

Cover Page

Order ID : P4892

Project ID : Amtrak Sawtooth Bridges 2024

Client : Portal Partners Tri-Venture

Lab Sample Number

P4892-01
P4892-02
P4892-03
P4892-04

Client Sample Number

WB-310-TOP
WB-310-BOT
WB-310-BOT
WB-310-SW

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: 11/27/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P4892

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

✓

QA Review Signature: KETAN PATEL

Date: 11/27/2024

LAB CHRONICLE

OrderID:	P4892	OrderDate:	11/18/2024 8:10:00 AM
Client:	Portal Partners Tri-Venture	Project:	Amtrak Sawtooth Bridges 2024
Contact:	Joseph Krupansky	Location:	M11,VOA Ref. #2 Soil,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4892-01	WB-310-TOP	SOIL	PCB	8082A	11/15/24	11/19/24	11/19/24	11/15/24
			EPH	NJEPH		11/21/24	11/22/24	
P4892-02	WB-310-BOT	SOIL	PCB	8082A	11/15/24	11/19/24	11/19/24	11/15/24
			EPH	NJEPH		11/21/24	11/22/24	
P4892-03	WB-310-BOT	TCLP	TCLP Herbicide	8151A	11/15/24	11/21/24	11/22/24	11/15/24
			TCLP Pesticide	8081B		11/20/24	11/22/24	
P4892-04	WB-310-SW	WATER	PCB	8082A	11/15/24	11/20/24	11/20/24	11/15/24
			EPH	NJEPH		11/20/24	11/21/24	



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

Hit Summary Sheet
SW-846

SDG No.: P4892

Order ID: P4892

Client: Portal Partners Tri-Venture

Project ID: Amtrak Sawtooth Bridges 2024

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

Total Concentration: 0.000



QC SUMMARY

Surrogate Summary

SDG No.: **P4892**

Client: **Portal Partners Tri-Venture**

Analytical Method: **8151A**

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits	
								Low	High
I.BLK-PS028487.D	PIBLK-PS028487.D	2,4-DCAA	1	500	548	110		70 (39)	130 (175)
		2,4-DCAA	2	500	547	109		70 (39)	130 (175)
I.BLK-PS028595.D	PIBLK-PS028595.D	2,4-DCAA	1	500	585	117		70 (39)	130 (175)
		2,4-DCAA	2	500	511	102		70 (39)	130 (175)
PB165193BL	PB165193BL	2,4-DCAA	1	500	617	123		70 (39)	130 (175)
		2,4-DCAA	2	500	542	108		70 (39)	130 (175)
PB165193BS	PB165193BS	2,4-DCAA	1	500	610	122		70 (39)	130 (175)
		2,4-DCAA	2	500	537	107		70 (39)	130 (175)
PB165060TB	PB165060TB	2,4-DCAA	1	500	334	67	*	70 (39)	130 (175)
		2,4-DCAA	2	500	288	58	*	70 (39)	130 (175)
P4892-03	WB-310-BOT	2,4-DCAA	1	500	547	109		70 (39)	130 (175)
		2,4-DCAA	2	500	468	94		70 (39)	130 (175)
P4892-03MS	WB-310-BOTMS	2,4-DCAA	1	500	551	110		70 (39)	130 (175)
		2,4-DCAA	2	500	476	95		70 (39)	130 (175)
P4892-03MSD	WB-310-BOTMSD	2,4-DCAA	1	500	555	111		70 (39)	130 (175)
		2,4-DCAA	2	500	470	94		70 (39)	130 (175)
I.BLK-PS028603.D	PIBLK-PS028603.D	2,4-DCAA	1	500	574	115		70 (39)	130 (175)
		2,4-DCAA	2	500	515	103		70 (39)	130 (175)

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4892

Client: Portal Partners Tri-Venture

Analytical Method: 8151A

DataFile : PS028601.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Client Sample ID:	WB-310-BOTMS											
P4892-03MS	2,4-D	50	0	62.4	ug/L	125				70 (65)	130 (135)	
	2,4,5-TP(Silvex)	50	0	61.9	ug/L	124				70 (62)	130 (139)	

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4892

Client: Portal Partners Tri-Venture

Analytical Method: 8151A

DataFile : PS028602.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Client Sample ID:	WB-310-BOTMSD											
P4892-03MSD	2,4-D	50	0	62.5	ug/L	125		0		70 (65)	130 (135)	20 (20)
	2,4,5-TP(Silvex)	50	0	65.1	ug/L	130		5		70 (62)	130 (139)	20 (20)

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4892

Client: Portal Partners Tri-Venture

Analytical Method: 8151A **Datafile :** PS028598.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD		Limits	
								Qual	Low	High	RPD
PB165193BS	2,4-D	5	6.30	ug/L	126				70 (83)	130 (130)	
	2,4,5-TP(Silvex)	5	6.10	ug/L	122				70 (78)	130 (127)	

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165193BL

Lab Name: CHEMTECH

Contract: PORT06

Lab Code: CHEM Case No.: P4892

SAS No.: P4892 SDG NO.: P4892

Lab Sample ID: PB165193BL

Lab File ID: PS028597.D

Matrix: (soil/water) water

Extraction: (Type) _____

Sulfur Cleanup: (Y/N) N

Date Extracted: 11/21/2024

Date Analyzed (1): 11/22/2024

Date Analyzed (2): 11/22/2024

Time Analyzed (1): 11:13

Time Analyzed (2): 11:13

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
PB165193BS	PB165193BS	PS028598.D	11/22/2024	11/22/2024
PB165060TB	PB165060TB	PS028599.D	11/22/2024	11/22/2024
WB-310-BOT	P4892-03	PS028600.D	11/22/2024	11/22/2024
WB-310-BOTMS	P4892-03MS	PS028601.D	11/22/2024	11/22/2024
WB-310-BOTMSD	P4892-03MSD	PS028602.D	11/22/2024	11/22/2024

COMMENTS: _____



SAMPLE DATA

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-BOT	SDG No.:	P4892
Lab Sample ID:	P4892-03	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0
Sample Wt/Vol:	100	Units:	mL
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TCLP Herbicide
GPC Factor :	1.0	PH :	
Prep Method :	8151A	Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028600.D	1	11/21/24 09:41	11/22/24 12:25	PB165193

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	4.90	U	4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	4.50	U	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	547		70 (39) - 130 (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\PS112224\
Data File : PS028600.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Nov 2024 12:25
Operator : AR\AJ
Sample : P4892-03
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
WB-310-BOT

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/25/2024
Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 22 21:01:24 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:41:03 2024
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	7.231	7.730	1398.0E6	605.3E6	546.962m	468.400m

Target Compounds

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS112224\
Data File : PS028600.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Nov 2024 12:25
Operator : AR\AJ
Sample : P4892-03
Misc :
ALS Vial : 8 Sample Multiplier: 1

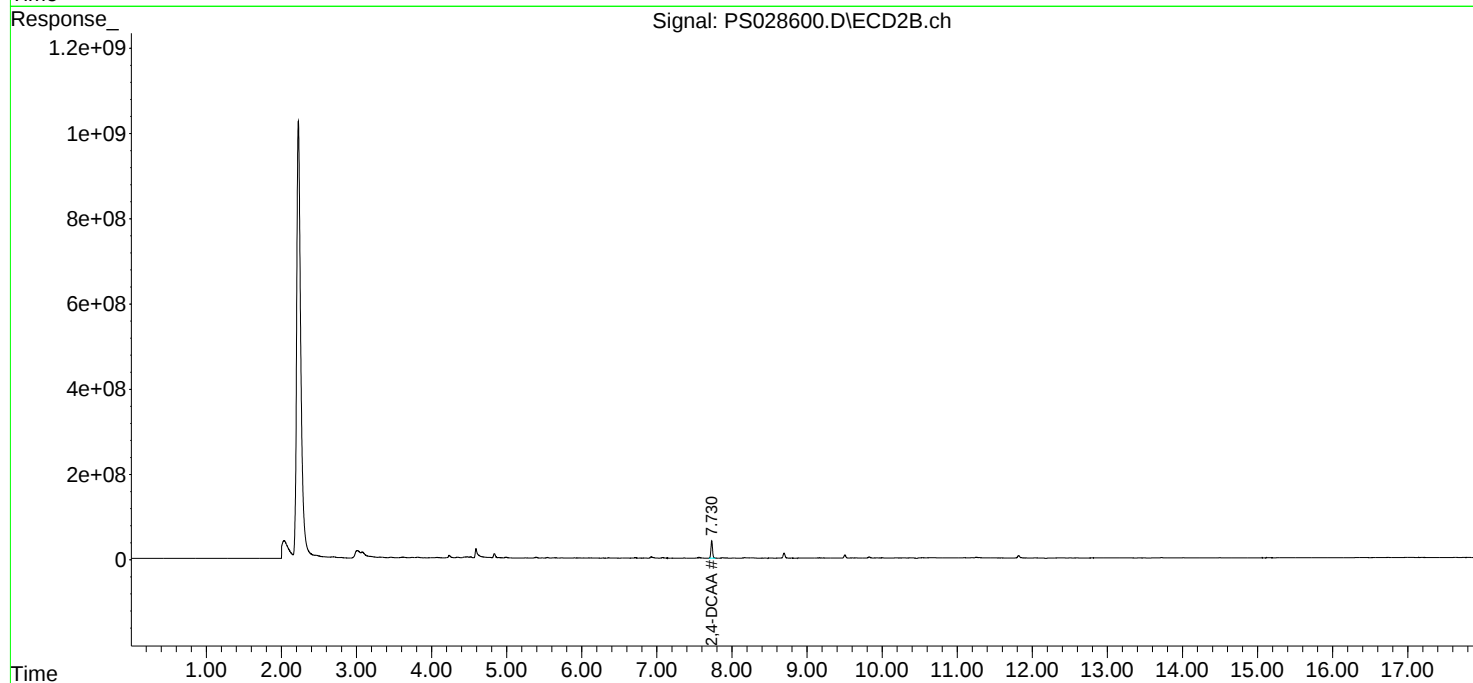
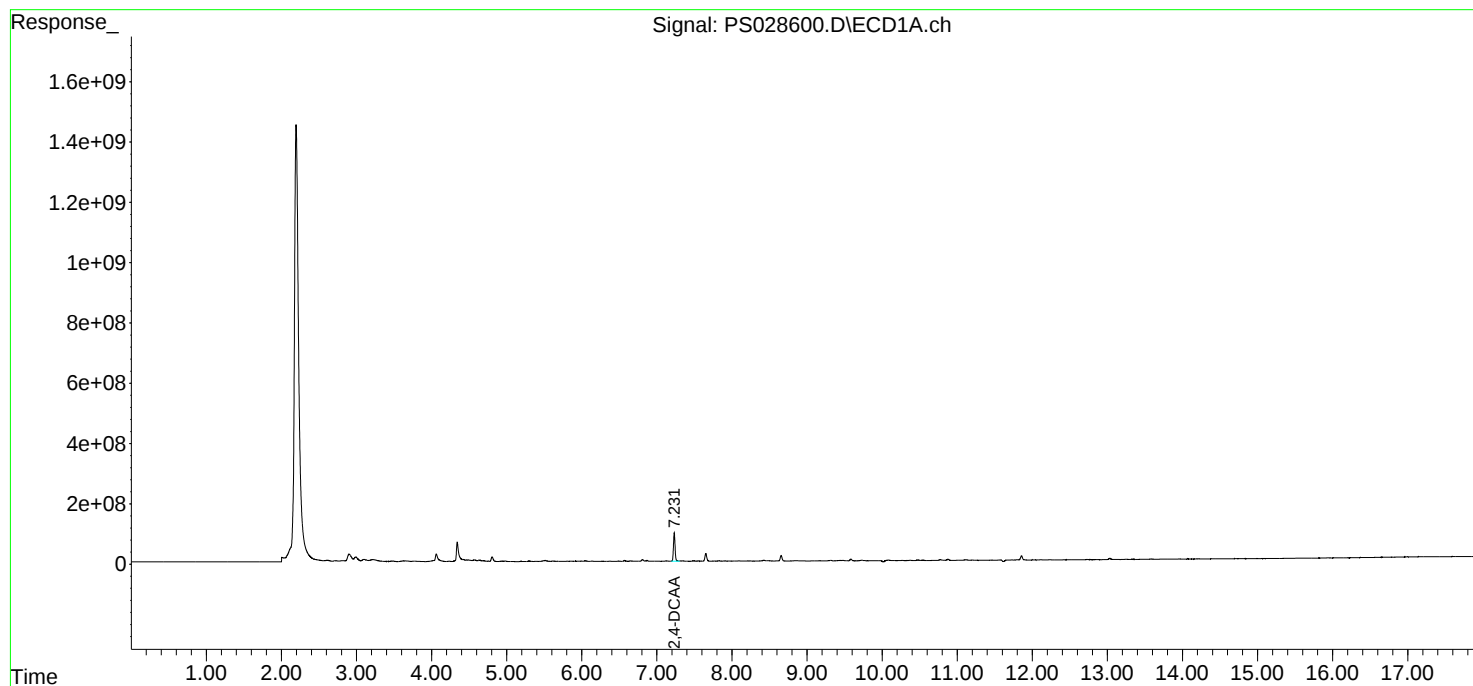
Instrument :
ECD_S
ClientSampleId :
WB-310-BOT

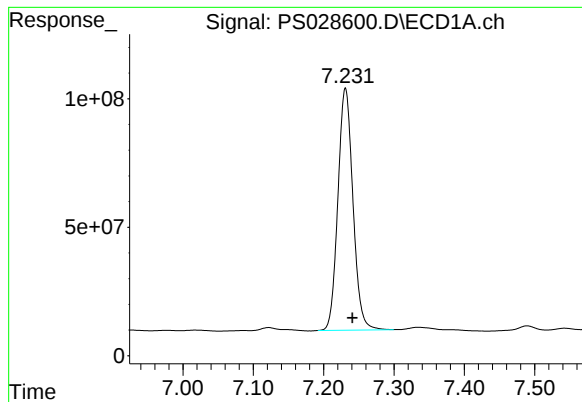
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/25/2024
Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 22 21:01:24 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:41:03 2024
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





#4 2,4-DCAA

R.T.: 7.231 min
Delta R.T.: -0.010 min
Response: 1397969975
Conc: 546.96 ng/ml

Instrument :

ECD_S

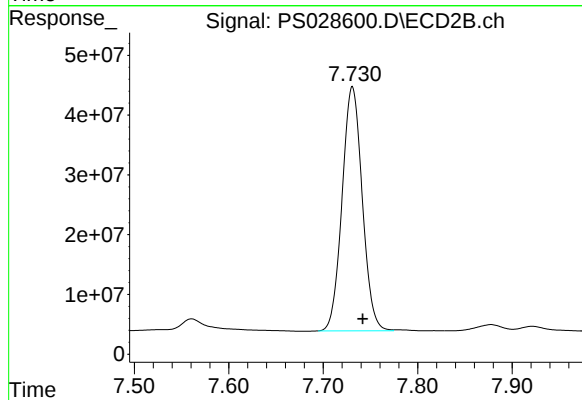
ClientSampleId :

WB-310-BOT

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/25/2024
Supervised By :Ankita Jodhani 11/25/2024



#4 2,4-DCAA

R.T.: 7.730 min
Delta R.T.: -0.011 min
Response: 605316166
Conc: 468.40 ng/ml m

Report of Analysis

Client:	Portal Partners Tri-Venture		Date Collected:		
Project:	Amtrak Sawtooth Bridges 2024		Date Received:	11/21/24	
Client Sample ID:	PB165060TB		SDG No.:	P4892	
Lab Sample ID:	PB165060TB		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
PS028599.D	1	11/21/24 09:41	11/22/24 12:01	PB165193

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	4.90	U	4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	4.50	U	4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	334	*	70 (39) - 130 (175)	67%	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\PS112224\
Data File : PS028599.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Nov 2024 12:01
Operator : AR\AJ
Sample : PB165060TB
Misc :
ALS Vial : 7 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
PB165060TB

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/25/2024
Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 22 21:00:30 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:41:03 2024
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	7.231	7.731	853.8E6	372.2E6	334.055m	288.018m

Target Compounds

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS112224\
Data File : PS028599.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Nov 2024 12:01
Operator : AR\AJ
Sample : PB165060TB
Misc :
ALS Vial : 7 Sample Multiplier: 1

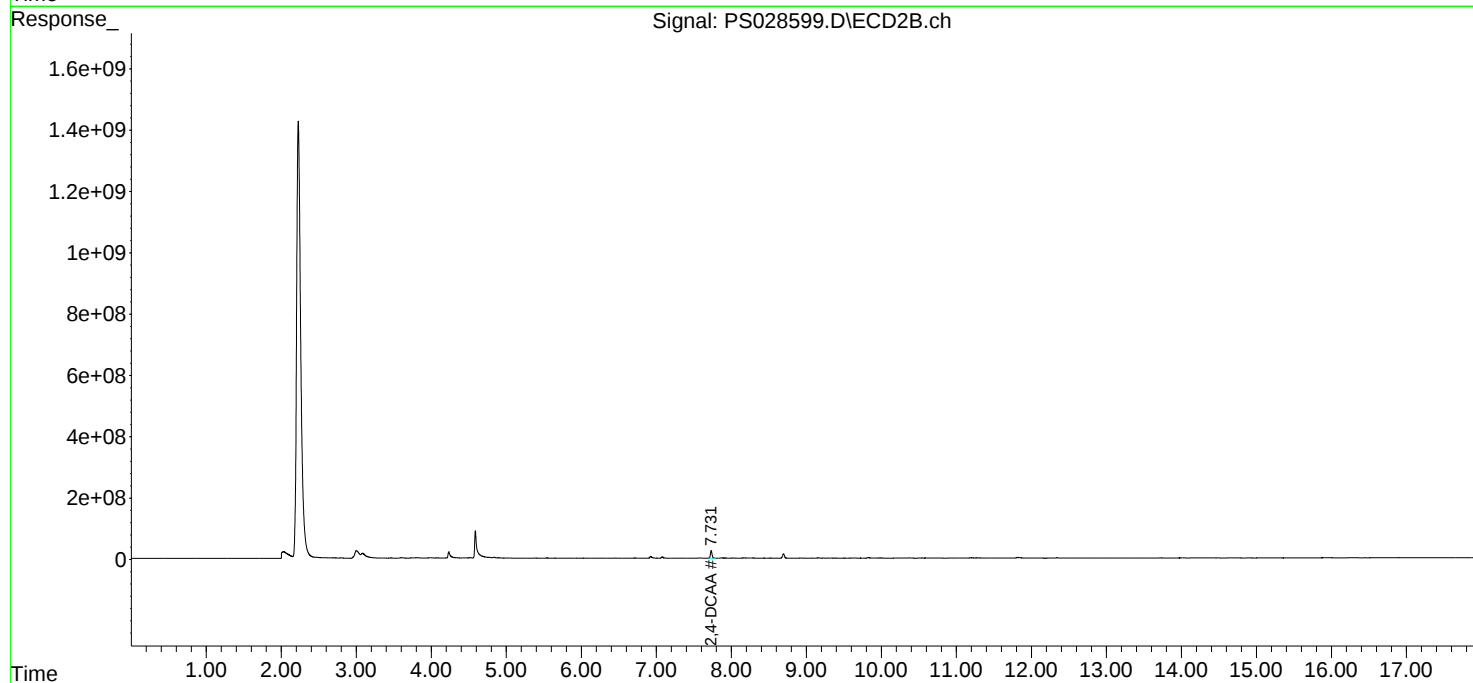
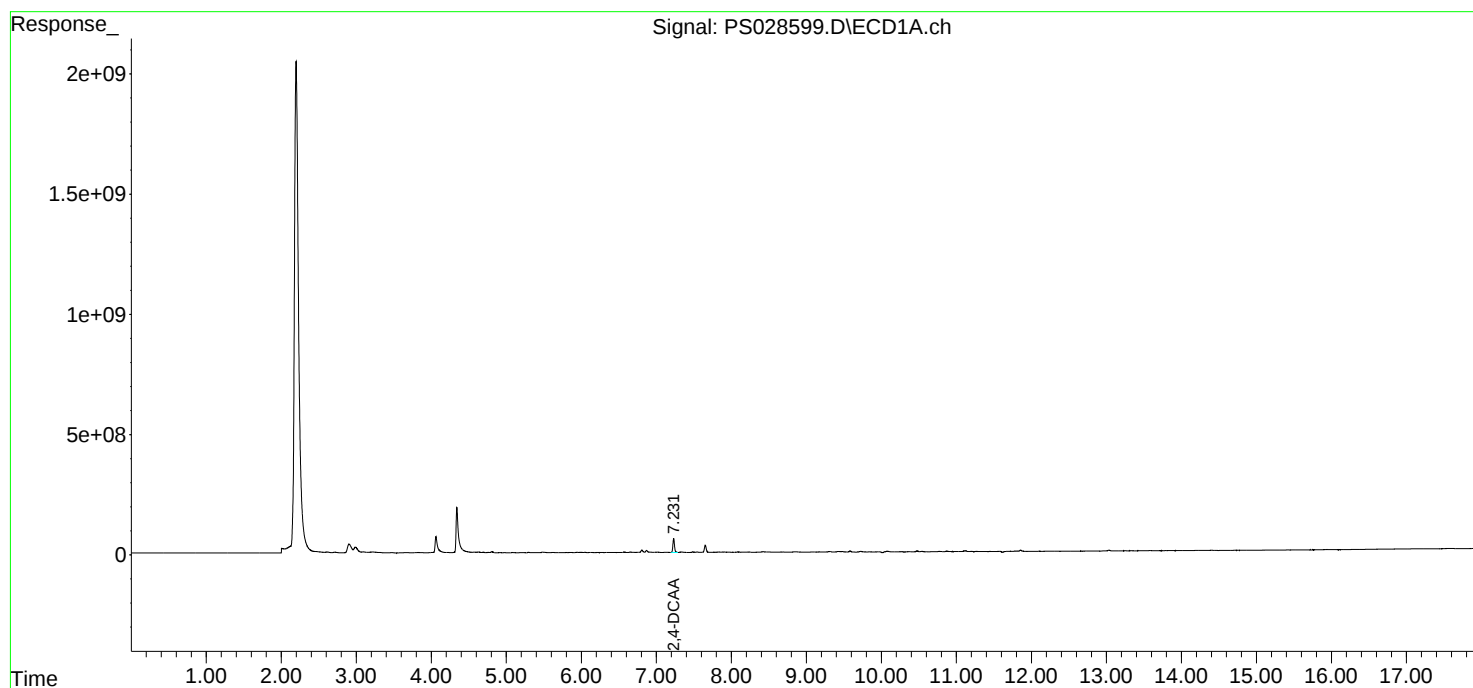
Instrument :
ECD_S
ClientSampleId :
PB165060TB

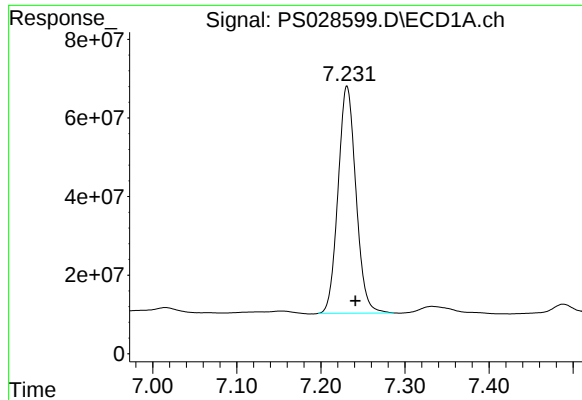
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/25/2024
Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 22 21:00:30 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:41:03 2024
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





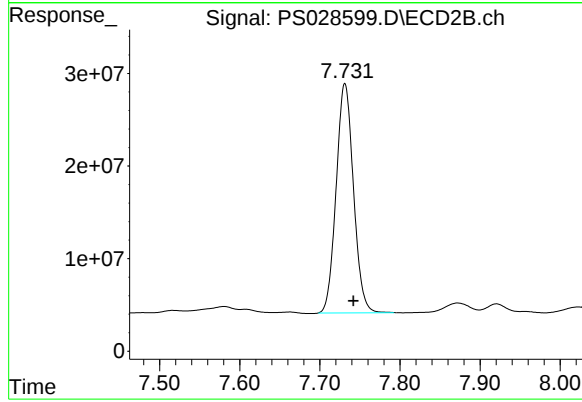
#4 2,4-DCAA

R.T.: 7.231 min
Delta R.T.: -0.010 min
Response: 853805208
Conc: 334.06 ng/ml

Instrument :
ECD_S
ClientSampleId :
PB165060TB

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/25/2024
Supervised By :Ankita Jodhani 11/25/2024



#4 2,4-DCAA

R.T.: 7.731 min
Delta R.T.: -0.011 min
Response: 372206641
Conc: 288.02 ng/ml m



CALIBRATION SUMMARY

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

LAB FILE ID:	RT 200 =	<u>PS028488.D</u>	RT 500 =	<u>PS028489.D</u>
RT 750 =	PS028490.D	RT 1000 =	PS028491.D	RT 1500 = PS028492.D

[illegible]

[illegible]



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

CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

Instrument ID: ECD_S

Calibration Date(s): 11/13/2024 11/13/2024

Calibration Times: 11:44 13:23

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

LAB FILE ID:		CF 200 =	<u>PS028488.D</u>	CF 500 =	<u>PS028489.D</u>		
CF 750 =		<u>PS028490.D</u>	CF 1000 =	<u>PS028491.D</u>	CF 1500 =	<u>PS028492.D</u>	
COMPOUND	CF 200	CF 500	CF 750	CF 1000	CF 1500	CF	% RSD
2,4,5-TP(Silvex)	17984700000	18202900000	17704400000	16835500000	16126100000	17370700000	5
2,4-D	3426680000	3322800000	3216710000	3055910000	2962550000	3196930000	6
2,4-DCAA	2772700000	2649760000	2564110000	2437330000	2355500000	2555880000	6



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Fax : 908 789 8922

CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: PORT06
Lab Code: CHEM **Case No.:** P4892 **SAS No.:** P4892 **SDG NO.:** P4892
Instrument ID: ECD_S **Calibration Date(s):** 11/13/2024 11/13/2024
Calibration Times: 11:44 13:23
GC Column: RTX-CLP2 **ID:** 0.32 (mm)

LAB FILE ID:		CF 200 =	<u>PS028488.D</u>	CF 500 =	<u>PS028489.D</u>		
CF 750 =		<u>PS028490.D</u>	CF 1000 =	<u>PS028491.D</u>	CF 1500 =	<u>PS028492.D</u>	
COMPOUND	CF 200	CF 500	CF 750	CF 1000	CF 1500	CF	% RSD
2,4,5-TP(Silvex)	8015310000	8674200000	8711600000	8465070000	8325300000	8438300000	3
2,4-D	1549260000	1596990000	1592240000	1549180000	1540080000	1565550000	2
2,4-DCAA	1280520000	1318140000	1312940000	1279750000	1270170000	1292300000	2

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS111324\
 Data File : PS028488.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 13 Nov 2024 11:44
 Operator : AR\AJ
 Sample : HSTDICC200
 Misc :
 ALS Vial : 141 Sample Multiplier: 1

Instrument :
 ECD_S
 ClientSampleId :
 HSTDICC200

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Nov 13 13:12:44 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
 Quant Title : 8080.M
 QLast Update : Wed Nov 13 13:07:24 2024
 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	7.241	7.742	554.5E6	256.1E6	208.302	196.419
Target Compounds							
1) T	Dalapon	2.637	2.697	567.9E6	421.1E6	171.007	175.154
2) T	3,5-DICHL...	6.411	6.695	736.6E6	351.5E6	190.744	180.742
3) T	4-Nitroph...	7.039	7.268	319.9E6	160.4E6	184.509	182.826
5) T	DICAMBA	7.429	7.942	2056.9E6	963.6E6	184.688	171.818
6) T	MCPD	7.609	8.041	103.9E6	72929401	15.536	17.287
7) T	MCPA	7.758	8.285	176.4E6	114.4E6	17.457	18.360
8) T	DICHLORPROP	8.139	8.659	595.4E6	267.9E6	194.471	182.880
9) T	2,4-D	8.369	8.990	644.2E6	291.3E6	193.920	184.401
10) T	Pentachlo...	8.669	9.519	8533.7E6	3656.7E6	190.043	179.660
11) T	2,4,5-TP ...	9.249	9.896	3417.1E6	1522.9E6	190.219	179.863
12) T	2,4,5-T	9.543	10.317	3493.5E6	1524.9E6	190.115	180.786
13) T	2,4-DB	10.119	10.884	527.3E6	190.3E6	189.920	182.643
14) T	DINOSEB	11.332	11.264	2732.4E6	994.8E6	187.019	179.683
15) T	Picloram	11.139	12.360	5203.3E6	1865.2E6	182.666	169.067
16) T	DCPA	11.626	12.309	5178.8E6	1740.8E6	190.319	179.363

