SPECTRUM ANALYTICAL, INC.
*Featuring*
HANIBAL TECHNOLOGY
*Florida Division*

# TEST REPORT

| | | | |
|---|---|---|---|
| Florida | # E84207 | California | # 07253CA |
| Texas | # T104704408-11-3 | Louisiana | # 02025 |
| South Carolina | # 96011001 | Kansas | # E-10385 |
| North Dakota | # R-178 | Arkansas | #11-036-1 |

LABORATORY ACCREDITATION BUREAU ACCREDITED
Certificate # L2259 Testing

| | |
|---|---|
| Customer Name: | OTIE |
| Date and Time Received: | 8/23/2011 9:00:00 AM |
| Date Reported: | 9/8/2011 |
| Laboratory Submission Number/SDG: | 3503862 |
| Project: | Kokomo Dump / 2010101 / 1012 |

The submission consisted of 15 samples with sample identification shown in the attached data tables.

The samples were analyzed for the methods listed on the attached table of contents. See the attached data tables for results.

Distribution of Report to:

OTIE
Attn: Naren Babu
WorkPhone: 312-220-7000

Respectfully Submitted,

Brian Spann
Laboratory Director
Spectrum Analytical, Inc. FL Division

Soil samples are reported on dry weight basis, unless otherwise noted.

Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. Spectrum Analytical, Inc. letters an reports are for the exclusive use of the client to whom they are addressed. Our Letters and reports apply to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar materials. This report shall not be reproduced except in full without written approval from Spectrum Analytical, Inc.

8405 Benjamin Road, Suite A• Tampa, Florida 33634
813-888-9507• FAX: 813-889-7128
Website: www.pelab.com

# Table Of Contents


Organics 9

Method 8260 Volatile Organics 12

8260 Sample Data 17

8260 QC Summary 39

Method 8260 TCLP Volatile Organics 520

8260 TCLP Sample Data 524

8260 TCLP QC Summary 530

Method 8270 Semi-Volatile Organics 535

8270 Sample Data 540

8270 QC Summary 556

Method 8270 TCLP Semi-Volatile Organics 574

8270 TCLP Sample Data 578

8270 TCLP QC Summary 585

Method 8082 PCB Organics 591

8082 Sample Data 595

8082 QC Summary 603

Inorganics 611

Metals Data Package 614

Metals Inorganic Sample Data 623

Metals Inorganic QC Summary Data 645

TCLP Metals Data Package 663

Metalst Inorganic Sample Data 669

Metalst Inorganic QC Summary Data 681

Chain of Custody Documentation 688

Addendum 709

# Table Of Contents Cont.

End of Report 727

# EXECUTIVE SUMMARY - Detection Highlights

## 3503862

**SAMPLE ID:** KD-DISP-SOIL-01

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Barium | 1.05 | 0.100 | MG/L | SW6010B TCLP TCLP |
| Chromium | 0.00970 J | 0.100 | MG/L | SW6010B TCLP TCLP |
| Lead | 0.0556 J | 0.150 | MG/L | SW6010B TCLP TCLP |
| Aroclor-1248 | 210 | 26 | UG/KG | SW8082 |
| Aroclor-1254 | 91.0 | 26 | UG/KG | SW8082 |

**SAMPLE ID:** KD-DRUM-1

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Arsenic | 2.01 | 1.30 | MG/KG | SW6010B |
| Cadmium | 6.66 | 0.650 | MG/KG | SW6010B |
| Chromium | 44.2 | 0.650 | MG/KG | SW6010B |
| Selenium | 4.11 | 2.60 | MG/KG | SW6010B |
| Barium | 6.60 | 0.100 | MG/L | SW6010B TCLP TCLP |
| Cadmium | 0.0231 J | 0.0500 | MG/L | SW6010B TCLP TCLP |
| Chromium | 0.00815 J | 0.100 | MG/L | SW6010B TCLP TCLP |
| Lead | 1.18 | 0.150 | MG/L | SW6010B TCLP TCLP |
| Mercury | 0.0922 | 0.0277 | MG/KG | SW7471A |

**SAMPLE ID:** KD-DRUM-1DL1

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Barium | 14700 | 16.3 | MG/KG | SW6010B |

**SAMPLE ID:** KD-DRUM-1DL2

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Lead | 2360 | 5.20 | MG/KG | SW6010B |

080911 1740

# EXECUTIVE SUMMARY - Detection Highlights

## 3503862

**SAMPLE ID:** KD-DRUM-2

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Arsenic | 57.9 | 0.572 | MG/KG | SW6010B |
| Barium | 44.2 | 0.286 | MG/KG | SW6010B |
| Lead | 108 | 0.458 | MG/KG | SW6010B |
| Silver | 2.19 | 0.286 | MG/KG | SW6010B |
| Barium | 0.401 | 0.100 | MG/L | SW6010B TCLP TCLP |
| Cadmium | 0.836 | 0.0500 | MG/L | SW6010B TCLP TCLP |
| Chromium | 0.0168 J | 0.100 | MG/L | SW6010B TCLP TCLP |
| Silver | 0.00747 J | 0.100 | MG/L | SW6010B TCLP TCLP |
| Mercury | 0.0191 J | 0.0214 | MG/KG | SW7471A |

**SAMPLE ID:** KD-DRUM-2DL1

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Cadmium | 441 | 1.43 | MG/KG | SW6010B |
| Chromium | 792 | 1.43 | MG/KG | SW6010B |

**SAMPLE ID:** KD-IDW-WATER-01

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Arsenic | 21.3 | 10.0 | UG/L | SW6010B |
| Barium | 401 | 10.0 | UG/L | SW6010B |
| Cadmium | 6.43 | 5.00 | UG/L | SW6010B |
| Chromium | 146 | 10.0 | UG/L | SW6010B |
| Lead | 347 | 15.0 | UG/L | SW6010B |
| Mercury | 0.830 | 0.200 | UG/L | SW7470A |
| Aroclor-1248 | 1.20 | 0.51 | UG/L | SW8082 |
| Aroclor-1254 | 0.340 J | 0.51 | UG/L | SW8082 |
| Acetone | 3.30 JB | 10 | UG/L | SW8260B |
| Bis(2-ethylhexyl)phthalat | 119 B | 10 | UG/L | SW8270C |

080911 1740

# EXECUTIVE SUMMARY - Detection Highlights

## 3503862

| | | | | |
|---|---|---|---|---|
| Di-n-butylphthalate | 2.00 JB | 8.2 | UG/L | SW8270C |
| Phenol | 4.40 J | 8.2 | UG/L | SW8270C |

**SAMPLE ID:** KD-SB-1 16ft-16.5ft

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Arsenic | 5.66 | 0.741 | MG/KG | SW6010B |
| Cadmium | 0.817 | 0.370 | MG/KG | SW6010B |
| Chromium | 14.1 | 0.370 | MG/KG | SW6010B |
| Lead | 54.2 | 0.593 | MG/KG | SW6010B |
| Barium | 3.68 | 0.100 | MG/L | SW6010B TCLP TCLP |
| Cadmium | 0.00886 J | 0.0500 | MG/L | SW6010B TCLP TCLP |
| Chromium | 0.0110 J | 0.100 | MG/L | SW6010B TCLP TCLP |
| Lead | 0.0877 J | 0.150 | MG/L | SW6010B TCLP TCLP |
| Silver | 0.00603 J | 0.100 | MG/L | SW6010B TCLP TCLP |
| Mercury | 0.0264 | 0.0161 | MG/KG | SW7471A |
| Aroclor-1254 | 280 | 24 | UG/KG | SW8082 |
| 1,2,4-Trimethylbenzene | 630 | 60 | UG/KG | SW8260B |
| 1,2-Dichlorobenzene | 675 | 150 | UG/KG | SW8260B |
| 1,3,5-Trimethylbenzene | 94.5 | 60 | UG/KG | SW8260B |
| 1,4-Dichlorobenzene | 22.8 J | 150 | UG/KG | SW8260B |
| Acetone | 86.0 JB | 300 | UG/KG | SW8260B |
| Isopropylbenzene | 92.3 | 60 | UG/KG | SW8260B |
| Naphthalene | 187 B | 150 | UG/KG | SW8260B |
| n-Propylbenzene | 151 | 60 | UG/KG | SW8260B |
| o-Xylene | 32.5 J | 60 | UG/KG | SW8260B |
| sec-Butylbenzene | 351 | 60 | UG/KG | SW8260B |
| Phenanthrene | 1190 J | 2200 | UG/KG | SW8270C |

**SAMPLE ID:** KD-SB-1 16ft-16.5ftDL1

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Barium | 506 | 0.741 | MG/KG | SW6010B |

080911 1740

# EXECUTIVE SUMMARY - Detection Highlights

## 3503862

**SAMPLE ID:** KD-SB-2 11ft-12ft

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Barium | 356 | 0.466 | MG/KG | SW6010B |
| Cadmium | 60.3 | 0.466 | MG/KG | SW6010B |
| Selenium | 1.60 J | 1.86 | MG/KG | SW6010B |
| Silver | 14.5 | 0.466 | MG/KG | SW6010B |
| Barium | 0.593 | 0.100 | MG/L | SW6010B TCLP TCLP |
| Chromium | 0.0574 J | 0.100 | MG/L | SW6010B TCLP TCLP |
| Lead | 0.0507 J | 0.150 | MG/L | SW6010B TCLP TCLP |
| Silver | 0.00759 J | 0.100 | MG/L | SW6010B TCLP TCLP |
| Mercury | 0.251 | 0.0248 | MG/KG | SW7471A |
| 1,3,5-Trimethylbenzene | 902 | 73 | UG/KG | SW8260B |
| 4-Isopropyltoluene | 433 | 73 | UG/KG | SW8260B |
| Acetone | 178 JB | 360 | UG/KG | SW8260B |
| Benzene | 27.1 J | 73 | UG/KG | SW8260B |
| Chlorobenzene | 83.1 | 73 | UG/KG | SW8260B |
| cis-1,2-Dichloroethene | 1120 | 73 | UG/KG | SW8260B |
| Ethylbenzene | 172 | 73 | UG/KG | SW8260B |
| Isopropylbenzene | 658 | 73 | UG/KG | SW8260B |
| m,p-Xylene | 235 | 150 | UG/KG | SW8260B |
| Naphthalene | 1400 B | 180 | UG/KG | SW8260B |
| n-Propylbenzene | 1110 | 73 | UG/KG | SW8260B |
| o-Xylene | 267 | 73 | UG/KG | SW8260B |
| sec-Butylbenzene | 2310 | 73 | UG/KG | SW8260B |
| tert-Butylbenzene | 147 | 73 | UG/KG | SW8260B |
| Tetrachloroethene | 430 | 73 | UG/KG | SW8260B |
| Toluene | 268 | 73 | UG/KG | SW8260B |
| trans-1,2-Dichloroethene | 358 | 73 | UG/KG | SW8260B |
| Trichloroethene | 950 | 73 | UG/KG | SW8260B |
| Benzene | 0.00250 J | 0.0050 | MG/L | SW8260B TCLP SPLP |
| Trichloroethene | 0.00360 J | 0.0050 | MG/L | SW8260B TCLP SPLP |
| 2-Methylnaphthalene | 691 J | 2900 | UG/KG | SW8270C |
| Benzo(a)anthracene | 732 J | 2900 | UG/KG | SW8270C |
| Benzo(g,h,i)perylene | 523 J | 2900 | UG/KG | SW8270C |
| Bis(2-ethylhexyl)phthalat | 3830 | 2900 | UG/KG | SW8270C |
| Chrysene | 757 J | 2800 | UG/KG | SW8270C |
| Fluoranthene | 1900 J | 2900 | UG/KG | SW8270C |
| Naphthalene | 2020 J | 2900 | UG/KG | SW8270C |
| Phenanthrene | 2320 J | 2900 | UG/KG | SW8270C |
| Pyrene | 1620 J | 2900 | UG/KG | SW8270C |

080911 1740

# EXECUTIVE SUMMARY - Detection Highlights

## 3503862

**SAMPLE ID:** KD-SB-2 11ft-12ftDL1

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Chromium | 4030 | 9.32 | MG/KG | SW6010B |
| 1,2,4-Trimethylbenzene | 21800 | 730 | UG/KG | SW8260B |
| n-Butylbenzene | 3860 | 730 | UG/KG | SW8260B |

**SAMPLE ID:** KD-SB-2 11ft-12ftDL2

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Lead | 828 | 1.49 | MG/KG | SW6010B |

**SAMPLE ID:** KD-SB-2 6ft-8ft

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Arsenic | 39.8 | 0.854 | MG/KG | SW6010B |
| Cadmium | 21.6 | 0.427 | MG/KG | SW6010B |
| Chromium | 150 | 0.427 | MG/KG | SW6010B |
| Selenium | 1.12 J | 1.71 | MG/KG | SW6010B |
| Silver | 7.00 | 0.427 | MG/KG | SW6010B |
| Barium | 0.802 | 0.100 | MG/L | SW6010B TCLP TCLP |
| Cadmium | 0.0626 | 0.0500 | MG/L | SW6010B TCLP TCLP |
| Chromium | 0.0106 J | 0.100 | MG/L | SW6010B TCLP TCLP |
| Lead | 2.84 | 0.150 | MG/L | SW6010B TCLP TCLP |
| Mercury | 0.294 | 0.0140 | MG/KG | SW7471A |

080911 1740

# EXECUTIVE SUMMARY - Detection Highlights

## 3503862

**SAMPLE ID:** KD-SB-2 6ft-8ftDL1

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Barium | 632 | 2.13 | MG/KG | SW6010B |
| Lead | 1500 | 3.42 | MG/KG | SW6010B |

**SAMPLE ID:** KD-SB-3 10ft-12ft

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Arsenic | 23.9 N* | 1.06 | MG/KG | SW6010B |
| Cadmium | 23.2 E | 0.531 | MG/KG | SW6010B |
| Chromium | 109 N | 0.531 | MG/KG | SW6010B |
| Selenium | 3.85 | 2.12 | MG/KG | SW6010B |
| Silver | 10.5 | 0.531 | MG/KG | SW6010B |
| Barium | 0.898 | 0.100 | MG/L | SW6010B TCLP TCLP |
| Cadmium | 0.0300 J | 0.0500 | MG/L | SW6010B TCLP TCLP |
| Chromium | 0.0136 J | 0.100 | MG/L | SW6010B TCLP TCLP |
| Lead | 0.138 J | 0.150 | MG/L | SW6010B TCLP TCLP |
| Mercury | 0.706 N | 0.0373 | MG/KG | SW7471A |

**SAMPLE ID:** KD-SB-3 10ft-12ftDL1

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Barium | 485 | 2.66 | MG/KG | SW6010B |
| Lead | 1380 | 4.25 | MG/KG | SW6010B |

**SAMPLE ID:** KD-SB-6 3ft-4ft

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Arsenic | 13.4 | 1.16 | MG/KG | SW6010B |
| Barium | 58.6 | 0.578 | MG/KG | SW6010B |

080911 1740

# EXECUTIVE SUMMARY - Detection Highlights

## 3503862

| | | | | |
|---|---|---|---|---|
| Cadmium | 0.609 | 0.578 | MG/KG | SW6010B |
| Chromium | 20.6 | 0.578 | MG/KG | SW6010B |
| Lead | 28.6 | 0.925 | MG/KG | SW6010B |
| Barium | 0.746 | 0.100 | MG/L | SW6010B TCLP TCLP |
| Chromium | 0.0111 J | 0.100 | MG/L | SW6010B TCLP TCLP |
| Lead | 0.0712 J | 0.150 | MG/L | SW6010B TCLP TCLP |
| Mercury | 0.282 | 0.0197 | MG/KG | SW7471A |
| Aroclor-1248 | 5200 | 320 | UG/KG | SW8082 |
| Aroclor-1254 | 1500 | 320 | UG/KG | SW8082 |
| Methylene chloride | 18.0 | 16 | UG/KG | SW8260B |

**SAMPLE ID:** KD-SB-7 4ft-6ft

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Arsenic | 12.0 | 1.06 | MG/KG | SW6010B |
| Barium | 97.4 | 0.528 | MG/KG | SW6010B |
| Cadmium | 0.361 J | 0.528 | MG/KG | SW6010B |
| Chromium | 25.0 | 0.528 | MG/KG | SW6010B |
| Lead | 38.6 | 0.844 | MG/KG | SW6010B |
| Selenium | 1.00 J | 2.11 | MG/KG | SW6010B |
| Barium | 0.493 | 0.100 | MG/L | SW6010B TCLP TCLP |
| Cadmium | 0.00756 J | 0.0500 | MG/L | SW6010B TCLP TCLP |
| Lead | 0.0485 J | 0.150 | MG/L | SW6010B TCLP TCLP |
| Mercury | 0.0603 | 0.0205 | MG/KG | SW7471A |

**SAMPLE ID:** KD-SB-9 3ft-4ft

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Arsenic | 8.24 | 1.26 | MG/KG | SW6010B |
| Barium | 47.9 | 0.632 | MG/KG | SW6010B |
| Cadmium | 0.574 J | 0.632 | MG/KG | SW6010B |
| Chromium | 18.6 | 0.632 | MG/KG | SW6010B |
| Lead | 30.0 | 1.01 | MG/KG | SW6010B |
| Barium | 0.0162 J | 0.100 | MG/L | SW6010B TCLP TCLP |
| Silver | 0.00982 J | 0.100 | MG/L | SW6010B TCLP TCLP |
| Mercury | 0.221 | 0.0247 | MG/KG | SW7471A |
| Methylene chloride | 38.5 | 13 | UG/KG | SW8260B |

080911 1740

# EXECUTIVE SUMMARY - Detection Highlights

## 3503862

**SAMPLE ID:** KD-SB-9 3ft-4ftDL1

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Aroclor-1248 | 3700 | 160 | UG/KG | SW8082 |
| Aroclor-1254 | 1000 | 160 | UG/KG | SW8082 |

**SAMPLE ID:** KD-SS-01

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Cadmium | 0.769 | 0.598 | MG/KG | SW6010B |
| Silver | 0.294 J | 0.598 | MG/KG | SW6010B |
| Barium | 3.33 | 0.100 | MG/L | SW6010B TCLP TCLP |
| Cadmium | 0.0126 J | 0.0500 | MG/L | SW6010B TCLP TCLP |
| Chromium | 0.0282 J | 0.100 | MG/L | SW6010B TCLP TCLP |
| Lead | 8.35 | 0.150 | MG/L | SW6010B TCLP TCLP |
| Mercury | 0.115 | 0.0187 | MG/KG | SW7471A |

**SAMPLE ID:** KD-SS-01DL1

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Barium | 900 | 5.98 | MG/KG | SW6010B |
| Chromium | 3980 | 5.98 | MG/KG | SW6010B |

**SAMPLE ID:** KD-SS-01DL2

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | ANALYTICAL METHOD |
|---|---|---|---|---|
| Lead | 16100 | 47.8 | MG/KG | SW6010B |

080911 1740

# Organics

080911 1740

# Organic Data Qualifiers

**U** Indicates the analyte was analyzed for but not detected. The number adjacent to the "U" qualifier indicates the reporting limit for that analyte. The reporting limit can vary from sample to sample depending on dilution factors or the percent moisture adjustment when indicated.

**J** Indicates estimated value. It is used when the data indicates the presence of an analyte above the method detection limit (MDL) yet lower than the reporting limit.

**B** Indicates the analyte was found in the associated blank as well as in the sample. The notation indicates possible contamination of the sample.

**E** Indicates the value reported is above the highest calibration standard for that analyte. The sample should be analyzed at an appropriate dilution. "E" qualified values are estimations and the diluted result may be reported on another Form 1.

**D** Indicates the analyte has been identified in a dilution reanalysis. "D" qualifiers are used for samples that have been analyzed at a lesser dilution than required for accurate quantitation.

**C** The "C" qualifier indicates the presence of this analyte has been confirmed by GC/MS analysis.

**P** This qualifier is used for pesticide / Aroclor target analytes where there is greater than 25% difference for the detected concentration between the two GC columns.

**N** This qualifier indicates presumptive evidence of an analyte. This qualifier is only used for tentatively identified compounds (TIC), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the "N" qualifier is not used.

**A** This qualifier indicates that a TIC is a suspected aldol-condensation product.

**X** Data flagged as rejected by analyst utilizing analytical judgement.

080911 1740

# Organic Sample ID Qualifiers

The qualifiers that may be appended to the lab sample ID and/or the client sample ID for organic analysis are defined below:

**DL** Diluted reanalysis. Indicates that the results of the original analysis of the sample contained compounds that exceeded the calibration range. The sample was diluted and reanalyzed. May be followed by a digit to indicate multiple dilutions of the sample. The results of more than one diluted reanalysis may be reported.

**R** Reanalysis. The extract was reanalyzed without re-extraction. The "R" is not used if the sample was also re-extracted. May be followed by a digit to indicate multiple reanalysis of the sample at the same dilution.

**RE** Re-extracted. The extract was reanalyzed with re-extraction. May be followed by a digit to indicate multiple re-extraction of the same sample at the same dilution.

**MS** Matrix spike (may be followed by a digit to indicate multiple matrix within a sample set).

**SD** Matrix spike duplicate (may be followed by a digit to indicate multiple matrix spike duplicate within a sample set).

# Method 8260 Volatile Organics

080911 1740

**CASE NARRATIVE**
**GC/MS VOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

EPA 8260B/SW846

## IV. PREPARATION

Soil samples were prepared by SW846/5035 for EPA8260B volatiles analysis. All aspects of sample preparation proceeded without exception.

Water samples were prepared by SW846/5030 for EPA8260B volatiles analysis. All aspects of sample preparation proceeded without exception.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

All acceptance criteria were met. Please note that:

Blank 082511MBLK62 was analyzed with the soil samples on 08/25/11. The following analyte(s) were detected below RL: Acetone at 76.7 ug/Kg, Naphthalene at 154 ug/Kg.

Blank 090211BLK62 was analyzed with the water samples on 09/02/11. The following analyte(s) were detected below RL: 1,4-Dichlorobenzene at 0.16 ug/L, Acetone at 2.1 ug/L.

No further action was necessary, since the detected hits are below the RL. Samples coded accordingly.

**C. Surrogates:**

All acceptance criteria were met.

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

**D. Spikes:**

**1. Laboratory Control Spikes (LCS)**

All acceptance criteria were met with the exception of:

LCS 082511LCS22D was analyzed with the soil samples on 08/25/11. The following analyte(s) were recovered below criteria: Ethylbenzene at 77.5 % with criteria of (80-119). No further action was required, since marginal exceedance criteria were met.

LCS 082511LCS63 was analyzed with the soil samples on 08/25/11. The following analyte(s) were recovered above criteria: Vinyl acetate at 138 % with criteria of (70-130). No further action was required, since marginal exceedance criteria were met.

LCS 082511LCS63D was analyzed with the soil samples on 08/25/11. All percent recovery criteria were met. The following analyte(s) exceeded RPD criteria: Vinyl acetate at 45.4 % with criteria of (30). No further action was required, since recoveries were met.

LCS 082611LCS21D was analyzed with the soil samples on 08/26/11. The following analyte(s) had marginal exceedance limit failures: Acetone at 203 % with criteria of (48.3-173.7). No further action was taken, since the high range was exceeded. The LCS met criteria for this analyte.

LCS 083011LCSA31 was analyzed with the water samples on 08/30/11. The following analyte(s) were recovered above criteria: 1,2,4-Trichlorobenzene at 124 % with criteria of (74-121), 1,2-Dibromo-3-chloropropane at 129 % with criteria of (64-124), Bromobenzene at 122 % with criteria of (82-118). No further action was required, since marginal exceedance criteria were met. The following analyte(s) had marginal exceedance limit failures: 1,1,2,2-Tetrachloroethane at 136 % with criteria of (62.5-130.5). No further action was taken, since the high range was exceeded. There were no detections for this analyte in the associated samples.

LCS 083011LCSA31D was analyzed with the water samples on 08/30/11. The following analyte(s) were recovered above criteria: 1,2,3-Trichlorobenzene at 129 % with criteria of (67-126), 1,2,4-Trichlorobenzene at 125 % with criteria of (74-121), 1,2-Dibromo-3-chloropropane at 126 % with criteria of (64-124), 4-Chlorotoluene at 124 % with criteria of (80-123), Bromobenzene at 122 % with criteria of (82-118), Hexachlorobutadiene at 128 % with criteria of (76-127). No further action was required, since marginal exceedance criteria were met. The following analyte(s) exceeded RPD criteria: 2-Butanone at 26.7 % with criteria of (20), 2-Hexanone at 20.6 % with criteria of (20), Acetone at 43.1 % with criteria of (20). No further action was required. The following analyte(s) had marginal exceedance limit failures: 1,1,2,2-Tetrachloroethane at 138 % with criteria of (62.5-130.5). No further

**CASE NARRATIVE**
**GC/MS VOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

action was taken, since the high range was exceeded. There were no detections for this analyte in the associated samples.

Samples coded accordingly.

**2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)**

No spikes requested by client.

**E. Internal Standards:**

All acceptance criteria were met.

**F. Samples:**

Sample analysis proceeded normally.

All samples were screened prior to GC/MS analysis.

Sample KD-SB-1 16ft-16.5ft required a 50X dilution due to high concentrations of target and non-target analytes present.

Sample KD-SB-2 11ft-12ft required a 50X and a 500X dilution due to high concentration of the following analyte(s): 1,2,4-Trimethylbenzene, n-Butylbenzene. Both diluted runs are reported.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:
Name: Lisa Pelo Title: VOA Manager

**SIGNED:** **DATE: 09/07/2011**

W:\Narratives\Vols\3503\3503862_8260.doc

# VOLATILE ORGANIC CROSS REFERENCE TABLE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**Method:** 8260

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-SB-2 11ft-12ftDL1 | 350386202DL1 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-IDW-WATER-01 | 350386214 |
| TRIP-1 | 350386215 |

080911 1740

# 8260 Sample Data

080911 1740

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201M.D

Sample wt/vol: 8.74 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) HIGH Date Analyzed: 08/26/11 Time: 0037

PercentSolids: 95.2 decanted : Dilution Factor: 50

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 60.1 | U | 18 | 60.1 |
| 74-87-3 | Chloromethane | 60.1 | U | 11.4 | 60.1 |
| 75-01-4 | Vinyl chloride | 60.1 | U | 18 | 60.1 |
| 74-83-9 | Bromomethane | 60.1 | U | 36 | 60.1 |
| 75-00-3 | Chloroethane | 60.1 | U | 22.2 | 60.1 |
| 75-69-4 | Trichlorofluoromethane | 60.1 | U | 13.2 | 60.1 |
| 75-35-4 | 1,1-Dichloroethene | 60.1 | U | 10.2 | 60.1 |
| 74-88-4 | Methyl iodide | 60.1 | U | 45.1 | 60.1 |
| 75-15-0 | Carbon disulfide | 60.1 | U | 45.1 | 60.1 |
| 75-09-2 | Methylene chloride | 150 | U | 36 | 150 |
| 156-60-5 | trans-1,2-Dichloroethene | 60.1 | U | 11.7 | 60.1 |
| 75-34-3 | 1,1-Dichloroethane | 60.1 | U | 10.2 | 60.1 |
| 67-64-1 | Acetone | 86 | JB | 39.1 | 300 |
| 594-20-7 | 2,2-Dichloropropane | 60.1 | U | 17.7 | 60.1 |
| 156-59-2 | cis-1,2-Dichloroethene | 60.1 | U | 18.6 | 60.1 |
| 74-97-5 | Bromochloromethane | 60.1 | U | 27 | 60.1 |
| 78-93-3 | 2-Butanone | 300 | U | 42.1 | 300 |
| 67-66-3 | Chloroform | 60.1 | U | 16.2 | 60.1 |
| 71-55-6 | 1,1,1-Trichloroethane | 60.1 | U | 30 | 60.1 |
| 56-23-5 | Carbon tetrachloride | 60.1 | U | 18 | 60.1 |
| 563-58-6 | 1,1-Dichloropropene | 60.1 | U | 12.3 | 60.1 |
| 71-43-2 | Benzene | 60.1 | U | 15 | 60.1 |
| 107-06-2 | 1,2-Dichloroethane | 60.1 | U | 30 | 60.1 |
| 79-01-6 | Trichloroethene | 60.1 | U | 13.2 | 60.1 |
| 108-05-4 | Vinyl acetate | 60.1 | U | 45.1 | 60.1 |
| 78-87-5 | 1,2-Dichloropropane | 60.1 | U | 18.9 | 60.1 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201M.D

Sample wt/vol: 8.74 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) HIGH Date Analyzed: 08/26/11 Time: 0037

PercentSolids: 95.2 decanted : Dilution Factor: 50

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 74-95-3 | Dibromomethane | 60.1 | U | 19.8 | 60.1 |
| 75-27-4 | Bromodichloromethane | 60.1 | U | 9.6 | 60.1 |
| 10061-01-5 | cis-1,3-Dichloropropene | 60.1 | U | 12.6 | 60.1 |
| 108-10-1 | 4-Methyl-2-pentanone | 300 | U | 48.1 | 300 |
| 108-88-3 | Toluene | 60.1 | U | 8.7 | 60.1 |
| 10061-02-6 | trans-1,3-Dichloropropene | 60.1 | U | 30 | 60.1 |
| 79-00-5 | 1,1,2-Trichloroethane | 60.1 | U | 24.6 | 60.1 |
| 127-18-4 | Tetrachloroethene | 60.1 | U | 27.9 | 60.1 |
| 142-28-9 | 1,3-Dichloropropane | 60.1 | U | 16.2 | 60.1 |
| 591-78-6 | 2-Hexanone | 300 | U | 39.1 | 300 |
| 124-48-1 | Dibromochloromethane | 60.1 | U | 13.8 | 60.1 |
| 106-93-4 | 1,2-Dibromoethane | 60.1 | U | 24.6 | 60.1 |
| 108-90-7 | Chlorobenzene | 60.1 | U | 10.5 | 60.1 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 60.1 | U | 22.2 | 60.1 |
| 100-41-4 | Ethylbenzene | 60.1 | U | 20.7 | 60.1 |
| 179601-23-1 | m,p-Xylene | 120 | U | 20.4 | 120 |
| 95-47-6 | o-Xylene | 32.5 | J | 10.5 | 60.1 |
| 100-42-5 | Styrene | 60.1 | U | 8.4 | 60.1 |
| 75-25-2 | Bromoform | 60.1 | U | 13.8 | 60.1 |
| 98-82-8 | Isopropylbenzene | 92.3 | | 18 | 60.1 |
| 108-86-1 | Bromobenzene | 60.1 | U | 33 | 60.1 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 60.1 | U | 17.7 | 60.1 |
| 96-18-4 | 1,2,3-Trichloropropane | 60.1 | U | 36 | 60.1 |
| 103-65-1 | n-Propylbenzene | 151 | | 20.4 | 60.1 |
| 95-49-8 | 2-Chlorotoluene | 60.1 | U | 14.4 | 60.1 |
| 106-43-4 | 4-Chlorotoluene | 60.1 | U | 15.6 | 60.1 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201M.D

Sample wt/vol: 8.74 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) HIGH Date Analyzed: 08/26/11 Time: 0037

PercentSolids: 95.2 decanted : Dilution Factor: 50

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 108-67-8 | 1,3,5-Trimethylbenzene | 94.5 | | 15.6 | 60.1 |
| 98-06-6 | tert-Butylbenzene | 60.1 | U | 20.4 | 60.1 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 630 | | 13.2 | 60.1 |
| 135-98-8 | sec-Butylbenzene | 351 | | 19.2 | 60.1 |
| 541-73-1 | 1,3-Dichlorobenzene | 150 | U | 13.5 | 150 |
| 106-46-7 | 1,4-Dichlorobenzene | 22.8 | J | 19.5 | 150 |
| 99-87-6 | 4-Isopropyltoluene | 60.1 | U | 21.3 | 60.1 |
| 104-51-8 | n-Butylbenzene | 60.1 | U | 18.6 | 60.1 |
| 95-50-1 | 1,2-Dichlorobenzene | 675 | | 16.8 | 150 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 150 | U | 84.1 | 150 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 150 | U | 18.9 | 150 |
| 87-68-3 | Hexachlorobutadiene | 60.1 | U | 36 | 60.1 |
| 91-20-3 | Naphthalene | 187 | B | 45.1 | 150 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 150 | U | 18.3 | 150 |
| 1634-04-4 | Methyl tert-butyl ether | 60.1 | U | 12.9 | 60.1 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202M.D

Sample wt/vol: 9.2 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) HIGH Date Analyzed: 08/26/11 Time: 0102

PercentSolids: 74.4 decanted : Dilution Factor: 50

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 73 | U | 21.9 | 73 |
| 74-87-3 | Chloromethane | 73 | U | 13.9 | 73 |
| 75-01-4 | Vinyl chloride | 73 | U | 21.9 | 73 |
| 74-83-9 | Bromomethane | 73 | U | 43.8 | 73 |
| 75-00-3 | Chloroethane | 73 | U | 27 | 73 |
| 75-69-4 | Trichlorofluoromethane | 73 | U | 16.1 | 73 |
| 75-35-4 | 1,1-Dichloroethene | 73 | U | 12.4 | 73 |
| 74-88-4 | Methyl iodide | 73 | U | 54.8 | 73 |
| 75-15-0 | Carbon disulfide | 73 | U | 54.8 | 73 |
| 75-09-2 | Methylene chloride | 183 | U | 43.8 | 183 |
| 156-60-5 | trans-1,2-Dichloroethene | 358 | | 14.2 | 73 |
| 75-34-3 | 1,1-Dichloroethane | 73 | U | 12.4 | 73 |
| 67-64-1 | Acetone | 178 | JB | 47.5 | 365 |
| 594-20-7 | 2,2-Dichloropropane | 73 | U | 21.5 | 73 |
| 156-59-2 | cis-1,2-Dichloroethene | 1120 | | 22.6 | 73 |
| 74-97-5 | Bromochloromethane | 73 | U | 32.9 | 73 |
| 78-93-3 | 2-Butanone | 365 | U | 51.1 | 365 |
| 67-66-3 | Chloroform | 73 | U | 19.7 | 73 |
| 71-55-6 | 1,1,1-Trichloroethane | 73 | U | 36.5 | 73 |
| 56-23-5 | Carbon tetrachloride | 73 | U | 21.9 | 73 |
| 563-58-6 | 1,1-Dichloropropene | 73 | U | 15 | 73 |
| 71-43-2 | Benzene | 27.1 | J | 18.3 | 73 |
| 107-06-2 | 1,2-Dichloroethane | 73 | U | 36.5 | 73 |
| 79-01-6 | Trichloroethene | 950 | | 16.1 | 73 |
| 108-05-4 | Vinyl acetate | 73 | U | 54.8 | 73 |
| 78-87-5 | 1,2-Dichloropropane | 73 | U | 23 | 73 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202M.D

Sample wt/vol: 9.2 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) HIGH Date Analyzed: 08/26/11 Time: 0102

PercentSolids: 74.4 decanted : Dilution Factor: 50

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 74-95-3 | Dibromomethane | 73 | U | 24.1 | 73 |
| 75-27-4 | Bromodichloromethane | 73 | U | 11.7 | 73 |
| 10061-01-5 | cis-1,3-Dichloropropene | 73 | U | 15.3 | 73 |
| 108-10-1 | 4-Methyl-2-pentanone | 365 | U | 58.4 | 365 |
| 108-88-3 | Toluene | 268 | | 10.6 | 73 |
| 10061-02-6 | trans-1,3-Dichloropropene | 73 | U | 36.5 | 73 |
| 79-00-5 | 1,1,2-Trichloroethane | 73 | U | 29.9 | 73 |
| 127-18-4 | Tetrachloroethene | 430 | | 34 | 73 |
| 142-28-9 | 1,3-Dichloropropane | 73 | U | 19.7 | 73 |
| 591-78-6 | 2-Hexanone | 365 | U | 47.5 | 365 |
| 124-48-1 | Dibromochloromethane | 73 | U | 16.8 | 73 |
| 106-93-4 | 1,2-Dibromoethane | 73 | U | 29.9 | 73 |
| 108-90-7 | Chlorobenzene | 83.1 | | 12.8 | 73 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 73 | U | 27 | 73 |
| 100-41-4 | Ethylbenzene | 172 | | 25.2 | 73 |
| 179601-23-1 | m,p-Xylene | 235 | | 24.8 | 146 |
| 95-47-6 | o-Xylene | 267 | | 12.8 | 73 |
| 100-42-5 | Styrene | 73 | U | 10.2 | 73 |
| 75-25-2 | Bromoform | 73 | U | 16.8 | 73 |
| 98-82-8 | Isopropylbenzene | 658 | | 21.9 | 73 |
| 108-86-1 | Bromobenzene | 73 | U | 40.2 | 73 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 73 | U | 21.5 | 73 |
| 96-18-4 | 1,2,3-Trichloropropane | 73 | U | 43.8 | 73 |
| 103-65-1 | n-Propylbenzene | 1110 | | 24.8 | 73 |
| 95-49-8 | 2-Chlorotoluene | 73 | U | 17.5 | 73 |
| 106-43-4 | 4-Chlorotoluene | 73 | U | 19 | 73 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202M.D

Sample wt/vol: 9.2 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) HIGH Date Analyzed: 08/26/11 Time: 0102

PercentSolids: 74.4 decanted : Dilution Factor: 50

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 108-67-8 | 1,3,5-Trimethylbenzene | 902 | | 19 | 73 |
| 98-06-6 | tert-Butylbenzene | 147 | | 24.8 | 73 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 12800 | E | 16.1 | 73 |
| 135-98-8 | sec-Butylbenzene | 2310 | | 23.4 | 73 |
| 541-73-1 | 1,3-Dichlorobenzene | 183 | U | 16.4 | 183 |
| 106-46-7 | 1,4-Dichlorobenzene | 183 | U | 23.7 | 183 |
| 99-87-6 | 4-Isopropyltoluene | 433 | | 25.9 | 73 |
| 104-51-8 | n-Butylbenzene | 3290 | E | 22.6 | 73 |
| 95-50-1 | 1,2-Dichlorobenzene | 183 | U | 20.4 | 183 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 183 | U | 102 | 183 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 183 | U | 23 | 183 |
| 87-68-3 | Hexachlorobutadiene | 73 | U | 43.8 | 73 |
| 91-20-3 | Naphthalene | 1400 | B | 54.8 | 183 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 183 | U | 22.3 | 183 |
| 1634-04-4 | Methyl tert-butyl ether | 73 | U | 15.7 | 73 |

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**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-2 11ft-12ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202DL1 Lab File ID 86202MD.D

Sample wt/vol: 9.2 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) HIGH Date Analyzed: 08/26/11 Time: 0127

PercentSolids: 74.4 decanted : Dilution Factor: 500

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 730 | U | 219 | 730 |
| 74-87-3 | Chloromethane | 730 | U | 139 | 730 |
| 75-01-4 | Vinyl chloride | 730 | U | 219 | 730 |
| 74-83-9 | Bromomethane | 730 | U | 438 | 730 |
| 75-00-3 | Chloroethane | 730 | U | 270 | 730 |
| 75-69-4 | Trichlorofluoromethane | 730 | U | 161 | 730 |
| 75-35-4 | 1,1-Dichloroethene | 730 | U | 124 | 730 |
| 74-88-4 | Methyl iodide | 730 | U | 548 | 730 |
| 75-15-0 | Carbon disulfide | 730 | U | 548 | 730 |
| 75-09-2 | Methylene chloride | 1830 | U | 438 | 1830 |
| 156-60-5 | trans-1,2-Dichloroethene | 366 | J | 142 | 730 |
| 75-34-3 | 1,1-Dichloroethane | 730 | U | 124 | 730 |
| 67-64-1 | Acetone | 754 | JB | 475 | 3650 |
| 594-20-7 | 2,2-Dichloropropane | 730 | U | 215 | 730 |
| 156-59-2 | cis-1,2-Dichloroethene | 1140 | | 226 | 730 |
| 74-97-5 | Bromochloromethane | 730 | U | 329 | 730 |
| 78-93-3 | 2-Butanone | 3650 | U | 511 | 3650 |
| 67-66-3 | Chloroform | 730 | U | 197 | 730 |
| 71-55-6 | 1,1,1-Trichloroethane | 730 | U | 365 | 730 |
| 56-23-5 | Carbon tetrachloride | 730 | U | 219 | 730 |
| 563-58-6 | 1,1-Dichloropropene | 730 | U | 150 | 730 |
| 71-43-2 | Benzene | 730 | U | 183 | 730 |
| 107-06-2 | 1,2-Dichloroethane | 730 | U | 365 | 730 |
| 79-01-6 | Trichloroethene | 957 | | 161 | 730 |
| 108-05-4 | Vinyl acetate | 730 | U | 548 | 730 |
| 78-87-5 | 1,2-Dichloropropane | 730 | U | 230 | 730 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202DL1 Lab File ID 86202MD.D

Sample wt/vol: 9.2 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) HIGH Date Analyzed: 08/26/11 Time: 0127

PercentSolids: 74.4 decanted : Dilution Factor: 500

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 74-95-3 | Dibromomethane | 730 | U | 241 | 730 |
| 75-27-4 | Bromodichloromethane | 730 | U | 117 | 730 |
| 10061-01-5 | cis-1,3-Dichloropropene | 730 | U | 153 | 730 |
| 108-10-1 | 4-Methyl-2-pentanone | 3650 | U | 584 | 3650 |
| 108-88-3 | Toluene | 254 | J | 106 | 730 |
| 10061-02-6 | trans-1,3-Dichloropropene | 730 | U | 365 | 730 |
| 79-00-5 | 1,1,2-Trichloroethane | 730 | U | 299 | 730 |
| 127-18-4 | Tetrachloroethene | 480 | J | 340 | 730 |
| 142-28-9 | 1,3-Dichloropropane | 730 | U | 197 | 730 |
| 591-78-6 | 2-Hexanone | 3650 | U | 475 | 3650 |
| 124-48-1 | Dibromochloromethane | 730 | U | 168 | 730 |
| 106-93-4 | 1,2-Dibromoethane | 730 | U | 299 | 730 |
| 108-90-7 | Chlorobenzene | 730 | U | 128 | 730 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 730 | U | 270 | 730 |
| 100-41-4 | Ethylbenzene | 730 | U | 252 | 730 |
| 179601-23-1 | m,p-Xylene | 1460 | U | 248 | 1460 |
| 95-47-6 | o-Xylene | 257 | J | 128 | 730 |
| 100-42-5 | Styrene | 730 | U | 102 | 730 |
| 75-25-2 | Bromoform | 730 | U | 168 | 730 |
| 98-82-8 | Isopropylbenzene | 749 | | 219 | 730 |
| 108-86-1 | Bromobenzene | 730 | U | 402 | 730 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 730 | U | 215 | 730 |
| 96-18-4 | 1,2,3-Trichloropropane | 730 | U | 438 | 730 |
| 103-65-1 | n-Propylbenzene | 1260 | | 248 | 730 |
| 95-49-8 | 2-Chlorotoluene | 730 | U | 175 | 730 |
| 106-43-4 | 4-Chlorotoluene | 730 | U | 190 | 730 |

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**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-2 11ft-12ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202DL1 Lab File ID 86202MD.D

Sample wt/vol: 9.2 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) HIGH Date Analyzed: 08/26/11 Time: 0127

PercentSolids: 74.4 decanted : Dilution Factor: 500

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 108-67-8 | 1,3,5-Trimethylbenzene | 1040 | | 190 | 730 |
| 98-06-6 | tert-Butylbenzene | 730 | U | 248 | 730 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 21800 | | 161 | 730 |
| 135-98-8 | sec-Butylbenzene | 2680 | | 234 | 730 |
| 541-73-1 | 1,3-Dichlorobenzene | 1830 | U | 164 | 1830 |
| 106-46-7 | 1,4-Dichlorobenzene | 1830 | U | 237 | 1830 |
| 99-87-6 | 4-Isopropyltoluene | 524 | J | 259 | 730 |
| 104-51-8 | n-Butylbenzene | 3860 | | 226 | 730 |
| 95-50-1 | 1,2-Dichlorobenzene | 1830 | U | 204 | 1830 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 1830 | U | 1020 | 1830 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1830 | U | 230 | 1830 |
| 87-68-3 | Hexachlorobutadiene | 730 | U | 438 | 730 |
| 91-20-3 | Naphthalene | 3270 | B | 548 | 1830 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 1830 | U | 223 | 1830 |
| 1634-04-4 | Methyl tert-butyl ether | 730 | U | 157 | 730 |

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**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 862-10.D

Sample wt/vol: 2.02 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/26/11 Time: 1344

PercentSolids: 75.2 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 6.6 | U | 2 | 6.6 |
| 74-87-3 | Chloromethane | 6.6 | U | 1.2 | 6.6 |
| 75-01-4 | Vinyl chloride | 6.6 | U | 2 | 6.6 |
| 74-83-9 | Bromomethane | 6.6 | U | 3.9 | 6.6 |
| 75-00-3 | Chloroethane | 6.6 | U | 2.4 | 6.6 |
| 75-69-4 | Trichlorofluoromethane | 6.6 | U | 1.4 | 6.6 |
| 75-35-4 | 1,1-Dichloroethene | 6.6 | U | 1.1 | 6.6 |
| 74-88-4 | Methyl iodide | 6.6 | U | 4.9 | 6.6 |
| 75-15-0 | Carbon disulfide | 6.6 | U | 4.9 | 6.6 |
| 75-09-2 | Methylene chloride | 18 | | 3.9 | 16.4 |
| 156-60-5 | trans-1,2-Dichloroethene | 6.6 | U | 1.3 | 6.6 |
| 75-34-3 | 1,1-Dichloroethane | 6.6 | U | 1.1 | 6.6 |
| 67-64-1 | Acetone | 32.9 | U | 4.3 | 32.9 |
| 594-20-7 | 2,2-Dichloropropane | 6.6 | U | 1.9 | 6.6 |
| 156-59-2 | cis-1,2-Dichloroethene | 6.6 | U | 2 | 6.6 |
| 74-97-5 | Bromochloromethane | 6.6 | U | 3 | 6.6 |
| 78-93-3 | 2-Butanone | 32.9 | U | 4.6 | 32.9 |
| 67-66-3 | Chloroform | 6.6 | U | 1.8 | 6.6 |
| 71-55-6 | 1,1,1-Trichloroethane | 6.6 | U | 3.3 | 6.6 |
| 56-23-5 | Carbon tetrachloride | 6.6 | U | 2 | 6.6 |
| 563-58-6 | 1,1-Dichloropropene | 6.6 | U | 1.3 | 6.6 |
| 71-43-2 | Benzene | 6.6 | U | 1.6 | 6.6 |
| 107-06-2 | 1,2-Dichloroethane | 6.6 | U | 3.3 | 6.6 |
| 79-01-6 | Trichloroethene | 6.6 | U | 1.4 | 6.6 |
| 108-05-4 | Vinyl acetate | 6.6 | U | 4.9 | 6.6 |
| 78-87-5 | 1,2-Dichloropropane | 6.6 | U | 2.1 | 6.6 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 862-10.D

Sample wt/vol: 2.02 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/26/11 Time: 1344

PercentSolids: 75.2 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 74-95-3 | Dibromomethane | 6.6 | U | 2.2 | 6.6 |
| 75-27-4 | Bromodichloromethane | 6.6 | U | 1 | 6.6 |
| 10061-01-5 | cis-1,3-Dichloropropene | 6.6 | U | 1.4 | 6.6 |
| 108-10-1 | 4-Methyl-2-pentanone | 32.9 | U | 5.3 | 32.9 |
| 108-88-3 | Toluene | 6.6 | U | 0.95 | 6.6 |
| 10061-02-6 | trans-1,3-Dichloropropene | 6.6 | U | 3.3 | 6.6 |
| 79-00-5 | 1,1,2-Trichloroethane | 6.6 | U | 2.7 | 6.6 |
| 127-18-4 | Tetrachloroethene | 6.6 | U | 3.1 | 6.6 |
| 142-28-9 | 1,3-Dichloropropane | 6.6 | U | 1.8 | 6.6 |
| 591-78-6 | 2-Hexanone | 32.9 | U | 4.3 | 32.9 |
| 124-48-1 | Dibromochloromethane | 6.6 | U | 1.5 | 6.6 |
| 106-93-4 | 1,2-Dibromoethane | 6.6 | U | 2.7 | 6.6 |
| 108-90-7 | Chlorobenzene | 6.6 | U | 1.2 | 6.6 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 6.6 | U | 2.4 | 6.6 |
| 100-41-4 | Ethylbenzene | 6.6 | U | 2.3 | 6.6 |
| 179601-23-1 | m,p-Xylene | 13.2 | U | 2.2 | 13.2 |
| 95-47-6 | o-Xylene | 6.6 | U | 1.2 | 6.6 |
| 100-42-5 | Styrene | 6.6 | U | 0.92 | 6.6 |
| 75-25-2 | Bromoform | 6.6 | U | 1.5 | 6.6 |
| 98-82-8 | Isopropylbenzene | 6.6 | U | 2 | 6.6 |
| 108-86-1 | Bromobenzene | 6.6 | U | 3.6 | 6.6 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 6.6 | U | 1.9 | 6.6 |
| 96-18-4 | 1,2,3-Trichloropropane | 6.6 | U | 3.9 | 6.6 |
| 103-65-1 | n-Propylbenzene | 6.6 | U | 2.2 | 6.6 |
| 95-49-8 | 2-Chlorotoluene | 6.6 | U | 1.6 | 6.6 |
| 106-43-4 | 4-Chlorotoluene | 6.6 | U | 1.7 | 6.6 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 862-10.D

Sample wt/vol: 2.02 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/26/11 Time: 1344

PercentSolids: 75.2 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 108-67-8 | 1,3,5-Trimethylbenzene | 6.6 | U | 1.7 | 6.6 |
| 98-06-6 | tert-Butylbenzene | 6.6 | U | 2.2 | 6.6 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 6.6 | U | 1.4 | 6.6 |
| 135-98-8 | sec-Butylbenzene | 6.6 | U | 2.1 | 6.6 |
| 541-73-1 | 1,3-Dichlorobenzene | 16.4 | U | 1.5 | 16.4 |
| 106-46-7 | 1,4-Dichlorobenzene | 16.4 | U | 2.1 | 16.4 |
| 99-87-6 | 4-Isopropyltoluene | 6.6 | U | 2.3 | 6.6 |
| 104-51-8 | n-Butylbenzene | 6.6 | U | 2 | 6.6 |
| 95-50-1 | 1,2-Dichlorobenzene | 16.4 | U | 1.8 | 16.4 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 16.4 | U | 9.2 | 16.4 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 16.4 | U | 2.1 | 16.4 |
| 87-68-3 | Hexachlorobutadiene | 6.6 | U | 3.9 | 6.6 |
| 91-20-3 | Naphthalene | 16.4 | U | 4.9 | 16.4 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 16.4 | U | 2 | 16.4 |
| 1634-04-4 | Methyl tert-butyl ether | 6.6 | U | 1.4 | 6.6 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 862-11.D

Sample wt/vol: 2.63 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/25/11 Time: 1427

PercentSolids: 74.4 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 5.1 | U | 1.5 | 5.1 |
| 74-87-3 | Chloromethane | 5.1 | U | 0.97 | 5.1 |
| 75-01-4 | Vinyl chloride | 5.1 | U | 1.5 | 5.1 |
| 74-83-9 | Bromomethane | 5.1 | U | 3.1 | 5.1 |
| 75-00-3 | Chloroethane | 5.1 | U | 1.9 | 5.1 |
| 75-69-4 | Trichlorofluoromethane | 5.1 | U | 1.1 | 5.1 |
| 75-35-4 | 1,1-Dichloroethene | 5.1 | U | 0.87 | 5.1 |
| 74-88-4 | Methyl iodide | 5.1 | U | 3.8 | 5.1 |
| 75-15-0 | Carbon disulfide | 5.1 | U | 3.8 | 5.1 |
| 75-09-2 | Methylene chloride | 38.5 | | 3.1 | 12.8 |
| 156-60-5 | trans-1,2-Dichloroethene | 5.1 | U | 1 | 5.1 |
| 75-34-3 | 1,1-Dichloroethane | 5.1 | U | 0.87 | 5.1 |
| 67-64-1 | Acetone | 25.6 | U | 3.3 | 25.6 |
| 594-20-7 | 2,2-Dichloropropane | 5.1 | U | 1.5 | 5.1 |
| 156-59-2 | cis-1,2-Dichloroethene | 5.1 | U | 1.6 | 5.1 |
| 74-97-5 | Bromochloromethane | 5.1 | U | 2.3 | 5.1 |
| 78-93-3 | 2-Butanone | 25.6 | U | 3.6 | 25.6 |
| 67-66-3 | Chloroform | 5.1 | U | 1.4 | 5.1 |
| 71-55-6 | 1,1,1-Trichloroethane | 5.1 | U | 2.6 | 5.1 |
| 56-23-5 | Carbon tetrachloride | 5.1 | U | 1.5 | 5.1 |
| 563-58-6 | 1,1-Dichloropropene | 5.1 | U | 1 | 5.1 |
| 71-43-2 | Benzene | 5.1 | U | 1.3 | 5.1 |
| 107-06-2 | 1,2-Dichloroethane | 5.1 | U | 2.6 | 5.1 |
| 79-01-6 | Trichloroethene | 5.1 | U | 1.1 | 5.1 |
| 108-05-4 | Vinyl acetate | 5.1 | U | 3.8 | 5.1 |
| 78-87-5 | 1,2-Dichloropropane | 5.1 | U | 1.6 | 5.1 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 862-11.D

Sample wt/vol: 2.63 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/25/11 Time: 1427

PercentSolids: 74.4 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 74-95-3 | Dibromomethane | 5.1 | U | 1.7 | 5.1 |
| 75-27-4 | Bromodichloromethane | 5.1 | U | 0.82 | 5.1 |
| 10061-01-5 | cis-1,3-Dichloropropene | 5.1 | U | 1.1 | 5.1 |
| 108-10-1 | 4-Methyl-2-pentanone | 25.6 | U | 4.1 | 25.6 |
| 108-88-3 | Toluene | 5.1 | U | 0.74 | 5.1 |
| 10061-02-6 | trans-1,3-Dichloropropene | 5.1 | U | 2.6 | 5.1 |
| 79-00-5 | 1,1,2-Trichloroethane | 5.1 | U | 2.1 | 5.1 |
| 127-18-4 | Tetrachloroethene | 5.1 | U | 2.4 | 5.1 |
| 142-28-9 | 1,3-Dichloropropane | 5.1 | U | 1.4 | 5.1 |
| 591-78-6 | 2-Hexanone | 25.6 | U | 3.3 | 25.6 |
| 124-48-1 | Dibromochloromethane | 5.1 | U | 1.2 | 5.1 |
| 106-93-4 | 1,2-Dibromoethane | 5.1 | U | 2.1 | 5.1 |
| 108-90-7 | Chlorobenzene | 5.1 | U | 0.89 | 5.1 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 5.1 | U | 1.9 | 5.1 |
| 100-41-4 | Ethylbenzene | 5.1 | U | 1.8 | 5.1 |
| 179601-23-1 | m,p-Xylene | 10.2 | U | 1.7 | 10.2 |
| 95-47-6 | o-Xylene | 5.1 | U | 0.89 | 5.1 |
| 100-42-5 | Styrene | 5.1 | U | 0.72 | 5.1 |
| 75-25-2 | Bromoform | 5.1 | U | 1.2 | 5.1 |
| 98-82-8 | Isopropylbenzene | 5.1 | U | 1.5 | 5.1 |
| 108-86-1 | Bromobenzene | 5.1 | U | 2.8 | 5.1 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5.1 | U | 1.5 | 5.1 |
| 96-18-4 | 1,2,3-Trichloropropane | 5.1 | U | 3.1 | 5.1 |
| 103-65-1 | n-Propylbenzene | 5.1 | U | 1.7 | 5.1 |
| 95-49-8 | 2-Chlorotoluene | 5.1 | U | 1.2 | 5.1 |
| 106-43-4 | 4-Chlorotoluene | 5.1 | U | 1.3 | 5.1 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 862-11.D

Sample wt/vol: 2.63 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/25/11 Time: 1427

PercentSolids: 74.4 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 108-67-8 | 1,3,5-Trimethylbenzene | 5.1 | U | 1.3 | 5.1 |
| 98-06-6 | tert-Butylbenzene | 5.1 | U | 1.7 | 5.1 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 5.1 | U | 1.1 | 5.1 |
| 135-98-8 | sec-Butylbenzene | 5.1 | U | 1.6 | 5.1 |
| 541-73-1 | 1,3-Dichlorobenzene | 12.8 | U | 1.1 | 12.8 |
| 106-46-7 | 1,4-Dichlorobenzene | 12.8 | U | 1.7 | 12.8 |
| 99-87-6 | 4-Isopropyltoluene | 5.1 | U | 1.8 | 5.1 |
| 104-51-8 | n-Butylbenzene | 5.1 | U | 1.6 | 5.1 |
| 95-50-1 | 1,2-Dichlorobenzene | 12.8 | U | 1.4 | 12.8 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 12.8 | U | 7.2 | 12.8 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 12.8 | U | 1.6 | 12.8 |
| 87-68-3 | Hexachlorobutadiene | 5.1 | U | 3.1 | 5.1 |
| 91-20-3 | Naphthalene | 12.8 | U | 3.8 | 12.8 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 12.8 | U | 1.6 | 12.8 |
| 1634-04-4 | Methyl tert-butyl ether | 5.1 | U | 1.1 | 5.1 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101 KD-IDW-WATER-01

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214 Lab File ID 86214R.D

Sample wt/vol: 5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1114

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 1 | U | 0.17 | 1 |
| 74-87-3 | Chloromethane | 1 | U | 0.32 | 1 |
| 75-01-4 | Vinyl chloride | 1 | U | 0.18 | 1 |
| 74-83-9 | Bromomethane | 1 | U | 0.43 | 1 |
| 75-00-3 | Chloroethane | 1 | U | 0.72 | 1 |
| 75-69-4 | Trichlorofluoromethane | 1 | U | 0.4 | 1 |
| 75-35-4 | 1,1-Dichloroethene | 0.5 | U | 0.19 | 0.5 |
| 74-88-4 | Methyl iodide | 1 | U | 0.74 | 1 |
| 75-15-0 | Carbon disulfide | 1 | U | 0.19 | 1 |
| 75-09-2 | Methylene chloride | 5 | U | 0.66 | 5 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.5 | U | 0.33 | 0.5 |
| 75-34-3 | 1,1-Dichloroethane | 1 | U | 0.15 | 1 |
| 67-64-1 | Acetone | 3.3 | JB | 1.3 | 10 |
| 594-20-7 | 2,2-Dichloropropane | 1 | U | 0.6 | 1 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.5 | U | 0.19 | 0.5 |
| 74-97-5 | Bromochloromethane | 1 | U | 0.17 | 1 |
| 78-93-3 | 2-Butanone | 4 | U | 2 | 4 |
| 67-66-3 | Chloroform | 0.5 | U | 0.16 | 0.5 |
| 71-55-6 | 1,1,1-Trichloroethane | 1 | U | 0.14 | 1 |
| 56-23-5 | Carbon tetrachloride | 0.5 | U | 0.14 | 0.5 |
| 563-58-6 | 1,1-Dichloropropene | 1 | U | 0.3 | 1 |
| 71-43-2 | Benzene | 0.5 | U | 0.17 | 0.5 |
| 107-06-2 | 1,2-Dichloroethane | 0.5 | U | 0.15 | 0.5 |
| 79-01-6 | Trichloroethene | 0.5 | U | 0.19 | 0.5 |
| 108-05-4 | Vinyl acetate | 1 | U | 0.18 | 1 |
| 78-87-5 | 1,2-Dichloropropane | 1 | U | 0.15 | 1 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-IDW-WATER-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214 Lab File ID 86214R.D

Sample wt/vol: 5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1114

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 74-95-3 | Dibromomethane | 1 | U | 0.4 | 1 |
| 75-27-4 | Bromodichloromethane | 0.5 | U | 0.15 | 0.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | U | 0.4 | 1 |
| 108-10-1 | 4-Methyl-2-pentanone | 4 | U | 1 | 4 |
| 108-88-3 | Toluene | 1 | U | 0.14 | 1 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | U | 0.3 | 1 |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | U | 0.2 | 1 |
| 127-18-4 | Tetrachloroethene | 0.5 | U | 0.21 | 0.5 |
| 142-28-9 | 1,3-Dichloropropane | 0.4 | U | 0.3 | 0.4 |
| 591-78-6 | 2-Hexanone | 4 | U | 0.48 | 4 |
| 124-48-1 | Dibromochloromethane | 0.2 | U | 0.13 | 0.2 |
| 106-93-4 | 1,2-Dibromoethane | 1 | U | 0.11 | 1 |
| 108-90-7 | Chlorobenzene | 0.5 | U | 0.16 | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.5 | U | 0.14 | 0.5 |
| 100-41-4 | Ethylbenzene | 0.5 | U | 0.22 | 0.5 |
| 179601-23-1 | m,p-Xylene | 0.4 | U | 0.23 | 0.4 |
| 95-47-6 | o-Xylene | 0.5 | U | 0.5 | 0.5 |
| 100-42-5 | Styrene | 1 | U | 0.12 | 1 |
| 75-25-2 | Bromoform | 1 | U | 0.19 | 1 |
| 98-82-8 | Isopropylbenzene | 0.5 | U | 0.14 | 0.5 |
| 108-86-1 | Bromobenzene | 1 | U | 0.21 | 1 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1 | U | 0.13 | 1 |
| 96-18-4 | 1,2,3-Trichloropropane | 1 | U | 0.35 | 1 |
| 103-65-1 | n-Propylbenzene | 1 | U | 0.14 | 1 |
| 95-49-8 | 2-Chlorotoluene | 1 | U | 0.25 | 1 |
| 106-43-4 | 4-Chlorotoluene | 1 | U | 0.15 | 1 |

1

## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-IDW-WATER-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214 Lab File ID 86214R.D

Sample wt/vol: 5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1114

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 108-67-8 | 1,3,5-Trimethylbenzene | 1 | U | 0.14 | 1 |
| 98-06-6 | tert-Butylbenzene | 1 | U | 0.2 | 1 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 1 | U | 0.13 | 1 |
| 135-98-8 | sec-Butylbenzene | 1 | U | 0.1 | 1 |
| 541-73-1 | 1,3-Dichlorobenzene | 2 | U | 0.15 | 2 |
| 106-46-7 | 1,4-Dichlorobenzene | 3 | U | 0.15 | 3 |
| 99-87-6 | 4-Isopropyltoluene | 1 | U | 0.14 | 1 |
| 104-51-8 | n-Butylbenzene | 1 | U | 0.16 | 1 |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | U | 0.25 | 1 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 2 | U | 1 | 2 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1 | U | 0.4 | 1 |
| 87-68-3 | Hexachlorobutadiene | 0.5 | U | 0.36 | 0.5 |
| 91-20-3 | Naphthalene | 5 | U | 0.5 | 5 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 2 | U | 0.16 | 2 |
| 1634-04-4 | Methyl tert-butyl ether | 1 | U | 0.5 | 1 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

TRIP-1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386215 Lab File ID 86215.D

Sample wt/vol: 5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/30/11 Time: 1822

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 1 | U | 0.17 | 1 |
| 74-87-3 | Chloromethane | 1 | U | 0.32 | 1 |
| 75-01-4 | Vinyl chloride | 1 | U | 0.18 | 1 |
| 74-83-9 | Bromomethane | 1 | U | 0.43 | 1 |
| 75-00-3 | Chloroethane | 1 | U | 0.72 | 1 |
| 75-69-4 | Trichlorofluoromethane | 1 | U | 0.4 | 1 |
| 75-35-4 | 1,1-Dichloroethene | 0.5 | U | 0.19 | 0.5 |
| 74-88-4 | Methyl iodide | 1 | U | 0.74 | 1 |
| 75-15-0 | Carbon disulfide | 1 | U | 0.19 | 1 |
| 75-09-2 | Methylene chloride | 5 | U | 0.66 | 5 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.5 | U | 0.33 | 0.5 |
| 75-34-3 | 1,1-Dichloroethane | 1 | U | 0.15 | 1 |
| 67-64-1 | Acetone | 10 | U | 1.3 | 10 |
| 594-20-7 | 2,2-Dichloropropane | 1 | U | 0.6 | 1 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.5 | U | 0.19 | 0.5 |
| 74-97-5 | Bromochloromethane | 1 | U | 0.17 | 1 |
| 78-93-3 | 2-Butanone | 4 | U | 2 | 4 |
| 67-66-3 | Chloroform | 0.5 | U | 0.16 | 0.5 |
| 71-55-6 | 1,1,1-Trichloroethane | 1 | U | 0.14 | 1 |
| 56-23-5 | Carbon tetrachloride | 0.5 | U | 0.14 | 0.5 |
| 563-58-6 | 1,1-Dichloropropene | 1 | U | 0.3 | 1 |
| 71-43-2 | Benzene | 0.5 | U | 0.17 | 0.5 |
| 107-06-2 | 1,2-Dichloroethane | 0.5 | U | 0.15 | 0.5 |
| 79-01-6 | Trichloroethene | 0.5 | U | 0.19 | 0.5 |
| 108-05-4 | Vinyl acetate | 1 | U | 0.18 | 1 |
| 78-87-5 | 1,2-Dichloropropane | 1 | U | 0.15 | 1 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

TRIP-1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386215 Lab File ID 86215.D

Sample wt/vol: 5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/30/11 Time: 1822

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 74-95-3 | Dibromomethane | 1 | U | 0.4 | 1 |
| 75-27-4 | Bromodichloromethane | 0.5 | U | 0.15 | 0.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | U | 0.4 | 1 |
| 108-10-1 | 4-Methyl-2-pentanone | 4 | U | 1 | 4 |
| 108-88-3 | Toluene | 1 | U | 0.14 | 1 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | U | 0.3 | 1 |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | U | 0.2 | 1 |
| 127-18-4 | Tetrachloroethene | 0.5 | U | 0.21 | 0.5 |
| 142-28-9 | 1,3-Dichloropropane | 0.4 | U | 0.3 | 0.4 |
| 591-78-6 | 2-Hexanone | 4 | U | 0.48 | 4 |
| 124-48-1 | Dibromochloromethane | 0.2 | U | 0.13 | 0.2 |
| 106-93-4 | 1,2-Dibromoethane | 1 | U | 0.11 | 1 |
| 108-90-7 | Chlorobenzene | 0.5 | U | 0.16 | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.5 | U | 0.14 | 0.5 |
| 100-41-4 | Ethylbenzene | 0.5 | U | 0.22 | 0.5 |
| 179601-23-1 | m,p-Xylene | 0.4 | U | 0.23 | 0.4 |
| 95-47-6 | o-Xylene | 0.5 | U | 0.5 | 0.5 |
| 100-42-5 | Styrene | 1 | U | 0.12 | 1 |
| 75-25-2 | Bromoform | 1 | U | 0.19 | 1 |
| 98-82-8 | Isopropylbenzene | 0.5 | U | 0.14 | 0.5 |
| 108-86-1 | Bromobenzene | 1 | U | 0.21 | 1 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1 | U | 0.13 | 1 |
| 96-18-4 | 1,2,3-Trichloropropane | 1 | U | 0.35 | 1 |
| 103-65-1 | n-Propylbenzene | 1 | U | 0.14 | 1 |
| 95-49-8 | 2-Chlorotoluene | 1 | U | 0.25 | 1 |
| 106-43-4 | 4-Chlorotoluene | 1 | U | 0.15 | 1 |

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**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

TRIP-1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386215 Lab File ID 86215.D

Sample wt/vol: 5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/30/11 Time: 1822

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 108-67-8 | 1,3,5-Trimethylbenzene | 1 | U | 0.14 | 1 |
| 98-06-6 | tert-Butylbenzene | 1 | U | 0.2 | 1 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 1 | U | 0.13 | 1 |
| 135-98-8 | sec-Butylbenzene | 1 | U | 0.1 | 1 |
| 541-73-1 | 1,3-Dichlorobenzene | 2 | U | 0.15 | 2 |
| 106-46-7 | 1,4-Dichlorobenzene | 3 | U | 0.15 | 3 |
| 99-87-6 | 4-Isopropyltoluene | 1 | U | 0.14 | 1 |
| 104-51-8 | n-Butylbenzene | 1 | U | 0.16 | 1 |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | U | 0.25 | 1 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 2 | U | 1 | 2 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1 | U | 0.4 | 1 |
| 87-68-3 | Hexachlorobutadiene | 0.5 | U | 0.36 | 0.5 |
| 91-20-3 | Naphthalene | 5 | U | 0.5 | 5 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 2 | U | 0.16 | 2 |
| 1634-04-4 | Methyl tert-butyl ether | 1 | U | 0.5 | 1 |

# 8260 QC Summary

080911 1740

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

082511BLK22

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 082511BLK22 Lab File ID: BLK22.D

Sample wt/vol: 5 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/25/11 Time: 1309

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 2 | U | 0.6 | 2 |
| 74-87-3 | Chloromethane | 2 | U | 0.38 | 2 |
| 75-01-4 | Vinyl chloride | 2 | U | 0.6 | 2 |
| 74-83-9 | Bromomethane | 2 | U | 1.2 | 2 |
| 75-00-3 | Chloroethane | 2 | U | 0.74 | 2 |
| 75-69-4 | Trichlorofluoromethane | 2 | U | 0.44 | 2 |
| 75-35-4 | 1,1-Dichloroethene | 2 | U | 0.34 | 2 |
| 74-88-4 | Methyl iodide | 2 | U | 1.5 | 2 |
| 75-15-0 | Carbon disulfide | 2 | U | 1.5 | 2 |
| 75-09-2 | Methylene chloride | 5 | U | 1.2 | 5 |
| 156-60-5 | trans-1,2-Dichloroethene | 2 | U | 0.39 | 2 |
| 75-34-3 | 1,1-Dichloroethane | 2 | U | 0.34 | 2 |
| 67-64-1 | Acetone | 10 | U | 1.3 | 10 |
| 594-20-7 | 2,2-Dichloropropane | 2 | U | 0.59 | 2 |
| 156-59-2 | cis-1,2-Dichloroethene | 2 | U | 0.62 | 2 |
| 74-97-5 | Bromochloromethane | 2 | U | 0.9 | 2 |
| 78-93-3 | 2-Butanone | 10 | U | 1.4 | 10 |
| 67-66-3 | Chloroform | 2 | U | 0.54 | 2 |
| 71-55-6 | 1,1,1-Trichloroethane | 2 | U | 1 | 2 |
| 56-23-5 | Carbon tetrachloride | 2 | U | 0.6 | 2 |
| 563-58-6 | 1,1-Dichloropropene | 2 | U | 0.41 | 2 |
| 71-43-2 | Benzene | 2 | U | 0.5 | 2 |
| 107-06-2 | 1,2-Dichloroethane | 2 | U | 1 | 2 |
| 79-01-6 | Trichloroethene | 2 | U | 0.44 | 2 |
| 108-05-4 | Vinyl acetate | 2 | U | 1.5 | 2 |
| 78-87-5 | 1,2-Dichloropropane | 2 | U | 0.63 | 2 |
| 74-95-3 | Dibromomethane | 2 | U | 0.66 | 2 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

082511BLK22

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 082511BLK22 Lab File ID: BLK22.D

Sample wt/vol: 5 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/25/11 Time: 1309

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-27-4 | Bromodichloromethane | 2 | U | 0.32 | 2 |
| 10061-01-5 | cis-1,3-Dichloropropene | 2 | U | 0.42 | 2 |
| 108-10-1 | 4-Methyl-2-pentanone | 10 | U | 1.6 | 10 |
| 108-88-3 | Toluene | 2 | U | 0.29 | 2 |
| 10061-02-6 | trans-1,3-Dichloropropene | 2 | U | 1 | 2 |
| 79-00-5 | 1,1,2-Trichloroethane | 2 | U | 0.82 | 2 |
| 127-18-4 | Tetrachloroethene | 2 | U | 0.93 | 2 |
| 142-28-9 | 1,3-Dichloropropane | 2 | U | 0.54 | 2 |
| 591-78-6 | 2-Hexanone | 10 | U | 1.3 | 10 |
| 124-48-1 | Dibromochloromethane | 2 | U | 0.46 | 2 |
| 106-93-4 | 1,2-Dibromoethane | 2 | U | 0.82 | 2 |
| 108-90-7 | Chlorobenzene | 2 | U | 0.35 | 2 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 2 | U | 0.74 | 2 |
| 100-41-4 | Ethylbenzene | 2 | U | 0.69 | 2 |
| 179601-23-1 | m,p-Xylene | 4 | U | 0.68 | 4 |
| 95-47-6 | o-Xylene | 2 | U | 0.35 | 2 |
| 100-42-5 | Styrene | 2 | U | 0.28 | 2 |
| 75-25-2 | Bromoform | 2 | U | 0.46 | 2 |
| 98-82-8 | Isopropylbenzene | 2 | U | 0.6 | 2 |
| 108-86-1 | Bromobenzene | 2 | U | 1.1 | 2 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 2 | U | 0.59 | 2 |
| 96-18-4 | 1,2,3-Trichloropropane | 2 | U | 1.2 | 2 |
| 103-65-1 | n-Propylbenzene | 2 | U | 0.68 | 2 |
| 95-49-8 | 2-Chlorotoluene | 2 | U | 0.48 | 2 |
| 106-43-4 | 4-Chlorotoluene | 2 | U | 0.52 | 2 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 2 | U | 0.52 | 2 |
| 98-06-6 | tert-Butylbenzene | 2 | U | 0.68 | 2 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

082511BLK22

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 082511BLK22 Lab File ID: BLK22.D

Sample wt/vol: 5 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/25/11 Time: 1309

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 2 | U | 0.44 | 2 |
| 135-98-8 | sec-Butylbenzene | 2 | U | 0.64 | 2 |
| 541-73-1 | 1,3-Dichlorobenzene | 5 | U | 0.45 | 5 |
| 106-46-7 | 1,4-Dichlorobenzene | 5 | U | 0.65 | 5 |
| 99-87-6 | 4-Isopropyltoluene | 2 | U | 0.71 | 2 |
| 104-51-8 | n-Butylbenzene | 2 | U | 0.62 | 2 |
| 95-50-1 | 1,2-Dichlorobenzene | 5 | U | 0.56 | 5 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 5 | U | 2.8 | 5 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5 | U | 0.63 | 5 |
| 87-68-3 | Hexachlorobutadiene | 2 | U | 1.2 | 2 |
| 91-20-3 | Naphthalene | 5 | U | 1.5 | 5 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 5 | U | 0.61 | 5 |
| 1634-04-4 | Methyl tert-butyl ether | 2 | U | 0.43 | 2 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

082511MBLK62

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 082511MBLK62 Lab File ID: MBLK62.D

Sample wt/vol: 5 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) HIGH Date Analyzed: 08/25/11 Time: 1805

PercentSolids: 100 decanted : Dilution Factor: 50

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 100 | U | 30 | 100 |
| 74-87-3 | Chloromethane | 100 | U | 19 | 100 |
| 75-01-4 | Vinyl chloride | 100 | U | 30 | 100 |
| 74-83-9 | Bromomethane | 100 | U | 60 | 100 |
| 75-00-3 | Chloroethane | 100 | U | 37 | 100 |
| 75-69-4 | Trichlorofluoromethane | 100 | U | 22 | 100 |
| 75-35-4 | 1,1-Dichloroethene | 100 | U | 17 | 100 |
| 74-88-4 | Methyl iodide | 100 | U | 75 | 100 |
| 75-15-0 | Carbon disulfide | 100 | U | 75 | 100 |
| 75-09-2 | Methylene chloride | 250 | U | 60 | 250 |
| 156-60-5 | trans-1,2-Dichloroethene | 100 | U | 19.5 | 100 |
| 75-34-3 | 1,1-Dichloroethane | 100 | U | 17 | 100 |
| 67-64-1 | Acetone | 76.7 | J | 65 | 500 |
| 594-20-7 | 2,2-Dichloropropane | 100 | U | 29.5 | 100 |
| 156-59-2 | cis-1,2-Dichloroethene | 100 | U | 31 | 100 |
| 74-97-5 | Bromochloromethane | 100 | U | 45 | 100 |
| 78-93-3 | 2-Butanone | 500 | U | 70 | 500 |
| 67-66-3 | Chloroform | 100 | U | 27 | 100 |
| 71-55-6 | 1,1,1-Trichloroethane | 100 | U | 50 | 100 |
| 56-23-5 | Carbon tetrachloride | 100 | U | 30 | 100 |
| 563-58-6 | 1,1-Dichloropropene | 100 | U | 20.5 | 100 |
| 71-43-2 | Benzene | 100 | U | 25 | 100 |
| 107-06-2 | 1,2-Dichloroethane | 100 | U | 50 | 100 |
| 79-01-6 | Trichloroethene | 100 | U | 22 | 100 |
| 108-05-4 | Vinyl acetate | 100 | U | 75 | 100 |
| 78-87-5 | 1,2-Dichloropropane | 100 | U | 31.5 | 100 |
| 74-95-3 | Dibromomethane | 100 | U | 33 | 100 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

082511MBLK62

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 082511MBLK62 Lab File ID: MBLK62.D

Sample wt/vol: 5 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) HIGH Date Analyzed: 08/25/11 Time: 1805

PercentSolids: 100 decanted : Dilution Factor: 50

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-27-4 | Bromodichloromethane | 100 | U | 16 | 100 |
| 10061-01-5 | cis-1,3-Dichloropropene | 100 | U | 21 | 100 |
| 108-10-1 | 4-Methyl-2-pentanone | 500 | U | 80 | 500 |
| 108-88-3 | Toluene | 100 | U | 14.5 | 100 |
| 10061-02-6 | trans-1,3-Dichloropropene | 100 | U | 50 | 100 |
| 79-00-5 | 1,1,2-Trichloroethane | 100 | U | 41 | 100 |
| 127-18-4 | Tetrachloroethene | 100 | U | 46.5 | 100 |
| 142-28-9 | 1,3-Dichloropropane | 100 | U | 27 | 100 |
| 591-78-6 | 2-Hexanone | 500 | U | 65 | 500 |
| 124-48-1 | Dibromochloromethane | 100 | U | 23 | 100 |
| 106-93-4 | 1,2-Dibromoethane | 100 | U | 41 | 100 |
| 108-90-7 | Chlorobenzene | 100 | U | 17.5 | 100 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 100 | U | 37 | 100 |
| 100-41-4 | Ethylbenzene | 100 | U | 34.5 | 100 |
| 179601-23-1 | m,p-Xylene | 200 | U | 34 | 200 |
| 95-47-6 | o-Xylene | 100 | U | 17.5 | 100 |
| 100-42-5 | Styrene | 100 | U | 14 | 100 |
| 75-25-2 | Bromoform | 100 | U | 23 | 100 |
| 98-82-8 | Isopropylbenzene | 100 | U | 30 | 100 |
| 108-86-1 | Bromobenzene | 100 | U | 55 | 100 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 100 | U | 29.5 | 100 |
| 96-18-4 | 1,2,3-Trichloropropane | 100 | U | 60 | 100 |
| 103-65-1 | n-Propylbenzene | 100 | U | 34 | 100 |
| 95-49-8 | 2-Chlorotoluene | 100 | U | 24 | 100 |
| 106-43-4 | 4-Chlorotoluene | 100 | U | 26 | 100 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 100 | U | 26 | 100 |
| 98-06-6 | tert-Butylbenzene | 100 | U | 34 | 100 |

1

## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

082511MBLK62

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 082511MBLK62 Lab File ID: MBLK62.D

Sample wt/vol: 5 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) HIGH Date Analyzed: 08/25/11 Time: 1805

PercentSolids: 100 decanted : Dilution Factor: 50

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 100 | U | 22 | 100 |
| 135-98-8 | sec-Butylbenzene | 100 | U | 32 | 100 |
| 541-73-1 | 1,3-Dichlorobenzene | 250 | U | 22.5 | 250 |
| 106-46-7 | 1,4-Dichlorobenzene | 250 | U | 32.5 | 250 |
| 99-87-6 | 4-Isopropyltoluene | 100 | U | 35.5 | 100 |
| 104-51-8 | n-Butylbenzene | 100 | U | 31 | 100 |
| 95-50-1 | 1,2-Dichlorobenzene | 250 | U | 28 | 250 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 250 | U | 140 | 250 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 250 | U | 31.5 | 250 |
| 87-68-3 | Hexachlorobutadiene | 100 | U | 60 | 100 |
| 91-20-3 | Naphthalene | 154 | J | 75 | 250 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 250 | U | 30.5 | 250 |
| 1634-04-4 | Methyl tert-butyl ether | 100 | U | 21.5 | 100 |

1

## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

082611BLK22

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 082611BLK22 Lab File ID: BLK22.D

Sample wt/vol: 5 Units: G Date Received: 08/26/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/26/11 Time: 1259

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 2 | U | 0.6 | 2 |
| 74-87-3 | Chloromethane | 2 | U | 0.38 | 2 |
| 75-01-4 | Vinyl chloride | 2 | U | 0.6 | 2 |
| 74-83-9 | Bromomethane | 2 | U | 1.2 | 2 |
| 75-00-3 | Chloroethane | 2 | U | 0.74 | 2 |
| 75-69-4 | Trichlorofluoromethane | 2 | U | 0.44 | 2 |
| 75-35-4 | 1,1-Dichloroethene | 2 | U | 0.34 | 2 |
| 74-88-4 | Methyl iodide | 2 | U | 1.5 | 2 |
| 75-15-0 | Carbon disulfide | 2 | U | 1.5 | 2 |
| 75-09-2 | Methylene chloride | 5 | U | 1.2 | 5 |
| 156-60-5 | trans-1,2-Dichloroethene | 2 | U | 0.39 | 2 |
| 75-34-3 | 1,1-Dichloroethane | 2 | U | 0.34 | 2 |
| 67-64-1 | Acetone | 10 | U | 1.3 | 10 |
| 594-20-7 | 2,2-Dichloropropane | 2 | U | 0.59 | 2 |
| 156-59-2 | cis-1,2-Dichloroethene | 2 | U | 0.62 | 2 |
| 74-97-5 | Bromochloromethane | 2 | U | 0.9 | 2 |
| 78-93-3 | 2-Butanone | 10 | U | 1.4 | 10 |
| 67-66-3 | Chloroform | 2 | U | 0.54 | 2 |
| 71-55-6 | 1,1,1-Trichloroethane | 2 | U | 1 | 2 |
| 56-23-5 | Carbon tetrachloride | 2 | U | 0.6 | 2 |
| 563-58-6 | 1,1-Dichloropropene | 2 | U | 0.41 | 2 |
| 71-43-2 | Benzene | 2 | U | 0.5 | 2 |
| 107-06-2 | 1,2-Dichloroethane | 2 | U | 1 | 2 |
| 79-01-6 | Trichloroethene | 2 | U | 0.44 | 2 |
| 108-05-4 | Vinyl acetate | 2 | U | 1.5 | 2 |
| 78-87-5 | 1,2-Dichloropropane | 2 | U | 0.63 | 2 |
| 74-95-3 | Dibromomethane | 2 | U | 0.66 | 2 |

1

## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

082611BLK22

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 082611BLK22 Lab File ID: BLK22.D

Sample wt/vol: 5 Units: G Date Received: 08/26/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/26/11 Time: 1259

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-27-4 | Bromodichloromethane | 2 | U | 0.32 | 2 |
| 10061-01-5 | cis-1,3-Dichloropropene | 2 | U | 0.42 | 2 |
| 108-10-1 | 4-Methyl-2-pentanone | 10 | U | 1.6 | 10 |
| 108-88-3 | Toluene | 2 | U | 0.29 | 2 |
| 10061-02-6 | trans-1,3-Dichloropropene | 2 | U | 1 | 2 |
| 79-00-5 | 1,1,2-Trichloroethane | 2 | U | 0.82 | 2 |
| 127-18-4 | Tetrachloroethene | 2 | U | 0.93 | 2 |
| 142-28-9 | 1,3-Dichloropropane | 2 | U | 0.54 | 2 |
| 591-78-6 | 2-Hexanone | 10 | U | 1.3 | 10 |
| 124-48-1 | Dibromochloromethane | 2 | U | 0.46 | 2 |
| 106-93-4 | 1,2-Dibromoethane | 2 | U | 0.82 | 2 |
| 108-90-7 | Chlorobenzene | 2 | U | 0.35 | 2 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 2 | U | 0.74 | 2 |
| 100-41-4 | Ethylbenzene | 2 | U | 0.69 | 2 |
| 179601-23-1 | m,p-Xylene | 4 | U | 0.68 | 4 |
| 95-47-6 | o-Xylene | 2 | U | 0.35 | 2 |
| 100-42-5 | Styrene | 2 | U | 0.28 | 2 |
| 75-25-2 | Bromoform | 2 | U | 0.46 | 2 |
| 98-82-8 | Isopropylbenzene | 2 | U | 0.6 | 2 |
| 108-86-1 | Bromobenzene | 2 | U | 1.1 | 2 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 2 | U | 0.59 | 2 |
| 96-18-4 | 1,2,3-Trichloropropane | 2 | U | 1.2 | 2 |
| 103-65-1 | n-Propylbenzene | 2 | U | 0.68 | 2 |
| 95-49-8 | 2-Chlorotoluene | 2 | U | 0.48 | 2 |
| 106-43-4 | 4-Chlorotoluene | 2 | U | 0.52 | 2 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 2 | U | 0.52 | 2 |
| 98-06-6 | tert-Butylbenzene | 2 | U | 0.68 | 2 |

1

## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

082611BLK22

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 082611BLK22 Lab File ID: BLK22.D

Sample wt/vol: 5 Units: G Date Received: 08/26/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/26/11 Time: 1259

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 2 | U | 0.44 | 2 |
| 135-98-8 | sec-Butylbenzene | 2 | U | 0.64 | 2 |
| 541-73-1 | 1,3-Dichlorobenzene | 5 | U | 0.45 | 5 |
| 106-46-7 | 1,4-Dichlorobenzene | 5 | U | 0.65 | 5 |
| 99-87-6 | 4-Isopropyltoluene | 2 | U | 0.71 | 2 |
| 104-51-8 | n-Butylbenzene | 2 | U | 0.62 | 2 |
| 95-50-1 | 1,2-Dichlorobenzene | 5 | U | 0.56 | 5 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 5 | U | 2.8 | 5 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5 | U | 0.63 | 5 |
| 87-68-3 | Hexachlorobutadiene | 2 | U | 1.2 | 2 |
| 91-20-3 | Naphthalene | 5 | U | 1.5 | 5 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 5 | U | 0.61 | 5 |
| 1634-04-4 | Methyl tert-butyl ether | 2 | U | 0.43 | 2 |

1

## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

083011BLKA32

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 083011BLKA32 Lab File ID: BLK32.D

Sample wt/vol: 5 Units: ML Date Received: 08/30/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/30/11 Time: 1142

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 1 | U | 0.17 | 1 |
| 74-87-3 | Chloromethane | 1 | U | 0.32 | 1 |
| 75-01-4 | Vinyl chloride | 1 | U | 0.18 | 1 |
| 74-83-9 | Bromomethane | 1 | U | 0.43 | 1 |
| 75-00-3 | Chloroethane | 1 | U | 0.72 | 1 |
| 75-69-4 | Trichlorofluoromethane | 1 | U | 0.4 | 1 |
| 75-35-4 | 1,1-Dichloroethene | 0.5 | U | 0.19 | 0.5 |
| 74-88-4 | Methyl iodide | 1 | U | 0.74 | 1 |
| 75-15-0 | Carbon disulfide | 1 | U | 0.19 | 1 |
| 75-09-2 | Methylene chloride | 5 | U | 0.66 | 5 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.5 | U | 0.33 | 0.5 |
| 75-34-3 | 1,1-Dichloroethane | 1 | U | 0.15 | 1 |
| 67-64-1 | Acetone | 10 | U | 1.3 | 10 |
| 594-20-7 | 2,2-Dichloropropane | 1 | U | 0.6 | 1 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.5 | U | 0.19 | 0.5 |
| 74-97-5 | Bromochloromethane | 1 | U | 0.17 | 1 |
| 78-93-3 | 2-Butanone | 4 | U | 2 | 4 |
| 67-66-3 | Chloroform | 0.5 | U | 0.16 | 0.5 |
| 71-55-6 | 1,1,1-Trichloroethane | 1 | U | 0.14 | 1 |
| 56-23-5 | Carbon tetrachloride | 0.5 | U | 0.14 | 0.5 |
| 563-58-6 | 1,1-Dichloropropene | 1 | U | 0.3 | 1 |
| 71-43-2 | Benzene | 0.5 | U | 0.17 | 0.5 |
| 107-06-2 | 1,2-Dichloroethane | 0.5 | U | 0.15 | 0.5 |
| 79-01-6 | Trichloroethene | 0.5 | U | 0.19 | 0.5 |
| 108-05-4 | Vinyl acetate | 1 | U | 0.18 | 1 |
| 78-87-5 | 1,2-Dichloropropane | 1 | U | 0.15 | 1 |
| 74-95-3 | Dibromomethane | 1 | U | 0.4 | 1 |

