Gulf Coast ACCUTEST LABORATORIES

09/17/14

# Technical Report for

## Weston Solutions

CES- Chemical Spill/4904 Griggs, Houston, TX

Accutest Job Number: TC52591

Sampling Date: 08/03/14

Report to:

Weston Solutions

k.warr@westonsolutions.com

ATTN: Kristie Kettler

Total number of pages in report: **272**

Richard Rodriguez
Laboratory Director

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Client Service contact: Sylvia Garza 713-271-4700

Certifications: TX (T104704220-14-15, 1M104704220-14-1) AR (14-016-0) AZ (AZ0769) FL (E87628) KS (E-10366) LA (85695/04004) NJ (TX010) OK (2014-139) VA (2085)

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Accutest LabLink@68063 14:52 17-Sep-2014

# Sample Summary

Weston Solutions

CES- Chemical Spill/4904 Griggs, Houston, TX

**Job No:** TC52591

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| TC52591-1 | 08/03/14 | 14:20 | TW | 08/04/14 | AQ | Water | CES-20140803 |
| TC52591-1A | 08/03/14 | 14:20 | TW | 08/04/14 | AQ | Water | CES-20140803 |
| TC52591-1B | 08/03/14 | 14:20 | TW | 08/04/14 | AQ | Water | CES-20140803 |

# SAMPLE DELIVERY GROUP CASE NARRATIVE

| | | | |
|---|---|---|---|
| **Client:** | Weston Solutions | **Job No** | TC52591 |
| **Site:** | CES- Chemical Spill/4904 Griggs, Houston, TX | **Report Date** | 8/29/2014 4:50:34 PM |

1 Sample was collected on 08/03/2014 and received intact at Accutest on 08/04/2014 and properly preserved in 1 cooler at 4.8 Deg C. The sample received an Accutest job number of TC52591. A listing of the Laboratory Sample ID, Client Sample ID and date of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

## Volatiles by GCMS By Method SW846 8260C

**Matrix** AQ **Batch ID:** VE1555

- All samples were analyzed within the recommended method holding time.
- Sample(s) TC52361-17MS, TC52361-17MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Duplicate Recovery(s) for cis-1,2-Dichloroethylene, Trichloroethylene are outside control limits. Probable cause due to matrix interference.
- RPD(s) for MSD for 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,1-Dichloropropene, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichloropropane, Bromobenzene, Bromochloromethane, Bromodichloromethane, Chlorobenzene, Chloroform, cis-1,2-Dichloroethylene, Dibromochloromethane, Isopropylbenzene, m,p-Xylene, m-Dichlorobenzene, Methylene bromide, n-Butylbenzene, n-Propylbenzene, o-Chlorotoluene, o-Dichlorobenzene, o-Xylene, p-Chlorotoluene, p-Dichlorobenzene, p-Isopropyltoluene, sec-Butylbenzene, tert-Butylbenzene, Tetrachloroethylene, trans-1,2-Dichloroethylene, Trichloroethylene, Vinyl chloride, Xylene (total) are outside control limits for sample TC52361-17MSD. Probable cause due to sample non-homogeneity.
- TC52591-1: Dilution required due to matrix interference.

## Extractables by GCMS By Method SW846 8270D

**Matrix** AQ **Batch ID:** OP33463

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) TC52362-2MS, TC52362-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for Benzo(a)pyrene are outside control limits. Outside control limits biased high. Analyte not detected in associated samples.
- Matrix Spike Recovery(s) for 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2-Chlorophenol, 2-Methylphenol, 4-Chloroaniline, Benzidine, Benzyl Alcohol, bis(2-Chloroethoxy)methane, bis(2-Chloroethyl)ether, bis(2-Chloroisopropyl)ether, Isophorone, N-Nitroso-di-n-propylamine, Naphthalene, Nitrobenzene are outside control limits. Probable cause due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2-Chlorophenol, 4-Chloroaniline, Benzidine, bis(2-Chloroethyl)ether, N-Nitroso-di-n-propylamine, Naphthalene, Nitrobenzene are outside control limits. Probable cause due to matrix interference.
- Sample(s) TC52591-1A have surrogates outside control limits. Outside control limits due to dilution.
- TC52591-1A: Internal standard Phenanthrene-d10 outside control limits biased high due to matrix interference. Confirmed by reanalysis.

## Extractables by GC By Method SW846 8081A

| Matrix AQ | Batch ID: OP33461 |
|---|---|

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- OP33461-BS: TBA clean-up performed by method 3660.
- TC52591-1A: TBA clean-up performed by method 3660.
- OP33461-MB: TBA clean-up performed by method 3660.
- OP33461-BSD: Insufficient sample volume for MS/MSD. TBA clean-up performed by method 3660.
- OP33461-BSD: Insufficient sample volume for MS/MSD
- TC52591-1A for Endosulfan sulfate: More than 40% RPD for detected concentrations between two GC columns.
- TC52591-1A for delta-BHC: More than 40% RPD for detected concentrations between two GC columns.

## Extractables by GC By Method SW846 8082

| Matrix AQ | Batch ID: OP33462 |
|---|---|

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- OP33462-BSD: Insufficient sample volume for MS/MSD

## Extractables by GC By Method SW846 8151

| Matrix AQ | Batch ID: OP33524 |
|---|---|

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- The following samples were extracted outside of holding time for method SW846 8151: TC52591-1B Sample analyzed beyond hold time.
- Sample(s) TC52591-1B have surrogates outside control limits. Outside control limits biased high due to matrix interference. Confirmed by second column.

## Metals By Method SW846 6010B

| Matrix AQ | Batch ID: MP23948 |
|---|---|

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52501-1MS, TC52501-1MSD, TC52501-1SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Aluminum, Antimony, Arsenic, Beryllium, Cadmium, Chromium, Nickel, Selenium, Zinc are outside control limits for sample MP23948-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

## Metals By Method SW846 7470A

| Matrix AQ | Batch ID: MP23951 |
|---|---|

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52591-1MS, TC52591-1MSD were used as the QC samples for metals.

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

# Summary of Hits

**Job Number:** TC52591
**Account:** Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Collected:** 08/03/14

3

| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | MQL | SDL | Units | Method |
|---|---|---|---|---|---|---|
| **TC52591-1** | **CES-20140803** | | | | | |
| Acetone [a] | | 371 | 250 | 50 | ug/l | SW846 8260C |
| Methyl ethyl ketone [a] | | 399 | 50 | 14 | ug/l | SW846 8260C |
| Aluminum | | 0.985 | 0.20 | 0.018 | mg/l | SW846 6010B |
| Antimony | | 0.0019 J | 0.0050 | 0.0011 | mg/l | SW846 6010B |
| Arsenic | | 0.0056 | 0.0050 | 0.0047 | mg/l | SW846 6010B |
| Barium | | 0.135 J | 0.20 | 0.00039 | mg/l | SW846 6010B |
| Beryllium | | 0.00033 J | 0.0040 | 0.00018 | mg/l | SW846 6010B |
| Cadmium | | 0.00036 J | 0.0040 | 0.00023 | mg/l | SW846 6010B |
| Calcium | | 76.7 | 5.0 | 0.034 | mg/l | SW846 6010B |
| Chromium | | 0.0122 | 0.010 | 0.00062 | mg/l | SW846 6010B |
| Cobalt | | 0.0028 J | 0.050 | 0.00023 | mg/l | SW846 6010B |
| Copper | | 0.0044 J | 0.020 | 0.0029 | mg/l | SW846 6010B |
| Iron | | 6.37 | 0.10 | 0.030 | mg/l | SW846 6010B |
| Lead | | 0.0056 | 0.0030 | 0.00077 | mg/l | SW846 6010B |
| Magnesium | | 8.15 | 5.0 | 0.019 | mg/l | SW846 6010B |
| Manganese | | 0.878 | 0.015 | 0.00025 | mg/l | SW846 6010B |
| Nickel | | 0.0560 | 0.040 | 0.00040 | mg/l | SW846 6010B |
| Potassium | | 7.67 | 5.0 | 0.052 | mg/l | SW846 6010B |
| Selenium | | 0.0063 | 0.0050 | 0.0024 | mg/l | SW846 6010B |
| Sodium | | 152 | 5.0 | 0.023 | mg/l | SW846 6010B |
| Vanadium | | 0.0046 J | 0.050 | 0.00051 | mg/l | SW846 6010B |
| Zinc | | 0.0477 | 0.020 | 0.0015 | mg/l | SW846 6010B |
| **TC52591-1A** | **CES-20140803** | | | | | |
| Benzoic Acid [b] | | 44.3 | 20 | 10 | ug/l | SW846 8270D |
| 2,4-Dimethylphenol [b] | | 5.0 J | 5.1 | 1.1 | ug/l | SW846 8270D |
| 2-Methylphenol [b] | | 12.3 | 5.1 | 0.97 | ug/l | SW846 8270D |
| 3&4-Methylphenol [b] | | 39.8 | 5.1 | 1.1 | ug/l | SW846 8270D |
| Phenol [b] | | 70.4 | 5.1 | 1.5 | ug/l | SW846 8270D |
| Benzyl Alcohol [b] | | 6.1 | 5.1 | 0.88 | ug/l | SW846 8270D |
| 1-Methylnaphthalene [b] | | 1.5 J | 5.1 | 1.1 | ug/l | SW846 8270D |
| 2-Methylnaphthalene [b] | | 1.7 J | 5.1 | 1.2 | ug/l | SW846 8270D |
| delta-BHC [c] | | 0.018 J | 0.050 | 0.010 | ug/l | SW846 8081A |
| alpha-Chlordane [d] | | 0.014 J | 0.050 | 0.011 | ug/l | SW846 8081A |
| Endosulfan sulfate [c] | | 0.026 J | 0.10 | 0.021 | ug/l | SW846 8081A |
| **TC52591-1B** | **CES-20140803** | | | | | |

No hits reported in this sample.

(a) Dilution required due to matrix interference.
(b) Internal standard Phenanthrene-d10 outside control limits biased high due to matrix interference. Confirmed by

# Summary of Hits

**Job Number:** TC52591
**Account:** Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Collected:** 08/03/14

| Lab Sample ID<br>Analyte | Client Sample ID | Result/<br>Qual | MQL | SDL | Units | Method |
|---|---|---|---|---|---|---|

reanalysis.
(c) TBA clean-up performed by method 3660. More than 40% RPD for detected concentrations between two GC columns.
(d) TBA clean-up performed by method 3660.

Gulf Coast ACCUTEST LABORATORIES



## Sample Results

Report of Analysis

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | CES-20140803 | | |
| **Lab Sample ID:** | TC52591-1 | **Date Sampled:** | 08/03/14 |
| **Matrix:** | AQ - Water | **Date Received:** | 08/04/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | CES- Chemical Spill/4904 Griggs, Houston, TX | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | E0034365.D | 5 | 08/05/14 | SC | n/a | n/a | VE1555 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA 8260 List**

| CAS No. | Compound | Result | MQL | SDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 371 | 250 | 50 | ug/l | |
| 71-43-2 | Benzene | 1.7 U | 5.0 | 1.7 | ug/l | |
| 108-86-1 | Bromobenzene | 1.5 U | 5.0 | 1.5 | ug/l | |
| 74-97-5 | Bromochloromethane | 2.1 U | 5.0 | 2.1 | ug/l | |
| 75-27-4 | Bromodichloromethane | 1.7 U | 5.0 | 1.7 | ug/l | |
| 75-25-2 | Bromoform | 2.2 U | 5.0 | 2.2 | ug/l | |
| 104-51-8 | n-Butylbenzene | 2.0 U | 5.0 | 2.0 | ug/l | |
| 135-98-8 | sec-Butylbenzene | 2.3 U | 5.0 | 2.3 | ug/l | |
| 98-06-6 | tert-Butylbenzene | 2.2 U | 5.0 | 2.2 | ug/l | |
| 108-90-7 | Chlorobenzene | 1.3 U | 5.0 | 1.3 | ug/l | |
| 75-00-3 | Chloroethane | 3.6 U | 5.0 | 3.6 | ug/l | |
| 67-66-3 | Chloroform | 1.7 U | 5.0 | 1.7 | ug/l | |
| 95-49-8 | o-Chlorotoluene | 1.8 U | 5.0 | 1.8 | ug/l | |
| 106-43-4 | p-Chlorotoluene | 1.6 U | 5.0 | 1.6 | ug/l | |
| 75-15-0 | Carbon disulfide | 1.8 U | 5.0 | 1.8 | ug/l | |
| 56-23-5 | Carbon tetrachloride | 2.2 U | 5.0 | 2.2 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | 1.7 U | 5.0 | 1.7 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | 2.3 U | 5.0 | 2.3 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | 3.1 U | 5.0 | 3.1 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 7.9 U | 10 | 7.9 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | 1.7 U | 5.0 | 1.7 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | 1.8 U | 5.0 | 1.8 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | 1.7 U | 5.0 | 1.7 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | 1.6 U | 5.0 | 1.6 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | 2.5 U | 5.0 | 2.5 | ug/l | |
| 124-48-1 | Dibromochloromethane | 1.8 U | 5.0 | 1.8 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | 7.4 U | 10 | 7.4 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | 2.0 U | 5.0 | 2.0 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.4 U | 5.0 | 1.4 | ug/l | |
| 541-73-1 | m-Dichlorobenzene | 1.7 U | 5.0 | 1.7 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | 1.4 U | 5.0 | 1.4 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | 1.6 U | 5.0 | 1.6 | ug/l | |

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | CES-20140803 | | |
| **Lab Sample ID:** | TC52591-1 | **Date Sampled:** | 08/03/14 |
| **Matrix:** | AQ - Water | **Date Received:** | 08/04/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | CES- Chemical Spill/4904 Griggs, Houston, TX | | |

**VOA 8260 List**

| CAS No. | Compound | Result | MQL | SDL | Units | Q |
|---|---|---|---|---|---|---|
| 156-60-5 | trans-1,2-Dichloroethylene | 2.4 U | 5.0 | 2.4 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.6 U | 5.0 | 1.6 | ug/l | |
| 100-41-4 | Ethylbenzene | 1.6 U | 5.0 | 1.6 | ug/l | |
| 591-78-6 | 2-Hexanone | 13 U | 50 | 13 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | 2.4 U | 5.0 | 2.4 | ug/l | |
| 98-82-8 | Isopropylbenzene | 2.0 U | 5.0 | 2.0 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | 1.8 U | 5.0 | 1.8 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | 11 U | 50 | 11 | ug/l | |
| 74-83-9 | Methyl bromide | 2.5 U | 5.0 | 2.5 | ug/l | |
| 74-87-3 | Methyl chloride | 3.2 U | 5.0 | 3.2 | ug/l | |
| 74-95-3 | Methylene bromide | 2.2 U | 5.0 | 2.2 | ug/l | |
| 75-09-2 | Methylene chloride | 8.1 U | 25 | 8.1 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | 399 | 50 | 14 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 1.5 U | 5.0 | 1.5 | ug/l | |
| 91-20-3 | Naphthalene | 7.8 U | 25 | 7.8 | ug/l | |
| 103-65-1 | n-Propylbenzene | 1.8 U | 5.0 | 1.8 | ug/l | |
| 100-42-5 | Styrene | 1.5 U | 5.0 | 1.5 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.8 U | 5.0 | 1.8 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | 2.1 U | 5.0 | 2.1 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 2.0 U | 5.0 | 2.0 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | 1.7 U | 5.0 | 1.7 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | 2.1 U | 5.0 | 2.1 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | 2.3 U | 5.0 | 2.3 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 2.0 U | 5.0 | 2.0 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 1.6 U | 5.0 | 1.6 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1.7 U | 5.0 | 1.7 | ug/l | |
| 127-18-4 | Tetrachloroethylene | 2.3 U | 5.0 | 2.3 | ug/l | |
| 108-88-3 | Toluene | 1.6 U | 5.0 | 1.6 | ug/l | |
| 79-01-6 | Trichloroethylene | 2.4 U | 5.0 | 2.4 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | 3.8 U | 5.0 | 3.8 | ug/l | |
| 75-01-4 | Vinyl chloride | 4.0 U | 5.0 | 4.0 | ug/l | |
| 1330-20-7 | Xylene (total) | 4.3 U | 15 | 4.3 | ug/l | |
| | m,p-Xylene | 2.9 U | 10 | 2.9 | ug/l | |
| 95-47-6 | o-Xylene | 1.4 U | 5.0 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 97% | | 72-122% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 95% | | 68-124% |
| 2037-26-5 | Toluene-D8 | 96% | | 80-119% |

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | CES-20140803 | | |
| **Lab Sample ID:** | TC52591-1 | **Date Sampled:** | 08/03/14 |
| **Matrix:** | AQ - Water | **Date Received:** | 08/04/14 |
| **Method:** | SW846 8260C | **Percent Solids:** | n/a |
| **Project:** | CES- Chemical Spill/4904 Griggs, Houston, TX | | |

**VOA 8260 List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 90% | | 72-126% |

(a) Dilution required due to matrix interference.

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





**Client Sample ID:** CES-20140803
**Lab Sample ID:** TC52591-1
**Matrix:** AQ - Water
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Date Sampled:** 08/03/14
**Date Received:** 08/04/14
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | MQL | SDL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 0.985 | 0.20 | 0.018 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Antimony | 0.0019 J | 0.0050 | 0.0011 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Arsenic | 0.0056 | 0.0050 | 0.0047 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Barium | 0.135 J | 0.20 | 0.00039 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Beryllium | 0.00033 J | 0.0040 | 0.00018 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Cadmium | 0.00036 J | 0.0040 | 0.00023 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Calcium | 76.7 | 5.0 | 0.034 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [1] | SW846 3010A [4] |
| Chromium | 0.0122 | 0.010 | 0.00062 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Cobalt | 0.0028 J | 0.050 | 0.00023 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Copper | 0.0044 J | 0.020 | 0.0029 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Iron | 6.37 | 0.10 | 0.030 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Lead | 0.0056 | 0.0030 | 0.00077 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Magnesium | 8.15 | 5.0 | 0.019 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [1] | SW846 3010A [4] |
| Manganese | 0.878 | 0.015 | 0.00025 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Mercury | 0.000050 U | 0.00020 | 0.000050 | mg/l | 1 | 08/05/14 | 08/05/14 | CC | SW846 7470A [3] | SW846 7470A [5] |
| Nickel | 0.0560 | 0.040 | 0.00040 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Potassium | 7.67 | 5.0 | 0.052 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Selenium | 0.0063 | 0.0050 | 0.0024 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Silver | 0.00059 U | 0.010 | 0.00059 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Sodium | 152 | 5.0 | 0.023 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Thallium | 0.0021 U | 0.010 | 0.0021 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Vanadium | 0.0046 J | 0.050 | 0.00051 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |
| Zinc | 0.0477 | 0.020 | 0.0015 | mg/l | 1 | 08/04/14 | 08/05/14 | EG | SW846 6010B [2] | SW846 3010A [4] |

(1) Instrument QC Batch: MA10004
(2) Instrument QC Batch: MA9995
(3) Instrument QC Batch: MA9996
(4) Prep QC Batch: MP23948
(5) Prep QC Batch: MP23951

MQL = Method Quantitation Limit
SDL = Sample Detection Limit

U = Indicates a result < SDL
J = Indicates a result > = SDL but < MQL

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | CES-20140803 | | |
| **Lab Sample ID:** | TC52591-1A | **Date Sampled:** | 08/03/14 |
| **Matrix:** | AQ - Water | **Date Received:** | 08/04/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | CES- Chemical Spill/4904 Griggs, Houston, TX | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | P34937.D | 1 | 08/07/14 | SC | 08/05/14 | OP33463 | EP1683 |
| Run #2 | P34936.D | 20 | 08/07/14 | SC | 08/05/14 | OP33463 | EP1683 |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 990 ml | 1.0 ml |
| Run #2 | 990 ml | 1.0 ml |

**ABN Full List**

| CAS No. | Compound | Result | MQL | SDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 44.3 | 20 | 10 | ug/l | |
| 95-57-8 | 2-Chlorophenol | 0.97 U | 5.1 | 0.97 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | 1.2 U | 5.1 | 1.2 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | 1.1 U | 5.1 | 1.1 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | 5.0 | 5.1 | 1.1 | ug/l | J |
| 51-28-5 | 2,4-Dinitrophenol | 10 U | 25 | 10 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | 5.6 U | 10 | 5.6 | ug/l | |
| 95-48-7 | 2-Methylphenol | 12.3 | 5.1 | 0.97 | ug/l | |
| | 3&4-Methylphenol | 39.8 | 5.1 | 1.1 | ug/l | |
| 88-75-5 | 2-Nitrophenol | 1.1 U | 5.1 | 1.1 | ug/l | |
| 100-02-7 | 4-Nitrophenol | 7.2 U | 25 | 7.2 | ug/l | |
| 87-86-5 | Pentachlorophenol | 10 U | 25 | 10 | ug/l | |
| 108-95-2 | Phenol | 70.4 | 5.1 | 1.5 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.98 U | 5.1 | 0.98 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | 1.1 U | 5.1 | 1.1 | ug/l | |
| 83-32-9 | Acenaphthene | 1.2 U | 5.1 | 1.2 | ug/l | |
| 208-96-8 | Acenaphthylene | 1.2 U | 5.1 | 1.2 | ug/l | |
| 62-53-3 | Aniline | 1.3 U | 5.1 | 1.3 | ug/l | |
| 120-12-7 | Anthracene | 1.4 U | 5.1 | 1.4 | ug/l | |
| 92-87-5 | Benzidine | 9.9 U | 25 | 9.9 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | 1.5 U | 5.1 | 1.5 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | 1.4 U | 5.1 | 1.4 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | 1.2 U | 5.1 | 1.2 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | 1.5 U | 5.1 | 1.5 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | 1.5 U | 5.1 | 1.5 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | 1.2 U | 5.1 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | 1.3 U | 5.1 | 1.3 | ug/l | |
| 100-51-6 | Benzyl Alcohol | 6.1 | 5.1 | 0.88 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | 1.3 U | 5.1 | 1.3 | ug/l | |
| 106-47-8 | 4-Chloroaniline | 1.1 U | 5.1 | 1.1 | ug/l | |
| 86-74-8 | Carbazole | 1.4 U | 5.1 | 1.4 | ug/l | |
| 218-01-9 | Chrysene | 1.6 U | 5.1 | 1.6 | ug/l | |

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | CES-20140803 | | |
| **Lab Sample ID:** | TC52591-1A | **Date Sampled:** | 08/03/14 |
| **Matrix:** | AQ - Water | **Date Received:** | 08/04/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | CES- Chemical Spill/4904 Griggs, Houston, TX | | |

**ABN Full List**

| CAS No. | Compound | Result | MQL | SDL | Units | Q |
|---|---|---|---|---|---|---|
| 111-91-1 | bis(2-Chloroethoxy)methane | 1.2 U | 5.1 | 1.2 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | 0.96 U | 5.1 | 0.96 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 0.91 U | 5.1 | 0.91 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 1.3 U | 5.1 | 1.3 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | 1.1 U | 5.1 | 1.1 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | 1.3 U | 5.1 | 1.3 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | 1.1 U | 5.1 | 1.1 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | 1.1 U | 5.1 | 1.1 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | 1.3 U | 5.1 | 1.3 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | 1.0 U | 5.1 | 1.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1.3 U | 10 | 1.3 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | 1.4 U | 5.1 | 1.4 | ug/l | |
| 132-64-9 | Dibenzofuran | 1.3 U | 5.1 | 1.3 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | 1.4 U | 5.1 | 1.4 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | 1.2 U | 5.1 | 1.2 | ug/l | |
| 84-66-2 | Diethyl phthalate | 1.4 U | 5.1 | 1.4 | ug/l | |
| 131-11-3 | Dimethyl phthalate | 1.4 U | 5.1 | 1.4 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1.5 U | 5.1 | 1.5 | ug/l | |
| 206-44-0 | Fluoranthene | 1.4 U | 5.1 | 1.4 | ug/l | |
| 86-73-7 | Fluorene | 1.2 U | 5.1 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | 1.6 U | 5.1 | 1.6 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | 1.2 U | 5.1 | 1.2 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | 1.2 U | 10 | 1.2 | ug/l | |
| 67-72-1 | Hexachloroethane | 1.3 U | 5.1 | 1.3 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1.1 U | 5.1 | 1.1 | ug/l | |
| 78-59-1 | Isophorone | 1.2 U | 5.1 | 1.2 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | 1.5 | 5.1 | 1.1 | ug/l | J |
| 91-57-6 | 2-Methylnaphthalene | 1.7 | 5.1 | 1.2 | ug/l | J |
| 88-74-4 | 2-Nitroaniline | 1.3 U | 5.1 | 1.3 | ug/l | |
| 99-09-2 | 3-Nitroaniline | 1.3 U | 5.1 | 1.3 | ug/l | |
| 100-01-6 | 4-Nitroaniline | 1.4 U | 5.1 | 1.4 | ug/l | |
| 91-20-3 | Naphthalene | 1.0 U | 5.1 | 1.0 | ug/l | |
| 98-95-3 | Nitrobenzene | 1.2 U | 5.1 | 1.2 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | 1.0 U | 5.1 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | 1.1 U | 5.1 | 1.1 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | 1.4 U | 5.1 | 1.4 | ug/l | |
| 85-01-8 | Phenanthrene | 1.5 U | 5.1 | 1.5 | ug/l | |
| 129-00-0 | Pyrene | 1.4 U | 5.1 | 1.4 | ug/l | |
| 110-86-1 | Pyridine | 1.3 U | 5.1 | 1.3 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1.1 U | 5.1 | 1.1 | ug/l | |

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | CES-20140803 | | |
| **Lab Sample ID:** | TC52591-1A | **Date Sampled:** | 08/03/14 |
| **Matrix:** | AQ - Water | **Date Received:** | 08/04/14 |
| **Method:** | SW846 8270D SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | CES- Chemical Spill/4904 Griggs, Houston, TX | | |

**ABN Full List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 39% | 22% | 10-66% |
| 4165-62-2 | Phenol-d5 | 36% | 22% | 10-63% |
| 118-79-6 | 2,4,6-Tribromophenol | 32% | 23% [b] | 32-128% |
| 4165-60-0 | Nitrobenzene-d5 | 64% | 45% | 29-115% |
| 321-60-8 | 2-Fluorobiphenyl | 68% | 53% | 34-113% |
| 1718-51-0 | Terphenyl-d14 | 111% | 95% | 23-138% |

(a) Internal standard Phenanthrene-d10 outside control limits biased high due to matrix interference. Confirmed by reanalysis.
(b) Outside control limits due to dilution.

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | CES-20140803 | | |
| **Lab Sample ID:** | TC52591-1A | **Date Sampled:** | 08/03/14 |
| **Matrix:** | AQ - Water | **Date Received:** | 08/04/14 |
| **Method:** | SW846 8081A SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | CES- Chemical Spill/4904 Griggs, Houston, TX | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | NN175386.D | 1 | 08/07/14 | AR | 08/06/14 | OP33461 | GNN1454 |
| Run #2 | NN175395.D | 1 | 08/07/14 | AR | 08/06/14 | OP33461 | GNN1454 |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 10.0 ml |
| Run #2 | 1000 ml | 10.0 ml |

**Pesticide TCL List**

| CAS No. | Compound | Result | MQL | SDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | 0.010 U | 0.050 | 0.010 | ug/l | |
| 319-84-6 | alpha-BHC | 0.021 U | 0.050 | 0.021 | ug/l | |
| 319-85-7 | beta-BHC | 0.012 U | 0.050 | 0.012 | ug/l | |
| 319-86-8 | delta-BHC [b] | 0.018 | 0.050 | 0.010 | ug/l | J |
| 58-89-9 | gamma-BHC (Lindane) | 0.017 U | 0.050 | 0.017 | ug/l | |
| 5103-71-9 | alpha-Chlordane | 0.014 | 0.050 | 0.011 | ug/l | J |
| 5103-74-2 | gamma-Chlordane | 0.011 U | 0.050 | 0.011 | ug/l | |
| 60-57-1 | Dieldrin | 0.020 U | 0.10 | 0.020 | ug/l | |
| 72-54-8 | 4,4'-DDD | 0.033 U | 0.10 | 0.033 | ug/l | |
| 72-55-9 | 4,4'-DDE | 0.025 U | 0.10 | 0.025 | ug/l | |
| 50-29-3 | 4,4'-DDT | 0.037 U | 0.10 | 0.037 | ug/l | |
| 72-20-8 | Endrin | 0.020 U | 0.10 | 0.020 | ug/l | |
| 1031-07-8 | Endosulfan sulfate [b] | 0.026 | 0.10 | 0.021 | ug/l | J |
| 7421-93-4 | Endrin aldehyde | 0.036 U [c] | 0.10 | 0.036 | ug/l | |
| 53494-70-5 | Endrin ketone | 0.030 U | 0.10 | 0.030 | ug/l | |
| 959-98-8 | Endosulfan-I | 0.018 U | 0.10 | 0.018 | ug/l | |
| 33213-65-9 | Endosulfan-II | 0.021 U | 0.10 | 0.021 | ug/l | |
| 76-44-8 | Heptachlor | 0.010 U | 0.050 | 0.010 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | 0.011 U | 0.050 | 0.011 | ug/l | |
| 72-43-5 | Methoxychlor | 0.13 U | 0.50 | 0.13 | ug/l | |
| 8001-35-2 | Toxaphene | 0.12 U | 0.50 | 0.12 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 74% | 73% | 39-122% |
| 2051-24-3 | Decachlorobiphenyl | 54% | 50% | 28-123% |

(a) TBA clean-up performed by method 3660.
(b) More than 40% RPD for detected concentrations between two GC columns.
(c) Result is from Run# 2

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | CES-20140803 | | |
| **Lab Sample ID:** | TC52591-1A | **Date Sampled:** | 08/03/14 |
| **Matrix:** | AQ - Water | **Date Received:** | 08/04/14 |
| **Method:** | SW846 8082 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | CES- Chemical Spill/4904 Griggs, Houston, TX | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | OO30840.D | 1 | 08/07/14 | AR | 08/06/14 | OP33462 | GOO507 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 10.0 ml |
| Run #2 | | |

**PCB List**

| CAS No. | Compound | Result | MQL | SDL | Units | Q |
|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 0.21 U | 0.50 | 0.21 | ug/l | |
| 11104-28-2 | Aroclor 1221 | 0.20 U | 0.50 | 0.20 | ug/l | |
| 11141-16-5 | Aroclor 1232 | 0.17 U | 0.50 | 0.17 | ug/l | |
| 53469-21-9 | Aroclor 1242 | 0.12 U | 0.50 | 0.12 | ug/l | |
| 12672-29-6 | Aroclor 1248 | 0.10 U | 0.50 | 0.10 | ug/l | |
| 11097-69-1 | Aroclor 1254 | 0.10 U | 0.50 | 0.10 | ug/l | |
| 11096-82-5 | Aroclor 1260 | 0.12 U | 0.50 | 0.12 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 56% | | 30-112% |
| 2051-24-3 | Decachlorobiphenyl | 43% | | 27-119% |

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | CES-20140803 | | |
| **Lab Sample ID:** | TC52591-1B | **Date Sampled:** | 08/03/14 |
| **Matrix:** | AQ - Water | **Date Received:** | 08/04/14 |
| **Method:** | SW846 8151 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | CES- Chemical Spill/4904 Griggs, Houston, TX | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | DD772816.D | 1 | 08/13/14 | AR | 08/12/14 | OP33524 | GDD2382 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 10.0 ml |
| Run #2 | | |

**Herbicide List**

| CAS No. | Compound | Result | MQL | SDL | Units | Q |
|---|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | 0.20 U | 1.0 | 0.20 | ug/l | |
| 93-72-1 | 2,4,5-TP (Silvex) | 0.040 U | 0.20 | 0.040 | ug/l | |
| 93-76-5 | 2,4,5-T | 0.033 U | 0.20 | 0.033 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 759% [b] | | 40-168% |

(a) Sample analyzed beyond hold time.
(b) Outside control limits biased high due to matrix interference. Confirmed by second column.

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Gulf Coast ACCUTEST LABORATORIES



## Misc. Forms

# Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

# CHAIN OF CUSTODY

10165 Harwin Dr, Ste 150 Houston, TX 77036
TEL. 713-271-4700 FAX: 713-271-4770
www.accutest.com

PAGE ___ OF ___

FED-EX Tracking #:
Accutest Quote #:
Bottle Order Control #:
Accutest Job #: TC52591

**Client / Reporting Information**

Company Name: Weston Solutions
Street Address: Houston TX 77056
City / State / Zip: 5599 San Felipe #700
Project Contact / E-mail: Tom Walzer t.a.walzer@westonsolutions.com
Phone #: 713-705-1467 Kristi Warr 832-444-7776 K.Warr@westonsolutions.com
Sampler(s) Name(s) / Phone #: Tom Walzer

**Project Information**

Project Name: CES - Chemical Spill
Street: 4904 Griggs
City / State: Houston TX
Project #:
Client Purchase Order #:
Project Manager: Derrick Cobb

**Billing Information ( if different from Report to)**

Company Name: Weston Solutions Inc
Street Address: 5599 San Felipe Suite 700
City / State / Zip: Houston TX 77056
Attention: Kristi Wall Warr

**Requested Analyses**

| Accutest Sample # | Field ID / Point of Collection | Collection Date | Time | Sampled By | Matrix | # of bottles | HCl | NaOH | ZnAc/NaOH | HNO3 | H2SO4 | NONE | DI Water | MEOH | TSP | Na2S2O3 | ENCORE | OTHER | VOC | SVOC | Pesticides | PCBs | Herbicides | TAL Metals | Mercury |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | CES-20140803 | 08/03/2014 | 1420 | T.Walzer | W | | | | | | | 17 | | | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Collecte
6 1-liter Amber (unpreserved)
8 1 ~~40~~ 40mL VOA vial (unpreserved)
3 1-liter Plastic (unpreserved)

**Matrix Codes**

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

LAB USE ONLY

**Turnaround Time ( Business days)**

- Standard Call Kristi Warr
- 5 Day *RUSH*
- 4 Day *RUSH*
- 3 Day *RUSH*
- 2 Day *RUSH*
- 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

**Data Deliverable Information**

- Commercial "A" (Level 1)
- Commercial "B" (Level 2)
- FULT1 ( Level 3+4 )
- REDT1 ( Level 3+4 )
- Commercial "C"
- TRRP
- EDD Format
- Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

**Comments / Special Instructions**

Sample Custody must be documented below each time samples change possession, including courier delivery.

| Relinquished by Sampler: | Date Time: | Received By: | Relinquished By: | Date Time: | Received By: |
|---|---|---|---|---|---|
| 1 Thomas A. Walzer | 08/05/2014 1224 | 1 [signature] | 2 [signature] | 8/5/14 1315 | 2 [signature] |
| Relinquished by Sampler: 3 | Date Time: | Received By: 3 | Relinquished By: 4 | Date Time: | Received By: 4 |
| Relinquished by: 5 | Date Time: | Received By: 5 | Custody Seal # | ☐ Intact ☐ Not Intact | Preserved where applicable ☐ On Ice ☑ Cooler Temp. 4°C |

**TC52591: Chain of Custody**
**Page 1 of 4**

# Accutest Laboratories Sample Receipt Summary



**Accutest Job Number:** TC52591 **Client:** WESTON SOLUTIONS **Project:** CES-CHEMICAL SPILL

**Date / Time Received:** 8/4/2014 **Delivery Method:** **Airbill #'s:**

**No. Coolers:** 1 **Therm ID:** IR-5; **Temp Adjustment Factor:** 0;

**Cooler Temps (Initial/Adjusted):** #1: (4.8/4.8);

| Cooler Security | Y | N | | Y | N |
|---|---|---|---|---|---|
| 1. Custody Seals Present: | ☑ | ☐ | 3. COC Present: | ☑ | ☐ |
| 2. Custody Seals Intact: | ☑ | ☐ | 4. Smpl Dates/Time OK | ☑ | ☐ |

| Cooler Temperature | Y | N |
|---|---|---|
| 1. Temp criteria achieved: | ☑ | ☐ |
| 2. Cooler temp verification: | | |
| 3. Cooler media: | Ice (Bag) | |

| Quality Control Preservation | Y | N | N/A | WTB | STB |
|---|---|---|---|---|---|
| 1. Trip Blank present / cooler: | ☐ | ☑ | ☐ | ☐ | ☐ |
| 2. Trip Blank listed on COC: | ☐ | ☑ | ☐ | | |
| 3. Samples preserved properly: | ☑ | ☐ | | | |
| 4. VOCs headspace free: | ☑ | ☐ | ☐ | | |

| Sample Integrity - Documentation | Y | N |
|---|---|---|
| 1. Sample labels present on bottles: | ☑ | ☐ |
| 2. Container labeling complete: | ☑ | ☐ |
| 3. Sample container label / COC agree: | ☑ | ☐ |

| Sample Integrity - Condition | Y | N |
|---|---|---|
| 1. Sample recvd within HT: | ☑ | ☐ |
| 2. All containers accounted for: | ☑ | ☐ |
| 3. Condition of sample: | Intact | |

| Sample Integrity - Instructions | Y | N | N/A |
|---|---|---|---|
| 1. Analysis requested is clear: | ☑ | ☐ | |
| 2. Bottles received for unspecified tests | ☐ | ☑ | |
| 3. Sufficient volume recvd for analysis: | ☑ | ☐ | |
| 4. Compositing instructions clear: | ☐ | ☐ | ☑ |
| 5. Filtering instructions clear: | ☐ | ☐ | ☑ |

Comments -Matrix not listed on chain. Matrix is Water.
-Vials for VOA's and containers for Metals are unpreserved. Notified PM continue with analysis.

Accutest Laboratories
V:713.271.4700
10165 Harwin Drive
F: 713.271.4770
Houston, TX 77036
www/accutest.com



**TC52591: Chain of Custody**
**Page 2 of 4**

## Problem Resolution

**Accutest Job Number:** TC52591

**CSR:** _____ **Response Date:** _____

**Response:**

# Sample Receipt Log

**Job #:** TC52591 **Date / Time Received:** 8/4/2014 1:15:00 PM **Initials:** RE

**Client:** WESTON SOLUTIONS

| Cooler # | Sample ID: | Vol | Bot # | Location | Pres | pH | Therm ID | Initial Temp | Therm CF | Corrected Temp |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | TC52591-1 | LAG | 1 | 4-II | N/P | Note #2 - Preservative check not applicable. | IR-5 | 4.8 | 0 | 4.8 |
| 1 | TC52591-1 | LAG | 2 | 4-II | N/P | Note #2 - Preservative check not applicable. | IR-5 | 4.8 | 0 | 4.8 |
| 1 | TC52591-1 | LAG | 3 | 4-II | N/P | Note #2 - Preservative check not applicable. | IR-5 | 4.8 | 0 | 4.8 |
| 1 | TC52591-1 | LAG | 4 | 4-II | N/P | Note #2 - Preservative check not applicable. | IR-5 | 4.8 | 0 | 4.8 |
| 1 | TC52591-1 | LAG | 5 | 4-II | N/P | Note #2 - Preservative check not applicable. | IR-5 | 4.8 | 0 | 4.8 |
| 1 | TC52591-1 | LAG | 6 | 4-II | N/P | Note #2 - Preservative check not applicable. | IR-5 | 4.8 | 0 | 4.8 |
| 1 | TC52591-1 | 1000ml | 7 | M2O | N/P | Note #2 - Preservative check not applicable. | IR-5 | 4.8 | 0 | 4.8 |
| 1 | TC52591-1 | 1000ml | 8 | M2O | N/P | Note #2 - Preservative check not applicable. | IR-5 | 4.8 | 0 | 4.8 |
| 1 | TC52591-1 | 1000ml | 9 | M2O | N/P | Note #2 - Preservative check not applicable. | IR-5 | 4.8 | 0 | 4.8 |
| 1 | TC52591-1 | 40ml | 10 | VR | N/P | Note #2 - Preservative check not applicable. | IR-5 | 4.8 | 0 | 4.8 |
| 1 | TC52591-1 | 40ml | 11 | VR | N/P | Note #2 - Preservative check not applicable. | IR-5 | 4.8 | 0 | 4.8 |
| 1 | TC52591-1 | 40ml | 12 | VR | N/P | Note #2 - Preservative check not applicable. | IR-5 | 4.8 | 0 | 4.8 |
| 1 | TC52591-1 | 40ml | 13 | VR | N/P | Note #2 - Preservative check not applicable. | IR-5 | 4.8 | 0 | 4.8 |
| 1 | TC52591-1 | 40ml | 14 | VR | N/P | Note #2 - Preservative check not applicable. | IR-5 | 4.8 | 0 | 4.8 |
| 1 | TC52591-1 | 40ml | 15 | VR | N/P | Note #2 - Preservative check not applicable. | IR-5 | 4.8 | 0 | 4.8 |
| 1 | TC52591-1 | 40ml | 16 | VR | N/P | Note #2 - Preservative check not applicable. | IR-5 | 4.8 | 0 | 4.8 |
| 1 | TC52591-1 | 40ml | 17 | VR | N/P | Note #2 - Preservative check not applicable. | IR-5 | 4.8 | 0 | 4.8 |

Gulf Coast ACCUTEST LABORATORIES



# GC/MS Volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

# Method Blank Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VE1555-MB | E0034364.D | 1 | 08/05/14 | SC | n/a | n/a | VE1555 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

TC52591-1

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 50 | 10 | ug/l | |
| 71-43-2 | Benzene | ND | 1.0 | 0.34 | ug/l | |
| 108-86-1 | Bromobenzene | ND | 1.0 | 0.29 | ug/l | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | 0.42 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.34 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.44 | ug/l | |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | 0.39 | ug/l | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | 0.45 | ug/l | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | 0.45 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.27 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.72 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.35 | ug/l | |
| 95-49-8 | o-Chlorotoluene | ND | 1.0 | 0.36 | ug/l | |
| 106-43-4 | p-Chlorotoluene | ND | 1.0 | 0.31 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 1.0 | 0.36 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.43 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.34 | ug/l | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | 0.45 | ug/l | |
| 563-58-6 | 1,1-Dichloropropene | ND | 1.0 | 0.62 | ug/l | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | ND | 2.0 | 1.6 | ug/l | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | 0.34 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.35 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.33 | ug/l | |
| 142-28-9 | 1,3-Dichloropropane | ND | 1.0 | 0.32 | ug/l | |
| 594-20-7 | 2,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.37 | ug/l | |
| 75-71-8 | Dichlorodifluoromethane | ND | 2.0 | 1.5 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | 0.40 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.29 | ug/l | |
| 541-73-1 | m-Dichlorobenzene | ND | 1.0 | 0.33 | ug/l | |
| 95-50-1 | o-Dichlorobenzene | ND | 1.0 | 0.28 | ug/l | |
| 106-46-7 | p-Dichlorobenzene | ND | 1.0 | 0.32 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.32 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.32 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 10 | 2.6 | ug/l | |

# Method Blank Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VE1555-MB | E0034364.D | 1 | 08/05/14 | SC | n/a | n/a | VE1555 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

TC52591-1

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 87-68-3 | Hexachlorobutadiene | ND | 1.0 | 0.49 | ug/l | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | 0.40 | ug/l | |
| 99-87-6 | p-Isopropyltoluene | ND | 1.0 | 0.36 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone | ND | 10 | 2.2 | ug/l | |
| 74-83-9 | Methyl bromide | ND | 1.0 | 0.51 | ug/l | |
| 74-87-3 | Methyl chloride | ND | 1.0 | 0.63 | ug/l | |
| 74-95-3 | Methylene bromide | ND | 1.0 | 0.45 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 5.0 | 1.6 | ug/l | |
| 78-93-3 | Methyl ethyl ketone | ND | 10 | 2.7 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.30 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 1.6 | ug/l | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | 0.35 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.29 | ug/l | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | 1.0 | 0.37 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.43 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.40 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.35 | ug/l | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 1.0 | 0.42 | ug/l | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 1.0 | 0.46 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 1.0 | 0.41 | ug/l | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 1.0 | 0.32 | ug/l | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 1.0 | 0.35 | ug/l | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | 0.46 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.33 | ug/l | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | 0.49 | ug/l | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | 0.75 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| 1330-20-7 | Xylene (total) | ND | 3.0 | 0.87 | ug/l | |
| | m,p-Xylene | ND | 2.0 | 0.59 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.28 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | 72-122% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 95% | 68-124% |

# Method Blank Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VE1555-MB | E0034364.D | 1 | 08/05/14 | SC | n/a | n/a | VE1555 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

TC52591-1

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 2037-26-5 | Toluene-D8 | 94% | 80-119% |
| 460-00-4 | 4-Bromofluorobenzene | 89% | 72-126% |

# Blank Spike Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VE1555-BS | E0034362.D | 1 | 08/05/14 | SC | n/a | n/a | VE1555 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

TC52591-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 125 | 106 | 85 | 46-129 |
| 71-43-2 | Benzene | 25 | 26.8 | 107 | 68-119 |
| 108-86-1 | Bromobenzene | 25 | 25.7 | 103 | 71-119 |
| 74-97-5 | Bromochloromethane | 25 | 24.1 | 96 | 71-118 |
| 75-27-4 | Bromodichloromethane | 25 | 25.0 | 100 | 72-118 |
| 75-25-2 | Bromoform | 25 | 24.9 | 100 | 54-123 |
| 104-51-8 | n-Butylbenzene | 25 | 28.4 | 114 | 66-123 |
| 135-98-8 | sec-Butylbenzene | 25 | 28.9 | 116 | 72-123 |
| 98-06-6 | tert-Butylbenzene | 25 | 27.0 | 108 | 70-124 |
| 108-90-7 | Chlorobenzene | 25 | 25.6 | 102 | 74-120 |
| 75-00-3 | Chloroethane | 25 | 24.8 | 99 | 61-132 |
| 67-66-3 | Chloroform | 25 | 25.0 | 100 | 73-122 |
| 95-49-8 | o-Chlorotoluene | 25 | 26.5 | 106 | 71-122 |
| 106-43-4 | p-Chlorotoluene | 25 | 26.0 | 104 | 73-120 |
| 75-15-0 | Carbon disulfide | 25 | 26.4 | 106 | 55-140 |
| 56-23-5 | Carbon tetrachloride | 25 | 29.5 | 118 | 68-133 |
| 75-34-3 | 1,1-Dichloroethane | 25 | 26.2 | 105 | 72-121 |
| 75-35-4 | 1,1-Dichloroethylene | 25 | 28.1 | 112 | 67-140 |
| 563-58-6 | 1,1-Dichloropropene | 25 | 28.4 | 114 | 73-130 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 25 | 24.8 | 99 | 47-133 |
| 106-93-4 | 1,2-Dibromoethane | 25 | 25.2 | 101 | 69-121 |
| 107-06-2 | 1,2-Dichloroethane | 25 | 25.4 | 102 | 68-121 |
| 78-87-5 | 1,2-Dichloropropane | 25 | 26.2 | 105 | 72-116 |
| 142-28-9 | 1,3-Dichloropropane | 25 | 25.4 | 102 | 70-118 |
| 594-20-7 | 2,2-Dichloropropane | 25 | 26.6 | 106 | 57-141 |
| 124-48-1 | Dibromochloromethane | 25 | 25.6 | 102 | 68-119 |
| 75-71-8 | Dichlorodifluoromethane | 25 | 17.9 | 72 | 29-182 |
| 156-59-2 | cis-1,2-Dichloroethylene | 25 | 25.2 | 101 | 72-117 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25 | 24.3 | 97 | 71-118 |
| 541-73-1 | m-Dichlorobenzene | 25 | 25.4 | 102 | 73-117 |
| 95-50-1 | o-Dichlorobenzene | 25 | 25.1 | 100 | 71-117 |
| 106-46-7 | p-Dichlorobenzene | 25 | 25.9 | 104 | 71-116 |
| 156-60-5 | trans-1,2-Dichloroethylene | 25 | 27.0 | 108 | 68-124 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25 | 26.5 | 106 | 72-127 |
| 100-41-4 | Ethylbenzene | 25 | 27.8 | 111 | 71-117 |
| 591-78-6 | 2-Hexanone | 125 | 119 | 95 | 49-124 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VE1555-BS | E0034362.D | 1 | 08/05/14 | SC | n/a | n/a | VE1555 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

TC52591-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 87-68-3 | Hexachlorobutadiene | 25 | 29.4 | 118 | 62-143 |
| 98-82-8 | Isopropylbenzene | 25 | 26.5 | 106 | 74-141 |
| 99-87-6 | p-Isopropyltoluene | 25 | 27.8 | 111 | 72-126 |
| 108-10-1 | 4-Methyl-2-pentanone | 125 | 115 | 92 | 54-122 |
| 74-83-9 | Methyl bromide | 25 | 19.9 | 80 | 53-138 |
| 74-87-3 | Methyl chloride | 25 | 19.6 | 78 | 50-145 |
| 74-95-3 | Methylene bromide | 25 | 24.9 | 100 | 71-117 |
| 75-09-2 | Methylene chloride | 25 | 24.0 | 96 | 60-125 |
| 78-93-3 | Methyl ethyl ketone | 125 | 119 | 95 | 51-129 |
| 1634-04-4 | Methyl Tert Butyl Ether | 25 | 22.9 | 92 | 65-119 |
| 91-20-3 | Naphthalene | 25 | 26.4 | 106 | 43-139 |
| 103-65-1 | n-Propylbenzene | 25 | 27.1 | 108 | 72-123 |
| 100-42-5 | Styrene | 25 | 27.8 | 111 | 74-119 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25 | 27.0 | 108 | 74-119 |
| 71-55-6 | 1,1,1-Trichloroethane | 25 | 27.5 | 110 | 72-129 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25 | 24.6 | 98 | 62-121 |
| 79-00-5 | 1,1,2-Trichloroethane | 25 | 25.7 | 103 | 70-119 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25 | 26.4 | 106 | 44-144 |
| 96-18-4 | 1,2,3-Trichloropropane | 25 | 24.7 | 99 | 61-124 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25 | 25.3 | 101 | 57-132 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 25 | 27.9 | 112 | 70-121 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25 | 27.6 | 110 | 66-119 |
| 127-18-4 | Tetrachloroethylene | 25 | 30.4 | 122 | 72-132 |
| 108-88-3 | Toluene | 25 | 27.8 | 111 | 73-119 |
| 79-01-6 | Trichloroethylene | 25 | 26.1 | 104 | 73-121 |
| 75-69-4 | Trichlorofluoromethane | 25 | 21.0 | 84 | 46-152 |
| 75-01-4 | Vinyl chloride | 25 | 20.1 | 80 | 54-126 |
| 1330-20-7 | Xylene (total) | 75 | 80.9 | 108 | 74-119 |
| | m,p-Xylene | 50 | 55.0 | 110 | 74-119 |
| 95-47-6 | o-Xylene | 25 | 25.9 | 104 | 73-121 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 91% | 72-122% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 90% | 68-124% |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| VE1555-BS | E0034362.D | 1 | 08/05/14 | SC | n/a | n/a | VE1555 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

TC52591-1

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 2037-26-5 | Toluene-D8 | 99% | 80-119% |
| 460-00-4 | 4-Bromofluorobenzene | 93% | 72-126% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| TC52361-17MS | E0034367.D | 1 | 08/05/14 | SC | n/a | n/a | VE1555 |
| TC52361-17MSD | E0034368.D | 1 | 08/05/14 | SC | n/a | n/a | VE1555 |
| TC52361-17 | E0034366.D | 1 | 08/05/14 | SC | n/a | n/a | VE1555 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

TC52591-1

| CAS No. | Compound | TC52361-17 ug/l | Q | Spike ug/l | MS ug/l | MS % | Spike ug/l | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 50 | U | 125 | 98.4 | 79 | 125 | 98.0 | 78 | 0 | 46-129/25 |
| 71-43-2 | Benzene | 1.0 | U | 25 | 24.7 | 99 | 25 | 20.3 | 81 | 20* | 68-119/12 |
| 108-86-1 | Bromobenzene | 1.0 | U | 25 | 23.5 | 94 | 25 | 20.2 | 81 | 15* | 71-119/12 |
| 74-97-5 | Bromochloromethane | 1.0 | U | 25 | 22.9 | 92 | 25 | 19.9 | 80 | 14* | 71-118/13 |
| 75-27-4 | Bromodichloromethane | 1.0 | U | 25 | 23.4 | 94 | 25 | 19.6 | 78 | 18* | 72-118/16 |
| 75-25-2 | Bromoform | 1.0 | U | 25 | 21.7 | 87 | 25 | 19.3 | 77 | 12 | 54-123/17 |
| 104-51-8 | n-Butylbenzene | 1.0 | U | 25 | 25.8 | 103 | 25 | 21.7 | 87 | 17* | 66-123/14 |
| 135-98-8 | sec-Butylbenzene | 1.0 | U | 25 | 25.6 | 102 | 25 | 21.4 | 86 | 18* | 72-123/13 |
| 98-06-6 | tert-Butylbenzene | 1.0 | U | 25 | 24.4 | 98 | 25 | 20.5 | 82 | 17* | 70-124/15 |
| 108-90-7 | Chlorobenzene | 1.0 | U | 25 | 23.5 | 94 | 25 | 19.5 | 78 | 19* | 74-120/12 |
| 75-00-3 | Chloroethane | 1.0 | U | 25 | 24.7 | 99 | 25 | 20.5 | 82 | 19* | 61-132/16 |
| 67-66-3 | Chloroform | 1.0 | U | 25 | 23.5 | 94 | 25 | 19.9 | 80 | 17* | 73-122/13 |
| 95-49-8 | o-Chlorotoluene | 1.0 | U | 25 | 24.0 | 96 | 25 | 20.3 | 81 | 17* | 71-122/12 |
| 106-43-4 | p-Chlorotoluene | 1.0 | U | 25 | 23.9 | 96 | 25 | 19.9 | 80 | 18* | 73-120/12 |
| 75-15-0 | Carbon disulfide | 1.0 | U | 25 | 23.4 | 94 | 25 | 19.2 | 77 | 20 | 55-140/24 |
| 56-23-5 | Carbon tetrachloride | 1.0 | U | 25 | 26.6 | 106 | 25 | 21.8 | 87 | 20 | 68-133/20 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 25 | 24.8 | 99 | 25 | 20.9 | 84 | 17* | 72-121/14 |
| 75-35-4 | 1,1-Dichloroethylene | 1.0 | U | 25 | 26.0 | 104 | 25 | 21.1 | 84 | 21* | 67-140/18 |
| 563-58-6 | 1,1-Dichloropropene | 1.0 | U | 25 | 26.9 | 108 | 25 | 21.8 | 87 | 21* | 73-130/15 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 2.0 | U | 25 | 22.6 | 90 | 25 | 22.3 | 89 | 1 | 47-133/23 |
| 106-93-4 | 1,2-Dibromoethane | 1.0 | U | 25 | 23.0 | 92 | 25 | 20.2 | 81 | 13 | 69-121/13 |
| 107-06-2 | 1,2-Dichloroethane | 1.0 | U | 25 | 23.4 | 94 | 25 | 20.5 | 82 | 13* | 68-121/12 |
| 78-87-5 | 1,2-Dichloropropane | 1.0 | U | 25 | 24.2 | 97 | 25 | 20.2 | 81 | 18* | 72-116/12 |
| 142-28-9 | 1,3-Dichloropropane | 1.0 | U | 25 | 23.5 | 94 | 25 | 20.1 | 80 | 16* | 70-118/12 |
| 594-20-7 | 2,2-Dichloropropane | 1.0 | U | 25 | 26.8 | 107 | 25 | 22.9 | 92 | 16 | 57-141/16 |
| 124-48-1 | Dibromochloromethane | 1.0 | U | 25 | 23.3 | 93 | 25 | 19.7 | 79 | 17* | 68-119/15 |
| 75-71-8 | Dichlorodifluoromethane | 2.0 | U | 25 | 16.9 | 68 | 25 | 14.2 | 57 | 17 | 29-182/23 |
| 156-59-2 | cis-1,2-Dichloroethylene | 20.2 | | 25 | 45.2 | 100 | 25 | 38.0 | 71* | 17* | 72-117/13 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1.0 | U | 25 | 21.6 | 86 | 25 | 18.4 | 74 | 16 | 71-118/18 |
| 541-73-1 | m-Dichlorobenzene | 1.0 | U | 25 | 23.1 | 92 | 25 | 19.9 | 80 | 15* | 73-117/12 |
| 95-50-1 | o-Dichlorobenzene | 1.0 | U | 25 | 23.0 | 92 | 25 | 19.6 | 78 | 16* | 71-117/11 |
| 106-46-7 | p-Dichlorobenzene | 1.0 | U | 25 | 23.8 | 95 | 25 | 20.3 | 81 | 16* | 71-116/11 |
| 156-60-5 | trans-1,2-Dichloroethylene | 1.0 | U | 25 | 25.4 | 102 | 25 | 21.1 | 84 | 18* | 68-124/15 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1.0 | U | 25 | 23.2 | 93 | 25 | 20.0 | 80 | 15 | 72-127/17 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 25 | 25.3 | 101 | 25 | 20.7 | 83 | 20* | 71-117/12 |
| 591-78-6 | 2-Hexanone | 10 | U | 125 | 108 | 86 | 125 | 104 | 83 | 4 | 49-124/21 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| TC52361-17MS | E0034367.D | 1 | 08/05/14 | SC | n/a | n/a | VE1555 |
| TC52361-17MSD | E0034368.D | 1 | 08/05/14 | SC | n/a | n/a | VE1555 |
| TC52361-17 | E0034366.D | 1 | 08/05/14 | SC | n/a | n/a | VE1555 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

TC52591-1

| CAS No. | Compound | TC52361-17 ug/l | Q | Spike ug/l | MS ug/l | MS % | Spike ug/l | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 87-68-3 | Hexachlorobutadiene | 1.0 U | | 25 | 26.2 | 105 | 25 | 22.8 | 91 | 14 | 62-143/18 |
| 98-82-8 | Isopropylbenzene | 1.0 U | | 25 | 24.1 | 96 | 25 | 19.9 | 80 | 19* | 74-141/13 |
| 99-87-6 | p-Isopropyltoluene | 1.0 U | | 25 | 25.2 | 101 | 25 | 21.0 | 84 | 18* | 72-126/13 |
| 108-10-1 | 4-Methyl-2-pentanone | 10 U | | 125 | 105 | 84 | 125 | 100 | 80 | 5 | 54-122/20 |
| 74-83-9 | Methyl bromide | 1.0 U | | 25 | 19.1 | 76 | 25 | 16.7 | 67 | 13 | 53-138/16 |
| 74-87-3 | Methyl chloride | 1.0 U | | 25 | 19.3 | 77 | 25 | 16.3 | 65 | 17 | 50-145/17 |
| 74-95-3 | Methylene bromide | 1.0 U | | 25 | 23.3 | 93 | 25 | 20.2 | 81 | 14* | 71-117/12 |
| 75-09-2 | Methylene chloride | 5.0 U | | 25 | 22.9 | 92 | 25 | 19.9 | 80 | 14 | 60-125/16 |
| 78-93-3 | Methyl ethyl ketone | 10 U | | 125 | 112 | 90 | 125 | 110 | 88 | 2 | 51-129/22 |
| 1634-04-4 | Methyl Tert Butyl Ether | 1.0 U | | 25 | 21.2 | 85 | 25 | 19.5 | 78 | 8 | 65-119/13 |
| 91-20-3 | Naphthalene | 5.0 U | | 25 | 22.6 | 90 | 25 | 21.5 | 86 | 5 | 43-139/28 |
| 103-65-1 | n-Propylbenzene | 1.0 U | | 25 | 24.5 | 98 | 25 | 20.5 | 82 | 18* | 72-123/13 |
| 100-42-5 | Styrene | 1.0 U | | 25 | 24.6 | 98 | 25 | 20.4 | 82 | 19 | 74-119/19 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1.0 U | | 25 | 24.6 | 98 | 25 | 20.9 | 84 | 16* | 74-119/14 |
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 U | | 25 | 25.8 | 103 | 25 | 21.6 | 86 | 18* | 72-129/14 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1.0 U | | 25 | 22.8 | 91 | 25 | 20.8 | 83 | 9 | 62-121/17 |
| 79-00-5 | 1,1,2-Trichloroethane | 1.0 U | | 25 | 23.7 | 95 | 25 | 20.7 | 83 | 14* | 70-119/13 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 1.0 U | | 25 | 22.5 | 90 | 25 | 20.8 | 83 | 8 | 44-144/27 |
| 96-18-4 | 1,2,3-Trichloropropane | 1.0 U | | 25 | 23.0 | 92 | 25 | 22.1 | 88 | 4 | 61-124/16 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1.0 U | | 25 | 22.0 | 88 | 25 | 19.8 | 79 | 11 | 57-132/18 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 1.0 U | | 25 | 24.9 | 100 | 25 | 21.4 | 86 | 15 | 70-121/15 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1.0 U | | 25 | 24.5 | 98 | 25 | 20.8 | 83 | 16* | 66-119/15 |
| 127-18-4 | Tetrachloroethylene | 1.0 U | | 25 | 28.2 | 113 | 25 | 22.6 | 90 | 22* | 72-132/14 |
| 108-88-3 | Toluene | 1.0 U | | 25 | 25.8 | 103 | 25 | 21.3 | 85 | 19* | 73-119/13 |
| 79-01-6 | Trichloroethylene | 34.8 | | 25 | 57.0 | 89 | 25 | 46.7 | 48* | 20* | 73-121/13 |
| 75-69-4 | Trichlorofluoromethane | 1.0 U | | 25 | 20.1 | 80 | 25 | 16.9 | 68 | 17 | 46-152/25 |
| 75-01-4 | Vinyl chloride | 1.0 U | | 25 | 20.0 | 80 | 25 | 16.7 | 67 | 18* | 54-126/17 |
| 1330-20-7 | Xylene (total) | 3.0 U | | 75 | 73.3 | 98 | 75 | 60.1 | 80 | 20* | 74-119/13 |
| | m,p-Xylene | 2.0 U | | 50 | 49.8 | 100 | 50 | 40.9 | 82 | 20* | 74-119/13 |
| 95-47-6 | o-Xylene | 1.0 U | | 25 | 23.5 | 94 | 25 | 19.2 | 77 | 20* | 73-121/13 |

| CAS No. | Surrogate Recoveries | MS | MSD | TC52361-17 | Limits |
|---|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 93% | 95% | 98% | 72-122% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 90% | 93% | 96% | 68-124% |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| TC52361-17MS | E0034367.D | 1 | 08/05/14 | SC | n/a | n/a | VE1555 |
| TC52361-17MSD | E0034368.D | 1 | 08/05/14 | SC | n/a | n/a | VE1555 |
| TC52361-17 | E0034366.D | 1 | 08/05/14 | SC | n/a | n/a | VE1555 |

**The QC reported here applies to the following samples:** **Method:** SW846 8260C

TC52591-1

| CAS No. | Surrogate Recoveries | MS | MSD | TC52361-17 | Limits |
|---|---|---|---|---|---|
| 2037-26-5 | Toluene-D8 | 98% | 100% | 93% | 80-119% |
| 460-00-4 | 4-Bromofluorobenzene | 91% | 95% | 88% | 72-126% |

* = Outside of Control Limits.

# Instrument Performance Check (BFB)



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** VE1541-BFB
**Lab File ID:** E0033981.D
**Instrument ID:** GCMSE
**Injection Date:** 07/28/14
**Injection Time:** 08:38

| m/e | Ion Abundance Criteria | Raw Abundance | % Relative Abundance | | Pass/Fail |
|---|---|---|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 3206 | 18.3 | | Pass |
| 75 | 30.0 - 60.0% of mass 95 | 8189 | 46.7 | | Pass |
| 95 | Base peak, 100% relative abundance | 17530 | 100.0 | | Pass |
| 96 | 5.0 - 9.0% of mass 95 | 1149 | 6.55 | | Pass |
| 173 | Less than 2.0% of mass 174 | 204 | 1.16 | (1.26) [a] | Pass |
| 174 | 50.0 - 100.0% of mass 95 | 16130 | 92.0 | | Pass |
| 175 | 5.0 - 9.0% of mass 174 | 1267 | 7.23 | (7.85) [a] | Pass |
| 176 | 95.0 - 101.0% of mass 174 | 15838 | 90.3 | (98.2) [a] | Pass |
| 177 | 5.0 - 9.0% of mass 176 | 953 | 5.44 | (6.02) [b] | Pass |

(a) Value is % of mass 174
(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID |
|---|---|---|---|---|---|
| VE1541-IC1541 | E0033982.D | 07/28/14 | 09:11 | 00:33 | Initial cal 1 |
| VE1541-IC1541 | E0033983.D | 07/28/14 | 09:35 | 00:57 | Initial cal 2 |
| VE1541-IC1541 | E0033984.D | 07/28/14 | 09:59 | 01:21 | Initial cal 5 |
| VE1541-IC1541 | E0033985.D | 07/28/14 | 10:25 | 01:47 | Initial cal 20 |
| VE1541-ICC1541 | E0033986.D | 07/28/14 | 10:49 | 02:11 | Initial cal 40 |
| VE1541-IC1541 | E0033987.D | 07/28/14 | 11:13 | 02:35 | Initial cal 70 |
| VE1541-IC1541 | E0033988.D | 07/28/14 | 11:37 | 02:59 | Initial cal 100 |
| VE1541-IC1541 | E0033989.D | 07/28/14 | 12:01 | 03:23 | Initial cal 200 |
| VE1541-ICV1541 | E0033992.D | 07/28/14 | 13:13 | 04:35 | Initial cal verification 40 |

# Instrument Performance Check (BFB)



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** VE1555-BFB
**Lab File ID:** E0034360.D
**Instrument ID:** GCMSE
**Injection Date:** 08/05/14
**Injection Time:** 09:11

| m/e | Ion Abundance Criteria | Raw Abundance | % Relative Abundance | | Pass/Fail |
|---|---|---|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 825 | 20.0 | | Pass |
| 75 | 30.0 - 60.0% of mass 95 | 1887 | 45.7 | | Pass |
| 95 | Base peak, 100% relative abundance | 4128 | 100.0 | | Pass |
| 96 | 5.0 - 9.0% of mass 95 | 286 | 6.93 | | Pass |
| 173 | Less than 2.0% of mass 174 | 24 | 0.58 | (0.71) [a] | Pass |
| 174 | 50.0 - 100.0% of mass 95 | 3399 | 82.3 | | Pass |
| 175 | 5.0 - 9.0% of mass 174 | 246 | 5.96 | (7.24) [a] | Pass |
| 176 | 95.0 - 101.0% of mass 174 | 3233 | 78.3 | (95.1) [a] | Pass |
| 177 | 5.0 - 9.0% of mass 176 | 208 | 5.04 | (6.43) [b] | Pass |

(a) Value is % of mass 174
(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID |
|---|---|---|---|---|---|
| VE1555-CC1541 | E0034361.D | 08/05/14 | 09:37 | 00:26 | Continuing cal 20 |
| VE1555-BS | E0034362.D | 08/05/14 | 10:03 | 00:52 | Blank Spike |
| VE1555-MB | E0034364.D | 08/05/14 | 10:51 | 01:40 | Method Blank |
| TC52591-1 | E0034365.D | 08/05/14 | 11:14 | 02:03 | CES-20140803 |
| TC52361-17 | E0034366.D | 08/05/14 | 11:39 | 02:28 | (used for QC only; not part of job TC52591) |
| TC52361-17MS | E0034367.D | 08/05/14 | 12:03 | 02:52 | Matrix Spike |
| TC52361-17MSD | E0034368.D | 08/05/14 | 12:28 | 03:17 | Matrix Spike Duplicate |
| ZZZZZZ | E0034369.D | 08/05/14 | 12:52 | 03:41 | (unrelated sample) |
| ZZZZZZ | E0034370.D | 08/05/14 | 13:16 | 04:05 | (unrelated sample) |
| ZZZZZZ | E0034371.D | 08/05/14 | 13:40 | 04:29 | (unrelated sample) |
| ZZZZZZ | E0034372.D | 08/05/14 | 14:05 | 04:54 | (unrelated sample) |
| ZZZZZZ | E0034373.D | 08/05/14 | 14:29 | 05:18 | (unrelated sample) |
| ZZZZZZ | E0034374.D | 08/05/14 | 14:53 | 05:42 | (unrelated sample) |
| ZZZZZZ | E0034375.D | 08/05/14 | 15:17 | 06:06 | (unrelated sample) |
| ZZZZZZ | E0034376.D | 08/05/14 | 15:41 | 06:30 | (unrelated sample) |
| ZZZZZZ | E0034377.D | 08/05/14 | 16:05 | 06:54 | (unrelated sample) |
| ZZZZZZ | E0034378.D | 08/05/14 | 16:29 | 07:18 | (unrelated sample) |
| ZZZZZZ | E0034379.D | 08/05/14 | 16:53 | 07:42 | (unrelated sample) |
| ZZZZZZ | E0034380.D | 08/05/14 | 17:17 | 08:06 | (unrelated sample) |
| ZZZZZZ | E0034381.D | 08/05/14 | 17:41 | 08:30 | (unrelated sample) |
| ZZZZZZ | E0034382.D | 08/05/14 | 18:06 | 08:55 | (unrelated sample) |
| ZZZZZZ | E0034383.D | 08/05/14 | 18:30 | 09:19 | (unrelated sample) |
| ZZZZZZ | E0034384.D | 08/05/14 | 18:54 | 09:43 | (unrelated sample) |
| ZZZZZZ | E0034385.D | 08/05/14 | 19:18 | 10:07 | (unrelated sample) |

# Instrument Performance Check (BFB)



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** VE1555-BFB
**Lab File ID:** E0034360.D
**Instrument ID:** GCMSE
**Injection Date:** 08/05/14
**Injection Time:** 09:11

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID |
|---|---|---|---|---|---|
| ZZZZZZ | E0034386.D | 08/05/14 | 19:42 | 10:31 | (unrelated sample) |
| ZZZZZZ | E0034387.D | 08/05/14 | 20:06 | 10:55 | (unrelated sample) |

# Volatile Internal Standard Area Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | |
|---|---|---|---|
| **Check Std:** | VE1555-CC1541 | **Injection Date:** | 08/05/14 |
| **Lab File ID:** | E0034361.D | **Injection Time:** | 09:37 |
| **Instrument ID:** | GCMSE | **Method:** | SW846 8260C |

| | IS 1 AREA | RT | IS 2 AREA | RT | IS 3 AREA | RT | IS 4 AREA | RT |
|---|---|---|---|---|---|---|---|---|
| Check Std | 82948 | 3.51 | 265477 | 4.21 | 242200 | 7.48 | 144450 | 9.84 |
| Upper Limit [a] | 165896 | 4.01 | 530954 | 4.71 | 484400 | 7.98 | 288900 | 10.34 |
| Lower Limit [b] | 41474 | 3.01 | 132739 | 3.71 | 121100 | 6.98 | 72225 | 9.34 |

| Lab Sample ID | IS 1 AREA | RT | IS 2 AREA | RT | IS 3 AREA | RT | IS 4 AREA | RT |
|---|---|---|---|---|---|---|---|---|
| VE1555-BS | 86330 | 3.51 | 271481 | 4.21 | 246265 | 7.48 | 146218 | 9.84 |
| VE1555-MB | 75926 | 3.51 | 252312 | 4.21 | 232848 | 7.48 | 128486 | 9.84 |
| TC52591-1 [c] | 78414 | 3.51 | 249777 | 4.21 | 228402 | 7.48 | 125750 | 9.84 |
| TC52361-17 | 75542 | 3.51 | 245296 | 4.22 | 226838 | 7.48 | 123853 | 9.83 |
| TC52361-17MS | 84263 | 3.51 | 268451 | 4.21 | 244794 | 7.48 | 146527 | 9.84 |
| TC52361-17MSD | 83133 | 3.51 | 268245 | 4.21 | 247146 | 7.48 | 143930 | 9.84 |
| ZZZZZZ | 78934 | 3.51 | 258476 | 4.22 | 242698 | 7.48 | 140509 | 9.84 |
| ZZZZZZ | 76972 | 3.51 | 254849 | 4.21 | 234862 | 7.48 | 127534 | 9.84 |
| ZZZZZZ | 76235 | 3.51 | 251890 | 4.21 | 232212 | 7.48 | 126848 | 9.84 |
| ZZZZZZ | 76216 | 3.51 | 249286 | 4.21 | 228862 | 7.48 | 125113 | 9.84 |
| ZZZZZZ | 75219 | 3.51 | 248079 | 4.22 | 227902 | 7.48 | 126026 | 9.84 |
| ZZZZZZ | 73911 | 3.51 | 245830 | 4.21 | 225508 | 7.48 | 125538 | 9.84 |
| ZZZZZZ | 73260 | 3.51 | 244478 | 4.21 | 224529 | 7.48 | 123928 | 9.84 |
| ZZZZZZ | 73488 | 3.51 | 241019 | 4.21 | 221770 | 7.48 | 123016 | 9.84 |
| ZZZZZZ | 72620 | 3.51 | 241072 | 4.21 | 221209 | 7.48 | 122342 | 9.84 |
| ZZZZZZ | 71685 | 3.51 | 239954 | 4.22 | 222229 | 7.48 | 120862 | 9.84 |
| ZZZZZZ | 72691 | 3.52 | 241365 | 4.22 | 222744 | 7.48 | 120241 | 9.84 |
| ZZZZZZ | 71740 | 3.51 | 239049 | 4.21 | 221024 | 7.48 | 119958 | 9.84 |
| ZZZZZZ | 72182 | 3.51 | 238675 | 4.22 | 219767 | 7.48 | 117717 | 9.84 |
| ZZZZZZ | 72047 | 3.51 | 239414 | 4.21 | 222224 | 7.48 | 121924 | 9.84 |
| ZZZZZZ | 71507 | 3.51 | 237396 | 4.22 | 218434 | 7.48 | 119109 | 9.84 |
| ZZZZZZ | 72388 | 3.51 | 235530 | 4.22 | 219892 | 7.48 | 118549 | 9.84 |
| ZZZZZZ | 82228 | 3.51 | 258544 | 4.22 | 225954 | 7.48 | 121312 | 9.84 |
| ZZZZZZ | 70174 | 3.51 | 236602 | 4.22 | 218462 | 7.48 | 120282 | 9.84 |
| ZZZZZZ | 77663 | 3.50 | 249908 | 4.21 | 231605 | 7.48 | 153485 | 9.84 |

**IS 1** = Pentafluorobenzene
**IS 2** = 1,4-Difluorobenzene
**IS 3** = Chlorobenzene-D5
**IS 4** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Dilution required due to matrix interference.

# Volatile Surrogate Recovery Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Method:** SW846 8260C **Matrix:** AQ

**Samples and QC shown here apply to the above method**

| Lab Sample ID | Lab File ID | S1 | S2 | S3 | S4 |
|---|---|---|---|---|---|
| TC52591-1 | E0034365.D | 97 | 95 | 96 | 90 |
| TC52361-17MS | E0034367.D | 93 | 90 | 98 | 91 |
| TC52361-17MSD | E0034368.D | 95 | 93 | 100 | 95 |
| VE1555-BS | E0034362.D | 91 | 90 | 99 | 93 |
| VE1555-MB | E0034364.D | 100 | 95 | 94 | 89 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| **S1** = Dibromofluoromethane | 72-122% |
| **S2** = 1,2-Dichloroethane-D4 | 68-124% |
| **S3** = Toluene-D8 | 80-119% |
| **S4** = 4-Bromofluorobenzene | 72-126% |

# Initial Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** VE1541-ICC1541
**Lab FileID:** E0033986.D

Response Factor Report MS E

Method : C:\msdchem\1\METHODS\ve1541c.m (RTE Integrator)
Title : SW846 8260B and EPA624
Last Update : Thu Jul 31 07:27:17 2014
Response via : Initial Calibration

Calibration Files
2 =E0033983.D 5 =E0033984.D 40 =E0033986.D 20 =E0033985.D
1 =E0033982.D 100 =E0033988.D 200 =E0033989.D 70 =E0033987.D

| Compound | 2 | 5 | 40 | 20 | 1 | 100 | 200 | 70 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) I Pentafluorobenzene | ----------ISTD---------- | | | | | | | | | |
| 2) Dichlorodifl | 1.141 | 1.157 | 1.120 | 1.197 | 1.295 | 0.866 | 0.954 | 1.183 | 1.114 | 12.42 |
| 3) Chloromethan | 1.467 | 1.532 | 1.474 | 1.526 | 1.800 | 1.361 | 1.282 | 1.429 | 1.484 | 10.29 |
| 4) Vinyl Chlori | 1.342 | 1.412 | 1.388 | 1.396 | 1.479 | 1.320 | 1.255 | 1.360 | 1.369 | 4.87 |
| 5) 1,3-Butadien | 0.788 | 0.811 | 0.797 | 0.873 | 0.709 | 0.731 | 0.722 | 0.804 | 0.779 | 7.08 |
| 6) Ethylene Oxi | 0.544 | 0.607 | 0.560 | 0.550 | 0.549 | 0.640 | 0.537 | 0.617 | 0.575 | 6.86 |
| 7) Bromomethane | 1.093 | 1.126 | 1.190 | 1.135 | 1.251 | 1.304 | 1.215 | 1.250 | 1.195 | 6.10 |
| 8) Chloroethane | 0.727 | 0.710 | 0.784 | 0.757 | 0.801 | 0.868 | 0.793 | 0.838 | 0.785 | 6.78 |
| 9) Vinyl bromid | 0.792 | 0.843 | 0.897 | 0.870 | 0.889 | 0.941 | 0.979 | 0.913 | 0.891 | 6.50 |
| 10) Trichloroflu | 1.719 | 1.713 | 1.755 | 1.761 | 1.797 | 1.665 | 1.884 | 1.874 | 1.771 | 4.35 |
| 11) Ethyl Alcoho | 0.100 | 0.109 | 0.092 | 0.089 | 0.104 | 0.091 | 0.093 | 0.090 | 0.096 | 7.51 |
| 12) Ethyl Ether | 0.931 | 1.021 | 0.922 | 0.962 | 0.964 | 0.948 | 0.976 | 0.925 | 0.956 | 3.44 |
| 13) Acrolein | 0.279 | 0.316 | 0.272 | 0.279 | 0.313 | 0.279 | 0.280 | 0.273 | 0.286 | 6.21 |
| 14) 1,1-Dichloro | 1.347 | 1.465 | 1.479 | 1.550 | 1.393 | 1.492 | 1.495 | 1.494 | 1.465 | 4.39 |
| 15) Freon 113 | 0.814 | 0.930 | 0.949 | 1.047 | 0.877 | 0.766 | 0.893 | 0.980 | 0.907 | 9.94 |
| 16) Acetone | 0.796 | 0.823 | 0.631 | 0.660 | | 0.617 | 0.604 | 0.615 | 0.678 | 13.54 |
| 17) Iodomethane | 1.911 | 2.019 | 1.881 | 1.930 | 1.979 | 1.903 | 1.855 | 1.860 | 1.917 | 2.99 |
| 18) Isopropyl Al | 0.202 | 0.215 | 0.152 | 0.162 | | 0.152 | 0.131 | 0.149 | 0.166 | 18.45 |
| 19) Methyl Aceta | 1.832 | 2.148 | 1.750 | 1.894 | 2.016 | 1.655 | 1.657 | 1.642 | 1.824 | 10.19 |
| 20) Carbon Disul | 3.019 | 3.204 | 3.094 | 3.223 | 3.450 | 3.166 | 3.109 | 3.105 | 3.171 | 4.11 |
| 21) Methylene Ch | 1.497 | 1.593 | 1.280 | 1.438 | 1.709 | 1.259 | 1.229 | 1.246 | 1.406 | 12.91 |
| 22) Tert Butyl A | 0.262 | 0.305 | 0.264 | 0.272 | 0.289 | 0.282 | 0.277 | 0.266 | 0.277 | 5.22 |
| 23) Allyl Chlori | 0.564 | 0.667 | 0.591 | 0.641 | 0.568 | 0.592 | 0.589 | 0.570 | 0.598 | 6.19 |
| 24) Acetonitrile | 0.632 | 0.728 | 0.596 | 0.634 | 0.743 | 0.569 | 0.549 | 0.564 | 0.627 | 11.78 |
| 25) trans-1,2-Di | 1.262 | 1.384 | 1.344 | 1.388 | 1.332 | 1.353 | 1.305 | 1.325 | 1.337 | 3.09 |
| 26) Acrylonitril | 0.679 | 0.799 | 0.694 | 0.722 | 0.749 | 0.688 | 0.674 | 0.687 | 0.711 | 6.08 |
| 27) Methyl Tert | 2.665 | 3.022 | 2.754 | 2.814 | 2.852 | 2.844 | 2.762 | 2.786 | 2.812 | 3.67 |
| 28) Hexane | 0.872 | 1.056 | 1.071 | 1.232 | 0.936 | 0.818 | 0.992 | 1.142 | 1.015 | 13.64 |
| 29) 1,1-Dichloro | 1.728 | 1.866 | 1.710 | 1.768 | 1.798 | 1.698 | 1.636 | 1.686 | 1.736 | 4.16 |
| 30) Vinyl Acetat | 1.611 | 1.836 | 1.701 | 1.720 | 1.647 | 1.752 | 1.736 | 1.718 | 1.715 | 3.95 |
| 31) Di-isopropyl | 2.790 | 3.127 | 3.019 | 3.078 | 2.926 | 2.994 | 2.894 | 2.948 | 2.972 | 3.59 |
| 32) Chloroprene | 1.014 | 1.252 | 1.191 | 1.260 | 1.045 | 1.236 | 1.191 | 1.218 | 1.176 | 8.01 |
| 33) Ethyl tert-b | 2.493 | 2.864 | 2.678 | 2.711 | 2.616 | 2.765 | 2.729 | 2.677 | 2.692 | 4.03 |
| 34) 2,2-Dichloro | 1.105 | 1.299 | 1.248 | 1.297 | 1.234 | 1.273 | 1.226 | 1.250 | 1.242 | 4.96 |
| 35) cis-1,2-Dich | 1.056 | 1.176 | 1.109 | 1.145 | 1.171 | 1.108 | 1.070 | 1.101 | 1.117 | 3.94 |
| 36) Ethyl Acetat | 1.627 | 2.067 | 1.786 | 1.822 | 1.957 | 1.761 | 1.728 | 1.803 | 1.819 | 7.51 |
| 37) 2-Butanone | 0.793 | 0.971 | 0.875 | 0.893 | 0.885 | 0.877 | 0.845 | 0.870 | 0.876 | 5.68 |
| 38) Propionitril | 0.262 | 0.354 | 0.306 | 0.318 | 0.290 | 0.304 | 0.294 | 0.301 | 0.304 | 8.55 |
| 39) Methacryloni | 0.970 | 1.193 | 1.053 | 1.069 | 1.068 | 1.054 | 1.028 | 1.055 | 1.061 | 5.88 |
| 40) Bromochlorom | 0.626 | 0.685 | 0.625 | 0.646 | 0.594 | 0.634 | 0.610 | 0.623 | 0.630 | 4.30 |
| 41) Chloroform | 1.899 | 1.963 | 1.827 | 1.886 | 2.078 | 1.808 | 1.717 | 1.781 | 1.870 | 6.07 |
| 42) Tetrahydrofu | 0.710 | 0.929 | 0.760 | 0.835 | 0.711 | 0.779 | 0.778 | 0.773 | 0.784 | 9.05 |
| 43) 1,1,1-Trichl | 1.353 | 1.436 | 1.392 | 1.449 | 1.224 | 1.397 | 1.347 | 1.378 | 1.372 | 5.07 |
| 44) Dibromofluor | 1.134 | 1.149 | 1.095 | 1.110 | 1.570 | 1.096 | 1.056 | 1.105 | 1.164 | 14.27 |
| 45) Cyclohexane | 1.980 | 1.640 | 1.397 | 1.579 | | 1.199 | 1.292 | 1.458 | 1.507 | 17.18 |
| 46) 1,1-Dichloro | 1.175 | 1.313 | 1.290 | 1.348 | 1.321 | 1.283 | 1.236 | 1.287 | 1.282 | 4.23 |

# Initial Calibration Summary

**Job Number:** TC52591 **Sample:** VE1541-ICC1541
**Account:** RFWTXHO Weston Solutions **Lab FileID:** E0033986.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47) | I 1,4-Difluorobenzene | ----------ISTD---------- | | | | | | | | | |
| 48) | Carbon Tetra | 0.346 | 0.366 | 0.394 | 0.398 | 0.416 | 0.395 | 0.396 | 0.395 | 0.388 | 5.58 |
| 49) | 1,2-Dichloro | 0.397 | 0.390 | 0.371 | 0.371 | 0.541 | 0.362 | 0.358 | 0.361 | 0.394 | 15.50 |
| 50) | Benzene | 1.196 | 1.249 | 1.220 | 1.246 | 1.235 | 1.217 | 1.200 | 1.208 | 1.221 | 1.64 |
| 51) | Isobutyl Alc | 0.024 | 0.028 | 0.030 | 0.027 | | 0.031 | 0.033 | 0.031 | 0.029 | 10.64 |
| 52) | 1,2-Dichloro | 0.446 | 0.473 | 0.441 | 0.451 | 0.447 | 0.438 | 0.430 | 0.432 | 0.445 | 3.03 |
| 53) | 2,2,4-Trimet | 0.747 | 0.925 | 0.982 | 1.104 | 0.810 | 0.738 | 0.918 | 1.050 | 0.909 | 14.93 |
| 54) | tert-amyl me | 0.723 | 0.849 | 0.852 | 0.854 | 0.768 | 0.879 | 0.894 | 0.852 | 0.834 | 6.95 |
| 55) | Crotonaldehy | 0.050 | 0.063 | 0.064 | 0.067 | 0.039 | 0.068 | 0.070 | 0.067 | 0.061 | 17.47 |
| 56) | n-Butyl Alco | 0.012 | 0.016 | 0.018 | 0.017 | | 0.020 | 0.020 | 0.019 | 0.017 | 17.02 |
| 57) | Trichloroeth | 0.309 | 0.335 | 0.329 | 0.337 | 0.336 | 0.334 | 0.330 | 0.324 | 0.329 | 2.78 |
| 58) | Methylcycloh | 0.328 | 0.391 | 0.445 | 0.495 | 0.338 | 0.369 | 0.443 | 0.473 | 0.410 | 15.29 |
| 59) | Methyl Metha | 0.320 | 0.378 | 0.372 | 0.351 | 0.340 | 0.384 | 0.388 | 0.371 | 0.363 | 6.57 |
| 60) | 1,2-Dichloro | 0.312 | 0.351 | 0.331 | 0.339 | 0.316 | 0.333 | 0.331 | 0.328 | 0.330 | 3.68 |
| 61) | Dibromometha | 0.235 | 0.270 | 0.246 | 0.261 | 0.248 | 0.250 | 0.251 | 0.245 | 0.251 | 4.23 |
| 62) | 1,4-Dioxane | 0.004 | 0.006 | 0.007 | 0.007 | | 0.008 | 0.008 | 0.007 | 0.007 | 18.83 |
| 63) | Bromodichlor | 0.425 | 0.461 | 0.440 | 0.451 | 0.450 | 0.449 | 0.453 | 0.437 | 0.446 | 2.53 |
| 64) | 2-Nitropropa | 0.133 | 0.159 | 0.153 | 0.153 | 0.145 | 0.158 | 0.161 | 0.154 | 0.152 | 6.00 |
| 65) | 2-Chloroethy | 0.237 | 0.300 | 0.304 | 0.305 | 0.237 | 0.314 | 0.322 | 0.307 | 0.291 | 11.61 |
| 66) | 1-Bromo-2-Ch | 0.524 | 0.581 | 0.531 | 0.544 | 0.529 | 0.543 | 0.545 | 0.529 | 0.541 | 3.35 |
| 67) | Epichlorohyd | 0.108 | 0.132 | 0.131 | 0.132 | 0.108 | 0.136 | 0.138 | 0.133 | 0.127 | 9.52 |
| 68) | 4-Methyl-2-p | 0.484 | 0.622 | 0.588 | 0.593 | 0.505 | 0.595 | 0.592 | 0.587 | 0.571 | 8.56 |
| 69) | cis-1,3-Dich | 0.484 | 0.542 | 0.551 | 0.551 | 0.466 | 0.576 | 0.582 | 0.559 | 0.539 | 7.76 |
| 70) | I Chlorobenzene-d5 | ----------ISTD---------- | | | | | | | | | |
| 71) | Toluene-d8 | 1.165 | 1.199 | 1.259 | 1.235 | 1.532 | 1.267 | 1.238 | 1.268 | 1.270 | 8.80 |
| 72) | Toluene | 1.275 | 1.407 | 1.425 | 1.439 | 1.269 | 1.440 | 1.398 | 1.413 | 1.383 | 5.08 |
| 73) | Ethyl Methac | 0.387 | 0.482 | 0.553 | 0.529 | 0.379 | 0.591 | 0.603 | 0.577 | 0.512 | 17.29 |
| 74) | trans-1,3-Di | 0.421 | 0.482 | 0.509 | 0.494 | 0.418 | 0.533 | 0.535 | 0.517 | 0.489 | 9.45 |
| 75) | 1,1,2-Trichl | 0.298 | 0.354 | 0.321 | 0.329 | 0.286 | 0.323 | 0.320 | 0.318 | 0.318 | 6.35 |
| 76) | Tetrachloroe | 0.364 | 0.394 | 0.395 | 0.405 | 0.354 | 0.393 | 0.389 | 0.390 | 0.385 | 4.48 |
| 77) | 2-hexanone | 0.381 | 0.500 | 0.504 | 0.505 | 0.386 | 0.507 | 0.501 | 0.506 | 0.474 | 11.76 |
| 78) | 1,3-Dichloro | 0.559 | 0.636 | 0.599 | 0.609 | 0.562 | 0.596 | 0.587 | 0.592 | 0.592 | 4.17 |
| 79) | Dibromochlor | 0.367 | 0.416 | 0.417 | 0.416 | 0.402 | 0.434 | 0.435 | 0.424 | 0.414 | 5.28 |
| 80) | n-Butyl Acet | 0.651 | 0.798 | 0.855 | 0.826 | 0.648 | 0.866 | 0.857 | 0.859 | 0.795 | 11.63 |
| 81) | 1,2-Dibromoe | 0.404 | 0.443 | 0.420 | 0.429 | 0.416 | 0.429 | 0.426 | 0.426 | 0.424 | 2.67 |
| 82) | 1-Chlorohexa | 0.359 | 0.413 | 0.479 | 0.479 | 0.366 | 0.481 | 0.481 | 0.483 | 0.443 | 12.35 |
| 83) | Chlorobenzen | 1.003 | 1.050 | 1.027 | 1.045 | 1.055 | 1.031 | 1.021 | 1.013 | 1.031 | 1.78 |
| 84) | 1,1,1,2-Tetr | 0.312 | 0.362 | 0.359 | 0.357 | 0.338 | 0.367 | 0.364 | 0.359 | 0.352 | 5.31 |
| 85) | Ethylbenzene | 1.328 | 1.479 | 1.622 | 1.617 | 1.364 | 1.626 | 1.589 | 1.606 | 1.529 | 8.04 |
| 86) | m,p-Xylene | 0.993 | 1.149 | 1.258 | 1.262 | 1.037 | 1.292 | 1.280 | 1.273 | 1.193 | 9.96 |
| 87) | o-Xylene | 0.988 | 1.167 | 1.326 | 1.288 | 1.057 | 1.348 | 1.344 | 1.329 | 1.231 | 11.58 |
| 88) | Styrene | 0.774 | 0.938 | 1.069 | 1.057 | 0.788 | 1.099 | 1.097 | 1.071 | 0.987 | 13.86 |
| 89) | Bromoform | 0.290 | 0.350 | 0.346 | 0.341 | 0.329 | 0.366 | 0.384 | 0.352 | 0.345 | 7.97 |
| 90) | I 1,4-Dichlorobenzene-d | ----------ISTD---------- | | | | | | | | | |
| 91) | Isopropylben | 1.968 | 2.364 | 2.743 | 2.744 | 2.140 | 2.841 | 2.848 | 2.799 | 2.556 | 13.65 |
| 92) | Cyclohexanon | 0.026 | 0.041 | 0.043 | 0.043 | | 0.047 | 0.046 | 0.045 | 0.042 | 16.92 |
| 93) | 4-Bromofluor | 0.758 | 0.790 | 0.861 | 0.849 | 1.132 | 0.876 | 0.889 | 0.872 | 0.878 | 12.77 |
| 94) | Bromobenzene | 0.673 | 0.819 | 0.788 | 0.796 | 0.704 | 0.804 | 0.802 | 0.779 | 0.771 | 6.82 |
| 95) | 1,1,2,2-Tetr | 1.200 | 1.354 | 1.207 | 1.229 | 1.306 | 1.210 | 1.206 | 1.203 | 1.239 | 4.67 |
| 96) | Trans-1,4-Di | 0.260 | 0.348 | 0.354 | 0.353 | 0.305 | 0.360 | 0.360 | 0.354 | 0.337 | 10.63 |
| 97) | 1,2,3-Trichl | 0.311 | 0.366 | 0.327 | 0.334 | 0.284 | 0.329 | 0.329 | 0.323 | 0.325 | 6.97 |
| 98) | n-Propylbenz | 2.656 | 3.147 | 3.564 | 3.596 | 2.697 | 3.594 | 3.491 | 3.570 | 3.289 | 12.34 |
| 99) | 2-Chlorotolu | 1.848 | 2.006 | 2.079 | 2.114 | 1.778 | 2.046 | 2.007 | 1.978 | 1.982 | 5.78 |
| 100) | 4-Chlorotolu | 1.941 | 2.243 | 2.333 | 2.339 | 1.933 | 2.378 | 2.350 | 2.325 | 2.230 | 8.29 |
| 101) | 1,3,5-Trimet | 1.671 | 2.155 | 2.385 | 2.406 | 1.694 | 2.403 | 2.398 | 2.364 | 2.185 | 14.68 |
| 102) | alpha-Methyl | 0.914 | 1.115 | 1.354 | 1.347 | 0.953 | 1.415 | 1.424 | 1.373 | 1.237 | 17.02 |
| 103) | Pentachloroe | 0.449 | 0.484 | 0.496 | 0.485 | 0.458 | 0.516 | 0.530 | 0.501 | 0.490 | 5.57 |

# Initial Calibration Summary

**Job Number:** TC52591 **Sample:** VE1541-ICC1541
**Account:** RFWTXHO Weston Solutions **Lab FileID:** E0033986.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

```
104) sec-Butylben 2.226 2.776 3.184 3.220 2.261 3.181 3.173 3.175 2.900  14.81
105) 1,3-Dichloro 1.414 1.612 1.554 1.599 1.542 1.551 1.531 1.545 1.543   3.87
106) 4-Isopropylt 2.144 2.468 2.672 2.747 2.258 2.731 2.801 2.668 2.561   9.56
107) 1,4-Dichloro 1.540 1.663 1.592 1.621 1.608 1.587 1.623 1.573 1.601   2.30
108) tert-Butylbe 0.996 1.202 1.343 1.362 0.985 1.372 1.391 1.336 1.248  13.55
109) Dicyclopenta 3.225 3.355 3.340 3.422 2.723 3.385 3.437 3.344 3.279   7.13
110) Benzyl Chlor 3.043 3.684 4.201 4.092 3.345 4.394 4.465 4.320 3.943  13.36
111) p-Diethylben 1.153 1.520 1.700 1.707 1.148 1.703 1.718 1.684 1.542  16.19
112) n-Butylbenze 2.307 2.954 3.142 3.211 2.404 3.085 3.061 3.069 2.904  11.95
113) 1,2-Dichloro 1.431 1.587 1.555 1.585 1.527 1.538 1.541 1.533 1.537   3.16
114) 1,2,4-Trimet 1.741 2.165 2.372 2.414 1.734 2.379 2.379 2.361 2.193  13.28
115) Hexachloroet 0.430 0.477 0.511 0.509 0.464 0.527 0.543 0.518 0.497   7.51
116) 1,2-Dibromo- 0.182 0.213 0.216 0.211 0.179 0.226 0.229 0.219 0.209   8.99
117) 1,2,4-Trichl 0.741 0.852 0.927 0.914 0.803 0.974 0.995 0.939 0.893   9.80
118) 1,3-Diethylb 1.119 1.411 1.628 1.605 1.234 1.651 1.658 1.628 1.492  14.23
119) Hexachlorobu 0.382 0.431 0.462 0.470 0.406 0.458 0.472 0.456 0.442   7.44
120) Naphthalene  1.525 1.938 2.400 2.230 1.710 2.554 2.527 2.469 2.169  18.30
121) 1,2,3-Trichl 0.647 0.757 0.809 0.770 0.681 0.823 0.823 0.800 0.764   8.73
122) 2-Methylnaph       0.136 0.243 0.168       0.318 0.220 0.273 0.226  29.60

123) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
124) TPH-GRO (C6- 1.021 0.707 0.480 0.537       0.452       0.446 0.607 E1  37.01
             ---- Linear regression ----  Coefficient =  0.9993
               Response Ratio = 22.38829 + 4.32493 *A

 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           ve1541c.m         Thu Jul 31 14:47:49 2014
```

# Initial Calibration Verification



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** VE1541-ICV1541
**Lab FileID:** E0033992.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E1541\E0033992.D  Vial: 12
Acq On : 28 Jul 2014 1:13 pm  Operator: stephc
Sample : icv1541-40  Inst : MS E
Misc : ms15881,VE1541,5,,,5,,Water  Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\ve1541c.m (RTE Integrator)
Title : SW846 8260B and EPA624
Last Update : Mon Jul 28 12:20:24 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 109 | 0.00 | 3.51 |
| 2 | p | Dichlorodifluoromethane | 1.114 | 0.934 | 16.2 | 91 | 0.00 | 0.83 |
| 3 | P | Chloromethane | 1.484 | 1.316 | 11.3 | 98 | 0.00 | 0.87 |
| 4 | p | Vinyl Chloride | 1.369 | 1.234 | 9.9 | 97 | 0.00 | 0.93 |
| 5 | | 1,3-Butadiene | 0.779 | 0.967 | -24.1 | 133 | 0.00 | 0.93 |
| 6 | | Ethylene Oxide | 0.575 | 0.649 | -12.9 | 127 | 0.00 | 1.09 |
| 7 | p | Bromomethane | 1.195 | 1.211 | -1.3 | 111 | 0.00 | 1.09 |
| 8 | p | Chloroethane | 0.785 | 0.953 | -21.4 | 133 | 0.00 | 1.13 |
| 9 | | Vinyl bromide | 0.891 | 1.052 | -18.1 | 128 | 0.00 | 1.24 |
| 10 | p | Trichlorofluoromethane | 1.771 | 1.666 | 5.9 | 104 | 0.00 | 1.31 |
| 11 | | Ethyl Alcohol | 0.096 | 0.092 | 4.2 | 109 | 0.00 | 1.43 |
| 12 | | Ethyl Ether | 0.956 | 0.975 | -2.0 | 116 | 0.00 | 1.43 |
| 13 | | Acrolein | 0.286 | 0.353 | -23.4 | 142 | 0.00 | 1.51 |
| 14 | p | 1,1-Dichloroethene | 1.465 | 1.533 | -4.6 | 113 | 0.00 | 1.57 |
| 15 | p | Freon 113 | 0.907 | 1.027 | -13.2 | 118 | 0.00 | 1.60 |
| 16 | p | Acetone | 0.678 | 0.632 | 6.8 | 110 | 0.00 | 1.61 |
| 17 | | Iodomethane | 1.917 | 1.983 | -3.4 | 115 | 0.00 | 1.66 |
| 18 | | Isopropyl Alcohol | 0.166 | 0.139 | 16.3 | 100 | 0.00 | 1.74 |
| 19 | p | Methyl Acetate | 1.824 | 1.368 | 25.0 | 86 | 0.00 | 1.84 |
| 20 | p | Carbon Disulfide | 3.171 | 3.134 | 1.2 | 111 | 0.00 | 1.70 |
| 21 | p | Methylene Chloride | 1.406 | 1.307 | 7.0 | 112 | 0.00 | 1.90 |
| 22 | | Tert Butyl Alcohol | 0.277 | 0.263 | 5.1 | 109 | 0.00 | 2.06 |
| 23 | | Allyl Chloride | 0.598 | 0.573 | 4.2 | 106 | 0.00 | 1.80 |
| 24 | | Acetonitrile | 0.627 | 0.531 | 15.3 | 97 | 0.00 | 1.80 |
| 25 | p | trans-1,2-Dichloroethene | 1.337 | 1.391 | -4.0 | 113 | 0.00 | 2.10 |
| 26 | | Acrylonitrile | 0.711 | 0.639 | 10.1 | 101 | 0.00 | 2.09 |
| 27 | p | Methyl Tert Butyl Ether | 2.812 | 2.892 | -2.8 | 115 | 0.00 | 2.15 |
| 28 | | Hexane | 1.015 | 1.192 | -17.4 | 122 | 0.00 | 2.34 |
| 29 | P | 1,1-Dichloroethane | 1.736 | 1.772 | -2.1 | 113 | 0.00 | 2.44 |
| 30 | | Vinyl Acetate | 1.715 | 3.093 | -80.3# | 199 | 0.00 | 2.53 |
| 31 | | Di-isopropyl ether | 2.972 | 3.021 | -1.6 | 110 | 0.00 | 2.56 |
| 32 | | Chloroprene | 1.176 | 1.357 | -15.4 | 125 | 0.00 | 2.52 |
| 33 | | Ethyl tert-butyl ether | 2.692 | 2.742 | -1.9 | 112 | 0.00 | 2.89 |
| 34 | | 2,2-Dichloropropane | 1.242 | 1.374 | -10.6 | 121 | 0.00 | 2.97 |
| 35 | p | cis-1,2-Dichloroethene | 1.117 | 1.147 | -2.7 | 113 | 0.00 | 2.96 |
| 36 | | Ethyl Acetate | 1.819 | 1.813 | 0.3 | 111 | 0.00 | 3.09 |
| 37 | p | 2-Butanone | 0.876 | 0.894 | -2.1 | 112 | 0.00 | 3.01 |
| 38 | | Propionitrile | 0.304 | 0.305 | -0.3 | 109 | 0.00 | 3.05 |
| 39 | | Methacrylonitrile | 1.061 | 1.023 | 3.6 | 106 | 0.00 | 3.18 |
| 40 | | Bromochloromethane | 0.630 | 0.622 | 1.3 | 109 | 0.00 | 3.18 |
| 41 | p | Chloroform | 1.870 | 1.876 | -0.3 | 112 | 0.00 | 3.28 |
| 42 | | Tetrahydrofuran | 0.784 | 0.746 | 4.8 | 107 | 0.00 | 3.23 |