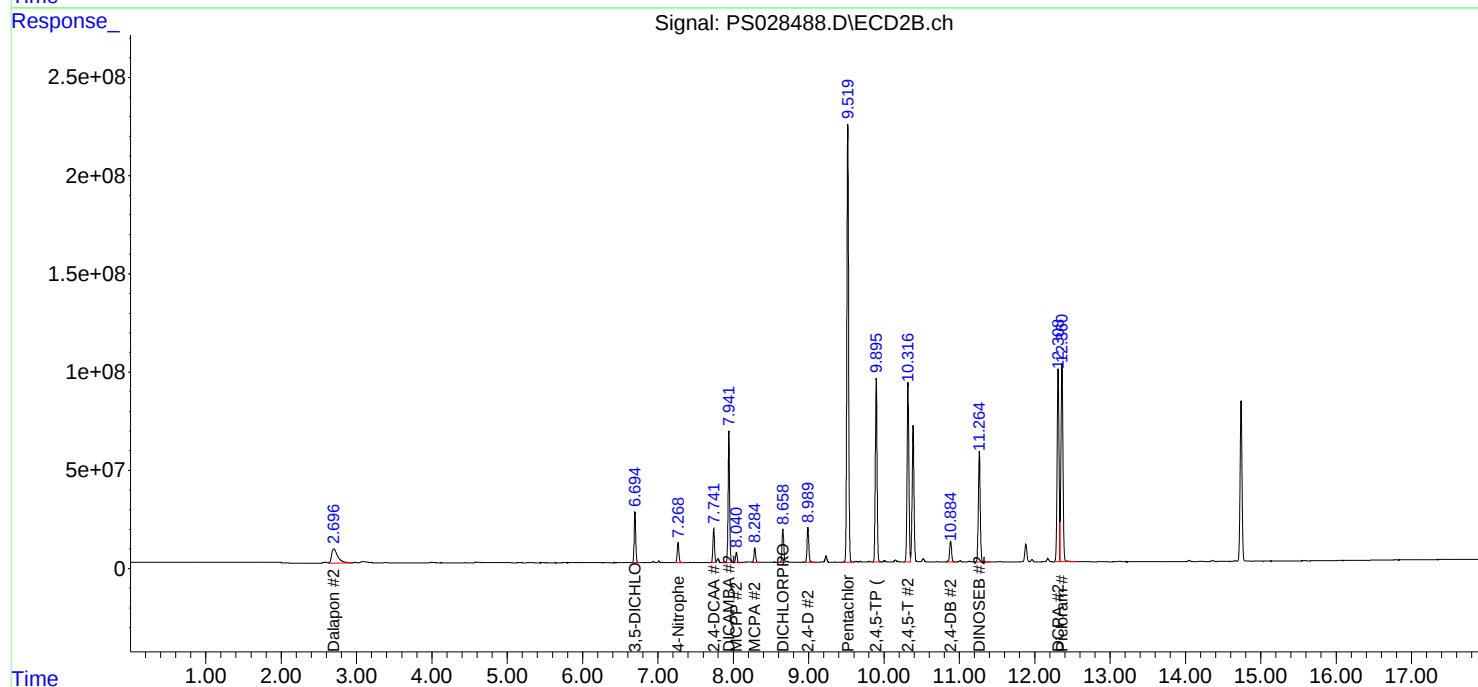
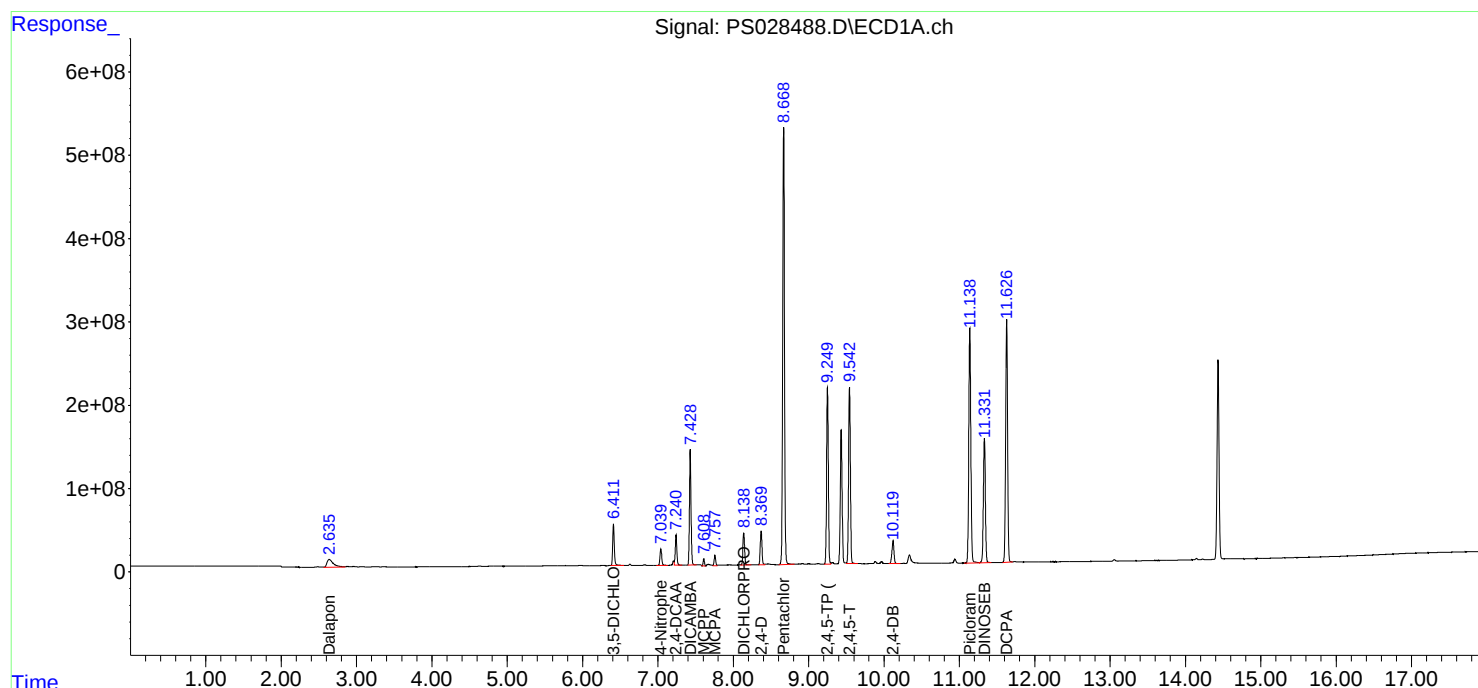
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS111324\
Data File : PS028488.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Nov 2024 11:44
Operator : AR\AJ
Sample : HSTDICC200
Misc :
ALS Vial : 141 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
HSTDICC200

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 13 13:12:44 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:07:24 2024
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 x 0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm



Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS111324\
 Data File : PS028489.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 13 Nov 2024 12:09
 Operator : AR\AJ
 Sample : HSTDICC500
 Misc :
 ALS Vial : 142 Sample Multiplier: 1

Instrument :
 ECD_S
 ClientSampleId :
 HSTDICC500

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Nov 13 13:11:02 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
 Quant Title : 8080.M
 QLast Update : Wed Nov 13 13:07:24 2024
 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	7.240	7.742	1324.9E6	659.1E6	508.214	500.989
Target Compounds							
1) T	Dalapon	2.638	2.698	1545.0E6	1105.9E6	451.626	451.470
2) T	3,5-DICHL...	6.410	6.694	1800.5E6	918.4E6	472.260	465.605
3) T	4-Nitroph...	7.039	7.268	790.0E6	400.9E6	458.848	457.996
5) T	DICAMBA	7.428	7.942	5308.5E6	2719.0E6	472.478	464.818
6) T	MCP	7.610	8.043	333.5E6	203.7E6	45.893	46.425
7) T	MCPA	7.760	8.288	481.0E6	292.0E6	46.181	46.549
8) T	DICHLORPROP	8.138	8.659	1439.1E6	696.4E6	478.263	468.964
9) T	2,4-D	8.369	8.990	1561.7E6	750.6E6	477.625	470.699
10) T	Pentachlo...	8.669	9.519	21688.4E6	9967.4E6	483.050	476.738
11) T	2,4,5-TP ...	9.250	9.896	8646.4E6	4120.2E6	481.595	473.978
12) T	2,4,5-T	9.542	10.317	8850.8E6	4103.7E6	481.803	475.010
13) T	2,4-DB	10.118	10.884	1328.2E6	501.5E6	478.311	472.110
14) T	DINOSEB	11.333	11.264	6948.3E6	2651.1E6	474.343	468.490
15) T	Picloram	11.139	12.360	13822.7E6	5458.9E6	476.067	468.970
16) T	DCPA	11.626	12.309	13310.7E6	4804.4E6	487.033	479.237

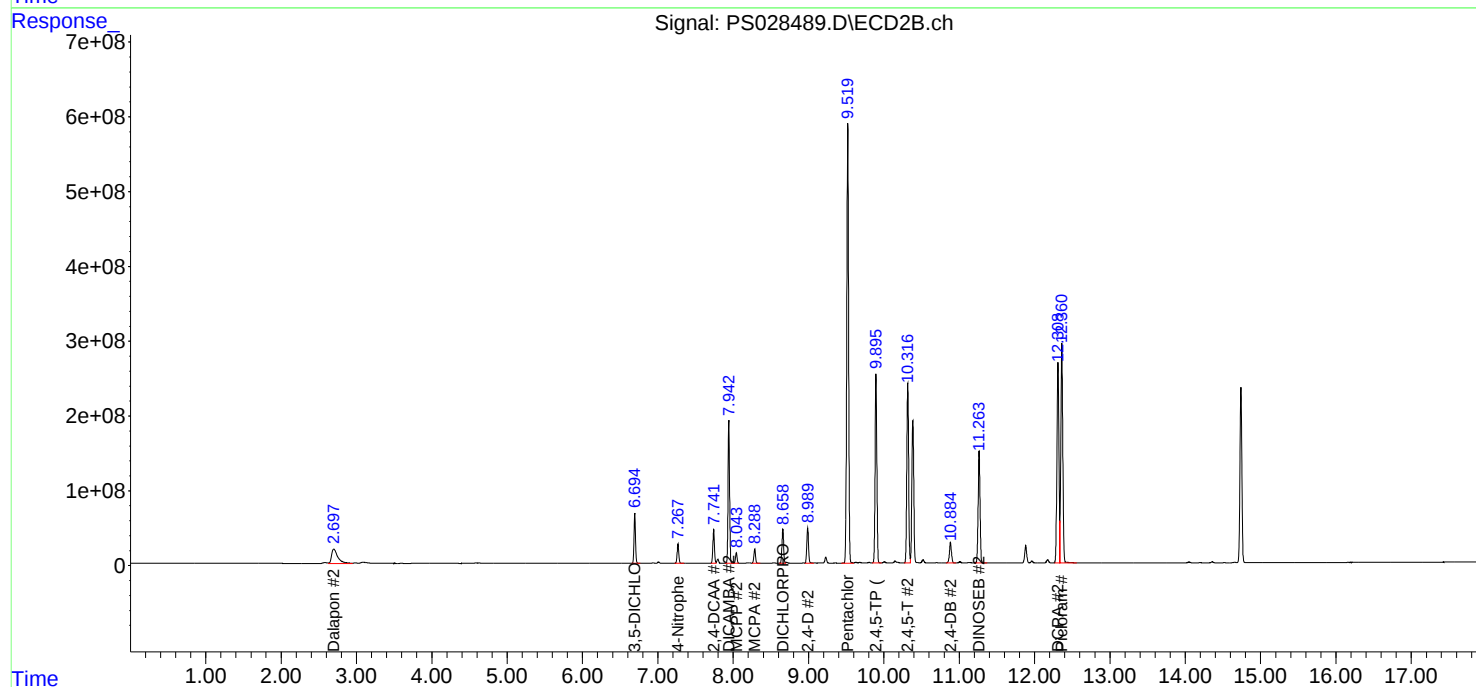
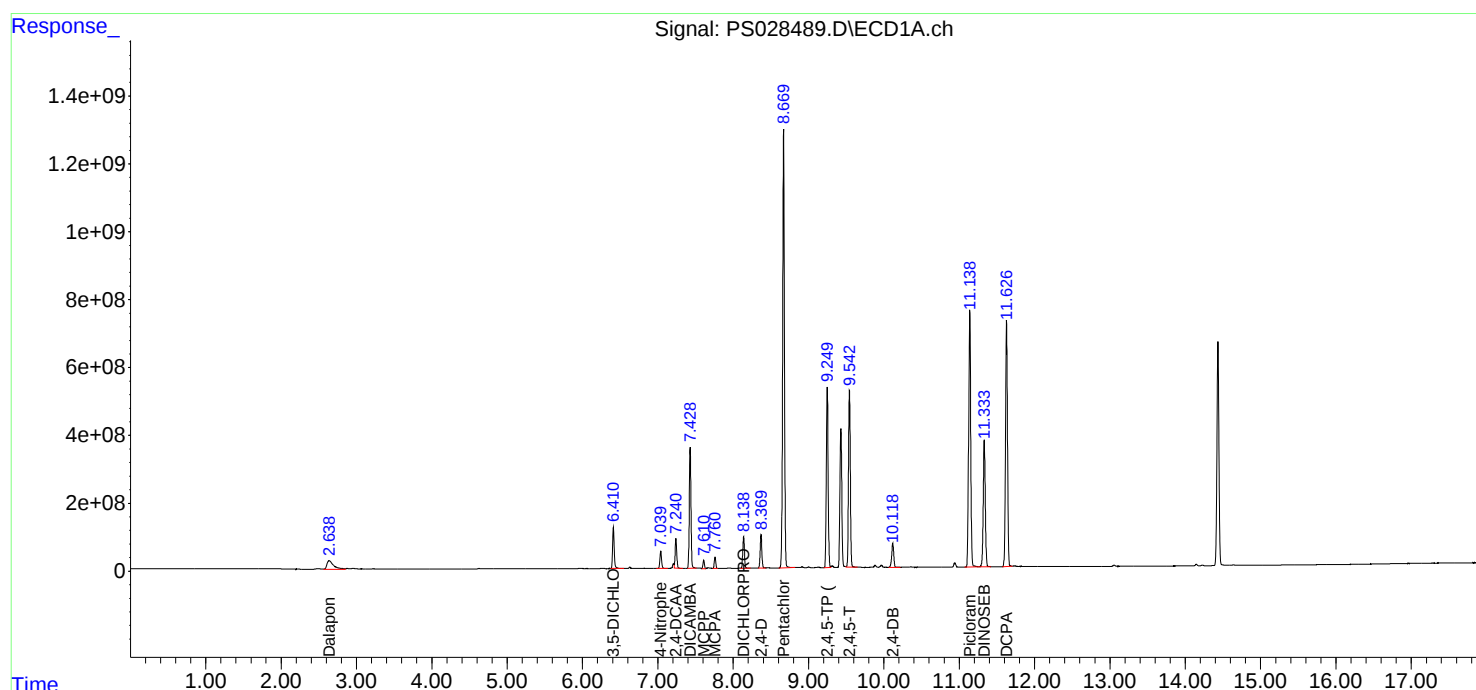
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS111324\
Data File : PS028489.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Nov 2024 12:09
Operator : AR\AJ
Sample : HSTDICC500
Misc :
ALS Vial : 142 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
HSTDICC500

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 13 13:11:02 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:07:24 2024
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 x 0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm



Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS111324\
 Data File : PS028490.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 13 Nov 2024 12:34
 Operator : AR\AJ
 Sample : HSTDICC750
 Misc :
 ALS Vial : 143 Sample Multiplier: 1

Instrument :
 ECD_S
 ClientSampleId :
 HSTDICC750

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Nov 13 13:08:46 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
 Quant Title : 8080.M
 QLast Update : Wed Nov 13 13:07:24 2024
 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	7.241	7.742	1923.1E6	984.7E6	750.000	750.000
Target Compounds							
1) T	Dalapon	2.639	2.699	2352.1E6	1684.7E6	682.500	682.500
2) T	3,5-DICHL...	6.411	6.695	2617.7E6	1374.0E6	697.500	697.500
3) T	4-Nitroph...	7.039	7.268	1165.2E6	593.4E6	682.500	682.500
5) T	DICAMBA	7.429	7.942	7879.2E6	4169.4E6	705.000	705.000
6) T	MCPD	7.612	8.045	524.4E6	313.2E6	70.500	70.500
7) T	MCPA	7.763	8.291	731.4E6	437.1E6	69.750	69.750
8) T	DICHLORPROP	8.139	8.659	2084.1E6	1049.1E6	705.000	705.000
9) T	2,4-D	8.370	8.990	2267.8E6	1122.5E6	705.000	705.000
10) T	Pentachlo...	8.670	9.519	31448.4E6	14842.0E6	712.500	712.500
11) T	2,4,5-TP ...	9.250	9.896	12614.4E6	6207.0E6	712.500	712.500
12) T	2,4,5-T	9.543	10.316	12901.3E6	6155.3E6	712.500	712.500
13) T	2,4-DB	10.119	10.884	1964.7E6	761.5E6	712.500	712.500
14) T	DINOSEB	11.333	11.263	10231.6E6	4002.3E6	705.000	705.000
15) T	Picloram	11.139	12.360	20641.1E6	8398.9E6	712.500	712.500
16) T	DCPA	11.626	12.308	19389.5E6	7229.5E6	720.000	720.000

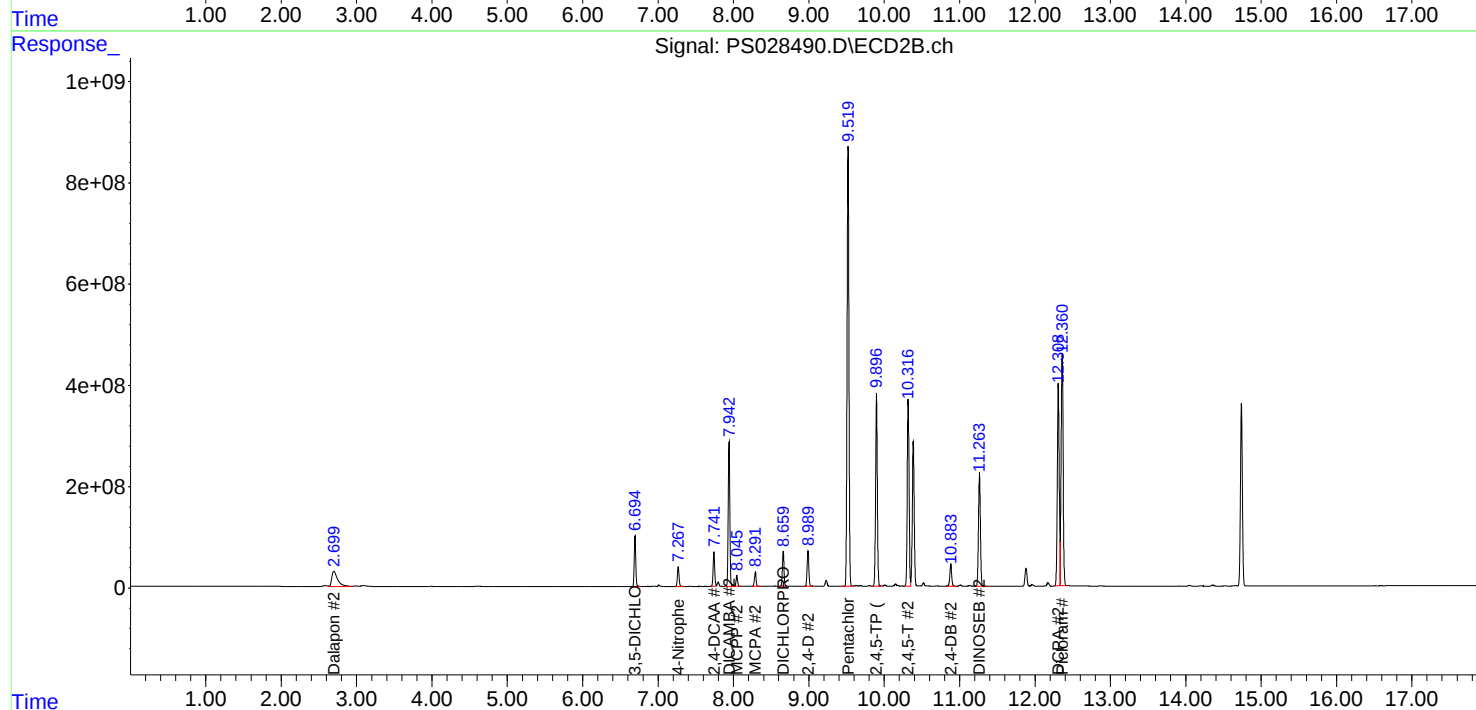
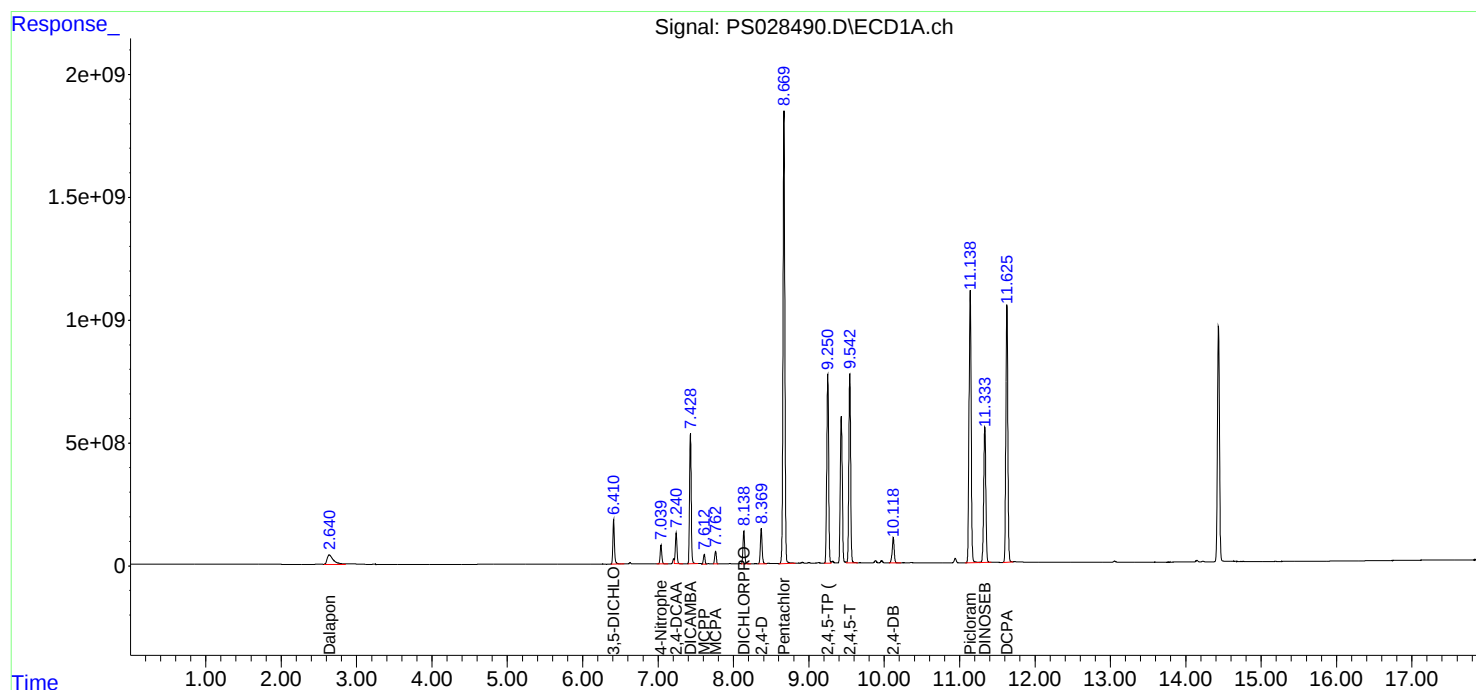
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS111324\
Data File : PS028490.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Nov 2024 12:34
Operator : AR\AJ
Sample : HSTDICC750
Misc :
ALS Vial : 143 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
HSTDICC750

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 13 13:08:46 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:07:24 2024
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 x 0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm



Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS111324\
 Data File : PS028491.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 13 Nov 2024 12:58
 Operator : AR\AJ
 Sample : HSTDICC1000
 Misc :
 ALS Vial : 144 Sample Multiplier: 1

Instrument :
 ECD_S
 ClientSampleId :
 HSTDICC1000

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Nov 13 13:15:50 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
 Quant Title : 8080.M
 QLast Update : Wed Nov 13 13:15:40 2024
 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	7.241	7.741	2437.3E6	1279.8E6	935.286	986.066
Target Compounds							
1) T	Dalapon	2.638	2.698	3097.2E6	2216.5E6	926.916	918.906
2) T	3,5-DICHL...	6.411	6.694	3340.3E6	1785.4E6	880.356	920.974
3) T	4-Nitroph...	7.039	7.268	1502.1E6	767.8E6	876.900	883.678
5) T	DICAMBA	7.429	7.942	10134.0E6	5488.3E6	917.257	968.671
6) T	MCPD	7.614	8.047	698.6E6	412.5E6	101.642	96.801
7) T	MCPA	7.765	8.293	958.7E6	569.9E6	94.404	91.819
8) T	DICHLORPROP	8.139	8.659	2659.6E6	1365.9E6	885.462	934.272
9) T	2,4-D	8.369	8.990	2872.6E6	1456.2E6	882.363	926.403
10) T	Pentachlo...	8.669	9.519	38875.4E6	18990.2E6	885.375	937.205
11) T	2,4,5-TP ...	9.250	9.896	15993.7E6	8041.8E6	904.527	949.834
12) T	2,4,5-T	9.542	10.317	16383.0E6	7961.4E6	905.485	945.412
13) T	2,4-DB	10.119	10.884	2532.2E6	996.7E6	921.287	954.765
14) T	DINOSEB	11.333	11.264	13051.7E6	5185.0E6	904.558	937.395
15) T	Picloram	11.139	12.360	26521.4E6	11113.2E6	935.715	992.347
16) T	DCPA	11.626	12.308	24505.8E6	9369.3E6	914.733	964.003

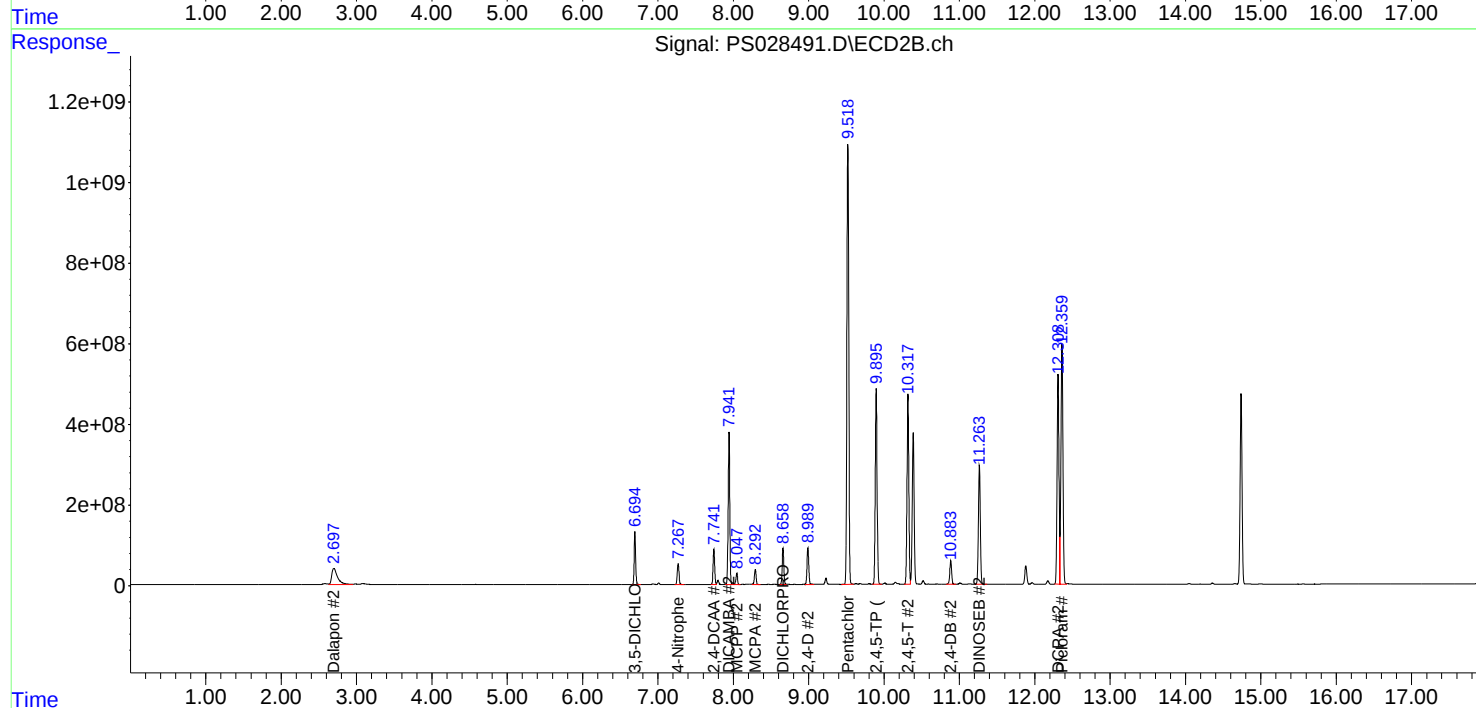
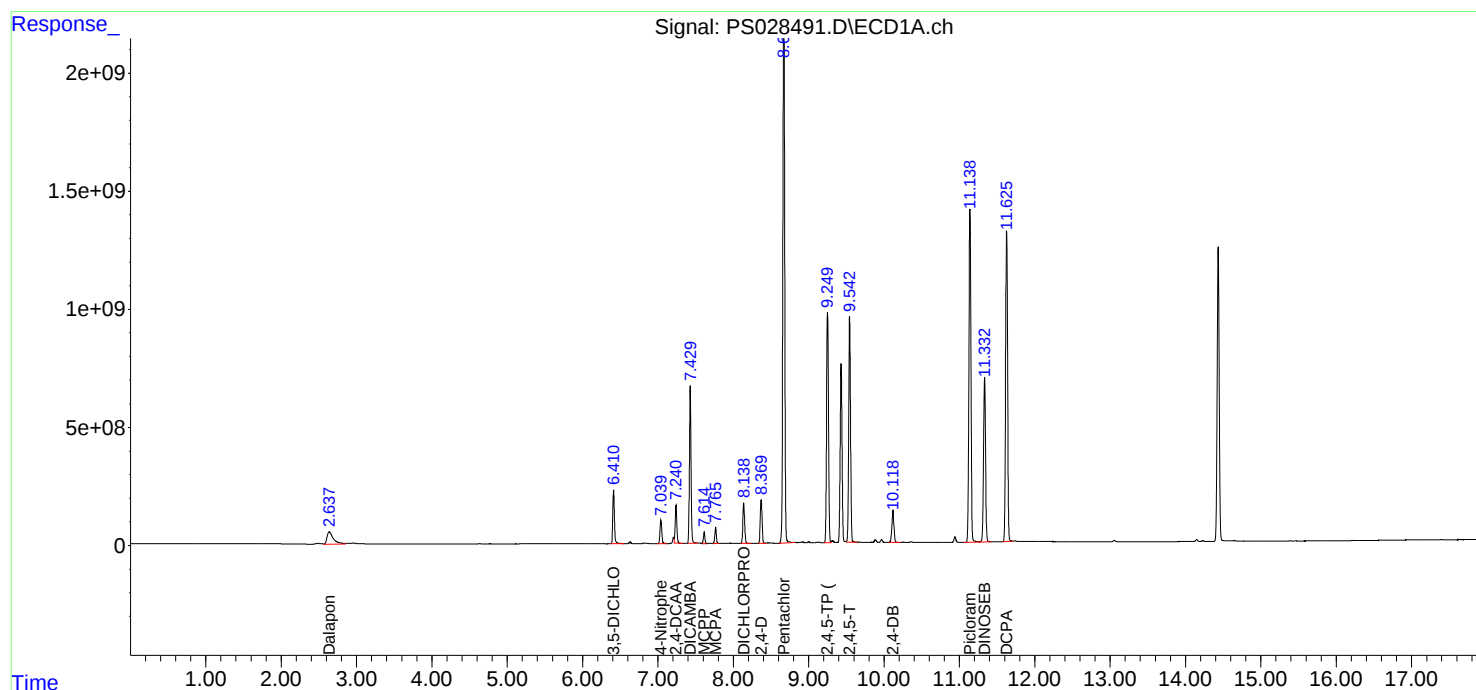
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS111324\
Data File : PS028491.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Nov 2024 12:58
Operator : AR\AJ
Sample : HSTDICC1000
Misc :
ALS Vial : 144 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
HSTDICC1000

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 13 13:15:50 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:15:40 2024
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 x 0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm



Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS111324\
 Data File : PS028492.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 13 Nov 2024 13:23
 Operator : AR\AJ
 Sample : HSTDICC1500
 Misc :
 ALS Vial : 145 Sample Multiplier: 1

Instrument :
 ECD_S
 ClientSampleId :
 HSTDICC1500

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Nov 13 13:40:14 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
 Quant Title : 8080.M
 QLast Update : Wed Nov 13 13:40:05 2024
 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	7.241	7.742	3533.3E6	1905.3E6	1382.402	1474.308
Target Compounds						
1) T Dalapon	2.635	2.697	4684.4E6	3345.9E6	1394.380	1382.652
2) T 3,5-DICHL...	6.411	6.695	4853.8E6	2660.9E6	1300.833	1377.015
3) T 4-Nitroph...	7.039	7.268	2239.0E6	1148.5E6	1318.286	1330.198
5) T DICAMBA	7.429	7.943	14829.4E6	8258.5E6	1355.280	1447.818
6) T MCPP	7.617	8.051	1082.8E6	628.9E6	153.926	146.228
7) T MCPA	7.769	8.297	1450.8E6	856.8E6	142.174	138.339
8) T DICHLORPROP	8.139	8.660	3866.3E6	2051.5E6	1310.015	1404.623
9) T 2,4-D	8.369	8.990	4177.2E6	2171.5E6	1306.627	1387.062
10) T Pentachlo...	8.670	9.519	47091.3E6	27326.2E6	1128.313	1363.219
11) T 2,4,5-TP ...	9.249	9.897	22979.6E6	11863.5E6	1322.895	1405.918
12) T 2,4,5-T	9.542	10.317	23513.1E6	11724.2E6	1322.852	1398.679
13) T 2,4-DB	10.118	10.884	3753.3E6	1514.8E6	1377.045	1445.771
14) T DINOSEB	11.332	11.263	19138.8E6	7779.6E6	1342.345	1407.175
15) T Picloram	11.138	12.361	39080.7E6	16814.7E6	1387.823	1485.523
16) T DCPA	11.625	12.310	35145.3E6	13846.6E6	1335.645	1427.712

