

## Cover Page

**Order ID :** P4258

**Project ID :** Perth Amboy

**Client :** Roman E&G Corp

**Lab Sample Number**

P4258-01  
P4258-02  
P4258-03  
P4258-04

**Client Sample Number**

Chamberlain Ave  
Chamberlain Ave  
Chamberlain Ave  
Chamberlain Ave

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: 10/15/2024

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:<br>(1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)<br>(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 #: P4258

Completed

For thorough review, the report must have the following:

**GENERAL:**

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

✓

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

✓

Is the chain of custody signed and complete

✓

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

✓

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

✓

**COVER PAGE:**

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

✓

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

✓

**CHAIN OF CUSTODY:**

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

✓

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

✓

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

✓

Were the samples received within hold time

✓

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

✓

**ANALYTICAL:**

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: MAYUR DESAI

Date: 10/15/2024

## LAB CHRONICLE

|                 |                |                   |                      |
|-----------------|----------------|-------------------|----------------------|
| <b>OrderID:</b> | P4258          | <b>OrderDate:</b> | 10/1/2024 1:21:00 PM |
| <b>Client:</b>  | Roman E&G Corp | <b>Project:</b>   | Perth Amboy          |
| <b>Contact:</b> | Mark Mattheiss | <b>Location:</b>  | H11,H51              |

| LabID    | ClientID        | Matrix | Test           | Method | Sample Date | Prep Date | Anal Date | Received |
|----------|-----------------|--------|----------------|--------|-------------|-----------|-----------|----------|
| P4258-04 | Chamberlain Ave | TCLP   |                |        | 10/01/24    |           |           | 10/01/24 |
|          |                 |        | TCLP Herbicide | 8151A  |             | 10/03/24  | 10/04/24  |          |
|          |                 |        | TCLP Pesticide | 8081B  |             | 10/03/24  | 10/03/24  |          |





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

**Hit Summary Sheet**  
**SW-846**

**SDG No.:**

**Order ID:**

**Client:**

**Project ID:**

---

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

**Client ID :**

**Total Concentration:**



# QC SUMMARY

### Surrogate Summary

SDG No.: P4258

Client: Roman E&G Corp

Analytical Method: 8151A

| Lab Sample ID    | Client ID          | Parameter | Column | Spike | Result | Rec | Qual | Limits |      |
|------------------|--------------------|-----------|--------|-------|--------|-----|------|--------|------|
|                  |                    |           |        |       |        |     |      | Low    | High |
| I.BLK-PS027652.D | PIBLK-PS027652.D   | 2,4-DCAA  | 1      | 500   | 496    | 99  |      | 39     | 175  |
|                  |                    | 2,4-DCAA  | 2      | 500   | 524    | 105 |      | 39     | 175  |
| I.BLK-PS027827.D | PIBLK-PS027827.D   | 2,4-DCAA  | 1      | 500   | 533    | 107 |      | 39     | 175  |
|                  |                    | 2,4-DCAA  | 2      | 500   | 542    | 108 |      | 39     | 175  |
| P4258-04         | Chamberlain Ave    | 2,4-DCAA  | 1      | 500   | 234    | 47  |      | 39     | 175  |
|                  |                    | 2,4-DCAA  | 2      | 500   | 211    | 42  |      | 39     | 175  |
| P4258-04MS       | Chamberlain AveMS  | 2,4-DCAA  | 1      | 500   | 246    | 49  |      | 39     | 175  |
|                  |                    | 2,4-DCAA  | 2      | 500   | 205    | 41  |      | 39     | 175  |
| P4258-04MSD      | Chamberlain AveMSD | 2,4-DCAA  | 1      | 500   | 279    | 56  |      | 39     | 175  |
|                  |                    | 2,4-DCAA  | 2      | 500   | 201    | 40  |      | 39     | 175  |
| PB163890BL       | PB163890BL         | 2,4-DCAA  | 1      | 500   | 520    | 104 |      | 39     | 175  |
|                  |                    | 2,4-DCAA  | 2      | 500   | 526    | 105 |      | 39     | 175  |
| PB163890BS       | PB163890BS         | 2,4-DCAA  | 1      | 500   | 545    | 109 |      | 39     | 175  |
|                  |                    | 2,4-DCAA  | 2      | 500   | 554    | 111 |      | 39     | 175  |
| PB163851TB       | PB163851TB         | 2,4-DCAA  | 1      | 500   | 397    | 79  |      | 39     | 175  |
|                  |                    | 2,4-DCAA  | 2      | 500   | 343    | 69  |      | 39     | 175  |
| I.BLK-PS027841.D | PIBLK-PS027841.D   | 2,4-DCAA  | 1      | 500   | 541    | 108 |      | 39     | 175  |
|                  |                    | 2,4-DCAA  | 2      | 500   | 552    | 110 |      | 39     | 175  |

### Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4258

Client: Roman E&G Corp

Analytical Method: 8151A

DataFile : PS027836.D

| Lab Sample ID:                  | Parameter         | Spike | Sample |        | Units | Rec | Rec  |     | RPD  |     | Limits | RPD |
|---------------------------------|-------------------|-------|--------|--------|-------|-----|------|-----|------|-----|--------|-----|
|                                 |                   |       | Result | Result |       |     | Qual | RPD | Qual | Low | High   |     |
| Client Sample ID:<br>P4258-04MS | Chamberlain AveMS |       |        |        |       |     |      |     |      |     |        |     |
|                                 | 2,4-D             | 50    | 0      | 59.2   | ug/L  | 118 |      |     |      | 65  | 135    |     |
|                                 | 2,4,5-TP(Silvex)  | 50    | 0      | 64.6   | ug/L  | 129 |      |     |      | 62  | 139    |     |

# Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P4258

Client: Roman E&G Corp

Analytical Method: 8151A

DataFile : PS027837.D

| Lab Sample ID:    | Parameter          | Spike | Sample<br>Result | Result | Units | Rec | Rec<br>Qual | RPD | RPD<br>Qual | Low | Limits<br>High | RPD |
|-------------------|--------------------|-------|------------------|--------|-------|-----|-------------|-----|-------------|-----|----------------|-----|
| Client Sample ID: | Chamberlain AveMSD |       |                  |        |       |     |             |     |             |     |                |     |
| P4258-04MSD       | 2,4-D              | 50    | 0                | 59.4   | ug/L  | 119 |             | 1   |             | 65  | 135            | 20  |
|                   | 2,4,5-TP(Silvex)   | 50    | 0                | 74.4   | ug/L  | 149 | *           | 14  |             | 62  | 139            | 20  |



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Fax : 908 789 8922

**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**

**SW-846**

**SDG No.:** P4258

**Client:** Roman E&G Corp

**Analytical Method:** **8151A** **Datafile :** PS027839.D

| Lab Sample ID | Parameter        | Spike | Result | Units | Rec | RPD | Qual | RPD  |     | Limits |     |
|---------------|------------------|-------|--------|-------|-----|-----|------|------|-----|--------|-----|
|               |                  |       |        |       |     |     |      | Qual | Low | High   | RPD |
| PB163890BS    | 2,4-D            | 5     | 5.90   | ug/L  | 118 |     |      |      | 83  | 130    |     |
|               | 2,4,5-TP(Silvex) | 5     | 5.20   | ug/L  | 104 |     |      |      | 78  | 127    |     |

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB163890BL

Lab Name: CHEMTECH

Contract: ROMA02

Lab Code: CHEM Case No.: P4258

SAS No.: P4258 SDG NO.: P4258

Lab Sample ID: PB163890BL

Lab File ID: PS027838.D

Matrix: (soil/water) water

Extraction: (Type) \_\_\_\_\_

Sulfur Cleanup: (Y/N) N

Date Extracted: 10/03/2024

Date Analyzed (1): 10/04/2024

Date Analyzed (2): 10/04/2024

Time Analyzed (1): 02:34

Time Analyzed (2): 02:34

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<br>SAMPLE NO.  | LAB<br>SAMPLE ID | LAB<br>FILE ID | DATE<br>ANALYZED 1 | DATE<br>ANALYZED 2 |
|--------------------|------------------|----------------|--------------------|--------------------|
| Chamberlain Ave    | P4258-04         | PS027835.D     | 10/04/2024         | 10/04/2024         |
| Chamberlain AveMS  | P4258-04MS       | PS027836.D     | 10/04/2024         | 10/04/2024         |
| Chamberlain AveMSD | P4258-04MSD      | PS027837.D     | 10/04/2024         | 10/04/2024         |
| PB163890BS         | PB163890BS       | PS027839.D     | 10/04/2024         | 10/04/2024         |
| PB163851TB         | PB163851TB       | PS027840.D     | 10/04/2024         | 10/04/2024         |

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_



# SAMPLE DATA



## Report of Analysis

|                    |                       |                    |                  |
|--------------------|-----------------------|--------------------|------------------|
| Client:            | Roman E&G Corp        | Date Collected:    | 10/01/24         |
| Project:           | Perth Amboy           | Date Received:     | 10/01/24         |
| Client Sample ID:  | Chamberlain Ave       | SDG No.:           | P4258            |
| Lab Sample ID:     | P4258-04              | Matrix:            | TCLP             |
| Analytical Method: | SW8151A               | % Solid:           | 0      Decanted: |
| Sample Wt/Vol:     | 100      Units:    mL | Final Vol:         | 10000      uL    |
| Soil Aliquot Vol:  | uL                    | Test:              | TCLP Herbicide   |
| Extraction Type:   |                       | Injection Volume : |                  |
| GPC Factor :       | 1.0      PH :         |                    |                  |
| Prep Method :      | 8151A                 |                    |                  |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| PS027835.D        | 1         | 10/03/24 12:00 | 10/04/24 01:22 | PB163890      |

| CAS Number        | Parameter         | Conc. | Qualifier | MDL      | LOQ / CRQL | Units    |
|-------------------|-------------------|-------|-----------|----------|------------|----------|
| <b>TARGETS</b>    |                   |       |           |          |            |          |
| 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     |
| <b>SURROGATES</b> |                   |       |           |          |            |          |
| 19719-28-9        | 2,4-DCAA          | 234   |           | 39 - 175 | 47%        | 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 &gt;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\PS100324\  
 Data File : PS027835.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 04 Oct 2024 01:22  
 Operator : AR\AJ  
 Sample : P4258-04  
 Misc :  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 ECD\_S  
 ClientSampleId :  
 Chamberlain Ave

**Manual Integrations**  
**APPROVED**

Reviewed By :Abdul Mirza 10/04/2024  
 Supervised By :Ankita Jodhani 10/04/2024

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Oct 04 05:41:17 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
 Quant Title : 8080.M  
 QLast Update : Sat Sep 14 02:36:56 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                    | 7.098 | 7.621 | 581.4E6  | 209.2E6  | 233.715 | 211.050m |
|       | Target Compounds            |       |       |          |          |         |          |
| 10) T | Pentachlo...                | 8.471 | 9.360 | 4545.6E6 | 1683.1E6 | 124.978 | 101.805  |
| ----- |                             |       |       |          |          |         |          |

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS100324\  
Data File : PS027835.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 04 Oct 2024 01:22  
Operator : AR\AJ  
Sample : P4258-04  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

**Instrument :**

ECD\_S

**ClientSampleId :**

Chamberlain Ave

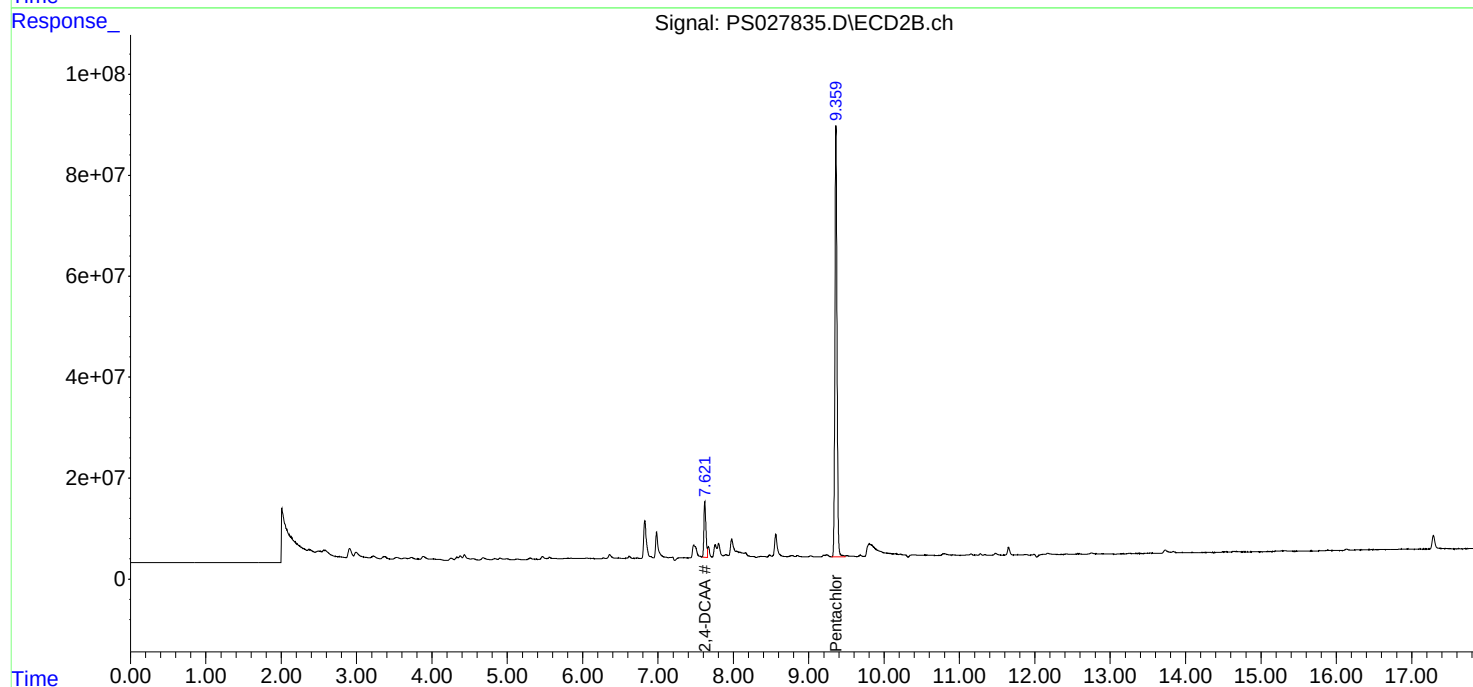
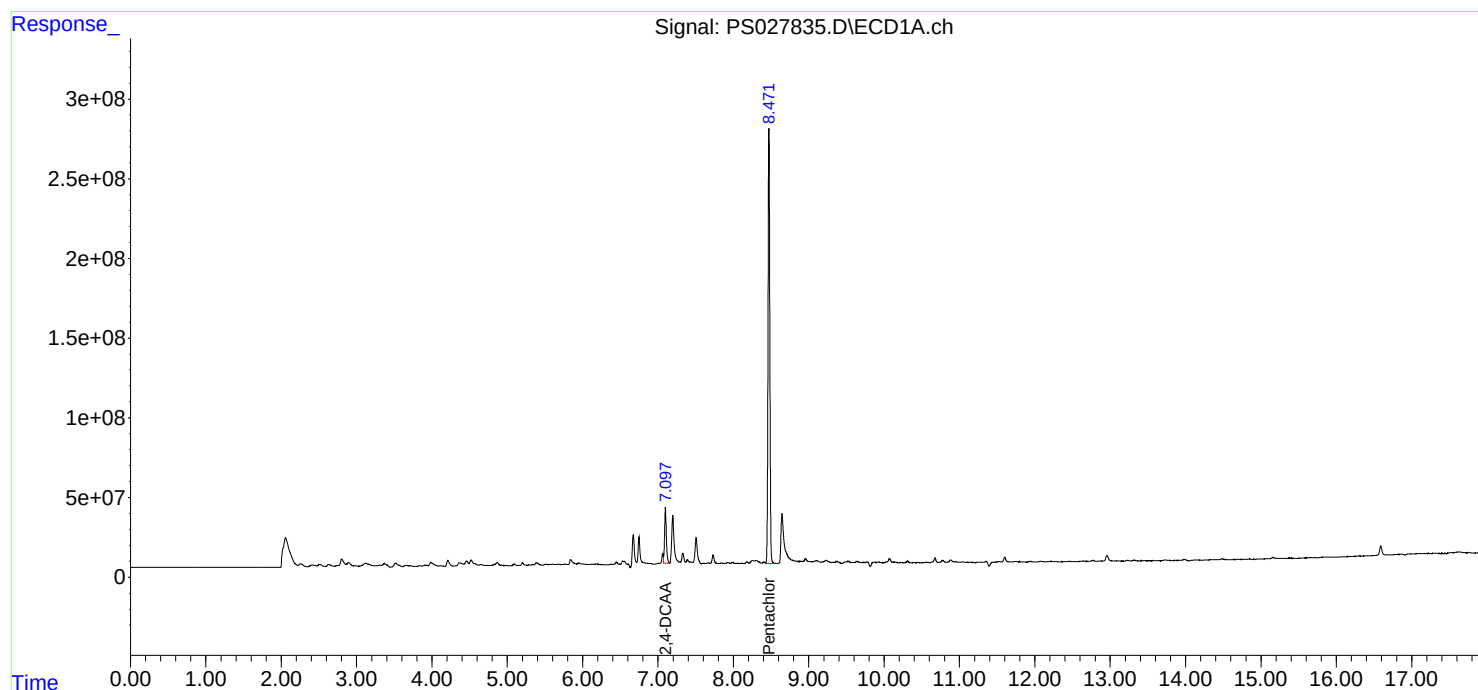
**Manual Integrations****APPROVED**

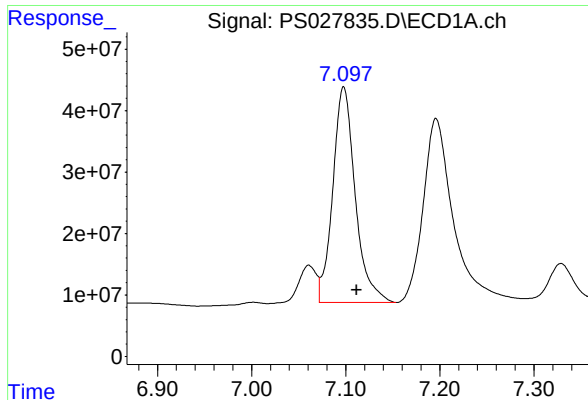
Reviewed By :Abdul Mirza 10/04/2024

Supervised By :Ankita Jodhani 10/04/2024

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Oct 04 05:41:17 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:36:56 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





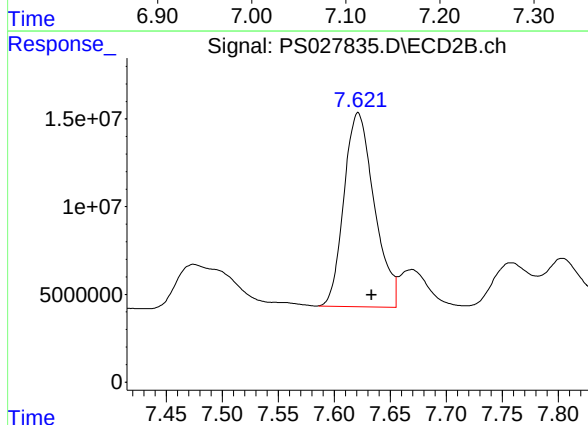
#4 2,4-DCAA

R.T.: 7.098 min  
Delta R.T.: -0.014 min  
Response: 581392090  
Conc: 233.72 ng/ml

Instrument :  
ECD\_S  
ClientSampleId :  
Chamberlain Ave

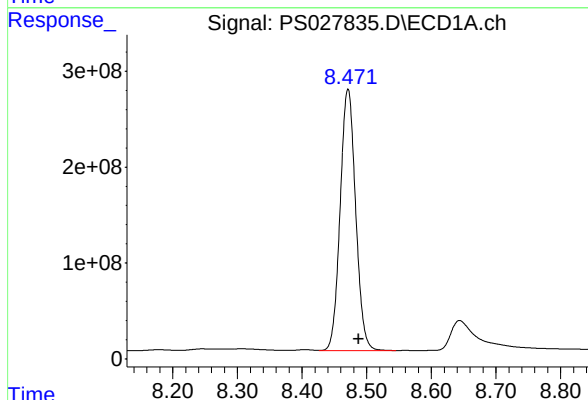
Manual Integrations  
APPROVED

Reviewed By :Abdul Mirza 10/04/2024  
Supervised By :Ankita Jodhani 10/04/2024



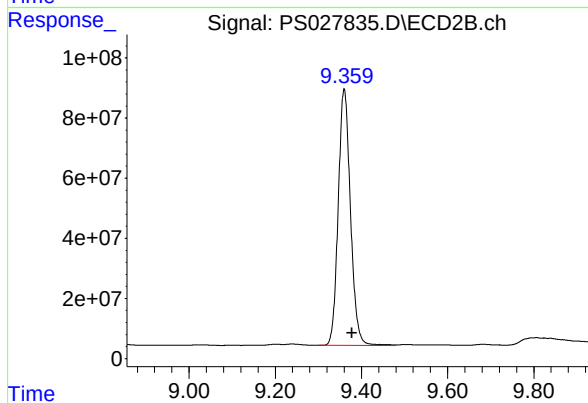
#4 2,4-DCAA

R.T.: 7.621 min  
Delta R.T.: -0.012 min  
Response: 209157794  
Conc: 211.05 ng/ml



#10 Pentachlorophenol

R.T.: 8.471 min  
Delta R.T.: -0.016 min  
Response: 4545583388  
Conc: 124.98 ng/ml



#10 Pentachlorophenol

R.T.: 9.360 min  
Delta R.T.: -0.018 min  
Response: 1683082387  
Conc: 101.81 ng/ml

## Report of Analysis

|                    |                |           |                    |                |           |
|--------------------|----------------|-----------|--------------------|----------------|-----------|
| Client:            | Roman E&G Corp |           | Date Collected:    |                |           |
| Project:           | Perth Amboy    |           | Date Received:     | 10/03/24       |           |
| Client Sample ID:  | PB163851TB     |           | SDG No.:           | P4258          |           |
| Lab Sample ID:     | PB163851TB     |           | 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 |
| PS027840.D        | 1         | 10/03/24 12:00 | 10/04/24 03:22 | PB163890      |

| CAS Number        | Parameter         | Conc. | Qualifier | MDL      | LOQ / CRQL | Units    |
|-------------------|-------------------|-------|-----------|----------|------------|----------|
| <b>TARGETS</b>    |                   |       |           |          |            |          |
| 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     |
| <b>SURROGATES</b> |                   |       |           |          |            |          |
| 19719-28-9        | 2,4-DCAA          | 397   |           | 39 - 175 | 79%        | 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 &gt;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\PS100324\  
 Data File : PS027840.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 04 Oct 2024 03:22  
 Operator : AR\AJ  
 Sample : PB163851TB  
 Misc :  
 ALS Vial : 25 Sample Multiplier: 1

Instrument :  
 ECD\_S  
 ClientSampleId :  
 PB163851TB

**Manual Integrations**  
**APPROVED**

Reviewed By :Abdul Mirza 10/04/2024  
 Supervised By :Ankita Jodhani 10/04/2024

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Oct 04 05:42:21 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
 Quant Title : 8080.M  
 QLast Update : Sat Sep 14 02:36:56 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 | 7.098 | 7.621 | 987.7E6 | 339.5E6 | 397.063m | 342.607 |
|------|----------|-------|-------|---------|---------|----------|---------|

Target Compounds

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS100324\  
Data File : PS027840.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 04 Oct 2024 03:22  
Operator : AR\AJ  
Sample : PB163851TB  
Misc :  
ALS Vial : 25 Sample Multiplier: 1

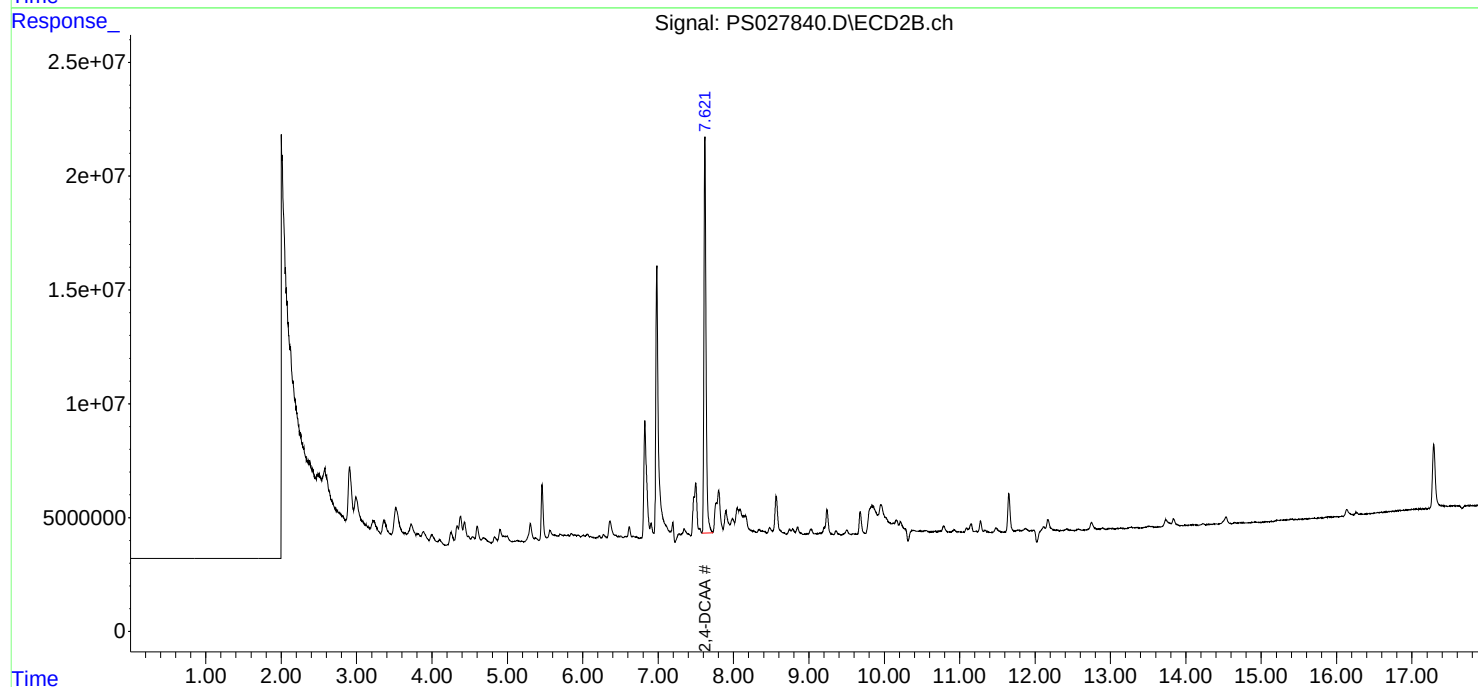
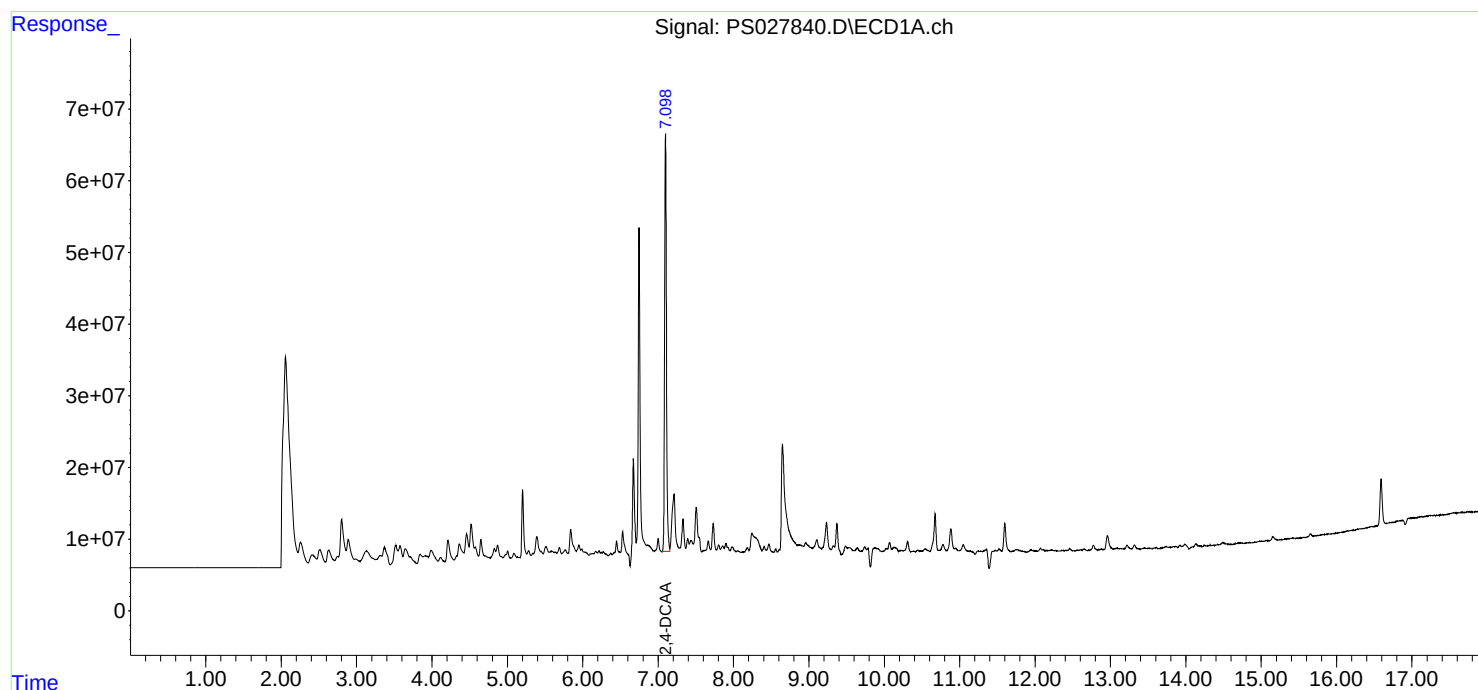
Instrument :  
ECD\_S  
ClientSampleId :  
PB163851TB

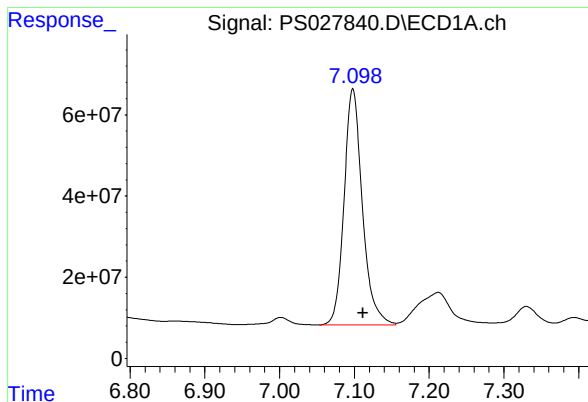
Manual Integrations  
**APPROVED**

Reviewed By : Abdul Mirza 10/04/2024  
Supervised By : Ankita Jodhani 10/04/2024

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Oct 04 05:42:21 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:36:56 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





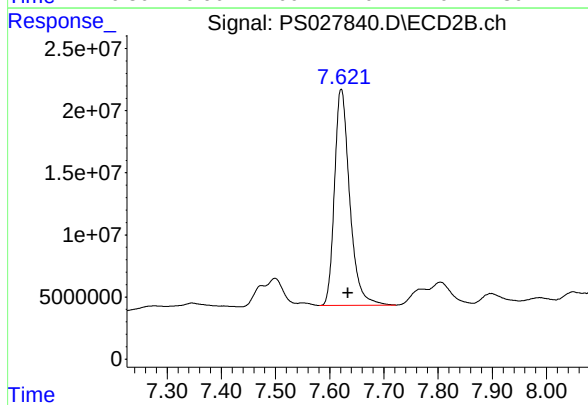
#4 2,4-DCAA

R.T.: 7.098 min  
Delta R.T.: -0.014 min  
Response: 987736466  
Conc: 397.06 ng/ml

Instrument :  
ECD\_S  
ClientSampleId :  
PB163851TB

Manual Integrations  
APPROVED

Reviewed By :Abdul Mirza 10/04/2024  
Supervised By :Ankita Jodhani 10/04/2024



#4 2,4-DCAA

R.T.: 7.621 min  
Delta R.T.: -0.012 min  
Response: 339535072  
Conc: 342.61 ng/ml





# CALIBRATION SUMMARY

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

[illegible]

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

|              |            |           |                   |           |                   |
|--------------|------------|-----------|-------------------|-----------|-------------------|
| LAB FILE ID: |            | RT 200 =  | <u>PS027653.D</u> | RT 500 =  | <u>PS027654.D</u> |
| RT 750 =     | PS027655.D | RT 1000 = | PS027656.D        | RT 1500 = | PS027657.D        |

[illegible]



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

### CALIBRATION FACTOR OF INITIAL CALIBRATION

**Contract:** ROMA02  
**Lab Code:** CHEM **Case No.:** P4258 **SAS No.:** P4258 **SDG NO.:** P4258  
**Instrument ID:** ECD\_S **Calibration Date(s):** 09/12/2024 09/12/2024  
**Calibration Times:** 21:24 22:59  
  
**GC Column:** RTX-CLP **ID:** 0.32 (mm)

| <b>LAB FILE ID:</b> |             | CF 200 =          | <u>PS027653.D</u> | CF 500 =          | <u>PS027654.D</u> |                   |          |
|---------------------|-------------|-------------------|-------------------|-------------------|-------------------|-------------------|----------|
| CF 750 =            |             | <u>PS027655.D</u> | CF 1000 =         | <u>PS027656.D</u> | CF 1500 =         | <u>PS027657.D</u> |          |
| COMPOUND            | CF 200      | CF 500            | CF 750            | CF 1000           | CF 1500           | CF                | %<br>RSD |
| 2,4,5-TP(Silvex)    | 16480400000 | 15003800000       | 14421200000       | 14173600000       | 13096000000       | 14635000000       | 8        |
| 2,4-D               | 3492740000  | 3113810000        | 2979600000        | 2958000000        | 2782030000        | 3065240000        | 9        |
| 2,4-DCAA            | 2882370000  | 2518620000        | 2408720000        | 2392240000        | 2215400000        | 2483470000        | 10       |

**CALIBRATION FACTOR OF INITIAL CALIBRATION**

**Contract:** ROMA02  
**Lab Code:** CHEM **Case No.:** P4258 **SAS No.:** P4258 **SDG NO.:** P4258  
**Instrument ID:** ECD\_S **Calibration Date(s):** 09/12/2024 09/12/2024  
**Calibration Times:** 21:24 22:59  
**GC Column:** RTX-CLP2 **ID:** 0.32 (mm)

| <b>LAB FILE ID:</b>               |            | <b>CF 200 =</b> <u>PS027653.D</u>  |            | <b>CF 500 =</b> <u>PS027654.D</u>  |            |            |       |
|-----------------------------------|------------|------------------------------------|------------|------------------------------------|------------|------------|-------|
| <b>CF 750 =</b> <u>PS027655.D</u> |            | <b>CF 1000 =</b> <u>PS027656.D</u> |            | <b>CF 1500 =</b> <u>PS027657.D</u> |            |            |       |
| COMPOUND                          | CF 200     | CF 500                             | CF 750     | CF 1000                            | CF 1500    | CF         | % RSD |
| 2,4,5-TP(Silvex)                  | 5828170000 | 5909010000                         | 6118970000 | 6127280000                         | 5996050000 | 5995900000 | 2     |
| 2,4-D                             | 1161930000 | 1098640000                         | 1103250000 | 1118490000                         | 1092760000 | 1115020000 | 3     |
| 2,4-DCAA                          | 1082400000 | 978389000                          | 981157000  | 972356000                          | 940861000  | 991033000  | 5     |

