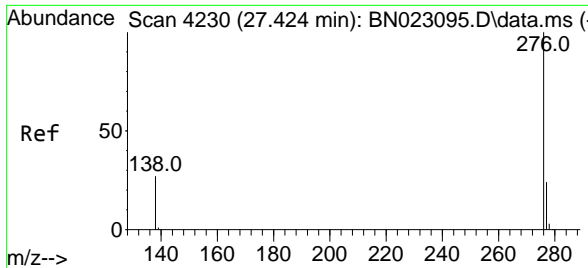


#40  
 Dibenzo(a,h)anthracene  
 Concen: 0.397 ng  
 RT: 26.644 min Scan# 3963  
 Delta R.T. -0.009 min  
 Lab File: BN023100.D  
 Acq: 08 Dec 2022 18:17

Tgt Ion:278 Resp: 25035  
 Ion Ratio Lower Upper  
 278 100  
 139 21.9 17.5 26.3  
 279 25.1 20.5 30.7

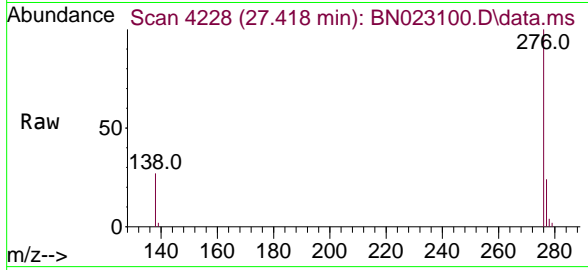






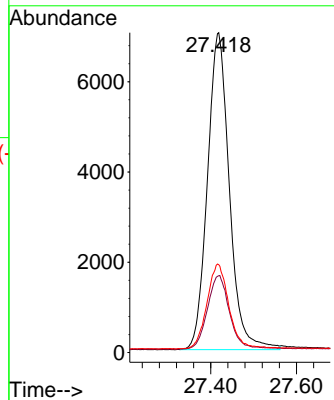
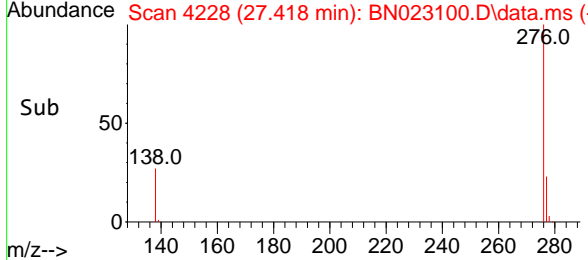
#41  
Benzo(g,h,i)perylene  
Concen: 0.370 ng  
RT: 27.418 min Scan# 41  
Delta R.T. -0.006 min  
Lab File: BN023100.D  
Acq: 08 Dec 2022 18:17

Instrument :  
BNA\_N  
ClientSampleId :  
ICVBN120822



Tgt Ion:276 Resp: 24921

Ion	Ratio	Lower	Upper
276	100		
277	24.0	19.9	29.9
138	27.5	22.2	33.2



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Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN120822\  
 Data File : BN023100.D  
 Acq On : 08 Dec 2022 18:17  
 Operator : CG/JU  
 Sample : SSTDICV0.4  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 ICVBN120822

Quant Time: Dec 09 07:47:50 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:44:40 2022  
 Response via : Initial Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	110	0.00
2	1,4-Dioxane	0.395	0.402	-1.8	110	0.00
3	n-Nitrosodimethylamine	0.388	0.378	2.6	112	0.00
4 S	2-Fluorophenol	0.745	0.731	1.9	108	0.00
5 S	Phenol-d6	0.947	0.916	3.3	110	0.00
6	bis(2-Chloroethyl)ether	1.076	1.083	-0.7	108	0.00
7 I	Naphthalene-d8	1.000	1.000	0.0	109	0.00
8 S	Nitrobenzene-d5	0.264	0.251	4.9	110	0.00
9	Naphthalene	1.019	1.010	0.9	110	0.00
10	Hexachlorobutadiene	0.194	0.196	-1.0	109	0.00
11 SURR	2-Methylnaphthalene-d10	0.678	0.695	-2.5	118	0.00
12	2-Methylnaphthalene	0.152	0.144	5.3	107	0.00
13 I	Acenaphthene-d10	1.000	1.000	0.0	109	0.00
14 S	2,4,6-Tribromophenol	0.145	0.125	13.8	103	0.00
15 S	2-Fluorobiphenyl	1.598	1.624	-1.6	110	0.00
16	Acenaphthylene	1.611	1.471	8.7	108	0.00
17	Acenaphthene	1.184	1.134	4.2	107	0.00
18	Fluorene	1.325	1.267	4.4	107	0.00
19 I	Phenanthrene-d10	1.000	1.000	0.0	107	-0.01
20	4,6-Dinitro-2-methylphenol	0.057	0.041	28.1#	96	0.00
21	4-Bromophenyl-phenylether	0.213	0.204	4.2	107	0.00
22	Hexachlorobenzene	0.280	0.283	-1.1	109	0.00
23	Atrazine	0.150	0.132	12.0	106	0.00
24	Pentachlorophenol	0.097	0.073	24.7	97	0.00
25	Phenanthrene	1.192	1.158	2.9	108	0.00
26	Anthracene	0.950	0.862	9.3	108	0.00
27 SURR	Fluoranthene-d10	0.936	0.884	5.6	108	0.00
28	Fluoranthene	1.276	1.207	5.4	108	0.00
29 I	Chrysene-d12	1.000	1.000	0.0	107	0.00
30	Pyrene	1.464	1.449	1.0	107	0.00
31 S	Terphenyl-d14	0.649	0.661	-1.8	103	0.00
32	Benzo(a)anthracene	1.289	1.175	8.8	105	0.00
33	Chrysene	1.449	1.445	0.3	107	0.00
34	Bis(2-ethylhexyl)phthalate	0.545	0.476	12.7	104	0.00
35 I	Perylene-d12	1.000	1.000	0.0	113	0.00
36	Indeno(1,2,3-cd)pyrene	1.793	1.793	0.0	120	0.00
37	Benzo(b)fluoranthene	1.658	1.615	2.6	114	0.00
38	Benzo(k)fluoranthene	1.684	1.596	5.2	112	0.00
39 C	Benzo(a)pyrene	1.244	1.184	4.8	120	0.00
40	Dibenzo(a,h)anthracene	1.439	1.427	0.8	118	0.00
41	Benzo(g,h,i)perylene	1.537	1.421	7.5	106	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN120822\  
 Data File : BN023100.D  
 Acq On : 08 Dec 2022 18:17  
 Operator : CG/JU  
 Sample : SSTDICV0.4  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 ICVBN120822

Quant Time: Dec 09 07:47:50 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 07:44:40 2022  
 Response via : Initial Calibration

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	1,4-Dichlorobenzene-d4	0.400	0.400	0.0	110	0.00
2	1,4-Dioxane	0.400	0.408	-2.0	110	0.00
3	n-Nitrosodimethylamine	0.400	0.390	2.5	112	0.00
4 S	2-Fluorophenol	0.400	0.393	1.8	108	0.00
5 S	Phenol-d6	0.400	0.387	3.3	110	0.00
6	bis(2-Chloroethyl)ether	0.400	0.403	-0.8	108	0.00
7 I	Naphthalene-d8	0.400	0.400	0.0	109	0.00
8 S	Nitrobenzene-d5	0.400	0.381	4.8	110	0.00
9	Naphthalene	0.400	0.396	1.0	110	0.00
10	Hexachlorobutadiene	0.400	0.404	-1.0	109	0.00
11 SURR	2-Methylnaphthalene-d10	0.400	0.410	-2.5	118	0.00
12	2-Methylnaphthalene	0.400	0.379	5.3	107	0.00
13 I	Acenaphthene-d10	0.400	0.400	0.0	109	0.00
14 S	2,4,6-Tribromophenol	0.400	0.346	13.5	103	0.00
15 S	2-Fluorobiphenyl	0.400	0.407	-1.7	110	0.00
16	Acenaphthylene	0.400	0.365	8.8	108	0.00
17	Acenaphthene	0.400	0.383	4.3	107	0.00
18	Fluorene	0.400	0.383	4.3	107	0.00
19 I	Phenanthrene-d10	0.400	0.400	0.0	107	-0.01
20	4,6-Dinitro-2-methylphenol	0.400	0.440	-10.0	96	0.00
21	4-Bromophenyl-phenylether	0.400	0.382	4.5	107	0.00
22	Hexachlorobenzene	0.400	0.405	-1.3	109	0.00
23	Atrazine	0.400	0.350	12.5	106	0.00
24	Pentachlorophenol	0.400	0.300	25.0#	97	0.00
25	Phenanthrene	0.400	0.388	3.0	108	0.00
26	Anthracene	0.400	0.363	9.3	108	0.00
27 SURR	Fluoranthene-d10	0.400	0.378	5.5	108	0.00
28	Fluoranthene	0.400	0.378	5.5	108	0.00
29 I	Chrysene-d12	0.400	0.400	0.0	107	0.00
30	Pyrene	0.400	0.396	1.0	107	0.00
31 S	Terphenyl-d14	0.400	0.407	-1.7	103	0.00
32	Benzo(a)anthracene	0.400	0.365	8.8	105	0.00
33	Chrysene	0.400	0.399	0.3	107	0.00
34	Bis(2-ethylhexyl)phthalate	0.400	0.349	12.8	104	0.00
35 I	Perylene-d12	0.400	0.400	0.0	113	0.00
36	Indeno(1,2,3-cd)pyrene	0.400	0.400	0.0	120	0.00
37	Benzo(b)fluoranthene	0.400	0.389	2.8	114	0.00
38	Benzo(k)fluoranthene	0.400	0.379	5.3	112	0.00
39 C	Benzo(a)pyrene	0.400	0.381	4.8	120	0.00
40	Dibenzo(a,h)anthracene	0.400	0.397	0.8	118	0.00
41	Benzo(g,h,i)perylene	0.400	0.370	7.5	106	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0



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

7C

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: JACO05  
 Lab Code: CHEM Case No.: N6070 SAS No.: N6070 SDG No.: N6070  
 Instrument ID: BNA\_N Calibration Date/Time: 12/19/2022 11:22  
 Lab File ID: BN023280.D Init. Calib. Date(s): 12/08/2022 12/08/2022  
 EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 14:00 17:40  
 GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.678	0.625		-7.8	20.0
Fluoranthene-d10	0.936	0.950		1.5	20.0
2-Fluorophenol	0.745	0.926		24.3	20.0
Phenol-d6	0.947	1.181		24.7	20.0
Nitrobenzene-d5	0.264	0.271		2.7	20.0
2-Fluorobiphenyl	1.598	1.405		-12.1	20.0
2,4,6-Tribromophenol	0.145	0.172		18.6	20.0
Terphenyl-d14	0.649	0.685		5.5	20.0
1,4-Dioxane	0.395	0.440		11.4	20.0

All other compounds must meet a minimum RRF of 0.010.

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023280.D  
 Acq On : 19 Dec 2022 11:22  
 Operator : CG/JU  
 Sample : SSTDCCC0.4  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4

Quant Time: Dec 19 15:45:22 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 19 15:44:58 2022  
 Response via : Initial Calibration

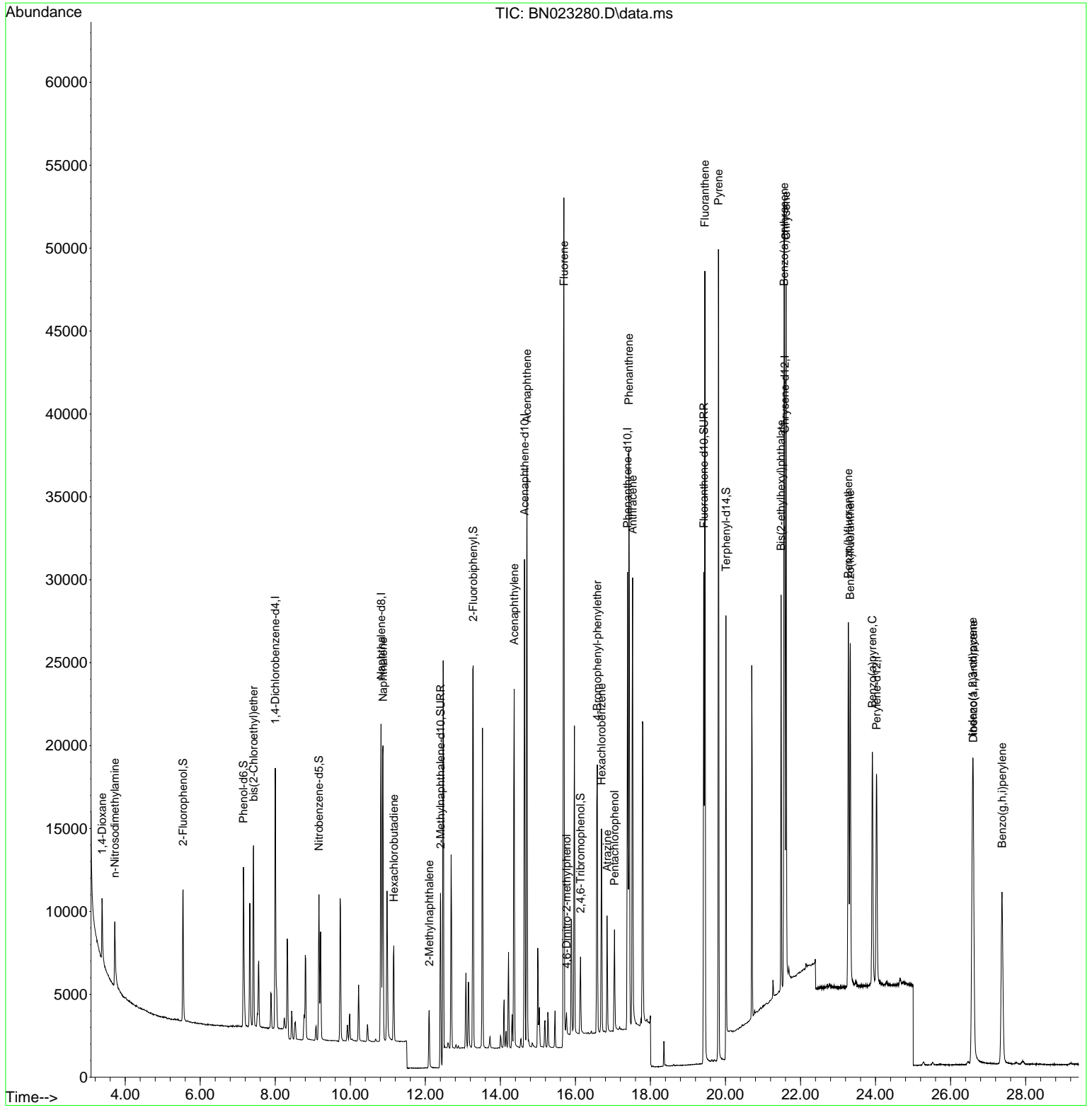
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.999	152	7661	0.400 ng	0.00	
7) Naphthalene-d8	10.819	136	24904	0.400 ng	0.00	
13) Acenaphthene-d10	14.645	164	15496	0.400 ng	0.00	
19) Phenanthrene-d10	17.390	188	33722	0.400 ng	# 0.00	
29) Chrysene-d12	21.580	240	25842	0.400 ng	0.00	
35) Perylene-d12	24.027	264	18763	0.400 ng	0.00	
System Monitoring Compounds						
4) 2-Fluorophenol	5.543	112	7094	0.497 ng	0.00	
5) Phenol-d6	7.154	99	9048	0.499 ng	0.00	
8) Nitrobenzene-d5	9.164	82	6755	0.412 ng	0.00	
11) 2-Methylnaphthalene-d10	12.405	152	15577	0.369 ng	0.00	
14) 2,4,6-Tribromophenol	16.136	330	2663	0.474 ng	0.00	
15) 2-Fluorobiphenyl	13.276	172	21769	0.352 ng	0.00	
27) Fluoranthene-d10	19.422	212	32028	0.406 ng	0.00	
31) Terphenyl-d14	20.013	244	17696	0.422 ng	0.00	
Target Compounds						
2) 1,4-Dioxane	3.384	88	3369	0.446 ng		86
3) n-Nitrosodimethylamine	3.723	42	2724	0.367 ng	#	80
6) bis(2-Chloroethyl)ether	7.421	93	8163	0.396 ng		99
9) Naphthalene	10.872	128	24598	0.388 ng		100
10) Hexachlorobutadiene	11.160	225	4773	0.395 ng	#	100
12) 2-Methylnaphthalene	12.102	142	5285	0.560 ng		97
16) Acenaphthylene	14.367	152	23837	0.382 ng		100
17) Acenaphthene	14.709	154	17079	0.372 ng		97
18) Fluorene	15.693	166	23490	0.458 ng		99
20) 4,6-Dinitro-2-methylph...	15.764	198	866	0.362 ng		99
21) 4-Bromophenyl-phenylether	16.583	248	7067	0.393 ng	#	77
22) Hexachlorobenzene	16.695	284	8969	0.381 ng		97
23) Atrazine	16.843	200	5103	0.402 ng	#	92
24) Pentachlorophenol	17.042	266	2939	0.359 ng		99
25) Phenanthrene	17.427	178	37463	0.373 ng		100
26) Anthracene	17.526	178	30364	0.379 ng		100
28) Fluoranthene	19.452	202	41357	0.384 ng		100
30) Pyrene	19.814	202	41984	0.444 ng		100
32) Benzo(a)anthracene	21.562	228	33710	0.405 ng		100
33) Chrysene	21.616	228	34659	0.370 ng		100
34) Bis(2-ethylhexyl)phtha...	21.482	149	20171	0.573 ng		97
36) Indeno(1,2,3-cd)pyrene	26.585	276	27074	0.322 ng		97
37) Benzo(b)fluoranthene	23.276	252	28714	0.369 ng		98
38) Benzo(k)fluoranthene	23.325	252	27427	0.347 ng		99
39) Benzo(a)pyrene	23.916	252	21593	0.370 ng		97
40) Dibenzo(a,h)anthracene	26.606	278	21241	0.315 ng		100
41) Benzo(g,h,i)perylene	27.372	276	23015	0.319 ng		99

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

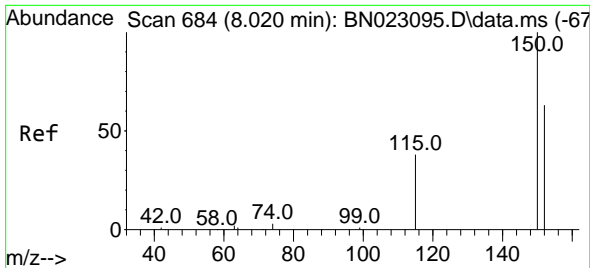
Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023280.D  
 Acq On : 19 Dec 2022 11:22  
 Operator : CG/JU  
 Sample : SSTDCCC0.4  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 SSTDCCC0.4

Quant Time: Dec 19 15:45:22 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 19 15:44:58 2022  
 Response via : Initial Calibration

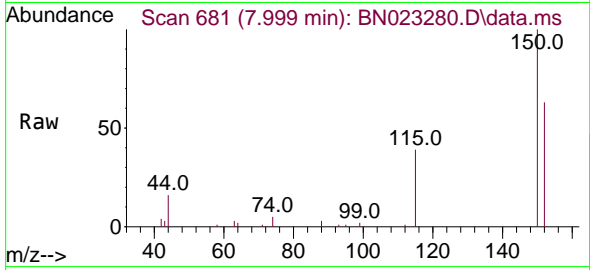


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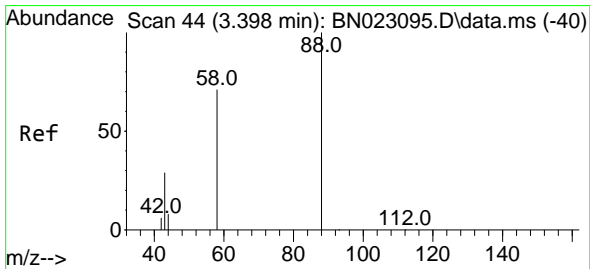
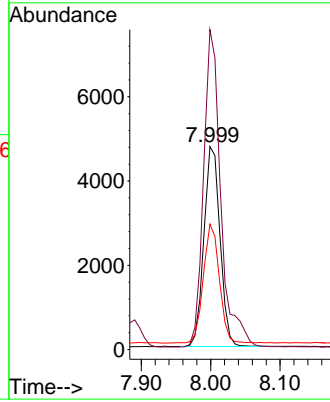
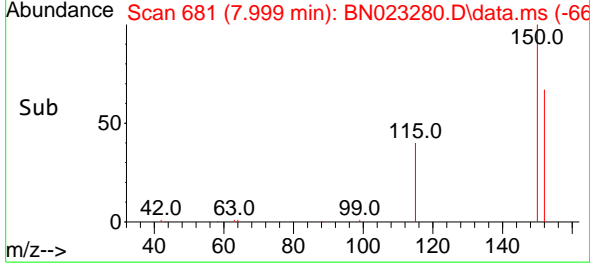


#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 7.999 min Scan# 681  
 Delta R.T. -0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

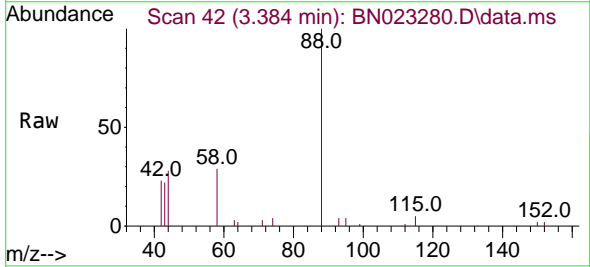
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4



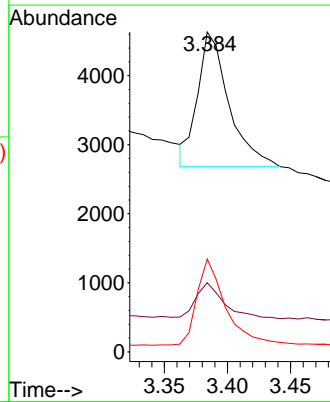
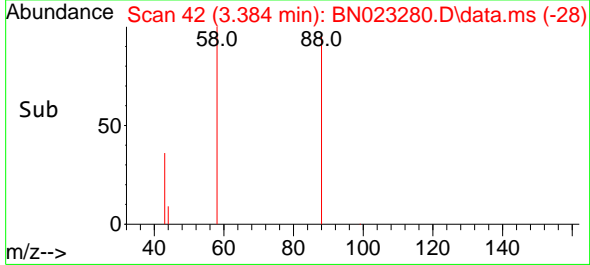
Tgt Ion:152 Resp: 7661  
 Ion Ratio Lower Upper  
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 150 157.6 125.6 188.4  
 115 61.8 49.0 73.4

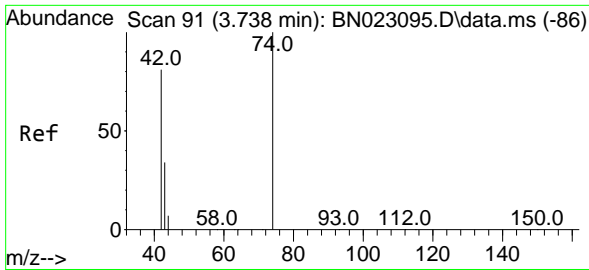


#2  
 1,4-Dioxane  
 Concen: 0.446 ng  
 RT: 3.384 min Scan# 42  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22



Tgt Ion: 88 Resp: 3369  
 Ion Ratio Lower Upper  
 88 100  
 43 24.0 23.3 34.9  
 58 59.0 58.0 87.0



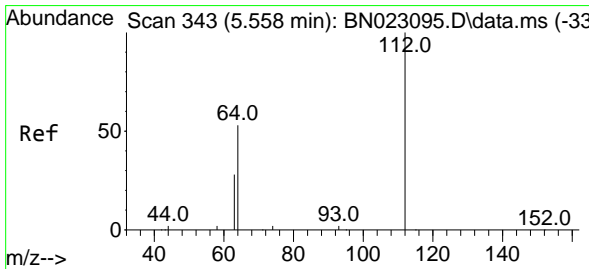
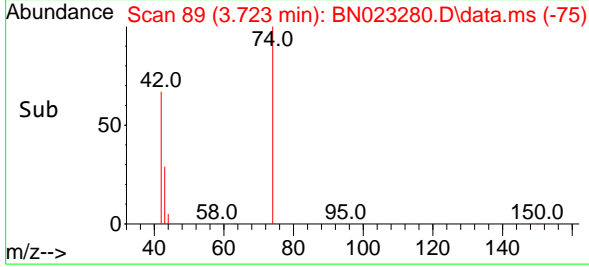
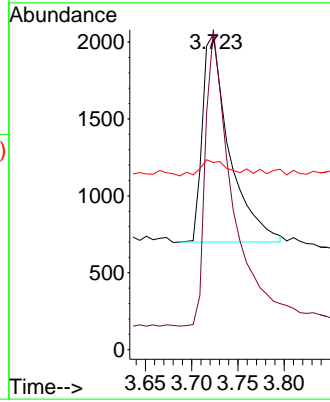
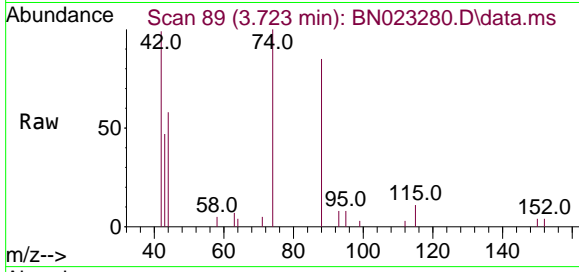


#3  
 n-Nitrosodimethylamine  
 Concen: 0.367 ng  
 RT: 3.723 min Scan# 89  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4

Tgt Ion: 42 Resp: 2724

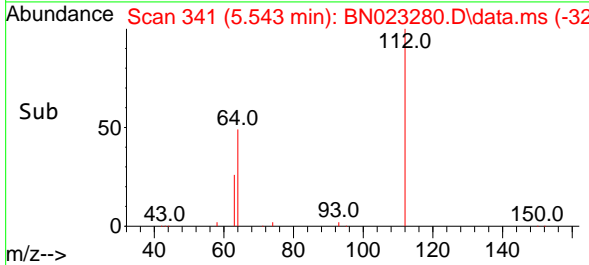
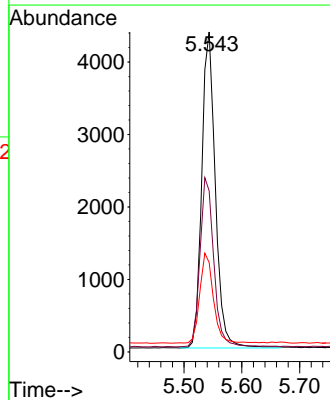
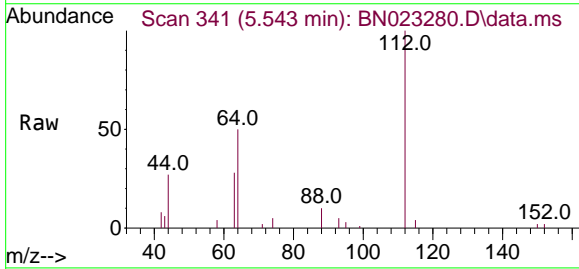
Ion	Ratio	Lower	Upper
42	100		
74	142.7	95.8	143.6
44	7.4	8.4	12.6



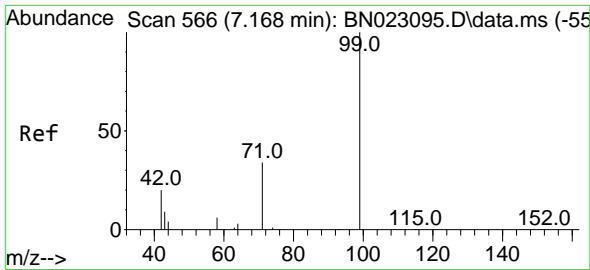
#4  
 2-Fluorophenol  
 Concen: 0.497 ng  
 RT: 5.543 min Scan# 341  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Tgt Ion: 112 Resp: 7094

Ion	Ratio	Lower	Upper
112	100		
64	54.3	44.4	66.6
63	28.5	23.7	35.5

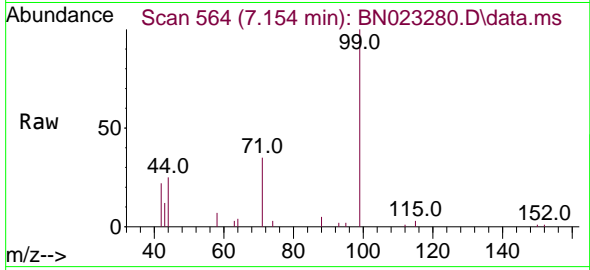




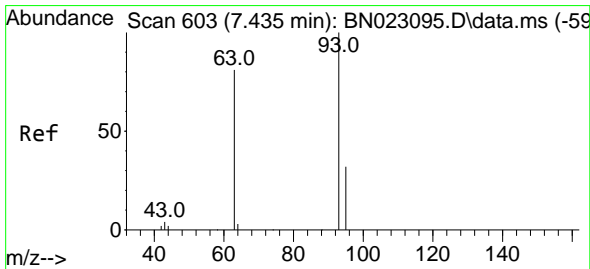
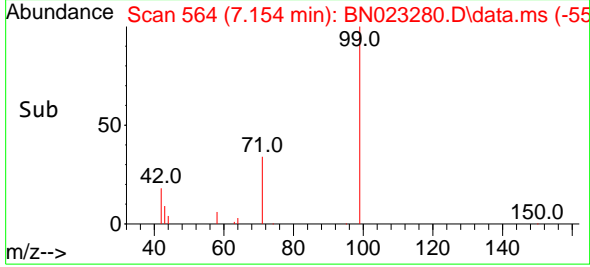
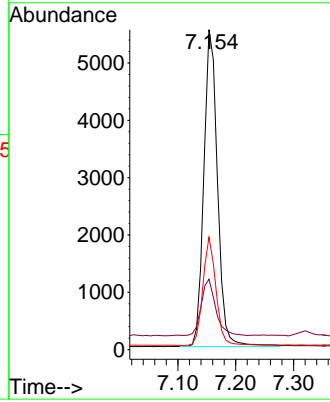


#5  
 Phenol-d6  
 Concen: 0.499 ng  
 RT: 7.154 min Scan# 564  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4

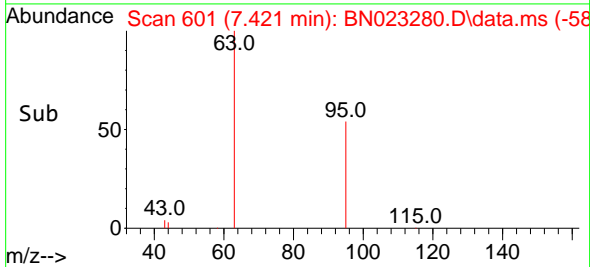
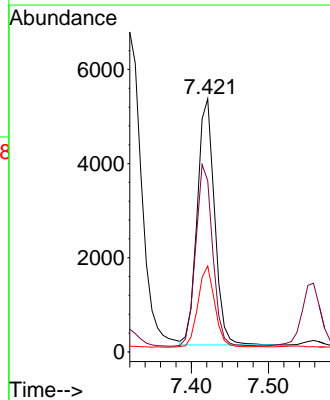
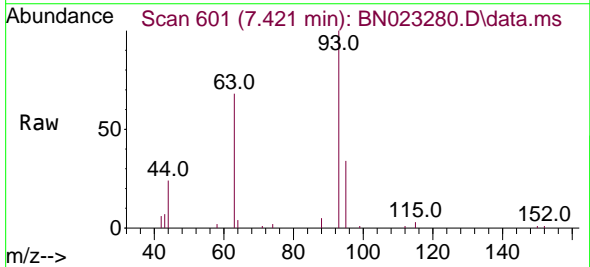


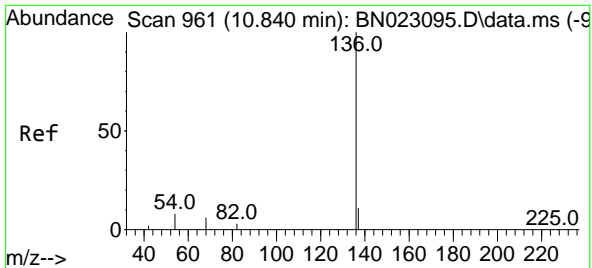
Tgt Ion	Resp	Ion Ratio	Lower	Upper
99	9048	100		
42	18.6	16.3	24.5	
71	32.6	26.5	39.7	



#6  
 bis(2-Chloroethyl)ether  
 Concen: 0.396 ng  
 RT: 7.421 min Scan# 601  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Tgt Ion	Resp	Ion Ratio	Lower	Upper
93	8163	100		
63	71.8	58.1	87.1	
95	32.0	25.2	37.8	



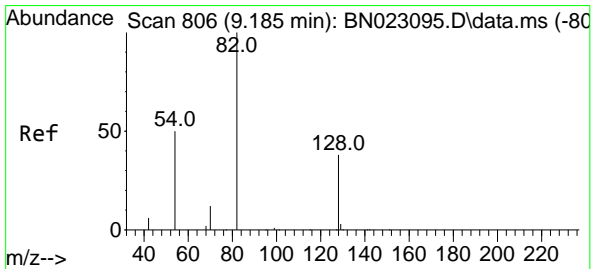
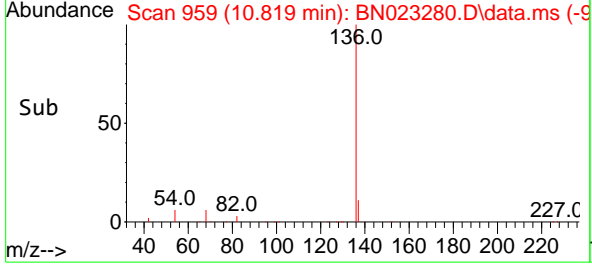
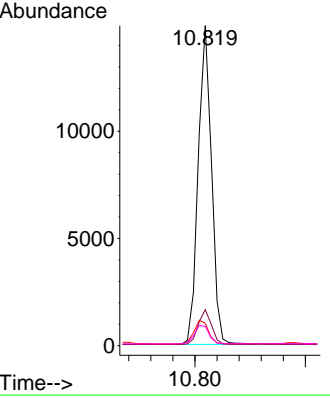
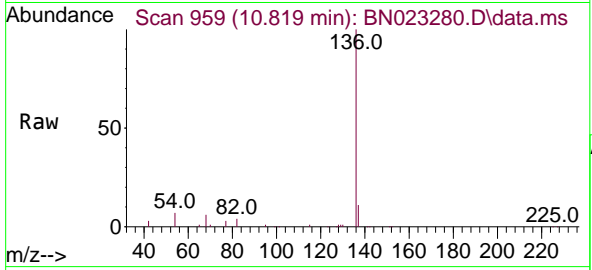


#7  
 Naphthalene-d8  
 Concen: 0.400 ng  
 RT: 10.819 min Scan# 91  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Instrument : BNA\_N  
 ClientSampleId : SSTDCCC0.4

Tgt Ion:136 Resp: 24904

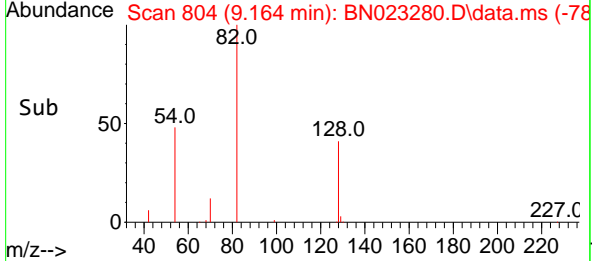
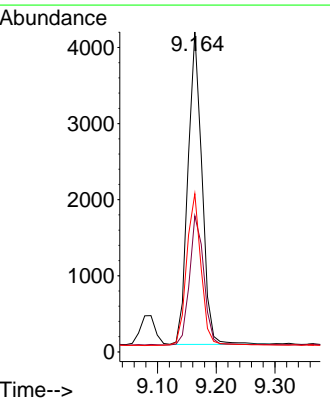
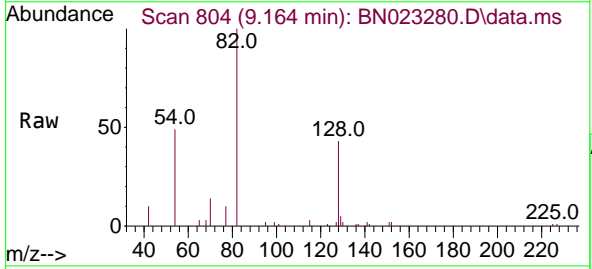
Ion	Ratio	Lower	Upper
136	100		
137	11.2	9.0	13.4
54	7.0	6.5	9.7
68	6.0	5.4	8.2

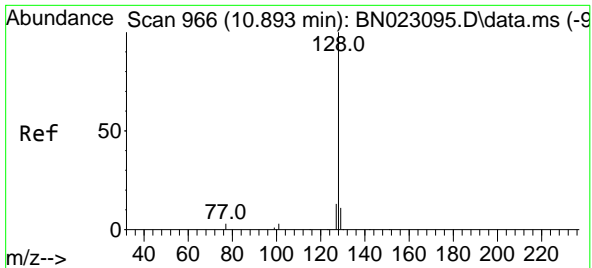


#8  
 Nitrobenzene-d5  
 Concen: 0.412 ng  
 RT: 9.164 min Scan# 804  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Tgt Ion: 82 Resp: 6755

Ion	Ratio	Lower	Upper
82	100		
128	42.5	31.4	47.2
54	49.4	41.0	61.4



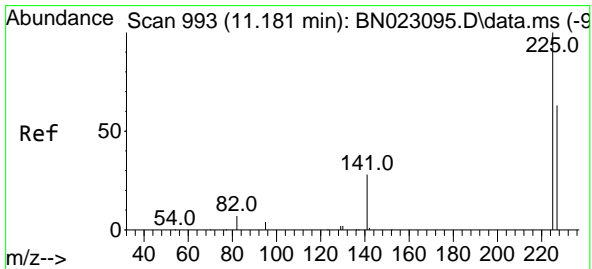
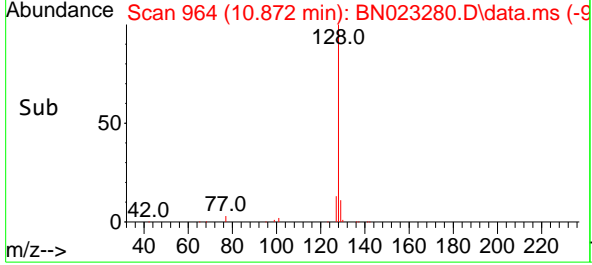
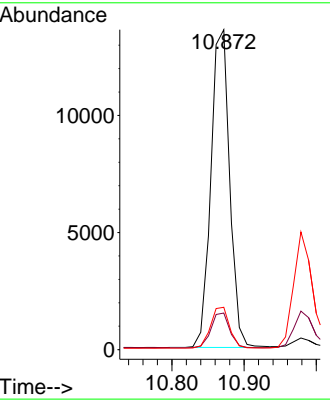
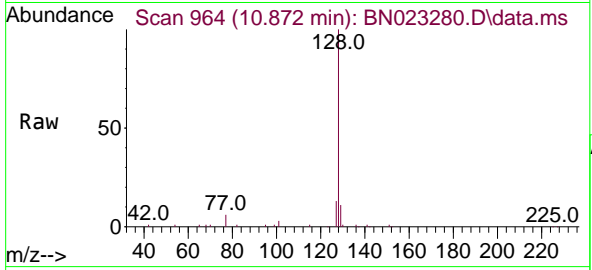


#9  
**Naphthalene**  
 Concen: 0.388 ng  
 RT: 10.872 min Scan# 90  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 SSTDCCC0.4

Tgt Ion:128 Resp: 24598

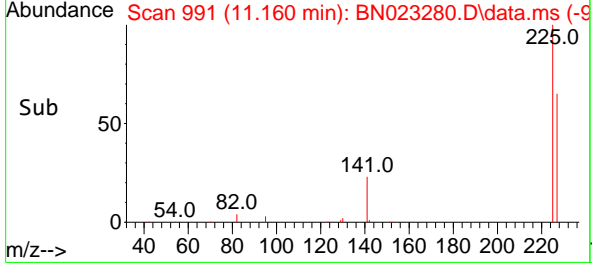
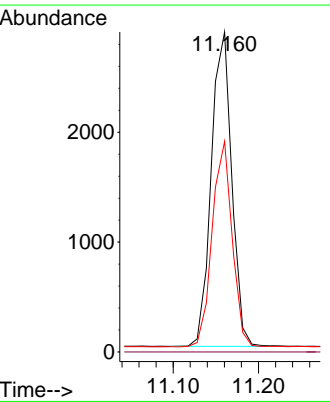
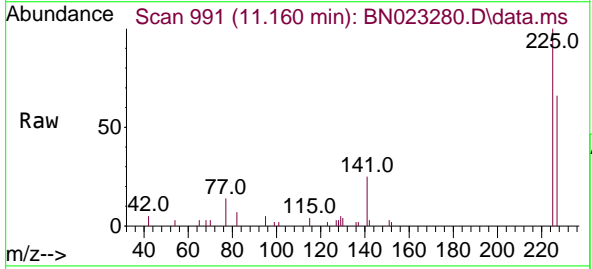
Ion	Ratio	Lower	Upper
128	100		
129	11.4	9.0	13.6
127	13.2	10.5	15.7

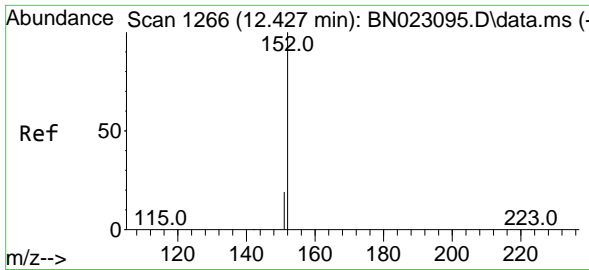


#10  
**Hexachlorobutadiene**  
 Concen: 0.395 ng  
 RT: 11.160 min Scan# 991  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Tgt Ion:225 Resp: 4773

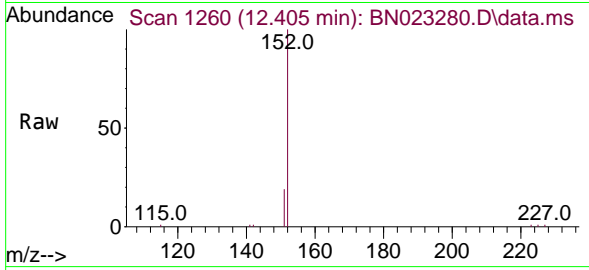
Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	63.6	51.1	76.7



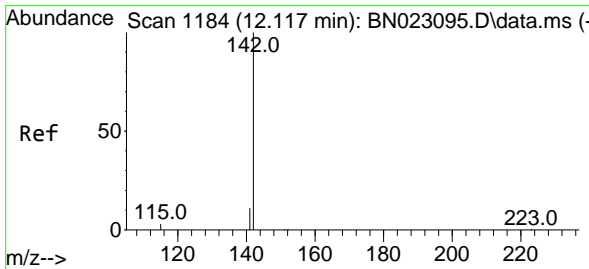
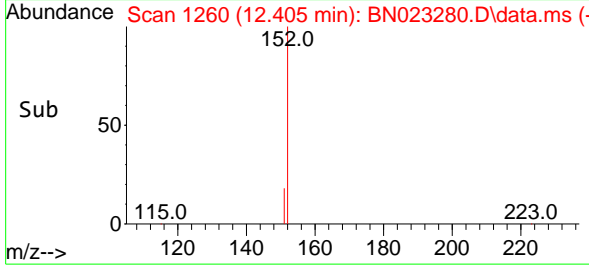
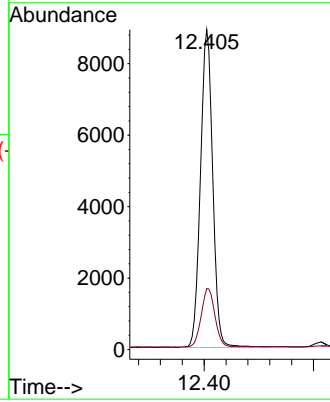


#11  
 2-Methylnaphthalene-d10  
 Concen: 0.369 ng  
 RT: 12.405 min Scan# 1180  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4

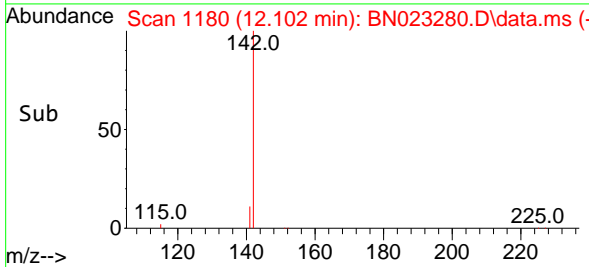
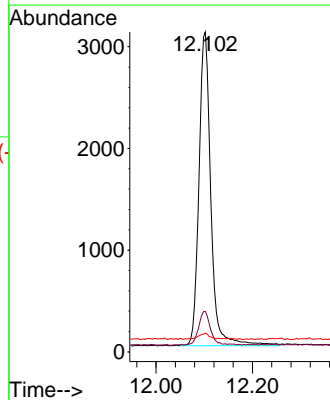
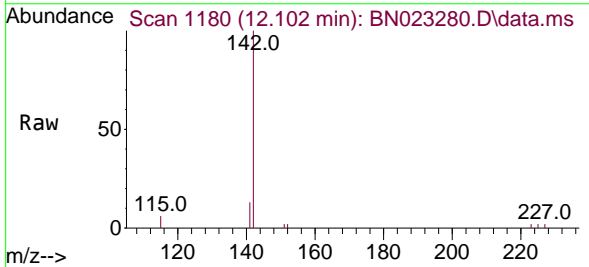


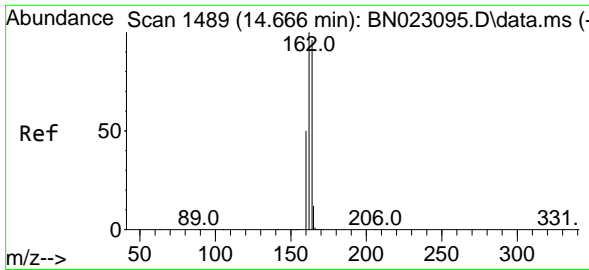
Tgt Ion:152 Resp: 15577  
 Ion Ratio Lower Upper  
 152 100  
 151 18.3 15.1 22.7



#12  
 2-Methylnaphthalene  
 Concen: 0.560 ng  
 RT: 12.102 min Scan# 1180  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

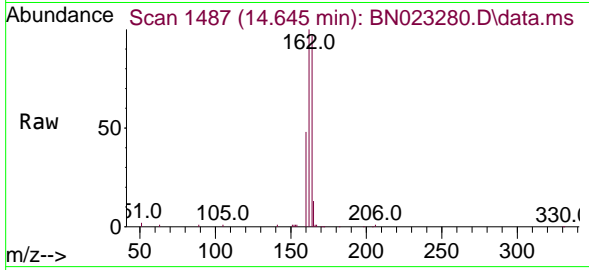
Tgt Ion:142 Resp: 5285  
 Ion Ratio Lower Upper  
 142 100  
 141 12.7 10.9 16.3  
 115 5.9 5.7 8.5





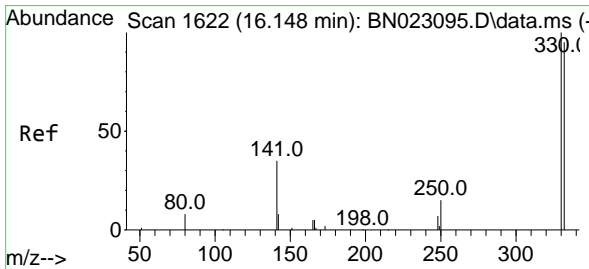
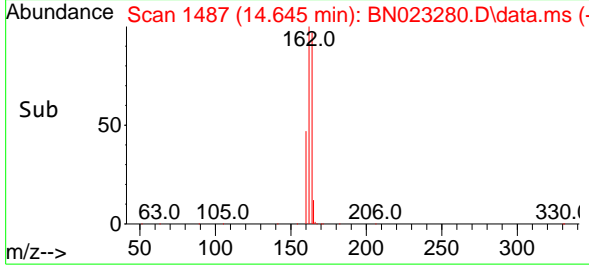
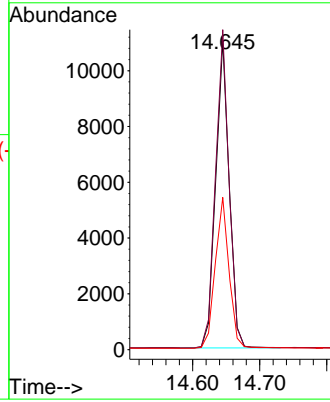
#13  
 Acenaphthene-d10  
 Concen: 0.400 ng  
 RT: 14.645 min Scan# 1487  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Instrument : BNA\_N  
 ClientSampleId : SSTDCCC0.4



Tgt Ion:164 Resp: 15496

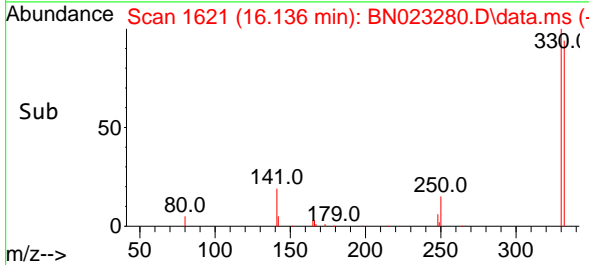
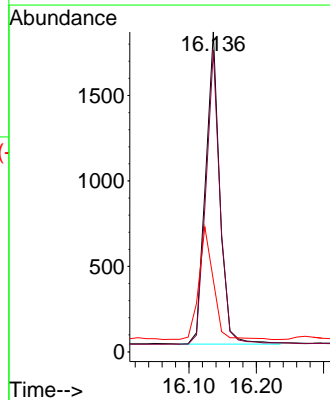
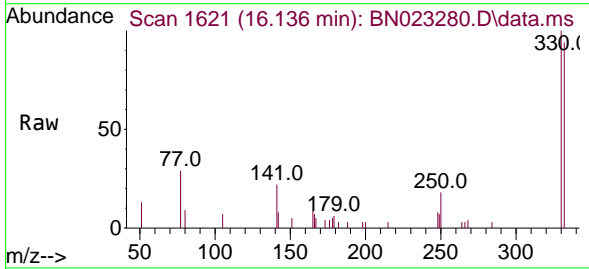
Ion	Ratio	Lower	Upper
164	100		
162	103.5	83.4	125.0
160	49.3	41.8	62.8

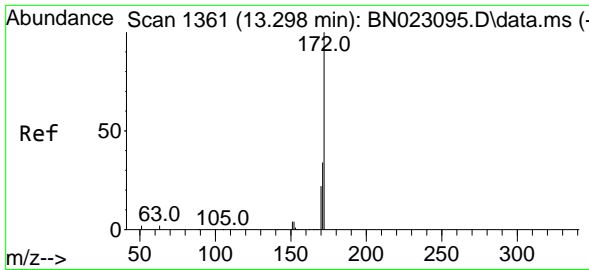


#14  
 2,4,6-Tribromophenol  
 Concen: 0.474 ng  
 RT: 16.136 min Scan# 1621  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Tgt Ion:330 Resp: 2663

Ion	Ratio	Lower	Upper
330	100		
332	94.2	77.3	115.9
141	36.8	33.5	50.3

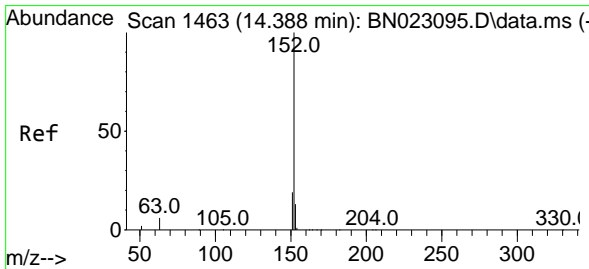
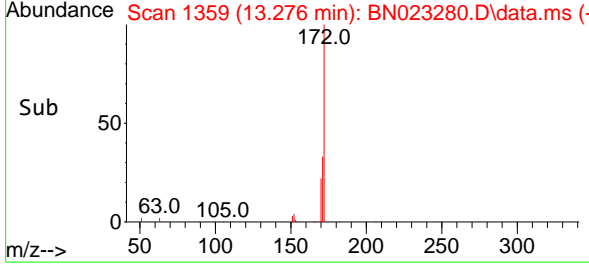
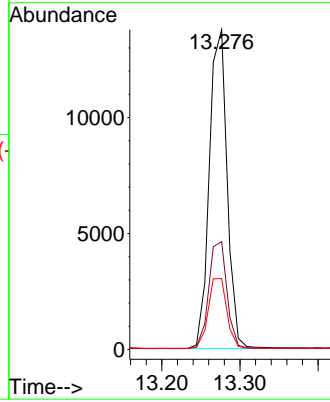
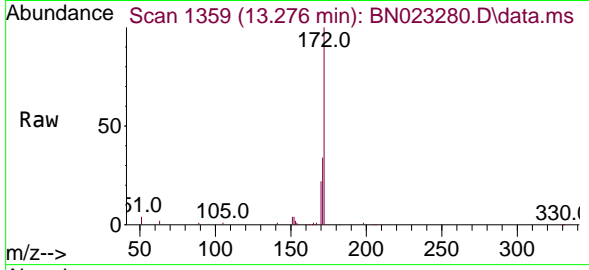




#15  
 2-Fluorobiphenyl  
 Concen: 0.352 ng  
 RT: 13.276 min Scan# 1359  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

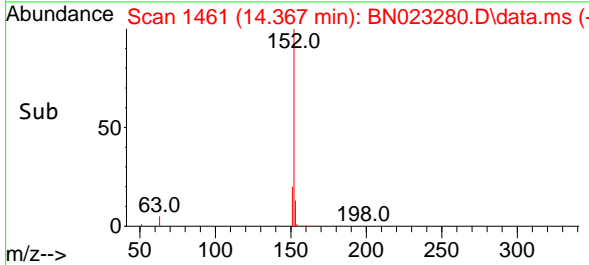
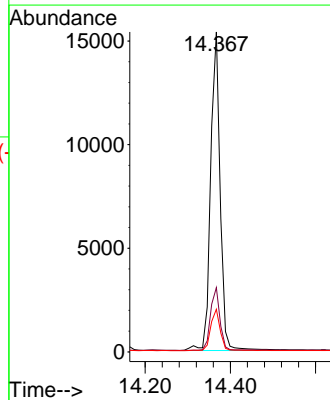
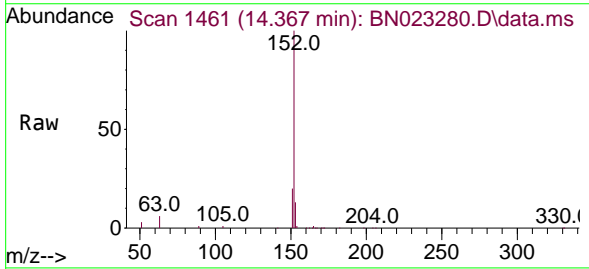
Instrument : BNA\_N  
 ClientSampleId : SSTDCCC0.4

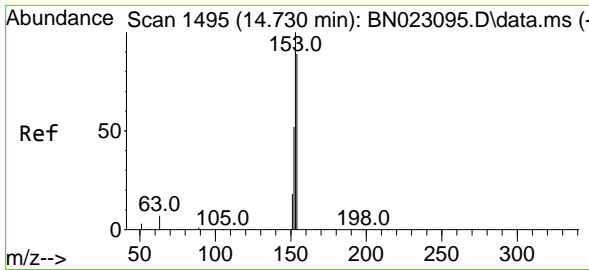
Tgt Ion	Resp	Lower	Upper
172	21769	100	100
171	33.7	27.4	41.0
170	22.2	17.9	26.9



#16  
 Acenaphthylene  
 Concen: 0.382 ng  
 RT: 14.367 min Scan# 1461  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Tgt Ion	Resp	Lower	Upper
152	23837	100	100
151	19.6	15.4	23.2
153	12.9	10.3	15.5

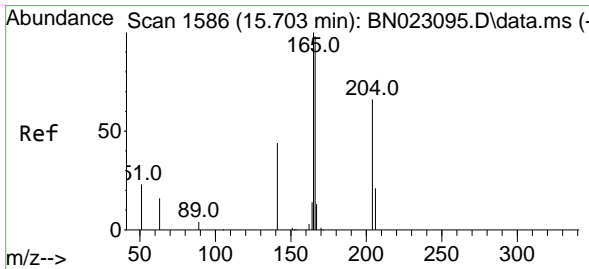
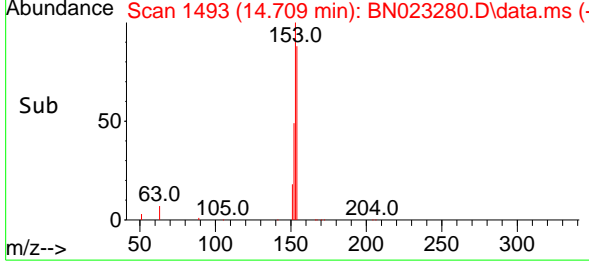
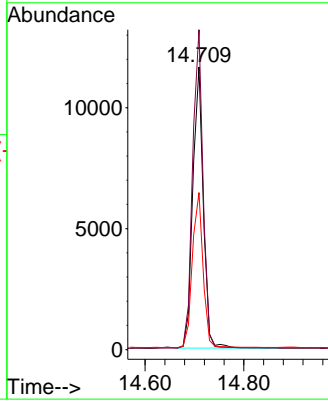
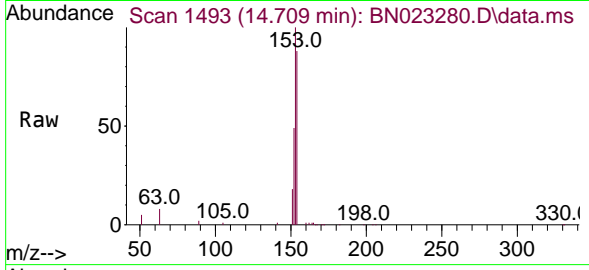




#17  
 Acenaphthene  
 Concen: 0.372 ng  
 RT: 14.709 min Scan# 1493  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

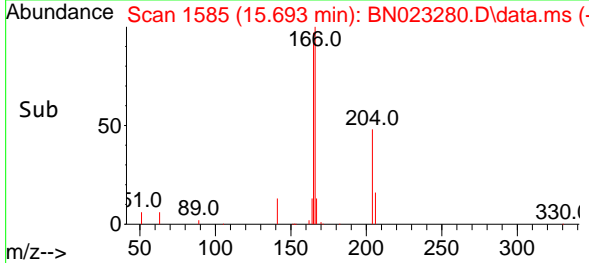
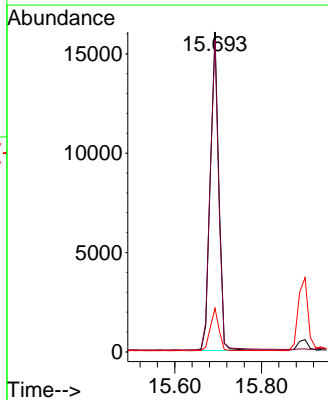
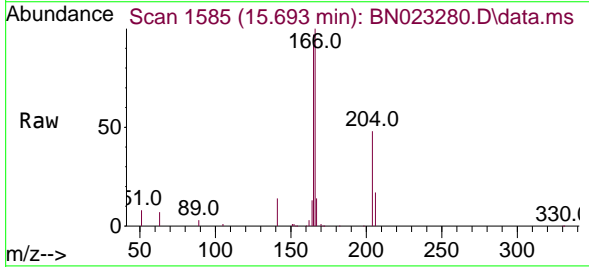
Instrument : BNA\_N  
 ClientSampleId : SSTDCCC0.4

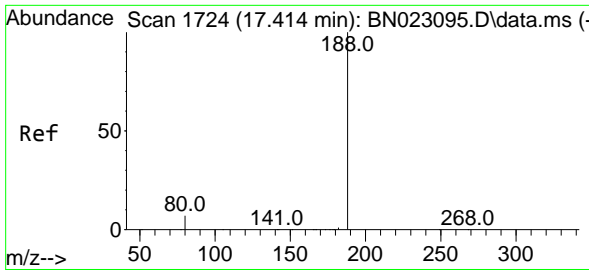
Tgt Ion	Resp	Lower	Upper
154	17079		
153	113.0	88.6	132.8
152	56.2	48.1	72.1



#18  
 Fluorene  
 Concen: 0.458 ng  
 RT: 15.693 min Scan# 1585  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Tgt Ion	Resp	Lower	Upper
166	23490		
165	98.6	79.8	119.6
167	13.4	10.6	16.0

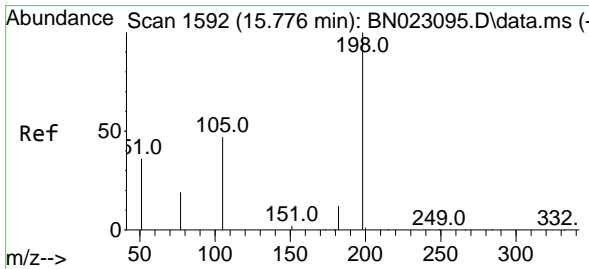
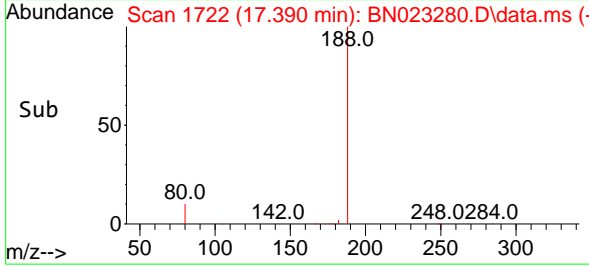
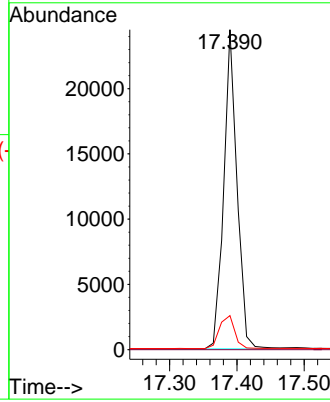
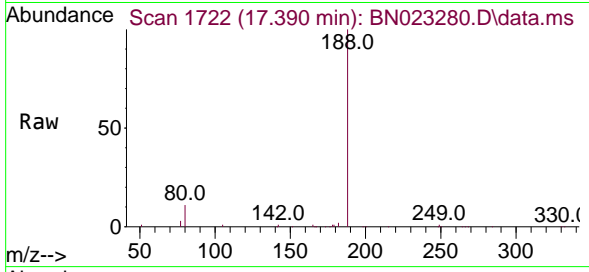




#19  
 Phenanthrene-d10  
 Concen: 0.400 ng  
 RT: 17.390 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

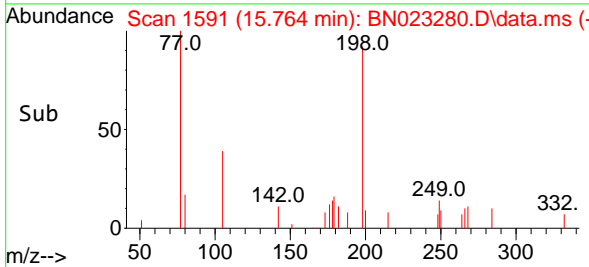
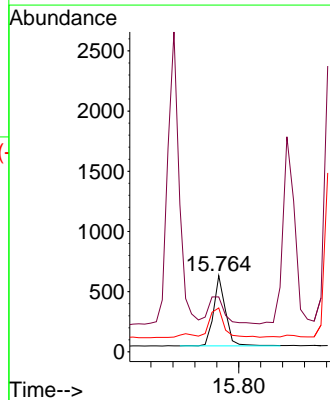
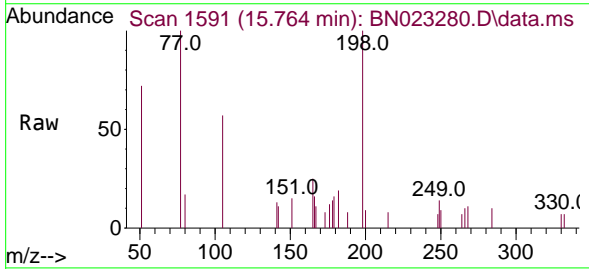
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4

Tgt Ion	Resp	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	10.6	6.1	9.1#

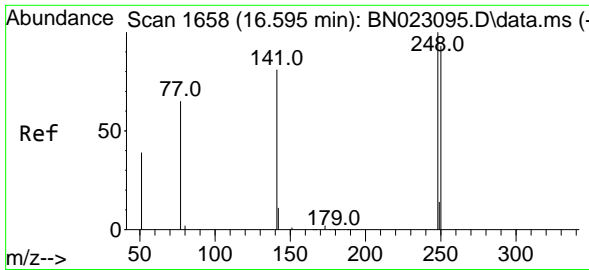


#20  
 4,6-Dinitro-2-methylphenol  
 Concen: 0.362 ng  
 RT: 15.764 min Scan# 1591  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Tgt Ion	Resp	Lower	Upper
198	100		
51	72.0	57.0	85.4
105	57.7	47.2	70.8