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**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

083011BLKA32

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 083011BLKA32 Lab File ID: BLK32.D

Sample wt/vol: 5 Units: ML Date Received: 08/30/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/30/11 Time: 1142

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-27-4 | Bromodichloromethane | 0.5 | U | 0.15 | 0.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | U | 0.4 | 1 |
| 108-10-1 | 4-Methyl-2-pentanone | 4 | U | 1 | 4 |
| 108-88-3 | Toluene | 1 | U | 0.14 | 1 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | U | 0.3 | 1 |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | U | 0.2 | 1 |
| 127-18-4 | Tetrachloroethene | 0.5 | U | 0.21 | 0.5 |
| 142-28-9 | 1,3-Dichloropropane | 0.4 | U | 0.3 | 0.4 |
| 591-78-6 | 2-Hexanone | 4 | U | 0.48 | 4 |
| 124-48-1 | Dibromochloromethane | 0.2 | U | 0.13 | 0.2 |
| 106-93-4 | 1,2-Dibromoethane | 1 | U | 0.11 | 1 |
| 108-90-7 | Chlorobenzene | 0.5 | U | 0.16 | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.5 | U | 0.14 | 0.5 |
| 100-41-4 | Ethylbenzene | 0.5 | U | 0.22 | 0.5 |
| 179601-23-1 | m,p-Xylene | 0.4 | U | 0.23 | 0.4 |
| 95-47-6 | o-Xylene | 0.5 | U | 0.5 | 0.5 |
| 100-42-5 | Styrene | 1 | U | 0.12 | 1 |
| 75-25-2 | Bromoform | 1 | U | 0.19 | 1 |
| 98-82-8 | Isopropylbenzene | 0.5 | U | 0.14 | 0.5 |
| 108-86-1 | Bromobenzene | 1 | U | 0.21 | 1 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1 | U | 0.13 | 1 |
| 96-18-4 | 1,2,3-Trichloropropane | 1 | U | 0.35 | 1 |
| 103-65-1 | n-Propylbenzene | 1 | U | 0.14 | 1 |
| 95-49-8 | 2-Chlorotoluene | 1 | U | 0.25 | 1 |
| 106-43-4 | 4-Chlorotoluene | 1 | U | 0.15 | 1 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1 | U | 0.14 | 1 |
| 98-06-6 | tert-Butylbenzene | 1 | U | 0.2 | 1 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

083011BLKA32

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 083011BLKA32 Lab File ID: BLK32.D

Sample wt/vol: 5 Units: ML Date Received: 08/30/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/30/11 Time: 1142

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 1 | U | 0.13 | 1 |
| 135-98-8 | sec-Butylbenzene | 1 | U | 0.1 | 1 |
| 541-73-1 | 1,3-Dichlorobenzene | 2 | U | 0.15 | 2 |
| 106-46-7 | 1,4-Dichlorobenzene | 3 | U | 0.15 | 3 |
| 99-87-6 | 4-Isopropyltoluene | 1 | U | 0.14 | 1 |
| 104-51-8 | n-Butylbenzene | 1 | U | 0.16 | 1 |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | U | 0.25 | 1 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 2 | U | 1 | 2 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1 | U | 0.4 | 1 |
| 87-68-3 | Hexachlorobutadiene | 0.5 | U | 0.36 | 0.5 |
| 91-20-3 | Naphthalene | 5 | U | 0.5 | 5 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 2 | U | 0.16 | 2 |
| 1634-04-4 | Methyl tert-butyl ether | 1 | U | 0.5 | 1 |

1

## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

090211BLK62

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 090211BLK62 Lab File ID: BLK62.D

Sample wt/vol: 5 Units: ML Date Received: 09/02/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1049

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 1 | U | 0.17 | 1 |
| 74-87-3 | Chloromethane | 1 | U | 0.32 | 1 |
| 75-01-4 | Vinyl chloride | 1 | U | 0.18 | 1 |
| 74-83-9 | Bromomethane | 1 | U | 0.43 | 1 |
| 75-00-3 | Chloroethane | 1 | U | 0.72 | 1 |
| 75-69-4 | Trichlorofluoromethane | 1 | U | 0.4 | 1 |
| 75-35-4 | 1,1-Dichloroethene | 0.5 | U | 0.19 | 0.5 |
| 74-88-4 | Methyl iodide | 1 | U | 0.74 | 1 |
| 75-15-0 | Carbon disulfide | 1 | U | 0.19 | 1 |
| 75-09-2 | Methylene chloride | 5 | U | 0.66 | 5 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.5 | U | 0.33 | 0.5 |
| 75-34-3 | 1,1-Dichloroethane | 1 | U | 0.15 | 1 |
| 67-64-1 | Acetone | 2.1 | J | 1.3 | 10 |
| 594-20-7 | 2,2-Dichloropropane | 1 | U | 0.6 | 1 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.5 | U | 0.19 | 0.5 |
| 74-97-5 | Bromochloromethane | 1 | U | 0.17 | 1 |
| 78-93-3 | 2-Butanone | 4 | U | 2 | 4 |
| 67-66-3 | Chloroform | 0.5 | U | 0.16 | 0.5 |
| 71-55-6 | 1,1,1-Trichloroethane | 1 | U | 0.14 | 1 |
| 56-23-5 | Carbon tetrachloride | 0.5 | U | 0.14 | 0.5 |
| 563-58-6 | 1,1-Dichloropropene | 1 | U | 0.3 | 1 |
| 71-43-2 | Benzene | 0.5 | U | 0.17 | 0.5 |
| 107-06-2 | 1,2-Dichloroethane | 0.5 | U | 0.15 | 0.5 |
| 79-01-6 | Trichloroethene | 0.5 | U | 0.19 | 0.5 |
| 108-05-4 | Vinyl acetate | 1 | U | 0.18 | 1 |
| 78-87-5 | 1,2-Dichloropropane | 1 | U | 0.15 | 1 |
| 74-95-3 | Dibromomethane | 1 | U | 0.4 | 1 |

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## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

090211BLK62

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 090211BLK62 Lab File ID: BLK62.D

Sample wt/vol: 5 Units: ML Date Received: 09/02/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1049

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-27-4 | Bromodichloromethane | 0.5 | U | 0.15 | 0.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | U | 0.4 | 1 |
| 108-10-1 | 4-Methyl-2-pentanone | 4 | U | 1 | 4 |
| 108-88-3 | Toluene | 1 | U | 0.14 | 1 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | U | 0.3 | 1 |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | U | 0.2 | 1 |
| 127-18-4 | Tetrachloroethene | 0.5 | U | 0.21 | 0.5 |
| 142-28-9 | 1,3-Dichloropropane | 0.4 | U | 0.3 | 0.4 |
| 591-78-6 | 2-Hexanone | 4 | U | 0.48 | 4 |
| 124-48-1 | Dibromochloromethane | 0.2 | U | 0.13 | 0.2 |
| 106-93-4 | 1,2-Dibromoethane | 1 | U | 0.11 | 1 |
| 108-90-7 | Chlorobenzene | 0.5 | U | 0.16 | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.5 | U | 0.14 | 0.5 |
| 100-41-4 | Ethylbenzene | 0.5 | U | 0.22 | 0.5 |
| 179601-23-1 | m,p-Xylene | 0.4 | U | 0.23 | 0.4 |
| 95-47-6 | o-Xylene | 0.5 | U | 0.5 | 0.5 |
| 100-42-5 | Styrene | 1 | U | 0.12 | 1 |
| 75-25-2 | Bromoform | 1 | U | 0.19 | 1 |
| 98-82-8 | Isopropylbenzene | 0.5 | U | 0.14 | 0.5 |
| 108-86-1 | Bromobenzene | 1 | U | 0.21 | 1 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1 | U | 0.13 | 1 |
| 96-18-4 | 1,2,3-Trichloropropane | 1 | U | 0.35 | 1 |
| 103-65-1 | n-Propylbenzene | 1 | U | 0.14 | 1 |
| 95-49-8 | 2-Chlorotoluene | 1 | U | 0.25 | 1 |
| 106-43-4 | 4-Chlorotoluene | 1 | U | 0.15 | 1 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1 | U | 0.14 | 1 |
| 98-06-6 | tert-Butylbenzene | 1 | U | 0.2 | 1 |

1

## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

090211BLK62

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 090211BLK62 Lab File ID: BLK62.D

Sample wt/vol: 5 Units: ML Date Received: 09/02/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1049

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 1 | U | 0.13 | 1 |
| 135-98-8 | sec-Butylbenzene | 1 | U | 0.1 | 1 |
| 541-73-1 | 1,3-Dichlorobenzene | 2 | U | 0.15 | 2 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.16 | J | 0.15 | 3 |
| 99-87-6 | 4-Isopropyltoluene | 1 | U | 0.14 | 1 |
| 104-51-8 | n-Butylbenzene | 1 | U | 0.16 | 1 |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | U | 0.25 | 1 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 2 | U | 1 | 2 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1 | U | 0.4 | 1 |
| 87-68-3 | Hexachlorobutadiene | 0.5 | U | 0.36 | 0.5 |
| 91-20-3 | Naphthalene | 5 | U | 0.5 | 5 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 2 | U | 0.16 | 2 |
| 1634-04-4 | Methyl tert-butyl ether | 1 | U | 0.5 | 1 |

2A

WATER VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): DB-624 ID: 0.18 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 083011BLKA32 | 93.6 | 102.0 | 113.0 | 115.0 | | | 0 |
| 083011LCSA31 | 91.4 | 97.8 | 115.0 | 113.0 | | | 0 |
| 083011LCSA31D | 96.0 | 99.2 | 114.0 | 117.0 | | | 0 |
| 090211BLK62 | 107.0 | 109.0 | 110.0 | 110.0 | | | 0 |
| 090211LCS61 | 101.0 | 104.0 | 106.0 | 104.0 | | | 0 |
| 090211LCS61D | 107.0 | 108.0 | 108.0 | 109.0 | | | 0 |
| KD-IDW-WATER-01 | 103.0 | 104.0 | 109.0 | 107.0 | | | 0 |
| TRIP-1 | 93.0 | 99.8 | 113.0 | 106.0 | | | 0 |

**Control Limits**

| | | | | |
|---|---|---|---|---|
| S1 | = | Dibromofluoromethane | 83 - | 128 |
| S2 | = | Toluene-d8 | 89 - | 121 |
| S3 | = | 4-Bromofluorobenzene | 85 - | 115 |
| S4 | = | 1,2-Dichloroethane-d4 | 89 - | 123 |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

080911 1740

2A

SOIL VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): DB-624 ID: 0.18 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 082511BLK22 | 93.2 | 92.4 | 92.0 | 97.6 | | | 0 |
| 082511LCS22 | 96.4 | 104.0 | 92.2 | 98.0 | | | 0 |
| 082511LCS22D | 87.2 | 90.4 | 86.0 | 88.6 | | | 0 |
| 082511LCS63 | 112.0 | 111.0 | 105.0 | 116.0 | | | 0 |
| 082511LCS63D | 109.0 | 108.0 | 99.4 | 113.0 | | | 0 |
| 082511MBLK62 | 113.0 | 110.0 | 103.0 | 113.0 | | | 0 |
| 082611BLK22 | 106.0 | 103.0 | 97.6 | 114.0 | | | 0 |
| 082611LCS21 | 103.0 | 109.0 | 99.6 | 108.0 | | | 0 |
| 082611LCS21D | 102.0 | 107.0 | 96.8 | 108.0 | | | 0 |
| KD-SB-1 16ft-16.5ft | 107.0 | 103.0 | 98.4 | 113.0 | | | 0 |
| KD-SB-2 11ft-12ft | 94.2 | 80.0 | 70.2 | 99.0 | | | 0 |
| KD-SB-2 11ft-12ftDL1 | 92.0 | 78.0 | 82.0 | 102.0 | | | 0 |
| KD-SB-6 3ft-4ft | 102.0 | 100.0 | 122.0 | 105.0 | | | 0 |
| KD-SB-9 3ft-4ft | 91.2 | 84.2 | 88.4 | 94.4 | | | 0 |

**Control Limits**

| | | | | |
|---|---|---|---|---|
| S1 | = | Dibromofluoromethane | 68 - | 119 |
| S2 | = | Toluene-d8 | 59 - | 127 |
| S3 | = | 4-Bromofluorobenzene | 54 - | 126 |
| S4 | = | 1,2-Dichloroethane-d4 | 71 - | 124 |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

080911 1740

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS22

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 29 | 145.0 | | 30.0 | 42 - 158 |
| Chloromethane | 20 | 22.1 | 110.0 | | 30.0 | 61 - 135 |
| Vinyl chloride | 20 | 23.4 | 117.0 | | 30.0 | 64 - 126 |
| Bromomethane | 20 | 21.6 | 108.0 | | 30.0 | 47 - 143 |
| Chloroethane | 20 | 23.1 | 116.0 | | 30.0 | 27 - 170 |
| Trichlorofluoromethane | 20 | 24.4 | 122.0 | | 30.0 | 66 - 128 |
| 1,1-Dichloroethene | 20 | 20.5 | 102.0 | | 30.0 | 72 - 130 |
| Methyl iodide | 20 | 19.1 | 95.5 | | 30.0 | 38 - 157 |
| Carbon disulfide | 20 | 20.8 | 104.0 | | 30.0 | 70 - 140 |
| Methylene chloride | 20 | 18.8 | 94.0 | | 30.0 | 78 - 122 |
| trans-1,2-Dichloroethene | 20 | 21.3 | 106.0 | | 30.0 | 74 - 126 |
| 1,1-Dichloroethane | 20 | 20.5 | 102.0 | | 30.0 | 79 - 124 |
| Acetone | 40 | 46.7 | 117.0 | | 30.0 | 64 - 158 |
| 2,2-Dichloropropane | 20 | 19 | 95.0 | | 30.0 | 75 - 129 |
| cis-1,2-Dichloroethene | 20 | 20.7 | 104.0 | | 30.0 | 79 - 131 |
| Bromochloromethane | 20 | 20 | 100.0 | | 30.0 | 70 - 130 |
| 2-Butanone | 40 | 31.1 | 77.8 | | 30.0 | 68 - 158 |
| Chloroform | 20 | 20.5 | 102.0 | | 30.0 | 76 - 124 |
| 1,1,1-Trichloroethane | 20 | 19.7 | 98.5 | | 30.0 | 71 - 129 |
| Carbon tetrachloride | 20 | 20 | 100.0 | | 30.0 | 73 - 121 |
| 1,1-Dichloropropene | 20 | 21.6 | 108.0 | | 30.0 | 71 - 128 |
| Benzene | 20 | 20.7 | 104.0 | | 30.0 | 78 - 127 |
| 1,2-Dichloroethane | 20 | 20.8 | 104.0 | | 30.0 | 80 - 122 |
| Trichloroethene | 20 | 21.5 | 108.0 | | 30.0 | 79 - 130 |
| Vinyl acetate | 20 | 19.8 | 99.0 | | 30.0 | 70 - 130 |
| 1,2-Dichloropropane | 20 | 21.2 | 106.0 | | 30.0 | 82 - 124 |
| Dibromomethane | 20 | 19.2 | 96.0 | | 30.0 | 83 - 127 |
| Bromodichloromethane | 20 | 20.6 | 103.0 | | 30.0 | 78 - 120 |
| cis-1,3-Dichloropropene | 20 | 20.9 | 104.0 | | 30.0 | 80 - 129 |
| 4-Methyl-2-pentanone | 40 | 33.7 | 84.2 | | 30.0 | 83 - 119 |
| Toluene | 20 | 19.7 | 98.5 | | 30.0 | 77 - 132 |
| trans-1,3-Dichloropropene | 20 | 20.4 | 102.0 | | 30.0 | 76 - 118 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS22

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 19.8 | 99.0 | | 30.0 | 70 - 130 |
| Tetrachloroethene | 20 | 19.3 | 96.5 | | 30.0 | 75 - 126 |
| 1,3-Dichloropropane | 20 | 18.1 | 90.5 | | 30.0 | 83 - 117 |
| 2-Hexanone | 40 | 30.6 | 76.5 | | 30.0 | 74 - 136 |
| Dibromochloromethane | 20 | 17.4 | 87.0 | | 30.0 | 76 - 116 |
| 1,2-Dibromoethane | 20 | 18.4 | 92.0 | | 30.0 | 78 - 123 |
| Chlorobenzene | 20 | 18 | 90.0 | | 30.0 | 82 - 115 |
| 1,1,1,2-Tetrachloroethane | 20 | 17.3 | 86.5 | | 30.0 | 77 - 118 |
| Ethylbenzene | 20 | 18.7 | 93.5 | | 30.0 | 80 - 119 |
| m,p-Xylene | 40 | 35.8 | 89.5 | | 30.0 | 78 - 125 |
| o-Xylene | 20 | 18.5 | 92.5 | | 30.0 | 77 - 120 |
| Styrene | 20 | 18.4 | 92.0 | | 30.0 | 76 - 129 |
| Bromoform | 20 | 17.5 | 87.5 | | 30.0 | 66 - 124 |
| Isopropylbenzene | 20 | 19.4 | 97.0 | | 30.0 | 74 - 125 |
| Bromobenzene | 20 | 18.6 | 93.0 | | 30.0 | 81 - 114 |
| 1,1,2,2-Tetrachloroethane | 20 | 18.5 | 92.5 | | 30.0 | 79 - 120 |
| 1,2,3-Trichloropropane | 20 | 18.3 | 91.5 | | 30.0 | 81 - 122 |
| n-Propylbenzene | 20 | 19.1 | 95.5 | | 30.0 | 70 - 129 |
| 2-Chlorotoluene | 20 | 18.8 | 94.0 | | 30.0 | 73 - 121 |
| 4-Chlorotoluene | 20 | 18.8 | 94.0 | | 30.0 | 80 - 115 |
| 1,3,5-Trimethylbenzene | 20 | 18.9 | 94.5 | | 30.0 | 76 - 125 |
| tert-Butylbenzene | 20 | 19 | 95.0 | | 30.0 | 72 - 126 |
| 1,2,4-Trimethylbenzene | 20 | 18.7 | 93.5 | | 30.0 | 77 - 123 |
| sec-Butylbenzene | 20 | 19.1 | 95.5 | | 30.0 | 74 - 130 |
| 1,3-Dichlorobenzene | 20 | 18.7 | 93.5 | | 30.0 | 82 - 119 |
| 1,4-Dichlorobenzene | 20 | 18.7 | 93.5 | | 30.0 | 83 - 121 |
| 4-Isopropyltoluene | 20 | 19 | 95.0 | | 30.0 | 76 - 133 |
| n-Butylbenzene | 20 | 19 | 95.0 | | 30.0 | 72 - 129 |
| 1,2-Dichlorobenzene | 20 | 18 | 90.0 | | 30.0 | 83 - 116 |
| 1,2-Dibromo-3-chloropropane | 20 | 15.4 | 77.0 | | 30.0 | 64 - 131 |
| 1,2,4-Trichlorobenzene | 20 | 17.4 | 87.0 | | 30.0 | 85 - 125 |
| Hexachlorobutadiene | 20 | 18.6 | 93.0 | | 30.0 | 78 - 130 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS22

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 16.4 | 82.0 | | 30.0 | 82 - 136 |
| 1,2,3-Trichlorobenzene | 20 | 17.5 | 87.5 | | 30.0 | 79 - 130 |
| Methyl tert-butyl ether | 20 | 18.4 | 92.0 | | 30.0 | 77 - 139 |

Spike Recovery: 0 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS22D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 23.4 | 117.0 | 21.4 | 30.0 | 42 - 158 |
| Chloromethane | 20 | 20 | 100.0 | 10.0 | 30.0 | 61 - 135 |
| Vinyl chloride | 20 | 20.3 | 102.0 | 14.2 | 30.0 | 64 - 126 |
| Bromomethane | 20 | 21.3 | 106.0 | 1.4 | 30.0 | 47 - 143 |
| Chloroethane | 20 | 19.4 | 97.0 | 17.4 | 30.0 | 27 - 170 |
| Trichlorofluoromethane | 20 | 21.8 | 109.0 | 11.3 | 30.0 | 66 - 128 |
| 1,1-Dichloroethene | 20 | 18.8 | 94.0 | 8.7 | 30.0 | 72 - 130 |
| Methyl iodide | 20 | 18.6 | 93.0 | 2.7 | 30.0 | 38 - 157 |
| Carbon disulfide | 20 | 17 | 85.0 | 20.1 | 30.0 | 70 - 140 |
| Methylene chloride | 20 | 16.8 | 84.0 | 11.2 | 30.0 | 78 - 122 |
| trans-1,2-Dichloroethene | 20 | 18.1 | 90.5 | 16.2 | 30.0 | 74 - 126 |
| 1,1-Dichloroethane | 20 | 18.4 | 92.0 | 10.8 | 30.0 | 79 - 124 |
| Acetone | 40 | 42.9 | 107.0 | 8.5 | 30.0 | 64 - 158 |
| 2,2-Dichloropropane | 20 | 18.8 | 94.0 | 1.1 | 30.0 | 75 - 129 |
| cis-1,2-Dichloroethene | 20 | 18.3 | 91.5 | 12.3 | 30.0 | 79 - 131 |
| Bromochloromethane | 20 | 19.5 | 97.5 | 2.5 | 30.0 | 70 - 130 |
| 2-Butanone | 40 | 33.3 | 83.2 | 6.8 | 30.0 | 68 - 158 |
| Chloroform | 20 | 18 | 90.0 | 13.0 | 30.0 | 76 - 124 |
| 1,1,1-Trichloroethane | 20 | 18.5 | 92.5 | 6.3 | 30.0 | 71 - 129 |
| Carbon tetrachloride | 20 | 18.7 | 93.5 | 6.7 | 30.0 | 73 - 121 |
| 1,1-Dichloropropene | 20 | 19.3 | 96.5 | 11.2 | 30.0 | 71 - 128 |
| Benzene | 20 | 17.9 | 89.5 | 14.5 | 30.0 | 78 - 127 |
| 1,2-Dichloroethane | 20 | 18.8 | 94.0 | 10.1 | 30.0 | 80 - 122 |
| Trichloroethene | 20 | 19 | 95.0 | 12.3 | 30.0 | 79 - 130 |
| Vinyl acetate | 20 | 19.3 | 96.5 | 2.6 | 30.0 | 70 - 130 |
| 1,2-Dichloropropane | 20 | 18.8 | 94.0 | 12.0 | 30.0 | 82 - 124 |
| Dibromomethane | 20 | 19.5 | 97.5 | 1.6 | 30.0 | 83 - 127 |
| Bromodichloromethane | 20 | 18.1 | 90.5 | 12.9 | 30.0 | 78 - 120 |
| cis-1,3-Dichloropropene | 20 | 19 | 95.0 | 9.5 | 30.0 | 80 - 129 |
| 4-Methyl-2-pentanone | 40 | 37.7 | 94.2 | 11.2 | 30.0 | 83 - 119 |
| Toluene | 20 | 17.4 | 87.0 | 12.4 | 30.0 | 77 - 132 |
| trans-1,3-Dichloropropene | 20 | 19.5 | 97.5 | 4.5 | 30.0 | 76 - 118 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS22D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 19.4 | 97.0 | 2.0 | 30.0 | 70 - 130 |
| Tetrachloroethene | 20 | 16.6 | 83.0 | 15.0 | 30.0 | 75 - 126 |
| 1,3-Dichloropropane | 20 | 17.1 | 85.5 | 5.7 | 30.0 | 83 - 117 |
| 2-Hexanone | 40 | 33.5 | 83.8 | 9.0 | 30.0 | 74 - 136 |
| Dibromochloromethane | 20 | 16.8 | 84.0 | 3.5 | 30.0 | 76 - 116 |
| 1,2-Dibromoethane | 20 | 16.7 | 83.5 | 9.7 | 30.0 | 78 - 123 |
| Chlorobenzene | 20 | 16.8 | 84.0 | 6.9 | 30.0 | 82 - 115 |
| 1,1,1,2-Tetrachloroethane | 20 | 15.7 | 78.5 | 9.7 | 30.0 | 77 - 118 |
| Ethylbenzene | 20 | 15.5 | 77.5 * | 18.7 | 30.0 | 80 - 119 |
| m,p-Xylene | 40 | 31.6 | 79.0 | 12.5 | 30.0 | 78 - 125 |
| o-Xylene | 20 | 16.3 | 81.5 | 12.6 | 30.0 | 77 - 120 |
| Styrene | 20 | 16.3 | 81.5 | 12.1 | 30.0 | 76 - 129 |
| Bromoform | 20 | 17 | 85.0 | 2.9 | 30.0 | 66 - 124 |
| Isopropylbenzene | 20 | 17.2 | 86.0 | 12.0 | 30.0 | 74 - 125 |
| Bromobenzene | 20 | 17.1 | 85.5 | 8.4 | 30.0 | 81 - 114 |
| 1,1,2,2-Tetrachloroethane | 20 | 19.3 | 96.5 | 4.2 | 30.0 | 79 - 120 |
| 1,2,3-Trichloropropane | 20 | 18.3 | 91.5 | 0.0 | 30.0 | 81 - 122 |
| n-Propylbenzene | 20 | 17.4 | 87.0 | 9.3 | 30.0 | 70 - 129 |
| 2-Chlorotoluene | 20 | 16.9 | 84.5 | 10.6 | 30.0 | 73 - 121 |
| 4-Chlorotoluene | 20 | 17.2 | 86.0 | 8.9 | 30.0 | 80 - 115 |
| 1,3,5-Trimethylbenzene | 20 | 17.1 | 85.5 | 10.0 | 30.0 | 76 - 125 |
| tert-Butylbenzene | 20 | 17.6 | 88.0 | 7.7 | 30.0 | 72 - 126 |
| 1,2,4-Trimethylbenzene | 20 | 17.5 | 87.5 | 6.6 | 30.0 | 77 - 123 |
| sec-Butylbenzene | 20 | 17.6 | 88.0 | 8.2 | 30.0 | 74 - 130 |
| 1,3-Dichlorobenzene | 20 | 18.2 | 91.0 | 2.7 | 30.0 | 82 - 119 |
| 1,4-Dichlorobenzene | 20 | 17.8 | 89.0 | 4.9 | 30.0 | 83 - 121 |
| 4-Isopropyltoluene | 20 | 17.7 | 88.5 | 7.1 | 30.0 | 76 - 133 |
| n-Butylbenzene | 20 | 17.3 | 86.5 | 9.4 | 30.0 | 72 - 129 |
| 1,2-Dichlorobenzene | 20 | 18.1 | 90.5 | 0.6 | 30.0 | 83 - 116 |
| 1,2-Dibromo-3-chloropropane | 20 | 17.8 | 89.0 | 14.5 | 30.0 | 64 - 131 |
| 1,2,4-Trichlorobenzene | 20 | 17 | 85.0 | 2.3 | 30.0 | 85 - 125 |
| Hexachlorobutadiene | 20 | 18.3 | 91.5 | 1.6 | 30.0 | 78 - 130 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS22D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 18.3 | 91.5 | 11.0 | 30.0 | 82 - 136 |
| 1,2,3-Trichlorobenzene | 20 | 17.2 | 86.0 | 1.7 | 30.0 | 79 - 130 |
| Methyl tert-butyl ether | 20 | 20 | 100.0 | 8.3 | 30.0 | 77 - 139 |

Spike Recovery: 1 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

082511LCS63

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 1000 | 733 | 73.3 | | 30.0 | 42 - 158 |
| Chloromethane | 1000 | 809 | 80.9 | | 30.0 | 61 - 135 |
| Vinyl chloride | 1000 | 861 | 86.1 | | 30.0 | 64 - 126 |
| Bromomethane | 1000 | 1140 | 114.0 | | 30.0 | 47 - 143 |
| Chloroethane | 1000 | 917 | 91.7 | | 30.0 | 27 - 170 |
| Trichlorofluoromethane | 1000 | 1070 | 107.0 | | 30.0 | 66 - 128 |
| 1,1-Dichloroethene | 1000 | 1120 | 112.0 | | 30.0 | 72 - 130 |
| Methyl iodide | 1000 | 1120 | 112.0 | | 30.0 | 38 - 157 |
| Carbon disulfide | 1000 | 983 | 98.3 | | 30.0 | 70 - 140 |
| Methylene chloride | 1000 | 1020 | 102.0 | | 30.0 | 78 - 122 |
| trans-1,2-Dichloroethene | 1000 | 1070 | 107.0 | | 30.0 | 74 - 126 |
| 1,1-Dichloroethane | 1000 | 1100 | 110.0 | | 30.0 | 79 - 124 |
| Acetone | 2000 | 1910 | 95.5 | | 30.0 | 64 - 158 |
| 2,2-Dichloropropane | 1000 | 1030 | 103.0 | | 30.0 | 75 - 129 |
| cis-1,2-Dichloroethene | 1000 | 1090 | 109.0 | | 30.0 | 79 - 131 |
| Bromochloromethane | 1000 | 1060 | 106.0 | | 30.0 | 70 - 130 |
| 2-Butanone | 2000 | 1920 | 96.0 | | 30.0 | 68 - 158 |
| Chloroform | 1000 | 1090 | 109.0 | | 30.0 | 76 - 124 |
| 1,1,1-Trichloroethane | 1000 | 1200 | 120.0 | | 30.0 | 71 - 129 |
| Carbon tetrachloride | 1000 | 1080 | 108.0 | | 30.0 | 73 - 121 |
| 1,1-Dichloropropene | 1000 | 1130 | 113.0 | | 30.0 | 71 - 128 |
| Benzene | 1000 | 1010 | 101.0 | | 30.0 | 78 - 127 |
| 1,2-Dichloroethane | 1000 | 1140 | 114.0 | | 30.0 | 80 - 122 |
| Trichloroethene | 1000 | 1050 | 105.0 | | 30.0 | 79 - 130 |
| Vinyl acetate | 1000 | 1380 | 138.0 * | | 30.0 | 70 - 130 |
| 1,2-Dichloropropane | 1000 | 1020 | 102.0 | | 30.0 | 82 - 124 |
| Dibromomethane | 1000 | 1030 | 103.0 | | 30.0 | 83 - 127 |
| Bromodichloromethane | 1000 | 1060 | 106.0 | | 30.0 | 78 - 120 |
| cis-1,3-Dichloropropene | 1000 | 995 | 99.5 | | 30.0 | 80 - 129 |
| 4-Methyl-2-pentanone | 2000 | 2040 | 102.0 | | 30.0 | 83 - 119 |
| Toluene | 1000 | 1110 | 111.0 | | 30.0 | 77 - 132 |
| trans-1,3-Dichloropropene | 1000 | 1040 | 104.0 | | 30.0 | 76 - 118 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS63

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 1000 | 1080 | 108.0 | | 30.0 | 70 - 130 |
| Tetrachloroethene | 1000 | 1070 | 107.0 | | 30.0 | 75 - 126 |
| 1,3-Dichloropropane | 1000 | 1010 | 101.0 | | 30.0 | 83 - 117 |
| 2-Hexanone | 2000 | 1860 | 93.0 | | 30.0 | 74 - 136 |
| Dibromochloromethane | 1000 | 1010 | 101.0 | | 30.0 | 76 - 116 |
| 1,2-Dibromoethane | 1000 | 998 | 99.8 | | 30.0 | 78 - 123 |
| Chlorobenzene | 1000 | 1030 | 103.0 | | 30.0 | 82 - 115 |
| 1,1,1,2-Tetrachloroethane | 1000 | 1080 | 108.0 | | 30.0 | 77 - 118 |
| Ethylbenzene | 1000 | 1060 | 106.0 | | 30.0 | 80 - 119 |
| m,p-Xylene | 2000 | 2160 | 108.0 | | 30.0 | 78 - 125 |
| o-Xylene | 1000 | 1130 | 113.0 | | 30.0 | 77 - 120 |
| Styrene | 1000 | 1100 | 110.0 | | 30.0 | 76 - 129 |
| Bromoform | 1000 | 1070 | 107.0 | | 30.0 | 66 - 124 |
| Isopropylbenzene | 1000 | 1090 | 109.0 | | 30.0 | 74 - 125 |
| Bromobenzene | 1000 | 972 | 97.2 | | 30.0 | 81 - 114 |
| 1,1,2,2-Tetrachloroethane | 1000 | 958 | 95.8 | | 30.0 | 79 - 120 |
| 1,2,3-Trichloropropane | 1000 | 1030 | 103.0 | | 30.0 | 81 - 122 |
| n-Propylbenzene | 1000 | 1080 | 108.0 | | 30.0 | 70 - 129 |
| 2-Chlorotoluene | 1000 | 1040 | 104.0 | | 30.0 | 73 - 121 |
| 4-Chlorotoluene | 1000 | 1080 | 108.0 | | 30.0 | 80 - 115 |
| 1,3,5-Trimethylbenzene | 1000 | 1090 | 109.0 | | 30.0 | 76 - 125 |
| tert-Butylbenzene | 1000 | 1100 | 110.0 | | 30.0 | 72 - 126 |
| 1,2,4-Trimethylbenzene | 1000 | 1090 | 109.0 | | 30.0 | 77 - 123 |
| sec-Butylbenzene | 1000 | 1080 | 108.0 | | 30.0 | 74 - 130 |
| 1,3-Dichlorobenzene | 1000 | 982 | 98.2 | | 30.0 | 82 - 119 |
| 1,4-Dichlorobenzene | 1000 | 950 | 95.0 | | 30.0 | 83 - 121 |
| 4-Isopropyltoluene | 1000 | 1110 | 111.0 | | 30.0 | 76 - 133 |
| n-Butylbenzene | 1000 | 1050 | 105.0 | | 30.0 | 72 - 129 |
| 1,2-Dichlorobenzene | 1000 | 1000 | 100.0 | | 30.0 | 83 - 116 |
| 1,2-Dibromo-3-chloropropane | 1000 | 1080 | 108.0 | | 30.0 | 64 - 131 |
| 1,2,4-Trichlorobenzene | 1000 | 1090 | 109.0 | | 30.0 | 85 - 125 |
| Hexachlorobutadiene | 1000 | 1090 | 109.0 | | 30.0 | 78 - 130 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS63

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 1000 | 1290 | 129.0 | | 30.0 | 82 - 136 |
| 1,2,3-Trichlorobenzene | 1000 | 1050 | 105.0 | | 30.0 | 79 - 130 |
| Methyl tert-butyl ether | 1000 | 1160 | 116.0 | | 30.0 | 77 - 139 |

Spike Recovery: 1 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS63D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 1000 | 705 | 70.5 | 3.9 | 30.0 | 42 - 158 |
| Chloromethane | 1000 | 784 | 78.4 | 3.1 | 30.0 | 61 - 135 |
| Vinyl chloride | 1000 | 828 | 82.8 | 3.9 | 30.0 | 64 - 126 |
| Bromomethane | 1000 | 1100 | 110.0 | 3.6 | 30.0 | 47 - 143 |
| Chloroethane | 1000 | 842 | 84.2 | 8.5 | 30.0 | 27 - 170 |
| Trichlorofluoromethane | 1000 | 1050 | 105.0 | 1.9 | 30.0 | 66 - 128 |
| 1,1-Dichloroethene | 1000 | 1070 | 107.0 | 4.6 | 30.0 | 72 - 130 |
| Methyl iodide | 1000 | 1220 | 122.0 | 8.5 | 30.0 | 38 - 157 |
| Carbon disulfide | 1000 | 956 | 95.6 | 2.8 | 30.0 | 70 - 140 |
| Methylene chloride | 1000 | 964 | 96.4 | 5.6 | 30.0 | 78 - 122 |
| trans-1,2-Dichloroethene | 1000 | 1040 | 104.0 | 2.8 | 30.0 | 74 - 126 |
| 1,1-Dichloroethane | 1000 | 1060 | 106.0 | 3.7 | 30.0 | 79 - 124 |
| Acetone | 2000 | 2190 | 110.0 | 13.7 | 30.0 | 64 - 158 |
| 2,2-Dichloropropane | 1000 | 979 | 97.9 | 5.1 | 30.0 | 75 - 129 |
| cis-1,2-Dichloroethene | 1000 | 1070 | 107.0 | 1.9 | 30.0 | 79 - 131 |
| Bromochloromethane | 1000 | 1000 | 100.0 | 5.8 | 30.0 | 70 - 130 |
| 2-Butanone | 2000 | 1990 | 99.5 | 3.6 | 30.0 | 68 - 158 |
| Chloroform | 1000 | 1060 | 106.0 | 2.8 | 30.0 | 76 - 124 |
| 1,1,1-Trichloroethane | 1000 | 1140 | 114.0 | 5.1 | 30.0 | 71 - 129 |
| Carbon tetrachloride | 1000 | 1020 | 102.0 | 5.7 | 30.0 | 73 - 121 |
| 1,1-Dichloropropene | 1000 | 1090 | 109.0 | 3.6 | 30.0 | 71 - 128 |
| Benzene | 1000 | 1010 | 101.0 | 0.0 | 30.0 | 78 - 127 |
| 1,2-Dichloroethane | 1000 | 1110 | 111.0 | 2.7 | 30.0 | 80 - 122 |
| Trichloroethene | 1000 | 1060 | 106.0 | 0.9 | 30.0 | 79 - 130 |
| Vinyl acetate | 1000 | 869 | 86.9 | 45.4* | 30.0 | 70 - 130 |
| 1,2-Dichloropropane | 1000 | 970 | 97.0 | 5.0 | 30.0 | 82 - 124 |
| Dibromomethane | 1000 | 1020 | 102.0 | 1.0 | 30.0 | 83 - 127 |
| Bromodichloromethane | 1000 | 1050 | 105.0 | 0.9 | 30.0 | 78 - 120 |
| cis-1,3-Dichloropropene | 1000 | 982 | 98.2 | 1.3 | 30.0 | 80 - 129 |
| 4-Methyl-2-pentanone | 2000 | 1920 | 96.0 | 6.1 | 30.0 | 83 - 119 |
| Toluene | 1000 | 1070 | 107.0 | 3.7 | 30.0 | 77 - 132 |
| trans-1,3-Dichloropropene | 1000 | 1000 | 100.0 | 3.9 | 30.0 | 76 - 118 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS63D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 1000 | 1050 | 105.0 | 2.8 | 30.0 | 70 - 130 |
| Tetrachloroethene | 1000 | 1020 | 102.0 | 4.8 | 30.0 | 75 - 126 |
| 1,3-Dichloropropane | 1000 | 1000 | 100.0 | 1.0 | 30.0 | 83 - 117 |
| 2-Hexanone | 2000 | 1900 | 95.0 | 2.1 | 30.0 | 74 - 136 |
| Dibromochloromethane | 1000 | 994 | 99.4 | 1.6 | 30.0 | 76 - 116 |
| 1,2-Dibromoethane | 1000 | 991 | 99.1 | 0.7 | 30.0 | 78 - 123 |
| Chlorobenzene | 1000 | 1010 | 101.0 | 2.0 | 30.0 | 82 - 115 |
| 1,1,1,2-Tetrachloroethane | 1000 | 1070 | 107.0 | 0.9 | 30.0 | 77 - 118 |
| Ethylbenzene | 1000 | 1050 | 105.0 | 0.9 | 30.0 | 80 - 119 |
| m,p-Xylene | 2000 | 2120 | 106.0 | 1.9 | 30.0 | 78 - 125 |
| o-Xylene | 1000 | 1100 | 110.0 | 2.7 | 30.0 | 77 - 120 |
| Styrene | 1000 | 1080 | 108.0 | 1.8 | 30.0 | 76 - 129 |
| Bromoform | 1000 | 1060 | 106.0 | 0.9 | 30.0 | 66 - 124 |
| Isopropylbenzene | 1000 | 1040 | 104.0 | 4.7 | 30.0 | 74 - 125 |
| Bromobenzene | 1000 | 949 | 94.9 | 2.4 | 30.0 | 81 - 114 |
| 1,1,2,2-Tetrachloroethane | 1000 | 890 | 89.0 | 7.4 | 30.0 | 79 - 120 |
| 1,2,3-Trichloropropane | 1000 | 961 | 96.1 | 6.9 | 30.0 | 81 - 122 |
| n-Propylbenzene | 1000 | 1020 | 102.0 | 5.7 | 30.0 | 70 - 129 |
| 2-Chlorotoluene | 1000 | 979 | 97.9 | 6.0 | 30.0 | 73 - 121 |
| 4-Chlorotoluene | 1000 | 1020 | 102.0 | 5.7 | 30.0 | 80 - 115 |
| 1,3,5-Trimethylbenzene | 1000 | 1040 | 104.0 | 4.7 | 30.0 | 76 - 125 |
| tert-Butylbenzene | 1000 | 1040 | 104.0 | 5.6 | 30.0 | 72 - 126 |
| 1,2,4-Trimethylbenzene | 1000 | 1040 | 104.0 | 4.7 | 30.0 | 77 - 123 |
| sec-Butylbenzene | 1000 | 1000 | 100.0 | 7.7 | 30.0 | 74 - 130 |
| 1,3-Dichlorobenzene | 1000 | 930 | 93.0 | 5.4 | 30.0 | 82 - 119 |
| 1,4-Dichlorobenzene | 1000 | 918 | 91.8 | 3.4 | 30.0 | 83 - 121 |
| 4-Isopropyltoluene | 1000 | 1020 | 102.0 | 8.5 | 30.0 | 76 - 133 |
| n-Butylbenzene | 1000 | 963 | 96.3 | 8.6 | 30.0 | 72 - 129 |
| 1,2-Dichlorobenzene | 1000 | 943 | 94.3 | 5.9 | 30.0 | 83 - 116 |
| 1,2-Dibromo-3-chloropropane | 1000 | 906 | 90.6 | 17.5 | 30.0 | 64 - 131 |
| 1,2,4-Trichlorobenzene | 1000 | 959 | 95.9 | 12.8 | 30.0 | 85 - 125 |
| Hexachlorobutadiene | 1000 | 1020 | 102.0 | 6.6 | 30.0 | 78 - 130 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS63D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 1000 | 1080 | 108.0 | 17.7 | 30.0 | 82 - 136 |
| 1,2,3-Trichlorobenzene | 1000 | 902 | 90.2 | 15.2 | 30.0 | 79 - 130 |
| Methyl tert-butyl ether | 1000 | 1140 | 114.0 | 1.7 | 30.0 | 77 - 139 |

Spike Recovery: 0 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082611LCS21

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 24 | 120.0 | | 30.0 | 42 - 158 |
| Chloromethane | 20 | 20.7 | 104.0 | | 30.0 | 61 - 135 |
| Vinyl chloride | 20 | 22.4 | 112.0 | | 30.0 | 64 - 126 |
| Bromomethane | 20 | 21.2 | 106.0 | | 30.0 | 47 - 143 |
| Chloroethane | 20 | 22.2 | 111.0 | | 30.0 | 27 - 170 |
| Trichlorofluoromethane | 20 | 22.8 | 114.0 | | 30.0 | 66 - 128 |
| 1,1-Dichloroethene | 20 | 20.4 | 102.0 | | 30.0 | 72 - 130 |
| Methyl iodide | 20 | 20.7 | 104.0 | | 30.0 | 38 - 157 |
| Carbon disulfide | 20 | 20.5 | 102.0 | | 30.0 | 70 - 140 |
| Methylene chloride | 20 | 20.2 | 101.0 | | 30.0 | 78 - 122 |
| trans-1,2-Dichloroethene | 20 | 20.8 | 104.0 | | 30.0 | 74 - 126 |
| 1,1-Dichloroethane | 20 | 22.2 | 111.0 | | 30.0 | 79 - 124 |
| Acetone | 40 | 62.3 | 156.0 | | 30.0 | 64 - 158 |
| 2,2-Dichloropropane | 20 | 20.4 | 102.0 | | 30.0 | 75 - 129 |
| cis-1,2-Dichloroethene | 20 | 21.6 | 108.0 | | 30.0 | 79 - 131 |
| Bromochloromethane | 20 | 22.1 | 110.0 | | 30.0 | 70 - 130 |
| 2-Butanone | 40 | 48 | 120.0 | | 30.0 | 68 - 158 |
| Chloroform | 20 | 21.2 | 106.0 | | 30.0 | 76 - 124 |
| 1,1,1-Trichloroethane | 20 | 21.7 | 108.0 | | 30.0 | 71 - 129 |
| Carbon tetrachloride | 20 | 20.7 | 104.0 | | 30.0 | 73 - 121 |
| 1,1-Dichloropropene | 20 | 22.4 | 112.0 | | 30.0 | 71 - 128 |
| Benzene | 20 | 20.6 | 103.0 | | 30.0 | 78 - 127 |
| 1,2-Dichloroethane | 20 | 21.5 | 108.0 | | 30.0 | 80 - 122 |
| Trichloroethene | 20 | 22.7 | 114.0 | | 30.0 | 79 - 130 |
| Vinyl acetate | 20 | 20.6 | 103.0 | | 30.0 | 70 - 130 |
| 1,2-Dichloropropane | 20 | 22.1 | 110.0 | | 30.0 | 82 - 124 |
| Dibromomethane | 20 | 21.4 | 107.0 | | 30.0 | 83 - 127 |
| Bromodichloromethane | 20 | 21.8 | 109.0 | | 30.0 | 78 - 120 |
| cis-1,3-Dichloropropene | 20 | 22.2 | 111.0 | | 30.0 | 80 - 129 |
| 4-Methyl-2-pentanone | 40 | 41.8 | 104.0 | | 30.0 | 83 - 119 |
| Toluene | 20 | 20.2 | 101.0 | | 30.0 | 77 - 132 |
| trans-1,3-Dichloropropene | 20 | 22.9 | 114.0 | | 30.0 | 76 - 118 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082611LCS21

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 22.3 | 112.0 | | 30.0 | 70 - 130 |
| Tetrachloroethene | 20 | 19 | 95.0 | | 30.0 | 75 - 126 |
| 1,3-Dichloropropane | 20 | 19.4 | 97.0 | | 30.0 | 83 - 117 |
| 2-Hexanone | 40 | 44.1 | 110.0 | | 30.0 | 74 - 136 |
| Dibromochloromethane | 20 | 19.5 | 97.5 | | 30.0 | 76 - 116 |
| 1,2-Dibromoethane | 20 | 19.5 | 97.5 | | 30.0 | 78 - 123 |
| Chlorobenzene | 20 | 18.7 | 93.5 | | 30.0 | 82 - 115 |
| 1,1,1,2-Tetrachloroethane | 20 | 17.6 | 88.0 | | 30.0 | 77 - 118 |
| Ethylbenzene | 20 | 18.7 | 93.5 | | 30.0 | 80 - 119 |
| m,p-Xylene | 40 | 37.3 | 93.2 | | 30.0 | 78 - 125 |
| o-Xylene | 20 | 19.2 | 96.0 | | 30.0 | 77 - 120 |
| Styrene | 20 | 18.6 | 93.0 | | 30.0 | 76 - 129 |
| Bromoform | 20 | 18.9 | 94.5 | | 30.0 | 66 - 124 |
| Isopropylbenzene | 20 | 19.6 | 98.0 | | 30.0 | 74 - 125 |
| Bromobenzene | 20 | 18.8 | 94.0 | | 30.0 | 81 - 114 |
| 1,1,2,2-Tetrachloroethane | 20 | 20.9 | 104.0 | | 30.0 | 79 - 120 |
| 1,2,3-Trichloropropane | 20 | 18.5 | 92.5 | | 30.0 | 81 - 122 |
| n-Propylbenzene | 20 | 19.7 | 98.5 | | 30.0 | 70 - 129 |
| 2-Chlorotoluene | 20 | 19.5 | 97.5 | | 30.0 | 73 - 121 |
| 4-Chlorotoluene | 20 | 19.1 | 95.5 | | 30.0 | 80 - 115 |
| 1,3,5-Trimethylbenzene | 20 | 19.7 | 98.5 | | 30.0 | 76 - 125 |
| tert-Butylbenzene | 20 | 19.3 | 96.5 | | 30.0 | 72 - 126 |
| 1,2,4-Trimethylbenzene | 20 | 19.5 | 97.5 | | 30.0 | 77 - 123 |
| sec-Butylbenzene | 20 | 19.4 | 97.0 | | 30.0 | 74 - 130 |
| 1,3-Dichlorobenzene | 20 | 19.2 | 96.0 | | 30.0 | 82 - 119 |
| 1,4-Dichlorobenzene | 20 | 19.3 | 96.5 | | 30.0 | 83 - 121 |
| 4-Isopropyltoluene | 20 | 19.6 | 98.0 | | 30.0 | 76 - 133 |
| n-Butylbenzene | 20 | 19.2 | 96.0 | | 30.0 | 72 - 129 |
| 1,2-Dichlorobenzene | 20 | 20.2 | 101.0 | | 30.0 | 83 - 116 |
| 1,2-Dibromo-3-chloropropane | 20 | 21.2 | 106.0 | | 30.0 | 64 - 131 |
| 1,2,4-Trichlorobenzene | 20 | 18.7 | 93.5 | | 30.0 | 85 - 125 |
| Hexachlorobutadiene | 20 | 19.4 | 97.0 | | 30.0 | 78 - 130 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082611LCS21

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 20.2 | 101.0 | | 30.0 | 82 - 136 |
| 1,2,3-Trichlorobenzene | 20 | 18.4 | 92.0 | | 30.0 | 79 - 130 |
| Methyl tert-butyl ether | 20 | 24.9 | 124.0 | | 30.0 | 77 - 139 |

Spike Recovery: 0 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082611LCS21D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 24.2 | 121.0 | 0.8 | 30.0 | 42 - 158 |
| Chloromethane | 20 | 22.5 | 112.0 | 8.3 | 30.0 | 61 - 135 |
| Vinyl chloride | 20 | 22.9 | 114.0 | 2.2 | 30.0 | 64 - 126 |
| Bromomethane | 20 | 22.2 | 111.0 | 4.6 | 30.0 | 47 - 143 |
| Chloroethane | 20 | 19.5 | 97.5 | 12.9 | 30.0 | 27 - 170 |
| Trichlorofluoromethane | 20 | 21.2 | 106.0 | 7.3 | 30.0 | 66 - 128 |
| 1,1-Dichloroethene | 20 | 19.4 | 97.0 | 5.0 | 30.0 | 72 - 130 |
| Methyl iodide | 20 | 20.1 | 100.0 | 2.9 | 30.0 | 38 - 157 |
| Carbon disulfide | 20 | 18.9 | 94.5 | 8.1 | 30.0 | 70 - 140 |
| Methylene chloride | 20 | 20.5 | 102.0 | 1.5 | 30.0 | 78 - 122 |
| trans-1,2-Dichloroethene | 20 | 20.5 | 102.0 | 1.5 | 30.0 | 74 - 126 |
| 1,1-Dichloroethane | 20 | 19.9 | 99.5 | 10.9 | 30.0 | 79 - 124 |
| Acetone | 40 | 81.2 | 203.0 * | 26.3 | 30.0 | 64 - 158 |
| 2,2-Dichloropropane | 20 | 20.6 | 103.0 | 1.0 | 30.0 | 75 - 129 |
| cis-1,2-Dichloroethene | 20 | 20.2 | 101.0 | 6.7 | 30.0 | 79 - 131 |
| Bromochloromethane | 20 | 19.8 | 99.0 | 11.0 | 30.0 | 70 - 130 |
| 2-Butanone | 40 | 47.1 | 118.0 | 1.9 | 30.0 | 68 - 158 |
| Chloroform | 20 | 20.7 | 104.0 | 2.4 | 30.0 | 76 - 124 |
| 1,1,1-Trichloroethane | 20 | 20.6 | 103.0 | 5.2 | 30.0 | 71 - 129 |
| Carbon tetrachloride | 20 | 20.1 | 100.0 | 2.9 | 30.0 | 73 - 121 |
| 1,1-Dichloropropene | 20 | 21 | 105.0 | 6.5 | 30.0 | 71 - 128 |
| Benzene | 20 | 20.5 | 102.0 | 0.5 | 30.0 | 78 - 127 |
| 1,2-Dichloroethane | 20 | 20.5 | 102.0 | 4.8 | 30.0 | 80 - 122 |
| Trichloroethene | 20 | 20.5 | 102.0 | 10.2 | 30.0 | 79 - 130 |
| Vinyl acetate | 20 | 19.7 | 98.5 | 4.5 | 30.0 | 70 - 130 |
| 1,2-Dichloropropane | 20 | 21.8 | 109.0 | 1.4 | 30.0 | 82 - 124 |
| Dibromomethane | 20 | 21 | 105.0 | 1.9 | 30.0 | 83 - 127 |
| Bromodichloromethane | 20 | 21.8 | 109.0 | 0.0 | 30.0 | 78 - 120 |
| cis-1,3-Dichloropropene | 20 | 21.5 | 108.0 | 3.2 | 30.0 | 80 - 129 |
| 4-Methyl-2-pentanone | 40 | 41 | 102.0 | 1.9 | 30.0 | 83 - 119 |
| Toluene | 20 | 20.5 | 102.0 | 1.5 | 30.0 | 77 - 132 |
| trans-1,3-Dichloropropene | 20 | 21.6 | 108.0 | 5.8 | 30.0 | 76 - 118 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082611LCS21D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 21 | 105.0 | 6.0 | 30.0 | 70 - 130 |
| Tetrachloroethene | 20 | 19.4 | 97.0 | 2.1 | 30.0 | 75 - 126 |
| 1,3-Dichloropropane | 20 | 19.6 | 98.0 | 1.0 | 30.0 | 83 - 117 |
| 2-Hexanone | 40 | 42.8 | 107.0 | 3.0 | 30.0 | 74 - 136 |
| Dibromochloromethane | 20 | 19.2 | 96.0 | 1.6 | 30.0 | 76 - 116 |
| 1,2-Dibromoethane | 20 | 20 | 100.0 | 2.5 | 30.0 | 78 - 123 |
| Chlorobenzene | 20 | 18.4 | 92.0 | 1.6 | 30.0 | 82 - 115 |
| 1,1,1,2-Tetrachloroethane | 20 | 19 | 95.0 | 7.7 | 30.0 | 77 - 118 |
| Ethylbenzene | 20 | 19.2 | 96.0 | 2.6 | 30.0 | 80 - 119 |
| m,p-Xylene | 40 | 35.7 | 89.2 | 4.4 | 30.0 | 78 - 125 |
| o-Xylene | 20 | 19 | 95.0 | 1.0 | 30.0 | 77 - 120 |
| Styrene | 20 | 18.8 | 94.0 | 1.1 | 30.0 | 76 - 129 |
| Bromoform | 20 | 19 | 95.0 | 0.5 | 30.0 | 66 - 124 |
| Isopropylbenzene | 20 | 19 | 95.0 | 3.1 | 30.0 | 74 - 125 |
| Bromobenzene | 20 | 19.6 | 98.0 | 4.2 | 30.0 | 81 - 114 |
| 1,1,2,2-Tetrachloroethane | 20 | 20 | 100.0 | 4.4 | 30.0 | 79 - 120 |
| 1,2,3-Trichloropropane | 20 | 18.8 | 94.0 | 1.6 | 30.0 | 81 - 122 |
| n-Propylbenzene | 20 | 19.2 | 96.0 | 2.6 | 30.0 | 70 - 129 |
| 2-Chlorotoluene | 20 | 19.7 | 98.5 | 1.0 | 30.0 | 73 - 121 |
| 4-Chlorotoluene | 20 | 19.7 | 98.5 | 3.1 | 30.0 | 80 - 115 |
| 1,3,5-Trimethylbenzene | 20 | 19.4 | 97.0 | 1.5 | 30.0 | 76 - 125 |
| tert-Butylbenzene | 20 | 19.1 | 95.5 | 1.0 | 30.0 | 72 - 126 |
| 1,2,4-Trimethylbenzene | 20 | 19.2 | 96.0 | 1.6 | 30.0 | 77 - 123 |
| sec-Butylbenzene | 20 | 19.6 | 98.0 | 1.0 | 30.0 | 74 - 130 |
| 1,3-Dichlorobenzene | 20 | 19.7 | 98.5 | 2.6 | 30.0 | 82 - 119 |
| 1,4-Dichlorobenzene | 20 | 20.1 | 100.0 | 4.1 | 30.0 | 83 - 121 |
| 4-Isopropyltoluene | 20 | 19.5 | 97.5 | 0.5 | 30.0 | 76 - 133 |
| n-Butylbenzene | 20 | 19 | 95.0 | 1.0 | 30.0 | 72 - 129 |
| 1,2-Dichlorobenzene | 20 | 18.9 | 94.5 | 6.6 | 30.0 | 83 - 116 |
| 1,2-Dibromo-3-chloropropane | 20 | 18.1 | 90.5 | 15.8 | 30.0 | 64 - 131 |
| 1,2,4-Trichlorobenzene | 20 | 19.6 | 98.0 | 4.7 | 30.0 | 85 - 125 |
| Hexachlorobutadiene | 20 | 21 | 105.0 | 7.9 | 30.0 | 78 - 130 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082611LCS21D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 20.3 | 102.0 | 0.5 | 30.0 | 82 - 136 |
| 1,2,3-Trichlorobenzene | 20 | 18.8 | 94.0 | 2.2 | 30.0 | 79 - 130 |
| Methyl tert-butyl ether | 20 | 23 | 115.0 | 7.9 | 30.0 | 77 - 139 |

Spike Recovery: 1 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 16.5 | 82.5 | | 20.0 | 58 - 147 |
| Chloromethane | 20 | 16.4 | 82.0 | | 20.0 | 66 - 147 |
| Vinyl chloride | 20 | 18.1 | 90.5 | | 20.0 | 72 - 134 |
| Bromomethane | 20 | 19.6 | 98.0 | | 20.0 | 52 - 145 |
| Chloroethane | 20 | 20.9 | 104.0 | | 20.0 | 78 - 133 |
| Trichlorofluoromethane | 20 | 18.4 | 92.0 | | 20.0 | 81 - 132 |
| 1,1-Dichloroethene | 20 | 19.8 | 99.0 | | 20.0 | 81 - 121 |
| Methyl iodide | 20 | 18 | 90.0 | | 20.0 | 45 - 143 |
| Carbon disulfide | 20 | 21.4 | 107.0 | | 20.0 | 73 - 133 |
| Methylene chloride | 20 | 17.8 | 89.0 | | 20.0 | 79 - 133 |
| trans-1,2-Dichloroethene | 20 | 19.5 | 97.5 | | 20.0 | 82 - 116 |
| 1,1-Dichloroethane | 20 | 20.4 | 102.0 | | 20.0 | 84 - 122 |
| Acetone | 40 | 32.8 | 82.0 | | 20.0 | 51 - 170 |
| 2,2-Dichloropropane | 20 | 20.5 | 102.0 | | 20.0 | 84 - 122 |
| cis-1,2-Dichloroethene | 20 | 21.6 | 108.0 | | 20.0 | 86 - 115 |
| Bromochloromethane | 20 | 19.6 | 98.0 | | 20.0 | 81 - 123 |
| 2-Butanone | 40 | 42.1 | 105.0 | | 20.0 | 62 - 167 |
| Chloroform | 20 | 20.9 | 104.0 | | 20.0 | 81 - 120 |
| 1,1,1-Trichloroethane | 20 | 18.6 | 93.0 | | 20.0 | 80 - 120 |
| Carbon tetrachloride | 20 | 18.8 | 94.0 | | 20.0 | 82 - 120 |
| 1,1-Dichloropropene | 20 | 21.4 | 107.0 | | 20.0 | 80 - 122 |
| Benzene | 20 | 22 | 110.0 | | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 20 | 20.5 | 102.0 | | 20.0 | 75 - 126 |
| Trichloroethene | 20 | 18.2 | 91.0 | | 20.0 | 80 - 112 |
| Vinyl acetate | 20 | 21.2 | 106.0 | | 20.0 | 75 - 135 |
| 1,2-Dichloropropane | 20 | 22.5 | 112.0 | | 20.0 | 86 - 122 |
| Dibromomethane | 20 | 22 | 110.0 | | 20.0 | 84 - 117 |
| Bromodichloromethane | 20 | 21.7 | 108.0 | | 20.0 | 82 - 120 |
| cis-1,3-Dichloropropene | 20 | 23.1 | 116.0 | | 20.0 | 80 - 121 |
| 4-Methyl-2-pentanone | 40 | 45.9 | 115.0 | | 20.0 | 74 - 136 |
| Toluene | 20 | 21.1 | 106.0 | | 20.0 | 80 - 116 |
| trans-1,3-Dichloropropene | 20 | 23.1 | 116.0 | | 20.0 | 77 - 121 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 21.2 | 106.0 | | 20.0 | 84 - 119 |
| Tetrachloroethene | 20 | 17.8 | 89.0 | | 20.0 | 84 - 115 |
| 1,3-Dichloropropane | 20 | 24.5 | 122.0 | | 20.0 | 73 - 129 |
| 2-Hexanone | 40 | 33.9 | 84.8 | | 20.0 | 66 - 150 |
| Dibromochloromethane | 20 | 18.6 | 93.0 | | 20.0 | 75 - 117 |
| 1,2-Dibromoethane | 20 | 21.4 | 107.0 | | 20.0 | 79 - 119 |
| Chlorobenzene | 20 | 18.9 | 94.5 | | 20.0 | 82 - 114 |
| 1,1,1,2-Tetrachloroethane | 20 | 18.2 | 91.0 | | 20.0 | 81 - 116 |
| Ethylbenzene | 20 | 19.8 | 99.0 | | 20.0 | 82 - 119 |
| m,p-Xylene | 40 | 39.8 | 99.5 | | 20.0 | 81 - 124 |
| o-Xylene | 20 | 19.7 | 98.5 | | 20.0 | 83 - 121 |
| Styrene | 20 | 20.6 | 103.0 | | 20.0 | 84 - 122 |
| Bromoform | 20 | 18 | 90.0 | | 20.0 | 65 - 118 |
| Isopropylbenzene | 20 | 22.2 | 111.0 | | 20.0 | 81 - 124 |
| Bromobenzene | 20 | 24.5 | 122.0 * | | 20.0 | 82 - 118 |
| 1,1,2,2-Tetrachloroethane | 20 | 27.2 | 136.0 * | | 20.0 | 71 - 122 |
| 1,2,3-Trichloropropane | 20 | 24.5 | 122.0 | | 20.0 | 74 - 122 |
| n-Propylbenzene | 20 | 23.2 | 116.0 | | 20.0 | 81 - 130 |
| 2-Chlorotoluene | 20 | 22.4 | 112.0 | | 20.0 | 81 - 121 |
| 4-Chlorotoluene | 20 | 24.2 | 121.0 | | 20.0 | 80 - 123 |
| 1,3,5-Trimethylbenzene | 20 | 22 | 110.0 | | 20.0 | 82 - 124 |
| tert-Butylbenzene | 20 | 21.4 | 107.0 | | 20.0 | 76 - 128 |
| 1,2,4-Trimethylbenzene | 20 | 22.4 | 112.0 | | 20.0 | 83 - 123 |
| sec-Butylbenzene | 20 | 22.5 | 112.0 | | 20.0 | 79 - 131 |
| 1,3-Dichlorobenzene | 20 | 20 | 100.0 | | 20.0 | 80 - 114 |
| 1,4-Dichlorobenzene | 20 | 20.3 | 102.0 | | 20.0 | 79 - 113 |
| 4-Isopropyltoluene | 20 | 21.4 | 107.0 | | 20.0 | 81 - 129 |
| n-Butylbenzene | 20 | 24.1 | 120.0 | | 20.0 | 78 - 134 |
| 1,2-Dichlorobenzene | 20 | 21.2 | 106.0 | | 20.0 | 80 - 114 |
| 1,2-Dibromo-3-chloropropane | 20 | 25.8 | 129.0 * | | 20.0 | 64 - 124 |
| 1,2,4-Trichlorobenzene | 20 | 24.8 | 124.0 * | | 20.0 | 74 - 121 |
| Hexachlorobutadiene | 20 | 22.8 | 114.0 | | 20.0 | 76 - 127 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 23.4 | 117.0 | | 20.0 | 65 - 135 |
| 1,2,3-Trichlorobenzene | 20 | 25 | 125.0 | | 20.0 | 67 - 126 |
| Methyl tert-butyl ether | 20 | 23 | 115.0 | | 20.0 | 67 - 147 |

Spike Recovery: 4 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31D

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 17.4 | 87.0 | 5.3 | 20.0 | 58 - 147 |
| Chloromethane | 20 | 17.4 | 87.0 | 5.9 | 20.0 | 66 - 147 |
| Vinyl chloride | 20 | 19.6 | 98.0 | 8.0 | 20.0 | 72 - 134 |
| Bromomethane | 20 | 21.4 | 107.0 | 8.8 | 20.0 | 52 - 145 |
| Chloroethane | 20 | 21.8 | 109.0 | 4.2 | 20.0 | 78 - 133 |
| Trichlorofluoromethane | 20 | 18.7 | 93.5 | 1.6 | 20.0 | 81 - 132 |
| 1,1-Dichloroethene | 20 | 21.4 | 107.0 | 7.8 | 20.0 | 81 - 121 |
| Methyl iodide | 20 | 19.3 | 96.5 | 7.0 | 20.0 | 45 - 143 |
| Carbon disulfide | 20 | 23.4 | 117.0 | 8.9 | 20.0 | 73 - 133 |
| Methylene chloride | 20 | 18.6 | 93.0 | 4.4 | 20.0 | 79 - 133 |
| trans-1,2-Dichloroethene | 20 | 20.6 | 103.0 | 5.5 | 20.0 | 82 - 116 |
| 1,1-Dichloroethane | 20 | 21.3 | 106.0 | 4.3 | 20.0 | 84 - 122 |
| Acetone | 40 | 50.8 | 127.0 | 43.1* | 20.0 | 51 - 170 |
| 2,2-Dichloropropane | 20 | 22.4 | 112.0 | 8.9 | 20.0 | 84 - 122 |
| cis-1,2-Dichloroethene | 20 | 22.5 | 112.0 | 4.1 | 20.0 | 86 - 115 |
| Bromochloromethane | 20 | 20.3 | 102.0 | 3.5 | 20.0 | 81 - 123 |
| 2-Butanone | 40 | 55.1 | 138.0 | 26.7* | 20.0 | 62 - 167 |
| Chloroform | 20 | 22.1 | 110.0 | 5.6 | 20.0 | 81 - 120 |
| 1,1,1-Trichloroethane | 20 | 20.3 | 102.0 | 8.7 | 20.0 | 80 - 120 |
| Carbon tetrachloride | 20 | 20.6 | 103.0 | 9.1 | 20.0 | 82 - 120 |
| 1,1-Dichloropropene | 20 | 22.8 | 114.0 | 6.3 | 20.0 | 80 - 122 |
| Benzene | 20 | 23.1 | 116.0 | 4.9 | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 20 | 20.8 | 104.0 | 1.5 | 20.0 | 75 - 126 |
| Trichloroethene | 20 | 19 | 95.0 | 4.3 | 20.0 | 80 - 112 |
| Vinyl acetate | 20 | 22.1 | 110.0 | 4.2 | 20.0 | 75 - 135 |
| 1,2-Dichloropropane | 20 | 23.5 | 118.0 | 4.3 | 20.0 | 86 - 122 |
| Dibromomethane | 20 | 21.9 | 110.0 | 0.5 | 20.0 | 84 - 117 |
| Bromodichloromethane | 20 | 22.2 | 111.0 | 2.3 | 20.0 | 82 - 120 |
| cis-1,3-Dichloropropene | 20 | 23.8 | 119.0 | 3.0 | 20.0 | 80 - 121 |
| 4-Methyl-2-pentanone | 40 | 46.8 | 117.0 | 1.9 | 20.0 | 74 - 136 |
| Toluene | 20 | 22 | 110.0 | 4.2 | 20.0 | 80 - 116 |
| trans-1,3-Dichloropropene | 20 | 23.6 | 118.0 | 2.1 | 20.0 | 77 - 121 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31D

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 22.3 | 112.0 | 5.1 | 20.0 | 84 - 119 |
| Tetrachloroethene | 20 | 19 | 95.0 | 6.5 | 20.0 | 84 - 115 |
| 1,3-Dichloropropane | 20 | 25.2 | 126.0 | 2.8 | 20.0 | 73 - 129 |
| 2-Hexanone | 40 | 41.7 | 104.0 | 20.6* | 20.0 | 66 - 150 |
| Dibromochloromethane | 20 | 18.9 | 94.5 | 1.6 | 20.0 | 75 - 117 |
| 1,2-Dibromoethane | 20 | 22.6 | 113.0 | 5.5 | 20.0 | 79 - 119 |
| Chlorobenzene | 20 | 19.6 | 98.0 | 3.6 | 20.0 | 82 - 114 |
| 1,1,1,2-Tetrachloroethane | 20 | 19.4 | 97.0 | 6.4 | 20.0 | 81 - 116 |
| Ethylbenzene | 20 | 20.5 | 102.0 | 3.5 | 20.0 | 82 - 119 |
| m,p-Xylene | 40 | 41.8 | 104.0 | 4.9 | 20.0 | 81 - 124 |
| o-Xylene | 20 | 20.6 | 103.0 | 4.5 | 20.0 | 83 - 121 |
| Styrene | 20 | 21 | 105.0 | 1.9 | 20.0 | 84 - 122 |
| Bromoform | 20 | 18.6 | 93.0 | 3.3 | 20.0 | 65 - 118 |
| Isopropylbenzene | 20 | 22.7 | 114.0 | 2.2 | 20.0 | 81 - 124 |
| Bromobenzene | 20 | 24.4 | 122.0 * | 0.4 | 20.0 | 82 - 118 |
| 1,1,2,2-Tetrachloroethane | 20 | 27.6 | 138.0 * | 1.5 | 20.0 | 71 - 122 |
| 1,2,3-Trichloropropane | 20 | 23.9 | 120.0 | 2.5 | 20.0 | 74 - 122 |
| n-Propylbenzene | 20 | 23.8 | 119.0 | 2.6 | 20.0 | 81 - 130 |
| 2-Chlorotoluene | 20 | 22.9 | 114.0 | 2.2 | 20.0 | 81 - 121 |
| 4-Chlorotoluene | 20 | 24.8 | 124.0 * | 2.4 | 20.0 | 80 - 123 |
| 1,3,5-Trimethylbenzene | 20 | 23.2 | 116.0 | 5.3 | 20.0 | 82 - 124 |
| tert-Butylbenzene | 20 | 21.7 | 108.0 | 1.4 | 20.0 | 76 - 128 |
| 1,2,4-Trimethylbenzene | 20 | 22.4 | 112.0 | 0.0 | 20.0 | 83 - 123 |
| sec-Butylbenzene | 20 | 23.1 | 116.0 | 2.6 | 20.0 | 79 - 131 |
| 1,3-Dichlorobenzene | 20 | 20.5 | 102.0 | 2.5 | 20.0 | 80 - 114 |
| 1,4-Dichlorobenzene | 20 | 20.9 | 104.0 | 2.9 | 20.0 | 79 - 113 |
| 4-Isopropyltoluene | 20 | 21.7 | 108.0 | 1.4 | 20.0 | 81 - 129 |
| n-Butylbenzene | 20 | 24.6 | 123.0 | 2.1 | 20.0 | 78 - 134 |
| 1,2-Dichlorobenzene | 20 | 21.6 | 108.0 | 1.9 | 20.0 | 80 - 114 |
| 1,2-Dibromo-3-chloropropane | 20 | 25.1 | 126.0 * | 2.8 | 20.0 | 64 - 124 |
| 1,2,4-Trichlorobenzene | 20 | 25 | 125.0 * | 0.8 | 20.0 | 74 - 121 |
| Hexachlorobutadiene | 20 | 25.6 | 128.0 * | 11.6 | 20.0 | 76 - 127 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31D

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 22.7 | 114.0 | 3.0 | 20.0 | 65 - 135 |
| 1,2,3-Trichlorobenzene | 20 | 25.8 | 129.0 * | 3.1 | 20.0 | 67 - 126 |
| Methyl tert-butyl ether | 20 | 23.7 | 118.0 | 3.0 | 20.0 | 67 - 147 |

Spike Recovery: 7 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 25.4 | 127.0 | | 20.0 | 58 - 147 |
| Chloromethane | 20 | 22.6 | 113.0 | | 20.0 | 66 - 147 |
| Vinyl chloride | 20 | 23.6 | 118.0 | | 20.0 | 72 - 134 |
| Bromomethane | 20 | 21.3 | 106.0 | | 20.0 | 52 - 145 |
| Chloroethane | 20 | 22 | 110.0 | | 20.0 | 78 - 133 |
| Trichlorofluoromethane | 20 | 22.1 | 110.0 | | 20.0 | 81 - 132 |
| 1,1-Dichloroethene | 20 | 21 | 105.0 | | 20.0 | 81 - 121 |
| Methyl iodide | 20 | 22.3 | 112.0 | | 20.0 | 45 - 143 |
| Carbon disulfide | 20 | 20.9 | 104.0 | | 20.0 | 73 - 133 |
| Methylene chloride | 20 | 20.1 | 100.0 | | 20.0 | 79 - 133 |
| trans-1,2-Dichloroethene | 20 | 20.7 | 104.0 | | 20.0 | 82 - 116 |
| 1,1-Dichloroethane | 20 | 20.4 | 102.0 | | 20.0 | 84 - 122 |
| Acetone | 40 | 52.9 | 132.0 | | 20.0 | 51 - 170 |
| 2,2-Dichloropropane | 20 | 21.5 | 108.0 | | 20.0 | 84 - 122 |
| cis-1,2-Dichloroethene | 20 | 20.8 | 104.0 | | 20.0 | 86 - 115 |
| Bromochloromethane | 20 | 20.2 | 101.0 | | 20.0 | 81 - 123 |
| 2-Butanone | 40 | 55.5 | 139.0 | | 20.0 | 62 - 167 |
| Chloroform | 20 | 19.9 | 99.5 | | 20.0 | 81 - 120 |
| 1,1,1-Trichloroethane | 20 | 20.8 | 104.0 | | 20.0 | 80 - 120 |
| Carbon tetrachloride | 20 | 20.1 | 100.0 | | 20.0 | 82 - 120 |
| 1,1-Dichloropropene | 20 | 21.4 | 107.0 | | 20.0 | 80 - 122 |
| Benzene | 20 | 20.5 | 102.0 | | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 20 | 18.9 | 94.5 | | 20.0 | 75 - 126 |
| Trichloroethene | 20 | 20.4 | 102.0 | | 20.0 | 80 - 112 |
| Vinyl acetate | 20 | 18.2 | 91.0 | | 20.0 | 75 - 135 |
| 1,2-Dichloropropane | 20 | 20.2 | 101.0 | | 20.0 | 86 - 122 |
| Dibromomethane | 20 | 19 | 95.0 | | 20.0 | 84 - 117 |
| Bromodichloromethane | 20 | 19.5 | 97.5 | | 20.0 | 82 - 120 |
| cis-1,3-Dichloropropene | 20 | 19 | 95.0 | | 20.0 | 80 - 121 |
| 4-Methyl-2-pentanone | 40 | 41.7 | 104.0 | | 20.0 | 74 - 136 |
| Toluene | 20 | 21.3 | 106.0 | | 20.0 | 80 - 116 |
| trans-1,3-Dichloropropene | 20 | 19.1 | 95.5 | | 20.0 | 77 - 121 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 19.4 | 97.0 | | 20.0 | 84 - 119 |
| Tetrachloroethene | 20 | 19.9 | 99.5 | | 20.0 | 84 - 115 |
| 1,3-Dichloropropane | 20 | 20.2 | 101.0 | | 20.0 | 73 - 129 |
| 2-Hexanone | 40 | 58.6 | 146.0 | | 20.0 | 66 - 150 |
| Dibromochloromethane | 20 | 20.2 | 101.0 | | 20.0 | 75 - 117 |
| 1,2-Dibromoethane | 20 | 19.1 | 95.5 | | 20.0 | 79 - 119 |
| Chlorobenzene | 20 | 20.2 | 101.0 | | 20.0 | 82 - 114 |
| 1,1,1,2-Tetrachloroethane | 20 | 20.2 | 101.0 | | 20.0 | 81 - 116 |
| Ethylbenzene | 20 | 21.1 | 106.0 | | 20.0 | 82 - 119 |
| m,p-Xylene | 40 | 42.7 | 107.0 | | 20.0 | 81 - 124 |
| o-Xylene | 20 | 21.8 | 109.0 | | 20.0 | 83 - 121 |
| Styrene | 20 | 21.4 | 107.0 | | 20.0 | 84 - 122 |
| Bromoform | 20 | 18.8 | 94.0 | | 20.0 | 65 - 118 |
| Isopropylbenzene | 20 | 22.4 | 112.0 | | 20.0 | 81 - 124 |
| Bromobenzene | 20 | 18.5 | 92.5 | | 20.0 | 82 - 118 |
| 1,1,2,2-Tetrachloroethane | 20 | 19 | 95.0 | | 20.0 | 71 - 122 |
| 1,2,3-Trichloropropane | 20 | 19 | 95.0 | | 20.0 | 74 - 122 |
| n-Propylbenzene | 20 | 21.9 | 110.0 | | 20.0 | 81 - 130 |
| 2-Chlorotoluene | 20 | 20.7 | 104.0 | | 20.0 | 81 - 121 |
| 4-Chlorotoluene | 20 | 21.4 | 107.0 | | 20.0 | 80 - 123 |
| 1,3,5-Trimethylbenzene | 20 | 21.7 | 108.0 | | 20.0 | 82 - 124 |
| tert-Butylbenzene | 20 | 22.6 | 113.0 | | 20.0 | 76 - 128 |
| 1,2,4-Trimethylbenzene | 20 | 22 | 110.0 | | 20.0 | 83 - 123 |
| sec-Butylbenzene | 20 | 22.3 | 112.0 | | 20.0 | 79 - 131 |
| 1,3-Dichlorobenzene | 20 | 21.1 | 106.0 | | 20.0 | 80 - 114 |
| 1,4-Dichlorobenzene | 20 | 20.3 | 102.0 | | 20.0 | 79 - 113 |
| 4-Isopropyltoluene | 20 | 21.8 | 109.0 | | 20.0 | 81 - 129 |
| n-Butylbenzene | 20 | 22.8 | 114.0 | | 20.0 | 78 - 134 |
| 1,2-Dichlorobenzene | 20 | 20.4 | 102.0 | | 20.0 | 80 - 114 |
| 1,2-Dibromo-3-chloropropane | 20 | 19 | 95.0 | | 20.0 | 64 - 124 |
| 1,2,4-Trichlorobenzene | 20 | 20.7 | 104.0 | | 20.0 | 74 - 121 |
| Hexachlorobutadiene | 20 | 21 | 105.0 | | 20.0 | 76 - 127 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 19.7 | 98.5 | | 20.0 | 65 - 135 |
| 1,2,3-Trichlorobenzene | 20 | 20.8 | 104.0 | | 20.0 | 67 - 126 |
| Methyl tert-butyl ether | 20 | 20.6 | 103.0 | | 20.0 | 67 - 147 |

Spike Recovery: 0 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 23.3 | 116.0 | 8.6 | 20.0 | 58 - 147 |
| Chloromethane | 20 | 20.8 | 104.0 | 8.3 | 20.0 | 66 - 147 |
| Vinyl chloride | 20 | 20.9 | 104.0 | 12.1 | 20.0 | 72 - 134 |
| Bromomethane | 20 | 19.9 | 99.5 | 6.8 | 20.0 | 52 - 145 |
| Chloroethane | 20 | 20.3 | 102.0 | 8.0 | 20.0 | 78 - 133 |
| Trichlorofluoromethane | 20 | 20.2 | 101.0 | 9.0 | 20.0 | 81 - 132 |
| 1,1-Dichloroethene | 20 | 19.2 | 96.0 | 9.0 | 20.0 | 81 - 121 |
| Methyl iodide | 20 | 20.3 | 102.0 | 9.4 | 20.0 | 45 - 143 |
| Carbon disulfide | 20 | 18.8 | 94.0 | 10.6 | 20.0 | 73 - 133 |
| Methylene chloride | 20 | 18.2 | 91.0 | 9.9 | 20.0 | 79 - 133 |
| trans-1,2-Dichloroethene | 20 | 18.8 | 94.0 | 9.6 | 20.0 | 82 - 116 |
| 1,1-Dichloroethane | 20 | 18.7 | 93.5 | 8.7 | 20.0 | 84 - 122 |
| Acetone | 40 | 52.9 | 132.0 | 0.0 | 20.0 | 51 - 170 |
| 2,2-Dichloropropane | 20 | 20 | 100.0 | 7.2 | 20.0 | 84 - 122 |
| cis-1,2-Dichloroethene | 20 | 19.4 | 97.0 | 7.0 | 20.0 | 86 - 115 |
| Bromochloromethane | 20 | 18.3 | 91.5 | 9.9 | 20.0 | 81 - 123 |
| 2-Butanone | 40 | 46.9 | 117.0 | 16.8 | 20.0 | 62 - 167 |
| Chloroform | 20 | 18.3 | 91.5 | 8.4 | 20.0 | 81 - 120 |
| 1,1,1-Trichloroethane | 20 | 19.2 | 96.0 | 8.0 | 20.0 | 80 - 120 |
| Carbon tetrachloride | 20 | 18.6 | 93.0 | 7.8 | 20.0 | 82 - 120 |
| 1,1-Dichloropropene | 20 | 19.8 | 99.0 | 7.8 | 20.0 | 80 - 122 |
| Benzene | 20 | 19 | 95.0 | 7.6 | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 20 | 17.6 | 88.0 | 7.1 | 20.0 | 75 - 126 |
| Trichloroethene | 20 | 19.4 | 97.0 | 5.0 | 20.0 | 80 - 112 |
| Vinyl acetate | 20 | 17.1 | 85.5 | 6.2 | 20.0 | 75 - 135 |
| 1,2-Dichloropropane | 20 | 19.1 | 95.5 | 5.6 | 20.0 | 86 - 122 |
| Dibromomethane | 20 | 17.8 | 89.0 | 6.5 | 20.0 | 84 - 117 |
| Bromodichloromethane | 20 | 18.2 | 91.0 | 6.9 | 20.0 | 82 - 120 |
| cis-1,3-Dichloropropene | 20 | 18 | 90.0 | 5.4 | 20.0 | 80 - 121 |
| 4-Methyl-2-pentanone | 40 | 38.2 | 95.5 | 8.8 | 20.0 | 74 - 136 |
| Toluene | 20 | 19.9 | 99.5 | 6.8 | 20.0 | 80 - 116 |
| trans-1,3-Dichloropropene | 20 | 17.3 | 86.5 | 9.9 | 20.0 | 77 - 121 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 17.9 | 89.5 | 8.0 | 20.0 | 84 - 119 |
| Tetrachloroethene | 20 | 19.1 | 95.5 | 4.1 | 20.0 | 84 - 115 |
| 1,3-Dichloropropane | 20 | 19 | 95.0 | 6.1 | 20.0 | 73 - 129 |
| 2-Hexanone | 40 | 50.7 | 127.0 | 14.5 | 20.0 | 66 - 150 |
| Dibromochloromethane | 20 | 18.9 | 94.5 | 6.6 | 20.0 | 75 - 117 |
| 1,2-Dibromoethane | 20 | 18.6 | 93.0 | 2.7 | 20.0 | 79 - 119 |
| Chlorobenzene | 20 | 19 | 95.0 | 6.1 | 20.0 | 82 - 114 |
| 1,1,1,2-Tetrachloroethane | 20 | 19.2 | 96.0 | 5.1 | 20.0 | 81 - 116 |
| Ethylbenzene | 20 | 20.1 | 100.0 | 4.9 | 20.0 | 82 - 119 |
| m,p-Xylene | 40 | 39.8 | 99.5 | 7.0 | 20.0 | 81 - 124 |
| o-Xylene | 20 | 20.6 | 103.0 | 5.7 | 20.0 | 83 - 121 |
| Styrene | 20 | 19.9 | 99.5 | 7.3 | 20.0 | 84 - 122 |
| Bromoform | 20 | 17.6 | 88.0 | 6.6 | 20.0 | 65 - 118 |
| Isopropylbenzene | 20 | 20.5 | 102.0 | 8.9 | 20.0 | 81 - 124 |
| Bromobenzene | 20 | 20.2 | 101.0 | 8.8 | 20.0 | 82 - 118 |
| 1,1,2,2-Tetrachloroethane | 20 | 18.6 | 93.0 | 2.1 | 20.0 | 71 - 122 |
| 1,2,3-Trichloropropane | 20 | 18.2 | 91.0 | 4.3 | 20.0 | 74 - 122 |
| n-Propylbenzene | 20 | 20.2 | 101.0 | 8.1 | 20.0 | 81 - 130 |
| 2-Chlorotoluene | 20 | 19.5 | 97.5 | 6.0 | 20.0 | 81 - 121 |
| 4-Chlorotoluene | 20 | 19.7 | 98.5 | 8.3 | 20.0 | 80 - 123 |
| 1,3,5-Trimethylbenzene | 20 | 20.3 | 102.0 | 6.7 | 20.0 | 82 - 124 |
| tert-Butylbenzene | 20 | 20.5 | 102.0 | 9.7 | 20.0 | 76 - 128 |
| 1,2,4-Trimethylbenzene | 20 | 20.2 | 101.0 | 8.5 | 20.0 | 83 - 123 |
| sec-Butylbenzene | 20 | 20.3 | 102.0 | 9.4 | 20.0 | 79 - 131 |
| 1,3-Dichlorobenzene | 20 | 19.1 | 95.5 | 10.0 | 20.0 | 80 - 114 |
| 1,4-Dichlorobenzene | 20 | 18.4 | 92.0 | 9.8 | 20.0 | 79 - 113 |
| 4-Isopropyltoluene | 20 | 20.3 | 102.0 | 7.1 | 20.0 | 81 - 129 |
| n-Butylbenzene | 20 | 20.6 | 103.0 | 10.1 | 20.0 | 78 - 134 |
| 1,2-Dichlorobenzene | 20 | 18.9 | 94.5 | 7.6 | 20.0 | 80 - 114 |
| 1,2-Dibromo-3-chloropropane | 20 | 17.1 | 85.5 | 10.5 | 20.0 | 64 - 124 |
| 1,2,4-Trichlorobenzene | 20 | 19.1 | 95.5 | 8.0 | 20.0 | 74 - 121 |
| Hexachlorobutadiene | 20 | 18.6 | 93.0 | 12.1 | 20.0 | 76 - 127 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

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Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 17.8 | 89.0 | 10.1 | 20.0 | 65 - 135 |
| 1,2,3-Trichlorobenzene | 20 | 18.4 | 92.0 | 12.2 | 20.0 | 67 - 126 |
| Methyl tert-butyl ether | 20 | 19.4 | 97.0 | 6.0 | 20.0 | 67 - 147 |

Spike Recovery: 0 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

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Form III

# Method 8260 TCLP Volatile Organics

080911 1740

**CASE NARRATIVE**
**GC/MS VOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

EPA 8260B/SW846

## IV. PREPARATION

The TCLP samples were prepared by EPA 1311/SW846 for volatiles analysis. All aspects of sample preparation proceeded without exception.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

All acceptance criteria were met.

**C. Surrogates:**

All acceptance criteria were met.

**D. Spikes:**

**1. Laboratory Control Spikes (LCS)**

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

**2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)**

No spikes requested by client.

**E. Internal Standards:**

All acceptance criteria were met.