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS091224\  
 Data File : PS027653.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 12 Sep 2024 21:24  
 Operator : AR\AJ  
 Sample : HSTDICC200  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

## Instrument :

ECD\_S

## ClientSampleId :

HSTDICC200

## Manual Integrations

## APPROVED

Reviewed By :Abdul Mirza 09/15/2024

Supervised By :Ankita Jodhani 09/16/2024

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Sep 14 02:37:07 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
 Quant Title : 8080.M  
 QLast Update : Sat Sep 14 02:14:58 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     | 7.111  | 7.633  | 576.5E6  | 216.5E6  | 231.738m | 218.439   |
| Target Compounds            |              |        |        |          |          |          |           |
| 1) T                        | Dalapon      | 2.555  | 2.624  | 922.8E6  | 291.0E6  | 222.722  | 178.340   |
| 2) T                        | 3,5-DICHL... | 6.302  | 6.604  | 789.8E6  | 326.2E6  | 216.226  | 202.447   |
| 3) T                        | 4-Nitroph... | 6.909  | 7.169  | 357.1E6  | 153.1E6  | 210.891  | 213.538   |
| 5) T                        | DICAMBA      | 7.291  | 7.828  | 2098.6E6 | 802.6E6  | 207.672  | 182.144   |
| 6) T                        | MCP          | 7.467  | 7.928  | 119.0E6  | 55242575 | 17.264   | 16.830    |
| 7) T                        | MCPA         | 7.611  | 8.168  | 201.1E6  | 120.4E6  | 19.854   | 22.749    |
| 8) T                        | DICHLORPROP  | 7.978  | 8.535  | 577.7E6  | 225.3E6  | 217.940  | 201.617   |
| 9) T                        | 2,4-D        | 8.203  | 8.861  | 656.6E6  | 218.4E6  | 214.220  | 195.910   |
| 10) T                       | Pentachlo... | 8.488  | 9.377  | 8145.5E6 | 3230.9E6 | 223.956  | 195.429   |
| 11) T                       | 2,4,5-TP ... | 9.056  | 9.754  | 3131.3E6 | 1107.4E6 | 213.957  | 184.685   |
| 12) T                       | 2,4,5-T      | 9.343  | 10.170 | 3173.5E6 | 971.0E6  | 212.018  | 185.776   |
| 13) T                       | 2,4-DB       | 9.907  | 10.734 | 478.6E6  | 114.4E6  | 206.083  | 185.909   |
| 14) T                       | DINOSEB      | 11.085 | 11.109 | 2118.0E6 | 836.2E6  | 216.542  | 198.827   |
| 15) T                       | Picloram     | 10.903 | 12.193 | 3697.5E6 | 654.9E6  | 197.646  | 140.929 # |
| 16) T                       | DCPA         | 11.384 | 12.145 | 3617.1E6 | 1238.1E6 | 217.935  | 192.097   |
| -----                       |              |        |        |          |          |          |           |

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS091224\  
Data File : PS027653.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 12 Sep 2024 21:24  
Operator : AR\AJ  
Sample : HSTDICC200  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

## Instrument :

ECD\_S

## ClientSampleId :

HSTDICC200

## Manual Integrations

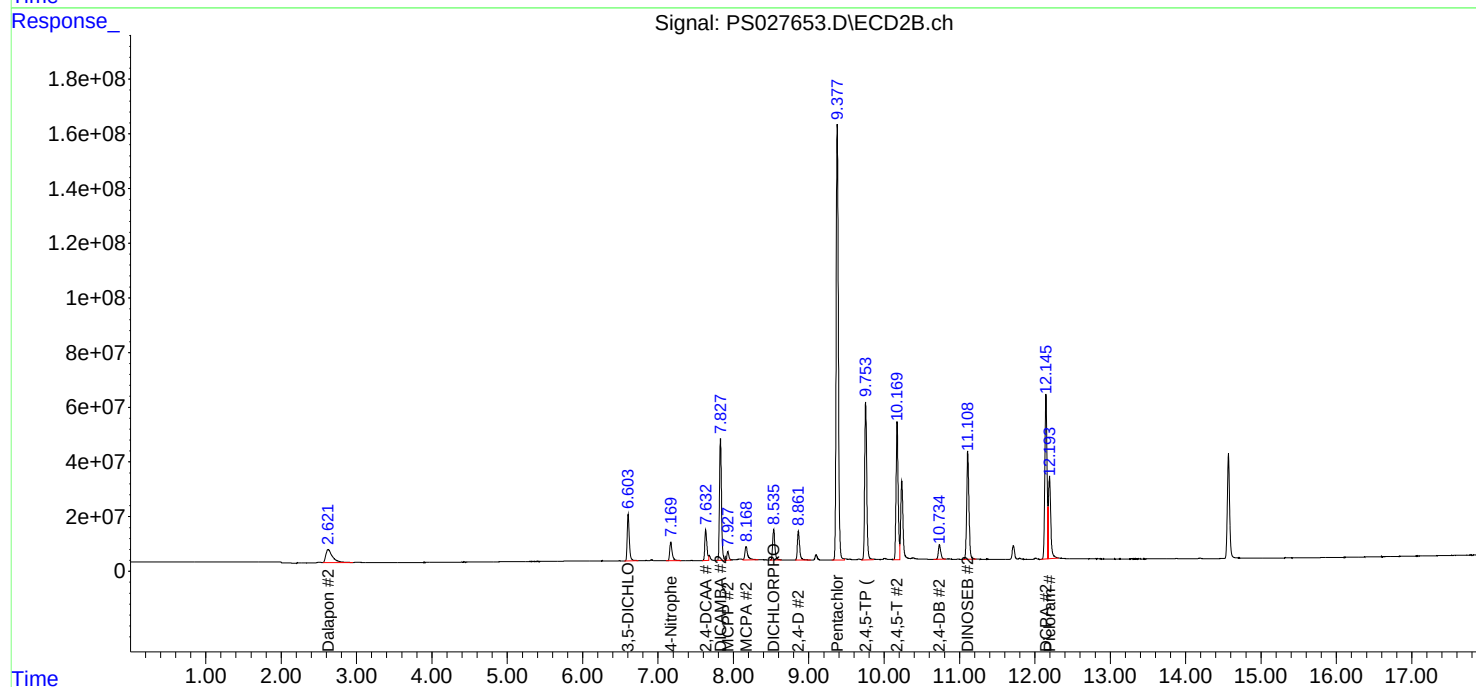
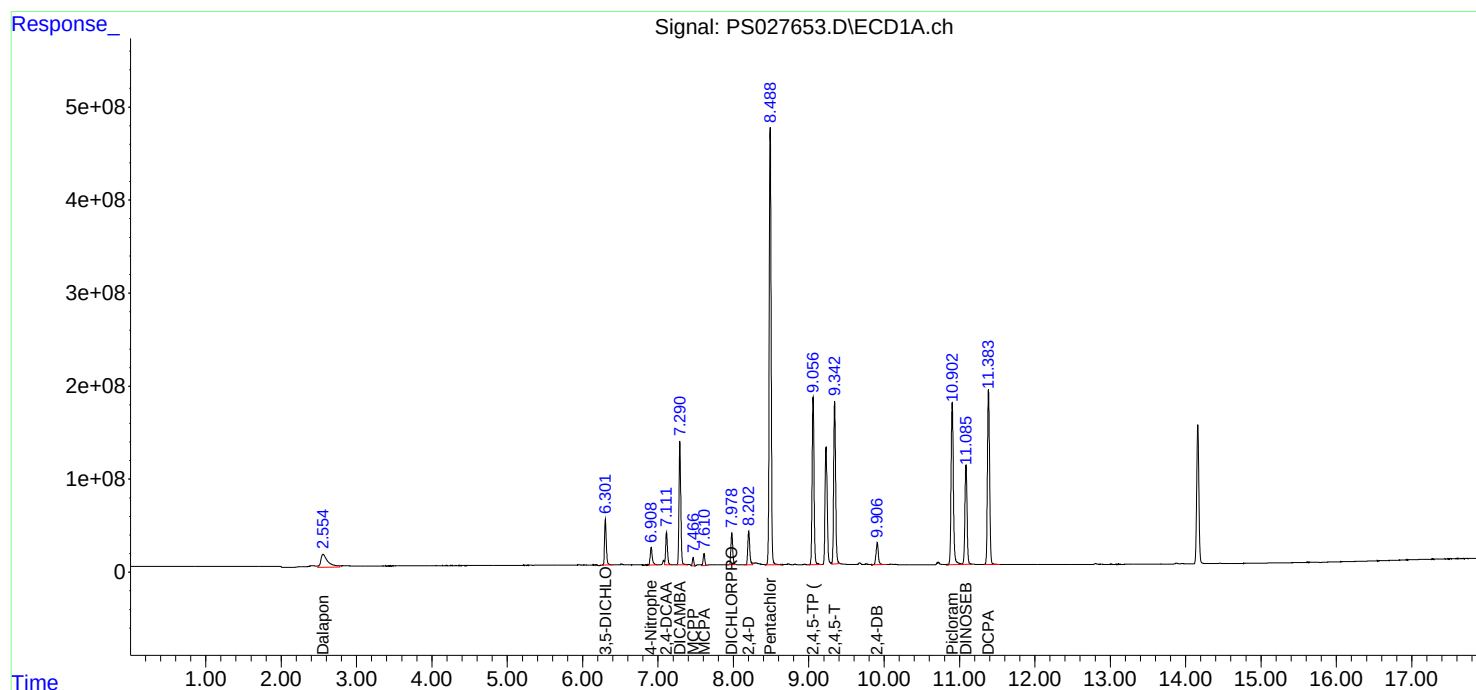
## APPROVED

Reviewed By :Abdul Mirza 09/15/2024

Supervised By :Ankita Jodhani 09/16/2024

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Sep 14 02:37:07 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:14:58 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\PS091224\  
 Data File : PS027654.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 12 Sep 2024 21:48  
 Operator : AR\AJ  
 Sample : HSTDICC500  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Instrument :  
 ECD\_S  
 ClientSampleId :  
 HSTDICC500

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Sep 14 02:34:43 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
 Quant Title : 8080.M  
 QLast Update : Sat Sep 14 02:14:58 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     | 7.111  | 7.634  | 1259.3E6  | 489.2E6  | 528.290 | 505.267 |
| Target Compounds            |              |        |        |           |          |         |         |
| 1) T                        | Dalapon      | 2.556  | 2.628  | 1858.1E6  | 718.9E6  | 475.067 | 438.338 |
| 2) T                        | 3,5-DICHL... | 6.301  | 6.604  | 1728.4E6  | 740.2E6  | 493.190 | 469.728 |
| 3) T                        | 4-Nitroph... | 6.907  | 7.168  | 782.4E6   | 330.5E6  | 481.180 | 481.915 |
| 5) T                        | DICAMBA      | 7.291  | 7.829  | 4799.0E6  | 2020.6E6 | 487.658 | 455.018 |
| 6) T                        | MCPD         | 7.469  | 7.930  | 319.2E6   | 147.1E6  | 45.381  | 43.660  |
| 7) T                        | MCPA         | 7.614  | 8.171  | 463.9E6   | 244.1E6  | 46.581  | 48.838  |
| 8) T                        | DICHLORPROP  | 7.978  | 8.536  | 1268.4E6  | 516.4E6  | 498.326 | 470.754 |
| 9) T                        | 2,4-D        | 8.201  | 8.861  | 1463.5E6  | 516.4E6  | 494.696 | 468.022 |
| 10) T                       | Pentachlo... | 8.488  | 9.378  | 18161.9E6 | 7947.9E6 | 522.701 | 484.205 |
| 11) T                       | 2,4,5-TP ... | 9.056  | 9.755  | 7126.8E6  | 2806.8E6 | 502.821 | 464.866 |
| 12) T                       | 2,4,5-T      | 9.341  | 10.171 | 7306.2E6  | 2446.7E6 | 502.689 | 465.516 |
| 13) T                       | 2,4-DB       | 9.905  | 10.734 | 1120.5E6  | 289.4E6  | 492.942 | 467.832 |
| 14) T                       | DINOSEB      | 11.085 | 11.110 | 4716.1E6  | 1947.8E6 | 501.197 | 469.902 |
| 15) T                       | Picloram     | 10.902 | 12.191 | 9076.0E6  | 2119.2E6 | 490.079 | 428.344 |
| 16) T                       | DCPA         | 11.385 | 12.146 | 8262.9E6  | 3053.3E6 | 515.240 | 473.800 |
| -----                       |              |        |        |           |          |         |         |

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

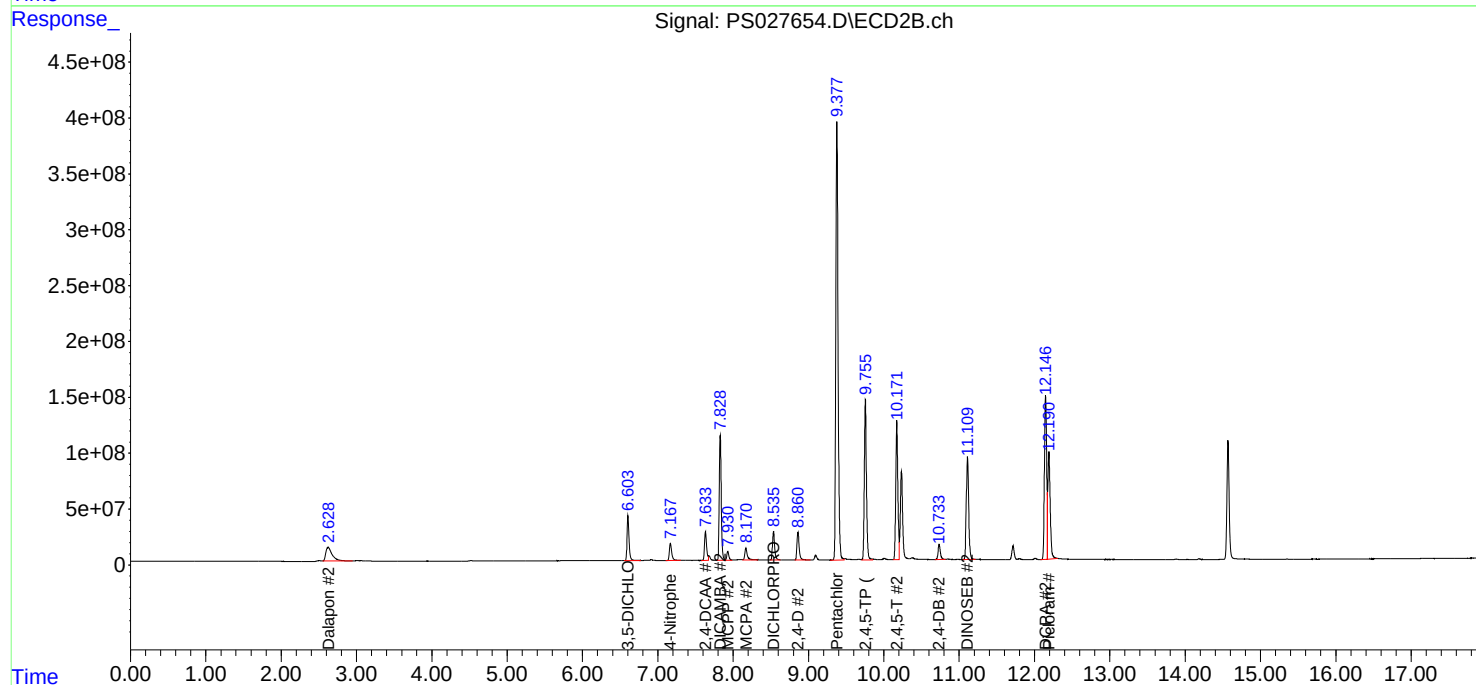
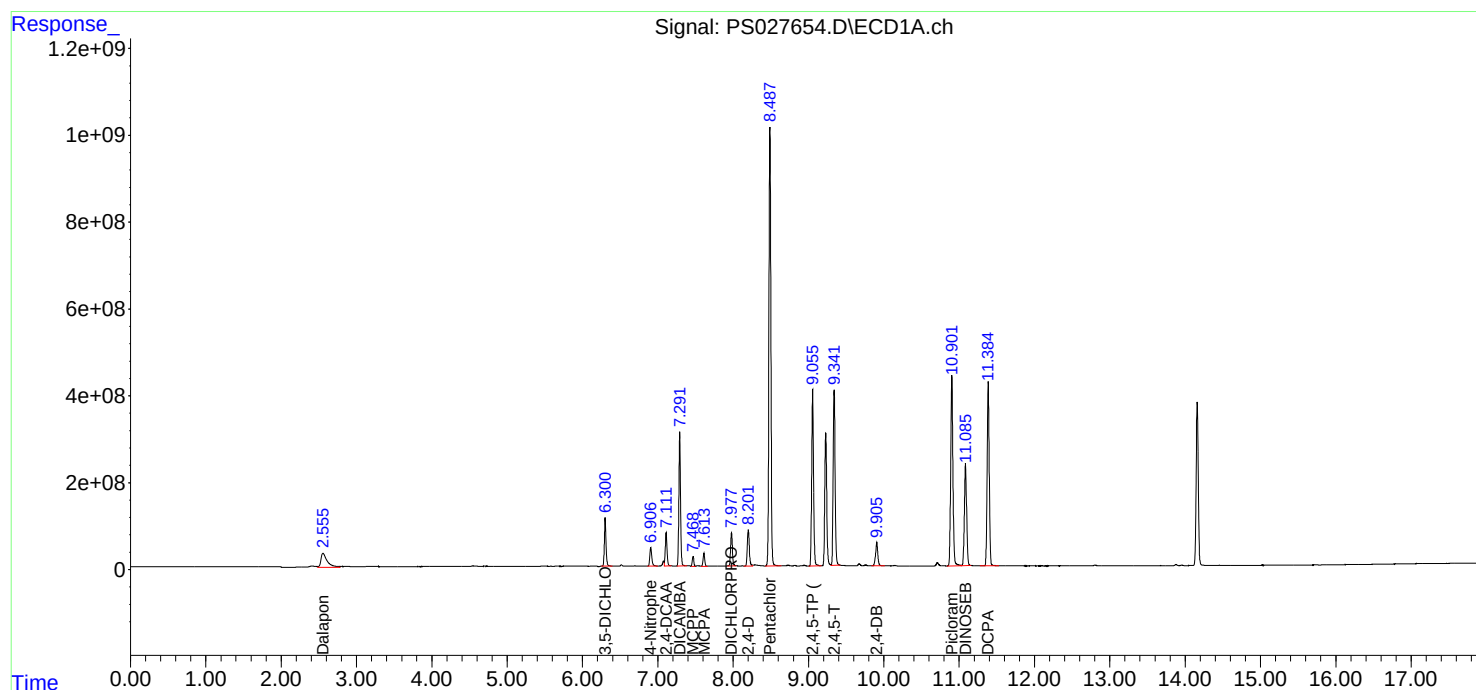


Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS091224\  
Data File : PS027654.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 12 Sep 2024 21:48  
Operator : AR\AJ  
Sample : HSTDICC500  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Instrument :  
ECD\_S  
ClientSampleId :  
HSTDICC500

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Sep 14 02:34:43 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:14:58 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\PS091224\  
 Data File : PS027655.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 12 Sep 2024 22:12  
 Operator : AR\AJ  
 Sample : HSTDICC750  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 ECD\_S  
 ClientSampleId :  
 HSTDICC750

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Sep 14 02:42:44 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
 Quant Title : 8080.M  
 QLast Update : Sat Sep 14 02:36:56 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     | 7.112  | 7.633  | 1806.5E6  | 735.9E6   | 726.217 | 742.526 |
| Target Compounds            |              |        |        |           |           |         |         |
| 1) T                        | Dalapon      | 2.554  | 2.620  | 2695.9E6  | 1098.6E6  | 650.693 | 673.222 |
| 2) T                        | 3,5-DICHL... | 6.301  | 6.604  | 2470.3E6  | 1109.6E6  | 676.256 | 688.574 |
| 3) T                        | 4-Nitroph... | 6.907  | 7.168  | 1110.8E6  | 472.5E6   | 656.063 | 659.200 |
| 5) T                        | DICAMBA      | 7.291  | 7.828  | 7042.9E6  | 3168.8E6  | 696.964 | 719.142 |
| 6) T                        | MCPD         | 7.471  | 7.931  | 493.5E6   | 237.8E6   | 71.590  | 72.451  |
| 7) T                        | MCPA         | 7.616  | 8.172  | 698.7E6   | 353.4E6   | 68.977  | 66.753  |
| 8) T                        | DICHLORPROP  | 7.978  | 8.535  | 1807.8E6  | 779.7E6   | 681.957 | 697.921 |
| 9) T                        | 2,4-D        | 8.201  | 8.861  | 2100.6E6  | 777.8E6   | 685.305 | 697.561 |
| 10) T                       | Pentachlo... | 8.488  | 9.378  | 25481.5E6 | 11979.5E6 | 700.595 | 724.609 |
| 11) T                       | 2,4,5-TP ... | 9.056  | 9.755  | 10275.1E6 | 4359.8E6  | 702.091 | 727.125 |
| 12) T                       | 2,4,5-T      | 9.342  | 10.170 | 10496.7E6 | 3754.4E6  | 701.286 | 718.291 |
| 13) T                       | 2,4-DB       | 9.905  | 10.733 | 1614.2E6  | 436.0E6   | 695.095 | 708.549 |
| 14) T                       | DINOSEB      | 11.084 | 11.109 | 6748.4E6  | 2974.9E6  | 689.961 | 707.362 |
| 15) T                       | Picloram     | 10.901 | 12.190 | 13217.5E6 | 3467.4E6  | 706.527 | 746.106 |
| 16) T                       | DCPA         | 11.383 | 12.145 | 11688.8E6 | 4670.1E6  | 704.257 | 724.592 |
| -----                       |              |        |        |           |           |         |         |

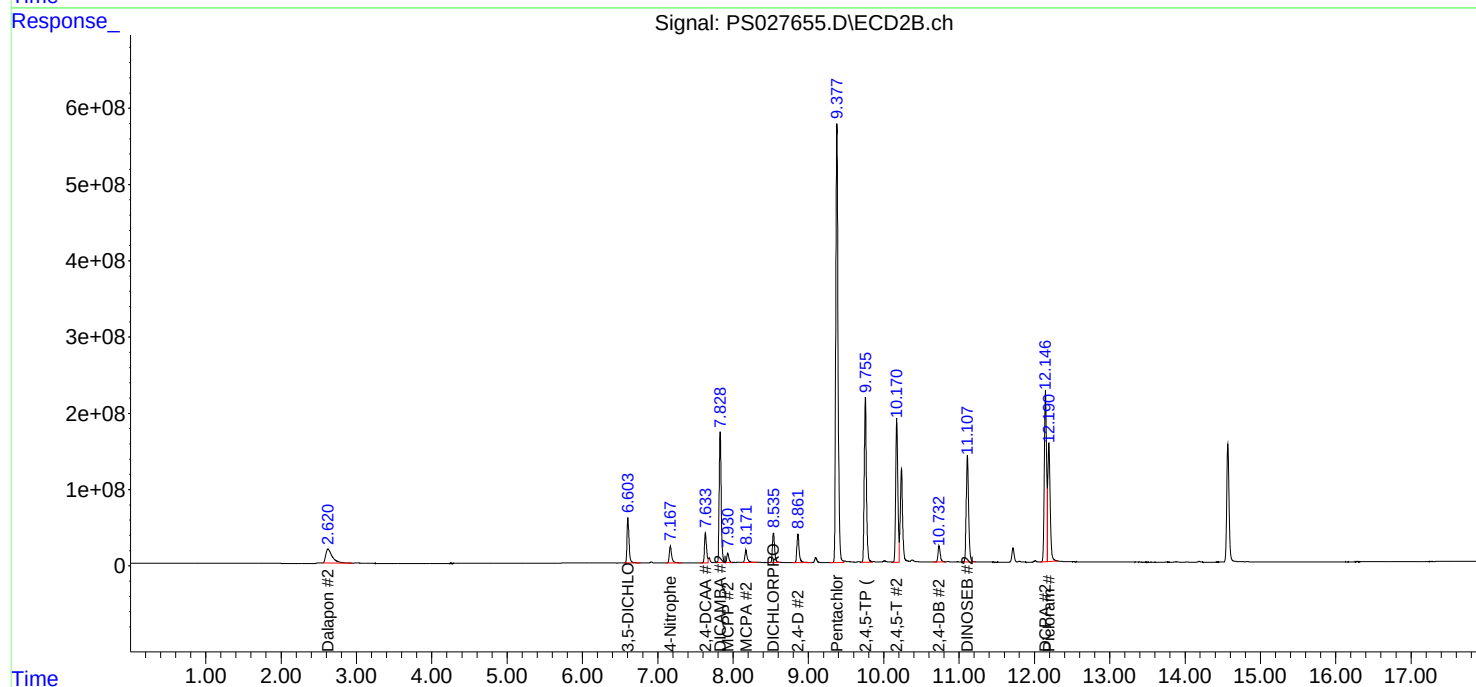
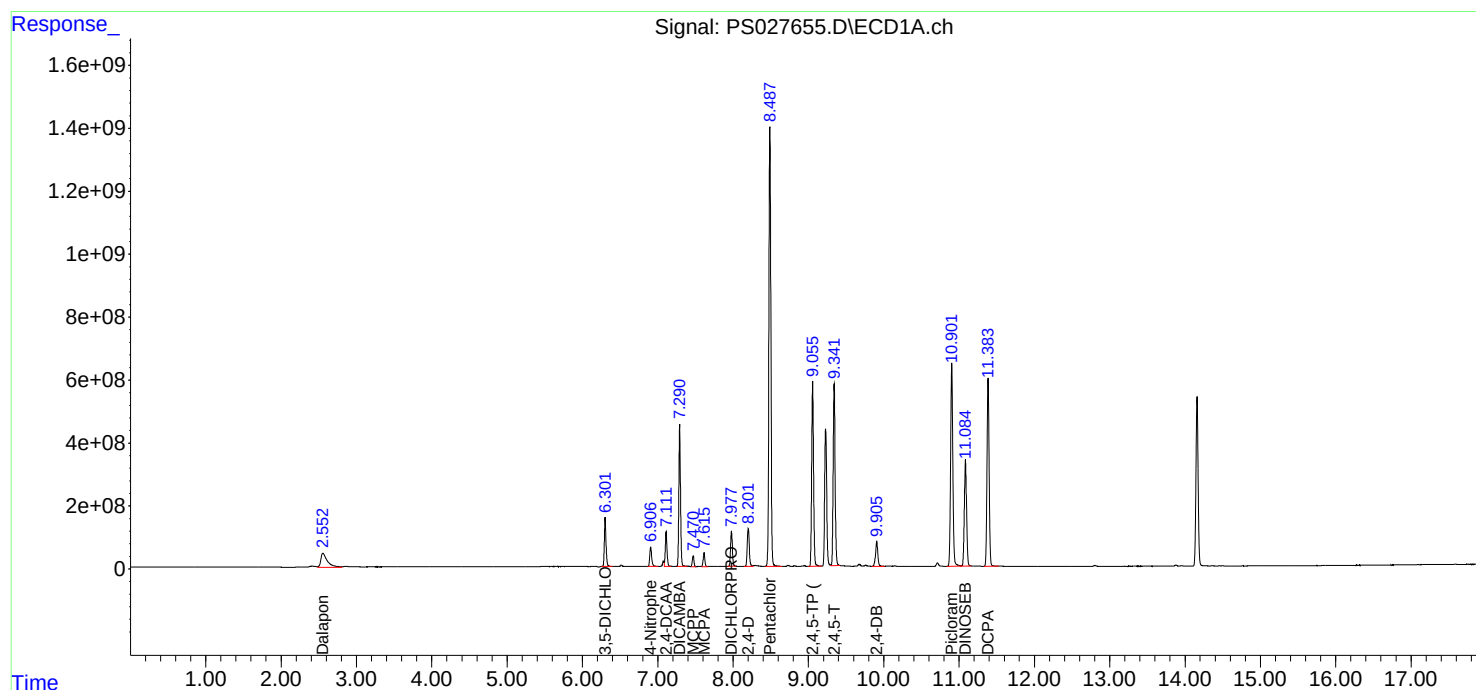
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS091224\  
Data File : PS027655.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 12 Sep 2024 22:12  
Operator : AR\AJ  
Sample : HSTDICC750  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Instrument :  
ECD\_S  
ClientSampleId :  
HSTDICC750

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Sep 14 02:42:44 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:36:56 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\PS091224\  
 Data File : PS027656.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 12 Sep 2024 22:35  
 Operator : AR\AJ  
 Sample : HSTDICC1000  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 ECD\_S  
 ClientSampleId :  
 HSTDICC1000

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Sep 14 02:31:08 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
 Quant Title : 8080.M  
 QLast Update : Sat Sep 14 02:14:58 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     | 7.111  | 7.633  | 2392.2E6  | 972.4E6   | 1022.853 | 1007.840 |
| Target Compounds            |              |        |        |           |           |          |          |
| 1) T                        | Dalapon      | 2.555  | 2.621  | 3567.9E6  | 1534.1E6  | 925.809  | 924.084  |
| 2) T                        | 3,5-DICHL... | 6.300  | 6.604  | 3246.9E6  | 1484.6E6  | 945.616  | 945.307  |
| 3) T                        | 4-Nitroph... | 6.906  | 7.167  | 1472.2E6  | 621.6E6   | 923.137  | 924.708  |
| 5) T                        | DICAMBA      | 7.290  | 7.829  | 9296.6E6  | 4235.2E6  | 956.681  | 943.700  |
| 6) T                        | MCP          | 7.472  | 7.932  | 677.7E6   | 322.5E6   | 95.242   | 93.524   |
| 7) T                        | MCPA         | 7.618  | 8.174  | 934.5E6   | 461.5E6   | 93.882   | 93.895   |
| 8) T                        | DICHLORPROP  | 7.978  | 8.535  | 2383.0E6  | 1042.2E6  | 955.429  | 950.567  |
| 9) T                        | 2,4-D        | 8.200  | 8.861  | 2780.5E6  | 1051.4E6  | 956.641  | 951.620  |
| 10) T                       | Pentachlo... | 8.488  | 9.377  | 32866.0E6 | 15641.6E6 | 978.648  | 959.122  |
| 11) T                       | 2,4,5-TP ... | 9.055  | 9.755  | 13465.0E6 | 5820.9E6  | 968.914  | 957.267  |
| 12) T                       | 2,4,5-T      | 9.341  | 10.171 | 13851.3E6 | 5104.1E6  | 971.899  | 964.708  |
| 13) T                       | 2,4-DB       | 9.905  | 10.734 | 2172.4E6  | 593.0E6   | 967.873  | 953.831  |
| 14) T                       | DINOSEB      | 11.084 | 11.108 | 8746.9E6  | 3900.0E6  | 950.604  | 940.826  |
| 15) T                       | Picloram     | 10.900 | 12.191 | 17868.1E6 | 4821.2E6  | 975.144  | 943.588  |
| 16) T                       | DCPA         | 11.383 | 12.145 | 15328.1E6 | 6338.6E6  | 979.782  | 979.378  |
| -----                       |              |        |        |           |           |          |          |

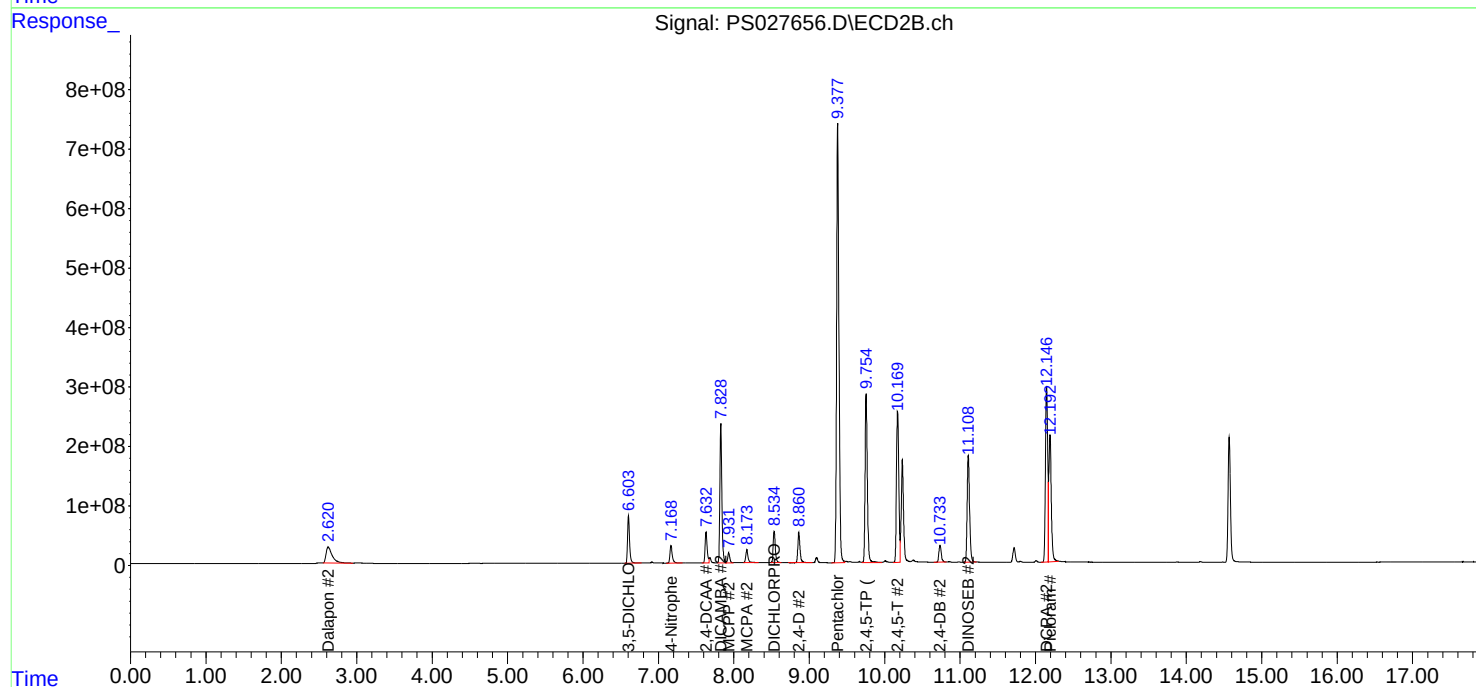
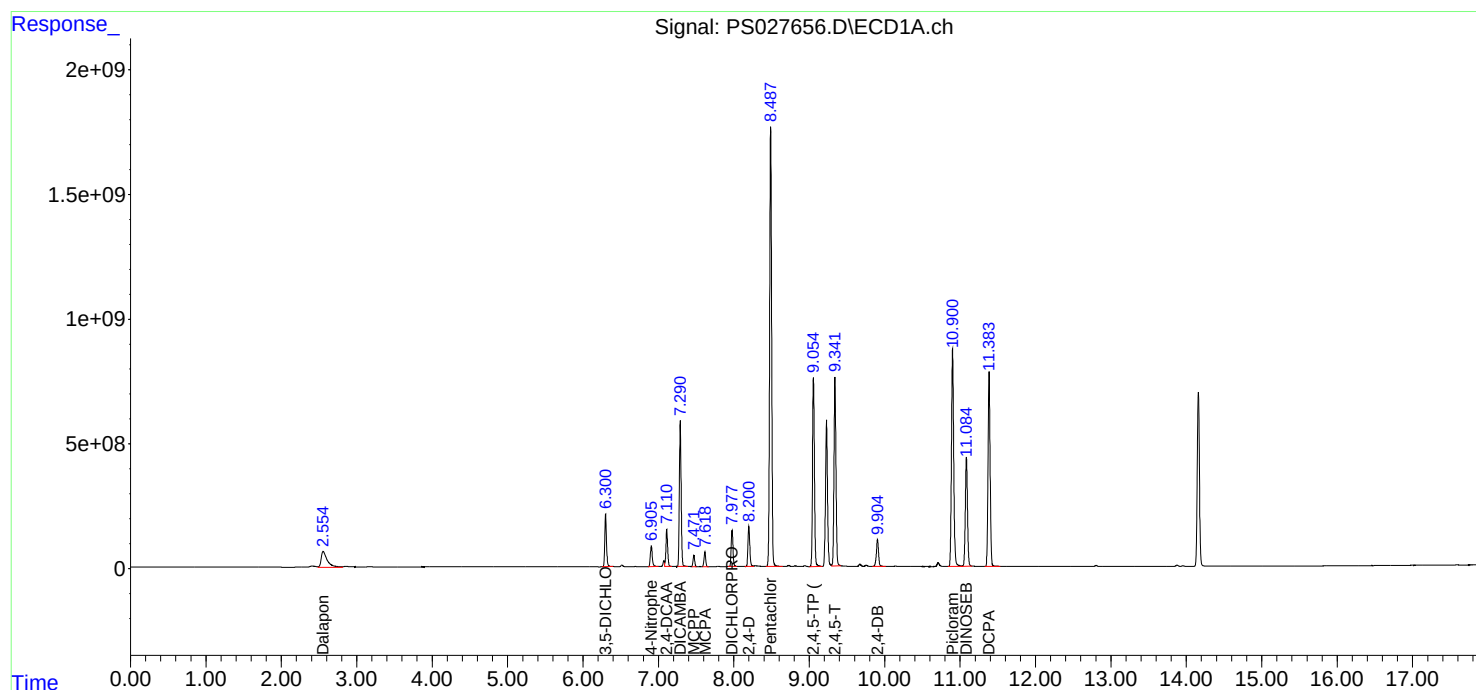
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS091224\  
Data File : PS027656.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 12 Sep 2024 22:35  
Operator : AR\AJ  
Sample : HSTDICC1000  
Misc :  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
ECD\_S  
ClientSampleId :  
HSTDICC1000