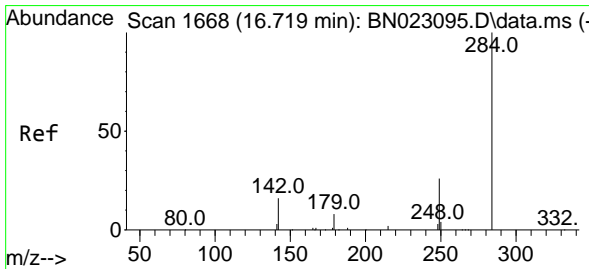
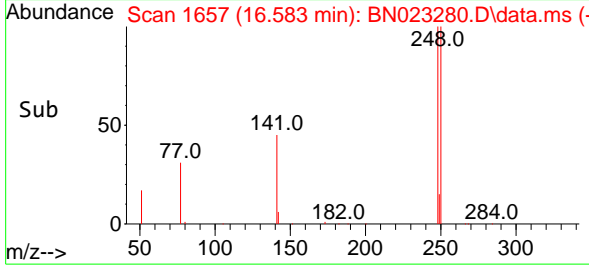
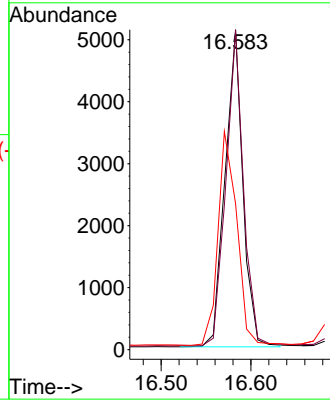
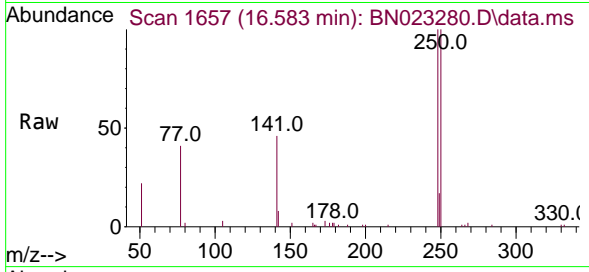




#21  
 4-Bromophenyl-phenylether  
 Concen: 0.393 ng  
 RT: 16.583 min Scan# 1657  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

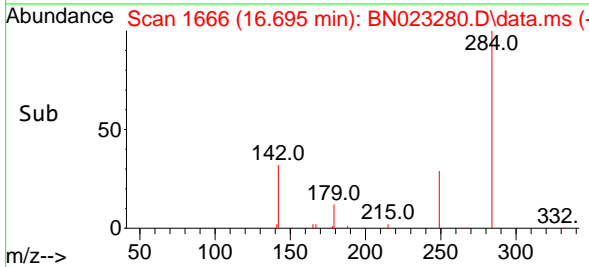
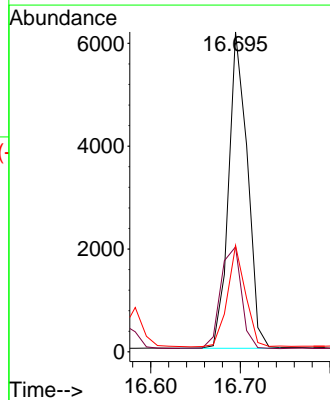
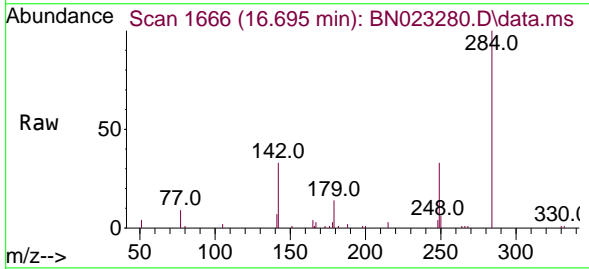
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4

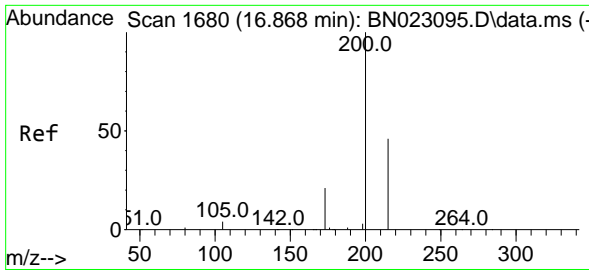
Tgt Ion	Resp	Lower	Upper
248	100		
250	99.8	74.3	111.5
141	45.6	65.0	97.6#



#22  
 Hexachlorobenzene  
 Concen: 0.381 ng  
 RT: 16.695 min Scan# 1666  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Tgt Ion	Resp	Lower	Upper
284	100		
142	35.6	31.0	46.4
249	30.7	24.4	36.6



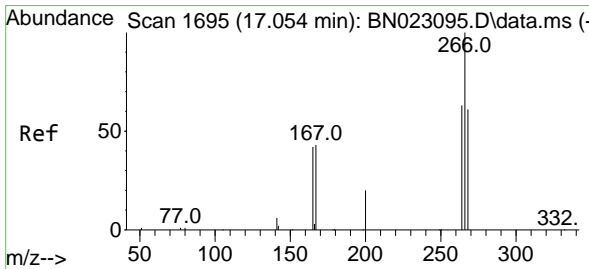
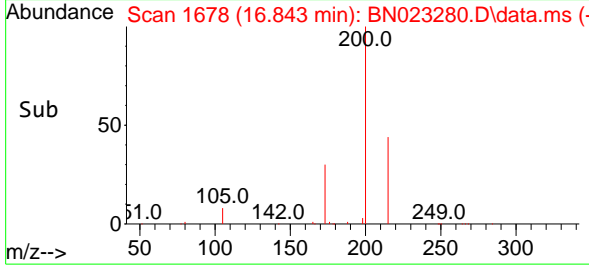
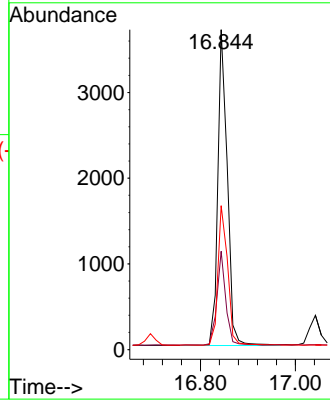
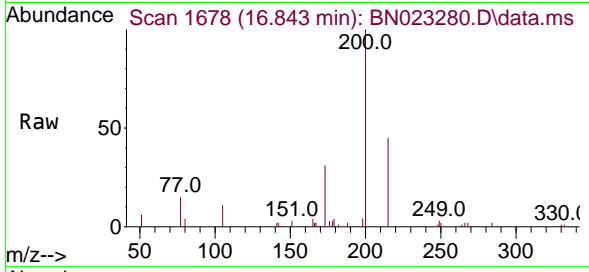


#23  
 Atrazine  
 Concen: 0.402 ng  
 RT: 16.843 min Scan# 1680  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4

Tgt Ion:200 Resp: 5103

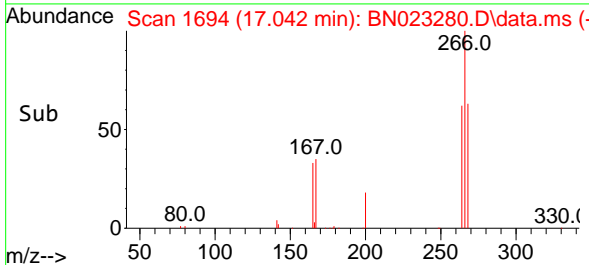
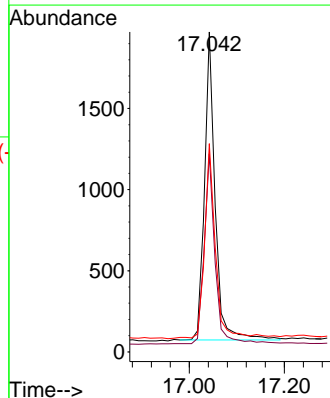
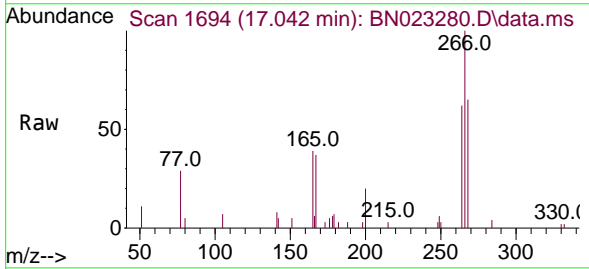
Ion	Ratio	Lower	Upper
200	100		
173	30.7	18.2	27.4#
215	45.0	38.0	57.0

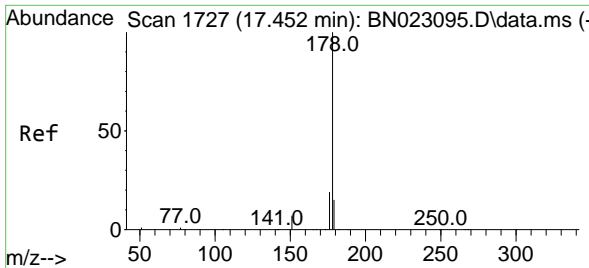


#24  
 Pentachlorophenol  
 Concen: 0.359 ng  
 RT: 17.042 min Scan# 1694  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Tgt Ion:266 Resp: 2939

Ion	Ratio	Lower	Upper
266	100		
264	62.3	50.1	75.1
268	63.0	49.7	74.5

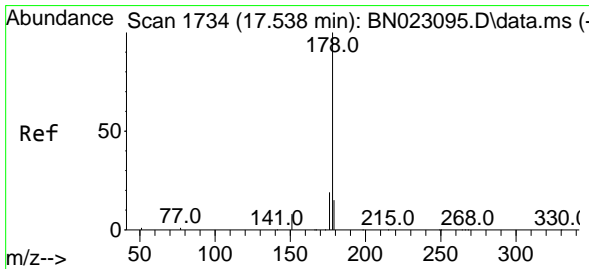
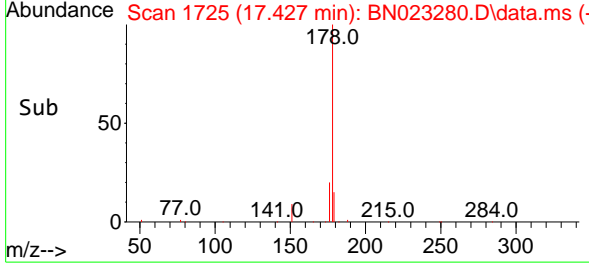
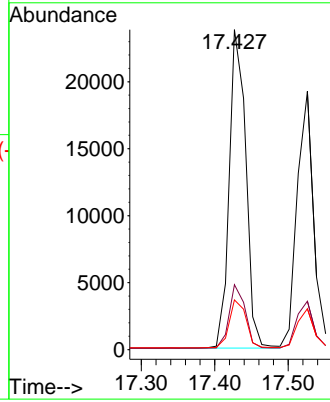
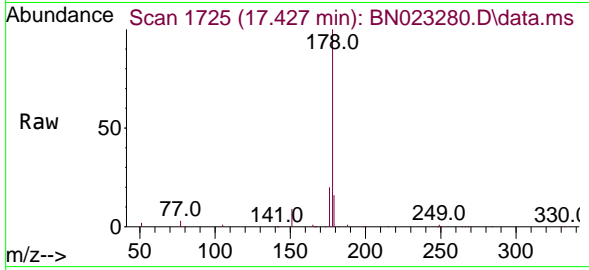




#25  
 Phenanthrene  
 Concen: 0.373 ng  
 RT: 17.427 min Scan# 1725  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

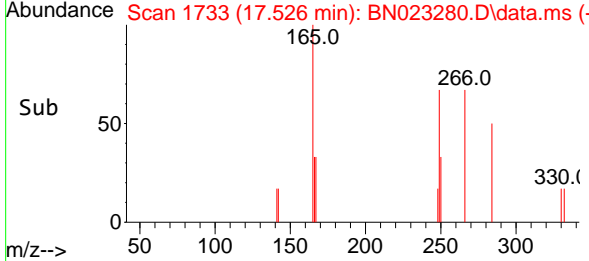
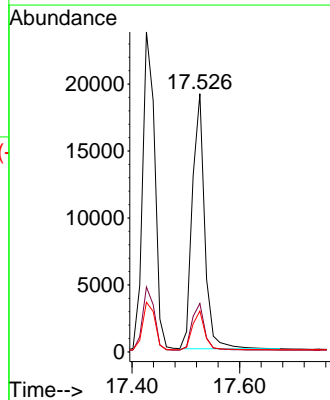
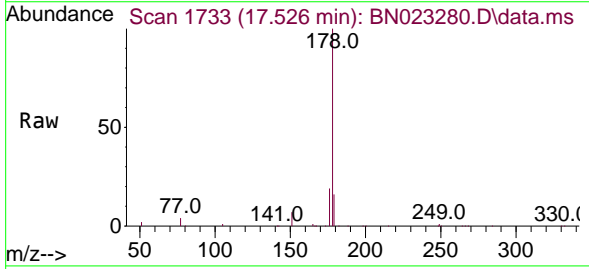
Instrument : BNA\_N  
 ClientSampleId : SSTDCCC0.4

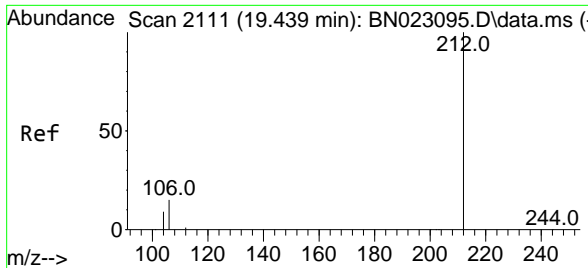
Tgt Ion	Resp	Lower	Upper
178	37463	100	100
176	19.4	15.4	23.2
179	15.3	12.2	18.2



#26  
 Anthracene  
 Concen: 0.379 ng  
 RT: 17.526 min Scan# 1733  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Tgt Ion	Resp	Lower	Upper
178	30364	100	100
176	18.7	15.1	22.7
179	15.2	12.2	18.4



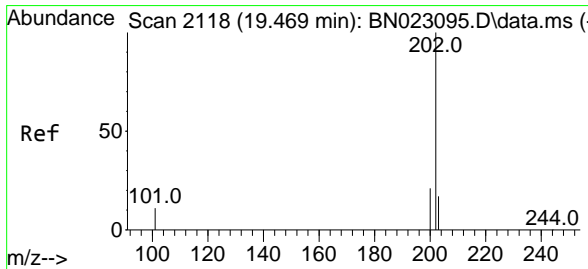
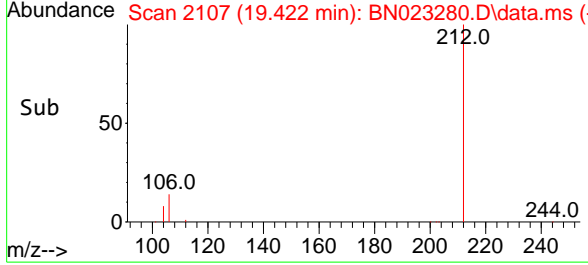
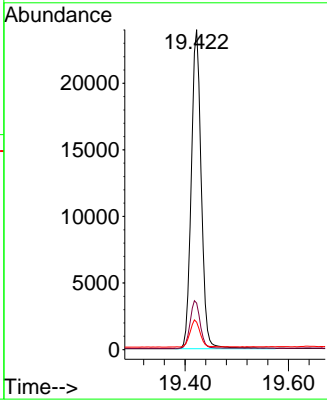
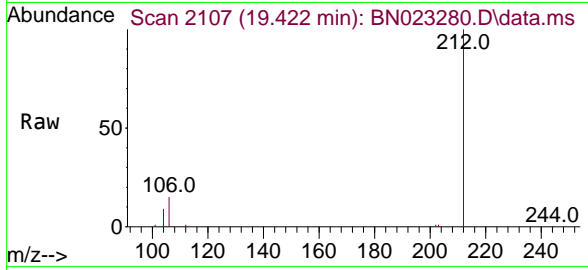


#27  
 Fluoranthene-d10  
 Concen: 0.406 ng  
 RT: 19.422 min Scan# 2110  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Instrument : BNA\_N  
 ClientSampleId : BN023280.D  
 SSTDC00.4

Tgt Ion: 212 Resp: 32028

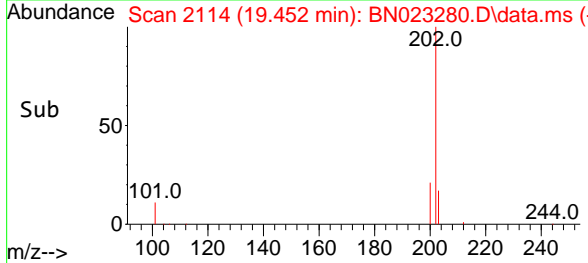
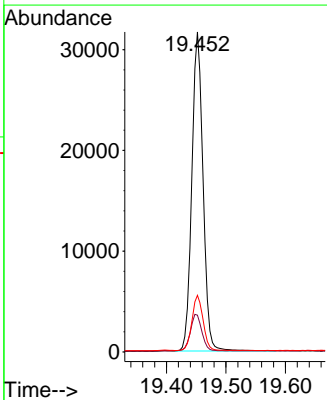
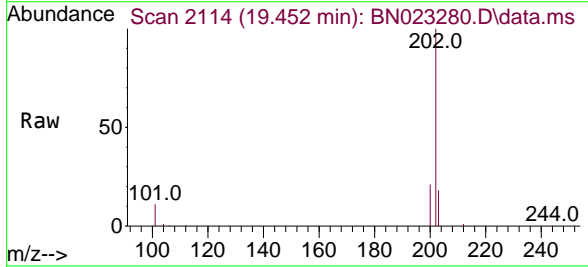
Ion	Ratio	Lower	Upper
212	100		
106	15.1	13.0	19.4
104	8.7	7.5	11.3

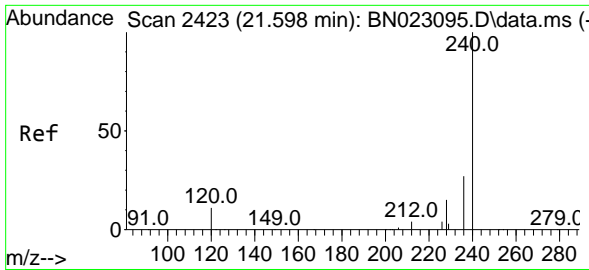


#28  
 Fluoranthene  
 Concen: 0.384 ng  
 RT: 19.452 min Scan# 2114  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Tgt Ion: 202 Resp: 41357

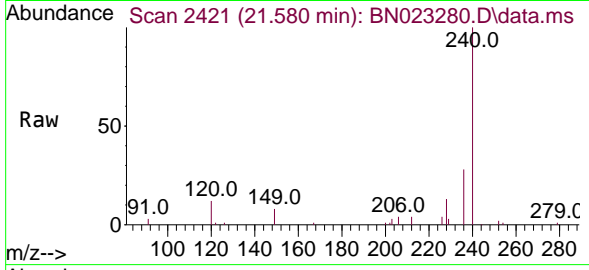
Ion	Ratio	Lower	Upper
202	100		
101	11.9	9.7	14.5
203	17.1	13.8	20.6



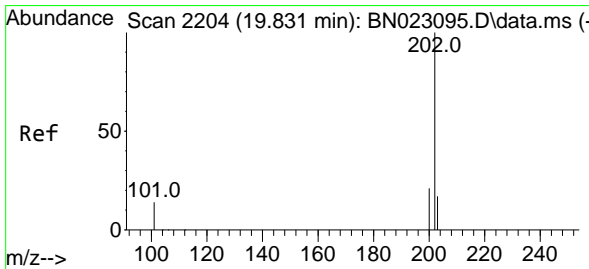
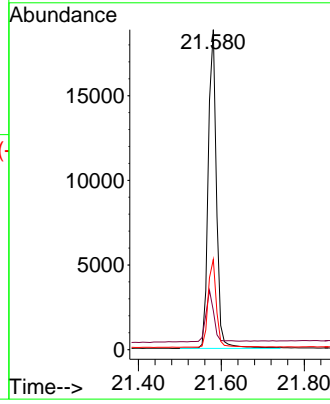
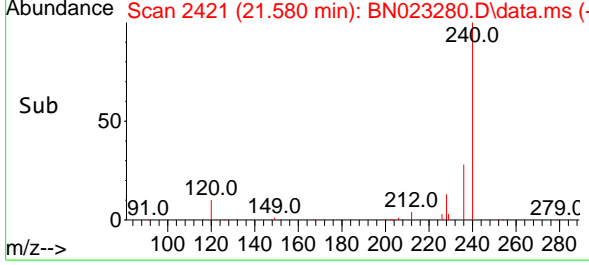


#29  
 Chrysene-d12  
 Concen: 0.400 ng  
 RT: 21.580 min Scan# 2421  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

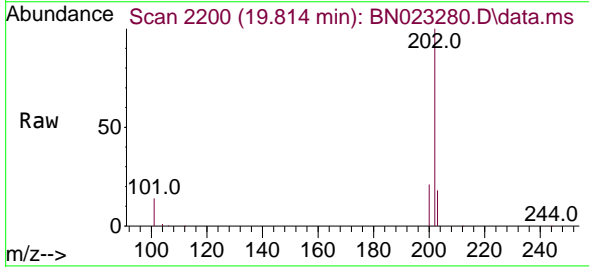
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4



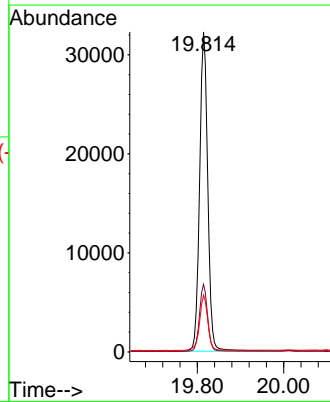
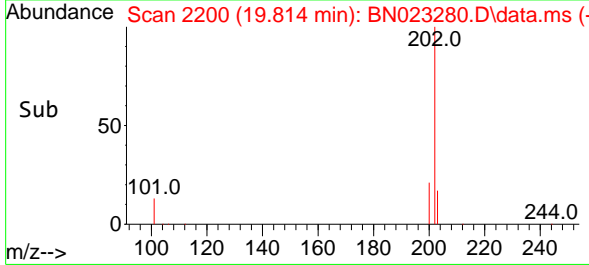
Tgt Ion:240 Resp: 25842  
 Ion Ratio Lower Upper  
 240 100  
 120 12.2 10.1 15.1  
 236 28.2 22.2 33.4

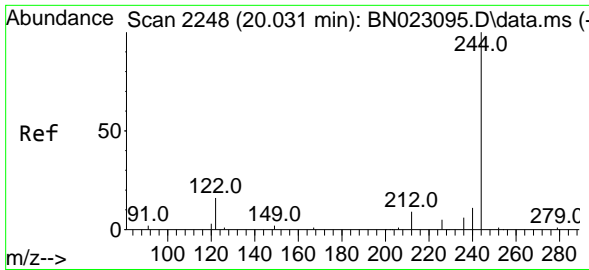


#30  
 Pyrene  
 Concen: 0.444 ng  
 RT: 19.814 min Scan# 2200  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22



Tgt Ion:202 Resp: 41984  
 Ion Ratio Lower Upper  
 202 100  
 200 20.9 16.9 25.3  
 203 17.6 14.2 21.4

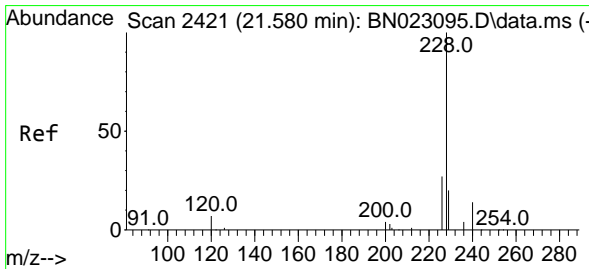
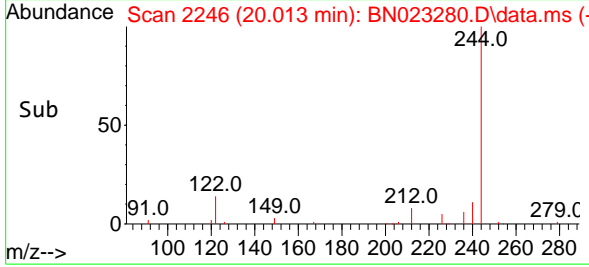
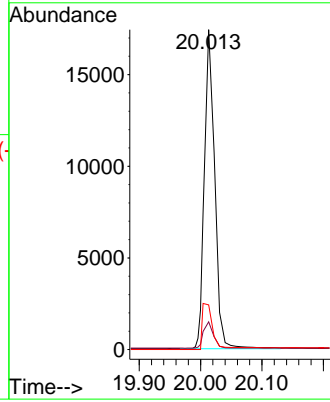
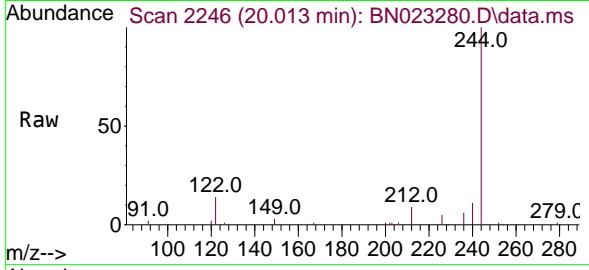




#31  
 Terphenyl-d14  
 Concen: 0.422 ng  
 RT: 20.013 min Scan# 2119  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

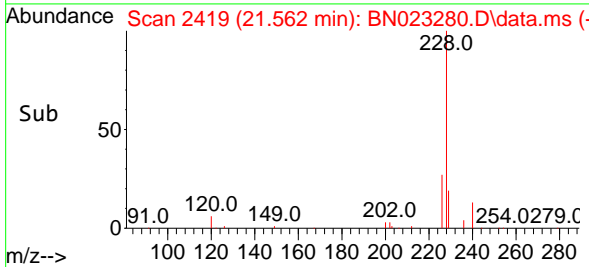
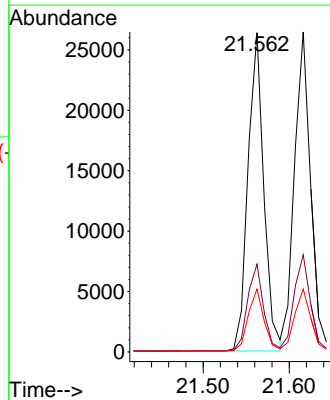
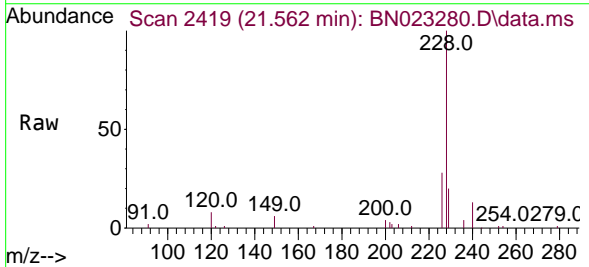
Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4

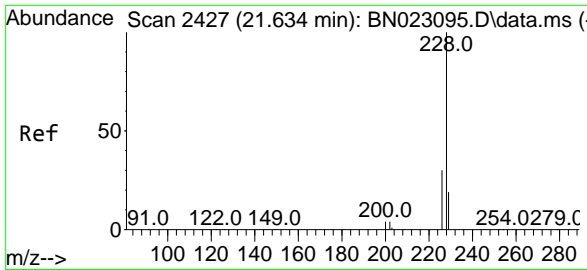
Tgt Ion	Resp	Lower	Upper
244	17696		
212	8.7	7.6	11.4
122	14.0	12.6	18.8



#32  
 Benzo(a)anthracene  
 Concen: 0.405 ng  
 RT: 21.562 min Scan# 2419  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

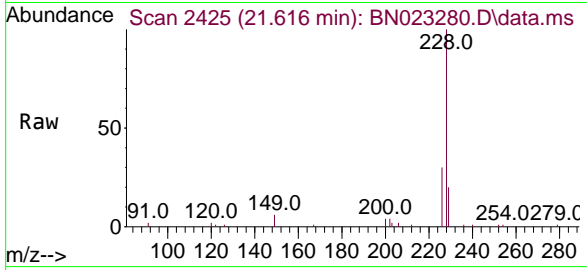
Tgt Ion	Resp	Lower	Upper
228	33710		
226	27.5	22.0	33.0
229	19.7	15.8	23.8





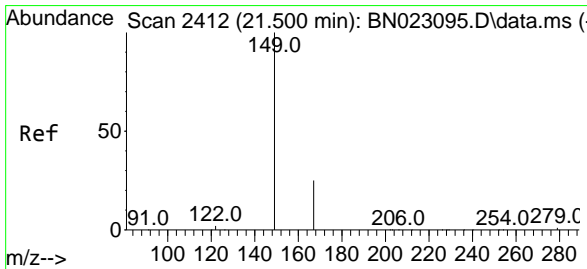
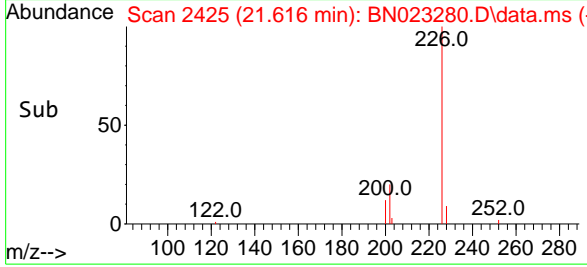
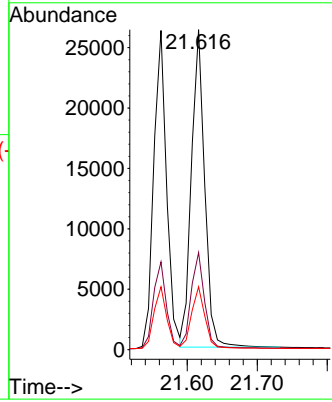
#33  
 Chrysene  
 Concen: 0.370 ng  
 RT: 21.616 min Scan# 2410  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Instrument : BNA\_N  
 ClientSampleId : SSTDCCC0.4

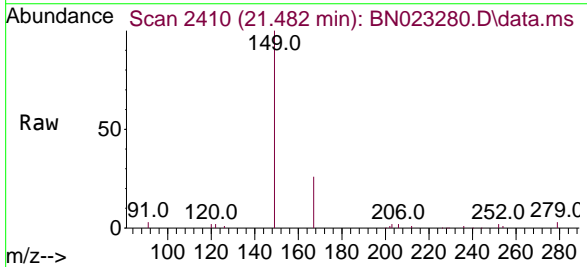


Tgt Ion: 228 Resp: 34659

Ion	Ratio	Lower	Upper
228	100		
226	30.3	24.4	36.6
229	19.6	15.6	23.4

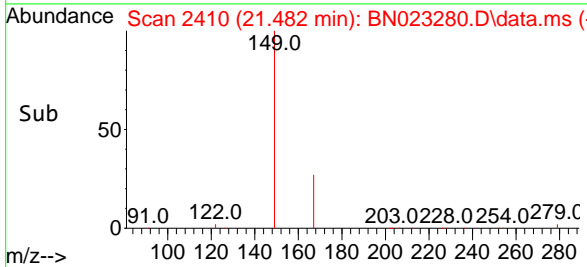
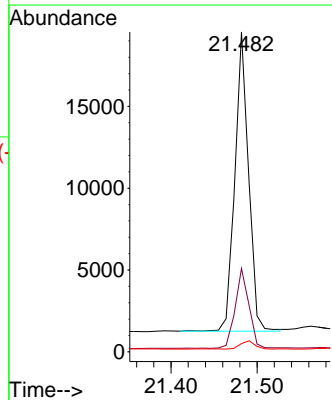


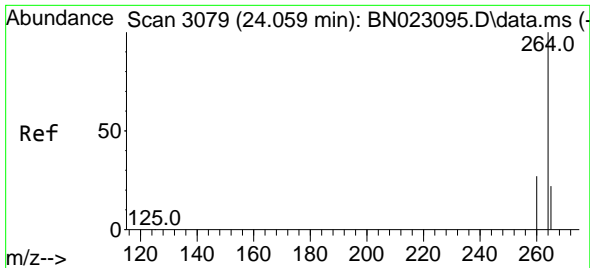
#34  
 Bis(2-ethylhexyl)phthalate  
 Concen: 0.573 ng  
 RT: 21.482 min Scan# 2410  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22



Tgt Ion: 149 Resp: 20171

Ion	Ratio	Lower	Upper
149	100		
167	26.9	20.2	30.2
279	3.1	2.3	3.5

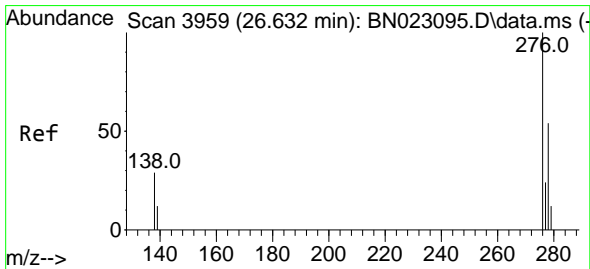
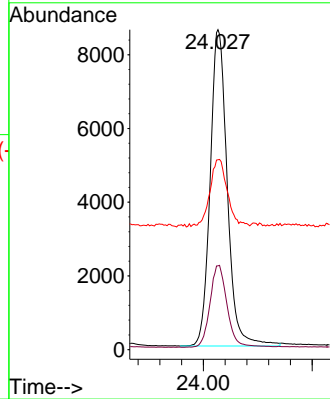
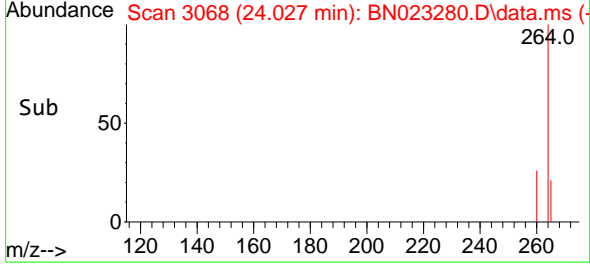
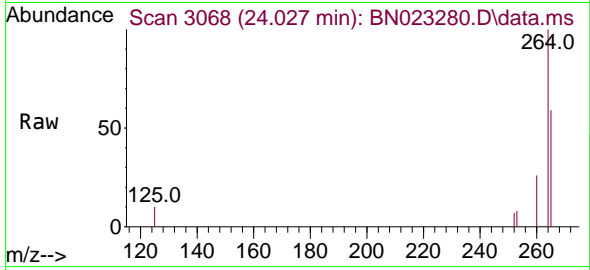




#35  
**Perylene-d12**  
 Concen: 0.400 ng  
 RT: 24.027 min Scan# 3079  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

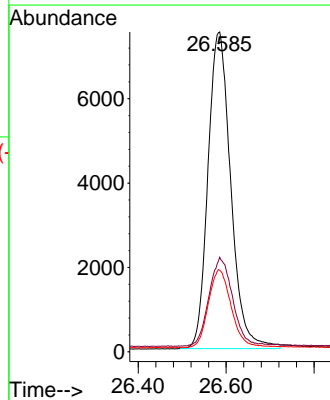
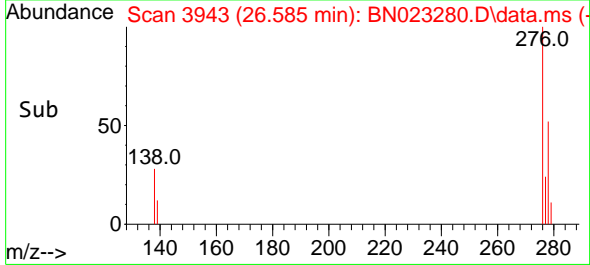
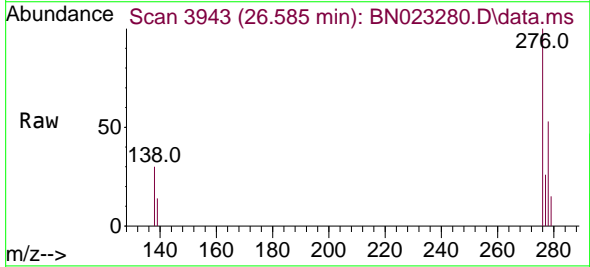
**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 SSTDCCC0.4

Tgt Ion	Resp	Lower	Upper
264	18763		
260	26.2	21.7	32.5
265	59.3	43.2	64.8

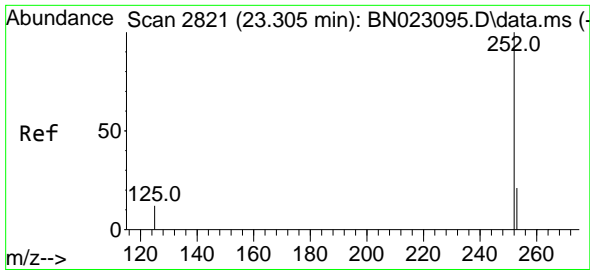


#36  
**Indeno(1,2,3-cd)pyrene**  
 Concen: 0.322 ng  
 RT: 26.585 min Scan# 3943  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Tgt Ion	Resp	Lower	Upper
276	27074		
138	28.8	25.0	37.6
277	24.4	19.8	29.8

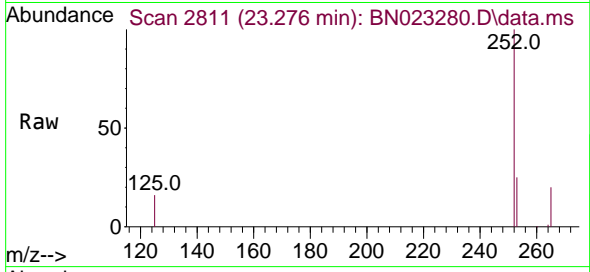




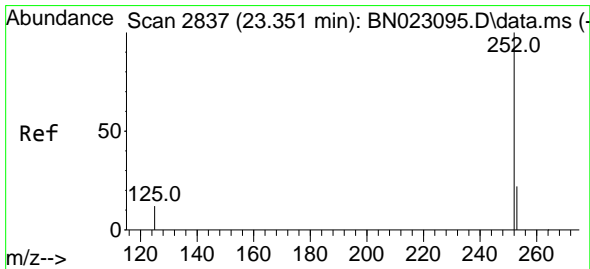
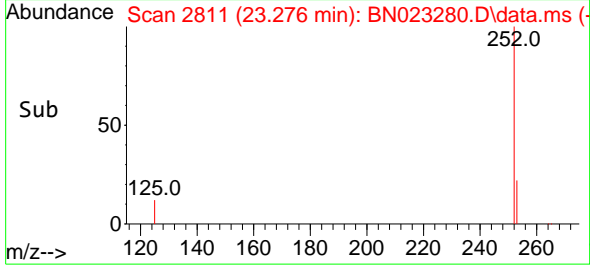
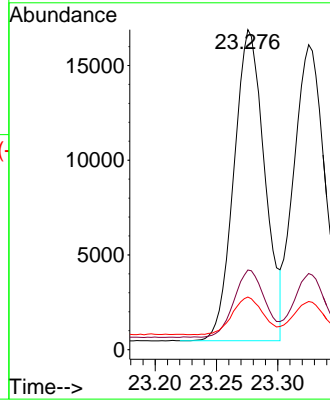


#37  
 Benzo(b)fluoranthene  
 Concen: 0.369 ng  
 RT: 23.276 min Scan# 2811  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Instrument : BNA\_N  
 ClientSampleId : SSTDCCC0.4

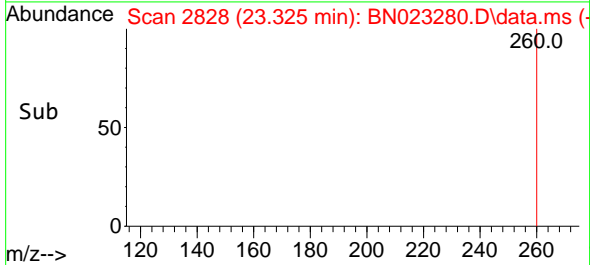
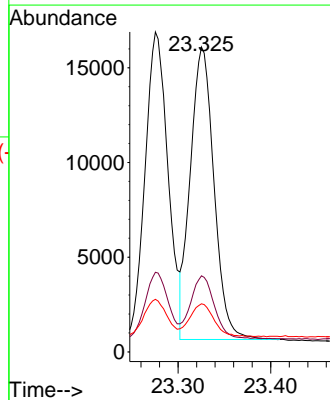
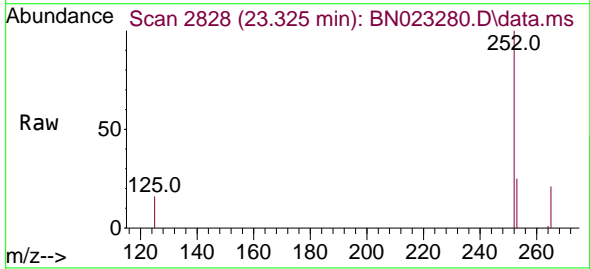


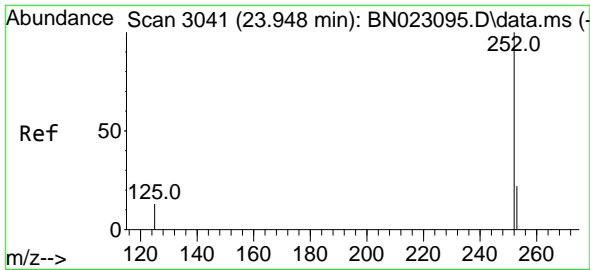
Tgt Ion:252 Resp: 28714  
 Ion Ratio Lower Upper  
 252 100  
 253 24.9 19.0 28.4  
 125 16.4 12.8 19.2



#38  
 Benzo(k)fluoranthene  
 Concen: 0.347 ng  
 RT: 23.325 min Scan# 2828  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

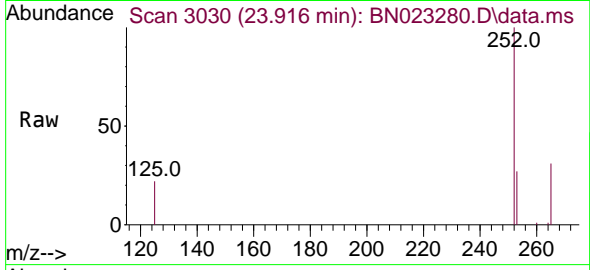
Tgt Ion:252 Resp: 27427  
 Ion Ratio Lower Upper  
 252 100  
 253 24.9 19.1 28.7  
 125 15.8 12.5 18.7





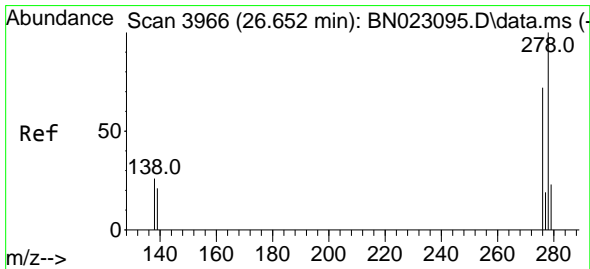
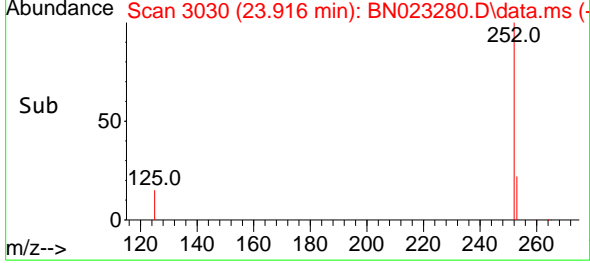
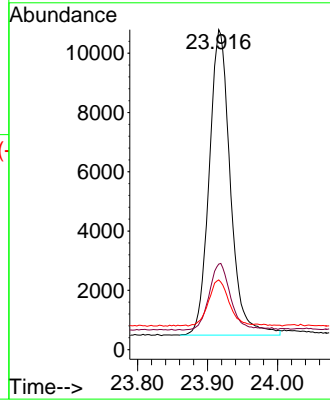
#39  
 Benzo(a)pyrene  
 Concen: 0.370 ng  
 RT: 23.916 min Scan# 30  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4



Tgt Ion:252 Resp: 21593

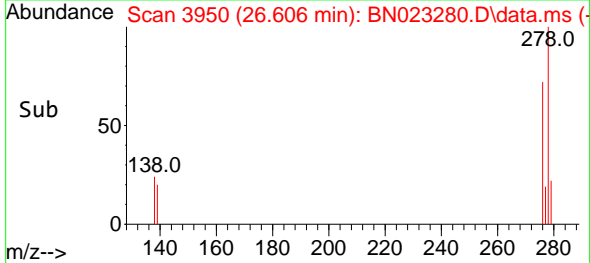
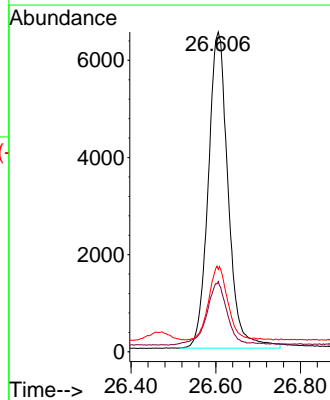
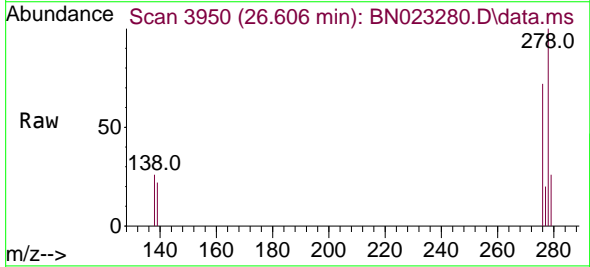
Ion	Ratio	Lower	Upper
252	100		
253	26.7	20.6	30.8
125	21.8	15.8	23.8

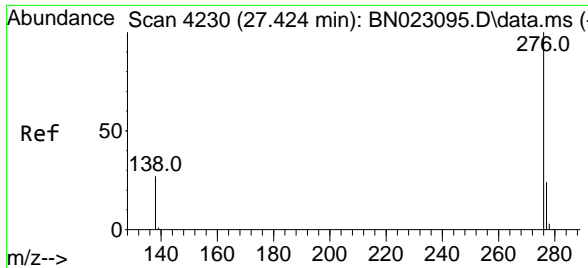


#40  
 Dibenzo(a,h)anthracene  
 Concen: 0.315 ng  
 RT: 26.606 min Scan# 3950  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Tgt Ion:278 Resp: 21241

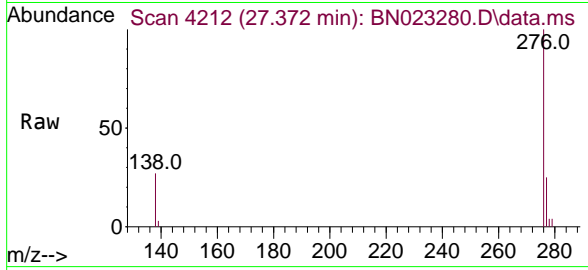
Ion	Ratio	Lower	Upper
278	100		
139	22.0	17.5	26.3
279	25.8	20.5	30.7





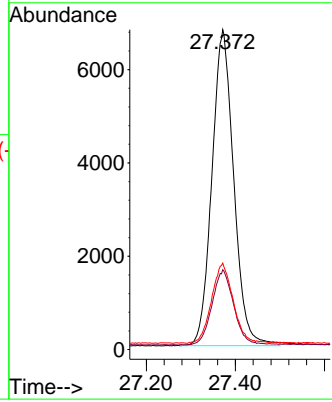
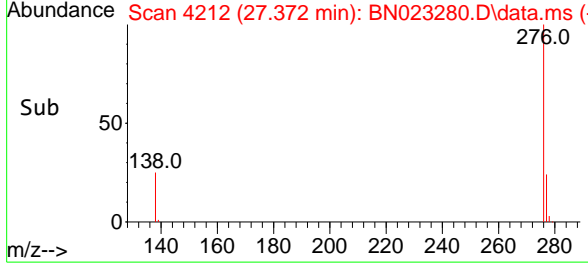
#41  
 Benzo(g,h,i)perylene  
 Concen: 0.319 ng  
 RT: 27.372 min Scan# 41  
 Delta R.T. 0.000 min  
 Lab File: BN023280.D  
 Acq: 19 Dec 2022 11:22

Instrument :  
 BNA\_N  
 ClientSampleId :  
 SSTDCCC0.4



Tgt Ion: 276 Resp: 23015

Ion	Ratio	Lower	Upper
276	100		
277	25.0	19.9	29.9
138	27.0	22.2	33.2



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Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023280.D  
 Acq On : 19 Dec 2022 11:22  
 Operator : CG/JU  
 Sample : SSTDCCC0.4  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 LabSampleId :  
 SSTDCCC0.4

Quant Time: Dec 19 15:45:22 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 19 15:44:58 2022  
 Response via : Initial Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	111	-0.02
2	1,4-Dioxane	0.395	0.440	-11.4	121	-0.01
3	n-Nitrosodimethylamine	0.388	0.356	8.2	106	-0.01
4 S	2-Fluorophenol	0.745	0.926	-24.3	138	0.00
5 S	Phenol-d6	0.947	1.181	-24.7	143	-0.01
6	bis(2-Chloroethyl)ether	1.076	1.066	0.9	107	-0.01
7 I	Naphthalene-d8	1.000	1.000	0.0	120	-0.02
8 S	Nitrobenzene-d5	0.264	0.271	-2.7	132	-0.02
9	Naphthalene	1.019	0.988	3.0	119	-0.01
10	Hexachlorobutadiene	0.194	0.192	1.0	118	-0.02
11 SURR	2-Methylnaphthalene-d10	0.678	0.625	7.8	117	-0.02
12	2-Methylnaphthalene	0.152	0.212	-39.5#	174#	-0.01
13 I	Acenaphthene-d10	1.000	1.000	0.0	135	-0.01
14 S	2,4,6-Tribromophenol	0.145	0.172	-18.6	176#	-0.01
15 S	2-Fluorobiphenyl	1.598	1.405	12.1	118	-0.01
16	Acenaphthylene	1.611	1.538	4.5	141	-0.01
17	Acenaphthene	1.184	1.102	6.9	130	-0.01
18	Fluorene	1.325	1.516	-14.4	159#	-0.01
19 I	Phenanthrene-d10	1.000	1.000	0.0	133	-0.01
20	4,6-Dinitro-2-methylphenol	0.057	0.026	54.4#	75	-0.01
21	4-Bromophenyl-phenylether	0.213	0.210	1.4	137	-0.01
22	Hexachlorobenzene	0.280	0.266	5.0	127	-0.01
23	Atrazine	0.150	0.151	-0.7	151#	-0.01
24	Pentachlorophenol	0.097	0.087	10.3	145	-0.01
25	Phenanthrene	1.192	1.111	6.8	129	-0.01
26	Anthracene	0.950	0.900	5.3	140	-0.01
27 SURR	Fluoranthene-d10	0.936	0.950	-1.5	144	-0.01
28	Fluoranthene	1.276	1.226	3.9	136	-0.01
29 I	Chrysene-d12	1.000	1.000	0.0	126	0.00
30	Pyrene	1.464	1.625	-11.0	141	-0.01
31 S	Terphenyl-d14	0.649	0.685	-5.5	126	-0.02
32	Benzo(a)anthracene	1.289	1.304	-1.2	137	0.00
33	Chrysene	1.449	1.341	7.5	117	0.00
34	Bis(2-ethylhexyl)phthalate	0.545	0.781	-43.3#	201#	0.00
35 I	Perylene-d12	1.000	1.000	0.0	121	-0.02
36	Indeno(1,2,3-cd)pyrene	1.793	1.443	19.5	103	-0.03
37	Benzo(b)fluoranthene	1.658	1.530	7.7	116	-0.02
38	Benzo(k)fluoranthene	1.684	1.462	13.2	110	-0.02
39 C	Benzo(a)pyrene	1.244	1.151	7.5	125	-0.03
40	Dibenzo(a,h)anthracene	1.439	1.132	21.3	100	-0.03
41	Benzo(g,h,i)perylene	1.537	1.227	20.2	98	-0.04

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023280.D  
 Acq On : 19 Dec 2022 11:22  
 Operator : CG/JU  
 Sample : SSTDCCC0.4  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 LabSampleId :  
 SSTDCCC0.4

Quant Time: Dec 19 15:45:22 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 19 15:44:58 2022  
 Response via : Initial Calibration

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	1,4-Dichlorobenzene-d4	0.400	0.400	0.0	111	-0.02
2	1,4-Dioxane	0.400	0.446	-11.5	121	-0.01
3	n-Nitrosodimethylamine	0.400	0.367	8.3	106	-0.01
4 S	2-Fluorophenol	0.400	0.497	-24.2	138	0.00
5 S	Phenol-d6	0.400	0.499	-24.7	143	-0.01
6	bis(2-Chloroethyl)ether	0.400	0.396	1.0	107	-0.01
7 I	Naphthalene-d8	0.400	0.400	0.0	120	-0.02
8 S	Nitrobenzene-d5	0.400	0.412	-3.0	132	-0.02
9	Naphthalene	0.400	0.388	3.0	119	-0.01
10	Hexachlorobutadiene	0.400	0.395	1.3	118	-0.02
11 SURR	2-Methylnaphthalene-d10	0.400	0.369	7.8	117	-0.02
12	2-Methylnaphthalene	0.400	0.560	-40.0#	174	-0.01
13 I	Acenaphthene-d10	0.400	0.400	0.0	135	-0.01
14 S	2,4,6-Tribromophenol	0.400	0.474	-18.5	176	-0.01
15 S	2-Fluorobiphenyl	0.400	0.352	12.0	118	-0.01
16	Acenaphthylene	0.400	0.382	4.5	141	-0.01
17	Acenaphthene	0.400	0.372	7.0	130	-0.01
18	Fluorene	0.400	0.458	-14.5	159	-0.01
19 I	Phenanthrene-d10	0.400	0.400	0.0	133	-0.01
20	4,6-Dinitro-2-methylphenol	0.400	0.362	9.5	75	-0.01
21	4-Bromophenyl-phenylether	0.400	0.393	1.8	137	-0.01
22	Hexachlorobenzene	0.400	0.381	4.8	127	-0.01
23	Atrazine	0.400	0.402	-0.5	151	-0.01
24	Pentachlorophenol	0.400	0.359	10.3	145	-0.01
25	Phenanthrene	0.400	0.373	6.8	129	-0.01
26	Anthracene	0.400	0.379	5.3	140	-0.01
27 SURR	Fluoranthene-d10	0.400	0.406	-1.5	144	-0.01
28	Fluoranthene	0.400	0.384	4.0	136	-0.01
29 I	Chrysene-d12	0.400	0.400	0.0	126	0.00
30	Pyrene	0.400	0.444	-11.0	141	-0.01
31 S	Terphenyl-d14	0.400	0.422	-5.5	126	-0.02
32	Benzo(a)anthracene	0.400	0.405	-1.3	137	0.00
33	Chrysene	0.400	0.370	7.5	117	0.00
34	Bis(2-ethylhexyl)phthalate	0.400	0.573	-43.2#	201	0.00
35 I	Perylene-d12	0.400	0.400	0.0	121	-0.02
36	Indeno(1,2,3-cd)pyrene	0.400	0.322	19.5	103	-0.03
37	Benzo(b)fluoranthene	0.400	0.369	7.8	116	-0.02
38	Benzo(k)fluoranthene	0.400	0.347	13.3	110	-0.02
39 C	Benzo(a)pyrene	0.400	0.370	7.5	125	-0.03
40	Dibenzo(a,h)anthracene	0.400	0.315	21.3	100	-0.03
41	Benzo(g,h,i)perylene	0.400	0.319	20.3	98	-0.04

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

QC SAMPLE  
DATA

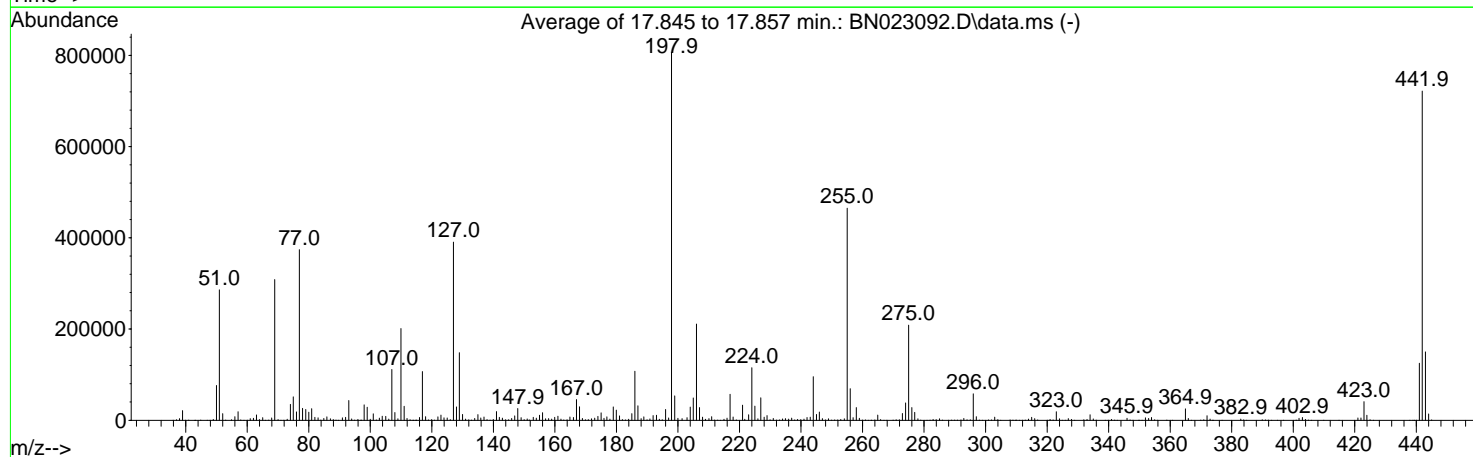
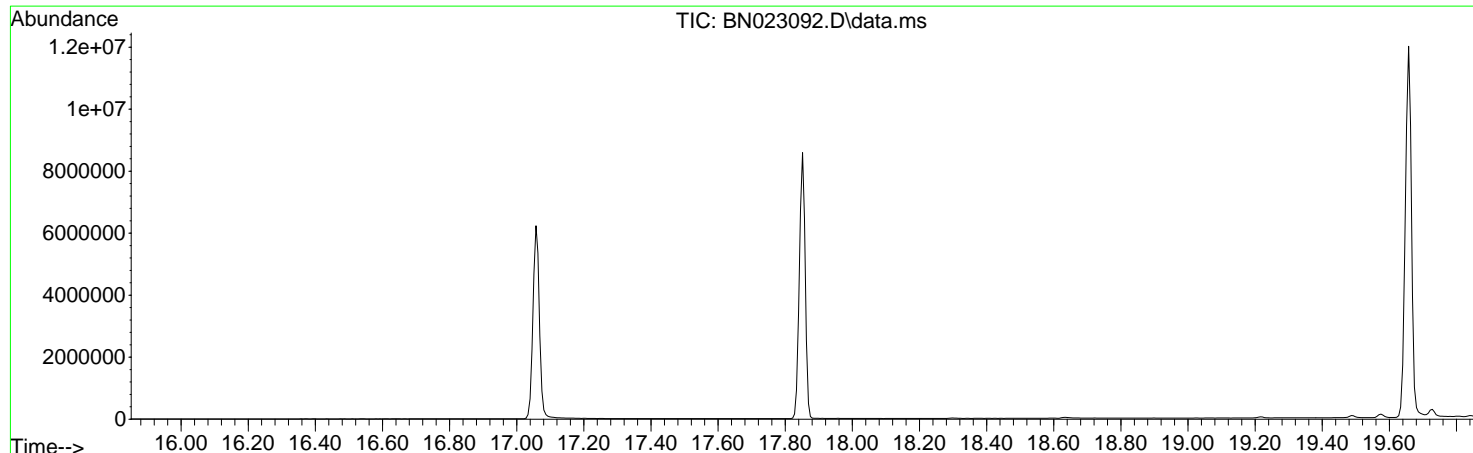
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Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN120822\  
 Data File : BN023092.D  
 Acq On : 08 Dec 2022 12:45  
 Operator : CG/JU  
 Sample : DFTPP  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Fri Dec 09 07:44:40 2022



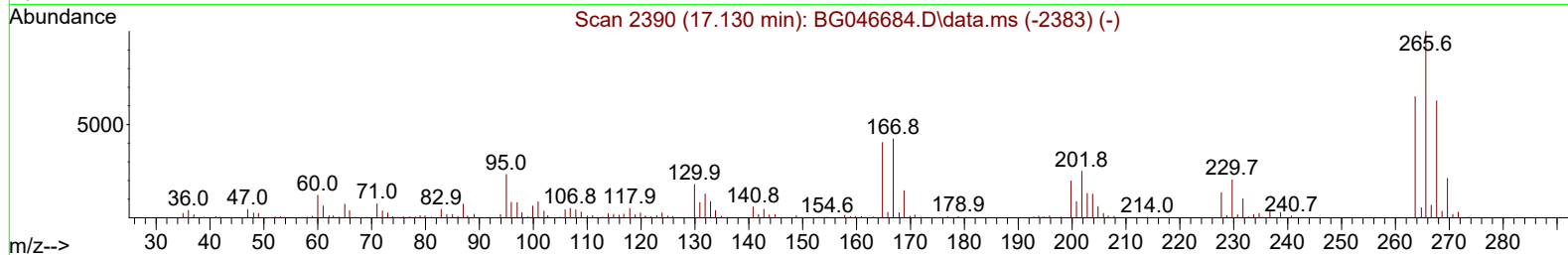
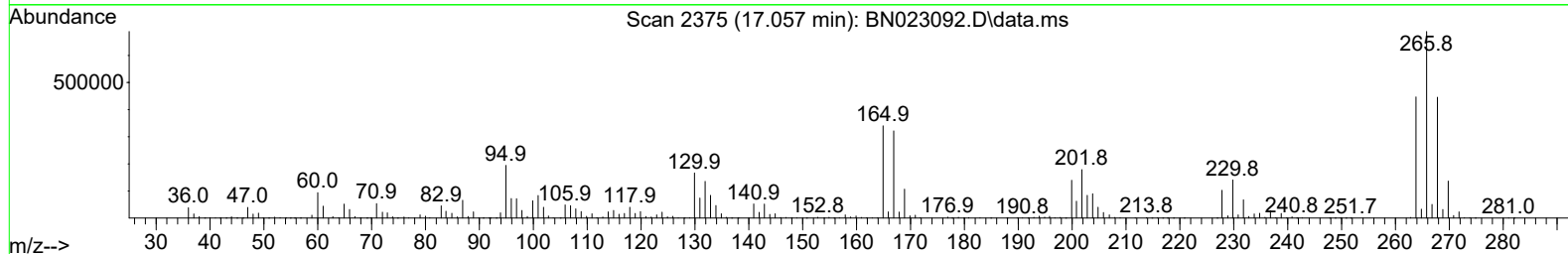
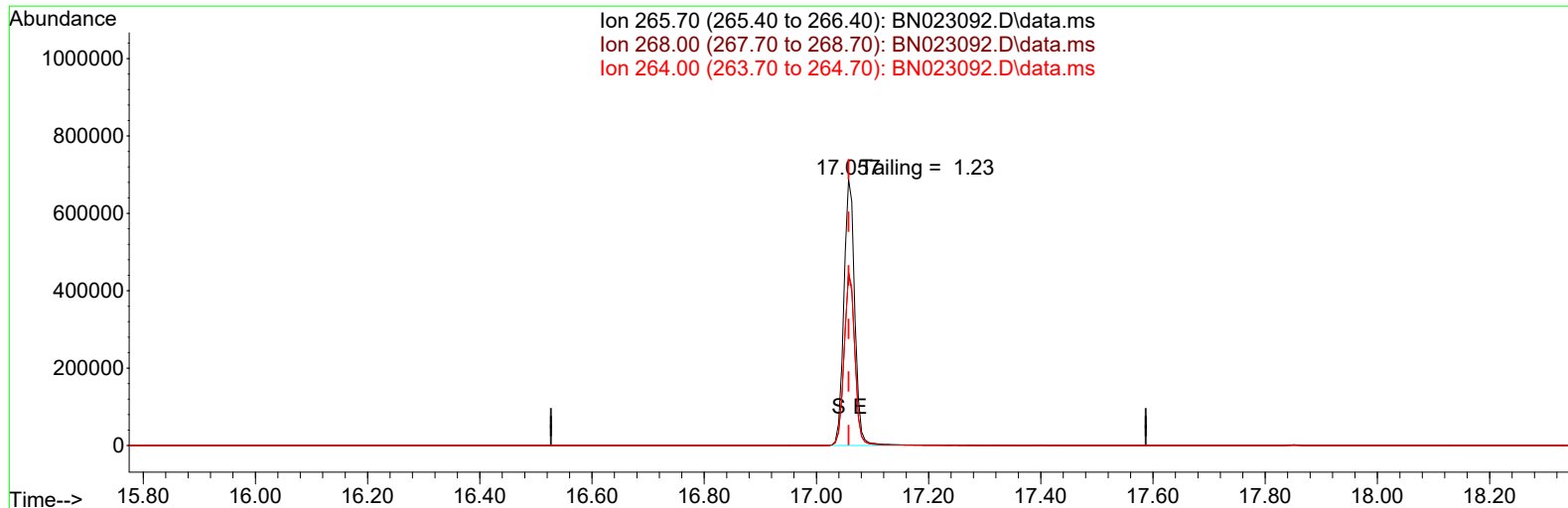
AutoFind: Scans 2509, 2510, 2511; Background Corrected with Scan 2501

