

# Chemical Analysis Report

**SW-DIST-2023-02-15-01**

Florida DEP Laboratory  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
DOH Accreditation E31780

Event Description: **Run 12**  
Request ID: **RQ-2023-02-13-29**  
Customer: **SW-DIST**  
Project ID: **SMP**

Send Reports to:  
FL Dept. of Environmental Protection  
FL Dept. of Environmental Protection  
13051 N. Telecom Parkway  
Temple Terrace, FL 33637-0926  
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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 09-MAR-2023 11:01



## Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to  $1.3 \times 10^3$  or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (\*\*) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: East Canal @ Knights Griffen Rd

Collection Date/Time: 02/14/2023 10:35

Field ID: G2SW0159

Matrix: W-SURF-FRH

| Sample ID | Ref. Method        | Component | Result | Code | Units | Batch ID | QC Codes |
|-----------|--------------------|-----------|--------|------|-------|----------|----------|
| 2387853   | EPA 200.7 Rev. 4.4 | Barium    | 6.0    |      | ug/L  | P425970  |          |
|           |                    | Calcium   | 47.0   |      | mg/L  | P425970  |          |
|           |                    | Iron      | 370    |      | ug/L  | P425970  |          |
|           |                    | Magnesium | 10.3   |      | mg/L  | P425970  |          |
|           |                    | Sodium    | 22.6   |      | mg/L  | P425970  |          |
|           |                    | Zinc      | 5.0    | U    | ug/L  | P425970  |          |
|           | EPA 200.8 Rev. 5.4 | Aluminum  | 185    |      | ug/L  | P425970  |          |
|           |                    | Antimony  | 0.19   | I    | ug/L  | P425970  |          |
|           |                    | Arsenic   | 1.22   |      | ug/L  | P425970  |          |
|           |                    | Boron     | 40.7   |      | ug/L  | P425970  |          |
|           |                    | Cadmium   | 0.039  | I    | ug/L  | P425970  |          |
|           |                    | Chromium  | 0.76   | I    | ug/L  | P425970  |          |
|           |                    | Copper    | 0.71   | I    | ug/L  | P425970  |          |
|           |                    | Lead      | 0.77   |      | ug/L  | P425970  |          |
|           |                    | Nickel    | 0.90   | I    | ug/L  | P425970  |          |
|           |                    | Selenium  | 0.20   | U    | ug/L  | P425970  |          |
|           |                    | Silver    | 0.010  | U    | ug/L  | P426231  |          |
|           |                    | Thallium  | 0.10   | U    | ug/L  | P425970  |          |
|           | SM 2340 B-2011     | Hardness  | 160    |      | mg/L  | P425970  |          |

Sample Location: Howell Branch in Bealsville Park

Collection Date/Time: 02/14/2023 11:30

Field ID: G2SW0115

Matrix: W-SURF-FRH

| Sample ID | Ref. Method | Component                            | Result | Code | Units | Batch ID | QC Codes |
|-----------|-------------|--------------------------------------|--------|------|-------|----------|----------|
| 2387855   | EPA 8270E   | Oxybenzone**                         | 9.9    | U    | ng/L  | P425947  |          |
|           |             | Acetochlor                           | 0.25   | U    | ng/L  | P425947  | MS       |
|           |             | Octinoxate**                         | 20     | U    | ng/L  | P425947  |          |
|           |             | Alachlor                             | 0.25   | U    | ng/L  | P425947  | MS, RPD  |
|           |             | Avobenzone**                         | 99     | U    | ng/L  | P425947  |          |
|           |             | Ametryn                              | 0.60   | U    | ng/L  | P425947  | MS       |
|           |             | Atrazine                             | 3.4    |      | ng/L  | P425947  |          |
|           |             | PBDE-47**                            | 4.0    | U    | ng/L  | P425947  |          |
|           |             | Atrazine Desethyl                    | 1.5    | U    | ng/L  | P425947  |          |
|           |             | PBDE-99**                            | 5.0    | U    | ng/L  | P425947  |          |
|           |             | Azinphos Methyl                      | 2.0    | U    | ng/L  | P425947  |          |
|           |             | Tri-o-cresyl Phosphate**             | 6.0    | U    | ng/L  | P425947  |          |
|           |             | Azoxystrobin                         | 17     |      | ng/L  | P425947  |          |
|           |             | Bromacil                             | 85     |      | ng/L  | P425947  |          |
|           |             | 2-Ethylhexyl                         | 12     | U    | ng/L  | P425947  |          |
|           |             | 2,3,4,5-tetrabromobenzoate (EHTBB)** |        |      |       |          |          |
|           |             | Butylate                             | 0.40   | U    | ng/L  | P425947  |          |
|           |             | Dechlorane Plus**                    | 30     | U    | ng/L  | P425947  |          |
|           |             | Caffeine**                           | 7.4    | U    | ng/L  | P425947  |          |
|           |             | Carbophenothion                      | 0.20   | U    | ng/L  | P425947  |          |
|           |             | Carfentrazone Ethyl                  | 0.099  | U    | ng/L  | P425947  | MS       |
|           |             | Chlorfenapyr                         | 0.17   | U    | ng/L  | P425947  | RPD      |
|           |             | Chlorpyrifos Ethyl                   | 0.25   | U    | ng/L  | P425947  |          |
|           |             | Chlorpyrifos Methyl                  | 0.050  | U    | ng/L  | P425947  | MS, RPD  |
|           |             | Coumaphos                            | 0.50   | U    | ng/L  | P425947  |          |
|           |             | Cyanazine                            | 3.2    | U    | ng/L  | P425947  |          |
|           |             | Cyprodinil                           | 11     |      | ng/L  | P425947  |          |
|           |             | Demeton                              | 1.5    | U    | ng/L  | P425947  |          |
|           |             | Diazinon                             | 0.98   |      | ng/L  | P425947  | MS, RPD  |
|           |             | Difenoconazole                       | 5.2    |      | ng/L  | P425947  |          |
|           |             | Dimethenamid                         | 0.099  | U    | ng/L  | P425947  |          |
|           |             | Dimethomorph                         | 0.17   | U    | ng/L  | P425947  |          |
|           |             | Disulfoton                           | 0.50   | U    | ng/L  | P425947  |          |
|           |             | Dithiopyr                            | 0.62   | U    | ng/L  | P425947  |          |
|           |             | EPTC                                 | 1.2    | U    | ng/L  | P425947  |          |
|           |             | Ethion                               | 0.15   | U    | ng/L  | P425947  |          |
|           |             | Ethoprop                             | 0.099  | U    | ng/L  | P425947  |          |
|           |             | Etridiazole                          | 0.15   | U    | ng/L  | P425947  | MS       |
|           |             | Fenamiphos                           | 0.50   | U    | ng/L  | P425947  |          |
|           |             | Fenbuconazole                        | 0.12   | U    | ng/L  | P425947  |          |
|           |             | Fipronil                             | 0.26   | I    | ng/L  | P425947  |          |
|           |             | Fipronil Desulfinyl**                | 0.70   |      | ng/L  | P425947  | MS       |
|           |             | Fipronil Sulfide                     | 0.94   |      | ng/L  | P425947  |          |
|           |             | Fipronil Sulfone                     | 1.2    |      | ng/L  | P425947  |          |

Field ID: G2SW0115

Matrix: W-SURF-FRH

| Sample ID | Ref. Method | Component         | Result | Code | Units | Batch ID | QC Codes |
|-----------|-------------|-------------------|--------|------|-------|----------|----------|
| 2387855   | EPA 8270E   | Fluazifop-P-butyl | 0.099  | U    | ng/L  | P425947  |          |
|           |             | Fludioxonil       | 27     |      | ng/L  | P425947  |          |
|           |             | Flumioxazin       | 4.5    | U    | ng/L  | P425947  |          |
|           |             | Flutolanil        | 1.5    |      | ng/L  | P425947  |          |
|           |             | Fluxapyroxad      | 6.6    |      | ng/L  | P425947  |          |
|           |             | Fonofos           | 0.20   | U    | ng/L  | P425947  | MS, RPD  |
|           |             | Hexazinone        | 0.68   | I    | ng/L  | P425947  |          |
|           |             | Imazalil          | 0.74   | U    | ng/L  | P425947  |          |
|           |             | Iprodione         | 1.1    | I    | ng/L  | P425947  |          |
|           |             | Loratadine**      | 0.35   | U    | ng/L  | P425947  |          |
|           |             | Malathion         | 0.35   | U    | ng/L  | P425947  |          |
|           |             | Metalaxyl         | 2.6    | I    | ng/L  | P425947  | MS       |
|           |             | Metolachlor       | 0.44   | I    | ng/L  | P425947  |          |
|           |             | Metribuzin        | 1.5    | U    | ng/L  | P425947  |          |
|           |             | Mevinphos         | 1.0    | U    | ng/L  | P425947  |          |
|           |             | Molinate          | 0.30   | U    | ng/L  | P425947  |          |
|           |             | Myclobutanil      | 4.5    |      | ng/L  | P425947  |          |
|           |             | Naled             | 1.5    | U    | ng/L  | P425947  |          |
|           |             | Napropamide       | 0.40   | U    | ng/L  | P425947  |          |
|           |             | Norflurazon       | 1.7    | I    | ng/L  | P425947  |          |
|           |             | Oxadiazon         | 0.30   | U    | ng/L  | P425947  |          |
|           |             | Oxyfluorfen       | 20     |      | ng/L  | P425947  |          |
|           |             | Parathion Ethyl   | 0.25   | U    | ng/L  | P425947  |          |
|           |             | Parathion Methyl  | 0.55   | U    | ng/L  | P425947  | MS, RPD  |
|           |             | Pendimethalin     | 0.99   | U    | ng/L  | P425947  |          |
|           |             | Phenytol**        | 3.5    | U    | ng/L  | P425947  |          |
|           |             | Phorate           | 0.52   | U    | ng/L  | P425947  | MS       |
|           |             | Prodiamine        | 12     |      | ng/L  | P425947  |          |
|           |             | Prometon          | 0.89   | U    | ng/L  | P425947  |          |
|           |             | Prometryn         | 0.20   | U    | ng/L  | P425947  | MS       |
|           |             | Pronamide         | 0.15   | U    | ng/L  | P425947  | MS       |
|           |             | Propanil          | 0.12   | U    | ng/L  | P425947  |          |
|           |             | Propargite        | 1.5    | U    | ng/L  | P425947  |          |
|           |             | Propiconazole     | 1.5    | I    | ng/L  | P425947  |          |
|           |             | Pyraflufen Ethyl  | 0.25   | U    | ng/L  | P425947  |          |
|           |             | Pyridaben         | 0.45   | U    | ng/L  | P425947  |          |
|           |             | Pyriproxyfen      | 0.12   | U    | ng/L  | P425947  |          |
|           |             | Simazine          | 0.50   | U    | ng/L  | P425947  |          |
|           |             | Stirophos         | 0.12   | U    | ng/L  | P425947  |          |
|           |             | Sulfentrazone     | 6.3    |      | ng/L  | P425947  |          |
|           |             | Tebuconazole      | 0.50   | U    | ng/L  | P425947  |          |
|           |             | Terbufos          | 0.099  | U    | ng/L  | P425947  | MS       |
|           |             | Terbutylazine     | 0.42   | U    | ng/L  | P425947  |          |
|           |             | Thiobencarb       | 0.60   | U    | ng/L  | P425947  |          |
|           |             | Triadimefon       | 0.25   | U    | ng/L  | P425947  |          |

Field ID: G2SW0115

Matrix: W-SURF-FRH

| Sample ID | Ref. Method | Component | Result | Code | Units | Batch ID | QC Codes |
|-----------|-------------|-----------|--------|------|-------|----------|----------|
|-----------|-------------|-----------|--------|------|-------|----------|----------|

Ref. Method and Comment:  
EPA 8270E: MS accuracy for atrazine and bromacil not assessed due to high content of these parameters in the sample spiked.