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Sep 14 02:31:08 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:14:58 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\PS091224\  
 Data File : PS027657.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 12 Sep 2024 22:59  
 Operator : AR\AJ  
 Sample : HSTDICC1500  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 ECD\_S  
 ClientSampleId :  
 HSTDICC1500

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Sep 14 02:25:44 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
 Quant Title : 8080.M  
 QLast Update : Sat Sep 14 02:14:58 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     | 7.111  | 7.633  | 3323.1E6  | 1411.3E6  | 1437.290 | 1468.551 |
| Target Compounds            |              |        |        |           |           |          |          |
| 1) T                        | Dalapon      | 2.555  | 2.622  | 5037.8E6  | 2299.7E6  | 1318.678 | 1396.125 |
| 2) T                        | 3,5-DICHL... | 6.301  | 6.604  | 4558.9E6  | 2126.4E6  | 1338.954 | 1365.206 |
| 3) T                        | 4-Nitroph... | 6.906  | 7.167  | 2100.6E6  | 875.3E6   | 1326.803 | 1312.725 |
| 5) T                        | DICAMBA      | 7.291  | 7.829  | 13074.5E6 | 6293.3E6  | 1357.498 | 1405.049 |
| 6) T                        | MCPD         | 7.475  | 7.934  | 1006.2E6  | 499.2E6   | 142.356  | 144.414  |
| 7) T                        | MCPA         | 7.622  | 8.177  | 1366.4E6  | 657.9E6   | 137.931  | 134.504  |
| 8) T                        | DICHLORPROP  | 7.977  | 8.536  | 3360.4E6  | 1515.0E6  | 1358.414 | 1389.615 |
| 9) T                        | 2,4-D        | 8.201  | 8.861  | 3922.7E6  | 1540.8E6  | 1361.649 | 1403.265 |
| 10) T                       | Pentachlo... | 8.488  | 9.379  | 43305.6E6 | 22296.3E6 | 1309.248 | 1373.777 |
| 11) T                       | 2,4,5-TP ... | 9.055  | 9.755  | 18661.8E6 | 8544.4E6  | 1356.375 | 1410.542 |
| 12) T                       | 2,4,5-T      | 9.341  | 10.171 | 19156.0E6 | 7453.4E6  | 1359.783 | 1419.731 |
| 13) T                       | 2,4-DB       | 9.905  | 10.734 | 3108.2E6  | 896.4E6   | 1397.986 | 1444.710 |
| 14) T                       | DINOSEB      | 11.084 | 11.110 | 12304.9E6 | 5734.9E6  | 1344.861 | 1384.079 |
| 15) T                       | Picloram     | 10.900 | 12.192 | 25096.0E6 | 7676.1E6  | 1387.971 | 1497.295 |
| 16) T                       | DCPA         | 11.384 | 12.146 | 21214.1E6 | 9111.2E6  | 1370.134 | 1422.134 |
| -----                       |              |        |        |           |           |          |          |

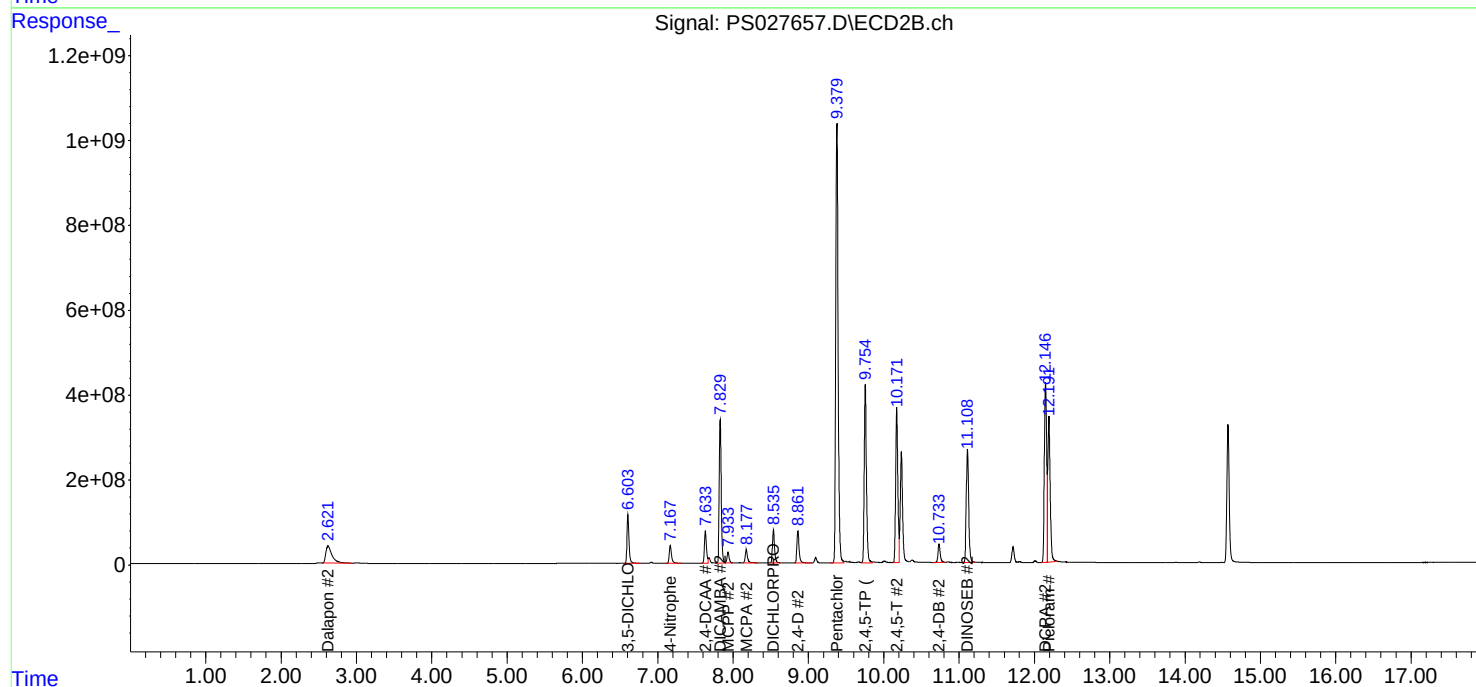
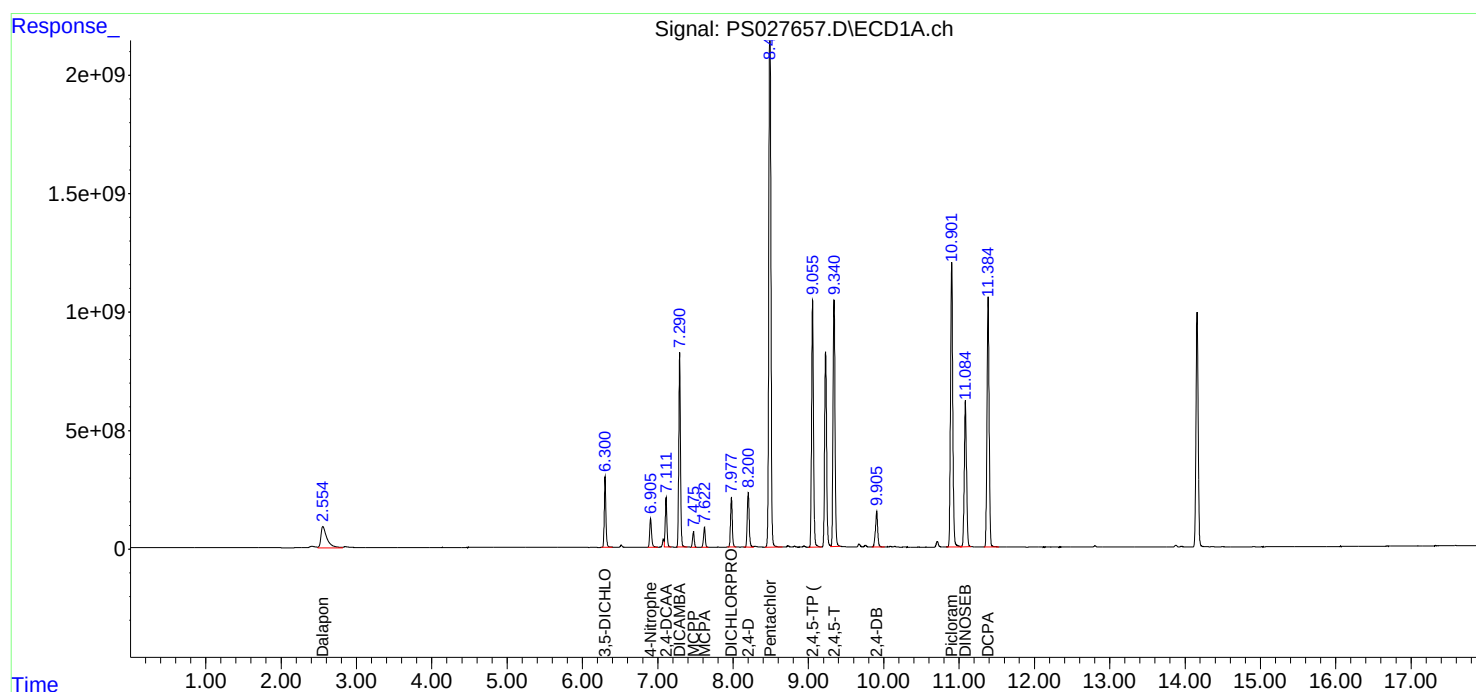
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS091224\  
Data File : PS027657.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 12 Sep 2024 22:59  
Operator : AR\AJ  
Sample : HSTDICC1500  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Instrument :  
ECD\_S  
ClientSampleId :  
HSTDICC1500

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Sep 14 02:25:44 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:14:58 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\PS091224\  
 Data File : PS027658.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 12 Sep 2024 23:23  
 Operator : AR\AJ  
 Sample : HSTDICV750  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

**Instrument :**

ECD\_S

**ClientSampleId :**

ICVPS091224

**Manual Integrations****APPROVED**

Reviewed By :Abdul Mirza 09/15/2024

Supervised By :Ankita Jodhani 09/16/2024

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Sep 14 02:19:47 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
 Quant Title : 8080.M  
 QLast Update : Sat Sep 14 02:14:58 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     | 7.111  | 7.633  | 1786.5E6  | 739.2E6   | 741.660 | 753.428m |
| Target Compounds            |              |        |        |           |           |         |          |
| 1) T                        | Dalapon      | 2.555  | 2.622  | 2706.0E6  | 1106.7E6  | 685.070 | 687.551  |
| 2) T                        | 3,5-DICHL... | 6.301  | 6.605  | 2442.1E6  | 1091.6E6  | 689.553 | 686.167  |
| 3) T                        | 4-Nitroph... | 6.906  | 7.168  | 1114.6E6  | 477.4E6   | 684.808 | 689.626  |
| 5) T                        | DICAMBA      | 7.290  | 7.829  | 7051.8E6  | 3072.3E6  | 705.885 | 683.528  |
| 6) T                        | MCP          | 7.470  | 7.931  | 489.4E6   | 231.9E6   | 69.908  | 68.744   |
| 7) T                        | MCPA         | 7.615  | 8.172  | 693.5E6   | 355.5E6   | 69.227  | 70.163   |
| 8) T                        | DICHLORPROP  | 7.977  | 8.535  | 1795.4E6  | 775.9E6   | 700.162 | 701.496  |
| 9) T                        | 2,4-D        | 8.200  | 8.861  | 2076.2E6  | 776.6E6   | 696.789 | 703.881  |
| 10) T                       | Pentachlo... | 8.487  | 9.378  | 25306.5E6 | 11897.7E6 | 707.608 | 707.632  |
| 11) T                       | 2,4,5-TP ... | 9.055  | 9.754  | 10273.8E6 | 4244.4E6  | 712.410 | 693.646  |
| 12) T                       | 2,4,5-T      | 9.341  | 10.171 | 10498.7E6 | 3651.8E6  | 712.633 | 693.023  |
| 13) T                       | 2,4-DB       | 9.905  | 10.734 | 1622.5E6  | 425.0E6   | 716.193 | 694.539  |
| 14) T                       | DINOSEB      | 11.084 | 11.110 | 6726.8E6  | 2934.1E6  | 702.745 | 695.331  |
| 15) T                       | Picloram     | 10.900 | 12.192 | 13405.9E6 | 3427.2E6  | 722.655 | 704.227  |
| 16) T                       | DCPA         | 11.383 | 12.146 | 11739.8E6 | 4735.8E6  | 723.141 | 730.136  |
| -----                       |              |        |        |           |           |         |          |

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



Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS091224\  
Data File : PS027658.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 12 Sep 2024 23:23  
Operator : AR\AJ  
Sample : HSTDICV750  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

## Instrument :

ECD\_S

## ClientSampleId :

ICVPS091224

## Manual Integrations

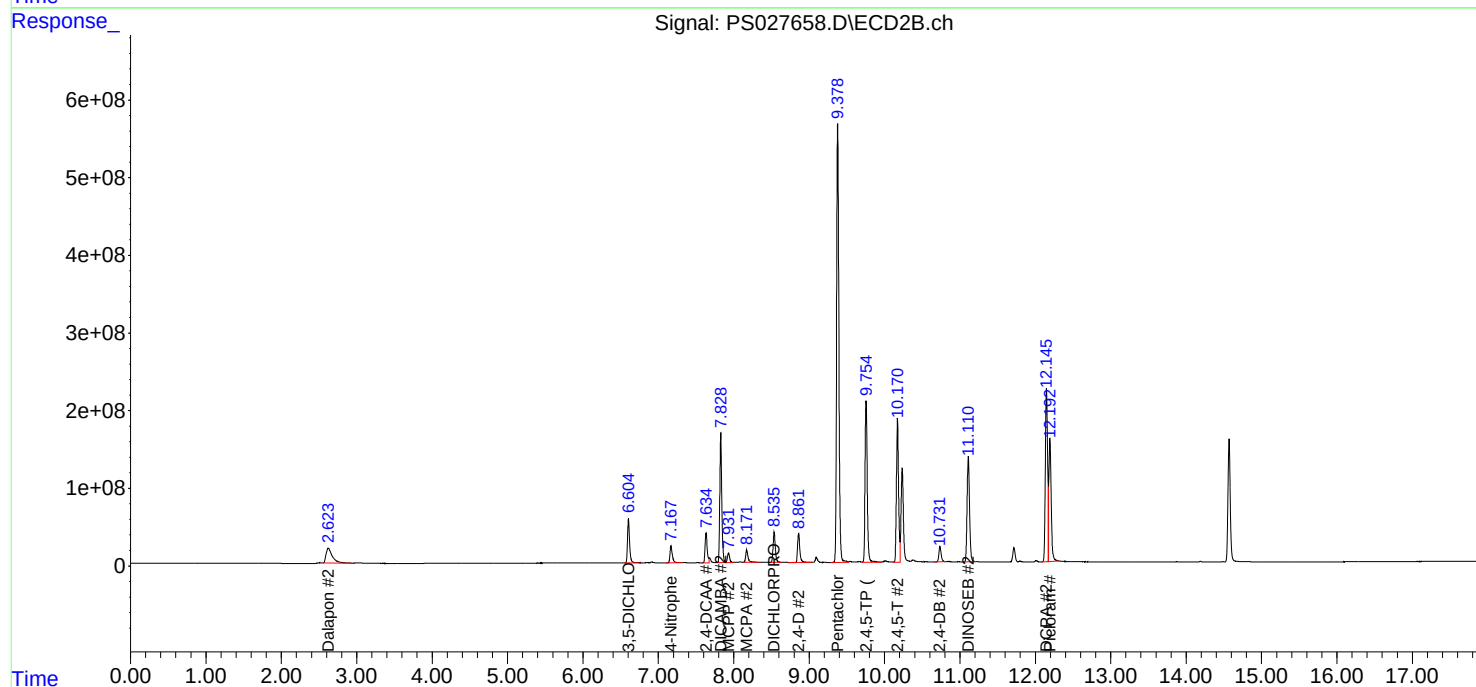
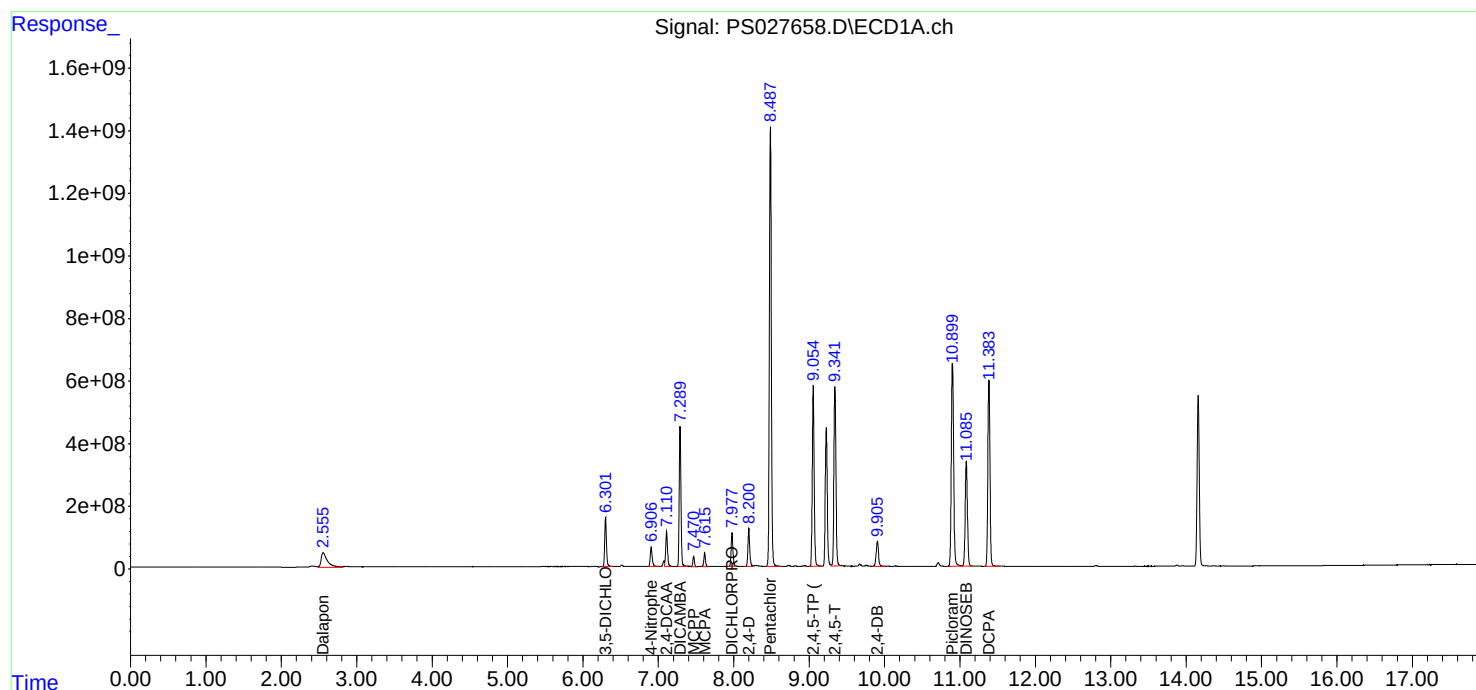
APPROVED

Reviewed By :Abdul Mirza 09/15/2024

Supervised By :Ankita Jodhani 09/16/2024

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Sep 14 02:19:47 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:14:58 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

### CALIBRATION VERIFICATION SUMMARY

Contract: ROMA02

Lab Code: CHEM Case No.: P4258 SAS No.: P4258 SDG NO.: P4258

Continuing Calib Date: 10/03/2024 Initial Calibration Date(s): 09/12/2024 09/12/2024

Continuing Calib Time: 21:23 Initial Calibration Time(s): 21:24 22:59

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

| COMPOUND         | CCAL<br>RT | AVG<br>RT | RT WINDOW<br>FROM   TO |      | DIFF<br>RT |
|------------------|------------|-----------|------------------------|------|------------|
| 2,4-DCAA         | 7.10       | 7.11      | 7.01                   | 7.21 | 0.01       |
| 2,4-D            | 8.19       | 8.20      | 8.10                   | 8.30 | 0.01       |
| 2,4,5-TP(Silvex) | 9.04       | 9.06      | 8.96                   | 9.16 | 0.02       |



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

### CALIBRATION VERIFICATION SUMMARY

Contract: ROMA02

Lab Code: CHEM Case No.: P4258 SAS No.: P4258 SDG NO.: P4258

Continuing Calib Date: 10/03/2024 Initial Calibration Date(s): 09/12/2024 09/12/2024

Continuing Calib Time: 21:23 Initial Calibration Time(s): 21:24 22:59

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

| COMPOUND         | CCAL<br>RT | AVG<br>RT | RT WINDOW<br>FROM   TO |      | DIFF<br>RT |
|------------------|------------|-----------|------------------------|------|------------|
| 2,4-DCAA         | 7.62       | 7.63      | 7.53                   | 7.73 | 0.01       |
| 2,4-D            | 8.85       | 8.86      | 8.76                   | 8.96 | 0.01       |
| 2,4,5-TP(Silvex) | 9.74       | 9.76      | 9.66                   | 9.86 | 0.02       |



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

### CALIBRATION VERIFICATION SUMMARY

Contract: ROMA02

Lab Code: CHEM Case No.: P4258 SAS No.: P4258 SDG NO.: P4258

GC Column: RTX-CLP ID: 0.32 (mm) Initi. Calib. Date(s): 09/12/2024 09/12/2024

Client Sample No.: CCAL01 Date Analyzed: 10/03/2024

Lab Sample No.: HSTDCCC750 Data File : PS027828.D Time Analyzed: 21:23

| COMPOUND         | RT    | RT WINDOW |       | CALC<br>AMOUNT(ng) | NOM<br>AMOUNT(ng) | %D   |
|------------------|-------|-----------|-------|--------------------|-------------------|------|
|                  |       | FROM      | TO    |                    |                   |      |
| 2,4,5-TP(Silvex) | 9.039 | 8.956     | 9.156 | 740.020            | 712.500           | 3.9  |
| 2,4-D            | 8.186 | 8.101     | 8.301 | 712.760            | 705.000           | 1.1  |
| 2,4-DCAA         | 7.099 | 7.012     | 7.212 | 748.300            | 750.000           | -0.2 |



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### CALIBRATION VERIFICATION SUMMARY

Contract: ROMA02

Lab Code: CHEM Case No.: P4258 SAS No.: P4258 SDG NO.: P4258

GC Column: RTX-CLP2 ID: 0.32 (mm) Initi. Calib. Date(s): 09/12/2024 09/12/2024

Client Sample No.: CCAL01 Date Analyzed: 10/03/2024

Lab Sample No.: HSTDCCC750 Data File : PS027828.D Time Analyzed: 21:23

| COMPOUND         | RT    | RT WINDOW |       | CALC<br>AMOUNT(ng) | NOM<br>AMOUNT(ng) | %D  |
|------------------|-------|-----------|-------|--------------------|-------------------|-----|
|                  |       | FROM      | TO    |                    |                   |     |
| 2,4,5-TP(Silvex) | 9.737 | 9.655     | 9.855 | 729.370            | 712.500           | 2.4 |
| 2,4-D            | 8.848 | 8.761     | 8.961 | 714.120            | 705.000           | 1.3 |
| 2,4-DCAA         | 7.622 | 7.533     | 7.733 | 754.600            | 750.000           | 0.6 |

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS100324\  
 Data File : PS027828.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 03 Oct 2024 21:23  
 Operator : AR\AJ  
 Sample : HSTDCCC750  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

## Instrument :

ECD\_S

## ClientSampleId :

HSTDCCC750

## Manual Integrations

## APPROVED

Reviewed By :Abdul Mirza 10/04/2024

Supervised By :Ankita Jodhani 10/04/2024

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Oct 04 07:03:02 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
 Quant Title : 8080.M  
 QLast Update : Sat Sep 14 02:36:56 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     | 7.099  | 7.622  | 1861.5E6  | 747.8E6   | 748.297  | 754.596m |
| Target Compounds            |              |        |        |           |           |          |          |
| 1) T                        | Dalapon      | 2.548  | 2.613  | 2736.8E6  | 1115.3E6  | 660.573  | 683.435  |
| 2) T                        | 3,5-DICHL... | 6.290  | 6.593  | 2594.1E6  | 1095.2E6  | 710.150  | 679.654  |
| 3) T                        | 4-Nitroph... | 6.894  | 7.158  | 1155.7E6  | 481.1E6   | 682.599  | 671.169  |
| 5) T                        | DICAMBA      | 7.277  | 7.816  | 7364.9E6  | 3088.9E6  | 728.827m | 701.012  |
| 6) T                        | MCP          | 7.457  | 7.919  | 557.3E6   | 226.3E6   | 80.839m  | 68.938   |
| 7) T                        | MCPA         | 7.602  | 8.158  | 712.4E6   | 329.4E6   | 70.327   | 62.216   |
| 8) T                        | DICHLORPROP  | 7.963  | 8.522  | 1893.5E6  | 792.2E6   | 714.291  | 709.069  |
| 9) T                        | 2,4-D        | 8.186  | 8.848  | 2184.8E6  | 796.3E6   | 712.755  | 714.118  |
| 10) T                       | Pentachlo... | 8.472  | 9.360  | 26643.7E6 | 11538.6E6 | 732.549  | 697.943  |
| 11) T                       | 2,4,5-TP ... | 9.039  | 9.737  | 10830.2E6 | 4373.2E6  | 740.019  | 729.372  |
| 12) T                       | 2,4,5-T      | 9.323  | 10.152 | 10766.4E6 | 3680.3E6  | 719.300  | 704.115  |
| 13) T                       | 2,4-DB       | 9.887  | 10.713 | 1567.2E6  | 423.1E6   | 674.860  | 687.555  |
| 14) T                       | DINOSEB      | 11.061 | 11.087 | 6971.8E6  | 2780.7E6  | 712.803  | 661.200  |
| 15) T                       | Picloram     | 10.879 | 12.167 | 11448.2E6 | 2993.4E6  | 611.951  | 644.106  |
| 16) T                       | DCPA         | 11.361 | 12.119 | 12387.3E6 | 4761.9E6  | 746.340  | 738.840  |
| -----                       |              |        |        |           |           |          |          |

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS100324\  
Data File : PS027828.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 03 Oct 2024 21:23  
Operator : AR\AJ  
Sample : HSTDCCC750  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

## Instrument :

ECD\_S

## ClientSampleId :

HSTDCCC750

## Manual Integrations

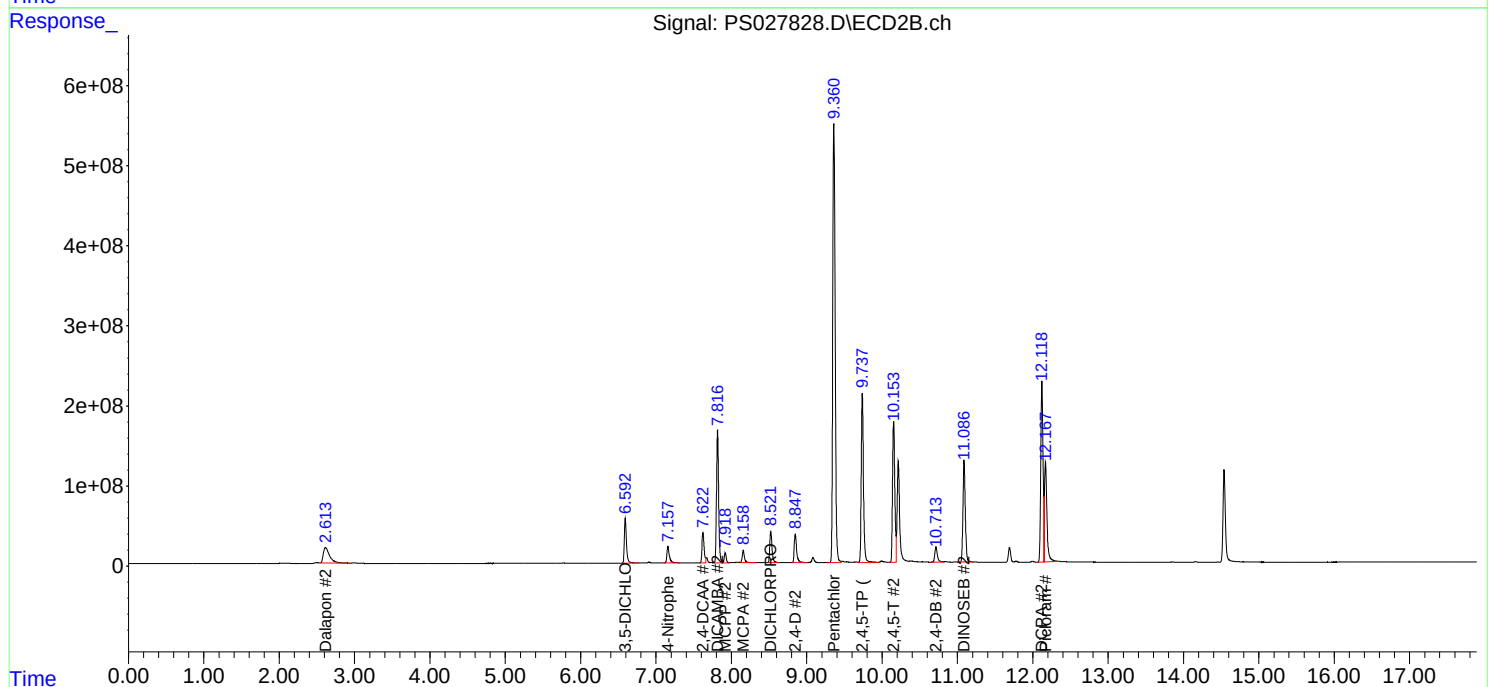
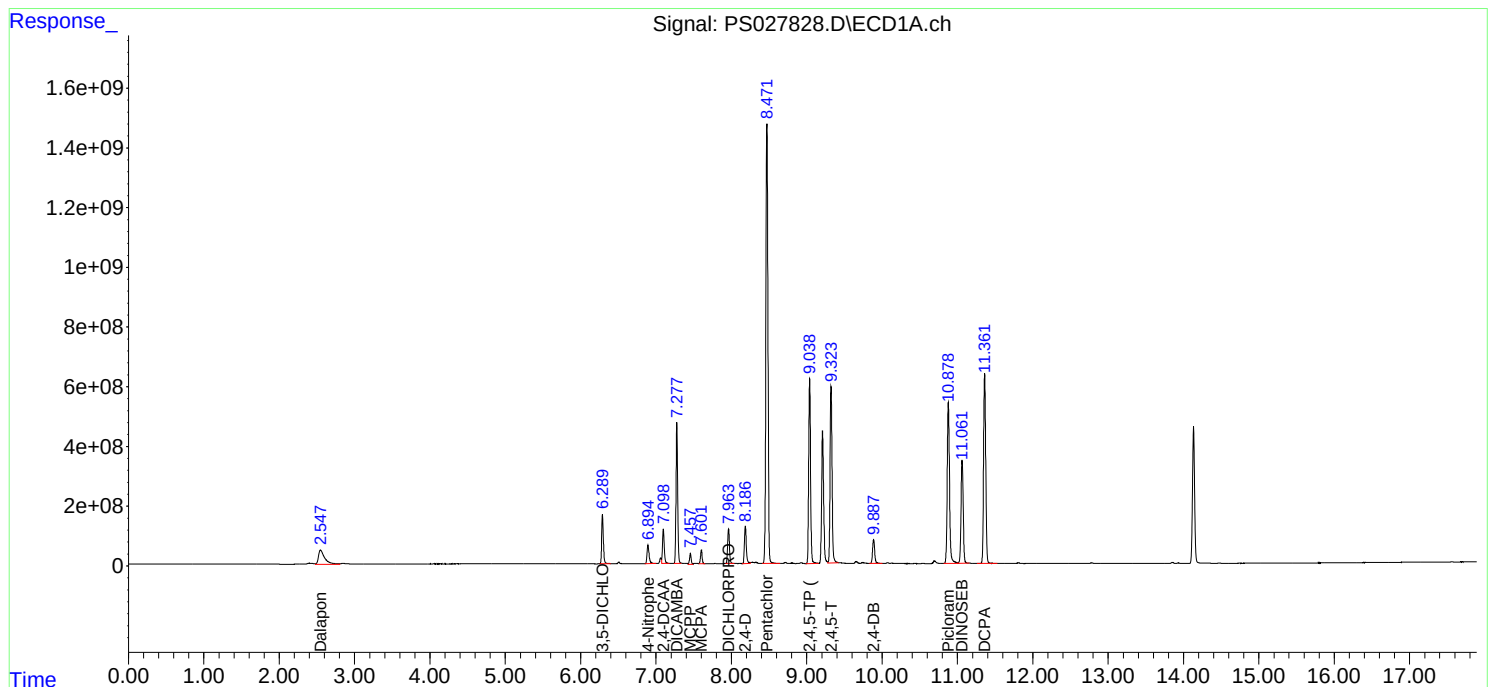
## APPROVED