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	35.5	286051	PASS
68	69	0.00	2	1.6	5003	PASS
69	198	0.00	100	38.2	308437	PASS
70	69	0.00	2	0.5	1672	PASS
127	198	10	80	48.4	390485	PASS
197	198	0.00	2	0.6	5002	PASS
198	198	100	100	100.0	806400	PASS
199	198	5	9	6.6	53560	PASS
275	198	10	60	25.9	208533	PASS
365	198	1	100	3.1	25240	PASS
441	198	0.01	100	15.5	125061	PASS
442	442	50	100	100.0	721600	PASS
443	442	15	24	20.8	149963	PASS

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN120822\  
 Data File : BN023092.D  
 Acq On : 08 Dec 2022 12:45  
 Operator : CG/JU  
 Sample : DFTPP  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 DFTPP

Quant Time: Dec 09 09:10:53 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270E-Tune.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 09:10:48 2022  
 Response via : Initial Calibration



TIC: BN023092.D\data.ms

(70) Pentachlorophenol (C)

17.057min ( 0.000) 22077.14 ng

response 935928

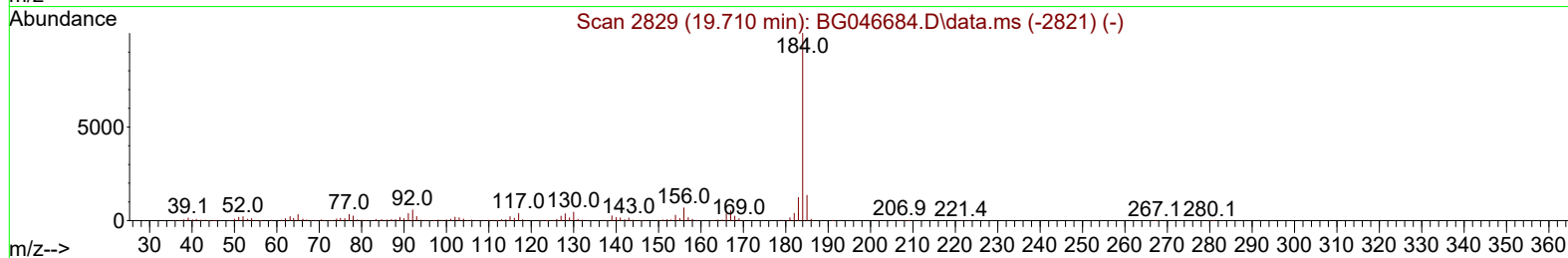
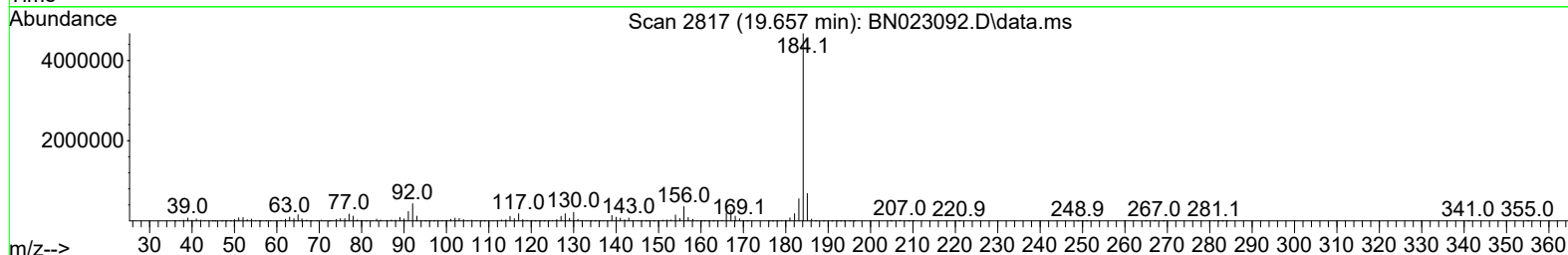
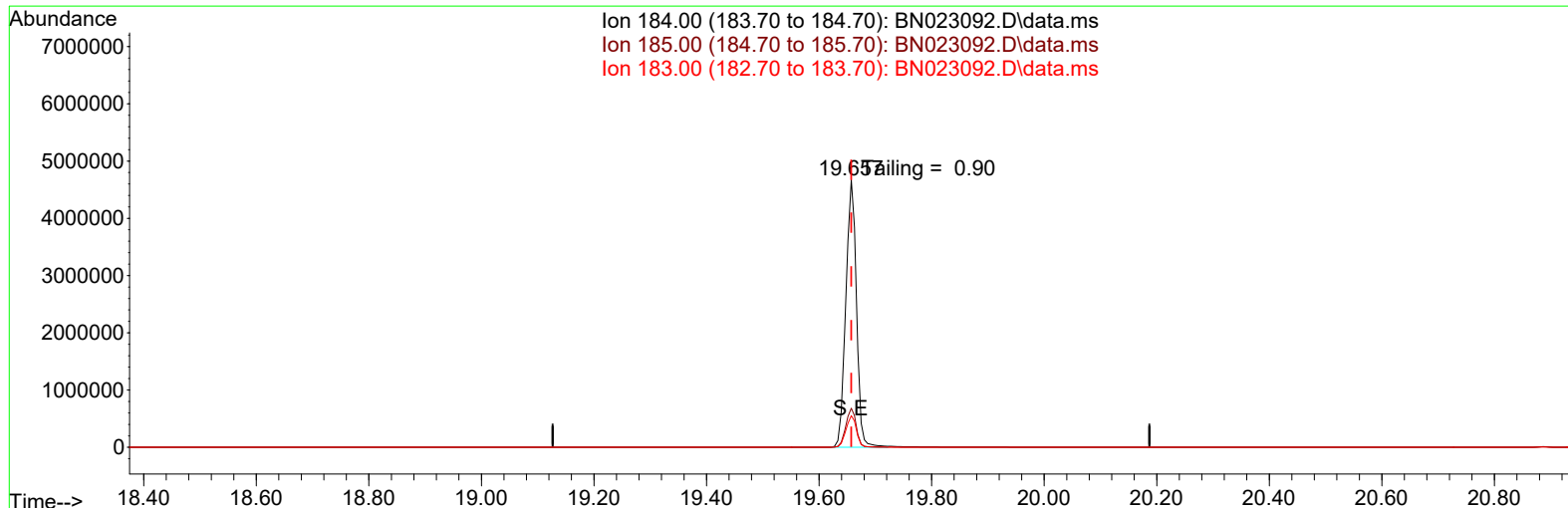
Ion	Exp%	Act%
265.70	100.00	100.00
268.00	62.20	64.79
264.00	61.60	64.96
0.00	0.00	0.00



Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN120822\  
 Data File : BN023092.D  
 Acq On : 08 Dec 2022 12:45  
 Operator : CG/JU  
 Sample : DFTPP  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 DFTPP

Quant Time: Dec 09 09:10:53 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270E-Tune.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Fri Dec 09 09:10:48 2022  
 Response via : Initial Calibration



TIC: BN023092.D\data.ms

(77) Benzidine

19.657min ( 0.000) 3431862.86 ng

response 6135730

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	15.50	14.62
183.00	13.20	11.85
0.00	0.00	0.00

Instrument :  
BNA\_N  
ClientSampleId :  
DFTPP

DDT Breakdown

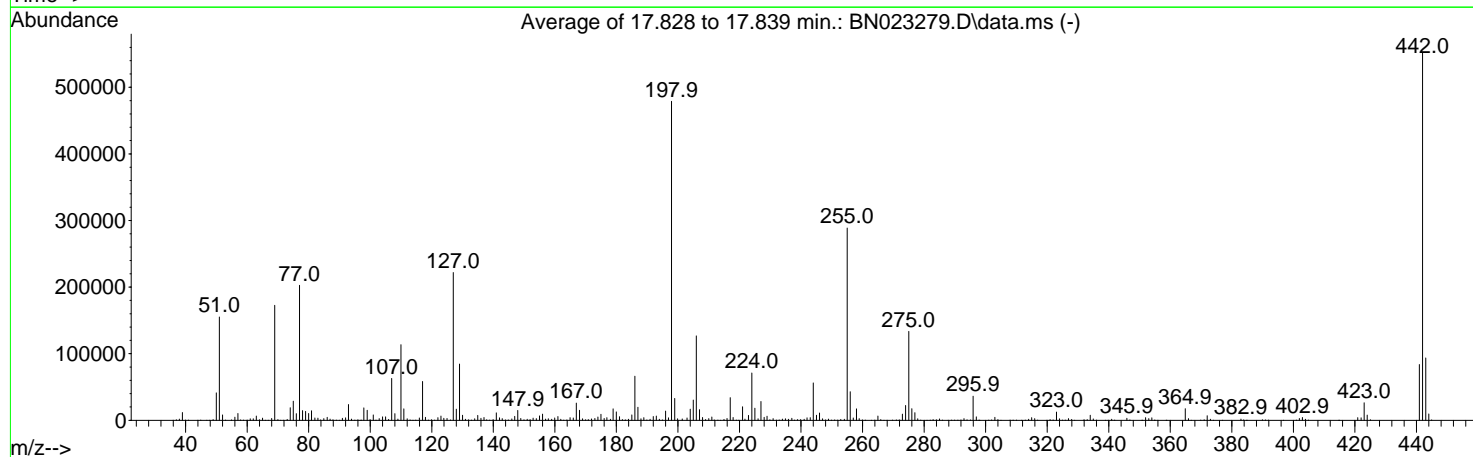
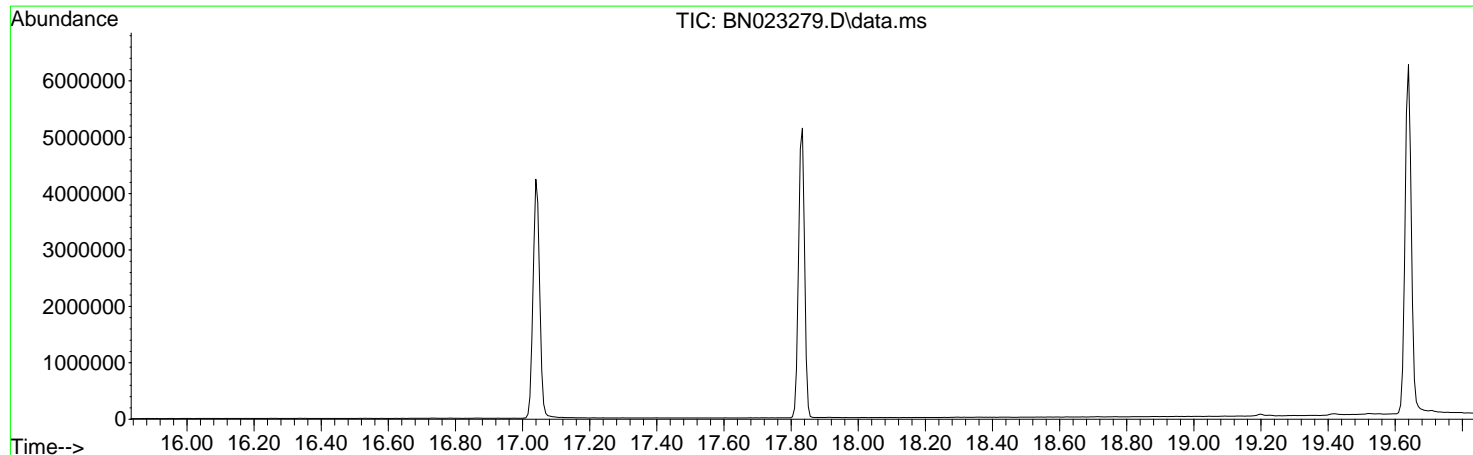
Date	Instrument Name	DFTPP Data File
12/8/2022	BNA_N	<u>BN023092.D</u>
Compound Name	Response	Retention Time
DDT	2597977	20.886
DDD	21198	20.498
DDE	214	19.939
SUM(DDD+DDE)	SUM(DDT+DDD+DDE)	% Breakdown Of DDT
21412	2619389	0.82

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023279.D  
 Acq On : 19 Dec 2022 10:45  
 Operator : CG/JU  
 Sample : DFTPP  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 DFTPP

Integration File: rteint.p

Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 Last Update : Mon Dec 19 15:44:58 2022



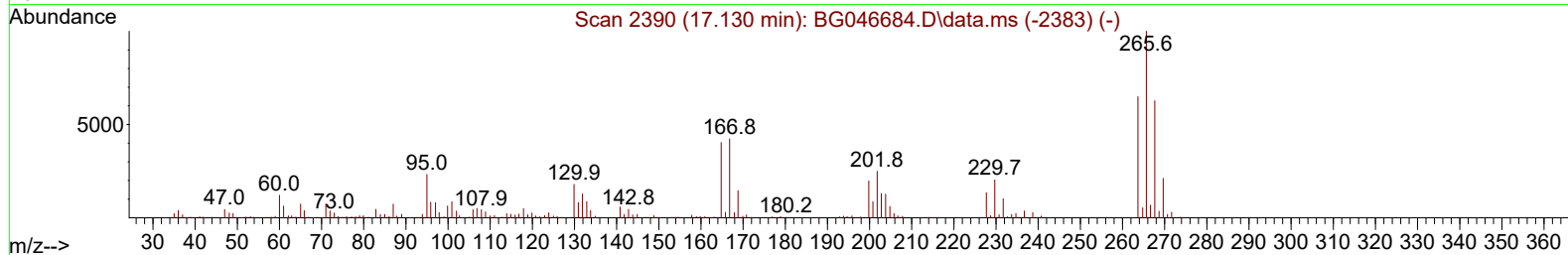
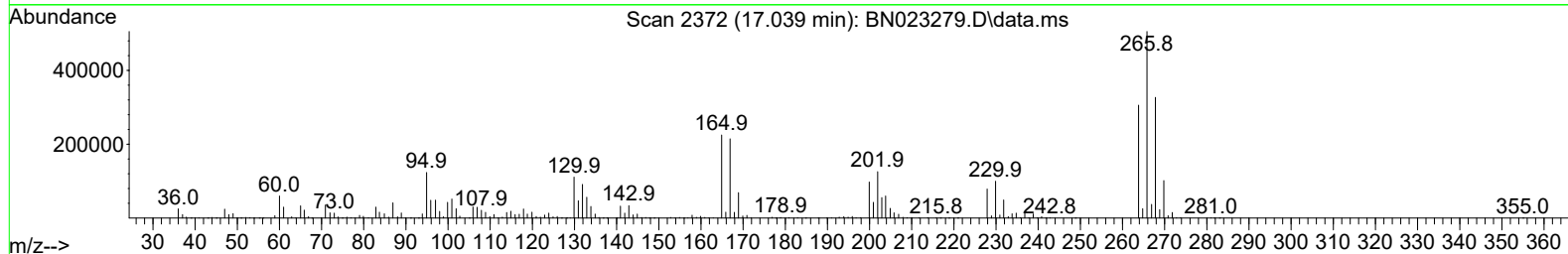
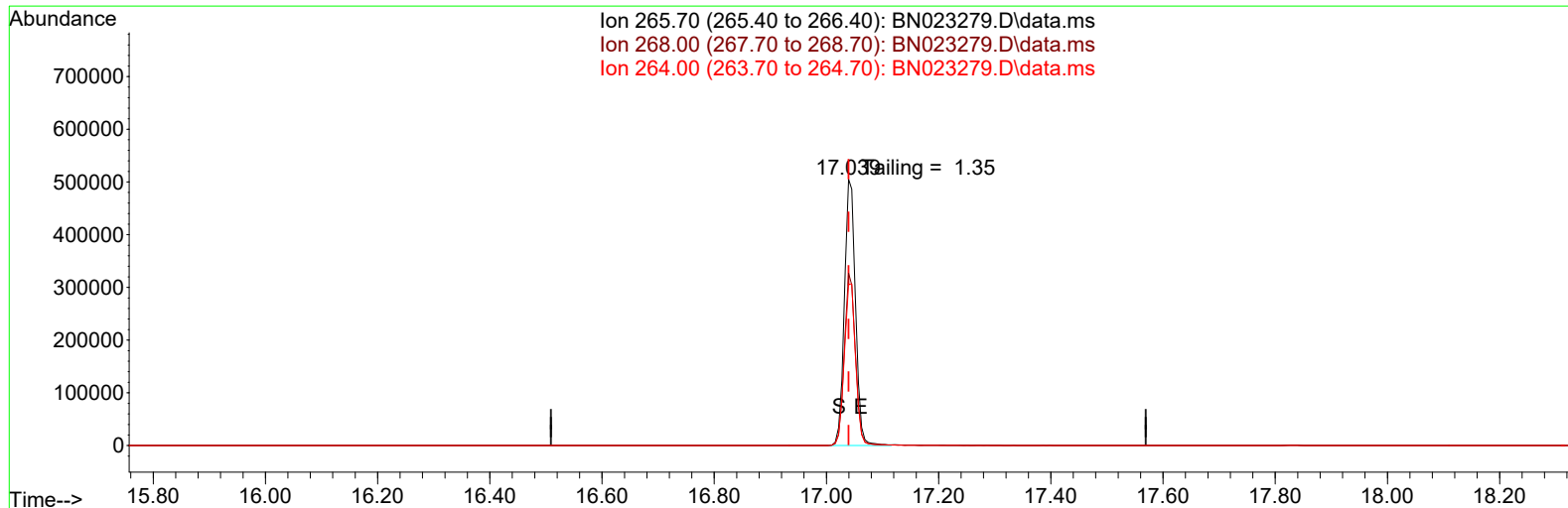
AutoFind: Scans 2506, 2507, 2508; Background Corrected with Scan 2498

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	32.4	155011	PASS
68	69	0.00	2	1.6	2838	PASS
69	198	0.00	100	36.0	172621	PASS
70	69	0.00	2	0.6	1058	PASS
127	198	10	80	46.3	221845	PASS
197	198	0.00	2	0.8	3681	PASS
198	198	100	100	100.0	478933	PASS
199	198	5	9	6.8	32725	PASS
275	198	10	60	27.9	133419	PASS
365	198	1	100	3.6	17402	PASS
441	198	0.01	100	17.5	83835	PASS
442	442	50	100	100.0	552363	PASS
443	442	15	24	16.9	93541	PASS

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023279.D  
 Acq On : 19 Dec 2022 10:45  
 Operator : CG/JU  
 Sample : DFTPP  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 DFTPP

Quant Time: Dec 20 06:26:08 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270E-Tune.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Tue Dec 20 06:26:03 2022  
 Response via : Initial Calibration



TIC: BN023279.D\data.ms

(70) Pentachlorophenol (C)

17.039min ( 0.000) 25233.58 ng

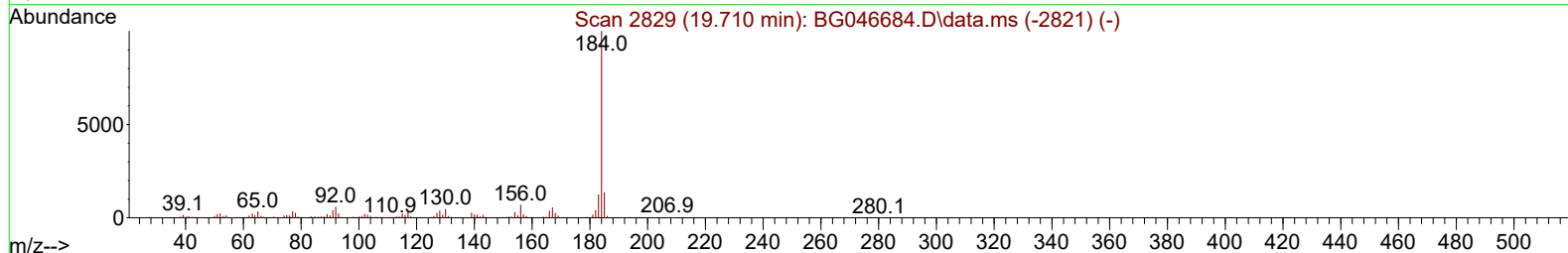
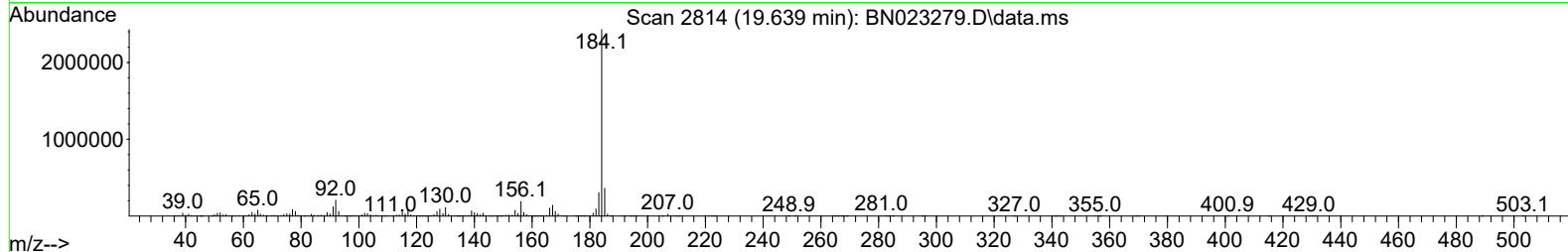
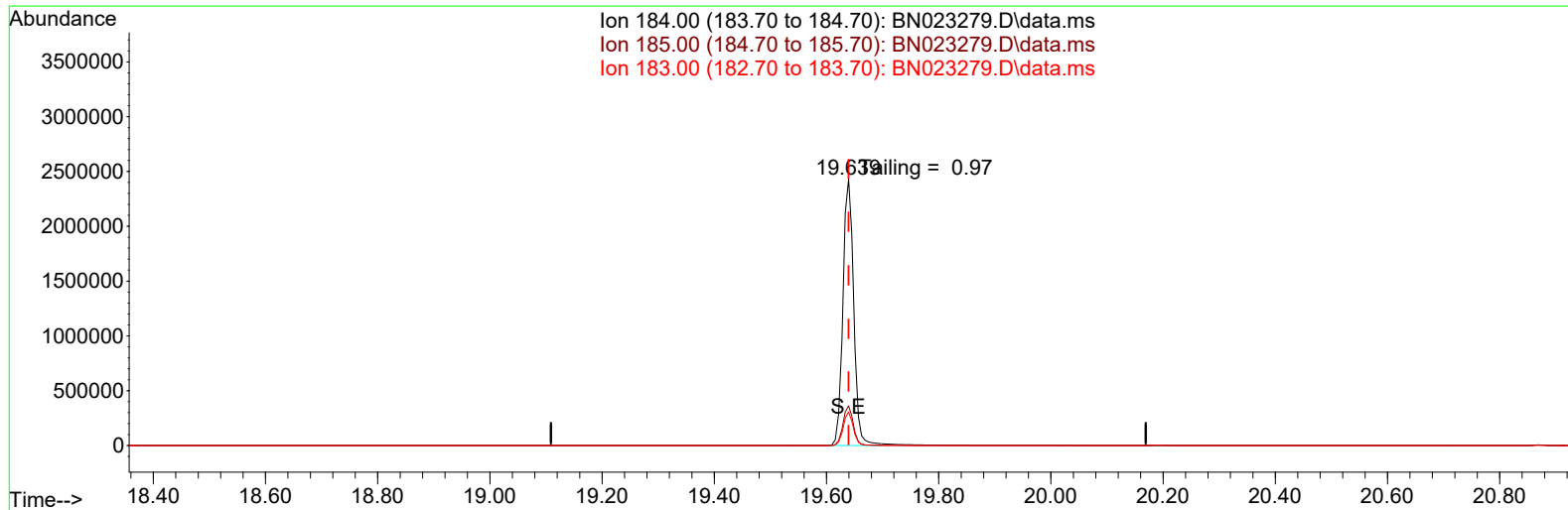
response 695470

Ion	Exp%	Act%
265.70	100.00	100.00
268.00	62.20	64.68
264.00	61.60	60.53
0.00	0.00	0.00

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023279.D  
 Acq On : 19 Dec 2022 10:45  
 Operator : CG/JU  
 Sample : DFTPP  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 DFTPP

Quant Time: Dec 20 06:26:08 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270E-Tune.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Tue Dec 20 06:26:03 2022  
 Response via : Initial Calibration



TIC: BN023279.D\data.ms

(77) Benzidine

19.639min ( 0.000) 579785.01 ng

response 3234848

Ion	Exp%	Act%
184.00	100.00	100.00
185.00	15.50	14.91
183.00	13.20	12.65
0.00	0.00	0.00

Instrument :  
BNA\_N  
ClientSampleId :  
DFTPP

DDT Breakdown

Date	Instrument Name	DFTPP Data File
12/19/2022	BNA_N	<u>BN023279.D</u>
Compound Name	Response	Retention Time
DDT	1544427	20.869
DDD	201124	20.427
DDE	7574	19.922
SUM(DDD+DDE)	SUM(DDT+DDD+DDE)	% Breakdown Of DDT
208698	1753125	11.90



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

## Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	
Project:	Former Schlumberger Site Princeton NJ	Date Received:	
Client Sample ID:	PB149692BL	SDG No.:	N6070
Lab Sample ID:	PB149692BL	Matrix:	Water
Analytical Method:	SW8270SIM	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN023281.D	1	12/16/22 08:59	12/19/22 12:02	PB149692

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
123-91-1	1,4-Dioxane	0.080	U	0.080	0.20	ug/L
<b>SURROGATES</b>						
7297-45-2	2-Methylnaphthalene-d10	0.37		30 (30) - 150 (150)	94%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.37		30 (30) - 150 (150)	93%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.41		30 (11) - 130 (175)	102%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.35		30 (10) - 130 (175)	87%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.46		30 (54) - 130 (171)	114%	SPK: 0.4
<b>INTERNAL STANDARDS</b>						
3855-82-1	1,4-Dichlorobenzene-d4	8900	7.999			
1146-65-2	Naphthalene-d8	28100	10.818			
15067-26-2	Acenaphthene-d10	17400	14.645			
1517-22-2	Phenanthrene-d10	38500	17.39			
1719-03-5	Chrysene-d12	26400	21.58			
1520-96-3	Perylene-d12	19400	24.027			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023281.D  
 Acq On : 19 Dec 2022 12:02  
 Operator : CG/JU  
 Sample : PB149692BL  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BL

Quant Time: Dec 19 15:45:25 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 19 15:44:58 2022  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) 1,4-Dichlorobenzene-d4	7.999	152	8904	0.400 ng	0.00
7) Naphthalene-d8	10.818	136	28123	0.400 ng	0.00
13) Acenaphthene-d10	14.645	164	17435	0.400 ng	0.00
19) Phenanthrene-d10	17.390	188	38498	0.400 ng	# 0.00
29) Chrysene-d12	21.580	240	26428	0.400 ng	0.00
35) Perylene-d12	24.027	264	19388	0.400 ng	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	5.543	112	9396	0.567 ng	0.00
5) Phenol-d6	7.154	99	12090	0.573 ng	0.00
8) Nitrobenzene-d5	9.163	82	7571	0.409 ng	0.00
11) 2-Methylnaphthalene-d10	12.405	152	17845	0.374 ng	0.00
14) 2,4,6-Tribromophenol	16.136	330	1986	0.314 ng	0.00
15) 2-Fluorobiphenyl	13.276	172	24341	0.349 ng	0.00
27) Fluoranthene-d10	19.422	212	33448	0.371 ng	0.00
31) Terphenyl-d14	20.013	244	19618	0.457 ng	0.00

Target Compounds Qvalue

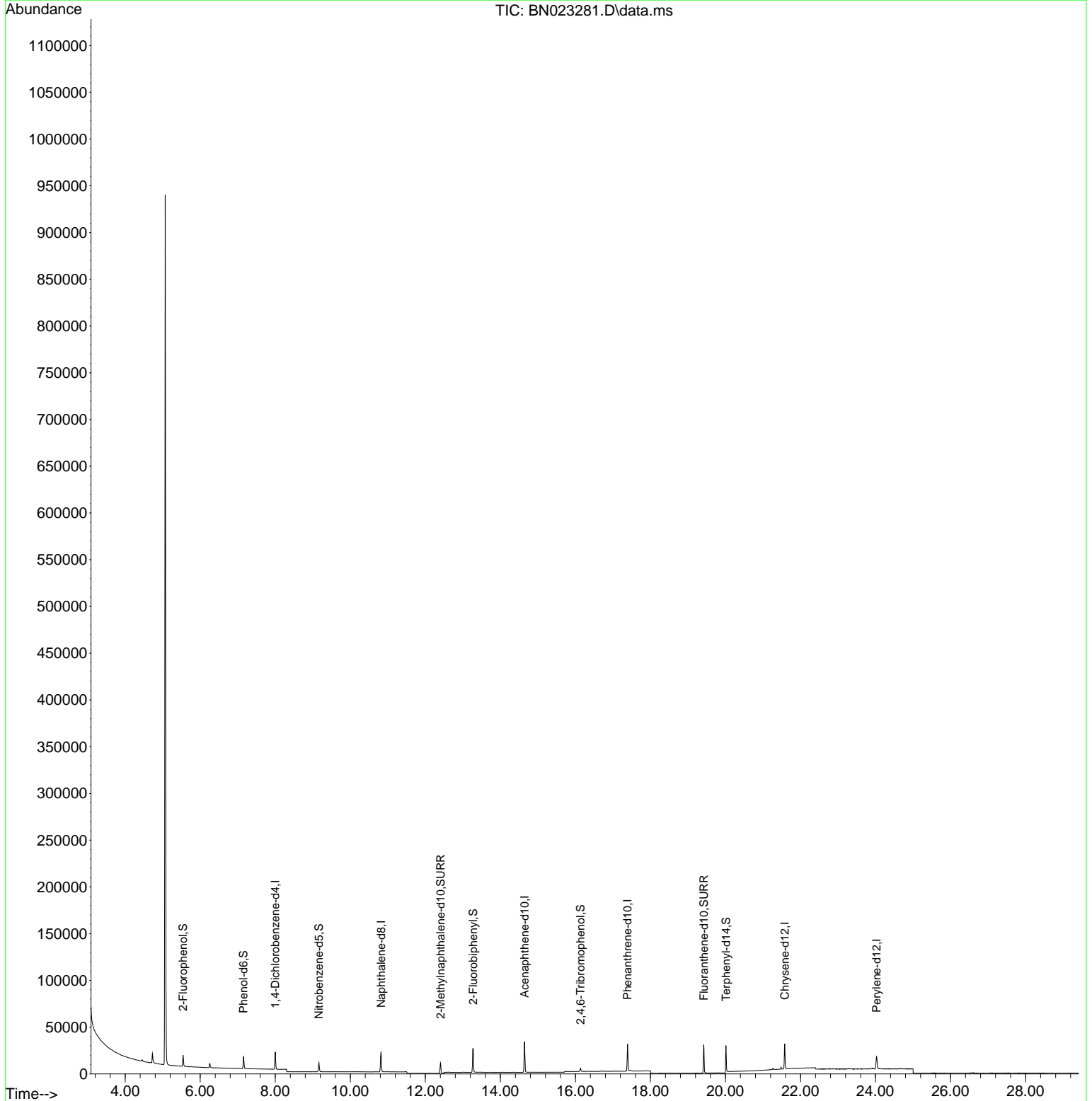
(#) = qualifier out of range (m) = manual integration (+) = signals summed



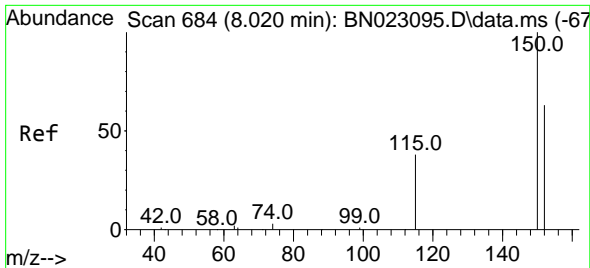
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 Data File : BN023281.D  
 Acq On : 19 Dec 2022 12:02  
 Operator : CG/JU  
 Sample : PB149692BL  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 PB149692BL

Quant Time: Dec 19 15:45:25 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 19 15:44:58 2022  
 Response via : Initial Calibration

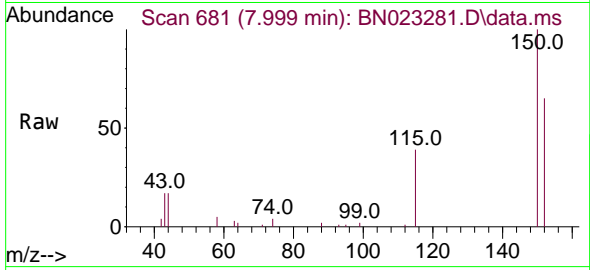


- 1
- 2
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- 14
- 15
- 16
- 17

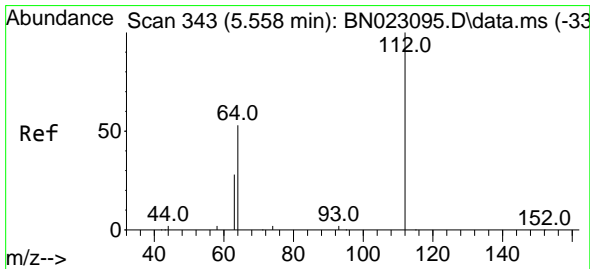
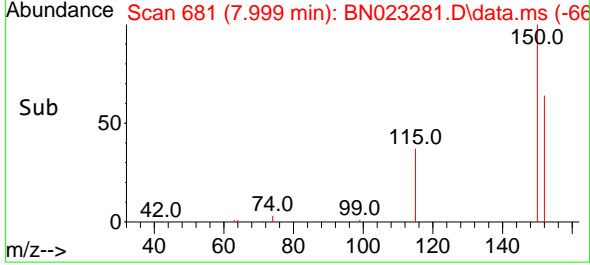
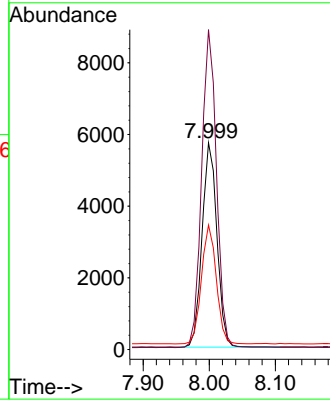


#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 7.999 min Scan# 681  
 Delta R.T. -0.000 min  
 Lab File: BN023281.D  
 Acq: 19 Dec 2022 12:02

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BL

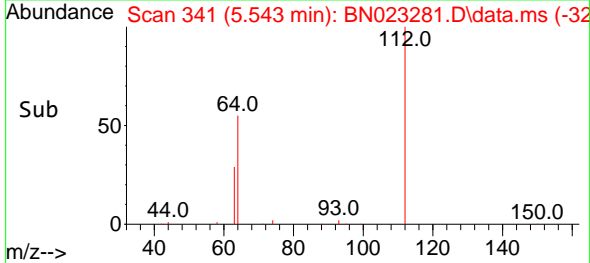
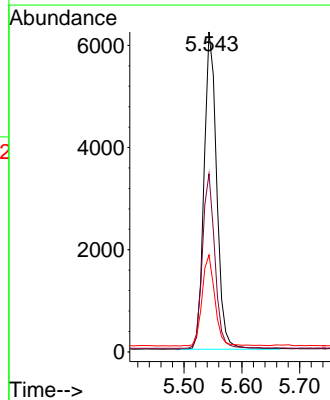
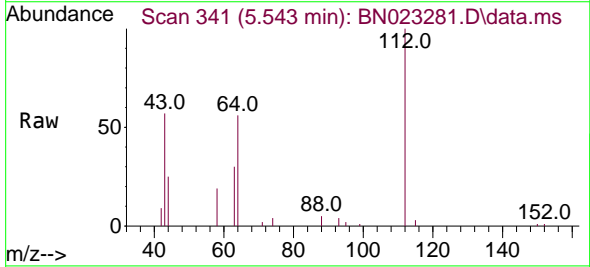


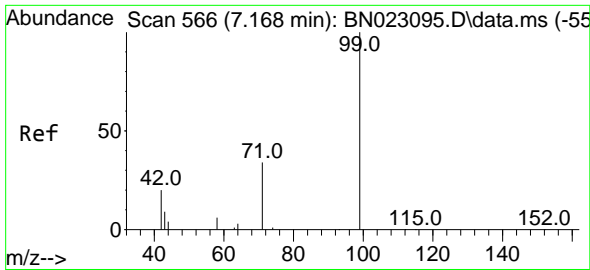
Tgt Ion:152 Resp: 8904  
 Ion Ratio Lower Upper  
 152 100  
 150 154.8 125.6 188.4  
 115 60.3 49.0 73.4



#4  
 2-Fluorophenol  
 Concen: 0.567 ng  
 RT: 5.543 min Scan# 341  
 Delta R.T. -0.000 min  
 Lab File: BN023281.D  
 Acq: 19 Dec 2022 12:02

Tgt Ion:112 Resp: 9396  
 Ion Ratio Lower Upper  
 112 100  
 64 54.1 44.4 66.6  
 63 29.3 23.7 35.5

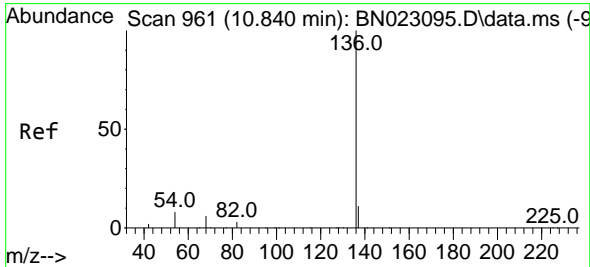
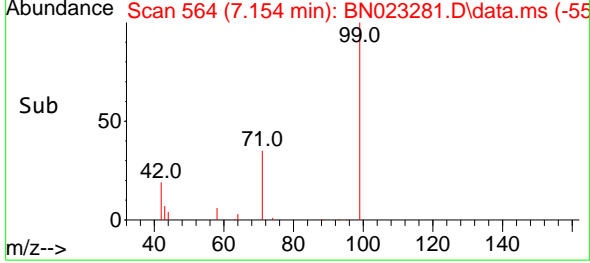
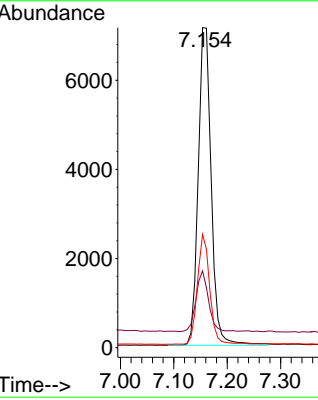
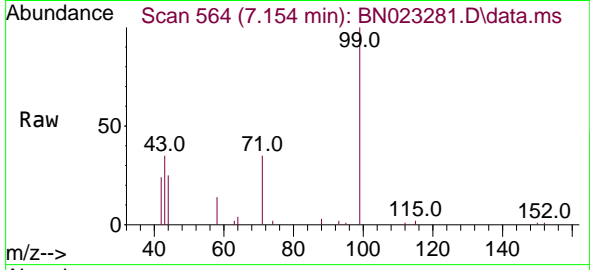




#5  
 Phenol-d6  
 Concen: 0.573 ng  
 RT: 7.154 min Scan# 500  
 Delta R.T. -0.000 min  
 Lab File: BN023281.D  
 Acq: 19 Dec 2022 12:02

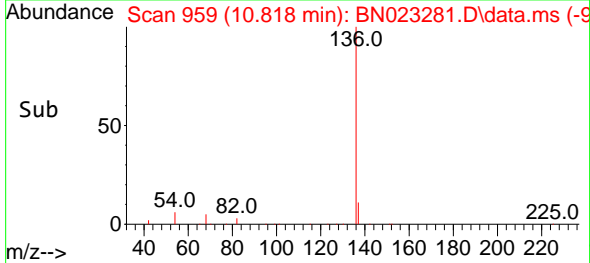
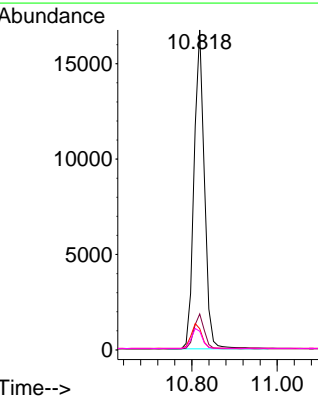
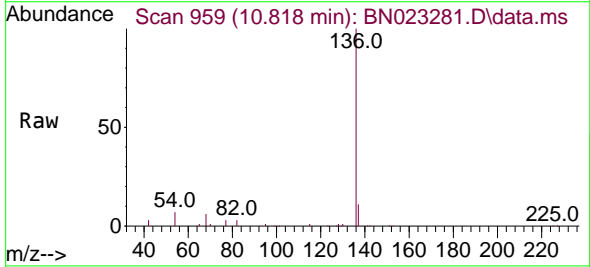
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BL

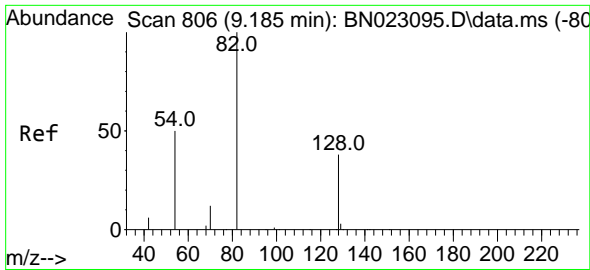
Tgt Ion	Resp	Lower	Upper
99	12090		
42	18.1	16.3	24.5
71	32.8	26.5	39.7



#7  
 Naphthalene-d8  
 Concen: 0.400 ng  
 RT: 10.818 min Scan# 959  
 Delta R.T. -0.000 min  
 Lab File: BN023281.D  
 Acq: 19 Dec 2022 12:02

Tgt Ion	Resp	Lower	Upper
136	28123		
137	11.2	9.0	13.4
54	6.6	6.5	9.7
68	5.8	5.4	8.2

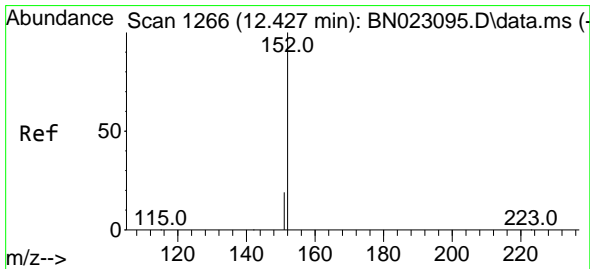
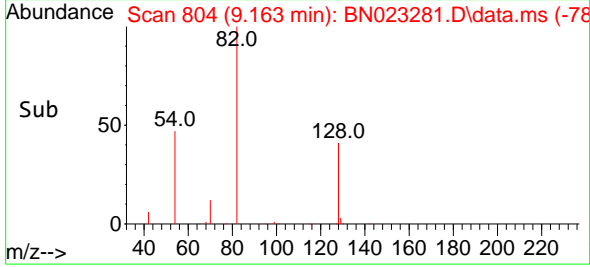
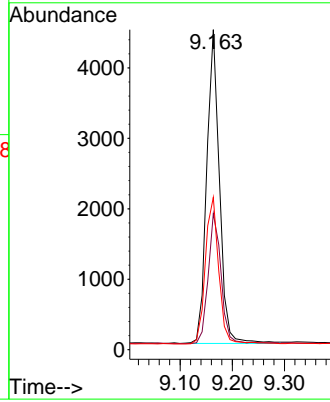
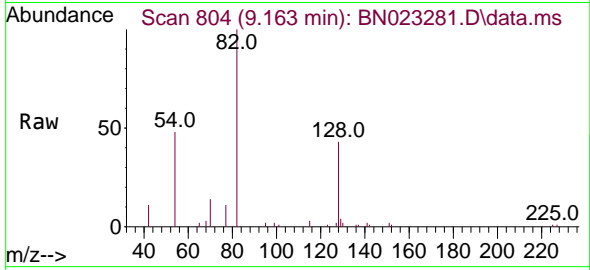




#8  
 Nitrobenzene-d5  
 Concen: 0.409 ng  
 RT: 9.163 min Scan# 804  
 Delta R.T. -0.000 min  
 Lab File: BN023281.D  
 Acq: 19 Dec 2022 12:02

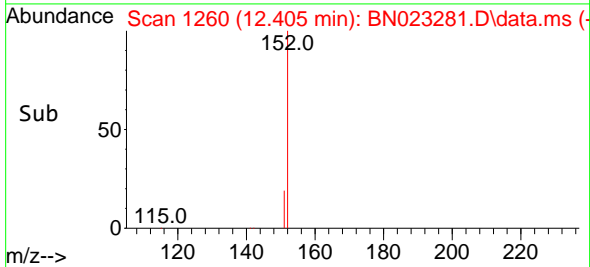
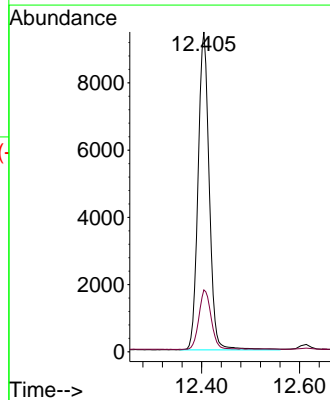
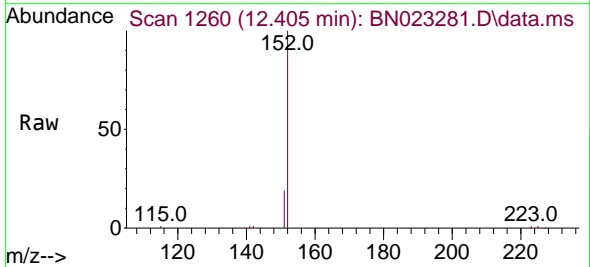
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BL

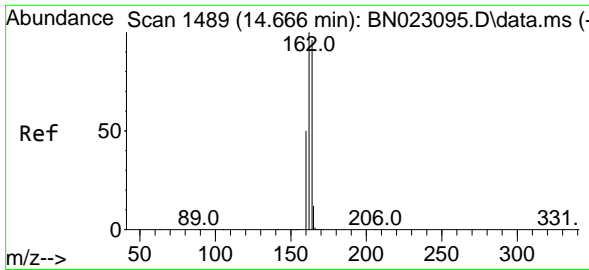
Tgt Ion	Resp	Lower	Upper
82	7571		
128	42.6	31.4	47.2
54	47.6	41.0	61.4



#11  
 2-Methylnaphthalene-d10  
 Concen: 0.374 ng  
 RT: 12.405 min Scan# 1260  
 Delta R.T. -0.000 min  
 Lab File: BN023281.D  
 Acq: 19 Dec 2022 12:02

Tgt Ion	Resp	Lower	Upper
152	17845		
151	17.2	15.1	22.7

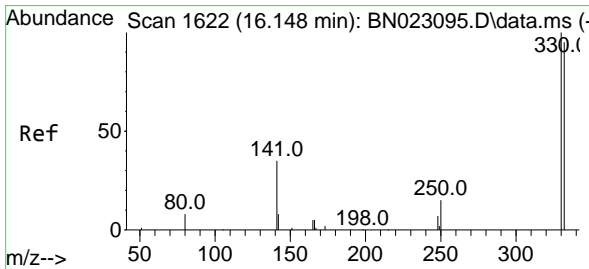
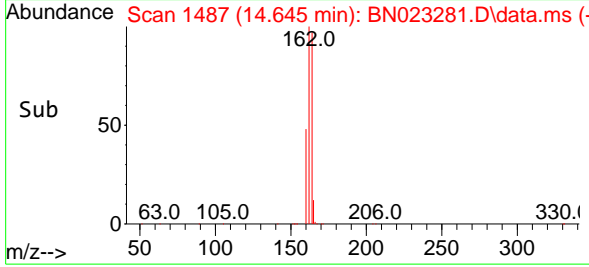
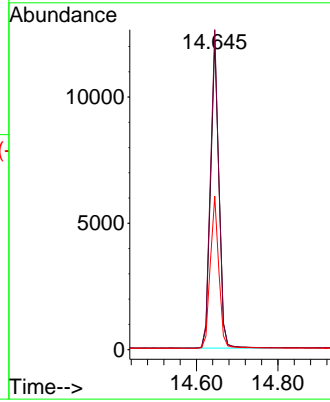
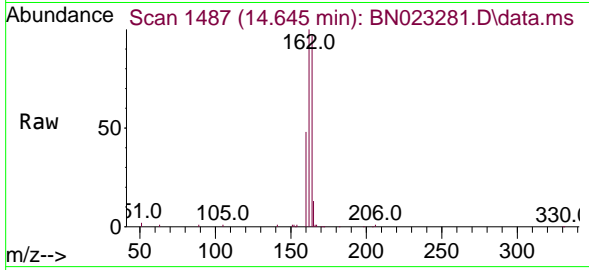




#13  
 Acenaphthene-d10  
 Concen: 0.400 ng  
 RT: 14.645 min Scan# 1487  
 Delta R.T. -0.000 min  
 Lab File: BN023281.D  
 Acq: 19 Dec 2022 12:02

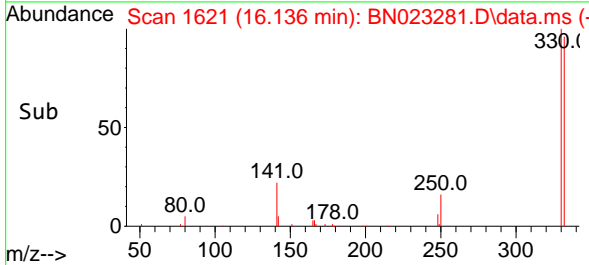
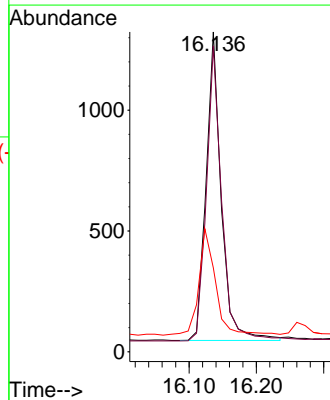
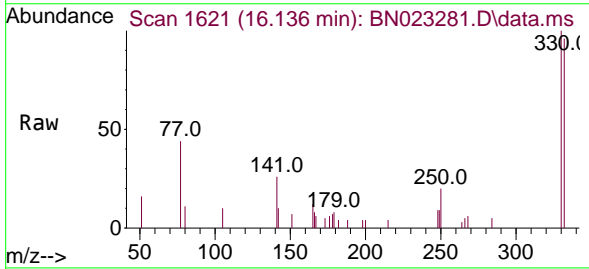
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BL

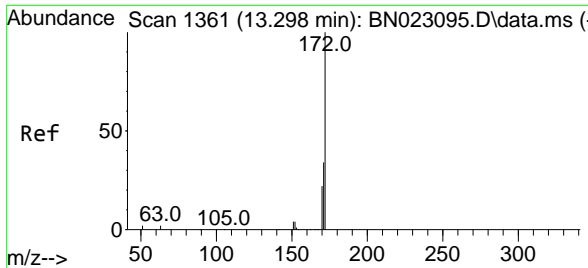
Tgt Ion	Resp	Lower	Upper
164	17435		
162	103.3	83.4	125.0
160	49.5	41.8	62.8



#14  
 2,4,6-Tribromophenol  
 Concen: 0.314 ng  
 RT: 16.136 min Scan# 1621  
 Delta R.T. -0.000 min  
 Lab File: BN023281.D  
 Acq: 19 Dec 2022 12:02

Tgt Ion	Resp	Lower	Upper
330	1986		
332	96.2	77.3	115.9
141	38.3	33.5	50.3

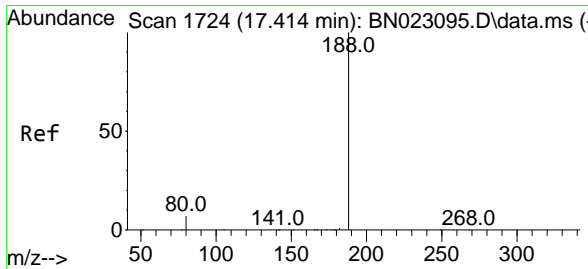
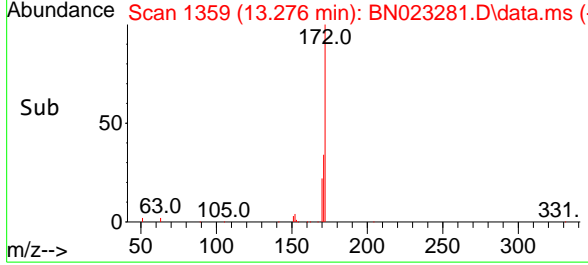
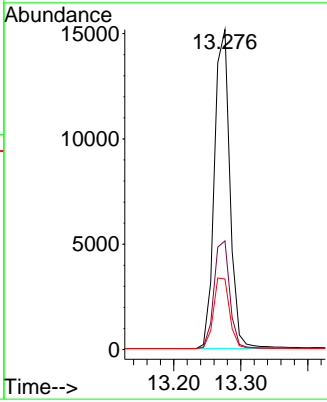
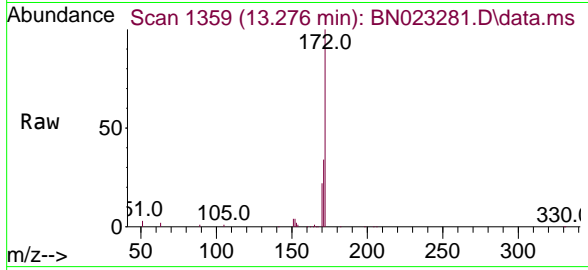




#15  
 2-Fluorobiphenyl  
 Concen: 0.349 ng  
 RT: 13.276 min Scan# 1361  
 Delta R.T. -0.000 min  
 Lab File: BN023281.D  
 Acq: 19 Dec 2022 12:02

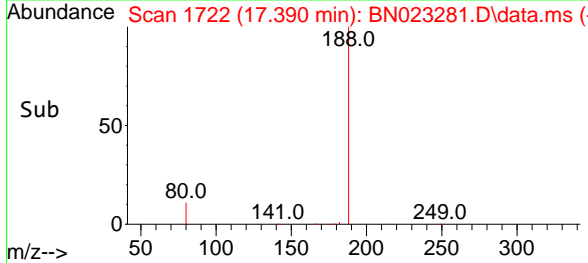
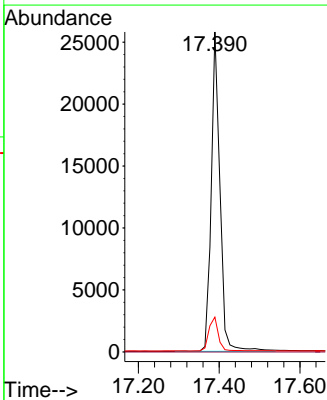
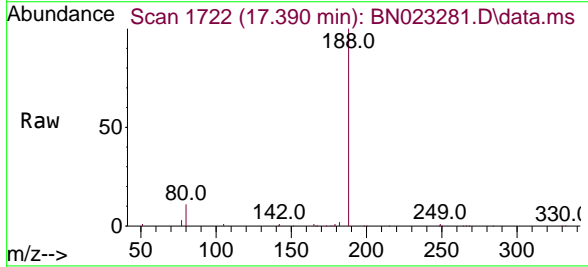
Instrument : BNA\_N  
 ClientSampleId : PB149692BL

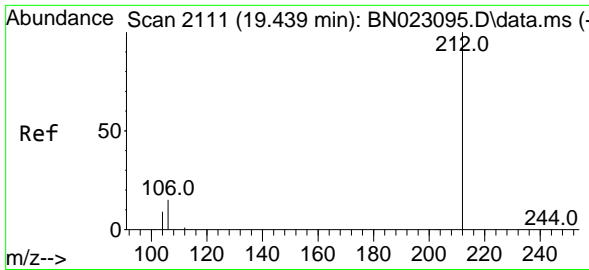
Tgt Ion	Resp	Lower	Upper
172	24341		
171	34.0	27.4	41.0
170	22.1	17.9	26.9



#19  
 Phenanthrene-d10  
 Concen: 0.400 ng  
 RT: 17.390 min Scan# 1722  
 Delta R.T. -0.000 min  
 Lab File: BN023281.D  
 Acq: 19 Dec 2022 12:02

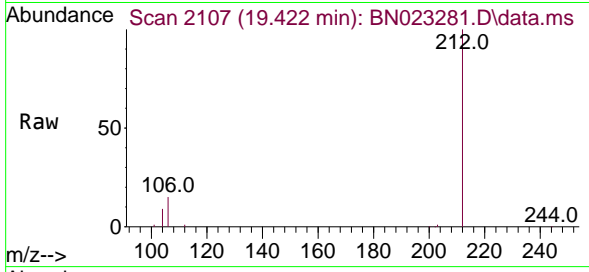
Tgt Ion	Resp	Lower	Upper
188	38498		
94	0.0	0.0	0.0
80	10.9	6.1	9.1#





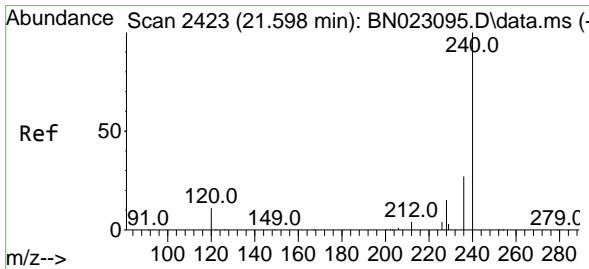
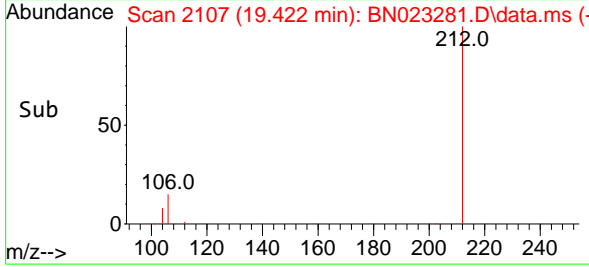
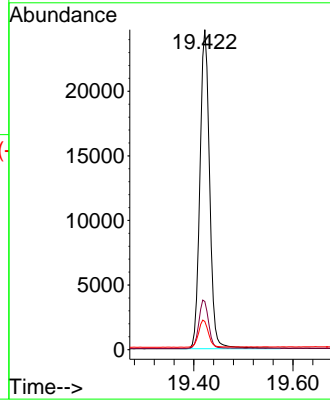
#27  
 Fluoranthene-d10  
 Concen: 0.371 ng  
 RT: 19.422 min Scan# 2111  
 Delta R.T. -0.000 min  
 Lab File: BN023281.D  
 Acq: 19 Dec 2022 12:02

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BL



Tgt Ion: 212 Resp: 33448

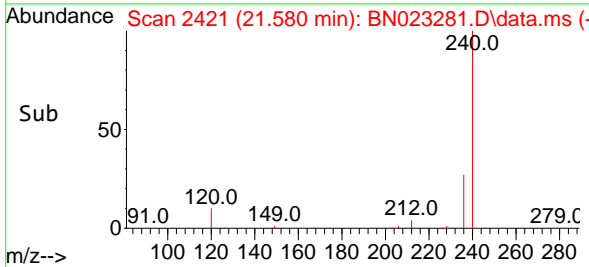
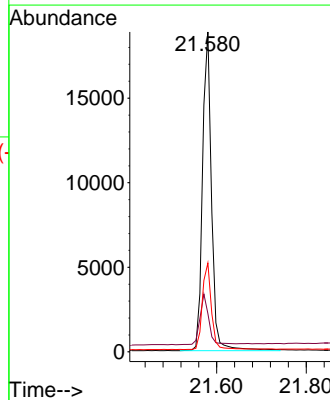
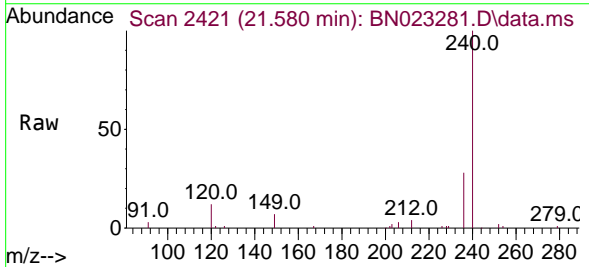
Ion	Ratio	Lower	Upper
212	100		
106	15.1	13.0	19.4
104	8.5	7.5	11.3

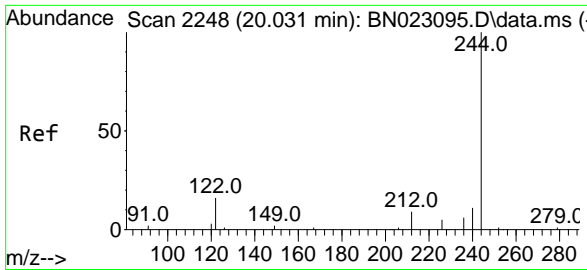


#29  
 Chrysene-d12  
 Concen: 0.400 ng  
 RT: 21.580 min Scan# 2421  
 Delta R.T. -0.000 min  
 Lab File: BN023281.D  
 Acq: 19 Dec 2022 12:02

Tgt Ion: 240 Resp: 26428

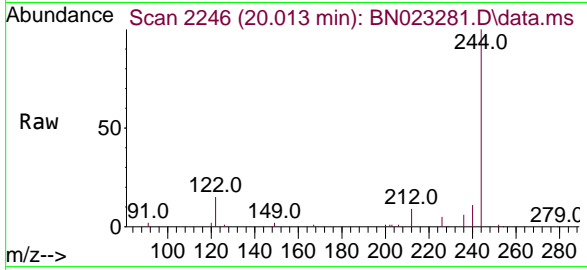
Ion	Ratio	Lower	Upper
240	100		
120	12.0	10.1	15.1
236	27.8	22.2	33.4



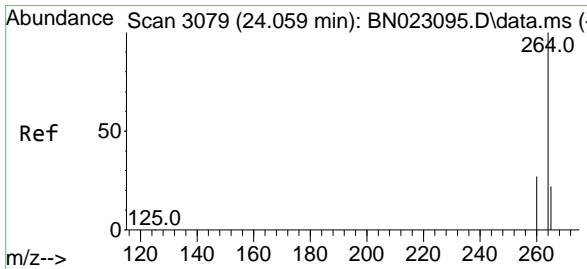
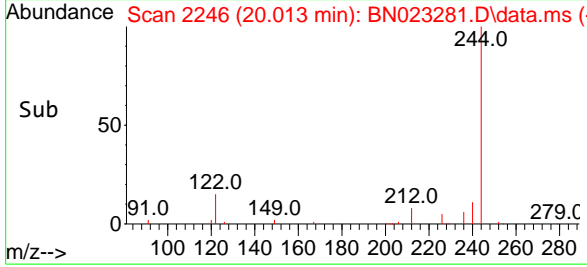
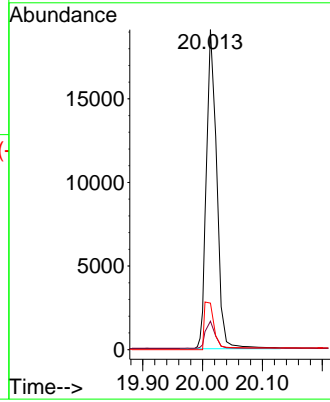


#31  
 Terphenyl-d14  
 Concen: 0.457 ng  
 RT: 20.013 min Scan# 21  
 Delta R.T. -0.000 min  
 Lab File: BN023281.D  
 Acq: 19 Dec 2022 12:02

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BL

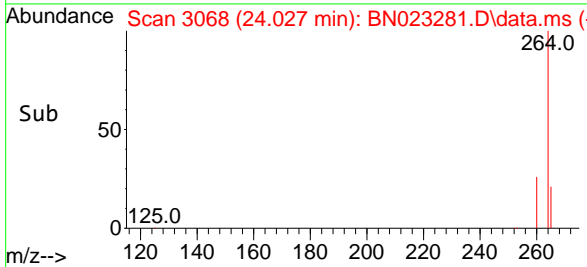
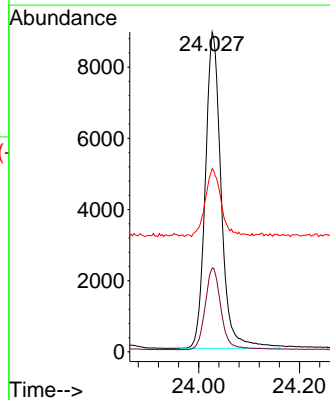
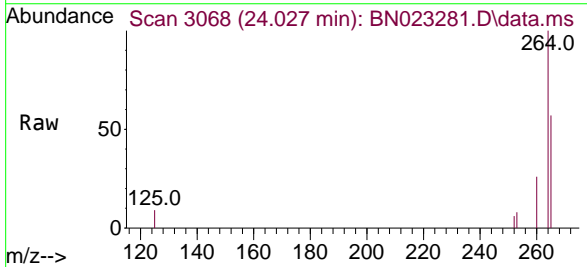


Tgt Ion:244 Resp: 19618  
 Ion Ratio Lower Upper  
 244 100  
 212 8.9 7.6 11.4  
 122 14.5 12.6 18.8



#35  
 Perylene-d12  
 Concen: 0.400 ng  
 RT: 24.027 min Scan# 3068  
 Delta R.T. -0.000 min  
 Lab File: BN023281.D  
 Acq: 19 Dec 2022 12:02