**CASE NARRATIVE**
**GC/MS VOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

**F. Samples:**

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature: _____
Name: Lisa Pélo Title: VOA Manager

**SIGNED:** **DATE: 09/07/2011**

W:\Narratives\Vols\3503\3503862_8260_TCLP.doc

# VOLATILE ORGANIC CROSS REFERENCE TABLE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**Method:** 8260 TCLP

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-DISP-SOIL-01 | 350386213 |

080911 1740

# 8260 TCLP Sample Data

080911 1740

1

**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201.D

Sample wt/vol: 0.5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0354

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.005 | U | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

1

**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202.D

Sample wt/vol: 0.5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0421

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.0025 | J | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.0036 | J | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

1

**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210.D

Sample wt/vol: 0.5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0449

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.005 | U | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

1

**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211.D

Sample wt/vol: 0.5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0516

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.005 | U | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

1

**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-DISP-SOIL-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386213 Lab File ID 86213.D

Sample wt/vol: 0.5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0544

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.005 | U | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

# 8260 TCLP QC Summary

080911 1740

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**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

TCLPBLK862

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: TCLPBLK862 Lab File ID: TCLPBLK862.D

Sample wt/vol: 0.5 Units: ML Date Received: 09/01/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0136

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.005 | U | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

2A

WATER VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): DB-624 ID: 0.18 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 083111LCS52 | 98.0 | 100.0 | 90.0 | 96.0 | | | 0 |
| 083111LCS52D | 100.0 | 100.0 | 90.0 | 96.0 | | | 0 |
| KD-DISP-SOIL-01 | 100.0 | 100.0 | 88.0 | 100.0 | | | 0 |
| KD-SB-1 16ft-16.5ft | 104.0 | 104.0 | 92.0 | 102.0 | | | 0 |
| KD-SB-2 11ft-12ft | 104.0 | 104.0 | 92.0 | 102.0 | | | 0 |
| KD-SB-6 3ft-4ft | 104.0 | 102.0 | 90.0 | 100.0 | | | 0 |
| KD-SB-9 3ft-4ft | 104.0 | 102.0 | 88.0 | 102.0 | | | 0 |
| TCLPBLK862 | 106.0 | 106.0 | 96.0 | 102.0 | | | 0 |

**Control Limits**

| | | | |
|---|---|---|---|
| S1 | = | Dibromofluoromethane | 83 - 128 |
| S2 | = | Toluene-d8 | 89 - 121 |
| S3 | = | 4-Bromofluorobenzene | 85 - 115 |
| S4 | = | 1,2-Dichloroethane-d4 | 89 - 123 |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

080911 1740

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083111LCS52

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**TCLP Analysis**

| COMPOUND | SPIKE ADDED mg/L | LCS CONCENTRATION mg/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Vinyl chloride | 0.02 | 0.0207 | 104.0 | | 20.0 | 72 - 134 |
| 1,1-Dichloroethene | 0.02 | 0.0188 | 94.0 | | 20.0 | 81 - 121 |
| 2-Butanone | 0.04 | 0.0326 | 81.5 | | 20.0 | 62 - 167 |
| Chloroform | 0.02 | 0.0177 | 88.5 | | 20.0 | 81 - 120 |
| Carbon tetrachloride | 0.02 | 0.0167 | 83.5 | | 20.0 | 82 - 120 |
| Benzene | 0.02 | 0.0179 | 89.5 | | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 0.02 | 0.0188 | 94.0 | | 20.0 | 75 - 126 |
| Trichloroethene | 0.02 | 0.019 | 95.0 | | 20.0 | 80 - 112 |
| Tetrachloroethene | 0.02 | 0.0191 | 95.5 | | 20.0 | 84 - 115 |
| Chlorobenzene | 0.02 | 0.0183 | 91.5 | | 20.0 | 82 - 114 |

Spike Recovery: 0 out of 10 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083111LCS52D

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**TCLP Analysis**

| COMPOUND | SPIKE ADDED mg/L | LCS CONCENTRATION mg/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Vinyl chloride | 0.02 | 0.0232 | 116.0 | 11.4 | 20.0 | 72 - 134 |
| 1,1-Dichloroethene | 0.02 | 0.0202 | 101.0 | 7.2 | 20.0 | 81 - 121 |
| 2-Butanone | 0.04 | 0.0373 | 93.2 | 13.4 | 20.0 | 62 - 167 |
| Chloroform | 0.02 | 0.019 | 95.0 | 7.1 | 20.0 | 81 - 120 |
| Carbon tetrachloride | 0.02 | 0.0178 | 89.0 | 6.4 | 20.0 | 82 - 120 |
| Benzene | 0.02 | 0.0192 | 96.0 | 7.0 | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 0.02 | 0.0197 | 98.5 | 4.7 | 20.0 | 75 - 126 |
| Trichloroethene | 0.02 | 0.0204 | 102.0 | 7.1 | 20.0 | 80 - 112 |
| Tetrachloroethene | 0.02 | 0.0201 | 100.0 | 5.1 | 20.0 | 84 - 115 |
| Chlorobenzene | 0.02 | 0.0197 | 98.5 | 7.4 | 20.0 | 82 - 114 |

Spike Recovery: 0 out of 10 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

# Method 8270 Semi-Volatile Organics

080911 1740

**CASE NARRATIVE**
**GC/MS SEMIVOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

EPA SW846 8270D

## IV. PREPARATION

Soil samples were prepared by SW846 EPA 3545 for 8270 semi-volatile analysis.
Water samples were prepared by SW846 EPA 3510 for 8270 semi-volatile analysis.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

All acceptance criteria were met with the exception of:

Blank 97053MB was analyzed with the water samples extracted on 08/24/11. The following analyte(s) were detected below RL: Di-n-butylphthalate at 1.5 ug/L. Since this compound was only detected below the RL, no further action was taken. The following analyte(s) were detected above RL: Bis(2-ethylhexyl)phthalate at 19.4 ug/L. This compound is a common laboratory contaminant. Since it was detected at least six times greater in the associated sample, no further action was taken.
Samples coded accordingly.

**C. Surrogates:**

All acceptance criteria were met.

**D. Spikes:**

**1. Laboratory Control Spikes (LCS)**

All acceptance criteria were met with the exception of:

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

LCS 97054LCS was analyzed with the water samples extracted on 08/24/11. The following analyte(s) were recovered below criteria: 2,4-Dinitrophenol at 49.2 % with criteria of (56-140). Since this compound was recovered only slightly below criteria, no further action was taken.

LCS 97269LCS was analyzed with the soil samples extracted on 08/25/11. The following analyte(s) were recovered below criteria: N-Nitrosodimethylamine at 73.4 % with criteria of (74-141). Since this compound was recovered only slightly below criteria, no further action was taken.

Samples coded accordingly.

**2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)**

No spikes requested by client.

**E. Internal Standards:**

All acceptance criteria were met.

**F. Samples:**

Sample analysis proceeded normally.

Sample analysis proceeded normally.
Sample KD-SB-1 16ft-16.5ft required a 10X dilution due to matrix interference.

Sample KD-SB-2 11ft-12ft required a 10X dilution due to matrix interference.

Sample KD-SB-6 3ft-4ft required a 5X dilution due to matrix interference.

Sample KD-SB-9 3ft-4ft required a 5X dilution due to matrix interference.

Sample KD-IDW-WATER-01was originally run full, but failed internal standard criteria due to matrix and is not reported. The sample was re-analyzed and is reported at a 2X dilution.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

**CASE NARRATIVE**
**GC/MS SEMIVOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

**Signature:**
**Name:** Brian C. Spann **Title:** Lab Director

**SIGNED:** **DATE:**
**09/08/2011**

W:\Narratives\SemiVols\3503\3503862_8270.doc

# SEMI-VOLATILE ORGANIC CROSS REFERENCE TABLE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**Method:** 8270

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-IDW-WATER-01 | 350386214 |

080911 1740

# 8270 Sample Data

080911 1740

1

## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201D10.D

Sample wt/vol: 25.43 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0548

PercentSolids: 95.2 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 2200 | U | 586 | 2200 |
| 62-53-3 | Aniline | 2230 | U | 636 | 2230 |
| 111-44-4 | Bis(2-chloroethyl)ether | 2230 | U | 554 | 2230 |
| 108-95-2 | Phenol | 11000 | U | 537 | 11000 |
| 95-57-8 | 2-Chlorophenol | 2230 | U | 570 | 2230 |
| 541-73-1 | 1,3-Dichlorobenzene | 2230 | U | 504 | 2230 |
| 106-46-7 | 1,4-Dichlorobenzene | 2230 | U | 520 | 2230 |
| 95-50-1 | 1,2-Dichlorobenzene | 2230 | U | 471 | 2230 |
| 100-51-6 | Benzyl alcohol | 5510 | U | 760 | 5510 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 2230 | U | 1820 | 2230 |
| 95-48-7 | 2-Methylphenol | 2200 | U | 793 | 2200 |
| 67-72-1 | Hexachloroethane | 2230 | U | 413 | 2230 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 2230 | U | 504 | 2230 |
| 106-44-5 | 4-Methylphenol | 2230 | U | 487 | 2230 |
| 98-95-3 | Nitrobenzene | 2230 | U | 496 | 2230 |
| 78-59-1 | Isophorone | 2230 | U | 487 | 2230 |
| 88-75-5 | 2-Nitrophenol | 2230 | U | 595 | 2230 |
| 105-67-9 | 2,4-Dimethylphenol | 2200 | U | 471 | 2200 |
| 65-85-0 | Benzoic acid | 5510 | U | 2230 | 5510 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 2200 | U | 471 | 2200 |
| 120-83-2 | 2,4-Dichlorophenol | 2200 | U | 620 | 2200 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 2230 | U | 479 | 2230 |
| 91-20-3 | Naphthalene | 2230 | U | 529 | 2230 |
| 106-47-8 | 4-Chloroaniline | 2230 | U | 520 | 2230 |
| 91-57-6 | 2-Methylnaphthalene | 2230 | U | 479 | 2230 |
| 87-68-3 | Hexachlorobutadiene | 2230 | U | 479 | 2230 |

1

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201D10.D

Sample wt/vol: 25.43 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0548

PercentSolids: 95.2 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 59-50-7 | 4-Chloro-3-methylphenol | 2230 | U | 463 | 2230 |
| 90-12-0 | 1-Methylnaphthalene | 2230 | U | 512 | 2230 |
| 77-47-4 | Hexachlorocyclopentadiene | 5510 | U | 330 | 5510 |
| 88-06-2 | 2,4,6-Trichlorophenol | 2200 | U | 562 | 2200 |
| 95-95-4 | 2,4,5-Trichlorophenol | 2200 | U | 611 | 2200 |
| 91-58-7 | 2-Chloronaphthalene | 2230 | U | 551 | 2230 |
| 88-74-4 | 2-Nitroaniline | 2230 | U | 471 | 2230 |
| 208-96-8 | Acenaphthylene | 2230 | U | 454 | 2230 |
| 131-11-3 | Dimethylphthalate | 2230 | U | 487 | 2230 |
| 606-20-2 | 2,6-Dinitrotoluene | 2230 | U | 413 | 2230 |
| 83-32-9 | Acenaphthene | 2230 | U | 405 | 2230 |
| 99-09-2 | 3-Nitroaniline | 2200 | U | 661 | 2200 |
| 51-28-5 | 2,4-Dinitrophenol | 11100 | U | 1820 | 11100 |
| 132-64-9 | Dibenzofuran | 2230 | U | 446 | 2230 |
| 121-14-2 | 2,4-Dinitrotoluene | 2230 | U | 405 | 2230 |
| 100-02-7 | 4-Nitrophenol | 5510 | U | 438 | 5510 |
| 86-73-7 | Fluorene | 2230 | U | 421 | 2230 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 2230 | U | 421 | 2230 |
| 84-66-2 | Diethylphthalate | 2230 | U | 421 | 2230 |
| 100-01-6 | 4-Nitroaniline | 2200 | U | 727 | 2200 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 2230 | U | 2200 | 2230 |
| 86-30-6 | N-Nitrosodiphenylamine | 2200 | U | 520 | 2200 |
| 101-55-3 | 4-Bromophenyl-phenylether | 2230 | U | 405 | 2230 |
| 118-74-1 | Hexachlorobenzene | 2200 | U | 438 | 2200 |
| 87-86-5 | Pentachlorophenol | 2230 | U | 1100 | 2230 |
| 85-01-8 | Phenanthrene | 1190 | J | 463 | 2230 |

1

## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201D10.D

Sample wt/vol: 25.43 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0548

PercentSolids: 95.2 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 120-12-7 | Anthracene | 2230 | U | 496 | 2230 |
| 84-74-2 | Di-n-butylphthalate | 2230 | U | 363 | 2230 |
| 206-44-0 | Fluoranthene | 2230 | U | 396 | 2230 |
| 129-00-0 | Pyrene | 2230 | U | 760 | 2230 |
| 92-87-5 | Benzidine | 5540 | U | 4960 | 5540 |
| 85-68-7 | Butylbenzylphthalate | 2230 | U | 520 | 2230 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 2230 | U | 487 | 2230 |
| 56-55-3 | Benzo(a)anthracene | 2230 | U | 471 | 2230 |
| 218-01-9 | Chrysene | 2200 | U | 281 | 2200 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 2230 | U | 686 | 2230 |
| 117-84-0 | Di-n-octylphthalate | 2230 | U | 479 | 2230 |
| 205-99-2 | Benzo(b)fluoranthene | 2230 | U | 520 | 2230 |
| 207-08-9 | Benzo(k)fluoranthene | 2230 | U | 471 | 2230 |
| 50-32-8 | Benzo(a)pyrene | 2230 | U | 355 | 2230 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 2230 | U | 430 | 2230 |
| 53-70-3 | Dibenzo(a,h)anthracene | 2230 | U | 339 | 2230 |
| 191-24-2 | Benzo(g,h,i)perylene | 2230 | U | 330 | 2230 |

1

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202D10.D

Sample wt/vol: 25.34 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0618

PercentSolids: 74.4 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 2830 | U | 753 | 2830 |
| 62-53-3 | Aniline | 2860 | U | 817 | 2860 |
| 111-44-4 | Bis(2-chloroethyl)ether | 2860 | U | 711 | 2860 |
| 108-95-2 | Phenol | 14200 | U | 690 | 14200 |
| 95-57-8 | 2-Chlorophenol | 2860 | U | 732 | 2860 |
| 541-73-1 | 1,3-Dichlorobenzene | 2860 | U | 647 | 2860 |
| 106-46-7 | 1,4-Dichlorobenzene | 2860 | U | 668 | 2860 |
| 95-50-1 | 1,2-Dichlorobenzene | 2860 | U | 605 | 2860 |
| 100-51-6 | Benzyl alcohol | 7080 | U | 976 | 7080 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 2860 | U | 2330 | 2860 |
| 95-48-7 | 2-Methylphenol | 2830 | U | 1020 | 2830 |
| 67-72-1 | Hexachloroethane | 2860 | U | 530 | 2860 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 2860 | U | 647 | 2860 |
| 106-44-5 | 4-Methylphenol | 2860 | U | 626 | 2860 |
| 98-95-3 | Nitrobenzene | 2860 | U | 636 | 2860 |
| 78-59-1 | Isophorone | 2860 | U | 626 | 2860 |
| 88-75-5 | 2-Nitrophenol | 2860 | U | 764 | 2860 |
| 105-67-9 | 2,4-Dimethylphenol | 2830 | U | 605 | 2830 |
| 65-85-0 | Benzoic acid | 7080 | U | 2860 | 7080 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 2830 | U | 605 | 2830 |
| 120-83-2 | 2,4-Dichlorophenol | 2830 | U | 796 | 2830 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 2860 | U | 615 | 2860 |
| 91-20-3 | Naphthalene | 2020 | J | 679 | 2860 |
| 106-47-8 | 4-Chloroaniline | 2860 | U | 668 | 2860 |
| 91-57-6 | 2-Methylnaphthalene | 691 | J | 615 | 2860 |
| 87-68-3 | Hexachlorobutadiene | 2860 | U | 615 | 2860 |

1

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202D10.D

Sample wt/vol: 25.34 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0618

PercentSolids: 74.4 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 59-50-7 | 4-Chloro-3-methylphenol | 2860 | U | 594 | 2860 |
| 90-12-0 | 1-Methylnaphthalene | 2860 | U | 658 | 2860 |
| 77-47-4 | Hexachlorocyclopentadiene | 7080 | U | 424 | 7080 |
| 88-06-2 | 2,4,6-Trichlorophenol | 2830 | U | 721 | 2830 |
| 95-95-4 | 2,4,5-Trichlorophenol | 2830 | U | 785 | 2830 |
| 91-58-7 | 2-Chloronaphthalene | 2860 | U | 708 | 2860 |
| 88-74-4 | 2-Nitroaniline | 2860 | U | 605 | 2860 |
| 208-96-8 | Acenaphthylene | 2860 | U | 583 | 2860 |
| 131-11-3 | Dimethylphthalate | 2860 | U | 626 | 2860 |
| 606-20-2 | 2,6-Dinitrotoluene | 2860 | U | 530 | 2860 |
| 83-32-9 | Acenaphthene | 2860 | U | 520 | 2860 |
| 99-09-2 | 3-Nitroaniline | 2830 | U | 849 | 2830 |
| 51-28-5 | 2,4-Dinitrophenol | 14200 | U | 2330 | 14200 |
| 132-64-9 | Dibenzofuran | 2860 | U | 573 | 2860 |
| 121-14-2 | 2,4-Dinitrotoluene | 2860 | U | 520 | 2860 |
| 100-02-7 | 4-Nitrophenol | 7080 | U | 562 | 7080 |
| 86-73-7 | Fluorene | 2860 | U | 541 | 2860 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 2860 | U | 541 | 2860 |
| 84-66-2 | Diethylphthalate | 2860 | U | 541 | 2860 |
| 100-01-6 | 4-Nitroaniline | 2830 | U | 934 | 2830 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 2860 | U | 2820 | 2860 |
| 86-30-6 | N-Nitrosodiphenylamine | 2830 | U | 668 | 2830 |
| 101-55-3 | 4-Bromophenyl-phenylether | 2860 | U | 520 | 2860 |
| 118-74-1 | Hexachlorobenzene | 2830 | U | 562 | 2830 |
| 87-86-5 | Pentachlorophenol | 2860 | U | 1410 | 2860 |
| 85-01-8 | Phenanthrene | 2320 | J | 594 | 2860 |

1

## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202D10.D

Sample wt/vol: 25.34 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0618

PercentSolids: 74.4 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 120-12-7 | Anthracene | 2860 | U | 636 | 2860 |
| 84-74-2 | Di-n-butylphthalate | 2860 | U | 467 | 2860 |
| 206-44-0 | Fluoranthene | 1900 | J | 509 | 2860 |
| 129-00-0 | Pyrene | 1620 | J | 976 | 2860 |
| 92-87-5 | Benzidine | 7110 | U | 6360 | 7110 |
| 85-68-7 | Butylbenzylphthalate | 2860 | U | 668 | 2860 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 2860 | U | 626 | 2860 |
| 56-55-3 | Benzo(a)anthracene | 732 | J | 605 | 2860 |
| 218-01-9 | Chrysene | 757 | J | 361 | 2830 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 3830 | | 880 | 2860 |
| 117-84-0 | Di-n-octylphthalate | 2860 | U | 615 | 2860 |
| 205-99-2 | Benzo(b)fluoranthene | 2860 | U | 668 | 2860 |
| 207-08-9 | Benzo(k)fluoranthene | 2860 | U | 605 | 2860 |
| 50-32-8 | Benzo(a)pyrene | 2860 | U | 456 | 2860 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 2860 | U | 552 | 2860 |
| 53-70-3 | Dibenzo(a,h)anthracene | 2860 | U | 435 | 2860 |
| 191-24-2 | Benzo(g,h,i)perylene | 523 | J | 424 | 2860 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210D5.D

Sample wt/vol: 25.42 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1531

PercentSolids: 75.2 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 1400 | U | 371 | 1400 |
| 62-53-3 | Aniline | 1410 | U | 403 | 1410 |
| 111-44-4 | Bis(2-chloroethyl)ether | 1410 | U | 350 | 1410 |
| 108-95-2 | Phenol | 6980 | U | 340 | 6980 |
| 95-57-8 | 2-Chlorophenol | 1410 | U | 361 | 1410 |
| 541-73-1 | 1,3-Dichlorobenzene | 1410 | U | 319 | 1410 |
| 106-46-7 | 1,4-Dichlorobenzene | 1410 | U | 330 | 1410 |
| 95-50-1 | 1,2-Dichlorobenzene | 1410 | U | 298 | 1410 |
| 100-51-6 | Benzyl alcohol | 3490 | U | 481 | 3490 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 1410 | U | 1150 | 1410 |
| 95-48-7 | 2-Methylphenol | 1400 | U | 502 | 1400 |
| 67-72-1 | Hexachloroethane | 1410 | U | 262 | 1410 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 1410 | U | 319 | 1410 |
| 106-44-5 | 4-Methylphenol | 1410 | U | 309 | 1410 |
| 98-95-3 | Nitrobenzene | 1410 | U | 314 | 1410 |
| 78-59-1 | Isophorone | 1410 | U | 309 | 1410 |
| 88-75-5 | 2-Nitrophenol | 1410 | U | 377 | 1410 |
| 105-67-9 | 2,4-Dimethylphenol | 1400 | U | 298 | 1400 |
| 65-85-0 | Benzoic acid | 3490 | U | 1410 | 3490 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 1400 | U | 298 | 1400 |
| 120-83-2 | 2,4-Dichlorophenol | 1400 | U | 392 | 1400 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1410 | U | 303 | 1410 |
| 91-20-3 | Naphthalene | 1410 | U | 335 | 1410 |
| 106-47-8 | 4-Chloroaniline | 1410 | U | 330 | 1410 |
| 91-57-6 | 2-Methylnaphthalene | 1410 | U | 303 | 1410 |
| 87-68-3 | Hexachlorobutadiene | 1410 | U | 303 | 1410 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210D5.D

Sample wt/vol: 25.42 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1531

PercentSolids: 75.2 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 59-50-7 | 4-Chloro-3-methylphenol | 1410 | U | 293 | 1410 |
| 90-12-0 | 1-Methylnaphthalene | 1410 | U | 324 | 1410 |
| 77-47-4 | Hexachlorocyclopentadiene | 3490 | U | 209 | 3490 |
| 88-06-2 | 2,4,6-Trichlorophenol | 1400 | U | 356 | 1400 |
| 95-95-4 | 2,4,5-Trichlorophenol | 1400 | U | 387 | 1400 |
| 91-58-7 | 2-Chloronaphthalene | 1410 | U | 349 | 1410 |
| 88-74-4 | 2-Nitroaniline | 1410 | U | 298 | 1410 |
| 208-96-8 | Acenaphthylene | 1410 | U | 288 | 1410 |
| 131-11-3 | Dimethylphthalate | 1410 | U | 309 | 1410 |
| 606-20-2 | 2,6-Dinitrotoluene | 1410 | U | 262 | 1410 |
| 83-32-9 | Acenaphthene | 1410 | U | 256 | 1410 |
| 99-09-2 | 3-Nitroaniline | 1400 | U | 418 | 1400 |
| 51-28-5 | 2,4-Dinitrophenol | 7010 | U | 1150 | 7010 |
| 132-64-9 | Dibenzofuran | 1410 | U | 282 | 1410 |
| 121-14-2 | 2,4-Dinitrotoluene | 1410 | U | 256 | 1410 |
| 100-02-7 | 4-Nitrophenol | 3490 | U | 277 | 3490 |
| 86-73-7 | Fluorene | 1410 | U | 267 | 1410 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1410 | U | 267 | 1410 |
| 84-66-2 | Diethylphthalate | 1410 | U | 267 | 1410 |
| 100-01-6 | 4-Nitroaniline | 1400 | U | 460 | 1400 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 1410 | U | 1390 | 1410 |
| 86-30-6 | N-Nitrosodiphenylamine | 1400 | U | 330 | 1400 |
| 101-55-3 | 4-Bromophenyl-phenylether | 1410 | U | 256 | 1410 |
| 118-74-1 | Hexachlorobenzene | 1400 | U | 277 | 1400 |
| 87-86-5 | Pentachlorophenol | 1410 | U | 696 | 1410 |
| 85-01-8 | Phenanthrene | 1410 | U | 293 | 1410 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210D5.D

Sample wt/vol: 25.42 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1531

PercentSolids: 75.2 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 120-12-7 | Anthracene | 1410 | U | 314 | 1410 |
| 84-74-2 | Di-n-butylphthalate | 1410 | U | 230 | 1410 |
| 206-44-0 | Fluoranthene | 1410 | U | 251 | 1410 |
| 129-00-0 | Pyrene | 1410 | U | 481 | 1410 |
| 92-87-5 | Benzidine | 3500 | U | 3140 | 3500 |
| 85-68-7 | Butylbenzylphthalate | 1410 | U | 330 | 1410 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1410 | U | 309 | 1410 |
| 56-55-3 | Benzo(a)anthracene | 1410 | U | 298 | 1410 |
| 218-01-9 | Chrysene | 1400 | U | 178 | 1400 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 1410 | U | 434 | 1410 |
| 117-84-0 | Di-n-octylphthalate | 1410 | U | 303 | 1410 |
| 205-99-2 | Benzo(b)fluoranthene | 1410 | U | 330 | 1410 |
| 207-08-9 | Benzo(k)fluoranthene | 1410 | U | 298 | 1410 |
| 50-32-8 | Benzo(a)pyrene | 1410 | U | 225 | 1410 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1410 | U | 272 | 1410 |
| 53-70-3 | Dibenzo(a,h)anthracene | 1410 | U | 214 | 1410 |
| 191-24-2 | Benzo(g,h,i)perylene | 1410 | U | 209 | 1410 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211D5.D

Sample wt/vol: 25.27 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1603

PercentSolids: 74.4 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 1420 | U | 378 | 1420 |
| 62-53-3 | Aniline | 1440 | U | 410 | 1440 |
| 111-44-4 | Bis(2-chloroethyl)ether | 1440 | U | 356 | 1440 |
| 108-95-2 | Phenol | 7100 | U | 346 | 7100 |
| 95-57-8 | 2-Chlorophenol | 1440 | U | 367 | 1440 |
| 541-73-1 | 1,3-Dichlorobenzene | 1440 | U | 324 | 1440 |
| 106-46-7 | 1,4-Dichlorobenzene | 1440 | U | 335 | 1440 |
| 95-50-1 | 1,2-Dichlorobenzene | 1440 | U | 303 | 1440 |
| 100-51-6 | Benzyl alcohol | 3550 | U | 489 | 3550 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 1440 | U | 1170 | 1440 |
| 95-48-7 | 2-Methylphenol | 1420 | U | 511 | 1420 |
| 67-72-1 | Hexachloroethane | 1440 | U | 266 | 1440 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 1440 | U | 324 | 1440 |
| 106-44-5 | 4-Methylphenol | 1440 | U | 314 | 1440 |
| 98-95-3 | Nitrobenzene | 1440 | U | 319 | 1440 |
| 78-59-1 | Isophorone | 1440 | U | 314 | 1440 |
| 88-75-5 | 2-Nitrophenol | 1440 | U | 383 | 1440 |
| 105-67-9 | 2,4-Dimethylphenol | 1420 | U | 303 | 1420 |
| 65-85-0 | Benzoic acid | 3550 | U | 1440 | 3550 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 1420 | U | 303 | 1420 |
| 120-83-2 | 2,4-Dichlorophenol | 1420 | U | 399 | 1420 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1440 | U | 308 | 1440 |
| 91-20-3 | Naphthalene | 1440 | U | 340 | 1440 |
| 106-47-8 | 4-Chloroaniline | 1440 | U | 335 | 1440 |
| 91-57-6 | 2-Methylnaphthalene | 1440 | U | 308 | 1440 |
| 87-68-3 | Hexachlorobutadiene | 1440 | U | 308 | 1440 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211D5.D

Sample wt/vol: 25.27 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1603

PercentSolids: 74.4 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 59-50-7 | 4-Chloro-3-methylphenol | 1440 | U | 298 | 1440 |
| 90-12-0 | 1-Methylnaphthalene | 1440 | U | 330 | 1440 |
| 77-47-4 | Hexachlorocyclopentadiene | 3550 | U | 213 | 3550 |
| 88-06-2 | 2,4,6-Trichlorophenol | 1420 | U | 362 | 1420 |
| 95-95-4 | 2,4,5-Trichlorophenol | 1420 | U | 394 | 1420 |
| 91-58-7 | 2-Chloronaphthalene | 1440 | U | 355 | 1440 |
| 88-74-4 | 2-Nitroaniline | 1440 | U | 303 | 1440 |
| 208-96-8 | Acenaphthylene | 1440 | U | 292 | 1440 |
| 131-11-3 | Dimethylphthalate | 1440 | U | 314 | 1440 |
| 606-20-2 | 2,6-Dinitrotoluene | 1440 | U | 266 | 1440 |
| 83-32-9 | Acenaphthene | 1440 | U | 261 | 1440 |
| 99-09-2 | 3-Nitroaniline | 1420 | U | 426 | 1420 |
| 51-28-5 | 2,4-Dinitrophenol | 7130 | U | 1170 | 7130 |
| 132-64-9 | Dibenzofuran | 1440 | U | 287 | 1440 |
| 121-14-2 | 2,4-Dinitrotoluene | 1440 | U | 261 | 1440 |
| 100-02-7 | 4-Nitrophenol | 3550 | U | 282 | 3550 |
| 86-73-7 | Fluorene | 1440 | U | 271 | 1440 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1440 | U | 271 | 1440 |
| 84-66-2 | Diethylphthalate | 1440 | U | 271 | 1440 |
| 100-01-6 | 4-Nitroaniline | 1420 | U | 468 | 1420 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 1440 | U | 1410 | 1440 |
| 86-30-6 | N-Nitrosodiphenylamine | 1420 | U | 335 | 1420 |
| 101-55-3 | 4-Bromophenyl-phenylether | 1440 | U | 261 | 1440 |
| 118-74-1 | Hexachlorobenzene | 1420 | U | 282 | 1420 |
| 87-86-5 | Pentachlorophenol | 1440 | U | 707 | 1440 |
| 85-01-8 | Phenanthrene | 1440 | U | 298 | 1440 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211D5.D

Sample wt/vol: 25.27 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1603

PercentSolids: 74.4 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 120-12-7 | Anthracene | 1440 | U | 319 | 1440 |
| 84-74-2 | Di-n-butylphthalate | 1440 | U | 234 | 1440 |
| 206-44-0 | Fluoranthene | 1440 | U | 255 | 1440 |
| 129-00-0 | Pyrene | 1440 | U | 489 | 1440 |
| 92-87-5 | Benzidine | 3560 | U | 3190 | 3560 |
| 85-68-7 | Butylbenzylphthalate | 1440 | U | 335 | 1440 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1440 | U | 314 | 1440 |
| 56-55-3 | Benzo(a)anthracene | 1440 | U | 303 | 1440 |
| 218-01-9 | Chrysene | 1420 | U | 181 | 1420 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 1440 | U | 441 | 1440 |
| 117-84-0 | Di-n-octylphthalate | 1440 | U | 308 | 1440 |
| 205-99-2 | Benzo(b)fluoranthene | 1440 | U | 335 | 1440 |
| 207-08-9 | Benzo(k)fluoranthene | 1440 | U | 303 | 1440 |
| 50-32-8 | Benzo(a)pyrene | 1440 | U | 229 | 1440 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1440 | U | 276 | 1440 |
| 53-70-3 | Dibenzo(a,h)anthracene | 1440 | U | 218 | 1440 |
| 191-24-2 | Benzo(g,h,i)perylene | 1440 | U | 213 | 1440 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-IDW-WATER-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214 Lab File ID 86214D2.D

Sample wt/vol: 980 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/07/11 Time: 1520

PercentSolids: 0 decanted : Dilution Factor: 2

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 8.2 | U | 4.5 | 8.2 |
| 62-53-3 | Aniline | 8.2 | U | 5.7 | 8.2 |
| 111-44-4 | Bis(2-chloroethyl)ether | 8.2 | U | 6.1 | 8.2 |
| 108-95-2 | Phenol | 4.4 | J | 3.5 | 8.2 |
| 95-57-8 | 2-Chlorophenol | 8.2 | U | 5.9 | 8.2 |
| 541-73-1 | 1,3-Dichlorobenzene | 8.2 | U | 5.5 | 8.2 |
| 106-46-7 | 1,4-Dichlorobenzene | 8.2 | U | 5.5 | 8.2 |
| 95-50-1 | 1,2-Dichlorobenzene | 8.2 | U | 5.3 | 8.2 |
| 100-51-6 | Benzyl alcohol | 20.4 | U | 6.3 | 20.4 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 8.2 | U | 6.7 | 8.2 |
| 95-48-7 | 2-Methylphenol | 8.2 | U | 5.3 | 8.2 |
| 67-72-1 | Hexachloroethane | 8.2 | U | 5.3 | 8.2 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 8.2 | U | 6.1 | 8.2 |
| 106-44-5 | 4-Methylphenol | 20.4 | U | 12.4 | 20.4 |
| 98-95-3 | Nitrobenzene | 8.2 | U | 2 | 8.2 |
| 78-59-1 | Isophorone | 8.2 | U | 7.8 | 8.2 |
| 88-75-5 | 2-Nitrophenol | 8.2 | U | 1.6 | 8.2 |
| 105-67-9 | 2,4-Dimethylphenol | 8.2 | U | 4.7 | 8.2 |
| 65-85-0 | Benzoic acid | 102 | U | 28.6 | 102 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 8.2 | U | 7.1 | 8.2 |
| 120-83-2 | 2,4-Dichlorophenol | 8.2 | U | 6.3 | 8.2 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 8.2 | U | 5.3 | 8.2 |
| 91-20-3 | Naphthalene | 8.2 | U | 5.7 | 8.2 |
| 106-47-8 | 4-Chloroaniline | 8.2 | U | 6.1 | 8.2 |
| 91-57-6 | 2-Methylnaphthalene | 8.2 | U | 5.7 | 8.2 |
| 87-68-3 | Hexachlorobutadiene | 8.2 | U | 5.1 | 8.2 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-IDW-WATER-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214 Lab File ID 86214D2.D

Sample wt/vol: 980 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/07/11 Time: 1520

PercentSolids: 0 decanted : Dilution Factor: 2

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 59-50-7 | 4-Chloro-3-methylphenol | 8.2 | U | 5.5 | 8.2 |
| 90-12-0 | 1-Methylnaphthalene | 8.2 | U | 5.5 | 8.2 |
| 77-47-4 | Hexachlorocyclopentadiene | 8.2 | U | 1.7 | 8.2 |
| 88-06-2 | 2,4,6-Trichlorophenol | 8.2 | U | 1.7 | 8.2 |
| 95-95-4 | 2,4,5-Trichlorophenol | 8.2 | U | 6.9 | 8.2 |
| 91-58-7 | 2-Chloronaphthalene | 8.2 | U | 5.7 | 8.2 |
| 88-74-4 | 2-Nitroaniline | 8.2 | U | 6.1 | 8.2 |
| 208-96-8 | Acenaphthylene | 8.2 | U | 6.1 | 8.2 |
| 131-11-3 | Dimethylphthalate | 8.2 | U | 6.1 | 8.2 |
| 606-20-2 | 2,6-Dinitrotoluene | 8.2 | U | 5.7 | 8.2 |
| 83-32-9 | Acenaphthene | 8.2 | U | 5.7 | 8.2 |
| 99-09-2 | 3-Nitroaniline | 8.2 | U | 5.7 | 8.2 |
| 51-28-5 | 2,4-Dinitrophenol | 40.8 | U | 11.4 | 40.8 |
| 132-64-9 | Dibenzofuran | 8.2 | U | 5.5 | 8.2 |
| 121-14-2 | 2,4-Dinitrotoluene | 8.2 | U | 5.7 | 8.2 |
| 100-02-7 | 4-Nitrophenol | 8.2 | U | 8.2 | 8.2 |
| 86-73-7 | Fluorene | 8.2 | U | 5.9 | 8.2 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 8.2 | U | 5.1 | 8.2 |
| 84-66-2 | Diethylphthalate | 8.2 | U | 5.7 | 8.2 |
| 100-01-6 | 4-Nitroaniline | 8.2 | U | 2.6 | 8.2 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 8.2 | U | 8.2 | 8.2 |
| 86-30-6 | N-Nitrosodiphenylamine | 8.2 | U | 6.9 | 8.2 |
| 101-55-3 | 4-Bromophenyl-phenylether | 8.2 | U | 4.7 | 8.2 |
| 118-74-1 | Hexachlorobenzene | 8.2 | U | 0.84 | 8.2 |
| 87-86-5 | Pentachlorophenol | 20.4 | U | 2.8 | 20.4 |
| 85-01-8 | Phenanthrene | 8.2 | U | 5.7 | 8.2 |

1

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-IDW-WATER-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214 Lab File ID 86214D2.D

Sample wt/vol: 980 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/07/11 Time: 1520

PercentSolids: 0 decanted : Dilution Factor: 2

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 120-12-7 | Anthracene | 8.2 | U | 5.7 | 8.2 |
| 84-74-2 | Di-n-butylphthalate | 2 | JB | 1.8 | 8.2 |
| 206-44-0 | Fluoranthene | 8.2 | U | 5.7 | 8.2 |
| 129-00-0 | Pyrene | 8.2 | U | 2.4 | 8.2 |
| 92-87-5 | Benzidine | 40.8 | U | 40.8 | 40.8 |
| 85-68-7 | Butylbenzylphthalate | 8.2 | U | 6.1 | 8.2 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 8.2 | U | 5.5 | 8.2 |
| 56-55-3 | Benzo(a)anthracene | 8.2 | U | 5.3 | 8.2 |
| 218-01-9 | Chrysene | 8.2 | U | 5.9 | 8.2 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 119 | B | 9 | 10.2 |
| 117-84-0 | Di-n-octylphthalate | 8.2 | U | 2.2 | 8.2 |
| 205-99-2 | Benzo(b)fluoranthene | 8.2 | U | 5.3 | 8.2 |
| 207-08-9 | Benzo(k)fluoranthene | 8.2 | U | 5.9 | 8.2 |
| 50-32-8 | Benzo(a)pyrene | 8.2 | U | 5.7 | 8.2 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 8.2 | U | 3.3 | 8.2 |
| 53-70-3 | Dibenzo(a,h)anthracene | 8.2 | U | 2.4 | 8.2 |
| 191-24-2 | Benzo(g,h,i)perylene | 8.2 | U | 5.3 | 8.2 |

# 8270 QC Summary

080911 1740

1

## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

97053MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 97053MB Lab File ID: 6323MB.D

Sample wt/vol: 1000 Units: ML Date Received: 08/24/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/06/11 Time: 1941

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 4 | U | 2.2 | 4 |
| 62-53-3 | Aniline | 4 | U | 2.8 | 4 |
| 111-44-4 | Bis(2-chloroethyl)ether | 4 | U | 3 | 4 |
| 108-95-2 | Phenol | 4 | U | 1.7 | 4 |
| 95-57-8 | 2-Chlorophenol | 4 | U | 2.9 | 4 |
| 541-73-1 | 1,3-Dichlorobenzene | 4 | U | 2.7 | 4 |
| 106-46-7 | 1,4-Dichlorobenzene | 4 | U | 2.7 | 4 |
| 95-50-1 | 1,2-Dichlorobenzene | 4 | U | 2.6 | 4 |
| 100-51-6 | Benzyl alcohol | 10 | U | 3.1 | 10 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 4 | U | 3.3 | 4 |
| 95-48-7 | 2-Methylphenol | 4 | U | 2.6 | 4 |
| 67-72-1 | Hexachloroethane | 4 | U | 2.6 | 4 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 4 | U | 3 | 4 |
| 106-44-5 | 4-Methylphenol | 10 | U | 6.1 | 10 |
| 98-95-3 | Nitrobenzene | 4 | U | 1 | 4 |
| 78-59-1 | Isophorone | 4 | U | 3.8 | 4 |
| 88-75-5 | 2-Nitrophenol | 4 | U | 0.77 | 4 |
| 105-67-9 | 2,4-Dimethylphenol | 4 | U | 2.3 | 4 |
| 65-85-0 | Benzoic acid | 50 | U | 14 | 50 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 4 | U | 3.5 | 4 |
| 120-83-2 | 2,4-Dichlorophenol | 4 | U | 3.1 | 4 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 4 | U | 2.6 | 4 |
| 91-20-3 | Naphthalene | 4 | U | 2.8 | 4 |
| 106-47-8 | 4-Chloroaniline | 4 | U | 3 | 4 |
| 91-57-6 | 2-Methylnaphthalene | 4 | U | 2.8 | 4 |
| 87-68-3 | Hexachlorobutadiene | 4 | U | 2.5 | 4 |
| 59-50-7 | 4-Chloro-3-methylphenol | 4 | U | 2.7 | 4 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

97053MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 97053MB Lab File ID: 6323MB.D

Sample wt/vol: 1000 Units: ML Date Received: 08/24/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/06/11 Time: 1941

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 90-12-0 | 1-Methylnaphthalene | 4 | U | 2.7 | 4 |
| 77-47-4 | Hexachlorocyclopentadiene | 4 | U | 0.82 | 4 |
| 88-06-2 | 2,4,6-Trichlorophenol | 4 | U | 0.84 | 4 |
| 95-95-4 | 2,4,5-Trichlorophenol | 4 | U | 3.4 | 4 |
| 91-58-7 | 2-Chloronaphthalene | 4 | U | 2.8 | 4 |
| 88-74-4 | 2-Nitroaniline | 4 | U | 3 | 4 |
| 208-96-8 | Acenaphthylene | 4 | U | 3 | 4 |
| 131-11-3 | Dimethylphthalate | 4 | U | 3 | 4 |
| 606-20-2 | 2,6-Dinitrotoluene | 4 | U | 2.8 | 4 |
| 83-32-9 | Acenaphthene | 4 | U | 2.8 | 4 |
| 99-09-2 | 3-Nitroaniline | 4 | U | 2.8 | 4 |
| 51-28-5 | 2,4-Dinitrophenol | 20 | U | 5.6 | 20 |
| 132-64-9 | Dibenzofuran | 4 | U | 2.7 | 4 |
| 121-14-2 | 2,4-Dinitrotoluene | 4 | U | 2.8 | 4 |
| 100-02-7 | 4-Nitrophenol | 4 | U | 4 | 4 |
| 86-73-7 | Fluorene | 4 | U | 2.9 | 4 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 4 | U | 2.5 | 4 |
| 84-66-2 | Diethylphthalate | 4 | U | 2.8 | 4 |
| 100-01-6 | 4-Nitroaniline | 4 | U | 1.3 | 4 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 4 | U | 4 | 4 |
| 86-30-6 | N-Nitrosodiphenylamine | 4 | U | 3.4 | 4 |
| 101-55-3 | 4-Bromophenyl-phenylether | 4 | U | 2.3 | 4 |
| 118-74-1 | Hexachlorobenzene | 4 | U | 0.41 | 4 |
| 87-86-5 | Pentachlorophenol | 10 | U | 1.4 | 10 |
| 85-01-8 | Phenanthrene | 4 | U | 2.8 | 4 |
| 120-12-7 | Anthracene | 4 | U | 2.8 | 4 |
| 84-74-2 | Di-n-butylphthalate | 1.5 | J | 0.86 | 4 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

97053MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 97053MB Lab File ID: 6323MB.D

Sample wt/vol: 1000 Units: ML Date Received: 08/24/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/06/11 Time: 1941

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 206-44-0 | Fluoranthene | 4 | U | 2.8 | 4 |
| 129-00-0 | Pyrene | 4 | U | 1.2 | 4 |
| 92-87-5 | Benzidine | 20 | U | 20 | 20 |
| 85-68-7 | Butylbenzylphthalate | 4 | U | 3 | 4 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 4 | U | 2.7 | 4 |
| 56-55-3 | Benzo(a)anthracene | 4 | U | 2.6 | 4 |
| 218-01-9 | Chrysene | 4 | U | 2.9 | 4 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 19.4 | | 4.4 | 5 |
| 117-84-0 | Di-n-octylphthalate | 4 | U | 1.1 | 4 |
| 205-99-2 | Benzo(b)fluoranthene | 4 | U | 2.6 | 4 |
| 207-08-9 | Benzo(k)fluoranthene | 4 | U | 2.9 | 4 |
| 50-32-8 | Benzo(a)pyrene | 4 | U | 2.8 | 4 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 4 | U | 1.6 | 4 |
| 53-70-3 | Dibenzo(a,h)anthracene | 4 | U | 1.2 | 4 |
| 191-24-2 | Benzo(g,h,i)perylene | 4 | U | 2.6 | 4 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

97268MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 97268MB Lab File ID: 6352MB.D

Sample wt/vol: 20.23 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0352

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 264 | U | 70.2 | 264 |
| 62-53-3 | Aniline | 267 | U | 76.1 | 267 |
| 111-44-4 | Bis(2-chloroethyl)ether | 267 | U | 66.2 | 267 |
| 108-95-2 | Phenol | 1320 | U | 64.2 | 1320 |
| 95-57-8 | 2-Chlorophenol | 267 | U | 68.2 | 267 |
| 541-73-1 | 1,3-Dichlorobenzene | 267 | U | 60.3 | 267 |
| 106-46-7 | 1,4-Dichlorobenzene | 267 | U | 62.3 | 267 |
| 95-50-1 | 1,2-Dichlorobenzene | 267 | U | 56.4 | 267 |
| 100-51-6 | Benzyl alcohol | 659 | U | 91 | 659 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 267 | U | 217 | 267 |
| 95-48-7 | 2-Methylphenol | 264 | U | 94.9 | 264 |
| 67-72-1 | Hexachloroethane | 267 | U | 49.4 | 267 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 267 | U | 60.3 | 267 |
| 106-44-5 | 4-Methylphenol | 267 | U | 58.3 | 267 |
| 98-95-3 | Nitrobenzene | 267 | U | 59.3 | 267 |
| 78-59-1 | Isophorone | 267 | U | 58.3 | 267 |
| 88-75-5 | 2-Nitrophenol | 267 | U | 71.2 | 267 |
| 105-67-9 | 2,4-Dimethylphenol | 264 | U | 56.4 | 264 |
| 65-85-0 | Benzoic acid | 659 | U | 267 | 659 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 264 | U | 56.4 | 264 |
| 120-83-2 | 2,4-Dichlorophenol | 264 | U | 74.1 | 264 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 267 | U | 57.3 | 267 |
| 91-20-3 | Naphthalene | 267 | U | 63.3 | 267 |
| 106-47-8 | 4-Chloroaniline | 267 | U | 62.3 | 267 |
| 91-57-6 | 2-Methylnaphthalene | 267 | U | 57.3 | 267 |
| 87-68-3 | Hexachlorobutadiene | 267 | U | 57.3 | 267 |
| 59-50-7 | 4-Chloro-3-methylphenol | 267 | U | 55.4 | 267 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

97268MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 97268MB Lab File ID: 6352MB.D

Sample wt/vol: 20.23 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0352

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 90-12-0 | 1-Methylnaphthalene | 267 | U | 61.3 | 267 |
| 77-47-4 | Hexachlorocyclopentadiene | 659 | U | 39.5 | 659 |
| 88-06-2 | 2,4,6-Trichlorophenol | 264 | U | 67.2 | 264 |
| 95-95-4 | 2,4,5-Trichlorophenol | 264 | U | 73.2 | 264 |
| 91-58-7 | 2-Chloronaphthalene | 267 | U | 65.9 | 267 |
| 88-74-4 | 2-Nitroaniline | 267 | U | 56.4 | 267 |
| 208-96-8 | Acenaphthylene | 267 | U | 54.4 | 267 |
| 131-11-3 | Dimethylphthalate | 267 | U | 58.3 | 267 |
| 606-20-2 | 2,6-Dinitrotoluene | 267 | U | 49.4 | 267 |
| 83-32-9 | Acenaphthene | 267 | U | 48.4 | 267 |
| 99-09-2 | 3-Nitroaniline | 264 | U | 79.1 | 264 |
| 51-28-5 | 2,4-Dinitrophenol | 1320 | U | 217 | 1320 |
| 132-64-9 | Dibenzofuran | 267 | U | 53.4 | 267 |
| 121-14-2 | 2,4-Dinitrotoluene | 267 | U | 48.4 | 267 |
| 100-02-7 | 4-Nitrophenol | 659 | U | 52.4 | 659 |
| 86-73-7 | Fluorene | 267 | U | 50.4 | 267 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 267 | U | 50.4 | 267 |
| 84-66-2 | Diethylphthalate | 267 | U | 50.4 | 267 |
| 100-01-6 | 4-Nitroaniline | 264 | U | 87 | 264 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 267 | U | 263 | 267 |
| 86-30-6 | N-Nitrosodiphenylamine | 264 | U | 62.3 | 264 |
| 101-55-3 | 4-Bromophenyl-phenylether | 267 | U | 48.4 | 267 |
| 118-74-1 | Hexachlorobenzene | 264 | U | 52.4 | 264 |
| 87-86-5 | Pentachlorophenol | 267 | U | 131 | 267 |
| 85-01-8 | Phenanthrene | 267 | U | 55.4 | 267 |
| 120-12-7 | Anthracene | 267 | U | 59.3 | 267 |
| 84-74-2 | Di-n-butylphthalate | 267 | U | 43.5 | 267 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

97268MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 97268MB Lab File ID: 6352MB.D

Sample wt/vol: 20.23 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0352

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 206-44-0 | Fluoranthene | 267 | U | 47.4 | 267 |
| 129-00-0 | Pyrene | 267 | U | 91 | 267 |
| 92-87-5 | Benzidine | 662 | U | 593 | 662 |
| 85-68-7 | Butylbenzylphthalate | 267 | U | 62.3 | 267 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 267 | U | 58.3 | 267 |
| 56-55-3 | Benzo(a)anthracene | 267 | U | 56.4 | 267 |
| 218-01-9 | Chrysene | 264 | U | 33.6 | 264 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 267 | U | 82 | 267 |
| 117-84-0 | Di-n-octylphthalate | 267 | U | 57.3 | 267 |
| 205-99-2 | Benzo(b)fluoranthene | 267 | U | 62.3 | 267 |
| 207-08-9 | Benzo(k)fluoranthene | 267 | U | 56.4 | 267 |
| 50-32-8 | Benzo(a)pyrene | 267 | U | 42.5 | 267 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 267 | U | 51.4 | 267 |
| 53-70-3 | Dibenzo(a,h)anthracene | 267 | U | 40.5 | 267 |
| 191-24-2 | Benzo(g,h,i)perylene | 267 | U | 39.5 | 267 |

2A

WATER SEMI-VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): HPMS-5 ID: 0.25 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 97053MB | 55.4 | 38.6 | 52.0 | 53.0 | 118.0 | 71.4 | 0 |
| 97054LCS | 68.0 | 43.3 | 57.8 | 60.0 | 100.0 | 75.2 | 0 |
| 97055LCSD | 68.9 | 44.2 | 58.6 | 61.8 | 102.0 | 77.4 | 0 |
| KD-IDW-WATER-01 | 67.5 | 44.7 | 59.0 | 60.2 | 13.5 | 66.7 | 0 |

**Control Limits**

| | | | | |
|---|---|---|---|---|
| S1 | = | 2-Fluorophenol | 21 - | 120 |
| S2 | = | Phenol-d5 | 10 - | 94 |
| S3 | = | Nitrobenzene-d5 | 35 - | 114 |
| S4 | = | 2-Fluorobiphenyl | 43 - | 116 |
| S5 | = | 2,4,6-Tribromophenol | 10 - | 122 |
| S6 | = | p-Terphenyl-d14 | 33 - | 141 |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

2A

SOIL SEMI-VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): HPMS-5 ID: 0.25 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 97268MB | 92.3 | 87.7 | 64.0 | 64.0 | 67.4 | 73.7 | 0 |
| 97269LCS | 72.4 | 72.8 | 51.8 | 56.6 | 84.5 | 67.9 | 0 |
| KD-SB-1 16ft-16.5ft | 65.6 | 63.9 | 50.0 | 48.3 | 44.6 | 60.7 | 0 |
| KD-SB-2 11ft-12ft | 83.2 | 84.9 | 106.0 | 59.2 | 56.6 | 69.8 | 0 |
| KD-SB-6 3ft-4ft | 80.5 | 79.7 | 56.5 | 63.0 | 73.2 | 71.8 | 0 |
| KD-SB-9 3ft-4ft | 101.0 | 93.4 | 66.9 | 76.7 | 81.4 | 77.8 | 0 |

**Control Limits**

| | | | | |
|---|---|---|---|---|
| S1 | = | 2-Fluorophenol | 25 - | 121 |
| S2 | = | Phenol-d5 | 24 - | 113 |
| S3 | = | Nitrobenzene-d5 | 23 - | 120 |
| S4 | = | 2-Fluorobiphenyl | 30 - | 115 |
| S5 | = | 2,4,6-Tribromophenol | 19 - | 122 |
| S6 | = | p-Terphenyl-d14 | 18 - | 137 |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97054LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| N-Nitrosodimethylamine | 40 | 20.6 | 51.5 | | 20.0 | 36 - 89 |
| Aniline | 40 | 24.3 | 60.8 | | 20.0 | 45 - 155 |
| Bis(2-chloroethyl)ether | 40 | 29.4 | 73.5 | | 14.0 | 62 - 110 |
| Phenol | 40 | 15.1 | 37.8 | | 20.0 | 30 - 74 |
| 2-Chlorophenol | 40 | 32.4 | 81.0 | | 15.0 | 51 - 105 |
| 1,3-Dichlorobenzene | 40 | 23.2 | 58.0 | | 16.0 | 36 - 100 |
| 1,4-Dichlorobenzene | 40 | 23.1 | 57.8 | | 16.0 | 38 - 100 |
| 1,2-Dichlorobenzene | 40 | 24.1 | 60.2 | | 20.0 | 40 - 100 |
| Benzyl alcohol | 40 | 26.7 | 66.8 | | 20.0 | 60 - 110 |
| 2,2'-Oxybis(1-chloropropane) | 40 | 27.8 | 69.5 | | 14.0 | 59 - 119 |
| 2-Methylphenol | 40 | 27.6 | 69.0 | | 15.0 | 47 - 110 |
| Hexachloroethane | 40 | 20.5 | 51.2 | | 17.0 | 32 - 95 |
| N-Nitroso-di-n-propylamine | 40 | 31.3 | 78.2 | | 20.0 | 57 - 120 |
| 4-Methylphenol | 40 | 24.3 | 60.8 | | 10.0 | 37 - 110 |
| Nitrobenzene | 40 | 30.6 | 76.5 | | 20.0 | 61 - 110 |
| Isophorone | 40 | 36.7 | 91.8 | | 20.0 | 68 - 110 |
| 2-Nitrophenol | 40 | 33.3 | 83.2 | | 20.0 | 48 - 115 |
| 2,4-Dimethylphenol | 40 | 33.2 | 83.0 | | 20.0 | 47 - 110 |
| Benzoic acid | 140 | 21.9 | 15.6 | | 20.0 | 10 - 60 |
| Bis(2-chloroethoxy)methane | 40 | 29.6 | 74.0 | | 20.0 | 61 - 105 |
| 2,4-Dichlorophenol | 40 | 32 | 80.0 | | 20.0 | 54 - 105 |
| 1,2,4-Trichlorobenzene | 40 | 24.3 | 60.8 | | 18.0 | 45 - 105 |
| Naphthalene | 40 | 27.8 | 69.5 | | 15.0 | 50 - 100 |
| 4-Chloroaniline | 40 | 31 | 77.5 | | 17.0 | 52 - 110 |
| 2-Methylnaphthalene | 40 | 29.1 | 72.8 | | 19.0 | 57 - 105 |
| Hexachlorobutadiene | 40 | 24 | 60.0 | | 20.0 | 42 - 105 |
| 4-Chloro-3-methylphenol | 40 | 31.9 | 79.8 | | 12.0 | 55 - 110 |
| 1-Methylnaphthalene | 40 | 29.9 | 74.8 | | 17.0 | 53 - 125 |
| Hexachlorocyclopentadiene | 40 | 19.2 | 48.0 | | 20.0 | 27 - 139 |
| 2,4,6-Trichlorophenol | 40 | 34.5 | 86.2 | | 19.0 | 53 - 115 |
| 2,4,5-Trichlorophenol | 40 | 33.5 | 83.8 | | 20.0 | 50 - 110 |
| 2-Chloronaphthalene | 40 | 30.5 | 76.2 | | 19.0 | 35 - 105 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97054LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 2-Nitroaniline | 40 | 31.3 | 78.2 | | 18.0 | 66 - 115 |
| Acenaphthylene | 40 | 33.6 | 84.0 | | 15.0 | 58 - 105 |
| Dimethylphthalate | 40 | 37.1 | 92.8 | | 15.0 | 62 - 125 |
| 2,6-Dinitrotoluene | 40 | 35.1 | 87.8 | | 17.0 | 69 - 115 |
| Acenaphthene | 40 | 30.6 | 76.5 | | 20.0 | 60 - 110 |
| 3-Nitroaniline | 40 | 37 | 92.5 | | 20.0 | 61 - 125 |
| 2,4-Dinitrophenol | 80 | 39.4 | 49.2 * | | 20.0 | 56 - 140 |
| Dibenzofuran | 40 | 32 | 80.0 | | 20.0 | 64 - 105 |
| 2,4-Dinitrotoluene | 40 | 36.2 | 90.5 | | 18.0 | 69 - 120 |
| 4-Nitrophenol | 40 | 16.6 | 41.5 | | 20.0 | 27 - 80 |
| Fluorene | 40 | 31.3 | 78.2 | | 20.0 | 62 - 110 |
| 4-Chlorophenyl-phenylether | 40 | 32.5 | 81.2 | | 20.0 | 60 - 110 |
| Diethylphthalate | 40 | 37.6 | 94.0 | | 13.0 | 64 - 120 |
| 4-Nitroaniline | 40 | 37 | 92.5 | | 20.0 | 67 - 120 |
| 4,6-Dinitro-2-methylphenol | 40 | 28.3 | 70.8 | | 19.0 | 44 - 130 |
| N-Nitrosodiphenylamine | 40 | 35.6 | 89.0 | | 20.0 | 71 - 110 |
| 4-Bromophenyl-phenylether | 40 | 36.7 | 91.8 | | 17.0 | 54 - 113 |
| Hexachlorobenzene | 40 | 35.6 | 89.0 | | 20.0 | 68 - 110 |
| Pentachlorophenol | 40 | 33.1 | 82.8 | | 20.0 | 41 - 115 |
| Phenanthrene | 40 | 32 | 80.0 | | 16.0 | 61 - 115 |
| Anthracene | 40 | 32.6 | 81.5 | | 14.0 | 63 - 110 |
| Di-n-butylphthalate | 40 | 36.9 | 92.2 | | 20.0 | 65 - 115 |
| Fluoranthene | 40 | 34 | 85.0 | | 11.0 | 64 - 115 |
| Pyrene | 40 | 33.3 | 83.2 | | 20.0 | 62 - 130 |
| Benzidine | 80 | 23.5 | 29.4 | | 136.0 | 0 - 98 |
| Butylbenzylphthalate | 40 | 40.4 | 101.0 | | 20.0 | 64 - 115 |
| 3,3'-Dichlorobenzidine | 80 | 65.8 | 82.2 | | 15.0 | 55 - 110 |
| Benzo(a)anthracene | 40 | 32.2 | 80.5 | | 20.0 | 63 - 110 |
| Chrysene | 40 | 33.5 | 83.8 | | 15.0 | 60 - 110 |
| Bis(2-ethylhexyl)phthalate | 40 | 39.7 | 99.2 | | 20.0 | 63 - 125 |
| Di-n-octylphthalate | 40 | 35.2 | 88.0 | | 20.0 | 57 - 135 |
| Benzo(b)fluoranthene | 40 | 33 | 82.5 | | 17.0 | 60 - 120 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97054LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzo(k)fluoranthene | 40 | 30.8 | 77.0 | | 17.0 | 54 - 125 |
| Benzo(a)pyrene | 40 | 31.7 | 79.2 | | 19.0 | 60 - 110 |
| Indeno(1,2,3-cd)pyrene | 40 | 33.8 | 84.5 | | 20.0 | 45 - 125 |
| Dibenzo(a,h)anthracene | 40 | 33.8 | 84.5 | | 20.0 | 41 - 125 |
| Benzo(g,h,i)perylene | 40 | 32.2 | 80.5 | | 20.0 | 40 - 125 |

Spike Recovery: 1 out of 69 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

3

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97055LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| N-Nitrosodimethylamine | 40 | 23.1 | 57.8 | 11.4 | 20.0 | 36 - 89 |
| Aniline | 40 | 24.2 | 60.5 | 0.4 | 20.0 | 45 - 155 |
| Bis(2-chloroethyl)ether | 40 | 30.6 | 76.5 | 4.0 | 14.0 | 62 - 110 |
| Phenol | 40 | 15.8 | 39.5 | 4.5 | 20.0 | 30 - 74 |
| 2-Chlorophenol | 40 | 33.2 | 83.0 | 2.4 | 15.0 | 51 - 105 |
| 1,3-Dichlorobenzene | 40 | 24.5 | 61.2 | 5.5 | 16.0 | 36 - 100 |
| 1,4-Dichlorobenzene | 40 | 24.3 | 60.8 | 5.1 | 16.0 | 38 - 100 |
| 1,2-Dichlorobenzene | 40 | 25.3 | 63.2 | 4.9 | 20.0 | 40 - 100 |
| Benzyl alcohol | 40 | 27.4 | 68.5 | 2.6 | 20.0 | 60 - 110 |
| 2,2'-Oxybis(1-chloropropane) | 40 | 28.5 | 71.2 | 2.5 | 14.0 | 59 - 119 |
| 2-Methylphenol | 40 | 26.2 | 65.5 | 5.2 | 15.0 | 47 - 110 |
| Hexachloroethane | 40 | 21.1 | 52.8 | 2.9 | 17.0 | 32 - 95 |
| N-Nitroso-di-n-propylamine | 40 | 31.9 | 79.8 | 1.9 | 20.0 | 57 - 120 |
| 4-Methylphenol | 40 | 23.9 | 59.8 | 1.7 | 10.0 | 37 - 110 |
| Nitrobenzene | 40 | 30.7 | 76.8 | 0.3 | 20.0 | 61 - 110 |
| Isophorone | 40 | 36.7 | 91.8 | 0.0 | 20.0 | 68 - 110 |
| 2-Nitrophenol | 40 | 33.4 | 83.5 | 0.3 | 20.0 | 48 - 115 |
| 2,4-Dimethylphenol | 40 | 33.8 | 84.5 | 1.8 | 20.0 | 47 - 110 |
| Benzoic acid | 140 | 26.2 | 18.7 | 17.9 | 20.0 | 10 - 60 |
| Bis(2-chloroethoxy)methane | 40 | 30.3 | 75.8 | 2.3 | 20.0 | 61 - 105 |
| 2,4-Dichlorophenol | 40 | 32.1 | 80.2 | 0.3 | 20.0 | 54 - 105 |
| 1,2,4-Trichlorobenzene | 40 | 25.2 | 63.0 | 3.6 | 18.0 | 45 - 105 |
| Naphthalene | 40 | 27.6 | 69.0 | 0.7 | 15.0 | 50 - 100 |
| 4-Chloroaniline | 40 | 30.5 | 76.2 | 1.6 | 17.0 | 52 - 110 |
| 2-Methylnaphthalene | 40 | 28.2 | 70.5 | 3.1 | 19.0 | 57 - 105 |
| Hexachlorobutadiene | 40 | 24.5 | 61.2 | 2.1 | 20.0 | 42 - 105 |
| 4-Chloro-3-methylphenol | 40 | 31 | 77.5 | 2.9 | 12.0 | 55 - 110 |
| 1-Methylnaphthalene | 40 | 29.8 | 74.5 | 0.3 | 17.0 | 53 - 125 |
| Hexachlorocyclopentadiene | 40 | 20.9 | 52.2 | 8.5 | 20.0 | 27 - 139 |
| 2,4,6-Trichlorophenol | 40 | 34.6 | 86.5 | 0.3 | 19.0 | 53 - 115 |
| 2,4,5-Trichlorophenol | 40 | 35.3 | 88.2 | 5.2 | 20.0 | 50 - 110 |
| 2-Chloronaphthalene | 40 | 32 | 80.0 | 4.8 | 19.0 | 35 - 105 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97055LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 2-Nitroaniline | 40 | 31.1 | 77.8 | 0.6 | 18.0 | 66 - 115 |
| Acenaphthylene | 40 | 34 | 85.0 | 1.2 | 15.0 | 58 - 105 |
| Dimethylphthalate | 40 | 38.5 | 96.2 | 3.7 | 15.0 | 62 - 125 |
| 2,6-Dinitrotoluene | 40 | 36.1 | 90.2 | 2.8 | 17.0 | 69 - 115 |
| Acenaphthene | 40 | 31.4 | 78.5 | 2.6 | 20.0 | 60 - 110 |
| 3-Nitroaniline | 40 | 35.2 | 88.0 | 5.0 | 20.0 | 61 - 125 |
| 2,4-Dinitrophenol | 80 | 45.2 | 56.5 | 13.7 | 20.0 | 56 - 140 |
| Dibenzofuran | 40 | 32.4 | 81.0 | 1.2 | 20.0 | 64 - 105 |
| 2,4-Dinitrotoluene | 40 | 36.3 | 90.8 | 0.3 | 18.0 | 69 - 120 |
| 4-Nitrophenol | 40 | 16.2 | 40.5 | 2.4 | 20.0 | 27 - 80 |
| Fluorene | 40 | 32.5 | 81.2 | 3.8 | 20.0 | 62 - 110 |
| 4-Chlorophenyl-phenylether | 40 | 34 | 85.0 | 4.5 | 20.0 | 60 - 110 |
| Diethylphthalate | 40 | 38.5 | 96.2 | 2.4 | 13.0 | 64 - 120 |
| 4-Nitroaniline | 40 | 35.2 | 88.0 | 5.0 | 20.0 | 67 - 120 |
| 4,6-Dinitro-2-methylphenol | 40 | 30.5 | 76.2 | 7.5 | 19.0 | 44 - 130 |
| N-Nitrosodiphenylamine | 40 | 36.9 | 92.2 | 3.6 | 20.0 | 71 - 110 |
| 4-Bromophenyl-phenylether | 40 | 38.5 | 96.2 | 4.8 | 17.0 | 54 - 113 |
| Hexachlorobenzene | 40 | 37.6 | 94.0 | 5.5 | 20.0 | 68 - 110 |
| Pentachlorophenol | 40 | 36 | 90.0 | 8.4 | 20.0 | 41 - 115 |
| Phenanthrene | 40 | 32.5 | 81.2 | 1.6 | 16.0 | 61 - 115 |
| Anthracene | 40 | 33.5 | 83.8 | 2.7 | 14.0 | 63 - 110 |
| Di-n-butylphthalate | 40 | 37.6 | 94.0 | 1.9 | 20.0 | 65 - 115 |
| Fluoranthene | 40 | 33.3 | 83.2 | 2.1 | 11.0 | 64 - 115 |
| Pyrene | 40 | 34.2 | 85.5 | 2.7 | 20.0 | 62 - 130 |
| Benzidine | 80 | 21.4 | 26.8 | 9.4 | 136.0 | 0 - 98 |
| Butylbenzylphthalate | 40 | 41.8 | 104.0 | 3.4 | 20.0 | 64 - 115 |
| 3,3'-Dichlorobenzidine | 80 | 63.4 | 79.2 | 3.7 | 15.0 | 55 - 110 |
| Benzo(a)anthracene | 40 | 32.7 | 81.8 | 1.5 | 20.0 | 63 - 110 |
| Chrysene | 40 | 33.9 | 84.8 | 1.2 | 15.0 | 60 - 110 |
| Bis(2-ethylhexyl)phthalate | 40 | 41.3 | 103.0 | 4.0 | 20.0 | 63 - 125 |
| Di-n-octylphthalate | 40 | 41.3 | 103.0 | 15.9 | 20.0 | 57 - 135 |
| Benzo(b)fluoranthene | 40 | 32.8 | 82.0 | 0.6 | 17.0 | 60 - 120 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97055LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzo(k)fluoranthene | 40 | 34.7 | 86.8 | 11.9 | 17.0 | 54 - 125 |
| Benzo(a)pyrene | 40 | 32.7 | 81.8 | 3.1 | 19.0 | 60 - 110 |
| Indeno(1,2,3-cd)pyrene | 40 | 30.4 | 76.0 | 10.6 | 20.0 | 45 - 125 |
| Dibenzo(a,h)anthracene | 40 | 30.4 | 76.0 | 10.6 | 20.0 | 41 - 125 |
| Benzo(g,h,i)perylene | 40 | 29.3 | 73.2 | 9.4 | 20.0 | 40 - 125 |

Spike Recovery: 0 out of 69 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97269LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| N-Nitrosodimethylamine | 1990 | 1460 | 73.4 * | | 30.0 | 74 - 141 |
| Aniline | 1990 | 1380 | 69.3 | | 27.0 | 21 - 131 |
| Bis(2-chloroethyl)ether | 1990 | 1530 | 76.9 | | 24.0 | 67 - 134 |
| Phenol | 1990 | 1520 | 76.4 | | 20.0 | 63 - 116 |
| 2-Chlorophenol | 1990 | 1410 | 70.9 | | 22.0 | 62 - 115 |
| 1,3-Dichlorobenzene | 1990 | 1330 | 66.8 | | 21.0 | 65 - 110 |
| 1,4-Dichlorobenzene | 1990 | 1330 | 66.8 | | 19.0 | 65 - 107 |
| 1,2-Dichlorobenzene | 1990 | 1360 | 68.3 | | 20.0 | 66 - 109 |
| Benzyl alcohol | 1990 | 1510 | 75.9 | | 24.0 | 58 - 119 |
| 2,2'-Oxybis(1-chloropropane) | 1990 | 1510 | 75.9 | | 26.0 | 62 - 138 |
| 2-Methylphenol | 1990 | 1350 | 67.8 | | 22.0 | 65 - 105 |
| Hexachloroethane | 1990 | 1320 | 66.3 | | 20.0 | 63 - 111 |
| N-Nitroso-di-n-propylamine | 1990 | 1600 | 80.4 | | 24.0 | 72 - 125 |
| 4-Methylphenol | 1990 | 1450 | 72.9 | | 19.0 | 58 - 108 |
| Nitrobenzene | 1990 | 1460 | 73.4 | | 24.0 | 63 - 113 |
| Isophorone | 1990 | 1980 | 99.5 | | 19.0 | 69 - 123 |
| 2-Nitrophenol | 1990 | 1320 | 66.3 | | 24.0 | 61 - 115 |
| 2,4-Dimethylphenol | 1990 | 1420 | 71.4 | | 21.0 | 55 - 117 |
| Benzoic acid | 6960 | 1490 | 21.4 | | 30.0 | 10 - 101 |
| Bis(2-chloroethoxy)methane | 1990 | 1630 | 81.9 | | 27.0 | 73 - 132 |
| 2,4-Dichlorophenol | 1990 | 1520 | 76.4 | | 25.0 | 64 - 108 |
| 1,2,4-Trichlorobenzene | 1990 | 1410 | 70.9 | | 25.0 | 63 - 112 |
| Naphthalene | 1990 | 1460 | 73.4 | | 23.0 | 66 - 111 |
| 4-Chloroaniline | 1990 | 1510 | 75.9 | | 30.0 | 35 - 118 |
| 2-Methylnaphthalene | 1990 | 1500 | 75.4 | | 22.0 | 60 - 120 |
| Hexachlorobutadiene | 1990 | 1490 | 74.9 | | 22.0 | 68 - 120 |
| 4-Chloro-3-methylphenol | 1990 | 1730 | 86.9 | | 22.0 | 63 - 115 |
| 1-Methylnaphthalene | 1990 | 1580 | 79.4 | | 21.0 | 67 - 112 |
| Hexachlorocyclopentadiene | 1990 | 1100 | 55.3 | | 22.0 | 46 - 117 |
| 2,4,6-Trichlorophenol | 1990 | 1630 | 81.9 | | 22.0 | 65 - 115 |
| 2,4,5-Trichlorophenol | 1990 | 1540 | 77.4 | | 22.0 | 64 - 111 |
| 2-Chloronaphthalene | 1990 | 1550 | 77.9 | | 20.0 | 64 - 111 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97269LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 2-Nitroaniline | 1990 | 1730 | 86.9 | | 21.0 | 59 - 124 |
| Acenaphthylene | 1990 | 1620 | 81.4 | | 20.0 | 65 - 110 |
| Dimethylphthalate | 1990 | 1760 | 88.4 | | 20.0 | 71 - 125 |
| 2,6-Dinitrotoluene | 1990 | 1730 | 86.9 | | 20.0 | 59 - 117 |
| Acenaphthene | 1990 | 1550 | 77.9 | | 22.0 | 65 - 110 |
| 3-Nitroaniline | 1990 | 1640 | 82.4 | | 18.0 | 21 - 135 |
| 2,4-Dinitrophenol | 3980 | 2790 | 70.1 | | 30.0 | 17 - 135 |
| Dibenzofuran | 1990 | 1620 | 81.4 | | 19.0 | 63 - 117 |
| 2,4-Dinitrotoluene | 1990 | 1770 | 88.9 | | 17.0 | 64 - 114 |
| 4-Nitrophenol | 1990 | 1800 | 90.5 | | 21.0 | 49 - 125 |
| Fluorene | 1990 | 1630 | 81.9 | | 17.0 | 66 - 106 |
| 4-Chlorophenyl-phenylether | 1990 | 1720 | 86.4 | | 21.0 | 73 - 124 |
| Diethylphthalate | 1990 | 1830 | 92.0 | | 19.0 | 69 - 127 |
| 4-Nitroaniline | 1990 | 1700 | 85.4 | | 21.0 | 40 - 142 |
| 4,6-Dinitro-2-methylphenol | 1990 | 1440 | 72.4 | | 28.0 | 44 - 111 |
| N-Nitrosodiphenylamine | 1990 | 1800 | 90.5 | | 19.0 | 70 - 133 |
| 4-Bromophenyl-phenylether | 1990 | 1760 | 88.4 | | 22.0 | 66 - 139 |
| Hexachlorobenzene | 1990 | 1690 | 84.9 | | 20.0 | 64 - 112 |
| Pentachlorophenol | 1990 | 1360 | 68.3 | | 27.0 | 53 - 118 |
| Phenanthrene | 1990 | 1710 | 85.9 | | 21.0 | 67 - 109 |
| Anthracene | 1990 | 1730 | 86.9 | | 19.0 | 71 - 118 |
| Di-n-butylphthalate | 1990 | 1910 | 96.0 | | 19.0 | 70 - 129 |
| Fluoranthene | 1990 | 1770 | 88.9 | | 20.0 | 66 - 111 |
| Pyrene | 1990 | 1720 | 86.4 | | 23.0 | 63 - 119 |
| Benzidine | 3980 | 805 | 20.2 | | 30.0 | 10 - 82 |
| Butylbenzylphthalate | 1990 | 2040 | 102.0 | | 21.0 | 75 - 149 |
| 3,3'-Dichlorobenzidine | 3980 | 3340 | 83.9 | | 25.0 | 10 - 148 |
| Benzo(a)anthracene | 1990 | 1790 | 89.9 | | 19.0 | 65 - 113 |
| Chrysene | 1990 | 1720 | 86.4 | | 23.0 | 63 - 114 |
| Bis(2-ethylhexyl)phthalate | 1990 | 2040 | 102.0 | | 21.0 | 74 - 148 |
| Di-n-octylphthalate | 1990 | 1860 | 93.5 | | 22.0 | 79 - 146 |
| Benzo(b)fluoranthene | 1990 | 1750 | 87.9 | | 21.0 | 61 - 116 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97269LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzo(k)fluoranthene | 1990 | 1600 | 80.4 | | 30.0 | 60 - 107 |
| Benzo(a)pyrene | 1990 | 1720 | 86.4 | | 19.0 | 61 - 112 |
| Indeno(1,2,3-cd)pyrene | 1990 | 1840 | 92.5 | | 19.0 | 60 - 126 |
| Dibenzo(a,h)anthracene | 1990 | 1790 | 89.9 | | 25.0 | 54 - 126 |
| Benzo(g,h,i)perylene | 1990 | 1710 | 85.9 | | 21.0 | 49 - 123 |

Spike Recovery: 1 out of 69 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

# Method 8270 TCLP Semi-Volatile Organics

080911 1740

**CASE NARRATIVE**
**GC/MS SEMIVOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** The following samples were prepped out of hold: KD-SB-2 11ft-12ftRE1. The sample was originally extracted within hold, but due to surrogate failures, the sample was re-extracted. Both analyses are reported.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

EPA SW846 8270D

## IV. PREPARATION

TCLP samples were prepared by EPA SW846 1311 prior to 8270 semi-volatiles preparation. Water/TCLP samples were prepared by EPA SW846 3510 for 8270

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

All acceptance criteria were met.

**C. Surrogates:**

All acceptance criteria were met with the exception of:

Sample KD-SB-2 11ft-12ft was recovered below criteria for the following surrogate(s): 2,4,6-Tribromophenol at 4.2 % with criteria of (10-122), 2-Fluorobiphenyl at 31 % with criteria of (43-116), 2-Fluorophenol at 2.2 % with criteria of (21-120), Nitrobenzene-d5 at 28 % with criteria of (35-114), Phenol-d5 at 2.5 % with criteria of (10-94). Due to these surrogate failures, the sample was re-extracted and met all surrogate criteria.

Both analyses are reported. Samples coded accordingly.

**D. Spikes:**

**1. Laboratory Control Spikes (LCS)**

All acceptance criteria were met

**CASE NARRATIVE**
**GC/MS SEMIVOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

**2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)**

No spikes were requested.

**E. Internal Standards:**

All acceptance criteria were met.

**F. Samples:**

Sample analysis proceeded normally.

Project specific Reporting Limits were used per client request.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

**Signature:**
**Name:** Brian C. Spann **Title:** Lab Director

**SIGNED:** **DATE:**
**09/08/2011**

W:\Narratives\SemiVols\3503\3503862_8270_TCLP.doc

# SEMI-VOLATILE ORGANIC CROSS REFERENCE TABLE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**Method:** 8270 TCLP

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-SB-2 11ft-12ftRE1 | 350386202RE1 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-DISP-SOIL-01 | 350386213 |

080911 1741

# 8270 TCLP Sample Data

080911 1741

1

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201T.D

Sample wt/vol: 440 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1214

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.00909 | U | 0.00477 | 0.00909 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.00909 | U | 0.00614 | 0.00909 |
| 95-48-7 | 2-Methylphenol | 0.00909 | U | 0.00591 | 0.00909 |
| 67-72-1 | Hexachloroethane | 0.00909 | U | 0.00591 | 0.00909 |
| 106-44-5 | 4-Methylphenol | 0.0227 | U | 0.0139 | 0.0227 |
| 98-95-3 | Nitrobenzene | 0.00909 | U | 0.00227 | 0.00909 |
| 87-68-3 | Hexachlorobutadiene | 0.00909 | U | 0.00568 | 0.00909 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.00909 | U | 0.00191 | 0.00909 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.00909 | U | 0.00773 | 0.00909 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.00909 | U | 0.00636 | 0.00909 |
| 118-74-1 | Hexachlorobenzene | 0.00909 | U | 0.000932 | 0.00909 |
| 87-86-5 | Pentachlorophenol | 0.0227 | U | 0.00318 | 0.0227 |

1

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202T.D

Sample wt/vol: 500 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1319

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.008 | U | 0.0042 | 0.008 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.008 | U | 0.0054 | 0.008 |
| 95-48-7 | 2-Methylphenol | 0.008 | U | 0.0052 | 0.008 |
| 67-72-1 | Hexachloroethane | 0.008 | U | 0.0052 | 0.008 |
| 106-44-5 | 4-Methylphenol | 0.02 | U | 0.0122 | 0.02 |
| 98-95-3 | Nitrobenzene | 0.008 | U | 0.002 | 0.008 |
| 87-68-3 | Hexachlorobutadiene | 0.008 | U | 0.005 | 0.008 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.008 | U | 0.00168 | 0.008 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.008 | U | 0.0068 | 0.008 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.008 | U | 0.0056 | 0.008 |
| 118-74-1 | Hexachlorobenzene | 0.008 | U | 0.00082 | 0.008 |
| 87-86-5 | Pentachlorophenol | 0.02 | U | 0.0028 | 0.02 |

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-2 11ft-12ftRE1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386202RE1 Lab File ID 86202TR.D

Sample wt/vol: 475 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 09/07/11

Level:(low/med) LOW Date Analyzed: 09/07/11 Time: 1658

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.00842 | U | 0.00442 | 0.00842 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.00842 | U | 0.00568 | 0.00842 |
| 95-48-7 | 2-Methylphenol | 0.00842 | U | 0.00547 | 0.00842 |
| 67-72-1 | Hexachloroethane | 0.00842 | U | 0.00547 | 0.00842 |
| 106-44-5 | 4-Methylphenol | 0.021 | U | 0.0128 | 0.021 |
| 98-95-3 | Nitrobenzene | 0.00842 | U | 0.0021 | 0.00842 |
| 87-68-3 | Hexachlorobutadiene | 0.00842 | U | 0.00526 | 0.00842 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.00842 | U | 0.00177 | 0.00842 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.00842 | U | 0.00716 | 0.00842 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.00842 | U | 0.00589 | 0.00842 |
| 118-74-1 | Hexachlorobenzene | 0.00842 | U | 0.000863 | 0.00842 |
| 87-86-5 | Pentachlorophenol | 0.021 | U | 0.00295 | 0.021 |

1

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210T.D

Sample wt/vol: 500 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1352

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.008 | U | 0.0042 | 0.008 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.008 | U | 0.0054 | 0.008 |
| 95-48-7 | 2-Methylphenol | 0.008 | U | 0.0052 | 0.008 |
| 67-72-1 | Hexachloroethane | 0.008 | U | 0.0052 | 0.008 |
| 106-44-5 | 4-Methylphenol | 0.02 | U | 0.0122 | 0.02 |
| 98-95-3 | Nitrobenzene | 0.008 | U | 0.002 | 0.008 |
| 87-68-3 | Hexachlorobutadiene | 0.008 | U | 0.005 | 0.008 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.008 | U | 0.00168 | 0.008 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.008 | U | 0.0068 | 0.008 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.008 | U | 0.0056 | 0.008 |
| 118-74-1 | Hexachlorobenzene | 0.008 | U | 0.00082 | 0.008 |
| 87-86-5 | Pentachlorophenol | 0.02 | U | 0.0028 | 0.02 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211T.D

Sample wt/vol: 500 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1426

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.008 | U | 0.0042 | 0.008 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.008 | U | 0.0054 | 0.008 |
| 95-48-7 | 2-Methylphenol | 0.008 | U | 0.0052 | 0.008 |
| 67-72-1 | Hexachloroethane | 0.008 | U | 0.0052 | 0.008 |
| 106-44-5 | 4-Methylphenol | 0.02 | U | 0.0122 | 0.02 |
| 98-95-3 | Nitrobenzene | 0.008 | U | 0.002 | 0.008 |
| 87-68-3 | Hexachlorobutadiene | 0.008 | U | 0.005 | 0.008 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.008 | U | 0.00168 | 0.008 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.008 | U | 0.0068 | 0.008 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.008 | U | 0.0056 | 0.008 |
| 118-74-1 | Hexachlorobenzene | 0.008 | U | 0.00082 | 0.008 |
| 87-86-5 | Pentachlorophenol | 0.02 | U | 0.0028 | 0.02 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-DISP-SOIL-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386213 Lab File ID 86213T.D

Sample wt/vol: 500 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1458

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.008 | U | 0.0042 | 0.008 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.008 | U | 0.0054 | 0.008 |
| 95-48-7 | 2-Methylphenol | 0.008 | U | 0.0052 | 0.008 |
| 67-72-1 | Hexachloroethane | 0.008 | U | 0.0052 | 0.008 |
| 106-44-5 | 4-Methylphenol | 0.02 | U | 0.0122 | 0.02 |
| 98-95-3 | Nitrobenzene | 0.008 | U | 0.002 | 0.008 |
| 87-68-3 | Hexachlorobutadiene | 0.008 | U | 0.005 | 0.008 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.008 | U | 0.00168 | 0.008 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.008 | U | 0.0068 | 0.008 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.008 | U | 0.0056 | 0.008 |
| 118-74-1 | Hexachlorobenzene | 0.008 | U | 0.00082 | 0.008 |
| 87-86-5 | Pentachlorophenol | 0.02 | U | 0.0028 | 0.02 |

# 8270 TCLP QC Summary

080911 1741

1

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

97416MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 97416MB Lab File ID: 6366MB.D

Sample wt/vol: 480 Units: ML Date Received: 08/25/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0450

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.00833 | U | 0.00438 | 0.00833 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.00833 | U | 0.00562 | 0.00833 |
| 95-48-7 | 2-Methylphenol | 0.00833 | U | 0.00542 | 0.00833 |
| 67-72-1 | Hexachloroethane | 0.00833 | U | 0.00542 | 0.00833 |
| 106-44-5 | 4-Methylphenol | 0.0208 | U | 0.0127 | 0.0208 |
| 98-95-3 | Nitrobenzene | 0.00833 | U | 0.00208 | 0.00833 |
| 87-68-3 | Hexachlorobutadiene | 0.00833 | U | 0.00521 | 0.00833 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.00833 | U | 0.00175 | 0.00833 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.00833 | U | 0.00708 | 0.00833 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.00833 | U | 0.00583 | 0.00833 |
| 118-74-1 | Hexachlorobenzene | 0.00833 | U | 0.000854 | 0.00833 |
| 87-86-5 | Pentachlorophenol | 0.0208 | U | 0.00292 | 0.0208 |

1

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

98470MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 98470MB Lab File ID: 6460MBT.D

Sample wt/vol: 480 Units: ML Date Received: 09/07/11

Concentrated Extract Volume: 1 Date Extracted: 09/07/11

Level:(low/med) LOW Date Analyzed: 09/07/11 Time: 1804

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.00833 | U | 0.00438 | 0.00833 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.00833 | U | 0.00562 | 0.00833 |
| 95-48-7 | 2-Methylphenol | 0.00833 | U | 0.00542 | 0.00833 |
| 67-72-1 | Hexachloroethane | 0.00833 | U | 0.00542 | 0.00833 |
| 106-44-5 | 4-Methylphenol | 0.0208 | U | 0.0127 | 0.0208 |
| 98-95-3 | Nitrobenzene | 0.00833 | U | 0.00208 | 0.00833 |
| 87-68-3 | Hexachlorobutadiene | 0.00833 | U | 0.00521 | 0.00833 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.00833 | U | 0.00175 | 0.00833 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.00833 | U | 0.00708 | 0.00833 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.00833 | U | 0.00583 | 0.00833 |
| 118-74-1 | Hexachlorobenzene | 0.00833 | U | 0.000854 | 0.00833 |
| 87-86-5 | Pentachlorophenol | 0.0208 | U | 0.00292 | 0.0208 |

2A

WATER SEMI-VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): HPMS-5 ID: 0.25 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 97416MB | 71.4 | 52.4 | 60.0 | 57.0 | 85.7 | 71.0 | 0 |
| 97418LCS | 76.2 | 57.1 | 62.0 | 60.0 | 85.7 | 71.0 | 0 |
| 98470MB | 71.4 | 57.1 | 57.0 | 60.0 | 90.5 | 66.0 | 0 |
| 98471LCS | 81.0 | 52.4 | 63.0 | 66.0 | 100.0 | 83.0 | 0 |
| KD-DISP-SOIL-01 | 70.0 | 55.0 | 58.0 | 61.0 | 90.0 | 76.0 | 0 |
| KD-SB-1 16ft-16.5ft | 82.6 | 65.2 | 65.5 | 65.5 | 91.3 | 82.7 | 0 |
| KD-SB-2 11ft-12ft | 2.2 * | 2.5 * | 28.0 * | 31.0 * | 4.2 * | 41.0 | 5 |
| KD-SB-2 11ft-12ftRE1 | 81.0 | 61.9 | 61.0 | 64.0 | 100.0 | 72.0 | 0 |
| KD-SB-6 3ft-4ft | 75.0 | 60.0 | 65.0 | 62.0 | 95.0 | 79.0 | 0 |
| KD-SB-9 3ft-4ft | 70.0 | 60.0 | 59.0 | 60.0 | 90.0 | 79.0 | 0 |

**Control Limits**

| | | | | |
|---|---|---|---|---|
| S1 | = | 2-Fluorophenol | 21 - | 120 |
| S2 | = | Phenol-d5 | 10 - | 94 |
| S3 | = | Nitrobenzene-d5 | 35 - | 114 |
| S4 | = | 2-Fluorobiphenyl | 43 - | 116 |
| S5 | = | 2,4,6-Tribromophenol | 10 - | 122 |
| S6 | = | p-Terphenyl-d14 | 33 - | 141 |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97418LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**TCLP Analysis**

| COMPOUND | SPIKE ADDED mg/L | LCS CONCENTRATION mg/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Pyridine | 0.0833 | 0.0573 | 68.8 | | 20.0 | 18 - 80 |
| 1,4-Dichlorobenzene | 0.0833 | 0.0625 | 75.0 | | 16.0 | 38 - 100 |
| 2-Methylphenol | 0.0833 | 0.0637 | 76.5 | | 15.0 | 47 - 110 |
| Hexachloroethane | 0.0833 | 0.0609 | 73.1 | | 17.0 | 32 - 95 |
| 4-Methylphenol | 0.0833 | 0.0638 | 76.6 | | 10.0 | 37 - 110 |
| Nitrobenzene | 0.0833 | 0.0704 | 84.5 | | 20.0 | 61 - 110 |
| Hexachlorobutadiene | 0.0833 | 0.0654 | 78.5 | | 20.0 | 42 - 105 |
| 2,4,6-Trichlorophenol | 0.0833 | 0.0724 | 86.9 | | 19.0 | 53 - 115 |
| 2,4,5-Trichlorophenol | 0.0833 | 0.0703 | 84.4 | | 20.0 | 50 - 110 |
| 2,4-Dinitrotoluene | 0.0833 | 0.0766 | 92.0 | | 18.0 | 69 - 120 |
| Hexachlorobenzene | 0.0833 | 0.0722 | 86.7 | | 20.0 | 68 - 110 |
| Pentachlorophenol | 0.0833 | 0.0669 | 80.3 | | 20.0 | 41 - 115 |

Spike Recovery: 0 out of 12 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

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Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

98471LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**TCLP Analysis**

| COMPOUND | SPIKE ADDED mg/L | LCS CONCENTRATION mg/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Pyridine | 0.0842 | 0.047 | 55.8 | | 20.0 | 18 - 80 |
| 1,4-Dichlorobenzene | 0.0842 | 0.0632 | 75.1 | | 16.0 | 38 - 100 |
| 2-Methylphenol | 0.0842 | 0.0632 | 75.1 | | 15.0 | 47 - 110 |
| Hexachloroethane | 0.0842 | 0.0561 | 66.6 | | 17.0 | 32 - 95 |
| 4-Methylphenol | 0.0842 | 0.0667 | 79.2 | | 10.0 | 37 - 110 |
| Nitrobenzene | 0.0842 | 0.0688 | 81.7 | | 20.0 | 61 - 110 |
| Hexachlorobutadiene | 0.0842 | 0.0689 | 81.8 | | 20.0 | 42 - 105 |
| 2,4,6-Trichlorophenol | 0.0842 | 0.0769 | 91.3 | | 19.0 | 53 - 115 |
| 2,4,5-Trichlorophenol | 0.0842 | 0.0743 | 88.2 | | 20.0 | 50 - 110 |
| 2,4-Dinitrotoluene | 0.0842 | 0.0749 | 89.0 | | 18.0 | 69 - 120 |
| Hexachlorobenzene | 0.0842 | 0.0822 | 97.6 | | 20.0 | 68 - 110 |
| Pentachlorophenol | 0.0842 | 0.067 | 79.6 | | 20.0 | 41 - 115 |

Spike Recovery: 0 out of 12 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1741

Form III

# Method 8082 PCB Organics

080911 1741

**CASE NARRATIVE**
**POLYCHLORINATED BIPHENYLS (PCB) SEMIVOLATILE ORGANIC**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

EPA SW846 8082 for Aroclor analysis

## IV. PREPARATION

Soil samples were prepared by SW846 EPA 3545 for 8082 semi-volatile analysis.
Water samples were prepared by SW846 EPA 3510 for 8082 semi-volatile analysis.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

All acceptance criteria were met.