# Initial Calibration Verification

**Job Number:** TC52591 **Sample:** VE1541-ICV1541
**Account:** RFWTXHO Weston Solutions **Lab FileID:** E0033992.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 43 | p | 1,1,1-Trichloroethane | 1.372 | 1.459 | -6.3 | 115 | 0.00 | 3.43 |
| 44 | S | Dibromofluoromethane | 1.164 | 1.374 | -18.0 | 137 | 0.00 | 3.43 |
| 45 | p | Cyclohexane | 1.507 | 1.528 | -1.4 | 120 | 0.00 | 3.48 |
| 46 | | 1,1-Dichloropropene | 1.282 | 1.374 | -7.2 | 117 | 0.00 | 3.58 |
| 47 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 110 | 0.00 | 4.22 |
| 48 | p | Carbon Tetrachloride | 0.388 | 0.415 | -7.0 | 116 | 0.00 | 3.58 |
| 49 | S | 1,2-Dichloroethane-d4 | 0.394 | 0.451 | -14.5 | 133 | 0.00 | 3.73 |
| 50 | p | Benzene | 1.221 | 1.267 | -3.8 | 114 | 0.00 | 3.78 |
| 51 | | Isobutyl Alcohol | 0.029 | 0.028 | 3.4 | 105 | 0.00 | 3.84 |
| 52 | p | 1,2-Dichloroethane | 0.445 | 0.460 | -3.4 | 114 | 0.00 | 3.80 |
| 53 | | 2,2,4-Trimethylpentane | 0.909 | 1.062 | -16.8 | 119 | 0.00 | 3.91 |
| 54 | | tert-amyl methyl ether | 0.834 | 0.835 | -0.1 | 108 | 0.00 | 3.96 |
| 55 | | Crotonaldehyde | 0.061 | 0.060 | 1.6 | 103 | 0.00 | 4.11 |
| 56 | | n-Butyl Alcohol | 0.017 | 0.018 | -5.9 | 112 | 0.00 | 4.54 |
| 57 | p | Trichloroethene | 0.329 | 0.338 | -2.7 | 113 | 0.00 | 4.46 |
| 58 | p | Methylcyclohexane | 0.410 | 0.502 | -22.4 | 124 | 0.00 | 4.65 |
| 59 | | Methyl Methacrylate | 0.363 | 0.364 | -0.3 | 107 | 0.00 | 4.90 |
| 60 | p | 1,2-Dichloropropane | 0.330 | 0.334 | -1.2 | 111 | 0.00 | 4.68 |
| 61 | | Dibromomethane | 0.251 | 0.258 | -2.8 | 115 | 0.00 | 4.80 |
| 62 | | 1,4-Dioxane | 0.007 | 0.007 | 0.0 | 116 | 0.00 | 4.87 |
| 63 | p | Bromodichloromethane | 0.446 | 0.450 | -0.9 | 112 | 0.00 | 5.02 |
| 64 | | 2-Nitropropane | 0.152 | 0.148 | 2.6 | 106 | 0.00 | 5.27 |
| 65 | | 2-Chloroethyl vinyl ether | 0.291 | 0.304 | -4.5 | 110 | 0.00 | 5.41 |
| 66 | | 1-Bromo-2-Chloroethane | 0.541 | 0.508 | 6.1 | 105 | 0.00 | 5.32 |
| 67 | | Epichlorohydrin | 0.127 | 0.131 | -3.1 | 109 | 0.00 | 5.43 |
| 68 | p | 4-Methyl-2-pentanone | 0.571 | 0.574 | -0.5 | 107 | 0.00 | 5.76 |
| 69 | p | cis-1,3-Dichloropropene | 0.539 | 0.556 | -3.2 | 111 | 0.00 | 5.53 |
| 70 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 111 | 0.00 | 7.48 |
| 71 | S | Toluene-d8 | 1.270 | 1.596 | -25.7 | 140 | 0.00 | 5.82 |
| 72 | p | Toluene | 1.383 | 1.493 | -8.0 | 116 | 0.00 | 5.90 |
| 73 | | Ethyl Methacrylate | 0.512 | 0.554 | -8.2 | 111 | 0.00 | 6.40 |
| 74 | p | trans-1,3-Dichloropropene | 0.489 | 0.553 | -13.1 | 120 | 0.00 | 6.20 |
| 75 | p | 1,1,2-Trichloroethane | 0.318 | 0.325 | -2.2 | 112 | 0.00 | 6.40 |
| 76 | p | Tetrachloroethene | 0.385 | 0.448 | -16.4 | 126 | 0.00 | 6.54 |
| 77 | p | 2-hexanone | 0.474 | 0.483 | -1.9 | 106 | 0.00 | 6.77 |
| 78 | | 1,3-Dichloropropane | 0.592 | 0.612 | -3.4 | 113 | 0.00 | 6.59 |
| 79 | p | Dibromochloromethane | 0.414 | 0.433 | -4.6 | 115 | 0.00 | 6.85 |
| 80 | | n-Butyl Acetate | 0.795 | 0.812 | -2.1 | 105 | 0.00 | 6.97 |
| 81 | p | 1,2-Dibromoethane | 0.424 | 0.439 | -3.5 | 116 | 0.00 | 6.93 |
| 82 | | 1-Chlorohexane | 0.443 | 0.485 | -9.5 | 112 | 0.00 | 7.56 |
| 83 | P | Chlorobenzene | 1.031 | 1.041 | -1.0 | 112 | 0.00 | 7.51 |
| 84 | | 1,1,1,2-Tetrachloroethane | 0.352 | 0.376 | -6.8 | 116 | 0.00 | 7.63 |
| 85 | p | Ethylbenzene | 1.529 | 1.692 | -10.7 | 116 | 0.00 | 7.67 |
| 86 | p | m,p-Xylene | 1.193 | 1.300 | -9.0 | 115 | 0.00 | 7.80 |
| 87 | p | o-Xylene | 1.231 | 1.336 | -8.5 | 112 | 0.00 | 8.21 |
| 88 | p | Styrene | 0.987 | 1.128 | -14.3 | 117 | 0.00 | 8.22 |
| 89 | P | Bromoform | 0.345 | 0.362 | -4.9 | 116 | 0.00 | 8.37 |
| 90 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 112 | 0.00 | 9.84 |
| 91 | p | Isopropylbenzene | 2.556 | 2.839 | -11.1 | 116 | 0.00 | 8.60 |
| 92 | | Cyclohexanone | 0.042 | 0.081 | -92.9# | 213# | 0.00 | 8.65 |
| 93 | S | 4-Bromofluorobenzene | 0.878 | 1.065 | -21.3 | 139 | 0.00 | 8.72 |
| 94 | | Bromobenzene | 0.771 | 0.824 | -6.9 | 117 | 0.00 | 8.84 |
| 95 | P | 1,1,2,2-Tetrachloroethane | 1.239 | 1.240 | -0.1 | 115 | 0.00 | 8.92 |
| 96 | | Trans-1,4-Dichloro-2-bute | 0.337 | 0.320 | 5.0 | 102 | 0.00 | 8.97 |
| 97 | | 1,2,3-Trichloropropane | 0.325 | 0.342 | -5.2 | 118 | 0.00 | 8.93 |
| 98 | | n-Propylbenzene | 3.289 | 3.591 | -9.2 | 113 | 0.00 | 9.01 |
| 99 | | 2-Chlorotoluene | 1.982 | 2.012 | -1.5 | 109 | 0.00 | 9.05 |

# Initial Calibration Verification

**Job Number:** TC52591 **Sample:** VE1541-ICV1541
**Account:** RFWTXHO Weston Solutions **Lab FileID:** E0033992.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 100 | | 4-Chlorotoluene | 2.230 | 2.401 | -7.7 | 116 | 0.00 | 9.17 |
| 101 | | 1,3,5-Trimethylbenzene | 2.185 | 2.425 | -11.0 | 114 | 0.00 | 9.20 |
| 102 | | alpha-Methylstyrene | 1.237 | 1.316 | -6.4 | 109 | 0.00 | 9.41 |
| 103 | | Pentachloroethane | 0.490 | 0.475 | 3.1 | 108 | 0.00 | 9.49 |
| 104 | | sec-Butylbenzene | 2.900 | 3.269 | -12.7 | 115 | 0.00 | 9.71 |
| 105 | p | 1,3-Dichlorobenzene | 1.543 | 1.609 | -4.3 | 116 | 0.00 | 9.77 |
| 106 | | 4-Isopropyltoluene | 2.561 | 2.820 | -10.1 | 119 | 0.00 | 9.86 |
| 107 | p | 1,4-Dichlorobenzene | 1.601 | 1.689 | -5.5 | 119 | 0.00 | 9.86 |
| 108 | | tert-Butylbenzene | 1.248 | 1.335 | -7.0 | 112 | 0.00 | 9.50 |
| 109 | | Dicyclopentadiene | 3.279 | 3.283 | -0.1 | 110 | 0.00 | 9.86 |
| 110 | | Benzyl Chloride | 3.943 | 3.999 | -1.4 | 107 | 0.00 | 10.00 |
| 111 | | p-Diethylbenzene | 1.542 | 1.582 | -2.6 | 105 | 0.00 | 10.22 |
| 112 | | n-Butylbenzene | 2.904 | 3.174 | -9.3 | 113 | 0.00 | 10.24 |
| 113 | p | 1,2-Dichlorobenzene | 1.537 | 1.567 | -2.0 | 113 | 0.00 | 10.19 |
| 114 | | 1,2,4-Trimethylbenzene | 2.193 | 2.467 | -12.5 | 117 | 0.00 | 9.55 |
| 115 | | Hexachloroethane | 0.497 | 0.407 | 18.1 | 89 | 0.00 | 10.43 |
| 116 | p | 1,2-Dibromo-3-Chloropropa | 0.209 | 0.220 | -5.3 | 114 | 0.00 | 10.92 |
| 117 | p | 1,2,4-Trichlorobenzene | 0.893 | 1.005 | -12.5 | 122 | 0.00 | 11.67 |
| 118 | | 1,3-Diethylbenzene | 1.492 | 1.654 | -10.9 | 114 | 0.00 | 10.15 |
| 119 | | Hexachlorobutadiene | 0.442 | 0.502 | -13.6 | 122 | 0.00 | 11.85 |
| 120 | | Naphthalene | 2.169 | 2.496 | -15.1 | 117 | 0.00 | 11.88 |
| 121 | | 1,2,3-Trichlorobenzene | 0.764 | 0.832 | -8.9 | 115 | 0.00 | 12.10 |
| 122 | | 2-Methylnaphthalene | 0.226 | 0.175 | 22.6 | 81 | 0.00 | 12.89 |
| 123 | I | 1,4-Dichlorobenzene-d4a | 1.000 | 1.000 | 0.0 | 112 | 0.00 | 9.84 |
| 124 | H | TPH-GRO (C6-C10) | | ----------NA---------- | | | | |

(#) = Out of Range SPCC's out = 0 CCC's out = 0
E0033986.D ve1541c.m Tue Jul 29 11:51:51 2014

# Continuing Calibration Summary



**Job Number:** TC52591 **Sample:** VE1555-CC1541
**Account:** RFWTXHO Weston Solutions **Lab FileID:** E0034361.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E1555\E0034361.D Vial: 5
Acq On : 5 Aug 2014 9:37 am Operator: stephc
Sample : cc1541-20 Inst : MS E
Misc : ms15944,VE1555,5,,,5,,Water Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\ve1541c.m (RTE Integrator)
Title : SW846 8260B and EPA624
Last Update : Thu Jul 31 07:27:17 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 94 | 0.00 | 3.51 |
| 2 | p | Dichlorodifluoromethane | 1.114 | 0.908 | 18.5 | 71 | 0.00 | 0.82 |
| 3 | P | Chloromethane | 1.484 | 1.268 | 14.6 | 78 | -0.01 | 0.85 |
| 4 | p | Vinyl Chloride | 1.369 | 1.193 | 12.9 | 80 | 0.00 | 0.92 |
| 5 | | 1,3-Butadiene | 0.779 | 0.762 | 2.2 | 82 | -0.01 | 0.92 |
| 6 | | Ethylene Oxide | 0.575 | 0.507 | 11.8 | 86 | -0.01 | 1.08 |
| 7 | p | Bromomethane | 1.195 | 0.992 | 17.0 | 82 | -0.01 | 1.07 |
| 8 | p | Chloroethane | 0.785 | 0.664 | 15.4 | 82 | 0.00 | 1.13 |
| 9 | | Vinyl bromide | 0.891 | 0.846 | 5.1 | 91 | -0.01 | 1.23 |
| 10 | p | Trichlorofluoromethane | 1.771 | 1.533 | 13.4 | 81 | 0.00 | 1.30 |
| 11 | | Ethyl Alcohol | 0.096 | 0.086 | 10.4 | 90 | 0.00 | 1.42 |
| 12 | | Ethyl Ether | 0.956 | 0.850 | 11.1 | 83 | 0.00 | 1.42 |
| 13 | | Acrolein | 0.286 | 0.237 | 17.1 | 79 | -0.01 | 1.49 |
| 14 | p | 1,1-Dichloroethene | 1.465 | 1.357 | 7.4 | 82 | -0.01 | 1.56 |
| 15 | p | Freon 113 | 0.907 | 0.916 | -1.0 | 82 | 0.00 | 1.60 |
| 16 | p | Acetone | 0.678 | 0.600 | 11.5 | 85 | 0.00 | 1.60 |
| 17 | | Iodomethane | 1.917 | 1.714 | 10.6 | 83 | 0.00 | 1.65 |
| 18 | | Isopropyl Alcohol | 0.166 | 0.146 | 12.0 | 84 | -0.01 | 1.73 |
| 19 | p | Methyl Acetate | 1.824 | 1.738 | 4.7 | 86 | 0.00 | 1.83 |
| 20 | p | Carbon Disulfide | 3.171 | 2.832 | 10.7 | 82 | 0.00 | 1.69 |
| 21 | p | Methylene Chloride | 1.406 | 1.280 | 9.0 | 83 | 0.00 | 1.89 |
| 22 | | Tert Butyl Alcohol | 0.277 | 0.240 | 13.4 | 83 | 0.00 | 2.05 |
| 23 | | Allyl Chloride | 0.598 | 0.562 | 6.0 | 82 | 0.00 | 1.80 |
| 24 | | Acetonitrile | 0.627 | 0.577 | 8.0 | 85 | 0.00 | 1.80 |
| 25 | p | trans-1,2-Dichloroethene | 1.337 | 1.303 | 2.5 | 88 | 0.00 | 2.10 |
| 26 | | Acrylonitrile | 0.711 | 0.699 | 1.7 | 91 | 0.00 | 2.09 |
| 27 | p | Methyl Tert Butyl Ether | 2.812 | 2.508 | 10.8 | 83 | 0.00 | 2.13 |
| 28 | | Hexane | 1.015 | 1.026 | -1.1 | 78 | 0.00 | 2.34 |
| 29 | P | 1,1-Dichloroethane | 1.736 | 1.659 | 4.4 | 88 | 0.00 | 2.44 |
| 30 | | Vinyl Acetate | 1.715 | 1.552 | 9.5 | 84 | 0.00 | 2.52 |
| 31 | | Di-isopropyl ether | 2.972 | 2.803 | 5.7 | 85 | 0.00 | 2.55 |
| 32 | | Chloroprene | 1.176 | 1.130 | 3.9 | 84 | 0.00 | 2.52 |
| 33 | | Ethyl tert-butyl ether | 2.692 | 2.303 | 14.5 | 79 | 0.00 | 2.88 |
| 34 | | 2,2-Dichloropropane | 1.242 | 1.140 | 8.2 | 82 | 0.00 | 2.96 |
| 35 | p | cis-1,2-Dichloroethene | 1.117 | 1.068 | 4.4 | 87 | 0.00 | 2.96 |
| 36 | | Ethyl Acetate | 1.819 | 1.658 | 8.9 | 85 | -0.01 | 3.07 |
| 37 | p | 2-Butanone | 0.876 | 0.837 | 4.5 | 88 | 0.00 | 3.00 |
| 38 | | Propionitrile | 0.304 | 0.309 | -1.6 | 91 | 0.00 | 3.05 |
| 39 | | Methacrylonitrile | 1.061 | 1.033 | 2.6 | 90 | 0.00 | 3.18 |
| 40 | | Bromochloromethane | 0.630 | 0.616 | 2.2 | 89 | 0.00 | 3.17 |
| 41 | p | Chloroform | 1.870 | 1.759 | 5.9 | 87 | 0.00 | 3.27 |
| 42 | | Tetrahydrofuran | 0.784 | 0.813 | -3.7 | 91 | 0.00 | 3.23 |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** VE1555-CC1541
**Account:** RFWTXHO Weston Solutions **Lab FileID:** E0034361.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 43 | p | 1,1,1-Trichloroethane | 1.372 | 1.347 | 1.8 | 87 | 0.00 | 3.42 |
| 44 | S | Dibromofluoromethane | 1.164 | 1.132 | 2.7 | 95 | 0.00 | 3.42 |
| 45 | p | Cyclohexane | 1.507 | 1.376 | 8.7 | 81 | 0.00 | 3.46 |
| 46 | | 1,1-Dichloropropene | 1.282 | 1.219 | 4.9 | 85 | 0.00 | 3.58 |
| 47 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 94 | 0.00 | 4.21 |
| 48 | p | Carbon Tetrachloride | 0.388 | 0.382 | 1.5 | 90 | 0.00 | 3.57 |
| 49 | S | 1,2-Dichloroethane-d4 | 0.394 | 0.378 | 4.1 | 95 | 0.00 | 3.73 |
| 50 | p | Benzene | 1.221 | 1.164 | 4.7 | 87 | 0.00 | 3.77 |
| 51 | | Isobutyl Alcohol | 0.029 | 0.024 | 17.2 | 83 | 0.00 | 3.83 |
| 52 | p | 1,2-Dichloroethane | 0.445 | 0.425 | 4.5 | 88 | 0.00 | 3.80 |
| 53 | | 2,2,4-Trimethylpentane | 0.909 | 0.979 | -7.7 | 83 | 0.00 | 3.90 |
| 54 | | tert-amyl methyl ether | 0.834 | 0.737 | 11.6 | 81 | 0.00 | 3.95 |
| 55 | | Crotonaldehyde | 0.061 | 0.075 | -23.0# | 104 | 0.00 | 4.11 |
| 56 | | n-Butyl Alcohol | 0.017 | 0.015 | 11.8 | 81 | 0.00 | 4.53 |
| 57 | p | Trichloroethene | 0.329 | 0.305 | 7.3 | 85 | 0.00 | 4.46 |
| 58 | p | Methylcyclohexane | 0.410 | 0.429 | -4.6 | 81 | 0.00 | 4.65 |
| 59 | | Methyl Methacrylate | 0.363 | 0.322 | 11.3 | 86 | 0.00 | 4.90 |
| 60 | p | 1,2-Dichloropropane | 0.330 | 0.321 | 2.7 | 89 | 0.00 | 4.68 |
| 61 | | Dibromomethane | 0.251 | 0.243 | 3.2 | 87 | 0.00 | 4.80 |
| 62 | | 1,4-Dioxane | 0.007 | 0.006 | 14.3 | 80 | 0.00 | 4.87 |
| 63 | p | Bromodichloromethane | 0.446 | 0.430 | 3.6 | 89 | 0.00 | 5.01 |
| 64 | | 2-Nitropropane | 0.152 | 0.144 | 5.3 | 88 | 0.00 | 5.27 |
| 65 | | 2-Chloroethyl vinyl ether | 0.291 | 0.279 | 4.1 | 86 | 0.00 | 5.40 |
| 66 | | 1-Bromo-2-Chloroethane | 0.541 | 0.516 | 4.6 | 89 | 0.00 | 5.32 |
| 67 | | Epichlorohydrin | 0.127 | 0.121 | 4.7 | 86 | 0.00 | 5.43 |
| 68 | p | 4-Methyl-2-pentanone | 0.571 | 0.554 | 3.0 | 87 | 0.00 | 5.76 |
| 69 | p | cis-1,3-Dichloropropene | 0.539 | 0.499 | 7.4 | 85 | 0.00 | 5.52 |
| 70 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 92 | 0.00 | 7.48 |
| 71 | S | Toluene-d8 | 1.270 | 1.268 | 0.2 | 94 | 0.00 | 5.82 |
| 72 | p | Toluene | 1.383 | 1.362 | 1.5 | 87 | 0.00 | 5.89 |
| 73 | | Ethyl Methacrylate | 0.512 | 0.442 | 13.7 | 77 | 0.00 | 6.40 |
| 74 | p | trans-1,3-Dichloropropene | 0.489 | 0.441 | 9.8 | 82 | 0.00 | 6.20 |
| 75 | p | 1,1,2-Trichloroethane | 0.318 | 0.317 | 0.3 | 88 | 0.00 | 6.40 |
| 76 | p | Tetrachloroethene | 0.385 | 0.374 | 2.9 | 85 | 0.00 | 6.54 |
| 77 | p | 2-hexanone | 0.474 | 0.485 | -2.3 | 88 | 0.00 | 6.77 |
| 78 | | 1,3-Dichloropropane | 0.592 | 0.575 | 2.9 | 87 | 0.00 | 6.58 |
| 79 | p | Dibromochloromethane | 0.414 | 0.402 | 2.9 | 89 | 0.00 | 6.84 |
| 80 | | n-Butyl Acetate | 0.795 | 0.763 | 4.0 | 85 | 0.00 | 6.97 |
| 81 | p | 1,2-Dibromoethane | 0.424 | 0.403 | 5.0 | 86 | 0.00 | 6.93 |
| 82 | | 1-Chlorohexane | 0.443 | 0.432 | 2.5 | 83 | 0.00 | 7.56 |
| 83 | P | Chlorobenzene | 1.031 | 0.985 | 4.5 | 86 | 0.00 | 7.51 |
| 84 | | 1,1,1,2-Tetrachloroethane | 0.352 | 0.344 | 2.3 | 88 | 0.00 | 7.62 |
| 85 | p | Ethylbenzene | 1.529 | 1.485 | 2.9 | 84 | 0.00 | 7.66 |
| 86 | p | m,p-Xylene | 1.193 | 1.165 | 2.3 | 85 | 0.00 | 7.80 |
| 87 | p | o-Xylene | 1.231 | 1.159 | 5.8 | 83 | 0.00 | 8.21 |
| 88 | p | Styrene | 0.987 | 0.984 | 0.3 | 85 | 0.00 | 8.22 |
| 89 | P | Bromoform | 0.345 | 0.328 | 4.9 | 88 | 0.00 | 8.37 |
| 90 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 95 | 0.00 | 9.84 |
| 91 | p | Isopropylbenzene | 2.556 | 2.336 | 8.6 | 81 | 0.00 | 8.60 |
| 92 | | Cyclohexanone | 0.042 | 0.039 | 7.1 | 88 | 0.00 | 8.65 |
| 93 | S | 4-Bromofluorobenzene | 0.878 | 0.816 | 7.1 | 92 | 0.00 | 8.72 |
| 94 | | Bromobenzene | 0.771 | 0.720 | 6.6 | 86 | 0.00 | 8.84 |
| 95 | P | 1,1,2,2-Tetrachloroethane | 1.239 | 1.146 | 7.5 | 89 | 0.00 | 8.92 |
| 96 | | Trans-1,4-Dichloro-2-bute | 0.337 | 0.286 | 15.1 | 77 | 0.00 | 8.97 |
| 97 | | 1,2,3-Trichloropropane | 0.325 | 0.317 | 2.5 | 90 | 0.00 | 8.93 |
| 98 | | n-Propylbenzene | 3.289 | 3.220 | 2.1 | 85 | 0.00 | 9.01 |
| 99 | | 2-Chlorotoluene | 1.982 | 1.881 | 5.1 | 85 | 0.00 | 9.05 |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** VE1555-CC1541
**Account:** RFWTXHO Weston Solutions **Lab FileID:** E0034361.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 100 | | 4-Chlorotoluene | 2.230 | 2.108 | 5.5 | 86 | 0.00 | 9.16 |
| 101 | | 1,3,5-Trimethylbenzene | 2.185 | 2.132 | 2.4 | 84 | 0.00 | 9.19 |
| 102 | | alpha-Methylstyrene | 1.237 | 1.141 | 7.8 | 81 | 0.00 | 9.41 |
| 103 | | Pentachloroethane | 0.490 | 0.446 | 9.0 | 88 | 0.00 | 9.49 |
| 104 | | sec-Butylbenzene | 2.900 | 2.813 | 3.0 | 83 | 0.00 | 9.71 |
| 105 | p | 1,3-Dichlorobenzene | 1.543 | 1.444 | 6.4 | 86 | 0.00 | 9.77 |
| 106 | | 4-Isopropyltoluene | 2.561 | 2.432 | 5.0 | 84 | 0.00 | 9.86 |
| 107 | p | 1,4-Dichlorobenzene | 1.601 | 1.493 | 6.7 | 88 | 0.00 | 9.86 |
| 108 | | tert-Butylbenzene | 1.248 | 1.184 | 5.1 | 83 | 0.00 | 9.50 |
| 109 | | Dicyclopentadiene | 3.279 | 3.079 | 6.1 | 86 | 0.00 | 9.86 |
| 110 | | Benzyl Chloride | 3.943 | 3.449 | 12.5 | 80 | 0.00 | 10.00 |
| 111 | | p-Diethylbenzene | 1.542 | 1.522 | 1.3 | 85 | 0.00 | 10.22 |
| 112 | | n-Butylbenzene | 2.904 | 2.890 | 0.5 | 86 | 0.00 | 10.24 |
| 113 | p | 1,2-Dichlorobenzene | 1.537 | 1.471 | 4.3 | 88 | 0.00 | 10.19 |
| 114 | | 1,2,4-Trimethylbenzene | 2.193 | 2.132 | 2.8 | 84 | 0.00 | 9.54 |
| 115 | | Hexachloroethane | 0.497 | 0.477 | 4.0 | 89 | 0.00 | 10.43 |
| 116 | p | 1,2-Dibromo-3-Chloropropa | 0.209 | 0.199 | 4.8 | 90 | 0.00 | 10.92 |
| 117 | p | 1,2,4-Trichlorobenzene | 0.893 | 0.747 | 16.3 | 78 | 0.00 | 11.67 |
| 118 | | 1,3-Diethylbenzene | 1.492 | 1.431 | 4.1 | 85 | 0.00 | 10.15 |
| 119 | | Hexachlorobutadiene | 0.442 | 0.408 | 7.7 | 83 | 0.00 | 11.85 |
| 120 | | Naphthalene | 2.169 | 1.868 | 13.9 | 80 | 0.00 | 11.88 |
| 121 | | 1,2,3-Trichlorobenzene | 0.764 | 0.684 | 10.5 | 85 | 0.00 | 12.10 |
| 122 | | 2-Methylnaphthalene | 0.226 | 0.195 | 13.7 | 110 | 0.00 | 12.89 |
| 123 | I | 1,4-Dichlorobenzene-d4a | 1.000 | 1.000 | 0.0 | 105 | 0.00 | 9.84 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 124 | H | TPH-GRO (C6-C10) | | ----------NA---------- | | | | |

(#) = Out of Range SPCC's out = 0 CCC's out = 0
E0033985.D ve1541c.m Tue Aug 05 11:30:46 2014

6.7.3

6

Gulf Coast ACCUTEST LABORATORIES

# GC/MS Semi-volatiles

## QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

# Method Blank Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP33463-MB | J174420.D | 1 | 08/07/14 | SC | 08/05/14 | OP33463 | EJ1911 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

TC52591-1A



| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 10 | 5.0 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 2.5 | 0.48 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 2.5 | 0.58 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 2.5 | 0.56 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 2.5 | 0.53 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 13 | 5.0 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 5.0 | 2.8 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 2.5 | 0.48 | ug/l | |
| | 3&4-Methylphenol | ND | 2.5 | 0.54 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 2.5 | 0.56 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 13 | 3.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 13 | 5.0 | ug/l | |
| 108-95-2 | Phenol | ND | 2.5 | 0.73 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 2.5 | 0.49 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 2.5 | 0.56 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 2.5 | 0.60 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 2.5 | 0.59 | ug/l | |
| 62-53-3 | Aniline | ND | 2.5 | 0.65 | ug/l | |
| 120-12-7 | Anthracene | ND | 2.5 | 0.70 | ug/l | |
| 92-87-5 | Benzidine | ND | 13 | 4.9 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 2.5 | 0.75 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 2.5 | 0.67 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 2.5 | 0.60 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 2.5 | 0.74 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 2.5 | 0.76 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 2.5 | 0.59 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 2.5 | 0.63 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 2.5 | 0.44 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 2.5 | 0.65 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 2.5 | 0.55 | ug/l | |
| 86-74-8 | Carbazole | ND | 2.5 | 0.70 | ug/l | |
| 218-01-9 | Chrysene | ND | 2.5 | 0.79 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 2.5 | 0.58 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 2.5 | 0.47 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 2.5 | 0.45 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 2.5 | 0.64 | ug/l | |

# Method Blank Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP33463-MB | J174420.D | 1 | 08/07/14 | SC | 08/05/14 | OP33463 | EJ1911 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

TC52591-1A



| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 95-50-1 | 1,2-Dichlorobenzene | ND | 2.5 | 0.54 | ug/l | |
| 122-66-7 | 1,2-Diphenylhydrazine | ND | 2.5 | 0.67 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 2.5 | 0.55 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 2.5 | 0.54 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 2.5 | 0.63 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 2.5 | 0.51 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 5.0 | 0.65 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 2.5 | 0.68 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 2.5 | 0.63 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 2.5 | 0.67 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 2.5 | 0.59 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 2.5 | 0.69 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 2.5 | 0.70 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 2.5 | 0.74 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 2.5 | 0.70 | ug/l | |
| 86-73-7 | Fluorene | ND | 2.5 | 0.62 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 2.5 | 0.78 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 2.5 | 0.61 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.0 | 0.61 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 2.5 | 0.63 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 2.5 | 0.52 | ug/l | |
| 78-59-1 | Isophorone | ND | 2.5 | 0.60 | ug/l | |
| 90-12-0 | 1-Methylnaphthalene | ND | 2.5 | 0.54 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 2.5 | 0.62 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 2.5 | 0.66 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 2.5 | 0.62 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 2.5 | 0.68 | ug/l | |
| 91-20-3 | Naphthalene | ND | 2.5 | 0.52 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 2.5 | 0.58 | ug/l | |
| 62-75-9 | n-Nitrosodimethylamine | ND | 2.5 | 0.52 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 2.5 | 0.54 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 2.5 | 0.71 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 2.5 | 0.75 | ug/l | |
| 129-00-0 | Pyrene | ND | 2.5 | 0.72 | ug/l | |
| 110-86-1 | Pyridine | ND | 2.5 | 0.63 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 2.5 | 0.53 | ug/l | |

# Method Blank Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP33463-MB | J174420.D | 1 | 08/07/14 | SC | 08/05/14 | OP33463 | EJ1911 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

TC52591-1A

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 48% | 10-66% |
| 4165-62-2 | Phenol-d5 | 35% | 10-63% |
| 118-79-6 | 2,4,6-Tribromophenol | 95% | 32-128% |
| 4165-60-0 | Nitrobenzene-d5 | 84% | 29-115% |
| 321-60-8 | 2-Fluorobiphenyl | 90% | 34-113% |
| 1718-51-0 | Terphenyl-d14 | 121% | 23-138% |

# Blank Spike Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP33463-BS | J174421.D | 1 | 08/07/14 | SC | 08/05/14 | OP33463 | EJ1911 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

TC52591-1A

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 50 | 8.3 | 17 | 10-91 |
| 95-57-8 | 2-Chlorophenol | 50 | 34.5 | 69 | 38-102 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 41.1 | 82 | 30-110 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 41.6 | 83 | 41-107 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 41.2 | 82 | 39-107 |
| 51-28-5 | 2,4-Dinitrophenol | 50 | 46.3 | 93 | 24-119 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 50 | 47.3 | 95 | 40-121 |
| 95-48-7 | 2-Methylphenol | 50 | 29.8 | 60 | 33-93 |
| | 3&4-Methylphenol | 50 | 27.2 | 54 | 28-99 |
| 88-75-5 | 2-Nitrophenol | 50 | 44.5 | 89 | 38-107 |
| 100-02-7 | 4-Nitrophenol | 50 | 17.8 | 36 | 10-78 |
| 87-86-5 | Pentachlorophenol | 50 | 49.8 | 100 | 28-116 |
| 108-95-2 | Phenol | 50 | 16.4 | 33 | 15-70 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 43.7 | 87 | 47-116 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 42.6 | 85 | 44-112 |
| 83-32-9 | Acenaphthene | 50 | 47.0 | 94 | 44-106 |
| 208-96-8 | Acenaphthylene | 50 | 48.4 | 97 | 46-111 |
| 62-53-3 | Aniline | 50 | 27.6 | 55 | 15-112 |
| 120-12-7 | Anthracene | 50 | 47.5 | 95 | 53-114 |
| 92-87-5 | Benzidine | 100 | 56.2 | 56 | 13-148 |
| 56-55-3 | Benzo(a)anthracene | 50 | 51.1 | 102 | 57-113 |
| 50-32-8 | Benzo(a)pyrene | 50 | 55.1 | 110* [a] | 50-109 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 57.3 | 115 | 50-117 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 59.0 | 118 | 43-127 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 53.3 | 107 | 52-123 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 46.1 | 92 | 48-113 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 50.0 | 100 | 42-120 |
| 100-51-6 | Benzyl Alcohol | 50 | 28.4 | 57 | 31-97 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 48.8 | 98 | 35-123 |
| 106-47-8 | 4-Chloroaniline | 50 | 33.9 | 68 | 36-104 |
| 86-74-8 | Carbazole | 50 | 49.1 | 98 | 50-113 |
| 218-01-9 | Chrysene | 50 | 51.4 | 103 | 59-116 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 39.8 | 80 | 34-103 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 37.7 | 75 | 36-100 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 37.0 | 74 | 30-110 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 47.3 | 95 | 45-112 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP33463-BS | J174421.D | 1 | 08/07/14 | SC | 08/05/14 | OP33463 | EJ1911 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

TC52591-1A

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 40.1 | 80 | 37-100 |
| 122-66-7 | 1,2-Diphenylhydrazine | 50 | 42.9 | 86 | 44-113 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 40.4 | 81 | 34-99 |
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 41.2 | 82 | 36-99 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 52.5 | 105 | 52-115 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 49.0 | 98 | 52-111 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 43.8 | 88 | 37-125 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 61.2 | 122 | 47-125 |
| 132-64-9 | Dibenzofuran | 50 | 46.4 | 93 | 45-108 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 47.7 | 95 | 47-118 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 57.7 | 115 | 41-124 |
| 84-66-2 | Diethyl phthalate | 50 | 47.1 | 94 | 38-121 |
| 131-11-3 | Dimethyl phthalate | 50 | 45.1 | 90 | 41-116 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 49.7 | 99 | 50-123 |
| 206-44-0 | Fluoranthene | 50 | 50.3 | 101 | 50-118 |
| 86-73-7 | Fluorene | 50 | 47.6 | 95 | 47-113 |
| 118-74-1 | Hexachlorobenzene | 50 | 44.5 | 89 | 49-114 |
| 87-68-3 | Hexachlorobutadiene | 50 | 44.9 | 90 | 30-104 |
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 42.3 | 85 | 10-97 |
| 67-72-1 | Hexachloroethane | 50 | 48.0 | 96 | 30-100 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 60.4 | 121 | 45-127 |
| 78-59-1 | Isophorone | 50 | 43.6 | 87 | 40-103 |
| 90-12-0 | 1-Methylnaphthalene | 50 | 45.7 | 91 | 38-105 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 44.3 | 89 | 36-104 |
| 88-74-4 | 2-Nitroaniline | 50 | 51.4 | 103 | 41-117 |
| 99-09-2 | 3-Nitroaniline | 50 | 42.2 | 84 | 37-117 |
| 100-01-6 | 4-Nitroaniline | 50 | 45.3 | 91 | 47-121 |
| 91-20-3 | Naphthalene | 50 | 44.1 | 88 | 40-104 |
| 98-95-3 | Nitrobenzene | 50 | 44.3 | 89 | 40-103 |
| 62-75-9 | n-Nitrosodimethylamine | 50 | 23.1 | 46 | 11-89 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 38.2 | 76 | 36-112 |
| 86-30-6 | N-Nitrosodiphenylamine | 100 | 82.3 | 82 | 39-109 |
| 85-01-8 | Phenanthrene | 50 | 47.6 | 95 | 53-114 |
| 129-00-0 | Pyrene | 50 | 49.8 | 100 | 51-117 |
| 110-86-1 | Pyridine | 50 | 17.7 | 35 | 10-77 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 42.8 | 86 | 32-103 |

* = Outside of Control Limits.

# Blank Spike Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP33463-BS | J174421.D | 1 | 08/07/14 | SC | 08/05/14 | OP33463 | EJ1911 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

TC52591-1A

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 42% | 10-66% |
| 4165-62-2 | Phenol-d5 | 28% | 10-63% |
| 118-79-6 | 2,4,6-Tribromophenol | 97% | 32-128% |
| 4165-60-0 | Nitrobenzene-d5 | 84% | 29-115% |
| 321-60-8 | 2-Fluorobiphenyl | 91% | 34-113% |
| 1718-51-0 | Terphenyl-d14 | 115% | 23-138% |

(a) Outside control limits biased high. Analyte not detected in associated samples.

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP33463-MS | J174424.D | 1 | 08/07/14 | SC | 08/05/14 | OP33463 | EJ1911 |
| OP33463-MSD | J174425.D | 1 | 08/07/14 | SC | 08/05/14 | OP33463 | EJ1911 |
| TC52362-2 | J174423.D | 1 | 08/07/14 | SC | 08/05/14 | OP33463 | EJ1911 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

TC52591-1A

| CAS No. | Compound | TC52362-2 ug/l | Q | Spike ug/l | MS ug/l | MS % | Spike ug/l | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 10 U | | 50.5 | 18.4 | 36 | 50.5 | 20.7 | 41 | 12 | 10-91/38 |
| 95-57-8 | 2-Chlorophenol | 2.5 U | | 50.5 | 14.7 | 29* | 50.5 | 16.9 | 33* | 14 | 38-102/33 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 2.5 U | | 50.5 | 28.9 | 57 | 50.5 | 30.4 | 60 | 5 | 30-110/30 |
| 120-83-2 | 2,4-Dichlorophenol | 2.5 U | | 50.5 | 21.0 | 42 | 50.5 | 22.8 | 45 | 8 | 41-107/31 |
| 105-67-9 | 2,4-Dimethylphenol | 2.5 U | | 50.5 | 20.9 | 41 | 50.5 | 22.3 | 44 | 6 | 39-107/32 |
| 51-28-5 | 2,4-Dinitrophenol | 13 U | | 50.5 | 42.3 | 84 | 50.5 | 44.6 | 88 | 5 | 24-119/34 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 5.1 U | | 50.5 | 40.8 | 81 | 50.5 | 44.2 | 88 | 8 | 40-121/26 |
| 95-48-7 | 2-Methylphenol | 2.5 U | | 50.5 | 15.1 | 30* | 50.5 | 16.9 | 33 | 11 | 33-93/35 |
| | 3&4-Methylphenol | 2.5 U | | 50.5 | 15.3 | 30 | 50.5 | 17.3 | 34 | 12 | 28-99/36 |
| 88-75-5 | 2-Nitrophenol | 2.5 U | | 50.5 | 19.5 | 39 | 50.5 | 21.2 | 42 | 8 | 38-107/32 |
| 100-02-7 | 4-Nitrophenol | 13 U | | 50.5 | 23.0 | 46 | 50.5 | 23.8 | 47 | 3 | 10-78/38 |
| 87-86-5 | Pentachlorophenol | 13 U | | 50.5 | 43.3 | 86 | 50.5 | 46.9 | 93 | 8 | 28-116/29 |
| 108-95-2 | Phenol | 2.5 U | | 50.5 | 8.2 | 16 | 50.5 | 9.5 | 19 | 15 | 15-70/36 |
| 95-95-4 | 2,4,5-Trichlorophenol | 2.5 U | | 50.5 | 32.5 | 64 | 50.5 | 33.9 | 67 | 4 | 47-116/27 |
| 88-06-2 | 2,4,6-Trichlorophenol | 2.5 U | | 50.5 | 28.2 | 56 | 50.5 | 30.1 | 60 | 7 | 44-112/26 |
| 83-32-9 | Acenaphthene | 2.5 U | | 50.5 | 24.6 | 49 | 50.5 | 25.5 | 50 | 4 | 44-106/25 |
| 208-96-8 | Acenaphthylene | 2.5 U | | 50.5 | 26.0 | 51 | 50.5 | 27.0 | 53 | 4 | 46-111/26 |
| 62-53-3 | Aniline | 2.5 U | | 50.5 | 11.0 | 22 | 50.5 | 12.7 | 25 | 14 | 15-112/34 |
| 120-12-7 | Anthracene | 2.5 U | | 50.5 | 34.3 | 68 | 50.5 | 36.1 | 71 | 5 | 53-114/23 |
| 92-87-5 | Benzidine | 13 U | | 101 | 5.1 | 5* | 101 | 5.4 | 5* | 6 | 13-148/30 |
| 56-55-3 | Benzo(a)anthracene | 2.5 U | | 50.5 | 42.1 | 83 | 50.5 | 44.5 | 88 | 6 | 57-113/25 |
| 50-32-8 | Benzo(a)pyrene | 2.5 U | | 50.5 | 42.9 | 85 | 50.5 | 43.9 | 87 | 2 | 50-109/27 |
| 205-99-2 | Benzo(b)fluoranthene | 2.5 U | | 50.5 | 45.3 | 90 | 50.5 | 45.5 | 90 | 0 | 50-117/29 |
| 191-24-2 | Benzo(g,h,i)perylene | 2.5 U | | 50.5 | 48.1 | 95 | 50.5 | 51.6 | 102 | 7 | 43-127/38 |
| 207-08-9 | Benzo(k)fluoranthene | 2.5 U | | 50.5 | 40.8 | 81 | 50.5 | 41.0 | 81 | 0 | 52-123/29 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 2.5 U | | 50.5 | 31.8 | 63 | 50.5 | 33.5 | 66 | 5 | 48-113/23 |
| 85-68-7 | Butyl benzyl phthalate | 2.5 U | | 50.5 | 41.7 | 83 | 50.5 | 44.0 | 87 | 5 | 42-120/29 |
| 100-51-6 | Benzyl Alcohol | 2.5 U | | 50.5 | 14.1 | 28* | 50.5 | 15.7 | 31 | 11 | 31-97/34 |
| 91-58-7 | 2-Chloronaphthalene | 2.5 U | | 50.5 | 22.0 | 44 | 50.5 | 23.3 | 46 | 6 | 35-123/30 |
| 106-47-8 | 4-Chloroaniline | 2.5 U | | 50.5 | 16.2 | 32* | 50.5 | 17.3 | 34* | 7 | 36-104/32 |
| 86-74-8 | Carbazole | 2.5 U | | 50.5 | 36.9 | 73 | 50.5 | 39.0 | 77 | 6 | 50-113/25 |
| 218-01-9 | Chrysene | 2.5 U | | 50.5 | 41.7 | 83 | 50.5 | 44.1 | 87 | 6 | 59-116/26 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 2.5 U | | 50.5 | 15.7 | 31* | 50.5 | 17.1 | 34 | 9 | 34-103/31 |
| 111-44-4 | bis(2-Chloroethyl)ether | 2.5 U | | 50.5 | 14.5 | 29* | 50.5 | 16.2 | 32* | 11 | 36-100/35 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 2.5 U | | 50.5 | 13.8 | 27* | 50.5 | 15.6 | 31 | 12 | 30-110/37 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 2.5 U | | 50.5 | 27.5 | 54 | 50.5 | 28.1 | 56 | 2 | 45-112/27 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP33463-MS | J174424.D | 1 | 08/07/14 | SC | 08/05/14 | OP33463 | EJ1911 |
| OP33463-MSD | J174425.D | 1 | 08/07/14 | SC | 08/05/14 | OP33463 | EJ1911 |
| TC52362-2 | J174423.D | 1 | 08/07/14 | SC | 08/05/14 | OP33463 | EJ1911 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

TC52591-1A

| CAS No. | Compound | TC52362-2 ug/l | Q | Spike ug/l | MS ug/l | MS % | Spike ug/l | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 95-50-1 | 1,2-Dichlorobenzene | 2.5 | U | 50.5 | 14.9 | 30* | 50.5 | 16.7 | 33* | 11 | 37-100/31 |
| 122-66-7 | 1,2-Diphenylhydrazine | 2.5 | U | 50.5 | 28.4 | 56 | 50.5 | 30.6 | 61 | 7 | 44-113/25 |
| 541-73-1 | 1,3-Dichlorobenzene | 2.5 | U | 50.5 | 14.6 | 29* | 50.5 | 16.6 | 33* | 13 | 34-99/31 |
| 106-46-7 | 1,4-Dichlorobenzene | 2.5 | U | 50.5 | 15.3 | 30* | 50.5 | 17.0 | 34* | 11 | 36-99/31 |
| 121-14-2 | 2,4-Dinitrotoluene | 2.5 | U | 50.5 | 37.2 | 74 | 50.5 | 38.3 | 76 | 3 | 52-115/30 |
| 606-20-2 | 2,6-Dinitrotoluene | 2.5 | U | 50.5 | 32.5 | 64 | 50.5 | 33.5 | 66 | 3 | 52-111/25 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 5.1 | U | 50.5 | 32.2 | 64 | 50.5 | 33.8 | 67 | 5 | 37-125/30 |
| 53-70-3 | Dibenzo(a,h)anthracene | 2.5 | U | 50.5 | 52.0 | 103 | 50.5 | 55.7 | 110 | 7 | 47-125/35 |
| 132-64-9 | Dibenzofuran | 2.5 | U | 50.5 | 25.4 | 50 | 50.5 | 26.1 | 52 | 3 | 45-108/29 |
| 84-74-2 | Di-n-butyl phthalate | 2.5 | U | 50.5 | 35.8 | 71 | 50.5 | 38.0 | 75 | 6 | 47-118/25 |
| 117-84-0 | Di-n-octyl phthalate | 2.5 | U | 50.5 | 49.7 | 98 | 50.5 | 51.6 | 102 | 4 | 41-124/32 |
| 84-66-2 | Diethyl phthalate | 2.5 | U | 50.5 | 33.3 | 66 | 50.5 | 33.9 | 67 | 2 | 38-121/27 |
| 131-11-3 | Dimethyl phthalate | 2.5 | U | 50.5 | 28.6 | 57 | 50.5 | 29.6 | 59 | 3 | 41-116/27 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 2.5 | U | 50.5 | 41.9 | 83 | 50.5 | 44.7 | 89 | 6 | 50-123/29 |
| 206-44-0 | Fluoranthene | 2.5 | U | 50.5 | 36.1 | 71 | 50.5 | 37.8 | 75 | 5 | 50-118/27 |
| 86-73-7 | Fluorene | 2.5 | U | 50.5 | 28.2 | 56 | 50.5 | 29.0 | 57 | 3 | 47-113/26 |
| 118-74-1 | Hexachlorobenzene | 2.5 | U | 50.5 | 30.1 | 60 | 50.5 | 31.7 | 63 | 5 | 49-114/25 |
| 87-68-3 | Hexachlorobutadiene | 2.5 | U | 50.5 | 15.6 | 31 | 50.5 | 16.6 | 33 | 6 | 30-104/31 |
| 77-47-4 | Hexachlorocyclopentadiene | 5.1 | U | 50.5 | 16.6 | 33 | 50.5 | 17.2 | 34 | 4 | 10-97/35 |
| 67-72-1 | Hexachloroethane | 2.5 | U | 50.5 | 16.9 | 33 | 50.5 | 19.4 | 38 | 14 | 30-100/34 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 2.5 | U | 50.5 | 50.4 | 100 | 50.5 | 54.3 | 108 | 7 | 45-127/36 |
| 78-59-1 | Isophorone | 2.5 | U | 50.5 | 19.0 | 38* | 50.5 | 20.6 | 41 | 8 | 40-103/31 |
| 90-12-0 | 1-Methylnaphthalene | 2.5 | U | 50.5 | 20.1 | 40 | 50.5 | 21.7 | 43 | 8 | 38-105/30 |
| 91-57-6 | 2-Methylnaphthalene | 2.5 | U | 50.5 | 19.0 | 38 | 50.5 | 20.4 | 40 | 7 | 36-104/30 |
| 88-74-4 | 2-Nitroaniline | 2.5 | U | 50.5 | 34.5 | 68 | 50.5 | 35.9 | 71 | 4 | 41-117/26 |
| 99-09-2 | 3-Nitroaniline | 2.5 | U | 50.5 | 30.6 | 61 | 50.5 | 31.1 | 62 | 2 | 37-117/27 |
| 100-01-6 | 4-Nitroaniline | 2.5 | U | 50.5 | 35.5 | 70 | 50.5 | 35.5 | 70 | 0 | 47-121/30 |
| 91-20-3 | Naphthalene | 2.5 | U | 50.5 | 17.8 | 35* | 50.5 | 19.2 | 38* | 8 | 40-104/30 |
| 98-95-3 | Nitrobenzene | 2.5 | U | 50.5 | 17.7 | 35* | 50.5 | 19.2 | 38* | 8 | 40-103/31 |
| 62-75-9 | n-Nitrosodimethylamine | 2.5 | U | 50.5 | 9.9 | 20 | 50.5 | 11.0 | 22 | 11 | 11-89/33 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 2.5 | U | 50.5 | 15.8 | 31* | 50.5 | 17.7 | 35* | 11 | 36-112/33 |
| 86-30-6 | N-Nitrosodiphenylamine | 2.5 | U | 101 | 61.4 | 61 | 101 | 65.6 | 65 | 7 | 39-109/22 |
| 85-01-8 | Phenanthrene | 2.5 | U | 50.5 | 33.8 | 67 | 50.5 | 35.7 | 71 | 5 | 53-114/23 |
| 129-00-0 | Pyrene | 2.5 | U | 50.5 | 39.4 | 78 | 50.5 | 42.3 | 84 | 7 | 51-117/26 |
| 110-86-1 | Pyridine | 2.5 | U | 50.5 | 5.7 | 11 | 50.5 | 6.4 | 13 | 12 | 10-77/41 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 2.5 | U | 50.5 | 16.0 | 32 | 50.5 | 17.4 | 34 | 8 | 32-103/31 |

* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP33463-MS | J174424.D | 1 | 08/07/14 | SC | 08/05/14 | OP33463 | EJ1911 |
| OP33463-MSD | J174425.D | 1 | 08/07/14 | SC | 08/05/14 | OP33463 | EJ1911 |
| TC52362-2 | J174423.D | 1 | 08/07/14 | SC | 08/05/14 | OP33463 | EJ1911 |

**The QC reported here applies to the following samples:** **Method:** SW846 8270D

TC52591-1A



| CAS No. | Surrogate Recoveries | MS | MSD | TC52362-2 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 20% | 24% | 33% | 10-66% |
| 4165-62-2 | Phenol-d5 | 16% | 19% | 23% | 10-63% |
| 118-79-6 | 2,4,6-Tribromophenol | 81% | 89% | 79% | 32-128% |
| 4165-60-0 | Nitrobenzene-d5 | 35% | 38% | 59% | 29-115% |
| 321-60-8 | 2-Fluorobiphenyl | 42% | 44% | 61% | 34-113% |
| 1718-51-0 | Terphenyl-d14 | 91% | 97% | 87% | 23-138% |

* = Outside of Control Limits.

# Instrument Performance Check (DFTPP)



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-DFTPP
**Lab File ID:** J174365.D
**Instrument ID:** GCMSJ
**Injection Date:** 08/05/14
**Injection Time:** 11:13

| m/e | Ion Abundance Criteria | Raw Abundance | % Relative Abundance | | Pass/Fail |
|---|---|---|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 140277 | 42.2 | | Pass |
| 68 | Less than 2.0% of mass 69 | 2488 | 0.75 | (1.67) [a] | Pass |
| 69 | Mass 69 relative abundance | 148568 | 44.7 | | Pass |
| 70 | Less than 2.0% of mass 69 | 618 | 0.19 | (0.42) [a] | Pass |
| 127 | 40.0 - 60.0% of mass 198 | 175528 | 52.8 | | Pass |
| 197 | Less than 1.0% of mass 198 | 0 | 0.00 | | Pass |
| 198 | Base peak, 100% relative abundance | 332501 | 100.0 | | Pass |
| 199 | 5.0 - 9.0% of mass 198 | 22157 | 6.66 | | Pass |
| 275 | 10.0 - 30.0% of mass 198 | 87461 | 26.3 | | Pass |
| 365 | 1.0 - 100.0% of mass 198 | 14531 | 4.37 | | Pass |
| 441 | Present, but less than mass 443 | 36707 | 11.0 | (83.4) [b] | Pass |
| 442 | 40.0 - 100.0% of mass 198 | 229547 | 69.0 | | Pass |
| 443 | 17.0 - 23.0% of mass 442 | 44029 | 13.2 | (19.2) [c] | Pass |

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID |
|---|---|---|---|---|---|
| EJ1909-ICC1909 | J174366.D | 08/05/14 | 11:35 | 00:22 | Initial cal 50 |
| EJ1909-IC1909 | J174367.D | 08/05/14 | 12:08 | 00:55 | Initial cal 5 |
| EJ1909-IC1909 | J174368.D | 08/05/14 | 12:38 | 01:25 | Initial cal 10 |
| EJ1909-IC1909 | J174369.D | 08/05/14 | 13:08 | 01:55 | Initial cal 25 |
| EJ1909-IC1909 | J174370.D | 08/05/14 | 13:38 | 02:25 | Initial cal 40 |
| EJ1909-IC1909 | J174371.D | 08/05/14 | 14:08 | 02:55 | Initial cal 75 |
| EJ1909-IC1909 | J174372.D | 08/05/14 | 14:38 | 03:25 | Initial cal 100 |
| EJ1909-ICV1909 | J174373.D | 08/05/14 | 15:08 | 03:55 | Initial cal verification 50 |
| EJ1909-ICV1909 | J174374.D | 08/05/14 | 15:39 | 04:26 | Initial cal verification 50 |
| EJ1909-ICV1909 | J174375.D | 08/05/14 | 16:09 | 04:56 | Initial cal verification 50 |
| EJ1909-ICV1909 | J174376.D | 08/05/14 | 16:39 | 05:26 | Initial cal verification 50 |
| EJ1909-ICV1909 | J174377.D | 08/05/14 | 17:08 | 05:55 | Initial cal verification 50 |
| EJ1909-ICV1909 | J174378.D | 08/05/14 | 17:36 | 06:23 | Initial cal verification 50 |
| EJ1909-ICV1909 | J174380.D | 08/05/14 | 18:35 | 07:22 | Initial cal verification 50 |
| OP33414-MB | J174383.D | 08/05/14 | 20:03 | 08:50 | Method Blank |
| OP33414-BS | J174384.D | 08/05/14 | 20:33 | 09:20 | Blank Spike |
| TC52329-2 | J174385.D | 08/05/14 | 21:03 | 09:50 | (used for QC only; not part of job TC52591) |
| OP33414-MS | J174386.D | 08/05/14 | 21:34 | 10:21 | Matrix Spike |
| OP33414-MSD | J174387.D | 08/05/14 | 22:04 | 10:51 | Matrix Spike Duplicate |

# Instrument Performance Check (DFTPP)



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-DFTPP
**Lab File ID:** J174365.D
**Instrument ID:** GCMSJ
**Injection Date:** 08/05/14
**Injection Time:** 11:13

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID |
|---|---|---|---|---|---|
| ZZZZZZ | J174388.D | 08/05/14 | 22:34 | 11:21 | (unrelated sample) |
| ZZZZZZ | J174389.D | 08/05/14 | 23:04 | 11:51 | (unrelated sample) |

# Instrument Performance Check (DFTPP)



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1911-DFTPP
**Lab File ID:** J174418.D
**Instrument ID:** GCMSJ
**Injection Date:** 08/07/14
**Injection Time:** 10:57

| m/e | Ion Abundance Criteria | Raw Abundance | % Relative Abundance | | Pass/Fail |
|---|---|---|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 106765 | 41.0 | | Pass |
| 68 | Less than 2.0% of mass 69 | 1977 | 0.76 | (1.75) [a] | Pass |
| 69 | Mass 69 relative abundance | 113213 | 43.5 | | Pass |
| 70 | Less than 2.0% of mass 69 | 651 | 0.25 | (0.58) [a] | Pass |
| 127 | 40.0 - 60.0% of mass 198 | 134027 | 51.5 | | Pass |
| 197 | Less than 1.0% of mass 198 | 0 | 0.00 | | Pass |
| 198 | Base peak, 100% relative abundance | 260288 | 100.0 | | Pass |
| 199 | 5.0 - 9.0% of mass 198 | 17891 | 6.87 | | Pass |
| 275 | 10.0 - 30.0% of mass 198 | 69515 | 26.7 | | Pass |
| 365 | 1.0 - 100.0% of mass 198 | 11616 | 4.46 | | Pass |
| 441 | Present, but less than mass 443 | 27811 | 10.7 | (81.6) [b] | Pass |
| 442 | 40.0 - 100.0% of mass 198 | 179936 | 69.1 | | Pass |
| 443 | 17.0 - 23.0% of mass 442 | 34072 | 13.1 | (18.9) [c] | Pass |

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID |
|---|---|---|---|---|---|
| EJ1911-CC1909 | J174419.D | 08/07/14 | 11:37 | 00:40 | Continuing cal 40 |
| OP33463-MB | J174420.D | 08/07/14 | 12:07 | 01:10 | Method Blank |
| OP33463-BS | J174421.D | 08/07/14 | 12:37 | 01:40 | Blank Spike |
| ZZZZZZ | J174422.D | 08/07/14 | 13:07 | 02:10 | (unrelated sample) |
| TC52362-2 | J174423.D | 08/07/14 | 13:37 | 02:40 | (used for QC only; not part of job TC52591) |
| OP33463-MS | J174424.D | 08/07/14 | 14:07 | 03:10 | Matrix Spike |
| OP33463-MSD | J174425.D | 08/07/14 | 14:37 | 03:40 | Matrix Spike Duplicate |
| ZZZZZZ | J174426.D | 08/07/14 | 15:07 | 04:10 | (unrelated sample) |
| ZZZZZZ | J174428.D | 08/07/14 | 16:08 | 05:11 | (unrelated sample) |
| ZZZZZZ | J174429.D | 08/07/14 | 16:38 | 05:41 | (unrelated sample) |
| ZZZZZZ | J174430.D | 08/07/14 | 17:08 | 06:11 | (unrelated sample) |
| ZZZZZZ | J174431.D | 08/07/14 | 17:38 | 06:41 | (unrelated sample) |
| ZZZZZZ | J174432.D | 08/07/14 | 18:08 | 07:11 | (unrelated sample) |
| ZZZZZZ | J174433.D | 08/07/14 | 18:38 | 07:41 | (unrelated sample) |
| ZZZZZZ | J174434.D | 08/07/14 | 19:08 | 08:11 | (unrelated sample) |
| ZZZZZZ | J174435.D | 08/07/14 | 19:38 | 08:41 | (unrelated sample) |
| ZZZZZZ | J174436.D | 08/07/14 | 20:08 | 09:11 | (unrelated sample) |
| ZZZZZZ | J174437.D | 08/07/14 | 20:39 | 09:42 | (unrelated sample) |
| ZZZZZZ | J174441.D | 08/07/14 | 22:40 | 11:43 | (unrelated sample) |

# Instrument Performance Check (DFTPP)



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1911-DFTPP
**Lab File ID:** J174418.D
**Instrument ID:** GCMSJ
**Injection Date:** 08/07/14
**Injection Time:** 10:57

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID |
|---|---|---|---|---|---|
| EJ1911-ECC1909 | J174444.D | 08/08/14 | 00:11 | 13:14 | Ending cal 75 |

# Instrument Performance Check (DFTPP)



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-DFTPP
**Lab File ID:** P34247.D
**Instrument ID:** GCMSP
**Injection Date:** 06/27/14
**Injection Time:** 12:19

| m/e | Ion Abundance Criteria | Raw Abundance | % Relative Abundance | | Pass/Fail |
|---|---|---|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 136331 | 30.7 | | Pass |
| 68 | Less than 2.0% of mass 69 | 0 | 0.00 | (0.00) [a] | Pass |
| 69 | Mass 69 relative abundance | 172914 | 38.9 | | Pass |
| 70 | Less than 2.0% of mass 69 | 1074 | 0.24 | (0.62) [a] | Pass |
| 127 | 40.0 - 60.0% of mass 198 | 196053 | 44.1 | | Pass |
| 197 | Less than 1.0% of mass 198 | 0 | 0.00 | | Pass |
| 198 | Base peak, 100% relative abundance | 444288 | 100.0 | | Pass |
| 199 | 5.0 - 9.0% of mass 198 | 30208 | 6.80 | | Pass |
| 275 | 10.0 - 30.0% of mass 198 | 126048 | 28.4 | | Pass |
| 365 | 1.0 - 100.0% of mass 198 | 11586 | 2.61 | | Pass |
| 441 | Present, but less than mass 443 | 52819 | 11.9 | (83.6) [b] | Pass |
| 442 | 40.0 - 100.0% of mass 198 | 330240 | 74.3 | | Pass |
| 443 | 17.0 - 23.0% of mass 442 | 63184 | 14.2 | (19.1) [c] | Pass |

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID |
|---|---|---|---|---|---|
| EP1652-IC1652 | P34248.D | 06/27/14 | 12:51 | 00:32 | Initial cal 40 |
| EP1652-ICC1652 | P34249.D | 06/27/14 | 13:21 | 01:02 | Initial cal 50 |
| EP1652-IC1652 | P34250.D | 06/27/14 | 13:51 | 01:32 | Initial cal 10 |
| EP1652-IC1652 | P34251.D | 06/27/14 | 14:20 | 02:01 | Initial cal 5 |
| EP1652-IC1652 | P34252.D | 06/27/14 | 14:50 | 02:31 | Initial cal 25 |
| EP1652-IC1652 | P34253.D | 06/27/14 | 15:20 | 03:01 | Initial cal 75 |
| EP1652-IC1652 | P34254.D | 06/27/14 | 15:50 | 03:31 | Initial cal 100 |
| EP1652-ICV1652 | P34255.D | 06/27/14 | 16:20 | 04:01 | Initial cal verification 50 |
| EP1652-ICV1652 | P34256.D | 06/27/14 | 16:50 | 04:31 | Initial cal verification 50 |
| EP1652-ICV1652 | P34257.D | 06/27/14 | 17:20 | 05:01 | Initial cal verification 50 |
| EP1652-ICV1652 | P34258.D | 06/27/14 | 17:49 | 05:30 | Initial cal verification 50 |
| EP1652-ICV1652 | P34259.D | 06/27/14 | 18:16 | 05:57 | Initial cal verification 50 |
| EP1652-ICV1652 | P34260.D | 06/27/14 | 18:45 | 06:26 | Initial cal verification 50 |
| EP1652-ICV1652 | P34261.D | 06/27/14 | 19:15 | 06:56 | Initial cal verification 50 |

# Instrument Performance Check (DFTPP)



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1683-DFTPP
**Lab File ID:** P34928.D
**Instrument ID:** GCMSP
**Injection Date:** 08/07/14
**Injection Time:** 13:03

| m/e | Ion Abundance Criteria | Raw Abundance | % Relative Abundance | | Pass/Fail |
|---|---|---|---|---|---|
| 51 | 30.0 - 60.0% of mass 198 | 189259 | 34.8 | | Pass |
| 68 | Less than 2.0% of mass 69 | 0 | 0.00 | (0.00) [a] | Pass |
| 69 | Mass 69 relative abundance | 235883 | 43.4 | | Pass |
| 70 | Less than 2.0% of mass 69 | 1198 | 0.22 | (0.51) [a] | Pass |
| 127 | 40.0 - 60.0% of mass 198 | 260395 | 47.9 | | Pass |
| 197 | Less than 1.0% of mass 198 | 0 | 0.00 | | Pass |
| 198 | Base peak, 100% relative abundance | 543275 | 100.0 | | Pass |
| 199 | 5.0 - 9.0% of mass 198 | 35917 | 6.61 | | Pass |
| 275 | 10.0 - 30.0% of mass 198 | 140299 | 25.8 | | Pass |
| 365 | 1.0 - 100.0% of mass 198 | 11095 | 2.04 | | Pass |
| 441 | Present, but less than mass 443 | 40043 | 7.37 | (86.2) [b] | Pass |
| 442 | 40.0 - 100.0% of mass 198 | 236352 | 43.5 | | Pass |
| 443 | 17.0 - 23.0% of mass 442 | 46480 | 8.56 | (19.7) [c] | Pass |

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID |
|---|---|---|---|---|---|
| EP1683-CC1652 | P34930.D | 08/07/14 | 14:00 | 00:57 | Continuing cal 50 |
| OP33464-MB | P34931.D | 08/07/14 | 14:58 | 01:55 | Method Blank |
| OP33464-BS | P34932.D | 08/07/14 | 15:27 | 02:24 | Blank Spike |
| TC52780-1 | P34933.D | 08/07/14 | 15:56 | 02:53 | (used for QC only; not part of job TC52591) |
| ZZZZZZ | P34934.D | 08/07/14 | 16:25 | 03:22 | (unrelated sample) |
| TC52591-1A | P34936.D | 08/07/14 | 17:51 | 04:48 | CES-20140803 |
| TC52591-1A | P34937.D | 08/07/14 | 18:20 | 05:17 | CES-20140803 |
| TC52780-1 | P34938.D | 08/07/14 | 18:49 | 05:46 | (used for QC only; not part of job TC52591) |
| ZZZZZZ | P34939.D | 08/07/14 | 19:18 | 06:15 | (unrelated sample) |
| ZZZZZZ | P34940.D | 08/07/14 | 19:47 | 06:44 | (unrelated sample) |
| ZZZZZZ | P34941.D | 08/07/14 | 20:15 | 07:12 | (unrelated sample) |
| ZZZZZZ | P34942.D | 08/07/14 | 20:44 | 07:41 | (unrelated sample) |
| OP33464-MS | P34943.D | 08/07/14 | 21:13 | 08:10 | Matrix Spike |
| OP33464-MSD | P34944.D | 08/07/14 | 21:42 | 08:39 | Matrix Spike Duplicate |
| ZZZZZZ | P34945.D | 08/07/14 | 22:12 | 09:09 | (unrelated sample) |
| ZZZZZZ | P34946.D | 08/07/14 | 22:41 | 09:38 | (unrelated sample) |
| TC52252-1A | P34947.D | 08/07/14 | 23:10 | 10:07 | (used for QC only; not part of job TC52591) |
| OP33419-MS | P34948.D | 08/07/14 | 23:39 | 10:36 | Matrix Spike |
| OP33419-MSD | P34949.D | 08/08/14 | 00:08 | 11:05 | Matrix Spike Duplicate |

# Semivolatile Internal Standard Area Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | |
|---|---|---|---|
| **Check Std:** | EJ1911-CC1909 | **Injection Date:** | 08/07/14 |
| **Lab File ID:** | J174419.D | **Injection Time:** | 11:37 |
| **Instrument ID:** | GCMSJ | **Method:** | SW846 8270D |

| | IS 1 AREA | RT | IS 2 AREA | RT | IS 3 AREA | RT | IS 4 AREA | RT | IS 5 AREA | RT | IS 6 AREA | RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Check Std | 77535 | 5.56 | 327422 | 6.82 | 223813 | 9.38 | 398959 | 12.13 | 476115 | 17.38 | 458123 | 20.06 |
| Upper Limit [a] | 155070 | 6.06 | 654844 | 7.32 | 447626 | 9.88 | 797918 | 12.63 | 952230 | 17.88 | 916246 | 20.56 |
| Lower Limit [b] | 38768 | 5.06 | 163711 | 6.32 | 111907 | 8.88 | 199480 | 11.63 | 238058 | 16.88 | 229062 | 19.56 |

| Lab Sample ID | IS 1 AREA | RT | IS 2 AREA | RT | IS 3 AREA | RT | IS 4 AREA | RT | IS 5 AREA | RT | IS 6 AREA | RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OP33463-MB | 64731 | 5.56 | 276479 | 6.81 | 186121 | 9.37 | 372845 | 12.11 | 438521 | 17.36 | 384765 | 20.04 |
| OP33463-BS | 67859 | 5.56 | 290101 | 6.81 | 201316 | 9.37 | 385976 | 12.12 | 452350 | 17.37 | 402871 | 20.05 |
| ZZZZZZ | 77037 | 5.56 | 335763 | 6.81 | 231152 | 9.37 | 433228 | 12.11 | 490475 | 17.36 | 426959 | 20.04 |
| TC52362-2 | 84803 | 5.56 | 374340 | 6.81 | 256671 | 9.37 | 466171 | 12.11 | 554360 | 17.37 | 462057 | 20.04 |
| OP33463-MS | 85611 | 5.56 | 383555 | 6.81 | 274097 | 9.38 | 495018 | 12.12 | 515848 | 17.38 | 456454 | 20.05 |
| OP33463-MSD | 88589 | 5.56 | 417329 | 6.81 | 298905 | 9.38 | 512577 | 12.12 | 525457 | 17.38 | 475975 | 20.06 |
| ZZZZZZ | 92873 | 5.56 | 405012 | 6.81 | 288327 | 9.37 | 502221 | 12.11 | 542827 | 17.36 | 496432 | 20.04 |
| ZZZZZZ | 90580 | 5.56 | 395278 | 6.81 | 283876 | 9.37 | 496359 | 12.11 | 580230 | 17.36 | 528855 | 20.04 |
| ZZZZZZ | 77068 | 5.56 | 336122 | 6.81 | 242064 | 9.37 | 423839 | 12.11 | 493220 | 17.36 | 461385 | 20.04 |
| ZZZZZZ | 98914 | 5.56 | 372920 | 6.82 | 268452 | 9.37 | 461283 | 12.11 | 484505 | 17.37 | 440188 | 20.05 |
| ZZZZZZ | 76996 | 5.56 | 326241 | 6.81 | 235424 | 9.37 | 428708 | 12.10 | 469935 | 17.36 | 437009 | 20.04 |
| ZZZZZZ | 77400 | 5.56 | 336432 | 6.81 | 243799 | 9.37 | 461756 | 12.11 | 524603 | 17.36 | 485630 | 20.04 |
| ZZZZZZ | 81453 | 5.55 | 355952 | 6.81 | 263619 | 9.37 | 483651 | 12.11 | 537150 | 17.36 | 504121 | 20.04 |
| ZZZZZZ | 74984 | 5.56 | 334557 | 6.81 | 256226 | 9.37 | 479333 | 12.11 | 535039 | 17.36 | 510171 | 20.04 |
| ZZZZZZ | 84324 | 5.56 | 353372 | 6.81 | 241428 | 9.37 | 437851 | 12.10 | 484090 | 17.36 | 447246 | 20.04 |
| ZZZZZZ | 83932 | 5.55 | 356311 | 6.81 | 249186 | 9.37 | 445223 | 12.11 | 485603 | 17.36 | 456804 | 20.04 |
| ZZZZZZ | 78171 | 5.56 | 339448 | 6.81 | 240143 | 9.37 | 437627 | 12.10 | 488736 | 17.36 | 452131 | 20.04 |
| ZZZZZZ | 89084 | 5.56 | 379391 | 6.81 | 263070 | 9.37 | 458513 | 12.11 | 484682 | 17.37 | 459064 | 20.05 |
| EJ1911-ECC1909 | 122768 | 5.56 | 545456 | 6.82 | 387758 | 9.38 | 688488 | 12.13 | 752586 | 17.39 | 734567 | 20.06 |

**IS 1** = 1,4-Dichlorobenzene-d4
**IS 2** = Naphthalene-d8
**IS 3** = Acenaphthene-D10
**IS 4** = Phenanthrene-d10
**IS 5** = Chrysene-d12
**IS 6** = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

# Semivolatile Internal Standard Area Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | |
|---|---|---|---|
| **Check Std:** | EP1683-CC1652 | **Injection Date:** | 08/07/14 |
| **Lab File ID:** | P34930.D | **Injection Time:** | 14:00 |
| **Instrument ID:** | GCMSP | **Method:** | SW846 8270D |

| | IS 1 AREA | RT | IS 2 AREA | RT | IS 3 AREA | RT | IS 4 AREA | RT | IS 5 AREA | RT | IS 6 AREA | RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Check Std | 132768 | 5.05 | 530414 | 6.22 | 361120 | 8.64 | 652222 | 11.31 | 681530 | 16.52 | 660372 | 19.14 |
| Upper Limit [a] | 265536 | 5.55 | 1060828 | 6.72 | 722240 | 9.14 | 1304444 | 11.81 | 1363060 | 17.02 | 1320744 | 19.64 |
| Lower Limit [b] | 66384 | 4.55 | 265207 | 5.72 | 180560 | 8.14 | 326111 | 10.81 | 340765 | 16.02 | 330186 | 18.64 |

| Lab Sample ID | IS 1 AREA | RT | IS 2 AREA | RT | IS 3 AREA | RT | IS 4 AREA | RT | IS 5 AREA | RT | IS 6 AREA | RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OP33464-MB | 151974 | 5.05 | 610021 | 6.22 | 433294 | 8.63 | 815156 | 11.30 | 881426 | 16.51 | 820274 | 19.14 |
| OP33464-BS | 124101 | 5.05 | 489991 | 6.22 | 329332 | 8.64 | 599543 | 11.31 | 585106 | 16.51 | 519765 | 19.14 |
| TC52780-1 | 117432 | 5.04 | 483483 | 6.22 | 324135 | 8.64 | 587085 | 11.32 | 580635 | 16.50 | 500213 | 19.13 |
| ZZZZZZ | 170607 | 5.05 | 663748 | 6.22 | 422345 | 8.63 | 730917 | 11.30 | 733183 | 16.51 | 648740 | 19.14 |
| TC52591-1A | 155184 | 5.05 | 619128 | 6.21 | 406216 | 8.63 | 777522 | 11.30 | 724810 | 16.50 | 628168 | 19.13 |
| TC52591-1A [c] | 199024 | 5.05 | 760962 | 6.22 | 491746 | 8.64 | 2010060* | 11.31 | 868581 | 16.51 | 717660 | 19.14 |
| TC52780-1 | 188634 | 5.05 | 725317 | 6.22 | 463083 | 8.63 | 823527 | 11.30 | 828503 | 16.50 | 710086 | 19.13 |
| ZZZZZZ | 212371 | 5.05 | 853552 | 6.22 | 554087 | 8.63 | 992019 | 11.30 | 945701 | 16.51 | 615962 | 19.13 |
| ZZZZZZ | 177535 | 5.05 | 704965 | 6.22 | 461615 | 8.63 | 806929 | 11.30 | 792845 | 16.50 | 519385 | 19.13 |
| ZZZZZZ | 201211 | 5.05 | 828194 | 6.22 | 559934 | 8.63 | 1001684 | 11.30 | 989181 | 16.51 | 650254 | 19.13 |
| ZZZZZZ | 193046 | 5.05 | 755249 | 6.22 | 486756 | 8.63 | 862145 | 11.30 | 852808 | 16.50 | 532329 | 19.13 |
| OP33464-MS [d] | 30131* | 5.04 | 768980 | 6.22 | 525080 | 8.64 | 950843 | 11.33 | 910730 | 16.51 | 587911 | 19.13 |
| OP33464-MSD [e] | 30145* | 5.04 | 741555 | 6.22 | 508809 | 8.64 | 921921 | 11.33 | 891613 | 16.51 | 569148 | 19.13 |
| ZZZZZZ | 195835 | 5.05 | 765629 | 6.22 | 492591 | 8.63 | 872054 | 11.30 | 926721 | 16.51 | 633254 | 19.13 |
| ZZZZZZ | 230116 | 5.05 | 881428 | 6.22 | 570581 | 8.63 | 976895 | 11.31 | 1036539 | 16.52 | 657076 | 19.14 |
| TC52252-1A | 215114 | 5.05 | 841171 | 6.22 | 536863 | 8.64 | 927116 | 11.32 | 975543 | 16.52 | 590760 | 19.14 |
| OP33419-MS | 219373 | 5.05 | 896028 | 6.23 | 542574 | 8.64 | 973593 | 11.32 | 1036981 | 16.54 | 584146 | 19.15 |
| OP33419-MSD | 214843 | 5.05 | 880466 | 6.23 | 529158 | 8.64 | 941093 | 11.32 | 1002334 | 16.53 | 570014 | 19.15 |

**IS 1** = 1,4-Dichlorobenzene-d4
**IS 2** = Naphthalene-d8
**IS 3** = Acenaphthene-D10
**IS 4** = Phenanthrene-d10
**IS 5** = Chrysene-d12
**IS 6** = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Internal standard Phenanthrene-d10 outside control limits biased high due to matrix interference. Confirmed by reanalysis.
(d) Internal standard 1,4-Dichlorobenzene-d4 biased low due to matrix interference; confirmed by associated MSD.
(e) Internal standard 1,4-Dichlorobenzene-d4 biased low due to matrix interference; confirmed by associated MS.

# Semivolatile Surrogate Recovery Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Method:** SW846 8270D **Matrix:** AQ

**Samples and QC shown here apply to the above method**

| Lab Sample ID | Lab File ID | S1 | S2 | S3 | S4 | S5 | S6 |
|---|---|---|---|---|---|---|---|
| TC52591-1A | P34936.D | 22 | 22 | 23* [a] | 45 | 53 | 95 |
| TC52591-1A | P34937.D | 39 | 36 | 32 | 64 | 68 | 111 |
| OP33463-BS | J174421.D | 42 | 28 | 97 | 84 | 91 | 115 |
| OP33463-MB | J174420.D | 48 | 35 | 95 | 84 | 90 | 121 |
| OP33463-MS | J174424.D | 20 | 16 | 81 | 35 | 42 | 91 |
| OP33463-MSD | J174425.D | 24 | 19 | 89 | 38 | 44 | 97 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| **S1** = 2-Fluorophenol | 10-66% |
| **S2** = Phenol-d5 | 10-63% |
| **S3** = 2,4,6-Tribromophenol | 32-128% |
| **S4** = Nitrobenzene-d5 | 29-115% |
| **S5** = 2-Fluorobiphenyl | 34-113% |
| **S6** = Terphenyl-d14 | 23-138% |

(a) Outside control limits due to dilution.

# Initial Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICC1909
**Lab FileID:** J174366.D

Response Factor Report MSJ

Method : C:\msdchem\1\METHODS\ej1909.m (RTE Integrator)
Title : SW846 8270D and EPA625
Last Update : Tue Aug 05 15:33:48 2014
Response via : Initial Calibration

Calibration Files
5 =j174367.D 10 =j174368.D 25 =j174369.D 40 =j174370.D
50 =j174366.D 75 =j174371.D 100 =j174372.D

| Compound | 5 | 10 | 25 | 40 | 50 | 75 | 100 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|
| 1) I 1,4-Dichlorobenzene-d | ----------ISTD---------- | | | | | | | | |
| 2) bis(Chloromethyl) | 1.626 | 1.569 | 1.553 | 1.504 | 1.553 | 1.422 | 1.404 | 1.519 | 5.31 |
| 3) 1,4-Dioxane | 0.527 | 0.514 | 0.501 | 0.499 | 0.502 | 0.485 | 0.467 | 0.499 | 3.88 |
| 4) N-nitrosodimethyl | 0.712 | 0.747 | 0.780 | 0.789 | 0.848 | 0.789 | 0.792 | 0.780 | 5.43 |
| 5) Pyridine | 1.308 | 1.331 | 1.418 | 1.437 | 1.442 | 1.441 | 1.448 | 1.404 | 4.17 |
| 6) 2-Picoline | 1.614 | 1.572 | 1.611 | 1.637 | 1.639 | 1.653 | 1.647 | 1.625 | 1.73 |
| 7) N-Nitrosomethylet | 0.896 | 0.916 | 0.915 | 0.968 | 1.016 | 0.971 | 0.970 | 0.950 | 4.49 |
| 8) Methyl methanesul | 0.974 | 0.970 | 0.973 | 1.006 | 1.026 | 1.013 | 1.000 | 0.995 | 2.25 |
| 9) N-Nitrosodiethyla | 0.752 | 0.810 | 0.781 | 0.823 | 0.793 | 0.816 | 0.809 | 0.798 | 3.06 |
| 10) 2-Butoxyethanol | 1.699 | 1.668 | 1.762 | 1.824 | 1.828 | 1.811 | 1.809 | 1.771 | 3.65 |
| 11) Ethyl methanesulf | 1.199 | 1.173 | 1.228 | 1.254 | 1.247 | 1.229 | 1.229 | 1.223 | 2.30 |
| 12)p Benzaldehyde | 1.116 | 1.030 | 0.893 | 0.785 | 0.748 | 0.564 | 0.419 | 0.793 | 31.07 |
| ---- Quadratic regression ---- Coefficient = 0.9989 | | | | | | | | | |
| Response Ratio = 0.01584 + 1.02439 *A + -0.24553 *A^2 | | | | | | | | | |
| 13) Pentachloroethane | 0.561 | 0.553 | 0.553 | 0.555 | 0.542 | 0.539 | 0.538 | 0.549 | 1.64 |
| 14) Aniline | 2.329 | 2.315 | 2.384 | 2.448 | 2.386 | 2.368 | 2.379 | 2.373 | 1.82 |
| 15)S 2-Fluorophenol | 1.251 | 1.239 | 1.214 | 1.212 | 1.201 | 1.167 | 1.148 | 1.204 | 3.07 |
| 16)p bis(2-Chloroethyl | 1.485 | 1.415 | 1.463 | 1.426 | 1.403 | 1.415 | 1.361 | 1.424 | 2.86 |
| 17)S Phenol-d5 | 1.724 | 1.712 | 1.725 | 1.708 | 1.657 | 1.647 | 1.616 | 1.684 | 2.58 |
| 18)p Phenol | 1.838 | 1.852 | 1.887 | 1.875 | 1.818 | 1.815 | 1.793 | 1.840 | 1.84 |
| 19)p 2-Chlorophenol | 1.439 | 1.467 | 1.514 | 1.511 | 1.509 | 1.515 | 1.476 | 1.490 | 2.00 |
| 20) n-Decane | 1.653 | 1.602 | 1.562 | 1.566 | 1.582 | 1.457 | 1.415 | 1.548 | 5.38 |
| 21) 1,3-Dichlorobenze | 1.633 | 1.622 | 1.604 | 1.605 | 1.594 | 1.591 | 1.581 | 1.604 | 1.14 |
| 22) 1,4-Dichlorobenze | 1.648 | 1.661 | 1.640 | 1.645 | 1.622 | 1.613 | 1.596 | 1.632 | 1.39 |
| 23) 1,2-Dichlorobenze | 1.648 | 1.593 | 1.585 | 1.607 | 1.578 | 1.565 | 1.566 | 1.592 | 1.82 |
| 24) Benzyl alcohol | 1.062 | 1.047 | 1.106 | 1.128 | 1.087 | 1.117 | 1.120 | 1.095 | 2.85 |
| 25)p bis(2-chloroisopr | 2.520 | 2.444 | 2.410 | 2.373 | 2.403 | 2.316 | 2.247 | 2.388 | 3.69 |
| 26)p 2-Methylphenol | 1.435 | 1.409 | 1.553 | 1.574 | 1.484 | 1.536 | 1.524 | 1.502 | 4.12 |
| 27) N-nitrosopyrrolid | 0.878 | 0.910 | 0.967 | 0.989 | 0.915 | 0.927 | 0.918 | 0.929 | 4.00 |
| 28) N-Nitrosomorpholi | 1.347 | 1.338 | 1.415 | 1.399 | 1.396 | 1.380 | 1.365 | 1.377 | 2.07 |
| 29) o-Toluidine | 2.709 | 2.678 | 2.786 | 2.975 | 2.861 | 2.871 | 2.811 | 2.813 | 3.61 |
| 30)p Acetophenone | 2.329 | 2.312 | 2.312 | 2.280 | 2.199 | 2.193 | 2.156 | 2.254 | 3.10 |
| 31)p Hexachloroethane | 0.659 | 0.641 | 0.636 | 0.643 | 0.645 | 0.644 | 0.640 | 0.644 | 1.13 |
| 32)p N-Nitroso-di-n-pr | 1.382 | 1.358 | 1.395 | 1.367 | 1.303 | 1.299 | 1.289 | 1.342 | 3.26 |
| 33)p 3&4-Methylphenol | 1.550 | 1.516 | 1.628 | 1.631 | 1.574 | 1.594 | 1.577 | 1.581 | 2.61 |
| 34) I Naphthalene-d8 | ----------ISTD---------- | | | | | | | | |
| 35)S Nitrobenzene-d5 | 0.389 | 0.387 | 0.408 | 0.391 | 0.388 | 0.389 | 0.384 | 0.391 | 2.04 |
| 36)p Nitrobenzene | 0.387 | 0.407 | 0.411 | 0.418 | 0.411 | 0.412 | 0.406 | 0.407 | 2.44 |
| 37) 2,6-Dimethylpheno | 0.347 | 0.340 | 0.349 | 0.351 | 0.343 | 0.344 | 0.336 | 0.344 | 1.50 |
| 38) N-Nitrosopiperidi | 0.319 | 0.321 | 0.322 | 0.325 | 0.333 | 0.313 | 0.310 | 0.321 | 2.39 |
| 39) A,A-Dimethylphene | 1.246 | 1.322 | 1.340 | 1.383 | 1.360 | 1.135 | 1.040 | 1.261 | 10.22 |
| 40)p Isophorone | 0.784 | 0.779 | 0.784 | 0.790 | 0.773 | 0.764 | 0.756 | 0.776 | 1.60 |
| 41)p 2-Nitrophenol | 0.147 | 0.153 | 0.177 | 0.187 | 0.175 | 0.187 | 0.191 | 0.174 | 9.95 |
| 42)p 2,4-Dimethylpheno | 0.395 | 0.403 | 0.421 | 0.417 | 0.407 | 0.403 | 0.399 | 0.407 | 2.30 |

# Initial Calibration Summary

**Job Number:** TC52591 **Sample:** EJ1909-ICC1909
**Account:** RFWTXHO Weston Solutions **Lab FileID:** J174366.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 43)p | bis(2-Chloroethox | 0.442 | 0.432 | 0.436 | 0.433 | 0.416 | 0.412 | 0.406 | 0.425 | 3.20 |
| 44) | Benzoic Acid | 0.109 | 0.162 | 0.233 | 0.255 | 0.240 | 0.282 | 0.298 | 0.226 | 29.81 |

---- Linear regression ---- Coefficient = 0.9939
Response Ratio = -0.02860 + 0.29235 *A

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 45)p | 2,4-Dichloropheno | 0.314 | 0.322 | 0.339 | 0.337 | 0.330 | 0.330 | 0.327 | 0.328 | 2.57 |
| 46) | 1,2,4-Trichlorobe | 0.334 | 0.326 | 0.332 | 0.329 | 0.324 | 0.322 | 0.313 | 0.326 | 2.17 |
| 47)p | Naphthalene | 1.085 | 1.084 | 1.084 | 1.066 | 1.034 | 1.045 | 1.025 | 1.060 | 2.42 |
| 48)p | 4-Chloroaniline | 0.498 | 0.500 | 0.502 | 0.500 | 0.480 | 0.469 | 0.461 | 0.487 | 3.49 |
| 49) | 2,6-Dichloropheno | 0.262 | 0.267 | 0.270 | 0.277 | 0.261 | 0.256 | 0.259 | 0.265 | 2.74 |
| 50) | Hexachloropropene | 0.177 | 0.191 | 0.205 | 0.217 | 0.217 | 0.222 | 0.227 | 0.208 | 8.72 |
| 51)p | Hexachlorobutadie | 0.204 | 0.204 | 0.206 | 0.197 | 0.203 | 0.195 | 0.194 | 0.200 | 2.48 |
| 52) | p-Phenylenediamin | 0.539 | 0.555 | 0.511 | 0.482 | 0.457 | 0.383 | 0.317 | 0.463 | 18.59 |

---- Quadratic regression ---- Coefficient = 0.9999
Response Ratio = -0.00500 + 0.59588 *A + -0.11084 *A^2

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 53)p | Caprolactam | 0.116 | 0.140 | 0.139 | 0.145 | 0.138 | 0.150 | 0.144 | 0.139 | 7.80 |
| 54) | N-Nitrosodi-n-but | 0.401 | 0.347 | 0.323 | 0.319 | 0.313 | 0.303 | 0.295 | 0.329 | 10.92 |
| 55) | Hydroquinone | 0.402 | 0.414 | 0.413 | 0.426 | 0.418 | 0.366 | 0.360 | 0.400 | 6.52 |
| 56)p | 4-Chloro-3-methyl | 0.372 | 0.381 | 0.386 | 0.391 | 0.379 | 0.384 | 0.375 | 0.381 | 1.71 |
| 57) | Isosafrole | 0.311 | 0.311 | 0.316 | 0.325 | 0.309 | 0.307 | 0.301 | 0.312 | 2.46 |
| 58)p | 2-Methylnaphthale | 0.828 | 0.827 | 0.834 | 0.830 | 0.803 | 0.781 | 0.779 | 0.812 | 2.94 |
| 59) | 1-Methylnaphthale | 0.769 | 0.776 | 0.773 | 0.776 | 0.745 | 0.732 | 0.717 | 0.755 | 3.16 |
| 60)p | 1,2,4,5-Tetrachlo | 0.372 | 0.364 | 0.368 | 0.365 | 0.357 | 0.347 | 0.338 | 0.359 | 3.41 |
| 61) I | Acenaphthene-d10 | ----------ISTD---------- | | | | | | | | |
| 62)p | Hexachlorocyclope | 0.260 | 0.266 | 0.300 | 0.308 | 0.313 | 0.322 | 0.324 | 0.299 | 8.67 |
| 63)p | 2,4,6-Trichloroph | 0.353 | 0.352 | 0.374 | 0.383 | 0.377 | 0.373 | 0.373 | 0.369 | 3.17 |
| 64)p | 2,4,5-Trichloroph | 0.371 | 0.386 | 0.407 | 0.409 | 0.412 | 0.404 | 0.404 | 0.399 | 3.77 |
| 65)S | 2-Fluorobiphenyl | 1.307 | 1.263 | 1.249 | 1.230 | 1.198 | 1.183 | 1.167 | 1.228 | 4.01 |
| 66) | Safrole | 0.437 | 0.428 | 0.448 | 0.457 | 0.451 | 0.441 | 0.441 | 0.443 | 2.23 |
| 67)p | 1,1'-Biphenyl | 1.458 | 1.403 | 1.384 | 1.334 | 1.318 | 1.291 | 1.284 | 1.353 | 4.75 |
| 68)p | 2-Chloronaphthale | 1.189 | 1.156 | 1.195 | 1.130 | 1.200 | 1.174 | 1.181 | 1.175 | 2.08 |
| 69) | 1-Chloronaphthale | 1.071 | 1.038 | 0.998 | 1.031 | 0.943 | 0.930 | 0.915 | 0.989 | 6.14 |
| 70) | Diphenyl ether | 0.796 | 0.775 | 0.774 | 0.761 | 0.756 | 0.739 | 0.739 | 0.763 | 2.70 |
| 71)p | 2-Nitroaniline | 0.349 | 0.369 | 0.410 | 0.435 | 0.437 | 0.440 | 0.444 | 0.412 | 9.29 |
| 72) | 1,4-Naphthoquinon | 0.423 | 0.433 | 0.378 | 0.336 | 0.329 | 0.265 | 0.232 | 0.342 | 22.12 |

---- Quadratic regression ---- Coefficient = 0.9978
Response Ratio = 0.01088 + 0.39590 *A + -0.06817 *A^2

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 73) | Acenaphthylene | 1.868 | 1.835 | 1.868 | 1.875 | 1.843 | 1.797 | 1.772 | 1.837 | 2.14 |
| 74)p | Dimethylphthalate | 1.557 | 1.503 | 1.444 | 1.459 | 1.453 | 1.404 | 1.390 | 1.458 | 3.93 |
| 75) | m-Dinitrobenzene | 0.157 | 0.197 | 0.227 | 0.235 | 0.236 | 0.248 | 0.249 | 0.221 | 15.02 |
| 76)p | 2,6-Dinitrotoluen | 0.285 | 0.304 | 0.317 | 0.337 | 0.326 | 0.329 | 0.325 | 0.318 | 5.58 |
| 77)p | Acenaphthene | 1.216 | 1.203 | 1.181 | 1.167 | 1.167 | 1.135 | 1.121 | 1.170 | 2.93 |
| 78)p | 3-Nitroaniline | 0.314 | 0.331 | 0.346 | 0.368 | 0.364 | 0.357 | 0.354 | 0.348 | 5.51 |
| 79)p | 2,4-Dinitrophenol | 0.067 | 0.086 | 0.147 | 0.150 | 0.145 | 0.173 | 0.192 | 0.137 | 32.69 |

---- Quadratic regression ---- Coefficient = 0.9972
Response Ratio = -0.00841 + 0.13007 *A + 0.02553 *A^2

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 80)p | Dibenzofuran | 1.814 | 1.789 | 1.742 | 1.730 | 1.680 | 1.628 | 1.610 | 1.713 | 4.52 |
| 81) | Pentachlorobenzen | 0.515 | 0.502 | 0.505 | 0.504 | 0.499 | 0.488 | 0.485 | 0.500 | 2.08 |
| 82)p | 2,4-Dinitrotoluen | 0.359 | 0.385 | 0.420 | 0.440 | 0.430 | 0.433 | 0.433 | 0.414 | 7.38 |
| 83)p | 4-Nitrophenol | 0.195 | 0.213 | 0.228 | 0.237 | 0.247 | 0.272 | 0.274 | 0.238 | 12.31 |
| 84) | 1-Naphthylamine | 1.409 | 1.417 | 1.368 | 1.363 | 1.354 | 1.284 | 1.255 | 1.350 | 4.46 |
| 85) | 2-Naphthylamine | 1.514 | 1.547 | 1.468 | 1.482 | 1.469 | 1.377 | 1.348 | 1.458 | 4.89 |
| 86)p | 2,3,4,6-Tetrachlo | 0.335 | 0.352 | 0.351 | 0.367 | 0.367 | 0.357 | 0.355 | 0.355 | 3.14 |
| 87)p | Fluorene | 1.545 | 1.518 | 1.462 | 1.451 | 1.429 | 1.378 | 1.364 | 1.450 | 4.61 |
| 88)p | 4-Chlorophenyl-ph | 0.758 | 0.726 | 0.685 | 0.676 | 0.669 | 0.644 | 0.629 | 0.684 | 6.58 |
| 89)p | Diethylphthalate | 2.457 | 1.873 | 1.597 | 1.579 | 1.605 | 1.484 | 1.463 | 1.723 | 20.34 |

# Initial Calibration Summary

**Job Number:** TC52591 **Sample:** EJ1909-ICC1909
**Account:** RFWTXHO Weston Solutions **Lab FileID:** J174366.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

```
             ---- Linear regression ----  Coefficient =  0.9987
               Response Ratio = 0.13905 + 1.41977 *A

 90)  5-Nitro-o-toluidi 0.364 0.409 0.415 0.426 0.420 0.414 0.415 0.409   4.96
 91)p 4-Nitroaniline    0.369 0.402 0.359 0.373 0.377 0.359 0.356 0.371   4.31

 92) I   Phenanthrene-d10      ----------------ISTD--------------------
 93)  Dinoseb           0.065 0.089 0.124 0.150 0.140 0.166 0.174 0.130  31.12
             ---- Linear regression ----  Coefficient =  0.9923
               Response Ratio = -0.01769 + 0.17106 *A

 94)p 4,6-Dinitro-2-met 0.061 0.077 0.113 0.134 0.128 0.149 0.154 0.116  30.63
             ---- Linear regression ----  Coefficient =  0.9935
               Response Ratio = -0.01556 + 0.15277 *A

 95)p n-Nitrosodiphenyl 0.722 0.725 0.735 0.749 0.716 0.703 0.704 0.722   2.26
 96)  1,2-Diphenylhydra 0.825 0.835 0.857 0.873 0.871 0.841 0.839 0.849   2.20
 97)  Diphenylamine     0.722 0.725 0.735 0.749 0.716 0.703 0.704 0.722   2.26
 98)S 2,4,6-Tribromophe 0.106 0.111 0.113 0.116 0.110 0.110 0.113 0.111   2.71
 99)  sym-Trinitrobenze 0.033 0.045 0.069 0.082 0.080 0.093 0.094 0.071  33.23
             ---- Linear regression ----  Coefficient =  0.9946
               Response Ratio = -0.01010 + 0.09450 *A

100)  Diallate          0.368 0.368 0.361 0.368 0.370 0.351 0.338 0.361   3.31
101)p 4-Bromophenyl-phe 0.227 0.239 0.244 0.248 0.241 0.237 0.240 0.239   2.67
102)  Phenacetin        0.332 0.375 0.413 0.426 0.418 0.421 0.422 0.401   8.69
103)p Hexachlorobenzene 0.261 0.260 0.262 0.260 0.256 0.249 0.252 0.257   1.91
104)p Atrazine          0.241 0.240 0.228 0.223 0.213 0.182 0.158 0.212  14.65
             ---- Quadratic regression ----  Coefficient =  0.9994
               Response Ratio = -0.00366 + 0.26724 *A + -0.04321 *A^2

105)  4-aminobiphenyl   0.951 0.990 0.988 0.992 0.955 0.915 0.878 0.953   4.55
106)p Pentachlorophenol 0.127 0.144 0.161 0.171 0.166 0.170 0.171 0.159  10.60
107)  Pentachloronitrob 0.083 0.102 0.113 0.117 0.117 0.117 0.119 0.110  11.88
108)  Pronamide         0.338 0.367 0.379 0.390 0.386 0.379 0.380 0.374   4.72
109)  n-Octadecane      0.528 0.533 0.549 0.547 0.538 0.514 0.497 0.529   3.53
110)p Phenanthrene      1.274 1.264 1.223 1.224 1.188 1.150 1.140 1.209   4.33
111)p Anthracene        1.298 1.295 1.257 1.275 1.247 1.216 1.191 1.254   3.17
112)p Carbazole         1.242 1.245 1.220 1.220 1.198 1.155 1.141 1.203   3.40
113)p Di-n-butylphthala 1.425 1.473 1.494 1.497 1.497 1.452 1.440 1.468   2.02
114)  4-Nitroquinoline  0.039 0.048 0.071 0.086 0.088 0.098 0.103 0.076  32.25
             ---- Linear regression ----  Coefficient =  0.9931
               Response Ratio = -0.01085 + 0.10143 *A

115)  Methapyrilene     0.568 0.659 0.703 0.701 0.706 0.682 0.667 0.669   7.25
116)  Octachlorostyrene 0.114 0.119 0.116 0.119 0.117 0.114 0.114 0.116   2.16
117)  Isodrin           0.154 0.156 0.147 0.153 0.153 0.148 0.148 0.151   2.42
118)  Fluoranthene      1.479 1.493 1.472 1.460 1.437 1.382 1.354 1.440   3.63
119)S Fluoranthene-D10  0.133 0.139 0.142 0.146 0.143 0.145 0.145 0.142   3.19
120)  4,4'-Methylenedia 0.346 0.430 0.514 0.510 0.497 0.474 0.445 0.459  12.91

121) I   Chrysene-d12         ----------------ISTD--------------------
122)  Benzidine         0.533 0.675 0.798 0.804 0.814 0.774 0.722 0.731  13.76
123)  Pyrene            1.270 1.268 1.292 1.308 1.320 1.274 1.266 1.285   1.68
124)S Terphenyl-d14     0.821 0.809 0.804 0.791 0.790 0.766 0.758 0.791   2.89
125)  Aramite           0.042 0.052 0.065 0.067 0.067 0.071 0.072 0.062  18.14
             ---- Linear regression ----  Coefficient =  0.9994
               Response Ratio = -0.00445 + 0.07263 *A

126)  p-(Dimethylamine) 0.327 0.345 0.378 0.387 0.393 0.391 0.390 0.373   7.03
```

# Initial Calibration Summary

**Job Number:** TC52591 **Sample:** EJ1909-ICC1909
**Account:** RFWTXHO Weston Solutions **Lab FileID:** J174366.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

```
127)  Chlorobenzilate   0.297 0.324 0.380 0.403 0.399 0.418 0.422 0.378  12.85
128)  Kepone            0.029 0.040 0.057 0.061 0.060 0.069 0.070 0.055  27.53
             ---- Linear regression ----  Coefficient =  0.9965
               Response Ratio = -0.00639 + 0.07000 *A

129)  3,3'-Dimethylbenz 0.598 0.721 0.829 0.837 0.831 0.790 0.739 0.764  11.31
130)  Butylbenzylphthal 0.493 0.526 0.584 0.595 0.596 0.598 0.591 0.569   7.36
131)  2-Acetylaminofluo 0.283 0.345 0.441 0.480 0.489 0.530 0.545 0.445  21.84
             ---- Linear regression ----  Coefficient =  0.9973
               Response Ratio = -0.04204 + 0.54279 *A

132)p 3,3'-Dichlorobenz 0.367 0.401 0.430 0.432 0.428 0.416 0.409 0.412   5.57
133)p Benzo[a]anthracen 1.200 1.187 1.204 1.201 1.189 1.167 1.145 1.185   1.82
134)p Chrysene          1.167 1.135 1.166 1.152 1.145 1.141 1.117 1.146   1.55
135)p bis(2-Ethylhexyl) 0.659 0.732 0.786 0.805 0.815 0.818 0.811 0.775   7.64

136) I   Perylene-d12          ----------------ISTD---------------------
137)p Di-n-octylphthala 1.015 1.130 1.295 1.394 1.372 1.403 1.415 1.289  12.15
138)p Benzo[b]fluoranth 1.334 1.272 1.290 1.260 1.215 1.196 1.269 1.262   3.63
139)p Benzo[k]fluoranth 1.385 1.389 1.335 1.332 1.270 1.234 1.148 1.299   6.73
140)  7,12-Dimethylbenz 0.523 0.559 0.563 0.553 0.525 0.516 0.515 0.536   3.93
141)p Benzo[a]pyrene    1.227 1.266 1.265 1.261 1.247 1.216 1.201 1.241   2.09
142)S Benzo[a]pyrene-D1 1.114 1.160 1.168 1.185 1.145 1.114 1.109 1.142   2.66
143)  3-Methylcholanthr 0.371 0.382 0.418 0.441 0.431 0.438 0.440 0.417   6.93
144)  Dibenz(a,j)acridi 0.700 0.807 0.918 0.978 0.970 0.980 0.992 0.906  12.30
145)p Indeno[1,2,3-cd]p 0.899 0.985 1.073 1.120 1.114 1.107 1.152 1.064   8.48
146)p Dibenz[a,h]anthra 1.021 1.066 1.202 1.217 1.187 1.189 1.190 1.153   6.65
147)p Benzo[g,h,i]peryl 1.114 1.172 1.209 1.247 1.215 1.202 1.194 1.193   3.49
 ------------------------------------------------------------------------------
 (#) = Out of Range

           ej1909.m          Tue Aug 05 15:35:04 2014
```

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174373.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\ej1909\j174373.D  Vial: 9
Acq On : 5 Aug 2014 3:08 pm  Operator: SHEILAC
Sample : icv1909-50  Inst : MSJ
Misc : op30663,ej1909,1000,,,1,1,water  Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\ej1909.m (RTE Integrator)
Title : SW846 8270D and EPA625
Last Update : Tue Aug 05 18:30:21 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 103 | 0.00 | 5.56 |
| 2 | | bis(Chloromethyl)ether | | ----------NA---------- | | | | |
| 3 | | 1,4-Dioxane | | ----------NA---------- | | | | |
| 4 | | N-nitrosodimethylamine | 0.780 | 0.750 | 3.8 | 91 | 0.00 | 3.60 |
| 5 | | Pyridine | 1.404 | 1.334 | 5.0 | 95 | 0.00 | 3.63 |
| 6 | | 2-Picoline | | ----------NA---------- | | | | |
| 7 | | N-Nitrosomethylethylamine | | ----------NA---------- | | | | |
| 8 | | Methyl methanesulfonate | | ----------NA---------- | | | | |
| 9 | | N-Nitrosodiethylamine | | ----------NA---------- | | | | |
| 10 | | 2-Butoxyethanol | | ----------NA---------- | | | | |
| 11 | | Ethyl methanesulfonate | | ----------NA---------- | | | | |
| 12 | p | Benzaldehyde | | ----------NA---------- | | | | |
| 13 | | Pentachloroethane | | ----------NA---------- | | | | |
| 14 | | Aniline | | ----------NA---------- | | | | |
| 15 | S | 2-Fluorophenol | | ----------NA---------- | | | | |
| 16 | p | bis(2-Chloroethyl)ether | 1.424 | 1.317 | 7.5 | 96 | 0.00 | 5.33 |
| 17 | S | Phenol-d5 | | ----------NA---------- | | | | |
| 18 | p | Phenol | 1.840 | 1.784 | 3.0 | 101 | 0.00 | 5.24 |
| 19 | p | 2-Chlorophenol | 1.490 | 1.440 | 3.4 | 98 | 0.00 | 5.39 |
| 20 | | n-Decane | | ----------NA---------- | | | | |
| 21 | | 1,3-Dichlorobenzene | 1.604 | 1.494 | 6.9 | 96 | 0.00 | 5.52 |
| 22 | | 1,4-Dichlorobenzene | 1.632 | 1.559 | 4.5 | 99 | 0.00 | 5.57 |
| 23 | | 1,2-Dichlorobenzene | 1.592 | 1.475 | 7.3 | 96 | 0.00 | 5.71 |
| 24 | | Benzyl alcohol | 1.095 | 0.927 | 15.3 | 88 | 0.00 | 5.66 |
| 25 | p | bis(2-chloroisopropyl)eth | 2.388 | 2.082 | 12.8 | 89 | 0.00 | 5.77 |
| 26 | p | 2-Methylphenol | 1.502 | 1.335 | 11.1 | 92 | 0.00 | 5.74 |
| 27 | | N-nitrosopyrrolidine | | ----------NA---------- | | | | |
| 28 | | N-Nitrosomorpholine | | ----------NA---------- | | | | |
| 29 | | o-Toluidine | | ----------NA---------- | | | | |
| 30 | p | Acetophenone | | ----------NA---------- | | | | |
| 31 | p | Hexachloroethane | 0.644 | 0.600 | 6.8 | 95 | 0.00 | 6.02 |
| 32 | p | N-Nitroso-di-n-propylamin | 1.342 | 1.150 | 14.3 | 91 | 0.00 | 5.89 |
| 33 | p | 3&4-Methylphenol | 1.581 | 1.386 | 12.4 | 90 | 0.00 | 5.87 |
| 34 | I | Naphthalene-d8 | 1.000 | 1.000 | 0.0 | 94 | 0.00 | 6.82 |
| 35 | S | Nitrobenzene-d5 | | ----------NA---------- | | | | |
| 36 | p | Nitrobenzene | 0.407 | 0.383 | 5.9 | 88 | 0.00 | 6.07 |
| 37 | | 2,6-Dimethylphenol | | ----------NA---------- | | | | |
| 38 | | N-Nitrosopiperidine | | ----------NA---------- | | | | |
| 39 | | A,A-Dimethylphenethylamin | | ----------NA---------- | | | | |
| 40 | p | Isophorone | 0.776 | 0.723 | 6.8 | 88 | 0.00 | 6.30 |
| 41 | p | 2-Nitrophenol | 0.174 | 0.182 | -4.6 | 98 | 0.00 | 6.39 |