Tgt Ion:264 Resp: 19388  
 Ion Ratio Lower Upper  
 264 100  
 260 26.2 21.7 32.5  
 265 57.3 43.2 64.8







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

## Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	
Project:	Former Schlumberger Site Princeton NJ	Date Received:	
Client Sample ID:	PB149692BS	SDG No.:	N6070
Lab Sample ID:	PB149692BS	Matrix:	Water
Analytical Method:	SW8270SIM	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN023287.D	1	12/16/22 08:59	12/19/22 15:44	PB149692

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
123-91-1	1,4-Dioxane	0.40		0.080	0.20	ug/L
<b>SURROGATES</b>						
7297-45-2	2-Methylnaphthalene-d10	0.32		30 (30) - 150 (150)	80%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.40		30 (30) - 150 (150)	101%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.42		30 (11) - 130 (175)	104%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.36		30 (10) - 130 (175)	90%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.43		30 (54) - 130 (171)	108%	SPK: 0.4
<b>INTERNAL STANDARDS</b>						
3855-82-1	1,4-Dichlorobenzene-d4	8510	8.006			
1146-65-2	Naphthalene-d8	26900	10.819			
15067-26-2	Acenaphthene-d10	16200	14.645			
1517-22-2	Phenanthrene-d10	34300	17.39			
1719-03-5	Chrysene-d12	26400	21.58			
1520-96-3	Perylene-d12	18700	24.03			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023287.D  
 Acq On : 19 Dec 2022 15:44  
 Operator : CG/JU  
 Sample : PB149692BS  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BS

Quant Time: Dec 19 16:21:01 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 19 15:44:58 2022  
 Response via : Initial Calibration

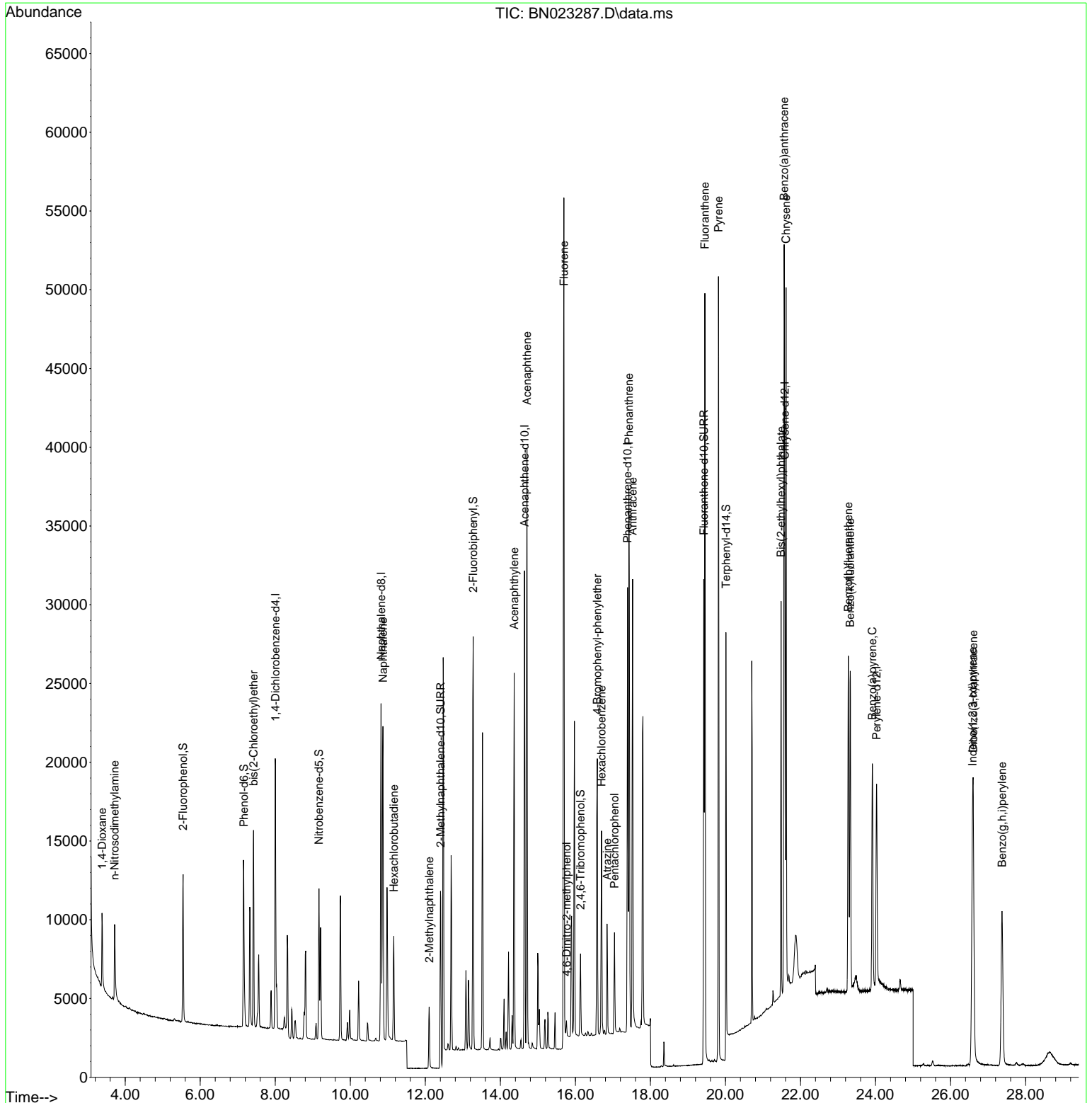
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) 1,4-Dichlorobenzene-d4	8.006	152	8509	0.400 ng	0.00	
7) Naphthalene-d8	10.819	136	26860	0.400 ng	0.00	
13) Acenaphthene-d10	14.645	164	16157	0.400 ng	0.00	
19) Phenanthrene-d10	17.390	188	34289	0.400 ng	# 0.00	
29) Chrysene-d12	21.580	240	26436	0.400 ng	0.00	
35) Perylene-d12	24.030	264	18732	0.400 ng	0.00	
System Monitoring Compounds						
4) 2-Fluorophenol	5.543	112	7784	0.491 ng	0.00	
5) Phenol-d6	7.161	99	10156	0.504 ng	0.00	
8) Nitrobenzene-d5	9.164	82	7338	0.415 ng	0.00	
11) 2-Methylnaphthalene-d10	12.405	152	14614	0.321 ng	0.00	
14) 2,4,6-Tribromophenol	16.136	330	2898	0.494 ng	0.00	
15) 2-Fluorobiphenyl	13.277	172	23189	0.359 ng	0.00	
27) Fluoranthene-d10	19.422	212	32347	0.403 ng	0.00	
31) Terphenyl-d14	20.013	244	18539	0.432 ng	0.00	
Target Compounds						
2) 1,4-Dioxane	3.384	88	3385	0.403 ng	94	
3) n-Nitrosodimethylamine	3.716	42	3247	0.394 ng	# 82	
6) bis(2-Chloroethyl)ether	7.421	93	9092	0.397 ng	99	
9) Naphthalene	10.872	128	26722	0.391 ng	100	
10) Hexachlorobutadiene	11.160	225	5223	0.401 ng	# 100	
12) 2-Methylnaphthalene	12.102	142	5684	0.558 ng	97	
16) Acenaphthylene	14.367	152	25141	0.386 ng	100	
17) Acenaphthene	14.709	154	17630	0.369 ng	97	
18) Fluorene	15.693	166	24191	0.452 ng	100	
20) 4,6-Dinitro-2-methylph...	15.764	198	618	0.323 ng	91	
21) 4-Bromophenyl-phenylether	16.583	248	7469	0.408 ng	# 78	
22) Hexachlorobenzene	16.695	284	9396	0.392 ng	97	
23) Atrazine	16.844	200	5392	0.418 ng	# 91	
24) Pentachlorophenol	17.042	266	2968	0.356 ng	99	
25) Phenanthrene	17.427	178	38060	0.372 ng	99	
26) Anthracene	17.526	178	30966	0.380 ng	99	
28) Fluoranthene	19.452	202	41811	0.382 ng	99	
30) Pyrene	19.814	202	42283	0.437 ng	100	
32) Benzo(a)anthracene	21.563	228	34347	0.403 ng	99	
33) Chrysene	21.616	228	35404	0.370 ng	99	
34) Bis(2-ethylhexyl)phtha...	21.482	149	20630	0.573 ng	97	
36) Indeno(1,2,3-cd)pyrene	26.582	276	26339	0.314 ng	98	
37) Benzo(b)fluoranthene	23.276	252	28455	0.366 ng	96	
38) Benzo(k)fluoranthene	23.325	252	27179	0.345 ng	98	
39) Benzo(a)pyrene	23.916	252	21767	0.374 ng	# 95	
40) Dibenzo(a,h)anthracene	26.606	278	20754	0.308 ng	98	
41) Benzo(g,h,i)perylene	27.372	276	21609	0.300 ng	98	

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

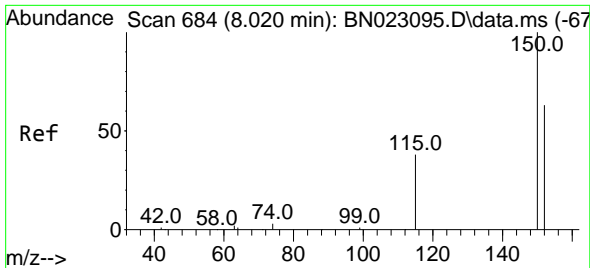
Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023287.D  
 Acq On : 19 Dec 2022 15:44  
 Operator : CG/JU  
 Sample : PB149692BS  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 PB149692BS

Quant Time: Dec 19 16:21:01 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 19 15:44:58 2022  
 Response via : Initial Calibration

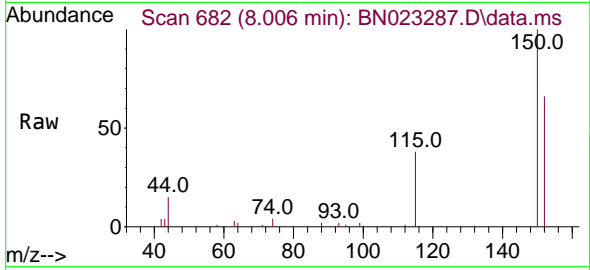


- 1
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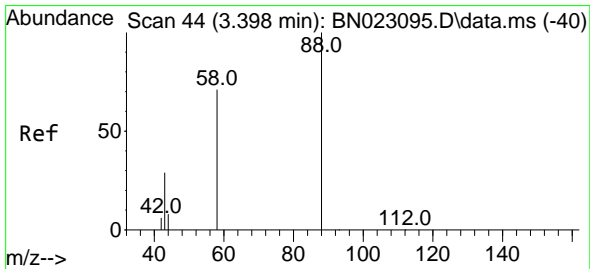
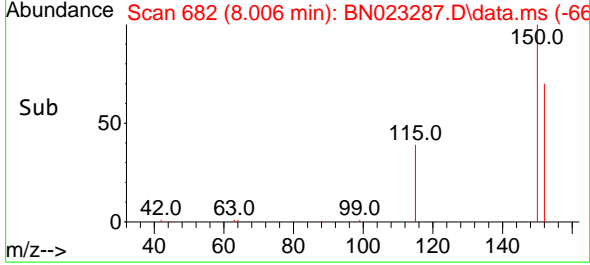
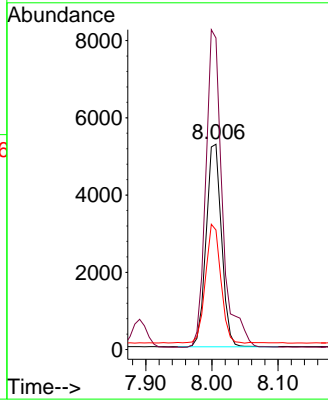


#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 8.006 min Scan# 68  
 Delta R.T. 0.007 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BS

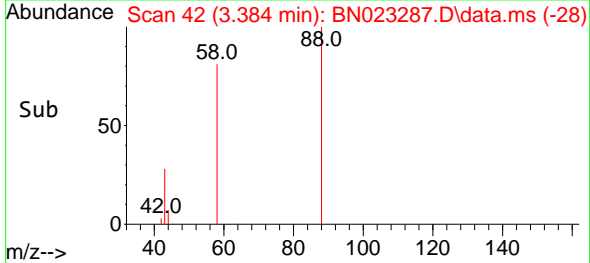
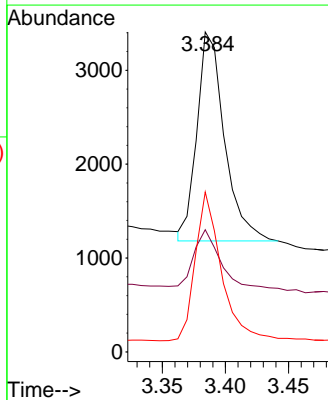
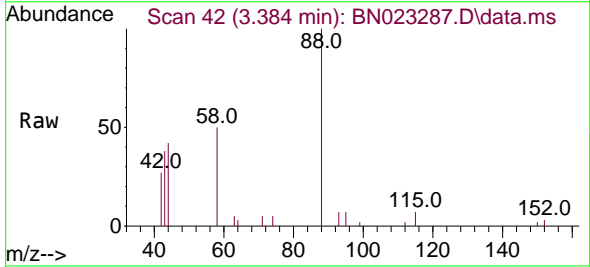


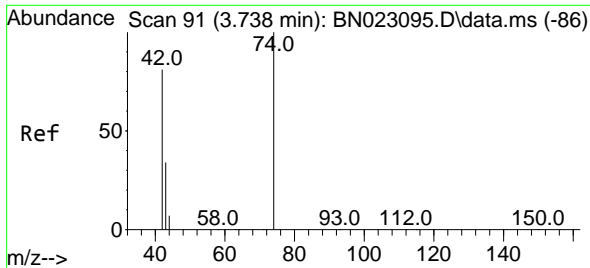
Tgt Ion:152 Resp: 8509  
 Ion Ratio Lower Upper  
 152 100  
 150 151.7 125.6 188.4  
 115 58.3 49.0 73.4



#2  
 1,4-Dioxane  
 Concen: 0.403 ng  
 RT: 3.384 min Scan# 42  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Tgt Ion: 88 Resp: 3385  
 Ion Ratio Lower Upper  
 88 100  
 43 26.5 23.3 34.9  
 58 67.6 58.0 87.0



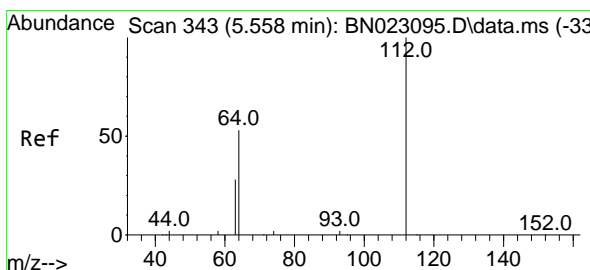
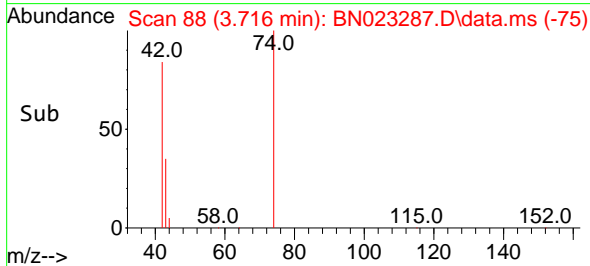
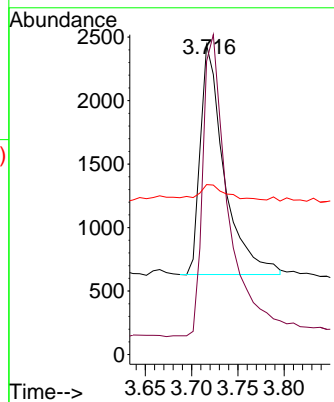
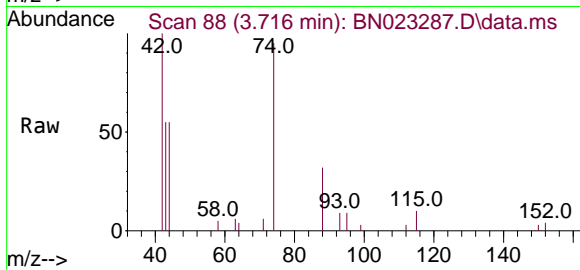


#3  
 n-Nitrosodimethylamine  
 Concen: 0.394 ng  
 RT: 3.716 min Scan# 88  
 Delta R.T. -0.007 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BS

Tgt Ion: 42 Resp: 3247

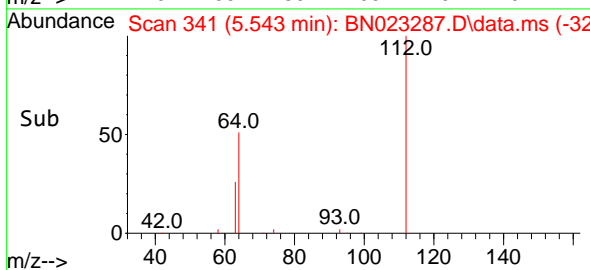
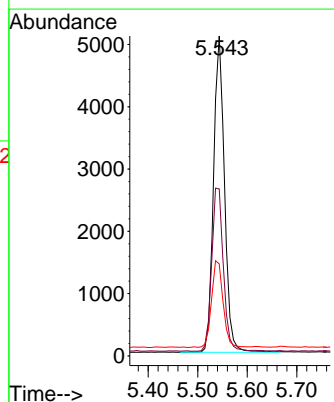
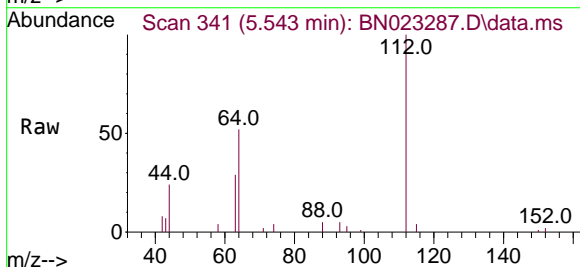
Ion	Ratio	Lower	Upper
42	100		
74	141.2	95.8	143.6
44	7.8	8.4	12.6#

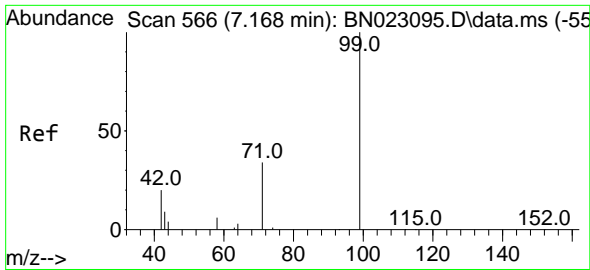


#4  
 2-Fluorophenol  
 Concen: 0.491 ng  
 RT: 5.543 min Scan# 341  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Tgt Ion: 112 Resp: 7784

Ion	Ratio	Lower	Upper
112	100		
64	54.9	44.4	66.6
63	28.9	23.7	35.5

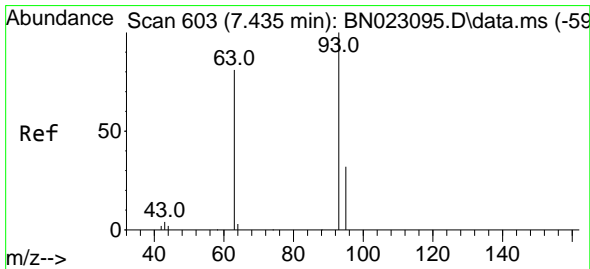
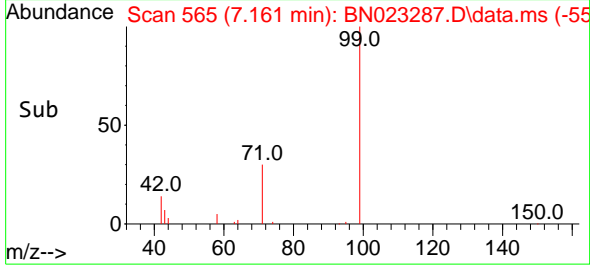
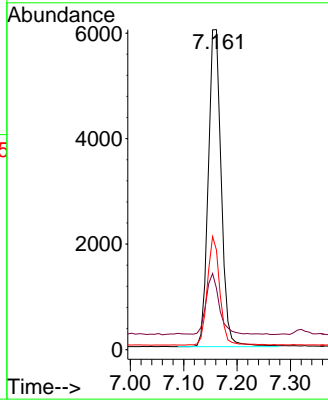
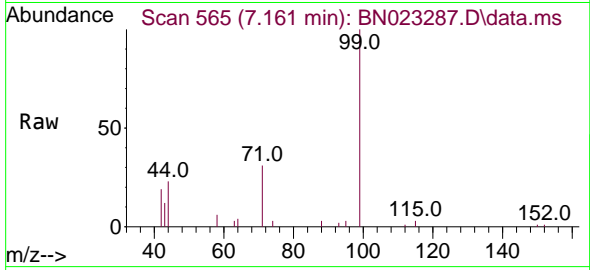




#5  
 Phenol-d6  
 Concen: 0.504 ng  
 RT: 7.161 min Scan# 501  
 Delta R.T. 0.007 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

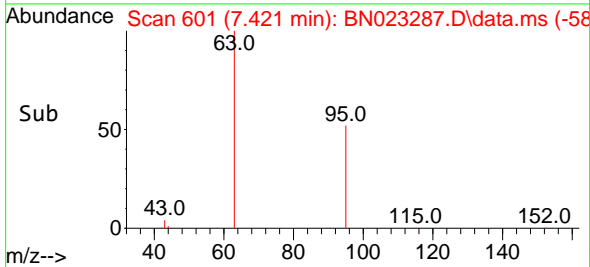
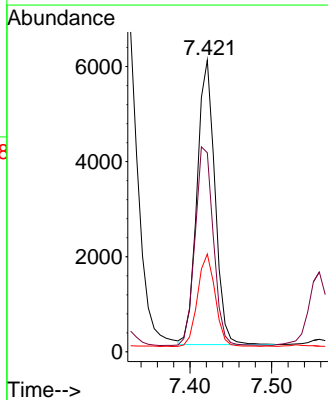
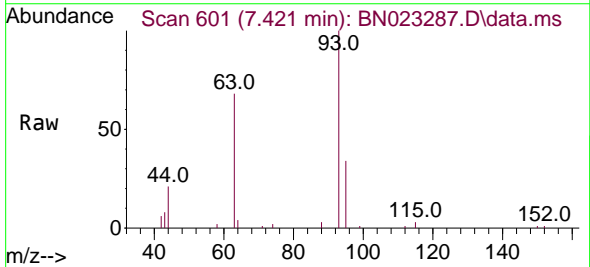
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BS

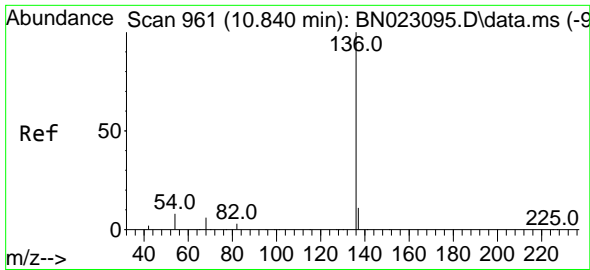
Tgt Ion	Resp	Lower	Upper
99	10156		
42	19.5	16.3	24.5
71	32.7	26.5	39.7



#6  
 bis(2-Chloroethyl)ether  
 Concen: 0.397 ng  
 RT: 7.421 min Scan# 601  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Tgt Ion	Resp	Lower	Upper
93	9092		
63	71.6	58.1	87.1
95	32.1	25.2	37.8



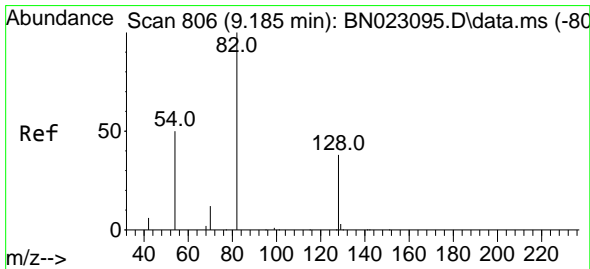
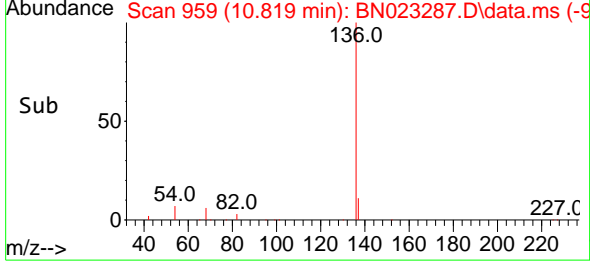
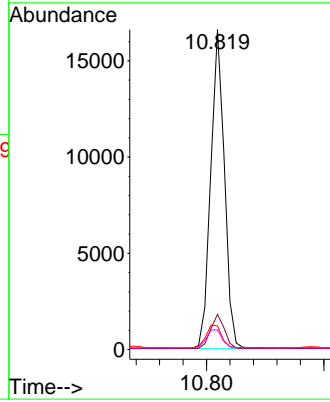
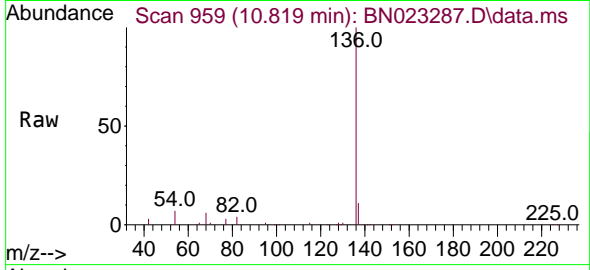


#7  
 Naphthalene-d8  
 Concen: 0.400 ng  
 RT: 10.819 min Scan# 91  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BS

Tgt Ion:136 Resp: 26860

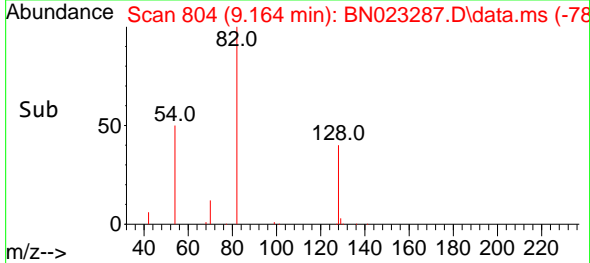
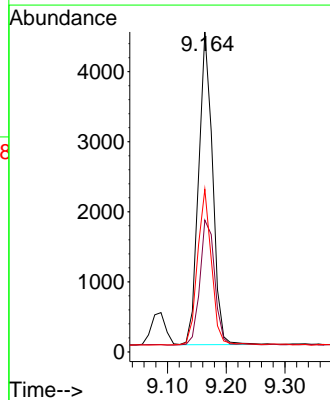
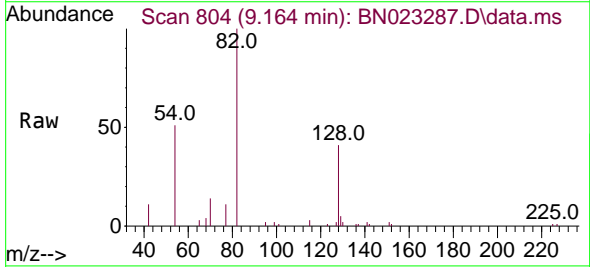
Ion	Ratio	Lower	Upper
136	100		
137	11.0	9.0	13.4
54	7.4	6.5	9.7
68	6.2	5.4	8.2

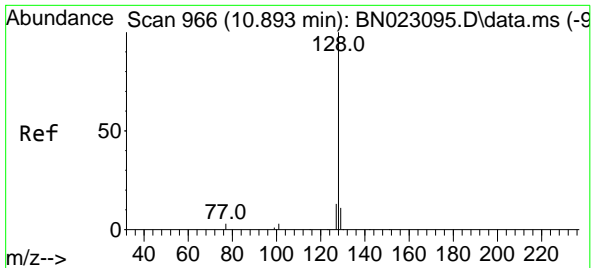


#8  
 Nitrobenzene-d5  
 Concen: 0.415 ng  
 RT: 9.164 min Scan# 804  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Tgt Ion: 82 Resp: 7338

Ion	Ratio	Lower	Upper
82	100		
128	41.2	31.4	47.2
54	50.8	41.0	61.4



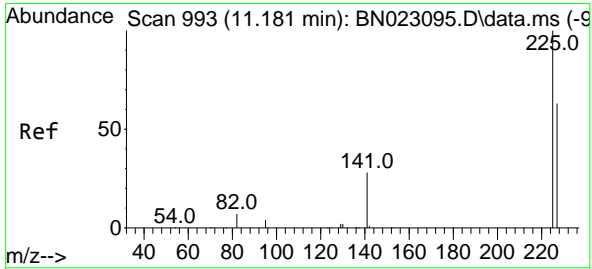
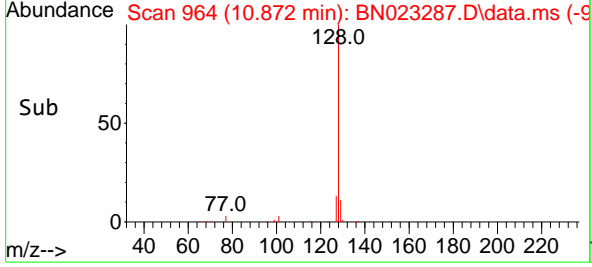
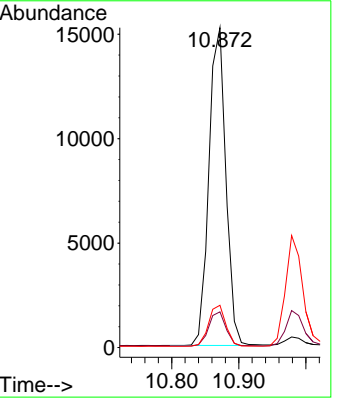
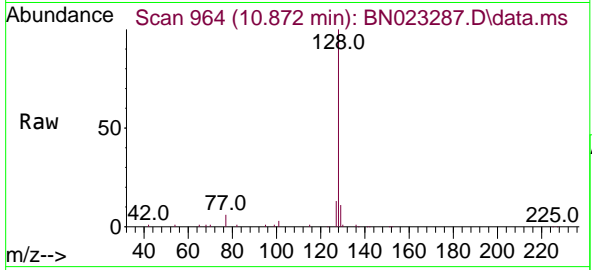


#9  
 Naphthalene  
 Concen: 0.391 ng  
 RT: 10.872 min Scan# 90  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BS

Tgt Ion:128 Resp: 26722

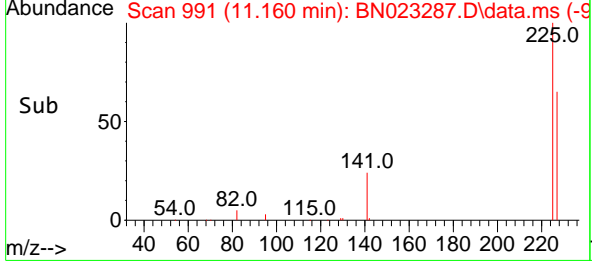
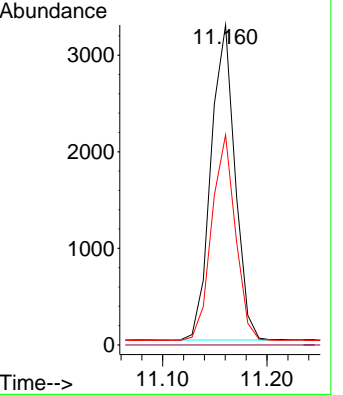
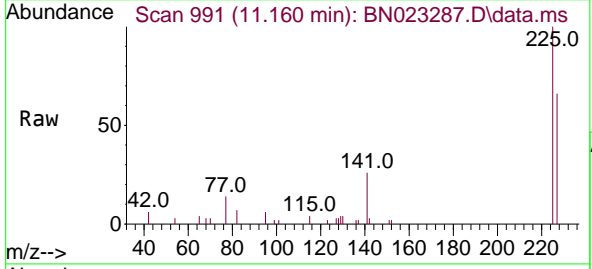
Ion	Ratio	Lower	Upper
128	100		
129	11.2	9.0	13.6
127	13.2	10.5	15.7



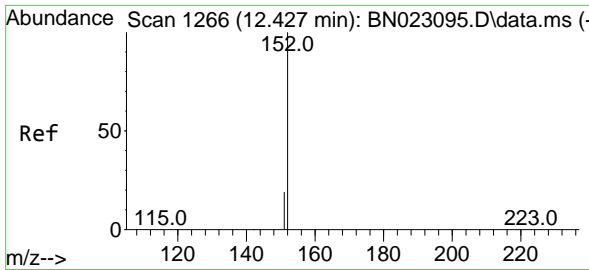
#10  
 Hexachlorobutadiene  
 Concen: 0.401 ng  
 RT: 11.160 min Scan# 991  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Tgt Ion:225 Resp: 5223

Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	64.2	51.1	76.7



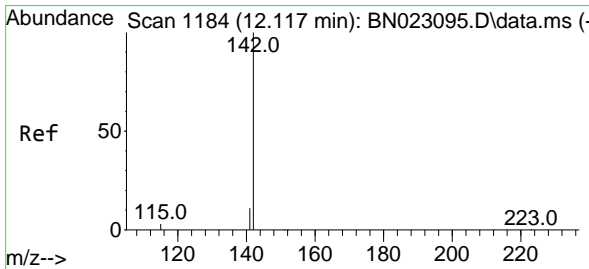
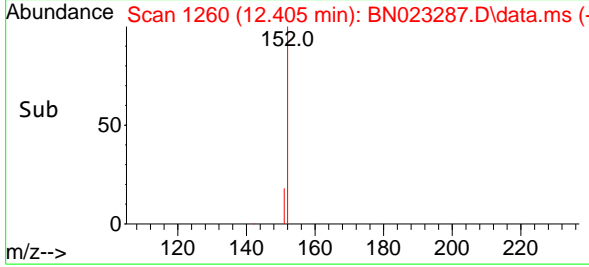
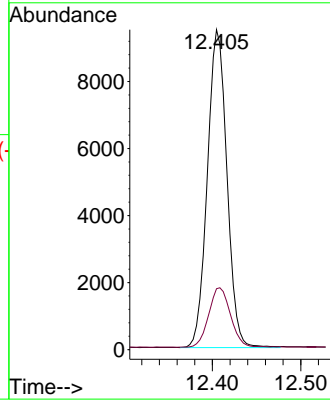
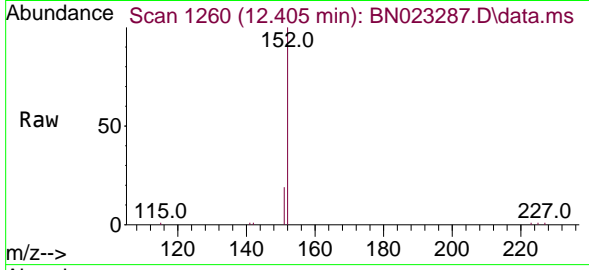




#11  
 2-Methylnaphthalene-d10  
 Concen: 0.321 ng  
 RT: 12.405 min Scan# 1180  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

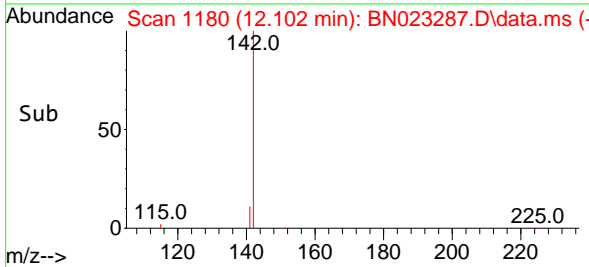
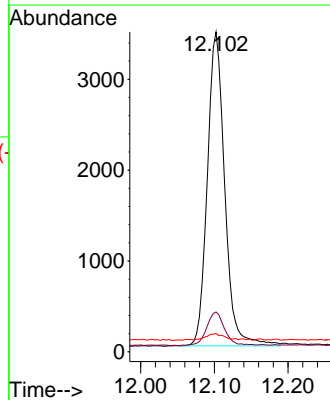
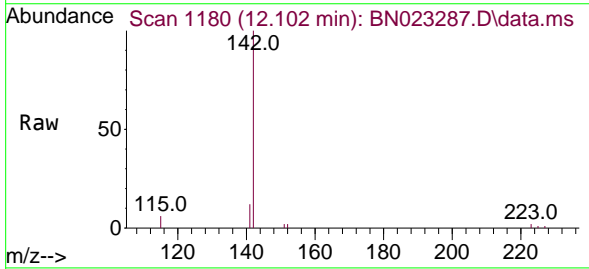
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BS

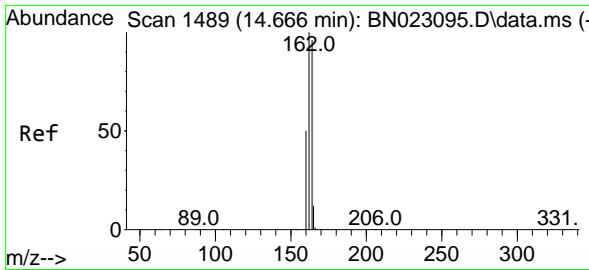
Tgt Ion:152 Resp: 14614  
 Ion Ratio Lower Upper  
 152 100  
 151 20.8 15.1 22.7



#12  
 2-Methylnaphthalene  
 Concen: 0.558 ng  
 RT: 12.102 min Scan# 1180  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Tgt Ion:142 Resp: 5684  
 Ion Ratio Lower Upper  
 142 100  
 141 12.5 10.9 16.3  
 115 5.7 5.7 8.5

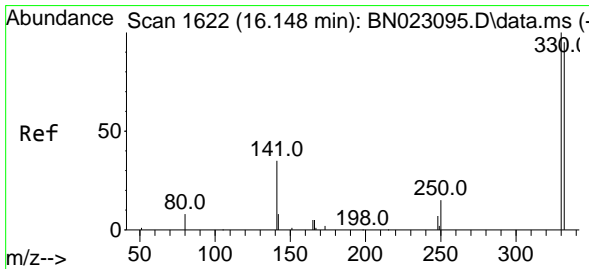
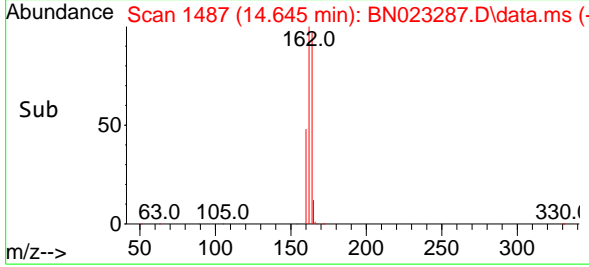
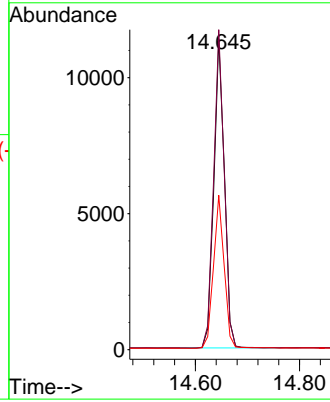
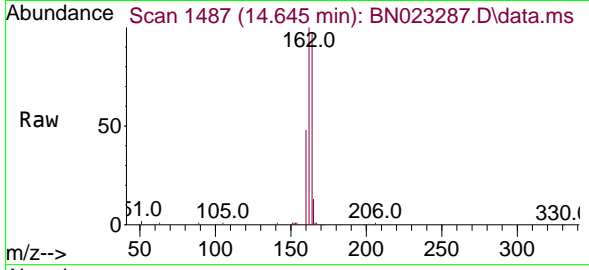




#13  
 Acenaphthene-d10  
 Concen: 0.400 ng  
 RT: 14.645 min Scan# 1487  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

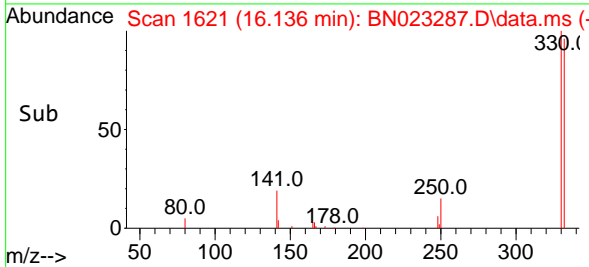
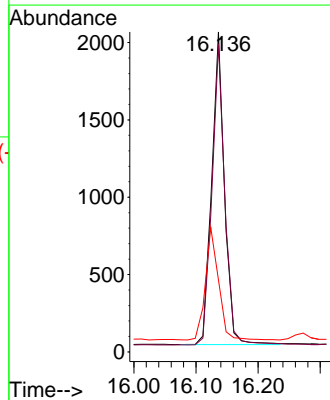
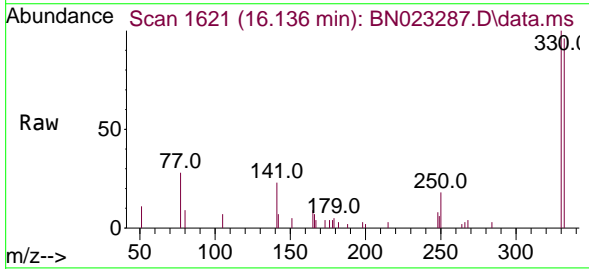
**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 PB149692BS

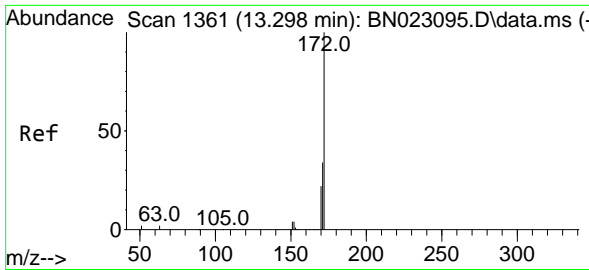
Tgt Ion	Resp	Lower	Upper
164	16157		
162	103.0	83.4	125.0
160	49.7	41.8	62.8



#14  
 2,4,6-Tribromophenol  
 Concen: 0.494 ng  
 RT: 16.136 min Scan# 1621  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Tgt Ion	Resp	Lower	Upper
330	2898		
332	96.7	77.3	115.9
141	36.7	33.5	50.3

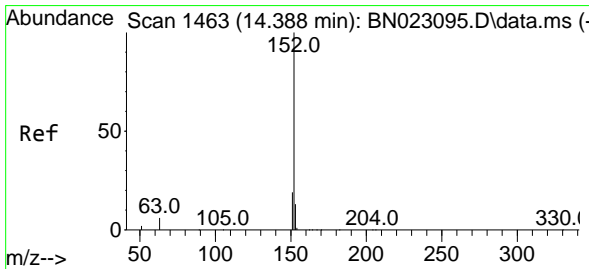
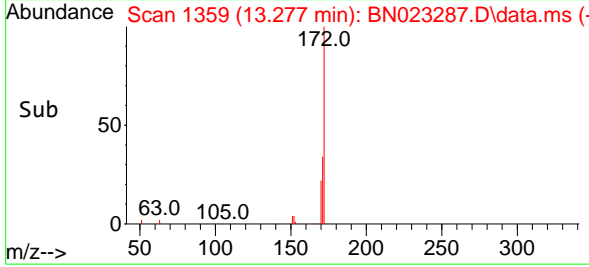
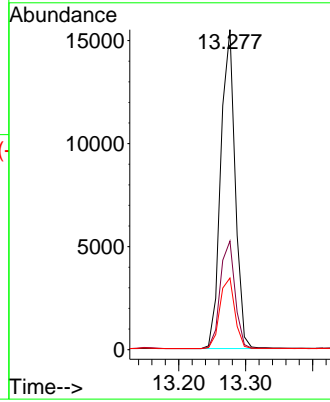
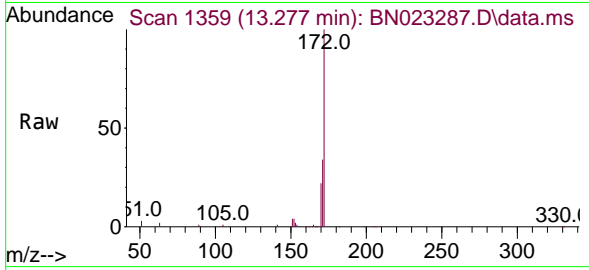




#15  
 2-Fluorobiphenyl  
 Concen: 0.359 ng  
 RT: 13.277 min Scan# 1359  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

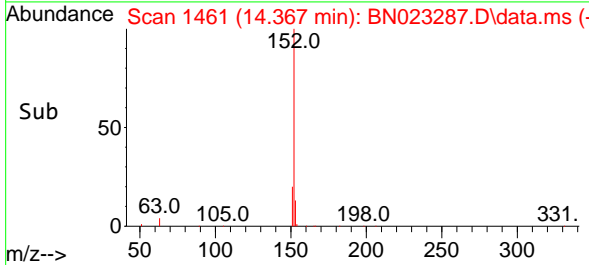
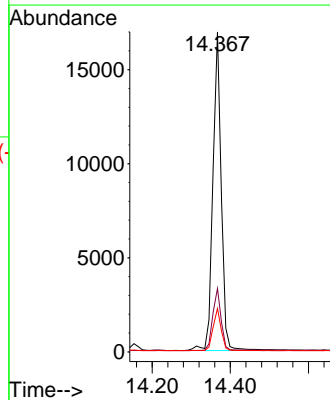
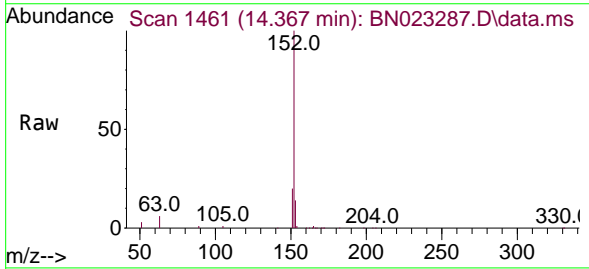
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BS

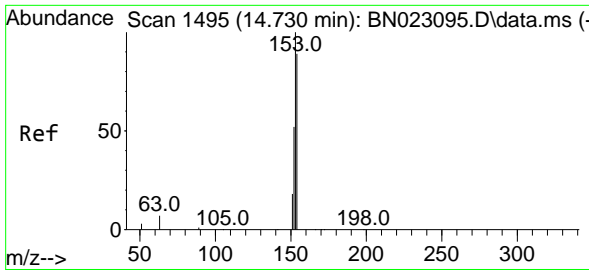
Tgt Ion	Resp	Lower	Upper
172	23189		
171	33.9	27.4	41.0
170	22.4	17.9	26.9



#16  
 Acenaphthylene  
 Concen: 0.386 ng  
 RT: 14.367 min Scan# 1461  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Tgt Ion	Resp	Lower	Upper
152	25141		
151	19.6	15.4	23.2
153	12.9	10.3	15.5

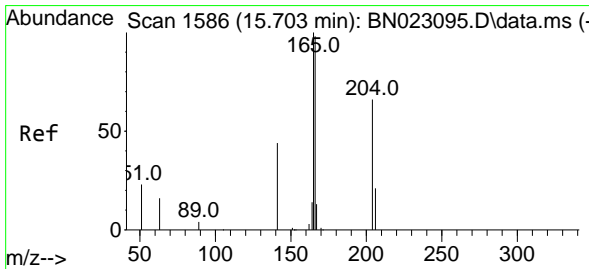
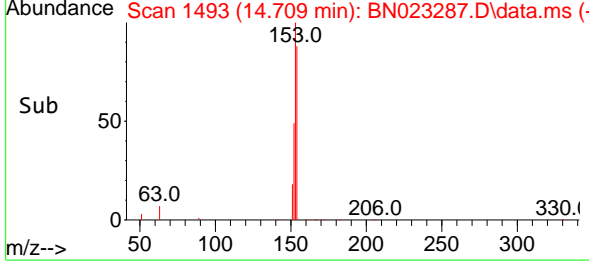
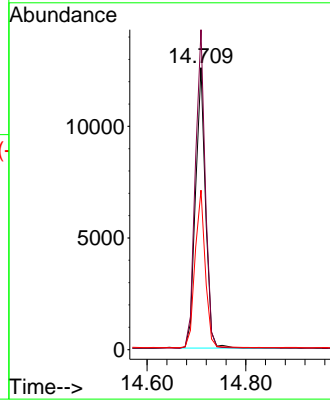
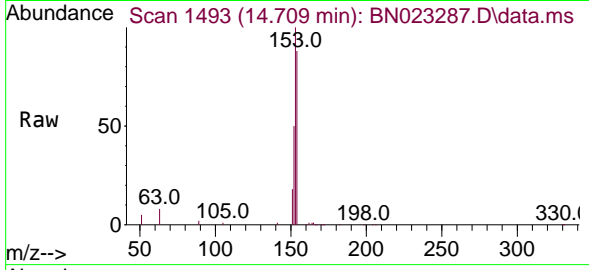




#17  
 Acenaphthene  
 Concen: 0.369 ng  
 RT: 14.709 min Scan# 1493  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

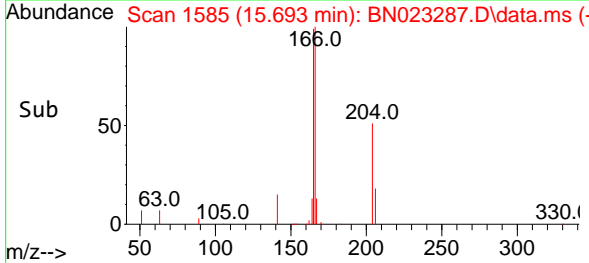
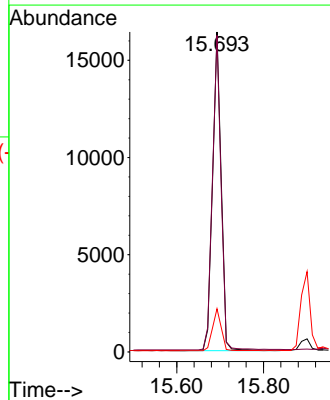
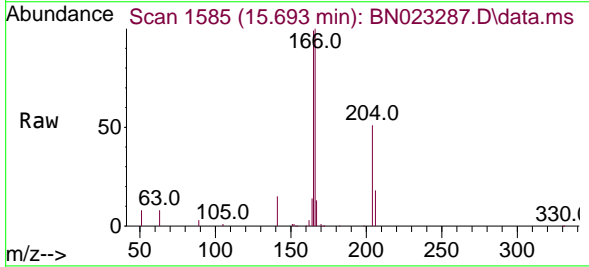
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BS

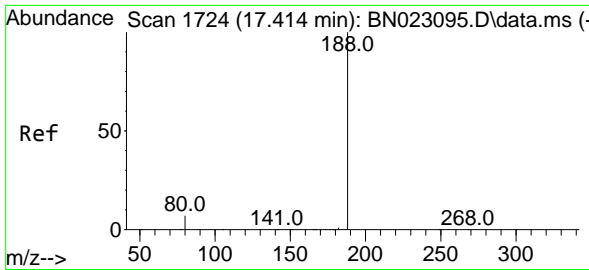
Tgt Ion	Resp	Lower	Upper
154	17630		
153	113.5	88.6	132.8
152	57.4	48.1	72.1



#18  
 Fluorene  
 Concen: 0.452 ng  
 RT: 15.693 min Scan# 1585  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Tgt Ion	Resp	Lower	Upper
166	24191		
165	100.1	79.8	119.6
167	12.9	10.6	16.0

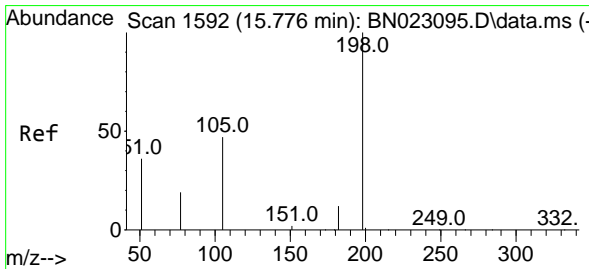
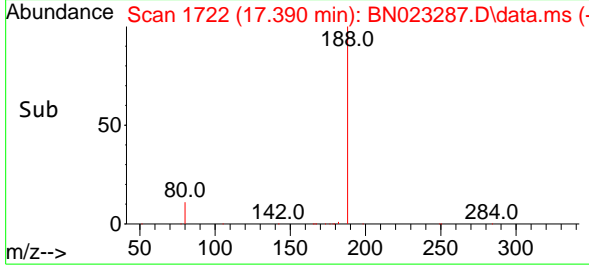
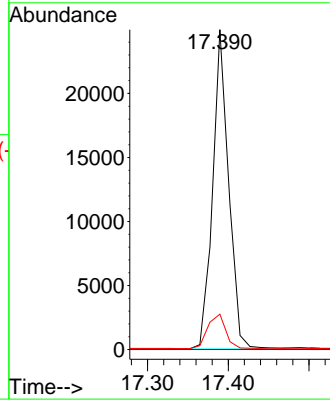
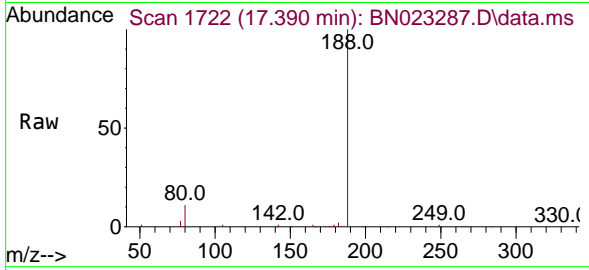




#19  
 Phenanthrene-d10  
 Concen: 0.400 ng  
 RT: 17.390 min Scan# 11  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

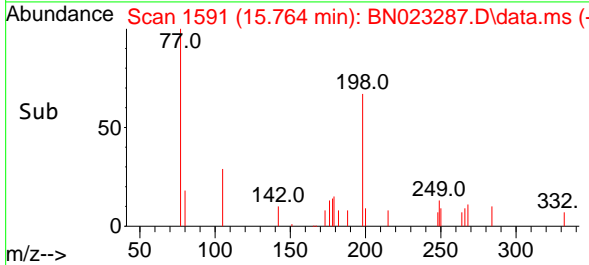
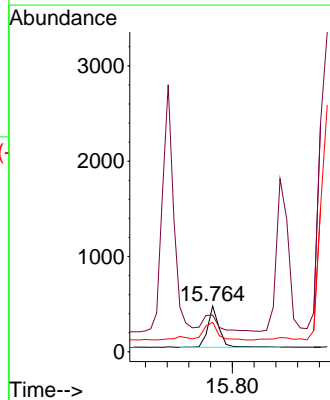
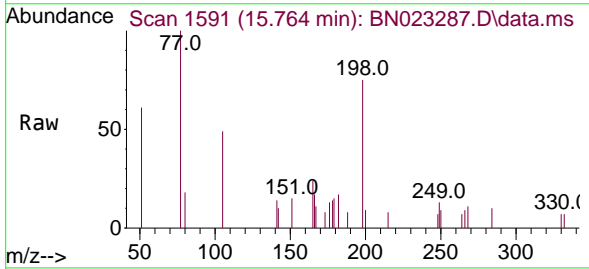
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BS

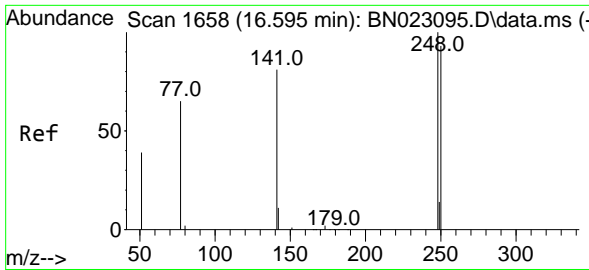
Tgt Ion	Resp	Lower	Upper
188	34289	100	100
94	0.0	0.0	0.0
80	11.1	6.1	9.1



#20  
 4,6-Dinitro-2-methylphenol  
 Concen: 0.323 ng  
 RT: 15.764 min Scan# 1591  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

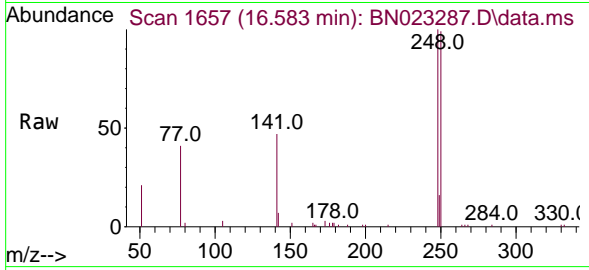
Tgt Ion	Resp	Lower	Upper
198	618	100	100
51	80.4	57.0	85.4
105	64.6	47.2	70.8



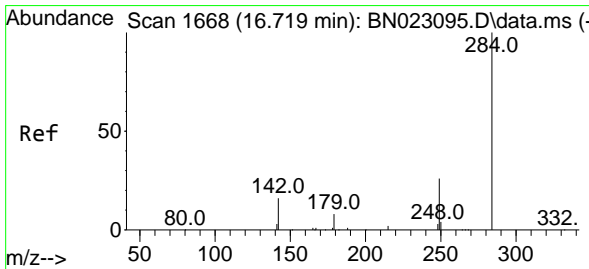
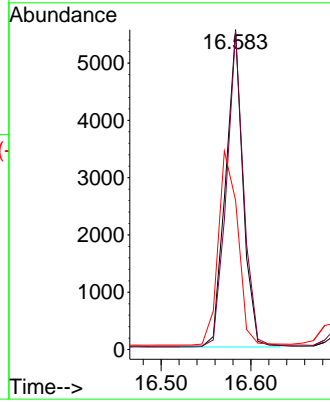
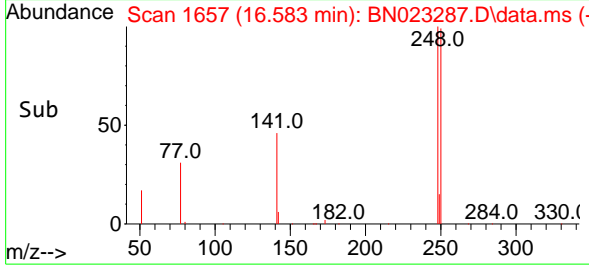


#21  
 4-Bromophenyl-phenylether  
 Concen: 0.408 ng  
 RT: 16.583 min Scan# 1657  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

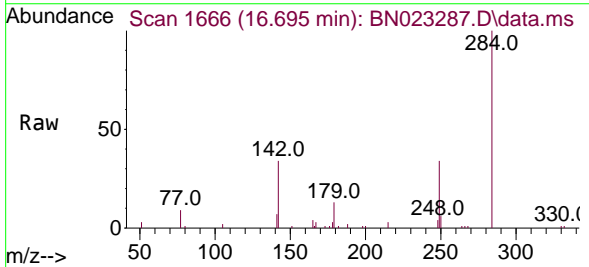
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BS



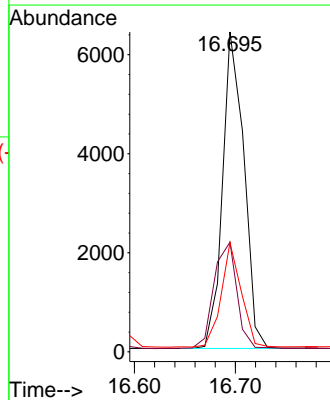
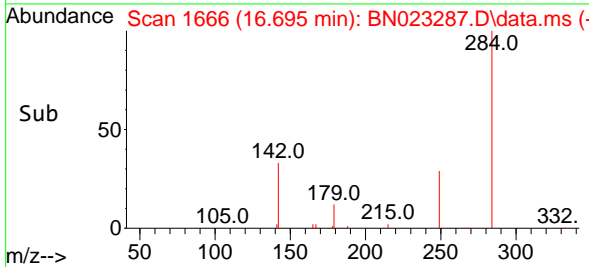
Tgt Ion:248 Resp: 7469  
 Ion Ratio Lower Upper  
 248 100  
 250 99.5 74.3 111.5  
 141 46.7 65.0 97.6#

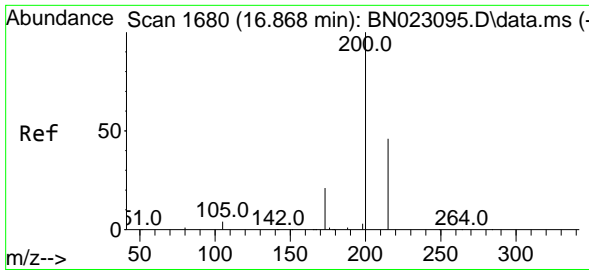


#22  
 Hexachlorobenzene  
 Concen: 0.392 ng  
 RT: 16.695 min Scan# 1666  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44



Tgt Ion:284 Resp: 9396  
 Ion Ratio Lower Upper  
 284 100  
 142 36.2 31.0 46.4  
 249 30.9 24.4 36.6

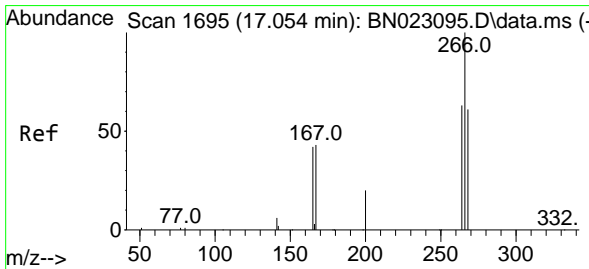
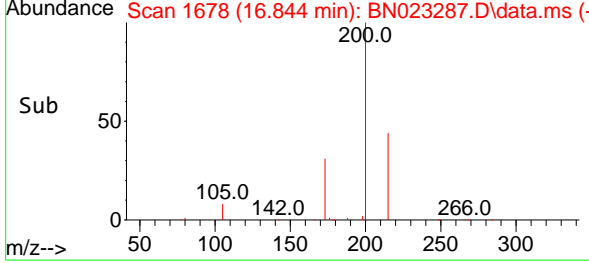
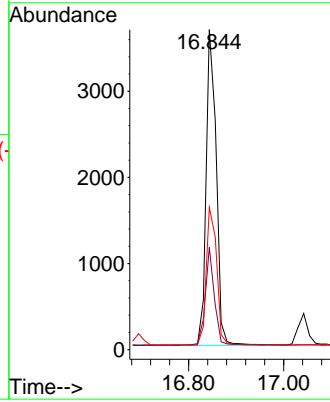
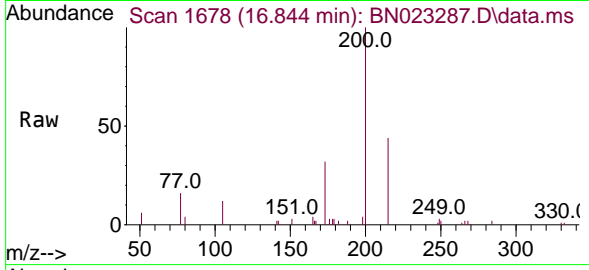




#23  
**Atrazine**  
 Concen: 0.418 ng  
 RT: 16.844 min Scan# 1678  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

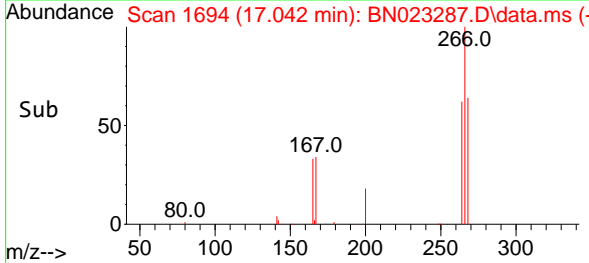
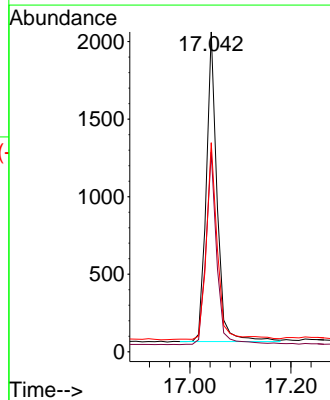
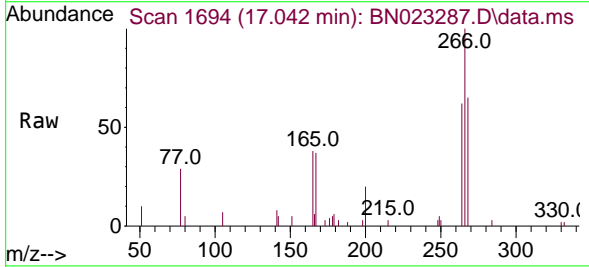
**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 PB149692BS

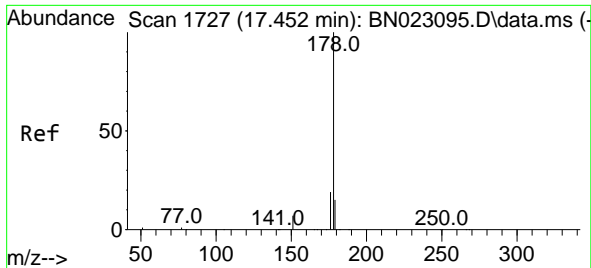
Tgt Ion	Resp	Ion Ratio	Lower	Upper
200	5392	100		
173	32.0	18.2	27.4	
215	44.5	38.0	57.0	



#24  
**Pentachlorophenol**  
 Concen: 0.356 ng  
 RT: 17.042 min Scan# 1694  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Tgt Ion	Resp	Ion Ratio	Lower	Upper
266	2968	100		
264	62.3	50.1	75.1	
268	63.5	49.7	74.5	