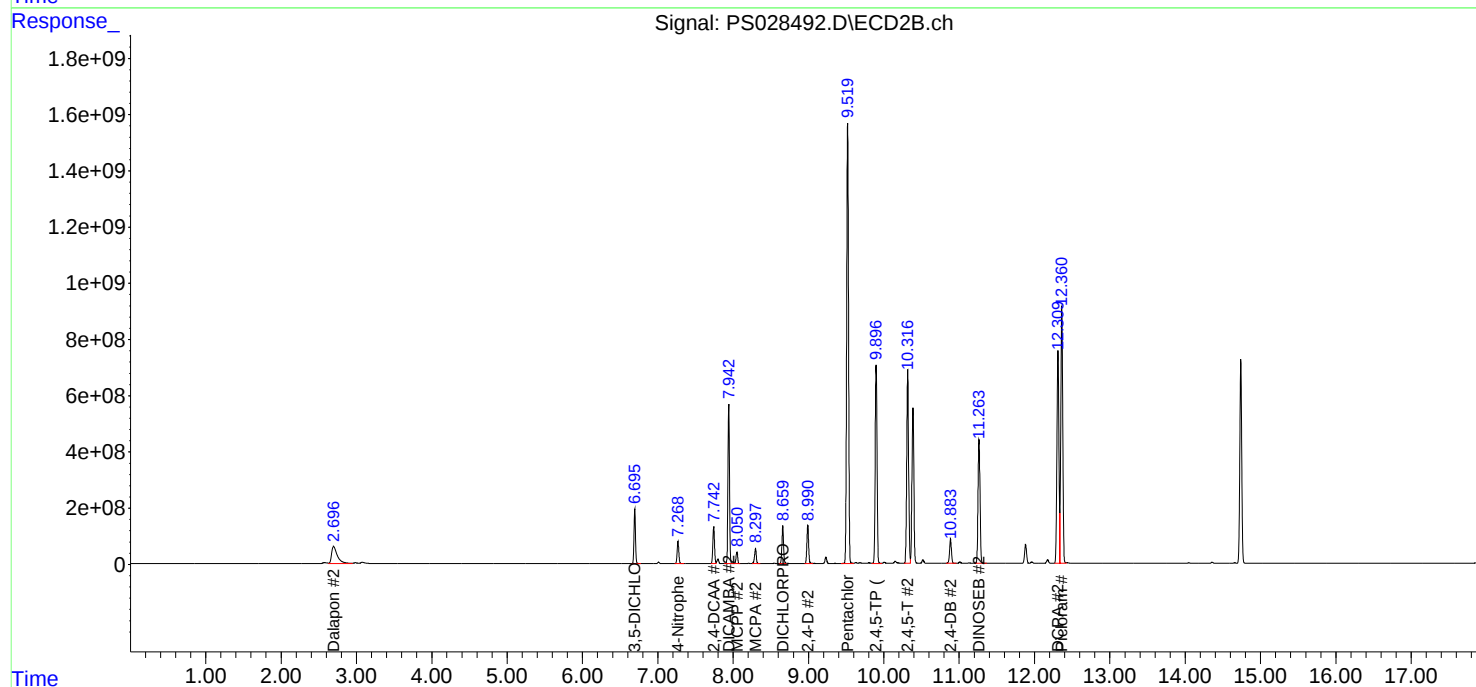
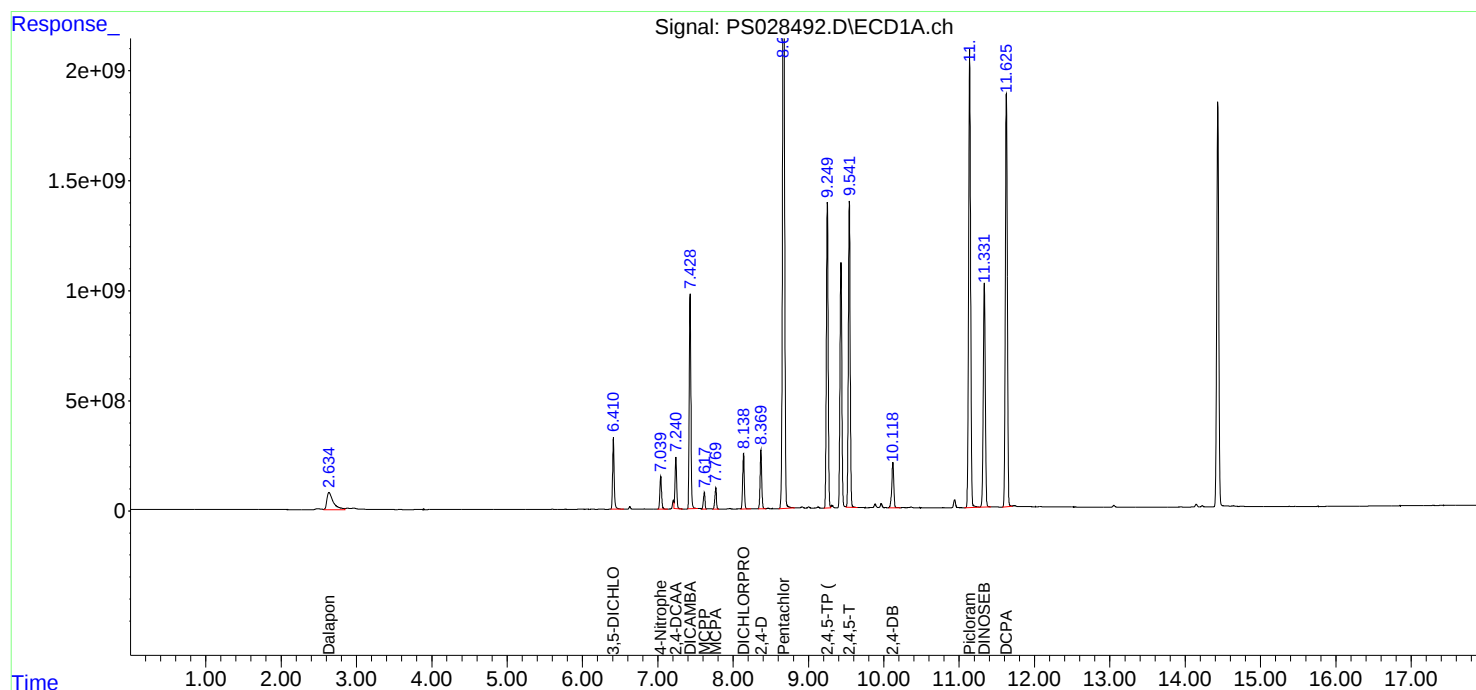
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS111324\
Data File : PS028492.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Nov 2024 13:23
Operator : AR\AJ
Sample : HSTDICC1500
Misc :
ALS Vial : 145 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
HSTDICC1500

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 13 13:40:14 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:40:05 2024
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 x 0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm



Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS111324\
 Data File : PS028493.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 13 Nov 2024 13:48
 Operator : AR\AJ
 Sample : HSTDICV750
 Misc :
 ALS Vial : 146 Sample Multiplier: 1

Instrument :
 ECD_S
 ClientSampleId :
 ICVPS111324

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Nov 13 14:08:06 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
 Quant Title : 8080.M
 QLast Update : Wed Nov 13 13:41:03 2024
 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	7.241	7.742	1917.4E6	986.2E6	750.208	763.126
Target Compounds						
1) T Dalapon	2.636	2.695	2347.3E6	1694.9E6	698.714	700.401
2) T 3,5-DICHL...	6.411	6.694	2618.4E6	1377.4E6	701.738	712.771
3) T 4-Nitroph...	7.039	7.268	1163.4E6	593.6E6	684.990	687.530
5) T DICAMBA	7.429	7.942	7882.6E6	4180.3E6	720.404	732.870
6) T MCPP	7.612	8.045	526.4E6	313.7E6	74.832	72.943
7) T MCPA	7.763	8.291	732.4E6	438.7E6	71.768	70.834
8) T DICHLORPROP	8.138	8.658	2086.8E6	1049.8E6	707.054	718.787
9) T 2,4-D	8.369	8.989	2272.2E6	1124.4E6	710.729	718.231
10) T Pentachlo...	8.669	9.519	31497.2E6	14862.8E6	754.677	741.459
11) T 2,4,5-TP ...	9.249	9.895	12626.4E6	6230.6E6	726.881	738.372
12) T 2,4,5-T	9.542	10.317	12933.5E6	6180.0E6	727.642	737.266
13) T 2,4-DB	10.118	10.883	1978.5E6	762.9E6	725.883	728.141
14) T DINOSEB	11.333	11.263	10293.2E6	4022.7E6	721.934	727.635
15) T Picloram	11.139	12.359	20846.4E6	8580.5E6	740.291	758.056
16) T DCPA	11.626	12.309	19407.9E6	7248.6E6	737.567	747.402

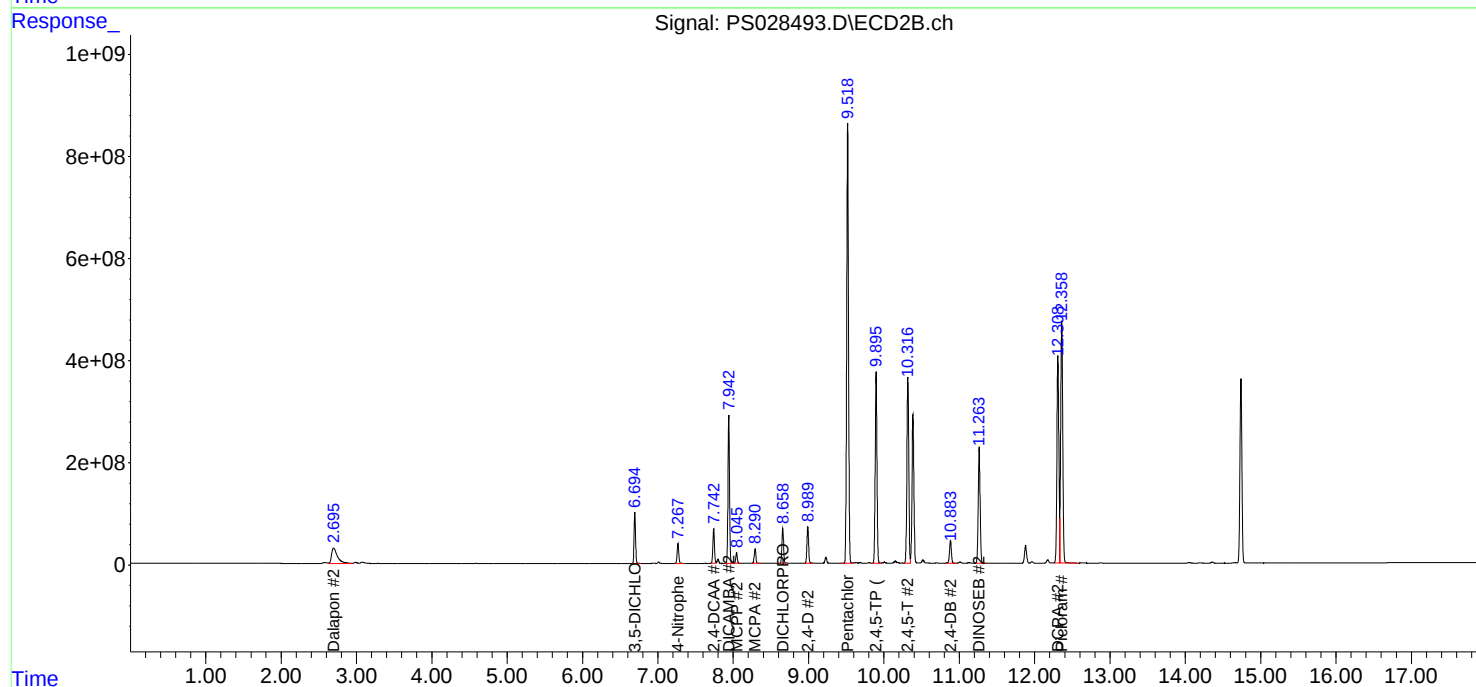
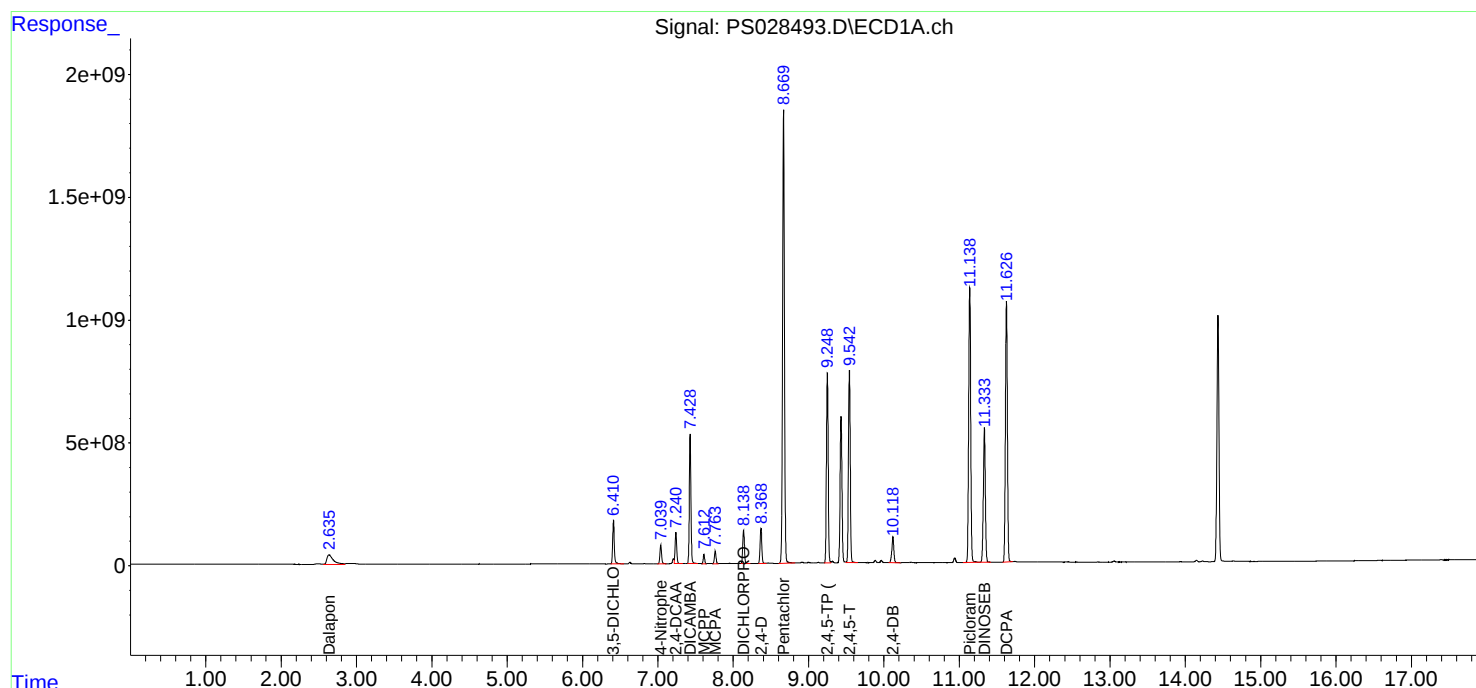
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS111324\
Data File : PS028493.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Nov 2024 13:48
Operator : AR\AJ
Sample : HSTDICV750
Misc :
ALS Vial : 146 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
ICVPS111324

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 13 14:08:06 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:41:03 2024
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 x 0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm





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

CALIBRATION VERIFICATION SUMMARY

Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

Continuing Calib Date: 11/22/2024 Initial Calibration Date(s): 11/13/2024 11/13/2024

Continuing Calib Time: 10:25 Initial Calibration Time(s): 11:44 13:23

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
2,4-DCAA	7.23	7.24	7.14	7.34	0.01
2,4-D	8.36	8.37	8.27	8.47	0.01
2,4,5-TP(Silvex)	9.24	9.25	9.15	9.35	0.01



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Fax : 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

Continuing Calib Date: 11/22/2024 Initial Calibration Date(s): 11/13/2024 11/13/2024

Continuing Calib Time: 10:25 Initial Calibration Time(s): 11:44 13:23

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
2,4-DCAA	7.73	7.74	7.64	7.84	0.01
2,4-D	8.98	8.99	8.89	9.09	0.01
2,4,5-TP(Silvex)	9.88	9.90	9.80	10.00	0.02



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CALIBRATION VERIFICATION SUMMARY

Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

GC Column: RTX-CLP ID: 0.32 (mm) Initi. Calib. Date(s): 11/13/2024 11/13/2024

Client Sample No.: CCAL01 Date Analyzed: 11/22/2024

Lab Sample No.: HSTDCCC750 Data File : PS028596.D Time Analyzed: 10:25

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
2,4,5-TP(Silvex)	9.236	9.150	9.350	725.540	712.500	1.8
2,4-D	8.358	8.270	8.470	706.690	705.000	0.2
2,4-DCAA	7.232	7.141	7.341	743.190	750.000	-0.9



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CALIBRATION VERIFICATION SUMMARY

Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

GC Column: RTX-CLP2 ID: 0.32 (mm) Initi. Calib. Date(s): 11/13/2024 11/13/2024

Client Sample No.: CCAL01 Date Analyzed: 11/22/2024

Lab Sample No.: HSTDCCC750 Data File : PS028596.D Time Analyzed: 10:25

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
2,4,5-TP(Silvex)	9.883	9.796	9.996	676.920	712.500	-5.0
2,4-D	8.978	8.890	9.090	645.580	705.000	-8.4
2,4-DCAA	7.732	7.642	7.842	661.550	750.000	-11.8

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS112224\
 Data File : PS028596.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 22 Nov 2024 10:25
 Operator : AR\AJ
 Sample : HSTDCCC750
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :

ECD_S

ClientSampleId :

HSTDCCC750

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/25/2024

Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Nov 22 20:57:41 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
 Quant Title : 8080.M
 QLast Update : Wed Nov 13 13:41:03 2024
 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	7.232	7.732	1899.5E6	854.9E6	743.189m	661.553
Target Compounds							
1) T	Dalapon	2.633	2.696	2010.9E6	1431.0E6	598.588	591.325
2) T	3,5-DICHL...	6.404	6.688	2618.9E6	1211.6E6	701.870	627.007
3) T	4-Nitroph...	7.031	7.259	1146.3E6	537.2E6	674.883	622.214
5) T	DICAMBA	7.419	7.932	7850.8E6	3741.1E6	717.489	655.866
6) T	MCPD	7.601	8.034	497.3E6	257.9E6	70.694	59.956m
7) T	MCPA	7.752	8.278	689.4E6	365.9E6	67.560	59.085m
8) T	DICHLORPROP	8.127	8.647	2095.9E6	952.6E6	710.147	652.178
9) T	2,4-D	8.358	8.978	2259.2E6	1010.7E6	706.689	645.577
10) T	Pentachlo...	8.657	9.506	31931.7E6	13915.3E6	765.086	694.192
11) T	2,4,5-TP ...	9.236	9.883	12603.1E6	5712.0E6	725.536m	676.917
12) T	2,4,5-T	9.528	10.302	12884.1E6	5508.7E6	724.862	657.172
13) T	2,4-DB	10.103	10.870	1897.6E6	651.2E6	696.213	621.492
14) T	DINOSEB	11.314	11.249	10064.8E6	3538.1E6	705.920	639.981
15) T	Picloram	11.122	12.342	18500.3E6	7019.8E6	656.978	620.172
16) T	DCPA	11.607	12.292	19192.6E6	6744.5E6	729.387	695.418

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS112224\
Data File : PS028596.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Nov 2024 10:25
Operator : AR\AJ
Sample : HSTDCCC750
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :

ECD_S

ClientSampleId :

HSTDCCC750

Manual Integrations

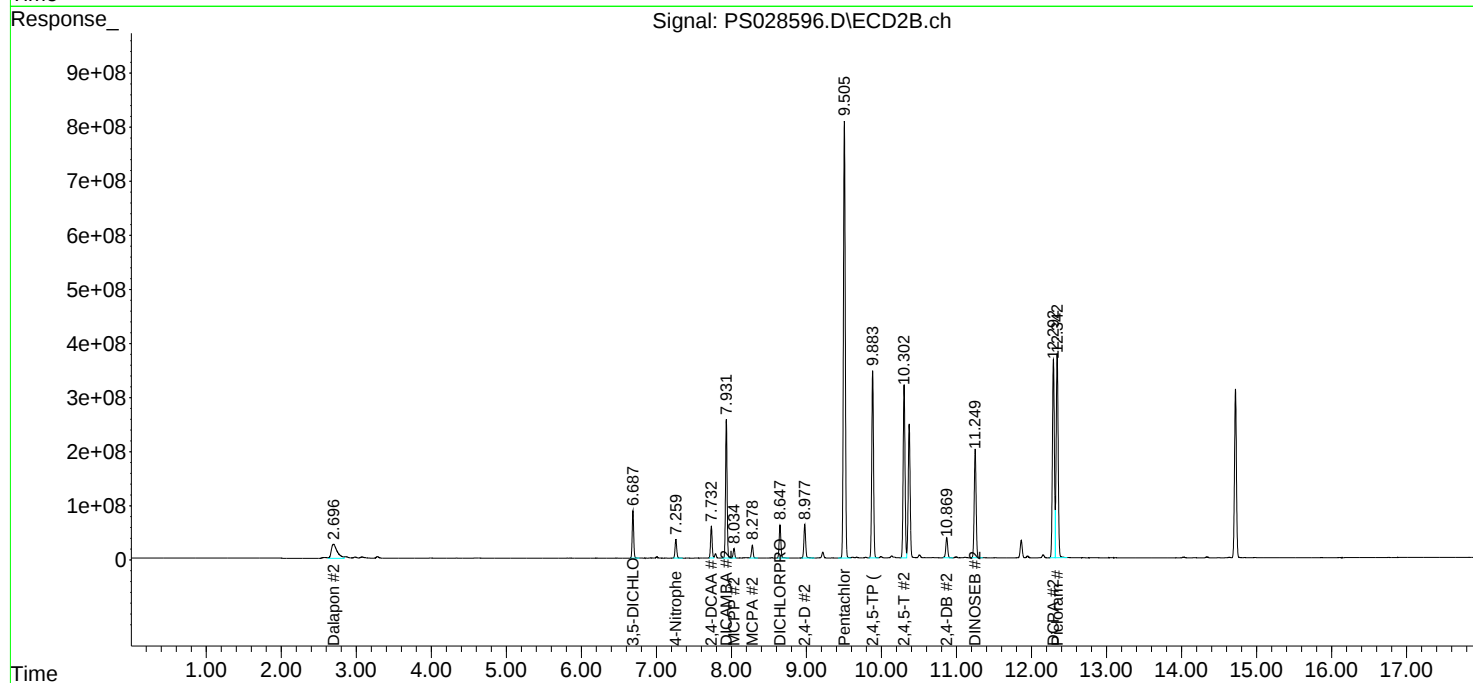
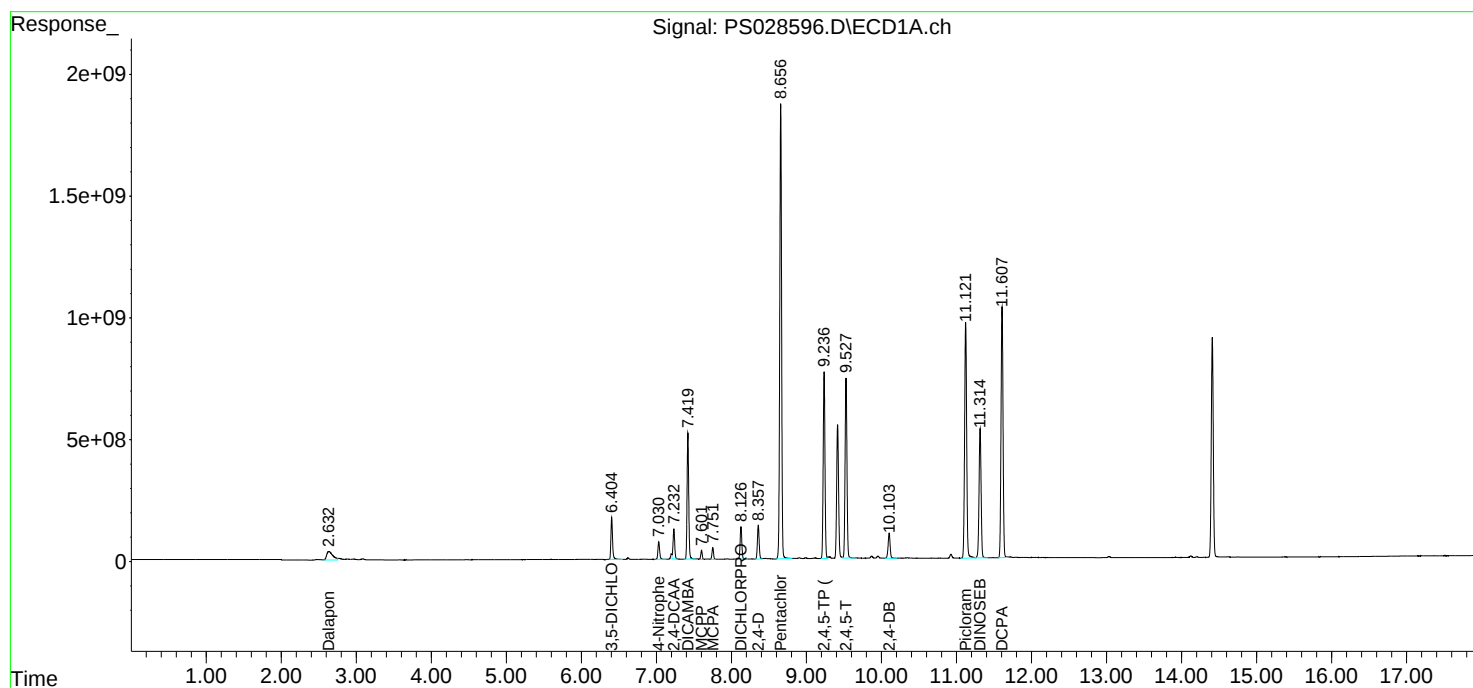
APPROVED

Reviewed By :Yogesh Patel 11/25/2024

Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 22 20:57:41 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:41:03 2024
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





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Fax : 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

Continuing Calib Date: 11/22/2024 Initial Calibration Date(s): 11/13/2024 11/13/2024

Continuing Calib Time: 14:25 Initial Calibration Time(s): 11:44 13:23

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM TO		DIFF RT
2,4-DCAA	7.23	7.24	7.14	7.34	0.01
2,4-D	8.36	8.37	8.27	8.47	0.01
2,4,5-TP(Silvex)	9.23	9.25	9.15	9.35	0.02



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Fax : 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

Continuing Calib Date: 11/22/2024 Initial Calibration Date(s): 11/13/2024 11/13/2024

Continuing Calib Time: 14:25 Initial Calibration Time(s): 11:44 13:23

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

COMPOUND	CCAL RT	AVG RT	RT WINDOW		DIFF RT
			FROM	TO	
2,4-DCAA	7.73	7.74	7.64	7.84	0.01
2,4-D	8.98	8.99	8.89	9.09	0.01
2,4,5-TP(Silvex)	9.88	9.90	9.80	10.00	0.02



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CALIBRATION VERIFICATION SUMMARY

Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

GC Column: RTX-CLP ID: 0.32 (mm) Initi. Calib. Date(s): 11/13/2024 11/13/2024

Client Sample No.: CCAL02 Date Analyzed: 11/22/2024

Lab Sample No.: HSTDCCC750 Data File : PS028604.D Time Analyzed: 14:25

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
2,4,5-TP(Silvex)	9.234	9.150	9.350	747.520	712.500	4.9
2,4-D	8.357	8.270	8.470	727.490	705.000	3.2
2,4-DCAA	7.231	7.141	7.341	766.810	750.000	2.2



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CALIBRATION VERIFICATION SUMMARY

Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

GC Column: RTX-CLP2 ID: 0.32 (mm) Initi. Calib. Date(s): 11/13/2024 11/13/2024

Client Sample No.: CCAL02 Date Analyzed: 11/22/2024

Lab Sample No.: HSTDCCC750 Data File : PS028604.D Time Analyzed: 14:25

COMPOUND	RT	RT WINDOW		CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
		FROM	TO			
2,4,5-TP(Silvex)	9.881	9.796	9.996	710.800	712.500	-0.2
2,4-D	8.976	8.890	9.090	679.390	705.000	-3.6
2,4-DCAA	7.731	7.642	7.842	688.910	750.000	-8.1

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS112224\
 Data File : PS028604.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 22 Nov 2024 14:25
 Operator : AR\AJ
 Sample : HSTDCCC750
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :

ECD_S

ClientSampleId :

HSTDCCC750

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/25/2024

Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Nov 22 21:05:17 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
 Quant Title : 8080.M
 QLast Update : Wed Nov 13 13:41:03 2024
 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	7.231	7.731	1959.9E6	890.3E6	766.815m	688.907
Target Compounds							
1) T	Dalapon	2.633	2.694	2249.7E6	1444.8E6	669.651	597.049
2) T	3,5-DICHL...	6.403	6.687	2695.0E6	1272.1E6	722.271	658.283
3) T	4-Nitroph...	7.030	7.258	1177.5E6	561.4E6	693.267	650.222
5) T	DICAMBA	7.419	7.930	8115.3E6	3942.6E6	741.667	691.198
6) T	MCPD	7.601	8.033	521.6E6	270.3E6	74.148	62.854
7) T	MCPA	7.751	8.278	718.9E6	382.3E6	70.449	61.720
8) T	DICHLORPROP	8.126	8.646	2136.3E6	989.5E6	723.833m	677.500
9) T	2,4-D	8.357	8.976	2325.7E6	1063.6E6	727.488	679.386
10) T	Pentachlo...	8.656	9.504	32899.3E6	14627.9E6	788.271	729.738
11) T	2,4,5-TP ...	9.234	9.881	12984.9E6	5998.0E6	747.516m	710.805
12) T	2,4,5-T	9.527	10.301	13229.5E6	5786.0E6	744.295	690.263
13) T	2,4-DB	10.102	10.868	1964.3E6	684.9E6	720.697	653.714
14) T	DINOSEB	11.312	11.247	10065.6E6	3570.9E6	705.975	645.907
15) T	Picloram	11.120	12.340	18879.8E6	7290.9E6	670.455	644.130
16) T	DCPA	11.606	12.290	19827.4E6	7103.5E6	753.512	732.441

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS112224\
Data File : PS028604.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Nov 2024 14:25
Operator : AR\AJ
Sample : HSTDCCC750
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :

ECD_S

ClientSampleId :