# Initial Calibration Verification

**Job Number:** TC52591 **Sample:** EJ1909-ICV1909
**Account:** RFWTXHO Weston Solutions **Lab FileID:** J174373.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | p | 2,4-Dimethylphenol | 0.407 | 0.360 | 11.5 | 83 | 0.00 | 6.40 |
| 43 | p | bis(2-Chloroethoxy)methan | 0.425 | 0.397 | 6.6 | 90 | 0.00 | 6.51 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 44 | | Benzoic Acid | 50.000 | 44.415 | 11.2 | 93 | -0.02 | 6.48 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 45 | p | 2,4-Dichlorophenol | 0.328 | 0.314 | 4.3 | 90 | 0.00 | 6.64 |
| 46 | | 1,2,4-Trichlorobenzene | 0.326 | 0.307 | 5.8 | 89 | 0.00 | 6.75 |
| 47 | p | Naphthalene | 1.060 | 0.985 | 7.1 | 90 | 0.00 | 6.85 |
| 48 | p | 4-Chloroaniline | | ----------NA---------- | | | | |
| 49 | | 2,6-Dichlorophenol | | ----------NA---------- | | | | |
| 50 | | Hexachloropropene | | ----------NA---------- | | | | |
| 51 | p | Hexachlorobutadiene | 0.200 | 0.185 | 7.5 | 86 | 0.00 | 6.98 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 52 | | p-Phenylenediamine | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 53 | p | Caprolactam | | ----------NA---------- | | | | |
| 54 | | N-Nitrosodi-n-butylamine | | ----------NA---------- | | | | |
| 55 | | Hydroquinone | | ----------NA---------- | | | | |
| 56 | p | 4-Chloro-3-methylphenol | 0.381 | 0.331 | 13.1 | 82 | -0.01 | 7.48 |
| 57 | | Isosafrole | | ----------NA---------- | | | | |
| 58 | p | 2-Methylnaphthalene | 0.812 | 0.707 | 12.9 | 83 | 0.00 | 7.74 |
| 59 | | 1-Methylnaphthalene | 0.755 | 0.668 | 11.5 | 84 | 0.00 | 7.88 |
| 60 | p | 1,2,4,5-Tetrachlorobenzen | | ----------NA---------- | | | | |
| 61 | I | Acenaphthene-d10 | 1.000 | 1.000 | 0.0 | 86 | 0.00 | 9.38 |
| 62 | p | Hexachlorocyclopentadiene | 0.299 | 0.342 | -14.4 | 94 | 0.00 | 7.96 |
| 63 | p | 2,4,6-Trichlorophenol | 0.369 | 0.379 | -2.7 | 86 | 0.00 | 8.14 |
| 64 | p | 2,4,5-Trichlorophenol | 0.399 | 0.403 | -1.0 | 84 | 0.00 | 8.19 |
| 65 | S | 2-Fluorobiphenyl | | ----------NA---------- | | | | |
| 66 | | Safrole | | ----------NA---------- | | | | |
| 67 | p | 1,1'-Biphenyl | | ----------NA---------- | | | | |
| 68 | p | 2-Chloronaphthalene | 1.175 | 1.084 | 7.7 | 77 | 0.00 | 8.47 |
| 69 | | 1-Chloronaphthalene | | ----------NA---------- | | | | |
| 70 | | Diphenyl ether | | ----------NA---------- | | | | |
| 71 | p | 2-Nitroaniline | 0.412 | 0.343 | 16.7 | 67 | 0.00 | 8.63 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 72 | | 1,4-Naphthoquinone | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 73 | | Acenaphthylene | 1.837 | 1.801 | 2.0 | 84 | 0.00 | 9.14 |
| 74 | p | Dimethylphthalate | 1.458 | 1.311 | 10.1 | 77 | 0.00 | 8.95 |
| 75 | | m-Dinitrobenzene | 0.221 | 0.215 | 2.7 | 78 | 0.00 | 8.98 |
| 76 | p | 2,6-Dinitrotoluene | 0.318 | 0.300 | 5.7 | 79 | 0.00 | 9.03 |
| 77 | p | Acenaphthene | 1.170 | 1.081 | 7.6 | 79 | 0.00 | 9.44 |
| 78 | p | 3-Nitroaniline | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 79 | p | 2,4-Dinitrophenol | 50.000 | 47.779 | 4.4 | 87 | -0.02 | 9.49 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 80 | p | Dibenzofuran | 1.713 | 1.577 | 7.9 | 80 | 0.00 | 9.74 |
| 81 | | Pentachlorobenzene | | ----------NA---------- | | | | |
| 82 | p | 2,4-Dinitrotoluene | 0.414 | 0.395 | 4.6 | 79 | -0.01 | 9.73 |
| 83 | p | 4-Nitrophenol | 0.238 | 0.225 | 5.5 | 78 | -0.02 | 9.60 |
| 84 | | 1-Naphthylamine | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591 **Sample:** EJ1909-ICV1909
**Account:** RFWTXHO Weston Solutions **Lab FileID:** J174373.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 85 | | 2-Naphthylamine | | ----------NA---------- | | | | |
| 86 | p | 2,3,4,6-Tetrachlorophenol | 0.355 | 0.331 | 6.8 | 77 | 0.00 | 9.96 |
| 87 | p | Fluorene | 1.450 | 1.312 | 9.5 | 79 | 0.00 | 10.36 |
| 88 | p | 4-Chlorophenyl-phenylethe | 0.684 | 0.638 | 6.7 | 82 | 0.00 | 10.38 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 89 | p | Diethylphthalate | 50.000 | 44.228 | 11.5 | 73 | 0.00 | 10.20 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 90 | | 5-Nitro-o-toluidine | | ----------NA---------- | | | | |
| 91 | p | 4-Nitroaniline | 0.371 | 0.334 | 10.0 | 76 | -0.02 | 10.40 |
| 92 | I | Phenanthrene-d10 | 1.000 | 1.000 | 0.0 | 80 | 0.00 | 12.13 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 93 | | Dinoseb | | ----------NA---------- | | | | |
| 94 | p | 4,6-Dinitro-2-methylpheno | 50.000 | 47.486 | 5.0 | 83 | -0.01 | 10.46 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 95 | p | n-Nitrosodiphenylamine | 0.722 | 0.604 | 16.3 | 67 | 0.00 | 10.60 |
| 96 | | 1,2-Diphenylhydrazine | 0.849 | 0.816 | 3.9 | 75 | 0.00 | 10.67 |
| 97 | | Diphenylamine | 0.722 | 0.604 | 16.3 | 67 | 0.00 | 10.60 |
| 98 | S | 2,4,6-Tribromophenol | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 99 | | sym-Trinitrobenzene | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 100 | | Diallate | | ----------NA---------- | | | | |
| 101 | p | 4-Bromophenyl-phenylether | 0.239 | 0.228 | 4.6 | 76 | 0.00 | 11.30 |
| 102 | | Phenacetin | | ----------NA---------- | | | | |
| 103 | p | Hexachlorobenzene | 0.257 | 0.238 | 7.4 | 74 | 0.00 | 11.38 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 104 | p | Atrazine | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 105 | | 4-aminobiphenyl | | ----------NA---------- | | | | |
| 106 | p | Pentachlorophenol | 0.159 | 0.169 | -6.3 | 81 | -0.01 | 11.76 |
| 107 | | Pentachloronitrobenzene | | ----------NA---------- | | | | |
| 108 | | Pronamide | | ----------NA---------- | | | | |
| 109 | | n-Octadecane | | ----------NA---------- | | | | |
| 110 | p | Phenanthrene | 1.209 | 1.137 | 6.0 | 77 | 0.00 | 12.17 |
| 111 | p | Anthracene | 1.254 | 1.137 | 9.3 | 73 | 0.00 | 12.27 |
| 112 | p | Carbazole | 1.203 | 1.152 | 4.2 | 77 | 0.00 | 12.60 |
| 113 | p | Di-n-butylphthalate | 1.468 | 1.547 | -5.4 | 83 | 0.00 | 13.39 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 114 | | 4-Nitroquinoline 1-Oxide | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 115 | | Methapyrilene | | ----------NA---------- | | | | |
| 116 | | Octachlorostyrene | | ----------NA---------- | | | | |
| 117 | | Isodrin | | ----------NA---------- | | | | |
| 118 | | Fluoranthene | 1.440 | 1.410 | 2.1 | 79 | 0.00 | 14.51 |
| 119 | S | Fluoranthene-D10 | | ----------NA---------- | | | | |
| 120 | | 4,4'-Methylenedianiline | | ----------NA---------- | | | | |
| 121 | I | Chrysene-d12 | 1.000 | 1.000 | 0.0 | 96 | 0.00 | 17.39 |
| 122 | | Benzidine | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591 **Sample:** EJ1909-ICV1909
**Account:** RFWTXHO Weston Solutions **Lab FileID:** J174373.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 123 | | Pyrene | 1.285 | 1.151 | 10.4 | 84 | 0.00 | 14.95 |
| 124 | S | Terphenyl-d14 | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 125 | | Aramite | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 126 | | p-(Dimethylamine)azobenze | | ----------NA---------- | | | | |
| 127 | | Chlorobenzilate | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 128 | | Kepone | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 129 | | 3,3'-Dimethylbenzidine | | ----------NA---------- | | | | |
| 130 | | Butylbenzylphthalate | 0.569 | 0.542 | 4.7 | 88 | 0.00 | 16.39 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 131 | | 2-Acetylaminofluorene | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 132 | p | 3,3'-Dichlorobenzidine | | ----------NA---------- | | | | |
| 133 | p | Benzo[a]anthracene | 1.185 | 1.105 | 6.8 | 90 | 0.00 | 17.37 |
| 134 | p | Chrysene | 1.146 | 1.110 | 3.1 | 93 | 0.00 | 17.44 |
| 135 | p | bis(2-Ethylhexyl)phthalat | 0.775 | 0.761 | 1.8 | 90 | 0.00 | 17.60 |
| 136 | I | Perylene-d12 | 1.000 | 1.000 | 0.0 | 90 | 0.00 | 20.07 |
| 137 | p | Di-n-octylphthalate | 1.289 | 1.366 | -6.0 | 90 | 0.00 | 18.85 |
| 138 | p | Benzo[b]fluoranthene | 1.262 | 1.145 | 9.3 | 85 | 0.00 | 19.39 |
| 139 | p | Benzo[k]fluoranthene | 1.299 | 1.174 | 9.6 | 83 | 0.00 | 19.44 |
| 140 | | 7,12-Dimethylbenz(a)anthr | | ----------NA---------- | | | | |
| 141 | p | Benzo[a]pyrene | 1.241 | 1.185 | 4.5 | 86 | 0.00 | 19.97 |
| 142 | S | Benzo[a]pyrene-D12 | | ----------NA---------- | | | | |
| 143 | | 3-Methylcholanthrene | | ----------NA---------- | | | | |
| 144 | | Dibenz(a,j)acridine | | ----------NA---------- | | | | |
| 145 | p | Indeno[1,2,3-cd]pyrene | 1.064 | 1.060 | 0.4 | 86 | 0.00 | 22.29 |
| 146 | p | Dibenz[a,h]anthracene | 1.153 | 1.159 | -0.5 | 88 | 0.00 | 22.36 |
| 147 | p | Benzo[g,h,i]perylene | 1.193 | 1.178 | 1.3 | 87 | 0.00 | 22.94 |

(#) = Out of Range SPCC's out = 8 CCC's out = 0
j174366.D ej1909.m Tue Aug 05 18:59:01 2014

7.7.2

7

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174374.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\ej1909\j174374.D          Vial: 10
Acq On    :  5 Aug 2014   3:39 pm                   Operator: SHEILAC
Sample    : icv1909-50,cresent                      Inst    : MSJ
Misc      : op30663,ej1909,1000,,,1,1,water         Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\ej1909.m (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Tue Aug 05 15:33:48 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 250%
```

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 159 | 0.00 | 5.56 |
| 2 | | bis(Chloromethyl)ether | | ----------NA---------- | | | | |
| 3 | | 1,4-Dioxane | | ----------NA---------- | | | | |
| 4 | | N-nitrosodimethylamine | | ----------NA---------- | | | | |
| 5 | | Pyridine | | ----------NA---------- | | | | |
| 6 | | 2-Picoline | 1.625 | 1.183 | 27.2 | 115 | 0.00 | 4.17 |
| 7 | | N-Nitrosomethylethylamine | 0.950 | 1.010 | -6.3 | 158 | 0.00 | 4.25 |
| 8 | | Methyl methanesulfonate | 0.995 | 0.291 | 70.8# | 45# | 0.00 | 4.46 |
| 9 | | N-Nitrosodiethylamine | 0.798 | 0.885 | -10.9 | 178 | 0.00 | 4.74 |
| 10 | | 2-Butoxyethanol | | ----------NA---------- | | | | |
| 11 | | Ethyl methanesulfonate | 1.223 | 1.414 | -15.6 | 180 | 0.00 | 4.95 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 12 | p | Benzaldehyde | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 13 | | Pentachloroethane | 0.549 | 0.630 | -14.8 | 185 | 0.00 | 5.34 |
| 14 | | Aniline | | ----------NA---------- | | | | |
| 15 | S | 2-Fluorophenol | | ----------NA---------- | | | | |
| 16 | p | bis(2-Chloroethyl)ether | | ----------NA---------- | | | | |
| 17 | S | Phenol-d5 | | ----------NA---------- | | | | |
| 18 | p | Phenol | | ----------NA---------- | | | | |
| 19 | p | 2-Chlorophenol | | ----------NA---------- | | | | |
| 20 | | n-Decane | | ----------NA---------- | | | | |
| 21 | | 1,3-Dichlorobenzene | | ----------NA---------- | | | | |
| 22 | | 1,4-Dichlorobenzene | | ----------NA---------- | | | | |
| 23 | | 1,2-Dichlorobenzene | | ----------NA---------- | | | | |
| 24 | | Benzyl alcohol | | ----------NA---------- | | | | |
| 25 | p | bis(2-chloroisopropyl)eth | | ----------NA---------- | | | | |
| 26 | p | 2-Methylphenol | | ----------NA---------- | | | | |
| 27 | | N-nitrosopyrrolidine | 0.929 | 0.919 | 1.1 | 160 | 0.02 | 5.91 |
| 28 | | N-Nitrosomorpholine | 1.377 | 1.441 | -4.6 | 164 | 0.00 | 5.93 |
| 29 | | o-Toluidine | 2.813 | 2.433 | 13.5 | 135 | 0.00 | 5.94 |
| 30 | p | Acetophenone | 2.254 | 2.592 | -15.0 | 188 | 0.00 | 5.91 |
| 31 | p | Hexachloroethane | | ----------NA---------- | | | | |
| 32 | p | N-Nitroso-di-n-propylamin | | ----------NA---------- | | | | |
| 33 | p | 3&4-Methylphenol | 1.581 | 1.736 | -9.8 | 176 | 0.00 | 5.89 |
| 34 | I | Naphthalene-d8 | 1.000 | 1.000 | 0.0 | 170 | 0.00 | 6.83 |
| 35 | S | Nitrobenzene-d5 | | ----------NA---------- | | | | |
| 36 | p | Nitrobenzene | | ----------NA---------- | | | | |
| 37 | | 2,6-Dimethylphenol | 0.344 | 0.377 | -9.6 | 187 | 0.00 | 6.17 |

# Initial Calibration Verification

**Job Number:** TC52591 **Sample:** EJ1909-ICV1909
**Account:** RFWTXHO Weston Solutions **Lab FileID:** J174374.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | | N-Nitrosopiperidine | 0.321 | 0.302 | 5.9 | 154 | 0.00 | 6.23 |
| 39 | | A,A-Dimethylphenethylamin | 1.261 | 1.185 | 6.0 | 148 | 0.73# | 7.43 |
| 40 | p | Isophorone | | ----------NA---------- | | | | |
| 41 | p | 2-Nitrophenol | | ----------NA---------- | | | | |
| 42 | p | 2,4-Dimethylphenol | | ----------NA---------- | | | | |
| 43 | p | bis(2-Chloroethoxy)methan | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 44 | | Benzoic Acid | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 45 | p | 2,4-Dichlorophenol | | ----------NA---------- | | | | |
| 46 | | 1,2,4-Trichlorobenzene | | ----------NA---------- | | | | |
| 47 | p | Naphthalene | | ----------NA---------- | | | | |
| 48 | p | 4-Chloroaniline | | ----------NA---------- | | | | |
| 49 | | 2,6-Dichlorophenol | 0.265 | 0.327 | -23.4 | 213 | 0.00 | 6.91 |
| 50 | | Hexachloropropene | 0.208 | 0.237 | -13.9 | 186 | 0.00 | 6.95 |
| 51 | p | Hexachlorobutadiene | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 52 | | p-Phenylenediamine | 500.000 | 32.849 | 93.4# | 12# | 0.13 | 7.52 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 53 | p | Caprolactam | 0.139 | 0.122 | 12.2 | 151 | -0.03 | 7.40 |
| 54 | | N-Nitrosodi-n-butylamine | 0.329 | 0.284 | 13.7 | 155 | 0.00 | 7.31 |
| 55 | | Hydroquinone | | ----------NA---------- | | | | |
| 56 | p | 4-Chloro-3-methylphenol | | ----------NA---------- | | | | |
| 57 | | Isosafrole | 0.312 | 0.425 | -36.2# | 234 | 0.00 | 7.62 |
| 58 | p | 2-Methylnaphthalene | | ----------NA---------- | | | | |
| 59 | | 1-Methylnaphthalene | | ----------NA---------- | | | | |
| 60 | p | 1,2,4,5-Tetrachlorobenzen | 0.359 | 0.368 | -2.5 | 175 | 0.00 | 7.98 |
| 61 | I | Acenaphthene-d10 | 1.000 | 1.000 | 0.0 | 145 | 0.00 | 9.39 |
| 62 | p | Hexachlorocyclopentadiene | | ----------NA---------- | | | | |
| 63 | p | 2,4,6-Trichlorophenol | | ----------NA---------- | | | | |
| 64 | p | 2,4,5-Trichlorophenol | | ----------NA---------- | | | | |
| 65 | S | 2-Fluorobiphenyl | | ----------NA---------- | | | | |
| 66 | | Safrole | 0.443 | 0.542 | -22.3 | 175 | 0.00 | 8.39 |
| 67 | p | 1,1'-Biphenyl | 1.353 | 1.578 | -16.6 | 174 | 0.00 | 8.45 |
| 68 | p | 2-Chloronaphthalene | | ----------NA---------- | | | | |
| 69 | | 1-Chloronaphthalene | 0.989 | 1.173 | -18.6 | 181 | 0.00 | 8.51 |
| 70 | | Diphenyl ether | 0.763 | 0.860 | -12.7 | 165 | 0.00 | 8.62 |
| 71 | p | 2-Nitroaniline | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 72 | | 1,4-Naphthoquinone | 50.000 | 9.428 | 81.1# | 36 | 0.00 | 8.76 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 73 | | Acenaphthylene | | ----------NA---------- | | | | |
| 74 | p | Dimethylphthalate | | ----------NA---------- | | | | |
| 75 | | m-Dinitrobenzene | | ----------NA---------- | | | | |
| 76 | p | 2,6-Dinitrotoluene | | ----------NA---------- | | | | |
| 77 | p | Acenaphthene | | ----------NA---------- | | | | |
| 78 | p | 3-Nitroaniline | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 79 | p | 2,4-Dinitrophenol | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 80 | p | Dibenzofuran | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591 **Sample:** EJ1909-ICV1909
**Account:** RFWTXHO Weston Solutions **Lab FileID:** J174374.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 81 | | Pentachlorobenzene | 0.500 | 0.553 | -10.6 | 161 | 0.00 | 9.68 |
| 82 | p | 2,4-Dinitrotoluene | | ----------NA---------- | | | | |
| 83 | p | 4-Nitrophenol | | ----------NA---------- | | | | |
| 84 | | 1-Naphthylamine | 1.350 | 0.675 | 50.0# | 73 | 0.00 | 9.90 |
| 85 | | 2-Naphthylamine | 1.458 | 0.771 | 47.1# | 76 | 0.00 | 10.04 |
| 86 | p | 2,3,4,6-Tetrachlorophenol | | ----------NA---------- | | | | |
| 87 | p | Fluorene | | ----------NA---------- | | | | |
| 88 | p | 4-Chlorophenyl-phenylethe | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 89 | p | Diethylphthalate | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 90 | | 5-Nitro-o-toluidine | 0.409 | 0.373 | 8.8 | 129 | 0.01 | 10.41 |
| 91 | p | 4-Nitroaniline | | ----------NA---------- | | | | |
| 92 | I | Phenanthrene-d10 | 1.000 | 1.000 | 0.0 | 140 | 0.00 | 12.14 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 93 | | Dinoseb | 50.000 | 69.718 | -39.4# | 223 | 0.00 | 12.17 |
| 94 | p | 4,6-Dinitro-2-methylpheno | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 95 | p | n-Nitrosodiphenylamine | | ----------NA---------- | | | | |
| 96 | | 1,2-Diphenylhydrazine | | ----------NA---------- | | | | |
| 97 | | Diphenylamine | | ----------NA---------- | | | | |
| 98 | S | 2,4,6-Tribromophenol | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 99 | | sym-Trinitrobenzene | 50.000 | 35.750 | 28.5 | 104 | 0.02 | 11.15 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 100 | | Diallate | 0.361 | 0.341 | 5.5 | 129 | 0.01 | 11.18 |
| 101 | p | 4-Bromophenyl-phenylether | | ----------NA---------- | | | | |
| 102 | | Phenacetin | 0.401 | 0.534 | -33.2# | 178 | 0.03 | 11.26 |
| 103 | p | Hexachlorobenzene | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 104 | p | Atrazine | 50.000 | 16.990 | 66.0# | 54 | 0.00 | 11.66 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 105 | | 4-aminobiphenyl | 0.953 | 0.501 | 47.4# | 73 | 0.00 | 11.81 |
| 106 | p | Pentachlorophenol | | ----------NA---------- | | | | |
| 107 | | Pentachloronitrobenzene | 0.110 | 0.128 | -16.4 | 153 | 0.00 | 11.80 |
| 108 | | Pronamide | 0.374 | 0.459 | -22.7 | 166 | 0.01 | 11.97 |
| 109 | | n-Octadecane | | ----------NA---------- | | | | |
| 110 | p | Phenanthrene | | ----------NA---------- | | | | |
| 111 | p | Anthracene | | ----------NA---------- | | | | |
| 112 | p | Carbazole | | ----------NA---------- | | | | |
| 113 | p | Di-n-butylphthalate | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 114 | | 4-Nitroquinoline 1-Oxide | 50.000 | 39.613 | 20.8 | 113 | 0.00 | 13.71 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 115 | | Methapyrilene | 0.669 | 0.653 | 2.4 | 129 | 0.01 | 13.94 |
| 116 | | Octachlorostyrene | 0.116 | 0.125 | -7.8 | 149 | 0.00 | 14.17 |
| 117 | | Isodrin | 0.151 | 0.178 | -17.9 | 162 | 0.00 | 14.22 |
| 118 | | Fluoranthene | | ----------NA---------- | | | | |
| 119 | S | Fluoranthene-D10 | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591 **Sample:** EJ1909-ICV1909
**Account:** RFWTXHO Weston Solutions **Lab FileID:** J174374.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 120 | | 4,4'-Methylenedianiline | 0.459 | 0.141 | 69.3# | 40# | 0.00 | 14.90 |
| 121 | I | Chrysene-d12 | 1.000 | 1.000 | 0.0 | 152 | 0.01 | 17.41 |
| 122 | | Benzidine | ----------NA---------- | | | | | |
| 123 | | Pyrene | ----------NA---------- | | | | | |
| 124 | S | Terphenyl-d14 | ----------NA---------- | | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 125 | | Aramite | 50.000 | 57.563 | -15.1 | 181 | 0.00 | 15.53 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 126 | | p-(Dimethylamine)azobenze | 0.373 | 0.356 | 4.6 | 138 | 0.01 | 15.64 |
| 127 | | Chlorobenzilate | 0.378 | 0.510 | -34.9# | 194 | 0.01 | 15.76 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 128 | | Kepone | ----------NA---------- | | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 129 | | 3,3'-Dimethylbenzidine | 0.764 | 0.533 | 30.2# | 97 | 0.01 | 16.32 |
| 130 | | Butylbenzylphthalate | ----------NA---------- | | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 131 | | 2-Acetylaminofluorene | 50.000 | 54.114 | -8.2 | 172 | 0.03 | 16.83 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 132 | p | 3,3'-Dichlorobenzidine | 0.412 | 0.438 | -6.3 | 155 | 0.01 | 17.38 |
| 133 | p | Benzo[a]anthracene | ----------NA---------- | | | | | |
| 134 | p | Chrysene | ----------NA---------- | | | | | |
| 135 | p | bis(2-Ethylhexyl)phthalat | ----------NA---------- | | | | | |
| 136 | I | Perylene-d12 | 1.000 | 1.000 | 0.0 | 153 | 0.02 | 20.08 |
| 137 | p | Di-n-octylphthalate | ----------NA---------- | | | | | |
| 138 | p | Benzo[b]fluoranthene | ----------NA---------- | | | | | |
| 139 | p | Benzo[k]fluoranthene | ----------NA---------- | | | | | |
| 140 | | 7,12-Dimethylbenz(a)anthr | 0.536 | 0.589 | -9.9 | 171 | 0.02 | 19.42 |
| 141 | p | Benzo[a]pyrene | ----------NA---------- | | | | | |
| 142 | S | Benzo[a]pyrene-D12 | ----------NA---------- | | | | | |
| 143 | | 3-Methylcholanthrene | 0.417 | 0.754 | -80.8# | 267# | 0.03 | 20.67 |
| 144 | | Dibenz(a,j)acridine | 0.906 | 1.172 | -29.4 | 184 | 0.04 | 21.93 |
| 145 | p | Indeno[1,2,3-cd]pyrene | ----------NA---------- | | | | | |
| 146 | p | Dibenz[a,h]anthracene | ----------NA---------- | | | | | |
| 147 | p | Benzo[g,h,i]perylene | ----------NA---------- | | | | | |

(#) = Out of Range SPCC's out = 51 CCC's out = 0
j174366.D ej1909.m Wed Aug 06 17:24:08 2014

7.7.3

7

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** EJ1909-ICV1909
**Lab FileID:** J174375.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\ej1909\j174375.D          Vial: 11
Acq On    :  5 Aug 2014   4:09 pm                   Operator: SHEILAC
Sample    : icv1909-50,custom                       Inst    : MSJ
Misc      : op30663,ej1909,1000,,,1,1,water         Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\ej1909.m (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Tue Aug 05 17:46:28 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 113 | 0.00 | 5.56 |
| 2 | | bis(Chloromethyl)ether | | ----------NA---------- | | | | |
| 3 | | 1,4-Dioxane | 0.499 | 0.488 | 2.2 | 110 | 0.00 | 3.37 |
| 4 | | N-nitrosodimethylamine | | ----------NA---------- | | | | |
| 5 | | Pyridine | | ----------NA---------- | | | | |
| 6 | | 2-Picoline | | ----------NA---------- | | | | |
| 7 | | N-Nitrosomethylethylamine | | ----------NA---------- | | | | |
| 8 | | Methyl methanesulfonate | | ----------NA---------- | | | | |
| 9 | | N-Nitrosodiethylamine | | ----------NA---------- | | | | |
| 10 | | 2-Butoxyethanol | | ----------NA---------- | | | | |
| 11 | | Ethyl methanesulfonate | | ----------NA---------- | | | | |
| 12 | p | Benzaldehyde | 0.793 | 1.155 | -45.6# | 174 | 0.00 | 5.21 |
| 13 | | Pentachloroethane | | ----------NA---------- | | | | |
| 14 | | Aniline | | ----------NA---------- | | | | |
| 15 | S | 2-Fluorophenol | | ----------NA---------- | | | | |
| 16 | p | bis(2-Chloroethyl)ether | | ----------NA---------- | | | | |
| 17 | S | Phenol-d5 | | ----------NA---------- | | | | |
| 18 | p | Phenol | | ----------NA---------- | | | | |
| 19 | p | 2-Chlorophenol | | ----------NA---------- | | | | |
| 20 | | n-Decane | 1.548 | 1.626 | -5.0 | 116 | 0.00 | 5.40 |
| 21 | | 1,3-Dichlorobenzene | | ----------NA---------- | | | | |
| 22 | | 1,4-Dichlorobenzene | | ----------NA---------- | | | | |
| 23 | | 1,2-Dichlorobenzene | | ----------NA---------- | | | | |
| 24 | | Benzyl alcohol | | ----------NA---------- | | | | |
| 25 | p | bis(2-chloroisopropyl)eth | | ----------NA---------- | | | | |
| 26 | p | 2-Methylphenol | | ----------NA---------- | | | | |
| 27 | | N-nitrosopyrrolidine | | ----------NA---------- | | | | |
| 28 | | N-Nitrosomorpholine | | ----------NA---------- | | | | |
| 29 | | o-Toluidine | | ----------NA---------- | | | | |
| 30 | p | Acetophenone | | ----------NA---------- | | | | |
| 31 | p | Hexachloroethane | | ----------NA---------- | | | | |
| 32 | p | N-Nitroso-di-n-propylamin | | ----------NA---------- | | | | |
| 33 | p | 3&4-Methylphenol | | ----------NA---------- | | | | |
| 34 | I | Naphthalene-d8 | 1.000 | 1.000 | 0.0 | 108 | 0.00 | 6.82 |
| 35 | S | Nitrobenzene-d5 | | ----------NA---------- | | | | |
| 36 | p | Nitrobenzene | | ----------NA---------- | | | | |
| 37 | | 2,6-Dimethylphenol | | ----------NA---------- | | | | |
| 38 | | N-Nitrosopiperidine | | ----------NA---------- | | | | |
| 39 | | A,A-Dimethylphenethylamin | | ----------NA---------- | | | | |
| 40 | p | Isophorone | | ----------NA---------- | | | | |
| 41 | p | 2-Nitrophenol | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174375.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | p | 2,4-Dimethylphenol | | ----------NA---------- | | | | |
| 43 | p | bis(2-Chloroethoxy)methan | 0.425 | 0.141# | 66.8# | 37# | -0.04 | 6.47 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 44 | | Benzoic Acid | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 45 | p | 2,4-Dichlorophenol | | ----------NA---------- | | | | |
| 46 | | 1,2,4-Trichlorobenzene | | ----------NA---------- | | | | |
| 47 | p | Naphthalene | | ----------NA---------- | | | | |
| 48 | p | 4-Chloroaniline | | ----------NA---------- | | | | |
| 49 | | 2,6-Dichlorophenol | | ----------NA---------- | | | | |
| 50 | | Hexachloropropene | | ----------NA---------- | | | | |
| 51 | p | Hexachlorobutadiene | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 52 | | p-Phenylenediamine | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 53 | p | Caprolactam | | ----------NA---------- | | | | |
| 54 | | N-Nitrosodi-n-butylamine | | ----------NA---------- | | | | |
| 55 | | Hydroquinone | | ----------NA---------- | | | | |
| 56 | p | 4-Chloro-3-methylphenol | | ----------NA---------- | | | | |
| 57 | | Isosafrole | | ----------NA---------- | | | | |
| 58 | p | 2-Methylnaphthalene | | ----------NA---------- | | | | |
| 59 | | 1-Methylnaphthalene | | ----------NA---------- | | | | |
| 60 | p | 1,2,4,5-Tetrachlorobenzen | | ----------NA---------- | | | | |
| 61 | I | Acenaphthene-d10 | 1.000 | 1.000 | 0.0 | 102 | 0.00 | 9.38 |
| 62 | p | Hexachlorocyclopentadiene | | ----------NA---------- | | | | |
| 63 | p | 2,4,6-Trichlorophenol | | ----------NA---------- | | | | |
| 64 | p | 2,4,5-Trichlorophenol | | ----------NA---------- | | | | |
| 65 | S | 2-Fluorobiphenyl | | ----------NA---------- | | | | |
| 66 | | Safrole | | ----------NA---------- | | | | |
| 67 | p | 1,1'-Biphenyl | | ----------NA---------- | | | | |
| 68 | p | 2-Chloronaphthalene | | ----------NA---------- | | | | |
| 69 | | 1-Chloronaphthalene | | ----------NA---------- | | | | |
| 70 | | Diphenyl ether | | ----------NA---------- | | | | |
| 71 | p | 2-Nitroaniline | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 72 | | 1,4-Naphthoquinone | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 73 | | Acenaphthylene | | ----------NA---------- | | | | |
| 74 | p | Dimethylphthalate | | ----------NA---------- | | | | |
| 75 | | m-Dinitrobenzene | | ----------NA---------- | | | | |
| 76 | p | 2,6-Dinitrotoluene | | ----------NA---------- | | | | |
| 77 | p | Acenaphthene | | ----------NA---------- | | | | |
| 78 | p | 3-Nitroaniline | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 79 | p | 2,4-Dinitrophenol | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 80 | p | Dibenzofuran | | ----------NA---------- | | | | |
| 81 | | Pentachlorobenzene | | ----------NA---------- | | | | |
| 82 | p | 2,4-Dinitrotoluene | | ----------NA---------- | | | | |
| 83 | p | 4-Nitrophenol | | ----------NA---------- | | | | |
| 84 | | 1-Naphthylamine | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174375.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 85 | | 2-Naphthylamine | | ----------NA---------- | | | | |
| 86 | p | 2,3,4,6-Tetrachlorophenol | | ----------NA---------- | | | | |
| 87 | p | Fluorene | | ----------NA---------- | | | | |
| 88 | p | 4-Chlorophenyl-phenylethe | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 89 | p | Diethylphthalate | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 90 | | 5-Nitro-o-toluidine | | ----------NA---------- | | | | |
| 91 | p | 4-Nitroaniline | | ----------NA---------- | | | | |
| 92 | I | Phenanthrene-d10 | 1.000 | 1.000 | 0.0 | 100 | 0.00 | 12.12 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 93 | | Dinoseb | | ----------NA---------- | | | | |
| 94 | p | 4,6-Dinitro-2-methylpheno | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 95 | p | n-Nitrosodiphenylamine | | ----------NA---------- | | | | |
| 96 | | 1,2-Diphenylhydrazine | | ----------NA---------- | | | | |
| 97 | | Diphenylamine | | ----------NA---------- | | | | |
| 98 | S | 2,4,6-Tribromophenol | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 99 | | sym-Trinitrobenzene | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 100 | | Diallate | | ----------NA---------- | | | | |
| 101 | p | 4-Bromophenyl-phenylether | | ----------NA---------- | | | | |
| 102 | | Phenacetin | | ----------NA---------- | | | | |
| 103 | p | Hexachlorobenzene | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 104 | p | Atrazine | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 105 | | 4-aminobiphenyl | | ----------NA---------- | | | | |
| 106 | p | Pentachlorophenol | | ----------NA---------- | | | | |
| 107 | | Pentachloronitrobenzene | | ----------NA---------- | | | | |
| 108 | | Pronamide | | ----------NA---------- | | | | |
| 109 | | n-Octadecane | 0.529 | 0.515 | 2.6 | 95 | 0.00 | 12.05 |
| 110 | p | Phenanthrene | | ----------NA---------- | | | | |
| 111 | p | Anthracene | | ----------NA---------- | | | | |
| 112 | p | Carbazole | | ----------NA---------- | | | | |
| 113 | p | Di-n-butylphthalate | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 114 | | 4-Nitroquinoline 1-Oxide | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 115 | | Methapyrilene | | ----------NA---------- | | | | |
| 116 | | Octachlorostyrene | | ----------NA---------- | | | | |
| 117 | | Isodrin | | ----------NA---------- | | | | |
| 118 | | Fluoranthene | | ----------NA---------- | | | | |
| 119 | S | Fluoranthene-D10 | | ----------NA---------- | | | | |
| 120 | | 4,4'-Methylenedianiline | | ----------NA---------- | | | | |
| 121 | I | Chrysene-d12 | 1.000 | 1.000 | 0.0 | 119 | 0.00 | 17.38 |
| 122 | | Benzidine | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174375.D

```
123      Pyrene                                ----------NA----------
124 S    Terphenyl-d14                         ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
125      Aramite                               ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
126      p-(Dimethylamine)azobenze             ----------NA----------
127      Chlorobenzilate                       ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
128      Kepone                         50.000  35.283     29.4   77  -0.01   16.32

             ----------------------- AvgRF   CCRF      %Dev   --------------
129      3,3'-Dimethylbenzidine                ----------NA----------
130      Butylbenzylphthalate                  ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
131      2-Acetylaminofluorene                 ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
132 p    3,3'-Dichlorobenzidine                ----------NA----------
133 p    Benzo[a]anthracene                    ----------NA----------
134 p    Chrysene                              ----------NA----------
135 p    bis(2-Ethylhexyl)phthalat             ----------NA----------

136 I    Perylene-d12                    1.000   1.000      0.0  110   0.00   20.07
137 p    Di-n-octylphthalate                   ----------NA----------
138 p    Benzo[b]fluoranthene                  ----------NA----------
139 p    Benzo[k]fluoranthene                  ----------NA----------
140      7,12-Dimethylbenz(a)anthr             ----------NA----------
141 p    Benzo[a]pyrene                        ----------NA----------
142 S    Benzo[a]pyrene-D12                    ----------NA----------
143      3-Methylcholanthrene                  ----------NA----------
144      Dibenz(a,j)acridine                   ----------NA----------
145 p    Indeno[1,2,3-cd]pyrene                ----------NA----------
146 p    Dibenz[a,h]anthracene                 ----------NA----------
147 p    Benzo[g,h,i]perylene                  ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range                SPCC's out = 57  CCC's out = 0
     j174366.D  ej1909.m          Tue Aug 05 17:46:37 2014
```

7.7.4

7

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174376.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\ej1909\j174376.D          Vial: 12
Acq On    :  5 Aug 2014   4:39 pm                   Operator: SHEILAC
Sample    : icv1909-50,2-butoxyethanol              Inst    : MSJ
Misc      : op30663,ej1909,1000,,,1,1,water         Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\ej1909.m (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Tue Aug 05 16:19:55 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 91 | 0.00 | 5.56 |
| 2 | | bis(Chloromethyl)ether | | ----------NA---------- | | | | |
| 3 | | 1,4-Dioxane | | ----------NA---------- | | | | |
| 4 | | N-nitrosodimethylamine | | ----------NA---------- | | | | |
| 5 | | Pyridine | | ----------NA---------- | | | | |
| 6 | | 2-Picoline | | ----------NA---------- | | | | |
| 7 | | N-Nitrosomethylethylamine | | ----------NA---------- | | | | |
| 8 | | Methyl methanesulfonate | | ----------NA---------- | | | | |
| 9 | | N-Nitrosodiethylamine | | ----------NA---------- | | | | |
| 10 | | 2-Butoxyethanol | 1.771 | 1.644 | 7.2 | 82 | 0.00 | 4.78 |
| 11 | | Ethyl methanesulfonate | | ----------NA---------- | | | | |
| 12 | p | Benzaldehyde | | ----------NA---------- | | | | |
| 13 | | Pentachloroethane | | ----------NA---------- | | | | |
| 14 | | Aniline | | ----------NA---------- | | | | |
| 15 | S | 2-Fluorophenol | | ----------NA---------- | | | | |
| 16 | p | bis(2-Chloroethyl)ether | | ----------NA---------- | | | | |
| 17 | S | Phenol-d5 | | ----------NA---------- | | | | |
| 18 | p | Phenol | | ----------NA---------- | | | | |
| 19 | p | 2-Chlorophenol | | ----------NA---------- | | | | |
| 20 | | n-Decane | | ----------NA---------- | | | | |
| 21 | | 1,3-Dichlorobenzene | | ----------NA---------- | | | | |
| 22 | | 1,4-Dichlorobenzene | | ----------NA---------- | | | | |
| 23 | | 1,2-Dichlorobenzene | | ----------NA---------- | | | | |
| 24 | | Benzyl alcohol | | ----------NA---------- | | | | |
| 25 | p | bis(2-chloroisopropyl)eth | | ----------NA---------- | | | | |
| 26 | p | 2-Methylphenol | | ----------NA---------- | | | | |
| 27 | | N-nitrosopyrrolidine | | ----------NA---------- | | | | |
| 28 | | N-Nitrosomorpholine | | ----------NA---------- | | | | |
| 29 | | o-Toluidine | | ----------NA---------- | | | | |
| 30 | p | Acetophenone | | ----------NA---------- | | | | |
| 31 | p | Hexachloroethane | | ----------NA---------- | | | | |
| 32 | p | N-Nitroso-di-n-propylamin | | ----------NA---------- | | | | |
| 33 | p | 3&4-Methylphenol | | ----------NA---------- | | | | |
| 34 | I | Naphthalene-d8 | 1.000 | 1.000 | 0.0 | 99 | 0.00 | 6.82 |
| 35 | S | Nitrobenzene-d5 | | ----------NA---------- | | | | |
| 36 | p | Nitrobenzene | | ----------NA---------- | | | | |
| 37 | | 2,6-Dimethylphenol | | ----------NA---------- | | | | |
| 38 | | N-Nitrosopiperidine | | ----------NA---------- | | | | |
| 39 | | A,A-Dimethylphenethylamin | | ----------NA---------- | | | | |
| 40 | p | Isophorone | | ----------NA---------- | | | | |
| 41 | p | 2-Nitrophenol | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174376.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | p | 2,4-Dimethylphenol | | ----------NA---------- | | | | |
| 43 | p | bis(2-Chloroethoxy)methan | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 44 | | Benzoic Acid | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 45 | p | 2,4-Dichlorophenol | | ----------NA---------- | | | | |
| 46 | | 1,2,4-Trichlorobenzene | | ----------NA---------- | | | | |
| 47 | p | Naphthalene | | ----------NA---------- | | | | |
| 48 | p | 4-Chloroaniline | | ----------NA---------- | | | | |
| 49 | | 2,6-Dichlorophenol | | ----------NA---------- | | | | |
| 50 | | Hexachloropropene | | ----------NA---------- | | | | |
| 51 | p | Hexachlorobutadiene | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 52 | | p-Phenylenediamine | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 53 | p | Caprolactam | | ----------NA---------- | | | | |
| 54 | | N-Nitrosodi-n-butylamine | | ----------NA---------- | | | | |
| 55 | | Hydroquinone | | ----------NA---------- | | | | |
| 56 | p | 4-Chloro-3-methylphenol | | ----------NA---------- | | | | |
| 57 | | Isosafrole | | ----------NA---------- | | | | |
| 58 | p | 2-Methylnaphthalene | | ----------NA---------- | | | | |
| 59 | | 1-Methylnaphthalene | | ----------NA---------- | | | | |
| 60 | p | 1,2,4,5-Tetrachlorobenzen | | ----------NA---------- | | | | |
| 61 | I | Acenaphthene-d10 | 1.000 | 1.000 | 0.0 | 97 | 0.00 | 9.38 |
| 62 | p | Hexachlorocyclopentadiene | | ----------NA---------- | | | | |
| 63 | p | 2,4,6-Trichlorophenol | | ----------NA---------- | | | | |
| 64 | p | 2,4,5-Trichlorophenol | | ----------NA---------- | | | | |
| 65 | S | 2-Fluorobiphenyl | | ----------NA---------- | | | | |
| 66 | | Safrole | | ----------NA---------- | | | | |
| 67 | p | 1,1'-Biphenyl | | ----------NA---------- | | | | |
| 68 | p | 2-Chloronaphthalene | | ----------NA---------- | | | | |
| 69 | | 1-Chloronaphthalene | | ----------NA---------- | | | | |
| 70 | | Diphenyl ether | | ----------NA---------- | | | | |
| 71 | p | 2-Nitroaniline | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 72 | | 1,4-Naphthoquinone | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 73 | | Acenaphthylene | | ----------NA---------- | | | | |
| 74 | p | Dimethylphthalate | | ----------NA---------- | | | | |
| 75 | | m-Dinitrobenzene | | ----------NA---------- | | | | |
| 76 | p | 2,6-Dinitrotoluene | | ----------NA---------- | | | | |
| 77 | p | Acenaphthene | | ----------NA---------- | | | | |
| 78 | p | 3-Nitroaniline | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 79 | p | 2,4-Dinitrophenol | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 80 | p | Dibenzofuran | | ----------NA---------- | | | | |
| 81 | | Pentachlorobenzene | | ----------NA---------- | | | | |
| 82 | p | 2,4-Dinitrotoluene | | ----------NA---------- | | | | |
| 83 | p | 4-Nitrophenol | | ----------NA---------- | | | | |
| 84 | | 1-Naphthylamine | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174376.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 85 | | 2-Naphthylamine | | ----------NA---------- | | | | |
| 86 | p | 2,3,4,6-Tetrachlorophenol | | ----------NA---------- | | | | |
| 87 | p | Fluorene | | ----------NA---------- | | | | |
| 88 | p | 4-Chlorophenyl-phenylethe | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 89 | p | Diethylphthalate | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 90 | | 5-Nitro-o-toluidine | | ----------NA---------- | | | | |
| 91 | p | 4-Nitroaniline | | ----------NA---------- | | | | |
| 92 | I | Phenanthrene-d10 | 1.000 | 1.000 | 0.0 | 104 | 0.00 | 12.12 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 93 | | Dinoseb | | ----------NA---------- | | | | |
| 94 | p | 4,6-Dinitro-2-methylpheno | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 95 | p | n-Nitrosodiphenylamine | | ----------NA---------- | | | | |
| 96 | | 1,2-Diphenylhydrazine | | ----------NA---------- | | | | |
| 97 | | Diphenylamine | | ----------NA---------- | | | | |
| 98 | S | 2,4,6-Tribromophenol | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 99 | | sym-Trinitrobenzene | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 100 | | Diallate | | ----------NA---------- | | | | |
| 101 | p | 4-Bromophenyl-phenylether | | ----------NA---------- | | | | |
| 102 | | Phenacetin | | ----------NA---------- | | | | |
| 103 | p | Hexachlorobenzene | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 104 | p | Atrazine | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 105 | | 4-aminobiphenyl | | ----------NA---------- | | | | |
| 106 | p | Pentachlorophenol | | ----------NA---------- | | | | |
| 107 | | Pentachloronitrobenzene | | ----------NA---------- | | | | |
| 108 | | Pronamide | | ----------NA---------- | | | | |
| 109 | | n-Octadecane | | ----------NA---------- | | | | |
| 110 | p | Phenanthrene | | ----------NA---------- | | | | |
| 111 | p | Anthracene | | ----------NA---------- | | | | |
| 112 | p | Carbazole | | ----------NA---------- | | | | |
| 113 | p | Di-n-butylphthalate | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 114 | | 4-Nitroquinoline 1-Oxide | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 115 | | Methapyrilene | | ----------NA---------- | | | | |
| 116 | | Octachlorostyrene | | ----------NA---------- | | | | |
| 117 | | Isodrin | | ----------NA---------- | | | | |
| 118 | | Fluoranthene | | ----------NA---------- | | | | |
| 119 | S | Fluoranthene-D10 | | ----------NA---------- | | | | |
| 120 | | 4,4'-Methylenedianiline | | ----------NA---------- | | | | |
| 121 | I | Chrysene-d12 | 1.000 | 1.000 | 0.0 | 113 | 0.00 | 17.38 |
| 122 | | Benzidine | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174376.D

```
123      Pyrene                              ----------NA----------
124 S    Terphenyl-d14                       ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
125      Aramite                             ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
126      p-(Dimethylamine)azobenze           ----------NA----------
127      Chlorobenzilate                     ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
128      Kepone                              ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
129      3,3'-Dimethylbenzidine              ----------NA----------
130      Butylbenzylphthalate                ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
131      2-Acetylaminofluorene               ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
132 p    3,3'-Dichlorobenzidine              ----------NA----------
133 p    Benzo[a]anthracene                  ----------NA----------
134 p    Chrysene                            ----------NA----------
135 p    bis(2-Ethylhexyl)phthalat           ----------NA----------

136 I    Perylene-d12                 1.000   1.000      0.0  107   0.00   20.07
137 p    Di-n-octylphthalate                 ----------NA----------
138 p    Benzo[b]fluoranthene                ----------NA----------
139 p    Benzo[k]fluoranthene                ----------NA----------
140      7,12-Dimethylbenz(a)anthr           ----------NA----------
141 p    Benzo[a]pyrene                      ----------NA----------
142 S    Benzo[a]pyrene-D12                  ----------NA----------
143      3-Methylcholanthrene                ----------NA----------
144      Dibenz(a,j)acridine                 ----------NA----------
145 p    Indeno[1,2,3-cd]pyrene              ----------NA----------
146 p    Dibenz[a,h]anthracene               ----------NA----------
147 p    Benzo[g,h,i]perylene                ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 58  CCC's out = 0
     j174366.D  ej1909.m         Tue Aug 05 17:37:41 2014
```

7.7.5

7

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** EJ1909-ICV1909
**Lab FileID:** J174377.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\ej1909\j174377.D          Vial: 13
Acq On    :  5 Aug 2014   5:08 pm                   Operator: SHEILAC
Sample    : icv1909-50,hydroquinone                 Inst    : MSJ
Misc      : op30663,ej1909,1000,,,1,1,water         Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\ej1909.m (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Tue Aug 05 16:19:55 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 88 | 0.00 | 5.56 |
| 2 | | bis(Chloromethyl)ether | | ----------NA---------- | | | | |
| 3 | | 1,4-Dioxane | | ----------NA---------- | | | | |
| 4 | | N-nitrosodimethylamine | | ----------NA---------- | | | | |
| 5 | | Pyridine | | ----------NA---------- | | | | |
| 6 | | 2-Picoline | | ----------NA---------- | | | | |
| 7 | | N-Nitrosomethylethylamine | | ----------NA---------- | | | | |
| 8 | | Methyl methanesulfonate | | ----------NA---------- | | | | |
| 9 | | N-Nitrosodiethylamine | | ----------NA---------- | | | | |
| 10 | | 2-Butoxyethanol | | ----------NA---------- | | | | |
| 11 | | Ethyl methanesulfonate | | ----------NA---------- | | | | |
| 12 | p | Benzaldehyde | | ----------NA---------- | | | | |
| 13 | | Pentachloroethane | | ----------NA---------- | | | | |
| 14 | | Aniline | | ----------NA---------- | | | | |
| 15 | S | 2-Fluorophenol | | ----------NA---------- | | | | |
| 16 | p | bis(2-Chloroethyl)ether | | ----------NA---------- | | | | |
| 17 | S | Phenol-d5 | | ----------NA---------- | | | | |
| 18 | p | Phenol | | ----------NA---------- | | | | |
| 19 | p | 2-Chlorophenol | | ----------NA---------- | | | | |
| 20 | | n-Decane | | ----------NA---------- | | | | |
| 21 | | 1,3-Dichlorobenzene | | ----------NA---------- | | | | |
| 22 | | 1,4-Dichlorobenzene | | ----------NA---------- | | | | |
| 23 | | 1,2-Dichlorobenzene | | ----------NA---------- | | | | |
| 24 | | Benzyl alcohol | | ----------NA---------- | | | | |
| 25 | p | bis(2-chloroisopropyl)eth | | ----------NA---------- | | | | |
| 26 | p | 2-Methylphenol | | ----------NA---------- | | | | |
| 27 | | N-nitrosopyrrolidine | | ----------NA---------- | | | | |
| 28 | | N-Nitrosomorpholine | | ----------NA---------- | | | | |
| 29 | | o-Toluidine | | ----------NA---------- | | | | |
| 30 | p | Acetophenone | | ----------NA---------- | | | | |
| 31 | p | Hexachloroethane | | ----------NA---------- | | | | |
| 32 | p | N-Nitroso-di-n-propylamin | | ----------NA---------- | | | | |
| 33 | p | 3&4-Methylphenol | | ----------NA---------- | | | | |
| 34 | I | Naphthalene-d8 | 1.000 | 1.000 | 0.0 | 86 | 0.00 | 6.82 |
| 35 | S | Nitrobenzene-d5 | | ----------NA---------- | | | | |
| 36 | p | Nitrobenzene | | ----------NA---------- | | | | |
| 37 | | 2,6-Dimethylphenol | | ----------NA---------- | | | | |
| 38 | | N-Nitrosopiperidine | | ----------NA---------- | | | | |
| 39 | | A,A-Dimethylphenethylamin | | ----------NA---------- | | | | |
| 40 | p | Isophorone | | ----------NA---------- | | | | |
| 41 | p | 2-Nitrophenol | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174377.D

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 42 | p | 2,4-Dimethylphenol | | ----------NA---------- | | | |
| 43 | p | bis(2-Chloroethoxy)methan | | ----------NA---------- | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | |
| 44 | | Benzoic Acid | | ----------NA---------- | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | |
| 45 | p | 2,4-Dichlorophenol | | ----------NA---------- | | | |
| 46 | | 1,2,4-Trichlorobenzene | | ----------NA---------- | | | |
| 47 | p | Naphthalene | | ----------NA---------- | | | |
| 48 | p | 4-Chloroaniline | | ----------NA---------- | | | |
| 49 | | 2,6-Dichlorophenol | | ----------NA---------- | | | |
| 50 | | Hexachloropropene | | ----------NA---------- | | | |
| 51 | p | Hexachlorobutadiene | | ----------NA---------- | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | |
| 52 | | p-Phenylenediamine | | ----------NA---------- | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | |
| 53 | p | Caprolactam | | ----------NA---------- | | | |
| 54 | | N-Nitrosodi-n-butylamine | | ----------NA---------- | | | |
| 55 | | Hydroquinone | 0.400 | 0.431 | -7.7 | 88 -0.05 | 7.30 |
| 56 | p | 4-Chloro-3-methylphenol | | ----------NA---------- | | | |
| 57 | | Isosafrole | | ----------NA---------- | | | |
| 58 | p | 2-Methylnaphthalene | | ----------NA---------- | | | |
| 59 | | 1-Methylnaphthalene | | ----------NA---------- | | | |
| 60 | p | 1,2,4,5-Tetrachlorobenzen | | ----------NA---------- | | | |
| 61 | I | Acenaphthene-d10 | 1.000 | 1.000 | 0.0 | 86 0.00 | 9.38 |
| 62 | p | Hexachlorocyclopentadiene | | ----------NA---------- | | | |
| 63 | p | 2,4,6-Trichlorophenol | | ----------NA---------- | | | |
| 64 | p | 2,4,5-Trichlorophenol | | ----------NA---------- | | | |
| 65 | S | 2-Fluorobiphenyl | | ----------NA---------- | | | |
| 66 | | Safrole | | ----------NA---------- | | | |
| 67 | p | 1,1'-Biphenyl | | ----------NA---------- | | | |
| 68 | p | 2-Chloronaphthalene | | ----------NA---------- | | | |
| 69 | | 1-Chloronaphthalene | | ----------NA---------- | | | |
| 70 | | Diphenyl ether | | ----------NA---------- | | | |
| 71 | p | 2-Nitroaniline | | ----------NA---------- | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | |
| 72 | | 1,4-Naphthoquinone | | ----------NA---------- | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | |
| 73 | | Acenaphthylene | | ----------NA---------- | | | |
| 74 | p | Dimethylphthalate | | ----------NA---------- | | | |
| 75 | | m-Dinitrobenzene | | ----------NA---------- | | | |
| 76 | p | 2,6-Dinitrotoluene | | ----------NA---------- | | | |
| 77 | p | Acenaphthene | | ----------NA---------- | | | |
| 78 | p | 3-Nitroaniline | | ----------NA---------- | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | |
| 79 | p | 2,4-Dinitrophenol | | ----------NA---------- | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | |
| 80 | p | Dibenzofuran | | ----------NA---------- | | | |
| 81 | | Pentachlorobenzene | | ----------NA---------- | | | |
| 82 | p | 2,4-Dinitrotoluene | | ----------NA---------- | | | |
| 83 | p | 4-Nitrophenol | | ----------NA---------- | | | |
| 84 | | 1-Naphthylamine | | ----------NA---------- | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174377.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 85 | | 2-Naphthylamine | | ----------NA---------- | | | | |
| 86 | p | 2,3,4,6-Tetrachlorophenol | | ----------NA---------- | | | | |
| 87 | p | Fluorene | | ----------NA---------- | | | | |
| 88 | p | 4-Chlorophenyl-phenylethe | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 89 | p | Diethylphthalate | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 90 | | 5-Nitro-o-toluidine | | ----------NA---------- | | | | |
| 91 | p | 4-Nitroaniline | | ----------NA---------- | | | | |
| 92 | I | Phenanthrene-d10 | 1.000 | 1.000 | 0.0 | 93 | 0.00 | 12.13 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 93 | | Dinoseb | | ----------NA---------- | | | | |
| 94 | p | 4,6-Dinitro-2-methylpheno | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 95 | p | n-Nitrosodiphenylamine | | ----------NA---------- | | | | |
| 96 | | 1,2-Diphenylhydrazine | | ----------NA---------- | | | | |
| 97 | | Diphenylamine | | ----------NA---------- | | | | |
| 98 | S | 2,4,6-Tribromophenol | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 99 | | sym-Trinitrobenzene | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 100 | | Diallate | | ----------NA---------- | | | | |
| 101 | p | 4-Bromophenyl-phenylether | | ----------NA---------- | | | | |
| 102 | | Phenacetin | | ----------NA---------- | | | | |
| 103 | p | Hexachlorobenzene | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 104 | p | Atrazine | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 105 | | 4-aminobiphenyl | | ----------NA---------- | | | | |
| 106 | p | Pentachlorophenol | | ----------NA---------- | | | | |
| 107 | | Pentachloronitrobenzene | | ----------NA---------- | | | | |
| 108 | | Pronamide | | ----------NA---------- | | | | |
| 109 | | n-Octadecane | | ----------NA---------- | | | | |
| 110 | p | Phenanthrene | | ----------NA---------- | | | | |
| 111 | p | Anthracene | | ----------NA---------- | | | | |
| 112 | p | Carbazole | | ----------NA---------- | | | | |
| 113 | p | Di-n-butylphthalate | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 114 | | 4-Nitroquinoline 1-Oxide | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 115 | | Methapyrilene | | ----------NA---------- | | | | |
| 116 | | Octachlorostyrene | | ----------NA---------- | | | | |
| 117 | | Isodrin | | ----------NA---------- | | | | |
| 118 | | Fluoranthene | | ----------NA---------- | | | | |
| 119 | S | Fluoranthene-D10 | | ----------NA---------- | | | | |
| 120 | | 4,4'-Methylenedianiline | | ----------NA---------- | | | | |
| 121 | I | Chrysene-d12 | 1.000 | 1.000 | 0.0 | 104 | 0.00 | 17.38 |
| 122 | | Benzidine | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174377.D

```
123      Pyrene                              ----------NA----------
124 S    Terphenyl-d14                       ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
125      Aramite                             ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
126      p-(Dimethylamine)azobenze           ----------NA----------
127      Chlorobenzilate                     ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
128      Kepone                              ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
129      3,3'-Dimethylbenzidine              ----------NA----------
130      Butylbenzylphthalate                ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
131      2-Acetylaminofluorene               ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
132 p    3,3'-Dichlorobenzidine              ----------NA----------
133 p    Benzo[a]anthracene                  ----------NA----------
134 p    Chrysene                            ----------NA----------
135 p    bis(2-Ethylhexyl)phthalat           ----------NA----------

136 I    Perylene-d12                 1.000   1.000      0.0  101   0.00   20.07
137 p    Di-n-octylphthalate                 ----------NA----------
138 p    Benzo[b]fluoranthene                ----------NA----------
139 p    Benzo[k]fluoranthene                ----------NA----------
140      7,12-Dimethylbenz(a)anthr           ----------NA----------
141 p    Benzo[a]pyrene                      ----------NA----------
142 S    Benzo[a]pyrene-D12                  ----------NA----------
143      3-Methylcholanthrene                ----------NA----------
144      Dibenz(a,j)acridine                 ----------NA----------
145 p    Indeno[1,2,3-cd]pyrene              ----------NA----------
146 p    Dibenz[a,h]anthracene               ----------NA----------
147 p    Benzo[g,h,i]perylene                ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 58  CCC's out = 0
     j174366.D  ej1909.m         Tue Aug 05 17:37:44 2014
```

7.7.6

7

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174378.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\ej1909\j174378.D          Vial: 14
Acq On    :  5 Aug 2014   5:36 pm                   Operator: SHEILAC
Sample    : icv1909-50,biscme                       Inst    : MSJ
Misc      : op30663,ej1909,1000,,,1,1,water         Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\ej1909.m (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Tue Aug 05 17:46:28 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 89 | 0.00 | 5.56 |
| 2 | | bis(Chloromethyl)ether | 1.519 | 1.628 | -7.2 | 93 | 0.00 | 3.45 |
| 3 | | 1,4-Dioxane | | ----------NA---------- | | | | |
| 4 | | N-nitrosodimethylamine | | ----------NA---------- | | | | |
| 5 | | Pyridine | | ----------NA---------- | | | | |
| 6 | | 2-Picoline | | ----------NA---------- | | | | |
| 7 | | N-Nitrosomethylethylamine | | ----------NA---------- | | | | |
| 8 | | Methyl methanesulfonate | | ----------NA---------- | | | | |
| 9 | | N-Nitrosodiethylamine | | ----------NA---------- | | | | |
| 10 | | 2-Butoxyethanol | | ----------NA---------- | | | | |
| 11 | | Ethyl methanesulfonate | | ----------NA---------- | | | | |
| 12 | p | Benzaldehyde | | ----------NA---------- | | | | |
| 13 | | Pentachloroethane | | ----------NA---------- | | | | |
| 14 | | Aniline | | ----------NA---------- | | | | |
| 15 | S | 2-Fluorophenol | | ----------NA---------- | | | | |
| 16 | p | bis(2-Chloroethyl)ether | | ----------NA---------- | | | | |
| 17 | S | Phenol-d5 | | ----------NA---------- | | | | |
| 18 | p | Phenol | | ----------NA---------- | | | | |
| 19 | p | 2-Chlorophenol | | ----------NA---------- | | | | |
| 20 | | n-Decane | | ----------NA---------- | | | | |
| 21 | | 1,3-Dichlorobenzene | | ----------NA---------- | | | | |
| 22 | | 1,4-Dichlorobenzene | | ----------NA---------- | | | | |
| 23 | | 1,2-Dichlorobenzene | | ----------NA---------- | | | | |
| 24 | | Benzyl alcohol | | ----------NA---------- | | | | |
| 25 | p | bis(2-chloroisopropyl)eth | | ----------NA---------- | | | | |
| 26 | p | 2-Methylphenol | | ----------NA---------- | | | | |
| 27 | | N-nitrosopyrrolidine | | ----------NA---------- | | | | |
| 28 | | N-Nitrosomorpholine | | ----------NA---------- | | | | |
| 29 | | o-Toluidine | | ----------NA---------- | | | | |
| 30 | p | Acetophenone | | ----------NA---------- | | | | |
| 31 | p | Hexachloroethane | | ----------NA---------- | | | | |
| 32 | p | N-Nitroso-di-n-propylamin | | ----------NA---------- | | | | |
| 33 | p | 3&4-Methylphenol | | ----------NA---------- | | | | |
| 34 | I | Naphthalene-d8 | 1.000 | 1.000 | 0.0 | 84 | 0.00 | 6.82 |
| 35 | S | Nitrobenzene-d5 | | ----------NA---------- | | | | |
| 36 | p | Nitrobenzene | | ----------NA---------- | | | | |
| 37 | | 2,6-Dimethylphenol | | ----------NA---------- | | | | |
| 38 | | N-Nitrosopiperidine | | ----------NA---------- | | | | |
| 39 | | A,A-Dimethylphenethylamin | | ----------NA---------- | | | | |
| 40 | p | Isophorone | | ----------NA---------- | | | | |
| 41 | p | 2-Nitrophenol | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174378.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | p | 2,4-Dimethylphenol | | ----------NA---------- | | | | |
| 43 | p | bis(2-Chloroethoxy)methan | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 44 | | Benzoic Acid | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 45 | p | 2,4-Dichlorophenol | | ----------NA---------- | | | | |
| 46 | | 1,2,4-Trichlorobenzene | | ----------NA---------- | | | | |
| 47 | p | Naphthalene | | ----------NA---------- | | | | |
| 48 | p | 4-Chloroaniline | | ----------NA---------- | | | | |
| 49 | | 2,6-Dichlorophenol | | ----------NA---------- | | | | |
| 50 | | Hexachloropropene | | ----------NA---------- | | | | |
| 51 | p | Hexachlorobutadiene | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 52 | | p-Phenylenediamine | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 53 | p | Caprolactam | | ----------NA---------- | | | | |
| 54 | | N-Nitrosodi-n-butylamine | | ----------NA---------- | | | | |
| 55 | | Hydroquinone | | ----------NA---------- | | | | |
| 56 | p | 4-Chloro-3-methylphenol | | ----------NA---------- | | | | |
| 57 | | Isosafrole | | ----------NA---------- | | | | |
| 58 | p | 2-Methylnaphthalene | | ----------NA---------- | | | | |
| 59 | | 1-Methylnaphthalene | | ----------NA---------- | | | | |
| 60 | p | 1,2,4,5-Tetrachlorobenzen | | ----------NA---------- | | | | |
| 61 | I | Acenaphthene-d10 | 1.000 | 1.000 | 0.0 | 86 | 0.00 | 9.38 |
| 62 | p | Hexachlorocyclopentadiene | | ----------NA---------- | | | | |
| 63 | p | 2,4,6-Trichlorophenol | | ----------NA---------- | | | | |
| 64 | p | 2,4,5-Trichlorophenol | | ----------NA---------- | | | | |
| 65 | S | 2-Fluorobiphenyl | | ----------NA---------- | | | | |
| 66 | | Safrole | | ----------NA---------- | | | | |
| 67 | p | 1,1'-Biphenyl | | ----------NA---------- | | | | |
| 68 | p | 2-Chloronaphthalene | | ----------NA---------- | | | | |
| 69 | | 1-Chloronaphthalene | | ----------NA---------- | | | | |
| 70 | | Diphenyl ether | | ----------NA---------- | | | | |
| 71 | p | 2-Nitroaniline | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 72 | | 1,4-Naphthoquinone | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 73 | | Acenaphthylene | | ----------NA---------- | | | | |
| 74 | p | Dimethylphthalate | | ----------NA---------- | | | | |
| 75 | | m-Dinitrobenzene | | ----------NA---------- | | | | |
| 76 | p | 2,6-Dinitrotoluene | | ----------NA---------- | | | | |
| 77 | p | Acenaphthene | | ----------NA---------- | | | | |
| 78 | p | 3-Nitroaniline | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 79 | p | 2,4-Dinitrophenol | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 80 | p | Dibenzofuran | | ----------NA---------- | | | | |
| 81 | | Pentachlorobenzene | | ----------NA---------- | | | | |
| 82 | p | 2,4-Dinitrotoluene | | ----------NA---------- | | | | |
| 83 | p | 4-Nitrophenol | | ----------NA---------- | | | | |
| 84 | | 1-Naphthylamine | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174378.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 85 | | 2-Naphthylamine | | ----------NA---------- | | | | |
| 86 | p | 2,3,4,6-Tetrachlorophenol | | ----------NA---------- | | | | |
| 87 | p | Fluorene | | ----------NA---------- | | | | |
| 88 | p | 4-Chlorophenyl-phenylethe | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 89 | p | Diethylphthalate | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 90 | | 5-Nitro-o-toluidine | | ----------NA---------- | | | | |
| 91 | p | 4-Nitroaniline | | ----------NA---------- | | | | |
| 92 | I | Phenanthrene-d10 | 1.000 | 1.000 | 0.0 | 94 | 0.00 | 12.13 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 93 | | Dinoseb | | ----------NA---------- | | | | |
| 94 | p | 4,6-Dinitro-2-methylpheno | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 95 | p | n-Nitrosodiphenylamine | | ----------NA---------- | | | | |
| 96 | | 1,2-Diphenylhydrazine | | ----------NA---------- | | | | |
| 97 | | Diphenylamine | | ----------NA---------- | | | | |
| 98 | S | 2,4,6-Tribromophenol | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 99 | | sym-Trinitrobenzene | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 100 | | Diallate | | ----------NA---------- | | | | |
| 101 | p | 4-Bromophenyl-phenylether | | ----------NA---------- | | | | |
| 102 | | Phenacetin | | ----------NA---------- | | | | |
| 103 | p | Hexachlorobenzene | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 104 | p | Atrazine | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 105 | | 4-aminobiphenyl | | ----------NA---------- | | | | |
| 106 | p | Pentachlorophenol | | ----------NA---------- | | | | |
| 107 | | Pentachloronitrobenzene | | ----------NA---------- | | | | |
| 108 | | Pronamide | | ----------NA---------- | | | | |
| 109 | | n-Octadecane | | ----------NA---------- | | | | |
| 110 | p | Phenanthrene | | ----------NA---------- | | | | |
| 111 | p | Anthracene | | ----------NA---------- | | | | |
| 112 | p | Carbazole | | ----------NA---------- | | | | |
| 113 | p | Di-n-butylphthalate | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 114 | | 4-Nitroquinoline 1-Oxide | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 115 | | Methapyrilene | | ----------NA---------- | | | | |
| 116 | | Octachlorostyrene | | ----------NA---------- | | | | |
| 117 | | Isodrin | | ----------NA---------- | | | | |
| 118 | | Fluoranthene | | ----------NA---------- | | | | |
| 119 | S | Fluoranthene-D10 | | ----------NA---------- | | | | |
| 120 | | 4,4'-Methylenedianiline | | ----------NA---------- | | | | |
| 121 | I | Chrysene-d12 | 1.000 | 1.000 | 0.0 | 104 | 0.00 | 17.39 |
| 122 | | Benzidine | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174378.D

```
123      Pyrene                              ----------NA----------
124 S    Terphenyl-d14                       ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
125      Aramite                             ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
126      p-(Dimethylamine)azobenze           ----------NA----------
127      Chlorobenzilate                     ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
128      Kepone                              ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
129      3,3'-Dimethylbenzidine              ----------NA----------
130      Butylbenzylphthalate                ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
131      2-Acetylaminofluorene               ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
132 p    3,3'-Dichlorobenzidine              ----------NA----------
133 p    Benzo[a]anthracene                  ----------NA----------
134 p    Chrysene                            ----------NA----------
135 p    bis(2-Ethylhexyl)phthalat           ----------NA----------

136 I    Perylene-d12                 1.000   1.000      0.0   99   0.00   20.07
137 p    Di-n-octylphthalate                 ----------NA----------
138 p    Benzo[b]fluoranthene                ----------NA----------
139 p    Benzo[k]fluoranthene                ----------NA----------
140      7,12-Dimethylbenz(a)anthr           ----------NA----------
141 p    Benzo[a]pyrene                      ----------NA----------
142 S    Benzo[a]pyrene-D12                  ----------NA----------
143      3-Methylcholanthrene                ----------NA----------
144      Dibenz(a,j)acridine                 ----------NA----------
145 p    Indeno[1,2,3-cd]pyrene              ----------NA----------
146 p    Dibenz[a,h]anthracene               ----------NA----------
147 p    Benzo[g,h,i]perylene                ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 58  CCC's out = 0
     j174366.D  ej1909.m         Tue Aug 05 18:12:32 2014
```

7.2.7

7

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174380.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\ej1909\j174380.D          Vial: 16
Acq On    :  5 Aug 2014   6:35 pm                   Operator: SHEILAC
Sample    : icv1909-50,aniline                      Inst    : MSJ
Misc      : op30663,ej1909,1000,,,1,1,water         Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\ej1909.m (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Tue Aug 05 18:30:21 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 82 | 0.00 | 5.56 |
| 2 | | bis(Chloromethyl)ether | | ----------NA---------- | | | | |
| 3 | | 1,4-Dioxane | | ----------NA---------- | | | | |
| 4 | | N-nitrosodimethylamine | | ----------NA---------- | | | | |
| 5 | | Pyridine | | ----------NA---------- | | | | |
| 6 | | 2-Picoline | | ----------NA---------- | | | | |
| 7 | | N-Nitrosomethylethylamine | | ----------NA---------- | | | | |
| 8 | | Methyl methanesulfonate | | ----------NA---------- | | | | |
| 9 | | N-Nitrosodiethylamine | | ----------NA---------- | | | | |
| 10 | | 2-Butoxyethanol | | ----------NA---------- | | | | |
| 11 | | Ethyl methanesulfonate | | ----------NA---------- | | | | |
| 12 | p | Benzaldehyde | | ----------NA---------- | | | | |
| 13 | | Pentachloroethane | | ----------NA---------- | | | | |
| 14 | | Aniline | 2.373 | 2.282 | 3.8 | 78 | 0.00 | 5.29 |
| 15 | S | 2-Fluorophenol | | ----------NA---------- | | | | |
| 16 | p | bis(2-Chloroethyl)ether | | ----------NA---------- | | | | |
| 17 | S | Phenol-d5 | | ----------NA---------- | | | | |
| 18 | p | Phenol | | ----------NA---------- | | | | |
| 19 | p | 2-Chlorophenol | | ----------NA---------- | | | | |
| 20 | | n-Decane | | ----------NA---------- | | | | |
| 21 | | 1,3-Dichlorobenzene | | ----------NA---------- | | | | |
| 22 | | 1,4-Dichlorobenzene | | ----------NA---------- | | | | |
| 23 | | 1,2-Dichlorobenzene | | ----------NA---------- | | | | |
| 24 | | Benzyl alcohol | | ----------NA---------- | | | | |
| 25 | p | bis(2-chloroisopropyl)eth | | ----------NA---------- | | | | |
| 26 | p | 2-Methylphenol | | ----------NA---------- | | | | |
| 27 | | N-nitrosopyrrolidine | | ----------NA---------- | | | | |
| 28 | | N-Nitrosomorpholine | | ----------NA---------- | | | | |
| 29 | | o-Toluidine | | ----------NA---------- | | | | |
| 30 | p | Acetophenone | | ----------NA---------- | | | | |
| 31 | p | Hexachloroethane | | ----------NA---------- | | | | |
| 32 | p | N-Nitroso-di-n-propylamin | | ----------NA---------- | | | | |
| 33 | p | 3&4-Methylphenol | | ----------NA---------- | | | | |
| 34 | I | Naphthalene-d8 | 1.000 | 1.000 | 0.0 | 80 | 0.00 | 6.82 |
| 35 | S | Nitrobenzene-d5 | | ----------NA---------- | | | | |
| 36 | p | Nitrobenzene | | ----------NA---------- | | | | |
| 37 | | 2,6-Dimethylphenol | | ----------NA---------- | | | | |
| 38 | | N-Nitrosopiperidine | | ----------NA---------- | | | | |
| 39 | | A,A-Dimethylphenethylamin | | ----------NA---------- | | | | |
| 40 | p | Isophorone | | ----------NA---------- | | | | |
| 41 | p | 2-Nitrophenol | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174380.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | p | 2,4-Dimethylphenol | | ----------NA---------- | | | | |
| 43 | p | bis(2-Chloroethoxy)methan | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 44 | | Benzoic Acid | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 45 | p | 2,4-Dichlorophenol | | ----------NA---------- | | | | |
| 46 | | 1,2,4-Trichlorobenzene | | ----------NA---------- | | | | |
| 47 | p | Naphthalene | | ----------NA---------- | | | | |
| 48 | p | 4-Chloroaniline | 0.487 | 0.491 | -0.8 | 82 | 0.00 | 6.89 |
| 49 | | 2,6-Dichlorophenol | | ----------NA---------- | | | | |
| 50 | | Hexachloropropene | | ----------NA---------- | | | | |
| 51 | p | Hexachlorobutadiene | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 52 | | p-Phenylenediamine | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 53 | p | Caprolactam | | ----------NA---------- | | | | |
| 54 | | N-Nitrosodi-n-butylamine | | ----------NA---------- | | | | |
| 55 | | Hydroquinone | | ----------NA---------- | | | | |
| 56 | p | 4-Chloro-3-methylphenol | | ----------NA---------- | | | | |
| 57 | | Isosafrole | | ----------NA---------- | | | | |
| 58 | p | 2-Methylnaphthalene | | ----------NA---------- | | | | |
| 59 | | 1-Methylnaphthalene | | ----------NA---------- | | | | |
| 60 | p | 1,2,4,5-Tetrachlorobenzen | | ----------NA---------- | | | | |
| 61 | I | Acenaphthene-d10 | 1.000 | 1.000 | 0.0 | 82 | 0.00 | 9.39 |
| 62 | p | Hexachlorocyclopentadiene | | ----------NA---------- | | | | |
| 63 | p | 2,4,6-Trichlorophenol | | ----------NA---------- | | | | |
| 64 | p | 2,4,5-Trichlorophenol | | ----------NA---------- | | | | |
| 65 | S | 2-Fluorobiphenyl | | ----------NA---------- | | | | |
| 66 | | Safrole | | ----------NA---------- | | | | |
| 67 | p | 1,1'-Biphenyl | | ----------NA---------- | | | | |
| 68 | p | 2-Chloronaphthalene | | ----------NA---------- | | | | |
| 69 | | 1-Chloronaphthalene | | ----------NA---------- | | | | |
| 70 | | Diphenyl ether | | ----------NA---------- | | | | |
| 71 | p | 2-Nitroaniline | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 72 | | 1,4-Naphthoquinone | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 73 | | Acenaphthylene | | ----------NA---------- | | | | |
| 74 | p | Dimethylphthalate | | ----------NA---------- | | | | |
| 75 | | m-Dinitrobenzene | | ----------NA---------- | | | | |
| 76 | p | 2,6-Dinitrotoluene | | ----------NA---------- | | | | |
| 77 | p | Acenaphthene | | ----------NA---------- | | | | |
| 78 | p | 3-Nitroaniline | 0.348 | 0.355 | -2.0 | 80 | 0.00 | 9.32 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 79 | p | 2,4-Dinitrophenol | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 80 | p | Dibenzofuran | | ----------NA---------- | | | | |
| 81 | | Pentachlorobenzene | | ----------NA---------- | | | | |
| 82 | p | 2,4-Dinitrotoluene | | ----------NA---------- | | | | |
| 83 | p | 4-Nitrophenol | | ----------NA---------- | | | | |
| 84 | | 1-Naphthylamine | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174380.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 85 | | 2-Naphthylamine | | ----------NA---------- | | | | |
| 86 | p | 2,3,4,6-Tetrachlorophenol | | ----------NA---------- | | | | |
| 87 | p | Fluorene | | ----------NA---------- | | | | |
| 88 | p | 4-Chlorophenyl-phenylethe | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 89 | p | Diethylphthalate | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 90 | | 5-Nitro-o-toluidine | | ----------NA---------- | | | | |
| 91 | p | 4-Nitroaniline | | ----------NA---------- | | | | |
| 92 | I | Phenanthrene-d10 | 1.000 | 1.000 | 0.0 | 86 | 0.00 | 12.13 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 93 | | Dinoseb | | ----------NA---------- | | | | |
| 94 | p | 4,6-Dinitro-2-methylpheno | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 95 | p | n-Nitrosodiphenylamine | | ----------NA---------- | | | | |
| 96 | | 1,2-Diphenylhydrazine | | ----------NA---------- | | | | |
| 97 | | Diphenylamine | | ----------NA---------- | | | | |
| 98 | S | 2,4,6-Tribromophenol | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 99 | | sym-Trinitrobenzene | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 100 | | Diallate | | ----------NA---------- | | | | |
| 101 | p | 4-Bromophenyl-phenylether | | ----------NA---------- | | | | |
| 102 | | Phenacetin | | ----------NA---------- | | | | |
| 103 | p | Hexachlorobenzene | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 104 | p | Atrazine | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 105 | | 4-aminobiphenyl | | ----------NA---------- | | | | |
| 106 | p | Pentachlorophenol | | ----------NA---------- | | | | |
| 107 | | Pentachloronitrobenzene | | ----------NA---------- | | | | |
| 108 | | Pronamide | | ----------NA---------- | | | | |
| 109 | | n-Octadecane | | ----------NA---------- | | | | |
| 110 | p | Phenanthrene | | ----------NA---------- | | | | |
| 111 | p | Anthracene | | ----------NA---------- | | | | |
| 112 | p | Carbazole | | ----------NA---------- | | | | |
| 113 | p | Di-n-butylphthalate | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 114 | | 4-Nitroquinoline 1-Oxide | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 115 | | Methapyrilene | | ----------NA---------- | | | | |
| 116 | | Octachlorostyrene | | ----------NA---------- | | | | |
| 117 | | Isodrin | | ----------NA---------- | | | | |
| 118 | | Fluoranthene | | ----------NA---------- | | | | |
| 119 | S | Fluoranthene-D10 | | ----------NA---------- | | | | |
| 120 | | 4,4'-Methylenedianiline | | ----------NA---------- | | | | |
| 121 | I | Chrysene-d12 | 1.000 | 1.000 | 0.0 | 90 | 0.00 | 17.39 |
| 122 | | Benzidine | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1909-ICV1909
**Lab FileID:** J174380.D

```
123      Pyrene                              ----------NA----------
124 S    Terphenyl-d14                       ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
125      Aramite                             ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
126      p-(Dimethylamine)azobenze           ----------NA----------
127      Chlorobenzilate                     ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
128      Kepone                              ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
129      3,3'-Dimethylbenzidine              ----------NA----------
130      Butylbenzylphthalate                ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
131      2-Acetylaminofluorene               ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
132 p    3,3'-Dichlorobenzidine              ----------NA----------
133 p    Benzo[a]anthracene                  ----------NA----------
134 p    Chrysene                            ----------NA----------
135 p    bis(2-Ethylhexyl)phthalat           ----------NA----------

136 I    Perylene-d12                 1.000   1.000      0.0   88   0.00   20.07
137 p    Di-n-octylphthalate                 ----------NA----------
138 p    Benzo[b]fluoranthene                ----------NA----------
139 p    Benzo[k]fluoranthene                ----------NA----------
140      7,12-Dimethylbenz(a)anthr           ----------NA----------
141 p    Benzo[a]pyrene                      ----------NA----------
142 S    Benzo[a]pyrene-D12                  ----------NA----------
143      3-Methylcholanthrene                ----------NA----------
144      Dibenz(a,j)acridine                 ----------NA----------
145 p    Indeno[1,2,3-cd]pyrene              ----------NA----------
146 p    Dibenz[a,h]anthracene               ----------NA----------
147 p    Benzo[g,h,i]perylene                ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 56  CCC's out = 0
     j174366.D  ej1909.m         Tue Aug 05 19:02:06 2014
```

7.7.8

7

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EJ1911-CC1909
**Lab FileID:** J174419.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\ej1911\j174419.D          Vial: 2
Acq On    :  7 Aug 2014  11:37 am                   Operator: SHEILAC
Sample    : cc1909-40                               Inst    : MSJ
Misc      : op33463,ej1911,1000,,,1,1,water         Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\ej1909.m (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Thu Aug 07 13:26:12 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 250%
```

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 93 | 0.00 | 5.56 |
| 2 | | bis(Chloromethyl)ether | 1.519 | 1.527 | -0.5 | 95 | 0.00 | 3.46 |
| 3 | | 1,4-Dioxane | 0.499 | 0.500 | -0.2 | 93 | 0.00 | 3.37 |
| 4 | | N-nitrosodimethylamine | 0.780 | 0.814 | -4.4 | 96 | 0.00 | 3.60 |
| 5 | | Pyridine | 1.404 | 1.399 | 0.4 | 91 | 0.00 | 3.63 |
| 6 | | 2-Picoline | 1.625 | 1.589 | 2.2 | 90 | 0.00 | 4.18 |
| 7 | | N-Nitrosomethylethylamine | 0.950 | 0.974 | -2.5 | 94 | 0.00 | 4.25 |
| 8 | | Methyl methanesulfonate | 0.995 | 1.019 | -2.4 | 94 | 0.00 | 4.46 |
| 9 | | N-Nitrosodiethylamine | 0.798 | 0.761 | 4.6 | 86 | 0.00 | 4.74 |
| 10 | | 2-Butoxyethanol | 1.771 | 1.674 | 5.5 | 86 | 0.00 | 4.78 |
| 11 | | Ethyl methanesulfonate | 1.223 | 1.141 | 6.7 | 85 | 0.00 | 4.95 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 12 | p | Benzaldehyde | 40.000 | 35.165 | 12.1 | 86 | 0.00 | 5.21 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 13 | | Pentachloroethane | 0.549 | 0.574 | -4.6 | 96 | 0.00 | 5.33 |
| 14 | | Aniline | 2.373 | 2.265 | 4.6 | 86 | 0.00 | 5.29 |
| 15 | S | 2-Fluorophenol | 1.204 | 1.206 | -0.2 | 93 | 0.00 | 4.57 |
| 16 | p | bis(2-Chloroethyl)ether | 1.424 | 1.362 | 4.4 | 89 | 0.00 | 5.33 |
| 17 | S | Phenol-d5 | 1.684 | 1.629 | 3.3 | 89 | 0.00 | 5.24 |
| 18 | p | Phenol | 1.840 | 1.763 | 4.2 | 88 | 0.00 | 5.25 |
| 19 | p | 2-Chlorophenol | 1.490 | 1.464 | 1.7 | 90 | 0.00 | 5.39 |
| 20 | | n-Decane | 1.548 | 1.454 | 6.1 | 87 | 0.00 | 5.40 |
| 21 | | 1,3-Dichlorobenzene | 1.604 | 1.587 | 1.1 | 92 | 0.00 | 5.52 |
| 22 | | 1,4-Dichlorobenzene | 1.632 | 1.606 | 1.6 | 91 | 0.00 | 5.57 |
| 23 | | 1,2-Dichlorobenzene | 1.592 | 1.583 | 0.6 | 92 | 0.00 | 5.71 |
| 24 | | Benzyl alcohol | 1.095 | 1.014 | 7.4 | 84 | 0.00 | 5.66 |
| 25 | p | bis(2-chloroisopropyl)eth | 2.388 | 2.077 | 13.0 | 82 | 0.00 | 5.77 |
| 26 | p | 2-Methylphenol | 1.502 | 1.413 | 5.9 | 84 | 0.00 | 5.74 |
| 27 | | N-nitrosopyrrolidine | 0.929 | 0.852 | 8.3 | 80 | 0.00 | 5.89 |
| 28 | | N-Nitrosomorpholine | 1.377 | 1.304 | 5.3 | 87 | 0.00 | 5.92 |
| 29 | | o-Toluidine | 2.813 | 2.750 | 2.2 | 86 | 0.00 | 5.94 |
| 30 | p | Acetophenone | 2.254 | 2.115 | 6.2 | 86 | 0.00 | 5.91 |
| 31 | p | Hexachloroethane | 0.644 | 0.656 | -1.9 | 95 | 0.00 | 6.02 |
| 32 | p | N-Nitroso-di-n-propylamin | 1.342 | 1.224 | 8.8 | 83 | 0.00 | 5.89 |
| 33 | p | 3&4-Methylphenol | 1.581 | 1.463 | 7.5 | 84 | 0.00 | 5.88 |
| 34 | I | Naphthalene-d8 | 1.000 | 1.000 | 0.0 | 85 | 0.00 | 6.82 |
| 35 | S | Nitrobenzene-d5 | 0.391 | 0.408 | -4.3 | 89 | 0.00 | 6.05 |
| 36 | p | Nitrobenzene | 0.407 | 0.430 | -5.7 | 87 | 0.00 | 6.07 |
| 37 | | 2,6-Dimethylphenol | 0.344 | 0.359 | -4.4 | 87 | 0.00 | 6.16 |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** EJ1911-CC1909
**Account:** RFWTXHO Weston Solutions **Lab FileID:** J174419.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | | N-Nitrosopiperidine | 0.321 | 0.331 | -3.1 | 86 | 0.00 | 6.22 |
| 39 | | A,A-Dimethylphenethylamin | 1.261 | 1.272 | -0.9 | 78 | 0.12 | 6.81 |
| 40 | p | Isophorone | 0.776 | 0.757 | 2.4 | 81 | 0.00 | 6.30 |
| 41 | p | 2-Nitrophenol | 0.174 | 0.197 | -13.2 | 89 | 0.00 | 6.39 |
| 42 | p | 2,4-Dimethylphenol | 0.407 | 0.421 | -3.4 | 86 | 0.00 | 6.40 |
| 43 | p | bis(2-Chloroethoxy)methan | 0.425 | 0.415 | 2.4 | 81 | 0.00 | 6.51 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 44 | | Benzoic Acid | 40.000 | 33.441 | 16.4 | 72 | -0.02 | 6.48 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 45 | p | 2,4-Dichlorophenol | 0.328 | 0.337 | -2.7 | 85 | 0.00 | 6.64 |
| 46 | | 1,2,4-Trichlorobenzene | 0.326 | 0.341 | -4.6 | 88 | 0.00 | 6.75 |
| 47 | p | Naphthalene | 1.060 | 1.070 | -0.9 | 85 | 0.00 | 6.84 |
| 48 | p | 4-Chloroaniline | 0.487 | 0.486 | 0.2 | 83 | 0.00 | 6.89 |
| 49 | | 2,6-Dichlorophenol | 0.265 | 0.275 | -3.8 | 84 | 0.00 | 6.90 |
| 50 | | Hexachloropropene | 0.208 | 0.249 | -19.7 | 97 | 0.00 | 6.94 |
| 51 | p | Hexachlorobutadiene | 0.200 | 0.218 | -9.0 | 94 | 0.00 | 6.98 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 52 | | p-Phenylenediamine | 40.000 | 35.678 | 10.8 | 77 | 0.00 | 7.38 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 53 | p | Caprolactam | 0.139 | 0.134 | 3.6 | 78 | -0.02 | 7.41 |
| 54 | | N-Nitrosodi-n-butylamine | 0.329 | 0.305 | 7.3 | 81 | 0.00 | 7.31 |
| 55 | | Hydroquinone | 0.400 | 0.398 | 0.5 | 79 | 0.00 | 7.35 |
| 56 | p | 4-Chloro-3-methylphenol | 0.381 | 0.393 | -3.1 | 85 | 0.00 | 7.49 |
| 57 | | Isosafrole | 0.312 | 0.315 | -1.0 | 82 | 0.00 | 7.61 |
| 58 | p | 2-Methylnaphthalene | 0.812 | 0.820 | -1.0 | 84 | 0.00 | 7.73 |
| 59 | | 1-Methylnaphthalene | 0.755 | 0.750 | 0.7 | 82 | 0.00 | 7.88 |
| 60 | p | 1,2,4,5-Tetrachlorobenzen | 0.359 | 0.362 | -0.8 | 84 | 0.00 | 7.98 |
| 61 | I | Acenaphthene-d10 | 1.000 | 1.000 | 0.0 | 81 | 0.00 | 9.38 |
| 62 | p | Hexachlorocyclopentadiene | 0.299 | 0.347 | -16.1 | 91 | 0.00 | 7.96 |
| 63 | p | 2,4,6-Trichlorophenol | 0.369 | 0.388 | -5.1 | 82 | 0.00 | 8.14 |
| 64 | p | 2,4,5-Trichlorophenol | 0.399 | 0.423 | -6.0 | 84 | 0.00 | 8.19 |
| 65 | S | 2-Fluorobiphenyl | 1.228 | 1.263 | -2.9 | 83 | 0.00 | 8.28 |
| 66 | | Safrole | 0.443 | 0.451 | -1.8 | 80 | 0.00 | 8.38 |
| 67 | p | 1,1'-Biphenyl | 1.353 | 1.374 | -1.6 | 83 | 0.00 | 8.44 |
| 68 | p | 2-Chloronaphthalene | 1.175 | 1.153 | 1.9 | 83 | 0.00 | 8.47 |
| 69 | | 1-Chloronaphthalene | 0.989 | 1.049 | -6.1 | 82 | 0.00 | 8.51 |
| 70 | | Diphenyl ether | 0.763 | 0.775 | -1.6 | 82 | 0.00 | 8.61 |
| 71 | p | 2-Nitroaniline | 0.412 | 0.471 | -14.3 | 87 | 0.00 | 8.63 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 72 | | 1,4-Naphthoquinone | 40.000 | 33.358 | 16.6 | 71 | 0.00 | 8.75 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 73 | | Acenaphthylene | 1.837 | 1.848 | -0.6 | 80 | 0.00 | 9.14 |
| 74 | p | Dimethylphthalate | 1.458 | 1.486 | -1.9 | 82 | 0.00 | 8.94 |
| 75 | | m-Dinitrobenzene | 0.221 | 0.250 | -13.1 | 86 | 0.00 | 8.99 |
| 76 | p | 2,6-Dinitrotoluene | 0.318 | 0.333 | -4.7 | 80 | 0.00 | 9.03 |
| 77 | p | Acenaphthene | 1.170 | 1.170 | 0.0 | 81 | 0.00 | 9.44 |
| 78 | p | 3-Nitroaniline | 0.348 | 0.371 | -6.6 | 82 | 0.00 | 9.32 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 79 | p | 2,4-Dinitrophenol | 40.000 | 45.035 | -12.6 | 92 | 0.00 | 9.51 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 80 | p | Dibenzofuran | 1.713 | 1.720 | -0.4 | 80 | 0.00 | 9.74 |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** EJ1911-CC1909
**Account:** RFWTXHO Weston Solutions **Lab FileID:** J174419.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 81 | | Pentachlorobenzene | 0.500 | 0.511 | -2.2 | 82 | 0.00 | 9.67 |
| 82 | p | 2,4-Dinitrotoluene | 0.414 | 0.463 | -11.8 | 85 | 0.00 | 9.74 |
| 83 | p | 4-Nitrophenol | 0.238 | 0.244 | -2.5 | 83 | 0.00 | 9.62 |
| 84 | | 1-Naphthylamine | 1.350 | 1.363 | -1.0 | 81 | 0.00 | 9.88 |
| 85 | | 2-Naphthylamine | 1.458 | 1.468 | -0.7 | 80 | 0.00 | 10.03 |
| 86 | p | 2,3,4,6-Tetrachlorophenol | 0.355 | 0.376 | -5.9 | 83 | 0.00 | 9.96 |
| 87 | p | Fluorene | 1.450 | 1.445 | 0.3 | 81 | 0.00 | 10.36 |
| 88 | p | 4-Chlorophenyl-phenylethe | 0.684 | 0.684 | 0.0 | 82 | 0.00 | 10.38 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 89 | p | Diethylphthalate | 40.000 | 40.037 | -0.1 | 80 | 0.00 | 10.20 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 90 | | 5-Nitro-o-toluidine | 0.409 | 0.437 | -6.8 | 83 | 0.00 | 10.40 |
| 91 | p | 4-Nitroaniline | 0.371 | 0.369 | 0.5 | 80 | 0.00 | 10.41 |
| 92 | I | Phenanthrene-d10 | 1.000 | 1.000 | 0.0 | 82 | 0.00 | 12.13 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 93 | | Dinoseb | 40.000 | 46.503 | -16.3 | 99 | 0.00 | 12.16 |
| 94 | p | 4,6-Dinitro-2-methylpheno | 40.000 | 44.164 | -10.4 | 94 | 0.00 | 10.47 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 95 | p | n-Nitrosodiphenylamine | 0.722 | 0.719 | 0.4 | 79 | 0.00 | 10.60 |
| 96 | | 1,2-Diphenylhydrazine | 0.849 | 0.837 | 1.4 | 79 | 0.00 | 10.67 |
| 97 | | Diphenylamine | 0.722 | 0.719 | 0.4 | 79 | 0.00 | 10.60 |
| 98 | S | 2,4,6-Tribromophenol | 0.111 | 0.121 | -9.0 | 86 | 0.00 | 10.80 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 99 | | sym-Trinitrobenzene | 40.000 | 43.583 | -9.0 | 93 | 0.00 | 11.13 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 100 | | Diallate | 0.361 | 0.332 | 8.0 | 74 | 0.00 | 11.16 |
| 101 | p | 4-Bromophenyl-phenylether | 0.239 | 0.247 | -3.3 | 82 | 0.00 | 11.29 |
| 102 | | Phenacetin | 0.401 | 0.431 | -7.5 | 83 | 0.00 | 11.22 |
| 103 | p | Hexachlorobenzene | 0.257 | 0.265 | -3.1 | 84 | 0.00 | 11.37 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 104 | p | Atrazine | 40.000 | 43.988 | -10.0 | 87 | 0.00 | 11.66 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 105 | | 4-aminobiphenyl | 0.953 | 0.984 | -3.3 | 81 | 0.00 | 11.79 |
| 106 | p | Pentachlorophenol | 0.159 | 0.175 | -10.1 | 84 | 0.00 | 11.76 |
| 107 | | Pentachloronitrobenzene | 0.110 | 0.135 | -22.7# | 94 | 0.00 | 11.79 |
| 108 | | Pronamide | 0.374 | 0.395 | -5.6 | 83 | 0.00 | 11.95 |
| 109 | | n-Octadecane | 0.529 | 0.491 | 7.2 | 74 | 0.00 | 12.04 |
| 110 | p | Phenanthrene | 1.209 | 1.203 | 0.5 | 81 | 0.00 | 12.17 |
| 111 | p | Anthracene | 1.254 | 1.266 | -1.0 | 81 | 0.00 | 12.27 |
| 112 | p | Carbazole | 1.203 | 1.207 | -0.3 | 81 | 0.00 | 12.60 |
| 113 | p | Di-n-butylphthalate | 1.468 | 1.505 | -2.5 | 82 | 0.00 | 13.38 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 114 | | 4-Nitroquinoline 1-Oxide | 40.000 | 38.631 | 3.4 | 83 | 0.00 | 13.70 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 115 | | Methapyrilene | 0.669 | 0.681 | -1.8 | 80 | 0.00 | 13.92 |
| 116 | | Octachlorostyrene | 0.116 | 0.127 | -9.5 | 88 | 0.00 | 14.15 |
| 117 | | Isodrin | 0.151 | 0.155 | -2.6 | 83 | 0.00 | 14.20 |
| 118 | | Fluoranthene | 1.440 | 1.504 | -4.4 | 85 | 0.00 | 14.50 |
| 119 | S | Fluoranthene-D10 | 0.142 | 0.147 | -3.5 | 83 | 0.00 | 14.46 |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** EJ1911-CC1909
**Account:** RFWTXHO Weston Solutions **Lab FileID:** J174419.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 120 | | 4,4'-Methylenedianiline | 0.459 | 0.504 | -9.8 | 81 | 0.00 | 14.89 |
| 121 | I | Chrysene-d12 | 1.000 | 1.000 | 0.0 | 85 | 0.00 | 17.38 |
| 122 | | Benzidine | 0.731 | 0.788 | -7.8 | 83 | -0.01 | 14.83 |
| 123 | | Pyrene | 1.285 | 1.294 | -0.7 | 84 | 0.00 | 14.94 |
| 124 | S | Terphenyl-d14 | 0.791 | 0.799 | -1.0 | 85 | 0.00 | 15.34 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 125 | | Aramite | 40.000 | 42.992 | -7.5 | 93 | 0.00 | 15.51 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 126 | | p-(Dimethylamine)azobenze | 0.373 | 0.381 | -2.1 | 83 | 0.00 | 15.62 |
| 127 | | Chlorobenzilate | 0.378 | 0.432 | -14.3 | 91 | 0.00 | 15.74 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 128 | | Kepone | 40.000 | 51.720 | -29.3# | 116 | 0.00 | 16.33 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 129 | | 3,3'-Dimethylbenzidine | 0.764 | 0.798 | -4.5 | 81 | 0.00 | 16.30 |
| 130 | | Butylbenzylphthalate | 0.569 | 0.582 | -2.3 | 83 | 0.00 | 16.38 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 131 | | 2-Acetylaminofluorene | 40.000 | 39.622 | 0.9 | 87 | 0.00 | 16.80 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 132 | p | 3,3'-Dichlorobenzidine | 0.412 | 0.431 | -4.6 | 84 | 0.00 | 17.36 |
| 133 | p | Benzo[a]anthracene | 1.185 | 1.197 | -1.0 | 84 | 0.00 | 17.36 |
| 134 | p | Chrysene | 1.146 | 1.137 | 0.8 | 83 | 0.00 | 17.43 |
| 135 | p | bis(2-Ethylhexyl)phthalat | 0.775 | 0.803 | -3.6 | 84 | 0.00 | 17.59 |
| 136 | I | Perylene-d12 | 1.000 | 1.000 | 0.0 | 86 | 0.00 | 20.06 |
| 137 | p | Di-n-octylphthalate | 1.289 | 1.406 | -9.1 | 86 | -0.01 | 18.83 |
| 138 | p | Benzo[b]fluoranthene | 1.262 | 1.277 | -1.2 | 87 | 0.00 | 19.39 |
| 139 | p | Benzo[k]fluoranthene | 1.299 | 1.287 | 0.9 | 83 | 0.00 | 19.44 |
| 140 | | 7,12-Dimethylbenz(a)anthr | 0.536 | 0.551 | -2.8 | 85 | 0.00 | 19.39 |
| 141 | p | Benzo[a]pyrene | 1.241 | 1.272 | -2.5 | 86 | 0.00 | 19.96 |
| 142 | S | Benzo[a]pyrene-D12 | 1.142 | 1.195 | -4.6 | 86 | 0.00 | 19.91 |
| 143 | | 3-Methylcholanthrene | 0.417 | 0.441 | -5.8 | 86 | 0.00 | 20.63 |
| 144 | | Dibenz(a,j)acridine | 0.906 | 1.026 | -13.2 | 90 | -0.01 | 21.88 |
| 145 | p | Indeno[1,2,3-cd]pyrene | 1.064 | 1.219 | -14.6 | 93 | -0.01 | 22.28 |
| 146 | p | Dibenz[a,h]anthracene | 1.153 | 1.284 | -11.4 | 90 | -0.01 | 22.34 |
| 147 | p | Benzo[g,h,i]perylene | 1.193 | 1.304 | -9.3 | 89 | -0.02 | 22.91 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0
j174370.D ej1909.m Thu Aug 07 13:30:21 2014