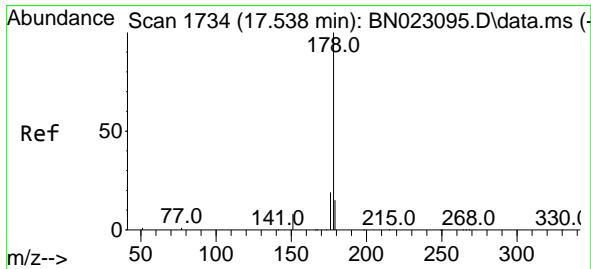
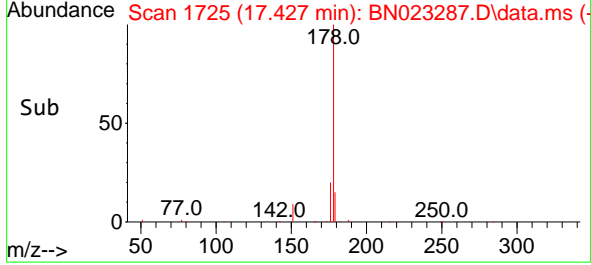
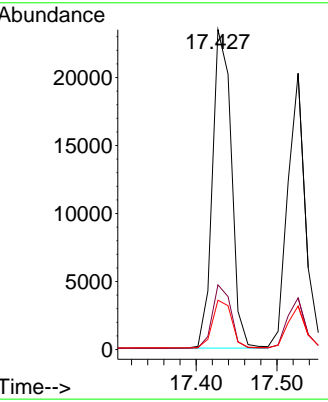
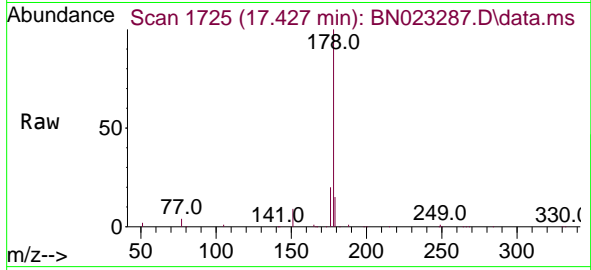




#25  
 Phenanthrene  
 Concen: 0.372 ng  
 RT: 17.427 min Scan# 1725  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

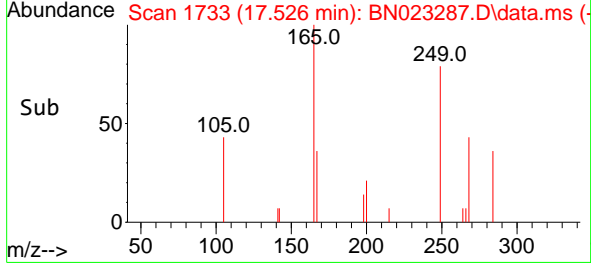
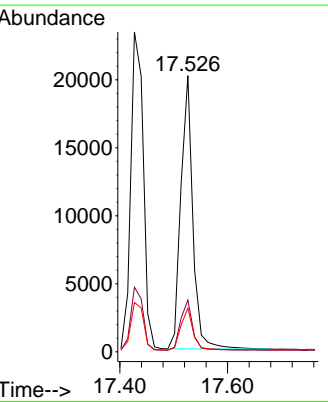
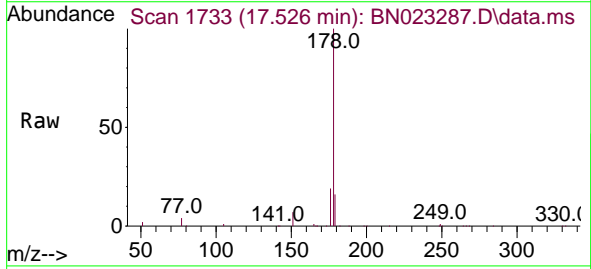
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BS

Tgt Ion	Resp	Lower	Upper
178	38060		
176	19.6	15.4	23.2
179	15.5	12.2	18.2

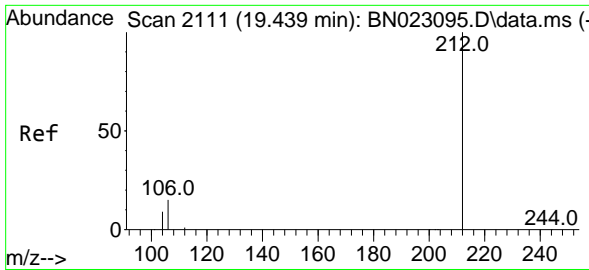


#26  
 Anthracene  
 Concen: 0.380 ng  
 RT: 17.526 min Scan# 1733  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Tgt Ion	Resp	Lower	Upper
178	30966		
176	18.5	15.1	22.7
179	15.4	12.2	18.4

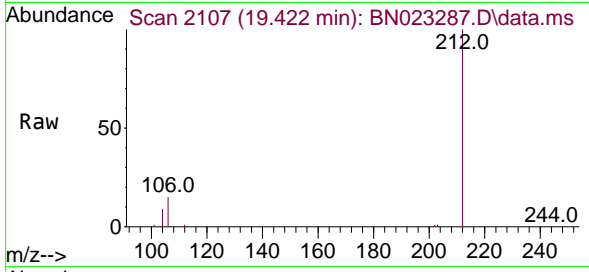




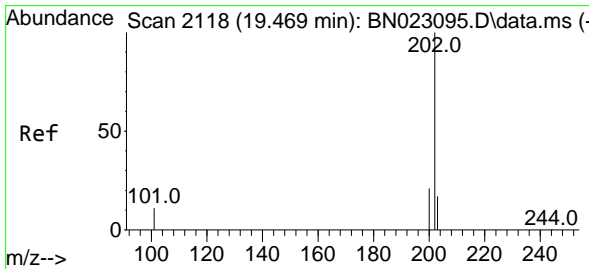
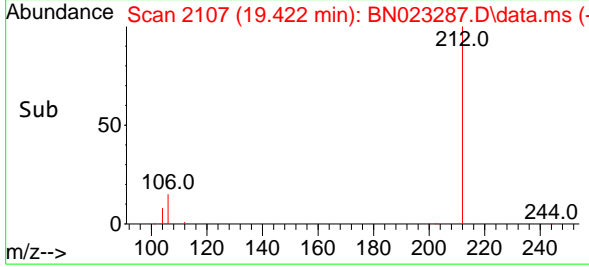
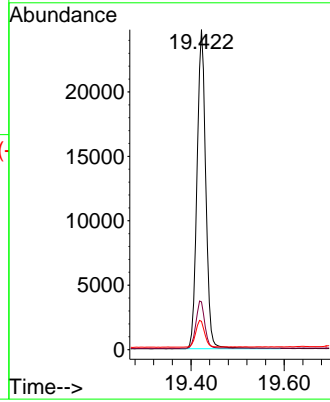


#27  
 Fluoranthene-d10  
 Concen: 0.403 ng  
 RT: 19.422 min Scan# 2110  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BS

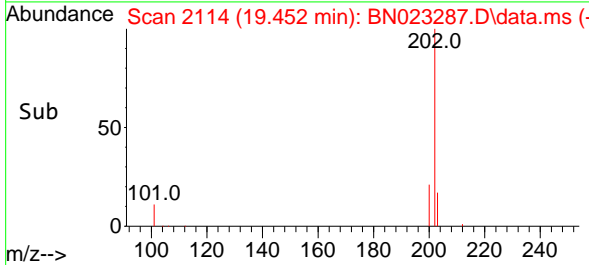
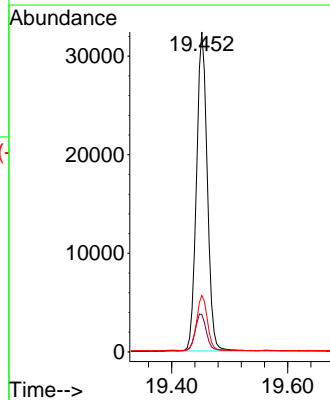
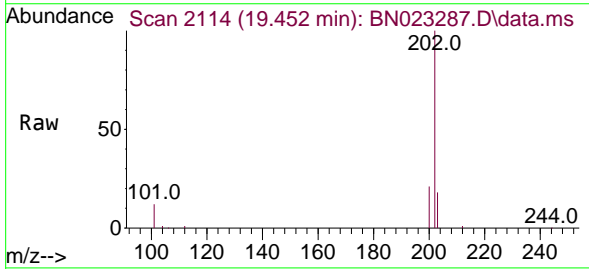


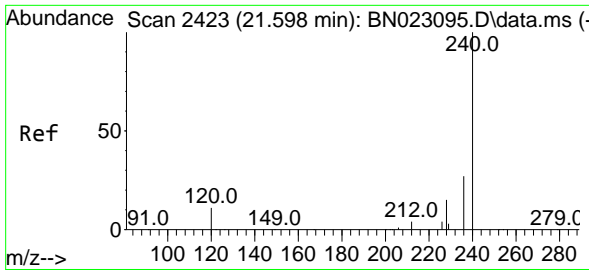
Tgt Ion:212 Resp: 32347  
 Ion Ratio Lower Upper  
 212 100  
 106 15.1 13.0 19.4  
 104 8.5 7.5 11.3



#28  
 Fluoranthene  
 Concen: 0.382 ng  
 RT: 19.452 min Scan# 2114  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Tgt Ion:202 Resp: 41811  
 Ion Ratio Lower Upper  
 202 100  
 101 12.6 9.7 14.5  
 203 17.1 13.8 20.6

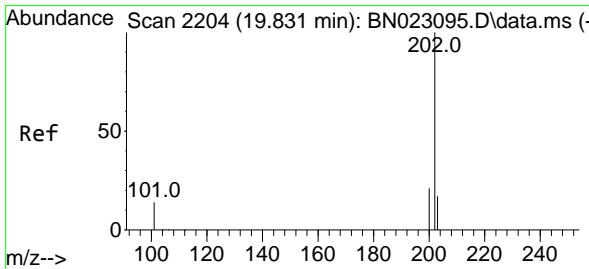
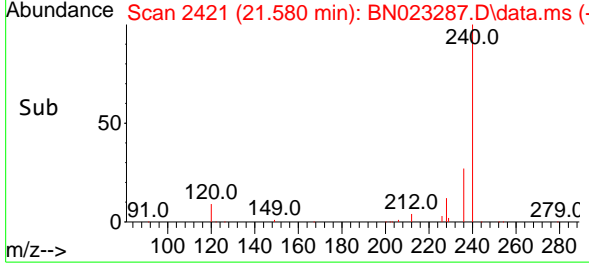
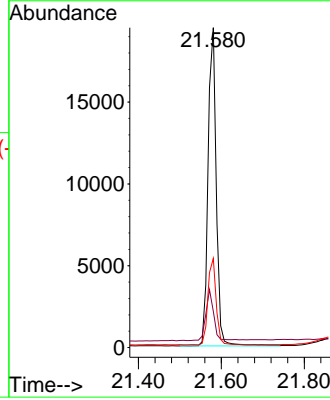
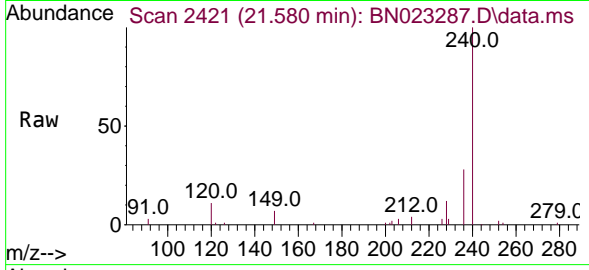




#29  
 Chrysene-d12  
 Concen: 0.400 ng  
 RT: 21.580 min Scan# 2421  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

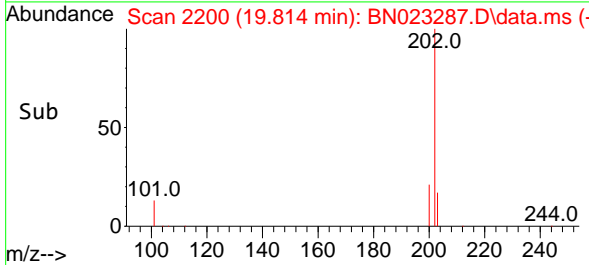
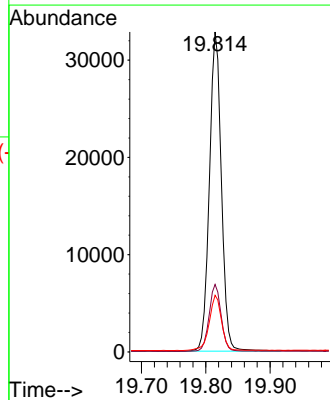
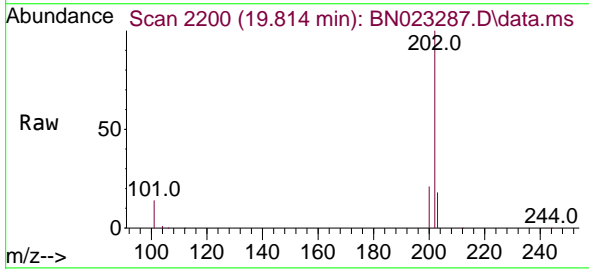
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BS

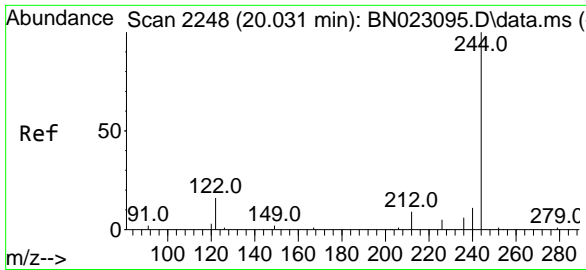
Tgt Ion	Resp	Lower	Upper
240	26436		
120	11.3	10.1	15.1
236	27.9	22.2	33.4



#30  
 Pyrene  
 Concen: 0.437 ng  
 RT: 19.814 min Scan# 2200  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Tgt Ion	Resp	Lower	Upper
202	42283		
200	21.1	16.9	25.3
203	17.8	14.2	21.4

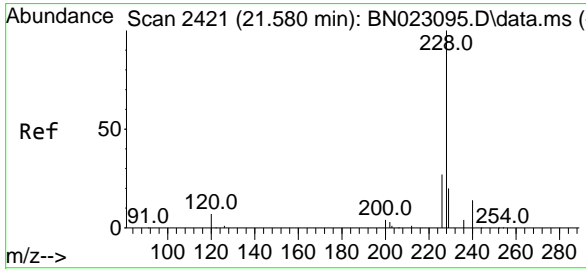
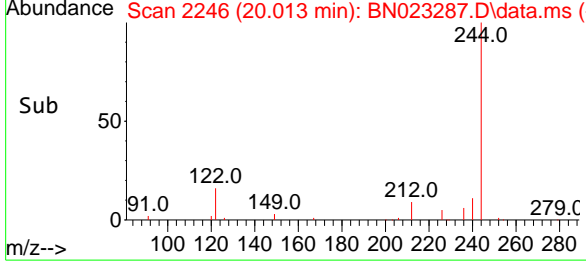
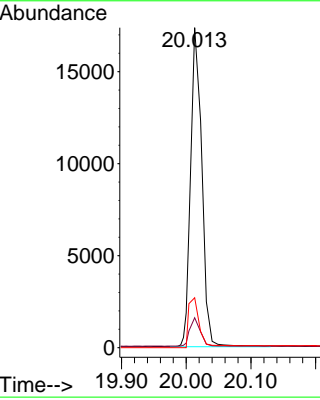
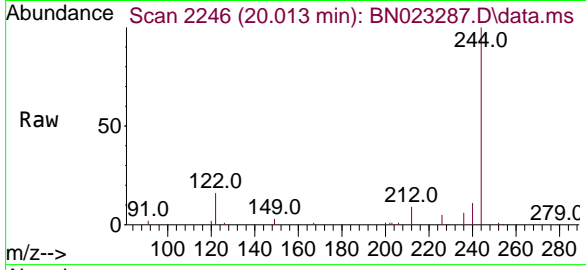




#31  
 Terphenyl-d14  
 Concen: 0.432 ng  
 RT: 20.013 min Scan# 2119  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

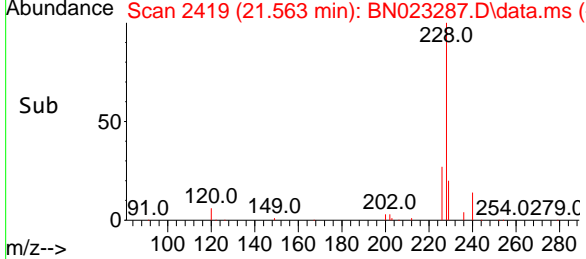
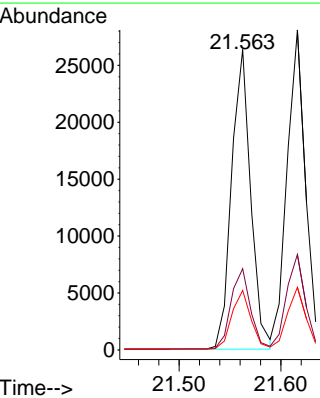
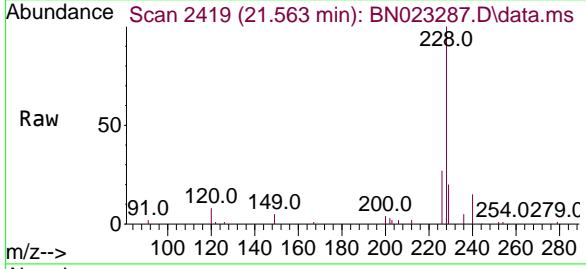
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BS

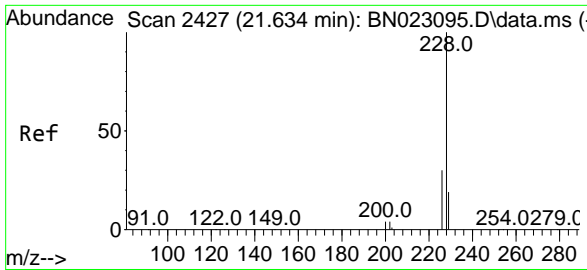
Tgt Ion	Resp	Lower	Upper
244	18539		
212	9.3	7.6	11.4
122	15.6	12.6	18.8



#32  
 Benzo(a)anthracene  
 Concen: 0.403 ng  
 RT: 21.563 min Scan# 2419  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

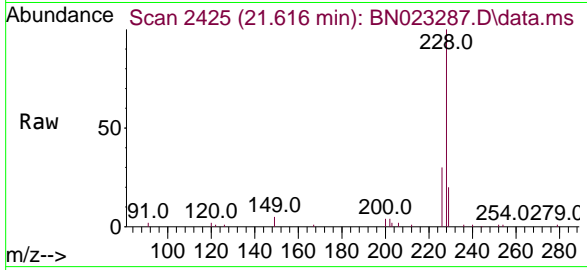
Tgt Ion	Resp	Lower	Upper
228	34347		
226	27.1	22.0	33.0
229	19.8	15.8	23.8





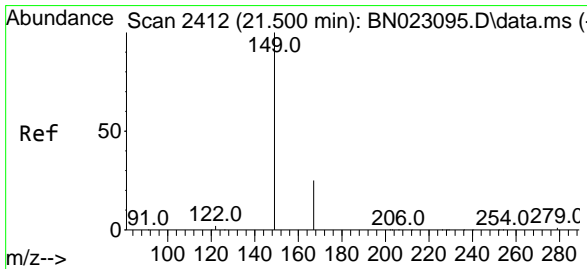
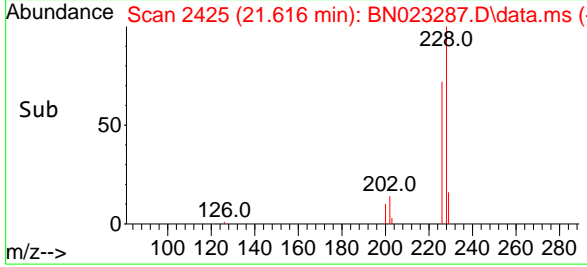
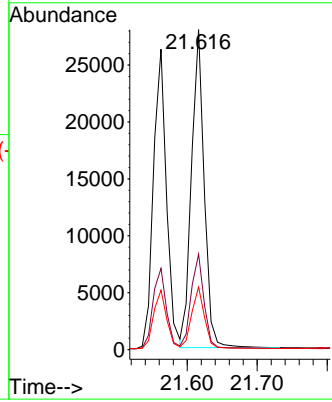
#33  
 Chrysene  
 Concen: 0.370 ng  
 RT: 21.616 min Scan# 2410  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BS

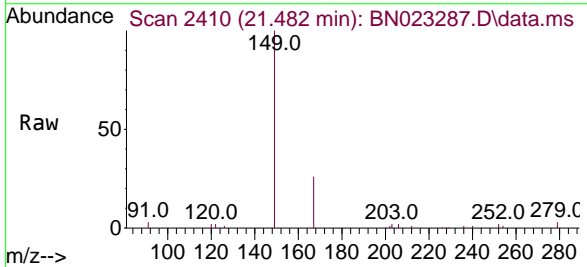


Tgt Ion: 228 Resp: 35404

Ion	Ratio	Lower	Upper
228	100		
226	29.8	24.4	36.6
229	19.6	15.6	23.4

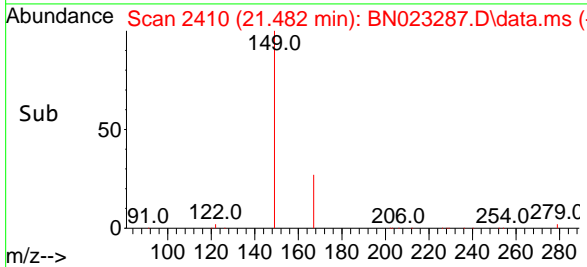
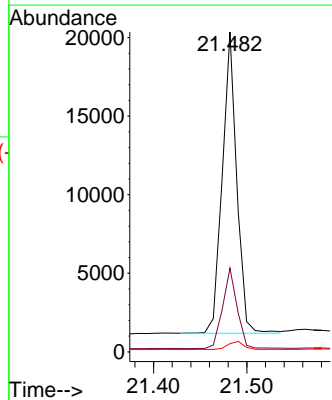


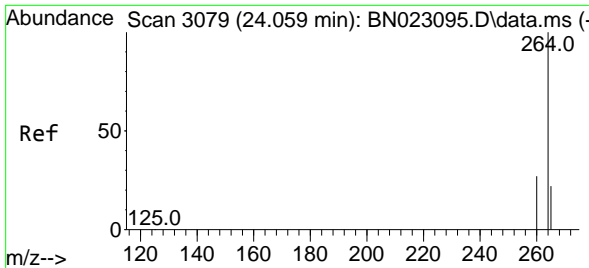
#34  
 Bis(2-ethylhexyl)phthalate  
 Concen: 0.573 ng  
 RT: 21.482 min Scan# 2410  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44



Tgt Ion: 149 Resp: 20630

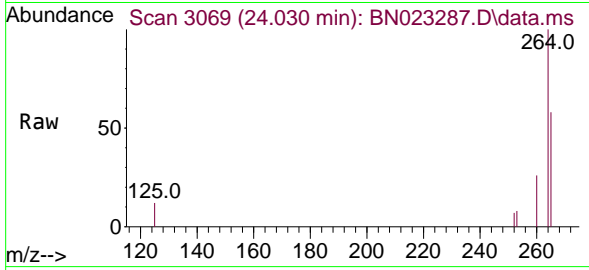
Ion	Ratio	Lower	Upper
149	100		
167	26.9	20.2	30.2
279	3.0	2.3	3.5





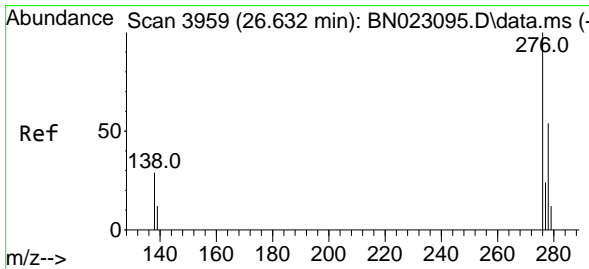
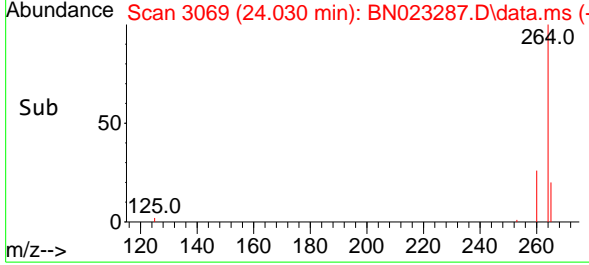
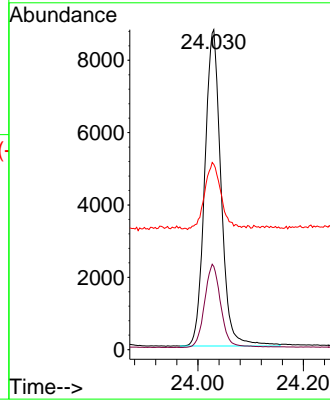
#35  
**Perylene-d12**  
 Concen: 0.400 ng  
 RT: 24.030 min Scan# 3069  
 Delta R.T. 0.003 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 PB149692BS



Tgt Ion: 264 Resp: 18732

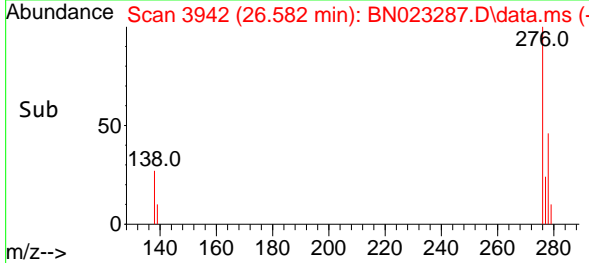
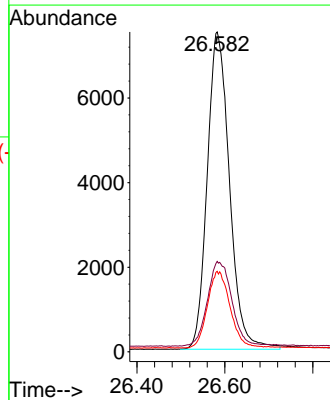
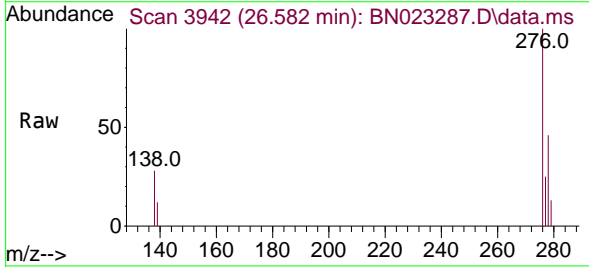
Ion	Ratio	Lower	Upper
264	100		
260	26.0	21.7	32.5
265	57.9	43.2	64.8

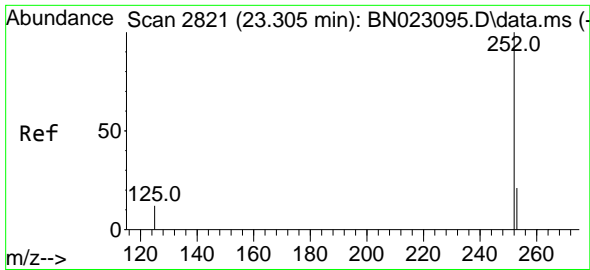


#36  
**Indeno(1,2,3-cd)pyrene**  
 Concen: 0.314 ng  
 RT: 26.582 min Scan# 3942  
 Delta R.T. -0.003 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Tgt Ion: 276 Resp: 26339

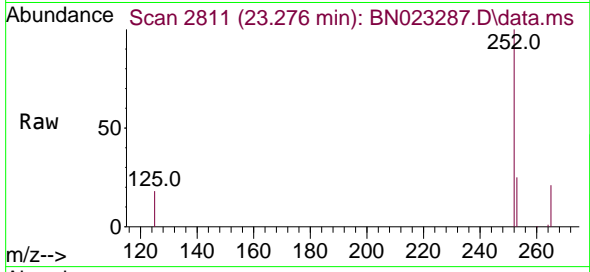
Ion	Ratio	Lower	Upper
276	100		
138	29.1	25.0	37.6
277	24.6	19.8	29.8





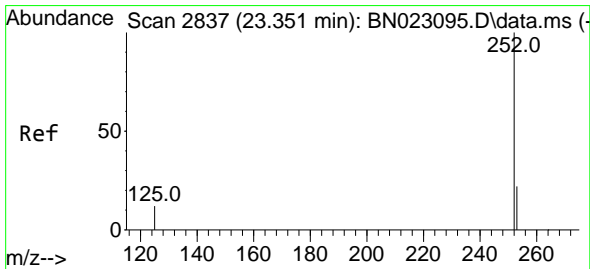
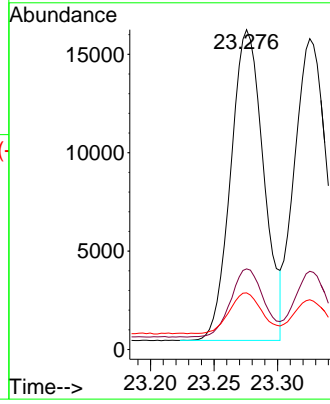
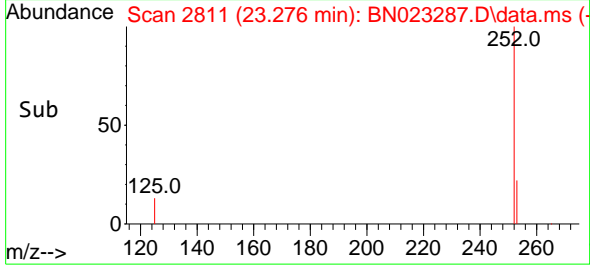
#37  
 Benzo(b)fluoranthene  
 Concen: 0.366 ng  
 RT: 23.276 min Scan# 2811  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Instrument : BNA\_N  
 ClientSampleId : PB149692BS

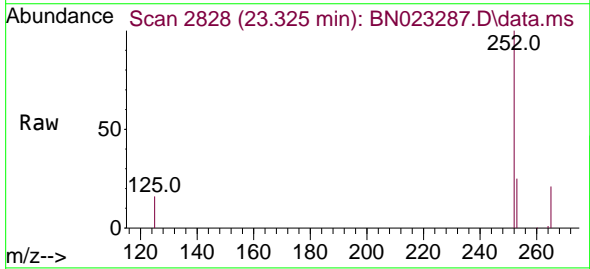


Tgt Ion:252 Resp: 28455

Ion	Ratio	Lower	Upper
252	100		
253	25.2	19.0	28.4
125	17.7	12.8	19.2

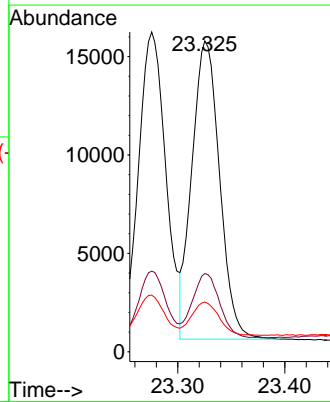
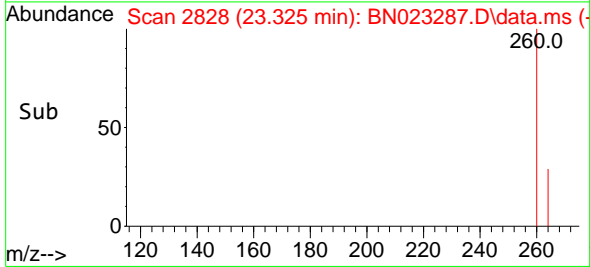


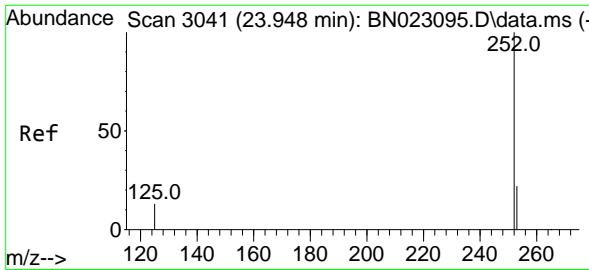
#38  
 Benzo(k)fluoranthene  
 Concen: 0.345 ng  
 RT: 23.325 min Scan# 2828  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44



Tgt Ion:252 Resp: 27179

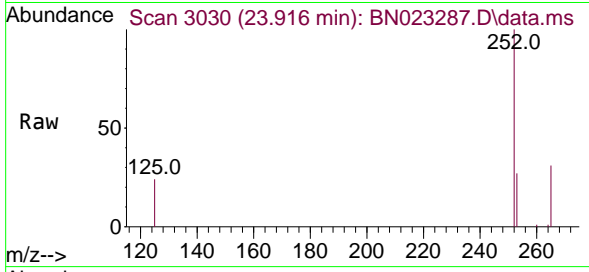
Ion	Ratio	Lower	Upper
252	100		
253	25.2	19.1	28.7
125	16.0	12.5	18.7



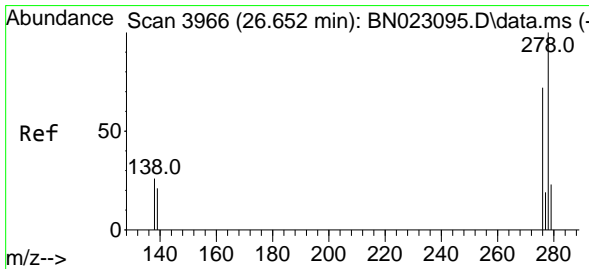
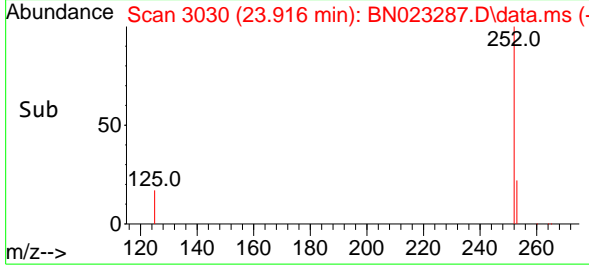
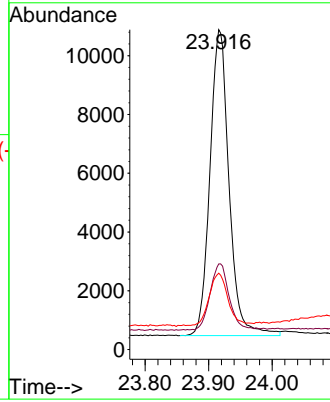


#39  
**Benzo(a)pyrene**  
 Concen: 0.374 ng  
 RT: 23.916 min Scan# 30  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 PB149692BS

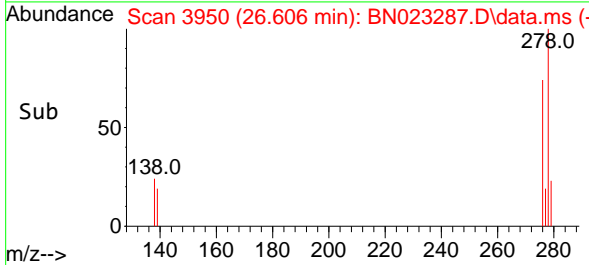
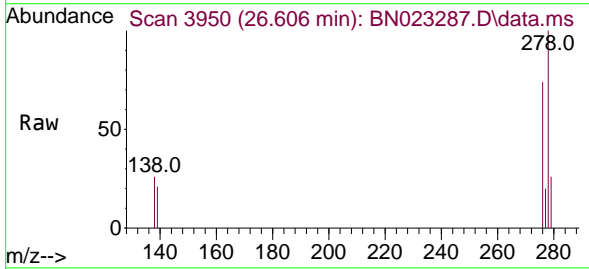
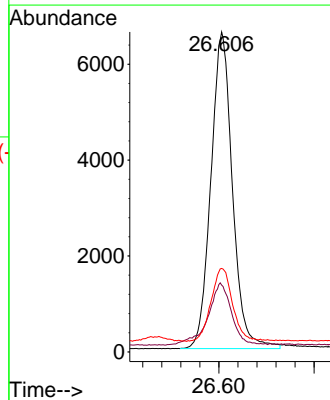


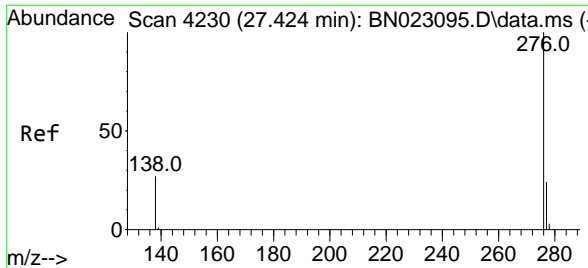
Tgt Ion:252 Resp: 21767  
 Ion Ratio Lower Upper  
 252 100  
 253 26.8 20.6 30.8  
 125 23.9 15.8 23.8#



#40  
**Dibenzo(a,h)anthracene**  
 Concen: 0.308 ng  
 RT: 26.606 min Scan# 3950  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

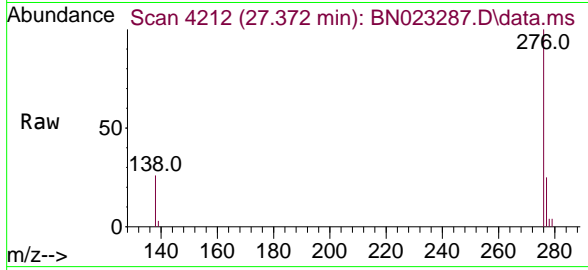
Tgt Ion:278 Resp: 20754  
 Ion Ratio Lower Upper  
 278 100  
 139 20.9 17.5 26.3  
 279 26.1 20.5 30.7





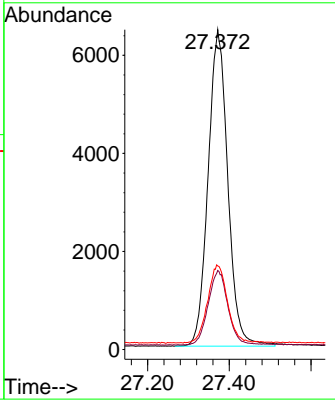
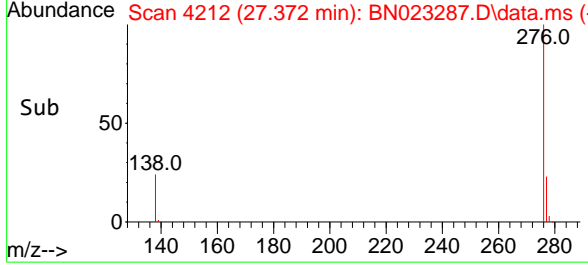
#41  
 Benzo(g,h,i)perylene  
 Concen: 0.300 ng  
 RT: 27.372 min Scan# 41  
 Delta R.T. 0.000 min  
 Lab File: BN023287.D  
 Acq: 19 Dec 2022 15:44

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BS



Tgt Ion: 276 Resp: 21609

Ion	Ratio	Lower	Upper
276	100		
277	24.7	19.9	29.9
138	26.1	22.2	33.2



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

## Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	
Project:	Former Schlumberger Site Princeton NJ	Date Received:	
Client Sample ID:	PB149692BSD	SDG No.:	N6070
Lab Sample ID:	PB149692BSD	Matrix:	Water
Analytical Method:	SW8270SIM	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN023288.D	1	12/16/22 08:59	12/19/22 16:21	PB149692

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
<b>TARGETS</b>						
123-91-1	1,4-Dioxane	0.39		0.080	0.20	ug/L
<b>SURROGATES</b>						
7297-45-2	2-Methylnaphthalene-d10	0.37		30 (30) - 150 (150)	94%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.41		30 (30) - 150 (150)	103%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.42		30 (11) - 130 (175)	105%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.36		30 (10) - 130 (175)	89%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.42		30 (54) - 130 (171)	105%	SPK: 0.4
<b>INTERNAL STANDARDS</b>						
3855-82-1	1,4-Dichlorobenzene-d4	8380	7.999			
1146-65-2	Naphthalene-d8	26100	10.818			
15067-26-2	Acenaphthene-d10	15600	14.645			
1517-22-2	Phenanthrene-d10	33500	17.39			
1719-03-5	Chrysene-d12	27800	21.58			
1520-96-3	Perylene-d12	19300	24.027			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\svoasrv\HPCHEM1\BNA\_N\Data\BN121922\  
 Data File : BN023288.D  
 Acq On : 19 Dec 2022 16:21  
 Operator : CG/JU  
 Sample : PB149692BSD  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BSD

Quant Time: Dec 19 17:36:15 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 19 15:44:58 2022  
 Response via : Initial Calibration

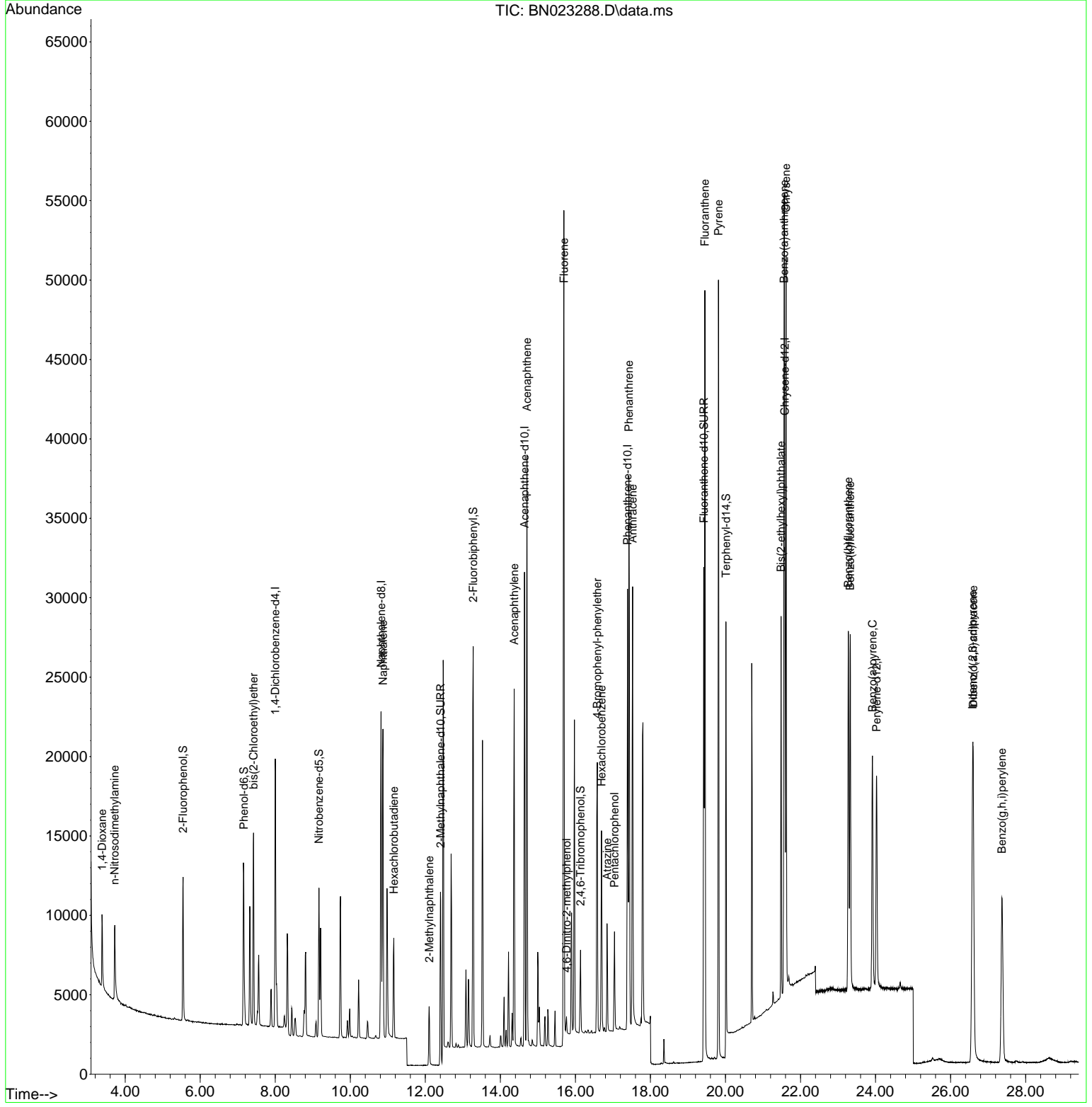
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
Internal Standards						
1) 1,4-Dichlorobenzene-d4	7.999	152	8380	0.400 ng	0.00	
7) Naphthalene-d8	10.818	136	26080	0.400 ng	0.00	
13) Acenaphthene-d10	14.645	164	15594	0.400 ng	0.00	
19) Phenanthrene-d10	17.390	188	33450	0.400 ng	# 0.00	
29) Chrysene-d12	21.580	240	27783	0.400 ng	0.00	
35) Perylene-d12	24.027	264	19326	0.400 ng	0.00	
System Monitoring Compounds						
4) 2-Fluorophenol	5.543	112	7545	0.483 ng	0.00	
5) Phenol-d6	7.161	99	9755	0.492 ng	0.00	
8) Nitrobenzene-d5	9.164	82	7213	0.420 ng	0.00	
11) 2-Methylnaphthalene-d10	12.405	152	16556	0.374 ng	0.00	
14) 2,4,6-Tribromophenol	16.136	330	2840	0.502 ng	0.00	
15) 2-Fluorobiphenyl	13.276	172	22265	0.357 ng	0.00	
27) Fluoranthene-d10	19.422	212	32302	0.412 ng	0.00	
31) Terphenyl-d14	20.013	244	19027	0.422 ng	0.00	
Target Compounds						
2) 1,4-Dioxane	3.384	88	3249	0.393 ng		Qvalue 97
3) n-Nitrosodimethylamine	3.716	42	3278	0.404 ng	#	87
6) bis(2-Chloroethyl)ether	7.421	93	8864	0.393 ng		99
9) Naphthalene	10.872	128	25915	0.390 ng		100
10) Hexachlorobutadiene	11.160	225	5090	0.402 ng	#	100
12) 2-Methylnaphthalene	12.102	142	5521	0.558 ng	#	97
16) Acenaphthylene	14.367	152	24287	0.387 ng		100
17) Acenaphthene	14.709	154	17134	0.371 ng		97
18) Fluorene	15.693	166	23685	0.458 ng		99
20) 4,6-Dinitro-2-methylph...	15.764	198	614	0.325 ng		92
21) 4-Bromophenyl-phenylether	16.583	248	7247	0.406 ng	#	78
22) Hexachlorobenzene	16.694	284	9218	0.394 ng		98
23) Atrazine	16.843	200	5175	0.411 ng	#	91
24) Pentachlorophenol	17.042	266	2942	0.362 ng		99
25) Phenanthrene	17.427	178	37812	0.379 ng		100
26) Anthracene	17.526	178	30463	0.384 ng		100
28) Fluoranthene	19.452	202	41868	0.392 ng		99
30) Pyrene	19.814	202	42727	0.420 ng		100
32) Benzo(a)anthracene	21.562	228	36084	0.403 ng		100
33) Chrysene	21.616	228	36965	0.367 ng		99
34) Bis(2-ethylhexyl)phtha...	21.482	149	19873	0.525 ng		97
36) Indeno(1,2,3-cd)pyrene	26.588	276	28213	0.326 ng		98
37) Benzo(b)fluoranthene	23.276	252	30332	0.379 ng		98
38) Benzo(k)fluoranthene	23.325	252	29310	0.360 ng		100
39) Benzo(a)pyrene	23.919	252	22613	0.376 ng		98
40) Dibenzo(a,h)anthracene	26.603	278	22498	0.324 ng		99
41) Benzo(g,h,i)perylene	27.369	276	23348	0.314 ng		99

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

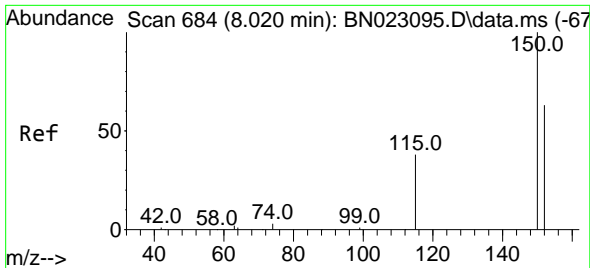
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 Data File : BN023288.D  
 Acq On : 19 Dec 2022 16:21  
 Operator : CG/JU  
 Sample : PB149692BSD  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 PB149692BSD

Quant Time: Dec 19 17:36:15 2022  
 Quant Method : Z:\svoasrv\HPCHEM1\BNA\_N\Methods\8270-SIM-BN120822.M  
 Quant Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION  
 QLast Update : Mon Dec 19 15:44:58 2022  
 Response via : Initial Calibration

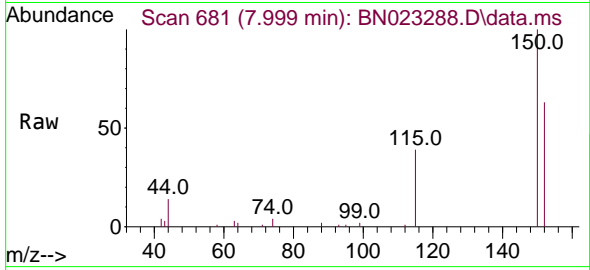


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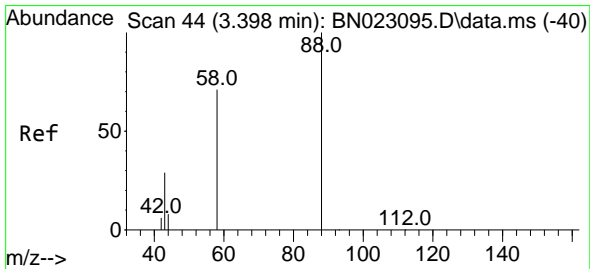
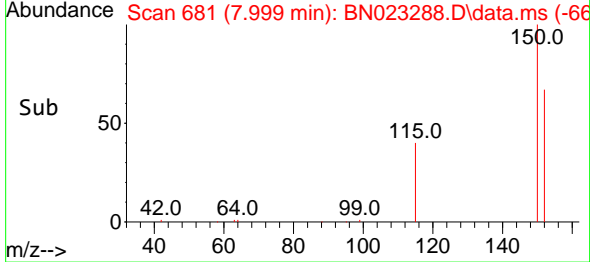
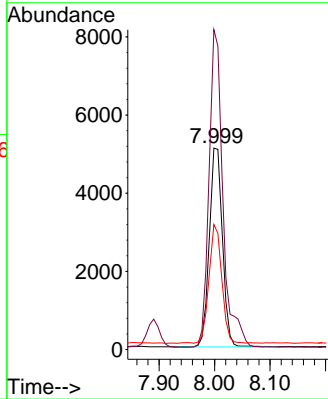


#1  
 1,4-Dichlorobenzene-d4  
 Concen: 0.400 ng  
 RT: 7.999 min Scan# 681  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BSD

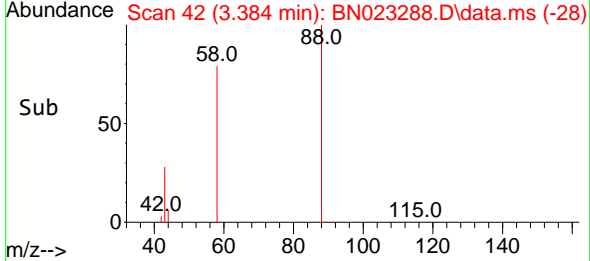
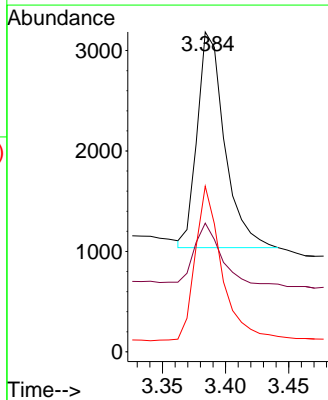
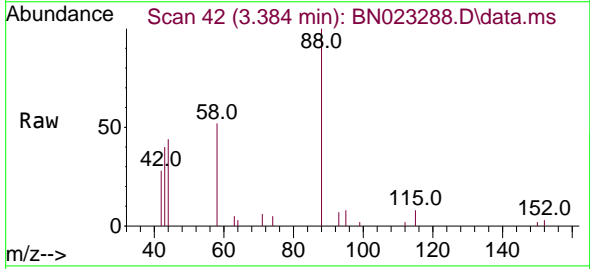


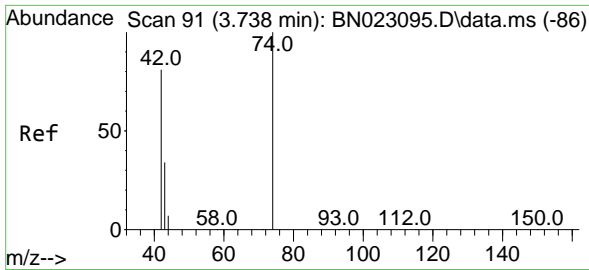
Tgt Ion:152 Resp: 8380  
 Ion Ratio Lower Upper  
 152 100  
 150 158.8 125.6 188.4  
 115 62.1 49.0 73.4



#2  
 1,4-Dioxane  
 Concen: 0.393 ng  
 RT: 3.384 min Scan# 42  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Tgt Ion: 88 Resp: 3249  
 Ion Ratio Lower Upper  
 88 100  
 43 26.9 23.3 34.9  
 58 70.1 58.0 87.0



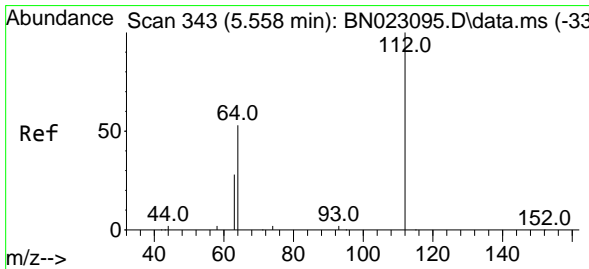
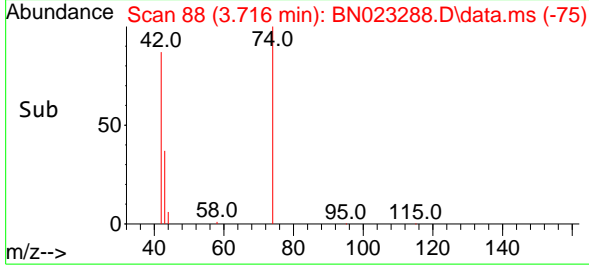
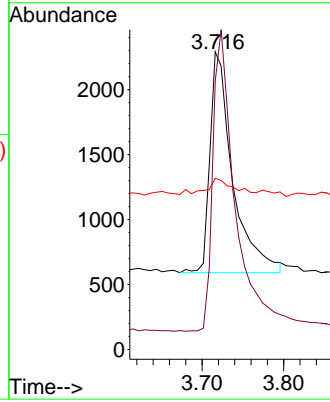
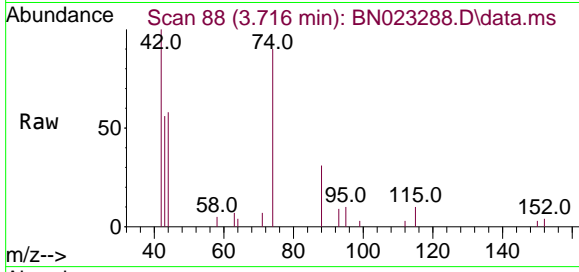


#3  
 n-Nitrosodimethylamine  
 Concen: 0.404 ng  
 RT: 3.716 min Scan# 88  
 Delta R.T. -0.007 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BSD

Tgt Ion: 42 Resp: 3278

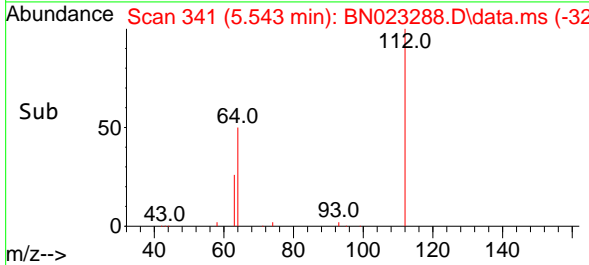
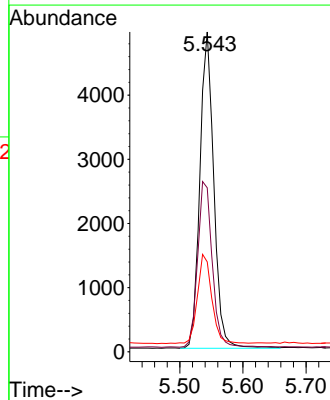
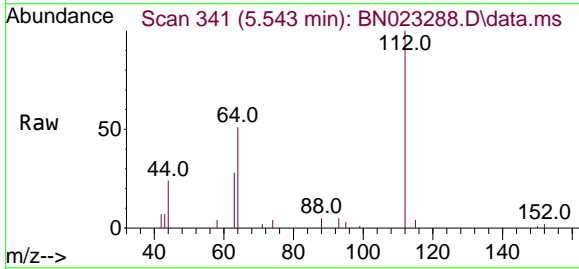
Ion	Ratio	Lower	Upper
42	100		
74	133.9	95.8	143.6
44	6.6	8.4	12.6

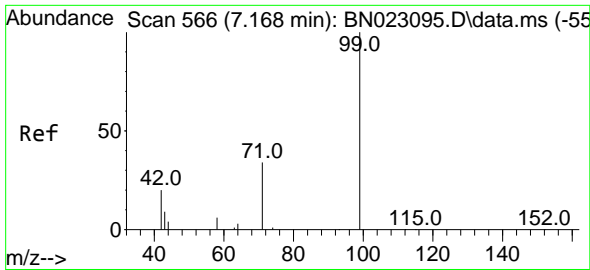


#4  
 2-Fluorophenol  
 Concen: 0.483 ng  
 RT: 5.543 min Scan# 341  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Tgt Ion: 112 Resp: 7545

Ion	Ratio	Lower	Upper
112	100		
64	54.8	44.4	66.6
63	29.3	23.7	35.5

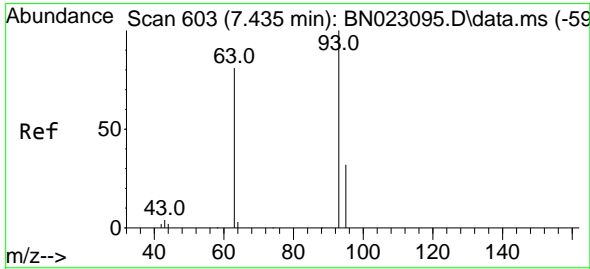
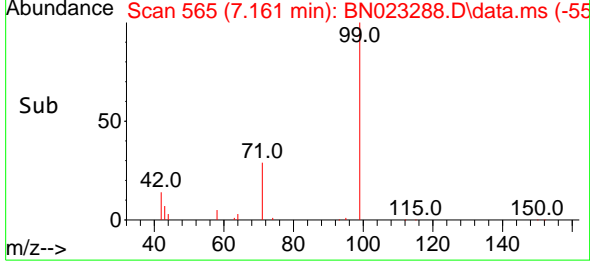
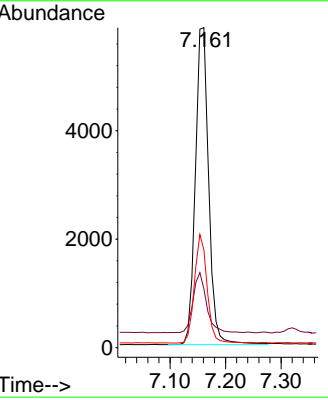
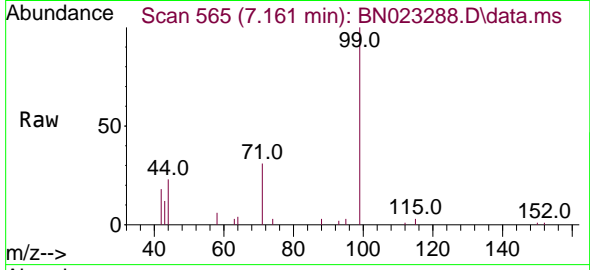




#5  
 Phenol-d6  
 Concen: 0.492 ng  
 RT: 7.161 min Scan# 565  
 Delta R.T. 0.007 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

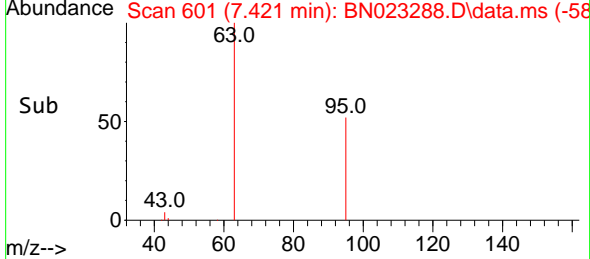
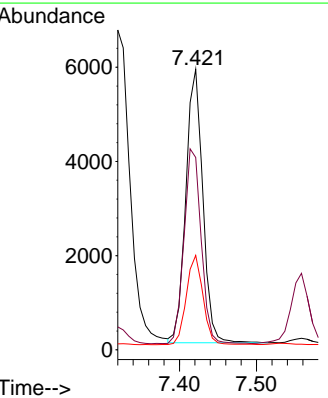
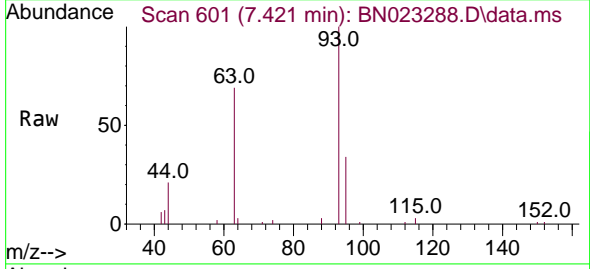
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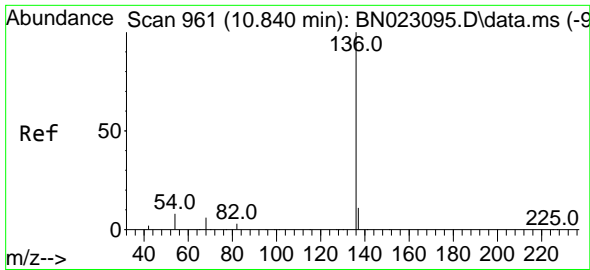
Tgt Ion	Resp	Ion Ratio	Lower	Upper
99	9755	100		
42	19.4	16.3	24.5	
71	32.6	26.5	39.7	



#6  
 bis(2-Chloroethyl)ether  
 Concen: 0.393 ng  
 RT: 7.421 min Scan# 601  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Tgt Ion	Resp	Ion Ratio	Lower	Upper
93	8864	100		
63	71.9	58.1	87.1	
95	32.4	25.2	37.8	



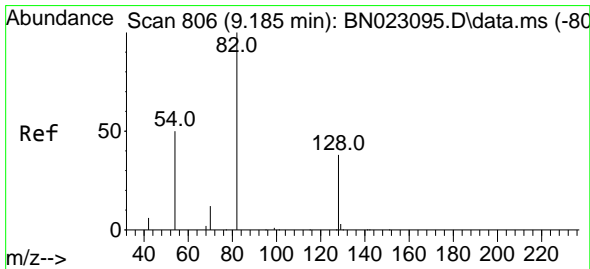
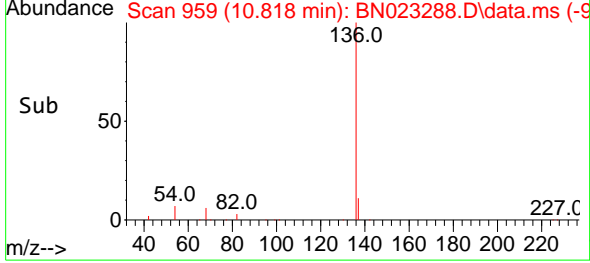
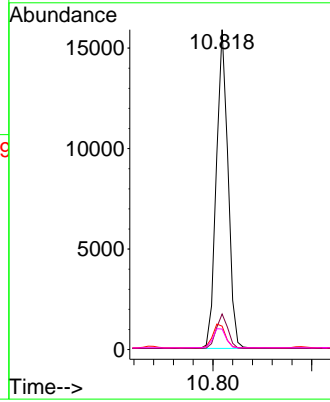
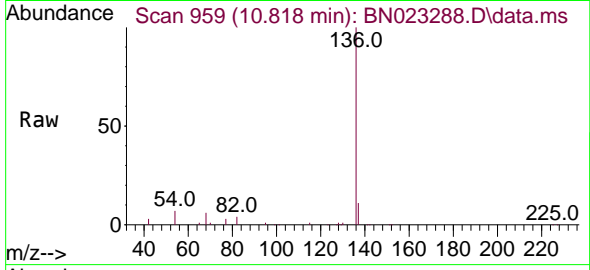


#7  
 Naphthalene-d8  
 Concen: 0.400 ng  
 RT: 10.818 min Scan# 91  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BSD