Sample Location: Seffner Canal S. of MLK

Collection Date/Time: 02/14/2023 09:15

Field ID: G2SW0087

Matrix: W-SURF-FRH

| Sample ID | Ref. Method        | Component | Result | Code | Units | Batch ID | QC Codes |
|-----------|--------------------|-----------|--------|------|-------|----------|----------|
| 2387854   | EPA 200.7 Rev. 4.4 | Barium    | 3.5    | I    | ug/L  | P425970  |          |
|           |                    | Calcium   | 16.7   |      | mg/L  | P425970  |          |
|           |                    | Iron      | 170    |      | ug/L  | P425970  |          |
|           |                    | Magnesium | 5.88   |      | mg/L  | P425970  |          |
|           |                    | Sodium    | 14.1   |      | mg/L  | P425970  |          |
|           |                    | Zinc      | 5.0    | U    | ug/L  | P425970  |          |
|           | EPA 200.8 Rev. 5.4 | Aluminum  | 214    |      | ug/L  | P425970  |          |
|           |                    | Antimony  | 0.099  | I    | ug/L  | P425970  |          |
|           |                    | Arsenic   | 0.47   |      | ug/L  | P425970  |          |
|           |                    | Boron     | 38.5   |      | ug/L  | P425970  |          |
|           |                    | Cadmium   | 0.188  |      | ug/L  | P425970  |          |
|           |                    | Chromium  | 0.69   | I    | ug/L  | P425970  |          |
|           |                    | Copper    | 1.27   |      | ug/L  | P425970  |          |
|           |                    | Lead      | 0.43   |      | ug/L  | P425970  |          |
|           |                    | Nickel    | 0.78   | I    | ug/L  | P425970  |          |
|           |                    | Selenium  | 0.20   | U    | ug/L  | P425970  |          |
|           |                    | Silver    | 0.010  | U    | ug/L  | P426231  |          |
|           |                    | Thallium  | 0.10   | U    | ug/L  | P425970  |          |
|           | SM 2340 B-2011     | Hardness  | 66.0   |      | mg/L  | P425970  |          |

## Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4  
Batch ID: P425970

| Component | Result | Code | Units |
|-----------|--------|------|-------|
| Barium    | 1.0    | U    | ug/L  |
| Calcium   | 0.075  | U    | mg/L  |
| Iron      | 30     | U    | ug/L  |
| Magnesium | 0.040  | U    | mg/L  |
| Sodium    | 0.50   | U    | mg/L  |
| Zinc      | 5.0    | U    | ug/L  |

Reference Method: EPA 200.8 Rev. 5.4  
Batch ID: P425970

| Component | Result | Code | Units |
|-----------|--------|------|-------|
| Aluminum  | 5.0    | U    | ug/L  |
| Antimony  | 0.050  | U    | ug/L  |
| Arsenic   | 0.050  | U    | ug/L  |
| Boron     | 2.0    | U    | ug/L  |
| Cadmium   | 0.020  | U    | ug/L  |
| Chromium  | 0.40   | U    | ug/L  |
| Copper    | 0.40   | U    | ug/L  |
| Lead      | 0.20   | U    | ug/L  |
| Nickel    | 0.50   | U    | ug/L  |
| Selenium  | 0.20   | U    | ug/L  |
| Thallium  | 0.10   | U    | ug/L  |

Reference Method: EPA 200.8 Rev. 5.4  
Batch ID: P426231

| Component | Result | Code | Units |
|-----------|--------|------|-------|
| Silver    | 0.010  | U    | ug/L  |

Reference Method: EPA 8270E  
Batch ID: P425947

| Component                                       | Result | Code | Units |
|-------------------------------------------------|--------|------|-------|
| 2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB) | 12     | U    | ng/L  |
| 2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB) | 12     | U    | ng/L  |
| Acetochlor                                      | 0.25   | U    | ng/L  |
| Acetochlor                                      | 0.25   | U    | ng/L  |
| Alachlor                                        | 0.25   | U    | ng/L  |
| Alachlor                                        | 0.25   | U    | ng/L  |
| Ametryn                                         | 0.60   | U    | ng/L  |
| Ametryn                                         | 0.60   | U    | ng/L  |
| Atrazine                                        | 0.25   | U    | ng/L  |
| Atrazine                                        | 0.25   | U    | ng/L  |
| Atrazine Desethyl                               | 1.5    | U    | ng/L  |
| Atrazine Desethyl                               | 1.5    | U    | ng/L  |
| Avobenzone                                      | 100    | U    | ng/L  |
| Avobenzone                                      | 100    | U    | ng/L  |
| Azinphos Methyl                                 | 2.0    | U    | ng/L  |
| Azinphos Methyl                                 | 2.0    | U    | ng/L  |
| Azoxystrobin                                    | 0.50   | U    | ng/L  |
| Azoxystrobin                                    | 0.50   | U    | ng/L  |
| Bromacil                                        | 0.50   | U    | ng/L  |

## Quality Assurance Report

### Method Blank Results

Reference Method: EPA 8270E  
Batch ID: P425947

| Component           | Result | Code | Units |
|---------------------|--------|------|-------|
| Bromacil            | 0.50   | U    | ng/L  |
| Butylate            | 0.40   | U    | ng/L  |
| Butylate            | 0.40   | U    | ng/L  |
| Caffeine            | 7.5    | U    | ng/L  |
| Caffeine            | 7.5    | U    | ng/L  |
| Carbophenothion     | 0.20   | U    | ng/L  |
| Carbophenothion     | 0.20   | U    | ng/L  |
| Carfentrazone Ethyl | 0.10   | U    | ng/L  |
| Carfentrazone Ethyl | 0.10   | U    | ng/L  |
| Chlorfenapyr        | 0.18   | U    | ng/L  |
| Chlorfenapyr        | 0.18   | U    | ng/L  |
| Chlorpyrifos Ethyl  | 0.25   | U    | ng/L  |
| Chlorpyrifos Ethyl  | 0.25   | U    | ng/L  |
| Chlorpyrifos Methyl | 0.050  | U    | ng/L  |
| Chlorpyrifos Methyl | 0.050  | U    | ng/L  |
| Coumaphos           | 0.50   | U    | ng/L  |
| Coumaphos           | 0.50   | U    | ng/L  |
| Cyanazine           | 3.2    | U    | ng/L  |
| Cyanazine           | 3.2    | U    | ng/L  |
| Cyprodinil          | 0.10   | U    | ng/L  |
| Cyprodinil          | 0.10   | U    | ng/L  |
| Dechlorane Plus     | 30     | U    | ng/L  |
| Dechlorane Plus     | 30     | U    | ng/L  |
| Demeton             | 1.5    | U    | ng/L  |
| Demeton             | 1.5    | U    | ng/L  |
| Diazinon            | 0.12   | U    | ng/L  |
| Diazinon            | 0.12   | U    | ng/L  |
| Difenoconazole      | 0.60   | U    | ng/L  |
| Difenoconazole      | 0.60   | U    | ng/L  |
| Dimethenamid        | 0.10   | U    | ng/L  |
| Dimethenamid        | 0.10   | U    | ng/L  |
| Dimethomorph        | 0.18   | U    | ng/L  |
| Dimethomorph        | 0.18   | U    | ng/L  |
| Disulfoton          | 0.50   | U    | ng/L  |
| Disulfoton          | 0.50   | U    | ng/L  |
| Dithiopyr           | 0.62   | U    | ng/L  |
| Dithiopyr           | 0.62   | U    | ng/L  |
| EPTC                | 1.2    | U    | ng/L  |
| EPTC                | 1.2    | U    | ng/L  |
| Ethion              | 0.15   | U    | ng/L  |
| Ethion              | 0.15   | U    | ng/L  |
| Ethoprop            | 0.10   | U    | ng/L  |
| Ethoprop            | 0.10   | U    | ng/L  |
| Etridiazole         | 0.15   | U    | ng/L  |
| Etridiazole         | 0.15   | U    | ng/L  |
| Fenamiphos          | 0.50   | U    | ng/L  |
| Fenamiphos          | 0.50   | U    | ng/L  |
| Fenbuconazole       | 0.12   | U    | ng/L  |
| Fenbuconazole       | 0.12   | U    | ng/L  |
| Fipronil            | 0.25   | U    | ng/L  |
| Fipronil            | 0.25   | U    | ng/L  |
| Fipronil Desulfinyl | 0.12   | U    | ng/L  |

## Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E  
Batch ID: P425947

| Component           | Result | Code | Units |
|---------------------|--------|------|-------|
| Fipronil Desulfinyl | 0.12   | U    | ng/L  |
| Fipronil Sulfide    | 0.15   | U    | ng/L  |
| Fipronil Sulfide    | 0.15   | U    | ng/L  |
| Fipronil Sulfone    | 0.15   | U    | ng/L  |
| Fipronil Sulfone    | 0.15   | U    | ng/L  |
| Fluazifop-P-butyl   | 0.10   | U    | ng/L  |
| Fluazifop-P-butyl   | 0.10   | U    | ng/L  |
| Fludioxonil         | 0.12   | U    | ng/L  |
| Fludioxonil         | 0.12   | U    | ng/L  |
| Flumioxazin         | 4.5    | U    | ng/L  |
| Flumioxazin         | 4.5    | U    | ng/L  |
| Flutolanil          | 0.10   | U    | ng/L  |
| Flutolanil          | 0.10   | U    | ng/L  |
| Fluxapyroxad        | 0.10   | U    | ng/L  |
| Fluxapyroxad        | 0.10   | U    | ng/L  |
| Fonofos             | 0.20   | U    | ng/L  |
| Fonofos             | 0.20   | U    | ng/L  |
| Hexazinone          | 0.50   | U    | ng/L  |
| Hexazinone          | 0.50   | U    | ng/L  |
| Imazalil            | 0.75   | U    | ng/L  |
| Imazalil            | 0.75   | U    | ng/L  |
| Iprodione           | 0.60   | U    | ng/L  |
| Iprodione           | 0.60   | U    | ng/L  |
| Loratadine          | 0.35   | U    | ng/L  |
| Loratadine          | 0.35   | U    | ng/L  |
| Malathion           | 0.35   | U    | ng/L  |
| Malathion           | 0.35   | U    | ng/L  |
| Metalaxyl           | 0.75   | U    | ng/L  |
| Metalaxyl           | 0.75   | U    | ng/L  |
| Metolachlor         | 0.35   | U    | ng/L  |
| Metolachlor         | 0.35   | U    | ng/L  |
| Metribuzin          | 1.5    | U    | ng/L  |
| Metribuzin          | 1.5    | U    | ng/L  |
| Mevinphos           | 1.0    | U    | ng/L  |
| Mevinphos           | 1.0    | U    | ng/L  |
| Molinate            | 0.30   | U    | ng/L  |
| Molinate            | 0.30   | U    | ng/L  |
| Myclobutanil        | 0.25   | U    | ng/L  |
| Myclobutanil        | 0.25   | U    | ng/L  |
| Naled               | 1.5    | U    | ng/L  |
| Naled               | 1.5    | U    | ng/L  |
| Napropamide         | 0.40   | U    | ng/L  |
| Napropamide         | 0.40   | U    | ng/L  |
| Norflurazon         | 0.50   | U    | ng/L  |
| Norflurazon         | 0.50   | U    | ng/L  |
| Octinoxate          | 20     | U    | ng/L  |
| Octinoxate          | 20     | U    | ng/L  |
| Oxadiazon           | 0.30   | U    | ng/L  |
| Oxadiazon           | 0.30   | U    | ng/L  |
| Oxybenzone          | 10     | U    | ng/L  |
| Oxybenzone          | 10     | U    | ng/L  |
| Oxyfluorfen         | 0.15   | U    | ng/L  |

## Quality Assurance Report

### Method Blank Results

Reference Method: EPA 8270E

Batch ID: P425947

| Component              | Result | Code | Units |
|------------------------|--------|------|-------|
| Oxyfluorfen            | 0.15   | U    | ng/L  |
| Parathion Ethyl        | 0.25   | U    | ng/L  |
| Parathion Ethyl        | 0.25   | U    | ng/L  |
| Parathion Methyl       | 0.55   | U    | ng/L  |
| Parathion Methyl       | 0.55   | U    | ng/L  |
| PBDE-47                | 4.0    | U    | ng/L  |
| PBDE-47                | 4.0    | U    | ng/L  |
| PBDE-99                | 5.0    | U    | ng/L  |
| PBDE-99                | 5.0    | U    | ng/L  |
| Pendimethalin          | 1.0    | U    | ng/L  |
| Pendimethalin          | 1.0    | U    | ng/L  |
| Phenytol               | 3.5    | U    | ng/L  |
| Phenytol               | 3.5    | U    | ng/L  |
| Phorate                | 0.52   | U    | ng/L  |
| Phorate                | 0.52   | U    | ng/L  |
| Prodiatone             | 0.18   | U    | ng/L  |
| Prodiatone             | 0.18   | U    | ng/L  |
| Prometon               | 0.90   | U    | ng/L  |
| Prometon               | 0.90   | U    | ng/L  |
| Prometryn              | 0.20   | U    | ng/L  |
| Prometryn              | 0.20   | U    | ng/L  |
| Pronamide              | 0.15   | U    | ng/L  |
| Pronamide              | 0.15   | U    | ng/L  |
| Propanil               | 0.12   | U    | ng/L  |
| Propanil               | 0.12   | U    | ng/L  |
| Propargite             | 1.5    | U    | ng/L  |
| Propargite             | 1.5    | U    | ng/L  |
| Propiconazole          | 0.50   | U    | ng/L  |
| Propiconazole          | 0.50   | U    | ng/L  |
| Pyraflufen Ethyl       | 0.25   | U    | ng/L  |
| Pyraflufen Ethyl       | 0.25   | U    | ng/L  |
| Pyridaben              | 0.45   | U    | ng/L  |
| Pyridaben              | 0.45   | U    | ng/L  |
| Pyriproxyfen           | 0.12   | U    | ng/L  |
| Pyriproxyfen           | 0.12   | U    | ng/L  |
| Simazine               | 0.50   | U    | ng/L  |
| Simazine               | 0.50   | U    | ng/L  |
| Stirophos              | 0.12   | U    | ng/L  |
| Stirophos              | 0.12   | U    | ng/L  |
| Sulfentrazone          | 0.50   | U    | ng/L  |
| Sulfentrazone          | 0.50   | U    | ng/L  |
| Tebuconazole           | 0.50   | U    | ng/L  |
| Tebuconazole           | 0.50   | U    | ng/L  |
| Terbufos               | 0.10   | U    | ng/L  |
| Terbufos               | 0.10   | U    | ng/L  |
| Terbutylazine          | 0.42   | U    | ng/L  |
| Terbutylazine          | 0.42   | U    | ng/L  |
| Thiobencarb            | 0.60   | U    | ng/L  |
| Thiobencarb            | 0.60   | U    | ng/L  |
| Tri-o-cresyl Phosphate | 6.0    | U    | ng/L  |
| Tri-o-cresyl Phosphate | 6.0    | U    | ng/L  |
| Triadimefon            | 0.25   | U    | ng/L  |

## Quality Assurance Report

### Method Blank Results

Reference Method: EPA 8270E  
Batch ID: P425947

| Component   | Result | Code | Units |
|-------------|--------|------|-------|
| Triadimefon | 0.25   | U    | ng/L  |

## Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P425970

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|-----------|---------|---------|-----------|----------------|
| Barium    | 102     |         | P         | 85 - 115       |
| Calcium   | 100     |         | P         | 85 - 115       |
| Iron      | 102     |         | P         | 85 - 115       |
| Magnesium | 100     |         | P         | 85 - 115       |
| Sodium    | 98.5    |         | P         | 85 - 115       |
| Zinc      | 107     |         | P         | 85 - 115       |

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P425970

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|-----------|---------|---------|-----------|----------------|
| Aluminum  | 100     |         | P         | 85 - 115       |
| Antimony  | 101     |         | P         | 85 - 115       |
| Arsenic   | 99.9    |         | P         | 85 - 115       |
| Boron     | 98.6    |         | P         | 85 - 115       |
| Cadmium   | 99.2    |         | P         | 85 - 115       |
| Chromium  | 102     |         | P         | 85 - 115       |
| Copper    | 99.9    |         | P         | 85 - 115       |
| Lead      | 100     |         | P         | 85 - 115       |
| Nickel    | 103     |         | P         | 85 - 115       |
| Selenium  | 99.4    |         | P         | 85 - 115       |
| Thallium  | 102     |         | P         | 85 - 115       |

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P426231

| Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|-----------|---------|---------|-----------|----------------|
| Silver    | 97.5    |         | P         | 85 - 115       |

Reference Method: EPA 8270E

Batch ID: P425947

| Component                                       | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|-------------------------------------------------|---------|---------|-----------|----------------|
| 2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB) | 79.1    |         | P         | 42 - 162       |
| Acetochlor                                      | 106     |         | P         | 69 - 123       |
| Alachlor                                        | 71.2    |         | P         | 65 - 118       |
| Ametryn                                         | 115     |         | P         | 58 - 141       |
| Atrazine                                        | 92.5    |         | P         | 73 - 118       |
| Atrazine Desethyl                               | 58.3    |         | P         | 32 - 125       |
| Avobenzone                                      | 87.9    |         | P         | 40 - 203       |
| Azinphos Methyl                                 | 113     |         | P         | 36 - 197       |
| Azoxystrobin                                    | 121     |         | P         | 58 - 226       |
| Bromacil                                        | 91.4    |         | P         | 48 - 120       |
| Butylate                                        | 61.6    |         | P         | 27 - 85.0      |
| Caffeine                                        | 75.6    |         | P         | 40 - 137       |
| Carbophenothion                                 | 107     |         | P         | 54 - 132       |
| Carfentrazone Ethyl                             | 120     |         | P         | 60 - 142       |
| Chlorfenapyr                                    | 99.9    |         | P         | 53 - 117       |
| Chlorpyrifos Ethyl                              | 84.3    |         | P         | 59 - 116       |
| Chlorpyrifos Methyl                             | 93.0    |         | P         | 66 - 119       |
| Coumaphos                                       | 59.2    |         | P         | 11 - 234       |
| Cyanazine                                       | 194     |         | P         | 61 - 248       |