7.7.9

7

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** EJ1911-ECC1909
**Lab FileID:** J174444.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\ej1911\j174444.D  Vial: 27
Acq On : 8 Aug 2014 12:11 am  Operator: SHEILAC
Sample : ecc1909-75  Inst : MSJ
Misc : op33428,ej1911,30.09,,,1,20,soil  Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\ej1909.m (RTE Integrator)
Title : SW846 8270D and EPA625
Last Update : Thu Aug 07 13:26:12 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 250%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 139 | 0.00 | 5.56 |
| 2 | | bis(Chloromethyl)ether | 1.519 | 0.466 | 69.3# | 45# | 0.00 | 3.45 |
| 3 | | 1,4-Dioxane | 0.499 | 0.407 | 18.4 | 116 | 0.00 | 3.36 |
| 4 | | N-nitrosodimethylamine | 0.780 | 0.861 | -10.4 | 151 | 0.00 | 3.60 |
| 5 | | Pyridine | 1.404 | 1.125 | 19.9 | 108 | 0.00 | 3.63 |
| 6 | | 2-Picoline | 1.625 | 1.304 | 19.8 | 109 | 0.00 | 4.19 |
| 7 | | N-Nitrosomethylethylamine | 0.950 | 0.975 | -2.6 | 139 | 0.00 | 4.25 |
| 8 | | Methyl methanesulfonate | 0.995 | 0.806 | 19.0 | 110 | 0.00 | 4.46 |
| 9 | | N-Nitrosodiethylamine | 0.798 | 0.728 | 8.8 | 124 | 0.00 | 4.74 |
| 10 | | 2-Butoxyethanol | 1.771 | 1.782 | -0.6 | 136 | 0.00 | 4.78 |
| 11 | | Ethyl methanesulfonate | 1.223 | 1.236 | -1.1 | 140 | 0.00 | 4.95 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 12 | p | Benzaldehyde | 75.000 | 20.553 | 72.6# | 63 | 0.00 | 5.21 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 13 | | Pentachloroethane | 0.549 | 0.615 | -12.0 | 158 | 0.00 | 5.33 |
| 14 | | Aniline | 2.373 | 2.254 | 5.0 | 132 | 0.00 | 5.29 |
| 15 | S | 2-Fluorophenol | 1.204 | 1.139 | 5.4 | 135 | 0.00 | 4.57 |
| 16 | p | bis(2-Chloroethyl)ether | 1.424 | 1.436 | -0.8 | 141 | 0.00 | 5.33 |
| 17 | S | Phenol-d5 | 1.684 | 1.718 | -2.0 | 145 | 0.01 | 5.25 |
| 18 | p | Phenol | 1.840 | 1.911 | -3.9 | 146 | 0.01 | 5.26 |
| 19 | p | 2-Chlorophenol | 1.490 | 1.575 | -5.7 | 144 | 0.00 | 5.39 |
| 20 | | n-Decane | 1.548 | 1.405 | 9.2 | 134 | 0.00 | 5.40 |
| 21 | | 1,3-Dichlorobenzene | 1.604 | 1.600 | 0.2 | 140 | 0.00 | 5.51 |
| 22 | | 1,4-Dichlorobenzene | 1.632 | 1.645 | -0.8 | 141 | 0.00 | 5.57 |
| 23 | | 1,2-Dichlorobenzene | 1.592 | 1.594 | -0.1 | 141 | 0.00 | 5.70 |
| 24 | | Benzyl alcohol | 1.095 | 1.151 | -5.1 | 143 | 0.00 | 5.66 |
| 25 | p | bis(2-chloroisopropyl)eth | 2.388 | 2.234 | 6.4 | 134 | 0.00 | 5.77 |
| 26 | p | 2-Methylphenol | 1.502 | 1.555 | -3.5 | 140 | 0.00 | 5.75 |
| 27 | | N-nitrosopyrrolidine | 0.929 | 0.844 | 9.1 | 126 | 0.01 | 5.91 |
| 28 | | N-Nitrosomorpholine | 1.377 | 1.322 | 4.0 | 133 | 0.00 | 5.93 |
| 29 | | o-Toluidine | 2.813 | 2.733 | 2.8 | 132 | 0.00 | 5.94 |
| 30 | p | Acetophenone | 2.254 | 2.367 | -5.0 | 150 | 0.00 | 5.91 |
| 31 | p | Hexachloroethane | 0.644 | 0.678 | -5.3 | 146 | 0.00 | 6.02 |
| 32 | p | N-Nitroso-di-n-propylamin | 1.342 | 1.298 | 3.3 | 139 | 0.00 | 5.91 |
| 33 | p | 3&4-Methylphenol | 1.581 | 1.622 | -2.6 | 141 | 0.00 | 5.89 |
| 34 | I | Naphthalene-d8 | 1.000 | 1.000 | 0.0 | 131 | 0.00 | 6.82 |
| 35 | S | Nitrobenzene-d5 | 0.391 | 0.424 | -8.4 | 144 | 0.00 | 6.06 |
| 36 | p | Nitrobenzene | 0.407 | 0.440 | -8.1 | 140 | 0.00 | 6.08 |
| 37 | | 2,6-Dimethylphenol | 0.344 | 0.375 | -9.0 | 144 | 0.00 | 6.16 |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** EJ1911-ECC1909
**Account:** RFWTXHO Weston Solutions **Lab FileID:** J174444.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | | N-Nitrosopiperidine | 0.321 | 0.319 | 0.6 | 134 | 0.00 | 6.23 |
| 39 | | A,A-Dimethylphenethylamin | 1.261 | 1.252 | 0.7 | 145 | 0.81# | 7.50 |
| 40 | p | Isophorone | 0.776 | 0.765 | 1.4 | 132 | 0.00 | 6.31 |
| 41 | p | 2-Nitrophenol | 0.174 | 0.215 | -23.6# | 151 | 0.00 | 6.39 |
| 42 | p | 2,4-Dimethylphenol | 0.407 | 0.441 | -8.4 | 144 | 0.00 | 6.40 |
| 43 | p | bis(2-Chloroethoxy)methan | 0.425 | 0.424 | 0.2 | 135 | 0.00 | 6.51 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 44 | | Benzoic Acid | 75.000 | 99.550 | -32.7# | 174 | 0.05 | 6.55 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 45 | p | 2,4-Dichlorophenol | 0.328 | 0.360 | -9.8 | 143 | 0.00 | 6.64 |
| 46 | | 1,2,4-Trichlorobenzene | 0.326 | 0.352 | -8.0 | 144 | 0.00 | 6.75 |
| 47 | p | Naphthalene | 1.060 | 1.120 | -5.7 | 141 | 0.00 | 6.85 |
| 48 | p | 4-Chloroaniline | 0.487 | 0.482 | 1.0 | 135 | 0.00 | 6.90 |
| 49 | | 2,6-Dichlorophenol | 0.265 | 0.346 | -30.6# | 177 | 0.00 | 6.91 |
| 50 | | Hexachloropropene | 0.208 | 0.217 | -4.3 | 129 | 0.00 | 6.94 |
| 51 | p | Hexachlorobutadiene | 0.200 | 0.218 | -9.0 | 147 | 0.00 | 6.98 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 52 | | p-Phenylenediamine | 75.000 | 7.592 | 89.9# | 19 | 0.13 | 7.51 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 53 | p | Caprolactam | 0.139 | 0.167 | -20.1# | 146 | 0.05 | 7.48 |
| 54 | | N-Nitrosodi-n-butylamine | 0.329 | 0.292 | 11.2 | 127 | 0.00 | 7.32 |
| 55 | | Hydroquinone | 0.400 | 0.365 | 8.8 | 131 | 0.05 | 7.40 |
| 56 | p | 4-Chloro-3-methylphenol | 0.381 | 0.421 | -10.5 | 144 | 0.01 | 7.51 |
| 57 | | Isosafrole | 0.312 | 0.347 | -11.2 | 149 | 0.00 | 7.61 |
| 58 | p | 2-Methylnaphthalene | 0.812 | 0.825 | -1.6 | 139 | 0.00 | 7.73 |
| 59 | | 1-Methylnaphthalene | 0.755 | 0.791 | -4.8 | 142 | 0.00 | 7.88 |
| 60 | p | 1,2,4,5-Tetrachlorobenzen | 0.359 | 0.389 | -8.4 | 147 | 0.00 | 7.98 |
| 61 | I | Acenaphthene-d10 | 1.000 | 1.000 | 0.0 | 135 | 0.00 | 9.38 |
| 62 | p | Hexachlorocyclopentadiene | 0.299 | 0.271 | 9.4 | 113 | 0.00 | 7.96 |
| 63 | p | 2,4,6-Trichlorophenol | 0.369 | 0.388 | -5.1 | 140 | 0.00 | 8.15 |
| 64 | p | 2,4,5-Trichlorophenol | 0.399 | 0.416 | -4.3 | 139 | 0.00 | 8.21 |
| 65 | S | 2-Fluorobiphenyl | 1.228 | 1.295 | -5.5 | 147 | 0.00 | 8.29 |
| 66 | | Safrole | 0.443 | 0.506 | -14.2 | 154 | 0.00 | 8.38 |
| 67 | p | 1,1'-Biphenyl | 1.353 | 1.442 | -6.6 | 150 | 0.00 | 8.44 |
| 68 | p | 2-Chloronaphthalene | 1.175 | 1.246 | -6.0 | 143 | 0.00 | 8.47 |
| 69 | | 1-Chloronaphthalene | 0.989 | 1.060 | -7.2 | 153 | 0.00 | 8.50 |
| 70 | | Diphenyl ether | 0.763 | 0.837 | -9.7 | 152 | 0.00 | 8.61 |
| 71 | p | 2-Nitroaniline | 0.412 | 0.513 | -24.5# | 157 | 0.00 | 8.64 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 72 | | 1,4-Naphthoquinone | 75.000 | -40.000 | 153.3# | 245 | 0.00 | 8.76 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 73 | | Acenaphthylene | 1.837 | 1.845 | -0.4 | 138 | 0.00 | 9.15 |
| 74 | p | Dimethylphthalate | 1.458 | 1.469 | -0.8 | 141 | 0.01 | 8.96 |
| 75 | | m-Dinitrobenzene | 0.221 | 0.271 | -22.6# | 147 | 0.00 | 9.00 |
| 76 | p | 2,6-Dinitrotoluene | 0.318 | 0.349 | -9.7 | 143 | 0.00 | 9.05 |
| 77 | p | Acenaphthene | 1.170 | 1.211 | -3.5 | 144 | 0.00 | 9.44 |
| 78 | p | 3-Nitroaniline | 0.348 | 0.390 | -12.1 | 147 | 0.01 | 9.34 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 79 | p | 2,4-Dinitrophenol | 75.000 | 90.717 | -21.0# | 173 | 0.00 | 9.52 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 80 | p | Dibenzofuran | 1.713 | 1.747 | -2.0 | 144 | 0.00 | 9.75 |

7.7.10

7

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** EJ1911-ECC1909
**Account:** RFWTXHO Weston Solutions **Lab FileID:** J174444.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 81 | | Pentachlorobenzene | 0.500 | 0.524 | -4.8 | 145 | 0.00 | 9.67 |
| 82 | p | 2,4-Dinitrotoluene | 0.414 | 0.494 | -19.3 | 154 | 0.00 | 9.75 |
| 83 | p | 4-Nitrophenol | 0.238 | 0.303 | -27.3# | 150 | 0.03 | 9.64 |
| 84 | | 1-Naphthylamine | 1.350 | 0.547 | 59.5# | 57 | 0.00 | 9.90 |
| 85 | | 2-Naphthylamine | 1.458 | 0.467 | 68.0# | 46# | 0.00 | 10.04 |
| 86 | p | 2,3,4,6-Tetrachlorophenol | 0.355 | 0.382 | -7.6 | 144 | 0.00 | 9.97 |
| 87 | p | Fluorene | 1.450 | 1.454 | -0.3 | 142 | 0.00 | 10.36 |
| 88 | p | 4-Chlorophenyl-phenylethe | 0.684 | 0.705 | -3.1 | 147 | 0.00 | 10.38 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 89 | p | Diethylphthalate | 75.000 | 77.082 | -2.8 | 139 | 0.00 | 10.21 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 90 | | 5-Nitro-o-toluidine | 0.409 | 0.435 | -6.4 | 141 | 0.01 | 10.41 |
| 91 | p | 4-Nitroaniline | 0.371 | 0.394 | -6.2 | 147 | 0.01 | 10.44 |
| 92 | I | Phenanthrene-d10 | 1.000 | 1.000 | 0.0 | 137 | 0.00 | 12.13 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 93 | | Dinoseb | 75.000 | 93.493 | -24.7# | 167 | 0.00 | 12.16 |
| 94 | p | 4,6-Dinitro-2-methylpheno | 75.000 | 87.100 | -16.1 | 155 | 0.00 | 10.48 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 95 | p | n-Nitrosodiphenylamine | 0.722 | 0.749 | -3.7 | 146 | 0.00 | 10.61 |
| 96 | | 1,2-Diphenylhydrazine | 0.849 | 0.883 | -4.0 | 144 | 0.00 | 10.67 |
| 97 | | Diphenylamine | 0.722 | 0.749 | -3.7 | 146 | 0.00 | 10.61 |
| 98 | S | 2,4,6-Tribromophenol | 0.111 | 0.134 | -20.7# | 167 | 0.00 | 10.82 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 99 | | sym-Trinitrobenzene | 75.000 | 89.092 | -18.8 | 157 | 0.03 | 11.16 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 100 | | Diallate | 0.361 | 0.364 | -0.8 | 142 | 0.00 | 11.16 |
| 101 | p | 4-Bromophenyl-phenylether | 0.239 | 0.247 | -3.3 | 143 | 0.00 | 11.30 |
| 102 | | Phenacetin | 0.401 | 0.492 | -22.7# | 160 | 0.02 | 11.25 |
| 103 | p | Hexachlorobenzene | 0.257 | 0.269 | -4.7 | 147 | 0.00 | 11.38 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 104 | p | Atrazine | 75.000 | 12.096 | 83.9# | 29 | 0.11 | 11.77 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 105 | | 4-aminobiphenyl | 0.953 | 0.870 | 8.7 | 130 | 0.00 | 11.80 |
| 106 | p | Pentachlorophenol | 0.159 | 0.182 | -14.5 | 146 | 0.00 | 11.77 |
| 107 | | Pentachloronitrobenzene | 0.110 | 0.145 | -31.8# | 170 | 0.00 | 11.79 |
| 108 | | Pronamide | 0.374 | 0.437 | -16.8 | 157 | 0.00 | 11.96 |
| 109 | | n-Octadecane | 0.529 | 0.516 | 2.5 | 137 | 0.00 | 12.03 |
| 110 | p | Phenanthrene | 1.209 | 1.236 | -2.2 | 147 | 0.00 | 12.17 |
| 111 | p | Anthracene | 1.254 | 1.276 | -1.8 | 143 | 0.00 | 12.28 |
| 112 | p | Carbazole | 1.203 | 1.234 | -2.6 | 146 | 0.00 | 12.61 |
| 113 | p | Di-n-butylphthalate | 1.468 | 1.541 | -5.0 | 145 | 0.00 | 13.38 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 114 | | 4-Nitroquinoline 1-Oxide | 75.000 | 81.433 | -8.6 | 146 | 0.00 | 13.71 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 115 | | Methapyrilene | 0.669 | 0.650 | 2.8 | 130 | 0.00 | 13.93 |
| 116 | | Octachlorostyrene | 0.116 | 0.132 | -13.8 | 158 | 0.00 | 14.15 |
| 117 | | Isodrin | 0.151 | 0.170 | -12.6 | 157 | 0.00 | 14.20 |
| 118 | | Fluoranthene | 1.440 | 1.506 | -4.6 | 149 | 0.00 | 14.52 |
| 119 | S | Fluoranthene-D10 | 0.142 | 1.416 | -897.2# | 1338# | 0.00 | 14.47 |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** EJ1911-ECC1909
**Account:** RFWTXHO Weston Solutions **Lab FileID:** J174444.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 120 | | 4,4'-Methylenedianiline | 0.459 | 0.257 | 44.0# | 74 | 0.00 | 14.89 |
| 121 | I | Chrysene-d12 | 1.000 | 1.000 | 0.0 | 134 | 0.00 | 17.39 |
| 122 | | Benzidine | 0.731 | 0.487 | 33.4# | 84 | 0.00 | 14.84 |
| 123 | | Pyrene | 1.285 | 1.384 | -7.7 | 145 | 0.00 | 14.95 |
| 124 | S | Terphenyl-d14 | 0.791 | 0.961 | -21.5# | 167 | 0.00 | 15.34 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 125 | | Aramite | 75.000 | 98.620 | -31.5# | 175 | 0.00 | 15.51 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 126 | | p-(Dimethylamine)azobenze | 0.373 | 0.403 | -8.0 | 138 | 0.00 | 15.62 |
| 127 | | Chlorobenzilate | 0.378 | 0.500 | -32.3# | 160 | 0.00 | 15.74 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 128 | | Kepone | 75.000 | 65.451 | 12.7 | 112 | 0.00 | 16.34 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 129 | | 3,3'-Dimethylbenzidine | 0.764 | 0.703 | 8.0 | 119 | 0.00 | 16.30 |
| 130 | | Butylbenzylphthalate | 0.569 | 0.642 | -12.8 | 143 | 0.00 | 16.38 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 131 | | 2-Acetylaminofluorene | 75.000 | 81.190 | -8.3 | 142 | 0.00 | 16.81 |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 132 | p | 3,3'-Dichlorobenzidine | 0.412 | 0.466 | -13.1 | 150 | 0.00 | 17.37 |
| 133 | p | Benzo[a]anthracene | 1.185 | 1.237 | -4.4 | 142 | 0.00 | 17.37 |
| 134 | p | Chrysene | 1.146 | 1.167 | -1.8 | 137 | 0.00 | 17.45 |
| 135 | p | bis(2-Ethylhexyl)phthalat | 0.775 | 0.873 | -12.6 | 142 | -0.01 | 17.58 |
| 136 | I | Perylene-d12 | 1.000 | 1.000 | 0.0 | 131 | 0.00 | 20.06 |
| 137 | p | Di-n-octylphthalate | 1.289 | 1.558 | -20.9# | 146 | -0.01 | 18.83 |
| 138 | p | Benzo[b]fluoranthene | 1.262 | 1.389 | -10.1 | 152 | 0.01 | 19.41 |
| 139 | p | Benzo[k]fluoranthene | 1.299 | 1.237 | 4.8 | 131 | 0.00 | 19.45 |
| 140 | | 7,12-Dimethylbenz(a)anthr | 0.536 | 0.560 | -4.5 | 142 | 0.00 | 19.39 |
| 141 | p | Benzo[a]pyrene | 1.241 | 1.266 | -2.0 | 136 | 0.00 | 19.97 |
| 142 | S | Benzo[a]pyrene-D12 | 1.142 | 1.014 | 11.2 | 119 | 0.00 | 19.92 |
| 143 | | 3-Methylcholanthrene | 0.417 | 0.626 | -50.1# | 187 | 0.00 | 20.64 |
| 144 | | Dibenz(a,j)acridine | 0.906 | 1.125 | -24.2# | 150 | 0.00 | 21.89 |
| 145 | p | Indeno[1,2,3-cd]pyrene | 1.064 | 1.303 | -22.5# | 154 | 0.00 | 22.29 |
| 146 | p | Dibenz[a,h]anthracene | 1.153 | 1.293 | -12.1 | 143 | 0.00 | 22.36 |
| 147 | p | Benzo[g,h,i]perylene | 1.193 | 1.301 | -9.1 | 142 | 0.01 | 22.94 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0
j174371.D ej1909.m Tue Aug 12 14:15:07 2014

7.7.10

7

# Initial Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-ICC1652
**Lab FileID:** P34249.D

Response Factor Report GCMS P

Method : C:\msdchem\1\METHODS\ep1652.m (RTE Integrator)
Title : SW846 8270 Appendix 9
Last Update : Fri Jun 27 17:50:07 2014
Response via : Initial Calibration

Calibration Files
5 =p34251.D 10 =p34250.D 25 =p34252.D 40 =p34248.D
50 =p34249.D 75 =p34253.D 100 =p34254.D

| Compound | 5 | 10 | 25 | 40 | 50 | 75 | 100 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|
| 1) I 1,4-Dichlorobenzene-d | ----------ISTD---------- | | | | | | | | |
| 2) bis(Chloromethyl) | 1.058 | 1.102 | 1.052 | 0.987 | 0.929 | 0.915 | 0.822 | 0.981 | 10.02 |
| 3) 1,4-Dioxane | 0.369 | 0.416 | 0.413 | 0.398 | 0.390 | 0.400 | 0.395 | 0.397 | 3.99 |
| 4) N-nitrosodimethyl | 0.453 | 0.507 | 0.518 | 0.529 | 0.535 | 0.538 | 0.541 | 0.517 | 5.99 |
| 5) Pyridine | 0.966 | 1.125 | 1.124 | 1.107 | 1.107 | 1.138 | 1.126 | 1.099 | 5.44 |
| 6) 2-Picoline | 1.284 | 1.385 | 1.400 | 1.392 | 1.383 | 1.408 | 1.386 | 1.377 | 3.05 |
| 7) N-Nitrosomethylet | 0.494 | 0.482 | 0.493 | 0.493 | 0.479 | 0.497 | 0.655 | 0.513 | 12.22 |
| 8) Methyl methanesul | 0.781 | 0.795 | 0.803 | 0.789 | 0.770 | 0.753 | 0.715 | 0.772 | 3.92 |
| 9) N-Nitrosodiethyla | 0.676 | 0.678 | 0.696 | 0.682 | 0.674 | 0.677 | 0.659 | 0.678 | 1.59 |
| 10) 2-Butoxyethanol | 1.110 | 1.109 | 1.127 | 1.140 | 1.112 | 1.102 | 1.073 | 1.110 | 1.89 |
| 11) Ethyl methanesulf | 1.010 | 0.992 | 1.028 | 1.007 | 0.994 | 0.997 | 0.965 | 0.999 | 1.95 |
| 12)p Benzaldehyde | 0.912 | 0.712 | 0.480 | 0.344 | 0.266 | 0.205 | 0.125 | 0.435 | 65.85 |
| 13) Pentachloroethane | 0.545 | 0.581 | 0.565 | 0.561 | 0.559 | 0.544 | 0.538 | 0.556 | 2.63 |
| 14) Aniline | 2.053 | 1.997 | 2.048 | 1.991 | 1.950 | 1.883 | 1.813 | 1.962 | 4.47 |
| 15)S 2-Fluorophenol | 1.065 | 1.176 | 1.133 | 1.142 | 1.115 | 1.100 | 1.082 | 1.116 | 3.39 |
| 16)p bis(2-Chloroethyl | 1.285 | 1.227 | 1.236 | 1.225 | 1.207 | 1.213 | 1.189 | 1.226 | 2.46 |
| 17)S Phenol-d5 | 1.550 | 1.523 | 1.523 | 1.504 | 1.469 | 1.426 | 1.373 | 1.481 | 4.23 |
| 18)p Phenol | 1.847 | 1.848 | 1.867 | 1.828 | 1.805 | 1.762 | 1.701 | 1.808 | 3.24 |
| 19)p 2-Chlorophenol | 1.411 | 1.422 | 1.437 | 1.422 | 1.408 | 1.383 | 1.350 | 1.405 | 2.10 |
| 20) n-Decane | 1.029 | 1.069 | 1.031 | 1.028 | 0.985 | 0.960 | 0.951 | 1.007 | 4.27 |
| 21) 1,3-Dichlorobenze | 1.586 | 1.604 | 1.579 | 1.587 | 1.575 | 1.539 | 1.528 | 1.571 | 1.75 |
| 22) 1,4-Dichlorobenze | 1.658 | 1.631 | 1.630 | 1.618 | 1.604 | 1.576 | 1.565 | 1.612 | 2.04 |
| 23) 1,2-Dichlorobenze | 1.560 | 1.569 | 1.578 | 1.570 | 1.557 | 1.524 | 1.495 | 1.550 | 1.94 |
| 24) Benzyl alcohol | 0.929 | 0.927 | 0.968 | 0.953 | 0.951 | 0.953 | 0.914 | 0.942 | 2.02 |
| 25)p bis(2-chloroisopr | 1.312 | 1.296 | 1.315 | 1.298 | 1.258 | 1.250 | 1.202 | 1.276 | 3.22 |
| 26)p 2-Methylphenol | 1.289 | 1.260 | 1.314 | 1.293 | 1.293 | 1.302 | 1.262 | 1.287 | 1.54 |
| 27) N-nitrosopyrrolid | 0.786 | 0.766 | 0.811 | 0.787 | 0.783 | 0.778 | 0.729 | 0.777 | 3.24 |
| 28) N-Nitrosomorpholi | 0.882 | 0.878 | 0.908 | 0.885 | 0.870 | 0.858 | 0.817 | 0.871 | 3.25 |
| 29) o-Toluidine | 2.468 | 2.361 | 2.451 | 2.374 | 2.336 | 2.284 | 2.151 | 2.347 | 4.57 |
| 30)p Acetophenone | 1.999 | 1.927 | 1.996 | 1.918 | 1.902 | 1.899 | 1.816 | 1.923 | 3.27 |
| 31)p Hexachloroethane | 0.614 | 0.611 | 0.602 | 0.615 | 0.612 | 0.605 | 0.599 | 0.608 | 1.02 |
| 32)p N-Nitroso-di-n-pr | 1.043 | 1.028 | 1.047 | 1.013 | 1.001 | 0.990 | 0.940 | 1.009 | 3.64 |
| 33)p 3&4-Methylphenol | 1.516 | 1.493 | 1.541 | 1.512 | 1.485 | 1.457 | 1.377 | 1.483 | 3.63 |
| 34) I Naphthalene-d8 | ----------ISTD---------- | | | | | | | | |
| 35)S Nitrobenzene-d5 | 0.378 | 0.383 | 0.376 | 0.374 | 0.370 | 0.362 | 0.363 | 0.372 | 2.06 |
| 36)p Nitrobenzene | 0.374 | 0.381 | 0.374 | 0.371 | 0.370 | 0.362 | 0.362 | 0.370 | 1.84 |
| 37) 2,6-Dimethylpheno | 0.339 | 0.347 | 0.346 | 0.339 | 0.338 | 0.333 | 0.335 | 0.339 | 1.50 |
| 38) N-Nitrosopiperidi | 0.226 | 0.231 | 0.231 | 0.227 | 0.227 | 0.221 | 0.217 | 0.226 | 2.16 |
| 39) A,A-Dimethylphene | 0.728 | 0.833 | 0.885 | 0.771 | 0.884 | 0.907 | 0.871 | 0.840 | 7.96 |
| 40)p Isophorone | 0.660 | 0.668 | 0.660 | 0.650 | 0.642 | 0.631 | 0.620 | 0.647 | 2.67 |
| 41)p 2-Nitrophenol | 0.197 | 0.209 | 0.209 | 0.209 | 0.211 | 0.207 | 0.209 | 0.207 | 2.27 |
| 42)p 2,4-Dimethylpheno | 0.380 | 0.394 | 0.390 | 0.387 | 0.382 | 0.381 | 0.374 | 0.384 | 1.76 |
| 43)p bis(2-Chloroethox | 0.393 | 0.398 | 0.398 | 0.394 | 0.384 | 0.379 | 0.373 | 0.389 | 2.53 |
| 44) Benzoic Acid | | 0.146 | 0.211 | 0.223 | 0.263 | 0.292 | 0.293 | 0.238 | 23.78 |

---- Quadratic regression ---- Coefficient = 0.9969

# Initial Calibration Summary

**Job Number:** TC52591 **Sample:** EP1652-ICC1652
**Account:** RFWTXHO Weston Solutions **Lab FileID:** P34249.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

```
                Response Ratio = -0.02763 + 0.24215 *A + 0.02749 *A^2

45)p 2,4-Dichloropheno 0.322 0.344 0.348 0.343 0.344 0.341 0.336 0.340   2.53
46)  1,2,4-Trichlorobe 0.378 0.381 0.371 0.370 0.368 0.362 0.362 0.370   1.88
47)p Naphthalene       1.115 1.120 1.103 1.097 1.082 1.057 1.047 1.089   2.59
48)p 4-Chloroaniline   0.494 0.495 0.499 0.493 0.492 0.481 0.470 0.489   2.04
49)  2,6-Dichloropheno 0.307 0.325 0.322 0.321 0.319 0.311 0.306 0.316   2.47
50)  Hexachloropropene 0.217 0.240 0.243 0.244 0.248 0.245 0.245 0.240   4.36
51)p Hexachlorobutadie 0.232 0.237 0.232 0.230 0.229 0.227 0.229 0.231   1.40
52)  p-Phenylenediamin 0.294 0.351 0.355 0.320 0.300 0.268 0.228 0.302  15.00
             ---- Quadratic regression ----  Coefficient =  0.9993
                Response Ratio = -0.01085 + 0.40244 *A + -0.06877 *A^2

53)p Caprolactam       0.119 0.121 0.120 0.118 0.114 0.124 0.119 0.119   2.43
54)  N-Nitrosodi-n-but 0.336 0.338 0.279 0.263 0.260 0.257 0.251 0.283  13.28
55)  Hydroquinone      0.268 0.343 0.337 0.294 0.349 0.378 0.406 0.339  13.79
56)p 4-Chloro-3-methyl 0.348 0.354 0.355 0.353 0.351 0.365 0.359 0.355   1.58
57)  Isosafrole        0.312 0.315 0.313 0.312 0.310 0.304 0.299 0.309   1.81
58)p 2-Methylnaphthale 0.814 0.810 0.801 0.779 0.777 0.764 0.748 0.785   3.15
59)  1-Methylnaphthale 0.754 0.750 0.738 0.723 0.721 0.708 0.698 0.727   2.89
60)p 1,2,4,5-Tetrachlo 0.421 0.422 0.415 0.405 0.403 0.397 0.392 0.408   2.89

61) I   Acenaphthene-d10      ----------------ISTD---------------------
62)p Hexachlorocyclope 0.085 0.180 0.221 0.250 0.283 0.306 0.316 0.234  34.71
             ---- Linear regression ----  Coefficient =  0.9937
                Response Ratio = -0.03464 + 0.31533 *A

63)p 2,4,6-Trichloroph 0.374 0.400 0.404 0.408 0.407 0.407 0.409 0.401   3.11
64)p 2,4,5-Trichloroph 0.404 0.435 0.436 0.436 0.443 0.445 0.446 0.435   3.30
65)S 2-Fluorobiphenyl  1.424 1.424 1.388 1.374 1.320 1.273 1.260 1.352   5.07
66)  Safrole           0.478 0.491 0.486 0.486 0.478 0.478 0.480 0.482   1.05
67)p 1,1'-Biphenyl     1.501 1.497 1.469 1.463 1.417 1.382 1.373 1.443   3.65
68)p 2-Chloronaphthale 1.207 1.284 1.267 1.195 1.218 1.239 1.181 1.227   3.10
69)  1-Chloronaphthale 1.091 1.028 1.022 1.066 1.007 0.955 1.014 1.026   4.24
70)  Diphenyl ether    0.825 0.823 0.819 0.813 0.797 0.780 0.783 0.806   2.36
71)p 2-Nitroaniline    0.315 0.323 0.327 0.325 0.329 0.324 0.324 0.324   1.34
72)  1,4-Naphthoquinon 0.405 0.439 0.432 0.412 0.426 0.453 0.462 0.433   4.78
73)  Acenaphthylene    1.940 1.953 1.937 1.913 1.897 1.862 1.846 1.907   2.14
74)p Dimethylphthalate 1.431 1.419 1.403 1.398 1.400 1.398 1.385 1.405   1.09
75)  m-Dinitrobenzene  0.222 0.244 0.247 0.247 0.253 0.257 0.256 0.246   4.82
76)p 2,6-Dinitrotoluen 0.318 0.325 0.334 0.325 0.333 0.332 0.330 0.328   1.76
77)p Acenaphthene      1.249 1.256 1.241 1.229 1.219 1.202 1.193 1.227   1.93
78)p 3-Nitroaniline    0.344 0.355 0.364 0.356 0.368 0.368 0.365 0.360   2.45
79)p 2,4-Dinitrophenol 0.065 0.130 0.159 0.172 0.201 0.218 0.222 0.167  33.46
             ---- Linear regression ----  Coefficient =  0.9929
                Response Ratio = -0.02372 + 0.22194 *A

80)p Dibenzofuran      1.773 1.764 1.748 1.712 1.716 1.695 1.681 1.727   2.03
81)  Pentachlorobenzen 0.620 0.629 0.620 0.611 0.610 0.611 0.606 0.615   1.27
82)p 2,4-Dinitrotoluen 0.422 0.445 0.452 0.443 0.460 0.465 0.459 0.450   3.21
83)p 4-Nitrophenol     0.150 0.183 0.204 0.194 0.214 0.210 0.217 0.196  12.00
84)  1-Naphthylamine   0.828 1.212 1.208 1.225 1.229 1.169 1.096 1.138  12.69
85)  2-Naphthylamine   1.178 1.335 1.297 1.233 1.242 1.169 1.087 1.220   6.84
86)p 2,3,4,6-Tetrachlo 0.356 0.396 0.410 0.401 0.415 0.416 0.419 0.402   5.43
87)p Fluorene          1.464 1.454 1.440 1.422 1.418 1.407 1.384 1.427   1.94
88)p 4-Chlorophenyl-ph 0.743 0.729 0.726 0.714 0.711 0.705 0.699 0.718   2.10
89)p Diethylphthalate  1.396 1.396 1.384 1.366 1.395 1.392 1.376 1.386   0.83
90)  5-Nitro-o-toluidi 0.429 0.445 0.452 0.443 0.465 0.461 0.455 0.450   2.72
91)p 4-Nitroaniline    0.350 0.351 0.368 0.353 0.372 0.360 0.365 0.360   2.40
```

# Initial Calibration Summary

**Job Number:** TC52591 **Sample:** EP1652-ICC1652
**Account:** RFWTXHO Weston Solutions **Lab FileID:** P34249.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

```
 92) I   Phenanthrene-d10      ----------------ISTD---------------------
 93)  Dinoseb           0.123 0.168 0.185 0.186 0.204 0.206 0.209 0.183  16.53
             ---- Linear regression ----  Coefficient =  0.9988
               Response Ratio = -0.01180 + 0.21034 *A

 94)p 4,6-Dinitro-2-met 0.107 0.136 0.149 0.151 0.161 0.164 0.166 0.148  14.14
 95)p n-Nitrosodiphenyl 0.678 0.684 0.681 0.675 0.665 0.657 0.650 0.670   1.92
 96)  1,2-Diphenylhydra 0.659 0.685 0.680 0.679 0.658 0.653 0.646 0.666   2.31
 97)  Diphenylamine     0.678 0.684 0.681 0.675 0.665 0.657 0.650 0.670   1.92
 98)S 2,4,6-Tribromophe 0.133 0.140 0.141 0.141 0.139 0.138 0.138 0.139   2.06
 99)  sym-Trinitrobenze 0.063 0.088 0.098 0.096 0.104 0.101 0.107 0.094  15.81
             ---- Linear regression ----  Coefficient =  0.9989
               Response Ratio = -0.00541 + 0.10649 *A

100)  Diallate          0.201 0.208 0.204 0.207 0.201 0.199 0.195 0.202   2.38
101)p 4-Bromophenyl-phe 0.253 0.254 0.255 0.252 0.251 0.249 0.245 0.251   1.40
102)  Phenacetin        0.367 0.384 0.398 0.385 0.403 0.378 0.385 0.386   3.08
103)p Hexachlorobenzene 0.300 0.304 0.304 0.302 0.299 0.303 0.303 0.302   0.63
104)p Atrazine          0.231 0.224 0.202 0.182 0.133             0.194  20.41
105)  4-aminobiphenyl   0.845 0.879 0.858 0.773 0.760 0.628 0.596 0.763  14.71
106)p Pentachlorophenol 0.086 0.128 0.144 0.151 0.165 0.170 0.176 0.146  21.19
             ---- Linear regression ----  Coefficient =  0.9979
               Response Ratio = -0.01264 + 0.17534 *A

107)  Pentachloronitrob 0.098 0.106 0.108 0.106 0.109 0.109 0.109 0.107   3.69
108)  Pronamide         0.347 0.369 0.376 0.370 0.379 0.372 0.371 0.369   2.82
109)  n-Octadecane      0.347 0.360 0.349 0.352 0.333 0.324 0.321 0.341   4.39
110)p Phenanthrene      1.195 1.187 1.171 1.141 1.145 1.117 1.101 1.151   3.06
111)p Anthracene        1.195 1.217 1.215 1.185 1.197 1.162 1.155 1.189   2.02
112)p Carbazole         1.123 1.154 1.163 1.121 1.149 1.074 1.095 1.125   2.89
113)p Di-n-butylphthala 1.256 1.299 1.313 1.283 1.319 1.265 1.277 1.287   1.86
114)  4-Nitroquinoline  0.026 0.050 0.065 0.062 0.074 0.072 0.073 0.060  29.02
             ---- Linear regression ----  Coefficient =  0.9973
               Response Ratio = -0.00643 + 0.07540 *A

115)  Methapyrilene     0.353 0.408 0.425 0.402 0.415 0.364 0.386 0.393   6.83
116)  Octachlorostyrene 0.105 0.109 0.112 0.109 0.112 0.113 0.113 0.110   2.72
117)  Isodrin           0.133 0.133 0.136 0.135 0.137 0.135 0.136 0.135   1.14
118)  Fluoranthene      1.408 1.432 1.440 1.361 1.393 1.282 1.321 1.377   4.28
119)S Fluoranthene-D10                                            0.000  -1.00
120)  4,4'-Methylenedia 0.438 0.469 0.474 0.425 0.417 0.368 0.374 0.423   9.83

121) I   Chrysene-d12         ----------------ISTD---------------------
122)  Benzidine         0.576 0.659 0.658 0.652 0.613 0.610 0.591 0.623   5.42
123)  Pyrene            1.187 1.273 1.261 1.248 1.263 1.255 1.260 1.250   2.28
124)S Terphenyl-d14     0.860 0.910 0.900 0.895 0.884 0.872 0.865 0.884   2.14
125)  Aramite           0.062 0.073 0.075 0.077 0.076 0.075 0.074 0.073   6.62
126)  p-(Dimethylamine) 0.275 0.317 0.324 0.326 0.330 0.333 0.337 0.320   6.57
127)  Chlorobenzilate   0.319 0.354 0.358 0.362 0.370 0.372 0.376 0.359   5.30
128)  Kepone                  0.031 0.043 0.045 0.053 0.050 0.044 0.044  17.42
             ---- Quadratic regression ----  Coefficient =  0.9930
               Response Ratio = -0.00846 + 0.06335 *A + -0.00584 *A^2

129)  3,3'-Dimethylbenz 0.620 0.683 0.730 0.710 0.692 0.690 0.690 0.688   4.95
130)  Butylbenzylphthal 0.479 0.518 0.521 0.522 0.525 0.525 0.537 0.518   3.51
131)  2-Acetylaminofluo 0.471 0.508 0.519 0.529 0.534 0.545 0.563 0.524   5.58
132)p 3,3'-Dichlorobenz 0.433 0.450 0.453 0.458 0.453 0.455 0.456 0.451   1.84
133)p Benzo[a]anthracen 1.181 1.198 1.188 1.177 1.167 1.153 1.167 1.176   1.28
134)p Chrysene          1.126 1.136 1.126 1.103 1.097 1.080 1.089 1.108   1.91
135)p bis(2-Ethylhexyl) 0.664 0.704 0.712 0.734 0.730 0.728 0.741 0.716   3.66
```

# Initial Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** EP1652-ICC1652
**Lab FileID:** P34249.D

```
136) I   Perylene-d12          ----------------ISTD---------------------
137)p Di-n-octylphthala 1.211 1.306 1.349 1.326 1.323 1.268 1.252 1.291   3.77
138)p Benzo[b]fluoranth 1.242 1.289 1.324 1.261 1.262 1.265 1.258 1.272   2.13
139)p Benzo[k]fluoranth 1.332 1.337 1.336 1.291 1.274 1.191 1.161 1.275   5.64
140)  7,12-Dimethylbenz 0.182 0.472 0.501 0.549 0.553 0.547 0.559 0.480  28.22
             ---- Linear regression ----  Coefficient =  0.9988
               Response Ratio = -0.04213 + 0.57868 *A

141)p Benzo[a]pyrene    1.183 1.223 1.247 1.204 1.226 1.190 1.188 1.208   1.97
142)S Benzo[a]pyrene-D1                                           0.000  -1.00
143)  3-Methylcholanthr 0.539 0.584 0.599 0.602 0.604 0.508 0.581 0.574   6.39
144)  Dibenz(a,j)acridi 0.945 0.983 1.036 1.028 1.037 1.032 1.026 1.012   3.48
145)p Indeno[1,2,3-cd]p 1.007 1.083 1.126 1.143 1.156 1.158 1.187 1.123   5.38
146)p Dibenz[a,h]anthra 1.124 1.198 1.240 1.225 1.226 1.205 1.188 1.201   3.19
147)p Benzo[g,h,i]peryl 1.146 1.206 1.247 1.215 1.210 1.203 1.149 1.197   3.03
 ---------------------------------------------------------------------------
 (#) = Out of Range

          ep1652.m          Mon Jun 30 11:57:46 2014
```

7.7.11

7

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** EP1652-ICV1652
**Lab FileID:** P34255.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EP1652\p34255.D            Vial: 9
Acq On    : 27 Jun 2014   4:20 pm                    Operator: sheilac
Sample    : icv1652-50,lcs mix1                      Inst    : GCMS P
Misc      : op30663,Ep1652,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\ep1652.m (RTE Integrator)
Title        : SW846 8270 Appendix 9
Last Update  : Fri Jun 27 17:50:07 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 250%
```

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 81 | 0.00 | 5.20 |
| 2 | | bis(Chloromethyl)ether | | ----------NA---------- | | | | |
| 3 | | 1,4-Dioxane | | ----------NA---------- | | | | |
| 4 | | N-nitrosodimethylamine | 0.517 | 0.516 | 0.2 | 79 | 0.00 | 3.11 |
| 5 | | Pyridine | 1.099 | 1.130 | -2.8 | 83 | 0.00 | 3.13 |
| 6 | | 2-Picoline | | ----------NA---------- | | | | |
| 7 | | N-Nitrosomethylethylamine | | ----------NA---------- | | | | |
| 8 | | Methyl methanesulfonate | | ----------NA---------- | | | | |
| 9 | | N-Nitrosodiethylamine | | ----------NA---------- | | | | |
| 10 | | 2-Butoxyethanol | | ----------NA---------- | | | | |
| 11 | | Ethyl methanesulfonate | | ----------NA---------- | | | | |
| 12 | p | Benzaldehyde | | ----------NA---------- | | | | |
| 13 | | Pentachloroethane | | ----------NA---------- | | | | |
| 14 | | Aniline | | ----------NA---------- | | | | |
| 15 | S | 2-Fluorophenol | | ----------NA---------- | | | | |
| 16 | p | bis(2-Chloroethyl)ether | 1.226 | 1.101 | 10.2 | 74 | 0.00 | 4.98 |
| 17 | S | Phenol-d5 | | ----------NA---------- | | | | |
| 18 | p | Phenol | 1.808 | 1.680 | 7.1 | 76 | 0.00 | 4.96 |
| 19 | p | 2-Chlorophenol | 1.405 | 1.379 | 1.9 | 80 | 0.00 | 5.05 |
| 20 | | n-Decane | | ----------NA---------- | | | | |
| 21 | | 1,3-Dichlorobenzene | 1.571 | 1.479 | 5.9 | 76 | 0.00 | 5.15 |
| 22 | | 1,4-Dichlorobenzene | 1.612 | 1.531 | 5.0 | 78 | 0.00 | 5.21 |
| 23 | | 1,2-Dichlorobenzene | 1.550 | 1.465 | 5.5 | 77 | 0.00 | 5.34 |
| 24 | | Benzyl alcohol | 0.942 | 0.809 | 14.1 | 69 | -0.01 | 5.31 |
| 25 | p | bis(2-chloroisopropyl)eth | 1.276 | 1.134 | 11.1 | 73 | -0.01 | 5.41 |
| 26 | p | 2-Methylphenol | 1.287 | 1.182 | 8.2 | 74 | -0.02 | 5.42 |
| 27 | | N-nitrosopyrrolidine | | ----------NA---------- | | | | |
| 28 | | N-Nitrosomorpholine | | ----------NA---------- | | | | |
| 29 | | o-Toluidine | | ----------NA---------- | | | | |
| 30 | p | Acetophenone | | ----------NA---------- | | | | |
| 31 | p | Hexachloroethane | 0.608 | 0.572 | 5.9 | 76 | 0.00 | 5.63 |
| 32 | p | N-Nitroso-di-n-propylamin | 1.009 | 0.898 | 11.0 | 73 | -0.02 | 5.53 |
| 33 | p | 3&4-Methylphenol | 1.483 | 1.258 | 15.2 | 69 | -0.02 | 5.56 |
| 34 | I | Naphthalene-d8 | 1.000 | 1.000 | 0.0 | 77 | -0.01 | 6.40 |
| 35 | S | Nitrobenzene-d5 | | ----------NA---------- | | | | |
| 36 | p | Nitrobenzene | 0.370 | 0.347 | 6.2 | 72 | -0.02 | 5.69 |
| 37 | | 2,6-Dimethylphenol | | ----------NA---------- | | | | |
| 38 | | N-Nitrosopiperidine | | ----------NA---------- | | | | |
| 39 | | A,A-Dimethylphenethylamin | | ----------NA---------- | | | | |
| 40 | p | Isophorone | 0.647 | 0.621 | 4.0 | 74 | -0.02 | 5.91 |
| 41 | p | 2-Nitrophenol | 0.207 | 0.201 | 2.9 | 73 | -0.01 | 5.99 |

7.7.12

7

# Initial Calibration Verification

**Job Number:** TC52591 **Sample:** EP1652-ICV1652
**Account:** RFWTXHO Weston Solutions **Lab FileID:** P34255.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | p | 2,4-Dimethylphenol | 0.384 | 0.346 | 9.9 | 70 | -0.01 | 6.04 |
| 43 | p | bis(2-Chloroethoxy)methan | 0.389 | 0.367 | 5.7 | 73 | -0.01 | 6.12 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 44 | | Benzoic Acid | 50.000 | 52.401 | -4.8 | 78 | -0.02 | 6.18 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 45 | p | 2,4-Dichlorophenol | 0.340 | 0.333 | 2.1 | 75 | -0.01 | 6.26 |
| 46 | | 1,2,4-Trichlorobenzene | 0.370 | 0.348 | 5.9 | 73 | -0.01 | 6.33 |
| 47 | p | Naphthalene | 1.089 | 1.011 | 7.2 | 72 | -0.01 | 6.42 |
| 48 | p | 4-Chloroaniline | | ----------NA---------- | | | | |
| 49 | | 2,6-Dichlorophenol | | ----------NA---------- | | | | |
| 50 | | Hexachloropropene | | ----------NA---------- | | | | |
| 51 | p | Hexachlorobutadiene | 0.231 | 0.214 | 7.4 | 72 | -0.01 | 6.55 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 52 | | p-Phenylenediamine | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 53 | p | Caprolactam | | ----------NA---------- | | | | |
| 54 | | N-Nitrosodi-n-butylamine | | ----------NA---------- | | | | |
| 55 | | Hydroquinone | | ----------NA---------- | | | | |
| 56 | p | 4-Chloro-3-methylphenol | 0.355 | 0.336 | 5.4 | 74 | -0.02 | 7.10 |
| 57 | | Isosafrole | | ----------NA---------- | | | | |
| 58 | p | 2-Methylnaphthalene | 0.785 | 0.714 | 9.0 | 71 | -0.01 | 7.28 |
| 59 | | 1-Methylnaphthalene | 0.727 | 0.666 | 8.4 | 71 | -0.02 | 7.41 |
| 60 | p | 1,2,4,5-Tetrachlorobenzen | | ----------NA---------- | | | | |
| 61 | I | Acenaphthene-d10 | 1.000 | 1.000 | 0.0 | 75 | -0.02 | 8.86 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 62 | p | Hexachlorocyclopentadiene | 50.000 | 46.577 | 6.8 | 71 | -0.02 | 7.49 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 63 | p | 2,4,6-Trichlorophenol | 0.401 | 0.401 | 0.0 | 74 | -0.02 | 7.68 |
| 64 | p | 2,4,5-Trichlorophenol | 0.435 | 0.428 | 1.6 | 72 | -0.02 | 7.76 |
| 65 | S | 2-Fluorobiphenyl | | ----------NA---------- | | | | |
| 66 | | Safrole | | ----------NA---------- | | | | |
| 67 | p | 1,1'-Biphenyl | | ----------NA---------- | | | | |
| 68 | p | 2-Chloronaphthalene | 1.227 | 1.107 | 9.8 | 68 | -0.02 | 7.97 |
| 69 | | 1-Chloronaphthalene | | ----------NA---------- | | | | |
| 70 | | Diphenyl ether | | ----------NA---------- | | | | |
| 71 | p | 2-Nitroaniline | 0.324 | 0.313 | 3.4 | 71 | -0.02 | 8.15 |
| 72 | | 1,4-Naphthoquinone | | ----------NA---------- | | | | |
| 73 | | Acenaphthylene | 1.907 | 1.813 | 4.9 | 72 | -0.01 | 8.63 |
| 74 | p | Dimethylphthalate | 1.405 | 1.312 | 6.6 | 70 | -0.02 | 8.45 |
| 75 | | m-Dinitrobenzene | 0.246 | 0.224 | 8.9 | 67 | -0.02 | 8.50 |
| 76 | p | 2,6-Dinitrotoluene | 0.328 | 0.307 | 6.4 | 69 | -0.02 | 8.55 |
| 77 | p | Acenaphthene | 1.227 | 1.142 | 6.9 | 70 | -0.01 | 8.92 |
| 78 | p | 3-Nitroaniline | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 79 | p | 2,4-Dinitrophenol | 50.000 | 40.719 | 18.6 | 60 | -0.02 | 9.01 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 80 | p | Dibenzofuran | 1.727 | 1.603 | 7.2 | 70 | -0.01 | 9.21 |
| 81 | | Pentachlorobenzene | | ----------NA---------- | | | | |
| 82 | p | 2,4-Dinitrotoluene | 0.450 | 0.414 | 8.0 | 68 | -0.02 | 9.22 |
| 83 | p | 4-Nitrophenol | 0.196 | 0.181 | 7.7 | 64 | -0.02 | 9.22 |
| 84 | | 1-Naphthylamine | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591 **Sample:** EP1652-ICV1652
**Account:** RFWTXHO Weston Solutions **Lab FileID:** P34255.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 85 | | 2-Naphthylamine | | ----------NA---------- | | | | |
| 86 | p | 2,3,4,6-Tetrachlorophenol | 0.402 | 0.371 | 7.7 | 67 | -0.02 | 9.45 |
| 87 | p | Fluorene | 1.427 | 1.328 | 6.9 | 70 | -0.01 | 9.82 |
| 88 | p | 4-Chlorophenyl-phenylethe | 0.718 | 0.686 | 4.5 | 72 | -0.02 | 9.84 |
| 89 | p | Diethylphthalate | 1.386 | 1.278 | 7.8 | 69 | -0.02 | 9.67 |
| 90 | | 5-Nitro-o-toluidine | | ----------NA---------- | | | | |
| 91 | p | 4-Nitroaniline | 0.360 | 0.300 | 16.7 | 61 | -0.03 | 9.90 |
| 92 | I | Phenanthrene-d10 | 1.000 | 1.000 | 0.0 | 71 | -0.02 | 11.55 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 93 | | Dinoseb | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 94 | p | 4,6-Dinitro-2-methylpheno | 0.148 | 0.144 | 2.7 | 64 | -0.02 | 9.95 |
| 95 | p | n-Nitrosodiphenylamine | 0.670 | 0.563 | 16.0 | 60 | -0.02 | 10.07 |
| 96 | | 1,2-Diphenylhydrazine | 0.666 | 0.663 | 0.5 | 71 | -0.02 | 10.13 |
| 97 | | Diphenylamine | 0.670 | 0.563 | 16.0 | 60 | -0.02 | 10.07 |
| 98 | S | 2,4,6-Tribromophenol | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 99 | | sym-Trinitrobenzene | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 100 | | Diallate | | ----------NA---------- | | | | |
| 101 | p | 4-Bromophenyl-phenylether | 0.251 | 0.241 | 4.0 | 68 | -0.02 | 10.74 |
| 102 | | Phenacetin | | ----------NA---------- | | | | |
| 103 | p | Hexachlorobenzene | 0.302 | 0.287 | 5.0 | 68 | -0.02 | 10.81 |
| 104 | p | Atrazine | | ----------NA---------- | | | | |
| 105 | | 4-aminobiphenyl | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 106 | p | Pentachlorophenol | 50.000 | 50.309 | -0.6 | 63 | -0.02 | 11.22 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 107 | | Pentachloronitrobenzene | | ----------NA---------- | | | | |
| 108 | | Pronamide | | ----------NA---------- | | | | |
| 109 | | n-Octadecane | | ----------NA---------- | | | | |
| 110 | p | Phenanthrene | 1.151 | 1.083 | 5.9 | 67 | -0.02 | 11.60 |
| 111 | p | Anthracene | 1.189 | 1.089 | 8.4 | 65 | -0.02 | 11.70 |
| 112 | p | Carbazole | 1.125 | 1.012 | 10.0 | 62 | -0.01 | 12.05 |
| 113 | p | Di-n-butylphthalate | 1.287 | 1.163 | 9.6 | 63 | -0.02 | 12.82 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 114 | | 4-Nitroquinoline 1-Oxide | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 115 | | Methapyrilene | | ----------NA---------- | | | | |
| 116 | | Octachlorostyrene | | ----------NA---------- | | | | |
| 117 | | Isodrin | | ----------NA---------- | | | | |
| 118 | | Fluoranthene | 1.377 | 1.222 | 11.3 | 62 | -0.02 | 13.92 |
| 119 | S | Fluoranthene-D10 | | ----------NA---------- | | | | |
| 120 | | 4,4'-Methylenedianiline | | ----------NA---------- | | | | |
| 121 | I | Chrysene-d12 | 1.000 | 1.000 | 0.0 | 71 | -0.02 | 16.77 |
| 122 | | Benzidine | | ----------NA---------- | | | | |
| 123 | | Pyrene | 1.250 | 1.170 | 6.4 | 66 | -0.02 | 14.35 |
| 124 | S | Terphenyl-d14 | | ----------NA---------- | | | | |
| 125 | | Aramite | | ----------NA---------- | | | | |
| 126 | | p-(Dimethylamine)azobenze | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** EP1652-ICV1652
**Lab FileID:** P34255.D

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 127 | | Chlorobenzilate | | ----------NA---------- | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | |
| 128 | | Kepone | | ----------NA---------- | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | |
| 129 | | 3,3'-Dimethylbenzidine | | ----------NA---------- | | | |
| 130 | | Butylbenzylphthalate | 0.518 | 0.474 | 8.5 | 64 -0.01 | 15.80 |
| 131 | | 2-Acetylaminofluorene | | ----------NA---------- | | | |
| 132 | p | 3,3'-Dichlorobenzidine | | ----------NA---------- | | | |
| 133 | p | Benzo[a]anthracene | 1.176 | 1.068 | 9.2 | 65 -0.01 | 16.76 |
| 134 | p | Chrysene | 1.108 | 1.055 | 4.8 | 68 -0.02 | 16.82 |
| 135 | p | bis(2-Ethylhexyl)phthalat | 0.716 | 0.679 | 5.2 | 66 0.00 | 17.00 |
| 136 | I | Perylene-d12 | 1.000 | 1.000 | 0.0 | 73 -0.02 | 19.40 |
| 137 | p | Di-n-octylphthalate | 1.291 | 1.248 | 3.3 | 68 -0.01 | 18.23 |
| 138 | p | Benzo[b]fluoranthene | 1.272 | 1.103 | 13.3 | 63 -0.02 | 18.76 |
| 139 | p | Benzo[k]fluoranthene | 1.275 | 1.149 | 9.9 | 65 -0.03 | 18.80 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | |
| 140 | | 7,12-Dimethylbenz(a)anthr | | ----------NA---------- | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | |
| 141 | p | Benzo[a]pyrene | 1.208 | 1.120 | 7.3 | 66 -0.02 | 19.31 |
| 142 | S | Benzo[a]pyrene-D12 | | ----------NA---------- | | | |
| 143 | | 3-Methylcholanthrene | | ----------NA---------- | | | |
| 144 | | Dibenz(a,j)acridine | | ----------NA---------- | | | |
| 145 | p | Indeno[1,2,3-cd]pyrene | 1.123 | 1.050 | 6.5 | 66 -0.03 | 21.31 |
| 146 | p | Dibenz[a,h]anthracene | 1.201 | 1.155 | 3.8 | 68 -0.03 | 21.36 |
| 147 | p | Benzo[g,h,i]perylene | 1.197 | 1.157 | 3.3 | 69 -0.03 | 21.85 |

(#) = Out of Range SPCC's out = 9 CCC's out = 0
p34249.D ep1652.m Fri Jun 27 17:53:47 2014

7.7.12

7

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** EP1652-ICV1652
**Lab FileID:** P34256.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EP1652\p34256.D            Vial: 10
Acq On    : 27 Jun 2014   4:50 pm                     Operator: sheilac
Sample    : icv1652-50,cresent                        Inst    : GCMS P
Misc      : op30663,Ep1652,1000,,,1,1,water           Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\ep1652.m (RTE Integrator)
Title        : SW846 8270 Appendix 9
Last Update  : Fri Jun 27 17:50:07 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 250%
```

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 97 | 0.00 | 5.20 |
| 2 | | bis(Chloromethyl)ether | | ----------NA---------- | | | | |
| 3 | | 1,4-Dioxane | | ----------NA---------- | | | | |
| 4 | | N-nitrosodimethylamine | | ----------NA---------- | | | | |
| 5 | | Pyridine | | ----------NA---------- | | | | |
| 6 | | 2-Picoline | 1.377 | 1.200 | 12.9 | 84 | 0.00 | 3.76 |
| 7 | | N-Nitrosomethylethylamine | 0.513 | 0.509 | 0.8 | 103 | 0.00 | 3.85 |
| 8 | | Methyl methanesulfonate | 0.772 | 0.354 | 54.1# | 45# | 0.00 | 4.10 |
| 9 | | N-Nitrosodiethylamine | 0.678 | 0.701 | -3.4 | 101 | 0.00 | 4.39 |
| 10 | | 2-Butoxyethanol | | ----------NA---------- | | | | |
| 11 | | Ethyl methanesulfonate | 0.999 | 1.106 | -10.7 | 108 | 0.00 | 4.61 |
| 12 | p | Benzaldehyde | | ----------NA---------- | | | | |
| 13 | | Pentachloroethane | 0.556 | 0.612 | -10.1 | 106 | 0.00 | 4.98 |
| 14 | | Aniline | 1.962 | 2.280 | -16.2 | 114 | 0.00 | 4.95 |
| 15 | S | 2-Fluorophenol | | ----------NA---------- | | | | |
| 16 | p | bis(2-Chloroethyl)ether | | ----------NA---------- | | | | |
| 17 | S | Phenol-d5 | | ----------NA---------- | | | | |
| 18 | p | Phenol | | ----------NA---------- | | | | |
| 19 | p | 2-Chlorophenol | | ----------NA---------- | | | | |
| 20 | | n-Decane | | ----------NA---------- | | | | |
| 21 | | 1,3-Dichlorobenzene | | ----------NA---------- | | | | |
| 22 | | 1,4-Dichlorobenzene | | ----------NA---------- | | | | |
| 23 | | 1,2-Dichlorobenzene | | ----------NA---------- | | | | |
| 24 | | Benzyl alcohol | | ----------NA---------- | | | | |
| 25 | p | bis(2-chloroisopropyl)eth | | ----------NA---------- | | | | |
| 26 | p | 2-Methylphenol | | ----------NA---------- | | | | |
| 27 | | N-nitrosopyrrolidine | 0.777 | 0.795 | -2.3 | 99 | -0.01 | 5.53 |
| 28 | | N-Nitrosomorpholine | 0.871 | 0.907 | -4.1 | 101 | -0.01 | 5.56 |
| 29 | | o-Toluidine | 2.347 | 2.007 | 14.5 | 83 | -0.01 | 5.57 |
| 30 | p | Acetophenone | | ----------NA---------- | | | | |
| 31 | p | Hexachloroethane | | ----------NA---------- | | | | |
| 32 | p | N-Nitroso-di-n-propylamin | | ----------NA---------- | | | | |
| 33 | p | 3&4-Methylphenol | | ----------NA---------- | | | | |
| 34 | I | Naphthalene-d8 | 1.000 | 1.000 | 0.0 | 100 | -0.01 | 6.40 |
| 35 | S | Nitrobenzene-d5 | | ----------NA---------- | | | | |
| 36 | p | Nitrobenzene | | ----------NA---------- | | | | |
| 37 | | 2,6-Dimethylphenol | 0.339 | 0.365 | -7.7 | 108 | 0.00 | 5.80 |
| 38 | | N-Nitrosopiperidine | 0.226 | 0.218 | 3.5 | 96 | -0.01 | 5.84 |
| 39 | | A,A-Dimethylphenethylamin | 0.840 | 0.758 | 9.8 | 85 | -0.04 | 6.77 |
| 40 | p | Isophorone | | ----------NA---------- | | | | |
| 41 | p | 2-Nitrophenol | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-ICV1652
**Lab FileID:** P34256.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | p | 2,4-Dimethylphenol | | ----------NA---------- | | | | |
| 43 | p | bis(2-Chloroethoxy)methan | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 44 | | Benzoic Acid | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 45 | p | 2,4-Dichlorophenol | | ----------NA---------- | | | | |
| 46 | | 1,2,4-Trichlorobenzene | | ----------NA---------- | | | | |
| 47 | p | Naphthalene | | ----------NA---------- | | | | |
| 48 | p | 4-Chloroaniline | 0.489 | 0.388 | 20.7 | 79 | -0.01 | 6.49 |
| 49 | | 2,6-Dichlorophenol | 0.316 | 0.359 | -13.6 | 112 | -0.01 | 6.50 |
| 50 | | Hexachloropropene | 0.240 | 0.261 | -8.8 | 105 | -0.01 | 6.52 |
| 51 | p | Hexachlorobutadiene | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 52 | | p-Phenylenediamine | 500.000 | 111.410 | 77.7# | 15 | -0.05 | 6.94 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 53 | p | Caprolactam | 0.119 | 0.119 | 0.0 | 103 | 0.00 | 6.95 |
| 54 | | N-Nitrosodi-n-butylamine | 0.283 | 0.268 | 5.3 | 103 | -0.01 | 6.88 |
| 55 | | Hydroquinone | | ----------NA---------- | | | | |
| 56 | p | 4-Chloro-3-methylphenol | | ----------NA---------- | | | | |
| 57 | | Isosafrole | 0.309 | 0.222 | 28.0 | 72 | 0.00 | 7.16 |
| 58 | p | 2-Methylnaphthalene | | ----------NA---------- | | | | |
| 59 | | 1-Methylnaphthalene | | ----------NA---------- | | | | |
| 60 | p | 1,2,4,5-Tetrachlorobenzen | 0.408 | 0.444 | -8.8 | 110 | -0.01 | 7.51 |
| 61 | I | Acenaphthene-d10 | 1.000 | 1.000 | 0.0 | 97 | -0.01 | 8.87 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 62 | p | Hexachlorocyclopentadiene | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 63 | p | 2,4,6-Trichlorophenol | | ----------NA---------- | | | | |
| 64 | p | 2,4,5-Trichlorophenol | | ----------NA---------- | | | | |
| 65 | S | 2-Fluorobiphenyl | | ----------NA---------- | | | | |
| 66 | | Safrole | 0.482 | 0.557 | -15.5 | 112 | 0.00 | 7.91 |
| 67 | p | 1,1'-Biphenyl | 1.443 | 1.610 | -11.6 | 110 | -0.01 | 7.96 |
| 68 | p | 2-Chloronaphthalene | | ----------NA---------- | | | | |
| 69 | | 1-Chloronaphthalene | 1.026 | 1.114 | -8.6 | 107 | -0.01 | 8.02 |
| 70 | | Diphenyl ether | 0.806 | 0.882 | -9.4 | 107 | -0.01 | 8.11 |
| 71 | p | 2-Nitroaniline | | ----------NA---------- | | | | |
| 72 | | 1,4-Naphthoquinone | 0.433 | 0.108 | 75.1# | 24# | -0.02 | 8.26 |
| 73 | | Acenaphthylene | | ----------NA---------- | | | | |
| 74 | p | Dimethylphthalate | | ----------NA---------- | | | | |
| 75 | | m-Dinitrobenzene | | ----------NA---------- | | | | |
| 76 | p | 2,6-Dinitrotoluene | | ----------NA---------- | | | | |
| 77 | p | Acenaphthene | | ----------NA---------- | | | | |
| 78 | p | 3-Nitroaniline | 0.360 | 0.332 | 7.8 | 87 | -0.01 | 8.83 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 79 | p | 2,4-Dinitrophenol | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 80 | p | Dibenzofuran | | ----------NA---------- | | | | |
| 81 | | Pentachlorobenzene | 0.615 | 0.695 | -13.0 | 110 | -0.01 | 9.14 |
| 82 | p | 2,4-Dinitrotoluene | | ----------NA---------- | | | | |
| 83 | p | 4-Nitrophenol | | ----------NA---------- | | | | |
| 84 | | 1-Naphthylamine | 1.138 | 0.682 | 40.1# | 54 | -0.02 | 9.36 |

# Initial Calibration Verification

**Job Number:** TC52591 **Sample:** EP1652-ICV1652
**Account:** RFWTXHO Weston Solutions **Lab FileID:** P34256.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 85 | | 2-Naphthylamine | 1.220 | 0.605 | 50.4# | 47# | -0.02 | 9.51 |
| 86 | p | 2,3,4,6-Tetrachlorophenol | 0.402 | 0.409 | -1.7 | 95 | -0.01 | 9.46 |
| 87 | p | Fluorene | | ----------NA---------- | | | | |
| 88 | p | 4-Chlorophenyl-phenylethe | | ----------NA---------- | | | | |
| 89 | p | Diethylphthalate | | ----------NA---------- | | | | |
| 90 | | 5-Nitro-o-toluidine | 0.450 | 0.332 | 26.2 | 69 | -0.02 | 9.88 |
| 91 | p | 4-Nitroaniline | | ----------NA---------- | | | | |
| 92 | I | Phenanthrene-d10 | 1.000 | 1.000 | 0.0 | 88 | -0.01 | 11.56 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 93 | | Dinoseb | 50.000 | 57.917 | -15.8 | 101 | -0.01 | 11.62 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 94 | p | 4,6-Dinitro-2-methylpheno | | ----------NA---------- | | | | |
| 95 | p | n-Nitrosodiphenylamine | | ----------NA---------- | | | | |
| 96 | | 1,2-Diphenylhydrazine | | ----------NA---------- | | | | |
| 97 | | Diphenylamine | | ----------NA---------- | | | | |
| 98 | S | 2,4,6-Tribromophenol | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 99 | | sym-Trinitrobenzene | 50.000 | 27.917 | 44.2# | 47 | -0.02 | 10.65 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 100 | | Diallate | 0.202 | 0.226 | -11.9 | 99 | 0.00 | 10.62 |
| 101 | p | 4-Bromophenyl-phenylether | | ----------NA---------- | | | | |
| 102 | | Phenacetin | 0.386 | 0.395 | -2.3 | 86 | -0.01 | 10.72 |
| 103 | p | Hexachlorobenzene | | ----------NA---------- | | | | |
| 104 | p | Atrazine | 0.194 | 0.095 | 51.0# | 63 | -0.02 | 11.12 |
| 105 | | 4-aminobiphenyl | 0.763 | 0.335 | 56.1# | 39# | -0.02 | 11.25 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 106 | p | Pentachlorophenol | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 107 | | Pentachloronitrobenzene | 0.107 | 0.116 | -8.4 | 94 | -0.01 | 11.22 |
| 108 | | Pronamide | 0.369 | 0.396 | -7.3 | 92 | -0.01 | 11.42 |
| 109 | | n-Octadecane | | ----------NA---------- | | | | |
| 110 | p | Phenanthrene | | ----------NA---------- | | | | |
| 111 | p | Anthracene | | ----------NA---------- | | | | |
| 112 | p | Carbazole | | ----------NA---------- | | | | |
| 113 | p | Di-n-butylphthalate | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 114 | | 4-Nitroquinoline 1-Oxide | 50.000 | 28.252 | 43.5# | 44 | -0.01 | 13.15 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 115 | | Methapyrilene | 0.393 | 0.357 | 9.2 | 76 | -0.01 | 13.35 |
| 116 | | Octachlorostyrene | 0.110 | 0.118 | -7.3 | 93 | -0.01 | 13.57 |
| 117 | | Isodrin | 0.135 | 0.147 | -8.9 | 94 | -0.01 | 13.61 |
| 118 | | Fluoranthene | | ----------NA---------- | | | | |
| 119 | S | Fluoranthene-D10 | | ----------NA---------- | | | | |
| 120 | | 4,4'-Methylenedianiline | 0.423 | 0.130 | 69.3# | 28# | -0.01 | 14.32 |
| 121 | I | Chrysene-d12 | 1.000 | 1.000 | 0.0 | 84 | -0.01 | 16.78 |
| 122 | | Benzidine | | ----------NA---------- | | | | |
| 123 | | Pyrene | | ----------NA---------- | | | | |
| 124 | S | Terphenyl-d14 | | ----------NA---------- | | | | |
| 125 | | Aramite | 0.073 | 0.074 | -1.4 | 83 | -0.01 | 14.94 |
| 126 | | p-(Dimethylamine)azobenze | 0.320 | 0.261 | 18.4 | 67 | -0.01 | 15.04 |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** EP1652-ICV1652
**Lab FileID:** P34256.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 127 | | Chlorobenzilate | 0.359 | 0.391 | -8.9 | 89 | -0.01 | 15.16 |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 128 | | Kepone | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 129 | | 3,3'-Dimethylbenzidine | 0.688 | 0.487 | 29.2 | 59 | -0.02 | 15.72 |
| 130 | | Butylbenzylphthalate | | ----------NA---------- | | | | |
| 131 | | 2-Acetylaminofluorene | 0.524 | 0.557 | -6.3 | 88 | -0.01 | 16.23 |
| 132 | p | 3,3'-Dichlorobenzidine | 0.451 | 0.489 | -8.4 | 91 | 0.00 | 16.78 |
| 133 | p | Benzo[a]anthracene | | ----------NA---------- | | | | |
| 134 | p | Chrysene | | ----------NA---------- | | | | |
| 135 | p | bis(2-Ethylhexyl)phthalat | | ----------NA---------- | | | | |
| 136 | I | Perylene-d12 | 1.000 | 1.000 | 0.0 | 93 | -0.01 | 19.41 |
| 137 | p | Di-n-octylphthalate | | ----------NA---------- | | | | |
| 138 | p | Benzo[b]fluoranthene | | ----------NA---------- | | | | |
| 139 | p | Benzo[k]fluoranthene | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 140 | | 7,12-Dimethylbenz(a)anthr | 50.000 | 54.954 | -9.9 | 101 | -0.01 | 18.77 |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 141 | p | Benzo[a]pyrene | | ----------NA---------- | | | | |
| 142 | S | Benzo[a]pyrene-D12 | | ----------NA---------- | | | | |
| 143 | | 3-Methylcholanthrene | 0.574 | 0.717 | -24.9 | 111 | -0.01 | 19.91 |
| 144 | | Dibenz(a,j)acridine | 1.012 | 1.163 | -14.9 | 104 | -0.01 | 20.99 |
| 145 | p | Indeno[1,2,3-cd]pyrene | 1.123 | 1.183 | -5.3 | 95 | -0.01 | 21.32 |
| 146 | p | Dibenz[a,h]anthracene | 1.201 | 1.266 | -5.4 | 96 | -0.01 | 21.38 |
| 147 | p | Benzo[g,h,i]perylene | 1.197 | 1.217 | -1.7 | 94 | -0.02 | 21.86 |

(#) = Out of Range SPCC's out = 48 CCC's out = 0
p34249.D ep1652.m Fri Jun 27 18:00:23 2014

7.7.13

7

# Initial Calibration Verification



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** EP1652-ICV1652
**Lab FileID:** P34257.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP1652\p34257.D  Vial: 11
Acq On : 27 Jun 2014 5:20 pm  Operator: sheilac
Sample : icv1652-50,custom  Inst : GCMS P
Misc : op30663,Ep1652,1000,,,1,1,water  Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\ep1652.m (RTE Integrator)
Title : SW846 8270 Appendix 9
Last Update : Fri Jun 27 17:50:07 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 250%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 65 | 0.00 | 5.20 |
| 2 | | bis(Chloromethyl)ether | | ----------NA---------- | | | | |
| 3 | | 1,4-Dioxane | 0.397 | 0.495 | -24.7 | 82 | 0.00 | 2.81 |
| 4 | | N-nitrosodimethylamine | | ----------NA---------- | | | | |
| 5 | | Pyridine | | ----------NA---------- | | | | |
| 6 | | 2-Picoline | | ----------NA---------- | | | | |
| 7 | | N-Nitrosomethylethylamine | | ----------NA---------- | | | | |
| 8 | | Methyl methanesulfonate | | ----------NA---------- | | | | |
| 9 | | N-Nitrosodiethylamine | | ----------NA---------- | | | | |
| 10 | | 2-Butoxyethanol | | ----------NA---------- | | | | |
| 11 | | Ethyl methanesulfonate | | ----------NA---------- | | | | |
| 12 | p | Benzaldehyde | | ----------NA---------- | | | | |
| 13 | | Pentachloroethane | | ----------NA---------- | | | | |
| 14 | | Aniline | | ----------NA---------- | | | | |
| 15 | S | 2-Fluorophenol | | ----------NA---------- | | | | |
| 16 | p | bis(2-Chloroethyl)ether | | ----------NA---------- | | | | |
| 17 | S | Phenol-d5 | | ----------NA---------- | | | | |
| 18 | p | Phenol | | ----------NA---------- | | | | |
| 19 | p | 2-Chlorophenol | | ----------NA---------- | | | | |
| 20 | | n-Decane | 1.007 | 1.163 | -15.5 | 77 | 0.00 | 5.05 |
| 21 | | 1,3-Dichlorobenzene | | ----------NA---------- | | | | |
| 22 | | 1,4-Dichlorobenzene | | ----------NA---------- | | | | |
| 23 | | 1,2-Dichlorobenzene | | ----------NA---------- | | | | |
| 24 | | Benzyl alcohol | | ----------NA---------- | | | | |
| 25 | p | bis(2-chloroisopropyl)eth | | ----------NA---------- | | | | |
| 26 | p | 2-Methylphenol | | ----------NA---------- | | | | |
| 27 | | N-nitrosopyrrolidine | | ----------NA---------- | | | | |
| 28 | | N-Nitrosomorpholine | | ----------NA---------- | | | | |
| 29 | | o-Toluidine | | ----------NA---------- | | | | |
| 30 | p | Acetophenone | | ----------NA---------- | | | | |
| 31 | p | Hexachloroethane | | ----------NA---------- | | | | |
| 32 | p | N-Nitroso-di-n-propylamin | | ----------NA---------- | | | | |
| 33 | p | 3&4-Methylphenol | | ----------NA---------- | | | | |
| 34 | I | Naphthalene-d8 | 1.000 | 1.000 | 0.0 | 62 | -0.02 | 6.40 |
| 35 | S | Nitrobenzene-d5 | | ----------NA---------- | | | | |
| 36 | p | Nitrobenzene | | ----------NA---------- | | | | |
| 37 | | 2,6-Dimethylphenol | | ----------NA---------- | | | | |
| 38 | | N-Nitrosopiperidine | | ----------NA---------- | | | | |
| 39 | | A,A-Dimethylphenethylamin | | ----------NA---------- | | | | |
| 40 | p | Isophorone | | ----------NA---------- | | | | |
| 41 | p | 2-Nitrophenol | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** EP1652-ICV1652
**Lab FileID:** P34257.D

```
42 p   2,4-Dimethylphenol                  ----------NA----------
43 p   bis(2-Chloroethoxy)methan           ----------NA----------

           ----------------------- Amount  Calc.    %Drift   -------------
44     Benzoic Acid                        ----------NA----------

           ----------------------- AvgRF   CCRF      %Dev   --------------
45 p   2,4-Dichlorophenol                  ----------NA----------
46     1,2,4-Trichlorobenzene              ----------NA----------
47 p   Naphthalene                         ----------NA----------
48 p   4-Chloroaniline                     ----------NA----------
49     2,6-Dichlorophenol                  ----------NA----------
50     Hexachloropropene                   ----------NA----------
51 p   Hexachlorobutadiene                 ----------NA----------

           ----------------------- Amount  Calc.    %Drift   -------------
52     p-Phenylenediamine                  ----------NA----------

           ----------------------- AvgRF   CCRF      %Dev   --------------
53 p   Caprolactam                         ----------NA----------
54     N-Nitrosodi-n-butylamine            ----------NA----------
55     Hydroquinone                        ----------NA----------
56 p   4-Chloro-3-methylphenol             ----------NA----------
57     Isosafrole                          ----------NA----------
58 p   2-Methylnaphthalene                 ----------NA----------
59     1-Methylnaphthalene                 ----------NA----------
60 p   1,2,4,5-Tetrachlorobenzen           ----------NA----------

61 I   Acenaphthene-d10            1.000   1.000      0.0   62  -0.02    8.86

           ----------------------- Amount  Calc.    %Drift   -------------
62 p   Hexachlorocyclopentadiene           ----------NA----------

           ----------------------- AvgRF   CCRF      %Dev   --------------
63 p   2,4,6-Trichlorophenol               ----------NA----------
64 p   2,4,5-Trichlorophenol               ----------NA----------
65 S   2-Fluorobiphenyl                    ----------NA----------
66     Safrole                             ----------NA----------
67 p   1,1'-Biphenyl                       ----------NA----------
68 p   2-Chloronaphthalene                 ----------NA----------
69     1-Chloronaphthalene                 ----------NA----------
70     Diphenyl ether                      ----------NA----------
71 p   2-Nitroaniline                      ----------NA----------
72     1,4-Naphthoquinone                  ----------NA----------
73     Acenaphthylene                      ----------NA----------
74 p   Dimethylphthalate                   ----------NA----------
75     m-Dinitrobenzene                    ----------NA----------
76 p   2,6-Dinitrotoluene                  ----------NA----------
77 p   Acenaphthene                        ----------NA----------
78 p   3-Nitroaniline                      ----------NA----------

           ----------------------- Amount  Calc.    %Drift   -------------
79 p   2,4-Dinitrophenol                   ----------NA----------

           ----------------------- AvgRF   CCRF      %Dev   --------------
80 p   Dibenzofuran                        ----------NA----------
81     Pentachlorobenzene                  ----------NA----------
82 p   2,4-Dinitrotoluene                  ----------NA----------
83 p   4-Nitrophenol                       ----------NA----------
84     1-Naphthylamine                     ----------NA----------
```

7.7.14

7

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-ICV1652
**Lab FileID:** P34257.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 85 | | 2-Naphthylamine | | ----------NA---------- | | | | |
| 86 | p | 2,3,4,6-Tetrachlorophenol | | ----------NA---------- | | | | |
| 87 | p | Fluorene | | ----------NA---------- | | | | |
| 88 | p | 4-Chlorophenyl-phenylethe | | ----------NA---------- | | | | |
| 89 | p | Diethylphthalate | | ----------NA---------- | | | | |
| 90 | | 5-Nitro-o-toluidine | | ----------NA---------- | | | | |
| 91 | p | 4-Nitroaniline | | ----------NA---------- | | | | |
| 92 | I | Phenanthrene-d10 | 1.000 | 1.000 | 0.0 | 59 | -0.02 | 11.55 |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 93 | | Dinoseb | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 94 | p | 4,6-Dinitro-2-methylpheno | | ----------NA---------- | | | | |
| 95 | p | n-Nitrosodiphenylamine | | ----------NA---------- | | | | |
| 96 | | 1,2-Diphenylhydrazine | | ----------NA---------- | | | | |
| 97 | | Diphenylamine | | ----------NA---------- | | | | |
| 98 | S | 2,4,6-Tribromophenol | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 99 | | sym-Trinitrobenzene | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 100 | | Diallate | | ----------NA---------- | | | | |
| 101 | p | 4-Bromophenyl-phenylether | | ----------NA---------- | | | | |
| 102 | | Phenacetin | | ----------NA---------- | | | | |
| 103 | p | Hexachlorobenzene | | ----------NA---------- | | | | |
| 104 | p | Atrazine | | ----------NA---------- | | | | |
| 105 | | 4-aminobiphenyl | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 106 | p | Pentachlorophenol | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 107 | | Pentachloronitrobenzene | | ----------NA---------- | | | | |
| 108 | | Pronamide | | ----------NA---------- | | | | |
| 109 | | n-Octadecane | 0.341 | 0.352 | -3.2 | 63 | -0.02 | 11.48 |
| 110 | p | Phenanthrene | | ----------NA---------- | | | | |
| 111 | p | Anthracene | | ----------NA---------- | | | | |
| 112 | p | Carbazole | | ----------NA---------- | | | | |
| 113 | p | Di-n-butylphthalate | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 114 | | 4-Nitroquinoline 1-Oxide | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 115 | | Methapyrilene | | ----------NA---------- | | | | |
| 116 | | Octachlorostyrene | | ----------NA---------- | | | | |
| 117 | | Isodrin | | ----------NA---------- | | | | |
| 118 | | Fluoranthene | | ----------NA---------- | | | | |
| 119 | S | Fluoranthene-D10 | | ----------NA---------- | | | | |
| 120 | | 4,4'-Methylenedianiline | | ----------NA---------- | | | | |
| 121 | I | Chrysene-d12 | 1.000 | 1.000 | 0.0 | 57 | -0.03 | 16.76 |
| 122 | | Benzidine | | ----------NA---------- | | | | |
| 123 | | Pyrene | | ----------NA---------- | | | | |
| 124 | S | Terphenyl-d14 | | ----------NA---------- | | | | |
| 125 | | Aramite | | ----------NA---------- | | | | |
| 126 | | p-(Dimethylamine)azobenze | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-ICV1652
**Lab FileID:** P34257.D

```
127      Chlorobenzilate                      ----------NA----------

             ------------------------ Amount  Calc.    %Drift   -------------
128      Kepone                        50.000  42.200     15.6   44  -0.03   15.70

             ------------------------ AvgRF   CCRF      %Dev   --------------
129      3,3'-Dimethylbenzidine                ----------NA----------
130      Butylbenzylphthalate                  ----------NA----------
131      2-Acetylaminofluorene                 ----------NA----------
132 p    3,3'-Dichlorobenzidine                ----------NA----------
133 p    Benzo[a]anthracene                    ----------NA----------
134 p    Chrysene                              ----------NA----------
135 p    bis(2-Ethylhexyl)phthalat             ----------NA----------

136 I    Perylene-d12                   1.000   1.000      0.0   57  -0.03   19.39
137 p    Di-n-octylphthalate                   ----------NA----------
138 p    Benzo[b]fluoranthene                  ----------NA----------
139 p    Benzo[k]fluoranthene                  ----------NA----------

             ------------------------ Amount  Calc.    %Drift   -------------
140      7,12-Dimethylbenz(a)anthr             ----------NA----------

             ------------------------ AvgRF   CCRF      %Dev   --------------
141 p    Benzo[a]pyrene                        ----------NA----------
142 S    Benzo[a]pyrene-D12                    ----------NA----------
143      3-Methylcholanthrene                  ----------NA----------
144      Dibenz(a,j)acridine                   ----------NA----------
145 p    Indeno[1,2,3-cd]pyrene                ----------NA----------
146 p    Dibenz[a,h]anthracene                 ----------NA----------
147 p    Benzo[g,h,i]perylene                  ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range                SPCC's out = 59  CCC's out = 0
     p34249.D   ep1652.m         Fri Jun 27 18:09:39 2014
```

7.7.14

7

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** EP1652-ICV1652
**Lab FileID:** P34258.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EP1652\p34258.D            Vial: 12
Acq On    : 27 Jun 2014   5:49 pm                    Operator: sheilac
Sample    : icv1652-50,2-butoxyethanol               Inst    : GCMS P
Misc      : op30663,Ep1652,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\ep1652.m (RTE Integrator)
Title        : SW846 8270 Appendix 9
Last Update  : Fri Jun 27 17:50:07 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 250%
```

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 95 | 0.00 | 5.20 |
| 2 | | bis(Chloromethyl)ether | | ----------NA---------- | | | | |
| 3 | | 1,4-Dioxane | | ----------NA---------- | | | | |
| 4 | | N-nitrosodimethylamine | | ----------NA---------- | | | | |
| 5 | | Pyridine | | ----------NA---------- | | | | |
| 6 | | 2-Picoline | | ----------NA---------- | | | | |
| 7 | | N-Nitrosomethylethylamine | | ----------NA---------- | | | | |
| 8 | | Methyl methanesulfonate | | ----------NA---------- | | | | |
| 9 | | N-Nitrosodiethylamine | | ----------NA---------- | | | | |
| 10 | | 2-Butoxyethanol | 1.110 | 0.981 | 11.6 | 84 | 0.00 | 4.44 |
| 11 | | Ethyl methanesulfonate | | ----------NA---------- | | | | |
| 12 | p | Benzaldehyde | | ----------NA---------- | | | | |
| 13 | | Pentachloroethane | | ----------NA---------- | | | | |
| 14 | | Aniline | | ----------NA---------- | | | | |
| 15 | S | 2-Fluorophenol | | ----------NA---------- | | | | |
| 16 | p | bis(2-Chloroethyl)ether | | ----------NA---------- | | | | |
| 17 | S | Phenol-d5 | | ----------NA---------- | | | | |
| 18 | p | Phenol | | ----------NA---------- | | | | |
| 19 | p | 2-Chlorophenol | | ----------NA---------- | | | | |
| 20 | | n-Decane | | ----------NA---------- | | | | |
| 21 | | 1,3-Dichlorobenzene | | ----------NA---------- | | | | |
| 22 | | 1,4-Dichlorobenzene | | ----------NA---------- | | | | |
| 23 | | 1,2-Dichlorobenzene | | ----------NA---------- | | | | |
| 24 | | Benzyl alcohol | | ----------NA---------- | | | | |
| 25 | p | bis(2-chloroisopropyl)eth | | ----------NA---------- | | | | |
| 26 | p | 2-Methylphenol | | ----------NA---------- | | | | |
| 27 | | N-nitrosopyrrolidine | | ----------NA---------- | | | | |
| 28 | | N-Nitrosomorpholine | | ----------NA---------- | | | | |
| 29 | | o-Toluidine | | ----------NA---------- | | | | |
| 30 | p | Acetophenone | | ----------NA---------- | | | | |
| 31 | p | Hexachloroethane | | ----------NA---------- | | | | |
| 32 | p | N-Nitroso-di-n-propylamin | | ----------NA---------- | | | | |
| 33 | p | 3&4-Methylphenol | | ----------NA---------- | | | | |
| 34 | I | Naphthalene-d8 | 1.000 | 1.000 | 0.0 | 94 | -0.02 | 6.40 |
| 35 | S | Nitrobenzene-d5 | | ----------NA---------- | | | | |
| 36 | p | Nitrobenzene | | ----------NA---------- | | | | |
| 37 | | 2,6-Dimethylphenol | | ----------NA---------- | | | | |
| 38 | | N-Nitrosopiperidine | | ----------NA---------- | | | | |
| 39 | | A,A-Dimethylphenethylamin | | ----------NA---------- | | | | |
| 40 | p | Isophorone | | ----------NA---------- | | | | |
| 41 | p | 2-Nitrophenol | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** EP1652-ICV1652
**Lab FileID:** P34258.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | p | 2,4-Dimethylphenol | | ----------NA---------- | | | | |
| 43 | p | bis(2-Chloroethoxy)methan | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 44 | | Benzoic Acid | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 45 | p | 2,4-Dichlorophenol | | ----------NA---------- | | | | |
| 46 | | 1,2,4-Trichlorobenzene | | ----------NA---------- | | | | |
| 47 | p | Naphthalene | | ----------NA---------- | | | | |
| 48 | p | 4-Chloroaniline | | ----------NA---------- | | | | |
| 49 | | 2,6-Dichlorophenol | | ----------NA---------- | | | | |
| 50 | | Hexachloropropene | | ----------NA---------- | | | | |
| 51 | p | Hexachlorobutadiene | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 52 | | p-Phenylenediamine | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 53 | p | Caprolactam | | ----------NA---------- | | | | |
| 54 | | N-Nitrosodi-n-butylamine | | ----------NA---------- | | | | |
| 55 | | Hydroquinone | | ----------NA---------- | | | | |
| 56 | p | 4-Chloro-3-methylphenol | | ----------NA---------- | | | | |
| 57 | | Isosafrole | | ----------NA---------- | | | | |
| 58 | p | 2-Methylnaphthalene | | ----------NA---------- | | | | |
| 59 | | 1-Methylnaphthalene | | ----------NA---------- | | | | |
| 60 | p | 1,2,4,5-Tetrachlorobenzen | | ----------NA---------- | | | | |
| 61 | I | Acenaphthene-d10 | 1.000 | 1.000 | 0.0 | 96 | -0.02 | 8.86 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 62 | p | Hexachlorocyclopentadiene | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 63 | p | 2,4,6-Trichlorophenol | | ----------NA---------- | | | | |
| 64 | p | 2,4,5-Trichlorophenol | | ----------NA---------- | | | | |
| 65 | S | 2-Fluorobiphenyl | | ----------NA---------- | | | | |
| 66 | | Safrole | | ----------NA---------- | | | | |
| 67 | p | 1,1'-Biphenyl | | ----------NA---------- | | | | |
| 68 | p | 2-Chloronaphthalene | | ----------NA---------- | | | | |
| 69 | | 1-Chloronaphthalene | | ----------NA---------- | | | | |
| 70 | | Diphenyl ether | | ----------NA---------- | | | | |
| 71 | p | 2-Nitroaniline | | ----------NA---------- | | | | |
| 72 | | 1,4-Naphthoquinone | | ----------NA---------- | | | | |
| 73 | | Acenaphthylene | | ----------NA---------- | | | | |
| 74 | p | Dimethylphthalate | | ----------NA---------- | | | | |
| 75 | | m-Dinitrobenzene | | ----------NA---------- | | | | |
| 76 | p | 2,6-Dinitrotoluene | | ----------NA---------- | | | | |
| 77 | p | Acenaphthene | | ----------NA---------- | | | | |
| 78 | p | 3-Nitroaniline | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 79 | p | 2,4-Dinitrophenol | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 80 | p | Dibenzofuran | | ----------NA---------- | | | | |
| 81 | | Pentachlorobenzene | | ----------NA---------- | | | | |
| 82 | p | 2,4-Dinitrotoluene | | ----------NA---------- | | | | |
| 83 | p | 4-Nitrophenol | | ----------NA---------- | | | | |
| 84 | | 1-Naphthylamine | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-ICV1652
**Lab FileID:** P34258.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 85 | | 2-Naphthylamine | | ----------NA---------- | | | | |
| 86 | p | 2,3,4,6-Tetrachlorophenol | | ----------NA---------- | | | | |
| 87 | p | Fluorene | | ----------NA---------- | | | | |
| 88 | p | 4-Chlorophenyl-phenylethe | | ----------NA---------- | | | | |
| 89 | p | Diethylphthalate | | ----------NA---------- | | | | |
| 90 | | 5-Nitro-o-toluidine | | ----------NA---------- | | | | |
| 91 | p | 4-Nitroaniline | | ----------NA---------- | | | | |
| 92 | I | Phenanthrene-d10 | 1.000 | 1.000 | 0.0 | 94 | -0.02 | 11.55 |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 93 | | Dinoseb | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 94 | p | 4,6-Dinitro-2-methylpheno | | ----------NA---------- | | | | |
| 95 | p | n-Nitrosodiphenylamine | | ----------NA---------- | | | | |
| 96 | | 1,2-Diphenylhydrazine | | ----------NA---------- | | | | |
| 97 | | Diphenylamine | | ----------NA---------- | | | | |
| 98 | S | 2,4,6-Tribromophenol | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 99 | | sym-Trinitrobenzene | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 100 | | Diallate | | ----------NA---------- | | | | |
| 101 | p | 4-Bromophenyl-phenylether | | ----------NA---------- | | | | |
| 102 | | Phenacetin | | ----------NA---------- | | | | |
| 103 | p | Hexachlorobenzene | | ----------NA---------- | | | | |
| 104 | p | Atrazine | | ----------NA---------- | | | | |
| 105 | | 4-aminobiphenyl | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 106 | p | Pentachlorophenol | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 107 | | Pentachloronitrobenzene | | ----------NA---------- | | | | |
| 108 | | Pronamide | | ----------NA---------- | | | | |
| 109 | | n-Octadecane | | ----------NA---------- | | | | |
| 110 | p | Phenanthrene | | ----------NA---------- | | | | |
| 111 | p | Anthracene | | ----------NA---------- | | | | |
| 112 | p | Carbazole | | ----------NA---------- | | | | |
| 113 | p | Di-n-butylphthalate | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 114 | | 4-Nitroquinoline 1-Oxide | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 115 | | Methapyrilene | | ----------NA---------- | | | | |
| 116 | | Octachlorostyrene | | ----------NA---------- | | | | |
| 117 | | Isodrin | | ----------NA---------- | | | | |
| 118 | | Fluoranthene | | ----------NA---------- | | | | |
| 119 | S | Fluoranthene-D10 | | ----------NA---------- | | | | |
| 120 | | 4,4'-Methylenedianiline | | ----------NA---------- | | | | |
| 121 | I | Chrysene-d12 | 1.000 | 1.000 | 0.0 | 105 | -0.02 | 16.77 |
| 122 | | Benzidine | | ----------NA---------- | | | | |
| 123 | | Pyrene | | ----------NA---------- | | | | |
| 124 | S | Terphenyl-d14 | | ----------NA---------- | | | | |
| 125 | | Aramite | | ----------NA---------- | | | | |
| 126 | | p-(Dimethylamine)azobenze | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-ICV1652
**Lab FileID:** P34258.D

```
127      Chlorobenzilate                      ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
128      Kepone                               ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
129      3,3'-Dimethylbenzidine               ----------NA----------
130      Butylbenzylphthalate                 ----------NA----------
131      2-Acetylaminofluorene                ----------NA----------
132 p    3,3'-Dichlorobenzidine               ----------NA----------
133 p    Benzo[a]anthracene                   ----------NA----------
134 p    Chrysene                             ----------NA----------
135 p    bis(2-Ethylhexyl)phthalat            ----------NA----------

136 I    Perylene-d12                 1.000   1.000      0.0  104  -0.02   19.40
137 p    Di-n-octylphthalate                  ----------NA----------
138 p    Benzo[b]fluoranthene                 ----------NA----------
139 p    Benzo[k]fluoranthene                 ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
140      7,12-Dimethylbenz(a)anthr            ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
141 p    Benzo[a]pyrene                       ----------NA----------
142 S    Benzo[a]pyrene-D12                   ----------NA----------
143      3-Methylcholanthrene                 ----------NA----------
144      Dibenz(a,j)acridine                  ----------NA----------
145 p    Indeno[1,2,3-cd]pyrene               ----------NA----------
146 p    Dibenz[a,h]anthracene                ----------NA----------
147 p    Benzo[g,h,i]perylene                 ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range                SPCC's out = 59  CCC's out = 0
     p34249.D   ep1652.m         Fri Jun 27 18:10:35 2014
```

7.7.15

7

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-ICV1652
**Lab FileID:** P34259.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EP1652\p34259.D            Vial: 13
Acq On    : 27 Jun 2014   6:16 pm                    Operator: sheilac
Sample    : icv1652-50,hydroquinone                  Inst    : GCMS P
Misc      : op30663,Ep1652,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\ep1652.m (RTE Integrator)
Title        : SW846 8270 Appendix 9
Last Update  : Fri Jun 27 17:50:07 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 250%
```

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 83 | 0.00 | 5.20 |
| 2 | | bis(Chloromethyl)ether | | ----------NA---------- | | | | |
| 3 | | 1,4-Dioxane | | ----------NA---------- | | | | |
| 4 | | N-nitrosodimethylamine | | ----------NA---------- | | | | |
| 5 | | Pyridine | | ----------NA---------- | | | | |
| 6 | | 2-Picoline | | ----------NA---------- | | | | |
| 7 | | N-Nitrosomethylethylamine | | ----------NA---------- | | | | |
| 8 | | Methyl methanesulfonate | | ----------NA---------- | | | | |
| 9 | | N-Nitrosodiethylamine | | ----------NA---------- | | | | |
| 10 | | 2-Butoxyethanol | | ----------NA---------- | | | | |
| 11 | | Ethyl methanesulfonate | | ----------NA---------- | | | | |
| 12 | p | Benzaldehyde | | ----------NA---------- | | | | |
| 13 | | Pentachloroethane | | ----------NA---------- | | | | |
| 14 | | Aniline | | ----------NA---------- | | | | |
| 15 | S | 2-Fluorophenol | | ----------NA---------- | | | | |
| 16 | p | bis(2-Chloroethyl)ether | | ----------NA---------- | | | | |
| 17 | S | Phenol-d5 | | ----------NA---------- | | | | |
| 18 | p | Phenol | | ----------NA---------- | | | | |
| 19 | p | 2-Chlorophenol | | ----------NA---------- | | | | |
| 20 | | n-Decane | | ----------NA---------- | | | | |
| 21 | | 1,3-Dichlorobenzene | | ----------NA---------- | | | | |
| 22 | | 1,4-Dichlorobenzene | | ----------NA---------- | | | | |
| 23 | | 1,2-Dichlorobenzene | | ----------NA---------- | | | | |
| 24 | | Benzyl alcohol | | ----------NA---------- | | | | |
| 25 | p | bis(2-chloroisopropyl)eth | | ----------NA---------- | | | | |
| 26 | p | 2-Methylphenol | | ----------NA---------- | | | | |
| 27 | | N-nitrosopyrrolidine | | ----------NA---------- | | | | |
| 28 | | N-Nitrosomorpholine | | ----------NA---------- | | | | |
| 29 | | o-Toluidine | | ----------NA---------- | | | | |
| 30 | p | Acetophenone | | ----------NA---------- | | | | |
| 31 | p | Hexachloroethane | | ----------NA---------- | | | | |
| 32 | p | N-Nitroso-di-n-propylamin | | ----------NA---------- | | | | |
| 33 | p | 3&4-Methylphenol | | ----------NA---------- | | | | |
| 34 | I | Naphthalene-d8 | 1.000 | 1.000 | 0.0 | 80 | -0.02 | 6.39 |
| 35 | S | Nitrobenzene-d5 | | ----------NA---------- | | | | |
| 36 | p | Nitrobenzene | | ----------NA---------- | | | | |
| 37 | | 2,6-Dimethylphenol | | ----------NA---------- | | | | |
| 38 | | N-Nitrosopiperidine | | ----------NA---------- | | | | |
| 39 | | A,A-Dimethylphenethylamin | | ----------NA---------- | | | | |
| 40 | p | Isophorone | | ----------NA---------- | | | | |
| 41 | p | 2-Nitrophenol | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-ICV1652
**Lab FileID:** P34259.D

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 42 | p | 2,4-Dimethylphenol | | ----------NA---------- | | | |
| 43 | p | bis(2-Chloroethoxy)methan | | ----------NA---------- | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | |
| 44 | | Benzoic Acid | | ----------NA---------- | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | |
| 45 | p | 2,4-Dichlorophenol | | ----------NA---------- | | | |
| 46 | | 1,2,4-Trichlorobenzene | | ----------NA---------- | | | |
| 47 | p | Naphthalene | | ----------NA---------- | | | |
| 48 | p | 4-Chloroaniline | | ----------NA---------- | | | |
| 49 | | 2,6-Dichlorophenol | | ----------NA---------- | | | |
| 50 | | Hexachloropropene | | ----------NA---------- | | | |
| 51 | p | Hexachlorobutadiene | | ----------NA---------- | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | |
| 52 | | p-Phenylenediamine | | ----------NA---------- | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | |
| 53 | p | Caprolactam | | ----------NA---------- | | | |
| 54 | | N-Nitrosodi-n-butylamine | | ----------NA---------- | | | |
| 55 | | Hydroquinone | 0.339 | 0.384 | -13.3 | 88 -0.04 | 6.92 |
| 56 | p | 4-Chloro-3-methylphenol | | ----------NA---------- | | | |
| 57 | | Isosafrole | | ----------NA---------- | | | |
| 58 | p | 2-Methylnaphthalene | | ----------NA---------- | | | |
| 59 | | 1-Methylnaphthalene | | ----------NA---------- | | | |
| 60 | p | 1,2,4,5-Tetrachlorobenzen | | ----------NA---------- | | | |
| 61 | I | Acenaphthene-d10 | 1.000 | 1.000 | 0.0 | 81 -0.02 | 8.86 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | |
| 62 | p | Hexachlorocyclopentadiene | | ----------NA---------- | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | |
| 63 | p | 2,4,6-Trichlorophenol | | ----------NA---------- | | | |
| 64 | p | 2,4,5-Trichlorophenol | | ----------NA---------- | | | |
| 65 | S | 2-Fluorobiphenyl | | ----------NA---------- | | | |
| 66 | | Safrole | | ----------NA---------- | | | |
| 67 | p | 1,1'-Biphenyl | | ----------NA---------- | | | |
| 68 | p | 2-Chloronaphthalene | | ----------NA---------- | | | |
| 69 | | 1-Chloronaphthalene | | ----------NA---------- | | | |
| 70 | | Diphenyl ether | | ----------NA---------- | | | |
| 71 | p | 2-Nitroaniline | | ----------NA---------- | | | |
| 72 | | 1,4-Naphthoquinone | | ----------NA---------- | | | |
| 73 | | Acenaphthylene | | ----------NA---------- | | | |
| 74 | p | Dimethylphthalate | | ----------NA---------- | | | |
| 75 | | m-Dinitrobenzene | | ----------NA---------- | | | |
| 76 | p | 2,6-Dinitrotoluene | | ----------NA---------- | | | |
| 77 | p | Acenaphthene | | ----------NA---------- | | | |
| 78 | p | 3-Nitroaniline | | ----------NA---------- | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | |
| 79 | p | 2,4-Dinitrophenol | | ----------NA---------- | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | |
| 80 | p | Dibenzofuran | | ----------NA---------- | | | |
| 81 | | Pentachlorobenzene | | ----------NA---------- | | | |
| 82 | p | 2,4-Dinitrotoluene | | ----------NA---------- | | | |
| 83 | p | 4-Nitrophenol | | ----------NA---------- | | | |
| 84 | | 1-Naphthylamine | | ----------NA---------- | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-ICV1652
**Lab FileID:** P34259.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 85 | | 2-Naphthylamine | | ----------NA---------- | | | | |
| 86 | p | 2,3,4,6-Tetrachlorophenol | | ----------NA---------- | | | | |
| 87 | p | Fluorene | | ----------NA---------- | | | | |
| 88 | p | 4-Chlorophenyl-phenylethe | | ----------NA---------- | | | | |
| 89 | p | Diethylphthalate | | ----------NA---------- | | | | |
| 90 | | 5-Nitro-o-toluidine | | ----------NA---------- | | | | |
| 91 | p | 4-Nitroaniline | | ----------NA---------- | | | | |
| 92 | I | Phenanthrene-d10 | 1.000 | 1.000 | 0.0 | 82 | -0.02 | 11.55 |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 93 | | Dinoseb | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 94 | p | 4,6-Dinitro-2-methylpheno | | ----------NA---------- | | | | |
| 95 | p | n-Nitrosodiphenylamine | | ----------NA---------- | | | | |
| 96 | | 1,2-Diphenylhydrazine | | ----------NA---------- | | | | |
| 97 | | Diphenylamine | | ----------NA---------- | | | | |
| 98 | S | 2,4,6-Tribromophenol | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 99 | | sym-Trinitrobenzene | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 100 | | Diallate | | ----------NA---------- | | | | |
| 101 | p | 4-Bromophenyl-phenylether | | ----------NA---------- | | | | |
| 102 | | Phenacetin | | ----------NA---------- | | | | |
| 103 | p | Hexachlorobenzene | | ----------NA---------- | | | | |
| 104 | p | Atrazine | | ----------NA---------- | | | | |
| 105 | | 4-aminobiphenyl | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 106 | p | Pentachlorophenol | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 107 | | Pentachloronitrobenzene | | ----------NA---------- | | | | |
| 108 | | Pronamide | | ----------NA---------- | | | | |
| 109 | | n-Octadecane | | ----------NA---------- | | | | |
| 110 | p | Phenanthrene | | ----------NA---------- | | | | |
| 111 | p | Anthracene | | ----------NA---------- | | | | |
| 112 | p | Carbazole | | ----------NA---------- | | | | |
| 113 | p | Di-n-butylphthalate | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 114 | | 4-Nitroquinoline 1-Oxide | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 115 | | Methapyrilene | | ----------NA---------- | | | | |
| 116 | | Octachlorostyrene | | ----------NA---------- | | | | |
| 117 | | Isodrin | | ----------NA---------- | | | | |
| 118 | | Fluoranthene | | ----------NA---------- | | | | |
| 119 | S | Fluoranthene-D10 | | ----------NA---------- | | | | |
| 120 | | 4,4'-Methylenedianiline | | ----------NA---------- | | | | |
| 121 | I | Chrysene-d12 | 1.000 | 1.000 | 0.0 | 92 | -0.02 | 16.77 |
| 122 | | Benzidine | | ----------NA---------- | | | | |
| 123 | | Pyrene | | ----------NA---------- | | | | |
| 124 | S | Terphenyl-d14 | | ----------NA---------- | | | | |
| 125 | | Aramite | | ----------NA---------- | | | | |
| 126 | | p-(Dimethylamine)azobenze | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-ICV1652
**Lab FileID:** P34259.D

```
127      Chlorobenzilate                      ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
128      Kepone                               ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
129      3,3'-Dimethylbenzidine               ----------NA----------
130      Butylbenzylphthalate                 ----------NA----------
131      2-Acetylaminofluorene                ----------NA----------
132 p    3,3'-Dichlorobenzidine               ----------NA----------
133 p    Benzo[a]anthracene                   ----------NA----------
134 p    Chrysene                             ----------NA----------
135 p    bis(2-Ethylhexyl)phthalat            ----------NA----------

136 I    Perylene-d12                 1.000   1.000      0.0   90  -0.02   19.40
137 p    Di-n-octylphthalate                  ----------NA----------
138 p    Benzo[b]fluoranthene                 ----------NA----------
139 p    Benzo[k]fluoranthene                 ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
140      7,12-Dimethylbenz(a)anthr            ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
141 p    Benzo[a]pyrene                       ----------NA----------
142 S    Benzo[a]pyrene-D12                   ----------NA----------
143      3-Methylcholanthrene                 ----------NA----------
144      Dibenz(a,j)acridine                  ----------NA----------
145 p    Indeno[1,2,3-cd]pyrene               ----------NA----------
146 p    Dibenz[a,h]anthracene                ----------NA----------
147 p    Benzo[g,h,i]perylene                 ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range                SPCC's out = 59  CCC's out = 0
     p34249.D   ep1652.m         Mon Jun 30 10:25:36 2014
```