Tgt Ion:136 Resp: 26080

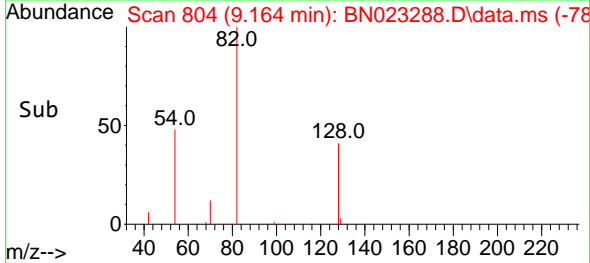
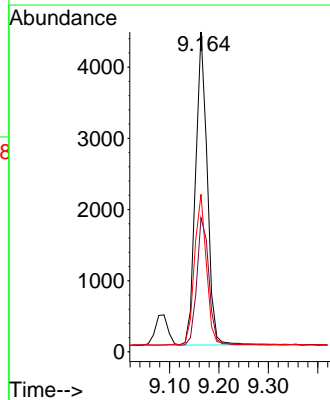
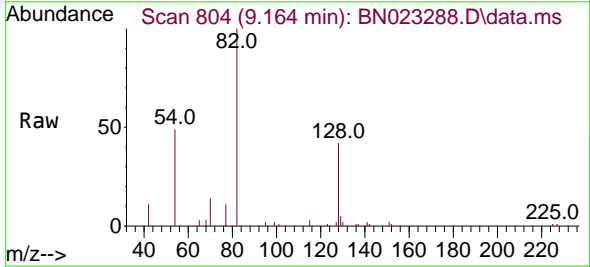
Ion	Ratio	Lower	Upper
136	100		
137	11.1	9.0	13.4
54	7.3	6.5	9.7
68	6.4	5.4	8.2

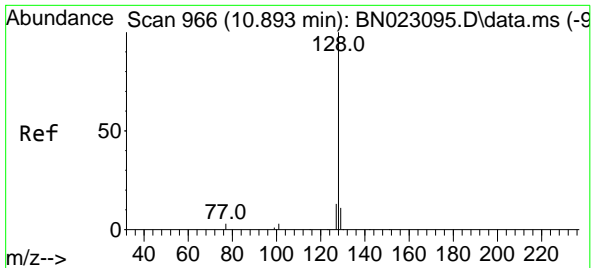


#8  
 Nitrobenzene-d5  
 Concen: 0.420 ng  
 RT: 9.164 min Scan# 804  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Tgt Ion: 82 Resp: 7213

Ion	Ratio	Lower	Upper
82	100		
128	41.9	31.4	47.2
54	49.2	41.0	61.4



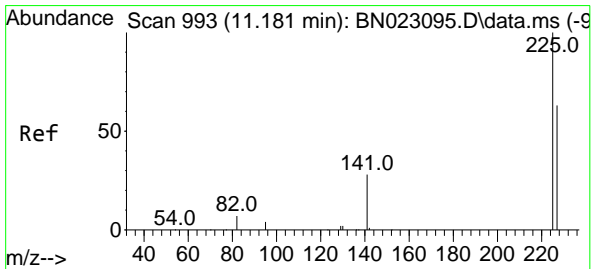
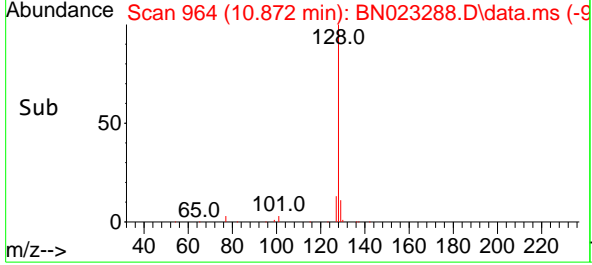
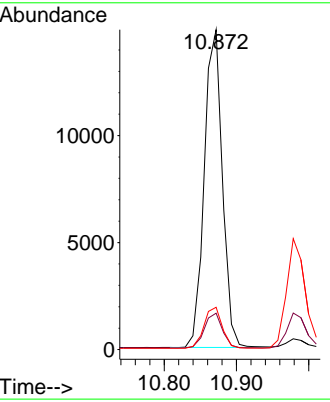
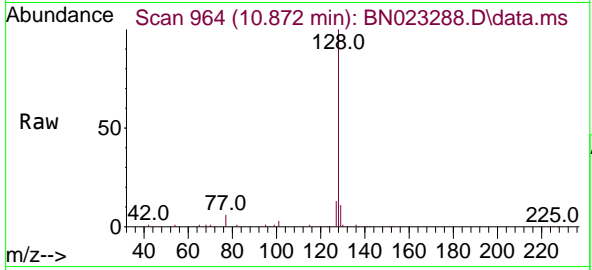


#9  
 Naphthalene  
 Concen: 0.390 ng  
 RT: 10.872 min Scan# 90  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BSD

Tgt Ion:128 Resp: 25915

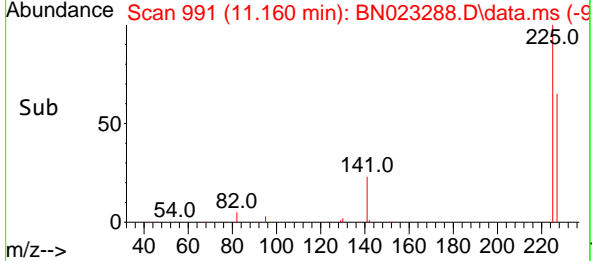
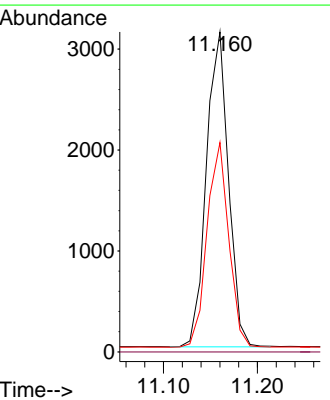
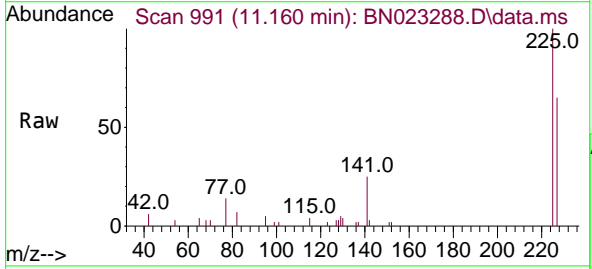
Ion	Ratio	Lower	Upper
128	100		
129	11.4	9.0	13.6
127	13.2	10.5	15.7



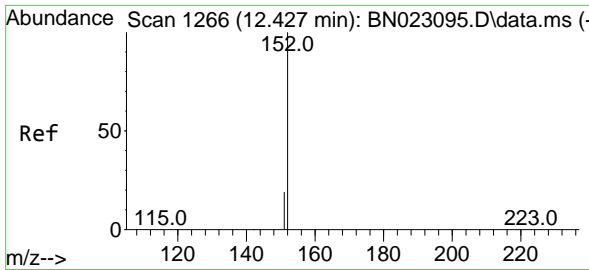
#10  
 Hexachlorobutadiene  
 Concen: 0.402 ng  
 RT: 11.160 min Scan# 991  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Tgt Ion:225 Resp: 5090

Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	0.0
227	63.7	51.1	76.7

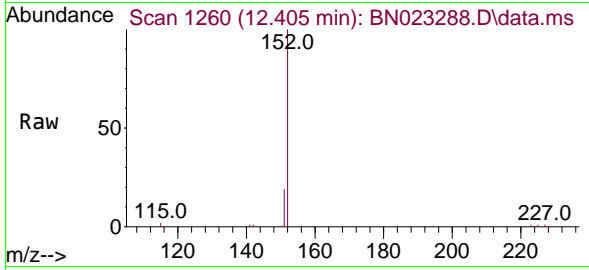




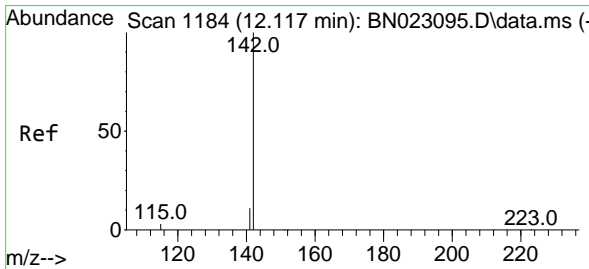
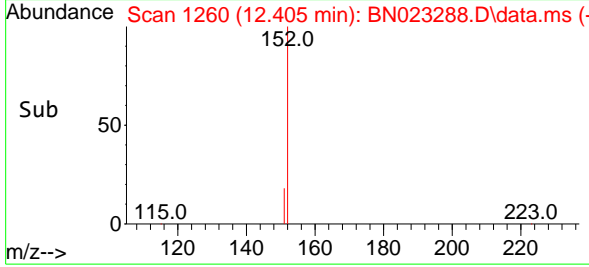
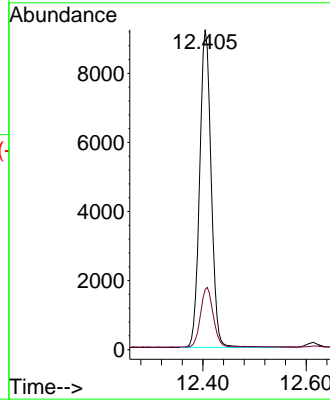


#11  
 2-Methylnaphthalene-d10  
 Concen: 0.374 ng  
 RT: 12.405 min Scan# 1180  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BSD

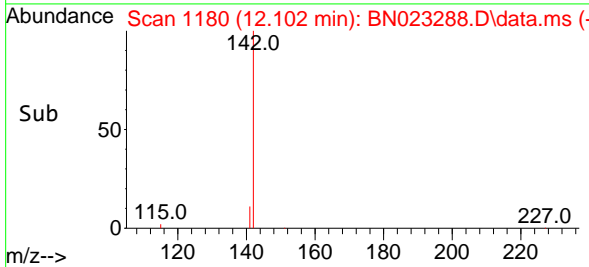
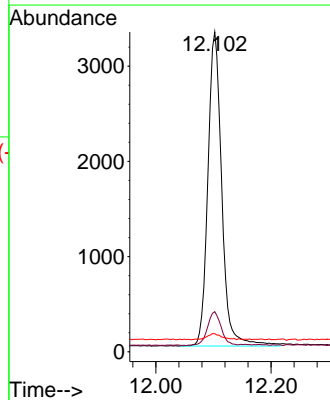
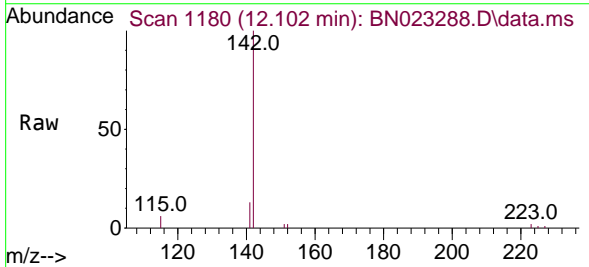


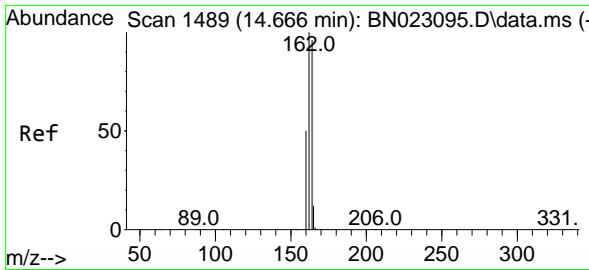
Tgt Ion:152 Resp: 16556  
 Ion Ratio Lower Upper  
 152 100  
 151 17.6 15.1 22.7



#12  
 2-Methylnaphthalene  
 Concen: 0.558 ng  
 RT: 12.102 min Scan# 1180  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Tgt Ion:142 Resp: 5521  
 Ion Ratio Lower Upper  
 142 100  
 141 12.6 10.9 16.3  
 115 5.7 5.7 8.5#

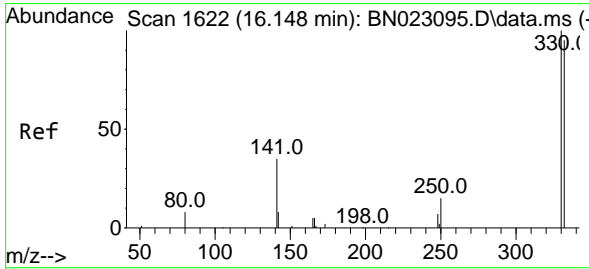
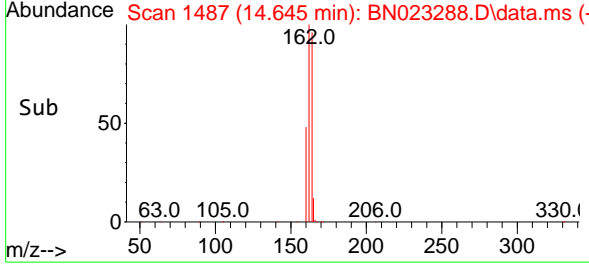
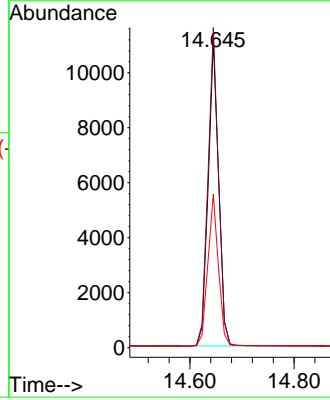
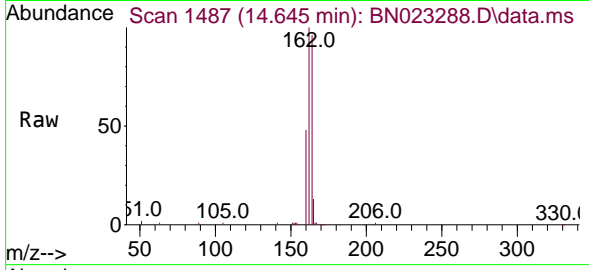




#13  
 Acenaphthene-d10  
 Concen: 0.400 ng  
 RT: 14.645 min Scan# 1487  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

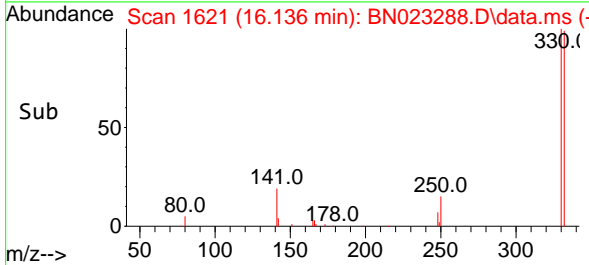
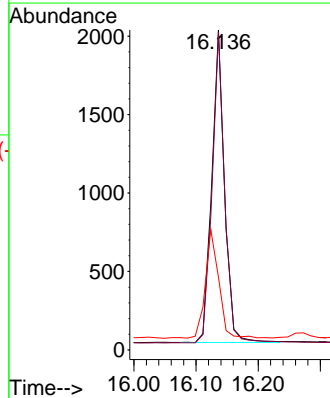
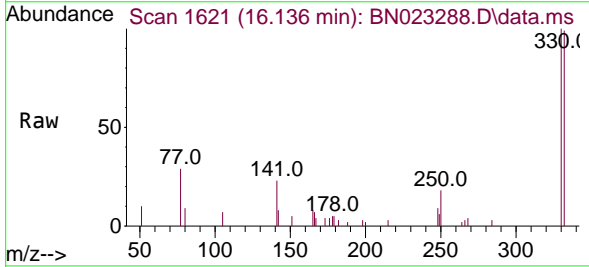
Instrument : BNA\_N  
 ClientSampleId : PB149692BSD

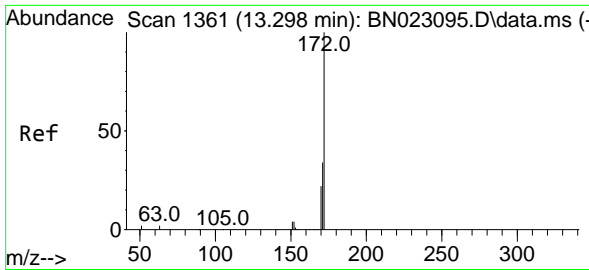
Tgt Ion	Resp	Lower	Upper
164	15594		
162	104.2	83.4	125.0
160	50.0	41.8	62.8



#14  
 2,4,6-Tribromophenol  
 Concen: 0.502 ng  
 RT: 16.136 min Scan# 1621  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Tgt Ion	Resp	Lower	Upper
330	2840		
332	97.4	77.3	115.9
141	35.8	33.5	50.3

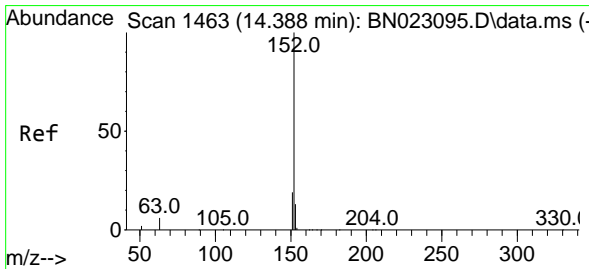
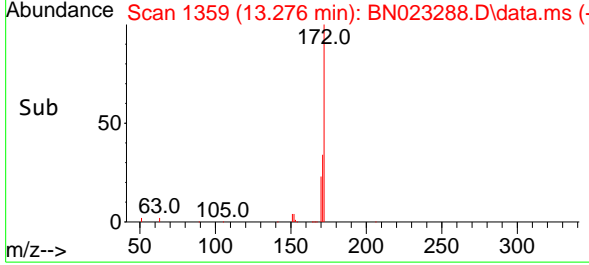
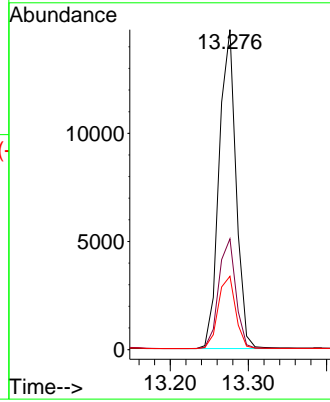
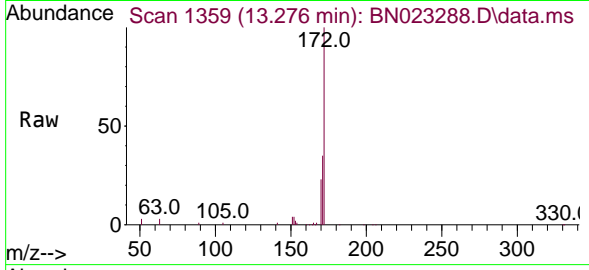




#15  
 2-Fluorobiphenyl  
 Concen: 0.357 ng  
 RT: 13.276 min Scan# 1359  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

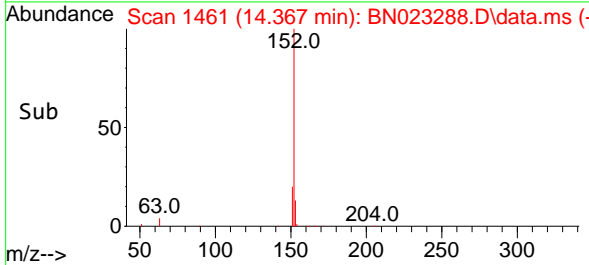
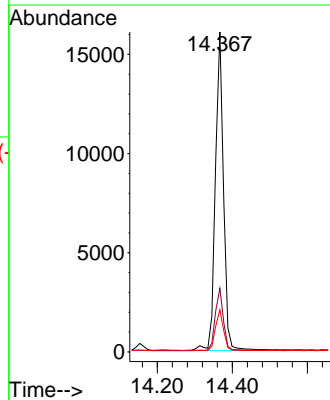
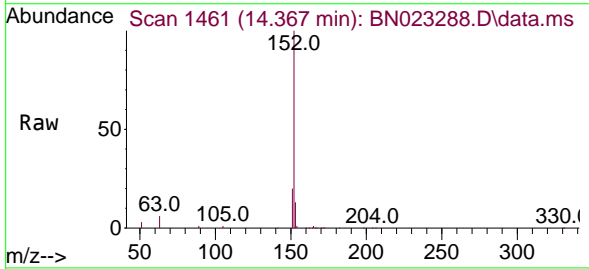
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BSD

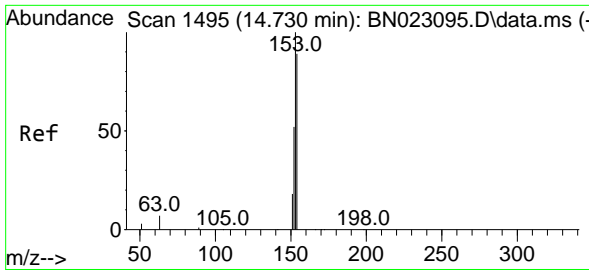
Tgt Ion	Resp	Lower	Upper
172	22265		
171	34.6	27.4	41.0
170	22.9	17.9	26.9



#16  
 Acenaphthylene  
 Concen: 0.387 ng  
 RT: 14.367 min Scan# 1461  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Tgt Ion	Resp	Lower	Upper
152	24287		
151	19.3	15.4	23.2
153	12.8	10.3	15.5



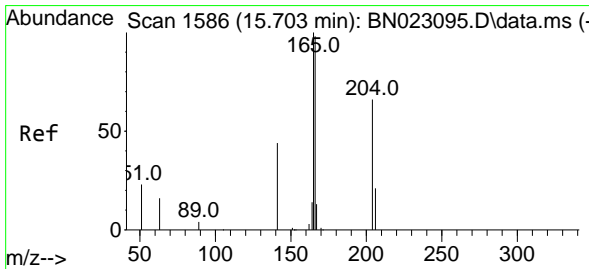
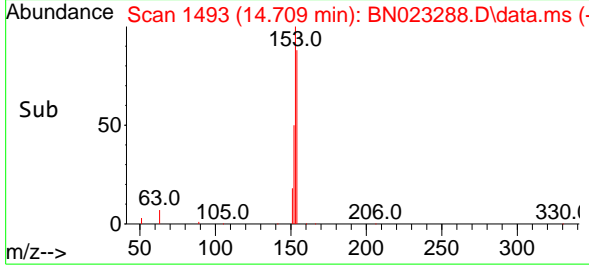
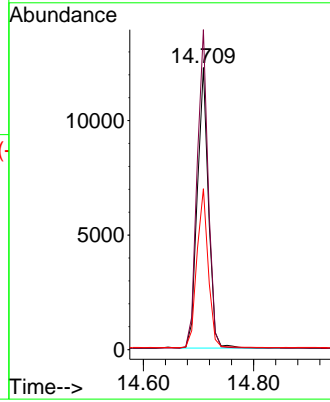
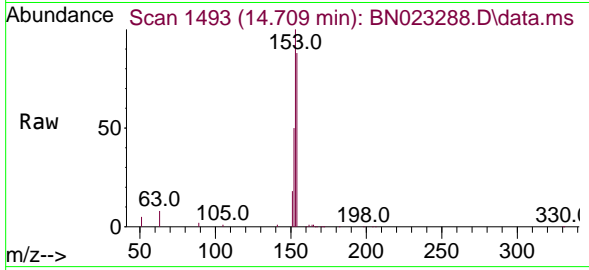


#17  
**Acenaphthene**  
 Concen: 0.371 ng  
 RT: 14.709 min Scan# 1493  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 PB149692BSD

Tgt Ion:154 Resp: 17134

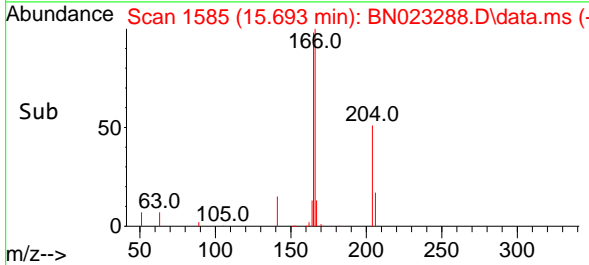
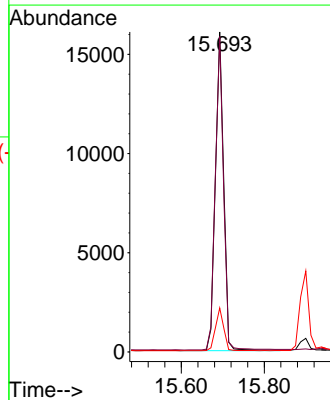
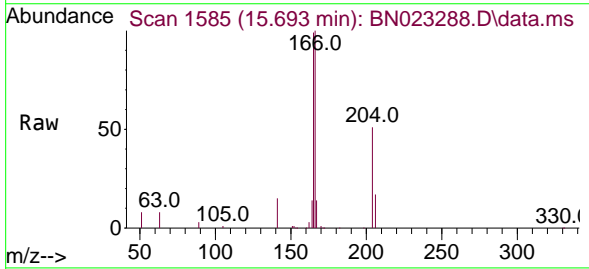
Ion	Ratio	Lower	Upper
154	100		
153	113.4	88.6	132.8
152	57.6	48.1	72.1

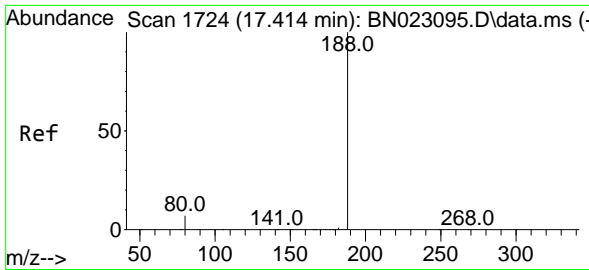


#18  
**Fluorene**  
 Concen: 0.458 ng  
 RT: 15.693 min Scan# 1585  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Tgt Ion:166 Resp: 23685

Ion	Ratio	Lower	Upper
166	100		
165	98.1	79.8	119.6
167	13.5	10.6	16.0



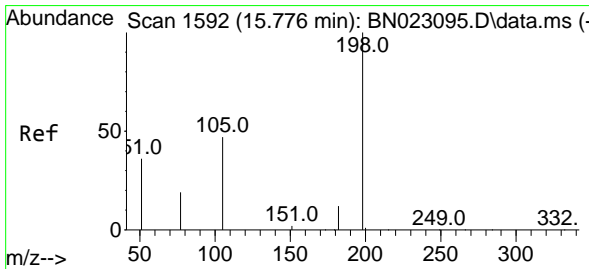
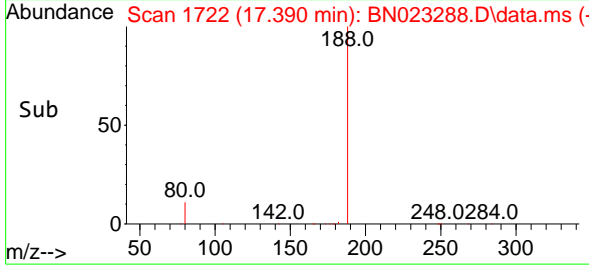
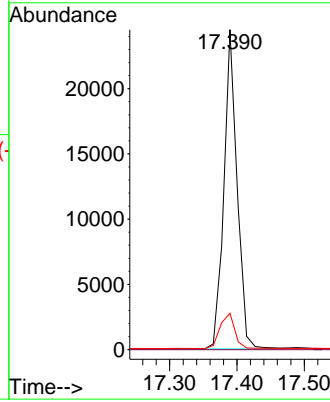
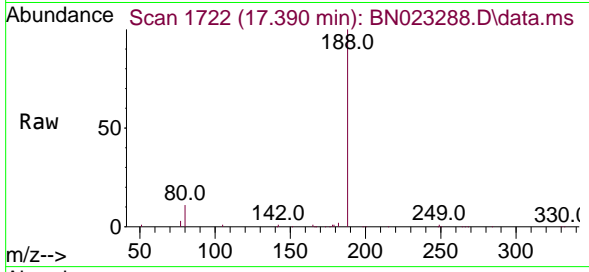


#19  
 Phenanthrene-d10  
 Concen: 0.400 ng  
 RT: 17.390 min Scan# 11  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BSD

Tgt Ion:188 Resp: 33450

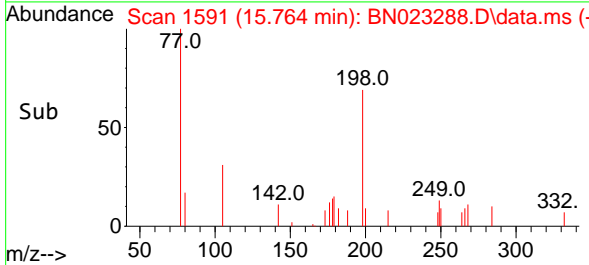
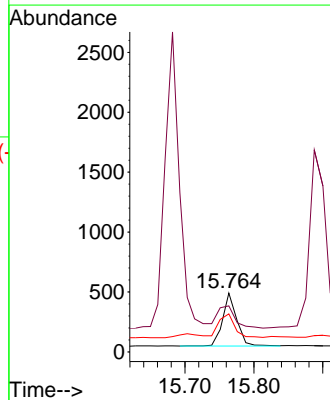
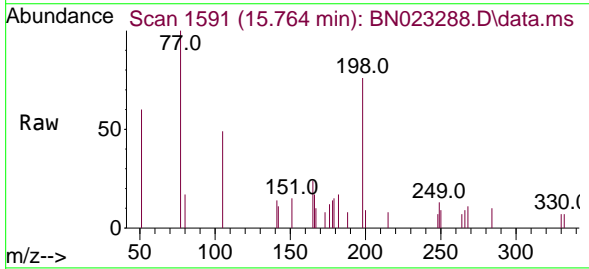
Ion	Ratio	Lower	Upper
188	100		
94	0.0	0.0	0.0
80	11.4	6.1	9.1#

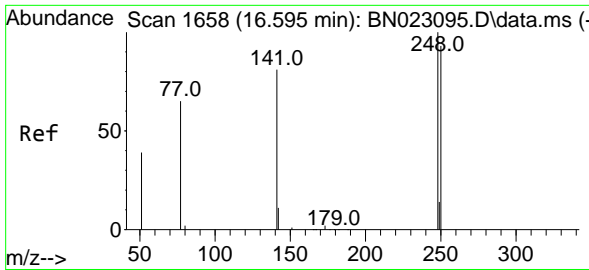


#20  
 4,6-Dinitro-2-methylphenol  
 Concen: 0.325 ng  
 RT: 15.764 min Scan# 1591  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Tgt Ion:198 Resp: 614

Ion	Ratio	Lower	Upper
198	100		
51	78.2	57.0	85.4
105	64.6	47.2	70.8

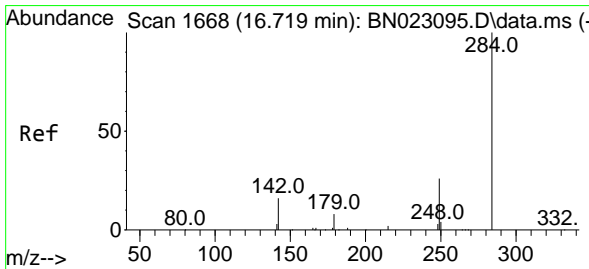
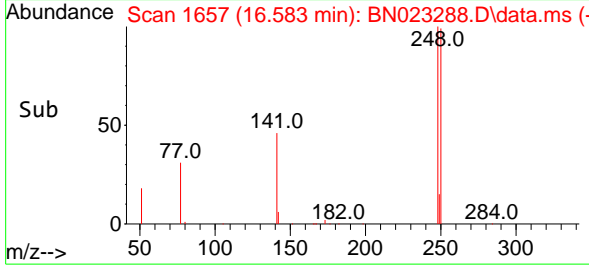
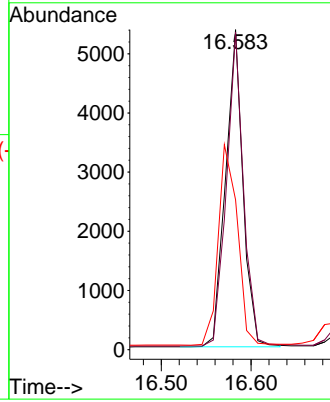
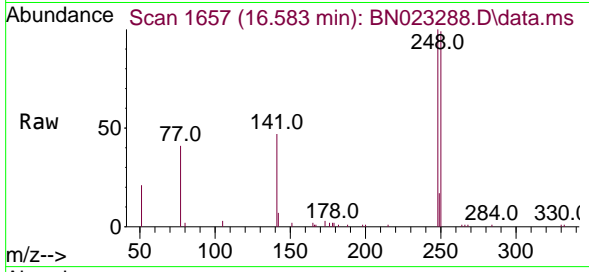




#21  
 4-Bromophenyl-phenylether  
 Concen: 0.406 ng  
 RT: 16.583 min Scan# 1657  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

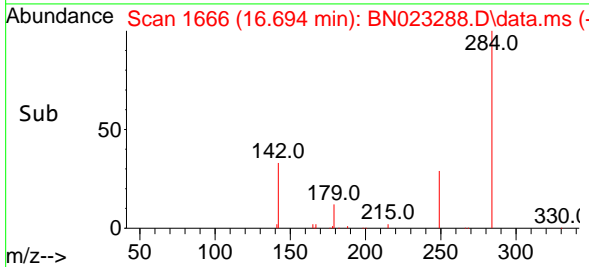
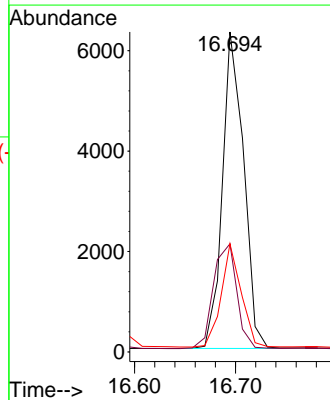
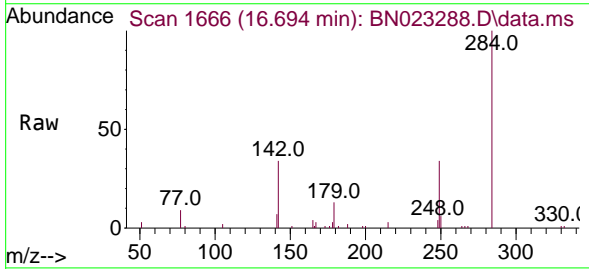
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BSD

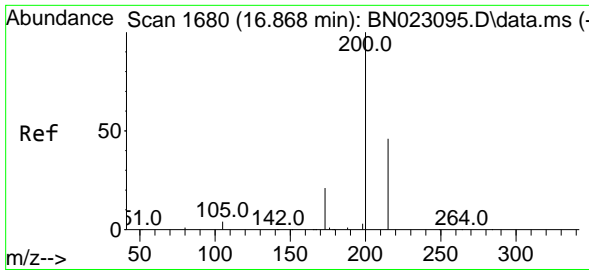
Tgt Ion	Resp	Lower	Upper
248	100		
250	99.1	74.3	111.5
141	46.8	65.0	97.6



#22  
 Hexachlorobenzene  
 Concen: 0.394 ng  
 RT: 16.694 min Scan# 1666  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Tgt Ion	Resp	Lower	Upper
284	100		
142	36.5	31.0	46.4
249	30.5	24.4	36.6

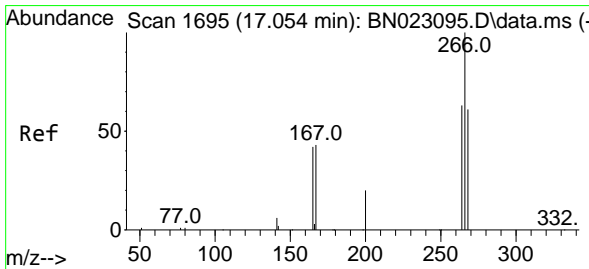
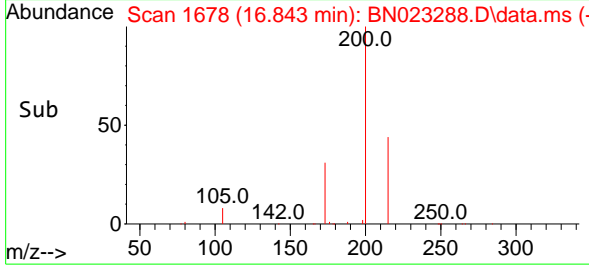
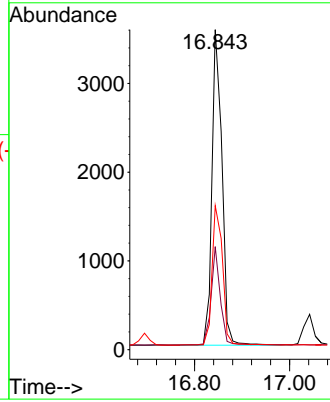
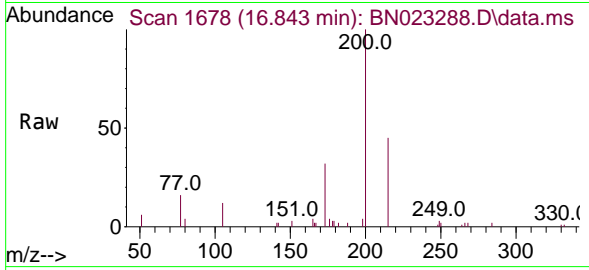




#23  
**Atrazine**  
 Concen: 0.411 ng  
 RT: 16.843 min Scan# 1680  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

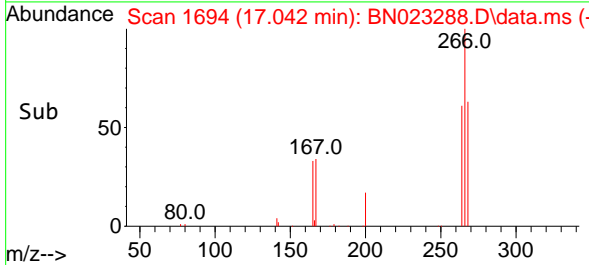
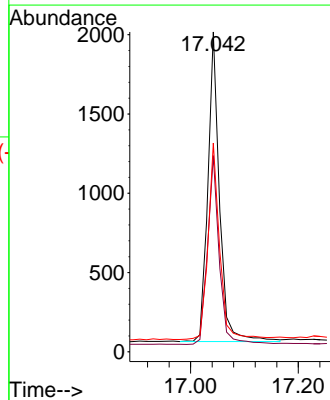
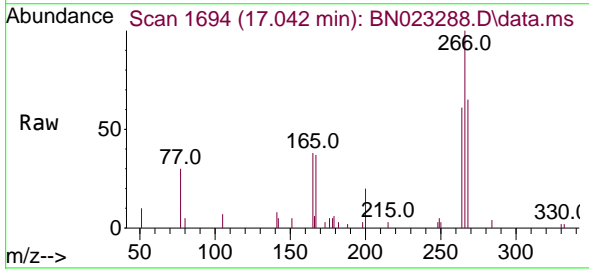
**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 PB149692BSD

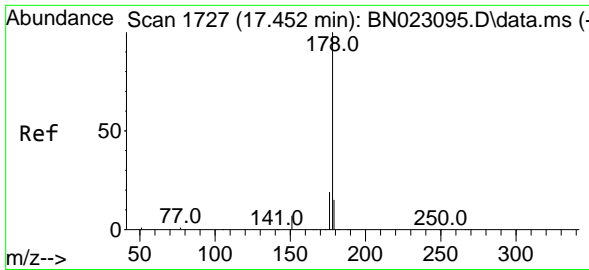
Tgt Ion	Resp	Ion Ratio	Lower	Upper
200	5175	100		
173	32.2	3.2	18.2	27.4
215	45.0	4.5	38.0	57.0



#24  
**Pentachlorophenol**  
 Concen: 0.362 ng  
 RT: 17.042 min Scan# 1694  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Tgt Ion	Resp	Ion Ratio	Lower	Upper
266	2942	100		
264	61.6	6.2	50.1	75.1
268	63.2	6.5	49.7	74.5

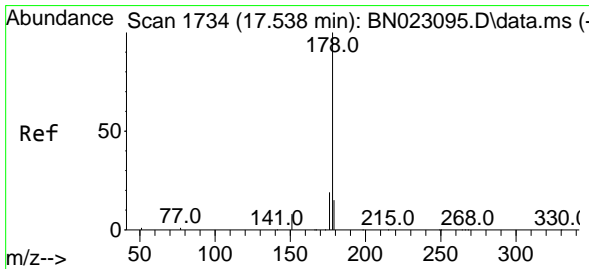
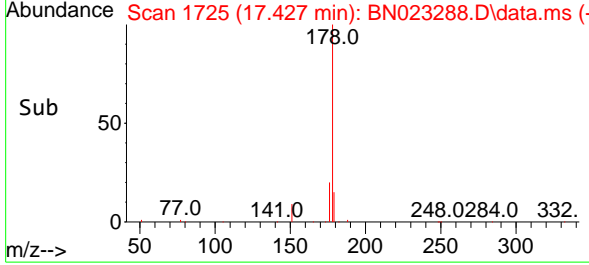
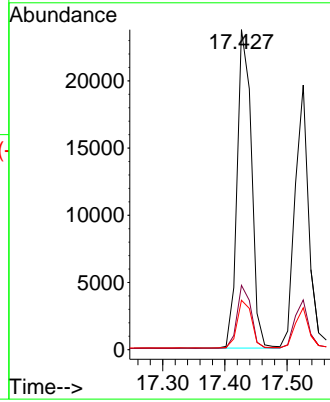
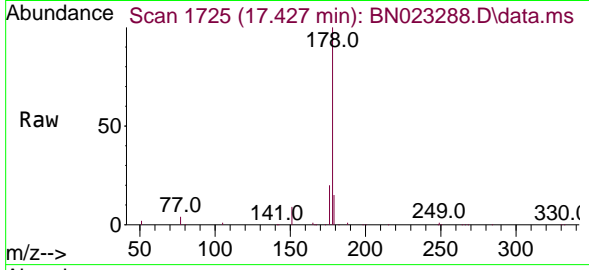




#25  
 Phenanthrene  
 Concen: 0.379 ng  
 RT: 17.427 min Scan# 1725  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

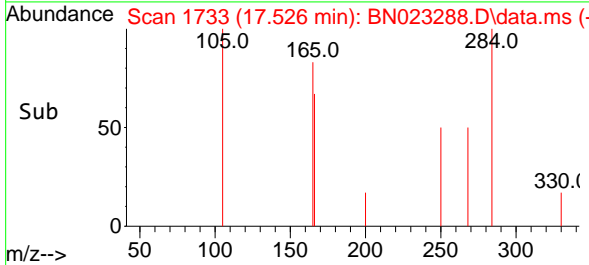
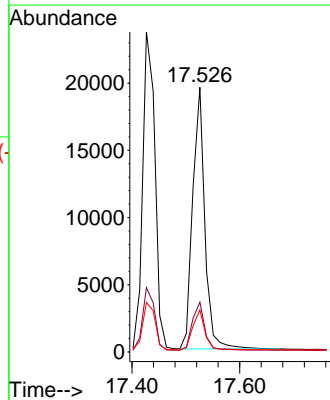
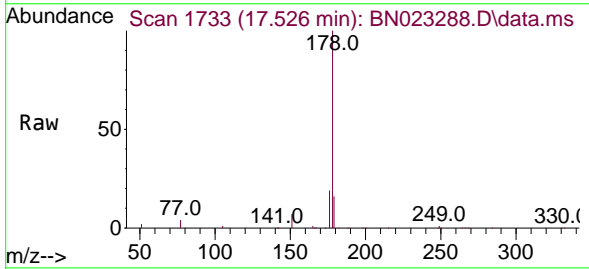
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BSD

Tgt Ion	Resp	Lower	Upper
178	37812		
176	19.4	15.4	23.2
179	15.4	12.2	18.2

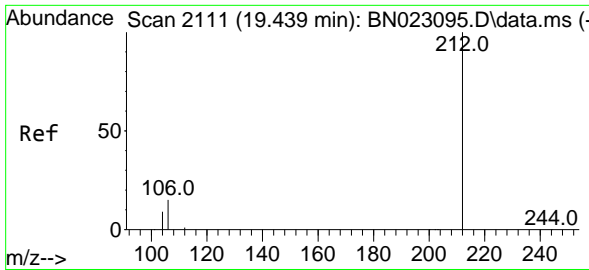


#26  
 Anthracene  
 Concen: 0.384 ng  
 RT: 17.526 min Scan# 1733  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Tgt Ion	Resp	Lower	Upper
178	30463		
176	18.8	15.1	22.7
179	15.4	12.2	18.4

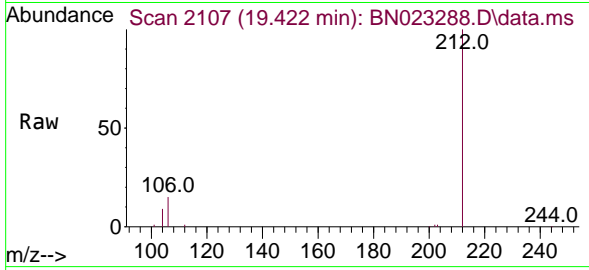




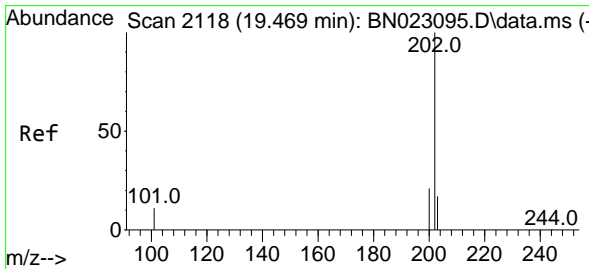
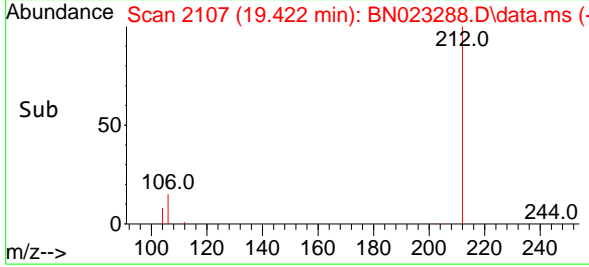
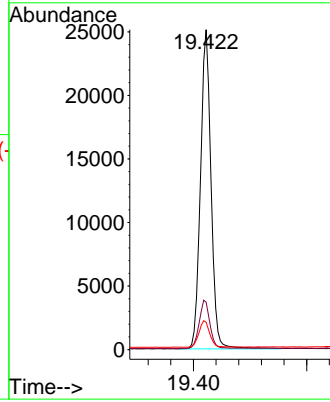


#27  
 Fluoranthene-d10  
 Concen: 0.412 ng  
 RT: 19.422 min Scan# 2114  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BSD

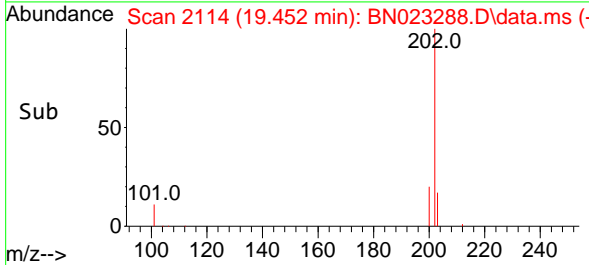
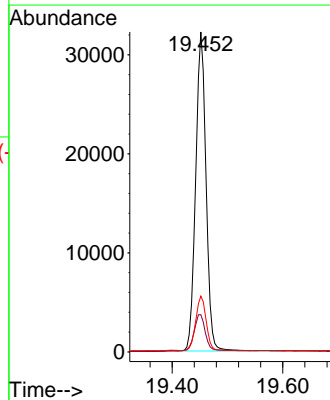
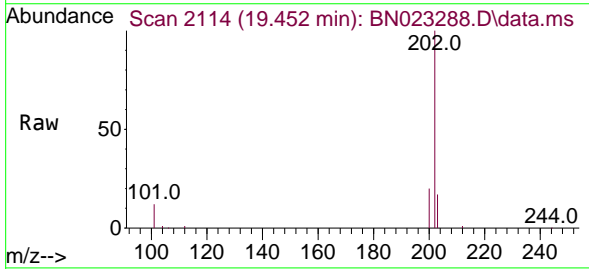


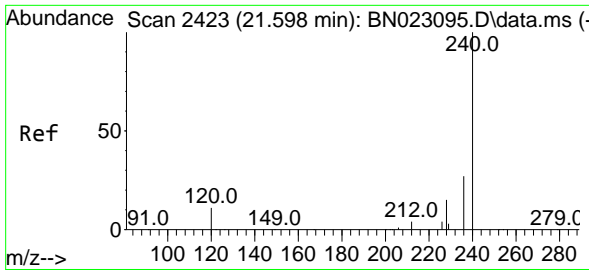
Tgt Ion:212 Resp: 32302  
 Ion Ratio Lower Upper  
 212 100  
 106 15.4 13.0 19.4  
 104 8.5 7.5 11.3



#28  
 Fluoranthene  
 Concen: 0.392 ng  
 RT: 19.452 min Scan# 2114  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Tgt Ion:202 Resp: 41868  
 Ion Ratio Lower Upper  
 202 100  
 101 12.5 9.7 14.5  
 203 17.1 13.8 20.6

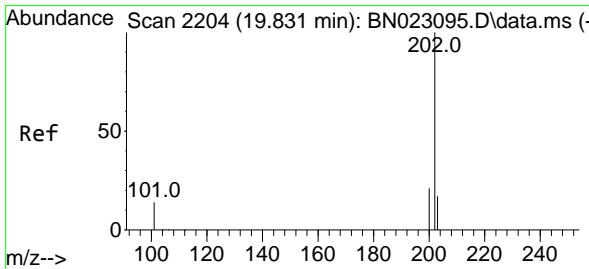
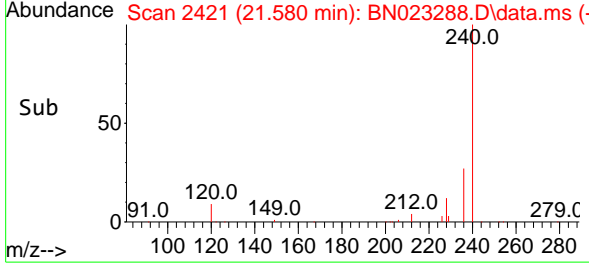
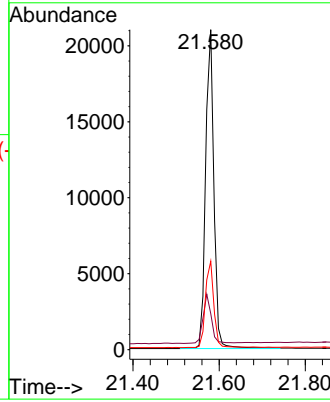
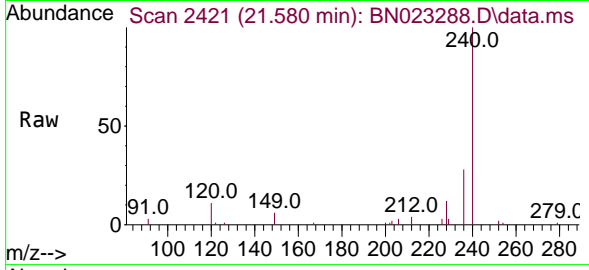




#29  
 Chrysene-d12  
 Concen: 0.400 ng  
 RT: 21.580 min Scan# 2421  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

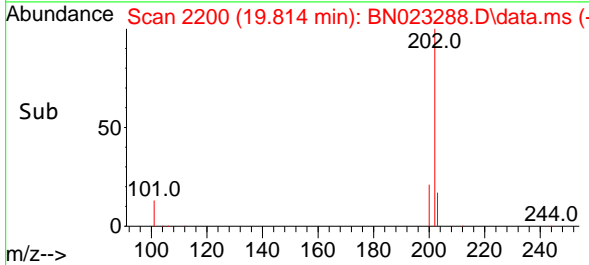
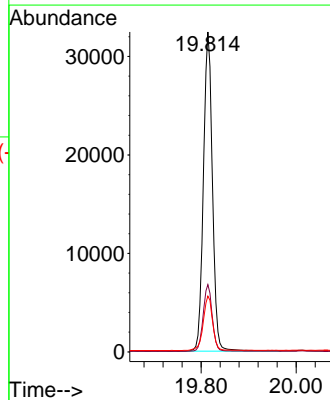
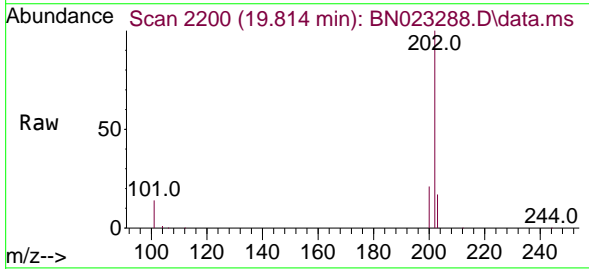
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BSD

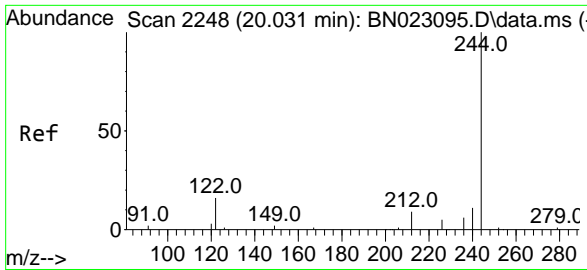
Tgt Ion	Resp	Ion Ratio	Lower	Upper
240	27783	100		
120	11.2	10.1	15.1	
236	27.6	22.2	33.4	



#30  
 Pyrene  
 Concen: 0.420 ng  
 RT: 19.814 min Scan# 2200  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Tgt Ion	Resp	Ion Ratio	Lower	Upper
202	42727	100		
200	21.0	16.9	25.3	
203	17.7	14.2	21.4	

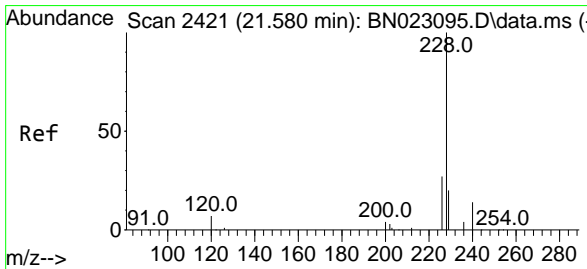
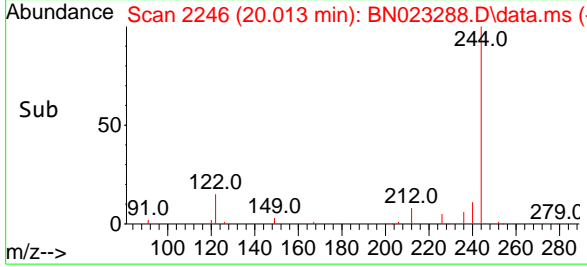
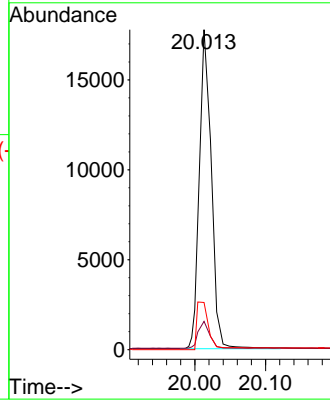
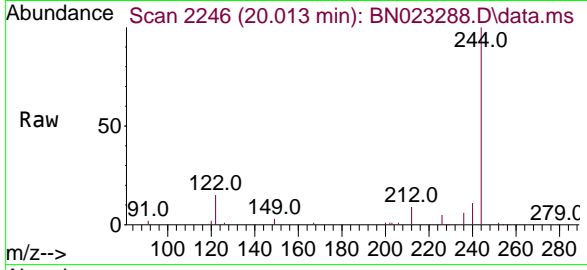




#31  
 Terphenyl-d14  
 Concen: 0.422 ng  
 RT: 20.013 min Scan# 2199  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

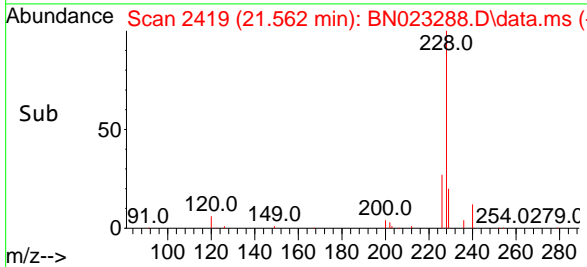
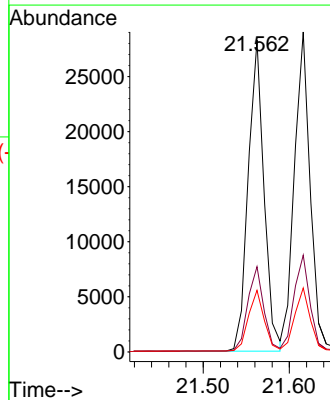
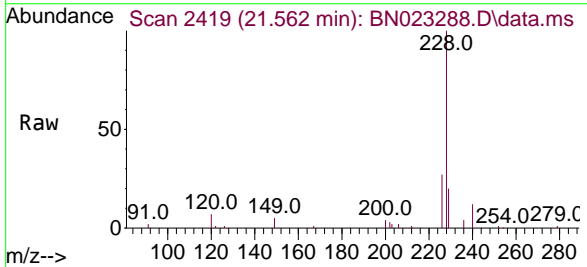
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BSD

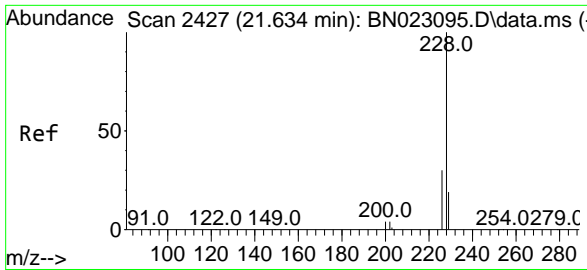
Tgt Ion	Resp	Lower	Upper
244	19027		
212	8.8	7.6	11.4
122	14.7	12.6	18.8



#32  
 Benzo(a)anthracene  
 Concen: 0.403 ng  
 RT: 21.562 min Scan# 2419  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Tgt Ion	Resp	Lower	Upper
228	36084		
226	27.3	22.0	33.0
229	19.7	15.8	23.8

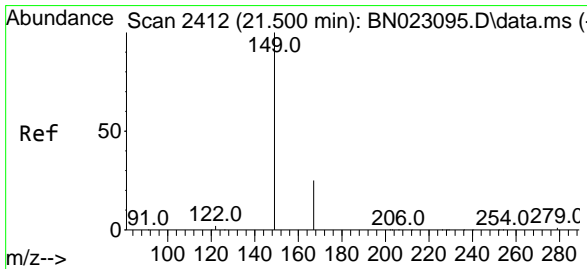
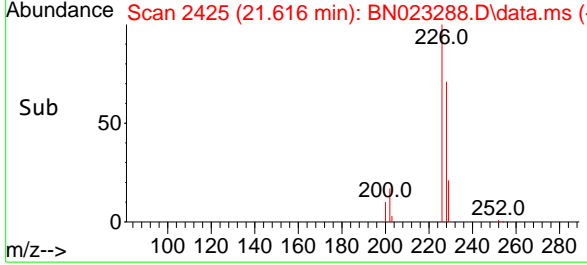
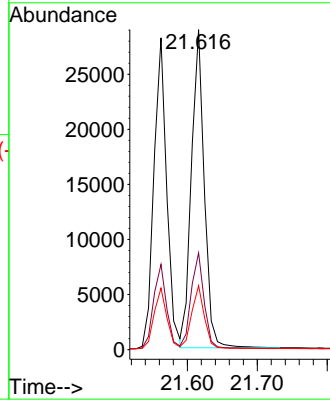
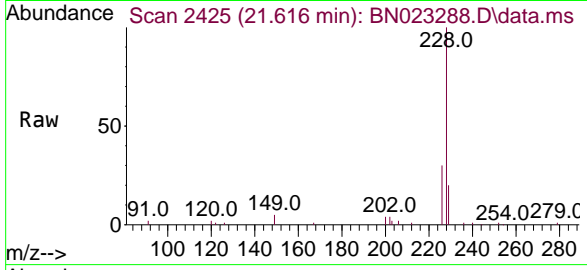




#33  
 Chrysene  
 Concen: 0.367 ng  
 RT: 21.616 min Scan# 2410  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

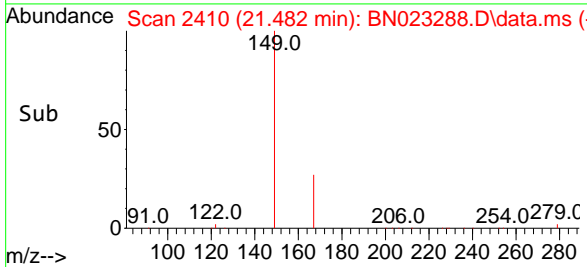
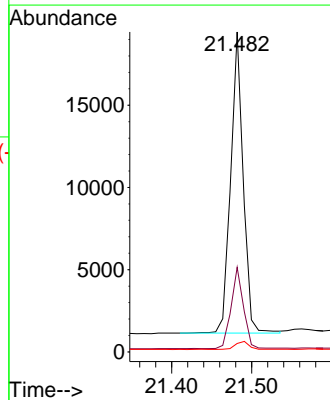
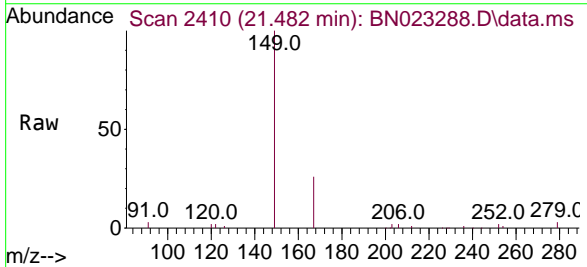
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BSD

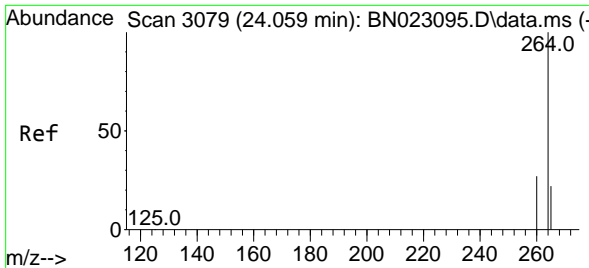
Tgt Ion	Resp	Lower	Upper
228	100		
226	30.2	24.4	36.6
229	20.0	15.6	23.4



#34  
 Bis(2-ethylhexyl)phthalate  
 Concen: 0.525 ng  
 RT: 21.482 min Scan# 2410  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Tgt Ion	Resp	Lower	Upper
149	100		
167	26.8	20.2	30.2
279	2.9	2.3	3.5

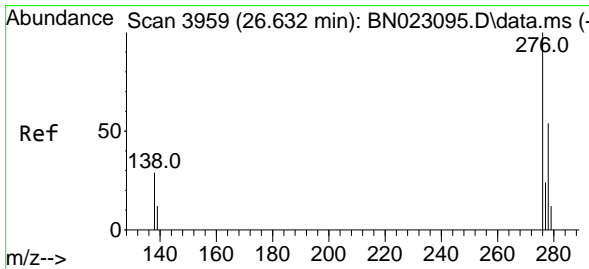
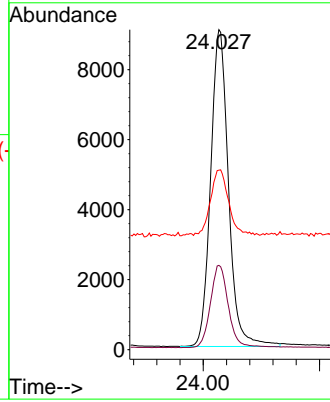
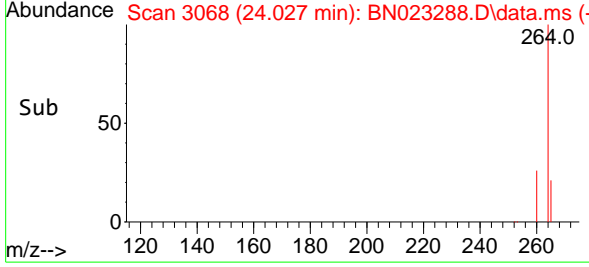
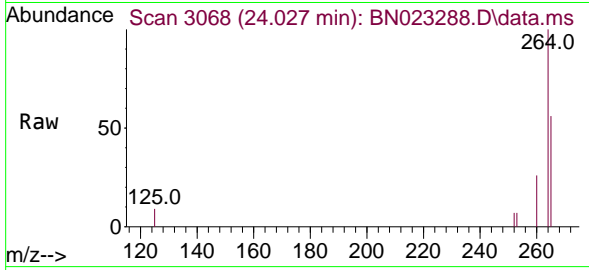




#35  
**Perylene-d12**  
 Concen: 0.400 ng  
 RT: 24.027 min Scan# 3079  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

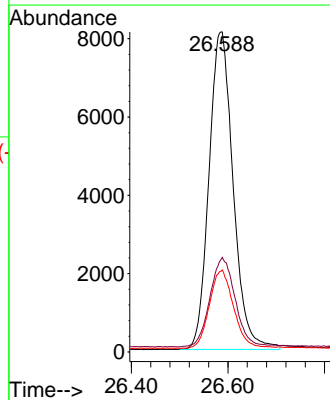
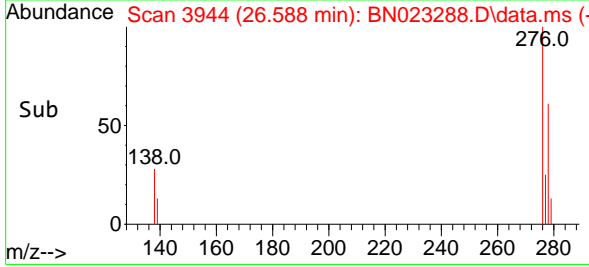
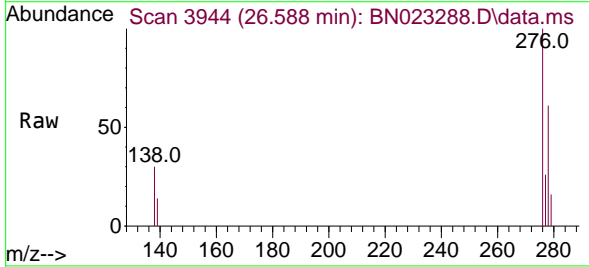
**Instrument :**  
 BNA\_N  
**ClientSampleId :**  
 PB149692BSD