HSTDCCC750

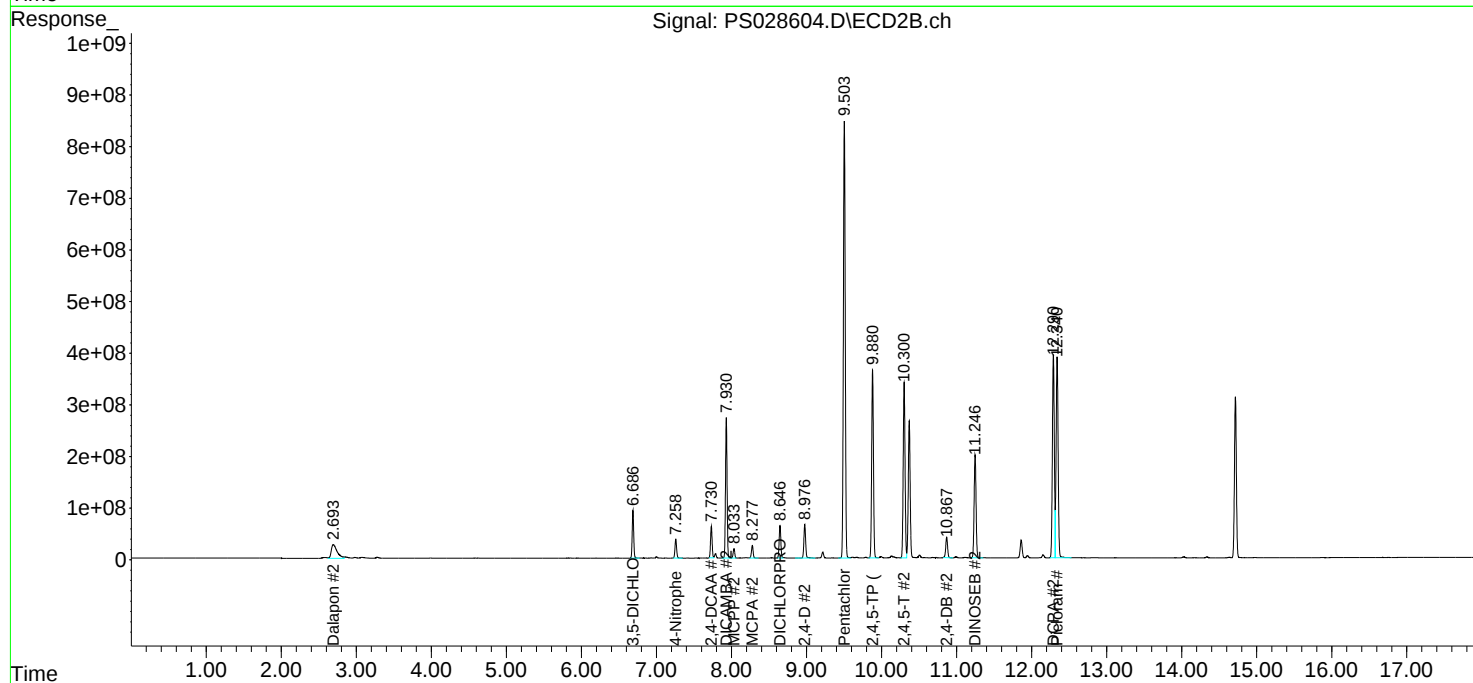
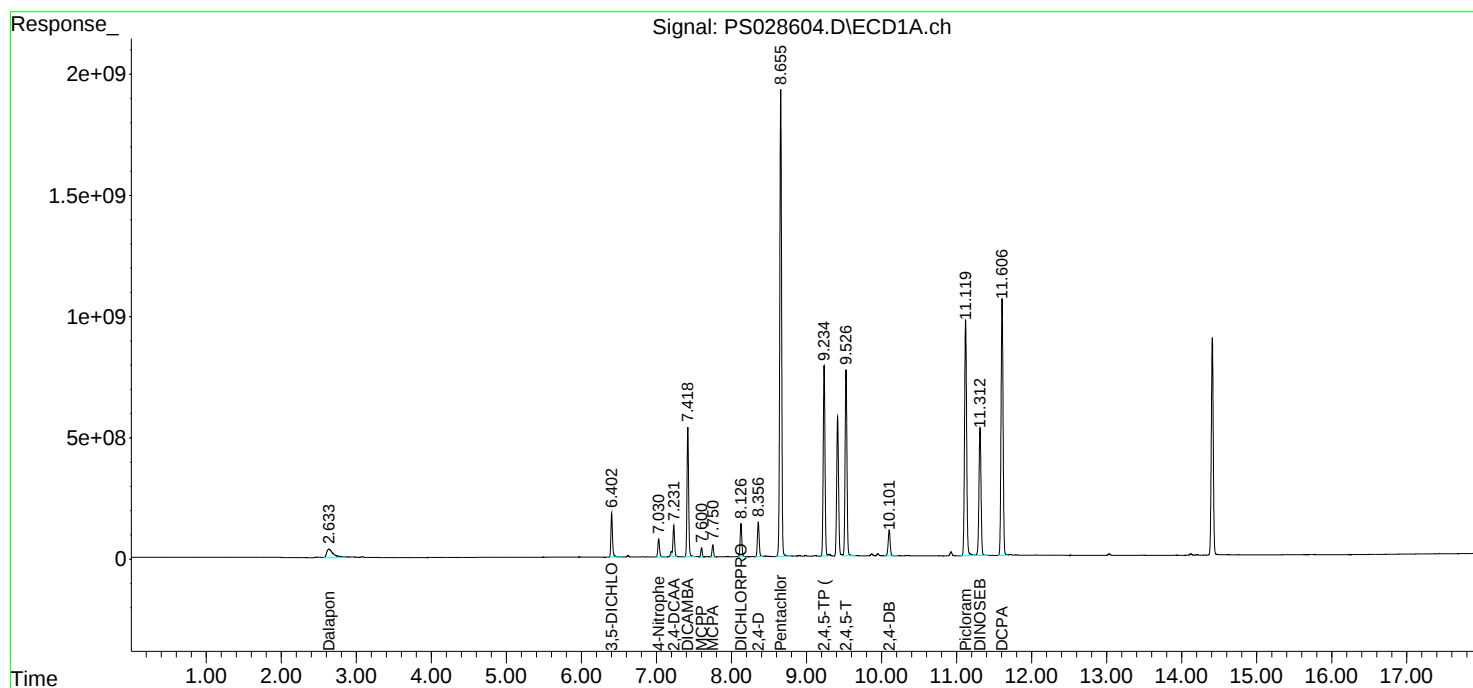
Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/25/2024
Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 22 21:05:17 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:41:03 2024
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



Analytical Sequence

Client: Portal Partners Tri-Venture	SDG No.: P4892
Project: Amtrak Sawtooth Bridges 2024	Instrument ID: ECD_S
GC Column: RTX-CLP	ID: 0.32 (mm) Inst. Calib. Date(s): 11/13/2024 11/13/2024

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 #
1.BLK	1.BLK	11/13/2024	11:20	PS028487.D	7.24	0.00
HSTDICC200	HSTDICC200	11/13/2024	11:44	PS028488.D	7.24	0.00
HSTDICC500	HSTDICC500	11/13/2024	12:09	PS028489.D	7.24	0.00
HSTDICC750	HSTDICC750	11/13/2024	12:34	PS028490.D	7.24	0.00
HSTDICC1000	HSTDICC1000	11/13/2024	12:58	PS028491.D	7.24	0.00
HSTDICC1500	HSTDICC1500	11/13/2024	13:23	PS028492.D	7.24	0.00
1.BLK	1.BLK	11/22/2024	09:37	PS028595.D	7.23	0.00
HSTDCCC750	HSTDCCC750	11/22/2024	10:25	PS028596.D	7.23	0.00
PB165193BL	PB165193BL	11/22/2024	11:13	PS028597.D	7.23	0.00
PB165193BS	PB165193BS	11/22/2024	11:37	PS028598.D	7.23	0.00
PB165060TB	PB165060TB	11/22/2024	12:01	PS028599.D	7.23	0.00
WB-310-BOT	P4892-03	11/22/2024	12:25	PS028600.D	7.23	0.00
WB-310-BOTMS	P4892-03MS	11/22/2024	12:49	PS028601.D	7.23	0.00
WB-310-BOTMSD	P4892-03MSD	11/22/2024	13:13	PS028602.D	7.23	0.00
1.BLK	1.BLK	11/22/2024	13:37	PS028603.D	7.23	0.00
HSTDCCC750	HSTDCCC750	11/22/2024	14:25	PS028604.D	7.23	0.00

Analytical Sequence

Client: Portal Partners Tri-Venture	SDG No.: P4892
Project: Amtrak Sawtooth Bridges 2024	Instrument ID: ECD_S
GC Column: RTX-CLP2	ID: 0.32 (mm) Inst. Calib. Date(s): 11/13/2024 11/13/2024

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 #
LBLK	LBLK	11/13/2024	11:20	PS028487.D	7.74	0.00
HSTDICC200	HSTDICC200	11/13/2024	11:44	PS028488.D	7.74	0.00
HSTDICC500	HSTDICC500	11/13/2024	12:09	PS028489.D	7.74	0.00
HSTDICC750	HSTDICC750	11/13/2024	12:34	PS028490.D	7.74	0.00
HSTDICC1000	HSTDICC1000	11/13/2024	12:58	PS028491.D	7.74	0.00
HSTDICC1500	HSTDICC1500	11/13/2024	13:23	PS028492.D	7.74	0.00
LBLK	LBLK	11/22/2024	09:37	PS028595.D	7.73	0.00
HSTDCCC750	HSTDCCC750	11/22/2024	10:25	PS028596.D	7.73	0.00
PB165193BL	PB165193BL	11/22/2024	11:13	PS028597.D	7.73	0.00
PB165193BS	PB165193BS	11/22/2024	11:37	PS028598.D	7.73	0.00
PB165060TB	PB165060TB	11/22/2024	12:01	PS028599.D	7.73	0.00
WB-310-BOT	P4892-03	11/22/2024	12:25	PS028600.D	7.73	0.00
WB-310-BOTMS	P4892-03MS	11/22/2024	12:49	PS028601.D	7.73	0.00
WB-310-BOTMSD	P4892-03MSD	11/22/2024	13:13	PS028602.D	7.73	0.00
LBLK	LBLK	11/22/2024	13:37	PS028603.D	7.73	0.00
HSTDCCC750	HSTDCCC750	11/22/2024	14:25	PS028604.D	7.73	0.00

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

PB165193BS

Contract: PORT06

Lab Code: CHEM

Case No.: P4892

SAS No.: P4892

SDG NO.: P4892

Lab Sample ID: PB165193BS

Date(s) Analyzed: 11/22/2024

11/22/2024

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)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
2,4-D	1	8.36	8.31	8.41	6.30	10
	2	8.98	8.93	9.03	5.70	
2,4,5-TP(Silvex)	1	9.24	9.19	9.29	6.10	5
	2	9.88	9.83	9.93	5.80	

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

WB-310-BOTMS

Contract: PORT06

Lab Code: CHEM Case No.: P4892 SAS No.: P4892 SDG NO.: P4892

Lab Sample ID: P4892-03MS Date(s) Analyzed: 11/22/2024 11/22/2024

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)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
2,4-D	1	8.36	8.31	8.41	62.4	9
	2	8.98	8.93	9.03	57.0	
2,4,5-TP(Silvex)	1	9.23	9.18	9.28	59.4	4.1
	2	9.88	9.83	9.93	61.9	

COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

WB-310-BOTMSD

Contract: PORT06

Lab Code: CHEM

Case No.: P4892

SAS No.: P4892

SDG NO.: P4892

Lab Sample ID: P4892-03MSD

Date(s) Analyzed: 11/22/2024

11/22/2024

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)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
2,4-D	1	8.36	8.31	8.41	62.5	8.7
	2	8.98	8.93	9.03	57.3	
2,4,5-TP(Silvex)	1	9.23	9.18	9.28	60.0	8.2
	2	9.88	9.83	9.93	65.1	



QC SAMPLE DATA

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB165193BL	SDG No.:	P4892
Lab Sample ID:	PB165193BL	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
PS028597.D	1	11/21/24 09:41	11/22/24 11:13	PB165193

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	0.49	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	0.45	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	617		70 (39) - 130 (175)	123%	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\PS112224\
Data File : PS028597.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Nov 2024 11:13
Operator : AR\AJ
Sample : PB165193BL
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
PB165193BL

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/25/2024
Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 22 20:58:40 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:41:03 2024
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	7.231	7.732	1578.0E6	700.5E6	617.408m	542.080m

Target Compounds

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS112224\
Data File : PS028597.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Nov 2024 11:13
Operator : AR\AJ
Sample : PB165193BL
Misc :
ALS Vial : 5 Sample Multiplier: 1

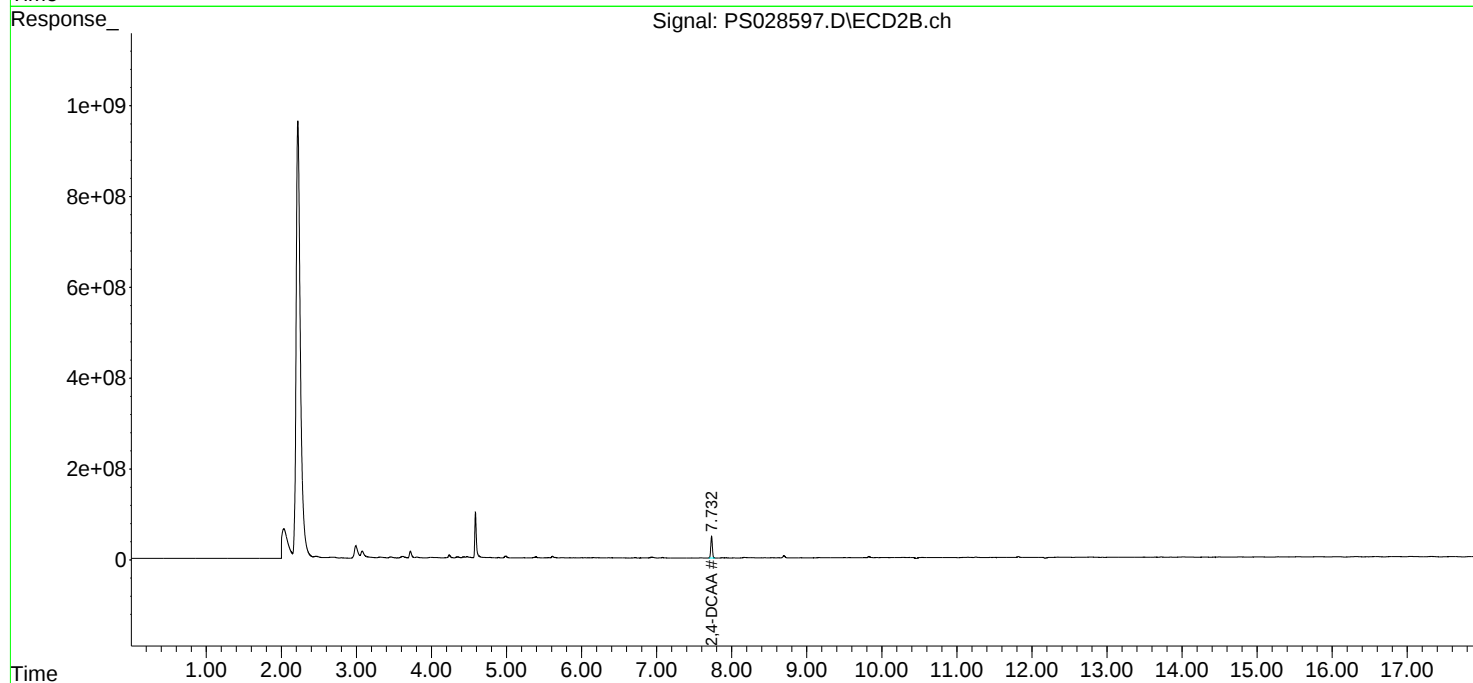
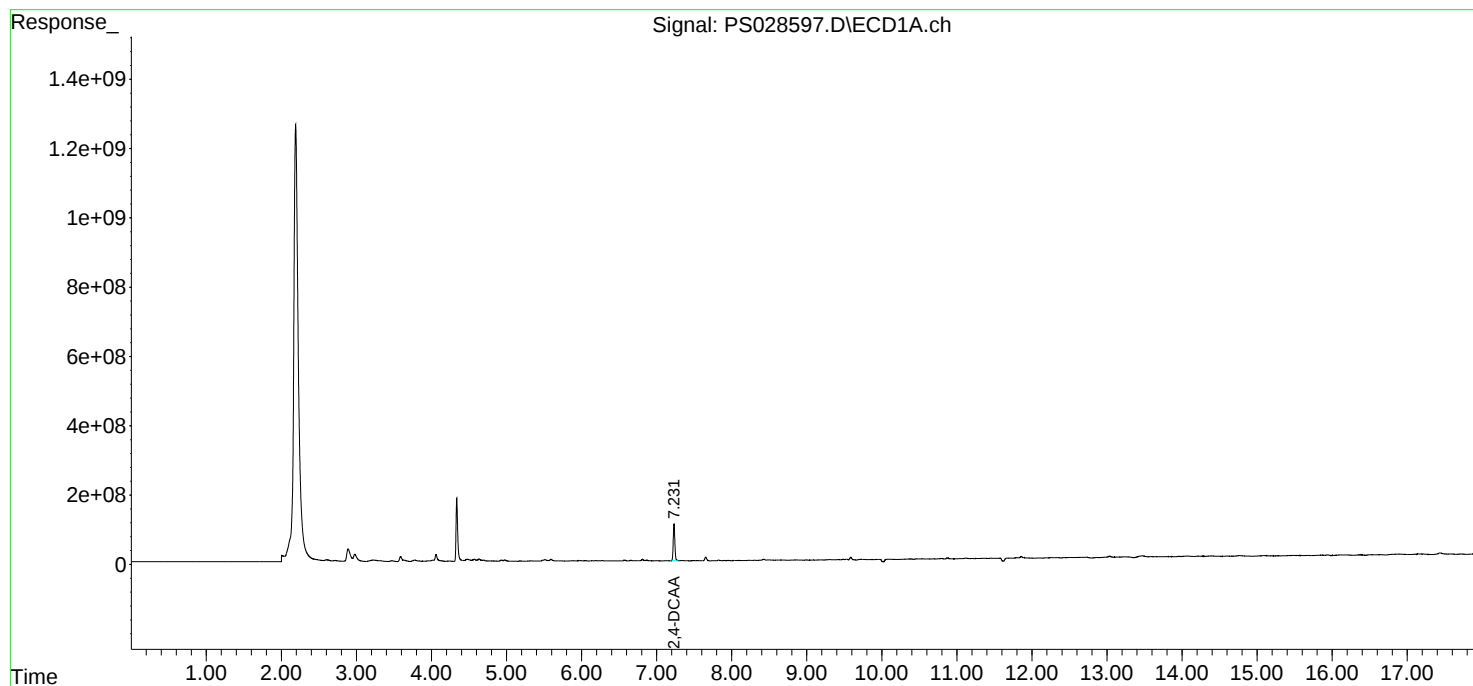
Instrument :
ECD_S
ClientSampleId :
PB165193BL

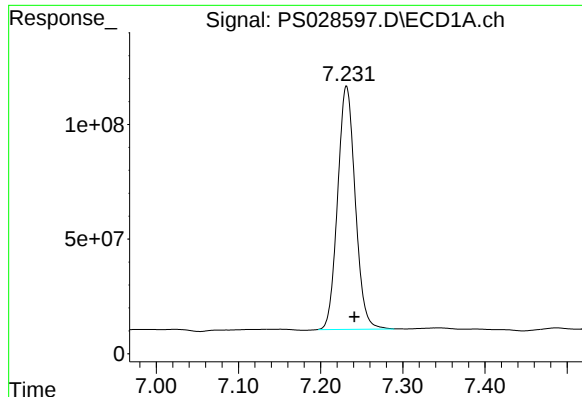
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/25/2024
Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 22 20:58:40 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:41:03 2024
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





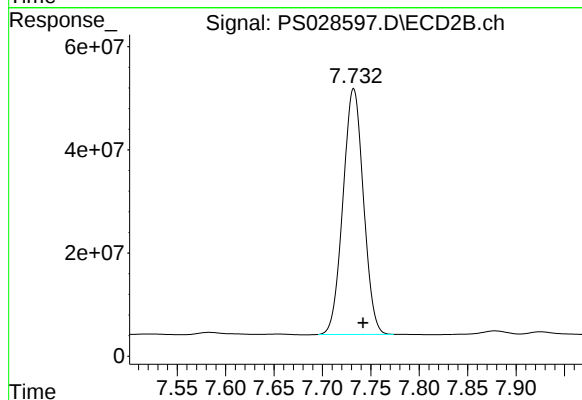
#4 2,4-DCAA

R.T.: 7.231 min
Delta R.T.: -0.010 min
Response: 1578022277
Conc: 617.41 ng/ml

Instrument :
ECD_S
ClientSampleId :
PB165193BL

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/25/2024
Supervised By :Ankita Jodhani 11/25/2024



#4 2,4-DCAA

R.T.: 7.732 min
Delta R.T.: -0.010 min
Response: 700532775
Conc: 542.08 ng/ml m

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/13/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/13/24
Client Sample ID:	PIBLK-PS028487.D	SDG No.:	P4892
Lab Sample ID:	I.BLK-PS028487.D	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	10000 uL
Extraction Type:		Test:	TCLP Herbicide
GPC Factor :	1.0	Injection Volume :	
PH :			
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028487.D	1		11/13/24	PS111324

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	0.49	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	0.45	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	548		70 (39) - 130 (175)	110%	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\PS111324\
 Data File : PS028487.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 13 Nov 2024 11:20
 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: Nov 13 13:42:39 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
 Quant Title : 8080.M
 QLast Update : Wed Nov 13 13:41:03 2024
 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	7.240	7.741	1400.5E6	706.9E6	547.971	546.997
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Target Compounds

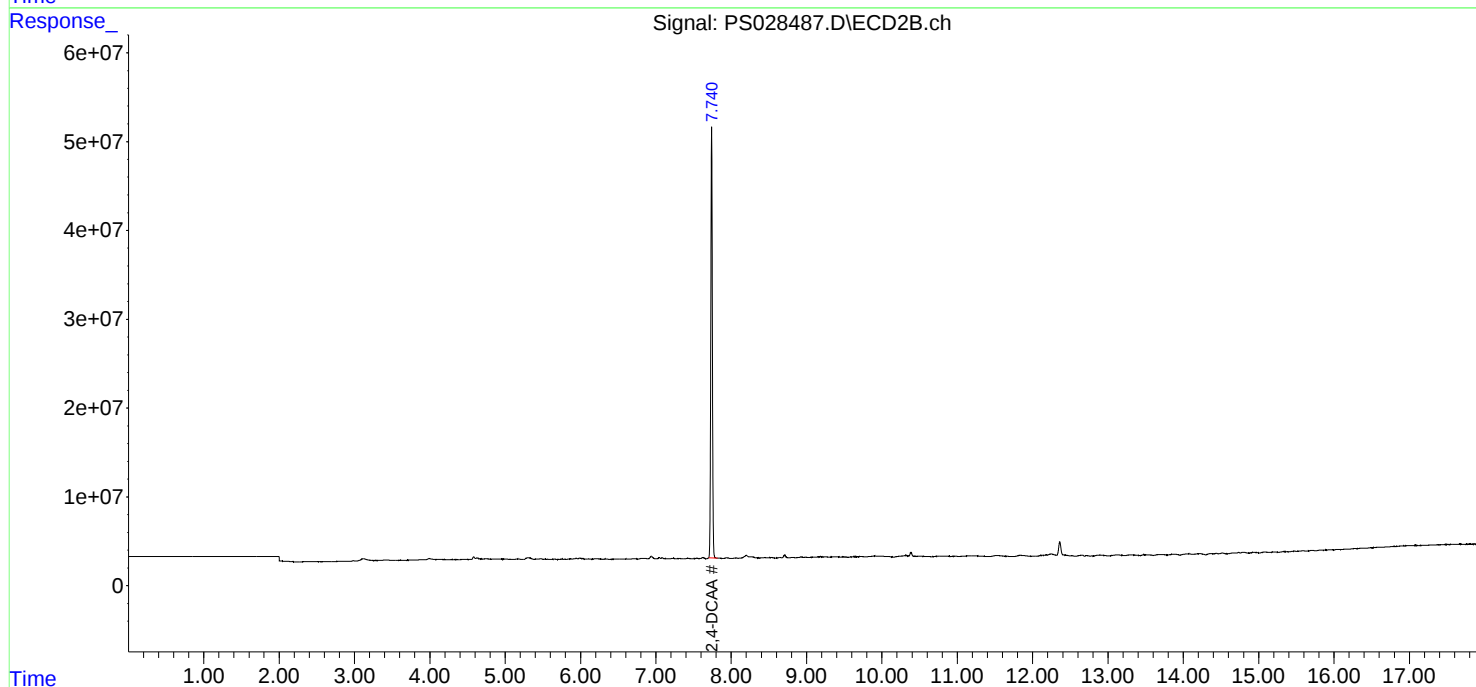
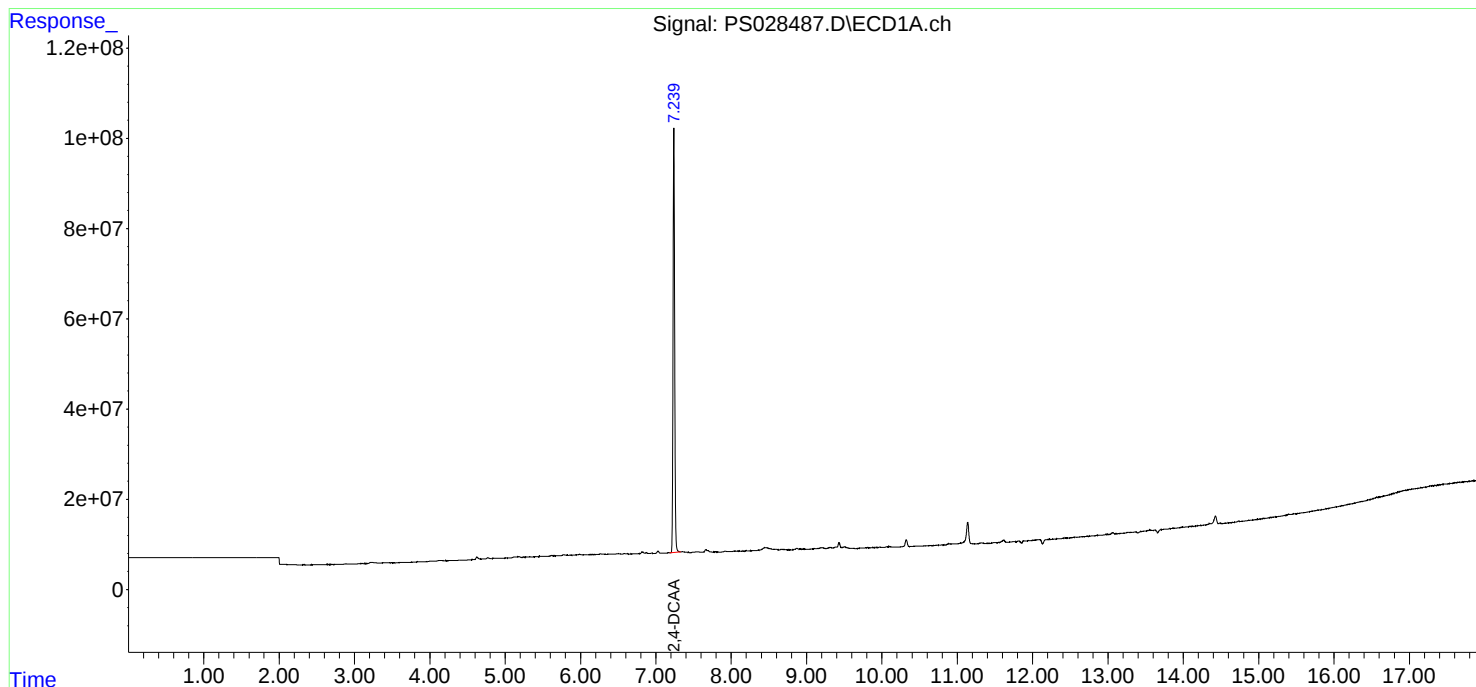
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

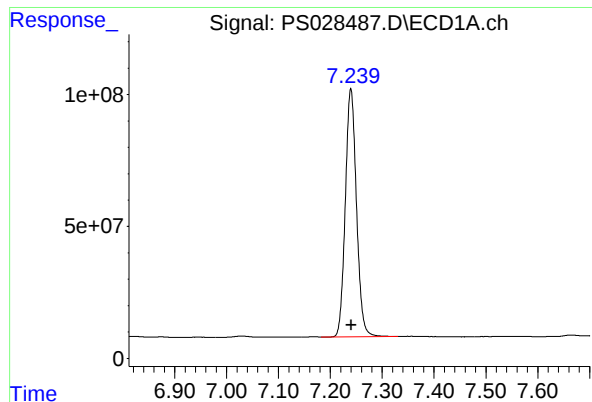
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS111324\
Data File : PS028487.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 13 Nov 2024 11:20
Operator : AR\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
I.BLK

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 13 13:42:39 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:41:03 2024
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 x 0.5 Signal #2 Info : 30M x 0.32mm x 0.25µm





#4 2,4-DCAA

R.T.: 7.240 min

Delta R.T.: -0.001 min

Response: 1400548590

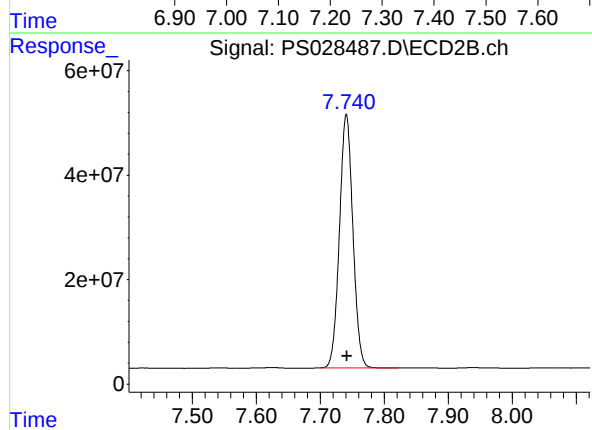
Conc: 547.97 ng/ml

Instrument :

ECD_S

ClientSampleId :

I.BLK



#4 2,4-DCAA

R.T.: 7.741 min

Delta R.T.: -0.001 min

Response: 706886411

Conc: 547.00 ng/ml

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/22/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/22/24
Client Sample ID:	PIBLK-PS028595.D	SDG No.:	P4892
Lab Sample ID:	I.BLK-PS028595.D	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	10000 uL
Extraction Type:		Test:	TCLP Herbicide
GPC Factor :	1.0	Injection Volume :	
PH :			
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028595.D	1		11/22/24	PS112224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	0.49	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	0.45	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	585		70 (39) - 130 (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\PS112224\
 Data File : PS028595.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 22 Nov 2024 09:37
 Operator : AR\AJ
 Sample : I.BLK
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 ECD_S
 ClientSampleId :
 I.BLK

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/25/2024
 Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Nov 22 20:56:55 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
 Quant Title : 8080.M
 QLast Update : Wed Nov 13 13:41:03 2024
 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	7.232	7.732	1495.2E6	660.8E6	585.009m	511.337m

Target Compounds

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS112224\
Data File : PS028595.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Nov 2024 09:37
Operator : AR\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

