

Cover Page

Order ID : Q1215

Project ID : NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Client : RU2 Engineering, LLC

Lab Sample Number

Q1215-01
Q1215-02
Q1215-03
Q1215-04
Q1215-05
Q1215-06
Q1215-07
Q1215-08

Client Sample Number

JPP-29.1-012825
JPP-29.1-012825
JPP-29.1-012825
JPP-29.1-012825
JPP-29.2-012825
JPP-29.2-012825
JPP-29.2-012825
JPP-29.2-012825

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: 2/6/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



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

CASE NARRATIVE

RU2 Engineering, LLC

Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Project # N/A

Chemtech Project # Q1215

Test Name: TCLP Herbicide

A. Number of Samples and Date of Receipt:

8 Solid samples were received on 01/29/2025.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL and VOCMS Group1. This data package contains results for TCLP Herbicide.

C. Analytical Techniques:

The analysis was performed on instrument ECD_S. The front column is RTX-CLPesticides which is 30 meters, 0.32 mm ID, 0.5 um df,: Catalog # 11139. The rear column is RTX-CLPesticides2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 11324The analysis of TCLP Herbicides was based on method 8151A and extraction was done based on method 3510 and TCLP extraction method was 1311.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds .

The MSD recoveries met the acceptable requirements .

The RPD met criteria .

The Blank Spike 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 met the requirements .

E. Additional Comments:

F. Manual Integration Comments:

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



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



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GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: Q1215

MATRIX: TCLP

METHOD: 8151A/3510/1311

	NA	NO	YES
1. Chromatograms Labeled/Compounds Identified.			✓
2. Standard Summary Submitted.			✓
3. Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD.			✓
	The Initial Calibration met the requirements .		
	The Continuous Calibration met the requirements .		
4. Blank Contamination - If yes, list compounds and concentrations in each blank:			✓
5. Surrogate Recoveries Meet Criteria			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable ranges.		
6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.		
	The MS recoveries met the requirements for all compounds .		
	The MSD recoveries met the acceptable requirements .		
	The Blank Spike met requirements for all samples .		
	The RPD met criteria .		
7. Retention Time Shift Meet Criteria (if applicable)			✓
	Comments:		
8. Extraction Holding Time Met			✓
	If not met, list number of days exceeded for each sample:		



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GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

NA NO YES

9. Analysis Holding Time Met ✓

If not met, list those compounds and their recoveries which fall outside the acceptable range.

ADDITIONAL COMMENTS:

QA REVIEW

Date

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1215

Completed

For thorough review, the report must have the following:

GENERAL:

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

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

Is the chain of custody signed and complete ✓

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

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

COVER PAGE:

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

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

CHAIN OF CUSTODY:

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

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

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

Were the samples received within hold time ✓

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

ANALYTICAL:

Was method requirement followed? ✓

Was client requirement followed? ✓

Does the case narrative summarize all QC failure? ✓

All runlogs and manual integration are reviewed for requirements ✓

All manual calculations and /or hand notations verified ✓

LAB CHRONICLE

OrderID:	Q1215	OrderDate:	1/29/2025 11:20:00 AM					
Client:	RU2 Engineering, LLC	Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR					
Contact:	Rutu Manani	Location:	E11,VOA Ref. #2 Soil					
<hr/>								
LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1215-01	JPP-29.1-012825	SOIL	Diesel Range Organics Gasoline Range Organics	8015D 8015D	01/28/25	01/30/25 01/30/25	01/30/25 01/30/25	01/29/25
Q1215-03	JPP-29.1-012825	SOIL	PCB Pesticide-TCL	8082A 8081B	01/28/25	01/30/25 01/30/25	01/30/25 02/01/25	01/29/25
Q1215-04	JPP-29.1-012825	TCLP	TCLP Herbicide	8151A	01/28/25	01/31/25	01/31/25	01/29/25
Q1215-05	JPP-29.2-012825	SOIL	Diesel Range Organics Gasoline Range Organics	8015D 8015D	01/28/25	01/30/25 01/30/25	01/30/25 01/30/25	01/29/25
Q1215-07	JPP-29.2-012825	SOIL	PCB Pesticide-TCL	8082A 8081B	01/28/25	01/30/25 01/30/25	01/30/25 01/30/25	01/29/25
Q1215-08	JPP-29.2-012825	TCLP	TCLP Herbicide	8151A	01/28/25	01/31/25	02/01/25	01/29/25



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Hit Summary Sheet
SW-846

SDG No.: Q1215

Order ID: Q1215

Client: RU2 Engineering, LLC

Project ID: NYCDDC SANTWOBR Brooklyn Bri

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
-----------	-----------	--------	-----------	---------------	---	-----	-----	-------

Client ID :

Total Concentration: **0.000**



QC

SUMMARY

Surrogate Summary

SDG No.: Q1215

Client: RU2 Engineering, LLC

Analytical Method: 8151A

Lab Sample ID	Client ID	Parameter	Limits						
			Column	Spike	Result	Rec	Qual	Low	High
I.BLK-PS028900.D	PIBLK-PS028900.D	2,4-DCAA	1	500	474	95		39	175
		2,4-DCAA	2	500	492	98		39	175
I.BLK-PS029019.D	PIBLK-PS029019.D	2,4-DCAA	1	500	581	116		39	175
		2,4-DCAA	2	500	551	110		39	175
PB166428BL	PB166428BL	2,4-DCAA	1	500	477	95		39	175
		2,4-DCAA	2	500	427	85		39	175
PB166428BS	PB166428BS	2,4-DCAA	1	500	543	109		39	175
		2,4-DCAA	2	500	489	98		39	175
PB166356TB	PB166356TB	2,4-DCAA	1	500	467	93		39	175
		2,4-DCAA	2	500	326	65		39	175
Q1215-04	JPP-29.1-012825	2,4-DCAA	1	500	546	109		39	175
		2,4-DCAA	2	500	346	69		39	175
Q1215-04MS	JPP-29.1-012825MS	2,4-DCAA	1	500	591	118		39	175
		2,4-DCAA	2	500	363	73		39	175
Q1215-04MSD	JPP-29.1-012825MSD	2,4-DCAA	1	500	592	118		39	175
		2,4-DCAA	2	500	364	73		39	175
Q1215-08	JPP-29.2-012825	2,4-DCAA	1	500	546	109		39	175
		2,4-DCAA	2	500	366	73		39	175
I.BLK-PS029031.D	PIBLK-PS029031.D	2,4-DCAA	1	500	584	117		39	175
		2,4-DCAA	2	500	554	111		39	175



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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1215

Client: RU2 Engineering, LLC

Analytical Method: 8151A DataFile : PS029026.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	JPP-29.1-012825MS											
Q1215-04MS	2,4-D	50	0	52.4	ug/L	105				65	135	
	2,4,5-TP(Silvex)	50	0	63.5	ug/L	127				62	139	



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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1215

Client: RU2 Engineering, LLC

Analytical Method: 8151A DataFile : PS029027.D

Lab Sample ID:	Parameter	Spike	Sample			Rec	Rec Qual	RPD	RPD Qual	Limits		RPD
			Result	Result	Units					Low	High	
Client Sample ID:	JPP-29.1-012825MSD											
Q1215-04MSD	2,4-D	50	0	52.5	ug/L	105		0		65	135	20
	2,4,5-TP(Silvex)	50	0	63.8	ug/L	128		1		62	139	20



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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1215

Client: RU2 Engineering, LLC

Analytical Method: 8151A

Datafile : PS029023.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	Qual	RPD		Limits	
									Low	High	RPD	
PB166428BS	2,4-D	5	5.20	ug/L	104				83	130		
	2,4,5-TP(Silvex)	5	5.30	ug/L	106				78	127		



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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166428BL

Lab Name: CHEMTECH

Contract: RUTW01

Lab Code: CHEM

Case No.: Q1215

SAS No.: Q1215 SDG NO.: Q1215

Lab Sample ID: PB166428BL

Lab File ID: PS029022.D

Matrix: (soil/water) water

Extraction: (Type) SEPF

Sulfur Cleanup: (Y/N) N

Date Extracted: 01/31/2025

Date Analyzed (1): 01/31/2025

Date Analyzed (2): 01/31/2025

Time Analyzed (1): 22:44

Time Analyzed (2): 22:44

Instrument ID (1): ECD_S

Instrument ID (2): ECD_S

GC Column (1): RTX-CLP

ID: 0.32 (mm)

GC Column (2): RTX-CLP2

ID: 0.32 (mm)

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB166428BS	PB166428BS	PS029023.D	01/31/2025	01/31/2025
PB166356TB	PB166356TB	PS029024.D	01/31/2025	01/31/2025
JPP-29.1-012825	Q1215-04	PS029025.D	01/31/2025	01/31/2025
JPP-29.1-012825MS	Q1215-04MS	PS029026.D	02/01/2025	02/01/2025
JPP-29.1-012825MSD	Q1215-04MSD	PS029027.D	02/01/2025	02/01/2025
JPP-29.2-012825	Q1215-08	PS029028.D	02/01/2025	02/01/2025

COMMENTS:



SAMPLE

DATA



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Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	01/31/25
Client Sample ID:	PB166356TB			SDG No.:	Q1215
Lab Sample ID:	PB166356TB			Matrix:	TCLP
Analytical Method:	SW8151A			% Solid:	0 Decanted:
Sample Wt/Vol:	100	Units:	mL	Final Vol:	10000 uL
Soil Aliquot Vol:			uL	Test:	TCLP Herbicide
Extraction Type:				Injection Volume :	
GPC Factor :	1.0	PH :			
Prep Method :	8151A				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029024.D	1	01/31/25 10:55	01/31/25 23:32	PB166428

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	20.0	U	4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	20.0	U	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	467		39 - 175	93%	SPK: 500

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

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

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
 Data File : PS029024.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 31 Jan 2025 23:32
 Operator : AR\AJ
 Sample : PB166356TB
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
PB166356TB

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/03/2025

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 01 00:29:32 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
----------	------	------	--------	--------	-------	-------

System Monitoring Compounds

4) S 2,4-DCAA 7.195 7.673 1300.8E6 363.3E6 467.229m 325.599 #

Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
 Data File : PS029024.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 31 Jan 2025 23:32
 Operator : AR\AJ
 Sample : PB166356TB
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

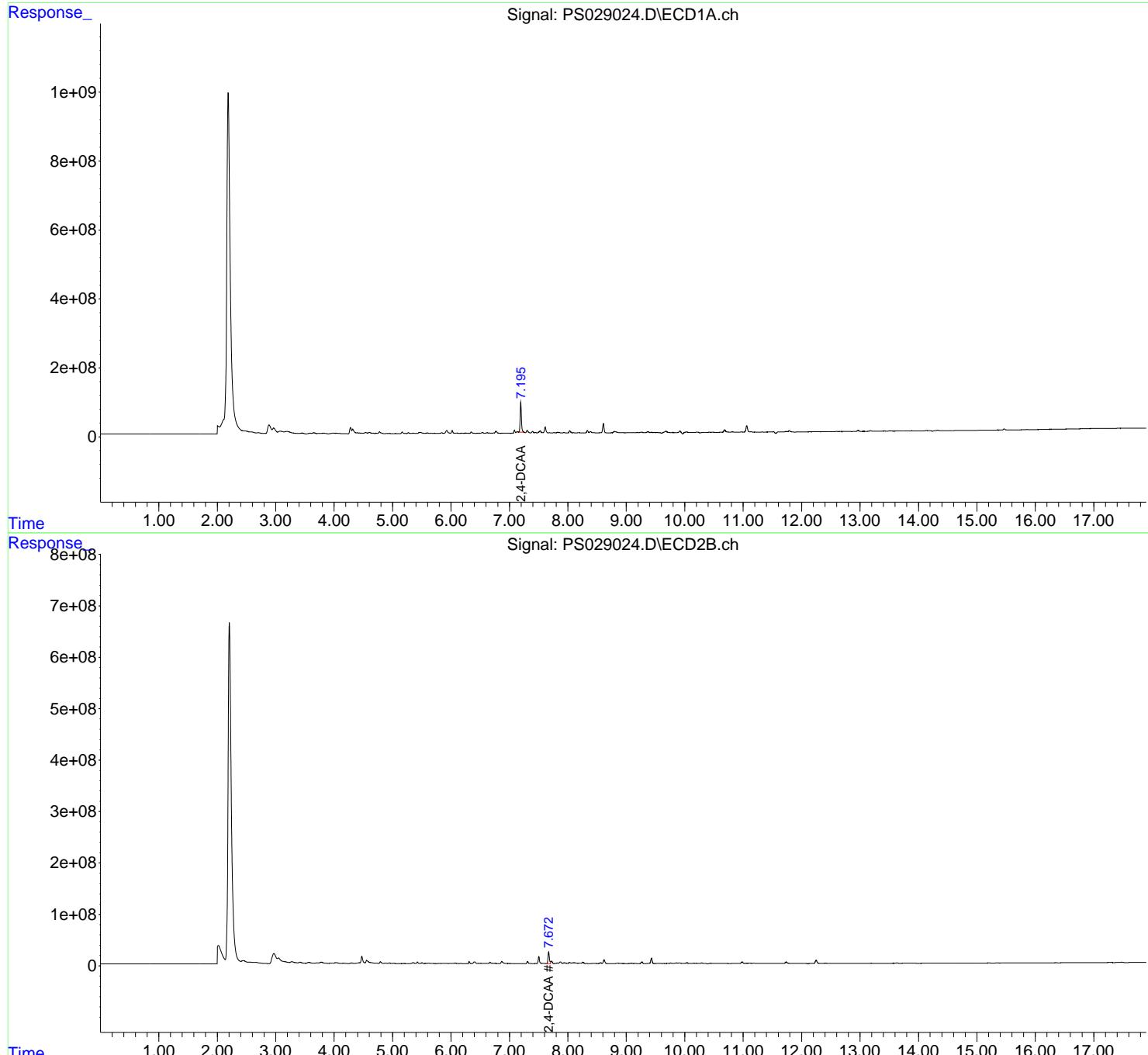
Instrument :
 ECD_S
ClientSampleId :
 PB166356TB

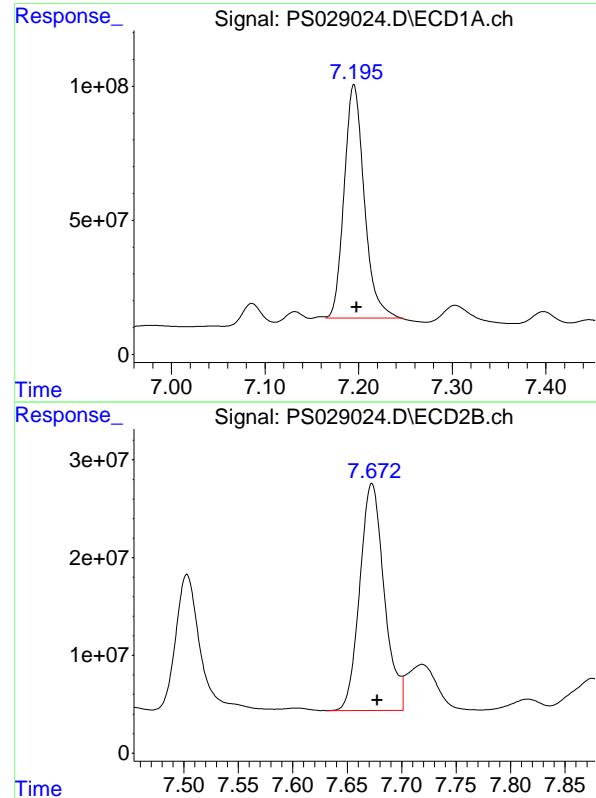
Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 01 00:29:32 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/03/2025





#4 2,4-DCAA

R.T.: 7.195 min
 Delta R.T.: -0.003 min
 Response: 1300771244 ECD_S
 Conc: 467.23 ng/ml ClientSampleId :
 PB166356TB

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/03/2025

#4 2,4-DCAA

R.T.: 7.673 min
 Delta R.T.: -0.005 min
 Response: 363307470
 Conc: 325.60 ng/ml



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Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	01/28/25	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	01/29/25	
Client Sample ID:	JPP-29.1-012825			SDG No.:	Q1215	
Lab Sample ID:	Q1215-04			Matrix:	TCLP	
Analytical Method:	SW8151A			% Solid:	0	Decanted:
Sample Wt/Vol:	100	Units:	mL	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	TCLP Herbicide	
Extraction Type:				Injection Volume :		
GPC Factor :	1.0	PH :				
Prep Method :	8151A					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029025.D	1	01/31/25 10:55	01/31/25 23:56	PB166428

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	20.0	U	4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	20.0	U	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	546		39 - 175	109%	SPK: 500

Comments:

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LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

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

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
Data File : PS029025.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 31 Jan 2025 23:56
Operator : AR\AJ
Sample : Q1215-04
Misc :
ALS Vial : 18 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
JPP-29.1-012825

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 01 00:29:43 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
Quant Title : 8080.M
QLast Update : Tue Jan 14 12:25:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
-----	-----	-----	-----	-----	-----	-----

System Monitoring Compounds

4) S	2,4-DCAA	7.195	7.672	1520.7E6	385.7E6	546.226	345.661	#
------	----------	-------	-------	----------	---------	---------	---------	---

Target Compounds

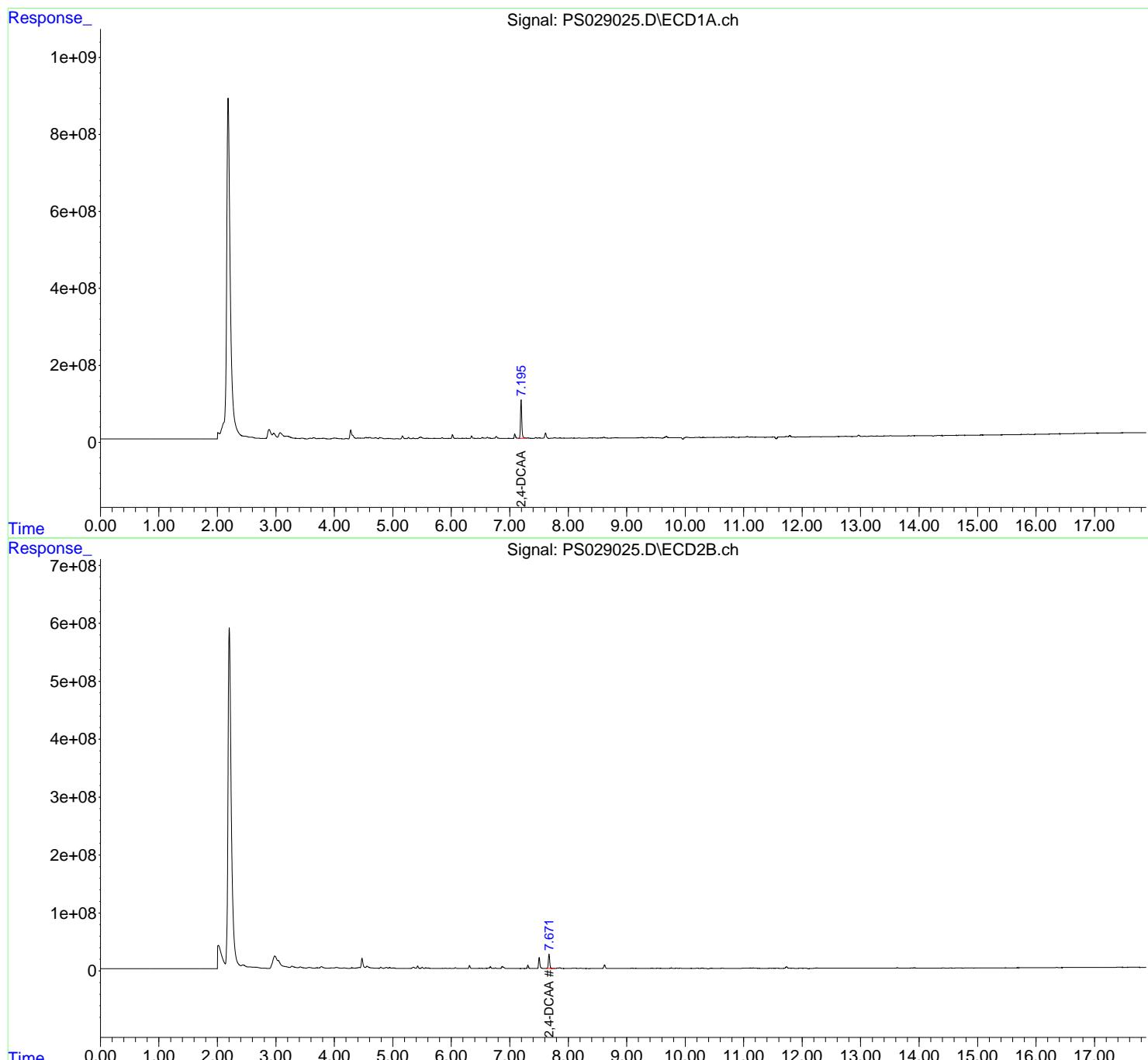
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

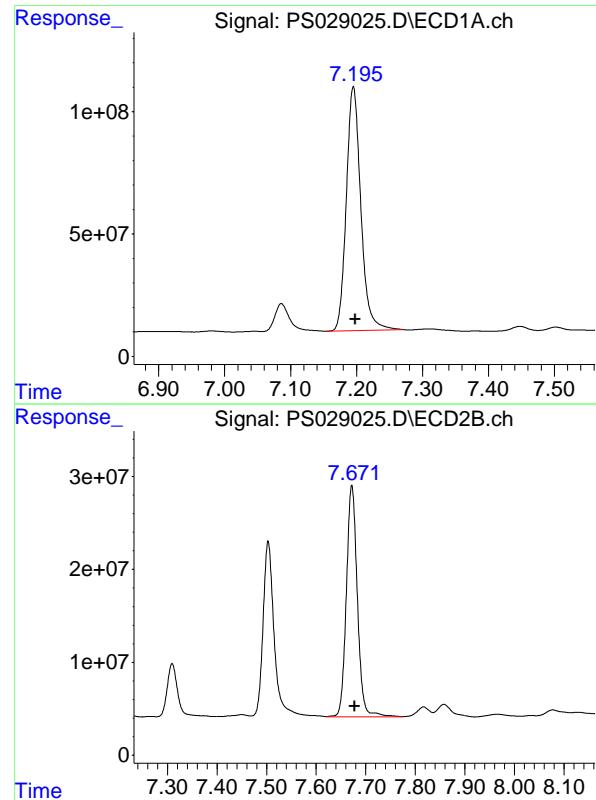
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
 Data File : PS029025.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 31 Jan 2025 23:56
 Operator : AR\AJ
 Sample : Q1215-04
 Misc :
 ALS Vial : 18 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
JPP-29.1-012825

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 01 00:29:43 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m







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Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	01/28/25	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	01/29/25	
Client Sample ID:	JPP-29.2-012825			SDG No.:	Q1215	
Lab Sample ID:	Q1215-08			Matrix:	TCLP	
Analytical Method:	SW8151A			% Solid:	0	Decanted:
Sample Wt/Vol:	100	Units:	mL	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	TCLP Herbicide	
Extraction Type:				Injection Volume :		
GPC Factor :	1.0	PH :				
Prep Method :	8151A					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029028.D	1	01/31/25 10:55	02/01/25 01:08	PB166428

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	20.0	U	4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	20.0	U	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	546		39 - 175	109%	SPK: 500

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

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

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
Data File : PS029028.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 01 Feb 2025 01:08
Operator : AR\AJ
Sample : Q1215-08
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
JPP-29.2-012825

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 01 05:17:40 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
Quant Title : 8080.M
QLast Update : Tue Jan 14 12:25:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
----------	------	------	--------	--------	-------	-------

System Monitoring Compounds

4) S	2,4-DCAA	7.195	7.671	1519.7E6	408.0E6	545.850	365.684	#
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Target Compounds

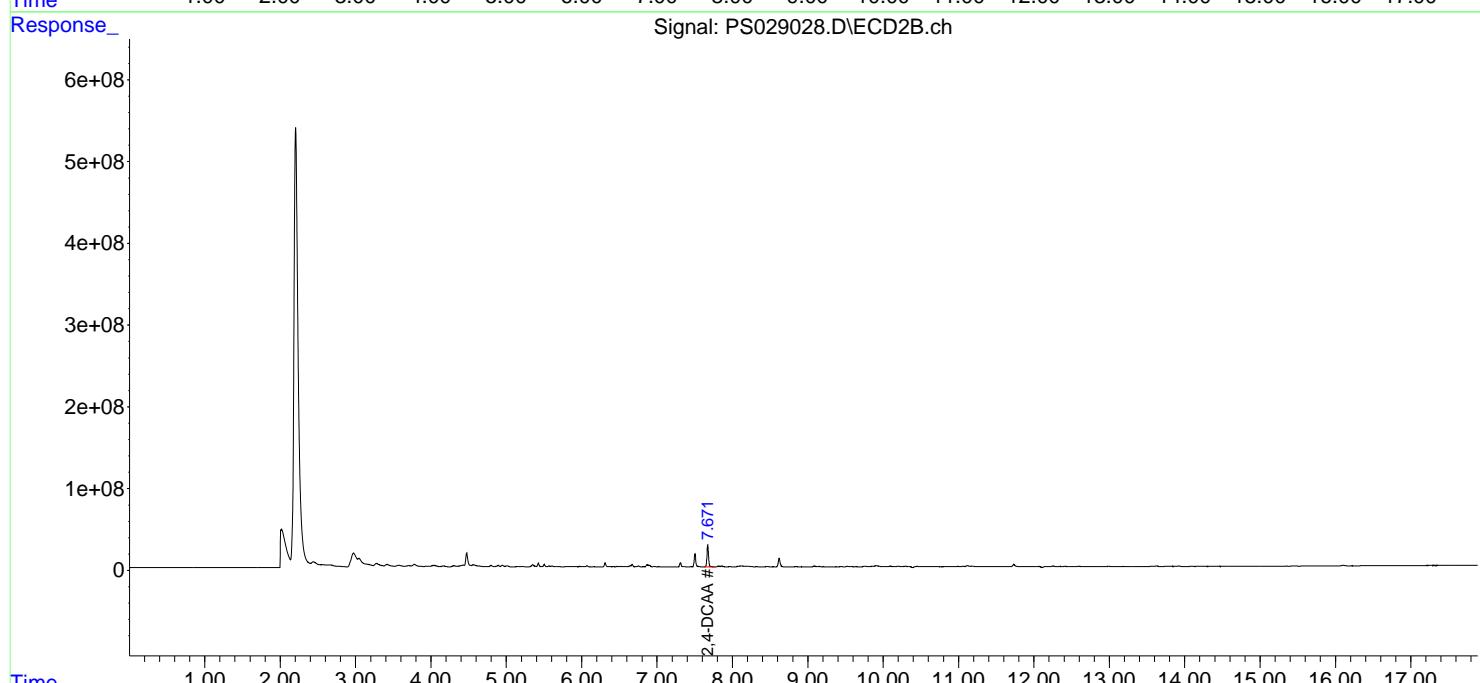
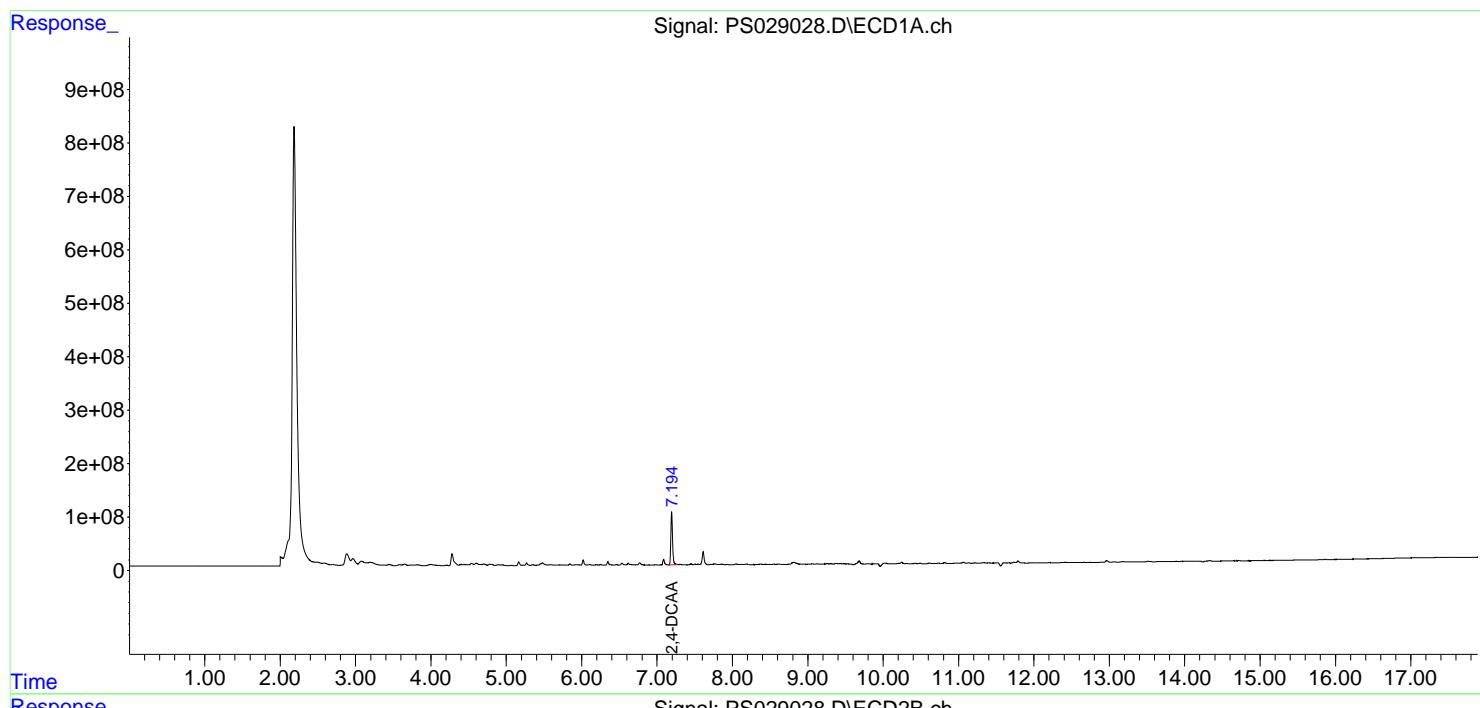
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

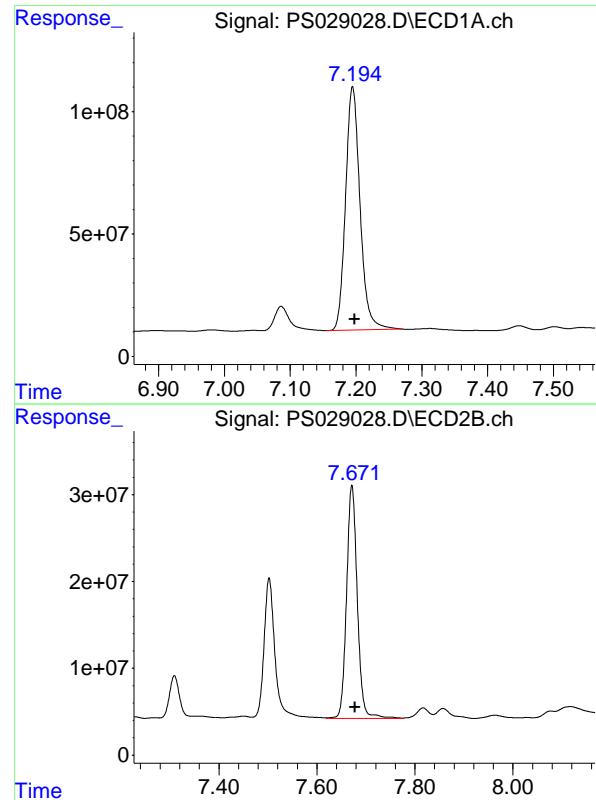
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
 Data File : PS029028.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 01 Feb 2025 01:08
 Operator : AR\AJ
 Sample : Q1215-08
 Misc :
 ALS Vial : 21 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
JPP-29.2-012825

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 01 05:17:40 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m





#4 2,4-DCAA

R.T.: 7.195 min
Delta R.T.: -0.003 min
Instrument: ECD_S
Response: 1519654164
Conc: 545.85 ng/ml
ClientSampleId: JPP-29.2-012825

#4 2,4-DCAA

R.T.: 7.671 min
Delta R.T.: -0.006 min
Response: 408035168
Conc: 365.68 ng/ml



CALIBRATION

SUMMARY



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Fax : 908 789 8922

RETENTION TIMES OF INITIAL CALIBRATION

Contract:	RUTW01		
Lab Code:	CHEM	Case No.:	Q1215
Instrument ID:	ECD_S	Calibration Date(s):	01/14/2025
		Calibration Times:	10:31
			12:07

GC Column: RTX-CLP ID: 0.32 (mm)

LAB FILE ID:	RT 200 =	<u>PS028901.D</u>	RT 500 =	<u>PS028902.D</u>
	RT 750 =	PS028903.D	RT 1000 =	PS028904.D
			RT 1500 =	PS028905.D



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Fax : 908 789 8922

RETENTION TIMES OF INITIAL CALIBRATION

Contract:	<u>RUTW01</u>		
Lab Code:	<u>CHEM</u>	Case No.:	<u>Q1215</u>
Instrument ID:	<u>ECD_S</u>	Calibration Date(s):	<u>01/14/2025</u>
		Calibration Times:	<u>10:31</u> <u>12:07</u>

GC Column: RTX-CLP2 ID: 0.32 (mm)

LAB FILE ID:	RT 200 =	<u>PS028901.D</u>	RT 500 =	<u>PS028902.D</u>
	RT 750 =	PS028903.D	RT 1000 =	PS028904.D
			RT 1500 =	PS028905.D



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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: RUTW01

Lab Code: CHEM Case No.: Q1215 SAS No.: Q1215 SDG NO.: Q1215

Instrument ID: ECD_S Calibration Date(s): 01/14/2025 01/14/2025
Calibration Times: 10:31 12:07

GC Column: RTX-CLP ID: 0.32 (mm)

LAB FILE ID:		CF 200 =	<u>PS028901.D</u>	CF 500 =	<u>PS028902.D</u>		
CF 750 =		CF 1000 =	<u>PS028904.D</u>	CF 1500 =	<u>PS028905.D</u>		
COMPOUND	CF 200	CF 500	CF 750	CF 1000	CF 1500	CF	% RSD
2,4,5-TP(Silvex)	21246200000	19217800000	18444300000	17622300000	16707400000	18647600000	9
2,4-D	3794730000	3389210000	3238030000	3095840000	2967500000	3297060000	10
2,4-DCAA	3179220000	2766210000	2659700000	2530920000	2413760000	2709960000	11



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Fax : 908 789 8922

CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract:	<u>RUTW01</u>						
Lab Code:	<u>CHEM</u>	Case No.:	<u>Q1215</u>	SAS No.:	<u>Q1215</u>	SDG NO.:	<u>Q1215</u>
Instrument ID:	<u>ECD_S</u>		Calibration Date(s):		<u>01/14/2025</u>	<u>01/14/2025</u>	
			Calibration Times:		<u>10:31</u>	<u>12:07</u>	
GC Column:	<u>RTX-CLP2</u>		ID:	<u>0.32</u> (mm)			

LAB FILE ID:		CF 200 =	<u>PS028901.D</u>	CF 500 =	<u>PS028902.D</u>		
CF 750 =		CF 1000 =	<u>PS028904.D</u>	CF 1500 =	<u>PS028905.D</u>		
COMPOUND	CF 200	CF 500	CF 750	CF 1000	CF 1500	CF	% RSD
2,4,5-TP(Silvex)	9615710000	9419870000	9409010000	9233020000	9015720000	9338670000	2
2,4-D	1602310000	1486700000	1468930000	1440130000	1429250000	1485460000	5
2,4-DCAA	1189550000	1103610000	1095350000	1074740000	1070080000	1106670000	4

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS011425\
 Data File : PS028901.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 14 Jan 2025 10:31
 Operator : AR\AJ
 Sample : HSTDICC200
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
HSTDICC200

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jan 14 11:39:27 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 11:39:19 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
----------	------	------	--------	--------	-------	-------

System Monitoring Compounds

4) S 2,4-DCAA 7.198 7.679 635.8E6 237.9E6 217.795 208.246

Target Compounds

1) T	Dalapon	2.617	2.667	556.0E6	386.3E6	184.941	186.638
2) T	3,5-DICHL...	6.375	6.644	837.5E6	324.0E6	201.140	192.113
3) T	4-Nitroph...	6.997	7.209	352.0E6	174.3E6	192.726	190.729
5) T	DICAMBA	7.383	7.875	2411.2E6	1035.2E6	197.792	185.939
6) T	MCPP	7.561	7.975	110.1E6	54294236	16.847	18.257
7) T	MCPA	7.709	8.216	180.7E6	79751056	18.378	18.719
8) T	DICHLORPROP	8.087	8.587	684.7E6	277.9E6	206.038	193.740
9) T	2,4-D	8.318	8.915	713.4E6	301.2E6	202.882	196.165
10) T	Pentachlo...	8.613	9.438	10288.3E6	4528.0E6	203.718	192.995
11) T	2,4,5-TP ...	9.189	9.814	4036.8E6	1827.0E6	203.413	192.064
12) T	2,4,5-T	9.482	10.231	4028.8E6	1754.4E6	202.825	192.500
13) T	2,4-DB	10.053	10.796	727.5E6	194.8E6	199.797	193.297
14) T	DINOSEB	11.255	11.173	3520.9E6	1259.6E6	203.928	192.833
15) T	Picloram	11.067	12.257	6433.5E6	2426.6E6	198.927	182.722
16) T	DCPA	11.550	12.211	6140.1E6	2196.1E6	206.127	192.334

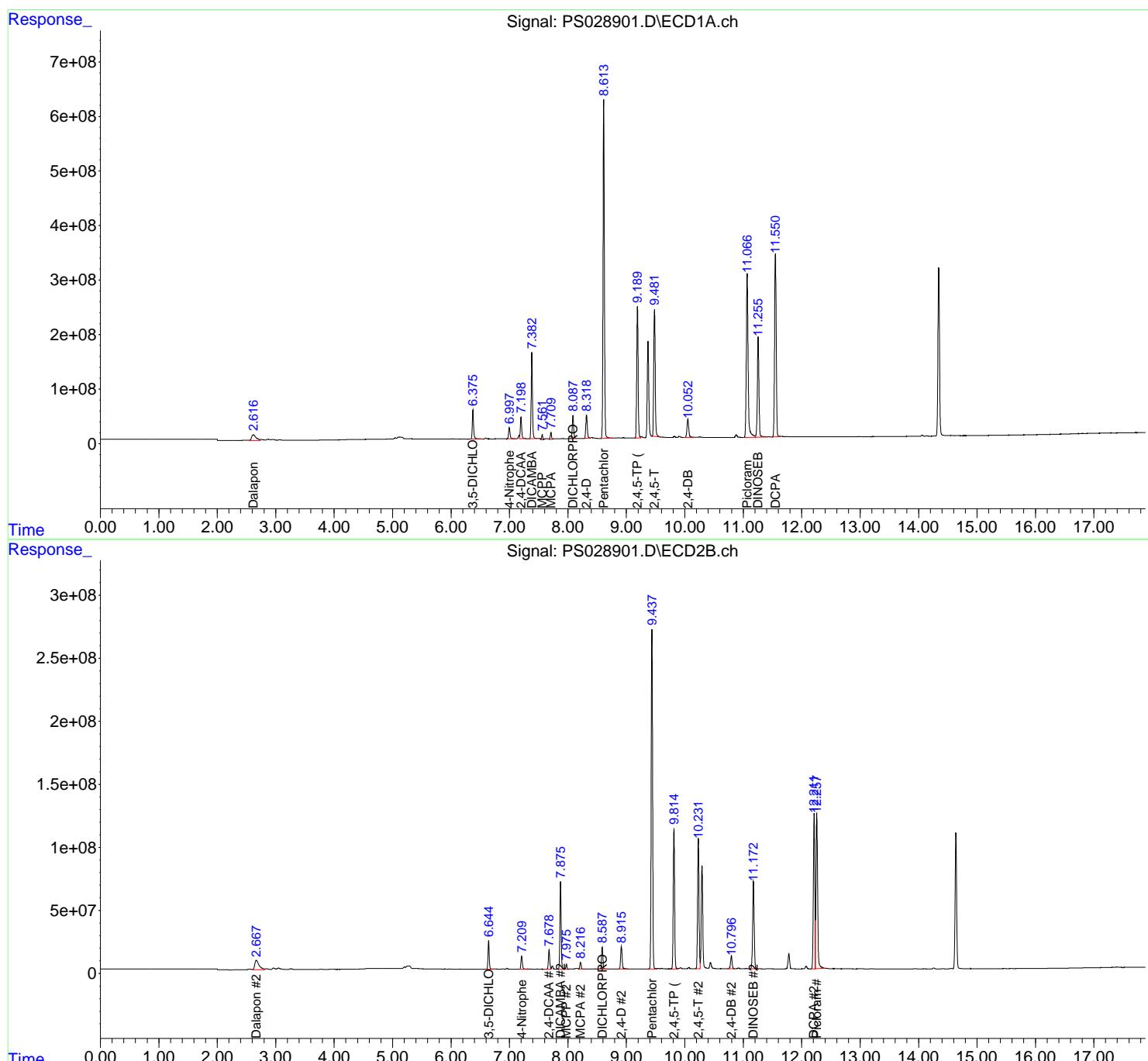
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

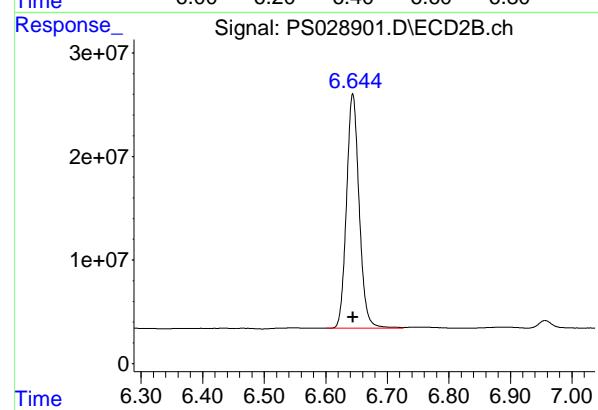
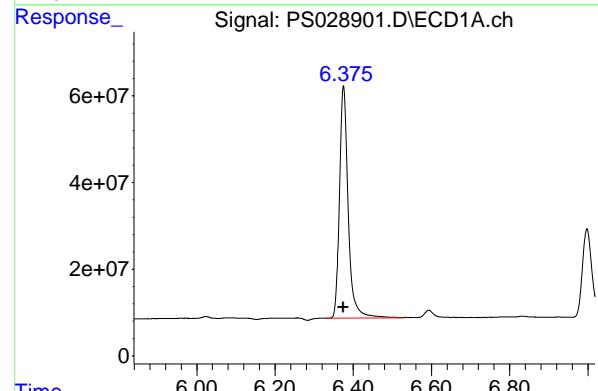
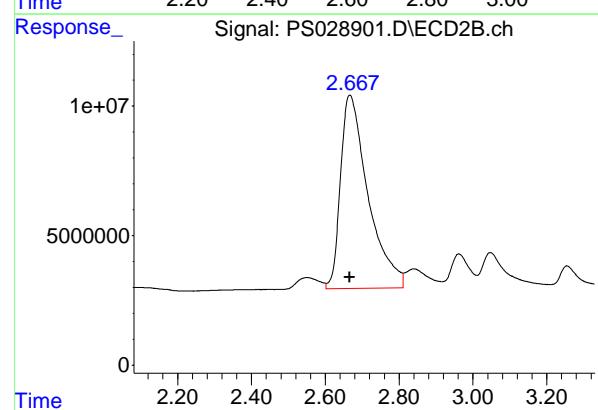
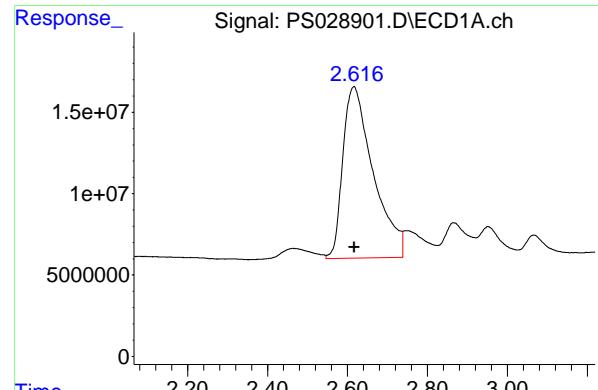
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS011425\
 Data File : PS028901.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 14 Jan 2025 10:31
 Operator : AR\AJ
 Sample : HSTDICC200
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 ECD_S
ClientSampleId :
 HSTDICC200

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jan 14 11:39:27 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 11:39:19 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m





#1 Dalapon

R.T.: 2.617 min
 Delta R.T.: 0.000 min
 Response: 555991432 ECD_S
 Conc: 184.94 ng/ml ClientSampleId : HSTDICC200

#1 Dalapon

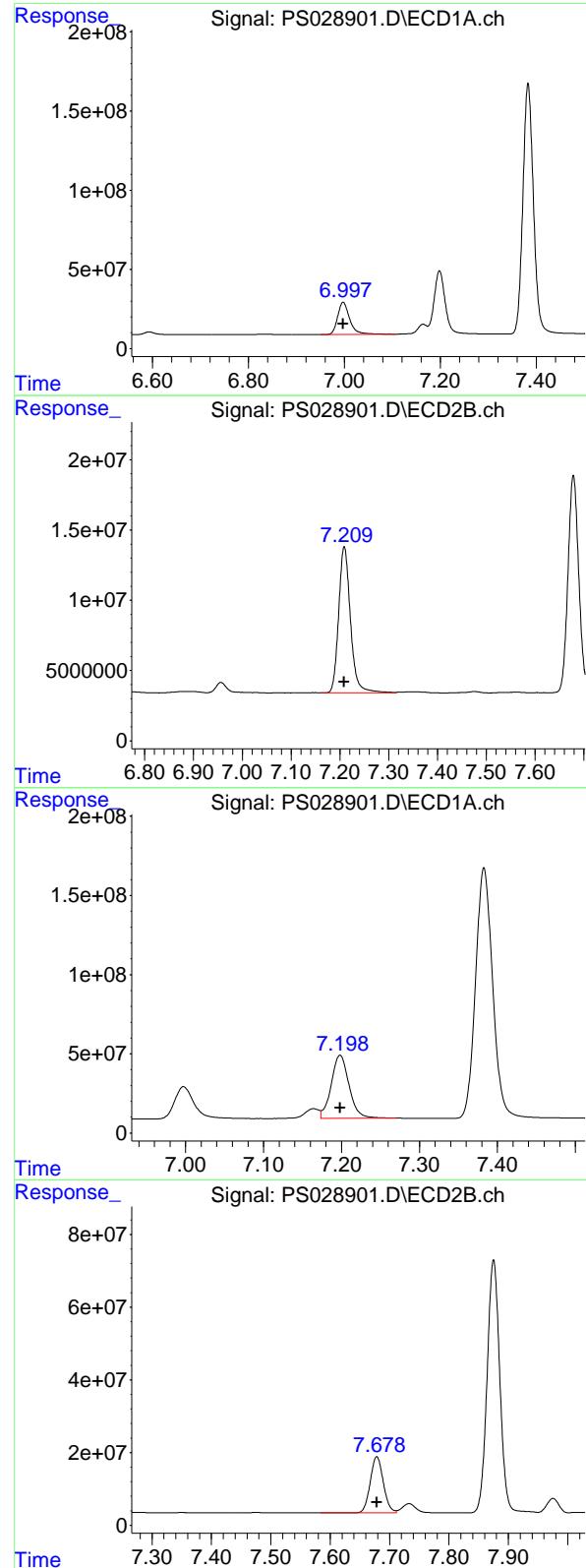
R.T.: 2.667 min
 Delta R.T.: 0.000 min
 Response: 386313856
 Conc: 186.64 ng/ml

#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.375 min
 Delta R.T.: 0.000 min
 Response: 837542116
 Conc: 201.14 ng/ml

#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.644 min
 Delta R.T.: 0.000 min
 Response: 323964765
 Conc: 192.11 ng/ml



#3 4-Nitrophenol

R.T.: 6.997 min
 Delta R.T.: 0.000 min
 Response: 352019894 ECD_S
 Conc: 192.73 ng/ml ClientSampleId : HSTDICC200

#3 4-Nitrophenol

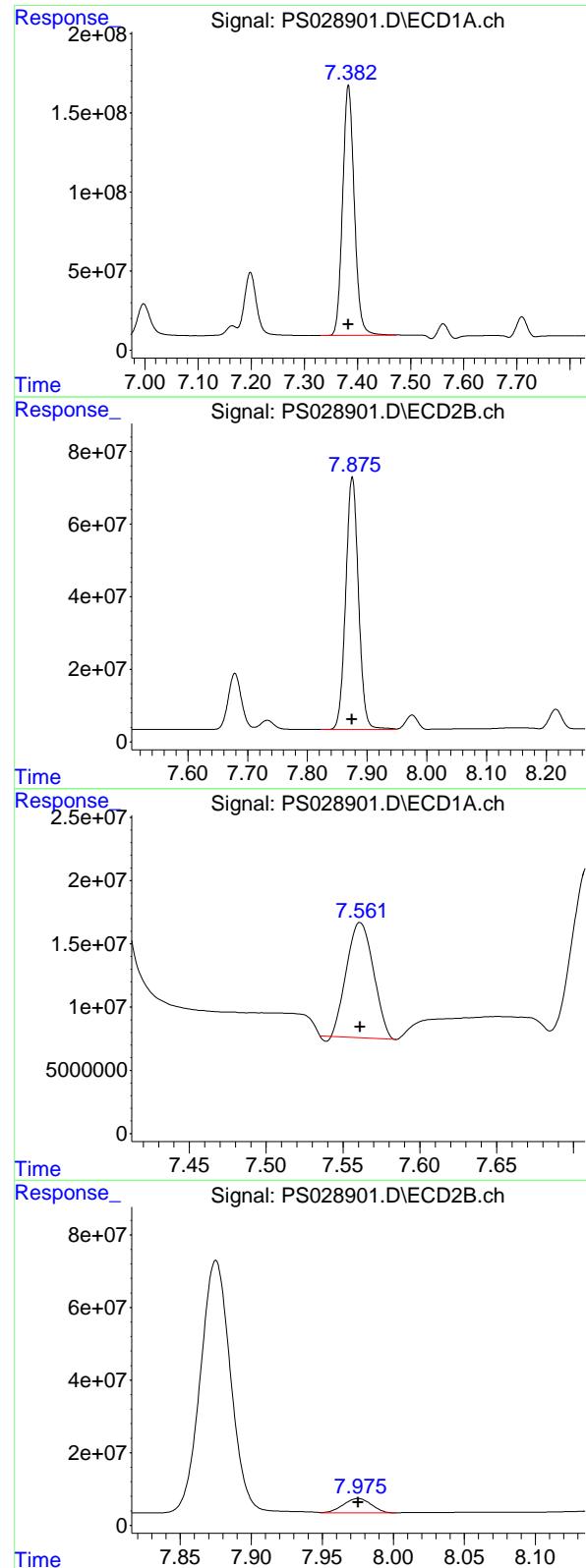
R.T.: 7.209 min
 Delta R.T.: 0.000 min
 Response: 174316954
 Conc: 190.73 ng/ml

#4 2,4-DCAA

R.T.: 7.198 min
 Delta R.T.: 0.000 min
 Response: 635843662
 Conc: 217.79 ng/ml

#4 2,4-DCAA

R.T.: 7.679 min
 Delta R.T.: 0.000 min
 Response: 237909654
 Conc: 208.25 ng/ml



#5 DICAMBA

R.T.: 7.383 min
 Delta R.T.: 0.000 min
 Instrument: ECD_S
 Response: 2411181004
 Conc: 197.79 ng/ml
 ClientSampleId: HSTDICC200

#5 DICAMBA

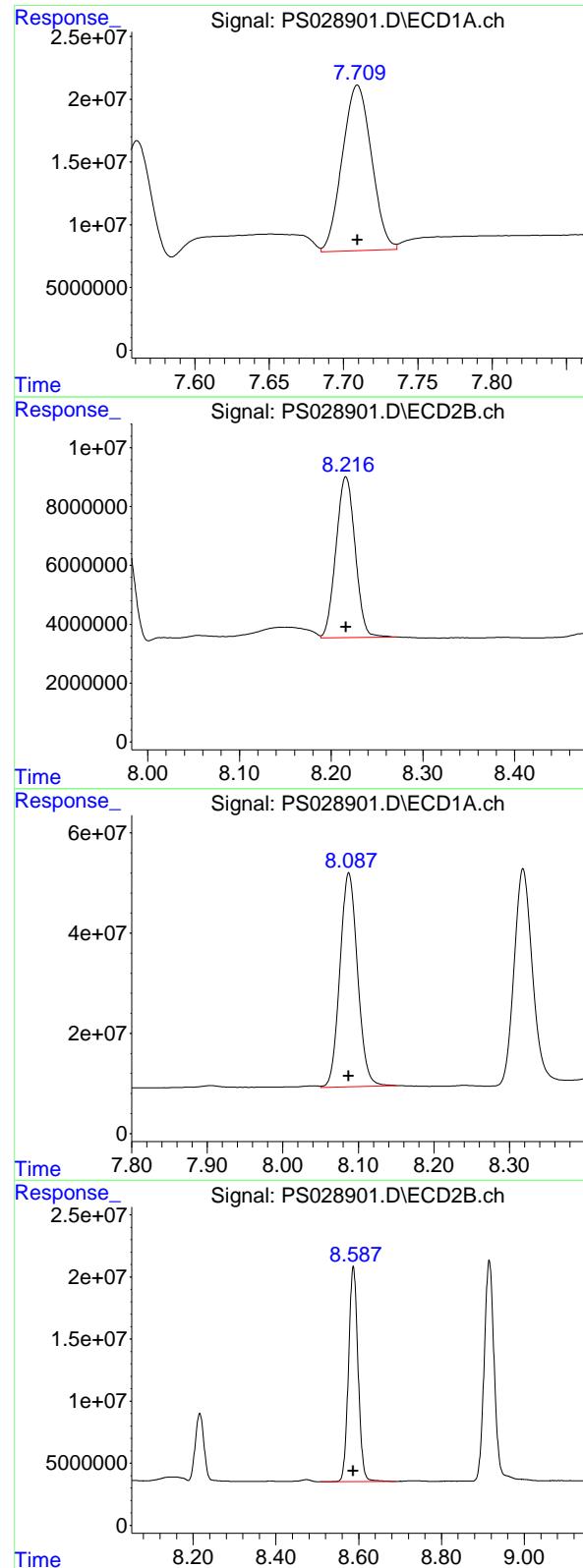
R.T.: 7.875 min
 Delta R.T.: 0.000 min
 Response: 1035181205
 Conc: 185.94 ng/ml

#6 MCPP

R.T.: 7.561 min
 Delta R.T.: 0.000 min
 Response: 110118735
 Conc: 16.85 ug/ml

#6 MCPP

R.T.: 7.975 min
 Delta R.T.: 0.000 min
 Response: 54294236
 Conc: 18.26 ug/ml



#7 MCPA

R.T.: 7.709 min
Delta R.T.: 0.000 min
Instrument: ECD_S
Response: 180716111
Conc: 18.38 ug/ml
ClientSampleId: HSTDICC200

#7 MCPA

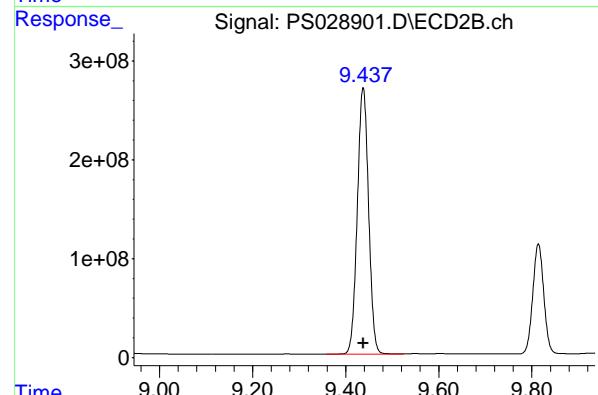
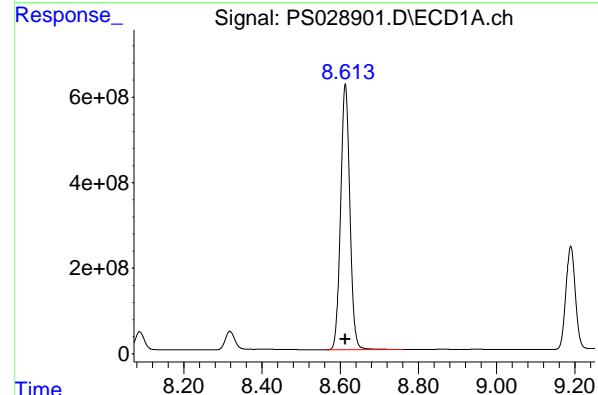
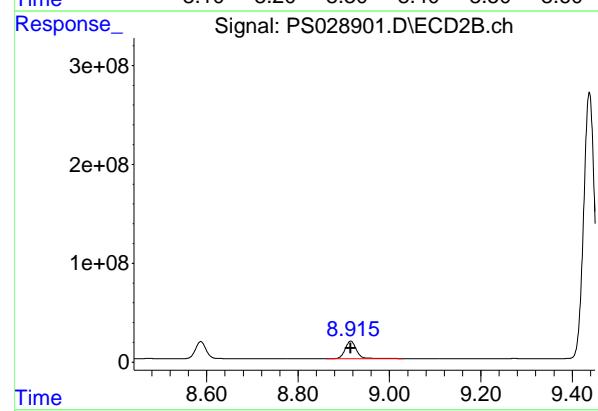
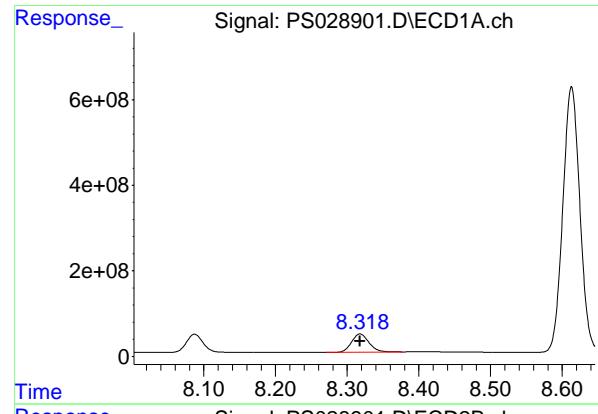
R.T.: 8.216 min
Delta R.T.: 0.000 min
Response: 79751056
Conc: 18.72 ug/ml

#8 DICHLORPROP

R.T.: 8.087 min
Delta R.T.: 0.000 min
Response: 684683212
Conc: 206.04 ng/ml

#8 DICHLORPROP

R.T.: 8.587 min
Delta R.T.: 0.000 min
Response: 277889937
Conc: 193.74 ng/ml



#9 2,4-D

R.T.: 8.318 min
 Delta R.T.: 0.000 min
 Response: 713408528
 Conc: 202.88 ng/ml

Instrument: ECD_S
 ClientSampleId: HSTDICC200

#9 2,4-D

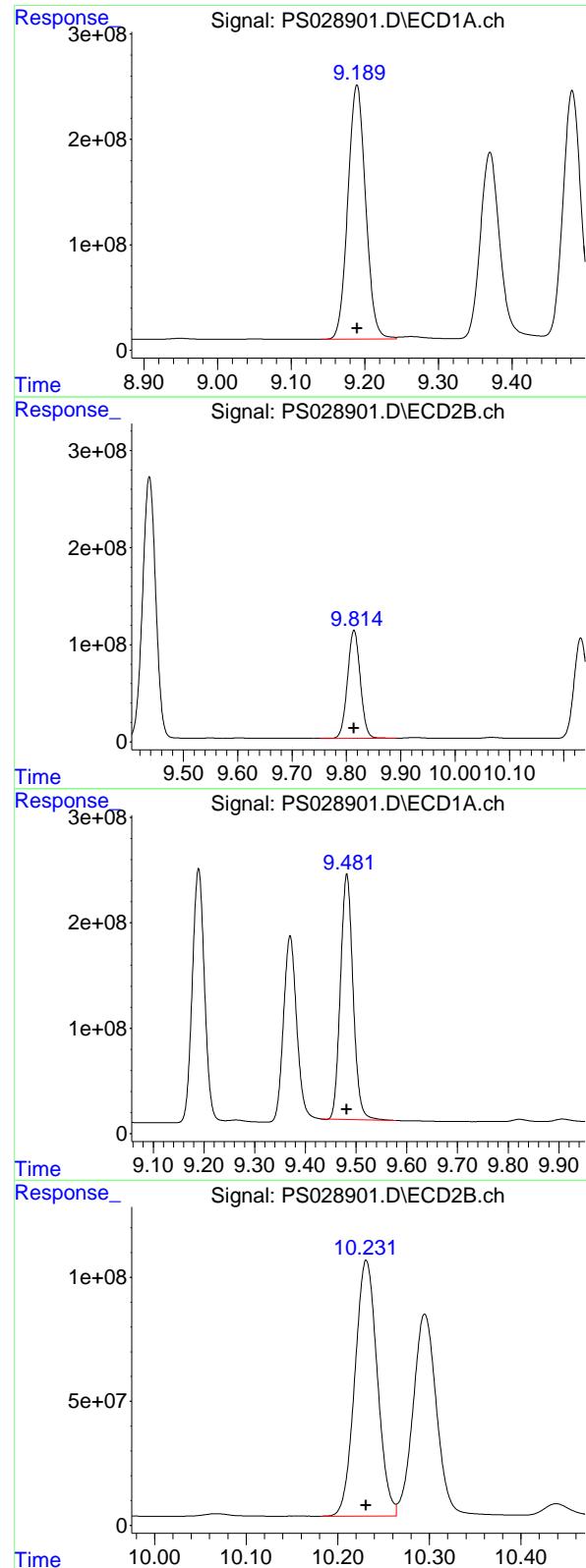
R.T.: 8.915 min
 Delta R.T.: 0.000 min
 Response: 301234806
 Conc: 196.16 ng/ml

#10 Pentachlorophenol

R.T.: 8.613 min
 Delta R.T.: 0.000 min
 Response: 10288346428
 Conc: 203.72 ng/ml

#10 Pentachlorophenol

R.T.: 9.438 min
 Delta R.T.: 0.000 min
 Response: 4528045122
 Conc: 193.00 ng/ml



#11 2,4,5-TP (SILVEX)

R.T.: 9.189 min
 Delta R.T.: 0.000 min
 Response: 4036785566
 Conc: 203.41 ng/ml

Instrument: ECD_S
 ClientSampleId: HSTDICC200

#11 2,4,5-TP (SILVEX)

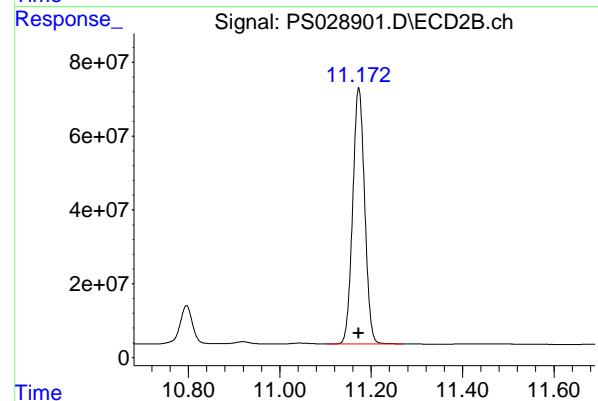
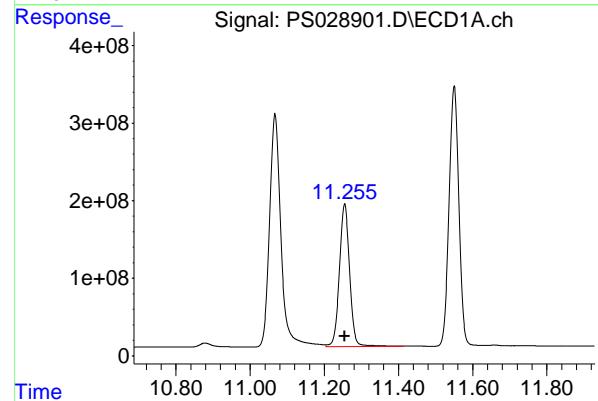
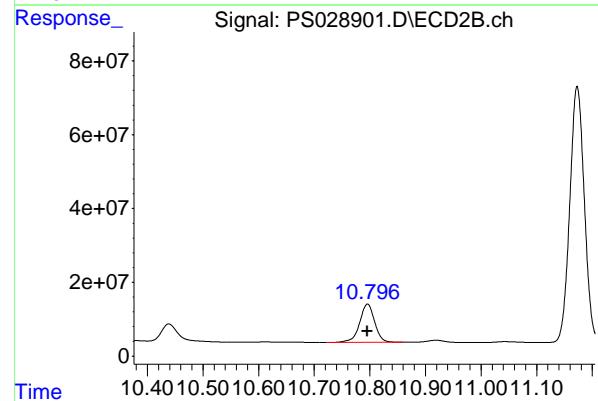
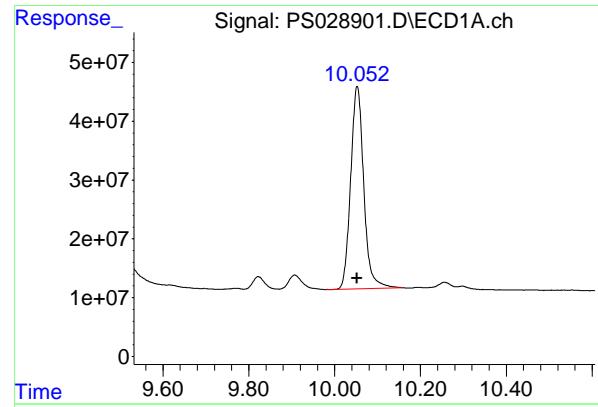
R.T.: 9.814 min
 Delta R.T.: 0.000 min
 Response: 1826984311
 Conc: 192.06 ng/ml

#12 2,4,5-T

R.T.: 9.482 min
 Delta R.T.: 0.000 min
 Response: 4028786566
 Conc: 202.83 ng/ml

#12 2,4,5-T

R.T.: 10.231 min
 Delta R.T.: 0.000 min
 Response: 1754365931
 Conc: 192.50 ng/ml



#13 2,4-DB

R.T.: 10.053 min
 Delta R.T.: 0.000 min
 Response: 727478115 ECD_S
 Conc: 199.80 ng/ml ClientSampleId : HSTDICC200

#13 2,4-DB

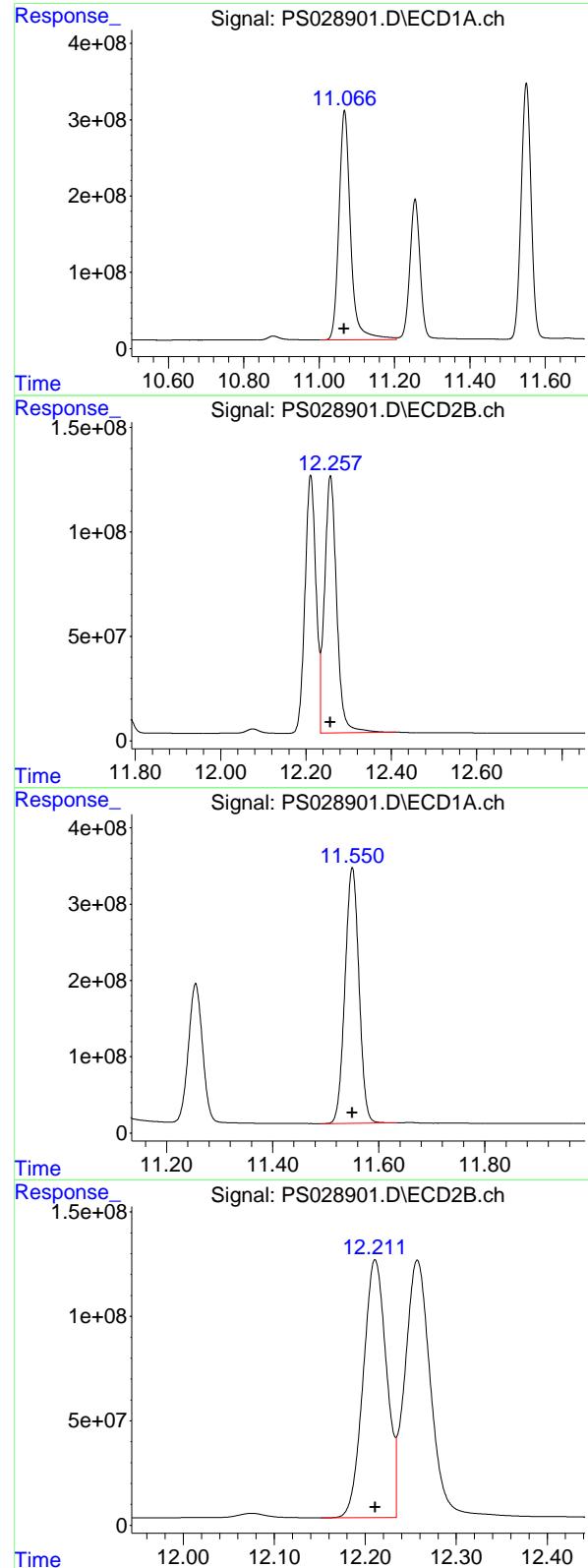
R.T.: 10.796 min
 Delta R.T.: 0.000 min
 Response: 194762268
 Conc: 193.30 ng/ml

#14 DINOSEB

R.T.: 11.255 min
 Delta R.T.: 0.000 min
 Response: 3520935983
 Conc: 203.93 ng/ml

#14 DINOSEB

R.T.: 11.173 min
 Delta R.T.: 0.000 min
 Response: 1259565479
 Conc: 192.83 ng/ml



#15 Picloram

R.T.: 11.067 min
 Delta R.T.: 0.000 min
 Instrument: ECD_S
 Response: 6433530937
 Conc: 198.93 ng/ml
 ClientSampleId: HSTDICC200

#15 Picloram

R.T.: 12.257 min
 Delta R.T.: 0.000 min
 Response: 2426591167
 Conc: 182.72 ng/ml

#16 DCPA

R.T.: 11.550 min
 Delta R.T.: 0.000 min
 Response: 6140119080
 Conc: 206.13 ng/ml

#16 DCPA

R.T.: 12.211 min
 Delta R.T.: 0.000 min
 Response: 2196117913
 Conc: 192.33 ng/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS011425\
 Data File : PS028902.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 14 Jan 2025 10:55
 Operator : AR\AJ
 Sample : HSTDICC500
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
HSTDICC500

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jan 14 11:42:16 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 11:42:04 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
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System Monitoring Compounds

4) S 2,4-DCAA 7.198 7.678 1383.1E6 551.8E6 482.190 488.540

Target Compounds

1) T	Dalapon	2.616	2.669	1356.2E6	921.3E6	452.399	448.343
2) T	3,5-DICHL...	6.375	6.643	1853.9E6	763.6E6	451.633	456.823
3) T	4-Nitroph...	6.996	7.207	802.6E6	399.5E6	444.483	442.929
5) T	DICAMBA	7.383	7.874	5578.8E6	2603.0E6	461.683	468.364
6) T	MCPP	7.563	7.977	325.0E6	141.9E6	48.778	47.471
7) T	MCPA	7.712	8.218	456.4E6	195.8E6	46.443	46.130
8) T	DICHLORPROP	8.087	8.586	1480.7E6	653.3E6	453.438	460.215
9) T	2,4-D	8.316	8.913	1592.9E6	698.8E6	458.530	459.912
10) T	Pentachlo...	8.613	9.436	23342.5E6	11116.8E6	466.389	474.216
11) T	2,4,5-TP ...	9.188	9.813	9128.5E6	4474.4E6	464.881	471.911
12) T	2,4,5-T	9.479	10.230	9171.2E6	4277.0E6	466.059	471.184
13) T	2,4-DB	10.049	10.794	1686.6E6	467.9E6	467.082	467.889
14) T	DINOSEB	11.253	11.172	7785.5E6	3019.8E6	457.109	464.855
15) T	Picloram	11.064	12.255	15027.1E6	6370.9E6	468.044	478.143
16) T	DCPA	11.548	12.210	13845.9E6	5457.5E6	469.769	478.637