**C. Surrogates:**

All acceptance criteria were met.

**D. Spikes:**

**PCB 1016 and PCB 1260 were used as the spiking solution for all QC spikes.**

**1. Laboratory Control Spikes (LCS)**

All acceptance criteria were met with the exception of:
LCS 97052LCSD was analyzed with the water samples extracted on 08/24/11. All percent recovery criteria were met. The following analyte(s) exceeded RPD criteria: Aroclor-1016 at 21.1 % with criteria of (10). Since all percent recovery criteria were met, no further action was taken.

LCS 97265LCS was analyzed with the soil samples extracted on 08/25/11. The following analyte(s) had marginal exceedance limit

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

failures: Aroclor-1016 at 124 % with criteria of (50.7-117.3). Since recovery was only slightly high, no further action was taken.

Samples coded accordingly.

**2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)**

No spikes requested by client.

**E. Internal Standards:**

This method does not require the use of internal standards.

**F. Samples:**

Data was collected using dual column analysis. Results reported from the primary column if the %D between the two columns is >40%, data is coded.

Sample analysis proceeded normally.
Sample KD-SB-6 3ft-4ft required a 10X dilution due to high concentration of the following analyte(s): Aroclor-1248 and Aroclor-1254.

Sample KD-SB-9 3ft-4ft required a 5X dilution due to high concentration of the following analyte: Aroclor-1248. Both full and diluted runs are reported.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

**Signature:**
**Name:** Brian C. Spann **Title:** Lab Director

**SIGNED:** **DATE:**
**09/02/2011**

W:\Narratives\SemiVols\3503\3503862_8082.doc

# PCB ORGANIC CROSS REFERENCE TABLE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**Method:** 8082

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-SB-9 3ft-4ftDL1 | 350386211DL1 |
| KD-DISP-SOIL-01 | 350386213 |
| KD-IDW-WATER-01 | 350386214 |

080911 1741

# 8082 Sample Data

080911 1741

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## PCB ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201.D

Sample wt/vol: 25.65 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 0857

PercentSolids: 95.2 decanted : Dilution Factor: 1

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 24 | U | 11 | 24 |
| 11096-82-5 | Aroclor-1260 | 24 | U | 5 | 24 |
| 11104-28-2 | Aroclor-1221 | 24 | U | 9.8 | 24 |
| 11141-16-5 | Aroclor-1232 | 24 | U | 16 | 24 |
| 53469-21-9 | Aroclor-1242 | 24 | U | 9 | 24 |
| 12672-29-6 | Aroclor-1248 | 24 | U | 9 | 24 |
| 11097-69-1 | Aroclor-1254 | 280 | | 7.8 | 24 |

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## PCB ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202.D

Sample wt/vol: 25.7 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 0912

PercentSolids: 74.4 decanted : Dilution Factor: 1

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 31 | U | 14 | 31 |
| 11096-82-5 | Aroclor-1260 | 31 | U | 6.4 | 31 |
| 11104-28-2 | Aroclor-1221 | 31 | U | 12 | 31 |
| 11141-16-5 | Aroclor-1232 | 31 | U | 21 | 31 |
| 53469-21-9 | Aroclor-1242 | 31 | U | 12 | 31 |
| 12672-29-6 | Aroclor-1248 | 31 | U | 12 | 31 |
| 11097-69-1 | Aroclor-1254 | 31 | U | 9.9 | 31 |

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## PCB ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210D10.D

Sample wt/vol: 25.21 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 1057

PercentSolids: 75.2 decanted : Dilution Factor: 10

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 320 | U | 140 | 320 |
| 11096-82-5 | Aroclor-1260 | 320 | U | 64 | 320 |
| 11104-28-2 | Aroclor-1221 | 320 | U | 130 | 320 |
| 11141-16-5 | Aroclor-1232 | 320 | U | 210 | 320 |
| 53469-21-9 | Aroclor-1242 | 320 | U | 120 | 320 |
| 12672-29-6 | Aroclor-1248 | 5200 | | 120 | 320 |
| 11097-69-1 | Aroclor-1254 | 1500 | | 100 | 320 |

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## PCB ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211.D

Sample wt/vol: 25.25 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 0942

PercentSolids: 74.4 decanted : Dilution Factor: 1

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 32 | U | 14 | 32 |
| 11096-82-5 | Aroclor-1260 | 32 | U | 6.5 | 32 |
| 11104-28-2 | Aroclor-1221 | 32 | U | 13 | 32 |
| 11141-16-5 | Aroclor-1232 | 32 | U | 21 | 32 |
| 53469-21-9 | Aroclor-1242 | 32 | U | 12 | 32 |
| 12672-29-6 | Aroclor-1248 | 3400 | E | 12 | 32 |
| 11097-69-1 | Aroclor-1254 | 980 | E | 10 | 32 |

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## PCB ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-9 3ft-4ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211DL1 Lab File ID 86211D5.D

Sample wt/vol: 25.25 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 1112

PercentSolids: 74.4 decanted : Dilution Factor: 5

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 160 | U | 69 | 160 |
| 11096-82-5 | Aroclor-1260 | 160 | U | 32 | 160 |
| 11104-28-2 | Aroclor-1221 | 160 | U | 64 | 160 |
| 11141-16-5 | Aroclor-1232 | 160 | U | 110 | 160 |
| 53469-21-9 | Aroclor-1242 | 160 | U | 58 | 160 |
| 12672-29-6 | Aroclor-1248 | 3700 | | 58 | 160 |
| 11097-69-1 | Aroclor-1254 | 1000 | | 50 | 160 |

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## PCB ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DISP-SOIL-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386213 Lab File ID 86213.D

Sample wt/vol: 25.37 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 1012

PercentSolids: 90.1 decanted : Dilution Factor: 1

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 26 | U | 11 | 26 |
| 11096-82-5 | Aroclor-1260 | 26 | U | 5.3 | 26 |
| 11104-28-2 | Aroclor-1221 | 26 | U | 10 | 26 |
| 11141-16-5 | Aroclor-1232 | 26 | U | 18 | 26 |
| 53469-21-9 | Aroclor-1242 | 26 | U | 9.6 | 26 |
| 12672-29-6 | Aroclor-1248 | 210 | | 9.6 | 26 |
| 11097-69-1 | Aroclor-1254 | 91 | | 8.3 | 26 |

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## PCB ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-IDW-WATER-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214 Lab File ID 86214.D

Sample wt/vol: 980 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 08/29/11 Time: 1615

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 0.51 | U | 0.37 | 0.51 |
| 11096-82-5 | Aroclor-1260 | 0.51 | U | 0.26 | 0.51 |
| 11104-28-2 | Aroclor-1221 | 0.51 | U | 0.44 | 0.51 |
| 11141-16-5 | Aroclor-1232 | 0.51 | U | 0.2 | 0.51 |
| 53469-21-9 | Aroclor-1242 | 0.51 | U | 0.32 | 0.51 |
| 12672-29-6 | Aroclor-1248 | 1.2 | | 0.13 | 0.51 |
| 11097-69-1 | Aroclor-1254 | 0.34 | J | 0.12 | 0.51 |

# 8082 QC Summary

080911 1741

1

**PCB ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

97050MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 97050MB Lab File ID: 6322MB.D

Sample wt/vol: 1000 Units: ML Date Received: 08/24/11

Concentrated Extract Volume: 10 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 08/25/11 Time: 1544

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 0.5 | U | 0.36 | 0.5 |
| 11096-82-5 | Aroclor-1260 | 0.5 | U | 0.25 | 0.5 |
| 11104-28-2 | Aroclor-1221 | 0.5 | U | 0.43 | 0.5 |
| 11141-16-5 | Aroclor-1232 | 0.5 | U | 0.2 | 0.5 |
| 53469-21-9 | Aroclor-1242 | 0.5 | U | 0.31 | 0.5 |
| 12672-29-6 | Aroclor-1248 | 0.5 | U | 0.13 | 0.5 |
| 11097-69-1 | Aroclor-1254 | 0.5 | U | 0.12 | 0.5 |

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**PCB ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

97264MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 97264MB Lab File ID: 6351MB.D

Sample wt/vol: 20.52 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/29/11 Time: 1652

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 29 | U | 13 | 29 |
| 11096-82-5 | Aroclor-1260 | 29 | U | 5.9 | 29 |
| 11104-28-2 | Aroclor-1221 | 29 | U | 12 | 29 |
| 11141-16-5 | Aroclor-1232 | 29 | U | 19 | 29 |
| 53469-21-9 | Aroclor-1242 | 29 | U | 11 | 29 |
| 12672-29-6 | Aroclor-1248 | 29 | U | 11 | 29 |
| 11097-69-1 | Aroclor-1254 | 29 | U | 9.2 | 29 |

2A

WATER PCB ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): STX-CLP1 ID: 0.32 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 97050MB | 81.0 | | | | | | 0 |
| 97051LCS | 81.0 | | | | | | 0 |
| 97052LCSD | 81.0 | | | | | | 0 |
| KD-IDW-WATER-01 | 71.0 | | | | | | 0 |

**Control Limits**

S1 = Decachlorobiphenyl 16 - 116

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

080911 1741

2A

SOIL PCB ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): STX-CLP1 ID: 0.32 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 97264MB | 93.4 | | | | | | 0 |
| 97265LCS | 86.6 | | | | | | 0 |
| KD-DISP-SOIL-01 | 80.5 | | | | | | 0 |
| KD-SB-1 16ft-16.5ft | 112.0 | | | | | | 0 |
| KD-SB-2 11ft-12ft | 66.3 | | | | | | 0 |
| KD-SB-6 3ft-4ft | 111.0 | | | | | | 0 |
| KD-SB-9 3ft-4ft | 76.7 | | | | | | 0 |
| KD-SB-9 3ft-4ftDL1 | 95.5 | | | | | | 0 |

**Control Limits**

S1 = Decachlorobiphenyl 33 - 140

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

080911 1741

## PCB ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

97051LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Aroclor-1016 | 10 | 8.9 | 89.0 | | 10.0 | 56 - 98 |
| Aroclor-1260 | 10 | 9.2 | 92.0 | | 18.0 | 52 - 101 |

Spike Recovery: 0 out of 2 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1741

Form III

## PCB ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

97052LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Aroclor-1016 | 10 | 7.2 | 72.0 | 21.1* | 10.0 | 56 - 98 |
| Aroclor-1260 | 10 | 9 | 90.0 | 2.2 | 18.0 | 52 - 101 |

Spike Recovery: 0 out of 2 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1741

Form III

## PCB ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97265LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Aroclor-1016 | 492 | 611 | 124.0 * | | 30.0 | 59 - 109 |
| Aroclor-1260 | 492 | 512 | 104.0 | | 30.0 | 74 - 111 |

Spike Recovery: 1 out of 2 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1741

Form III

# Inorganics

080911 1741

# Inorganic Data Qualifiers

**C (Concentration) Qualifier - Entries and their meanings are:**

**J** The reported value obtained was less than the RL but greater than or equal to the MDL.

**E** The reported value obtained was over calibration or linear range.

**U** The reported value obtained was less than the MDL or was not detected.

**Q Qualifier - Entries and their meanings are:**

**U** The reported value is estimated because of interference. An explanatory comment must be included under "Comments" on the Cover Page if the problem applies to all samples in this data package or on the individual FORM 1 if it is an isolated problem.

**M** Duplicate injection precision was not met (two analyses of the same sample did not agree).

**N** Spiked sample recovery not within control limits.

**E** Serial Dilution percent difference not within control limits.

**S** The reported value was determined by the Method of Standard Additions (MSA).

**W** Post-digestion spike for Furnace AA analysis is out of control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.

***** Duplicate analysis not within control limits.

**+** Correlation coefficient for the MSA is less than 0.995.

**X** The data is flagged as rejected by analyst utilizing analytical judgement.

Entering "S", "W", or "+" is mutually exclusive. No combination of these qualifiers can apear in the same field.

**M (Method) Qualifier - Enter one of the following:**

**P** ICP
**A** Flame AA
**F** Furnace AA
**CV** Manual Cold Vapor AA
**TC** Total Organic Carbon
**AS** Semi-Automated Spectrophotometric
**CA** Midi-Distillation Spectrophotometric
**T** Titrimetric
**C** Manual Spectrophotometric
**GR** Gravimetric
**NR** Analyte was not required by your lab

080911 1741

# Inorganic Sample ID Qualifiers

The qualifiers that may be appended to the lab sample ID and/or the client sample ID for inorganic analysis are defined below:

**DL** Diluted reanalysis. Indicates that the results of the original analysis of the sample contained compounds that exceeded the calibration range. The sample was diluted and reanalyzed. May be followed by a digit to indicate multiple dilutions of the sample. The results of more than one diluted reanalysis may be reported.

**R** Reanalysis. The extract was reanalyzed without re-extraction. The "R" is not used if the sample was also re-extracted. May be followed by a digit to indicate multiple reanalysis of the sample at the same dilution.

**RE** Re-extracted. The extract was reanalyzed with re-extraction. May be followed by a digit to indicate multiple re-extraction of the same sample at the same dilution.

**MS** Matrix spike (may be followed by a digit to indicate multiple matrix within a sample set).

**SD** Matrix spike duplicate (may be followed by a digit to indicate multiple matrix spike duplicate within a sample set).

**A** Post Digestion Spike.

**L** Serial Dilution.

# Metals Data Package

080911 1741

**CASE NARRATIVE**
**METALS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHOD

Analyses were performed according to the Spectrum Analytical Inc. Standard Operating Procedures and EPA Method 6010B for ICP metals.

## IV. PREPARATION

Soil samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Method 3050B.
Water samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Method 3010A.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

**1. Calibration Blanks:**

All acceptance criteria were met. No action required. The following ICB/CCB(s) had element concentrations below the RL:

ICB1011254 was analyzed on 08/24/11 08:26. The following analyte(s) were detected below RL: Barium at 0.498 ug/L, Silver at 6.69 ug/L.
CCB1011259 was analyzed on 08/24/11 09:00. The following analyte(s) were detected below RL: Barium at 0.259 ug/L.
ICB1011408 was analyzed on 08/25/11 08:28. The following analyte(s) were detected below RL: Barium at 0.239 ug/L, Silver at 6.83 ug/L.
CCB1011723 was analyzed on 08/25/11 18:19. The following analyte(s) were detected below RL: Silver at -0.582 ug/L.
ICB1012235 was analyzed on 08/26/11 08:51. The following analyte(s) were detected below RL: Barium at 0.25 ug/L, Silver at 6.29 ug/L.

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

CCB1012288 was analyzed on 08/26/11 13:53. The following analyte(s) were detected below RL: Barium at 1.3 ug/L.
CCB1012298 was analyzed on 08/26/11 14:47. The following analyte(s) were detected below RL: Silver at 0.588 ug/L. The hits in the blanks are below the RL, therefore, no corrective action was taken.

**2. Method Blanks:**

All acceptance criteria were met.

**C. Spikes:**

**1. Laboratory Control Spikes (LCS):**

An LCS/LCSD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met.

**2. Post Digestion Spike:**

All acceptance criteria were met.

**3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

A client requested MS/SD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met with the exception of:
MS - KD-SB-3 10ft-12ftMS was analyzed with the soil samples on 08/25/11. The following analyte(s) were recovered below criteria: Chromium at 66.5 % with criteria of (75-125) and the following analyte(s) were recovered above criteria: Arsenic at 138.2 % with criteria of (75-125).

SD - KD-SB-3 10ft-12ftSD was analyzed with the soil samples on 08/25/11.. The following analyte(s) exceeded RPD criteria: Arsenic at 28.4 % with criteria of (20). The most probable cause for the MS/MSD exceeding limits is sample matrix due to the samples requiring a dilution. The LCS/LCSD pass all quality control criteria. No further action was taken.
Samples coded accordingly.

**D. Duplicate:**

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

**E. Serial Dilution:**

All acceptance criteria were met with the exception of:
Serial Dilution 350386207L was analyzed with the soil samples on 08/25/11. The following analyte(s) exceeded criteria: Cadmium at 20 % with criteria of (10). The most probable cause for the SD exceeding limits is sample matrix due to the samples requiring a dilution. The LCS/LCSD pass all quality control criteria. No further action was taken.

**CASE NARRATIVE**
**METALS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

Samples coded accordingly.

**F. ICP Interference Check Samples:**

All acceptance criteria were met.

**G. Samples:**

Sample analysis proceeded normally.

Sample KD-DRUM-1 required a 25X dilution due to high concentration of the following analyte(s): Barium.
Sample KD-DRUM-1 required a 5X dilution due to high concentration of the following analyte(s): Lead.
Sample KD-DRUM-2 required a 5X dilution due to high concentration of the following analyte(s): Cadmium, Chromium.
Sample KD-SB-1 16ft-16.5ft required a 2X dilution due to high concentration of the following analyte(s): Barium.
Sample KD-SB-2 11ft-12ft required a 20X dilution due to high concentration of the following analyte(s): Chromium.
Sample KD-SB-2 11ft-12ft required a 2X dilution due to high concentration of the following analyte(s): Lead.
Sample KD-SB-2 6ft-8ft required a 5X dilution due to high concentration of the following analyte(s): Barium, Lead.
Sample KD-SB-3 10ft-12ft required a 5X dilution due to high concentration of the following analyte(s): Barium, Lead.
Sample KD-SS-01 required a 10X dilution due to high concentration of the following analyte(s): Barium, Chromium.
Sample KD-SS-01 required a 50X dilution due to high concentration of the following analyte(s): Lead.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

**SIGNED:** **DATE: 08/30/2011**

**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

Analyses were performed according to the Spectrum Analytical Inc. Standard Operating Procedures and EPA Method 7470A.

## IV. PREPARATION

Water samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Method 7470A.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

**1. Calibration Blanks:**

All acceptance criteria were met.

**2. Method Blanks:**

All acceptance criteria were met.

**C. Spikes:**

**1. Laboratory Control Spikes (LCS):**

An LCS/LCSD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met.

**2. Post Digestion Spike:**

All acceptance criteria were met.

**3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

No spikes requested by client.

**D. Duplicate:**

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

**E. Serial Dilution:**

All acceptance criteria were met.

**F. Samples:**

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:

Name: Troy L. Roberts Title: Inorg. Manager

**SIGNED:** **DATE: 08/26/2011**

**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

Samples were analyzed according to the Spectrum Analytical Inc. Standard Operating Procedures and EPA Method 7471A.

## IV. PREPARATION

Soil samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Method 7471A.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

**1. Calibration Blanks:**

All acceptance criteria were met.

**2. Method Blanks:**

All acceptance criteria were met.

**C. Spikes:**

**1. Laboratory Control Spikes (LCS):**

An LCS/LCSD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met.

**2. Post Digestion Spike:**

All acceptance criteria were met.

**3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

A client requested MS/SD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met with the exception of:
MS - KD-SB-3 10ft-12ftMS was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Mercury at 207.8 % with criteria of (80-120).

SD - KD-SB-3 10ft-12ftSD was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Mercury at 192.8 % with criteria of (80-120). The most probable cause for the MS/MSD exceeding limits is sample matrix due to the fact that the LCS/LCSD pass all quality control criteria. No further action was taken.
Samples coded accordingly.

**D. Duplicate:**

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

**E. Serial Dilution:**

All acceptance criteria were met.

**F. Samples:**

Sample analysis proceeded normally.
Sample KD-SB-3 10ft-12ft required a 2X dilution due to high concentration of the following analyte(s): Mercury.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

**SIGNED:** **DATE: 08/30/2011**

W:\Narratives\Metals\3503\3503862_7471.doc

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## COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 /

Lab Code : PEL Case No.: SDG No.: 3503862

SOW No.:

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-1 16ft-16.5ftDL1 | 350386201DL1 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-SB-2 11ft-12ftDL1 | 350386202DL1 |
| KD-SB-2 11ft-12ftDL2 | 350386202DL2 |
| KD-DRUM-1 | 350386203 |
| KD-DRUM-1DL1 | 350386203DL1 |
| KD-DRUM-1DL2 | 350386203DL2 |
| KD-DRUM-2 | 350386204 |
| KD-DRUM-2DL1 | 350386204DL1 |
| KD-SS-01 | 350386205 |
| KD-SS-01DL1 | 350386205DL1 |
| KD-SS-01DL2 | 350386205DL2 |
| KD-SB-2 6ft-8ft | 350386206 |
| KD-SB-2 6ft-8ftDL1 | 350386206DL1 |
| KD-SB-3 10ft-12ft | 350386207 |
| KD-SB-3 10ft-12ftDL1 | 350386207DL1 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-SB-7 4ft-6ft | 350386212 |
| KD-IDW-WATER-01 | 350386214 |

Were ICP interelement corrections applied? Yes/No Yes

Were ICP background corrections applied? Yes/No Yes

If yes - were raw data generated before application of background corrections? Yes/No No

Comments:

080911 1741

# Metals Inorganic Sample Data

080911 1741

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 95.2 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 5.66 | | | P | | 0.37 | 0.741 |
| 7440-43-9 | Cadmium | 0.817 | | | P | | 0.037 | 0.37 |
| 7440-47-3 | Chromium | 14.1 | | | P | | 0.118 | 0.37 |
| 7439-92-1 | Lead | 54.2 | | | P | | 0.252 | 0.593 |
| 7439-97-6 | Mercury | 0.0264 | | | CV | | 0.003 | 0.0161 |
| 7782-49-2 | Selenium | 1.48 | U | | P | | 0.296 | 1.48 |
| 7440-22-4 | Silver | 0.37 | U | | P | | 0.118 | 0.37 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 95.2 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-39-3 | Barium | 506 | | | P | | 0.237 | 0.741 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 74.4 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.932 | U | | P | | 0.466 | 0.932 |
| 7440-39-3 | Barium | 356 | | | P | | 0.149 | 0.466 |
| 7440-43-9 | Cadmium | 60.3 | | | P | | 0.0466 | 0.466 |
| 7439-97-6 | Mercury | 0.251 | | | CV | | 0.0046 | 0.0248 |
| 7782-49-2 | Selenium | 1.6 | J | | P | | 0.373 | 1.86 |
| 7440-22-4 | Silver | 14.5 | | | P | | 0.149 | 0.466 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 74.4 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 4030 | | | P | | 2.98 | 9.32 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ftDL2

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202DL2

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 74.4 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | 828 | | | P | | 0.634 | 1.49 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386203

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 66.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 2.01 | | | P | | 0.65 | 1.3 |
| 7440-43-9 | Cadmium | 6.66 | | | P | | 0.065 | 0.65 |
| 7440-47-3 | Chromium | 44.2 | | | P | | 0.208 | 0.65 |
| 7439-97-6 | Mercury | 0.0922 | | | CV | | 0.0051 | 0.0277 |
| 7782-49-2 | Selenium | 4.11 | | | P | | 0.52 | 2.6 |
| 7440-22-4 | Silver | 0.65 | U | | P | | 0.208 | 0.65 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-1DL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386203DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 66.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-39-3 | Barium | 14700 | | | P | | 5.2 | 16.3 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-1DL2

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386203DL2

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 66.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | 2360 | | | P | | 2.21 | 5.2 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-2

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386204

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 93.1 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 57.9 | | | P | | 0.286 | 0.572 |
| 7440-39-3 | Barium | 44.2 | | | P | | 0.0915 | 0.286 |
| 7439-92-1 | Lead | 108 | | | P | | 0.194 | 0.458 |
| 7439-97-6 | Mercury | 0.0191 | J | | CV | | 0.004 | 0.0214 |
| 7782-49-2 | Selenium | 1.14 | U | | P | | 0.229 | 1.14 |
| 7440-22-4 | Silver | 2.19 | | | P | | 0.0915 | 0.286 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-2DL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386204DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 93.1 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-43-9 | Cadmium | 441 | | | P | | 0.143 | 1.43 |
| 7440-47-3 | Chromium | 792 | | | P | | 0.458 | 1.43 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SS-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386205

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 70.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 1.2 | U | | P | | 0.598 | 1.2 |
| 7440-43-9 | Cadmium | 0.769 | | | P | | 0.0598 | 0.598 |
| 7439-97-6 | Mercury | 0.115 | | | CV | | 0.0035 | 0.0187 |
| 7782-49-2 | Selenium | 2.39 | U | | P | | 0.478 | 2.39 |
| 7440-22-4 | Silver | 0.294 | J | | P | | 0.191 | 0.598 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SS-01DL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386205DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 70.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-39-3 | Barium | 900 | | | P | | 1.91 | 5.98 |
| 7440-47-3 | Chromium | 3980 | | | P | | 1.91 | 5.98 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SS-01DL2

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386205DL2

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 70.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | 16100 | | | P | | 20.3 | 47.8 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 6ft-8ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386206

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 80 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 39.8 | | | P | | 0.427 | 0.854 |
| 7440-43-9 | Cadmium | 21.6 | | | P | | 0.0427 | 0.427 |
| 7440-47-3 | Chromium | 150 | | | P | | 0.137 | 0.427 |
| 7439-97-6 | Mercury | 0.294 | | | CV | | 0.0026 | 0.014 |
| 7782-49-2 | Selenium | 1.12 | J | | P | | 0.342 | 1.71 |
| 7440-22-4 | Silver | 7 | | | P | | 0.137 | 0.427 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

080911 1741

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 6ft-8ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386206DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 80 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-39-3 | Barium | 632 | | | P | | 0.683 | 2.13 |
| 7439-92-1 | Lead | 1500 | | | P | | 1.45 | 3.42 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

080911 1741

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-3 10ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386207

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 82 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 23.9 | | *N | P | | 0.531 | 1.06 |
| 7440-43-9 | Cadmium | 23.2 | | E | P | | 0.0531 | 0.531 |
| 7440-47-3 | Chromium | 109 | | N | P | | 0.17 | 0.531 |
| 7439-97-6 | Mercury | 0.706 | | N | CV | | 0.0069 | 0.0373 |
| 7782-49-2 | Selenium | 3.85 | | | P | | 0.425 | 2.12 |
| 7440-22-4 | Silver | 10.5 | | | P | | 0.17 | 0.531 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

080911 1741

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-3 10ft-12ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386207DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 82 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-39-3 | Barium | 485 | | | P | | 0.85 | 2.66 |
| 7439-92-1 | Lead | 1380 | | | P | | 1.8 | 4.25 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

080911 1741

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 75.2 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 13.4 | | | P | | 0.578 | 1.16 |
| 7440-39-3 | Barium | 58.6 | | | P | | 0.185 | 0.578 |
| 7440-43-9 | Cadmium | 0.609 | | | P | | 0.0578 | 0.578 |
| 7440-47-3 | Chromium | 20.6 | | | P | | 0.185 | 0.578 |
| 7439-92-1 | Lead | 28.6 | | | P | | 0.393 | 0.925 |
| 7439-97-6 | Mercury | 0.282 | | | CV | | 0.0037 | 0.0197 |
| 7782-49-2 | Selenium | 2.31 | U | | P | | 0.462 | 2.31 |
| 7440-22-4 | Silver | 0.578 | U | | P | | 0.185 | 0.578 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

080911 1741

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 74.4 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 8.24 | | | P | | 0.632 | 1.26 |
| 7440-39-3 | Barium | 47.9 | | | P | | 0.202 | 0.632 |
| 7440-43-9 | Cadmium | 0.574 | J | | P | | 0.0632 | 0.632 |
| 7440-47-3 | Chromium | 18.6 | | | P | | 0.202 | 0.632 |
| 7439-92-1 | Lead | 30 | | | P | | 0.43 | 1.01 |
| 7439-97-6 | Mercury | 0.221 | | | CV | | 0.0046 | 0.0247 |
| 7782-49-2 | Selenium | 2.53 | U | | P | | 0.505 | 2.53 |
| 7440-22-4 | Silver | 0.632 | U | | P | | 0.202 | 0.632 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-7 4ft-6ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386212

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 76.4 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 12 | | | P | | 0.528 | 1.06 |
| 7440-39-3 | Barium | 97.4 | | | P | | 0.169 | 0.528 |
| 7440-43-9 | Cadmium | 0.361 | J | | P | | 0.0528 | 0.528 |
| 7440-47-3 | Chromium | 25 | | | P | | 0.169 | 0.528 |
| 7439-92-1 | Lead | 38.6 | | | P | | 0.359 | 0.844 |
| 7439-97-6 | Mercury | 0.0603 | | | CV | | 0.0038 | 0.0205 |
| 7782-49-2 | Selenium | 1 | J | | P | | 0.422 | 2.11 |
| 7440-22-4 | Silver | 0.528 | U | | P | | 0.169 | 0.528 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-IDW-WATER-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

*CONCENTRATION UNITS: UG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 21.3 | | | P | | 3.31 | 10 |
| 7440-39-3 | Barium | 401 | | | P | | 0.22 | 10 |
| 7440-43-9 | Cadmium | 6.43 | | | P | | 0.72 | 5 |
| 7440-47-3 | Chromium | 146 | | | P | | 0.43 | 10 |
| 7439-92-1 | Lead | 347 | | | P | | 3.7 | 15 |
| 7439-97-6 | Mercury | 0.83 | | | CV | | 0.037 | 0.2 |
| 7782-49-2 | Selenium | 20 | U | | P | | 4.1 | 20 |
| 7440-22-4 | Silver | 10 | U | | P | | 0.52 | 10 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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# Metals Inorganic QC Summary Data

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5A

SPIKE SAMPLE RECOVERY

EPA Sample No.

KD-SB-3 10ft-12ftMS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Level:(low/med) LOW

% Solids for Sample: 82

Concentration Units (mg/L or mg/kg): mg/Kg

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 75 - 125 | 94.5 | | 23.9 | | 51.1 | 138.2 | N | P |
| Barium | - | | | | | | | | NR |
| Cadmium | 75 - 125 | 66.0 | | 23.2 | | 51.1 | 83.8 | | P |
| Chromium | 75 - 125 | 143 | | 109 | | 51.1 | 66.5 | N | P |
| Lead | - | | | | | | | | NR |
| Mercury | 80 - 120 | 1.24 | | 0.706 | | 0.257 | 207.8 | N | CV |
| Selenium | 75 - 125 | 48.6 | | 3.85 | | 51.1 | 87.6 | | P |
| Silver | 75 - 125 | 35.2 | | 10.5 | | 20.5 | 120.5 | | P |

Comments:

080911 1741

U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

EPA Sample No.

KD-SB-3 10ft-12ftSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Level:(low/med) LOW

% Solids for Sample: 82

Concentration Units (mg/L or mg/kg): mg/Kg

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 75 - 125 | 71.0 | | 23.9 | | 52.9 | 89 | | P |
| Barium | - | | | | | | | | NR |
| Cadmium | 75 - 125 | 66.2 | | 23.2 | | 52.9 | 81.3 | | P |
| Chromium | 75 - 125 | 154 | | 109 | | 52.9 | 85.1 | | P |
| Lead | - | | | | | | | | NR |
| Mercury | 80 - 120 | 1.19 | | 0.706 | | 0.251 | 192.8 | N | CV |
| Selenium | 75 - 125 | 45.8 | | 3.85 | | 52.9 | 79.3 | | P |
| Silver | 75 - 125 | 30.4 | | 10.5 | | 21.2 | 93.9 | | P |

Comments:

080911 1741

U.S. EPA - CLP

5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA Sample No.

350386102A

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: Water Level:(low/med) LOW

Concentration Units (ug/L or mg/kg): ug/L

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 80 - 120 | 538.00 | | 4.11 | J | 500 | 106.8 | | P |
| Barium | 80 - 120 | 1610.00 | | 58.12 | | 1500 | 103.6 | | P |
| Cadmium | 80 - 120 | 517.00 | | 0.17 | U | 500 | 103.4 | | P |
| Chromium | 80 - 120 | 533.00 | | 2.13 | J | 500 | 106.2 | | P |
| Lead | 80 - 120 | 534.00 | | 2.82 | U | 500 | 106.8 | | P |
| Selenium | 80 - 120 | 542.00 | | -4.39 | U | 500 | 108.4 | | P |
| Silver | 80 - 120 | 195.00 | | -0.09 | U | 200 | 97.5 | | P |

Comments:

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5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA Sample No.

350386207A

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: Soil Level:(low/med) LOW

Concentration Units (ug/L or mg/kg): ug/L

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 80 - 120 | 743.00 | | 225.41 | | 500 | 103.6 | | P |
| Cadmium | 80 - 120 | 698.00 | | 218.70 | | 500 | 95.8 | | P |
| Chromium | 80 - 120 | 1480.00 | | 1028.91 | | 500 | 89.7 | | P |
| Mercury | - | 14.10 | | 7.57 | | 6 | 108.8 | | CV |
| Selenium | 80 - 120 | 568.00 | | 36.25 | | 500 | 106.3 | | P |
| Silver | 80 - 120 | 310.00 | | 99.23 | | 200 | 105.2 | | P |

Comments:

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5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA Sample No.

350386214A

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: Water Level:(low/med) LOW

Concentration Units (ug/L or mg/kg): ug/L

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 80 - 120 | 3.47 | | 0.83 | | 3 | 88.0 | | CV |

Comments:

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6

DUPLICATES

EPA Sample No.

97163LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Level:(low/med) LOW

% Solids for Sample: 100 % Solids for Duplicate: 100

Concentration Units (mg/L or mg/kg): mg/Kg

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 20 | 49.7 | | 49.7 | | 0.0 | | P |
| Barium | 20 | 147 | | 148 | | 0.7 | | P |
| Cadmium | 20 | 48.4 | | 48.5 | | 0.2 | | P |
| Chromium | 20 | 49.8 | | 49.7 | | 0.2 | | P |
| Lead | 20 | 49.8 | | 49.8 | | 0.0 | | P |
| Selenium | 20 | 49.2 | | 48.6 | | 1.2 | | P |
| Silver | 20 | 20.6 | | 20.4 | | 1.0 | | P |

Comments:

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6

DUPLICATES

EPA Sample No.

97288LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): ug/L

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Mercury | 20 | 2.82 | | 2.89 | | 2.5 | | CV |

Comments:

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6

DUPLICATES

EPA Sample No.

97564LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Level:(low/med) LOW

% Solids for Sample: 100 % Solids for Duplicate: 100

Concentration Units (mg/L or mg/kg): mg/Kg

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Mercury | 20 | 0.304 | | 0.303 | | 0.3 | | CV |

Comments:

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6

DUPLICATES

EPA Sample No.

KD-SB-3 10ft-12ftSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Level:(low/med) LOW

% Solids for Sample: 82 % Solids for Duplicate: 82

Concentration Units (mg/L or mg/kg): mg/Kg

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 20 | 94.5 | | 71 | | 28.4 | * | P |
| Cadmium | 20 | 66 | | 66.2 | | 0.3 | | P |
| Chromium | 20 | 143 | | 154 | | 7.4 | | P |
| Mercury | 20 | 1.24 | | 1.19 | | 4.1 | | CV |
| Selenium | 20 | 48.6 | | 45.8 | | 5.9 | | P |
| Silver | 20 | 35.2 | | 30.4 | | 14.6 | | P |

Comments:

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97025LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 40661, 42025, 42664,

| | Aqueous (ug/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Arsenic | 500 | 511 | 102.2 | | | | - | |
| Barium | 1500 | 1480 | 98.7 | | | | - | |
| Cadmium | 500 | 494 | 98.8 | | | | - | |
| Chromium | 500 | 505 | 101.0 | | | | - | |
| Lead | 500 | 506 | 101.2 | | | | - | |
| Selenium | 500 | 515 | 103.0 | | | | - | |
| Silver | 200 | 197 | 98.5 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97026LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 40661, 42025, 42664,

| | Aqueous (ug/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Arsenic | 500 | 514 | 102.8 | | | | - | |
| Barium | 1500 | 1500 | 100.0 | | | | - | |
| Cadmium | 500 | 492 | 98.4 | | | | - | |
| Chromium | 500 | 505 | 101.0 | | | | - | |
| Lead | 500 | 510 | 102.0 | | | | - | |
| Selenium | 500 | 515 | 103.0 | | | | - | |
| Silver | 200 | 197 | 98.5 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97162LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source: 40661, 42025, 42449,

Aqueous LCS Source:

| | Aqueous | | | Solid (mg/Kg) | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Arsenic | | | | 49.8 | 49.7 | | 80 - 120 | 99.8 |
| Barium | | | | 149 | 147 | | 80 - 120 | 98.7 |
| Cadmium | | | | 49.8 | 48.4 | | 80 - 120 | 97.2 |
| Chromium | | | | 49.8 | 49.8 | | 80 - 120 | 100.0 |
| Lead | | | | 49.8 | 49.8 | | 80 - 120 | 100.0 |
| Selenium | | | | 49.8 | 49.2 | | 80 - 120 | 98.8 |
| Silver | | | | 19.9 | 20.6 | | 80 - 120 | 103.5 |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97163LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source: 40661, 42025, 42449,

Aqueous LCS Source:

| | Aqueous | | | Solid (mg/Kg) | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Arsenic | | | | 49.9 | 49.7 | | 80 - 120 | 99.6 |
| Barium | | | | 150 | 148 | | 80 - 120 | 98.7 |
| Cadmium | | | | 49.9 | 48.5 | | 80 - 120 | 97.2 |
| Chromium | | | | 49.9 | 49.7 | | 80 - 120 | 99.6 |
| Lead | | | | 49.9 | 49.8 | | 80 - 120 | 99.8 |
| Selenium | | | | 49.9 | 48.6 | | 80 - 120 | 97.4 |
| Silver | | | | 20 | 20.4 | | 80 - 120 | 102.0 |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97287LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42189

| | Aqueous (ug/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Mercury | 3 | 2.82 | 94.0 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97288LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42189

| | Aqueous (ug/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Mercury | 3 | 2.89 | 96.3 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97563LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source: 42189

Aqueous LCS Source:

| | Aqueous | | | Solid (mg/Kg) | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Mercury | | | | 0.296 | 0.304 | | 80 - 120 | 102.7 |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97564LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source: 42189

Aqueous LCS Source:

| | Aqueous | | | Solid (mg/Kg) | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Mercury | | | | 0.298 | 0.303 | | 80 - 120 | 101.7 |

080911 1741

# TCLP Metals Data Package

080911 1741

**CASE NARRATIVE**
**METALS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

Analyses were performed according to the Spectrum Analytical Inc. Standard Operating Procedures and EPA Method 6010B for ICP metals.

## IV. PREPARATION

Samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Methods 1311 and 3010A.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

**1. Calibration Blanks:**

All acceptance criteria were met.

**2. Method Blanks:**

All acceptance criteria were met.

**C. Spikes:**

**1. Laboratory Control Spikes (LCS):**

An LCS/LCSD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met.

**2. Post Digestion Spike:**

All acceptance criteria were met with the exception of:
Post Digestion Spike 350386201A was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Barium at

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

131.3 % with criteria of (80-120). The most probable cause for the PDS exceeding limits is sample matrix due to the fact that the LCS/LCSD pass all quality control criteria. No further action was taken.

3. **Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

   No spikes requested by client.

**D. Duplicate:**

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

**E. Serial Dilution:**

All acceptance criteria were met.

**F. ICP Interference Check Samples:**

All acceptance criteria were met.

**G. Samples:**

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:

Name: Troy L. Roberts Title: Inorg. Manager

**SIGNED:** **DATE: 08/31/2011**

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**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

Analyses were performed according to the Spectrum Analytical Inc. Standard Operating Procedures and EPA Method 7470A.

## IV. PREPARATION

Samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Methods 1311 and 7470A.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

**1. Calibration Blanks:**

All acceptance criteria were met.

**2. Method Blanks:**

All acceptance criteria were met.

**C. Spikes:**

**1. Laboratory Control Spikes (LCS):**

An LCS/LCSD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met.

**2. Post Digestion Spike:**

All acceptance criteria were met.

**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

**3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

No spikes requested by client.

**D. Duplicate:**

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

**E. Serial Dilution:**

All acceptance criteria were met.

**F. Samples:**

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature: _____
Name: Troy L. Roberts Title: Inorg. Manager

**SIGNED:** **DATE: 08/30/2011**

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# U.S. EPA - CLP

## COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 /

Lab Code : PEL Case No.: SDG No.: 3503862

SOW No.:

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-DRUM-1 | 350386203 |
| KD-DRUM-2 | 350386204 |
| KD-SS-01 | 350386205 |
| KD-SB-2 6ft-8ft | 350386206 |
| KD-SB-3 10ft-12ft | 350386207 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-SB-7 4ft-6ft | 350386212 |
| KD-DISP-SOIL-01 | 350386213 |

Were ICP interelement corrections applied? Yes/No Yes

Were ICP background corrections applied? Yes/No Yes

If yes - were raw data generated before application of background corrections? Yes/No No

Comments:

080911 1742

# Metalst Inorganic Sample Data

080911 1742

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 3.68 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.00886 | J | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.011 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.0877 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.00603 | J | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.593 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.05 | U | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0574 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.0507 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.00759 | J | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386203

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

**TCLP Analysis**

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 6.6 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.0231 | J | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.00815 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 1.18 | | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-2

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386204

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

**TCLP Analysis**

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.401 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.836 | | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0168 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.15 | U | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.00747 | J | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SS-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386205

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 3.33 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.0126 | J | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0282 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 8.35 | | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 6ft-8ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386206

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.802 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.0626 | | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0106 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 2.84 | | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-3 10ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386207

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.898 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.03 | J | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0136 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.138 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.746 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.05 | U | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0111 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.0712 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.0162 | J | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.05 | U | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.1 | U | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.15 | U | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.00982 | J | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-7 4ft-6ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386212

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.493 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.00756 | J | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.1 | U | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.0485 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DISP-SOIL-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386213

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 1.05 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.05 | U | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0097 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.0556 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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# Metalst Inorganic QC Summary Data

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5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA Sample No.

350386201A

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: Soil Level:(low/med) LOW

**TCLP Analysis**

Concentration Units (ug/L or mg/kg): ug/L

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 80 - 120 | 561.00 | | 0.34 | U | 500 | 112.2 | | P |
| Barium | 80 - 120 | 1970.00 | | 367.84 | | 1500 | 131.3 | | P |
| Cadmium | 80 - 120 | 543.00 | | 0.89 | J | 500 | 108.6 | | P |
| Chromium | 80 - 120 | 548.00 | | 1.10 | J | 500 | 109.6 | | P |
| Lead | 80 - 120 | 564.00 | | 8.77 | J | 500 | 112.8 | | P |
| Mercury | 80 - 120 | 2.77 | | -0.06 | U | 3 | 92.2 | | CV |
| Selenium | 80 - 120 | 595.00 | | -9.56 | U | 500 | 119.0 | | P |
| Silver | 80 - 120 | 213.00 | | 0.60 | J | 200 | 106.5 | | P |

Comments:

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6

DUPLICATES

EPA Sample No.

97451LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

**TCLP Analysis**

Concentration Units (mg/L or mg/kg): mg/L

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 20 | 5.12 | | 5.27 | | 2.9 | | P |
| Barium | 20 | 14.9 | | 15.4 | | 3.3 | | P |
| Cadmium | 20 | 4.98 | | 5.12 | | 2.8 | | P |
| Chromium | 20 | 5.05 | | 5.2 | | 2.9 | | P |
| Lead | 20 | 5.1 | | 5.24 | | 2.7 | | P |
| Selenium | 20 | 5.36 | | 5.57 | | 3.8 | | P |
| Silver | 20 | 2.06 | | 2.09 | | 1.4 | | P |

Comments:

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97450LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42664, 41688

**TCLP Analysis**

| | Aqueous (mg/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Arsenic | 5 | 5.12 | 102.4 | | | | - | |
| Barium | 15 | 14.9 | 99.3 | | | | - | |
| Cadmium | 5 | 4.98 | 99.6 | | | | - | |
| Chromium | 5 | 5.05 | 101.0 | | | | - | |
| Lead | 5 | 5.1 | 102.0 | | | | - | |
| Selenium | 5 | 5.36 | 107.2 | | | | - | |
| Silver | 2 | 2.06 | 103.0 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97451LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42664, 41688

**TCLP Analysis**

| Analyte | Aqueous (mg/L) True | Found | %R | Solid True | Found | C | Limits | %R |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 5 | 5.27 | 105.4 | | | | - | |
| Barium | 15 | 15.4 | 102.7 | | | | - | |
| Cadmium | 5 | 5.12 | 102.4 | | | | - | |
| Chromium | 5 | 5.2 | 104.0 | | | | - | |
| Lead | 5 | 5.24 | 104.8 | | | | - | |
| Selenium | 5 | 5.57 | 111.4 | | | | - | |
| Silver | 2 | 2.09 | 104.5 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97539LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42189

**TCLP Analysis**

| | Aqueous (mg/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Mercury | 0.03 | 0.0271 | 90.3 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97542LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42189

**TCLP Analysis**

| | Aqueous (mg/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Mercury | 0.03 | 0.027 | 90.0 | | | | - | |

080911 1742

# Chain of Custody Documentation

080911 1742

# Addendum

080911 1742

# Letter of Acceptance

**Customer Name:** Oneida Total Integrated Enterprises

**Date and Time Received:** 8/23/2011 9:00:00 AM

**Date to be Reported:** 9/13/2011

**Laboratory Submission Number/SDG:** 3503862

**Get Detailed Analyte List here:** www.pelab.com/webdms/Default.asp?LoaSDG=3503862

**Project:** Kokomo Dump / 2010101 / 1012

**Samples:** The submission consisted of 15 samples, including QC, with sample identification shown in the attached data tables.

**Tests:** The Samples will be analyzed for EPA methods: 6010, 6010_TCLP, 7470, 7470_TCLP, 7471, 8082, 8260, 8270, 8270_TCLP.

**Sample Custody/COC discrepancies:**

None.

**Notes:**

temp -18C, 3.5C, 5.6C
pH<2 8260, 6010
p/w vials received
8260 soils received frozen on dry ice
Sample 01= one 8oz jar received broken in transit and instructed to analyze
Sample -14 and -15 were crossed off on the COC but containers were received for total 8260 and will be rum
KitID # 11065

**Distribution of Report to:**

Oneida Total Integrated Enterprises
Attn: Naren Babu
(W): 312-220-7000

**Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. PEL letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar materials**

# Log-in Report

**Level: 2**

**Total of: 83 analyses on 15 samples (including QC)** *23-Aug-11*

## Report/SDG #: 3503862

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 | | S | 8/19/2011 10:45:00 AM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| 8082 | PCB | 8082 |
| 8260 | Volatile Organic Compounds | 8260 |
| 8270 | GCMS semivolatile | 8270 |
| 8270_TCLP | TCLP Semivolatiles by 8270 | 8270 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-2 11ft-12ft | 350386202 | | S | 8/19/2011 11:45:00 AM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| 8082 | PCB | 8082 |
| 8260 | Volatile Organic Compounds | 8260 |
| 8270 | GCMS semivolatile | 8270 |
| 8270_TCLP | TCLP Semivolatiles by 8270 | 8270 |
| Dry Weight | Dry Weight | Dry Weight |

## Report/SDG #: 3503862

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-DRUM-1 | 350386203 | | S | 8/19/2011 11:30:00 AM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-DRUM-2 | 350386204 | | S | 8/19/2011 11:35:00 AM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SS-01 | 350386205 | | S | 8/19/2011 11:40:00 AM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

## Report/SDG #: 3503862

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-2 6ft-8ft | 350386206 | | S | 8/19/2011 1:30:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-3 10ft-12ft | 350386207 | | S | 8/19/2011 2:30:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-3 10ft-12ftMS | 350386208 | | S | 8/19/2011 2:30:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-3 10ft-12ftSD | 350386209 | | S | 8/19/2011 2:30:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

## Report/SDG #: 3503862

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-6 3ft-4ft | 350386210 | | S | 8/19/2011 4:00:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| 8082 | PCB | 8082 |
| 8260 | Volatile Organic Compounds | 8260 |
| 8270 | GCMS semivolatile | 8270 |
| 8270_TCLP | TCLP Semivolatiles by 8270 | 8270 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-9 3ft-4ft | 350386211 | | S | 8/19/2011 4:00:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| 8082 | PCB | 8082 |
| 8260 | Volatile Organic Compounds | 8260 |
| 8270 | GCMS semivolatile | 8270 |
| 8270_TCLP | TCLP Semivolatiles by 8270 | 8270 |
| Dry Weight | Dry Weight | Dry Weight |

## Report/SDG #: 3503862

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-7 4ft-6ft | 350386212 | | S | 8/19/2011 4:40:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-DISP-SOIL-01 | 350386213 | | S | 8/19/2011 5:00:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 8082 | PCB | 8082 |
| 8270_TCLP | TCLP Semivolatiles by 8270 | 8270 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-IDW-WATER-01 | 350386214 | | W | 8/19/2011 5:05:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 7470 | Mercury | 7470 |
| 8082 | PCB | 8082 |
| 8260 | Volatile Organic Compounds | 8260 |
| 8270 | GCMS semivolatile | 8270 |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| TRIP-1 | 350386215 | | W | 8/19/2011 | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 8260 | Volatile Organic Compounds | 8260 |

## Mark Gudnason [Tampa]

**From:** Mark Gudnason [Tampa]
**Sent:** Tuesday, August 23, 2011 11:31 AM
**To:** Naren Babu
**Cc:** Mark Gudnason [Tampa]
**Subject:** RE: FedEx MPS Shipment 795104345056 Delivered /Kokomo Dump site

Naren,

Per our telephone conversation we will run the Trip Blank and the total metals, total SVOCs, and PCBs on KD-SB-1 16'-16.5'. We will HOLD the TCLP tests on KD-SB-1 16'-16.5' pending your instructions.

Mark

-----Original Message-----
From: Mark Gudnason [Tampa]
Sent: Tuesday, August 23, 2011 10:11 AM
To: 'Naren Babu'
Subject: RE: FedEx MPS Shipment 795104345056 Delivered /Kokomo Dump site

Yes,
We received the 4 coolers (one had unused jars).

They are inspecting them now.

Attached is a copy of the COCs.

The 8-oz jar received for sample KD-SB-1 16'-16.5' was received broken and loose inside the plastic bag with the 2 oz jar. The 2 oz jar will not be enough to complete the testing.

The Trip Blank was crossed out for 8260. Is it to be discarded?

Please advise.

Mark

-----Original Message-----
From: Naren Babu [mailto:NBabu@otie.com]
Sent: Tuesday, August 23, 2011 9:54 AM
To: Mark Gudnason [Tampa]
Subject: Fwd: FedEx MPS Shipment 795104345056 Delivered

Mark

4 coolers were delivered at your lab today. Please check the samples and COC for accuracy and Send me sample login documents if there are any.

Thanks
Naren
312-656-7685

Begin forwarded message:

From: Raghu Nagam <RNagam@otie.com<mailto:RNagam@otie.com>>
Date: August 23, 2011 8:48:13 AM CDT
To: Naren Babu <NBabu@otie.com<mailto:NBabu@otie.com>>

Subject: FW: FedEx MPS Shipment 795104345056 Delivered

Both shipment (4 coolers) were delivered. See email below

Raghu Nagam
Oneida Total Integrated Enterprises (OTIE)
(312)220-7005 office
(312) 217-7003cell
(312)220-7004 fax
www.otie.com<http://www.otie.com/>
From: trackingupdates@fedex.com<mailto:trackingupdates@fedex.com>
[mailto:trackingupdates@fedex.com]
Sent: Tuesday, August 23, 2011 8:43 AM
To: Raghu Nagam
Subject: FedEx MPS Shipment 795104345056 Delivered

---

This tracking update has been requested by:
Name:

Raghu Nagam

E-mail:

<mailto:rnagam@otie.com>rnagam@otie.com<mailto:rnagam@otie.com>

---

Our records indicate that the following MPS shipment has been delivered:
Reference:

20101011012080100001

Ship (P/U) date:

Aug 22, 2011

Delivery date:

Aug 23, 2011 8:58 AM

Sign for by:

R.STALLONE

Delivery location:

TAMPA, FL

Service type:

FedEx Priority Overnight

Number of pieces:

3

Total shipment weight:

80.00 lb.

Special handling/Services:

Deliver Weekday

Master tracking number:

795104345056<https://www.fedex.com/insight/findit/nrp.jsp?tracknumbers=795104345056&opco=&language=en&clienttype=ivother> (1 of 3)

Delivered to:

Shipping/Receiving

Packaging type:

Your Packaging

Weight:

30.00 lb.

Special handling/Services:

Additional Handling Surcharge

Tracking number:

795104345115<https://www.fedex.com/insight/findit/nrp.jsp?tracknumbers=795104345115&opco=&language=en&clienttype=ivother> (2 of 3)

Delivered to:

Shipping/Receiving

Packaging type:

Your Packaging

Weight:

30.00 lb.

Tracking number:

795104345181<https://www.fedex.com/insight/findit/nrp.jsp?tracknumbers=795104345181&opco=&language=en&clienttype=ivother> (3 of 3)

Delivered to:

Shipping/Receiving

Packaging type:

Your Packaging

Weight:

20.00 lb.

Shipper Information

Raghu Nagam

100 W Monroe

Suite 300

Chicago

US

60603

Recipient Information

Attn: Mark - Lab

PEL

8405 BENJAMIN RD STE A

TAMPA

US

33634

Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 8:33 AM CDT on 08/23/2011.
To learn more about FedEx Express, please visit our website at <https://www.fedex.com> fedex.com<http://fedex.com>.

All weights are estimated.
To track the latest status of your shipment, click on the tracking number above, or visit us at <https://www.fedex.com> fedex.com<http://fedex.com>.
This tracking update has been sent to you by FedEx on the behalf of the Requestor noted above. FedEx does not validate the authenticity of the requestor and does not validate, guarantee or warrant the authenticity of the request, the requestor's message, or the accuracy of this tracking update. For tracking results and fedex.com<http://fedex.com>'s terms of use, go to <https://www.fedex.com> fedex.com<http://fedex.com>.

Thank you for your business.

## Mark Gudnason [Tampa]

**From:** Keely Meadows [KMeadows@otie.com]
**Sent:** Tuesday, August 23, 2011 11:58 AM
**To:** Mark Gudnason [Tampa]
**Cc:** Raghu Nagam; Naren Babu
**Subject:** Kokomo Dump

Mark,
For the Kokomo Dump site, please go ahead with the testing for sample KD-SB-1 16'-16.5'. I am aware that the 8-oz sample jar was received broken and loose inside the plastic bag. However, you may use the soil inside the plastic bag to run the analyses.

Please e-mail or call me with any questions.

Thanks,

**Keely Meadows**
*Chemical/Environmental Engineer*

**Oneida Total Integrated Enterprises (OTIE)**
1220 Kennestone Circle, Suite 106
Marietta, GA 30060
678.355.5550 office
678.778.7531 cell
770.528.0167 fax
www.otie.com

*Engineering, Science and Construction*

## Mark Gudnason [Tampa]

**From:** Naren Babu [NBabu@otie.com]
**Sent:** Wednesday, August 24, 2011 10:49 AM
**To:** Mark Gudnason [Tampa]
**Cc:** Keely Meadows; Raghu Nagam
**Subject:** Re: Kokomo Dump / 2010101 / 1012: LOA3503862

Mark

Please include TCLP 8260 analysis for the following samples. TCLP analysis originally written in the COC was wrongly struck off.

KD-SB-1 16'-16.5'
KD-SB-2 11'-12'
KD-SB-6 3'-4'
KD-SB-9 3'-4'
KD-DISP-Solid-01

Thanks
Naren

On Aug 23, 2011, at 4:35 PM, "Mark Gudnason [Tampa]" <mgudnason@pelab.com> wrote:

> <<LOA3503862.pdf>>
>
> Good afternoon.
>
> Please review the attached LOA (Letter of Acceptance) for accuracy and
> let me know of any changes prior to reporting.
>
> Please note:
> None of the samples are marked for TCLP 8260.
> Sample 01= one 8oz jar received broken in transit and instructed to
> analyze Sample -14 and -15 were crossed off on the COC but containers
> were received for total 8260 and will be rum
>
> Please confirm this to be correct.
>
> Thank you,
> Mark
>
>
>
>
> The message is ready to be sent with the following file or link
> attachments:
>
> LOA3503862
>
>
> Note: To protect against computer viruses, e-mail programs may prevent
> sending or receiving certain types of file attachments. Check your
> e-mail security settings to determine how attachments are handled.
> <COC3503862.pdf>
> <LOA3503862.pdf>

## Mark Gudnason [Tampa]

**From:** Mark Gudnason [Tampa]
**Sent:** Tuesday, August 30, 2011 10:31 AM
**To:** 'Keely Meadows'; 'Naren Babu'; Raghu Nagam
**Subject:** FW: 3503862 / OTIE / 6010

Good afternoon.
This will be in the case narrative for the referenced method.

1. **Calibration Blanks:**

All acceptance criteria were met. No action required. The following ICB/CCB(s) had element concentrations below the RL:
ICB1011254 was analyzed on 08/24/11 08:26. The following analyte(s) were detected below RL: Barium at 0.498 ug/L, Silver at 6.69 ug/L.
CCB1011259 was analyzed on 08/24/11 09:00. The following analyte(s) were detected below RL: Barium at 0.259 ug/L.
ICB1011408 was analyzed on 08/25/11 08:28. The following analyte(s) were detected below RL: Barium at 0.239 ug/L, Silver at 6.83 ug/L.
CCB1011723 was analyzed on 08/25/11 18:19. The following analyte(s) were detected below RL: Silver at -0.582 ug/L.
ICB1012235 was analyzed on 08/26/11 08:51. The following analyte(s) were detected below RL: Barium at 0.25 ug/L, Silver at 6.29 ug/L.
CCB1012288 was analyzed on 08/26/11 13:53. The following analyte(s) were detected below RL: Barium at 1.3 ug/L.
CCB1012298 was analyzed on 08/26/11 14:47. The following analyte(s) were detected below RL: Silver at 0.588 ug/L. The hits in the blanks are below the RL, therefore, no corrective action was taken.

2. **Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

A client requested MS/SD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met with the exception of:
MS - KD-SB-3 10ft-12ftMS was analyzed with the soil samples on 08/25/11. The following analyte(s) were recovered below criteria: Chromium at 66.5 % with criteria of (75-125) and the following analyte(s) were recovered above criteria: Arsenic at 138.2 % with criteria of (75-125).

SD - KD-SB-3 10ft-12ftSD was analyzed with the soil samples on 08/25/11.. The following analyte(s) exceeded RPD criteria: Arsenic at 28.4 % with criteria of (20). The most probable cause for the MS/MSD exceeding limits is sample matrix due to the samples requiring a dilution. The LCS/LCSD pass all quality control criteria. No further action was taken.
Samples coded accordingly.

**B. Serial Dilution:**

All acceptance criteria were met with the exception of:
Serial Dilution 350386207L was analyzed with the soil samples on 08/25/11. The following analyte(s) exceeded criteria: Cadmium at 20 % with criteria of (10). The most probable cause for the SD exceeding limits is sample matrix due to the samples requiring a dilution. The LCS/LCSD pass all quality control criteria. No further action was taken.

**C. Samples:**

Sample analysis proceeded normally.
Sample KD-DRUM-1 required a 25X dilution due to high concentration of the following analyte

(s): Barium.
Sample KD-DRUM-1 required a 5X dilution due to high concentration of the following analyte(s): Lead.
Sample KD-DRUM-2 required a 5X dilution due to high concentration of the following analyte(s): Cadmium, Chromium.
Sample KD-SB-1 16ft-16.5ft required a 2X dilution due to high concentration of the following analyte(s): Barium.
Sample KD-SB-2 11ft-12ft required a 20X dilution due to high concentration of the following analyte(s): Chromium.
Sample KD-SB-2 11ft-12ft required a 2X dilution due to high concentration of the following analyte(s): Lead.
Sample KD-SB-2 6ft-8ft required a 5X dilution due to high concentration of the following analyte(s): Barium, Lead.
Sample KD-SB-3 10ft-12ft required a 5X dilution due to high concentration of the following analyte(s): Barium, Lead.
Sample KD-SS-01 required a 10X dilution due to high concentration of the following analyte(s): Barium, Chromium.
Sample KD-SS-01 required a 50X dilution due to high concentration of the following analyte(s): Lead.

## Mark Gudnason [Tampa]

**From:** Mark Gudnason [Tampa]
**Sent:** Tuesday, August 30, 2011 6:22 PM
**To:** 'Keely Meadows'; 'Naren Babu'; Raghu Nagam
**Subject:** FW: 3503862 / OTIE Kokomo / 7471

Good afternoon.
This will be in the case narrative for the referenced method.

**1. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

A client requested MS/SD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met with the exception of:
MS - KD-SB-3 10ft-12ftMS was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Mercury at 207.8 % with criteria of (80-120).

SD - KD-SB-3 10ft-12ftSD was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Mercury at 192.8 % with criteria of (80-120). The most probable cause for the MS/MSD exceeding limits is sample matrix due to the fact that the LCS/LCSD pass all quality control criteria. No further action was taken.
Samples coded accordingly.

**B. Samples:**

Sample analysis proceeded normally.
Sample KD-SB-3 10ft-12ft required a 2X dilution due to high concentration of the following analyte(s): Mercury.

## Mark Gudnason [Tampa]

**From:** Mark Gudnason [Tampa]
**Sent:** Wednesday, August 31, 2011 12:46 PM
**To:** 'Keely Meadows'; 'Naren Babu'; Raghu Nagam
**Subject:** RE: 3503862 / OTIE / 6010_TCLP

Good afternoon.
This will be in the case narrative for the referenced method.

1. **Post Digestion Spike:**

   All acceptance criteria were met with the exception of:
   Post Digestion Spike 350386201A was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Barium at 131.3 % with criteria of (80-120). The most probable cause for the PDS exceeding limits is sample matrix due to the fact that the LCS/LCSD pass all quality control criteria. No further action was taken.

## Mark Gudnason [Tampa]

**From:** Mark Gudnason [Tampa]
**Sent:** Friday, September 02, 2011 4:20 PM
**To:** 'Keely Meadows'; 'Naren Babu'; Raghu Nagam
**Subject:** FW: 3503862-8082-Kokomo Dump

Good afternoon.
This will be in the case narrative for the referenced method.

**A. Samples:**

Data was collected using dual column analysis. Results reported from the primary column if the %D between the two columns is >40%, data is coded.

Sample analysis proceeded normally.
Sample KD-SB-6 3ft-4ft required a 10X dilution due to high concentration of the following analyte(s): Aroclor-1248 and Aroclor-1254.

Sample KD-SB-9 3ft-4ft required a 5X dilution due to high concentration of the following analyte: Aroclor-1248. Both full and diluted runs are reported.

**PCB 1016 and PCB 1260 were used as the spiking solution for all QC spikes.**

**1. Laboratory Control Spikes (LCS)**

All acceptance criteria were met with the exception of:
LCS 97052LCSD was analyzed with the water samples extracted on 08/24/11. All percent recovery criteria were met. The following analyte(s) exceeded RPD criteria: Aroclor-1016 at 21.1 % with criteria of (10). Since all percent recovery criteria were met, no further action was taken.

LCS 97265LCS was analyzed with the soil samples extracted on 08/25/11. The following analyte(s) had marginal exceedance limit failures: Aroclor-1016 at 124 % with criteria of (50.7-117.3). Since recovery was only slightly high, no further action was taken.

# End Of Report

080911 1742

1

## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

083011BLKA32

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 083011BLKA32 Lab File ID: BLK32.D

Sample wt/vol: 5 Units: ML Date Received: 08/30/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 08/30/11 Time: 1142

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 1 | U | 0.13 | 1 |
| 135-98-8 | sec-Butylbenzene | 1 | U | 0.1 | 1 |
| 541-73-1 | 1,3-Dichlorobenzene | 2 | U | 0.15 | 2 |
| 106-46-7 | 1,4-Dichlorobenzene | 3 | U | 0.15 | 3 |
| 99-87-6 | 4-Isopropyltoluene | 1 | U | 0.14 | 1 |
| 104-51-8 | n-Butylbenzene | 1 | U | 0.16 | 1 |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | U | 0.25 | 1 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 2 | U | 1 | 2 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1 | U | 0.4 | 1 |
| 87-68-3 | Hexachlorobutadiene | 0.5 | U | 0.36 | 0.5 |
| 91-20-3 | Naphthalene | 5 | U | 0.5 | 5 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 2 | U | 0.16 | 2 |
| 1634-04-4 | Methyl tert-butyl ether | 1 | U | 0.5 | 1 |

1

## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

090211BLK62

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 090211BLK62 Lab File ID: BLK62.D

Sample wt/vol: 5 Units: ML Date Received: 09/02/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1049

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-71-8 | Dichlorodifluoromethane | 1 | U | 0.17 | 1 |
| 74-87-3 | Chloromethane | 1 | U | 0.32 | 1 |
| 75-01-4 | Vinyl chloride | 1 | U | 0.18 | 1 |
| 74-83-9 | Bromomethane | 1 | U | 0.43 | 1 |
| 75-00-3 | Chloroethane | 1 | U | 0.72 | 1 |
| 75-69-4 | Trichlorofluoromethane | 1 | U | 0.4 | 1 |
| 75-35-4 | 1,1-Dichloroethene | 0.5 | U | 0.19 | 0.5 |
| 74-88-4 | Methyl iodide | 1 | U | 0.74 | 1 |
| 75-15-0 | Carbon disulfide | 1 | U | 0.19 | 1 |
| 75-09-2 | Methylene chloride | 5 | U | 0.66 | 5 |
| 156-60-5 | trans-1,2-Dichloroethene | 0.5 | U | 0.33 | 0.5 |
| 75-34-3 | 1,1-Dichloroethane | 1 | U | 0.15 | 1 |
| 67-64-1 | Acetone | 2.1 | J | 1.3 | 10 |
| 594-20-7 | 2,2-Dichloropropane | 1 | U | 0.6 | 1 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.5 | U | 0.19 | 0.5 |
| 74-97-5 | Bromochloromethane | 1 | U | 0.17 | 1 |
| 78-93-3 | 2-Butanone | 4 | U | 2 | 4 |
| 67-66-3 | Chloroform | 0.5 | U | 0.16 | 0.5 |
| 71-55-6 | 1,1,1-Trichloroethane | 1 | U | 0.14 | 1 |
| 56-23-5 | Carbon tetrachloride | 0.5 | U | 0.14 | 0.5 |
| 563-58-6 | 1,1-Dichloropropene | 1 | U | 0.3 | 1 |
| 71-43-2 | Benzene | 0.5 | U | 0.17 | 0.5 |
| 107-06-2 | 1,2-Dichloroethane | 0.5 | U | 0.15 | 0.5 |
| 79-01-6 | Trichloroethene | 0.5 | U | 0.19 | 0.5 |
| 108-05-4 | Vinyl acetate | 1 | U | 0.18 | 1 |
| 78-87-5 | 1,2-Dichloropropane | 1 | U | 0.15 | 1 |
| 74-95-3 | Dibromomethane | 1 | U | 0.4 | 1 |

1

## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

090211BLK62

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 090211BLK62 Lab File ID: BLK62.D

Sample wt/vol: 5 Units: ML Date Received: 09/02/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1049

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-27-4 | Bromodichloromethane | 0.5 | U | 0.15 | 0.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | U | 0.4 | 1 |
| 108-10-1 | 4-Methyl-2-pentanone | 4 | U | 1 | 4 |
| 108-88-3 | Toluene | 1 | U | 0.14 | 1 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | U | 0.3 | 1 |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | U | 0.2 | 1 |
| 127-18-4 | Tetrachloroethene | 0.5 | U | 0.21 | 0.5 |
| 142-28-9 | 1,3-Dichloropropane | 0.4 | U | 0.3 | 0.4 |
| 591-78-6 | 2-Hexanone | 4 | U | 0.48 | 4 |
| 124-48-1 | Dibromochloromethane | 0.2 | U | 0.13 | 0.2 |
| 106-93-4 | 1,2-Dibromoethane | 1 | U | 0.11 | 1 |
| 108-90-7 | Chlorobenzene | 0.5 | U | 0.16 | 0.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 0.5 | U | 0.14 | 0.5 |
| 100-41-4 | Ethylbenzene | 0.5 | U | 0.22 | 0.5 |
| 179601-23-1 | m,p-Xylene | 0.4 | U | 0.23 | 0.4 |
| 95-47-6 | o-Xylene | 0.5 | U | 0.5 | 0.5 |
| 100-42-5 | Styrene | 1 | U | 0.12 | 1 |
| 75-25-2 | Bromoform | 1 | U | 0.19 | 1 |
| 98-82-8 | Isopropylbenzene | 0.5 | U | 0.14 | 0.5 |
| 108-86-1 | Bromobenzene | 1 | U | 0.21 | 1 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1 | U | 0.13 | 1 |
| 96-18-4 | 1,2,3-Trichloropropane | 1 | U | 0.35 | 1 |
| 103-65-1 | n-Propylbenzene | 1 | U | 0.14 | 1 |
| 95-49-8 | 2-Chlorotoluene | 1 | U | 0.25 | 1 |
| 106-43-4 | 4-Chlorotoluene | 1 | U | 0.15 | 1 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1 | U | 0.14 | 1 |
| 98-06-6 | tert-Butylbenzene | 1 | U | 0.2 | 1 |

1

## VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

090211BLK62

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 090211BLK62 Lab File ID: BLK62.D

Sample wt/vol: 5 Units: ML Date Received: 09/02/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1049

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 95-63-6 | 1,2,4-Trimethylbenzene | 1 | U | 0.13 | 1 |
| 135-98-8 | sec-Butylbenzene | 1 | U | 0.1 | 1 |
| 541-73-1 | 1,3-Dichlorobenzene | 2 | U | 0.15 | 2 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.16 | J | 0.15 | 3 |
| 99-87-6 | 4-Isopropyltoluene | 1 | U | 0.14 | 1 |
| 104-51-8 | n-Butylbenzene | 1 | U | 0.16 | 1 |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | U | 0.25 | 1 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 2 | U | 1 | 2 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1 | U | 0.4 | 1 |
| 87-68-3 | Hexachlorobutadiene | 0.5 | U | 0.36 | 0.5 |
| 91-20-3 | Naphthalene | 5 | U | 0.5 | 5 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 2 | U | 0.16 | 2 |
| 1634-04-4 | Methyl tert-butyl ether | 1 | U | 0.5 | 1 |

2A

WATER VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): DB-624 ID: 0.18 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 083011BLKA32 | 93.6 | 102.0 | 113.0 | 115.0 | | | 0 |
| 083011LCSA31 | 91.4 | 97.8 | 115.0 | 113.0 | | | 0 |
| 083011LCSA31D | 96.0 | 99.2 | 114.0 | 117.0 | | | 0 |
| 090211BLK62 | 107.0 | 109.0 | 110.0 | 110.0 | | | 0 |
| 090211LCS61 | 101.0 | 104.0 | 106.0 | 104.0 | | | 0 |
| 090211LCS61D | 107.0 | 108.0 | 108.0 | 109.0 | | | 0 |
| KD-IDW-WATER-01 | 103.0 | 104.0 | 109.0 | 107.0 | | | 0 |
| TRIP-1 | 93.0 | 99.8 | 113.0 | 106.0 | | | 0 |

**Control Limits**

| | | | | |
|---|---|---|---|---|
| S1 | = | Dibromofluoromethane | 83 - | 128 |
| S2 | = | Toluene-d8 | 89 - | 121 |
| S3 | = | 4-Bromofluorobenzene | 85 - | 115 |
| S4 | = | 1,2-Dichloroethane-d4 | 89 - | 123 |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

080911 1740

2A

SOIL VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): DB-624 ID: 0.18 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 082511BLK22 | 93.2 | 92.4 | 92.0 | 97.6 | | | 0 |
| 082511LCS22 | 96.4 | 104.0 | 92.2 | 98.0 | | | 0 |
| 082511LCS22D | 87.2 | 90.4 | 86.0 | 88.6 | | | 0 |
| 082511LCS63 | 112.0 | 111.0 | 105.0 | 116.0 | | | 0 |
| 082511LCS63D | 109.0 | 108.0 | 99.4 | 113.0 | | | 0 |
| 082511MBLK62 | 113.0 | 110.0 | 103.0 | 113.0 | | | 0 |
| 082611BLK22 | 106.0 | 103.0 | 97.6 | 114.0 | | | 0 |
| 082611LCS21 | 103.0 | 109.0 | 99.6 | 108.0 | | | 0 |
| 082611LCS21D | 102.0 | 107.0 | 96.8 | 108.0 | | | 0 |
| KD-SB-1 16ft-16.5ft | 107.0 | 103.0 | 98.4 | 113.0 | | | 0 |
| KD-SB-2 11ft-12ft | 94.2 | 80.0 | 70.2 | 99.0 | | | 0 |
| KD-SB-2 11ft-12ftDL1 | 92.0 | 78.0 | 82.0 | 102.0 | | | 0 |
| KD-SB-6 3ft-4ft | 102.0 | 100.0 | 122.0 | 105.0 | | | 0 |
| KD-SB-9 3ft-4ft | 91.2 | 84.2 | 88.4 | 94.4 | | | 0 |

**Control Limits**

| | | | |
|---|---|---|---|
| S1 | = | Dibromofluoromethane | 68 - 119 |
| S2 | = | Toluene-d8 | 59 - 127 |
| S3 | = | 4-Bromofluorobenzene | 54 - 126 |
| S4 | = | 1,2-Dichloroethane-d4 | 71 - 124 |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

080911 1740

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS22

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 29 | 145.0 | | 30.0 | 42 - 158 |
| Chloromethane | 20 | 22.1 | 110.0 | | 30.0 | 61 - 135 |
| Vinyl chloride | 20 | 23.4 | 117.0 | | 30.0 | 64 - 126 |
| Bromomethane | 20 | 21.6 | 108.0 | | 30.0 | 47 - 143 |
| Chloroethane | 20 | 23.1 | 116.0 | | 30.0 | 27 - 170 |
| Trichlorofluoromethane | 20 | 24.4 | 122.0 | | 30.0 | 66 - 128 |
| 1,1-Dichloroethene | 20 | 20.5 | 102.0 | | 30.0 | 72 - 130 |
| Methyl iodide | 20 | 19.1 | 95.5 | | 30.0 | 38 - 157 |
| Carbon disulfide | 20 | 20.8 | 104.0 | | 30.0 | 70 - 140 |
| Methylene chloride | 20 | 18.8 | 94.0 | | 30.0 | 78 - 122 |
| trans-1,2-Dichloroethene | 20 | 21.3 | 106.0 | | 30.0 | 74 - 126 |
| 1,1-Dichloroethane | 20 | 20.5 | 102.0 | | 30.0 | 79 - 124 |
| Acetone | 40 | 46.7 | 117.0 | | 30.0 | 64 - 158 |
| 2,2-Dichloropropane | 20 | 19 | 95.0 | | 30.0 | 75 - 129 |
| cis-1,2-Dichloroethene | 20 | 20.7 | 104.0 | | 30.0 | 79 - 131 |
| Bromochloromethane | 20 | 20 | 100.0 | | 30.0 | 70 - 130 |
| 2-Butanone | 40 | 31.1 | 77.8 | | 30.0 | 68 - 158 |
| Chloroform | 20 | 20.5 | 102.0 | | 30.0 | 76 - 124 |
| 1,1,1-Trichloroethane | 20 | 19.7 | 98.5 | | 30.0 | 71 - 129 |
| Carbon tetrachloride | 20 | 20 | 100.0 | | 30.0 | 73 - 121 |
| 1,1-Dichloropropene | 20 | 21.6 | 108.0 | | 30.0 | 71 - 128 |
| Benzene | 20 | 20.7 | 104.0 | | 30.0 | 78 - 127 |
| 1,2-Dichloroethane | 20 | 20.8 | 104.0 | | 30.0 | 80 - 122 |
| Trichloroethene | 20 | 21.5 | 108.0 | | 30.0 | 79 - 130 |
| Vinyl acetate | 20 | 19.8 | 99.0 | | 30.0 | 70 - 130 |
| 1,2-Dichloropropane | 20 | 21.2 | 106.0 | | 30.0 | 82 - 124 |
| Dibromomethane | 20 | 19.2 | 96.0 | | 30.0 | 83 - 127 |
| Bromodichloromethane | 20 | 20.6 | 103.0 | | 30.0 | 78 - 120 |
| cis-1,3-Dichloropropene | 20 | 20.9 | 104.0 | | 30.0 | 80 - 129 |
| 4-Methyl-2-pentanone | 40 | 33.7 | 84.2 | | 30.0 | 83 - 119 |
| Toluene | 20 | 19.7 | 98.5 | | 30.0 | 77 - 132 |
| trans-1,3-Dichloropropene | 20 | 20.4 | 102.0 | | 30.0 | 76 - 118 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS22

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 19.8 | 99.0 | | 30.0 | 70 - 130 |
| Tetrachloroethene | 20 | 19.3 | 96.5 | | 30.0 | 75 - 126 |
| 1,3-Dichloropropane | 20 | 18.1 | 90.5 | | 30.0 | 83 - 117 |
| 2-Hexanone | 40 | 30.6 | 76.5 | | 30.0 | 74 - 136 |
| Dibromochloromethane | 20 | 17.4 | 87.0 | | 30.0 | 76 - 116 |
| 1,2-Dibromoethane | 20 | 18.4 | 92.0 | | 30.0 | 78 - 123 |
| Chlorobenzene | 20 | 18 | 90.0 | | 30.0 | 82 - 115 |
| 1,1,1,2-Tetrachloroethane | 20 | 17.3 | 86.5 | | 30.0 | 77 - 118 |
| Ethylbenzene | 20 | 18.7 | 93.5 | | 30.0 | 80 - 119 |
| m,p-Xylene | 40 | 35.8 | 89.5 | | 30.0 | 78 - 125 |
| o-Xylene | 20 | 18.5 | 92.5 | | 30.0 | 77 - 120 |
| Styrene | 20 | 18.4 | 92.0 | | 30.0 | 76 - 129 |
| Bromoform | 20 | 17.5 | 87.5 | | 30.0 | 66 - 124 |
| Isopropylbenzene | 20 | 19.4 | 97.0 | | 30.0 | 74 - 125 |
| Bromobenzene | 20 | 18.6 | 93.0 | | 30.0 | 81 - 114 |
| 1,1,2,2-Tetrachloroethane | 20 | 18.5 | 92.5 | | 30.0 | 79 - 120 |
| 1,2,3-Trichloropropane | 20 | 18.3 | 91.5 | | 30.0 | 81 - 122 |
| n-Propylbenzene | 20 | 19.1 | 95.5 | | 30.0 | 70 - 129 |
| 2-Chlorotoluene | 20 | 18.8 | 94.0 | | 30.0 | 73 - 121 |
| 4-Chlorotoluene | 20 | 18.8 | 94.0 | | 30.0 | 80 - 115 |
| 1,3,5-Trimethylbenzene | 20 | 18.9 | 94.5 | | 30.0 | 76 - 125 |
| tert-Butylbenzene | 20 | 19 | 95.0 | | 30.0 | 72 - 126 |
| 1,2,4-Trimethylbenzene | 20 | 18.7 | 93.5 | | 30.0 | 77 - 123 |
| sec-Butylbenzene | 20 | 19.1 | 95.5 | | 30.0 | 74 - 130 |
| 1,3-Dichlorobenzene | 20 | 18.7 | 93.5 | | 30.0 | 82 - 119 |
| 1,4-Dichlorobenzene | 20 | 18.7 | 93.5 | | 30.0 | 83 - 121 |
| 4-Isopropyltoluene | 20 | 19 | 95.0 | | 30.0 | 76 - 133 |
| n-Butylbenzene | 20 | 19 | 95.0 | | 30.0 | 72 - 129 |
| 1,2-Dichlorobenzene | 20 | 18 | 90.0 | | 30.0 | 83 - 116 |
| 1,2-Dibromo-3-chloropropane | 20 | 15.4 | 77.0 | | 30.0 | 64 - 131 |
| 1,2,4-Trichlorobenzene | 20 | 17.4 | 87.0 | | 30.0 | 85 - 125 |
| Hexachlorobutadiene | 20 | 18.6 | 93.0 | | 30.0 | 78 - 130 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS22

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 16.4 | 82.0 | | 30.0 | 82 - 136 |
| 1,2,3-Trichlorobenzene | 20 | 17.5 | 87.5 | | 30.0 | 79 - 130 |
| Methyl tert-butyl ether | 20 | 18.4 | 92.0 | | 30.0 | 77 - 139 |

Spike Recovery: 0 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS22D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 23.4 | 117.0 | 21.4 | 30.0 | 42 - 158 |
| Chloromethane | 20 | 20 | 100.0 | 10.0 | 30.0 | 61 - 135 |
| Vinyl chloride | 20 | 20.3 | 102.0 | 14.2 | 30.0 | 64 - 126 |
| Bromomethane | 20 | 21.3 | 106.0 | 1.4 | 30.0 | 47 - 143 |
| Chloroethane | 20 | 19.4 | 97.0 | 17.4 | 30.0 | 27 - 170 |
| Trichlorofluoromethane | 20 | 21.8 | 109.0 | 11.3 | 30.0 | 66 - 128 |
| 1,1-Dichloroethene | 20 | 18.8 | 94.0 | 8.7 | 30.0 | 72 - 130 |
| Methyl iodide | 20 | 18.6 | 93.0 | 2.7 | 30.0 | 38 - 157 |
| Carbon disulfide | 20 | 17 | 85.0 | 20.1 | 30.0 | 70 - 140 |
| Methylene chloride | 20 | 16.8 | 84.0 | 11.2 | 30.0 | 78 - 122 |
| trans-1,2-Dichloroethene | 20 | 18.1 | 90.5 | 16.2 | 30.0 | 74 - 126 |
| 1,1-Dichloroethane | 20 | 18.4 | 92.0 | 10.8 | 30.0 | 79 - 124 |
| Acetone | 40 | 42.9 | 107.0 | 8.5 | 30.0 | 64 - 158 |
| 2,2-Dichloropropane | 20 | 18.8 | 94.0 | 1.1 | 30.0 | 75 - 129 |
| cis-1,2-Dichloroethene | 20 | 18.3 | 91.5 | 12.3 | 30.0 | 79 - 131 |
| Bromochloromethane | 20 | 19.5 | 97.5 | 2.5 | 30.0 | 70 - 130 |
| 2-Butanone | 40 | 33.3 | 83.2 | 6.8 | 30.0 | 68 - 158 |
| Chloroform | 20 | 18 | 90.0 | 13.0 | 30.0 | 76 - 124 |
| 1,1,1-Trichloroethane | 20 | 18.5 | 92.5 | 6.3 | 30.0 | 71 - 129 |
| Carbon tetrachloride | 20 | 18.7 | 93.5 | 6.7 | 30.0 | 73 - 121 |
| 1,1-Dichloropropene | 20 | 19.3 | 96.5 | 11.2 | 30.0 | 71 - 128 |
| Benzene | 20 | 17.9 | 89.5 | 14.5 | 30.0 | 78 - 127 |
| 1,2-Dichloroethane | 20 | 18.8 | 94.0 | 10.1 | 30.0 | 80 - 122 |
| Trichloroethene | 20 | 19 | 95.0 | 12.3 | 30.0 | 79 - 130 |
| Vinyl acetate | 20 | 19.3 | 96.5 | 2.6 | 30.0 | 70 - 130 |
| 1,2-Dichloropropane | 20 | 18.8 | 94.0 | 12.0 | 30.0 | 82 - 124 |
| Dibromomethane | 20 | 19.5 | 97.5 | 1.6 | 30.0 | 83 - 127 |
| Bromodichloromethane | 20 | 18.1 | 90.5 | 12.9 | 30.0 | 78 - 120 |
| cis-1,3-Dichloropropene | 20 | 19 | 95.0 | 9.5 | 30.0 | 80 - 129 |
| 4-Methyl-2-pentanone | 40 | 37.7 | 94.2 | 11.2 | 30.0 | 83 - 119 |
| Toluene | 20 | 17.4 | 87.0 | 12.4 | 30.0 | 77 - 132 |
| trans-1,3-Dichloropropene | 20 | 19.5 | 97.5 | 4.5 | 30.0 | 76 - 118 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS22D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 19.4 | 97.0 | 2.0 | 30.0 | 70 - 130 |
| Tetrachloroethene | 20 | 16.6 | 83.0 | 15.0 | 30.0 | 75 - 126 |
| 1,3-Dichloropropane | 20 | 17.1 | 85.5 | 5.7 | 30.0 | 83 - 117 |
| 2-Hexanone | 40 | 33.5 | 83.8 | 9.0 | 30.0 | 74 - 136 |
| Dibromochloromethane | 20 | 16.8 | 84.0 | 3.5 | 30.0 | 76 - 116 |
| 1,2-Dibromoethane | 20 | 16.7 | 83.5 | 9.7 | 30.0 | 78 - 123 |
| Chlorobenzene | 20 | 16.8 | 84.0 | 6.9 | 30.0 | 82 - 115 |
| 1,1,1,2-Tetrachloroethane | 20 | 15.7 | 78.5 | 9.7 | 30.0 | 77 - 118 |
| Ethylbenzene | 20 | 15.5 | 77.5 * | 18.7 | 30.0 | 80 - 119 |
| m,p-Xylene | 40 | 31.6 | 79.0 | 12.5 | 30.0 | 78 - 125 |
| o-Xylene | 20 | 16.3 | 81.5 | 12.6 | 30.0 | 77 - 120 |
| Styrene | 20 | 16.3 | 81.5 | 12.1 | 30.0 | 76 - 129 |
| Bromoform | 20 | 17 | 85.0 | 2.9 | 30.0 | 66 - 124 |
| Isopropylbenzene | 20 | 17.2 | 86.0 | 12.0 | 30.0 | 74 - 125 |
| Bromobenzene | 20 | 17.1 | 85.5 | 8.4 | 30.0 | 81 - 114 |
| 1,1,2,2-Tetrachloroethane | 20 | 19.3 | 96.5 | 4.2 | 30.0 | 79 - 120 |
| 1,2,3-Trichloropropane | 20 | 18.3 | 91.5 | 0.0 | 30.0 | 81 - 122 |
| n-Propylbenzene | 20 | 17.4 | 87.0 | 9.3 | 30.0 | 70 - 129 |
| 2-Chlorotoluene | 20 | 16.9 | 84.5 | 10.6 | 30.0 | 73 - 121 |
| 4-Chlorotoluene | 20 | 17.2 | 86.0 | 8.9 | 30.0 | 80 - 115 |
| 1,3,5-Trimethylbenzene | 20 | 17.1 | 85.5 | 10.0 | 30.0 | 76 - 125 |
| tert-Butylbenzene | 20 | 17.6 | 88.0 | 7.7 | 30.0 | 72 - 126 |
| 1,2,4-Trimethylbenzene | 20 | 17.5 | 87.5 | 6.6 | 30.0 | 77 - 123 |
| sec-Butylbenzene | 20 | 17.6 | 88.0 | 8.2 | 30.0 | 74 - 130 |
| 1,3-Dichlorobenzene | 20 | 18.2 | 91.0 | 2.7 | 30.0 | 82 - 119 |
| 1,4-Dichlorobenzene | 20 | 17.8 | 89.0 | 4.9 | 30.0 | 83 - 121 |
| 4-Isopropyltoluene | 20 | 17.7 | 88.5 | 7.1 | 30.0 | 76 - 133 |
| n-Butylbenzene | 20 | 17.3 | 86.5 | 9.4 | 30.0 | 72 - 129 |
| 1,2-Dichlorobenzene | 20 | 18.1 | 90.5 | 0.6 | 30.0 | 83 - 116 |
| 1,2-Dibromo-3-chloropropane | 20 | 17.8 | 89.0 | 14.5 | 30.0 | 64 - 131 |
| 1,2,4-Trichlorobenzene | 20 | 17 | 85.0 | 2.3 | 30.0 | 85 - 125 |
| Hexachlorobutadiene | 20 | 18.3 | 91.5 | 1.6 | 30.0 | 78 - 130 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS22D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 18.3 | 91.5 | 11.0 | 30.0 | 82 - 136 |
| 1,2,3-Trichlorobenzene | 20 | 17.2 | 86.0 | 1.7 | 30.0 | 79 - 130 |
| Methyl tert-butyl ether | 20 | 20 | 100.0 | 8.3 | 30.0 | 77 - 139 |