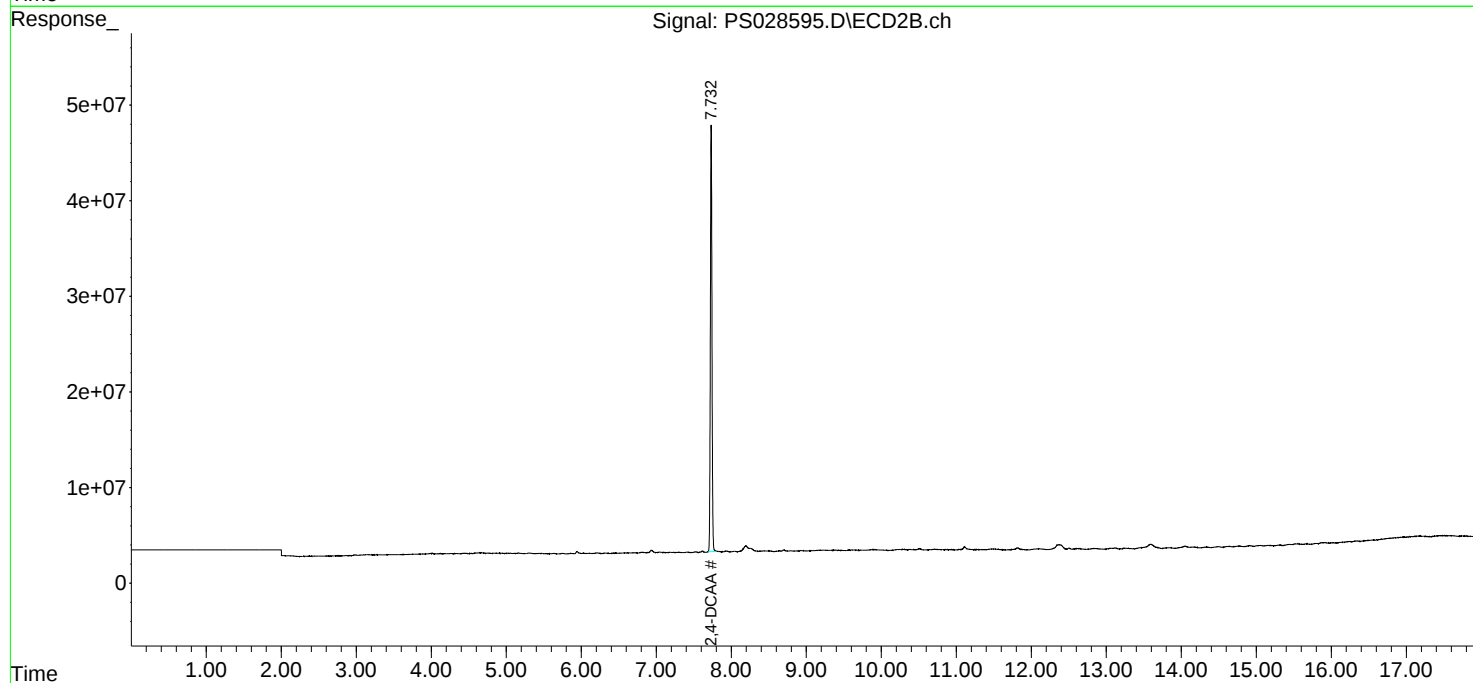
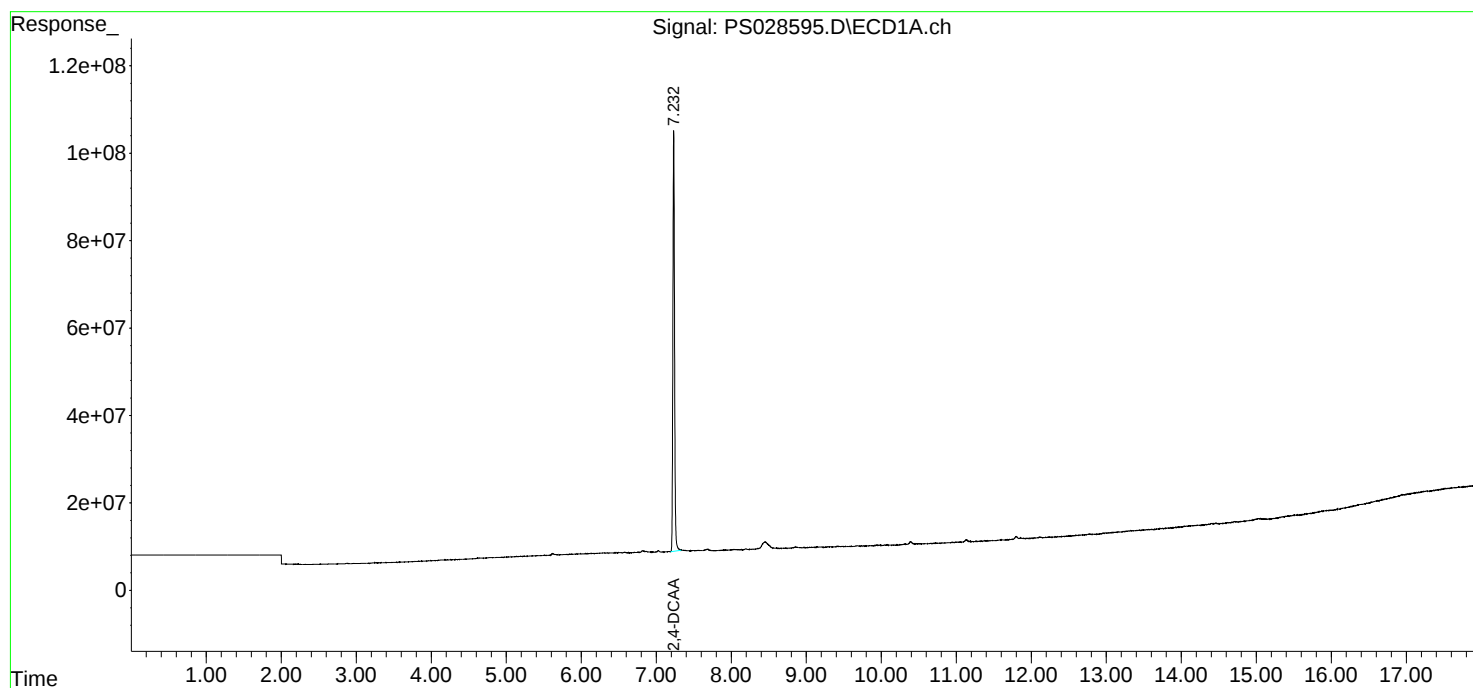
Instrument :
ECD_S
ClientSampleId :
I.BLK

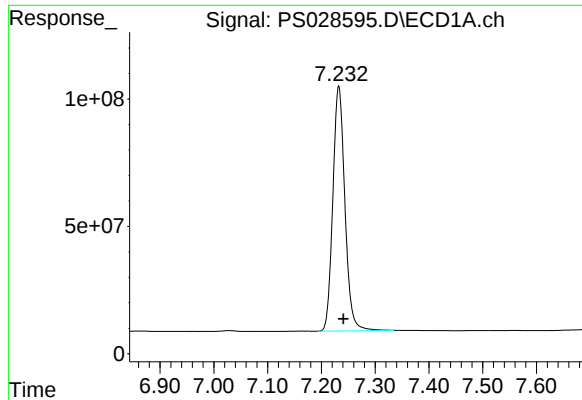
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/25/2024
Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 22 20:56:55 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:41:03 2024
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





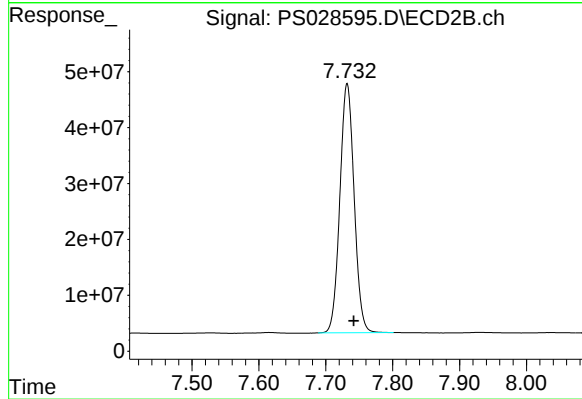
#4 2,4-DCAA

R.T.: 7.232 min
Delta R.T.: -0.009 min
Response: 1495213025
Conc: 585.01 ng/ml

Instrument :
ECD_S
ClientSampleId :
I.BLK

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/25/2024
Supervised By :Ankita Jodhani 11/25/2024



#4 2,4-DCAA

R.T.: 7.732 min
Delta R.T.: -0.010 min
Response: 660803795
Conc: 511.34 ng/ml m

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/22/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/22/24
Client Sample ID:	PIBLK-PS028603.D	SDG No.:	P4892
Lab Sample ID:	I.BLK-PS028603.D	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0
Sample Wt/Vol:	1000	Units:	mL
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TCLP Herbicide
GPC Factor :	1.0	PH :	
Prep Method :	SW3510C	Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028603.D	1		11/22/24	PS112224

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	0.49	U	0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	0.45	U	0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	574		70 (39) - 130 (175)	115%	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\PS112224\
Data File : PS028603.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Nov 2024 13:37
Operator : AR\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
ECD_S
ClientSampleId :
I.BLK

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/25/2024
Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 22 21:04:14 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:41:03 2024
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	7.231	7.731	1468.0E6	665.7E6	574.353m	515.145m

Target Compounds

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS112224\
Data File : PS028603.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Nov 2024 13:37
Operator : AR\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

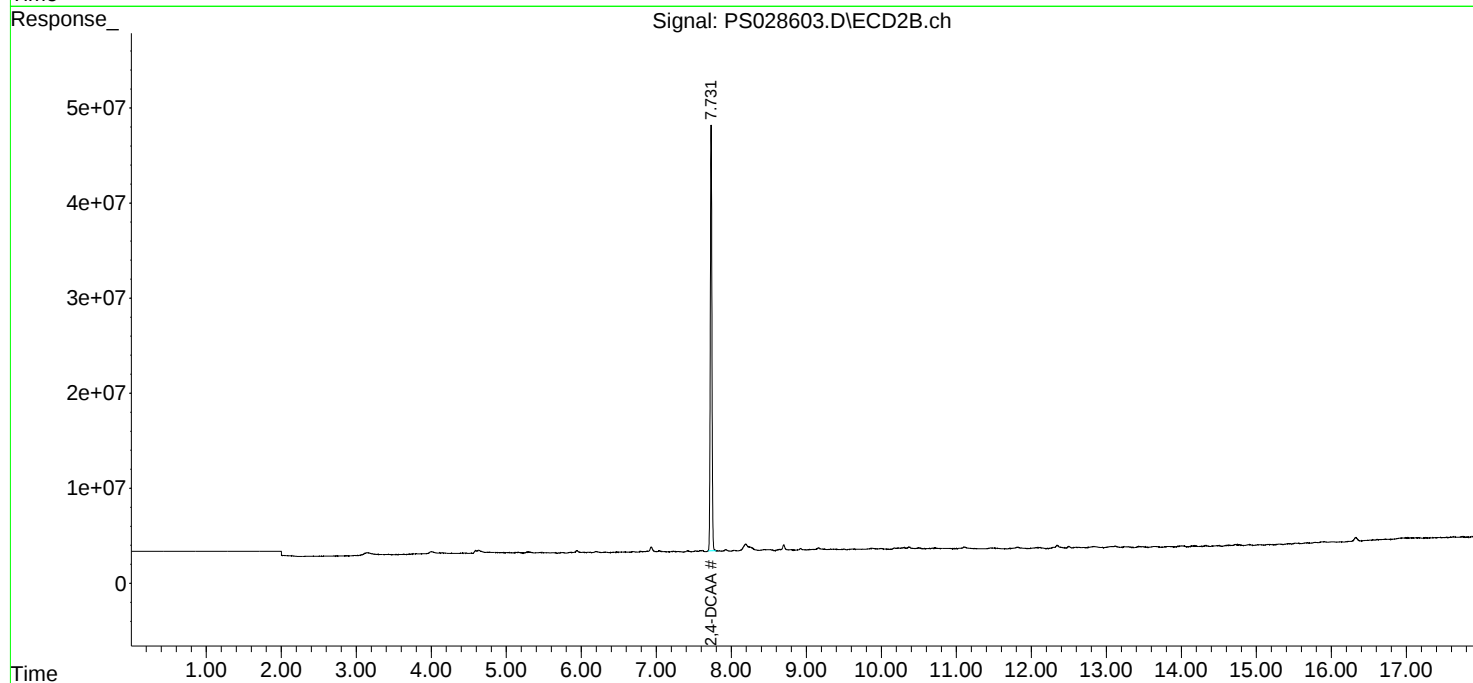
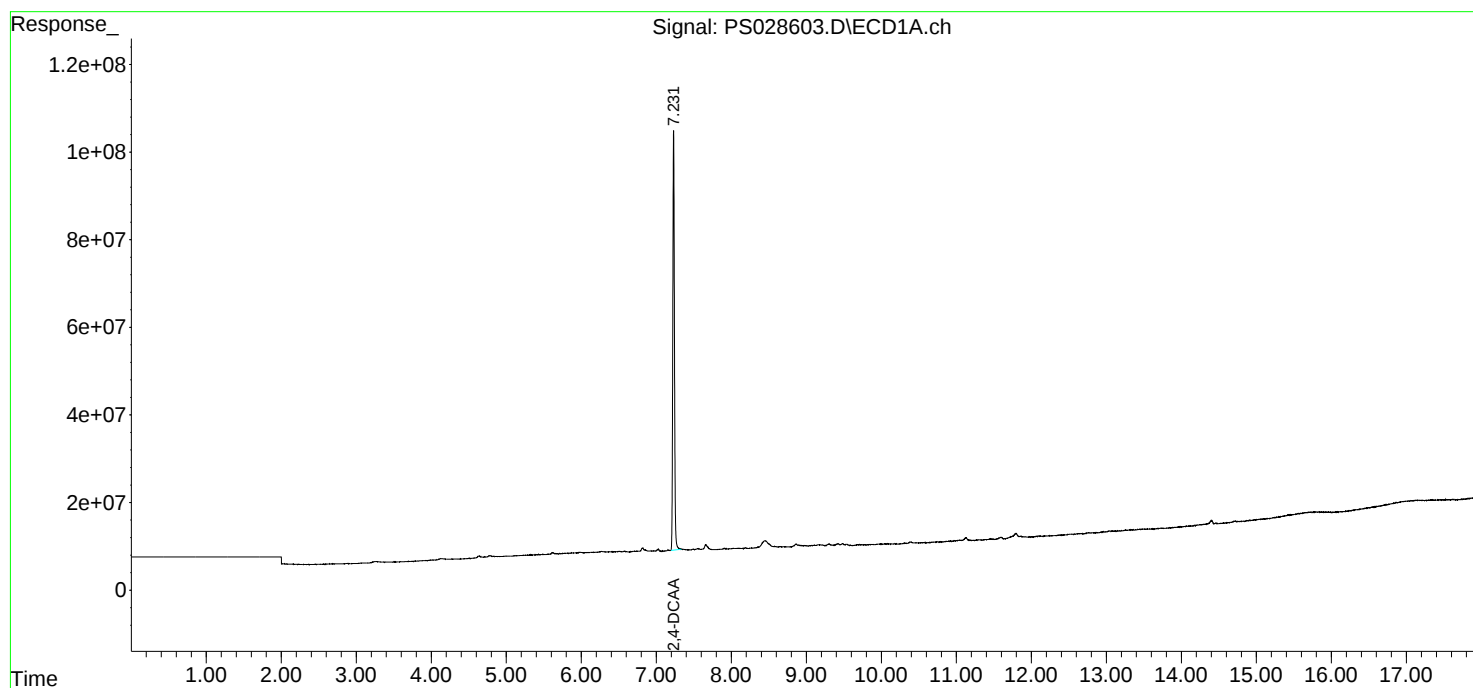
Instrument :
ECD_S
ClientSampleId :
I.BLK

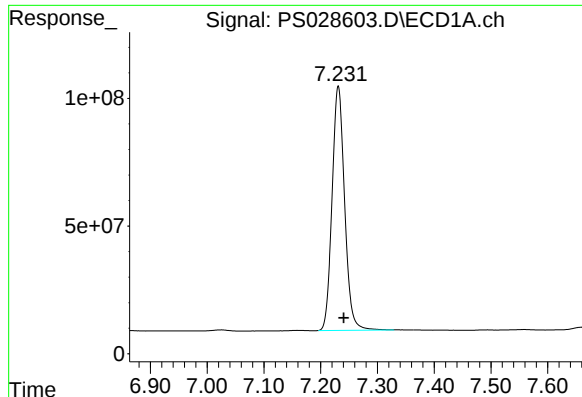
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/25/2024
Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 22 21:04:14 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:41:03 2024
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





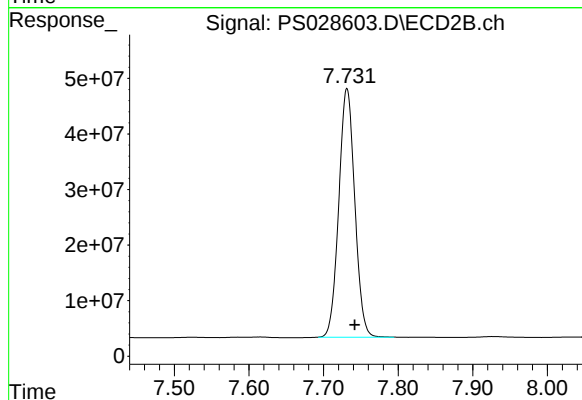
#4 2,4-DCAA

R.T.: 7.231 min
Delta R.T.: -0.010 min
Response: 1467979617
Conc: 574.35 ng/ml

Instrument :
ECD_S
ClientSampleId :
I.BLK

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/25/2024
Supervised By :Ankita Jodhani 11/25/2024



#4 2,4-DCAA

R.T.: 7.731 min
Delta R.T.: -0.011 min
Response: 665724422
Conc: 515.15 ng/ml m

Report of Analysis

Client:	Portal Partners Tri-Venture			Date Collected:		
Project:	Amtrak Sawtooth Bridges 2024			Date Received:		
Client Sample ID:	PB165193BS			SDG No.:	P4892	
Lab Sample ID:	PB165193BS			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
PS028598.D	1	11/21/24 09:41	11/22/24 11:37	PB165193

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	6.30		0.49	2.00	ug/L
93-72-1	2,4,5-TP (Silvex)	6.10		0.45	2.00	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	610		70 (39) - 130 (175)	122%	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\PS112224\
 Data File : PS028598.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 22 Nov 2024 11:37
 Operator : AR\AJ
 Sample : PB165193BS
 Misc :
 ALS Vial : 6 Sample Multiplier: 1

Instrument :

ECD_S

ClientSampleId :

PB165193BS

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/25/2024

Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Nov 22 20:59:37 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
 Quant Title : 8080.M
 QLast Update : Wed Nov 13 13:41:03 2024
 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	7.231	7.732	1560.3E6	694.2E6	610.491m	537.214
Target Compounds							
1) T	Dalapon	2.635	2.698	1204.5E6	963.0E6	358.539	397.949
2) T	3,5-DICHL...	6.404	6.688	2186.9E6	957.7E6	586.105	495.593
3) T	4-Nitroph...	7.030	7.258	785.0E6	392.9E6	462.177	455.026m
5) T	DICAMBA	7.419	7.932	5996.1E6	2917.9E6	547.994	511.548
6) T	MCPD	7.599	8.033	378.3E6	210.0E6	53.780	48.820
7) T	MCPA	7.749	8.277	527.3E6	296.6E6	51.674	47.896
8) T	DICHLORPROP	8.126	8.648	1657.8E6	752.6E6	561.717	515.306
9) T	2,4-D	8.356	8.978	2002.6E6	898.5E6	626.416	573.921
10) T	Pentachlo...	8.656	9.506	26523.5E6	11536.8E6	635.506	575.536
11) T	2,4,5-TP ...	9.235	9.882	10581.7E6	4904.5E6	609.168m	581.223
12) T	2,4,5-T	9.527	10.303	10240.0E6	4452.8E6	576.105	531.213
13) T	2,4-DB	10.103	10.869	1506.5E6	534.7E6	552.736	510.358
14) T	DINOSEB	11.314	11.249	6208.3E6	2111.2E6	435.434	381.884
15) T	Picloram	11.121	12.342	12639.0E6	4664.5E6	448.833	412.092
16) T	DCPA	11.606	12.292	11307.2E6	5402.7E6	429.715	557.069 #

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS112224\
Data File : PS028598.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Nov 2024 11:37
Operator : AR\AJ
Sample : PB165193BS
Misc :
ALS Vial : 6 Sample Multiplier: 1

Instrument :

ECD_S

ClientSampleId :

PB165193BS

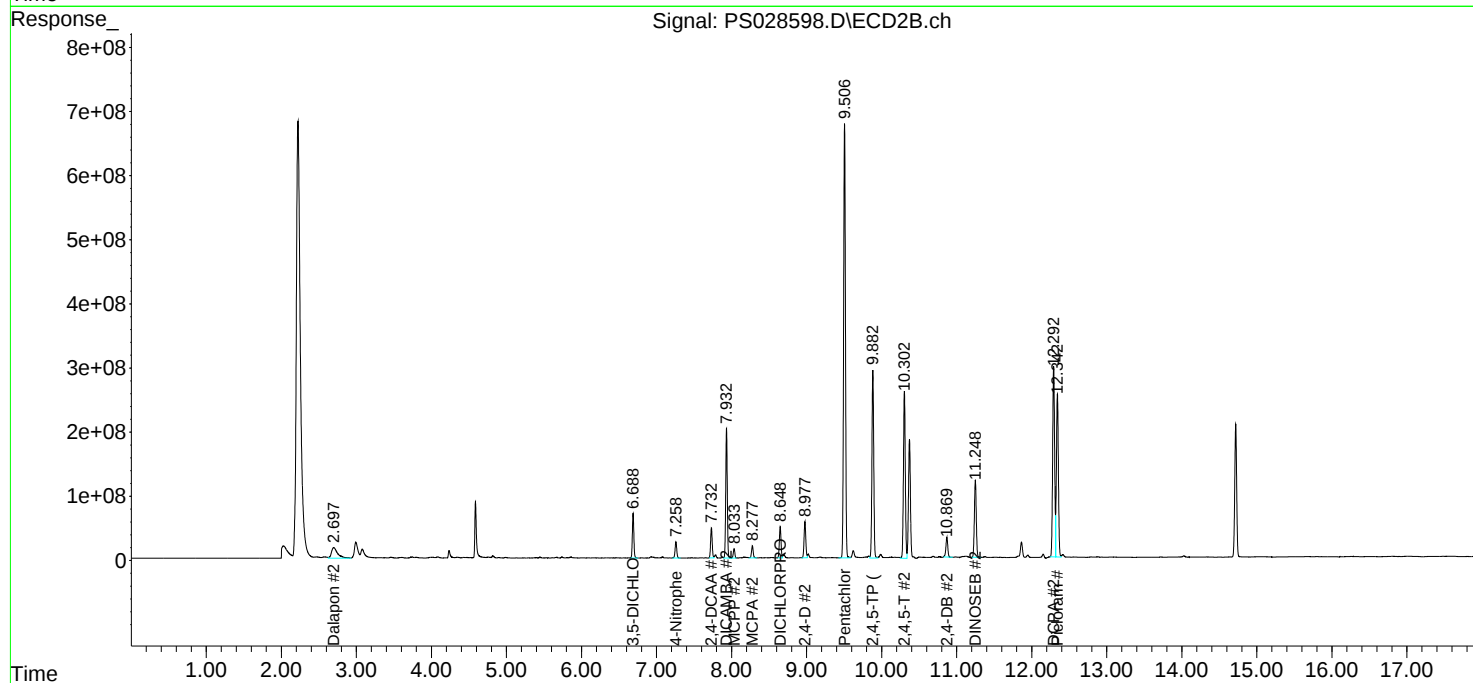
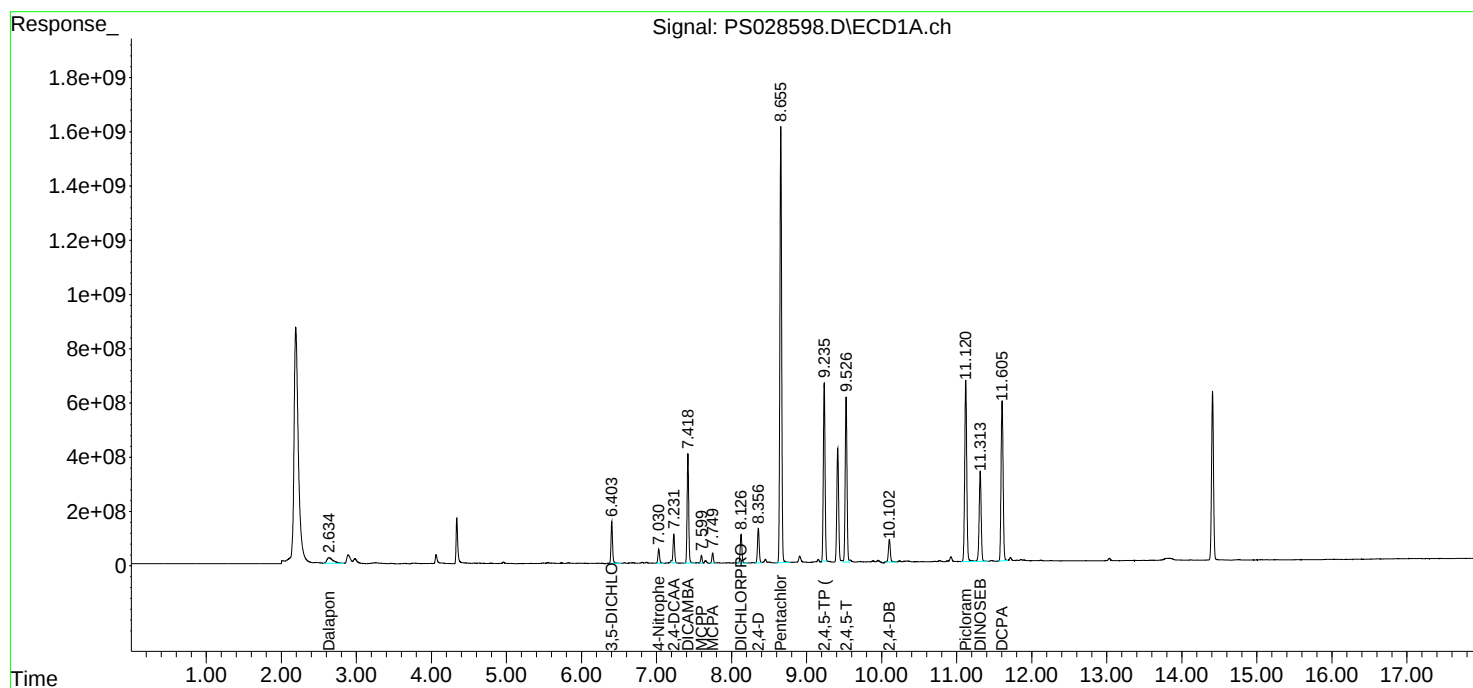
Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/25/2024
Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 22 20:59:37 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:41:03 2024
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



Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-BOTMS	SDG No.:	P4892
Lab Sample ID:	P4892-03MS	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0
Sample Wt/Vol:	100	Units:	mL
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TCLP Herbicide
GPC Factor :	1.0	PH :	
Prep Method :	SW3510C	Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028601.D	1	11/21/24 09:41	11/22/24 12:49	PB165193

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	62.4		4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	61.9		4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	551		70 (39) - 130 (175)	110%	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\PS112224\
 Data File : PS028601.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 22 Nov 2024 12:49
 Operator : AR\AJ
 Sample : P4892-03MS
 Misc :
 ALS Vial : 9 Sample Multiplier: 1

Instrument :
 ECD_S
 ClientSampleId :
 WB-310-BOTMS

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 11/25/2024
 Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Nov 22 21:02:20 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
 Quant Title : 8080.M
 QLast Update : Wed Nov 13 13:41:03 2024
 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	7.231	7.731	1409.4E6	614.6E6	551.434m	475.609m
Target Compounds							
1) T	Dalapon	2.636	2.699	1230.3E6	1050.6E6	366.226m	434.139m
2) T	3,5-DICHL...	6.404	6.687	2030.5E6	925.1E6	544.183	478.738
3) T	4-Nitroph...	7.031	7.259	26214172	12270943	15.434	14.212m
5) T	DICAMBA	7.418	7.931	5736.2E6	2857.6E6	524.238m	500.980
6) T	MCPD	7.599	8.033	333.4E6	206.7E6	47.400m	48.053
7) T	MCPA	7.749	8.276	513.1E6	314.5E6	50.279	50.775
8) T	DICHLORPROP	8.126	8.647	1603.0E6	736.5E6	543.130	504.254
9) T	2,4-D	8.356	8.977	1995.5E6	892.4E6	624.178	570.026
10) T	Pentachlo...	8.656	9.505	23144.4E6	10127.0E6	554.543	505.203
11) T	2,4,5-TP ...	9.234	9.882	10323.3E6	5219.9E6	594.292	618.597
12) T	2,4,5-T	9.527	10.302	10139.0E6	4464.3E6	570.424	532.580
13) T	2,4-DB	10.102	10.868	1331.2E6	474.9E6	488.389	453.233
14) T	DINOSEB	11.313	11.248	4921.6E6	1671.0E6	345.188	302.249
15) T	Picloram	11.120	12.341	13449.7E6	5053.2E6	477.621	446.434
16) T	DCPA	11.605	12.291	12185.8E6	5388.1E6	463.104	555.561

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS112224\
Data File : PS028601.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Nov 2024 12:49
Operator : AR\AJ
Sample : P4892-03MS
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :

ECD_S

ClientSampleId :