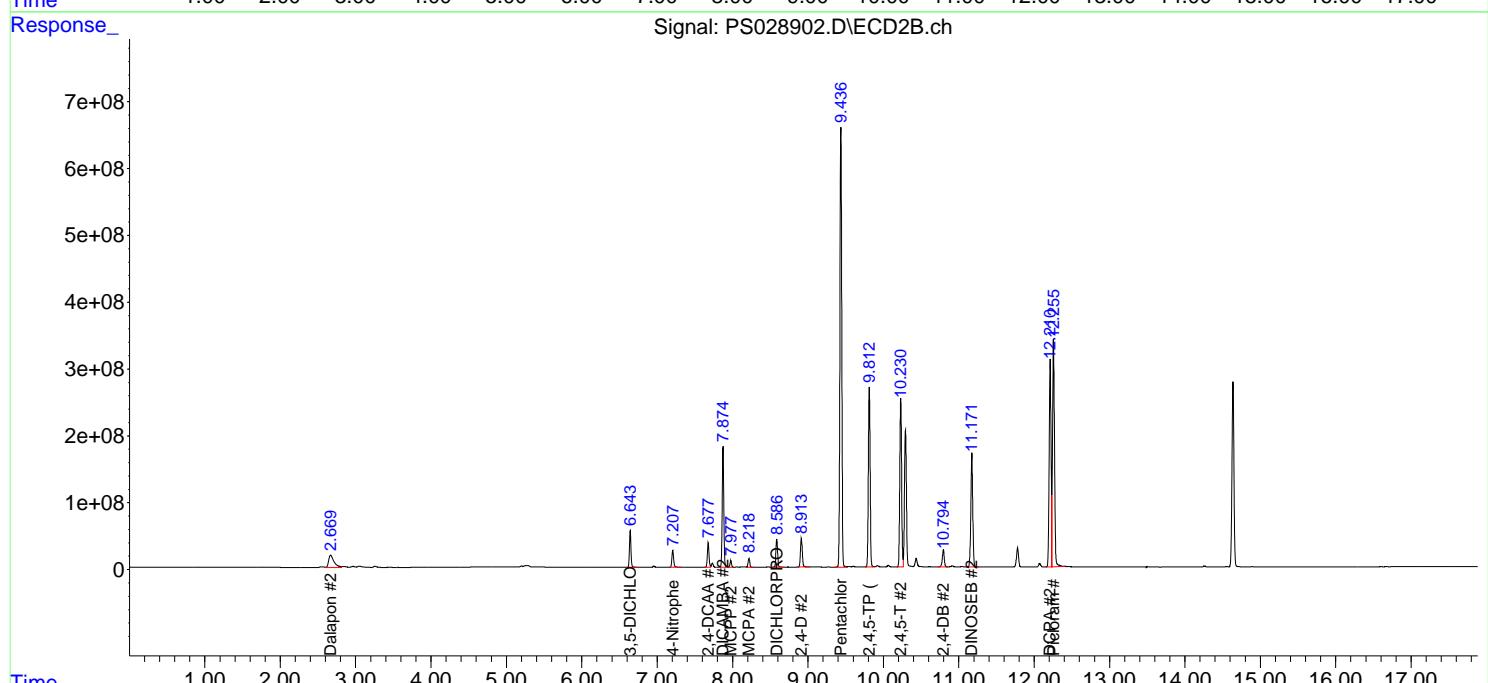
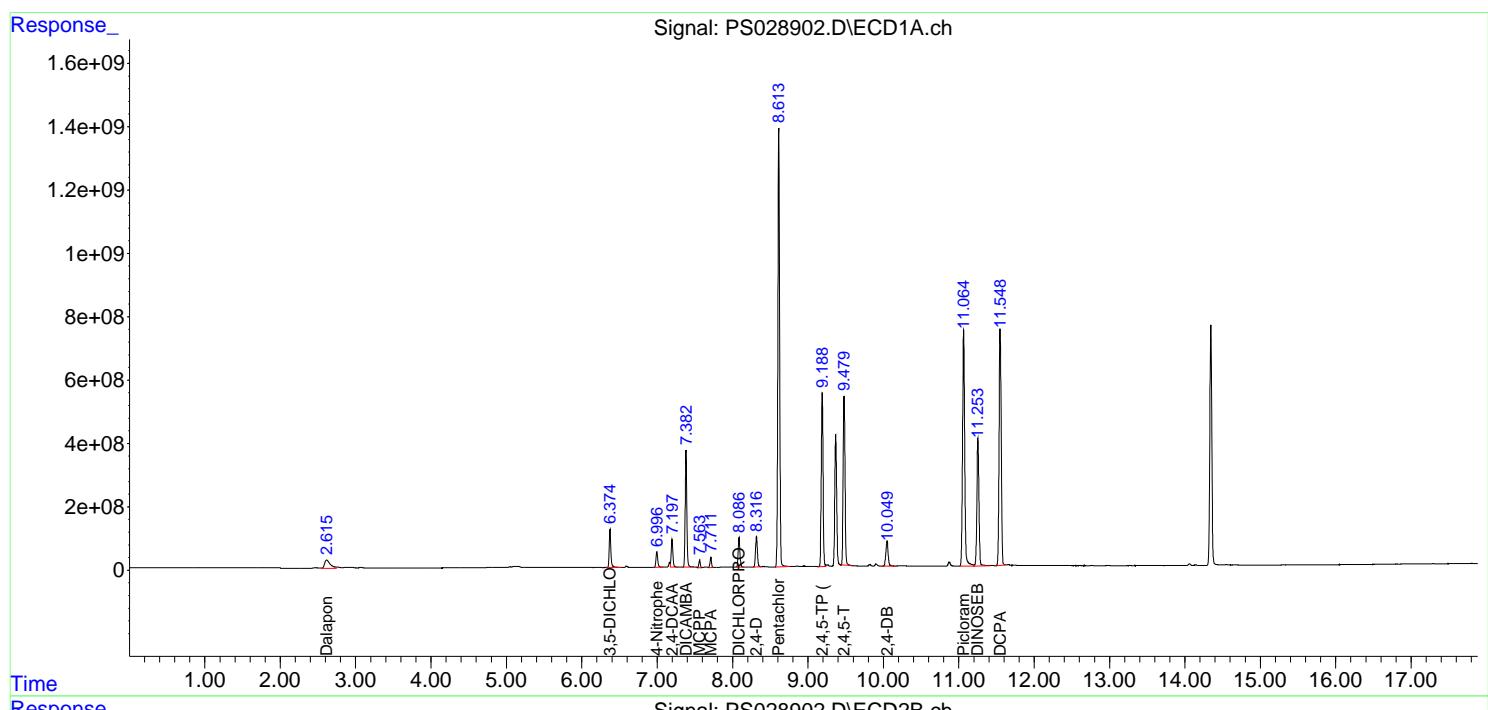
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

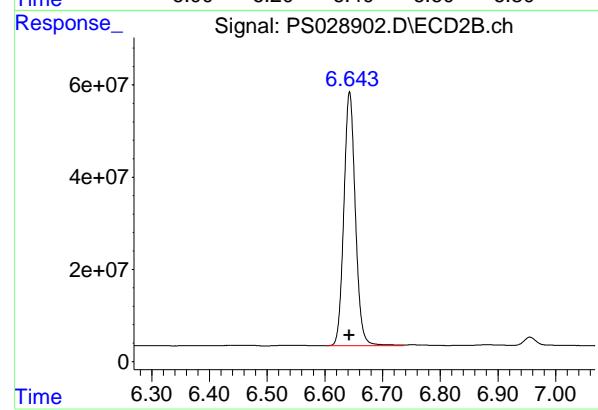
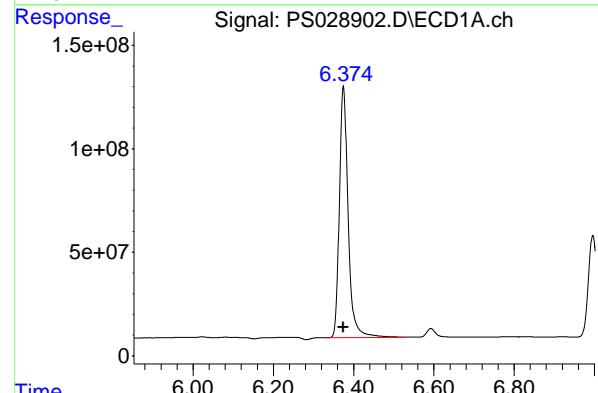
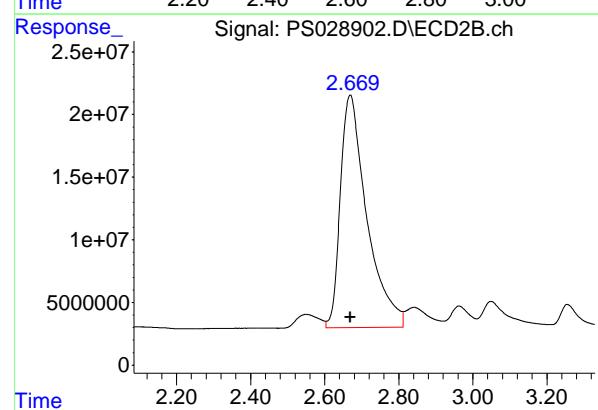
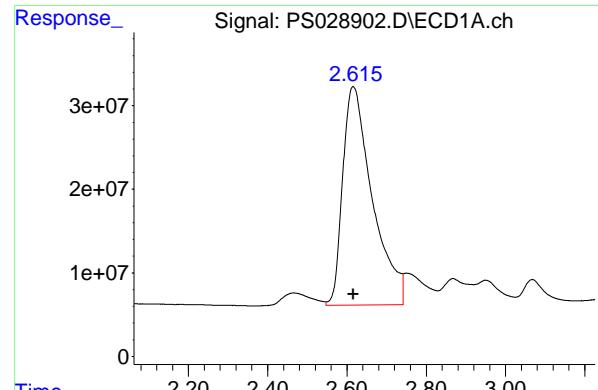
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS011425\
 Data File : PS028902.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 14 Jan 2025 10:55
 Operator : AR\AJ
 Sample : HSTDICC500
 Misc :
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 ECD_S
ClientSampleId :
 HSTDICC500

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jan 14 11:42:16 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 11:42:04 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m





#1 Dalapon

R.T.: 2.616 min
 Delta R.T.: 0.000 min
 Response: 1356183583 ECD_S
 Conc: 452.40 ng/ml ClientSampleId : HSTDICC500

#1 Dalapon

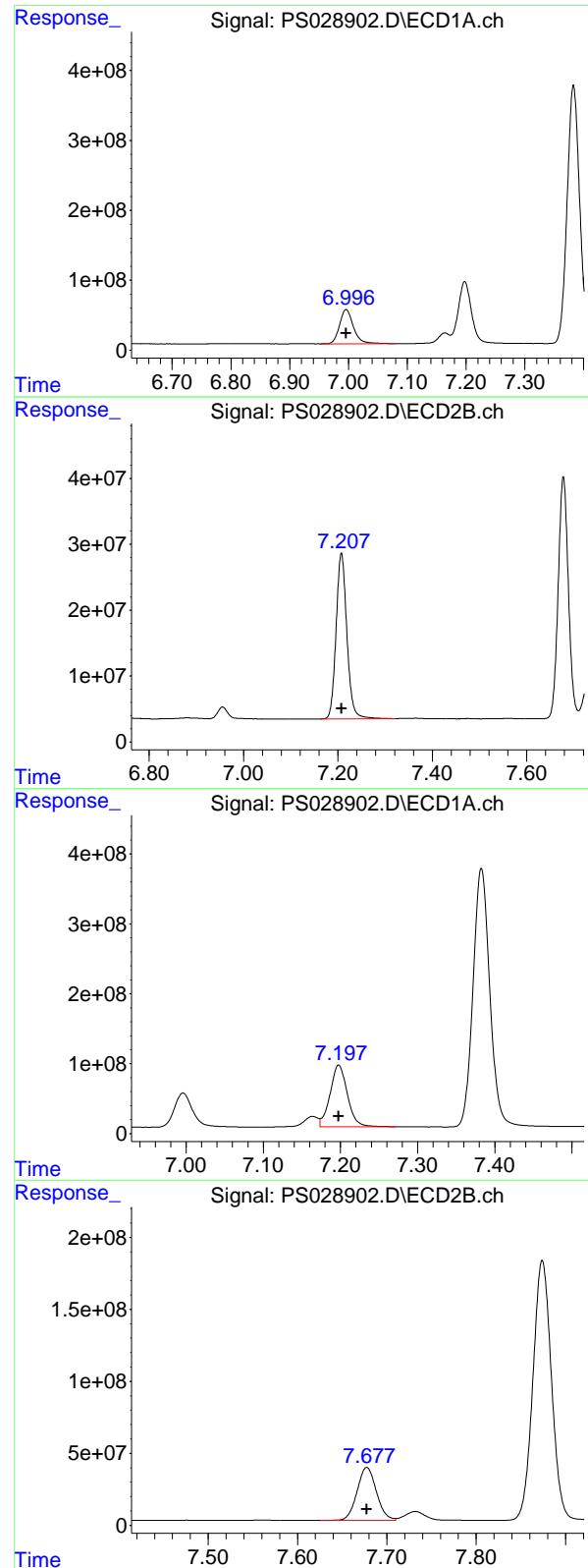
R.T.: 2.669 min
 Delta R.T.: 0.000 min
 Response: 921269038
 Conc: 448.34 ng/ml

#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.375 min
 Delta R.T.: 0.000 min
 Response: 1853941228
 Conc: 451.63 ng/ml

#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.643 min
 Delta R.T.: 0.000 min
 Response: 763637203
 Conc: 456.82 ng/ml



#3 4-Nitrophenol

R.T.: 6.996 min
 Delta R.T.: 0.000 min
 Instrument: ECD_S
 Response: 802588060
 Conc: 444.48 ng/ml
 ClientSampleId: HSTDICC500

#3 4-Nitrophenol

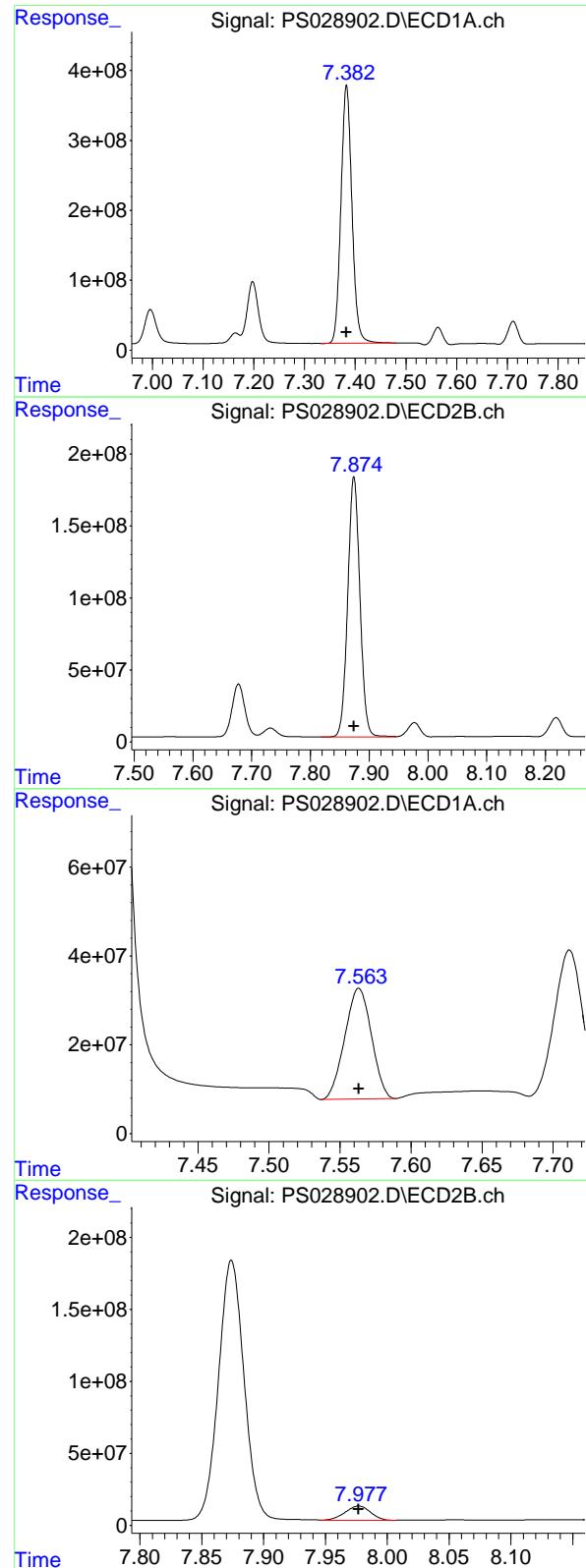
R.T.: 7.207 min
 Delta R.T.: 0.000 min
 Response: 399515001
 Conc: 442.93 ng/ml

#4 2,4-DCAA

R.T.: 7.198 min
 Delta R.T.: 0.000 min
 Response: 1383102910
 Conc: 482.19 ng/ml

#4 2,4-DCAA

R.T.: 7.678 min
 Delta R.T.: 0.000 min
 Response: 551807225
 Conc: 488.54 ng/ml



#5 DICAMBA

R.T.: 7.383 min
 Delta R.T.: 0.000 min
 Instrument: ECD_S
 Response: 5578793060
 Conc: 461.68 ng/ml
 ClientSampleId: HSTDICC500

#5 DICAMBA

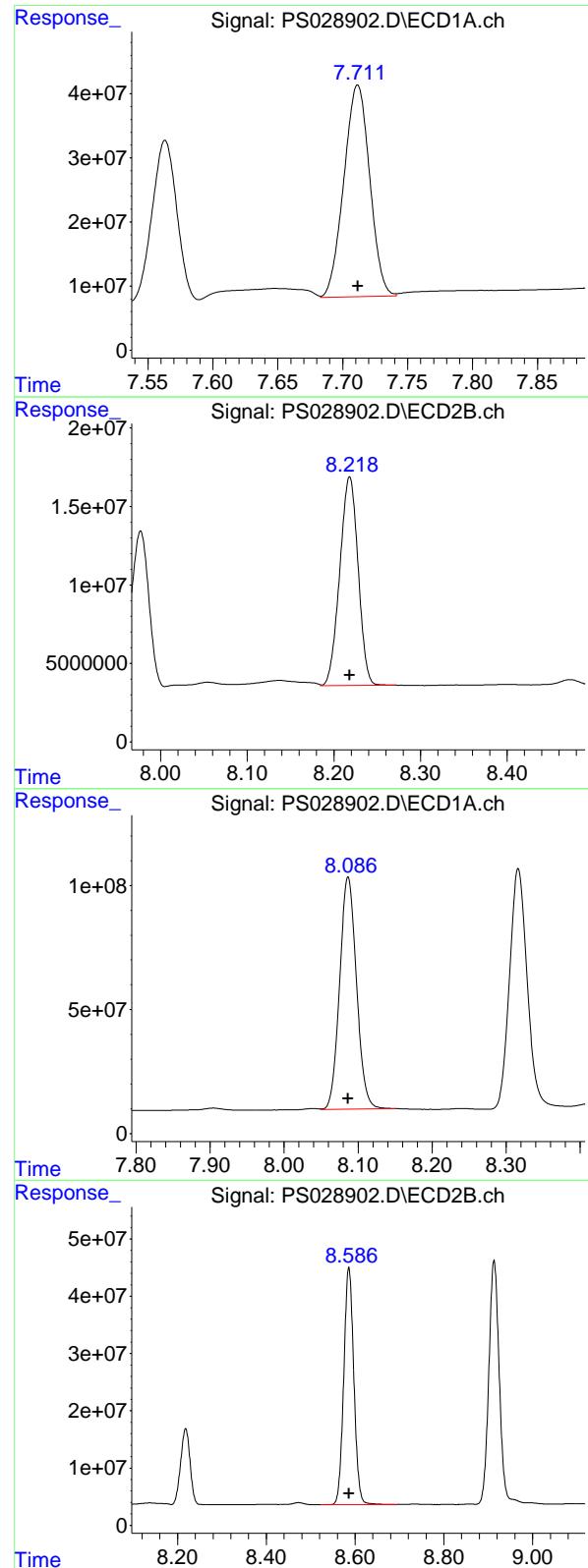
R.T.: 7.874 min
 Delta R.T.: 0.000 min
 Response: 2603003047
 Conc: 468.36 ng/ml

#6 MCPP

R.T.: 7.563 min
 Delta R.T.: 0.000 min
 Response: 324983021
 Conc: 48.78 ug/ml

#6 MCPP

R.T.: 7.977 min
 Delta R.T.: 0.000 min
 Response: 141886506
 Conc: 47.47 ug/ml



#7 MCPA

R.T.: 7.712 min
Delta R.T.: 0.000 min
Instrument: ECD_S
Response: 456415243
Conc: 46.44 ug/ml
ClientSampleId: HSTDICC500

#7 MCPA

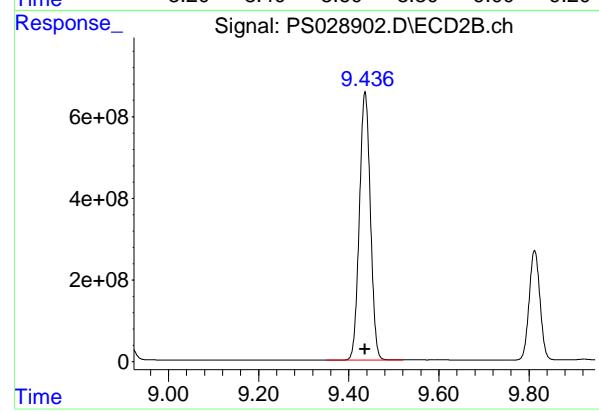
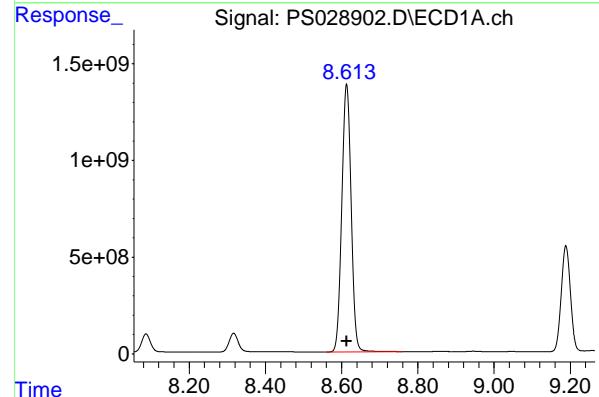
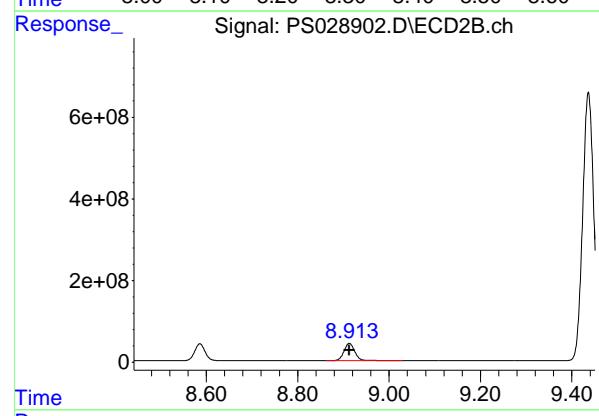
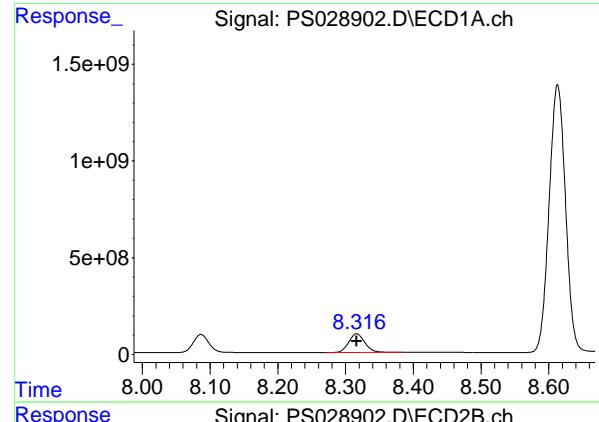
R.T.: 8.218 min
Delta R.T.: 0.000 min
Response: 195751789
Conc: 46.13 ug/ml

#8 DICHLORPROP

R.T.: 8.087 min
Delta R.T.: 0.000 min
Response: 1480729748
Conc: 453.44 ng/ml

#8 DICHLORPROP

R.T.: 8.586 min
Delta R.T.: 0.000 min
Response: 653308254
Conc: 460.22 ng/ml



#9 2,4-D

R.T.: 8.316 min
Delta R.T.: 0.000 min
Instrument: ECD_S
Response: 1592927104
Conc: 458.53 ng/ml
ClientSampleId: HSTDICC500

#9 2,4-D

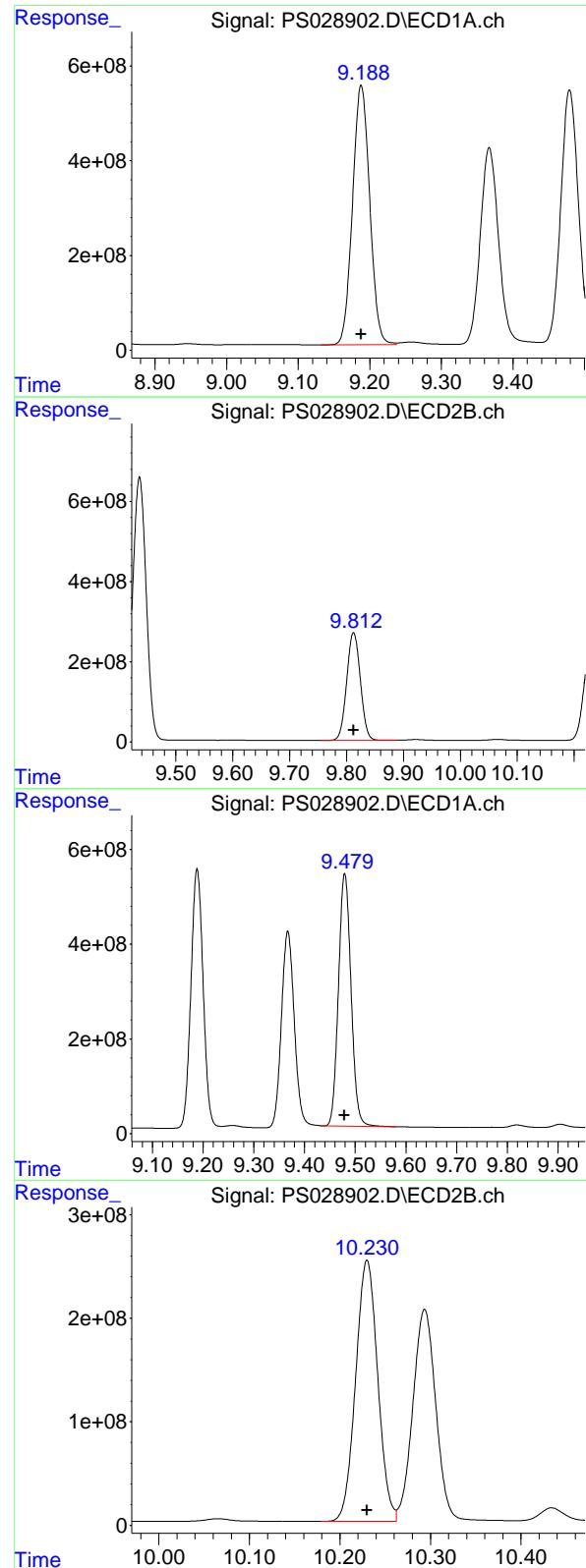
R.T.: 8.913 min
Delta R.T.: 0.000 min
Response: 698750865
Conc: 459.91 ng/ml

#10 Pentachlorophenol

R.T.: 8.613 min
Delta R.T.: 0.000 min
Response: 23342479435
Conc: 466.39 ng/ml

#10 Pentachlorophenol

R.T.: 9.436 min
Delta R.T.: 0.000 min
Response: 11116848551
Conc: 474.22 ng/ml



#11 2,4,5-TP (SILVEX)

R.T.: 9.188 min
 Delta R.T.: 0.000 min
 Response: 9128474142
 Conc: 464.88 ng/ml

Instrument: ECD_S
 ClientSampleId: HSTDICC500

#11 2,4,5-TP (SILVEX)

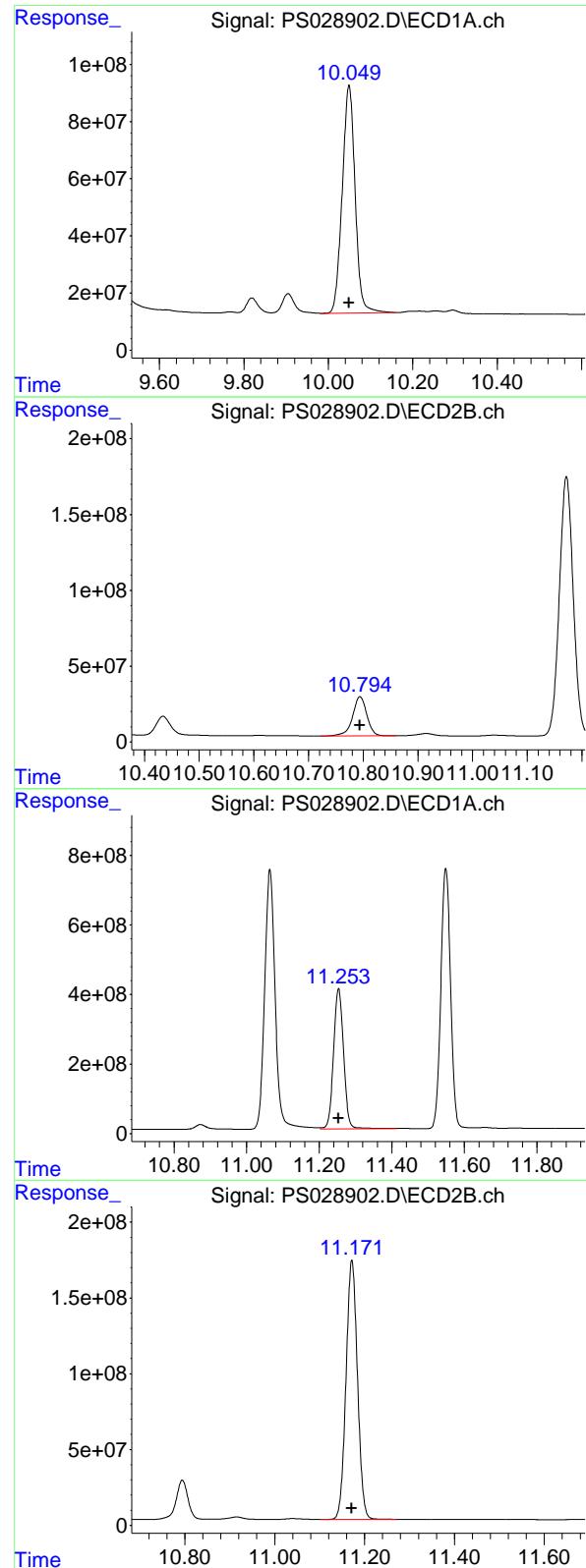
R.T.: 9.813 min
 Delta R.T.: 0.000 min
 Response: 4474439764
 Conc: 471.91 ng/ml

#12 2,4,5-T

R.T.: 9.479 min
 Delta R.T.: 0.000 min
 Response: 9171175170
 Conc: 466.06 ng/ml

#12 2,4,5-T

R.T.: 10.230 min
 Delta R.T.: 0.000 min
 Response: 4276992400
 Conc: 471.18 ng/ml



#13 2,4-DB

R.T.: 10.049 min
 Delta R.T.: 0.000 min
 Response: 1686623050 ECD_S
 Conc: 467.08 ng/ml ClientSampleId : HSTDICC500

#13 2,4-DB

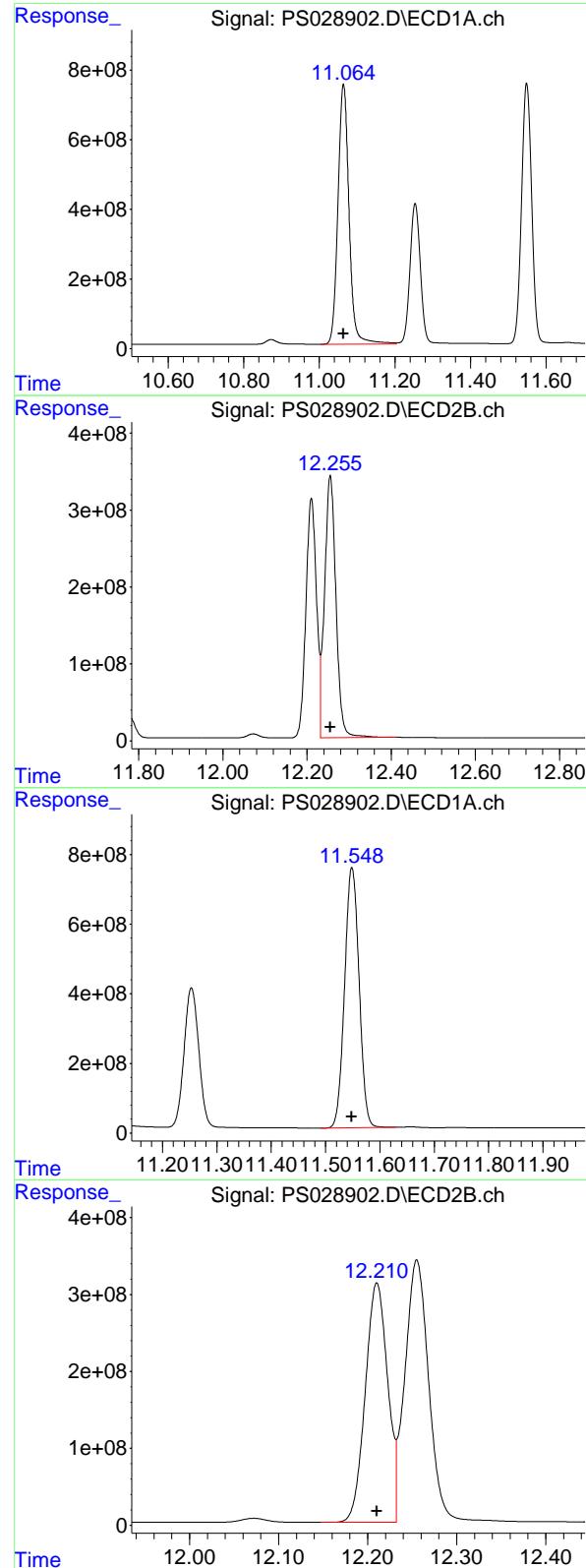
R.T.: 10.794 min
 Delta R.T.: 0.000 min
 Response: 467932817
 Conc: 467.89 ng/ml

#14 DINOSEB

R.T.: 11.253 min
 Delta R.T.: 0.000 min
 Response: 7785456867
 Conc: 457.11 ng/ml

#14 DINOSEB

R.T.: 11.172 min
 Delta R.T.: 0.000 min
 Response: 3019847995
 Conc: 464.85 ng/ml



#15 Picloram

R.T.: 11.064 min
 Delta R.T.: 0.000 min
 Instrument: ECD_S
 Response: 15027107162
 Conc: 468.04 ng/ml
 ClientSampleId : HSTDICC500

#15 Picloram

R.T.: 12.255 min
 Delta R.T.: 0.000 min
 Response: 6370927225
 Conc: 478.14 ng/ml

#16 DCPA

R.T.: 11.548 min
 Delta R.T.: 0.000 min
 Response: 13845934631
 Conc: 469.77 ng/ml

#16 DCPA

R.T.: 12.210 min
 Delta R.T.: 0.000 min
 Response: 5457469625
 Conc: 478.64 ng/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS011425\
 Data File : PS028903.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 14 Jan 2025 11:19
 Operator : AR\AJ
 Sample : HSTDICC750
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
HSTDICC750

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jan 14 11:36:53 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 11:36:29 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
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System Monitoring Compounds

4) S 2,4-DCAA 7.197 7.677 1994.8E6 821.5E6 750.000 750.000

Target Compounds

1) T	Dalapon	2.615	2.668	2018.7E6	1376.7E6	682.500	682.500
2) T	3,5-DICHL...	6.374	6.643	2668.0E6	1137.6E6	697.500	697.500
3) T	4-Nitroph...	6.995	7.207	1173.1E6	593.9E6	682.500	682.500
5) T	DICAMBA	7.383	7.874	8146.7E6	3968.0E6	705.000	705.000
6) T	MCPP	7.565	7.979	508.7E6	215.7E6	70.500	70.500
7) T	MCPA	7.714	8.220	694.1E6	295.2E6	69.750	69.750
8) T	DICHLORPROP	8.087	8.586	2118.0E6	980.3E6	705.000	705.000
9) T	2,4-D	8.316	8.913	2282.8E6	1035.6E6	705.000	705.000
10) T	Pentachlo...	8.613	9.436	33385.4E6	16453.1E6	712.500	712.500
11) T	2,4,5-TP ...	9.189	9.813	13141.6E6	6703.9E6	712.500	712.500
12) T	2,4,5-T	9.479	10.230	13197.3E6	6408.0E6	712.500	712.500
13) T	2,4-DB	10.050	10.794	2460.5E6	705.4E6	712.500	712.500
14) T	DINOSEB	11.253	11.172	11140.9E6	4486.6E6	705.000	705.000
15) T	Picloram	11.064	12.255	21960.5E6	9824.6E6	712.500	712.500
16) T	DCPA	11.549	12.210	19869.3E6	8206.9E6	720.000	720.000

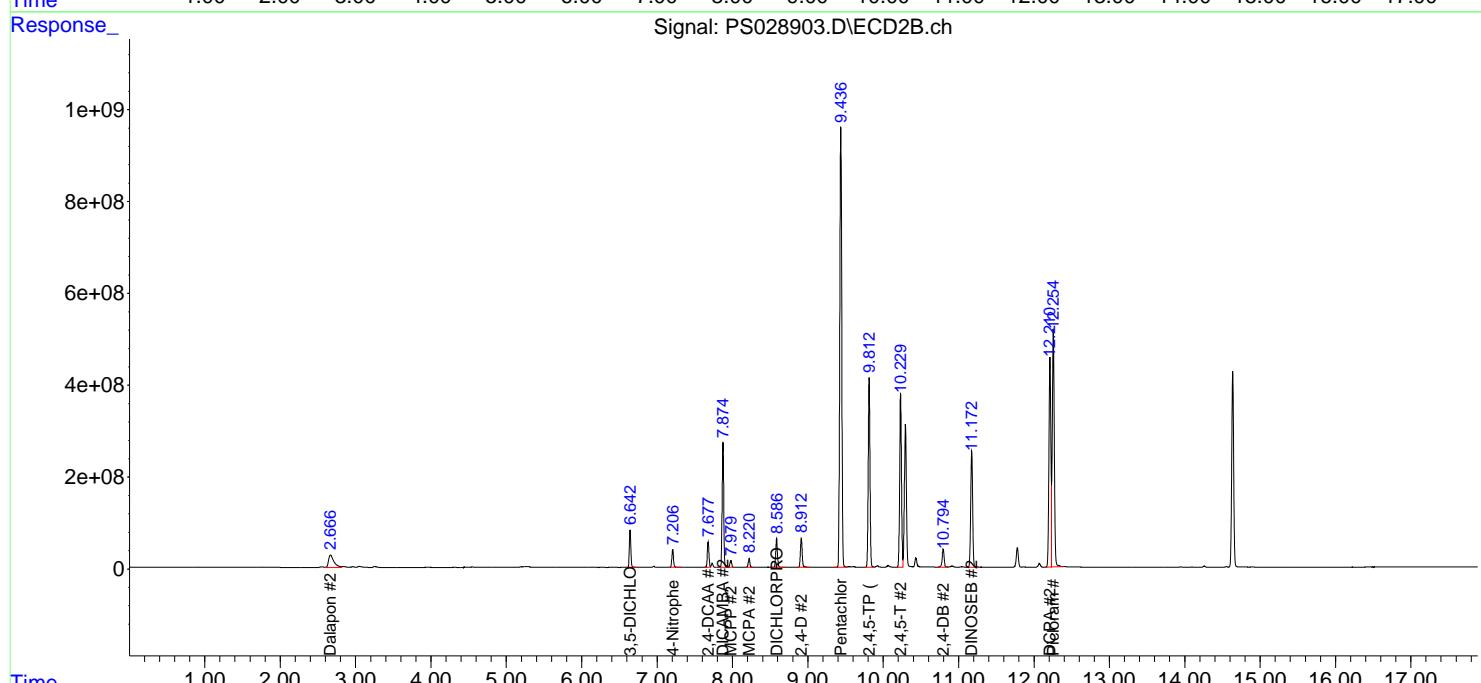
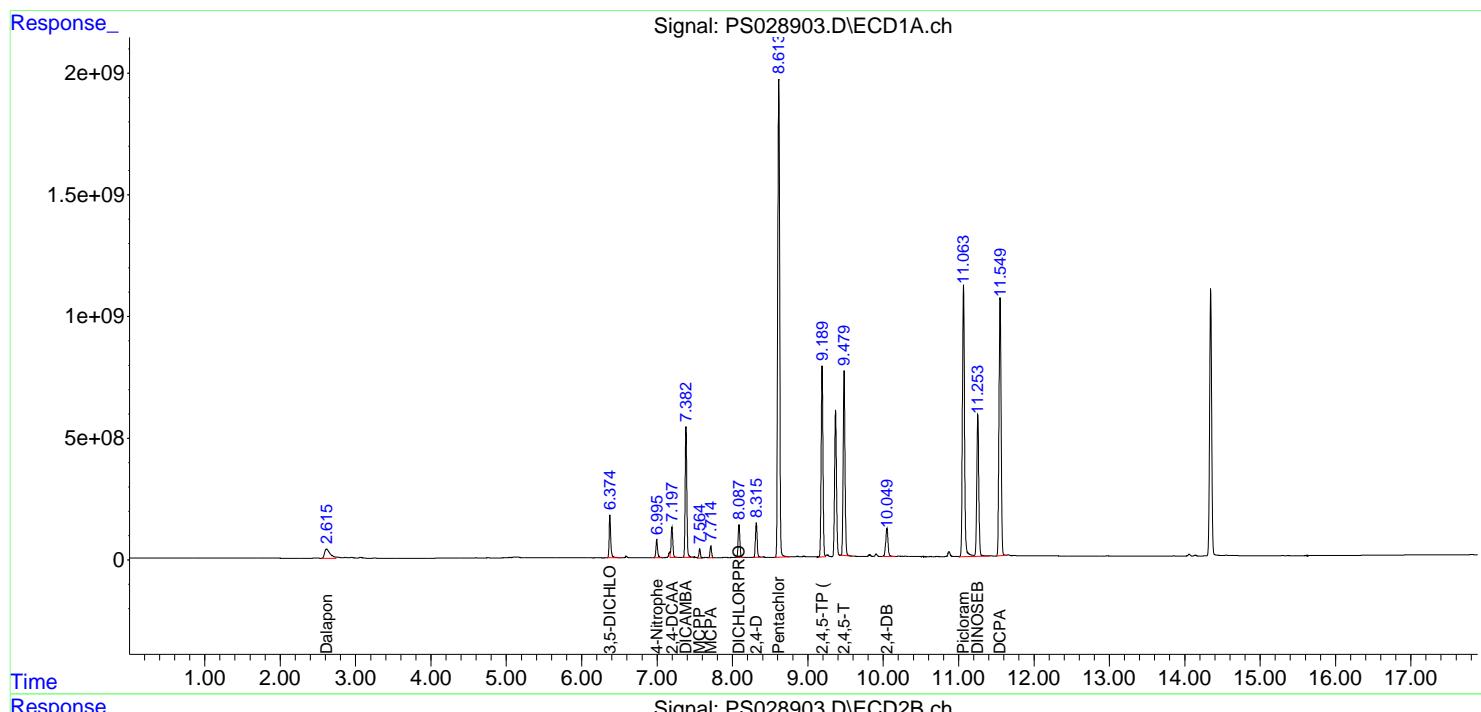
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

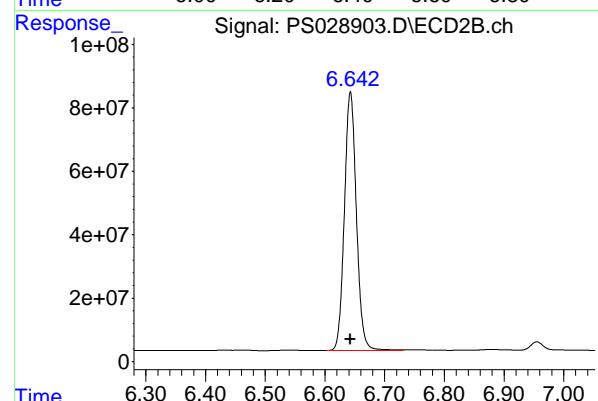
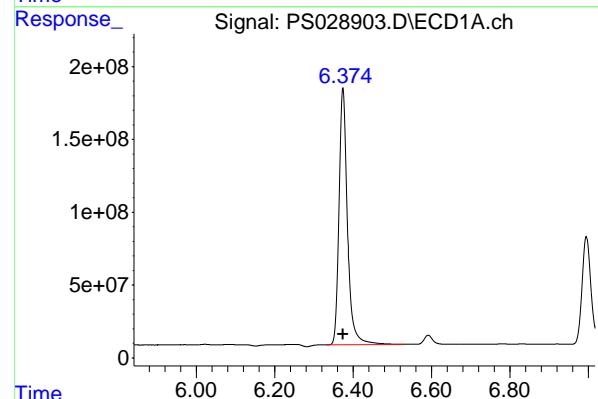
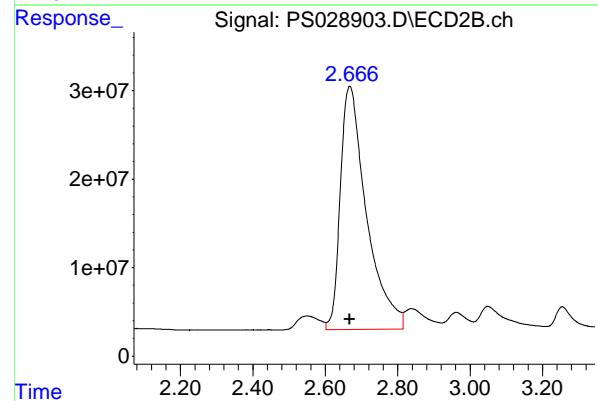
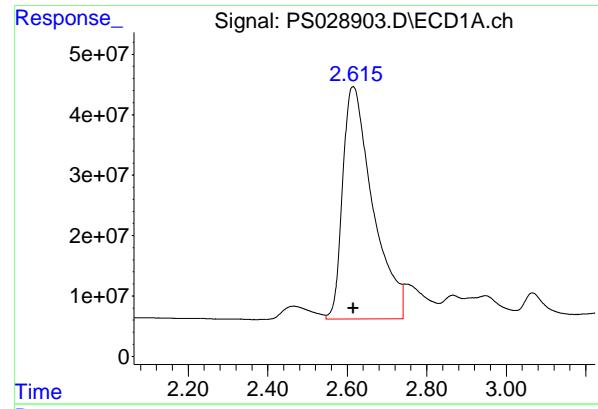
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS011425\
 Data File : PS028903.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 14 Jan 2025 11:19
 Operator : AR\AJ
 Sample : HSTDICC750
 Misc :
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 ECD_S
ClientSampleId :
 HSTDICC750

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jan 14 11:36:53 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 11:36:29 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m





#1 Dalapon

R.T.: 2.615 min
 Delta R.T.: 0.000 min
 Instrument: ECD_S
 Response: 2018665694
 Conc: 682.50 ng/ml
 ClientSampleId: HSTDICC750

#1 Dalapon

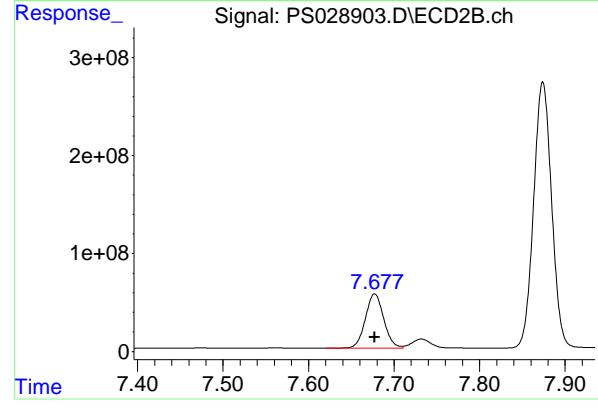
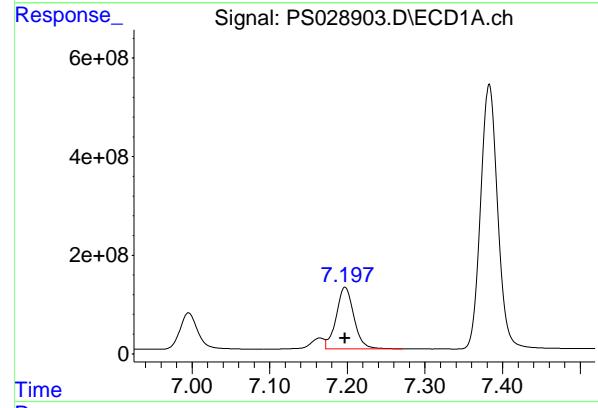
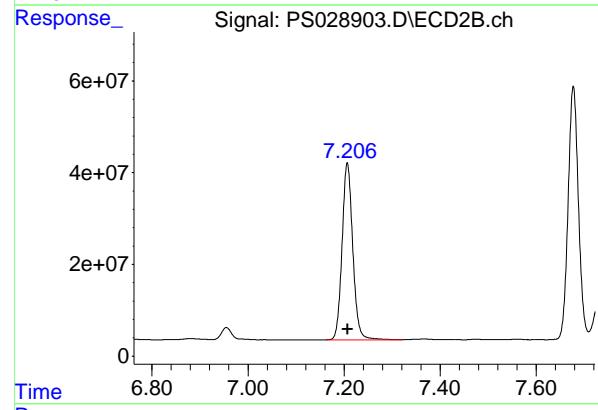
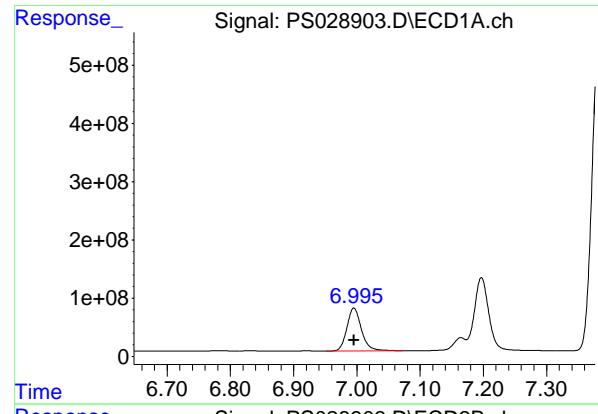
R.T.: 2.668 min
 Delta R.T.: 0.000 min
 Response: 1376681116
 Conc: 682.50 ng/ml

#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.374 min
 Delta R.T.: 0.000 min
 Response: 2667965312
 Conc: 697.50 ng/ml

#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.643 min
 Delta R.T.: 0.000 min
 Response: 1137550883
 Conc: 697.50 ng/ml



#3 4-Nitrophenol

R.T.: 6.995 min
 Delta R.T.: 0.000 min
 Response: 1173142744 ECD_S
 Conc: 682.50 ng/ml ClientSampleId : HSTDICC750

#3 4-Nitrophenol

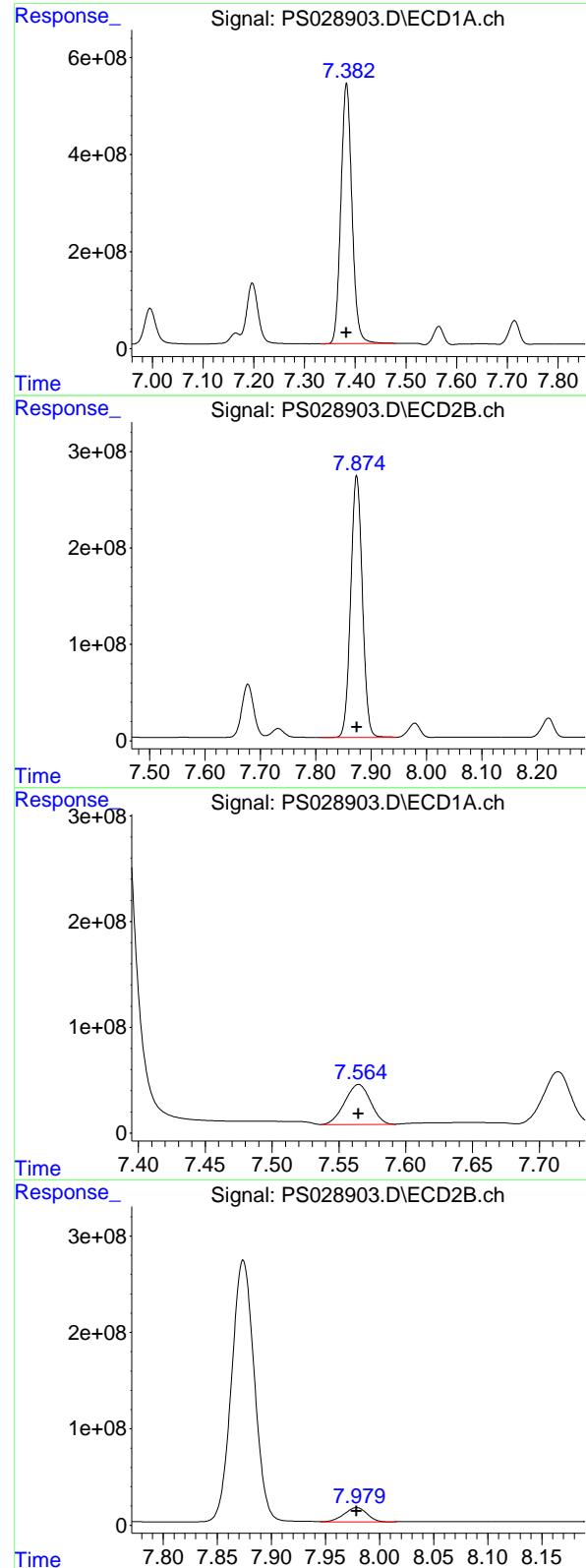
R.T.: 7.207 min
 Delta R.T.: 0.000 min
 Response: 593851919
 Conc: 682.50 ng/ml

#4 2,4-DCAA

R.T.: 7.197 min
 Delta R.T.: 0.000 min
 Response: 1994777262
 Conc: 750.00 ng/ml

#4 2,4-DCAA

R.T.: 7.677 min
 Delta R.T.: 0.000 min
 Response: 821510640
 Conc: 750.00 ng/ml



#5 DICAMBA

R.T.: 7.383 min
 Delta R.T.: 0.000 min
 Response: 8146681260 ECD_S
 Conc: 705.00 ng/ml ClientSampleId : HSTDICC750

#5 DICAMBA

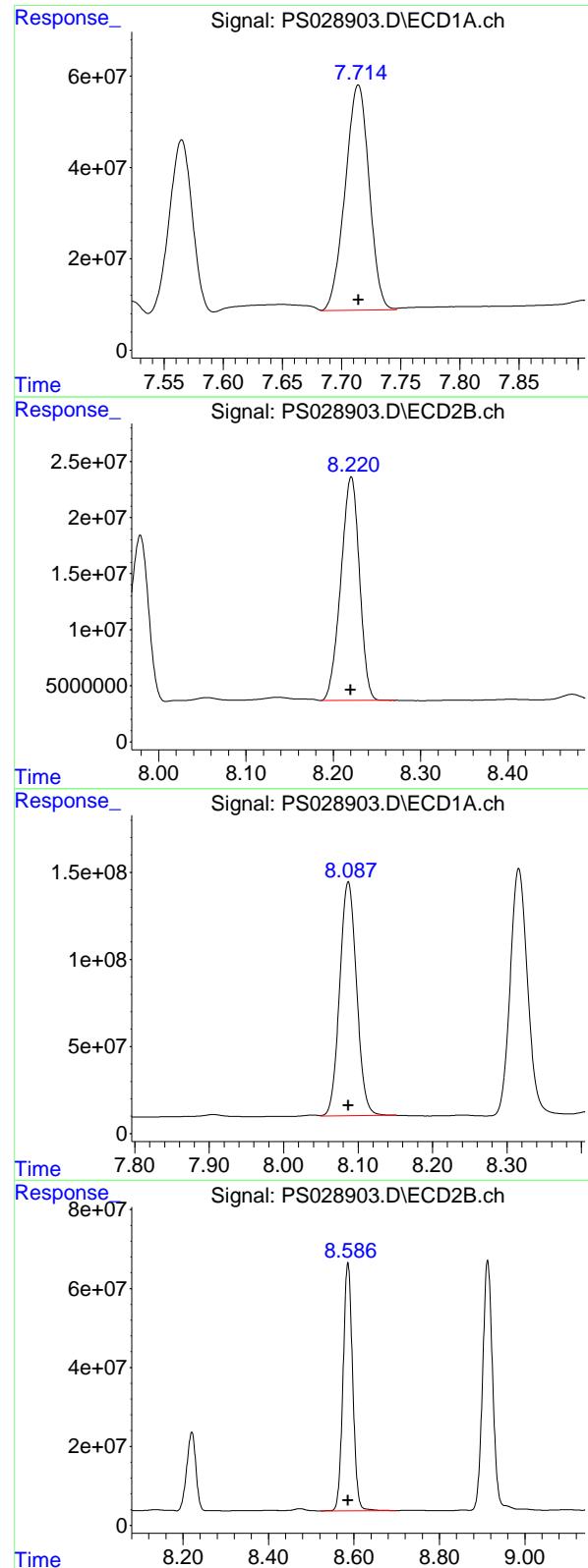
R.T.: 7.874 min
 Delta R.T.: 0.000 min
 Response: 3967991703
 Conc: 705.00 ng/ml

#6 MCPP

R.T.: 7.565 min
 Delta R.T.: 0.000 min
 Response: 508706510
 Conc: 70.50 ug/ml

#6 MCPP

R.T.: 7.979 min
 Delta R.T.: 0.000 min
 Response: 215723572
 Conc: 70.50 ug/ml



#7 MCPA

R.T.: 7.714 min
 Delta R.T.: 0.000 min
 Response: 694066365 ECD_S
 Conc: 69.75 ug/ml ClientSampleId : HSTDICC750

#7 MCPA

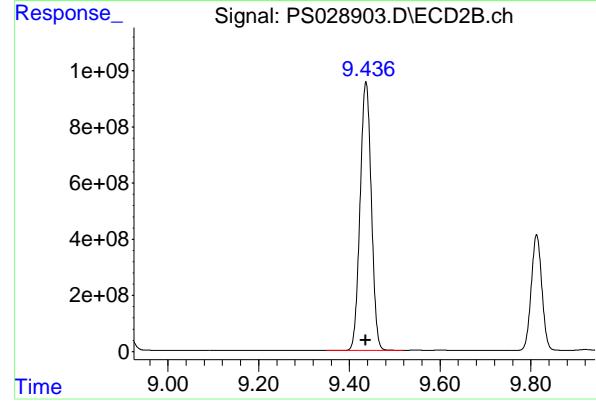
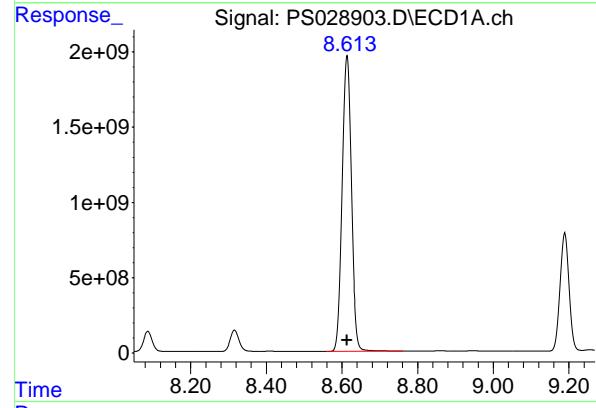
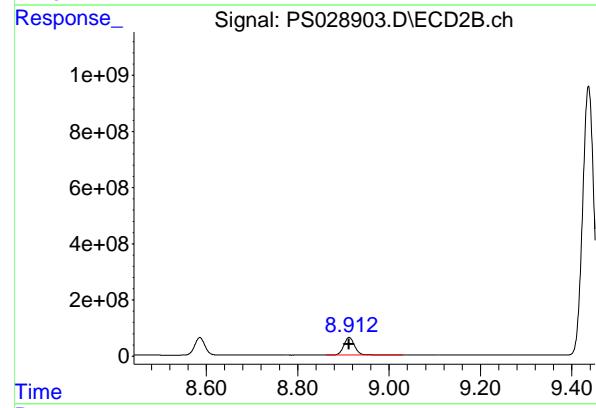
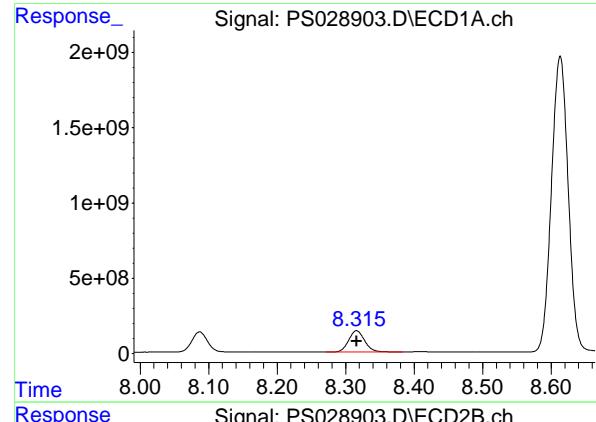
R.T.: 8.220 min
 Delta R.T.: 0.000 min
 Response: 295249035
 Conc: 69.75 ug/ml

#8 DICHLORPROP

R.T.: 8.087 min
 Delta R.T.: 0.000 min
 Response: 2118008436
 Conc: 705.00 ng/ml

#8 DICHLORPROP

R.T.: 8.586 min
 Delta R.T.: 0.000 min
 Response: 980342169
 Conc: 705.00 ng/ml



#9 2,4-D

R.T.: 8.316 min
 Delta R.T.: 0.000 min
 Instrument: ECD_S
 Response: 2282808841
 Conc: 705.00 ng/ml
 ClientSampleId: HSTDICC750

#9 2,4-D

R.T.: 8.913 min
 Delta R.T.: 0.000 min
 Response: 1035595119
 Conc: 705.00 ng/ml

#10 Pentachlorophenol

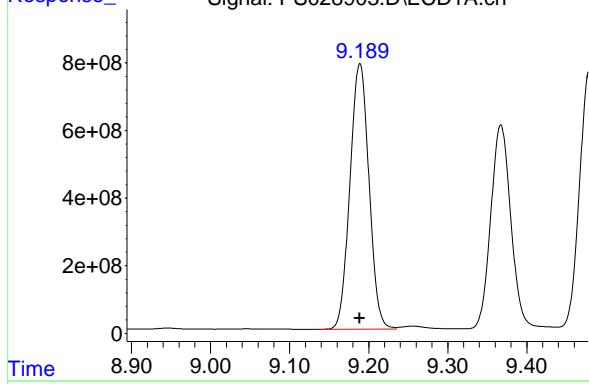
R.T.: 8.613 min
 Delta R.T.: 0.000 min
 Response: 33385448783
 Conc: 712.50 ng/ml

#10 Pentachlorophenol

R.T.: 9.436 min
 Delta R.T.: 0.000 min
 Response: 16453088564
 Conc: 712.50 ng/ml

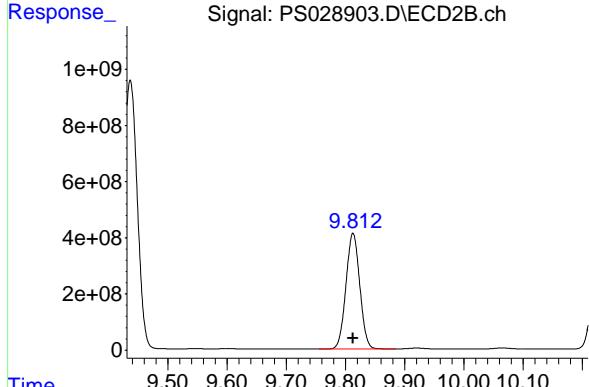
#11 2,4,5-TP (SILVEX)

R.T.: 9.189 min
 Delta R.T.: 0.000 min
 Response: 13141574024 ECD_S
 Conc: 712.50 ng/ml ClientSampleId : HSTDICC750



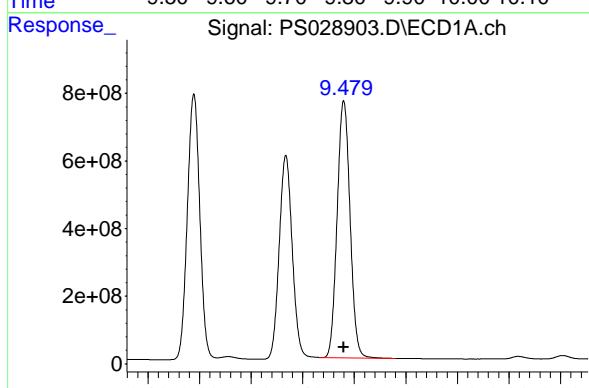
#11 2,4,5-TP (SILVEX)

R.T.: 9.813 min
 Delta R.T.: 0.000 min
 Response: 6703920625
 Conc: 712.50 ng/ml



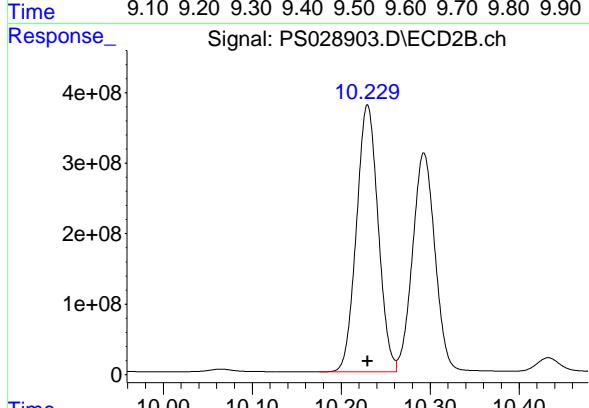
#12 2,4,5-T

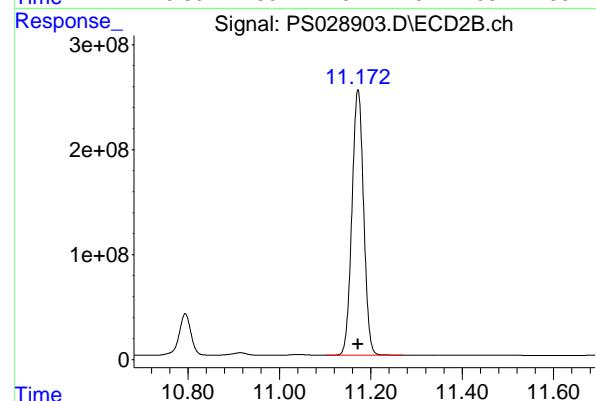
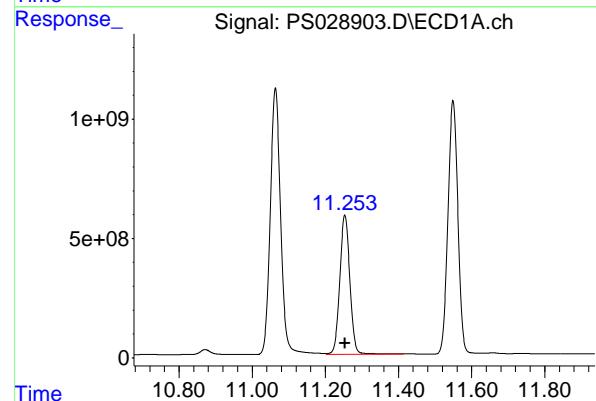
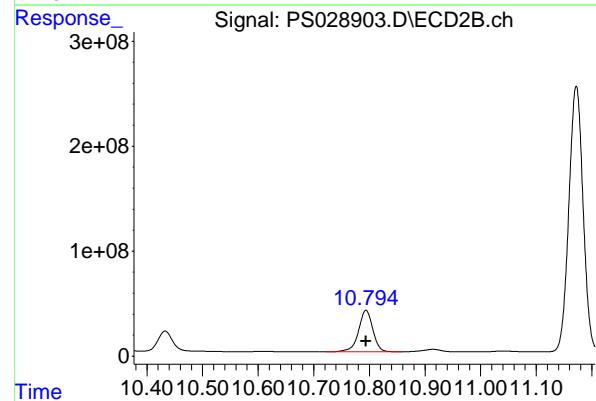
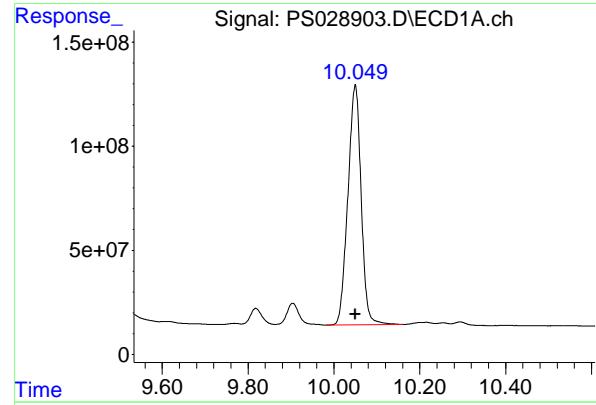
R.T.: 9.479 min
 Delta R.T.: 0.000 min
 Response: 13197337017
 Conc: 712.50 ng/ml



#12 2,4,5-T

R.T.: 10.230 min
 Delta R.T.: 0.000 min
 Response: 6407989455
 Conc: 712.50 ng/ml





#13 2,4-DB

R.T.: 10.050 min
 Delta R.T.: 0.000 min
 Response: 2460493983 ECD_S
 Conc: 712.50 ng/ml ClientSampleId : HSTDICC750

#13 2,4-DB

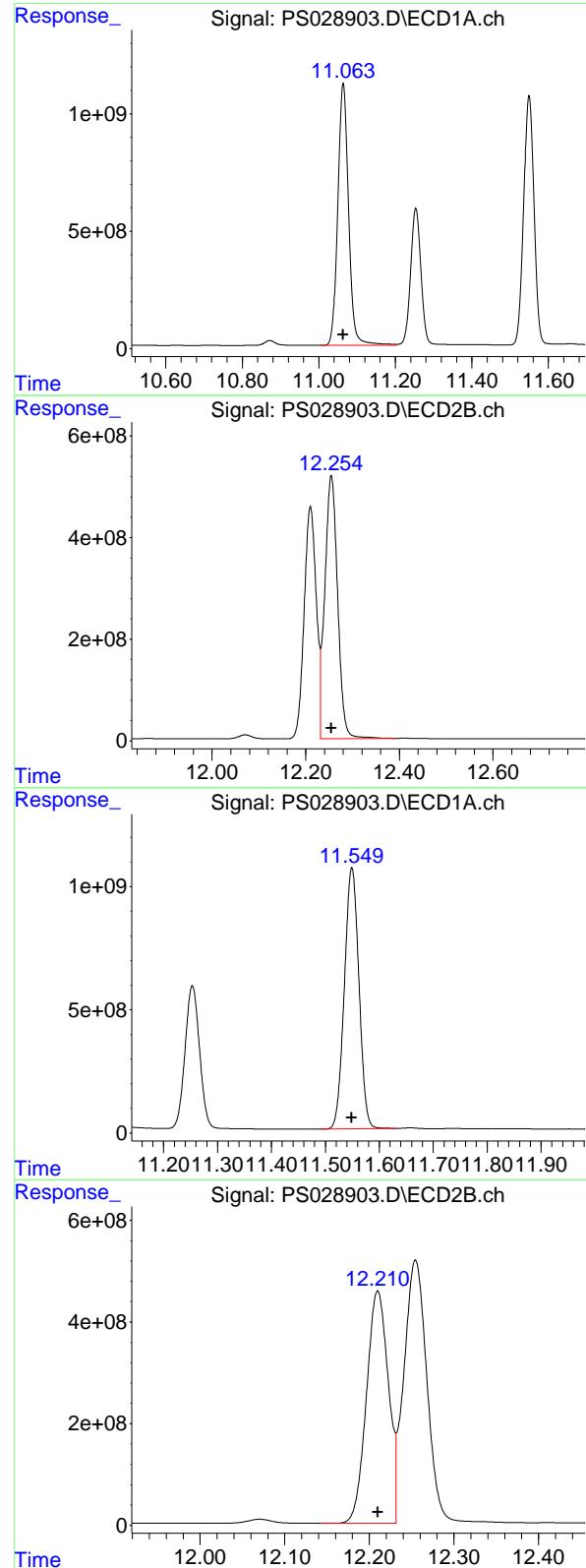
R.T.: 10.794 min
 Delta R.T.: 0.000 min
 Response: 705441852
 Conc: 712.50 ng/ml