7.7.16

7

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-ICV1652
**Lab FileID:** P34260.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EP1652\p34260.D            Vial: 14
Acq On    : 27 Jun 2014   6:45 pm                    Operator: sheilac
Sample    : icv1652-50,benzidine                     Inst    : GCMS P
Misc      : op30663,Ep1652,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\ep1652.m (RTE Integrator)
Title        : SW846 8270 Appendix 9
Last Update  : Fri Jun 27 17:50:07 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 250%
```

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 75 | 0.00 | 5.20 |
| 2 | | bis(Chloromethyl)ether | | ----------NA---------- | | | | |
| 3 | | 1,4-Dioxane | | ----------NA---------- | | | | |
| 4 | | N-nitrosodimethylamine | | ----------NA---------- | | | | |
| 5 | | Pyridine | | ----------NA---------- | | | | |
| 6 | | 2-Picoline | | ----------NA---------- | | | | |
| 7 | | N-Nitrosomethylethylamine | | ----------NA---------- | | | | |
| 8 | | Methyl methanesulfonate | | ----------NA---------- | | | | |
| 9 | | N-Nitrosodiethylamine | | ----------NA---------- | | | | |
| 10 | | 2-Butoxyethanol | | ----------NA---------- | | | | |
| 11 | | Ethyl methanesulfonate | | ----------NA---------- | | | | |
| 12 | p | Benzaldehyde | | ----------NA---------- | | | | |
| 13 | | Pentachloroethane | | ----------NA---------- | | | | |
| 14 | | Aniline | | ----------NA---------- | | | | |
| 15 | S | 2-Fluorophenol | | ----------NA---------- | | | | |
| 16 | p | bis(2-Chloroethyl)ether | | ----------NA---------- | | | | |
| 17 | S | Phenol-d5 | | ----------NA---------- | | | | |
| 18 | p | Phenol | | ----------NA---------- | | | | |
| 19 | p | 2-Chlorophenol | | ----------NA---------- | | | | |
| 20 | | n-Decane | | ----------NA---------- | | | | |
| 21 | | 1,3-Dichlorobenzene | | ----------NA---------- | | | | |
| 22 | | 1,4-Dichlorobenzene | | ----------NA---------- | | | | |
| 23 | | 1,2-Dichlorobenzene | | ----------NA---------- | | | | |
| 24 | | Benzyl alcohol | | ----------NA---------- | | | | |
| 25 | p | bis(2-chloroisopropyl)eth | | ----------NA---------- | | | | |
| 26 | p | 2-Methylphenol | | ----------NA---------- | | | | |
| 27 | | N-nitrosopyrrolidine | | ----------NA---------- | | | | |
| 28 | | N-Nitrosomorpholine | | ----------NA---------- | | | | |
| 29 | | o-Toluidine | | ----------NA---------- | | | | |
| 30 | p | Acetophenone | | ----------NA---------- | | | | |
| 31 | p | Hexachloroethane | | ----------NA---------- | | | | |
| 32 | p | N-Nitroso-di-n-propylamin | | ----------NA---------- | | | | |
| 33 | p | 3&4-Methylphenol | | ----------NA---------- | | | | |
| 34 | I | Naphthalene-d8 | 1.000 | 1.000 | 0.0 | 73 | -0.02 | 6.40 |
| 35 | S | Nitrobenzene-d5 | | ----------NA---------- | | | | |
| 36 | p | Nitrobenzene | | ----------NA---------- | | | | |
| 37 | | 2,6-Dimethylphenol | | ----------NA---------- | | | | |
| 38 | | N-Nitrosopiperidine | | ----------NA---------- | | | | |
| 39 | | A,A-Dimethylphenethylamin | | ----------NA---------- | | | | |
| 40 | p | Isophorone | | ----------NA---------- | | | | |
| 41 | p | 2-Nitrophenol | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-ICV1652
**Lab FileID:** P34260.D

```
42 p   2,4-Dimethylphenol                  ----------NA----------
43 p   bis(2-Chloroethoxy)methan           ----------NA----------

           ----------------------- Amount  Calc.    %Drift   -------------
44     Benzoic Acid                        ----------NA----------

           ----------------------- AvgRF   CCRF      %Dev   --------------
45 p   2,4-Dichlorophenol                  ----------NA----------
46     1,2,4-Trichlorobenzene              ----------NA----------
47 p   Naphthalene                         ----------NA----------
48 p   4-Chloroaniline                     ----------NA----------
49     2,6-Dichlorophenol                  ----------NA----------
50     Hexachloropropene                   ----------NA----------
51 p   Hexachlorobutadiene                 ----------NA----------

           ----------------------- Amount  Calc.    %Drift   -------------
52     p-Phenylenediamine                  ----------NA----------

           ----------------------- AvgRF   CCRF      %Dev   --------------
53 p   Caprolactam                         ----------NA----------
54     N-Nitrosodi-n-butylamine            ----------NA----------
55     Hydroquinone                        ----------NA----------
56 p   4-Chloro-3-methylphenol             ----------NA----------
57     Isosafrole                          ----------NA----------
58 p   2-Methylnaphthalene                 ----------NA----------
59     1-Methylnaphthalene                 ----------NA----------
60 p   1,2,4,5-Tetrachlorobenzen           ----------NA----------

61 I   Acenaphthene-d10            1.000   1.000      0.0   75  -0.02    8.86

           ----------------------- Amount  Calc.    %Drift   -------------
62 p   Hexachlorocyclopentadiene           ----------NA----------

           ----------------------- AvgRF   CCRF      %Dev   --------------
63 p   2,4,6-Trichlorophenol               ----------NA----------
64 p   2,4,5-Trichlorophenol               ----------NA----------
65 S   2-Fluorobiphenyl                    ----------NA----------
66     Safrole                             ----------NA----------
67 p   1,1'-Biphenyl                       ----------NA----------
68 p   2-Chloronaphthalene                 ----------NA----------
69     1-Chloronaphthalene                 ----------NA----------
70     Diphenyl ether                      ----------NA----------
71 p   2-Nitroaniline                      ----------NA----------
72     1,4-Naphthoquinone                  ----------NA----------
73     Acenaphthylene                      ----------NA----------
74 p   Dimethylphthalate                   ----------NA----------
75     m-Dinitrobenzene                    ----------NA----------
76 p   2,6-Dinitrotoluene                  ----------NA----------
77 p   Acenaphthene                        ----------NA----------
78 p   3-Nitroaniline                      ----------NA----------

           ----------------------- Amount  Calc.    %Drift   -------------
79 p   2,4-Dinitrophenol                   ----------NA----------

           ----------------------- AvgRF   CCRF      %Dev   --------------
80 p   Dibenzofuran                        ----------NA----------
81     Pentachlorobenzene                  ----------NA----------
82 p   2,4-Dinitrotoluene                  ----------NA----------
83 p   4-Nitrophenol                       ----------NA----------
84     1-Naphthylamine                     ----------NA----------
```

7.1.17

7

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-ICV1652
**Lab FileID:** P34260.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 85 | | 2-Naphthylamine | | ----------NA---------- | | | | |
| 86 | p | 2,3,4,6-Tetrachlorophenol | | ----------NA---------- | | | | |
| 87 | p | Fluorene | | ----------NA---------- | | | | |
| 88 | p | 4-Chlorophenyl-phenylethe | | ----------NA---------- | | | | |
| 89 | p | Diethylphthalate | | ----------NA---------- | | | | |
| 90 | | 5-Nitro-o-toluidine | | ----------NA---------- | | | | |
| 91 | p | 4-Nitroaniline | | ----------NA---------- | | | | |
| 92 | I | Phenanthrene-d10 | 1.000 | 1.000 | 0.0 | 73 | -0.02 | 11.55 |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 93 | | Dinoseb | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 94 | p | 4,6-Dinitro-2-methylpheno | | ----------NA---------- | | | | |
| 95 | p | n-Nitrosodiphenylamine | | ----------NA---------- | | | | |
| 96 | | 1,2-Diphenylhydrazine | | ----------NA---------- | | | | |
| 97 | | Diphenylamine | | ----------NA---------- | | | | |
| 98 | S | 2,4,6-Tribromophenol | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 99 | | sym-Trinitrobenzene | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 100 | | Diallate | | ----------NA---------- | | | | |
| 101 | p | 4-Bromophenyl-phenylether | | ----------NA---------- | | | | |
| 102 | | Phenacetin | | ----------NA---------- | | | | |
| 103 | p | Hexachlorobenzene | | ----------NA---------- | | | | |
| 104 | p | Atrazine | | ----------NA---------- | | | | |
| 105 | | 4-aminobiphenyl | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 106 | p | Pentachlorophenol | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 107 | | Pentachloronitrobenzene | | ----------NA---------- | | | | |
| 108 | | Pronamide | | ----------NA---------- | | | | |
| 109 | | n-Octadecane | | ----------NA---------- | | | | |
| 110 | p | Phenanthrene | | ----------NA---------- | | | | |
| 111 | p | Anthracene | | ----------NA---------- | | | | |
| 112 | p | Carbazole | | ----------NA---------- | | | | |
| 113 | p | Di-n-butylphthalate | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 114 | | 4-Nitroquinoline 1-Oxide | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 115 | | Methapyrilene | | ----------NA---------- | | | | |
| 116 | | Octachlorostyrene | | ----------NA---------- | | | | |
| 117 | | Isodrin | | ----------NA---------- | | | | |
| 118 | | Fluoranthene | | ----------NA---------- | | | | |
| 119 | S | Fluoranthene-D10 | | ----------NA---------- | | | | |
| 120 | | 4,4'-Methylenedianiline | | ----------NA---------- | | | | |
| 121 | I | Chrysene-d12 | 1.000 | 1.000 | 0.0 | 78 | -0.02 | 16.77 |
| 122 | | Benzidine | 0.623 | 0.739 | -18.6 | 95 | -0.03 | 14.26 |
| 123 | | Pyrene | | ----------NA---------- | | | | |
| 124 | S | Terphenyl-d14 | | ----------NA---------- | | | | |
| 125 | | Aramite | | ----------NA---------- | | | | |
| 126 | | p-(Dimethylamine)azobenze | | ----------NA---------- | | | | |

7.1.17

7

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-ICV1652
**Lab FileID:** P34260.D

```
127      Chlorobenzilate                      ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
128      Kepone                               ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
129      3,3'-Dimethylbenzidine               ----------NA----------
130      Butylbenzylphthalate                 ----------NA----------
131      2-Acetylaminofluorene                ----------NA----------
132 p    3,3'-Dichlorobenzidine               ----------NA----------
133 p    Benzo[a]anthracene                   ----------NA----------
134 p    Chrysene                             ----------NA----------
135 p    bis(2-Ethylhexyl)phthalat            ----------NA----------

136 I    Perylene-d12                 1.000   1.000      0.0   80  -0.02   19.40
137 p    Di-n-octylphthalate                  ----------NA----------
138 p    Benzo[b]fluoranthene                 ----------NA----------
139 p    Benzo[k]fluoranthene                 ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
140      7,12-Dimethylbenz(a)anthr            ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
141 p    Benzo[a]pyrene                       ----------NA----------
142 S    Benzo[a]pyrene-D12                   ----------NA----------
143      3-Methylcholanthrene                 ----------NA----------
144      Dibenz(a,j)acridine                  ----------NA----------
145 p    Indeno[1,2,3-cd]pyrene               ----------NA----------
146 p    Dibenz[a,h]anthracene                ----------NA----------
147 p    Benzo[g,h,i]perylene                 ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range                SPCC's out = 59  CCC's out = 0
     p34249.D   ep1652.m         Mon Jun 30 10:25:38 2014
```

7.1.17

7

# Initial Calibration Verification



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** EP1652-ICV1652
**Lab FileID:** P34261.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EP1652\p34261.D            Vial: 15
Acq On    : 27 Jun 2014   7:15 pm                    Operator: sheilac
Sample    : icv1652-50,bis(chloromethyl)ether        Inst    : GCMS P
Misc      : op30663,Ep1652,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\ep1652.m (RTE Integrator)
Title        : SW846 8270 Appendix 9
Last Update  : Fri Jun 27 17:50:07 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 250%
```

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 69 | 0.00 | 5.20 |
| 2 | | bis(Chloromethyl)ether | 0.981 | 1.174 | -19.7 | 87 | 0.00 | 2.92 |
| 3 | | 1,4-Dioxane | | ----------NA---------- | | | | |
| 4 | | N-nitrosodimethylamine | | ----------NA---------- | | | | |
| 5 | | Pyridine | | ----------NA---------- | | | | |
| 6 | | 2-Picoline | | ----------NA---------- | | | | |
| 7 | | N-Nitrosomethylethylamine | | ----------NA---------- | | | | |
| 8 | | Methyl methanesulfonate | | ----------NA---------- | | | | |
| 9 | | N-Nitrosodiethylamine | | ----------NA---------- | | | | |
| 10 | | 2-Butoxyethanol | | ----------NA---------- | | | | |
| 11 | | Ethyl methanesulfonate | | ----------NA---------- | | | | |
| 12 | p | Benzaldehyde | | ----------NA---------- | | | | |
| 13 | | Pentachloroethane | | ----------NA---------- | | | | |
| 14 | | Aniline | | ----------NA---------- | | | | |
| 15 | S | 2-Fluorophenol | | ----------NA---------- | | | | |
| 16 | p | bis(2-Chloroethyl)ether | | ----------NA---------- | | | | |
| 17 | S | Phenol-d5 | | ----------NA---------- | | | | |
| 18 | p | Phenol | | ----------NA---------- | | | | |
| 19 | p | 2-Chlorophenol | | ----------NA---------- | | | | |
| 20 | | n-Decane | | ----------NA---------- | | | | |
| 21 | | 1,3-Dichlorobenzene | | ----------NA---------- | | | | |
| 22 | | 1,4-Dichlorobenzene | | ----------NA---------- | | | | |
| 23 | | 1,2-Dichlorobenzene | | ----------NA---------- | | | | |
| 24 | | Benzyl alcohol | | ----------NA---------- | | | | |
| 25 | p | bis(2-chloroisopropyl)eth | | ----------NA---------- | | | | |
| 26 | p | 2-Methylphenol | | ----------NA---------- | | | | |
| 27 | | N-nitrosopyrrolidine | | ----------NA---------- | | | | |
| 28 | | N-Nitrosomorpholine | | ----------NA---------- | | | | |
| 29 | | o-Toluidine | | ----------NA---------- | | | | |
| 30 | p | Acetophenone | | ----------NA---------- | | | | |
| 31 | p | Hexachloroethane | | ----------NA---------- | | | | |
| 32 | p | N-Nitroso-di-n-propylamin | | ----------NA---------- | | | | |
| 33 | p | 3&4-Methylphenol | | ----------NA---------- | | | | |
| 34 | I | Naphthalene-d8 | 1.000 | 1.000 | 0.0 | 66 | -0.02 | 6.40 |
| 35 | S | Nitrobenzene-d5 | | ----------NA---------- | | | | |
| 36 | p | Nitrobenzene | | ----------NA---------- | | | | |
| 37 | | 2,6-Dimethylphenol | | ----------NA---------- | | | | |
| 38 | | N-Nitrosopiperidine | | ----------NA---------- | | | | |
| 39 | | A,A-Dimethylphenethylamin | | ----------NA---------- | | | | |
| 40 | p | Isophorone | | ----------NA---------- | | | | |
| 41 | p | 2-Nitrophenol | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-ICV1652
**Lab FileID:** P34261.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | p | 2,4-Dimethylphenol | | ----------NA---------- | | | | |
| 43 | p | bis(2-Chloroethoxy)methan | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 44 | | Benzoic Acid | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 45 | p | 2,4-Dichlorophenol | | ----------NA---------- | | | | |
| 46 | | 1,2,4-Trichlorobenzene | | ----------NA---------- | | | | |
| 47 | p | Naphthalene | | ----------NA---------- | | | | |
| 48 | p | 4-Chloroaniline | | ----------NA---------- | | | | |
| 49 | | 2,6-Dichlorophenol | | ----------NA---------- | | | | |
| 50 | | Hexachloropropene | | ----------NA---------- | | | | |
| 51 | p | Hexachlorobutadiene | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 52 | | p-Phenylenediamine | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 53 | p | Caprolactam | | ----------NA---------- | | | | |
| 54 | | N-Nitrosodi-n-butylamine | | ----------NA---------- | | | | |
| 55 | | Hydroquinone | | ----------NA---------- | | | | |
| 56 | p | 4-Chloro-3-methylphenol | | ----------NA---------- | | | | |
| 57 | | Isosafrole | | ----------NA---------- | | | | |
| 58 | p | 2-Methylnaphthalene | | ----------NA---------- | | | | |
| 59 | | 1-Methylnaphthalene | | ----------NA---------- | | | | |
| 60 | p | 1,2,4,5-Tetrachlorobenzen | | ----------NA---------- | | | | |
| 61 | I | Acenaphthene-d10 | 1.000 | 1.000 | 0.0 | 66 | -0.02 | 8.86 |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 62 | p | Hexachlorocyclopentadiene | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 63 | p | 2,4,6-Trichlorophenol | | ----------NA---------- | | | | |
| 64 | p | 2,4,5-Trichlorophenol | | ----------NA---------- | | | | |
| 65 | S | 2-Fluorobiphenyl | | ----------NA---------- | | | | |
| 66 | | Safrole | | ----------NA---------- | | | | |
| 67 | p | 1,1'-Biphenyl | | ----------NA---------- | | | | |
| 68 | p | 2-Chloronaphthalene | | ----------NA---------- | | | | |
| 69 | | 1-Chloronaphthalene | | ----------NA---------- | | | | |
| 70 | | Diphenyl ether | | ----------NA---------- | | | | |
| 71 | p | 2-Nitroaniline | | ----------NA---------- | | | | |
| 72 | | 1,4-Naphthoquinone | | ----------NA---------- | | | | |
| 73 | | Acenaphthylene | | ----------NA---------- | | | | |
| 74 | p | Dimethylphthalate | | ----------NA---------- | | | | |
| 75 | | m-Dinitrobenzene | | ----------NA---------- | | | | |
| 76 | p | 2,6-Dinitrotoluene | | ----------NA---------- | | | | |
| 77 | p | Acenaphthene | | ----------NA---------- | | | | |
| 78 | p | 3-Nitroaniline | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | ---------- | | |
| 79 | p | 2,4-Dinitrophenol | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | ---------- | | |
| 80 | p | Dibenzofuran | | ----------NA---------- | | | | |
| 81 | | Pentachlorobenzene | | ----------NA---------- | | | | |
| 82 | p | 2,4-Dinitrotoluene | | ----------NA---------- | | | | |
| 83 | p | 4-Nitrophenol | | ----------NA---------- | | | | |
| 84 | | 1-Naphthylamine | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-ICV1652
**Lab FileID:** P34261.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 85 | | 2-Naphthylamine | | ----------NA---------- | | | | |
| 86 | p | 2,3,4,6-Tetrachlorophenol | | ----------NA---------- | | | | |
| 87 | p | Fluorene | | ----------NA---------- | | | | |
| 88 | p | 4-Chlorophenyl-phenylethe | | ----------NA---------- | | | | |
| 89 | p | Diethylphthalate | | ----------NA---------- | | | | |
| 90 | | 5-Nitro-o-toluidine | | ----------NA---------- | | | | |
| 91 | p | 4-Nitroaniline | | ----------NA---------- | | | | |
| 92 | I | Phenanthrene-d10 | 1.000 | 1.000 | 0.0 | 65 | -0.02 | 11.55 |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 93 | | Dinoseb | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 94 | p | 4,6-Dinitro-2-methylpheno | | ----------NA---------- | | | | |
| 95 | p | n-Nitrosodiphenylamine | | ----------NA---------- | | | | |
| 96 | | 1,2-Diphenylhydrazine | | ----------NA---------- | | | | |
| 97 | | Diphenylamine | | ----------NA---------- | | | | |
| 98 | S | 2,4,6-Tribromophenol | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 99 | | sym-Trinitrobenzene | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 100 | | Diallate | | ----------NA---------- | | | | |
| 101 | p | 4-Bromophenyl-phenylether | | ----------NA---------- | | | | |
| 102 | | Phenacetin | | ----------NA---------- | | | | |
| 103 | p | Hexachlorobenzene | | ----------NA---------- | | | | |
| 104 | p | Atrazine | | ----------NA---------- | | | | |
| 105 | | 4-aminobiphenyl | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 106 | p | Pentachlorophenol | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 107 | | Pentachloronitrobenzene | | ----------NA---------- | | | | |
| 108 | | Pronamide | | ----------NA---------- | | | | |
| 109 | | n-Octadecane | | ----------NA---------- | | | | |
| 110 | p | Phenanthrene | | ----------NA---------- | | | | |
| 111 | p | Anthracene | | ----------NA---------- | | | | |
| 112 | p | Carbazole | | ----------NA---------- | | | | |
| 113 | p | Di-n-butylphthalate | | ----------NA---------- | | | | |
| | | ---------- | Amount | Calc. | %Drift | | | ---------- |
| 114 | | 4-Nitroquinoline 1-Oxide | | ----------NA---------- | | | | |
| | | ---------- | AvgRF | CCRF | %Dev | | | ---------- |
| 115 | | Methapyrilene | | ----------NA---------- | | | | |
| 116 | | Octachlorostyrene | | ----------NA---------- | | | | |
| 117 | | Isodrin | | ----------NA---------- | | | | |
| 118 | | Fluoranthene | | ----------NA---------- | | | | |
| 119 | S | Fluoranthene-D10 | | ----------NA---------- | | | | |
| 120 | | 4,4'-Methylenedianiline | | ----------NA---------- | | | | |
| 121 | I | Chrysene-d12 | 1.000 | 1.000 | 0.0 | 67 | -0.03 | 16.76 |
| 122 | | Benzidine | | ----------NA---------- | | | | |
| 123 | | Pyrene | | ----------NA---------- | | | | |
| 124 | S | Terphenyl-d14 | | ----------NA---------- | | | | |
| 125 | | Aramite | | ----------NA---------- | | | | |
| 126 | | p-(Dimethylamine)azobenze | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1652-ICV1652
**Lab FileID:** P34261.D

```
127      Chlorobenzilate                      ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
128      Kepone                               ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
129      3,3'-Dimethylbenzidine               ----------NA----------
130      Butylbenzylphthalate                 ----------NA----------
131      2-Acetylaminofluorene                ----------NA----------
132 p    3,3'-Dichlorobenzidine               ----------NA----------
133 p    Benzo[a]anthracene                   ----------NA----------
134 p    Chrysene                             ----------NA----------
135 p    bis(2-Ethylhexyl)phthalat            ----------NA----------

136 I    Perylene-d12                 1.000   1.000      0.0   68  -0.03   19.39
137 p    Di-n-octylphthalate                  ----------NA----------
138 p    Benzo[b]fluoranthene                 ----------NA----------
139 p    Benzo[k]fluoranthene                 ----------NA----------

             ----------------------- Amount  Calc.    %Drift   -------------
140      7,12-Dimethylbenz(a)anthr            ----------NA----------

             ----------------------- AvgRF   CCRF      %Dev   --------------
141 p    Benzo[a]pyrene                       ----------NA----------
142 S    Benzo[a]pyrene-D12                   ----------NA----------
143      3-Methylcholanthrene                 ----------NA----------
144      Dibenz(a,j)acridine                  ----------NA----------
145 p    Indeno[1,2,3-cd]pyrene               ----------NA----------
146 p    Dibenz[a,h]anthracene                ----------NA----------
147 p    Benzo[g,h,i]perylene                 ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range                SPCC's out = 59  CCC's out = 0
     p34249.D   ep1652.m         Mon Jun 30 10:25:40 2014
```

7.7.18

7

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** EP1683-CC1652
**Lab FileID:** P34930.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EP1683\p34930.D            Vial: 3
Acq On    :  7 Aug 2014   2:00 pm                    Operator: sheilac
Sample    :  cc1652-50                               Inst    : GCMS P
Misc      : op33453,Ep1683,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\ep1652.m (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Thu Aug 07 18:05:50 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) | R.T. |
|---|---|---|---|---|---|---|---|---|
| 1 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 75 | -0.04 | 5.05 |
| 2 | | bis(Chloromethyl)ether | 0.981 | 1.378 | -40.5# | 111 | -0.10 | 2.77 |
| 3 | | 1,4-Dioxane | 0.397 | 0.460 | -15.9 | 88 | -0.04 | 2.65 |
| 4 | | N-nitrosodimethylamine | 0.517 | 0.608 | -17.6 | 85 | -0.04 | 2.95 |
| 5 | | Pyridine | 1.099 | 1.272 | -15.7 | 86 | -0.09 | 2.97 |
| 6 | | 2-Picoline | 1.377 | 1.518 | -10.2 | 82 | -0.07 | 3.62 |
| 7 | | N-Nitrosomethylethylamine | 0.513 | 0.568 | -10.7 | 89 | -0.06 | 3.72 |
| 8 | | Methyl methanesulfonate | 0.772 | 0.875 | -13.3 | 85 | -0.05 | 3.96 |
| 9 | | N-Nitrosodiethylamine | 0.678 | 0.722 | -6.5 | 80 | -0.05 | 4.26 |
| 10 | | 2-Butoxyethanol | 1.110 | 1.113 | -0.3 | 75 | -0.05 | 4.31 |
| 11 | | Ethyl methanesulfonate | 0.999 | 1.078 | -7.9 | 81 | -0.04 | 4.48 |
| 12 | p | Benzaldehyde | 0.435 | 0.187 | 57.0# | 53 | -0.04 | 4.72 |
| 13 | | Pentachloroethane | 0.556 | 0.609 | -9.5 | 82 | -0.05 | 4.83 |
| 14 | | Aniline | 1.962 | 2.081 | -6.1 | 80 | -0.05 | 4.80 |
| 15 | S | 2-Fluorophenol | 1.116 | 1.256 | -12.5 | 84 | -0.05 | 4.12 |
| 16 | p | bis(2-Chloroethyl)ether | 1.226 | 1.316 | -7.3 | 82 | -0.04 | 4.85 |
| 17 | S | Phenol-d5 | 1.481 | 1.618 | -9.3 | 83 | -0.03 | 4.80 |
| 18 | p | Phenol | 1.808 | 1.979 | -9.5 | 82 | -0.05 | 4.81 |
| 19 | p | 2-Chlorophenol | 1.405 | 1.497 | -6.5 | 80 | -0.05 | 4.90 |
| 20 | | n-Decane | 1.007 | 1.077 | -7.0 | 82 | -0.04 | 4.91 |
| 21 | | 1,3-Dichlorobenzene | 1.571 | 1.682 | -7.1 | 80 | -0.05 | 5.01 |
| 22 | | 1,4-Dichlorobenzene | 1.612 | 1.712 | -6.2 | 80 | -0.05 | 5.06 |
| 23 | | 1,2-Dichlorobenzene | 1.550 | 1.645 | -6.1 | 79 | -0.04 | 5.19 |
| 24 | | Benzyl alcohol | 0.942 | 1.008 | -7.0 | 79 | -0.05 | 5.17 |
| 25 | p | bis(2-chloroisopropyl)eth | 1.276 | 1.358 | -6.4 | 81 | -0.05 | 5.26 |
| 26 | p | 2-Methylphenol | 1.287 | 1.406 | -9.2 | 81 | -0.05 | 5.28 |
| 27 | | N-nitrosopyrrolidine | 0.777 | 0.877 | -12.9 | 84 | -0.05 | 5.38 |
| 28 | | N-Nitrosomorpholine | 0.871 | 1.000 | -14.8 | 86 | -0.05 | 5.41 |
| 29 | | o-Toluidine | 2.347 | 2.482 | -5.8 | 80 | -0.05 | 5.41 |
| 30 | p | Acetophenone | 1.923 | 2.098 | -9.1 | 83 | -0.05 | 5.38 |
| 31 | p | Hexachloroethane | 0.608 | 0.666 | -9.5 | 82 | -0.05 | 5.47 |
| 32 | p | N-Nitroso-di-n-propylamin | 1.009 | 1.124 | -11.4 | 84 | -0.05 | 5.39 |
| 33 | p | 3&4-Methylphenol | 1.483 | 1.635 | -10.2 | 82 | -0.05 | 5.40 |
| 34 | I | Naphthalene-d8 | 1.000 | 1.000 | 0.0 | 74 | -0.06 | 6.22 |
| 35 | S | Nitrobenzene-d5 | 0.372 | 0.416 | -11.8 | 83 | -0.04 | 5.52 |
| 36 | p | Nitrobenzene | 0.370 | 0.413 | -11.6 | 83 | -0.20 | 5.54 |
| 37 | | 2,6-Dimethylphenol | 0.339 | 0.357 | -5.3 | 78 | -0.03 | 5.64 |
| 38 | | N-Nitrosopiperidine | 0.226 | 0.265 | -17.3 | 86 | -0.21 | 5.68 |
| 39 | | A,A-Dimethylphenethylamin | 0.840 | 0.974 | -16.0 | 81 | -0.55# | 6.30 |
| 40 | p | Isophorone | 0.647 | 0.735 | -13.6 | 85 | -0.22 | 5.75 |
| 41 | p | 2-Nitrophenol | 0.207 | 0.227 | -9.7 | 80 | -0.21 | 5.83 |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** EP1683-CC1652
**Account:** RFWTXHO Weston Solutions **Lab FileID:** P34930.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | p | 2,4-Dimethylphenol | 0.384 | 0.430 | -12.0 | 83 | -0.21 | 5.88 |
| 43 | p | bis(2-Chloroethoxy)methan | 0.389 | 0.434 | -11.6 | 83 | -0.21 | 5.95 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 44 | | Benzoic Acid | 50.000 | 50.604 | -1.2 | 31 | -0.16 | 6.00 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 45 | p | 2,4-Dichlorophenol | 0.340 | 0.345 | -1.5 | 74 | 0.01 | 6.32 |
| 46 | | 1,2,4-Trichlorobenzene | 0.370 | 0.393 | -6.2 | 79 | -0.22 | 6.16 |
| 47 | p | Naphthalene | 1.089 | 1.176 | -8.0 | 80 | -0.22 | 6.25 |
| 48 | p | 4-Chloroaniline | 0.489 | 0.527 | -7.8 | 79 | -0.23 | 6.31 |
| 49 | | 2,6-Dichlorophenol | 0.316 | 0.345 | -9.2 | 80 | -0.23 | 6.32 |
| 50 | | Hexachloropropene | 0.240 | 0.258 | -7.5 | 77 | -0.23 | 6.34 |
| 51 | p | Hexachlorobutadiene | 0.231 | 0.232 | -0.4 | 75 | -0.23 | 6.37 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 52 | | p-Phenylenediamine | 50.000 | 52.775 | -5.5 | 79 | -0.04 | 6.73 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 53 | p | Caprolactam | 0.119 | 0.126 | -5.9 | 81 | -0.05 | 6.74 |
| 54 | | N-Nitrosodi-n-butylamine | 0.283 | 0.305 | -7.8 | 87 | -0.24 | 6.69 |
| 55 | | Hydroquinone | 0.339 | 0.377 | -11.2 | 80 | -0.04 | 6.76 |
| 56 | p | 4-Chloro-3-methylphenol | 0.355 | 0.396 | -11.5 | 83 | -0.03 | 6.92 |
| 57 | | Isosafrole | 0.309 | 0.337 | -9.1 | 81 | -0.24 | 6.96 |
| 58 | p | 2-Methylnaphthalene | 0.785 | 0.855 | -8.9 | 81 | -0.07 | 7.08 |
| 59 | | 1-Methylnaphthalene | 0.727 | 0.797 | -9.6 | 82 | -0.06 | 7.22 |
| 60 | p | 1,2,4,5-Tetrachlorobenzen | 0.408 | 0.424 | -3.9 | 78 | -0.04 | 7.31 |
| 61 | I | Acenaphthene-d10 | 1.000 | 1.000 | 0.0 | 76 | -0.06 | 8.64 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 62 | p | Hexachlorocyclopentadiene | 50.000 | 45.569 | 8.9 | 70 | -0.07 | 7.29 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 63 | p | 2,4,6-Trichlorophenol | 0.401 | 0.422 | -5.2 | 79 | -0.06 | 7.49 |
| 64 | p | 2,4,5-Trichlorophenol | 0.435 | 0.454 | -4.4 | 78 | -0.07 | 7.56 |
| 65 | S | 2-Fluorobiphenyl | 1.352 | 1.420 | -5.0 | 82 | -0.05 | 7.60 |
| 66 | | Safrole | 0.482 | 0.522 | -8.3 | 83 | -0.06 | 7.70 |
| 67 | p | 1,1'-Biphenyl | 1.443 | 1.536 | -6.4 | 83 | -0.07 | 7.74 |
| 68 | p | 2-Chloronaphthalene | 1.227 | 1.310 | -6.8 | 82 | -0.07 | 7.77 |
| 69 | | 1-Chloronaphthalene | 1.026 | 1.089 | -6.1 | 82 | -0.07 | 7.80 |
| 70 | | Diphenyl ether | 0.806 | 0.854 | -6.0 | 82 | -0.07 | 7.90 |
| 71 | p | 2-Nitroaniline | 0.324 | 0.371 | -14.5 | 86 | -0.07 | 7.94 |
| 72 | | 1,4-Naphthoquinone | 0.433 | 0.281 | 35.1# | 50 | -0.07 | 8.05 |
| 73 | | Acenaphthylene | 1.907 | 2.052 | -7.6 | 82 | -0.07 | 8.41 |
| 74 | p | Dimethylphthalate | 1.405 | 1.519 | -8.1 | 83 | -0.06 | 8.24 |
| 75 | | m-Dinitrobenzene | 0.246 | 0.265 | -7.7 | 80 | -0.06 | 8.30 |
| 76 | p | 2,6-Dinitrotoluene | 0.328 | 0.359 | -9.5 | 82 | -0.06 | 8.33 |
| 77 | p | Acenaphthene | 1.227 | 1.323 | -7.8 | 83 | -0.06 | 8.70 |
| 78 | p | 3-Nitroaniline | 0.360 | 0.393 | -9.2 | 81 | -0.06 | 8.61 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 79 | p | 2,4-Dinitrophenol | 50.000 | 42.326 | 15.3 | 64 | -0.05 | 8.80 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 80 | p | Dibenzofuran | 1.727 | 1.840 | -6.5 | 82 | -0.06 | 8.99 |
| 81 | | Pentachlorobenzene | 0.615 | 0.596 | 3.1 | 75 | -0.06 | 8.92 |
| 82 | p | 2,4-Dinitrotoluene | 0.450 | 0.498 | -10.7 | 83 | -0.05 | 9.02 |
| 83 | p | 4-Nitrophenol | 0.196 | 0.195 | 0.5 | 69 | -0.04 | 9.02 |
| 84 | | 1-Naphthylamine | 1.138 | 1.411 | -24.0# | 88 | -0.06 | 9.14 |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** EP1683-CC1652
**Account:** RFWTXHO Weston Solutions **Lab FileID:** P34930.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 85 | | 2-Naphthylamine | 1.220 | 1.454 | -19.2 | 89 | -0.06 | 9.28 |
| 86 | p | 2,3,4,6-Tetrachlorophenol | 0.402 | 0.381 | 5.2 | 70 | -0.05 | 9.24 |
| 87 | p | Fluorene | 1.427 | 1.527 | -7.0 | 82 | -0.05 | 9.59 |
| 88 | p | 4-Chlorophenyl-phenylethe | 0.718 | 0.756 | -5.3 | 81 | -0.05 | 9.61 |
| 89 | p | Diethylphthalate | 1.386 | 1.536 | -10.8 | 84 | -0.05 | 9.46 |
| 90 | | 5-Nitro-o-toluidine | 0.450 | 0.483 | -7.3 | 79 | -0.05 | 9.65 |
| 91 | p | 4-Nitroaniline | 0.360 | 0.389 | -8.1 | 80 | -0.05 | 9.68 |
| 92 | I | Phenanthrene-d10 | 1.000 | 1.000 | 0.0 | 73 | -0.06 | 11.31 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 93 | | Dinoseb | 50.000 | 46.346 | 7.3 | 67 | -0.05 | 11.38 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 94 | p | 4,6-Dinitro-2-methylpheno | 0.148 | 0.159 | -7.4 | 73 | -0.07 | 9.73 |
| 95 | p | n-Nitrosodiphenylamine | 0.670 | 0.725 | -8.2 | 80 | -0.07 | 9.85 |
| 96 | | 1,2-Diphenylhydrazine | 0.666 | 0.783 | -17.6 | 87 | -0.08 | 9.90 |
| 97 | | Diphenylamine | 0.670 | 0.725 | -8.2 | 80 | -0.07 | 9.85 |
| 98 | S | 2,4,6-Tribromophenol | 0.139 | 0.121 | 12.9 | 64 | -0.07 | 10.04 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 99 | | sym-Trinitrobenzene | 50.000 | 49.207 | 1.6 | 71 | -0.05 | 10.45 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 100 | | Diallate | 0.202 | 0.239 | -18.3 | 87 | -0.07 | 10.38 |
| 101 | p | 4-Bromophenyl-phenylether | 0.251 | 0.257 | -2.4 | 75 | -0.07 | 10.51 |
| 102 | | Phenacetin | 0.386 | 0.438 | -13.5 | 80 | -0.07 | 10.48 |
| 103 | p | Hexachlorobenzene | 0.302 | 0.288 | 4.6 | 71 | -0.07 | 10.58 |
| 104 | p | Atrazine | 0.194 | 0.203 | -4.6 | 112 | -0.05 | 10.90 |
| 105 | | 4-aminobiphenyl | 0.763 | 0.880 | -15.3 | 85 | -0.06 | 11.01 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 106 | p | Pentachlorophenol | 50.000 | 40.290 | 19.4 | 52 | -0.05 | 11.00 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 107 | | Pentachloronitrobenzene | 0.107 | 0.110 | -2.8 | 74 | -0.06 | 10.99 |
| 108 | | Pronamide | 0.369 | 0.404 | -9.5 | 78 | -0.05 | 11.18 |
| 109 | | n-Octadecane | 0.341 | 0.375 | -10.0 | 83 | -0.05 | 11.26 |
| 110 | p | Phenanthrene | 1.151 | 1.224 | -6.3 | 79 | -0.06 | 11.36 |
| 111 | p | Anthracene | 1.189 | 1.261 | -6.1 | 77 | -0.06 | 11.46 |
| 112 | p | Carbazole | 1.125 | 1.189 | -5.7 | 76 | -0.05 | 11.81 |
| 113 | p | Di-n-butylphthalate | 1.287 | 1.454 | -13.0 | 81 | -0.03 | 12.60 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 114 | | 4-Nitroquinoline 1-Oxide | 50.000 | 35.842 | 28.3# | 48 | -0.04 | 12.90 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 115 | | Methapyrilene | 0.393 | 0.506 | -28.8# | 90 | -0.03 | 13.11 |
| 116 | | Octachlorostyrene | 0.110 | 0.093 | 15.5 | 61 | -0.03 | 13.32 |
| 117 | | Isodrin | 0.135 | 0.146 | -8.1 | 78 | -0.04 | 13.35 |
| 118 | | Fluoranthene | 1.377 | 1.398 | -1.5 | 74 | -0.03 | 13.67 |
| 119 | S | Fluoranthene-D10 | | ----------NA---------- | | | | |
| 120 | | 4,4'-Methylenedianiline | 0.423 | 0.401 | 5.2 | 71 | -0.02 | 14.07 |
| 121 | I | Chrysene-d12 | 1.000 | 1.000 | 0.0 | 67 | -0.06 | 16.52 |
| 122 | | Benzidine | 0.623 | 0.526 | 15.6 | 58 | -0.08 | 14.02 |
| 123 | | Pyrene | 1.250 | 1.368 | -9.4 | 73 | -0.08 | 14.10 |
| 124 | S | Terphenyl-d14 | 0.884 | 0.941 | -6.4 | 72 | -0.07 | 14.51 |
| 125 | | Aramite | 0.073 | 0.084 | -15.1 | 75 | -0.06 | 14.70 |
| 126 | | p-(Dimethylamine)azobenze | 0.320 | 0.381 | -19.1 | 78 | -0.07 | 14.79 |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** EP1683-CC1652
**Account:** RFWTXHO Weston Solutions **Lab FileID:** P34930.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 127 | | Chlorobenzilate | 0.359 | 0.424 | -18.1 | 77 | -0.06 | 14.92 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 128 | | Kepone | 50.000 | 50.245 | -0.5 | 63 | -0.07 | 15.46 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 129 | | 3,3'-Dimethylbenzidine | 0.688 | 0.693 | -0.7 | 67 | -0.07 | 15.47 |
| 130 | | Butylbenzylphthalate | 0.518 | 0.610 | -17.8 | 78 | -0.05 | 15.55 |
| 131 | | 2-Acetylaminofluorene | 0.524 | 0.602 | -14.9 | 76 | -0.05 | 15.98 |
| 132 | p | 3,3'-Dichlorobenzidine | 0.451 | 0.447 | 0.9 | 66 | -0.05 | 16.52 |
| 133 | p | Benzo[a]anthracene | 1.176 | 1.268 | -7.8 | 73 | -0.05 | 16.50 |
| 134 | p | Chrysene | 1.108 | 1.173 | -5.9 | 72 | -0.06 | 16.57 |
| 135 | p | bis(2-Ethylhexyl)phthalat | 0.716 | 0.850 | -18.7 | 78 | -0.03 | 16.75 |
| 136 | I | Perylene-d12 | 1.000 | 1.000 | 0.0 | 69 | -0.05 | 19.14 |
| 137 | p | Di-n-octylphthalate | 1.291 | 1.500 | -16.2 | 79 | -0.04 | 17.99 |
| 138 | p | Benzo[b]fluoranthene | 1.272 | 1.308 | -2.8 | 72 | -0.05 | 18.51 |
| 139 | p | Benzo[k]fluoranthene | 1.275 | 1.298 | -1.8 | 71 | -0.06 | 18.55 |
| | | ---------- | Amount | Calc. | %Drift | | ---------- | |
| 140 | | 7,12-Dimethylbenz(a)anthr | 50.000 | 54.090 | -8.2 | 74 | -0.06 | 18.50 |
| | | ---------- | AvgRF | CCRF | %Dev | | ---------- | |
| 141 | p | Benzo[a]pyrene | 1.208 | 1.254 | -3.8 | 71 | -0.05 | 19.05 |
| 142 | S | Benzo[a]pyrene-D12 | | ----------NA---------- | | | | |
| 143 | | 3-Methylcholanthrene | 0.574 | 0.587 | -2.3 | 68 | -0.05 | 19.64 |
| 144 | | Dibenz(a,j)acridine | 1.012 | 1.002 | 1.0 | 67 | -0.11 | 20.65 |
| 145 | p | Indeno[1,2,3-cd]pyrene | 1.123 | 1.130 | -0.6 | 68 | -0.12 | 20.97 |
| 146 | p | Dibenz[a,h]anthracene | 1.201 | 1.186 | 1.2 | 67 | -0.12 | 21.01 |
| 147 | p | Benzo[g,h,i]perylene | 1.197 | 1.159 | 3.2 | 67 | -0.15 | 21.47 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0
p34249.D ep1652.m Fri Aug 08 11:04:22 2014

7.7.19

7

Gulf Coast ACCUTEST LABORATORIES

## GC Semi-volatiles

# QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- DDT/Endrin Breakdown Checks
- GC Identification Summaries (Hits)
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

# Method Blank Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP33524-MB | DD772822.D | 1 | 08/13/14 | AR | 08/10/14 | OP33524 | GDD2382 |

**The QC reported here applies to the following samples:** **Method:** SW846 8151

TC52591-1B

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | ND | 1.0 | 0.20 | ug/l | |
| 93-72-1 | 2,4,5-TP (Silvex) | ND | 0.20 | 0.040 | ug/l | |
| 93-76-5 | 2,4,5-T | ND | 0.20 | 0.033 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 94% | 40-168% |

# Method Blank Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP33461-MB [a] | NN175388.D | 1 | 08/07/14 | AR | 08/06/14 | OP33461 | GNN1454 |

**The QC reported here applies to the following samples:** **Method:** SW846 8081A

TC52591-1A

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | ND | 0.050 | 0.010 | ug/l | |
| 319-84-6 | alpha-BHC | ND | 0.050 | 0.021 | ug/l | |
| 319-85-7 | beta-BHC | ND | 0.050 | 0.012 | ug/l | |
| 319-86-8 | delta-BHC | ND | 0.050 | 0.010 | ug/l | |
| 58-89-9 | gamma-BHC (Lindane) | ND | 0.050 | 0.017 | ug/l | |
| 5103-71-9 | alpha-Chlordane | ND | 0.050 | 0.011 | ug/l | |
| 5103-74-2 | gamma-Chlordane | ND | 0.050 | 0.011 | ug/l | |
| 60-57-1 | Dieldrin | ND | 0.10 | 0.020 | ug/l | |
| 72-54-8 | 4,4'-DDD | ND | 0.10 | 0.033 | ug/l | |
| 72-55-9 | 4,4'-DDE | ND | 0.10 | 0.025 | ug/l | |
| 50-29-3 | 4,4'-DDT | ND | 0.10 | 0.037 | ug/l | |
| 72-20-8 | Endrin | ND | 0.10 | 0.020 | ug/l | |
| 1031-07-8 | Endosulfan sulfate | ND | 0.10 | 0.021 | ug/l | |
| 7421-93-4 | Endrin aldehyde | ND | 0.10 | 0.036 | ug/l | |
| 53494-70-5 | Endrin ketone | ND | 0.10 | 0.030 | ug/l | |
| 959-98-8 | Endosulfan-I | ND | 0.10 | 0.018 | ug/l | |
| 33213-65-9 | Endosulfan-II | ND | 0.10 | 0.021 | ug/l | |
| 76-44-8 | Heptachlor | ND | 0.050 | 0.010 | ug/l | |
| 1024-57-3 | Heptachlor epoxide | ND | 0.050 | 0.011 | ug/l | |
| 72-43-5 | Methoxychlor | ND | 0.50 | 0.13 | ug/l | |
| 8001-35-2 | Toxaphene | ND | 0.50 | 0.12 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 81% | 39-122% |
| 2051-24-3 | Decachlorobiphenyl | 86% | 28-123% |

(a) TBA clean-up performed by method 3660.

# Method Blank Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP33462-MB | OO30841.D | 1 | 08/07/14 | AR | 08/06/14 | OP33462 | GOO507 |

**The QC reported here applies to the following samples:** **Method:** SW846 8082

TC52591-1A

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | ND | 0.50 | 0.21 | ug/l | |
| 11104-28-2 | Aroclor 1221 | ND | 0.50 | 0.20 | ug/l | |
| 11141-16-5 | Aroclor 1232 | ND | 0.50 | 0.17 | ug/l | |
| 53469-21-9 | Aroclor 1242 | ND | 0.50 | 0.12 | ug/l | |
| 12672-29-6 | Aroclor 1248 | ND | 0.50 | 0.10 | ug/l | |
| 11097-69-1 | Aroclor 1254 | ND | 0.50 | 0.10 | ug/l | |
| 11096-82-5 | Aroclor 1260 | ND | 0.50 | 0.12 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 69% | 30-112% |
| 2051-24-3 | Decachlorobiphenyl | 79% | 27-119% |

# Blank Spike/Blank Spike Duplicate Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP33524-BS | DD772823.D | 1 | 08/13/14 | AR | 08/10/14 | OP33524 | GDD2382 |
| OP33524-BSD | DD772824.D | 1 | 08/14/14 | AR | 08/10/14 | OP33524 | GDD2382 |

**The QC reported here applies to the following samples:** **Method:** SW846 8151

TC52591-1B

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | BSD ug/l | BSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|
| 94-75-7 | 2,4-D | 2 | 1.9 | 95 | 1.9 | 95 | 0 | 64-130/30 |
| 93-72-1 | 2,4,5-TP (Silvex) | 0.4 | 0.34 | 85 | 0.35 | 88 | 3 | 58-136/30 |
| 93-76-5 | 2,4,5-T | 0.4 | 0.31 | 78 | 0.34 | 85 | 9 | 48-125/30 |

| CAS No. | Surrogate Recoveries | BSP | BSD | Limits |
|---|---|---|---|---|
| 19719-28-9 | 2,4-DCAA | 104% | 104% | 40-168% |

* = Outside of Control Limits.

# Blank Spike/Blank Spike Duplicate Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP33461-BS [a] | NN175389.D | 1 | 08/07/14 | AR | 08/06/14 | OP33461 | GNN1454 |
| OP33461-BSD [b] | NN175390.D | 1 | 08/07/14 | AR | 08/06/14 | OP33461 | GNN1454 |

**The QC reported here applies to the following samples:** **Method:** SW846 8081A

TC52591-1A

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | BSD ug/l | BSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | 0.25 | 0.17 | 68 | 0.17 | 68 | 0 | 41-124/30 |
| 319-84-6 | alpha-BHC | 0.25 | 0.21 | 84 | 0.21 | 84 | 0 | 62-135/30 |
| 319-85-7 | beta-BHC | 0.25 | 0.22 | 88 | 0.21 | 84 | 5 | 63-128/30 |
| 319-86-8 | delta-BHC | 0.25 | 0.23 | 92 | 0.21 | 84 | 9 | 68-133/30 |
| 58-89-9 | gamma-BHC (Lindane) | 0.25 | 0.21 | 84 | 0.21 | 84 | 0 | 62-131/30 |
| 5103-71-9 | alpha-Chlordane | 0.25 | 0.24 | 96 | 0.24 | 96 | 0 | 62-133/30 |
| 5103-74-2 | gamma-Chlordane | 0.25 | 0.23 | 92 | 0.23 | 92 | 0 | 59-131/30 |
| 60-57-1 | Dieldrin | 0.5 | 0.46 | 92 | 0.44 | 88 | 4 | 67-138/30 |
| 72-54-8 | 4,4'-DDD | 0.5 | 0.51 | 102 | 0.49 | 98 | 4 | 71-145/30 |
| 72-55-9 | 4,4'-DDE | 0.5 | 0.46 | 92 | 0.44 | 88 | 4 | 65-138/30 |
| 50-29-3 | 4,4'-DDT | 0.5 | 0.47 | 94 | 0.45 | 90 | 4 | 62-151/30 |
| 72-20-8 | Endrin | 0.5 | 0.51 | 102 | 0.50 | 100 | 2 | 74-154/30 |
| 1031-07-8 | Endosulfan sulfate | 0.5 | 0.43 | 86 | 0.41 | 82 | 5 | 64-139/30 |
| 53494-70-5 | Endrin ketone | 0.5 | 0.44 | 88 | 0.41 | 82 | 7 | 66-133/30 |
| 959-98-8 | Endosulfan-I | 0.25 | 0.24 | 96 | 0.23 | 92 | 4 | 70-137/30 |
| 33213-65-9 | Endosulfan-II | 0.5 | 0.48 | 96 | 0.45 | 90 | 6 | 73-139/30 |
| 76-44-8 | Heptachlor | 0.25 | 0.20 | 80 | 0.19 | 76 | 5 | 51-131/30 |
| 1024-57-3 | Heptachlor epoxide | 0.25 | 0.23 | 92 | 0.22 | 88 | 4 | 66-129/30 |
| 72-43-5 | Methoxychlor | 2.5 | 2.5 | 100 | 2.4 | 96 | 4 | 64-140/30 |

| CAS No. | Surrogate Recoveries | BSP | BSD | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 74% | 81% | 39-122% |
| 2051-24-3 | Decachlorobiphenyl | 89% | 87% | 28-123% |

(a) TBA clean-up performed by method 3660.
(b) Insufficient sample volume for MS/MSD. TBA clean-up performed by method 3660.

* = Outside of Control Limits.

# Blank Spike/Blank Spike Duplicate Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP33461-BS | NN175391.D | 1 | 08/07/14 | AR | 08/06/14 | OP33461 | GNN1454 |
| OP33461-BSD [a] | NN175392.D | 1 | 08/07/14 | AR | 08/06/14 | OP33461 | GNN1454 |

**The QC reported here applies to the following samples:** **Method:** SW846 8081A

TC52591-1A

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | BSD ug/l | BSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|
| 7421-93-4 | Endrin aldehyde | 0.5 | 0.49 | 98 | 0.49 | 98 | 0 | 47-110/30 |

| CAS No. | Surrogate Recoveries | BSP | BSD | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 76% | 86% | 39-122% |
| 2051-24-3 | Decachlorobiphenyl | 90% | 92% | 28-123% |

(a) Insufficient sample volume for MS/MSD

* = Outside of Control Limits.

# Blank Spike/Blank Spike Duplicate Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP33462-BS | OO30842.D | 1 | 08/07/14 | AR | 08/06/14 | OP33462 | GOO507 |
| OP33462-BSD [a] | OO30843.D | 1 | 08/07/14 | AR | 08/06/14 | OP33462 | GOO507 |

**The QC reported here applies to the following samples:** **Method:** SW846 8082

TC52591-1A

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | BSD ug/l | BSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|
| 12674-11-2 | Aroclor 1016 | 2 | 1.7 | 85 | 1.7 | 85 | 0 | 59-126/31 |
| 11096-82-5 | Aroclor 1260 | 2 | 1.8 | 90 | 1.7 | 85 | 6 | 65-126/35 |

| CAS No. | Surrogate Recoveries | BSP | BSD | Limits |
|---|---|---|---|---|
| 877-09-8 | Tetrachloro-m-xylene | 70% | 70% | 30-112% |
| 2051-24-3 | Decachlorobiphenyl | 78% | 75% | 27-119% |

(a) Insufficient sample volume for MS/MSD

* = Outside of Control Limits.

# DDT/Endrin Breakdown Check



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GNN1445-DDT
**Lab File ID:** NN175102.D
**Instrument ID:** GCNN
**Injection Date:** 07/24/14
**Injection Time:** 10:43

| Compound | Response Signal 1 | Response Signal 2 |
|---|---|---|
| 4,4'-DDD | 3377179 | 2441598 |
| 4,4'-DDE | 1851740 | 1556608 |
| 4,4'-DDT | 617175814 | 511715275 |
| DDT Breakdown [a] | 0.8 % | 0.8 % |
| Endrin aldehyde | 8113176 | 4942453 |
| Endrin ketone | 11881545 | 9441703 |
| Endrin | 634519860 | 512669455 |
| Endrin Breakdown [b] | 3.1 % | 2.7 % |

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID |
|---|---|---|---|---|---|
| GNN1445-IC1445 | NN175104.D | 07/24/14 | 11:11 | 00:28 | Initial cal 200 |
| GNN1445-IC1445 | NN175105.D | 07/24/14 | 11:24 | 00:41 | Initial cal 200 |
| GNN1445-IC1445 | NN175106.D | 07/24/14 | 11:38 | 00:55 | Initial cal 20 |
| GNN1445-IC1445 | NN175109.D | 07/24/14 | 12:20 | 01:37 | Initial cal 200 |
| GNN1445-IC1445 | NN175110.D | 07/24/14 | 12:34 | 01:51 | Initial cal 200 |
| GNN1445-IC1445 | NN175111.D | 07/24/14 | 12:47 | 02:04 | Initial cal 200 |
| GNN1445-IC1445 | NN175112.D | 07/24/14 | 13:00 | 02:18 | Initial cal 200 |
| GNN1445-IC1445 | NN175113.D | 07/24/14 | 13:14 | 02:31 | Initial cal 50 |
| GNN1445-IC1445 | NN175114.D | 07/24/14 | 13:28 | 02:45 | Initial cal 100 |
| GNN1445-ICC1445 | NN175115.D | 07/24/14 | 13:41 | 02:59 | Initial cal 200 |
| GNN1445-IC1445 | NN175116.D | 07/24/14 | 13:55 | 03:13 | Initial cal 300 |
| GNN1445-IC1445 | NN175117.D | 07/24/14 | 14:09 | 03:27 | Initial cal 400 |
| GNN1445-IC1445 | NN175118.D | 07/24/14 | 14:23 | 03:41 | Initial cal 500 |
| GNN1445-IC1445 | NN175119.D | 07/24/14 | 14:37 | 03:54 | Initial cal 1000 |
| GNN1445-ICV1445 | NN175120.D | 07/24/14 | 14:50 | 04:07 | Initial cal verification 200 |
| GNN1445-IC1445 | NN175121.D | 07/24/14 | 15:18 | 04:35 | Initial cal 50 |
| GNN1445-IC1445 | NN175122.D | 07/24/14 | 15:31 | 04:48 | Initial cal 100 |
| GNN1445-ICC1445 | NN175123.D | 07/24/14 | 15:44 | 05:02 | Initial cal 200 |
| GNN1445-IC1445 | NN175124.D | 07/24/14 | 15:58 | 05:16 | Initial cal 300 |
| GNN1445-IC1445 | NN175125.D | 07/24/14 | 16:11 | 05:29 | Initial cal 400 |
| GNN1445-IC1445 | NN175126.D | 07/24/14 | 16:25 | 05:43 | Initial cal 500 |
| GNN1445-IC1445 | NN175127.D | 07/24/14 | 16:39 | 05:56 | Initial cal 600 |
| GNN1445-ICV1445 | NN175128.D | 07/24/14 | 16:52 | 06:10 | Initial cal verification 200 |
| ZZZZZZ | NN175130.D | 07/24/14 | 17:21 | 06:38 | (unrelated sample) |

# DDT/Endrin Breakdown Check



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GNN1445-DDT
**Lab File ID:** NN175102.D
**Instrument ID:** GCNN
**Injection Date:** 07/24/14
**Injection Time:** 10:43

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID |
|---|---|---|---|---|---|
| ZZZZZZ | NN175131.D | 07/24/14 | 17:35 | 06:52 | (unrelated sample) |
| OP33313-MB | NN175132.D | 07/24/14 | 17:49 | 07:06 | Method Blank |
| OP33325-MB | NN175133A.D | 07/24/14 | 18:03 | 07:20 | Method Blank |
| OP33313-BS2 | NN175134.D | 07/24/14 | 18:17 | 07:34 | Laboratory Control Sample |
| OP33313-BS | NN175135.D | 07/24/14 | 18:31 | 07:48 | Blank Spike |
| OP33313-BSD | NN175136.D | 07/24/14 | 18:45 | 08:02 | Blank Spike Duplicate |
| OP33313-BS1 | NN175137.D | 07/24/14 | 18:59 | 08:17 | Blank Spike |
| OP33313-BSD1 | NN175138.D | 07/24/14 | 19:13 | 08:31 | Blank Spike Duplicate |
| OP33325-BS1 | NN175139.D | 07/24/14 | 19:27 | 08:45 | Laboratory Control Sample |
| GNN1445-CC1445 | NN175140.D | 07/24/14 | 19:41 | 08:59 | Continuing cal 300 |
| GNN1445-CC1445 | NN175141.D | 07/24/14 | 19:55 | 09:13 | Continuing cal 300 |
| ZZZZZZ | NN175143.D | 07/24/14 | 20:23 | 09:41 | (unrelated sample) |
| ZZZZZZ | NN175144.D | 07/24/14 | 20:38 | 09:55 | (unrelated sample) |
| ZZZZZZ | NN175145.D | 07/24/14 | 20:52 | 10:09 | (unrelated sample) |
| TC51439-2 | NN175146.D | 07/24/14 | 21:06 | 10:23 | (used for QC only; not part of job TC52591) |
| OP33315-MS | NN175147.D | 07/24/14 | 21:20 | 10:38 | Matrix Spike |
| OP33315-MSD | NN175148.D | 07/24/14 | 21:34 | 10:52 | Matrix Spike Duplicate |
| ZZZZZZ | NN175149.D | 07/24/14 | 21:48 | 11:06 | (unrelated sample) |
| ZZZZZZ | NN175150.D | 07/24/14 | 22:02 | 11:19 | (unrelated sample) |
| OP33315-MB | NN175151.D | 07/24/14 | 22:16 | 11:33 | Method Blank |
| OP33315-BS | NN175152.D | 07/24/14 | 22:30 | 11:47 | Blank Spike |

# DDT/Endrin Breakdown Check



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | |
|---|---|---|---|
| **Sample:** | GNN1454-DDT | **Injection Date:** | 08/07/14 |
| **Lab File ID:** | NN175382.D | **Injection Time:** | 12:59 |
| **Instrument ID:** | GCNN | | |

| Compound | Response Signal 1 | Response Signal 2 |
|---|---|---|
| 4,4'-DDD | 1428570 | 903972 |
| 4,4'-DDE | 392378 | 480717 |
| 4,4'-DDT | 133610312 | 103293262 |
| DDT Breakdown [a] | 1.3 % | 1.3 % |
| Endrin aldehyde | 585142 | 367723 |
| Endrin ketone | 1543761 | 1170918 |
| Endrin | 70108818 | 53919572 |
| Endrin Breakdown [b] | 2.9 % | 2.8 % |

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID |
|---|---|---|---|---|---|
| GNN1454-CC1445 | NN175383.D | 08/07/14 | 13:13 | 00:15 | Continuing cal 200 |
| GNN1454-CC1445 | NN175384.D | 08/07/14 | 13:27 | 00:29 | Continuing cal 200 |
| TC52591-1A | NN175386.D | 08/07/14 | 13:55 | 00:57 | CES-20140803 |
| OP33461-MB | NN175388.D | 08/07/14 | 14:23 | 01:25 | Method Blank |
| OP33461-BS | NN175389.D | 08/07/14 | 14:37 | 01:39 | Blank Spike |
| OP33461-BSD | NN175390.D | 08/07/14 | 14:51 | 01:52 | Blank Spike Duplicate |
| OP33461-BS | NN175391.D | 08/07/14 | 15:05 | 02:06 | Blank Spike |
| OP33461-BSD | NN175392.D | 08/07/14 | 15:19 | 02:20 | Blank Spike Duplicate |
| GNN1454-CC1445 | NN175393.D | 08/07/14 | 15:33 | 02:34 | Continuing cal 300 |
| TC52591-1A | NN175395.D | 08/07/14 | 16:00 | 03:02 | CES-20140803 |
| ZZZZZZ | NN175396.D | 08/07/14 | 16:14 | 03:15 | (unrelated sample) |
| GNN1454-ECC1445 | NN175398.D | 08/07/14 | 16:58 | 04:00 | Ending cal 200 |

# GC Identification Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | |
|---|---|---|---|
| **Check Std:** | GNN1454-CC1445 | **Injection Date:** | 08/07/14 |
| **Lab File ID:** | NN175383.D | **Injection Time:** | 13:13 |
| **Instrument ID:** | GCNN | **Method:** | SW846 8081A |

| | | | |
|---|---|---|---|
| **Sample ID:** | TC52591-1A | **Injection Date:** | 08/07/14 |
| **Lab File ID:** | NN175386.D | **Injection Time:** | 13:55 |
| **Client ID:** | CES-20140803 | | |

| Compound | Column | RT | StdRT | Conc | Q | Units | RPD Conc |
|---|---|---|---|---|---|---|---|
| delta-BHC | 1 | 3.28 | 3.27 [a] | 0.058 | | ug/l | 105.3 |
| delta-BHC [b] | 2 [c] | 2.78 | 2.78 [a] | 0.018 | J | ug/l | |
| alpha-Chlordane | 1 [c] | 4.37 | 4.36 [a] | 0.014 | J | ug/l | 15.4 |
| alpha-Chlordane | 2 | 3.81 | 3.79 [a] | 0.012 | J | ug/l | |
| Endosulfan sulfate | 1 | 5.46 | 5.46 [a] | 0.053 | J | ug/l | 68.4 |
| Endosulfan sulfate [b] | 2 [c] | 5.09 | 5.07 [a] | 0.026 | J | ug/l | |

(a) StdRT taken from init cal: GNN1445-ICC1445 NN175123.D 07/24/14 15:44
(b) More than 40% RPD for detected concentrations between two GC columns.
(c) Final result reported from this column.

# Semivolatile Surrogate Recovery Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Method:** SW846 8151 **Matrix:** AQ

**Samples and QC shown here apply to the above method**

| Lab Sample ID | Lab File ID | S1 [a] |
|---|---|---|
| TC52591-1B | DD772816.D | 759* [b] |
| OP33524-BS | DD772823.D | 104 |
| OP33524-BSD | DD772824.D | 104 |
| OP33524-MB | DD772822.D | 94 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| **S1** = 2,4-DCAA | 40-168% |

(a) Recovery from GC signal #1
(b) Outside control limits biased high due to matrix interference. Confirmed by second column.

# Semivolatile Surrogate Recovery Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Method:** SW846 8081A **Matrix:** AQ

**Samples and QC shown here apply to the above method**

| Lab Sample ID | Lab File ID | S1 [a] | S2 [a] |
|---|---|---|---|
| TC52591-1A | NN175395.D | 73 | 50 |
| TC52591-1A | NN175386.D | 74 | 54 |
| OP33461-BS | NN175389.D | 74 | 89 |
| OP33461-BS | NN175391.D | 76 | 90 |
| OP33461-BSD | NN175390.D | 81 | 87 |
| OP33461-BSD | NN175392.D | 86 | 92 |
| OP33461-MB | NN175388.D | 81 | 86 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| **S1** = Tetrachloro-m-xylene | 39-122% |
| **S2** = Decachlorobiphenyl | 28-123% |

(a) Recovery from GC signal #1

# Semivolatile Surrogate Recovery Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Method:** SW846 8082 **Matrix:** AQ

**Samples and QC shown here apply to the above method**

| Lab Sample ID | Lab File ID | S1 [a] | S2 [a] |
|---|---|---|---|
| TC52591-1A | OO30840.D | 56 | 43 |
| OP33462-BS | OO30842.D | 70 | 78 |
| OP33462-BSD | OO30843.D | 70 | 75 |
| OP33462-MB | OO30841.D | 69 | 79 |

| Surrogate Compounds | Recovery Limits |
|---|---|
| **S1** = Tetrachloro-m-xylene | 30-112% |
| **S2** = Decachlorobiphenyl | 27-119% |

(a) Recovery from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | |
|---|---|---|---|
| **Check Std:** | GDD2382-CC2382 | **Injection Date:** | 08/13/14 |
| **Lab File ID:** | DD772814.D | **Injection Time:** | 17:17 |
| **Instrument ID:** | GCDD | **Method:** | SW846 8151 |

| | S1 [a] RT | S1 [b] RT |
|---|---|---|
| Check Std | 14.43 | 16.88 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT |
|---|---|---|---|---|---|
| TC52591-1B | DD772816.D | 08/13/14 | 18:40 | | 16.87 |
| ZZZZZZ | DD772817.D | 08/13/14 | 19:22 | | 16.87 |
| OP33503-MB | DD772819.D | 08/13/14 | 20:45 | | 16.88 |
| OP33503-BS | DD772820.D | 08/13/14 | 21:26 | | 16.88 |
| OP33503-BSD | DD772821.D | 08/13/14 | 22:08 | | 16.88 |
| OP33524-MB | DD772822.D | 08/13/14 | 22:50 | | 16.88 |
| OP33524-BS | DD772823.D | 08/13/14 | 23:31 | | 16.87 |
| OP33524-BSD | DD772824.D | 08/14/14 | 00:13 | | 16.87 |
| GDD2382-ECC2382 | DD772825.D | 08/14/14 | 00:54 | 14.42 | 16.87 |

**Surrogate Compounds**

**S1** = 2,4-DCAA

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.6.1

8

# GC Surrogate Retention Time Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | |
|---|---|---|---|
| **Check Std:** | GNN1454-CC1445 | **Injection Date:** | 08/07/14 |
| **Lab File ID:** | NN175383.D | **Injection Time:** | 13:13 |
| **Instrument ID:** | GCNN | **Method:** | SW846 8081A |

| | S1 [a] RT | S2 [a] RT |
|---|---|---|
| Check Std | 2.30 | 6.63 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S2 [a] RT |
|---|---|---|---|---|---|
| TC52591-1A | NN175386.D | 08/07/14 | 13:55 | 2.29 | 6.63 |
| OP33461-MB | NN175388.D | 08/07/14 | 14:23 | 2.30 | 6.63 |
| OP33461-BS | NN175389.D | 08/07/14 | 14:37 | 2.30 | 6.64 |
| OP33461-BSD | NN175390.D | 08/07/14 | 14:51 | 2.29 | 6.63 |
| OP33461-BS | NN175391.D | 08/07/14 | 15:05 | 2.30 | 6.64 |
| OP33461-BSD | NN175392.D | 08/07/14 | 15:19 | 2.30 | 6.63 |

**Surrogate Compounds**

**S1** = Tetrachloro-m-xylene
**S2** = Decachlorobiphenyl

(a) Retention time from GC signal #1

# GC Surrogate Retention Time Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | |
|---|---|---|---|
| **Check Std:** | GNN1454-CC1445 | **Injection Date:** | 08/07/14 |
| **Lab File ID:** | NN175393.D | **Injection Time:** | 15:33 |
| **Instrument ID:** | GCNN | **Method:** | SW846 8081A |

| | S1 [a] RT | S1 [b] RT | S2 [a] RT | S2 [b] RT |
|---|---|---|---|---|
| Check Std | 2.30 | 2.08 | 6.64 | 5.96 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S1 [b] RT | S2 [a] RT | S2 [b] RT |
|---|---|---|---|---|---|---|---|
| TC52591-1A | NN175395.D | 08/07/14 | 16:00 | 2.29 | | 6.63 | |
| ZZZZZZ | NN175396.D | 08/07/14 | 16:14 | 0.00 | | 0.00 | |
| GNN1454-ECC1445 | NN175398.D | 08/07/14 | 16:58 | 2.29 | 2.08 | 6.63 | 5.96 |

**Surrogate Compounds**

**S1** = Tetrachloro-m-xylene
**S2** = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

# GC Surrogate Retention Time Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | |
|---|---|---|---|
| **Check Std:** | GOO507-CC505 | **Injection Date:** | 08/07/14 |
| **Lab File ID:** | OO30834.D | **Injection Time:** | 10:55 |
| **Instrument ID:** | GCOO | **Method:** | SW846 8082 |

| | S1 [a] RT | S2 [a] RT |
|---|---|---|
| Check Std | 1.46 | 8.61 |

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 [a] RT | S2 [a] RT |
|---|---|---|---|---|---|
| TC52591-1A | OO30840.D | 08/07/14 | 13:40 | 1.45 | 8.60 |
| OP33462-MB | OO30841.D | 08/07/14 | 14:01 | 1.45 | 8.60 |
| OP33462-BS | OO30842.D | 08/07/14 | 14:20 | 1.45 | 8.60 |
| OP33462-BSD | OO30843.D | 08/07/14 | 14:39 | 1.45 | 8.60 |

**Surrogate Compounds**

**S1** = Tetrachloro-m-xylene
**S2** = Decachlorobiphenyl

(a) Retention time from GC signal #1

# Initial Calibration Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** GDD2382-ICC2382
**Lab FileID:** DD772785.D

Response Factor Report HP5890

Method : C:\MSDCHEM\1\METHODS\HRB2382.M (Chemstation Integrator)
Title : Herbicides by 8151
Last Update : Wed Aug 13 08:45:35 2014
Response via : Initial Calibration

Calibration Files
1 =DD772783.D 2 =DD772784.D 3 =DD772785.D 4 =DD772786.D
5 =DD772787.D 6 =DD772788.D 7 =DD772789.D

| | Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Avg | | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1) | Dalapon | 1.420 | 1.385 | 1.319 | 1.304 | 1.254 | 1.229 | 1.164 | 1.296 | E3 | 6.87 |
| 2) | 4-Nitrophenol | 9.624 | 9.126 | 8.643 | 8.295 | 8.011 | 7.577 | 6.959 | 8.319 | E2 | 10.92 |
| 3)S | 2,4-DCAA | 7.908 | 7.475 | 6.963 | 6.788 | 6.554 | 6.202 | 5.729 | 6.803 | E2 | 10.86 |
| 4) | MCPP | 1.078 | 1.361 | 1.344 | 1.364 | 1.351 | 1.325 | 1.274 | 1.300 | | 7.88 |
| 5) | Dicamba | 3.291 | 3.007 | 2.817 | 2.749 | 2.700 | 2.573 | 2.598 | 2.819 | E3 | 9.01 |
| 6) | MCPA | 2.212 | 2.780 | 2.754 | 2.731 | 2.651 | 2.550 | 2.436 | 2.588 | | 7.96 |
| 7) | Dichlorprop | 9.469 | 9.181 | 8.642 | 8.419 | 8.125 | 7.823 | 7.246 | 8.415 | E2 | 9.14 |
| 8) | 2,4-D | 1.215 | 1.171 | 1.079 | 1.051 | 1.009 | 0.962 | 0.892 | 1.054 | E3 | 10.73 |
| 9) | Pentachlorophenol | 1.037 | 1.092 | 1.092 | 1.125 | 1.130 | 1.117 | 1.176 | 1.110 | E4 | 3.86 |
| 10) | 2,4,5-TP (SILVEX) | 4.214 | 4.348 | 4.371 | 4.512 | 4.521 | 4.441 | 4.577 | 4.426 | E3 | 2.82 |
| 11) | 2,4,5-T | 4.594 | 4.687 | 4.661 | 4.810 | 4.751 | 4.650 | 4.664 | 4.688 | E3 | 1.52 |
| 12) | Chloramben | 2.834 | 3.090 | 3.186 | 3.338 | 3.348 | 3.302 | 3.329 | 3.204 | E3 | 5.90 |
| 13) | Dinoseb | 4.094 | 4.067 | 4.007 | 4.061 | 3.887 | 3.775 | 3.724 | 3.945 | E3 | 3.81 |
| 14) | 2,4-DB | 6.042 | 5.890 | 5.628 | 5.531 | 5.371 | 5.156 | 4.803 | 5.489 | E2 | 7.74 |
| 15) | Picloram | 3.849 | 3.992 | 4.014 | 4.206 | 4.352 | 4.371 | 4.567 | 4.193 | E3 | 6.06 |

Signal #2

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17) | Dalapon #2 | 1.984 | 1.836 | 1.716 | 1.639 | 1.579 | 1.498 | 1.392 | 1.663 | E3 | 12.11 |
| 18) | 4-Nitrophenol #2 | 1.120 | 1.094 | 1.014 | 0.978 | 0.946 | 0.900 | 0.823 | 0.982 | E3 | 10.66 |
| 19)S | 2,4-DCAA #2 | 1.094 | 1.056 | 0.975 | 0.940 | 0.914 | 0.894 | 0.811 | 0.955 | E3 | 10.14 |
| 20) | MCPP #2 | 2.045 | 2.433 | 2.344 | 2.409 | 2.412 | 2.326 | 2.287 | 2.322 | | 5.73 |
| 21) | Dicamba #2 | 4.172 | 4.259 | 4.186 | 4.191 | 4.421 | 4.230 | 4.013 | 4.210 | E3 | 2.89 |
| 22) | MCPA #2 | 3.990 | 4.585 | 4.411 | 4.367 | 4.264 | 4.069 | 3.847 | 4.219 | | 6.18 |
| 23) | Dichlorprop #2 | 1.293 | 1.224 | 1.154 | 1.130 | 1.092 | 1.036 | 0.966 | 1.128 | E3 | 9.80 |
| 24) | 2,4-D #2 | 1.639 | 1.550 | 1.450 | 1.411 | 1.358 | 1.291 | 1.201 | 1.414 | E3 | 10.56 |
| 25) | Pentachlorophenol | 1.360 | 1.440 | 1.482 | 1.557 | 1.580 | 1.571 | 1.659 | 1.521 | E4 | 6.59 |
| 26) | 2,4,5-TP (SILVEX) | 5.525 | 5.833 | 5.934 | 6.199 | 6.231 | 6.128 | 6.199 | 6.007 | E3 | 4.33 |
| 27) | Chloramben #2 | 3.969 | 4.373 | 4.428 | 4.510 | 4.474 | 4.413 | 4.343 | 4.359 | E3 | 4.15 |
| 28) | 2,4,5-T #2 | 6.095 | 6.406 | 6.431 | 6.596 | 6.529 | 6.409 | 6.362 | 6.404 | E3 | 2.47 |
| 29) | Dinoseb #2 | 5.213 | 5.269 | 5.194 | 5.244 | 5.121 | 4.995 | 4.866 | 5.129 | E3 | 2.88 |
| 30) | 2,4-DB #2 | 7.988 | 7.447 | 7.203 | 7.214 | 6.992 | 6.761 | 6.459 | 7.152 | E2 | 6.88 |
| 31) | Picloram #2 | 4.584 | 5.214 | 5.409 | 5.752 | 6.051 | 6.095 | 6.577 | 5.669 | E3 | 11.64 |

(#) = Out of Range

HRB2382.M Wed Aug 13 08:49:05 2014

8.7.1

8

# Initial Calibration Verification



**Job Number:** TC52591 **Sample:** GDD2382-ICV2382
**Account:** RFWTXHO Weston Solutions **Lab FileID:** DD772790.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\1\DATA\GDD2382\DD772790.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\GDD2382\DD772790.D\ECD2B.CH
Acq On    : 12-Aug-2014, 19:58:24                    Operator: almar
Sample    : icv2382-300,herb                         Inst    : HP5890
Misc      : op33421,gdd2382                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\HRB2382.M (Chemstation Integrator)
Title        : Herbicides by 8151
Last Update  : Wed Aug 13 08:45:35 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

| | Compound | Amount | Calc. | %Drift | Area% | Dev(min) | RT Window |
|---|---|---|---|---|---|---|---|
| 1 | Dalapon | 300.000 | 303.540 | -1.2 | 99 | 0.00 | 1.97- 2.03 |
| 2 | 4-Nitrophenol | 300.000 | 315.747 | -5.2 | 101 | 0.00 | 15.08-15.18 |
| 3 S | 2,4-DCAA | | ----------NA---------- | | | | |
| 4 | MCPP | 30000.000 | 31191.459 | -4.0 | 101 | 0.00 | 17.49-17.55 |
| 5 | Dicamba | 60.000 | 58.509 | 2.5 | 98 | 0.00 | 17.58-17.64 |
| 6 | MCPA | 30000.000 | 28661.491 | 4.5 | 90 | 0.00 | 18.63-18.69 |
| 7 | Dichlorprop | 300.000 | 333.266 | -11.1 | 108 | 0.00 | 19.54-19.60 |
| 8 | 2,4-D | 300.000 | 316.164 | -5.4 | 103 | 0.00 | 21.04-21.11 |
| 9 | Pentachlorophenol | 15.000 | 15.014 | -0.1 | 102 | 0.00 | 22.04-22.10 |
| 10 | 2,4,5-TP (SILVEX) | 60.000 | 68.767 | -14.6 | 116 | 0.00 | 23.38-23.44 |
| 11 | 2,4,5-T | 60.000 | 61.330 | -2.2 | 103 | 0.00 | 25.30-25.36 |
| 12 | Chloramben | 300.000 | 291.999 | 2.7 | 98 | 0.00 | 26.63-26.69 |
| 13 | Dinoseb | 60.000 | 61.849 | -3.1 | 101 | 0.00 | 25.72-25.78 |
| 14 | 2,4-DB | 600.000 | 611.414 | -1.9 | 99 | 0.00 | 26.95-27.01 |
| 15 | Picloram | 60.000 | 59.765 | 0.4 | 104 | 0.00 | 32.10-32.16 |
| ***** | Signal #2 ***** | | | | | | |
| 17 | Dalapon #2 | 300.000 | 310.028 | -3.3 | 100 | 0.00 | 0.92- 0.98 |
| 18 | 4-Nitrophenol #2 | 300.000 | 314.936 | -5.0 | 102 | 0.00 | 13.09-13.18 |
| 19 S | 2,4-DCAA #2 | | ----------NA---------- | | | | |
| 20 | MCPP #2 | 30000.000 | 29101.987 | 3.0 | 96 | 0.00 | 14.98-15.04 |
| 21 | Dicamba #2 | 60.000 | 60.215 | -0.4 | 101 | 0.00 | 14.74-14.80 |
| 22 | MCPA #2 | 30000.000 | 28905.667 | 3.6 | 92 | 0.00 | 15.92-15.98 |
| 23 | Dichlorprop #2 | 300.000 | 325.901 | -8.6 | 106 | 0.00 | 16.67-16.73 |
| 24 | 2,4-D #2 | 300.000 | 317.876 | -6.0 | 103 | 0.00 | 17.93-17.99 |
| 25 | Pentachlorophenol #2 | 15.000 | 14.722 | 1.9 | 101 | 0.00 | 19.04-19.10 |
| 26 | 2,4,5-TP (SILVEX) #2 | 60.000 | 62.576 | -4.3 | 106 | 0.00 | 20.13-20.19 |
| 27 | Chloramben #2 | 300.000 | 297.720 | 0.8 | 98 | 0.00 | 22.27-22.33 |
| 28 | 2,4,5-T #2 | 60.000 | 61.162 | -1.9 | 102 | 0.00 | 21.83-21.89 |
| 29 | Dinoseb #2 | 60.000 | 61.500 | -2.5 | 101 | 0.00 | 23.12-23.18 |
| 30 | 2,4-DB #2 | 600.000 | 613.477 | -2.2 | 102 | 0.00 | 23.48-23.55 |
| 31 | Picloram #2 | 60.000 | 59.507 | 0.8 | 104 | 0.00 | 28.54-28.60 |

```
   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    DD772785.D HRB2382.M        Wed Aug 13 08:48:47 2014
```

8.7.2

8

# Continuing Calibration Summary



**Job Number:** TC52591 **Sample:** GDD2382-CC2382
**Account:** RFWTXHO Weston Solutions **Lab FileID:** DD772814.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\1\DATA\GDD2382\DD772814.D\ECD1A.CH Vial: 35
Signal #2 : C:\HPCHEM\1\DATA\GDD2382\DD772814.D\ECD2B.CH
Acq On    : 13-Aug-2014, 17:17:17                    Operator: almar
Sample    : cc2382-300,herb                          Inst    : HP5890
Misc      : op33524,gdd2382                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\HRB2382.M (Chemstation Integrator)
Title        : Herbicides by 8151
Last Update  : Wed Aug 13 08:45:35 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

| | Compound | Amount | Calc. | %Drift | Area% | Dev(min) | RT Window |
|---|---|---|---|---|---|---|---|
| 1 | Dalapon | 300.000 | 302.887 | -1.0 | 99 | 0.00 | 1.97- 2.03 |
| 2 | 4-Nitrophenol | 300.000 | 316.959 | -5.7 | 102 | 0.00 | 15.08-15.18 |
| 3 S | 2,4-DCAA | 300.000 | 308.529 | -2.8 | 100 | 0.00 | 16.84-16.90 |
| 4 | MCPP | 30000.000 | 32260.562 | -7.5 | 104 | 0.00 | 17.49-17.55 |
| 5 | Dicamba | 60.000 | 59.324 | 1.1 | 99 | 0.00 | 17.58-17.64 |
| 6 | MCPA | 30000.000 | 31512.000 | -5.0 | 99 | 0.00 | 18.63-18.69 |
| 7 | Dichlorprop | 300.000 | 312.142 | -4.0 | 101 | 0.00 | 19.54-19.60 |
| 8 | 2,4-D | 300.000 | 312.482 | -4.2 | 102 | 0.00 | 21.04-21.11 |
| 9 | Pentachlorophenol | 15.000 | 14.799 | 1.3 | 100 | 0.00 | 22.04-22.10 |
| 10 | 2,4,5-TP (SILVEX) | 60.000 | 60.644 | -1.1 | 102 | 0.00 | 23.38-23.44 |
| 11 | 2,4,5-T | 60.000 | 62.199 | -3.7 | 104 | 0.00 | 25.30-25.36 |
| 12 | Chloramben | 300.000 | 314.857 | -5.0 | 106 | 0.00 | 26.63-26.69 |
| 13 | Dinoseb | 60.000 | 62.007 | -3.3 | 102 | 0.00 | 25.72-25.78 |
| 14 | 2,4-DB | 600.000 | 638.668 | -6.4 | 104 | 0.00 | 26.95-27.01 |
| 15 | Picloram | 60.000 | 65.566 | -9.3 | 114 | 0.00 | 32.10-32.16 |
| ***** | Signal #2 ***** | | | | | | |
| 17 | Dalapon #2 | 300.000 | 303.466 | -1.2 | 98 | 0.00 | 0.92- 0.98 |
| 18 | 4-Nitrophenol #2 | 300.000 | 317.459 | -5.8 | 102 | 0.00 | 13.09-13.18 |
| 19 S | 2,4-DCAA #2 | 300.000 | 308.318 | -2.8 | 101 | 0.00 | 14.40-14.46 |
| 20 | MCPP #2 | 30000.000 | 29983.067 | 0.1 | 99 | 0.00 | 14.98-15.04 |
| 21 | Dicamba #2 | 60.000 | 59.626 | 0.6 | 100 | 0.00 | 14.74-14.80 |
| 22 | MCPA #2 | 30000.000 | 30610.824 | -2.0 | 98 | 0.00 | 15.92-15.98 |
| 23 | Dichlorprop #2 | 300.000 | 309.997 | -3.3 | 101 | 0.00 | 16.67-16.73 |
| 24 | 2,4-D #2 | 300.000 | 312.257 | -4.1 | 102 | 0.00 | 17.93-17.99 |
| 25 | Pentachlorophenol #2 | 15.000 | 14.713 | 1.9 | 101 | 0.00 | 19.04-19.10 |
| 26 | 2,4,5-TP (SILVEX) #2 | 60.000 | 60.585 | -1.0 | 102 | 0.00 | 20.13-20.19 |
| 27 | Chloramben #2 | 300.000 | 318.561 | -6.2 | 105 | 0.00 | 22.27-22.33 |
| 28 | 2,4,5-T #2 | 60.000 | 62.561 | -4.3 | 104 | 0.00 | 21.83-21.89 |
| 29 | Dinoseb #2 | 60.000 | 61.830 | -3.0 | 102 | 0.00 | 23.12-23.18 |
| 30 | 2,4-DB #2 | 600.000 | 639.056 | -6.5 | 106 | 0.00 | 23.48-23.55 |
| 31 | Picloram #2 | 60.000 | 69.177 | -15.3# | 121 | 0.00 | 28.54-28.60 |

```
   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    DD772785.D HRB2382.M        Thu Aug 14 11:12:12 2014
```

8.7.3

8

# Continuing Calibration Summary



**Job Number:** TC52591 **Sample:** GDD2382-ECC2382
**Account:** RFWTXHO Weston Solutions **Lab FileID:** DD772825.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\1\DATA\GDD2382\DD772825.D\ECD1A.CH Vial: 46
Signal #2 : C:\HPCHEM\1\DATA\GDD2382\DD772825.D\ECD2B.CH
Acq On    : 14-Aug-2014, 00:54:40                    Operator: almar
Sample    : ecc2382-400,herb                         Inst    : HP5890
Misc      : op33524,gdd2382                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\HRB2382.M (Chemstation Integrator)
Title        : Herbicides by 8151
Last Update  : Wed Aug 13 08:45:35 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

| | Compound | Amount | Calc. | %Drift | Area% | Dev(min) | RT Window |
|---|---|---|---|---|---|---|---|
| 1 | Dalapon | 400.000 | 402.193 | -0.5 | 100 | 0.00 | 1.97- 2.03 |
| 2 | 4-Nitrophenol | 400.000 | 410.893 | -2.7 | 103 | 0.00 | 15.08-15.18 |
| 3 S | 2,4-DCAA | 400.000 | 393.762 | 1.6 | 99 | 0.00 | 16.84-16.90 |
| 4 | MCPP | 40000.000 | 41688.517 | -4.2 | 99 | 0.00 | 17.49-17.55 |
| 5 | Dicamba | 80.000 | 76.276 | 4.7 | 98 | 0.00 | 17.58-17.64 |
| 6 | MCPA | 40000.000 | 40822.250 | -2.1 | 97 | 0.00 | 18.63-18.69 |
| 7 | Dichlorprop | 400.000 | 406.140 | -1.5 | 101 | 0.00 | 19.54-19.60 |
| 8 | 2,4-D | 400.000 | 404.001 | -1.0 | 101 | 0.00 | 21.04-21.11 |
| 9 | Pentachlorophenol | 20.000 | 20.255 | -1.3 | 100 | 0.00 | 22.04-22.10 |
| 10 | 2,4,5-TP (SILVEX) | 80.000 | 82.046 | -2.6 | 101 | 0.00 | 23.38-23.44 |
| 11 | 2,4,5-T | 80.000 | 84.135 | -5.2 | 103 | 0.00 | 25.30-25.36 |
| 12 | Chloramben | 400.000 | 440.880 | -10.2 | 106 | 0.00 | 26.63-26.69 |
| 13 | Dinoseb | 80.000 | 80.545 | -0.7 | 98 | 0.00 | 25.72-25.78 |
| 14 | 2,4-DB | 800.000 | 831.500 | -3.9 | 103 | 0.00 | 26.95-27.01 |
| 15 | Picloram | 80.000 | 95.462 | -19.3# | 119 | 0.00 | 32.10-32.16 |
| ***** | Signal #2 ***** | | | | | | |
| 17 | Dalapon #2 | 400.000 | 386.288 | 3.4 | 98 | 0.00 | 0.92- 0.98 |
| 18 | 4-Nitrophenol #2 | 400.000 | 407.047 | -1.8 | 102 | 0.00 | 13.09-13.18 |
| 19 S | 2,4-DCAA #2 | 400.000 | 394.424 | 1.4 | 100 | 0.00 | 14.40-14.46 |
| 20 | MCPP #2 | 40000.000 | 39608.852 | 1.0 | 95 | 0.00 | 14.98-15.04 |
| 21 | Dicamba #2 | 80.000 | 78.615 | 1.7 | 99 | 0.00 | 14.74-14.80 |
| 22 | MCPA #2 | 40000.000 | 38504.198 | 3.7 | 93 | 0.00 | 15.92-15.98 |
| 23 | Dichlorprop #2 | 400.000 | 397.073 | 0.7 | 99 | 0.00 | 16.67-16.73 |
| 24 | 2,4-D #2 | 400.000 | 402.068 | -0.5 | 101 | 0.00 | 17.93-17.99 |
| 25 | Pentachlorophenol #2 | 20.000 | 20.332 | -1.7 | 99 | 0.00 | 19.04-19.10 |
| 26 | 2,4,5-TP (SILVEX) #2 | 80.000 | 83.228 | -4.0 | 101 | 0.00 | 20.13-20.19 |
| 27 | Chloramben #2 | 400.000 | 432.667 | -8.2 | 105 | 0.00 | 22.27-22.33 |
| 28 | 2,4,5-T #2 | 80.000 | 85.089 | -6.4 | 103 | 0.00 | 21.83-21.89 |
| 29 | Dinoseb #2 | 80.000 | 81.666 | -2.1 | 100 | 0.00 | 23.12-23.18 |
| 30 | 2,4-DB #2 | 800.000 | 839.417 | -4.9 | 104 | 0.00 | 23.48-23.55 |
| 31 | Picloram #2 | 80.000 | 99.048 | -23.8# | 122 | -0.01 | 28.54-28.60 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0
DD772786.D HRB2382.M Thu Aug 14 11:11:51 2014

8.7.4

8

# Initial Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GNN1445-ICC1445
**Lab FileID:** NN175115.D

Response Factor Report GCNN

Method : C:\MSDCHEM\1\METHODS\608Q1445.M (Chemstation Integrator)
Title : Pesticides by 608 or 8081
Last Update : Fri Jul 25 13:07:57 2014
Response via : Initial Calibration

Calibration Files
1 =NN175113.D 2 =NN175114.D 3 =NN175115.D 4 =NN175116.D
5 =NN175117.D 6 =NN175118.D 7 =NN175119.D

| Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|
| 1)S Tetrachloro-m-xyl | 1.313 | 1.244 | 1.231 | 1.242 | 1.276 | 1.269 | 1.276 | 1.265 E6 | 2.22 |
| 2) Hexachlorobenzene | 1.671 | 1.484 | 1.557 | 1.501 | 1.402 | 1.398 | 1.438 | 1.493 E6 | 6.49 |
| 3) alpha-BHC | 1.583 | 1.529 | 1.735 | 1.723 | 1.637 | 1.670 | 1.753 | 1.662 E6 | 5.03 |
| 4) gamma-BHC (Lindan | 1.624 | 1.507 | 1.676 | 1.653 | 1.580 | 1.595 | 1.667 | 1.615 E6 | 3.68 |
| 5) Heptachlor | 1.806 | 1.669 | 1.778 | 1.720 | 1.644 | 1.647 | 1.699 | 1.709 E6 | 3.71 |
| 6) Aldrin | 1.548 | 1.423 | 1.556 | 1.556 | 1.505 | 1.501 | 1.568 | 1.522 E6 | 3.34 |
| 7) Chlorothalonil | 1.815 | 1.703 | 1.832 | 1.783 | 1.704 | 1.697 | 1.755 | 1.756 E6 | 3.20 |
| 8) beta-BHC | 9.010 | 8.307 | 8.840 | 8.484 | 7.924 | 7.845 | 7.974 | 8.341 E5 | 5.52 |
| 9) Dacthal | 1.454 | 1.341 | 1.420 | 1.358 | 1.287 | 1.283 | 1.316 | 1.351 E6 | 4.83 |
| 10) Delta-BHC | 1.514 | 1.388 | 1.554 | 1.546 | 1.490 | 1.510 | 1.586 | 1.513 E6 | 4.20 |
| 11) Heptachlor Epoxid | 1.569 | 1.433 | 1.575 | 1.515 | 1.449 | 1.451 | 1.486 | 1.497 E6 | 3.89 |
| 12) Endosulfan I | 1.433 | 1.318 | 1.434 | 1.368 | 1.320 | 1.328 | 1.353 | 1.365 E6 | 3.68 |
| 13) gamma-Chlordane | 1.661 | 1.486 | 1.558 | 1.501 | 1.435 | 1.446 | 1.476 | 1.509 E6 | 5.18 |
| 14) alpha-Chlordane | 1.610 | 1.451 | 1.550 | 1.484 | 1.420 | 1.432 | 1.467 | 1.488 E6 | 4.61 |
| 15) 4,4'-DDE | 1.345 | 1.255 | 1.407 | 1.388 | 1.350 | 1.391 | 1.441 | 1.368 E6 | 4.37 |
| 16) Dieldrin | 1.487 | 1.376 | 1.533 | 1.491 | 1.462 | 1.490 | 1.529 | 1.481 E6 | 3.56 |
| 17) Endrin | 1.301 | 1.233 | 1.326 | 1.270 | 1.242 | 1.268 | 1.303 | 1.277 E6 | 2.67 |
| 18) 4,4'-DDD | 1.111 | 1.053 | 1.157 | 1.114 | 1.087 | 1.119 | 1.156 | 1.114 E6 | 3.30 |
| 19) Endosulfan II | 1.418 | 1.287 | 1.419 | 1.339 | 1.312 | 1.323 | 1.358 | 1.351 E6 | 3.79 |
| 20) 4,4'-DDT | 1.373 | 1.215 | 1.343 | 1.308 | 1.271 | 1.299 | 1.348 | 1.308 E6 | 4.09 |
| 21) Endrin Aldehyde | 1.177 | 1.031 | 1.110 | 1.066 | 1.033 | 1.033 | 1.064 | 1.073 E6 | 4.99 |
| 22) Methoxychlor | 8.064 | 7.271 | 7.738 | 7.365 | 6.938 | 7.002 | 7.146 | 7.361 E5 | 5.54 |
| 23) Endosulfan Sulfat | 1.451 | 1.281 | 1.365 | 1.326 | 1.250 | 1.262 | 1.317 | 1.322 E6 | 5.27 |
| 24) Endrin Ketone | 1.669 | 1.504 | 1.657 | 1.577 | 1.524 | 1.542 | 1.578 | 1.579 E6 | 4.02 |
| 25)L1Chlordane-A | | | 6.154 | | | | | 6.154 E4 | 0.00 |
| 26)L1Chlordane-B | | | 9.955 | | | | | 9.955 E4 | 0.00 |
| 27)L1Chlordane-C | | | 6.922 | | | | | 6.922 E4 | 0.00 |
| 28)L1Chlordane-D | | | 2.086 | | | | | 2.086 E5 | 0.00 |
| 29)L1Chlordane-E | | | 1.636 | | | | | 1.636 E5 | 0.00 |
| 30)L1Chlordane-F | | | 5.872 | | | | | 5.872 E4 | 0.00 |
| 31)H Toxaphene | | | 1.362 | | | | | 1.362 E6 | 0.00 |
| 32) Mirex | | | 1.441 | | | | | 1.441 E6 | 0.00 |
| 33) Dicofol | | | 1.169 | | | | | 1.169 E6 | 0.00 |
| 34)L1AR1016-A | 6.742 | 6.026 | 5.763 | 5.528 | 5.524 | 5.389 | 4.976 | 5.707 E4 | 9.80 |
| 35)L1AR1016-B | 1.276 | 1.185 | 1.130 | 1.085 | 1.109 | 1.076 | 1.032 | 1.128 E5 | 7.20 |
| 36)L1AR1016-C | 5.941 | 5.674 | 5.295 | 4.995 | 5.029 | 4.936 | 4.609 | 5.211 E4 | 8.84 |
| 37)L1AR1016-D | 4.202 | 4.006 | 3.870 | 3.618 | 3.696 | 3.574 | 3.455 | 3.775 E4 | 6.99 |
| 38)L1AR1016-E | 4.077 | 3.985 | 3.806 | 3.645 | 3.649 | 3.598 | 3.479 | 3.748 E4 | 5.80 |
| 39)L1AR1016-F | 5.654 | 5.087 | 4.855 | 4.595 | 4.594 | 4.499 | 4.247 | 4.790 E4 | 9.70 |
| 40)L2AR1221-A | | | 1.307 | | | | | 1.307 E4 | 0.00 |
| 41)L2AR1221-B | | | 1.746 | | | | | 1.746 E4 | 0.00 |
| 42)L2AR1221-C | | | 1.149 | | | | | 1.149 E4 | 0.00 |
| 43)L2AR1221-D | | | 4.930 | | | | | 4.930 E4 | 0.00 |
| 44)L2AR1221-E | | | 8.105 | | | | | 8.105 E3 | 0.00 |
| 45)L3AR1232-A | | | 2.859 | | | | | 2.859 E4 | 0.00 |
| 46)L3AR1232-B | | | 5.277 | | | | | 5.277 E4 | 0.00 |
| 47)L3AR1232-C | | | 2.443 | | | | | 2.443 E4 | 0.00 |

# Initial Calibration Summary

**Job Number:** TC52591 **Sample:** GNN1445-ICC1445
**Account:** RFWTXHO Weston Solutions **Lab FileID:** NN175115.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 48) | L3AR1232-D | | | 1.683 | | | | 1.683 | E4 | 0.00 |
| 49) | L3AR1232-E | | | 1.653 | | | | 1.653 | E4 | 0.00 |
| 50) | L3AR1232-F | | | 2.335 | | | | 2.335 | E4 | 0.00 |
| 51) | L4AR1242-A | | | 6.166 | | | | 6.166 | E4 | 0.00 |
| 52) | L4AR1242-B | | | 1.178 | | | | 1.178 | E5 | 0.00 |
| 53) | L4AR1242-C | | | 5.491 | | | | 5.491 | E4 | 0.00 |
| 54) | L4AR1242-D | | | 3.989 | | | | 3.989 | E4 | 0.00 |
| 55) | L4AR1242-E | | | 4.007 | | | | 4.007 | E4 | 0.00 |
| 56) | L4AR1242-F | | | 5.237 | | | | 5.237 | E4 | 0.00 |
| 57) | L5AR1248-A | | | 2.425 | | | | 2.425 | E4 | 0.00 |
| 58) | L5AR1248-B | | | 5.917 | | | | 5.917 | E4 | 0.00 |
| 59) | L5AR1248-C | | | 4.132 | | | | 4.132 | E4 | 0.00 |
| 60) | L5AR1248-D | | | 5.137 | | | | 5.137 | E4 | 0.00 |
| 61) | L5AR1248-E | | | 6.376 | | | | 6.376 | E4 | 0.00 |
| 62) | L5AR1248-F | | | 3.659 | | | | 3.659 | E4 | 0.00 |
| 63) | L6AR1254-A | | | 7.500 | | | | 7.500 | E4 | 0.00 |
| 64) | L6AR1254-B | | | 7.969 | | | | 7.969 | E4 | 0.00 |
| 65) | L6AR1254-C | | | 1.226 | | | | 1.226 | E5 | 0.00 |
| 66) | L6AR1254-D | | | 8.179 | | | | 8.179 | E4 | 0.00 |
| 67) | L6AR1254-E | | | 9.022 | | | | 9.022 | E4 | 0.00 |
| 68) | L6AR1254-F | | | 1.094 | | | | 1.094 | E5 | 0.00 |
| 69) | L7AR1260-A | 9.671 | 8.815 | 8.522 | 8.074 | 8.135 | 7.988 | 7.394 | 8.371 | E4 | 8.66 |
| 70) | L7AR1260-B | 1.089 | 1.012 | 0.980 | 0.927 | 0.935 | 0.923 | 0.851 | 0.959 | E5 | 7.94 |
| 71) | L7AR1260-C | 8.509 | 7.661 | 7.430 | 6.967 | 7.072 | 6.901 | 6.405 | 7.278 | E4 | 9.27 |
| 72) | L7AR1260-D | 9.199 | 8.276 | 8.221 | 7.749 | 7.906 | 7.787 | 7.248 | 8.055 | E4 | 7.55 |
| 73) | L7AR1260-E | 1.848 | 1.650 | 1.611 | 1.543 | 1.623 | 1.605 | 1.492 | 1.625 | E5 | 6.90 |
| 74) | L7AR1260-F | 1.311 | 1.201 | 1.173 | 1.127 | 1.130 | 1.124 | 1.075 | 1.163 | E5 | 6.56 |
| 75) | L8AR1262-A | | | 3.545 | | | | 3.545 | E3 | 0.00 |
| 76) | L8AR1262-B | | | 3.953 | | | | 3.953 | E3 | 0.00 |
| 77) | L8AR1262-C | | | 3.779 | | | | 3.779 | E3 | 0.00 |
| 78) | L8AR1262-D | | | 5.600 | | | | 5.600 | E3 | 0.00 |
| 79) | L8AR1262-E | | | 2.603 | | | | 2.603 | E3 | 0.00 |
| 80) | L8AR1262-F | | | 6.510 | | | | 6.510 | E3 | 0.00 |
| 81) | L9AR1268-A | | | 5.392 | | | | 5.392 | E4 | 0.00 |
| 82) | L9AR1268-B | | | 6.614 | | | | 6.614 | E4 | 0.00 |
| 83) | L9AR1268-C | | | 2.304 | | | | 2.304 | E5 | 0.00 |
| 84) | L9AR1268-D | | | 2.399 | | | | 2.399 | E5 | 0.00 |
| 85) | L9AR1268-E | | | 1.684 | | | | 1.684 | E5 | 0.00 |
| 86) | L9AR1268-F | | | 7.388 | | | | 7.388 | E4 | 0.00 |
| 87) | S Decachlorobipheny | 1.488 | 1.386 | 1.349 | 1.281 | 1.308 | 1.274 | 1.222 | 1.330 | E6 | 6.60 |