WB-310-BOTMS

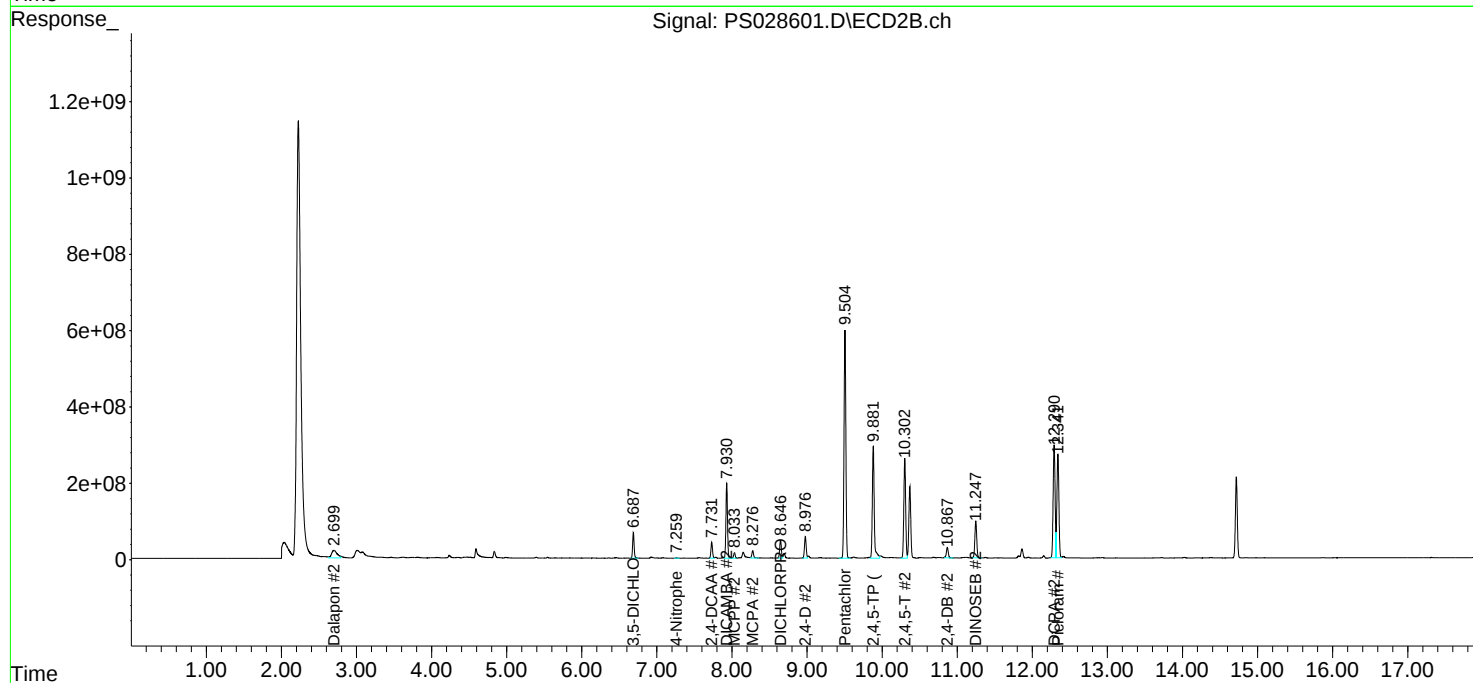
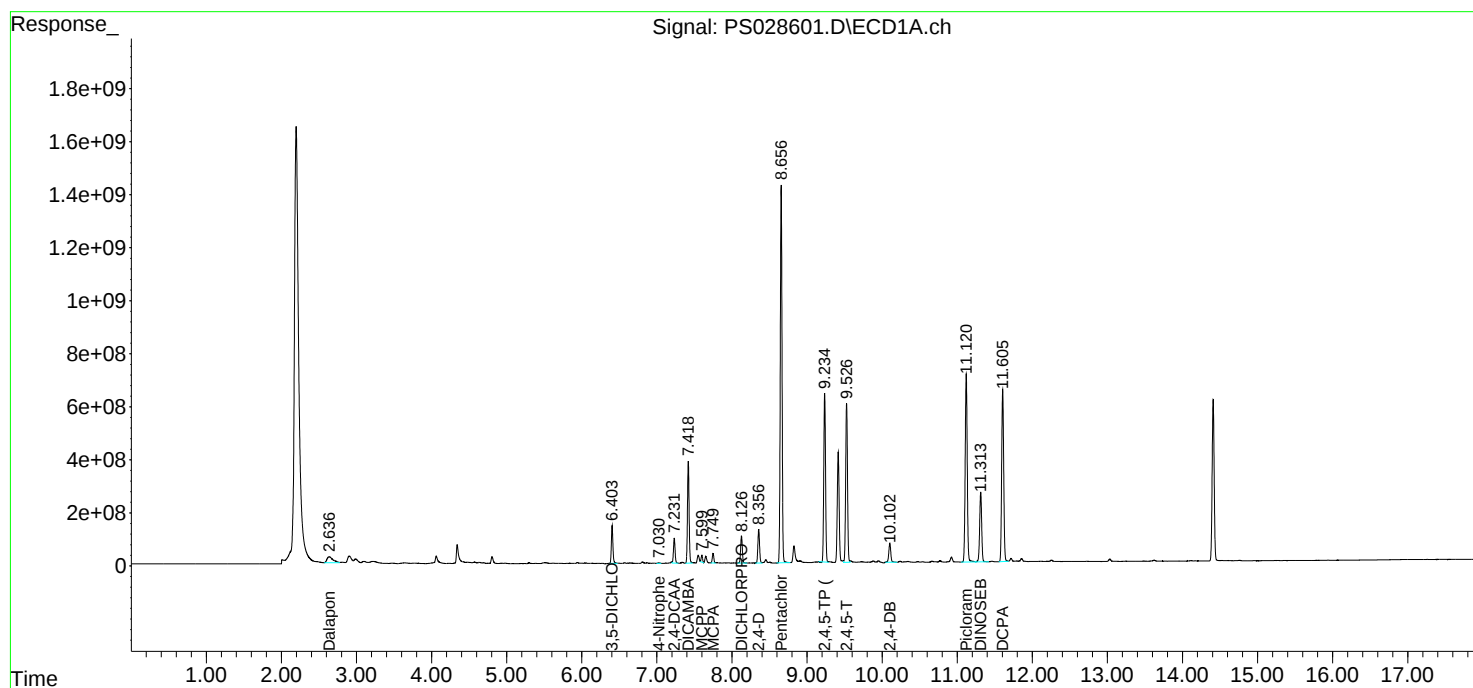
Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/25/2024
Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 22 21:02:20 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:41:03 2024
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



Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	11/15/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	11/15/24
Client Sample ID:	WB-310-BOTMSD	SDG No.:	P4892
Lab Sample ID:	P4892-03MSD	Matrix:	TCLP
Analytical Method:	SW8151A	% Solid:	0
Sample Wt/Vol:	100	Units:	mL
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TCLP Herbicide
GPC Factor :	1.0	PH :	
Prep Method :	SW3510C	Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PS028602.D	1	11/21/24 09:41	11/22/24 13:13	PB165193

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
94-75-7	2,4-D	62.5		4.90	20.0	ug/L
93-72-1	2,4,5-TP (Silvex)	65.1		4.50	20.0	ug/L
SURROGATES						
19719-28-9	2,4-DCAA	555		70 (39) - 130 (175)	111%	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\PS112224\
 Data File : PS028602.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 22 Nov 2024 13:13
 Operator : AR\AJ
 Sample : P4892-03MSD
 Misc :
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 ECD_S
 ClientSampleId :
 WB-310-BOTMSD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/25/2024
 Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Nov 22 21:03:20 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
 Quant Title : 8080.M
 QLast Update : Wed Nov 13 13:41:03 2024
 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	7.231	7.731	1417.8E6	607.4E6	554.721m	470.031
Target Compounds							
1) T	Dalapon	2.637	2.698	1180.3E6	945.8E6	351.332	390.822m
2) T	3,5-DICHL...	6.404	6.687	2031.6E6	929.2E6	544.474	480.871
3) T	4-Nitroph...	7.031	7.260	25982294	11992137	15.298	13.890m
5) T	DICAMBA	7.419	7.931	5753.3E6	2873.2E6	525.805	503.716
6) T	MCPD	7.600	8.033	332.7E6	207.8E6	47.298m	48.313
7) T	MCPA	7.749	8.277	516.3E6	318.3E6	50.591	51.386
8) T	DICHLORPROP	8.126	8.646	1604.0E6	738.1E6	543.494	505.356
9) T	2,4-D	8.357	8.977	1999.0E6	897.5E6	625.287	573.284
10) T	Pentachlo...	8.656	9.505	23238.6E6	10173.9E6	556.799	507.543
11) T	2,4,5-TP ...	9.234	9.882	10430.0E6	5490.4E6	600.435m	650.656
12) T	2,4,5-T	9.527	10.301	10170.4E6	4482.0E6	572.190	534.696
13) T	2,4-DB	10.102	10.867	1328.5E6	498.6E6	487.425	475.913m
14) T	DINOSEB	11.313	11.247	4904.4E6	1675.6E6	343.981	303.092
15) T	Picloram	11.120	12.341	13374.3E6	5037.2E6	474.942	445.024
16) T	DCPA	11.604	12.291	12311.4E6	5423.0E6	467.877	559.163

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD_S\Data\PS112224\
Data File : PS028602.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 22 Nov 2024 13:13
Operator : AR\AJ
Sample : P4892-03MSD
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :

ECD_S

ClientSampleId :

WB-310-BOTMSD

Manual Integrations

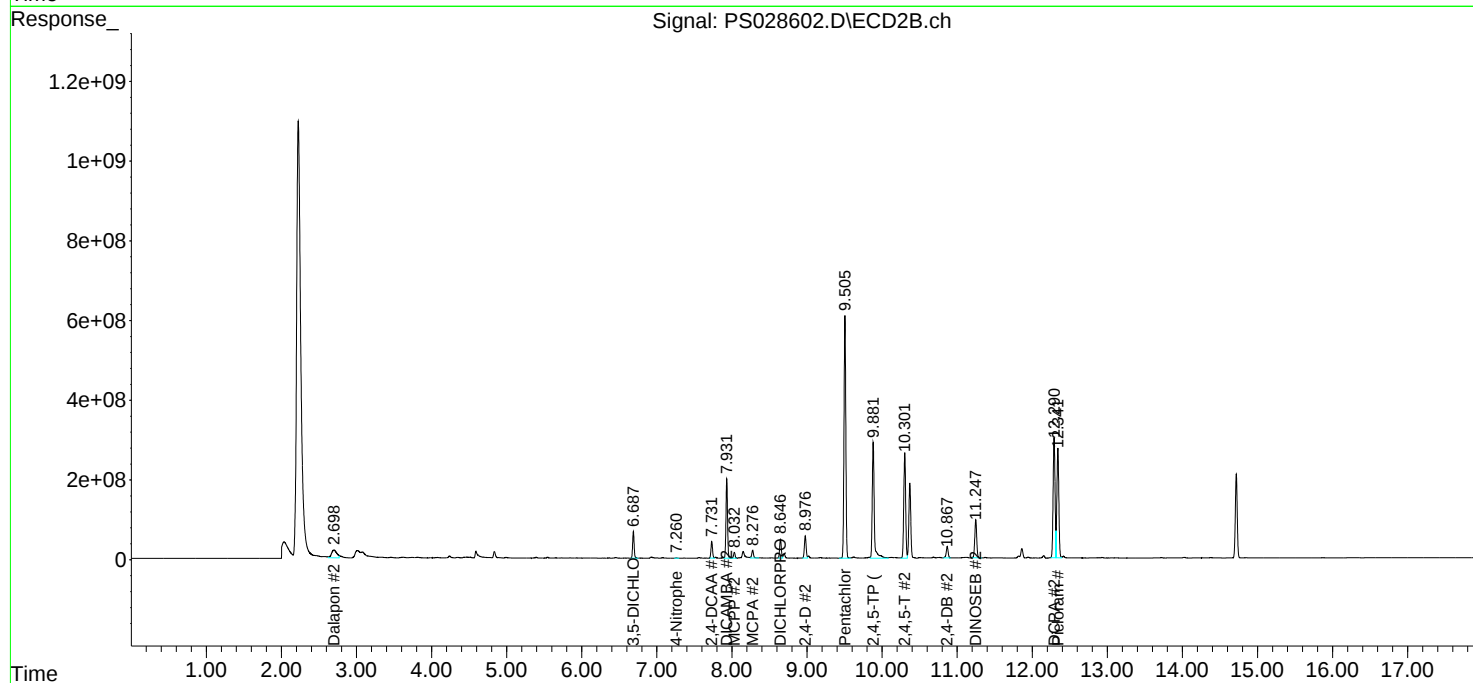
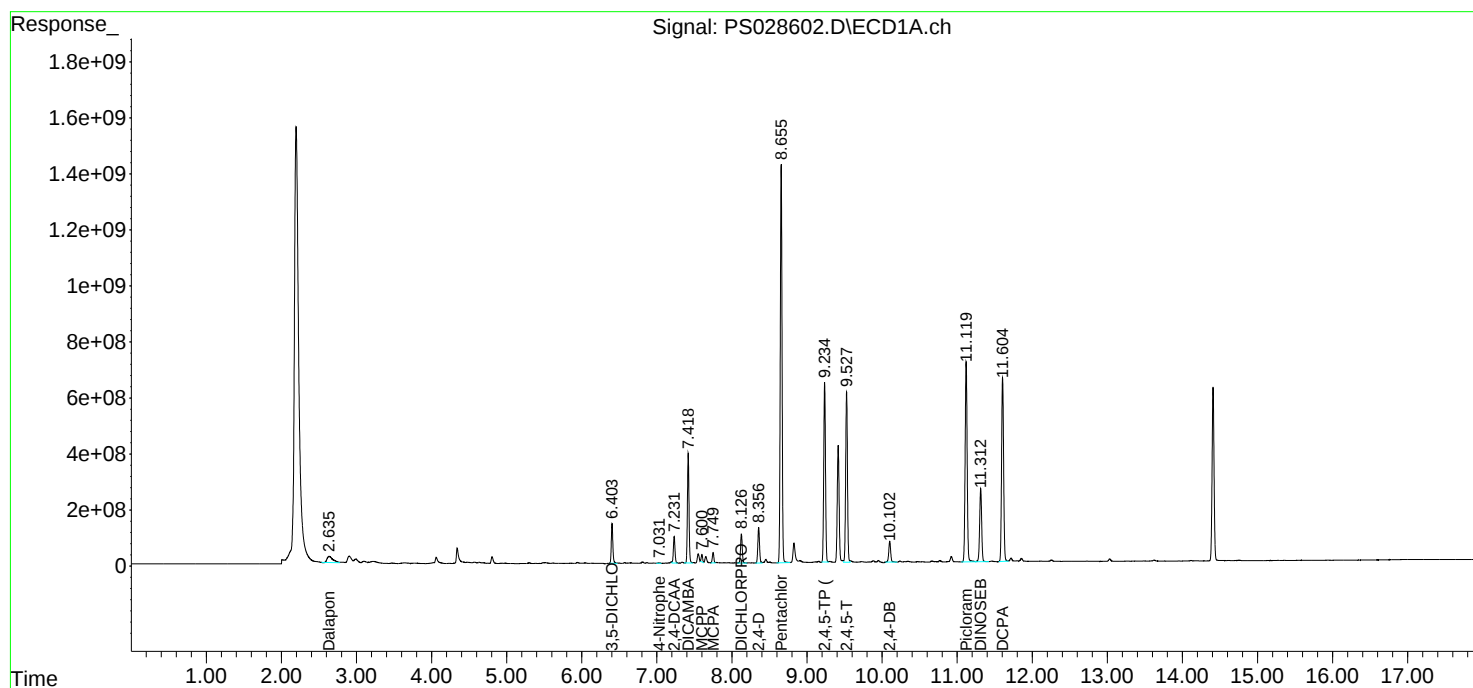
APPROVED

Reviewed By :Yogesh Patel 11/25/2024

Supervised By :Ankita Jodhani 11/25/2024

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 22 21:03:20 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD_S\Method\PS111324.M
Quant Title : 8080.M
QLast Update : Wed Nov 13 13:41:03 2024
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





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

Manual Integration Report

Sequence:	PS111324	Instrument	ECD_s
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
HSTDCCC750	PS028528.D	2,4-DCAA	yogesh	11/14/2024 8:46:06 AM	Ankita	11/14/2024 11:10:19	Peak Integrated by Software

Manual Integration Report

Sequence:	PS112224	Instrument	ECD_s
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
I.BLK	PS028595.D	2,4-DCAA	yogesh	11/25/2024 8:55:43 AM	Ankita	11/25/2024 10:08:02	Peak Integrated by Software
I.BLK	PS028595.D	2,4-DCAA #2	yogesh	11/25/2024 8:55:43 AM	Ankita	11/25/2024 10:08:02	Peak Integrated by Software
HSTDCCC750	PS028596.D	2,4,5-TP (SILVEX)	yogesh	11/25/2024 8:55:46 AM	Ankita	11/25/2024 10:08:04	Peak Integrated by Software
HSTDCCC750	PS028596.D	2,4-DCAA	yogesh	11/25/2024 8:55:46 AM	Ankita	11/25/2024 10:08:04	Peak Integrated by Software
HSTDCCC750	PS028596.D	MCPA #2	yogesh	11/25/2024 8:55:46 AM	Ankita	11/25/2024 10:08:04	Peak Integrated by Software
HSTDCCC750	PS028596.D	MCPP #2	yogesh	11/25/2024 8:55:46 AM	Ankita	11/25/2024 10:08:04	Peak Integrated by Software
PB165193BL	PS028597.D	2,4-DCAA	yogesh	11/25/2024 8:55:47 AM	Ankita	11/25/2024 10:08:06	Peak Integrated by Software
PB165193BL	PS028597.D	2,4-DCAA #2	yogesh	11/25/2024 8:55:47 AM	Ankita	11/25/2024 10:08:06	Peak Integrated by Software
PB165193BS	PS028598.D	2,4,5-TP (SILVEX)	yogesh	11/25/2024 8:55:50 AM	Ankita	11/25/2024 10:08:09	Peak Integrated by Software
PB165193BS	PS028598.D	2,4-DCAA	yogesh	11/25/2024 8:55:50 AM	Ankita	11/25/2024 10:08:09	Peak Integrated by Software
PB165193BS	PS028598.D	4-Nitrophenol #2	yogesh	11/25/2024 8:55:50 AM	Ankita	11/25/2024 10:08:09	Peak Integrated by Software
PB165060TB	PS028599.D	2,4-DCAA	yogesh	11/25/2024 8:55:52 AM	Ankita	11/25/2024 10:08:12	Peak Integrated by Software
PB165060TB	PS028599.D	2,4-DCAA #2	yogesh	11/25/2024 8:55:52 AM	Ankita	11/25/2024 10:08:12	Peak Integrated by Software

Manual Integration Report

Sequence:	PS112224	Instrument	ECD_s
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
P4892-03	PS028600.D	2,4-DCAA	yogesh	11/25/2024 8:55:53 AM	Ankita	11/25/2024 10:08:14	Peak Integrated by Software
P4892-03	PS028600.D	2,4-DCAA #2	yogesh	11/25/2024 8:55:53 AM	Ankita	11/25/2024 10:08:14	Peak Integrated by Software
P4892-03MS	PS028601.D	2,4-DCAA	yogesh	11/25/2024 8:55:55 AM	Ankita	11/25/2024 10:08:16	Peak Integrated by Software
P4892-03MS	PS028601.D	2,4-DCAA #2	yogesh	11/25/2024 8:55:55 AM	Ankita	11/25/2024 10:08:16	Peak Integrated by Software
P4892-03MS	PS028601.D	4-Nitrophenol #2	yogesh	11/25/2024 8:55:55 AM	Ankita	11/25/2024 10:08:16	Peak Integrated by Software
P4892-03MS	PS028601.D	Dalapon	yogesh	11/25/2024 8:55:55 AM	Ankita	11/25/2024 10:08:16	Peak Integrated by Software
P4892-03MS	PS028601.D	Dalapon #2	yogesh	11/25/2024 8:55:55 AM	Ankita	11/25/2024 10:08:16	Peak Integrated by Software
P4892-03MS	PS028601.D	DICAMBA	yogesh	11/25/2024 8:55:55 AM	Ankita	11/25/2024 10:08:16	Peak Integrated by Software
P4892-03MS	PS028601.D	MCPP	yogesh	11/25/2024 8:55:55 AM	Ankita	11/25/2024 10:08:16	Peak Integrated by Software
P4892-03MSD	PS028602.D	2,4,5-TP (SILVEX)	yogesh	11/25/2024 8:55:57 AM	Ankita	11/25/2024 10:08:18	Peak Integrated by Software
P4892-03MSD	PS028602.D	2,4-DB #2	yogesh	11/25/2024 8:55:57 AM	Ankita	11/25/2024 10:08:18	Peak Integrated by Software
P4892-03MSD	PS028602.D	2,4-DCAA	yogesh	11/25/2024 8:55:57 AM	Ankita	11/25/2024 10:08:18	Peak Integrated by Software
P4892-03MSD	PS028602.D	4-Nitrophenol #2	yogesh	11/25/2024 8:55:57 AM	Ankita	11/25/2024 10:08:18	Peak Integrated by Software

Manual Integration Report

Sequence:	PS112224	Instrument	ECD_s
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
P4892-03MSD	PS028602.D	Dalapon #2	yogesh	11/25/2024 8:55:57 AM	Ankita	11/25/2024 10:08:18	Peak Integrated by Software
P4892-03MSD	PS028602.D	MCPP	yogesh	11/25/2024 8:55:57 AM	Ankita	11/25/2024 10:08:18	Peak Integrated by Software
I.BLK	PS028603.D	2,4-DCAA	yogesh	11/25/2024 8:55:59 AM	Ankita	11/25/2024 10:08:21	Peak Integrated by Software
I.BLK	PS028603.D	2,4-DCAA #2	yogesh	11/25/2024 8:55:59 AM	Ankita	11/25/2024 10:08:21	Peak Integrated by Software
HSTDCCC750	PS028604.D	2,4,5-TP (SILVEX)	yogesh	11/25/2024 8:56:00 AM	Ankita	11/25/2024 10:08:23	Peak Integrated by Software
HSTDCCC750	PS028604.D	2,4-DCAA	yogesh	11/25/2024 8:56:00 AM	Ankita	11/25/2024 10:08:23	Peak Integrated by Software
HSTDCCC750	PS028604.D	DICHLORPROP	yogesh	11/25/2024 8:56:00 AM	Ankita	11/25/2024 10:08:23	Peak Integrated by Software
I.BLK	PS028610.D	2,4-DCAA	yogesh	11/25/2024 8:56:09 AM	Ankita	11/25/2024 10:08:37	Peak Integrated by Software
I.BLK	PS028610.D	2,4-DCAA #2	yogesh	11/25/2024 8:56:09 AM	Ankita	11/25/2024 10:08:37	Peak Integrated by Software
HSTDCCC750	PS028611.D	2,4,5-TP (SILVEX)	yogesh	11/25/2024 8:56:11 AM	Ankita	11/25/2024 10:08:39	Peak Integrated by Software
HSTDCCC750	PS028611.D	2,4-DCAA	yogesh	11/25/2024 8:56:11 AM	Ankita	11/25/2024 10:08:39	Peak Integrated by Software
HSTDCCC750	PS028611.D	DICHLORPROP	yogesh	11/25/2024 8:56:11 AM	Ankita	11/25/2024 10:08:39	Peak Integrated by Software



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

Manual Integration Report

Sequence:

PS112224

Instrument

ECD_s

Sample ID

File ID

Parameter

Review By

Review On

Supervised
By

Supervised On

Reason

Instrument ID: ECD_S

Daily Analysis Runlog For Sequence/QC Batch ID # PS111324

Review By	yogesh	Review On	11/14/2024 8:46:40 AM
Supervise By	Ankita	Supervise On	11/14/2024 11:10:35 AM
SubDirectory	PS111324	HP Acquire Method	HP Processing Method PS111324
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23458,PP23459,PP23460,PP23461,PP23462		
CCC Internal Standard/PEM	PP23462		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23469		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	HEXANE	PS028484.D	13 Nov 2024 08:41	AR\AJ	Ok
2	I.BLK	PS028485.D	13 Nov 2024 09:06	AR\AJ	Not Ok
3	HSTDCCC750	PS028486.D	13 Nov 2024 10:56	AR\AJ	Not Ok
4	I.BLK	PS028487.D	13 Nov 2024 11:20	AR\AJ	Ok
5	HSTDICC200	PS028488.D	13 Nov 2024 11:44	AR\AJ	Ok
6	HSTDICC500	PS028489.D	13 Nov 2024 12:09	AR\AJ	Ok
7	HSTDICC750	PS028490.D	13 Nov 2024 12:34	AR\AJ	Ok
8	HSTDICC1000	PS028491.D	13 Nov 2024 12:58	AR\AJ	Ok
9	HSTDICC1500	PS028492.D	13 Nov 2024 13:23	AR\AJ	Ok
10	HSTDICV750	PS028493.D	13 Nov 2024 13:48	AR\AJ	Ok
11	I.BLK	PS028494.D	13 Nov 2024 14:12	AR\AJ	Ok
12	HSTDCCC750	PS028495.D	13 Nov 2024 14:37	AR\AJ	Ok
13	P4793-01	PS028496.D	13 Nov 2024 15:02	AR\AJ	Ok,M
14	P4795-01	PS028497.D	13 Nov 2024 15:26	AR\AJ	Ok,M
15	PB164863BL	PS028498.D	13 Nov 2024 15:51	AR\AJ	Ok
16	PB164863BS	PS028499.D	13 Nov 2024 16:15	AR\AJ	Ok
17	P4756-01	PS028500.D	13 Nov 2024 16:40	AR\AJ	Ok,M
18	P4756-01MS	PS028501.D	13 Nov 2024 17:05	AR\AJ	Ok,M
19	P4756-01MSD	PS028502.D	13 Nov 2024 17:29	AR\AJ	Ok,M
20	P4798-01	PS028503.D	13 Nov 2024 17:54	AR\AJ	Ok,M
21	P4807-01	PS028504.D	13 Nov 2024 18:18	AR\AJ	Ok

Instrument ID: ECD_S

Daily Analysis Runlog For Sequence/QC Batch ID # PS111324

Review By	yogesh	Review On	11/14/2024 8:46:40 AM
Supervise By	Ankita	Supervise On	11/14/2024 11:10:35 AM
SubDirectory	PS111324	HP Acquire Method	HP Processing Method PS111324
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23458,PP23459,PP23460,PP23461,PP23462		
CCC Internal Standard/PEM	PP23462		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23469		

22	P4807-05	PS028505.D	13 Nov 2024 18:42	AR\AJ	Ok
23	I.BLK	PS028506.D	13 Nov 2024 19:07	AR\AJ	Ok
24	HSTDCCC750	PS028507.D	13 Nov 2024 19:32	AR\AJ	Ok
25	P4807-09	PS028508.D	13 Nov 2024 19:56	AR\AJ	Ok
26	P4807-13	PS028509.D	13 Nov 2024 20:21	AR\AJ	Ok
27	P4809-01	PS028510.D	13 Nov 2024 20:45	AR\AJ	Ok,M
28	PB164946BL	PS028511.D	13 Nov 2024 21:10	AR\AJ	Ok
29	PB164946BS	PS028512.D	13 Nov 2024 21:35	AR\AJ	Ok,M
30	P4788-01MS	PS028513.D	13 Nov 2024 21:59	AR\AJ	Ok,M
31	P4788-01MSD	PS028514.D	13 Nov 2024 22:24	AR\AJ	Ok,M
32	I.BLK	PS028515.D	13 Nov 2024 22:48	AR\AJ	Ok
33	HSTDCCC750	PS028516.D	13 Nov 2024 23:13	AR\AJ	Ok
34	PB164959BL	PS028517.D	13 Nov 2024 23:37	AR\AJ	Ok
35	PB164959BS	PS028518.D	14 Nov 2024 00:02	AR\AJ	Ok
36	PB164880TB	PS028519.D	14 Nov 2024 00:26	AR\AJ	Ok
37	P4799-03	PS028520.D	14 Nov 2024 00:51	AR\AJ	Ok
38	P4799-03MS	PS028521.D	14 Nov 2024 01:15	AR\AJ	Ok,M
39	P4799-03MSD	PS028522.D	14 Nov 2024 01:40	AR\AJ	Ok,M
40	P4799-07	PS028523.D	14 Nov 2024 02:05	AR\AJ	Ok
41	P4799-11	PS028524.D	14 Nov 2024 02:29	AR\AJ	Not Ok
42	P4799-15	PS028525.D	14 Nov 2024 02:54	AR\AJ	Ok
43	P4799-19	PS028526.D	14 Nov 2024 03:18	AR\AJ	Ok
44	I.BLK	PS028527.D	14 Nov 2024 03:43	AR\AJ	Ok

Instrument ID: ECD_S

Daily Analysis Runlog For Sequence/QC Batch ID # PS111324

Review By	yogesh	Review On	11/14/2024 8:46:40 AM
Supervise By	Ankita	Supervise On	11/14/2024 11:10:35 AM
SubDirectory	PS111324	HP Acquire Method	HP Processing Method PS111324
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23458,PP23459,PP23460,PP23461,PP23462		
CCC Internal Standard/PEM	PP23462		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23469		

45	HSTDCCC750	PS028528.D	14 Nov 2024 04:08	AR\AJ	Ok,M
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M : Manual Integration

Instrument ID: ECD_S

Daily Analysis Runlog For Sequence/QC Batch ID # PS112224

Review By	yogesh	Review On	11/25/2024 8:56:24 AM
Supervise By	Ankita	Supervise On	11/25/2024 10:09:11 AM
SubDirectory	PS112224	HP Acquire Method	HP Processing Method PS111324
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23458,PP23459,PP23460,PP23461,PP23462		
CCC Internal Standard/PEM	PP23462		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23469		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	HEXANE	PS028594.D	22 Nov 2024 09:13	AR\AJ	Ok
2	I.BLK	PS028595.D	22 Nov 2024 09:37	AR\AJ	Ok,M
3	HSTDCCC750	PS028596.D	22 Nov 2024 10:25	AR\AJ	Ok,M
4	PB165193BL	PS028597.D	22 Nov 2024 11:13	AR\AJ	Ok,M
5	PB165193BS	PS028598.D	22 Nov 2024 11:37	AR\AJ	Ok,M
6	PB165060TB	PS028599.D	22 Nov 2024 12:01	AR\AJ	Ok,M
7	P4892-03	PS028600.D	22 Nov 2024 12:25	AR\AJ	Ok,M
8	P4892-03MS	PS028601.D	22 Nov 2024 12:49	AR\AJ	Ok,M
9	P4892-03MSD	PS028602.D	22 Nov 2024 13:13	AR\AJ	Ok,M
10	I.BLK	PS028603.D	22 Nov 2024 13:37	AR\AJ	Ok,M
11	HSTDCCC750	PS028604.D	22 Nov 2024 14:25	AR\AJ	Ok,M
12	P4495-17	PS028605.D	22 Nov 2024 16:26	AR\AJ	Not Ok
13	PB165201BL	PS028606.D	22 Nov 2024 16:50	AR\AJ	Ok,M
14	PB165201BS	PS028607.D	22 Nov 2024 17:14	AR\AJ	Ok,M
15	PB165201BSD	PS028608.D	22 Nov 2024 17:38	AR\AJ	Ok,M
16	P4947-01	PS028609.D	22 Nov 2024 18:02	AR\AJ	Ok,M
17	I.BLK	PS028610.D	22 Nov 2024 18:26	AR\AJ	Ok,M
18	HSTDCCC750	PS028611.D	22 Nov 2024 18:50	AR\AJ	Ok,M

M : Manual Integration

Instrument ID: ECD_S

Daily Analysis Runlog For Sequence/QC Batch ID # PS111324

Review By	yogesh	Review On	11/14/2024 8:46:40 AM
Supervise By	Ankita	Supervise On	11/14/2024 11:10:35 AM
SubDirectory	PS111324	HP Acquire Method	HP Processing Method PS111324