Reviewed By :Abdul Mirza 10/04/2024

Supervised By :Ankita Jodhani 10/04/2024

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Oct 04 07:03:02 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:36:56 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

### CALIBRATION VERIFICATION SUMMARY

Contract: ROMA02

Lab Code: CHEM Case No.: P4258 SAS No.: P4258 SDG NO.: P4258

Continuing Calib Date: 10/04/2024 Initial Calibration Date(s): 09/12/2024 09/12/2024

Continuing Calib Time: 04:09 Initial Calibration Time(s): 21:24 22:59

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

| COMPOUND         | CCAL<br>RT | AVG<br>RT | RT WINDOW |      | DIFF<br>RT |
|------------------|------------|-----------|-----------|------|------------|
|                  |            |           | FROM      | TO   |            |
| 2,4-DCAA         | 7.10       | 7.11      | 7.01      | 7.21 | 0.01       |
| 2,4-D            | 8.19       | 8.20      | 8.10      | 8.30 | 0.01       |
| 2,4,5-TP(Silvex) | 9.04       | 9.06      | 8.96      | 9.16 | 0.02       |





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

### CALIBRATION VERIFICATION SUMMARY

Contract: ROMA02

Lab Code: CHEM Case No.: P4258 SAS No.: P4258 SDG NO.: P4258

Continuing Calib Date: 10/04/2024 Initial Calibration Date(s): 09/12/2024 09/12/2024

Continuing Calib Time: 04:09 Initial Calibration Time(s): 21:24 22:59

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

| COMPOUND         | CCAL<br>RT | AVG<br>RT | RT WINDOW |      | DIFF<br>RT |
|------------------|------------|-----------|-----------|------|------------|
|                  |            |           | FROM      | TO   |            |
| 2,4-DCAA         | 7.62       | 7.63      | 7.53      | 7.73 | 0.01       |
| 2,4-D            | 8.85       | 8.86      | 8.76      | 8.96 | 0.01       |
| 2,4,5-TP(Silvex) | 9.74       | 9.76      | 9.66      | 9.86 | 0.02       |



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

### CALIBRATION VERIFICATION SUMMARY

Contract: ROMA02

Lab Code: CHEM Case No.: P4258 SAS No.: P4258 SDG NO.: P4258

GC Column: RTX-CLP ID: 0.32 (mm) Initi. Calib. Date(s): 09/12/2024 09/12/2024

Client Sample No.: CCAL02 Date Analyzed: 10/04/2024

Lab Sample No.: HSTDCCC750 Data File : PS027842.D Time Analyzed: 04:09

| COMPOUND         | RT    | RT WINDOW |       | CALC<br>AMOUNT(ng) | NOM<br>AMOUNT(ng) | %D   |
|------------------|-------|-----------|-------|--------------------|-------------------|------|
|                  |       | FROM      | TO    |                    |                   |      |
| 2,4,5-TP(Silvex) | 9.037 | 8.956     | 9.156 | 726.660            | 712.500           | 2.0  |
| 2,4-D            | 8.185 | 8.101     | 8.301 | 694.740            | 705.000           | -1.5 |
| 2,4-DCAA         | 7.098 | 7.012     | 7.212 | 754.310            | 750.000           | 0.6  |



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

### CALIBRATION VERIFICATION SUMMARY

Contract: ROMA02

Lab Code: CHEM Case No.: P4258 SAS No.: P4258 SDG NO.: P4258

GC Column: RTX-CLP2 ID: 0.32 (mm) Initi. Calib. Date(s): 09/12/2024 09/12/2024

Client Sample No.: CCAL02 Date Analyzed: 10/04/2024

Lab Sample No.: HSTDCCC750 Data File : PS027842.D Time Analyzed: 04:09

| COMPOUND         | RT    | RT WINDOW |       | CALC<br>AMOUNT(ng) | NOM<br>AMOUNT(ng) | %D  |
|------------------|-------|-----------|-------|--------------------|-------------------|-----|
|                  |       | FROM      | TO    |                    |                   |     |
| 2,4,5-TP(Silvex) | 9.736 | 9.655     | 9.855 | 745.500            | 712.500           | 4.6 |
| 2,4-D            | 8.847 | 8.761     | 8.961 | 718.340            | 705.000           | 1.9 |
| 2,4-DCAA         | 7.621 | 7.533     | 7.733 | 758.460            | 750.000           | 1.1 |

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS100324\  
 Data File : PS027842.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 04 Oct 2024 04:09  
 Operator : AR\AJ  
 Sample : HSTDCCC750  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

## Instrument :

ECD\_S

## ClientSampleId :

HSTDCCC750

## Manual Integrations

## APPROVED

Reviewed By :Abdul Mirza 10/04/2024

Supervised By :Ankita Jodhani 10/04/2024

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Oct 04 07:14:00 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
 Quant Title : 8080.M  
 QLast Update : Sat Sep 14 02:36:56 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     | 7.098  | 7.621  | 1876.4E6  | 751.7E6   | 754.306  | 758.460m |
| Target Compounds            |              |        |        |           |           |          |          |
| 1) T                        | Dalapon      | 2.547  | 2.619  | 2473.2E6  | 1034.8E6  | 596.939  | 634.124  |
| 2) T                        | 3,5-DICHL... | 6.289  | 6.593  | 2587.5E6  | 1105.2E6  | 708.339  | 685.832  |
| 3) T                        | 4-Nitroph... | 6.893  | 7.157  | 1139.7E6  | 477.3E6   | 673.142  | 665.853  |
| 5) T                        | DICAMBA      | 7.276  | 7.815  | 7341.9E6  | 3122.4E6  | 726.550m | 708.614  |
| 6) T                        | MCP          | 7.455  | 7.918  | 536.3E6   | 230.4E6   | 77.796m  | 70.202   |
| 7) T                        | MCPA         | 7.601  | 8.158  | 694.5E6   | 330.8E6   | 68.558   | 62.480   |
| 8) T                        | DICHLORPROP  | 7.962  | 8.521  | 1879.4E6  | 796.4E6   | 708.954  | 712.876  |
| 9) T                        | 2,4-D        | 8.185  | 8.847  | 2129.5E6  | 801.0E6   | 694.741  | 718.345  |
| 10) T                       | Pentachlo... | 8.470  | 9.360  | 26435.0E6 | 11860.9E6 | 726.811  | 717.435  |
| 11) T                       | 2,4,5-TP ... | 9.037  | 9.736  | 10634.6E6 | 4470.0E6  | 726.656  | 745.503  |
| 12) T                       | 2,4,5-T      | 9.322  | 10.151 | 10461.0E6 | 3732.4E6  | 698.899  | 714.091  |
| 13) T                       | 2,4-DB       | 9.886  | 10.712 | 1546.0E6  | 446.5E6   | 665.748  | 725.737  |
| 14) T                       | DINOSEB      | 11.060 | 11.086 | 6555.6E6  | 2693.2E6  | 670.246  | 640.395  |
| 15) T                       | Picloram     | 10.877 | 12.165 | 10599.3E6 | 2643.3E6  | 566.573  | 568.783m |
| 16) T                       | DCPA         | 11.360 | 12.117 | 12158.7E6 | 4757.8E6  | 732.565  | 738.203m |
| -----                       |              |        |        |           |           |          |          |

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS100324\  
Data File : PS027842.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 04 Oct 2024 04:09  
Operator : AR\AJ  
Sample : HSTDCCC750  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

## Instrument :

ECD\_S

## ClientSampleId :

HSTDCCC750

## Manual Integrations

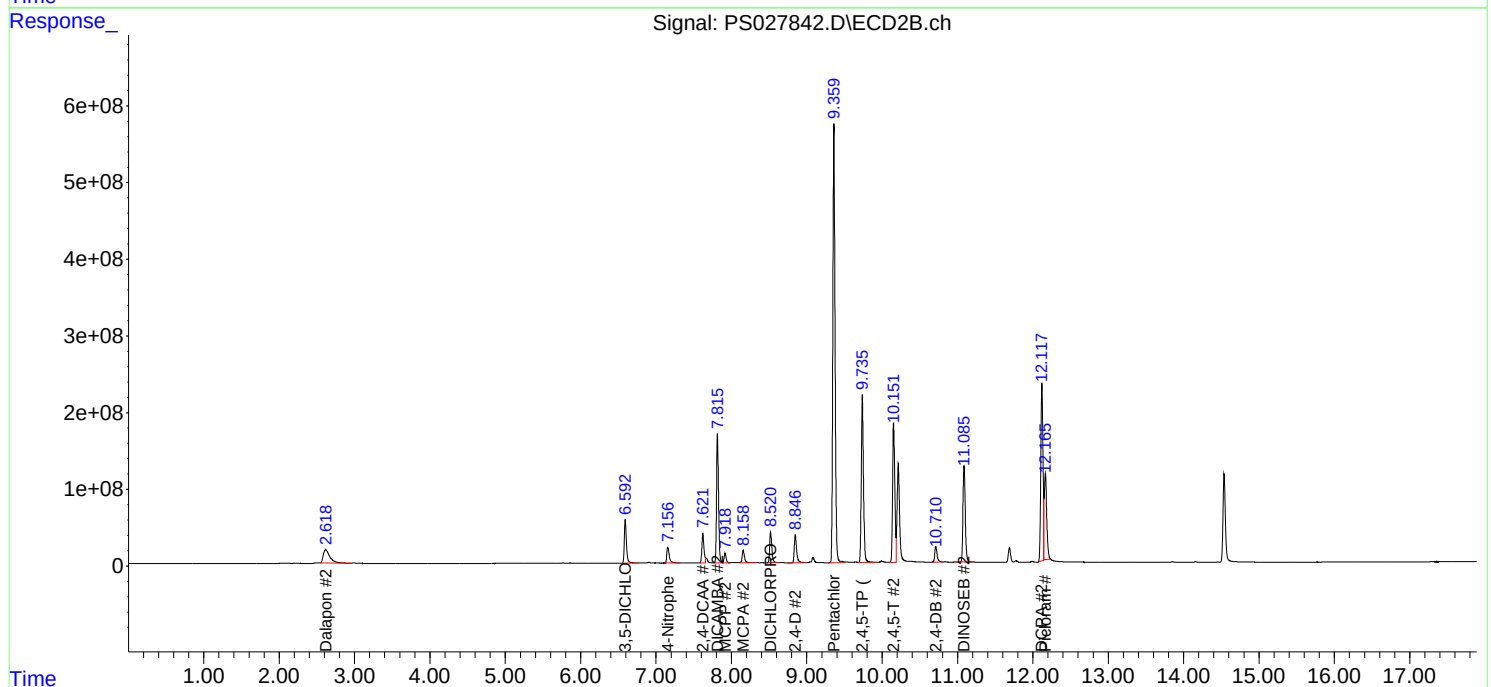
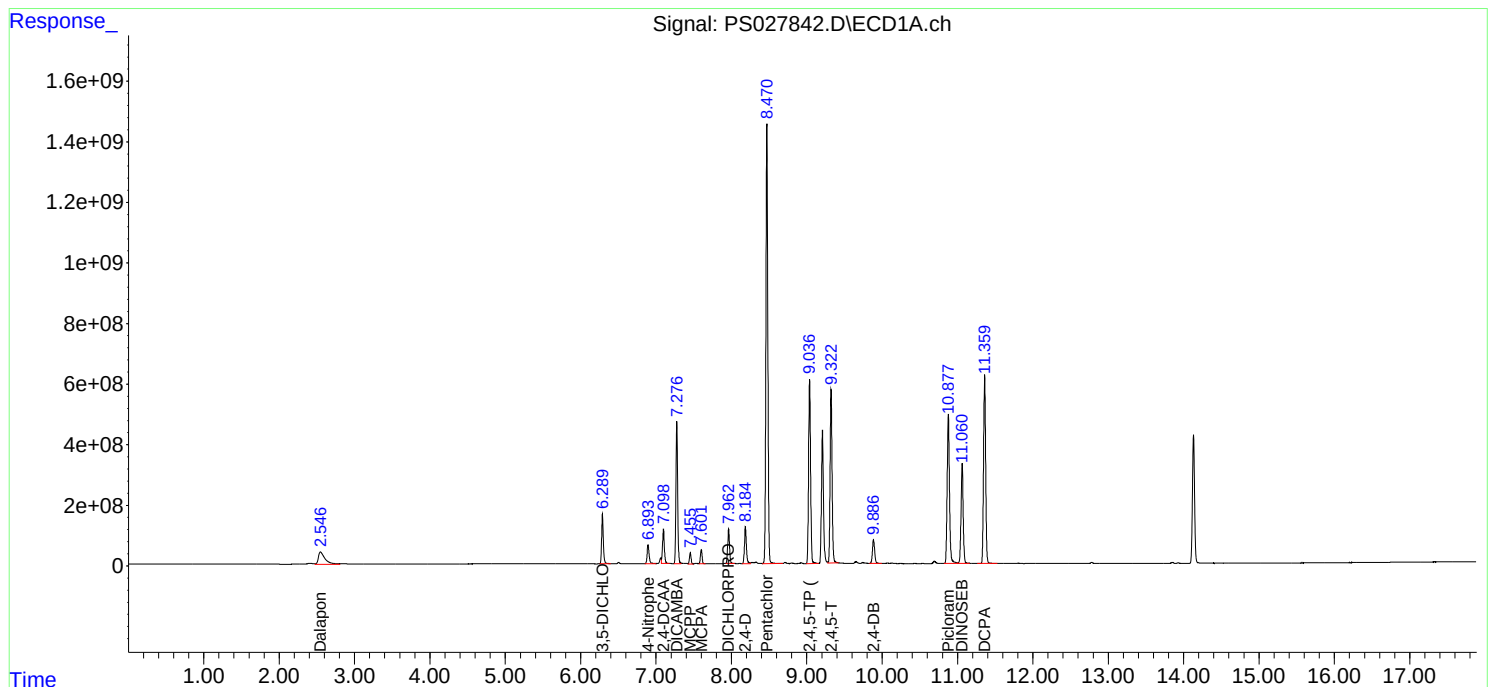
## APPROVED

Reviewed By :Abdul Mirza 10/04/2024

Supervised By :Ankita Jodhani 10/04/2024

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Oct 04 07:14:00 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:36:56 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:** Roman E&G Corp

**SDG No.:** P4258

**Project:** Perth Amboy

**Instrument ID:** ECD\_S

**GC Column:** RTX-CLP

**ID:** 0.32 (mm)

**Inst. Calib. Date(s):** 09/12/2024 09/12/2024

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

| EPA<br>SAMPLE NO.  | LAB<br>SAMPLE ID | DATE<br>ANALYZED | TIME<br>ANALYZED | DATAFILE   | DCAA<br>RT # | RT # |
|--------------------|------------------|------------------|------------------|------------|--------------|------|
| 1.BLK              | 1.BLK            | 09/12/2024       | 21:00            | PS027652.D | 7.11         | 0.00 |
| HSTDICC200         | HSTDICC200       | 09/12/2024       | 21:24            | PS027653.D | 7.11         | 0.00 |
| HSTDICC500         | HSTDICC500       | 09/12/2024       | 21:48            | PS027654.D | 7.11         | 0.00 |
| HSTDICC750         | HSTDICC750       | 09/12/2024       | 22:12            | PS027655.D | 7.11         | 0.00 |
| HSTDICC1000        | HSTDICC1000      | 09/12/2024       | 22:35            | PS027656.D | 7.11         | 0.00 |
| HSTDICC1500        | HSTDICC1500      | 09/12/2024       | 22:59            | PS027657.D | 7.11         | 0.00 |
| 1.BLK              | 1.BLK            | 10/03/2024       | 20:59            | PS027827.D | 7.10         | 0.00 |
| HSTDCCC750         | HSTDCCC750       | 10/03/2024       | 21:23            | PS027828.D | 7.10         | 0.00 |
| Chamberlain Ave    | P4258-04         | 10/04/2024       | 01:22            | PS027835.D | 7.10         | 0.00 |
| Chamberlain AveMS  | P4258-04MS       | 10/04/2024       | 01:46            | PS027836.D | 7.10         | 0.00 |
| Chamberlain AveMSD | P4258-04MSD      | 10/04/2024       | 02:10            | PS027837.D | 7.10         | 0.00 |
| PB163890BL         | PB163890BL       | 10/04/2024       | 02:34            | PS027838.D | 7.10         | 0.00 |
| PB163890BS         | PB163890BS       | 10/04/2024       | 02:58            | PS027839.D | 7.10         | 0.00 |
| PB163851TB         | PB163851TB       | 10/04/2024       | 03:22            | PS027840.D | 7.10         | 0.00 |
| 1.BLK              | 1.BLK            | 10/04/2024       | 03:45            | PS027841.D | 7.10         | 0.00 |
| HSTDCCC750         | HSTDCCC750       | 10/04/2024       | 04:09            | PS027842.D | 7.10         | 0.00 |

## Analytical Sequence

**Client:** Roman E&G Corp

**SDG No.:** P4258

**Project:** Perth Amboy

**Instrument ID:** ECD\_S

**GC Column:** RTX-CLP2

**ID:** 0.32 (mm)

**Inst. Calib. Date(s):** 09/12/2024 09/12/2024

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

| EPA<br>SAMPLE NO.  | LAB<br>SAMPLE ID | DATE<br>ANALYZED | TIME<br>ANALYZED | DATAFILE   | DCAA<br>RT # | RT # |
|--------------------|------------------|------------------|------------------|------------|--------------|------|
| 1.BLK              | 1.BLK            | 09/12/2024       | 21:00            | PS027652.D | 7.63         | 0.00 |
| HSTDICC200         | HSTDICC200       | 09/12/2024       | 21:24            | PS027653.D | 7.63         | 0.00 |
| HSTDICC500         | HSTDICC500       | 09/12/2024       | 21:48            | PS027654.D | 7.63         | 0.00 |
| HSTDICC750         | HSTDICC750       | 09/12/2024       | 22:12            | PS027655.D | 7.63         | 0.00 |
| HSTDICC1000        | HSTDICC1000      | 09/12/2024       | 22:35            | PS027656.D | 7.63         | 0.00 |
| HSTDICC1500        | HSTDICC1500      | 09/12/2024       | 22:59            | PS027657.D | 7.63         | 0.00 |
| 1.BLK              | 1.BLK            | 10/03/2024       | 20:59            | PS027827.D | 7.62         | 0.00 |
| HSTDCCC750         | HSTDCCC750       | 10/03/2024       | 21:23            | PS027828.D | 7.62         | 0.00 |
| Chamberlain Ave    | P4258-04         | 10/04/2024       | 01:22            | PS027835.D | 7.62         | 0.00 |
| Chamberlain AveMS  | P4258-04MS       | 10/04/2024       | 01:46            | PS027836.D | 7.62         | 0.00 |
| Chamberlain AveMSD | P4258-04MSD      | 10/04/2024       | 02:10            | PS027837.D | 7.62         | 0.00 |
| PB163890BL         | PB163890BL       | 10/04/2024       | 02:34            | PS027838.D | 7.62         | 0.00 |
| PB163890BS         | PB163890BS       | 10/04/2024       | 02:58            | PS027839.D | 7.62         | 0.00 |
| PB163851TB         | PB163851TB       | 10/04/2024       | 03:22            | PS027840.D | 7.62         | 0.00 |
| 1.BLK              | 1.BLK            | 10/04/2024       | 03:45            | PS027841.D | 7.62         | 0.00 |
| HSTDCCC750         | HSTDCCC750       | 10/04/2024       | 04:09            | PS027842.D | 7.62         | 0.00 |

# COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

Chamberlain AveMS

Contract: ROMA02

Lab Code: CHEM

Case No.: P4258

SAS No.: P4258

SDG NO.: P4258

Lab Sample ID: P4258-04MS

Date(s) Analyzed: 10/04/2024

10/04/2024

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   | 8.18 | 8.13      | 8.23 | 51.9          | 13.1 |
|                  | 2   | 8.85 | 8.80      | 8.90 | 59.2          |      |
| 2,4,5-TP(Silvex) | 1   | 9.04 | 8.99      | 9.09 | 49.0          | 27.5 |
|                  | 2   | 9.74 | 9.69      | 9.79 | 64.6          |      |



### COMPOUND DETECTION SUMMARY

CLIENT SAMPLE NO.

Chamberlain AveMSD

Contract: ROMA02

Lab Code: CHEM Case No.: P4258 SAS No.: P4258 SDG NO.: P4258

Lab Sample ID: P4258-04MSD Date(s) Analyzed: 10/04/2024 10/04/2024

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   | 8.19 | 8.14      | 8.24 | 53.3          | 10.8 |
|                  | 2   | 8.85 | 8.80      | 8.90 | 59.4          |      |
| 2,4,5-TP(Silvex) | 1   | 9.04 | 8.99      | 9.09 | 50.4          | 38.5 |
|                  | 2   | 9.74 | 9.69      | 9.79 | 74.4          |      |

**COMPOUND DETECTION SUMMARY**

**CLIENT SAMPLE NO.**

**PB163890BS**

**Contract:** ROMA02

**Lab Code:** CHEM

**Case No.:** P4258

**SAS No.:** P4258

**SDG NO.:** P4258

**Lab Sample ID:** PB163890BS

**Date(s) Analyzed:** 10/04/2024

10/04/2024

**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   | 8.19 | 8.14      | 8.24 | 5.30          | 10.7 |
|                  | 2   | 8.85 | 8.80      | 8.90 | 5.90          |      |
| 2,4,5-TP(Silvex) | 1   | 9.04 | 8.99      | 9.09 | 5.20          | 3.9  |
|                  | 2   | 9.74 | 9.69      | 9.79 | 5.00          |      |



# QC SAMPLE DATA

## Report of Analysis

|                    |                        |                    |                  |
|--------------------|------------------------|--------------------|------------------|
| Client:            | Roman E&G Corp         | Date Collected:    |                  |
| Project:           | Perth Amboy            | Date Received:     |                  |
| Client Sample ID:  | PB163890BL             | SDG No.:           | P4258            |
| Lab Sample ID:     | PB163890BL             | 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 |
| PS027838.D        | 1         | 10/03/24 12:00 | 10/04/24 02:34 | PB163890      |

| CAS Number        | Parameter         | Conc. | Qualifier | MDL      | LOQ / CRQL | Units    |
|-------------------|-------------------|-------|-----------|----------|------------|----------|
| <b>TARGETS</b>    |                   |       |           |          |            |          |
| 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     |
| <b>SURROGATES</b> |                   |       |           |          |            |          |
| 19719-28-9        | 2,4-DCAA          | 526   |           | 39 - 175 | 105%       | 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 &gt;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\PS100324\  
 Data File : PS027838.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 04 Oct 2024 02:34  
 Operator : AR\AJ  
 Sample : PB163890BL  
 Misc :  
 ALS Vial : 23 Sample Multiplier: 1

Instrument :  
 ECD\_S  
 ClientSampleId :  
 PB163890BL

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Oct 04 05:41:56 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
 Quant Title : 8080.M  
 QLast Update : Sat Sep 14 02:36:56 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 | 7.098 | 7.622 | 1292.5E6 | 521.3E6 | 519.566 | 526.041 |
|---------------|-------|-------|----------|---------|---------|---------|

Target Compounds

-----

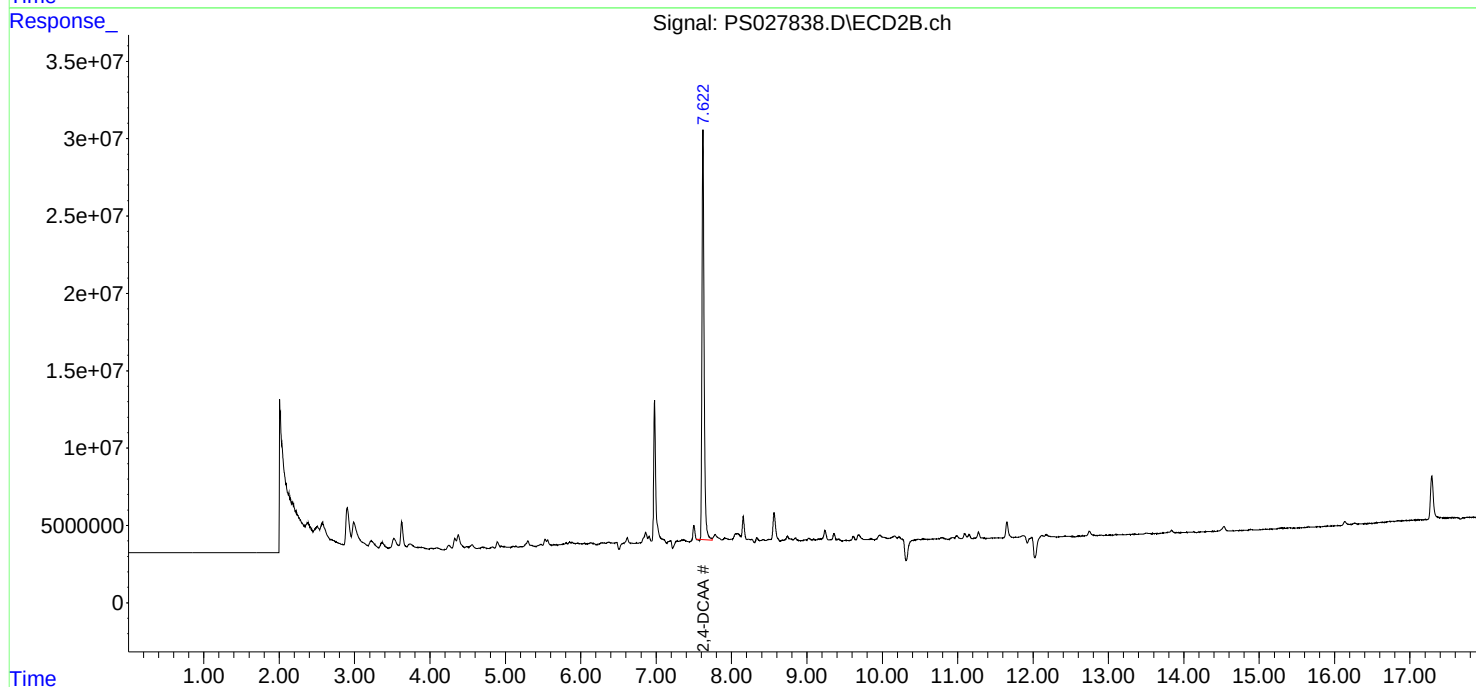
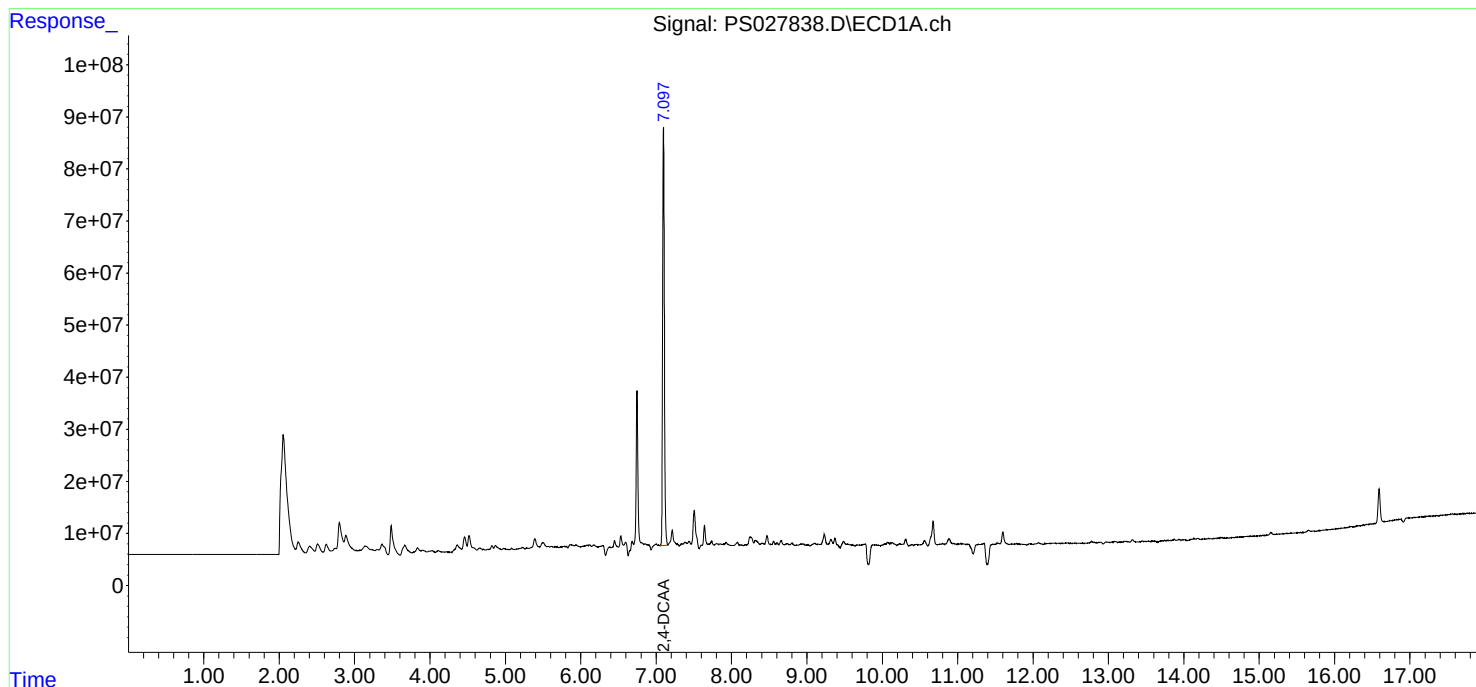
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

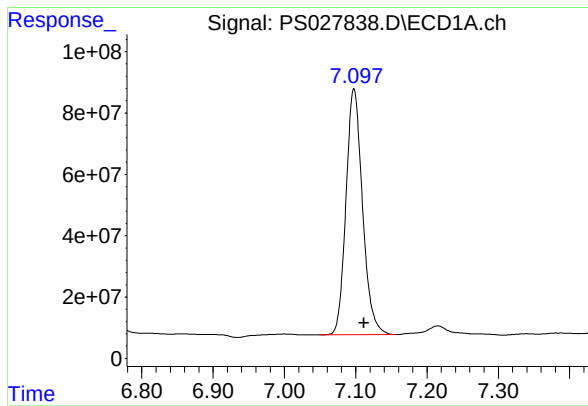
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS100324\  
Data File : PS027838.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 04 Oct 2024 02:34  
Operator : AR\AJ  
Sample : PB163890BL  
Misc :  
ALS Vial : 23 Sample Multiplier: 1

Instrument :  
ECD\_S  
ClientSampleId :  
PB163890BL

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Oct 04 05:41:56 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:36:56 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.: 7.098 min

Delta R.T.: -0.014 min

Response: 1292475268

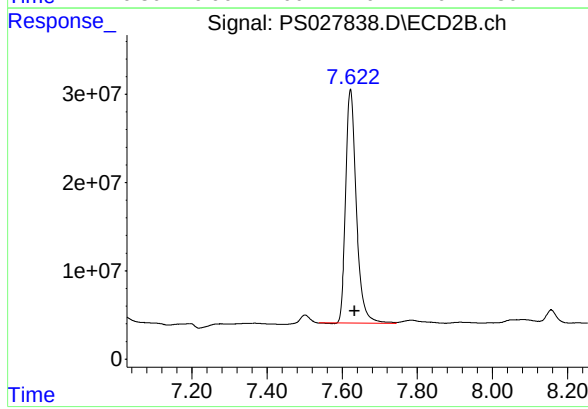
Conc: 519.57 ng/ml

Instrument :

ECD\_S

ClientSampleId :

PB163890BL



#4 2,4-DCAA

R.T.: 7.622 min

Delta R.T.: -0.011 min

Response: 521323811

Conc: 526.04 ng/ml

## Report of Analysis

|                    |                  |                    |                |
|--------------------|------------------|--------------------|----------------|
| Client:            | Roman E&G Corp   | Date Collected:    | 09/12/24       |
| Project:           | Perth Amboy      | Date Received:     | 09/12/24       |
| Client Sample ID:  | PIBLK-PS027652.D | SDG No.:           | P4258          |
| Lab Sample ID:     | I.BLK-PS027652.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 |
| PS027652.D        | 1         |           | 09/12/24      | ps091224      |

| CAS Number        | Parameter         | Conc. | Qualifier | MDL      | LOQ / CRQL | Units    |
|-------------------|-------------------|-------|-----------|----------|------------|----------|
| <b>TARGETS</b>    |                   |       |           |          |            |          |
| 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     |
| <b>SURROGATES</b> |                   |       |           |          |            |          |
| 19719-28-9        | 2,4-DCAA          | 524   |           | 39 - 175 | 105%       | 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 &gt;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\PS091224\  
Data File : PS027652.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 12 Sep 2024 21:00  
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: Sep 14 02:42:28 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:36:56 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 | 7.111 | 7.633 | 1232.7E6 | 519.4E6 | 495.530 | 524.103 |
|------|----------|-------|-------|----------|---------|---------|---------|