Signal #2

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 89) | S Tetrachloro-m-xyl | 1.092 | 1.010 | 1.016 | 1.018 | 1.046 | 1.045 | 1.045 | 1.039 | E6 | 2.72 |
| 90) | Hexachlorobenzene | 1.598 | 1.433 | 1.492 | 1.430 | 1.363 | 1.341 | 1.375 | 1.433 | E6 | 6.22 |
| 91) | alpha-BHC #2 | 1.308 | 1.251 | 1.441 | 1.413 | 1.371 | 1.359 | 1.467 | 1.373 | E6 | 5.52 |
| 92) | gamma-BHC (Lindan | 1.272 | 1.191 | 1.361 | 1.338 | 1.302 | 1.309 | 1.383 | 1.308 | E6 | 4.86 |
| 93) | beta-BHC #2 | 6.688 | 6.147 | 6.522 | 6.493 | 6.207 | 6.112 | 6.376 | 6.364 | E5 | 3.41 |
| 94) | Heptachlor #2 | 1.494 | 1.366 | 1.473 | 1.440 | 1.386 | 1.389 | 1.452 | 1.429 | E6 | 3.42 |
| 95) | Chlorothalonil #2 | 1.310 | 1.228 | 1.330 | 1.357 | 1.244 | 1.250 | 1.297 | 1.288 | E6 | 3.74 |
| 96) | delta-BHC #2 | 1.237 | 1.161 | 1.256 | 1.298 | 1.249 | 1.264 | 1.339 | 1.258 | E6 | 4.37 |
| 97) | Aldrin #2 | 1.211 | 1.148 | 1.263 | 1.248 | 1.197 | 1.210 | 1.261 | 1.220 | E6 | 3.38 |
| 98) | Dacthal #2 | 1.028 | 0.936 | 1.006 | 0.993 | 0.929 | 0.949 | 0.983 | 0.975 | E6 | 3.87 |
| 99) | Heptachlor Epoxid | 1.508 | 1.503 | 1.613 | 1.464 | 1.444 | 1.413 | 1.453 | 1.485 | E6 | 4.40 |
| 100) | gamma-Chlordane # | 1.414 | 1.280 | 1.334 | 1.252 | 1.198 | 1.200 | 1.239 | 1.274 | E6 | 6.10 |
| 101) | alpha-Chlordane # | 1.386 | 1.261 | 1.297 | 1.236 | 1.184 | 1.188 | 1.228 | 1.254 | E6 | 5.60 |
| 102) | Endosulfan I #2 | 1.612 | 1.455 | 1.607 | 1.423 | 1.413 | 1.382 | 1.387 | 1.468 | E6 | 6.76 |
| 103) | 4,4'-DDE #2 | 1.008 | 0.874 | 0.963 | 1.004 | 0.946 | 0.997 | 1.067 | 0.980 | E6 | 6.16 |
| 104) | Dieldrin #2 | 1.216 | 1.126 | 1.256 | 1.217 | 1.185 | 1.212 | 1.261 | 1.210 | E6 | 3.78 |
| 105) | Endrin #2 | 1.098 | 1.003 | 1.102 | 1.068 | 1.032 | 1.050 | 1.093 | 1.064 | E6 | 3.53 |

# Initial Calibration Summary

**Job Number:** TC52591 **Sample:** GNN1445-ICC1445
**Account:** RFWTXHO Weston Solutions **Lab FileID:** NN175115.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 106) | 4,4'-DDD #2 | 9.065 | 8.299 | 9.139 | 9.019 | 8.664 | 8.863 | 9.271 | 8.903 | E5 | 3.71 |
| 107) | Endosulfan II #2 | 1.149 | 1.089 | 1.178 | 1.119 | 1.080 | 1.089 | 1.124 | 1.118 | E6 | 3.20 |
| 108) | 4,4'-DDT #2 | 1.065 | 1.001 | 1.110 | 1.090 | 1.041 | 1.066 | 1.109 | 1.069 | E6 | 3.66 |
| 109) | Endrin Aldehyde # | 9.629 | 8.592 | 9.304 | 8.782 | 8.470 | 8.500 | 8.735 | 8.859 | E5 | 4.97 |
| 110) | Endosulfan Sulfat | 1.170 | 1.050 | 1.144 | 1.080 | 1.041 | 1.048 | 1.082 | 1.088 | E6 | 4.62 |
| 111) | Methoxychlor #2 | 6.715 | 6.064 | 6.453 | 6.146 | 5.800 | 5.860 | 5.971 | 6.144 | E5 | 5.39 |
| 112) | Endrin Ketone #2 | 1.364 | 1.251 | 1.374 | 1.306 | 1.254 | 1.270 | 1.311 | 1.304 | E6 | 3.82 |
| 113) | L1Chlordane-A #2 | | | 4.397 | | | | | 4.397 | E4 | 0.00 |
| 114) | L1Chlordane-B #2 | | | 8.178 | | | | | 8.178 | E4 | 0.00 |
| 115) | L1Chlordane-C #2 | | | 6.041 | | | | | 6.041 | E4 | 0.00 |
| 116) | L1Chlordane-D #2 | | | 1.712 | | | | | 1.712 | E5 | 0.00 |
| 117) | L1Chlordane-E #2 | | | 2.681 | | | | | 2.681 | E5 | 0.00 |
| 118) | L1Chlordane-F #2 | | | 4.601 | | | | | 4.601 | E4 | 0.00 |
| 119) | H Toxaphene #2 | | | 1.095 | | | | | 1.095 | E6 | 0.00 |
| 120) | Mirex #2 | | | 1.224 | | | | | 1.224 | E6 | 0.00 |
| 121) | Dicofol #2 | | | 6.870 | | | | | 6.870 | E5 | 0.00 |
| 122) | L1AR1016-A #2 | 4.839 | 4.456 | 4.377 | 4.298 | 4.236 | 4.179 | 4.042 | 4.347 | E4 | 5.87 |
| 123) | L1AR1016-B #2 | 9.513 | 9.498 | 9.427 | 9.354 | 9.519 | 9.378 | 8.744 | 9.348 | E4 | 2.93 |
| 124) | L1AR1016-C #2 | 3.795 | 3.831 | 3.831 | 3.660 | 3.809 | 3.728 | 3.605 | 3.751 | E4 | 2.40 |
| 125) | L1AR1016-D #2 | 2.656 | 2.661 | 2.748 | 2.708 | 2.747 | 2.596 | 2.524 | 2.663 | E4 | 3.08 |
| 126) | L1AR1016-E #2 | 4.072 | 3.806 | 3.880 | 3.842 | 3.855 | 3.818 | 3.810 | 3.869 | E4 | 2.42 |
| 127) | L1AR1016-F #2 | 2.186 | 1.706 | 1.869 | 1.753 | 1.715 | 1.966 | 2.026 | 1.889 | E4 | 9.55 |
| 128) | L2AR1221-A #2 | | | 9.241 | | | | | 9.241 | E3 | 0.00 |
| 129) | L2AR1221-B #2 | | | 1.360 | | | | | 1.360 | E4 | 0.00 |
| 130) | L2AR1221-C #2 | | | 6.008 | | | | | 6.008 | E3 | 0.00 |
| 131) | L2AR1221-D #2 | | | 2.799 | | | | | 2.799 | E4 | 0.00 |
| 132) | L2AR1221-E #2 | | | 9.786 | | | | | 9.786 | E3 | 0.00 |
| 133) | L3AR1232-A #2 | | | 1.829 | | | | | 1.829 | E3 | 0.00 |
| 134) | L3AR1232-B #2 | | | 2.143 | | | | | 2.143 | E4 | 0.00 |
| 135) | L3AR1232-C #2 | | | 4.313 | | | | | 4.313 | E4 | 0.00 |
| 136) | L3AR1232-D #2 | | | 1.752 | | | | | 1.752 | E4 | 0.00 |
| 137) | L3AR1232-E #2 | | | 1.514 | | | | | 1.514 | E4 | 0.00 |
| 138) | L3AR1232-F #2 | | | 1.699 | | | | | 1.699 | E4 | 0.00 |
| 139) | L4AR1242-A #2 | | | 5.003 | | | | | 5.003 | E4 | 0.00 |
| 140) | L4AR1242-B #2 | | | 1.005 | | | | | 1.005 | E5 | 0.00 |
| 141) | L4AR1242-C #2 | | | 4.051 | | | | | 4.051 | E4 | 0.00 |
| 142) | L4AR1242-D #2 | | | 2.923 | | | | | 2.923 | E4 | 0.00 |
| 143) | L4AR1242-E #2 | | | 4.217 | | | | | 4.217 | E4 | 0.00 |
| 144) | L4AR1242-F #2 | | | 2.039 | | | | | 2.039 | E4 | 0.00 |
| 145) | L5AR1248-A #2 | | | 1.726 | | | | | 1.726 | E4 | 0.00 |
| 146) | L5AR1248-B #2 | | | 3.404 | | | | | 3.404 | E4 | 0.00 |
| 147) | L5AR1248-C #2 | | | 5.266 | | | | | 5.266 | E4 | 0.00 |
| 148) | L5AR1248-D #2 | | | 2.586 | | | | | 2.586 | E4 | 0.00 |
| 149) | L5AR1248-E #2 | | | 3.577 | | | | | 3.577 | E4 | 0.00 |
| 150) | L5AR1248-F #2 | | | 2.605 | | | | | 2.605 | E4 | 0.00 |
| 151) | L6AR1254-A #2 | | | 5.111 | | | | | 5.111 | E4 | 0.00 |
| 152) | L6AR1254-B #2 | | | 9.245 | | | | | 9.245 | E4 | 0.00 |
| 153) | L6AR1254-C #2 | | | 9.478 | | | | | 9.478 | E4 | 0.00 |
| 154) | L6AR1254-D #2 | | | 7.166 | | | | | 7.166 | E4 | 0.00 |
| 155) | L6AR1254-E #2 | | | 6.550 | | | | | 6.550 | E4 | 0.00 |
| 156) | L6AR1254-F #2 | | | 8.733 | | | | | 8.733 | E4 | 0.00 |
| 157) | L7AR1260-A #2 | 7.085 | 6.798 | 6.572 | 6.067 | 6.392 | 6.211 | 5.771 | 6.414 | E4 | 6.97 |
| 158) | L7AR1260-B #2 | 1.014 | 0.964 | 0.935 | 0.898 | 0.922 | 0.900 | 0.856 | 0.927 | E5 | 5.52 |
| 159) | L7AR1260-C #2 | 1.111 | 1.017 | 1.017 | 0.976 | 1.007 | 0.981 | 0.935 | 1.006 | E5 | 5.42 |
| 160) | L7AR1260-D #2 | 6.504 | 5.924 | 6.082 | 5.875 | 6.022 | 5.884 | 5.602 | 5.985 | E4 | 4.59 |
| 161) | L7AR1260-E #2 | 1.696 | 1.565 | 1.572 | 1.508 | 1.539 | 1.511 | 1.444 | 1.548 | E5 | 5.04 |
| 162) | L7AR1260-F #2 | 6.905 | 6.242 | 6.147 | 5.982 | 6.274 | 6.116 | 5.975 | 6.234 | E4 | 5.09 |
| 163) | L8AR1262-A #2 | | | 4.073 | | | | | 4.073 | E3 | 0.00 |
| 164) | L8AR1262-B #2 | | | 2.264 | | | | | 2.264 | E3 | 0.00 |
| 165) | L8AR1262-C #2 | | | 3.133 | | | | | 3.133 | E3 | 0.00 |

# Initial Calibration Summary

**Job Number:** TC52591 **Sample:** GNN1445-ICC1445
**Account:** RFWTXHO Weston Solutions **Lab FileID:** NN175115.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

```
166)L8AR1262-D #2                    3.238                          3.238 E3   0.00
167)L8AR1262-E #2                    2.380                          2.380 E3   0.00
168)L8AR1262-F #2                    5.517                          5.517 E3   0.00
169)L9AR1268-A #2                    4.979                          4.979 E4   0.00
170)L9AR1268-B #2                    5.980                          5.980 E4   0.00
171)L9AR1268-C #2                    2.159                          2.159 E5   0.00
172)L9AR1268-D #2                    2.471                          2.471 E5   0.00
173)L9AR1268-E #2                    1.760                          1.760 E5   0.00
174)L9AR1268-F #2                    7.130                          7.130 E4   0.00
175)S Decachlorobipheny 1.516 1.393 1.344 1.268 1.295 1.260 1.203 1.326 E6   7.82
 ---------------------------------------------------------------------------
 (#) = Out of Range

          608Q1445.M        Fri Jul 25 13:46:56 2014
```

8.7.5

8

# Initial Calibration Verification



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** GNN1445-ICV1445
**Lab FileID:** NN175120.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\GNN1445\NN175120.D\ECD1A.CH Vial: 24
Signal #2 : C:\MSDCHEM\1\DATA\GNN1445\NN175120.D\ECD2B.CH
Acq On    : 7-24-2014 02:50:28 PM                    Operator: almar
Sample    : icv1445-200,1016/1260                    Inst    : GCNN
Misc      : op33313,gnn1445                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1445.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Fri Jul 25 13:07:57 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

| | | Compound | Amount | Calc. | %Drift | Area% | Dev(min) | RT Window |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | | ----------NA---------- | | | | |
| 2 | | Hexachlorobenzene | | ----------NA---------- | | | | |
| 3 | | alpha-BHC | | ----------NA---------- | | | | |
| 4 | | gamma-BHC (Lindane) | | ----------NA---------- | | | | |
| 5 | | Heptachlor | | ----------NA---------- | | | | |
| 6 | | Aldrin | | ----------NA---------- | | | | |
| 7 | | Chlorothalonil | | ----------NA---------- | | | | |
| 8 | | beta-BHC | | ----------NA---------- | | | | |
| 9 | | Dacthal | | ----------NA---------- | | | | |
| 10 | | Delta-BHC | | ----------NA---------- | | | | |
| 11 | | Heptachlor Epoxide | | ----------NA---------- | | | | |
| 12 | | Endosulfan I | | ----------NA---------- | | | | |
| 13 | | gamma-Chlordane | | ----------NA---------- | | | | |
| 14 | | alpha-Chlordane | | ----------NA---------- | | | | |
| 15 | | 4,4'-DDE | | ----------NA---------- | | | | |
| 16 | | Dieldrin | | ----------NA---------- | | | | |
| 17 | | Endrin | | ----------NA---------- | | | | |
| 18 | | 4,4'-DDD | | ----------NA---------- | | | | |
| 19 | | Endosulfan II | | ----------NA---------- | | | | |
| 20 | | 4,4'-DDT | | ----------NA---------- | | | | |
| 21 | | Endrin Aldehyde | | ----------NA---------- | | | | |
| 22 | | Methoxychlor | | ----------NA---------- | | | | |
| 23 | | Endosulfan Sulfate | | ----------NA---------- | | | | |
| 24 | | Endrin Ketone | | ----------NA---------- | | | | |
| 25 | L1 | Chlordane-A | | ----------NA---------- | | | | |
| 26 | L1 | Chlordane-B | | ----------NA---------- | | | | |
| 27 | L1 | Chlordane-C | | ----------NA---------- | | | | |
| 28 | L1 | Chlordane-D | | ----------NA---------- | | | | |
| 29 | L1 | Chlordane-E | | ----------NA---------- | | | | |
| 30 | L1 | Chlordane-F | | ----------NA---------- | | | | |
| 31 | H | Toxaphene | | ----------NA---------- | | | | |
| 32 | | Mirex | | ----------NA---------- | | | | |
| 33 | | Dicofol | | ----------NA---------- | | | | |
| 34 | L1 | AR1016-A | 200.000 | 191.519 | 4.2 | 95 | -0.01 | 2.88- 2.94 |
| 35 | L1 | AR1016-B | 200.000 | 194.046 | 3.0 | 97 | -0.01 | 3.23- 3.29 |
| 36 | L1 | AR1016-C | 200.000 | 200.319 | -0.2 | 99 | -0.01 | 3.33- 3.39 |
| 37 | L1 | AR1016-D | 200.000 | 204.868 | -2.4 | 100 | -0.01 | 3.41- 3.47 |
| 38 | L1 | AR1016-E | 200.000 | 191.281 | 4.4 | 94 | -0.01 | 3.71- 3.77 |
| 39 | L1 | AR1016-F | 200.000 | 181.606 | 9.2 | 90 | -0.01 | 3.82- 3.88 |
| 40 | L2 | AR1221-A | | ----------NA---------- | | | | |
| 41 | L2 | AR1221-B | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GNN1445-ICV1445
**Lab FileID:** NN175120.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | L2 | AR1221-C | | | ----------NA---------- | | | |
| 43 | L2 | AR1221-D | | | ----------NA---------- | | | |
| 44 | L2 | AR1221-E | | | ----------NA---------- | | | |
| 45 | L3 | AR1232-A | | | ----------NA---------- | | | |
| 46 | L3 | AR1232-B | | | ----------NA---------- | | | |
| 47 | L3 | AR1232-C | | | ----------NA---------- | | | |
| 48 | L3 | AR1232-D | | | ----------NA---------- | | | |
| 49 | L3 | AR1232-E | | | ----------NA---------- | | | |
| 50 | L3 | AR1232-F | | | ----------NA---------- | | | |
| 51 | L4 | AR1242-A | | | ----------NA---------- | | | |
| 52 | L4 | AR1242-B | | | ----------NA---------- | | | |
| 53 | L4 | AR1242-C | | | ----------NA---------- | | | |
| 54 | L4 | AR1242-D | | | ----------NA---------- | | | |
| 55 | L4 | AR1242-E | | | ----------NA---------- | | | |
| 56 | L4 | AR1242-F | | | ----------NA---------- | | | |
| 57 | L5 | AR1248-A | | | ----------NA---------- | | | |
| 58 | L5 | AR1248-B | | | ----------NA---------- | | | |
| 59 | L5 | AR1248-C | | | ----------NA---------- | | | |
| 60 | L5 | AR1248-D | | | ----------NA---------- | | | |
| 61 | L5 | AR1248-E | | | ----------NA---------- | | | |
| 62 | L5 | AR1248-F | | | ----------NA---------- | | | |
| 63 | L6 | AR1254-A | | | ----------NA---------- | | | |
| 64 | L6 | AR1254-B | | | ----------NA---------- | | | |
| 65 | L6 | AR1254-C | | | ----------NA---------- | | | |
| 66 | L6 | AR1254-D | | | ----------NA---------- | | | |
| 67 | L6 | AR1254-E | | | ----------NA---------- | | | |
| 68 | L6 | AR1254-F | | | ----------NA---------- | | | |
| 69 | L7 | AR1260-A | 200.000 | 184.813 | 7.6 | 91 | 0.00 | 4.73- 4.79 |
| 70 | L7 | AR1260-B | 200.000 | 189.393 | 5.3 | 93 | 0.00 | 4.89- 4.95 |
| 71 | L7 | AR1260-C | 200.000 | 188.913 | 5.5 | 93 | 0.00 | 5.21- 5.27 |
| 72 | L7 | AR1260-D | 200.000 | 188.762 | 5.6 | 92 | 0.00 | 5.42- 5.48 |
| 73 | L7 | AR1260-E | 200.000 | 185.984 | 7.0 | 94 | 0.00 | 5.59- 5.65 |
| 74 | L7 | AR1260-F | 200.000 | 186.044 | 7.0 | 92 | 0.00 | 5.84- 5.90 |
| 75 | L8 | AR1262-A | | | ----------NA---------- | | | |
| 76 | L8 | AR1262-B | | | ----------NA---------- | | | |
| 77 | L8 | AR1262-C | | | ----------NA---------- | | | |
| 78 | L8 | AR1262-D | | | ----------NA---------- | | | |
| 79 | L8 | AR1262-E | | | ----------NA---------- | | | |
| 80 | L8 | AR1262-F | | | ----------NA---------- | | | |
| 81 | L9 | AR1268-A | | | ----------NA---------- | | | |
| 82 | L9 | AR1268-B | | | ----------NA---------- | | | |
| 83 | L9 | AR1268-C | | | ----------NA---------- | | | |
| 84 | L9 | AR1268-D | | | ----------NA---------- | | | |
| 85 | L9 | AR1268-E | | | ----------NA---------- | | | |
| 86 | L9 | AR1268-F | | | ----------NA---------- | | | |
| 87 | S | Decachlorobiphenyl | | | ----------NA---------- | | | |
| ***** | | Signal #2 ***** | | | | | | |
| 89 | S | Tetrachloro-m-xylene #2 | | | ----------NA---------- | | | |
| 90 | | Hexachlorobenzene #2 | | | ----------NA---------- | | | |
| 91 | | alpha-BHC #2 | | | ----------NA---------- | | | |
| 92 | | gamma-BHC (Lindane) #2 | | | ----------NA---------- | | | |
| 93 | | beta-BHC #2 | | | ----------NA---------- | | | |
| 94 | | Heptachlor #2 | | | ----------NA---------- | | | |
| 95 | | Chlorothalonil #2 | | | ----------NA---------- | | | |
| 96 | | delta-BHC #2 | | | ----------NA---------- | | | |
| 97 | | Aldrin #2 | | | ----------NA---------- | | | |
| 98 | | Dacthal #2 | | | ----------NA---------- | | | |
| 99 | | Heptachlor Epoxide #2 | | | ----------NA---------- | | | |

# Initial Calibration Verification

**Job Number:** TC52591 **Sample:** GNN1445-ICV1445
**Account:** RFWTXHO Weston Solutions **Lab FileID:** NN175120.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 100 | | gamma-Chlordane #2 | | | ----------NA---------- | | | | |
| 101 | | alpha-Chlordane #2 | | | ----------NA---------- | | | | |
| 102 | | Endosulfan I #2 | | | ----------NA---------- | | | | |
| 103 | | 4,4'-DDE #2 | | | ----------NA---------- | | | | |
| 104 | | Dieldrin #2 | | | ----------NA---------- | | | | |
| 105 | | Endrin #2 | | | ----------NA---------- | | | | |
| 106 | | 4,4'-DDD #2 | | | ----------NA---------- | | | | |
| 107 | | Endosulfan II #2 | | | ----------NA---------- | | | | |
| 108 | | 4,4'-DDT #2 | | | ----------NA---------- | | | | |
| 109 | | Endrin Aldehyde #2 | | | ----------NA---------- | | | | |
| 110 | | Endosulfan Sulfate #2 | | | ----------NA---------- | | | | |
| 111 | | Methoxychlor #2 | | | ----------NA---------- | | | | |
| 112 | | Endrin Ketone #2 | | | ----------NA---------- | | | | |
| 113 | L1 | Chlordane-A #2 | | | ----------NA---------- | | | | |
| 114 | L1 | Chlordane-B #2 | | | ----------NA---------- | | | | |
| 115 | L1 | Chlordane-C #2 | | | ----------NA---------- | | | | |
| 116 | L1 | Chlordane-D #2 | | | ----------NA---------- | | | | |
| 117 | L1 | Chlordane-E #2 | | | ----------NA---------- | | | | |
| 118 | L1 | Chlordane-F #2 | | | ----------NA---------- | | | | |
| 119 | H | Toxaphene #2 | | | ----------NA---------- | | | | |
| 120 | | Mirex #2 | | | ----------NA---------- | | | | |
| 121 | | Dicofol #2 | | | ----------NA---------- | | | | |
| 122 | L1 | AR1016-A #2 | 200.000 | 197.133 | 1.4 | 98 | -0.01 | 2.48- | 2.54 |
| 123 | L1 | AR1016-B #2 | 200.000 | 202.201 | -1.1 | 100 | 0.00 | 2.76- | 2.82 |
| 124 | L1 | AR1016-C #2 | 200.000 | 212.630 | -6.3 | 104 | 0.00 | 2.85- | 2.91 |
| 125 | L1 | AR1016-D #2 | 200.000 | 217.214 | -8.6 | 105 | 0.00 | 2.89- | 2.95 |
| 126 | L1 | AR1016-E #2 | 200.000 | 207.638 | -3.8 | 104 | 0.00 | 3.13- | 3.19 |
| 127 | L1 | AR1016-F #2 | 200.000 | 203.148 | -1.6 | 103 | 0.00 | 3.22- | 3.28 |
| 128 | L2 | AR1221-A #2 | | | ----------NA---------- | | | | |
| 129 | L2 | AR1221-B #2 | | | ----------NA---------- | | | | |
| 130 | L2 | AR1221-C #2 | | | ----------NA---------- | | | | |
| 131 | L2 | AR1221-D #2 | | | ----------NA---------- | | | | |
| 132 | L2 | AR1221-E #2 | | | ----------NA---------- | | | | |
| 133 | L3 | AR1232-A #2 | | | ----------NA---------- | | | | |
| 134 | L3 | AR1232-B #2 | | | ----------NA---------- | | | | |
| 135 | L3 | AR1232-C #2 | | | ----------NA---------- | | | | |
| 136 | L3 | AR1232-D #2 | | | ----------NA---------- | | | | |
| 137 | L3 | AR1232-E #2 | | | ----------NA---------- | | | | |
| 138 | L3 | AR1232-F #2 | | | ----------NA---------- | | | | |
| 139 | L4 | AR1242-A #2 | | | ----------NA---------- | | | | |
| 140 | L4 | AR1242-B #2 | | | ----------NA---------- | | | | |
| 141 | L4 | AR1242-C #2 | | | ----------NA---------- | | | | |
| 142 | L4 | AR1242-D #2 | | | ----------NA---------- | | | | |
| 143 | L4 | AR1242-E #2 | | | ----------NA---------- | | | | |
| 144 | L4 | AR1242-F #2 | | | ----------NA---------- | | | | |
| 145 | L5 | AR1248-A #2 | | | ----------NA---------- | | | | |
| 146 | L5 | AR1248-B #2 | | | ----------NA---------- | | | | |
| 147 | L5 | AR1248-C #2 | | | ----------NA---------- | | | | |
| 148 | L5 | AR1248-D #2 | | | ----------NA---------- | | | | |
| 149 | L5 | AR1248-E #2 | | | ----------NA---------- | | | | |
| 150 | L5 | AR1248-F #2 | | | ----------NA---------- | | | | |
| 151 | L6 | AR1254-A #2 | | | ----------NA---------- | | | | |
| 152 | L6 | AR1254-B #2 | | | ----------NA---------- | | | | |
| 153 | L6 | AR1254-C #2 | | | ----------NA---------- | | | | |
| 154 | L6 | AR1254-D #2 | | | ----------NA---------- | | | | |
| 155 | L6 | AR1254-E #2 | | | ----------NA---------- | | | | |
| 156 | L6 | AR1254-F #2 | | | ----------NA---------- | | | | |
| 157 | L7 | AR1260-A #2 | 200.000 | 181.641 | 9.2 | 89 | 0.00 | 4.08- | 4.14 |
| 158 | L7 | AR1260-B #2 | 200.000 | 182.891 | 8.6 | 91 | 0.00 | 4.30- | 4.36 |
| 159 | L7 | AR1260-C #2 | 200.000 | 179.421 | 10.3 | 89 | 0.00 | 4.52- | 4.58 |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GNN1445-ICV1445
**Lab FileID:** NN175120.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 160 | L7 | AR1260-D #2 | 200.000 | 188.935 | 5.5 | 93 | 0.00 | 4.78- 4.84 |
| 161 | L7 | AR1260-E #2 | 200.000 | 189.389 | 5.3 | 93 | 0.00 | 5.01- 5.07 |
| 162 | L7 | AR1260-F #2 | 200.000 | 194.546 | 2.7 | 99 | 0.00 | 5.21- 5.27 |
| 163 | L8 | AR1262-A #2 | ----------NA---------- | | | | | |
| 164 | L8 | AR1262-B #2 | ----------NA---------- | | | | | |
| 165 | L8 | AR1262-C #2 | ----------NA---------- | | | | | |
| 166 | L8 | AR1262-D #2 | ----------NA---------- | | | | | |
| 167 | L8 | AR1262-E #2 | ----------NA---------- | | | | | |
| 168 | L8 | AR1262-F #2 | ----------NA---------- | | | | | |
| 169 | L9 | AR1268-A #2 | ----------NA---------- | | | | | |
| 170 | L9 | AR1268-B #2 | ----------NA---------- | | | | | |
| 171 | L9 | AR1268-C #2 | ----------NA---------- | | | | | |
| 172 | L9 | AR1268-D #2 | ----------NA---------- | | | | | |
| 173 | L9 | AR1268-E #2 | ----------NA---------- | | | | | |
| 174 | L9 | AR1268-F #2 | ----------NA---------- | | | | | |
| 175 | S | Decachlorobiphenyl #2 | ----------NA---------- | | | | | |

(#) = Out of Range SPCC's out = 0 CCC's out = 0
NN175115.D 608Q1445.M Fri Jul 25 13:46:04 2014

8.7.6

8

# Initial Calibration Verification



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** GNN1445-ICV1445
**Lab FileID:** NN175128.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\GNN1445\NN175128.D\ECD1A.CH Vial: 32
Signal #2 : C:\MSDCHEM\1\DATA\GNN1445\NN175128.D\ECD2B.CH
Acq On    : 7-24-2014 04:52:54 PM                    Operator: almar
Sample    : icv1445-200,pest                         Inst    : GCNN
Misc      : op33313,gnn1445                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1445.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Fri Jul 25 13:07:57 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

| | | Compound | Amount | Calc. | %Drift | Area% | Dev(min) | RT Window |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | | ----------NA---------- | | | | |
| 2 | | Hexachlorobenzene | 40.000 | 42.127 | -5.3 | 101 | 0.00 | 2.59- 2.65 |
| 3 | | alpha-BHC | 20.000 | 19.453 | 2.7 | 93 | 0.00 | 2.68- 2.74 |
| 4 | | gamma-BHC (Lindane) | 20.000 | 18.434 | 7.8 | 89 | 0.00 | 2.94- 3.00 |
| 5 | | Heptachlor | 20.000 | 19.920 | 0.4 | 96 | 0.00 | 3.29- 3.35 |
| 6 | | Aldrin | 20.000 | 19.766 | 1.2 | 97 | 0.00 | 3.56- 3.62 |
| 7 | | Chlorothalonil | 40.000 | 42.528 | -6.3 | 102 | 0.01 | 3.39- 3.45 |
| 8 | | beta-BHC | 20.000 | 19.228 | 3.9 | 91 | 0.00 | 3.01- 3.07 |
| 9 | | Dacthal | 40.000 | 40.586 | -1.5 | 97 | 0.00 | 3.84- 3.90 |
| 10 | | Delta-BHC | 20.000 | 19.127 | 4.4 | 93 | 0.00 | 3.24- 3.30 |
| 11 | | Heptachlor Epoxide | 20.000 | 19.020 | 4.9 | 90 | 0.00 | 4.05- 4.11 |
| 12 | | Endosulfan I | 20.000 | 20.315 | -1.6 | 97 | 0.00 | 4.37- 4.43 |
| 13 | | gamma-Chlordane | 20.000 | 19.984 | 0.1 | 97 | 0.00 | 4.21- 4.27 |
| 14 | | alpha-Chlordane | 20.000 | 20.699 | -3.5 | 99 | 0.00 | 4.33- 4.39 |
| 15 | | 4,4'-DDE | 40.000 | 38.204 | 4.5 | 93 | 0.00 | 4.47- 4.53 |
| 16 | | Dieldrin | 40.000 | 38.382 | 4.0 | 93 | 0.00 | 4.59- 4.65 |
| 17 | | Endrin | 40.000 | 41.909 | -4.8 | 101 | 0.00 | 4.82- 4.88 |
| 18 | | 4,4'-DDD | 40.000 | 39.801 | 0.5 | 96 | 0.00 | 4.91- 4.97 |
| 19 | | Endosulfan II | 40.000 | 40.126 | -0.3 | 95 | 0.00 | 4.98- 5.04 |
| 20 | | 4,4'-DDT | 40.000 | 39.412 | 1.5 | 96 | 0.00 | 5.14- 5.20 |
| 21 | | Endrin Aldehyde | 40.000 | 41.435 | -3.6 | 100 | 0.00 | 5.23- 5.29 |
| 22 | | Methoxychlor | 200.000 | 207.365 | -3.7 | 99 | 0.00 | 5.63- 5.69 |
| 23 | | Endosulfan Sulfate | 40.000 | 39.239 | 1.9 | 95 | 0.00 | 5.43- 5.49 |
| 24 | | Endrin Ketone | 40.000 | 40.295 | -0.7 | 96 | 0.00 | 5.79- 5.85 |
| 25 | L1 | Chlordane-A | | ----------NA---------- | | | | |
| 26 | L1 | Chlordane-B | | ----------NA---------- | | | | |
| 27 | L1 | Chlordane-C | | ----------NA---------- | | | | |
| 28 | L1 | Chlordane-D | | ----------NA---------- | | | | |
| 29 | L1 | Chlordane-E | | ----------NA---------- | | | | |
| 30 | L1 | Chlordane-F | | ----------NA---------- | | | | |
| 31 | H | Toxaphene | | ----------NA---------- | | | | |
| 32 | | Mirex | | ----------NA---------- | | | | |
| 33 | | Dicofol | | ----------NA---------- | | | | |
| 34 | L1 | AR1016-A | | ----------NA---------- | | | | |
| 35 | L1 | AR1016-B | | ----------NA---------- | | | | |
| 36 | L1 | AR1016-C | | ----------NA---------- | | | | |
| 37 | L1 | AR1016-D | | ----------NA---------- | | | | |
| 38 | L1 | AR1016-E | | ----------NA---------- | | | | |
| 39 | L1 | AR1016-F | | ----------NA---------- | | | | |
| 40 | L2 | AR1221-A | | ----------NA---------- | | | | |
| 41 | L2 | AR1221-B | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GNN1445-ICV1445
**Lab FileID:** NN175128.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | L2 | AR1221-C | ----------NA---------- | | | | | |
| 43 | L2 | AR1221-D | ----------NA---------- | | | | | |
| 44 | L2 | AR1221-E | ----------NA---------- | | | | | |
| 45 | L3 | AR1232-A | ----------NA---------- | | | | | |
| 46 | L3 | AR1232-B | ----------NA---------- | | | | | |
| 47 | L3 | AR1232-C | ----------NA---------- | | | | | |
| 48 | L3 | AR1232-D | ----------NA---------- | | | | | |
| 49 | L3 | AR1232-E | ----------NA---------- | | | | | |
| 50 | L3 | AR1232-F | ----------NA---------- | | | | | |
| 51 | L4 | AR1242-A | ----------NA---------- | | | | | |
| 52 | L4 | AR1242-B | ----------NA---------- | | | | | |
| 53 | L4 | AR1242-C | ----------NA---------- | | | | | |
| 54 | L4 | AR1242-D | ----------NA---------- | | | | | |
| 55 | L4 | AR1242-E | ----------NA---------- | | | | | |
| 56 | L4 | AR1242-F | ----------NA---------- | | | | | |
| 57 | L5 | AR1248-A | ----------NA---------- | | | | | |
| 58 | L5 | AR1248-B | ----------NA---------- | | | | | |
| 59 | L5 | AR1248-C | ----------NA---------- | | | | | |
| 60 | L5 | AR1248-D | ----------NA---------- | | | | | |
| 61 | L5 | AR1248-E | ----------NA---------- | | | | | |
| 62 | L5 | AR1248-F | ----------NA---------- | | | | | |
| 63 | L6 | AR1254-A | ----------NA---------- | | | | | |
| 64 | L6 | AR1254-B | ----------NA---------- | | | | | |
| 65 | L6 | AR1254-C | ----------NA---------- | | | | | |
| 66 | L6 | AR1254-D | ----------NA---------- | | | | | |
| 67 | L6 | AR1254-E | ----------NA---------- | | | | | |
| 68 | L6 | AR1254-F | ----------NA---------- | | | | | |
| 69 | L7 | AR1260-A | ----------NA---------- | | | | | |
| 70 | L7 | AR1260-B | ----------NA---------- | | | | | |
| 71 | L7 | AR1260-C | ----------NA---------- | | | | | |
| 72 | L7 | AR1260-D | ----------NA---------- | | | | | |
| 73 | L7 | AR1260-E | ----------NA---------- | | | | | |
| 74 | L7 | AR1260-F | ----------NA---------- | | | | | |
| 75 | L8 | AR1262-A | ----------NA---------- | | | | | |
| 76 | L8 | AR1262-B | ----------NA---------- | | | | | |
| 77 | L8 | AR1262-C | ----------NA---------- | | | | | |
| 78 | L8 | AR1262-D | ----------NA---------- | | | | | |
| 79 | L8 | AR1262-E | ----------NA---------- | | | | | |
| 80 | L8 | AR1262-F | ----------NA---------- | | | | | |
| 81 | L9 | AR1268-A | ----------NA---------- | | | | | |
| 82 | L9 | AR1268-B | ----------NA---------- | | | | | |
| 83 | L9 | AR1268-C | ----------NA---------- | | | | | |
| 84 | L9 | AR1268-D | ----------NA---------- | | | | | |
| 85 | L9 | AR1268-E | ----------NA---------- | | | | | |
| 86 | L9 | AR1268-F | ----------NA---------- | | | | | |
| 87 | S | Decachlorobiphenyl | ----------NA---------- | | | | | |
| ***** | | Signal #2 ***** | | | | | | |
| 89 | S | Tetrachloro-m-xylene #2 | ----------NA---------- | | | | | |
| 90 | | Hexachlorobenzene #2 | 40.000 | 41.971 | -4.9 | 101 | -0.02 | 2.30- 2.36 |
| 91 | | alpha-BHC #2 | 20.000 | 20.182 | -0.9 | 96 | -0.02 | 2.40- 2.46 |
| 92 | | gamma-BHC (Lindane) #2 | 20.000 | 18.699 | 6.5 | 90 | -0.03 | 2.60- 2.66 |
| 93 | | beta-BHC #2 | 20.000 | 19.761 | 1.2 | 96 | -0.03 | 2.65- 2.71 |
| 94 | | Heptachlor #2 | 20.000 | 19.928 | 0.4 | 97 | 0.00 | 2.89- 2.95 |
| 95 | | Chlorothalonil #2 | 40.000 | 43.228 | -8.1 | 105 | 0.00 | 3.15- 3.21 |
| 96 | | delta-BHC #2 | 20.000 | 19.622 | 1.9 | 98 | 0.00 | 2.75- 2.81 |
| 97 | | Aldrin #2 | 20.000 | 19.510 | 2.4 | 94 | -0.01 | 3.11- 3.17 |
| 98 | | Dacthal #2 | 40.000 | 41.528 | -3.8 | 101 | 0.00 | 3.53- 3.59 |
| 99 | | Heptachlor Epoxide #2 | 20.000 | 20.301 | -1.5 | 93 | 0.00 | 3.55- 3.61 |

# Initial Calibration Verification

**Job Number:** TC52591 **Sample:** GNN1445-ICV1445
**Account:** RFWTXHO Weston Solutions **Lab FileID:** NN175128.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 100 | | gamma-Chlordane #2 | 20.000 | 20.249 | -1.2 | 97 | 0.00 | 3.66- 3.72 |
| 101 | | alpha-Chlordane #2 | 20.000 | 20.873 | -4.4 | 101 | 0.00 | 3.77- 3.83 |
| 102 | | Endosulfan I #2 | 20.000 | 21.739 | -8.7 | 99 | 0.00 | 3.87- 3.93 |
| 103 | | 4,4'-DDE #2 | 40.000 | 36.115 | 9.7 | 92 | 0.00 | 3.85- 3.91 |
| 104 | | Dieldrin #2 | 40.000 | 38.815 | 3.0 | 94 | -0.02 | 4.08- 4.14 |
| 105 | | Endrin #2 | 40.000 | 42.643 | -6.6 | 103 | -0.02 | 4.26- 4.32 |
| 106 | | 4,4'-DDD #2 | 40.000 | 40.158 | -0.4 | 98 | -0.01 | 4.34- 4.40 |
| 107 | | Endosulfan II #2 | 40.000 | 40.988 | -2.5 | 97 | -0.02 | 4.43- 4.49 |
| 108 | | 4,4'-DDT #2 | 40.000 | 39.416 | 1.5 | 95 | -0.01 | 4.55- 4.61 |
| 109 | | Endrin Aldehyde #2 | 40.000 | 41.360 | -3.4 | 98 | -0.02 | 4.75- 4.81 |
| 110 | | Endosulfan Sulfate #2 | 40.000 | 40.261 | -0.7 | 96 | -0.02 | 5.06- 5.12 |
| 111 | | Methoxychlor #2 | 200.000 | 211.795 | -5.9 | 101 | -0.01 | 4.92- 4.98 |
| 112 | | Endrin Ketone #2 | 40.000 | 40.425 | -1.1 | 96 | -0.02 | 5.26- 5.32 |
| 113 | L1 | Chlordane-A #2 | | ----------NA---------- | | | | |
| 114 | L1 | Chlordane-B #2 | | ----------NA---------- | | | | |
| 115 | L1 | Chlordane-C #2 | | ----------NA---------- | | | | |
| 116 | L1 | Chlordane-D #2 | | ----------NA---------- | | | | |
| 117 | L1 | Chlordane-E #2 | | ----------NA---------- | | | | |
| 118 | L1 | Chlordane-F #2 | | ----------NA---------- | | | | |
| 119 | H | Toxaphene #2 | | ----------NA---------- | | | | |
| 120 | | Mirex #2 | | ----------NA---------- | | | | |
| 121 | | Dicofol #2 | | ----------NA---------- | | | | |
| 122 | L1 | AR1016-A #2 | | ----------NA---------- | | | | |
| 123 | L1 | AR1016-B #2 | | ----------NA---------- | | | | |
| 124 | L1 | AR1016-C #2 | | ----------NA---------- | | | | |
| 125 | L1 | AR1016-D #2 | | ----------NA---------- | | | | |
| 126 | L1 | AR1016-E #2 | | ----------NA---------- | | | | |
| 127 | L1 | AR1016-F #2 | | ----------NA---------- | | | | |
| 128 | L2 | AR1221-A #2 | | ----------NA---------- | | | | |
| 129 | L2 | AR1221-B #2 | | ----------NA---------- | | | | |
| 130 | L2 | AR1221-C #2 | | ----------NA---------- | | | | |
| 131 | L2 | AR1221-D #2 | | ----------NA---------- | | | | |
| 132 | L2 | AR1221-E #2 | | ----------NA---------- | | | | |
| 133 | L3 | AR1232-A #2 | | ----------NA---------- | | | | |
| 134 | L3 | AR1232-B #2 | | ----------NA---------- | | | | |
| 135 | L3 | AR1232-C #2 | | ----------NA---------- | | | | |
| 136 | L3 | AR1232-D #2 | | ----------NA---------- | | | | |
| 137 | L3 | AR1232-E #2 | | ----------NA---------- | | | | |
| 138 | L3 | AR1232-F #2 | | ----------NA---------- | | | | |
| 139 | L4 | AR1242-A #2 | | ----------NA---------- | | | | |
| 140 | L4 | AR1242-B #2 | | ----------NA---------- | | | | |
| 141 | L4 | AR1242-C #2 | | ----------NA---------- | | | | |
| 142 | L4 | AR1242-D #2 | | ----------NA---------- | | | | |
| 143 | L4 | AR1242-E #2 | | ----------NA---------- | | | | |
| 144 | L4 | AR1242-F #2 | | ----------NA---------- | | | | |
| 145 | L5 | AR1248-A #2 | | ----------NA---------- | | | | |
| 146 | L5 | AR1248-B #2 | | ----------NA---------- | | | | |
| 147 | L5 | AR1248-C #2 | | ----------NA---------- | | | | |
| 148 | L5 | AR1248-D #2 | | ----------NA---------- | | | | |
| 149 | L5 | AR1248-E #2 | | ----------NA---------- | | | | |
| 150 | L5 | AR1248-F #2 | | ----------NA---------- | | | | |
| 151 | L6 | AR1254-A #2 | | ----------NA---------- | | | | |
| 152 | L6 | AR1254-B #2 | | ----------NA---------- | | | | |
| 153 | L6 | AR1254-C #2 | | ----------NA---------- | | | | |
| 154 | L6 | AR1254-D #2 | | ----------NA---------- | | | | |
| 155 | L6 | AR1254-E #2 | | ----------NA---------- | | | | |
| 156 | L6 | AR1254-F #2 | | ----------NA---------- | | | | |
| 157 | L7 | AR1260-A #2 | | ----------NA---------- | | | | |
| 158 | L7 | AR1260-B #2 | | ----------NA---------- | | | | |
| 159 | L7 | AR1260-C #2 | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** GNN1445-ICV1445
**Lab FileID:** NN175128.D

```
160 L7  AR1260-D #2                          ----------NA----------
161 L7  AR1260-E #2                          ----------NA----------
162 L7  AR1260-F #2                          ----------NA----------
163 L8  AR1262-A #2                          ----------NA----------
164 L8  AR1262-B #2                          ----------NA----------
165 L8  AR1262-C #2                          ----------NA----------
166 L8  AR1262-D #2                          ----------NA----------
167 L8  AR1262-E #2                          ----------NA----------
168 L8  AR1262-F #2                          ----------NA----------
169 L9  AR1268-A #2                          ----------NA----------
170 L9  AR1268-B #2                          ----------NA----------
171 L9  AR1268-C #2                          ----------NA----------
172 L9  AR1268-D #2                          ----------NA----------
173 L9  AR1268-E #2                          ----------NA----------
174 L9  AR1268-F #2                          ----------NA----------
175 S   Decachlorobiphenyl #2                ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range                SPCC's out = 0  CCC's out = 0
     NN175115.D 608Q1445.M       Fri Jul 25 13:46:06 2014
```

8.7.7

8

# Continuing Calibration Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** GNN1454-CC1445
**Lab FileID:** NN175383.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\GNN1454\NN175383.D\ECD1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\GNN1454\NN175383.D\ECD2B.CH
Acq On    : 8-7-2014 01:13:50 PM                    Operator: almar
Sample    : cc1445-200,chlor                        Inst    : GCNN
Misc      : op33313,gnn1454                         Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1445.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Mon Aug 04 15:27:40 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

| | | Compound | Amount | Calc. | %Drift | Area% | Dev(min) | RT Window |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | 40.000 | 43.795 | -9.5 | 112 | 0.00 | 2.27- 2.33 |
| 2 | | Hexachlorobenzene | | ----------NA---------- | | | | |
| 3 | | alpha-BHC | | ----------NA---------- | | | | |
| 4 | | gamma-BHC (Lindane) | | ----------NA---------- | | | | |
| 5 | | Heptachlor | | ----------NA---------- | | | | |
| 6 | | Aldrin | | ----------NA---------- | | | | |
| 7 | | Chlorothalonil | | ----------NA---------- | | | | |
| 8 | | beta-BHC | | ----------NA---------- | | | | |
| 9 | | Dacthal | | ----------NA---------- | | | | |
| 10 | | Delta-BHC | | ----------NA---------- | | | | |
| 11 | | Heptachlor Epoxide | | ----------NA---------- | | | | |
| 12 | | Endosulfan I | | ----------NA---------- | | | | |
| 13 | | gamma-Chlordane | | ----------NA---------- | | | | |
| 14 | | alpha-Chlordane | | ----------NA---------- | | | | |
| 15 | | 4,4'-DDE | | ----------NA---------- | | | | |
| 16 | | Dieldrin | | ----------NA---------- | | | | |
| 17 | | Endrin | | ----------NA---------- | | | | |
| 18 | | 4,4'-DDD | | ----------NA---------- | | | | |
| 19 | | Endosulfan II | | ----------NA---------- | | | | |
| 20 | | 4,4'-DDT | | ----------NA---------- | | | | |
| 21 | | Endrin Aldehyde | | ----------NA---------- | | | | |
| 22 | | Methoxychlor | | ----------NA---------- | | | | |
| 23 | | Endosulfan Sulfate | | ----------NA---------- | | | | |
| 24 | | Endrin Ketone | | ----------NA---------- | | | | |
| 25 | L1 | Chlordane-A | 200.000 | 213.145 | -6.6 | 107 | 0.00 | 3.18- 3.24 |
| 26 | L1 | Chlordane-B | 200.000 | 217.131 | -8.6 | 109 | 0.00 | 3.30- 3.36 |
| 27 | L1 | Chlordane-C | 200.000 | 217.637 | -8.8 | 109 | 0.00 | 3.70- 3.76 |
| 28 | L1 | Chlordane-D | 200.000 | 217.029 | -8.5 | 109 | 0.00 | 4.22- 4.28 |
| 29 | L1 | Chlordane-E | 200.000 | 218.244 | -9.1 | 109 | 0.00 | 4.34- 4.40 |
| 30 | L1 | Chlordane-F | 200.000 | 216.230 | -8.1 | 108 | 0.00 | 5.03- 5.09 |
| 31 | H | Toxaphene | | ----------NA---------- | | | | |
| 32 | | Mirex | | ----------NA---------- | | | | |
| 33 | | Dicofol | | ----------NA---------- | | | | |
| 34 | L1 | AR1016-A | | ----------NA---------- | | | | |
| 35 | L1 | AR1016-B | | ----------NA---------- | | | | |
| 36 | L1 | AR1016-C | | ----------NA---------- | | | | |
| 37 | L1 | AR1016-D | | ----------NA---------- | | | | |
| 38 | L1 | AR1016-E | | ----------NA---------- | | | | |
| 39 | L1 | AR1016-F | | ----------NA---------- | | | | |
| 40 | L2 | AR1221-A | | ----------NA---------- | | | | |
| 41 | L2 | AR1221-B | | ----------NA---------- | | | | |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** GNN1454-CC1445
**Account:** RFWTXHO Weston Solutions **Lab FileID:** NN175383.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | L2 | AR1221-C | | | ----------NA---------- | | | |
| 43 | L2 | AR1221-D | | | ----------NA---------- | | | |
| 44 | L2 | AR1221-E | | | ----------NA---------- | | | |
| 45 | L3 | AR1232-A | | | ----------NA---------- | | | |
| 46 | L3 | AR1232-B | | | ----------NA---------- | | | |
| 47 | L3 | AR1232-C | | | ----------NA---------- | | | |
| 48 | L3 | AR1232-D | | | ----------NA---------- | | | |
| 49 | L3 | AR1232-E | | | ----------NA---------- | | | |
| 50 | L3 | AR1232-F | | | ----------NA---------- | | | |
| 51 | L4 | AR1242-A | | | ----------NA---------- | | | |
| 52 | L4 | AR1242-B | | | ----------NA---------- | | | |
| 53 | L4 | AR1242-C | | | ----------NA---------- | | | |
| 54 | L4 | AR1242-D | | | ----------NA---------- | | | |
| 55 | L4 | AR1242-E | | | ----------NA---------- | | | |
| 56 | L4 | AR1242-F | | | ----------NA---------- | | | |
| 57 | L5 | AR1248-A | | | ----------NA---------- | | | |
| 58 | L5 | AR1248-B | | | ----------NA---------- | | | |
| 59 | L5 | AR1248-C | | | ----------NA---------- | | | |
| 60 | L5 | AR1248-D | | | ----------NA---------- | | | |
| 61 | L5 | AR1248-E | | | ----------NA---------- | | | |
| 62 | L5 | AR1248-F | | | ----------NA---------- | | | |
| 63 | L6 | AR1254-A | | | ----------NA---------- | | | |
| 64 | L6 | AR1254-B | | | ----------NA---------- | | | |
| 65 | L6 | AR1254-C | | | ----------NA---------- | | | |
| 66 | L6 | AR1254-D | | | ----------NA---------- | | | |
| 67 | L6 | AR1254-E | | | ----------NA---------- | | | |
| 68 | L6 | AR1254-F | | | ----------NA---------- | | | |
| 69 | L7 | AR1260-A | | | ----------NA---------- | | | |
| 70 | L7 | AR1260-B | | | ----------NA---------- | | | |
| 71 | L7 | AR1260-C | | | ----------NA---------- | | | |
| 72 | L7 | AR1260-D | | | ----------NA---------- | | | |
| 73 | L7 | AR1260-E | | | ----------NA---------- | | | |
| 74 | L7 | AR1260-F | | | ----------NA---------- | | | |
| 75 | L8 | AR1262-A | | | ----------NA---------- | | | |
| 76 | L8 | AR1262-B | | | ----------NA---------- | | | |
| 77 | L8 | AR1262-C | | | ----------NA---------- | | | |
| 78 | L8 | AR1262-D | | | ----------NA---------- | | | |
| 79 | L8 | AR1262-E | | | ----------NA---------- | | | |
| 80 | L8 | AR1262-F | | | ----------NA---------- | | | |
| 81 | L9 | AR1268-A | | | ----------NA---------- | | | |
| 82 | L9 | AR1268-B | | | ----------NA---------- | | | |
| 83 | L9 | AR1268-C | | | ----------NA---------- | | | |
| 84 | L9 | AR1268-D | | | ----------NA---------- | | | |
| 85 | L9 | AR1268-E | | | ----------NA---------- | | | |
| 86 | L9 | AR1268-F | | | ----------NA---------- | | | |
| 87 | S | Decachlorobiphenyl | 40.000 | 46.203 | -15.5# | 114 | 0.00 | 6.60- 6.66 |
| ***** | | Signal #2 ***** | | | | | | |
| 89 | S | Tetrachloro-m-xylene # | 40.000 | 40.394 | -1.0 | 103 | -0.01 | 2.07- 2.13 |
| 90 | | Hexachlorobenzene #2 | | | ----------NA---------- | | | |
| 91 | | alpha-BHC #2 | | | ----------NA---------- | | | |
| 92 | | gamma-BHC (Lindane) #2 | | | ----------NA---------- | | | |
| 93 | | beta-BHC #2 | | | ----------NA---------- | | | |
| 94 | | Heptachlor #2 | | | ----------NA---------- | | | |
| 95 | | Chlorothalonil #2 | | | ----------NA---------- | | | |
| 96 | | delta-BHC #2 | | | ----------NA---------- | | | |
| 97 | | Aldrin #2 | | | ----------NA---------- | | | |
| 98 | | Dacthal #2 | | | ----------NA---------- | | | |
| 99 | | Heptachlor Epoxide #2 | | | ----------NA---------- | | | |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** GNN1454-CC1445
**Account:** RFWTXHO Weston Solutions **Lab FileID:** NN175383.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 100 | | gamma-Chlordane #2 | | | ----------NA---------- | | | |
| 101 | | alpha-Chlordane #2 | | | ----------NA---------- | | | |
| 102 | | Endosulfan I #2 | | | ----------NA---------- | | | |
| 103 | | 4,4'-DDE #2 | | | ----------NA---------- | | | |
| 104 | | Dieldrin #2 | | | ----------NA---------- | | | |
| 105 | | Endrin #2 | | | ----------NA---------- | | | |
| 106 | | 4,4'-DDD #2 | | | ----------NA---------- | | | |
| 107 | | Endosulfan II #2 | | | ----------NA---------- | | | |
| 108 | | 4,4'-DDT #2 | | | ----------NA---------- | | | |
| 109 | | Endrin Aldehyde #2 | | | ----------NA---------- | | | |
| 110 | | Endosulfan Sulfate #2 | | | ----------NA---------- | | | |
| 111 | | Methoxychlor #2 | | | ----------NA---------- | | | |
| 112 | | Endrin Ketone #2 | | | ----------NA---------- | | | |
| 113 | L1 | Chlordane-A #2 | 200.000 | 197.578 | 1.2 | 99 | -0.01 | 2.84- 2.90 |
| 114 | L1 | Chlordane-B #2 | 200.000 | 197.645 | 1.2 | 99 | -0.01 | 2.90- 2.96 |
| 115 | L1 | Chlordane-C #2 | 200.000 | 193.741 | 3.1 | 97 | -0.01 | 3.21- 3.27 |
| 116 | L1 | Chlordane-D #2 | 200.000 | 207.952 | -4.0 | 104 | -0.02 | 3.67- 3.73 |
| 117 | L1 | Chlordane-E #2 | 200.000 | 207.274 | -3.6 | 104 | -0.02 | 3.77- 3.83 |
| 118 | L1 | Chlordane-F #2 | 200.000 | 202.925 | -1.5 | 101 | -0.02 | 4.38- 4.44 |
| 119 | H | Toxaphene #2 | | | ----------NA---------- | | | |
| 120 | | Mirex #2 | | | ----------NA---------- | | | |
| 121 | | Dicofol #2 | | | ----------NA---------- | | | |
| 122 | L1 | AR1016-A #2 | | | ----------NA---------- | | | |
| 123 | L1 | AR1016-B #2 | | | ----------NA---------- | | | |
| 124 | L1 | AR1016-C #2 | | | ----------NA---------- | | | |
| 125 | L1 | AR1016-D #2 | | | ----------NA---------- | | | |
| 126 | L1 | AR1016-E #2 | | | ----------NA---------- | | | |
| 127 | L1 | AR1016-F #2 | | | ----------NA---------- | | | |
| 128 | L2 | AR1221-A #2 | | | ----------NA---------- | | | |
| 129 | L2 | AR1221-B #2 | | | ----------NA---------- | | | |
| 130 | L2 | AR1221-C #2 | | | ----------NA---------- | | | |
| 131 | L2 | AR1221-D #2 | | | ----------NA---------- | | | |
| 132 | L2 | AR1221-E #2 | | | ----------NA---------- | | | |
| 133 | L3 | AR1232-A #2 | | | ----------NA---------- | | | |
| 134 | L3 | AR1232-B #2 | | | ----------NA---------- | | | |
| 135 | L3 | AR1232-C #2 | | | ----------NA---------- | | | |
| 136 | L3 | AR1232-D #2 | | | ----------NA---------- | | | |
| 137 | L3 | AR1232-E #2 | | | ----------NA---------- | | | |
| 138 | L3 | AR1232-F #2 | | | ----------NA---------- | | | |
| 139 | L4 | AR1242-A #2 | | | ----------NA---------- | | | |
| 140 | L4 | AR1242-B #2 | | | ----------NA---------- | | | |
| 141 | L4 | AR1242-C #2 | | | ----------NA---------- | | | |
| 142 | L4 | AR1242-D #2 | | | ----------NA---------- | | | |
| 143 | L4 | AR1242-E #2 | | | ----------NA---------- | | | |
| 144 | L4 | AR1242-F #2 | | | ----------NA---------- | | | |
| 145 | L5 | AR1248-A #2 | | | ----------NA---------- | | | |
| 146 | L5 | AR1248-B #2 | | | ----------NA---------- | | | |
| 147 | L5 | AR1248-C #2 | | | ----------NA---------- | | | |
| 148 | L5 | AR1248-D #2 | | | ----------NA---------- | | | |
| 149 | L5 | AR1248-E #2 | | | ----------NA---------- | | | |
| 150 | L5 | AR1248-F #2 | | | ----------NA---------- | | | |
| 151 | L6 | AR1254-A #2 | | | ----------NA---------- | | | |
| 152 | L6 | AR1254-B #2 | | | ----------NA---------- | | | |
| 153 | L6 | AR1254-C #2 | | | ----------NA---------- | | | |
| 154 | L6 | AR1254-D #2 | | | ----------NA---------- | | | |
| 155 | L6 | AR1254-E #2 | | | ----------NA---------- | | | |
| 156 | L6 | AR1254-F #2 | | | ----------NA---------- | | | |
| 157 | L7 | AR1260-A #2 | | | ----------NA---------- | | | |
| 158 | L7 | AR1260-B #2 | | | ----------NA---------- | | | |
| 159 | L7 | AR1260-C #2 | | | ----------NA---------- | | | |

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GNN1454-CC1445
**Lab FileID:** NN175383.D

```
160 L7  AR1260-D #2                          ----------NA----------
161 L7  AR1260-E #2                          ----------NA----------
162 L7  AR1260-F #2                          ----------NA----------
163 L8  AR1262-A #2                          ----------NA----------
164 L8  AR1262-B #2                          ----------NA----------
165 L8  AR1262-C #2                          ----------NA----------
166 L8  AR1262-D #2                          ----------NA----------
167 L8  AR1262-E #2                          ----------NA----------
168 L8  AR1262-F #2                          ----------NA----------
169 L9  AR1268-A #2                          ----------NA----------
170 L9  AR1268-B #2                          ----------NA----------
171 L9  AR1268-C #2                          ----------NA----------
172 L9  AR1268-D #2                          ----------NA----------
173 L9  AR1268-E #2                          ----------NA----------
174 L9  AR1268-F #2                          ----------NA----------
175 S   Decachlorobiphenyl #2   40.000  42.868     -7.2  106   0.00    5.94- 6.00
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0
     NN175115.D 608Q1445.M       Thu Aug 07 16:52:48 2014
```

8.7.8

8

# Continuing Calibration Summary



**Job Number:** TC52591 **Sample:** GNN1454-CC1445
**Account:** RFWTXHO Weston Solutions **Lab FileID:** NN175384.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\GNN1454\NN175384.D\ECD1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\1\DATA\GNN1454\NN175384.D\ECD2B.CH
Acq On    : 8-7-2014 01:27:55 PM                    Operator: almar
Sample    : cc1445-200,tox                          Inst    : GCNN
Misc      : op33313,gnn1454                         Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1445.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Mon Aug 04 15:27:40 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

| | | Compound | Amount | Calc. | %Drift | Area% | Dev(min) | RT Window |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | 40.000 | 46.728 | -16.8# | 120 | 0.00 | 2.27- 2.33 |
| 2 | | Hexachlorobenzene | | ----------NA---------- | | | | |
| 3 | | alpha-BHC | | ----------NA---------- | | | | |
| 4 | | gamma-BHC (Lindane) | | ----------NA---------- | | | | |
| 5 | | Heptachlor | | ----------NA---------- | | | | |
| 6 | | Aldrin | | ----------NA---------- | | | | |
| 7 | | Chlorothalonil | | ----------NA---------- | | | | |
| 8 | | beta-BHC | | ----------NA---------- | | | | |
| 9 | | Dacthal | | ----------NA---------- | | | | |
| 10 | | Delta-BHC | | ----------NA---------- | | | | |
| 11 | | Heptachlor Epoxide | | ----------NA---------- | | | | |
| 12 | | Endosulfan I | | ----------NA---------- | | | | |
| 13 | | gamma-Chlordane | | ----------NA---------- | | | | |
| 14 | | alpha-Chlordane | | ----------NA---------- | | | | |
| 15 | | 4,4'-DDE | | ----------NA---------- | | | | |
| 16 | | Dieldrin | | ----------NA---------- | | | | |
| 17 | | Endrin | | ----------NA---------- | | | | |
| 18 | | 4,4'-DDD | | ----------NA---------- | | | | |
| 19 | | Endosulfan II | | ----------NA---------- | | | | |
| 20 | | 4,4'-DDT | | ----------NA---------- | | | | |
| 21 | | Endrin Aldehyde | | ----------NA---------- | | | | |
| 22 | | Methoxychlor | | ----------NA---------- | | | | |
| 23 | | Endosulfan Sulfate | | ----------NA---------- | | | | |
| 24 | | Endrin Ketone | | ----------NA---------- | | | | |
| 25 | L1 | Chlordane-A | | ----------NA---------- | | | | |
| 26 | L1 | Chlordane-B | | ----------NA---------- | | | | |
| 27 | L1 | Chlordane-C | | ----------NA---------- | | | | |
| 28 | L1 | Chlordane-D | | ----------NA---------- | | | | |
| 29 | L1 | Chlordane-E | | ----------NA---------- | | | | |
| 30 | L1 | Chlordane-F | | ----------NA---------- | | | | |
| 31 | H | Toxaphene | 200.000 | 201.558 | -0.8 | 101 | 0.00 | 4.75- 6.55 |
| 32 | | Mirex | | ----------NA---------- | | | | |
| 33 | | Dicofol | | ----------NA---------- | | | | |
| 34 | L1 | AR1016-A | | ----------NA---------- | | | | |
| 35 | L1 | AR1016-B | | ----------NA---------- | | | | |
| 36 | L1 | AR1016-C | | ----------NA---------- | | | | |
| 37 | L1 | AR1016-D | | ----------NA---------- | | | | |
| 38 | L1 | AR1016-E | | ----------NA---------- | | | | |
| 39 | L1 | AR1016-F | | ----------NA---------- | | | | |
| 40 | L2 | AR1221-A | | ----------NA---------- | | | | |
| 41 | L2 | AR1221-B | | ----------NA---------- | | | | |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** GNN1454-CC1445
**Account:** RFWTXHO Weston Solutions **Lab FileID:** NN175384.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | L2 | AR1221-C | | | ----------NA---------- | | | |
| 43 | L2 | AR1221-D | | | ----------NA---------- | | | |
| 44 | L2 | AR1221-E | | | ----------NA---------- | | | |
| 45 | L3 | AR1232-A | | | ----------NA---------- | | | |
| 46 | L3 | AR1232-B | | | ----------NA---------- | | | |
| 47 | L3 | AR1232-C | | | ----------NA---------- | | | |
| 48 | L3 | AR1232-D | | | ----------NA---------- | | | |
| 49 | L3 | AR1232-E | | | ----------NA---------- | | | |
| 50 | L3 | AR1232-F | | | ----------NA---------- | | | |
| 51 | L4 | AR1242-A | | | ----------NA---------- | | | |
| 52 | L4 | AR1242-B | | | ----------NA---------- | | | |
| 53 | L4 | AR1242-C | | | ----------NA---------- | | | |
| 54 | L4 | AR1242-D | | | ----------NA---------- | | | |
| 55 | L4 | AR1242-E | | | ----------NA---------- | | | |
| 56 | L4 | AR1242-F | | | ----------NA---------- | | | |
| 57 | L5 | AR1248-A | | | ----------NA---------- | | | |
| 58 | L5 | AR1248-B | | | ----------NA---------- | | | |
| 59 | L5 | AR1248-C | | | ----------NA---------- | | | |
| 60 | L5 | AR1248-D | | | ----------NA---------- | | | |
| 61 | L5 | AR1248-E | | | ----------NA---------- | | | |
| 62 | L5 | AR1248-F | | | ----------NA---------- | | | |
| 63 | L6 | AR1254-A | | | ----------NA---------- | | | |
| 64 | L6 | AR1254-B | | | ----------NA---------- | | | |
| 65 | L6 | AR1254-C | | | ----------NA---------- | | | |
| 66 | L6 | AR1254-D | | | ----------NA---------- | | | |
| 67 | L6 | AR1254-E | | | ----------NA---------- | | | |
| 68 | L6 | AR1254-F | | | ----------NA---------- | | | |
| 69 | L7 | AR1260-A | | | ----------NA---------- | | | |
| 70 | L7 | AR1260-B | | | ----------NA---------- | | | |
| 71 | L7 | AR1260-C | | | ----------NA---------- | | | |
| 72 | L7 | AR1260-D | | | ----------NA---------- | | | |
| 73 | L7 | AR1260-E | | | ----------NA---------- | | | |
| 74 | L7 | AR1260-F | | | ----------NA---------- | | | |
| 75 | L8 | AR1262-A | | | ----------NA---------- | | | |
| 76 | L8 | AR1262-B | | | ----------NA---------- | | | |
| 77 | L8 | AR1262-C | | | ----------NA---------- | | | |
| 78 | L8 | AR1262-D | | | ----------NA---------- | | | |
| 79 | L8 | AR1262-E | | | ----------NA---------- | | | |
| 80 | L8 | AR1262-F | | | ----------NA---------- | | | |
| 81 | L9 | AR1268-A | | | ----------NA---------- | | | |
| 82 | L9 | AR1268-B | | | ----------NA---------- | | | |
| 83 | L9 | AR1268-C | | | ----------NA---------- | | | |
| 84 | L9 | AR1268-D | | | ----------NA---------- | | | |
| 85 | L9 | AR1268-E | | | ----------NA---------- | | | |
| 86 | L9 | AR1268-F | | | ----------NA---------- | | | |
| 87 | S | Decachlorobiphenyl | 40.000 | 46.743 | -16.9# | 115 | 0.00 | 6.60- 6.66 |
| ***** | | Signal #2 ***** | | | | | | |
| 89 | S | Tetrachloro-m-xylene # | 40.000 | 42.460 | -6.2 | 109 | -0.01 | 2.07- 2.13 |
| 90 | | Hexachlorobenzene #2 | | | ----------NA---------- | | | |
| 91 | | alpha-BHC #2 | | | ----------NA---------- | | | |
| 92 | | gamma-BHC (Lindane) #2 | | | ----------NA---------- | | | |
| 93 | | beta-BHC #2 | | | ----------NA---------- | | | |
| 94 | | Heptachlor #2 | | | ----------NA---------- | | | |
| 95 | | Chlorothalonil #2 | | | ----------NA---------- | | | |
| 96 | | delta-BHC #2 | | | ----------NA---------- | | | |
| 97 | | Aldrin #2 | | | ----------NA---------- | | | |
| 98 | | Dacthal #2 | | | ----------NA---------- | | | |
| 99 | | Heptachlor Epoxide #2 | | | ----------NA---------- | | | |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** GNN1454-CC1445
**Account:** RFWTXHO Weston Solutions **Lab FileID:** NN175384.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 100 | | gamma-Chlordane #2 | | | ----------NA---------- | | | |
| 101 | | alpha-Chlordane #2 | | | ----------NA---------- | | | |
| 102 | | Endosulfan I #2 | | | ----------NA---------- | | | |
| 103 | | 4,4'-DDE #2 | | | ----------NA---------- | | | |
| 104 | | Dieldrin #2 | | | ----------NA---------- | | | |
| 105 | | Endrin #2 | | | ----------NA---------- | | | |
| 106 | | 4,4'-DDD #2 | | | ----------NA---------- | | | |
| 107 | | Endosulfan II #2 | | | ----------NA---------- | | | |
| 108 | | 4,4'-DDT #2 | | | ----------NA---------- | | | |
| 109 | | Endrin Aldehyde #2 | | | ----------NA---------- | | | |
| 110 | | Endosulfan Sulfate #2 | | | ----------NA---------- | | | |
| 111 | | Methoxychlor #2 | | | ----------NA---------- | | | |
| 112 | | Endrin Ketone #2 | | | ----------NA---------- | | | |
| 113 | L1 | Chlordane-A #2 | | | ----------NA---------- | | | |
| 114 | L1 | Chlordane-B #2 | | | ----------NA---------- | | | |
| 115 | L1 | Chlordane-C #2 | | | ----------NA---------- | | | |
| 116 | L1 | Chlordane-D #2 | | | ----------NA---------- | | | |
| 117 | L1 | Chlordane-E #2 | | | ----------NA---------- | | | |
| 118 | L1 | Chlordane-F #2 | | | ----------NA---------- | | | |
| 119 | H | Toxaphene #2 | 200.000 | 181.786 | 9.1 | 91 | 0.00 | 4.14- 5.96 |
| 120 | | Mirex #2 | | | ----------NA---------- | | | |
| 121 | | Dicofol #2 | | | ----------NA---------- | | | |
| 122 | L1 | AR1016-A #2 | | | ----------NA---------- | | | |
| 123 | L1 | AR1016-B #2 | | | ----------NA---------- | | | |
| 124 | L1 | AR1016-C #2 | | | ----------NA---------- | | | |
| 125 | L1 | AR1016-D #2 | | | ----------NA---------- | | | |
| 126 | L1 | AR1016-E #2 | | | ----------NA---------- | | | |
| 127 | L1 | AR1016-F #2 | | | ----------NA---------- | | | |
| 128 | L2 | AR1221-A #2 | | | ----------NA---------- | | | |
| 129 | L2 | AR1221-B #2 | | | ----------NA---------- | | | |
| 130 | L2 | AR1221-C #2 | | | ----------NA---------- | | | |
| 131 | L2 | AR1221-D #2 | | | ----------NA---------- | | | |
| 132 | L2 | AR1221-E #2 | | | ----------NA---------- | | | |
| 133 | L3 | AR1232-A #2 | | | ----------NA---------- | | | |
| 134 | L3 | AR1232-B #2 | | | ----------NA---------- | | | |
| 135 | L3 | AR1232-C #2 | | | ----------NA---------- | | | |
| 136 | L3 | AR1232-D #2 | | | ----------NA---------- | | | |
| 137 | L3 | AR1232-E #2 | | | ----------NA---------- | | | |
| 138 | L3 | AR1232-F #2 | | | ----------NA---------- | | | |
| 139 | L4 | AR1242-A #2 | | | ----------NA---------- | | | |
| 140 | L4 | AR1242-B #2 | | | ----------NA---------- | | | |
| 141 | L4 | AR1242-C #2 | | | ----------NA---------- | | | |
| 142 | L4 | AR1242-D #2 | | | ----------NA---------- | | | |
| 143 | L4 | AR1242-E #2 | | | ----------NA---------- | | | |
| 144 | L4 | AR1242-F #2 | | | ----------NA---------- | | | |
| 145 | L5 | AR1248-A #2 | | | ----------NA---------- | | | |
| 146 | L5 | AR1248-B #2 | | | ----------NA---------- | | | |
| 147 | L5 | AR1248-C #2 | | | ----------NA---------- | | | |
| 148 | L5 | AR1248-D #2 | | | ----------NA---------- | | | |
| 149 | L5 | AR1248-E #2 | | | ----------NA---------- | | | |
| 150 | L5 | AR1248-F #2 | | | ----------NA---------- | | | |
| 151 | L6 | AR1254-A #2 | | | ----------NA---------- | | | |
| 152 | L6 | AR1254-B #2 | | | ----------NA---------- | | | |
| 153 | L6 | AR1254-C #2 | | | ----------NA---------- | | | |
| 154 | L6 | AR1254-D #2 | | | ----------NA---------- | | | |
| 155 | L6 | AR1254-E #2 | | | ----------NA---------- | | | |
| 156 | L6 | AR1254-F #2 | | | ----------NA---------- | | | |
| 157 | L7 | AR1260-A #2 | | | ----------NA---------- | | | |
| 158 | L7 | AR1260-B #2 | | | ----------NA---------- | | | |
| 159 | L7 | AR1260-C #2 | | | ----------NA---------- | | | |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** GNN1454-CC1445
**Account:** RFWTXHO Weston Solutions **Lab FileID:** NN175384.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

```
160 L7  AR1260-D #2                          ----------NA----------
161 L7  AR1260-E #2                          ----------NA----------
162 L7  AR1260-F #2                          ----------NA----------
163 L8  AR1262-A #2                          ----------NA----------
164 L8  AR1262-B #2                          ----------NA----------
165 L8  AR1262-C #2                          ----------NA----------
166 L8  AR1262-D #2                          ----------NA----------
167 L8  AR1262-E #2                          ----------NA----------
168 L8  AR1262-F #2                          ----------NA----------
169 L9  AR1268-A #2                          ----------NA----------
170 L9  AR1268-B #2                          ----------NA----------
171 L9  AR1268-C #2                          ----------NA----------
172 L9  AR1268-D #2                          ----------NA----------
173 L9  AR1268-E #2                          ----------NA----------
174 L9  AR1268-F #2                          ----------NA----------
175 S   Decachlorobiphenyl #2   40.000  43.699     -9.2  108   0.00    5.94- 6.00
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 0  CCC's out = 0
     NN175115.D 608Q1445.M       Thu Aug 07 16:52:49 2014
```

8.7.9

8

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GNN1454-CC1445
**Lab FileID:** NN175393.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\GNN1454\NN175393.D\ECD1A.CH Vial: 18
Signal #2 : C:\MSDCHEM\1\DATA\GNN1454\NN175393.D\ECD2B.CH
Acq On    : 8-7-2014 03:33:25 PM                    Operator: almar
Sample    : cc1445-300,pest                         Inst    : GCNN
Misc      : op33461,gnn1454                         Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1445.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Mon Aug 04 15:27:40 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

| | | Compound | Amount | Calc. | %Drift | Area% | Dev(min) | RT Window |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | 60.000 | 65.599 | -9.3 | 111 | 0.00 | 2.27- 2.33 |
| 2 | | Hexachlorobenzene | 60.000 | 62.507 | -4.2 | 104 | 0.00 | 2.59- 2.65 |
| 3 | | alpha-BHC | 30.000 | 32.685 | -9.0 | 105 | 0.00 | 2.68- 2.74 |
| 4 | | gamma-BHC (Lindane) | 30.000 | 32.846 | -9.5 | 107 | 0.00 | 2.94- 3.00 |
| 5 | | Heptachlor | 30.000 | 33.063 | -10.2 | 109 | 0.00 | 3.30- 3.36 |
| 6 | | Aldrin | 30.000 | 33.026 | -10.1 | 108 | 0.00 | 3.57- 3.63 |
| 7 | | Chlorothalonil | 60.000 | 65.308 | -8.8 | 107 | 0.00 | 3.40- 3.46 |
| 8 | | beta-BHC | 30.000 | 31.555 | -5.2 | 103 | 0.00 | 3.01- 3.07 |
| 9 | | Dacthal | 60.000 | 65.078 | -8.5 | 108 | 0.00 | 3.85- 3.91 |
| 10 | | Delta-BHC | 30.000 | 33.305 | -11.0 | 109 | 0.00 | 3.25- 3.31 |
| 11 | | Heptachlor Epoxide | 30.000 | 33.368 | -11.2 | 110 | 0.00 | 4.06- 4.12 |
| 12 | | Endosulfan I | 30.000 | 32.760 | -9.2 | 109 | 0.00 | 4.38- 4.44 |
| 13 | | gamma-Chlordane | 30.000 | 32.108 | -7.0 | 108 | 0.00 | 4.22- 4.28 |
| 14 | | alpha-Chlordane | 30.000 | 32.668 | -8.9 | 109 | 0.00 | 4.34- 4.40 |
| 15 | | 4,4'-DDE | 60.000 | 67.160 | -11.9 | 110 | 0.00 | 4.48- 4.54 |
| 16 | | Dieldrin | 60.000 | 65.938 | -9.9 | 109 | 0.00 | 4.59- 4.65 |
| 17 | | Endrin | 60.000 | 65.293 | -8.8 | 109 | 0.00 | 4.82- 4.88 |
| 18 | | 4,4'-DDD | 60.000 | 68.082 | -13.5 | 113 | 0.00 | 4.91- 4.97 |
| 19 | | Endosulfan II | 60.000 | 65.542 | -9.2 | 110 | 0.00 | 4.98- 5.04 |
| 20 | | 4,4'-DDT | 60.000 | 65.328 | -8.9 | 109 | 0.00 | 5.14- 5.20 |
| 21 | | Endrin Aldehyde | 60.000 | 65.442 | -9.1 | 110 | 0.00 | 5.23- 5.29 |
| 22 | | Methoxychlor | 300.000 | 328.611 | -9.5 | 109 | 0.00 | 5.63- 5.69 |
| 23 | | Endosulfan Sulfate | 60.000 | 65.723 | -9.5 | 109 | 0.00 | 5.43- 5.49 |
| 24 | | Endrin Ketone | 60.000 | 66.080 | -10.1 | 110 | 0.00 | 5.79- 5.85 |
| 25 | L1 | Chlordane-A | | ----------NA---------- | | | | |
| 26 | L1 | Chlordane-B | | ----------NA---------- | | | | |
| 27 | L1 | Chlordane-C | | ----------NA---------- | | | | |
| 28 | L1 | Chlordane-D | | ----------NA---------- | | | | |
| 29 | L1 | Chlordane-E | | ----------NA---------- | | | | |
| 30 | L1 | Chlordane-F | | ----------NA---------- | | | | |
| 31 | H | Toxaphene | | ----------NA---------- | | | | |
| 32 | | Mirex | | ----------NA---------- | | | | |
| 33 | | Dicofol | | ----------NA---------- | | | | |
| 34 | L1 | AR1016-A | | ----------NA---------- | | | | |
| 35 | L1 | AR1016-B | | ----------NA---------- | | | | |
| 36 | L1 | AR1016-C | | ----------NA---------- | | | | |
| 37 | L1 | AR1016-D | | ----------NA---------- | | | | |
| 38 | L1 | AR1016-E | | ----------NA---------- | | | | |
| 39 | L1 | AR1016-F | | ----------NA---------- | | | | |
| 40 | L2 | AR1221-A | | ----------NA---------- | | | | |
| 41 | L2 | AR1221-B | | ----------NA---------- | | | | |

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GNN1454-CC1445
**Lab FileID:** NN175393.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | L2 | AR1221-C | ----------NA---------- | | | | | |
| 43 | L2 | AR1221-D | ----------NA---------- | | | | | |
| 44 | L2 | AR1221-E | ----------NA---------- | | | | | |
| 45 | L3 | AR1232-A | ----------NA---------- | | | | | |
| 46 | L3 | AR1232-B | ----------NA---------- | | | | | |
| 47 | L3 | AR1232-C | ----------NA---------- | | | | | |
| 48 | L3 | AR1232-D | ----------NA---------- | | | | | |
| 49 | L3 | AR1232-E | ----------NA---------- | | | | | |
| 50 | L3 | AR1232-F | ----------NA---------- | | | | | |
| 51 | L4 | AR1242-A | ----------NA---------- | | | | | |
| 52 | L4 | AR1242-B | ----------NA---------- | | | | | |
| 53 | L4 | AR1242-C | ----------NA---------- | | | | | |
| 54 | L4 | AR1242-D | ----------NA---------- | | | | | |
| 55 | L4 | AR1242-E | ----------NA---------- | | | | | |
| 56 | L4 | AR1242-F | ----------NA---------- | | | | | |
| 57 | L5 | AR1248-A | ----------NA---------- | | | | | |
| 58 | L5 | AR1248-B | ----------NA---------- | | | | | |
| 59 | L5 | AR1248-C | ----------NA---------- | | | | | |
| 60 | L5 | AR1248-D | ----------NA---------- | | | | | |
| 61 | L5 | AR1248-E | ----------NA---------- | | | | | |
| 62 | L5 | AR1248-F | ----------NA---------- | | | | | |
| 63 | L6 | AR1254-A | ----------NA---------- | | | | | |
| 64 | L6 | AR1254-B | ----------NA---------- | | | | | |
| 65 | L6 | AR1254-C | ----------NA---------- | | | | | |
| 66 | L6 | AR1254-D | ----------NA---------- | | | | | |
| 67 | L6 | AR1254-E | ----------NA---------- | | | | | |
| 68 | L6 | AR1254-F | ----------NA---------- | | | | | |
| 69 | L7 | AR1260-A | ----------NA---------- | | | | | |
| 70 | L7 | AR1260-B | ----------NA---------- | | | | | |
| 71 | L7 | AR1260-C | ----------NA---------- | | | | | |
| 72 | L7 | AR1260-D | ----------NA---------- | | | | | |
| 73 | L7 | AR1260-E | ----------NA---------- | | | | | |
| 74 | L7 | AR1260-F | ----------NA---------- | | | | | |
| 75 | L8 | AR1262-A | ----------NA---------- | | | | | |
| 76 | L8 | AR1262-B | ----------NA---------- | | | | | |
| 77 | L8 | AR1262-C | ----------NA---------- | | | | | |
| 78 | L8 | AR1262-D | ----------NA---------- | | | | | |
| 79 | L8 | AR1262-E | ----------NA---------- | | | | | |
| 80 | L8 | AR1262-F | ----------NA---------- | | | | | |
| 81 | L9 | AR1268-A | ----------NA---------- | | | | | |
| 82 | L9 | AR1268-B | ----------NA---------- | | | | | |
| 83 | L9 | AR1268-C | ----------NA---------- | | | | | |
| 84 | L9 | AR1268-D | ----------NA---------- | | | | | |
| 85 | L9 | AR1268-E | ----------NA---------- | | | | | |
| 86 | L9 | AR1268-F | ----------NA---------- | | | | | |
| 87 | S | Decachlorobiphenyl | 60.000 | 65.148 | -8.6 | 113 | 0.00 | 6.60- 6.66 |
| ***** | | Signal #2 ***** | | | | | | |
| 89 | S | Tetrachloro-m-xylene # | 60.000 | 59.446 | 0.9 | 101 | -0.01 | 2.07- 2.13 |
| 90 | | Hexachlorobenzene #2 | 60.000 | 55.928 | 6.8 | 93 | -0.02 | 2.30- 2.36 |
| 91 | | alpha-BHC #2 | 30.000 | 30.136 | -0.5 | 98 | -0.02 | 2.40- 2.46 |
| 92 | | gamma-BHC (Lindane) #2 | 30.000 | 30.538 | -1.8 | 100 | 0.00 | 2.57- 2.63 |
| 93 | | beta-BHC #2 | 30.000 | 29.664 | 1.1 | 97 | 0.00 | 2.62- 2.68 |
| 94 | | Heptachlor #2 | 30.000 | 29.896 | 0.3 | 99 | 0.00 | 2.88- 2.94 |
| 95 | | Chlorothalonil #2 | 60.000 | 62.876 | -4.8 | 99 | -0.02 | 3.15- 3.21 |
| 96 | | delta-BHC #2 | 30.000 | 30.201 | -0.7 | 98 | -0.01 | 2.75- 2.81 |
| 97 | | Aldrin #2 | 30.000 | 30.280 | -0.9 | 99 | -0.02 | 3.11- 3.17 |
| 98 | | Dacthal #2 | 60.000 | 63.784 | -6.3 | 104 | 0.00 | 3.53- 3.59 |
| 99 | | Heptachlor Epoxide #2 | 30.000 | 28.372 | 5.4 | 96 | 0.00 | 3.55- 3.61 |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** GNN1454-CC1445
**Account:** RFWTXHO Weston Solutions **Lab FileID:** NN175393.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 100 | | gamma-Chlordane #2 | 30.000 | 29.170 | 2.8 | 99 | 0.00 | 3.66- 3.72 |
| 101 | | alpha-Chlordane #2 | 30.000 | 29.730 | 0.9 | 101 | 0.00 | 3.77- 3.83 |
| 102 | | Endosulfan I #2 | 30.000 | 27.719 | 7.6 | 95 | 0.00 | 3.87- 3.93 |
| 103 | | 4,4'-DDE #2 | 60.000 | 64.769 | -7.9 | 105 | 0.00 | 3.85- 3.91 |
| 104 | | Dieldrin #2 | 60.000 | 61.076 | -1.8 | 101 | -0.02 | 4.08- 4.14 |
| 105 | | Endrin #2 | 60.000 | 60.838 | -1.4 | 101 | -0.02 | 4.26- 4.32 |
| 106 | | 4,4'-DDD #2 | 60.000 | 63.349 | -5.6 | 104 | -0.02 | 4.34- 4.40 |
| 107 | | Endosulfan II #2 | 60.000 | 61.013 | -1.7 | 102 | -0.02 | 4.43- 4.49 |
| 108 | | 4,4'-DDT #2 | 60.000 | 61.884 | -3.1 | 101 | -0.02 | 4.55- 4.61 |
| 109 | | Endrin Aldehyde #2 | 60.000 | 61.953 | -3.3 | 104 | -0.02 | 4.75- 4.81 |
| 110 | | Endosulfan Sulfate #2 | 60.000 | 61.922 | -3.2 | 104 | -0.02 | 5.06- 5.12 |
| 111 | | Methoxychlor #2 | 300.000 | 303.949 | -1.3 | 101 | -0.02 | 4.92- 4.98 |
| 112 | | Endrin Ketone #2 | 60.000 | 61.968 | -3.3 | 103 | -0.02 | 5.26- 5.32 |
| 113 | L1 | Chlordane-A #2 | | ----------NA---------- | | | | |
| 114 | L1 | Chlordane-B #2 | | ----------NA---------- | | | | |
| 115 | L1 | Chlordane-C #2 | | ----------NA---------- | | | | |
| 116 | L1 | Chlordane-D #2 | | ----------NA---------- | | | | |
| 117 | L1 | Chlordane-E #2 | | ----------NA---------- | | | | |
| 118 | L1 | Chlordane-F #2 | | ----------NA---------- | | | | |
| 119 | H | Toxaphene #2 | | ----------NA---------- | | | | |
| 120 | | Mirex #2 | | ----------NA---------- | | | | |
| 121 | | Dicofol #2 | | ----------NA---------- | | | | |
| 122 | L1 | AR1016-A #2 | | ----------NA---------- | | | | |
| 123 | L1 | AR1016-B #2 | | ----------NA---------- | | | | |
| 124 | L1 | AR1016-C #2 | | ----------NA---------- | | | | |
| 125 | L1 | AR1016-D #2 | | ----------NA---------- | | | | |
| 126 | L1 | AR1016-E #2 | | ----------NA---------- | | | | |
| 127 | L1 | AR1016-F #2 | | ----------NA---------- | | | | |
| 128 | L2 | AR1221-A #2 | | ----------NA---------- | | | | |
| 129 | L2 | AR1221-B #2 | | ----------NA---------- | | | | |
| 130 | L2 | AR1221-C #2 | | ----------NA---------- | | | | |
| 131 | L2 | AR1221-D #2 | | ----------NA---------- | | | | |
| 132 | L2 | AR1221-E #2 | | ----------NA---------- | | | | |
| 133 | L3 | AR1232-A #2 | | ----------NA---------- | | | | |
| 134 | L3 | AR1232-B #2 | | ----------NA---------- | | | | |
| 135 | L3 | AR1232-C #2 | | ----------NA---------- | | | | |
| 136 | L3 | AR1232-D #2 | | ----------NA---------- | | | | |
| 137 | L3 | AR1232-E #2 | | ----------NA---------- | | | | |
| 138 | L3 | AR1232-F #2 | | ----------NA---------- | | | | |
| 139 | L4 | AR1242-A #2 | | ----------NA---------- | | | | |
| 140 | L4 | AR1242-B #2 | | ----------NA---------- | | | | |
| 141 | L4 | AR1242-C #2 | | ----------NA---------- | | | | |
| 142 | L4 | AR1242-D #2 | | ----------NA---------- | | | | |
| 143 | L4 | AR1242-E #2 | | ----------NA---------- | | | | |
| 144 | L4 | AR1242-F #2 | | ----------NA---------- | | | | |
| 145 | L5 | AR1248-A #2 | | ----------NA---------- | | | | |
| 146 | L5 | AR1248-B #2 | | ----------NA---------- | | | | |
| 147 | L5 | AR1248-C #2 | | ----------NA---------- | | | | |
| 148 | L5 | AR1248-D #2 | | ----------NA---------- | | | | |
| 149 | L5 | AR1248-E #2 | | ----------NA---------- | | | | |
| 150 | L5 | AR1248-F #2 | | ----------NA---------- | | | | |
| 151 | L6 | AR1254-A #2 | | ----------NA---------- | | | | |
| 152 | L6 | AR1254-B #2 | | ----------NA---------- | | | | |
| 153 | L6 | AR1254-C #2 | | ----------NA---------- | | | | |
| 154 | L6 | AR1254-D #2 | | ----------NA---------- | | | | |
| 155 | L6 | AR1254-E #2 | | ----------NA---------- | | | | |
| 156 | L6 | AR1254-F #2 | | ----------NA---------- | | | | |
| 157 | L7 | AR1260-A #2 | | ----------NA---------- | | | | |
| 158 | L7 | AR1260-B #2 | | ----------NA---------- | | | | |
| 159 | L7 | AR1260-C #2 | | ----------NA---------- | | | | |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** GNN1454-CC1445
**Account:** RFWTXHO Weston Solutions **Lab FileID:** NN175393.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

```
160 L7  AR1260-D #2                          ----------NA----------
161 L7  AR1260-E #2                          ----------NA----------
162 L7  AR1260-F #2                          ----------NA----------
163 L8  AR1262-A #2                          ----------NA----------
164 L8  AR1262-B #2                          ----------NA----------
165 L8  AR1262-C #2                          ----------NA----------
166 L8  AR1262-D #2                          ----------NA----------
167 L8  AR1262-E #2                          ----------NA----------
168 L8  AR1262-F #2                          ----------NA----------
169 L9  AR1268-A #2                          ----------NA----------
170 L9  AR1268-B #2                          ----------NA----------
171 L9  AR1268-C #2                          ----------NA----------
172 L9  AR1268-D #2                          ----------NA----------
173 L9  AR1268-E #2                          ----------NA----------
174 L9  AR1268-F #2                          ----------NA----------
175 S   Decachlorobiphenyl #2   60.000  61.451     -2.4  107   0.00    5.94- 6.00
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 0  CCC's out = 0
     NN175116.D 608Q1445.M       Thu Aug 07 16:54:45 2014
```

8.7.10

8

# Continuing Calibration Summary



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** GNN1454-ECC1445
**Lab FileID:** NN175398.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\GNN1454\NN175398.D\ECD1A.CH Vial: 23
Signal #2 : C:\MSDCHEM\1\DATA\GNN1454\NN175398.D\ECD2B.CH
Acq On    : 8-7-2014 04:58:58 PM                    Operator: almar
Sample    : ecc1445-200,pest                        Inst    : GCNN
Misc      : op33460,gnn1454                         Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1445.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Mon Aug 04 15:27:40 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

| | | Compound | Amount | Calc. | %Drift | Area% | Dev(min) | RT Window |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | 40.000 | 41.024 | -2.6 | 105 | -0.01 | 2.27- 2.33 |
| 2 | | Hexachlorobenzene | 40.000 | 40.517 | -1.3 | 97 | -0.01 | 2.59- 2.65 |
| 3 | | alpha-BHC | 20.000 | 19.913 | 0.4 | 95 | 0.00 | 2.68- 2.74 |
| 4 | | gamma-BHC (Lindane) | 20.000 | 19.965 | 0.2 | 96 | 0.00 | 2.94- 3.00 |
| 5 | | Heptachlor | 20.000 | 20.561 | -2.8 | 99 | 0.00 | 3.30- 3.36 |
| 6 | | Aldrin | 20.000 | 21.346 | -6.7 | 104 | 0.00 | 3.57- 3.63 |
| 7 | | Chlorothalonil | 40.000 | 62.906 | -57.3# | 151 | -0.01 | 3.40- 3.46 |
| 8 | | beta-BHC | 20.000 | 19.357 | 3.2 | 91 | 0.00 | 3.01- 3.07 |
| 9 | | Dacthal | 40.000 | 40.232 | -0.6 | 96 | 0.00 | 3.85- 3.91 |
| 10 | | Delta-BHC | 20.000 | 21.419 | -7.1 | 104 | 0.00 | 3.25- 3.31 |
| 11 | | Heptachlor Epoxide | 20.000 | 20.227 | -1.1 | 96 | 0.00 | 4.06- 4.12 |
| 12 | | Endosulfan I | 20.000 | 20.473 | -2.4 | 97 | 0.00 | 4.38- 4.44 |
| 13 | | gamma-Chlordane | 20.000 | 21.549 | -7.7 | 104 | 0.00 | 4.22- 4.28 |
| 14 | | alpha-Chlordane | 20.000 | 20.294 | -1.5 | 97 | 0.00 | 4.34- 4.40 |
| 15 | | 4,4'-DDE | 40.000 | 40.865 | -2.2 | 99 | 0.00 | 4.48- 4.54 |
| 16 | | Dieldrin | 40.000 | 40.495 | -1.2 | 98 | 0.00 | 4.59- 4.65 |
| 17 | | Endrin | 40.000 | 40.574 | -1.4 | 98 | 0.00 | 4.82- 4.88 |
| 18 | | 4,4'-DDD | 40.000 | 42.610 | -6.5 | 103 | 0.00 | 4.91- 4.97 |
| 19 | | Endosulfan II | 40.000 | 39.941 | 0.1 | 95 | 0.00 | 4.98- 5.04 |
| 20 | | 4,4'-DDT | 40.000 | 38.554 | 3.6 | 94 | 0.00 | 5.14- 5.20 |
| 21 | | Endrin Aldehyde | 40.000 | 40.061 | -0.2 | 97 | 0.00 | 5.23- 5.29 |
| 22 | | Methoxychlor | 200.000 | 200.599 | -0.3 | 95 | 0.00 | 5.63- 5.69 |
| 23 | | Endosulfan Sulfate | 40.000 | 40.982 | -2.5 | 99 | 0.00 | 5.43- 5.49 |
| 24 | | Endrin Ketone | 40.000 | 41.198 | -3.0 | 98 | 0.00 | 5.79- 5.85 |
| 25 | L1 | Chlordane-A | | ----------NA---------- | | | | |
| 26 | L1 | Chlordane-B | | ----------NA---------- | | | | |
| 27 | L1 | Chlordane-C | | ----------NA---------- | | | | |
| 28 | L1 | Chlordane-D | | ----------NA---------- | | | | |
| 29 | L1 | Chlordane-E | | ----------NA---------- | | | | |
| 30 | L1 | Chlordane-F | | ----------NA---------- | | | | |
| 31 | H | Toxaphene | | ----------NA---------- | | | | |
| 32 | | Mirex | | ----------NA---------- | | | | |
| 33 | | Dicofol | | ----------NA---------- | | | | |
| 34 | L1 | AR1016-A | | ----------NA---------- | | | | |
| 35 | L1 | AR1016-B | | ----------NA---------- | | | | |
| 36 | L1 | AR1016-C | | ----------NA---------- | | | | |
| 37 | L1 | AR1016-D | | ----------NA---------- | | | | |
| 38 | L1 | AR1016-E | | ----------NA---------- | | | | |
| 39 | L1 | AR1016-F | | ----------NA---------- | | | | |
| 40 | L2 | AR1221-A | | ----------NA---------- | | | | |
| 41 | L2 | AR1221-B | | ----------NA---------- | | | | |

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GNN1454-ECC1445
**Lab FileID:** NN175398.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | L2 | AR1221-C | | | ----------NA---------- | | | |
| 43 | L2 | AR1221-D | | | ----------NA---------- | | | |
| 44 | L2 | AR1221-E | | | ----------NA---------- | | | |
| 45 | L3 | AR1232-A | | | ----------NA---------- | | | |
| 46 | L3 | AR1232-B | | | ----------NA---------- | | | |
| 47 | L3 | AR1232-C | | | ----------NA---------- | | | |
| 48 | L3 | AR1232-D | | | ----------NA---------- | | | |
| 49 | L3 | AR1232-E | | | ----------NA---------- | | | |
| 50 | L3 | AR1232-F | | | ----------NA---------- | | | |
| 51 | L4 | AR1242-A | | | ----------NA---------- | | | |
| 52 | L4 | AR1242-B | | | ----------NA---------- | | | |
| 53 | L4 | AR1242-C | | | ----------NA---------- | | | |
| 54 | L4 | AR1242-D | | | ----------NA---------- | | | |
| 55 | L4 | AR1242-E | | | ----------NA---------- | | | |
| 56 | L4 | AR1242-F | | | ----------NA---------- | | | |
| 57 | L5 | AR1248-A | | | ----------NA---------- | | | |
| 58 | L5 | AR1248-B | | | ----------NA---------- | | | |
| 59 | L5 | AR1248-C | | | ----------NA---------- | | | |
| 60 | L5 | AR1248-D | | | ----------NA---------- | | | |
| 61 | L5 | AR1248-E | | | ----------NA---------- | | | |
| 62 | L5 | AR1248-F | | | ----------NA---------- | | | |
| 63 | L6 | AR1254-A | | | ----------NA---------- | | | |
| 64 | L6 | AR1254-B | | | ----------NA---------- | | | |
| 65 | L6 | AR1254-C | | | ----------NA---------- | | | |
| 66 | L6 | AR1254-D | | | ----------NA---------- | | | |
| 67 | L6 | AR1254-E | | | ----------NA---------- | | | |
| 68 | L6 | AR1254-F | | | ----------NA---------- | | | |
| 69 | L7 | AR1260-A | | | ----------NA---------- | | | |
| 70 | L7 | AR1260-B | | | ----------NA---------- | | | |
| 71 | L7 | AR1260-C | | | ----------NA---------- | | | |
| 72 | L7 | AR1260-D | | | ----------NA---------- | | | |
| 73 | L7 | AR1260-E | | | ----------NA---------- | | | |
| 74 | L7 | AR1260-F | | | ----------NA---------- | | | |
| 75 | L8 | AR1262-A | | | ----------NA---------- | | | |
| 76 | L8 | AR1262-B | | | ----------NA---------- | | | |
| 77 | L8 | AR1262-C | | | ----------NA---------- | | | |
| 78 | L8 | AR1262-D | | | ----------NA---------- | | | |
| 79 | L8 | AR1262-E | | | ----------NA---------- | | | |
| 80 | L8 | AR1262-F | | | ----------NA---------- | | | |
| 81 | L9 | AR1268-A | | | ----------NA---------- | | | |
| 82 | L9 | AR1268-B | | | ----------NA---------- | | | |
| 83 | L9 | AR1268-C | | | ----------NA---------- | | | |
| 84 | L9 | AR1268-D | | | ----------NA---------- | | | |
| 85 | L9 | AR1268-E | | | ----------NA---------- | | | |
| 86 | L9 | AR1268-F | | | ----------NA---------- | | | |
| 87 | S | Decachlorobiphenyl | 40.000 | 41.319 | -3.3 | 102 | 0.00 | 6.60- 6.66 |
| ***** | | Signal #2 ***** | | | | | | |
| 89 | S | Tetrachloro-m-xylene # | 40.000 | 39.309 | 1.7 | 101 | -0.01 | 2.07- 2.13 |
| 90 | | Hexachlorobenzene #2 | 40.000 | 35.107 | 12.2 | 84 | -0.03 | 2.30- 2.36 |
| 91 | | alpha-BHC #2 | 20.000 | 18.766 | 6.2 | 89 | -0.03 | 2.40- 2.46 |
| 92 | | gamma-BHC (Lindane) #2 | 20.000 | 19.270 | 3.7 | 93 | 0.00 | 2.57- 2.63 |
| 93 | | beta-BHC #2 | 20.000 | 21.062 | -5.3 | 103 | 0.00 | 2.62- 2.68 |
| 94 | | Heptachlor #2 | 20.000 | 17.944 | 10.3 | 87 | 0.00 | 2.88- 2.94 |
| 95 | | Chlorothalonil #2 | 40.000 | 75.169 | -87.9# | 182 | -0.02 | 3.15- 3.21 |
| 96 | | delta-BHC #2 | 20.000 | 19.053 | 4.7 | 95 | -0.02 | 2.75- 2.81 |
| 97 | | Aldrin #2 | 20.000 | 49.590 | -148.0# | 239 | -0.02 | 3.11- 3.17 |
| 98 | | Dacthal #2 | 40.000 | 41.858 | -4.6 | 101 | 0.00 | 3.53- 3.59 |
| 99 | | Heptachlor Epoxide #2 | 20.000 | 16.760 | 16.2# | 77 | 0.00 | 3.55- 3.61 |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** GNN1454-ECC1445
**Account:** RFWTXHO Weston Solutions **Lab FileID:** NN175398.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 100 | | gamma-Chlordane #2 | 20.000 | 27.182 | -35.9# | 130 | 0.00 | 3.66- 3.72 |
| 101 | | alpha-Chlordane #2 | 20.000 | 18.970 | 5.2 | 92 | 0.00 | 3.77- 3.83 |
| 102 | | Endosulfan I #2 | 20.000 | 15.188 | 24.1# | 69 | 0.00 | 3.87- 3.93 |
| 103 | | 4,4'-DDE #2 | 40.000 | 43.558 | -8.9 | 111 | -0.01 | 3.85- 3.91 |
| 104 | | Dieldrin #2 | 40.000 | 37.622 | 5.9 | 91 | -0.02 | 4.08- 4.14 |
| 105 | | Endrin #2 | 40.000 | 37.622 | 5.9 | 91 | -0.02 | 4.26- 4.32 |
| 106 | | 4,4'-DDD #2 | 40.000 | 41.121 | -2.8 | 100 | -0.02 | 4.34- 4.40 |
| 107 | | Endosulfan II #2 | 40.000 | 38.116 | 4.7 | 90 | -0.02 | 4.43- 4.49 |
| 108 | | 4,4'-DDT #2 | 40.000 | 37.922 | 5.2 | 91 | -0.02 | 4.55- 4.61 |
| 109 | | Endrin Aldehyde #2 | 40.000 | 38.517 | 3.7 | 92 | -0.02 | 4.75- 4.81 |
| 110 | | Endosulfan Sulfate #2 | 40.000 | 38.804 | 3.0 | 92 | -0.02 | 5.06- 5.12 |
| 111 | | Methoxychlor #2 | 200.000 | 193.433 | 3.3 | 92 | -0.02 | 4.92- 4.98 |
| 112 | | Endrin Ketone #2 | 40.000 | 39.700 | 0.7 | 94 | -0.02 | 5.26- 5.32 |
| 113 | L1 | Chlordane-A #2 | | ----------NA---------- | | | | |
| 114 | L1 | Chlordane-B #2 | | ----------NA---------- | | | | |
| 115 | L1 | Chlordane-C #2 | | ----------NA---------- | | | | |
| 116 | L1 | Chlordane-D #2 | | ----------NA---------- | | | | |
| 117 | L1 | Chlordane-E #2 | | ----------NA---------- | | | | |
| 118 | L1 | Chlordane-F #2 | | ----------NA---------- | | | | |
| 119 | H | Toxaphene #2 | | ----------NA---------- | | | | |
| 120 | | Mirex #2 | | ----------NA---------- | | | | |
| 121 | | Dicofol #2 | | ----------NA---------- | | | | |
| 122 | L1 | AR1016-A #2 | | ----------NA---------- | | | | |
| 123 | L1 | AR1016-B #2 | | ----------NA---------- | | | | |
| 124 | L1 | AR1016-C #2 | | ----------NA---------- | | | | |
| 125 | L1 | AR1016-D #2 | | ----------NA---------- | | | | |
| 126 | L1 | AR1016-E #2 | | ----------NA---------- | | | | |
| 127 | L1 | AR1016-F #2 | | ----------NA---------- | | | | |
| 128 | L2 | AR1221-A #2 | | ----------NA---------- | | | | |
| 129 | L2 | AR1221-B #2 | | ----------NA---------- | | | | |
| 130 | L2 | AR1221-C #2 | | ----------NA---------- | | | | |
| 131 | L2 | AR1221-D #2 | | ----------NA---------- | | | | |
| 132 | L2 | AR1221-E #2 | | ----------NA---------- | | | | |
| 133 | L3 | AR1232-A #2 | | ----------NA---------- | | | | |
| 134 | L3 | AR1232-B #2 | | ----------NA---------- | | | | |
| 135 | L3 | AR1232-C #2 | | ----------NA---------- | | | | |
| 136 | L3 | AR1232-D #2 | | ----------NA---------- | | | | |
| 137 | L3 | AR1232-E #2 | | ----------NA---------- | | | | |
| 138 | L3 | AR1232-F #2 | | ----------NA---------- | | | | |
| 139 | L4 | AR1242-A #2 | | ----------NA---------- | | | | |
| 140 | L4 | AR1242-B #2 | | ----------NA---------- | | | | |
| 141 | L4 | AR1242-C #2 | | ----------NA---------- | | | | |
| 142 | L4 | AR1242-D #2 | | ----------NA---------- | | | | |
| 143 | L4 | AR1242-E #2 | | ----------NA---------- | | | | |
| 144 | L4 | AR1242-F #2 | | ----------NA---------- | | | | |
| 145 | L5 | AR1248-A #2 | | ----------NA---------- | | | | |
| 146 | L5 | AR1248-B #2 | | ----------NA---------- | | | | |
| 147 | L5 | AR1248-C #2 | | ----------NA---------- | | | | |
| 148 | L5 | AR1248-D #2 | | ----------NA---------- | | | | |
| 149 | L5 | AR1248-E #2 | | ----------NA---------- | | | | |
| 150 | L5 | AR1248-F #2 | | ----------NA---------- | | | | |
| 151 | L6 | AR1254-A #2 | | ----------NA---------- | | | | |
| 152 | L6 | AR1254-B #2 | | ----------NA---------- | | | | |
| 153 | L6 | AR1254-C #2 | | ----------NA---------- | | | | |
| 154 | L6 | AR1254-D #2 | | ----------NA---------- | | | | |
| 155 | L6 | AR1254-E #2 | | ----------NA---------- | | | | |
| 156 | L6 | AR1254-F #2 | | ----------NA---------- | | | | |
| 157 | L7 | AR1260-A #2 | | ----------NA---------- | | | | |
| 158 | L7 | AR1260-B #2 | | ----------NA---------- | | | | |
| 159 | L7 | AR1260-C #2 | | ----------NA---------- | | | | |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** GNN1454-ECC1445
**Account:** RFWTXHO Weston Solutions **Lab FileID:** NN175398.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

```
160 L7  AR1260-D #2                          ----------NA----------
161 L7  AR1260-E #2                          ----------NA----------
162 L7  AR1260-F #2                          ----------NA----------
163 L8  AR1262-A #2                          ----------NA----------
164 L8  AR1262-B #2                          ----------NA----------
165 L8  AR1262-C #2                          ----------NA----------
166 L8  AR1262-D #2                          ----------NA----------
167 L8  AR1262-E #2                          ----------NA----------
168 L8  AR1262-F #2                          ----------NA----------
169 L9  AR1268-A #2                          ----------NA----------
170 L9  AR1268-B #2                          ----------NA----------
171 L9  AR1268-C #2                          ----------NA----------
172 L9  AR1268-D #2                          ----------NA----------
173 L9  AR1268-E #2                          ----------NA----------
174 L9  AR1268-F #2                          ----------NA----------
175 S   Decachlorobiphenyl #2   40.000  39.717      0.7   98   0.00    5.94- 6.00
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 0  CCC's out = 0
     NN175115.D 608Q1445.M       Thu Aug 07 17:33:44 2014
```