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	PP23458,PP23459,PP23460,PP23461,PP23462
CCC	PP23462
Internal Standard/PEM	
ICV/I.BLK	PP23469
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	HEXANE	HEXANE	PS028484.D	13 Nov 2024 08:41		AR\AJ	Ok
2	I.BLK	I.BLK	PS028485.D	13 Nov 2024 09:06	Need ICAL	AR\AJ	Not Ok
3	HSTDCCC750	HSTDCCC750	PS028486.D	13 Nov 2024 10:56	Need ICAL	AR\AJ	Not Ok
4	I.BLK	I.BLK	PS028487.D	13 Nov 2024 11:20		AR\AJ	Ok
5	HSTDICC200	HSTDICC200	PS028488.D	13 Nov 2024 11:44		AR\AJ	Ok
6	HSTDICC500	HSTDICC500	PS028489.D	13 Nov 2024 12:09		AR\AJ	Ok
7	HSTDICC750	HSTDICC750	PS028490.D	13 Nov 2024 12:34		AR\AJ	Ok
8	HSTDICC1000	HSTDICC1000	PS028491.D	13 Nov 2024 12:58		AR\AJ	Ok
9	HSTDICC1500	HSTDICC1500	PS028492.D	13 Nov 2024 13:23		AR\AJ	Ok
10	HSTDICV750	ICVPS111324	PS028493.D	13 Nov 2024 13:48		AR\AJ	Ok
11	I.BLK	I.BLK	PS028494.D	13 Nov 2024 14:12		AR\AJ	Ok
12	HSTDCCC750	HSTDCCC750	PS028495.D	13 Nov 2024 14:37		AR\AJ	Ok
13	P4793-01	M00-24-00345	PS028496.D	13 Nov 2024 15:02		AR\AJ	Ok,M
14	P4795-01	LAW-23-00189	PS028497.D	13 Nov 2024 15:26		AR\AJ	Ok,M
15	PB164863BL	PB164863BL	PS028498.D	13 Nov 2024 15:51		AR\AJ	Ok
16	PB164863BS	PB164863BS	PS028499.D	13 Nov 2024 16:15		AR\AJ	Ok
17	P4756-01	BP-B4	PS028500.D	13 Nov 2024 16:40		AR\AJ	Ok,M
18	P4756-01MS	BP-B4MS	PS028501.D	13 Nov 2024 17:05	Some compound recovery fail	AR\AJ	Ok,M

Instrument ID: ECD_S

Daily Analysis Runlog For Sequence/QC Batch ID # PS111324

Review By	yogesh	Review On	11/14/2024 8:46:40 AM
Supervise By	Ankita	Supervise On	11/14/2024 11:10:35 AM
SubDirectory	PS111324	HP Acquire Method	HP Processing Method PS111324
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23458,PP23459,PP23460,PP23461,PP23462		
CCC	PP23462		
Internal Standard/PEM			
ICV/I.BLK	PP23469		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

19	P4756-01MSD	BP-B4MSD	PS028502.D	13 Nov 2024 17:29	some compound recovery fail	AR\AJ	Ok,M
20	P4798-01	MH-6	PS028503.D	13 Nov 2024 17:54		AR\AJ	Ok,M
21	P4807-01	TP-7	PS028504.D	13 Nov 2024 18:18		AR\AJ	Ok
22	P4807-05	BF-F14	PS028505.D	13 Nov 2024 18:42		AR\AJ	Ok
23	I.BLK	I.BLK	PS028506.D	13 Nov 2024 19:07		AR\AJ	Ok
24	HSTDCCC750	HSTDCCC750	PS028507.D	13 Nov 2024 19:32		AR\AJ	Ok
25	P4807-09	BF-F13	PS028508.D	13 Nov 2024 19:56		AR\AJ	Ok
26	P4807-13	TP-6	PS028509.D	13 Nov 2024 20:21		AR\AJ	Ok
27	P4809-01	MH-5	PS028510.D	13 Nov 2024 20:45		AR\AJ	Ok,M
28	PB164946BL	PB164946BL	PS028511.D	13 Nov 2024 21:10		AR\AJ	Ok
29	PB164946BS	PB164946BS	PS028512.D	13 Nov 2024 21:35		AR\AJ	Ok,M
30	P4788-01MS	BP-G3MS	PS028513.D	13 Nov 2024 21:59	Some compound recovery fail	AR\AJ	Ok,M
31	P4788-01MSD	BP-G3MSD	PS028514.D	13 Nov 2024 22:24	Some compound recovery fail	AR\AJ	Ok,M
32	I.BLK	I.BLK	PS028515.D	13 Nov 2024 22:48		AR\AJ	Ok
33	HSTDCCC750	HSTDCCC750	PS028516.D	13 Nov 2024 23:13		AR\AJ	Ok
34	PB164959BL	PB164959BL	PS028517.D	13 Nov 2024 23:37		AR\AJ	Ok
35	PB164959BS	PB164959BS	PS028518.D	14 Nov 2024 00:02	Recovery Fail in DINOSEB-I	AR\AJ	Ok
36	PB164880TB	PB164880TB	PS028519.D	14 Nov 2024 00:26		AR\AJ	Ok
37	P4799-03	WC-TA2-02-C	PS028520.D	14 Nov 2024 00:51		AR\AJ	Ok

Instrument ID: ECD_S

Daily Analysis Runlog For Sequence/QC Batch ID # PS111324

Review By	yogesh	Review On	11/14/2024 8:46:40 AM
Supervise By	Ankita	Supervise On	11/14/2024 11:10:35 AM
SubDirectory	PS111324	HP Acquire Method	HP Processing Method PS111324
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23458,PP23459,PP23460,PP23461,PP23462		
CCC Internal Standard/PEM	PP23462		
ICV/I.BLK Surrogate Standard	PP23469		
MS/MSD Standard LCS Standard			

38	P4799-03MS	WC-TA2-02-CMS	PS028521.D	14 Nov 2024 01:15	Some compound recovery fail	AR\AJ	Ok,M
39	P4799-03MSD	WC-TA2-02-CMSD	PS028522.D	14 Nov 2024 01:40	Some compound recovery fail	AR\AJ	Ok,M
40	P4799-07	WC-TA2-03-C	PS028523.D	14 Nov 2024 02:05		AR\AJ	Ok
41	P4799-11	WC-TA1-01-C	PS028524.D	14 Nov 2024 02:29	will be reanalyzed for confirmation	AR\AJ	Not Ok
42	P4799-15	WC-TA1-02-C	PS028525.D	14 Nov 2024 02:54		AR\AJ	Ok
43	P4799-19	WC-TA1-03-C	PS028526.D	14 Nov 2024 03:18		AR\AJ	Ok
44	I.BLK	I.BLK	PS028527.D	14 Nov 2024 03:43		AR\AJ	Ok
45	HSTDCCC750	HSTDCCC750	PS028528.D	14 Nov 2024 04:08		AR\AJ	Ok,M

M : Manual Integration

Instrument ID: ECD_S

Daily Analysis Runlog For Sequence/QC Batch ID # PS112224

Review By	yogesh	Review On	11/25/2024 8:56:24 AM
Supervise By	Ankita	Supervise On	11/25/2024 10:09:11 AM
SubDirectory	PS112224	HP Acquire Method	HP Processing Method PS111324
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23458,PP23459,PP23460,PP23461,PP23462		
CCC	PP23462		
Internal Standard/PEM			
ICV/I.BLK	PP23469		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	HEXANE	HEXANE	PS028594.D	22 Nov 2024 09:13		AR\AJ	Ok
2	I.BLK	I.BLK	PS028595.D	22 Nov 2024 09:37		AR\AJ	Ok,M
3	HSTDCCC750	HSTDCCC750	PS028596.D	22 Nov 2024 10:25	MCPA is lower side fail	AR\AJ	Ok,M
4	PB165193BL	PB165193BL	PS028597.D	22 Nov 2024 11:13		AR\AJ	Ok,M
5	PB165193BS	PB165193BS	PS028598.D	22 Nov 2024 11:37		AR\AJ	Ok,M
6	PB165060TB	PB165060TB	PS028599.D	22 Nov 2024 12:01		AR\AJ	Ok,M
7	P4892-03	WB-310-BOT	PS028600.D	22 Nov 2024 12:25		AR\AJ	Ok,M
8	P4892-03MS	WB-310-BOTMS	PS028601.D	22 Nov 2024 12:49	Some compound recovery fail	AR\AJ	Ok,M
9	P4892-03MSD	WB-310-BOTMSD	PS028602.D	22 Nov 2024 13:13	Some compound recovery fail	AR\AJ	Ok,M
10	I.BLK	I.BLK	PS028603.D	22 Nov 2024 13:37		AR\AJ	Ok,M
11	HSTDCCC750	HSTDCCC750	PS028604.D	22 Nov 2024 14:25		AR\AJ	Ok,M
12	P4495-17	PT-HERB-SOIL	PS028605.D	22 Nov 2024 16:26	sample reanalyzed	AR\AJ	Not Ok
13	PB165201BL	PB165201BL	PS028606.D	22 Nov 2024 16:50		AR\AJ	Ok,M
14	PB165201BS	PB165201BS	PS028607.D	22 Nov 2024 17:14		AR\AJ	Ok,M
15	PB165201BSD	PB165201BSD	PS028608.D	22 Nov 2024 17:38		AR\AJ	Ok,M
16	P4947-01	A3988	PS028609.D	22 Nov 2024 18:02		AR\AJ	Ok,M
17	I.BLK	I.BLK	PS028610.D	22 Nov 2024 18:26		AR\AJ	Ok,M
18	HSTDCCC750	HSTDCCC750	PS028611.D	22 Nov 2024 18:50		AR\AJ	Ok,M

Instrument ID: ECD_S

Daily Analysis Runlog For Sequence/QC Batch ID # PS112224

Review By	yogesh	Review On	11/25/2024 8:56:24 AM
Supervise By	Ankita	Supervise On	11/25/2024 10:09:11 AM
SubDirectory	PS112224	HP Acquire Method	HP Processing Method PS111324
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23458,PP23459,PP23460,PP23461,PP23462		
CCC Internal Standard/PEM	PP23462		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23469		

M : Manual Integration

SOP ID :	M1311-TCLP-15	Start Prep Date :	11/18/2024	Time :	16:00
SDG No :	N/A	End Prep Date :	11/19/2024	Time :	08:20
Weigh By :	JP	Combination Ratio :	20		
Balance ID :	WC SC-7	ZHE Cleaning Batch :	N/A		
pH Meter ID :	WC PH METER-1	Initial Room Temperature:	24 °C		
Extraction By :	JP	Final Room Temperature:	22 °C		
Filter By :	JP	TCLP Technician Signature :	<i>JP</i>		
Pipette ID :	WC	Supervisor By :	12		
Tumbler ID :	T-1				
TCLP Filter ID :	114771				

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

Chemical Used	ML/SAMPLE U	Lot Number
TCLP-FLUID-1	N/A	WP108622
HCL-TCLP,1N	N/A	WP108584
HNO3-TCLP,1N	N/A	WP108585
pH Strips	N/A	W1931,W1934,W2350,W2755
pH Strips	N/A	W1937,W1938,W1939,W1940,W1941,W1942
1 Liter Amber	N/A	23091
120ml Plastic bottle	N/A	21029
1:1 HNO3	N/A	MP83122

Extraction Conformance/Non-Conformance Comments:

Matrix spikes are added after filtration and before preservation. TUMBLER T-1 checked,30 rpm. Particle size reduction is not required. p4910-08 is used for MS-MSD.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
11/19/24 10:30	<i>JP</i> / TCLP Room	<i>JP</i> / Met Dig
	Preparation Group	Analysis Group <i>RE</i> / EXT

TCLP EXTRACTION LOGPAGE

PB165060

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
P4890-06	D3721	01	100.02	2000	N/A	N/A	N/A	3.0	1.0	T-1
P4892-03	WB-310-BOT	02	100.02	2000	N/A	N/A	N/A	5.8	1.5	T-1
P4893-04	MH-763	03	100.03	2000	N/A	N/A	N/A	6.2	1.0	T-1
P4893-08	MH-762	04	100.04	2000	N/A	N/A	N/A	6.0	1.0	T-1
P4910-04	MH-COTTAGE	05	100.02	2000	N/A	N/A	N/A	7.2	1.5	T-1
P4910-08	MH-759	06	100.03	2000	N/A	N/A	N/A	6.2	1.0	T-1
PB165060TB	LEB060	07	N/A	2000	N/A	N/A	N/A	4.94	1.5	T-1

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
P4890-06	D3721	N/A	N/A	N/A	N/A	100	N/A
P4892-03	WB-310-BOT	N/A	N/A	N/A	N/A	100	N/A
P4893-04	MH-763	N/A	N/A	N/A	N/A	100	N/A
P4893-08	MH-762	N/A	N/A	N/A	N/A	100	N/A
P4910-04	MH-COTTAGE	N/A	N/A	N/A	N/A	100	N/A
P4910-08	MH-759	N/A	N/A	N/A	N/A	100	N/A
PB165060TB	LEB060	N/A	N/A	N/A	N/A	N/A	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
P4890-06	D3721	5.02	96.5	6.2	2.5	#1	4.94
P4892-03	WB-310-BOT	5.03	96.5	8.6	3.5	#1	4.94
P4893-04	MH-763	5.02	96.5	8.6	3.5	#1	4.94
P4893-08	MH-762	5.01	96.5	8.0	3.0	#1	4.94
P4910-04	MH-COTTAGE	5.02	96.5	9.1	4.5	#1	4.94
P4910-08	MH-759	5.03	96.5	8.6	4.0	#1	4.94
PB165060TB	LEB060	N/A	N/A	N/A	N/A	#1	4.94

WORKLIST(Hardcopy Internal Chain)

WorkList Name : tclp p4892

WorkList ID : 185532

Department : TCLP Extraction

Date : 11-18-2024 12:28:07

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4890-06	D3721	Solid	TCLP Extraction	Cool 4 deg C	PSEG03		11/15/2024	1311
P4892-03	WB-310-BOT	Solid	TCLP Extraction	Cool 4 deg C	PORT06	M11	11/15/2024	1311
P4893-04	MH-763	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	L51	11/16/2024	1311
P4893-08	MH-762	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	L51	11/16/2024	1311
P4910-04	MH-COTTAGE	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	L61	11/18/2024	1311
P4910-08	MH-759	Solid	TCLP Extraction	Cool 4 deg C	PSEG03	L61	11/18/2024	1311

Date/Time 11/18/24 15:00

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 11/18/24

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

SOP ID: M8151A-Herbicide-22

Clean Up SOP #: N/A

Matrix : Water

Weigh By: RJ

Balance check: N/A

Balance ID: N/A

pH Strip Lot#: E3574

Extraction By: RJ

Filter By: RJ

pH Meter ID: N/A

Hood ID: 4,7

Extraction Start Date : 11/21/2024

Extraction Start Time : 09:41

Extraction End Date : 11/21/2024

Extraction End Time : 16:55

Concentration By: EH

Supervisor By : rajesh

Extraction Method: ☒ Separatory Funnel ☐ Continuous Liquid/Liquid ☐ Sonication ☐ Waste Dilution ☐ Soxhlet

Standard Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Spike Sol 1	1.0ML	5/500 PPM	PP23930
Surrogate	1.0ML	5000 PPB	PP23949
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 Na2SO4	N/A	EP2503
NAOH 6N	N/A	ep2553
1:3 SULPHURIC ACID	N/A	ep2528
NACL	N/A	m4459
ISO OCTANE	N/A	E3554
Diazomethane	N/A	ep2529
Hexane	N/A	e3826
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

pH adjusted with HCL <2 for soil Extraction, PH adjusted with 1:3 H2SO4 <2 after Hydrolysis, Derivatization procedure is completed and samples are ready to Analyze, 40ML Vial Lot # 03-40 BTS721.

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
11/21/24	RP (Sat Lab)	Y.P. Pest IP CB
17:00	Preparation Group	Analysis Group

Analytical Method: M8151A-Herbicide-22

Concentration Date: 11/21/2024

Sample ID	Client Sample ID	Test	g / <u>mL</u>	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB165060TB	PB165060TB	TCLP Herbicide	100	6	RUPESH	rajesh	10			SEP-01
PB165193BL	HBLK193	TCLP Herbicide	1000	6	RUPESH	rajesh	10			2
PB165193BS	HLCS193	TCLP Herbicide	1000	6	RUPESH	rajesh	10			3
P4892-03	WB-310-BOT	TCLP Herbicide	100	6	RUPESH	rajesh	10	A		4
P4892-03MS	WB-310-BOTMS	TCLP Herbicide	100	6	RUPESH	rajesh	10	A		5
P4892-03MS D	WB-310-BOTMSD	TCLP Herbicide	100	6	RUPESH	rajesh	10	A		6

* Extracts relinquished on the same date as received.


11/21/24

TCLP EXTRACTION LOGPAGE

PB16506

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	Pr
P4890-06	D3721	01	100.02	2000	N/A	N/A	N/A	3.0	1.0	T-1
P4892-03	WB-310-BOT	02	100.02	2000	N/A	N/A	N/A	5.8	1.5	T-1
P4893-04	MH-763	03	100.03	2000	N/A	N/A	N/A	6.2	1.0	T-1
P4893-08	MH-762	04	100.04	2000	N/A	N/A	N/A	6.0	1.0	T-1
P4910-04	MH-COTTAGE	05	100.02	2000	N/A	N/A	N/A	7.2	1.5	T-1
P4910-08	MH-759	06	100.03	2000	N/A	N/A	N/A	6.2	1.0	T-1
PB165060TB	LEB060	07	N/A	2000	N/A	N/A	N/A	4.94	1.5	T-1

11/19/2024
10:30

Prep Standard - Chemical Standard Summary

Order ID : P4892

Test : TCLP Herbicide

Prepbatch ID : PB165193,

Sequence ID/Qc Batch ID: PS112224,

Standard ID :

EP2503,PP23457,PP23458,PP23459,PP23460,PP23461,PP23462,PP23467,PP23468,PP23469,PP23930,PP23949,

Chemical ID :

e3370,E3551,E3754,E3818,E3827,ep2528,ep2553,m4459,M5037,P 11179,P12618,P12661,P12707,P12784,P12785,P13502,P13503,P13504,P13505,P13517,P8828,P8901,P9004,



<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	EP2503	07/01/2024	12/15/2024	Rajesh Parikh	Extraction_SC ALE_2 (EX-SC-2)	None	RUPESHKUMAR SHAH 07/01/2024
<u>FROM</u>	100.00000ml of E3370 + 150.00000ml of M5037 + 3000.00000ml of E3551 = Final Quantity: 3000.000 gram							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1321	2/200 PPM Herb Mega Mix	PP23457	06/17/2024	12/04/2024	Abdul Mirza	None	None	Ankita Jodhani 06/18/2024
<u>FROM</u>	0.20000ml of P8828 + 1.00000ml of P11179 + 1.00000ml of P12618 + 1.00000ml of P12661 + 1.00000ml of P8901 + 95.80000ml of E3754 = 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>
1452	1500 PPB HERB MIX STD	PP23458	06/17/2024	12/04/2024	Abdul Mirza	None	None	Ankita Jodhani
06/18/2024								

FROM 0.25000ml of E3754 + 75.00000ml of PP23457 = 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>
1453	1000 PPB Herb MIX STD	PP23459	06/17/2024	12/04/2024	Abdul Mirza	None	None	Ankita Jodhani
06/18/2024								

FROM 0.50000ml of E3754 + 0.50000ml of PP23457 = 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>
1455	500 PPB Herb MIX STD	PP23460	06/17/2024	12/04/2024	Abdul Mirza	None	None	Ankita Jodhani
06/18/2024								

FROM 0.50000ml of E3754 + 0.50000ml of PP23459 = 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	PP23461	06/17/2024	12/04/2024	Abdul Mirza	None	None	Ankita Jodhani
06/18/2024								

FROM 0.80000ml of E3754 + 0.20000ml of PP23459 = 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>
1454	750 PPB Herb MIX STD	PP23462	06/17/2024	12/04/2024	Abdul Mirza	None	None	Ankita Jodhani
								06/18/2024

FROM 0.25000ml of E3754 + 0.75000ml of PP23459 = 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>
1851	2/200 PPM Herb Mega Mix 2nd Source	PP23467	06/17/2024	12/04/2024	Abdul Mirza	None	None	Ankita Jodhani
								06/18/2024

FROM 0.50000ml of P9004 + 1.00000ml of P12707 + 48.50000ml of E3754 = Final Quantity: 50.000 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	PP23468	06/17/2024	12/04/2024	Abdul Mirza	None	None	Ankita Jodhani
06/18/2024								

FROM 0.50000ml of E3754 + 0.50000ml of PP23467 = 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	PP23469	06/17/2024	12/04/2024	Abdul Mirza	None	None	Ankita Jodhani
06/18/2024								

FROM 0.25000ml of E3754 + 0.75000ml of PP23468 = 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>
1848	5000/500000 PPB Herbicide Spike (Free Acid)	PP23930	10/30/2024	04/23/2025	Abdul Mirza	None	None	Ankita Jodhani
								10/30/2024

FROM 0.50000ml of P13517 + 1.00000ml of P12784 + 1.00000ml of P12785 + 47.50000ml of E3818 = Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
60	5000 PPB Herbicide Surg Spike (Free Acid)	PP23949	11/11/2024	05/08/2025	Abdul Mirza	None	None	Ankita Jodhani
								11/13/2024

FROM 1.25000ml of P13502 + 1.25000ml of P13503 + 1.25000ml of P13504 + 1.25000ml of P13505 + 195.00000ml of E3827 = Final Quantity: 200.000 ml

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	01/17/2025	08/01/2022 / Rajesh	07/13/2022 / Rajesh	E3370

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	313201	01/03/2025	01/03/2024 / Rajesh	07/20/2023 / Rajesh	E3551

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	24C1862008	12/04/2024	06/04/2024 / Rajesh	05/31/2024 / Rajesh	E3754

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H1462005	04/23/2025	10/23/2024 / Rajesh	10/09/2024 / Rajesh	E3818

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H1462005	05/08/2025	11/08/2024 / Rajesh	11/07/2024 / Rajesh	E3827

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3624-05 / Sodium Chloride, Crystal (cs/4x2.5kg)	0000237721	04/13/2026	10/03/2022 / Ankita	10/30/2019 / AMANDEEP	M4459

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)	0000250349	12/15/2024	01/06/2022 / mohan	09/18/2021 / mohan	M5037

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32050 / Herbicide, 8000 series, 515 Surrogate [ester] 2,4-dichlorophenyl acetic acid methyl ester, 1mL, 200ug/mL, Hexane	A0172864	12/17/2024	06/17/2024 / Abdul	11/01/2021 / Abdul	P11179

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32062 / Herbicide Mix, 500/8000, Standard #4 [methyl ester] 200ug/mL, hexane, 1mL/ampul	A0155055	12/17/2024	06/17/2024 / Abdul	07/03/2023 / Abdul	P12618

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32055 / Herbicide Mix, 500/8000, Standard #1 [methyl ester] 200ug/mL, hexane, 1mL/ampul	A0199693	12/17/2024	06/17/2024 / Abdul	07/14/2023 / Ankita	P12661

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Agilent Technologies	HBM-8151M / Chlorinated Herbicide Mixtures, Methyl Esters	0006752480	12/17/2024	06/17/2024 / Abdul	08/09/2023 / Abdul	P12707

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Agilent Technologies	HBM-8151M / Chlorinated Herbicide Mixtures, Methyl Esters	0006752480	12/17/2024	06/17/2024 / Abdul	08/09/2023 / Abdul	P12707

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	0006750243	04/30/2025	10/30/2024 / Abdul	09/11/2023 / Abdul	P12784

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	0006750243	04/30/2025	10/30/2024 / Abdul	09/11/2023 / Abdul	P12784

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	0006750243	04/30/2025	10/30/2024 / Abdul	09/11/2023 / Abdul	P12785

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	0006750243	04/30/2025	10/30/2024 / Abdul	09/11/2023 / Abdul	P12785

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,	A0212676	05/11/2025	11/11/2024 / Abdul	08/16/2024 / yogesh	P13502

MeOH

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,	A0212676	05/11/2025	11/11/2024 / Abdul	08/16/2024 / yogesh	P13503

MeOH

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	05/11/2025	11/11/2024 / Abdul	08/16/2024 / yogesh	P13504

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	05/11/2025	11/11/2024 / Abdul	08/16/2024 / yogesh	P13505

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	0006750243	04/30/2025	10/30/2024 / Abdul	09/03/2024 / Abdul	P13517

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	0006750243	04/30/2025	10/30/2024 / Abdul	09/03/2024 / Abdul	P13517

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32254 / Dalapon Methyl Ester, 1000 ug/ml	A0148063	12/17/2024	06/17/2024 / Abdul	08/16/2019 / Stephen	P8828

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	A0152499	12/17/2024	06/17/2024 / Abdul	08/16/2019 / Stephen	P8901

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	32050 / Herbicide, 8000 series, 515 Surrogate [ester] 2,4-dichlorophenyl acetic acid methyl ester, 1mL, 200ug/mL, Hexane	A0152705	12/17/2024	06/17/2024 / Abdul	10/11/2019 / Stephen	P9004

Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent



From M4452 to M4459

Received on : 10/30/2019

Received by : AK

Material No.: 3624-05

Batch No.: 0000237721

Manufactured Date: 2019/04/15

Retest Date: 2026/04/13

Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

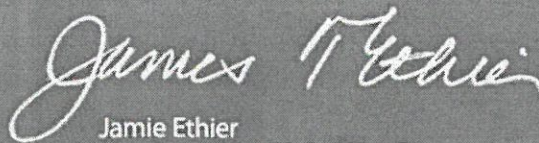
Test	Specification	Result
Assay (NaCl) (by Ag titrn)	$\geq 99.0 \%$	100.3
pH of 5% Solution at 25°C	5.0 - 9.0	6.0
ACS - Insoluble Matter	$\leq 0.005 \%$	< 0.001
Iodide (I)	$\leq 0.002 \%$	< 0.002
Bromide (Br)	$\leq 0.01 \%$	< 0.01
Chlorate and Nitrate (as NO_3)	$\leq 0.003 \%$	< 0.001
ACS - Phosphate (PO_4)	$\leq 5 \text{ ppm}$	< 5
Sulfate (SO_4)	$\leq 0.004 \%$	< 0.004
Barium (Ba)	Passes Test	PT
ACS - Heavy Metals (as Pb)	$\leq 5 \text{ ppm}$	< 5
Iron (Fe)	$\leq 2 \text{ ppm}$	< 2
Calcium (Ca)	$\leq 0.002 \%$	< 0.001
Magnesium (Mg)	$\leq 0.001 \%$	< 0.001
Potassium (K)	$\leq 0.005 \%$	0.002

For Laboratory, Research or Manufacturing Use

Meets Reagent Specifications for testing USP/NF monographs

Country of Origin: US

Packaging Site: Paris 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

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,

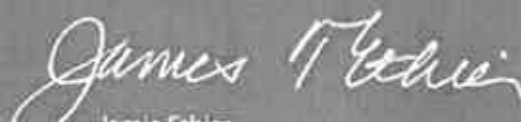
Test	Specification	Result
Assay ((C ₂ H ₅) ₂ O) (by GC, corrected for water)	>= 99.0 %	100.0
Alcohol (C ₂ H ₅ OH)	Passes Test	PT
Carbonyl Compounds (as HCHO) (by polarography)	<= 0.001 %	< 0.001
Color (APHA)	<= 10	< 5
Peroxide (as H ₂ O ₂)	<= 1 ppm	< 1
Preservative (BHT)	>= 7 ppm	9
Residue after Evaporation	<= 0.0010 %	< 0.0010
Titration 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 7/13/22

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



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MONTERREY, S.A. DE C.V.**

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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 foreign 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 7/24/23 E 3551

RC-02-01, Ed. 3

Hexanes (95% n-hexane)
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis



Material No.: 9262-03
Batch No.: 24C1862008
Manufactured Date: 2024-01-30
Expiration Date: 2025-04-30
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	< 1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	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)	$\geq 99.5 \%$	99.7 %
Assay (as n-Hexane) (by GC, corrected for water)	$\geq 95 \%$	98 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.4 ppm
Substances Darkened by H ₂ SO ₄	Passes Test	Passes Test
Water (by KF, coulometric)	$\leq 0.05 \%$	< 0.01 %

For Laboratory, Research, or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Recd. by R1 on 5/31/24

E3754

Jamie Croak
Director Quality Operations, Bioscience Production

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor



Material No.: 9254-03
Batch No.: 24H1462005
Manufactured Date: 2024-05-24
Expiration Date: 2027-05-24
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected forwater)	>= 99.4 %	99.8 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (µeq/g)	<= 0.3	0.2
Titration Base (µeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	0.2 %
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 10/9/24

E 3818

J. Croak

Jamie Croak
Director Quality Operations, Bioscience Production

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

Acetone

BAKER RESI-ANALYZED® Reagent

For Organic Residue Analysis

avantor™



Material No.: 9254-03

Batch No.: 24H1462005

Manufactured Date: 2024-05-24

Expiration Date: 2027-05-24

Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.4 %	99.8 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (μeq/g)	<= 0.3	0.2
Titration Base (μeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	0.2 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	<1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

E 3827

Rec'd by RS on ~~11/8/24~~ 11/7/24
RS
11/7

Jamie Croak

Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials LLC

Sulfuric Acid

BAKER INSTRA-ANALYZED® Reagent

For Trace Metal Analysis

Low Selenium

avantorsm



Material No.: 9673-33

Batch No.: 0000250349

Manufactured Date: 2019/12/17

Retest Date: 2024/12/15

Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS - Assay (H ₂ SO ₄)	95.0 - 98.0 %	96.5
Appearance	Passes Test	PT
ACS - Color (APHA)	<= 10	5
ACS - Residue after Ignition	<= 3 ppm	1
ACS - Substances Reducing Permanganate (as SO ₂)	<= 2 ppm	< 2
Ammonium (NH ₄)	<= 1 ppm	< 1
Chloride (Cl)	<= 0.1 ppm	< 0.1
Nitrate (NO ₃)	<= 0.2 ppm	< 0.1
Phosphate (PO ₄)	<= 0.5 ppm	< 0.1
Trace Impurities - Aluminum (Al)	<= 30.0 ppb	0.2
Arsenic and Antimony (as As)	<= 4 ppb	< 2
Trace Impurities - Barium (Ba)	<= 10.0 ppb	< 1.0
Trace Impurities - Beryllium (Be)	<= 10.0 ppb	< 1.0
Trace Impurities - Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities - Boron (B)	<= 10.0 ppb	< 5.0
Trace Impurities - Cadmium (Cd)	<= 2.0 ppb	< 0.3
Trace Impurities - Calcium (Ca)	<= 50.0 ppb	2.9
Trace Impurities - Chromium (Cr)	<= 6.0 ppb	< 0.4
Trace Impurities - Cobalt (Co)	<= 0.5 ppb	< 0.3
Trace Impurities - Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities - Gallium (Ga)	<= 10.0 ppb	< 1.0
Trace Impurities - Germanium (Ge)	<= 10.0 ppb	< 10.0
Trace Impurities - Gold (Au)	<= 10.0 ppb	< 0.2
Heavy Metals (as Pb)	<= 500 ppb	< 100

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC

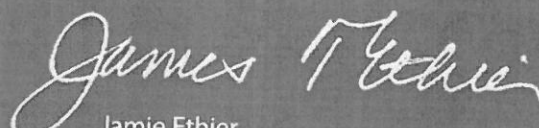
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Material No.: 9673-33
Batch No.: 0000250349

Test	Specification	Result
Trace Impurities - Iron (Fe)	<= 50.0 ppb	4.1
Trace Impurities - Lead (Pb)	<= 0.5 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 10.0 ppb	< 1.0
Trace Impurities - Magnesium (Mg)	<= 7.0 ppb	0.4
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities - Mercury (Hg)	<= 0.5 ppb	< 0.1
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 2.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 10.0 ppb	< 1.0
Trace Impurities - Potassium (K)	<= 500.0 ppb	< 2.0
Trace Impurities - Selenium (Se)	<= 50.0 ppb	22.9
Trace Impurities - Silicon (Si)	<= 100.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 500.0 ppb	2.7
Trace Impurities - Strontium (Sr)	<= 5.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 10.0 ppb	< 5.0
Trace Impurities - Thallium (Tl)	<= 20.0 ppb	< 5.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 10.0 ppb	< 1.0
Trace Impurities - Vanadium (V)	<= 10.0 ppb	< 1.0
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.3
Trace Impurities - Zirconium (Zr)	<= 10.0 ppb	< 1.0