#14 DINOSEB

R.T.: 11.253 min
 Delta R.T.: 0.000 min
 Response: 11140909547
 Conc: 705.00 ng/ml

#14 DINOSEB

R.T.: 11.172 min
 Delta R.T.: 0.000 min
 Response: 4486583360
 Conc: 705.00 ng/ml



#15 Picloram

R.T.: 11.064 min
 Delta R.T.: 0.000 min
 Instrument: ECD_S
 Response: 21960519904
 Conc: 712.50 ng/ml
 ClientSampleId : HSTDICC750

#15 Picloram

R.T.: 12.255 min
 Delta R.T.: 0.000 min
 Response: 9824620857
 Conc: 712.50 ng/ml

#16 DCPA

R.T.: 11.549 min
 Delta R.T.: 0.000 min
 Response: 19869334736
 Conc: 720.00 ng/ml

#16 DCPA

R.T.: 12.210 min
 Delta R.T.: 0.000 min
 Response: 8206878898
 Conc: 720.00 ng/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS011425\
 Data File : PS028904.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 14 Jan 2025 11:43
 Operator : AR\AJ
 Sample : HSTDICC1000
 Misc :
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
HSTDICC1000

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jan 14 12:11:09 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:11:00 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
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System Monitoring Compounds

4) S 2,4-DCAA 7.198 7.678 2530.9E6 1074.7E6 909.092 963.192

Target Compounds

1) T	Dalapon	2.615	2.667	2669.7E6	1816.5E6	895.337	890.355
2) T	3,5-DICHL...	6.375	6.643	3415.4E6	1483.9E6	854.524	897.916
3) T	4-Nitroph...	6.996	7.207	1520.9E6	776.4E6	858.259	872.537
5) T	DICAMBA	7.384	7.875	10523.3E6	5267.0E6	887.185	945.768
6) T	MCPP	7.567	7.981	684.1E6	288.1E6	100.360	95.785
7) T	MCPA	7.717	8.223	922.8E6	396.1E6	93.671	93.262
8) T	DICHLORPROP	8.088	8.586	2704.9E6	1281.9E6	853.679	911.969
9) T	2,4-D	8.317	8.914	2910.1E6	1353.7E6	861.114	902.769
10) T	Pentachlo...	8.614	9.437	40660.1E6	21219.5E6	842.923	915.975
11) T	2,4,5-TP ...	9.189	9.813	16741.1E6	8771.4E6	875.003	931.202
12) T	2,4,5-T	9.480	10.230	16865.6E6	8364.4E6	878.556	928.451
13) T	2,4-DB	10.051	10.795	3188.7E6	933.6E6	898.882	937.587
14) T	DINOSEB	11.255	11.172	14187.7E6	5809.5E6	857.405	905.282
15) T	Picloram	11.064	12.256	28395.6E6	13020.4E6	899.958	970.250
16) T	DCPA	11.550	12.211	25250.3E6	10755.0E6	880.382	947.380

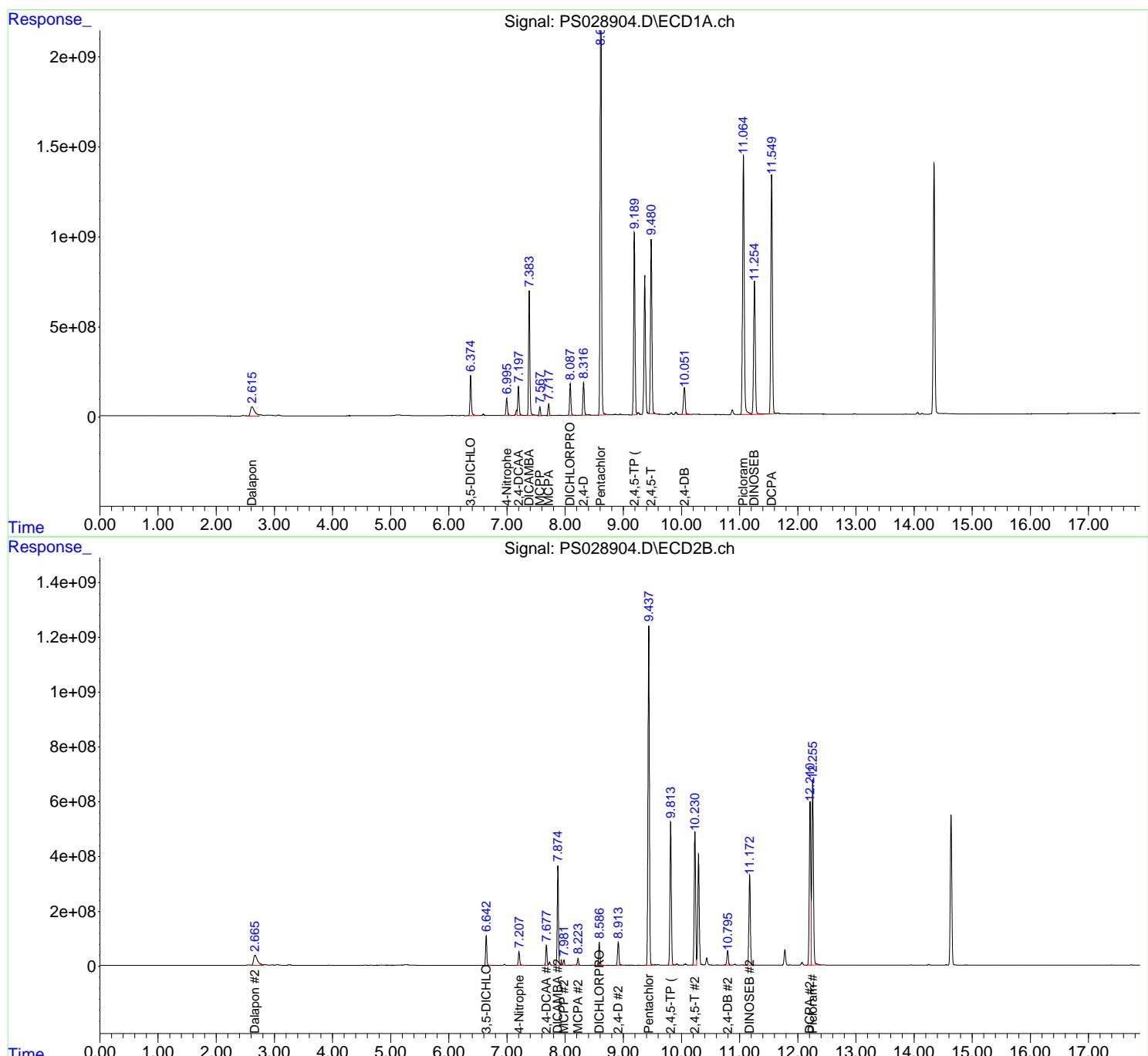
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

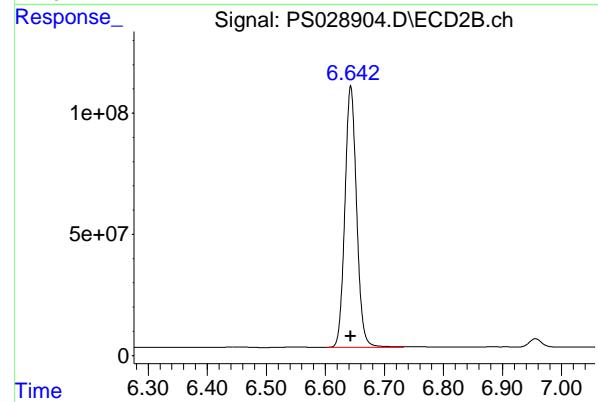
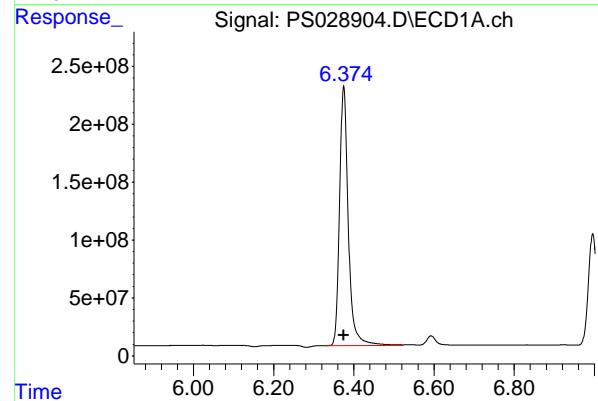
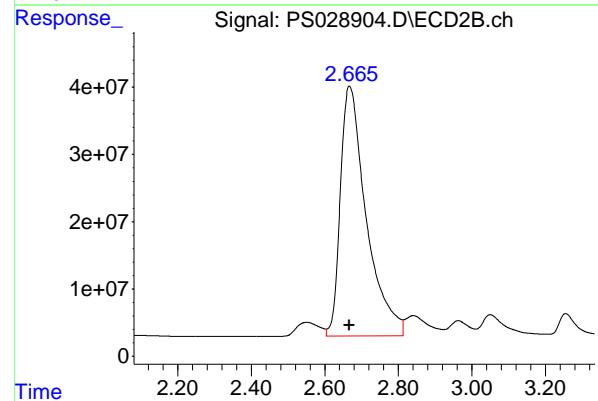
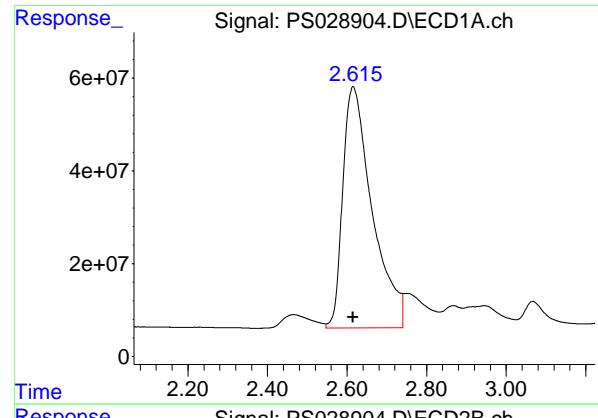
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS011425\
 Data File : PS028904.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 14 Jan 2025 11:43
 Operator : AR\AJ
 Sample : HSTDICC1000
 Misc :
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 ECD_S
ClientSampleId :
 HSTDICC1000

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jan 14 12:11:09 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:11:00 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m





#1 Dalapon

R.T.: 2.615 min
 Delta R.T.: 0.000 min
 Instrument: ECD_S
 Response: 2669664670
 Conc: 895.34 ng/ml
 ClientSampleId: HSTDICC1000

#1 Dalapon

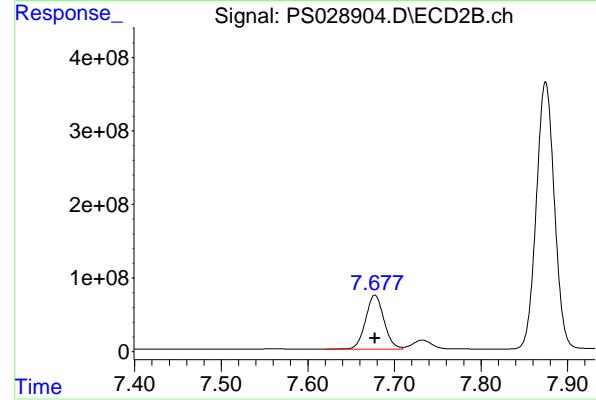
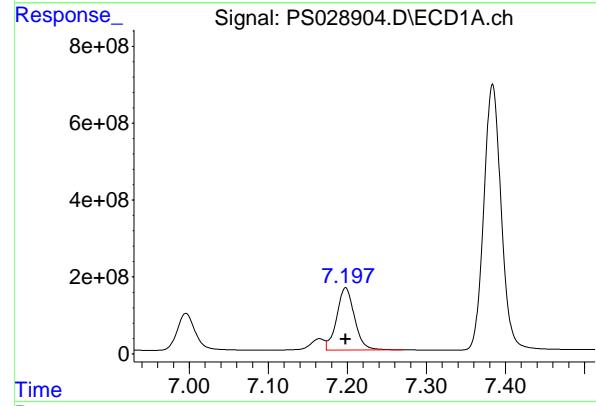
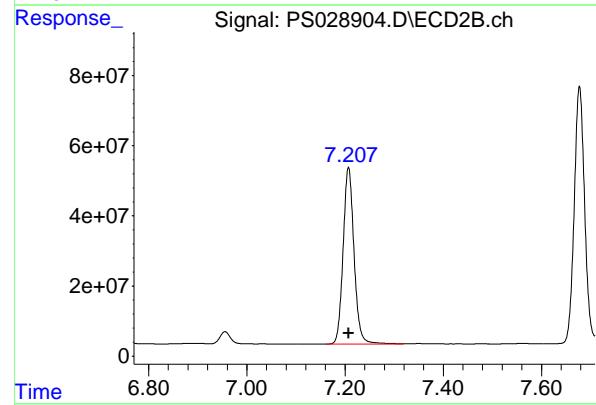
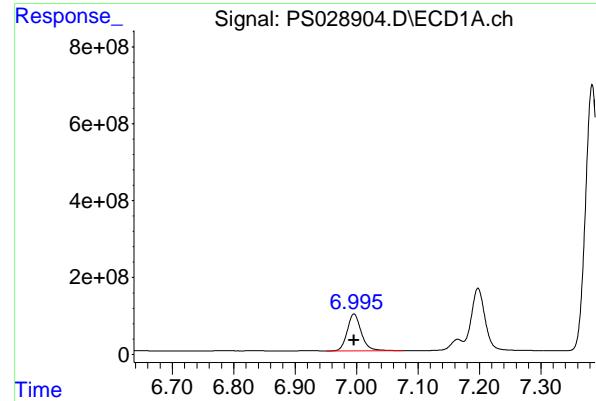
R.T.: 2.667 min
 Delta R.T.: 0.000 min
 Response: 1816455493
 Conc: 890.35 ng/ml

#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.375 min
 Delta R.T.: 0.000 min
 Response: 3415406968
 Conc: 854.52 ng/ml

#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.643 min
 Delta R.T.: 0.000 min
 Response: 1483913982
 Conc: 897.92 ng/ml



#3 4-Nitrophenol

R.T.: 6.996 min
Delta R.T.: 0.000 min
Instrument: ECD_S
Response: 1520903644
Conc: 858.26 ng/ml
ClientSampleId: HSTDICC1000

#3 4-Nitrophenol

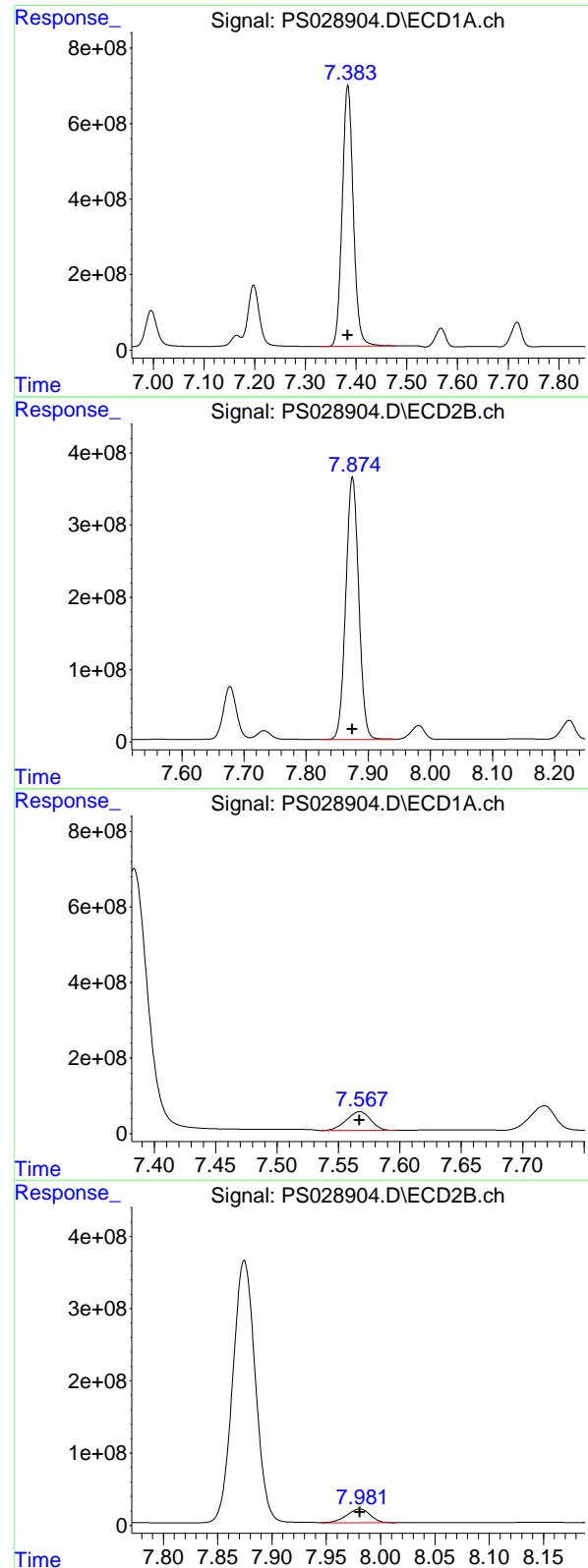
R.T.: 7.207 min
Delta R.T.: 0.000 min
Response: 776361144
Conc: 872.54 ng/ml

#4 2,4-DCAA

R.T.: 7.198 min
Delta R.T.: 0.000 min
Response: 2530922607
Conc: 909.09 ng/ml

#4 2,4-DCAA

R.T.: 7.678 min
Delta R.T.: 0.000 min
Response: 1074742027
Conc: 963.19 ng/ml



#5 DICAMBA

R.T.: 7.384 min
 Delta R.T.: 0.000 min
 Instrument: ECD_S
 Response: 10523289784
 Conc: 887.18 ng/ml
 ClientSampleId : HSTDICC1000

#5 DICAMBA

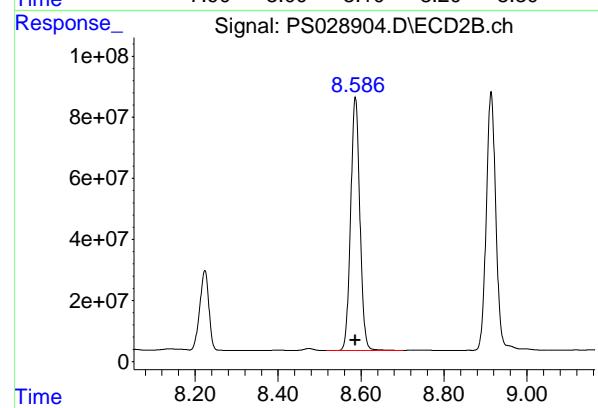
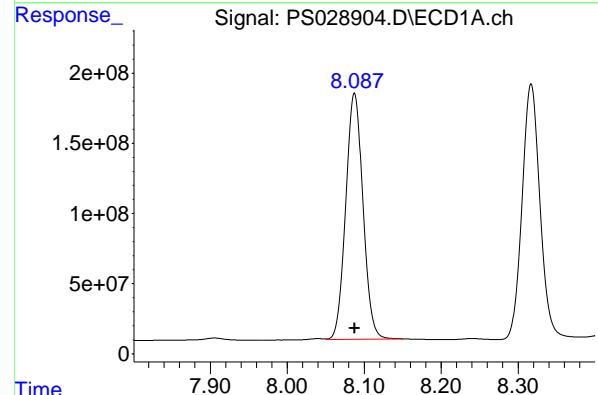
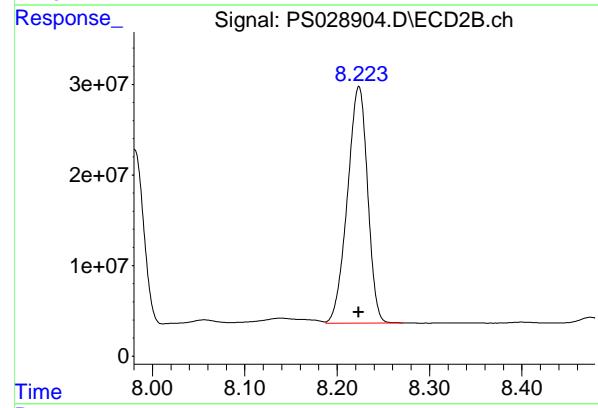
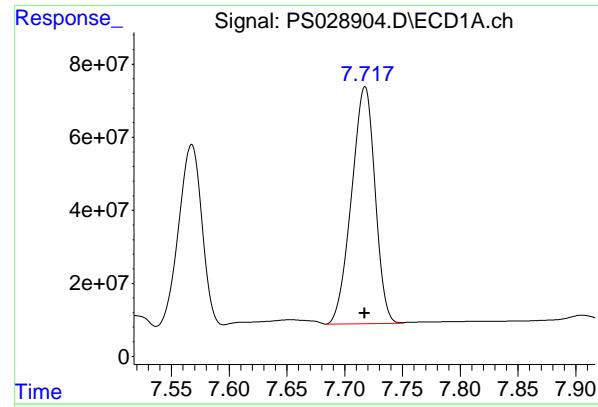
R.T.: 7.875 min
 Delta R.T.: 0.000 min
 Response: 5267015305
 Conc: 945.77 ng/ml

#6 MCPP

R.T.: 7.567 min
 Delta R.T.: 0.000 min
 Response: 684083315
 Conc: 100.36 ug/ml

#6 MCPP

R.T.: 7.981 min
 Delta R.T.: 0.000 min
 Response: 288116567
 Conc: 95.78 ug/ml



#7 MCPA

R.T.: 7.717 min
 Delta R.T.: 0.000 min
 Response: 922758739
 Conc: 93.67 ug/ml
Instrument: ECD_S
ClientSampleId: HSTDICC1000

#7 MCPA

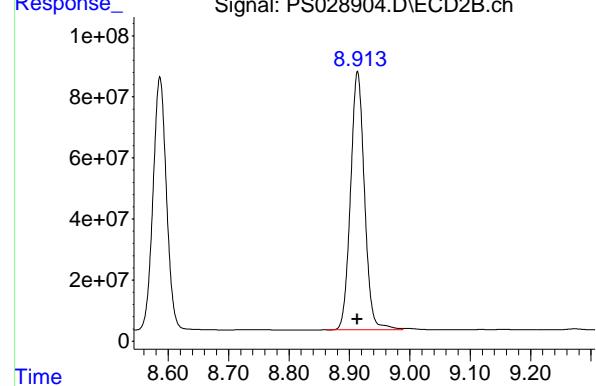
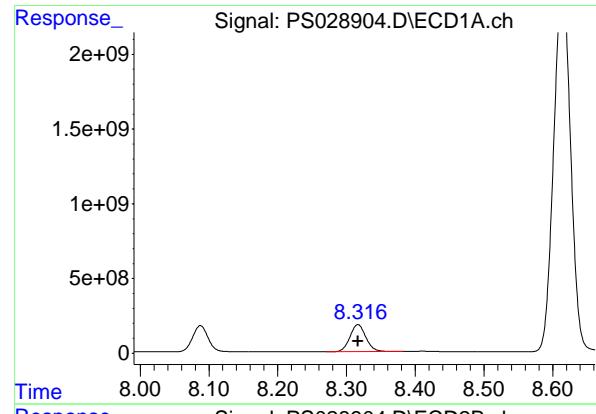
R.T.: 8.223 min
 Delta R.T.: 0.000 min
 Response: 396124832
 Conc: 93.26 ug/ml

#8 DICHLORPROP

R.T.: 8.088 min
 Delta R.T.: 0.000 min
 Response: 2704941406
 Conc: 853.68 ng/ml

#8 DICHLORPROP

R.T.: 8.586 min
 Delta R.T.: 0.000 min
 Response: 1281862566
 Conc: 911.97 ng/ml



#9 2,4-D

R.T.: 8.317 min
 Delta R.T.: 0.000 min
 Response: 2910090795 ECD_S
 Conc: 861.11 ng/ml ClientSampleId : HSTDICC1000

#9 2,4-D

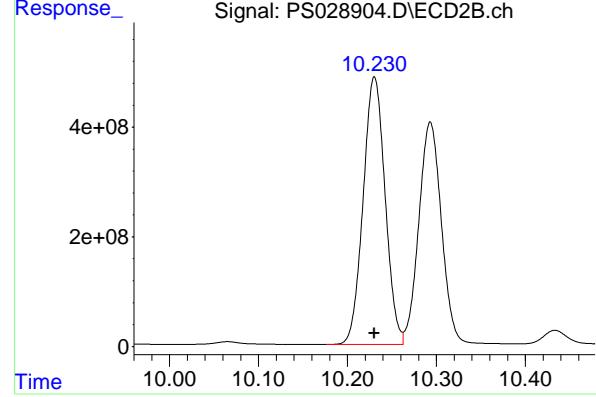
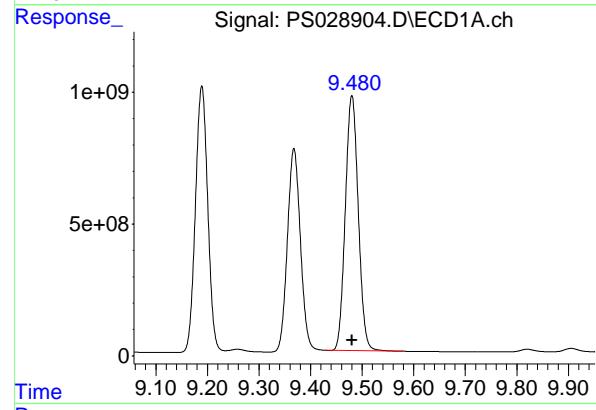
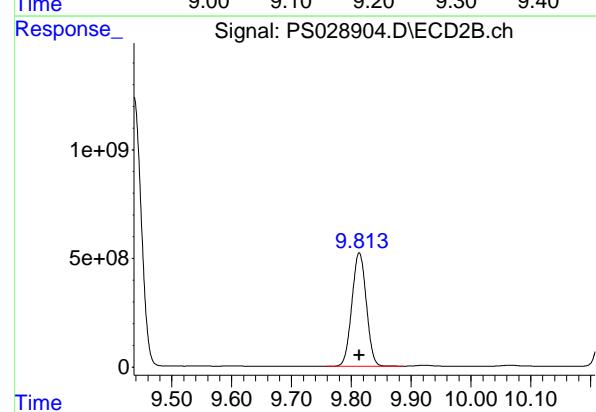
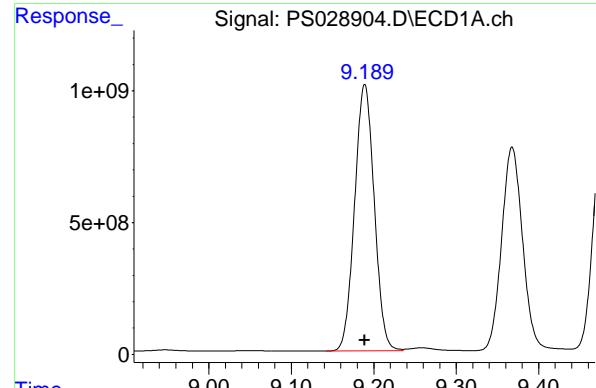
R.T.: 8.914 min
 Delta R.T.: 0.000 min
 Response: 1353717959
 Conc: 902.77 ng/ml

#10 Pentachlorophenol

R.T.: 8.614 min
 Delta R.T.: 0.000 min
 Response: 40660110132
 Conc: 842.92 ng/ml

#10 Pentachlorophenol

R.T.: 9.437 min
 Delta R.T.: 0.000 min
 Response: 21219501611
 Conc: 915.98 ng/ml



#11 2,4,5-TP (SILVEX)

R.T.: 9.189 min
 Delta R.T.: 0.000 min
 Instrument: ECD_S
 Response: 16741146063
 Conc: 875.00 ng/ml
 ClientSampleId: HSTDICC1000

#11 2,4,5-TP (SILVEX)

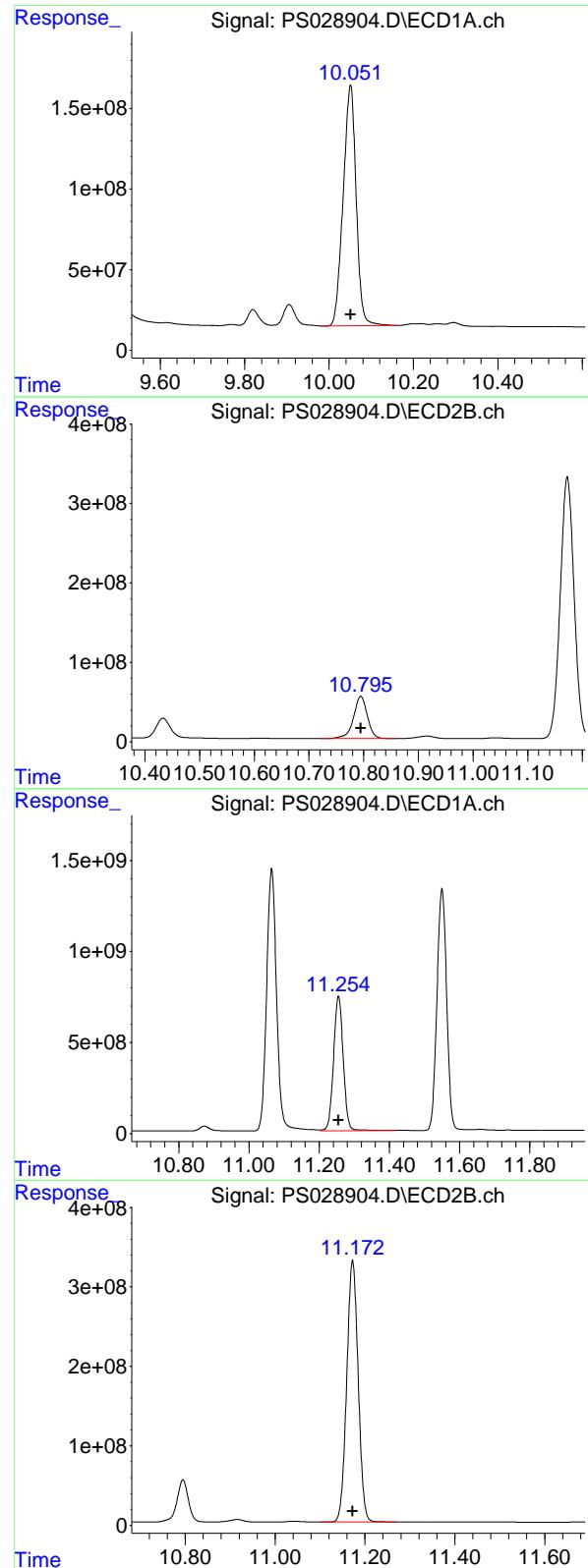
R.T.: 9.813 min
 Delta R.T.: 0.000 min
 Response: 8771366125
 Conc: 931.20 ng/ml

#12 2,4,5-T

R.T.: 9.480 min
 Delta R.T.: 0.000 min
 Response: 16865581213
 Conc: 878.56 ng/ml

#12 2,4,5-T

R.T.: 10.230 min
 Delta R.T.: 0.000 min
 Response: 8364414839
 Conc: 928.45 ng/ml



#13 2,4-DB

R.T.: 10.051 min
 Delta R.T.: 0.000 min
 Response: 3188652966 ECD_S
 Conc: 898.88 ng/ml ClientSampleId : HSTDICC1000

#13 2,4-DB

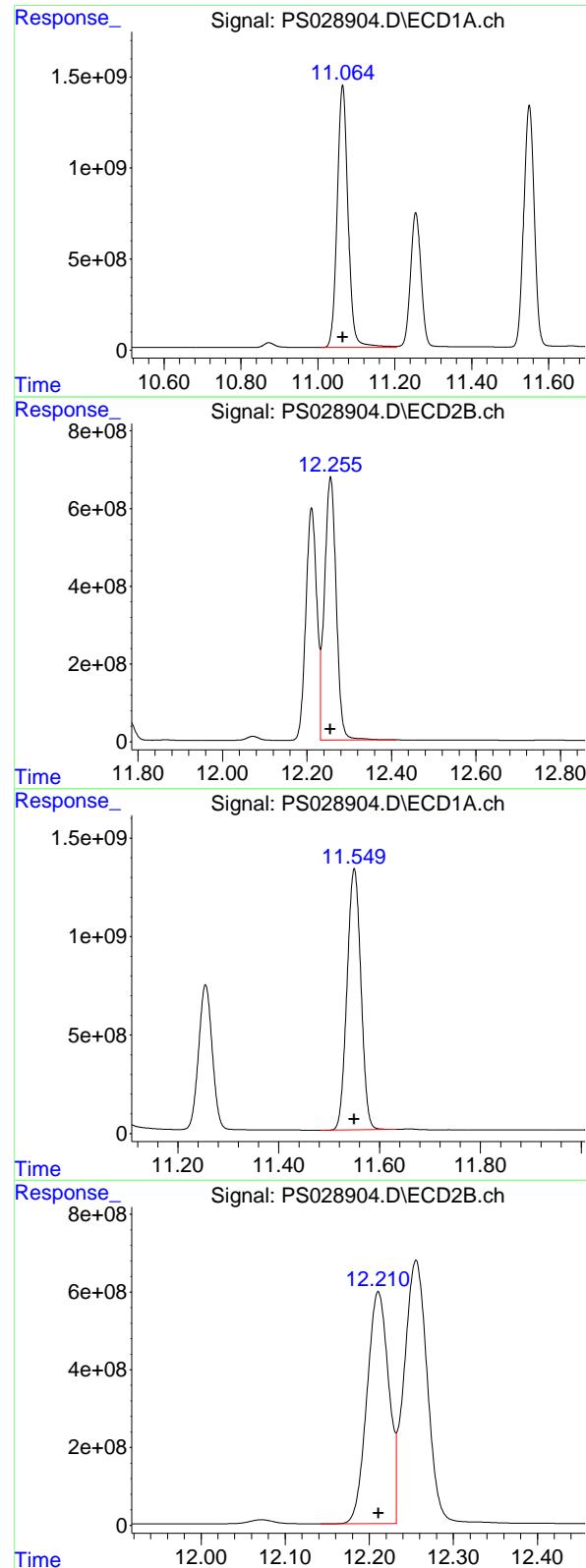
R.T.: 10.795 min
 Delta R.T.: 0.000 min
 Response: 933607896
 Conc: 937.59 ng/ml

#14 DINOSEB

R.T.: 11.255 min
 Delta R.T.: 0.000 min
 Response: 14187746813
 Conc: 857.41 ng/ml

#14 DINOSEB

R.T.: 11.172 min
 Delta R.T.: 0.000 min
 Response: 5809479977
 Conc: 905.28 ng/ml



#15 Picloram

R.T.: 11.064 min
 Delta R.T.: 0.000 min
 Instrument: ECD_S
 Response: 28395601774
 Conc: 899.96 ng/ml
 ClientSampleId : HSTDICC1000

#15 Picloram

R.T.: 12.256 min
 Delta R.T.: 0.000 min
 Response: 13020427725
 Conc: 970.25 ng/ml

#16 DCPA

R.T.: 11.550 min
 Delta R.T.: 0.000 min
 Response: 25250250867
 Conc: 880.38 ng/ml

#16 DCPA

R.T.: 12.211 min
 Delta R.T.: 0.000 min
 Response: 10754991695
 Conc: 947.38 ng/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS011425\
 Data File : PS028905.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 14 Jan 2025 12:07
 Operator : AR\AJ
 Sample : HSTDICC1500
 Misc :
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
HSTDICC1500

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 01/14/2025
 Supervised By :Ankita Jodhani 01/15/2025

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jan 14 12:24:39 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:24:29 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
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System Monitoring Compounds

4) S 2,4-DCAA 7.198 7.678 3620.6E6 1605.1E6 1336.050 1450.411

Target Compounds

1) T	Dalapon	2.615	2.668	4104.6E6	2732.3E6	1373.858m	1344.349
2) T	3,5-DICHL...	6.375	6.643	4927.4E6	2207.8E6	1262.171	1347.366
3) T	4-Nitroph...	6.996	7.207	2257.5E6	1158.9E6	1291.156	1314.550
5) T	DICAMBA	7.384	7.875	15288.4E6	7923.7E6	1311.442	1420.235
6) T	MCPP	7.571	7.984	1068.2E6	439.2E6	153.296	144.975
7) T	MCPA	7.722	8.228	1403.3E6	594.6E6	141.855	139.892
8) T	DICHLORPROP	8.088	8.586	3907.5E6	1911.2E6	1264.916	1369.450
9) T	2,4-D	8.317	8.913	4184.2E6	2015.2E6	1269.064	1356.640
10) T	Pentachlo...	8.619	9.436	48590.7E6	30432.8E6	1070.058	1334.532
11) T	2,4,5-TP ...	9.190	9.813	23808.0E6	12847.4E6	1276.732	1375.721
12) T	2,4,5-T	9.480	10.230	23961.1E6	12280.1E6	1279.940	1375.041
13) T	2,4-DB	10.050	10.794	4659.8E6	1410.4E6	1334.470	1418.157
14) T	DINOSEB	11.255	11.172	20299.9E6	8571.4E6	1259.511	1349.897
15) T	Picloram	11.064	12.255	40951.2E6	19407.1E6	1321.466	1441.886
16) T	DCPA	11.550	12.210	35612.9E6	15746.0E6	1276.857	1397.307

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS011425\
 Data File : PS028905.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 14 Jan 2025 12:07
 Operator : AR\AJ
 Sample : HSTDICC1500
 Misc :
 ALS Vial : 7 Sample Multiplier: 1

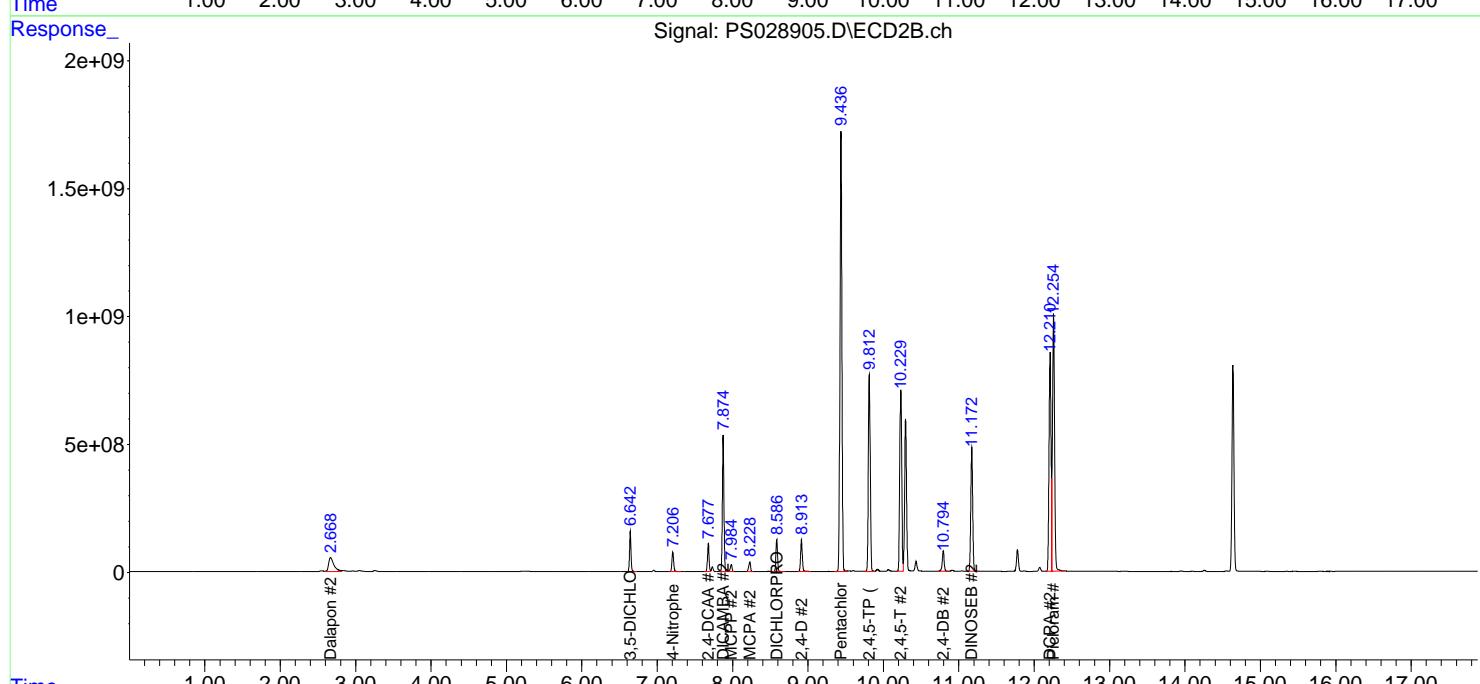
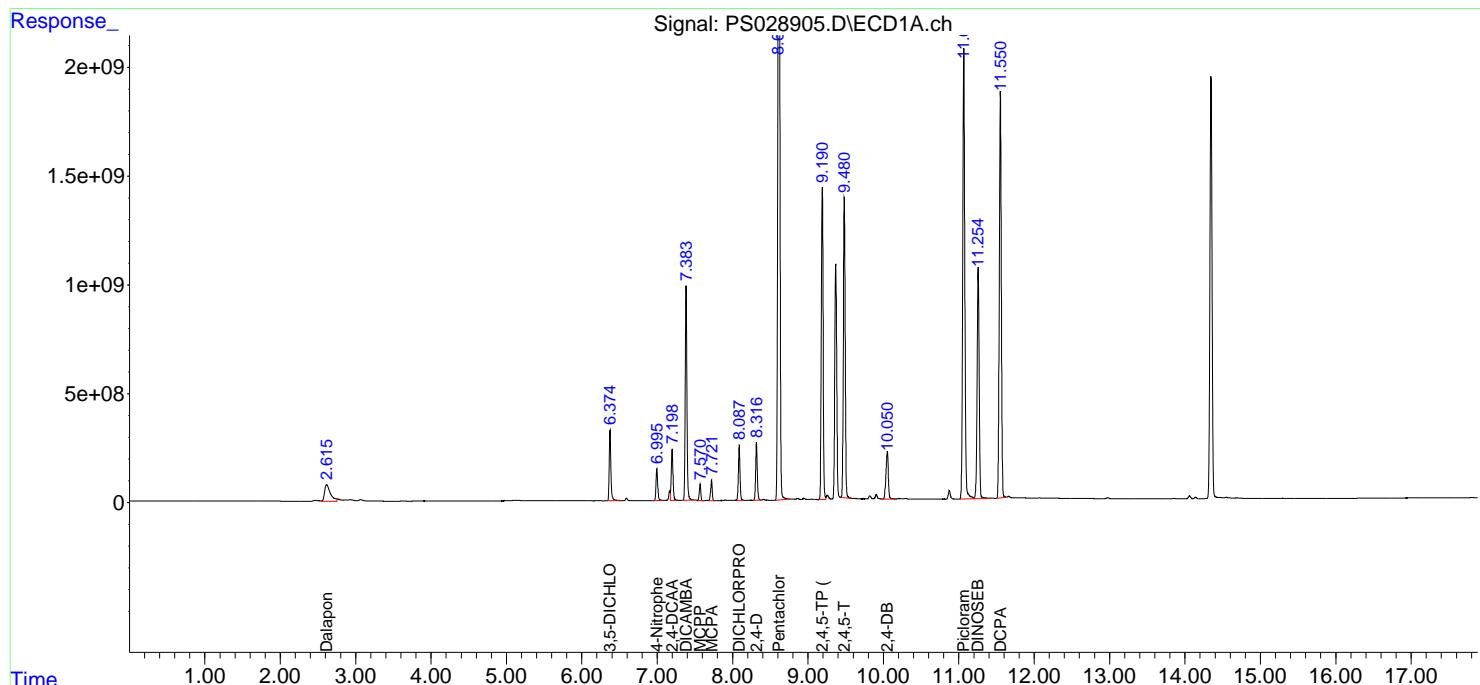
Instrument :
ECD_S
ClientSampleId :
HSTDICC1500

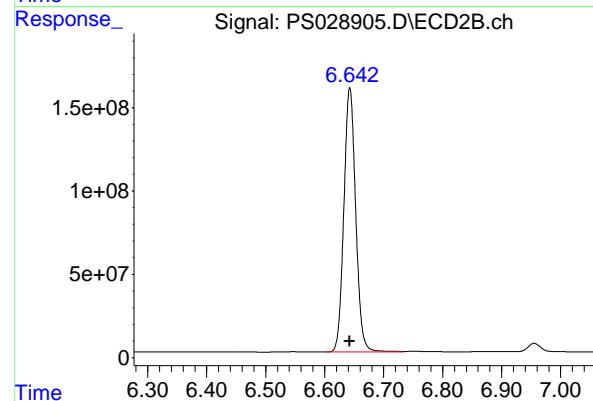
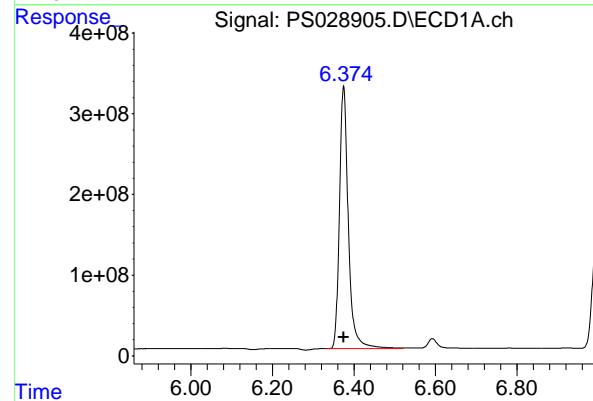
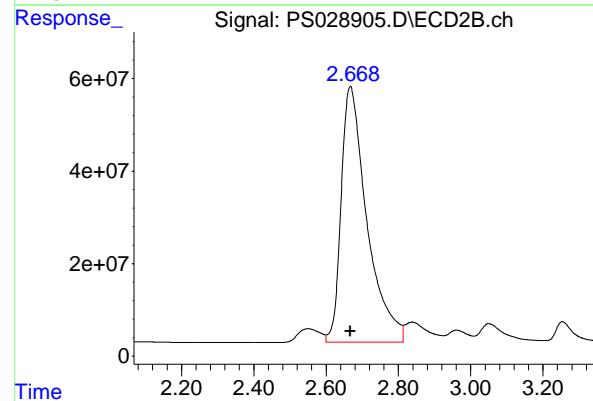
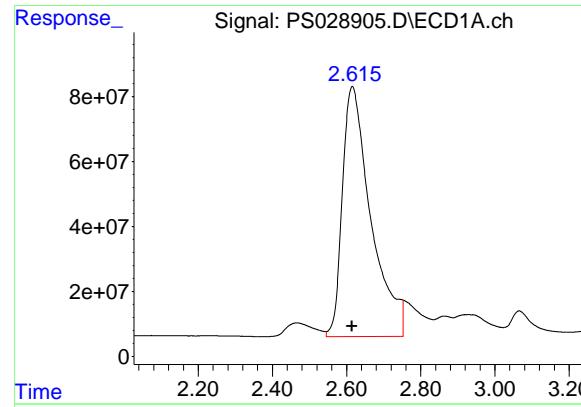
Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jan 14 12:24:39 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:24:29 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 01/14/2025
 Supervised By :Ankita Jodhani 01/15/2025





#1 Dalapon

R.T.: 2.615 min
 Delta R.T.: 0.000 min
 Instrument: ECD_S
 Response: 4104630171
 Conc: 1373.86 ng/ml
 ClientSampleId : HSTDICC1500

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 01/14/2025
 Supervised By :Ankita Jodhani 01/15/2025

#1 Dalapon

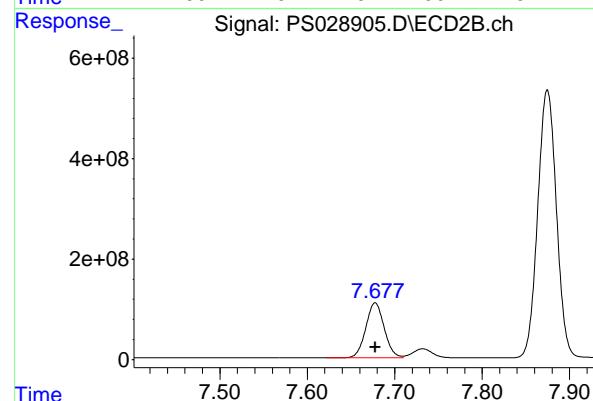
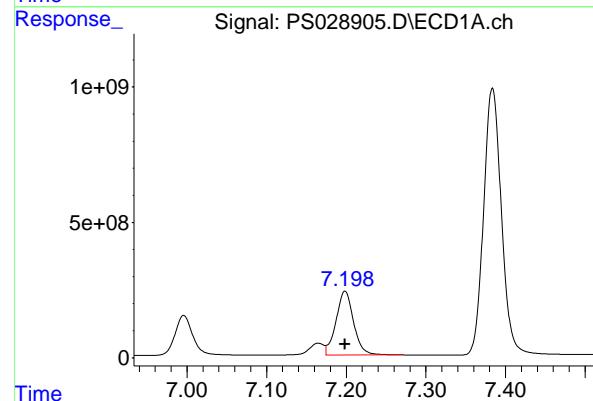
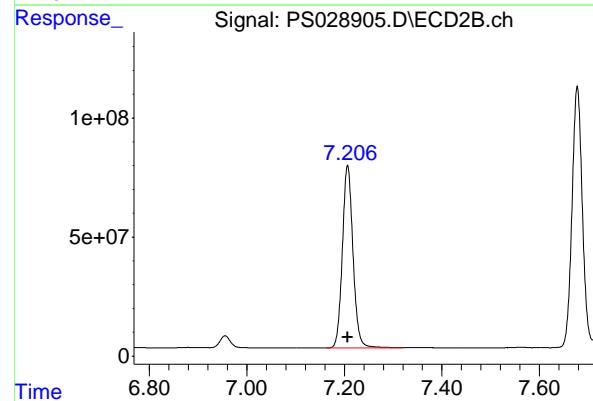
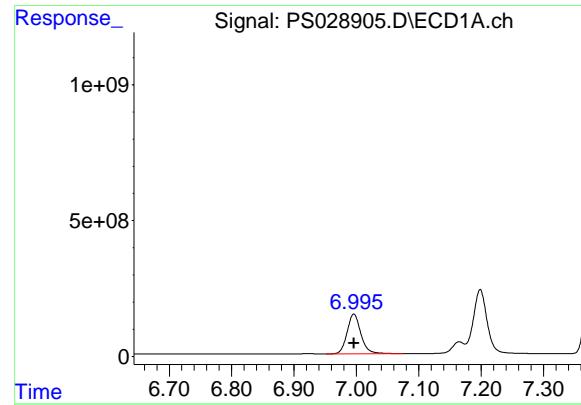
R.T.: 2.668 min
 Delta R.T.: 0.000 min
 Response: 2732337433
 Conc: 1344.35 ng/ml

#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.375 min
 Delta R.T.: 0.000 min
 Response: 4927415110
 Conc: 1262.17 ng/ml

#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.643 min
 Delta R.T.: 0.000 min
 Response: 2207837002
 Conc: 1347.37 ng/ml



#3 4-Nitrophenol

R.T.: 6.996 min
 Delta R.T.: 0.000 min
 Response: 2257498653
 Conc: 1291.16 ng/ml

Instrument: ECD_S
 ClientSampleId : HSTDICC1500

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 01/14/2025
 Supervised By :Ankita Jodhani 01/15/2025

#3 4-Nitrophenol

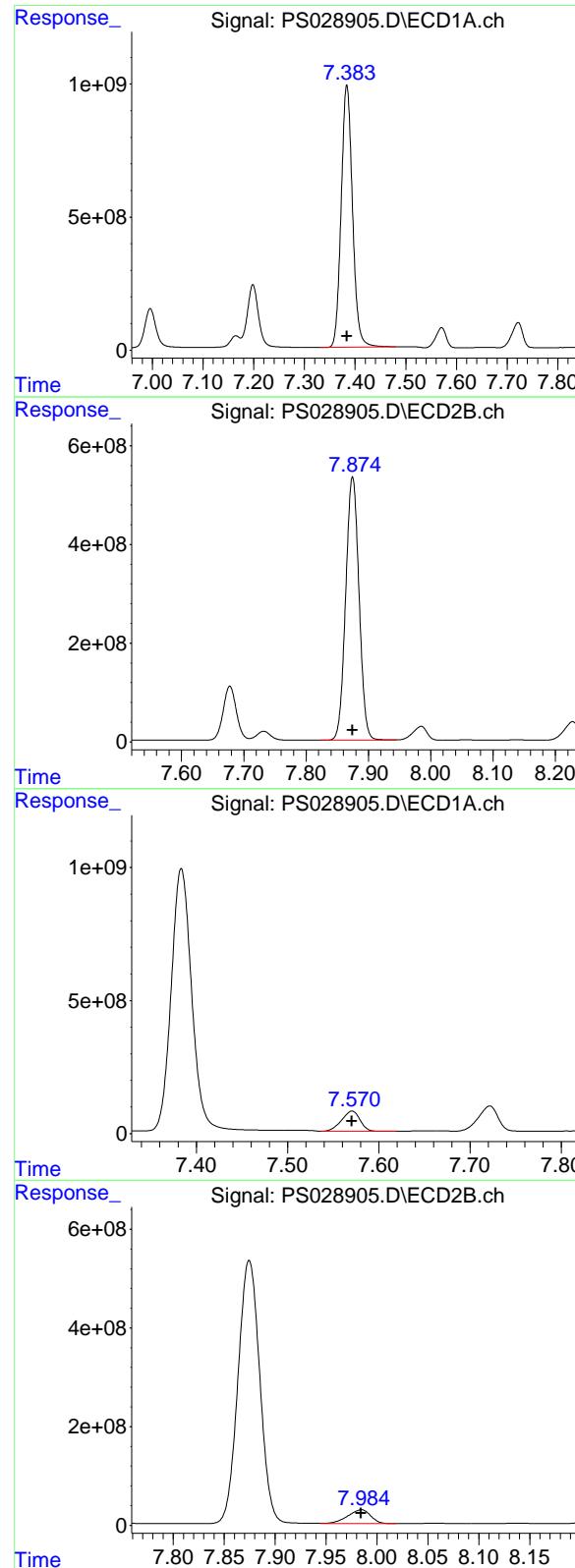
R.T.: 7.207 min
 Delta R.T.: 0.000 min
 Response: 1158944307
 Conc: 1314.55 ng/ml

#4 2,4-DCAA

R.T.: 7.198 min
 Delta R.T.: 0.000 min
 Response: 3620644236
 Conc: 1336.05 ng/ml

#4 2,4-DCAA

R.T.: 7.678 min
 Delta R.T.: 0.000 min
 Response: 1605121752
 Conc: 1450.41 ng/ml



#5 DICAMBA

R.T.: 7.384 min
 Delta R.T.: 0.000 min
 Instrument: ECD_S
 Response: 15288428327
 Conc: 1311.44 ng/ml
 ClientSampleId : HSTDICC1500

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 01/14/2025
 Supervised By :Ankita Jodhani 01/15/2025

#5 DICAMBA

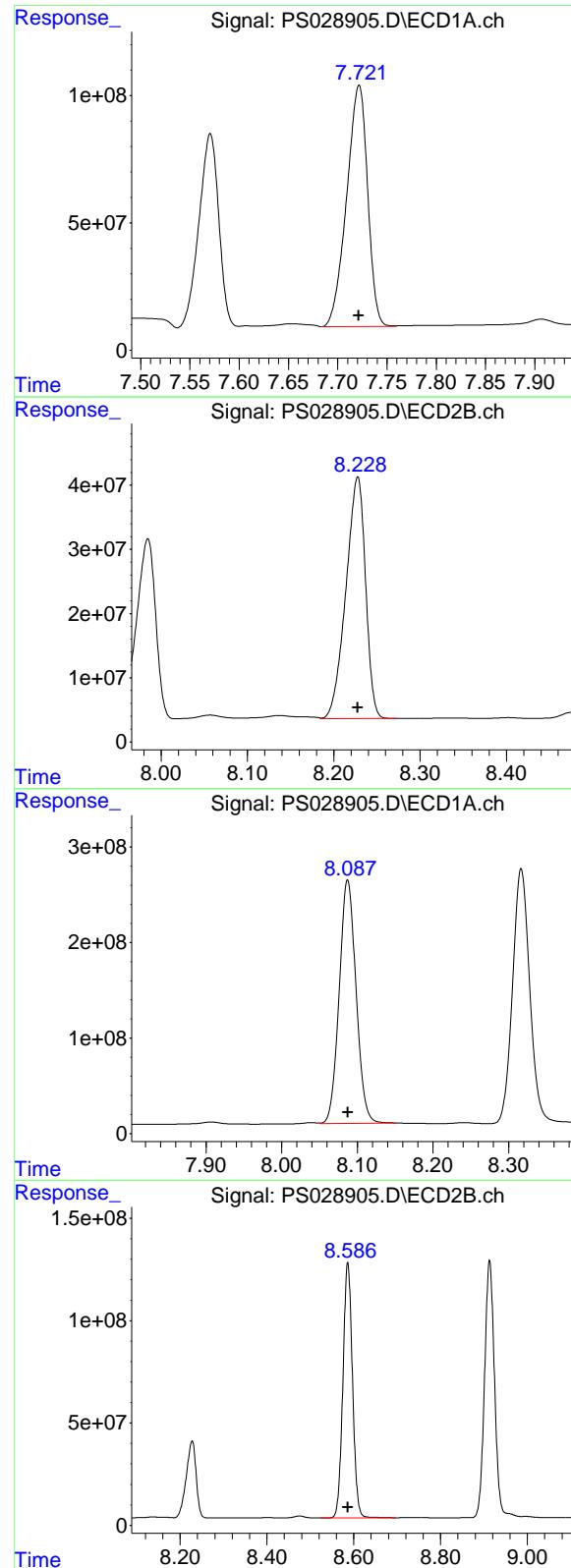
R.T.: 7.875 min
 Delta R.T.: 0.000 min
 Response: 7923720175
 Conc: 1420.23 ng/ml

#6 MCPP

R.T.: 7.571 min
 Delta R.T.: 0.000 min
 Response: 1068198576
 Conc: 153.30 ug/ml

#6 MCPP

R.T.: 7.984 min
 Delta R.T.: 0.000 min
 Response: 439172090
 Conc: 144.97 ug/ml



#7 MCPA

R.T.: 7.722 min
 Delta R.T.: 0.000 min
 Response: 1403348267
 Conc: 141.86 ug/ml

Instrument: ECD_S
 ClientSampleId: HSTDICC1500

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 01/14/2025
 Supervised By :Ankita Jodhani 01/15/2025

#7 MCPA

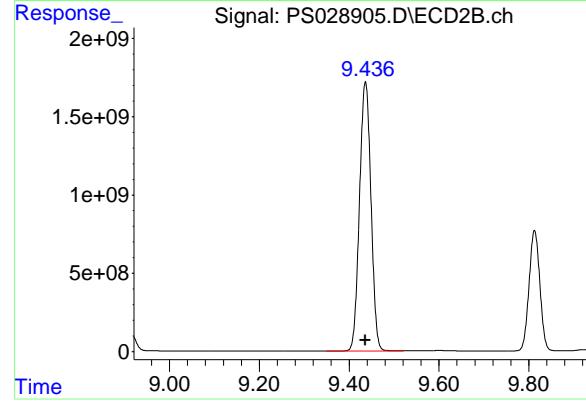
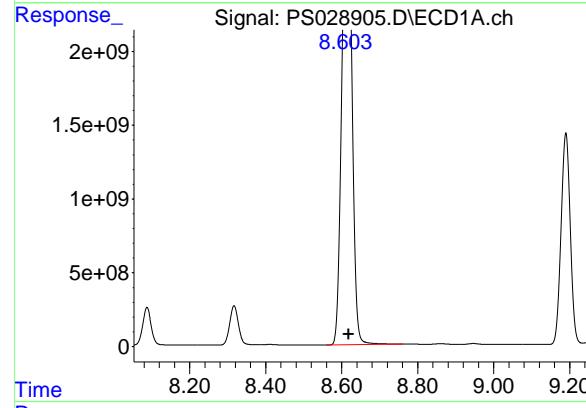
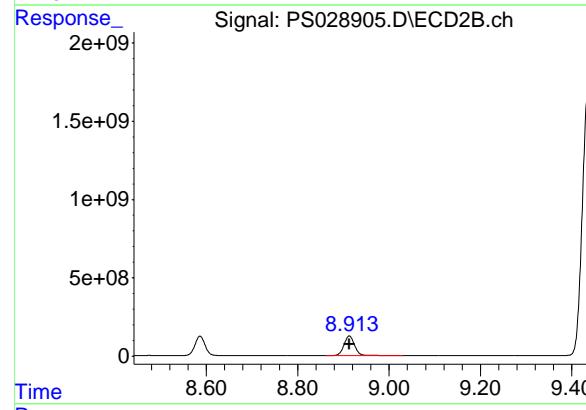
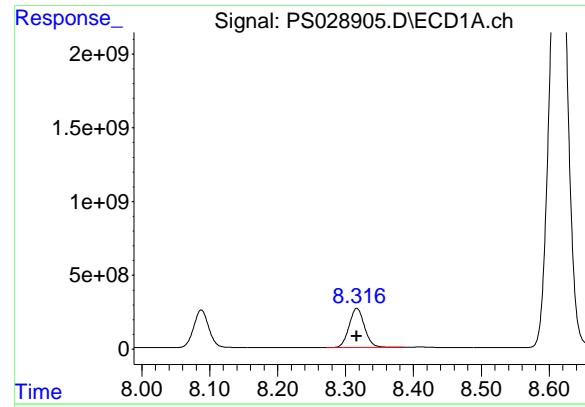
R.T.: 8.228 min
 Delta R.T.: 0.000 min
 Response: 594601475
 Conc: 139.89 ug/ml

#8 DICHLORPROP

R.T.: 8.088 min
 Delta R.T.: 0.000 min
 Response: 3907459694
 Conc: 1264.92 ng/ml

#8 DICHLORPROP

R.T.: 8.586 min
 Delta R.T.: 0.000 min
 Response: 1911156273
 Conc: 1369.45 ng/ml



#9 2,4-D

R.T.: 8.317 min
Delta R.T.: 0.000 min
Instrument: ECD_S
Response: 4184181925
Conc: 1269.06 ng/ml
ClientSampleId : HSTDICC1500

Manual Integrations APPROVED

Reviewed By :Abdul Mirza 01/14/2025
Supervised By :Ankita Jodhani 01/15/2025

#9 2,4-D

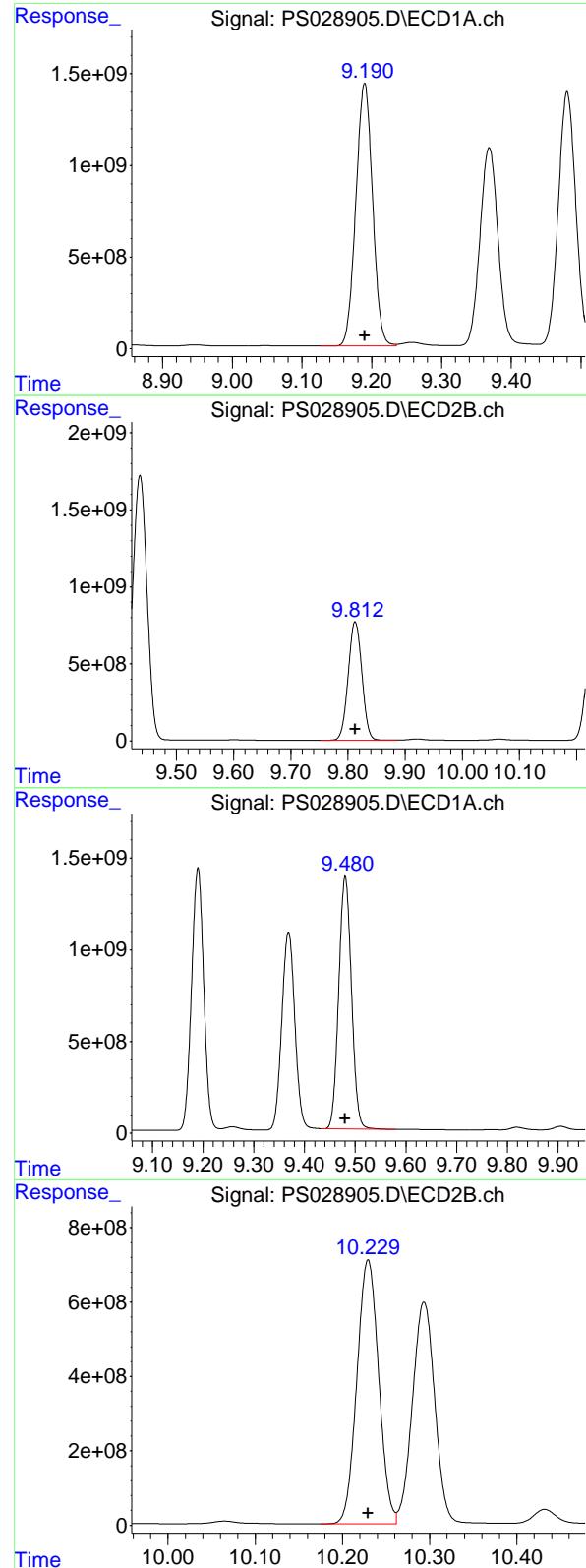
R.T.: 8.913 min
Delta R.T.: 0.000 min
Response: 2015240589
Conc: 1356.64 ng/ml

#10 Pentachlorophenol

R.T.: 8.619 min
Delta R.T.: 0.000 min
Response: 48590682069
Conc: 1070.06 ng/ml

#10 Pentachlorophenol

R.T.: 9.436 min
Delta R.T.: 0.000 min
Response: 30432768138
Conc: 1334.53 ng/ml



#11 2,4,5-TP (SILVEX)

R.T.: 9.190 min
 Delta R.T.: 0.000 min
 Response: 23807983939 ECD_S
 Conc: 1276.73 ng/ml
 ClientSampleId : HSTDICC1500

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 01/14/2025
 Supervised By :Ankita Jodhani 01/15/2025

#11 2,4,5-TP (SILVEX)

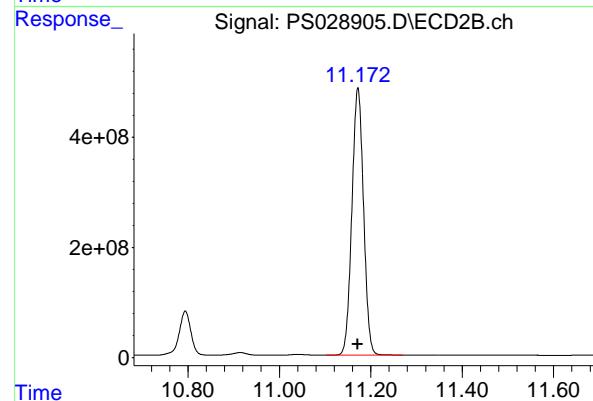
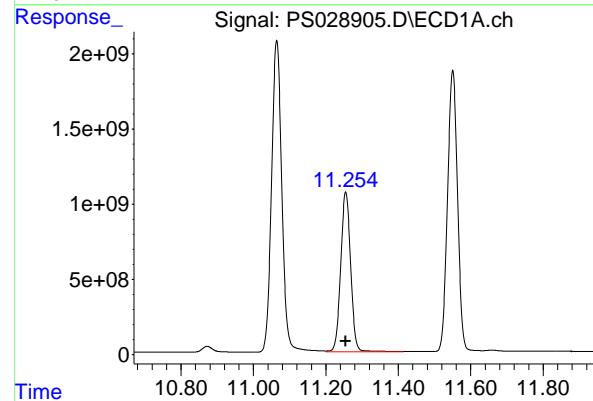
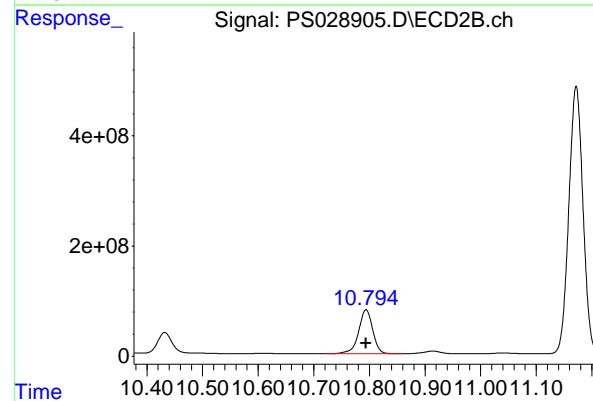
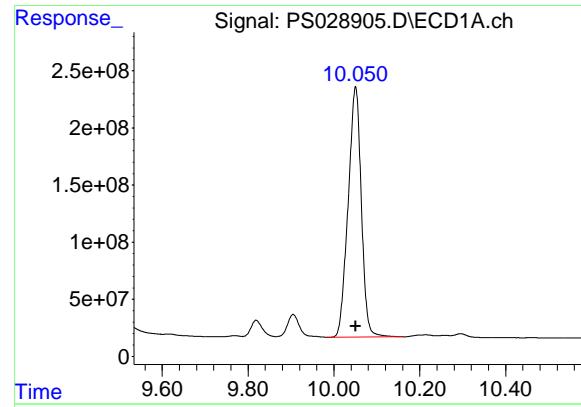
R.T.: 9.813 min
 Delta R.T.: 0.000 min
 Response: 12847398816
 Conc: 1375.72 ng/ml

#12 2,4,5-T

R.T.: 9.480 min
 Delta R.T.: 0.000 min
 Response: 23961133423
 Conc: 1279.94 ng/ml

#12 2,4,5-T

R.T.: 10.230 min
 Delta R.T.: 0.000 min
 Response: 12280117089
 Conc: 1375.04 ng/ml



#13 2,4-DB

R.T.: 10.050 min
Delta R.T.: 0.000 min
Instrument: ECD_S
Response: 4659827211
Conc: 1334.47 ng/ml
ClientSampleId : HSTDICC1500

Manual Integrations
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Reviewed By :Abdul Mirza 01/14/2025
Supervised By :Ankita Jodhani 01/15/2025

#13 2,4-DB

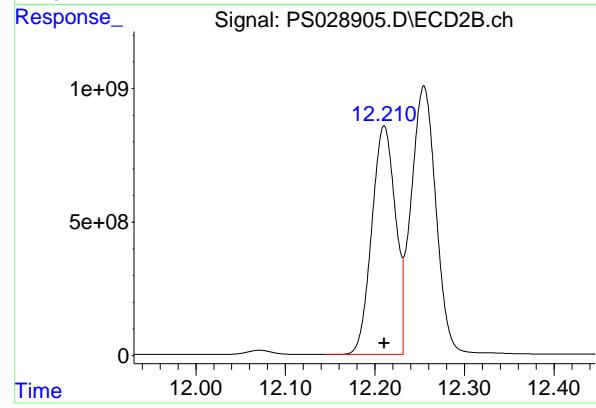
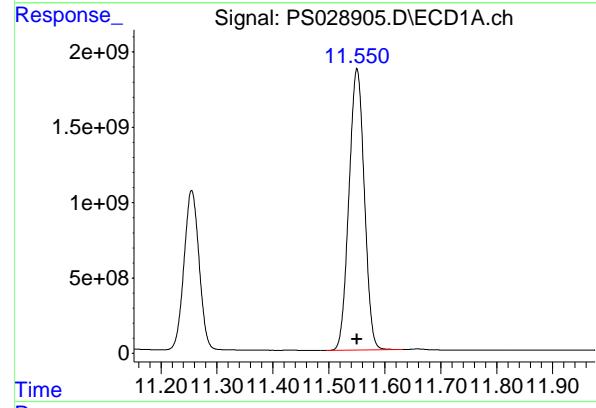
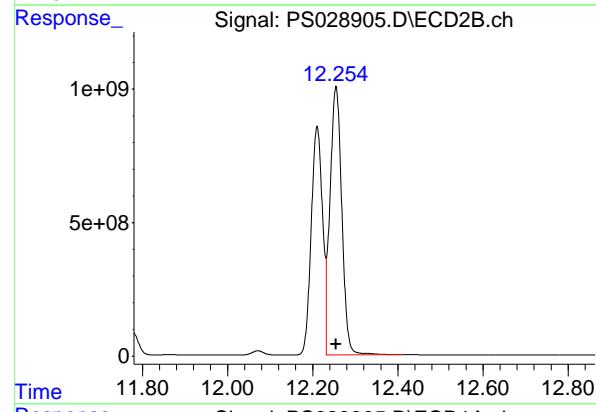
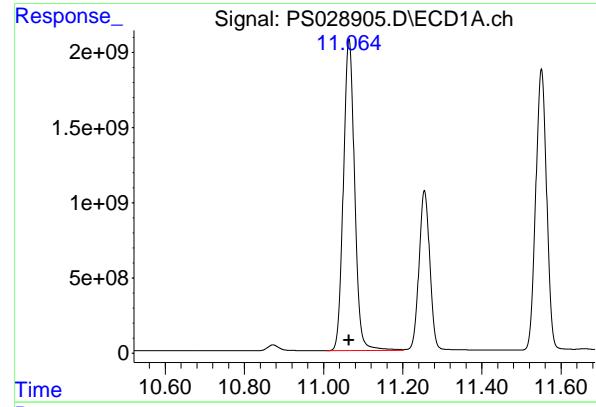
R.T.: 10.794 min
Delta R.T.: 0.000 min
Response: 1410444919
Conc: 1418.16 ng/ml