Spike Recovery: 1 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS63

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 1000 | 733 | 73.3 | | 30.0 | 42 - 158 |
| Chloromethane | 1000 | 809 | 80.9 | | 30.0 | 61 - 135 |
| Vinyl chloride | 1000 | 861 | 86.1 | | 30.0 | 64 - 126 |
| Bromomethane | 1000 | 1140 | 114.0 | | 30.0 | 47 - 143 |
| Chloroethane | 1000 | 917 | 91.7 | | 30.0 | 27 - 170 |
| Trichlorofluoromethane | 1000 | 1070 | 107.0 | | 30.0 | 66 - 128 |
| 1,1-Dichloroethene | 1000 | 1120 | 112.0 | | 30.0 | 72 - 130 |
| Methyl iodide | 1000 | 1120 | 112.0 | | 30.0 | 38 - 157 |
| Carbon disulfide | 1000 | 983 | 98.3 | | 30.0 | 70 - 140 |
| Methylene chloride | 1000 | 1020 | 102.0 | | 30.0 | 78 - 122 |
| trans-1,2-Dichloroethene | 1000 | 1070 | 107.0 | | 30.0 | 74 - 126 |
| 1,1-Dichloroethane | 1000 | 1100 | 110.0 | | 30.0 | 79 - 124 |
| Acetone | 2000 | 1910 | 95.5 | | 30.0 | 64 - 158 |
| 2,2-Dichloropropane | 1000 | 1030 | 103.0 | | 30.0 | 75 - 129 |
| cis-1,2-Dichloroethene | 1000 | 1090 | 109.0 | | 30.0 | 79 - 131 |
| Bromochloromethane | 1000 | 1060 | 106.0 | | 30.0 | 70 - 130 |
| 2-Butanone | 2000 | 1920 | 96.0 | | 30.0 | 68 - 158 |
| Chloroform | 1000 | 1090 | 109.0 | | 30.0 | 76 - 124 |
| 1,1,1-Trichloroethane | 1000 | 1200 | 120.0 | | 30.0 | 71 - 129 |
| Carbon tetrachloride | 1000 | 1080 | 108.0 | | 30.0 | 73 - 121 |
| 1,1-Dichloropropene | 1000 | 1130 | 113.0 | | 30.0 | 71 - 128 |
| Benzene | 1000 | 1010 | 101.0 | | 30.0 | 78 - 127 |
| 1,2-Dichloroethane | 1000 | 1140 | 114.0 | | 30.0 | 80 - 122 |
| Trichloroethene | 1000 | 1050 | 105.0 | | 30.0 | 79 - 130 |
| Vinyl acetate | 1000 | 1380 | 138.0 * | | 30.0 | 70 - 130 |
| 1,2-Dichloropropane | 1000 | 1020 | 102.0 | | 30.0 | 82 - 124 |
| Dibromomethane | 1000 | 1030 | 103.0 | | 30.0 | 83 - 127 |
| Bromodichloromethane | 1000 | 1060 | 106.0 | | 30.0 | 78 - 120 |
| cis-1,3-Dichloropropene | 1000 | 995 | 99.5 | | 30.0 | 80 - 129 |
| 4-Methyl-2-pentanone | 2000 | 2040 | 102.0 | | 30.0 | 83 - 119 |
| Toluene | 1000 | 1110 | 111.0 | | 30.0 | 77 - 132 |
| trans-1,3-Dichloropropene | 1000 | 1040 | 104.0 | | 30.0 | 76 - 118 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS63

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 1000 | 1080 | 108.0 | | 30.0 | 70 - 130 |
| Tetrachloroethene | 1000 | 1070 | 107.0 | | 30.0 | 75 - 126 |
| 1,3-Dichloropropane | 1000 | 1010 | 101.0 | | 30.0 | 83 - 117 |
| 2-Hexanone | 2000 | 1860 | 93.0 | | 30.0 | 74 - 136 |
| Dibromochloromethane | 1000 | 1010 | 101.0 | | 30.0 | 76 - 116 |
| 1,2-Dibromoethane | 1000 | 998 | 99.8 | | 30.0 | 78 - 123 |
| Chlorobenzene | 1000 | 1030 | 103.0 | | 30.0 | 82 - 115 |
| 1,1,1,2-Tetrachloroethane | 1000 | 1080 | 108.0 | | 30.0 | 77 - 118 |
| Ethylbenzene | 1000 | 1060 | 106.0 | | 30.0 | 80 - 119 |
| m,p-Xylene | 2000 | 2160 | 108.0 | | 30.0 | 78 - 125 |
| o-Xylene | 1000 | 1130 | 113.0 | | 30.0 | 77 - 120 |
| Styrene | 1000 | 1100 | 110.0 | | 30.0 | 76 - 129 |
| Bromoform | 1000 | 1070 | 107.0 | | 30.0 | 66 - 124 |
| Isopropylbenzene | 1000 | 1090 | 109.0 | | 30.0 | 74 - 125 |
| Bromobenzene | 1000 | 972 | 97.2 | | 30.0 | 81 - 114 |
| 1,1,2,2-Tetrachloroethane | 1000 | 958 | 95.8 | | 30.0 | 79 - 120 |
| 1,2,3-Trichloropropane | 1000 | 1030 | 103.0 | | 30.0 | 81 - 122 |
| n-Propylbenzene | 1000 | 1080 | 108.0 | | 30.0 | 70 - 129 |
| 2-Chlorotoluene | 1000 | 1040 | 104.0 | | 30.0 | 73 - 121 |
| 4-Chlorotoluene | 1000 | 1080 | 108.0 | | 30.0 | 80 - 115 |
| 1,3,5-Trimethylbenzene | 1000 | 1090 | 109.0 | | 30.0 | 76 - 125 |
| tert-Butylbenzene | 1000 | 1100 | 110.0 | | 30.0 | 72 - 126 |
| 1,2,4-Trimethylbenzene | 1000 | 1090 | 109.0 | | 30.0 | 77 - 123 |
| sec-Butylbenzene | 1000 | 1080 | 108.0 | | 30.0 | 74 - 130 |
| 1,3-Dichlorobenzene | 1000 | 982 | 98.2 | | 30.0 | 82 - 119 |
| 1,4-Dichlorobenzene | 1000 | 950 | 95.0 | | 30.0 | 83 - 121 |
| 4-Isopropyltoluene | 1000 | 1110 | 111.0 | | 30.0 | 76 - 133 |
| n-Butylbenzene | 1000 | 1050 | 105.0 | | 30.0 | 72 - 129 |
| 1,2-Dichlorobenzene | 1000 | 1000 | 100.0 | | 30.0 | 83 - 116 |
| 1,2-Dibromo-3-chloropropane | 1000 | 1080 | 108.0 | | 30.0 | 64 - 131 |
| 1,2,4-Trichlorobenzene | 1000 | 1090 | 109.0 | | 30.0 | 85 - 125 |
| Hexachlorobutadiene | 1000 | 1090 | 109.0 | | 30.0 | 78 - 130 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS63

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 1000 | 1290 | 129.0 | | 30.0 | 82 - 136 |
| 1,2,3-Trichlorobenzene | 1000 | 1050 | 105.0 | | 30.0 | 79 - 130 |
| Methyl tert-butyl ether | 1000 | 1160 | 116.0 | | 30.0 | 77 - 139 |

Spike Recovery: 1 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS63D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 1000 | 705 | 70.5 | 3.9 | 30.0 | 42 - 158 |
| Chloromethane | 1000 | 784 | 78.4 | 3.1 | 30.0 | 61 - 135 |
| Vinyl chloride | 1000 | 828 | 82.8 | 3.9 | 30.0 | 64 - 126 |
| Bromomethane | 1000 | 1100 | 110.0 | 3.6 | 30.0 | 47 - 143 |
| Chloroethane | 1000 | 842 | 84.2 | 8.5 | 30.0 | 27 - 170 |
| Trichlorofluoromethane | 1000 | 1050 | 105.0 | 1.9 | 30.0 | 66 - 128 |
| 1,1-Dichloroethene | 1000 | 1070 | 107.0 | 4.6 | 30.0 | 72 - 130 |
| Methyl iodide | 1000 | 1220 | 122.0 | 8.5 | 30.0 | 38 - 157 |
| Carbon disulfide | 1000 | 956 | 95.6 | 2.8 | 30.0 | 70 - 140 |
| Methylene chloride | 1000 | 964 | 96.4 | 5.6 | 30.0 | 78 - 122 |
| trans-1,2-Dichloroethene | 1000 | 1040 | 104.0 | 2.8 | 30.0 | 74 - 126 |
| 1,1-Dichloroethane | 1000 | 1060 | 106.0 | 3.7 | 30.0 | 79 - 124 |
| Acetone | 2000 | 2190 | 110.0 | 13.7 | 30.0 | 64 - 158 |
| 2,2-Dichloropropane | 1000 | 979 | 97.9 | 5.1 | 30.0 | 75 - 129 |
| cis-1,2-Dichloroethene | 1000 | 1070 | 107.0 | 1.9 | 30.0 | 79 - 131 |
| Bromochloromethane | 1000 | 1000 | 100.0 | 5.8 | 30.0 | 70 - 130 |
| 2-Butanone | 2000 | 1990 | 99.5 | 3.6 | 30.0 | 68 - 158 |
| Chloroform | 1000 | 1060 | 106.0 | 2.8 | 30.0 | 76 - 124 |
| 1,1,1-Trichloroethane | 1000 | 1140 | 114.0 | 5.1 | 30.0 | 71 - 129 |
| Carbon tetrachloride | 1000 | 1020 | 102.0 | 5.7 | 30.0 | 73 - 121 |
| 1,1-Dichloropropene | 1000 | 1090 | 109.0 | 3.6 | 30.0 | 71 - 128 |
| Benzene | 1000 | 1010 | 101.0 | 0.0 | 30.0 | 78 - 127 |
| 1,2-Dichloroethane | 1000 | 1110 | 111.0 | 2.7 | 30.0 | 80 - 122 |
| Trichloroethene | 1000 | 1060 | 106.0 | 0.9 | 30.0 | 79 - 130 |
| Vinyl acetate | 1000 | 869 | 86.9 | 45.4* | 30.0 | 70 - 130 |
| 1,2-Dichloropropane | 1000 | 970 | 97.0 | 5.0 | 30.0 | 82 - 124 |
| Dibromomethane | 1000 | 1020 | 102.0 | 1.0 | 30.0 | 83 - 127 |
| Bromodichloromethane | 1000 | 1050 | 105.0 | 0.9 | 30.0 | 78 - 120 |
| cis-1,3-Dichloropropene | 1000 | 982 | 98.2 | 1.3 | 30.0 | 80 - 129 |
| 4-Methyl-2-pentanone | 2000 | 1920 | 96.0 | 6.1 | 30.0 | 83 - 119 |
| Toluene | 1000 | 1070 | 107.0 | 3.7 | 30.0 | 77 - 132 |
| trans-1,3-Dichloropropene | 1000 | 1000 | 100.0 | 3.9 | 30.0 | 76 - 118 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS63D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 1000 | 1050 | 105.0 | 2.8 | 30.0 | 70 - 130 |
| Tetrachloroethene | 1000 | 1020 | 102.0 | 4.8 | 30.0 | 75 - 126 |
| 1,3-Dichloropropane | 1000 | 1000 | 100.0 | 1.0 | 30.0 | 83 - 117 |
| 2-Hexanone | 2000 | 1900 | 95.0 | 2.1 | 30.0 | 74 - 136 |
| Dibromochloromethane | 1000 | 994 | 99.4 | 1.6 | 30.0 | 76 - 116 |
| 1,2-Dibromoethane | 1000 | 991 | 99.1 | 0.7 | 30.0 | 78 - 123 |
| Chlorobenzene | 1000 | 1010 | 101.0 | 2.0 | 30.0 | 82 - 115 |
| 1,1,1,2-Tetrachloroethane | 1000 | 1070 | 107.0 | 0.9 | 30.0 | 77 - 118 |
| Ethylbenzene | 1000 | 1050 | 105.0 | 0.9 | 30.0 | 80 - 119 |
| m,p-Xylene | 2000 | 2120 | 106.0 | 1.9 | 30.0 | 78 - 125 |
| o-Xylene | 1000 | 1100 | 110.0 | 2.7 | 30.0 | 77 - 120 |
| Styrene | 1000 | 1080 | 108.0 | 1.8 | 30.0 | 76 - 129 |
| Bromoform | 1000 | 1060 | 106.0 | 0.9 | 30.0 | 66 - 124 |
| Isopropylbenzene | 1000 | 1040 | 104.0 | 4.7 | 30.0 | 74 - 125 |
| Bromobenzene | 1000 | 949 | 94.9 | 2.4 | 30.0 | 81 - 114 |
| 1,1,2,2-Tetrachloroethane | 1000 | 890 | 89.0 | 7.4 | 30.0 | 79 - 120 |
| 1,2,3-Trichloropropane | 1000 | 961 | 96.1 | 6.9 | 30.0 | 81 - 122 |
| n-Propylbenzene | 1000 | 1020 | 102.0 | 5.7 | 30.0 | 70 - 129 |
| 2-Chlorotoluene | 1000 | 979 | 97.9 | 6.0 | 30.0 | 73 - 121 |
| 4-Chlorotoluene | 1000 | 1020 | 102.0 | 5.7 | 30.0 | 80 - 115 |
| 1,3,5-Trimethylbenzene | 1000 | 1040 | 104.0 | 4.7 | 30.0 | 76 - 125 |
| tert-Butylbenzene | 1000 | 1040 | 104.0 | 5.6 | 30.0 | 72 - 126 |
| 1,2,4-Trimethylbenzene | 1000 | 1040 | 104.0 | 4.7 | 30.0 | 77 - 123 |
| sec-Butylbenzene | 1000 | 1000 | 100.0 | 7.7 | 30.0 | 74 - 130 |
| 1,3-Dichlorobenzene | 1000 | 930 | 93.0 | 5.4 | 30.0 | 82 - 119 |
| 1,4-Dichlorobenzene | 1000 | 918 | 91.8 | 3.4 | 30.0 | 83 - 121 |
| 4-Isopropyltoluene | 1000 | 1020 | 102.0 | 8.5 | 30.0 | 76 - 133 |
| n-Butylbenzene | 1000 | 963 | 96.3 | 8.6 | 30.0 | 72 - 129 |
| 1,2-Dichlorobenzene | 1000 | 943 | 94.3 | 5.9 | 30.0 | 83 - 116 |
| 1,2-Dibromo-3-chloropropane | 1000 | 906 | 90.6 | 17.5 | 30.0 | 64 - 131 |
| 1,2,4-Trichlorobenzene | 1000 | 959 | 95.9 | 12.8 | 30.0 | 85 - 125 |
| Hexachlorobutadiene | 1000 | 1020 | 102.0 | 6.6 | 30.0 | 78 - 130 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS63D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 1000 | 1080 | 108.0 | 17.7 | 30.0 | 82 - 136 |
| 1,2,3-Trichlorobenzene | 1000 | 902 | 90.2 | 15.2 | 30.0 | 79 - 130 |
| Methyl tert-butyl ether | 1000 | 1140 | 114.0 | 1.7 | 30.0 | 77 - 139 |

Spike Recovery: 0 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

082611LCS21

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 24 | 120.0 | | 30.0 | 42 - 158 |
| Chloromethane | 20 | 20.7 | 104.0 | | 30.0 | 61 - 135 |
| Vinyl chloride | 20 | 22.4 | 112.0 | | 30.0 | 64 - 126 |
| Bromomethane | 20 | 21.2 | 106.0 | | 30.0 | 47 - 143 |
| Chloroethane | 20 | 22.2 | 111.0 | | 30.0 | 27 - 170 |
| Trichlorofluoromethane | 20 | 22.8 | 114.0 | | 30.0 | 66 - 128 |
| 1,1-Dichloroethene | 20 | 20.4 | 102.0 | | 30.0 | 72 - 130 |
| Methyl iodide | 20 | 20.7 | 104.0 | | 30.0 | 38 - 157 |
| Carbon disulfide | 20 | 20.5 | 102.0 | | 30.0 | 70 - 140 |
| Methylene chloride | 20 | 20.2 | 101.0 | | 30.0 | 78 - 122 |
| trans-1,2-Dichloroethene | 20 | 20.8 | 104.0 | | 30.0 | 74 - 126 |
| 1,1-Dichloroethane | 20 | 22.2 | 111.0 | | 30.0 | 79 - 124 |
| Acetone | 40 | 62.3 | 156.0 | | 30.0 | 64 - 158 |
| 2,2-Dichloropropane | 20 | 20.4 | 102.0 | | 30.0 | 75 - 129 |
| cis-1,2-Dichloroethene | 20 | 21.6 | 108.0 | | 30.0 | 79 - 131 |
| Bromochloromethane | 20 | 22.1 | 110.0 | | 30.0 | 70 - 130 |
| 2-Butanone | 40 | 48 | 120.0 | | 30.0 | 68 - 158 |
| Chloroform | 20 | 21.2 | 106.0 | | 30.0 | 76 - 124 |
| 1,1,1-Trichloroethane | 20 | 21.7 | 108.0 | | 30.0 | 71 - 129 |
| Carbon tetrachloride | 20 | 20.7 | 104.0 | | 30.0 | 73 - 121 |
| 1,1-Dichloropropene | 20 | 22.4 | 112.0 | | 30.0 | 71 - 128 |
| Benzene | 20 | 20.6 | 103.0 | | 30.0 | 78 - 127 |
| 1,2-Dichloroethane | 20 | 21.5 | 108.0 | | 30.0 | 80 - 122 |
| Trichloroethene | 20 | 22.7 | 114.0 | | 30.0 | 79 - 130 |
| Vinyl acetate | 20 | 20.6 | 103.0 | | 30.0 | 70 - 130 |
| 1,2-Dichloropropane | 20 | 22.1 | 110.0 | | 30.0 | 82 - 124 |
| Dibromomethane | 20 | 21.4 | 107.0 | | 30.0 | 83 - 127 |
| Bromodichloromethane | 20 | 21.8 | 109.0 | | 30.0 | 78 - 120 |
| cis-1,3-Dichloropropene | 20 | 22.2 | 111.0 | | 30.0 | 80 - 129 |
| 4-Methyl-2-pentanone | 40 | 41.8 | 104.0 | | 30.0 | 83 - 119 |
| Toluene | 20 | 20.2 | 101.0 | | 30.0 | 77 - 132 |
| trans-1,3-Dichloropropene | 20 | 22.9 | 114.0 | | 30.0 | 76 - 118 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082611LCS21

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 22.3 | 112.0 | | 30.0 | 70 - 130 |
| Tetrachloroethene | 20 | 19 | 95.0 | | 30.0 | 75 - 126 |
| 1,3-Dichloropropane | 20 | 19.4 | 97.0 | | 30.0 | 83 - 117 |
| 2-Hexanone | 40 | 44.1 | 110.0 | | 30.0 | 74 - 136 |
| Dibromochloromethane | 20 | 19.5 | 97.5 | | 30.0 | 76 - 116 |
| 1,2-Dibromoethane | 20 | 19.5 | 97.5 | | 30.0 | 78 - 123 |
| Chlorobenzene | 20 | 18.7 | 93.5 | | 30.0 | 82 - 115 |
| 1,1,1,2-Tetrachloroethane | 20 | 17.6 | 88.0 | | 30.0 | 77 - 118 |
| Ethylbenzene | 20 | 18.7 | 93.5 | | 30.0 | 80 - 119 |
| m,p-Xylene | 40 | 37.3 | 93.2 | | 30.0 | 78 - 125 |
| o-Xylene | 20 | 19.2 | 96.0 | | 30.0 | 77 - 120 |
| Styrene | 20 | 18.6 | 93.0 | | 30.0 | 76 - 129 |
| Bromoform | 20 | 18.9 | 94.5 | | 30.0 | 66 - 124 |
| Isopropylbenzene | 20 | 19.6 | 98.0 | | 30.0 | 74 - 125 |
| Bromobenzene | 20 | 18.8 | 94.0 | | 30.0 | 81 - 114 |
| 1,1,2,2-Tetrachloroethane | 20 | 20.9 | 104.0 | | 30.0 | 79 - 120 |
| 1,2,3-Trichloropropane | 20 | 18.5 | 92.5 | | 30.0 | 81 - 122 |
| n-Propylbenzene | 20 | 19.7 | 98.5 | | 30.0 | 70 - 129 |
| 2-Chlorotoluene | 20 | 19.5 | 97.5 | | 30.0 | 73 - 121 |
| 4-Chlorotoluene | 20 | 19.1 | 95.5 | | 30.0 | 80 - 115 |
| 1,3,5-Trimethylbenzene | 20 | 19.7 | 98.5 | | 30.0 | 76 - 125 |
| tert-Butylbenzene | 20 | 19.3 | 96.5 | | 30.0 | 72 - 126 |
| 1,2,4-Trimethylbenzene | 20 | 19.5 | 97.5 | | 30.0 | 77 - 123 |
| sec-Butylbenzene | 20 | 19.4 | 97.0 | | 30.0 | 74 - 130 |
| 1,3-Dichlorobenzene | 20 | 19.2 | 96.0 | | 30.0 | 82 - 119 |
| 1,4-Dichlorobenzene | 20 | 19.3 | 96.5 | | 30.0 | 83 - 121 |
| 4-Isopropyltoluene | 20 | 19.6 | 98.0 | | 30.0 | 76 - 133 |
| n-Butylbenzene | 20 | 19.2 | 96.0 | | 30.0 | 72 - 129 |
| 1,2-Dichlorobenzene | 20 | 20.2 | 101.0 | | 30.0 | 83 - 116 |
| 1,2-Dibromo-3-chloropropane | 20 | 21.2 | 106.0 | | 30.0 | 64 - 131 |
| 1,2,4-Trichlorobenzene | 20 | 18.7 | 93.5 | | 30.0 | 85 - 125 |
| Hexachlorobutadiene | 20 | 19.4 | 97.0 | | 30.0 | 78 - 130 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082611LCS21

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 20.2 | 101.0 | | 30.0 | 82 - 136 |
| 1,2,3-Trichlorobenzene | 20 | 18.4 | 92.0 | | 30.0 | 79 - 130 |
| Methyl tert-butyl ether | 20 | 24.9 | 124.0 | | 30.0 | 77 - 139 |

Spike Recovery: 0 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

082611LCS21D

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 24.2 | 121.0 | 0.8 | 30.0 | 42 - 158 |
| Chloromethane | 20 | 22.5 | 112.0 | 8.3 | 30.0 | 61 - 135 |
| Vinyl chloride | 20 | 22.9 | 114.0 | 2.2 | 30.0 | 64 - 126 |
| Bromomethane | 20 | 22.2 | 111.0 | 4.6 | 30.0 | 47 - 143 |
| Chloroethane | 20 | 19.5 | 97.5 | 12.9 | 30.0 | 27 - 170 |
| Trichlorofluoromethane | 20 | 21.2 | 106.0 | 7.3 | 30.0 | 66 - 128 |
| 1,1-Dichloroethene | 20 | 19.4 | 97.0 | 5.0 | 30.0 | 72 - 130 |
| Methyl iodide | 20 | 20.1 | 100.0 | 2.9 | 30.0 | 38 - 157 |
| Carbon disulfide | 20 | 18.9 | 94.5 | 8.1 | 30.0 | 70 - 140 |
| Methylene chloride | 20 | 20.5 | 102.0 | 1.5 | 30.0 | 78 - 122 |
| trans-1,2-Dichloroethene | 20 | 20.5 | 102.0 | 1.5 | 30.0 | 74 - 126 |
| 1,1-Dichloroethane | 20 | 19.9 | 99.5 | 10.9 | 30.0 | 79 - 124 |
| Acetone | 40 | 81.2 | 203.0 * | 26.3 | 30.0 | 64 - 158 |
| 2,2-Dichloropropane | 20 | 20.6 | 103.0 | 1.0 | 30.0 | 75 - 129 |
| cis-1,2-Dichloroethene | 20 | 20.2 | 101.0 | 6.7 | 30.0 | 79 - 131 |
| Bromochloromethane | 20 | 19.8 | 99.0 | 11.0 | 30.0 | 70 - 130 |
| 2-Butanone | 40 | 47.1 | 118.0 | 1.9 | 30.0 | 68 - 158 |
| Chloroform | 20 | 20.7 | 104.0 | 2.4 | 30.0 | 76 - 124 |
| 1,1,1-Trichloroethane | 20 | 20.6 | 103.0 | 5.2 | 30.0 | 71 - 129 |
| Carbon tetrachloride | 20 | 20.1 | 100.0 | 2.9 | 30.0 | 73 - 121 |
| 1,1-Dichloropropene | 20 | 21 | 105.0 | 6.5 | 30.0 | 71 - 128 |
| Benzene | 20 | 20.5 | 102.0 | 0.5 | 30.0 | 78 - 127 |
| 1,2-Dichloroethane | 20 | 20.5 | 102.0 | 4.8 | 30.0 | 80 - 122 |
| Trichloroethene | 20 | 20.5 | 102.0 | 10.2 | 30.0 | 79 - 130 |
| Vinyl acetate | 20 | 19.7 | 98.5 | 4.5 | 30.0 | 70 - 130 |
| 1,2-Dichloropropane | 20 | 21.8 | 109.0 | 1.4 | 30.0 | 82 - 124 |
| Dibromomethane | 20 | 21 | 105.0 | 1.9 | 30.0 | 83 - 127 |
| Bromodichloromethane | 20 | 21.8 | 109.0 | 0.0 | 30.0 | 78 - 120 |
| cis-1,3-Dichloropropene | 20 | 21.5 | 108.0 | 3.2 | 30.0 | 80 - 129 |
| 4-Methyl-2-pentanone | 40 | 41 | 102.0 | 1.9 | 30.0 | 83 - 119 |
| Toluene | 20 | 20.5 | 102.0 | 1.5 | 30.0 | 77 - 132 |
| trans-1,3-Dichloropropene | 20 | 21.6 | 108.0 | 5.8 | 30.0 | 76 - 118 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082611LCS21D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 21 | 105.0 | 6.0 | 30.0 | 70 - 130 |
| Tetrachloroethene | 20 | 19.4 | 97.0 | 2.1 | 30.0 | 75 - 126 |
| 1,3-Dichloropropane | 20 | 19.6 | 98.0 | 1.0 | 30.0 | 83 - 117 |
| 2-Hexanone | 40 | 42.8 | 107.0 | 3.0 | 30.0 | 74 - 136 |
| Dibromochloromethane | 20 | 19.2 | 96.0 | 1.6 | 30.0 | 76 - 116 |
| 1,2-Dibromoethane | 20 | 20 | 100.0 | 2.5 | 30.0 | 78 - 123 |
| Chlorobenzene | 20 | 18.4 | 92.0 | 1.6 | 30.0 | 82 - 115 |
| 1,1,1,2-Tetrachloroethane | 20 | 19 | 95.0 | 7.7 | 30.0 | 77 - 118 |
| Ethylbenzene | 20 | 19.2 | 96.0 | 2.6 | 30.0 | 80 - 119 |
| m,p-Xylene | 40 | 35.7 | 89.2 | 4.4 | 30.0 | 78 - 125 |
| o-Xylene | 20 | 19 | 95.0 | 1.0 | 30.0 | 77 - 120 |
| Styrene | 20 | 18.8 | 94.0 | 1.1 | 30.0 | 76 - 129 |
| Bromoform | 20 | 19 | 95.0 | 0.5 | 30.0 | 66 - 124 |
| Isopropylbenzene | 20 | 19 | 95.0 | 3.1 | 30.0 | 74 - 125 |
| Bromobenzene | 20 | 19.6 | 98.0 | 4.2 | 30.0 | 81 - 114 |
| 1,1,2,2-Tetrachloroethane | 20 | 20 | 100.0 | 4.4 | 30.0 | 79 - 120 |
| 1,2,3-Trichloropropane | 20 | 18.8 | 94.0 | 1.6 | 30.0 | 81 - 122 |
| n-Propylbenzene | 20 | 19.2 | 96.0 | 2.6 | 30.0 | 70 - 129 |
| 2-Chlorotoluene | 20 | 19.7 | 98.5 | 1.0 | 30.0 | 73 - 121 |
| 4-Chlorotoluene | 20 | 19.7 | 98.5 | 3.1 | 30.0 | 80 - 115 |
| 1,3,5-Trimethylbenzene | 20 | 19.4 | 97.0 | 1.5 | 30.0 | 76 - 125 |
| tert-Butylbenzene | 20 | 19.1 | 95.5 | 1.0 | 30.0 | 72 - 126 |
| 1,2,4-Trimethylbenzene | 20 | 19.2 | 96.0 | 1.6 | 30.0 | 77 - 123 |
| sec-Butylbenzene | 20 | 19.6 | 98.0 | 1.0 | 30.0 | 74 - 130 |
| 1,3-Dichlorobenzene | 20 | 19.7 | 98.5 | 2.6 | 30.0 | 82 - 119 |
| 1,4-Dichlorobenzene | 20 | 20.1 | 100.0 | 4.1 | 30.0 | 83 - 121 |
| 4-Isopropyltoluene | 20 | 19.5 | 97.5 | 0.5 | 30.0 | 76 - 133 |
| n-Butylbenzene | 20 | 19 | 95.0 | 1.0 | 30.0 | 72 - 129 |
| 1,2-Dichlorobenzene | 20 | 18.9 | 94.5 | 6.6 | 30.0 | 83 - 116 |
| 1,2-Dibromo-3-chloropropane | 20 | 18.1 | 90.5 | 15.8 | 30.0 | 64 - 131 |
| 1,2,4-Trichlorobenzene | 20 | 19.6 | 98.0 | 4.7 | 30.0 | 85 - 125 |
| Hexachlorobutadiene | 20 | 21 | 105.0 | 7.9 | 30.0 | 78 - 130 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082611LCS21D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 20.3 | 102.0 | 0.5 | 30.0 | 82 - 136 |
| 1,2,3-Trichlorobenzene | 20 | 18.8 | 94.0 | 2.2 | 30.0 | 79 - 130 |
| Methyl tert-butyl ether | 20 | 23 | 115.0 | 7.9 | 30.0 | 77 - 139 |

Spike Recovery: 1 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 16.5 | 82.5 | | 20.0 | 58 - 147 |
| Chloromethane | 20 | 16.4 | 82.0 | | 20.0 | 66 - 147 |
| Vinyl chloride | 20 | 18.1 | 90.5 | | 20.0 | 72 - 134 |
| Bromomethane | 20 | 19.6 | 98.0 | | 20.0 | 52 - 145 |
| Chloroethane | 20 | 20.9 | 104.0 | | 20.0 | 78 - 133 |
| Trichlorofluoromethane | 20 | 18.4 | 92.0 | | 20.0 | 81 - 132 |
| 1,1-Dichloroethene | 20 | 19.8 | 99.0 | | 20.0 | 81 - 121 |
| Methyl iodide | 20 | 18 | 90.0 | | 20.0 | 45 - 143 |
| Carbon disulfide | 20 | 21.4 | 107.0 | | 20.0 | 73 - 133 |
| Methylene chloride | 20 | 17.8 | 89.0 | | 20.0 | 79 - 133 |
| trans-1,2-Dichloroethene | 20 | 19.5 | 97.5 | | 20.0 | 82 - 116 |
| 1,1-Dichloroethane | 20 | 20.4 | 102.0 | | 20.0 | 84 - 122 |
| Acetone | 40 | 32.8 | 82.0 | | 20.0 | 51 - 170 |
| 2,2-Dichloropropane | 20 | 20.5 | 102.0 | | 20.0 | 84 - 122 |
| cis-1,2-Dichloroethene | 20 | 21.6 | 108.0 | | 20.0 | 86 - 115 |
| Bromochloromethane | 20 | 19.6 | 98.0 | | 20.0 | 81 - 123 |
| 2-Butanone | 40 | 42.1 | 105.0 | | 20.0 | 62 - 167 |
| Chloroform | 20 | 20.9 | 104.0 | | 20.0 | 81 - 120 |
| 1,1,1-Trichloroethane | 20 | 18.6 | 93.0 | | 20.0 | 80 - 120 |
| Carbon tetrachloride | 20 | 18.8 | 94.0 | | 20.0 | 82 - 120 |
| 1,1-Dichloropropene | 20 | 21.4 | 107.0 | | 20.0 | 80 - 122 |
| Benzene | 20 | 22 | 110.0 | | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 20 | 20.5 | 102.0 | | 20.0 | 75 - 126 |
| Trichloroethene | 20 | 18.2 | 91.0 | | 20.0 | 80 - 112 |
| Vinyl acetate | 20 | 21.2 | 106.0 | | 20.0 | 75 - 135 |
| 1,2-Dichloropropane | 20 | 22.5 | 112.0 | | 20.0 | 86 - 122 |
| Dibromomethane | 20 | 22 | 110.0 | | 20.0 | 84 - 117 |
| Bromodichloromethane | 20 | 21.7 | 108.0 | | 20.0 | 82 - 120 |
| cis-1,3-Dichloropropene | 20 | 23.1 | 116.0 | | 20.0 | 80 - 121 |
| 4-Methyl-2-pentanone | 40 | 45.9 | 115.0 | | 20.0 | 74 - 136 |
| Toluene | 20 | 21.1 | 106.0 | | 20.0 | 80 - 116 |
| trans-1,3-Dichloropropene | 20 | 23.1 | 116.0 | | 20.0 | 77 - 121 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 21.2 | 106.0 | | 20.0 | 84 - 119 |
| Tetrachloroethene | 20 | 17.8 | 89.0 | | 20.0 | 84 - 115 |
| 1,3-Dichloropropane | 20 | 24.5 | 122.0 | | 20.0 | 73 - 129 |
| 2-Hexanone | 40 | 33.9 | 84.8 | | 20.0 | 66 - 150 |
| Dibromochloromethane | 20 | 18.6 | 93.0 | | 20.0 | 75 - 117 |
| 1,2-Dibromoethane | 20 | 21.4 | 107.0 | | 20.0 | 79 - 119 |
| Chlorobenzene | 20 | 18.9 | 94.5 | | 20.0 | 82 - 114 |
| 1,1,1,2-Tetrachloroethane | 20 | 18.2 | 91.0 | | 20.0 | 81 - 116 |
| Ethylbenzene | 20 | 19.8 | 99.0 | | 20.0 | 82 - 119 |
| m,p-Xylene | 40 | 39.8 | 99.5 | | 20.0 | 81 - 124 |
| o-Xylene | 20 | 19.7 | 98.5 | | 20.0 | 83 - 121 |
| Styrene | 20 | 20.6 | 103.0 | | 20.0 | 84 - 122 |
| Bromoform | 20 | 18 | 90.0 | | 20.0 | 65 - 118 |
| Isopropylbenzene | 20 | 22.2 | 111.0 | | 20.0 | 81 - 124 |
| Bromobenzene | 20 | 24.5 | 122.0 * | | 20.0 | 82 - 118 |
| 1,1,2,2-Tetrachloroethane | 20 | 27.2 | 136.0 * | | 20.0 | 71 - 122 |
| 1,2,3-Trichloropropane | 20 | 24.5 | 122.0 | | 20.0 | 74 - 122 |
| n-Propylbenzene | 20 | 23.2 | 116.0 | | 20.0 | 81 - 130 |
| 2-Chlorotoluene | 20 | 22.4 | 112.0 | | 20.0 | 81 - 121 |
| 4-Chlorotoluene | 20 | 24.2 | 121.0 | | 20.0 | 80 - 123 |
| 1,3,5-Trimethylbenzene | 20 | 22 | 110.0 | | 20.0 | 82 - 124 |
| tert-Butylbenzene | 20 | 21.4 | 107.0 | | 20.0 | 76 - 128 |
| 1,2,4-Trimethylbenzene | 20 | 22.4 | 112.0 | | 20.0 | 83 - 123 |
| sec-Butylbenzene | 20 | 22.5 | 112.0 | | 20.0 | 79 - 131 |
| 1,3-Dichlorobenzene | 20 | 20 | 100.0 | | 20.0 | 80 - 114 |
| 1,4-Dichlorobenzene | 20 | 20.3 | 102.0 | | 20.0 | 79 - 113 |
| 4-Isopropyltoluene | 20 | 21.4 | 107.0 | | 20.0 | 81 - 129 |
| n-Butylbenzene | 20 | 24.1 | 120.0 | | 20.0 | 78 - 134 |
| 1,2-Dichlorobenzene | 20 | 21.2 | 106.0 | | 20.0 | 80 - 114 |
| 1,2-Dibromo-3-chloropropane | 20 | 25.8 | 129.0 * | | 20.0 | 64 - 124 |
| 1,2,4-Trichlorobenzene | 20 | 24.8 | 124.0 * | | 20.0 | 74 - 121 |
| Hexachlorobutadiene | 20 | 22.8 | 114.0 | | 20.0 | 76 - 127 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 23.4 | 117.0 | | 20.0 | 65 - 135 |
| 1,2,3-Trichlorobenzene | 20 | 25 | 125.0 | | 20.0 | 67 - 126 |
| Methyl tert-butyl ether | 20 | 23 | 115.0 | | 20.0 | 67 - 147 |

Spike Recovery: 4 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31D

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 17.4 | 87.0 | 5.3 | 20.0 | 58 - 147 |
| Chloromethane | 20 | 17.4 | 87.0 | 5.9 | 20.0 | 66 - 147 |
| Vinyl chloride | 20 | 19.6 | 98.0 | 8.0 | 20.0 | 72 - 134 |
| Bromomethane | 20 | 21.4 | 107.0 | 8.8 | 20.0 | 52 - 145 |
| Chloroethane | 20 | 21.8 | 109.0 | 4.2 | 20.0 | 78 - 133 |
| Trichlorofluoromethane | 20 | 18.7 | 93.5 | 1.6 | 20.0 | 81 - 132 |
| 1,1-Dichloroethene | 20 | 21.4 | 107.0 | 7.8 | 20.0 | 81 - 121 |
| Methyl iodide | 20 | 19.3 | 96.5 | 7.0 | 20.0 | 45 - 143 |
| Carbon disulfide | 20 | 23.4 | 117.0 | 8.9 | 20.0 | 73 - 133 |
| Methylene chloride | 20 | 18.6 | 93.0 | 4.4 | 20.0 | 79 - 133 |
| trans-1,2-Dichloroethene | 20 | 20.6 | 103.0 | 5.5 | 20.0 | 82 - 116 |
| 1,1-Dichloroethane | 20 | 21.3 | 106.0 | 4.3 | 20.0 | 84 - 122 |
| Acetone | 40 | 50.8 | 127.0 | 43.1* | 20.0 | 51 - 170 |
| 2,2-Dichloropropane | 20 | 22.4 | 112.0 | 8.9 | 20.0 | 84 - 122 |
| cis-1,2-Dichloroethene | 20 | 22.5 | 112.0 | 4.1 | 20.0 | 86 - 115 |
| Bromochloromethane | 20 | 20.3 | 102.0 | 3.5 | 20.0 | 81 - 123 |
| 2-Butanone | 40 | 55.1 | 138.0 | 26.7* | 20.0 | 62 - 167 |
| Chloroform | 20 | 22.1 | 110.0 | 5.6 | 20.0 | 81 - 120 |
| 1,1,1-Trichloroethane | 20 | 20.3 | 102.0 | 8.7 | 20.0 | 80 - 120 |
| Carbon tetrachloride | 20 | 20.6 | 103.0 | 9.1 | 20.0 | 82 - 120 |
| 1,1-Dichloropropene | 20 | 22.8 | 114.0 | 6.3 | 20.0 | 80 - 122 |
| Benzene | 20 | 23.1 | 116.0 | 4.9 | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 20 | 20.8 | 104.0 | 1.5 | 20.0 | 75 - 126 |
| Trichloroethene | 20 | 19 | 95.0 | 4.3 | 20.0 | 80 - 112 |
| Vinyl acetate | 20 | 22.1 | 110.0 | 4.2 | 20.0 | 75 - 135 |
| 1,2-Dichloropropane | 20 | 23.5 | 118.0 | 4.3 | 20.0 | 86 - 122 |
| Dibromomethane | 20 | 21.9 | 110.0 | 0.5 | 20.0 | 84 - 117 |
| Bromodichloromethane | 20 | 22.2 | 111.0 | 2.3 | 20.0 | 82 - 120 |
| cis-1,3-Dichloropropene | 20 | 23.8 | 119.0 | 3.0 | 20.0 | 80 - 121 |
| 4-Methyl-2-pentanone | 40 | 46.8 | 117.0 | 1.9 | 20.0 | 74 - 136 |
| Toluene | 20 | 22 | 110.0 | 4.2 | 20.0 | 80 - 116 |
| trans-1,3-Dichloropropene | 20 | 23.6 | 118.0 | 2.1 | 20.0 | 77 - 121 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31D

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 22.3 | 112.0 | 5.1 | 20.0 | 84 - 119 |
| Tetrachloroethene | 20 | 19 | 95.0 | 6.5 | 20.0 | 84 - 115 |
| 1,3-Dichloropropane | 20 | 25.2 | 126.0 | 2.8 | 20.0 | 73 - 129 |
| 2-Hexanone | 40 | 41.7 | 104.0 | 20.6* | 20.0 | 66 - 150 |
| Dibromochloromethane | 20 | 18.9 | 94.5 | 1.6 | 20.0 | 75 - 117 |
| 1,2-Dibromoethane | 20 | 22.6 | 113.0 | 5.5 | 20.0 | 79 - 119 |
| Chlorobenzene | 20 | 19.6 | 98.0 | 3.6 | 20.0 | 82 - 114 |
| 1,1,1,2-Tetrachloroethane | 20 | 19.4 | 97.0 | 6.4 | 20.0 | 81 - 116 |
| Ethylbenzene | 20 | 20.5 | 102.0 | 3.5 | 20.0 | 82 - 119 |
| m,p-Xylene | 40 | 41.8 | 104.0 | 4.9 | 20.0 | 81 - 124 |
| o-Xylene | 20 | 20.6 | 103.0 | 4.5 | 20.0 | 83 - 121 |
| Styrene | 20 | 21 | 105.0 | 1.9 | 20.0 | 84 - 122 |
| Bromoform | 20 | 18.6 | 93.0 | 3.3 | 20.0 | 65 - 118 |
| Isopropylbenzene | 20 | 22.7 | 114.0 | 2.2 | 20.0 | 81 - 124 |
| Bromobenzene | 20 | 24.4 | 122.0 * | 0.4 | 20.0 | 82 - 118 |
| 1,1,2,2-Tetrachloroethane | 20 | 27.6 | 138.0 * | 1.5 | 20.0 | 71 - 122 |
| 1,2,3-Trichloropropane | 20 | 23.9 | 120.0 | 2.5 | 20.0 | 74 - 122 |
| n-Propylbenzene | 20 | 23.8 | 119.0 | 2.6 | 20.0 | 81 - 130 |
| 2-Chlorotoluene | 20 | 22.9 | 114.0 | 2.2 | 20.0 | 81 - 121 |
| 4-Chlorotoluene | 20 | 24.8 | 124.0 * | 2.4 | 20.0 | 80 - 123 |
| 1,3,5-Trimethylbenzene | 20 | 23.2 | 116.0 | 5.3 | 20.0 | 82 - 124 |
| tert-Butylbenzene | 20 | 21.7 | 108.0 | 1.4 | 20.0 | 76 - 128 |
| 1,2,4-Trimethylbenzene | 20 | 22.4 | 112.0 | 0.0 | 20.0 | 83 - 123 |
| sec-Butylbenzene | 20 | 23.1 | 116.0 | 2.6 | 20.0 | 79 - 131 |
| 1,3-Dichlorobenzene | 20 | 20.5 | 102.0 | 2.5 | 20.0 | 80 - 114 |
| 1,4-Dichlorobenzene | 20 | 20.9 | 104.0 | 2.9 | 20.0 | 79 - 113 |
| 4-Isopropyltoluene | 20 | 21.7 | 108.0 | 1.4 | 20.0 | 81 - 129 |
| n-Butylbenzene | 20 | 24.6 | 123.0 | 2.1 | 20.0 | 78 - 134 |
| 1,2-Dichlorobenzene | 20 | 21.6 | 108.0 | 1.9 | 20.0 | 80 - 114 |
| 1,2-Dibromo-3-chloropropane | 20 | 25.1 | 126.0 * | 2.8 | 20.0 | 64 - 124 |
| 1,2,4-Trichlorobenzene | 20 | 25 | 125.0 * | 0.8 | 20.0 | 74 - 121 |
| Hexachlorobutadiene | 20 | 25.6 | 128.0 * | 11.6 | 20.0 | 76 - 127 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31D

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 22.7 | 114.0 | 3.0 | 20.0 | 65 - 135 |
| 1,2,3-Trichlorobenzene | 20 | 25.8 | 129.0 * | 3.1 | 20.0 | 67 - 126 |
| Methyl tert-butyl ether | 20 | 23.7 | 118.0 | 3.0 | 20.0 | 67 - 147 |

Spike Recovery: 7 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 25.4 | 127.0 | | 20.0 | 58 - 147 |
| Chloromethane | 20 | 22.6 | 113.0 | | 20.0 | 66 - 147 |
| Vinyl chloride | 20 | 23.6 | 118.0 | | 20.0 | 72 - 134 |
| Bromomethane | 20 | 21.3 | 106.0 | | 20.0 | 52 - 145 |
| Chloroethane | 20 | 22 | 110.0 | | 20.0 | 78 - 133 |
| Trichlorofluoromethane | 20 | 22.1 | 110.0 | | 20.0 | 81 - 132 |
| 1,1-Dichloroethene | 20 | 21 | 105.0 | | 20.0 | 81 - 121 |
| Methyl iodide | 20 | 22.3 | 112.0 | | 20.0 | 45 - 143 |
| Carbon disulfide | 20 | 20.9 | 104.0 | | 20.0 | 73 - 133 |
| Methylene chloride | 20 | 20.1 | 100.0 | | 20.0 | 79 - 133 |
| trans-1,2-Dichloroethene | 20 | 20.7 | 104.0 | | 20.0 | 82 - 116 |
| 1,1-Dichloroethane | 20 | 20.4 | 102.0 | | 20.0 | 84 - 122 |
| Acetone | 40 | 52.9 | 132.0 | | 20.0 | 51 - 170 |
| 2,2-Dichloropropane | 20 | 21.5 | 108.0 | | 20.0 | 84 - 122 |
| cis-1,2-Dichloroethene | 20 | 20.8 | 104.0 | | 20.0 | 86 - 115 |
| Bromochloromethane | 20 | 20.2 | 101.0 | | 20.0 | 81 - 123 |
| 2-Butanone | 40 | 55.5 | 139.0 | | 20.0 | 62 - 167 |
| Chloroform | 20 | 19.9 | 99.5 | | 20.0 | 81 - 120 |
| 1,1,1-Trichloroethane | 20 | 20.8 | 104.0 | | 20.0 | 80 - 120 |
| Carbon tetrachloride | 20 | 20.1 | 100.0 | | 20.0 | 82 - 120 |
| 1,1-Dichloropropene | 20 | 21.4 | 107.0 | | 20.0 | 80 - 122 |
| Benzene | 20 | 20.5 | 102.0 | | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 20 | 18.9 | 94.5 | | 20.0 | 75 - 126 |
| Trichloroethene | 20 | 20.4 | 102.0 | | 20.0 | 80 - 112 |
| Vinyl acetate | 20 | 18.2 | 91.0 | | 20.0 | 75 - 135 |
| 1,2-Dichloropropane | 20 | 20.2 | 101.0 | | 20.0 | 86 - 122 |
| Dibromomethane | 20 | 19 | 95.0 | | 20.0 | 84 - 117 |
| Bromodichloromethane | 20 | 19.5 | 97.5 | | 20.0 | 82 - 120 |
| cis-1,3-Dichloropropene | 20 | 19 | 95.0 | | 20.0 | 80 - 121 |
| 4-Methyl-2-pentanone | 40 | 41.7 | 104.0 | | 20.0 | 74 - 136 |
| Toluene | 20 | 21.3 | 106.0 | | 20.0 | 80 - 116 |
| trans-1,3-Dichloropropene | 20 | 19.1 | 95.5 | | 20.0 | 77 - 121 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 19.4 | 97.0 | | 20.0 | 84 - 119 |
| Tetrachloroethene | 20 | 19.9 | 99.5 | | 20.0 | 84 - 115 |
| 1,3-Dichloropropane | 20 | 20.2 | 101.0 | | 20.0 | 73 - 129 |
| 2-Hexanone | 40 | 58.6 | 146.0 | | 20.0 | 66 - 150 |
| Dibromochloromethane | 20 | 20.2 | 101.0 | | 20.0 | 75 - 117 |
| 1,2-Dibromoethane | 20 | 19.1 | 95.5 | | 20.0 | 79 - 119 |
| Chlorobenzene | 20 | 20.2 | 101.0 | | 20.0 | 82 - 114 |
| 1,1,1,2-Tetrachloroethane | 20 | 20.2 | 101.0 | | 20.0 | 81 - 116 |
| Ethylbenzene | 20 | 21.1 | 106.0 | | 20.0 | 82 - 119 |
| m,p-Xylene | 40 | 42.7 | 107.0 | | 20.0 | 81 - 124 |
| o-Xylene | 20 | 21.8 | 109.0 | | 20.0 | 83 - 121 |
| Styrene | 20 | 21.4 | 107.0 | | 20.0 | 84 - 122 |
| Bromoform | 20 | 18.8 | 94.0 | | 20.0 | 65 - 118 |
| Isopropylbenzene | 20 | 22.4 | 112.0 | | 20.0 | 81 - 124 |
| Bromobenzene | 20 | 18.5 | 92.5 | | 20.0 | 82 - 118 |
| 1,1,2,2-Tetrachloroethane | 20 | 19 | 95.0 | | 20.0 | 71 - 122 |
| 1,2,3-Trichloropropane | 20 | 19 | 95.0 | | 20.0 | 74 - 122 |
| n-Propylbenzene | 20 | 21.9 | 110.0 | | 20.0 | 81 - 130 |
| 2-Chlorotoluene | 20 | 20.7 | 104.0 | | 20.0 | 81 - 121 |
| 4-Chlorotoluene | 20 | 21.4 | 107.0 | | 20.0 | 80 - 123 |
| 1,3,5-Trimethylbenzene | 20 | 21.7 | 108.0 | | 20.0 | 82 - 124 |
| tert-Butylbenzene | 20 | 22.6 | 113.0 | | 20.0 | 76 - 128 |
| 1,2,4-Trimethylbenzene | 20 | 22 | 110.0 | | 20.0 | 83 - 123 |
| sec-Butylbenzene | 20 | 22.3 | 112.0 | | 20.0 | 79 - 131 |
| 1,3-Dichlorobenzene | 20 | 21.1 | 106.0 | | 20.0 | 80 - 114 |
| 1,4-Dichlorobenzene | 20 | 20.3 | 102.0 | | 20.0 | 79 - 113 |
| 4-Isopropyltoluene | 20 | 21.8 | 109.0 | | 20.0 | 81 - 129 |
| n-Butylbenzene | 20 | 22.8 | 114.0 | | 20.0 | 78 - 134 |
| 1,2-Dichlorobenzene | 20 | 20.4 | 102.0 | | 20.0 | 80 - 114 |
| 1,2-Dibromo-3-chloropropane | 20 | 19 | 95.0 | | 20.0 | 64 - 124 |
| 1,2,4-Trichlorobenzene | 20 | 20.7 | 104.0 | | 20.0 | 74 - 121 |
| Hexachlorobutadiene | 20 | 21 | 105.0 | | 20.0 | 76 - 127 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 19.7 | 98.5 | | 20.0 | 65 - 135 |
| 1,2,3-Trichlorobenzene | 20 | 20.8 | 104.0 | | 20.0 | 67 - 126 |
| Methyl tert-butyl ether | 20 | 20.6 | 103.0 | | 20.0 | 67 - 147 |

Spike Recovery: 0 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 23.3 | 116.0 | 8.6 | 20.0 | 58 - 147 |
| Chloromethane | 20 | 20.8 | 104.0 | 8.3 | 20.0 | 66 - 147 |
| Vinyl chloride | 20 | 20.9 | 104.0 | 12.1 | 20.0 | 72 - 134 |
| Bromomethane | 20 | 19.9 | 99.5 | 6.8 | 20.0 | 52 - 145 |
| Chloroethane | 20 | 20.3 | 102.0 | 8.0 | 20.0 | 78 - 133 |
| Trichlorofluoromethane | 20 | 20.2 | 101.0 | 9.0 | 20.0 | 81 - 132 |
| 1,1-Dichloroethene | 20 | 19.2 | 96.0 | 9.0 | 20.0 | 81 - 121 |
| Methyl iodide | 20 | 20.3 | 102.0 | 9.4 | 20.0 | 45 - 143 |
| Carbon disulfide | 20 | 18.8 | 94.0 | 10.6 | 20.0 | 73 - 133 |
| Methylene chloride | 20 | 18.2 | 91.0 | 9.9 | 20.0 | 79 - 133 |
| trans-1,2-Dichloroethene | 20 | 18.8 | 94.0 | 9.6 | 20.0 | 82 - 116 |
| 1,1-Dichloroethane | 20 | 18.7 | 93.5 | 8.7 | 20.0 | 84 - 122 |
| Acetone | 40 | 52.9 | 132.0 | 0.0 | 20.0 | 51 - 170 |
| 2,2-Dichloropropane | 20 | 20 | 100.0 | 7.2 | 20.0 | 84 - 122 |
| cis-1,2-Dichloroethene | 20 | 19.4 | 97.0 | 7.0 | 20.0 | 86 - 115 |
| Bromochloromethane | 20 | 18.3 | 91.5 | 9.9 | 20.0 | 81 - 123 |
| 2-Butanone | 40 | 46.9 | 117.0 | 16.8 | 20.0 | 62 - 167 |
| Chloroform | 20 | 18.3 | 91.5 | 8.4 | 20.0 | 81 - 120 |
| 1,1,1-Trichloroethane | 20 | 19.2 | 96.0 | 8.0 | 20.0 | 80 - 120 |
| Carbon tetrachloride | 20 | 18.6 | 93.0 | 7.8 | 20.0 | 82 - 120 |
| 1,1-Dichloropropene | 20 | 19.8 | 99.0 | 7.8 | 20.0 | 80 - 122 |
| Benzene | 20 | 19 | 95.0 | 7.6 | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 20 | 17.6 | 88.0 | 7.1 | 20.0 | 75 - 126 |
| Trichloroethene | 20 | 19.4 | 97.0 | 5.0 | 20.0 | 80 - 112 |
| Vinyl acetate | 20 | 17.1 | 85.5 | 6.2 | 20.0 | 75 - 135 |
| 1,2-Dichloropropane | 20 | 19.1 | 95.5 | 5.6 | 20.0 | 86 - 122 |
| Dibromomethane | 20 | 17.8 | 89.0 | 6.5 | 20.0 | 84 - 117 |
| Bromodichloromethane | 20 | 18.2 | 91.0 | 6.9 | 20.0 | 82 - 120 |
| cis-1,3-Dichloropropene | 20 | 18 | 90.0 | 5.4 | 20.0 | 80 - 121 |
| 4-Methyl-2-pentanone | 40 | 38.2 | 95.5 | 8.8 | 20.0 | 74 - 136 |
| Toluene | 20 | 19.9 | 99.5 | 6.8 | 20.0 | 80 - 116 |
| trans-1,3-Dichloropropene | 20 | 17.3 | 86.5 | 9.9 | 20.0 | 77 - 121 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

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Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 17.9 | 89.5 | 8.0 | 20.0 | 84 - 119 |
| Tetrachloroethene | 20 | 19.1 | 95.5 | 4.1 | 20.0 | 84 - 115 |
| 1,3-Dichloropropane | 20 | 19 | 95.0 | 6.1 | 20.0 | 73 - 129 |
| 2-Hexanone | 40 | 50.7 | 127.0 | 14.5 | 20.0 | 66 - 150 |
| Dibromochloromethane | 20 | 18.9 | 94.5 | 6.6 | 20.0 | 75 - 117 |
| 1,2-Dibromoethane | 20 | 18.6 | 93.0 | 2.7 | 20.0 | 79 - 119 |
| Chlorobenzene | 20 | 19 | 95.0 | 6.1 | 20.0 | 82 - 114 |
| 1,1,1,2-Tetrachloroethane | 20 | 19.2 | 96.0 | 5.1 | 20.0 | 81 - 116 |
| Ethylbenzene | 20 | 20.1 | 100.0 | 4.9 | 20.0 | 82 - 119 |
| m,p-Xylene | 40 | 39.8 | 99.5 | 7.0 | 20.0 | 81 - 124 |
| o-Xylene | 20 | 20.6 | 103.0 | 5.7 | 20.0 | 83 - 121 |
| Styrene | 20 | 19.9 | 99.5 | 7.3 | 20.0 | 84 - 122 |
| Bromoform | 20 | 17.6 | 88.0 | 6.6 | 20.0 | 65 - 118 |
| Isopropylbenzene | 20 | 20.5 | 102.0 | 8.9 | 20.0 | 81 - 124 |
| Bromobenzene | 20 | 20.2 | 101.0 | 8.8 | 20.0 | 82 - 118 |
| 1,1,2,2-Tetrachloroethane | 20 | 18.6 | 93.0 | 2.1 | 20.0 | 71 - 122 |
| 1,2,3-Trichloropropane | 20 | 18.2 | 91.0 | 4.3 | 20.0 | 74 - 122 |
| n-Propylbenzene | 20 | 20.2 | 101.0 | 8.1 | 20.0 | 81 - 130 |
| 2-Chlorotoluene | 20 | 19.5 | 97.5 | 6.0 | 20.0 | 81 - 121 |
| 4-Chlorotoluene | 20 | 19.7 | 98.5 | 8.3 | 20.0 | 80 - 123 |
| 1,3,5-Trimethylbenzene | 20 | 20.3 | 102.0 | 6.7 | 20.0 | 82 - 124 |
| tert-Butylbenzene | 20 | 20.5 | 102.0 | 9.7 | 20.0 | 76 - 128 |
| 1,2,4-Trimethylbenzene | 20 | 20.2 | 101.0 | 8.5 | 20.0 | 83 - 123 |
| sec-Butylbenzene | 20 | 20.3 | 102.0 | 9.4 | 20.0 | 79 - 131 |
| 1,3-Dichlorobenzene | 20 | 19.1 | 95.5 | 10.0 | 20.0 | 80 - 114 |
| 1,4-Dichlorobenzene | 20 | 18.4 | 92.0 | 9.8 | 20.0 | 79 - 113 |
| 4-Isopropyltoluene | 20 | 20.3 | 102.0 | 7.1 | 20.0 | 81 - 129 |
| n-Butylbenzene | 20 | 20.6 | 103.0 | 10.1 | 20.0 | 78 - 134 |
| 1,2-Dichlorobenzene | 20 | 18.9 | 94.5 | 7.6 | 20.0 | 80 - 114 |
| 1,2-Dibromo-3-chloropropane | 20 | 17.1 | 85.5 | 10.5 | 20.0 | 64 - 124 |
| 1,2,4-Trichlorobenzene | 20 | 19.1 | 95.5 | 8.0 | 20.0 | 74 - 121 |
| Hexachlorobutadiene | 20 | 18.6 | 93.0 | 12.1 | 20.0 | 76 - 127 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 17.8 | 89.0 | 10.1 | 20.0 | 65 - 135 |
| 1,2,3-Trichlorobenzene | 20 | 18.4 | 92.0 | 12.2 | 20.0 | 67 - 126 |
| Methyl tert-butyl ether | 20 | 19.4 | 97.0 | 6.0 | 20.0 | 67 - 147 |

Spike Recovery: 0 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

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Form III

# Method 8260 TCLP Volatile Organics

080911 1740

**CASE NARRATIVE**
**GC/MS VOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

EPA 8260B/SW846

## IV. PREPARATION

The TCLP samples were prepared by EPA 1311/SW846 for volatiles analysis. All aspects of sample preparation proceeded without exception.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

All acceptance criteria were met.

**C. Surrogates:**

All acceptance criteria were met.

**D. Spikes:**

**1. Laboratory Control Spikes (LCS)**

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

**2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)**

No spikes requested by client.

**E. Internal Standards:**

All acceptance criteria were met.

**CASE NARRATIVE**
**GC/MS VOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

**F. Samples:**

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:
Name: Lisa Pélo Title: VOA Manager

**SIGNED:** **DATE: 09/07/2011**

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# VOLATILE ORGANIC CROSS REFERENCE TABLE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**Method:** 8260 TCLP

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-DISP-SOIL-01 | 350386213 |

080911 1740

# 8260 TCLP Sample Data

080911 1740

1

**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201.D

Sample wt/vol: 0.5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0354

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.005 | U | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

1

**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202.D

Sample wt/vol: 0.5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0421

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.0025 | J | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.0036 | J | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

1

**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210.D

Sample wt/vol: 0.5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0449

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.005 | U | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

1

**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211.D

Sample wt/vol: 0.5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0516

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.005 | U | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

1

**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-DISP-SOIL-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386213 Lab File ID 86213.D

Sample wt/vol: 0.5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0544

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.005 | U | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

# 8260 TCLP QC Summary

080911 1740

1

**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

TCLPBLK862

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: TCLPBLK862 Lab File ID: TCLPBLK862.D

Sample wt/vol: 0.5 Units: ML Date Received: 09/01/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0136

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.005 | U | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

2A

WATER VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): DB-624 ID: 0.18 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 083111LCS52 | 98.0 | 100.0 | 90.0 | 96.0 | | | 0 |
| 083111LCS52D | 100.0 | 100.0 | 90.0 | 96.0 | | | 0 |
| KD-DISP-SOIL-01 | 100.0 | 100.0 | 88.0 | 100.0 | | | 0 |
| KD-SB-1 16ft-16.5ft | 104.0 | 104.0 | 92.0 | 102.0 | | | 0 |
| KD-SB-2 11ft-12ft | 104.0 | 104.0 | 92.0 | 102.0 | | | 0 |
| KD-SB-6 3ft-4ft | 104.0 | 102.0 | 90.0 | 100.0 | | | 0 |
| KD-SB-9 3ft-4ft | 104.0 | 102.0 | 88.0 | 102.0 | | | 0 |
| TCLPBLK862 | 106.0 | 106.0 | 96.0 | 102.0 | | | 0 |

**Control Limits**

| | | | |
|---|---|---|---|
| S1 | = | Dibromofluoromethane | 83 - 128 |
| S2 | = | Toluene-d8 | 89 - 121 |
| S3 | = | 4-Bromofluorobenzene | 85 - 115 |
| S4 | = | 1,2-Dichloroethane-d4 | 89 - 123 |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

080911 1740

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083111LCS52

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**TCLP Analysis**

| COMPOUND | SPIKE ADDED mg/L | LCS CONCENTRATION mg/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Vinyl chloride | 0.02 | 0.0207 | 104.0 | | 20.0 | 72 - 134 |
| 1,1-Dichloroethene | 0.02 | 0.0188 | 94.0 | | 20.0 | 81 - 121 |
| 2-Butanone | 0.04 | 0.0326 | 81.5 | | 20.0 | 62 - 167 |
| Chloroform | 0.02 | 0.0177 | 88.5 | | 20.0 | 81 - 120 |
| Carbon tetrachloride | 0.02 | 0.0167 | 83.5 | | 20.0 | 82 - 120 |
| Benzene | 0.02 | 0.0179 | 89.5 | | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 0.02 | 0.0188 | 94.0 | | 20.0 | 75 - 126 |
| Trichloroethene | 0.02 | 0.019 | 95.0 | | 20.0 | 80 - 112 |
| Tetrachloroethene | 0.02 | 0.0191 | 95.5 | | 20.0 | 84 - 115 |
| Chlorobenzene | 0.02 | 0.0183 | 91.5 | | 20.0 | 82 - 114 |

Spike Recovery: 0 out of 10 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083111LCS52D

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**TCLP Analysis**

| COMPOUND | SPIKE ADDED mg/L | LCS CONCENTRATION mg/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Vinyl chloride | 0.02 | 0.0232 | 116.0 | 11.4 | 20.0 | 72 - 134 |
| 1,1-Dichloroethene | 0.02 | 0.0202 | 101.0 | 7.2 | 20.0 | 81 - 121 |
| 2-Butanone | 0.04 | 0.0373 | 93.2 | 13.4 | 20.0 | 62 - 167 |
| Chloroform | 0.02 | 0.019 | 95.0 | 7.1 | 20.0 | 81 - 120 |
| Carbon tetrachloride | 0.02 | 0.0178 | 89.0 | 6.4 | 20.0 | 82 - 120 |
| Benzene | 0.02 | 0.0192 | 96.0 | 7.0 | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 0.02 | 0.0197 | 98.5 | 4.7 | 20.0 | 75 - 126 |
| Trichloroethene | 0.02 | 0.0204 | 102.0 | 7.1 | 20.0 | 80 - 112 |
| Tetrachloroethene | 0.02 | 0.0201 | 100.0 | 5.1 | 20.0 | 84 - 115 |
| Chlorobenzene | 0.02 | 0.0197 | 98.5 | 7.4 | 20.0 | 82 - 114 |

Spike Recovery: 0 out of 10 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

# Method 8270 Semi-Volatile Organics

080911 1740

**CASE NARRATIVE**
**GC/MS SEMIVOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

EPA SW846 8270D

## IV. PREPARATION

Soil samples were prepared by SW846 EPA 3545 for 8270 semi-volatile analysis.
Water samples were prepared by SW846 EPA 3510 for 8270 semi-volatile analysis.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

All acceptance criteria were met with the exception of:

Blank 97053MB was analyzed with the water samples extracted on 08/24/11. The following analyte(s) were detected below RL: Di-n-butylphthalate at 1.5 ug/L. Since this compound was only detected below the RL, no further action was taken. The following analyte(s) were detected above RL: Bis(2-ethylhexyl)phthalate at 19.4 ug/L. This compound is a common laboratory contaminant. Since it was detected at least six times greater in the associated sample, no further action was taken.
Samples coded accordingly.

**C. Surrogates:**

All acceptance criteria were met.

**D. Spikes:**

**1. Laboratory Control Spikes (LCS)**

All acceptance criteria were met with the exception of:

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

LCS 97054LCS was analyzed with the water samples extracted on 08/24/11. The following analyte(s) were recovered below criteria: 2,4-Dinitrophenol at 49.2 % with criteria of (56-140). Since this compound was recovered only slightly below criteria, no further action was taken.

LCS 97269LCS was analyzed with the soil samples extracted on 08/25/11. The following analyte(s) were recovered below criteria: N-Nitrosodimethylamine at 73.4 % with criteria of (74-141). Since this compound was recovered only slightly below criteria, no further action was taken.

Samples coded accordingly.

**2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)**

No spikes requested by client.

**E. Internal Standards:**

All acceptance criteria were met.

**F. Samples:**

Sample analysis proceeded normally.

Sample analysis proceeded normally.
Sample KD-SB-1 16ft-16.5ft required a 10X dilution due to matrix interference.

Sample KD-SB-2 11ft-12ft required a 10X dilution due to matrix interference.

Sample KD-SB-6 3ft-4ft required a 5X dilution due to matrix interference.

Sample KD-SB-9 3ft-4ft required a 5X dilution due to matrix interference.

Sample KD-IDW-WATER-01was originally run full, but failed internal standard criteria due to matrix and is not reported. The sample was re-analyzed and is reported at a 2X dilution.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

**CASE NARRATIVE**
**GC/MS SEMIVOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

**Signature:**
**Name:** Brian C. Spann **Title:** Lab Director

**SIGNED:** **DATE:**
**09/08/2011**

W:\Narratives\SemiVols\3503\3503862_8270.doc

# SEMI-VOLATILE ORGANIC CROSS REFERENCE TABLE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**Method:** 8270

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-IDW-WATER-01 | 350386214 |

080911 1740

# 8270 Sample Data

080911 1740

1

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201D10.D

Sample wt/vol: 25.43 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0548

PercentSolids: 95.2 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 2200 | U | 586 | 2200 |
| 62-53-3 | Aniline | 2230 | U | 636 | 2230 |
| 111-44-4 | Bis(2-chloroethyl)ether | 2230 | U | 554 | 2230 |
| 108-95-2 | Phenol | 11000 | U | 537 | 11000 |
| 95-57-8 | 2-Chlorophenol | 2230 | U | 570 | 2230 |
| 541-73-1 | 1,3-Dichlorobenzene | 2230 | U | 504 | 2230 |
| 106-46-7 | 1,4-Dichlorobenzene | 2230 | U | 520 | 2230 |
| 95-50-1 | 1,2-Dichlorobenzene | 2230 | U | 471 | 2230 |
| 100-51-6 | Benzyl alcohol | 5510 | U | 760 | 5510 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 2230 | U | 1820 | 2230 |
| 95-48-7 | 2-Methylphenol | 2200 | U | 793 | 2200 |
| 67-72-1 | Hexachloroethane | 2230 | U | 413 | 2230 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 2230 | U | 504 | 2230 |
| 106-44-5 | 4-Methylphenol | 2230 | U | 487 | 2230 |
| 98-95-3 | Nitrobenzene | 2230 | U | 496 | 2230 |
| 78-59-1 | Isophorone | 2230 | U | 487 | 2230 |
| 88-75-5 | 2-Nitrophenol | 2230 | U | 595 | 2230 |
| 105-67-9 | 2,4-Dimethylphenol | 2200 | U | 471 | 2200 |
| 65-85-0 | Benzoic acid | 5510 | U | 2230 | 5510 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 2200 | U | 471 | 2200 |
| 120-83-2 | 2,4-Dichlorophenol | 2200 | U | 620 | 2200 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 2230 | U | 479 | 2230 |
| 91-20-3 | Naphthalene | 2230 | U | 529 | 2230 |
| 106-47-8 | 4-Chloroaniline | 2230 | U | 520 | 2230 |
| 91-57-6 | 2-Methylnaphthalene | 2230 | U | 479 | 2230 |
| 87-68-3 | Hexachlorobutadiene | 2230 | U | 479 | 2230 |

1

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201D10.D

Sample wt/vol: 25.43 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0548

PercentSolids: 95.2 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 59-50-7 | 4-Chloro-3-methylphenol | 2230 | U | 463 | 2230 |
| 90-12-0 | 1-Methylnaphthalene | 2230 | U | 512 | 2230 |
| 77-47-4 | Hexachlorocyclopentadiene | 5510 | U | 330 | 5510 |
| 88-06-2 | 2,4,6-Trichlorophenol | 2200 | U | 562 | 2200 |
| 95-95-4 | 2,4,5-Trichlorophenol | 2200 | U | 611 | 2200 |
| 91-58-7 | 2-Chloronaphthalene | 2230 | U | 551 | 2230 |
| 88-74-4 | 2-Nitroaniline | 2230 | U | 471 | 2230 |
| 208-96-8 | Acenaphthylene | 2230 | U | 454 | 2230 |
| 131-11-3 | Dimethylphthalate | 2230 | U | 487 | 2230 |
| 606-20-2 | 2,6-Dinitrotoluene | 2230 | U | 413 | 2230 |
| 83-32-9 | Acenaphthene | 2230 | U | 405 | 2230 |
| 99-09-2 | 3-Nitroaniline | 2200 | U | 661 | 2200 |
| 51-28-5 | 2,4-Dinitrophenol | 11100 | U | 1820 | 11100 |
| 132-64-9 | Dibenzofuran | 2230 | U | 446 | 2230 |
| 121-14-2 | 2,4-Dinitrotoluene | 2230 | U | 405 | 2230 |
| 100-02-7 | 4-Nitrophenol | 5510 | U | 438 | 5510 |
| 86-73-7 | Fluorene | 2230 | U | 421 | 2230 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 2230 | U | 421 | 2230 |
| 84-66-2 | Diethylphthalate | 2230 | U | 421 | 2230 |
| 100-01-6 | 4-Nitroaniline | 2200 | U | 727 | 2200 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 2230 | U | 2200 | 2230 |
| 86-30-6 | N-Nitrosodiphenylamine | 2200 | U | 520 | 2200 |
| 101-55-3 | 4-Bromophenyl-phenylether | 2230 | U | 405 | 2230 |
| 118-74-1 | Hexachlorobenzene | 2200 | U | 438 | 2200 |
| 87-86-5 | Pentachlorophenol | 2230 | U | 1100 | 2230 |
| 85-01-8 | Phenanthrene | 1190 | J | 463 | 2230 |

1

## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201D10.D

Sample wt/vol: 25.43 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0548

PercentSolids: 95.2 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 120-12-7 | Anthracene | 2230 | U | 496 | 2230 |
| 84-74-2 | Di-n-butylphthalate | 2230 | U | 363 | 2230 |
| 206-44-0 | Fluoranthene | 2230 | U | 396 | 2230 |
| 129-00-0 | Pyrene | 2230 | U | 760 | 2230 |
| 92-87-5 | Benzidine | 5540 | U | 4960 | 5540 |
| 85-68-7 | Butylbenzylphthalate | 2230 | U | 520 | 2230 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 2230 | U | 487 | 2230 |
| 56-55-3 | Benzo(a)anthracene | 2230 | U | 471 | 2230 |
| 218-01-9 | Chrysene | 2200 | U | 281 | 2200 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 2230 | U | 686 | 2230 |
| 117-84-0 | Di-n-octylphthalate | 2230 | U | 479 | 2230 |
| 205-99-2 | Benzo(b)fluoranthene | 2230 | U | 520 | 2230 |
| 207-08-9 | Benzo(k)fluoranthene | 2230 | U | 471 | 2230 |
| 50-32-8 | Benzo(a)pyrene | 2230 | U | 355 | 2230 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 2230 | U | 430 | 2230 |
| 53-70-3 | Dibenzo(a,h)anthracene | 2230 | U | 339 | 2230 |
| 191-24-2 | Benzo(g,h,i)perylene | 2230 | U | 330 | 2230 |

1

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202D10.D

Sample wt/vol: 25.34 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0618

PercentSolids: 74.4 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 2830 | U | 753 | 2830 |
| 62-53-3 | Aniline | 2860 | U | 817 | 2860 |
| 111-44-4 | Bis(2-chloroethyl)ether | 2860 | U | 711 | 2860 |
| 108-95-2 | Phenol | 14200 | U | 690 | 14200 |
| 95-57-8 | 2-Chlorophenol | 2860 | U | 732 | 2860 |
| 541-73-1 | 1,3-Dichlorobenzene | 2860 | U | 647 | 2860 |
| 106-46-7 | 1,4-Dichlorobenzene | 2860 | U | 668 | 2860 |
| 95-50-1 | 1,2-Dichlorobenzene | 2860 | U | 605 | 2860 |
| 100-51-6 | Benzyl alcohol | 7080 | U | 976 | 7080 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 2860 | U | 2330 | 2860 |
| 95-48-7 | 2-Methylphenol | 2830 | U | 1020 | 2830 |
| 67-72-1 | Hexachloroethane | 2860 | U | 530 | 2860 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 2860 | U | 647 | 2860 |
| 106-44-5 | 4-Methylphenol | 2860 | U | 626 | 2860 |
| 98-95-3 | Nitrobenzene | 2860 | U | 636 | 2860 |
| 78-59-1 | Isophorone | 2860 | U | 626 | 2860 |
| 88-75-5 | 2-Nitrophenol | 2860 | U | 764 | 2860 |
| 105-67-9 | 2,4-Dimethylphenol | 2830 | U | 605 | 2830 |
| 65-85-0 | Benzoic acid | 7080 | U | 2860 | 7080 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 2830 | U | 605 | 2830 |
| 120-83-2 | 2,4-Dichlorophenol | 2830 | U | 796 | 2830 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 2860 | U | 615 | 2860 |
| 91-20-3 | Naphthalene | 2020 | J | 679 | 2860 |
| 106-47-8 | 4-Chloroaniline | 2860 | U | 668 | 2860 |
| 91-57-6 | 2-Methylnaphthalene | 691 | J | 615 | 2860 |
| 87-68-3 | Hexachlorobutadiene | 2860 | U | 615 | 2860 |

1

## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202D10.D

Sample wt/vol: 25.34 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0618

PercentSolids: 74.4 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 59-50-7 | 4-Chloro-3-methylphenol | 2860 | U | 594 | 2860 |
| 90-12-0 | 1-Methylnaphthalene | 2860 | U | 658 | 2860 |
| 77-47-4 | Hexachlorocyclopentadiene | 7080 | U | 424 | 7080 |
| 88-06-2 | 2,4,6-Trichlorophenol | 2830 | U | 721 | 2830 |
| 95-95-4 | 2,4,5-Trichlorophenol | 2830 | U | 785 | 2830 |
| 91-58-7 | 2-Chloronaphthalene | 2860 | U | 708 | 2860 |
| 88-74-4 | 2-Nitroaniline | 2860 | U | 605 | 2860 |
| 208-96-8 | Acenaphthylene | 2860 | U | 583 | 2860 |
| 131-11-3 | Dimethylphthalate | 2860 | U | 626 | 2860 |
| 606-20-2 | 2,6-Dinitrotoluene | 2860 | U | 530 | 2860 |
| 83-32-9 | Acenaphthene | 2860 | U | 520 | 2860 |
| 99-09-2 | 3-Nitroaniline | 2830 | U | 849 | 2830 |
| 51-28-5 | 2,4-Dinitrophenol | 14200 | U | 2330 | 14200 |
| 132-64-9 | Dibenzofuran | 2860 | U | 573 | 2860 |
| 121-14-2 | 2,4-Dinitrotoluene | 2860 | U | 520 | 2860 |
| 100-02-7 | 4-Nitrophenol | 7080 | U | 562 | 7080 |
| 86-73-7 | Fluorene | 2860 | U | 541 | 2860 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 2860 | U | 541 | 2860 |
| 84-66-2 | Diethylphthalate | 2860 | U | 541 | 2860 |
| 100-01-6 | 4-Nitroaniline | 2830 | U | 934 | 2830 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 2860 | U | 2820 | 2860 |
| 86-30-6 | N-Nitrosodiphenylamine | 2830 | U | 668 | 2830 |
| 101-55-3 | 4-Bromophenyl-phenylether | 2860 | U | 520 | 2860 |
| 118-74-1 | Hexachlorobenzene | 2830 | U | 562 | 2830 |
| 87-86-5 | Pentachlorophenol | 2860 | U | 1410 | 2860 |
| 85-01-8 | Phenanthrene | 2320 | J | 594 | 2860 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202D10.D

Sample wt/vol: 25.34 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0618

PercentSolids: 74.4 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 120-12-7 | Anthracene | 2860 | U | 636 | 2860 |
| 84-74-2 | Di-n-butylphthalate | 2860 | U | 467 | 2860 |
| 206-44-0 | Fluoranthene | 1900 | J | 509 | 2860 |
| 129-00-0 | Pyrene | 1620 | J | 976 | 2860 |
| 92-87-5 | Benzidine | 7110 | U | 6360 | 7110 |
| 85-68-7 | Butylbenzylphthalate | 2860 | U | 668 | 2860 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 2860 | U | 626 | 2860 |
| 56-55-3 | Benzo(a)anthracene | 732 | J | 605 | 2860 |
| 218-01-9 | Chrysene | 757 | J | 361 | 2830 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 3830 | | 880 | 2860 |
| 117-84-0 | Di-n-octylphthalate | 2860 | U | 615 | 2860 |
| 205-99-2 | Benzo(b)fluoranthene | 2860 | U | 668 | 2860 |
| 207-08-9 | Benzo(k)fluoranthene | 2860 | U | 605 | 2860 |
| 50-32-8 | Benzo(a)pyrene | 2860 | U | 456 | 2860 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 2860 | U | 552 | 2860 |
| 53-70-3 | Dibenzo(a,h)anthracene | 2860 | U | 435 | 2860 |
| 191-24-2 | Benzo(g,h,i)perylene | 523 | J | 424 | 2860 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210D5.D

Sample wt/vol: 25.42 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1531

PercentSolids: 75.2 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 1400 | U | 371 | 1400 |
| 62-53-3 | Aniline | 1410 | U | 403 | 1410 |
| 111-44-4 | Bis(2-chloroethyl)ether | 1410 | U | 350 | 1410 |
| 108-95-2 | Phenol | 6980 | U | 340 | 6980 |
| 95-57-8 | 2-Chlorophenol | 1410 | U | 361 | 1410 |
| 541-73-1 | 1,3-Dichlorobenzene | 1410 | U | 319 | 1410 |
| 106-46-7 | 1,4-Dichlorobenzene | 1410 | U | 330 | 1410 |
| 95-50-1 | 1,2-Dichlorobenzene | 1410 | U | 298 | 1410 |
| 100-51-6 | Benzyl alcohol | 3490 | U | 481 | 3490 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 1410 | U | 1150 | 1410 |
| 95-48-7 | 2-Methylphenol | 1400 | U | 502 | 1400 |
| 67-72-1 | Hexachloroethane | 1410 | U | 262 | 1410 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 1410 | U | 319 | 1410 |
| 106-44-5 | 4-Methylphenol | 1410 | U | 309 | 1410 |
| 98-95-3 | Nitrobenzene | 1410 | U | 314 | 1410 |
| 78-59-1 | Isophorone | 1410 | U | 309 | 1410 |
| 88-75-5 | 2-Nitrophenol | 1410 | U | 377 | 1410 |
| 105-67-9 | 2,4-Dimethylphenol | 1400 | U | 298 | 1400 |
| 65-85-0 | Benzoic acid | 3490 | U | 1410 | 3490 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 1400 | U | 298 | 1400 |
| 120-83-2 | 2,4-Dichlorophenol | 1400 | U | 392 | 1400 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1410 | U | 303 | 1410 |
| 91-20-3 | Naphthalene | 1410 | U | 335 | 1410 |
| 106-47-8 | 4-Chloroaniline | 1410 | U | 330 | 1410 |
| 91-57-6 | 2-Methylnaphthalene | 1410 | U | 303 | 1410 |
| 87-68-3 | Hexachlorobutadiene | 1410 | U | 303 | 1410 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210D5.D

Sample wt/vol: 25.42 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1531

PercentSolids: 75.2 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 59-50-7 | 4-Chloro-3-methylphenol | 1410 | U | 293 | 1410 |
| 90-12-0 | 1-Methylnaphthalene | 1410 | U | 324 | 1410 |
| 77-47-4 | Hexachlorocyclopentadiene | 3490 | U | 209 | 3490 |
| 88-06-2 | 2,4,6-Trichlorophenol | 1400 | U | 356 | 1400 |
| 95-95-4 | 2,4,5-Trichlorophenol | 1400 | U | 387 | 1400 |
| 91-58-7 | 2-Chloronaphthalene | 1410 | U | 349 | 1410 |
| 88-74-4 | 2-Nitroaniline | 1410 | U | 298 | 1410 |
| 208-96-8 | Acenaphthylene | 1410 | U | 288 | 1410 |
| 131-11-3 | Dimethylphthalate | 1410 | U | 309 | 1410 |
| 606-20-2 | 2,6-Dinitrotoluene | 1410 | U | 262 | 1410 |
| 83-32-9 | Acenaphthene | 1410 | U | 256 | 1410 |
| 99-09-2 | 3-Nitroaniline | 1400 | U | 418 | 1400 |
| 51-28-5 | 2,4-Dinitrophenol | 7010 | U | 1150 | 7010 |
| 132-64-9 | Dibenzofuran | 1410 | U | 282 | 1410 |
| 121-14-2 | 2,4-Dinitrotoluene | 1410 | U | 256 | 1410 |
| 100-02-7 | 4-Nitrophenol | 3490 | U | 277 | 3490 |
| 86-73-7 | Fluorene | 1410 | U | 267 | 1410 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1410 | U | 267 | 1410 |
| 84-66-2 | Diethylphthalate | 1410 | U | 267 | 1410 |
| 100-01-6 | 4-Nitroaniline | 1400 | U | 460 | 1400 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 1410 | U | 1390 | 1410 |
| 86-30-6 | N-Nitrosodiphenylamine | 1400 | U | 330 | 1400 |
| 101-55-3 | 4-Bromophenyl-phenylether | 1410 | U | 256 | 1410 |
| 118-74-1 | Hexachlorobenzene | 1400 | U | 277 | 1400 |
| 87-86-5 | Pentachlorophenol | 1410 | U | 696 | 1410 |
| 85-01-8 | Phenanthrene | 1410 | U | 293 | 1410 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210D5.D

Sample wt/vol: 25.42 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1531

PercentSolids: 75.2 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 120-12-7 | Anthracene | 1410 | U | 314 | 1410 |
| 84-74-2 | Di-n-butylphthalate | 1410 | U | 230 | 1410 |
| 206-44-0 | Fluoranthene | 1410 | U | 251 | 1410 |
| 129-00-0 | Pyrene | 1410 | U | 481 | 1410 |
| 92-87-5 | Benzidine | 3500 | U | 3140 | 3500 |
| 85-68-7 | Butylbenzylphthalate | 1410 | U | 330 | 1410 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1410 | U | 309 | 1410 |
| 56-55-3 | Benzo(a)anthracene | 1410 | U | 298 | 1410 |
| 218-01-9 | Chrysene | 1400 | U | 178 | 1400 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 1410 | U | 434 | 1410 |
| 117-84-0 | Di-n-octylphthalate | 1410 | U | 303 | 1410 |
| 205-99-2 | Benzo(b)fluoranthene | 1410 | U | 330 | 1410 |
| 207-08-9 | Benzo(k)fluoranthene | 1410 | U | 298 | 1410 |
| 50-32-8 | Benzo(a)pyrene | 1410 | U | 225 | 1410 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1410 | U | 272 | 1410 |
| 53-70-3 | Dibenzo(a,h)anthracene | 1410 | U | 214 | 1410 |
| 191-24-2 | Benzo(g,h,i)perylene | 1410 | U | 209 | 1410 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211D5.D

Sample wt/vol: 25.27 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1603

PercentSolids: 74.4 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 1420 | U | 378 | 1420 |
| 62-53-3 | Aniline | 1440 | U | 410 | 1440 |
| 111-44-4 | Bis(2-chloroethyl)ether | 1440 | U | 356 | 1440 |
| 108-95-2 | Phenol | 7100 | U | 346 | 7100 |
| 95-57-8 | 2-Chlorophenol | 1440 | U | 367 | 1440 |
| 541-73-1 | 1,3-Dichlorobenzene | 1440 | U | 324 | 1440 |
| 106-46-7 | 1,4-Dichlorobenzene | 1440 | U | 335 | 1440 |
| 95-50-1 | 1,2-Dichlorobenzene | 1440 | U | 303 | 1440 |
| 100-51-6 | Benzyl alcohol | 3550 | U | 489 | 3550 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 1440 | U | 1170 | 1440 |
| 95-48-7 | 2-Methylphenol | 1420 | U | 511 | 1420 |
| 67-72-1 | Hexachloroethane | 1440 | U | 266 | 1440 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 1440 | U | 324 | 1440 |
| 106-44-5 | 4-Methylphenol | 1440 | U | 314 | 1440 |
| 98-95-3 | Nitrobenzene | 1440 | U | 319 | 1440 |
| 78-59-1 | Isophorone | 1440 | U | 314 | 1440 |
| 88-75-5 | 2-Nitrophenol | 1440 | U | 383 | 1440 |
| 105-67-9 | 2,4-Dimethylphenol | 1420 | U | 303 | 1420 |
| 65-85-0 | Benzoic acid | 3550 | U | 1440 | 3550 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 1420 | U | 303 | 1420 |
| 120-83-2 | 2,4-Dichlorophenol | 1420 | U | 399 | 1420 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1440 | U | 308 | 1440 |
| 91-20-3 | Naphthalene | 1440 | U | 340 | 1440 |
| 106-47-8 | 4-Chloroaniline | 1440 | U | 335 | 1440 |
| 91-57-6 | 2-Methylnaphthalene | 1440 | U | 308 | 1440 |
| 87-68-3 | Hexachlorobutadiene | 1440 | U | 308 | 1440 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211D5.D