For Laboratory, Research or Manufacturing Use

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC


Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

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:

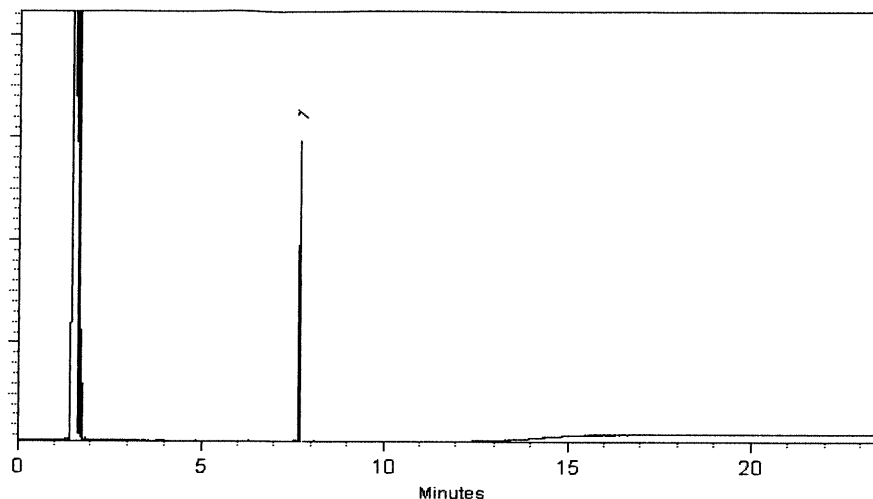
250°C

Det. Temp:

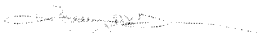
330°C

Det. Type:

FID

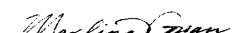


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Katelyn McGinnis - Operations Tech I

Date Mixed: 28-May-2021

Balance: B345965662


Marlene Cowan - Operations Tech I

Date Passed: 02-Jun-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

1911177
70
P 111 86
AR
11/02/21



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
200µg/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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	2,4-Dichlorophenyl acetic acid methyl ester	202.0 µg/mL	+/- 1.4323 µg/mL Gravimetric
	CAS # 55954-23-9 (Lot CSC42194-01)		+/- 6.8182 µg/mL Unstressed
	Purity 99%		+/- 6.8182 µg/mL Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

P11177
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P11186
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AR
01/02/21



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

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. : 32062 **Lot No.:** A0155055

Description : Herbicide Mix #4/ME (Methyl Ester)

Herbicide Mix #4/ME (Methyl Ester) 200µg/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 / (5)
↓
P12620
✓ *Paul* =
7/5/2023

CERTIFIED VALUES

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 (Lot 3903900) Purity 99%	200.0 µg/mL	+/- 1.4182	µg/mL	Gravimetric	
			+/- 6.7507	µg/mL	Unstressed	
			+/- 6.7507	µg/mL	Stressed	
2	4-Nitroanisole CAS # 100-17-4 (Lot 24765/7) Purity 99%	200.0 µg/mL	+/- 1.4182	µg/mL	Gravimetric	
			+/- 6.7507	µg/mL	Unstressed	
			+/- 6.7507	µg/mL	Stressed	
3	Pentachloroanisole CAS # 1825-21-4 (Lot 7921100) Purity 99%	200.0 µg/mL	+/- 1.4182	µg/mL	Gravimetric	
			+/- 6.7507	µg/mL	Unstressed	
			+/- 6.7507	µg/mL	Stressed	
4	Chloramben methyl ester CAS # 7286-84-2 (Lot 6487100) Purity 98%	199.9 µg/mL	+/- 1.4176	µg/mL	Gravimetric	
			+/- 6.7480	µg/mL	Unstressed	
			+/- 6.7480	µg/mL	Stressed	
5	Bentazon methyl ester CAS # 61592-45-8 (Lot 817100) Purity 99%	200.0 µg/mL	+/- 1.4182	µg/mL	Gravimetric	
			+/- 6.7507	µg/mL	Unstressed	
			+/- 6.7507	µg/mL	Stressed	
6	Picloram methyl ester CAS # 14143-55-6 (Lot 386-21B) Purity 98%	201.9 µg/mL	+/- 1.4315	µg/mL	Gravimetric	
			+/- 6.8141	µg/mL	Unstressed	
			+/- 6.8141	µg/mL	Stressed	
7	DCPA methyl ester (Chlorthal-dimethyl) CAS # 1861-32-1 (Lot 8008700) Purity 99%	200.0 µg/mL	+/- 1.4182	µg/mL	Gravimetric	
			+/- 6.7507	µg/mL	Unstressed	
			+/- 6.7507	µg/mL	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:

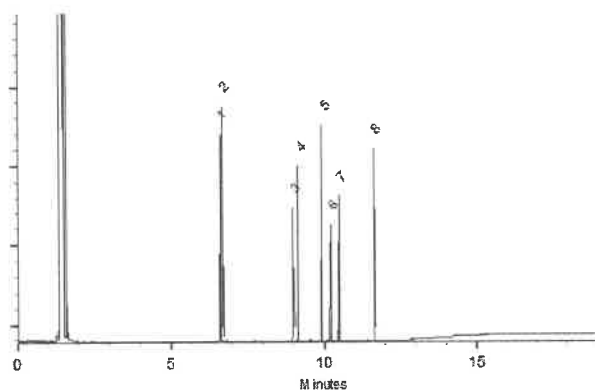
250°C

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 Maje

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
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

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.:** A0199693

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 : July 31, 2030 **Storage:** 10°C or colder

Handling: This product is photosensitive. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty* (95% C.L.; K=2)
1	Dicamba methyl ester	6597-78-0	1813500	99%	202.0 µg/mL	+/- 3.4272
2	Dichlorprop methyl ester	57153-17-0	8578700	98%	201.9 µg/mL	+/- 3.4251
3	2,4-D methyl ester	1928-38-7	10048000	99%	202.0 µg/mL	+/- 3.4272
4	2,4,5-TP (silvex) methyl ester	4841-20-7	504400	99%	202.0 µg/mL	+/- 3.4272
5	2,4,5-T methyl ester	1928-37-6	6875800	98%	201.9 µg/mL	+/- 3.4251
6	Dinoseb methyl ether	6099-79-2	9239100	99%	202.0 µg/mL	+/- 3.4272
7	2,4-DB methyl ester	18625-12-2	6847200	99%	202.0 µg/mL	+/- 3.4272

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Hexane
CAS # 110-54-3
Purity 99%

P12660
↓
P12664

AJ
07/11/23

Quality Confirmation Test

Column:

30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

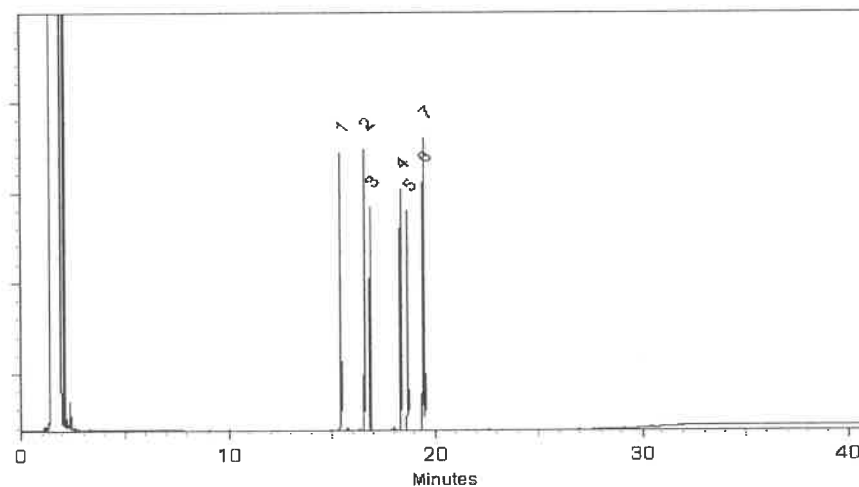
FID

Split Vent:

2 ml/min.

Inj. Vol

1µl



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.

Nick Yaw

Nick Yaw - Operations Tech I

Date Mixed: 07-Jul-2023

Balance Serial # 1128360905

Christie Mills

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 11-Jul-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

P12706
↓
P12715
/ (10)
/ 1
/ 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.

**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.

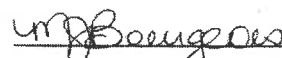
Expiration of Certification:

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
QMS Representative

P12706 / (10)
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P12715
✓ RAUF
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

P12766
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P12785
✓
9.11.23
20

ISO 17034

Reference Material Certificate
Product Information Sheet

Product Name: Chlorinated Herbicides Standard

Lot Number: 0006750243

Product Number: HBM-8151A-1

Lot Issue Date: 07-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	100.1	± 0.5 µg/mL	050594-66-6	NT02057
bentazon	100.1	± 0.5 µg/mL	025057-89-0	RM20289
chloramben	100.4	± 0.5 µg/mL	000133-90-4	RM02698
2,4-D	100.1	± 0.5 µg/mL	000094-75-7	RM17172
dalapon	100.4	± 0.5 µg/mL	000075-99-0	RM21030
2,4-DB	100.1	± 0.5 µg/mL	000094-82-6	RM02866
tetrachloroterephthalic acid	100.3	± 0.5 µg/mL	002136-79-0	RM13887
dicamba	100.2	± 0.5 µg/mL	001918-00-9	RM20089
3,5-dichlorobenzoic acid	100.0	± 0.5 µg/mL	000051-36-5	RM02768
dichlorprop	100.0	± 0.5 µg/mL	000120-36-5	RM20896
dinoseb	100.0	± 0.5 µg/mL	000088-85-7	RM20667
MCPA	10004	± 50 µg/mL	000094-74-6	RM12220
MCPP (mecoprop)	10037	± 50 µg/mL	000093-65-2	RM09273
4-nitrophenol	100.1	± 0.5 µg/mL	000100-02-7	RM03752
pentachlorophenol	100.1	± 0.5 µg/mL	000087-86-5	RM02474
picloram	100.4	± 0.5 µg/mL	001918-02-1	RM20442
silvex	100.1	± 0.5 µg/mL	000093-72-1	RM20208
2,4,5-T	100.4	± 0.5 µg/mL	000093-76-5	NT01808

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.

**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
QMS Representative

P12766 / (20)
↓
P12785 / 1

9/11/2023



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

P12766
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P12785
✓
9.11.23
20

ISO 17034

Reference Material Certificate
Product Information Sheet

Product Name: Chlorinated Herbicides Standard

Lot Number: 0006750243

Product Number: HBM-8151A-1

Lot Issue Date: 07-Jul-2023

Storage Conditions: Store at Room Temperature (15° to 30°C).

Expiration Date: 31-Aug-2025

Component Name	Concentration	Uncertainty	CAS#	Analyte Lot
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bentazon	100.1	± 0.5 µg/mL	025057-89-0	RM20289
chloramben	100.4	± 0.5 µg/mL	000133-90-4	RM02698
2,4-D	100.1	± 0.5 µg/mL	000094-75-7	RM17172
dalapon	100.4	± 0.5 µg/mL	000075-99-0	RM21030
2,4-DB	100.1	± 0.5 µg/mL	000094-82-6	RM02866
tetrachloroterephthalic acid	100.3	± 0.5 µg/mL	002136-79-0	RM13887
dicamba	100.2	± 0.5 µg/mL	001918-00-9	RM20089
3,5-dichlorobenzoic acid	100.0	± 0.5 µg/mL	000051-36-5	RM02768
dichlorprop	100.0	± 0.5 µg/mL	000120-36-5	RM20896
dinoseb	100.0	± 0.5 µg/mL	000088-85-7	RM20667
MCPA	100.4	± 50 µg/mL	000094-74-6	RM12220
MCPP (mecoprop)	100.37	± 50 µg/mL	000093-65-2	RM09273
4-nitrophenol	100.1	± 0.5 µg/mL	000100-02-7	RM03752
pentachlorophenol	100.1	± 0.5 µg/mL	000087-86-5	RM02474
picloram	100.4	± 0.5 µg/mL	001918-02-1	RM20442
silvex	100.1	± 0.5 µg/mL	000093-72-1	RM20208
2,4,5-T	100.4	± 0.5 µg/mL	000093-76-5	NT01808

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.

**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.

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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
QMS Representative

P12766 / (20)
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P12785 / 1

9/11/2023



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

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CSD-QA-015.2

ISO 17025
Cert No. AT-1937



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Fax: 1-814-353-1309

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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. : 32049 **Lot No.:** A0212676
Description : 2,4-Dichlorophenylacetic Acid Standard
2, 4-Dichlorophenyl Acetic Acid 200µg/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

P13697 } Y.P.
↓
P13515 } 08/15/24

CERTIFIED VALUES

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 µg/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:

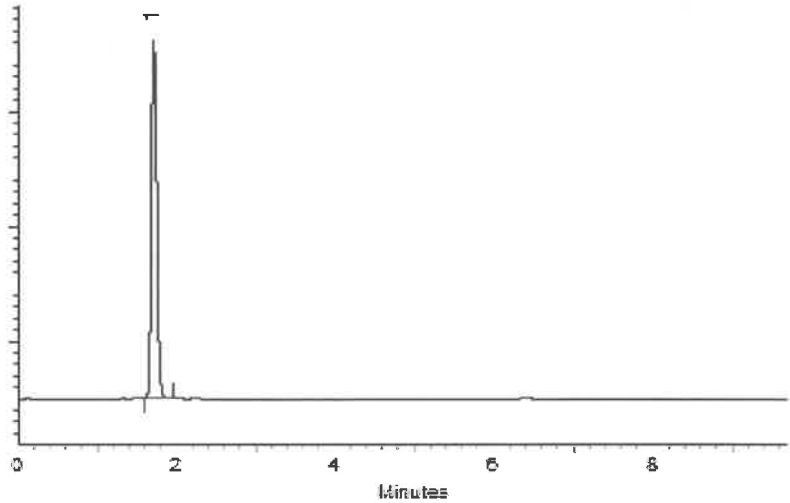
90%B Isocratic

Det. Type:

Wavelength: 220 & 254 nm

Inj. Vol

5µl

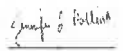


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Ethan Winiarski - Operations Tech I

Date Mixed: 11-Jun-2024

Balance Serial # B345965662


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.
- 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:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- 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.



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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. : 32049 **Lot No.:** A0212676
Description : 2,4-Dichlorophenylacetic Acid Standard
2, 4-Dichlorophenyl Acetic Acid 200µg/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

P13697 } Y.P.
↓
P13515 } 08/15/24

CERTIFIED VALUES

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 µg/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:

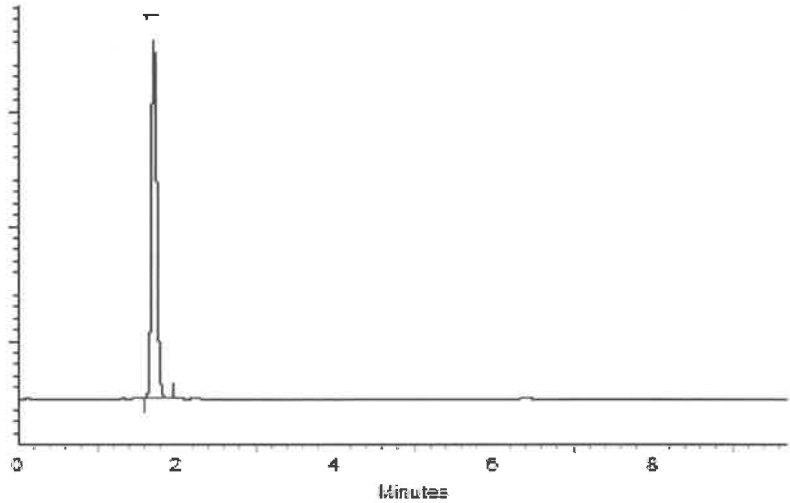
90%B Isocratic

Det. Type:

Wavelength: 220 & 254 nm

Inj. Vol

5µl

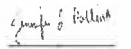


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Ethan Winiarski - Operations Tech I

Date Mixed: 11-Jun-2024

Balance Serial # B345965662


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.
- 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:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- 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.



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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. : 32049 **Lot No.:** A0212676
Description : 2,4-Dichlorophenylacetic Acid Standard
2, 4-Dichlorophenyl Acetic Acid 200µg/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

P13697 } Y.P.
↓
P13515 } 08/15/24

CERTIFIED VALUES

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 µg/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.

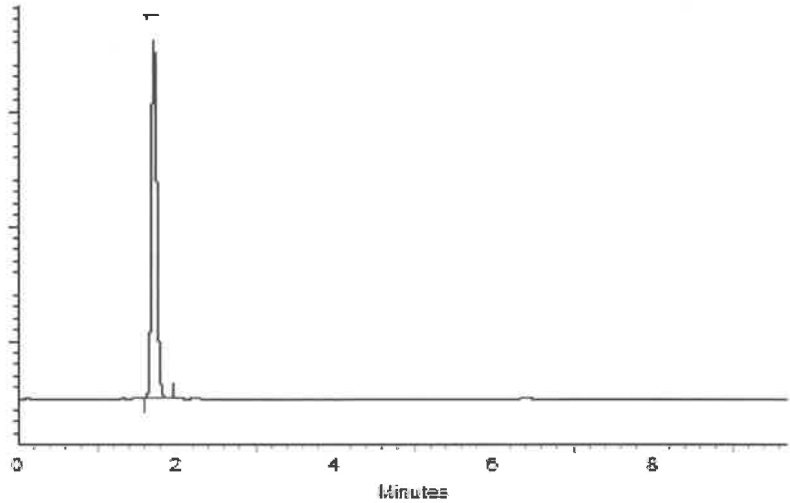
Mobile Phase A:
0.14% H₃PO₄ in water

Mobile Phase B:
acetonitrile

Mobile Phase Composition:
90%B Isocratic

Det. Type:
Wavelength: 220 & 254 nm

Inj. Vol
5µl

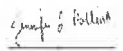


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Ethan Winiarski - Operations Tech I

Date Mixed: 11-Jun-2024

Balance Serial # B345965662


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.
- 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:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

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Manufacturing Notes:

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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. : 32049 **Lot No.:** A0212676
Description : 2,4-Dichlorophenylacetic Acid Standard
2, 4-Dichlorophenyl Acetic Acid 200µg/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

P13697 } Y.P.
↓
P13515 } 08/15/24

CERTIFIED VALUES

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 µg/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:

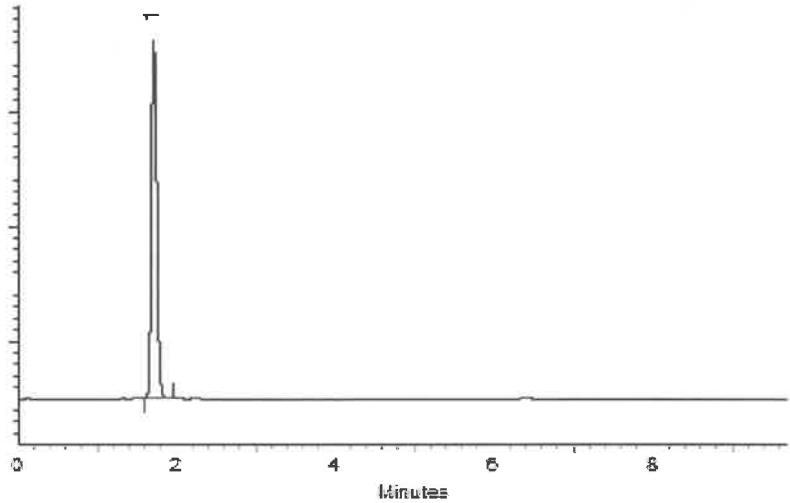
90%B Isocratic

Det. Type:

Wavelength: 220 & 254 nm

Inj. Vol

5µl

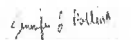


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Ethan Winiarski - Operations Tech I

Date Mixed: 11-Jun-2024

Balance Serial # B345965662


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:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- 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.

Reference Material Certificate
Product Information Sheet

Product Name: Chlorinated Herbicides Standard

Lot Number: 0006750243

Product Number: HBM-8151A-1

Lot Issue Date: 07-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	100.1	±	0.5 µg/mL	050594-66-6	NT02057
bentazon	100.1	±	0.5 µg/mL	025057-89-0	RM20289
chloramben	100.4	±	0.5 µg/mL	000133-90-4	RM02698
2,4-D	100.1	±	0.5 µg/mL	000094-75-7	RM17172
dalapon	100.4	±	0.5 µg/mL	000075-99-0	RM21030
2,4-DB	100.1	±	0.5 µg/mL	000094-82-6	RM02866
tetrachloroterephthalic acid	100.3	±	0.5 µg/mL	002136-79-0	RM13887
dicamba	100.2	±	0.5 µg/mL	001918-00-9	RM20089
3,5-dichlorobenzoic acid	100.0	±	0.5 µg/mL	000051-36-5	RM02768
dichlorprop	100.0	±	0.5 µg/mL	000120-36-5	RM20896
dinoseb	100.0	±	0.5 µg/mL	000088-85-7	RM20667
MCPA	10004	±	50 µg/mL	000094-74-6	RM12220
MCPP (mecoprop)	10037	±	50 µg/mL	000093-65-2	RM09273
4-nitrophenol	100.1	±	0.5 µg/mL	000100-02-7	RM03752
pentachlorophenol	100.1	±	0.5 µg/mL	000087-86-5	RM02474
picloram	100.4	±	0.5 µg/mL	001918-02-1	RM20442
silvex	100.1	±	0.5 µg/mL	000093-72-1	RM20208
2,4,5-T	100.4	±	0.5 µg/mL	000093-76-5	NT01808

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.

P13517
P13518 } ②
✓ *RAUF*
9/4/2024



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01



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. : 32254 **Lot No.:** A0148063
Description : Dalapon methyl ester Standard
Dalapon methyl ester 1000µg/mL, Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2026 **Storage:** 10°C or colder
Handling: This product is photosensitive.

Received by
SG on 8/16/19
P8828
P8826

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Dalapon methyl ester CAS # 17640-02-7 Purity 98% (Lot 1764600)	999.6 µg/mL	+/- 10.0697 µg/mL Gravimetric +/- 34.4896 µg/mL Unstressed +/- 34.4896 µg/mL Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:

30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:

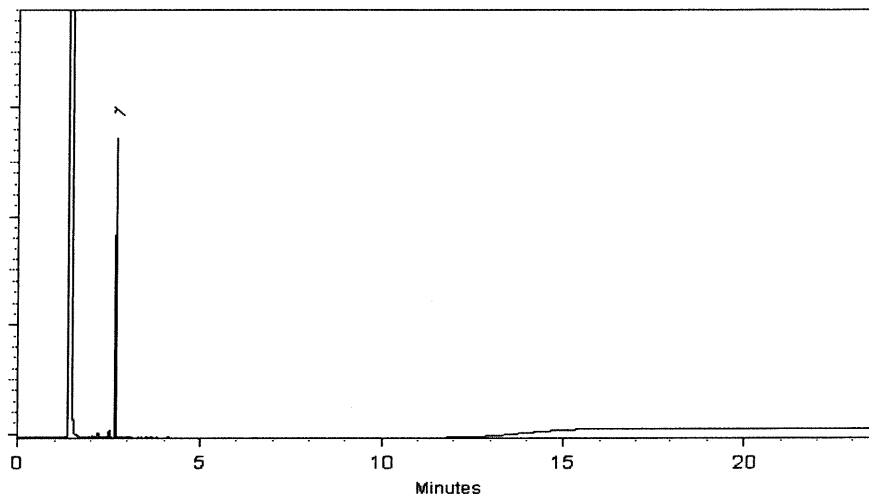
250°C

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.

Russ Bookhamer - Operations Technician I

Date Mixed: 11-Apr-2019

Balance: 1127510105

Feng-Yin Lo - QC Analyst

Date Passed: 15-Apr-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Received by
SG on 9/10/19
P8892
P8896

Catalog No. : 32059 **Lot No.:** A0152499

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 : September 30, 2026 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	MCPP (Mecoprop) methyl ester CAS # 23844-56-6 (Lot 8685200) Purity 99%	20,004.0 µg/mL	+/- 185.1208 µg/mL Gravimetric +/- 685.5986 µg/mL Unstressed +/- 685.5986 µg/mL Stressed
2	MCPA methyl ester CAS # 2436-73-9 (Lot 7964600) Purity 99%	20,012.0 µg/mL	+/- 185.1948 µg/mL Gravimetric +/- 685.8728 µg/mL Unstressed +/- 685.8728 µg/mL Stressed
Solvent:	Hexane CAS # 110-54-3 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:

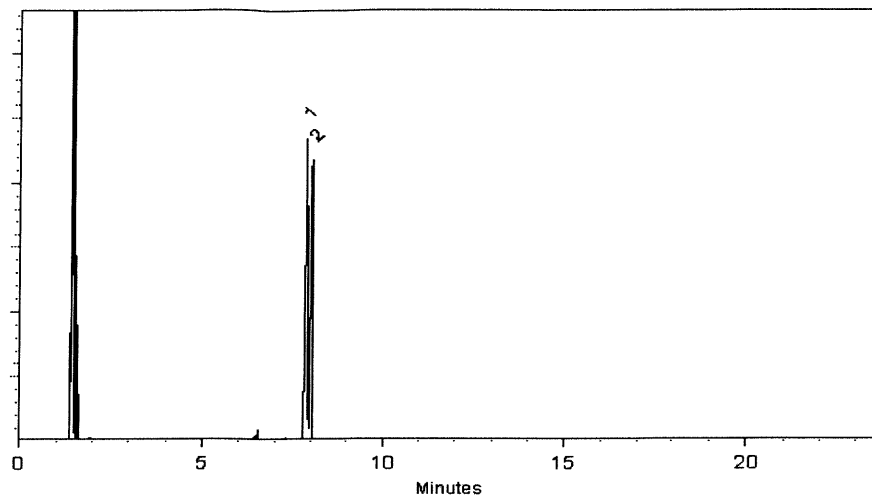
250°C

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.

Russ Bookhamer - Operations Technician I

Date Mixed: 03-Sep-2019

Balance: 1128360905

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 05-Sep-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32050 Lot No.: A0152705
Description : 2,4-Dichlorophenylacetic Acid Methyl Ester Standard
515 Surrogate (ester) 2, 4-dichlorophenyl Acetic Acid Methyl Ester
200µg/mL, Hexane, 1mL/ampul
Container Size : 2 mL Pkg Amt: > 1 mL
Expiration Date : June 30, 2026 Storage: 10°C or colder
Handling: This product is photosensitive.

Received by
SG on 10/11/19
P8999
-
P9008

CERTIFIED VALUES

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%	200.0 µg/mL	+/- 1.4182 µg/mL Gravimetric +/- 6.7507 µg/mL Unstressed +/- 6.7507 µg/mL Stressed

Solvent: Hexane
CAS # 110-54-3
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:

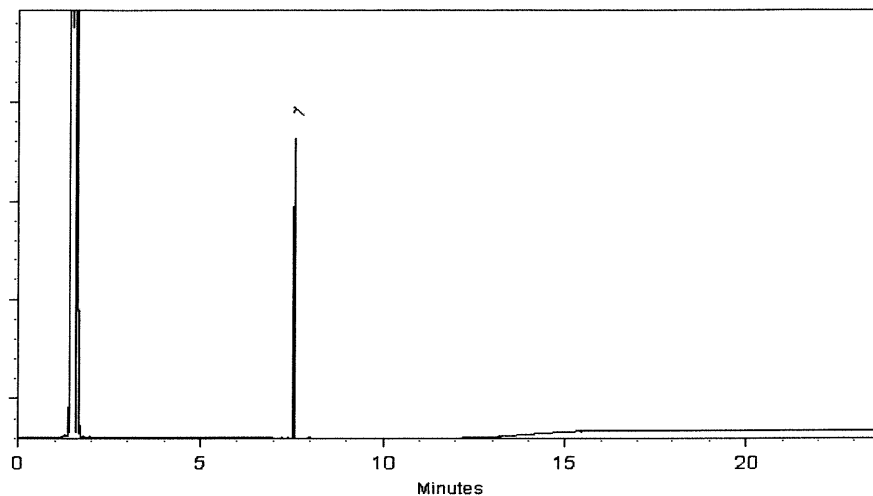
250°C

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.

Cydnei L. Crust
Cydnei L. Crust - Mix Technician

Date Mixed: 09-Sep-2019

Balance: B707717271

Fang-Yun Lo
Fang-Yun Lo - GC Analyst

Date Passed: 11-Sep-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397



SHIPPING DOCUMENTS

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. P4891/P4892
QUOTE NO.
COC Number 2042035

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Gannett Fleming
ADDRESS: 1010 Adams Avenue
CITY Andover STATE: PA ZIP: 17003
ATTENTION: Joe Kupansky
PHONE: 610-301-8362 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Antioch's replacement of Sawtooth Bridge
PROJECT NO.: 950000878 LOCATION: Keamy, NJ
PROJECT MANAGER: Joe Kupansky
e-mail: ben@bemis.com
PHONE: 610-301-8362 FAX:

CLIENT BILLING INFORMATION

BILL TO: Chen Alliance/chemtech PO#:
ADDRESS: 984 Sheffield St
CITY Mountainside STATE: NJ ZIP: 07093
ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): 10 DAYS*
EDD: 10 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 BEM EDD

1 PA VOC TO 2 ICX PAH 3 ICX Metals 4 PCB S 5 ALV. ALV. EPH 6 FLU. ICAP 7 PCRA PARA 8 TOX 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		A	B	F							← Specify Preservatives	
1.	WB-310-SW	GW	X		11/15	8:05	7	X	X	X	X	X					A-HCl	D-NaOH
2.	WB-310-Top	S	X		11/15	9:00	10	X	X	X	X	X					B-HNO3	E-ICE
3.	WB-310-Bot.	S	X		11/15	12:30	9	X	X	X	X	X	X	X	X		C-H2SO4	F-OTHER
4.	TB-1152024	DTW			11/15	LAB	2	X										
5.																		
6.																		
7.																		
8.																		
9.																		
10.																		

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP _____ °C
1. <u>Vennola</u>	<u>11/15 5:02pm</u>	<u>[Signature]</u> <u>11-15-24</u>	Comments: _____
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	
2.		2.	
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	
3. <u>[Signature]</u>	<u>11-15-24</u>	3.	

Page _____ of _____

CLIENT: ☐ Hand Delivered ☐ Other _____
CHEMTECH: ☐ Picked Up ☐ Field Sampling

Shipment Complete
☐ YES ☐ NO



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

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 : P4892	PORT06	Order Date : 11/18/2024 8:10:00 AM	Project Mgr : Kiran
Client Name : Portal Partners Tri-Venture		Project Name : Amtrak Sawtooth Bridges 2	Report Type : NJ Reduced
Client Contact : Joseph Krupansky		Receive DateTime : 11/15/2024 5:45:00 PM	EDD Type : EXCEL NJCLEANUP
Invoice Name : Portal Partners Tri-Venture		Purchase Order :	Hard Copy Date :
Invoice Contact : Joseph Krupansky			Date Signoff : 11/18/2024 12:55:05 PM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P4892-01	WB-310-TOP	Solid	11/15/2024	09:00					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
P4892-02	WB-310-BOT	Solid	11/15/2024	12:30					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
P4892-04	WB-310-SW	Water	11/15/2024	08:05					
					VOC-TCLVOA-10		8260-Low	10 Bus. Days	

Relinquished By : 

Date / Time : 11-18-24 1322

Received By : 

Date / Time : 11/18/24 1372

Storage Area : VOA Refridgerator Room