#14 DINOSEB

R.T.: 11.255 min
Delta R.T.: 0.000 min
Response: 20299877375
Conc: 1259.51 ng/ml

#14 DINOSEB

R.T.: 11.172 min
Delta R.T.: 0.000 min
Response: 8571373262
Conc: 1349.90 ng/ml



#15 Picloram

R.T.: 11.064 min
 Delta R.T.: 0.000 min
 Instrument: ECD_S
 Response: 40951242678
 Conc: 1321.47 ng/ml
 ClientSampleId : HSTDICC1500

Manual Integrations
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Reviewed By :Abdul Mirza 01/14/2025
 Supervised By :Ankita Jodhani 01/15/2025

#15 Picloram

R.T.: 12.255 min
 Delta R.T.: 0.000 min
 Response: 19407128630
 Conc: 1441.89 ng/ml

#16 DCPA

R.T.: 11.550 min
 Delta R.T.: 0.000 min
 Response: 35612880706
 Conc: 1276.86 ng/ml

#16 DCPA

R.T.: 12.210 min
 Delta R.T.: 0.000 min
 Response: 15746015044
 Conc: 1397.31 ng/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS011425\
 Data File : PS028906.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 14 Jan 2025 12:31
 Operator : AR\AJ
 Sample : HSTDICV750
 Misc :
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
ICVPS011425

Manual Integrations
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Reviewed By :Abdul Mirza 01/14/2025
 Supervised By :Ankita Jodhani 01/15/2025

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jan 14 12:50:06 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
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System Monitoring Compounds

4) S 2,4-DCAA 7.198 7.677 1954.1E6 815.5E6 701.913m 730.872

Target Compounds

1) T	Dalapon	2.617	2.667	2021.2E6	1368.1E6	677.864m	670.594
2) T	3,5-DICHL...	6.375	6.643	2643.0E6	1126.0E6	661.269	681.365
3) T	4-Nitroph...	6.996	7.207	1153.1E6	589.2E6	650.699	662.186
5) T	DICAMBA	7.383	7.874	8094.6E6	3936.5E6	682.430	706.852
6) T	MCPP	7.565	7.979	500.5E6	215.1E6	73.421	71.515
7) T	MCPA	7.714	8.220	683.4E6	294.4E6	69.370	69.308
8) T	DICHLORPROP	8.087	8.586	2101.2E6	970.0E6	663.140	690.108
9) T	2,4-D	8.317	8.913	2261.2E6	1032.1E6	669.101	688.263
10) T	Pentachlo...	8.613	9.436	33194.1E6	16359.2E6	688.146	706.173
11) T	2,4,5-TP ...	9.189	9.813	13049.3E6	6664.0E6	682.045	707.481
12) T	2,4,5-T	9.480	10.230	13104.2E6	6350.6E6	682.619	704.921
13) T	2,4-DB	10.050	10.794	2422.6E6	699.4E6	682.922	702.401
14) T	DINOSEB	11.254	11.172	10976.0E6	4397.4E6	663.311	685.233
15) T	Picloram	11.064	12.255	21733.8E6	9689.5E6	688.822	722.034
16) T	DCPA	11.549	12.209	19741.5E6	8153.3E6	688.312	718.207

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS011425\
 Data File : PS028906.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 14 Jan 2025 12:31
 Operator : AR\AJ
 Sample : HSTDICV750
 Misc :
 ALS Vial : 8 Sample Multiplier: 1

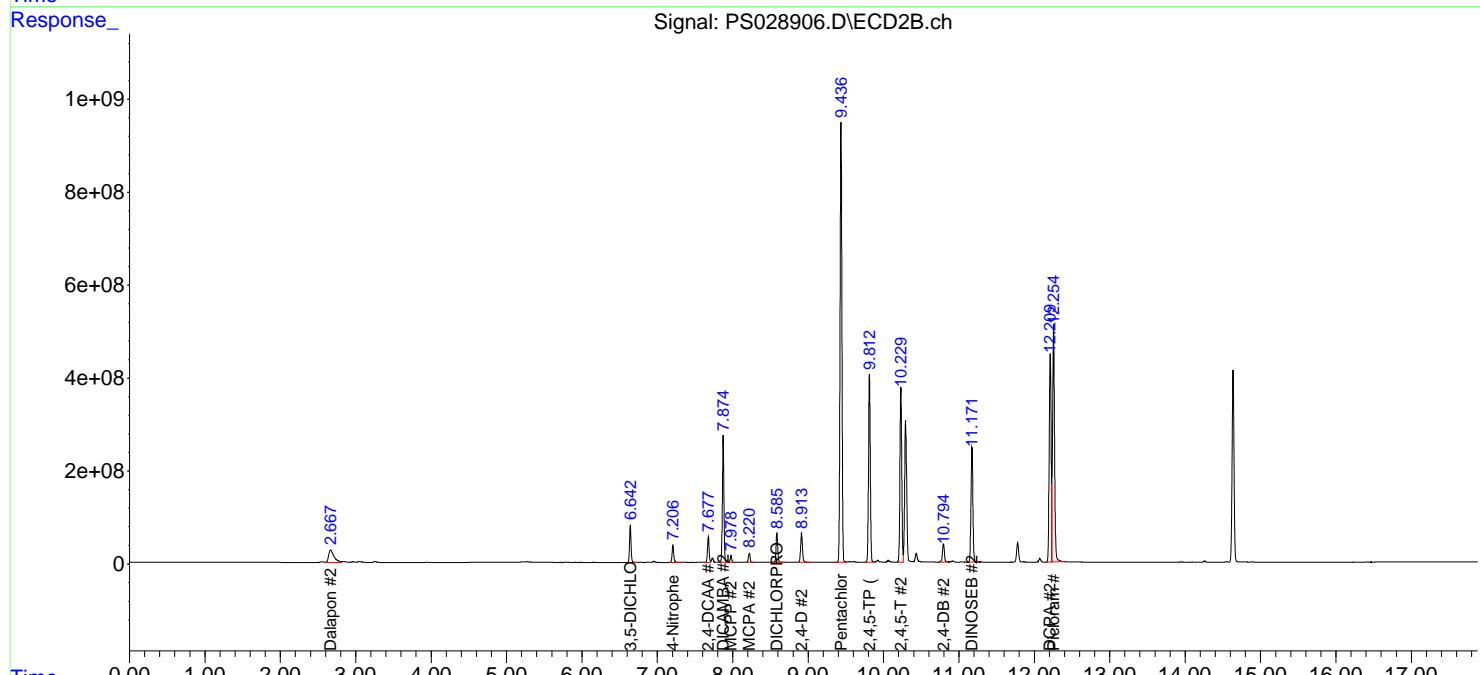
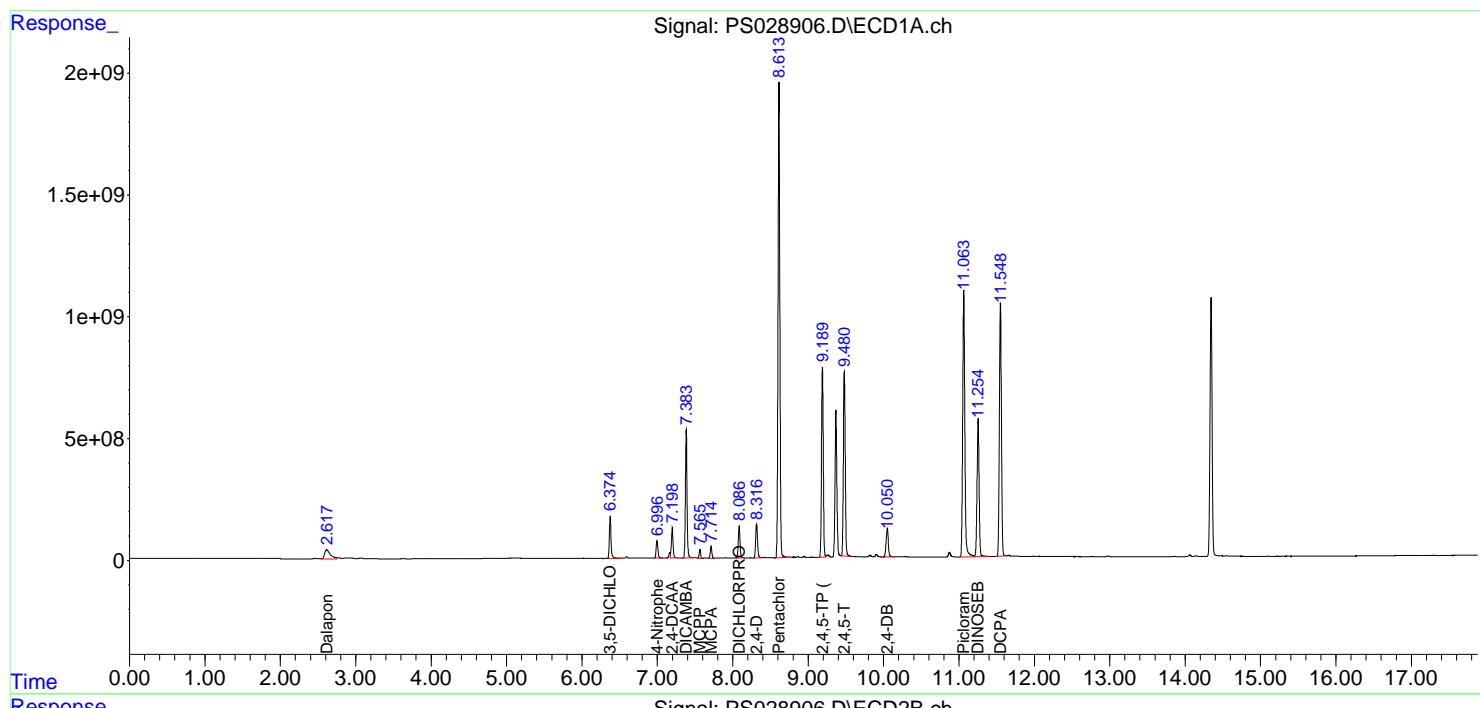
Instrument :
 ECD_S
 ClientSampleId :
 ICVPS011425

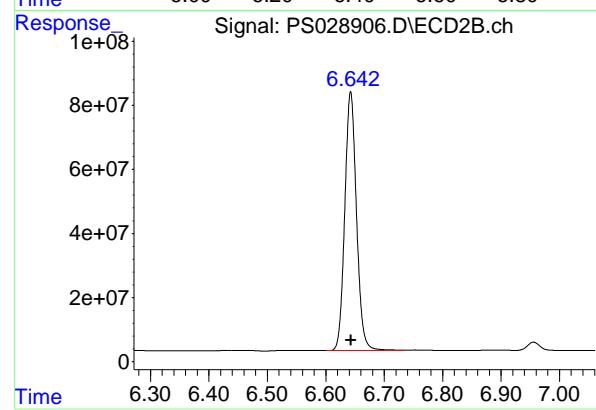
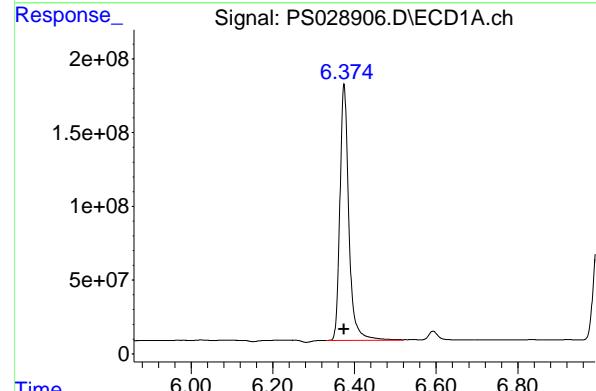
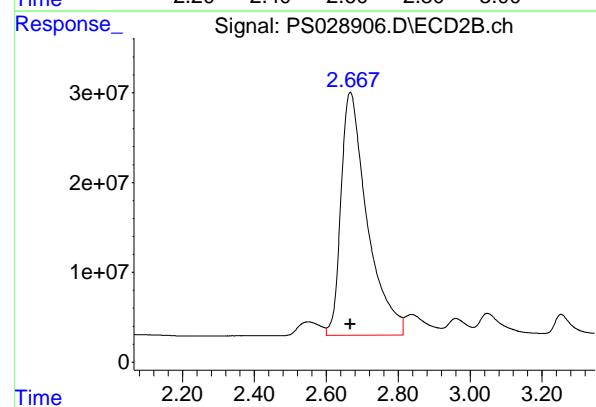
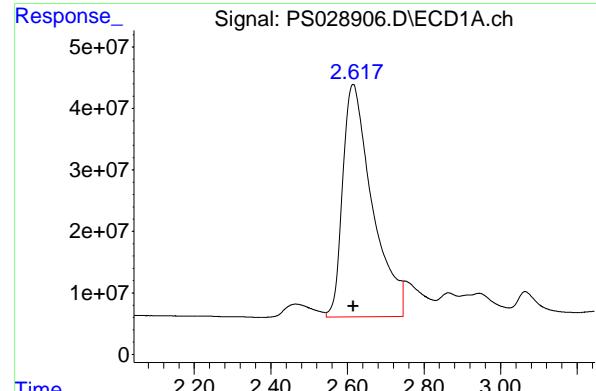
Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jan 14 12:50:06 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

**Manual Integrations
APPROVED**

Reviewed By :Abdul Mirza 01/14/2025
 Supervised By :Ankita Jodhani 01/15/2025

Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m





#1 Dalapon

R.T.: 2.617 min
 Delta R.T.: 0.002 min
 Response: 2021216536 ECD_S
 Conc: 677.86 ng/ml ClientSampleId :
 ICVPS011425

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 01/14/2025
 Supervised By :Ankita Jodhani 01/15/2025

#1 Dalapon

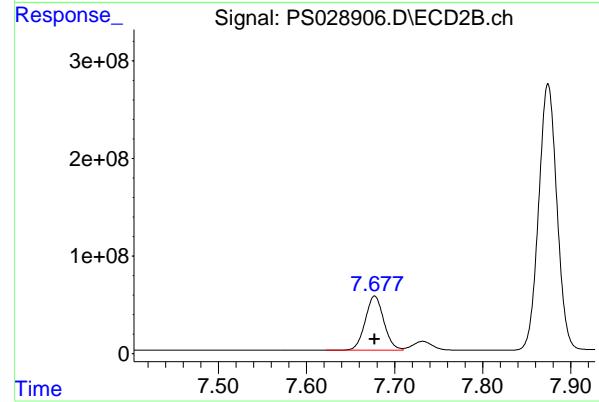
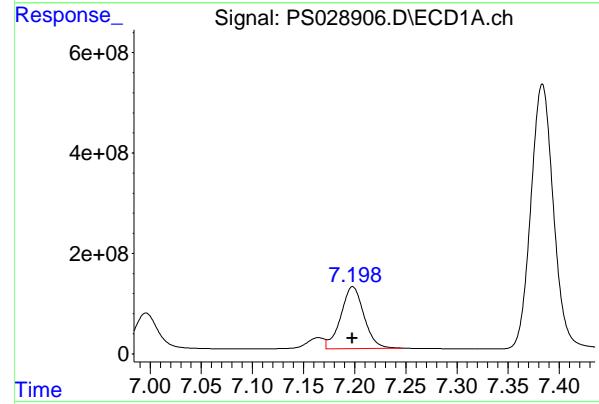
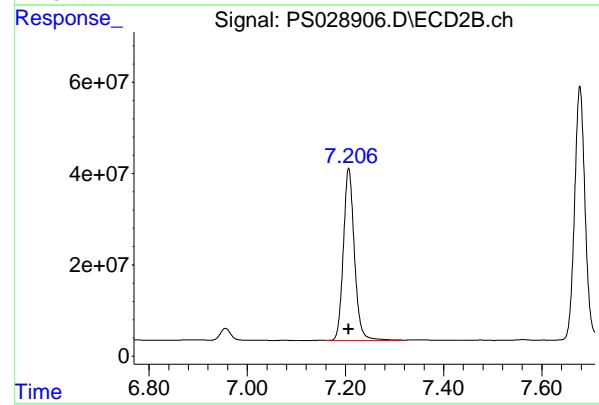
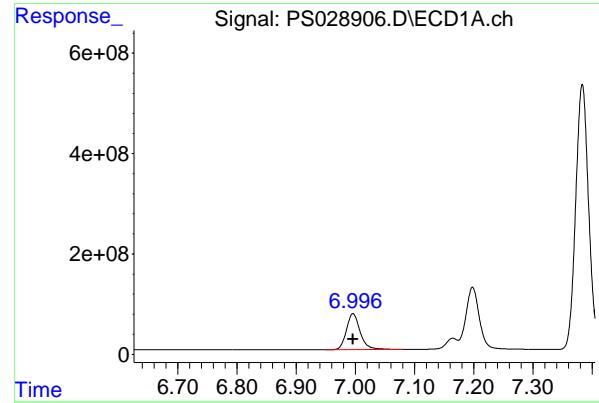
R.T.: 2.667 min
 Delta R.T.: 0.000 min
 Response: 1368111425
 Conc: 670.59 ng/ml

#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.375 min
 Delta R.T.: 0.000 min
 Response: 2642993373
 Conc: 661.27 ng/ml

#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.643 min
 Delta R.T.: 0.000 min
 Response: 1126037759
 Conc: 681.37 ng/ml



#3 4-Nitrophenol

R.T.: 6.996 min
 Delta R.T.: 0.000 min
 Response: 1153090162
 Conc: 650.70 ng/ml

Instrument: ECD_S
 ClientSampleId : ICVPS011425

Manual Integrations
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Reviewed By :Abdul Mirza 01/14/2025
 Supervised By :Ankita Jodhani 01/15/2025

#3 4-Nitrophenol

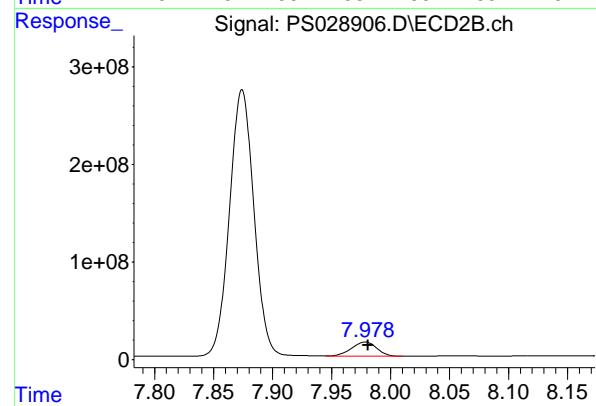
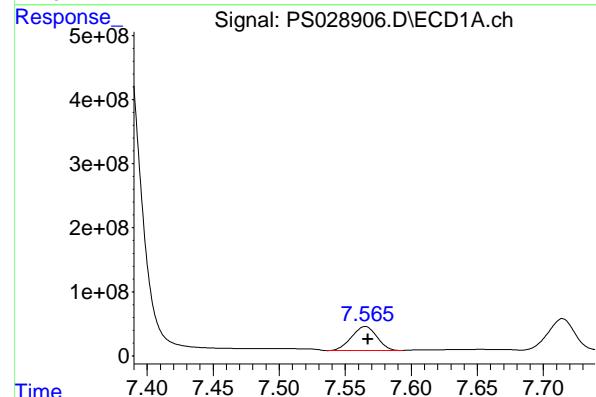
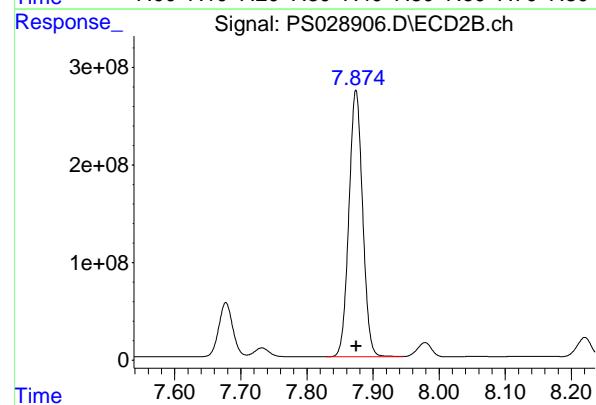
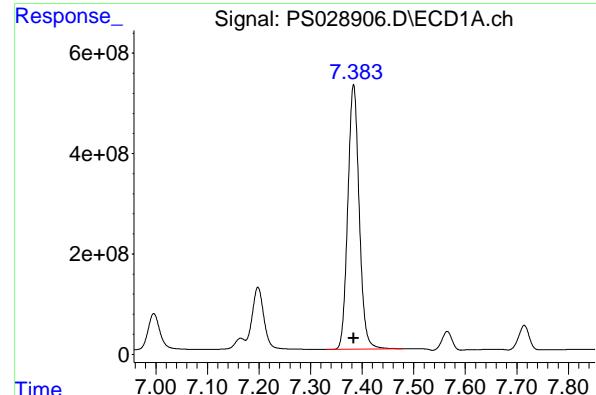
R.T.: 7.207 min
 Delta R.T.: 0.000 min
 Response: 589196510
 Conc: 662.19 ng/ml

#4 2,4-DCAA

R.T.: 7.198 min
 Delta R.T.: 0.000 min
 Response: 1954135705
 Conc: 701.91 ng/ml

#4 2,4-DCAA

R.T.: 7.677 min
 Delta R.T.: 0.000 min
 Response: 815516416
 Conc: 730.87 ng/ml



#5 DICAMBA

R.T.: 7.383 min
Delta R.T.: 0.000 min
Instrument: ECD_S
Response: 8094599008
Conc: 682.43 ng/ml
ClientSampleId : ICVPS011425

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 01/14/2025
Supervised By :Ankita Jodhani 01/15/2025

#5 DICAMBA

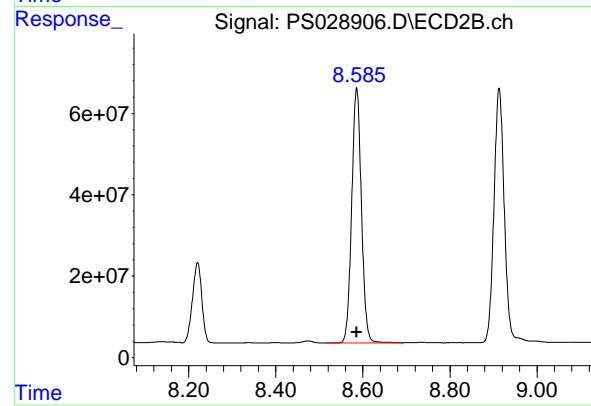
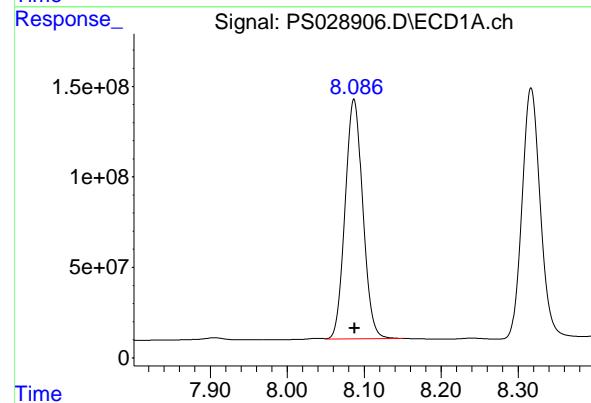
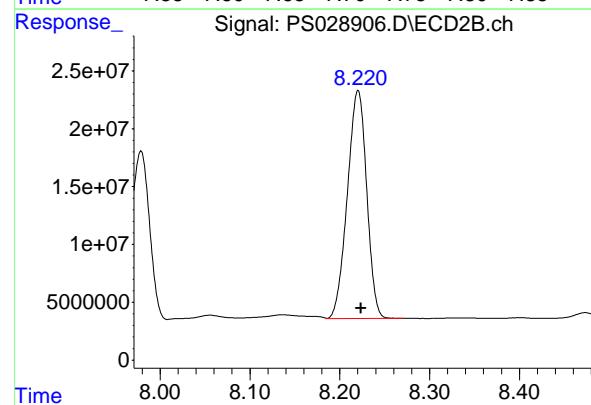
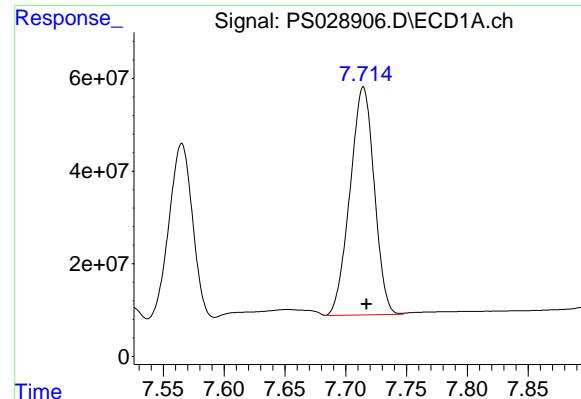
R.T.: 7.874 min
Delta R.T.: 0.000 min
Response: 3936487030
Conc: 706.85 ng/ml

#6 MCPP

R.T.: 7.565 min
Delta R.T.: -0.002 min
Response: 500456855
Conc: 73.42 ug/ml

#6 MCPP

R.T.: 7.979 min
Delta R.T.: -0.002 min
Response: 215113889
Conc: 71.51 ug/ml



#7 MCPA

R.T.: 7.714 min
 Delta R.T.: -0.003 min
 Response: 683363222
 Conc: 69.37 ug/ml

Instrument: ECD_S
 ClientSampleId : ICVPS011425

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 01/14/2025
 Supervised By :Ankita Jodhani 01/15/2025

#7 MCPA

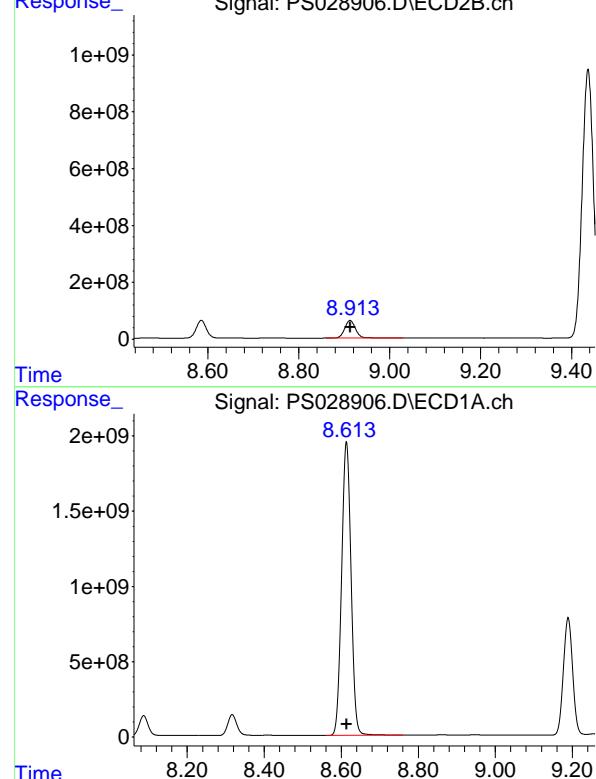
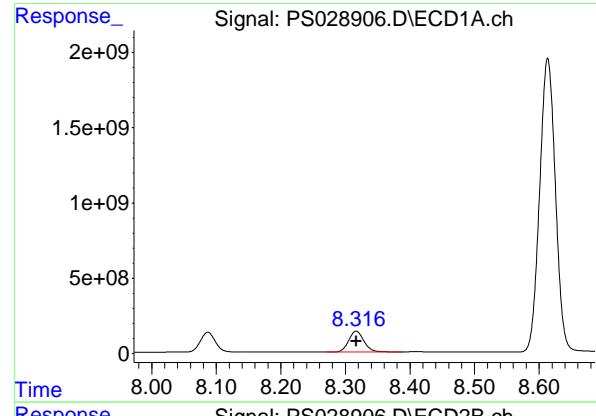
R.T.: 8.220 min
 Delta R.T.: -0.003 min
 Response: 294383936
 Conc: 69.31 ug/ml

#8 DICHLORPROP

R.T.: 8.087 min
 Delta R.T.: 0.000 min
 Response: 2101207308
 Conc: 663.14 ng/ml

#8 DICHLORPROP

R.T.: 8.586 min
 Delta R.T.: 0.000 min
 Response: 970014347
 Conc: 690.11 ng/ml



#9 2,4-D

R.T.: 8.317 min
 Delta R.T.: 0.000 min
 Response: 2261193949
 Conc: 669.10 ng/ml

Instrument: ECD_S
 ClientSampleId : ICVPS011425

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 01/14/2025
 Supervised By :Ankita Jodhani 01/15/2025

#9 2,4-D

R.T.: 8.913 min
 Delta R.T.: 0.000 min
 Response: 1032063315
 Conc: 688.26 ng/ml

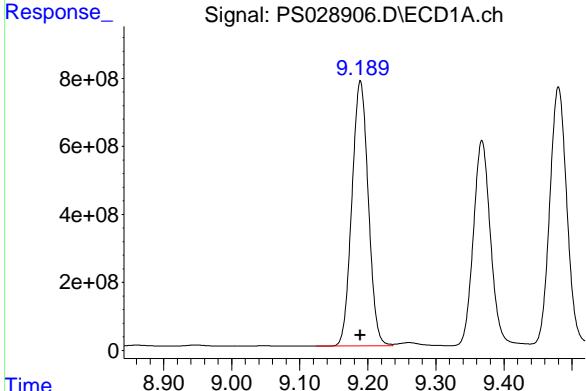
#10 Pentachlorophenol

R.T.: 8.613 min
 Delta R.T.: 0.000 min
 Response: 33194118867
 Conc: 688.15 ng/ml

#10 Pentachlorophenol

R.T.: 9.436 min
 Delta R.T.: 0.000 min
 Response: 16359225437
 Conc: 706.17 ng/ml

#11 2,4,5-TP (SILVEX)



R.T.: 9.189 min
Delta R.T.: 0.000 min
Instrument: ECD_S
Response: 13049329632
Conc: 682.04 ng/ml
ClientSampleId : ICPVPS011425

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 01/14/2025
Supervised By :Ankita Jodhani 01/15/2025

#11 2,4,5-TP (SILVEX)

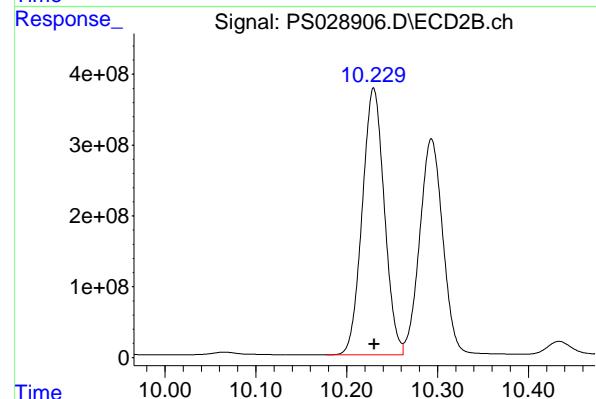
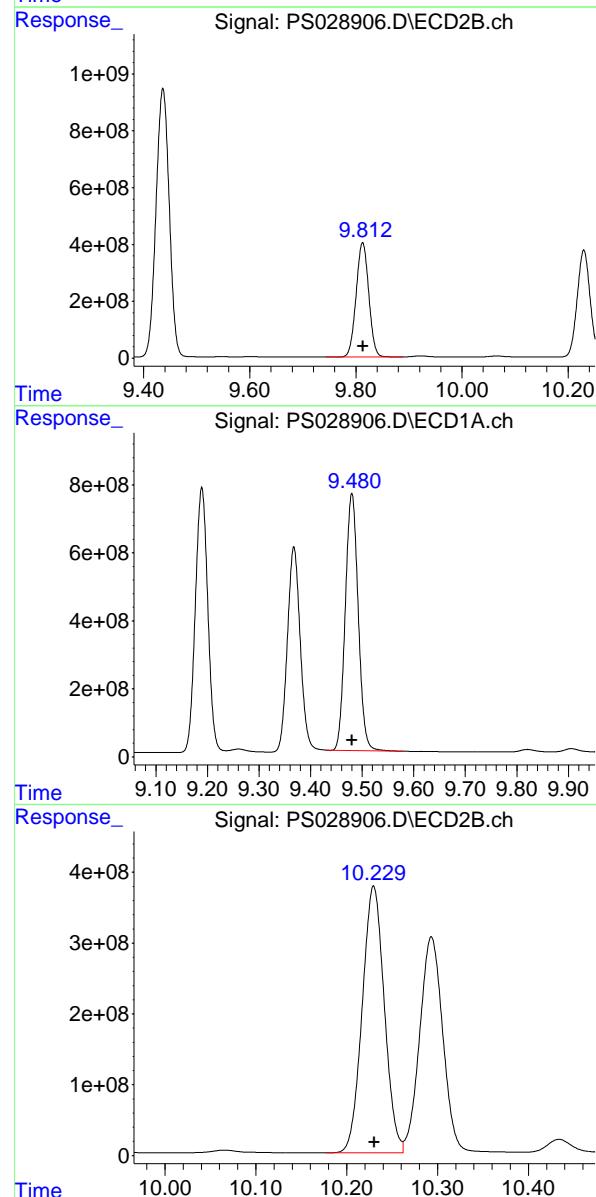
R.T.: 9.813 min
Delta R.T.: 0.000 min
Response: 6664044603
Conc: 707.48 ng/ml

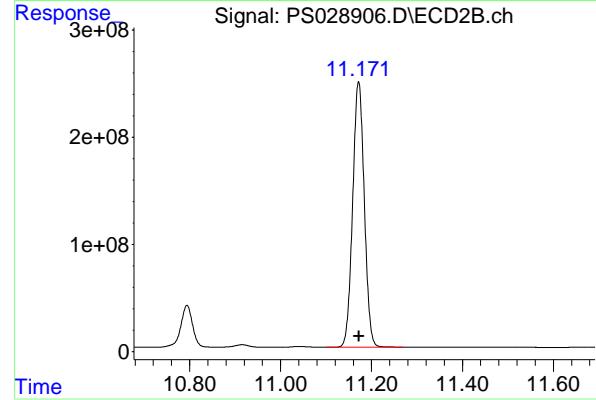
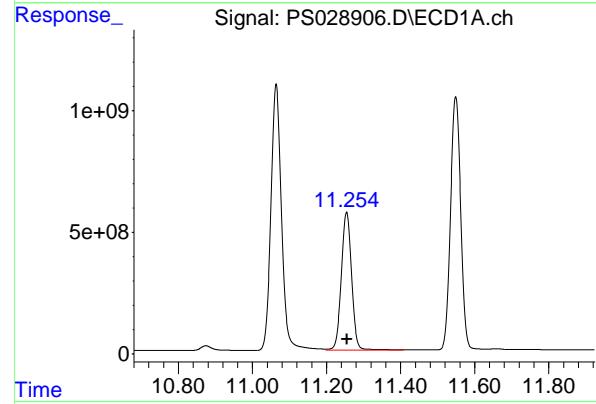
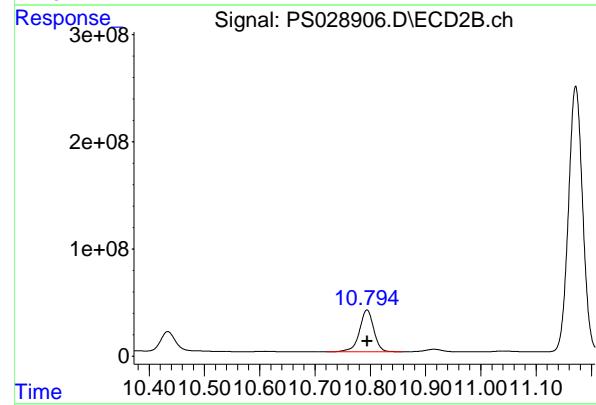
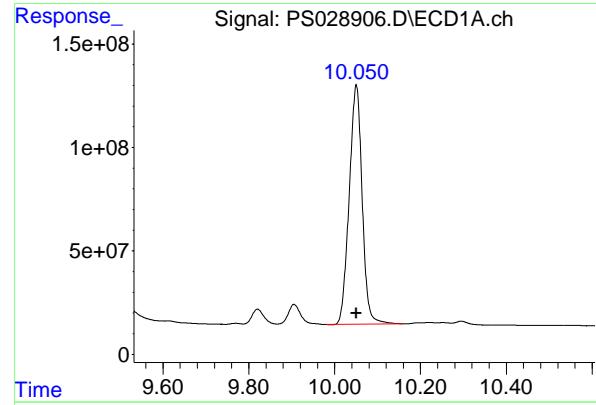
#12 2,4,5-T

R.T.: 9.480 min
Delta R.T.: 0.000 min
Response: 13104177427
Conc: 682.62 ng/ml

#12 2,4,5-T

R.T.: 10.230 min
Delta R.T.: 0.000 min
Response: 6350637897
Conc: 704.92 ng/ml





#13 2,4-DB

R.T.: 10.050 min
Delta R.T.: 0.000 min
Instrument: ECD_S
Response: 2422567420
Conc: 682.92 ng/ml
ClientSampleId : ICVPS011425

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 01/14/2025
Supervised By :Ankita Jodhani 01/15/2025

#13 2,4-DB

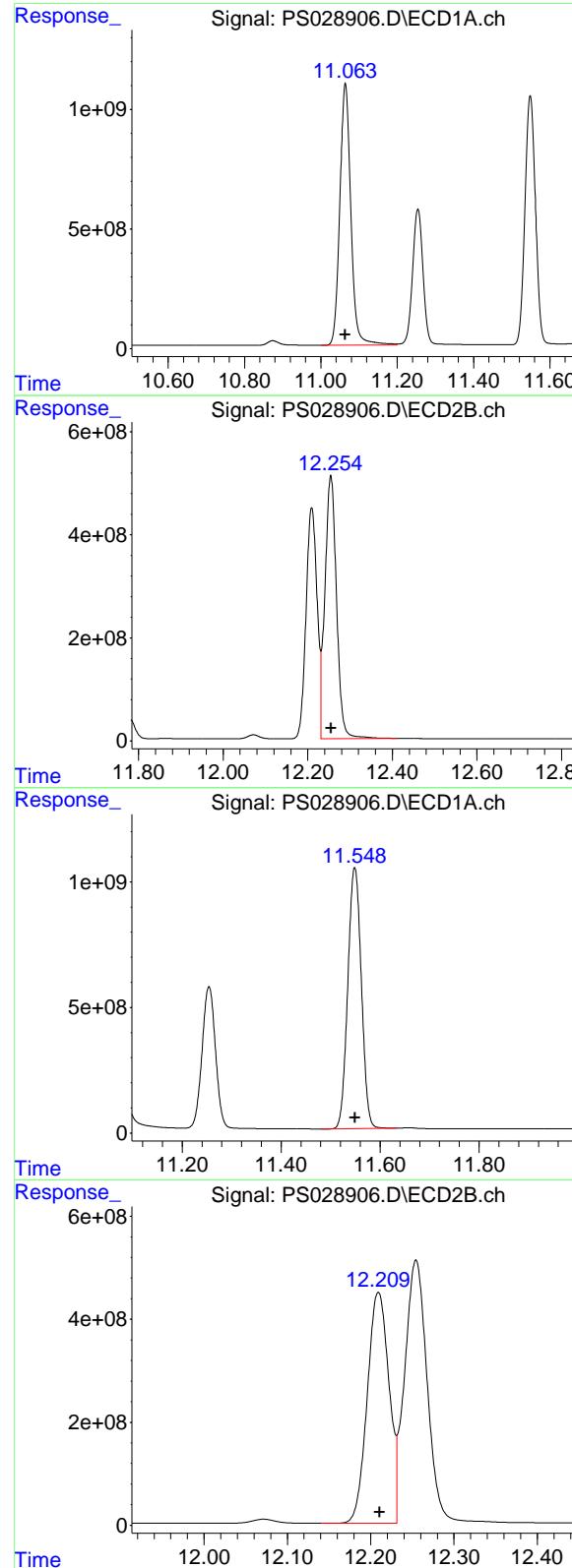
R.T.: 10.794 min
Delta R.T.: 0.000 min
Response: 699420411
Conc: 702.40 ng/ml

#14 DINOSEB

R.T.: 11.254 min
Delta R.T.: 0.000 min
Response: 10976006715
Conc: 663.31 ng/ml

#14 DINOSEB

R.T.: 11.172 min
Delta R.T.: 0.000 min
Response: 4397359740
Conc: 685.23 ng/ml



#15 Picloram

R.T.: 11.064 min
 Delta R.T.: 0.000 min
 Response: 21733814083 ECD_S
 Conc: 688.82 ng/ml ClientSampleId :
 ICPVPS011425

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 01/14/2025
 Supervised By :Ankita Jodhani 01/15/2025

#15 Picloram

R.T.: 12.255 min
 Delta R.T.: -0.001 min
 Response: 9689461634
 Conc: 722.03 ng/ml

#16 DCPA

R.T.: 11.549 min
 Delta R.T.: 0.000 min
 Response: 19741503590
 Conc: 688.31 ng/ml

#16 DCPA

R.T.: 12.209 min
 Delta R.T.: -0.001 min
 Response: 8153339758
 Conc: 718.21 ng/ml



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Fax : 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM Case No.: Q1215 SAS No.: Q1215 SDG NO.: Q1215

Continuing Calib Date: 01/31/2025 Initial Calibration Date(s): 01/14/2025 01/14/2025

Continuing Calib Time: 21:08 Initial Calibration Time(s): 10:31 12:07

GC Column: RTX-CLP ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
2,4-DCAA	7.20	7.20	7.10	7.30	0.00
2,4-D	8.31	8.32	8.22	8.42	0.01
2,4,5-TP(Silvex)	9.18	9.19	9.09	9.29	0.01



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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM Case No.: Q1215 SAS No.: Q1215 SDG NO.: Q1215

Continuing Calib Date: 01/31/2025 Initial Calibration Date(s): 01/14/2025 01/14/2025

Continuing Calib Time: 21:08 Initial Calibration Time(s): 10:31 12:07

GC Column: RTX-CLP2 ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
2,4-DCAA	7.67	7.68	7.58	7.78	0.01
2,4-D	8.91	8.91	8.81	9.01	0.00
2,4,5-TP(Silvex)	9.81	9.81	9.71	9.91	0.00



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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM Case No.: Q1215 SAS No.: Q1215 SDG NO.: Q1215

GC Column: RTX-CLP ID: 0.32 (mm) Initi. Calib. Date(s): 01/14/2025 01/14/2025

Client Sample No.: CCAL01 Date Analyzed: 01/31/2025

Lab Sample No.: HSTDCCC750 Data File : PS029020.D Time Analyzed: 21:08

COMPOUND	RT	RT WINDOW FROM		TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.184	9.089		9.289	724.050	712.500	1.6
2,4-D	8.312	8.216		8.416	712.460	705.000	1.1
2,4-DCAA	7.195	7.097		7.297	747.480	750.000	-0.3



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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM Case No.: Q1215 SAS No.: Q1215 SDG NO.: Q1215

GC Column: RTX-CLP2 ID: 0.32 (mm) Initi. Calib. Date(s): 01/14/2025 01/14/2025

Client Sample No.: CCAL01 Date Analyzed: 01/31/2025

Lab Sample No.: HSTDCCC750 Data File : PS029020.D Time Analyzed: 21:08

COMPOUND	RT	RT WINDOW FROM		TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.806	9.713		9.913	721.210	712.500	1.2
2,4-D	8.907	8.813		9.013	668.490	705.000	-5.2
2,4-DCAA	7.672	7.577		7.777	698.680	750.000	-6.8

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
 Data File : PS029020.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 31 Jan 2025 21:08
 Operator : AR\AJ
 Sample : HSTDCCC750
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
HSTDCCC750

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 01 00:28:33 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
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System Monitoring Compounds

4) S	2,4-DCAA	7.195	7.672	2081.0E6	779.6E6	747.480	698.678
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Target Compounds

1) T	Dalapon	2.612	2.663	2282.5E6	1333.8E6	765.482	653.783
2) T	3,5-DICHL...	6.372	6.638	2834.6E6	1073.6E6	709.210	649.655
3) T	4-Nitroph...	6.993	7.201	1233.8E6	603.7E6	696.220	678.539
5) T	DICAMBA	7.380	7.869	8680.3E6	3912.4E6	731.809	702.521
6) T	MCPP	7.562	7.974	521.3E6	188.3E6	76.479	62.596
7) T	MCPA	7.711	8.215	721.1E6	259.1E6	73.204	61.008
8) T	DICHLORPROP	8.083	8.580	2237.8E6	962.3E6	706.252	684.624
9) T	2,4-D	8.312	8.907	2407.7E6	1002.4E6	712.463	668.488
10) T	Pentachlo...	8.609	9.430	35447.7E6	16862.6E6	734.864	727.903
11) T	2,4,5-TP ...	9.184	9.806	13853.0E6	6793.3E6	724.051	721.206
12) T	2,4,5-T	9.475	10.222	13945.4E6	6418.3E6	726.437	712.435
13) T	2,4-DB	10.045	10.787	2570.9E6	673.9E6	724.731	676.751
14) T	DINOSEB	11.248	11.165	11369.5E6	4360.9E6	687.091	679.558
15) T	Picloram	11.058	12.246	22122.5E6	9524.7E6	701.139	709.760
16) T	DCPA	11.544	12.203	20758.3E6	8559.3E6	723.763	753.971

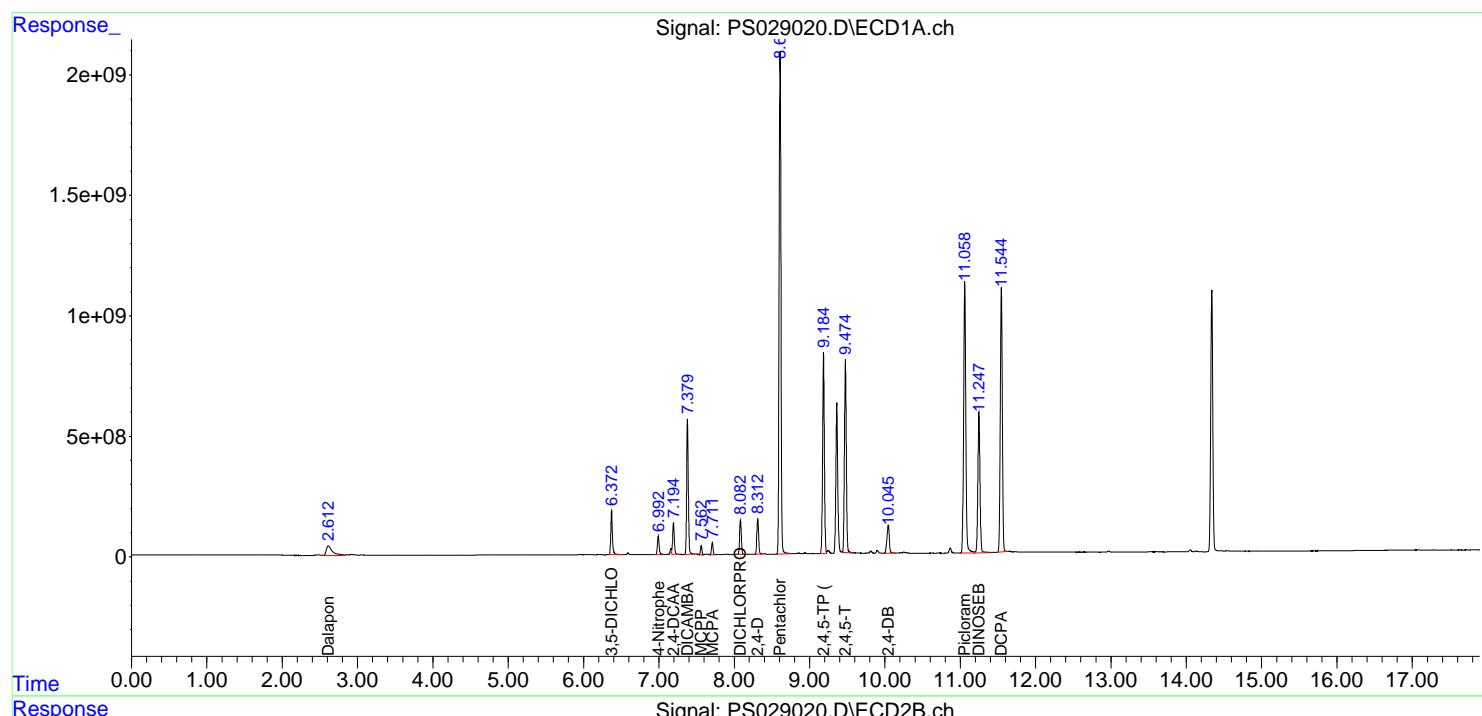
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

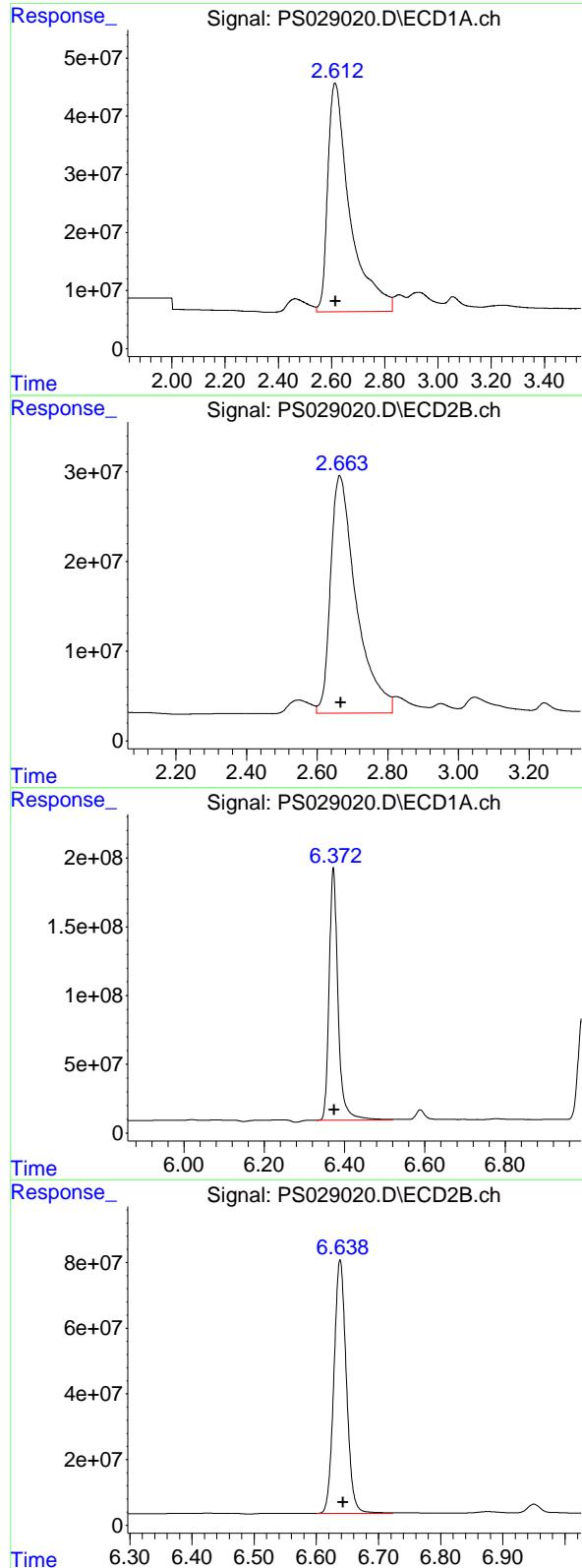
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
 Data File : PS029020.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 31 Jan 2025 21:08
 Operator : AR\AJ
 Sample : HSTDCCC750
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 ECD_S
 ClientSampleId :
 HSTDCCC750

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 01 00:28:33 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m





#1 Dalapon

R.T.: 2.612 min
 Delta R.T.: -0.003 min
 Response: 2282469866 ECD_S
 Conc: 765.48 ng/ml ClientSampleId : HSTDCCC750

#1 Dalapon

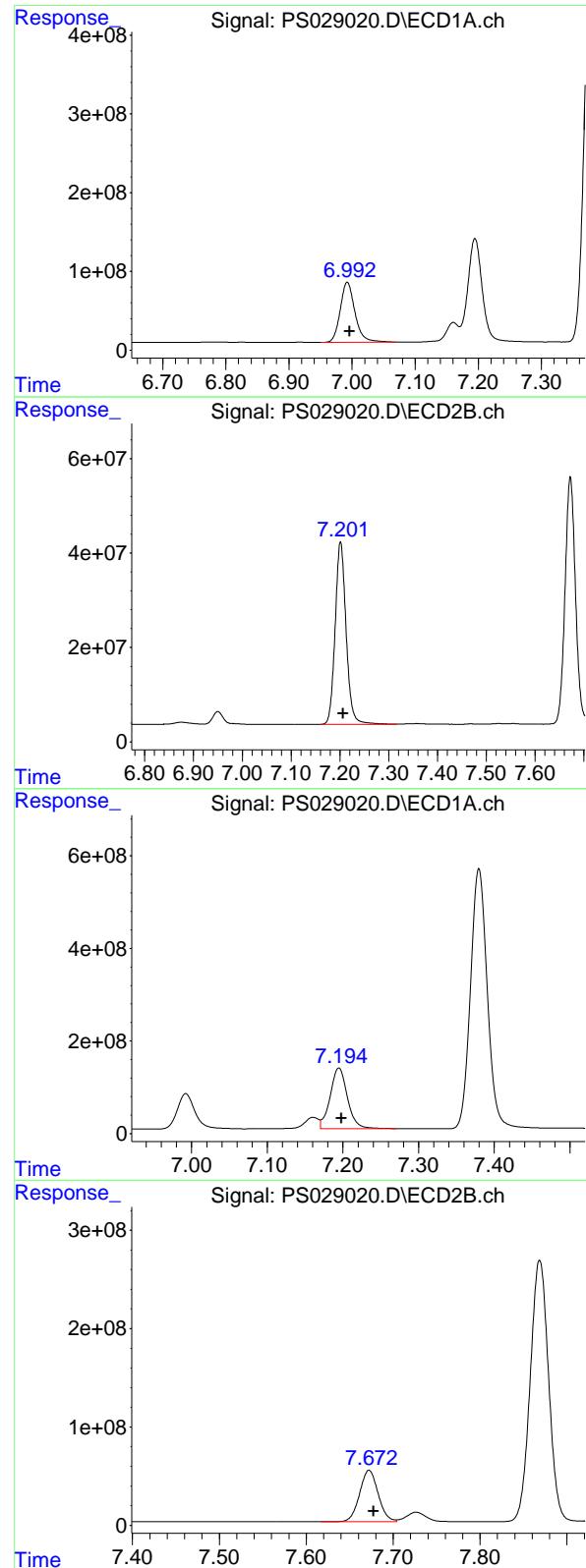
R.T.: 2.663 min
 Delta R.T.: -0.004 min
 Response: 1333814708
 Conc: 653.78 ng/ml

#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.372 min
 Delta R.T.: -0.003 min
 Response: 2834605216
 Conc: 709.21 ng/ml

#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.638 min
 Delta R.T.: -0.005 min
 Response: 1073633635
 Conc: 649.66 ng/ml



#3 4-Nitrophenol

R.T.: 6.993 min
 Delta R.T.: -0.003 min
 Instrument: ECD_S
 Response: 1233757323
 Conc: 696.22 ng/ml
 ClientSampleId : HSTDCCC750

#3 4-Nitrophenol

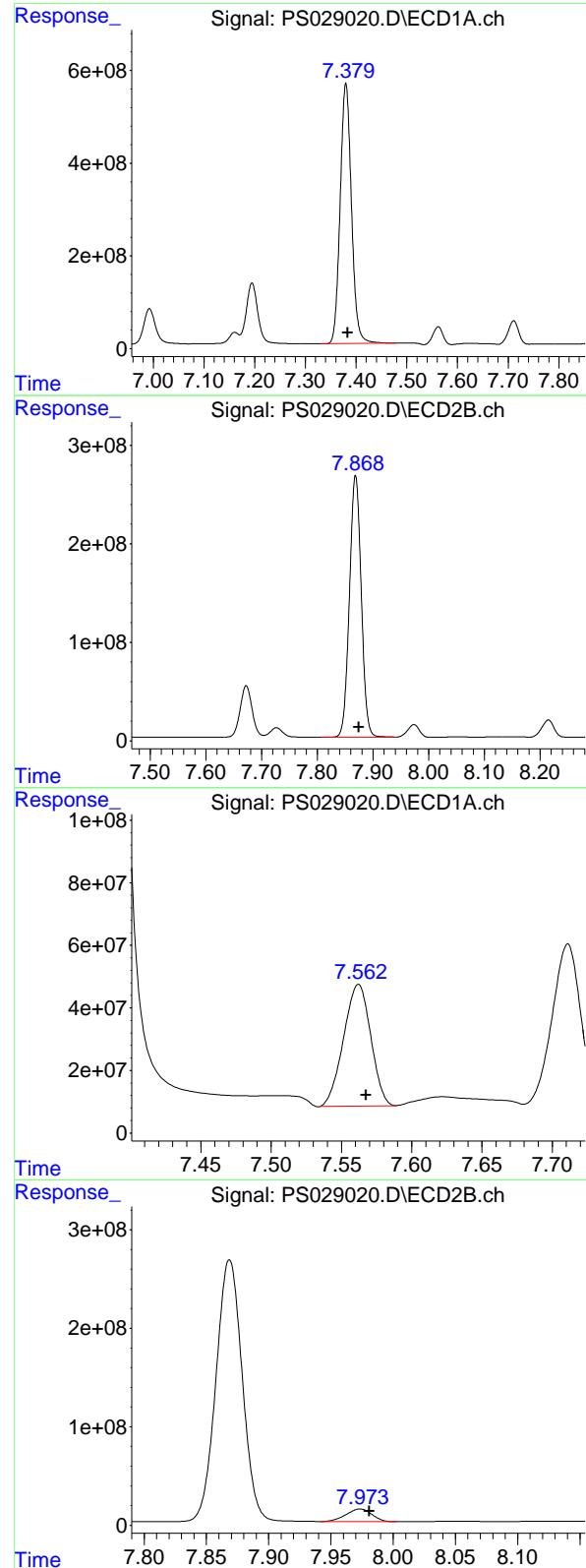
R.T.: 7.201 min
 Delta R.T.: -0.006 min
 Response: 603746447
 Conc: 678.54 ng/ml

#4 2,4-DCAA

R.T.: 7.195 min
 Delta R.T.: -0.003 min
 Response: 2080993583
 Conc: 747.48 ng/ml

#4 2,4-DCAA

R.T.: 7.672 min
 Delta R.T.: -0.005 min
 Response: 779594332
 Conc: 698.68 ng/ml



#5 DICAMBA

R.T.: 7.380 min
 Delta R.T.: -0.004 min
 Instrument: ECD_S
 Response: 8680310553
 Conc: 731.81 ng/ml
 ClientSampleId: HSTDCCC750

#5 DICAMBA

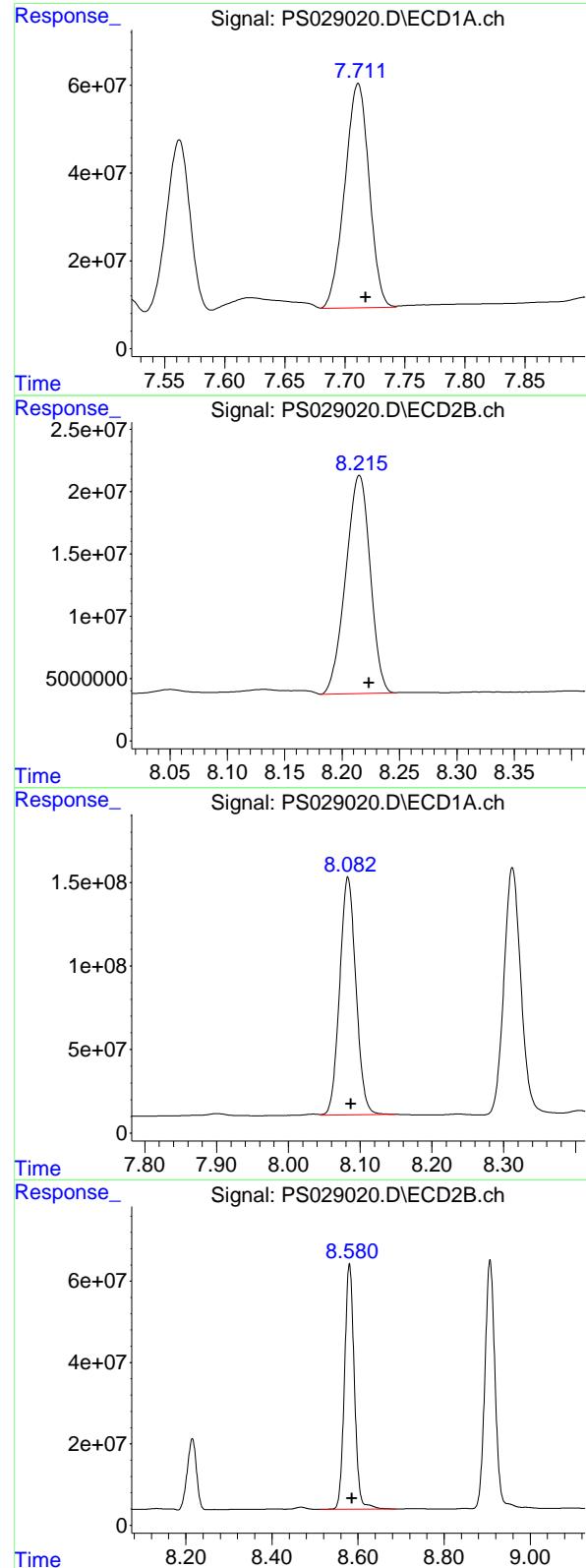
R.T.: 7.869 min
 Delta R.T.: -0.006 min
 Response: 3912364875
 Conc: 702.52 ng/ml

#6 MCPP

R.T.: 7.562 min
 Delta R.T.: -0.005 min
 Response: 521304586
 Conc: 76.48 ug/ml

#6 MCPP

R.T.: 7.974 min
 Delta R.T.: -0.007 min
 Response: 188286750
 Conc: 62.60 ug/ml



#7 MCPA

R.T.: 7.711 min
 Delta R.T.: -0.006 min
 Response: 721131901
 Conc: 73.20 ug/ml

Instrument: ECD_S
 ClientSampleId: HSTDCCC750

#7 MCPA

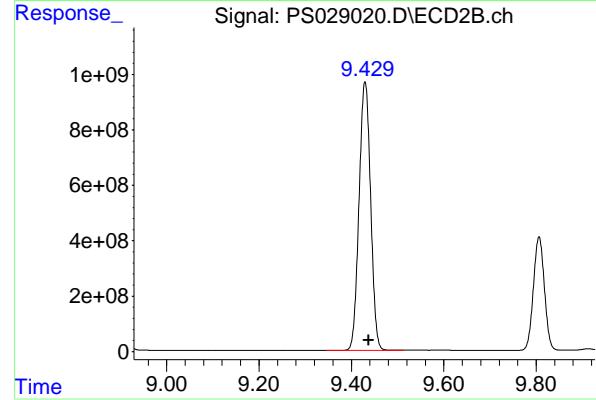
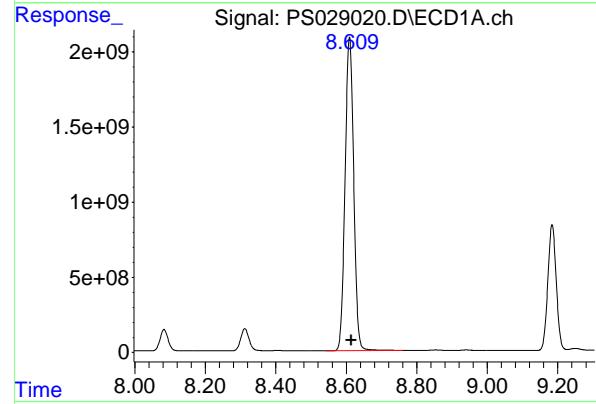
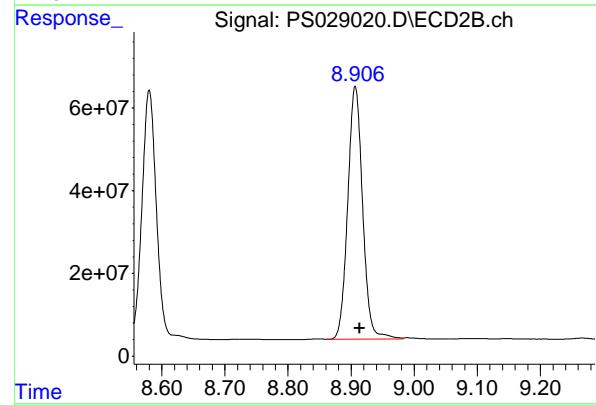
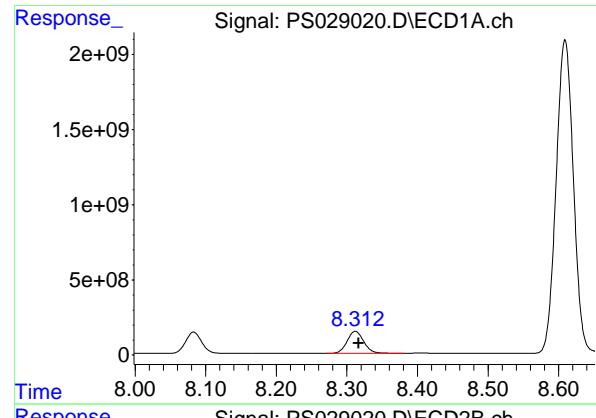
R.T.: 8.215 min
 Delta R.T.: -0.008 min
 Response: 259128912
 Conc: 61.01 ug/ml

#8 DICHLORPROP

R.T.: 8.083 min
 Delta R.T.: -0.005 min
 Response: 2237809634
 Conc: 706.25 ng/ml

#8 DICHLORPROP

R.T.: 8.580 min
 Delta R.T.: -0.006 min
 Response: 962306536
 Conc: 684.62 ng/ml



#9 2,4-D

R.T.: 8.312 min
 Delta R.T.: -0.005 min
 Response: 2407732515 ECD_S
 Conc: 712.46 ng/ml ClientSampleId : HSTDCCC750

#9 2,4-D

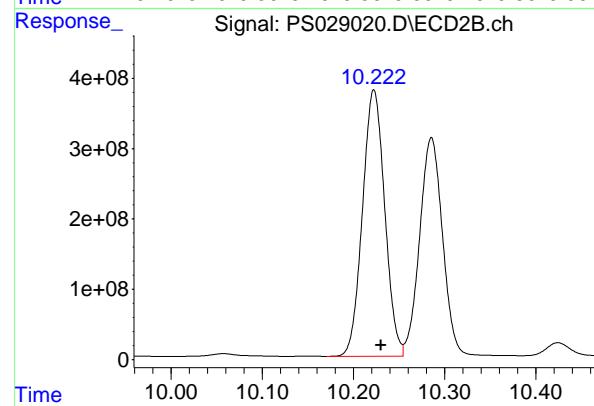
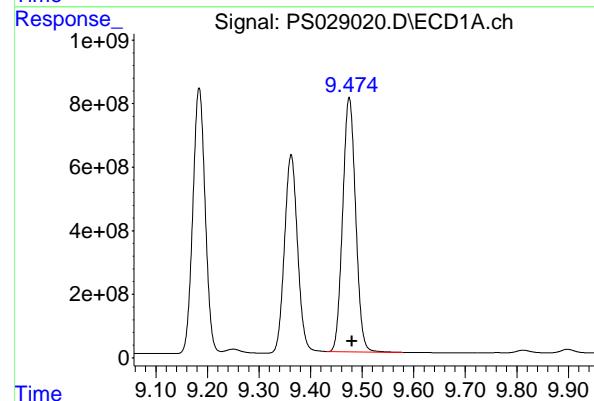
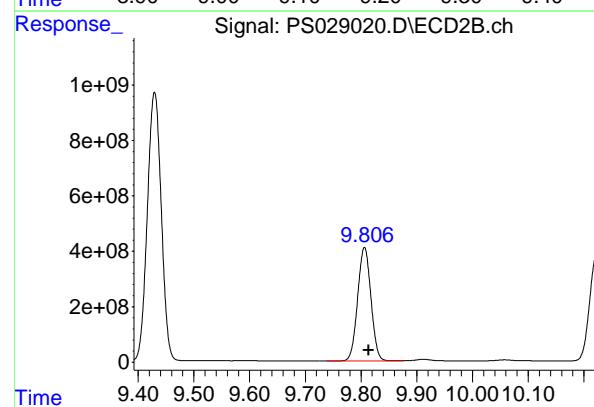
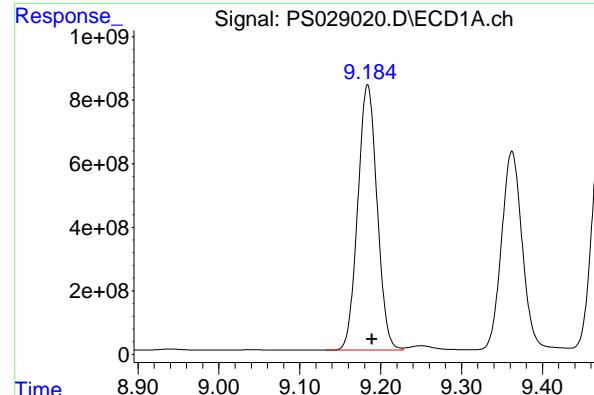
R.T.: 8.907 min
 Delta R.T.: -0.007 min
 Response: 1002410054
 Conc: 668.49 ng/ml

#10 Pentachlorophenol

R.T.: 8.609 min
 Delta R.T.: -0.005 min
 Response: 35447650131
 Conc: 734.86 ng/ml

#10 Pentachlorophenol

R.T.: 9.430 min
 Delta R.T.: -0.007 min
 Response: 16862605372
 Conc: 727.90 ng/ml



#11 2,4,5-TP (SILVEX)

R.T.: 9.184 min
 Delta R.T.: -0.005 min
 Response: 13853031912 ECD_S
 Conc: 724.05 ng/ml ClientSampleId : HSTDCCC750

#11 2,4,5-TP (SILVEX)