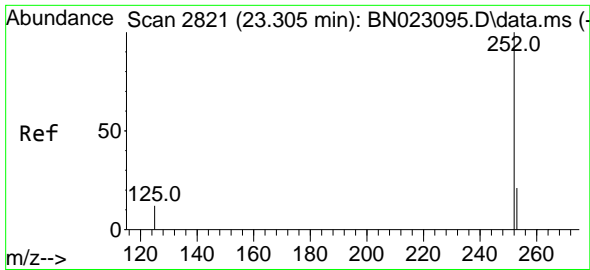
Tgt Ion	Resp	Lower	Upper
264	100		
260	26.3	21.7	32.5
265	56.1	43.2	64.8



#36  
**Indeno(1,2,3-cd)pyrene**  
 Concen: 0.326 ng  
 RT: 26.588 min Scan# 3944  
 Delta R.T. 0.003 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

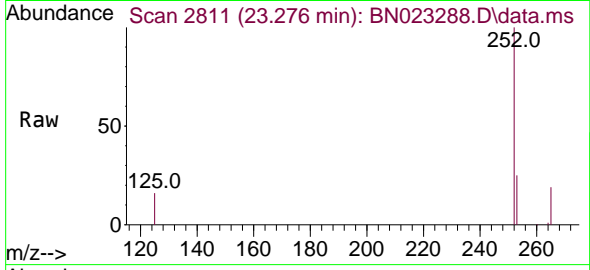
Tgt Ion	Resp	Lower	Upper
276	100		
138	29.2	25.0	37.6
277	24.4	19.8	29.8



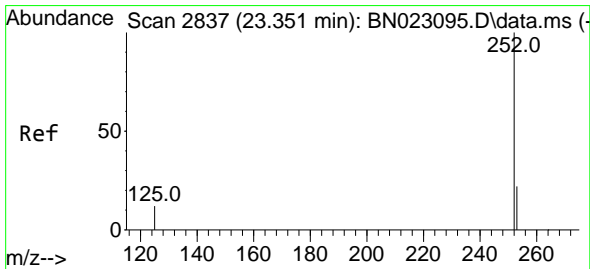
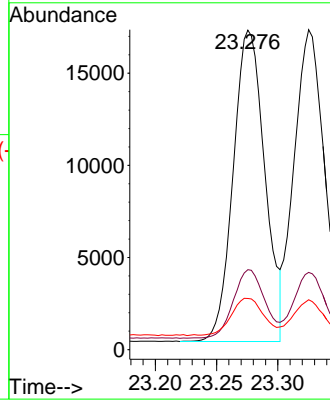
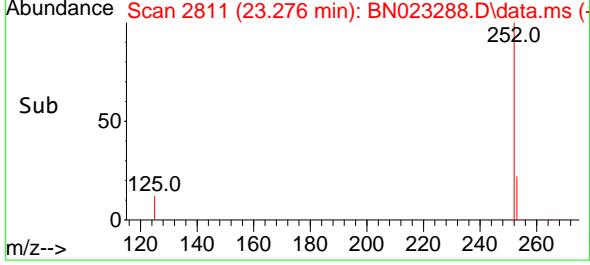


#37  
 Benzo(b)fluoranthene  
 Concen: 0.379 ng  
 RT: 23.276 min Scan# 2811  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

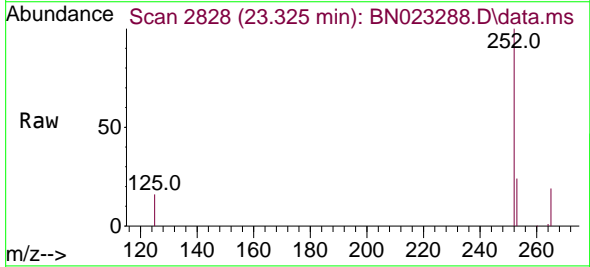
Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BSD



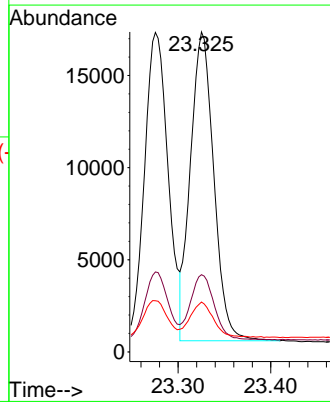
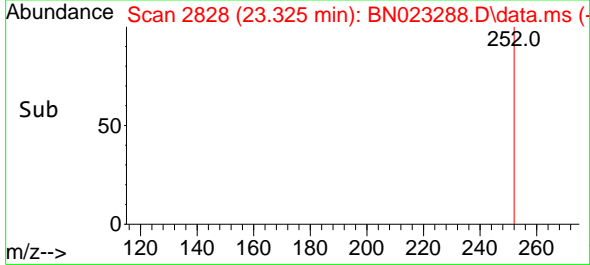
Tgt Ion:252 Resp: 30332  
 Ion Ratio Lower Upper  
 252 100  
 253 25.0 19.0 28.4  
 125 16.0 12.8 19.2

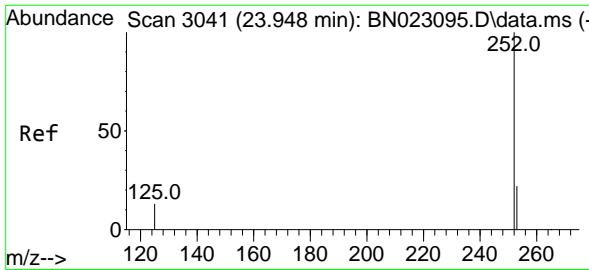


#38  
 Benzo(k)fluoranthene  
 Concen: 0.360 ng  
 RT: 23.325 min Scan# 2828  
 Delta R.T. -0.000 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21



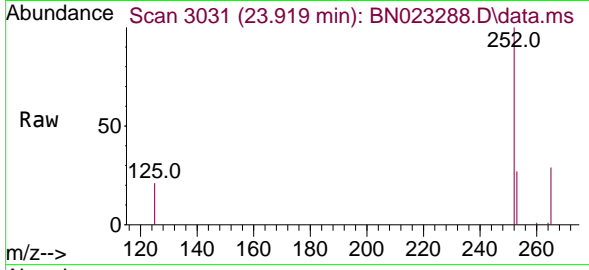
Tgt Ion:252 Resp: 29310  
 Ion Ratio Lower Upper  
 252 100  
 253 24.1 19.1 28.7  
 125 15.6 12.5 18.7



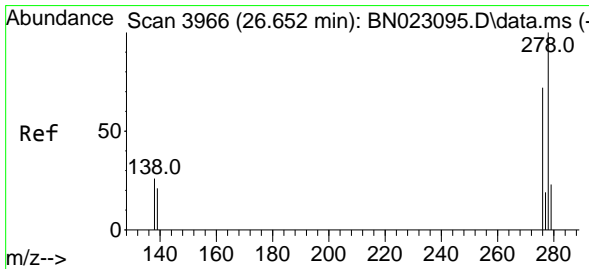
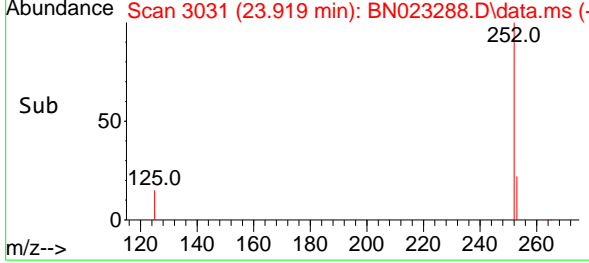
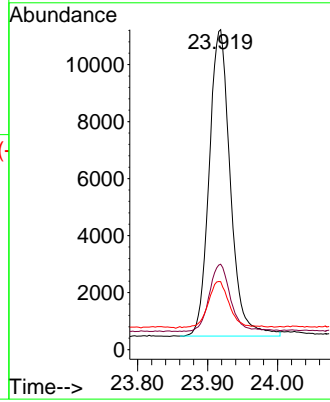


#39  
 Benzo(a)pyrene  
 Concen: 0.376 ng  
 RT: 23.919 min Scan# 3041  
 Delta R.T. 0.003 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BSD

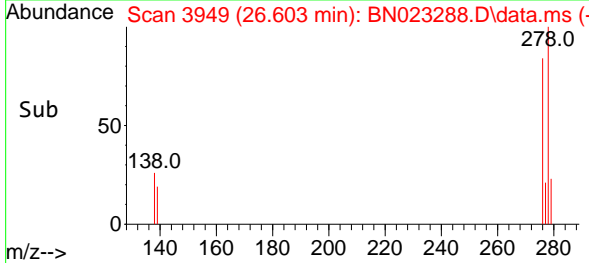
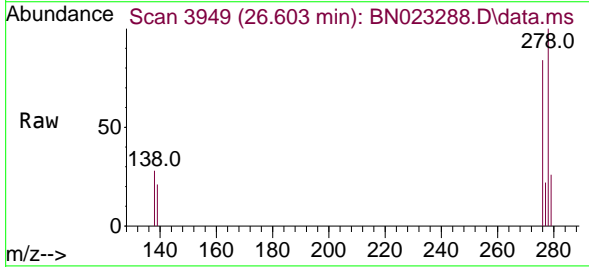
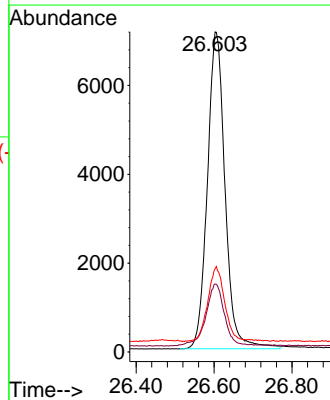


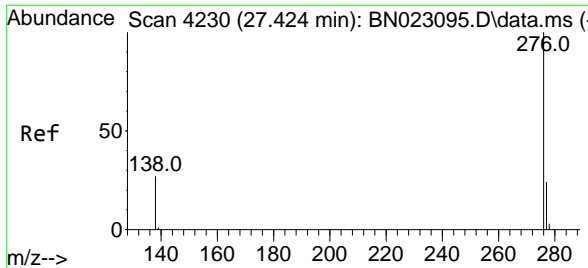
Tgt Ion:252 Resp: 22613  
 Ion Ratio Lower Upper  
 252 100  
 253 26.7 20.6 30.8  
 125 21.2 15.8 23.8



#40  
 Dibenzo(a,h)anthracene  
 Concen: 0.324 ng  
 RT: 26.603 min Scan# 3949  
 Delta R.T. -0.003 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

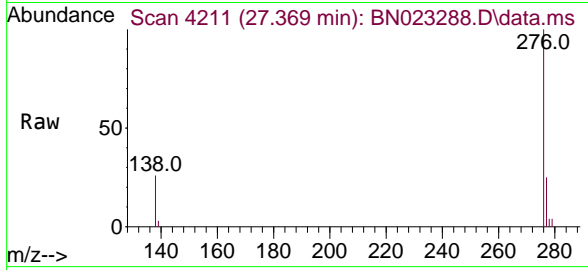
Tgt Ion:278 Resp: 22498  
 Ion Ratio Lower Upper  
 278 100  
 139 21.2 17.5 26.3  
 279 26.0 20.5 30.7



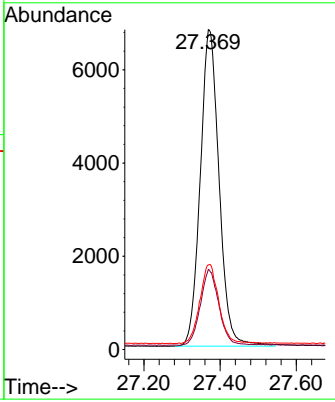
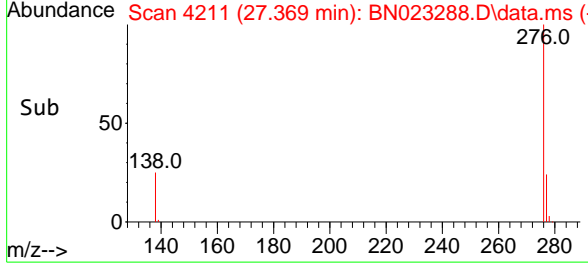


#41  
 Benzo(g,h,i)perylene  
 Concen: 0.314 ng  
 RT: 27.369 min Scan# 41  
 Delta R.T. -0.003 min  
 Lab File: BN023288.D  
 Acq: 19 Dec 2022 16:21

Instrument :  
 BNA\_N  
 ClientSampleId :  
 PB149692BSD



Tgt Ion	Resp	Lower	Upper
276	100		
277	25.0	19.9	29.9
138	26.5	22.2	33.2



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

### Manual Integration Report

Sequence:	BN120822	Instrument	BNA_n
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
SSTDICC5.0	BN023099.D	1,4-Dioxane	Christian	12/13/2022 10:05:00 AM	Jagrut	12/13/2022 10:06:45 AM	Peak Integrated by Software

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- 17



### Manual Integration Report

Sequence:	BN121922	Instrument	BNA_n
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
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**Daily Analysis Runlog For Sequence/QC Batch ID # BN120822**

Review By	Christian	Review On	12/13/2022 10:05:36 AM
Supervise By	Jagrut	Supervise On	12/13/2022 10:07:05 AM
SubDirectory	BN120822	HP Acquire Method	BNA_N,8270_SIM HP Processing Method Bn120822
<b>STD. NAME</b>	<b>STD REF.#</b>		
Tune/Reschk	SP6029		
Initial Calibration Stds	SP6085,SP6083,SP6082,SP6081,SP6080,SP6079,SP6078		
CCC	SP6082		
Internal Standard/PEM	SP6065,10ul/1000ul sample		
ICV/I.BLK	SP6031		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleID	Data File Name	Date-Time	Operator	Status
1	DFTPP	BN023092.D	08 Dec 2022 12:45	CG/JU	Ok
2	SSTDICC0.1	BN023093.D	08 Dec 2022 14:00	CG/JU	Ok
3	SSTDICC0.2	BN023094.D	08 Dec 2022 14:37	CG/JU	Ok
4	SSTDICCC0.4	BN023095.D	08 Dec 2022 15:13	CG/JU	Ok
5	SSTDICC0.8	BN023096.D	08 Dec 2022 15:50	CG/JU	Ok
6	SSTDICC1.6	BN023097.D	08 Dec 2022 16:26	CG/JU	Ok
7	SSTDICC3.2	BN023098.D	08 Dec 2022 17:03	CG/JU	Ok
8	SSTDICC5.0	BN023099.D	08 Dec 2022 17:40	CG/JU	Ok,M
9	SSTDICV0.4	BN023100.D	08 Dec 2022 18:17	CG/JU	Ok
10	PB149367BL	BN023101.D	08 Dec 2022 19:30	CG/JU	Not Ok

M : Manual Integration

**Daily Analysis Runlog For Sequence/QC Batch ID # BN121922**

Review By	Christian	Review On	12/20/2022 9:10:56 AM
Supervise By	mohammad	Supervise On	12/20/2022 5:04:40 PM
SubDirectory	BN121922	HP Acquire Method	BNA_N,8270_SIM HP Processing Method Bn120822
<b>STD. NAME</b>	<b>STD REF.#</b>		
Tune/Reschk	SP6029		
Initial Calibration Stds	SP6085,SP6083,SP6082,SP6081,SP6080,SP6079,SP6078		
CCC	SP6082		
Internal Standard/PEM	SP6065,10ul/1000ul sample		
ICV/I.BLK	SP6031		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	DFTPP	BN023279.D	19 Dec 2022 10:45	CG/JU	Ok
2	SSTDCCC0.4	BN023280.D	19 Dec 2022 11:22	CG/JU	Ok
3	PB149692BL	BN023281.D	19 Dec 2022 12:02	CG/JU	Ok
4	N6070-01	BN023282.D	19 Dec 2022 12:40	CG/JU	Ok
5	N6070-03	BN023283.D	19 Dec 2022 13:16	CG/JU	Ok
6	N6070-04	BN023284.D	19 Dec 2022 13:53	CG/JU	Ok
7	N6070-05	BN023285.D	19 Dec 2022 14:30	CG/JU	Ok
8	N6095-01	BN023286.D	19 Dec 2022 15:07	CG/JU	Ok
9	PB149692BS	BN023287.D	19 Dec 2022 15:44	CG/JU	Ok
10	PB149692BSD	BN023288.D	19 Dec 2022 16:21	CG/JU	Ok

M : Manual Integration

Instrument ID: BNA\_N

**Daily Analysis Runlog For Sequence/QC Batch ID # BN120822**

Review By	Christian	Review On	12/13/2022 10:05:36 AM
Supervise By	Jagrut	Supervise On	12/13/2022 10:07:05 AM
SubDirectory	BN120822	HP Acquire Method	BNA_N,8270_5HP Processing Method Bn120822
<b>STD. NAME</b>	<b>STD REF.#</b>		
Tune/Reschk	SP6029		
Initial Calibration Stds	SP6085,SP6083,SP6082,SP6081,SP6080,SP6079,SP6078		
CCC	SP6082		
Internal Standard/PEM	SP6065,10ul/1000ul sample		
ICV/I.BLK	SP6031		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	DFTPP	DFTPP	BN023092.D	08 Dec 2022 12:45		CG/JU	Ok
2	SSTDICC0.1	SSTDICC0.1	BN023093.D	08 Dec 2022 14:00	Compound #20 removed from 0.1ppm	CG/JU	Ok
3	SSTDICC0.2	SSTDICC0.2	BN023094.D	08 Dec 2022 14:37	Compound #20 Kept on LR	CG/JU	Ok
4	SSTDICCC0.4	SSTDICCC0.4	BN023095.D	08 Dec 2022 15:13	Method is Good For DOD	CG/JU	Ok
5	SSTDICC0.8	SSTDICC0.8	BN023096.D	08 Dec 2022 15:50		CG/JU	Ok
6	SSTDICC1.6	SSTDICC1.6	BN023097.D	08 Dec 2022 16:26		CG/JU	Ok
7	SSTDICC3.2	SSTDICC3.2	BN023098.D	08 Dec 2022 17:03	Compound #12 removed from 3.2ppm	CG/JU	Ok
8	SSTDICC5.0	SSTDICC5.0	BN023099.D	08 Dec 2022 17:40	Compound #12 removed from 5.0ppm	CG/JU	Ok,M
9	SSTDICV0.4	ICVBN120822	BN023100.D	08 Dec 2022 18:17		CG/JU	Ok
10	PB149367BL	PB149367BL	BN023101.D	08 Dec 2022 19:30	END CCC Missing	CG/JU	Not Ok

M : Manual Integration

Instrument ID: BNA\_N

**Daily Analysis Runlog For Sequence/QC Batch ID # BN121922**

Review By	Christian	Review On	12/20/2022 9:10:56 AM
Supervise By	mohammad	Supervise On	12/20/2022 5:04:40 PM
SubDirectory	BN121922	HP Acquire Method	BNA_N,8270_5HP Processing Method Bn120822
<b>STD. NAME</b>	<b>STD REF.#</b>		
Tune/Reschk	SP6029		
Initial Calibration Stds	SP6085,SP6083,SP6082,SP6081,SP6080,SP6079,SP6078		
CCC	SP6082		
Internal Standard/PEM	SP6065,10ul/1000ul sample		
ICV/I.BLK	SP6031		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	DFTPP	DFTPP	BN023279.D	19 Dec 2022 10:45		CG/JU	Ok
2	SSTDCCC0.4	SSTDCCC0.4	BN023280.D	19 Dec 2022 11:22		CG/JU	Ok
3	PB149692BL	PB149692BL	BN023281.D	19 Dec 2022 12:02		CG/JU	Ok
4	N6070-01	GW-BR-04-226-245-12	BN023282.D	19 Dec 2022 12:40		CG/JU	Ok
5	N6070-03	OWBR-01-160-180-12	BN023283.D	19 Dec 2022 13:16		CG/JU	Ok
6	N6070-04	OWBR-02-160-180-12	BN023284.D	19 Dec 2022 13:53		CG/JU	Ok
7	N6070-05	OWBR-03-128-148-12	BN023285.D	19 Dec 2022 14:30		CG/JU	Ok
8	N6095-01	GW-BR-04-270-289-12	BN023286.D	19 Dec 2022 15:07		CG/JU	Ok
9	PB149692BS	PB149692BS	BN023287.D	19 Dec 2022 15:44		CG/JU	Ok
10	PB149692BSD	PB149692BSD	BN023288.D	19 Dec 2022 16:21		CG/JU	Ok

M : Manual Integration

**SOP ID:** M3510C,3580A-Extraction SVOC-19

**Clean Up SOP #:** N/A **Extraction Start Date:** 12/16/2022

**Matrix:** Water **Extraction Start Time:** 08:59

**Weigh By:** N/A **Extraction By:** RP **Extraction End Date:** 12/16/2022

**Balance check:** N/A **Filter By:** RS **Extraction End Time:** 15:00

**Balance ID:** N/A **pH Meter ID:** N/A **Concentration By:** RS

**pH Strip Lot#:** E3433 **Hood ID:** 4,5,6,7 **Supervisor By:** rajesh

**Extraction Method:**  Separatory Funnel  Continuous Liquid/Liquid  Sonication  Waste Dilution  Soxhlet

Standard Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Spike Sol 1	1.0ML	0.4 PPM	SP6059
Surrogate	1.0ML	0.4 PPM	SP6064
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Methylene Chloride	N/A	E3446
Baked Na2SO4	N/A	EP2279
10N NaOH	N/A	EP2278
H2SO4 1:1	N/A	EP2260
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

**Extraction Conformance/Non-Conformance Comments:**

N6095 added in batch at 09:53. pH Adjusted < 2 with 1:1 H2SO4 & >11 with 10 N NaOH.

**KD Bath ID:** W.BATH-1,2 **Envap ID:** NE VAP-02

**KD Bath Temperature:** 60 °C **Envap Temperature:** 40 °C

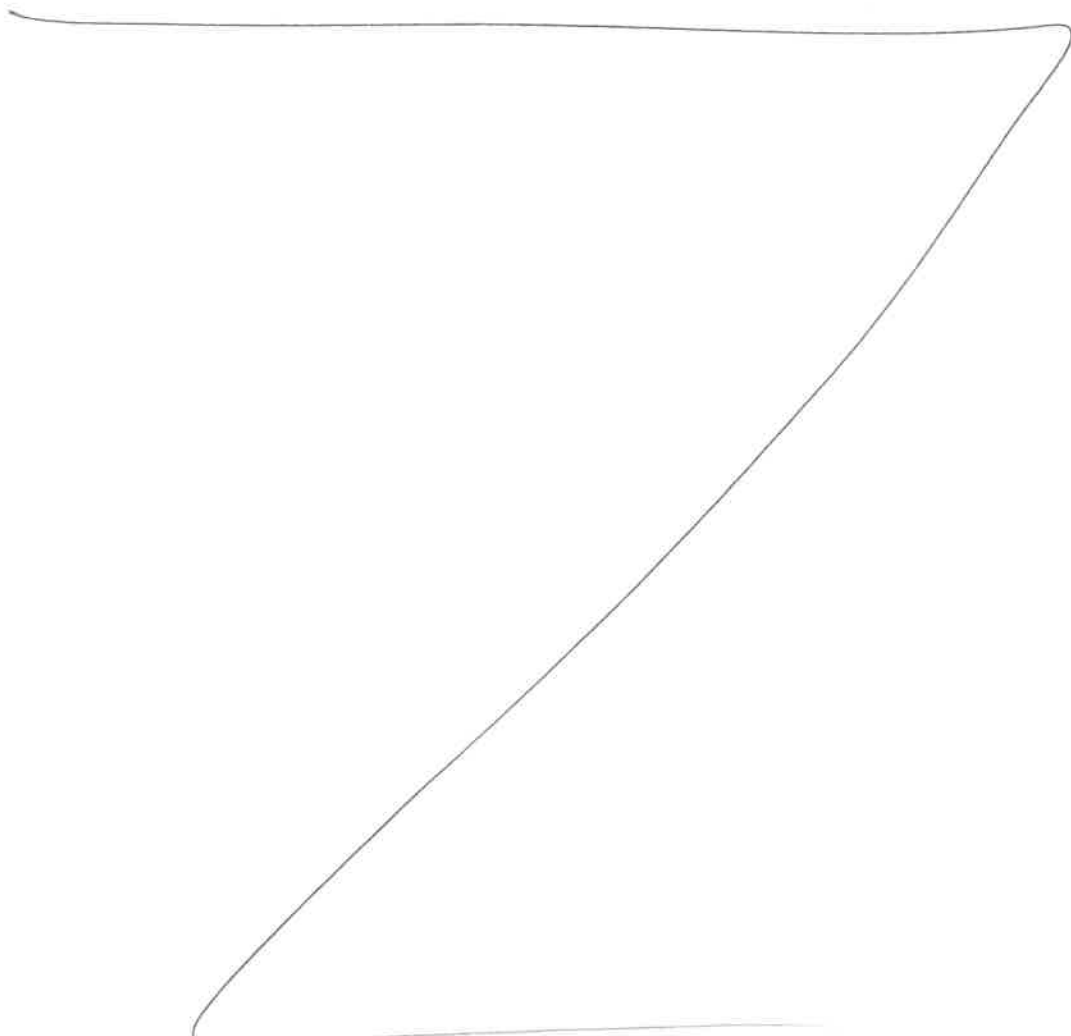
Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
12/16/22 15:05	RP (Eat. Lab)	JH / SVOC Lab
	Preparation Group	Analysis Group

Analytical Method: M3510C,3580A-Extraction SVOC-19

Concentration Date: 12/16/2022

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB149692BL	SBLK692	SVOC-SIMGrou p1	1000.0	6	RUPESH	rajesh	1			SEP-09
PB149692BS	SLCS692	SVOC-SIMGrou p1	1000.0	6	RUPESH	rajesh	1			10
PB149692BS D	SLCSD692	SVOC-SIMGrou p1	1000.0	6	RUPESH	rajesh	1			11
N6070-01	GW-BR-04-226-245-1214 22	SVOC-SIMGrou p1	980.0	6	RUPESH	rajesh	1	C		12
N6070-03	GW-BR-01-160-180-1214 22 <i>OWBR</i>	SVOC-SIMGrou p1	970.0	6	RUPESH	rajesh	1	C		13
N6070-04	GW-BR-02-160-180-1214 22 <i>OWBR</i>	SVOC-SIMGrou p1	960.0	6	RUPESH	rajesh	1	C		14
N6070-05	GW-BR-03-128-148-1214 22 <i>OWBR</i>	SVOC-SIMGrou p1	960.0	6	RUPESH	rajesh	1	C		15
N6095-01	GW-BR-04-270-289-1215 22	SVOC-SIMGrou p1	1000.0	6	RUPESH	rajesh	1	C		16

*2/2/22*



\* Extracts relinquished on the same date as received.

*2/2/22*

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# WORKLIST(Hardcopy Internal Chain)

14962  
8259

WorkList Name : N6070

WorkList ID : 165856

Department : Extraction

Date : 12-16-2022 08:50:48

Due Date	Matrix	Sample	Test	Preservative	Customer	Raw Sample Storage Location	Customer Sample	Collect Date	Method
12/16/2022	Water	N6070-01	SVOC-SIMGroup1	Cool 4 deg C	JACO05	M11	GW-BR-04-226-245-121422	12/14/2022	8270-Modified
12/16/2022	Water	N6070-03	SVOC-SIMGroup1	Cool 4 deg C	JACO05	M11	GW-BR-01-160-180-121422	12/14/2022	8270-Modified
12/16/2022	Water	N6070-04	SVOC-SIMGroup1	Cool 4 deg C	JACO05	M11	GW-BR-02-160-180-121422	12/14/2022	8270-Modified
12/16/2022	Water	N6070-05	SVOC-SIMGroup1	Cool 4 deg C	JACO05	M11	GW-BR-03-128-148-121422	12/14/2022	8270-Modified

12/16/22

Date/Time 12/16/22 8:59

Raw Sample Received by: PS (St. Lab)

Raw Sample Relinquished by: J.C. (sm)

Date/Time 12/16/22 9:28

Raw Sample Received by: J.C. (sm)

Raw Sample Relinquished by: PS (St. Lab)

# WORKLIST(Hardcopy Internal Chain)

WorkList Name : n6095

WorkList ID : 165889

Department : Extraction

Date : 12-16-2022 09:53:03

Due Date	Matrix	Sample	Test	Preservative	Customer	Raw Sample Storage Location	Customer Sample	Collect Date	Method
12/19/2022	Water	N6095-01	SVOC-SIMGroup1	Cool 4 deg C	JACO05	N11	GW-BR-04-270-289-121522	12/15/2022	8270-Modified

Date/Time 12/16/22 9:53  
 Raw Sample Received by: RS (Ed. Luk)  
 Raw Sample Relinquished by: J.C (Sum)

Date/Time 12/16/22 10:00  
 Raw Sample Received by: J.C (Sum)  
 Raw Sample Relinquished by: RS (Ed. Luk)

**Prep Standard - Chemical Standard Summary**

**Order ID :** N6070  
**Test :** SVOC-SIMGroup1  
**Prepbatch ID :** PB149692,  
**Sequence ID/Qc Batch ID:** BN121922,

**Standard ID :**  
EP2260,EP2278,EP2279,SP6015,SP6029,SP6030,SP6031,SP6059,SP6064,SP6065,SP6077,SP6078,SP6079,SP6080,  
SP6081,SP6082,SP6083,SP6085,

**Chemical ID :**  
10ul/1000ul  
sample,E3382,E3397,E3412,E3425,E3430,E3432,E3446,M5037,S10089,S10090,S10210,S10244,S10523,S10541,S105  
49,S10597,S10648,S10715,S8793,S9217,S9238,S9273,S9285,S9725,S9901,S9916,S9919,W2606,

# CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

## Extractions STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
314	1.1 H2SO4 SOLN	<a href="#">EP2260</a>	07/28/2022	01/28/2023	Rajesh Parikh	None	None	RUPESHKUMAR SHAH 07/28/2022

**FROM** 1000.00000ml of M5037 + 1000.00000ml of W2606 = Final Quantity: 2000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1874	10 N SODIUM HYDROXIDE SOLN	<a href="#">EP2278</a>	11/22/2022	02/04/2023	Rajesh Parikh	None	None	RUPESHKUMAR SHAH 11/22/2022

**FROM** 1000.00000ml of W2606 + 400.00000gram of E3382 = Final Quantity: 1000.000 ml

# CHEMTECH

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## Extractions STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3923	Baked Sodium Sulfate	<a href="#">EP2279</a>	11/28/2022	04/13/2023	Rajesh Parikh	None	None	RUPESHKUMAR SHAH 11/28/2022

**FROM** 4000.00000gram of E3412 = Final Quantity: 4000.000 gram

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3493	Internal Standard 0.4 PPM	<a href="#">SP6015</a>	09/28/2022	03/13/2023	Jagrut Upadhyay	None	None	mohammad ahmed 10/05/2022

**FROM** 0.02000ml of S10523 + 0.98000ml of E3397 = Final Quantity: 1.000 ml

# CHEMTECH

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## SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3895	50 ug/ml DFTPP 8270E	<a href="#">SP6029</a>	10/25/2022	02/16/2023	Christian Giraldo	None	None	mohammad ahmed 11/01/2022

**FROM** 1.00000ml of S10244 + 19.00000ml of E3397 = Final Quantity: 20.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3355	8270-SIM MDL-3.2PPM CALIBRATION STOCK SOL- 2ND SOURCE	<a href="#">SP6030</a>	10/25/2022	02/26/2023	Jagrut Upadhyay	None	None	mohammad ahmed 11/01/2022

**FROM** 0.00630ml of S9725 + 0.01280ml of S10597 + 0.03200ml of S8793 + 0.03200ml of S9285 + 0.06400ml of S10089 + 0.06400ml of S10210 + 0.06400ml of S10648 + 19.72490ml of E3397 = Final Quantity: 20.000 ml

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## SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3356	8270-SIM MDL-0.4PPM CALIBRATION SOL ICV-2ND SOURCE	<a href="#">SP6031</a>	10/25/2022	02/26/2023	Jagrut Upadhyay	None	None	mohammad ahmed 11/01/2022
<b>FROM</b> 0.87500ml of E3397 + 0.01000ml of SP6015 + 0.12500ml of SP6030 = Final Quantity: 1.010 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3492	8270-SIM-Spike 0.4 PPM	<a href="#">SP6059</a>	11/10/2022	02/28/2023	Christian Giraldo	None	None	mohammad ahmed 11/17/2022
<b>FROM</b> 0.00080ml of S9901 + 0.01000ml of S10549 + 0.02000ml of S10090 + 0.02000ml of S10210 + 0.02000ml of S10648 + 49.92920ml of E3425 = Final Quantity: 50.000 ml								

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## SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3491	8270-SIM-Surrogate 0.4 PPM	<a href="#">SP6064</a>	11/30/2022	03/16/2023	Christian Giraldo	None	None	mohammad ahmed 12/07/2022

**FROM** 0.00200ml of S9725 + 0.00400ml of S10597 + 0.01000ml of S9273 + 49.98400ml of E3430 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3493	Internal Standard 0.4 PPM	<a href="#">SP6065</a>	12/05/2022	05/22/2023	Christian Giraldo	None	None	mohammad ahmed 12/07/2022

**FROM** 0.10000ml of S10541 + 4.90000ml of E3432 = Final Quantity: 5.000 ml



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## SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3339	8270 sim calibration stock 10ppm (CPI)	<a href="#">SP6077</a>	12/08/2022	02/26/2023	Christian Giraldo	None	None	mohammad ahmed 12/19/2022

**FROM** 0.03350ml of S9238 + 0.05000ml of S9217 + 0.12500ml of S9273 + 0.12500ml of S9919 + 0.25000ml of S10715 + 0.25000ml of S9916 + 24.16650ml of E3432 = Final Quantity: 25.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3361	8270-SIM MDL-5PPM CALIBRATION SOLUTION	<a href="#">SP6078</a>	12/08/2022	02/26/2023	Christian Giraldo	None	None	mohammad ahmed 12/19/2022

**FROM** 0.50000ml of E3432 + 0.01000ml of SP6065 + 0.50000ml of SP6077 = Final Quantity: 1.010 ml

# CHEMTECH

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## SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3341	8270-SIM MDL-3.2PPM CALIBRATION SOLUTION	<a href="#">SP6079</a>	12/08/2022	02/26/2023	Christian Giraldo	None	None	mohammad ahmed 12/19/2022

**FROM** 0.68000ml of E3432 + 0.01000ml of SP6065 + 0.32000ml of SP6077 = Final Quantity: 1.010 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3344	8270-SIM MDL-1.6PPM CALIBRATION SOLUTION	<a href="#">SP6080</a>	12/08/2022	02/26/2023	Christian Giraldo	None	None	mohammad ahmed 12/19/2022

**FROM** 0.84000ml of E3432 + 0.01000ml of SP6065 + 0.16000ml of SP6077 = Final Quantity: 1.010 ml

# CHEMTECH

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## SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3342	8270-SIM MDL-0.8PPM CALIBRATION SOLUTION	<a href="#">SP6081</a>	12/08/2022	02/26/2023	Christian Giraldo	None	None	mohammad ahmed 12/19/2022

**FROM** 0.92000ml of E3432 + 0.01000ml of SP6065 + 0.08000ml of SP6077 = Final Quantity: 1.010 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3343	8270-SIM MDL-0.4PPM CALIBRATION SOLUTION	<a href="#">SP6082</a>	12/08/2022	02/26/2023	Christian Giraldo	None	None	mohammad ahmed 12/19/2022

**FROM** 0.96000ml of E3432 + 0.01000ml of SP6065 + 0.04000ml of SP6077 = Final Quantity: 1.010 ml

# CHEMTECH

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## SVOC STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3345	8270-SIM MDL-0.2PPM CALIBRATION SOLUTION	<a href="#">SP6083</a>	12/08/2022	02/26/2023	Christian Giraldo	None	None	mohammad ahmed 12/19/2022

**FROM** 0.50000ml of E3432 + 0.01000ml of SP6065 + 0.50000ml of SP6082 = Final Quantity: 1.010 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3346	8270-SIM MDL-0.1PPM CALIBRATION SOLUTION	<a href="#">SP6085</a>	12/08/2022	02/26/2023	Christian Giraldo	None	None	mohammad ahmed 12/19/2022

**FROM** 0.75000ml of E3432 + 0.01000ml of SP6065 + 0.25000ml of SP6082 = Final Quantity: 1.010 ml

### CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19510-5 / Sodium Hydroxide Pellets 2.5 Kg, Pk of 4	220601-B017657	02/04/2023	08/04/2022 / Rajesh	08/03/2022 / Rajesh	E3382

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	22G1962004	03/13/2023	09/13/2022 / Rajesh	09/02/2022 / Rajesh	E3397

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	139404	04/13/2023	10/18/2022 / Rajesh	10/13/2022 / Rajesh	E3412

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	22E1562001	05/03/2023	11/03/2022 / Rajesh	11/03/2022 / Rajesh	E3425

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	22E1562001	05/29/2023	11/29/2022 / Rajesh	11/16/2022 / Rajesh	E3430

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	22I2962012	05/22/2023	11/22/2022 / Rajesh	11/14/2022 / Rajesh	E3432

### CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	22J1962006	06/13/2023	12/13/2022 / Rajesh	11/14/2022 / Rajesh	E3446

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	0000250349	12/15/2024	01/06/2022 / mohan	09/18/2021 / mohan	M5037

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at \$85 per ampul if requested - contact ARM with Request]	A0178679	04/20/2023	10/20/2022 / Christian	11/23/2021 / Christian	S10089

[CS 4978-2]

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555224 / Custom 8270 Plus Std #2 [2nd lot at \$85 per ampul if requested - contact ARM with Request]	A0178679	04/20/2023	10/20/2022 / Christian	11/23/2021 / Christian	S10090

[CS 4978-2]

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31850 / 8270 SV Mix, 8270 Mega Mix 1mL, 1000ug/mL, CH2Cl2 [New Solvent 100% CH2Cl2]	A0176420	03/31/2023	10/20/2022 / Christian	03/18/2022 / Christian	S10210

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31615 / SV Mixture, GC/MS Tuning Mixture, CH2Cl2, 1mL,	A0182667	02/16/2023	08/16/2022 / Christian	03/18/2022 / Christian	S10244

### CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31206 / SV Mix, CLP method, Internal Std, 2000ug/mL, CH <sub>2</sub> Cl <sub>2</sub> , 1mL	A0180950	12/31/2027	09/23/2022 / Christian	07/05/2022 / Christian	S10523

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31206 / SV Mix, CLP method, Internal Std, 2000ug/mL, CH <sub>2</sub> Cl <sub>2</sub> , 1mL	A0180950	05/30/2023	11/30/2022 / Christian	07/05/2022 / Christian	S10541

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0179300	04/30/2023	10/31/2022 / Christian	07/05/2022 / Christian	S10549

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31086 / Base Neutral Surrogate 5000ug/ml,CH <sub>2</sub> Cl <sub>2</sub> ,5ml	A0186198	03/16/2023	09/16/2022 / Christian	08/16/2022 / Christian	S10597

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555223 / Custom 8270 Plus Std #1 [2nd lot at \$100 per ampul if requested - contact ARM with Request]	A0188685	04/20/2023	10/20/2022 / Christian	08/23/2022 / Christian	S10648

[CS 4978-1]

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110816-01 / Custom 8270 Mix, 4-79, 1000 mg/L, 1 mL, (Maximum Expiration: 180 Days)	414127	02/26/2023	08/26/2022 / Christian	08/26/2022 / Christian	S10715

### CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	33913 / SOM01.0 SIM Analysis Standard (Surrogate), 2000 PPM	A0161851	02/26/2023	08/26/2022 / Jagrut	07/14/2020 / Christian	S8793

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110094-02 / CLP Base/Neutral Surrogate Solution, 5000 mg/L, 1ml	411712	02/26/2023	08/26/2022 / Jagrut	02/25/2021 / Christian	S9217

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-112090-04 / CLP Acid Surrogate Solution, 7500 mg/L, 1ml	440246	02/26/2023	08/26/2022 / Jagrut	02/25/2021 / Christian	S9238

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	33913 / SOM01.0 SIM Analysis Standard (Surrogate), 2000 PPM	A0168492	04/28/2023	10/28/2022 / Christian	03/01/2021 / Christian	S9273

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31853 / 1,4-Dioxane, 2000 ug/ml , Solvent: Methylene Chloride	A0156277	04/25/2023	10/25/2022 / Jagrut	06/11/2020 / Christian	S9285

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31087 / Acid Surrogate 10,000ug/ml, methanol, 5ml/a mpul	A0173743	03/16/2023	09/16/2022 / Christian	08/25/2021 / Christian	S9725



**CHEMICAL RECEIPT LOG BOOK**

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555872 / Custom Standard, pentachlorophenol Std [CS 5328-5]	A0175414	02/28/2023	08/30/2022 / Christian	08/12/2021 / Christian	S9901

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	z-110381-01 / 8270 Calibration Solution, 76-1, 500 & 1,000 mg/L, 1ml	459699	02/26/2023	08/26/2022 / Jagrut	09/03/2021 / Christian	S9916

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	z-010223-01 / 1,4-Dioxane Solution, 2,000mg/L, 1ml	459696	06/08/2023	12/08/2022 / Christian	09/03/2021 / Christian	S9919

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	10/24/2024	10/24/2019 / apatel	10/24/2019 / apatel	W2606



5580 Skylane Blvd  
Santa Rosa, CA 95403

(707)525-5788  
(800)878-7654 Toll Free  
(707)545-7901 Fax

Manufacturer's Quality System  
Audited & Registered  
by TUV USA to ISO 9001:2015

Date Received: \_\_\_\_\_

### Certificate of Analysis

Rev 0


Page 1 of 1

Catalog No.: Lot No.: Storage: Solvent: Exp. Date: Description:  
Z-110094 411712 ≤ -10 °C Methylene Chloride 6/24/2023 CLP Base/Neutral Surrogate Solution, 5,000 mg/L, 1 ml  
-02

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
1,2-dichlorobenzene-d <sub>4</sub>	2199-69-1	98.5	247.29.2P	4983 ± 74.16
2-fluorobiphenyl	321-60-8	97.8	8.226.1P	5023 ± 89.92
nitrobenzene-d <sub>4</sub>	4165-60-0	99.66	7.9.1P	5049 ± 74.97
p-terphenyl-d <sub>14</sub>	1718-51-0	100	9.12.8.1P	5039 ± 74.99

Received on 02/25/21  
by  
CG  
S9216  
to  
S9219

\*Not a certified value

Certified By:   
Shane Overcash  
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.  
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetrically.



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Rev 0

Page 1 of 1


<b>Catalog No.:</b> Z-110816-01	<b>Lot No.:</b> 414127	<b>Storage:</b> ≤ -10 °C	<b>Solvent:</b> Methylene Chloride	<b>Exp. Date:</b> 6/21/2025	<b>Description:</b> Custom 8270 Mix, 4-79, 1000 mg/L, 1 mL
---------------------------------	------------------------	--------------------------	------------------------------------	-----------------------------	---

<u>Compound</u>	<u>CAS No.</u>	<u>Purity (%)</u>	<u>Compound Lot No.</u>	<u>Concentration, mg/L</u>
atrazine	1912-24-9	99.5	337.7.3P	997 ± 5.81
benzidine	92-87-5	99.9	124.18.6.2P	991.8 ± 5.77
caprolactam	105-60-2	99.9	271.1.6P	999 ± 5.82

Received on  
09/20/22  
by CG  
S10795  
to  
S10799

\*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

Certified By:   
Shane Overcash  
Chemist

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Santa Rosa, CA 95403

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Date Received: \_\_\_\_\_

### Certificate of Analysis

Rev 0

Page 1 of 1

<b>Catalog No.:</b> Z-112090	<b>Lot No.:</b> 440246	<b>Storage:</b> ≤ -10 °C	<b>Solvent:</b> Methylene Chloride	<b>Exp. Date:</b> 2/16/2026	<b>Description:</b> CLP Acid Surrogate Solution, 7,500 mg/L, 1 mL
-04					

<u>Compound</u>	<u>CAS No.</u>	<u>Purity (%)</u>	<u>Compound Lot No.</u>	<u>Concentration, mg/L</u>
2-chlorophenol-d <sub>4</sub>	93951-73-6	99.3	248.12.7P	7487 ± 17.2
2-fluorophenol	367-12-4	99.8	10.7.3.3P	7513 ± 17.26
phenol-d <sub>6</sub>	13127-88-3	99.9	949.120.8P	7481 ± 17.19
2,4,6-tribromophenol	118-79-6	99.8	12.1.6P	7469 ± 17.17

Received on

02/25/21

by  
CG

S9236  
to

S9240

\*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

Certified By:

Erica Castiglione  
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.  
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetrically.



5580 Skylane Blvd  
Santa Rosa, CA 95403

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by TUV USA to ISO 9001:2015

Date Received: \_\_\_\_\_

### Certificate of Analysis

Rev 0

Page 1 of 1

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-010223 -01	459696	≤ -10 °C	Methylene Chloride	7/13/2024	1,4-Dioxane Solution, 2,000 mg/L, 1 mL
Compound		CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
1,4-dioxane		123-91-1	100	223.1.3P	1993 ± 21.11

Received  
on  
04/22/22  
by  
CG  
S10318  
to  
S10322

\*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

Certified By: Joanna Radu  
Joanna Radu  
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.  
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Santa Rosa, CA 95403

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(800)878-7654 Toll Free  
(707)545-7901 Fax

Received on  
09/03/21  
by CG  
S 9914  
to  
S 9918

Manufacturer's Quality System  
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by TUV USA to ISO 9001:2015

Date Received: \_\_\_\_\_

### Certificate of Analysis

Rev 0

Page 1 of 4

<b>Catalog No.:</b> Z-110381	<b>Lot No.:</b> 459699	<b>Storage:</b> ≤ -10 °C	<b>Solvent:</b> Methylene Chloride	<b>Exp. Date:</b> 5/10/2026	<b>Description:</b> Method 8270 Calibration Solution, 76-1, 500 & 1,000 mg/L, 1 mL
------------------------------	------------------------	--------------------------	------------------------------------	-----------------------------	--

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
acenaphthene	83-32-9	99.9	13.1.5P	1000 ± 4.58
acenaphthylene	208-96-8	97.6	14.290.1P	1000 ± 4.58
aniline	62-53-3	99.9	64.7.1P	997.4 ± 4.57
anthracene	120-12-7	99.2	15.29.1.1P	1000 ± 10.95
azobenzene	103-33-3	98.1	252.7.2P	1001 ± 4.69
benzo[a]anthracene	56-55-3	98.7	16.7.2.5P	1000 ± 4.58
benzo[b]fluoranthene	205-99-2	98.7	17.1.16P	1000 ± 4.58
benzo[k]fluoranthene	207-08-9	98.9	18.421.4P	1000 ± 6.7
benzo[ghi]perylene	191-24-2	97.3	19.286.3P	1001 ± 20.51
benzo[a]pyrene	50-32-8	98.3	20.286.1P	1000 ± 20.49
benzyl alcohol	100-51-6	99.9	65.18.1P	982 ± 4.6
bis(2-chloroethoxy)methane	111-91-1	99.2	31.494.1P	997.5 ± 14.66
bis(2-chloroethyl)ether	111-44-4	99.8	32.7.1P	1005 ± 10.87
bis(2-chloro-1-methylethyl) ether	108-60-1	99.5	34.3.14P	1005 ± 11.93
bis(2-ethylhexyl)adipate	103-23-1	99.5	874.7.1P	995 ± 4.66
bis(2-ethylhexyl)phthalate	117-81-7	99.4	33.29.1P	993.5 ± 14.6
4-bromophenyl phenyl ether	101-55-3	99.4	35.7.1.1P	998.7 ± 10.8
butyl benzyl phthalate	85-68-7	98	36.1.5P	999.7 ± 14.69
carbazole	86-74-8	99	239.7.1P	987 ± 4.52

\*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

Certified By: Megan Warren  
Megan Warren  
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetrically.

# Certificate of Analysis

Catalog No.: Z-110381-01

Lot No.: 459699

Expiration Date: 5/10/2026

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
4-chloroaniline	106-47-8	99.9	66.9.1.1P	995.8 ± 10.91
4-chlorophenylphenyl ether	7005-72-3	98	37.158.2P	985 ± 14.47
4-chloro-3-methylphenol	59-50-7	99.9	102.7.1.1P	999.7 ± 10.81
2-chloronaphthalene	91-58-7	99.8	42.7.5.2P	988.8 ± 4.53
2-chlorophenol	95-57-8	99.9	103.1.3.1P	999.7 ± 14.69
chrysene	218-01-9	98	21.286.1.3P	1000 ± 20.49
dibenz[a,h]anthracene	53-70-3	98	22.286.2.1P	1000 ± 20.49
dibenzofuran	132-64-9	100	67.7.2.1P	991 ± 4.54
di-n-butyl phthalate	84-74-2	99.8	40.9.2P	999.9 ± 14.69
1,2-dichlorobenzene	95-50-1	99.5	43.1.2P	989.4 ± 4.53
1,3-dichlorobenzene	541-73-1	99.8	44.1.2P	991.7 ± 4.54
1,4-dichlorobenzene	106-46-7	99.9	45.29.1P	990.4 ± 4.53
2,4-dichlorophenol	120-83-2	99.2	104.9.1.1P	1011 ± 14.85
diethyl phthalate	84-66-2	99.8	38.7.1P	998.4 ± 10.79
2,4-dimethylphenol	105-67-9	99.6	105.7.1.1P	999.3 ± 10.8
dimethyl phthalate	131-11-3	99.9	39.9.2P	998.7 ± 10.8
1,2-dinitrobenzene	528-29-0	100	86.7.3P	993 ± 4.65
1,3-dinitrobenzene	99-65-0	100	313.7.2P	998 ± 4.68
1,4-dinitrobenzene	100-25-4	100	907.7.1P	999 ± 4.68
2,4-dinitrophenol	51-28-5	99.9	106.1.6DP	1000 ± 10.81
2,4-dinitrotoluene	121-14-2	100	87.7.3P	999.9 ± 10.81
2,6-dinitrotoluene	606-20-2	99.4	88.7.2.1P	998.8 ± 10.8
di-n-octyl phthalate	117-84-0	99.1	41.7.4P	996.5 ± 10.77
diphenylamine	122-39-4	99.9	78.29.1P	993.6 ± 14.6
2,3,5,6-tetrachlorophenol	935-95-5	99	1112.5.10P	989 ± 4.63
fluoranthene	206-44-0	98.6	23.7.4P	1001 ± 4.58
fluorene	86-73-7	99.8	24.1.4P	1008 ± 11.04

\*Not a certified value

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Certified By: \_\_\_\_\_



Megan Warren  
Chemist

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# Certificate of Analysis

Catalog No.: Z-110381-01


Lot No.: 459699

Expiration Date: 5/10/2026

<u>Compound</u>	<u>CAS No.</u>	<u>Purity (%)</u>	<u>Compound Lot No.</u>	<u>Concentration, mg/L</u>
hexachlorobenzene	118-74-1	99	46.158.4P	997.5 ± 10.92
hexachlorobutadiene	87-68-3	97	47.158.2P	988.8 ± 10.83
hexachlorocyclopentadiene	77-47-4	96.5	48.2.1P	1014 ± 11.1
hexachloroethane	67-72-1	99.9	49.1.3P	989.5 ± 4.53
indeno[1,2,3-cd]pyrene	193-39-5	98	25.286.3P	1001 ± 10.96
isophorone	78-59-1	98.8	90.1.2P	995.7 ± 14.63
2-methyl-4,6-dinitrophenol	534-52-1	100	107.1.4.3DP	1003 ± 10.84
1-methylnaphthalene	90-12-0	98.4	249.7.4P	1001 ± 4.58
2-methylnaphthalene	91-57-6	99.1	68.8.1.1P	1002 ± 10.97
2-methylphenol	95-48-7	99.6	114.7.3P	1004 ± 10.86
3-methylphenol	108-39-4	99.2	115.7.3P	500.5 ± 5.41
4-methylphenol	106-44-5	99	116.1.3P	505.6 ± 7.43
naphthalene	91-20-3	99.8	26.9.2P	1000 ± 4.58
2-nitroaniline	88-74-4	99.7	69.29.1P	996.4 ± 4.57
3-nitroaniline	99-09-2	100	70.7.2P	995.6 ± 4.56
4-nitroaniline	100-01-6	99.8	71.1.1P	1000 ± 10.95
nitrobenzene	98-95-3	100	94.7.1P	999.5 ± 10.81
2-nitrophenol	88-75-5	99.1	108.29.1P	1000 ± 10.81
4-nitrophenol	100-02-7	99.9	109.8.1P	1000 ± 14.69
N-nitrosodimethylamine	62-75-9	99.5	57.3.18P	985.4 ± 11.7
N-nitrosodi-n-propylamine	621-64-7	100	59.7.4P	984.4 ± 10.64
pentachlorophenol	87-86-5	99	110.1.7P	1000 ± 10.81
phenanthrene	85-01-8	98.9	27.1.3P	1009 ± 11.05
phenol	108-95-2	100	112.7.1P	1011 ± 10.88
pyrene	129-00-0	98.5	28.9.1.1P	1000 ± 4.58
pyridine	110-86-1	100	101.24.1P	996.8 ± 4.46
2,3,4,6-Tetrachlorophenol	58-90-2	95	120.286.2.1P	984.2 ± 20.19

\*Not a certified value

Manufactured by o2si smart solutions, Accredited to ISO 9001:2008 by NSF and ISO/IEC 17025:2005 (Certification No. 3031.01) and ISO Guide 34:2009 (Certification No. 3031.02) by A2LA

Certified By:   
 Megan Warren  
 Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.  
 Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetrically.



# Certificate of Analysis

Catalog No.: Z-110381-01

Lot No.: 459699


Expiration Date: 5/10/2026

<u>Compound</u>	<u>CAS No.</u>	<u>Purity (%)</u>	<u>Compound Lot No.</u>	<u>Concentration, mg/L</u>
1,2,4-trichlorobenzene	120-82-1	99.6	54.29.1P	987.3 ± 4.52
2,4,5-trichlorophenol	95-95-4	96.5	121.7.1P	996.6 ± 10.78
2,4,6-trichlorophenol	88-06-2	99.6	113.7.1P	1001 ± 10.82

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\*Not a certified value

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Certified By:   
Megan Warren  
Chemist

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# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



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*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Received on  
06/11/20  
by CG  
S8666  
to  
S8695

Catalog No. : 31853 Lot No.: A0156277

Description : 1,4-dioxane  
1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : January 31, 2025 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	1,4-Dioxane CAS # 123-91-1 Purity 99% (Lot SHBK6493)	2,003.0 µg/mL	+/- 11.7547 µg/mL Gravimetric +/- 42.9142 µg/mL Unstressed +/- 44.1601 µg/mL Stressed

Solvent: Methylene chloride  
CAS # 75-09-2  
Purity 99%

S9274  
to  
S9290

**Column:**  
105m x 0.53mm x 3.0µm  
Rtx-502.2 (cat.#10910)

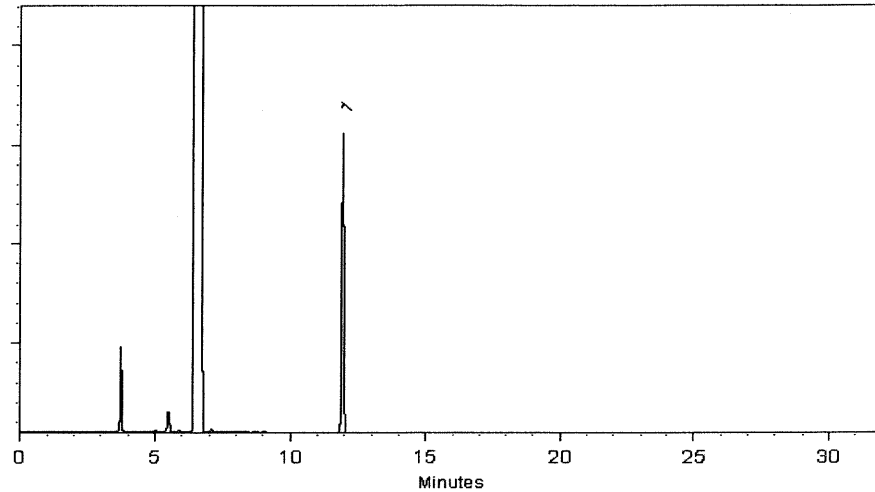
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**Temp. Program:**  
40°C (hold 2 min.) to 240°C  
@ 8°C/min. (hold 5 min.)

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

**Det. Type:**  
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Russ Bookhamer*

Russ Bookhamer - Operations Technician I

Date Mixed: 02-Jan-2020

Balance: 1128360905

*Jennifer J. Pollino*

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 06-Jan-2020

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397



# CERTIFIED REFERENCE MATERIAL

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Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 33913 **Lot No.:** A0161851

**Description :** SOM01.0 SIM Analysis Standard  
SOM01.0 SIM Analysis Standard 2000µg/mL, Methylene chloride, 1mL /ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** May 31, 2026 **Storage:** 10°C or colder

**Handling:** Sonication required. Mix is photosensitive.

Received on  
07/14/20  
by  
CG  
58793  
to  
58794

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Methylnaphthalene-d10	2,000.6 µg/mL	+/- 18.6049 µg/mL Gravimetric	
	CAS # 7297-45-2 (Lot EF-135)			+/- 91.2724 µg/mL Unstressed
	Purity 96%			+/- 101.0370 µg/mL Stressed
2	Fluoranthene-d10	2,001.9 µg/mL	+/- 18.6170 µg/mL Gravimetric	
	CAS # 93951-69-0 (Lot PR-20668)			+/- 91.3319 µg/mL Unstressed
	Purity 98%			+/- 101.1029 µg/mL Stressed
<b>Solvent:</b>	Methylene chloride			
	CAS # 75-09-2			
	Purity 99%			

**Column:**  
30m x 0.25mm x 0.25µm  
Rtx-S (cat.#10223)

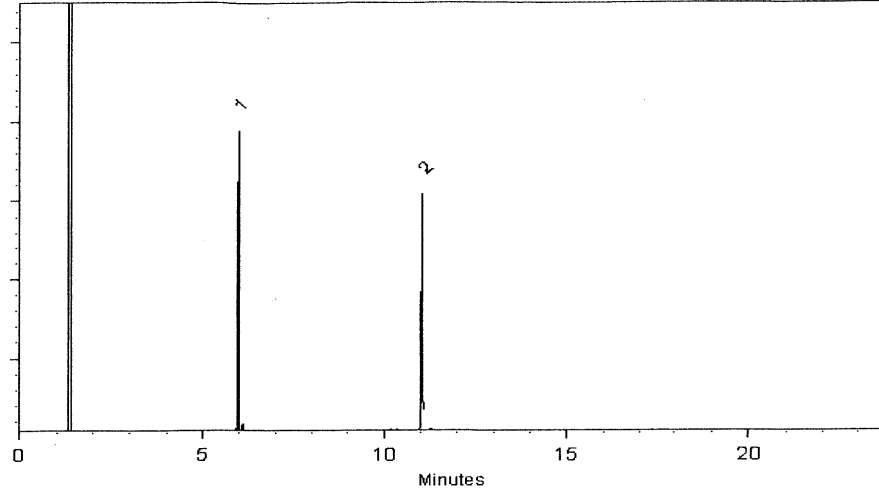
**Carrier Gas:**  
hydrogen-constant pressure 10 psi.

**Temp. Program:**  
75°C (hold 1 min.) to 330°C  
@ 20°C/min. (hold 10 min.)

**Inj. Temp:**  
250°C

**Det. Temp:**  
330°C

**Det. Type:**  
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

  
Katelyn McGinni - Operations Tech I

**Date Mixed:** 17-Jun-2020      **Balance:** 1128360905

  
Fang-Yun Lo - GC Analyst

**Date Passed:** 19-Jun-2020

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397

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# CERTIFIED REFERENCE MATERIAL

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Tel: (800)356-1688  
Fax: (814)353-1309

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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Received on  
03/01/21  
by  
CG  
S 9271  
to  
S 9273

**Catalog No. :** 33913 **Lot No.:** A0168492

**Description :** SOM01.0 SIM Analysis Standard  
SOM01.0 SIM Analysis Standard 2000µg/mL, Methylene chloride, 1mL /ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** December 31, 2026 **Storage:** 10°C or colder

**Handling:** Sonication required. Mix is photosensitive. **Ship:** Ambient

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	2-Methylnaphthalene-d10	2,001.6 µg/mL	+/-	11.7465	µg/mL	Gravimetric
	CAS # 7297-45-2 (Lot EF-135)		+/-	90.1674	µg/mL	Unstressed
	Purity 96%		+/-	100.0489	µg/mL	Stressed
2	Fluoranthene-d10	2,008.0 µg/mL	+/-	11.7841	µg/mL	Gravimetric
	CAS # 93951-69-0 (Lot PR-20668)		+/-	90.4557	µg/mL	Unstressed
	Purity 99%		+/-	100.3688	µg/mL	Stressed
<b>Solvent:</b>	Methylene chloride					
	CAS # 75-09-2					
	Purity 99%					

**Column:**  
30m x 0.25mm x 0.25µm  
Rtx-5 (cat.#10223)

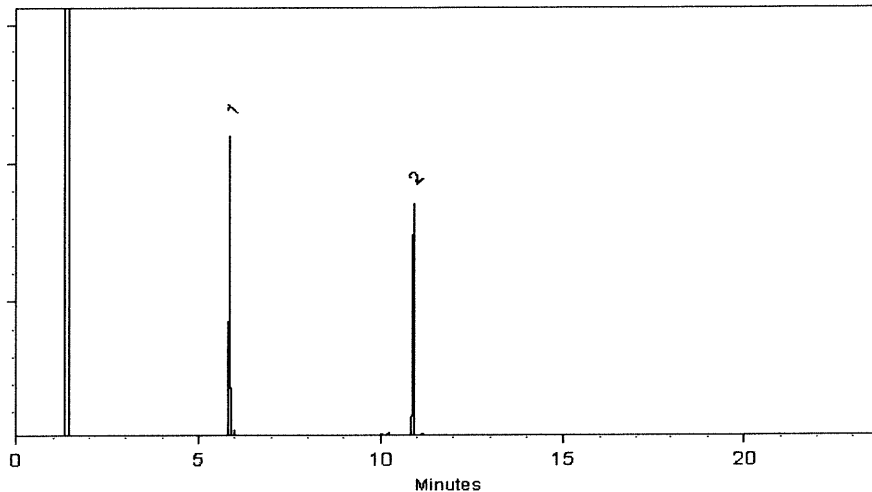
**Carrier Gas:**  
hydrogen-constant pressure 10 psi.

**Temp. Program:**  
75°C (hold 1 min.) to 330°C  
@ 20°C/min. (hold 10 min.)

**Inj. Temp:**  
250°C

**Det. Temp:**  
330°C

**Det. Type:**  
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Sam Moodler*  
Sam Moodler - Operations Tech I

**Date Mixed:** 26-Jan-2021      **Balance:** B345965662

*Alexis Shelow*  
Alexis Shelow - Operations Tech I

**Date Passed:** 27-Jan-2021

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Received on  
08/25/21  
by  
CG  
S9709  
to  
S9738

**Catalog No. :** 31087 **Lot No.:** A0173743

**Description :** Acid Surrogate Mix (4/89 SOW)  
Acid Surrogate 10, 000µg/mL, Methanol, 5mL/ampul

**Container Size :** 5 mL **Pkg Amt:** > 5 mL

**Expiration Date :** June 30, 2029 **Storage:** 10°C or colder

**Ship:** Ambient

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	2-Fluorophenol	10,013.5 µg/mL	+/-	58.2194	µg/mL	Gravimetric
	CAS # 367-12-4 (Lot STBJ2508)		+/-	292.2275	µg/mL	Unstressed
	Purity 99%		+/-	354.6068	µg/mL	Stressed
2	Phenol-d6	10,050.1 µg/mL	+/-	58.4323	µg/mL	Gravimetric
	CAS # 13127-88-3 (Lot PR-31262)		+/-	293.2963	µg/mL	Unstressed
	Purity 99%		+/-	355.9038	µg/mL	Stressed
3	2,4,6-Tribromophenol	10,044.9 µg/mL	+/-	58.4018	µg/mL	Gravimetric
	CAS # 118-79-6 (Lot MKCJ7664)		+/-	293.1431	µg/mL	Unstressed
	Purity 99%		+/-	355.7179	µg/mL	Stressed

**Solvent:** Methanol  
CAS # 67-56-1  
Purity 99%



**Column:**  
30m x 0.25mm x 0.25µm  
Rtx-5 (cat.#10223)

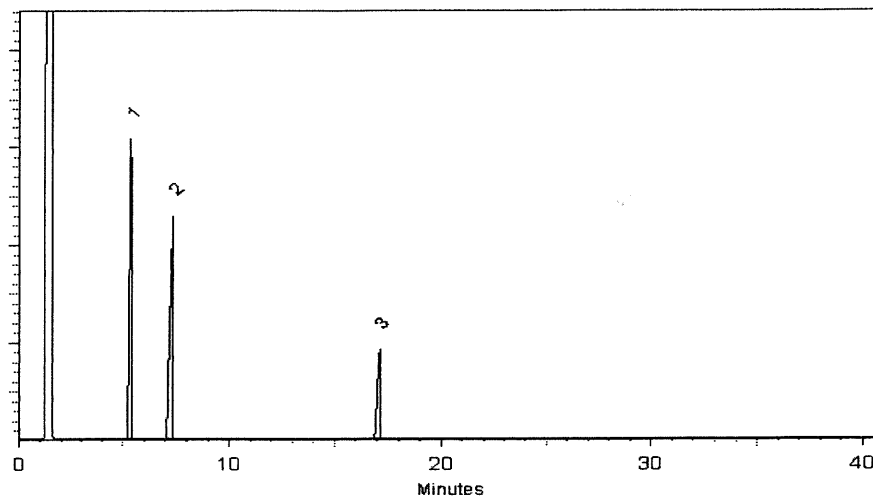
**Carrier Gas:**  
hydrogen-constant pressure 10 psi.