8.7.11

8

# Initial Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GOO505-ICC505
**Lab FileID:** OO30783.D

Response Factor Report GCOO

Method : C:\msdchem\1\METHODS\pcbq505.m (ChemStation Integrator)
Title : PCB by 608 / 8082.
Last Update : Wed Aug 06 09:08:42 2014
Response via : Initial Calibration

Calibration Files
1 =OO30781.D 2 =OO30782.D 3 =OO30783.D 4 =OO30784.D
5 =OO30785.D 6 =OO30786.D 7 =OO30787.D

| Compound | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|
| 1)S Tetrachloro-m-xyl | 1.208 | 1.138 | 1.129 | 1.092 | 1.097 | 1.080 | 1.027 | 1.110 E7 | 5.06 |
| 2)L1AR1016-A | 5.324 | 4.818 | 4.817 | 4.422 | 4.301 | 4.126 | 3.778 | 4.512 E5 | 11.40 |
| 3)L1AR1016-B | 9.702 | 9.018 | 9.006 | 8.594 | 8.629 | 8.472 | 8.139 | 8.794 E5 | 5.72 |
| 4)L1AR1016-C | 4.167 | 3.863 | 3.844 | 3.596 | 3.554 | 3.460 | 3.247 | 3.676 E5 | 8.29 |
| 5)L1AR1016-D | 2.854 | 2.645 | 2.684 | 2.521 | 2.485 | 2.428 | 2.295 | 2.559 E5 | 7.20 |
| 6)L1AR1016-E | 5.395 | 5.253 | 5.115 | 4.686 | 4.604 | 4.441 | 4.098 | 4.799 E5 | 9.82 |
| 7)L1AR1016-F | 4.045 | 3.858 | 3.770 | 3.471 | 3.416 | 3.307 | 3.084 | 3.564 E5 | 9.49 |
| 8)L2AR1221-A | | | 9.725 | | | | | 9.725 E4 | 0.00 |
| 9)L2AR1221-B | | | 1.716 | | | | | 1.716 E5 | 0.00 |
| 10)L2AR1221-C | | | 1.140 | | | | | 1.140 E5 | 0.00 |
| 11)L2AR1221-D | | | 3.374 | | | | | 3.374 E5 | 0.00 |
| 12)L2AR1221-E | | | | | | | | 0.000 | -1.00 |
| 13)L3AR1232-A | | | 2.667 | | | | | 2.667 E5 | 0.00 |
| 14)L3AR1232-B | | | 2.717 | | | | | 2.717 E5 | 0.00 |
| 15)L3AR1232-C | | | 4.183 | | | | | 4.183 E5 | 0.00 |
| 16)L3AR1232-D | | | 1.911 | | | | | 1.911 E5 | 0.00 |
| 17)L3AR1232-E | | | 1.355 | | | | | 1.355 E5 | 0.00 |
| 18)L3AR1232-F | | | 1.922 | | | | | 1.922 E5 | 0.00 |
| 19)L4AR1242-A | | | 4.782 | | | | | 4.782 E5 | 0.00 |
| 20)L4AR1242-B | | | 8.864 | | | | | 8.864 E5 | 0.00 |
| 21)L4AR1242-C | | | 3.824 | | | | | 3.824 E5 | 0.00 |
| 22)L4AR1242-D | | | 2.670 | | | | | 2.670 E5 | 0.00 |
| 23)L4AR1242-E | | | 5.289 | | | | | 5.289 E5 | 0.00 |
| 24)L4AR1242-F | | | 3.846 | | | | | 3.846 E5 | 0.00 |
| 25)L5AR1248-A | | | 4.676 | | | | | 4.676 E5 | 0.00 |
| 26)L5AR1248-B | | | 3.582 | | | | | 3.582 E5 | 0.00 |
| 27)L5AR1248-C | | | 5.804 | | | | | 5.804 E5 | 0.00 |
| 28)L5AR1248-D | | | 4.595 | | | | | 4.595 E5 | 0.00 |
| 29)L5AR1248-E | | | 5.413 | | | | | 5.413 E5 | 0.00 |
| 30)L5AR1248-F | | | 4.755 | | | | | 4.755 E5 | 0.00 |
| 31)L6AR1254-A | | | 5.394 | | | | | 5.394 E5 | 0.00 |
| 32)L6AR1254-B | | | 9.701 | | | | | 9.701 E5 | 0.00 |
| 33)L6AR1254-C | | | 9.366 | | | | | 9.366 E5 | 0.00 |
| 34)L6AR1254-D | | | 1.002 | | | | | 1.002 E6 | 0.00 |
| 35)L6AR1254-E | | | 9.841 | | | | | 9.841 E5 | 0.00 |
| 36)L6AR1254-F | | | 9.316 | | | | | 9.316 E5 | 0.00 |
| 37)L7AR1260-A | 7.722 | 6.987 | 7.020 | 6.522 | 6.335 | 6.194 | 5.754 | 6.648 E5 | 9.76 |
| 38)L7AR1260-B | 1.172 | 1.023 | 1.006 | 0.953 | 0.925 | 0.915 | 0.859 | 0.979 E6 | 10.38 |
| 39)L7AR1260-C | 6.852 | 6.010 | 5.983 | 5.668 | 5.580 | 5.556 | 5.105 | 5.822 E5 | 9.38 |
| 40)L7AR1260-D | 7.111 | 6.285 | 6.194 | 5.927 | 5.758 | 5.710 | 5.397 | 6.055 E5 | 9.16 |
| 41)L7AR1260-E | 1.646 | 1.448 | 1.460 | 1.429 | 1.398 | 1.403 | 1.346 | 1.447 E6 | 6.60 |
| 42)L7AR1260-F | 8.578 | 7.450 | 7.786 | 7.223 | 7.059 | 7.038 | 6.718 | 7.407 E5 | 8.33 |
| 43)L8AR1262-A | | | 1.130 | | | | | 1.130 E4 | 0.00 |
| 44)L8AR1262-B | | | 2.191 | | | | | 2.191 E4 | 0.00 |
| 45)L8AR1262-C | | | 1.997 | | | | | 1.997 E4 | 0.00 |
| 46)L8AR1262-D | | | 2.110 | | | | | 2.110 E4 | 0.00 |
| 47)L8AR1262-E | | | 8.306 | | | | | 8.306 E3 | 0.00 |

# Initial Calibration Summary

**Job Number:** TC52591 **Sample:** GOO505-ICC505
**Account:** RFWTXHO Weston Solutions **Lab FileID:** OO30783.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 48)L8AR1262-F | | | 1.853 | | | | | 1.853 | E4 | 0.00 |
| 49)L9AR1268-A | | | 4.617 | | | | | 4.617 | E5 | 0.00 |
| 50)L9AR1268-B | | | 4.797 | | | | | 4.797 | E5 | 0.00 |
| 51)L9AR1268-C | | | 1.954 | | | | | 1.954 | E6 | 0.00 |
| 52)L9AR1268-D | | | 2.037 | | | | | 2.037 | E6 | 0.00 |
| 53)L9AR1268-E | | | 1.520 | | | | | 1.520 | E6 | 0.00 |
| 54)L9AR1268-F | | | 6.503 | | | | | 6.503 | E5 | 0.00 |
| 55)S Decachlorobipheny | 1.419 | 1.305 | 1.253 | 1.238 | 1.213 | 1.214 | 1.159 | 1.257 | E7 | 6.66 |

Signal #2

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1)S Tetrachloro-m-xyl | 1.405 | 1.329 | 1.322 | 1.289 | 1.302 | 1.280 | 1.236 | 1.309 | E7 | 3.98 |
| 2)L1AR1016-A | 6.351 | 5.491 | 5.435 | 5.082 | 4.952 | 4.773 | 4.367 | 5.207 | E5 | 12.18 |
| 3)L1AR1016-B | 1.278 | 1.135 | 1.107 | 1.053 | 1.041 | 1.020 | 0.965 | 1.086 | E6 | 9.33 |
| 4)L1AR1016-C | 6.252 | 5.311 | 5.077 | 4.646 | 4.524 | 4.343 | 3.965 | 4.874 | E5 | 15.47 |
| 5)L1AR1016-D | 4.545 | 3.656 | 3.435 | 3.154 | 3.051 | 2.960 | 2.710 | 3.359 | E5 | 18.10 |
| 6)L1AR1016-E | 6.762 | 6.034 | 6.332 | 5.681 | 5.512 | 5.280 | 4.771 | 5.767 | E5 | 11.59 |
| 7)L1AR1016-F | 5.145 | 4.654 | 4.860 | 4.394 | 4.298 | 4.148 | 3.645 | 4.449 | E5 | 11.08 |
| 8)L2AR1221-A | | | 1.376 | | | | | 1.376 | E5 | 0.00 |
| 9)L2AR1221-B | | | 2.063 | | | | | 2.063 | E5 | 0.00 |
| 10)L2AR1221-C | | | 3.596 | | | | | 3.596 | E5 | 0.00 |
| 11)L2AR1221-D | | | 1.305 | | | | | 1.305 | E5 | 0.00 |
| 12)L2AR1221-E | | | | | | | | 0.000 | | -1.00 |
| 13)L3AR1232-A | | | 1.211 | | | | | 1.211 | E4 | 0.00 |
| 14)L3AR1232-B | | | 2.884 | | | | | 2.884 | E5 | 0.00 |
| 15)L3AR1232-C | | | 5.329 | | | | | 5.329 | E5 | 0.00 |
| 16)L3AR1232-D | | | 2.700 | | | | | 2.700 | E5 | 0.00 |
| 17)L3AR1232-E | | | 1.862 | | | | | 1.862 | E5 | 0.00 |
| 18)L3AR1232-F | | | 2.839 | | | | | 2.839 | E5 | 0.00 |
| 19)L4AR1242-A | | | 5.382 | | | | | 5.382 | E5 | 0.00 |
| 20)L4AR1242-B | | | 1.085 | | | | | 1.085 | E6 | 0.00 |
| 21)L4AR1242-C | | | 4.952 | | | | | 4.952 | E5 | 0.00 |
| 22)L4AR1242-D | | | 3.370 | | | | | 3.370 | E5 | 0.00 |
| 23)L4AR1242-E | | | 6.391 | | | | | 6.391 | E5 | 0.00 |
| 24)L4AR1242-F | | | 5.114 | | | | | 5.114 | E5 | 0.00 |
| 25)L5AR1248-A | | | 5.914 | | | | | 5.914 | E5 | 0.00 |
| 26)L5AR1248-B | | | 4.418 | | | | | 4.418 | E5 | 0.00 |
| 27)L5AR1248-C | | | 7.056 | | | | | 7.056 | E5 | 0.00 |
| 28)L5AR1248-D | | | 5.962 | | | | | 5.962 | E5 | 0.00 |
| 29)L5AR1248-E | | | 5.996 | | | | | 5.996 | E5 | 0.00 |
| 30)L5AR1248-F | | | 6.790 | | | | | 6.790 | E5 | 0.00 |
| 31)L6AR1254-A | | | 5.517 | | | | | 5.517 | E5 | 0.00 |
| 32)L6AR1254-B | | | 7.034 | | | | | 7.034 | E5 | 0.00 |
| 33)L6AR1254-C | | | 1.165 | | | | | 1.165 | E6 | 0.00 |
| 34)L6AR1254-D | | | 1.213 | | | | | 1.213 | E6 | 0.00 |
| 35)L6AR1254-E | | | 9.387 | | | | | 9.387 | E5 | 0.00 |
| 36)L6AR1254-F | | | 1.099 | | | | | 1.099 | E6 | 0.00 |
| 37)L7AR1260-A | 8.932 | 7.867 | 7.322 | 7.101 | 7.077 | 6.951 | 6.423 | 7.382 | E5 | 10.95 |
| 38)L7AR1260-B | 1.103 | 0.941 | 0.901 | 0.881 | 0.879 | 0.861 | 0.789 | 0.908 | E6 | 10.73 |
| 39)L7AR1260-C | 7.632 | 6.708 | 6.616 | 6.328 | 6.122 | 6.088 | 5.750 | 6.464 | E5 | 9.44 |
| 40)L7AR1260-D | 8.867 | 7.774 | 7.307 | 7.070 | 6.829 | 6.821 | 6.434 | 7.300 | E5 | 11.09 |
| 41)L7AR1260-E | 1.814 | 1.600 | 1.601 | 1.533 | 1.541 | 1.553 | 1.458 | 1.586 | E6 | 7.03 |
| 42)L7AR1260-F | 1.236 | 1.122 | 1.076 | 1.054 | 1.017 | 1.024 | 0.987 | 1.074 | E6 | 7.83 |
| 43)L8AR1262-A | | | 1.361 | | | | | 1.361 | E4 | 0.00 |
| 44)L8AR1262-B | | | 1.429 | | | | | 1.429 | E4 | 0.00 |
| 45)L8AR1262-C | | | 1.236 | | | | | 1.236 | E4 | 0.00 |
| 46)L8AR1262-D | | | 2.961 | | | | | 2.961 | E4 | 0.00 |
| 47)L8AR1262-E | | | 8.273 | | | | | 8.273 | E3 | 0.00 |
| 48)L8AR1262-F | | | 2.134 | | | | | 2.134 | E4 | 0.00 |
| 49)L9AR1268-A | | | 4.745 | | | | | 4.745 | E5 | 0.00 |

# Initial Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** GOO505-ICC505
**Lab FileID:** OO30783.D

```
50)L9AR1268-B                      5.660                          5.660 E5   0.00
51)L9AR1268-C                      2.126                          2.126 E6   0.00
52)L9AR1268-D                      2.251                          2.251 E6   0.00
53)L9AR1268-E                      1.693                          1.693 E6   0.00
54)L9AR1268-F                      7.305                          7.305 E5   0.00
55)S Decachlorobipheny 1.551 1.408 1.315 1.304 1.265 1.280 1.231 1.336 E7   8.22
---------------------------------------------------------------------------
(#) = Out of Range

          pcbq505.m         Wed Aug 06 09:28:00 2014
```

# Initial Calibration Verification



**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** GOO505-ICV505
**Lab FileID:** OO30788.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\GOO505\OO30788.D\ECD1A.CH  Vial: 27
Signal #2 : C:\msdchem\1\DATA\GOO505\OO30788.D\ECD2B.CH
Acq On    : 05-Aug-14, 22:47:24                      Operator: almar
Sample    : icv505-200,1016/1260                     Inst    : GCOO
Misc      : op33431,goo505                           Multiplr: 1.00
IntFile Signal #1: events.e     IntFile Signal #2: events2.e

Method       : C:\msdchem\1\METHODS\pcbq505.m (ChemStation Integrator)
Title        : PCB by 608 / 8082.
Last Update  : Wed Aug 06 09:08:42 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

| | | Compound | Amount | Calc. | %Drift | Area% | Dev(min) | RT Window |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | | ----------NA---------- | | | | |
| 2 | L1 | AR1016-A | 200.000 | 175.139 | 12.4 | 82 | 0.00 | 2.12- 2.18 |
| 3 | L1 | AR1016-B | 200.000 | 170.306 | 14.8 | 83 | 0.00 | 2.59- 2.65 |
| 4 | L1 | AR1016-C | 200.000 | 176.584 | 11.7 | 84 | 0.00 | 2.70- 2.76 |
| 5 | L1 | AR1016-D | 200.000 | 179.311 | 10.3 | 85 | 0.00 | 2.79- 2.85 |
| 6 | L1 | AR1016-E | 200.000 | 172.900 | 13.5 | 81 | 0.00 | 3.23- 3.29 |
| 7 | L1 | AR1016-F | 200.000 | 179.666 | 10.2 | 85 | 0.00 | 3.37- 3.43 |
| 8 | L2 | AR1221-A | | ----------NA---------- | | | | |
| 9 | L2 | AR1221-B | | ----------NA---------- | | | | |
| 10 | L2 | AR1221-C | | ----------NA---------- | | | | |
| 11 | L2 | AR1221-D | | ----------NA---------- | | | | |
| 12 | L2 | AR1221-E | | ----------NA---------- | | | | |
| 13 | L3 | AR1232-A | | ----------NA---------- | | | | |
| 14 | L3 | AR1232-B | | ----------NA---------- | | | | |
| 15 | L3 | AR1232-C | | ----------NA---------- | | | | |
| 16 | L3 | AR1232-D | | ----------NA---------- | | | | |
| 17 | L3 | AR1232-E | | ----------NA---------- | | | | |
| 18 | L3 | AR1232-F | | ----------NA---------- | | | | |
| 19 | L4 | AR1242-A | | ----------NA---------- | | | | |
| 20 | L4 | AR1242-B | | ----------NA---------- | | | | |
| 21 | L4 | AR1242-C | | ----------NA---------- | | | | |
| 22 | L4 | AR1242-D | | ----------NA---------- | | | | |
| 23 | L4 | AR1242-E | | ----------NA---------- | | | | |
| 24 | L4 | AR1242-F | | ----------NA---------- | | | | |
| 25 | L5 | AR1248-A | | ----------NA---------- | | | | |
| 26 | L5 | AR1248-B | | ----------NA---------- | | | | |
| 27 | L5 | AR1248-C | | ----------NA---------- | | | | |
| 28 | L5 | AR1248-D | | ----------NA---------- | | | | |
| 29 | L5 | AR1248-E | | ----------NA---------- | | | | |
| 30 | L5 | AR1248-F | | ----------NA---------- | | | | |
| 31 | L6 | AR1254-A | | ----------NA---------- | | | | |
| 32 | L6 | AR1254-B | | ----------NA---------- | | | | |
| 33 | L6 | AR1254-C | | ----------NA---------- | | | | |
| 34 | L6 | AR1254-D | | ----------NA---------- | | | | |
| 35 | L6 | AR1254-E | | ----------NA---------- | | | | |
| 36 | L6 | AR1254-F | | ----------NA---------- | | | | |
| 37 | L7 | AR1260-A | 200.000 | 184.808 | 7.6 | 88 | 0.00 | 4.85- 4.91 |
| 38 | L7 | AR1260-B | 200.000 | 181.599 | 9.2 | 88 | 0.00 | 5.19- 5.25 |
| 39 | L7 | AR1260-C | 200.000 | 179.512 | 10.2 | 87 | 0.00 | 5.77- 5.83 |
| 40 | L7 | AR1260-D | 200.000 | 186.648 | 6.7 | 91 | 0.00 | 6.08- 6.14 |
| 41 | L7 | AR1260-E | 200.000 | 175.831 | 12.1 | 87 | 0.00 | 6.46- 6.52 |

# Initial Calibration Verification

**Job Number:** TC52591 **Sample:** GOO505-ICV505
**Account:** RFWTXHO Weston Solutions **Lab FileID:** OO30788.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | L7 | AR1260-F | 200.000 | 182.260 | 8.9 | 87 | 0.00 | 6.85- 6.91 |
| 43 | L8 | AR1262-A | | ----------NA---------- | | | | |
| 44 | L8 | AR1262-B | | ----------NA---------- | | | | |
| 45 | L8 | AR1262-C | | ----------NA---------- | | | | |
| 46 | L8 | AR1262-D | | ----------NA---------- | | | | |
| 47 | L8 | AR1262-E | | ----------NA---------- | | | | |
| 48 | L8 | AR1262-F | | ----------NA---------- | | | | |
| 49 | L9 | AR1268-A | | ----------NA---------- | | | | |
| 50 | L9 | AR1268-B | | ----------NA---------- | | | | |
| 51 | L9 | AR1268-C | | ----------NA---------- | | | | |
| 52 | L9 | AR1268-D | | ----------NA---------- | | | | |
| 53 | L9 | AR1268-E | | ----------NA---------- | | | | |
| 54 | L9 | AR1268-F | | ----------NA---------- | | | | |
| 55 | S | Decachlorobiphenyl | | ----------NA---------- | | | | |

***** Signal #2 *****

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | | ----------NA---------- | | | | |
| 2 | L1 | AR1016-A | 200.000 | 177.495 | 11.3 | 85 | 0.00 | 2.97- 3.03 |
| 3 | L1 | AR1016-B | 200.000 | 183.734 | 8.1 | 90 | 0.00 | 3.49- 3.55 |
| 4 | L1 | AR1016-C | 200.000 | 192.978 | 3.5 | 93 | 0.00 | 3.68- 3.74 |
| 5 | L1 | AR1016-D | 200.000 | 191.238 | 4.4 | 94 | 0.00 | 3.84- 3.90 |
| 6 | L1 | AR1016-E | 200.000 | 182.340 | 8.8 | 83 | 0.00 | 4.33- 4.39 |
| 7 | L1 | AR1016-F | 200.000 | 175.072 | 12.5 | 80 | 0.00 | 4.50- 4.56 |
| 8 | L2 | AR1221-A | | ----------NA---------- | | | | |
| 9 | L2 | AR1221-B | | ----------NA---------- | | | | |
| 10 | L2 | AR1221-C | | ----------NA---------- | | | | |
| 11 | L2 | AR1221-D | | ----------NA---------- | | | | |
| 12 | L2 | AR1221-E | | ----------NA---------- | | | | |
| 13 | L3 | AR1232-A | | ----------NA---------- | | | | |
| 14 | L3 | AR1232-B | | ----------NA---------- | | | | |
| 15 | L3 | AR1232-C | | ----------NA---------- | | | | |
| 16 | L3 | AR1232-D | | ----------NA---------- | | | | |
| 17 | L3 | AR1232-E | | ----------NA---------- | | | | |
| 18 | L3 | AR1232-F | | ----------NA---------- | | | | |
| 19 | L4 | AR1242-A | | ----------NA---------- | | | | |
| 20 | L4 | AR1242-B | | ----------NA---------- | | | | |
| 21 | L4 | AR1242-C | | ----------NA---------- | | | | |
| 22 | L4 | AR1242-D | | ----------NA---------- | | | | |
| 23 | L4 | AR1242-E | | ----------NA---------- | | | | |
| 24 | L4 | AR1242-F | | ----------NA---------- | | | | |
| 25 | L5 | AR1248-A | | ----------NA---------- | | | | |
| 26 | L5 | AR1248-B | | ----------NA---------- | | | | |
| 27 | L5 | AR1248-C | | ----------NA---------- | | | | |
| 28 | L5 | AR1248-D | | ----------NA---------- | | | | |
| 29 | L5 | AR1248-E | | ----------NA---------- | | | | |
| 30 | L5 | AR1248-F | | ----------NA---------- | | | | |
| 31 | L6 | AR1254-A | | ----------NA---------- | | | | |
| 32 | L6 | AR1254-B | | ----------NA---------- | | | | |
| 33 | L6 | AR1254-C | | ----------NA---------- | | | | |
| 34 | L6 | AR1254-D | | ----------NA---------- | | | | |
| 35 | L6 | AR1254-E | | ----------NA---------- | | | | |
| 36 | L6 | AR1254-F | | ----------NA---------- | | | | |
| 37 | L7 | AR1260-A | 200.000 | 185.972 | 7.0 | 94 | -0.02 | 6.04- 6.10 |
| 38 | L7 | AR1260-B | 200.000 | 178.278 | 10.9 | 90 | -0.02 | 6.24- 6.30 |
| 39 | L7 | AR1260-C | 200.000 | 188.884 | 5.6 | 92 | -0.02 | 6.89- 6.95 |
| 40 | L7 | AR1260-D | 200.000 | 180.310 | 9.8 | 90 | -0.03 | 7.35- 7.41 |
| 41 | L7 | AR1260-E | 200.000 | 175.298 | 12.4 | 87 | -0.03 | 7.62- 7.68 |
| 42 | L7 | AR1260-F | 200.000 | 179.256 | 10.4 | 89 | -0.02 | 8.20- 8.26 |
| 43 | L8 | AR1262-A | | ----------NA---------- | | | | |

# Initial Calibration Verification

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GOO505-ICV505
**Lab FileID:** OO30788.D

```
44 L8  AR1262-B                          ----------NA----------
45 L8  AR1262-C                          ----------NA----------
46 L8  AR1262-D                          ----------NA----------
47 L8  AR1262-E                          ----------NA----------
48 L8  AR1262-F                          ----------NA----------
49 L9  AR1268-A                          ----------NA----------
50 L9  AR1268-B                          ----------NA----------
51 L9  AR1268-C                          ----------NA----------
52 L9  AR1268-D                          ----------NA----------
53 L9  AR1268-E                          ----------NA----------
54 L9  AR1268-F                          ----------NA----------
55 S   Decachlorobiphenyl                ----------NA----------
--------------------------------------------------------------------------
--------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    OO30783.D  pcbq505.m        Wed Aug 06 09:27:28 2014
```

8.7.13

8

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GOO507-CC505
**Lab FileID:** OO30834.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\GOO507\OO30834.D\ECD1A.CH  Vial: 6
Signal #2 : C:\msdchem\1\DATA\GOO507\OO30834.D\ECD2B.CH
Acq On    : 07-Aug-14, 10:55:52                      Operator: almar
Sample    : cc505-200,1016/1260                      Inst    : GCOO
Misc      : op33462,goo507                           Multiplr: 1.00
IntFile Signal #1: events.e     IntFile Signal #2: events2.e

Method       : C:\msdchem\1\METHODS\pcbq505.m (ChemStation Integrator)
Title        : PCB by 608 / 8082.
Last Update  : Wed Aug 06 09:08:42 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

| | | Compound | Amount | Calc. | %Drift | Area% | Dev(min) | RT Window |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | 40.000 | 37.561 | 6.1 | 92 | 0.00 | 1.42- 1.48 |
| 2 | L1 | AR1016-A | 200.000 | 188.038 | 6.0 | 88 | 0.01 | 2.12- 2.18 |
| 3 | L1 | AR1016-B | 200.000 | 190.997 | 4.5 | 93 | 0.01 | 2.59- 2.65 |
| 4 | L1 | AR1016-C | 200.000 | 196.477 | 1.8 | 94 | 0.01 | 2.70- 2.76 |
| 5 | L1 | AR1016-D | 200.000 | 198.686 | 0.7 | 95 | 0.01 | 2.79- 2.85 |
| 6 | L1 | AR1016-E | 200.000 | 187.554 | 6.2 | 88 | 0.01 | 3.23- 3.29 |
| 7 | L1 | AR1016-F | 200.000 | 187.157 | 6.4 | 88 | 0.01 | 3.37- 3.43 |
| 8 | L2 | AR1221-A | | ----------NA---------- | | | | |
| 9 | L2 | AR1221-B | | ----------NA---------- | | | | |
| 10 | L2 | AR1221-C | | ----------NA---------- | | | | |
| 11 | L2 | AR1221-D | | ----------NA---------- | | | | |
| 12 | L2 | AR1221-E | | ----------NA---------- | | | | |
| 13 | L3 | AR1232-A | | ----------NA---------- | | | | |
| 14 | L3 | AR1232-B | | ----------NA---------- | | | | |
| 15 | L3 | AR1232-C | | ----------NA---------- | | | | |
| 16 | L3 | AR1232-D | | ----------NA---------- | | | | |
| 17 | L3 | AR1232-E | | ----------NA---------- | | | | |
| 18 | L3 | AR1232-F | | ----------NA---------- | | | | |
| 19 | L4 | AR1242-A | | ----------NA---------- | | | | |
| 20 | L4 | AR1242-B | | ----------NA---------- | | | | |
| 21 | L4 | AR1242-C | | ----------NA---------- | | | | |
| 22 | L4 | AR1242-D | | ----------NA---------- | | | | |
| 23 | L4 | AR1242-E | | ----------NA---------- | | | | |
| 24 | L4 | AR1242-F | | ----------NA---------- | | | | |
| 25 | L5 | AR1248-A | | ----------NA---------- | | | | |
| 26 | L5 | AR1248-B | | ----------NA---------- | | | | |
| 27 | L5 | AR1248-C | | ----------NA---------- | | | | |
| 28 | L5 | AR1248-D | | ----------NA---------- | | | | |
| 29 | L5 | AR1248-E | | ----------NA---------- | | | | |
| 30 | L5 | AR1248-F | | ----------NA---------- | | | | |
| 31 | L6 | AR1254-A | | ----------NA---------- | | | | |
| 32 | L6 | AR1254-B | | ----------NA---------- | | | | |
| 33 | L6 | AR1254-C | | ----------NA---------- | | | | |
| 34 | L6 | AR1254-D | | ----------NA---------- | | | | |
| 35 | L6 | AR1254-E | | ----------NA---------- | | | | |
| 36 | L6 | AR1254-F | | ----------NA---------- | | | | |
| 37 | L7 | AR1260-A | 200.000 | 210.265 | -5.1 | 100 | 0.00 | 4.85- 4.91 |
| 38 | L7 | AR1260-B | 200.000 | 204.819 | -2.4 | 100 | 0.00 | 5.19- 5.25 |
| 39 | L7 | AR1260-C | 200.000 | 205.971 | -3.0 | 100 | 0.00 | 5.77- 5.83 |
| 40 | L7 | AR1260-D | 200.000 | 208.145 | -4.1 | 102 | 0.00 | 6.08- 6.14 |
| 41 | L7 | AR1260-E | 200.000 | 204.537 | -2.3 | 101 | 0.00 | 6.46- 6.52 |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** GOO507-CC505
**Account:** RFWTXHO Weston Solutions **Lab FileID:** OO30834.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | L7 | AR1260-F | 200.000 | 209.318 | -4.7 | 100 | 0.00 | 6.85- 6.91 |
| 43 | L8 | AR1262-A | | ----------NA---------- | | | | |
| 44 | L8 | AR1262-B | | ----------NA---------- | | | | |
| 45 | L8 | AR1262-C | | ----------NA---------- | | | | |
| 46 | L8 | AR1262-D | | ----------NA---------- | | | | |
| 47 | L8 | AR1262-E | | ----------NA---------- | | | | |
| 48 | L8 | AR1262-F | | ----------NA---------- | | | | |
| 49 | L9 | AR1268-A | | ----------NA---------- | | | | |
| 50 | L9 | AR1268-B | | ----------NA---------- | | | | |
| 51 | L9 | AR1268-C | | ----------NA---------- | | | | |
| 52 | L9 | AR1268-D | | ----------NA---------- | | | | |
| 53 | L9 | AR1268-E | | ----------NA---------- | | | | |
| 54 | L9 | AR1268-F | | ----------NA---------- | | | | |
| 55 | S | Decachlorobiphenyl | 40.000 | 40.691 | -1.7 | 102 | 0.00 | 8.58- 8.64 |

***** Signal #2 *****

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | 40.000 | 38.726 | 3.2 | 96 | 0.00 | 1.81- 1.87 |
| 2 | L1 | AR1016-A | 200.000 | 189.324 | 5.3 | 91 | 0.00 | 2.97- 3.03 |
| 3 | L1 | AR1016-B | 200.000 | 197.206 | 1.4 | 97 | 0.00 | 3.49- 3.55 |
| 4 | L1 | AR1016-C | 200.000 | 200.831 | -0.4 | 96 | 0.00 | 3.68- 3.74 |
| 5 | L1 | AR1016-D | 200.000 | 199.944 | 0.0 | 98 | 0.00 | 3.84- 3.90 |
| 6 | L1 | AR1016-E | 200.000 | 197.867 | 1.1 | 90 | 0.00 | 4.33- 4.39 |
| 7 | L1 | AR1016-F | 200.000 | 193.264 | 3.4 | 88 | 0.00 | 4.50- 4.56 |
| 8 | L2 | AR1221-A | | ----------NA---------- | | | | |
| 9 | L2 | AR1221-B | | ----------NA---------- | | | | |
| 10 | L2 | AR1221-C | | ----------NA---------- | | | | |
| 11 | L2 | AR1221-D | | ----------NA---------- | | | | |
| 12 | L2 | AR1221-E | | ----------NA---------- | | | | |
| 13 | L3 | AR1232-A | | ----------NA---------- | | | | |
| 14 | L3 | AR1232-B | | ----------NA---------- | | | | |
| 15 | L3 | AR1232-C | | ----------NA---------- | | | | |
| 16 | L3 | AR1232-D | | ----------NA---------- | | | | |
| 17 | L3 | AR1232-E | | ----------NA---------- | | | | |
| 18 | L3 | AR1232-F | | ----------NA---------- | | | | |
| 19 | L4 | AR1242-A | | ----------NA---------- | | | | |
| 20 | L4 | AR1242-B | | ----------NA---------- | | | | |
| 21 | L4 | AR1242-C | | ----------NA---------- | | | | |
| 22 | L4 | AR1242-D | | ----------NA---------- | | | | |
| 23 | L4 | AR1242-E | | ----------NA---------- | | | | |
| 24 | L4 | AR1242-F | | ----------NA---------- | | | | |
| 25 | L5 | AR1248-A | | ----------NA---------- | | | | |
| 26 | L5 | AR1248-B | | ----------NA---------- | | | | |
| 27 | L5 | AR1248-C | | ----------NA---------- | | | | |
| 28 | L5 | AR1248-D | | ----------NA---------- | | | | |
| 29 | L5 | AR1248-E | | ----------NA---------- | | | | |
| 30 | L5 | AR1248-F | | ----------NA---------- | | | | |
| 31 | L6 | AR1254-A | | ----------NA---------- | | | | |
| 32 | L6 | AR1254-B | | ----------NA---------- | | | | |
| 33 | L6 | AR1254-C | | ----------NA---------- | | | | |
| 34 | L6 | AR1254-D | | ----------NA---------- | | | | |
| 35 | L6 | AR1254-E | | ----------NA---------- | | | | |
| 36 | L6 | AR1254-F | | ----------NA---------- | | | | |
| 37 | L7 | AR1260-A | 200.000 | 203.173 | -1.6 | 102 | -0.02 | 6.04- 6.10 |
| 38 | L7 | AR1260-B | 200.000 | 201.651 | -0.8 | 102 | -0.02 | 6.24- 6.30 |
| 39 | L7 | AR1260-C | 200.000 | 209.856 | -4.9 | 103 | -0.02 | 6.89- 6.95 |
| 40 | L7 | AR1260-D | 200.000 | 207.265 | -3.6 | 104 | -0.03 | 7.35- 7.41 |
| 41 | L7 | AR1260-E | 200.000 | 200.827 | -0.4 | 99 | -0.03 | 7.62- 7.68 |
| 42 | L7 | AR1260-F | 200.000 | 205.859 | -2.9 | 103 | -0.03 | 8.20- 8.26 |
| 43 | L8 | AR1262-A | | ----------NA---------- | | | | |

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GOO507-CC505
**Lab FileID:** OO30834.D

```
44 L8  AR1262-B                          ----------NA----------
45 L8  AR1262-C                          ----------NA----------
46 L8  AR1262-D                          ----------NA----------
47 L8  AR1262-E                          ----------NA----------
48 L8  AR1262-F                          ----------NA----------
49 L9  AR1268-A                          ----------NA----------
50 L9  AR1268-B                          ----------NA----------
51 L9  AR1268-C                          ----------NA----------
52 L9  AR1268-D                          ----------NA----------
53 L9  AR1268-E                          ----------NA----------
54 L9  AR1268-F                          ----------NA----------
55 S   Decachlorobiphenyl      40.000  40.622     -1.6  103   0.00    9.79- 9.85
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    OO30783.D  pcbq505.m        Thu Aug 07 15:16:07 2014
```

8.7.14

8

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GOO507-CC505
**Lab FileID:** OO30835.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\GOO507\OO30835.D\ECD1A.CH  Vial: 7
Signal #2 : C:\msdchem\1\DATA\GOO507\OO30835.D\ECD2B.CH
Acq On    : 07-Aug-14, 11:16:02                      Operator: almar
Sample    : cc505-200,1221/1254                      Inst    : GCOO
Misc      : op33462,goo507                           Multiplr: 1.00
IntFile Signal #1: events.e     IntFile Signal #2: events2.e

Method       : C:\msdchem\1\METHODS\pcbq505.m (ChemStation Integrator)
Title        : PCB by 608 / 8082.
Last Update  : Wed Aug 06 09:08:42 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

| | | Compound | Amount | Calc. | %Drift | Area% | Dev(min) | RT Window |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | 40.000 | 40.938 | -2.3 | 101 | 0.00 | 1.42- 1.48 |
| 2 | L1 | AR1016-A | | ----------NA---------- | | | | |
| 3 | L1 | AR1016-B | | ----------NA---------- | | | | |
| 4 | L1 | AR1016-C | | ----------NA---------- | | | | |
| 5 | L1 | AR1016-D | | ----------NA---------- | | | | |
| 6 | L1 | AR1016-E | | ----------NA---------- | | | | |
| 7 | L1 | AR1016-F | | ----------NA---------- | | | | |
| 8 | L2 | AR1221-A | 200.000 | 197.519 | 1.2 | 99 | 0.00 | 1.02- 1.08 |
| 9 | L2 | AR1221-B | 200.000 | 203.749 | -1.9 | 102 | 0.00 | 1.59- 1.65 |
| 10 | L2 | AR1221-C | 200.000 | 200.238 | -0.1 | 100 | 0.00 | 1.68- 1.74 |
| 11 | L2 | AR1221-D | 200.000 | 197.083 | 1.5 | 99 | 0.00 | 1.73- 1.79 |
| 12 | L2 | AR1221-E | | ----------NA---------- | | | | |
| 13 | L3 | AR1232-A | | ----------NA---------- | | | | |
| 14 | L3 | AR1232-B | | ----------NA---------- | | | | |
| 15 | L3 | AR1232-C | | ----------NA---------- | | | | |
| 16 | L3 | AR1232-D | | ----------NA---------- | | | | |
| 17 | L3 | AR1232-E | | ----------NA---------- | | | | |
| 18 | L3 | AR1232-F | | ----------NA---------- | | | | |
| 19 | L4 | AR1242-A | | ----------NA---------- | | | | |
| 20 | L4 | AR1242-B | | ----------NA---------- | | | | |
| 21 | L4 | AR1242-C | | ----------NA---------- | | | | |
| 22 | L4 | AR1242-D | | ----------NA---------- | | | | |
| 23 | L4 | AR1242-E | | ----------NA---------- | | | | |
| 24 | L4 | AR1242-F | | ----------NA---------- | | | | |
| 25 | L5 | AR1248-A | | ----------NA---------- | | | | |
| 26 | L5 | AR1248-B | | ----------NA---------- | | | | |
| 27 | L5 | AR1248-C | | ----------NA---------- | | | | |
| 28 | L5 | AR1248-D | | ----------NA---------- | | | | |
| 29 | L5 | AR1248-E | | ----------NA---------- | | | | |
| 30 | L5 | AR1248-F | | ----------NA---------- | | | | |
| 31 | L6 | AR1254-A | 200.000 | 198.401 | 0.8 | 99 | 0.00 | 3.77- 3.83 |
| 32 | L6 | AR1254-B | 200.000 | 197.113 | 1.4 | 99 | 0.00 | 4.06- 4.12 |
| 33 | L6 | AR1254-C | 200.000 | 198.441 | 0.8 | 99 | 0.00 | 4.53- 4.59 |
| 34 | L6 | AR1254-D | 200.000 | 197.117 | 1.4 | 99 | 0.00 | 4.87- 4.93 |
| 35 | L6 | AR1254-E | 200.000 | 197.729 | 1.1 | 99 | 0.00 | 5.21- 5.27 |
| 36 | L6 | AR1254-F | 200.000 | 197.372 | 1.3 | 99 | 0.00 | 5.55- 5.61 |
| 37 | L7 | AR1260-A | | ----------NA---------- | | | | |
| 38 | L7 | AR1260-B | | ----------NA---------- | | | | |
| 39 | L7 | AR1260-C | | ----------NA---------- | | | | |
| 40 | L7 | AR1260-D | | ----------NA---------- | | | | |
| 41 | L7 | AR1260-E | | ----------NA---------- | | | | |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** GOO507-CC505
**Account:** RFWTXHO Weston Solutions **Lab FileID:** OO30835.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 42 | L7 | AR1260-F | | ----------NA---------- | | | | | |
| 43 | L8 | AR1262-A | | ----------NA---------- | | | | | |
| 44 | L8 | AR1262-B | | ----------NA---------- | | | | | |
| 45 | L8 | AR1262-C | | ----------NA---------- | | | | | |
| 46 | L8 | AR1262-D | | ----------NA---------- | | | | | |
| 47 | L8 | AR1262-E | | ----------NA---------- | | | | | |
| 48 | L8 | AR1262-F | | ----------NA---------- | | | | | |
| 49 | L9 | AR1268-A | | ----------NA---------- | | | | | |
| 50 | L9 | AR1268-B | | ----------NA---------- | | | | | |
| 51 | L9 | AR1268-C | | ----------NA---------- | | | | | |
| 52 | L9 | AR1268-D | | ----------NA---------- | | | | | |
| 53 | L9 | AR1268-E | | ----------NA---------- | | | | | |
| 54 | L9 | AR1268-F | | ----------NA---------- | | | | | |
| 55 | S | Decachlorobiphenyl | 40.000 | 42.682 | -6.7 | 107 | -0.01 | 8.58- 8.64 | |
| ***** | | Signal #2 ***** | | | | | | | |
| 1 | S | Tetrachloro-m-xylene | 40.000 | 41.481 | -3.7 | 103 | 0.00 | 1.81- 1.87 | |
| 2 | L1 | AR1016-A | | ----------NA---------- | | | | | |
| 3 | L1 | AR1016-B | | ----------NA---------- | | | | | |
| 4 | L1 | AR1016-C | | ----------NA---------- | | | | | |
| 5 | L1 | AR1016-D | | ----------NA---------- | | | | | |
| 6 | L1 | AR1016-E | | ----------NA---------- | | | | | |
| 7 | L1 | AR1016-F | | ----------NA---------- | | | | | |
| 8 | L2 | AR1221-A | 200.000 | 203.857 | -1.9 | 102 | 0.00 | 1.47- 1.53 | |
| 9 | L2 | AR1221-B | 200.000 | 201.730 | -0.9 | 101 | 0.00 | 2.22- 2.28 | |
| 10 | L2 | AR1221-C | 200.000 | 200.419 | -0.2 | 100 | 0.00 | 2.46- 2.52 | |
| 11 | L2 | AR1221-D | 200.000 | 207.226 | -3.6 | 104 | 0.00 | 2.97- 3.03 | |
| 12 | L2 | AR1221-E | | ----------NA---------- | | | | | |
| 13 | L3 | AR1232-A | | ----------NA---------- | | | | | |
| 14 | L3 | AR1232-B | | ----------NA---------- | | | | | |
| 15 | L3 | AR1232-C | | ----------NA---------- | | | | | |
| 16 | L3 | AR1232-D | | ----------NA---------- | | | | | |
| 17 | L3 | AR1232-E | | ----------NA---------- | | | | | |
| 18 | L3 | AR1232-F | | ----------NA---------- | | | | | |
| 19 | L4 | AR1242-A | | ----------NA---------- | | | | | |
| 20 | L4 | AR1242-B | | ----------NA---------- | | | | | |
| 21 | L4 | AR1242-C | | ----------NA---------- | | | | | |
| 22 | L4 | AR1242-D | | ----------NA---------- | | | | | |
| 23 | L4 | AR1242-E | | ----------NA---------- | | | | | |
| 24 | L4 | AR1242-F | | ----------NA---------- | | | | | |
| 25 | L5 | AR1248-A | | ----------NA---------- | | | | | |
| 26 | L5 | AR1248-B | | ----------NA---------- | | | | | |
| 27 | L5 | AR1248-C | | ----------NA---------- | | | | | |
| 28 | L5 | AR1248-D | | ----------NA---------- | | | | | |
| 29 | L5 | AR1248-E | | ----------NA---------- | | | | | |
| 30 | L5 | AR1248-F | | ----------NA---------- | | | | | |
| 31 | L6 | AR1254-A | 200.000 | 197.250 | 1.4 | 99 | -0.02 | 4.93- 4.99 | |
| 32 | L6 | AR1254-B | 200.000 | 198.101 | 0.9 | 99 | -0.02 | 5.09- 5.15 | |
| 33 | L6 | AR1254-C | 200.000 | 201.175 | -0.6 | 101 | -0.02 | 5.77- 5.83 | |
| 34 | L6 | AR1254-D | 200.000 | 200.674 | -0.3 | 100 | -0.02 | 6.01- 6.07 | |
| 35 | L6 | AR1254-E | 200.000 | 200.680 | -0.3 | 100 | -0.03 | 6.55- 6.61 | |
| 36 | L6 | AR1254-F | 200.000 | 202.702 | -1.4 | 101 | -0.03 | 6.79- 6.85 | |
| 37 | L7 | AR1260-A | | ----------NA---------- | | | | | |
| 38 | L7 | AR1260-B | | ----------NA---------- | | | | | |
| 39 | L7 | AR1260-C | | ----------NA---------- | | | | | |
| 40 | L7 | AR1260-D | | ----------NA---------- | | | | | |
| 41 | L7 | AR1260-E | | ----------NA---------- | | | | | |
| 42 | L7 | AR1260-F | | ----------NA---------- | | | | | |
| 43 | L8 | AR1262-A | | ----------NA---------- | | | | | |

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GOO507-CC505
**Lab FileID:** OO30835.D

```
44 L8  AR1262-B                          ----------NA----------
45 L8  AR1262-C                          ----------NA----------
46 L8  AR1262-D                          ----------NA----------
47 L8  AR1262-E                          ----------NA----------
48 L8  AR1262-F                          ----------NA----------
49 L9  AR1268-A                          ----------NA----------
50 L9  AR1268-B                          ----------NA----------
51 L9  AR1268-C                          ----------NA----------
52 L9  AR1268-D                          ----------NA----------
53 L9  AR1268-E                          ----------NA----------
54 L9  AR1268-F                          ----------NA----------
55 S   Decachlorobiphenyl      40.000  42.469     -6.2  108   0.00    9.79- 9.85
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    OO30783.D  pcbq505.m        Thu Aug 07 15:16:09 2014
```

8.7.15

8

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GOO507-CC505
**Lab FileID:** OO30836.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\GOO507\OO30836.D\ECD1A.CH  Vial: 8
Signal #2 : C:\msdchem\1\DATA\GOO507\OO30836.D\ECD2B.CH
Acq On    : 07-Aug-14, 11:36:16                      Operator: almar
Sample    : cc505-200,1232/1268                      Inst    : GCOO
Misc      : op33462,goo507                           Multiplr: 1.00
IntFile Signal #1: events.e     IntFile Signal #2: events2.e

Method       : C:\msdchem\1\METHODS\pcbq505.m (ChemStation Integrator)
Title        : PCB by 608 / 8082.
Last Update  : Wed Aug 06 09:08:42 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

| | | Compound | Amount | Calc. | %Drift | Area% | Dev(min) | RT Window |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | 40.000 | 43.046 | -7.6 | 106 | 0.00 | 1.42- 1.48 |
| 2 | L1 | AR1016-A | | ----------NA---------- | | | | |
| 3 | L1 | AR1016-B | | ----------NA---------- | | | | |
| 4 | L1 | AR1016-C | | ----------NA---------- | | | | |
| 5 | L1 | AR1016-D | | ----------NA---------- | | | | |
| 6 | L1 | AR1016-E | | ----------NA---------- | | | | |
| 7 | L1 | AR1016-F | | ----------NA---------- | | | | |
| 8 | L2 | AR1221-A | | ----------NA---------- | | | | |
| 9 | L2 | AR1221-B | | ----------NA---------- | | | | |
| 10 | L2 | AR1221-C | | ----------NA---------- | | | | |
| 11 | L2 | AR1221-D | | ----------NA---------- | | | | |
| 12 | L2 | AR1221-E | | ----------NA---------- | | | | |
| 13 | L3 | AR1232-A | 200.000 | 198.449 | 0.8 | 99 | 0.00 | 1.73- 1.79 |
| 14 | L3 | AR1232-B | 200.000 | 213.669 | -6.8 | 107 | 0.00 | 2.12- 2.18 |
| 15 | L3 | AR1232-C | 200.000 | 199.215 | 0.4 | 100 | 0.00 | 2.59- 2.65 |
| 16 | L3 | AR1232-D | 200.000 | 201.835 | -0.9 | 101 | 0.00 | 2.70- 2.76 |
| 17 | L3 | AR1232-E | 200.000 | 201.591 | -0.8 | 101 | 0.00 | 2.79- 2.85 |
| 18 | L3 | AR1232-F | 200.000 | 198.902 | 0.5 | 99 | 0.00 | 3.37- 3.43 |
| 19 | L4 | AR1242-A | | ----------NA---------- | | | | |
| 20 | L4 | AR1242-B | | ----------NA---------- | | | | |
| 21 | L4 | AR1242-C | | ----------NA---------- | | | | |
| 22 | L4 | AR1242-D | | ----------NA---------- | | | | |
| 23 | L4 | AR1242-E | | ----------NA---------- | | | | |
| 24 | L4 | AR1242-F | | ----------NA---------- | | | | |
| 25 | L5 | AR1248-A | | ----------NA---------- | | | | |
| 26 | L5 | AR1248-B | | ----------NA---------- | | | | |
| 27 | L5 | AR1248-C | | ----------NA---------- | | | | |
| 28 | L5 | AR1248-D | | ----------NA---------- | | | | |
| 29 | L5 | AR1248-E | | ----------NA---------- | | | | |
| 30 | L5 | AR1248-F | | ----------NA---------- | | | | |
| 31 | L6 | AR1254-A | | ----------NA---------- | | | | |
| 32 | L6 | AR1254-B | | ----------NA---------- | | | | |
| 33 | L6 | AR1254-C | | ----------NA---------- | | | | |
| 34 | L6 | AR1254-D | | ----------NA---------- | | | | |
| 35 | L6 | AR1254-E | | ----------NA---------- | | | | |
| 36 | L6 | AR1254-F | | ----------NA---------- | | | | |
| 37 | L7 | AR1260-A | | ----------NA---------- | | | | |
| 38 | L7 | AR1260-B | | ----------NA---------- | | | | |
| 39 | L7 | AR1260-C | | ----------NA---------- | | | | |
| 40 | L7 | AR1260-D | | ----------NA---------- | | | | |
| 41 | L7 | AR1260-E | | ----------NA---------- | | | | |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** GOO507-CC505
**Account:** RFWTXHO Weston Solutions **Lab FileID:** OO30836.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | L7 | AR1260-F | | ----------NA---------- | | | | |
| 43 | L8 | AR1262-A | | ----------NA---------- | | | | |
| 44 | L8 | AR1262-B | | ----------NA---------- | | | | |
| 45 | L8 | AR1262-C | | ----------NA---------- | | | | |
| 46 | L8 | AR1262-D | | ----------NA---------- | | | | |
| 47 | L8 | AR1262-E | | ----------NA---------- | | | | |
| 48 | L8 | AR1262-F | | ----------NA---------- | | | | |
| 49 | L9 | AR1268-A | 200.000 | 197.928 | 1.0 | 99 | 0.00 | 5.78- 5.84 |
| 50 | L9 | AR1268-B | 200.000 | 202.797 | -1.4 | 101 | 0.00 | 6.20- 6.26 |
| 51 | L9 | AR1268-C | 200.000 | 196.557 | 1.7 | 98 | -0.01 | 6.97- 7.03 |
| 52 | L9 | AR1268-D | 200.000 | 194.697 | 2.7 | 97 | 0.00 | 7.03- 7.09 |
| 53 | L9 | AR1268-E | 200.000 | 197.265 | 1.4 | 99 | -0.01 | 7.41- 7.47 |
| 54 | L9 | AR1268-F | 200.000 | 210.554 | -5.3 | 105 | 0.00 | 7.70- 7.76 |
| 55 | S | Decachlorobiphenyl | 40.000 | 55.984 | -40.0# | 140 | -0.01 | 8.58- 8.64 |

***** Signal #2 *****

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | 40.000 | 43.586 | -9.0 | 108 | 0.00 | 1.81- 1.87 |
| 2 | L1 | AR1016-A | | ----------NA---------- | | | | |
| 3 | L1 | AR1016-B | | ----------NA---------- | | | | |
| 4 | L1 | AR1016-C | | ----------NA---------- | | | | |
| 5 | L1 | AR1016-D | | ----------NA---------- | | | | |
| 6 | L1 | AR1016-E | | ----------NA---------- | | | | |
| 7 | L1 | AR1016-F | | ----------NA---------- | | | | |
| 8 | L2 | AR1221-A | | ----------NA---------- | | | | |
| 9 | L2 | AR1221-B | | ----------NA---------- | | | | |
| 10 | L2 | AR1221-C | | ----------NA---------- | | | | |
| 11 | L2 | AR1221-D | | ----------NA---------- | | | | |
| 12 | L2 | AR1221-E | | ----------NA---------- | | | | |
| 13 | L3 | AR1232-A | 200.000 | 202.345 | -1.2 | 101 | -0.01 | 2.47- 2.53 |
| 14 | L3 | AR1232-B | 200.000 | 203.261 | -1.6 | 102 | -0.02 | 2.99- 3.05 |
| 15 | L3 | AR1232-C | 200.000 | 204.923 | -2.5 | 102 | -0.02 | 3.50- 3.56 |
| 16 | L3 | AR1232-D | 200.000 | 208.008 | -4.0 | 104 | -0.02 | 3.69- 3.75 |
| 17 | L3 | AR1232-E | 200.000 | 207.423 | -3.7 | 104 | -0.02 | 3.85- 3.91 |
| 18 | L3 | AR1232-F | 200.000 | 201.624 | -0.8 | 101 | -0.03 | 4.53- 4.59 |
| 19 | L4 | AR1242-A | | ----------NA---------- | | | | |
| 20 | L4 | AR1242-B | | ----------NA---------- | | | | |
| 21 | L4 | AR1242-C | | ----------NA---------- | | | | |
| 22 | L4 | AR1242-D | | ----------NA---------- | | | | |
| 23 | L4 | AR1242-E | | ----------NA---------- | | | | |
| 24 | L4 | AR1242-F | | ----------NA---------- | | | | |
| 25 | L5 | AR1248-A | | ----------NA---------- | | | | |
| 26 | L5 | AR1248-B | | ----------NA---------- | | | | |
| 27 | L5 | AR1248-C | | ----------NA---------- | | | | |
| 28 | L5 | AR1248-D | | ----------NA---------- | | | | |
| 29 | L5 | AR1248-E | | ----------NA---------- | | | | |
| 30 | L5 | AR1248-F | | ----------NA---------- | | | | |
| 31 | L6 | AR1254-A | | ----------NA---------- | | | | |
| 32 | L6 | AR1254-B | | ----------NA---------- | | | | |
| 33 | L6 | AR1254-C | | ----------NA---------- | | | | |
| 34 | L6 | AR1254-D | | ----------NA---------- | | | | |
| 35 | L6 | AR1254-E | | ----------NA---------- | | | | |
| 36 | L6 | AR1254-F | | ----------NA---------- | | | | |
| 37 | L7 | AR1260-A | | ----------NA---------- | | | | |
| 38 | L7 | AR1260-B | | ----------NA---------- | | | | |
| 39 | L7 | AR1260-C | | ----------NA---------- | | | | |
| 40 | L7 | AR1260-D | | ----------NA---------- | | | | |
| 41 | L7 | AR1260-E | | ----------NA---------- | | | | |
| 42 | L7 | AR1260-F | | ----------NA---------- | | | | |
| 43 | L8 | AR1262-A | | ----------NA---------- | | | | |

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GOO507-CC505
**Lab FileID:** OO30836.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 44 | L8 | AR1262-B | | | ----------NA---------- | | | |
| 45 | L8 | AR1262-C | | | ----------NA---------- | | | |
| 46 | L8 | AR1262-D | | | ----------NA---------- | | | |
| 47 | L8 | AR1262-E | | | ----------NA---------- | | | |
| 48 | L8 | AR1262-F | | | ----------NA---------- | | | |
| 49 | L9 | AR1268-A | 200.000 | 204.182 | -2.1 | 102 | -0.03 | 6.89- 6.95 |
| 50 | L9 | AR1268-B | 200.000 | 206.882 | -3.4 | 103 | -0.03 | 7.34- 7.40 |
| 51 | L9 | AR1268-C | 200.000 | 202.360 | -1.2 | 101 | -0.03 | 8.14- 8.20 |
| 52 | L9 | AR1268-D | 200.000 | 201.417 | -0.7 | 101 | -0.03 | 8.20- 8.26 |
| 53 | L9 | AR1268-E | 200.000 | 202.979 | -1.5 | 101 | -0.03 | 8.60- 8.66 |
| 54 | L9 | AR1268-F | 200.000 | 208.485 | -4.2 | 104 | -0.03 | 8.94- 9.00 |
| 55 | S | Decachlorobiphenyl | 40.000 | 56.126 | -40.3# | 143 | 0.00 | 9.79- 9.85 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OO30783.D pcbq505.m Thu Aug 07 15:16:11 2014

8.7.16

8

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** GOO507-CC505
**Lab FileID:** OO30837.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\GOO507\OO30837.D\ECD1A.CH  Vial: 9
Signal #2 : C:\msdchem\1\DATA\GOO507\OO30837.D\ECD2B.CH
Acq On    : 07-Aug-14, 11:55:38                      Operator: almar
Sample    : cc505-200,1242/1262                      Inst    : GCOO
Misc      : op33462,goo507                           Multiplr: 1.00
IntFile Signal #1: events.e     IntFile Signal #2: events2.e

Method       : C:\msdchem\1\METHODS\pcbq505.m (ChemStation Integrator)
Title        : PCB by 608 / 8082.
Last Update  : Wed Aug 06 09:08:42 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

| | | Compound | Amount | Calc. | %Drift | Area% | Dev(min) | RT Window |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | 40.000 | 44.756 | -11.9 | 110 | 0.00 | 1.42- 1.48 |
| 2 | L1 | AR1016-A | | ----------NA---------- | | | | |
| 3 | L1 | AR1016-B | | ----------NA---------- | | | | |
| 4 | L1 | AR1016-C | | ----------NA---------- | | | | |
| 5 | L1 | AR1016-D | | ----------NA---------- | | | | |
| 6 | L1 | AR1016-E | | ----------NA---------- | | | | |
| 7 | L1 | AR1016-F | | ----------NA---------- | | | | |
| 8 | L2 | AR1221-A | | ----------NA---------- | | | | |
| 9 | L2 | AR1221-B | | ----------NA---------- | | | | |
| 10 | L2 | AR1221-C | | ----------NA---------- | | | | |
| 11 | L2 | AR1221-D | | ----------NA---------- | | | | |
| 12 | L2 | AR1221-E | | ----------NA---------- | | | | |
| 13 | L3 | AR1232-A | | ----------NA---------- | | | | |
| 14 | L3 | AR1232-B | | ----------NA---------- | | | | |
| 15 | L3 | AR1232-C | | ----------NA---------- | | | | |
| 16 | L3 | AR1232-D | | ----------NA---------- | | | | |
| 17 | L3 | AR1232-E | | ----------NA---------- | | | | |
| 18 | L3 | AR1232-F | | ----------NA---------- | | | | |
| 19 | L4 | AR1242-A | 200.000 | 198.436 | 0.8 | 99 | 0.00 | 2.12- 2.18 |
| 20 | L4 | AR1242-B | 200.000 | 198.108 | 0.9 | 99 | 0.00 | 2.59- 2.65 |
| 21 | L4 | AR1242-C | 200.000 | 197.917 | 1.0 | 99 | 0.00 | 2.70- 2.76 |
| 22 | L4 | AR1242-D | 200.000 | 197.716 | 1.1 | 99 | 0.00 | 2.79- 2.85 |
| 23 | L4 | AR1242-E | 200.000 | 197.510 | 1.2 | 99 | 0.00 | 3.23- 3.29 |
| 24 | L4 | AR1242-F | 200.000 | 196.999 | 1.5 | 98 | 0.00 | 3.37- 3.43 |
| 25 | L5 | AR1248-A | | ----------NA---------- | | | | |
| 26 | L5 | AR1248-B | | ----------NA---------- | | | | |
| 27 | L5 | AR1248-C | | ----------NA---------- | | | | |
| 28 | L5 | AR1248-D | | ----------NA---------- | | | | |
| 29 | L5 | AR1248-E | | ----------NA---------- | | | | |
| 30 | L5 | AR1248-F | | ----------NA---------- | | | | |
| 31 | L6 | AR1254-A | | ----------NA---------- | | | | |
| 32 | L6 | AR1254-B | | ----------NA---------- | | | | |
| 33 | L6 | AR1254-C | | ----------NA---------- | | | | |
| 34 | L6 | AR1254-D | | ----------NA---------- | | | | |
| 35 | L6 | AR1254-E | | ----------NA---------- | | | | |
| 36 | L6 | AR1254-F | | ----------NA---------- | | | | |
| 37 | L7 | AR1260-A | | ----------NA---------- | | | | |
| 38 | L7 | AR1260-B | | ----------NA---------- | | | | |
| 39 | L7 | AR1260-C | | ----------NA---------- | | | | |
| 40 | L7 | AR1260-D | | ----------NA---------- | | | | |
| 41 | L7 | AR1260-E | | ----------NA---------- | | | | |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** GOO507-CC505
**Account:** RFWTXHO Weston Solutions **Lab FileID:** OO30837.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | L7 | AR1260-F | | | ----------NA---------- | | | |
| 43 | L8 | AR1262-A | 200.000 | 215.484 | -7.7 | 108 | -0.01 | 5.84- 5.90 |
| 44 | L8 | AR1262-B | 200.000 | 207.367 | -3.7 | 104 | -0.01 | 6.08- 6.14 |
| 45 | L8 | AR1262-C | 200.000 | 207.783 | -3.9 | 104 | -0.01 | 6.97- 7.03 |
| 46 | L8 | AR1262-D | 200.000 | 208.830 | -4.4 | 104 | 0.00 | 7.04- 7.10 |
| 47 | L8 | AR1262-E | 200.000 | 217.873 | -8.9 | 109 | -0.01 | 7.43- 7.49 |
| 48 | L8 | AR1262-F | 200.000 | 208.526 | -4.3 | 104 | 0.00 | 7.70- 7.76 |
| 49 | L9 | AR1268-A | | | ----------NA---------- | | | |
| 50 | L9 | AR1268-B | | | ----------NA---------- | | | |
| 51 | L9 | AR1268-C | | | ----------NA---------- | | | |
| 52 | L9 | AR1268-D | | | ----------NA---------- | | | |
| 53 | L9 | AR1268-E | | | ----------NA---------- | | | |
| 54 | L9 | AR1268-F | | | ----------NA---------- | | | |
| 55 | S | Decachlorobiphenyl | 40.000 | 45.482 | -13.7 | 114 | -0.01 | 8.58- 8.64 |

***** Signal #2 *****

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | 40.000 | 45.661 | -14.2 | 113 | 0.00 | 1.81- 1.87 |
| 2 | L1 | AR1016-A | | | ----------NA---------- | | | |
| 3 | L1 | AR1016-B | | | ----------NA---------- | | | |
| 4 | L1 | AR1016-C | | | ----------NA---------- | | | |
| 5 | L1 | AR1016-D | | | ----------NA---------- | | | |
| 6 | L1 | AR1016-E | | | ----------NA---------- | | | |
| 7 | L1 | AR1016-F | | | ----------NA---------- | | | |
| 8 | L2 | AR1221-A | | | ----------NA---------- | | | |
| 9 | L2 | AR1221-B | | | ----------NA---------- | | | |
| 10 | L2 | AR1221-C | | | ----------NA---------- | | | |
| 11 | L2 | AR1221-D | | | ----------NA---------- | | | |
| 12 | L2 | AR1221-E | | | ----------NA---------- | | | |
| 13 | L3 | AR1232-A | | | ----------NA---------- | | | |
| 14 | L3 | AR1232-B | | | ----------NA---------- | | | |
| 15 | L3 | AR1232-C | | | ----------NA---------- | | | |
| 16 | L3 | AR1232-D | | | ----------NA---------- | | | |
| 17 | L3 | AR1232-E | | | ----------NA---------- | | | |
| 18 | L3 | AR1232-F | | | ----------NA---------- | | | |
| 19 | L4 | AR1242-A | 200.000 | 201.107 | -0.6 | 101 | 0.00 | 2.97- 3.03 |
| 20 | L4 | AR1242-B | 200.000 | 200.515 | -0.3 | 100 | 0.00 | 3.49- 3.55 |
| 21 | L4 | AR1242-C | 200.000 | 199.258 | 0.4 | 100 | 0.00 | 3.68- 3.74 |
| 22 | L4 | AR1242-D | 200.000 | 198.391 | 0.8 | 99 | 0.00 | 3.84- 3.90 |
| 23 | L4 | AR1242-E | 200.000 | 195.348 | 2.3 | 98 | 0.00 | 4.33- 4.39 |
| 24 | L4 | AR1242-F | 200.000 | 196.451 | 1.8 | 98 | 0.00 | 4.50- 4.56 |
| 25 | L5 | AR1248-A | | | ----------NA---------- | | | |
| 26 | L5 | AR1248-B | | | ----------NA---------- | | | |
| 27 | L5 | AR1248-C | | | ----------NA---------- | | | |
| 28 | L5 | AR1248-D | | | ----------NA---------- | | | |
| 29 | L5 | AR1248-E | | | ----------NA---------- | | | |
| 30 | L5 | AR1248-F | | | ----------NA---------- | | | |
| 31 | L6 | AR1254-A | | | ----------NA---------- | | | |
| 32 | L6 | AR1254-B | | | ----------NA---------- | | | |
| 33 | L6 | AR1254-C | | | ----------NA---------- | | | |
| 34 | L6 | AR1254-D | | | ----------NA---------- | | | |
| 35 | L6 | AR1254-E | | | ----------NA---------- | | | |
| 36 | L6 | AR1254-F | | | ----------NA---------- | | | |
| 37 | L7 | AR1260-A | | | ----------NA---------- | | | |
| 38 | L7 | AR1260-B | | | ----------NA---------- | | | |
| 39 | L7 | AR1260-C | | | ----------NA---------- | | | |
| 40 | L7 | AR1260-D | | | ----------NA---------- | | | |
| 41 | L7 | AR1260-E | | | ----------NA---------- | | | |
| 42 | L7 | AR1260-F | | | ----------NA---------- | | | |
| 43 | L8 | AR1262-A | 200.000 | 210.478 | -5.2 | 105 | -0.03 | 5.81- 5.87 |

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GOO507-CC505
**Lab FileID:** OO30837.D

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 44 | L8 | AR1262-B | 200.000 | 208.536 | -4.3 | 104 | -0.03 | 6.74- 6.80 |
| 45 | L8 | AR1262-C | 200.000 | 218.611 | -9.3 | 109 | -0.03 | 6.97- 7.03 |
| 46 | L8 | AR1262-D | 200.000 | 209.074 | -4.5 | 105 | -0.03 | 8.20- 8.26 |
| 47 | L8 | AR1262-E | 200.000 | 207.328 | -3.7 | 104 | -0.03 | 8.80- 8.86 |
| 48 | L8 | AR1262-F | 200.000 | 207.151 | -3.6 | 104 | -0.03 | 8.94- 9.00 |
| 49 | L9 | AR1268-A | | ----------NA---------- | | | | |
| 50 | L9 | AR1268-B | | ----------NA---------- | | | | |
| 51 | L9 | AR1268-C | | ----------NA---------- | | | | |
| 52 | L9 | AR1268-D | | ----------NA---------- | | | | |
| 53 | L9 | AR1268-E | | ----------NA---------- | | | | |
| 54 | L9 | AR1268-F | | ----------NA---------- | | | | |
| 55 | S | Decachlorobiphenyl | 40.000 | 45.652 | -14.1 | 116 | 0.00 | 9.79- 9.85 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OO30783.D pcbq505.m Thu Aug 07 15:16:13 2014

8.7.17

8

# Continuing Calibration Summary



**Job Number:** TC52591 **Sample:** GOO507-CC505
**Account:** RFWTXHO Weston Solutions **Lab FileID:** OO30838.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\GOO507\OO30838.D\ECD1A.CH  Vial: 10
Acq On    : 07-Aug-14, 12:15:32                          Operator: almar
Sample    : cc505-200,1248                               Inst    : GCOO
Misc      : op33462,goo507                               Multiplr: 1.00
IntFile   : events.e

Data File : C:\msdchem\1\DATA\GOO507\OO30838.D\ECD2B.CH  Vial: 0
Acq On    : 07-Aug-14, 12:15:33                          Operator: almar
Sample    : cc505-200,1248                               Inst    : GCOO
Misc      : op33462,goo507                               Multiplr: 1.00
IntFile   : events2.e

Method       : C:\msdchem\1\METHODS\pcbq505.m (ChemStation Integrator)
Title        : PCB by 608 / 8082.
Last Update  : Wed Aug 06 09:08:42 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

| | | Compound | Amount | Calc. | %Drift | Area% | Dev(min) | RT Window |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | 40.000 | 44.355 | -10.9 | 109 | 0.00 | 1.42- 1.48 |
| 2 | L1 | AR1016-A | | ----------NA---------- | | | | |
| 3 | L1 | AR1016-B | | ----------NA---------- | | | | |
| 4 | L1 | AR1016-C | | ----------NA---------- | | | | |
| 5 | L1 | AR1016-D | | ----------NA---------- | | | | |
| 6 | L1 | AR1016-E | | ----------NA---------- | | | | |
| 7 | L1 | AR1016-F | | ----------NA---------- | | | | |
| 8 | L2 | AR1221-A | | ----------NA---------- | | | | |
| 9 | L2 | AR1221-B | | ----------NA---------- | | | | |
| 10 | L2 | AR1221-C | | ----------NA---------- | | | | |
| 11 | L2 | AR1221-D | | ----------NA---------- | | | | |
| 12 | L2 | AR1221-E | | ----------NA---------- | | | | |
| 13 | L3 | AR1232-A | | ----------NA---------- | | | | |
| 14 | L3 | AR1232-B | | ----------NA---------- | | | | |
| 15 | L3 | AR1232-C | | ----------NA---------- | | | | |
| 16 | L3 | AR1232-D | | ----------NA---------- | | | | |
| 17 | L3 | AR1232-E | | ----------NA---------- | | | | |
| 18 | L3 | AR1232-F | | ----------NA---------- | | | | |
| 19 | L4 | AR1242-A | | ----------NA---------- | | | | |
| 20 | L4 | AR1242-B | | ----------NA---------- | | | | |
| 21 | L4 | AR1242-C | | ----------NA---------- | | | | |
| 22 | L4 | AR1242-D | | ----------NA---------- | | | | |
| 23 | L4 | AR1242-E | | ----------NA---------- | | | | |
| 24 | L4 | AR1242-F | | ----------NA---------- | | | | |
| 25 | L5 | AR1248-A | 200.000 | 197.613 | 1.2 | 99 | 0.00 | 2.59- 2.65 |
| 26 | L5 | AR1248-B | 200.000 | 196.667 | 1.7 | 98 | 0.00 | 2.99- 3.05 |
| 27 | L5 | AR1248-C | 200.000 | 196.322 | 1.8 | 98 | 0.00 | 3.23- 3.29 |
| 28 | L5 | AR1248-D | 200.000 | 196.564 | 1.7 | 98 | 0.00 | 3.38- 3.44 |
| 29 | L5 | AR1248-E | 200.000 | 193.910 | 3.0 | 97 | 0.00 | 3.76- 3.82 |
| 30 | L5 | AR1248-F | 200.000 | 195.569 | 2.2 | 98 | 0.00 | 3.97- 4.03 |
| 31 | L6 | AR1254-A | | ----------NA---------- | | | | |
| 32 | L6 | AR1254-B | | ----------NA---------- | | | | |
| 33 | L6 | AR1254-C | | ----------NA---------- | | | | |
| 34 | L6 | AR1254-D | | ----------NA---------- | | | | |
| 35 | L6 | AR1254-E | | ----------NA---------- | | | | |
| 36 | L6 | AR1254-F | | ----------NA---------- | | | | |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** GOO507-CC505
**Account:** RFWTXHO Weston Solutions **Lab FileID:** OO30838.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 37 | L7 | AR1260-A | | ----------NA---------- | | | | |
| 38 | L7 | AR1260-B | | ----------NA---------- | | | | |
| 39 | L7 | AR1260-C | | ----------NA---------- | | | | |
| 40 | L7 | AR1260-D | | ----------NA---------- | | | | |
| 41 | L7 | AR1260-E | | ----------NA---------- | | | | |
| 42 | L7 | AR1260-F | | ----------NA---------- | | | | |
| 43 | L8 | AR1262-A | | ----------NA---------- | | | | |
| 44 | L8 | AR1262-B | | ----------NA---------- | | | | |
| 45 | L8 | AR1262-C | | ----------NA---------- | | | | |
| 46 | L8 | AR1262-D | | ----------NA---------- | | | | |
| 47 | L8 | AR1262-E | | ----------NA---------- | | | | |
| 48 | L8 | AR1262-F | | ----------NA---------- | | | | |
| 49 | L9 | AR1268-A | | ----------NA---------- | | | | |
| 50 | L9 | AR1268-B | | ----------NA---------- | | | | |
| 51 | L9 | AR1268-C | | ----------NA---------- | | | | |
| 52 | L9 | AR1268-D | | ----------NA---------- | | | | |
| 53 | L9 | AR1268-E | | ----------NA---------- | | | | |
| 54 | L9 | AR1268-F | | ----------NA---------- | | | | |
| 55 | S | Decachlorobiphenyl | 40.000 | 45.324 | -13.3 | 114 | -0.01 | 8.58- 8.64 |
| ***** | | Signal #2 ***** | | | | | | |
| 1 | S | Tetrachloro-m-xylene | 40.000 | 44.963 | -12.4 | 111 | 0.00 | 1.81- 1.87 |
| 2 | L1 | AR1016-A | | ----------NA---------- | | | | |
| 3 | L1 | AR1016-B | | ----------NA---------- | | | | |
| 4 | L1 | AR1016-C | | ----------NA---------- | | | | |
| 5 | L1 | AR1016-D | | ----------NA---------- | | | | |
| 6 | L1 | AR1016-E | | ----------NA---------- | | | | |
| 7 | L1 | AR1016-F | | ----------NA---------- | | | | |
| 8 | L2 | AR1221-A | | ----------NA---------- | | | | |
| 9 | L2 | AR1221-B | | ----------NA---------- | | | | |
| 10 | L2 | AR1221-C | | ----------NA---------- | | | | |
| 11 | L2 | AR1221-D | | ----------NA---------- | | | | |
| 12 | L2 | AR1221-E | | ----------NA---------- | | | | |
| 13 | L3 | AR1232-A | | ----------NA---------- | | | | |
| 14 | L3 | AR1232-B | | ----------NA---------- | | | | |
| 15 | L3 | AR1232-C | | ----------NA---------- | | | | |
| 16 | L3 | AR1232-D | | ----------NA---------- | | | | |
| 17 | L3 | AR1232-E | | ----------NA---------- | | | | |
| 18 | L3 | AR1232-F | | ----------NA---------- | | | | |
| 19 | L4 | AR1242-A | | ----------NA---------- | | | | |
| 20 | L4 | AR1242-B | | ----------NA---------- | | | | |
| 21 | L4 | AR1242-C | | ----------NA---------- | | | | |
| 22 | L4 | AR1242-D | | ----------NA---------- | | | | |
| 23 | L4 | AR1242-E | | ----------NA---------- | | | | |
| 24 | L4 | AR1242-F | | ----------NA---------- | | | | |
| 25 | L5 | AR1248-A | 200.000 | 204.793 | -2.4 | 102 | -0.02 | 3.50- 3.56 |
| 26 | L5 | AR1248-B | 200.000 | 199.272 | 0.4 | 100 | -0.02 | 3.96- 4.02 |
| 27 | L5 | AR1248-C | 200.000 | 201.034 | -0.5 | 101 | -0.02 | 4.35- 4.41 |
| 28 | L5 | AR1248-D | 200.000 | 200.218 | -0.1 | 100 | 0.00 | 4.51- 4.57 |
| 29 | L5 | AR1248-E | 200.000 | 198.628 | 0.7 | 99 | -0.02 | 4.78- 4.84 |
| 30 | L5 | AR1248-F | 200.000 | 192.724 | 3.6 | 96 | -0.02 | 5.19- 5.25 |
| 31 | L6 | AR1254-A | | ----------NA---------- | | | | |
| 32 | L6 | AR1254-B | | ----------NA---------- | | | | |
| 33 | L6 | AR1254-C | | ----------NA---------- | | | | |
| 34 | L6 | AR1254-D | | ----------NA---------- | | | | |
| 35 | L6 | AR1254-E | | ----------NA---------- | | | | |
| 36 | L6 | AR1254-F | | ----------NA---------- | | | | |
| 37 | L7 | AR1260-A | | ----------NA---------- | | | | |
| 38 | L7 | AR1260-B | | ----------NA---------- | | | | |

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX
**Sample:** GOO507-CC505
**Lab FileID:** OO30838.D

```
39 L7  AR1260-C                          ----------NA----------
40 L7  AR1260-D                          ----------NA----------
41 L7  AR1260-E                          ----------NA----------
42 L7  AR1260-F                          ----------NA----------
43 L8  AR1262-A                          ----------NA----------
44 L8  AR1262-B                          ----------NA----------
45 L8  AR1262-C                          ----------NA----------
46 L8  AR1262-D                          ----------NA----------
47 L8  AR1262-E                          ----------NA----------
48 L8  AR1262-F                          ----------NA----------
49 L9  AR1268-A                          ----------NA----------
50 L9  AR1268-B                          ----------NA----------
51 L9  AR1268-C                          ----------NA----------
52 L9  AR1268-D                          ----------NA----------
53 L9  AR1268-E                          ----------NA----------
54 L9  AR1268-F                          ----------NA----------
55 S   Decachlorobiphenyl      40.000  45.464    -13.7  116   0.00    9.79- 9.85
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    OO30783.D  pcbq505.m        Thu Aug 07 15:16:15 2014
```

8.7.18

8

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GOO507-CC505
**Lab FileID:** OO30844.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\GOO507\OO30844.D\ECD1A.CH  Vial: 16
Signal #2 : C:\msdchem\1\DATA\GOO507\OO30844.D\ECD2B.CH
Acq On    : 07-Aug-14, 14:56:50                      Operator: almar
Sample    : cc505-300,1016/1260                      Inst    : GCOO
Misc      : op33462,goo507                           Multiplr: 1.00
IntFile Signal #1: events.e     IntFile Signal #2: events2.e

Method       : C:\msdchem\1\METHODS\pcbq505.m (ChemStation Integrator)
Title        : PCB by 608 / 8082.
Last Update  : Wed Aug 06 09:08:42 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

| | | Compound | Amount | Calc. | %Drift | Area% | Dev(min) | RT Window |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | 60.000 | 57.639 | 3.9 | 98 | 0.00 | 1.42- 1.48 |
| 2 | L1 | AR1016-A | 300.000 | 304.634 | -1.5 | 104 | 0.00 | 2.12- 2.18 |
| 3 | L1 | AR1016-B | 300.000 | 302.735 | -0.9 | 103 | 0.00 | 2.59- 2.65 |
| 4 | L1 | AR1016-C | 300.000 | 302.978 | -1.0 | 103 | 0.00 | 2.70- 2.76 |
| 5 | L1 | AR1016-D | 300.000 | 303.773 | -1.3 | 103 | 0.00 | 2.79- 2.85 |
| 6 | L1 | AR1016-E | 300.000 | 302.388 | -0.8 | 103 | 0.00 | 3.23- 3.29 |
| 7 | L1 | AR1016-F | 300.000 | 298.600 | 0.5 | 102 | 0.00 | 3.37- 3.43 |
| 8 | L2 | AR1221-A | | ----------NA---------- | | | | |
| 9 | L2 | AR1221-B | | ----------NA---------- | | | | |
| 10 | L2 | AR1221-C | | ----------NA---------- | | | | |
| 11 | L2 | AR1221-D | | ----------NA---------- | | | | |
| 12 | L2 | AR1221-E | | ----------NA---------- | | | | |
| 13 | L3 | AR1232-A | | ----------NA---------- | | | | |
| 14 | L3 | AR1232-B | | ----------NA---------- | | | | |
| 15 | L3 | AR1232-C | | ----------NA---------- | | | | |
| 16 | L3 | AR1232-D | | ----------NA---------- | | | | |
| 17 | L3 | AR1232-E | | ----------NA---------- | | | | |
| 18 | L3 | AR1232-F | | ----------NA---------- | | | | |
| 19 | L4 | AR1242-A | | ----------NA---------- | | | | |
| 20 | L4 | AR1242-B | | ----------NA---------- | | | | |
| 21 | L4 | AR1242-C | | ----------NA---------- | | | | |
| 22 | L4 | AR1242-D | | ----------NA---------- | | | | |
| 23 | L4 | AR1242-E | | ----------NA---------- | | | | |
| 24 | L4 | AR1242-F | | ----------NA---------- | | | | |
| 25 | L5 | AR1248-A | | ----------NA---------- | | | | |
| 26 | L5 | AR1248-B | | ----------NA---------- | | | | |
| 27 | L5 | AR1248-C | | ----------NA---------- | | | | |
| 28 | L5 | AR1248-D | | ----------NA---------- | | | | |
| 29 | L5 | AR1248-E | | ----------NA---------- | | | | |
| 30 | L5 | AR1248-F | | ----------NA---------- | | | | |
| 31 | L6 | AR1254-A | | ----------NA---------- | | | | |
| 32 | L6 | AR1254-B | | ----------NA---------- | | | | |
| 33 | L6 | AR1254-C | | ----------NA---------- | | | | |
| 34 | L6 | AR1254-D | | ----------NA---------- | | | | |
| 35 | L6 | AR1254-E | | ----------NA---------- | | | | |
| 36 | L6 | AR1254-F | | ----------NA---------- | | | | |
| 37 | L7 | AR1260-A | 300.000 | 290.385 | 3.2 | 99 | 0.00 | 4.85- 4.91 |
| 38 | L7 | AR1260-B | 300.000 | 286.605 | 4.5 | 98 | 0.00 | 5.19- 5.25 |
| 39 | L7 | AR1260-C | 300.000 | 301.768 | -0.6 | 103 | 0.00 | 5.77- 5.83 |
| 40 | L7 | AR1260-D | 300.000 | 289.405 | 3.5 | 99 | -0.01 | 6.08- 6.14 |
| 41 | L7 | AR1260-E | 300.000 | 294.291 | 1.9 | 99 | -0.01 | 6.46- 6.52 |

# Continuing Calibration Summary

**Job Number:** TC52591 **Sample:** GOO507-CC505
**Account:** RFWTXHO Weston Solutions **Lab FileID:** OO30844.D
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 42 | L7 | AR1260-F | 300.000 | 301.775 | -0.6 | 103 | 0.00 | 6.85- 6.91 |
| 43 | L8 | AR1262-A | | ----------NA---------- | | | | |
| 44 | L8 | AR1262-B | | ----------NA---------- | | | | |
| 45 | L8 | AR1262-C | | ----------NA---------- | | | | |
| 46 | L8 | AR1262-D | | ----------NA---------- | | | | |
| 47 | L8 | AR1262-E | | ----------NA---------- | | | | |
| 48 | L8 | AR1262-F | | ----------NA---------- | | | | |
| 49 | L9 | AR1268-A | | ----------NA---------- | | | | |
| 50 | L9 | AR1268-B | | ----------NA---------- | | | | |
| 51 | L9 | AR1268-C | | ----------NA---------- | | | | |
| 52 | L9 | AR1268-D | | ----------NA---------- | | | | |
| 53 | L9 | AR1268-E | | ----------NA---------- | | | | |
| 54 | L9 | AR1268-F | | ----------NA---------- | | | | |
| 55 | S | Decachlorobiphenyl | 60.000 | 59.197 | 1.3 | 100 | -0.01 | 8.58- 8.64 |

***** Signal #2 *****

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | S | Tetrachloro-m-xylene | 60.000 | 61.657 | -2.8 | 104 | 0.00 | 1.81- 1.87 |
| 2 | L1 | AR1016-A | 300.000 | 302.000 | -0.7 | 103 | 0.00 | 2.97- 3.03 |
| 3 | L1 | AR1016-B | 300.000 | 300.528 | -0.2 | 103 | 0.00 | 3.49- 3.55 |
| 4 | L1 | AR1016-C | 300.000 | 290.945 | 3.0 | 102 | 0.00 | 3.68- 3.74 |
| 5 | L1 | AR1016-D | 300.000 | 286.293 | 4.6 | 102 | 0.00 | 3.84- 3.90 |
| 6 | L1 | AR1016-E | 300.000 | 300.884 | -0.3 | 102 | 0.00 | 4.33- 4.39 |
| 7 | L1 | AR1016-F | 300.000 | 311.056 | -3.7 | 105 | 0.00 | 4.50- 4.56 |
| 8 | L2 | AR1221-A | | ----------NA---------- | | | | |
| 9 | L2 | AR1221-B | | ----------NA---------- | | | | |
| 10 | L2 | AR1221-C | | ----------NA---------- | | | | |
| 11 | L2 | AR1221-D | | ----------NA---------- | | | | |
| 12 | L2 | AR1221-E | | ----------NA---------- | | | | |
| 13 | L3 | AR1232-A | | ----------NA---------- | | | | |
| 14 | L3 | AR1232-B | | ----------NA---------- | | | | |
| 15 | L3 | AR1232-C | | ----------NA---------- | | | | |
| 16 | L3 | AR1232-D | | ----------NA---------- | | | | |
| 17 | L3 | AR1232-E | | ----------NA---------- | | | | |
| 18 | L3 | AR1232-F | | ----------NA---------- | | | | |
| 19 | L4 | AR1242-A | | ----------NA---------- | | | | |
| 20 | L4 | AR1242-B | | ----------NA---------- | | | | |
| 21 | L4 | AR1242-C | | ----------NA---------- | | | | |
| 22 | L4 | AR1242-D | | ----------NA---------- | | | | |
| 23 | L4 | AR1242-E | | ----------NA---------- | | | | |
| 24 | L4 | AR1242-F | | ----------NA---------- | | | | |
| 25 | L5 | AR1248-A | | ----------NA---------- | | | | |
| 26 | L5 | AR1248-B | | ----------NA---------- | | | | |
| 27 | L5 | AR1248-C | | ----------NA---------- | | | | |
| 28 | L5 | AR1248-D | | ----------NA---------- | | | | |
| 29 | L5 | AR1248-E | | ----------NA---------- | | | | |
| 30 | L5 | AR1248-F | | ----------NA---------- | | | | |
| 31 | L6 | AR1254-A | | ----------NA---------- | | | | |
| 32 | L6 | AR1254-B | | ----------NA---------- | | | | |
| 33 | L6 | AR1254-C | | ----------NA---------- | | | | |
| 34 | L6 | AR1254-D | | ----------NA---------- | | | | |
| 35 | L6 | AR1254-E | | ----------NA---------- | | | | |
| 36 | L6 | AR1254-F | | ----------NA---------- | | | | |
| 37 | L7 | AR1260-A | 300.000 | 297.162 | 0.9 | 103 | -0.02 | 6.04- 6.10 |
| 38 | L7 | AR1260-B | 300.000 | 297.409 | 0.9 | 102 | -0.03 | 6.24- 6.30 |
| 39 | L7 | AR1260-C | 300.000 | 293.177 | 2.3 | 100 | -0.03 | 6.89- 6.95 |
| 40 | L7 | AR1260-D | 300.000 | 290.058 | 3.3 | 100 | -0.03 | 7.35- 7.41 |
| 41 | L7 | AR1260-E | 300.000 | 300.795 | -0.3 | 104 | -0.03 | 7.62- 7.68 |
| 42 | L7 | AR1260-F | 300.000 | 296.583 | 1.1 | 101 | -0.03 | 8.20- 8.26 |
| 43 | L8 | AR1262-A | | ----------NA---------- | | | | |

# Continuing Calibration Summary

**Job Number:** TC52591
**Account:** RFWTXHO Weston Solutions
**Project:** CES- Chemical Spill/4904 Griggs, Houston, TX

**Sample:** GOO507-CC505
**Lab FileID:** OO30844.D

```
44 L8  AR1262-B                          ----------NA----------
45 L8  AR1262-C                          ----------NA----------
46 L8  AR1262-D                          ----------NA----------
47 L8  AR1262-E                          ----------NA----------
48 L8  AR1262-F                          ----------NA----------
49 L9  AR1268-A                          ----------NA----------
50 L9  AR1268-B                          ----------NA----------
51 L9  AR1268-C                          ----------NA----------
52 L9  AR1268-D                          ----------NA----------
53 L9  AR1268-E                          ----------NA----------
54 L9  AR1268-F                          ----------NA----------
55 S   Decachlorobiphenyl      60.000  59.356      1.1  101   0.00    9.79- 9.85
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    OO30784.D  pcbq505.m        Thu Aug 07 15:15:50 2014
```

8.7.19

8

Gulf Coast ACCUTEST LABORATORIES

# Metals Analysis

## QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080514.ICP  Date Analyzed: 08/05/14  Methods: EPA 200.7, SW846 6010B
Analyst: EG  Run ID: MA10004
Parameters: Ca,Mg

| Time | Sample Description | Dilution Factor | PS Recov | Comments |
|---|---|---|---|---|
| 14:39 | MA10004-STD1 | 1 | | STDA |
| 14:46 | MA10004-STD2 | 1 | | STDB |
| 14:52 | MA10004-STD3 | 1 | | STDC |
| 14:59 | MA10004-ICV1 | 1 | | |
| 15:06 | MA10004-ICB1 | 1 | | |
| 15:12 | MA10004-CRI1 | 1 | | |
| 15:19 | ZZZZZZ | 1 | | |
| 15:26 | MA10004-ICSA1 | 1 | | |
| 15:33 | MA10004-ICSAB1 | 1 | | |
| 15:39 | MA10004-CCV1 | 1 | | |
| 15:46 | MA10004-CCB1 | 1 | | |
| 15:53 | ZZZZZZ | 1 | | |
| 15:59 | ZZZZZZ | 1 | | |
| 16:06 | ZZZZZZ | 1 | | |
| 16:13 | ZZZZZZ | 1 | | |
| 16:20 | ZZZZZZ | 1 | | |
| 16:26 | ZZZZZZ | 1 | | |
| 16:33 | ZZZZZZ | 1 | | |
| 16:40 | ZZZZZZ | 1 | | |
| 16:46 | MA10004-CCV2 | 1 | | |
| 16:53 | MA10004-CCB2 | 1 | | |
| 17:00 | MP23957-MB1 | 1 | | |
| 17:06 | MP23957-B1 | 1 | | |
| 17:13 | TC52647-1A | 1 | | (sample used for QC only; not part of login TC52591) |
| 17:19 | MP23957-SD1 | 5 | | |
| 17:26 | MP23957-S1 | 1 | | |
| 17:33 | MP23957-S2 | 1 | | |
| 17:39 | ZZZZZZ | 1 | | |
| 17:46 | ZZZZZZ | 1 | | |
| 17:53 | ZZZZZZ | 1 | | |
| 17:59 | MA10004-CCV3 | 1 | | |
| 18:06 | MA10004-CCB3 | 1 | | |
| 18:13 | ZZZZZZ | 1 | | |

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080514.ICP  Date Analyzed: 08/05/14  Methods: EPA 200.7, SW846 6010B
Analyst: EG  Run ID: MA10004
Parameters: Ca,Mg

| Time | Sample Description | Dilution Factor | PS Recov | Comments |
|---|---|---|---|---|
| 18:19 | ZZZZZZ | 1 | | |
| 18:26 | ZZZZZZ | 1 | | |
| 18:32 | ZZZZZZ | 1 | | |
| 18:39 | MA10004-CCV4 | 1 | | |
| 18:45 | MA10004-CCB4 | 1 | | |
| 18:52 | MP23945-MB1 | 1 | | |
| 18:59 | MP23945-LC1 | 1 | | |
| 19:05 | TC52220-1A | 1 | | (sample used for QC only; not part of login TC52591) |
| 19:12 | MP23945-SD1 | 5 | | |
| 19:19 | MP23945-S1 | 1 | | |
| 19:26 | MP23945-S2 | 1 | | |
| 19:33 | TC52220-1A | 5 | | (sample used for QC only; not part of login TC52591) |
| 19:39 | MP23945-SD1 | 25 | | BE |
| 19:46 | MP23945-S1 | 5 | | BE |
| 19:53 | MP23945-S2 | 5 | | BE |
| 19:59 | MA10004-CCV5 | 1 | | |
| 20:06 | MA10004-CCB5 | 1 | | |
| 20:13 | ZZZZZZ | 1 | | |
| 20:20 | ZZZZZZ | 5 | | |
| 20:27 | ZZZZZZ | 20 | | |
| 20:33 | ZZZZZZ | 5 | | |
| 20:40 | MA10004-CCV6 | 1 | | |
| 20:47 | MA10004-CCB6 | 1 | | |
| 20:53 | MP23948-MB1 | 1 | | |
| 21:00 | MP23948-B1 | 1 | | |
| 21:07 | TC52501-1 | 1 | | (sample used for QC only; not part of login TC52591) |
| 21:13 | MP23948-SD1 | 5 | | |
| 21:20 | MP23948-S1 | 1 | | |
| 21:26 | MP23948-S2 | 1 | | |
| 21:33 | ZZZZZZ | 5 | | |
| 21:40 | ZZZZZZ | 20 | | |
| 21:46 | TC52591-1 | 1 | | |
| 21:53 | TC52591-1 | 5 | | NOT REPORTED. |

----------> Last reportable sample/prep for job TC52591

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080514.ICP  Date Analyzed: 08/05/14  Methods: EPA 200.7, SW846 6010B
Analyst: EG  Run ID: MA10004
Parameters: Ca,Mg

| | Time | Sample Description | Dilution Factor | PS Recov | Comments |
|---|---|---|---|---|---|
| | 22:00 | MA10004-CCV7 | 1 | | |
| | 22:06 | MA10004-CCB7 | 1 | | |
| | 22:13 | MA10004-CRI2 | 1 | | |
| | 22:20 | ZZZZZZ | 1 | | |
| | 22:26 | MA10004-ICSA2 | 1 | | |
| | 22:33 | MA10004-ICSAB2 | 1 | | |
| | 22:40 | MA10004-CCV8 | 1 | | |
| | 22:46 | MA10004-CCB8 | 1 | | |
| ----------> | Last reportable CCB for job TC52591 | | | | |
| | 22:53 | MP23949-MB1 | 1 | | |
| | 23:00 | MP23949-MB2 | 1 | | |
| | 23:07 | MP23949-B1 | 1 | | |
| | 23:13 | TC52525-1 | 1 | | (sample used for QC only; not part of login TC52591) |
| | 23:20 | MP23949-SD1 | 5 | | |
| | 23:26 | MP23949-S1 | 1 | | |
| | 23:33 | MP23949-S2 | 1 | | |
| | 23:39 | ZZZZZZ | 1 | | |
| | 23:46 | ZZZZZZ | 1 | | |
| | 23:53 | ZZZZZZ | 1 | | |
| | 23:59 | MA10004-CCV9 | 1 | | |
| | 00:06 | MA10004-CCB9 | 1 | | |
| | 00:13 | ZZZZZZ | 5 | | |
| | 00:19 | ZZZZZZ | 1 | | |
| | 00:26 | MA10004-CCV10 | 1 | | |
| | 00:33 | MA10004-CCB10 | 1 | | |
| | 00:39 | MA10004-CRI3 | 1 | | |
| | 00:46 | ZZZZZZ | 1 | | |
| | 00:53 | MA10004-ICSA3 | 1 | | |
| | 01:00 | MA10004-ICSAB3 | 1 | | |
| | 01:06 | MA10004-CCV11 | 1 | | |
| | 01:13 | MA10004-CCB11 | 1 | | |

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080514.ICP  Date Analyzed: 08/05/14  Methods: EPA 200.7, SW846 6010B
Analyst: EG  Run ID: MA10004
Parameters: Ca,Mg

| Time | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|---|---|---|---|---|---|
| 14:39 | MA10004-STD1 | 3408 R | 174090 R | 17413 R | 756 R |
| 14:46 | MA10004-STD2 | 3213 | 162340 | 17226 | 667 |
| 14:52 | MA10004-STD3 | 3112 | 157410 | 16980 | 631 |
| 14:59 | MA10004-ICV1 | 3309 | 169410 | 17451 | 712 |
| 15:06 | MA10004-ICB1 | 3377 | 172660 | 17521 | 761 |
| 15:12 | MA10004-CRI1 | 3350 | 171220 | 17506 | 741 |
| 15:19 | ZZZZZZ | 3361 | 171250 | 17529 | 743 |
| 15:26 | MA10004-ICSA1 | 2871 | 145850 | 16480 | 580 |
| 15:33 | MA10004-ICSAB1 | 2862 | 145110 | 16524 | 581 |
| 15:39 | MA10004-CCV1 | 3173 | 161850 | 17343 | 665 |
| 15:46 | MA10004-CCB1 | 3409 | 174820 | 17616 | 767 |
| 15:53 | ZZZZZZ | 3258 | 154360 | 17874 | 642 |
| 15:59 | ZZZZZZ | 2848 | 145260 | 16461 | 588 |
| 16:06 | ZZZZZZ | 3201 | 165000 | 17604 | 783 |
| 16:13 | ZZZZZZ | 3293 | 174800 | 17993 | 701 |
| 16:20 | ZZZZZZ | 3315 | 175270 | 18074 | 763 |
| 16:26 | ZZZZZZ | 3330 | 174480 | 18036 | 754 |
| 16:33 | ZZZZZZ | 3374 | 174550 | 18008 | 769 |
| 16:40 | ZZZZZZ | 3358 | 175230 | 18211 | 765 |
| 16:46 | MA10004-CCV2 | 3123 | 161770 | 17629 | 659 |
| 16:53 | MA10004-CCB2 | 3292 | 173570 | 18204 | 765 |
| 17:00 | MP23957-MB1 | 3312 | 175500 | 18687 | 764 |
| 17:06 | MP23957-B1 | 3017 | 160600 | 18082 | 655 |
| 17:13 | TC52647-1A | 2897 | 148040 | 17629 | 602 |
| 17:19 | MP23957-SD1 | 3133 | 161320 | 17908 | 690 |
| 17:26 | MP23957-S1 | 2882 | 150210 | 18028 | 585 |
| 17:33 | MP23957-S2 | 2861 | 149790 | 17997 | 581 |
| 17:39 | ZZZZZZ | 3063 | 166320 | 18950 | 699 |
| 17:46 | ZZZZZZ | 2836 | 153460 | 18568 | 621 |
| 17:53 | ZZZZZZ | 2889 | 153720 | 18404 | 619 |
| 17:59 | MA10004-CCV3 | 3069 | 160840 | 17983 | 657 |
| 18:06 | MA10004-CCB3 | 3318 | 174880 | 18159 | 768 |
| 18:13 | ZZZZZZ | 3298 | 175370 | 18276 | 768 |

INTERNAL STANDARD SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080514.ICP  Date Analyzed: 08/05/14  Methods: EPA 200.7, SW846 6010B
Analyst: EG  Run ID: MA10004
Parameters: Ca,Mg

| Time | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|---|---|---|---|---|---|
| 18:19 | ZZZZZZ | 2982 | 160900 | 17855 | 650 |
| 18:26 | ZZZZZZ | 3103 | 159460 | 17353 | 663 |
| 18:32 | ZZZZZZ | 3115 | 171970 | 18458 | 762 |
| 18:39 | MA10004-CCV4 | 3146 | 163110 | 17902 | 668 |
| 18:45 | MA10004-CCB4 | 3367 | 175810 | 18112 | 771 |
| 18:52 | MP23945-MB1 | 3237 | 175450 | 18441 | 758 |
| 18:59 | MP23945-LC1 | 3521 | 187310 | 21249 | 664 |
| 19:05 | TC52220-1A | 2907 | 155840 | 18045 | 627 |
| 19:12 | MP23945-SD1 | 3148 | 168450 | 18537 | 710 |
| 19:19 | MP23945-S1 | 2869 | 154000 | 18006 | 609 |
| 19:26 | MP23945-S2 | 2875 | 154440 | 18201 | 614 |
| 19:33 | TC52220-1A | 3174 | 166640 | 18517 | 710 |
| 19:39 | MP23945-SD1 | 3346 | 176450 | 18615 | 764 |
| 19:46 | MP23945-S1 | 3202 | 166810 | 18266 | 709 |
| 19:53 | MP23945-S2 | 3292 | 168680 | 17998 | 718 |
| 19:59 | MA10004-CCV5 | 3236 | 167310 | 17997 | 684 |
| 20:06 | MA10004-CCB5 | 3353 | 179410 | 18592 | 777 |
| 20:13 | ZZZZZZ | 2749 | 146000 | 17807 | 546 |
| 20:20 | ZZZZZZ | 3004 | 161880 | 18442 | 654 |
| 20:27 | ZZZZZZ | 3121 | 166630 | 18446 | 691 |
| 20:33 | ZZZZZZ | 3211 | 170220 | 18899 | 711 |
| 20:40 | MA10004-CCV6 | 3155 | 166130 | 18179 | 671 |
| 20:47 | MA10004-CCB6 | 3188 | 174810 | 18289 | 756 |
| 20:53 | MP23948-MB1 | 3254 | 178880 | 19025 | 763 |
| 21:00 | MP23948-B1 | 3005 | 162680 | 18431 | 657 |
| 21:07 | TC52501-1 | 3015 | 161040 | 18290 | 670 |
| 21:13 | MP23948-SD1 | 3222 | 171870 | 18527 | 738 |
| 21:20 | MP23948-S1 | 2974 | 156650 | 17975 | 623 |
| 21:26 | MP23948-S2 | 2944 | 156980 | 18006 | 620 |
| 21:33 | ZZZZZZ | 3443 | 180210 | 20494 | 650 |
| 21:40 | ZZZZZZ | 3328 | 174370 | 18914 | 707 |
| 21:46 | TC52591-1 | 2946 | 157670 | 17973 | 645 |
| 21:53 | TC52591-1 | 3184 | 170330 | 18551 | 725 |

INTERNAL STANDARD SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080514.ICP  Date Analyzed: 08/05/14  Methods: EPA 200.7, SW846 6010B
Analyst: EG  Run ID: MA10004
Parameters: Ca,Mg

| Time | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|---|---|---|---|---|---|
| 22:00 | MA10004-CCV7 | 3204 | 165900 | 18030 | 678 |
| 22:06 | MA10004-CCB7 | 3224 | 174310 | 18360 | 763 |
| 22:13 | MA10004-CRI2 | 3258 | 175530 | 18924 | 751 |
| 22:20 | ZZZZZZ | 3278 | 174860 | 18743 | 754 |
| 22:26 | MA10004-ICSA2 | 2769 | 146710 | 17399 | 579 |
| 22:33 | MA10004-ICSAB2 | 2757 | 147070 | 17388 | 569 |
| 22:40 | MA10004-CCV8 | 3147 | 165860 | 18306 | 675 |
| 22:46 | MA10004-CCB8 | 3386 | 174740 | 17853 | 777 |
| 22:53 | MP23949-MB1 | 3459 | 179990 | 18356 | 787 |
| 23:00 | MP23949-MB2 | 3419 | 178630 | 18403 | 780 |
| 23:07 | MP23949-B1 | 3213 | 166580 | 18267 | 686 |
| 23:13 | TC52525-1 | 3397 | 177050 | 18523 | 780 |
| 23:20 | MP23949-SD1 | 3395 | 178710 | 18248 | 777 |
| 23:26 | MP23949-S1 | 3199 | 165460 | 18246 | 682 |
| 23:33 | MP23949-S2 | 3177 | 166290 | 18292 | 680 |
| 23:39 | ZZZZZZ | 3220 | 169340 | 18626 | 713 |
| 23:46 | ZZZZZZ | 3107 | 158570 | 18291 | 643 |
| 23:53 | ZZZZZZ | 3427 | 180070 | 19461 | 786 |
| 23:59 | MA10004-CCV9 | 3279 | 167570 | 17998 | 691 |
| 00:06 | MA10004-CCB9 | 3399 | 178010 | 18261 | 783 |
| 00:13 | ZZZZZZ | 3459 | 177660 | 18306 | 779 |
| 00:19 | ZZZZZZ | 3045 | 155370 | 18273 | 630 |
| 00:26 | MA10004-CCV10 | 3280 | 167120 | 17884 | 689 |
| 00:33 | MA10004-CCB10 | 3525 | 176150 | 17378 | 784 |
| 00:39 | MA10004-CRI3 | 3551 | 176120 | 17522 | 779 |
| 00:46 | ZZZZZZ | 3438 | 175390 | 17900 | 767 |
| 00:53 | MA10004-ICSA3 | 2936 | 148640 | 16607 | 604 |
| 01:00 | MA10004-ICSAB3 | 2905 | 148630 | 16773 | 590 |
| 01:06 | MA10004-CCV11 | 3256 | 166330 | 17677 | 685 |
| 01:13 | MA10004-CCB11 | 3149 | 171590 | 18145 | 734 |

R = Reference for ISTD limits.  ! = Outside limits.