Target Compounds  
-----

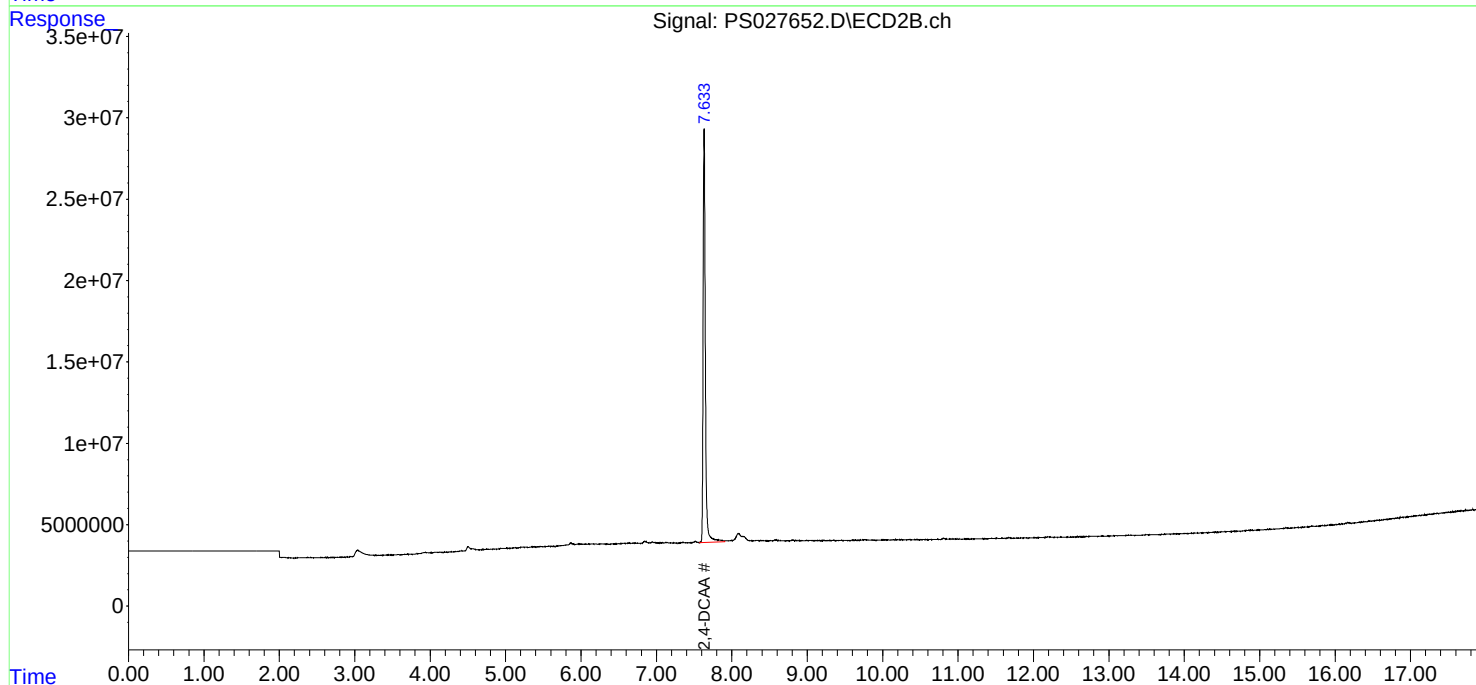
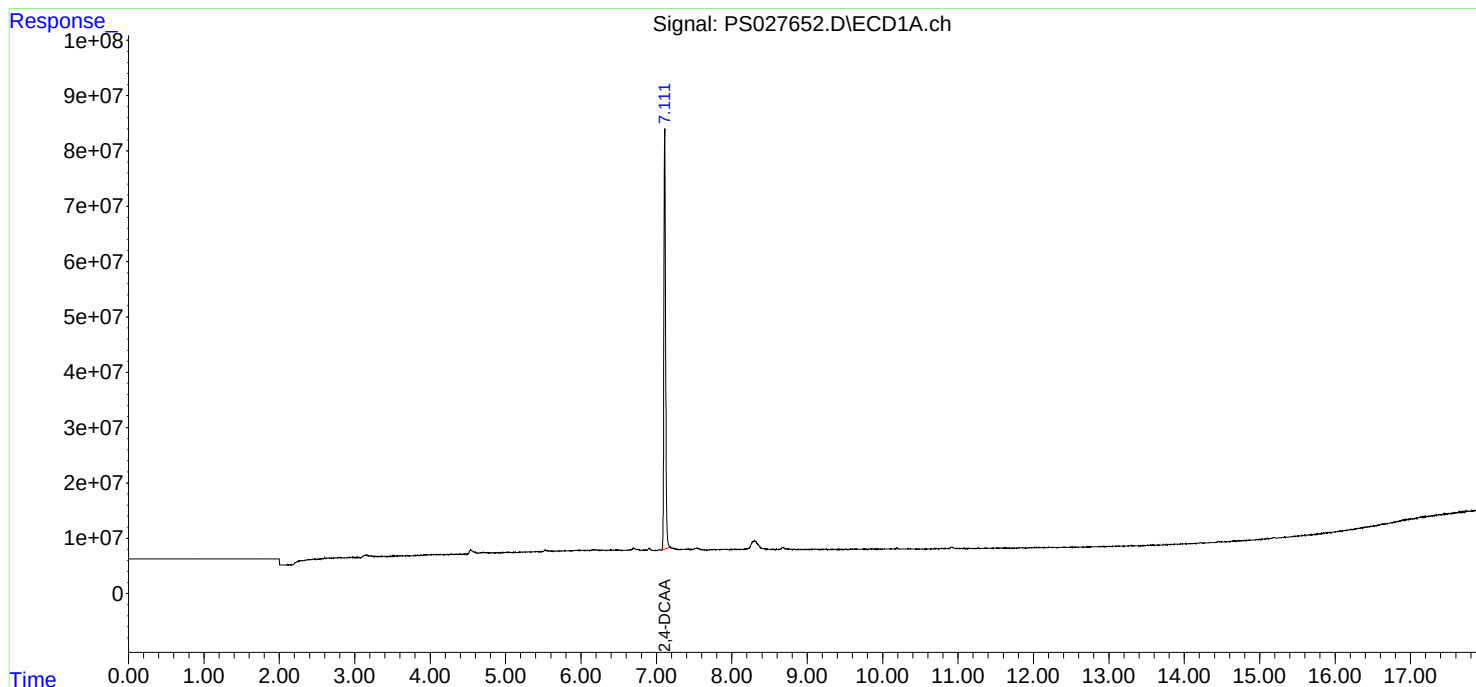
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

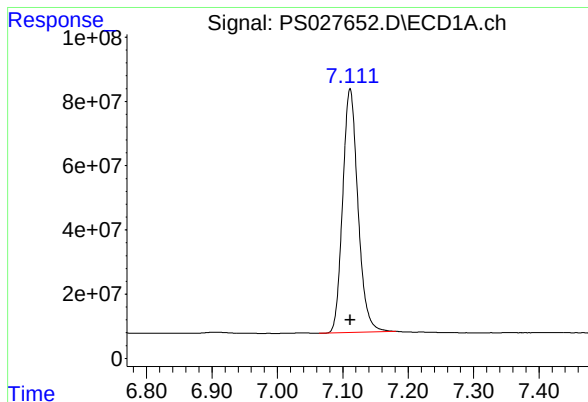
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS091224\  
Data File : PS027652.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 12 Sep 2024 21:00  
Operator : AR\AJ  
Sample : I.BLK  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
ECD\_S  
ClientSampleId :  
I.BLK

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Sep 14 02:42:28 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:36:56 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.: 7.111 min

Delta R.T.: 0.000 min

Response: 1232684817

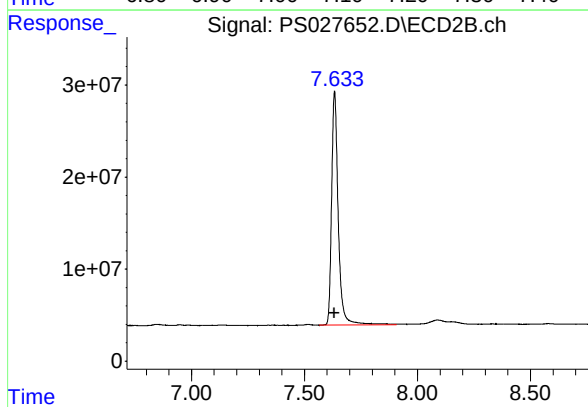
Conc: 495.53 ng/ml

Instrument :

ECD\_S

ClientSampleId :

I.BLK



#4 2,4-DCAA

R.T.: 7.633 min

Delta R.T.: 0.000 min

Response: 519403705

Conc: 524.10 ng/ml

## Report of Analysis

|                    |                  |                    |                |
|--------------------|------------------|--------------------|----------------|
| Client:            | Roman E&G Corp   | Date Collected:    | 10/03/24       |
| Project:           | Perth Amboy      | Date Received:     | 10/03/24       |
| Client Sample ID:  | PIBLK-PS027827.D | SDG No.:           | P4258          |
| Lab Sample ID:     | I.BLK-PS027827.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 |
| PS027827.D        | 1         |           | 10/03/24      | PS100324      |

| CAS Number        | Parameter         | Conc. | Qualifier | MDL      | LOQ / CRQL | Units    |
|-------------------|-------------------|-------|-----------|----------|------------|----------|
| <b>TARGETS</b>    |                   |       |           |          |            |          |
| 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     |
| <b>SURROGATES</b> |                   |       |           |          |            |          |
| 19719-28-9        | 2,4-DCAA          | 542   |           | 39 - 175 | 108%       | 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\PS100324\  
Data File : PS027827.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 03 Oct 2024 20:59  
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: Oct 04 05:39:38 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:36:56 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 | 7.099 | 7.623 | 1324.8E6 | 537.0E6 | 532.574 | 541.879 |
|------|----------|-------|-------|----------|---------|---------|---------|

Target Compounds  
-----

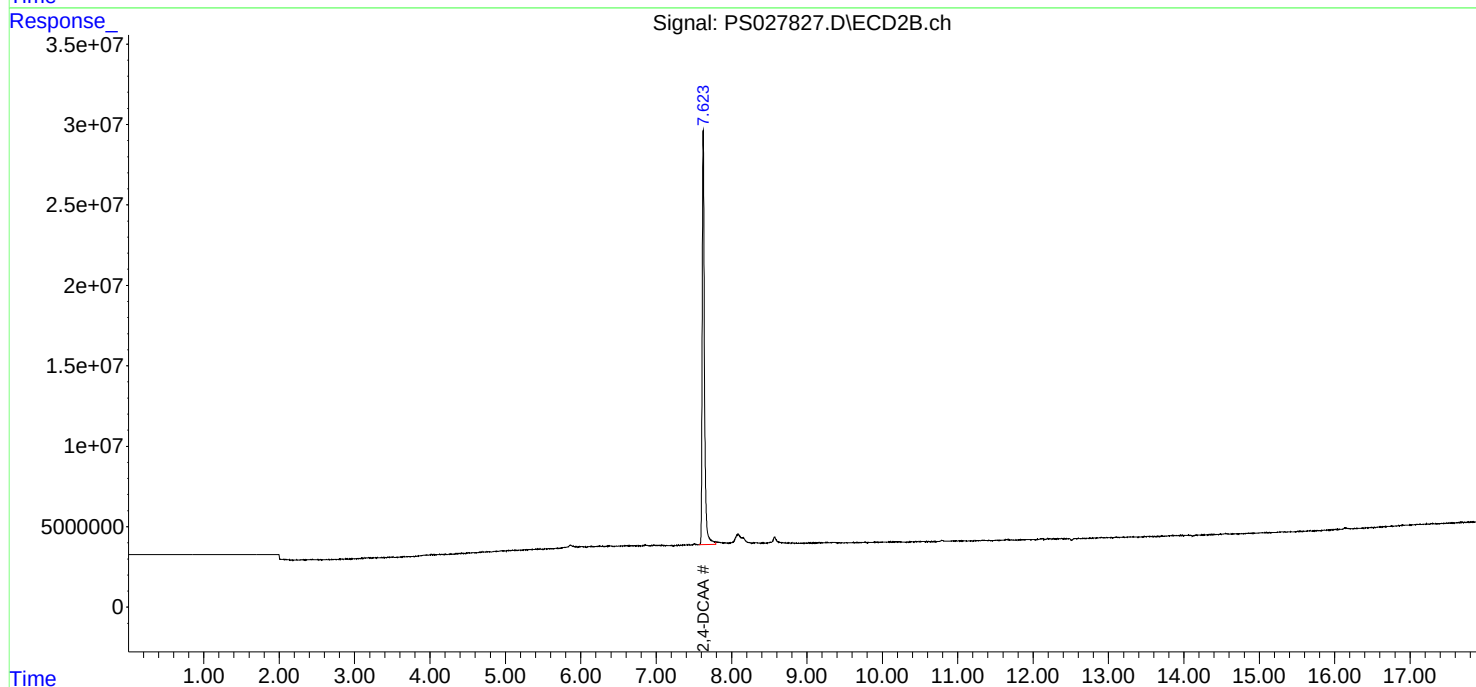
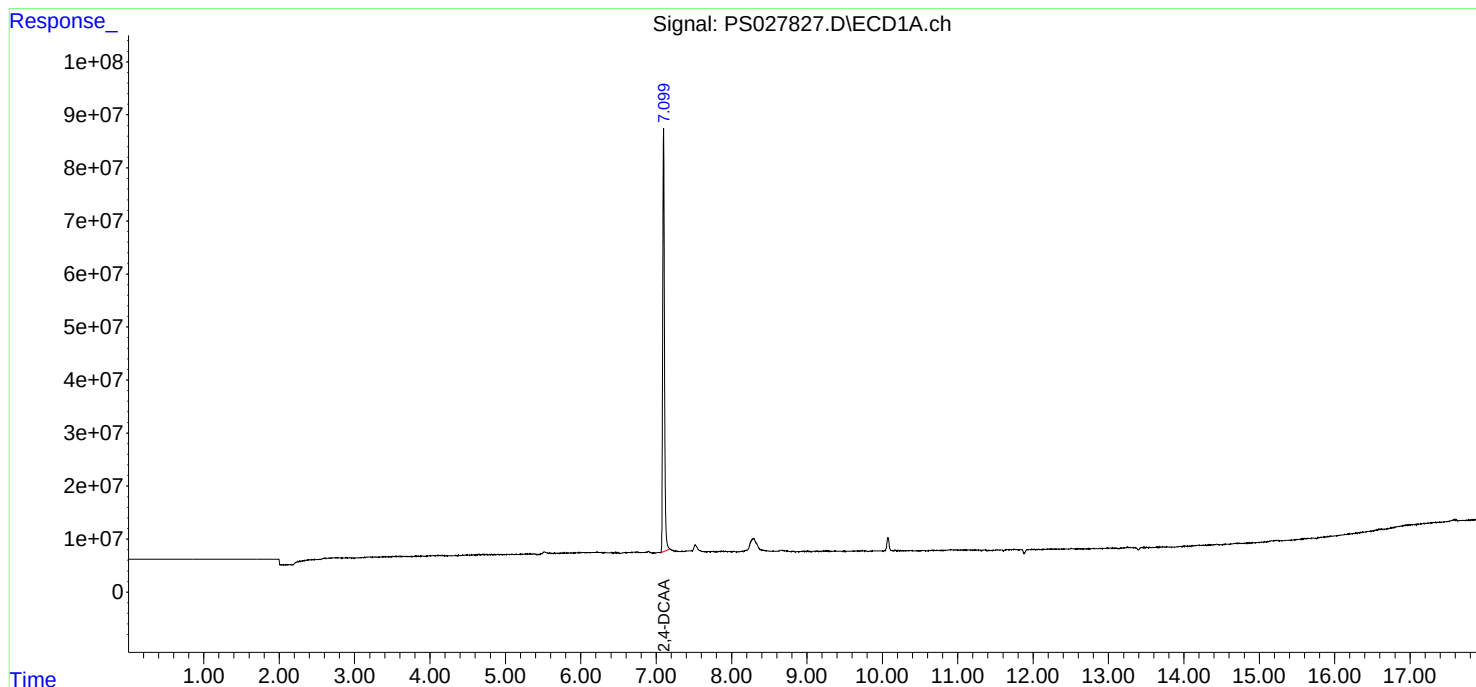
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

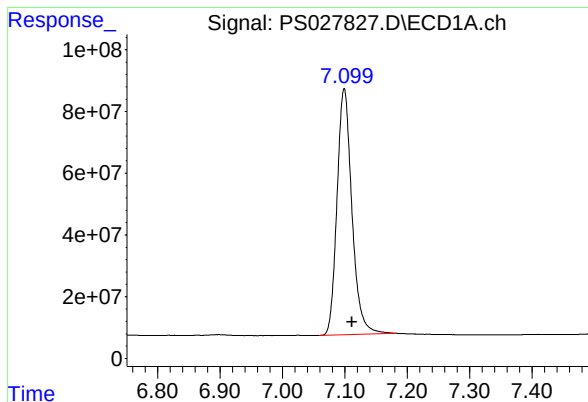
Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS100324\  
Data File : PS027827.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 03 Oct 2024 20:59  
Operator : AR\AJ  
Sample : I.BLK  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Instrument :  
ECD\_S  
ClientSampleId :  
I.BLK

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Oct 04 05:39:38 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:36:56 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.: 7.099 min

Delta R.T.: -0.012 min

Response: 1324835654

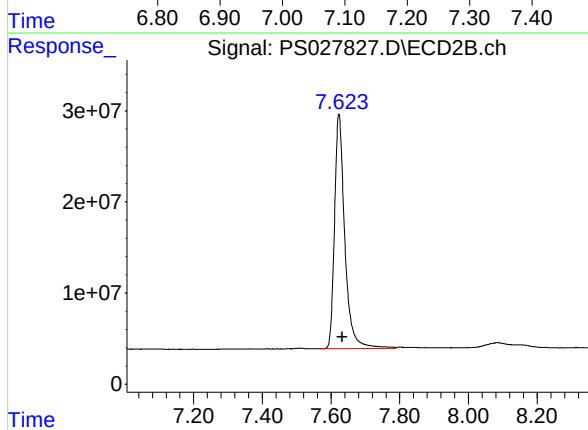
Conc: 532.57 ng/ml

Instrument :

ECD\_S

ClientSampleId :

I.BLK



#4 2,4-DCAA

R.T.: 7.623 min

Delta R.T.: -0.010 min

Response: 537020349

Conc: 541.88 ng/ml

## Report of Analysis

|                    |                                  |                    |                                  |
|--------------------|----------------------------------|--------------------|----------------------------------|
| Client:            | Roman E&G Corp                   | Date Collected:    | 10/04/24                         |
| Project:           | Perth Amboy                      | Date Received:     | 10/04/24                         |
| Client Sample ID:  | PIBLK-PS027841.D                 | SDG No.:           | P4258                            |
| Lab Sample ID:     | I.BLK-PS027841.D                 | Matrix:            | TCLP                             |
| Analytical Method: | SW8151A                          | % Solid:           | 0                      Decanted: |
| Sample Wt/Vol:     | 1000              Units:      mL | Final Vol:         | 10000              uL            |
| Soil Aliquot Vol:  | uL                               | Test:              | TCLP Herbicide                   |
| Extraction Type:   |                                  | Injection Volume : |                                  |
| GPC Factor :       | 1.0                      PH :    |                    |                                  |
| Prep Method :      | SW3510C                          |                    |                                  |

|                   |           |           |               |               |
|-------------------|-----------|-----------|---------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
| PS027841.D        | 1         |           | 10/04/24      | PS100324      |

| CAS Number        | Parameter         | Conc. | Qualifier | MDL      | LOQ / CRQL | Units    |
|-------------------|-------------------|-------|-----------|----------|------------|----------|
| <b>TARGETS</b>    |                   |       |           |          |            |          |
| 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     |
| <b>SURROGATES</b> |                   |       |           |          |            |          |
| 19719-28-9        | 2,4-DCAA          | 552   |           | 39 - 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 &gt;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\PS100324\  
 Data File : PS027841.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 04 Oct 2024 03:45  
 Operator : AR\AJ  
 Sample : I.BLK  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 ECD\_S  
 ClientSampleId :  
 I.BLK

**Manual Integrations**  
**APPROVED**

Reviewed By :Abdul Mirza 10/04/2024  
 Supervised By :Ankita Jodhani 10/04/2024

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Oct 04 07:18:56 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
 Quant Title : 8080.M  
 QLast Update : Sat Sep 14 02:36:56 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               | 7.098 | 7.621 | 1344.8E6 | 547.3E6 | 540.599 | 552.221m |

Target Compounds

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS100324\  
Data File : PS027841.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 04 Oct 2024 03:45  
Operator : AR\AJ  
Sample : I.BLK  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

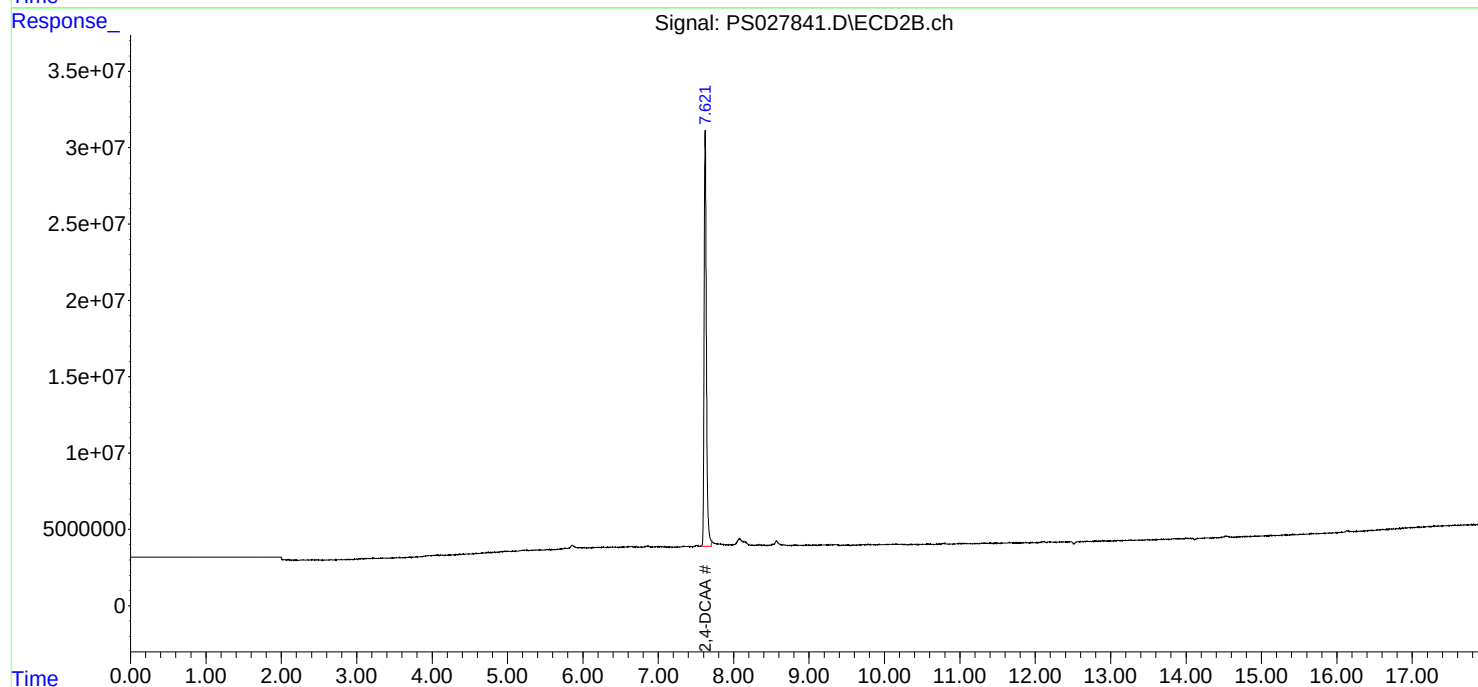
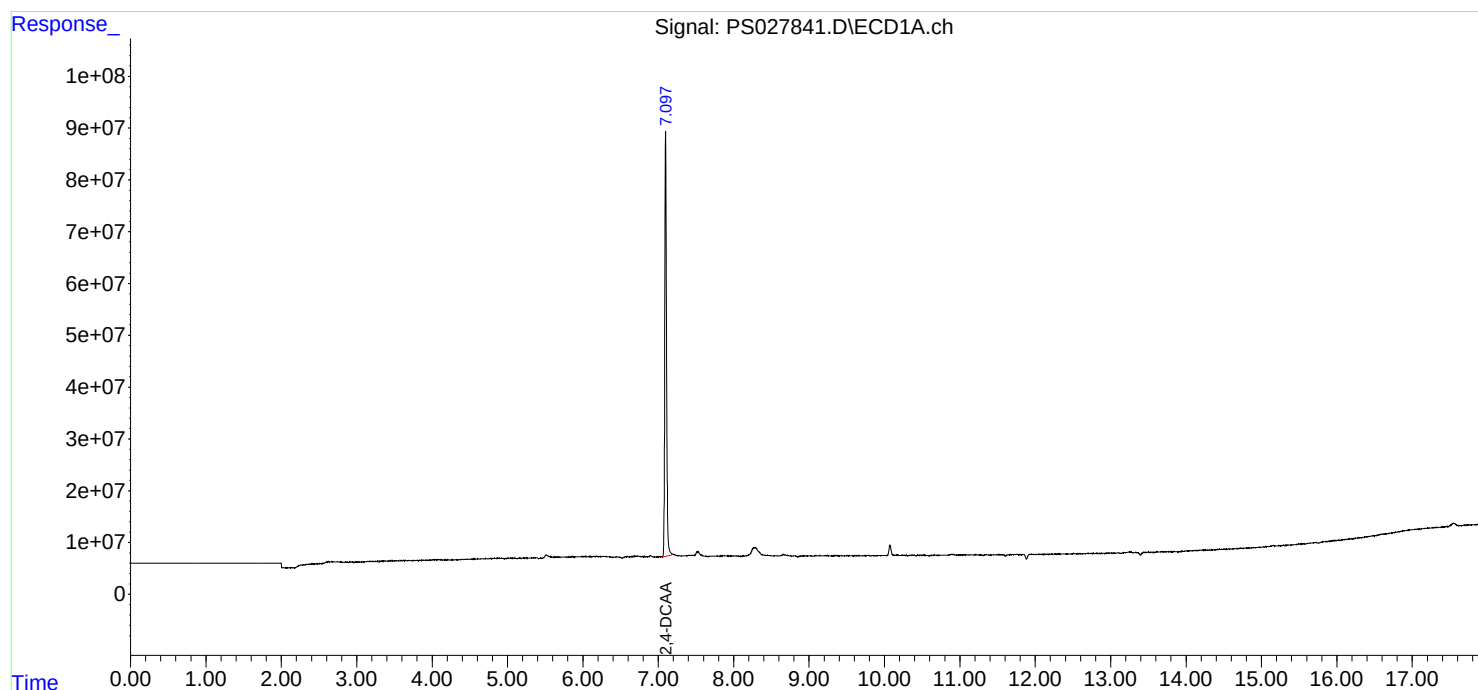
Instrument :  
ECD\_S  
ClientSampleId :  
I.BLK

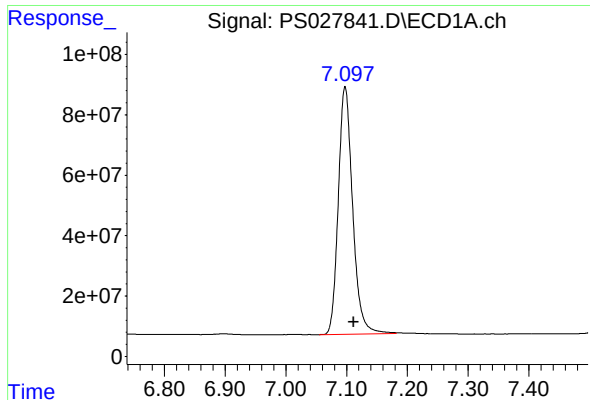
Manual Integrations  
**APPROVED**

Reviewed By : Abdul Mirza 10/04/2024  
Supervised By : Ankita Jodhani 10/04/2024

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Oct 04 07:18:56 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:36:56 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





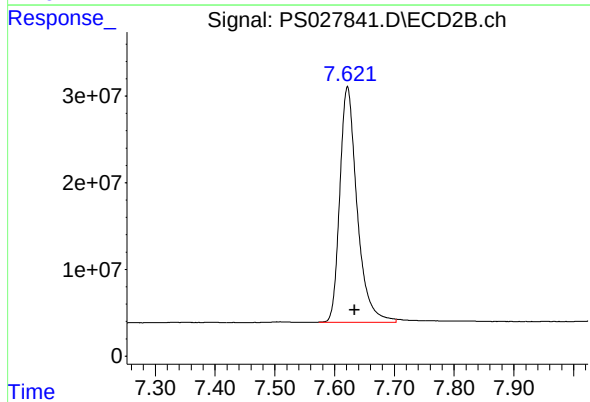
#4 2,4-DCAA

R.T.: 7.098 min  
Delta R.T.: -0.014 min  
Response: 1344796777  
Conc: 540.60 ng/ml

Instrument :  
ECD\_S  
ClientSampleId :  
I.BLK

Manual Integrations  
APPROVED

Reviewed By :Abdul Mirza 10/04/2024  
Supervised By :Ankita Jodhani 10/04/2024



#4 2,4-DCAA

R.T.: 7.621 min  
Delta R.T.: -0.012 min  
Response: 547269117  
Conc: 552.22 ng/ml m

## Report of Analysis

|                    |                        |                    |                  |
|--------------------|------------------------|--------------------|------------------|
| Client:            | Roman E&G Corp         | Date Collected:    |                  |
| Project:           | Perth Amboy            | Date Received:     |                  |
| Client Sample ID:  | PB163890BS             | SDG No.:           | P4258            |
| Lab Sample ID:     | PB163890BS             | 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 |
| PS027839.D        | 1         | 10/03/24 12:00 | 10/04/24 02:58 | PB163890      |

| CAS Number        | Parameter         | Conc. | Qualifier | MDL      | LOQ / CRQL | Units    |
|-------------------|-------------------|-------|-----------|----------|------------|----------|
| <b>TARGETS</b>    |                   |       |           |          |            |          |
| 94-75-7           | 2,4-D             | 5.90  |           | 0.49     | 2.00       | ug/L     |
| 93-72-1           | 2,4,5-TP (Silvex) | 5.20  |           | 0.45     | 2.00       | ug/L     |
| <b>SURROGATES</b> |                   |       |           |          |            |          |
| 19719-28-9        | 2,4-DCAA          | 554   |           | 39 - 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 &gt;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\PS100324\  
 Data File : PS027839.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 04 Oct 2024 02:58  
 Operator : AR\AJ  
 Sample : PB163890BS  
 Misc :  
 ALS Vial : 24 Sample Multiplier: 1

## Instrument :

ECD\_S

## ClientSampleId :

PB163890BS

## Manual Integrations

## APPROVED

Reviewed By :Abdul Mirza 10/04/2024

Supervised By :Ankita Jodhani 10/04/2024

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Oct 04 07:13:32 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
 Quant Title : 8080.M  
 QLast Update : Sat Sep 14 02:36:56 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     | 7.098  | 7.622  | 1355.7E6  | 548.6E6  | 544.990  | 553.567m |
| Target Compounds            |              |        |        |           |          |          |          |
| 1) T                        | Dalapon      | 2.549  | 2.614  | 1354.6E6  | 613.0E6  | 326.964m | 375.652m |
| 2) T                        | 3,5-DICHL... | 6.289  | 6.593  | 1807.5E6  | 775.6E6  | 494.807  | 481.295  |
| 3) T                        | 4-Nitroph... | 6.893  | 7.157  | 719.1E6   | 292.6E6  | 424.743  | 408.203  |
| 5) T                        | DICAMBA      | 7.276  | 7.816  | 4897.3E6  | 2020.4E6 | 484.638m | 458.517  |
| 6) T                        | MCPD         | 7.454  | 7.917  | 321.5E6   | 156.9E6  | 46.643m  | 47.786   |
| 7) T                        | MCPA         | 7.599  | 8.156  | 481.0E6   | 273.4E6  | 47.487   | 51.640   |
| 8) T                        | DICHLORPROP  | 7.962  | 8.522  | 1347.6E6  | 616.3E6  | 508.344  | 551.674  |
| 9) T                        | 2,4-D        | 8.185  | 8.847  | 1623.3E6  | 661.7E6  | 529.583  | 593.481  |
| 10) T                       | Pentachlo... | 8.471  | 9.360  | 19174.1E6 | 8323.6E6 | 527.179  | 503.474  |
| 11) T                       | 2,4,5-TP ... | 9.037  | 9.736  | 7625.1E6  | 3010.7E6 | 521.017  | 502.125m |
| 12) T                       | 2,4,5-T      | 9.323  | 10.151 | 7076.6E6  | 2516.5E6 | 472.784  | 481.464  |
| 13) T                       | 2,4-DB       | 9.886  | 10.712 | 1056.4E6  | 284.5E6  | 454.888m | 462.385m |
| 14) T                       | DINOSEB      | 11.060 | 11.086 | 4323.2E6  | 1798.0E6 | 442.004  | 427.535m |
| 15) T                       | Picloram     | 10.878 | 12.165 | 6833.8E6  | 1812.9E6 | 365.294  | 390.101  |
| 16) T                       | DCPA         | 11.359 | 12.118 | 8263.1E6  | 3572.3E6 | 497.856  | 554.265  |
| -----                       |              |        |        |           |          |          |          |

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS100324\  
Data File : PS027839.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 04 Oct 2024 02:58  
Operator : AR\AJ  
Sample : PB163890BS  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

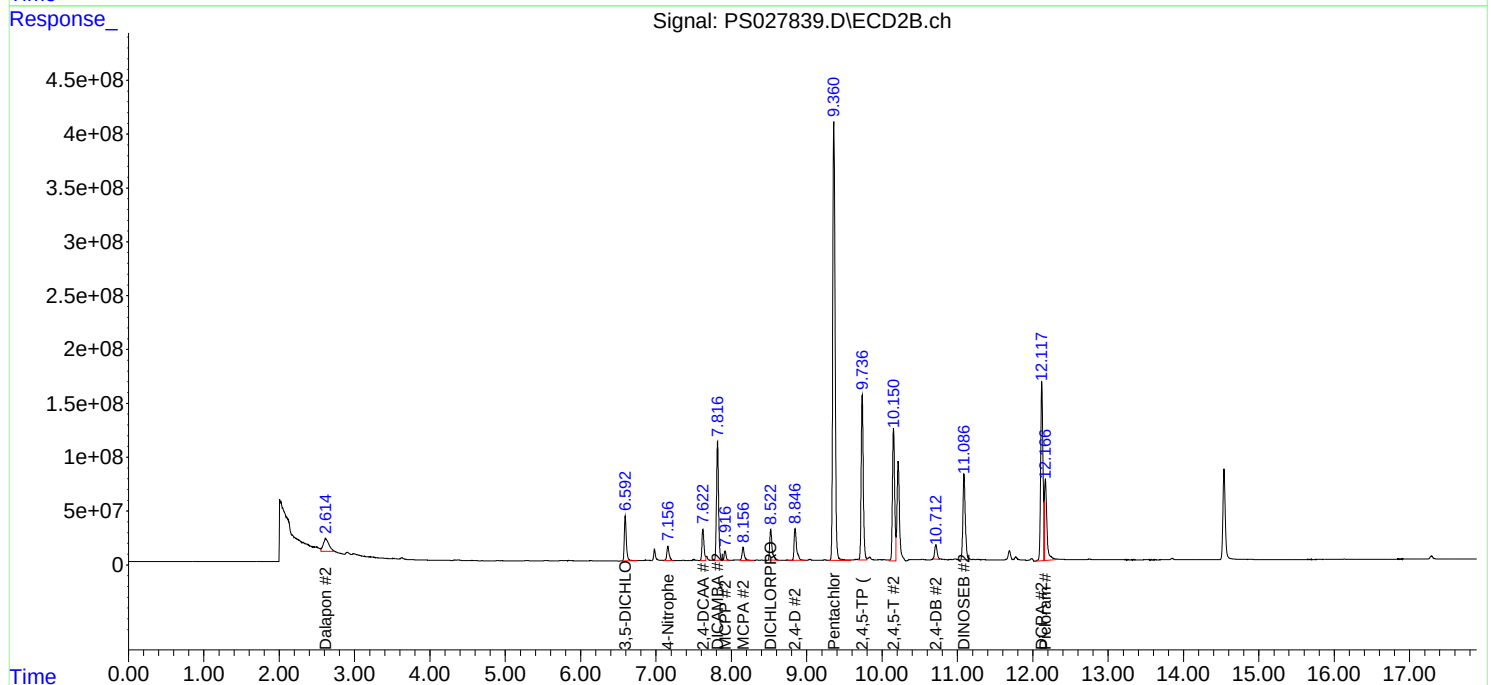
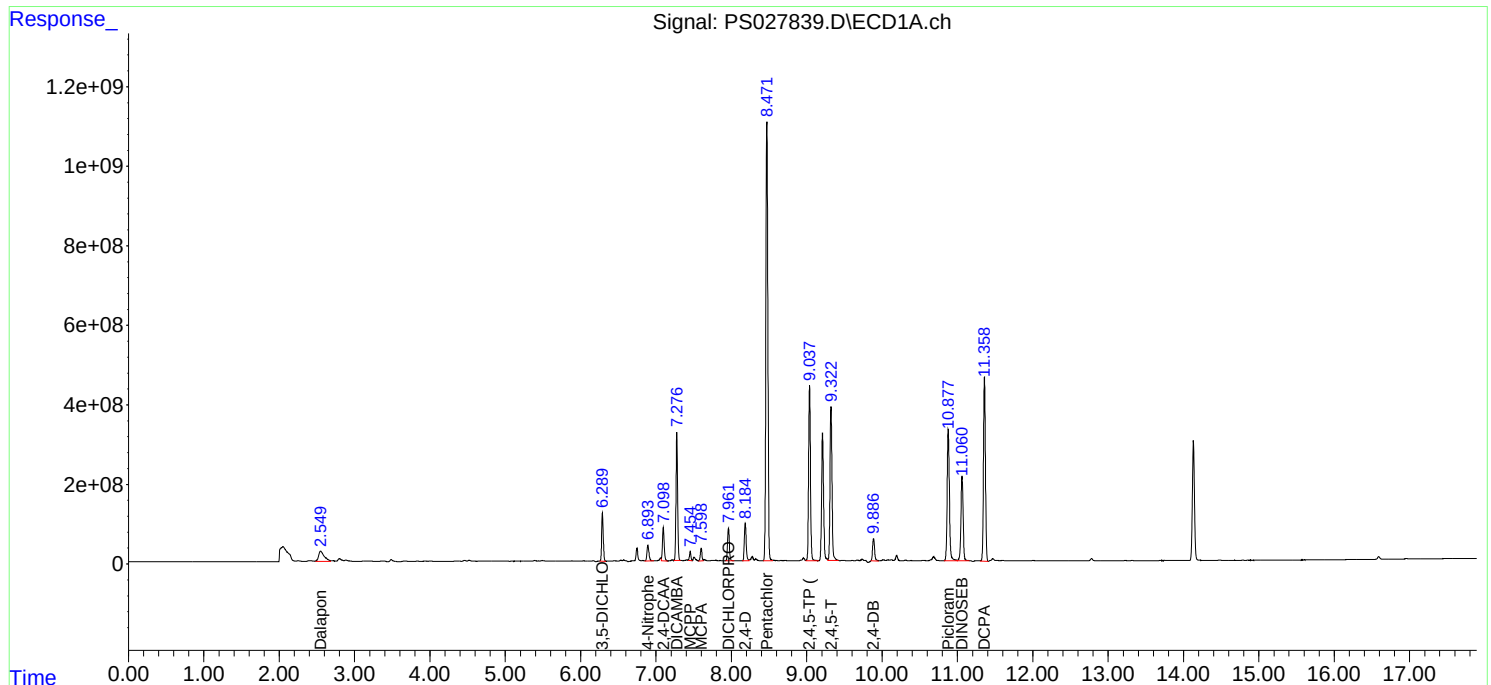
Instrument :  
ECD\_S  
ClientSampleId :  
PB163890BS