Sample wt/vol: 25.27 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1603

PercentSolids: 74.4 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 59-50-7 | 4-Chloro-3-methylphenol | 1440 | U | 298 | 1440 |
| 90-12-0 | 1-Methylnaphthalene | 1440 | U | 330 | 1440 |
| 77-47-4 | Hexachlorocyclopentadiene | 3550 | U | 213 | 3550 |
| 88-06-2 | 2,4,6-Trichlorophenol | 1420 | U | 362 | 1420 |
| 95-95-4 | 2,4,5-Trichlorophenol | 1420 | U | 394 | 1420 |
| 91-58-7 | 2-Chloronaphthalene | 1440 | U | 355 | 1440 |
| 88-74-4 | 2-Nitroaniline | 1440 | U | 303 | 1440 |
| 208-96-8 | Acenaphthylene | 1440 | U | 292 | 1440 |
| 131-11-3 | Dimethylphthalate | 1440 | U | 314 | 1440 |
| 606-20-2 | 2,6-Dinitrotoluene | 1440 | U | 266 | 1440 |
| 83-32-9 | Acenaphthene | 1440 | U | 261 | 1440 |
| 99-09-2 | 3-Nitroaniline | 1420 | U | 426 | 1420 |
| 51-28-5 | 2,4-Dinitrophenol | 7130 | U | 1170 | 7130 |
| 132-64-9 | Dibenzofuran | 1440 | U | 287 | 1440 |
| 121-14-2 | 2,4-Dinitrotoluene | 1440 | U | 261 | 1440 |
| 100-02-7 | 4-Nitrophenol | 3550 | U | 282 | 3550 |
| 86-73-7 | Fluorene | 1440 | U | 271 | 1440 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1440 | U | 271 | 1440 |
| 84-66-2 | Diethylphthalate | 1440 | U | 271 | 1440 |
| 100-01-6 | 4-Nitroaniline | 1420 | U | 468 | 1420 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 1440 | U | 1410 | 1440 |
| 86-30-6 | N-Nitrosodiphenylamine | 1420 | U | 335 | 1420 |
| 101-55-3 | 4-Bromophenyl-phenylether | 1440 | U | 261 | 1440 |
| 118-74-1 | Hexachlorobenzene | 1420 | U | 282 | 1420 |
| 87-86-5 | Pentachlorophenol | 1440 | U | 707 | 1440 |
| 85-01-8 | Phenanthrene | 1440 | U | 298 | 1440 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211D5.D

Sample wt/vol: 25.27 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1603

PercentSolids: 74.4 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 120-12-7 | Anthracene | 1440 | U | 319 | 1440 |
| 84-74-2 | Di-n-butylphthalate | 1440 | U | 234 | 1440 |
| 206-44-0 | Fluoranthene | 1440 | U | 255 | 1440 |
| 129-00-0 | Pyrene | 1440 | U | 489 | 1440 |
| 92-87-5 | Benzidine | 3560 | U | 3190 | 3560 |
| 85-68-7 | Butylbenzylphthalate | 1440 | U | 335 | 1440 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1440 | U | 314 | 1440 |
| 56-55-3 | Benzo(a)anthracene | 1440 | U | 303 | 1440 |
| 218-01-9 | Chrysene | 1420 | U | 181 | 1420 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 1440 | U | 441 | 1440 |
| 117-84-0 | Di-n-octylphthalate | 1440 | U | 308 | 1440 |
| 205-99-2 | Benzo(b)fluoranthene | 1440 | U | 335 | 1440 |
| 207-08-9 | Benzo(k)fluoranthene | 1440 | U | 303 | 1440 |
| 50-32-8 | Benzo(a)pyrene | 1440 | U | 229 | 1440 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1440 | U | 276 | 1440 |
| 53-70-3 | Dibenzo(a,h)anthracene | 1440 | U | 218 | 1440 |
| 191-24-2 | Benzo(g,h,i)perylene | 1440 | U | 213 | 1440 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-IDW-WATER-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214 Lab File ID 86214D2.D

Sample wt/vol: 980 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/07/11 Time: 1520

PercentSolids: 0 decanted : Dilution Factor: 2

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 8.2 | U | 4.5 | 8.2 |
| 62-53-3 | Aniline | 8.2 | U | 5.7 | 8.2 |
| 111-44-4 | Bis(2-chloroethyl)ether | 8.2 | U | 6.1 | 8.2 |
| 108-95-2 | Phenol | 4.4 | J | 3.5 | 8.2 |
| 95-57-8 | 2-Chlorophenol | 8.2 | U | 5.9 | 8.2 |
| 541-73-1 | 1,3-Dichlorobenzene | 8.2 | U | 5.5 | 8.2 |
| 106-46-7 | 1,4-Dichlorobenzene | 8.2 | U | 5.5 | 8.2 |
| 95-50-1 | 1,2-Dichlorobenzene | 8.2 | U | 5.3 | 8.2 |
| 100-51-6 | Benzyl alcohol | 20.4 | U | 6.3 | 20.4 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 8.2 | U | 6.7 | 8.2 |
| 95-48-7 | 2-Methylphenol | 8.2 | U | 5.3 | 8.2 |
| 67-72-1 | Hexachloroethane | 8.2 | U | 5.3 | 8.2 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 8.2 | U | 6.1 | 8.2 |
| 106-44-5 | 4-Methylphenol | 20.4 | U | 12.4 | 20.4 |
| 98-95-3 | Nitrobenzene | 8.2 | U | 2 | 8.2 |
| 78-59-1 | Isophorone | 8.2 | U | 7.8 | 8.2 |
| 88-75-5 | 2-Nitrophenol | 8.2 | U | 1.6 | 8.2 |
| 105-67-9 | 2,4-Dimethylphenol | 8.2 | U | 4.7 | 8.2 |
| 65-85-0 | Benzoic acid | 102 | U | 28.6 | 102 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 8.2 | U | 7.1 | 8.2 |
| 120-83-2 | 2,4-Dichlorophenol | 8.2 | U | 6.3 | 8.2 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 8.2 | U | 5.3 | 8.2 |
| 91-20-3 | Naphthalene | 8.2 | U | 5.7 | 8.2 |
| 106-47-8 | 4-Chloroaniline | 8.2 | U | 6.1 | 8.2 |
| 91-57-6 | 2-Methylnaphthalene | 8.2 | U | 5.7 | 8.2 |
| 87-68-3 | Hexachlorobutadiene | 8.2 | U | 5.1 | 8.2 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-IDW-WATER-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214 Lab File ID 86214D2.D

Sample wt/vol: 980 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/07/11 Time: 1520

PercentSolids: 0 decanted : Dilution Factor: 2

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 59-50-7 | 4-Chloro-3-methylphenol | 8.2 | U | 5.5 | 8.2 |
| 90-12-0 | 1-Methylnaphthalene | 8.2 | U | 5.5 | 8.2 |
| 77-47-4 | Hexachlorocyclopentadiene | 8.2 | U | 1.7 | 8.2 |
| 88-06-2 | 2,4,6-Trichlorophenol | 8.2 | U | 1.7 | 8.2 |
| 95-95-4 | 2,4,5-Trichlorophenol | 8.2 | U | 6.9 | 8.2 |
| 91-58-7 | 2-Chloronaphthalene | 8.2 | U | 5.7 | 8.2 |
| 88-74-4 | 2-Nitroaniline | 8.2 | U | 6.1 | 8.2 |
| 208-96-8 | Acenaphthylene | 8.2 | U | 6.1 | 8.2 |
| 131-11-3 | Dimethylphthalate | 8.2 | U | 6.1 | 8.2 |
| 606-20-2 | 2,6-Dinitrotoluene | 8.2 | U | 5.7 | 8.2 |
| 83-32-9 | Acenaphthene | 8.2 | U | 5.7 | 8.2 |
| 99-09-2 | 3-Nitroaniline | 8.2 | U | 5.7 | 8.2 |
| 51-28-5 | 2,4-Dinitrophenol | 40.8 | U | 11.4 | 40.8 |
| 132-64-9 | Dibenzofuran | 8.2 | U | 5.5 | 8.2 |
| 121-14-2 | 2,4-Dinitrotoluene | 8.2 | U | 5.7 | 8.2 |
| 100-02-7 | 4-Nitrophenol | 8.2 | U | 8.2 | 8.2 |
| 86-73-7 | Fluorene | 8.2 | U | 5.9 | 8.2 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 8.2 | U | 5.1 | 8.2 |
| 84-66-2 | Diethylphthalate | 8.2 | U | 5.7 | 8.2 |
| 100-01-6 | 4-Nitroaniline | 8.2 | U | 2.6 | 8.2 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 8.2 | U | 8.2 | 8.2 |
| 86-30-6 | N-Nitrosodiphenylamine | 8.2 | U | 6.9 | 8.2 |
| 101-55-3 | 4-Bromophenyl-phenylether | 8.2 | U | 4.7 | 8.2 |
| 118-74-1 | Hexachlorobenzene | 8.2 | U | 0.84 | 8.2 |
| 87-86-5 | Pentachlorophenol | 20.4 | U | 2.8 | 20.4 |
| 85-01-8 | Phenanthrene | 8.2 | U | 5.7 | 8.2 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-IDW-WATER-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214 Lab File ID 86214D2.D

Sample wt/vol: 980 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/07/11 Time: 1520

PercentSolids: 0 decanted : Dilution Factor: 2

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 120-12-7 | Anthracene | 8.2 | U | 5.7 | 8.2 |
| 84-74-2 | Di-n-butylphthalate | 2 | JB | 1.8 | 8.2 |
| 206-44-0 | Fluoranthene | 8.2 | U | 5.7 | 8.2 |
| 129-00-0 | Pyrene | 8.2 | U | 2.4 | 8.2 |
| 92-87-5 | Benzidine | 40.8 | U | 40.8 | 40.8 |
| 85-68-7 | Butylbenzylphthalate | 8.2 | U | 6.1 | 8.2 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 8.2 | U | 5.5 | 8.2 |
| 56-55-3 | Benzo(a)anthracene | 8.2 | U | 5.3 | 8.2 |
| 218-01-9 | Chrysene | 8.2 | U | 5.9 | 8.2 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 119 | B | 9 | 10.2 |
| 117-84-0 | Di-n-octylphthalate | 8.2 | U | 2.2 | 8.2 |
| 205-99-2 | Benzo(b)fluoranthene | 8.2 | U | 5.3 | 8.2 |
| 207-08-9 | Benzo(k)fluoranthene | 8.2 | U | 5.9 | 8.2 |
| 50-32-8 | Benzo(a)pyrene | 8.2 | U | 5.7 | 8.2 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 8.2 | U | 3.3 | 8.2 |
| 53-70-3 | Dibenzo(a,h)anthracene | 8.2 | U | 2.4 | 8.2 |
| 191-24-2 | Benzo(g,h,i)perylene | 8.2 | U | 5.3 | 8.2 |

# 8270 QC Summary

080911 1740

1

## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

97053MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 97053MB Lab File ID: 6323MB.D

Sample wt/vol: 1000 Units: ML Date Received: 08/24/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/06/11 Time: 1941

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 4 | U | 2.2 | 4 |
| 62-53-3 | Aniline | 4 | U | 2.8 | 4 |
| 111-44-4 | Bis(2-chloroethyl)ether | 4 | U | 3 | 4 |
| 108-95-2 | Phenol | 4 | U | 1.7 | 4 |
| 95-57-8 | 2-Chlorophenol | 4 | U | 2.9 | 4 |
| 541-73-1 | 1,3-Dichlorobenzene | 4 | U | 2.7 | 4 |
| 106-46-7 | 1,4-Dichlorobenzene | 4 | U | 2.7 | 4 |
| 95-50-1 | 1,2-Dichlorobenzene | 4 | U | 2.6 | 4 |
| 100-51-6 | Benzyl alcohol | 10 | U | 3.1 | 10 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 4 | U | 3.3 | 4 |
| 95-48-7 | 2-Methylphenol | 4 | U | 2.6 | 4 |
| 67-72-1 | Hexachloroethane | 4 | U | 2.6 | 4 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 4 | U | 3 | 4 |
| 106-44-5 | 4-Methylphenol | 10 | U | 6.1 | 10 |
| 98-95-3 | Nitrobenzene | 4 | U | 1 | 4 |
| 78-59-1 | Isophorone | 4 | U | 3.8 | 4 |
| 88-75-5 | 2-Nitrophenol | 4 | U | 0.77 | 4 |
| 105-67-9 | 2,4-Dimethylphenol | 4 | U | 2.3 | 4 |
| 65-85-0 | Benzoic acid | 50 | U | 14 | 50 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 4 | U | 3.5 | 4 |
| 120-83-2 | 2,4-Dichlorophenol | 4 | U | 3.1 | 4 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 4 | U | 2.6 | 4 |
| 91-20-3 | Naphthalene | 4 | U | 2.8 | 4 |
| 106-47-8 | 4-Chloroaniline | 4 | U | 3 | 4 |
| 91-57-6 | 2-Methylnaphthalene | 4 | U | 2.8 | 4 |
| 87-68-3 | Hexachlorobutadiene | 4 | U | 2.5 | 4 |
| 59-50-7 | 4-Chloro-3-methylphenol | 4 | U | 2.7 | 4 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

97053MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 97053MB Lab File ID: 6323MB.D

Sample wt/vol: 1000 Units: ML Date Received: 08/24/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/06/11 Time: 1941

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 90-12-0 | 1-Methylnaphthalene | 4 | U | 2.7 | 4 |
| 77-47-4 | Hexachlorocyclopentadiene | 4 | U | 0.82 | 4 |
| 88-06-2 | 2,4,6-Trichlorophenol | 4 | U | 0.84 | 4 |
| 95-95-4 | 2,4,5-Trichlorophenol | 4 | U | 3.4 | 4 |
| 91-58-7 | 2-Chloronaphthalene | 4 | U | 2.8 | 4 |
| 88-74-4 | 2-Nitroaniline | 4 | U | 3 | 4 |
| 208-96-8 | Acenaphthylene | 4 | U | 3 | 4 |
| 131-11-3 | Dimethylphthalate | 4 | U | 3 | 4 |
| 606-20-2 | 2,6-Dinitrotoluene | 4 | U | 2.8 | 4 |
| 83-32-9 | Acenaphthene | 4 | U | 2.8 | 4 |
| 99-09-2 | 3-Nitroaniline | 4 | U | 2.8 | 4 |
| 51-28-5 | 2,4-Dinitrophenol | 20 | U | 5.6 | 20 |
| 132-64-9 | Dibenzofuran | 4 | U | 2.7 | 4 |
| 121-14-2 | 2,4-Dinitrotoluene | 4 | U | 2.8 | 4 |
| 100-02-7 | 4-Nitrophenol | 4 | U | 4 | 4 |
| 86-73-7 | Fluorene | 4 | U | 2.9 | 4 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 4 | U | 2.5 | 4 |
| 84-66-2 | Diethylphthalate | 4 | U | 2.8 | 4 |
| 100-01-6 | 4-Nitroaniline | 4 | U | 1.3 | 4 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 4 | U | 4 | 4 |
| 86-30-6 | N-Nitrosodiphenylamine | 4 | U | 3.4 | 4 |
| 101-55-3 | 4-Bromophenyl-phenylether | 4 | U | 2.3 | 4 |
| 118-74-1 | Hexachlorobenzene | 4 | U | 0.41 | 4 |
| 87-86-5 | Pentachlorophenol | 10 | U | 1.4 | 10 |
| 85-01-8 | Phenanthrene | 4 | U | 2.8 | 4 |
| 120-12-7 | Anthracene | 4 | U | 2.8 | 4 |
| 84-74-2 | Di-n-butylphthalate | 1.5 | J | 0.86 | 4 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

97053MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 97053MB Lab File ID: 6323MB.D

Sample wt/vol: 1000 Units: ML Date Received: 08/24/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/06/11 Time: 1941

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 206-44-0 | Fluoranthene | 4 | U | 2.8 | 4 |
| 129-00-0 | Pyrene | 4 | U | 1.2 | 4 |
| 92-87-5 | Benzidine | 20 | U | 20 | 20 |
| 85-68-7 | Butylbenzylphthalate | 4 | U | 3 | 4 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 4 | U | 2.7 | 4 |
| 56-55-3 | Benzo(a)anthracene | 4 | U | 2.6 | 4 |
| 218-01-9 | Chrysene | 4 | U | 2.9 | 4 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 19.4 | | 4.4 | 5 |
| 117-84-0 | Di-n-octylphthalate | 4 | U | 1.1 | 4 |
| 205-99-2 | Benzo(b)fluoranthene | 4 | U | 2.6 | 4 |
| 207-08-9 | Benzo(k)fluoranthene | 4 | U | 2.9 | 4 |
| 50-32-8 | Benzo(a)pyrene | 4 | U | 2.8 | 4 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 4 | U | 1.6 | 4 |
| 53-70-3 | Dibenzo(a,h)anthracene | 4 | U | 1.2 | 4 |
| 191-24-2 | Benzo(g,h,i)perylene | 4 | U | 2.6 | 4 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

97268MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 97268MB Lab File ID: 6352MB.D

Sample wt/vol: 20.23 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0352

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 264 | U | 70.2 | 264 |
| 62-53-3 | Aniline | 267 | U | 76.1 | 267 |
| 111-44-4 | Bis(2-chloroethyl)ether | 267 | U | 66.2 | 267 |
| 108-95-2 | Phenol | 1320 | U | 64.2 | 1320 |
| 95-57-8 | 2-Chlorophenol | 267 | U | 68.2 | 267 |
| 541-73-1 | 1,3-Dichlorobenzene | 267 | U | 60.3 | 267 |
| 106-46-7 | 1,4-Dichlorobenzene | 267 | U | 62.3 | 267 |
| 95-50-1 | 1,2-Dichlorobenzene | 267 | U | 56.4 | 267 |
| 100-51-6 | Benzyl alcohol | 659 | U | 91 | 659 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 267 | U | 217 | 267 |
| 95-48-7 | 2-Methylphenol | 264 | U | 94.9 | 264 |
| 67-72-1 | Hexachloroethane | 267 | U | 49.4 | 267 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 267 | U | 60.3 | 267 |
| 106-44-5 | 4-Methylphenol | 267 | U | 58.3 | 267 |
| 98-95-3 | Nitrobenzene | 267 | U | 59.3 | 267 |
| 78-59-1 | Isophorone | 267 | U | 58.3 | 267 |
| 88-75-5 | 2-Nitrophenol | 267 | U | 71.2 | 267 |
| 105-67-9 | 2,4-Dimethylphenol | 264 | U | 56.4 | 264 |
| 65-85-0 | Benzoic acid | 659 | U | 267 | 659 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 264 | U | 56.4 | 264 |
| 120-83-2 | 2,4-Dichlorophenol | 264 | U | 74.1 | 264 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 267 | U | 57.3 | 267 |
| 91-20-3 | Naphthalene | 267 | U | 63.3 | 267 |
| 106-47-8 | 4-Chloroaniline | 267 | U | 62.3 | 267 |
| 91-57-6 | 2-Methylnaphthalene | 267 | U | 57.3 | 267 |
| 87-68-3 | Hexachlorobutadiene | 267 | U | 57.3 | 267 |
| 59-50-7 | 4-Chloro-3-methylphenol | 267 | U | 55.4 | 267 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

97268MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 97268MB Lab File ID: 6352MB.D

Sample wt/vol: 20.23 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0352

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 90-12-0 | 1-Methylnaphthalene | 267 | U | 61.3 | 267 |
| 77-47-4 | Hexachlorocyclopentadiene | 659 | U | 39.5 | 659 |
| 88-06-2 | 2,4,6-Trichlorophenol | 264 | U | 67.2 | 264 |
| 95-95-4 | 2,4,5-Trichlorophenol | 264 | U | 73.2 | 264 |
| 91-58-7 | 2-Chloronaphthalene | 267 | U | 65.9 | 267 |
| 88-74-4 | 2-Nitroaniline | 267 | U | 56.4 | 267 |
| 208-96-8 | Acenaphthylene | 267 | U | 54.4 | 267 |
| 131-11-3 | Dimethylphthalate | 267 | U | 58.3 | 267 |
| 606-20-2 | 2,6-Dinitrotoluene | 267 | U | 49.4 | 267 |
| 83-32-9 | Acenaphthene | 267 | U | 48.4 | 267 |
| 99-09-2 | 3-Nitroaniline | 264 | U | 79.1 | 264 |
| 51-28-5 | 2,4-Dinitrophenol | 1320 | U | 217 | 1320 |
| 132-64-9 | Dibenzofuran | 267 | U | 53.4 | 267 |
| 121-14-2 | 2,4-Dinitrotoluene | 267 | U | 48.4 | 267 |
| 100-02-7 | 4-Nitrophenol | 659 | U | 52.4 | 659 |
| 86-73-7 | Fluorene | 267 | U | 50.4 | 267 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 267 | U | 50.4 | 267 |
| 84-66-2 | Diethylphthalate | 267 | U | 50.4 | 267 |
| 100-01-6 | 4-Nitroaniline | 264 | U | 87 | 264 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 267 | U | 263 | 267 |
| 86-30-6 | N-Nitrosodiphenylamine | 264 | U | 62.3 | 264 |
| 101-55-3 | 4-Bromophenyl-phenylether | 267 | U | 48.4 | 267 |
| 118-74-1 | Hexachlorobenzene | 264 | U | 52.4 | 264 |
| 87-86-5 | Pentachlorophenol | 267 | U | 131 | 267 |
| 85-01-8 | Phenanthrene | 267 | U | 55.4 | 267 |
| 120-12-7 | Anthracene | 267 | U | 59.3 | 267 |
| 84-74-2 | Di-n-butylphthalate | 267 | U | 43.5 | 267 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

97268MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 97268MB Lab File ID: 6352MB.D

Sample wt/vol: 20.23 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0352

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 206-44-0 | Fluoranthene | 267 | U | 47.4 | 267 |
| 129-00-0 | Pyrene | 267 | U | 91 | 267 |
| 92-87-5 | Benzidine | 662 | U | 593 | 662 |
| 85-68-7 | Butylbenzylphthalate | 267 | U | 62.3 | 267 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 267 | U | 58.3 | 267 |
| 56-55-3 | Benzo(a)anthracene | 267 | U | 56.4 | 267 |
| 218-01-9 | Chrysene | 264 | U | 33.6 | 264 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 267 | U | 82 | 267 |
| 117-84-0 | Di-n-octylphthalate | 267 | U | 57.3 | 267 |
| 205-99-2 | Benzo(b)fluoranthene | 267 | U | 62.3 | 267 |
| 207-08-9 | Benzo(k)fluoranthene | 267 | U | 56.4 | 267 |
| 50-32-8 | Benzo(a)pyrene | 267 | U | 42.5 | 267 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 267 | U | 51.4 | 267 |
| 53-70-3 | Dibenzo(a,h)anthracene | 267 | U | 40.5 | 267 |
| 191-24-2 | Benzo(g,h,i)perylene | 267 | U | 39.5 | 267 |

2A

WATER SEMI-VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): HPMS-5 ID: 0.25 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 97053MB | 55.4 | 38.6 | 52.0 | 53.0 | 118.0 | 71.4 | 0 |
| 97054LCS | 68.0 | 43.3 | 57.8 | 60.0 | 100.0 | 75.2 | 0 |
| 97055LCSD | 68.9 | 44.2 | 58.6 | 61.8 | 102.0 | 77.4 | 0 |
| KD-IDW-WATER-01 | 67.5 | 44.7 | 59.0 | 60.2 | 13.5 | 66.7 | 0 |

**Control Limits**

| | | | | |
|---|---|---|---|---|
| S1 | = | 2-Fluorophenol | 21 - | 120 |
| S2 | = | Phenol-d5 | 10 - | 94 |
| S3 | = | Nitrobenzene-d5 | 35 - | 114 |
| S4 | = | 2-Fluorobiphenyl | 43 - | 116 |
| S5 | = | 2,4,6-Tribromophenol | 10 - | 122 |
| S6 | = | p-Terphenyl-d14 | 33 - | 141 |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

2A

SOIL SEMI-VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): HPMS-5 ID: 0.25 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 97268MB | 92.3 | 87.7 | 64.0 | 64.0 | 67.4 | 73.7 | 0 |
| 97269LCS | 72.4 | 72.8 | 51.8 | 56.6 | 84.5 | 67.9 | 0 |
| KD-SB-1 16ft-16.5ft | 65.6 | 63.9 | 50.0 | 48.3 | 44.6 | 60.7 | 0 |
| KD-SB-2 11ft-12ft | 83.2 | 84.9 | 106.0 | 59.2 | 56.6 | 69.8 | 0 |
| KD-SB-6 3ft-4ft | 80.5 | 79.7 | 56.5 | 63.0 | 73.2 | 71.8 | 0 |
| KD-SB-9 3ft-4ft | 101.0 | 93.4 | 66.9 | 76.7 | 81.4 | 77.8 | 0 |

**Control Limits**

| | | | | |
|---|---|---|---|---|
| S1 | = | 2-Fluorophenol | 25 - | 121 |
| S2 | = | Phenol-d5 | 24 - | 113 |
| S3 | = | Nitrobenzene-d5 | 23 - | 120 |
| S4 | = | 2-Fluorobiphenyl | 30 - | 115 |
| S5 | = | 2,4,6-Tribromophenol | 19 - | 122 |
| S6 | = | p-Terphenyl-d14 | 18 - | 137 |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97054LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| N-Nitrosodimethylamine | 40 | 20.6 | 51.5 | | 20.0 | 36 - 89 |
| Aniline | 40 | 24.3 | 60.8 | | 20.0 | 45 - 155 |
| Bis(2-chloroethyl)ether | 40 | 29.4 | 73.5 | | 14.0 | 62 - 110 |
| Phenol | 40 | 15.1 | 37.8 | | 20.0 | 30 - 74 |
| 2-Chlorophenol | 40 | 32.4 | 81.0 | | 15.0 | 51 - 105 |
| 1,3-Dichlorobenzene | 40 | 23.2 | 58.0 | | 16.0 | 36 - 100 |
| 1,4-Dichlorobenzene | 40 | 23.1 | 57.8 | | 16.0 | 38 - 100 |
| 1,2-Dichlorobenzene | 40 | 24.1 | 60.2 | | 20.0 | 40 - 100 |
| Benzyl alcohol | 40 | 26.7 | 66.8 | | 20.0 | 60 - 110 |
| 2,2'-Oxybis(1-chloropropane) | 40 | 27.8 | 69.5 | | 14.0 | 59 - 119 |
| 2-Methylphenol | 40 | 27.6 | 69.0 | | 15.0 | 47 - 110 |
| Hexachloroethane | 40 | 20.5 | 51.2 | | 17.0 | 32 - 95 |
| N-Nitroso-di-n-propylamine | 40 | 31.3 | 78.2 | | 20.0 | 57 - 120 |
| 4-Methylphenol | 40 | 24.3 | 60.8 | | 10.0 | 37 - 110 |
| Nitrobenzene | 40 | 30.6 | 76.5 | | 20.0 | 61 - 110 |
| Isophorone | 40 | 36.7 | 91.8 | | 20.0 | 68 - 110 |
| 2-Nitrophenol | 40 | 33.3 | 83.2 | | 20.0 | 48 - 115 |
| 2,4-Dimethylphenol | 40 | 33.2 | 83.0 | | 20.0 | 47 - 110 |
| Benzoic acid | 140 | 21.9 | 15.6 | | 20.0 | 10 - 60 |
| Bis(2-chloroethoxy)methane | 40 | 29.6 | 74.0 | | 20.0 | 61 - 105 |
| 2,4-Dichlorophenol | 40 | 32 | 80.0 | | 20.0 | 54 - 105 |
| 1,2,4-Trichlorobenzene | 40 | 24.3 | 60.8 | | 18.0 | 45 - 105 |
| Naphthalene | 40 | 27.8 | 69.5 | | 15.0 | 50 - 100 |
| 4-Chloroaniline | 40 | 31 | 77.5 | | 17.0 | 52 - 110 |
| 2-Methylnaphthalene | 40 | 29.1 | 72.8 | | 19.0 | 57 - 105 |
| Hexachlorobutadiene | 40 | 24 | 60.0 | | 20.0 | 42 - 105 |
| 4-Chloro-3-methylphenol | 40 | 31.9 | 79.8 | | 12.0 | 55 - 110 |
| 1-Methylnaphthalene | 40 | 29.9 | 74.8 | | 17.0 | 53 - 125 |
| Hexachlorocyclopentadiene | 40 | 19.2 | 48.0 | | 20.0 | 27 - 139 |
| 2,4,6-Trichlorophenol | 40 | 34.5 | 86.2 | | 19.0 | 53 - 115 |
| 2,4,5-Trichlorophenol | 40 | 33.5 | 83.8 | | 20.0 | 50 - 110 |
| 2-Chloronaphthalene | 40 | 30.5 | 76.2 | | 19.0 | 35 - 105 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97054LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 2-Nitroaniline | 40 | 31.3 | 78.2 | | 18.0 | 66 - 115 |
| Acenaphthylene | 40 | 33.6 | 84.0 | | 15.0 | 58 - 105 |
| Dimethylphthalate | 40 | 37.1 | 92.8 | | 15.0 | 62 - 125 |
| 2,6-Dinitrotoluene | 40 | 35.1 | 87.8 | | 17.0 | 69 - 115 |
| Acenaphthene | 40 | 30.6 | 76.5 | | 20.0 | 60 - 110 |
| 3-Nitroaniline | 40 | 37 | 92.5 | | 20.0 | 61 - 125 |
| 2,4-Dinitrophenol | 80 | 39.4 | 49.2 * | | 20.0 | 56 - 140 |
| Dibenzofuran | 40 | 32 | 80.0 | | 20.0 | 64 - 105 |
| 2,4-Dinitrotoluene | 40 | 36.2 | 90.5 | | 18.0 | 69 - 120 |
| 4-Nitrophenol | 40 | 16.6 | 41.5 | | 20.0 | 27 - 80 |
| Fluorene | 40 | 31.3 | 78.2 | | 20.0 | 62 - 110 |
| 4-Chlorophenyl-phenylether | 40 | 32.5 | 81.2 | | 20.0 | 60 - 110 |
| Diethylphthalate | 40 | 37.6 | 94.0 | | 13.0 | 64 - 120 |
| 4-Nitroaniline | 40 | 37 | 92.5 | | 20.0 | 67 - 120 |
| 4,6-Dinitro-2-methylphenol | 40 | 28.3 | 70.8 | | 19.0 | 44 - 130 |
| N-Nitrosodiphenylamine | 40 | 35.6 | 89.0 | | 20.0 | 71 - 110 |
| 4-Bromophenyl-phenylether | 40 | 36.7 | 91.8 | | 17.0 | 54 - 113 |
| Hexachlorobenzene | 40 | 35.6 | 89.0 | | 20.0 | 68 - 110 |
| Pentachlorophenol | 40 | 33.1 | 82.8 | | 20.0 | 41 - 115 |
| Phenanthrene | 40 | 32 | 80.0 | | 16.0 | 61 - 115 |
| Anthracene | 40 | 32.6 | 81.5 | | 14.0 | 63 - 110 |
| Di-n-butylphthalate | 40 | 36.9 | 92.2 | | 20.0 | 65 - 115 |
| Fluoranthene | 40 | 34 | 85.0 | | 11.0 | 64 - 115 |
| Pyrene | 40 | 33.3 | 83.2 | | 20.0 | 62 - 130 |
| Benzidine | 80 | 23.5 | 29.4 | | 136.0 | 0 - 98 |
| Butylbenzylphthalate | 40 | 40.4 | 101.0 | | 20.0 | 64 - 115 |
| 3,3'-Dichlorobenzidine | 80 | 65.8 | 82.2 | | 15.0 | 55 - 110 |
| Benzo(a)anthracene | 40 | 32.2 | 80.5 | | 20.0 | 63 - 110 |
| Chrysene | 40 | 33.5 | 83.8 | | 15.0 | 60 - 110 |
| Bis(2-ethylhexyl)phthalate | 40 | 39.7 | 99.2 | | 20.0 | 63 - 125 |
| Di-n-octylphthalate | 40 | 35.2 | 88.0 | | 20.0 | 57 - 135 |
| Benzo(b)fluoranthene | 40 | 33 | 82.5 | | 17.0 | 60 - 120 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97054LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzo(k)fluoranthene | 40 | 30.8 | 77.0 | | 17.0 | 54 - 125 |
| Benzo(a)pyrene | 40 | 31.7 | 79.2 | | 19.0 | 60 - 110 |
| Indeno(1,2,3-cd)pyrene | 40 | 33.8 | 84.5 | | 20.0 | 45 - 125 |
| Dibenzo(a,h)anthracene | 40 | 33.8 | 84.5 | | 20.0 | 41 - 125 |
| Benzo(g,h,i)perylene | 40 | 32.2 | 80.5 | | 20.0 | 40 - 125 |

Spike Recovery: 1 out of 69 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97055LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| N-Nitrosodimethylamine | 40 | 23.1 | 57.8 | 11.4 | 20.0 | 36 - 89 |
| Aniline | 40 | 24.2 | 60.5 | 0.4 | 20.0 | 45 - 155 |
| Bis(2-chloroethyl)ether | 40 | 30.6 | 76.5 | 4.0 | 14.0 | 62 - 110 |
| Phenol | 40 | 15.8 | 39.5 | 4.5 | 20.0 | 30 - 74 |
| 2-Chlorophenol | 40 | 33.2 | 83.0 | 2.4 | 15.0 | 51 - 105 |
| 1,3-Dichlorobenzene | 40 | 24.5 | 61.2 | 5.5 | 16.0 | 36 - 100 |
| 1,4-Dichlorobenzene | 40 | 24.3 | 60.8 | 5.1 | 16.0 | 38 - 100 |
| 1,2-Dichlorobenzene | 40 | 25.3 | 63.2 | 4.9 | 20.0 | 40 - 100 |
| Benzyl alcohol | 40 | 27.4 | 68.5 | 2.6 | 20.0 | 60 - 110 |
| 2,2'-Oxybis(1-chloropropane) | 40 | 28.5 | 71.2 | 2.5 | 14.0 | 59 - 119 |
| 2-Methylphenol | 40 | 26.2 | 65.5 | 5.2 | 15.0 | 47 - 110 |
| Hexachloroethane | 40 | 21.1 | 52.8 | 2.9 | 17.0 | 32 - 95 |
| N-Nitroso-di-n-propylamine | 40 | 31.9 | 79.8 | 1.9 | 20.0 | 57 - 120 |
| 4-Methylphenol | 40 | 23.9 | 59.8 | 1.7 | 10.0 | 37 - 110 |
| Nitrobenzene | 40 | 30.7 | 76.8 | 0.3 | 20.0 | 61 - 110 |
| Isophorone | 40 | 36.7 | 91.8 | 0.0 | 20.0 | 68 - 110 |
| 2-Nitrophenol | 40 | 33.4 | 83.5 | 0.3 | 20.0 | 48 - 115 |
| 2,4-Dimethylphenol | 40 | 33.8 | 84.5 | 1.8 | 20.0 | 47 - 110 |
| Benzoic acid | 140 | 26.2 | 18.7 | 17.9 | 20.0 | 10 - 60 |
| Bis(2-chloroethoxy)methane | 40 | 30.3 | 75.8 | 2.3 | 20.0 | 61 - 105 |
| 2,4-Dichlorophenol | 40 | 32.1 | 80.2 | 0.3 | 20.0 | 54 - 105 |
| 1,2,4-Trichlorobenzene | 40 | 25.2 | 63.0 | 3.6 | 18.0 | 45 - 105 |
| Naphthalene | 40 | 27.6 | 69.0 | 0.7 | 15.0 | 50 - 100 |
| 4-Chloroaniline | 40 | 30.5 | 76.2 | 1.6 | 17.0 | 52 - 110 |
| 2-Methylnaphthalene | 40 | 28.2 | 70.5 | 3.1 | 19.0 | 57 - 105 |
| Hexachlorobutadiene | 40 | 24.5 | 61.2 | 2.1 | 20.0 | 42 - 105 |
| 4-Chloro-3-methylphenol | 40 | 31 | 77.5 | 2.9 | 12.0 | 55 - 110 |
| 1-Methylnaphthalene | 40 | 29.8 | 74.5 | 0.3 | 17.0 | 53 - 125 |
| Hexachlorocyclopentadiene | 40 | 20.9 | 52.2 | 8.5 | 20.0 | 27 - 139 |
| 2,4,6-Trichlorophenol | 40 | 34.6 | 86.5 | 0.3 | 19.0 | 53 - 115 |
| 2,4,5-Trichlorophenol | 40 | 35.3 | 88.2 | 5.2 | 20.0 | 50 - 110 |
| 2-Chloronaphthalene | 40 | 32 | 80.0 | 4.8 | 19.0 | 35 - 105 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97055LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 2-Nitroaniline | 40 | 31.1 | 77.8 | 0.6 | 18.0 | 66 - 115 |
| Acenaphthylene | 40 | 34 | 85.0 | 1.2 | 15.0 | 58 - 105 |
| Dimethylphthalate | 40 | 38.5 | 96.2 | 3.7 | 15.0 | 62 - 125 |
| 2,6-Dinitrotoluene | 40 | 36.1 | 90.2 | 2.8 | 17.0 | 69 - 115 |
| Acenaphthene | 40 | 31.4 | 78.5 | 2.6 | 20.0 | 60 - 110 |
| 3-Nitroaniline | 40 | 35.2 | 88.0 | 5.0 | 20.0 | 61 - 125 |
| 2,4-Dinitrophenol | 80 | 45.2 | 56.5 | 13.7 | 20.0 | 56 - 140 |
| Dibenzofuran | 40 | 32.4 | 81.0 | 1.2 | 20.0 | 64 - 105 |
| 2,4-Dinitrotoluene | 40 | 36.3 | 90.8 | 0.3 | 18.0 | 69 - 120 |
| 4-Nitrophenol | 40 | 16.2 | 40.5 | 2.4 | 20.0 | 27 - 80 |
| Fluorene | 40 | 32.5 | 81.2 | 3.8 | 20.0 | 62 - 110 |
| 4-Chlorophenyl-phenylether | 40 | 34 | 85.0 | 4.5 | 20.0 | 60 - 110 |
| Diethylphthalate | 40 | 38.5 | 96.2 | 2.4 | 13.0 | 64 - 120 |
| 4-Nitroaniline | 40 | 35.2 | 88.0 | 5.0 | 20.0 | 67 - 120 |
| 4,6-Dinitro-2-methylphenol | 40 | 30.5 | 76.2 | 7.5 | 19.0 | 44 - 130 |
| N-Nitrosodiphenylamine | 40 | 36.9 | 92.2 | 3.6 | 20.0 | 71 - 110 |
| 4-Bromophenyl-phenylether | 40 | 38.5 | 96.2 | 4.8 | 17.0 | 54 - 113 |
| Hexachlorobenzene | 40 | 37.6 | 94.0 | 5.5 | 20.0 | 68 - 110 |
| Pentachlorophenol | 40 | 36 | 90.0 | 8.4 | 20.0 | 41 - 115 |
| Phenanthrene | 40 | 32.5 | 81.2 | 1.6 | 16.0 | 61 - 115 |
| Anthracene | 40 | 33.5 | 83.8 | 2.7 | 14.0 | 63 - 110 |
| Di-n-butylphthalate | 40 | 37.6 | 94.0 | 1.9 | 20.0 | 65 - 115 |
| Fluoranthene | 40 | 33.3 | 83.2 | 2.1 | 11.0 | 64 - 115 |
| Pyrene | 40 | 34.2 | 85.5 | 2.7 | 20.0 | 62 - 130 |
| Benzidine | 80 | 21.4 | 26.8 | 9.4 | 136.0 | 0 - 98 |
| Butylbenzylphthalate | 40 | 41.8 | 104.0 | 3.4 | 20.0 | 64 - 115 |
| 3,3'-Dichlorobenzidine | 80 | 63.4 | 79.2 | 3.7 | 15.0 | 55 - 110 |
| Benzo(a)anthracene | 40 | 32.7 | 81.8 | 1.5 | 20.0 | 63 - 110 |
| Chrysene | 40 | 33.9 | 84.8 | 1.2 | 15.0 | 60 - 110 |
| Bis(2-ethylhexyl)phthalate | 40 | 41.3 | 103.0 | 4.0 | 20.0 | 63 - 125 |
| Di-n-octylphthalate | 40 | 41.3 | 103.0 | 15.9 | 20.0 | 57 - 135 |
| Benzo(b)fluoranthene | 40 | 32.8 | 82.0 | 0.6 | 17.0 | 60 - 120 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97055LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzo(k)fluoranthene | 40 | 34.7 | 86.8 | 11.9 | 17.0 | 54 - 125 |
| Benzo(a)pyrene | 40 | 32.7 | 81.8 | 3.1 | 19.0 | 60 - 110 |
| Indeno(1,2,3-cd)pyrene | 40 | 30.4 | 76.0 | 10.6 | 20.0 | 45 - 125 |
| Dibenzo(a,h)anthracene | 40 | 30.4 | 76.0 | 10.6 | 20.0 | 41 - 125 |
| Benzo(g,h,i)perylene | 40 | 29.3 | 73.2 | 9.4 | 20.0 | 40 - 125 |

Spike Recovery: 0 out of 69 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97269LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| N-Nitrosodimethylamine | 1990 | 1460 | 73.4 * | | 30.0 | 74 - 141 |
| Aniline | 1990 | 1380 | 69.3 | | 27.0 | 21 - 131 |
| Bis(2-chloroethyl)ether | 1990 | 1530 | 76.9 | | 24.0 | 67 - 134 |
| Phenol | 1990 | 1520 | 76.4 | | 20.0 | 63 - 116 |
| 2-Chlorophenol | 1990 | 1410 | 70.9 | | 22.0 | 62 - 115 |
| 1,3-Dichlorobenzene | 1990 | 1330 | 66.8 | | 21.0 | 65 - 110 |
| 1,4-Dichlorobenzene | 1990 | 1330 | 66.8 | | 19.0 | 65 - 107 |
| 1,2-Dichlorobenzene | 1990 | 1360 | 68.3 | | 20.0 | 66 - 109 |
| Benzyl alcohol | 1990 | 1510 | 75.9 | | 24.0 | 58 - 119 |
| 2,2'-Oxybis(1-chloropropane) | 1990 | 1510 | 75.9 | | 26.0 | 62 - 138 |
| 2-Methylphenol | 1990 | 1350 | 67.8 | | 22.0 | 65 - 105 |
| Hexachloroethane | 1990 | 1320 | 66.3 | | 20.0 | 63 - 111 |
| N-Nitroso-di-n-propylamine | 1990 | 1600 | 80.4 | | 24.0 | 72 - 125 |
| 4-Methylphenol | 1990 | 1450 | 72.9 | | 19.0 | 58 - 108 |
| Nitrobenzene | 1990 | 1460 | 73.4 | | 24.0 | 63 - 113 |
| Isophorone | 1990 | 1980 | 99.5 | | 19.0 | 69 - 123 |
| 2-Nitrophenol | 1990 | 1320 | 66.3 | | 24.0 | 61 - 115 |
| 2,4-Dimethylphenol | 1990 | 1420 | 71.4 | | 21.0 | 55 - 117 |
| Benzoic acid | 6960 | 1490 | 21.4 | | 30.0 | 10 - 101 |
| Bis(2-chloroethoxy)methane | 1990 | 1630 | 81.9 | | 27.0 | 73 - 132 |
| 2,4-Dichlorophenol | 1990 | 1520 | 76.4 | | 25.0 | 64 - 108 |
| 1,2,4-Trichlorobenzene | 1990 | 1410 | 70.9 | | 25.0 | 63 - 112 |
| Naphthalene | 1990 | 1460 | 73.4 | | 23.0 | 66 - 111 |
| 4-Chloroaniline | 1990 | 1510 | 75.9 | | 30.0 | 35 - 118 |
| 2-Methylnaphthalene | 1990 | 1500 | 75.4 | | 22.0 | 60 - 120 |
| Hexachlorobutadiene | 1990 | 1490 | 74.9 | | 22.0 | 68 - 120 |
| 4-Chloro-3-methylphenol | 1990 | 1730 | 86.9 | | 22.0 | 63 - 115 |
| 1-Methylnaphthalene | 1990 | 1580 | 79.4 | | 21.0 | 67 - 112 |
| Hexachlorocyclopentadiene | 1990 | 1100 | 55.3 | | 22.0 | 46 - 117 |
| 2,4,6-Trichlorophenol | 1990 | 1630 | 81.9 | | 22.0 | 65 - 115 |
| 2,4,5-Trichlorophenol | 1990 | 1540 | 77.4 | | 22.0 | 64 - 111 |
| 2-Chloronaphthalene | 1990 | 1550 | 77.9 | | 20.0 | 64 - 111 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97269LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 2-Nitroaniline | 1990 | 1730 | 86.9 | | 21.0 | 59 - 124 |
| Acenaphthylene | 1990 | 1620 | 81.4 | | 20.0 | 65 - 110 |
| Dimethylphthalate | 1990 | 1760 | 88.4 | | 20.0 | 71 - 125 |
| 2,6-Dinitrotoluene | 1990 | 1730 | 86.9 | | 20.0 | 59 - 117 |
| Acenaphthene | 1990 | 1550 | 77.9 | | 22.0 | 65 - 110 |
| 3-Nitroaniline | 1990 | 1640 | 82.4 | | 18.0 | 21 - 135 |
| 2,4-Dinitrophenol | 3980 | 2790 | 70.1 | | 30.0 | 17 - 135 |
| Dibenzofuran | 1990 | 1620 | 81.4 | | 19.0 | 63 - 117 |
| 2,4-Dinitrotoluene | 1990 | 1770 | 88.9 | | 17.0 | 64 - 114 |
| 4-Nitrophenol | 1990 | 1800 | 90.5 | | 21.0 | 49 - 125 |
| Fluorene | 1990 | 1630 | 81.9 | | 17.0 | 66 - 106 |
| 4-Chlorophenyl-phenylether | 1990 | 1720 | 86.4 | | 21.0 | 73 - 124 |
| Diethylphthalate | 1990 | 1830 | 92.0 | | 19.0 | 69 - 127 |
| 4-Nitroaniline | 1990 | 1700 | 85.4 | | 21.0 | 40 - 142 |
| 4,6-Dinitro-2-methylphenol | 1990 | 1440 | 72.4 | | 28.0 | 44 - 111 |
| N-Nitrosodiphenylamine | 1990 | 1800 | 90.5 | | 19.0 | 70 - 133 |
| 4-Bromophenyl-phenylether | 1990 | 1760 | 88.4 | | 22.0 | 66 - 139 |
| Hexachlorobenzene | 1990 | 1690 | 84.9 | | 20.0 | 64 - 112 |
| Pentachlorophenol | 1990 | 1360 | 68.3 | | 27.0 | 53 - 118 |
| Phenanthrene | 1990 | 1710 | 85.9 | | 21.0 | 67 - 109 |
| Anthracene | 1990 | 1730 | 86.9 | | 19.0 | 71 - 118 |
| Di-n-butylphthalate | 1990 | 1910 | 96.0 | | 19.0 | 70 - 129 |
| Fluoranthene | 1990 | 1770 | 88.9 | | 20.0 | 66 - 111 |
| Pyrene | 1990 | 1720 | 86.4 | | 23.0 | 63 - 119 |
| Benzidine | 3980 | 805 | 20.2 | | 30.0 | 10 - 82 |
| Butylbenzylphthalate | 1990 | 2040 | 102.0 | | 21.0 | 75 - 149 |
| 3,3'-Dichlorobenzidine | 3980 | 3340 | 83.9 | | 25.0 | 10 - 148 |
| Benzo(a)anthracene | 1990 | 1790 | 89.9 | | 19.0 | 65 - 113 |
| Chrysene | 1990 | 1720 | 86.4 | | 23.0 | 63 - 114 |
| Bis(2-ethylhexyl)phthalate | 1990 | 2040 | 102.0 | | 21.0 | 74 - 148 |
| Di-n-octylphthalate | 1990 | 1860 | 93.5 | | 22.0 | 79 - 146 |
| Benzo(b)fluoranthene | 1990 | 1750 | 87.9 | | 21.0 | 61 - 116 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97269LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzo(k)fluoranthene | 1990 | 1600 | 80.4 | | 30.0 | 60 - 107 |
| Benzo(a)pyrene | 1990 | 1720 | 86.4 | | 19.0 | 61 - 112 |
| Indeno(1,2,3-cd)pyrene | 1990 | 1840 | 92.5 | | 19.0 | 60 - 126 |
| Dibenzo(a,h)anthracene | 1990 | 1790 | 89.9 | | 25.0 | 54 - 126 |
| Benzo(g,h,i)perylene | 1990 | 1710 | 85.9 | | 21.0 | 49 - 123 |

Spike Recovery: 1 out of 69 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

# Method 8270 TCLP Semi-Volatile Organics

080911 1740

**CASE NARRATIVE**
**GC/MS SEMIVOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** The following samples were prepped out of hold: KD-SB-2 11ft-12ftRE1. The sample was originally extracted within hold, but due to surrogate failures, the sample was re-extracted. Both analyses are reported.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

EPA SW846 8270D

## IV. PREPARATION

TCLP samples were prepared by EPA SW846 1311 prior to 8270 semi-volatiles preparation. Water/TCLP samples were prepared by EPA SW846 3510 for 8270

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

All acceptance criteria were met.

**C. Surrogates:**

All acceptance criteria were met with the exception of:

Sample KD-SB-2 11ft-12ft was recovered below criteria for the following surrogate(s): 2,4,6-Tribromophenol at 4.2 % with criteria of (10-122), 2-Fluorobiphenyl at 31 % with criteria of (43-116), 2-Fluorophenol at 2.2 % with criteria of (21-120), Nitrobenzene-d5 at 28 % with criteria of (35-114), Phenol-d5 at 2.5 % with criteria of (10-94). Due to these surrogate failures, the sample was re-extracted and met all surrogate criteria.

Both analyses are reported. Samples coded accordingly.

**D. Spikes:**

**1. Laboratory Control Spikes (LCS)**

All acceptance criteria were met

**CASE NARRATIVE**
**GC/MS SEMIVOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

**2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)**

No spikes were requested.

**E. Internal Standards:**

All acceptance criteria were met.

**F. Samples:**

Sample analysis proceeded normally.

Project specific Reporting Limits were used per client request.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

**Signature:**
**Name:** Brian C. Spann **Title:** Lab Director

**SIGNED:** **DATE:**
**09/08/2011**

W:\Narratives\SemiVols\3503\3503862_8270_TCLP.doc

# SEMI-VOLATILE ORGANIC CROSS REFERENCE TABLE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**Method:** 8270 TCLP

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-SB-2 11ft-12ftRE1 | 350386202RE1 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-DISP-SOIL-01 | 350386213 |

080911 1741

# 8270 TCLP Sample Data

080911 1741

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201T.D

Sample wt/vol: 440 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1214

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.00909 | U | 0.00477 | 0.00909 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.00909 | U | 0.00614 | 0.00909 |
| 95-48-7 | 2-Methylphenol | 0.00909 | U | 0.00591 | 0.00909 |
| 67-72-1 | Hexachloroethane | 0.00909 | U | 0.00591 | 0.00909 |
| 106-44-5 | 4-Methylphenol | 0.0227 | U | 0.0139 | 0.0227 |
| 98-95-3 | Nitrobenzene | 0.00909 | U | 0.00227 | 0.00909 |
| 87-68-3 | Hexachlorobutadiene | 0.00909 | U | 0.00568 | 0.00909 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.00909 | U | 0.00191 | 0.00909 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.00909 | U | 0.00773 | 0.00909 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.00909 | U | 0.00636 | 0.00909 |
| 118-74-1 | Hexachlorobenzene | 0.00909 | U | 0.000932 | 0.00909 |
| 87-86-5 | Pentachlorophenol | 0.0227 | U | 0.00318 | 0.0227 |

# SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202T.D

Sample wt/vol: 500 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1319

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

## TCLP Analysis

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.008 | U | 0.0042 | 0.008 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.008 | U | 0.0054 | 0.008 |
| 95-48-7 | 2-Methylphenol | 0.008 | U | 0.0052 | 0.008 |
| 67-72-1 | Hexachloroethane | 0.008 | U | 0.0052 | 0.008 |
| 106-44-5 | 4-Methylphenol | 0.02 | U | 0.0122 | 0.02 |
| 98-95-3 | Nitrobenzene | 0.008 | U | 0.002 | 0.008 |
| 87-68-3 | Hexachlorobutadiene | 0.008 | U | 0.005 | 0.008 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.008 | U | 0.00168 | 0.008 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.008 | U | 0.0068 | 0.008 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.008 | U | 0.0056 | 0.008 |
| 118-74-1 | Hexachlorobenzene | 0.008 | U | 0.00082 | 0.008 |
| 87-86-5 | Pentachlorophenol | 0.02 | U | 0.0028 | 0.02 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-2 11ft-12ftRE1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386202RE1 Lab File ID 86202TR.D

Sample wt/vol: 475 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 09/07/11

Level:(low/med) LOW Date Analyzed: 09/07/11 Time: 1658

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.00842 | U | 0.00442 | 0.00842 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.00842 | U | 0.00568 | 0.00842 |
| 95-48-7 | 2-Methylphenol | 0.00842 | U | 0.00547 | 0.00842 |
| 67-72-1 | Hexachloroethane | 0.00842 | U | 0.00547 | 0.00842 |
| 106-44-5 | 4-Methylphenol | 0.021 | U | 0.0128 | 0.021 |
| 98-95-3 | Nitrobenzene | 0.00842 | U | 0.0021 | 0.00842 |
| 87-68-3 | Hexachlorobutadiene | 0.00842 | U | 0.00526 | 0.00842 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.00842 | U | 0.00177 | 0.00842 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.00842 | U | 0.00716 | 0.00842 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.00842 | U | 0.00589 | 0.00842 |
| 118-74-1 | Hexachlorobenzene | 0.00842 | U | 0.000863 | 0.00842 |
| 87-86-5 | Pentachlorophenol | 0.021 | U | 0.00295 | 0.021 |

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210T.D

Sample wt/vol: 500 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1352

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.008 | U | 0.0042 | 0.008 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.008 | U | 0.0054 | 0.008 |
| 95-48-7 | 2-Methylphenol | 0.008 | U | 0.0052 | 0.008 |
| 67-72-1 | Hexachloroethane | 0.008 | U | 0.0052 | 0.008 |
| 106-44-5 | 4-Methylphenol | 0.02 | U | 0.0122 | 0.02 |
| 98-95-3 | Nitrobenzene | 0.008 | U | 0.002 | 0.008 |
| 87-68-3 | Hexachlorobutadiene | 0.008 | U | 0.005 | 0.008 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.008 | U | 0.00168 | 0.008 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.008 | U | 0.0068 | 0.008 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.008 | U | 0.0056 | 0.008 |
| 118-74-1 | Hexachlorobenzene | 0.008 | U | 0.00082 | 0.008 |
| 87-86-5 | Pentachlorophenol | 0.02 | U | 0.0028 | 0.02 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211T.D

Sample wt/vol: 500 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1426

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.008 | U | 0.0042 | 0.008 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.008 | U | 0.0054 | 0.008 |
| 95-48-7 | 2-Methylphenol | 0.008 | U | 0.0052 | 0.008 |
| 67-72-1 | Hexachloroethane | 0.008 | U | 0.0052 | 0.008 |
| 106-44-5 | 4-Methylphenol | 0.02 | U | 0.0122 | 0.02 |
| 98-95-3 | Nitrobenzene | 0.008 | U | 0.002 | 0.008 |
| 87-68-3 | Hexachlorobutadiene | 0.008 | U | 0.005 | 0.008 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.008 | U | 0.00168 | 0.008 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.008 | U | 0.0068 | 0.008 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.008 | U | 0.0056 | 0.008 |
| 118-74-1 | Hexachlorobenzene | 0.008 | U | 0.00082 | 0.008 |
| 87-86-5 | Pentachlorophenol | 0.02 | U | 0.0028 | 0.02 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-DISP-SOIL-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386213 Lab File ID 86213T.D

Sample wt/vol: 500 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1458

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.008 | U | 0.0042 | 0.008 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.008 | U | 0.0054 | 0.008 |
| 95-48-7 | 2-Methylphenol | 0.008 | U | 0.0052 | 0.008 |
| 67-72-1 | Hexachloroethane | 0.008 | U | 0.0052 | 0.008 |
| 106-44-5 | 4-Methylphenol | 0.02 | U | 0.0122 | 0.02 |
| 98-95-3 | Nitrobenzene | 0.008 | U | 0.002 | 0.008 |
| 87-68-3 | Hexachlorobutadiene | 0.008 | U | 0.005 | 0.008 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.008 | U | 0.00168 | 0.008 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.008 | U | 0.0068 | 0.008 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.008 | U | 0.0056 | 0.008 |
| 118-74-1 | Hexachlorobenzene | 0.008 | U | 0.00082 | 0.008 |
| 87-86-5 | Pentachlorophenol | 0.02 | U | 0.0028 | 0.02 |

# 8270 TCLP QC Summary

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

97416MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 97416MB Lab File ID: 6366MB.D

Sample wt/vol: 480 Units: ML Date Received: 08/25/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0450

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.00833 | U | 0.00438 | 0.00833 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.00833 | U | 0.00562 | 0.00833 |
| 95-48-7 | 2-Methylphenol | 0.00833 | U | 0.00542 | 0.00833 |
| 67-72-1 | Hexachloroethane | 0.00833 | U | 0.00542 | 0.00833 |
| 106-44-5 | 4-Methylphenol | 0.0208 | U | 0.0127 | 0.0208 |
| 98-95-3 | Nitrobenzene | 0.00833 | U | 0.00208 | 0.00833 |
| 87-68-3 | Hexachlorobutadiene | 0.00833 | U | 0.00521 | 0.00833 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.00833 | U | 0.00175 | 0.00833 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.00833 | U | 0.00708 | 0.00833 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.00833 | U | 0.00583 | 0.00833 |
| 118-74-1 | Hexachlorobenzene | 0.00833 | U | 0.000854 | 0.00833 |
| 87-86-5 | Pentachlorophenol | 0.0208 | U | 0.00292 | 0.0208 |

# SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.: 98470MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 98470MB Lab File ID: 6460MBT.D

Sample wt/vol: 480 Units: ML Date Received: 09/07/11

Concentrated Extract Volume: 1 Date Extracted: 09/07/11

Level:(low/med) LOW Date Analyzed: 09/07/11 Time: 1804

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

## TCLP Analysis

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.00833 | U | 0.00438 | 0.00833 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.00833 | U | 0.00562 | 0.00833 |
| 95-48-7 | 2-Methylphenol | 0.00833 | U | 0.00542 | 0.00833 |
| 67-72-1 | Hexachloroethane | 0.00833 | U | 0.00542 | 0.00833 |
| 106-44-5 | 4-Methylphenol | 0.0208 | U | 0.0127 | 0.0208 |
| 98-95-3 | Nitrobenzene | 0.00833 | U | 0.00208 | 0.00833 |
| 87-68-3 | Hexachlorobutadiene | 0.00833 | U | 0.00521 | 0.00833 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.00833 | U | 0.00175 | 0.00833 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.00833 | U | 0.00708 | 0.00833 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.00833 | U | 0.00583 | 0.00833 |
| 118-74-1 | Hexachlorobenzene | 0.00833 | U | 0.000854 | 0.00833 |
| 87-86-5 | Pentachlorophenol | 0.0208 | U | 0.00292 | 0.0208 |

2A

WATER SEMI-VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): HPMS-5 ID: 0.25 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 97416MB | 71.4 | 52.4 | 60.0 | 57.0 | 85.7 | 71.0 | 0 |
| 97418LCS | 76.2 | 57.1 | 62.0 | 60.0 | 85.7 | 71.0 | 0 |
| 98470MB | 71.4 | 57.1 | 57.0 | 60.0 | 90.5 | 66.0 | 0 |
| 98471LCS | 81.0 | 52.4 | 63.0 | 66.0 | 100.0 | 83.0 | 0 |
| KD-DISP-SOIL-01 | 70.0 | 55.0 | 58.0 | 61.0 | 90.0 | 76.0 | 0 |
| KD-SB-1 16ft-16.5ft | 82.6 | 65.2 | 65.5 | 65.5 | 91.3 | 82.7 | 0 |
| KD-SB-2 11ft-12ft | 2.2 * | 2.5 * | 28.0 * | 31.0 * | 4.2 * | 41.0 | 5 |
| KD-SB-2 11ft-12ftRE1 | 81.0 | 61.9 | 61.0 | 64.0 | 100.0 | 72.0 | 0 |
| KD-SB-6 3ft-4ft | 75.0 | 60.0 | 65.0 | 62.0 | 95.0 | 79.0 | 0 |
| KD-SB-9 3ft-4ft | 70.0 | 60.0 | 59.0 | 60.0 | 90.0 | 79.0 | 0 |

**Control Limits**

| | | | | |
|---|---|---|---|---|
| S1 | = | 2-Fluorophenol | 21 - | 120 |
| S2 | = | Phenol-d5 | 10 - | 94 |
| S3 | = | Nitrobenzene-d5 | 35 - | 114 |
| S4 | = | 2-Fluorobiphenyl | 43 - | 116 |
| S5 | = | 2,4,6-Tribromophenol | 10 - | 122 |
| S6 | = | p-Terphenyl-d14 | 33 - | 141 |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97418LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**TCLP Analysis**

| COMPOUND | SPIKE ADDED mg/L | LCS CONCENTRATION mg/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Pyridine | 0.0833 | 0.0573 | 68.8 | | 20.0 | 18 - 80 |
| 1,4-Dichlorobenzene | 0.0833 | 0.0625 | 75.0 | | 16.0 | 38 - 100 |
| 2-Methylphenol | 0.0833 | 0.0637 | 76.5 | | 15.0 | 47 - 110 |
| Hexachloroethane | 0.0833 | 0.0609 | 73.1 | | 17.0 | 32 - 95 |
| 4-Methylphenol | 0.0833 | 0.0638 | 76.6 | | 10.0 | 37 - 110 |
| Nitrobenzene | 0.0833 | 0.0704 | 84.5 | | 20.0 | 61 - 110 |
| Hexachlorobutadiene | 0.0833 | 0.0654 | 78.5 | | 20.0 | 42 - 105 |
| 2,4,6-Trichlorophenol | 0.0833 | 0.0724 | 86.9 | | 19.0 | 53 - 115 |
| 2,4,5-Trichlorophenol | 0.0833 | 0.0703 | 84.4 | | 20.0 | 50 - 110 |
| 2,4-Dinitrotoluene | 0.0833 | 0.0766 | 92.0 | | 18.0 | 69 - 120 |
| Hexachlorobenzene | 0.0833 | 0.0722 | 86.7 | | 20.0 | 68 - 110 |
| Pentachlorophenol | 0.0833 | 0.0669 | 80.3 | | 20.0 | 41 - 115 |

Spike Recovery: 0 out of 12 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

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Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

98471LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**TCLP Analysis**

| COMPOUND | SPIKE ADDED mg/L | LCS CONCENTRATION mg/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Pyridine | 0.0842 | 0.047 | 55.8 | | 20.0 | 18 - 80 |
| 1,4-Dichlorobenzene | 0.0842 | 0.0632 | 75.1 | | 16.0 | 38 - 100 |
| 2-Methylphenol | 0.0842 | 0.0632 | 75.1 | | 15.0 | 47 - 110 |
| Hexachloroethane | 0.0842 | 0.0561 | 66.6 | | 17.0 | 32 - 95 |
| 4-Methylphenol | 0.0842 | 0.0667 | 79.2 | | 10.0 | 37 - 110 |
| Nitrobenzene | 0.0842 | 0.0688 | 81.7 | | 20.0 | 61 - 110 |
| Hexachlorobutadiene | 0.0842 | 0.0689 | 81.8 | | 20.0 | 42 - 105 |
| 2,4,6-Trichlorophenol | 0.0842 | 0.0769 | 91.3 | | 19.0 | 53 - 115 |
| 2,4,5-Trichlorophenol | 0.0842 | 0.0743 | 88.2 | | 20.0 | 50 - 110 |
| 2,4-Dinitrotoluene | 0.0842 | 0.0749 | 89.0 | | 18.0 | 69 - 120 |
| Hexachlorobenzene | 0.0842 | 0.0822 | 97.6 | | 20.0 | 68 - 110 |
| Pentachlorophenol | 0.0842 | 0.067 | 79.6 | | 20.0 | 41 - 115 |

Spike Recovery: 0 out of 12 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

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Form III

# Method 8082 PCB Organics

080911 1741

**CASE NARRATIVE**
**POLYCHLORINATED BIPHENYLS (PCB) SEMIVOLATILE ORGANIC**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

EPA SW846 8082 for Aroclor analysis

## IV. PREPARATION

Soil samples were prepared by SW846 EPA 3545 for 8082 semi-volatile analysis.
Water samples were prepared by SW846 EPA 3510 for 8082 semi-volatile analysis.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

All acceptance criteria were met.

**C. Surrogates:**

All acceptance criteria were met.

**D. Spikes:**

**PCB 1016 and PCB 1260 were used as the spiking solution for all QC spikes.**

**1. Laboratory Control Spikes (LCS)**

All acceptance criteria were met with the exception of:
LCS 97052LCSD was analyzed with the water samples extracted on 08/24/11. All percent recovery criteria were met. The following analyte(s) exceeded RPD criteria: Aroclor-1016 at 21.1 % with criteria of (10). Since all percent recovery criteria were met, no further action was taken.

LCS 97265LCS was analyzed with the soil samples extracted on 08/25/11. The following analyte(s) had marginal exceedance limit

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

failures: Aroclor-1016 at 124 % with criteria of (50.7-117.3). Since recovery was only slightly high, no further action was taken.

Samples coded accordingly.

**2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)**

No spikes requested by client.

**E. Internal Standards:**

This method does not require the use of internal standards.

**F. Samples:**

Data was collected using dual column analysis. Results reported from the primary column if the %D between the two columns is >40%, data is coded.

Sample analysis proceeded normally.
Sample KD-SB-6 3ft-4ft required a 10X dilution due to high concentration of the following analyte(s): Aroclor-1248 and Aroclor-1254.

Sample KD-SB-9 3ft-4ft required a 5X dilution due to high concentration of the following analyte: Aroclor-1248. Both full and diluted runs are reported.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

**Signature:**
**Name:** Brian C. Spann **Title:** Lab Director

**SIGNED:** **DATE:**
**09/02/2011**

W:\Narratives\SemiVols\3503\3503862_8082.doc

# PCB ORGANIC CROSS REFERENCE TABLE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**Method:** 8082

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-SB-9 3ft-4ftDL1 | 350386211DL1 |
| KD-DISP-SOIL-01 | 350386213 |
| KD-IDW-WATER-01 | 350386214 |

080911 1741

# 8082 Sample Data

080911 1741

1

**PCB ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201.D

Sample wt/vol: 25.65 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 0857

PercentSolids: 95.2 decanted : Dilution Factor: 1

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 24 | U | 11 | 24 |
| 11096-82-5 | Aroclor-1260 | 24 | U | 5 | 24 |
| 11104-28-2 | Aroclor-1221 | 24 | U | 9.8 | 24 |
| 11141-16-5 | Aroclor-1232 | 24 | U | 16 | 24 |
| 53469-21-9 | Aroclor-1242 | 24 | U | 9 | 24 |
| 12672-29-6 | Aroclor-1248 | 24 | U | 9 | 24 |
| 11097-69-1 | Aroclor-1254 | 280 | | 7.8 | 24 |

1

**PCB ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202.D

Sample wt/vol: 25.7 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 0912

PercentSolids: 74.4 decanted : Dilution Factor: 1

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 31 | U | 14 | 31 |
| 11096-82-5 | Aroclor-1260 | 31 | U | 6.4 | 31 |
| 11104-28-2 | Aroclor-1221 | 31 | U | 12 | 31 |
| 11141-16-5 | Aroclor-1232 | 31 | U | 21 | 31 |
| 53469-21-9 | Aroclor-1242 | 31 | U | 12 | 31 |
| 12672-29-6 | Aroclor-1248 | 31 | U | 12 | 31 |
| 11097-69-1 | Aroclor-1254 | 31 | U | 9.9 | 31 |

1

## PCB ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210D10.D

Sample wt/vol: 25.21 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 1057

PercentSolids: 75.2 decanted : Dilution Factor: 10

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 320 | U | 140 | 320 |
| 11096-82-5 | Aroclor-1260 | 320 | U | 64 | 320 |
| 11104-28-2 | Aroclor-1221 | 320 | U | 130 | 320 |
| 11141-16-5 | Aroclor-1232 | 320 | U | 210 | 320 |
| 53469-21-9 | Aroclor-1242 | 320 | U | 120 | 320 |
| 12672-29-6 | Aroclor-1248 | 5200 | | 120 | 320 |
| 11097-69-1 | Aroclor-1254 | 1500 | | 100 | 320 |

1

**PCB ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211.D

Sample wt/vol: 25.25 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 0942

PercentSolids: 74.4 decanted : Dilution Factor: 1

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 32 | U | 14 | 32 |
| 11096-82-5 | Aroclor-1260 | 32 | U | 6.5 | 32 |
| 11104-28-2 | Aroclor-1221 | 32 | U | 13 | 32 |
| 11141-16-5 | Aroclor-1232 | 32 | U | 21 | 32 |
| 53469-21-9 | Aroclor-1242 | 32 | U | 12 | 32 |
| 12672-29-6 | Aroclor-1248 | 3400 | E | 12 | 32 |
| 11097-69-1 | Aroclor-1254 | 980 | E | 10 | 32 |

1

## PCB ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-9 3ft-4ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211DL1 Lab File ID 86211D5.D

Sample wt/vol: 25.25 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 1112

PercentSolids: 74.4 decanted : Dilution Factor: 5

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 160 | U | 69 | 160 |
| 11096-82-5 | Aroclor-1260 | 160 | U | 32 | 160 |
| 11104-28-2 | Aroclor-1221 | 160 | U | 64 | 160 |
| 11141-16-5 | Aroclor-1232 | 160 | U | 110 | 160 |
| 53469-21-9 | Aroclor-1242 | 160 | U | 58 | 160 |
| 12672-29-6 | Aroclor-1248 | 3700 | | 58 | 160 |
| 11097-69-1 | Aroclor-1254 | 1000 | | 50 | 160 |

1

## PCB ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DISP-SOIL-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386213 Lab File ID 86213.D

Sample wt/vol: 25.37 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 1012

PercentSolids: 90.1 decanted : Dilution Factor: 1

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 26 | U | 11 | 26 |
| 11096-82-5 | Aroclor-1260 | 26 | U | 5.3 | 26 |
| 11104-28-2 | Aroclor-1221 | 26 | U | 10 | 26 |
| 11141-16-5 | Aroclor-1232 | 26 | U | 18 | 26 |
| 53469-21-9 | Aroclor-1242 | 26 | U | 9.6 | 26 |
| 12672-29-6 | Aroclor-1248 | 210 | | 9.6 | 26 |
| 11097-69-1 | Aroclor-1254 | 91 | | 8.3 | 26 |

1

**PCB ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-IDW-WATER-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214 Lab File ID 86214.D

Sample wt/vol: 980 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 08/29/11 Time: 1615

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 0.51 | U | 0.37 | 0.51 |
| 11096-82-5 | Aroclor-1260 | 0.51 | U | 0.26 | 0.51 |
| 11104-28-2 | Aroclor-1221 | 0.51 | U | 0.44 | 0.51 |
| 11141-16-5 | Aroclor-1232 | 0.51 | U | 0.2 | 0.51 |
| 53469-21-9 | Aroclor-1242 | 0.51 | U | 0.32 | 0.51 |
| 12672-29-6 | Aroclor-1248 | 1.2 | | 0.13 | 0.51 |
| 11097-69-1 | Aroclor-1254 | 0.34 | J | 0.12 | 0.51 |

# 8082 QC Summary

080911 1741

1

**PCB ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

97050MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 97050MB Lab File ID: 6322MB.D

Sample wt/vol: 1000 Units: ML Date Received: 08/24/11

Concentrated Extract Volume: 10 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 08/25/11 Time: 1544

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 0.5 | U | 0.36 | 0.5 |
| 11096-82-5 | Aroclor-1260 | 0.5 | U | 0.25 | 0.5 |
| 11104-28-2 | Aroclor-1221 | 0.5 | U | 0.43 | 0.5 |
| 11141-16-5 | Aroclor-1232 | 0.5 | U | 0.2 | 0.5 |
| 53469-21-9 | Aroclor-1242 | 0.5 | U | 0.31 | 0.5 |
| 12672-29-6 | Aroclor-1248 | 0.5 | U | 0.13 | 0.5 |
| 11097-69-1 | Aroclor-1254 | 0.5 | U | 0.12 | 0.5 |

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**PCB ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

97264MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 97264MB Lab File ID: 6351MB.D

Sample wt/vol: 20.52 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/29/11 Time: 1652

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 29 | U | 13 | 29 |
| 11096-82-5 | Aroclor-1260 | 29 | U | 5.9 | 29 |
| 11104-28-2 | Aroclor-1221 | 29 | U | 12 | 29 |
| 11141-16-5 | Aroclor-1232 | 29 | U | 19 | 29 |
| 53469-21-9 | Aroclor-1242 | 29 | U | 11 | 29 |
| 12672-29-6 | Aroclor-1248 | 29 | U | 11 | 29 |
| 11097-69-1 | Aroclor-1254 | 29 | U | 9.2 | 29 |

2A

WATER PCB ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): STX-CLP1 ID: 0.32 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 97050MB | 81.0 | | | | | | 0 |
| 97051LCS | 81.0 | | | | | | 0 |
| 97052LCSD | 81.0 | | | | | | 0 |
| KD-IDW-WATER-01 | 71.0 | | | | | | 0 |

**Control Limits**

S1 = Decachlorobiphenyl 16 - 116

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

080911 1741

2A

SOIL PCB ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): STX-CLP1 ID: 0.32 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 97264MB | 93.4 | | | | | | 0 |
| 97265LCS | 86.6 | | | | | | 0 |
| KD-DISP-SOIL-01 | 80.5 | | | | | | 0 |
| KD-SB-1 16ft-16.5ft | 112.0 | | | | | | 0 |
| KD-SB-2 11ft-12ft | 66.3 | | | | | | 0 |
| KD-SB-6 3ft-4ft | 111.0 | | | | | | 0 |
| KD-SB-9 3ft-4ft | 76.7 | | | | | | 0 |
| KD-SB-9 3ft-4ftDL1 | 95.5 | | | | | | 0 |

**Control Limits**

S1 = Decachlorobiphenyl 33 - 140

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

080911 1741

## PCB ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

97051LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Aroclor-1016 | 10 | 8.9 | 89.0 | | 10.0 | 56 - 98 |
| Aroclor-1260 | 10 | 9.2 | 92.0 | | 18.0 | 52 - 101 |

Spike Recovery: 0 out of 2 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1741

Form III

## PCB ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

97052LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Aroclor-1016 | 10 | 7.2 | 72.0 | 21.1* | 10.0 | 56 - 98 |
| Aroclor-1260 | 10 | 9 | 90.0 | 2.2 | 18.0 | 52 - 101 |

Spike Recovery: 0 out of 2 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1741

Form III

## PCB ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

97265LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Aroclor-1016 | 492 | 611 | 124.0 * | | 30.0 | 59 - 109 |
| Aroclor-1260 | 492 | 512 | 104.0 | | 30.0 | 74 - 111 |

Spike Recovery: 1 out of 2 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1741

Form III

# Inorganics

080911 1741

# Inorganic Data Qualifiers

**C (Concentration) Qualifier - Entries and their meanings are:**

**J** The reported value obtained was less than the RL but greater than or equal to the MDL.

**E** The reported value obtained was over calibration or linear range.

**U** The reported value obtained was less than the MDL or was not detected.

**Q Qualifier - Entries and their meanings are:**

**U** The reported value is estimated because of interference. An explanatory comment must be included under "Comments" on the Cover Page if the problem applies to all samples in this data package or on the individual FORM 1 if it is an isolated problem.

**M** Duplicate injection precision was not met (two analyses of the same sample did not agree).

**N** Spiked sample recovery not within control limits.

**E** Serial Dilution percent difference not within control limits.

**S** The reported value was determined by the Method of Standard Additions (MSA).

**W** Post-digestion spike for Furnace AA analysis is out of control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.

***** Duplicate analysis not within control limits.

**+** Correlation coefficient for the MSA is less than 0.995.

**X** The data is flagged as rejected by analyst utilizing analytical judgement.

Entering "S", "W", or "+" is mutually exclusive. No combination of these qualifiers can apear in the same field.

**M (Method) Qualifier - Enter one of the following:**

**P** ICP
**A** Flame AA
**F** Furnace AA
**CV** Manual Cold Vapor AA
**TC** Total Organic Carbon
**AS** Semi-Automated Spectrophotometric
**CA** Midi-Distillation Spectrophotometric
**T** Titrimetric
**C** Manual Spectrophotometric
**GR** Gravimetric
**NR** Analyte was not required by your lab

080911 1741

# Inorganic Sample ID Qualifiers

The qualifiers that may be appended to the lab sample ID and/or the client sample ID for inorganic analysis are defined below:

**DL** Diluted reanalysis. Indicates that the results of the original analysis of the sample contained compounds that exceeded the calibration range. The sample was diluted and reanalyzed. May be followed by a digit to indicate multiple dilutions of the sample. The results of more than one diluted reanalysis may be reported.

**R** Reanalysis. The extract was reanalyzed without re-extraction. The "R" is not used if the sample was also re-extracted. May be followed by a digit to indicate multiple reanalysis of the sample at the same dilution.

**RE** Re-extracted. The extract was reanalyzed with re-extraction. May be followed by a digit to indicate multiple re-extraction of the same sample at the same dilution.

**MS** Matrix spike (may be followed by a digit to indicate multiple matrix within a sample set).

**SD** Matrix spike duplicate (may be followed by a digit to indicate multiple matrix spike duplicate within a sample set).

**A** Post Digestion Spike.

**L** Serial Dilution.

# Metals Data Package

080911 1741

**CASE NARRATIVE**
**METALS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHOD

Analyses were performed according to the Spectrum Analytical Inc. Standard Operating Procedures and EPA Method 6010B for ICP metals.

## IV. PREPARATION

Soil samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Method 3050B.
Water samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Method 3010A.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

**1. Calibration Blanks:**

All acceptance criteria were met. No action required. The following ICB/CCB(s) had element concentrations below the RL:

ICB1011254 was analyzed on 08/24/11 08:26. The following analyte(s) were detected below RL: Barium at 0.498 ug/L, Silver at 6.69 ug/L.
CCB1011259 was analyzed on 08/24/11 09:00. The following analyte(s) were detected below RL: Barium at 0.259 ug/L.
ICB1011408 was analyzed on 08/25/11 08:28. The following analyte(s) were detected below RL: Barium at 0.239 ug/L, Silver at 6.83 ug/L.
CCB1011723 was analyzed on 08/25/11 18:19. The following analyte(s) were detected below RL: Silver at -0.582 ug/L.
ICB1012235 was analyzed on 08/26/11 08:51. The following analyte(s) were detected below RL: Barium at 0.25 ug/L, Silver at 6.29 ug/L.

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

CCB1012288 was analyzed on 08/26/11 13:53. The following analyte(s) were detected below RL: Barium at 1.3 ug/L.
CCB1012298 was analyzed on 08/26/11 14:47. The following analyte(s) were detected below RL: Silver at 0.588 ug/L. The hits in the blanks are below the RL, therefore, no corrective action was taken.

**2. Method Blanks:**

All acceptance criteria were met.

**C. Spikes:**

**1. Laboratory Control Spikes (LCS):**

An LCS/LCSD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met.

**2. Post Digestion Spike:**

All acceptance criteria were met.

**3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

A client requested MS/SD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met with the exception of:
MS - KD-SB-3 10ft-12ftMS was analyzed with the soil samples on 08/25/11. The following analyte(s) were recovered below criteria: Chromium at 66.5 % with criteria of (75-125) and the following analyte(s) were recovered above criteria: Arsenic at 138.2 % with criteria of (75-125).

SD - KD-SB-3 10ft-12ftSD was analyzed with the soil samples on 08/25/11.. The following analyte(s) exceeded RPD criteria: Arsenic at 28.4 % with criteria of (20). The most probable cause for the MS/MSD exceeding limits is sample matrix due to the samples requiring a dilution. The LCS/LCSD pass all quality control criteria. No further action was taken.
Samples coded accordingly.

**D. Duplicate:**

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

**E. Serial Dilution:**

All acceptance criteria were met with the exception of:
Serial Dilution 350386207L was analyzed with the soil samples on 08/25/11. The following analyte(s) exceeded criteria: Cadmium at 20 % with criteria of (10). The most probable cause for the SD exceeding limits is sample matrix due to the samples requiring a dilution. The LCS/LCSD pass all quality control criteria. No further action was taken.

**CASE NARRATIVE**
**METALS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

Samples coded accordingly.

**F. ICP Interference Check Samples:**

All acceptance criteria were met.

**G. Samples:**

Sample analysis proceeded normally.

Sample KD-DRUM-1 required a 25X dilution due to high concentration of the following analyte(s): Barium.
Sample KD-DRUM-1 required a 5X dilution due to high concentration of the following analyte(s): Lead.
Sample KD-DRUM-2 required a 5X dilution due to high concentration of the following analyte(s): Cadmium, Chromium.
Sample KD-SB-1 16ft-16.5ft required a 2X dilution due to high concentration of the following analyte(s): Barium.
Sample KD-SB-2 11ft-12ft required a 20X dilution due to high concentration of the following analyte(s): Chromium.
Sample KD-SB-2 11ft-12ft required a 2X dilution due to high concentration of the following analyte(s): Lead.
Sample KD-SB-2 6ft-8ft required a 5X dilution due to high concentration of the following analyte(s): Barium, Lead.
Sample KD-SB-3 10ft-12ft required a 5X dilution due to high concentration of the following analyte(s): Barium, Lead.
Sample KD-SS-01 required a 10X dilution due to high concentration of the following analyte(s): Barium, Chromium.
Sample KD-SS-01 required a 50X dilution due to high concentration of the following analyte(s): Lead.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

**SIGNED:** **DATE: 08/30/2011**

**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

Analyses were performed according to the Spectrum Analytical Inc. Standard Operating Procedures and EPA Method 7470A.

## IV. PREPARATION

Water samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Method 7470A.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

**1. Calibration Blanks:**

All acceptance criteria were met.

**2. Method Blanks:**

All acceptance criteria were met.

**C. Spikes:**

**1. Laboratory Control Spikes (LCS):**

An LCS/LCSD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met.

**2. Post Digestion Spike:**

All acceptance criteria were met.

**3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

No spikes requested by client.

**D. Duplicate:**

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

**E. Serial Dilution:**

All acceptance criteria were met.

**F. Samples:**

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:

Name: Troy L. Roberts Title: Inorg. Manager

**SIGNED:** **DATE: 08/26/2011**

**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

Samples were analyzed according to the Spectrum Analytical Inc. Standard Operating Procedures and EPA Method 7471A.

## IV. PREPARATION

Soil samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Method 7471A.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

**1. Calibration Blanks:**

All acceptance criteria were met.

**2. Method Blanks:**

All acceptance criteria were met.

**C. Spikes:**

**1. Laboratory Control Spikes (LCS):**

An LCS/LCSD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met.

**2. Post Digestion Spike:**

All acceptance criteria were met.

**3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

A client requested MS/SD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met with the exception of:
MS - KD-SB-3 10ft-12ftMS was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Mercury at 207.8 % with criteria of (80-120).

SD - KD-SB-3 10ft-12ftSD was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Mercury at 192.8 % with criteria of (80-120). The most probable cause for the MS/MSD exceeding limits is sample matrix due to the fact that the LCS/LCSD pass all quality control criteria. No further action was taken.
Samples coded accordingly.

**D. Duplicate:**

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

**E. Serial Dilution:**

All acceptance criteria were met.

**F. Samples:**

Sample analysis proceeded normally.
Sample KD-SB-3 10ft-12ft required a 2X dilution due to high concentration of the following analyte(s): Mercury.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

**SIGNED:** **DATE: 08/30/2011**

W:\Narratives\Metals\3503\3503862_7471.doc

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## COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 /

Lab Code : PEL Case No.: SDG No.: 3503862

SOW No.:

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-1 16ft-16.5ftDL1 | 350386201DL1 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-SB-2 11ft-12ftDL1 | 350386202DL1 |
| KD-SB-2 11ft-12ftDL2 | 350386202DL2 |
| KD-DRUM-1 | 350386203 |
| KD-DRUM-1DL1 | 350386203DL1 |
| KD-DRUM-1DL2 | 350386203DL2 |
| KD-DRUM-2 | 350386204 |
| KD-DRUM-2DL1 | 350386204DL1 |
| KD-SS-01 | 350386205 |
| KD-SS-01DL1 | 350386205DL1 |
| KD-SS-01DL2 | 350386205DL2 |
| KD-SB-2 6ft-8ft | 350386206 |
| KD-SB-2 6ft-8ftDL1 | 350386206DL1 |
| KD-SB-3 10ft-12ft | 350386207 |
| KD-SB-3 10ft-12ftDL1 | 350386207DL1 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-SB-7 4ft-6ft | 350386212 |
| KD-IDW-WATER-01 | 350386214 |

Were ICP interelement corrections applied? Yes/No Yes

Were ICP background corrections applied? Yes/No Yes

If yes - were raw data generated before application of background corrections? Yes/No No

Comments:

080911 1741

# Metals Inorganic Sample Data

080911 1741

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 95.2 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 5.66 | | | P | | 0.37 | 0.741 |
| 7440-43-9 | Cadmium | 0.817 | | | P | | 0.037 | 0.37 |
| 7440-47-3 | Chromium | 14.1 | | | P | | 0.118 | 0.37 |
| 7439-92-1 | Lead | 54.2 | | | P | | 0.252 | 0.593 |
| 7439-97-6 | Mercury | 0.0264 | | | CV | | 0.003 | 0.0161 |
| 7782-49-2 | Selenium | 1.48 | U | | P | | 0.296 | 1.48 |
| 7440-22-4 | Silver | 0.37 | U | | P | | 0.118 | 0.37 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

080911 1741

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 95.2 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-39-3 | Barium | 506 | | | P | | 0.237 | 0.741 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 74.4 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.932 | U | | P | | 0.466 | 0.932 |
| 7440-39-3 | Barium | 356 | | | P | | 0.149 | 0.466 |
| 7440-43-9 | Cadmium | 60.3 | | | P | | 0.0466 | 0.466 |
| 7439-97-6 | Mercury | 0.251 | | | CV | | 0.0046 | 0.0248 |
| 7782-49-2 | Selenium | 1.6 | J | | P | | 0.373 | 1.86 |
| 7440-22-4 | Silver | 14.5 | | | P | | 0.149 | 0.466 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 74.4 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 4030 | | | P | | 2.98 | 9.32 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ftDL2

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202DL2

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 74.4 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | 828 | | | P | | 0.634 | 1.49 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386203

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 66.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 2.01 | | | P | | 0.65 | 1.3 |
| 7440-43-9 | Cadmium | 6.66 | | | P | | 0.065 | 0.65 |
| 7440-47-3 | Chromium | 44.2 | | | P | | 0.208 | 0.65 |
| 7439-97-6 | Mercury | 0.0922 | | | CV | | 0.0051 | 0.0277 |
| 7782-49-2 | Selenium | 4.11 | | | P | | 0.52 | 2.6 |
| 7440-22-4 | Silver | 0.65 | U | | P | | 0.208 | 0.65 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-1DL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386203DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 66.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-39-3 | Barium | 14700 | | | P | | 5.2 | 16.3 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-1DL2

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386203DL2

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 66.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | 2360 | | | P | | 2.21 | 5.2 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-2

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386204

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 93.1 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 57.9 | | | P | | 0.286 | 0.572 |
| 7440-39-3 | Barium | 44.2 | | | P | | 0.0915 | 0.286 |
| 7439-92-1 | Lead | 108 | | | P | | 0.194 | 0.458 |
| 7439-97-6 | Mercury | 0.0191 | J | | CV | | 0.004 | 0.0214 |
| 7782-49-2 | Selenium | 1.14 | U | | P | | 0.229 | 1.14 |
| 7440-22-4 | Silver | 2.19 | | | P | | 0.0915 | 0.286 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-2DL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386204DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 93.1 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-43-9 | Cadmium | 441 | | | P | | 0.143 | 1.43 |
| 7440-47-3 | Chromium | 792 | | | P | | 0.458 | 1.43 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SS-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386205

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 70.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 1.2 | U | | P | | 0.598 | 1.2 |
| 7440-43-9 | Cadmium | 0.769 | | | P | | 0.0598 | 0.598 |
| 7439-97-6 | Mercury | 0.115 | | | CV | | 0.0035 | 0.0187 |
| 7782-49-2 | Selenium | 2.39 | U | | P | | 0.478 | 2.39 |
| 7440-22-4 | Silver | 0.294 | J | | P | | 0.191 | 0.598 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SS-01DL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386205DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 70.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-39-3 | Barium | 900 | | | P | | 1.91 | 5.98 |
| 7440-47-3 | Chromium | 3980 | | | P | | 1.91 | 5.98 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SS-01DL2

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386205DL2

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 70.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | 16100 | | | P | | 20.3 | 47.8 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

080911 1741

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 6ft-8ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386206

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 80 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 39.8 | | | P | | 0.427 | 0.854 |
| 7440-43-9 | Cadmium | 21.6 | | | P | | 0.0427 | 0.427 |
| 7440-47-3 | Chromium | 150 | | | P | | 0.137 | 0.427 |
| 7439-97-6 | Mercury | 0.294 | | | CV | | 0.0026 | 0.014 |
| 7782-49-2 | Selenium | 1.12 | J | | P | | 0.342 | 1.71 |
| 7440-22-4 | Silver | 7 | | | P | | 0.137 | 0.427 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

080911 1741

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 6ft-8ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386206DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 80 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-39-3 | Barium | 632 | | | P | | 0.683 | 2.13 |
| 7439-92-1 | Lead | 1500 | | | P | | 1.45 | 3.42 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

080911 1741

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-3 10ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386207

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 82 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 23.9 | | *N | P | | 0.531 | 1.06 |
| 7440-43-9 | Cadmium | 23.2 | | E | P | | 0.0531 | 0.531 |
| 7440-47-3 | Chromium | 109 | | N | P | | 0.17 | 0.531 |
| 7439-97-6 | Mercury | 0.706 | | N | CV | | 0.0069 | 0.0373 |
| 7782-49-2 | Selenium | 3.85 | | | P | | 0.425 | 2.12 |
| 7440-22-4 | Silver | 10.5 | | | P | | 0.17 | 0.531 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-3 10ft-12ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386207DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 82 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-39-3 | Barium | 485 | | | P | | 0.85 | 2.66 |
| 7439-92-1 | Lead | 1380 | | | P | | 1.8 | 4.25 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 75.2 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 13.4 | | | P | | 0.578 | 1.16 |
| 7440-39-3 | Barium | 58.6 | | | P | | 0.185 | 0.578 |
| 7440-43-9 | Cadmium | 0.609 | | | P | | 0.0578 | 0.578 |
| 7440-47-3 | Chromium | 20.6 | | | P | | 0.185 | 0.578 |
| 7439-92-1 | Lead | 28.6 | | | P | | 0.393 | 0.925 |
| 7439-97-6 | Mercury | 0.282 | | | CV | | 0.0037 | 0.0197 |
| 7782-49-2 | Selenium | 2.31 | U | | P | | 0.462 | 2.31 |
| 7440-22-4 | Silver | 0.578 | U | | P | | 0.185 | 0.578 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 74.4 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 8.24 | | | P | | 0.632 | 1.26 |
| 7440-39-3 | Barium | 47.9 | | | P | | 0.202 | 0.632 |
| 7440-43-9 | Cadmium | 0.574 | J | | P | | 0.0632 | 0.632 |
| 7440-47-3 | Chromium | 18.6 | | | P | | 0.202 | 0.632 |
| 7439-92-1 | Lead | 30 | | | P | | 0.43 | 1.01 |
| 7439-97-6 | Mercury | 0.221 | | | CV | | 0.0046 | 0.0247 |
| 7782-49-2 | Selenium | 2.53 | U | | P | | 0.505 | 2.53 |
| 7440-22-4 | Silver | 0.632 | U | | P | | 0.202 | 0.632 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-7 4ft-6ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386212

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 76.4 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 12 | | | P | | 0.528 | 1.06 |
| 7440-39-3 | Barium | 97.4 | | | P | | 0.169 | 0.528 |
| 7440-43-9 | Cadmium | 0.361 | J | | P | | 0.0528 | 0.528 |
| 7440-47-3 | Chromium | 25 | | | P | | 0.169 | 0.528 |
| 7439-92-1 | Lead | 38.6 | | | P | | 0.359 | 0.844 |
| 7439-97-6 | Mercury | 0.0603 | | | CV | | 0.0038 | 0.0205 |
| 7782-49-2 | Selenium | 1 | J | | P | | 0.422 | 2.11 |
| 7440-22-4 | Silver | 0.528 | U | | P | | 0.169 | 0.528 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-IDW-WATER-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

*CONCENTRATION UNITS: UG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 21.3 | | | P | | 3.31 | 10 |
| 7440-39-3 | Barium | 401 | | | P | | 0.22 | 10 |
| 7440-43-9 | Cadmium | 6.43 | | | P | | 0.72 | 5 |
| 7440-47-3 | Chromium | 146 | | | P | | 0.43 | 10 |
| 7439-92-1 | Lead | 347 | | | P | | 3.7 | 15 |
| 7439-97-6 | Mercury | 0.83 | | | CV | | 0.037 | 0.2 |
| 7782-49-2 | Selenium | 20 | U | | P | | 4.1 | 20 |
| 7440-22-4 | Silver | 10 | U | | P | | 0.52 | 10 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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# Metals Inorganic QC Summary Data

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5A

SPIKE SAMPLE RECOVERY

EPA Sample No.