## Quality Assurance Report

### Laboratory Control Sample Accuracy

Reference Method: EPA 8270E  
Batch ID: P425947

| Component           | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---------------------|---------|---------|-----------|----------------|
| Cyprodinil          | 96.0    |         | P         | 50 - 147       |
| Dechlorane Plus     | 91.9    |         | P         | 47 - 182       |
| Demeton             | 85.4    |         | P         | 30 - 138       |
| Diazinon            | 90.6    |         | P         | 67 - 126       |
| Difenoconazole      | 115     |         | P         | 38 - 205       |
| Dimethenamid        | 90.5    |         | P         | 57 - 111       |
| Dimethomorph        | 198     |         | P         | 16 - 212       |
| Disulfoton          | 85.9    |         | P         | 46 - 126       |
| Dithiopyr           | 103     |         | P         | 62 - 115       |
| EPTC                | 56.5    |         | P         | 28 - 80.0      |
| Ethion              | 42.7    |         | P         | 24 - 122       |
| Ethoprop            | 89.2    |         | P         | 62 - 113       |
| Etridiazole         | 63.2    |         | P         | 28 - 92.0      |
| Fenamiphos          | 110     |         | P         | 57 - 128       |
| Fenbuconazole       | 113     |         | P         | 52 - 155       |
| Fipronil            | 90.3    |         | P         | 63 - 130       |
| Fipronil Desulfinyl | 108     |         | P         | 61 - 130       |
| Fipronil Sulfide    | 79.0    |         | P         | 56 - 117       |
| Fipronil Sulfone    | 83.8    |         | P         | 52 - 118       |
| Fluazifop-P-butyl   | 96.7    |         | P         | 61 - 128       |
| Fludioxonil         | 94.3    |         | P         | 59 - 129       |
| Flumioxazin         | 120     |         | P         | 30 - 250       |
| Flutolanil          | 94.7    |         | P         | 53 - 127       |
| Fluxapyroxad        | 66.0    |         | P         | 42 - 132       |
| Fonofos             | 88.6    |         | P         | 61 - 110       |
| Hexazinone          | 81.4    |         | P         | 46 - 139       |
| Imazalil            | 104     |         | P         | 40 - 139       |
| Iprodione           | 100     |         | P         | 40 - 146       |
| Loratadine          | 189     |         | P         | 10 - 224       |
| Malathion           | 119     |         | P         | 61 - 135       |
| Metalaxyl           | 115     |         | P         | 58 - 121       |
| Metolachlor         | 96.2    |         | P         | 64 - 118       |
| Metribuzin          | 102     |         | P         | 45 - 245       |
| Mevinphos           | 81.9    |         | P         | 49 - 118       |
| Molinate            | 65.1    |         | P         | 42 - 92.0      |
| Myclobutanil        | 102     |         | P         | 55 - 127       |
| Naled               | 104     |         | P         | 10 - 114       |
| Napropamide         | 66.4    |         | P         | 39 - 121       |
| Norflurazon         | 84.4    |         | P         | 55 - 129       |
| Octinoxate          | 69.4    |         | P         | 26 - 166       |
| Oxadiazon           | 77.2    |         | P         | 54 - 115       |
| Oxybenzone          | 67.9    |         | P         | 49 - 135       |
| Oxyfluorfen         | 129     |         | P         | 64 - 139       |
| Parathion Ethyl     | 85.5    |         | P         | 70 - 111       |
| Parathion Methyl    | 91.0    |         | P         | 76 - 136       |
| PBDE-47             | 70.2    |         | P         | 41 - 148       |
| PBDE-99             | 74.8    |         | P         | 38 - 147       |
| Pendimethalin       | 117     |         | P         | 52 - 118       |
| Phenytoin           | 13.9    |         | P         | 10 - 162       |
| Phorate             | 89.0    |         | P         | 40 - 122       |
| Prodiamine          | 69.2    |         | P         | 26 - 141       |
| Prometon            | 77.4    |         | P         | 54 - 122       |

## Quality Assurance Report

### Laboratory Control Sample Accuracy

Reference Method: EPA 8270E  
Batch ID: P425947

| Component              | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|------------------------|---------|---------|-----------|----------------|
| Prometryn              | 108     |         | P         | 61 - 128       |
| Pronamide              | 101     |         | P         | 72 - 121       |
| Propanil               | 76.8    |         | P         | 45 - 144       |
| Propargite             | 42.8    |         | P         | 10 - 199       |
| Propiconazole          | 82.4    |         | P         | 56 - 127       |
| Pyraflufen Ethyl       | 81.6    |         | P         | 56 - 140       |
| Pyridaben              | 99.1    |         | P         | 26 - 211       |
| Pyriproxyfen           | 83.7    |         | P         | 33 - 194       |
| Simazine               | 91.0    |         | P         | 67 - 121       |
| Stirophos              | 48.9    |         | P         | 20 - 142       |
| Sulfentrazone          | 86.7    |         | P         | 21 - 144       |
| Tebuconazole           | 32.6    |         | P         | 10 - 122       |
| Terbufos               | 98.2    |         | P         | 60 - 129       |
| Terbuthylazine         | 92.2    |         | P         | 69 - 113       |
| Thiobencarb            | 95.4    |         | P         | 51 - 120       |
| Tri-o-cresyl Phosphate | 70.5    |         | P         | 49 - 150       |
| Triadimefon            | 77.6    |         | P         | 56 - 114       |

## Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P425970

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---------------|-----------|---------|---------|-----------|----------------|
| 2386597       | Barium    | 98.9    | 98.8    | P/P       | 80 - 120       |
| 2386597       | Calcium   | 97.2    |         | P         | 80 - 120       |
| 2386597       | Iron      | 101     | 99.1    | P/P       | 80 - 120       |
| 2386597       | Magnesium | 97.0    |         | P         | 80 - 120       |
| 2386597       | Sodium    | 98.3    |         | P         | 80 - 120       |
| 2386597       | Zinc      | 104     | 104     | P/P       | 80 - 120       |
| 2387854       | Barium    | 98.5    |         | P         | 80 - 120       |
| 2387854       | Calcium   | 103     |         | P         | 80 - 120       |
| 2387854       | Iron      | 102     |         | P         | 80 - 120       |
| 2387854       | Magnesium | 101     |         | P         | 80 - 120       |
| 2387854       | Sodium    | 101     |         | P         | 80 - 120       |
| 2387854       | Zinc      | 108     |         | P         | 80 - 120       |

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P425970

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---------------|-----------|---------|---------|-----------|----------------|
| 2386597       | Aluminum  | 98.6    | 98.5    | P/P       | 80 - 120       |
| 2386597       | Antimony  | 103     | 103     | P/P       | 80 - 120       |
| 2386597       | Arsenic   | 99.4    | 98.7    | P/P       | 80 - 120       |
| 2386597       | Boron     | 101     | 102     | P/P       | 80 - 120       |
| 2386597       | Cadmium   | 101     | 100     | P/P       | 80 - 120       |
| 2386597       | Chromium  | 103     | 103     | P/P       | 80 - 120       |
| 2386597       | Copper    | 95.6    | 95.3    | P/P       | 80 - 120       |
| 2386597       | Lead      | 101     | 99.6    | P/P       | 80 - 120       |
| 2386597       | Nickel    | 100     | 101     | P/P       | 80 - 120       |
| 2386597       | Selenium  | 93.6    | 93.3    | P/P       | 80 - 120       |
| 2386597       | Thallium  | 103     | 102     | P/P       | 80 - 120       |
| 2387854       | Aluminum  | 98.6    |         | P         | 80 - 120       |
| 2387854       | Antimony  | 103     |         | P         | 80 - 120       |
| 2387854       | Arsenic   | 99.5    |         | P         | 80 - 120       |
| 2387854       | Boron     | 103     |         | P         | 80 - 120       |
| 2387854       | Cadmium   | 100     |         | P         | 80 - 120       |
| 2387854       | Chromium  | 101     |         | P         | 80 - 120       |
| 2387854       | Copper    | 97.5    |         | P         | 80 - 120       |
| 2387854       | Lead      | 101     |         | P         | 80 - 120       |
| 2387854       | Nickel    | 99.7    |         | P         | 80 - 120       |
| 2387854       | Selenium  | 97.5    |         | P         | 80 - 120       |
| 2387854       | Thallium  | 104     |         | P         | 80 - 120       |

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P426231

| Spiked Sample | Component | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---------------|-----------|---------|---------|-----------|----------------|
| 2386816       | Silver    | 98.3    | 98.3    | P/P       | 80 - 120       |
| 2387854       | Silver    | 98.7    |         | P         | 80 - 120       |

Reference Method: EPA 8270E

Batch ID: P425947

| Spiked Sample | Component                                       | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---------------|-------------------------------------------------|---------|---------|-----------|----------------|
| 2388220       | 2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB) | 64.4    | 74.9    | P/P       | 26 - 165       |

## Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E  
Batch ID: P425947

| Spiked Sample | Component           | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---------------|---------------------|---------|---------|-----------|----------------|
| 2388220       | Acetochlor          | 48.7    | 63.7    | F/F       | 67 - 124       |
| 2388220       | Alachlor            | 40.4    | 58.4    | F/F       | 60 - 120       |
| 2388220       | Ametryn             | 45.7    | 61.6    | F/P       | 54 - 216       |
| 2388220       | Atrazine Desethyl   | 48.3    | 51.2    | P/P       | 15 - 122       |
| 2388220       | Avobenzone          | 64.6    | 74.5    | P/P       | 37 - 178       |
| 2388220       | Azinphos Methyl     | 59.8    | 70.6    | P/P       | 40 - 292       |
| 2388220       | Azoxystrobin        | 122     | 112     | P/P       | 35 - 220       |
| 2388220       | Butylate            | 47.7    | 36.4    | P/P       | 20 - 83.0      |
| 2388220       | Caffeine            | 84.2    | 85.8    | P/P       | 10 - 194       |
| 2388220       | Carbophenothion     | 68.9    | 73.8    | P/P       | 57 - 127       |
| 2388220       | Carfentrazone Ethyl | 36.2    | 39.8    | F/F       | 51 - 141       |
| 2388220       | Chlorfenapyr        | 64.5    | 50.5    | P/P       | 46 - 111       |
| 2388220       | Chlorpyrifos Ethyl  | 77.3    | 85.4    | P/P       | 52 - 120       |
| 2388220       | Chlorpyrifos Methyl | 45.8    | 71.3    | F/P       | 63 - 119       |
| 2388220       | Coumaphos           | 36.0    | 39.6    | P/P       | 10 - 228       |
| 2388220       | Cyanazine           | 70.0    | 83.9    | P/P       | 59 - 241       |
| 2388220       | Cyprodinil          | 82.5    | 79.0    | P/P       | 47 - 146       |
| 2388220       | Dechlorane Plus     | 60.4    | 68.2    | P/P       | 50 - 150       |
| 2388220       | Demeton             | 68.6    | 69.0    | P/P       | 40 - 136       |
| 2388220       | Diazinon            | 35.3    | 51.2    | F/F       | 69 - 132       |
| 2388220       | Difenoconazole      | 113     | 117     | P/P       | 57 - 258       |
| 2388220       | Dimethenamid        | 75.2    | 80.1    | P/P       | 54 - 110       |
| 2388220       | Dimethomorph        | 94.2    | 92.6    | P/P       | 28 - 210       |
| 2388220       | Disulfoton          | 70.5    | 88.7    | P/P       | 43 - 133       |
| 2388220       | Dithiopyr           | 91.7    | 87.6    | P/P       | 39 - 116       |
| 2388220       | EPTC                | 48.8    | 38.3    | P/P       | 20 - 78.0      |
| 2388220       | Ethion              | 29.8    | 34.1    | P/P       | 17 - 119       |
| 2388220       | Ethoprop            | 92.8    | 86.5    | P/P       | 66 - 120       |
| 2388220       | Etridiazole         | 31.0    | 26.0    | P/F       | 28 - 96.0      |
| 2388220       | Fenamiphos          | 66.2    | 83.5    | P/P       | 41 - 126       |
| 2388220       | Fenbuconazole       | 72.5    | 89.4    | P/P       | 42 - 169       |
| 2388220       | Fipronil            | 81.6    | 82.4    | P/P       | 61 - 132       |
| 2388220       | Fipronil Desulfinyl | 47.5    | 57.5    | F/P       | 56 - 132       |
| 2388220       | Fipronil Sulfide    | 81.5    | 81.1    | P/P       | 48 - 119       |
| 2388220       | Fipronil Sulfone    | 79.9    | 74.5    | P/P       | 42 - 131       |
| 2388220       | Fluazifop-P-butyl   | 67.0    | 68.6    | P/P       | 53 - 131       |
| 2388220       | Fludioxonil         | 72.9    | 74.1    | P/P       | 56 - 127       |
| 2388220       | Flumioxazin         | 101     | 103     | P/P       | 19 - 300       |
| 2388220       | Flutolanil          | 59.9    | 65.1    | P/P       | 41 - 127       |
| 2388220       | Fluxapyroxad        | 45.8    | 48.9    | P/P       | 42 - 172       |
| 2388220       | Fonofos             | 30.4    | 42.3    | F/F       | 59 - 113       |
| 2388220       | Hexazinone          | 85.1    | 86.2    | P/P       | 66 - 122       |
| 2388220       | Imazalil            | 73.2    | 86.7    | P/P       | 21 - 283       |
| 2388220       | Iprodione           | 61.2    | 78.7    | P/P       | 43 - 150       |
| 2388220       | Loratadine          | 117     | 106     | P/P       | 23 - 201       |
| 2388220       | Malathion           | 87.4    | 92.8    | P/P       | 58 - 136       |
| 2388220       | Metalaxyl           | 45.3    | 64.3    | F/P       | 55 - 120       |
| 2388220       | Metolachlor         | 82.7    | 90.0    | P/P       | 57 - 121       |
| 2388220       | Metribuzin          | 108     | 114     | P/P       | 58 - 294       |
| 2388220       | Mevinphos           | 67.2    | 67.4    | P/P       | 50 - 126       |
| 2388220       | Molinate            | 47.5    | 44.3    | P/P       | 42 - 93.0      |
| 2388220       | Myclobutanil        | 68.0    | 69.8    | P/P       | 55 - 125       |

## Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E  
Batch ID: P425947

| Spiked Sample | Component              | % Rec.1 | % Rec.2 | Pass/Fail | Control Limits |
|---------------|------------------------|---------|---------|-----------|----------------|
| 2388220       | Naled                  | 81.5    | 99.3    | P/P       | 18 - 200       |
| 2388220       | Napropamide            | 40.2    | 43.2    | P/P       | 39 - 110       |
| 2388220       | Norflurazon            | 57.6    | 60.1    | P/P       | 48 - 128       |
| 2388220       | Octinoxate             | 63.4    | 68.1    | P/P       | 21 - 159       |
| 2388220       | Oxadiazon              | 50.1    | 53.0    | P/P       | 43 - 112       |
| 2388220       | Oxybenzone             | 66.9    | 76.9    | P/P       | 41 - 142       |
| 2388220       | Oxyfluorfen            | 96.5    | 103     | P/P       | 64 - 153       |
| 2388220       | Parathion Ethyl        | 74.5    | 88.0    | P/P       | 69 - 114       |
| 2388220       | Parathion Methyl       | 91.1    | 153     | P/F       | 79 - 139       |
| 2388220       | PBDE-47                | 59.4    | 66.5    | P/P       | 27 - 144       |
| 2388220       | PBDE-99                | 59.5    | 66.5    | P/P       | 18 - 150       |
| 2388220       | Pendimethalin          | 60.2    | 66.7    | P/P       | 50 - 139       |
| 2388220       | Phenytoin              | 10.3    | 11.7    | P/P       | 10 - 146       |
| 2388220       | Phorate                | 52.7    | 61.7    | F/P       | 54 - 161       |
| 2388220       | Prodiamine             | 72.1    | 75.9    | P/P       | 30 - 161       |
| 2388220       | Prometon               | 75.8    | 78.5    | P/P       | 45 - 134       |
| 2388220       | Prometryn              | 41.7    | 53.6    | F/P       | 45 - 137       |
| 2388220       | Pronamide              | 53.9    | 54.5    | F/F       | 65 - 133       |
| 2388220       | Propanil               | 76.4    | 86.0    | P/P       | 49 - 142       |
| 2388220       | Propargite             | 37.0    | 33.6    | P/P       | 10 - 203       |
| 2388220       | Propiconazole          | 49.3    | 41.3    | P/P       | 38 - 146       |
| 2388220       | Pyraflufen Ethyl       | 59.2    | 55.0    | P/P       | 34 - 153       |
| 2388220       | Pyridaben              | 90.1    | 90.2    | P/P       | 12 - 192       |
| 2388220       | Pyriproxyfen           | 67.6    | 70.6    | P/P       | 33 - 180       |
| 2388220       | Simazine               | 82.1    | 74.1    | P/P       | 51 - 157       |
| 2388220       | Stiropfos              | 31.6    | 29.0    | P/P       | 10 - 128       |
| 2388220       | Sulfentrazone          | 59.5    | 65.6    | P/P       | 53 - 186       |
| 2388220       | Tebuconazole           | 29.6    | 27.9    | P/P       | 10 - 133       |
| 2388220       | Terbufos               | 46.5    | 59.4    | F/F       | 65 - 139       |
| 2388220       | Terbuthylazine         | 73.4    | 91.5    | P/P       | 66 - 117       |
| 2388220       | Thiobencarb            | 81.0    | 79.8    | P/P       | 51 - 119       |
| 2388220       | Tri-o-cresyl Phosphate | 61.9    | 66.9    | P/P       | 31 - 144       |
| 2388220       | Triadimefon            | 68.1    | 59.7    | P/P       | 48 - 119       |

## Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P425970

| Replicated<br>Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|--------------------------|-----------|-----------|-------------------|-----------|----------------|
| 2386597                  | Barium    | 0.128     | Spike             | P         | 0 - 20         |
| 2386597                  | Calcium   | 0.345     | Spike             | P         | 0 - 20         |
| 2386597                  | Iron      | 1.46      | Spike             | P         | 0 - 20         |
| 2386597                  | Magnesium | 1.68      | Spike             | P         | 0 - 20         |
| 2386597                  | Sodium    | 0.0337    | Spike             | P         | 0 - 20         |
| 2386597                  | Zinc      | 0.263     | Spike             | P         | 0 - 20         |

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P425970

| Replicated<br>Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|--------------------------|-----------|-----------|-------------------|-----------|----------------|
| 2386597                  | Aluminum  | 0.0930    | Spike             | P         | 0 - 20         |
| 2386597                  | Antimony  | 0.0664    | Spike             | P         | 0 - 20         |
| 2386597                  | Arsenic   | 0.691     | Spike             | P         | 0 - 20         |
| 2386597                  | Boron     | 0.569     | Spike             | P         | 0 - 20         |
| 2386597                  | Cadmium   | 1.32      | Spike             | P         | 0 - 20         |
| 2386597                  | Chromium  | 0.149     | Spike             | P         | 0 - 20         |
| 2386597                  | Copper    | 0.405     | Spike             | P         | 0 - 20         |
| 2386597                  | Lead      | 1.28      | Spike             | P         | 0 - 20         |
| 2386597                  | Nickel    | 0.696     | Spike             | P         | 0 - 20         |
| 2386597                  | Selenium  | 0.358     | Spike             | P         | 0 - 20         |
| 2386597                  | Thallium  | 0.876     | Spike             | P         | 0 - 20         |

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P426231

| Replicated<br>Lab Sample | Component | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|--------------------------|-----------|-----------|-------------------|-----------|----------------|
| 2386816                  | Silver    | 0.0528    | Spike             | P         | 0 - 20         |

Reference Method: EPA 8270E

Batch ID: P425947

| Replicated<br>Lab Sample | Component                                       | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|--------------------------|-------------------------------------------------|-----------|-------------------|-----------|----------------|
| 2388220                  | 2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB) | 15.0      | Spike             | P         | 0 - 37         |
| 2388220                  | Acetochlor                                      | 26.6      | Spike             | P         | 0 - 28         |
| 2388220                  | Alachlor                                        | 36.4      | Spike             | F         | 0 - 30         |
| 2388220                  | Ametryn                                         | 29.6      | Spike             | P         | 0 - 32         |
| 2388220                  | Atrazine                                        | 5.11      | Spike             | P         | 0 - 41         |
| 2388220                  | Atrazine Desethyl                               | 5.70      | Spike             | P         | 0 - 36         |
| 2388220                  | Avobenzone                                      | 14.2      | Spike             | P         | 0 - 36         |
| 2388220                  | Azinphos Methyl                                 | 16.6      | Spike             | P         | 0 - 75         |
| 2388220                  | Azoxystrobin                                    | 8.07      | Spike             | P         | 0 - 39         |
| 2388220                  | Bromacil                                        | 15.4      | Spike             | P         | 0 - 33         |
| 2388220                  | Butylate                                        | 27.0      | Spike             | P         | 0 - 44         |
| 2388220                  | Caffeine                                        | 1.73      | Spike             | P         | 0 - 74         |
| 2388220                  | Carbophenothion                                 | 6.89      | Spike             | P         | 0 - 25         |
| 2388220                  | Carfentrazone Ethyl                             | 9.38      | Spike             | P         | 0 - 27         |
| 2388220                  | Chlorfenapyr                                    | 24.5      | Spike             | F         | 0 - 24         |