Manual Integrations  
APPROVED

Reviewed By : Abdul Mirza 10/04/2024  
Supervised By : Ankita Jodhani 10/04/2024

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Oct 04 07:13:32 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:36:56 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



## Report of Analysis

|                    |                       |                    |                  |
|--------------------|-----------------------|--------------------|------------------|
| Client:            | Roman E&G Corp        | Date Collected:    | 10/01/24         |
| Project:           | Perth Amboy           | Date Received:     | 10/01/24         |
| Client Sample ID:  | Chamberlain AveMS     | SDG No.:           | P4258            |
| Lab Sample ID:     | P4258-04MS            | Matrix:            | TCLP             |
| Analytical Method: | SW8151A               | % Solid:           | 0      Decanted: |
| Sample Wt/Vol:     | 100      Units:    mL | Final Vol:         | 10000      uL    |
| Soil Aliquot Vol:  | uL                    | Test:              | TCLP Herbicide   |
| Extraction Type:   |                       | Injection Volume : |                  |
| GPC Factor :       | 1.0      PH :         |                    |                  |
| Prep Method :      | SW3510C               |                    |                  |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| PS027836.D        | 1         | 10/03/24 12:00 | 10/04/24 01:46 | PB163890      |

| CAS Number        | Parameter         | Conc. | Qualifier | MDL      | LOQ / CRQL | Units    |
|-------------------|-------------------|-------|-----------|----------|------------|----------|
| <b>TARGETS</b>    |                   |       |           |          |            |          |
| 94-75-7           | 2,4-D             | 59.2  |           | 4.90     | 20.0       | ug/L     |
| 93-72-1           | 2,4,5-TP (Silvex) | 64.6  | P         | 4.50     | 20.0       | ug/L     |
| <b>SURROGATES</b> |                   |       |           |          |            |          |
| 19719-28-9        | 2,4-DCAA          | 246   |           | 39 - 175 | 49%        | 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 &gt;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\PS100324\  
 Data File : PS027836.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 04 Oct 2024 01:46  
 Operator : AR\AJ  
 Sample : P4258-04MS  
 Misc :  
 ALS Vial : 21 Sample Multiplier: 1

## Instrument :

ECD\_S

## ClientSampleId :

Chamberlain AveMS

## Manual Integrations

## APPROVED

Reviewed By :Abdul Mirza 10/04/2024

Supervised By :Ankita Jodhani 10/04/2024

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Oct 04 07:12:23 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
 Quant Title : 8080.M  
 QLast Update : Sat Sep 14 02:36:56 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     | 7.098  | 7.622  | 611.4E6   | 202.8E6  | 245.772  | 204.664m  |
| Target Compounds            |              |        |        |           |          |          |           |
| 1) T                        | Dalapon      | 2.551  | 2.622  | 1459.8E6  | 538.7E6  | 352.351  | 330.138   |
| 2) T                        | 3,5-DICHL... | 6.289  | 6.592  | 1352.6E6  | 569.8E6  | 370.290  | 353.629   |
| 5) T                        | DICAMBA      | 7.276  | 7.816  | 4339.9E6  | 1883.5E6 | 429.473m | 427.458   |
| 6) T                        | MCPPE        | 7.454  | 7.917  | 350.9E6   | 145.4E6  | 50.905m  | 44.305    |
| 7) T                        | MCPA         | 7.598  | 8.156  | 441.4E6   | 229.7E6  | 43.570   | 43.392m   |
| 8) T                        | DICHLORPROP  | 7.962  | 8.521  | 1240.2E6  | 569.6E6  | 467.838  | 509.819   |
| 9) T                        | 2,4-D        | 8.184  | 8.847  | 1591.8E6  | 659.9E6  | 519.316  | 591.808   |
| 10) T                       | Pentachlo... | 8.471  | 9.360  | 13051.0E6 | 5382.2E6 | 358.828  | 325.557   |
| 11) T                       | 2,4,5-TP ... | 9.037  | 9.737  | 7177.6E6  | 3873.3E6 | 490.437  | 645.993 # |
| 12) T                       | 2,4,5-T      | 9.322  | 10.151 | 7029.5E6  | 2600.4E6 | 469.640  | 497.509   |
| 13) T                       | 2,4-DB       | 9.885  | 10.712 | 1083.8E6  | 307.5E6  | 466.694  | 499.738   |
| 14) T                       | DINOSEB      | 11.061 | 11.087 | 1594.0E6  | 641.0E6  | 162.972  | 152.411   |
| 15) T                       | Picloram     | 10.877 | 12.165 | 7541.7E6  | 2216.5E6 | 403.135  | 476.949   |
| 16) T                       | DCPA         | 11.359 | 12.119 | 8303.1E6  | 3262.3E6 | 500.268  | 506.172   |
| -----                       |              |        |        |           |          |          |           |

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



Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS100324\  
Data File : PS027836.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 04 Oct 2024 01:46  
Operator : AR\AJ  
Sample : P4258-04MS  
Misc :  
ALS Vial : 21 Sample Multiplier: 1

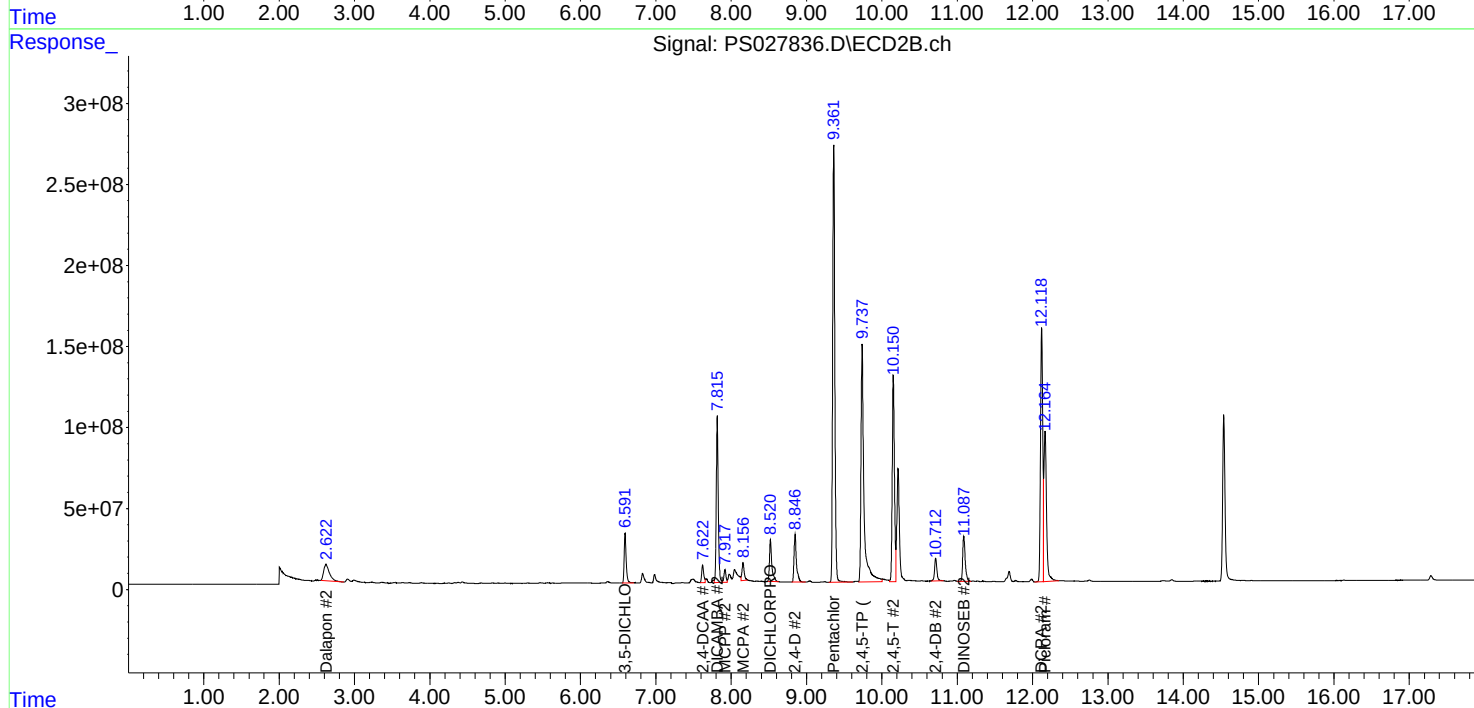
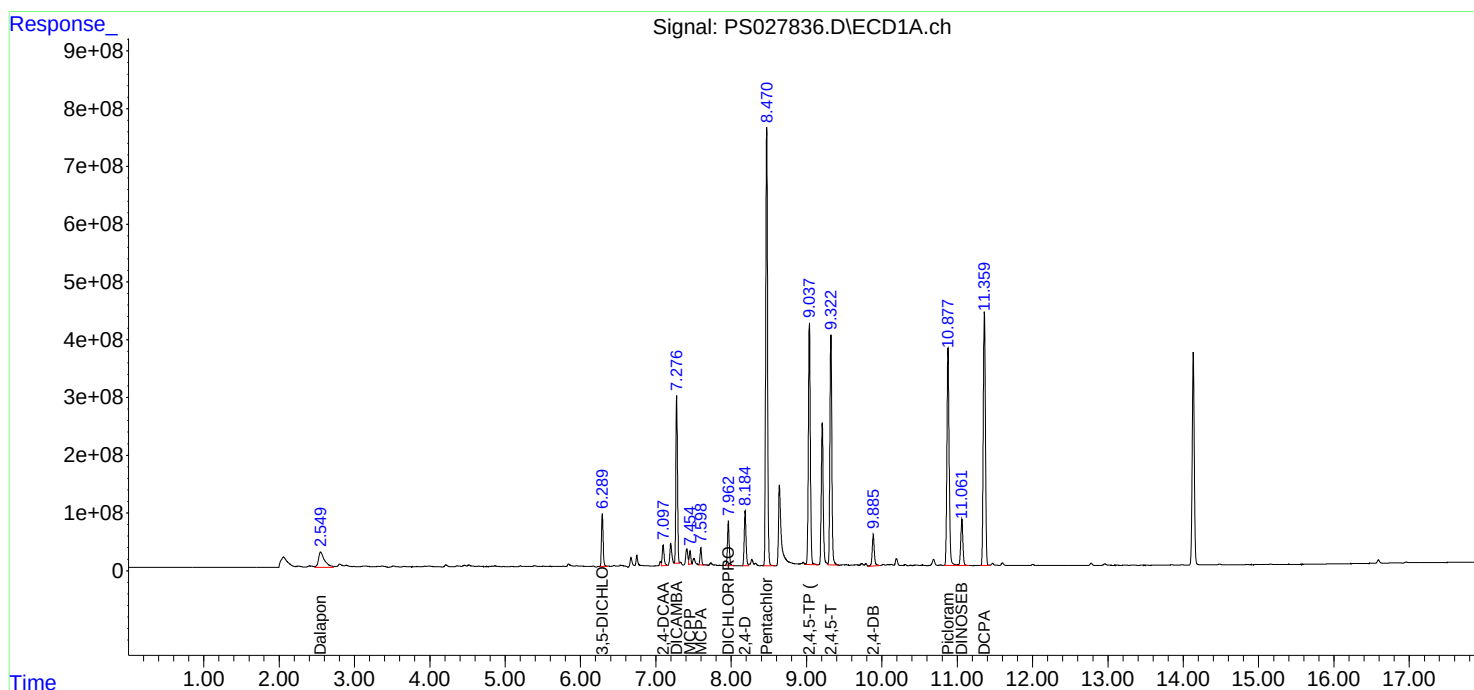
Instrument :  
ECD\_S  
ClientSampleId :  
Chamberlain AveMS

Manual Integrations  
APPROVED

Reviewed By : Abdul Mirza 10/04/2024  
Supervised By : Ankita Jodhani 10/04/2024

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Oct 04 07:12:23 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:36:56 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



## Report of Analysis

|                    |                    |                    |                |
|--------------------|--------------------|--------------------|----------------|
| Client:            | Roman E&G Corp     | Date Collected:    | 10/01/24       |
| Project:           | Perth Amboy        | Date Received:     | 10/01/24       |
| Client Sample ID:  | Chamberlain AveMSD | SDG No.:           | P4258          |
| Lab Sample ID:     | P4258-04MSD        | 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 |
| PS027837.D        | 1         | 10/03/24 12:00 | 10/04/24 02:10 | PB163890      |

| CAS Number        | Parameter         | Conc. | Qualifier | MDL      | LOQ / CRQL | Units    |
|-------------------|-------------------|-------|-----------|----------|------------|----------|
| <b>TARGETS</b>    |                   |       |           |          |            |          |
| 94-75-7           | 2,4-D             | 59.4  |           | 4.90     | 20.0       | ug/L     |
| 93-72-1           | 2,4,5-TP (Silvex) | 74.4  | P         | 4.50     | 20.0       | ug/L     |
| <b>SURROGATES</b> |                   |       |           |          |            |          |
| 19719-28-9        | 2,4-DCAA          | 279   |           | 39 - 175 | 56%        | 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 &gt;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\PS100324\  
 Data File : PS027837.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 04 Oct 2024 02:10  
 Operator : AR\AJ  
 Sample : P4258-04MSD  
 Misc :  
 ALS Vial : 22 Sample Multiplier: 1

## Instrument :

ECD\_S

## ClientSampleId :

Chamberlain AveMSD

## Manual Integrations

## APPROVED

Reviewed By :Abdul Mirza 10/04/2024

Supervised By :Ankita Jodhani 10/04/2024

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Oct 04 07:12:58 2024  
 Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
 Quant Title : 8080.M  
 QLast Update : Sat Sep 14 02:36:56 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     | 7.098  | 7.622  | 694.5E6   | 199.6E6  | 279.193  | 201.425m# |
| Target Compounds            |              |        |        |           |          |          |           |
| 1) T                        | Dalapon      | 2.548  | 2.619  | 1477.2E6  | 541.4E6  | 356.538  | 331.772   |
| 2) T                        | 3,5-DICHL... | 6.289  | 6.593  | 1377.3E6  | 577.3E6  | 377.044  | 358.226   |
| 5) T                        | DICAMBA      | 7.276  | 7.815  | 4409.9E6  | 1814.5E6 | 436.405m | 411.796m  |
| 6) T                        | MCPPE        | 7.454  | 7.917  | 389.5E6   | 173.5E6  | 56.507m  | 52.852    |
| 7) T                        | MCPA         | 7.599  | 8.155  | 457.1E6   | 263.7E6  | 45.125   | 49.811m   |
| 8) T                        | DICHLORPROP  | 7.962  | 8.522  | 1270.9E6  | 555.5E6  | 479.424  | 497.216   |
| 9) T                        | 2,4-D        | 8.185  | 8.847  | 1635.2E6  | 662.8E6  | 533.478  | 594.448   |
| 10) T                       | Pentachlo... | 8.471  | 9.360  | 13312.7E6 | 5420.0E6 | 366.023  | 327.844   |
| 11) T                       | 2,4,5-TP ... | 9.037  | 9.738  | 7368.7E6  | 4460.1E6 | 503.499  | 743.852 # |
| 12) T                       | 2,4,5-T      | 9.322  | 10.151 | 7195.0E6  | 2653.3E6 | 480.698  | 507.630   |
| 13) T                       | 2,4-DB       | 9.886  | 10.712 | 1104.6E6  | 318.2E6  | 475.656  | 517.105   |
| 14) T                       | DINOSEB      | 11.061 | 11.087 | 1654.8E6  | 657.2E6  | 169.184  | 156.265   |
| 15) T                       | Picloram     | 10.878 | 12.165 | 7703.7E6  | 2234.3E6 | 411.792  | 480.773   |
| 16) T                       | DCPA         | 11.360 | 12.119 | 8521.6E6  | 3439.0E6 | 513.428  | 533.577   |
| -----                       |              |        |        |           |          |          |           |

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

Data Path : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Data\PS100324\  
Data File : PS027837.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 04 Oct 2024 02:10  
Operator : AR\AJ  
Sample : P4258-04MSD  
Misc :  
ALS Vial : 22 Sample Multiplier: 1

## Instrument :

ECD\_S

## ClientSampleId :

Chamberlain AveMSD

## Manual Integrations

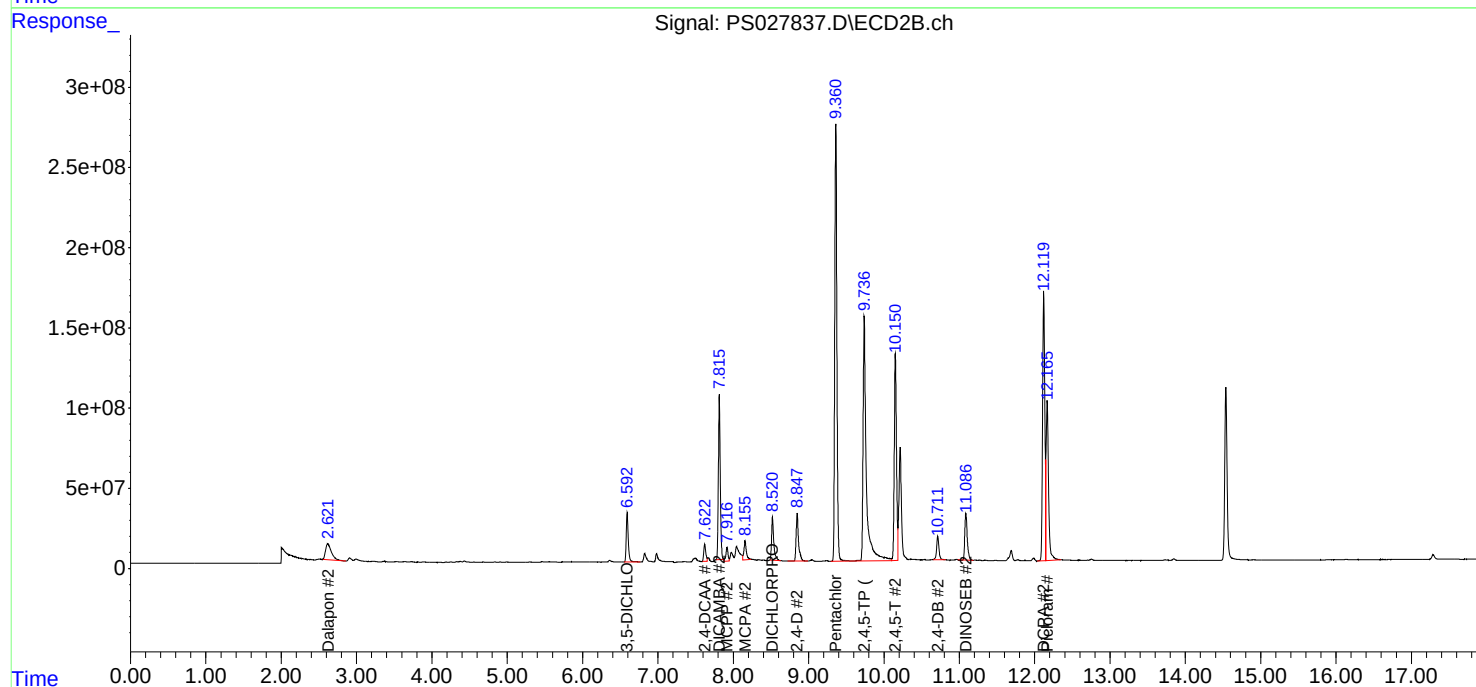
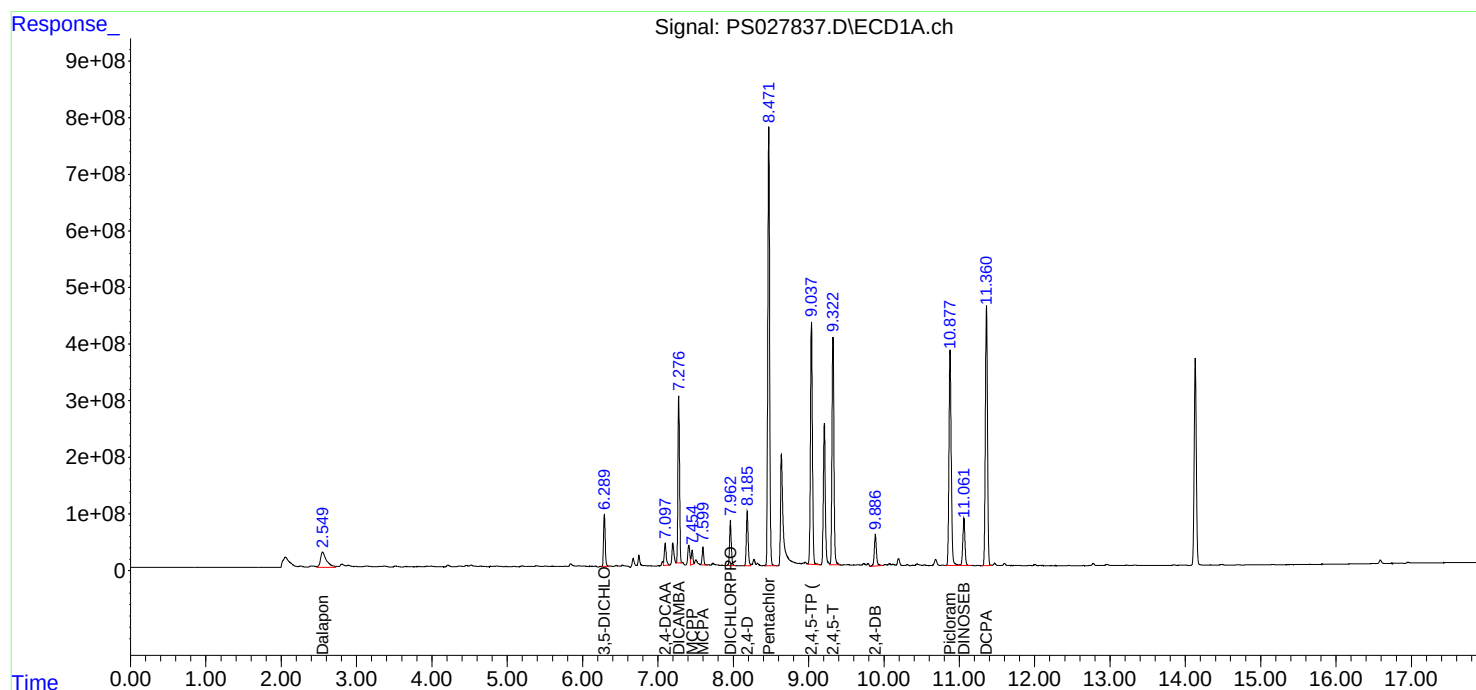
## APPROVED

Reviewed By :Abdul Mirza 10/04/2024

Supervised By :Ankita Jodhani 10/04/2024

Integration File signal 1: autoint1.e  
Integration File signal 2: autoint2.e  
Quant Time: Oct 04 07:12:58 2024  
Quant Method : Z:\pestpcbsrv\HPCHEM1\ECD\_S\Method\PS091224.M  
Quant Title : 8080.M  
QLast Update : Sat Sep 14 02:36:56 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



## Manual Integration Report

|           |          |            |       |
|-----------|----------|------------|-------|
| Sequence: | ps091224 | Instrument | ECD_s |
|-----------|----------|------------|-------|

| Sample ID  | File ID    | Parameter   | Review By | Review On            | Supervised By | Supervised On      | Reason                      |
|------------|------------|-------------|-----------|----------------------|---------------|--------------------|-----------------------------|
| HSTDICC200 | PS027653.D | 2,4-DCAA    | Abdul     | 9/15/2024 7:48:08 PM | Ankita        | 9/16/2024 10:13:46 | Peak Integrated by Software |
| HSTDICV750 | PS027658.D | 2,4-DCAA #2 | Abdul     | 9/15/2024 7:48:12 PM | Ankita        | 9/16/2024 10:13:48 | Peak Integrated by Software |

## Manual Integration Report

|           |          |            |       |
|-----------|----------|------------|-------|
| Sequence: | PS100324 | Instrument | ECD_s |
|-----------|----------|------------|-------|

| Sample ID   | File ID    | Parameter   | Review By | Review On            | Supervised By | Supervised On     | Reason                      |
|-------------|------------|-------------|-----------|----------------------|---------------|-------------------|-----------------------------|
| I.BLK       | PS027815.D | 2,4-DCAA #2 | Abdul     | 10/4/2024 9:07:49 AM | Ankita        | 10/4/2024 9:33:40 | Peak Integrated by Software |
| HSTDCCC750  | PS027828.D | 2,4-DCAA #2 | Abdul     | 10/4/2024 9:08:36 AM | Ankita        | 10/4/2024 9:34:25 | Peak Integrated by Software |
| HSTDCCC750  | PS027828.D | DCCA #2     | Abdul     | 10/4/2024 9:08:36 AM | Ankita        | 10/4/2024 9:34:25 | Peak Integrated by Software |
| HSTDCCC750  | PS027828.D | DICAMBA     | Abdul     | 10/4/2024 9:08:36 AM | Ankita        | 10/4/2024 9:34:25 | Peak Integrated by Software |
| HSTDCCC750  | PS027828.D | MCP         | Abdul     | 10/4/2024 9:08:36 AM | Ankita        | 10/4/2024 9:34:25 | Peak Integrated by Software |
| P4258-04    | PS027835.D | 2,4-DCAA #2 | Abdul     | 10/4/2024 9:09:09 AM | Ankita        | 10/4/2024 9:34:48 | Peak Integrated by Software |
| P4258-04MS  | PS027836.D | 2,4-DCAA #2 | Abdul     | 10/4/2024 9:09:13 AM | Ankita        | 10/4/2024 9:34:49 | Peak Integrated by Software |
| P4258-04MS  | PS027836.D | DICAMBA     | Abdul     | 10/4/2024 9:09:13 AM | Ankita        | 10/4/2024 9:34:49 | Peak Integrated by Software |
| P4258-04MS  | PS027836.D | MCPA #2     | Abdul     | 10/4/2024 9:09:13 AM | Ankita        | 10/4/2024 9:34:49 | Peak Integrated by Software |
| P4258-04MS  | PS027836.D | MCP         | Abdul     | 10/4/2024 9:09:13 AM | Ankita        | 10/4/2024 9:34:49 | Peak Integrated by Software |
| P4258-04MSD | PS027837.D | 2,4-DCAA #2 | Abdul     | 10/4/2024 9:09:18 AM | Ankita        | 10/4/2024 9:34:51 | Peak Integrated by Software |
| P4258-04MSD | PS027837.D | DICAMBA     | Abdul     | 10/4/2024 9:09:18 AM | Ankita        | 10/4/2024 9:34:51 | Peak Integrated by Software |
| P4258-04MSD | PS027837.D | DICAMBA #2  | Abdul     | 10/4/2024 9:09:18 AM | Ankita        | 10/4/2024 9:34:51 | Peak Integrated by Software |

## Manual Integration Report

|           |          |            |       |
|-----------|----------|------------|-------|
| Sequence: | PS100324 | Instrument | ECD_s |
|-----------|----------|------------|-------|

| Sample ID   | File ID    | Parameter            | Review By | Review On            | Supervised By | Supervised On     | Reason                      |
|-------------|------------|----------------------|-----------|----------------------|---------------|-------------------|-----------------------------|
| P4258-04MSD | PS027837.D | MCPA #2              | Abdul     | 10/4/2024 9:09:18 AM | Ankita        | 10/4/2024 9:34:51 | Peak Integrated by Software |
| P4258-04MSD | PS027837.D | MCPD                 | Abdul     | 10/4/2024 9:09:18 AM | Ankita        | 10/4/2024 9:34:51 | Peak Integrated by Software |
| PB163890BS  | PS027839.D | 2,4,5-TP (SILVEX) #2 | Abdul     | 10/4/2024 9:09:29 AM | Ankita        | 10/4/2024 9:34:53 | Peak Integrated by Software |
| PB163890BS  | PS027839.D | 2,4-DB               | Abdul     | 10/4/2024 9:09:29 AM | Ankita        | 10/4/2024 9:34:53 | Peak Integrated by Software |
| PB163890BS  | PS027839.D | 2,4-DB #2            | Abdul     | 10/4/2024 9:09:29 AM | Ankita        | 10/4/2024 9:34:53 | Peak Integrated by Software |
| PB163890BS  | PS027839.D | 2,4-DCAA #2          | Abdul     | 10/4/2024 9:09:29 AM | Ankita        | 10/4/2024 9:34:53 | Peak Integrated by Software |
| PB163890BS  | PS027839.D | Dalapon              | Abdul     | 10/4/2024 9:09:29 AM | Ankita        | 10/4/2024 9:34:53 | Peak Integrated by Software |
| PB163890BS  | PS027839.D | Dalapon #2           | Abdul     | 10/4/2024 9:09:29 AM | Ankita        | 10/4/2024 9:34:53 | Peak Integrated by Software |
| PB163890BS  | PS027839.D | DICAMBA              | Abdul     | 10/4/2024 9:09:29 AM | Ankita        | 10/4/2024 9:34:53 | Peak Integrated by Software |
| PB163890BS  | PS027839.D | DINOSEB #2           | Abdul     | 10/4/2024 9:09:29 AM | Ankita        | 10/4/2024 9:34:53 | Peak Integrated by Software |
| PB163890BS  | PS027839.D | MCPD                 | Abdul     | 10/4/2024 9:09:29 AM | Ankita        | 10/4/2024 9:34:53 | Peak Integrated by Software |
| PB163851TB  | PS027840.D | 2,4-DCAA             | Abdul     | 10/4/2024 9:09:33 AM | Ankita        | 10/4/2024 9:34:55 | Peak Integrated by Software |
| I.BLK       | PS027841.D | 2,4-DCAA #2          | Abdul     | 10/4/2024 9:09:37 AM | Ankita        | 10/4/2024 9:34:57 | Peak Integrated by Software |

## Manual Integration Report

|           |          |            |       |
|-----------|----------|------------|-------|
| Sequence: | PS100324 | Instrument | ECD_s |
|-----------|----------|------------|-------|

| Sample ID  | File ID    | Parameter   | Review By | Review On            | Supervised By | Supervised On     | Reason                      |
|------------|------------|-------------|-----------|----------------------|---------------|-------------------|-----------------------------|
| HSTDCCC750 | PS027842.D | 2,4-DCAA #2 | Abdul     | 10/4/2024 9:09:41 AM | Ankita        | 10/4/2024 9:34:59 | Peak Integrated by Software |
| HSTDCCC750 | PS027842.D | DCPA #2     | Abdul     | 10/4/2024 9:09:41 AM | Ankita        | 10/4/2024 9:34:59 | Peak Integrated by Software |
| HSTDCCC750 | PS027842.D | DICAMBA     | Abdul     | 10/4/2024 9:09:41 AM | Ankita        | 10/4/2024 9:34:59 | Peak Integrated by Software |
| HSTDCCC750 | PS027842.D | MCPD        | Abdul     | 10/4/2024 9:09:41 AM | Ankita        | 10/4/2024 9:34:59 | Peak Integrated by Software |
| HSTDCCC750 | PS027842.D | Picloram #2 | Abdul     | 10/4/2024 9:09:41 AM | Ankita        | 10/4/2024 9:34:59 | Peak Integrated by Software |