KD-SB-3 10ft-12ftMS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Level:(low/med) LOW

% Solids for Sample: 82

Concentration Units (mg/L or mg/kg): mg/Kg

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 75 - 125 | 94.5 | | 23.9 | | 51.1 | 138.2 | N | P |
| Barium | - | | | | | | | | NR |
| Cadmium | 75 - 125 | 66.0 | | 23.2 | | 51.1 | 83.8 | | P |
| Chromium | 75 - 125 | 143 | | 109 | | 51.1 | 66.5 | N | P |
| Lead | - | | | | | | | | NR |
| Mercury | 80 - 120 | 1.24 | | 0.706 | | 0.257 | 207.8 | N | CV |
| Selenium | 75 - 125 | 48.6 | | 3.85 | | 51.1 | 87.6 | | P |
| Silver | 75 - 125 | 35.2 | | 10.5 | | 20.5 | 120.5 | | P |

Comments:

080911 1741

U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

EPA Sample No.

KD-SB-3 10ft-12ftSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Level:(low/med) LOW

% Solids for Sample: 82

Concentration Units (mg/L or mg/kg): mg/Kg

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 75 - 125 | 71.0 | | 23.9 | | 52.9 | 89 | | P |
| Barium | - | | | | | | | | NR |
| Cadmium | 75 - 125 | 66.2 | | 23.2 | | 52.9 | 81.3 | | P |
| Chromium | 75 - 125 | 154 | | 109 | | 52.9 | 85.1 | | P |
| Lead | - | | | | | | | | NR |
| Mercury | 80 - 120 | 1.19 | | 0.706 | | 0.251 | 192.8 | N | CV |
| Selenium | 75 - 125 | 45.8 | | 3.85 | | 52.9 | 79.3 | | P |
| Silver | 75 - 125 | 30.4 | | 10.5 | | 21.2 | 93.9 | | P |

Comments:

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5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA Sample No.

350386102A

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: Water Level:(low/med) LOW

Concentration Units (ug/L or mg/kg): ug/L

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 80 - 120 | 538.00 | | 4.11 | J | 500 | 106.8 | | P |
| Barium | 80 - 120 | 1610.00 | | 58.12 | | 1500 | 103.6 | | P |
| Cadmium | 80 - 120 | 517.00 | | 0.17 | U | 500 | 103.4 | | P |
| Chromium | 80 - 120 | 533.00 | | 2.13 | J | 500 | 106.2 | | P |
| Lead | 80 - 120 | 534.00 | | 2.82 | U | 500 | 106.8 | | P |
| Selenium | 80 - 120 | 542.00 | | -4.39 | U | 500 | 108.4 | | P |
| Silver | 80 - 120 | 195.00 | | -0.09 | U | 200 | 97.5 | | P |

Comments:

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5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA Sample No.

350386207A

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: Soil Level:(low/med) LOW

Concentration Units (ug/L or mg/kg): ug/L

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 80 - 120 | 743.00 | | 225.41 | | 500 | 103.6 | | P |
| Cadmium | 80 - 120 | 698.00 | | 218.70 | | 500 | 95.8 | | P |
| Chromium | 80 - 120 | 1480.00 | | 1028.91 | | 500 | 89.7 | | P |
| Mercury | - | 14.10 | | 7.57 | | 6 | 108.8 | | CV |
| Selenium | 80 - 120 | 568.00 | | 36.25 | | 500 | 106.3 | | P |
| Silver | 80 - 120 | 310.00 | | 99.23 | | 200 | 105.2 | | P |

Comments:

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5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA Sample No.

350386214A

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: Water Level:(low/med) LOW

Concentration Units (ug/L or mg/kg): ug/L

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 80 - 120 | 3.47 | | 0.83 | | 3 | 88.0 | | CV |

Comments:

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6

DUPLICATES

EPA Sample No.

97163LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Level:(low/med) LOW

% Solids for Sample: 100 % Solids for Duplicate: 100

Concentration Units (mg/L or mg/kg): mg/Kg

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 20 | 49.7 | | 49.7 | | 0.0 | | P |
| Barium | 20 | 147 | | 148 | | 0.7 | | P |
| Cadmium | 20 | 48.4 | | 48.5 | | 0.2 | | P |
| Chromium | 20 | 49.8 | | 49.7 | | 0.2 | | P |
| Lead | 20 | 49.8 | | 49.8 | | 0.0 | | P |
| Selenium | 20 | 49.2 | | 48.6 | | 1.2 | | P |
| Silver | 20 | 20.6 | | 20.4 | | 1.0 | | P |

Comments:

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6

DUPLICATES

EPA Sample No.

97288LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): ug/L

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Mercury | 20 | 2.82 | | 2.89 | | 2.5 | | CV |

Comments:

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6

DUPLICATES

EPA Sample No.

97564LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Level:(low/med) LOW

% Solids for Sample: 100 % Solids for Duplicate: 100

Concentration Units (mg/L or mg/kg): mg/Kg

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Mercury | 20 | 0.304 | | 0.303 | | 0.3 | | CV |

Comments:

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6

DUPLICATES

EPA Sample No.

KD-SB-3 10ft-12ftSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Level:(low/med) LOW

% Solids for Sample: 82 % Solids for Duplicate: 82

Concentration Units (mg/L or mg/kg): mg/Kg

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 20 | 94.5 | | 71 | | 28.4 | * | P |
| Cadmium | 20 | 66 | | 66.2 | | 0.3 | | P |
| Chromium | 20 | 143 | | 154 | | 7.4 | | P |
| Mercury | 20 | 1.24 | | 1.19 | | 4.1 | | CV |
| Selenium | 20 | 48.6 | | 45.8 | | 5.9 | | P |
| Silver | 20 | 35.2 | | 30.4 | | 14.6 | | P |

Comments:

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97025LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 40661, 42025, 42664,

| | Aqueous (ug/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Arsenic | 500 | 511 | 102.2 | | | | - | |
| Barium | 1500 | 1480 | 98.7 | | | | - | |
| Cadmium | 500 | 494 | 98.8 | | | | - | |
| Chromium | 500 | 505 | 101.0 | | | | - | |
| Lead | 500 | 506 | 101.2 | | | | - | |
| Selenium | 500 | 515 | 103.0 | | | | - | |
| Silver | 200 | 197 | 98.5 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97026LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 40661, 42025, 42664,

| | Aqueous (ug/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Arsenic | 500 | 514 | 102.8 | | | | - | |
| Barium | 1500 | 1500 | 100.0 | | | | - | |
| Cadmium | 500 | 492 | 98.4 | | | | - | |
| Chromium | 500 | 505 | 101.0 | | | | - | |
| Lead | 500 | 510 | 102.0 | | | | - | |
| Selenium | 500 | 515 | 103.0 | | | | - | |
| Silver | 200 | 197 | 98.5 | | | | - | |

080911 1741

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97162LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source: 40661, 42025, 42449,

Aqueous LCS Source:

| | Aqueous | | | Solid (mg/Kg) | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Arsenic | | | | 49.8 | 49.7 | | 80 - 120 | 99.8 |
| Barium | | | | 149 | 147 | | 80 - 120 | 98.7 |
| Cadmium | | | | 49.8 | 48.4 | | 80 - 120 | 97.2 |
| Chromium | | | | 49.8 | 49.8 | | 80 - 120 | 100.0 |
| Lead | | | | 49.8 | 49.8 | | 80 - 120 | 100.0 |
| Selenium | | | | 49.8 | 49.2 | | 80 - 120 | 98.8 |
| Silver | | | | 19.9 | 20.6 | | 80 - 120 | 103.5 |

080911 1741

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97163LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source: 40661, 42025, 42449,

Aqueous LCS Source:

| Analyte | Aqueous True | Aqueous Found | Aqueous %R | Solid (mg/Kg) True | Solid Found | C | Limits | | | %R |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | | | | 49.9 | 49.7 | | 80 | - | 120 | 99.6 |
| Barium | | | | 150 | 148 | | 80 | - | 120 | 98.7 |
| Cadmium | | | | 49.9 | 48.5 | | 80 | - | 120 | 97.2 |
| Chromium | | | | 49.9 | 49.7 | | 80 | - | 120 | 99.6 |
| Lead | | | | 49.9 | 49.8 | | 80 | - | 120 | 99.8 |
| Selenium | | | | 49.9 | 48.6 | | 80 | - | 120 | 97.4 |
| Silver | | | | 20 | 20.4 | | 80 | - | 120 | 102.0 |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97287LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42189

| | Aqueous (ug/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Mercury | 3 | 2.82 | 94.0 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97288LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42189

| | Aqueous (ug/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Mercury | 3 | 2.89 | 96.3 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97563LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source: 42189

Aqueous LCS Source:

| Analyte | Aqueous True | Aqueous Found | Aqueous %R | Solid (mg/Kg) True | Solid (mg/Kg) Found | C | Limits | %R |
|---|---|---|---|---|---|---|---|---|
| Mercury | | | | 0.296 | 0.304 | | 80 - 120 | 102.7 |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97564LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source: 42189

Aqueous LCS Source:

| | Aqueous | | | Solid (mg/Kg) | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Mercury | | | | 0.298 | 0.303 | | 80 - 120 | 101.7 |

080911 1741

# TCLP Metals Data Package

080911 1741

**CASE NARRATIVE**
**METALS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

Analyses were performed according to the Spectrum Analytical Inc. Standard Operating Procedures and EPA Method 6010B for ICP metals.

## IV. PREPARATION

Samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Methods 1311 and 3010A.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

**1. Calibration Blanks:**

All acceptance criteria were met.

**2. Method Blanks:**

All acceptance criteria were met.

**C. Spikes:**

**1. Laboratory Control Spikes (LCS):**

An LCS/LCSD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met.

**2. Post Digestion Spike:**

All acceptance criteria were met with the exception of:
Post Digestion Spike 350386201A was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Barium at

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

131.3 % with criteria of (80-120). The most probable cause for the PDS exceeding limits is sample matrix due to the fact that the LCS/LCSD pass all quality control criteria. No further action was taken.

3. **Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

   No spikes requested by client.

**D. Duplicate:**

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

**E. Serial Dilution:**

All acceptance criteria were met.

**F. ICP Interference Check Samples:**

All acceptance criteria were met.

**G. Samples:**

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:

Name: Troy L. Roberts Title: Inorg. Manager

**SIGNED:** **DATE: 08/31/2011**

W:\Narratives\Metals\3503\3503862_6010_TCLP.doc

**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

Analyses were performed according to the Spectrum Analytical Inc. Standard Operating Procedures and EPA Method 7470A.

## IV. PREPARATION

Samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Methods 1311 and 7470A.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

**1. Calibration Blanks:**

All acceptance criteria were met.

**2. Method Blanks:**

All acceptance criteria were met.

**C. Spikes:**

**1. Laboratory Control Spikes (LCS):**

An LCS/LCSD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met.

**2. Post Digestion Spike:**

All acceptance criteria were met.

**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

**3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

No spikes requested by client.

**D. Duplicate:**

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

**E. Serial Dilution:**

All acceptance criteria were met.

**F. Samples:**

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature: _____
Name: Troy L. Roberts Title: Inorg. Manager

**SIGNED:** **DATE: 08/30/2011**

W:\Narratives\Metals\3503\3503862_7470_TCLP.doc

# U.S. EPA - CLP

## COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 /

Lab Code : PEL Case No.: SDG No.: 3503862

SOW No.:

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-DRUM-1 | 350386203 |
| KD-DRUM-2 | 350386204 |
| KD-SS-01 | 350386205 |
| KD-SB-2 6ft-8ft | 350386206 |
| KD-SB-3 10ft-12ft | 350386207 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-SB-7 4ft-6ft | 350386212 |
| KD-DISP-SOIL-01 | 350386213 |

Were ICP interelement corrections applied? Yes/No Yes

Were ICP background corrections applied? Yes/No Yes

If yes - were raw data generated before application of background corrections? Yes/No No

Comments:

080911 1742

# Metalst Inorganic Sample Data

080911 1742

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 3.68 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.00886 | J | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.011 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.0877 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.00603 | J | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

080911 1742

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.593 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.05 | U | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0574 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.0507 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.00759 | J | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386203

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

**TCLP Analysis**

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 6.6 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.0231 | J | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.00815 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 1.18 | | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-2

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386204

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.401 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.836 | | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0168 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.15 | U | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.00747 | J | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SS-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386205

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 3.33 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.0126 | J | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0282 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 8.35 | | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 6ft-8ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386206

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.802 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.0626 | | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0106 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 2.84 | | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-3 10ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386207

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.898 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.03 | J | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0136 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.138 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.746 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.05 | U | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0111 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.0712 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.0162 | J | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.05 | U | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.1 | U | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.15 | U | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.00982 | J | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-7 4ft-6ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386212

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.493 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.00756 | J | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.1 | U | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.0485 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DISP-SOIL-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386213

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 1.05 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.05 | U | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0097 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.0556 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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# Metalst Inorganic QC Summary Data

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5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA Sample No.

350386201A

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: Soil Level:(low/med) LOW

**TCLP Analysis**

Concentration Units (ug/L or mg/kg): ug/L

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 80 - 120 | 561.00 | | 0.34 | U | 500 | 112.2 | | P |
| Barium | 80 - 120 | 1970.00 | | 367.84 | | 1500 | 131.3 | | P |
| Cadmium | 80 - 120 | 543.00 | | 0.89 | J | 500 | 108.6 | | P |
| Chromium | 80 - 120 | 548.00 | | 1.10 | J | 500 | 109.6 | | P |
| Lead | 80 - 120 | 564.00 | | 8.77 | J | 500 | 112.8 | | P |
| Mercury | 80 - 120 | 2.77 | | -0.06 | U | 3 | 92.2 | | CV |
| Selenium | 80 - 120 | 595.00 | | -9.56 | U | 500 | 119.0 | | P |
| Silver | 80 - 120 | 213.00 | | 0.60 | J | 200 | 106.5 | | P |

Comments:

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6

DUPLICATES

EPA Sample No.

97451LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

**TCLP Analysis**

Concentration Units (mg/L or mg/kg): mg/L

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 20 | 5.12 | | 5.27 | | 2.9 | | P |
| Barium | 20 | 14.9 | | 15.4 | | 3.3 | | P |
| Cadmium | 20 | 4.98 | | 5.12 | | 2.8 | | P |
| Chromium | 20 | 5.05 | | 5.2 | | 2.9 | | P |
| Lead | 20 | 5.1 | | 5.24 | | 2.7 | | P |
| Selenium | 20 | 5.36 | | 5.57 | | 3.8 | | P |
| Silver | 20 | 2.06 | | 2.09 | | 1.4 | | P |

Comments:

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97450LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42664, 41688

**TCLP Analysis**

| | Aqueous (mg/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Arsenic | 5 | 5.12 | 102.4 | | | | - | |
| Barium | 15 | 14.9 | 99.3 | | | | - | |
| Cadmium | 5 | 4.98 | 99.6 | | | | - | |
| Chromium | 5 | 5.05 | 101.0 | | | | - | |
| Lead | 5 | 5.1 | 102.0 | | | | - | |
| Selenium | 5 | 5.36 | 107.2 | | | | - | |
| Silver | 2 | 2.06 | 103.0 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97451LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42664, 41688

**TCLP Analysis**

| | Aqueous (mg/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Arsenic | 5 | 5.27 | 105.4 | | | | - | |
| Barium | 15 | 15.4 | 102.7 | | | | - | |
| Cadmium | 5 | 5.12 | 102.4 | | | | - | |
| Chromium | 5 | 5.2 | 104.0 | | | | - | |
| Lead | 5 | 5.24 | 104.8 | | | | - | |
| Selenium | 5 | 5.57 | 111.4 | | | | - | |
| Silver | 2 | 2.09 | 104.5 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97539LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42189

**TCLP Analysis**

| | Aqueous (mg/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Mercury | 0.03 | 0.0271 | 90.3 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97542LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42189

**TCLP Analysis**

| | Aqueous (mg/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Mercury | 0.03 | 0.027 | 90.0 | | | | - | |

080911 1742

# Chain of Custody Documentation

080911 1742

# Addendum

080911 1742

# Letter of Acceptance

**Customer Name:** Oneida Total Integrated Enterprises

**Date and Time Received:** 8/23/2011 9:00:00 AM

**Date to be Reported:** 9/13/2011

**Laboratory Submission Number/SDG:** 3503862

**Get Detailed Analyte List here:** www.pelab.com/webdms/Default.asp?LoaSDG=3503862

**Project:** Kokomo Dump / 2010101 / 1012

**Samples:** The submission consisted of 15 samples, including QC, with sample identification shown in the attached data tables.

**Tests:** The Samples will be analyzed for EPA methods: 6010, 6010_TCLP, 7470, 7470_TCLP, 7471, 8082, 8260, 8270, 8270_TCLP.

**Sample Custody/COC discrepancies:**

None.

**Notes:**

temp -18C, 3.5C, 5.6C
pH<2 8260, 6010
p/w vials received
8260 soils received frozen on dry ice
Sample 01= one 8oz jar received broken in transit and instructed to analyze
Sample -14 and -15 were crossed off on the COC but containers were received for total 8260 and will be rum
KitID # 11065

**Distribution of Report to:**

Oneida Total Integrated Enterprises
Attn: Naren Babu
(W): 312-220-7000

**Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. PEL letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar materials**

# Log-in Report

**Level: 2**

**Total of: 83 analyses on 15 samples (including QC)** *23-Aug-11*

**Report/SDG #: 3503862**

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 | | S | 8/19/2011 10:45:00 AM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| 8082 | PCB | 8082 |
| 8260 | Volatile Organic Compounds | 8260 |
| 8270 | GCMS semivolatile | 8270 |
| 8270_TCLP | TCLP Semivolatiles by 8270 | 8270 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-2 11ft-12ft | 350386202 | | S | 8/19/2011 11:45:00 AM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| 8082 | PCB | 8082 |
| 8260 | Volatile Organic Compounds | 8260 |
| 8270 | GCMS semivolatile | 8270 |
| 8270_TCLP | TCLP Semivolatiles by 8270 | 8270 |
| Dry Weight | Dry Weight | Dry Weight |

## Report/SDG #: 3503862

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-DRUM-1 | 350386203 | | S | 8/19/2011 11:30:00 AM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-DRUM-2 | 350386204 | | S | 8/19/2011 11:35:00 AM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SS-01 | 350386205 | | S | 8/19/2011 11:40:00 AM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

## Report/SDG #: 3503862

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-2 6ft-8ft | 350386206 | | S | 8/19/2011 1:30:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-3 10ft-12ft | 350386207 | | S | 8/19/2011 2:30:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-3 10ft-12ftMS | 350386208 | | S | 8/19/2011 2:30:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-3 10ft-12ftSD | 350386209 | | S | 8/19/2011 2:30:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

## Report/SDG #: 3503862

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-6 3ft-4ft | 350386210 | | S | 8/19/2011 4:00:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| 8082 | PCB | 8082 |
| 8260 | Volatile Organic Compounds | 8260 |
| 8270 | GCMS semivolatile | 8270 |
| 8270_TCLP | TCLP Semivolatiles by 8270 | 8270 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-9 3ft-4ft | 350386211 | | S | 8/19/2011 4:00:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| 8082 | PCB | 8082 |
| 8260 | Volatile Organic Compounds | 8260 |
| 8270 | GCMS semivolatile | 8270 |
| 8270_TCLP | TCLP Semivolatiles by 8270 | 8270 |
| Dry Weight | Dry Weight | Dry Weight |

## Report/SDG #: 3503862

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-7 4ft-6ft | 350386212 | | S | 8/19/2011 4:40:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-DISP-SOIL-01 | 350386213 | | S | 8/19/2011 5:00:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 8082 | PCB | 8082 |
| 8270_TCLP | TCLP Semivolatiles by 8270 | 8270 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-IDW-WATER-01 | 350386214 | | W | 8/19/2011 5:05:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 7470 | Mercury | 7470 |
| 8082 | PCB | 8082 |
| 8260 | Volatile Organic Compounds | 8260 |
| 8270 | GCMS semivolatile | 8270 |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| TRIP-1 | 350386215 | | W | 8/19/2011 | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 8260 | Volatile Organic Compounds | 8260 |

## Mark Gudnason [Tampa]

**From:** Mark Gudnason [Tampa]
**Sent:** Tuesday, August 23, 2011 11:31 AM
**To:** Naren Babu
**Cc:** Mark Gudnason [Tampa]
**Subject:** RE: FedEx MPS Shipment 795104345056 Delivered /Kokomo Dump site

Naren,

Per our telephone conversation we will run the Trip Blank and the total metals, total SVOCs, and PCBs on KD-SB-1 16'-16.5'. We will HOLD the TCLP tests on KD-SB-1 16'-16.5' pending your instructions.

Mark

-----Original Message-----
From: Mark Gudnason [Tampa]
Sent: Tuesday, August 23, 2011 10:11 AM
To: 'Naren Babu'
Subject: RE: FedEx MPS Shipment 795104345056 Delivered /Kokomo Dump site

Yes,
We received the 4 coolers (one had unused jars).

They are inspecting them now.

Attached is a copy of the COCs.

The 8-oz jar received for sample KD-SB-1 16'-16.5' was received broken and loose inside the plastic bag with the 2 oz jar. The 2 oz jar will not be enough to complete the testing.

The Trip Blank was crossed out for 8260. Is it to be discarded?

Please advise.

Mark

-----Original Message-----
From: Naren Babu [mailto:NBabu@otie.com]
Sent: Tuesday, August 23, 2011 9:54 AM
To: Mark Gudnason [Tampa]
Subject: Fwd: FedEx MPS Shipment 795104345056 Delivered

Mark

4 coolers were delivered at your lab today. Please check the samples and COC for accuracy and Send me sample login documents if there are any.

Thanks
Naren
312-656-7685

Begin forwarded message:

From: Raghu Nagam <RNagam@otie.com<mailto:RNagam@otie.com>>
Date: August 23, 2011 8:48:13 AM CDT
To: Naren Babu <NBabu@otie.com<mailto:NBabu@otie.com>>

Subject: FW: FedEx MPS Shipment 795104345056 Delivered

Both shipment (4 coolers) were delivered. See email below

Raghu Nagam
Oneida Total Integrated Enterprises (OTIE)
(312)220-7005 office
(312) 217-7003cell
(312)220-7004 fax
www.otie.com<http://www.otie.com/>
From: trackingupdates@fedex.com<mailto:trackingupdates@fedex.com>
[mailto:trackingupdates@fedex.com]
Sent: Tuesday, August 23, 2011 8:43 AM
To: Raghu Nagam
Subject: FedEx MPS Shipment 795104345056 Delivered

---

This tracking update has been requested by:
Name:

Raghu Nagam

E-mail:

<mailto:rnagam@otie.com>rnagam@otie.com<mailto:rnagam@otie.com>

---

Our records indicate that the following MPS shipment has been delivered:
Reference:

20101011012080100001

Ship (P/U) date:

Aug 22, 2011

Delivery date:

Aug 23, 2011 8:58 AM

Sign for by:

R.STALLONE

Delivery location:

TAMPA, FL

Service type:

FedEx Priority Overnight

Number of pieces:

3

Total shipment weight:

80.00 lb.

Special handling/Services:

Deliver Weekday

Master tracking number:

795104345056<https://www.fedex.com/insight/findit/nrp.jsp?tracknumbers=795104345056&opco=&language=en&clienttype=ivother> (1 of 3)

Delivered to:

Shipping/Receiving

Packaging type:

Your Packaging

Weight:

30.00 lb.

Special handling/Services:

Additional Handling Surcharge

Tracking number:

795104345115<https://www.fedex.com/insight/findit/nrp.jsp?tracknumbers=795104345115&opco=&language=en&clienttype=ivother> (2 of 3)

Delivered to:

Shipping/Receiving

Packaging type:

Your Packaging

Weight:

30.00 lb.

Tracking number:

795104345181<https://www.fedex.com/insight/findit/nrp.jsp?tracknumbers=795104345181&opco=&language=en&clienttype=ivother> (3 of 3)

Delivered to:

Shipping/Receiving

Packaging type:

Your Packaging

Weight:

20.00 lb.

Shipper Information

Raghu Nagam

100 W Monroe

Suite 300

Chicago

US

60603

Recipient Information

Attn: Mark - Lab

PEL

8405 BENJAMIN RD STE A

TAMPA

US

33634

Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 8:33 AM CDT on 08/23/2011.
To learn more about FedEx Express, please visit our website at <https://www.fedex.com> fedex.com<http://fedex.com>.

All weights are estimated.
To track the latest status of your shipment, click on the tracking number above, or visit us at <https://www.fedex.com> fedex.com<http://fedex.com>.
This tracking update has been sent to you by FedEx on the behalf of the Requestor noted above. FedEx does not validate the authenticity of the requestor and does not validate, guarantee or warrant the authenticity of the request, the requestor's message, or the accuracy of this tracking update. For tracking results and fedex.com<http://fedex.com>'s terms of use, go to <https://www.fedex.com> fedex.com<http://fedex.com>.

Thank you for your business.

## Mark Gudnason [Tampa]

**From:** Keely Meadows [KMeadows@otie.com]
**Sent:** Tuesday, August 23, 2011 11:58 AM
**To:** Mark Gudnason [Tampa]
**Cc:** Raghu Nagam; Naren Babu
**Subject:** Kokomo Dump

Mark,
For the Kokomo Dump site, please go ahead with the testing for sample KD-SB-1 16'-16.5'. I am aware that the 8-oz sample jar was received broken and loose inside the plastic bag. However, you may use the soil inside the plastic bag to run the analyses.

Please e-mail or call me with any questions.

Thanks,

**Keely Meadows**
*Chemical/Environmental Engineer*

**Oneida Total Integrated Enterprises (OTIE)**
1220 Kennestone Circle, Suite 106
Marietta, GA 30060
678.355.5550 office
678.778.7531 cell
770.528.0167 fax
www.otie.com

*Engineering, Science and Construction*

## Mark Gudnason [Tampa]

**From:** Naren Babu [NBabu@otie.com]
**Sent:** Wednesday, August 24, 2011 10:49 AM
**To:** Mark Gudnason [Tampa]
**Cc:** Keely Meadows; Raghu Nagam
**Subject:** Re: Kokomo Dump / 2010101 / 1012: LOA3503862

Mark

Please include TCLP 8260 analysis for the following samples. TCLP analysis originally written in the COC was wrongly struck off.

KD-SB-1 16'-16.5'
KD-SB-2 11'-12'
KD-SB-6 3'-4'
KD-SB-9 3'-4'
KD-DISP-Solid-01

Thanks
Naren

On Aug 23, 2011, at 4:35 PM, "Mark Gudnason [Tampa]" <mgudnason@pelab.com> wrote:

> <<LOA3503862.pdf>>
>
> Good afternoon.
>
> Please review the attached LOA (Letter of Acceptance) for accuracy and
> let me know of any changes prior to reporting.
>
> Please note:
> None of the samples are marked for TCLP 8260.
> Sample 01= one 8oz jar received broken in transit and instructed to
> analyze Sample -14 and -15 were crossed off on the COC but containers
> were received for total 8260 and will be rum
>
> Please confirm this to be correct.
>
> Thank you,
> Mark
>
>
>
>
> The message is ready to be sent with the following file or link
> attachments:
>
> LOA3503862
>
>
> Note: To protect against computer viruses, e-mail programs may prevent
> sending or receiving certain types of file attachments. Check your
> e-mail security settings to determine how attachments are handled.
> <COC3503862.pdf>
> <LOA3503862.pdf>

## Mark Gudnason [Tampa]

**From:** Mark Gudnason [Tampa]
**Sent:** Tuesday, August 30, 2011 10:31 AM
**To:** 'Keely Meadows'; 'Naren Babu'; Raghu Nagam
**Subject:** FW: 3503862 / OTIE / 6010

Good afternoon.
This will be in the case narrative for the referenced method.

1. **Calibration Blanks:**

All acceptance criteria were met. No action required. The following ICB/CCB(s) had element concentrations below the RL:
ICB1011254 was analyzed on 08/24/11 08:26. The following analyte(s) were detected below RL: Barium at 0.498 ug/L, Silver at 6.69 ug/L.
CCB1011259 was analyzed on 08/24/11 09:00. The following analyte(s) were detected below RL: Barium at 0.259 ug/L.
ICB1011408 was analyzed on 08/25/11 08:28. The following analyte(s) were detected below RL: Barium at 0.239 ug/L, Silver at 6.83 ug/L.
CCB1011723 was analyzed on 08/25/11 18:19. The following analyte(s) were detected below RL: Silver at -0.582 ug/L.
ICB1012235 was analyzed on 08/26/11 08:51. The following analyte(s) were detected below RL: Barium at 0.25 ug/L, Silver at 6.29 ug/L.
CCB1012288 was analyzed on 08/26/11 13:53. The following analyte(s) were detected below RL: Barium at 1.3 ug/L.
CCB1012298 was analyzed on 08/26/11 14:47. The following analyte(s) were detected below RL: Silver at 0.588 ug/L. The hits in the blanks are below the RL, therefore, no corrective action was taken.

2. **Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

A client requested MS/SD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met with the exception of:
MS - KD-SB-3 10ft-12ftMS was analyzed with the soil samples on 08/25/11. The following analyte(s) were recovered below criteria: Chromium at 66.5 % with criteria of (75-125) and the following analyte(s) were recovered above criteria: Arsenic at 138.2 % with criteria of (75-125).

SD - KD-SB-3 10ft-12ftSD was analyzed with the soil samples on 08/25/11.. The following analyte(s) exceeded RPD criteria: Arsenic at 28.4 % with criteria of (20). The most probable cause for the MS/MSD exceeding limits is sample matrix due to the samples requiring a dilution. The LCS/LCSD pass all quality control criteria. No further action was taken.
Samples coded accordingly.

**B. Serial Dilution:**

All acceptance criteria were met with the exception of:
Serial Dilution 350386207L was analyzed with the soil samples on 08/25/11. The following analyte(s) exceeded criteria: Cadmium at 20 % with criteria of (10). The most probable cause for the SD exceeding limits is sample matrix due to the samples requiring a dilution. The LCS/LCSD pass all quality control criteria. No further action was taken.

**C. Samples:**

Sample analysis proceeded normally.
Sample KD-DRUM-1 required a 25X dilution due to high concentration of the following analyte

(s): Barium.
Sample KD-DRUM-1 required a 5X dilution due to high concentration of the following analyte(s): Lead.
Sample KD-DRUM-2 required a 5X dilution due to high concentration of the following analyte(s): Cadmium, Chromium.
Sample KD-SB-1 16ft-16.5ft required a 2X dilution due to high concentration of the following analyte(s): Barium.
Sample KD-SB-2 11ft-12ft required a 20X dilution due to high concentration of the following analyte(s): Chromium.
Sample KD-SB-2 11ft-12ft required a 2X dilution due to high concentration of the following analyte(s): Lead.
Sample KD-SB-2 6ft-8ft required a 5X dilution due to high concentration of the following analyte(s): Barium, Lead.
Sample KD-SB-3 10ft-12ft required a 5X dilution due to high concentration of the following analyte(s): Barium, Lead.
Sample KD-SS-01 required a 10X dilution due to high concentration of the following analyte(s): Barium, Chromium.
Sample KD-SS-01 required a 50X dilution due to high concentration of the following analyte(s): Lead.

## Mark Gudnason [Tampa]

**From:** Mark Gudnason [Tampa]
**Sent:** Tuesday, August 30, 2011 6:22 PM
**To:** 'Keely Meadows'; 'Naren Babu'; Raghu Nagam
**Subject:** FW: 3503862 / OTIE Kokomo / 7471

Good afternoon.
This will be in the case narrative for the referenced method.

**1. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

A client requested MS/SD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met with the exception of:
MS - KD-SB-3 10ft-12ftMS was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Mercury at 207.8 % with criteria of (80-120).

SD - KD-SB-3 10ft-12ftSD was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Mercury at 192.8 % with criteria of (80-120). The most probable cause for the MS/MSD exceeding limits is sample matrix due to the fact that the LCS/LCSD pass all quality control criteria. No further action was taken.
Samples coded accordingly.

**B. Samples:**

Sample analysis proceeded normally.
Sample KD-SB-3 10ft-12ft required a 2X dilution due to high concentration of the following analyte(s): Mercury.

## Mark Gudnason [Tampa]

**From:** Mark Gudnason [Tampa]
**Sent:** Wednesday, August 31, 2011 12:46 PM
**To:** 'Keely Meadows'; 'Naren Babu'; Raghu Nagam
**Subject:** RE: 3503862 / OTIE / 6010_TCLP

Good afternoon.
This will be in the case narrative for the referenced method.

1. **Post Digestion Spike:**

   All acceptance criteria were met with the exception of:
   Post Digestion Spike 350386201A was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Barium at 131.3 % with criteria of (80-120). The most probable cause for the PDS exceeding limits is sample matrix due to the fact that the LCS/LCSD pass all quality control criteria. No further action was taken.

## Mark Gudnason [Tampa]

**From:** Mark Gudnason [Tampa]
**Sent:** Friday, September 02, 2011 4:20 PM
**To:** 'Keely Meadows'; 'Naren Babu'; Raghu Nagam
**Subject:** FW: 3503862-8082-Kokomo Dump

Good afternoon.
This will be in the case narrative for the referenced method.

**A. Samples:**

Data was collected using dual column analysis. Results reported from the primary column if the %D between the two columns is >40%, data is coded.

Sample analysis proceeded normally.
Sample KD-SB-6 3ft-4ft required a 10X dilution due to high concentration of the following analyte(s): Aroclor-1248 and Aroclor-1254.

Sample KD-SB-9 3ft-4ft required a 5X dilution due to high concentration of the following analyte: Aroclor-1248. Both full and diluted runs are reported.

**PCB 1016 and PCB 1260 were used as the spiking solution for all QC spikes.**

**1. Laboratory Control Spikes (LCS)**

All acceptance criteria were met with the exception of:
LCS 97052LCSD was analyzed with the water samples extracted on 08/24/11. All percent recovery criteria were met. The following analyte(s) exceeded RPD criteria: Aroclor-1016 at 21.1 % with criteria of (10). Since all percent recovery criteria were met, no further action was taken.

LCS 97265LCS was analyzed with the soil samples extracted on 08/25/11. The following analyte(s) had marginal exceedance limit failures: Aroclor-1016 at 124 % with criteria of (50.7-117.3). Since recovery was only slightly high, no further action was taken.

# End Of Report

080911 1742

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS63D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 1000 | 705 | 70.5 | 3.9 | 30.0 | 42 - 158 |
| Chloromethane | 1000 | 784 | 78.4 | 3.1 | 30.0 | 61 - 135 |
| Vinyl chloride | 1000 | 828 | 82.8 | 3.9 | 30.0 | 64 - 126 |
| Bromomethane | 1000 | 1100 | 110.0 | 3.6 | 30.0 | 47 - 143 |
| Chloroethane | 1000 | 842 | 84.2 | 8.5 | 30.0 | 27 - 170 |
| Trichlorofluoromethane | 1000 | 1050 | 105.0 | 1.9 | 30.0 | 66 - 128 |
| 1,1-Dichloroethene | 1000 | 1070 | 107.0 | 4.6 | 30.0 | 72 - 130 |
| Methyl iodide | 1000 | 1220 | 122.0 | 8.5 | 30.0 | 38 - 157 |
| Carbon disulfide | 1000 | 956 | 95.6 | 2.8 | 30.0 | 70 - 140 |
| Methylene chloride | 1000 | 964 | 96.4 | 5.6 | 30.0 | 78 - 122 |
| trans-1,2-Dichloroethene | 1000 | 1040 | 104.0 | 2.8 | 30.0 | 74 - 126 |
| 1,1-Dichloroethane | 1000 | 1060 | 106.0 | 3.7 | 30.0 | 79 - 124 |
| Acetone | 2000 | 2190 | 110.0 | 13.7 | 30.0 | 64 - 158 |
| 2,2-Dichloropropane | 1000 | 979 | 97.9 | 5.1 | 30.0 | 75 - 129 |
| cis-1,2-Dichloroethene | 1000 | 1070 | 107.0 | 1.9 | 30.0 | 79 - 131 |
| Bromochloromethane | 1000 | 1000 | 100.0 | 5.8 | 30.0 | 70 - 130 |
| 2-Butanone | 2000 | 1990 | 99.5 | 3.6 | 30.0 | 68 - 158 |
| Chloroform | 1000 | 1060 | 106.0 | 2.8 | 30.0 | 76 - 124 |
| 1,1,1-Trichloroethane | 1000 | 1140 | 114.0 | 5.1 | 30.0 | 71 - 129 |
| Carbon tetrachloride | 1000 | 1020 | 102.0 | 5.7 | 30.0 | 73 - 121 |
| 1,1-Dichloropropene | 1000 | 1090 | 109.0 | 3.6 | 30.0 | 71 - 128 |
| Benzene | 1000 | 1010 | 101.0 | 0.0 | 30.0 | 78 - 127 |
| 1,2-Dichloroethane | 1000 | 1110 | 111.0 | 2.7 | 30.0 | 80 - 122 |
| Trichloroethene | 1000 | 1060 | 106.0 | 0.9 | 30.0 | 79 - 130 |
| Vinyl acetate | 1000 | 869 | 86.9 | 45.4* | 30.0 | 70 - 130 |
| 1,2-Dichloropropane | 1000 | 970 | 97.0 | 5.0 | 30.0 | 82 - 124 |
| Dibromomethane | 1000 | 1020 | 102.0 | 1.0 | 30.0 | 83 - 127 |
| Bromodichloromethane | 1000 | 1050 | 105.0 | 0.9 | 30.0 | 78 - 120 |
| cis-1,3-Dichloropropene | 1000 | 982 | 98.2 | 1.3 | 30.0 | 80 - 129 |
| 4-Methyl-2-pentanone | 2000 | 1920 | 96.0 | 6.1 | 30.0 | 83 - 119 |
| Toluene | 1000 | 1070 | 107.0 | 3.7 | 30.0 | 77 - 132 |
| trans-1,3-Dichloropropene | 1000 | 1000 | 100.0 | 3.9 | 30.0 | 76 - 118 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS63D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 1000 | 1050 | 105.0 | 2.8 | 30.0 | 70 - 130 |
| Tetrachloroethene | 1000 | 1020 | 102.0 | 4.8 | 30.0 | 75 - 126 |
| 1,3-Dichloropropane | 1000 | 1000 | 100.0 | 1.0 | 30.0 | 83 - 117 |
| 2-Hexanone | 2000 | 1900 | 95.0 | 2.1 | 30.0 | 74 - 136 |
| Dibromochloromethane | 1000 | 994 | 99.4 | 1.6 | 30.0 | 76 - 116 |
| 1,2-Dibromoethane | 1000 | 991 | 99.1 | 0.7 | 30.0 | 78 - 123 |
| Chlorobenzene | 1000 | 1010 | 101.0 | 2.0 | 30.0 | 82 - 115 |
| 1,1,1,2-Tetrachloroethane | 1000 | 1070 | 107.0 | 0.9 | 30.0 | 77 - 118 |
| Ethylbenzene | 1000 | 1050 | 105.0 | 0.9 | 30.0 | 80 - 119 |
| m,p-Xylene | 2000 | 2120 | 106.0 | 1.9 | 30.0 | 78 - 125 |
| o-Xylene | 1000 | 1100 | 110.0 | 2.7 | 30.0 | 77 - 120 |
| Styrene | 1000 | 1080 | 108.0 | 1.8 | 30.0 | 76 - 129 |
| Bromoform | 1000 | 1060 | 106.0 | 0.9 | 30.0 | 66 - 124 |
| Isopropylbenzene | 1000 | 1040 | 104.0 | 4.7 | 30.0 | 74 - 125 |
| Bromobenzene | 1000 | 949 | 94.9 | 2.4 | 30.0 | 81 - 114 |
| 1,1,2,2-Tetrachloroethane | 1000 | 890 | 89.0 | 7.4 | 30.0 | 79 - 120 |
| 1,2,3-Trichloropropane | 1000 | 961 | 96.1 | 6.9 | 30.0 | 81 - 122 |
| n-Propylbenzene | 1000 | 1020 | 102.0 | 5.7 | 30.0 | 70 - 129 |
| 2-Chlorotoluene | 1000 | 979 | 97.9 | 6.0 | 30.0 | 73 - 121 |
| 4-Chlorotoluene | 1000 | 1020 | 102.0 | 5.7 | 30.0 | 80 - 115 |
| 1,3,5-Trimethylbenzene | 1000 | 1040 | 104.0 | 4.7 | 30.0 | 76 - 125 |
| tert-Butylbenzene | 1000 | 1040 | 104.0 | 5.6 | 30.0 | 72 - 126 |
| 1,2,4-Trimethylbenzene | 1000 | 1040 | 104.0 | 4.7 | 30.0 | 77 - 123 |
| sec-Butylbenzene | 1000 | 1000 | 100.0 | 7.7 | 30.0 | 74 - 130 |
| 1,3-Dichlorobenzene | 1000 | 930 | 93.0 | 5.4 | 30.0 | 82 - 119 |
| 1,4-Dichlorobenzene | 1000 | 918 | 91.8 | 3.4 | 30.0 | 83 - 121 |
| 4-Isopropyltoluene | 1000 | 1020 | 102.0 | 8.5 | 30.0 | 76 - 133 |
| n-Butylbenzene | 1000 | 963 | 96.3 | 8.6 | 30.0 | 72 - 129 |
| 1,2-Dichlorobenzene | 1000 | 943 | 94.3 | 5.9 | 30.0 | 83 - 116 |
| 1,2-Dibromo-3-chloropropane | 1000 | 906 | 90.6 | 17.5 | 30.0 | 64 - 131 |
| 1,2,4-Trichlorobenzene | 1000 | 959 | 95.9 | 12.8 | 30.0 | 85 - 125 |
| Hexachlorobutadiene | 1000 | 1020 | 102.0 | 6.6 | 30.0 | 78 - 130 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082511LCS63D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 1000 | 1080 | 108.0 | 17.7 | 30.0 | 82 - 136 |
| 1,2,3-Trichlorobenzene | 1000 | 902 | 90.2 | 15.2 | 30.0 | 79 - 130 |
| Methyl tert-butyl ether | 1000 | 1140 | 114.0 | 1.7 | 30.0 | 77 - 139 |

Spike Recovery: 0 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082611LCS21

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 24 | 120.0 | | 30.0 | 42 - 158 |
| Chloromethane | 20 | 20.7 | 104.0 | | 30.0 | 61 - 135 |
| Vinyl chloride | 20 | 22.4 | 112.0 | | 30.0 | 64 - 126 |
| Bromomethane | 20 | 21.2 | 106.0 | | 30.0 | 47 - 143 |
| Chloroethane | 20 | 22.2 | 111.0 | | 30.0 | 27 - 170 |
| Trichlorofluoromethane | 20 | 22.8 | 114.0 | | 30.0 | 66 - 128 |
| 1,1-Dichloroethene | 20 | 20.4 | 102.0 | | 30.0 | 72 - 130 |
| Methyl iodide | 20 | 20.7 | 104.0 | | 30.0 | 38 - 157 |
| Carbon disulfide | 20 | 20.5 | 102.0 | | 30.0 | 70 - 140 |
| Methylene chloride | 20 | 20.2 | 101.0 | | 30.0 | 78 - 122 |
| trans-1,2-Dichloroethene | 20 | 20.8 | 104.0 | | 30.0 | 74 - 126 |
| 1,1-Dichloroethane | 20 | 22.2 | 111.0 | | 30.0 | 79 - 124 |
| Acetone | 40 | 62.3 | 156.0 | | 30.0 | 64 - 158 |
| 2,2-Dichloropropane | 20 | 20.4 | 102.0 | | 30.0 | 75 - 129 |
| cis-1,2-Dichloroethene | 20 | 21.6 | 108.0 | | 30.0 | 79 - 131 |
| Bromochloromethane | 20 | 22.1 | 110.0 | | 30.0 | 70 - 130 |
| 2-Butanone | 40 | 48 | 120.0 | | 30.0 | 68 - 158 |
| Chloroform | 20 | 21.2 | 106.0 | | 30.0 | 76 - 124 |
| 1,1,1-Trichloroethane | 20 | 21.7 | 108.0 | | 30.0 | 71 - 129 |
| Carbon tetrachloride | 20 | 20.7 | 104.0 | | 30.0 | 73 - 121 |
| 1,1-Dichloropropene | 20 | 22.4 | 112.0 | | 30.0 | 71 - 128 |
| Benzene | 20 | 20.6 | 103.0 | | 30.0 | 78 - 127 |
| 1,2-Dichloroethane | 20 | 21.5 | 108.0 | | 30.0 | 80 - 122 |
| Trichloroethene | 20 | 22.7 | 114.0 | | 30.0 | 79 - 130 |
| Vinyl acetate | 20 | 20.6 | 103.0 | | 30.0 | 70 - 130 |
| 1,2-Dichloropropane | 20 | 22.1 | 110.0 | | 30.0 | 82 - 124 |
| Dibromomethane | 20 | 21.4 | 107.0 | | 30.0 | 83 - 127 |
| Bromodichloromethane | 20 | 21.8 | 109.0 | | 30.0 | 78 - 120 |
| cis-1,3-Dichloropropene | 20 | 22.2 | 111.0 | | 30.0 | 80 - 129 |
| 4-Methyl-2-pentanone | 40 | 41.8 | 104.0 | | 30.0 | 83 - 119 |
| Toluene | 20 | 20.2 | 101.0 | | 30.0 | 77 - 132 |
| trans-1,3-Dichloropropene | 20 | 22.9 | 114.0 | | 30.0 | 76 - 118 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

082611LCS21

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 22.3 | 112.0 | | 30.0 | 70 - 130 |
| Tetrachloroethene | 20 | 19 | 95.0 | | 30.0 | 75 - 126 |
| 1,3-Dichloropropane | 20 | 19.4 | 97.0 | | 30.0 | 83 - 117 |
| 2-Hexanone | 40 | 44.1 | 110.0 | | 30.0 | 74 - 136 |
| Dibromochloromethane | 20 | 19.5 | 97.5 | | 30.0 | 76 - 116 |
| 1,2-Dibromoethane | 20 | 19.5 | 97.5 | | 30.0 | 78 - 123 |
| Chlorobenzene | 20 | 18.7 | 93.5 | | 30.0 | 82 - 115 |
| 1,1,1,2-Tetrachloroethane | 20 | 17.6 | 88.0 | | 30.0 | 77 - 118 |
| Ethylbenzene | 20 | 18.7 | 93.5 | | 30.0 | 80 - 119 |
| m,p-Xylene | 40 | 37.3 | 93.2 | | 30.0 | 78 - 125 |
| o-Xylene | 20 | 19.2 | 96.0 | | 30.0 | 77 - 120 |
| Styrene | 20 | 18.6 | 93.0 | | 30.0 | 76 - 129 |
| Bromoform | 20 | 18.9 | 94.5 | | 30.0 | 66 - 124 |
| Isopropylbenzene | 20 | 19.6 | 98.0 | | 30.0 | 74 - 125 |
| Bromobenzene | 20 | 18.8 | 94.0 | | 30.0 | 81 - 114 |
| 1,1,2,2-Tetrachloroethane | 20 | 20.9 | 104.0 | | 30.0 | 79 - 120 |
| 1,2,3-Trichloropropane | 20 | 18.5 | 92.5 | | 30.0 | 81 - 122 |
| n-Propylbenzene | 20 | 19.7 | 98.5 | | 30.0 | 70 - 129 |
| 2-Chlorotoluene | 20 | 19.5 | 97.5 | | 30.0 | 73 - 121 |
| 4-Chlorotoluene | 20 | 19.1 | 95.5 | | 30.0 | 80 - 115 |
| 1,3,5-Trimethylbenzene | 20 | 19.7 | 98.5 | | 30.0 | 76 - 125 |
| tert-Butylbenzene | 20 | 19.3 | 96.5 | | 30.0 | 72 - 126 |
| 1,2,4-Trimethylbenzene | 20 | 19.5 | 97.5 | | 30.0 | 77 - 123 |
| sec-Butylbenzene | 20 | 19.4 | 97.0 | | 30.0 | 74 - 130 |
| 1,3-Dichlorobenzene | 20 | 19.2 | 96.0 | | 30.0 | 82 - 119 |
| 1,4-Dichlorobenzene | 20 | 19.3 | 96.5 | | 30.0 | 83 - 121 |
| 4-Isopropyltoluene | 20 | 19.6 | 98.0 | | 30.0 | 76 - 133 |
| n-Butylbenzene | 20 | 19.2 | 96.0 | | 30.0 | 72 - 129 |
| 1,2-Dichlorobenzene | 20 | 20.2 | 101.0 | | 30.0 | 83 - 116 |
| 1,2-Dibromo-3-chloropropane | 20 | 21.2 | 106.0 | | 30.0 | 64 - 131 |
| 1,2,4-Trichlorobenzene | 20 | 18.7 | 93.5 | | 30.0 | 85 - 125 |
| Hexachlorobutadiene | 20 | 19.4 | 97.0 | | 30.0 | 78 - 130 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082611LCS21

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 20.2 | 101.0 | | 30.0 | 82 - 136 |
| 1,2,3-Trichlorobenzene | 20 | 18.4 | 92.0 | | 30.0 | 79 - 130 |
| Methyl tert-butyl ether | 20 | 24.9 | 124.0 | | 30.0 | 77 - 139 |

Spike Recovery: 0 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082611LCS21D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 24.2 | 121.0 | 0.8 | 30.0 | 42 - 158 |
| Chloromethane | 20 | 22.5 | 112.0 | 8.3 | 30.0 | 61 - 135 |
| Vinyl chloride | 20 | 22.9 | 114.0 | 2.2 | 30.0 | 64 - 126 |
| Bromomethane | 20 | 22.2 | 111.0 | 4.6 | 30.0 | 47 - 143 |
| Chloroethane | 20 | 19.5 | 97.5 | 12.9 | 30.0 | 27 - 170 |
| Trichlorofluoromethane | 20 | 21.2 | 106.0 | 7.3 | 30.0 | 66 - 128 |
| 1,1-Dichloroethene | 20 | 19.4 | 97.0 | 5.0 | 30.0 | 72 - 130 |
| Methyl iodide | 20 | 20.1 | 100.0 | 2.9 | 30.0 | 38 - 157 |
| Carbon disulfide | 20 | 18.9 | 94.5 | 8.1 | 30.0 | 70 - 140 |
| Methylene chloride | 20 | 20.5 | 102.0 | 1.5 | 30.0 | 78 - 122 |
| trans-1,2-Dichloroethene | 20 | 20.5 | 102.0 | 1.5 | 30.0 | 74 - 126 |
| 1,1-Dichloroethane | 20 | 19.9 | 99.5 | 10.9 | 30.0 | 79 - 124 |
| Acetone | 40 | 81.2 | 203.0 * | 26.3 | 30.0 | 64 - 158 |
| 2,2-Dichloropropane | 20 | 20.6 | 103.0 | 1.0 | 30.0 | 75 - 129 |
| cis-1,2-Dichloroethene | 20 | 20.2 | 101.0 | 6.7 | 30.0 | 79 - 131 |
| Bromochloromethane | 20 | 19.8 | 99.0 | 11.0 | 30.0 | 70 - 130 |
| 2-Butanone | 40 | 47.1 | 118.0 | 1.9 | 30.0 | 68 - 158 |
| Chloroform | 20 | 20.7 | 104.0 | 2.4 | 30.0 | 76 - 124 |
| 1,1,1-Trichloroethane | 20 | 20.6 | 103.0 | 5.2 | 30.0 | 71 - 129 |
| Carbon tetrachloride | 20 | 20.1 | 100.0 | 2.9 | 30.0 | 73 - 121 |
| 1,1-Dichloropropene | 20 | 21 | 105.0 | 6.5 | 30.0 | 71 - 128 |
| Benzene | 20 | 20.5 | 102.0 | 0.5 | 30.0 | 78 - 127 |
| 1,2-Dichloroethane | 20 | 20.5 | 102.0 | 4.8 | 30.0 | 80 - 122 |
| Trichloroethene | 20 | 20.5 | 102.0 | 10.2 | 30.0 | 79 - 130 |
| Vinyl acetate | 20 | 19.7 | 98.5 | 4.5 | 30.0 | 70 - 130 |
| 1,2-Dichloropropane | 20 | 21.8 | 109.0 | 1.4 | 30.0 | 82 - 124 |
| Dibromomethane | 20 | 21 | 105.0 | 1.9 | 30.0 | 83 - 127 |
| Bromodichloromethane | 20 | 21.8 | 109.0 | 0.0 | 30.0 | 78 - 120 |
| cis-1,3-Dichloropropene | 20 | 21.5 | 108.0 | 3.2 | 30.0 | 80 - 129 |
| 4-Methyl-2-pentanone | 40 | 41 | 102.0 | 1.9 | 30.0 | 83 - 119 |
| Toluene | 20 | 20.5 | 102.0 | 1.5 | 30.0 | 77 - 132 |
| trans-1,3-Dichloropropene | 20 | 21.6 | 108.0 | 5.8 | 30.0 | 76 - 118 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082611LCS21D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 21 | 105.0 | 6.0 | 30.0 | 70 - 130 |
| Tetrachloroethene | 20 | 19.4 | 97.0 | 2.1 | 30.0 | 75 - 126 |
| 1,3-Dichloropropane | 20 | 19.6 | 98.0 | 1.0 | 30.0 | 83 - 117 |
| 2-Hexanone | 40 | 42.8 | 107.0 | 3.0 | 30.0 | 74 - 136 |
| Dibromochloromethane | 20 | 19.2 | 96.0 | 1.6 | 30.0 | 76 - 116 |
| 1,2-Dibromoethane | 20 | 20 | 100.0 | 2.5 | 30.0 | 78 - 123 |
| Chlorobenzene | 20 | 18.4 | 92.0 | 1.6 | 30.0 | 82 - 115 |
| 1,1,1,2-Tetrachloroethane | 20 | 19 | 95.0 | 7.7 | 30.0 | 77 - 118 |
| Ethylbenzene | 20 | 19.2 | 96.0 | 2.6 | 30.0 | 80 - 119 |
| m,p-Xylene | 40 | 35.7 | 89.2 | 4.4 | 30.0 | 78 - 125 |
| o-Xylene | 20 | 19 | 95.0 | 1.0 | 30.0 | 77 - 120 |
| Styrene | 20 | 18.8 | 94.0 | 1.1 | 30.0 | 76 - 129 |
| Bromoform | 20 | 19 | 95.0 | 0.5 | 30.0 | 66 - 124 |
| Isopropylbenzene | 20 | 19 | 95.0 | 3.1 | 30.0 | 74 - 125 |
| Bromobenzene | 20 | 19.6 | 98.0 | 4.2 | 30.0 | 81 - 114 |
| 1,1,2,2-Tetrachloroethane | 20 | 20 | 100.0 | 4.4 | 30.0 | 79 - 120 |
| 1,2,3-Trichloropropane | 20 | 18.8 | 94.0 | 1.6 | 30.0 | 81 - 122 |
| n-Propylbenzene | 20 | 19.2 | 96.0 | 2.6 | 30.0 | 70 - 129 |
| 2-Chlorotoluene | 20 | 19.7 | 98.5 | 1.0 | 30.0 | 73 - 121 |
| 4-Chlorotoluene | 20 | 19.7 | 98.5 | 3.1 | 30.0 | 80 - 115 |
| 1,3,5-Trimethylbenzene | 20 | 19.4 | 97.0 | 1.5 | 30.0 | 76 - 125 |
| tert-Butylbenzene | 20 | 19.1 | 95.5 | 1.0 | 30.0 | 72 - 126 |
| 1,2,4-Trimethylbenzene | 20 | 19.2 | 96.0 | 1.6 | 30.0 | 77 - 123 |
| sec-Butylbenzene | 20 | 19.6 | 98.0 | 1.0 | 30.0 | 74 - 130 |
| 1,3-Dichlorobenzene | 20 | 19.7 | 98.5 | 2.6 | 30.0 | 82 - 119 |
| 1,4-Dichlorobenzene | 20 | 20.1 | 100.0 | 4.1 | 30.0 | 83 - 121 |
| 4-Isopropyltoluene | 20 | 19.5 | 97.5 | 0.5 | 30.0 | 76 - 133 |
| n-Butylbenzene | 20 | 19 | 95.0 | 1.0 | 30.0 | 72 - 129 |
| 1,2-Dichlorobenzene | 20 | 18.9 | 94.5 | 6.6 | 30.0 | 83 - 116 |
| 1,2-Dibromo-3-chloropropane | 20 | 18.1 | 90.5 | 15.8 | 30.0 | 64 - 131 |
| 1,2,4-Trichlorobenzene | 20 | 19.6 | 98.0 | 4.7 | 30.0 | 85 - 125 |
| Hexachlorobutadiene | 20 | 21 | 105.0 | 7.9 | 30.0 | 78 - 130 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 082611LCS21D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 20.3 | 102.0 | 0.5 | 30.0 | 82 - 136 |
| 1,2,3-Trichlorobenzene | 20 | 18.8 | 94.0 | 2.2 | 30.0 | 79 - 130 |
| Methyl tert-butyl ether | 20 | 23 | 115.0 | 7.9 | 30.0 | 77 - 139 |

Spike Recovery: 1 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 16.5 | 82.5 | | 20.0 | 58 - 147 |
| Chloromethane | 20 | 16.4 | 82.0 | | 20.0 | 66 - 147 |
| Vinyl chloride | 20 | 18.1 | 90.5 | | 20.0 | 72 - 134 |
| Bromomethane | 20 | 19.6 | 98.0 | | 20.0 | 52 - 145 |
| Chloroethane | 20 | 20.9 | 104.0 | | 20.0 | 78 - 133 |
| Trichlorofluoromethane | 20 | 18.4 | 92.0 | | 20.0 | 81 - 132 |
| 1,1-Dichloroethene | 20 | 19.8 | 99.0 | | 20.0 | 81 - 121 |
| Methyl iodide | 20 | 18 | 90.0 | | 20.0 | 45 - 143 |
| Carbon disulfide | 20 | 21.4 | 107.0 | | 20.0 | 73 - 133 |
| Methylene chloride | 20 | 17.8 | 89.0 | | 20.0 | 79 - 133 |
| trans-1,2-Dichloroethene | 20 | 19.5 | 97.5 | | 20.0 | 82 - 116 |
| 1,1-Dichloroethane | 20 | 20.4 | 102.0 | | 20.0 | 84 - 122 |
| Acetone | 40 | 32.8 | 82.0 | | 20.0 | 51 - 170 |
| 2,2-Dichloropropane | 20 | 20.5 | 102.0 | | 20.0 | 84 - 122 |
| cis-1,2-Dichloroethene | 20 | 21.6 | 108.0 | | 20.0 | 86 - 115 |
| Bromochloromethane | 20 | 19.6 | 98.0 | | 20.0 | 81 - 123 |
| 2-Butanone | 40 | 42.1 | 105.0 | | 20.0 | 62 - 167 |
| Chloroform | 20 | 20.9 | 104.0 | | 20.0 | 81 - 120 |
| 1,1,1-Trichloroethane | 20 | 18.6 | 93.0 | | 20.0 | 80 - 120 |
| Carbon tetrachloride | 20 | 18.8 | 94.0 | | 20.0 | 82 - 120 |
| 1,1-Dichloropropene | 20 | 21.4 | 107.0 | | 20.0 | 80 - 122 |
| Benzene | 20 | 22 | 110.0 | | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 20 | 20.5 | 102.0 | | 20.0 | 75 - 126 |
| Trichloroethene | 20 | 18.2 | 91.0 | | 20.0 | 80 - 112 |
| Vinyl acetate | 20 | 21.2 | 106.0 | | 20.0 | 75 - 135 |
| 1,2-Dichloropropane | 20 | 22.5 | 112.0 | | 20.0 | 86 - 122 |
| Dibromomethane | 20 | 22 | 110.0 | | 20.0 | 84 - 117 |
| Bromodichloromethane | 20 | 21.7 | 108.0 | | 20.0 | 82 - 120 |
| cis-1,3-Dichloropropene | 20 | 23.1 | 116.0 | | 20.0 | 80 - 121 |
| 4-Methyl-2-pentanone | 40 | 45.9 | 115.0 | | 20.0 | 74 - 136 |
| Toluene | 20 | 21.1 | 106.0 | | 20.0 | 80 - 116 |
| trans-1,3-Dichloropropene | 20 | 23.1 | 116.0 | | 20.0 | 77 - 121 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 21.2 | 106.0 | | 20.0 | 84 - 119 |
| Tetrachloroethene | 20 | 17.8 | 89.0 | | 20.0 | 84 - 115 |
| 1,3-Dichloropropane | 20 | 24.5 | 122.0 | | 20.0 | 73 - 129 |
| 2-Hexanone | 40 | 33.9 | 84.8 | | 20.0 | 66 - 150 |
| Dibromochloromethane | 20 | 18.6 | 93.0 | | 20.0 | 75 - 117 |
| 1,2-Dibromoethane | 20 | 21.4 | 107.0 | | 20.0 | 79 - 119 |
| Chlorobenzene | 20 | 18.9 | 94.5 | | 20.0 | 82 - 114 |
| 1,1,1,2-Tetrachloroethane | 20 | 18.2 | 91.0 | | 20.0 | 81 - 116 |
| Ethylbenzene | 20 | 19.8 | 99.0 | | 20.0 | 82 - 119 |
| m,p-Xylene | 40 | 39.8 | 99.5 | | 20.0 | 81 - 124 |
| o-Xylene | 20 | 19.7 | 98.5 | | 20.0 | 83 - 121 |
| Styrene | 20 | 20.6 | 103.0 | | 20.0 | 84 - 122 |
| Bromoform | 20 | 18 | 90.0 | | 20.0 | 65 - 118 |
| Isopropylbenzene | 20 | 22.2 | 111.0 | | 20.0 | 81 - 124 |
| Bromobenzene | 20 | 24.5 | 122.0 * | | 20.0 | 82 - 118 |
| 1,1,2,2-Tetrachloroethane | 20 | 27.2 | 136.0 * | | 20.0 | 71 - 122 |
| 1,2,3-Trichloropropane | 20 | 24.5 | 122.0 | | 20.0 | 74 - 122 |
| n-Propylbenzene | 20 | 23.2 | 116.0 | | 20.0 | 81 - 130 |
| 2-Chlorotoluene | 20 | 22.4 | 112.0 | | 20.0 | 81 - 121 |
| 4-Chlorotoluene | 20 | 24.2 | 121.0 | | 20.0 | 80 - 123 |
| 1,3,5-Trimethylbenzene | 20 | 22 | 110.0 | | 20.0 | 82 - 124 |
| tert-Butylbenzene | 20 | 21.4 | 107.0 | | 20.0 | 76 - 128 |
| 1,2,4-Trimethylbenzene | 20 | 22.4 | 112.0 | | 20.0 | 83 - 123 |
| sec-Butylbenzene | 20 | 22.5 | 112.0 | | 20.0 | 79 - 131 |
| 1,3-Dichlorobenzene | 20 | 20 | 100.0 | | 20.0 | 80 - 114 |
| 1,4-Dichlorobenzene | 20 | 20.3 | 102.0 | | 20.0 | 79 - 113 |
| 4-Isopropyltoluene | 20 | 21.4 | 107.0 | | 20.0 | 81 - 129 |
| n-Butylbenzene | 20 | 24.1 | 120.0 | | 20.0 | 78 - 134 |
| 1,2-Dichlorobenzene | 20 | 21.2 | 106.0 | | 20.0 | 80 - 114 |
| 1,2-Dibromo-3-chloropropane | 20 | 25.8 | 129.0 * | | 20.0 | 64 - 124 |
| 1,2,4-Trichlorobenzene | 20 | 24.8 | 124.0 * | | 20.0 | 74 - 121 |
| Hexachlorobutadiene | 20 | 22.8 | 114.0 | | 20.0 | 76 - 127 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 23.4 | 117.0 | | 20.0 | 65 - 135 |
| 1,2,3-Trichlorobenzene | 20 | 25 | 125.0 | | 20.0 | 67 - 126 |
| Methyl tert-butyl ether | 20 | 23 | 115.0 | | 20.0 | 67 - 147 |

Spike Recovery: 4 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31D

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 17.4 | 87.0 | 5.3 | 20.0 | 58 - 147 |
| Chloromethane | 20 | 17.4 | 87.0 | 5.9 | 20.0 | 66 - 147 |
| Vinyl chloride | 20 | 19.6 | 98.0 | 8.0 | 20.0 | 72 - 134 |
| Bromomethane | 20 | 21.4 | 107.0 | 8.8 | 20.0 | 52 - 145 |
| Chloroethane | 20 | 21.8 | 109.0 | 4.2 | 20.0 | 78 - 133 |
| Trichlorofluoromethane | 20 | 18.7 | 93.5 | 1.6 | 20.0 | 81 - 132 |
| 1,1-Dichloroethene | 20 | 21.4 | 107.0 | 7.8 | 20.0 | 81 - 121 |
| Methyl iodide | 20 | 19.3 | 96.5 | 7.0 | 20.0 | 45 - 143 |
| Carbon disulfide | 20 | 23.4 | 117.0 | 8.9 | 20.0 | 73 - 133 |
| Methylene chloride | 20 | 18.6 | 93.0 | 4.4 | 20.0 | 79 - 133 |
| trans-1,2-Dichloroethene | 20 | 20.6 | 103.0 | 5.5 | 20.0 | 82 - 116 |
| 1,1-Dichloroethane | 20 | 21.3 | 106.0 | 4.3 | 20.0 | 84 - 122 |
| Acetone | 40 | 50.8 | 127.0 | 43.1* | 20.0 | 51 - 170 |
| 2,2-Dichloropropane | 20 | 22.4 | 112.0 | 8.9 | 20.0 | 84 - 122 |
| cis-1,2-Dichloroethene | 20 | 22.5 | 112.0 | 4.1 | 20.0 | 86 - 115 |
| Bromochloromethane | 20 | 20.3 | 102.0 | 3.5 | 20.0 | 81 - 123 |
| 2-Butanone | 40 | 55.1 | 138.0 | 26.7* | 20.0 | 62 - 167 |
| Chloroform | 20 | 22.1 | 110.0 | 5.6 | 20.0 | 81 - 120 |
| 1,1,1-Trichloroethane | 20 | 20.3 | 102.0 | 8.7 | 20.0 | 80 - 120 |
| Carbon tetrachloride | 20 | 20.6 | 103.0 | 9.1 | 20.0 | 82 - 120 |
| 1,1-Dichloropropene | 20 | 22.8 | 114.0 | 6.3 | 20.0 | 80 - 122 |
| Benzene | 20 | 23.1 | 116.0 | 4.9 | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 20 | 20.8 | 104.0 | 1.5 | 20.0 | 75 - 126 |
| Trichloroethene | 20 | 19 | 95.0 | 4.3 | 20.0 | 80 - 112 |
| Vinyl acetate | 20 | 22.1 | 110.0 | 4.2 | 20.0 | 75 - 135 |
| 1,2-Dichloropropane | 20 | 23.5 | 118.0 | 4.3 | 20.0 | 86 - 122 |
| Dibromomethane | 20 | 21.9 | 110.0 | 0.5 | 20.0 | 84 - 117 |
| Bromodichloromethane | 20 | 22.2 | 111.0 | 2.3 | 20.0 | 82 - 120 |
| cis-1,3-Dichloropropene | 20 | 23.8 | 119.0 | 3.0 | 20.0 | 80 - 121 |
| 4-Methyl-2-pentanone | 40 | 46.8 | 117.0 | 1.9 | 20.0 | 74 - 136 |
| Toluene | 20 | 22 | 110.0 | 4.2 | 20.0 | 80 - 116 |
| trans-1,3-Dichloropropene | 20 | 23.6 | 118.0 | 2.1 | 20.0 | 77 - 121 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31D

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 22.3 | 112.0 | 5.1 | 20.0 | 84 - 119 |
| Tetrachloroethene | 20 | 19 | 95.0 | 6.5 | 20.0 | 84 - 115 |
| 1,3-Dichloropropane | 20 | 25.2 | 126.0 | 2.8 | 20.0 | 73 - 129 |
| 2-Hexanone | 40 | 41.7 | 104.0 | 20.6* | 20.0 | 66 - 150 |
| Dibromochloromethane | 20 | 18.9 | 94.5 | 1.6 | 20.0 | 75 - 117 |
| 1,2-Dibromoethane | 20 | 22.6 | 113.0 | 5.5 | 20.0 | 79 - 119 |
| Chlorobenzene | 20 | 19.6 | 98.0 | 3.6 | 20.0 | 82 - 114 |
| 1,1,1,2-Tetrachloroethane | 20 | 19.4 | 97.0 | 6.4 | 20.0 | 81 - 116 |
| Ethylbenzene | 20 | 20.5 | 102.0 | 3.5 | 20.0 | 82 - 119 |
| m,p-Xylene | 40 | 41.8 | 104.0 | 4.9 | 20.0 | 81 - 124 |
| o-Xylene | 20 | 20.6 | 103.0 | 4.5 | 20.0 | 83 - 121 |
| Styrene | 20 | 21 | 105.0 | 1.9 | 20.0 | 84 - 122 |
| Bromoform | 20 | 18.6 | 93.0 | 3.3 | 20.0 | 65 - 118 |
| Isopropylbenzene | 20 | 22.7 | 114.0 | 2.2 | 20.0 | 81 - 124 |
| Bromobenzene | 20 | 24.4 | 122.0 * | 0.4 | 20.0 | 82 - 118 |
| 1,1,2,2-Tetrachloroethane | 20 | 27.6 | 138.0 * | 1.5 | 20.0 | 71 - 122 |
| 1,2,3-Trichloropropane | 20 | 23.9 | 120.0 | 2.5 | 20.0 | 74 - 122 |
| n-Propylbenzene | 20 | 23.8 | 119.0 | 2.6 | 20.0 | 81 - 130 |
| 2-Chlorotoluene | 20 | 22.9 | 114.0 | 2.2 | 20.0 | 81 - 121 |
| 4-Chlorotoluene | 20 | 24.8 | 124.0 * | 2.4 | 20.0 | 80 - 123 |
| 1,3,5-Trimethylbenzene | 20 | 23.2 | 116.0 | 5.3 | 20.0 | 82 - 124 |
| tert-Butylbenzene | 20 | 21.7 | 108.0 | 1.4 | 20.0 | 76 - 128 |
| 1,2,4-Trimethylbenzene | 20 | 22.4 | 112.0 | 0.0 | 20.0 | 83 - 123 |
| sec-Butylbenzene | 20 | 23.1 | 116.0 | 2.6 | 20.0 | 79 - 131 |
| 1,3-Dichlorobenzene | 20 | 20.5 | 102.0 | 2.5 | 20.0 | 80 - 114 |
| 1,4-Dichlorobenzene | 20 | 20.9 | 104.0 | 2.9 | 20.0 | 79 - 113 |
| 4-Isopropyltoluene | 20 | 21.7 | 108.0 | 1.4 | 20.0 | 81 - 129 |
| n-Butylbenzene | 20 | 24.6 | 123.0 | 2.1 | 20.0 | 78 - 134 |
| 1,2-Dichlorobenzene | 20 | 21.6 | 108.0 | 1.9 | 20.0 | 80 - 114 |
| 1,2-Dibromo-3-chloropropane | 20 | 25.1 | 126.0 * | 2.8 | 20.0 | 64 - 124 |
| 1,2,4-Trichlorobenzene | 20 | 25 | 125.0 * | 0.8 | 20.0 | 74 - 121 |
| Hexachlorobutadiene | 20 | 25.6 | 128.0 * | 11.6 | 20.0 | 76 - 127 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083011LCSA31D

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 22.7 | 114.0 | 3.0 | 20.0 | 65 - 135 |
| 1,2,3-Trichlorobenzene | 20 | 25.8 | 129.0 * | 3.1 | 20.0 | 67 - 126 |
| Methyl tert-butyl ether | 20 | 23.7 | 118.0 | 3.0 | 20.0 | 67 - 147 |

Spike Recovery: 7 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 25.4 | 127.0 | | 20.0 | 58 - 147 |
| Chloromethane | 20 | 22.6 | 113.0 | | 20.0 | 66 - 147 |
| Vinyl chloride | 20 | 23.6 | 118.0 | | 20.0 | 72 - 134 |
| Bromomethane | 20 | 21.3 | 106.0 | | 20.0 | 52 - 145 |
| Chloroethane | 20 | 22 | 110.0 | | 20.0 | 78 - 133 |
| Trichlorofluoromethane | 20 | 22.1 | 110.0 | | 20.0 | 81 - 132 |
| 1,1-Dichloroethene | 20 | 21 | 105.0 | | 20.0 | 81 - 121 |
| Methyl iodide | 20 | 22.3 | 112.0 | | 20.0 | 45 - 143 |
| Carbon disulfide | 20 | 20.9 | 104.0 | | 20.0 | 73 - 133 |
| Methylene chloride | 20 | 20.1 | 100.0 | | 20.0 | 79 - 133 |
| trans-1,2-Dichloroethene | 20 | 20.7 | 104.0 | | 20.0 | 82 - 116 |
| 1,1-Dichloroethane | 20 | 20.4 | 102.0 | | 20.0 | 84 - 122 |
| Acetone | 40 | 52.9 | 132.0 | | 20.0 | 51 - 170 |
| 2,2-Dichloropropane | 20 | 21.5 | 108.0 | | 20.0 | 84 - 122 |
| cis-1,2-Dichloroethene | 20 | 20.8 | 104.0 | | 20.0 | 86 - 115 |
| Bromochloromethane | 20 | 20.2 | 101.0 | | 20.0 | 81 - 123 |
| 2-Butanone | 40 | 55.5 | 139.0 | | 20.0 | 62 - 167 |
| Chloroform | 20 | 19.9 | 99.5 | | 20.0 | 81 - 120 |
| 1,1,1-Trichloroethane | 20 | 20.8 | 104.0 | | 20.0 | 80 - 120 |
| Carbon tetrachloride | 20 | 20.1 | 100.0 | | 20.0 | 82 - 120 |
| 1,1-Dichloropropene | 20 | 21.4 | 107.0 | | 20.0 | 80 - 122 |
| Benzene | 20 | 20.5 | 102.0 | | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 20 | 18.9 | 94.5 | | 20.0 | 75 - 126 |
| Trichloroethene | 20 | 20.4 | 102.0 | | 20.0 | 80 - 112 |
| Vinyl acetate | 20 | 18.2 | 91.0 | | 20.0 | 75 - 135 |
| 1,2-Dichloropropane | 20 | 20.2 | 101.0 | | 20.0 | 86 - 122 |
| Dibromomethane | 20 | 19 | 95.0 | | 20.0 | 84 - 117 |
| Bromodichloromethane | 20 | 19.5 | 97.5 | | 20.0 | 82 - 120 |
| cis-1,3-Dichloropropene | 20 | 19 | 95.0 | | 20.0 | 80 - 121 |
| 4-Methyl-2-pentanone | 40 | 41.7 | 104.0 | | 20.0 | 74 - 136 |
| Toluene | 20 | 21.3 | 106.0 | | 20.0 | 80 - 116 |
| trans-1,3-Dichloropropene | 20 | 19.1 | 95.5 | | 20.0 | 77 - 121 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 19.4 | 97.0 | | 20.0 | 84 - 119 |
| Tetrachloroethene | 20 | 19.9 | 99.5 | | 20.0 | 84 - 115 |
| 1,3-Dichloropropane | 20 | 20.2 | 101.0 | | 20.0 | 73 - 129 |
| 2-Hexanone | 40 | 58.6 | 146.0 | | 20.0 | 66 - 150 |
| Dibromochloromethane | 20 | 20.2 | 101.0 | | 20.0 | 75 - 117 |
| 1,2-Dibromoethane | 20 | 19.1 | 95.5 | | 20.0 | 79 - 119 |
| Chlorobenzene | 20 | 20.2 | 101.0 | | 20.0 | 82 - 114 |
| 1,1,1,2-Tetrachloroethane | 20 | 20.2 | 101.0 | | 20.0 | 81 - 116 |
| Ethylbenzene | 20 | 21.1 | 106.0 | | 20.0 | 82 - 119 |
| m,p-Xylene | 40 | 42.7 | 107.0 | | 20.0 | 81 - 124 |
| o-Xylene | 20 | 21.8 | 109.0 | | 20.0 | 83 - 121 |
| Styrene | 20 | 21.4 | 107.0 | | 20.0 | 84 - 122 |
| Bromoform | 20 | 18.8 | 94.0 | | 20.0 | 65 - 118 |
| Isopropylbenzene | 20 | 22.4 | 112.0 | | 20.0 | 81 - 124 |
| Bromobenzene | 20 | 18.5 | 92.5 | | 20.0 | 82 - 118 |
| 1,1,2,2-Tetrachloroethane | 20 | 19 | 95.0 | | 20.0 | 71 - 122 |
| 1,2,3-Trichloropropane | 20 | 19 | 95.0 | | 20.0 | 74 - 122 |
| n-Propylbenzene | 20 | 21.9 | 110.0 | | 20.0 | 81 - 130 |
| 2-Chlorotoluene | 20 | 20.7 | 104.0 | | 20.0 | 81 - 121 |
| 4-Chlorotoluene | 20 | 21.4 | 107.0 | | 20.0 | 80 - 123 |
| 1,3,5-Trimethylbenzene | 20 | 21.7 | 108.0 | | 20.0 | 82 - 124 |
| tert-Butylbenzene | 20 | 22.6 | 113.0 | | 20.0 | 76 - 128 |
| 1,2,4-Trimethylbenzene | 20 | 22 | 110.0 | | 20.0 | 83 - 123 |
| sec-Butylbenzene | 20 | 22.3 | 112.0 | | 20.0 | 79 - 131 |
| 1,3-Dichlorobenzene | 20 | 21.1 | 106.0 | | 20.0 | 80 - 114 |
| 1,4-Dichlorobenzene | 20 | 20.3 | 102.0 | | 20.0 | 79 - 113 |
| 4-Isopropyltoluene | 20 | 21.8 | 109.0 | | 20.0 | 81 - 129 |
| n-Butylbenzene | 20 | 22.8 | 114.0 | | 20.0 | 78 - 134 |
| 1,2-Dichlorobenzene | 20 | 20.4 | 102.0 | | 20.0 | 80 - 114 |
| 1,2-Dibromo-3-chloropropane | 20 | 19 | 95.0 | | 20.0 | 64 - 124 |
| 1,2,4-Trichlorobenzene | 20 | 20.7 | 104.0 | | 20.0 | 74 - 121 |
| Hexachlorobutadiene | 20 | 21 | 105.0 | | 20.0 | 76 - 127 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 19.7 | 98.5 | | 20.0 | 65 - 135 |
| 1,2,3-Trichlorobenzene | 20 | 20.8 | 104.0 | | 20.0 | 67 - 126 |
| Methyl tert-butyl ether | 20 | 20.6 | 103.0 | | 20.0 | 67 - 147 |

Spike Recovery: 0 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 20 | 23.3 | 116.0 | 8.6 | 20.0 | 58 - 147 |
| Chloromethane | 20 | 20.8 | 104.0 | 8.3 | 20.0 | 66 - 147 |
| Vinyl chloride | 20 | 20.9 | 104.0 | 12.1 | 20.0 | 72 - 134 |
| Bromomethane | 20 | 19.9 | 99.5 | 6.8 | 20.0 | 52 - 145 |
| Chloroethane | 20 | 20.3 | 102.0 | 8.0 | 20.0 | 78 - 133 |
| Trichlorofluoromethane | 20 | 20.2 | 101.0 | 9.0 | 20.0 | 81 - 132 |
| 1,1-Dichloroethene | 20 | 19.2 | 96.0 | 9.0 | 20.0 | 81 - 121 |
| Methyl iodide | 20 | 20.3 | 102.0 | 9.4 | 20.0 | 45 - 143 |
| Carbon disulfide | 20 | 18.8 | 94.0 | 10.6 | 20.0 | 73 - 133 |
| Methylene chloride | 20 | 18.2 | 91.0 | 9.9 | 20.0 | 79 - 133 |
| trans-1,2-Dichloroethene | 20 | 18.8 | 94.0 | 9.6 | 20.0 | 82 - 116 |
| 1,1-Dichloroethane | 20 | 18.7 | 93.5 | 8.7 | 20.0 | 84 - 122 |
| Acetone | 40 | 52.9 | 132.0 | 0.0 | 20.0 | 51 - 170 |
| 2,2-Dichloropropane | 20 | 20 | 100.0 | 7.2 | 20.0 | 84 - 122 |
| cis-1,2-Dichloroethene | 20 | 19.4 | 97.0 | 7.0 | 20.0 | 86 - 115 |
| Bromochloromethane | 20 | 18.3 | 91.5 | 9.9 | 20.0 | 81 - 123 |
| 2-Butanone | 40 | 46.9 | 117.0 | 16.8 | 20.0 | 62 - 167 |
| Chloroform | 20 | 18.3 | 91.5 | 8.4 | 20.0 | 81 - 120 |
| 1,1,1-Trichloroethane | 20 | 19.2 | 96.0 | 8.0 | 20.0 | 80 - 120 |
| Carbon tetrachloride | 20 | 18.6 | 93.0 | 7.8 | 20.0 | 82 - 120 |
| 1,1-Dichloropropene | 20 | 19.8 | 99.0 | 7.8 | 20.0 | 80 - 122 |
| Benzene | 20 | 19 | 95.0 | 7.6 | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 20 | 17.6 | 88.0 | 7.1 | 20.0 | 75 - 126 |
| Trichloroethene | 20 | 19.4 | 97.0 | 5.0 | 20.0 | 80 - 112 |
| Vinyl acetate | 20 | 17.1 | 85.5 | 6.2 | 20.0 | 75 - 135 |
| 1,2-Dichloropropane | 20 | 19.1 | 95.5 | 5.6 | 20.0 | 86 - 122 |
| Dibromomethane | 20 | 17.8 | 89.0 | 6.5 | 20.0 | 84 - 117 |
| Bromodichloromethane | 20 | 18.2 | 91.0 | 6.9 | 20.0 | 82 - 120 |
| cis-1,3-Dichloropropene | 20 | 18 | 90.0 | 5.4 | 20.0 | 80 - 121 |
| 4-Methyl-2-pentanone | 40 | 38.2 | 95.5 | 8.8 | 20.0 | 74 - 136 |
| Toluene | 20 | 19.9 | 99.5 | 6.8 | 20.0 | 80 - 116 |
| trans-1,3-Dichloropropene | 20 | 17.3 | 86.5 | 9.9 | 20.0 | 77 - 121 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | 20 | 17.9 | 89.5 | 8.0 | 20.0 | 84 - 119 |
| Tetrachloroethene | 20 | 19.1 | 95.5 | 4.1 | 20.0 | 84 - 115 |
| 1,3-Dichloropropane | 20 | 19 | 95.0 | 6.1 | 20.0 | 73 - 129 |
| 2-Hexanone | 40 | 50.7 | 127.0 | 14.5 | 20.0 | 66 - 150 |
| Dibromochloromethane | 20 | 18.9 | 94.5 | 6.6 | 20.0 | 75 - 117 |
| 1,2-Dibromoethane | 20 | 18.6 | 93.0 | 2.7 | 20.0 | 79 - 119 |
| Chlorobenzene | 20 | 19 | 95.0 | 6.1 | 20.0 | 82 - 114 |
| 1,1,1,2-Tetrachloroethane | 20 | 19.2 | 96.0 | 5.1 | 20.0 | 81 - 116 |
| Ethylbenzene | 20 | 20.1 | 100.0 | 4.9 | 20.0 | 82 - 119 |
| m,p-Xylene | 40 | 39.8 | 99.5 | 7.0 | 20.0 | 81 - 124 |
| o-Xylene | 20 | 20.6 | 103.0 | 5.7 | 20.0 | 83 - 121 |
| Styrene | 20 | 19.9 | 99.5 | 7.3 | 20.0 | 84 - 122 |
| Bromoform | 20 | 17.6 | 88.0 | 6.6 | 20.0 | 65 - 118 |
| Isopropylbenzene | 20 | 20.5 | 102.0 | 8.9 | 20.0 | 81 - 124 |
| Bromobenzene | 20 | 20.2 | 101.0 | 8.8 | 20.0 | 82 - 118 |
| 1,1,2,2-Tetrachloroethane | 20 | 18.6 | 93.0 | 2.1 | 20.0 | 71 - 122 |
| 1,2,3-Trichloropropane | 20 | 18.2 | 91.0 | 4.3 | 20.0 | 74 - 122 |
| n-Propylbenzene | 20 | 20.2 | 101.0 | 8.1 | 20.0 | 81 - 130 |
| 2-Chlorotoluene | 20 | 19.5 | 97.5 | 6.0 | 20.0 | 81 - 121 |
| 4-Chlorotoluene | 20 | 19.7 | 98.5 | 8.3 | 20.0 | 80 - 123 |
| 1,3,5-Trimethylbenzene | 20 | 20.3 | 102.0 | 6.7 | 20.0 | 82 - 124 |
| tert-Butylbenzene | 20 | 20.5 | 102.0 | 9.7 | 20.0 | 76 - 128 |
| 1,2,4-Trimethylbenzene | 20 | 20.2 | 101.0 | 8.5 | 20.0 | 83 - 123 |
| sec-Butylbenzene | 20 | 20.3 | 102.0 | 9.4 | 20.0 | 79 - 131 |
| 1,3-Dichlorobenzene | 20 | 19.1 | 95.5 | 10.0 | 20.0 | 80 - 114 |
| 1,4-Dichlorobenzene | 20 | 18.4 | 92.0 | 9.8 | 20.0 | 79 - 113 |
| 4-Isopropyltoluene | 20 | 20.3 | 102.0 | 7.1 | 20.0 | 81 - 129 |
| n-Butylbenzene | 20 | 20.6 | 103.0 | 10.1 | 20.0 | 78 - 134 |
| 1,2-Dichlorobenzene | 20 | 18.9 | 94.5 | 7.6 | 20.0 | 80 - 114 |
| 1,2-Dibromo-3-chloropropane | 20 | 17.1 | 85.5 | 10.5 | 20.0 | 64 - 124 |
| 1,2,4-Trichlorobenzene | 20 | 19.1 | 95.5 | 8.0 | 20.0 | 74 - 121 |
| Hexachlorobutadiene | 20 | 18.6 | 93.0 | 12.1 | 20.0 | 76 - 127 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 090211LCS61D

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Naphthalene | 20 | 17.8 | 89.0 | 10.1 | 20.0 | 65 - 135 |
| 1,2,3-Trichlorobenzene | 20 | 18.4 | 92.0 | 12.2 | 20.0 | 67 - 126 |
| Methyl tert-butyl ether | 20 | 19.4 | 97.0 | 6.0 | 20.0 | 67 - 147 |

Spike Recovery: 0 out of 67 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

# Method 8260 TCLP Volatile Organics

080911 1740

**CASE NARRATIVE**
**GC/MS VOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

EPA 8260B/SW846

## IV. PREPARATION

The TCLP samples were prepared by EPA 1311/SW846 for volatiles analysis. All aspects of sample preparation proceeded without exception.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

All acceptance criteria were met.