LEGEND:

| Istd# | Parameter | Limits |
|---|---|---|
| Istd#1 | Yttrium (2243) | 60-125 % |
| Istd#2 | Yttrium (3710) | 60-125 % |
| Istd#3 | Yttrium (3710-2) | 60-125 % |

INTERNAL STANDARD SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080514.ICP  Date Analyzed: 08/05/14  Methods: EPA 200.7, SW846 6010B
Analyst: EG  Run ID: MA10004
Parameters: Ca,Mg

| Time | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|---|---|---|---|---|---|
| Istd#4 | Indium | | 60-125 % | | |

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080514.ICP  Date Analyzed: 08/05/14  Methods: EPA 200.7, SW846 6010B
QC Limits: result < RL  Run ID: MA10004  Units: ug/l

| Time: | | | 15:06 | | 15:46 | | 16:53 | | 18:06 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID: | | | ICB1 | | CCB1 | | CCB2 | | CCB3 | |
| Metal | RL | IDL | raw | final | raw | final | raw | final | raw | final |
| Aluminum | 200 | 6.9 | | | | | | | | |
| Antimony | 5.0 | .56 | | | | | | | | |
| Arsenic | 5.0 | 1 | anr | | | | | | | |
| Barium | 200 | .16 | | | | | | | | |
| Beryllium | 4.0 | .1 | anr | | | | | | | |
| Boron | 100 | .39 | | | | | | | | |
| Cadmium | 4.0 | .15 | | | | | | | | |
| Calcium | 5000 | 4 | -6.8 | <5000 | -5.3 | <5000 | -4.4 | <5000 | -3.9 | <5000 |
| Chromium | 10 | .22 | anr | | | | | | | |
| Cobalt | 50 | .25 | | | | | | | | |
| Copper | 20 | .24 | anr | | | | | | | |
| Iron | 100 | 4.6 | | | | | | | | |
| Lead | 3.0 | .65 | anr | | | | | | | |
| Lithium | 300 | .65 | | | | | | | | |
| Magnesium | 5000 | 7.7 | 0.90 | <5000 | -7.8 | <5000 | -5.7 | <5000 | -3.0 | <5000 |
| Manganese | 15 | .09 | anr | | | | | | | |
| Molybdenum | 10 | .62 | | | | | | | | |
| Nickel | 40 | .22 | anr | | | | | | | |
| Potassium | 5000 | 7.6 | anr | | | | | | | |
| Selenium | 5.0 | 1.2 | | | | | | | | |
| Silver | 10 | .2 | | | | | | | | |
| Sodium | 5000 | 5.7 | anr | | | | | | | |
| Strontium | 10 | .07 | | | | | | | | |
| Thallium | 10 | .83 | | | | | | | | |
| Tin | 50 | .67 | | | | | | | | |
| Titanium | 20 | .19 | | | | | | | | |
| Vanadium | 50 | .18 | | | | | | | | |
| Zinc | 20 | .13 | anr | | | | | | | |
| Sulfur | 50 | | | | | | | | | |

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080514.ICP  Date Analyzed: 08/05/14  Methods: EPA 200.7, SW846 6010B
QC Limits: result < RL  Run ID: MA10004  Units: ug/l

| Time: | | | 18:45 | | 20:06 | | 20:47 | | 22:06 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID: | | | CCB4 | | CCB5 | | CCB6 | | CCB7 | |
| Metal | RL | IDL | raw | final | raw | final | raw | final | raw | final |
| Aluminum | 200 | 6.9 | | | | | | | | |
| Antimony | 5.0 | .56 | | | | | | | | |
| Arsenic | 5.0 | 1 | anr | | | | | | | |
| Barium | 200 | .16 | | | | | | | | |
| Beryllium | 4.0 | .1 | anr | | | | | | | |
| Boron | 100 | .39 | | | | | | | | |
| Cadmium | 4.0 | .15 | | | | | | | | |
| Calcium | 5000 | 4 | -4.4 | <5000 | -4.3 | <5000 | -4.4 | <5000 | -4.2 | <5000 |
| Chromium | 10 | .22 | anr | | | | | | | |
| Cobalt | 50 | .25 | | | | | | | | |
| Copper | 20 | .24 | anr | | | | | | | |
| Iron | 100 | 4.6 | | | | | | | | |
| Lead | 3.0 | .65 | anr | | | | | | | |
| Lithium | 300 | .65 | | | | | | | | |
| Magnesium | 5000 | 7.7 | -3.7 | <5000 | -8.5 | <5000 | 6.2 | <5000 | -1.8 | <5000 |
| Manganese | 15 | .09 | anr | | | | | | | |
| Molybdenum | 10 | .62 | | | | | | | | |
| Nickel | 40 | .22 | anr | | | | | | | |
| Potassium | 5000 | 7.6 | anr | | | | | | | |
| Selenium | 5.0 | 1.2 | | | | | | | | |
| Silver | 10 | .2 | | | | | | | | |
| Sodium | 5000 | 5.7 | anr | | | | | | | |
| Strontium | 10 | .07 | | | | | | | | |
| Thallium | 10 | .83 | | | | | | | | |
| Tin | 50 | .67 | | | | | | | | |
| Titanium | 20 | .19 | | | | | | | | |
| Vanadium | 50 | .18 | | | | | | | | |
| Zinc | 20 | .13 | anr | | | | | | | |
| Sulfur | 50 | | | | | | | | | |

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080514.ICP  Date Analyzed: 08/05/14  Methods: EPA 200.7, SW846 6010B
QC Limits: result < RL  Run ID: MA10004  Units: ug/l

| Time: | | | 22:46 | |
|---|---|---|---|---|
| Sample ID: | | | CCB8 | |
| Metal | RL | IDL | raw | final |
| Aluminum | 200 | 6.9 | | |
| Antimony | 5.0 | .56 | | |
| Arsenic | 5.0 | 1 | anr | |
| Barium | 200 | .16 | | |
| Beryllium | 4.0 | .1 | anr | |
| Boron | 100 | .39 | | |
| Cadmium | 4.0 | .15 | | |
| Calcium | 5000 | 4 | -3.2 | <5000 |
| Chromium | 10 | .22 | anr | |
| Cobalt | 50 | .25 | | |
| Copper | 20 | .24 | anr | |
| Iron | 100 | 4.6 | | |
| Lead | 3.0 | .65 | anr | |
| Lithium | 300 | .65 | | |
| Magnesium | 5000 | 7.7 | -8.2 | <5000 |
| Manganese | 15 | .09 | anr | |
| Molybdenum | 10 | .62 | | |
| Nickel | 40 | .22 | anr | |
| Potassium | 5000 | 7.6 | anr | |
| Selenium | 5.0 | 1.2 | | |
| Silver | 10 | .2 | | |
| Sodium | 5000 | 5.7 | anr | |
| Strontium | 10 | .07 | | |
| Thallium | 10 | .83 | | |
| Tin | 50 | .67 | | |
| Titanium | 20 | .19 | | |
| Vanadium | 50 | .18 | | |
| Zinc | 20 | .13 | anr | |
| Sulfur | 50 | | | |

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080514.ICP  Date Analyzed: 08/05/14  Methods: EPA 200.7, SW846 6010B
QC Limits: 90 to 110 % Recovery  Run ID: MA10004  Units: ug/l

| Time: | | 14:59 | | | 15:39 | | | 16:46 | |
|---|---|---|---|---|---|---|---|---|---|
| Sample ID: | ICV | ICV1 | | CCV | CCV1 | | CCV | CCV2 | |
| Metal | True | Results | % Rec | True | Results | % Rec | True | Results | % Rec |
| Aluminum | | | | | | | | | |
| Antimony | | | | | | | | | |
| Arsenic | anr | | | | | | | | |
| Barium | | | | | | | | | |
| Beryllium | anr | | | | | | | | |
| Boron | | | | | | | | | |
| Cadmium | | | | | | | | | |
| Calcium | 5000 | 5160 | 103.2 | 40000 | 39200 | 98.0 | 40000 | 37800 | 94.5 |
| Chromium | anr | | | | | | | | |
| Cobalt | | | | | | | | | |
| Copper | anr | | | | | | | | |
| Iron | | | | | | | | | |
| Lead | anr | | | | | | | | |
| Lithium | | | | | | | | | |
| Magnesium | 5000 | 4860 | 97.2 | 40000 | 39500 | 98.8 | 40000 | 38600 | 96.5 |
| Manganese | anr | | | | | | | | |
| Molybdenum | | | | | | | | | |
| Nickel | anr | | | | | | | | |
| Potassium | anr | | | | | | | | |
| Selenium | | | | | | | | | |
| Silver | | | | | | | | | |
| Sodium | anr | | | | | | | | |
| Strontium | | | | | | | | | |
| Thallium | | | | | | | | | |
| Tin | | | | | | | | | |
| Titanium | | | | | | | | | |
| Vanadium | | | | | | | | | |
| Zinc | anr | | | | | | | | |
| Sulfur | | | | | | | | | |

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080514.ICP  Date Analyzed: 08/05/14  Methods: EPA 200.7, SW846 6010B
QC Limits: 90 to 110 % Recovery  Run ID: MA10004  Units: ug/l

| Time: | | 17:59 | | | 18:39 | | | 19:59 | |
|---|---|---|---|---|---|---|---|---|---|
| Sample ID: | CCV | CCV3 | | CCV | CCV4 | | CCV | CCV5 | |
| Metal | True | Results | % Rec | True | Results | % Rec | True | Results | % Rec |
| Aluminum | | | | | | | | | |
| Antimony | | | | | | | | | |
| Arsenic | anr | | | | | | | | |
| Barium | | | | | | | | | |
| Beryllium | anr | | | | | | | | |
| Boron | | | | | | | | | |
| Cadmium | | | | | | | | | |
| Calcium | 40000 | 36600 | 91.5 | 40000 | 37300 | 93.3 | 40000 | 37800 | 94.5 |
| Chromium | anr | | | | | | | | |
| Cobalt | | | | | | | | | |
| Copper | anr | | | | | | | | |
| Iron | | | | | | | | | |
| Lead | anr | | | | | | | | |
| Lithium | | | | | | | | | |
| Magnesium | 40000 | 37600 | 94.0 | 40000 | 38000 | 95.0 | 40000 | 38200 | 95.5 |
| Manganese | anr | | | | | | | | |
| Molybdenum | | | | | | | | | |
| Nickel | anr | | | | | | | | |
| Potassium | anr | | | | | | | | |
| Selenium | | | | | | | | | |
| Silver | | | | | | | | | |
| Sodium | anr | | | | | | | | |
| Strontium | | | | | | | | | |
| Thallium | | | | | | | | | |
| Tin | | | | | | | | | |
| Titanium | | | | | | | | | |
| Vanadium | | | | | | | | | |
| Zinc | anr | | | | | | | | |
| Sulfur | | | | | | | | | |

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080514.ICP  Date Analyzed: 08/05/14  Methods: EPA 200.7, SW846 6010B
QC Limits: 90 to 110 % Recovery  Run ID: MA10004  Units: ug/l

| Time: | | 20:40 | | | 22:00 | | | 22:40 | |
|---|---|---|---|---|---|---|---|---|---|
| Sample ID: | CCV | CCV6 | | CCV | CCV7 | | CCV | CCV8 | |
| Metal | True | Results | % Rec | True | Results | % Rec | True | Results | % Rec |
| Aluminum | | | | | | | | | |
| Antimony | | | | | | | | | |
| Arsenic | anr | | | | | | | | |
| Barium | | | | | | | | | |
| Beryllium | anr | | | | | | | | |
| Boron | | | | | | | | | |
| Cadmium | | | | | | | | | |
| Calcium | 40000 | 37300 | 93.3 | 40000 | 37300 | 93.3 | 40000 | 36800 | 92.0 |
| Chromium | anr | | | | | | | | |
| Cobalt | | | | | | | | | |
| Copper | anr | | | | | | | | |
| Iron | | | | | | | | | |
| Lead | anr | | | | | | | | |
| Lithium | | | | | | | | | |
| Magnesium | 40000 | 37900 | 94.8 | 40000 | 38100 | 95.3 | 40000 | 37700 | 94.3 |
| Manganese | anr | | | | | | | | |
| Molybdenum | | | | | | | | | |
| Nickel | anr | | | | | | | | |
| Potassium | anr | | | | | | | | |
| Selenium | | | | | | | | | |
| Silver | | | | | | | | | |
| Sodium | anr | | | | | | | | |
| Strontium | | | | | | | | | |
| Thallium | | | | | | | | | |
| Tin | | | | | | | | | |
| Titanium | | | | | | | | | |
| Vanadium | | | | | | | | | |
| Zinc | anr | | | | | | | | |
| Sulfur | | | | | | | | | |

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080514.ICP  Date Analyzed: 08/05/14  Methods: EPA 200.7, SW846 6010B
QC Limits: 50 to 150 % Recovery  Run ID: MA10004  Units: ug/l

| Time: | | | 15:12 | | 22:13 | |
|---|---|---|---|---|---|---|
| Sample ID: | CRI | CRIA | CRI1 | | CRI2 | |
| Metal | True | True | Results | % Rec | Results | % Rec |
| Aluminum | 200 | 400 | | | | |
| Antimony | 5.0 | 10 | | | | |
| Arsenic | 5.0 | 10 | anr | | | |
| Barium | 200 | 400 | | | | |
| Beryllium | 4.0 | 4.0 | anr | | | |
| Boron | 100 | 200 | | | | |
| Cadmium | 4.0 | 4.0 | | | | |
| Calcium | 5000 | 10000 | 5060 | 101.2 | 4580 | 91.6 |
| Chromium | 10 | 10 | anr | | | |
| Cobalt | 50 | 10 | | | | |
| Copper | 20 | 20 | anr | | | |
| Iron | 100 | 200 | | | | |
| Lead | 3.0 | 6.0 | anr | | | |
| Lithium | 300 | 600 | | | | |
| Magnesium | 5000 | 10000 | 5120 | 102.4 | 4760 | 95.2 |
| Manganese | 15 | 30 | anr | | | |
| Molybdenum | 10 | 20 | | | | |
| Nickel | 40 | 20 | anr | | | |
| Potassium | 5000 | 10000 | anr | | | |
| Selenium | 5.0 | 10 | | | | |
| Silver | 10 | 4.0 | | | | |
| Sodium | 5000 | 10000 | anr | | | |
| Strontium | 20 | 20 | | | | |
| Thallium | 10 | 4.0 | | | | |
| Tin | 20 | 20 | | | | |
| Titanium | 20 | 20 | | | | |
| Vanadium | 50 | 100 | | | | |
| Zinc | 20 | 10 | anr | | | |
| Sulfur | 50 | 50 | | | | |

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080514.ICP  Date Analyzed: 08/05/14  Methods: EPA 200.7, SW846 6010B
QC Limits: 80 to 120 % Recovery  Run ID: MA10004  Units: ug/l

| Time: / Sample ID: / Metal | ICSA True | ICSAB True | 15:26 ICSA1 Results | % Rec | 15:33 ICSAB1 Results | % Rec | 22:26 ICSA2 Results | % Rec | 22:33 ICSAB2 Results | % Rec |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 500000 | 500000 | 508000 | 101.6 | 514000 | 102.8 | 508000 | 101.6 | 504000 | 100.8 |
| Antimony | | 1000 | 0.38 | | 1010 | 101.0 | 1.3 | | 1060 | 106.0 |
| Arsenic | | 1000 | 9.9 | | 933 | 93.3 | 0.87 | | 934 | 93.4 |
| Barium | | 500 | 4.8 | | 491 | 98.2 | 4.6 | | 500 | 100.0 |
| Beryllium | | 500 | 0.26 | | 472 | 94.4 | 0.40 | | 460 | 92.0 |
| Boron | | | 2.7 | | -0.29 | | 2.0 | | -1.3 | |
| Cadmium | | 1000 | 0.17 | | 1020 | 102.0 | 0.56 | | 1030 | 103.0 |
| Calcium | 500000 | 500000 | 464000 | 92.8 | 459000 | 91.8 | 432000 | 86.4 | 429000 | 85.8 |
| Chromium | | 500 | 0.21 | | 456 | 91.2 | -0.020 | | 435 | 87.0 |
| Cobalt | | 500 | -1.4 | | 441 | 88.2 | -1.4 | | 435 | 87.0 |
| Copper | | 500 | 0.56 | | 525 | 105.0 | 0.77 | | 544 | 108.8 |
| Iron | 200000 | 200000 | 180000 | 90.0 | 179000 | 89.5 | 170000 | 85.0 | 169000 | 84.5 |
| Lead | | 1000 | -0.94 | | 881 | 88.1 | 2.6 | | 848 | 84.8 |
| Lithium | | | 5.8 | | 6.2 | | 6.6 | | 6.4 | |
| Magnesium | 500000 | 500000 | 508000 | 101.6 | 506000 | 101.2 | 484000 | 96.8 | 481000 | 96.2 |
| Manganese | | 500 | 1.8 | | 470 | 94.0 | 2.0 | | 455 | 91.0 |
| Molybdenum | | 500 | -1.4 | | 468 | 93.6 | -1.8 | | 476 | 95.2 |
| Nickel | | 1000 | -0.52 | | 889 | 88.9 | -0.91 | | 869 | 86.9 |
| Potassium | | | 176 | | 41.4 | | 90.7 | | 50.8 | |
| Selenium | | 1000 | -0.84 | | 952 | 95.2 | -1.3 | | 974 | 97.4 |
| Silver | | 1000 | -1.9 | | 1120 | 112.0 | -1.7 | | 1100 | 110.0 |
| Sodium | | | -31 | | -20 | | -19 | | -9.2 | |
| Strontium | | | 2.4 | | 2.5 | | 2.9 | | 2.8 | |
| Thallium | | 1000 | -11 | | 872 | 87.2 | -10 | | 859 | 85.9 |
| Tin | | | -4.6 | | -2.4 | | -5.6 | | -2.5 | |
| Titanium | | | 3.1 | | 3.0 | | 3.0 | | 2.7 | |
| Vanadium | | 500 | 2.2 | | 465 | 93.0 | 2.3 | | 456 | 91.2 |
| Zinc | | 1000 | 6.6 | | 991 | 99.1 | 10.1 | | 989 | 98.9 |
| Sulfur | | | 25.2 | | 25.8 | | 14.3 | | 11.0 | |

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP  Date Analyzed: 08/04/14  Methods: EPA 200.7, SW846 6010B
Analyst: EG  Run ID: MA9995
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time | Sample Description | Dilution Factor | PS Recov | Comments |
|---|---|---|---|---|
| 15:21 | MA9995-STD1 | 1 | | STDA |
| 15:28 | MA9995-STD2 | 1 | | STDB |
| 15:35 | MA9995-STD3 | 1 | | STDC |
| 15:41 | MA9995-ICV1 | 1 | | |
| 15:48 | MA9995-ICB1 | 1 | | |
| 15:55 | ZZZZZZ | 1 | | |
| 16:15 | MA9995-CRI1 | 1 | | |
| 16:21 | MA9995-ICSA1 | 1 | | |
| 16:28 | MA9995-ICSAB1 | 1 | | |
| 16:35 | MA9995-CCV1 | 1 | | |
| 16:41 | MA9995-CCB1 | 1 | | |
| 16:48 | ZZZZZZ | 1 | | |
| 16:55 | ZZZZZZ | 1 | | |
| 17:02 | ZZZZZZ | 1 | | |
| 17:08 | ZZZZZZ | 1 | | |
| 17:15 | ZZZZZZ | 1 | | |
| 17:22 | ZZZZZZ | 1 | | |
| 17:28 | ZZZZZZ | 1 | | |
| 17:35 | ZZZZZZ | 1 | | |
| 17:42 | MA9995-CCV2 | 1 | | |
| 17:48 | MA9995-CCB2 | 1 | | |
| 17:55 | ZZZZZZ | 1 | | |
| 18:02 | ZZZZZZ | 1 | | |
| 18:08 | TC52370-1 | 1 | | (sample used for QC only; not part of login TC52591) |
| 18:15 | ZZZZZZ | 10 | | |
| 18:22 | ZZZZZZ | 1000 | | |
| 18:29 | ZZZZZZ | 10 | | |
| 18:36 | ZZZZZZ | 1000 | | |
| 18:43 | ZZZZZZ | 5 | | |
| 18:50 | ZZZZZZ | 5 | | |
| 18:56 | ZZZZZZ | 1 | | |
| 19:03 | MA9995-CCV3 | 1 | | |
| 19:10 | MA9995-CCB3 | 1 | | |

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP  Date Analyzed: 08/04/14  Methods: EPA 200.7, SW846 6010B
Analyst: EG  Run ID: MA9995
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time | Sample Description | Dilution Factor | PS Recov | Comments |
|---|---|---|---|---|
| 19:17 | ZZZZZZ | 1 | | |
| 19:23 | ZZZZZZ | 1 | | |
| 19:30 | ZZZZZZ | 5 | | |
| 19:37 | ZZZZZZ | 1 | | |
| 19:44 | ZZZZZZ | 1 | | |
| 19:50 | ZZZZZZ | 5 | | |
| 19:57 | ZZZZZZ | 5 | | |
| 20:04 | ZZZZZZ | 5 | | |
| 20:11 | ZZZZZZ | 50 | | |
| 20:17 | MA9995-CCV4 | 1 | | Ca out |
| 20:24 | MA9995-CCB4 | 1 | | |
| 20:31 | ZZZZZZ | 1 | | |
| 20:37 | ZZZZZZ | 1 | | |
| 20:44 | TC52421-1 | 1 | | (sample used for QC only; not part of login TC52591) |
| 20:51 | ZZZZZZ | 5 | | |
| 20:57 | ZZZZZZ | 1 | | |
| 21:04 | ZZZZZZ | 1 | | |
| 21:11 | ZZZZZZ | 1 | | |
| 21:17 | ZZZZZZ | 5 | | |
| 21:24 | ZZZZZZ | 1 | | |
| 21:31 | ZZZZZZ | 5 | | |
| 21:38 | MA9995-CCV5 | 1 | | |
| 21:44 | MA9995-CCB5 | 1 | | |
| 21:51 | ZZZZZZ | 1 | | |
| 21:58 | ZZZZZZ | 5 | | |
| 22:04 | ZZZZZZ | 1 | | |
| 22:11 | ZZZZZZ | 5 | | |
| 22:18 | ZZZZZZ | 1 | | |
| 22:24 | ZZZZZZ | 5 | | |
| 22:31 | ZZZZZZ | 1 | | |
| 22:37 | ZZZZZZ | 5 | | |
| 22:44 | ZZZZZZ | 1 | | |
| 22:51 | ZZZZZZ | 5 | | |

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP  Date Analyzed: 08/04/14  Methods: EPA 200.7, SW846 6010B
Analyst: EG  Run ID: MA9995
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time | Sample Description | Dilution Factor | PS Recov | Comments |
|---|---|---|---|---|
| 22:57 | MA9995-CCV6 | 1 | | |
| 23:04 | MA9995-CCB6 | 1 | | |
| 23:11 | ZZZZZZ | 1 | | |
| 23:17 | ZZZZZZ | 5 | | |
| 23:24 | ZZZZZZ | 5 | | |
| 23:30 | ZZZZZZ | 1 | | |
| 23:37 | ZZZZZZ | 1 | | |
| 23:45 | MA9995-CCV7 | 1 | | Ca,Cr,Mg,Ag out |
| 23:51 | MA9995-CCB7 | 1 | | |
| 23:58 | MA9995-CRI2 | 1 | | |
| 00:05 | ZZZZZZ | 1 | | |
| 00:11 | MA9995-ICSA2 | 1 | | |
| 00:18 | MA9995-ICSAB2 | 1 | | |
| 00:25 | MA9995-CCV8 | 1 | | Ca,Mg out |
| 00:32 | MA9995-CCB8 | 1 | | |
| 00:38 | ZZZZZZ | 1 | | |
| 00:45 | ZZZZZZ | 1 | | |
| 00:51 | ZZZZZZ | 5 | | |
| 00:58 | ZZZZZZ | 10 | | |
| 01:05 | MA9995-CCV9 | 1 | | Ca,Mg out |
| 01:12 | MA9995-CCB9 | 1 | | |
| 01:18 | MP23948-MB1 | 1 | | CCV out for Ca,Mg |
| 01:25 | MP23948-B1 | 1 | | CCV out for Ca,Mg |
| 01:31 | TC52501-1 | 1 | | (sample used for QC only; not part of login TC52591) |
| 01:38 | MP23948-SD1 | 5 | | |
| 01:45 | MP23948-S1 | 1 | | |
| 01:51 | MP23948-S2 | 1 | | |
| 01:58 | ZZZZZZ | 5 | | |
| 02:05 | ZZZZZZ | 20 | | |
| 02:11 | TC52591-1 | 1 | | CCV out |
| 02:18 | TC52591-1 | 5 | | CCV out |
| ----------> | Last reportable sample/prep for job TC52591 | | | |
| 02:25 | MA9995-CCV10 | 1 | | Ca,Mg out |
| 02:31 | MA9995-CCB10 | 1 | | |

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP  Date Analyzed: 08/04/14  Methods: EPA 200.7, SW846 6010B
Analyst: EG  Run ID: MA9995
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time | Sample Description | Dilution Factor | PS Recov | Comments |
|---|---|---|---|---|
| 02:38 | MP23942-MB1 | 1 | | FB hit to be confirmed. CCv out for Ca,Mg |
| 02:45 | MP23942-B1 | 1 | | CCV out for Ca,Mg |
| 02:51 | TC52505-1 | 1 | | (sample used for QC only; not part of login TC52591) |
| 02:58 | MP23942-SD1 | 5 | | |
| 03:04 | MP23942-S1 | 1 | | |
| 03:11 | MP23942-S2 | 1 | | |
| 03:18 | ZZZZZZ | 1 | | |
| 03:24 | ZZZZZZ | 1 | | |
| 03:31 | ZZZZZZ | 5 | | |
| 03:38 | ZZZZZZ | 20 | | |
| 03:45 | MA9995-CCV11 | 1 | | |
| 03:51 | MA9995-CCB11 | 1 | | |
| 03:58 | ZZZZZZ | 1 | | |
| 04:05 | ZZZZZZ | 1 | | |
| 04:12 | ZZZZZZ | 1 | | |
| 04:19 | ZZZZZZ | 1 | | |
| 04:25 | ZZZZZZ | 1 | | |
| 04:32 | ZZZZZZ | 1 | | |
| 04:39 | ZZZZZZ | 1 | | |
| 04:45 | ZZZZZZ | 1 | | |
| 04:52 | ZZZZZZ | 1 | | |
| 04:59 | ZZZZZZ | 1 | | |
| 05:05 | MA9995-CCV12 | 1 | | |
| 05:12 | MA9995-CCB12 | 1 | | |
| 05:19 | ZZZZZZ | 1 | | |
| 05:25 | MA9995-CRI3 | 1 | | |
| 05:32 | MA9995-ICSA3 | 1 | | |
| 05:39 | MA9995-ICSAB3 | 1 | | |
| 05:46 | MA9995-CCV13 | 1 | | |
| 05:52 | MA9995-CCB13 | 1 | | |

----------> Last reportable CCB for job TC52591
Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP Date Analyzed: 08/04/14 Methods: EPA 200.7, SW846 6010B
Analyst: EG Run ID: MA9995
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|---|---|---|---|---|---|
| 15:21 | MA9995-STD1 | 3553 R | 179420 R | 17342 R | 791 R |
| 15:28 | MA9995-STD2 | 3385 | 167960 | 16954 | 700 |
| 15:35 | MA9995-STD3 | 3283 | 162480 | 16819 | 663 |
| 15:41 | MA9995-ICV1 | 3495 | 172100 | 17043 | 739 |
| 15:48 | MA9995-ICB1 | 3646 | 182270 | 17447 | 807 |
| 15:55 | ZZZZZZ | 3572 | 177960 | 17344 | 784 |
| 16:15 | MA9995-CRI1 | 3548 | 178420 | 17493 | 779 |
| 16:21 | MA9995-ICSA1 | 3082 | 152040 | 16194 | 619 |
| 16:28 | MA9995-ICSAB1 | 3056 | 151480 | 16240 | 614 |
| 16:35 | MA9995-CCV1 | 3408 | 169220 | 17182 | 704 |
| 16:41 | MA9995-CCB1 | 3548 | 180750 | 17502 | 794 |
| 16:48 | ZZZZZZ | 3462 | 162100 | 17806 | 672 |
| 16:55 | ZZZZZZ | 2985 | 151260 | 16495 | 606 |
| 17:02 | ZZZZZZ | 3370 | 171890 | 17553 | 815 |
| 17:08 | ZZZZZZ | 3518 | 181900 | 17901 | 739 |
| 17:15 | ZZZZZZ | 3532 | 181440 | 17810 | 795 |
| 17:22 | ZZZZZZ | 3507 | 179640 | 17857 | 786 |
| 17:28 | ZZZZZZ | 3534 | 180650 | 17921 | 791 |
| 17:35 | ZZZZZZ | 3418 | 181410 | 18050 | 786 |
| 17:42 | MA9995-CCV2 | 3192 | 164900 | 17745 | 681 |
| 17:48 | MA9995-CCB2 | 3468 | 180630 | 18224 | 791 |
| 17:55 | ZZZZZZ | 3431 | 182020 | 18560 | 783 |
| 18:02 | ZZZZZZ | 3728 | 193620 | 20922 | 701 |
| 18:08 | TC52370-1 | 3679 | 188220 | 21431 | 620 |
| 18:15 | ZZZZZZ | 4266 | 158050 | 17893 | 641 |
| 18:22 | ZZZZZZ | 3569 | 185350 | 18678 | 807 |
| 18:29 | ZZZZZZ | 4327 | 156810 | 17883 | 637 |
| 18:36 | ZZZZZZ | 3552 | 185550 | 18610 | 806 |
| 18:43 | ZZZZZZ | 3384 | 172820 | 18390 | 698 |
| 18:50 | ZZZZZZ | 3261 | 167730 | 17857 | 693 |
| 18:56 | ZZZZZZ | 3693 | 186570 | 21280 | 607 |
| 19:03 | MA9995-CCV3 | 3519 | 175580 | 18051 | 728 |
| 19:10 | MA9995-CCB3 | 3650 | 187790 | 18146 | 825 |

INTERNAL STANDARD SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP Date Analyzed: 08/04/14 Methods: EPA 200.7, SW846 6010B
Analyst: EG Run ID: MA9995
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|---|---|---|---|---|---|
| 19:17 | ZZZZZZ | 3585 | 185730 | 18385 | 809 |
| 19:23 | ZZZZZZ | 3288 | 169540 | 18025 | 699 |
| 19:30 | ZZZZZZ | 2995 | 146460 | 16801 | 593 |
| 19:37 | ZZZZZZ | 3024 | 154630 | 17164 | 612 |
| 19:44 | ZZZZZZ | 3312 | 171150 | 18111 | 721 |
| 19:50 | ZZZZZZ | 3361 | 167980 | 18132 | 707 |
| 19:57 | ZZZZZZ | 3525 | 182730 | 18683 | 800 |
| 20:04 | ZZZZZZ | 3269 | 168100 | 18573 | 686 |
| 20:11 | ZZZZZZ | 3449 | 179910 | 18831 | 772 |
| 20:17 | MA9995-CCV4 | 3306 | 171800 | 18514 | 705 |
| 20:24 | MA9995-CCB4 | 3522 | 186520 | 18964 | 810 |
| 20:31 | ZZZZZZ | 3531 | 186160 | 18882 | 808 |
| 20:37 | ZZZZZZ | 3686 | 191650 | 20739 | 703 |
| 20:44 | TC52421-1 | 3396 | 176360 | 19599 | 688 |
| 20:51 | ZZZZZZ | 3444 | 180530 | 19317 | 758 |
| 20:57 | ZZZZZZ | 3307 | 173250 | 19751 | 634 |
| 21:04 | ZZZZZZ | 3306 | 172190 | 19525 | 651 |
| 21:11 | ZZZZZZ | 3521 | 182260 | 20254 | 694 |
| 21:17 | ZZZZZZ | 3492 | 182440 | 19471 | 771 |
| 21:24 | ZZZZZZ | 3427 | 179000 | 20334 | 672 |
| 21:31 | ZZZZZZ | 3432 | 180670 | 19514 | 753 |
| 21:38 | MA9995-CCV5 | 3413 | 167820 | 17420 | 708 |
| 21:44 | MA9995-CCB5 | 3675 | 184460 | 17795 | 820 |
| 21:51 | ZZZZZZ | 3602 | 177260 | 18720 | 705 |
| 21:58 | ZZZZZZ | 3645 | 180370 | 18087 | 768 |
| 22:04 | ZZZZZZ | 3620 | 179380 | 19450 | 684 |
| 22:11 | ZZZZZZ | 3656 | 181030 | 18573 | 767 |
| 22:18 | ZZZZZZ | 3591 | 178950 | 19184 | 700 |
| 22:24 | ZZZZZZ | 3645 | 182640 | 18546 | 780 |
| 22:31 | ZZZZZZ | 3587 | 178990 | 18911 | 704 |
| 22:37 | ZZZZZZ | 3634 | 182000 | 18434 | 779 |
| 22:44 | ZZZZZZ | 3574 | 179020 | 18874 | 711 |
| 22:51 | ZZZZZZ | 3555 | 182010 | 18601 | 760 |

INTERNAL STANDARD SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP Date Analyzed: 08/04/14 Methods: EPA 200.7, SW846 6010B
Analyst: EG Run ID: MA9995
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|---|---|---|---|---|---|
| 22:57 | MA9995-CCV6 | 3482 | 176940 | 18391 | 730 |
| 23:04 | MA9995-CCB6 | 3689 | 191240 | 18894 | 840 |
| 23:11 | ZZZZZZ | 3467 | 176730 | 18947 | 695 |
| 23:17 | ZZZZZZ | 3609 | 184420 | 19011 | 777 |
| 23:24 | ZZZZZZ | 3596 | 185360 | 19609 | 738 |
| 23:30 | ZZZZZZ | 3138 | 182520 | 21722 ! | 521 |
| 23:37 | ZZZZZZ | 3628 | 188710 | 21721 ! | 613 |
| 23:45 | MA9995-CCV7 | 3415 | 177470 | 19147 | 728 |
| 23:51 | MA9995-CCB7 | 3616 | 190910 | 19477 | 835 |
| 23:58 | MA9995-CRI2 | 3558 | 187430 | 19401 | 810 |
| 00:05 | ZZZZZZ | 3532 | 187190 | 19575 | 807 |
| 00:11 | MA9995-ICSA2 | 3000 | 157450 | 18121 | 628 |
| 00:18 | MA9995-ICSAB2 | 2938 | 155720 | 17987 | 613 |
| 00:25 | MA9995-CCV8 | 3313 | 173960 | 18975 | 711 |
| 00:32 | MA9995-CCB8 | 3480 | 187360 | 19515 | 811 |
| 00:38 | ZZZZZZ | 3479 | 189300 | 20179 | 817 |
| 00:45 | ZZZZZZ | 3193 | 172050 | 19535 | 698 |
| 00:51 | ZZZZZZ | 2667 | 129310 | 17236 | 497 |
| 00:58 | ZZZZZZ | 2862 | 142200 | 17861 | 564 |
| 01:05 | MA9995-CCV9 | 3310 | 173340 | 18995 | 706 |
| 01:12 | MA9995-CCB9 | 3514 | 187820 | 19342 | 810 |
| 01:18 | MP23948-MB1 | 3479 | 185290 | 19006 | 802 |
| 01:25 | MP23948-B1 | 3243 | 169520 | 18435 | 694 |
| 01:31 | TC52501-1 | 3257 | 168280 | 18108 | 705 |
| 01:38 | MP23948-SD1 | 3483 | 178960 | 18539 | 778 |
| 01:45 | MP23948-S1 | 3207 | 164680 | 18087 | 665 |
| 01:51 | MP23948-S2 | 3159 | 163720 | 18044 | 659 |
| 01:58 | ZZZZZZ | 3683 | 189080 | 20683 | 688 |
| 02:05 | ZZZZZZ | 3429 | 180690 | 19664 | 737 |
| 02:11 | TC52591-1 | 3079 | 164550 | 18592 | 682 |
| 02:18 | TC52591-1 | 3297 | 178230 | 19331 | 753 |
| 02:25 | MA9995-CCV10 | 3317 | 173440 | 18862 | 708 |
| 02:31 | MA9995-CCB10 | 3517 | 187620 | 19338 | 819 |

INTERNAL STANDARD SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP Date Analyzed: 08/04/14 Methods: EPA 200.7, SW846 6010B
Analyst: EG Run ID: MA9995
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|---|---|---|---|---|---|
| 02:38 | MP23942-MB1 | 3493 | 187240 | 19270 | 809 |
| 02:45 | MP23942-B1 | 3219 | 170320 | 18731 | 696 |
| 02:51 | TC52505-1 | 3245 | 170670 | 18396 | 718 |
| 02:58 | MP23942-SD1 | 3586 | 180310 | 17897 | 793 |
| 03:04 | MP23942-S1 | 3283 | 166650 | 17651 | 677 |
| 03:11 | MP23942-S2 | 3334 | 167230 | 17490 | 684 |
| 03:18 | ZZZZZZ | 3694 | 188370 | 18447 | 822 |
| 03:24 | ZZZZZZ | 3709 | 187320 | 18253 | 831 |
| 03:31 | ZZZZZZ | 3483 | 173150 | 19100 | 609 |
| 03:38 | ZZZZZZ | 3570 | 173750 | 17806 | 718 |
| 03:45 | MA9995-CCV11 | 3568 | 173780 | 17600 | 729 |
| 03:51 | MA9995-CCB11 | 3790 | 187160 | 18014 | 841 |
| 03:58 | ZZZZZZ | 2997 | 155590 | 17065 | 618 |
| 04:05 | ZZZZZZ | 3304 | 162190 | 17335 | 628 |
| 04:12 | ZZZZZZ | 3340 | 165850 | 17107 | 706 |
| 04:19 | ZZZZZZ | 3420 | 168110 | 17081 | 725 |
| 04:25 | ZZZZZZ | 3500 | 170970 | 17095 | 741 |
| 04:32 | ZZZZZZ | 3078 | 154790 | 16662 | 642 |
| 04:39 | ZZZZZZ | 3421 | 170870 | 17590 | 732 |
| 04:45 | ZZZZZZ | 3332 | 169410 | 17498 | 719 |
| 04:52 | ZZZZZZ | 3514 | 173210 | 17720 | 704 |
| 04:59 | ZZZZZZ | 3443 | 169030 | 17592 | 681 |
| 05:05 | MA9995-CCV12 | 3465 | 169550 | 17228 | 712 |
| 05:12 | MA9995-CCB12 | 3654 | 181330 | 17471 | 815 |
| 05:19 | ZZZZZZ | 3628 | 179890 | 17676 | 798 |
| 05:25 | MA9995-CRI3 | 3614 | 179390 | 17604 | 793 |
| 05:32 | MA9995-ICSA3 | 3113 | 152640 | 16378 | 627 |
| 05:39 | MA9995-ICSAB3 | 3197 | 154480 | 16321 | 636 |
| 05:46 | MA9995-CCV13 | 3564 | 172330 | 17206 | 726 |
| 05:52 | MA9995-CCB13 | 3714 | 183520 | 17557 | 827 |

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

| Istd# | Parameter | Limits |
|---|---|---|
| Istd#1 | Yttrium (2243) | 60-125 % |
| Istd#2 | Yttrium (3710) | 60-125 % |
| Istd#3 | Yttrium (3710-2) | 60-125 % |

INTERNAL STANDARD SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP Date Analyzed: 08/04/14 Methods: EPA 200.7, SW846 6010B
Analyst: EG Run ID: MA9995
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

| Time | Sample Description | Istd#1 | Istd#2 | Istd#3 | Istd#4 |
|---|---|---|---|---|---|
| Istd#4 | Indium | | 60-125 % | | |

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP  Date Analyzed: 08/04/14  Methods: EPA 200.7, SW846 6010B
QC Limits: result < RL  Run ID: MA9995  Units: ug/l

| Time: | | | 15:48 | | 16:41 | | 17:48 | | 19:10 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID: | | | ICB1 | | CCB1 | | CCB2 | | CCB3 | |
| Metal | RL | IDL | raw | final | raw | final | raw | final | raw | final |
| Aluminum | 200 | 6.9 | -2.5 | <200 | -3.2 | <200 | -2.0 | <200 | 13.3 | <200 |
| Antimony | 5.0 | .56 | 0.24 | <5.0 | 0.57 | <5.0 | 0.090 | <5.0 | 0.50 | <5.0 |
| Arsenic | 5.0 | 1 | 1.9 | <5.0 | -1.8 | <5.0 | -1.0 | <5.0 | 0.10 | <5.0 |
| Barium | 200 | .16 | 0.030 | <200 | -0.040 | <200 | -0.070 | <200 | 0.20 | <200 |
| Beryllium | 4.0 | .1 | -0.010 | <4.0 | 0.020 | <4.0 | 0.20 | <4.0 | 0.14 | <4.0 |
| Boron | 100 | .39 | anr | | | | | | | |
| Cadmium | 4.0 | .15 | -0.070 | <4.0 | 0.080 | <4.0 | 0.37 | <4.0 | 0.31 | <4.0 |
| Calcium | 5000 | 4 | -0.82 | <5000 | 0.84 | <5000 | 0.73 | <5000 | 28.7 | <5000 |
| Chromium | 10 | .22 | -0.18 | <10 | -0.16 | <10 | -0.13 | <10 | 0.010 | <10 |
| Cobalt | 50 | .25 | -0.080 | <50 | -0.32 | <50 | -0.23 | <50 | -0.29 | <50 |
| Copper | 20 | .24 | 0.010 | <20 | 0.10 | <20 | 0.40 | <20 | 0.14 | <20 |
| Iron | 100 | 4.6 | -0.82 | <100 | 0.45 | <100 | -1.0 | <100 | 11.2 | <100 |
| Lead | 3.0 | .65 | 0.27 | <3.0 | 0.29 | <3.0 | 0.48 | <3.0 | 0.61 | <3.0 |
| Lithium | 300 | .65 | anr | | | | | | | |
| Magnesium | 5000 | 7.7 | 8.7 | <5000 | 10.8 | <5000 | 11.5 | <5000 | 18.4 | <5000 |
| Manganese | 15 | .09 | 0.0 | <15 | -0.020 | <15 | 0.010 | <15 | 0.29 | <15 |
| Molybdenum | 10 | .62 | anr | | | | | | | |
| Nickel | 40 | .22 | 0.070 | <40 | 0.010 | <40 | 0.32 | <40 | 0.42 | <40 |
| Potassium | 5000 | 7.6 | 6.7 | <5000 | 15.5 | <5000 | -2.5 | <5000 | 60.8 | <5000 |
| Selenium | 5.0 | 1.2 | 2.3 | <5.0 | 1.2 | <5.0 | 2.5 | <5.0 | 2.8 | <5.0 |
| Silver | 10 | .2 | 0.080 | <10 | -0.15 | <10 | 0.14 | <10 | -0.16 | <10 |
| Sodium | 5000 | 5.7 | -19 | <5000 | -13 | <5000 | -22 | <5000 | -13 | <5000 |
| Strontium | 10 | .07 | anr | | | | | | | |
| Thallium | 10 | .83 | 0.26 | <10 | 1.3 | <10 | 0.52 | <10 | 0.57 | <10 |
| Tin | 50 | .67 | anr | | | | | | | |
| Titanium | 20 | .19 | anr | | | | | | | |
| Vanadium | 50 | .18 | 0.010 | <50 | 0.10 | <50 | -0.18 | <50 | 0.0 | <50 |
| Zinc | 20 | .13 | -0.11 | <20 | -0.16 | <20 | -0.070 | <20 | -0.020 | <20 |
| Sulfur | 50 | | | | | | | | | |

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP  Date Analyzed: 08/04/14  Methods: EPA 200.7, SW846 6010B
QC Limits: result < RL  Run ID: MA9995  Units: ug/l

| Time: | | | 20:24 | | 21:44 | | 23:04 | | 23:51 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID: | | | CCB4 | | CCB5 | | CCB6 | | CCB7 | |
| Metal | RL | IDL | raw | final | raw | final | raw | final | raw | final |
| Aluminum | 200 | 6.9 | -0.57 | <200 | -4.2 | <200 | -4.4 | <200 | -2.1 | <200 |
| Antimony | 5.0 | .56 | 1.5 | <5.0 | 0.49 | <5.0 | 0.51 | <5.0 | 0.49 | <5.0 |
| Arsenic | 5.0 | 1 | -1.7 | <5.0 | 2.4 | <5.0 | 2.5 | <5.0 | 2.0 | <5.0 |
| Barium | 200 | .16 | 0.070 | <200 | 0.10 | <200 | -0.050 | <200 | -0.040 | <200 |
| Beryllium | 4.0 | .1 | 0.18 | <4.0 | -0.040 | <4.0 | -0.13 | <4.0 | -0.060 | <4.0 |
| Boron | 100 | .39 | anr | | | | | | | |
| Cadmium | 4.0 | .15 | 0.20 | <4.0 | 0.18 | <4.0 | 0.090 | <4.0 | 0.15 | <4.0 |
| Calcium | 5000 | 4 | 0.63 | <5000 | 1.1 | <5000 | 1.0 | <5000 | -3.3 | <5000 |
| Chromium | 10 | .22 | -0.19 | <10 | -0.12 | <10 | -0.11 | <10 | -0.18 | <10 |
| Cobalt | 50 | .25 | -0.41 | <50 | -0.42 | <50 | -0.24 | <50 | -0.21 | <50 |
| Copper | 20 | .24 | 0.31 | <20 | 0.020 | <20 | -0.060 | <20 | 0.050 | <20 |
| Iron | 100 | 4.6 | 0.95 | <100 | -0.76 | <100 | -0.74 | <100 | -1.1 | <100 |
| Lead | 3.0 | .65 | 0.97 | <3.0 | 0.94 | <3.0 | 0.76 | <3.0 | 0.71 | <3.0 |
| Lithium | 300 | .65 | anr | | | | | | | |
| Magnesium | 5000 | 7.7 | 13.9 | <5000 | 6.6 | <5000 | 10.1 | <5000 | 12.2 | <5000 |
| Manganese | 15 | .09 | 0.16 | <15 | 0.52 | <15 | 0.11 | <15 | -0.020 | <15 |
| Molybdenum | 10 | .62 | anr | | | | | | | |
| Nickel | 40 | .22 | 0.18 | <40 | 0.050 | <40 | 0.22 | <40 | 0.040 | <40 |
| Potassium | 5000 | 7.6 | 43.3 | <5000 | 39.9 | <5000 | 27.6 | <5000 | 75.8 | <5000 |
| Selenium | 5.0 | 1.2 | 1.8 | <5.0 | 2.0 | <5.0 | -0.020 | <5.0 | 2.6 | <5.0 |
| Silver | 10 | .2 | -0.010 | <10 | -0.010 | <10 | -0.050 | <10 | -0.11 | <10 |
| Sodium | 5000 | 5.7 | 15.6 | <5000 | -18 | <5000 | -23 | <5000 | -21 | <5000 |
| Strontium | 10 | .07 | anr | | | | | | | |
| Thallium | 10 | .83 | 0.50 | <10 | 2.0 | <10 | 1.2 | <10 | 1.6 | <10 |
| Tin | 50 | .67 | anr | | | | | | | |
| Titanium | 20 | .19 | anr | | | | | | | |
| Vanadium | 50 | .18 | 0.22 | <50 | -0.030 | <50 | 0.0 | <50 | -0.040 | <50 |
| Zinc | 20 | .13 | 0.0 | <20 | -0.12 | <20 | 0.010 | <20 | -0.11 | <20 |
| Sulfur | 50 | | | | | | | | | |

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP  Date Analyzed: 08/04/14  Methods: EPA 200.7, SW846 6010B
QC Limits: result < RL  Run ID: MA9995  Units: ug/l

| Time: / Sample ID: | | | 00:32 CCB8 | | 01:12 CCB9 | | 02:31 CCB10 | | 03:51 CCB11 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Metal | RL | IDL | raw | final | raw | final | raw | final | raw | final |
| Aluminum | 200 | 6.9 | -2.4 | <200 | -4.4 | <200 | -3.3 | <200 | -5.4 | <200 |
| Antimony | 5.0 | .56 | 0.040 | <5.0 | -0.070 | <5.0 | -0.39 | <5.0 | 0.58 | <5.0 |
| Arsenic | 5.0 | 1 | 3.3 | <5.0 | -0.56 | <5.0 | -0.26 | <5.0 | -1.3 | <5.0 |
| Barium | 200 | .16 | -0.12 | <200 | -0.10 | <200 | -0.080 | <200 | -0.070 | <200 |
| Beryllium | 4.0 | .1 | 0.030 | <4.0 | 0.0 | <4.0 | 0.0 | <4.0 | -0.12 | <4.0 |
| Boron | 100 | .39 | anr | | | | | | | |
| Cadmium | 4.0 | .15 | 0.0 | <4.0 | 0.20 | <4.0 | 0.030 | <4.0 | -0.050 | <4.0 |
| Calcium | 5000 | 4 | -2.7 | <5000 | -2.3 | <5000 | 1.8 | <5000 | -2.4 | <5000 |
| Chromium | 10 | .22 | -0.22 | <10 | -0.23 | <10 | -0.16 | <10 | -0.050 | <10 |
| Cobalt | 50 | .25 | -0.35 | <50 | 0.020 | <50 | -0.26 | <50 | -0.18 | <50 |
| Copper | 20 | .24 | 0.27 | <20 | 0.18 | <20 | 0.23 | <20 | -0.010 | <20 |
| Iron | 100 | 4.6 | -0.64 | <100 | -1.4 | <100 | -0.48 | <100 | -0.69 | <100 |
| Lead | 3.0 | .65 | 1.1 | <3.0 | 0.41 | <3.0 | 0.72 | <3.0 | 0.77 | <3.0 |
| Lithium | 300 | .65 | anr | | | | | | | |
| Magnesium | 5000 | 7.7 | 6.5 | <5000 | 13.2 | <5000 | 6.9 | <5000 | 9.8 | <5000 |
| Manganese | 15 | .09 | -0.030 | <15 | -0.020 | <15 | 0.25 | <15 | -0.020 | <15 |
| Molybdenum | 10 | .62 | anr | | | | | | | |
| Nickel | 40 | .22 | 0.070 | <40 | 0.10 | <40 | 0.070 | <40 | 0.12 | <40 |
| Potassium | 5000 | 7.6 | 42.4 | <5000 | 37.3 | <5000 | 63.4 | <5000 | 54.5 | <5000 |
| Selenium | 5.0 | 1.2 | 3.9 | <5.0 | 2.2 | <5.0 | 2.9 | <5.0 | 2.0 | <5.0 |
| Silver | 10 | .2 | -0.19 | <10 | -0.21 | <10 | -0.12 | <10 | -0.31 | <10 |
| Sodium | 5000 | 5.7 | -23 | <5000 | 55.1 | <5000 | 45.0 | <5000 | 17.3 | <5000 |
| Strontium | 10 | .07 | anr | | | | | | | |
| Thallium | 10 | .83 | 0.45 | <10 | 2.7 | <10 | 1.6 | <10 | 2.3 | <10 |
| Tin | 50 | .67 | anr | | | | | | | |
| Titanium | 20 | .19 | anr | | | | | | | |
| Vanadium | 50 | .18 | -0.14 | <50 | -0.030 | <50 | 0.12 | <50 | 0.070 | <50 |
| Zinc | 20 | .13 | -0.13 | <20 | -0.14 | <20 | -0.010 | <20 | -0.16 | <20 |
| Sulfur | 50 | | | | | | | | | |

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP  Date Analyzed: 08/04/14  Methods: EPA 200.7, SW846 6010B
QC Limits: result < RL  Run ID: MA9995  Units: ug/l

| Time: | | | 05:12 | | 05:52 | |
|---|---|---|---|---|---|---|
| Sample ID: | | | CCB12 | | CCB13 | |
| Metal | RL | IDL | raw | final | raw | final |
| Aluminum | 200 | 6.9 | -3.6 | <200 | -5.6 | <200 |
| Antimony | 5.0 | .56 | 0.55 | <5.0 | 1.1 | <5.0 |
| Arsenic | 5.0 | 1 | 1.8 | <5.0 | 1.3 | <5.0 |
| Barium | 200 | .16 | 0.12 | <200 | 0.070 | <200 |
| Beryllium | 4.0 | .1 | -0.040 | <4.0 | -0.070 | <4.0 |
| Boron | 100 | .39 | anr | | | |
| Cadmium | 4.0 | .15 | 0.11 | <4.0 | -0.10 | <4.0 |
| Calcium | 5000 | 4 | -1.7 | <5000 | -1.7 | <5000 |
| Chromium | 10 | .22 | -0.21 | <10 | -0.060 | <10 |
| Cobalt | 50 | .25 | -0.22 | <50 | -0.15 | <50 |
| Copper | 20 | .24 | 0.17 | <20 | 0.0 | <20 |
| Iron | 100 | 4.6 | -0.93 | <100 | -1.5 | <100 |
| Lead | 3.0 | .65 | 0.51 | <3.0 | 1.2 | <3.0 |
| Lithium | 300 | .65 | anr | | | |
| Magnesium | 5000 | 7.7 | 7.5 | <5000 | 10.1 | <5000 |
| Manganese | 15 | .09 | -0.020 | <15 | 0.010 | <15 |
| Molybdenum | 10 | .62 | anr | | | |
| Nickel | 40 | .22 | 0.040 | <40 | -0.030 | <40 |
| Potassium | 5000 | 7.6 | 13.1 | <5000 | 15.8 | <5000 |
| Selenium | 5.0 | 1.2 | 1.7 | <5.0 | 2.7 | <5.0 |
| Silver | 10 | .2 | -0.070 | <10 | -0.22 | <10 |
| Sodium | 5000 | 5.7 | 7.1 | <5000 | -7.6 | <5000 |
| Strontium | 10 | .07 | anr | | | |
| Thallium | 10 | .83 | 1.9 | <10 | 2.7 | <10 |
| Tin | 50 | .67 | anr | | | |
| Titanium | 20 | .19 | anr | | | |
| Vanadium | 50 | .18 | -0.14 | <50 | -0.040 | <50 |
| Zinc | 20 | .13 | -0.22 | <20 | -0.15 | <20 |
| Sulfur | 50 | | | | | |

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP  Date Analyzed: 08/04/14  Methods: EPA 200.7, SW846 6010B
QC Limits: 90 to 110 % Recovery  Run ID: MA9995  Units: ug/l

| Time: | | 15:41 | | | 16:35 | | | 17:42 | |
|---|---|---|---|---|---|---|---|---|---|
| Sample ID: | ICV | ICV1 | | CCV | CCV1 | | CCV | CCV2 | |
| Metal | True | Results | % Rec | True | Results | % Rec | True | Results | % Rec |
| Aluminum | 5000 | 5010 | 100.2 | 40000 | 38800 | 97.0 | 40000 | 38900 | 97.3 |
| Antimony | 3000 | 2980 | 99.3 | 2000 | 1960 | 98.0 | 2000 | 2060 | 103.0 |
| Arsenic | 3000 | 2950 | 98.3 | 2000 | 1920 | 96.0 | 2000 | 1940 | 97.0 |
| Barium | 3000 | 3030 | 101.0 | 2000 | 1950 | 97.5 | 2000 | 1970 | 98.5 |
| Beryllium | 3000 | 3000 | 100.0 | 2000 | 1960 | 98.0 | 2000 | 1850 | 92.5 |
| Boron | anr | | | | | | | | |
| Cadmium | 3000 | 2970 | 99.0 | 2000 | 1950 | 97.5 | 2000 | 1980 | 99.0 |
| Calcium | 5000 | 5170 | 103.4 | 40000 | 38400 | 96.0 | 40000 | 36600 | 91.5 |
| Chromium | 3000 | 3080 | 102.7 | 2000 | 1950 | 97.5 | 2000 | 1850 | 92.5 |
| Cobalt | 3000 | 3170 | 105.7 | 2000 | 1950 | 97.5 | 2000 | 1930 | 96.5 |
| Copper | 3000 | 3040 | 101.3 | 2000 | 1950 | 97.5 | 2000 | 2020 | 101.0 |
| Iron | 5000 | 5090 | 101.8 | 40000 | 38900 | 97.3 | 40000 | 37900 | 94.8 |
| Lead | 3000 | 3070 | 102.3 | 2000 | 1940 | 97.0 | 2000 | 1870 | 93.5 |
| Lithium | anr | | | | | | | | |
| Magnesium | 5000 | 4880 | 97.6 | 40000 | 38500 | 96.3 | 40000 | 37200 | 93.0 |
| Manganese | 3000 | 3130 | 104.3 | 2000 | 1980 | 99.0 | 2000 | 1900 | 95.0 |
| Molybdenum | anr | | | | | | | | |
| Nickel | 3000 | 3110 | 103.7 | 2000 | 1960 | 98.0 | 2000 | 1920 | 96.0 |
| Potassium | 5000 | 5030 | 100.6 | 40000 | 38600 | 96.5 | 40000 | 38400 | 96.0 |
| Selenium | 3000 | 2950 | 98.3 | 2000 | 1940 | 97.0 | 2000 | 1980 | 99.0 |
| Silver | 500 | 507 | 101.4 | 250 | 233 | 93.2 | 250 | 231 | 92.4 |
| Sodium | 5000 | 5080 | 101.6 | 40000 | 39100 | 97.8 | 40000 | 39600 | 99.0 |
| Strontium | anr | | | | | | | | |
| Thallium | 3000 | 3130 | 104.3 | 2000 | 1980 | 99.0 | 2000 | 1960 | 98.0 |
| Tin | anr | | | | | | | | |
| Titanium | anr | | | | | | | | |
| Vanadium | 3000 | 3030 | 101.0 | 2000 | 1950 | 97.5 | 2000 | 1900 | 95.0 |
| Zinc | 3000 | 3050 | 101.7 | 2000 | 1970 | 98.5 | 2000 | 1970 | 98.5 |
| Sulfur | | | | | | | | | |

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP  Date Analyzed: 08/04/14  Methods: EPA 200.7, SW846 6010B
QC Limits: 90 to 110 % Recovery  Run ID: MA9995  Units: ug/l

| Time: | | 19:03 | | | 20:17 | | | 21:38 | |
|---|---|---|---|---|---|---|---|---|---|
| Sample ID: | CCV | CCV3 | | CCV | CCV4 | | CCV | CCV5 | |
| Metal | True | Results | % Rec | True | Results | % Rec | True | Results | % Rec |
| Aluminum | 40000 | 37600 | 94.0 | 40000 | 37900 | 94.8 | 40000 | 38800 | 97.0 |
| Antimony | 2000 | 1920 | 96.0 | 2000 | 2030 | 101.5 | 2000 | 2000 | 100.0 |
| Arsenic | 2000 | 1860 | 93.0 | 2000 | 1930 | 96.5 | 2000 | 1870 | 93.5 |
| Barium | 2000 | 1880 | 94.0 | 2000 | 1930 | 96.5 | 2000 | 1920 | 96.0 |
| Beryllium | 2000 | 1890 | 94.5 | 2000 | 1860 | 93.0 | 2000 | 1910 | 95.5 |
| Boron | anr | | | | | | | | |
| Cadmium | 2000 | 1890 | 94.5 | 2000 | 1940 | 97.0 | 2000 | 1940 | 97.0 |
| Calcium | 40000 | 36500 | 91.3 | 40000 | 35600 | 89.0*(a) | 40000 | 36500 | 91.3 |
| Chromium | 2000 | 1880 | 94.0 | 2000 | 1840 | 92.0 | 2000 | 1910 | 95.5 |
| Cobalt | 2000 | 1880 | 94.0 | 2000 | 1930 | 96.5 | 2000 | 1900 | 95.0 |
| Copper | 2000 | 1900 | 95.0 | 2000 | 1970 | 98.5 | 2000 | 1960 | 98.0 |
| Iron | 40000 | 37300 | 93.3 | 40000 | 37000 | 92.5 | 40000 | 37700 | 94.3 |
| Lead | 2000 | 1870 | 93.5 | 2000 | 1850 | 92.5 | 2000 | 1910 | 95.5 |
| Lithium | anr | | | | | | | | |
| Magnesium | 40000 | 36700 | 91.8 | 40000 | 36000 | 90.0 | 40000 | 37200 | 93.0 |
| Manganese | 2000 | 1910 | 95.5 | 2000 | 1880 | 94.0 | 2000 | 1960 | 98.0 |
| Molybdenum | anr | | | | | | | | |
| Nickel | 2000 | 1900 | 95.0 | 2000 | 1890 | 94.5 | 2000 | 1950 | 97.5 |
| Potassium | 40000 | 37200 | 93.0 | 40000 | 37700 | 94.3 | 40000 | 38000 | 95.0 |
| Selenium | 2000 | 1870 | 93.5 | 2000 | 1980 | 99.0 | 2000 | 1930 | 96.5 |
| Silver | 250 | 226 | 90.4 | 250 | 227 | 90.8 | 250 | 232 | 92.8 |
| Sodium | 40000 | 37900 | 94.8 | 40000 | 38300 | 95.8 | 40000 | 39100 | 97.8 |
| Strontium | anr | | | | | | | | |
| Thallium | 2000 | 1920 | 96.0 | 2000 | 1930 | 96.5 | 2000 | 1990 | 99.5 |
| Tin | anr | | | | | | | | |
| Titanium | anr | | | | | | | | |
| Vanadium | 2000 | 1890 | 94.5 | 2000 | 1880 | 94.0 | 2000 | 1940 | 97.0 |
| Zinc | 2000 | 1900 | 95.0 | 2000 | 1940 | 97.0 | 2000 | 1950 | 97.5 |
| Sulfur | | | | | | | | | |

(*) Outside of QC limits
(anr) Analyte not requested
(a) No elements associated with this internal standard were reported.

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP  Date Analyzed: 08/04/14  Methods: EPA 200.7, SW846 6010B
QC Limits: 90 to 110 % Recovery  Run ID: MA9995  Units: ug/l

| Time: | | 22:57 | | | 23:45 | | | 00:25 | |
|---|---|---|---|---|---|---|---|---|---|
| Sample ID: | CCV | CCV6 | | CCV | CCV7 | | CCV | CCV8 | |
| Metal | True | Results | % Rec | True | Results | % Rec | True | Results | % Rec |
| Aluminum | 40000 | 37500 | 93.8 | 40000 | 37000 | 92.5 | 40000 | 37600 | 94.0 |
| Antimony | 2000 | 1950 | 97.5 | 2000 | 1980 | 99.0 | 2000 | 2040 | 102.0 |
| Arsenic | 2000 | 1910 | 95.5 | 2000 | 1940 | 97.0 | 2000 | 1960 | 98.0 |
| Barium | 2000 | 1900 | 95.0 | 2000 | 1900 | 95.0 | 2000 | 1930 | 96.5 |
| Beryllium | 2000 | 1900 | 95.0 | 2000 | 1850 | 92.5 | 2000 | 1850 | 92.5 |
| Boron | anr | | | | | | | | |
| Cadmium | 2000 | 1900 | 95.0 | 2000 | 1900 | 95.0 | 2000 | 1930 | 96.5 |
| Calcium | 40000 | 36400 | 91.0 | 40000 | 35100 | 87.8*(a) | 40000 | 34900 | 87.3*(a) |
| Chromium | 2000 | 1840 | 92.0 | 2000 | 1790 | 89.5*(a) | 2000 | 1800 | 90.0 |
| Cobalt | 2000 | 1940 | 97.0 | 2000 | 1940 | 97.0 | 2000 | 1950 | 97.5 |
| Copper | 2000 | 1920 | 96.0 | 2000 | 1930 | 96.5 | 2000 | 1980 | 99.0 |
| Iron | 40000 | 37200 | 93.0 | 40000 | 36600 | 91.5 | 40000 | 36900 | 92.3 |
| Lead | 2000 | 1880 | 94.0 | 2000 | 1840 | 92.0 | 2000 | 1850 | 92.5 |
| Lithium | anr | | | | | | | | |
| Magnesium | 40000 | 36200 | 90.5 | 40000 | 35200 | 88.0*(a) | 40000 | 35400 | 88.5*(a) |
| Manganese | 2000 | 1900 | 95.0 | 2000 | 1860 | 93.0 | 2000 | 1870 | 93.5 |
| Molybdenum | anr | | | | | | | | |
| Nickel | 2000 | 1890 | 94.5 | 2000 | 1870 | 93.5 | 2000 | 1880 | 94.0 |
| Potassium | 40000 | 37800 | 94.5 | 40000 | 37100 | 92.8 | 40000 | 37500 | 93.8 |
| Selenium | 2000 | 1960 | 98.0 | 2000 | 1990 | 99.5 | 2000 | 2020 | 101.0 |
| Silver | 250 | 227 | 90.8 | 250 | 223 | 89.2*(a) | 250 | 226 | 90.4 |
| Sodium | 40000 | 37900 | 94.8 | 40000 | 37400 | 93.5 | 40000 | 38200 | 95.5 |
| Strontium | anr | | | | | | | | |
| Thallium | 2000 | 1930 | 96.5 | 2000 | 1930 | 96.5 | 2000 | 1940 | 97.0 |
| Tin | anr | | | | | | | | |
| Titanium | anr | | | | | | | | |
| Vanadium | 2000 | 1880 | 94.0 | 2000 | 1850 | 92.5 | 2000 | 1870 | 93.5 |
| Zinc | 2000 | 1920 | 96.0 | 2000 | 1920 | 96.0 | 2000 | 1940 | 97.0 |
| Sulfur | | | | | | | | | |

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element in the area bracketed by this QC.

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP  Date Analyzed: 08/04/14  Methods: EPA 200.7, SW846 6010B
QC Limits: 90 to 110 % Recovery  Run ID: MA9995  Units: ug/l

| Time: | | 01:05 | | | 02:25 | | | 03:45 | |
|---|---|---|---|---|---|---|---|---|---|
| Sample ID: | CCV | CCV9 | | CCV | CCV10 | | CCV | CCV11 | |
| Metal | True | Results | % Rec | True | Results | % Rec | True | Results | % Rec |
| Aluminum | 40000 | 37600 | 94.0 | 40000 | 37900 | 94.8 | 40000 | 38200 | 95.5 |
| Antimony | 2000 | 2040 | 102.0 | 2000 | 2040 | 102.0 | 2000 | 1910 | 95.5 |
| Arsenic | 2000 | 1950 | 97.5 | 2000 | 1950 | 97.5 | 2000 | 1870 | 93.5 |
| Barium | 2000 | 1920 | 96.0 | 2000 | 1930 | 96.5 | 2000 | 1890 | 94.5 |
| Beryllium | 2000 | 1860 | 93.0 | 2000 | 1860 | 93.0 | 2000 | 1950 | 97.5 |
| Boron | anr | | | | | | | | |
| Cadmium | 2000 | 1930 | 96.5 | 2000 | 1930 | 96.5 | 2000 | 1900 | 95.0 |
| Calcium | 40000 | 34800 | 87.0*(a) | 40000 | 35100 | 87.8*(a) | 40000 | 37300 | 93.3 |
| Chromium | 2000 | 1800 | 90.0 | 2000 | 1810 | 90.5 | 2000 | 1920 | 96.0 |
| Cobalt | 2000 | 1940 | 97.0 | 2000 | 1950 | 97.5 | 2000 | 1930 | 96.5 |
| Copper | 2000 | 1990 | 99.5 | 2000 | 1990 | 99.5 | 2000 | 1910 | 95.5 |
| Iron | 40000 | 36800 | 92.0 | 40000 | 37000 | 92.5 | 40000 | 38300 | 95.8 |
| Lead | 2000 | 1860 | 93.0 | 2000 | 1860 | 93.0 | 2000 | 1930 | 96.5 |
| Lithium | anr | | | | | | | | |
| Magnesium | 40000 | 35300 | 88.3*(a) | 40000 | 35600 | 89.0*(a) | 40000 | 37600 | 94.0 |
| Manganese | 2000 | 1880 | 94.0 | 2000 | 1880 | 94.0 | 2000 | 1970 | 98.5 |
| Molybdenum | anr | | | | | | | | |
| Nickel | 2000 | 1890 | 94.5 | 2000 | 1900 | 95.0 | 2000 | 1940 | 97.0 |
| Potassium | 40000 | 37400 | 93.5 | 40000 | 37700 | 94.3 | 40000 | 37700 | 94.3 |
| Selenium | 2000 | 2020 | 101.0 | 2000 | 2010 | 100.5 | 2000 | 1910 | 95.5 |
| Silver | 250 | 226 | 90.4 | 250 | 227 | 90.8 | 250 | 230 | 92.0 |
| Sodium | 40000 | 37500 | 93.8 | 40000 | 38000 | 95.0 | 40000 | 37600 | 94.0 |
| Strontium | anr | | | | | | | | |
| Thallium | 2000 | 1940 | 97.0 | 2000 | 1940 | 97.0 | 2000 | 1980 | 99.0 |
| Tin | anr | | | | | | | | |
| Titanium | anr | | | | | | | | |
| Vanadium | 2000 | 1880 | 94.0 | 2000 | 1880 | 94.0 | 2000 | 1940 | 97.0 |
| Zinc | 2000 | 1940 | 97.0 | 2000 | 1950 | 97.5 | 2000 | 1930 | 96.5 |
| Sulfur | | | | | | | | | |

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element in the area bracketed by this QC.

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP  Date Analyzed: 08/04/14  Methods: EPA 200.7, SW846 6010B
QC Limits: 90 to 110 % Recovery  Run ID: MA9995  Units: ug/l

| Time: | | 05:05 | | | 05:46 | |
|---|---|---|---|---|---|---|
| Sample ID: | CCV | CCV12 | | CCV | CCV13 | |
| Metal | True | Results | % Rec | True | Results | % Rec |
| Aluminum | 40000 | 39400 | 98.5 | 40000 | 38800 | 97.0 |
| Antimony | 2000 | 1990 | 99.5 | 2000 | 1940 | 97.0 |
| Arsenic | 2000 | 1920 | 96.0 | 2000 | 1870 | 93.5 |
| Barium | 2000 | 1940 | 97.0 | 2000 | 1900 | 95.0 |
| Beryllium | 2000 | 1990 | 99.5 | 2000 | 1970 | 98.5 |
| Boron | anr | | | | | |
| Cadmium | 2000 | 1960 | 98.0 | 2000 | 1920 | 96.0 |
| Calcium | 40000 | 38300 | 95.8 | 40000 | 37900 | 94.8 |
| Chromium | 2000 | 1960 | 98.0 | 2000 | 1940 | 97.0 |
| Cobalt | 2000 | 1970 | 98.5 | 2000 | 1930 | 96.5 |
| Copper | 2000 | 1970 | 98.5 | 2000 | 1920 | 96.0 |
| Iron | 40000 | 39500 | 98.8 | 40000 | 38900 | 97.3 |
| Lead | 2000 | 1980 | 99.0 | 2000 | 1960 | 98.0 |
| Lithium | anr | | | | | |
| Magnesium | 40000 | 38900 | 97.3 | 40000 | 38600 | 96.5 |
| Manganese | 2000 | 2020 | 101.0 | 2000 | 2000 | 100.0 |
| Molybdenum | anr | | | | | |
| Nickel | 2000 | 1990 | 99.5 | 2000 | 1960 | 98.0 |
| Potassium | 40000 | 38800 | 97.0 | 40000 | 38100 | 95.3 |
| Selenium | 2000 | 1980 | 99.0 | 2000 | 1920 | 96.0 |
| Silver | 250 | 234 | 93.6 | 250 | 231 | 92.4 |
| Sodium | 40000 | 38900 | 97.3 | 40000 | 38200 | 95.5 |
| Strontium | anr | | | | | |
| Thallium | 2000 | 2050 | 102.5 | 2000 | 2020 | 101.0 |
| Tin | anr | | | | | |
| Titanium | anr | | | | | |
| Vanadium | 2000 | 2000 | 100.0 | 2000 | 1970 | 98.5 |
| Zinc | 2000 | 1980 | 99.0 | 2000 | 1930 | 96.5 |
| Sulfur | | | | | | |

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP  Date Analyzed: 08/04/14  Methods: EPA 200.7, SW846 6010B
QC Limits: 50 to 150 % Recovery  Run ID: MA9995  Units: ug/l

| Time: | | | 16:15 | | 23:58 | | 05:25 | |
|---|---|---|---|---|---|---|---|---|
| Sample ID: | CRI | CRIA | CRI1 | | CRI2 | | CRI3 | |
| Metal | True | True | Results | % Rec | Results | % Rec | Results | % Rec |
| Aluminum | 200 | 400 | 196 | 98.0 | 189 | 94.5 | 199 | 99.5 |
| Antimony | 5.0 | 10 | 4.6 | 92.0 | 4.7 | 94.0 | 5.1 | 102.0 |
| Arsenic | 5.0 | 10 | 5.9 | 118.0 | 7.0 | 140.0 | 4.5 | 90.0 |
| Barium | 200 | 400 | 198 | 99.0 | 197 | 98.5 | 197 | 98.5 |
| Beryllium | 4.0 | 4.0 | 4.0 | 100.0 | 3.8 | 95.0 | 4.0 | 100.0 |
| Boron | 100 | 200 | anr | | | | | |
| Cadmium | 4.0 | 4.0 | 4.4 | 110.0 | 4.4 | 110.0 | 4.2 | 105.0 |
| Calcium | 5000 | 10000 | 4930 | 98.6 | 4470 | 89.4 | 4880 | 97.6 |
| Chromium | 10 | 10 | 10.1 | 101.0 | 9.5 | 95.0 | 10.3 | 103.0 |
| Cobalt | 50 | 10 | 51.0 | 102.0 | 52.2 | 104.4 | 51.9 | 103.8 |
| Copper | 20 | 20 | 20.5 | 102.5 | 20.4 | 102.0 | 20.5 | 102.5 |
| Iron | 100 | 200 | 100 | 100.0 | 93.4 | 93.4 | 100 | 100.0 |
| Lead | 3.0 | 6.0 | 3.0 | 100.0 | 3.4 | 113.3 | 3.8 | 126.7 |
| Lithium | 300 | 600 | anr | | | | | |
| Magnesium | 5000 | 10000 | 4990 | 99.8 | 4570 | 91.4 | 4960 | 99.2 |
| Manganese | 15 | 30 | 15.8 | 105.3 | 15.3 | 102.0 | 16.6 | 110.7 |
| Molybdenum | 10 | 20 | anr | | | | | |
| Nickel | 40 | 20 | 39.8 | 99.5 | 38.3 | 95.8 | 40.0 | 100.0 |
| Potassium | 5000 | 10000 | 5000 | 100.0 | 4860 | 97.2 | 5000 | 100.0 |
| Selenium | 5.0 | 10 | 6.2 | 124.0 | 5.9 | 118.0 | 6.7 | 134.0 |
| Silver | 10 | 4.0 | 9.4 | 94.0 | 9.2 | 92.0 | 9.6 | 96.0 |
| Sodium | 5000 | 10000 | 4990 | 99.8 | 4770 | 95.4 | 4970 | 99.4 |
| Strontium | 20 | 20 | anr | | | | | |
| Thallium | 10 | 4.0 | 10.6 | 106.0 | 11.6 | 116.0 | 12.6 | 126.0 |
| Tin | 20 | 20 | anr | | | | | |
| Titanium | 20 | 20 | anr | | | | | |
| Vanadium | 50 | 100 | 50.4 | 100.8 | 48.9 | 97.8 | 51.8 | 103.6 |
| Zinc | 20 | 10 | 20.9 | 104.5 | 21.8 | 109.0 | 21.5 | 107.5 |
| Sulfur | 50 | 50 | | | | | | |

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP  Date Analyzed: 08/04/14  Methods: EPA 200.7, SW846 6010B
QC Limits: 80 to 120 % Recovery  Run ID: MA9995  Units: ug/l

| Time: / Sample ID: / Metal | ICSA True | ICSAB True | 16:21 ICSA1 Results | % Rec | 16:28 ICSAB1 Results | % Rec | 00:11 ICSA2 Results | % Rec | 00:18 ICSAB2 Results | % Rec |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 500000 | 500000 | 510000 | 102.0 | 510000 | 102.0 | 482000 | 96.4 | 486000 | 97.2 |
| Antimony | | 1000 | -0.87 | | 1020 | 102.0 | 2.1 | | 1080 | 108.0 |
| Arsenic | | 1000 | 4.8 | | 967 | 96.7 | 0.61 | | 1010 | 101.0 |
| Barium | | 500 | 4.6 | | 499 | 99.8 | 4.2 | | 491 | 98.2 |
| Beryllium | | 500 | 0.12 | | 485 | 97.0 | 0.13 | | 459 | 91.8 |
| Boron | | | 2.2 | | -0.66 | | 1.8 | | -0.32 | |
| Cadmium | | 1000 | 0.15 | | 1040 | 104.0 | 0.30 | | 1050 | 105.0 |
| Calcium | 500000 | 500000 | 462000 | 92.4 | 461000 | 92.2 | 414000 | 82.8 | 415000 | 83.0 |
| Chromium | | 500 | -0.040 | | 465 | 93.0 | -0.14 | | 429 | 85.8 |
| Cobalt | | 500 | -1.7 | | 453 | 90.6 | -1.3 | | 463 | 92.6 |
| Copper | | 500 | 0.030 | | 527 | 105.4 | 0.35 | | 542 | 108.4 |
| Iron | 200000 | 200000 | 180000 | 90.0 | 178000 | 89.0 | 166000 | 83.0 | 167000 | 83.5 |
| Lead | | 1000 | 3.0 | | 909 | 90.9 | 2.6 | | 874 | 87.4 |
| Lithium | | | 5.9 | | 6.0 | | 6.0 | | 6.2 | |
| Magnesium | 500000 | 500000 | 504000 | 100.8 | 501000 | 100.2 | 454000 | 90.8 | 458000 | 91.6 |
| Manganese | | 500 | 1.4 | | 479 | 95.8 | 1.1 | | 454 | 90.8 |
| Molybdenum | | 500 | -1.5 | | 478 | 95.6 | -1.0 | | 490 | 98.0 |
| Nickel | | 1000 | 0.97 | | 915 | 91.5 | -0.19 | | 889 | 88.9 |
| Potassium | | | 114 | | 51.4 | | 182 | | 115 | |
| Selenium | | 1000 | 8.0 | | 983 | 98.3 | -1.1 | | 1040 | 104.0 |
| Silver | | 1000 | -2.2 | | 1090 | 109.0 | -2.5 | | 1070 | 107.0 |
| Sodium | | | -35 | | -20 | | -40 | | -34 | |
| Strontium | | | 2.5 | | 2.5 | | 3.4 | | 3.3 | |
| Thallium | | 1000 | -0.98 | | 897 | 89.7 | -5.2 | | 881 | 88.1 |
| Tin | | | -6.5 | | -4.9 | | -4.5 | | -4.8 | |
| Titanium | | | 3.2 | | 3.0 | | 3.0 | | 2.7 | |
| Vanadium | | 500 | 2.4 | | 475 | 95.0 | 2.3 | | 457 | 91.4 |
| Zinc | | 1000 | -6.2 | | 996 | 99.6 | -0.66 | | 1000 | 100.0 |
| Sulfur | | | -3.2 | | -6.6 | | -10 | | -11 | |

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB080414.ICP  Date Analyzed: 08/04/14  Methods: EPA 200.7, SW846 6010B
QC Limits: 80 to 120 % Recovery  Run ID: MA9995  Units: ug/l

| Time: | | | 05:32 | | 05:39 | |
|---|---|---|---|---|---|---|
| Sample ID: | ICSA | ICSAB | ICSA3 | | ICSAB3 | |
| Metal | True | True | Results | % Rec | Results | % Rec |
| Aluminum | 500000 | 500000 | 512000 | 102.4 | 503000 | 100.6 |
| Antimony | | 1000 | 1.7 | | 1000 | 100.0 |
| Arsenic | | 1000 | 4.8 | | 940 | 94.0 |
| Barium | | 500 | 4.7 | | 482 | 96.4 |
| Beryllium | | 500 | 0.060 | | 487 | 97.4 |
| Boron | | | 1.2 | | 0.80 | |
| Cadmium | | 1000 | 0.020 | | 1020 | 102.0 |
| Calcium | 500000 | 500000 | 449000 | 89.8 | 447000 | 89.4 |
| Chromium | | 500 | -0.090 | | 463 | 92.6 |
| Cobalt | | 500 | -1.8 | | 451 | 90.2 |
| Copper | | 500 | 0.17 | | 516 | 103.2 |
| Iron | 200000 | 200000 | 178000 | 89.0 | 176000 | 88.0 |
| Lead | | 1000 | 1.2 | | 912 | 91.2 |
| Lithium | | | 5.7 | | 5.7 | |
| Magnesium | 500000 | 500000 | 498000 | 99.6 | 495000 | 99.0 |
| Manganese | | 500 | 1.4 | | 483 | 96.6 |
| Molybdenum | | 500 | -1.5 | | 475 | 95.0 |
| Nickel | | 1000 | 0.23 | | 924 | 92.4 |
| Potassium | | | 43.4 | | 37.5 | |
| Selenium | | 1000 | 1.6 | | 970 | 97.0 |
| Silver | | 1000 | -2.3 | | 1080 | 108.0 |
| Sodium | | | -3.6 | | -2.4 | |
| Strontium | | | 2.8 | | 2.7 | |
| Thallium | | 1000 | -3.0 | | 906 | 90.6 |
| Tin | | | -3.8 | | -5.5 | |
| Titanium | | | 3.0 | | 3.0 | |
| Vanadium | | 500 | 2.5 | | 477 | 95.4 |
| Zinc | | 1000 | -5.3 | | 983 | 98.3 |
| Sulfur | | | -9.6 | | -12 | |

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: H3080514W2.CSV  Date Analyzed: 08/05/14  Methods: EPA 245.1, SW846 7470A
Analyst: CC  Run ID: MA9996
Parameters: Hg

| Time | Sample Description | Dilution Factor | PS Recov | Comments |
|---|---|---|---|---|
| 11:58 | MA9996-STD1 | 1 | | STDA |
| 12:00 | MA9996-STD2 | 1 | | STDB |
| 12:02 | MA9996-STD3 | 1 | | STDC |
| 12:04 | MA9996-STD4 | 1 | | STDD |
| 12:06 | MA9996-STD5 | 1 | | STDE |
| 12:07 | MA9996-STD6 | 1 | | STDF |
| 12:10 | MA9996-ICV1 | 1 | | |
| 12:12 | MA9996-ICB1 | 1 | | |
| 12:14 | MA9996-CRI1 | 1 | | |
| 12:16 | MA9996-CCV1 | 1 | | |
| 12:18 | MA9996-CCB1 | 1 | | |
| 12:20 | MP23950-MB | 1 | | |
| 12:22 | MP23950-B1 | 1 | | |
| 12:23 | TC52448-1 | 1 | | (sample used for QC only; not part of login TC52591) |
| 12:25 | MP23950-S1 | 1 | | |
| 12:33 | MP23950-S2 | 1 | | |
| 12:34 | ZZZZZZ | 1 | | |
| 12:36 | ZZZZZZ | 1 | | |
| 12:38 | ZZZZZZ | 1 | | |
| 12:40 | ZZZZZZ | 1 | | |
| 12:42 | ZZZZZZ | 1 | | |
| 12:44 | MA9996-CCV2 | 1 | | |
| 12:46 | MA9996-CCB2 | 1 | | |
| 12:47 | ZZZZZZ | 1 | | |
| 12:49 | ZZZZZZ | 1 | | |
| 12:51 | ZZZZZZ | 1 | | |
| 12:53 | ZZZZZZ | 1 | | |
| 12:55 | ZZZZZZ | 1 | | |
| 12:57 | MP23951-MB | 1 | | |
| 12:59 | MP23951-B1 | 1 | | |
| 13:01 | TC52591-1 | 1 | | |
| 13:02 | MP23951-S1 | 1 | | |
| 13:04 | MP23951-S2 | 1 | | |

----------> Last reportable sample/prep for job TC52591

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: H3080514W2.CSV  Date Analyzed: 08/05/14  Methods: EPA 245.1, SW846 7470A
Analyst: CC  Run ID: MA9996
Parameters: Hg

| Time | Sample Description | Dilution Factor | PS Recov | Comments |
|---|---|---|---|---|
| 13:06 | MA9996-CCV3 | 1 | | |
| 13:08 | MA9996-CCB3 | 1 | | |
| 13:10 | MP23954-MB | 1 | | |
| 13:12 | MP23954-LB | 1 | | |
| 13:14 | MP23954-B1 | 1 | | |
| 13:16 | TC52555-2 | 1 | | (sample used for QC only; not part of login TC52591) |
| 13:17 | MP23954-S1 | 1 | | |
| 13:19 | MP23954-S2 | 1 | | |
| 13:21 | MP23953-MB | 1 | | |
| 13:23 | MP23953-LB | 1 | | |
| 13:25 | MP23953-B1 | 1 | | |
| 13:27 | TC52365-1 | 1 | | (sample used for QC only; not part of login TC52591) |
| 13:29 | MA9996-CCV4 | 1 | | |
| 13:31 | MA9996-CCB4 | 1 | | |
| 13:32 | MP23953-S1 | 1 | | |
| 13:34 | MP23953-S2 | 1 | | |
| 13:36 | ZZZZZZ | 1 | | |
| 13:38 | ZZZZZZ | 1 | | |
| 13:40 | ZZZZZZ | 1 | | |
| 13:44 | MP23952-MB | 1 | | |
| 13:46 | MP23952-B1 | 1 | | |
| 13:48 | TC52224-1 | 1 | | (sample used for QC only; not part of login TC52591) |
| 13:50 | MP23952-S1 | 1 | | |
| 13:52 | MA9996-CCV5 | 1 | | |
| 13:54 | MA9996-CCB5 | 1 | | |
| 13:56 | MP23952-S2 | 1 | | |
| 14:01 | ZZZZZZ | 1 | | |
| 14:05 | MA9996-CRI2 | 1 | | |
| 14:14 | MA9996-CCV6 | 1 | | |
| 14:16 | MA9996-CCB6 | 1 | | |

----------> Last reportable CCB for job TC52591
Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: H3080514W2.CSV  Date Analyzed: 08/05/14  Methods: EPA 245.1, SW846 7470A
QC Limits: result < RL  Run ID: MA9996  Units: ug/l

| Time: | | | 12:12 | | 12:18 | | 12:46 | | 13:08 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID: | | | ICB1 | | CCB1 | | CCB2 | | CCB3 | |
| Metal | RL | IDL | raw | final | raw | final | raw | final | raw | final |
| Mercury | 0.20 | .05 | -0.041 | <0.20 | -0.042 | <0.20 | -0.047 | <0.20 | -0.056 | <0.20 |

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: H3080514W2.CSV  Date Analyzed: 08/05/14  Methods: EPA 245.1, SW846 7470A
QC Limits: result < RL  Run ID: MA9996  Units: ug/l

| Time: | | | 13:31 | | 13:54 | | 14:16 | |
|---|---|---|---|---|---|---|---|---|
| Sample ID: | | | CCB4 | | CCB5 | | CCB6 | |
| Metal | RL | IDL | raw | final | raw | final | raw | final |
| Mercury | 0.20 | .05 | -0.050 | <0.20 | -0.053 | <0.20 | -0.0079 | <0.20 |

(*) Outside of QC limits
(anr) Analyte not requested

9.3.1
9

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: H3080514W2.CSV  Date Analyzed: 08/05/14  Methods: EPA 245.1, SW846 7470A
QC Limits: 90 to 110 % Recovery  Run ID: MA9996  Units: ug/l

| Time: | | 12:10 | | | 12:16 | | | 12:44 | |
|---|---|---|---|---|---|---|---|---|---|
| Sample ID: | ICV | ICV1 | | CCV | CCV1 | | CCV | CCV2 | |
| Metal | True | Results | % Rec | True | Results | % Rec | True | Results | % Rec |
| Mercury | 3 | 3.1 | 103.3 | 3.0 | 3.0 | 100.0 | 3 | 3.1 | 103.3 |

(*) Outside of QC limits
(anr) Analyte not requested

9.3.2
9

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: H3080514W2.CSV  Date Analyzed: 08/05/14  Methods: EPA 245.1, SW846 7470A
QC Limits: 90 to 110 % Recovery  Run ID: MA9996  Units: ug/l

| Time: | | 13:06 | | | 13:29 | | | 13:52 | |
|---|---|---|---|---|---|---|---|---|---|
| Sample ID: | CCV | CCV3 | | CCV | CCV4 | | CCV | CCV5 | |
| Metal | True | Results | % Rec | True | Results | % Rec | True | Results | % Rec |
| Mercury | 3.0 | 3.0 | 100.0 | 3 | 3.2 | 106.7 | 3 | 3.2 | 106.7 |

(*) Outside of QC limits
(anr) Analyte not requested

9.3.2
9

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: H3080514W2.CSV  Date Analyzed: 08/05/14  Methods: EPA 245.1, SW846 7470A
QC Limits: 90 to 110 % Recovery  Run ID: MA9996  Units: ug/l

| Time: | | 14:14 | |
|---|---|---|---|
| Sample ID: | CCV | CCV6 | |
| Metal | True | Results | % Rec |
| Mercury | 3 | 3.1 | 103.3 |

(*) Outside of QC limits
(anr) Analyte not requested

9.3.2
9

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: H3080514W2.CSV  Date Analyzed: 08/05/14  Methods: EPA 245.1, SW846 7470A
QC Limits: 50 to 150 % Recovery  Run ID: MA9996  Units: ug/l

| Time: | | | 12:14 | | 14:05 | |
|---|---|---|---|---|---|---|
| Sample ID: | CRI | CRIA | CRI1 | | CRI2 | |
| Metal | True | True | Results | % Rec | Results | % Rec |
| Mercury | 0.20 | | 0.19 | 95.0 | 0.23 | 115.0 |

(*) Outside of QC limits
(anr) Analyte not requested

9.3.3

9

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP23948
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 08/04/14

| Metal | RL | IDL | MDL | MB raw | final |
|---|---|---|---|---|---|
| Aluminum | 200 | 6.9 | 18 | 41.6 | <200 |
| Antimony | 5.0 | .56 | 1.1 | -0.20 | <5.0 |
| Arsenic | 5.0 | 1 | 4.7 | -3.1 | <5.0 |
| Barium | 200 | .16 | .39 | 0.12 | <200 |
| Beryllium | 4.0 | .1 | .18 | 0.040 | <4.0 |
| Boron | 100 | .39 | 5.9 | | |
| Cadmium | 4.0 | .15 | .23 | 0.13 | <4.0 |
| Calcium | 5000 | 4 | 34 | 84.5 | <5000 |
| Chromium | 10 | .22 | .62 | -0.11 | <10 |
| Cobalt | 50 | .25 | .23 | -0.12 | <50 |
| Copper | 20 | .24 | 2.9 | 0.37 | <20 |
| Iron | 100 | 4.6 | 30 | 4.8 | <100 |
| Lead | 3.0 | .65 | .77 | 0.57 | <3.0 |
| Lithium | 300 | .65 | 2.2 | | |
| Magnesium | 5000 | 7.7 | 19 | -0.23 | <5000 |
| Manganese | 15 | .09 | .25 | 0.16 | <15 |
| Molybdenum | 10 | .62 | .41 | | |
| Nickel | 40 | .22 | .4 | 0.13 | <40 |
| Potassium | 5000 | 7.6 | 52 | 44.1 | <5000 |
| Selenium | 5.0 | 1.2 | 2.4 | 1.7 | <5.0 |
| Silver | 10 | .2 | .59 | -0.11 | <10 |
| Sodium | 5000 | 5.7 | 23 | 58.1 | <5000 |
| Strontium | 10 | .07 | .21 | | |
| Thallium | 10 | .83 | 2.1 | 1.2 | <10 |
| Tin | 50 | .67 | 1 | | |
| Titanium | 20 | .19 | .4 | | |
| Vanadium | 50 | .18 | .51 | 0.13 | <50 |
| Zinc | 20 | .13 | 1.5 | 0.39 | <20 |
| Sulfur | 50 | | 5.8 | | |

Associated samples MP23948: TC52591-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP23948
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 08/04/14

| Metal | TC52501-1 Original | MS | Spikelot MPTW11 | % Rec | QC Limits |
|---|---|---|---|---|---|
| Aluminum | 217 | 51000 | 50000 | 101.6 | 75-125 |
| Antimony | 1.1 | 424 | 400 | 105.7 | 75-125 |
| Arsenic | 12.3 | 421 | 400 | 102.2 | 75-125 |
| Barium | 85.4 | 477 | 400 | 97.5 | 75-125 |
| Beryllium | 0.19 | 392 | 400 | 97.9 | 75-125 |
| Boron | | | | | |
| Cadmium | 0.0 | 406 | 400 | 101.5 | 75-125 |
| Calcium | 118000 | 163000 | 50000 | 90.0 | 75-125 |
| Chromium | 2.6 | 378 | 400 | 93.9 | 75-125 |
| Cobalt | 0.0 | 392 | 400 | 98.0 | 75-125 |
| Copper | 2.5 | 420 | 400 | 104.3 | 75-125 |
| Iron | 129 | 47300 | 50000 | 94.3 | 75-125 |
| Lead | 12.7 | 396 | 400 | 95.8 | 75-125 |
| Lithium | | | | | |
| Magnesium | 14300 | 61100 | 50000 | 93.6 | 75-125 |
| Manganese | 17.5 | 405 | 400 | 96.9 | 75-125 |
| Molybdenum | | | | | |
| Nickel | 1.3 | 389 | 400 | 97.0 | 75-125 |
| Potassium | 5670 | 55200 | 50000 | 99.1 | 75-125 |
| Selenium | 17.0 | 439 | 400 | 106.0 | 75-125 |
| Silver | 0.0 | 400 | 400 | 100.0 | 75-125 |
| Sodium | 69800 | 113000 | 50000 | 86.4 | 75-125 |
| Strontium | | | | | |
| Thallium | 0.0 | 393 | 400 | 98.3 | 75-125 |
| Tin | | | | | |
| Titanium | | | | | |
| Vanadium | 23.8 | 411 | 400 | 96.9 | 75-125 |
| Zinc | 6.2 | 450 | 400 | 110.9 | 75-125 |
| Sulfur | | | | | |

Associated samples MP23948: TC52591-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP23948
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 08/04/14

| Metal | TC52501-1 Original | MSD | Spikelot MPTW11 | % Rec | MSD RPD | QC Limit |
|---|---|---|---|---|---|---|
| Aluminum | 217 | 50400 | 50000 | 100.4 | 1.2 | 20 |
| Antimony | 1.1 | 426 | 400 | 106.2 | 0.5 | 20 |
| Arsenic | 12.3 | 417 | 400 | 101.2 | 1.0 | 20 |
| Barium | 85.4 | 474 | 400 | 96.7 | 0.6 | 20 |
| Beryllium | 0.19 | 387 | 400 | 96.6 | 1.3 | 20 |
| Boron | | | | | | |
| Cadmium | 0.0 | 403 | 400 | 100.7 | 0.7 | 20 |
| Calcium | 118000 | 164000 | 50000 | 92.0 | 1.2 | 20 |
| Chromium | 2.6 | 373 | 400 | 92.6 | 1.3 | 20 |
| Cobalt | 0.0 | 386 | 400 | 96.5 | 1.5 | 20 |
| Copper | 2.5 | 417 | 400 | 103.5 | 0.7 | 20 |
| Iron | 129 | 46700 | 50000 | 93.1 | 1.3 | 20 |
| Lead | 12.7 | 391 | 400 | 94.6 | 1.3 | 20 |
| Lithium | | | | | | |
| Magnesium | 14300 | 60800 | 50000 | 93.0 | 0.5 | 20 |
| Manganese | 17.5 | 400 | 400 | 95.7 | 1.2 | 20 |
| Molybdenum | | | | | | |
| Nickel | 1.3 | 383 | 400 | 95.5 | 1.6 | 20 |
| Potassium | 5670 | 54700 | 50000 | 98.1 | 0.9 | 20 |
| Selenium | 17.0 | 435 | 400 | 105.0 | 0.9 | 20 |
| Silver | 0.0 | 396 | 400 | 99.0 | 1.0 | 20 |
| Sodium | 69800 | 115000 | 50000 | 90.4 | 1.8 | 20 |
| Strontium | | | | | | |
| Thallium | 0.0 | 388 | 400 | 97.0 | 1.3 | 20 |
| Tin | | | | | | |
| Titanium | | | | | | |
| Vanadium | 23.8 | 406 | 400 | 95.6 | 1.2 | 20 |
| Zinc | 6.2 | 448 | 400 | 110.4 | 0.4 | 20 |
| Sulfur | | | | | | |

Associated samples MP23948: TC52591-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP23948
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 08/04/14

| Metal | BSP Result | Spikelot MPTW11 | % Rec | QC Limits |
|---|---|---|---|---|
| Aluminum | 51200 | 50000 | 102.4 | 80-120 |
| Antimony | 426 | 400 | 106.5 | 80-120 |
| Arsenic | 411 | 400 | 102.8 | 80-120 |
| Barium | 403 | 400 | 100.8 | 80-120 |
| Beryllium | 397 | 400 | 99.3 | 80-120 |
| Boron | | | | |
| Cadmium | 409 | 400 | 102.3 | 80-120 |
| Calcium | 47800 | 50000 | 95.6 | 80-120 |
| Chromium | 385 | 400 | 96.3 | 80-120 |
| Cobalt | 409 | 400 | 102.3 | 80-120 |
| Copper | 423 | 400 | 105.8 | 80-120 |
| Iron | 48300 | 50000 | 96.6 | 80-120 |
| Lead | 387 | 400 | 96.8 | 80-120 |
| Lithium | | | | |
| Magnesium | 49300 | 50000 | 98.6 | 80-120 |
| Manganese | 396 | 400 | 99.0 | 80-120 |
| Molybdenum | | | | |
| Nickel | 394 | 400 | 98.5 | 80-120 |
| Potassium | 50200 | 50000 | 100.4 | 80-120 |
| Selenium | 427 | 400 | 106.8 | 80-120 |
| Silver | 396 | 400 | 99.0 | 80-120 |
| Sodium | 50500 | 50000 | 101.0 | 80-120 |
| Strontium | | | | |
| Thallium | 405 | 400 | 101.3 | 80-120 |
| Tin | | | | |
| Titanium | | | | |
| Vanadium | 393 | 400 | 98.3 | 80-120 |
| Zinc | 447 | 400 | 111.8 | 80-120 |
| Sulfur | | | | |

Associated samples MP23948: TC52591-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP23948
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 08/04/14

| Metal | TC52501-1 Original | SDL 1:5 | %DIF | QC Limits |
|---|---|---|---|---|
| Aluminum | 217 | 193 | 12.7 (a) | 0-10 |
| Antimony | 1.09 | 0.00 | 100.0(a) | 0-10 |
| Arsenic | 7.45 | 18.7 | 151.0(a) | 0-10 |
| Barium | 87.1 | 85.3 | 2.1 | 0-10 |
| Beryllium | 0.190 | 0.00 | 100.0(a) | 0-10 |
| Boron | | | | |
| Cadmium | 0.00 | 0.00 | NC (a) | 0-10 |
| Calcium | 118000 | 117000 | 0.9 | 0-10 |
| Chromium | 2.45 | 2.94 | 13.1 (a) | 0-10 |
| Cobalt | 0.00 | 0.00 | NC | 0-10 |
| Copper | 2.48 | 3.06 | 7.4 | 0-10 |
| Iron | 129 | 127 | 1.8 | 0-10 |
| Lead | 12.7 | 13.8 | 1.8 | 0-10 |
| Lithium | | | | |
| Magnesium | 14300 | 13500 | 5.7 | 0-10 |
| Manganese | 17.5 | 17.5 | 0.9 | 0-10 |
| Molybdenum | | | | |
| Nickel | 1.25 | 0.00 | 100.0(a) | 0-10 |
| Potassium | 5670 | 5640 | 0.6 | 0-10 |
| Selenium | 17.0 | 23.9 | 40.8 (a) | 0-10 |
| Silver | 0.00 | 0.00 | NC | 0-10 |
| Sodium | 69800 | 65400 | 6.3 | 0-10 |
| Strontium | | | | |
| Thallium | 0.00 | 4.43 | NC | 0-10 |
| Tin | | | | |
| Titanium | | | | |
| Vanadium | 23.8 | 23.3 | 0.6 | 0-10 |
| Zinc | 6.24 | 12.3 | 92.1 (a) | 0-10 |
| Sulfur | | | | |

Associated samples MP23948: TC52591-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP23951
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 08/05/14

| Metal | RL | IDL | MDL | MB raw | final |
|---|---|---|---|---|---|
| Mercury | 0.20 | .05 | .05 | -0.026 | <0.20 |

Associated samples MP23951: TC52591-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP23951
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 08/05/14

| Metal | TC52591-1 Original | MS | Spikelot HGTXAQ40 | % Rec | QC Limits |
|---|---|---|---|---|---|
| Mercury | 0.0 | 2.9 | 3 | 96.7 | 75-125 |

Associated samples MP23951: TC52591-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP23951 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/05/14

| Metal | TC52591-1 Original | MSD | Spikelot HGTXAQ40 | % Rec | MSD RPD | QC Limit |
|---|---|---|---|---|---|---|
| Mercury | 0.0 | 3.2 | 3 | 106.7 | 9.8 | 20 |

Associated samples MP23951: TC52591-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TC52591
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP23951
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 08/05/14

| Metal | BSP Result | Spikelot HGTXAQ40 | % Rec | QC Limits |
|---|---|---|---|---|
| Mercury | 3.3 | 3 | 110.0 | 81-122 |

Associated samples MP23951: TC52591-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

9.5.3

9