Instrument ID: ECD\_S

**Daily Analysis Runlog For Sequence/QC Batch ID # PS091224**

|                                                                    |                                                                        |                   |                                    |
|--------------------------------------------------------------------|------------------------------------------------------------------------|-------------------|------------------------------------|
| Review By                                                          | Abdul                                                                  | Review On         | 9/15/2024 7:48:35 PM               |
| Supervise By                                                       | Ankita                                                                 | Supervise On      | 9/16/2024 10:13:53 AM              |
| SubDirectory                                                       | PS091224                                                               | HP Acquire Method | HP Processing Method ps091224 8151 |
| <b>STD. NAME</b>                                                   | <b>STD REF.#</b>                                                       |                   |                                    |
| Tune/Reschk<br>Initial Calibration Stds                            | P23457,PP23458,PP23459,PP23460,PP23461,PP23462,PP23467,PP23468,PP23469 |                   |                                    |
| CCC<br>Internal Standard/PEM                                       | PP23462                                                                |                   |                                    |
| ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard | PP23469                                                                |                   |                                    |

| Sr# | SampleId    | Data File Name | Date-Time         | Operator | Status |
|-----|-------------|----------------|-------------------|----------|--------|
| 1   | HEXANE      | PS027651.D     | 12 Sep 2024 20:36 | AR\AJ    | Ok     |
| 2   | I.BLK       | PS027652.D     | 12 Sep 2024 21:00 | AR\AJ    | Ok     |
| 3   | HSTDICC200  | PS027653.D     | 12 Sep 2024 21:24 | AR\AJ    | Ok,M   |
| 4   | HSTDICC500  | PS027654.D     | 12 Sep 2024 21:48 | AR\AJ    | Ok     |
| 5   | HSTDICC750  | PS027655.D     | 12 Sep 2024 22:12 | AR\AJ    | Ok     |
| 6   | HSTDICC1000 | PS027656.D     | 12 Sep 2024 22:35 | AR\AJ    | Ok     |
| 7   | HSTDICC1500 | PS027657.D     | 12 Sep 2024 22:59 | AR\AJ    | Ok     |
| 8   | HSTDICV750  | PS027658.D     | 12 Sep 2024 23:23 | AR\AJ    | Ok,M   |
| 9   | I.BLK       | PS027659.D     | 12 Sep 2024 23:47 | AR\AJ    | Ok     |
| 10  | HSTDCCC750  | PS027660.D     | 13 Sep 2024 00:11 | AR\AJ    | Ok     |
| 11  | P3845-17    | PS027661.D     | 13 Sep 2024 00:35 | AR\AJ    | Ok     |
| 12  | I.BLK       | PS027662.D     | 13 Sep 2024 00:59 | AR\AJ    | Ok     |
| 13  | HSTDCCC750  | PS027663.D     | 13 Sep 2024 01:22 | AR\AJ    | Ok     |

M : Manual Integration

Instrument ID: ECD\_S

**Daily Analysis Runlog For Sequence/QC Batch ID # PS100324**

|                                                                    |                                                                        |                   |                                    |
|--------------------------------------------------------------------|------------------------------------------------------------------------|-------------------|------------------------------------|
| Review By                                                          | Abdul                                                                  | Review On         | 10/4/2024 9:10:14 AM               |
| Supervise By                                                       | Ankita                                                                 | Supervise On      | 10/4/2024 9:35:20 AM               |
| SubDirectory                                                       | PS100324                                                               | HP Acquire Method | HP Processing Method ps091224 8151 |
| <b>STD. NAME</b>                                                   | <b>STD REF.#</b>                                                       |                   |                                    |
| Tune/Reschk<br>Initial Calibration Stds                            | P23457,PP23458,PP23459,PP23460,PP23461,PP23462,PP23467,PP23468,PP23469 |                   |                                    |
| CCC<br>Internal Standard/PEM                                       | PP23462                                                                |                   |                                    |
| ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard | PP23469                                                                |                   |                                    |

| Sr# | SampleId    | Data File Name | Date-Time         | Operator | Status |
|-----|-------------|----------------|-------------------|----------|--------|
| 1   | HEXANE      | PS027814.D     | 03 Oct 2024 11:13 | AR\AJ    | Ok     |
| 2   | I.BLK       | PS027815.D     | 03 Oct 2024 11:37 | AR\AJ    | Ok,M   |
| 3   | HSTDCCC750  | PS027816.D     | 03 Oct 2024 12:01 | AR\AJ    | Ok     |
| 4   | PB163866BL  | PS027817.D     | 03 Oct 2024 17:01 | AR\AJ    | Ok     |
| 5   | PB163866BS  | PS027818.D     | 03 Oct 2024 17:25 | AR\AJ    | Ok,M   |
| 6   | P4222-01    | PS027819.D     | 03 Oct 2024 17:48 | AR\AJ    | Ok,M   |
| 7   | P4222-01MS  | PS027820.D     | 03 Oct 2024 18:12 | AR\AJ    | Ok,M   |
| 8   | P4222-01MSD | PS027821.D     | 03 Oct 2024 18:36 | AR\AJ    | Ok,M   |
| 9   | P4232-01    | PS027822.D     | 03 Oct 2024 19:00 | AR\AJ    | ReRun  |
| 10  | P4236-01    | PS027823.D     | 03 Oct 2024 19:24 | AR\AJ    | Ok,M   |
| 11  | P4236-05    | PS027824.D     | 03 Oct 2024 19:48 | AR\AJ    | Ok,M   |
| 12  | P4236-09    | PS027825.D     | 03 Oct 2024 20:12 | AR\AJ    | Ok,M   |
| 13  | P4236-13    | PS027826.D     | 03 Oct 2024 20:36 | AR\AJ    | Ok,M   |
| 14  | I.BLK       | PS027827.D     | 03 Oct 2024 20:59 | AR\AJ    | Ok     |
| 15  | HSTDCCC750  | PS027828.D     | 03 Oct 2024 21:23 | AR\AJ    | Ok,M   |
| 16  | P4276-01    | PS027829.D     | 03 Oct 2024 22:59 | AR\AJ    | Ok,M   |
| 17  | P4277-01    | PS027830.D     | 03 Oct 2024 23:23 | AR\AJ    | Ok,M   |
| 18  | P4242-01    | PS027831.D     | 03 Oct 2024 23:47 | AR\AJ    | Ok,M   |
| 19  | P4254-01    | PS027832.D     | 04 Oct 2024 00:11 | AR\AJ    | Ok,M   |
| 20  | P4270-01    | PS027833.D     | 04 Oct 2024 00:34 | AR\AJ    | Ok,M   |
| 21  | P4273-01    | PS027834.D     | 04 Oct 2024 00:58 | AR\AJ    | Ok,M   |

Instrument ID: ECD\_S

**Daily Analysis Runlog For Sequence/QCBatch ID # PS100324**

| Review By                               | Abdul                                                                  | Review On         | 10/4/2024 9:10:14 AM               |
|-----------------------------------------|------------------------------------------------------------------------|-------------------|------------------------------------|
| Supervise By                            | Ankita                                                                 | Supervise On      | 10/4/2024 9:35:20 AM               |
| SubDirectory                            | PS100324                                                               | HP Acquire Method | HP Processing Method ps091224 8151 |
| STD. NAME                               | STD REF.#                                                              |                   |                                    |
| Tune/Reschk<br>Initial Calibration Stds | P23457,PP23458,PP23459,PP23460,PP23461,PP23462,PP23467,PP23468,PP23469 |                   |                                    |
| CCC                                     | PP23462                                                                |                   |                                    |
| Internal Standard/PEM                   |                                                                        |                   |                                    |
| ICV/I.BLK                               | PP23469                                                                |                   |                                    |
| Surrogate Standard                      |                                                                        |                   |                                    |
| MS/MSD Standard                         |                                                                        |                   |                                    |
| LCS Standard                            |                                                                        |                   |                                    |

|    |             |            |                   |       |      |
|----|-------------|------------|-------------------|-------|------|
| 22 | P4258-04    | PS027835.D | 04 Oct 2024 01:22 | AR\AJ | Ok,M |
| 23 | P4258-04MS  | PS027836.D | 04 Oct 2024 01:46 | AR\AJ | Ok,M |
| 24 | P4258-04MSD | PS027837.D | 04 Oct 2024 02:10 | AR\AJ | Ok,M |
| 25 | PB163890BL  | PS027838.D | 04 Oct 2024 02:34 | AR\AJ | Ok   |
| 26 | PB163890BS  | PS027839.D | 04 Oct 2024 02:58 | AR\AJ | Ok,M |
| 27 | PB163851TB  | PS027840.D | 04 Oct 2024 03:22 | AR\AJ | Ok,M |
| 28 | I.BLK       | PS027841.D | 04 Oct 2024 03:45 | AR\AJ | Ok,M |
| 29 | HSTDCCC750  | PS027842.D | 04 Oct 2024 04:09 | AR\AJ | Ok,M |

M : Manual Integration

Instrument ID: ECD\_S

**Daily Analysis Runlog For Sequence/QC Batch ID # PS091224**

|              |          |                   |                                    |
|--------------|----------|-------------------|------------------------------------|
| Review By    | Abdul    | Review On         | 9/15/2024 7:48:35 PM               |
| Supervise By | Ankita   | Supervise On      | 9/16/2024 10:13:53 AM              |
| SubDirectory | PS091224 | HP Acquire Method | HP Processing Method ps091224 8151 |

| STD. NAME                               | STD REF.#                                                              |
|-----------------------------------------|------------------------------------------------------------------------|
| Tune/Reschk<br>Initial Calibration Stds | P23457,PP23458,PP23459,PP23460,PP23461,PP23462,PP23467,PP23468,PP23469 |
| 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      | PS027651.D     | 12 Sep 2024 20:36 |                             | AR\AJ    | Ok     |
| 2   | I.BLK       | I.BLK       | PS027652.D     | 12 Sep 2024 21:00 |                             | AR\AJ    | Ok     |
| 3   | HSTDICC200  | HSTDICC200  | PS027653.D     | 12 Sep 2024 21:24 |                             | AR\AJ    | Ok,M   |
| 4   | HSTDICC500  | HSTDICC500  | PS027654.D     | 12 Sep 2024 21:48 |                             | AR\AJ    | Ok     |
| 5   | HSTDICC750  | HSTDICC750  | PS027655.D     | 12 Sep 2024 22:12 |                             | AR\AJ    | Ok     |
| 6   | HSTDICC1000 | HSTDICC1000 | PS027656.D     | 12 Sep 2024 22:35 |                             | AR\AJ    | Ok     |
| 7   | HSTDICC1500 | HSTDICC1500 | PS027657.D     | 12 Sep 2024 22:59 |                             | AR\AJ    | Ok     |
| 8   | HSTDICV750  | ICVPS091224 | PS027658.D     | 12 Sep 2024 23:23 |                             | AR\AJ    | Ok,M   |
| 9   | I.BLK       | I.BLK       | PS027659.D     | 12 Sep 2024 23:47 |                             | AR\AJ    | Ok     |
| 10  | HSTDCCC750  | HSTDCCC750  | PS027660.D     | 13 Sep 2024 00:11 |                             | AR\AJ    | Ok     |
| 11  | P3845-17    | PT-HERB-WP  | PS027661.D     | 13 Sep 2024 00:35 | please check compound-6 & 7 | AR\AJ    | Ok     |
| 12  | I.BLK       | I.BLK       | PS027662.D     | 13 Sep 2024 00:59 |                             | AR\AJ    | Ok     |
| 13  | HSTDCCC750  | HSTDCCC750  | PS027663.D     | 13 Sep 2024 01:22 |                             | AR\AJ    | Ok     |

M : Manual Integration

Instrument ID: ECD\_S

**Daily Analysis Runlog For Sequence/QC Batch ID # PS100324**

|              |          |                   |                                    |
|--------------|----------|-------------------|------------------------------------|
| Review By    | Abdul    | Review On         | 10/4/2024 9:10:14 AM               |
| Supervise By | Ankita   | Supervise On      | 10/4/2024 9:35:20 AM               |
| SubDirectory | PS100324 | HP Acquire Method | HP Processing Method ps091224 8151 |

| STD. NAME                               | STD REF.#                                                              |
|-----------------------------------------|------------------------------------------------------------------------|
| Tune/Reschk<br>Initial Calibration Stds | P23457,PP23458,PP23459,PP23460,PP23461,PP23462,PP23467,PP23468,PP23469 |
| 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         | PS027814.D     | 03 Oct 2024 11:13 |                                  | AR\AJ    | Ok     |
| 2   | I.BLK       | I.BLK          | PS027815.D     | 03 Oct 2024 11:37 |                                  | AR\AJ    | Ok,M   |
| 3   | HSTDCCC750  | HSTDCCC750     | PS027816.D     | 03 Oct 2024 12:01 | CCC Fail for comp 15<br>PICLORAM | AR\AJ    | Ok     |
| 4   | PB163866BL  | PB163866BL     | PS027817.D     | 03 Oct 2024 17:01 |                                  | AR\AJ    | Ok     |
| 5   | PB163866BS  | PB163866BS     | PS027818.D     | 03 Oct 2024 17:25 | PICLORAM Recovery low            | AR\AJ    | Ok,M   |
| 6   | P4222-01    | TP-5           | PS027819.D     | 03 Oct 2024 17:48 |                                  | AR\AJ    | Ok,M   |
| 7   | P4222-01MS  | TP-5MS         | PS027820.D     | 03 Oct 2024 18:12 | Some compound recovery fail      | AR\AJ    | Ok,M   |
| 8   | P4222-01MSD | TP-5MSD        | PS027821.D     | 03 Oct 2024 18:36 | Some compound recovery fail      | AR\AJ    | Ok,M   |
| 9   | P4232-01    | TP-R           | PS027822.D     | 03 Oct 2024 19:00 | 2,4-DCAA low                     | AR\AJ    | ReRun  |
| 10  | P4236-01    | TP4            | PS027823.D     | 03 Oct 2024 19:24 |                                  | AR\AJ    | Ok,M   |
| 11  | P4236-05    | TP3            | PS027824.D     | 03 Oct 2024 19:48 |                                  | AR\AJ    | Ok,M   |
| 12  | P4236-09    | TP1            | PS027825.D     | 03 Oct 2024 20:12 |                                  | AR\AJ    | Ok,M   |
| 13  | P4236-13    | TP2            | PS027826.D     | 03 Oct 2024 20:36 |                                  | AR\AJ    | Ok,M   |
| 14  | I.BLK       | I.BLK          | PS027827.D     | 03 Oct 2024 20:59 |                                  | AR\AJ    | Ok     |
| 15  | HSTDCCC750  | HSTDCCC750     | PS027828.D     | 03 Oct 2024 21:23 |                                  | AR\AJ    | Ok,M   |
| 16  | P4276-01    | VNJ-208        | PS027829.D     | 03 Oct 2024 22:59 |                                  | AR\AJ    | Ok,M   |
| 17  | P4277-01    | BU-03-10022024 | PS027830.D     | 03 Oct 2024 23:23 |                                  | AR\AJ    | Ok,M   |

Instrument ID: ECD\_S

**Daily Analysis Runlog For Sequence/QC Batch ID # PS100324**

|                                                                    |                                                                        |                   |                                    |
|--------------------------------------------------------------------|------------------------------------------------------------------------|-------------------|------------------------------------|
| Review By                                                          | Abdul                                                                  | Review On         | 10/4/2024 9:10:14 AM               |
| Supervise By                                                       | Ankita                                                                 | Supervise On      | 10/4/2024 9:35:20 AM               |
| SubDirectory                                                       | PS100324                                                               | HP Acquire Method | HP Processing Method ps091224 8151 |
| <b>STD. NAME</b>                                                   | <b>STD REF.#</b>                                                       |                   |                                    |
| Tune/Reschk<br>Initial Calibration Stds                            | P23457,PP23458,PP23459,PP23460,PP23461,PP23462,PP23467,PP23468,PP23469 |                   |                                    |
| CCC<br>Internal Standard/PEM                                       | PP23462                                                                |                   |                                    |
| ICV/I.BLK<br>Surrogate Standard<br>MS/MSD Standard<br>LCS Standard | PP23469                                                                |                   |                                    |

|    |             |                    |            |                   |                                  |       |      |
|----|-------------|--------------------|------------|-------------------|----------------------------------|-------|------|
| 18 | P4242-01    | TP-Q               | PS027831.D | 03 Oct 2024 23:47 |                                  | AR\AJ | Ok,M |
| 19 | P4254-01    | MH-147-SLUDGE      | PS027832.D | 04 Oct 2024 00:11 |                                  | AR\AJ | Ok,M |
| 20 | P4270-01    | IB-2               | PS027833.D | 04 Oct 2024 00:34 |                                  | AR\AJ | Ok,M |
| 21 | P4273-01    | AU-05-100224       | PS027834.D | 04 Oct 2024 00:58 |                                  | AR\AJ | Ok,M |
| 22 | P4258-04    | Chamberlain Ave    | PS027835.D | 04 Oct 2024 01:22 |                                  | AR\AJ | Ok,M |
| 23 | P4258-04MS  | Chamberlain AveMS  | PS027836.D | 04 Oct 2024 01:46 | Some compound recovery fail      | AR\AJ | Ok,M |
| 24 | P4258-04MSD | Chamberlain AveMSD | PS027837.D | 04 Oct 2024 02:10 | Some compound recovery fail      | AR\AJ | Ok,M |
| 25 | PB163890BL  | PB163890BL         | PS027838.D | 04 Oct 2024 02:34 |                                  | AR\AJ | Ok   |
| 26 | PB163890BS  | PB163890BS         | PS027839.D | 04 Oct 2024 02:58 |                                  | AR\AJ | Ok,M |
| 27 | PB163851TB  | PB163851TB         | PS027840.D | 04 Oct 2024 03:22 |                                  | AR\AJ | Ok,M |
| 28 | I.BLK       | I.BLK              | PS027841.D | 04 Oct 2024 03:45 |                                  | AR\AJ | Ok,M |
| 29 | HSTDCCC750  | HSTDCCC750         | PS027842.D | 04 Oct 2024 04:09 | CCC Fail for comp 15<br>PICLORAM | AR\AJ | Ok,M |

M : Manual Integration

|                         |               |                                                         |
|-------------------------|---------------|---------------------------------------------------------|
| <b>SOP ID :</b>         | M1311-TCLP-14 |                                                         |
| <b>SDG No :</b>         | N/A           | <b>Start Prep Date :</b> 10/02/2024 <b>Time :</b> 17:35 |
| <b>Weigh By :</b>       | JP            | <b>End Prep Date :</b> 10/03/2024 <b>Time :</b> 10:25   |
| <b>Balance ID :</b>     | WC SC-4       | <b>Combination Ratio :</b> 20                           |
| <b>pH Meter ID :</b>    | WC PH METER-1 | <b>ZHE Cleaning Batch :</b> N/A                         |
| <b>Extraction By :</b>  | JP            | <b>Initial Room Temperature:</b> 23 °C                  |
| <b>Filter By :</b>      | JP            | <b>Final Room Temperature:</b> 22 °C                    |
| <b>Pipette ID :</b>     | WC            | <b>TCLP Technician Signature :</b> <i>JP</i>            |
| <b>Tumbler ID :</b>     | T-1           | <b>Supervisor By :</b> <i>12</i>                        |
| <b>TCLP Filter ID :</b> | 114771        |                                                         |

| Standardized 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             | MP81119     | N/A                                 |

**Extraction Conformance/Non-Conformance Comments:**

Matrix spikes are added after filtration and before preservation. TUMBLER T-1 checked, 30 rpm. p4276-02 is used for MS-MSD Particle size reduction is not required.

| Date / Time    | Prepped Sample Relinquished By/Location | Received By/Location           |
|----------------|-----------------------------------------|--------------------------------|
| 10/03/24 11:00 | <i>JP</i> / TCLP Room                   | <i>JP</i> • <i>1541</i>        |
|                | Preparation Group                       | Analysis Group <i>10/03/24</i> |

| 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 |
|------------|-----------------|----------------|---------------|---------------------------------|--------------|----------------|-----------------|-------------------|-------------------------|----------|
| P4242-04   | TP-Q            | 01             | 100.02        | 2000                            | N/A          | N/A            | N/A             | 5.6               | 1.5                     | T-1      |
| P4254-04   | MH-147-SLUDGE   | 02             | 100.03        | 2000                            | N/A          | N/A            | N/A             | 4.0               | 1.0                     | T-1      |
| P4258-04   | Chamberlain Ave | 03             | 100.04        | 2000                            | N/A          | N/A            | N/A             | 5.6               | 1.5                     | T-1      |
| P4270-04   | IB-2            | 04             | 100.02        | 2000                            | N/A          | N/A            | N/A             | 5.8               | 1.0                     | T-1      |
| P4276-02   | VNJ-208         | 05             | 100.03        | 2000                            | N/A          | N/A            | N/A             | 7.2               | 1.5                     | T-1      |
| PB163851TB | LEB851          | 06             | N/A           | 2000                            | N/A          | N/A            | N/A             | 4.94              | 1.0                     | T-1      |



| <b>SampleID</b> | <b>ClientID</b> | <b>Sample Weight (g)</b> | <b>Filter Weight (g)</b> | <b>Filtrate (mL)</b> | <b>Filter + Solid (After 100°C)</b> | <b>% solids</b> | <b>% Dry Solids</b> |
|-----------------|-----------------|--------------------------|--------------------------|----------------------|-------------------------------------|-----------------|---------------------|
| P4242-04        | TP-Q            | N/A                      | N/A                      | N/A                  | N/A                                 | 100             | N/A                 |
| P4254-04        | MH-147-SLUDGE   | N/A                      | N/A                      | N/A                  | N/A                                 | 100             | N/A                 |
| P4258-04        | Chamberlain Ave | N/A                      | N/A                      | N/A                  | N/A                                 | 100             | N/A                 |
| P4270-04        | IB-2            | N/A                      | N/A                      | N/A                  | N/A                                 | 100             | N/A                 |
| P4276-02        | VNJ-208         | N/A                      | N/A                      | N/A                  | N/A                                 | 100             | N/A                 |
| PB163851TB      | LEB851          | 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 |
|------------|-----------------|-------------------|----------------------|---------------------|----------------------|-------------------------|---------------------|
| P4242-04   | TP-Q            | 5.02              | 96.5                 | 7.6                 | 2.0                  | #1                      | 4.93                |
| P4254-04   | MH-147-SLUDGE   | 5.01              | 96.5                 | 6.6                 | 1.5                  | #1                      | 4.93                |
| P4258-04   | Chamberlain Ave | 5.03              | 96.5                 | 7.6                 | 2.0                  | #1                      | 4.93                |
| P4270-04   | IB-2            | 5.02              | 96.5                 | 8.4                 | 3.0                  | #1                      | 4.93                |
| P4276-02   | VNJ-208         | 5.02              | 96.5                 | 9.0                 | 4.0                  | #1                      | 4.93                |
| PB163851TB | LEB851          | N/A               | N/A                  | N/A                 | N/A                  | #1                      | 4.93                |

WORKLIST(Hardcopy Internal Chain)

WorkList Name : tclp p4258      WorkList ID : 184036      Department : TCLP Extraction      Date : 10-02-2024 09:43:17

| Sample   | Customer Sample | Matrix | Test            | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method |
|----------|-----------------|--------|-----------------|--------------|----------|-----------------------------|--------------|--------|
| P4242-04 | TP-Q            | Solid  | TCLP Extraction | Cool 4 deg C | PSEG03   | J51                         | 10/01/2024   | 1311   |
| P4254-04 | MH-147-SLUDGE   | Solid  | TCLP Extraction | Cool 4 deg C | PSEG03   | J51                         | 10/01/2024   | 1311   |
| P4258-04 | Chamberlain Ave | Solid  | TCLP Extraction | Cool 4 deg C | ROMA02   | H11                         | 10/01/2024   | 1311   |
| P4270-04 | IB-2            | Solid  | TCLP Extraction | Cool 4 deg C | PSEG03   | J51                         | 10/02/2024   | 1311   |
| P4276-02 | VNJ-208         | Solid  | TCLP Extraction | Cool 4 deg C | PSEG03   | J53                         | 10/02/2024   | 1311   |

Date/Time 10/02/24 16:30  
Raw Sample Received by: JLC  
Raw Sample Relinquished by: JLC

Date/Time 10/02/24 19:00  
Raw Sample Received by: JLC  
Raw Sample Relinquished by: JLC

SOP ID: M8151A-Herbicide-22

Clean Up SOP #: N/A

Matrix : Water

Weigh By: N/A

Balance check: N/A

Balance ID: N/A

pH Strip Lot#: E3574

Extraction By: EH

Filter By: RS

pH Meter ID: N/A

Hood ID: 4,7

Extraction Start Date : 10/03/2024

Extraction Start Time : 12:00

Extraction End Date : 10/03/2024

Extraction End Time : 17:00

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           | PP23624             |
| Surrogate     | 1.0ML    | 5000 PPB            | PP23665             |
| 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     |
| 12N H2SO4        | N/A            | EP2505     |
| NAOH 6N          | N/A            | EP2491     |
| ISO OCTANE       | N/A            | E3554      |
| METHANOL         | N/A            | V14138     |
| Diazomethane     | N/A            | EP2529     |
| Hexane           | N/A            | E3805      |
| NACL             | N/A            | M4459      |
| 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 6N NaOH>12 prior to Hydrolysis, PH adjusted with cold 12N H2SO4<2 after Hydrolysis, Derivatization procedure is completed and samples are ready to Analyze, 40ml Vial Lot # 03-40BTS721.

KD Bath ID: N/A

Envap ID: NE VAP-02

KD Bath Temperature: N/A

Envap Temperature: 40 °C

| Date / Time | Prepped Sample Relinquished By/Location | Received By/Location |
|-------------|-----------------------------------------|----------------------|
| 10/3/24     | RP (E.H. 205)                           | R. Patel - PCB205    |
| 17:05       | Preparation Group                       | Analysis Group       |

Analytical Method: M8151A-Herbicide-22

Concentration Date: 10/03/2024

| Sample ID       | Client Sample ID   | Test           | g / mL | PH | Surr/Spike By: |            | Final Vol.<br>(mL) | JarID | Comments | Prep<br>Pos |
|-----------------|--------------------|----------------|--------|----|----------------|------------|--------------------|-------|----------|-------------|
|                 |                    |                |        |    | AddedBy        | VerifiedBy |                    |       |          |             |
| PB163851TB      | PB163851TB         | TCLP Herbicide | 100    | 6  | Evelyn         | RUPESH     | 10                 |       |          | SEP-7       |
| PB163890BL      | HBLK890            | TCLP Herbicide | 1000   | 6  | Evelyn         | RUPESH     | 10                 |       |          | 8           |
| PB163890BS      | HLCS890            | TCLP Herbicide | 1000   | 6  | Evelyn         | RUPESH     | 10                 |       |          | 9           |
| P4258-04        | CHAMBERLAIN AVE    | TCLP Herbicide | 100    | 6  | Evelyn         | RUPESH     | 10                 | A     |          | 10          |
| P4258-04MS      | CHAMBERLAIN AVEMS  | TCLP Herbicide | 100    | 6  | Evelyn         | RUPESH     | 10                 | A     |          | 11          |
| P4258-04MS<br>D | CHAMBERLAIN AVEMSD | TCLP Herbicide | 100    | 6  | Evelyn         | RUPESH     | 10                 | A     |          | 12          |

\* Extracts relinquished on the same date as received.

10/3/24

| 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 |
|------------|-----------------|----------------|---------------|---------------------------------|--------------|----------------|-----------------|-------------------|-------------------------|----------|
| P4242-04   | TP-Q            | 01             | 100.02        | 2000                            | N/A          | N/A            | N/A             | 5.6               | 1.5                     | T-1      |
| P4254-04   | MH-147-SLUDGE   | 02             | 100.03        | 2000                            | N/A          | N/A            | N/A             | 4.0               | 1.0                     | T-1      |
| P4258-04   | Chamberlain Ave | 03             | 100.04        | 2000                            | N/A          | N/A            | N/A             | 5.6               | 1.5                     | T-1      |
| P4270-04   | IB-2            | 04             | 100.02        | 2000                            | N/A          | N/A            | N/A             | 5.8               | 1.0                     | T-1      |
| P4276-02   | VNJ-208         | 05             | 100.03        | 2000                            | N/A          | N/A            | N/A             | 7.2               | 1.5                     | T-1      |
| PB163851TB | LEB851          | 06             | N/A           | 2000                            | N/A          | N/A            | N/A             | 4.94              | 1.0                     | T-1      |

10/03/24  
MJC

## Prep Standard - Chemical Standard Summary

**Order ID :** P4258

**Test :** TCLP Herbicide

**Prepbatch ID :** PB163890,

**Sequence ID/Qc Batch ID:** PS100324,

**Standard ID :**

EP2491,EP2503,EP2505,PP23457,PP23458,PP23459,PP23460,PP23461,PP23462,PP23467,PP23468,PP23469,PP23624,PP23665,

**Chemical ID :**

E3370,E3551,E3554,E3657,E3754,E3788,M5037,M5039,P11179,P12618,P12661,P12707,P12780,P12781,P13174,P13175,P13176,P13177,P23457,P8828,P8901,P9004,W2606,



| <u>Recipe ID</u> | <u>NAME</u>                                                                  | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u>                      | <u>PipetteID</u> | <u>Supervised By</u>              |
|------------------|------------------------------------------------------------------------------|------------------------|------------------|------------------------|--------------------|-------------------------------------|------------------|-----------------------------------|
| 3884             | 6 N NAOH                                                                     | <a href="#">EP2491</a> | 06/03/2024       | 10/24/2024             | Rajesh Parikh      | Extraction_SC<br>ALE_2<br>(EX-SC-2) | None             | RUPESHKUMAR<br>SHAH<br>06/03/2024 |
| <u>FROM</u>      | 1000.00000ml of W2606 + 240.00000gram of E3657 = Final Quantity: 1000.000 ml |                        |                  |                        |                    |                                     |                  |                                   |

[illegible]



## Extractions STANDARD PREPARATION LOG

| <u>Recipe ID</u> | <u>NAME</u>        | <u>NO.</u>             | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>              |
|------------------|--------------------|------------------------|------------------|------------------------|--------------------|----------------|------------------|-----------------------------------|
| 3883             | 12N H2SO4 solution | <a href="#">EP2505</a> | 07/01/2024       | 10/24/2024             | Rajesh Parikh      | None           | None             | RUPESHKUMAR<br>SHAH<br>07/01/2024 |

**FROM** 333.00000ml of M5039 + 667.00000ml of W2606 = Final Quantity: 1000.000 ml

| <u>Recipe ID</u> | <u>NAME</u>             | <u>NO.</u>              | <u>Prep Date</u> | <u>Expiration Date</u> | <u>Prepared By</u> | <u>ScaleID</u> | <u>PipetteID</u> | <u>Supervised By</u>         |
|------------------|-------------------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|------------------------------|
| 1321             | 2/200 PPM Herb Mega Mix | <a href="#">PP23457</a> | 06/17/2024       | 12/04/2024             | Abdul Mirza        | None           | None             | Ankita Jodhani<br>06/18/2024 |

**FROM** 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 | <a href="#">PP23458</a> | 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 | <a href="#">PP23459</a> | 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 | <a href="#">PP23460</a> | 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 | <a href="#">PP23461</a> | 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 | <a href="#">PP23462</a> | 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 | <a href="#">PP23467</a> | 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 | <a href="#">PP23468</a> | 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 | <a href="#">PP23469</a> | 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) | <a href="#">PP23624</a> | 08/26/2024       | 02/13/2025             | Abdul Mirza        | None           | None             | Ankita Jodhani       |
|                  |                                             |                         |                  |                        |                    |                |                  | 08/28/2024           |

**FROM** 1.25000ml of P12780 + 1.25000ml of P12781 + 47.50000ml of E3788 = 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) | <a href="#">PP23665</a> | 09/13/2024       | 02/08/2025             | Abdul Mirza        | None           | None             | Ankita Jodhani       |
|                  |                                           |                         |                  |                        |                    |                |                  | 09/16/2024           |

**FROM** 1.25000ml of P13174 + 1.25000ml of P13175 + 1.25000ml of P13176 + 1.25000ml of P13177 + 195.00000ml of E3788 = 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-9335-02 / Iso-Octane (2,2,4-Trimethypentane) Ultra Resi-Analyzed Grade | 63160 | 01/05/2025      | 08/09/2023 / Rajesh     | 08/09/2023 / Rajesh         | E3554          |

| Supplier                    | ItemCode / ItemName                                  | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | PC19510-5 / Sodium Hydroxide Pellets 2.5 Kg, Pk of 4 | 23B1556310 | 12/31/2025      | 12/04/2023 / Rajesh     | 12/01/2023 / Rajesh         | E3657          |

| 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) | 23H1462005 | 04/01/2025      | 08/13/2024 / Rajesh     | 08/13/2024 / Rajesh         | E3788          |

## 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 # |
|------------------|---------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L) | 0000250349 | 12/15/2024      | 02/23/2022 / mohan      | 09/18/2021 / mohan          | M5039          |

| 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         |



## CHEMICAL RECEIPT LOG BOOK

| 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-8151A / Chlorinated Herbicide Mixtures, Free Acids | 0006750243 | 02/26/2025      | 08/26/2024 / Abdul      | 09/11/2023 / Abdul          | P12780         |

| 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 | 02/26/2025      | 08/26/2024 / Abdul      | 09/11/2023 / Abdul          | P12780         |

| 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 | 02/26/2025      | 08/26/2024 / Abdul      | 09/11/2023 / Abdul          | P12781         |

| 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 | 02/26/2025      | 08/26/2024 / Abdul      | 09/11/2023 / Abdul          | P12781         |

| 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 | A0201161 | 02/08/2025      | 08/08/2024 / Abdul      | 01/12/2024 / Abdul          | P13174         |

## 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 | A0201161 | 02/08/2025      | 08/08/2024 / Abdul      | 01/12/2024 / Abdul          | P13175         |

| 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 | A0201161 | 02/08/2025      | 08/08/2024 / Abdul      | 01/12/2024 / Abdul          | P13176         |

| 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 | A0201161 | 02/08/2025      | 08/08/2024 / Abdul      | 01/12/2024 / Abdul          | P13177         |

| 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          |

| 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          |

### **CHEMICAL RECEIPT LOG BOOK**

| Supplier         | ItemCode / ItemName | Lot #               | Expiration Date | Date Opened /<br>Opened By | Received Date /<br>Received By | Chemtech<br>Lot # |
|------------------|---------------------|---------------------|-----------------|----------------------------|--------------------------------|-------------------|
| Seidler Chemical | DIW / DI Water      | Daily Lab-Certified | 10/24/2024      | 10/24/2019 /<br>apatel     | 10/24/2019 /<br>apatel         | W2606             |

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,

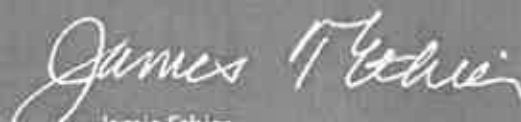
| Test                                                                                 | Specification | Result   |
|--------------------------------------------------------------------------------------|---------------|----------|
| Assay ((C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> O) (by GC, corrected for water) | >= 99.0 %     | 100.0    |
| Alcohol (C <sub>2</sub> H <sub>5</sub> OH)                                           | Passes Test   | PT       |
| Carbonyl Compounds (as HCHO) (by polarography)                                       | <= 0.001 %    | < 0.001  |
| Color (APHA)                                                                         | <= 10         | < 5      |
| Peroxide (as H <sub>2</sub> O <sub>2</sub> )                                         | <= 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



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

MIRADOR 201, COL. MIRADOR  
MONTERREY, N.L. MEXICO  
CP 64070  
TEL +52 81 13 52 57 57  
www.pqm.com.mx

## CERTIFICATE OF ANALYSIS

|                        |                                   |               |                                 |
|------------------------|-----------------------------------|---------------|---------------------------------|
| PRODUCT :              | SODIUM SULFATE CRYSTALS ANHYDROUS |               |                                 |
| QUALITY :              | ACS (CODE RMB3375)                | FORMULA :     | Na <sub>2</sub> SO <sub>4</sub> |
| SPECIFICATION NUMBER : | 6399                              | RELEASE DATE: | ABR/21/2023                     |
| LOT NUMBER :           | 313201                            |               |                                 |

| TEST                                     | SPECIFICATIONS | LOT VALUES  |
|------------------------------------------|----------------|-------------|
| Assay (Na <sub>2</sub> SO <sub>4</sub> ) | 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 <sub>4</sub> )             | Max. 0.001%    | <0.001 %    |
| Heavy metals (as Pb)                     | Max. 5 ppm     | <5 ppm      |
| Iron (Fe)                                | Max. 0.001%    | <0.001 %    |
| Calcium (Ca)                             | Max. 0.01%     | 0.002 %     |
| Magnesium (Mg)                           | Max. 0.005%    | 0.001 %     |
| Potassium (K)                            | Max. 0.008%    | 0.003 %     |
| 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

# Certificate of Analysis



Date of Release: 6/9/2023  
Name: 2,2,4-Trimethylpentane [Isooctane]  
OmniSolv®  
Item No: TX1389 all size codes  
Lot / Batch No: 63160  
Country of Origin: Germany

| Characteristic                                | Requirement |       | Results      | Units |
|-----------------------------------------------|-------------|-------|--------------|-------|
|                                               | Min.        | Max.  |              |       |
| Assay (GC)                                    | 99.5        |       | > 99.99      | %     |
| Capillary ECD responsive substances (as PCNB) |             | 5     | 0.24         | ng/L  |
| Color (APHA)                                  |             | 10    | < 10         |       |
| Evaporation residue                           |             | 1     | < 0.5        | ppm   |
| Filtered through 0.2 µm filter                |             |       | Passes test  |       |
| Fluorescence (as quinine base)                |             | 250   | 71           | ppt   |
| Form                                          |             |       | Clear liquid |       |
| Infrared Spectrum                             |             |       | Conforms     |       |
| Refractive index (at 20°C)                    |             |       | 1.3915       |       |
| UV Abs. at 200 nm                             |             | 1.00  | 0.137        | AU    |
| UV Abs. at 220 nm                             |             | 0.05  | 0.024        | AU    |
| UV Abs. at 230 nm                             |             | 0.02  | 0.003        | AU    |
| UV Abs. at 250 nm                             |             | 0.005 | 0.003        | AU    |
| UV Abs. at 270 nm                             |             | 0.005 | 0.002        | AU    |
| UV Abs. at 300 nm                             |             | 0.005 | 0.004        | AU    |
| UV Cut-off                                    |             | 200   | 191.1        | nm    |
| Water (H <sub>2</sub> O)                      |             | 0.01  | 0.001        | %     |

Michael Hutchinson,

Quality Control Manager

This document has been produced electronically and is valid without a signature.