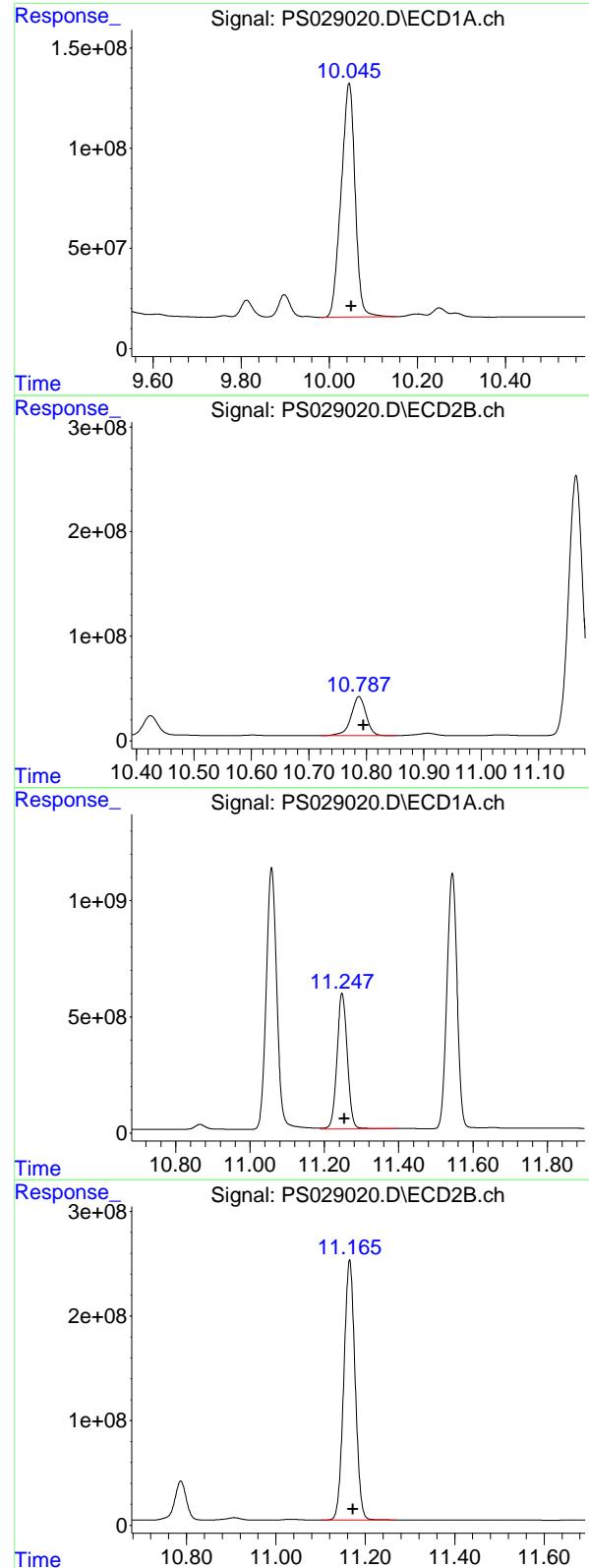
R.T.: 9.806 min
 Delta R.T.: -0.007 min
 Response: 6793328111
 Conc: 721.21 ng/ml

#12 2,4,5-T

R.T.: 9.475 min
 Delta R.T.: -0.005 min
 Response: 13945351192
 Conc: 726.44 ng/ml

#12 2,4,5-T

R.T.: 10.222 min
 Delta R.T.: -0.008 min
 Response: 6418333975
 Conc: 712.44 ng/ml



#13 2,4-DB

R.T.: 10.045 min
 Delta R.T.: -0.006 min
 Response: 2570879027 ECD_S
 Conc: 724.73 ng/ml ClientSampleId : HSTDCCC750

#13 2,4-DB

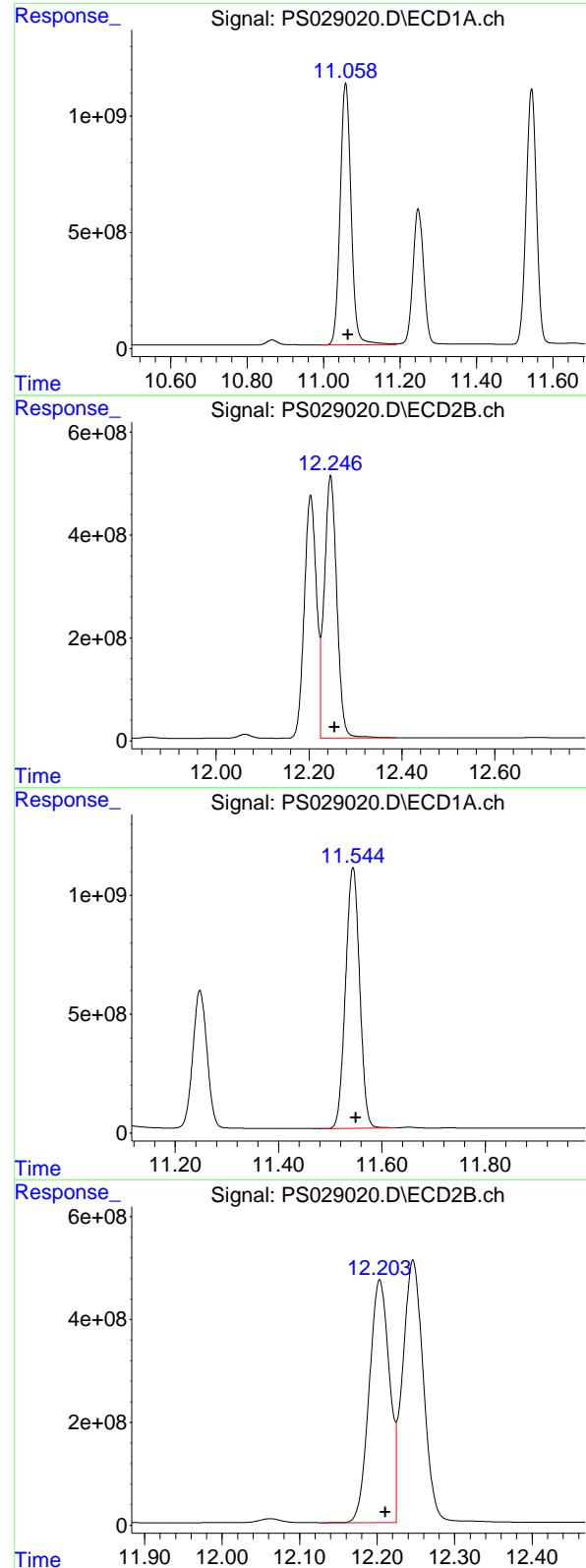
R.T.: 10.787 min
 Delta R.T.: -0.008 min
 Response: 673878869
 Conc: 676.75 ng/ml

#14 DINOSEB

R.T.: 11.248 min
 Delta R.T.: -0.007 min
 Response: 11369511004
 Conc: 687.09 ng/ml

#14 DINOSEB

R.T.: 11.165 min
 Delta R.T.: -0.007 min
 Response: 4360937218
 Conc: 679.56 ng/ml



#15 Picloram

R.T.: 11.058 min
 Delta R.T.: -0.007 min
 Instrument: ECD_S
 Response: 22122456719
 Conc: 701.14 ng/ml
 ClientSampleId : HSTDCCC750

#15 Picloram

R.T.: 12.246 min
 Delta R.T.: -0.009 min
 Response: 9524741349
 Conc: 709.76 ng/ml

#16 DCPA

R.T.: 11.544 min
 Delta R.T.: -0.006 min
 Response: 20758268721
 Conc: 723.76 ng/ml

#16 DCPA

R.T.: 12.203 min
 Delta R.T.: -0.007 min
 Response: 8559346718
 Conc: 753.97 ng/ml



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Fax : 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM Case No.: Q1215 SAS No.: Q1215 SDG NO.: Q1215

Continuing Calib Date: 02/01/2025 Initial Calibration Date(s): 01/14/2025 01/14/2025

Continuing Calib Time: 02:44 Initial Calibration Time(s): 10:31 12:07

GC Column: RTX-CLP ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
2,4-DCAA	7.19	7.20	7.10	7.30	0.01
2,4-D	8.31	8.32	8.22	8.42	0.01
2,4,5-TP(Silvex)	9.18	9.19	9.09	9.29	0.01



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Fax : 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM Case No.: Q1215 SAS No.: Q1215 SDG NO.: Q1215

Continuing Calib Date: 02/01/2025 Initial Calibration Date(s): 01/14/2025 01/14/2025

Continuing Calib Time: 02:44 Initial Calibration Time(s): 10:31 12:07

GC Column: RTX-CLP2 ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
2,4-DCAA	7.67	7.68	7.58	7.78	0.01
2,4-D	8.91	8.91	8.81	9.01	0.01
2,4,5-TP(Silvex)	9.81	9.81	9.71	9.91	0.00



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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM Case No.: Q1215 SAS No.: Q1215 SDG NO.: Q1215

GC Column: RTX-CLP ID: 0.32 (mm) Initi. Calib. Date(s): 01/14/2025 01/14/2025

Client Sample No.: CCAL02 Date Analyzed: 02/01/2025

Lab Sample No.: HSTDCCC750 Data File : PS029032.D Time Analyzed: 02:44

COMPOUND	RT	RT WINDOW FROM		TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.184	9.089		9.289	733.590	712.500	3.0
2,4-D	8.311	8.216		8.416	716.460	705.000	1.6
2,4-DCAA	7.194	7.097		7.297	756.460	750.000	0.9



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CALIBRATION VERIFICATION SUMMARY

Contract: RUTW01

Lab Code: CHEM Case No.: Q1215 SAS No.: Q1215 SDG NO.: Q1215

GC Column: RTX-CLP2 ID: 0.32 (mm) Initi. Calib. Date(s): 01/14/2025 01/14/2025

Client Sample No.: CCAL02 Date Analyzed: 02/01/2025

Lab Sample No.: HSTDCCC750 Data File : PS029032.D Time Analyzed: 02:44

COMPOUND	RT	RT WINDOW FROM		TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
2,4,5-TP(Silvex)	9.805	9.713		9.913	726.680	712.500	2.0
2,4-D	8.905	8.813		9.013	678.220	705.000	-3.8
2,4-DCAA	7.671	7.577		7.777	701.780	750.000	-6.4

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
 Data File : PS029032.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 01 Feb 2025 02:44
 Operator : AR\AJ
 Sample : HSTDCCC750
 Misc :
 ALS Vial : 34 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
HSTDCCC750

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 01 05:18:26 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
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System Monitoring Compounds

4) S	2,4-DCAA	7.194	7.671	2106.0E6	783.1E6	756.464	701.777
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Target Compounds

1) T	Dalapon	2.614	2.665	2273.6E6	1396.4E6	762.511	684.446
2) T	3,5-DICHL...	6.372	6.638	2858.1E6	1081.3E6	715.099	654.277
3) T	4-Nitroph...	6.992	7.201	1229.6E6	600.7E6	693.856	675.091
5) T	DICAMBA	7.379	7.867	8767.1E6	3931.7E6	739.129	705.990
6) T	MCPP	7.561	7.972	522.3E6	192.1E6	76.625	63.858
7) T	MCPA	7.710	8.213	731.4E6	263.6E6	74.242	62.071
8) T	DICHLORPROP	8.082	8.578	2259.8E6	961.6E6	713.177	684.136
9) T	2,4-D	8.311	8.905	2421.2E6	1017.0E6	716.456	678.215
10) T	Pentachlo...	8.608	9.428	35970.4E6	16993.6E6	745.701	733.556
11) T	2,4,5-TP ...	9.184	9.805	14035.5E6	6844.9E6	733.588	726.677
12) T	2,4,5-T	9.475	10.221	14042.9E6	6437.0E6	731.520	714.503
13) T	2,4-DB	10.045	10.786	2565.6E6	682.6E6	723.232	685.463
14) T	DINOSEB	11.248	11.163	11164.1E6	4202.2E6	674.676	654.818
15) T	Picloram	11.058	12.245	22204.2E6	9481.7E6	703.731	706.549
16) T	DCPA	11.543	12.201	21133.4E6	8576.9E6	736.844	755.514

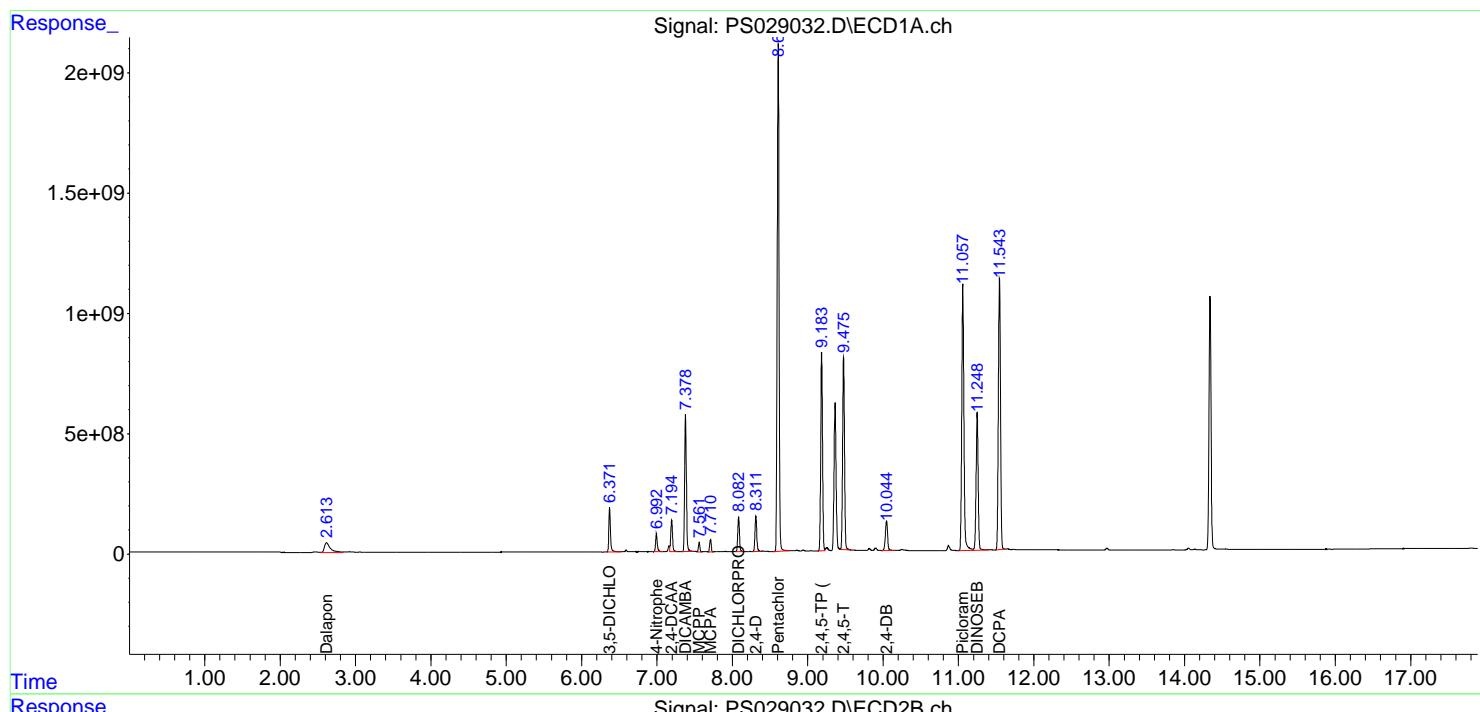
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

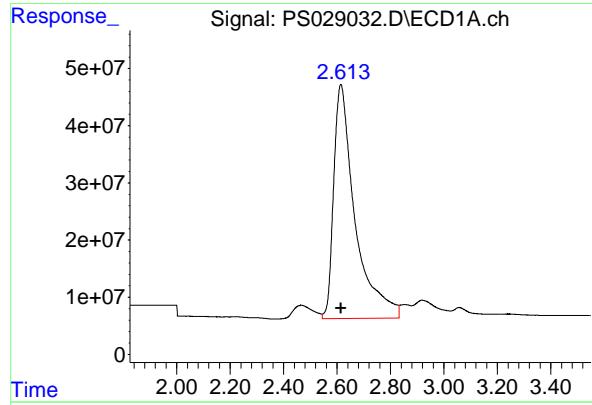
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
 Data File : PS029032.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 01 Feb 2025 02:44
 Operator : AR\AJ
 Sample : HSTDCCC750
 Misc :
 ALS Vial : 34 Sample Multiplier: 1

Instrument :
 ECD_S
 ClientSampleId :
 HSTDCCC750

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 01 05:18:26 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

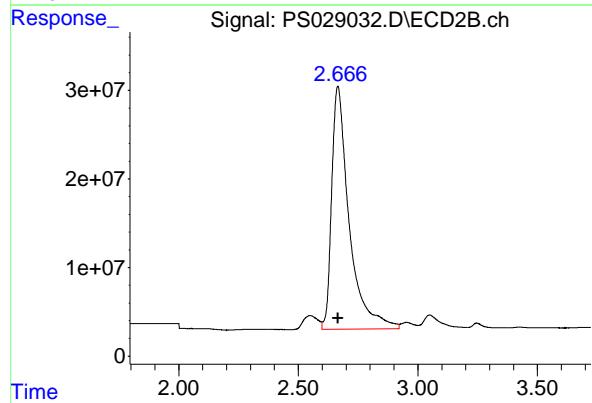
Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m





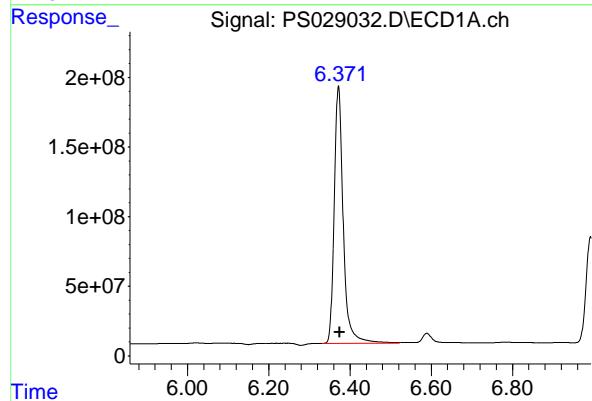
#1 Dalapon

R.T.: 2.614 min
 Delta R.T.: 0.000 min
 Response: 2273611970 ECD_S
 Conc: 762.51 ng/ml ClientSampleId : HSTDCCC750



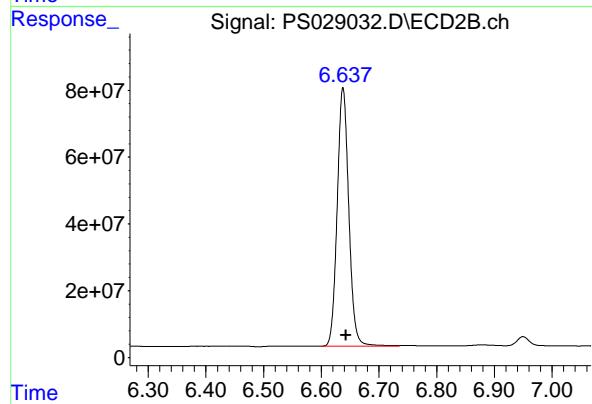
#1 Dalapon

R.T.: 2.665 min
 Delta R.T.: -0.002 min
 Response: 1396370843
 Conc: 684.45 ng/ml



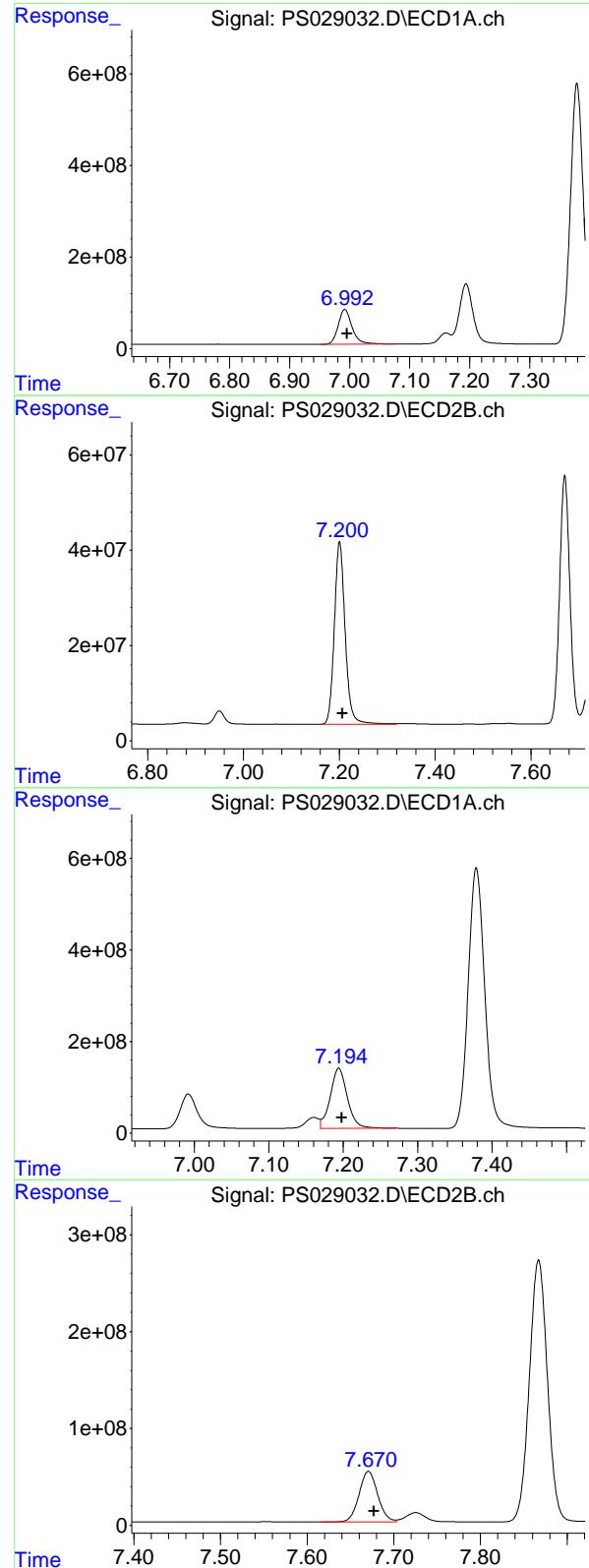
#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.372 min
 Delta R.T.: -0.003 min
 Response: 2858144176
 Conc: 715.10 ng/ml



#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.638 min
 Delta R.T.: -0.005 min
 Response: 1081272086
 Conc: 654.28 ng/ml



#3 4-Nitrophenol

R.T.: 6.992 min
 Delta R.T.: -0.004 min
 Response: 1229567737
 Conc: 693.86 ng/ml
 Instrument: ECD_S
 ClientSampleId : HSTDCCC750

#3 4-Nitrophenol

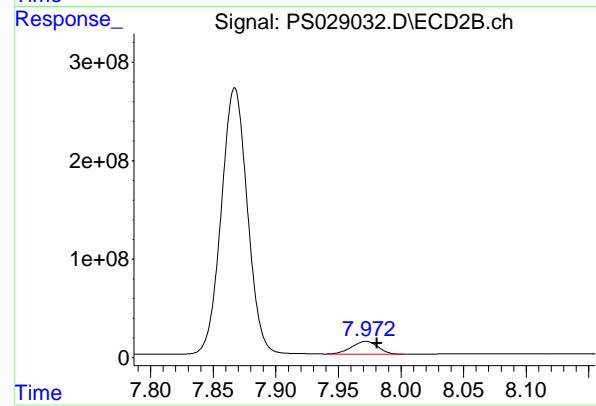
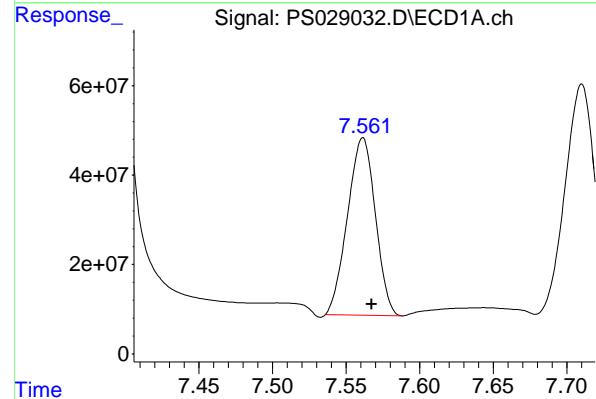
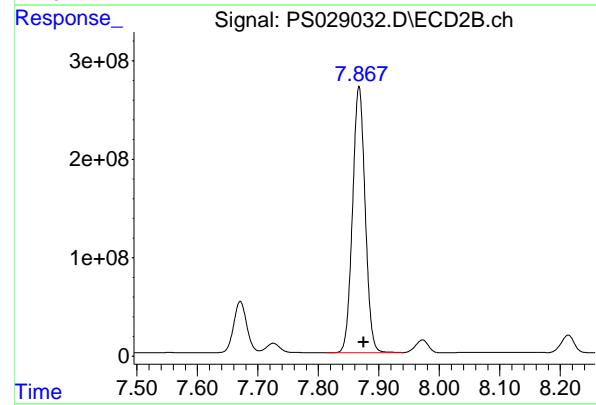
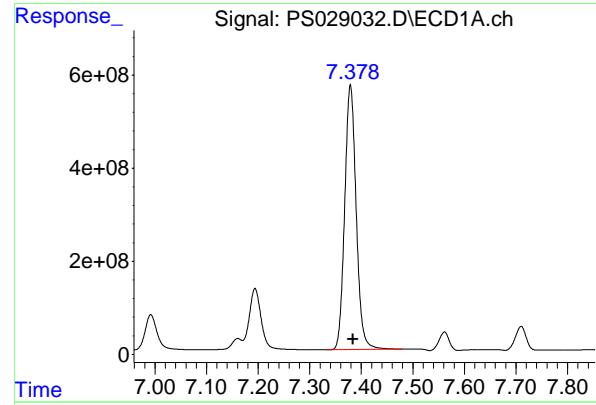
R.T.: 7.201 min
 Delta R.T.: -0.006 min
 Response: 600678616
 Conc: 675.09 ng/ml

#4 2,4-DCAA

R.T.: 7.194 min
 Delta R.T.: -0.004 min
 Response: 2106004346
 Conc: 756.46 ng/ml

#4 2,4-DCAA

R.T.: 7.671 min
 Delta R.T.: -0.007 min
 Response: 783051783
 Conc: 701.78 ng/ml



#5 DICAMBA

R.T.: 7.379 min
 Delta R.T.: -0.005 min
 Instrument: ECD_S
 Response: 8767137485
 Conc: 739.13 ng/ml
 ClientSampleId: HSTDCCC750

#5 DICAMBA

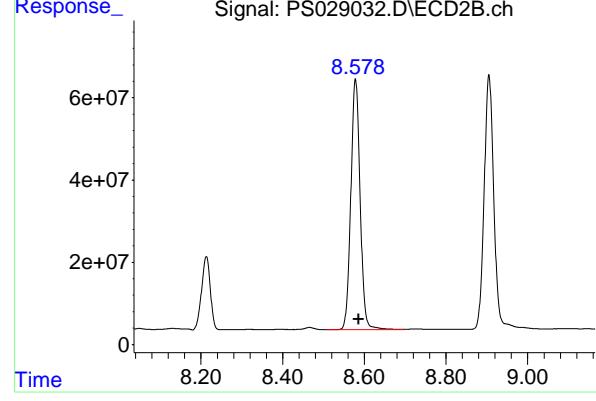
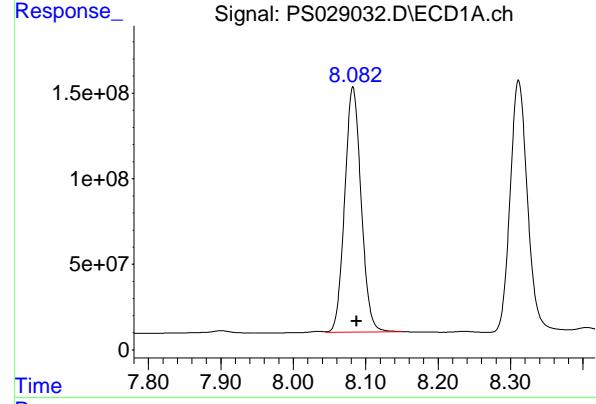
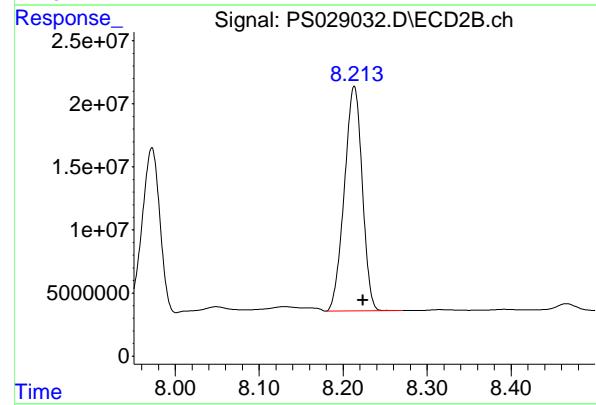
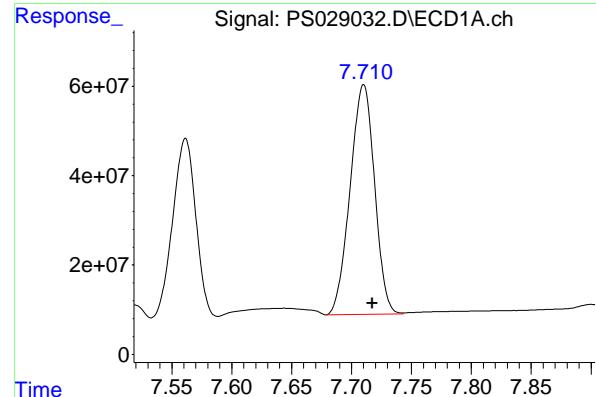
R.T.: 7.867 min
 Delta R.T.: -0.007 min
 Response: 3931683131
 Conc: 705.99 ng/ml

#6 MCPP

R.T.: 7.561 min
 Delta R.T.: -0.006 min
 Response: 522294007
 Conc: 76.62 ug/ml

#6 MCPP

R.T.: 7.972 min
 Delta R.T.: -0.009 min
 Response: 192083579
 Conc: 63.86 ug/ml



#7 MCPA

R.T.: 7.710 min
 Delta R.T.: -0.007 min
 Response: 731365719 ECD_S
 Conc: 74.24 ug/ml ClientSampleId : HSTDCCC750

#7 MCPA

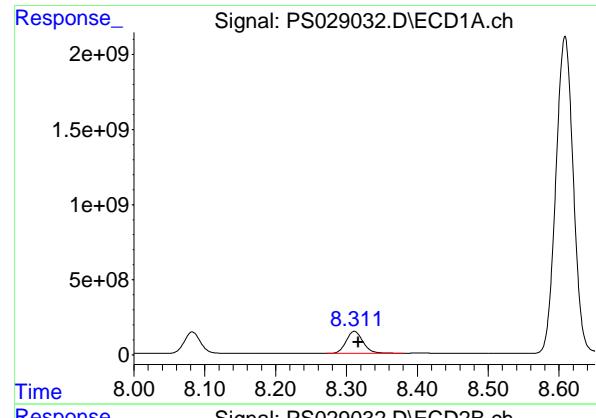
R.T.: 8.213 min
 Delta R.T.: -0.010 min
 Response: 263643812
 Conc: 62.07 ug/ml

#8 DICHLORPROP

R.T.: 8.082 min
 Delta R.T.: -0.005 min
 Response: 2259753572
 Conc: 713.18 ng/ml

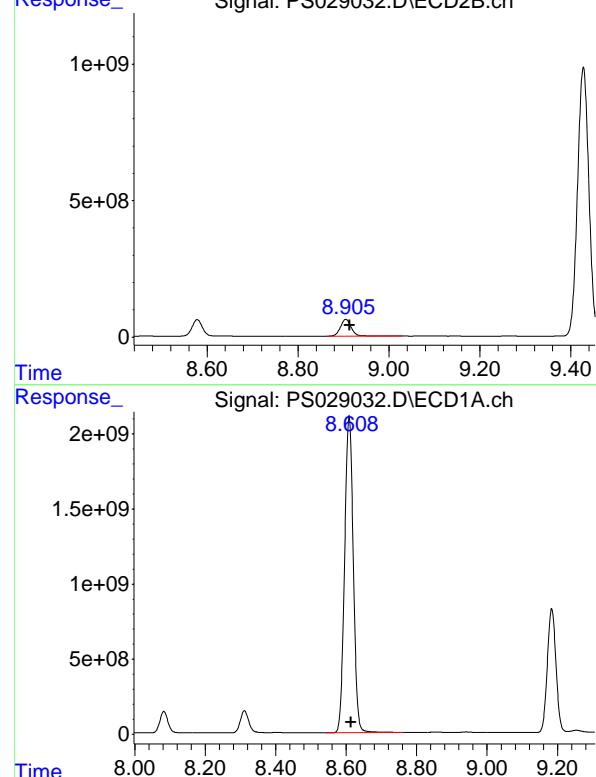
#8 DICHLORPROP

R.T.: 8.578 min
 Delta R.T.: -0.008 min
 Response: 961620325
 Conc: 684.14 ng/ml



#9 2,4-D

R.T.: 8.311 min
 Delta R.T.: -0.006 min
 Response: 2421226250 ECD_S
 Conc: 716.46 ng/ml ClientSampleId : HSTDCCC750

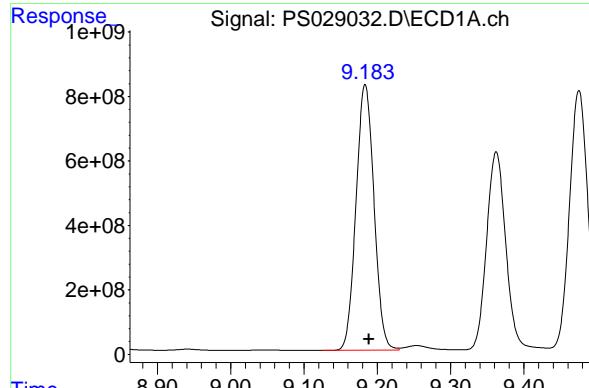


#10 Pentachlorophenol

R.T.: 8.608 min
 Delta R.T.: -0.006 min
 Response: 35970395423
 Conc: 745.70 ng/ml

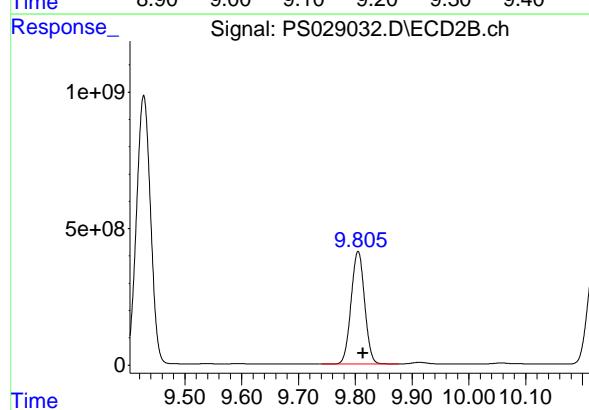
#10 Pentachlorophenol

R.T.: 9.428 min
 Delta R.T.: -0.009 min
 Response: 16993568571
 Conc: 733.56 ng/ml



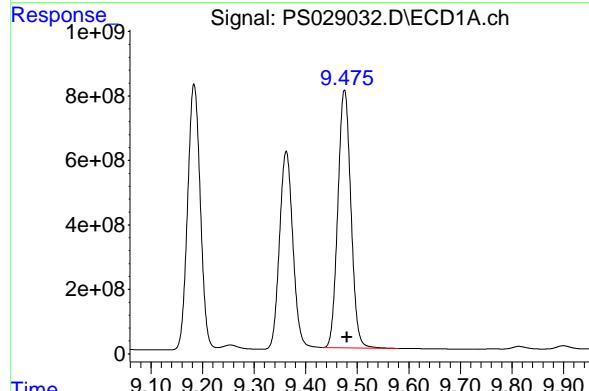
#11 2,4,5-TP (SILVEX)

R.T.: 9.184 min
 Delta R.T.: -0.006 min
 Instrument: ECD_S
 Response: 14035494477
 Conc: 733.59 ng/ml
 ClientSampleId: HSTDCCC750



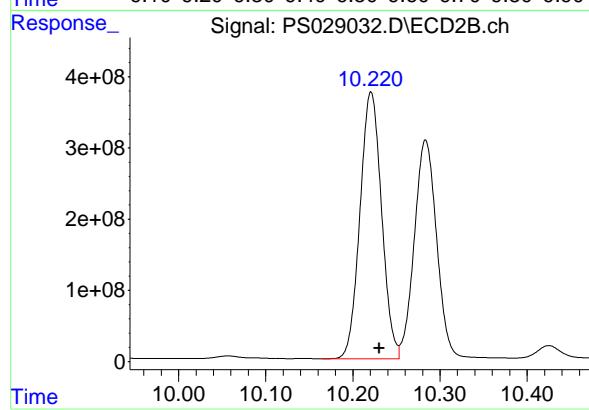
#11 2,4,5-TP (SILVEX)

R.T.: 9.805 min
 Delta R.T.: -0.008 min
 Response: 6844858189
 Conc: 726.68 ng/ml



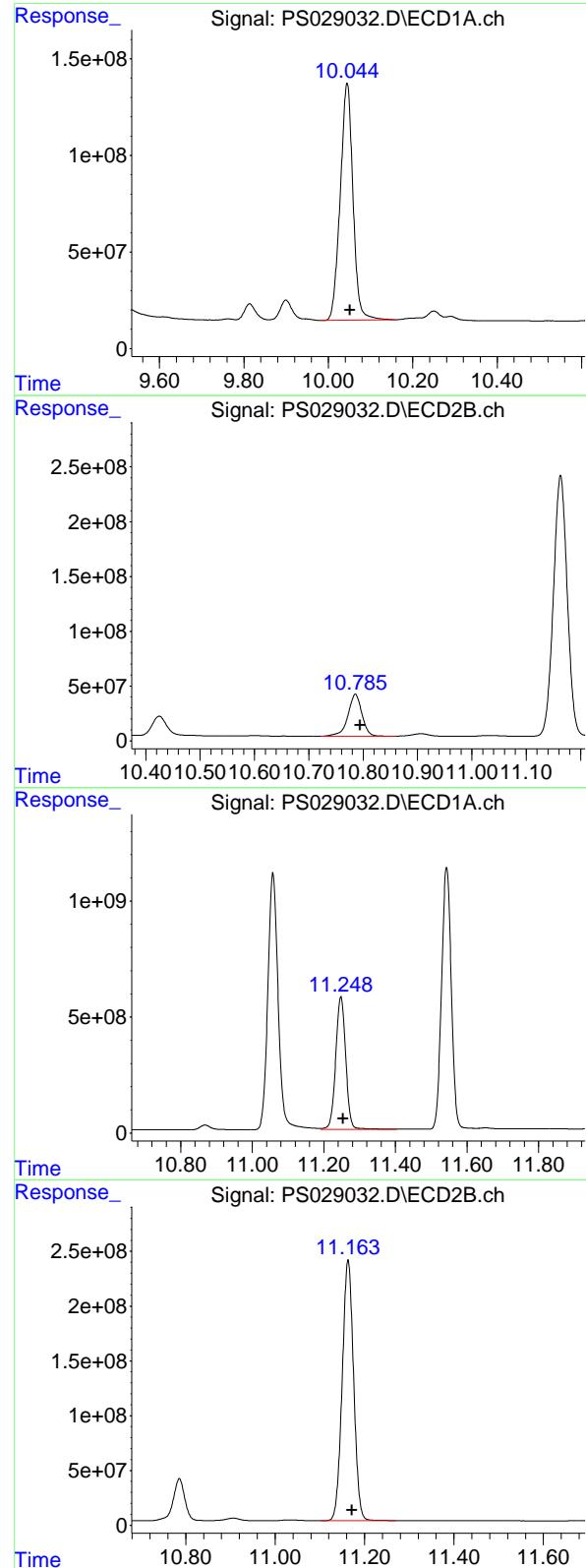
#12 2,4,5-T

R.T.: 9.475 min
 Delta R.T.: -0.005 min
 Response: 14042924863
 Conc: 731.52 ng/ml



#12 2,4,5-T

R.T.: 10.221 min
 Delta R.T.: -0.010 min
 Response: 6436956312
 Conc: 714.50 ng/ml



#13 2,4-DB

R.T.: 10.045 min
 Delta R.T.: -0.006 min
 Instrument: ECD_S
 Response: 2565559093
 Conc: 723.23 ng/ml
 ClientSampleId : HSTDCCC750

#13 2,4-DB

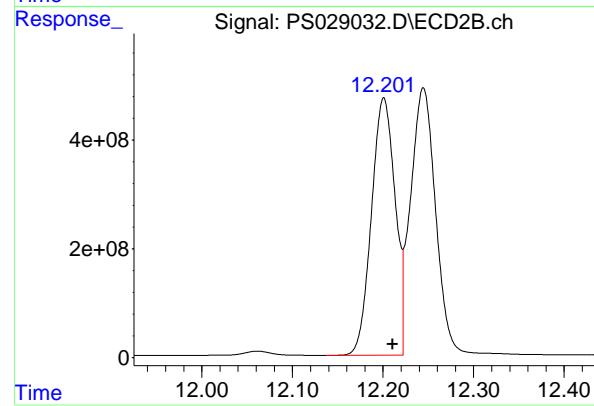
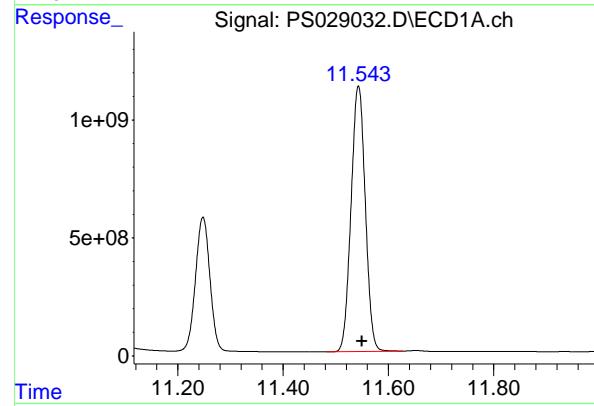
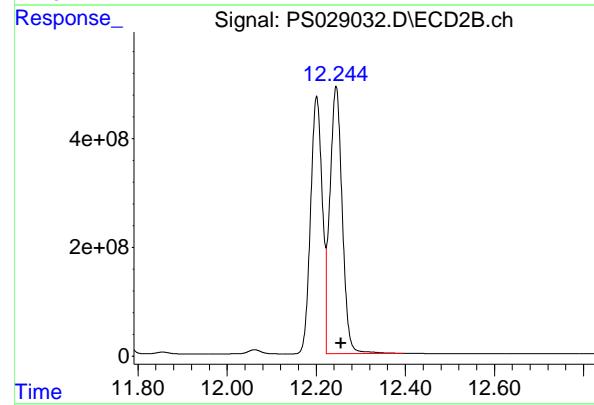
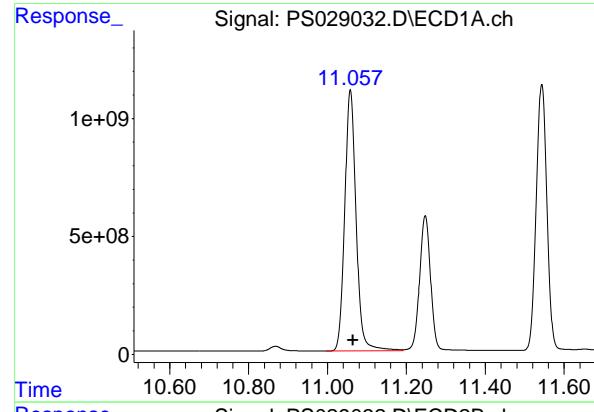
R.T.: 10.786 min
 Delta R.T.: -0.009 min
 Response: 682553951
 Conc: 685.46 ng/ml

#14 DINOSEB

R.T.: 11.248 min
 Delta R.T.: -0.007 min
 Response: 11164079471
 Conc: 674.68 ng/ml

#14 DINOSEB

R.T.: 11.163 min
 Delta R.T.: -0.009 min
 Response: 4202175225
 Conc: 654.82 ng/ml



#15 Picloram

R.T.: 11.058 min
 Delta R.T.: -0.007 min
 Instrument: ECD_S
 Response: 22204237752
 Conc: 703.73 ng/ml
 ClientSampleId: HSTDCCC750

#15 Picloram

R.T.: 12.245 min
 Delta R.T.: -0.011 min
 Response: 9481651374
 Conc: 706.55 ng/ml

#16 DCPA

R.T.: 11.543 min
 Delta R.T.: -0.007 min
 Response: 21133447030
 Conc: 736.84 ng/ml

#16 DCPA

R.T.: 12.201 min
 Delta R.T.: -0.010 min
 Response: 8576858989
 Conc: 755.51 ng/ml

Analytical Sequence

Client:	RU2 Engineering, LLC	SDG No.:	Q1215
Project:	NYCDDC SANTWOBR Brooklyn Bridge BF	Instrument ID:	ECD_S
GC Column:	RTX-CLP	ID:	0.32 (mm)
		Inst. Calib. Date(s):	01/14/2025 01/14/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCAA RT #	RT #
I.BLK	LBLK	01/14/2025	10:07	PS028900.D	7.20	0.00
HSTDICC200	HSTDICC200	01/14/2025	10:31	PS028901.D	7.20	0.00
HSTDICC500	HSTDICC500	01/14/2025	10:55	PS028902.D	7.20	0.00
HSTDICC750	HSTDICC750	01/14/2025	11:19	PS028903.D	7.20	0.00
HSTDICC1000	HSTDICC1000	01/14/2025	11:43	PS028904.D	7.20	0.00
HSTDICC1500	HSTDICC1500	01/14/2025	12:07	PS028905.D	7.20	0.00
I.BLK	LBLK	01/31/2025	20:44	PS029019.D	7.20	0.00
HSTDCCC750	HSTDCCC750	01/31/2025	21:08	PS029020.D	7.20	0.00
PB166428BL	PB166428BL	01/31/2025	22:44	PS029022.D	7.19	0.00
PB166428BS	PB166428BS	01/31/2025	23:08	PS029023.D	7.20	0.00
PB166356TB	PB166356TB	01/31/2025	23:32	PS029024.D	7.20	0.00
JPP-29.1-012825	Q1215-04	01/31/2025	23:56	PS029025.D	7.20	0.00
JPP-29.1-012825MS	Q1215-04MS	02/01/2025	00:20	PS029026.D	7.20	0.00
JPP-29.1-012825MSD	Q1215-04MSD	02/01/2025	00:44	PS029027.D	7.20	0.00
JPP-29.2-012825	Q1215-08	02/01/2025	01:08	PS029028.D	7.20	0.00
I.BLK	LBLK	02/01/2025	02:20	PS029031.D	7.20	0.00
HSTDCCC750	HSTDCCC750	02/01/2025	02:44	PS029032.D	7.19	0.00

Analytical Sequence

Client:	RU2 Engineering, LLC	SDG No.:	Q1215
Project:	NYCDDC SANTWOBR Brooklyn Bridge BF	Instrument ID:	ECD_S
GC Column:	RTX-CLP2	ID:	0.32 (mm)
		Inst. Calib. Date(s):	01/14/2025 01/14/2025

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCAA RT #	RT #
I.BLK	LBLK	01/14/2025	10:07	PS028900.D	7.68	0.00
HSTDICC200	HSTDICC200	01/14/2025	10:31	PS028901.D	7.68	0.00
HSTDICC500	HSTDICC500	01/14/2025	10:55	PS028902.D	7.68	0.00
HSTDICC750	HSTDICC750	01/14/2025	11:19	PS028903.D	7.68	0.00
HSTDICC1000	HSTDICC1000	01/14/2025	11:43	PS028904.D	7.68	0.00
HSTDICC1500	HSTDICC1500	01/14/2025	12:07	PS028905.D	7.68	0.00
I.BLK	LBLK	01/31/2025	20:44	PS029019.D	7.67	0.00
HSTDCCC750	HSTDCCC750	01/31/2025	21:08	PS029020.D	7.67	0.00
PB166428BL	PB166428BL	01/31/2025	22:44	PS029022.D	7.67	0.00
PB166428BS	PB166428BS	01/31/2025	23:08	PS029023.D	7.67	0.00
PB166356TB	PB166356TB	01/31/2025	23:32	PS029024.D	7.67	0.00
JPP-29.1-012825	Q1215-04	01/31/2025	23:56	PS029025.D	7.67	0.00
JPP-29.1-012825MS	Q1215-04MS	02/01/2025	00:20	PS029026.D	7.67	0.00
JPP-29.1-012825MSD	Q1215-04MSD	02/01/2025	00:44	PS029027.D	7.67	0.00
JPP-29.2-012825	Q1215-08	02/01/2025	01:08	PS029028.D	7.67	0.00
I.BLK	LBLK	02/01/2025	02:20	PS029031.D	7.67	0.00
HSTDCCC750	HSTDCCC750	02/01/2025	02:44	PS029032.D	7.67	0.00



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

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-29.1-012825MS

Contract:	<u>RUTW01</u>					
Lab Code:	<u>CHEM</u>	Case No.:	<u>Q1215</u>	SAS No.:	<u>Q1215</u>	
Lab Sample ID:	<u>Q1215-04MS</u>			Date(s) Analyzed:	<u>02/01/2025</u>	
Instrument ID (1):	<u>ECD_S</u>			Instrument ID (2):	<u>ECD_S</u>	
GC Column: (1):	<u>RTX-CLP</u>	ID: <u>0.32</u> (mm)	GC Column:(2):	<u>RTX-CLP2</u>	ID: <u>0.32</u> (mm)	
ANALYTE	COL	RT	RT WINDOW FROM	TO	CONCENTRATION	%RPD
2,4-D	1	8.31	8.26	8.36	52.4	9
	2	8.91	8.86	8.96	47.9	
2,4,5-TP(Silvex)	1	9.18	9.13	9.23	50.6	22.6
	2	9.81	9.76	9.86	63.5	



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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

JPP-29.1-012825MSD

Contract:	<u>RUTW01</u>		SAS No.:	<u>Q1215</u>	SDG NO.:	<u>Q1215</u>	
Lab Code:	<u>CHEM</u>	Case No.:	<u>Q1215</u>	Date(s) Analyzed:	<u>02/01/2025</u>	<u>02/01/2025</u>	
Lab Sample ID:	<u>Q1215-04MSD</u>		Instrument ID (2):	<u>ECD_S</u>			
Instrument ID (1):	<u>ECD_S</u>		GC Column:(2):	<u>RTX-CLP2</u>			
GC Column: (1):	<u>RTX-CLP</u>		ID: 0.32 (mm)	ID: 0.32 (mm)			
ANALYTE	COL	RT	RT WINDOW FROM		TO	CONCENTRATION	%RPD
2,4-D	1	8.31	8.26		8.36	52.5	9
	2	8.91	8.86		8.96	48.0	
2,4,5-TP(Silvex)	1	9.18	9.13		9.23	50.4	23.5
	2	9.81	9.76		9.86	63.8	



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COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB166428BS

Contract:	<u>RUTW01</u>		SAS No.:	<u>Q1215</u>	SDG NO.:	<u>Q1215</u>	
Lab Code:	<u>CHEM</u>	Case No.:	<u>Q1215</u>	Date(s) Analyzed:	<u>01/31/2025</u>	<u>01/31/2025</u>	
Lab Sample ID:	<u>PB166428BS</u>		Instrument ID (2):	<u>ECD_S</u>			
GC Column: (1):	<u>RTX-CLP</u>		ID: 0.32 (mm)	GC Column:(2):	<u>RTX-CLP2</u>	ID: 0.32 (mm)	
ANALYTE	COL	RT	RT WINDOW FROM		TO	CONCENTRATION	%RPD
2,4-D	1	8.31	8.26		8.36	5.20	10.1
	2	8.91	8.86		8.96	4.70	
2,4,5-TP(Silvex)	1	9.18	9.13		9.23	5.30	5.8
	2	9.81	9.76		9.86	5.00	



QC SAMPLE

DATA



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Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	
Client Sample ID:	PB166428BL			SDG No.:	Q1215
Lab Sample ID:	PB166428BL			Matrix:	TCLP
Analytical Method:	SW8151A			% Solid:	0 Decanted:
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	10000 uL
Soil Aliquot Vol:			uL	Test:	TCLP Herbicide
Extraction Type:				Injection Volume :	
GPC Factor :	1.0	PH :			
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029022.D	1	01/31/25 10:55	01/31/25 22:44	PB166428

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	2.00	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	2.00	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	477		39 - 175	95%	SPK: 500

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

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

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
Data File : PS029022.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 31 Jan 2025 22:44
Operator : AR\AJ
Sample : PB166428BL
Misc :
ALS Vial : 15 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
PB166428BL

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 01 00:29:10 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
Quant Title : 8080.M
QLast Update : Tue Jan 14 12:25:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
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System Monitoring Compounds

4) S	2,4-DCAA	7.194	7.672	1328.7E6	476.6E6	477.249	427.102
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Target Compounds

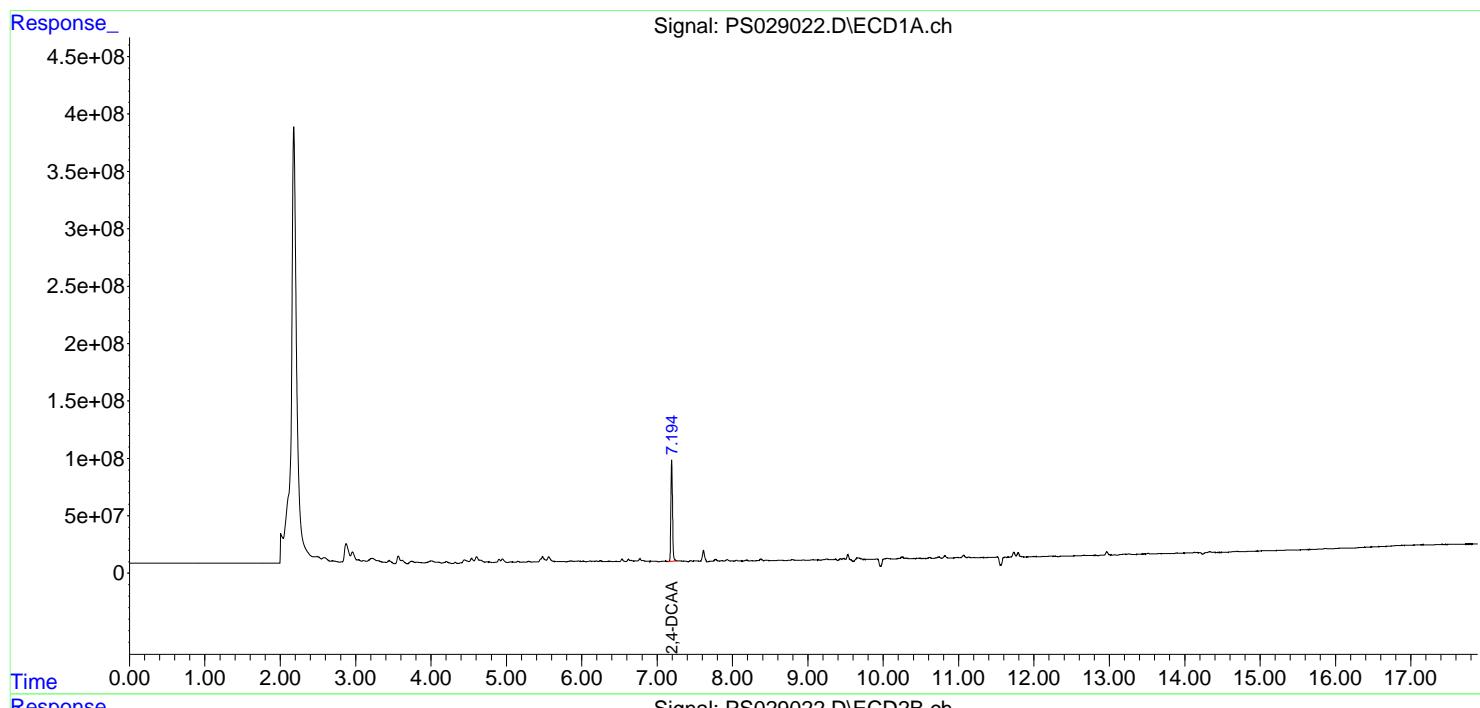
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

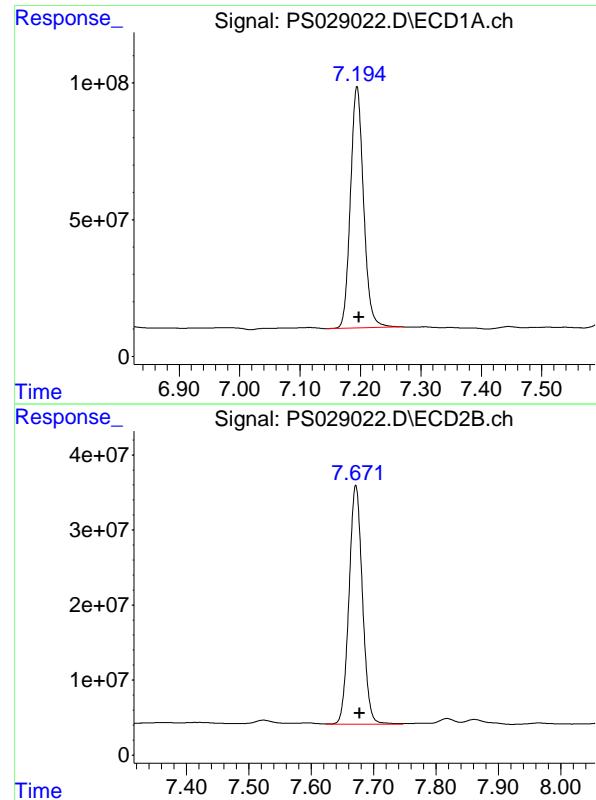
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
 Data File : PS029022.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 31 Jan 2025 22:44
 Operator : AR\AJ
 Sample : PB166428BL
 Misc :
 ALS Vial : 15 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
PB166428BL

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 01 00:29:10 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m





#4 2,4-DCAA

R.T.: 7.194 min
Delta R.T.: -0.004 min
Instrument: ECD_S
Response: 1328667621
Conc: 477.25 ng/ml
ClientSampleId: PB166428BL

#4 2,4-DCAA

R.T.: 7.672 min
Delta R.T.: -0.006 min
Instrument: ECD_S
Response: 476566031
Conc: 427.10 ng/ml



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Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	01/14/25			
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	01/14/25			
Client Sample ID:	PIBLK-PS028900.D			SDG No.:	Q1215			
Lab Sample ID:	I.BLK-PS028900.D			Matrix:	TCLP			
Analytical Method:	SW8151A			% Solid:	0	Decanted:		
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	10000	uL		
Soil Aliquot Vol:	uL			Test:	TCLP Herbicide			
Extraction Type:				Injection Volume :				
GPC Factor :	1.0	PH :						
Prep Method :	SW3510C							

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028900.D	1		01/14/25	PS011425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	2.00	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	2.00	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	492		39 - 175	98%	SPK: 500

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

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

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS011425\
Data File : PS028900.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 14 Jan 2025 10:07
Operator : AR\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
I.BLK

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Jan 14 12:27:21 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
Quant Title : 8080.M
QLast Update : Tue Jan 14 12:25:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
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System Monitoring Compounds

4) S	2,4-DCAA	7.198	7.678	1320.2E6	549.1E6	474.225	492.107
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Target Compounds

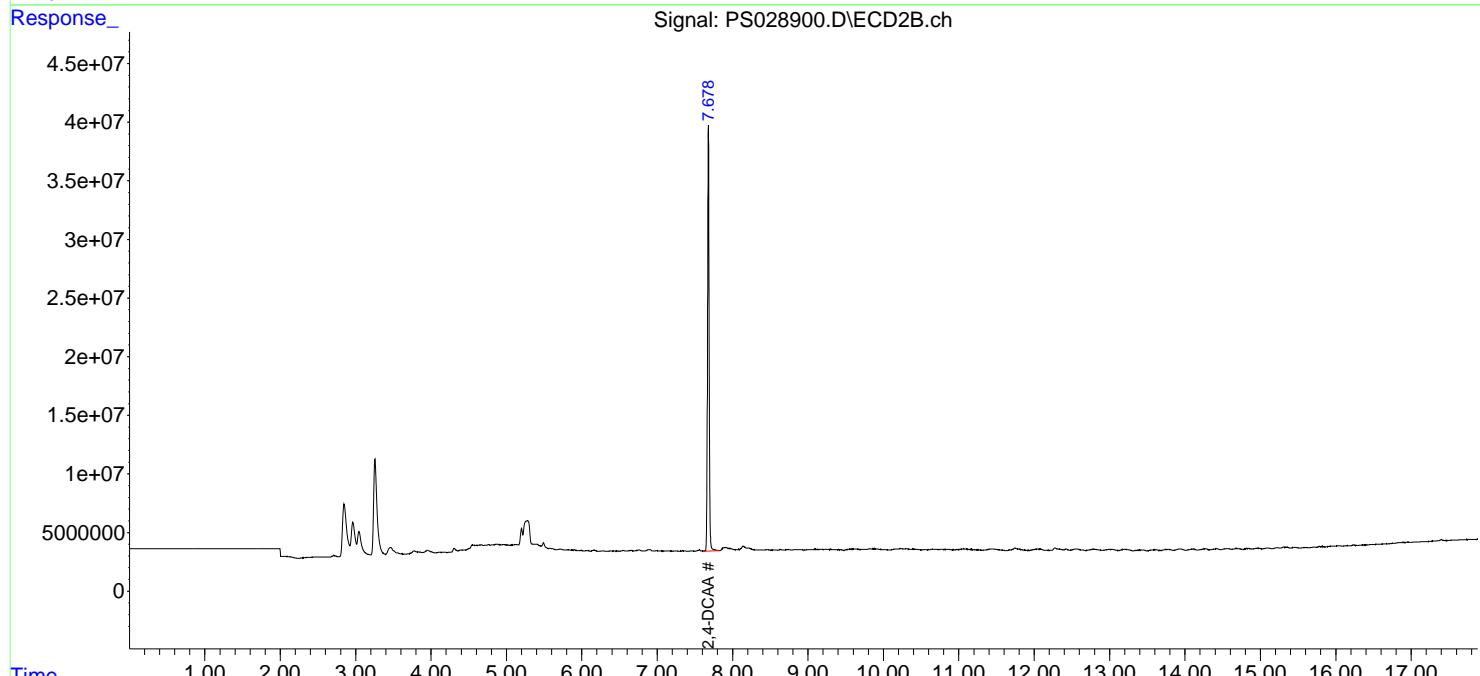
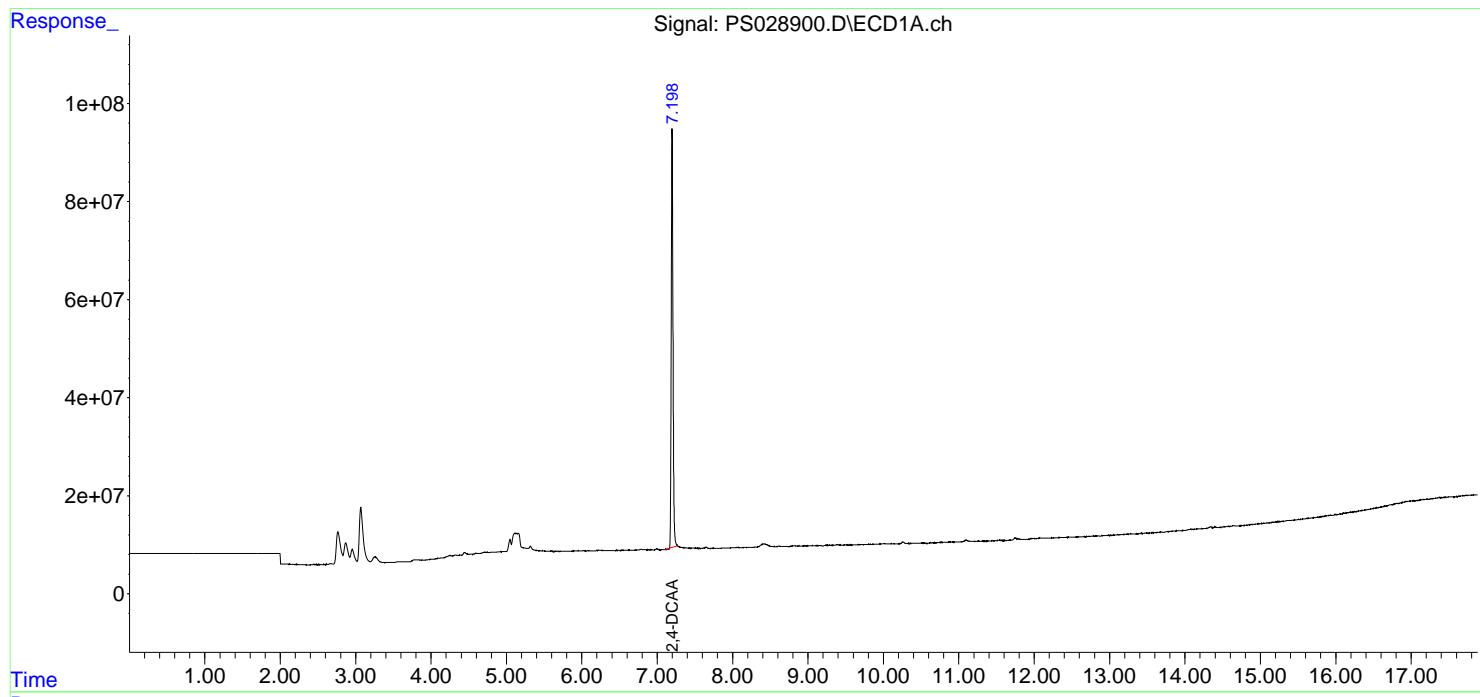
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

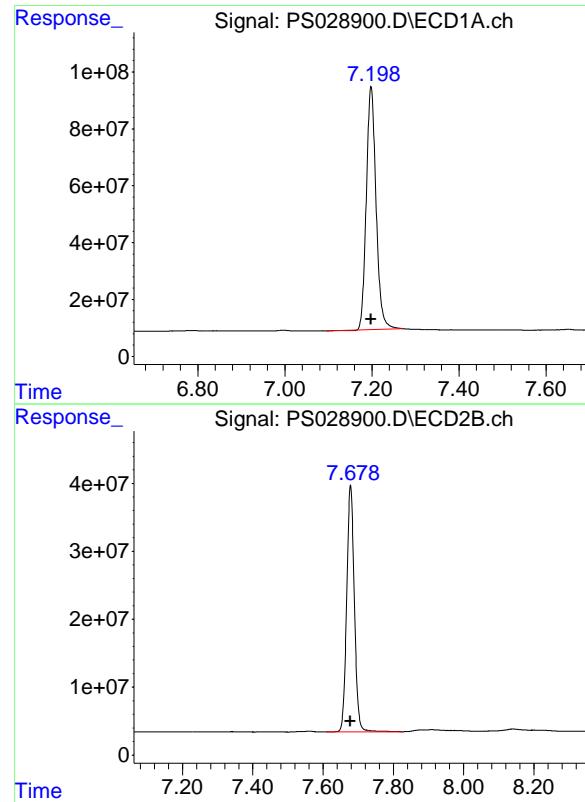
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS011425\
 Data File : PS028900.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 14 Jan 2025 10:07
 Operator : AR\AJ
 Sample : I.BLK
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 ECD_S
ClientSampleId :
 I.BLK

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jan 14 12:27:21 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m





#4 2,4-DCAA

R.T.: 7.198 min
Delta R.T.: 0.000 min
Instrument: ECD_S
Response: 1320247914
Conc: 474.22 ng/ml
ClientSampleId: I.BLK

#4 2,4-DCAA

R.T.: 7.678 min
Delta R.T.: 0.000 min
Instrument: ECD_S
Response: 549099897
Conc: 492.11 ng/ml



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Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	01/31/25	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	01/31/25	
Client Sample ID:	PIBLK-PS029019.D			SDG No.:	Q1215	
Lab Sample ID:	I.BLK-PS029019.D			Matrix:	TCLP	
Analytical Method:	SW8151A			% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	TCLP Herbicide	
Extraction Type:				Injection Volume :		
GPC Factor :	1.0	PH :				
Prep Method :	SW3510C					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029019.D	1		01/31/25	PS013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	2.00	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	2.00	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	581		39 - 175	116%	SPK: 500

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

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

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
Data File : PS029019.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 31 Jan 2025 20:44
Operator : AR\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
I.BLK

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 01 00:28:20 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
Quant Title : 8080.M
QLast Update : Tue Jan 14 12:25:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
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System Monitoring Compounds

4) S	2,4-DCAA	7.195	7.672	1617.7E6	614.5E6	581.074	550.702
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Target Compounds

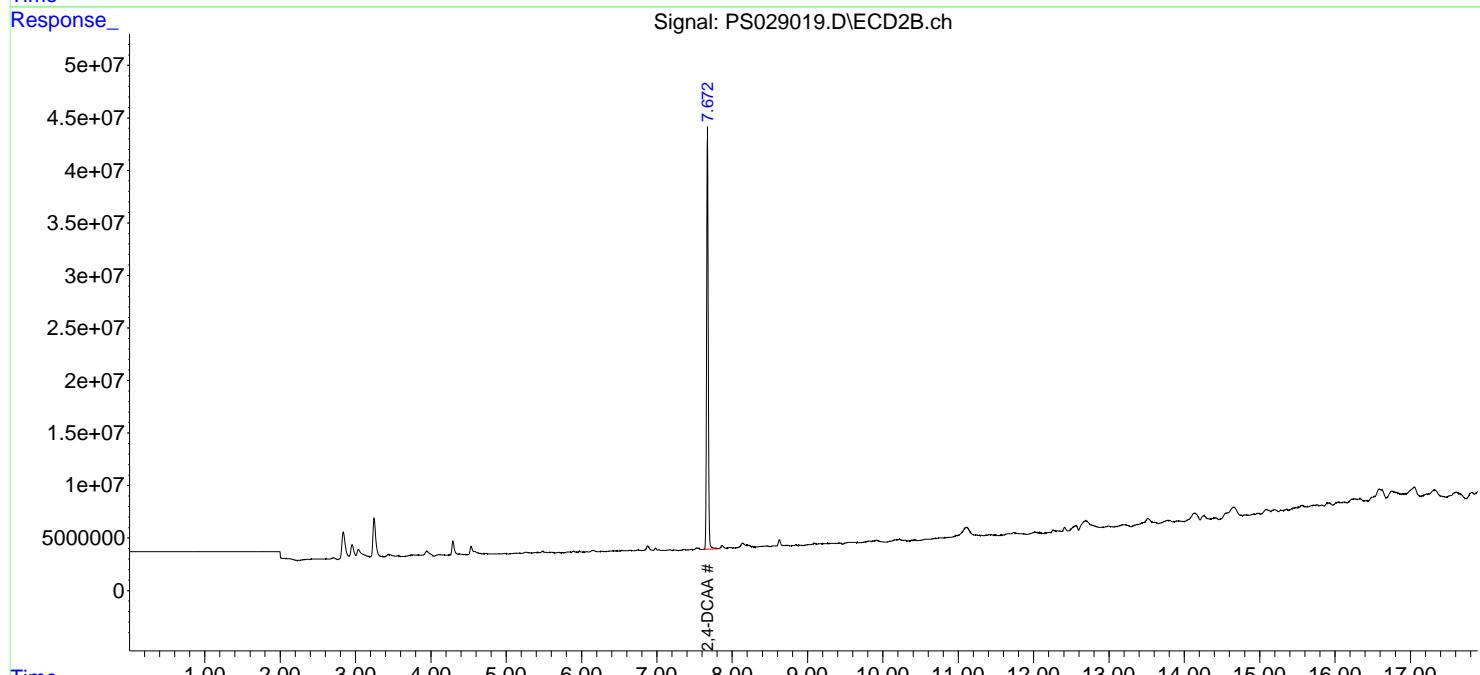
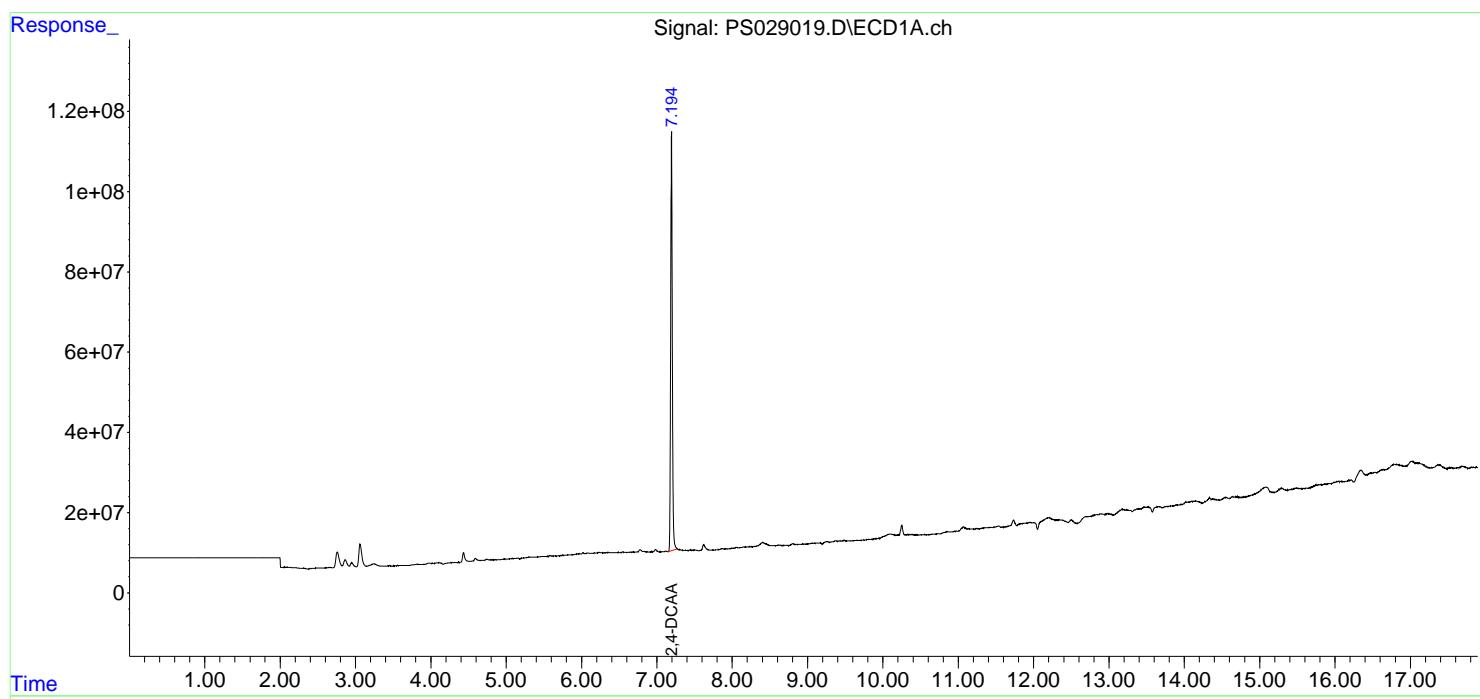
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