## Quality Assurance Report Precision

Reference Method: EPA 8270E  
Batch ID: P425947

| Replicated<br>Lab Sample | Component           | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|--------------------------|---------------------|-----------|-------------------|-----------|----------------|
| 2388220                  | Chlorpyrifos Ethyl  | 10.0      | Spike             | P         | 0 - 26         |
| 2388220                  | Chlorpyrifos Methyl | 43.5      | Spike             | F         | 0 - 26         |
| 2388220                  | Coumaphos           | 9.64      | Spike             | P         | 0 - 28         |
| 2388220                  | Cyanazine           | 18.1      | Spike             | P         | 0 - 48         |
| 2388220                  | Cyprodinil          | 4.32      | Spike             | P         | 0 - 29         |
| 2388220                  | Dechlorane Plus     | 12.2      | Spike             | P         | 0 - 30         |
| 2388220                  | Demeton             | 0.506     | Spike             | P         | 0 - 33         |
| 2388220                  | Diazinon            | 36.6      | Spike             | F         | 0 - 29         |
| 2388220                  | Difenoconazole      | 3.48      | Spike             | P         | 0 - 34         |
| 2388220                  | Dimethenamid        | 6.31      | Spike             | P         | 0 - 39         |
| 2388220                  | Dimethomorph        | 1.75      | Spike             | P         | 0 - 51         |
| 2388220                  | Disulfoton          | 22.9      | Spike             | P         | 0 - 30         |
| 2388220                  | Dithiopyr           | 4.58      | Spike             | P         | 0 - 26         |
| 2388220                  | EPTC                | 24.1      | Spike             | P         | 0 - 43         |
| 2388220                  | Ethion              | 13.3      | Spike             | P         | 0 - 79         |
| 2388220                  | Ethoprop            | 6.99      | Spike             | P         | 0 - 29         |
| 2388220                  | Etridiazole         | 17.6      | Spike             | P         | 0 - 33         |
| 2388220                  | Fenamiphos          | 23.1      | Spike             | P         | 0 - 40         |
| 2388220                  | Fenbuconazole       | 20.9      | Spike             | P         | 0 - 74         |
| 2388220                  | Fipronil            | 1.05      | Spike             | P         | 0 - 29         |
| 2388220                  | Fipronil Desulfanyl | 19.1      | Spike             | P         | 0 - 32         |
| 2388220                  | Fipronil Sulfide    | 0.358     | Spike             | P         | 0 - 30         |
| 2388220                  | Fipronil Sulfone    | 5.92      | Spike             | P         | 0 - 33         |
| 2388220                  | Fluazifop-P-butyl   | 2.31      | Spike             | P         | 0 - 38         |
| 2388220                  | Fludioxonil         | 1.61      | Spike             | P         | 0 - 29         |
| 2388220                  | Flumioxazin         | 1.50      | Spike             | P         | 0 - 51         |
| 2388220                  | Flutolanil          | 8.41      | Spike             | P         | 0 - 25         |
| 2388220                  | Fluxapyroxad        | 6.49      | Spike             | P         | 0 - 45         |
| 2388220                  | Fonofos             | 32.9      | Spike             | F         | 0 - 27         |
| 2388220                  | Hexazinone          | 1.13      | Spike             | P         | 0 - 30         |
| 2388220                  | Imazalil            | 16.8      | Spike             | P         | 0 - 100        |
| 2388220                  | Iprodione           | 25.0      | Spike             | P         | 0 - 33         |
| 2388220                  | Loratadine          | 10.1      | Spike             | P         | 0 - 56         |
| 2388220                  | Malathion           | 6.00      | Spike             | P         | 0 - 37         |
| 2388220                  | Metalaxyl           | 34.7      | Spike             | P         | 0 - 40         |
| 2388220                  | Metolachlor         | 7.57      | Spike             | P         | 0 - 29         |
| 2388220                  | Metribuzin          | 5.85      | Spike             | P         | 0 - 45         |
| 2388220                  | Mevinphos           | 0.280     | Spike             | P         | 0 - 29         |
| 2388220                  | Molinate            | 7.03      | Spike             | P         | 0 - 33         |
| 2388220                  | Myclobutanil        | 2.71      | Spike             | P         | 0 - 26         |
| 2388220                  | Naled               | 19.7      | Spike             | P         | 0 - 37         |
| 2388220                  | Napropamide         | 7.10      | Spike             | P         | 0 - 44         |
| 2388220                  | Norflurazon         | 3.57      | Spike             | P         | 0 - 30         |
| 2388220                  | Octinoxate          | 7.19      | Spike             | P         | 0 - 45         |
| 2388220                  | Oxadiazon           | 4.57      | Spike             | P         | 0 - 28         |
| 2388220                  | Oxybenzone          | 13.9      | Spike             | P         | 0 - 46         |
| 2388220                  | Oxyfluorfen         | 6.68      | Spike             | P         | 0 - 28         |
| 2388220                  | Parathion Ethyl     | 16.6      | Spike             | P         | 0 - 31         |
| 2388220                  | Parathion Methyl    | 50.5      | Spike             | F         | 0 - 29         |
| 2388220                  | PBDE-47             | 11.2      | Spike             | P         | 0 - 36         |
| 2388220                  | PBDE-99             | 11.2      | Spike             | P         | 0 - 40         |

## Quality Assurance Report Precision

Reference Method: EPA 8270E  
 Batch ID: P425947

| Replicated<br>Lab Sample | Component              | % RSD/RPD | Sample/Spike/LCS* | Pass/Fail | Control Limits |
|--------------------------|------------------------|-----------|-------------------|-----------|----------------|
| 2388220                  | Pendimethalin          | 10.2      | Spike             | P         | 0 - 33         |
| 2388220                  | Phenytoin              | 12.5      | Spike             | P         | 0 - 100        |
| 2388220                  | Phorate                | 15.7      | Spike             | P         | 0 - 36         |
| 2388220                  | Prodiamine             | 5.12      | Spike             | P         | 0 - 71         |
| 2388220                  | Prometon               | 3.56      | Spike             | P         | 0 - 36         |
| 2388220                  | Prometryn              | 24.9      | Spike             | P         | 0 - 28         |
| 2388220                  | Pronamide              | 1.18      | Spike             | P         | 0 - 24         |
| 2388220                  | Propanil               | 11.9      | Spike             | P         | 0 - 28         |
| 2388220                  | Propargite             | 9.84      | Spike             | P         | 0 - 43         |
| 2388220                  | Propiconazole          | 12.6      | Spike             | P         | 0 - 33         |
| 2388220                  | Pyraflufen Ethyl       | 7.41      | Spike             | P         | 0 - 29         |
| 2388220                  | Pyridaben              | 0.0582    | Spike             | P         | 0 - 30         |
| 2388220                  | Pyriproxyfen           | 4.28      | Spike             | P         | 0 - 79         |
| 2388220                  | Simazine               | 10.3      | Spike             | P         | 0 - 29         |
| 2388220                  | Stirophos              | 8.60      | Spike             | P         | 0 - 61         |
| 2388220                  | Sulfentrazone          | 7.35      | Spike             | P         | 0 - 33         |
| 2388220                  | Tebuconazole           | 5.81      | Spike             | P         | 0 - 69         |
| 2388220                  | Terbufos               | 24.4      | Spike             | P         | 0 - 29         |
| 2388220                  | Terbuthylazine         | 21.9      | Spike             | P         | 0 - 32         |
| 2388220                  | Thiobencarb            | 1.49      | Spike             | P         | 0 - 26         |
| 2388220                  | Tri-o-cresyl Phosphate | 7.86      | Spike             | P         | 0 - 33         |
| 2388220                  | Triadimefon            | 13.1      | Spike             | P         | 0 - 28         |

\* Sample, spike and/or laboratory control sample precision (LCS) is reported.

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## Quality Assurance Report Surrogates

Lab Sample ID: 2387855

Field Sample ID: G2SW0115

| Reference Method | Surrogate     | % Rec. | Pass/Fail | Control Limits |
|------------------|---------------|--------|-----------|----------------|
| EPA 8270E        | Caffeine-d9   | 78.2   | P         | 20 - 200       |
| EPA 8270E        | Simazine-d10  | 101    | P         | 62 - 142       |
| EPA 8270E        | Terbufos-d10  | 94.0   | P         | 58 - 132       |
| EPA 8270E        | Terphenyl-d14 | 94.3   | P         | 52 - 137       |

## Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A117557

Included Lab Sample IDs: 2387853, 2387854

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|-----------|---------|---------|------------|----------------|
| Aluminum  | 98.8    | 99.0    | P/P        | 90 - 110       |
| Aluminum  | 99.0    | 101     | P/P        | 90 - 110       |
| Antimony  | 102     | 103     | P/P        | 90 - 110       |
| Antimony  | 103     | 103     | P/P        | 90 - 110       |
| Arsenic   | 98.3    | 98.5    | P/P        | 90 - 110       |
| Arsenic   | 98.8    | 98.3    | P/P        | 90 - 110       |
| Boron     | 96.8    | 100     | P/P        | 90 - 110       |
| Boron     | 97.6    | 96.8    | P/P        | 90 - 110       |
| Cadmium   | 99.3    | 101     | P/P        | 90 - 110       |
| Cadmium   | 99.3    | 99.3    | P/P        | 90 - 110       |
| Chromium  | 101     | 99.9    | P/P        | 90 - 110       |
| Chromium  | 99.9    | 98.7    | P/P        | 90 - 110       |
| Copper    | 96.1    | 99.7    | P/P        | 90 - 110       |
| Copper    | 96.8    | 96.1    | P/P        | 90 - 110       |
| Lead      | 99.7    | 99.9    | P/P        | 90 - 110       |
| Lead      | 99.9    | 101     | P/P        | 90 - 110       |
| Nickel    | 97.0    | 100     | P/P        | 90 - 110       |
| Nickel    | 98.5    | 97.0    | P/P        | 90 - 110       |
| Selenium  | 98.9    | 100     | P/P        | 90 - 110       |
| Selenium  | 99.5    | 98.9    | P/P        | 90 - 110       |
| Thallium  | 102     | 102     | P/P        | 90 - 110       |
| Thallium  | 102     | 102     | P/P        | 90 - 110       |

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A117613

Included Lab Sample IDs: 2387853, 2387854

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|-----------|---------|---------|------------|----------------|
| Barium    | 99.9    | 97.4    | P/P        | 90 - 110       |
| Calcium   | 98.5    | 99.8    | P/P        | 90 - 110       |
| Iron      | 98.4    | 99.5    | P/P        | 90 - 110       |
| Magnesium | 98.5    | 99.9    | P/P        | 90 - 110       |
| Sodium    | 97.3    | 99.0    | P/P        | 90 - 110       |
| Zinc      | 102     | 99.1    | P/P        | 90 - 110       |

Reference Method: EPA 8270E

Run ID: A117638

Included Lab Sample IDs: 2387855

| Component                                       | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|-------------------------------------------------|---------|---------|------------|----------------|
| 2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB) | 105     |         | P          | 80 - 120       |
| Avobenzone                                      | 108     |         | P          | 80 - 120       |
| Dechlorane Plus                                 | 107     |         | P          | 80 - 120       |
| Octinoxate                                      | 105     |         | P          | 80 - 120       |
| Oxybenzone                                      | 106     |         | P          | 80 - 120       |
| PBDE-47                                         | 106     |         | P          | 80 - 120       |
| PBDE-99                                         | 106     |         | P          | 80 - 120       |
| Tri-o-cresyl Phosphate                          | 104     |         | P          | 80 - 120       |

## Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A117640

Included Lab Sample IDs: 2387853, 2387854

| Component | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|-----------|---------|---------|------------|----------------|
| Silver    | 95.6    | 96.7    | P/P        | 90 - 110       |
| Silver    | 96.7    | 94.7    | P/P        | 90 - 110       |

Reference Method: EPA 8270E

Run ID: A117688

Included Lab Sample IDs: 2387855

| Component           | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|---------------------|---------|---------|------------|----------------|
| Acetochlor          | 104     |         | P          | 80 - 120       |
| Alachlor            | 119     |         | P          | 80 - 120       |
| Ametryn             | 101     |         | P          | 80 - 120       |
| Atrazine            | 98.0    |         | P          | 80 - 120       |
| Atrazine Desethyl   | 105     |         | P          | 80 - 120       |
| Azinphos Methyl     | 98.3    |         | P          | 80 - 120       |
| Azoxystrobin        | 99.8    |         | P          | 80 - 120       |
| Butylate            | 102     |         | P          | 80 - 120       |
| Caffeine            | 103     |         | P          | 80 - 120       |
| Carbophenothion     | 91.9    |         | P          | 80 - 120       |
| Carfentrazone Ethyl | 99.7    |         | P          | 80 - 120       |
| Chlorfenapyr        | 120     |         | P          | 80 - 120       |
| Chlorpyrifos Ethyl  | 93.0    |         | P          | 80 - 120       |
| Chlorpyrifos Methyl | 95.8    |         | P          | 80 - 120       |
| Coumaphos           | 111     |         | P          | 80 - 120       |
| Cyanazine           | 94.0    |         | P          | 80 - 120       |
| Cyprodinil          | 99.6    |         | P          | 80 - 120       |
| Demeton             | 99.9    |         | P          | 80 - 120       |
| Diazinon            | 86.0    |         | P          | 80 - 120       |
| Difenoconazole      | 115     |         | P          | 80 - 120       |
| Dimethenamid        | 105     |         | P          | 80 - 120       |
| Dimethomorph        | 111     |         | P          | 80 - 120       |
| Disulfoton          | 83.2    |         | P          | 80 - 120       |
| Dithiopyr           | 88.0    |         | P          | 80 - 120       |
| EPTC                | 103     |         | P          | 80 - 120       |
| Ethion              | 91.9    |         | P          | 80 - 120       |
| Ethoprop            | 107     |         | P          | 80 - 120       |
| Etridiazole         | 95.9    |         | P          | 80 - 120       |
| Fenamiphos          | 114     |         | P          | 80 - 120       |
| Fenbuconazole       | 88.3    |         | P          | 80 - 120       |
| Fipronil            | 82.3    |         | P          | 80 - 120       |
| Fipronil Desulfinyl | 89.8    |         | P          | 80 - 120       |
| Fipronil Sulfide    | 84.5    |         | P          | 80 - 120       |
| Fipronil Sulfone    | 82.0    |         | P          | 80 - 120       |
| Fluazifop-P-butyl   | 85.6    |         | P          | 80 - 120       |
| Flumioxazin         | 94.5    |         | P          | 80 - 120       |
| Flutolanil          | 108     |         | P          | 80 - 120       |
| Fluxapyroxad        | 90.4    |         | P          | 80 - 120       |
| Fonofos             | 84.2    |         | P          | 80 - 120       |
| Hexazinone          | 101     |         | P          | 80 - 120       |
| Imazalil            | 95.3    |         | P          | 80 - 120       |
| Iprodione           | 111     |         | P          | 80 - 120       |
| Loratadine          | 108     |         | P          | 80 - 120       |

## Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E  
Run ID: A117688  
Included Lab Sample IDs: 2387855

| Component        | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|------------------|---------|---------|------------|----------------|
| Malathion        | 93.3    |         | P          | 80 - 120       |
| Metalaxyl        | 102     |         | P          | 80 - 120       |
| Metolachlor      | 94.7    |         | P          | 80 - 120       |
| Metribuzin       | 102     |         | P          | 80 - 120       |
| Mevinphos        | 97.4    |         | P          | 80 - 120       |
| Molinate         | 87.3    |         | P          | 80 - 120       |
| Myclobutanil     | 110     |         | P          | 80 - 120       |
| Naled            | 92.8    |         | P          | 80 - 120       |
| Napropamide      | 110     |         | P          | 80 - 120       |
| Norflurazon      | 93.8    |         | P          | 80 - 120       |
| Oxadiazon        | 102     |         | P          | 80 - 120       |
| Oxyfluorfen      | 96.7    |         | P          | 80 - 120       |
| Parathion Ethyl  | 99.9    |         | P          | 80 - 120       |
| Parathion Methyl | 97.1    |         | P          | 80 - 120       |
| Pendimethalin    | 86.7    |         | P          | 80 - 120       |
| Phenytoin        | 95.2    |         | P          | 80 - 120       |
| Phorate          | 111     |         | P          | 80 - 120       |
| Prodiamine       | 92.9    |         | P          | 80 - 120       |
| Prometon         | 80.0    |         | P          | 80 - 120       |
| Prometryn        | 106     |         | P          | 80 - 120       |
| Pronamide        | 82.0    |         | P          | 80 - 120       |
| Propanil         | 103     |         | P          | 80 - 120       |
| Propargite       | 94.3    |         | P          | 80 - 120       |
| Propiconazole    | 103     |         | P          | 80 - 120       |
| Pyraflufen Ethyl | 81.1    |         | P          | 80 - 120       |
| Pyridaben        | 86.4    |         | P          | 80 - 120       |
| Pyriproxyfen     | 109     |         | P          | 80 - 120       |
| Simazine         | 96.7    |         | P          | 80 - 120       |
| Stirophos        | 92.0    |         | P          | 80 - 120       |
| Sulfentrazone    | 90.2    |         | P          | 80 - 120       |
| Tebuconazole     | 90.7    |         | P          | 80 - 120       |
| Terbufos         | 82.3    |         | P          | 80 - 120       |
| Terbuthylazine   | 93.7    |         | P          | 80 - 120       |
| Thiobencarb      | 99.3    |         | P          | 80 - 120       |
| Triadimefon      | 93.3    |         | P          | 80 - 120       |

Reference Method: EPA 8270E  
Run ID: A117777  
Included Lab Sample IDs: 2387855

| Component   | % Rec.1 | % Rec.2 | Pass/Fail* | Control Limits |
|-------------|---------|---------|------------|----------------|
| Bromacil    | 101     |         | P          | 80 - 120       |
| Fludioxonil | 103     |         | P          | 80 - 120       |

\* Pass/Fail determinations are made for each bracketing calibration verification check.  
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.  
Where they are different, both control limits are provided.

## Quality Assurance Report Summary

| Ref. Method        | Analyte                                               | LCS % Recovery | MS % Recovery |      |      | Precision<br>SMP | MS     |
|--------------------|-------------------------------------------------------|----------------|---------------|------|------|------------------|--------|
|                    |                                                       |                | LCS           |      |      |                  |        |
| EPA 200.7 Rev. 4.4 | Barium                                                | 102            | 98.9          | 98.8 | 98.5 |                  | 0.128  |
|                    | Calcium                                               | 100            | 97.2          | 103  |      |                  | 0.345  |
|                    | Iron                                                  | 102            | 101           | 99.1 | 102  |                  | 1.46   |
|                    | Magnesium                                             | 100            | 97.0          | 101  |      |                  | 1.68   |
|                    | Sodium                                                | 98.5           | 98.3          | 101  |      |                  | 0.0337 |
|                    | Zinc                                                  | 107            | 104           | 104  | 108  |                  | 0.263  |
| EPA 200.8 Rev. 5.4 | Aluminum                                              | 100            | 98.6          | 98.5 | 98.6 |                  | 0.0930 |
|                    | Antimony                                              | 101            | 103           | 103  | 103  |                  | 0.0664 |
|                    | Arsenic                                               | 99.9           | 99.4          | 98.7 | 99.5 |                  | 0.691  |
|                    | Boron                                                 | 98.6           | 101           | 102  | 103  |                  | 0.569  |
|                    | Cadmium                                               | 99.2           | 101           | 100  | 100  |                  | 1.32   |
|                    | Chromium                                              | 102            | 103           | 103  | 101  |                  | 0.149  |
|                    | Copper                                                | 99.9           | 95.6          | 95.3 | 97.5 |                  | 0.405  |
|                    | Lead                                                  | 100            | 101           | 99.6 | 101  |                  | 1.28   |
|                    | Nickel                                                | 103            | 100           | 101  | 99.7 |                  | 0.696  |
|                    | Selenium                                              | 99.4           | 93.6          | 93.3 | 97.5 |                  | 0.358  |
|                    | Silver                                                | 97.5           | 98.3          | 98.3 | 98.7 |                  | 0.0528 |
|                    | Thallium                                              | 102            | 103           | 102  | 104  |                  | 0.876  |
|                    | 2-Ethylhexyl<br>2,3,4,5-tetrabromobenzoate<br>(EHTBB) | 79.1           | 64.4          | 74.9 |      |                  | 15.0   |
|                    | Acetochlor                                            | 106            | 48.7          | 63.7 |      |                  | 26.6   |
| EPA 8270E          | Alachlor                                              | 71.2           | 40.4          | 58.4 |      |                  | 36.4   |
|                    | Ametryn                                               | 115            | 45.7          | 61.6 |      |                  | 29.6   |
|                    | Atrazine                                              | 92.5           |               |      |      |                  | 5.11   |
|                    | Atrazine Desethyl                                     | 58.3           | 48.3          | 51.2 |      |                  | 5.70   |
|                    | Avobenzone                                            | 87.9           | 64.6          | 74.5 |      |                  | 14.2   |
|                    | Azinphos Methyl                                       | 113            | 59.8          | 70.6 |      |                  | 16.6   |
|                    | Azoxystrobin                                          | 121            | 122           | 112  |      |                  | 8.07   |
|                    | Bromacil                                              | 91.4           |               |      |      |                  | 15.4   |
|                    | Butylate                                              | 61.6           | 47.7          | 36.4 |      |                  | 27.0   |
|                    | Caffeine                                              | 75.6           | 84.2          | 85.8 |      |                  | 1.73   |
|                    | Carbophenothion                                       | 107            | 68.9          | 73.8 |      |                  | 6.89   |
|                    | Carfentrazone Ethyl                                   | 120            | 36.2          | 39.8 |      |                  | 9.38   |
|                    | Chlorfenapyr                                          | 99.9           | 64.5          | 50.5 |      |                  | 24.5   |
|                    | Chlorpyrifos Ethyl                                    | 84.3           | 77.3          | 85.4 |      |                  | 10.0   |
|                    | Chlorpyrifos Methyl                                   | 93.0           | 45.8          | 71.3 |      |                  | 43.5   |
|                    | Coumaphos                                             | 59.2           | 36.0          | 39.6 |      |                  | 9.64   |
|                    | Cyanazine                                             | 194            | 70.0          | 83.9 |      |                  | 18.1   |
|                    | Cyprodinil                                            | 96.0           | 82.5          | 79.0 |      |                  | 4.32   |
|                    | Dechlorane Plus                                       | 91.9           | 60.4          | 68.2 |      |                  | 12.2   |
|                    | Demeton                                               | 85.4           | 68.6          | 69.0 |      |                  | 0.506  |
|                    | Diazinon                                              | 90.6           | 35.3          | 51.2 |      |                  | 36.6   |
|                    | Difenoconazole                                        | 115            | 113           | 117  |      |                  | 3.48   |
|                    | Dimethenamid                                          | 90.5           | 75.2          | 80.1 |      |                  | 6.31   |
|                    | Dimethomorph                                          | 198            | 94.2          | 92.6 |      |                  | 1.75   |
|                    | Disulfoton                                            | 85.9           | 70.5          | 88.7 |      |                  | 22.9   |
|                    | Dithiopyr                                             | 103            | 91.7          | 87.6 |      |                  | 4.58   |
|                    | EPTC                                                  | 56.5           | 48.8          | 38.3 |      |                  | 24.1   |
|                    | Ethion                                                | 42.7           | 29.8          | 34.1 |      |                  | 13.3   |
|                    | Ethoprop                                              | 89.2           | 92.8          | 86.5 |      |                  | 6.99   |
|                    | Etridiazole                                           | 63.2           | 31.0          | 26.0 |      |                  | 17.6   |
|                    | Fenamiphos                                            | 110            | 66.2          | 83.5 |      |                  | 23.1   |
|                    | Fenbuconazole                                         | 113            | 72.5          | 89.4 |      |                  | 20.9   |