EMD Millipore is a division of Merck KGaA, Darmstadt, Germany  
EMD Millipore Corporation  
400 Summit Drive,  
Burlington, MA 01803  
U.S.A.

Recd by RP on 8/9/23

E3554



# Certificate of Analysis

## Sodium Hydroxide (Pellets)

**Material:** 0583  
**Grade:** ACS GRADE  
**Batch Number:** 23B1556310

**Chemical Formula:** NaOH  
**Molecular Weight:** 40  
**CAS #:** 1310-73-2  
**Appearance:**

**Manufacture Date:** 12/14/2022  
**Expiration Date:** 12/31/2025

**Storage:** Room Temperature

Pellets

| TEST               | SPECIFICATION          | ANALYSIS            | DISPOSITION |
|--------------------|------------------------|---------------------|-------------|
| Calcium            | $\leq 0.005 \%$        | $< 0.005 \%$        | PASS        |
| Chloride           | $\leq 0.005 \%$        | 0.002 %             | PASS        |
| Heavy Metals       | $\leq 0.002 \%$        | $< 0.002 \%$        | PASS        |
| Iron               | $\leq 0.001 \%$        | $< 0.001 \%$        | PASS        |
| Magnesium          | $\leq 0.002 \%$        | $< 0.002 \%$        | PASS        |
| Mercury            | $\leq 0.1 \text{ ppm}$ | $< 0.1 \text{ ppm}$ | PASS        |
| Nickel             | $\leq 0.001 \%$        | $< 0.001 \%$        | PASS        |
| Nitrogen Compounds | $\leq 0.001 \%$        | $< 0.001 \%$        | PASS        |
| Phosphate          | $\leq 0.001 \%$        | $< 0.001 \%$        | PASS        |
| Potassium          | $\leq 0.02 \%$         | $< 0.02 \%$         | PASS        |
| Purity             | $\geq 97.0 \%$         | 99.2 %              | PASS        |
| Sodium Carbonate   | $\leq 1.0 \%$          | 0.5 %               | PASS        |
| Sulfate            | $\leq 0.003 \%$        | $< 0.003 \%$        | PASS        |

Internal ID #: 710

### Signature

We certify that this batch conforms to the specifications listed.

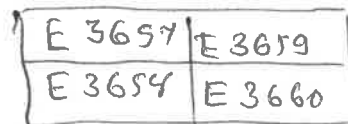
This document has been electronically produced and is valid without a signature.

Leona Edwardson, Quality Control Sr. Manager - Solon  
VWR Chemicals, LLC.  
28600 Fountain Parkway, Solon OH 44139 USA

### Additional Information

Analysis may have been rounded to significant digits in specification limits.

Product meets analytical specifications of the grades listed.



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 <sub>6</sub> Isomers) (by GC, corrected for water)     | ≥ 99.5 %      | 99.7 %      |
| Assay (as n-Hexane) (by GC, corrected for water)                                | ≥ 95 %        | 98 %        |
| Color (APHA)                                                                    | ≤ 10          | 5           |
| Residue after Evaporation                                                       | ≤ 1.0 ppm     | 0.4 ppm     |
| Substances Darkened by H <sub>2</sub> SO <sub>4</sub>                           | Passes Test   | Passes Test |
| Water (by KF, coulometric)                                                      | ≤ 0.05 %      | < 0.01 %    |

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

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

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.: 23H1462005  
Manufactured Date: 2023-07-26  
Expiration Date: 2026-07-25  
Revision No.: 0

## Certificate of Analysis

| Test                                                                    | Specification | Result      |
|-------------------------------------------------------------------------|---------------|-------------|
| Assay ((CH <sub>3</sub> ) <sub>2</sub> CO) (by GC, corrected for water) | ≥ 99.4 %      | 99.7 %      |
| Color (APHA)                                                            | ≤ 10          | 5           |
| Residue after Evaporation                                               | ≤ 1.0 ppm     | 0.3 ppm     |
| Substances Reducing Permanganate                                        | Passes Test   | Passes Test |
| Titration Acid (μeq/g)                                                  | ≤ 0.3         | 0.1         |
| Titration Base (μeq/g)                                                  | ≤ 0.6         | < 0.1       |
| Water (H <sub>2</sub> O)                                                | ≤ 0.5 %       | 0.3 %       |
| FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)    | ≤ 5           | < 1         |
| ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)    | ≤ 10          | 1           |

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

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

Recd by RP on 8/13/24

E 3788

Ken Koehnlein  
Sr. Manager, Quality Assurance

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

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

Avantor Performance Materials, LLC

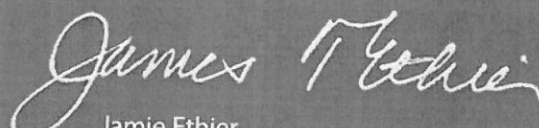
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

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

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

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

Avantor Performance Materials, LLC

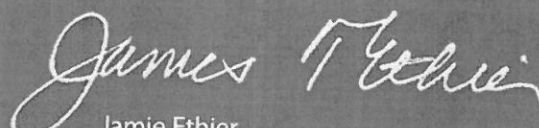
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

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

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

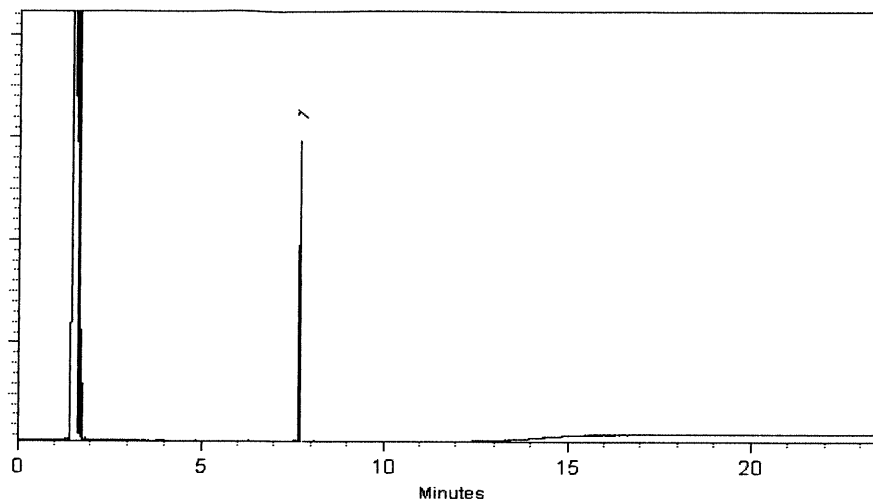
250°C

**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*  
Katelyn McGinnis - Operations Tech I

Date Mixed: 28-May-2021

Balance: B345965662

*Marlene Cowan*  
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  
↓  
P11186  
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  
Date = 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<br>CAS # 2905-67-1 (Lot 3903900)<br>Purity 99%  | 200.0 µg/mL                 | +/- 1.4182                           | µg/mL | Gravimetric |  |
|               |                                                                                       |                             | +/- 6.7507                           | µg/mL | Unstressed  |  |
|               |                                                                                       |                             | +/- 6.7507                           | µg/mL | Stressed    |  |
| 2             | 4-Nitroanisole<br>CAS # 100-17-4 (Lot 24765/7)<br>Purity 99%                          | 200.0 µg/mL                 | +/- 1.4182                           | µg/mL | Gravimetric |  |
|               |                                                                                       |                             | +/- 6.7507                           | µg/mL | Unstressed  |  |
|               |                                                                                       |                             | +/- 6.7507                           | µg/mL | Stressed    |  |
| 3             | Pentachloroanisole<br>CAS # 1825-21-4 (Lot 7921100)<br>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<br>CAS # 7286-84-2 (Lot 6487100)<br>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<br>CAS # 61592-45-8 (Lot 817100)<br>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<br>CAS # 14143-55-6 (Lot 386-21B)<br>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)<br>CAS # 1861-32-1 (Lot 8008700)<br>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)

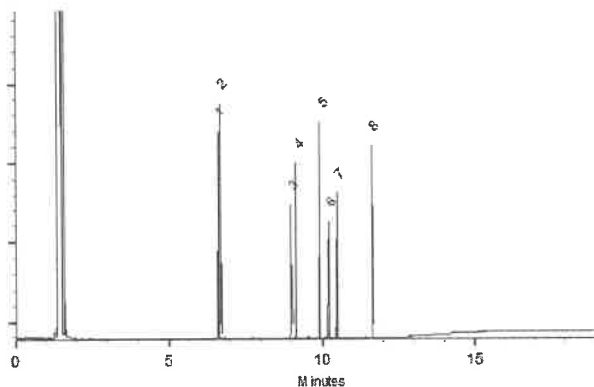
**Carrier Gas:**  
 hydrogen-constant pressure 10 psi.

**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:**

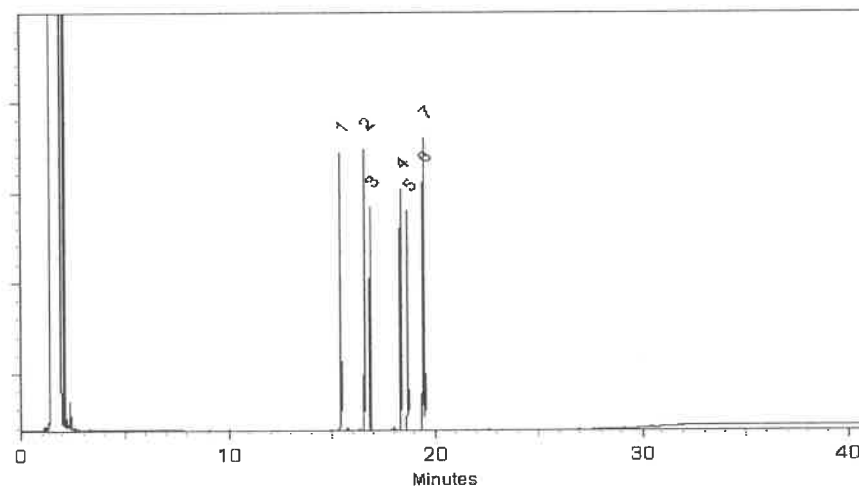
FID

**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](http://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.

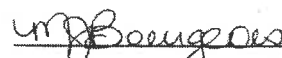
**Expiration of Certification:**

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)  
↓  
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/](http://www.agilent.com/quality/)  
CSD-QA-015.2

ISO 17025  
Cert No. AT-1937

P12766  
↓  
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                         | 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](http://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/](http://www.agilent.com/quality/)  
CSD-QA-015.2

ISO 17025  
Cert No. AT-1937

P12766  
↓  
P12785  
✓  
9.11.23

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                         | 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](http://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/](http://www.agilent.com/quality/)  
CSD-QA-015.2

ISO 17025  
Cert No. AT-1937



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. :** 32049 **Lot No.:** A0201161  
**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 :** May 31, 2026 **Storage:** 10°C or colder  
**Handling:** This product is photosensitive. **Ship:** Ambient

P13161  
↓  
P13180  
/ *DR*  
01/15/2023

### 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%    | 202.0 µg/mL                 | +/- 2.7426                             |

\* 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.



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

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chromatographic plus



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**Catalog No. :** 32049 **Lot No.:** A0201161  
**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 :** May 31, 2026 **Storage:** 10°C or colder  
**Handling:** This product is photosensitive. **Ship:** Ambient

P13161  
↓  
P13180  
/ *[Signature]*  
01/15/2023

### 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%    | 202.0 µg/mL                 | +/- 2.7426                             |

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

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

### Specific Reference Material Notes:

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## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

chromatographic plus



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

**Catalog No. :** 32049 **Lot No.:** A0201161  
**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 :** May 31, 2026 **Storage:** 10°C or colder  
**Handling:** This product is photosensitive. **Ship:** Ambient

P13161  
↓  
P13180  
/ 20  
✓ Dave  
01/15/2023

### 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%    | 202.0 µg/mL                 | +/- 2.7426                             |

\* 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.



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## CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

chromatographic plus



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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**Catalog No. :** 32049 **Lot No.:** A0201161  
**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 :** May 31, 2026 **Storage:** 10°C or colder  
**Handling:** This product is photosensitive. **Ship:** Ambient

P13161  
↓  
P13180  
/ 20  
01/15/2023

### 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%    | 202.0 µg/mL                 | +/- 2.7426                             |

\* 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.



CERTIFIED REFERENCE MATERIAL

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

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## 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.<br>(weight/volume) | Expanded Uncertainty<br>(95% C.L.; K=2)                                                     |
|---------------|-------------------------------------------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------|
| 1             | Dalapon methyl ester<br>CAS # 17640-02-7<br>Purity 98%<br>(Lot 1764600) | 999.6 µg/mL                    | +/- 10.0697 µg/mL Gravimetric<br>+/- 34.4896 µg/mL Unstressed<br>+/- 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:**

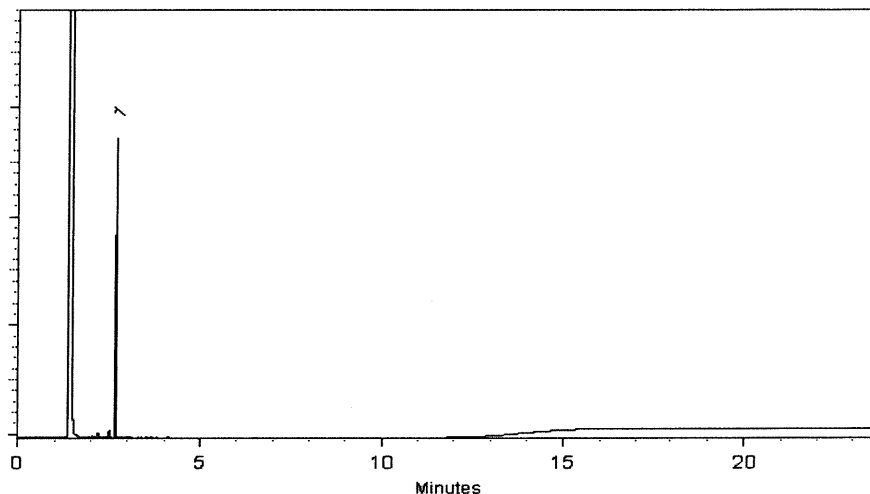
250°C

**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

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Received 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.<br>(weight/volume) | Expanded Uncertainty<br>(95% C.L.; K=2) |          |       |             |     |          |       |            |
|---------------|------------------------------|-----------------------------------------------|--------------------------------|-----------------------------------------|----------|-------|-------------|-----|----------|-------|------------|
| 1             | MCPP (Mecoprop) methyl ester |                                               | 20,004.0    μg/mL              | +/-                                     | 185.1208 | μg/mL | Gravimetric |     |          |       |            |
|               | CAS #                        | 23844-56-6                      (Lot 8685200) |                                |                                         |          |       |             | +/- | 685.5986 | μg/mL | Unstressed |
|               | Purity                       | 99%                                           |                                |                                         |          |       |             | +/- | 685.5986 | μg/mL | Stressed   |
|               |                              |                                               |                                |                                         |          |       |             |     |          |       |            |
| 2             | MCPA methyl ester            |                                               | 20,012.0    μg/mL              | +/-                                     | 185.1948 | μg/mL | Gravimetric |     |          |       |            |
|               | CAS #                        | 2436-73-9                      (Lot 7964600)  |                                |                                         |          |       |             | +/- | 685.8728 | μg/mL | Unstressed |
|               | Purity                       | 99%                                           |                                |                                         |          |       |             | +/- | 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:**

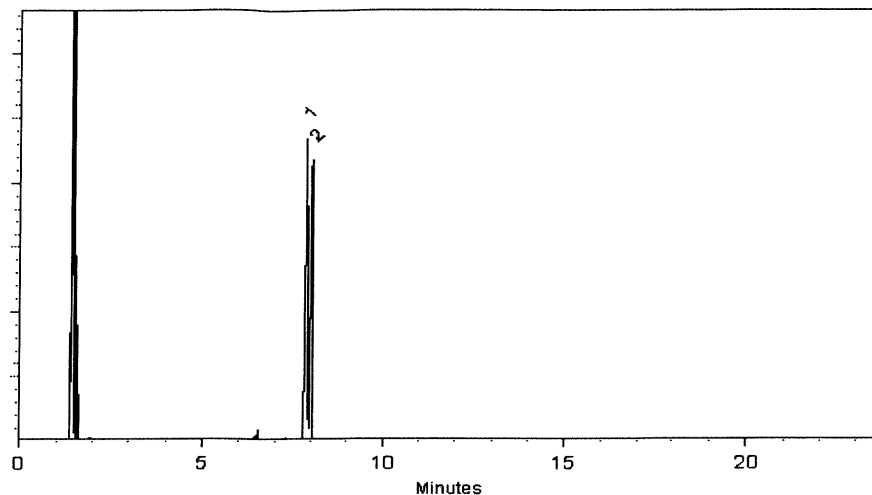
250°C

**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 | 200.0 µg/mL                 | +/- 1.4182 µg/mL Gravimetric         |
|               | CAS # 55954-23-9 (Lot CSC42194-01)          |                             | +/- 6.7507 µg/mL Unstressed          |
|               | Purity 99%                                  |                             | +/- 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:**

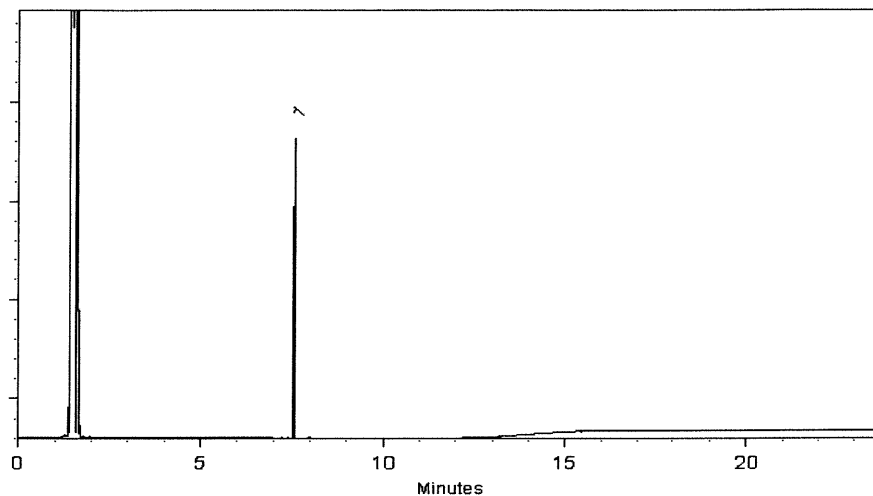
250°C

**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. P4258/P4261  
QUOTE NO.  
COC Number 2041986

### CLIENT INFORMATION

REPORT TO BE SENT TO:  
COMPANY: Roman E&G  
ADDRESS: 14 Ogden St  
CITY: Newark STATE: NJ ZIP: 07104  
ATTENTION: Sonny Puzzo  
PHONE: 973-482-1123 FAX: 973-482-7154

### CLIENT PROJECT INFORMATION

PROJECT NAME: Perth Amboy Undermain  
PROJECT NO.: 24-651 LOCATION: Perth Amboy  
PROJECT MANAGER: Mark Mathiciss  
e-mail: engineer@romaneq.com  
PHONE: 973-482-1123 FAX: 973-482-7154

### CLIENT BILLING INFORMATION

BILL TO: Roman E&G PO#: 24-651  
ADDRESS: 14 Ogden St  
CITY: Newark STATE: NJ ZIP: 07104  
ATTENTION: Frank PHONE: 973-482-1123

### ANALYSIS

### DATA TURNAROUND INFORMATION

FAX (RUSH) 6 10/17 DAYS\*  
HARDCOPY (DATA PACKAGE): 6 10/17 DAYS\*  
EDD: 6 10/17 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 NJ-DEP-SRS

### PRESERVATIVES

### COMMENTS

| CHEMTECH<br>SAMPLE<br>ID | PROJECT<br>SAMPLE IDENTIFICATION | SAMPLE<br>MATRIX | SAMPLE<br>TYPE |      | SAMPLE<br>COLLECTION |       | # OF BOTTLES |   |   |   |   |   |   |   |   |   | ← Specify Preservatives<br>A-HCl D-NaOH<br>B-HNO3 E-ICE<br>C-H2SO4 F-OTHER |
|--------------------------|----------------------------------|------------------|----------------|------|----------------------|-------|--------------|---|---|---|---|---|---|---|---|---|----------------------------------------------------------------------------|
|                          |                                  |                  | COMP           | GRAB | DATE                 | TIME  |              | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                                                                            |
| 1.                       | <u>Chamberlin Ave</u><br>↓       | S                |                | X    | 10/1                 | 11:45 | 1            |   |   |   |   |   |   |   |   |   |                                                                            |
| 2.                       |                                  | S                |                | X    | 10/1                 | 11:45 | 1            |   |   |   |   |   |   |   |   |   |                                                                            |
| 3.                       |                                  | S                |                | X    | 10/1                 | 11:45 | 1            |   |   |   |   |   |   |   |   |   |                                                                            |
| 4.                       |                                  | S                |                | X    | 10/1                 | 11:45 | 1            |   |   |   |   |   |   |   |   |   |                                                                            |
| 5.                       |                                  | S                |                | X    | 10/1                 | 11:45 | 1            |   |   |   |   |   |   |   |   |   |                                                                            |
| 6.                       |                                  | S                |                | X    | 10/1                 | 11:45 | 1            |   |   |   |   |   |   |   |   |   |                                                                            |
| 7.                       |                                  | S                |                | X    | 10/1                 | 11:45 | 1            |   |   |   |   |   |   |   |   |   |                                                                            |
| 8.                       |                                  | S                |                | X    | 10/1                 | 11:45 | 1            |   |   |   |   |   |   |   |   |   |                                                                            |
| 9.                       |                                  |                  |                |      |                      |       |              |   |   |   |   |   |   |   |   |   |                                                                            |
| 10.                      |                                  |                  |                |      |                      |       |              |   |   |   |   |   |   |   |   |   |                                                                            |

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

|                                                   |                                 |                                    |                                                                                                                                                                            |
|---------------------------------------------------|---------------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RELINQUISHED BY SAMPLER:<br>1. <u>Sonny Puzzo</u> | DATE/TIME:<br><u>10/1 12:54</u> | RECEIVED BY:<br><u>[Signature]</u> | Conditions of bottles or coolers at receipt: <input type="checkbox"/> COMPLIANT <input type="checkbox"/> NON COMPLIANT <input type="checkbox"/> COOLER TEMP <u>22.1 °C</u> |
| RELINQUISHED BY SAMPLER:<br>2.                    | DATE/TIME:                      | RECEIVED BY:                       | Comments: <u>If Air # 1</u>                                                                                                                                                |
| RELINQUISHED BY SAMPLER:<br>3.                    | DATE/TIME:                      | RECEIVED BY:                       |                                                                                                                                                                            |

Page \_\_\_\_ of \_\_\_\_

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

Shipment Complete  
☐ YES ☐ NO

| Test Group                | Analyses                | Matrix | Method        |
|---------------------------|-------------------------|--------|---------------|
| <b>METALS-TAL</b>         | Mercury                 | Water  | 7470A         |
|                           | TAL ICP Metals          | Water  | 6010D         |
| <b>RCRA CHARACTERIS</b>   | Flash Point             | Water  | 1010B         |
|                           | pH                      | Water  | 9040C         |
|                           | Reactive Cyanide        | Water  | 9012B         |
|                           | Reactive Sulfide        | Water  | 9034          |
| <b>TCLP METALS</b>        | TCLP Extraction         | Water  | 1311          |
|                           | TCLP ICP Metals         | Water  | 6010D         |
|                           | TCLP Mercury            | Water  | 7470A         |
| <b>GROWS Concrete</b>     | Ammonia                 | Solid  | SM4500-NH3    |
|                           | Chemical Oxygen Demar   | Solid  | SM5220 D      |
|                           | Oil & Grease            | Solid  | 1664A         |
|                           | Paint Filter Test       | Solid  | 9095B         |
|                           | PCBs                    | Solid  | 8082A         |
|                           | Percent Solids          | Solid  | Chemtech -SOP |
|                           | pH                      | Solid  | 9045D         |
|                           | Total Solids            | Solid  | SM2540 B      |
|                           | Total Volatile Solids   | Solid  | 160.4         |
| <b>GROWS Concrete AS</b>  | ASTM Leachate/ Ammon    | Solid  | SM4500-NH3    |
|                           | ASTM Leachate/COD       | Solid  | SM5220 D      |
|                           | ASTM Leachate Extracti  | Solid  | ASTM          |
|                           | ASTM Leachate/Oil & Gr  | Solid  | 1664A         |
|                           | ASTM Leachate/Total Sol | Solid  | SM2540 B      |
| <b>GROWS Concrete-Wa</b>  | Corrosivity             | Solid  | 9045D         |
|                           | Ignitability            | Solid  | 1030          |
|                           | Reactive Cyanide        | Solid  | 9012B         |
|                           | Reactive Sulfide        | Solid  | 9034          |
|                           | TCLP Semivolatiles      | Solid  | 8270E         |
|                           | TCLP Extraction         | Solid  | 1311          |
|                           | TCLP Herbicides         | Solid  | 8151A         |
|                           | TCLP Mercury            | Solid  | 7470A         |
|                           | TCLP Metals + Cu+Ni+Zr  | Solid  | 6010D         |
|                           | TCLP Pesticides         | Solid  | 8081B         |
|                           | TCLP Volatiles          | Solid  | 8260C         |
|                           | TCLP ZHE Extraction     | Solid  | 1311 ZHE      |
| <b>GROWS Soil</b>         | PCBs                    | Solid  | 8082A         |
|                           | Percent Solids          | Solid  | Chemtech -SOP |
|                           | pH                      | Solid  | 9045D         |
|                           | TCL Volatiles+10        | Solid  | 8260D         |
| <b>GROWS Soil-Waste C</b> | Corrosivity             | Solid  | 9045D         |
|                           | Ignitability            | Solid  | 1030          |
|                           | Reactive Cyanide        | Solid  | 9012B         |
|                           | Reactive Sulfide        | Solid  | 9034          |
|                           | TCLP Semivolatiles      | Solid  | 8270E         |
|                           | TCLP Extraction         | Solid  | 1311          |
|                           | TCLP Herbicides         | Solid  | 8151A         |
|                           | TCLP Mercury            | Solid  | 7470A         |
|                           | TCLP Metals + Cu+Ni+Zr  | Solid  | 6010D         |
|                           | TCLP Pesticides         | Solid  | 8081B         |
|                           | TCLP Volatiles          | Solid  | 8260D         |
|                           | TCLP ZHE Extraction     | Solid  | 1311 ZHE      |

Grows Concrete

Grows Concrete ASTM

Grows Soil

Grows Soil-Waste Class

Seperate

Seperate

---

**From:** Kiran Saleem <Kiran.Saleem@alliancetg.com>  
**Sent:** Wednesday, October 2, 2024 11:07 AM  
**Subject:** Re: Project: Perth Amboy Query

Good Morning Sonny,

I am reaching out to inform you that samples received for project were out of temperature range of -6.

It's a standard procedure to inform client, for documentation purposes.

Regards,



**Kiran Saleem**  
**Project Manager**  
**An Alliance Technical Group Company**  
**Main:** 908-789-8900  
**Direct:** 908-728-3148  
**Address:** 284 Sheffield St, Ste 1, Mountainside, NJ 07092  
[www.alliancetg.com](http://www.alliancetg.com)

---

**From:** Sonny Puzzo <spuzzo@romaneg.com>  
**Sent:** Tuesday, October 1, 2024 3:16 PM  
**To:** Kiran Saleem <Kiran.Saleem@alliancetg.com>  
**Subject:** Re: Project: Perth Amboy Query

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Secured by Check Point

Kiran,

Should be 24-651.

Thank you.

All the Best,

**Sonny Puzzo**  
Project Coordinator

14 Ogden Street  
Newark, NJ 07104  
Office: (973) 482-1123 Ext:21  
Fax: (973) 482-7154  
Cell: (973) 803-6113

---

**From:** Kiran Saleem <Kiran.Saleem@alliancetg.com>  
**Sent:** Tuesday, October 1, 2024 3:15 PM  
**To:** Sonny Puzzo <spuzzo@romaneg.com>  
**Subject:** Re: Project: Perth Amboy Query

Also, can you please clarify the PO# under 'Client Billing Information', I can't make out what the first digit is.

Regards,



**Kiran Saleem**  
**Project Manager**  
**An Alliance Technical Group Company**  
**Main:** 908-789-8900  
**Direct:** 908-728-3148  
**Address:** 284 Sheffield St, Ste 1, Mountainside, NJ 07092  
[www.alliancetg.com](http://www.alliancetg.com)

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**From:** Kiran Saleem <Kiran.Saleem@alliancetg.com>  
**Sent:** Tuesday, October 1, 2024 2:35 PM  
**To:** Sonny Puzzo <spuzzo@romaneg.com>  
**Subject:** Re: Project: Perth Amboy Query

Thank you Sonny.

Regards,



**Kiran Saleem**  
**Project Manager**  
**An Alliance Technical Group Company**  
**Main:** 908-789-8900  
**Direct:** 908-728-3148  
**Address:** 284 Sheffield St, Ste 1, Mountainside, NJ 07092  
[www.alliancetg.com](http://www.alliancetg.com)

---

**From:** Sonny Puzzo <spuzzo@romaneg.com>  
**Sent:** Tuesday, October 1, 2024 2:26 PM  
**To:** Kiran Saleem <Kiran.Saleem@alliancetg.com>  
**Cc:** Jordan Hedvat <Jordan.Hedvat@alliancetg.com>  
**Subject:** Re: Project: Perth Amboy Query

EXTERNAL EMAIL - This email was sent by a person from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Secured by Check Point

Good Afternoon Kiran,

Roman would like the results of the test back by 10/7.



Sorry for the confusion... Thank you!

All the Best,

**Sonny Puzzo**

Project Coordinator

14 Ogden Street  
Newark, NJ 07104  
Office: (973) 482-1123 Ext:21  
Fax: (973) 482-7154  
Cell: (973) 803-6113  
*Veteran-Owned Business (NJ)*

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**From:** Kiran Saleem <Kiran.Saleem@alliancetg.com>

**Sent:** Tuesday, October 1, 2024 2:19 PM

**To:** Sonny Puzzo <spuzzo@romaneg.com>

**Cc:** Jordan Hedvat <Jordan.Hedvat@alliancetg.com>

**Subject:** Project: Perth Amboy Query

Hi Sonny,

I am reaching out to regarding the Turn around time (TAT) of the results, the fax required says 6 days and then 10/7 which is confusing.

If results are required on 10/7, then TAT would be 4 days. If results are required in 6 days, then you will have results on 10/9.

Please confirm ASAP. Attached COC for your review.

Thanks.

**NOTE:** Chemtech is now an Alliance Technical Group company. Please add [AllianceTG.com](https://www.alliancetg.com) to your safe senders list to ensure receipt of important emails.

Regards,



**Kiran Saleem**

**Project Manager**

**An Alliance Technical Group Company**

**Main:** 908-789-8900

**Direct:** 908-728-3148

**Address:** 284 Sheffield St, Ste 1, Mountainside, NJ 07092

[www.alliancetg.com](https://www.alliancetg.com)



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 (L-A-B)     | L2219            |
|                      |                  |
| Maine                | 2024021          |
|                      |                  |
| Maryland             | 296              |
|                      |                  |
| New Hampshire        | 255423           |
|                      |                  |
| New Jersey           | 20012            |
|                      |                  |
| New York             | 11376            |
|                      |                  |
| Pennsylvania         | 68-00548         |
|                      |                  |
| Soil Permit          | 525-24-234-08441 |
|                      |                  |
| Texas                | T104704488       |



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

## LOGIN REPORT/SAMPLE TRANSFER

18,A,001  
Q1218,024  
Q863  
IN  
SS  
D15  
JE  
R25,0  
F100  
GW0,0,102,121

**Order ID :** P4258      **ROMA02**  
**Client Name :** Roman E&G Corp  
**Client Contact :** Mark Mattheiss  
**Invoice Name :** Roman E&G Corp  
**Invoice Contact :** Mark Mattheiss

**Order Date :** 10/1/2024 1:21:00 PM  
**Project Name :** Perth Amboy  
**Receive DateTime :** 10/1/2024 12:54:00 PM  
**Purchase Order :**

**Project Mgr :** Kiran  
**Report Type :** Level 2 ~~Level 2~~ NJ Reduced  
**EDD Type :** Excel ~~Excel~~ HAZ/Excel  
**Hard Copy Date :**  
**Date Signoff :** 10/1/2024 3:13:24 PM

| LAB ID   | CLIENT ID       | MATRIX | SAMPLE DATE | SAMPLE TIME | TEST          | TEST GROUP           | METHOD | FAX DATE | DUE DATES   |
|----------|-----------------|--------|-------------|-------------|---------------|----------------------|--------|----------|-------------|
| P4258-03 | Chamberlain Ave | Solid  | 10/01/2024  | 11:45       | VOC-TCLVOA-10 | GROWS Soil           | 8260D  |          | 4 Bus. Days |
| P4258-04 | Chamberlain Ave | Solid  | 10/01/2024  | 11:45       | TCLP VOA      | GROWS Soil-Waste Cla | 8260C  |          | 4 Bus. Days |

Relinquished By : 

Date / Time : 10-2-24 8:03

Received By : 

Date / Time :

Storage Area : VOA Refridgerator Room