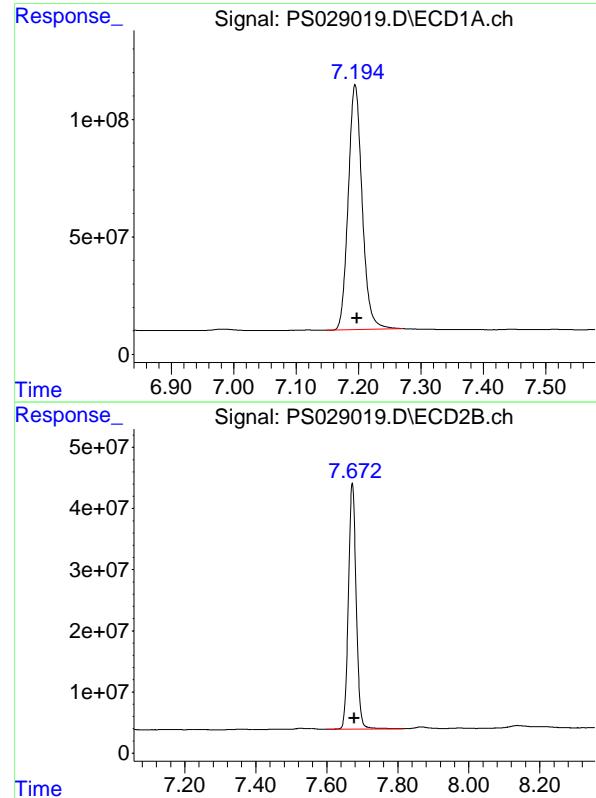
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
 Data File : PS029019.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 31 Jan 2025 20:44
 Operator : AR\AJ
 Sample : I.BLK
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 ECD_S
ClientSampleId :
 I.BLK

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 01 00:28:20 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m





#4 2,4-DCAA

R.T.: 7.195 min
Delta R.T.: -0.003 min
Instrument: ECD_S
Response: 1617716853
Conc: 581.07 ng/ml
ClientSampleId: I.BLK

#4 2,4-DCAA

R.T.: 7.672 min
Delta R.T.: -0.006 min
Instrument: ECD_S
Response: 614480244
Conc: 550.70 ng/ml



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Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	02/01/25			
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	02/01/25			
Client Sample ID:	PIBLK-PS029031.D			SDG No.:	Q1215			
Lab Sample ID:	I.BLK-PS029031.D			Matrix:	TCLP			
Analytical Method:	SW8151A			% Solid:	0	Decanted:		
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	10000	uL		
Soil Aliquot Vol:	uL			Test:	TCLP Herbicide			
Extraction Type:				Injection Volume :				
GPC Factor :	1.0	PH :						
Prep Method :	SW3510C							

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029031.D	1		02/01/25	PS013125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	2.00	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	2.00	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	584		39 - 175	117%	SPK: 500

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

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

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
Data File : PS029031.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 01 Feb 2025 02:20
Operator : AR\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
I.BLK

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Feb 01 05:18:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
Quant Title : 8080.M
QLast Update : Tue Jan 14 12:25:39 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
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System Monitoring Compounds
4) S 2,4-DCAA 7.195 7.672 1626.2E6 618.4E6 584.137 554.191

Target Compounds

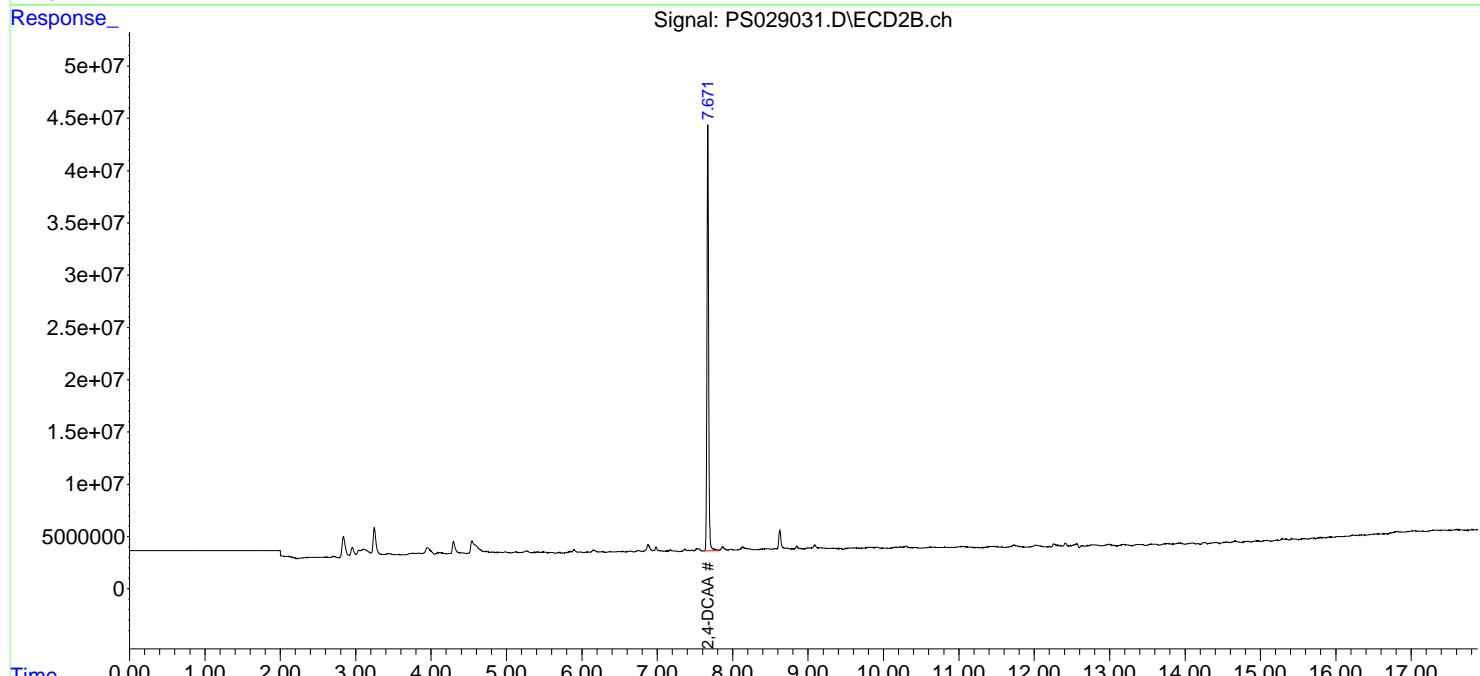
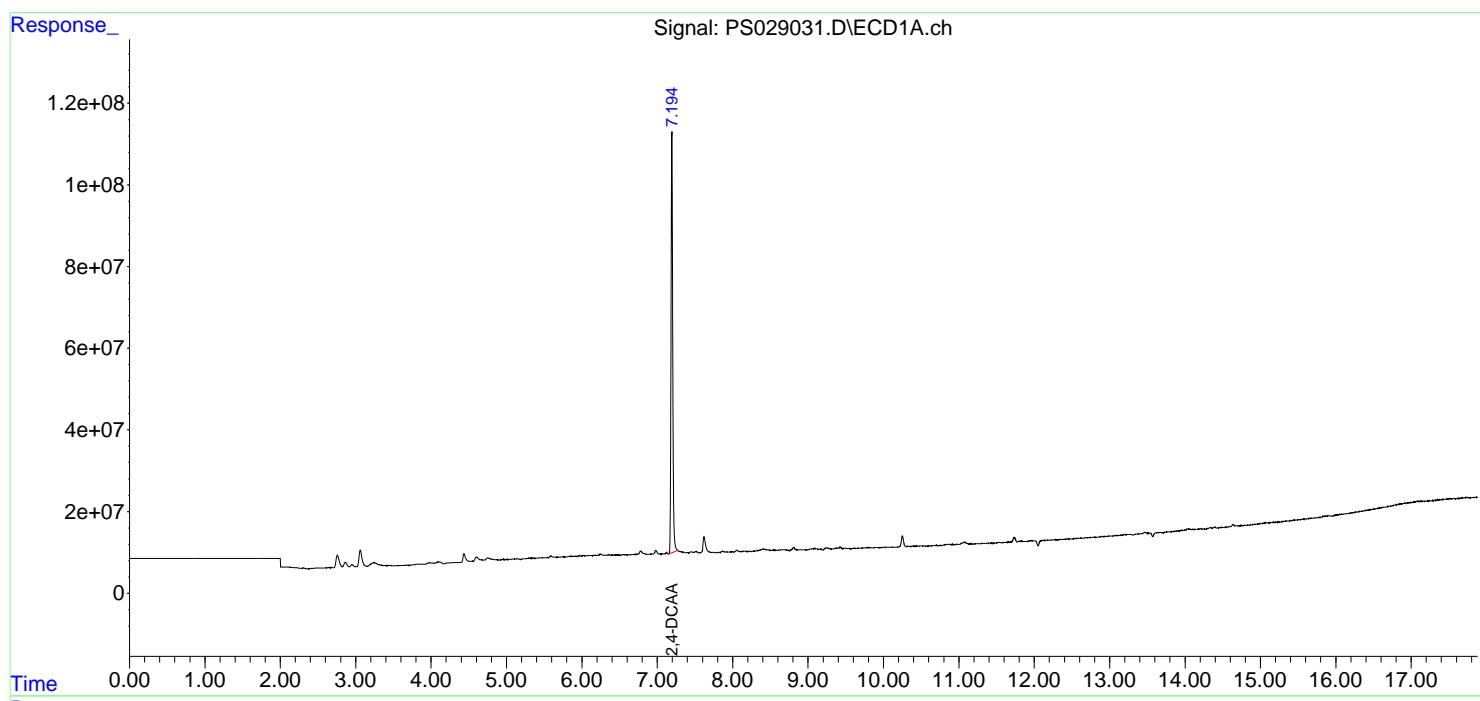
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

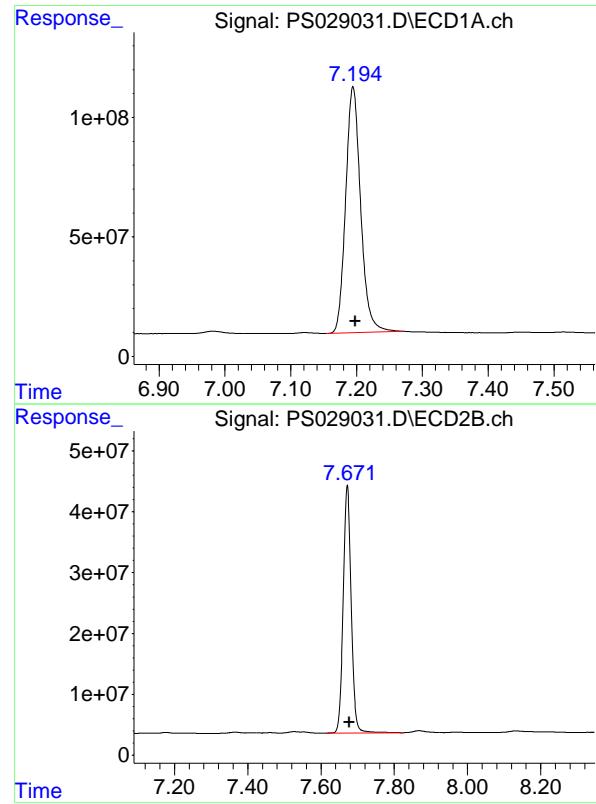
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
 Data File : PS029031.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 01 Feb 2025 02:20
 Operator : AR\AJ
 Sample : I.BLK
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 ECD_S
ClientSampleId :
 I.BLK

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 01 05:18:17 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m





#4 2,4-DCAA

R.T.: 7.195 min
Delta R.T.: -0.003 min
Instrument: ECD_S
Response: 1626244276
Conc: 584.14 ng/ml
ClientSampleId: I.BLK

#4 2,4-DCAA

R.T.: 7.672 min
Delta R.T.: -0.006 min
Instrument: ECD_S
Response: 618373300
Conc: 554.19 ng/ml



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Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	
Client Sample ID:	PB166428BS			SDG No.:	Q1215
Lab Sample ID:	PB166428BS			Matrix:	TCLP
Analytical Method:	SW8151A			% Solid:	0 Decanted:
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	10000 uL
Soil Aliquot Vol:			uL	Test:	TCLP Herbicide
Extraction Type:				Injection Volume :	
GPC Factor :	1.0	PH :			
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029023.D	1	01/31/25 10:55	01/31/25 23:08	PB166428

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	5.20		0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	5.30		0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	543		39 - 175	109%	SPK: 500

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

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

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
 Data File : PS029023.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 31 Jan 2025 23:08
 Operator : AR\AJ
 Sample : PB166428BS
 Misc :
 ALS Vial : 16 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
PB166428BS

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 01 00:29:20 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
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System Monitoring Compounds

4) S	2,4-DCAA	7.195	7.672	1512.9E6	545.9E6	543.441	489.282
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Target Compounds

1) T	Dalapon	2.612	2.663	1575.4E6	973.6E6	528.343	477.211
2) T	3,5-DICHL...	6.372	6.638	2046.6E6	753.6E6	512.044	456.012
3) T	4-Nitroph...	6.993	7.202	872.7E6	423.4E6	492.487	475.846
5) T	DICAMBA	7.380	7.869	6162.3E6	2679.0E6	519.524	481.058
6) T	MCPP	7.561	7.972	347.6E6	128.6E6	50.994	42.760
7) T	MCPA	7.708	8.212	496.0E6	179.0E6	50.351	42.142
8) T	DICHLORPROP	8.083	8.580	1625.8E6	680.4E6	513.108	484.059
9) T	2,4-D	8.313	8.906	1744.7E6	708.5E6	516.271	472.513
10) T	Pentachlo...	8.609	9.428	25808.4E6	11884.2E6	535.033	513.001
11) T	2,4,5-TP ...	9.184	9.806	10051.8E6	4742.4E6	525.373	503.473
12) T	2,4,5-T	9.475	10.222	10076.2E6	4484.0E6	524.886	497.720
13) T	2,4-DB	10.045	10.787	1821.9E6	468.8E6	513.584	470.762
14) T	DINOSEB	11.249	11.164	8226.9E6	3031.6E6	497.173	472.413
15) T	Picloram	11.059	12.247	15163.6E6	6151.4E6	480.587	458.384
16) T	DCPA	11.544	12.203	15201.3E6	5968.6E6	530.012	525.761

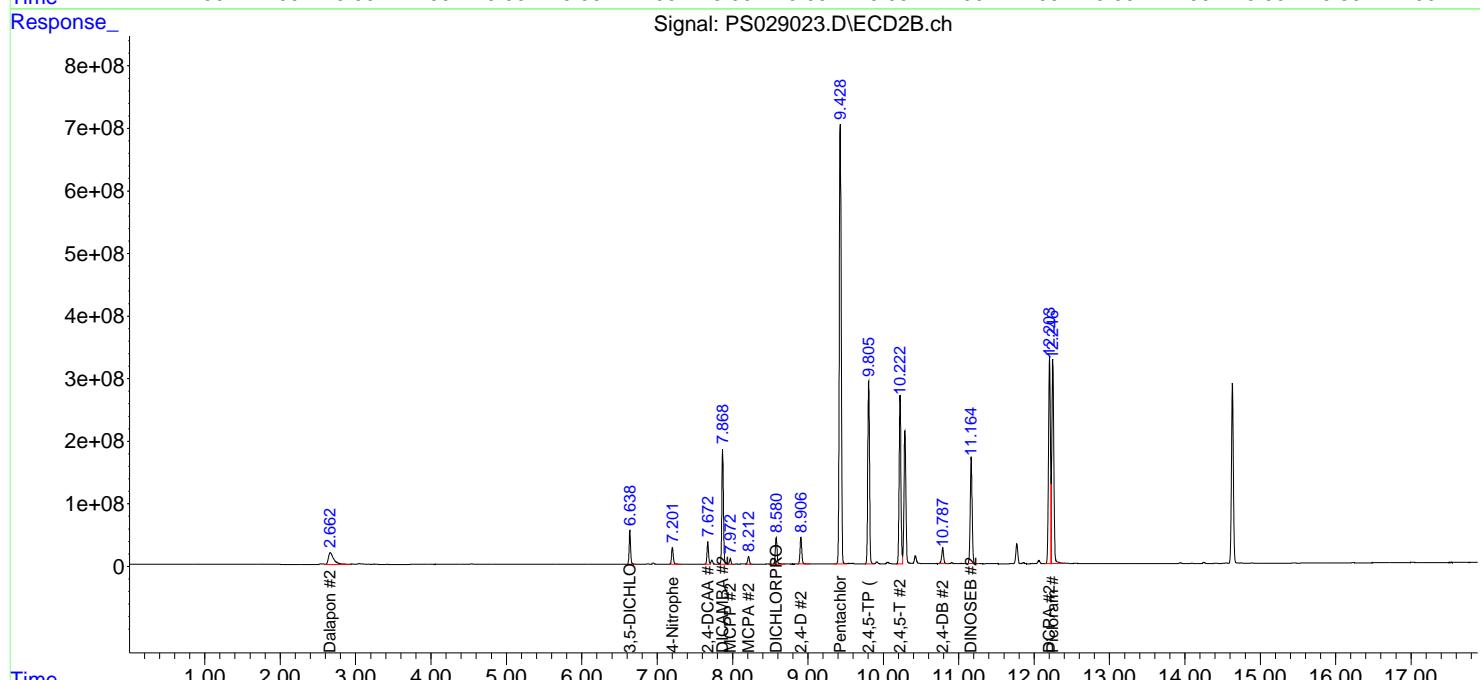
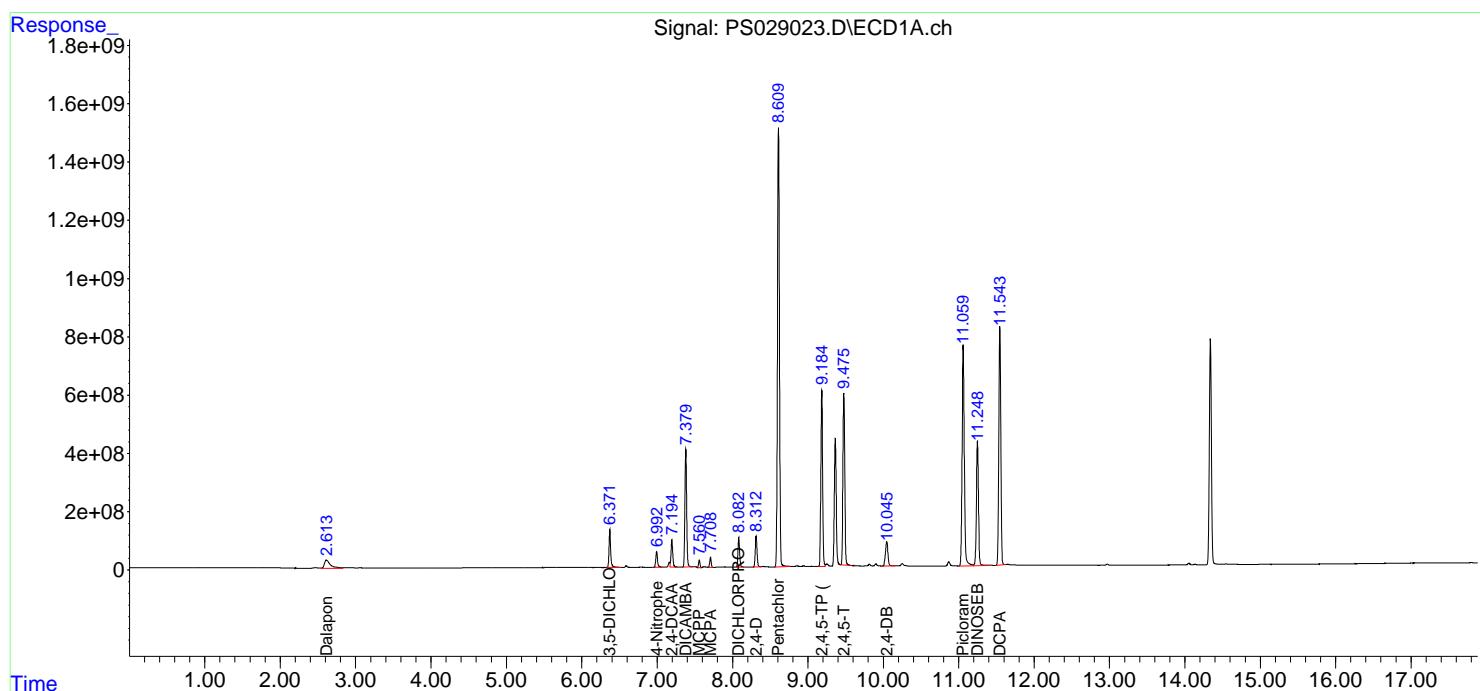
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

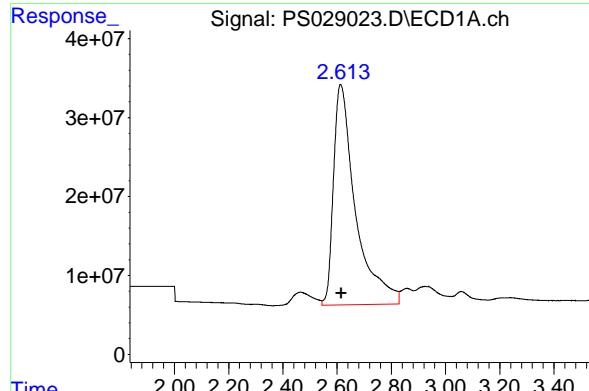
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
 Data File : PS029023.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 31 Jan 2025 23:08
 Operator : AR\AJ
 Sample : PB166428BS
 Misc :
 ALS Vial : 16 Sample Multiplier: 1

Instrument :
 ECD_S
 ClientSampleId :
 PB166428BS

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 01 00:29:20 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

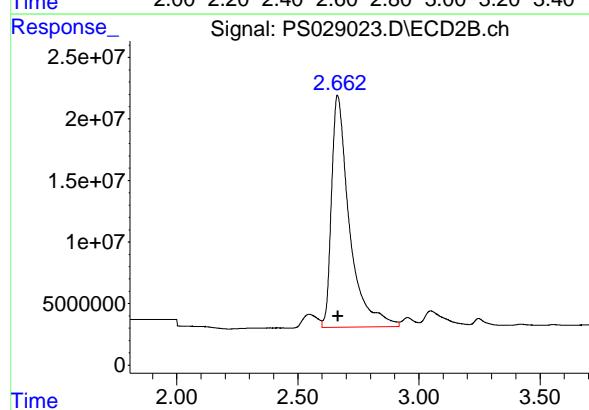
Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m





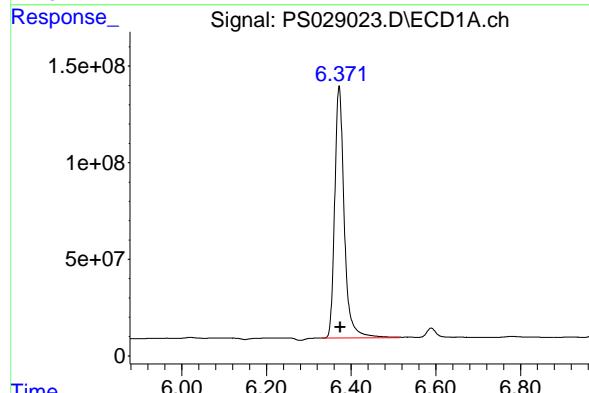
#1 Dalapon

R.T.: 2.612 min
Delta R.T.: -0.003 min
Instrument: ECD_S
Response: 1575383058
Conc: 528.34 ng/ml
ClientSampleId: PB166428BS



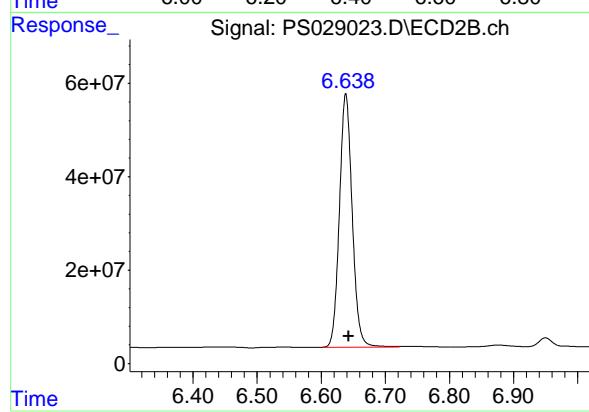
#1 Dalapon

R.T.: 2.663 min
Delta R.T.: -0.004 min
Response: 973581072
Conc: 477.21 ng/ml



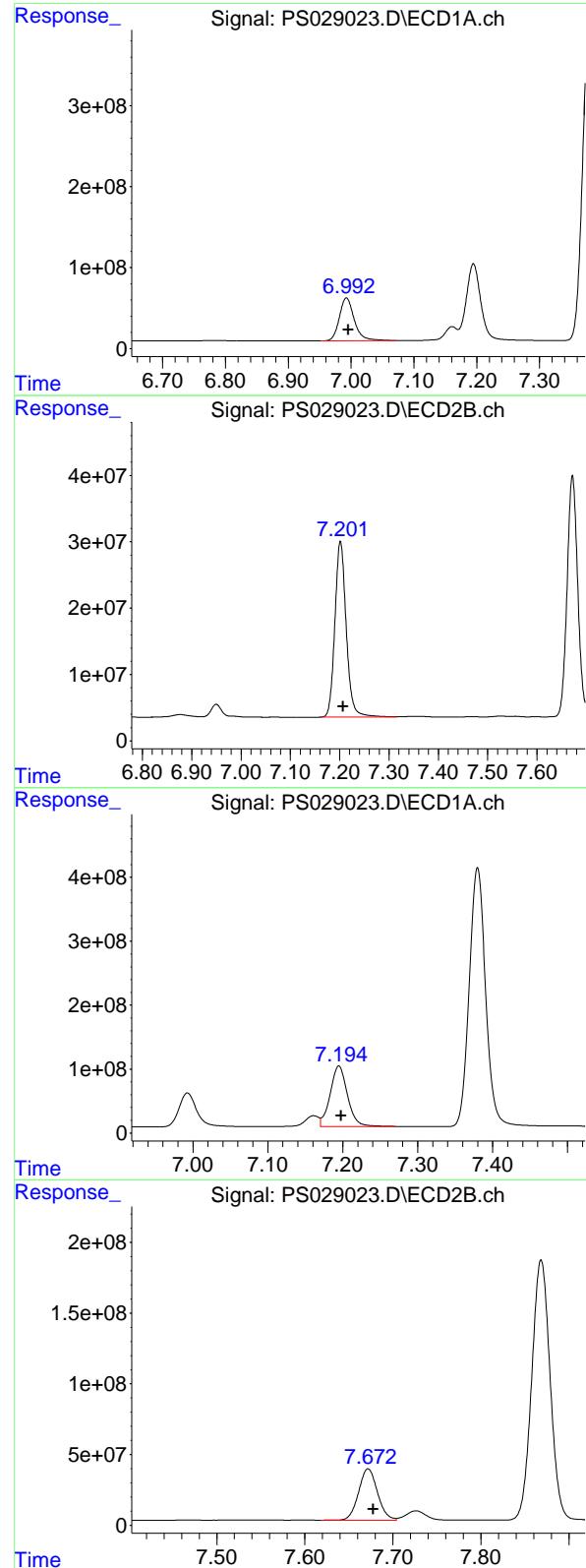
#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.372 min
Delta R.T.: -0.003 min
Response: 2046564288
Conc: 512.04 ng/ml



#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.638 min
Delta R.T.: -0.005 min
Response: 753614740
Conc: 456.01 ng/ml



#3 4-Nitrophenol

R.T.: 6.993 min
 Delta R.T.: -0.003 min
 Response: 872727015
 Conc: 492.49 ng/ml
 Instrument: ECD_S
 ClientSampleId : PB166428BS

#3 4-Nitrophenol

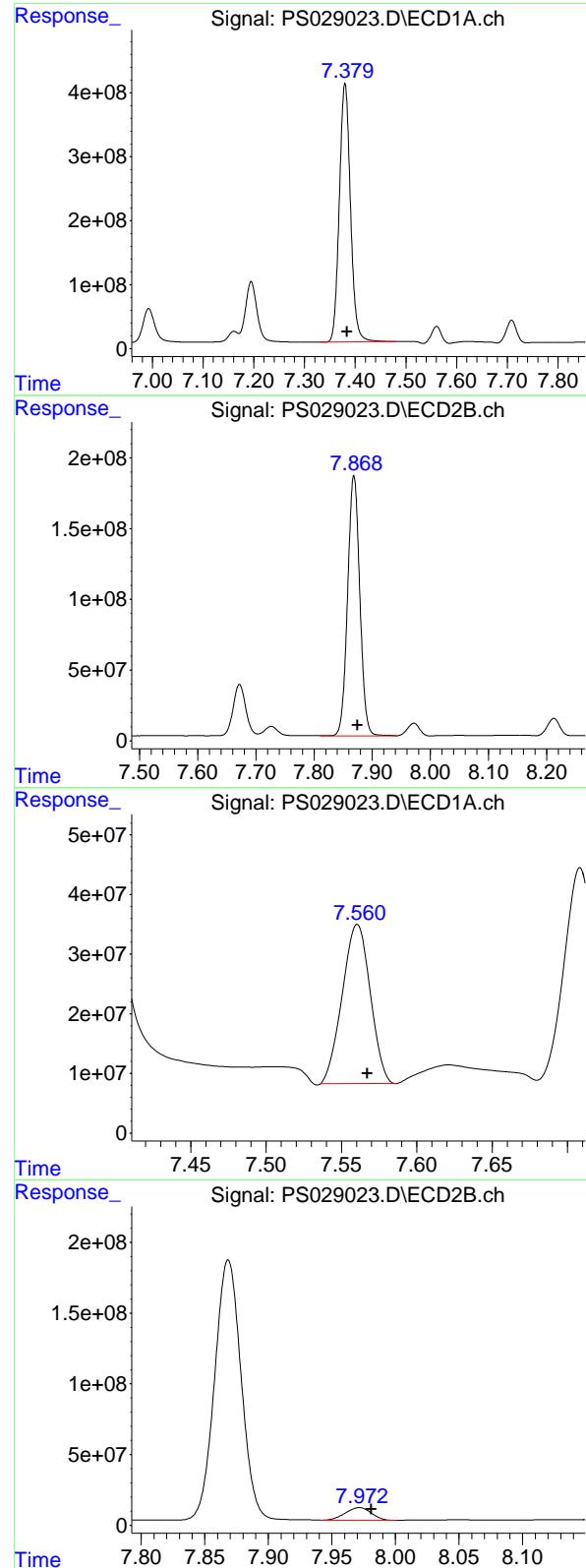
R.T.: 7.202 min
 Delta R.T.: -0.006 min
 Response: 423395741
 Conc: 475.85 ng/ml

#4 2,4-DCAA

R.T.: 7.195 min
 Delta R.T.: -0.003 min
 Response: 1512945229
 Conc: 543.44 ng/ml

#4 2,4-DCAA

R.T.: 7.672 min
 Delta R.T.: -0.006 min
 Response: 545946897
 Conc: 489.28 ng/ml



#5 DICAMBA

R.T.: 7.380 min
 Delta R.T.: -0.004 min
 Instrument: ECD_S
 Response: 6162306871
 Conc: 519.52 ng/ml
 ClientSampleId: PB166428BS

#5 DICAMBA

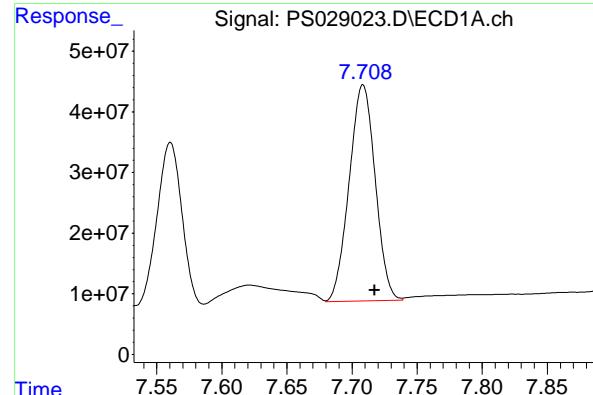
R.T.: 7.869 min
 Delta R.T.: -0.006 min
 Response: 2679030309
 Conc: 481.06 ng/ml

#6 MCPP

R.T.: 7.561 min
 Delta R.T.: -0.007 min
 Response: 347590121
 Conc: 50.99 ug/ml

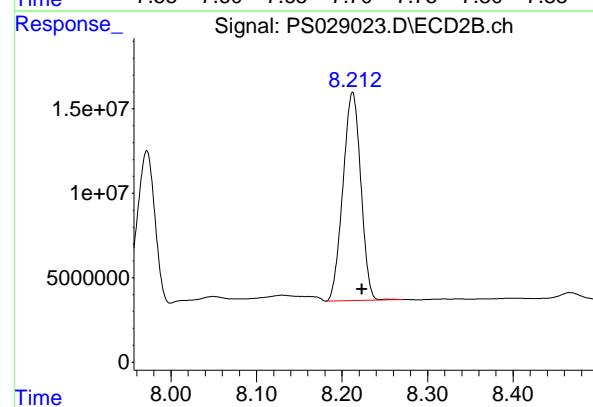
#6 MCPP

R.T.: 7.972 min
 Delta R.T.: -0.009 min
 Response: 128620297
 Conc: 42.76 ug/ml



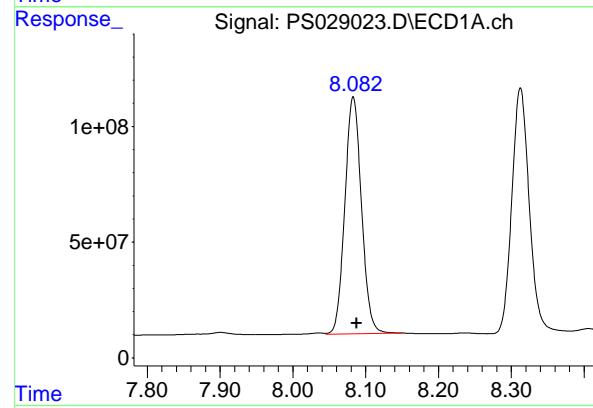
#7 MCPA

R.T.: 7.708 min
 Delta R.T.: -0.009 min
 Response: 496006896
 Conc: 50.35 ug/ml
 Instrument: ECD_S
 ClientSampleId : PB166428BS



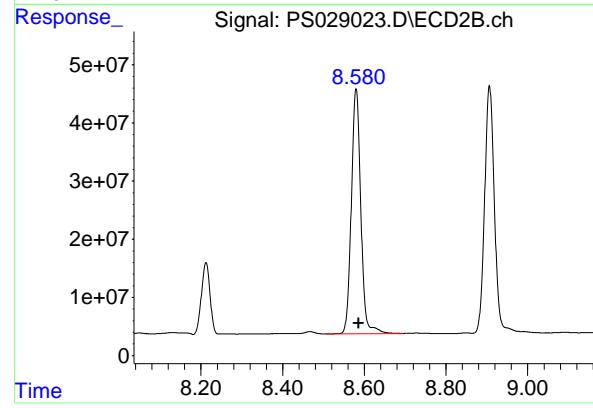
#7 MCPA

R.T.: 8.212 min
 Delta R.T.: -0.011 min
 Response: 178994424
 Conc: 42.14 ug/ml



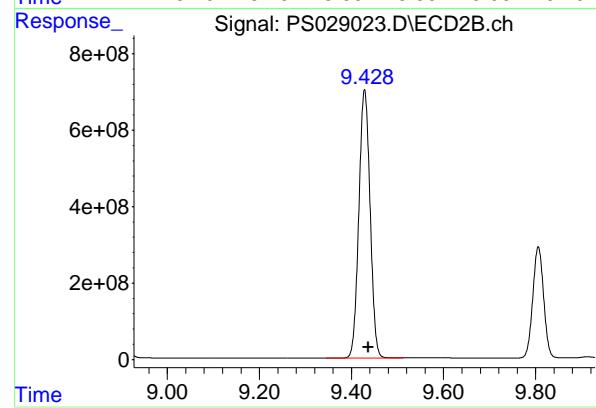
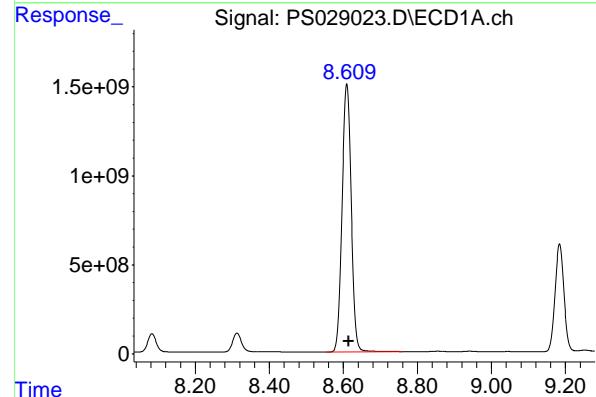
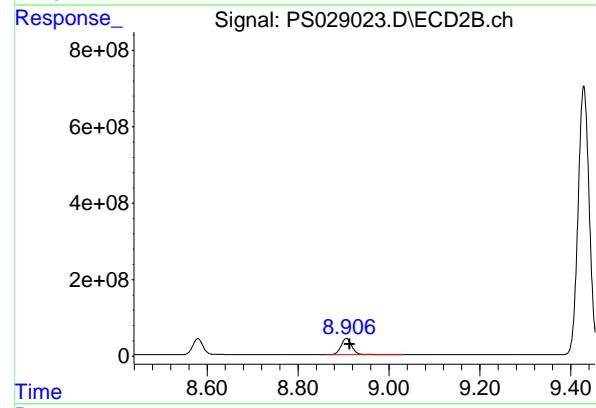
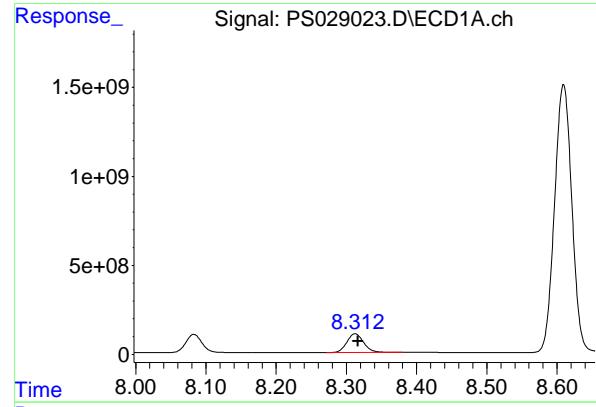
#8 DICHLORPROP

R.T.: 8.083 min
 Delta R.T.: -0.005 min
 Response: 1625819125
 Conc: 513.11 ng/ml



#8 DICHLORPROP

R.T.: 8.580 min
 Delta R.T.: -0.006 min
 Response: 680393107
 Conc: 484.06 ng/ml



#9 2,4-D

R.T.: 8.313 min
 Delta R.T.: -0.004 min
 Instrument: ECD_S
 Response: 1744710512
 Conc: 516.27 ng/ml
 ClientSampleId: PB166428BS

#9 2,4-D

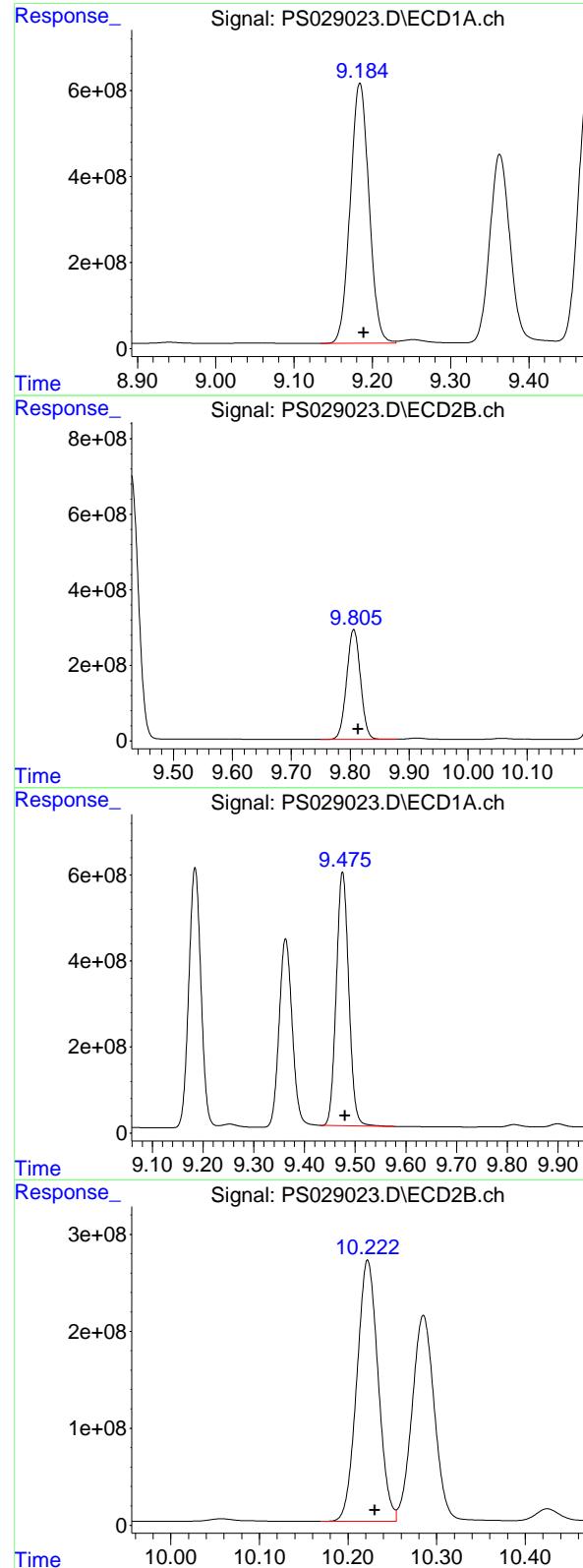
R.T.: 8.906 min
 Delta R.T.: -0.007 min
 Response: 708541341
 Conc: 472.51 ng/ml

#10 Pentachlorophenol

R.T.: 8.609 min
 Delta R.T.: -0.005 min
 Response: 25808423962
 Conc: 535.03 ng/ml

#10 Pentachlorophenol

R.T.: 9.428 min
 Delta R.T.: -0.009 min
 Response: 11884188994
 Conc: 513.00 ng/ml



#11 2,4,5-TP (SILVEX)

R.T.: 9.184 min
 Delta R.T.: -0.005 min
 Response: 10051776389 ECD_S
 Conc: 525.37 ng/ml ClientSampleId : PB166428BS

#11 2,4,5-TP (SILVEX)

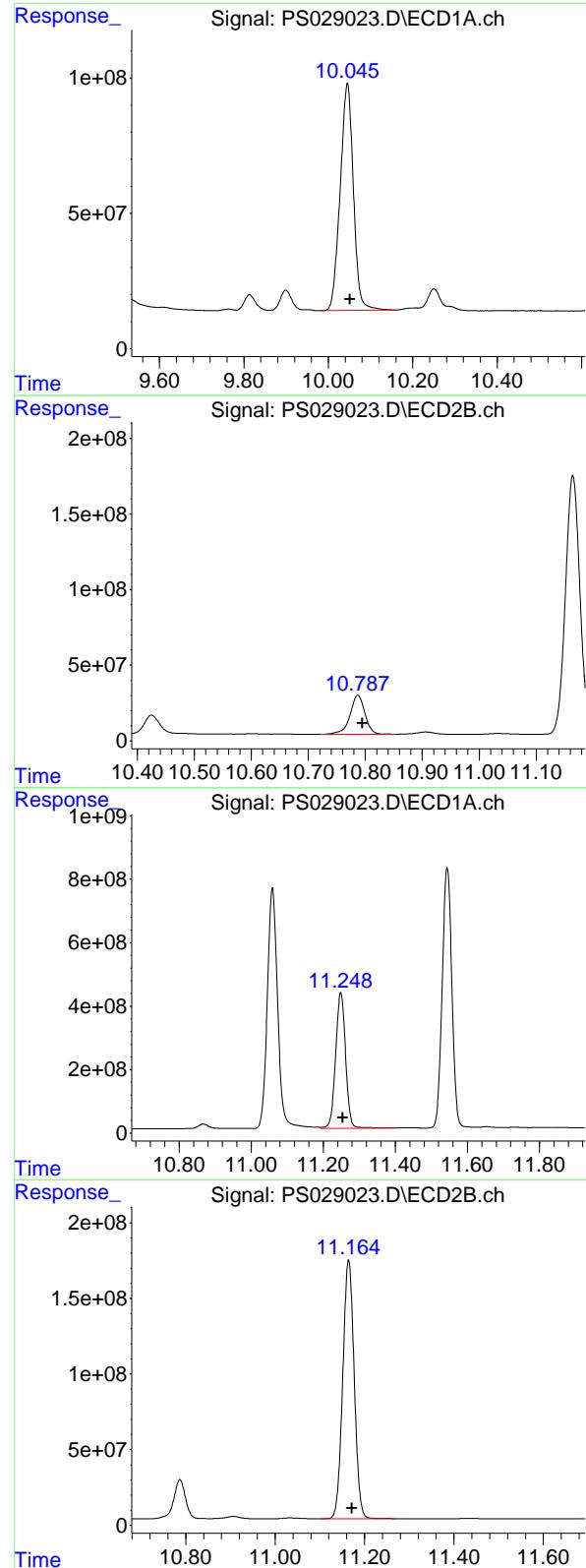
R.T.: 9.806 min
 Delta R.T.: -0.008 min
 Response: 4742418670
 Conc: 503.47 ng/ml

#12 2,4,5-T

R.T.: 9.475 min
 Delta R.T.: -0.005 min
 Response: 10076205708
 Conc: 524.89 ng/ml

#12 2,4,5-T

R.T.: 10.222 min
 Delta R.T.: -0.008 min
 Response: 4483959716
 Conc: 497.72 ng/ml



#13 2,4-DB

R.T.: 10.045 min
 Delta R.T.: -0.005 min
 Response: 1821863591 ECD_S
 Conc: 513.58 ng/ml ClientSampleId : PB166428BS

#13 2,4-DB

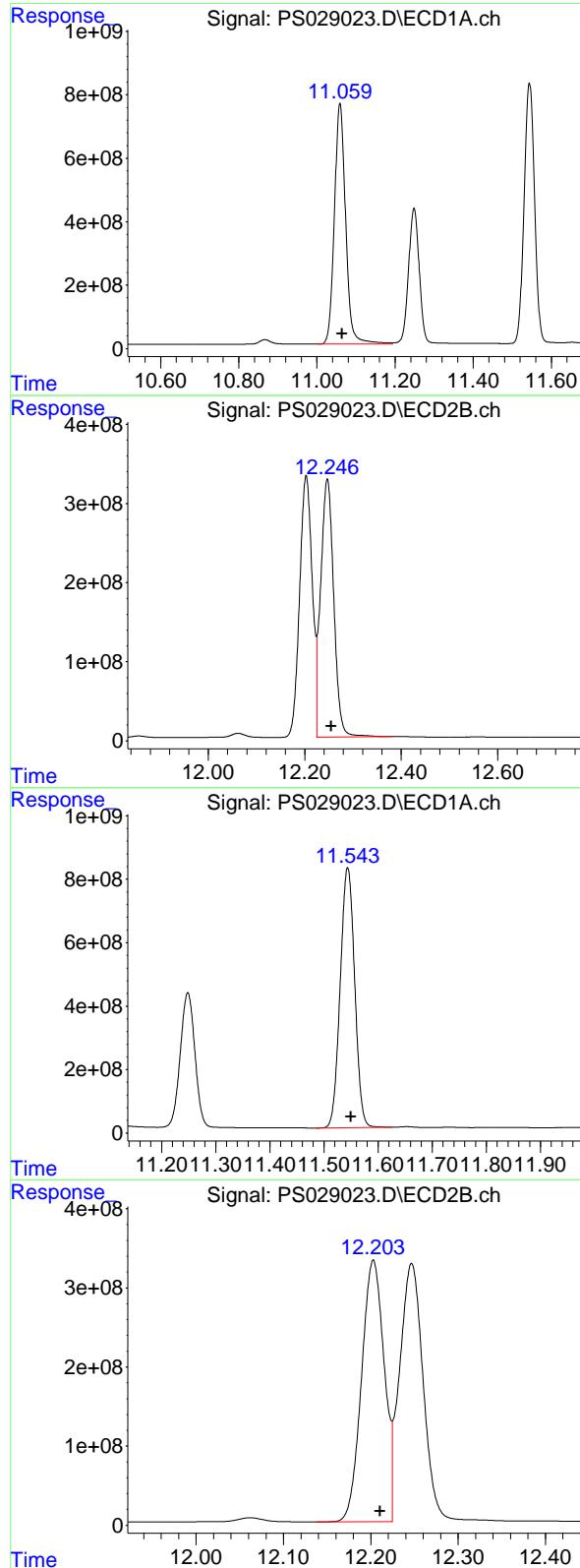
R.T.: 10.787 min
 Delta R.T.: -0.008 min
 Response: 468764229
 Conc: 470.76 ng/ml

#14 DINOSEB

R.T.: 11.249 min
 Delta R.T.: -0.006 min
 Response: 8226875031
 Conc: 497.17 ng/ml

#14 DINOSEB

R.T.: 11.164 min
 Delta R.T.: -0.008 min
 Response: 3031624191
 Conc: 472.41 ng/ml



#15 Picloram

R.T.: 11.059 min
 Delta R.T.: -0.006 min
 Instrument: ECD_S
 Response: 15163567990
 Conc: 480.59 ng/ml
 ClientSampleId: PB166428BS

#15 Picloram

R.T.: 12.247 min
 Delta R.T.: -0.009 min
 Response: 6151356109
 Conc: 458.38 ng/ml

#16 DCPA

R.T.: 11.544 min
 Delta R.T.: -0.006 min
 Response: 15201291601
 Conc: 530.01 ng/ml

#16 DCPA

R.T.: 12.203 min
 Delta R.T.: -0.008 min
 Response: 5968618127
 Conc: 525.76 ng/ml



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

Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	01/28/25	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	01/29/25	
Client Sample ID:	JPP-29.1-012825MS			SDG No.:	Q1215	
Lab Sample ID:	Q1215-04MS			Matrix:	TCLP	
Analytical Method:	SW8151A			% Solid:	0	Decanted:
Sample Wt/Vol:	100	Units:	mL	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	TCLP Herbicide	
Extraction Type:				Injection Volume :		
GPC Factor :	1.0	PH :				
Prep Method :	SW3510C					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029026.D	1	01/31/25 10:55	02/01/25 00:20	PB166428

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	52.4		4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	63.5		4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	591		39 - 175	118%	SPK: 500

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

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

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
 Data File : PS029026.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 01 Feb 2025 00:20
 Operator : AR\AJ
 Sample : Q1215-04MS
 Misc :
 ALS Vial : 19 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
JPP-29.1-012825MS

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/05/2025

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 01 05:17:11 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
----------	------	------	--------	--------	-------	-------

System Monitoring Compounds

4) S 2,4-DCAA 7.195 7.672 1645.6E6 405.2E6 591.078 363.120 #

Target Compounds

1) T	Dalapon	2.613	2.667	1008.8E6	685.7E6	338.319m	336.098m
2) T	3,5-DICHL...	6.372	6.638	1912.1E6	708.2E6	478.402	428.523
3) T	4-Nitroph...	6.993	7.204	26757683	10589793	15.100	11.902
5) T	DICAMBA	7.380	7.868	5178.7E6	2380.7E6	436.600	427.496
6) T	MCPP	7.559	7.971	344.1E6	116.8E6	50.476m	38.833
7) T	MCPA	7.708	8.211	407.9E6	193.4E6	41.404	45.526
8) T	DICHLORPROP	8.083	8.579	1447.3E6	595.9E6	456.754	423.943
9) T	2,4-D	8.311	8.905	1772.4E6	717.7E6	524.469	478.592
10) T	Pentachlo...	8.608	9.429	19939.8E6	8940.5E6	413.372	385.930
11) T	2,4,5-TP ...	9.184	9.806	9676.2E6	5982.5E6	505.743	635.130 #
12) T	2,4,5-T	9.475	10.222	9000.7E6	4133.8E6	468.862	458.847
13) T	2,4-DB	10.047	10.786	1248.2E6	387.6E6	351.860	389.218
14) T	DINOSEB	11.248	11.164	4730.8E6	1689.0E6	285.895	263.193
15) T	Picloram	11.058	12.245	12532.2E6	5135.6E6	397.189	382.695
16) T	DCPA	11.541	12.202	11253.8E6	5298.5E6	392.379	466.728

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
 Data File : PS029026.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 01 Feb 2025 00:20
 Operator : AR\AJ
 Sample : Q1215-04MS
 Misc :
 ALS Vial : 19 Sample Multiplier: 1

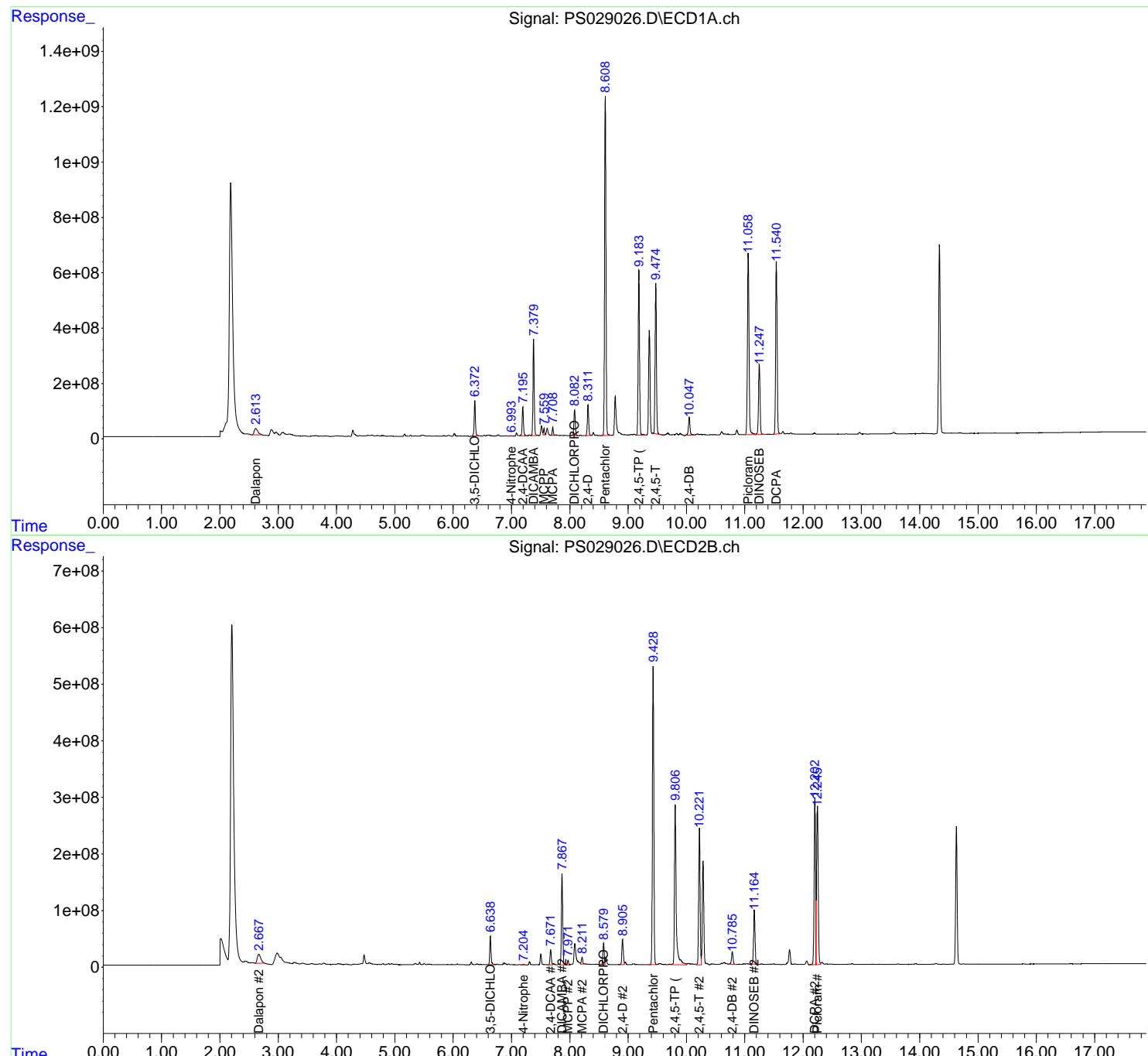
Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 01 05:17:11 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

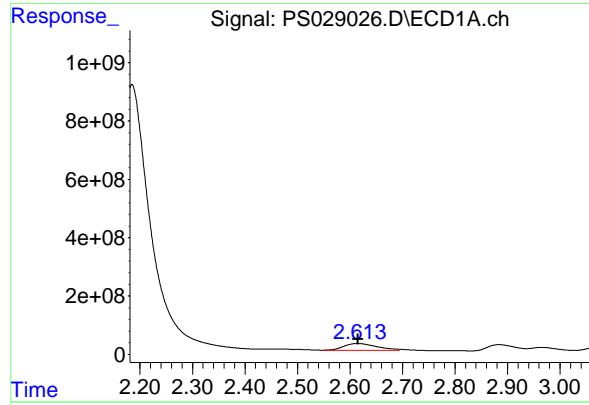
Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m

Instrument :
 ECD_S
 ClientSampleId :
 JPP-29.1-012825MS

Manual Integrations APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/05/2025



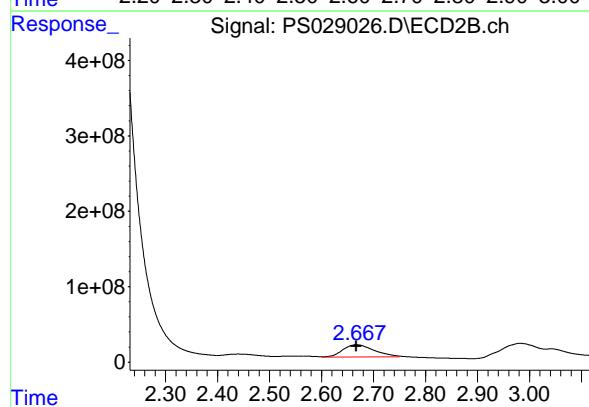


#1 Dalapon

R.T.: 2.613 min
Delta R.T.: -0.002 min
Instrument:
Response: 1008781228 ECD_S
Conc: 338.32 ng/ml Client Sample Id : JPP-29.1-012825MS

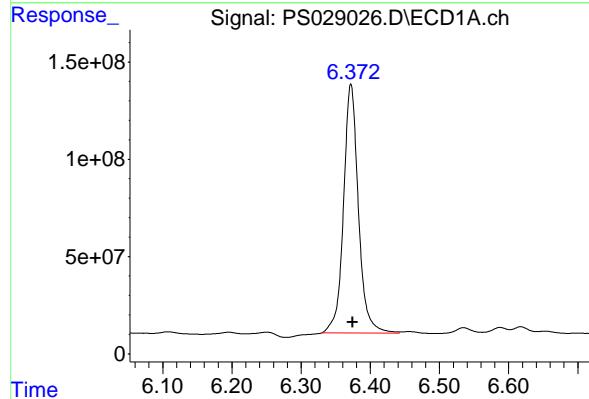
Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
Supervised By :Ankita Jodhani 02/05/2025



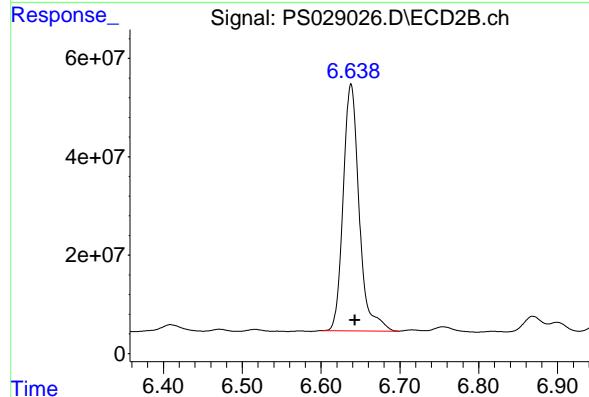
#1 Dalapon

R.T.: 2.667 min
Delta R.T.: 0.000 min
Response: 685689329
Conc: 336.10 ng/ml



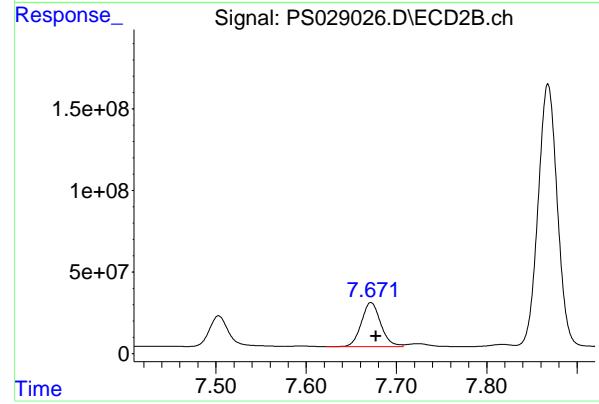
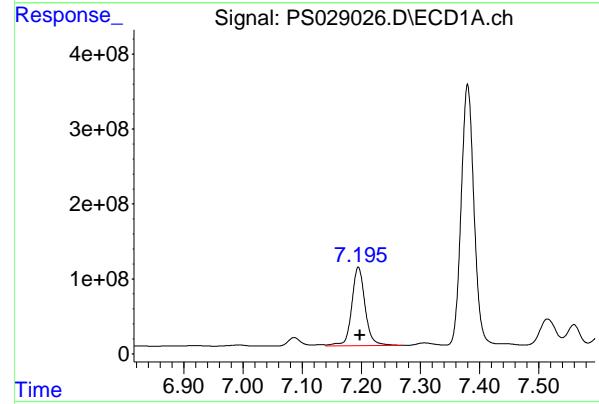
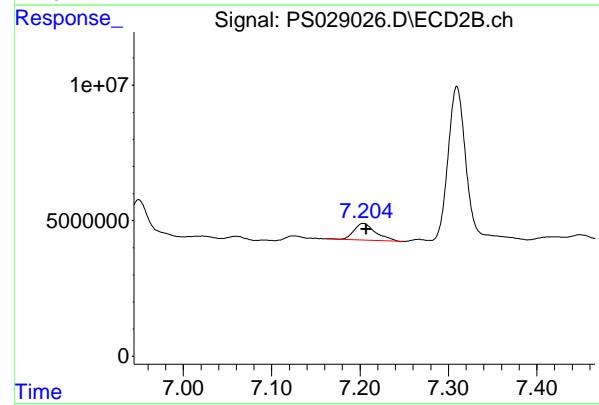
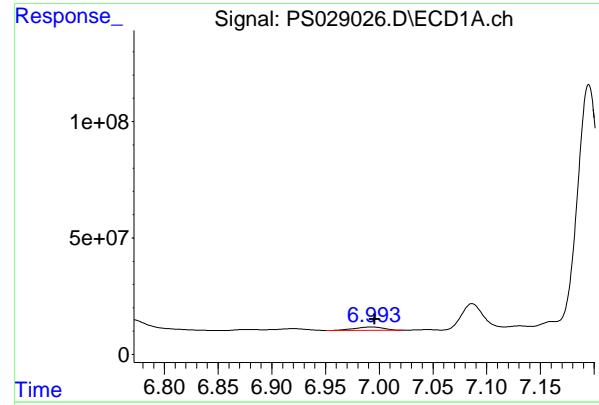
#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.372 min
Delta R.T.: -0.003 min
Response: 1912099971
Conc: 478.40 ng/ml



#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.638 min
Delta R.T.: -0.005 min
Response: 708186511
Conc: 428.52 ng/ml



#3 4-Nitrophenol

R.T.: 6.993 min
 Delta R.T.: -0.003 min
 Response: 26757683
 Conc: 15.10 ng/ml

Instrument: ECD_S
 ClientSampleId: JPP-29.1-012825MS

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/05/2025

#3 4-Nitrophenol

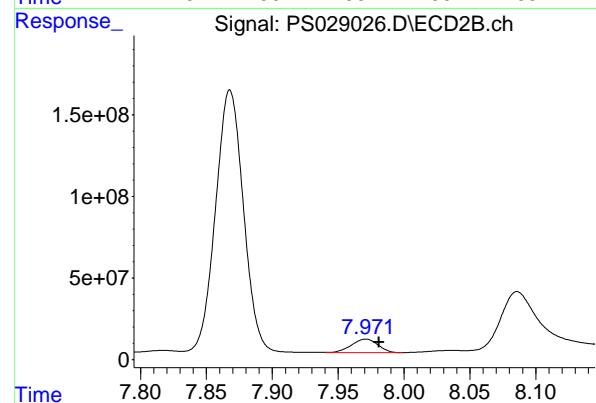
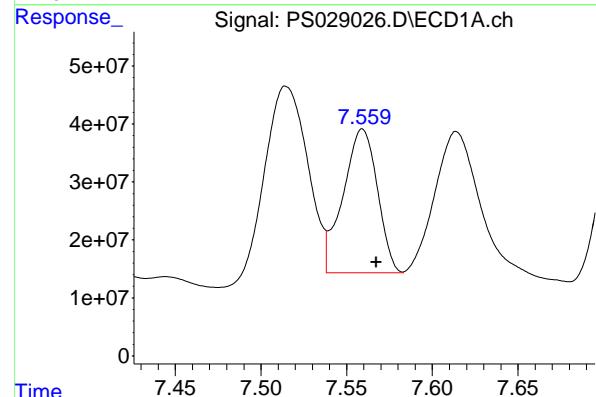
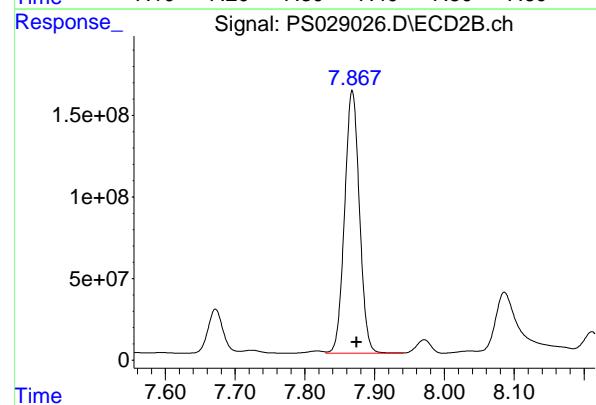
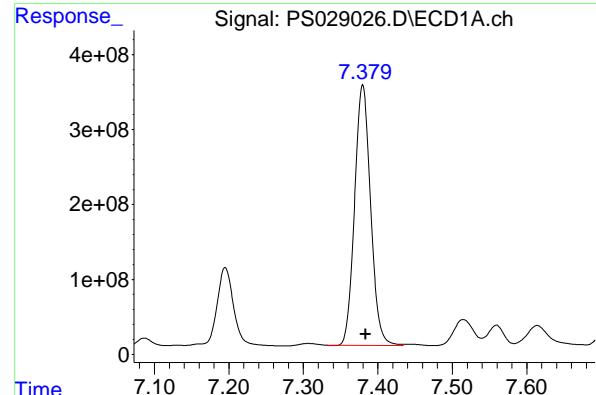
R.T.: 7.204 min
 Delta R.T.: -0.003 min
 Response: 10589793
 Conc: 11.90 ng/ml

#4 2,4-DCAA

R.T.: 7.195 min
 Delta R.T.: -0.003 min
 Response: 1645568690
 Conc: 591.08 ng/ml

#4 2,4-DCAA

R.T.: 7.672 min
 Delta R.T.: -0.006 min
 Response: 405174152
 Conc: 363.12 ng/ml



#5 DICAMBA

R.T.: 7.380 min
 Delta R.T.: -0.004 min
 Response: 5178703093
 Conc: 436.60 ng/ml

Instrument: ECD_S
 ClientSampleId : JPP-29.1-012825MS

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/05/2025

#5 DICAMBA

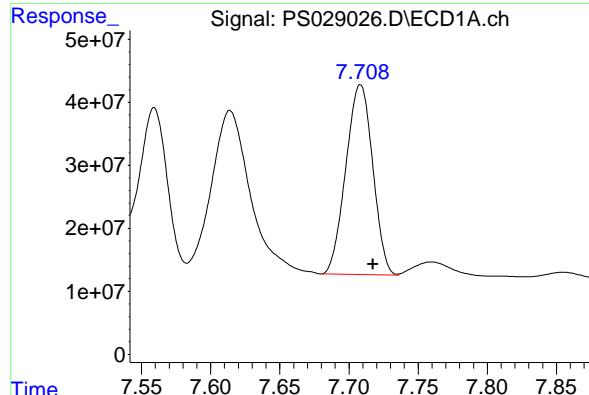
R.T.: 7.868 min
 Delta R.T.: -0.007 min
 Response: 2380739778
 Conc: 427.50 ng/ml

#6 MCPP

R.T.: 7.559 min
 Delta R.T.: -0.009 min
 Response: 344054940
 Conc: 50.48 ug/ml

#6 MCPP

R.T.: 7.971 min
 Delta R.T.: -0.010 min
 Response: 116808638
 Conc: 38.83 ug/ml



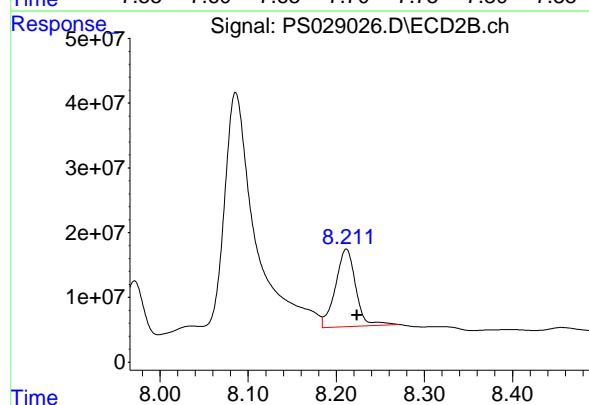
#7 MCPA

R.T.: 7.708 min
 Delta R.T.: -0.009 min
 Response: 407868901
 Conc: 41.40 ug/ml

Instrument: ECD_S
 Client Sample Id: JPP-29.1-012825MS

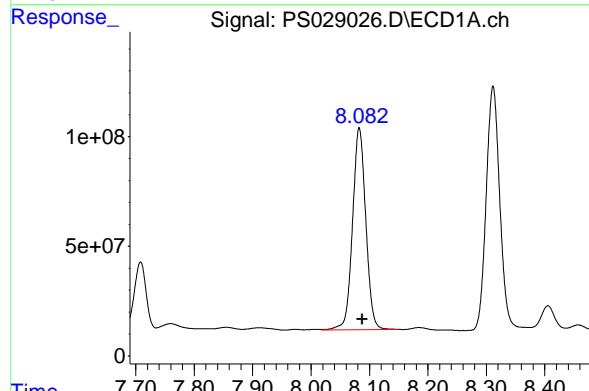
Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/05/2025