## Quality Assurance Report Summary

| Ref. Method | Analyte                | LCS % Recovery | MS % Recovery |      | LCS | Precision | MS     |
|-------------|------------------------|----------------|---------------|------|-----|-----------|--------|
|             |                        |                |               |      |     | SMP       |        |
| EPA 8270E   | Fipronil               | 90.3           | 81.6          | 82.4 |     |           | 1.05   |
|             | Fipronil Desulfinyl    | 108            | 47.5          | 57.5 |     |           | 19.1   |
|             | Fipronil Sulfide       | 79.0           | 81.5          | 81.1 |     |           | 0.358  |
|             | Fipronil Sulfone       | 83.8           | 79.9          | 74.5 |     |           | 5.92   |
|             | Fluazifop-P-butyl      | 96.7           | 67.0          | 68.6 |     |           | 2.31   |
|             | Fludioxonil            | 94.3           | 72.9          | 74.1 |     |           | 1.61   |
|             | Flumioxazin            | 120            | 101           | 103  |     |           | 1.50   |
|             | Flutolanil             | 94.7           | 59.9          | 65.1 |     |           | 8.41   |
|             | Fluxapyroxad           | 66.0           | 45.8          | 48.9 |     |           | 6.49   |
|             | Fonofos                | 88.6           | 30.4          | 42.3 |     |           | 32.9   |
|             | Hexazinone             | 81.4           | 85.1          | 86.2 |     |           | 1.13   |
|             | Imazalil               | 104            | 73.2          | 86.7 |     |           | 16.8   |
|             | Iprodione              | 100            | 61.2          | 78.7 |     |           | 25.0   |
|             | Loratadine             | 189            | 117           | 106  |     |           | 10.1   |
|             | Malathion              | 119            | 87.4          | 92.8 |     |           | 6.00   |
|             | Metalaxyl              | 115            | 45.3          | 64.3 |     |           | 34.7   |
|             | Metolachlor            | 96.2           | 82.7          | 90.0 |     |           | 7.57   |
|             | Metribuzin             | 102            | 108           | 114  |     |           | 5.85   |
|             | Mevinphos              | 81.9           | 67.2          | 67.4 |     |           | 0.280  |
|             | Molinate               | 65.1           | 47.5          | 44.3 |     |           | 7.03   |
|             | Myclobutanil           | 102            | 68.0          | 69.8 |     |           | 2.71   |
|             | Naled                  | 104            | 81.5          | 99.3 |     |           | 19.7   |
|             | Napropamide            | 66.4           | 40.2          | 43.2 |     |           | 7.10   |
|             | Norflurazon            | 84.4           | 57.6          | 60.1 |     |           | 3.57   |
|             | Octinoxate             | 69.4           | 63.4          | 68.1 |     |           | 7.19   |
|             | Oxadiazon              | 77.2           | 50.1          | 53.0 |     |           | 4.57   |
|             | Oxybenzone             | 67.9           | 66.9          | 76.9 |     |           | 13.9   |
|             | Oxyfluorfen            | 129            | 96.5          | 103  |     |           | 6.68   |
|             | Parathion Ethyl        | 85.5           | 74.5          | 88.0 |     |           | 16.6   |
|             | Parathion Methyl       | 91.0           | 91.1          | 153  |     |           | 50.5   |
|             | PBDE-47                | 70.2           | 59.4          | 66.5 |     |           | 11.2   |
|             | PBDE-99                | 74.8           | 59.5          | 66.5 |     |           | 11.2   |
|             | Pendimethalin          | 117            | 60.2          | 66.7 |     |           | 10.2   |
|             | Phenytoin              | 13.9           | 10.3          | 11.7 |     |           | 12.5   |
|             | Phorate                | 89.0           | 52.7          | 61.7 |     |           | 15.7   |
|             | Prodiamine             | 69.2           | 72.1          | 75.9 |     |           | 5.12   |
|             | Prometon               | 77.4           | 75.8          | 78.5 |     |           | 3.56   |
|             | Prometryn              | 108            | 41.7          | 53.6 |     |           | 24.9   |
|             | Pronamide              | 101            | 53.9          | 54.5 |     |           | 1.18   |
|             | Propanil               | 76.8           | 76.4          | 86.0 |     |           | 11.9   |
|             | Propargite             | 42.8           | 37.0          | 33.6 |     |           | 9.84   |
|             | Propiconazole          | 82.4           | 49.3          | 41.3 |     |           | 12.6   |
|             | Pyraflufen Ethyl       | 81.6           | 59.2          | 55.0 |     |           | 7.41   |
|             | Pyridaben              | 99.1           | 90.1          | 90.2 |     |           | 0.0582 |
|             | Pyriproxyfen           | 83.7           | 67.6          | 70.6 |     |           | 4.28   |
|             | Simazine               | 91.0           | 82.1          | 74.1 |     |           | 10.3   |
|             | Stirophos              | 48.9           | 31.6          | 29.0 |     |           | 8.60   |
|             | Sulfentrazone          | 86.7           | 59.5          | 65.6 |     |           | 7.35   |
|             | Tebuconazole           | 32.6           | 29.6          | 27.9 |     |           | 5.81   |
|             | Terbufos               | 98.2           | 46.5          | 59.4 |     |           | 24.4   |
|             | Terbuthylazine         | 92.2           | 73.4          | 91.5 |     |           | 21.9   |
|             | Thiobencarb            | 95.4           | 81.0          | 79.8 |     |           | 1.49   |
|             | Tri-o-cresyl Phosphate | 70.5           | 61.9          | 66.9 |     |           | 7.86   |
|             | Triadimefon            | 77.6           | 68.1          | 59.7 |     |           | 13.1   |

## Reference Method Descriptions

| Method             | Description                                                                                                               | <u>Associated Samples</u> |
|--------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------|
| EPA 200.7 Rev. 4.4 | Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects | 2387853, 2387854          |
| EPA 200.8 Rev. 5.4 | Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects                    | 2387853, 2387854          |
| EPA 8270E          | Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM                                                | 2387855                   |
| EPA 8270E          | Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS                                                    | 2387855                   |
| SM 2340 B-2011     | Hardness by calculation, in aqueous matrices, reported as mg/L CaCO <sub>3</sub>                                          | 2387853, 2387854          |

## Preparation and Analysis Log

| Ref. Method        | Received Date | Prep Date/Time   | Prepared By     | Analysis Date/Time | Analyzed By       | Associated Samples |
|--------------------|---------------|------------------|-----------------|--------------------|-------------------|--------------------|
| EPA 200.7 Rev. 4.4 | 02/15/2023    | 02/17/2023 10:50 | George D Taylor | 02/22/2023 14:56   | McKinley C Carter | 2387853            |
|                    | 02/15/2023    | 02/17/2023 10:50 | George D Taylor | 02/22/2023 15:00   | McKinley C Carter | 2387854            |
| EPA 200.8 Rev. 5.4 | 02/15/2023    | 02/17/2023 10:50 | George D Taylor | 02/20/2023 18:42   | Conrad Hartmann   | 2387854            |
|                    | 02/15/2023    | 02/17/2023 10:50 | George D Taylor | 02/20/2023 20:02   | Conrad Hartmann   | 2387853            |
|                    | 02/15/2023    | 02/22/2023 13:20 | George D Taylor | 02/23/2023 15:08   | Conrad Hartmann   | 2387854            |
|                    | 02/15/2023    | 02/22/2023 13:20 | George D Taylor | 02/23/2023 15:37   | Conrad Hartmann   | 2387853            |
|                    | 02/15/2023    | 02/17/2023 08:00 | Fe-Val Siddell  | 02/23/2023 17:58   | Arthur Maknenko   | 2387855            |
| EPA 8270E          | 02/15/2023    | 02/17/2023 08:00 | Fe-Val Siddell  | 02/24/2023 00:46   | Michael Poppell   | 2387855            |
|                    | 02/15/2023    | 02/17/2023 08:00 | Fe-Val Siddell  | 02/25/2023 02:19   | Michael Poppell   | 2387855            |
| SM 2340 B-2011     | 02/15/2023    |                  |                 | 02/22/2023 14:56   | McKinley C Carter | 2387853            |
|                    | 02/15/2023    |                  |                 | 02/22/2023 15:00   | McKinley C Carter | 2387854            |