**Temp. Program:**  
40°C (hold 2 min.) to 330°C  
@ 10°C/min. (hold 10 min.)

**Inj. Temp:**  
250°C

**Det. Temp:**  
330°C

**Det. Type:**  
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Aurelia B. Confer*  
Aurelia Confer - Operations Tech I

**Date Mixed:** 23-Jun-2021      **Balance:** B442140311

*Marilna Cowan*  
Marilna Cowan - Operations Tech I

**Date Passed:** 25-Jun-2021

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397



# CERTIFIED REFERENCE MATERIAL

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Bellefonte, PA 16823-8812  
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## Gravimetric Certificate



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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Received  
on  
08/12/21  
by  
CG  
S9899  
to  
S9903

**Catalog No. :** 555872 **Lot No.:** A0175414

**Description :** Custom Pentachlorophenol Standard

Custom Pentachlorophenol Standard 25,000µg/mL, Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** August 31, 2024 **Storage:** 10°C or colder

**Ship:** Ambient

### CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Pentachlorophenol CAS # 87-86-5 Purity 99% (Lot 210706RSR)	25,072.0 µg/mL	+/- 232.0210 µg/mL Gravimetric +/- 753.6229 µg/mL Unstressed +/- 906.0356 µg/mL Stressed

**Solvent:** Methanol  
CAS # 67-56-1  
Purity 99%

Matt Fragassi - Mix Technician

Date Mixed: 16-Aug-2021 Balance: 1128342314

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397

## General Certified Reference Material Notes

### Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

### Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us).
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

### Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

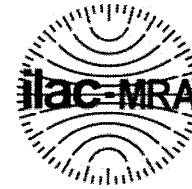


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Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Received on

03/18/22

by

CG

S10182

to

S10 211

**Catalog No. :** 31850 **Lot No.:** A0176420

**Description :** 8270 MegaMix®  
8270 MegaMix® 500-1000 µg/mL, Methylene Chloride, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** March 31, 2023 **Storage:** 0°C or colder

**Handling:** Sonication required. Mix is photosensitive. **Ship:** Ambient

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Pyridine	1,003.7 µg/mL	+/-	5.8354	µg/mL	Gravimetric
	CAS # 110-86-1 (Lot SHBL0433)		+/-	30.3591	µg/mL	Unstressed
	Purity 99%		+/-	30.3591	µg/mL	Stressed
2	N-Nitrosodimethylamine	1,000.8 µg/mL	+/-	5.8186	µg/mL	Gravimetric
	CAS # 62-75-9 (Lot 210512JLM)		+/-	30.2717	µg/mL	Unstressed
	Purity 99%		+/-	30.2717	µg/mL	Stressed
3	Phenol	1,002.3 µg/mL	+/-	5.8273	µg/mL	Gravimetric
	CAS # 108-95-2 (Lot MKCK1120)		+/-	30.3171	µg/mL	Unstressed
	Purity 99%		+/-	30.3171	µg/mL	Stressed
4	Aniline	1,000.7 µg/mL	+/-	5.8183	µg/mL	Gravimetric
	CAS # 62-53-3 (Lot K22Z462)		+/-	30.2700	µg/mL	Unstressed
	Purity 99%		+/-	30.2700	µg/mL	Stressed
5	Bis(2-chloroethyl)ether	1,001.1 µg/mL	+/-	5.8202	µg/mL	Gravimetric
	CAS # 111-44-4 (Lot SHBL6942)		+/-	30.2801	µg/mL	Unstressed
	Purity 99%		+/-	30.2801	µg/mL	Stressed
6	2-Chlorophenol	1,000.8 µg/mL	+/-	5.8186	µg/mL	Gravimetric
	CAS # 95-57-8 (Lot STBH7290)		+/-	30.2717	µg/mL	Unstressed
	Purity 99%		+/-	30.2717	µg/mL	Stressed
7	1,3-Dichlorobenzene	1,001.7 µg/mL	+/-	5.8241	µg/mL	Gravimetric
	CAS # 541-73-1 (Lot BCBZ7498)		+/-	30.3003	µg/mL	Unstressed
	Purity 99%		+/-	30.3003	µg/mL	Stressed

8	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	(Lot MKBS4401V)	1,001.8 µg/mL	+/- 5.8244 +/- 30.3020 +/- 30.3020	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Benzyl alcohol CAS # 100-51-6 Purity 99%	(Lot SHBK5943)	1,000.7 µg/mL	+/- 5.8183 +/- 30.2700 +/- 30.2700	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	(Lot SHBK7741)	1,000.9 µg/mL	+/- 5.8193 +/- 30.2751 +/- 30.2751	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	2-Methylphenol (o-cresol) CAS # 95-48-7 Purity 99%	(Lot SHBH6379)	1,000.8 µg/mL	+/- 5.8189 +/- 30.2734 +/- 30.2734	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	2,2'-oxybis(1-chloropropane) CAS # 108-60-1 Purity 99%	(Lot 12308600)	1,001.5 µg/mL	+/- 5.8228 +/- 30.2936 +/- 30.2936	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	3-Methylphenol (m-cresol) CAS # 108-39-4 Purity 99%	(Lot SHBD0627V)	501.7 µg/mL	+/- 2.9238 +/- 15.1775 +/- 15.1775	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	4-Methylphenol (p-cresol) CAS # 106-44-5 Purity 99%	(Lot SHBL4411)	502.2 µg/mL	+/- 2.9264 +/- 15.1909 +/- 15.1909	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	N-Nitroso-di-n-propylamine CAS # 621-64-7 Purity 99%	(Lot 2D5VJ)	1,001.6 µg/mL	+/- 5.8235 +/- 30.2969 +/- 30.2969	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Hexachloroethane CAS # 67-72-1 Purity 99%	(Lot ENSIK)	1,000.6 µg/mL	+/- 5.8176 +/- 30.2667 +/- 30.2667	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Nitrobenzene CAS # 98-95-3 Purity 99%	(Lot MKCK4267)	1,001.4 µg/mL	+/- 5.8225 +/- 30.2919 +/- 30.2919	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Isophorone CAS # 78-59-1 Purity 99%	(Lot MKCC9506)	1,002.2 µg/mL	+/- 5.8270 +/- 30.3154 +/- 30.3154	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	2-Nitrophenol CAS # 88-75-5 Purity 99%	(Lot BCCB2407)	1,002.0 µg/mL	+/- 5.8257 +/- 30.3087 +/- 30.3087	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	2,4-Dimethylphenol CAS # 105-67-9 Purity 99%	(Lot 10165155)	1,002.5 µg/mL	+/- 5.8286 +/- 30.3238 +/- 30.3238	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	Bis(2-chloroethoxy)methane CAS # 111-91-1 Purity 99%	(Lot 10991500)	1,002.0 µg/mL	+/- 5.8257 +/- 30.3087 +/- 30.3087	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	2,4-Dichlorophenol CAS # 120-83-2 Purity 99%	(Lot BCBZ6787)	1,000.2 µg/mL	+/- 5.8154 +/- 30.2549 +/- 30.2549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	(Lot SHBM0526)	1,001.6 µg/mL	+/- 5.8235 +/- 30.2969 +/- 30.2969	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	Naphthalene <b>CAS #</b> 91-20-3 <b>Purity</b> 99%	(Lot MKCH0219)	1,000.2	µg/mL	+/-	5.8154	µg/mL	Gravimetric
					+/-	30.2549	µg/mL	Unstressed
					+/-	30.2549	µg/mL	Stressed
25	4-Chloroaniline <b>CAS #</b> 106-47-8 <b>Purity</b> 99%	(Lot BCBJ1580V)	1,001.1	µg/mL	+/-	5.8202	µg/mL	Gravimetric
					+/-	30.2801	µg/mL	Unstressed
					+/-	30.2801	µg/mL	Stressed
26	Hexachlorobutadiene <b>CAS #</b> 87-68-3 <b>Purity</b> 98%	(Lot N21G023)	1,000.4	µg/mL	+/-	5.8162	µg/mL	Gravimetric
					+/-	30.2591	µg/mL	Unstressed
					+/-	30.2591	µg/mL	Stressed
27	4-Chloro-3-methylphenol <b>CAS #</b> 59-50-7 <b>Purity</b> 99%	(Lot STBC7309V)	1,000.8	µg/mL	+/-	5.8189	µg/mL	Gravimetric
					+/-	30.2734	µg/mL	Unstressed
					+/-	30.2734	µg/mL	Stressed
28	2-Methylnaphthalene <b>CAS #</b> 91-57-6 <b>Purity</b> 99%	(Lot STBG8884)	1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
					+/-	30.3087	µg/mL	Unstressed
					+/-	30.3087	µg/mL	Stressed
29	1-Methylnaphthalene <b>CAS #</b> 90-12-0 <b>Purity</b> 99%	(Lot 5234.00-3)	1,000.3	µg/mL	+/-	5.8157	µg/mL	Gravimetric
					+/-	30.2566	µg/mL	Unstressed
					+/-	30.2566	µg/mL	Stressed
30	Hexachlorocyclopentadiene <b>CAS #</b> 77-47-4 <b>Purity</b> 99%	(Lot 0012015)	1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
					+/-	30.2835	µg/mL	Unstressed
					+/-	30.2835	µg/mL	Stressed
31	2,4,6-Trichlorophenol <b>CAS #</b> 88-06-2 <b>Purity</b> 99%	(Lot STBJ5914)	1,002.2	µg/mL	+/-	5.8267	µg/mL	Gravimetric
					+/-	30.3137	µg/mL	Unstressed
					+/-	30.3137	µg/mL	Stressed
32	2,4,5-Trichlorophenol <b>CAS #</b> 95-95-4 <b>Purity</b> 98%	(Lot FHN01)	1,000.4	µg/mL	+/-	5.8162	µg/mL	Gravimetric
					+/-	30.2591	µg/mL	Unstressed
					+/-	30.2591	µg/mL	Stressed
33	2-Chloronaphthalene <b>CAS #</b> 91-58-7 <b>Purity</b> 99%	(Lot TWYRD)	1,001.4	µg/mL	+/-	5.8222	µg/mL	Gravimetric
					+/-	30.2902	µg/mL	Unstressed
					+/-	30.2902	µg/mL	Stressed
34	2-Nitroaniline <b>CAS #</b> 88-74-4 <b>Purity</b> 99%	(Lot MKCJ8895)	1,001.7	µg/mL	+/-	5.8238	µg/mL	Gravimetric
					+/-	30.2986	µg/mL	Unstressed
					+/-	30.2986	µg/mL	Stressed
35	1,4-Dinitrobenzene <b>CAS #</b> 100-25-4 <b>Purity</b> 99%	(Lot STBF8844V)	1,000.8	µg/mL	+/-	5.8189	µg/mL	Gravimetric
					+/-	30.2734	µg/mL	Unstressed
					+/-	30.2734	µg/mL	Stressed
36	Acenaphthylene <b>CAS #</b> 208-96-8 <b>Purity</b> 98%	(Lot P06V)	1,000.1	µg/mL	+/-	5.8149	µg/mL	Gravimetric
					+/-	30.2526	µg/mL	Unstressed
					+/-	30.2526	µg/mL	Stressed
37	1,3-Dinitrobenzene <b>CAS #</b> 99-65-0 <b>Purity</b> 99%	(Lot 1-DXX-24-1)	1,000.4	µg/mL	+/-	5.8167	µg/mL	Gravimetric
					+/-	30.2616	µg/mL	Unstressed
					+/-	30.2616	µg/mL	Stressed
38	Dimethylphthalate <b>CAS #</b> 131-11-3 <b>Purity</b> 99%	(Lot 10117699)	1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
					+/-	30.2751	µg/mL	Unstressed
					+/-	30.2751	µg/mL	Stressed
39	2,6-Dinitrotoluene <b>CAS #</b> 606-20-2 <b>Purity</b> 99%	(Lot BCBB8606)	1,000.2	µg/mL	+/-	5.8154	µg/mL	Gravimetric
					+/-	30.2549	µg/mL	Unstressed
					+/-	30.2549	µg/mL	Stressed

40	1,2-Dinitrobenzene CAS # 528-29-0 Purity 99%	(Lot MKCH6067)	1,000.0 µg/mL	+/-	5.8141 30.2482 30.2482	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	Acenaphthene CAS # 83-32-9 Purity 99%	(Lot MKCN0610)	1,002.4 µg/mL	+/-	5.8283 30.3221 30.3221	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	3-Nitroaniline CAS # 99-09-2 Purity 99%	(Lot MKCH5457)	1,000.9 µg/mL	+/-	5.8196 30.2768 30.2768	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	2,4-Dinitrophenol CAS # 51-28-5 Purity 99%	(Lot STBH7564)	1,002.2 µg/mL	+/-	5.8267 30.3137 30.3137	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	Dibenzofuran CAS # 132-64-9 Purity 99%	(Lot MKCN1772)	1,001.7 µg/mL	+/-	5.8238 30.2986 30.2986	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	2,4-Dinitrotoluene CAS # 121-14-2 Purity 99%	(Lot MKAA0690V)	1,001.6 µg/mL	+/-	5.8231 30.2952 30.2952	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	4-Nitrophenol CAS # 100-02-7 Purity 99%	(Lot MKCF6111)	1,000.7 µg/mL	+/-	5.8183 30.2700 30.2700	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	2,3,4,6-Tetrachlorophenol CAS # 58-90-2 Purity 99%	(Lot PR-30126)	1,000.9 µg/mL	+/-	5.8196 30.2768 30.2768	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	2,3,5,6-Tetrachlorophenol CAS # 935-95-5 Purity 99%	(Lot 012016)	1,001.3 µg/mL	+/-	5.8218 30.2885 30.2885	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Fluorene CAS # 86-73-7 Purity 99%	(Lot 094650L18G)	1,002.6 µg/mL	+/-	5.8289 30.3255 30.3255	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	4-Chlorophenyl phenyl ether CAS # 7005-72-3 Purity 99%	(Lot MKCN1186)	1,001.8 µg/mL	+/-	5.8244 30.3020 30.3020	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	Diethylphthalate CAS # 84-66-2 Purity 99%	(Lot BCCD3396)	1,000.9 µg/mL	+/-	5.8193 30.2751 30.2751	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	4-Nitroaniline CAS # 100-01-6 Purity 99%	(Lot RP210713)	1,000.9 µg/mL	+/-	5.8196 30.2768 30.2768	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol) CAS # 534-52-1 Purity 99%	(Lot RP210716)	1,002.2 µg/mL	+/-	5.8270 30.3154 30.3154	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	Diphenylamine CAS # 122-39-4 Purity 99%	(Lot MKBN8295V)	1,000.6 µg/mL	+/-	5.8173 30.2650 30.2650	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	Azobenzene CAS # 103-33-3 Purity 99%	(Lot BCCB8438)	1,001.2 µg/mL	+/-	5.8212 30.2852 30.2852	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed



56	4-Bromophenyl phenyl ether CAS # 101-55-3 Purity 99%	(Lot STBB9729V)	1,001.3 µg/mL	+/-	5.8218 30.2885 30.2885	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	Hexachlorobenzene CAS # 118-74-1 Purity 99%	(Lot SL210804)	1,000.2 µg/mL	+/-	5.8154 30.2549 30.2549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	Pentachlorophenol CAS # 87-86-5 Purity 99%	(Lot 210706RSR)	1,000.5 µg/mL	+/-	5.8170 30.2633 30.2633	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	Phenanthrene CAS # 85-01-8 Purity 99%	(Lot MKCL7390)	1,000.8 µg/mL	+/-	5.8186 30.2717 30.2717	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	Anthracene CAS # 120-12-7 Purity 99%	(Lot MKCM0015)	1,001.9 µg/mL	+/-	5.8254 30.3070 30.3070	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	Carbazole CAS # 86-74-8 Purity 99%	(Lot 10812100)	1,000.7 µg/mL	+/-	5.8180 30.2684 30.2684	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	Di-n-butylphthalate CAS # 84-74-2 Purity 99%	(Lot MKCL9573)	1,001.6 µg/mL	+/-	5.8231 30.2952 30.2952	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	Fluoranthene CAS # 206-44-0 Purity 99%	(Lot MKCF7378)	1,000.4 µg/mL	+/-	5.8167 30.2616 30.2616	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	Pyrene CAS # 129-00-0 Purity 99%	(Lot BCCB9880)	1,001.1 µg/mL	+/-	5.8202 30.2801 30.2801	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	Benzyl butyl phthalate CAS # 85-68-7 Purity 99%	(Lot MKCM1987)	1,000.1 µg/mL	+/-	5.8147 30.2516 30.2516	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	Bis(2-ethylhexyl)adipate CAS # 103-23-1 Purity 99%	(Lot MKCM1988)	1,000.9 µg/mL	+/-	5.8196 30.2768 30.2768	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	Benz(a)anthracene CAS # 56-55-3 Purity 96%	(Lot RP210125)	1,000.7 µg/mL	+/-	5.8184 30.2708 30.2708	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	Chrysene CAS # 218-01-9 Purity 99%	(Lot STBJ1016)	1,001.6 µg/mL	+/-	5.8235 30.2969 30.2969	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	Bis(2-ethylhexyl)phthalate CAS # 117-81-7 Purity 99%	(Lot MKCJ1159)	1,002.1 µg/mL	+/-	5.8260 30.3104 30.3104	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Di-n-octyl phthalate CAS # 117-84-0 Purity 99%	(Lot 11004300)	1,001.4 µg/mL	+/-	5.8222 30.2902 30.2902	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Benzo(b)fluoranthene CAS # 205-99-2 Purity 99%	(Lot 012020B)	1,000.9 µg/mL	+/-	5.8193 30.2751 30.2751	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed



72	Benzo(k)fluoranthene <b>CAS #</b> 207-08-9 <b>Purity</b> 99%	(Lot 012019K)	1,001.3 µg/mL	+/- 5.8218 +/- 30.2885 +/- 30.2885	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
73	Benzo(a)pyrene <b>CAS #</b> 50-32-8 <b>Purity</b> 99%	(Lot Z8BKF)	1,000.6 µg/mL	+/- 5.8173 +/- 30.2650 +/- 30.2650	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
74	Indeno(1,2,3-cd)pyrene <b>CAS #</b> 193-39-5 <b>Purity</b> 99%	(Lot 1-RAK-33-4)	1,002.3 µg/mL	+/- 5.8277 +/- 30.3188 +/- 30.3188	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
75	Dibenz(a,h)anthracene <b>CAS #</b> 53-70-3 <b>Purity</b> 99%	(Lot ER032211-01)	1,002.3 µg/mL	+/- 5.8273 +/- 30.3171 +/- 30.3171	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
76	Benzo(g,h,i)perylene <b>CAS #</b> 191-24-2 <b>Purity</b> 99%	(Lot 8GFYJ)	1,008.8 µg/mL	+/- 5.8651 +/- 30.5137 +/- 30.5137	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
<b>Solvent:</b>	Methylene chloride <b>CAS #</b> 75-09-2 <b>Purity</b> 99%					



**Column:**  
30m x 0.25mm x 0.25µm  
Rtx-5 (cat.#10223)

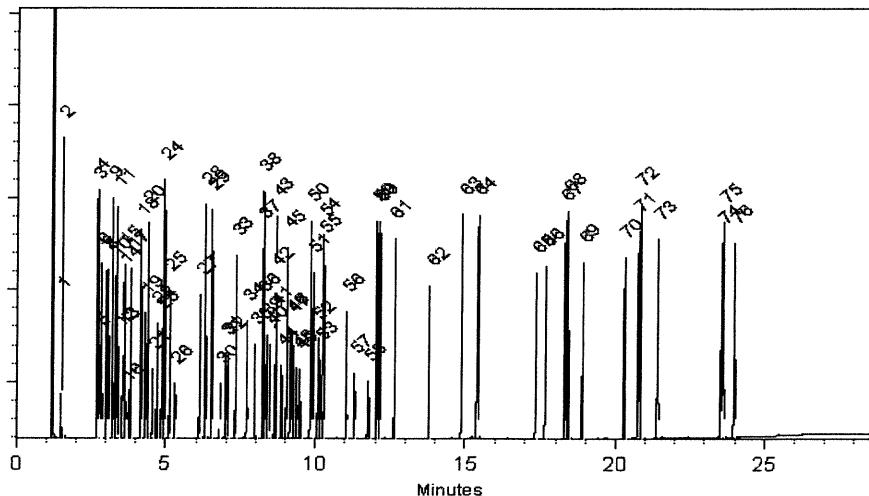
**Carrier Gas:**  
hydrogen-constant flow 1.8 mL/min.

**Temp. Program:**  
80°C (hold 0.1 min.) to 330°C  
@ 9.6°C/min. (hold 2.86 min.)

**Inj. Temp:**  
250°C

**Det. Temp:**  
340°C

**Det. Type:**  
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Cathleen Soltis*

Cathleen Soltis - Mix Technician

Date Mixed: 14-Sep-2021

Balance: 1128360905

*Alexis Shelow*

Alexis Shelow - Operations Tech I

Date Passed: 23-Sep-2021

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397

## General Certified Reference Material Notes

### Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ $\mu$ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

### Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

- $k$  is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us).
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

### Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

# RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
 Bellefonte, PA 16823-8812  
 Tel: (800)356-1688  
 Fax: (814)353-1309

www.restek.com

## Gravimetric Certificate



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Received by CG

**Catalog No. :** 555224 **Lot No.:** A0178679  
**Description :** Custom 8270 Plus Standard #2  
Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** November 30, 2023 **Storage:** 10°C or colder  
**Ship:** Ambient

ON

11/23/21

S10066

to

S10095

### CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,2,4,5-Tetrachlorobenzene	1,001.0 µg/mL	+/-	5.945637	µg/mL	Gravimetric
	CAS # 95-94-3 (Lot MKCG5992)		+/-	20.022252	µg/mL	Unstressed
	Purity 99%		+/-	44.874556	µg/mL	Stressed
2	Acetophenone	1,001.0 µg/mL	+/-	5.945637	µg/mL	Gravimetric
	CAS # 98-86-2 (Lot STBH8205)		+/-	20.022252	µg/mL	Unstressed
	Purity 99%		+/-	44.874556	µg/mL	Stressed
3	Benzaldehyde	1,001.0 µg/mL	+/-	5.945637	µg/mL	Gravimetric
	CAS # 100-52-7 (Lot SHBG8690V)		+/-	20.022252	µg/mL	Unstressed
	Purity 99%		+/-	44.874556	µg/mL	Stressed
4	Benzoic acid	1,001.0 µg/mL	+/-	5.945637	µg/mL	Gravimetric
	CAS # 65-85-0 (Lot MKCL7479)		+/-	20.022252	µg/mL	Unstressed
	Purity 99%		+/-	44.874556	µg/mL	Stressed
5	Biphenyl	1,005.0 µg/mL	+/-	5.969395	µg/mL	Gravimetric
	CAS # 92-52-4 (Lot MKCJ6240)		+/-	20.102261	µg/mL	Unstressed
	Purity 99%		+/-	45.053875	µg/mL	Stressed

**Solvent:** Methylene chloride  
**CAS #** 75-09-2  
**Purity** 99%

  
**Lane Kibe - Mix Technician**

**Date Mixed:** 18-Nov-2021

**Balance:** B345965662

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397

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## Gravimetric Certificate



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Received by CG  
 on  
 11/23/21  
 S10066  
 to  
 S10095

**Catalog No. :** 555224 **Lot No.:** A0178679  
**Description :** Custom 8270 Plus Standard #2  
Custom 8270 Plus Standard #2 1,000µg/mL, Methylene Chloride, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** November 30, 2023 **Storage:** 10°C or colder  
**Ship:** Ambient

### CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,2,4,5-Tetrachlorobenzene	1,001.0 µg/mL	+/-	5.945637	µg/mL Gravimetric
	CAS # 95-94-3 (Lot MKCG5992)		+/-	20.022252	µg/mL Unstressed
	Purity 99%		+/-	44.874556	µg/mL Stressed
2	Acetophenone	1,001.0 µg/mL	+/-	5.945637	µg/mL Gravimetric
	CAS # 98-86-2 (Lot STBH8205)		+/-	20.022252	µg/mL Unstressed
	Purity 99%		+/-	44.874556	µg/mL Stressed
3	Benzaldehyde	1,001.0 µg/mL	+/-	5.945637	µg/mL Gravimetric
	CAS # 100-52-7 (Lot SHBG8690V)		+/-	20.022252	µg/mL Unstressed
	Purity 99%		+/-	44.874556	µg/mL Stressed
4	Benzoic acid	1,001.0 µg/mL	+/-	5.945637	µg/mL Gravimetric
	CAS # 65-85-0 (Lot MKCL7479)		+/-	20.022252	µg/mL Unstressed
	Purity 99%		+/-	44.874556	µg/mL Stressed
5	Biphenyl	1,005.0 µg/mL	+/-	5.969395	µg/mL Gravimetric
	CAS # 92-52-4 (Lot MKCJ6240)		+/-	20.102261	µg/mL Unstressed
	Purity 99%		+/-	45.053875	µg/mL Stressed

**Solvent:** Methylene chloride  
**CAS #** 75-09-2  
**Purity** 99%

  
**Lane Kibe - Mix Technician**

**Date Mixed:** 18-Nov-2021

**Balance:** B345965662

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397

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# CERTIFIED REFERENCE MATERIAL

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Fax: (814)353-1309

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Received on  
07/05/22  
by  
CG  
S10542  
to  
S10571

**Catalog No. :** 31853 **Lot No.:** A0179300

**Description :** 1,4-dioxane  
1,4-Dioxane 2,000µg/mL, Methylene Chloride, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** December 31, 2026 **Storage:** 0°C or colder  
**Ship:** Ambient

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	1,4-Dioxane CAS # 123-91-1 Purity 99% (Lot SHBM9675)	2,004.0 µg/mL	+/- 11.7606 µg/mL Gravimetric +/- 42.9357 µg/mL Unstressed +/- 44.1822 µg/mL Stressed

**Solvent:** Methylene chloride  
CAS # 75-09-2  
Purity 99%

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**Column:**  
105m x 0.53mm x 3.0µm  
Rtx-502.2 (cat.#10910)

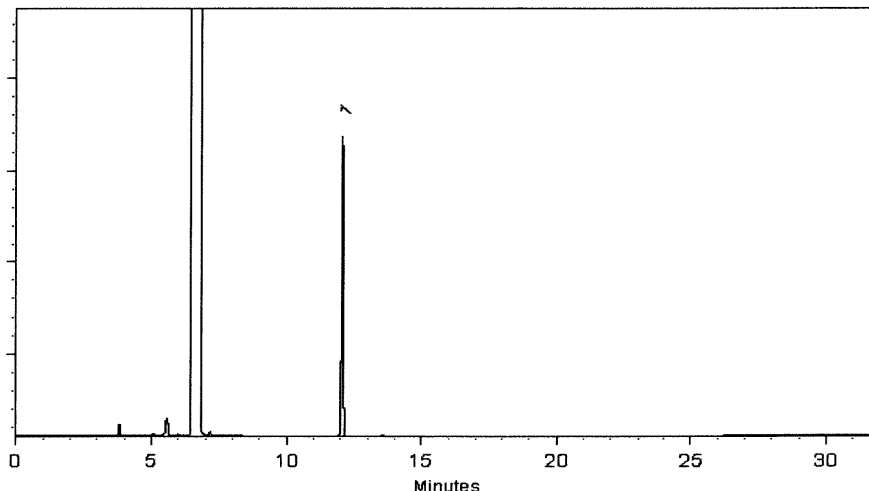
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**Temp. Program:**  
40°C (hold 2 min.) to 240°C  
@ 8°C/min. (hold 5 min.)

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

**Det. Type:**  
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Ashley Frantz*  
Ashley Frantz - Quoting Technician

**Date Mixed:** 08-Dec-2021      **Balance:** B442140311

*Jennifer J Pollino*  
Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 10-Dec-2021

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397

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# CERTIFIED REFERENCE MATERIAL

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Received on  
07/05/22  
by  
CG  
S10512  
to  
S10541

**Catalog No. :** 31206 **Lot No.:** A0180950

**Description :** SV Internal Standard Mix 2mg/ml  
SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** December 31, 2027 **Storage:** 10°C or colder

**Handling:** Sonication required. Mix is photosensitive. **Ship:** Ambient

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,4-Dichlorobenzene-d4	2,019.1 µg/mL	+/-	11.7390	µg/mL	Gravimetric
	CAS # 3855-82-1 (Lot PR-30447)		+/-	90.9400	µg/mL	Unstressed
	Purity 99%		+/-	100.9091	µg/mL	Stressed
2	Naphthalene-d8	2,018.9 µg/mL	+/-	11.7379	µg/mL	Gravimetric
	CAS # 1146-65-2 (Lot M-2180)		+/-	90.9310	µg/mL	Unstressed
	Purity 99%		+/-	100.8991	µg/mL	Stressed
3	Acenaphthene-d10	2,018.8 µg/mL	+/-	11.7375	µg/mL	Gravimetric
	CAS # 15067-26-2 (Lot PR-30913)		+/-	90.9280	µg/mL	Unstressed
	Purity 99%		+/-	100.8958	µg/mL	Stressed
4	Phenanthrene-d10	2,018.4 µg/mL	+/-	11.7352	µg/mL	Gravimetric
	CAS # 1517-22-2 (Lot PR-32303)		+/-	90.9099	µg/mL	Unstressed
	Purity 99%		+/-	100.8758	µg/mL	Stressed
5	Chrysene-d12	2,018.7 µg/mL	+/-	11.7367	µg/mL	Gravimetric
	CAS # 1719-03-5 (Lot PR-30486)		+/-	90.9220	µg/mL	Unstressed
	Purity 99%		+/-	100.8891	µg/mL	Stressed
6	Perylene-d12	2,019.9 µg/mL	+/-	11.7437	µg/mL	Gravimetric
	CAS # 1520-96-3 (Lot PR-31716)		+/-	90.9760	µg/mL	Unstressed
	Purity 99%		+/-	100.9491	µg/mL	Stressed

**Solvent:** Methylene chloride  
**CAS #** 75-09-2  
**Purity** 99%

**Column:**  
30m x 0.25mm x 0.25µm  
Rtx-5 (cat.#10223)

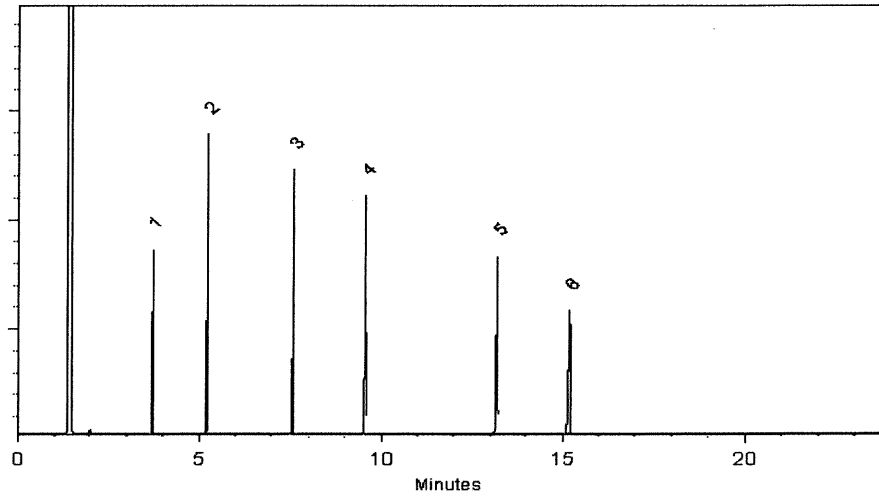
**Carrier Gas:**  
hydrogen-constant pressure 10 psi.

**Temp. Program:**  
75°C (hold 1 min.) to 330°C  
@ 20°C/min. (hold 10 min.)

**Inj. Temp:**  
250°C

**Det. Temp:**  
330°C

**Det. Type:**  
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brittany Federinko - Operations Tech I

**Date Mixed:** 24-Jan-2022

**Balance:** 1128360905

Marlina Cowan - Operations Tech I

**Date Passed:** 27-Jan-2022

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397



# CERTIFIED REFERENCE MATERIAL

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Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Received on  
07/05/22  
by  
CG  
S10512  
to  
S10541

**Catalog No. :** 31206 **Lot No.:** A0180950

**Description :** SV Internal Standard Mix 2mg/ml  
SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** December 31, 2027 **Storage:** 10°C or colder

**Handling:** Sonication required. Mix is photosensitive. **Ship:** Ambient

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,4-Dichlorobenzene-d4	2,019.1 µg/mL	+/-	11.7390	µg/mL	Gravimetric
	CAS # 3855-82-1 (Lot PR-30447)		+/-	90.9400	µg/mL	Unstressed
	Purity 99%		+/-	100.9091	µg/mL	Stressed
2	Naphthalene-d8	2,018.9 µg/mL	+/-	11.7379	µg/mL	Gravimetric
	CAS # 1146-65-2 (Lot M-2180)		+/-	90.9310	µg/mL	Unstressed
	Purity 99%		+/-	100.8991	µg/mL	Stressed
3	Acenaphthene-d10	2,018.8 µg/mL	+/-	11.7375	µg/mL	Gravimetric
	CAS # 15067-26-2 (Lot PR-30913)		+/-	90.9280	µg/mL	Unstressed
	Purity 99%		+/-	100.8958	µg/mL	Stressed
4	Phenanthrene-d10	2,018.4 µg/mL	+/-	11.7352	µg/mL	Gravimetric
	CAS # 1517-22-2 (Lot PR-32303)		+/-	90.9099	µg/mL	Unstressed
	Purity 99%		+/-	100.8758	µg/mL	Stressed
5	Chrysene-d12	2,018.7 µg/mL	+/-	11.7367	µg/mL	Gravimetric
	CAS # 1719-03-5 (Lot PR-30486)		+/-	90.9220	µg/mL	Unstressed
	Purity 99%		+/-	100.8891	µg/mL	Stressed
6	Perylene-d12	2,019.9 µg/mL	+/-	11.7437	µg/mL	Gravimetric
	CAS # 1520-96-3 (Lot PR-31716)		+/-	90.9760	µg/mL	Unstressed
	Purity 99%		+/-	100.9491	µg/mL	Stressed

**Solvent:** Methylene chloride  
**CAS #** 75-09-2  
**Purity** 99%

**Column:**  
30m x 0.25mm x 0.25µm  
Rtx-5 (cat.#10223)

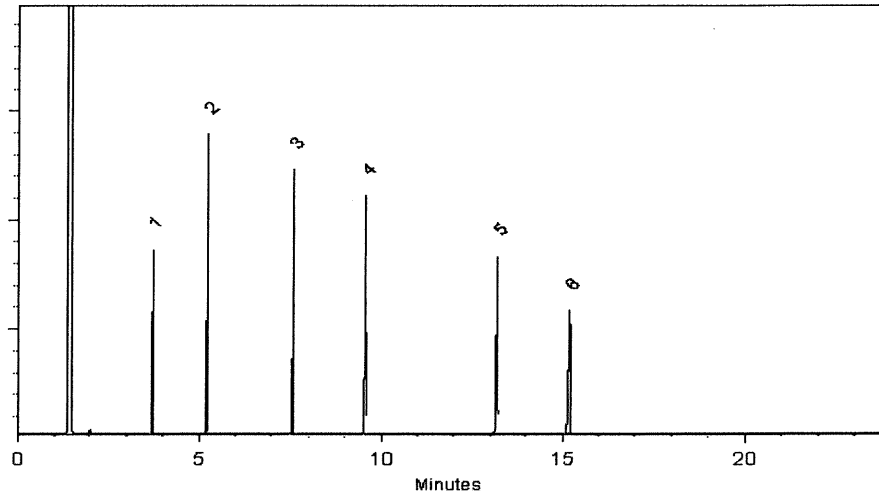
**Carrier Gas:**  
hydrogen-constant pressure 10 psi.

**Temp. Program:**  
75°C (hold 1 min.) to 330°C  
@ 20°C/min. (hold 10 min.)

**Inj. Temp:**  
250°C

**Det. Temp:**  
330°C

**Det. Type:**  
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brittany Federinko - Operations Tech I

**Date Mixed:** 24-Jan-2022

**Balance:** 1128360905

Marlina Cowan - Operations Tech I

**Date Passed:** 27-Jan-2022

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Received on  
03/10/22  
by  
CG  
S10242  
to  
S10247

**Catalog No. :** 31615 **Lot No.:** A0182667

**Description :** GC/MS Tuning Mixture  
GC/MS Tuning Mixture 1,000µg/mL, Methylene Chloride, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** March 31, 2025 **Storage:** 10°C or colder

**Handling:** Contains carcinogen/reproductive toxin. **Ship:** Ambient

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Pentachlorophenol	1,003.6 µg/mL	+/-	5.8897	µg/mL	Gravimetric
	CAS # 87-86-5 (Lot 211229RSR)		+/-	45.7132	µg/mL	Unstressed
	Purity 99%		+/-	66.0037	µg/mL	Stressed
2	DFTPP (Decafluorotriphenylphosphine)	1,006.6 µg/mL	+/-	5.9074	µg/mL	Gravimetric
	CAS # 5074-71-5 (Lot Q117-147)		+/-	45.8508	µg/mL	Unstressed
	Purity 95%		+/-	66.2023	µg/mL	Stressed
3	Benzidine	1,008.4 µg/mL	+/-	5.9179	µg/mL	Gravimetric
	CAS # 92-87-5 (Lot 211228JLM)		+/-	45.9318	µg/mL	Unstressed
	Purity 99%		+/-	66.3193	µg/mL	Stressed
4	4,4'-DDT	1,007.6 µg/mL	+/-	5.9132	µg/mL	Gravimetric
	CAS # 50-29-3 (Lot 210916JLM)		+/-	45.8954	µg/mL	Unstressed
	Purity 99%		+/-	66.2667	µg/mL	Stressed

**Solvent:** Methylene chloride  
CAS # 75-09-2  
Purity 99%

**Column:**  
30m x 0.25mm x 0.25µm  
Rtx-5 (cat.#10223)

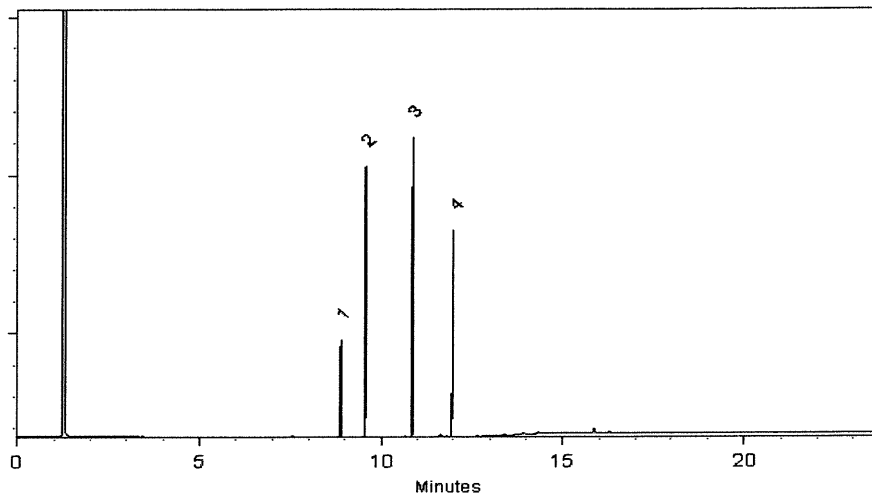
**Carrier Gas:**  
hydrogen-constant pressure 10 psi.

**Temp. Program:**  
75°C (hold 1 min.) to 330°C  
@ 20°C/min. (hold 10 min.)

**Inj. Temp:**  
250°C

**Det. Temp:**  
330°C

**Det. Type:**  
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Morgan Craighead - Mix Technician

**Date Mixed:** 08-Mar-2022      **Balance:** B345965662

  
Marlina Cowan - Operations Tech I

**Date Passed:** 10-Mar-2022

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 31086 **Lot No.:** A0186198

**Description :** B/N Surrogate Mix (4/89 SOW)  
Base Neutral Surrogate 5000µg/mL, Methylene Chloride, 5mL/ampul

**Container Size :** 5 mL **Pkg Amt:** > 5 mL

**Expiration Date :** May 31, 2028 **Storage:** 10°C or colder

**Handling:** Sonicate prior to use. **Ship:** Ambient

Received  
on  
08/16/22  
by  
CG  
\$10595  
+0  
S10624

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitrobenzene-d5 CAS # 4165-60-0 Purity 99% (Lot PR-29940A)	5,019.7 µg/mL	+/-	29.1848	µg/mL Gravimetric
			+/-	226.0888	µg/mL Unstressed
			+/-	250.8734	µg/mL Stressed
2	2-Fluorobiphenyl CAS # 321-60-8 Purity 99% (Lot 00021384)	5,011.8 µg/mL	+/-	29.1387	µg/mL Gravimetric
			+/-	225.7322	µg/mL Unstressed
			+/-	250.4778	µg/mL Stressed
3	p-Terphenyl-d14 CAS # 1718-51-0 Purity 99% (Lot PR-30504)	5,015.0 µg/mL	+/-	29.1576	µg/mL Gravimetric
			+/-	225.8786	µg/mL Unstressed
			+/-	250.6402	µg/mL Stressed

**Solvent:** Methylene chloride  
CAS # 75-09-2  
Purity 99%

#### Tech Tips:

Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.



**Column:**  
30m x 0.25mm x 0.25µm  
Rtx-5 (cat.#10223)

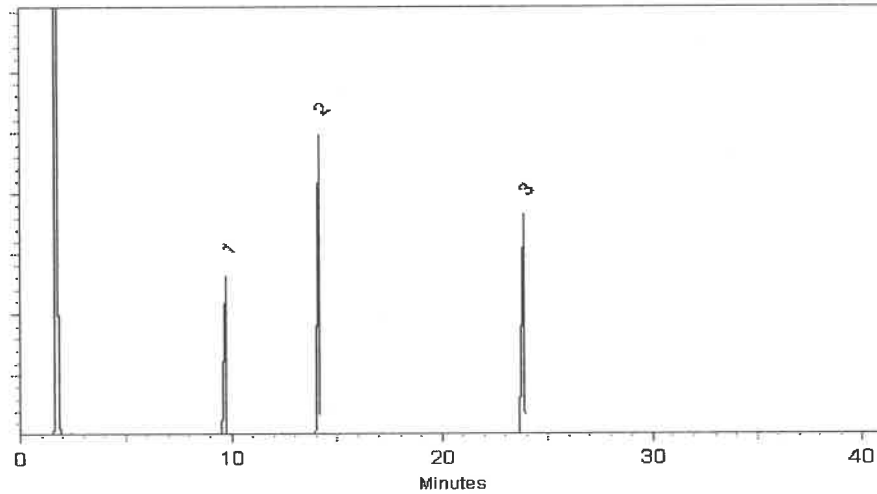
**Carrier Gas:**  
hydrogen-constant pressure 10 psi.

**Temp. Program:**  
40°C (hold 2 min.) to 330°C  
@ 10°C/min. (hold 10 min.)

**Inj. Temp:**  
250°C

**Det. Temp:**  
330°C

**Det. Type:**  
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

  
Jess Hoy - Operations Tech I

**Date Mixed:** 10-Jun-2022      **Balance:** 1128353505

  
Christie Mills - Operations Tech II - ARM QC

**Date Passed:** 15-Jun-2022

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397

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# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Gravimetric Certificate



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Received  
on  
08/23/22  
by  
CG  
S10648  
to  
S10677

**Catalog No. :** 555223 **Lot No.:** A0188685

**Description :** Custom 8270 Plus Standard #1  
Custom 8270 Plus Standard #1 1,000µg/mL, Methylene Chloride, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** August 31, 2024 **Storage:** 10°C or colder

**Handling:** This product is photosensitive. **Ship:** Ambient

### CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	3,3'-Dichlorobenzidine	1,005.0 µg/mL (Lot 220223RSR)	+/-	5.9694	µg/mL	Gravimetric
	CAS # 91-94-1		+/-	46.1808	µg/mL	Unstressed
	Purity 99%		+/-	47.3621	µg/mL	Stressed
2	Atrazine	1,001.0 µg/mL (Lot PI8FG)	+/-	5.9456	µg/mL	Gravimetric
	CAS # 1912-24-9		+/-	45.9970	µg/mL	Unstressed
	Purity 99%		+/-	47.1736	µg/mL	Stressed
3	Benzidine	1,004.0 µg/mL (Lot 220511RSR)	+/-	5.9635	µg/mL	Gravimetric
	CAS # 92-87-5		+/-	46.1348	µg/mL	Unstressed
	Purity 99%		+/-	47.3150	µg/mL	Stressed
4	epsilon-Caprolactam	1,001.0 µg/mL (Lot I16X016)	+/-	5.9456	µg/mL	Gravimetric
	CAS # 105-60-2		+/-	45.9970	µg/mL	Unstressed
	Purity 99%		+/-	47.1736	µg/mL	Stressed

**Solvent:** Methylene chloride  
**CAS #** 75-09-2  
**Purity** 99%

*Cathleen Soltis*  
Cathleen Soltis - Mix Technician

**Date Mixed:** 17-Aug-2022      **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397

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**CERTIFICATE OF ANALYSIS**

Product Name Sodium Hydroxide  
 Grade Reagent ACS Grade  
 Catalog # 289000ACS  
 Item # 101007  
 Batch # 220601-B017657  
 Date of Manufacture: 04/06/2022  
 Recommended Retest Date: 04/05/2025  
 Customer PO # 6051379  
 Packaging Type Drum Fiber 50 Kg

TEST	MONO-GRAPH	SPECIFICATION	RESULT	UNITS
Assay	ACS	NLT 97.0%	98.7	%
Calcium (Ca)	ACS	0.005%, max	LT 0.005%	N/A
Chloride (Cl)	ACS	0.005% max.	LT 0.005%	N/A
Heavy Metals (as Ag)	ACS	0.002% max	LT 0.002%	N/A
Iron (Fe)	ACS	0.001% max.	LT 0.001%	N/A
Magnesium (Mg)	ACS	0.002% max.	LT 0.002%	N/A
Mercury (Hg)	ACS	0.1 ppm max.	LT 0.1 ppm	N/A
Nickel (Ni)	ACS	0.001%, max	LT 0.001%	N/A
Nitrogen Compounds (as N)	ACS	0.001% max.	LT 0.001%	N/A
Phosphate (PO4)	ACS	0.001% max.	LT 0.001%	N/A
Potassium (K)	ACS	0.02% max.	LT 0.02%	N/A
Sodium Carbonate (Na2CO3)	ACS	1.0% max.	0.6	%
Sulfate (SO4)	ACS	0.003% max.	LT 0.003%	N/A

**Certification and Compliance Statements**

This product is not derived, nor does it come in contact with, any materials derived from bovine or other animal sources.

E 3382

[www.pharmco.com](http://www.pharmco.com) | [www.greenfield.com](http://www.greenfield.com)

Form: CofA-Standard, Rev 1.6, 04/13/22, RAD

N6070-SVOC-SIMGroup1 Recd. by R1 on 08/03/22

Methylene Chloride  
ULTRA RESI-ANALYZED  
For Organic Residue Analysis  
(dichloromethane)



Material No.: 9266-A4  
Batch No.: 22G1962004  
Manufactured Date: 2022-06-22  
Expiration Date: 2023-09-21  
Revision No.: 0

## Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	< 1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	2
Assay (CH <sub>2</sub> Cl <sub>2</sub> ) (by GC, exclusive of preservative, corrected for water)	≥ 99.8 %	100.0 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.1 ppm
Titration Acid (μeq/g)	≤ 0.3	< 0.1
Chloride (Cl)	≤ 10 ppm	5 ppm
Water (by KF, coulometric)	≤ 0.02 %	< 0.01 %

For Laboratory, Research, or Manufacturing Use  
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC

Recd. by R on 9/13/22

E 3397

*James Ethier*  
Jamie Ethier  
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC  
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700  
Page 1 of 1



**PRODUCTOS  
QUÍMICOS  
MONTERREY, S.A. DE C.V.**



MIRADOR 201, COL. MIRADOR  
MONTERREY, N.L. MÉXICO  
CP 64070  
TEL +52 81 13 52 57 57  
www.pqm.com.mx

# CERTIFICATE OF ANALYSIS

<b>PRODUCT :</b>	<b>SODIUM SULFATE CRYSTALS ANHYDROUS</b>		
<b>QUALITY :</b>	<b>ACS (CODE RMB3375)</b>	<b>FORMULA :</b>	<b>Na<sub>2</sub>SO<sub>4</sub></b>
<b>SPECIFICATION NUMBER :</b>	<b>6399</b>	<b>RELEASE DATE:</b>	<b>OCT/28/2021</b>
<b>LOT NUMBER :</b>	<b>139404</b>		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na <sub>2</sub> SO <sub>4</sub> )	Min. 99.0%	99.8 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.0
Insoluble matter	Max. 0.01%	0.005 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO <sub>4</sub> )	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.002 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.002 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreign matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.2 %
Retained on US Standard No. 60 sieve	Min. 94%	97.6 %
Through US Standard No. 60 sieve	Max. 5%	2.1 %
Through US Standard No. 100 sieve	Max. 10%	0.2 %

**COMMENTS**

QC: PhC Irma Belmares

If you need further details, please call our factory or contact our local distributor.

RE-02-01, Ed. 3

E 3412

Recd. by RP on 10/13/22

Acetone  
BAKER RESI-ANALYZED® Reagent  
For Organic Residue Analysis

 **avantor™**



Material No.: 9254-03  
Batch No.: 22E1562001  
Manufactured Date: 2022-05-03  
Expiration Date: 2025-05-02  
Revision No.: 0

## Certificate of Analysis

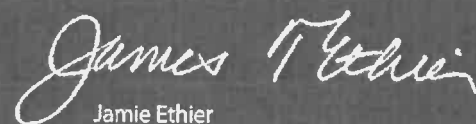
Test	Specification	Result
Assay ((CH <sub>3</sub> ) <sub>2</sub> CO) (by GC, corrected for water)	≥ 99.4 %	99.8 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	< 1.0 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (μeq/g)	≤ 0.3	0.1
Titration Base (μeq/g)	≤ 0.6	< 0.1
Water (H <sub>2</sub> O)	≤ 0.5 %	0.1 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	< 1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1

For Laboratory, Research, or Manufacturing Use  
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC

Recd. by RP on 11/3/22

E3425



Jamie Ethier  
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

Page 1 of 1

Material No.: 9254-03  
Batch No.: 22E1562001  
Manufactured Date: 2022-05-03  
Expiration Date: 2025-05-02  
Revision No.: 0

## Certificate of Analysis

Test	Specification	Result
Assay ((CH <sub>3</sub> ) <sub>2</sub> CO) (by GC, corrected for water)	≥ 99.4 %	99.8 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	< 1.0 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (µeq/g)	≤ 0.3	0.1
Titration Base (µeq/g)	≤ 0.6	< 0.1
Water (H <sub>2</sub> O)	≤ 0.5 %	0.1 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	< 1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1

For Laboratory, Research, or Manufacturing Use  
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC

Recd. by RPa on 11/16/22

E 3430

*James Ethier*  
Jamie Ethier  
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA 19087, U.S.A. Phone 610.386.1700

Page 1 of 1



Methylene Chloride  
ULTRA RESI-ANALYZED  
For Organic Residue Analysis  
(dichloromethane)



Material No.: 9266-A4  
Batch No.: 2212962012  
Manufactured Date: 2022-09-10  
Expiration Date: 2023-12-10  
Revision No.: 0

## Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	2
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	2
Assay (CH <sub>2</sub> Cl <sub>2</sub> ) (by GC, exclusive of preservative, corrected for water)	≥ 99.8 %	100.0 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	< 0.1 ppm
Titration Acid (μeq/g)	≤ 0.3	< 0.1
Chloride (Cl)	≤ 10 ppm	< 5 ppm
Water (by KF, coulometric)	≤ 0.02 %	0.01 %

For Laboratory, Research, or Manufacturing Use  
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3432

Jamie Ethier  
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

Page 1 of 1

Methylene Chloride  
ULTRA RESI-ANALYZED  
For Organic Residue Analysis  
(dichloromethane)



Material No.: 9266-A4  
Batch No.: 22J1962006  
Manufactured Date: 2022-09-23  
Expiration Date: 2023-12-23  
Revision No.: 0

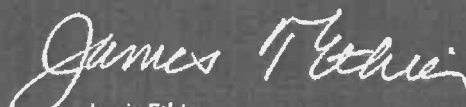
## Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	3
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	6
Assay (CH <sub>2</sub> Cl <sub>2</sub> ) (by GC, exclusive of preservative, corrected for water)	≥ 99.8 %	100.0 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.1 ppm
Titration Acid (μeq/g)	≤ 0.3	< 0.1
Chloride (Cl)	≤ 10 ppm	< 5 ppm
Water (by KF, coulometric)	≤ 0.02 %	< 0.01 %

For Laboratory, Research, or Manufacturing Use  
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3446

  
Jamie Ethier  
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700  
Avantor Performance Materials, LLC  
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700  
Page 1 of 1

Sulfuric Acid  
 BAKER INSTRA-ANALYZED® Reagent  
 For Trace Metal Analysis  
 Low Selenium

*M5037-38-39-40  
 NO*



Material No.: 9673-33  
 Batch No.: 000250349  
 Manufactured Date: 2019/12/17  
 Retest Date: 2024/12/15  
 Revision No: 1

## Certificate of Analysis

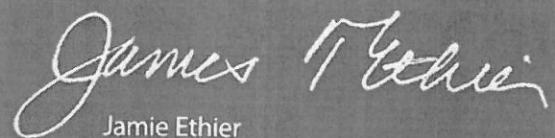
Test	Specification	Result
ACS - Assay (H <sub>2</sub> SO <sub>4</sub> )	95.0 - 98.0 %	96.5
Appearance	Passes Test	PT
ACS - Color (APHA)	<= 10	5
ACS - Residue after Ignition	<= 3 ppm	1
ACS - Substances Reducing Permanganate (as SO <sub>2</sub> )	<= 2 ppm	< 2
Ammonium (NH <sub>4</sub> )	<= 1 ppm	< 1
Chloride (Cl)	<= 0.1 ppm	< 0.1
Nitrate (NO <sub>3</sub> )	<= 0.2 ppm	< 0.1
Phosphate (PO <sub>4</sub> )	<= 0.5 ppm	< 0.1
Trace Impurities - Aluminum (Al)	<= 30.0 ppb	0.2
Arsenic and Antimony (as As)	<= 4 ppb	< 2
Trace Impurities - Barium (Ba)	<= 10.0 ppb	< 1.0
Trace Impurities - Beryllium (Be)	<= 10.0 ppb	< 1.0
Trace Impurities - Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities - Boron (B)	<= 10.0 ppb	< 5.0
Trace Impurities - Cadmium (Cd)	<= 2.0 ppb	< 0.3
Trace Impurities - Calcium (Ca)	<= 50.0 ppb	2.9
Trace Impurities - Chromium (Cr)	<= 6.0 ppb	< 0.4
Trace Impurities - Cobalt (Co)	<= 0.5 ppb	< 0.3
Trace Impurities - Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities - Gallium (Ga)	<= 10.0 ppb	< 1.0
Trace Impurities - Germanium (Ge)	<= 10.0 ppb	< 10.0
Trace Impurities - Gold (Au)	<= 10.0 ppb	< 0.2
Heavy Metals (as Pb)	<= 500 ppb	< 100

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700  
 Avantor Performance Materials, LLC  
 100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Test	Specification	Result
Trace Impurities - Iron (Fe)	<= 50.0 ppb	4.1
Trace Impurities - Lead (Pb)	<= 0.5 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 10.0 ppb	< 1.0
Trace Impurities - Magnesium (Mg)	<= 7.0 ppb	0.4
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities - Mercury (Hg)	<= 0.5 ppb	< 0.1
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 2.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 10.0 ppb	< 1.0
Trace Impurities - Potassium (K)	<= 500.0 ppb	< 2.0
Trace Impurities - Selenium (Se)	<= 50.0 ppb	22.9
Trace Impurities - Silicon (Si)	<= 100.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 500.0 ppb	2.7
Trace Impurities - Strontium (Sr)	<= 5.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 10.0 ppb	< 5.0
Trace Impurities - Thallium (Tl)	<= 20.0 ppb	< 5.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 10.0 ppb	< 1.0
Trace Impurities - Vanadium (V)	<= 10.0 ppb	< 1.0
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.3
Trace Impurities - Zirconium (Zr)	<= 10.0 ppb	< 1.0

For Laboratory, Research or Manufacturing Use

Country of Origin: US  
 Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Ethier  
 Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC  
 100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

# SHIPPING DOCUMENTS

- 1
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**CLIENT INFORMATION**

**CLIENT PROJECT INFORMATION**

**CLIENT BILLING INFORMATION**

REPORT TO BE SENT TO:

COMPANY: **Jacobs**  
 ADDRESS: **10 10th Street Suite 1400**  
 CITY: **Atlanta** STATE: **GA** ZIP: **30309**  
 ATTENTION: **Melissa Warren**  
 PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

PROJECT NAME: **Princeton Site**  
 PROJECT NO.: **D3662225** LOCATION: **Princeton Junction NJ**  
 PROJECT MANAGER: **Chris English**  
 e-mail: **Chris.English@Jacobs.com**  
 PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

BILL TO: **Chris English** PO#: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 ATTENTION: \_\_\_\_\_ PHONE: \_\_\_\_\_

**ANALYSIS**

**DATA TURNAROUND INFORMATION**

**DATA DELIVERABLE INFORMATION**

FAX (RUSH) \_\_\_\_\_ DAYS\*  
 HARDCOPY (DATA PACKAGE): **Rush! 24Hr VOC** DAYS\*  
 EDD: **48 Hr 44 DWN** DAYS\*  
 \*TO BE APPROVED BY CHEMTECH  
 STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

Level 1 (Results Only)  Level 4 (QC + Full Raw Data)  
 Level 2 (Results + QC)  NJ Reduced  US EPA CLP  
 Level 3 (Results + QC)  NYS ASP A  NYS ASP B  
 + Raw Data  Other \_\_\_\_\_  
 EDD FORMAT \_\_\_\_\_

*Side Specific VOCs 1.4 DWN*

1	2	3	4	5	6	7	8	9
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CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS ← Specify Preservatives A-HCl D-NaOH B-HNO3 E-ICE C-H2SO4 F-OTHER			
			COMP	GRAB	DATE	TIME		A	E											
								1	2	3	4	5	6	7	8	9				
1.	GW-BR-04-226-245-121422	GW	X	X	12-14-22	1030	3	X	X											Rush!
2.	TB-01-121422	DI	X	X	12-14-22	1035	2	X												
3.	QWBR-01-160-180-121422	GW	X	X	12-14-22	800	3	X	X											Rush!
4.	OWBR-02-160-180-121422	GW	X	X	12-14-22	900	3	X	X											Rush!
5.	QWBR-03-128-148-121422	GW	X	X	12-14-22	1000	3	X	X											Rush!
6.																				
7.																				
8.																				
9.																				
10.																				

**SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY**

RELINQUISHED BY SAMPLER: 1. <i>[Signature]</i>	DATE/TIME: 12-14-22/1600	RECEIVED BY: <i>[Signature]</i> 1600 12-14-22	Conditions of bottles or coolers at receipt: <input checked="" type="checkbox"/> COMPLIANT <input type="checkbox"/> NON COMPLIANT <input type="checkbox"/> COOLER TEMP: <b>4.2</b> °C Comments: <b>See work order for site specific voc list</b>
RELINQUISHED BY SAMPLER: 2.	DATE/TIME:	RECEIVED BY: 2.	
RELINQUISHED BY SAMPLER: 3. <i>[Signature]</i>	DATE/TIME: 12-14-22	RECEIVED BY: <i>[Signature]</i>	



---

**From:** Ynfante, John <John.Ynfante@jacobs.com>  
**Sent:** Thursday, December 22, 2022 10:14 PM  
**To:** Jordan Hedvat; Samantha@chemtech.net  
**Cc:** CHEMTECH-Data@chemtech.net  
**Subject:** RE: [EXTERNAL] Summary Report Details For Project Former Schlumberger Site Princeton NJ-N6070.

Jordan and Samantha,

It was brought to my attention that this report N6070 has some incorrect sample IDs. The first sample GW-BR-04-226-245-121422 is correct, but the other 3 samples need to be corrected to match the chain as listed below:  
GW-BR-01-160-180-121422 should be "OWBR-01-160-180-121422"  
GW-BR-02-160-180-121422 should be "OWBR-02-160-180-121422"  
GW-BR-03-128-148-121422 should be "OWBR-03-128-148-121422"

Please revise and reissue the data. Thanks!

- John Y.

---

**From:** CHEMTECH-Data@chemtech.net <CHEMTECH-Data@chemtech.net>  
**Sent:** Monday, December 19, 2022 5:35 PM  
**To:** Murphy, Mary <Mary.Murphy@jacobs.com>; Warren, Melissa <Melissa.Warren@jacobs.com>; Scott, Doug <Doug.Scott@jacobs.com>; Bingeman, Ian <Ian.Bingeman@jacobs.com>; Jones, Philip <Philip.Jones1@jacobs.com>; Garvey, Bethany <Bethany.Garvey@jacobs.com>; khummler@chemtech.net; Ynfante, John <John.Ynfante@jacobs.com>  
**Subject:** [EXTERNAL] Summary Report Details For Project Former Schlumberger Site Princeton NJ-N6070.



To Doug Scott;

Please see the attached Summary Report for the following project, or download the file using your login credentials from the link below.

**Order ID** : N6070  
**Project ID** : Former Schlumberger Site Princeton NJ  
**Download File** : <https://chemtech.net/secureLogin.aspx>  
**Order Date** : 12/14/2022 4:13:00 PM

**CHEMTECH's Project Manager** : Samantha Beazley , [Samantha@chemtech.net](mailto:Samantha@chemtech.net) , Ext :

**CHEMTECH's Sales Executive** : Kurt Hummler , [khummler@chemtech.net](mailto:khummler@chemtech.net) , 908-728-3143 Ext : 3143

Thank you for the opportunity to provide you with our services. For any questions please feel free to contact your project manager.

Click Here for our short online customer Survey [//chemtech.net/ClientSurvey.aspx](http://chemtech.net/ClientSurvey.aspx).

**Thank you,**

**CHEMTECH**

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**Laboratory Certification**

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0649
DOD ELAP (L-A-B)	L2219
Maine	2022022
Maryland	296
New Hampshire	255422
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	P330-21-00137
Texas	T104704488-22-15

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<b>Order ID :</b> N6070	JACO05	<b>Order Date :</b> 12/14/2022 4:13:00 PM	<b>Project Mgr :</b>
<b>Client Name :</b> JACOBS Engineering Grou		<b>Project Name :</b> Former Schlumberger Site F	<b>Report Type :</b> Level 4
<b>Client Contact :</b> Doug Scott		<b>Receive DateTime :</b> 12/14/2022 <del>12:00:00 AM</del>	<b>EDD Type :</b> CH2MHILL
<b>Invoice Name :</b> JACOBS Engineering Grou		<b>Purchase Order :</b> <u>5:30pm</u>	<b>Hard Copy Date :</b>
<b>Invoice Contact :</b> Doug Scott		<u>SB</u> <u>12-19</u>	<b>Date Signoff :</b>

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
N6070-01	GW-BR-04-226-245-121422	Water	12/14/2022	10:30		VOCMS Group3	8260-Low		1 Bus. Day
N6070-02	TB-01-121422	Water	12/14/2022	10:35		VOCMS Group3	8260-Low		10 Bus. Days
N6070-03	<del>GW-BR-01-160-180-121422</del> OWBR	Water	12/14/2022	08:00		VOCMS Group3	8260-Low		1 Bus. Day
N6070-04	<del>GW-BR-02-160-180-121422</del> OWBR	Water	12/14/2022	09:00		VOCMS Group3	8260-Low		1 Bus. Day
N6070-05	<del>GW-BR-03-128-148-121422</del> OWBR	Water	12/14/2022	10:00		VOCMS Group3	8260-Low		1 Bus. Day
	SB 12/28/2022					VOCMS Group3	8260-Low		1 Bus. Day

Relinquished By: [Signature]  
 Date / Time: 12-14-22 1740

Received By: [Signature]  
 Date / Time: 12/14/22 1740  
 Storage Area: VOA Refridgerator Room