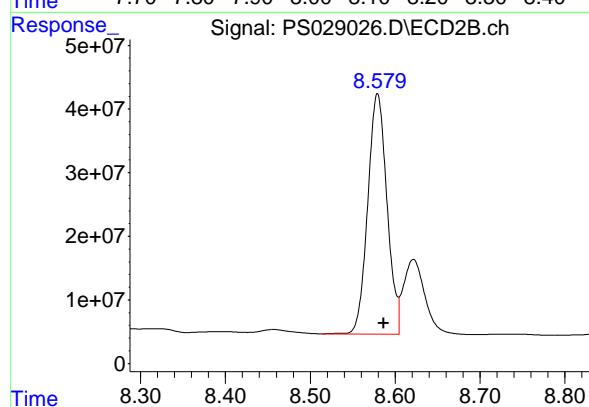
#7 MCPA

R.T.: 8.211 min
 Delta R.T.: -0.012 min
 Response: 193367716
 Conc: 45.53 ug/ml



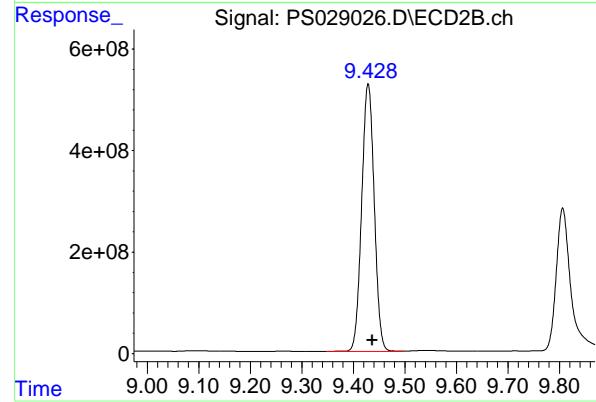
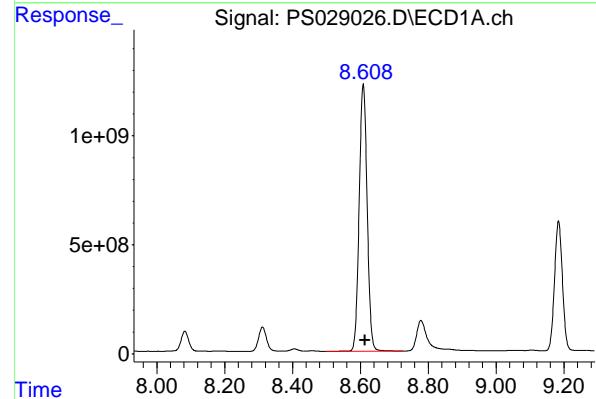
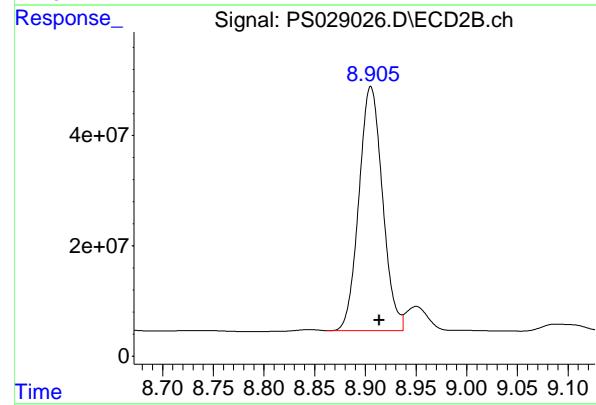
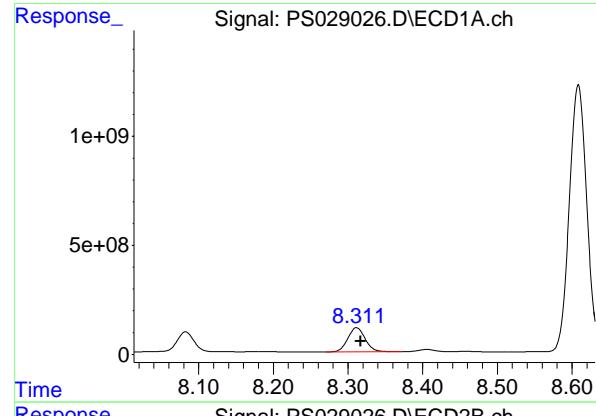
#8 DICHLORPROP

R.T.: 8.083 min
 Delta R.T.: -0.005 min
 Response: 1447257820
 Conc: 456.75 ng/ml



#8 DICHLORPROP

R.T.: 8.579 min
 Delta R.T.: -0.007 min
 Response: 595893517
 Conc: 423.94 ng/ml



#9 2,4-D

R.T.: 8.311 min
 Delta R.T.: -0.005 min
 Response: 1772418502
 Conc: 524.47 ng/ml

Instrument: ECD_S
 ClientSampleId: JPP-29.1-012825MS

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/05/2025

#9 2,4-D

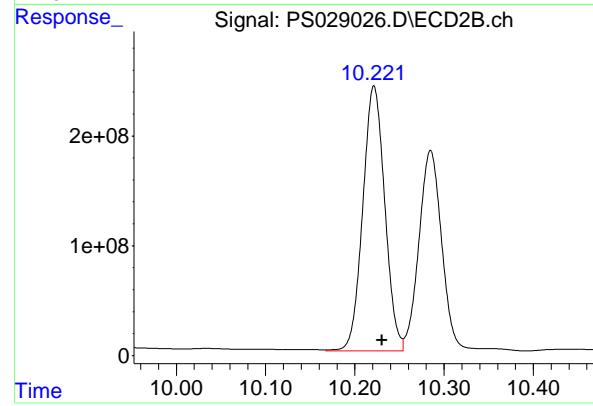
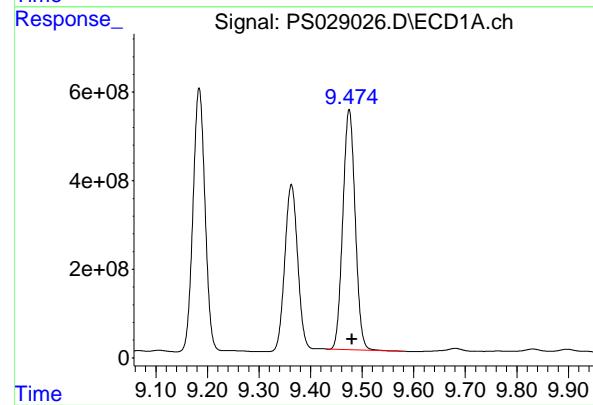
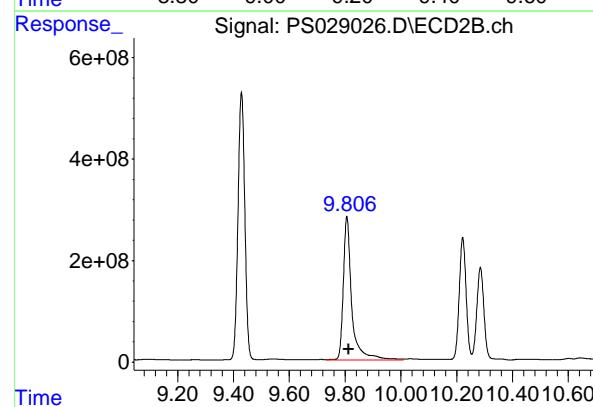
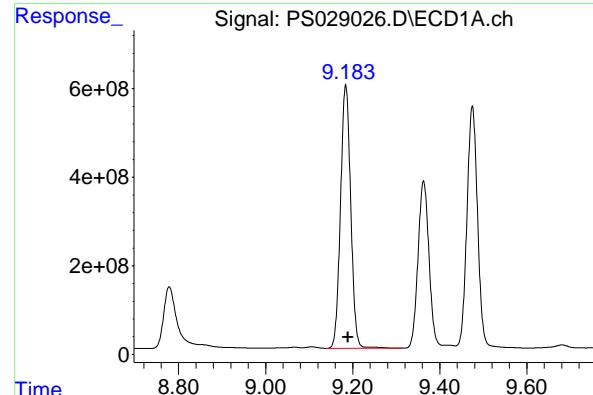
R.T.: 8.905 min
 Delta R.T.: -0.008 min
 Response: 717656978
 Conc: 478.59 ng/ml

#10 Pentachlorophenol

R.T.: 8.608 min
 Delta R.T.: -0.006 min
 Response: 19939847238
 Conc: 413.37 ng/ml

#10 Pentachlorophenol

R.T.: 9.429 min
 Delta R.T.: -0.008 min
 Response: 8940454460
 Conc: 385.93 ng/ml



#11 2,4,5-TP (SILVEX)

R.T.: 9.184 min

Delta R.T.: -0.005 min

Instrument: ECD_S

Response: 9676217682

Conc: 505.74 ng/ml

ClientSampleId: JPP-29.1-012825MS

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
Supervised By :Ankita Jodhani 02/05/2025

#11 2,4,5-TP (SILVEX)

R.T.: 9.806 min

Delta R.T.: -0.007 min

Response: 5982540276

Conc: 635.13 ng/ml

#12 2,4,5-T

R.T.: 9.475 min

Delta R.T.: -0.005 min

Response: 9000704007

Conc: 468.86 ng/ml

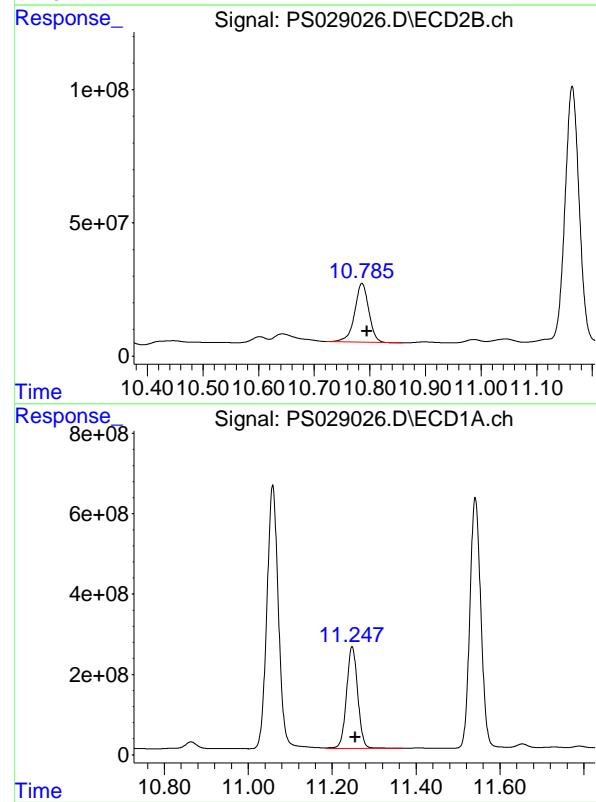
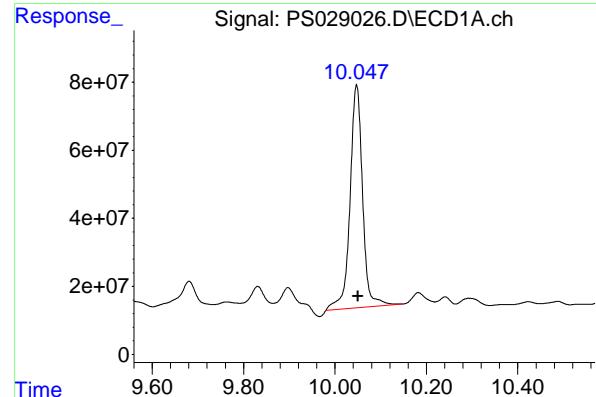
#12 2,4,5-T

R.T.: 10.222 min

Delta R.T.: -0.009 min

Response: 4133754227

Conc: 458.85 ng/ml



#13 2,4-DB

R.T.: 10.047 min
 Delta R.T.: -0.004 min
 Response: 1248172364
 Conc: 351.86 ng/ml

Instrument: ECD_S
 ClientSampleId: JPP-29.1-012825MS

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/05/2025

#13 2,4-DB

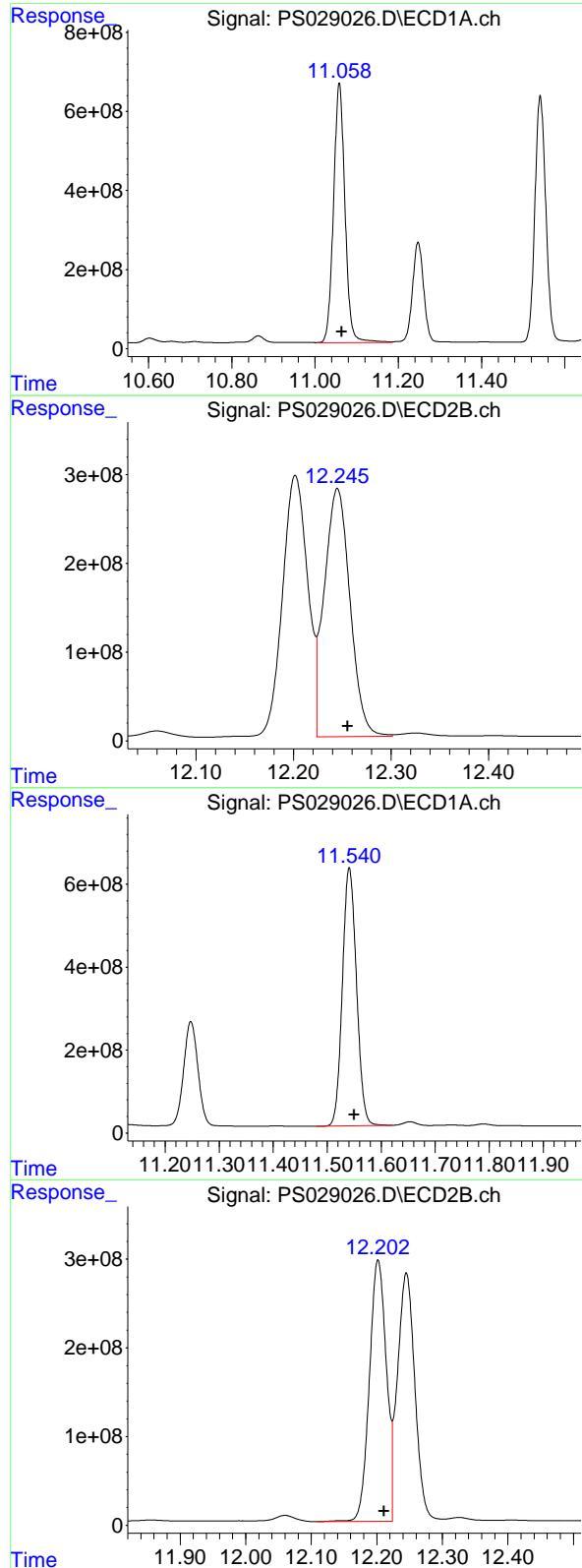
R.T.: 10.786 min
 Delta R.T.: -0.009 min
 Response: 387565827
 Conc: 389.22 ng/ml

#14 DINOSEB

R.T.: 11.248 min
 Delta R.T.: -0.007 min
 Response: 4730790143
 Conc: 285.89 ng/ml

#14 DINOSEB

R.T.: 11.164 min
 Delta R.T.: -0.009 min
 Response: 1688995609
 Conc: 263.19 ng/ml



#15 Picloram

R.T.: 11.058 min
 Delta R.T.: -0.006 min
 Response: 12532155156 ECD_S
 Conc: 397.19 ng/ml Client Sample Id : JPP-29.1-012825MS

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/05/2025

#15 Picloram

R.T.: 12.245 min
 Delta R.T.: -0.011 min
 Response: 5135641112
 Conc: 382.70 ng/ml

#16 DCPA

R.T.: 11.541 min
 Delta R.T.: -0.009 min
 Response: 11253834570
 Conc: 392.38 ng/ml

#16 DCPA

R.T.: 12.202 min
 Delta R.T.: -0.009 min
 Response: 5298456478
 Conc: 466.73 ng/ml



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

Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	01/28/25	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	01/29/25	
Client Sample ID:	JPP-29.1-012825MSD			SDG No.:	Q1215	
Lab Sample ID:	Q1215-04MSD			Matrix:	TCLP	
Analytical Method:	SW8151A			% Solid:	0	Decanted:
Sample Wt/Vol:	100	Units:	mL	Final Vol:	10000	uL
Soil Aliquot Vol:			uL	Test:	TCLP Herbicide	
Extraction Type:				Injection Volume :		
GPC Factor :	1.0	PH :				
Prep Method :	SW3510C					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS029027.D	1	01/31/25 10:55	02/01/25 00:44	PB166428

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	52.5		4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	63.8		4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	592		39 - 175	118%	SPK: 500

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

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

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
 Data File : PS029027.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 01 Feb 2025 00:44
 Operator : AR\AJ
 Sample : Q1215-04MSD
 Misc :
 ALS Vial : 20 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
JPP-29.1-012825MSD

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/05/2025

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 01 05:17:27 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm

Compound	RT#1	RT#2	Resp#1	Resp#2	ng/ml	ng/ml
----------	------	------	--------	--------	-------	-------

System Monitoring Compounds

4) S 2,4-DCAA 7.195 7.672 1647.7E6 406.1E6 591.853 363.976 #

Target Compounds

1) T	Dalapon	2.617	2.668	992.7E6	651.0E6	332.941m	319.075m
2) T	3,5-DICHL...	6.372	6.638	1907.8E6	707.2E6	477.326	427.907
3) T	4-Nitroph...	6.993	7.204	24520379	10132998	13.837	11.388
5) T	DICAMBA	7.379	7.868	5183.0E6	2381.5E6	436.959	427.629
6) T	MCPP	7.559	7.971	368.0E6	117.3E6	53.982m	38.988 #
7) T	MCPA	7.708	8.211	411.7E6	196.0E6	41.797	46.155
8) T	DICHLORPROP	8.083	8.579	1436.0E6	598.5E6	453.190	425.821
9) T	2,4-D	8.311	8.906	1773.8E6	719.2E6	524.887	479.597
10) T	Pentachlo...	8.609	9.429	19943.3E6	8960.9E6	413.444	386.810
11) T	2,4,5-TP ...	9.184	9.806	9636.3E6	6005.7E6	503.655	637.591 #
12) T	2,4,5-T	9.475	10.222	9022.1E6	4147.0E6	469.977	460.315
13) T	2,4-DB	10.047	10.786	1253.8E6	392.5E6	353.451	394.164
14) T	DINOSEB	11.249	11.164	4787.2E6	1691.5E6	289.301	263.586
15) T	Picloram	11.058	12.245	12558.9E6	5159.1E6	398.035	384.443
16) T	DCPA	11.541	12.202	11267.1E6	5284.1E6	392.843	465.461

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS013125\
 Data File : PS029027.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 01 Feb 2025 00:44
 Operator : AR\AJ
 Sample : Q1215-04MSD
 Misc :
 ALS Vial : 20 Sample Multiplier: 1

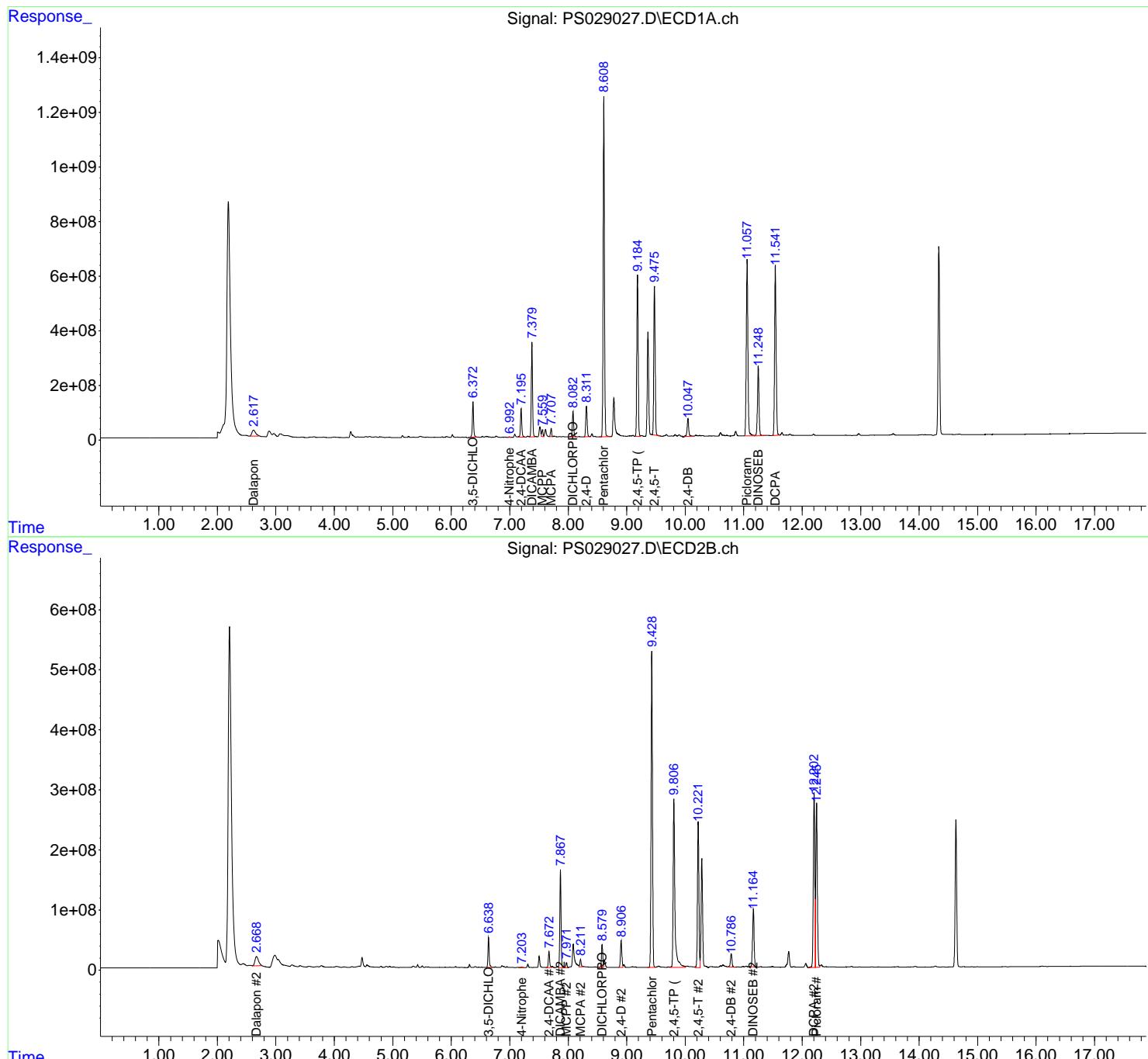
Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Feb 01 05:17:27 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS011425.M
 Quant Title : 8080.M
 QLast Update : Tue Jan 14 12:25:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

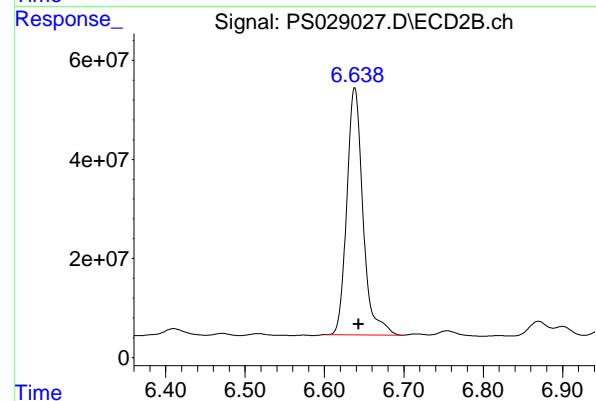
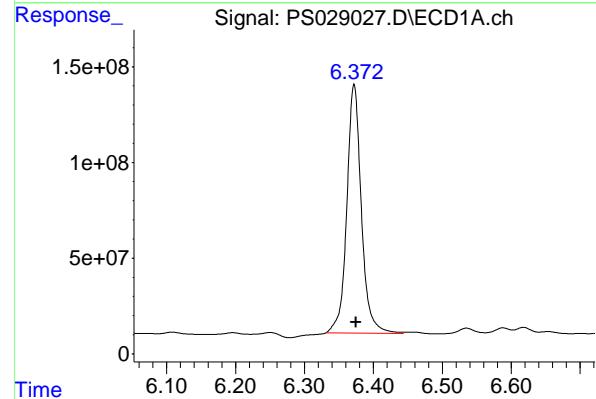
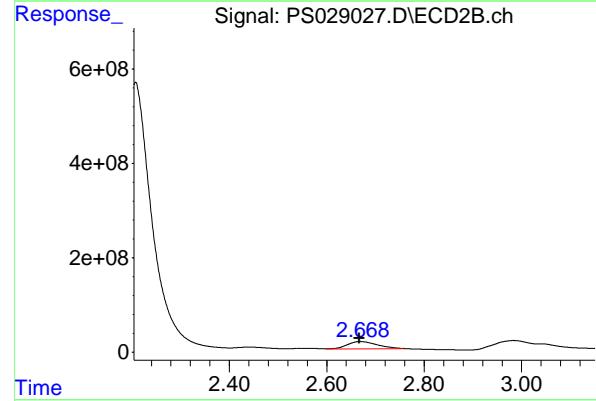
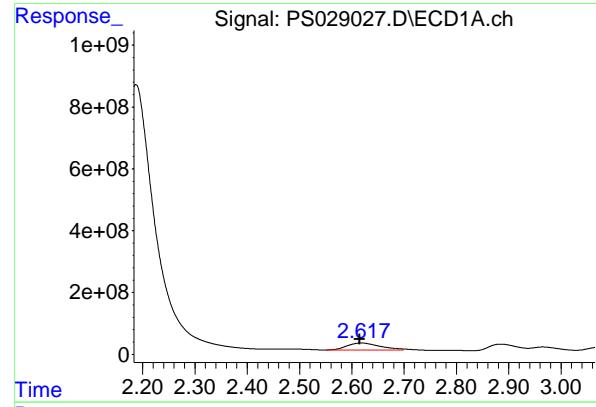
Volume Inj. : 1 μ l
 Signal #1 Phase : ZB-MR1 Signal #2 Phase: ZB-MR2
 Signal #1 Info : 30M x 0.32mm x0.5 Signal #2 Info : 30M x 0.32mm x 0.25 μ m

Instrument :
 ECD_S
 ClientSampleId :
 JPP-29.1-012825MSD

Manual Integrations APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/05/2025





#1 Dalapon

R.T.: 2.617 min
 Delta R.T.: 0.002 min
 Response: 992745194 ECD_S
 Conc: 332.94 ng/ml ClientSampleId : JPP-29.1-012825MSD

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/05/2025

#1 Dalapon

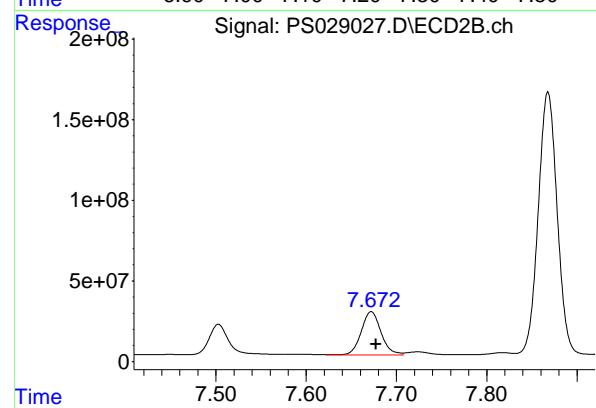
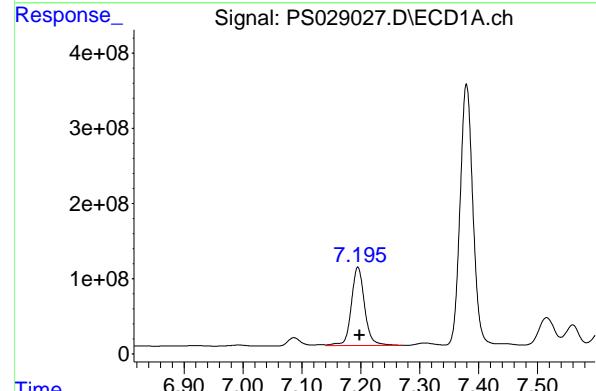
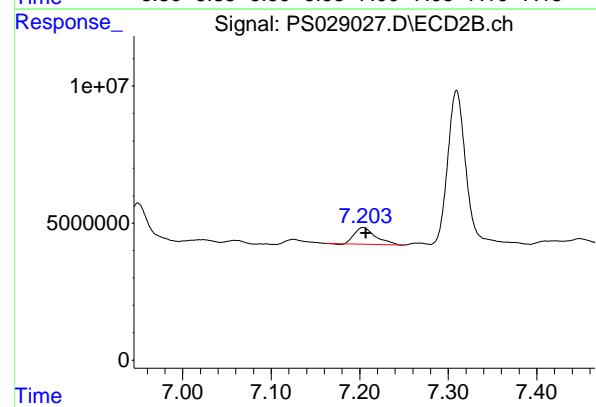
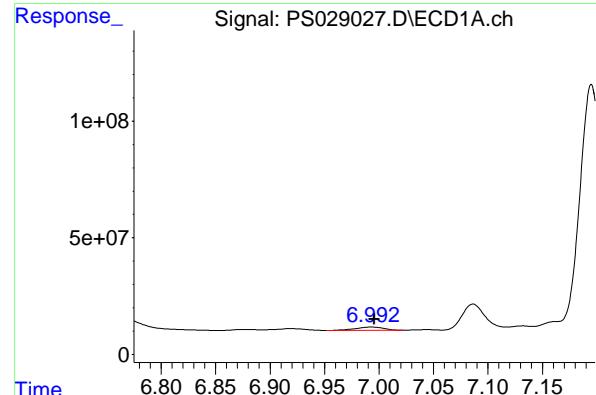
R.T.: 2.668 min
 Delta R.T.: 0.001 min
 Response: 650960368
 Conc: 319.08 ng/ml

#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.372 min
 Delta R.T.: -0.003 min
 Response: 1907800929
 Conc: 477.33 ng/ml

#2 3,5-DICHLOROBENZOIC ACID

R.T.: 6.638 min
 Delta R.T.: -0.005 min
 Response: 707167964
 Conc: 427.91 ng/ml



#3 4-Nitrophenol

R.T.: 6.993 min
Delta R.T.: -0.003 min
Instrument: ECD_S
Response: 24520379
Conc: 13.84 ng/ml ClientSampleId : JPP-29.1-012825MSD

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
Supervised By :Ankita Jodhani 02/05/2025

#3 4-Nitrophenol

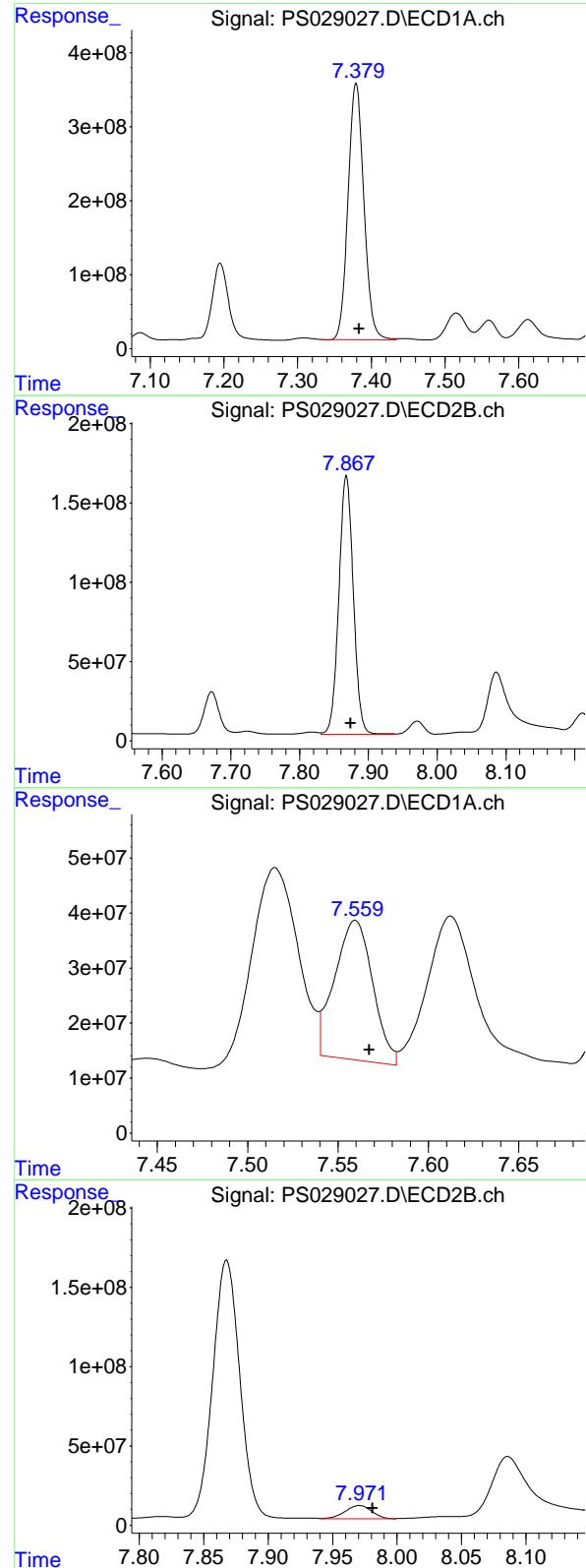
R.T.: 7.204 min
Delta R.T.: -0.003 min
Response: 10132998
Conc: 11.39 ng/ml

#4 2,4-DCAA

R.T.: 7.195 min
Delta R.T.: -0.003 min
Response: 1647726224
Conc: 591.85 ng/ml

#4 2,4-DCAA

R.T.: 7.672 min
Delta R.T.: -0.005 min
Response: 406129182
Conc: 363.98 ng/ml



#5 DICAMBA

R.T.: 7.379 min
 Delta R.T.: -0.004 min
 Response: 5182959837
 Conc: 436.96 ng/ml

Instrument: ECD_S
 ClientSampleId: JPP-29.1-012825MSD

Manual Integrations
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Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/05/2025

#5 DICAMBA

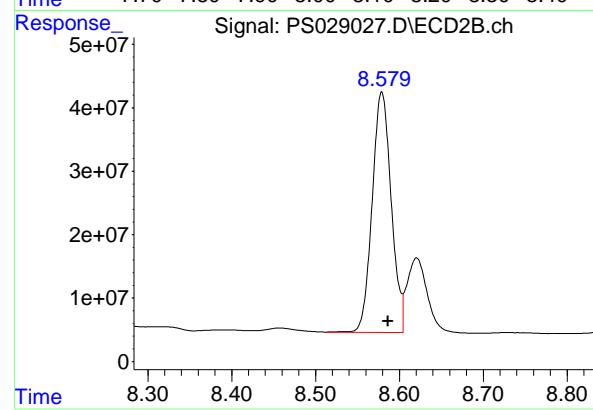
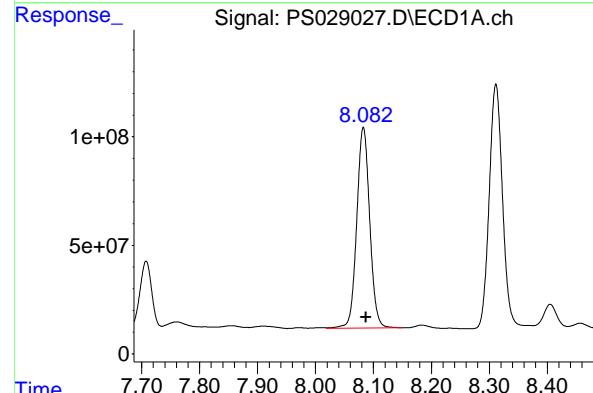
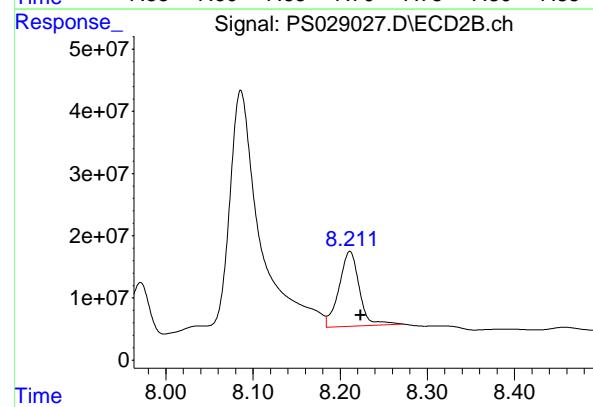
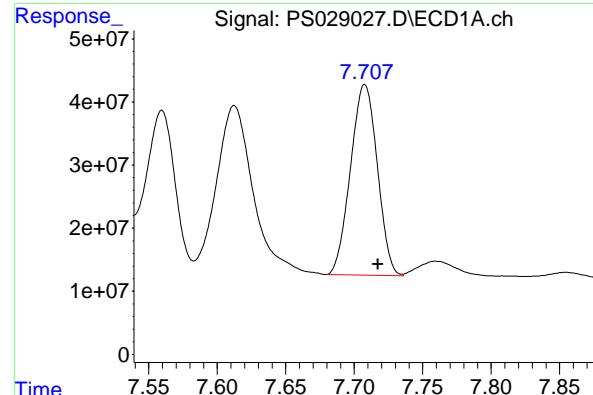
R.T.: 7.868 min
 Delta R.T.: -0.007 min
 Response: 2381484710
 Conc: 427.63 ng/ml

#6 MCPP

R.T.: 7.559 min
 Delta R.T.: -0.008 min
 Response: 367957072
 Conc: 53.98 ug/ml

#6 MCPP

R.T.: 7.971 min
 Delta R.T.: -0.010 min
 Response: 117275276
 Conc: 38.99 ug/ml



#7 MCPA

R.T.: 7.708 min
 Delta R.T.: -0.010 min
 Response: 411743994 ECD_S
 Conc: 41.80 ug/ml Client Sample Id : JPP-29.1-012825MSD

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/05/2025

#7 MCPA

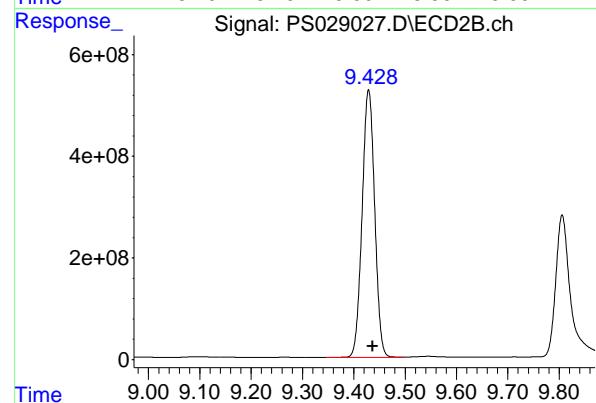
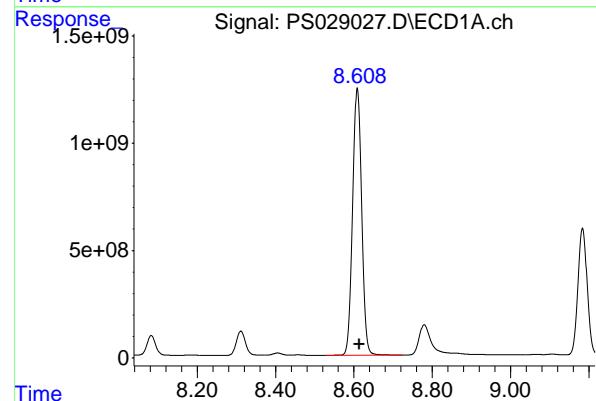
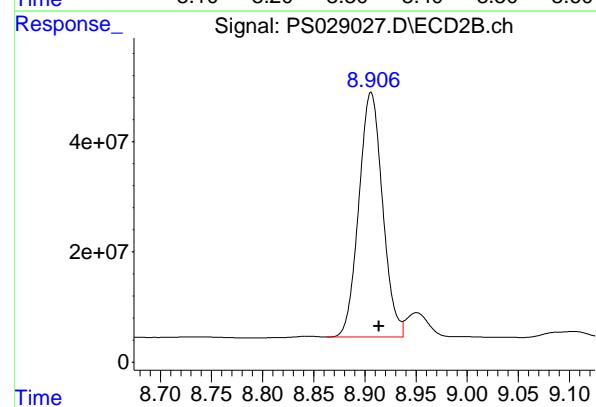
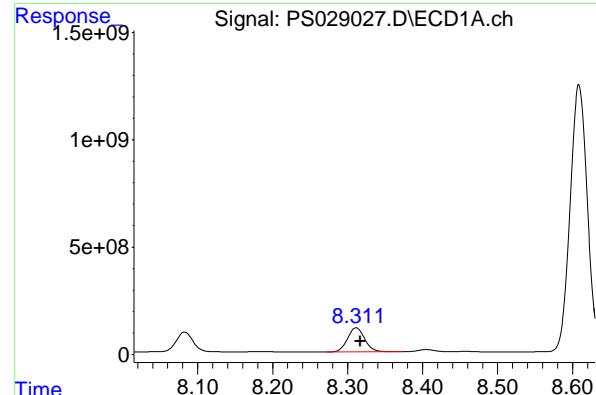
R.T.: 8.211 min
 Delta R.T.: -0.012 min
 Response: 196039823
 Conc: 46.15 ug/ml

#8 DICHLORPROP

R.T.: 8.083 min
 Delta R.T.: -0.005 min
 Response: 1435964063
 Conc: 453.19 ng/ml

#8 DICHLORPROP

R.T.: 8.579 min
 Delta R.T.: -0.007 min
 Response: 598534107
 Conc: 425.82 ng/ml



#9 2,4-D

R.T.: 8.311 min
 Delta R.T.: -0.005 min
 Response: 1773829544 ECD_S
 Conc: 524.89 ng/ml Client Sample Id : JPP-29.1-012825MSD

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/05/2025

#9 2,4-D

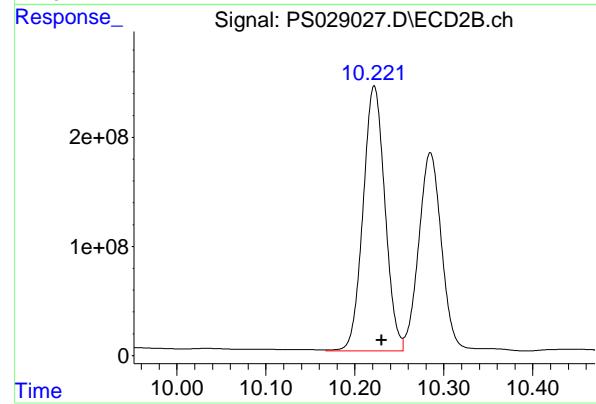
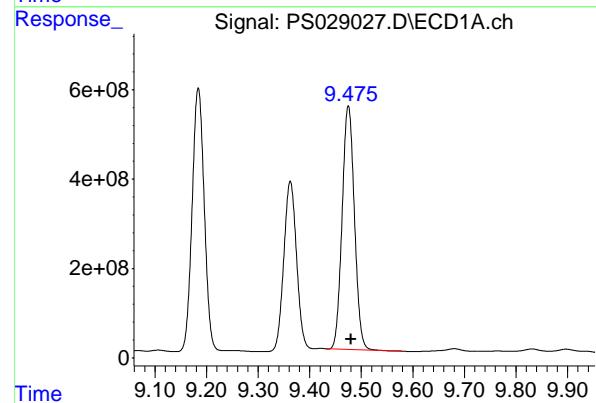
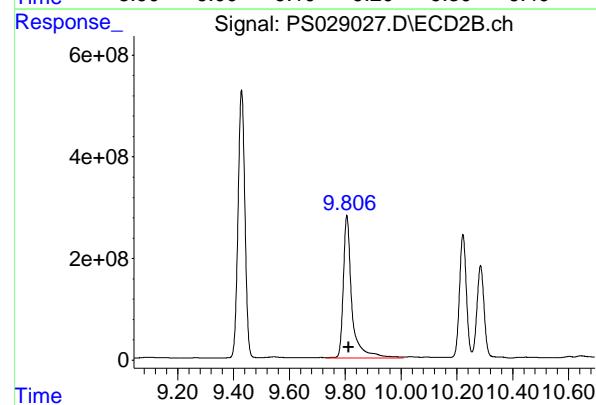
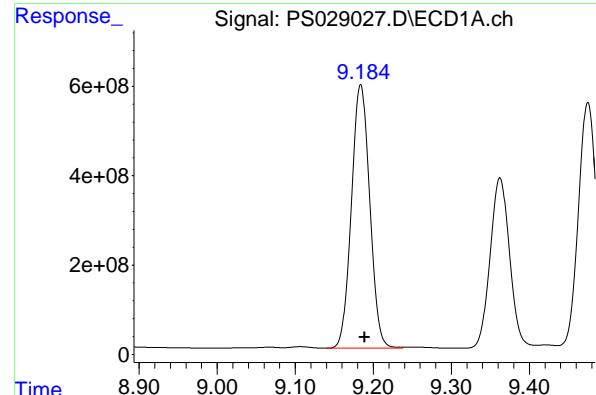
R.T.: 8.906 min
 Delta R.T.: -0.008 min
 Response: 719163957
 Conc: 479.60 ng/ml

#10 Pentachlorophenol

R.T.: 8.609 min
 Delta R.T.: -0.006 min
 Response: 19943323606
 Conc: 413.44 ng/ml

#10 Pentachlorophenol

R.T.: 9.429 min
 Delta R.T.: -0.008 min
 Response: 8960855134
 Conc: 386.81 ng/ml



#11 2,4,5-TP (SILVEX)

R.T.: 9.184 min

Delta R.T.: -0.005 min

Instrument: ECD_S

Response: 9636266092 ClientSampleId :

Conc: 503.66 ng/ml JPP-29.1-012825MSD

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
Supervised By :Ankita Jodhani 02/05/2025

#11 2,4,5-TP (SILVEX)

R.T.: 9.806 min

Delta R.T.: -0.007 min

Response: 6005727454 ClientSampleId :

Conc: 637.59 ng/ml

#12 2,4,5-T

R.T.: 9.475 min

Delta R.T.: -0.005 min

Response: 9022121236 ClientSampleId :

Conc: 469.98 ng/ml

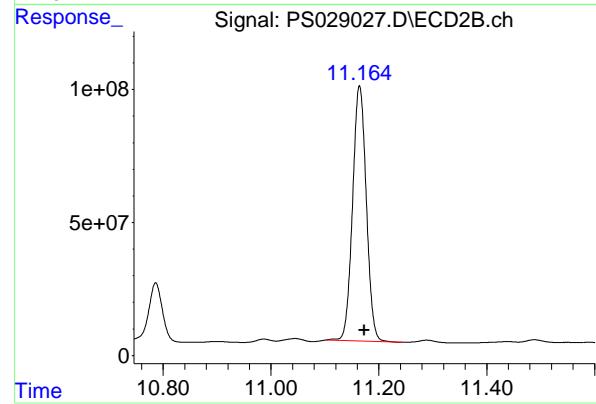
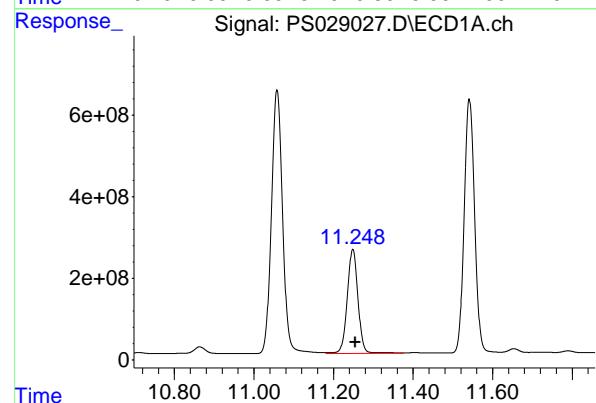
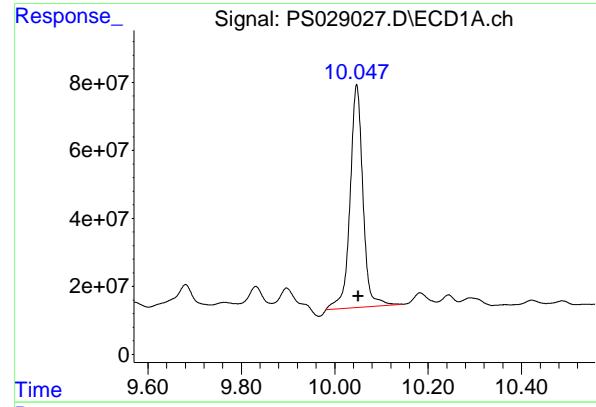
#12 2,4,5-T

R.T.: 10.222 min

Delta R.T.: -0.009 min

Response: 4146979980 ClientSampleId :

Conc: 460.32 ng/ml



#13 2,4-DB

R.T.: 10.047 min
 Delta R.T.: -0.004 min
 Response: 1253814694 ECD_S
 Conc: 353.45 ng/ml ClientSampleId : JPP-29.1-012825MSD

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/05/2025

#13 2,4-DB

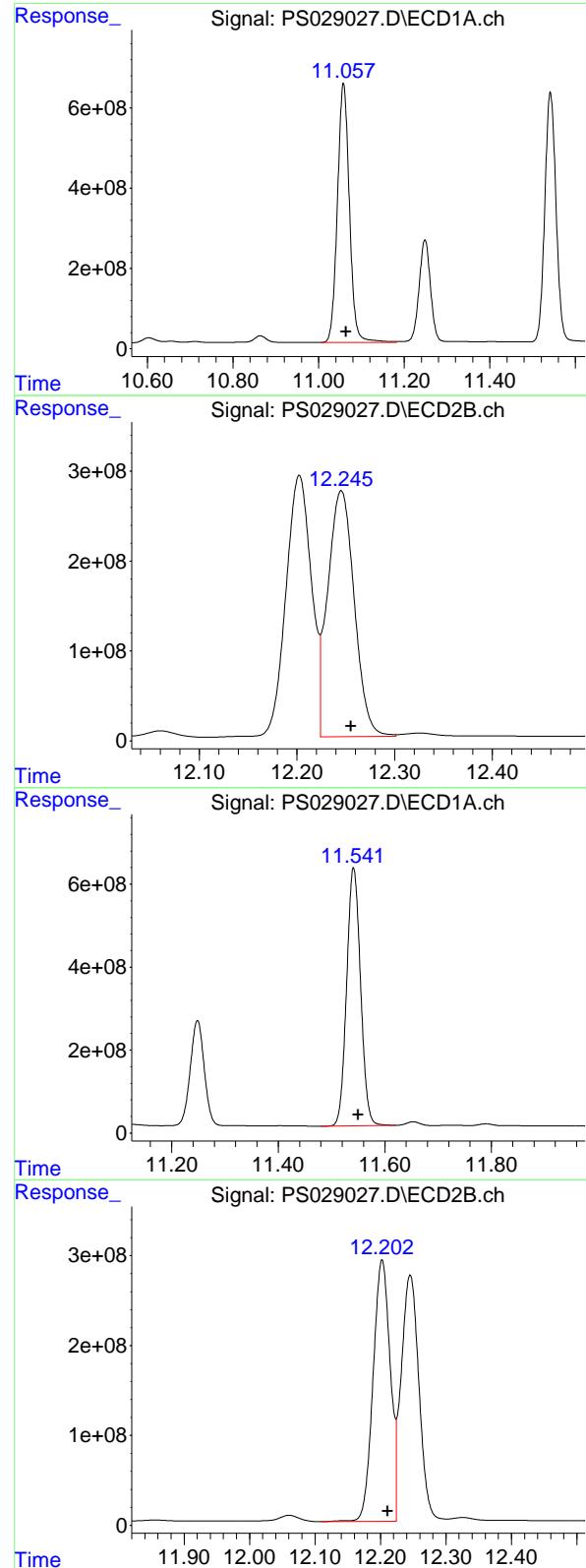
R.T.: 10.786 min
 Delta R.T.: -0.009 min
 Response: 392491436
 Conc: 394.16 ng/ml

#14 DINOSEB

R.T.: 11.249 min
 Delta R.T.: -0.006 min
 Response: 4787151624
 Conc: 289.30 ng/ml

#14 DINOSEB

R.T.: 11.164 min
 Delta R.T.: -0.008 min
 Response: 1691515543
 Conc: 263.59 ng/ml



#15 Picloram

R.T.: 11.058 min
 Delta R.T.: -0.006 min
 Response: 12558861498 ECD_S
 Conc: 398.04 ng/ml Client Sample Id : JPP-29.1-012825MSD

Manual Integrations
APPROVED

Reviewed By :Abdul Mirza 02/03/2025
 Supervised By :Ankita Jodhani 02/05/2025

#15 Picloram

R.T.: 12.245 min
 Delta R.T.: -0.010 min
 Response: 5159090788
 Conc: 384.44 ng/ml

#16 DCPA

R.T.: 11.541 min
 Delta R.T.: -0.008 min
 Response: 11267141509
 Conc: 392.84 ng/ml

#16 DCPA

R.T.: 12.202 min
 Delta R.T.: -0.008 min
 Response: 5284077182
 Conc: 465.46 ng/ml



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Manual Integration Report

Sequence:	PS011425	Instrument	ECD_s
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
HSTDICC1500	PS028905.D	Dalapon	Abdul	1/14/2025 4:08:21 PM	Ankita	1/15/2025 7:45:19	Peak Integrated by Software
HSTDICV750	PS028906.D	2,4-DCAA	Abdul	1/14/2025 4:08:25 PM	Ankita	1/15/2025 7:45:21	Peak Integrated by Software
HSTDICV750	PS028906.D	Dalapon	Abdul	1/14/2025 4:08:25 PM	Ankita	1/15/2025 7:45:21	Peak Integrated by Software
HSTDCCC750	PS028908.D	Dalapon	Abdul	1/14/2025 4:08:28 PM	Ankita	1/15/2025 7:45:22	Peak Integrated by Software



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Manual Integration Report

Sequence:	PS013125	Instrument	ECD_s
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
HSTDCCC750	PS029008.D	MCPA #2	Abdul	2/3/2025 3:56:30 PM	Ankita	2/5/2025 8:49:53	Peak Integrated by Software
PB166356TB	PS029024.D	2,4-DCAA	Abdul	2/3/2025 9:56:17 AM	Ankita	2/3/2025 1:14:51	Peak Integrated by Software

Instrument ID: ECD_S

Daily Analysis Runlog For Sequence/QCBatch ID # PS011425

Review By	Abdul	Review On	1/14/2025 4:08:46 PM
Supervise By	Ankita	Supervise On	1/15/2025 7:45:27 AM
SubDirectory	PS011425	HP Acquire Method	HP Processing Method ps011425 8151
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24064,PP24065,PP24066,PP24067,PP24068		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24066 PP24069,PP24070		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	HEXANE	PS028899.D	14 Jan 2025 09:43	AR\AJ	Ok
2	I.BLK	PS028900.D	14 Jan 2025 10:07	AR\AJ	Ok
3	HSTDICC200	PS028901.D	14 Jan 2025 10:31	AR\AJ	Ok
4	HSTDICC500	PS028902.D	14 Jan 2025 10:55	AR\AJ	Ok
5	HSTDICC750	PS028903.D	14 Jan 2025 11:19	AR\AJ	Ok
6	HSTDICC1000	PS028904.D	14 Jan 2025 11:43	AR\AJ	Ok
7	HSTDICC1500	PS028905.D	14 Jan 2025 12:07	AR\AJ	Ok,M
8	HSTDICV750	PS028906.D	14 Jan 2025 12:31	AR\AJ	Ok,M
9	I.BLK	PS028907.D	14 Jan 2025 12:56	AR\AJ	Ok
10	HSTDCCC750	PS028908.D	14 Jan 2025 13:20	AR\AJ	Ok,M

M : Manual Integration



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Fax : 908 789 8922

Instrument ID: ECD_S

Daily Analysis Runlog For Sequence/QCBatch ID # PS013125

Review By	Abdul	Review On	2/3/2025 9:56:56 AM
Supervise By	Ankita	Supervise On	2/5/2025 8:50:07 AM
SubDirectory	PS013125	HP Acquire Method	HP Processing Method ps114225 8151
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24064,PP24065,PP24066,PP24067,PP24068		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24066 PP24069,PP24070		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	HEXANE	PS029006.D	31 Jan 2025 10:23	AR\AJ	Ok
2	I.BLK	PS029007.D	31 Jan 2025 10:47	AR\AJ	Ok
3	HSTDCCC750	PS029008.D	31 Jan 2025 13:00	AR\AJ	Ok,M
4	PB166416BL	PS029009.D	31 Jan 2025 16:44	AR\AJ	Ok
5	PB166416BS	PS029010.D	31 Jan 2025 17:08	AR\AJ	Ok
6	Q1218-01	PS029011.D	31 Jan 2025 17:32	AR\AJ	Ok,M
7	Q1219-01	PS029012.D	31 Jan 2025 17:56	AR\AJ	Ok
8	Q1221-01	PS029013.D	31 Jan 2025 18:20	AR\AJ	Ok
9	Q1239-01	PS029014.D	31 Jan 2025 18:44	AR\AJ	Ok
10	Q1239-04	PS029015.D	31 Jan 2025 19:08	AR\AJ	Ok
11	Q1239-07	PS029016.D	31 Jan 2025 19:32	AR\AJ	Ok,M
12	Q1239-07MS	PS029017.D	31 Jan 2025 19:56	AR\AJ	Ok,M
13	Q1239-07MSD	PS029018.D	31 Jan 2025 20:20	AR\AJ	Ok,M
14	I.BLK	PS029019.D	31 Jan 2025 20:44	AR\AJ	Ok
15	HSTDCCC750	PS029020.D	31 Jan 2025 21:08	AR\AJ	Ok
16	Q1239-10	PS029021.D	31 Jan 2025 22:20	AR\AJ	Ok
17	PB166428BL	PS029022.D	31 Jan 2025 22:44	AR\AJ	Ok
18	PB166428BS	PS029023.D	31 Jan 2025 23:08	AR\AJ	Ok
19	PB166356TB	PS029024.D	31 Jan 2025 23:32	AR\AJ	Ok,M
20	Q1215-04	PS029025.D	31 Jan 2025 23:56	AR\AJ	Ok
21	Q1215-04MS	PS029026.D	01 Feb 2025 00:20	AR\AJ	Ok,M

Instrument ID: ECD_S

Daily Analysis Runlog For Sequence/QCBatch ID # PS013125

Review By	Abdul	Review On	2/3/2025 9:56:56 AM
Supervise By	Ankita	Supervise On	2/5/2025 8:50:07 AM
SubDirectory	PS013125	HP Acquire Method	HP Processing Method ps114225 8151
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24064,PP24065,PP24066,PP24067,PP24068		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24066 PP24069,PP24070		

22	Q1215-04MSD	PS029027.D	01 Feb 2025 00:44	AR\AJ	Ok,M
23	Q1215-08	PS029028.D	01 Feb 2025 01:08	AR\AJ	Ok
24	Q1216-04	PS029029.D	01 Feb 2025 01:32	AR\AJ	Ok
25	Q1216-08	PS029030.D	01 Feb 2025 01:56	AR\AJ	Ok
26	I.BLK	PS029031.D	01 Feb 2025 02:20	AR\AJ	Ok
27	HSTDCCC750	PS029032.D	01 Feb 2025 02:44	AR\AJ	Ok
28	Q1216-12	PS029033.D	01 Feb 2025 03:56	AR\AJ	Ok
29	Q1216-16	PS029034.D	01 Feb 2025 04:20	AR\AJ	Ok
30	Q1216-20	PS029035.D	01 Feb 2025 04:44	AR\AJ	Ok
31	Q1232-04	PS029036.D	01 Feb 2025 05:08	AR\AJ	Ok,M
32	Q1232-08	PS029037.D	01 Feb 2025 05:32	AR\AJ	Ok
33	Q1232-12	PS029038.D	01 Feb 2025 05:56	AR\AJ	Ok
34	Q1232-16	PS029039.D	01 Feb 2025 06:20	AR\AJ	Ok
35	Q1232-20	PS029040.D	01 Feb 2025 06:44	AR\AJ	Ok
36	Q1235-04	PS029041.D	01 Feb 2025 07:08	AR\AJ	Ok
37	Q1235-08	PS029042.D	01 Feb 2025 07:32	AR\AJ	Ok
38	I.BLK	PS029043.D	01 Feb 2025 07:56	AR\AJ	Ok
39	HSTDCCC750	PS029044.D	01 Feb 2025 08:44	AR\AJ	Ok

M : Manual Integration



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Instrument ID: ECD_S

Daily Analysis Runlog For Sequence/QCBatch ID # PS011425

Review By	Abdul	Review On	1/14/2025 4:08:46 PM
Supervise By	Ankita	Supervise On	1/15/2025 7:45:27 AM
SubDirectory	PS011425	HP Acquire Method	HP Processing Method ps011425 8151
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24064,PP24065,PP24066,PP24067,PP24068		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24066 PP24069,PP24070		

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	HEXANE	HEXANE	PS028899.D	14 Jan 2025 09:43		AR\AJ	Ok
2	I.BLK	I.BLK	PS028900.D	14 Jan 2025 10:07		AR\AJ	Ok
3	HSTDICC200	HSTDICC200	PS028901.D	14 Jan 2025 10:31		AR\AJ	Ok
4	HSTDICC500	HSTDICC500	PS028902.D	14 Jan 2025 10:55		AR\AJ	Ok
5	HSTDICC750	HSTDICC750	PS028903.D	14 Jan 2025 11:19		AR\AJ	Ok
6	HSTDICC1000	HSTDICC1000	PS028904.D	14 Jan 2025 11:43		AR\AJ	Ok
7	HSTDICC1500	HSTDICC1500	PS028905.D	14 Jan 2025 12:07		AR\AJ	Ok,M
8	HSTDICV750	ICVPS011425	PS028906.D	14 Jan 2025 12:31		AR\AJ	Ok,M
9	I.BLK	I.BLK	PS028907.D	14 Jan 2025 12:56		AR\AJ	Ok
10	HSTDCCC750	HSTDCCC750	PS028908.D	14 Jan 2025 13:20		AR\AJ	Ok,M

M : Manual Integration



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Fax : 908 789 8922

Instrument ID: ECD_S

Daily Analysis Runlog For Sequence/QCBatch ID # PS013125

Review By	Abdul	Review On	2/3/2025 9:56:56 AM
Supervise By	Ankita	Supervise On	2/5/2025 8:50:07 AM
SubDirectory	PS013125	HP Acquire Method	HP Processing Method ps114225 8151
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24064,PP24065,PP24066,PP24067,PP24068		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24066 PP24069,PP24070		

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	HEXANE	HEXANE	PS029006.D	31 Jan 2025 10:23		AR\AJ	Ok
2	I.BLK	I.BLK	PS029007.D	31 Jan 2025 10:47		AR\AJ	Ok
3	HSTDCCC750	HSTDCCC750	PS029008.D	31 Jan 2025 13:00		AR\AJ	Ok,M
4	PB166416BL	PB166416BL	PS029009.D	31 Jan 2025 16:44		AR\AJ	Ok
5	PB166416BS	PB166416BS	PS029010.D	31 Jan 2025 17:08		AR\AJ	Ok
6	Q1218-01	BELL-25-002	PS029011.D	31 Jan 2025 17:32		AR\AJ	Ok,M
7	Q1219-01	LAW-25-0015	PS029012.D	31 Jan 2025 17:56		AR\AJ	Ok
8	Q1221-01	CHESTNUT-CONCRE	PS029013.D	31 Jan 2025 18:20		AR\AJ	Ok
9	Q1239-01	286	PS029014.D	31 Jan 2025 18:44		AR\AJ	Ok
10	Q1239-04	348	PS029015.D	31 Jan 2025 19:08		AR\AJ	Ok
11	Q1239-07	RBR22266	PS029016.D	31 Jan 2025 19:32		AR\AJ	Ok,M
12	Q1239-07MS	RBR22266MS	PS029017.D	31 Jan 2025 19:56	Some compound recovery fail	AR\AJ	Ok,M
13	Q1239-07MSD	RBR22266MSD	PS029018.D	31 Jan 2025 20:20	Some compound recovery fail	AR\AJ	Ok,M
14	I.BLK	I.BLK	PS029019.D	31 Jan 2025 20:44		AR\AJ	Ok
15	HSTDCCC750	HSTDCCC750	PS029020.D	31 Jan 2025 21:08		AR\AJ	Ok
16	Q1239-10	357	PS029021.D	31 Jan 2025 22:20		AR\AJ	Ok
17	PB166428BL	PB166428BL	PS029022.D	31 Jan 2025 22:44		AR\AJ	Ok
18	PB166428BS	PB166428BS	PS029023.D	31 Jan 2025 23:08		AR\AJ	Ok

Instrument ID: ECD_S

Daily Analysis Runlog For Sequence/QCBatch ID # PS013125

Review By	Abdul	Review On	2/3/2025 9:56:56 AM
Supervise By	Ankita	Supervise On	2/5/2025 8:50:07 AM
SubDirectory	PS013125	HP Acquire Method	HP Processing Method ps114225 8151
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24064,PP24065,PP24066,PP24067,PP24068		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24066 PP24069,PP24070		

19	PB166356TB	PB166356TB	PS029024.D	31 Jan 2025 23:32		AR\AJ	Ok,M
20	Q1215-04	JPP-29.1-012825	PS029025.D	31 Jan 2025 23:56		AR\AJ	Ok
21	Q1215-04MS	JPP-29.1-012825MS	PS029026.D	01 Feb 2025 00:20		AR\AJ	Ok,M
22	Q1215-04MSD	JPP-29.1-012825MSD	PS029027.D	01 Feb 2025 00:44		AR\AJ	Ok,M
23	Q1215-08	JPP-29.2-012825	PS029028.D	01 Feb 2025 01:08		AR\AJ	Ok
24	Q1216-04	JPP-18.1-012825	PS029029.D	01 Feb 2025 01:32		AR\AJ	Ok
25	Q1216-08	JPP-21.1-012825	PS029030.D	01 Feb 2025 01:56		AR\AJ	Ok
26	I.BLK	I.BLK	PS029031.D	01 Feb 2025 02:20		AR\AJ	Ok
27	HSTDCCC750	HSTDCCC750	PS029032.D	01 Feb 2025 02:44		AR\AJ	Ok
28	Q1216-12	JPP-21.2-012825	PS029033.D	01 Feb 2025 03:56		AR\AJ	Ok
29	Q1216-16	JPP-26.1-012825	PS029034.D	01 Feb 2025 04:20		AR\AJ	Ok
30	Q1216-20	JPP-26.2-012825	PS029035.D	01 Feb 2025 04:44		AR\AJ	Ok
31	Q1232-04	JPP-46.2-012925	PS029036.D	01 Feb 2025 05:08		AR\AJ	Ok,M
32	Q1232-08	JPP-46.1-012925	PS029037.D	01 Feb 2025 05:32		AR\AJ	Ok
33	Q1232-12	JPP-42.1-012925	PS029038.D	01 Feb 2025 05:56		AR\AJ	Ok
34	Q1232-16	JPP-42.2-012925	PS029039.D	01 Feb 2025 06:20		AR\AJ	Ok
35	Q1232-20	JPP-51.1-012925	PS029040.D	01 Feb 2025 06:44		AR\AJ	Ok
36	Q1235-04	JPP-51.2-012925	PS029041.D	01 Feb 2025 07:08		AR\AJ	Ok
37	Q1235-08	JPP-16.1-012925	PS029042.D	01 Feb 2025 07:32		AR\AJ	Ok

Instrument ID: ECD_S

Daily Analysis Runlog For Sequence/QCBatch ID # PS013125

Review By	Abdul	Review On	2/3/2025 9:56:56 AM
Supervise By	Ankita	Supervise On	2/5/2025 8:50:07 AM
SubDirectory	PS013125	HP Acquire Method	HP Processing Method ps114225 8151
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24064,PP24065,PP24066,PP24067,PP24068		
CCC Internal Standard/PEM	PP24066		
ICV/I.BLK	PP24069,PP24070		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

38	I.BLK	I.BLK	PS029043.D	01 Feb 2025 07:56		AR\AJ	Ok
39	HSTDCCC750	HSTDCCC750	PS029044.D	01 Feb 2025 08:44		AR\AJ	Ok

M : Manual Integration



SOP ID : M1311-TCLP-15
SDG No : N/A
Weigh By : JP
Balance ID : WC SC-7
pH Meter ID : WC PH METER-1
Extraction By : JP
Filter By : JP
Pipette ID : WC
Tumbler ID : T-1 / T-2
TCLP Filter ID : 114771

Start Prep Date : 01/30/2025 Time : 14:00
End Prep Date : 01/31/2025 Time : 07:15
Combination Ratio : 20
ZHE Cleaning Batch : N/A
Initial Room Temperature: 23 °C
Final Room Temperature: 22 °C
TCLP Technician Signature : *WB*
Supervisor By : *12*

Standard Name	MLS USED	STD REF. # FROM LOG
N/A	N/A	N/A

Chemical Used	ML/SAMPLE U	Lot Number
TCLP-FLUID-1	N/A	WP110801
HCL-TCLP,1N	N/A	WP110803
HNO3-TCLP,1N	N/A	WP110804
pH Strips	N/A	W1931,W1934,W3171,W3172
pH Strips	W1941,W1942	W1937,W1938,W1939,W1940,W1941,W1942
1 Liter Amber	N/A	90424-08
120ml Plastic bottle	N/A	405130101
1:1 HNO3	N/A	MP84041

Extraction Conformance/Non-Conformance Comments:

Matrix spikes are added after filtration and before preservation. TUMBLER T-1 / T-2 checked, 30 rpm. Particle size reduction is not required. p1235-08 is used for MS-MSD.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
01/31/25 09:45	JP TCLP Room	SLR. JEL
Preparation Group	Analysis Group	
		Jan D'Y.

TCLP EXTRACTION LOGPAGE

PB166356

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Prep Pos
PB166356TB	LEB356	N/A	N/A	2000	N/A	N/A	N/A	4.94	1.0	T-2
Q1215-04	JPP-29.1-012825	01	100.02	2000	N/A	N/A	N/A	6.0	1.5	T-1
Q1215-08	JPP-29.2-012825	02	100.03	2000	N/A	N/A	N/A	7.2	1.0	T-1
Q1216-04	JPP-18.1-012825	03	100.02	2000	N/A	N/A	N/A	7.0	1.5	T-1
Q1216-08	JPP-21.1-012825	04	100.01	2000	N/A	N/A	N/A	7.2	1.0	T-1
Q1216-12	JPP-21.2-012825	05	100.02	2000	N/A	N/A	N/A	7.0	1.5	T-1
Q1216-16	JPP-26.1-012825	06	100.03	2000	N/A	N/A	N/A	6.2	1.0	T-1
Q1216-20	JPP-26.2-012825	07	100.04	2000	N/A	N/A	N/A	7.2	1.0	T-1
Q1218-02	BELL-25-002	08	100.02	2000	N/A	N/A	N/A	3.0	1.5	T-1
Q1219-02	LAW-25-0015	09	100.02	2000	N/A	N/A	N/A	3.0	1.0	T-1
Q1221-02	CHESTNUT-CONCRETE	10	100.03	2000	N/A	N/A	N/A	10.5	1.5	T-1
Q1232-04	JPP-46.2-012925	11	100.04	2000	N/A	N/A	N/A	5.8	1.0	T-2
Q1232-08	JPP-46.1-012925	12	100.02	2000	N/A	N/A	N/A	7.6	1.5	T-2
Q1232-12	JPP-42.1-012925	13	100.03	2000	N/A	N/A	N/A	7.6	1.0	T-2
Q1232-16	JPP-42.2-012925	14	100.02	2000	N/A	N/A	N/A	7.2	1.5	T-2
Q1232-20	JPP-51.1-012925	15	100.01	2000	N/A	N/A	N/A	7.0	1.0	T-2
Q1235-04	JPP-51.2-012925	16	100.03	2000	N/A	N/A	N/A	7.6	1.5	T-2
Q1235-08	JPP-16.1-012925	17	100.04	2000	N/A	N/A	N/A	7.6	1.0	T-2

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
PB166356TB	LEB356	N/A	N/A	N/A	N/A	N/A	N/A
Q1215-04	JPP-29.1-012825	N/A	N/A	N/A	N/A	100	N/A
Q1215-08	JPP-29.2-012825	N/A	N/A	N/A	N/A	100	N/A
Q1216-04	JPP-18.1-012825	N/A	N/A	N/A	N/A	100	N/A
Q1216-08	JPP-21.1-012825	N/A	N/A	N/A	N/A	100	N/A
Q1216-12	JPP-21.2-012825	N/A	N/A	N/A	N/A	100	N/A
Q1216-16	JPP-26.1-012825	N/A	N/A	N/A	N/A	100	N/A
Q1216-20	JPP-26.2-012825	N/A	N/A	N/A	N/A	100	N/A
Q1218-02	BELL-25-002	N/A	N/A	N/A	N/A	100	N/A
Q1219-02	LAW-25-0015	N/A	N/A	N/A	N/A	100	N/A
Q1221-02	CHESTNUT-CONCRETE	N/A	N/A	N/A	N/A	100	N/A
Q1232-04	JPP-46.2-012925	N/A	N/A	N/A	N/A	100	N/A
Q1232-08	JPP-46.1-012925	N/A	N/A	N/A	N/A	100	N/A
Q1232-12	JPP-42.1-012925	N/A	N/A	N/A	N/A	100	N/A
Q1232-16	JPP-42.2-012925	N/A	N/A	N/A	N/A	100	N/A
Q1232-20	JPP-51.1-012925	N/A	N/A	N/A	N/A	100	N/A
Q1235-04	JPP-51.2-012925	N/A	N/A	N/A	N/A	100	N/A
Q1235-08	JPP-16.1-012925	N/A	N/A	N/A	N/A	100	N/A

Hot Block ID : WC S-1 /WC S-2
Thermometer ID : FLASHPOINT

SampleID	ClientID	Sample Weight (g)	Volume DI Water (mL)	pH after 5 min stir	pH after 10 min stir	Extraction Fluid 1 or 2	pH Extraction Fluid
PB166356TB	LEB356	N/A	N/A	N/A	N/A	#1	4.94
Q1215-04	JPP-29.1-012825	5.02	96.5	8.2	3.5	#1	4.94
Q1215-08	JPP-29.2-012825	5.03	96.5	9.0	4.0	#1	4.94
Q1216-04	JPP-18.1-012825	5.02	96.5	8.6	3.5	#1	4.94
Q1216-08	JPP-21.1-012825	5.01	96.5	9.0	4.0	#1	4.94
Q1216-12	JPP-21.2-012825	5.02	96.5	9.1	4.0	#1	4.94
Q1216-16	JPP-26.1-012825	5.00	96.5	8.6	3.5	#1	4.94
Q1216-20	JPP-26.2-012825	5.03	96.5	9.3	4.0	#1	4.94
Q1218-02	BELL-25-002	5.04	96.5	5.6	2.0	#1	4.94
Q1219-02	LAW-25-0015	5.03	96.5	5.5	2.5	#1	4.94
Q1221-02	CHESTNUT-CONCRETE	5.04	96.5	11.0	4.5	#1	4.94
Q1232-04	JPP-46.2-012925	5.02	96.5	7.2	2.5	#1	4.94
Q1232-08	JPP-46.1-012925	5.01	96.5	10.5	3.5	#1	4.94
Q1232-12	JPP-42.1-012925	5.02	96.5	11.5	4.5	#1	4.94
Q1232-16	JPP-42.2-012925	5.00	96.5	10.0	4.0	#1	4.94
Q1232-20	JPP-51.1-012925	5.03	96.5	9.1	3.5	#1	4.94
Q1235-04	JPP-51.2-012925	5.04	96.5	11.5	4.5	#1	4.94
Q1235-08	JPP-16.1-012925	5.05	96.5	10.5	4.0	#1	4.94

WORKLIST(Hardcopy Internal Chain)

WorkList Name : TCLP Q1221

WorkList ID : 187275

Department : TCLP Extraction

Date : 01-30-2025 08:09:15

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1215-04	JPP-29.1-012825	Solid	TCLP Extraction	Cool 4 deg C	RUTW01	E11	01/28/2025	1311
Q1215-08	JPP-29.2-012825	Solid	TCLP Extraction	Cool 4 deg C	RUTW01	E11	01/28/2025	1311
Q1216-04	JPP-18.1-012825	Solid	TCLP Extraction	Cool 4 deg C	RUTW01	E11	01/28/2025	1311
Q1216-08	JPP-21.1-012825	Solid	TCLP Extraction	Cool 4 deg C	RUTW01	E11	01/28/2025	1311
Q1216-12	JPP-21.2-012825	Solid	TCLP Extraction	Cool 4 deg C	RUTW01	E11	01/28/2025	1311
Q1216-16	JPP-26.1-012825	Solid	TCLP Extraction	Cool 4 deg C	RUTW01	E11	01/28/2025	1311
Q1216-20	JPP-26.2-012825	Solid	TCLP Extraction	Cool 4 deg C	RUTW01	E11	01/28/2025	1311
Q1218-02	BELL-25-002	Solid	TCLP Extraction	Cool 4 deg C	RUTW01	E11	01/28/2025	1311
Q1219-02	LAW-25-0015	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	N41	01/29/2025	1311
Q1221-02	CHESTNUT-CONCRETE	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	N41	01/29/2025	1311
Q1232-04	JPP-46.2-012925	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	N41	01/29/2025	1311
Q1232-08	JPP-46.1-012925	Solid	TCLP Extraction	Cool 4 deg C	RUTW01	E11	01/29/2025	1311
Q1232-12	JPP-42.1-012925	Solid	TCLP Extraction	Cool 4 deg C	RUTW01	E11	01/29/2025	1311
Q1232-16	JPP-42.2-012925	Solid	TCLP Extraction	Cool 4 deg C	RUTW01	E11	01/29/2025	1311
Q1232-20	JPP-51.1-012925	Solid	TCLP Extraction	Cool 4 deg C	RUTW01	E11	01/29/2025	1311
Q1235-04	JPP-51.2-012925	Solid	TCLP Extraction	Cool 4 deg C	RUTW01	E11	01/29/2025	1311
Q1235-08	JPP-16.1-012925	Solid	TCLP Extraction	Cool 4 deg C	RUTW01	E11	01/29/2025	1311

12130

Date/Time

01/30/15 12:30

Raw Sample Received by:

SL (LWC)

Raw Sample Relinquished by:

CF SM

Date/Time 01/30/15

16:00

Raw Sample Received by:

CF SM

Raw Sample Relinquished by:

SL (LWC)



EXTRACTION LOGPAGE

PB166428

SOP ID:	M8151A-Herbicide-22		
Clean Up SOP #:	N/A	Extraction Start Date :	01/31/2025
Matrix :	Water	Extraction Start Time :	10:55
Weigh By:	N/A	Extraction End Date :	01/31/2025
Balance check:	N/A	Extraction End Time :	16:40
Balance ID:	N/A	pH Meter ID:	N/A
pH Strip Lot#:	E3574	Hood ID:	4,5,6,7
Extraction Method:	<input checked="" type="checkbox"/> Separatory Funnel <input type="checkbox"/> Continous Liquid/Liquid <input type="checkbox"/> Sonication <input type="checkbox"/> Waste Dilution <input type="checkbox"/> Soxhlet		

Standard Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Spike Sol 1	1.0ML	5/500 PPM	PP24079
Surrogate	1.0ML	5000 PPB	PP24078
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
Ether	N/A	E3370
Acidified Na ₂ SO ₄	N/A	EP2576
12N H ₂ SO ₄	N/A	EP2552
NAOH 6N	N/A	EP2553
ISO OCTANE	N/A	E3554
METHANOL	N/A	V14150
Diazomethane	N/A	EP2575
Hexane	N/A	E3872
NACL	N/A	M4459
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

pH Adjusted with 6N NaOH>12 prior to Hydrolysis, PH adjusted with cold 12N H₂SO₄<2 after Hydrolysis, Derivatization procedure is completed and samples are ready to Analyze, 40ml Vial Lot # 03-40BTS721.

KD Bath ID: N/A Envap ID: NEVAP-02
KD Bath Temperature: N/A Envap Temperature: 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
01/31/25	RJ (Ept. Lab)	JL. Pest/PCB Lab
16:41	Preparation Group	Analysis Group



EXTRACTION LOGPAGE

PrepBatch ID : PB166428

Analytical Method: M8151A-Herbicide-22

Concentration Date: 01/31/2025

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB166356TB	PB166356TB	TCLP Herbicide	100	6	RUPESH	ritesh	10			SEP-
PB166428BL	HBLK428	TCLP Herbicide	1000	6	RUPESH	ritesh	10			2
PB166428BS	HLCS428	TCLP Herbicide	1000	6	RUPESH	ritesh	10			3
Q1215-04	JPP-29.1-012825	TCLP Herbicide	100	6	RUPESH	ritesh	10	A		4
Q1215-04MS	JPP-29.1-012825MS	TCLP Herbicide	100	6	RUPESH	ritesh	10	A		5
Q1215-04MS_D	JPP-29.1-012825MSD	TCLP Herbicide	100	6	RUPESH	ritesh	10	A		6
Q1215-08	JPP-29.2-012825	TCLP Herbicide	100	6	RUPESH	ritesh	10	A		7
Q1216-04	JPP-18.1-012825	TCLP Herbicide	100	6	RUPESH	ritesh	10	A		8
Q1216-08	JPP-21.1-012825	TCLP Herbicide	100	6	RUPESH	ritesh	10	A		9
Q1216-12	JPP-21.2-012825	TCLP Herbicide	100	6	RUPESH	ritesh	10	A		10
Q1216-16	JPP-26.1-012825	TCLP Herbicide	100	6	RUPESH	ritesh	10	A		11
Q1216-20	JPP-26.2-012825	TCLP Herbicide	100	6	RUPESH	ritesh	10	A		12
Q1232-04	JPP-46.2-012925	TCLP Herbicide	100	6	RUPESH	ritesh	10	A		13
Q1232-08	JPP-46.1-012925	TCLP Herbicide	100	6	RUPESH	ritesh	10	A		14
Q1232-12	JPP-42.1-012925	TCLP Herbicide	100	6	RUPESH	ritesh	10	A		15
Q1232-16	JPP-42.2-012925	TCLP Herbicide	100	6	RUPESH	ritesh	10	A		16
Q1232-20	JPP-51.1-012925	TCLP Herbicide	100	6	RUPESH	ritesh	10	A		17
Q1235-04	JPP-51.2-012925	TCLP Herbicide	100	6	RUPESH	ritesh	10	A		18
Q1235-08	JPP-16.1-012925	TCLP Herbicide	100	6	RUPESH	ritesh	10	A		SEP-1

* Extracts relinquished on the same date as received.

J
1/31/25

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Prep Pos
PB166356TB	LEB356	N/A	N/A	2000	N/A	N/A	N/A	4.94	1.0	T-2
Q1215-04	JPP-29.1-012825	01	100.02	2000	N/A	N/A	N/A	6.0	1.5	T-1
Q1215-08	JPP-29.2-012825	02	100.03	2000	N/A	N/A	N/A	7.2	1.0	T-1
Q1216-04	JPP-18.1-012825	03	100.02	2000	N/A	N/A	N/A	7.0	1.5	T-1
Q1216-08	JPP-21.1-012825	04	100.01	2000	N/A	N/A	N/A	7.2	1.0	T-1
Q1216-12	JPP-21.2-012825	05	100.02	2000	N/A	N/A	N/A	7.0	1.5	T-1
Q1216-16	JPP-26.1-012825	06	100.03	2000	N/A	N/A	N/A	6.2	1.0	T-1
Q1216-20	JPP-26.2-012825	07	100.04	2000	N/A	N/A	N/A	7.2	1.0	T-1
Q1218-02	BELL-25-002	08	100.02	2000	N/A	N/A	N/A	3.0	1.5	T-1
Q1219-02	LAW-25-0015	09	100.02	2000	N/A	N/A	N/A	3.0	1.0	T-1
Q1221-02	CHESTNUT-CONCRETE	10	100.03	2000	N/A	N/A	N/A	10.5	1.5	T-1
Q1232-04	JPP-46.2-012925	11	100.04	2000	N/A	N/A	N/A	5.8	1.0	T-2
Q1232-08	JPP-46.1-012925	12	100.02	2000	N/A	N/A	N/A	7.6	1.5	T-2
Q1232-12	JPP-42.1-012925	13	100.03	2000	N/A	N/A	N/A	7.6	1.0	T-2
Q1232-16	JPP-42.2-012925	14	100.02	2000	N/A	N/A	N/A	7.2	1.5	T-2
Q1232-20	JPP-51.1-012925	15	100.01	2000	N/A	N/A	N/A	7.0	1.0	T-2
Q1235-04	JPP-51.2-012925	16	100.03	2000	N/A	N/A	N/A	7.6	1.5	T-2
Q1235-08	JPP-16.1-012925	17	100.04	2000	N/A	N/A	N/A	7.6	1.0	T-2

04/31/25
04/14/25



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

Prep Standard - Chemical Standard Summary

Order ID : Q1215

Test : TCLP Herbicide

Prepbatch ID : PB166428,

Sequence ID/Qc Batch ID: PS013125,

Standard ID :

EP2552,EP2553,EP2576,PP24061,PP24062,PP24064,PP24065,PP24066,PP24067,PP24068,PP24069,PP24070,PP24078,PP24079,

Chemical ID :

E3370,E3551,E3554,E3657,E3826,E3843,M5173,P10549,P11180,P11181,P12619,P12629,P12686,P12708,P12709,P13506,P13507,P13508,P13509,P13523,P13524,P13525,W3112,

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>
3883	12N H2SO4 solution	EP2552	10/21/2024	04/21/2025	Rajesh Parikh	None	None	RUPESHKUMAR SHAH 10/21/2024

FROM 333.00000ml of M5173 + 667.00000ml of W3112 = Final Quantity: 1000.000 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>
3884	6 N NAOH	EP2553	10/21/2024	04/21/2025	Rajesh Parikh	Extraction_SC ALE_2 (EX-SC-2)	None	RUPESHKUMAR SHAH 10/21/2024

FROM 1000.00000ml of W3112 + 240.00000gram of E3657 = Final Quantity: 1000.000 ml

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>
601	Acidified Sodium Sulphate 2	EP2576	01/06/2025	06/02/2025	Rajesh Parikh	Extraction_SC_ALE_2	None	RUPESHKUMAR SHAH 01/06/2025

FROM 100.00000ml of E3370 + 150.00000ml of M5173 + 3000.00000ml of E3551 = Final Quantity: 3000.000 gram
 (EX-SC-2)

<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>
1321	2/200 PPM Herb Mega Mix	PP24061	11/26/2024	05/09/2025	Ankita Jodhani	None	None	Yogesh Patel 11/27/2024

FROM 0.20000ml of P10549 + 1.00000ml of P11180 + 1.00000ml of P12619 + 1.00000ml of P12629 + 1.00000ml of P12686 + 95.80000ml of E3826 = Final Quantity: 100.000 ml

Pest/Pcb 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>
1851	2/200 PPM Herb Mega Mix 2nd Source	PP24062	11/26/2024	05/09/2025	Ankita Jodhani	None	None	Yogesh Patel 11/27/2024

FROM 1.00000ml of P11181 + 1.00000ml of P12708 + 1.00000ml of P12709 + 97.00000ml of E3826 = Final Quantity: 100.000 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>
1452	1500 PPB HERB MIX STD	PP24064	11/26/2024	05/09/2025	Ankita Jodhani	None	None	Yogesh Patel 11/27/2024

FROM 0.25000ml of E3826 + 0.75000ml of PP24061 = Final Quantity: 1.000 ml

Pest/Pcb 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>
1453	1000 PPB Herb MIX STD	PP24065	11/26/2024	05/09/2025	Ankita Jodhani	None	None	Yogesh Patel 11/27/2024

FROM 0.50000ml of E3826 + 0.50000ml of PP24061 = Final Quantity: 1.000 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>
1454	750 PPB Herb MIX STD	PP24066	11/26/2024	05/09/2025	Ankita Jodhani	None	None	Yogesh Patel 11/27/2024

FROM 0.25000ml of E3826 + 0.75000ml of PP24065 = Final Quantity: 1.000 ml



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

Pest/Pcb 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>
1455	500 PPB Herb MIX STD	PP24067	11/26/2024	05/09/2025	Ankita Jodhani	None	None	Yogesh Patel 11/27/2024

FROM 0.75000ml of E3826 + 0.25000ml of PP24061 = Final Quantity: 1.000 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>
1456	200 PPB Herb MIX STD	PP24068	11/26/2024	05/09/2025	Ankita Jodhani	None	None	Yogesh Patel 11/27/2024

FROM 0.90000ml of E3826 + 0.10000ml of PP24061 = Final Quantity: 1.000 ml

Pest/Pcb 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>
1854	1000 PPB HERB MIX ICV STD	PP24069	11/26/2024	05/09/2025	Ankita Jodhani	None	None	Yogesh Patel 11/27/2024

FROM 0.50000ml of E3826 + 0.50000ml of PP24062 = Final Quantity: 1.000 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>
1691	750 PPB ICV HERB STD	PP24070	11/26/2024	05/09/2025	Ankita Jodhani	None	None	Yogesh Patel 11/27/2024

FROM 0.25000ml of E3826 + 0.75000ml of PP24069 = Final Quantity: 1.000 ml



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

Pest/Pcb 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>
60	5000 PPB Herbicide Surg Spike (Free Acid)	PP24078	12/10/2024	06/05/2025	Abdul Mirza	None	None	Ankita Jodhani 12/17/2024

FROM 1.25000ml of P13506 + 1.25000ml of P13507 + 1.25000ml of P13508 + 1.25000ml of P13509 + 195.00000ml of E3843 = Final
Quantity: 200.000 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>
1848	5000/500000 PPB Herbicide Spike (Free Acid)	PP24079	12/11/2024	06/05/2025	Abdul Mirza	None	None	Ankita Jodhani 12/17/2024

FROM 0.50000ml of P13525 + 1.00000ml of P13523 + 1.00000ml of P13524 + 47.50000ml of E3843 = Final Quantity: 50.000 ml



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Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9244-03 / Ether, Anhydrous, Purified (cs/4x4L)	0000288039	07/17/2025	08/01/2022 / Rajesh	07/13/2022 / Rajesh	E3370
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	313201	07/01/2025	01/03/2024 / Rajesh	07/20/2023 / Rajesh	E3551
Seidler Chemical	BA-9335-02 / Iso-Octane (2,2,4-Trimethylpentane) Ultra Resi-Analyzed Grade	63160	11/05/2025	08/09/2023 / Rajesh	08/09/2023 / Rajesh	E3554
PCI Scientific Supply, Inc.	PC19510-5 / Sodium Hydroxide Pellets 2.5 Kg, Pk of 4	23B1556310	12/31/2025	12/04/2023 / Rajesh	12/01/2023 / Rajesh	E3657
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	24G1962003	05/09/2025	11/09/2024 / Rajesh	11/07/2024 / Rajesh	E3826
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H2762008	06/05/2025	12/05/2024 / Rajesh	12/05/2024 / Rajesh	E3843

CHEMICAL RECEIPT LOG BOOK

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)	0000281827	06/02/2025	06/01/2022 /	04/05/2022 / william	M5173
Restek	32254 / Dalapon Methyl Ester, 1000 ug/ml	A0170243	05/26/2025	11/26/2024 / Ankita	04/06/2021 / dhaval	P10549
Restek	32050 / Herbicide, 8000 series, 515 Surrogate [ester] 2,4-dichlorophenyl acetic acid methyl ester, 1mL, 200ug/mL, Hexane	A0172864	05/26/2025	11/26/2024 / Ankita	11/01/2021 / Abdul	P11180
Restek	32050 / Herbicide, 8000 series, 515 Surrogate [ester] 2,4-dichlorophenyl acetic acid methyl ester, 1mL, 200ug/mL, Hexane	A0172864	05/26/2025	11/26/2024 / Ankita	11/01/2021 / Abdul	P11181
Restek	32062 / Herbicide Mix, 500/8000, Standard #4 [methyl ester] 200ug/mL, hexane, 1mL/ampul	A0155055	05/26/2025	11/26/2024 / Ankita	07/03/2023 / Abdul	P12619
Restek	32055 / Herbicide Mix, 500/8000, Standard #1 [methyl ester] 200ug/mL, hexane, 1mL/ampul	A192429	05/26/2025	11/26/2024 / Ankita	07/03/2023 / Abdul	P12629

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32059 / Herbicide Mix#3 (Methyl Ester), 20000 ug/ml	A0199844	05/26/2025	11/26/2024 / Ankita	07/24/2023 / Abdul	P12686
Agilent Technologies	HBM-8151M / Chlorinated Herbicide Mixtures, Methyl Esters	0006752480	05/26/2025	11/26/2024 / Ankita	08/09/2023 / Abdul	P12708
Agilent Technologies	HBM-8151M / Chlorinated Herbicide Mixtures, Methyl Esters	0006752480	05/26/2025	11/26/2024 / Ankita	08/09/2023 / Abdul	P12708
Agilent Technologies	HBM-8151M / Chlorinated Herbicide Mixtures, Methyl Esters	0006752480	05/26/2025	11/26/2024 / Ankita	08/09/2023 / Abdul	P12709
Agilent Technologies	HBM-8151M / Chlorinated Herbicide Mixtures, Methyl Esters	0006752480	05/26/2025	11/26/2024 / Ankita	08/09/2023 / Abdul	P12709
Restek	32049 / Herbicide, 8000 series, 515 Surrogate [free acid] 2,4-dichlorophenyl acetic acid, 1mL, 200ug/mL, MeOH	A0212676	06/10/2025	12/10/2024 / Abdul	08/16/2024 / yogesh	P13506

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32049 / Herbicide, 8000 series, 515 Surrogate [free acid] 2,4-dichlorophenyl acetic acid, 1mL, 200ug/mL, MeOH	A0212676	06/10/2025	12/10/2024 / Abdul	08/16/2024 / yogesh	P13507
Restek	32049 / Herbicide, 8000 series, 515 Surrogate [free acid] 2,4-dichlorophenyl acetic acid, 1mL, 200ug/mL, MeOH	A0212676	06/10/2025	12/10/2024 / Abdul	08/16/2024 / yogesh	P13508
Restek	32049 / Herbicide, 8000 series, 515 Surrogate [free acid] 2,4-dichlorophenyl acetic acid, 1mL, 200ug/mL, MeOH	A0212676	06/10/2025	12/10/2024 / Abdul	08/16/2024 / yogesh	P13509
Agilent Technologies	HBM-8151A / Chlorinated Herbicide Mixtures, Free Acids	0006810955	06/11/2025	12/11/2024 / Abdul	09/03/2024 / Abdul	P13523
Agilent Technologies	HBM-8151A / Chlorinated Herbicide Mixtures, Free Acids	0006810955	06/11/2025	12/11/2024 / Abdul	09/03/2024 / Abdul	P13523
Agilent Technologies	HBM-8151A / Chlorinated Herbicide Mixtures, Free Acids	0006810955	06/11/2025	12/11/2024 / Abdul	09/03/2024 / Abdul	P13524



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Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Agilent Technologies	HBM-8151A / Chlorinated Herbicide Mixtures, Free Acids	0006810955	06/11/2025	12/11/2024 / Abdul	09/03/2024 / Abdul	P13524

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Agilent Technologies	HBM-8151A / Chlorinated Herbicide Mixtures, Free Acids	0006810955	06/11/2025	12/11/2024 / Abdul	09/03/2024 / Abdul	P13525

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Agilent Technologies	HBM-8151A / Chlorinated Herbicide Mixtures, Free Acids	0006810955	06/11/2025	12/11/2024 / Abdul	09/03/2024 / Abdul	P13525

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

Ether, Anhydrous
BAKER ANALYZED® A.C.S. Reagent
Contains BHT as a Preservative
Suitable for Fat Extraction



Material No.: 9244-03
Batch No.: 0000288039
Manufactured Date: 2021/07/22
Expiration Date: 2023/07/22
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay ((C ₂ H ₅) ₂ O) (by GC, corrected for water)	>= 99.0 %	100.0
Alcohol (C ₂ H ₅ OH)	Passes Test	PT
Carbonyl Compounds (as HCHO) (by polarography)	<= 0.001 %	< 0.001
Color (APHA)	<= 10	< 5
Peroxide (as H ₂ O ₂)	<= 1 ppm	< 1
Preservative (BHT)	>= 7 ppm	9
Residue after Evaporation	<= 0.0010 %	< 0.0010
Titrable Acid (μeq/g)	<= 0.2	< 0.2
Water (by KF, coulometric)	<= 0.01 %	0.01

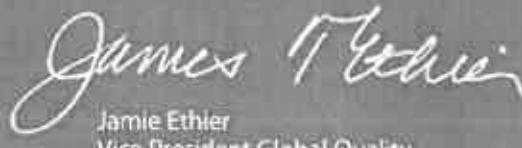
For Laboratory, Research or Manufacturing Use

Meets Reagent Specifications for testing USP/NF monographs

Country of Origin: US

Recd. by RP on 9/13/22

E 3370


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



PRODUCTOS
QUÍMICOS
MONTERREY, S.A. DE C.V.

MIRADOR 201, COL. MIRADOR
MONTERREY, N.L. MEXICO
CP 64070
TEL +52 81 13 52 57 57
www.pqm.com.mx

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS				
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na ₂ SO ₄		
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023		
LOT NUMBER :	313201				
TEST	SPECIFICATIONS	LOT VALUES			
Assay (Na ₂ SO ₄)	Min. 99.0%	99.7 %			
pH of a 5% solution at 25°C	5.2 - 9.2	6.1			
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 ₄)	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%	0.003 %			
Extraction-concentration suitability	Passes test	Passes test			
Appearance	Passes test	Passes test			
Identification	Passes test	Passes test			
Solubility and foreing matter	Passes test	Passes test			
Retained on US Standard No. 10 sieve	Max. 1%	0.1 %			
Retained on US Standard No. 60 sieve	Min. 94%	97.3 %			
Through US Standard No. 60 sieve	Max. 5%	2.5 %			
Through US Standard No. 100 sieve	Max. 10%	0.1 %			
COMMENTS					
QC: PhC Irma Belmares					

If you need further details, please call our factory or contact our local distributor.

Recd. by R3 on 7/29/23 E 3551

RC-02-01, Ed. 3

Certificate of Analysis



Date of Release: 6/9/2023
Name: 2,2,4-Trimethylpentane [Isooctane]
OmniSolv®
Item No: TX1389 all size codes
Lot / Batch No: 63160
Country of Origin: Germany

Characteristic	Requirement		Results	Units
	Min.	Max.		
Assay (GC)	99.5		> 99.99	%
Capillary ECD responsive substances (as PCNB)		5	0.24	ng/L
Color (APHA)		10	< 10	
Evaporation residue		1	< 0.5	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence (as quinine base)		250	71	ppt
Form			Clear liquid	
Infrared Spectrum	:		Conforms	
Refractive index (at 20°C)			1.3915	
UV Abs. at 200 nm		1.00	0.137	AU
UV Abs. at 220 nm		0.05	0.024	AU
UV Abs. at 230 nm		0.02	0.003	AU
UV Abs. at 250 nm		0.005	0.003	AU
UV Abs. at 270 nm		0.005	0.002	AU
UV Abs. at 300 nm		0.005	0.004	AU
UV Cut-off		200	191.1	nm
Water (H ₂ O)		0.01	0.001	%

Michael Hutchinson,

Quality Control Manager

This document has been produced electronically and is valid without a signature.

EMD Millipore is a division of Merck KGaA, Darmstadt, Germany
EMD Millipore Corporation
400 Summit Drive,
Burlington, MA 01803
U.S.A

Recd by lf on 8/9/23

E 3554



Certificate of Analysis

Sodium Hydroxide (Pellets)

Material: 0583
Grade: ACS GRADE
Batch Number: 23B1556310

Chemical Formula: NaOH
Molecular Weight: 40
CAS #: 1310-73-2
Appearance:
Pellets

Manufacture Date: 12/14/2022
Expiration Date: 12/31/2025
Storage: Room Temperature

TEST	SPECIFICATION	ANALYSIS	DISPOSITION
Calcium	<= 0.005 %	<0.005 %	PASS
Chloride	<= 0.005 %	0.002 %	PASS
Heavy Metals	<= 0.002 %	<0.002 %	PASS
Iron	<= 0.001 %	<0.001 %	PASS
Magnesium	<= 0.002 %	<0.002 %	PASS
Mercury	<= 0.1 ppm	<0.1 ppm	PASS
Nickel	<= 0.001 %	<0.001 %	PASS
Nitrogen Compounds	<= 0.001 %	<0.001 %	PASS
Phosphate	<= 0.001 %	<0.001 %	PASS
Potassium	<= 0.02 %	<0.02 %	PASS
Purity	>= 97.0 %	99.2 %	PASS
Sodium Carbonate	<= 1.0 %	0.5 %	PASS
Sulfate	<= 0.003 %	<0.003 %	PASS

Internal ID #: 710

Signature

Additional Information

We certify that this batch conforms to the specifications listed.

Analysis may have been rounded to significant digits in specification limits.

This document has been electronically produced and is valid without a signature.

Product meets analytical specifications of the grades listed.

Leona Edwardson, Quality Control Sr. Manager - Solon
VWR Chemicals, LLC.
28600 Fountain Parkway, Solon OH 44139 USA

n-Hexane 95%
ULTRA RESI-ANALYZED
For Organic Residue Analysis



Material No.: 9262-03
Batch No.: 24G1962003
Manufactured Date: 2024-05-23
Expiration Date: 2025-08-22
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	1
ECD-Sensitive Impurities (as Ethylene Dibromide) – Single Impurity Peak (ng/mL)	≤ 5	1
Assay (Total Saturated C ₆ Isomers) (by GC, corrected for water)	≥ 99.5 %	99.7 %
Assay (as n-Hexane) (by GC, corrected for water)	≥ 95 %	98 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.1 ppm
Substances Darkened by H ₂ SO ₄	Passes Test	Passes Test
Water (by KF, coulometric)	≤ 0.05 %	< 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 3826

Rec'd by RP on 11/7/24

Jamie Croak
Director Quality Operations, Bioscience Production

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis



Material No.: 9254-03
Batch No.: 24H2762008
Manufactured Date: 2024-04-18
Expiration Date: 2027-04-18
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.4 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.0 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titrable Acid (μeq/g)	<= 0.3	0.2
Titrable Base (μeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	<0.1 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory, Research, or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

Recd. by RP on 12/5/24

E 3843

A handwritten signature of Jamie Croak.
Jamie Croak
Director Quality Operations, Bioscience Production

Hydrochloric Acid, 36.5-38.0%
 BAKER INSTRUMENTS ANALYZED® Reagent
 For Trace Metal Analysis



Material No.: 9530-33
 Batch No.: 0000281827
 Manufactured Date: 2021/03/30
 Retest Date: 2026/03/29
 Revision No.: 1

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.6
ACS – Color (APHA)	<= 10	5
ACS – Residue after Ignition	<= 3 ppm	1
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.189
ACS – Bromide (Br)	<= 0.005 %	< 0.005
ACS – Extractable Organic Substances	<= 5 ppm	< 1
ACS – Free Chlorine (as Cl ₂)	<= 0.5 ppm	< 0.5
Phosphate (PO ₄)	<= 0.05 ppm	< 0.03
Sulfate (SO ₄)	<= 0.5 ppm	< 0.3
Sulfite (SO ₃)	<= 0.8 ppm	0.3
Ammonium (NH ₄)	<= 3 ppm	< 1
Trace Impurities – Arsenic (As)	<= 0.010 ppm	< 0.003
Trace Impurities – Aluminum (Al)	<= 10.0 ppb	0.5
Arsenic and Antimony (as As)	<= 5 ppb	< 3
Trace Impurities – Barium (Ba)	<= 1.0 ppb	< 0.2
Trace Impurities – Beryllium (Be)	<= 1.0 ppb	< 0.2
Trace Impurities – Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities – Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities – Cadmium (Cd)	<= 1.0 ppb	< 0.3
Trace Impurities – Calcium (Ca)	<= 50.0 ppb	15.0
Trace Impurities – Chromium (Cr)	<= 1.0 ppb	< 0.4
Trace Impurities – Cobalt (Co)	<= 1.0 ppb	< 0.3
Trace Impurities – Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities – Gallium (Ga)	<= 1.0 ppb	< 0.2

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 – Germanium (Ge)	<= 3.0 ppb	< 2.0
Trace Impurities – Gold (Au)	<= 4.0 ppb	3.0
Heavy Metals (as Pb)	<= 100 ppb	< 50
Trace Impurities – Iron (Fe)	<= 15.0 ppb	1.0
Trace Impurities – Lead (Pb)	<= 1.0 ppb	< 0.5
Trace Impurities – Lithium (Li)	<= 1.0 ppb	< 0.2
Trace Impurities – Magnesium (Mg)	<= 10.0 ppb	< 0.4
Trace Impurities – Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities – Mercury (Hg)	<= 0.5 ppb	0.2
Trace Impurities – Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities – Nickel (Ni)	<= 4.0 ppb	< 0.3
Trace Impurities – Niobium (Nb)	<= 1.0 ppb	< 0.2
Trace Impurities – Potassium (K)	<= 9.0 ppb	< 2.0
Trace Impurities – Selenium (Se), For Information Only	ppb	1.0
Trace Impurities – Silicon (Si)	<= 100.0 ppb	18.0
Trace Impurities – Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities – Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities – Strontium (Sr)	<= 1.0 ppb	< 0.2
Trace Impurities – Tantalum (Ta)	<= 1.0 ppb	< 0.9
Trace Impurities – Thallium (Tl)	<= 5.0 ppb	< 2.0
Trace Impurities – Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities – Titanium (Ti)	<= 1.0 ppb	< 0.2
Trace Impurities – Vanadium (V)	<= 1.0 ppb	< 0.2
Trace Impurities – Zinc (Zn)	<= 5.0 ppb	0.4
Trace Impurities – Zirconium (Zr)	<= 1.0 ppb	< 0.1

For Laboratory, Research or Manufacturing Use

Product Information (not specifications):

Appearance (clear, fuming liquid)

Meets ACS Specifications

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

Column:

30m x 0.25mm x 0.25 μ m
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:

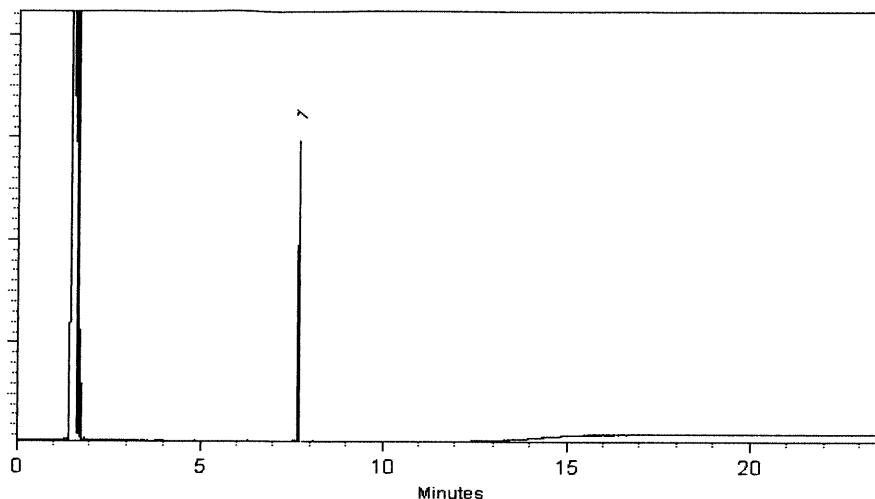
250°C

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.

Katelyn McGinn - Operations Tech I

Date Mixed: 28-May-2021 Balance: B345965662

Marlina Cowan - Operations Tech I

Date Passed: 02-Jun-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

P 11177
P 11170
P 11186
AP
11/02/21

RESTEK® 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. : 32050

Lot No.: A0172864

Description : 2,4-Dichlorophenylacetic Acid Methyl Ester Standard

515 Surrogate (ester) 2, 4-dichlorophenyl Acetic Acid Methyl Ester
 200 μ g/mL, Hexane, 1mL/ampul

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : February 29, 2028

Storage: 10°C or colder

Handling: This product is photosensitive.

Ship: Ambient

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2,4-Dichlorophenyl acetic acid methyl ester CAS # 55954-23-9 (Lot CSC42194-01) Purity 99%	202.0 μ g/mL	+/- 1.4323 μ g/mL	+/- 6.8182 μ g/mL	Gravimetric Unstressed Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

P11177
 ↓
 P11186
 AK
 01/02/21

Column:

30m x 0.25mm x 0.25 μ m
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:

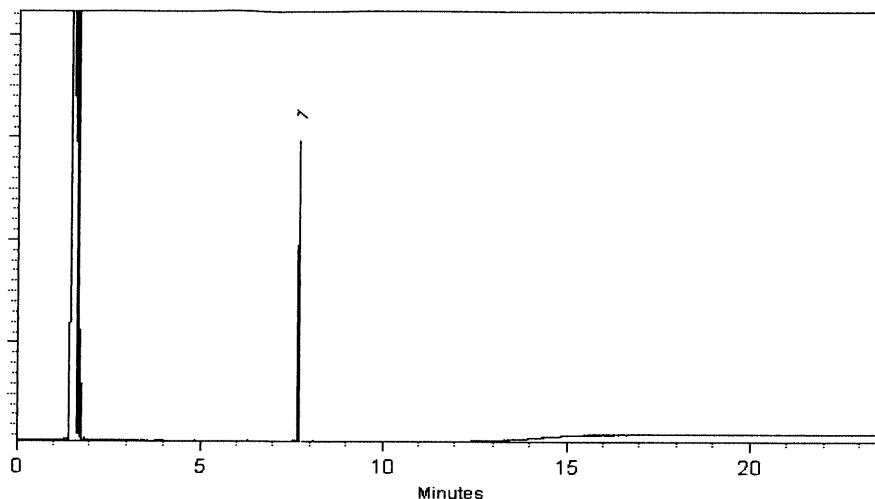
250°C

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.

Katelyn McGinn - Operations Tech I

Date Mixed: 28-May-2021 Balance: B345965662

Marlina Cowan - Operations Tech I

Date Passed: 02-Jun-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

10/11/22
P 11170
P 11186
AP
11/02/21

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Description : 2,4-Dichlorophenylacetic Acid Methyl Ester Standard

515 Surrogate (ester) 2, 4-dichlorophenyl Acetic Acid Methyl Ester
 200 μ g/mL, Hexane, 1mL/ampul

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : February 29, 2028

Storage: 10°C or colder

Handling: This product is photosensitive.

Ship: Ambient

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2,4-Dichlorophenyl acetic acid methyl ester CAS # 55954-23-9 (Lot CSC42194-01) Purity 99%	202.0 μ g/mL	+/- 1.4323 μ g/mL	+/- 6.8182 μ g/mL	Gravimetric Unstressed Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

P11177
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 P11186
 AK
 01/02/21



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Certificate of Analysis

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Catalog No. : 32062

Lot No.: A0155055

Description : Herbicide Mix #4/ME (Methyl Ester)

Herbicide Mix #4/ME (Methyl Ester) 200 μ g/mL,
Hexane/Methyl-tert-butyl-ether, 1mL/ampul

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : November 30, 2026

Storage: 10°C or colder

P12616 → P12620
P12620
JRW
1/15/2023

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	3,5-Dichlorobenzoic acid methyl ester CAS # 2905-67-1 Purity 99%	200.0 μ g/mL (Lot 3903900)	+/- 1.4182 +/- 6.7507 +/- 6.7507	μ g/mL μ g/mL μ g/mL	Gravimetric Unstressed Stressed
2	4-Nitroanisole CAS # 100-17-4 Purity 99%	200.0 μ g/mL (Lot 24765/7)	+/- 1.4182 +/- 6.7507 +/- 6.7507	μ g/mL μ g/mL μ g/mL	Gravimetric Unstressed Stressed
3	Pentachloroanisole CAS # 1825-21-4 Purity 99%	200.0 μ g/mL (Lot 7921100)	+/- 1.4182 +/- 6.7507 +/- 6.7507	μ g/mL μ g/mL μ g/mL	Gravimetric Unstressed Stressed
4	Chloramben methyl ester CAS # 7286-84-2 Purity 98%	199.9 μ g/mL (Lot 6487100)	+/- 1.4176 +/- 6.7480 +/- 6.7480	μ g/mL μ g/mL μ g/mL	Gravimetric Unstressed Stressed
5	Bentazon methyl ester CAS # 61592-45-8 Purity 99%	200.0 μ g/mL (Lot 817100)	+/- 1.4182 +/- 6.7507 +/- 6.7507	μ g/mL μ g/mL μ g/mL	Gravimetric Unstressed Stressed
6	Picloram methyl ester CAS # 14143-55-6 Purity 98%	201.9 μ g/mL (Lot 386-21B)	+/- 1.4315 +/- 6.8141 +/- 6.8141	μ g/mL μ g/mL μ g/mL	Gravimetric Unstressed Stressed
7	DCPA methyl ester (Chlorthal-dimethyl) CAS # 1861-32-1 Purity 99%	200.0 μ g/mL (Lot 8008700)	+/- 1.4182 +/- 6.7507 +/- 6.7507	μ g/mL μ g/mL μ g/mL	Gravimetric Unstressed Stressed

8	Acifluorfen methyl ester		200.0	µg/mL	+/- 1.4182	µg/mL	Gravimetric
	CAS # 50594-67-7	(Lot 6282300)			+/- 6.7507	µg/mL	Unstressed
	Purity 99%				+/- 6.7507	µg/mL	Stressed

Solvent: Hexane/Methyl-tert-butyl-ether
CAS # 110-54-3/1634-04-4
Purity 99%

Column:
 30m x 0.25mm x 0.25µm
 Rtx-5 (cat.#10223)

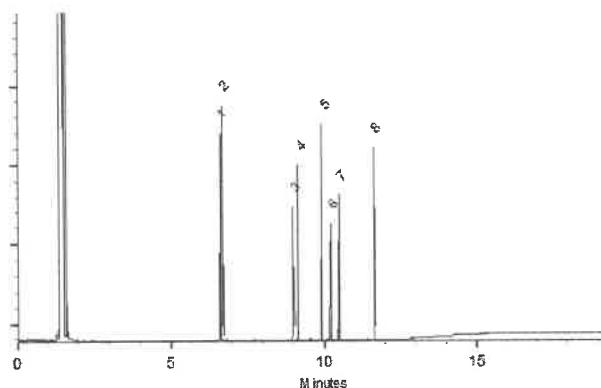
Carrier Gas:
 hydrogen-constant pressure 10 psi.

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.

Michael Maye

Date Mixed: 14-Nov-2019 Balance: 1128353505

Justine Albertson
 Justine Albertson - Operations Tech-ARM QC

Date Passed: 18-Nov-2019

Manufactured under Restek's ISO 9001:2015
 Registered Quality System
 Certificate #FM 80397



110 Benner Circle
Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis *chromatographic plus*



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. : 32055

Lot No.: A0192429

Description : Herbicide Mix #1/ME (Methyl Ester)

Herbicide Mix #1/ME (Methyl Ester) 200 µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : December 31, 2029

Storage: 10°C or colder

Handling: This product is photosensitive.

Ship: Ambient

P12626
1
P12630
1
P1261
1
7/15/2023
J. Davis

C E R T I F I E D V A L U E S

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dicamba methyl ester	6597-78-0	11705400	99%	201.6 µg/mL	+/- 3.4204
2	Dichlorprop methyl ester	57153-17-0	11672100	99%	201.4 µg/mL	+/- 3.4170
3	2,4-D methyl ester	1928-38-7	10048000	99%	201.2 µg/mL	+/- 3.4136
4	2,4,5-TP (silvex) methyl ester	4841-20-7	6364900	99%	201.2 µg/mL	+/- 3.4136
5	2,4,5-T methyl ester	1928-37-6	6875800	98%	200.7 µg/mL	+/- 3.4052
6	Dinoseb methyl ether	6099-79-2	12914300	99%	200.8 µg/mL	+/- 3.4068
7	2,4-DB methyl ester	18625-12-2	12542000	99%	201.0 µg/mL	+/- 3.4102

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Hexane

CAS # 110-54-3

Purity 99%

Quality Confirmation Test

Column:

30m x 0.25mm x 0.25 μ m
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:

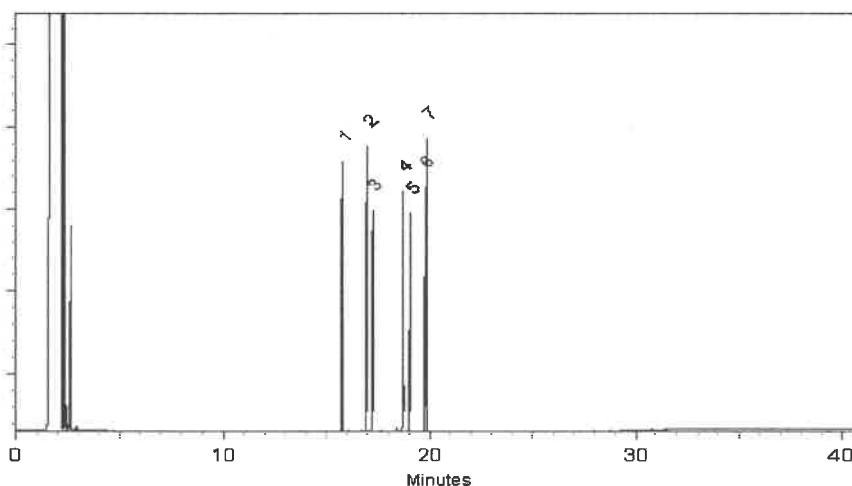
FID

Split Vent:

2 ml/min.

Inj. Vol

1 μ l



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.

Penelope Riglin
Penelope Riglin - Operations Tech I

Date Mixed: 09-Dec-2022 Balance Serial #: 1128360905

Jennifer Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 12-Dec-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis *chromatographic plus*



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Reference Material Producer
Certificate #3222.01



ILAC-MRA
ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32059

Lot No.: A0199844

Description : Herbicide Mix #3/ME (Methyl Ester)

Herbicide Mix #3/ME (Methyl Ester) 20,000 µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : July 31, 2030

Storage: 10°C or colder

Handling: This product is photosensitive.

Ship: Ambient

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P 12689 ↗ ↘
D. Rauh 7/24/23

C E R T I F I E D V A L U E S

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	MCPP (Mecoprop) methyl ester	23844-56-6	14546400	99%	20,035.0 µg/mL	+/- 360.1907
2	MCPA methyl ester	2436-73-9	SL201209	99%	20,055.0 µg/mL	+/- 360.5503

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Hexane

CAS # 110-54-3

Purity 99%

Quality Confirmation Test

Column:

30m x 0.25mm x 0.25 μ m
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:

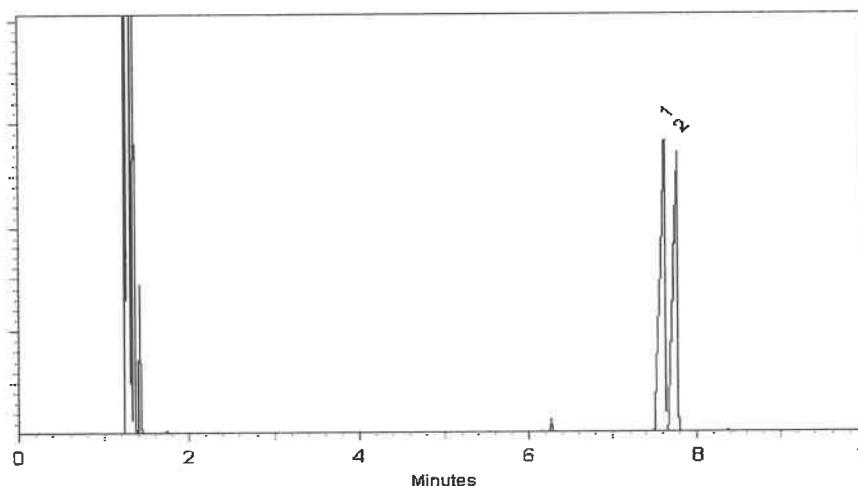
FID

Split Vent:

10 ml/min.

Inj. Vol

1 μ l



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: 12-Jul-2023 Balance Serial #: B442140311

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Jul-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397



Trusted Answers

P12706
P12715
10
J. Hause
8/15/23

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Chlorinated Methylated Herbicides Standard**Lot Number:** 0006752480**Product Number:** HBM-8151M-1**Lot Issue Date:** 18-Jul-2023**Storage Conditions:** Store at Room Temperature (15° to 30°C).**Expiration Date:** 31-Aug-2025

Component Name	Concentration	Uncertainty	CAS#	Analyte Lot
acifluorfen methyl ester	100.3	± 0.5 µg/mL	050594-67-7	RM03058
bentazon methyl derivative	100.2	± 0.5 µg/mL	061592-45-8	RM13829
chloramben methyl ester	100.4	± 0.5 µg/mL	007286-84-2	RM03055
2,4-D methyl ester	100.2	± 0.5 µg/mL	001928-38-7	RM03040
dalapon methyl ester	100.4	± 0.5 µg/mL	017640-02-7	RM14219
2,4-DB methyl ester	100.2	± 0.5 µg/mL	018625-12-2	RM03029
DCPA	100.2	± 0.5 µg/mL	001861-32-1	RM13426
dicamba methyl ester	100.4	± 0.5 µg/mL	006597-78-0	RM03039
methyl-3,5-dichlorobenzoate	100.1	± 0.5 µg/mL	002905-67-1	RM03048
dichlorprop methyl ester	100.4	± 0.5 µg/mL	057153-17-0	NT02086
dinoseb methyl ether	100.5	± 0.5 µg/mL	006099-79-2	RM03051
MCPA methyl ester	10031	± 50 µg/mL	002436-73-9	RM12863
MCPP methyl ester	10031	± 50 µg/mL	023844-56-6	RM20060
4-nitroanisole	100.3	± 0.5 µg/mL	000100-17-4	RM02806
pentachloroanisole	100.4	± 0.5 µg/mL	001825-21-4	RM02457
picloram methyl ester	100.2	± 0.5 µg/mL	014143-55-6	RM03044
silvex methyl ester	100.2	± 0.5 µg/mL	004841-20-7	RM03799
2,4,5-T methyl ester	100.4	± 0.5 µg/mL	001928-37-6	RM03033

Matrix: methanol (methyl alcohol)**Description:**

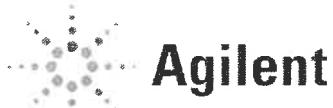
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.



Trusted Answers

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:

This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:

The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois

Monica Bourgeois
QMS Representative

P12706 / 10
P12715
J. Davis
8.15.23



ISO 17034
Cert No. AR-1936

RM was produced in accordance with the TUV/SUD registered ISO 9001:2015 Quality Management System. Cert# 951215321

Page: 2 of 2

www.agilent.com/quality/
CSD-QA-015.2

ISO 17025
Cert No. AT-1937



Trusted Answers

P12706
P12715
10
J. Hause
8/15/23

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Chlorinated Methylated Herbicides Standard**Lot Number:** 0006752480**Product Number:** HBM-8151M-1**Lot Issue Date:** 18-Jul-2023**Storage Conditions:** Store at Room Temperature (15° to 30°C).**Expiration Date:** 31-Aug-2025

Component Name	Concentration	Uncertainty	CAS#	Analyte Lot
acifluorfen methyl ester	100.3	± 0.5 µg/mL	050594-67-7	RM03058
bentazon methyl derivative	100.2	± 0.5 µg/mL	061592-45-8	RM13829
chloramben methyl ester	100.4	± 0.5 µg/mL	007286-84-2	RM03055
2,4-D methyl ester	100.2	± 0.5 µg/mL	001928-38-7	RM03040
dalapon methyl ester	100.4	± 0.5 µg/mL	017640-02-7	RM14219
2,4-DB methyl ester	100.2	± 0.5 µg/mL	018625-12-2	RM03029
DCPA	100.2	± 0.5 µg/mL	001861-32-1	RM13426
dicamba methyl ester	100.4	± 0.5 µg/mL	006597-78-0	RM03039
methyl-3,5-dichlorobenzoate	100.1	± 0.5 µg/mL	002905-67-1	RM03048
dichlorprop methyl ester	100.4	± 0.5 µg/mL	057153-17-0	NT02086
dinoseb methyl ether	100.5	± 0.5 µg/mL	006099-79-2	RM03051
MCPA methyl ester	10031	± 50 µg/mL	002436-73-9	RM12863
MCPP methyl ester	10031	± 50 µg/mL	023844-56-6	RM20060
4-nitroanisole	100.3	± 0.5 µg/mL	000100-17-4	RM02806
pentachloroanisole	100.4	± 0.5 µg/mL	001825-21-4	RM02457
picloram methyl ester	100.2	± 0.5 µg/mL	014143-55-6	RM03044
silvex methyl ester	100.2	± 0.5 µg/mL	004841-20-7	RM03799
2,4,5-T methyl ester	100.4	± 0.5 µg/mL	001928-37-6	RM03033

Matrix: methanol (methyl alcohol)**Description:**

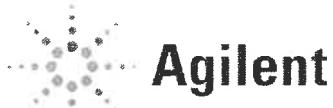
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.



Trusted Answers

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:

This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:

The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois

Monica Bourgeois
QMS Representative

P12706 / 10
P12715
J. Davis
8.15.23



ISO 17034
Cert No. AR-1936

RM was produced in accordance with the TUV/SUD registered ISO 9001:2015 Quality Management System. Cert# 951215321

Page: 2 of 2

www.agilent.com/quality/
CSD-QA-015.2

ISO 17025
Cert No. AT-1937



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CERTIFIED REFERENCE MATERIAL



ILAC-MRA
ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01



ILAC-MRA
ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis chromatographic plus

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. : 32049 Lot No.: A0212676
Description : 2,4-Dichlorophenylacetic Acid Standard
 2, 4-Dichlorophenyl Acetic Acid 200 μ g/mL, Methanol, 1mL/ampul
Container Size : 2 mL Pkg Amt: > 1 mL
Expiration Date : March 31, 2027 Storage: 10°C or colder
Handling: This product is photosensitive. Ship: Ambient

P13497 } Y.P.
↓ }
P13515 } 08/16/24

C E R T I F I E D V A L U E S

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2,4-dichlorophenylacetic acid	19719-28-9	STBK3827	99%	200.0 μ g/mL	+/- 2.7154

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Specific Reference Material Notes:

Failure to derivatize this standard will lead to incorrect quantitative results.

Quality Confirmation Test

Column:

150mm x 4.6mm
Allure C18 Cat.(#9164565)

Flow Rate:

1.0 ml/min.

Mobile Phase A:

0.14% H₃PO₄ in water

Mobile Phase B:

acetonitrile

Mobile Phase Composition:

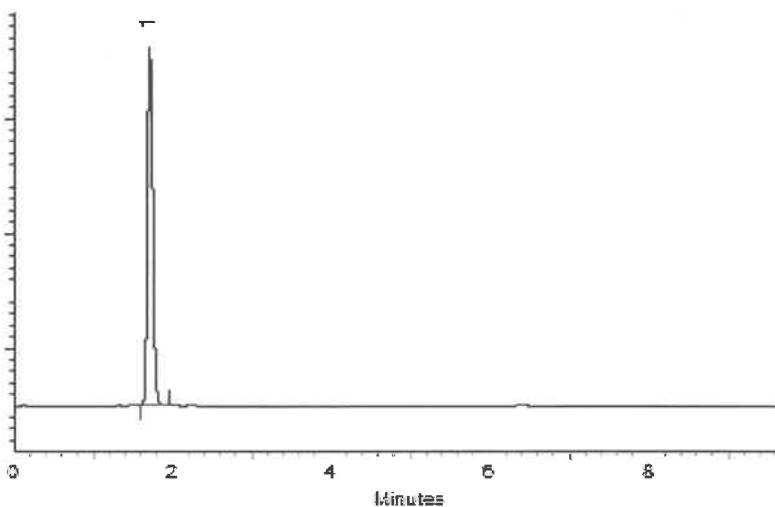
90% B Isocratic

Det. Type:

Wavelength: 220 & 254 nm

Inj. Vol

5µl



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.

Ethan Winiarski
Ethan Winiarski - Operations Tech I

Date Mixed: 11-Jun-2024 Balance Serial #: B345965662

Jennifer Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Jun-2024

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/ μ 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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{\text{combined uncertainty}} = k \sqrt{u_{\text{gravimetric}}^2 + u_{\text{homogeneity}}^2 + u_{\text{storage stability}}^2 + u_{\text{shipping stability}}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309
www.restek.com

CERTIFIED REFERENCE MATERIAL



ILAC-MRA
ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01



ILAC-MRA
ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis chromatographic plus

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. : 32049 Lot No.: A0212676
Description : 2,4-Dichlorophenylacetic Acid Standard
 2, 4-Dichlorophenyl Acetic Acid 200 μ g/mL, Methanol, 1mL/ampul
Container Size : 2 mL Pkg Amt: > 1 mL
Expiration Date : March 31, 2027 Storage: 10°C or colder
Handling: This product is photosensitive. Ship: Ambient

P13497 } Y.P.
↓ }
P13515 } 08/16/24

C E R T I F I E D V A L U E S

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2,4-dichlorophenylacetic acid	19719-28-9	STBK3827	99%	200.0 μ g/mL	+/- 2.7154

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

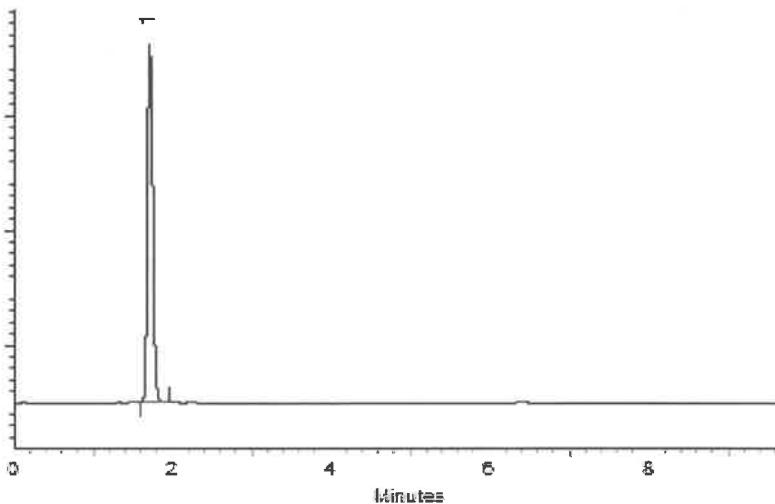
Specific Reference Material Notes:

Failure to derivatize this standard will lead to incorrect quantitative results.

Quality Confirmation Test

Column:

150mm x 4.6mm
Allure C18 Cat.(#9164565)

Flow Rate:
1.0 ml/min.**Mobile Phase A:**
0.14% H₃PO₄ in water**Mobile Phase B:**
acetonitrile**Mobile Phase Composition:**
90% B Isocratic**Det. Type:**
Wavelength: 220 & 254 nm**Inj. Vol**
5µl

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.

Ethan Winiarski
Ethan Winiarski - Operations Tech I

Date Mixed: 11-Jun-2024 Balance Serial #: B345965662

Jennifer Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Jun-2024

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/ μ 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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{\text{combined uncertainty}} = k \sqrt{u_{\text{gravimetric}}^2 + u_{\text{homogeneity}}^2 + u_{\text{storage stability}}^2 + u_{\text{shipping stability}}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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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Certificate of Analysis chromatographic plus

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32049 Lot No.: A0212676
Description : 2,4-Dichlorophenylacetic Acid Standard
 2, 4-Dichlorophenyl Acetic Acid 200 μ g/mL, Methanol, 1mL/ampul
Container Size : 2 mL Pkg Amt: > 1 mL
Expiration Date : March 31, 2027 Storage: 10°C or colder
Handling: This product is photosensitive. Ship: Ambient

P13497 } Y.P.
↓ }
P13515 } 08/16/24

C E R T I F I E D V A L U E S

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2,4-dichlorophenylacetic acid	19719-28-9	STBK3827	99%	200.0 μ g/mL	+/- 2.7154

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Specific Reference Material Notes:

Failure to derivatize this standard will lead to incorrect quantitative results.

Quality Confirmation Test

Column:

150mm x 4.6mm
Allure C18 Cat.(#9164565)

Flow Rate:

1.0 ml/min.

Mobile Phase A:

0.14% H₃PO₄ in water

Mobile Phase B:

acetonitrile

Mobile Phase Composition:

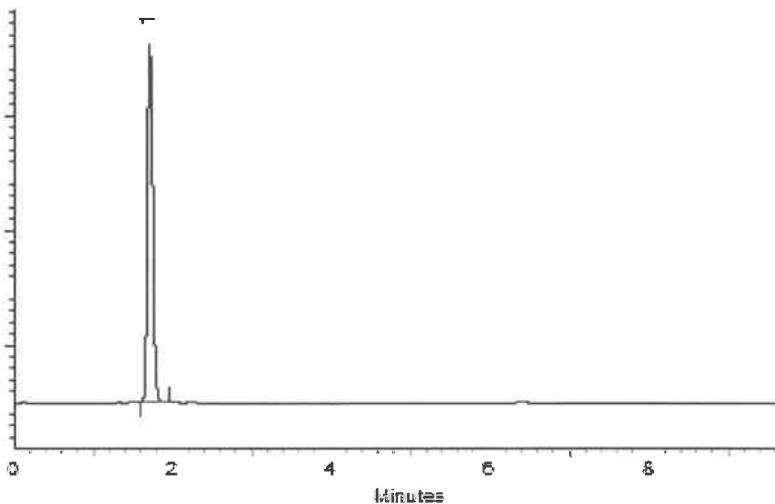
90% B Isocratic

Det. Type:

Wavelength: 220 & 254 nm

Inj. Vol

5μl



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.

Ethan Winiarski
Ethan Winiarski - Operations Tech I

Date Mixed: 11-Jun-2024 Balance Serial #: B345965662

Jennifer Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Jun-2024

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.
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- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

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Manufacturing Notes:

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Handling Notes:

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P13497 } Y.P.
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P13515 } 08/16/24

C E R T I F I E D V A L U E S

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
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* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Specific Reference Material Notes:

Failure to derivatize this standard will lead to incorrect quantitative results.

Quality Confirmation Test

Column:

150mm x 4.6mm
Allure C18 Cat.(#9164565)

Flow Rate:

1.0 ml/min.

Mobile Phase A:

0.14% H₃PO₄ in water

Mobile Phase B:

acetonitrile

Mobile Phase Composition:

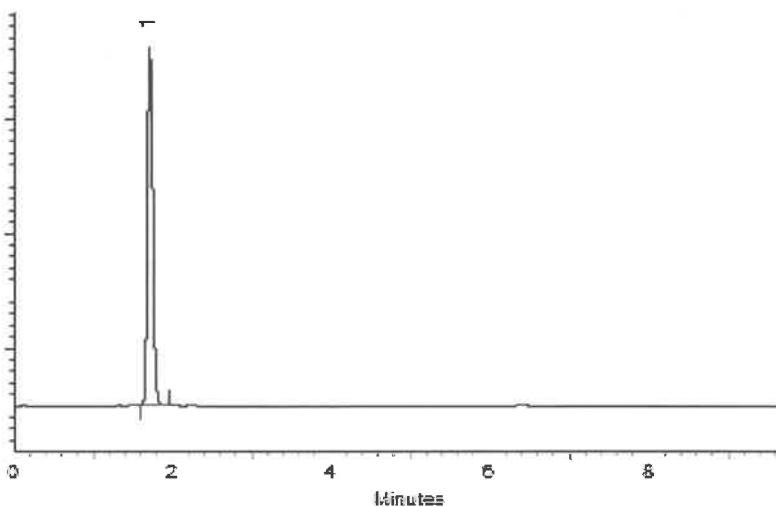
90% B Isocratic

Det. Type:

Wavelength: 220 & 254 nm

Inj. Vol

5µl



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.

Ethan Winiarski
Ethan Winiarski - Operations Tech I

Date Mixed: 11-Jun-2024 Balance Serial #: B345965662

Jennifer Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-Jun-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

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Trusted Answers

ISO 17034

18

Reference Material Certificate

Product Information Sheet

Product Name:	Chlorinated Herbicides Standard	Lot Number:	0006810955
Product Number:	HBM-8151A-1	Lot Issue Date:	20-Aug-2024
Storage Conditions:	Store at Room Temperature (15° to 30°C).	Expiration Date:	30-Sep-2026

Component Name	Concentration	Uncertainty	CAS#	Analyte Lot
acifluorfen	100.2 ±	0.5 µg/mL	050594-66-6	NT02057
bentazon	100.4 ±	0.5 µg/mL	025057-89-0	RM21359
chloramben	100.3 ±	0.5 µg/mL	000133-90-4	RM02698
2,4-D	100.4 ±	0.5 µg/mL	000094-75-7	RM17172
dalapon	100.4 ±	0.5 µg/mL	000075-99-0	RM19677
2,4-DB	100.1 ±	0.5 µg/mL	000094-82-6	RM02866
tetrachloroterephthalic acid	100.4 ±	0.5 µg/mL	002136-79-0	RM15140
dicamba	100.3 ±	0.5 µg/mL	001918-00-9	RM22113
3,5-dichlorobenzoic acid	100.4 ±	0.5 µg/mL	000051-36-5	RM02768
dichlorprop	100.2 ±	0.5 µg/mL	000120-36-5	RM21688
dinoseb	100.3 ±	0.5 µg/mL	000088-85-7	RM22275
MCPA	10019 ±	50 µg/mL	000094-74-6	RM12220
MCPP (mecoprop)	10011 ±	50 µg/mL	000093-65-2	RM09273
4-nitrophenol	100.4 ±	0.5 µg/mL	000100-02-7	RM02391
pentachlorophenol	100.2 ±	0.5 µg/mL	000087-86-5	RM02474
picloram	100.4 ±	0.5 µg/mL	001918-02-1	RM20442
silvex	100.5 ±	0.5 µg/mL	000093-72-1	RM22116
2,4,5-T	100.3 ±	0.5 µg/mL	000093-76-5	RM19314

Matrix: methanol (methyl alcohol)

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

P13520
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P13536

Page: 1 of 2

CSD-QA-015.2

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9/4/2021



Trusted Answers

ISO 17034

18

Reference Material Certificate

Product Information Sheet

Product Name:	Chlorinated Herbicides Standard	Lot Number:	0006810955
Product Number:	HBM-8151A-1	Lot Issue Date:	20-Aug-2024
Storage Conditions:	Store at Room Temperature (15° to 30°C).	Expiration Date:	30-Sep-2026

Component Name	Concentration	Uncertainty	CAS#	Analyte Lot
acifluorfen	100.2 ±	0.5 µg/mL	050594-66-6	NT02057
bentazon	100.4 ±	0.5 µg/mL	025057-89-0	RM21359
chloramben	100.3 ±	0.5 µg/mL	000133-90-4	RM02698
2,4-D	100.4 ±	0.5 µg/mL	000094-75-7	RM17172
dalapon	100.4 ±	0.5 µg/mL	000075-99-0	RM19677
2,4-DB	100.1 ±	0.5 µg/mL	000094-82-6	RM02866
tetrachloroterephthalic acid	100.4 ±	0.5 µg/mL	002136-79-0	RM15140
dicamba	100.3 ±	0.5 µg/mL	001918-00-9	RM22113
3,5-dichlorobenzoic acid	100.4 ±	0.5 µg/mL	000051-36-5	RM02768
dichlorprop	100.2 ±	0.5 µg/mL	000120-36-5	RM21688
dinoseb	100.3 ±	0.5 µg/mL	000088-85-7	RM22275
MCPA	10019 ±	50 µg/mL	000094-74-6	RM12220
MCPP (mecoprop)	10011 ±	50 µg/mL	000093-65-2	RM09273
4-nitrophenol	100.4 ±	0.5 µg/mL	000100-02-7	RM02391
pentachlorophenol	100.2 ±	0.5 µg/mL	000087-86-5	RM02474
picloram	100.4 ±	0.5 µg/mL	001918-02-1	RM20442
silvex	100.5 ±	0.5 µg/mL	000093-72-1	RM22116
2,4,5-T	100.3 ±	0.5 µg/mL	000093-76-5	RM19314

Matrix: methanol (methyl alcohol)

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

P13520
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P13536

Page: 1 of 2

CSD-QA-015.2

ISO 17025
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9/4/2021



Trusted Answers

ISO 17034

18

Reference Material Certificate

Product Information Sheet

Product Name:	Chlorinated Herbicides Standard	Lot Number:	0006810955
Product Number:	HBM-8151A-1	Lot Issue Date:	20-Aug-2024
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MCPA	10019 ±	50 µg/mL	000094-74-6	RM12220
MCPP (mecoprop)	10011 ±	50 µg/mL	000093-65-2	RM09273
4-nitrophenol	100.4 ±	0.5 µg/mL	000100-02-7	RM02391
pentachlorophenol	100.2 ±	0.5 µg/mL	000087-86-5	RM02474
picloram	100.4 ±	0.5 µg/mL	001918-02-1	RM20442
silvex	100.5 ±	0.5 µg/mL	000093-72-1	RM22116
2,4,5-T	100.3 ±	0.5 µg/mL	000093-76-5	RM19314

Matrix: methanol (methyl alcohol)

Description:

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Homogeneity:

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P13520
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P13536

Page: 1 of 2

CSD-QA-015.2

ISO 17025
Cert No. AT-1937

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RALF
9/4/2021



SHIPPING DOCUMENTS

CLIENT INFORMATION

CLIENT PROJECT INFORMATION

CLIENT BILLING INFORMATION

REPORT TO BE SENT TO:

COMPANY: RU2 Engineering LLC

ADDRESS: 2 Melinda Drive

Monroe Twp, NJ 08831

CITY ZIP:

ATTENTION: Rutu Manani

PHONE: 609-409-4964 FAX:

PROJECT NAME: SANDTWOBR BMCR Project

PROJECT NO.: LOCATION: Brooklyn, NYC

PROJECT MANAGER: Rutu Manani

e-mail: Rmanani@Ru2eng.com

PHONE: FAX:

BILL TO: Same as Company PO#:

ADDRESS:

CITY STATE ZIP:

ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) Standard 10 days DAYS*

HARDCOPY (DATA PACKAGE): Standard 10 days DAYS*

EDD: Standard 10 days DAYS*

*TO BE APPROVED BY CHEMTECH

STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- 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 _____

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9		
1.	JPP-29.1-012825	Soil	G	11/28/25	14:26	3	X X X											← Specify Preservatives A-HCl D-NaOH B-HNO3 ECF C-H2SO4 F-OTHER
2.	JPP-29.1-012825	Soil	L	11/28/25	14:30	7			X X X X X X X									
3.	JPP-29.2-012825	Soil	b	11/28/25	15:15	3	X X X											
4.	JPP-29.2-012825	Soil	L	11/28/26	15:12	7			X X X X X X X									
5.																		
6.																		
7.																		
8.																		
9.																		
10.																		

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:

1. RA

DATE/TIME:

11/29/2025

RECEIVED BY:

1045
1-29-25

Conditions of bottles or coolers at receipt:

 COMPLIANT NON COMPLIANT COOLER TEMP

2.8 °C

Comments:

preserve extra sample jar if additional analysis is required

RELINQUISHED BY SAMPLER:

2.

DATE/TIME:

RECEIVED BY:

2.

RELINQUISHED BY SAMPLER:

3.

DATE/TIME:

11/4
1-29-25

RECEIVED BY:

3.

Page 2 of 2

CLIENT: Hand Delivered Other
CHEMTECH: Picked Up Field SamplingShipment Complete
 YES NO

Laboratory Certification

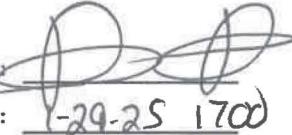
Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

LOGIN REPORT/SAMPLE TRANSFER

Order ID :	Q1215	RUTW01	Order Date :	1/29/2025 11:20:00 AM	YG 02/03/25	Project Mgr :
Client Name :	RU2 Engineering, LLC		Project Name :	SANDTWOBR BMCR Bro NYCDDC SANTWOBR Brooklyn Bridge BBMCR		
Client Contact :	Rutu Manani		Receive DateTime :	1/29/2025 4:14:00 PM		
Invoice Name :	RU2 Engineering, LLC		Purchase Order :	Report Type : NYS ASP B EDD Type : Excel NY		
Invoice Contact :	Rutu Manani			Hard Copy Date :		
				Date Signoff :		

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1215-01	JPP-29.1-012825	Solid	01/28/2025	14:26	VOCMS Group1		8260D	10 Bus. Days	
Q1215-05	JPP-29.2-012825	Solid	01/28/2025	15:15	VOCMS Group1		8260D	10 Bus. Days	

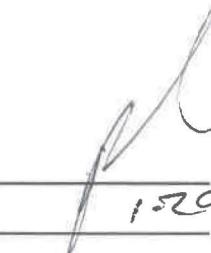
Relinquished By:



Date / Time :

1-29-25 1700

Received By:



Date / Time :

1-29-25 17:00

Storage Area : VOA Refrigerator Room



Samples in Sm Fridge @ 1700.