**C. Surrogates:**

All acceptance criteria were met.

**D. Spikes:**

**1. Laboratory Control Spikes (LCS)**

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

**2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)**

No spikes requested by client.

**E. Internal Standards:**

All acceptance criteria were met.

**CASE NARRATIVE**
**GC/MS VOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

**F. Samples:**

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:
Name: Lisa Pélo Title: VOA Manager

**SIGNED:** **DATE: 09/07/2011**

W:\Narratives\Vols\3503\3503862_8260_TCLP.doc

# VOLATILE ORGANIC CROSS REFERENCE TABLE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**Method:** 8260 TCLP

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-DISP-SOIL-01 | 350386213 |

080911 1740

# 8260 TCLP Sample Data

080911 1740

1

**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201.D

Sample wt/vol: 0.5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0354

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.005 | U | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

1

**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202.D

Sample wt/vol: 0.5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0421

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.0025 | J | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.0036 | J | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

1

**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210.D

Sample wt/vol: 0.5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0449

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.005 | U | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

1

**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211.D

Sample wt/vol: 0.5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0516

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.005 | U | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

1

**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-DISP-SOIL-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386213 Lab File ID 86213.D

Sample wt/vol: 0.5 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0544

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.005 | U | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

# 8260 TCLP QC Summary

080911 1740

1

**VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

TCLPBLK862

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: TCLPBLK862 Lab File ID: TCLPBLK862.D

Sample wt/vol: 0.5 Units: ML Date Received: 09/01/11

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 09/01/11 Time: 0136

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Method: 8260 TCLP

GPC Cleanup : ( Y/N ) pH:

Column(1): DB-624 ID: 0.18 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 75-35-4 | 1,1-Dichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 107-06-2 | 1,2-Dichloroethane | 0.005 | U | 0.0015 | 0.005 |
| 78-93-3 | 2-Butanone | 0.04 | U | 0.02 | 0.04 |
| 71-43-2 | Benzene | 0.005 | U | 0.0017 | 0.005 |
| 56-23-5 | Carbon tetrachloride | 0.005 | U | 0.0014 | 0.005 |
| 108-90-7 | Chlorobenzene | 0.005 | U | 0.0016 | 0.005 |
| 67-66-3 | Chloroform | 0.005 | U | 0.0016 | 0.005 |
| 127-18-4 | Tetrachloroethene | 0.005 | U | 0.0021 | 0.005 |
| 79-01-6 | Trichloroethene | 0.005 | U | 0.0019 | 0.005 |
| 75-01-4 | Vinyl chloride | 0.01 | U | 0.0018 | 0.01 |

2A

WATER VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): DB-624 ID: 0.18 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 083111LCS52 | 98.0 | 100.0 | 90.0 | 96.0 | | | 0 |
| 083111LCS52D | 100.0 | 100.0 | 90.0 | 96.0 | | | 0 |
| KD-DISP-SOIL-01 | 100.0 | 100.0 | 88.0 | 100.0 | | | 0 |
| KD-SB-1 16ft-16.5ft | 104.0 | 104.0 | 92.0 | 102.0 | | | 0 |
| KD-SB-2 11ft-12ft | 104.0 | 104.0 | 92.0 | 102.0 | | | 0 |
| KD-SB-6 3ft-4ft | 104.0 | 102.0 | 90.0 | 100.0 | | | 0 |
| KD-SB-9 3ft-4ft | 104.0 | 102.0 | 88.0 | 102.0 | | | 0 |
| TCLPBLK862 | 106.0 | 106.0 | 96.0 | 102.0 | | | 0 |

**Control Limits**

| | | | |
|---|---|---|---|
| S1 | = | Dibromofluoromethane | 83 - 128 |
| S2 | = | Toluene-d8 | 89 - 121 |
| S3 | = | 4-Bromofluorobenzene | 85 - 115 |
| S4 | = | 1,2-Dichloroethane-d4 | 89 - 123 |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

080911 1740

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083111LCS52

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**TCLP Analysis**

| COMPOUND | SPIKE ADDED mg/L | LCS CONCENTRATION mg/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Vinyl chloride | 0.02 | 0.0207 | 104.0 | | 20.0 | 72 - 134 |
| 1,1-Dichloroethene | 0.02 | 0.0188 | 94.0 | | 20.0 | 81 - 121 |
| 2-Butanone | 0.04 | 0.0326 | 81.5 | | 20.0 | 62 - 167 |
| Chloroform | 0.02 | 0.0177 | 88.5 | | 20.0 | 81 - 120 |
| Carbon tetrachloride | 0.02 | 0.0167 | 83.5 | | 20.0 | 82 - 120 |
| Benzene | 0.02 | 0.0179 | 89.5 | | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 0.02 | 0.0188 | 94.0 | | 20.0 | 75 - 126 |
| Trichloroethene | 0.02 | 0.019 | 95.0 | | 20.0 | 80 - 112 |
| Tetrachloroethene | 0.02 | 0.0191 | 95.5 | | 20.0 | 84 - 115 |
| Chlorobenzene | 0.02 | 0.0183 | 91.5 | | 20.0 | 82 - 114 |

Spike Recovery: 0 out of 10 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

083111LCS52D

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**TCLP Analysis**

| COMPOUND | SPIKE ADDED mg/L | LCS CONCENTRATION mg/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Vinyl chloride | 0.02 | 0.0232 | 116.0 | 11.4 | 20.0 | 72 - 134 |
| 1,1-Dichloroethene | 0.02 | 0.0202 | 101.0 | 7.2 | 20.0 | 81 - 121 |
| 2-Butanone | 0.04 | 0.0373 | 93.2 | 13.4 | 20.0 | 62 - 167 |
| Chloroform | 0.02 | 0.019 | 95.0 | 7.1 | 20.0 | 81 - 120 |
| Carbon tetrachloride | 0.02 | 0.0178 | 89.0 | 6.4 | 20.0 | 82 - 120 |
| Benzene | 0.02 | 0.0192 | 96.0 | 7.0 | 20.0 | 82 - 123 |
| 1,2-Dichloroethane | 0.02 | 0.0197 | 98.5 | 4.7 | 20.0 | 75 - 126 |
| Trichloroethene | 0.02 | 0.0204 | 102.0 | 7.1 | 20.0 | 80 - 112 |
| Tetrachloroethene | 0.02 | 0.0201 | 100.0 | 5.1 | 20.0 | 84 - 115 |
| Chlorobenzene | 0.02 | 0.0197 | 98.5 | 7.4 | 20.0 | 82 - 114 |

Spike Recovery: 0 out of 10 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

# Method 8270 Semi-Volatile Organics

080911 1740

**CASE NARRATIVE**
**GC/MS SEMIVOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

EPA SW846 8270D

## IV. PREPARATION

Soil samples were prepared by SW846 EPA 3545 for 8270 semi-volatile analysis.
Water samples were prepared by SW846 EPA 3510 for 8270 semi-volatile analysis.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

All acceptance criteria were met with the exception of:

Blank 97053MB was analyzed with the water samples extracted on 08/24/11. The following analyte(s) were detected below RL: Di-n-butylphthalate at 1.5 ug/L. Since this compound was only detected below the RL, no further action was taken. The following analyte(s) were detected above RL: Bis(2-ethylhexyl)phthalate at 19.4 ug/L. This compound is a common laboratory contaminant. Since it was detected at least six times greater in the associated sample, no further action was taken.
Samples coded accordingly.

**C. Surrogates:**

All acceptance criteria were met.

**D. Spikes:**

**1. Laboratory Control Spikes (LCS)**

All acceptance criteria were met with the exception of:

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

LCS 97054LCS was analyzed with the water samples extracted on 08/24/11. The following analyte(s) were recovered below criteria: 2,4-Dinitrophenol at 49.2 % with criteria of (56-140). Since this compound was recovered only slightly below criteria, no further action was taken.

LCS 97269LCS was analyzed with the soil samples extracted on 08/25/11. The following analyte(s) were recovered below criteria: N-Nitrosodimethylamine at 73.4 % with criteria of (74-141). Since this compound was recovered only slightly below criteria, no further action was taken.

Samples coded accordingly.

**2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)**

No spikes requested by client.

**E. Internal Standards:**

All acceptance criteria were met.

**F. Samples:**

Sample analysis proceeded normally.

Sample analysis proceeded normally.
Sample KD-SB-1 16ft-16.5ft required a 10X dilution due to matrix interference.

Sample KD-SB-2 11ft-12ft required a 10X dilution due to matrix interference.

Sample KD-SB-6 3ft-4ft required a 5X dilution due to matrix interference.

Sample KD-SB-9 3ft-4ft required a 5X dilution due to matrix interference.

Sample KD-IDW-WATER-01was originally run full, but failed internal standard criteria due to matrix and is not reported. The sample was re-analyzed and is reported at a 2X dilution.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

**CASE NARRATIVE**
**GC/MS SEMIVOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

**Signature:**
**Name:** Brian C. Spann **Title:** Lab Director

**SIGNED:** **DATE:**
**09/08/2011**

W:\Narratives\SemiVols\3503\3503862_8270.doc

# SEMI-VOLATILE ORGANIC CROSS REFERENCE TABLE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**Method:** 8270

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-IDW-WATER-01 | 350386214 |

080911 1740

# 8270 Sample Data

080911 1740

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201D10.D

Sample wt/vol: 25.43 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0548

PercentSolids: 95.2 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 2200 | U | 586 | 2200 |
| 62-53-3 | Aniline | 2230 | U | 636 | 2230 |
| 111-44-4 | Bis(2-chloroethyl)ether | 2230 | U | 554 | 2230 |
| 108-95-2 | Phenol | 11000 | U | 537 | 11000 |
| 95-57-8 | 2-Chlorophenol | 2230 | U | 570 | 2230 |
| 541-73-1 | 1,3-Dichlorobenzene | 2230 | U | 504 | 2230 |
| 106-46-7 | 1,4-Dichlorobenzene | 2230 | U | 520 | 2230 |
| 95-50-1 | 1,2-Dichlorobenzene | 2230 | U | 471 | 2230 |
| 100-51-6 | Benzyl alcohol | 5510 | U | 760 | 5510 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 2230 | U | 1820 | 2230 |
| 95-48-7 | 2-Methylphenol | 2200 | U | 793 | 2200 |
| 67-72-1 | Hexachloroethane | 2230 | U | 413 | 2230 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 2230 | U | 504 | 2230 |
| 106-44-5 | 4-Methylphenol | 2230 | U | 487 | 2230 |
| 98-95-3 | Nitrobenzene | 2230 | U | 496 | 2230 |
| 78-59-1 | Isophorone | 2230 | U | 487 | 2230 |
| 88-75-5 | 2-Nitrophenol | 2230 | U | 595 | 2230 |
| 105-67-9 | 2,4-Dimethylphenol | 2200 | U | 471 | 2200 |
| 65-85-0 | Benzoic acid | 5510 | U | 2230 | 5510 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 2200 | U | 471 | 2200 |
| 120-83-2 | 2,4-Dichlorophenol | 2200 | U | 620 | 2200 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 2230 | U | 479 | 2230 |
| 91-20-3 | Naphthalene | 2230 | U | 529 | 2230 |
| 106-47-8 | 4-Chloroaniline | 2230 | U | 520 | 2230 |
| 91-57-6 | 2-Methylnaphthalene | 2230 | U | 479 | 2230 |
| 87-68-3 | Hexachlorobutadiene | 2230 | U | 479 | 2230 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201D10.D

Sample wt/vol: 25.43 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0548

PercentSolids: 95.2 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 59-50-7 | 4-Chloro-3-methylphenol | 2230 | U | 463 | 2230 |
| 90-12-0 | 1-Methylnaphthalene | 2230 | U | 512 | 2230 |
| 77-47-4 | Hexachlorocyclopentadiene | 5510 | U | 330 | 5510 |
| 88-06-2 | 2,4,6-Trichlorophenol | 2200 | U | 562 | 2200 |
| 95-95-4 | 2,4,5-Trichlorophenol | 2200 | U | 611 | 2200 |
| 91-58-7 | 2-Chloronaphthalene | 2230 | U | 551 | 2230 |
| 88-74-4 | 2-Nitroaniline | 2230 | U | 471 | 2230 |
| 208-96-8 | Acenaphthylene | 2230 | U | 454 | 2230 |
| 131-11-3 | Dimethylphthalate | 2230 | U | 487 | 2230 |
| 606-20-2 | 2,6-Dinitrotoluene | 2230 | U | 413 | 2230 |
| 83-32-9 | Acenaphthene | 2230 | U | 405 | 2230 |
| 99-09-2 | 3-Nitroaniline | 2200 | U | 661 | 2200 |
| 51-28-5 | 2,4-Dinitrophenol | 11100 | U | 1820 | 11100 |
| 132-64-9 | Dibenzofuran | 2230 | U | 446 | 2230 |
| 121-14-2 | 2,4-Dinitrotoluene | 2230 | U | 405 | 2230 |
| 100-02-7 | 4-Nitrophenol | 5510 | U | 438 | 5510 |
| 86-73-7 | Fluorene | 2230 | U | 421 | 2230 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 2230 | U | 421 | 2230 |
| 84-66-2 | Diethylphthalate | 2230 | U | 421 | 2230 |
| 100-01-6 | 4-Nitroaniline | 2200 | U | 727 | 2200 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 2230 | U | 2200 | 2230 |
| 86-30-6 | N-Nitrosodiphenylamine | 2200 | U | 520 | 2200 |
| 101-55-3 | 4-Bromophenyl-phenylether | 2230 | U | 405 | 2230 |
| 118-74-1 | Hexachlorobenzene | 2200 | U | 438 | 2200 |
| 87-86-5 | Pentachlorophenol | 2230 | U | 1100 | 2230 |
| 85-01-8 | Phenanthrene | 1190 | J | 463 | 2230 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201D10.D

Sample wt/vol: 25.43 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0548

PercentSolids: 95.2 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 120-12-7 | Anthracene | 2230 | U | 496 | 2230 |
| 84-74-2 | Di-n-butylphthalate | 2230 | U | 363 | 2230 |
| 206-44-0 | Fluoranthene | 2230 | U | 396 | 2230 |
| 129-00-0 | Pyrene | 2230 | U | 760 | 2230 |
| 92-87-5 | Benzidine | 5540 | U | 4960 | 5540 |
| 85-68-7 | Butylbenzylphthalate | 2230 | U | 520 | 2230 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 2230 | U | 487 | 2230 |
| 56-55-3 | Benzo(a)anthracene | 2230 | U | 471 | 2230 |
| 218-01-9 | Chrysene | 2200 | U | 281 | 2200 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 2230 | U | 686 | 2230 |
| 117-84-0 | Di-n-octylphthalate | 2230 | U | 479 | 2230 |
| 205-99-2 | Benzo(b)fluoranthene | 2230 | U | 520 | 2230 |
| 207-08-9 | Benzo(k)fluoranthene | 2230 | U | 471 | 2230 |
| 50-32-8 | Benzo(a)pyrene | 2230 | U | 355 | 2230 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 2230 | U | 430 | 2230 |
| 53-70-3 | Dibenzo(a,h)anthracene | 2230 | U | 339 | 2230 |
| 191-24-2 | Benzo(g,h,i)perylene | 2230 | U | 330 | 2230 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202D10.D

Sample wt/vol: 25.34 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0618

PercentSolids: 74.4 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 2830 | U | 753 | 2830 |
| 62-53-3 | Aniline | 2860 | U | 817 | 2860 |
| 111-44-4 | Bis(2-chloroethyl)ether | 2860 | U | 711 | 2860 |
| 108-95-2 | Phenol | 14200 | U | 690 | 14200 |
| 95-57-8 | 2-Chlorophenol | 2860 | U | 732 | 2860 |
| 541-73-1 | 1,3-Dichlorobenzene | 2860 | U | 647 | 2860 |
| 106-46-7 | 1,4-Dichlorobenzene | 2860 | U | 668 | 2860 |
| 95-50-1 | 1,2-Dichlorobenzene | 2860 | U | 605 | 2860 |
| 100-51-6 | Benzyl alcohol | 7080 | U | 976 | 7080 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 2860 | U | 2330 | 2860 |
| 95-48-7 | 2-Methylphenol | 2830 | U | 1020 | 2830 |
| 67-72-1 | Hexachloroethane | 2860 | U | 530 | 2860 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 2860 | U | 647 | 2860 |
| 106-44-5 | 4-Methylphenol | 2860 | U | 626 | 2860 |
| 98-95-3 | Nitrobenzene | 2860 | U | 636 | 2860 |
| 78-59-1 | Isophorone | 2860 | U | 626 | 2860 |
| 88-75-5 | 2-Nitrophenol | 2860 | U | 764 | 2860 |
| 105-67-9 | 2,4-Dimethylphenol | 2830 | U | 605 | 2830 |
| 65-85-0 | Benzoic acid | 7080 | U | 2860 | 7080 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 2830 | U | 605 | 2830 |
| 120-83-2 | 2,4-Dichlorophenol | 2830 | U | 796 | 2830 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 2860 | U | 615 | 2860 |
| 91-20-3 | Naphthalene | 2020 | J | 679 | 2860 |
| 106-47-8 | 4-Chloroaniline | 2860 | U | 668 | 2860 |
| 91-57-6 | 2-Methylnaphthalene | 691 | J | 615 | 2860 |
| 87-68-3 | Hexachlorobutadiene | 2860 | U | 615 | 2860 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202D10.D

Sample wt/vol: 25.34 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0618

PercentSolids: 74.4 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 59-50-7 | 4-Chloro-3-methylphenol | 2860 | U | 594 | 2860 |
| 90-12-0 | 1-Methylnaphthalene | 2860 | U | 658 | 2860 |
| 77-47-4 | Hexachlorocyclopentadiene | 7080 | U | 424 | 7080 |
| 88-06-2 | 2,4,6-Trichlorophenol | 2830 | U | 721 | 2830 |
| 95-95-4 | 2,4,5-Trichlorophenol | 2830 | U | 785 | 2830 |
| 91-58-7 | 2-Chloronaphthalene | 2860 | U | 708 | 2860 |
| 88-74-4 | 2-Nitroaniline | 2860 | U | 605 | 2860 |
| 208-96-8 | Acenaphthylene | 2860 | U | 583 | 2860 |
| 131-11-3 | Dimethylphthalate | 2860 | U | 626 | 2860 |
| 606-20-2 | 2,6-Dinitrotoluene | 2860 | U | 530 | 2860 |
| 83-32-9 | Acenaphthene | 2860 | U | 520 | 2860 |
| 99-09-2 | 3-Nitroaniline | 2830 | U | 849 | 2830 |
| 51-28-5 | 2,4-Dinitrophenol | 14200 | U | 2330 | 14200 |
| 132-64-9 | Dibenzofuran | 2860 | U | 573 | 2860 |
| 121-14-2 | 2,4-Dinitrotoluene | 2860 | U | 520 | 2860 |
| 100-02-7 | 4-Nitrophenol | 7080 | U | 562 | 7080 |
| 86-73-7 | Fluorene | 2860 | U | 541 | 2860 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 2860 | U | 541 | 2860 |
| 84-66-2 | Diethylphthalate | 2860 | U | 541 | 2860 |
| 100-01-6 | 4-Nitroaniline | 2830 | U | 934 | 2830 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 2860 | U | 2820 | 2860 |
| 86-30-6 | N-Nitrosodiphenylamine | 2830 | U | 668 | 2830 |
| 101-55-3 | 4-Bromophenyl-phenylether | 2860 | U | 520 | 2860 |
| 118-74-1 | Hexachlorobenzene | 2830 | U | 562 | 2830 |
| 87-86-5 | Pentachlorophenol | 2860 | U | 1410 | 2860 |
| 85-01-8 | Phenanthrene | 2320 | J | 594 | 2860 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202D10.D

Sample wt/vol: 25.34 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0618

PercentSolids: 74.4 decanted : Dilution Factor: 10

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 120-12-7 | Anthracene | 2860 | U | 636 | 2860 |
| 84-74-2 | Di-n-butylphthalate | 2860 | U | 467 | 2860 |
| 206-44-0 | Fluoranthene | 1900 | J | 509 | 2860 |
| 129-00-0 | Pyrene | 1620 | J | 976 | 2860 |
| 92-87-5 | Benzidine | 7110 | U | 6360 | 7110 |
| 85-68-7 | Butylbenzylphthalate | 2860 | U | 668 | 2860 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 2860 | U | 626 | 2860 |
| 56-55-3 | Benzo(a)anthracene | 732 | J | 605 | 2860 |
| 218-01-9 | Chrysene | 757 | J | 361 | 2830 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 3830 | | 880 | 2860 |
| 117-84-0 | Di-n-octylphthalate | 2860 | U | 615 | 2860 |
| 205-99-2 | Benzo(b)fluoranthene | 2860 | U | 668 | 2860 |
| 207-08-9 | Benzo(k)fluoranthene | 2860 | U | 605 | 2860 |
| 50-32-8 | Benzo(a)pyrene | 2860 | U | 456 | 2860 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 2860 | U | 552 | 2860 |
| 53-70-3 | Dibenzo(a,h)anthracene | 2860 | U | 435 | 2860 |
| 191-24-2 | Benzo(g,h,i)perylene | 523 | J | 424 | 2860 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210D5.D

Sample wt/vol: 25.42 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1531

PercentSolids: 75.2 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 1400 | U | 371 | 1400 |
| 62-53-3 | Aniline | 1410 | U | 403 | 1410 |
| 111-44-4 | Bis(2-chloroethyl)ether | 1410 | U | 350 | 1410 |
| 108-95-2 | Phenol | 6980 | U | 340 | 6980 |
| 95-57-8 | 2-Chlorophenol | 1410 | U | 361 | 1410 |
| 541-73-1 | 1,3-Dichlorobenzene | 1410 | U | 319 | 1410 |
| 106-46-7 | 1,4-Dichlorobenzene | 1410 | U | 330 | 1410 |
| 95-50-1 | 1,2-Dichlorobenzene | 1410 | U | 298 | 1410 |
| 100-51-6 | Benzyl alcohol | 3490 | U | 481 | 3490 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 1410 | U | 1150 | 1410 |
| 95-48-7 | 2-Methylphenol | 1400 | U | 502 | 1400 |
| 67-72-1 | Hexachloroethane | 1410 | U | 262 | 1410 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 1410 | U | 319 | 1410 |
| 106-44-5 | 4-Methylphenol | 1410 | U | 309 | 1410 |
| 98-95-3 | Nitrobenzene | 1410 | U | 314 | 1410 |
| 78-59-1 | Isophorone | 1410 | U | 309 | 1410 |
| 88-75-5 | 2-Nitrophenol | 1410 | U | 377 | 1410 |
| 105-67-9 | 2,4-Dimethylphenol | 1400 | U | 298 | 1400 |
| 65-85-0 | Benzoic acid | 3490 | U | 1410 | 3490 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 1400 | U | 298 | 1400 |
| 120-83-2 | 2,4-Dichlorophenol | 1400 | U | 392 | 1400 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1410 | U | 303 | 1410 |
| 91-20-3 | Naphthalene | 1410 | U | 335 | 1410 |
| 106-47-8 | 4-Chloroaniline | 1410 | U | 330 | 1410 |
| 91-57-6 | 2-Methylnaphthalene | 1410 | U | 303 | 1410 |
| 87-68-3 | Hexachlorobutadiene | 1410 | U | 303 | 1410 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210D5.D

Sample wt/vol: 25.42 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1531

PercentSolids: 75.2 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 59-50-7 | 4-Chloro-3-methylphenol | 1410 | U | 293 | 1410 |
| 90-12-0 | 1-Methylnaphthalene | 1410 | U | 324 | 1410 |
| 77-47-4 | Hexachlorocyclopentadiene | 3490 | U | 209 | 3490 |
| 88-06-2 | 2,4,6-Trichlorophenol | 1400 | U | 356 | 1400 |
| 95-95-4 | 2,4,5-Trichlorophenol | 1400 | U | 387 | 1400 |
| 91-58-7 | 2-Chloronaphthalene | 1410 | U | 349 | 1410 |
| 88-74-4 | 2-Nitroaniline | 1410 | U | 298 | 1410 |
| 208-96-8 | Acenaphthylene | 1410 | U | 288 | 1410 |
| 131-11-3 | Dimethylphthalate | 1410 | U | 309 | 1410 |
| 606-20-2 | 2,6-Dinitrotoluene | 1410 | U | 262 | 1410 |
| 83-32-9 | Acenaphthene | 1410 | U | 256 | 1410 |
| 99-09-2 | 3-Nitroaniline | 1400 | U | 418 | 1400 |
| 51-28-5 | 2,4-Dinitrophenol | 7010 | U | 1150 | 7010 |
| 132-64-9 | Dibenzofuran | 1410 | U | 282 | 1410 |
| 121-14-2 | 2,4-Dinitrotoluene | 1410 | U | 256 | 1410 |
| 100-02-7 | 4-Nitrophenol | 3490 | U | 277 | 3490 |
| 86-73-7 | Fluorene | 1410 | U | 267 | 1410 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1410 | U | 267 | 1410 |
| 84-66-2 | Diethylphthalate | 1410 | U | 267 | 1410 |
| 100-01-6 | 4-Nitroaniline | 1400 | U | 460 | 1400 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 1410 | U | 1390 | 1410 |
| 86-30-6 | N-Nitrosodiphenylamine | 1400 | U | 330 | 1400 |
| 101-55-3 | 4-Bromophenyl-phenylether | 1410 | U | 256 | 1410 |
| 118-74-1 | Hexachlorobenzene | 1400 | U | 277 | 1400 |
| 87-86-5 | Pentachlorophenol | 1410 | U | 696 | 1410 |
| 85-01-8 | Phenanthrene | 1410 | U | 293 | 1410 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210D5.D

Sample wt/vol: 25.42 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1531

PercentSolids: 75.2 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 120-12-7 | Anthracene | 1410 | U | 314 | 1410 |
| 84-74-2 | Di-n-butylphthalate | 1410 | U | 230 | 1410 |
| 206-44-0 | Fluoranthene | 1410 | U | 251 | 1410 |
| 129-00-0 | Pyrene | 1410 | U | 481 | 1410 |
| 92-87-5 | Benzidine | 3500 | U | 3140 | 3500 |
| 85-68-7 | Butylbenzylphthalate | 1410 | U | 330 | 1410 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1410 | U | 309 | 1410 |
| 56-55-3 | Benzo(a)anthracene | 1410 | U | 298 | 1410 |
| 218-01-9 | Chrysene | 1400 | U | 178 | 1400 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 1410 | U | 434 | 1410 |
| 117-84-0 | Di-n-octylphthalate | 1410 | U | 303 | 1410 |
| 205-99-2 | Benzo(b)fluoranthene | 1410 | U | 330 | 1410 |
| 207-08-9 | Benzo(k)fluoranthene | 1410 | U | 298 | 1410 |
| 50-32-8 | Benzo(a)pyrene | 1410 | U | 225 | 1410 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1410 | U | 272 | 1410 |
| 53-70-3 | Dibenzo(a,h)anthracene | 1410 | U | 214 | 1410 |
| 191-24-2 | Benzo(g,h,i)perylene | 1410 | U | 209 | 1410 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211D5.D

Sample wt/vol: 25.27 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1603

PercentSolids: 74.4 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 1420 | U | 378 | 1420 |
| 62-53-3 | Aniline | 1440 | U | 410 | 1440 |
| 111-44-4 | Bis(2-chloroethyl)ether | 1440 | U | 356 | 1440 |
| 108-95-2 | Phenol | 7100 | U | 346 | 7100 |
| 95-57-8 | 2-Chlorophenol | 1440 | U | 367 | 1440 |
| 541-73-1 | 1,3-Dichlorobenzene | 1440 | U | 324 | 1440 |
| 106-46-7 | 1,4-Dichlorobenzene | 1440 | U | 335 | 1440 |
| 95-50-1 | 1,2-Dichlorobenzene | 1440 | U | 303 | 1440 |
| 100-51-6 | Benzyl alcohol | 3550 | U | 489 | 3550 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 1440 | U | 1170 | 1440 |
| 95-48-7 | 2-Methylphenol | 1420 | U | 511 | 1420 |
| 67-72-1 | Hexachloroethane | 1440 | U | 266 | 1440 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 1440 | U | 324 | 1440 |
| 106-44-5 | 4-Methylphenol | 1440 | U | 314 | 1440 |
| 98-95-3 | Nitrobenzene | 1440 | U | 319 | 1440 |
| 78-59-1 | Isophorone | 1440 | U | 314 | 1440 |
| 88-75-5 | 2-Nitrophenol | 1440 | U | 383 | 1440 |
| 105-67-9 | 2,4-Dimethylphenol | 1420 | U | 303 | 1420 |
| 65-85-0 | Benzoic acid | 3550 | U | 1440 | 3550 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 1420 | U | 303 | 1420 |
| 120-83-2 | 2,4-Dichlorophenol | 1420 | U | 399 | 1420 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1440 | U | 308 | 1440 |
| 91-20-3 | Naphthalene | 1440 | U | 340 | 1440 |
| 106-47-8 | 4-Chloroaniline | 1440 | U | 335 | 1440 |
| 91-57-6 | 2-Methylnaphthalene | 1440 | U | 308 | 1440 |
| 87-68-3 | Hexachlorobutadiene | 1440 | U | 308 | 1440 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211D5.D

Sample wt/vol: 25.27 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1603

PercentSolids: 74.4 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 59-50-7 | 4-Chloro-3-methylphenol | 1440 | U | 298 | 1440 |
| 90-12-0 | 1-Methylnaphthalene | 1440 | U | 330 | 1440 |
| 77-47-4 | Hexachlorocyclopentadiene | 3550 | U | 213 | 3550 |
| 88-06-2 | 2,4,6-Trichlorophenol | 1420 | U | 362 | 1420 |
| 95-95-4 | 2,4,5-Trichlorophenol | 1420 | U | 394 | 1420 |
| 91-58-7 | 2-Chloronaphthalene | 1440 | U | 355 | 1440 |
| 88-74-4 | 2-Nitroaniline | 1440 | U | 303 | 1440 |
| 208-96-8 | Acenaphthylene | 1440 | U | 292 | 1440 |
| 131-11-3 | Dimethylphthalate | 1440 | U | 314 | 1440 |
| 606-20-2 | 2,6-Dinitrotoluene | 1440 | U | 266 | 1440 |
| 83-32-9 | Acenaphthene | 1440 | U | 261 | 1440 |
| 99-09-2 | 3-Nitroaniline | 1420 | U | 426 | 1420 |
| 51-28-5 | 2,4-Dinitrophenol | 7130 | U | 1170 | 7130 |
| 132-64-9 | Dibenzofuran | 1440 | U | 287 | 1440 |
| 121-14-2 | 2,4-Dinitrotoluene | 1440 | U | 261 | 1440 |
| 100-02-7 | 4-Nitrophenol | 3550 | U | 282 | 3550 |
| 86-73-7 | Fluorene | 1440 | U | 271 | 1440 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 1440 | U | 271 | 1440 |
| 84-66-2 | Diethylphthalate | 1440 | U | 271 | 1440 |
| 100-01-6 | 4-Nitroaniline | 1420 | U | 468 | 1420 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 1440 | U | 1410 | 1440 |
| 86-30-6 | N-Nitrosodiphenylamine | 1420 | U | 335 | 1420 |
| 101-55-3 | 4-Bromophenyl-phenylether | 1440 | U | 261 | 1440 |
| 118-74-1 | Hexachlorobenzene | 1420 | U | 282 | 1420 |
| 87-86-5 | Pentachlorophenol | 1440 | U | 707 | 1440 |
| 85-01-8 | Phenanthrene | 1440 | U | 298 | 1440 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211D5.D

Sample wt/vol: 25.27 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1603

PercentSolids: 74.4 decanted : Dilution Factor: 5

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 120-12-7 | Anthracene | 1440 | U | 319 | 1440 |
| 84-74-2 | Di-n-butylphthalate | 1440 | U | 234 | 1440 |
| 206-44-0 | Fluoranthene | 1440 | U | 255 | 1440 |
| 129-00-0 | Pyrene | 1440 | U | 489 | 1440 |
| 92-87-5 | Benzidine | 3560 | U | 3190 | 3560 |
| 85-68-7 | Butylbenzylphthalate | 1440 | U | 335 | 1440 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1440 | U | 314 | 1440 |
| 56-55-3 | Benzo(a)anthracene | 1440 | U | 303 | 1440 |
| 218-01-9 | Chrysene | 1420 | U | 181 | 1420 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 1440 | U | 441 | 1440 |
| 117-84-0 | Di-n-octylphthalate | 1440 | U | 308 | 1440 |
| 205-99-2 | Benzo(b)fluoranthene | 1440 | U | 335 | 1440 |
| 207-08-9 | Benzo(k)fluoranthene | 1440 | U | 303 | 1440 |
| 50-32-8 | Benzo(a)pyrene | 1440 | U | 229 | 1440 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1440 | U | 276 | 1440 |
| 53-70-3 | Dibenzo(a,h)anthracene | 1440 | U | 218 | 1440 |
| 191-24-2 | Benzo(g,h,i)perylene | 1440 | U | 213 | 1440 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-IDW-WATER-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214 Lab File ID 86214D2.D

Sample wt/vol: 980 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/07/11 Time: 1520

PercentSolids: 0 decanted : Dilution Factor: 2

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 8.2 | U | 4.5 | 8.2 |
| 62-53-3 | Aniline | 8.2 | U | 5.7 | 8.2 |
| 111-44-4 | Bis(2-chloroethyl)ether | 8.2 | U | 6.1 | 8.2 |
| 108-95-2 | Phenol | 4.4 | J | 3.5 | 8.2 |
| 95-57-8 | 2-Chlorophenol | 8.2 | U | 5.9 | 8.2 |
| 541-73-1 | 1,3-Dichlorobenzene | 8.2 | U | 5.5 | 8.2 |
| 106-46-7 | 1,4-Dichlorobenzene | 8.2 | U | 5.5 | 8.2 |
| 95-50-1 | 1,2-Dichlorobenzene | 8.2 | U | 5.3 | 8.2 |
| 100-51-6 | Benzyl alcohol | 20.4 | U | 6.3 | 20.4 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 8.2 | U | 6.7 | 8.2 |
| 95-48-7 | 2-Methylphenol | 8.2 | U | 5.3 | 8.2 |
| 67-72-1 | Hexachloroethane | 8.2 | U | 5.3 | 8.2 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 8.2 | U | 6.1 | 8.2 |
| 106-44-5 | 4-Methylphenol | 20.4 | U | 12.4 | 20.4 |
| 98-95-3 | Nitrobenzene | 8.2 | U | 2 | 8.2 |
| 78-59-1 | Isophorone | 8.2 | U | 7.8 | 8.2 |
| 88-75-5 | 2-Nitrophenol | 8.2 | U | 1.6 | 8.2 |
| 105-67-9 | 2,4-Dimethylphenol | 8.2 | U | 4.7 | 8.2 |
| 65-85-0 | Benzoic acid | 102 | U | 28.6 | 102 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 8.2 | U | 7.1 | 8.2 |
| 120-83-2 | 2,4-Dichlorophenol | 8.2 | U | 6.3 | 8.2 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 8.2 | U | 5.3 | 8.2 |
| 91-20-3 | Naphthalene | 8.2 | U | 5.7 | 8.2 |
| 106-47-8 | 4-Chloroaniline | 8.2 | U | 6.1 | 8.2 |
| 91-57-6 | 2-Methylnaphthalene | 8.2 | U | 5.7 | 8.2 |
| 87-68-3 | Hexachlorobutadiene | 8.2 | U | 5.1 | 8.2 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-IDW-WATER-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214 Lab File ID 86214D2.D

Sample wt/vol: 980 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/07/11 Time: 1520

PercentSolids: 0 decanted : Dilution Factor: 2

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 59-50-7 | 4-Chloro-3-methylphenol | 8.2 | U | 5.5 | 8.2 |
| 90-12-0 | 1-Methylnaphthalene | 8.2 | U | 5.5 | 8.2 |
| 77-47-4 | Hexachlorocyclopentadiene | 8.2 | U | 1.7 | 8.2 |
| 88-06-2 | 2,4,6-Trichlorophenol | 8.2 | U | 1.7 | 8.2 |
| 95-95-4 | 2,4,5-Trichlorophenol | 8.2 | U | 6.9 | 8.2 |
| 91-58-7 | 2-Chloronaphthalene | 8.2 | U | 5.7 | 8.2 |
| 88-74-4 | 2-Nitroaniline | 8.2 | U | 6.1 | 8.2 |
| 208-96-8 | Acenaphthylene | 8.2 | U | 6.1 | 8.2 |
| 131-11-3 | Dimethylphthalate | 8.2 | U | 6.1 | 8.2 |
| 606-20-2 | 2,6-Dinitrotoluene | 8.2 | U | 5.7 | 8.2 |
| 83-32-9 | Acenaphthene | 8.2 | U | 5.7 | 8.2 |
| 99-09-2 | 3-Nitroaniline | 8.2 | U | 5.7 | 8.2 |
| 51-28-5 | 2,4-Dinitrophenol | 40.8 | U | 11.4 | 40.8 |
| 132-64-9 | Dibenzofuran | 8.2 | U | 5.5 | 8.2 |
| 121-14-2 | 2,4-Dinitrotoluene | 8.2 | U | 5.7 | 8.2 |
| 100-02-7 | 4-Nitrophenol | 8.2 | U | 8.2 | 8.2 |
| 86-73-7 | Fluorene | 8.2 | U | 5.9 | 8.2 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 8.2 | U | 5.1 | 8.2 |
| 84-66-2 | Diethylphthalate | 8.2 | U | 5.7 | 8.2 |
| 100-01-6 | 4-Nitroaniline | 8.2 | U | 2.6 | 8.2 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 8.2 | U | 8.2 | 8.2 |
| 86-30-6 | N-Nitrosodiphenylamine | 8.2 | U | 6.9 | 8.2 |
| 101-55-3 | 4-Bromophenyl-phenylether | 8.2 | U | 4.7 | 8.2 |
| 118-74-1 | Hexachlorobenzene | 8.2 | U | 0.84 | 8.2 |
| 87-86-5 | Pentachlorophenol | 20.4 | U | 2.8 | 20.4 |
| 85-01-8 | Phenanthrene | 8.2 | U | 5.7 | 8.2 |

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## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-IDW-WATER-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214 Lab File ID 86214D2.D

Sample wt/vol: 980 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/07/11 Time: 1520

PercentSolids: 0 decanted : Dilution Factor: 2

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 120-12-7 | Anthracene | 8.2 | U | 5.7 | 8.2 |
| 84-74-2 | Di-n-butylphthalate | 2 | JB | 1.8 | 8.2 |
| 206-44-0 | Fluoranthene | 8.2 | U | 5.7 | 8.2 |
| 129-00-0 | Pyrene | 8.2 | U | 2.4 | 8.2 |
| 92-87-5 | Benzidine | 40.8 | U | 40.8 | 40.8 |
| 85-68-7 | Butylbenzylphthalate | 8.2 | U | 6.1 | 8.2 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 8.2 | U | 5.5 | 8.2 |
| 56-55-3 | Benzo(a)anthracene | 8.2 | U | 5.3 | 8.2 |
| 218-01-9 | Chrysene | 8.2 | U | 5.9 | 8.2 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 119 | B | 9 | 10.2 |
| 117-84-0 | Di-n-octylphthalate | 8.2 | U | 2.2 | 8.2 |
| 205-99-2 | Benzo(b)fluoranthene | 8.2 | U | 5.3 | 8.2 |
| 207-08-9 | Benzo(k)fluoranthene | 8.2 | U | 5.9 | 8.2 |
| 50-32-8 | Benzo(a)pyrene | 8.2 | U | 5.7 | 8.2 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 8.2 | U | 3.3 | 8.2 |
| 53-70-3 | Dibenzo(a,h)anthracene | 8.2 | U | 2.4 | 8.2 |
| 191-24-2 | Benzo(g,h,i)perylene | 8.2 | U | 5.3 | 8.2 |

# 8270 QC Summary

080911 1740

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

97053MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 97053MB Lab File ID: 6323MB.D

Sample wt/vol: 1000 Units: ML Date Received: 08/24/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/06/11 Time: 1941

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 4 | U | 2.2 | 4 |
| 62-53-3 | Aniline | 4 | U | 2.8 | 4 |
| 111-44-4 | Bis(2-chloroethyl)ether | 4 | U | 3 | 4 |
| 108-95-2 | Phenol | 4 | U | 1.7 | 4 |
| 95-57-8 | 2-Chlorophenol | 4 | U | 2.9 | 4 |
| 541-73-1 | 1,3-Dichlorobenzene | 4 | U | 2.7 | 4 |
| 106-46-7 | 1,4-Dichlorobenzene | 4 | U | 2.7 | 4 |
| 95-50-1 | 1,2-Dichlorobenzene | 4 | U | 2.6 | 4 |
| 100-51-6 | Benzyl alcohol | 10 | U | 3.1 | 10 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 4 | U | 3.3 | 4 |
| 95-48-7 | 2-Methylphenol | 4 | U | 2.6 | 4 |
| 67-72-1 | Hexachloroethane | 4 | U | 2.6 | 4 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 4 | U | 3 | 4 |
| 106-44-5 | 4-Methylphenol | 10 | U | 6.1 | 10 |
| 98-95-3 | Nitrobenzene | 4 | U | 1 | 4 |
| 78-59-1 | Isophorone | 4 | U | 3.8 | 4 |
| 88-75-5 | 2-Nitrophenol | 4 | U | 0.77 | 4 |
| 105-67-9 | 2,4-Dimethylphenol | 4 | U | 2.3 | 4 |
| 65-85-0 | Benzoic acid | 50 | U | 14 | 50 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 4 | U | 3.5 | 4 |
| 120-83-2 | 2,4-Dichlorophenol | 4 | U | 3.1 | 4 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 4 | U | 2.6 | 4 |
| 91-20-3 | Naphthalene | 4 | U | 2.8 | 4 |
| 106-47-8 | 4-Chloroaniline | 4 | U | 3 | 4 |
| 91-57-6 | 2-Methylnaphthalene | 4 | U | 2.8 | 4 |
| 87-68-3 | Hexachlorobutadiene | 4 | U | 2.5 | 4 |
| 59-50-7 | 4-Chloro-3-methylphenol | 4 | U | 2.7 | 4 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

97053MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 97053MB Lab File ID: 6323MB.D

Sample wt/vol: 1000 Units: ML Date Received: 08/24/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/06/11 Time: 1941

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 90-12-0 | 1-Methylnaphthalene | 4 | U | 2.7 | 4 |
| 77-47-4 | Hexachlorocyclopentadiene | 4 | U | 0.82 | 4 |
| 88-06-2 | 2,4,6-Trichlorophenol | 4 | U | 0.84 | 4 |
| 95-95-4 | 2,4,5-Trichlorophenol | 4 | U | 3.4 | 4 |
| 91-58-7 | 2-Chloronaphthalene | 4 | U | 2.8 | 4 |
| 88-74-4 | 2-Nitroaniline | 4 | U | 3 | 4 |
| 208-96-8 | Acenaphthylene | 4 | U | 3 | 4 |
| 131-11-3 | Dimethylphthalate | 4 | U | 3 | 4 |
| 606-20-2 | 2,6-Dinitrotoluene | 4 | U | 2.8 | 4 |
| 83-32-9 | Acenaphthene | 4 | U | 2.8 | 4 |
| 99-09-2 | 3-Nitroaniline | 4 | U | 2.8 | 4 |
| 51-28-5 | 2,4-Dinitrophenol | 20 | U | 5.6 | 20 |
| 132-64-9 | Dibenzofuran | 4 | U | 2.7 | 4 |
| 121-14-2 | 2,4-Dinitrotoluene | 4 | U | 2.8 | 4 |
| 100-02-7 | 4-Nitrophenol | 4 | U | 4 | 4 |
| 86-73-7 | Fluorene | 4 | U | 2.9 | 4 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 4 | U | 2.5 | 4 |
| 84-66-2 | Diethylphthalate | 4 | U | 2.8 | 4 |
| 100-01-6 | 4-Nitroaniline | 4 | U | 1.3 | 4 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 4 | U | 4 | 4 |
| 86-30-6 | N-Nitrosodiphenylamine | 4 | U | 3.4 | 4 |
| 101-55-3 | 4-Bromophenyl-phenylether | 4 | U | 2.3 | 4 |
| 118-74-1 | Hexachlorobenzene | 4 | U | 0.41 | 4 |
| 87-86-5 | Pentachlorophenol | 10 | U | 1.4 | 10 |
| 85-01-8 | Phenanthrene | 4 | U | 2.8 | 4 |
| 120-12-7 | Anthracene | 4 | U | 2.8 | 4 |
| 84-74-2 | Di-n-butylphthalate | 1.5 | J | 0.86 | 4 |

## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.: 97053MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 97053MB Lab File ID: 6323MB.D

Sample wt/vol: 1000 Units: ML Date Received: 08/24/11

Concentrated Extract Volume: 1 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 09/06/11 Time: 1941

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 206-44-0 | Fluoranthene | 4 | U | 2.8 | 4 |
| 129-00-0 | Pyrene | 4 | U | 1.2 | 4 |
| 92-87-5 | Benzidine | 20 | U | 20 | 20 |
| 85-68-7 | Butylbenzylphthalate | 4 | U | 3 | 4 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 4 | U | 2.7 | 4 |
| 56-55-3 | Benzo(a)anthracene | 4 | U | 2.6 | 4 |
| 218-01-9 | Chrysene | 4 | U | 2.9 | 4 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 19.4 | | 4.4 | 5 |
| 117-84-0 | Di-n-octylphthalate | 4 | U | 1.1 | 4 |
| 205-99-2 | Benzo(b)fluoranthene | 4 | U | 2.6 | 4 |
| 207-08-9 | Benzo(k)fluoranthene | 4 | U | 2.9 | 4 |
| 50-32-8 | Benzo(a)pyrene | 4 | U | 2.8 | 4 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 4 | U | 1.6 | 4 |
| 53-70-3 | Dibenzo(a,h)anthracene | 4 | U | 1.2 | 4 |
| 191-24-2 | Benzo(g,h,i)perylene | 4 | U | 2.6 | 4 |

1

## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

97268MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 97268MB Lab File ID: 6352MB.D

Sample wt/vol: 20.23 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0352

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 62-75-9 | N-Nitrosodimethylamine | 264 | U | 70.2 | 264 |
| 62-53-3 | Aniline | 267 | U | 76.1 | 267 |
| 111-44-4 | Bis(2-chloroethyl)ether | 267 | U | 66.2 | 267 |
| 108-95-2 | Phenol | 1320 | U | 64.2 | 1320 |
| 95-57-8 | 2-Chlorophenol | 267 | U | 68.2 | 267 |
| 541-73-1 | 1,3-Dichlorobenzene | 267 | U | 60.3 | 267 |
| 106-46-7 | 1,4-Dichlorobenzene | 267 | U | 62.3 | 267 |
| 95-50-1 | 1,2-Dichlorobenzene | 267 | U | 56.4 | 267 |
| 100-51-6 | Benzyl alcohol | 659 | U | 91 | 659 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 267 | U | 217 | 267 |
| 95-48-7 | 2-Methylphenol | 264 | U | 94.9 | 264 |
| 67-72-1 | Hexachloroethane | 267 | U | 49.4 | 267 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 267 | U | 60.3 | 267 |
| 106-44-5 | 4-Methylphenol | 267 | U | 58.3 | 267 |
| 98-95-3 | Nitrobenzene | 267 | U | 59.3 | 267 |
| 78-59-1 | Isophorone | 267 | U | 58.3 | 267 |
| 88-75-5 | 2-Nitrophenol | 267 | U | 71.2 | 267 |
| 105-67-9 | 2,4-Dimethylphenol | 264 | U | 56.4 | 264 |
| 65-85-0 | Benzoic acid | 659 | U | 267 | 659 |
| 111-91-1 | Bis(2-chloroethoxy)methane | 264 | U | 56.4 | 264 |
| 120-83-2 | 2,4-Dichlorophenol | 264 | U | 74.1 | 264 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 267 | U | 57.3 | 267 |
| 91-20-3 | Naphthalene | 267 | U | 63.3 | 267 |
| 106-47-8 | 4-Chloroaniline | 267 | U | 62.3 | 267 |
| 91-57-6 | 2-Methylnaphthalene | 267 | U | 57.3 | 267 |
| 87-68-3 | Hexachlorobutadiene | 267 | U | 57.3 | 267 |
| 59-50-7 | 4-Chloro-3-methylphenol | 267 | U | 55.4 | 267 |

1

## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

97268MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 97268MB Lab File ID: 6352MB.D

Sample wt/vol: 20.23 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0352

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 90-12-0 | 1-Methylnaphthalene | 267 | U | 61.3 | 267 |
| 77-47-4 | Hexachlorocyclopentadiene | 659 | U | 39.5 | 659 |
| 88-06-2 | 2,4,6-Trichlorophenol | 264 | U | 67.2 | 264 |
| 95-95-4 | 2,4,5-Trichlorophenol | 264 | U | 73.2 | 264 |
| 91-58-7 | 2-Chloronaphthalene | 267 | U | 65.9 | 267 |
| 88-74-4 | 2-Nitroaniline | 267 | U | 56.4 | 267 |
| 208-96-8 | Acenaphthylene | 267 | U | 54.4 | 267 |
| 131-11-3 | Dimethylphthalate | 267 | U | 58.3 | 267 |
| 606-20-2 | 2,6-Dinitrotoluene | 267 | U | 49.4 | 267 |
| 83-32-9 | Acenaphthene | 267 | U | 48.4 | 267 |
| 99-09-2 | 3-Nitroaniline | 264 | U | 79.1 | 264 |
| 51-28-5 | 2,4-Dinitrophenol | 1320 | U | 217 | 1320 |
| 132-64-9 | Dibenzofuran | 267 | U | 53.4 | 267 |
| 121-14-2 | 2,4-Dinitrotoluene | 267 | U | 48.4 | 267 |
| 100-02-7 | 4-Nitrophenol | 659 | U | 52.4 | 659 |
| 86-73-7 | Fluorene | 267 | U | 50.4 | 267 |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 267 | U | 50.4 | 267 |
| 84-66-2 | Diethylphthalate | 267 | U | 50.4 | 267 |
| 100-01-6 | 4-Nitroaniline | 264 | U | 87 | 264 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 267 | U | 263 | 267 |
| 86-30-6 | N-Nitrosodiphenylamine | 264 | U | 62.3 | 264 |
| 101-55-3 | 4-Bromophenyl-phenylether | 267 | U | 48.4 | 267 |
| 118-74-1 | Hexachlorobenzene | 264 | U | 52.4 | 264 |
| 87-86-5 | Pentachlorophenol | 267 | U | 131 | 267 |
| 85-01-8 | Phenanthrene | 267 | U | 55.4 | 267 |
| 120-12-7 | Anthracene | 267 | U | 59.3 | 267 |
| 84-74-2 | Di-n-butylphthalate | 267 | U | 43.5 | 267 |

## SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

97268MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 97268MB Lab File ID: 6352MB.D

Sample wt/vol: 20.23 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 1 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0352

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: OTHER Station ID: Method: 8270

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 206-44-0 | Fluoranthene | 267 | U | 47.4 | 267 |
| 129-00-0 | Pyrene | 267 | U | 91 | 267 |
| 92-87-5 | Benzidine | 662 | U | 593 | 662 |
| 85-68-7 | Butylbenzylphthalate | 267 | U | 62.3 | 267 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 267 | U | 58.3 | 267 |
| 56-55-3 | Benzo(a)anthracene | 267 | U | 56.4 | 267 |
| 218-01-9 | Chrysene | 264 | U | 33.6 | 264 |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 267 | U | 82 | 267 |
| 117-84-0 | Di-n-octylphthalate | 267 | U | 57.3 | 267 |
| 205-99-2 | Benzo(b)fluoranthene | 267 | U | 62.3 | 267 |
| 207-08-9 | Benzo(k)fluoranthene | 267 | U | 56.4 | 267 |
| 50-32-8 | Benzo(a)pyrene | 267 | U | 42.5 | 267 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 267 | U | 51.4 | 267 |
| 53-70-3 | Dibenzo(a,h)anthracene | 267 | U | 40.5 | 267 |
| 191-24-2 | Benzo(g,h,i)perylene | 267 | U | 39.5 | 267 |

2A

WATER SEMI-VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): HPMS-5 ID: 0.25 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 97053MB | 55.4 | 38.6 | 52.0 | 53.0 | 118.0 | 71.4 | 0 |
| 97054LCS | 68.0 | 43.3 | 57.8 | 60.0 | 100.0 | 75.2 | 0 |
| 97055LCSD | 68.9 | 44.2 | 58.6 | 61.8 | 102.0 | 77.4 | 0 |
| KD-IDW-WATER-01 | 67.5 | 44.7 | 59.0 | 60.2 | 13.5 | 66.7 | 0 |

**Control Limits**

| | | | | |
|---|---|---|---|---|
| S1 | = | 2-Fluorophenol | 21 - | 120 |
| S2 | = | Phenol-d5 | 10 - | 94 |
| S3 | = | Nitrobenzene-d5 | 35 - | 114 |
| S4 | = | 2-Fluorobiphenyl | 43 - | 116 |
| S5 | = | 2,4,6-Tribromophenol | 10 - | 122 |
| S6 | = | p-Terphenyl-d14 | 33 - | 141 |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

2A

SOIL SEMI-VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): HPMS-5 ID: 0.25 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 97268MB | 92.3 | 87.7 | 64.0 | 64.0 | 67.4 | 73.7 | 0 |
| 97269LCS | 72.4 | 72.8 | 51.8 | 56.6 | 84.5 | 67.9 | 0 |
| KD-SB-1 16ft-16.5ft | 65.6 | 63.9 | 50.0 | 48.3 | 44.6 | 60.7 | 0 |
| KD-SB-2 11ft-12ft | 83.2 | 84.9 | 106.0 | 59.2 | 56.6 | 69.8 | 0 |
| KD-SB-6 3ft-4ft | 80.5 | 79.7 | 56.5 | 63.0 | 73.2 | 71.8 | 0 |
| KD-SB-9 3ft-4ft | 101.0 | 93.4 | 66.9 | 76.7 | 81.4 | 77.8 | 0 |

**Control Limits**

| | | | | |
|---|---|---|---|---|
| S1 | = | 2-Fluorophenol | 25 - | 121 |
| S2 | = | Phenol-d5 | 24 - | 113 |
| S3 | = | Nitrobenzene-d5 | 23 - | 120 |
| S4 | = | 2-Fluorobiphenyl | 30 - | 115 |
| S5 | = | 2,4,6-Tribromophenol | 19 - | 122 |
| S6 | = | p-Terphenyl-d14 | 18 - | 137 |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97054LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| N-Nitrosodimethylamine | 40 | 20.6 | 51.5 | | 20.0 | 36 - 89 |
| Aniline | 40 | 24.3 | 60.8 | | 20.0 | 45 - 155 |
| Bis(2-chloroethyl)ether | 40 | 29.4 | 73.5 | | 14.0 | 62 - 110 |
| Phenol | 40 | 15.1 | 37.8 | | 20.0 | 30 - 74 |
| 2-Chlorophenol | 40 | 32.4 | 81.0 | | 15.0 | 51 - 105 |
| 1,3-Dichlorobenzene | 40 | 23.2 | 58.0 | | 16.0 | 36 - 100 |
| 1,4-Dichlorobenzene | 40 | 23.1 | 57.8 | | 16.0 | 38 - 100 |
| 1,2-Dichlorobenzene | 40 | 24.1 | 60.2 | | 20.0 | 40 - 100 |
| Benzyl alcohol | 40 | 26.7 | 66.8 | | 20.0 | 60 - 110 |
| 2,2'-Oxybis(1-chloropropane) | 40 | 27.8 | 69.5 | | 14.0 | 59 - 119 |
| 2-Methylphenol | 40 | 27.6 | 69.0 | | 15.0 | 47 - 110 |
| Hexachloroethane | 40 | 20.5 | 51.2 | | 17.0 | 32 - 95 |
| N-Nitroso-di-n-propylamine | 40 | 31.3 | 78.2 | | 20.0 | 57 - 120 |
| 4-Methylphenol | 40 | 24.3 | 60.8 | | 10.0 | 37 - 110 |
| Nitrobenzene | 40 | 30.6 | 76.5 | | 20.0 | 61 - 110 |
| Isophorone | 40 | 36.7 | 91.8 | | 20.0 | 68 - 110 |
| 2-Nitrophenol | 40 | 33.3 | 83.2 | | 20.0 | 48 - 115 |
| 2,4-Dimethylphenol | 40 | 33.2 | 83.0 | | 20.0 | 47 - 110 |
| Benzoic acid | 140 | 21.9 | 15.6 | | 20.0 | 10 - 60 |
| Bis(2-chloroethoxy)methane | 40 | 29.6 | 74.0 | | 20.0 | 61 - 105 |
| 2,4-Dichlorophenol | 40 | 32 | 80.0 | | 20.0 | 54 - 105 |
| 1,2,4-Trichlorobenzene | 40 | 24.3 | 60.8 | | 18.0 | 45 - 105 |
| Naphthalene | 40 | 27.8 | 69.5 | | 15.0 | 50 - 100 |
| 4-Chloroaniline | 40 | 31 | 77.5 | | 17.0 | 52 - 110 |
| 2-Methylnaphthalene | 40 | 29.1 | 72.8 | | 19.0 | 57 - 105 |
| Hexachlorobutadiene | 40 | 24 | 60.0 | | 20.0 | 42 - 105 |
| 4-Chloro-3-methylphenol | 40 | 31.9 | 79.8 | | 12.0 | 55 - 110 |
| 1-Methylnaphthalene | 40 | 29.9 | 74.8 | | 17.0 | 53 - 125 |
| Hexachlorocyclopentadiene | 40 | 19.2 | 48.0 | | 20.0 | 27 - 139 |
| 2,4,6-Trichlorophenol | 40 | 34.5 | 86.2 | | 19.0 | 53 - 115 |
| 2,4,5-Trichlorophenol | 40 | 33.5 | 83.8 | | 20.0 | 50 - 110 |
| 2-Chloronaphthalene | 40 | 30.5 | 76.2 | | 19.0 | 35 - 105 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97054LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 2-Nitroaniline | 40 | 31.3 | 78.2 | | 18.0 | 66 - 115 |
| Acenaphthylene | 40 | 33.6 | 84.0 | | 15.0 | 58 - 105 |
| Dimethylphthalate | 40 | 37.1 | 92.8 | | 15.0 | 62 - 125 |
| 2,6-Dinitrotoluene | 40 | 35.1 | 87.8 | | 17.0 | 69 - 115 |
| Acenaphthene | 40 | 30.6 | 76.5 | | 20.0 | 60 - 110 |
| 3-Nitroaniline | 40 | 37 | 92.5 | | 20.0 | 61 - 125 |
| 2,4-Dinitrophenol | 80 | 39.4 | 49.2 * | | 20.0 | 56 - 140 |
| Dibenzofuran | 40 | 32 | 80.0 | | 20.0 | 64 - 105 |
| 2,4-Dinitrotoluene | 40 | 36.2 | 90.5 | | 18.0 | 69 - 120 |
| 4-Nitrophenol | 40 | 16.6 | 41.5 | | 20.0 | 27 - 80 |
| Fluorene | 40 | 31.3 | 78.2 | | 20.0 | 62 - 110 |
| 4-Chlorophenyl-phenylether | 40 | 32.5 | 81.2 | | 20.0 | 60 - 110 |
| Diethylphthalate | 40 | 37.6 | 94.0 | | 13.0 | 64 - 120 |
| 4-Nitroaniline | 40 | 37 | 92.5 | | 20.0 | 67 - 120 |
| 4,6-Dinitro-2-methylphenol | 40 | 28.3 | 70.8 | | 19.0 | 44 - 130 |
| N-Nitrosodiphenylamine | 40 | 35.6 | 89.0 | | 20.0 | 71 - 110 |
| 4-Bromophenyl-phenylether | 40 | 36.7 | 91.8 | | 17.0 | 54 - 113 |
| Hexachlorobenzene | 40 | 35.6 | 89.0 | | 20.0 | 68 - 110 |
| Pentachlorophenol | 40 | 33.1 | 82.8 | | 20.0 | 41 - 115 |
| Phenanthrene | 40 | 32 | 80.0 | | 16.0 | 61 - 115 |
| Anthracene | 40 | 32.6 | 81.5 | | 14.0 | 63 - 110 |
| Di-n-butylphthalate | 40 | 36.9 | 92.2 | | 20.0 | 65 - 115 |
| Fluoranthene | 40 | 34 | 85.0 | | 11.0 | 64 - 115 |
| Pyrene | 40 | 33.3 | 83.2 | | 20.0 | 62 - 130 |
| Benzidine | 80 | 23.5 | 29.4 | | 136.0 | 0 - 98 |
| Butylbenzylphthalate | 40 | 40.4 | 101.0 | | 20.0 | 64 - 115 |
| 3,3'-Dichlorobenzidine | 80 | 65.8 | 82.2 | | 15.0 | 55 - 110 |
| Benzo(a)anthracene | 40 | 32.2 | 80.5 | | 20.0 | 63 - 110 |
| Chrysene | 40 | 33.5 | 83.8 | | 15.0 | 60 - 110 |
| Bis(2-ethylhexyl)phthalate | 40 | 39.7 | 99.2 | | 20.0 | 63 - 125 |
| Di-n-octylphthalate | 40 | 35.2 | 88.0 | | 20.0 | 57 - 135 |
| Benzo(b)fluoranthene | 40 | 33 | 82.5 | | 17.0 | 60 - 120 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97054LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzo(k)fluoranthene | 40 | 30.8 | 77.0 | | 17.0 | 54 - 125 |
| Benzo(a)pyrene | 40 | 31.7 | 79.2 | | 19.0 | 60 - 110 |
| Indeno(1,2,3-cd)pyrene | 40 | 33.8 | 84.5 | | 20.0 | 45 - 125 |
| Dibenzo(a,h)anthracene | 40 | 33.8 | 84.5 | | 20.0 | 41 - 125 |
| Benzo(g,h,i)perylene | 40 | 32.2 | 80.5 | | 20.0 | 40 - 125 |

Spike Recovery: 1 out of 69 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97055LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| N-Nitrosodimethylamine | 40 | 23.1 | 57.8 | 11.4 | 20.0 | 36 - 89 |
| Aniline | 40 | 24.2 | 60.5 | 0.4 | 20.0 | 45 - 155 |
| Bis(2-chloroethyl)ether | 40 | 30.6 | 76.5 | 4.0 | 14.0 | 62 - 110 |
| Phenol | 40 | 15.8 | 39.5 | 4.5 | 20.0 | 30 - 74 |
| 2-Chlorophenol | 40 | 33.2 | 83.0 | 2.4 | 15.0 | 51 - 105 |
| 1,3-Dichlorobenzene | 40 | 24.5 | 61.2 | 5.5 | 16.0 | 36 - 100 |
| 1,4-Dichlorobenzene | 40 | 24.3 | 60.8 | 5.1 | 16.0 | 38 - 100 |
| 1,2-Dichlorobenzene | 40 | 25.3 | 63.2 | 4.9 | 20.0 | 40 - 100 |
| Benzyl alcohol | 40 | 27.4 | 68.5 | 2.6 | 20.0 | 60 - 110 |
| 2,2'-Oxybis(1-chloropropane) | 40 | 28.5 | 71.2 | 2.5 | 14.0 | 59 - 119 |
| 2-Methylphenol | 40 | 26.2 | 65.5 | 5.2 | 15.0 | 47 - 110 |
| Hexachloroethane | 40 | 21.1 | 52.8 | 2.9 | 17.0 | 32 - 95 |
| N-Nitroso-di-n-propylamine | 40 | 31.9 | 79.8 | 1.9 | 20.0 | 57 - 120 |
| 4-Methylphenol | 40 | 23.9 | 59.8 | 1.7 | 10.0 | 37 - 110 |
| Nitrobenzene | 40 | 30.7 | 76.8 | 0.3 | 20.0 | 61 - 110 |
| Isophorone | 40 | 36.7 | 91.8 | 0.0 | 20.0 | 68 - 110 |
| 2-Nitrophenol | 40 | 33.4 | 83.5 | 0.3 | 20.0 | 48 - 115 |
| 2,4-Dimethylphenol | 40 | 33.8 | 84.5 | 1.8 | 20.0 | 47 - 110 |
| Benzoic acid | 140 | 26.2 | 18.7 | 17.9 | 20.0 | 10 - 60 |
| Bis(2-chloroethoxy)methane | 40 | 30.3 | 75.8 | 2.3 | 20.0 | 61 - 105 |
| 2,4-Dichlorophenol | 40 | 32.1 | 80.2 | 0.3 | 20.0 | 54 - 105 |
| 1,2,4-Trichlorobenzene | 40 | 25.2 | 63.0 | 3.6 | 18.0 | 45 - 105 |
| Naphthalene | 40 | 27.6 | 69.0 | 0.7 | 15.0 | 50 - 100 |
| 4-Chloroaniline | 40 | 30.5 | 76.2 | 1.6 | 17.0 | 52 - 110 |
| 2-Methylnaphthalene | 40 | 28.2 | 70.5 | 3.1 | 19.0 | 57 - 105 |
| Hexachlorobutadiene | 40 | 24.5 | 61.2 | 2.1 | 20.0 | 42 - 105 |
| 4-Chloro-3-methylphenol | 40 | 31 | 77.5 | 2.9 | 12.0 | 55 - 110 |
| 1-Methylnaphthalene | 40 | 29.8 | 74.5 | 0.3 | 17.0 | 53 - 125 |
| Hexachlorocyclopentadiene | 40 | 20.9 | 52.2 | 8.5 | 20.0 | 27 - 139 |
| 2,4,6-Trichlorophenol | 40 | 34.6 | 86.5 | 0.3 | 19.0 | 53 - 115 |
| 2,4,5-Trichlorophenol | 40 | 35.3 | 88.2 | 5.2 | 20.0 | 50 - 110 |
| 2-Chloronaphthalene | 40 | 32 | 80.0 | 4.8 | 19.0 | 35 - 105 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97055LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 2-Nitroaniline | 40 | 31.1 | 77.8 | 0.6 | 18.0 | 66 - 115 |
| Acenaphthylene | 40 | 34 | 85.0 | 1.2 | 15.0 | 58 - 105 |
| Dimethylphthalate | 40 | 38.5 | 96.2 | 3.7 | 15.0 | 62 - 125 |
| 2,6-Dinitrotoluene | 40 | 36.1 | 90.2 | 2.8 | 17.0 | 69 - 115 |
| Acenaphthene | 40 | 31.4 | 78.5 | 2.6 | 20.0 | 60 - 110 |
| 3-Nitroaniline | 40 | 35.2 | 88.0 | 5.0 | 20.0 | 61 - 125 |
| 2,4-Dinitrophenol | 80 | 45.2 | 56.5 | 13.7 | 20.0 | 56 - 140 |
| Dibenzofuran | 40 | 32.4 | 81.0 | 1.2 | 20.0 | 64 - 105 |
| 2,4-Dinitrotoluene | 40 | 36.3 | 90.8 | 0.3 | 18.0 | 69 - 120 |
| 4-Nitrophenol | 40 | 16.2 | 40.5 | 2.4 | 20.0 | 27 - 80 |
| Fluorene | 40 | 32.5 | 81.2 | 3.8 | 20.0 | 62 - 110 |
| 4-Chlorophenyl-phenylether | 40 | 34 | 85.0 | 4.5 | 20.0 | 60 - 110 |
| Diethylphthalate | 40 | 38.5 | 96.2 | 2.4 | 13.0 | 64 - 120 |
| 4-Nitroaniline | 40 | 35.2 | 88.0 | 5.0 | 20.0 | 67 - 120 |
| 4,6-Dinitro-2-methylphenol | 40 | 30.5 | 76.2 | 7.5 | 19.0 | 44 - 130 |
| N-Nitrosodiphenylamine | 40 | 36.9 | 92.2 | 3.6 | 20.0 | 71 - 110 |
| 4-Bromophenyl-phenylether | 40 | 38.5 | 96.2 | 4.8 | 17.0 | 54 - 113 |
| Hexachlorobenzene | 40 | 37.6 | 94.0 | 5.5 | 20.0 | 68 - 110 |
| Pentachlorophenol | 40 | 36 | 90.0 | 8.4 | 20.0 | 41 - 115 |
| Phenanthrene | 40 | 32.5 | 81.2 | 1.6 | 16.0 | 61 - 115 |
| Anthracene | 40 | 33.5 | 83.8 | 2.7 | 14.0 | 63 - 110 |
| Di-n-butylphthalate | 40 | 37.6 | 94.0 | 1.9 | 20.0 | 65 - 115 |
| Fluoranthene | 40 | 33.3 | 83.2 | 2.1 | 11.0 | 64 - 115 |
| Pyrene | 40 | 34.2 | 85.5 | 2.7 | 20.0 | 62 - 130 |
| Benzidine | 80 | 21.4 | 26.8 | 9.4 | 136.0 | 0 - 98 |
| Butylbenzylphthalate | 40 | 41.8 | 104.0 | 3.4 | 20.0 | 64 - 115 |
| 3,3'-Dichlorobenzidine | 80 | 63.4 | 79.2 | 3.7 | 15.0 | 55 - 110 |
| Benzo(a)anthracene | 40 | 32.7 | 81.8 | 1.5 | 20.0 | 63 - 110 |
| Chrysene | 40 | 33.9 | 84.8 | 1.2 | 15.0 | 60 - 110 |
| Bis(2-ethylhexyl)phthalate | 40 | 41.3 | 103.0 | 4.0 | 20.0 | 63 - 125 |
| Di-n-octylphthalate | 40 | 41.3 | 103.0 | 15.9 | 20.0 | 57 - 135 |
| Benzo(b)fluoranthene | 40 | 32.8 | 82.0 | 0.6 | 17.0 | 60 - 120 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97055LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzo(k)fluoranthene | 40 | 34.7 | 86.8 | 11.9 | 17.0 | 54 - 125 |
| Benzo(a)pyrene | 40 | 32.7 | 81.8 | 3.1 | 19.0 | 60 - 110 |
| Indeno(1,2,3-cd)pyrene | 40 | 30.4 | 76.0 | 10.6 | 20.0 | 45 - 125 |
| Dibenzo(a,h)anthracene | 40 | 30.4 | 76.0 | 10.6 | 20.0 | 41 - 125 |
| Benzo(g,h,i)perylene | 40 | 29.3 | 73.2 | 9.4 | 20.0 | 40 - 125 |

Spike Recovery: 0 out of 69 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97269LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| N-Nitrosodimethylamine | 1990 | 1460 | 73.4 * | | 30.0 | 74 - 141 |
| Aniline | 1990 | 1380 | 69.3 | | 27.0 | 21 - 131 |
| Bis(2-chloroethyl)ether | 1990 | 1530 | 76.9 | | 24.0 | 67 - 134 |
| Phenol | 1990 | 1520 | 76.4 | | 20.0 | 63 - 116 |
| 2-Chlorophenol | 1990 | 1410 | 70.9 | | 22.0 | 62 - 115 |
| 1,3-Dichlorobenzene | 1990 | 1330 | 66.8 | | 21.0 | 65 - 110 |
| 1,4-Dichlorobenzene | 1990 | 1330 | 66.8 | | 19.0 | 65 - 107 |
| 1,2-Dichlorobenzene | 1990 | 1360 | 68.3 | | 20.0 | 66 - 109 |
| Benzyl alcohol | 1990 | 1510 | 75.9 | | 24.0 | 58 - 119 |
| 2,2'-Oxybis(1-chloropropane) | 1990 | 1510 | 75.9 | | 26.0 | 62 - 138 |
| 2-Methylphenol | 1990 | 1350 | 67.8 | | 22.0 | 65 - 105 |
| Hexachloroethane | 1990 | 1320 | 66.3 | | 20.0 | 63 - 111 |
| N-Nitroso-di-n-propylamine | 1990 | 1600 | 80.4 | | 24.0 | 72 - 125 |
| 4-Methylphenol | 1990 | 1450 | 72.9 | | 19.0 | 58 - 108 |
| Nitrobenzene | 1990 | 1460 | 73.4 | | 24.0 | 63 - 113 |
| Isophorone | 1990 | 1980 | 99.5 | | 19.0 | 69 - 123 |
| 2-Nitrophenol | 1990 | 1320 | 66.3 | | 24.0 | 61 - 115 |
| 2,4-Dimethylphenol | 1990 | 1420 | 71.4 | | 21.0 | 55 - 117 |
| Benzoic acid | 6960 | 1490 | 21.4 | | 30.0 | 10 - 101 |
| Bis(2-chloroethoxy)methane | 1990 | 1630 | 81.9 | | 27.0 | 73 - 132 |
| 2,4-Dichlorophenol | 1990 | 1520 | 76.4 | | 25.0 | 64 - 108 |
| 1,2,4-Trichlorobenzene | 1990 | 1410 | 70.9 | | 25.0 | 63 - 112 |
| Naphthalene | 1990 | 1460 | 73.4 | | 23.0 | 66 - 111 |
| 4-Chloroaniline | 1990 | 1510 | 75.9 | | 30.0 | 35 - 118 |
| 2-Methylnaphthalene | 1990 | 1500 | 75.4 | | 22.0 | 60 - 120 |
| Hexachlorobutadiene | 1990 | 1490 | 74.9 | | 22.0 | 68 - 120 |
| 4-Chloro-3-methylphenol | 1990 | 1730 | 86.9 | | 22.0 | 63 - 115 |
| 1-Methylnaphthalene | 1990 | 1580 | 79.4 | | 21.0 | 67 - 112 |
| Hexachlorocyclopentadiene | 1990 | 1100 | 55.3 | | 22.0 | 46 - 117 |
| 2,4,6-Trichlorophenol | 1990 | 1630 | 81.9 | | 22.0 | 65 - 115 |
| 2,4,5-Trichlorophenol | 1990 | 1540 | 77.4 | | 22.0 | 64 - 111 |
| 2-Chloronaphthalene | 1990 | 1550 | 77.9 | | 20.0 | 64 - 111 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97269LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 2-Nitroaniline | 1990 | 1730 | 86.9 | | 21.0 | 59 - 124 |
| Acenaphthylene | 1990 | 1620 | 81.4 | | 20.0 | 65 - 110 |
| Dimethylphthalate | 1990 | 1760 | 88.4 | | 20.0 | 71 - 125 |
| 2,6-Dinitrotoluene | 1990 | 1730 | 86.9 | | 20.0 | 59 - 117 |
| Acenaphthene | 1990 | 1550 | 77.9 | | 22.0 | 65 - 110 |
| 3-Nitroaniline | 1990 | 1640 | 82.4 | | 18.0 | 21 - 135 |
| 2,4-Dinitrophenol | 3980 | 2790 | 70.1 | | 30.0 | 17 - 135 |
| Dibenzofuran | 1990 | 1620 | 81.4 | | 19.0 | 63 - 117 |
| 2,4-Dinitrotoluene | 1990 | 1770 | 88.9 | | 17.0 | 64 - 114 |
| 4-Nitrophenol | 1990 | 1800 | 90.5 | | 21.0 | 49 - 125 |
| Fluorene | 1990 | 1630 | 81.9 | | 17.0 | 66 - 106 |
| 4-Chlorophenyl-phenylether | 1990 | 1720 | 86.4 | | 21.0 | 73 - 124 |
| Diethylphthalate | 1990 | 1830 | 92.0 | | 19.0 | 69 - 127 |
| 4-Nitroaniline | 1990 | 1700 | 85.4 | | 21.0 | 40 - 142 |
| 4,6-Dinitro-2-methylphenol | 1990 | 1440 | 72.4 | | 28.0 | 44 - 111 |
| N-Nitrosodiphenylamine | 1990 | 1800 | 90.5 | | 19.0 | 70 - 133 |
| 4-Bromophenyl-phenylether | 1990 | 1760 | 88.4 | | 22.0 | 66 - 139 |
| Hexachlorobenzene | 1990 | 1690 | 84.9 | | 20.0 | 64 - 112 |
| Pentachlorophenol | 1990 | 1360 | 68.3 | | 27.0 | 53 - 118 |
| Phenanthrene | 1990 | 1710 | 85.9 | | 21.0 | 67 - 109 |
| Anthracene | 1990 | 1730 | 86.9 | | 19.0 | 71 - 118 |
| Di-n-butylphthalate | 1990 | 1910 | 96.0 | | 19.0 | 70 - 129 |
| Fluoranthene | 1990 | 1770 | 88.9 | | 20.0 | 66 - 111 |
| Pyrene | 1990 | 1720 | 86.4 | | 23.0 | 63 - 119 |
| Benzidine | 3980 | 805 | 20.2 | | 30.0 | 10 - 82 |
| Butylbenzylphthalate | 1990 | 2040 | 102.0 | | 21.0 | 75 - 149 |
| 3,3'-Dichlorobenzidine | 3980 | 3340 | 83.9 | | 25.0 | 10 - 148 |
| Benzo(a)anthracene | 1990 | 1790 | 89.9 | | 19.0 | 65 - 113 |
| Chrysene | 1990 | 1720 | 86.4 | | 23.0 | 63 - 114 |
| Bis(2-ethylhexyl)phthalate | 1990 | 2040 | 102.0 | | 21.0 | 74 - 148 |
| Di-n-octylphthalate | 1990 | 1860 | 93.5 | | 22.0 | 79 - 146 |
| Benzo(b)fluoranthene | 1990 | 1750 | 87.9 | | 21.0 | 61 - 116 |

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97269LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzo(k)fluoranthene | 1990 | 1600 | 80.4 | | 30.0 | 60 - 107 |
| Benzo(a)pyrene | 1990 | 1720 | 86.4 | | 19.0 | 61 - 112 |
| Indeno(1,2,3-cd)pyrene | 1990 | 1840 | 92.5 | | 19.0 | 60 - 126 |
| Dibenzo(a,h)anthracene | 1990 | 1790 | 89.9 | | 25.0 | 54 - 126 |
| Benzo(g,h,i)perylene | 1990 | 1710 | 85.9 | | 21.0 | 49 - 123 |

Spike Recovery: 1 out of 69 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1740

Form III

# Method 8270 TCLP Semi-Volatile Organics

080911 1740

**CASE NARRATIVE**
**GC/MS SEMIVOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** The following samples were prepped out of hold: KD-SB-2 11ft-12ftRE1. The sample was originally extracted within hold, but due to surrogate failures, the sample was re-extracted. Both analyses are reported.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

EPA SW846 8270D

## IV. PREPARATION

TCLP samples were prepared by EPA SW846 1311 prior to 8270 semi-volatiles preparation. Water/TCLP samples were prepared by EPA SW846 3510 for 8270

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

All acceptance criteria were met.

**C. Surrogates:**

All acceptance criteria were met with the exception of:

Sample KD-SB-2 11ft-12ft was recovered below criteria for the following surrogate(s): 2,4,6-Tribromophenol at 4.2 % with criteria of (10-122), 2-Fluorobiphenyl at 31 % with criteria of (43-116), 2-Fluorophenol at 2.2 % with criteria of (21-120), Nitrobenzene-d5 at 28 % with criteria of (35-114), Phenol-d5 at 2.5 % with criteria of (10-94). Due to these surrogate failures, the sample was re-extracted and met all surrogate criteria.

Both analyses are reported. Samples coded accordingly.

**D. Spikes:**

**1. Laboratory Control Spikes (LCS)**

All acceptance criteria were met

**CASE NARRATIVE**
**GC/MS SEMIVOLATILE ORGANICS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

**2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)**

No spikes were requested.

**E. Internal Standards:**

All acceptance criteria were met.

**F. Samples:**

Sample analysis proceeded normally.

Project specific Reporting Limits were used per client request.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

**Signature:**
**Name:** Brian C. Spann **Title:** Lab Director

**SIGNED:** **DATE:**
**09/08/2011**

W:\Narratives\SemiVols\3503\3503862_8270_TCLP.doc

# SEMI-VOLATILE ORGANIC CROSS REFERENCE TABLE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**Method:** 8270 TCLP

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-SB-2 11ft-12ftRE1 | 350386202RE1 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-DISP-SOIL-01 | 350386213 |

080911 1741

# 8270 TCLP Sample Data

080911 1741

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201T.D

Sample wt/vol: 440 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1214

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.00909 | U | 0.00477 | 0.00909 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.00909 | U | 0.00614 | 0.00909 |
| 95-48-7 | 2-Methylphenol | 0.00909 | U | 0.00591 | 0.00909 |
| 67-72-1 | Hexachloroethane | 0.00909 | U | 0.00591 | 0.00909 |
| 106-44-5 | 4-Methylphenol | 0.0227 | U | 0.0139 | 0.0227 |
| 98-95-3 | Nitrobenzene | 0.00909 | U | 0.00227 | 0.00909 |
| 87-68-3 | Hexachlorobutadiene | 0.00909 | U | 0.00568 | 0.00909 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.00909 | U | 0.00191 | 0.00909 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.00909 | U | 0.00773 | 0.00909 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.00909 | U | 0.00636 | 0.00909 |
| 118-74-1 | Hexachlorobenzene | 0.00909 | U | 0.000932 | 0.00909 |
| 87-86-5 | Pentachlorophenol | 0.0227 | U | 0.00318 | 0.0227 |

1

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202T.D

Sample wt/vol: 500 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1319

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.008 | U | 0.0042 | 0.008 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.008 | U | 0.0054 | 0.008 |
| 95-48-7 | 2-Methylphenol | 0.008 | U | 0.0052 | 0.008 |
| 67-72-1 | Hexachloroethane | 0.008 | U | 0.0052 | 0.008 |
| 106-44-5 | 4-Methylphenol | 0.02 | U | 0.0122 | 0.02 |
| 98-95-3 | Nitrobenzene | 0.008 | U | 0.002 | 0.008 |
| 87-68-3 | Hexachlorobutadiene | 0.008 | U | 0.005 | 0.008 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.008 | U | 0.00168 | 0.008 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.008 | U | 0.0068 | 0.008 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.008 | U | 0.0056 | 0.008 |
| 118-74-1 | Hexachlorobenzene | 0.008 | U | 0.00082 | 0.008 |
| 87-86-5 | Pentachlorophenol | 0.02 | U | 0.0028 | 0.02 |

1

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-2 11ft-12ftRE1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386202RE1 Lab File ID 86202TR.D

Sample wt/vol: 475 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 09/07/11

Level:(low/med) LOW Date Analyzed: 09/07/11 Time: 1658

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.00842 | U | 0.00442 | 0.00842 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.00842 | U | 0.00568 | 0.00842 |
| 95-48-7 | 2-Methylphenol | 0.00842 | U | 0.00547 | 0.00842 |
| 67-72-1 | Hexachloroethane | 0.00842 | U | 0.00547 | 0.00842 |
| 106-44-5 | 4-Methylphenol | 0.021 | U | 0.0128 | 0.021 |
| 98-95-3 | Nitrobenzene | 0.00842 | U | 0.0021 | 0.00842 |
| 87-68-3 | Hexachlorobutadiene | 0.00842 | U | 0.00526 | 0.00842 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.00842 | U | 0.00177 | 0.00842 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.00842 | U | 0.00716 | 0.00842 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.00842 | U | 0.00589 | 0.00842 |
| 118-74-1 | Hexachlorobenzene | 0.00842 | U | 0.000863 | 0.00842 |
| 87-86-5 | Pentachlorophenol | 0.021 | U | 0.00295 | 0.021 |

# SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210T.D

Sample wt/vol: 500 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1352

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

## TCLP Analysis

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.008 | U | 0.0042 | 0.008 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.008 | U | 0.0054 | 0.008 |
| 95-48-7 | 2-Methylphenol | 0.008 | U | 0.0052 | 0.008 |
| 67-72-1 | Hexachloroethane | 0.008 | U | 0.0052 | 0.008 |
| 106-44-5 | 4-Methylphenol | 0.02 | U | 0.0122 | 0.02 |
| 98-95-3 | Nitrobenzene | 0.008 | U | 0.002 | 0.008 |
| 87-68-3 | Hexachlorobutadiene | 0.008 | U | 0.005 | 0.008 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.008 | U | 0.00168 | 0.008 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.008 | U | 0.0068 | 0.008 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.008 | U | 0.0056 | 0.008 |
| 118-74-1 | Hexachlorobenzene | 0.008 | U | 0.00082 | 0.008 |
| 87-86-5 | Pentachlorophenol | 0.02 | U | 0.0028 | 0.02 |

1

**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211T.D

Sample wt/vol: 500 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1426

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.008 | U | 0.0042 | 0.008 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.008 | U | 0.0054 | 0.008 |
| 95-48-7 | 2-Methylphenol | 0.008 | U | 0.0052 | 0.008 |
| 67-72-1 | Hexachloroethane | 0.008 | U | 0.0052 | 0.008 |
| 106-44-5 | 4-Methylphenol | 0.02 | U | 0.0122 | 0.02 |
| 98-95-3 | Nitrobenzene | 0.008 | U | 0.002 | 0.008 |
| 87-68-3 | Hexachlorobutadiene | 0.008 | U | 0.005 | 0.008 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.008 | U | 0.00168 | 0.008 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.008 | U | 0.0068 | 0.008 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.008 | U | 0.0056 | 0.008 |
| 118-74-1 | Hexachlorobenzene | 0.008 | U | 0.00082 | 0.008 |
| 87-86-5 | Pentachlorophenol | 0.02 | U | 0.0028 | 0.02 |

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**SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-DISP-SOIL-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386213 Lab File ID 86213T.D

Sample wt/vol: 500 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 09/02/11 Time: 1458

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

**TCLP Analysis**

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.008 | U | 0.0042 | 0.008 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.008 | U | 0.0054 | 0.008 |
| 95-48-7 | 2-Methylphenol | 0.008 | U | 0.0052 | 0.008 |
| 67-72-1 | Hexachloroethane | 0.008 | U | 0.0052 | 0.008 |
| 106-44-5 | 4-Methylphenol | 0.02 | U | 0.0122 | 0.02 |
| 98-95-3 | Nitrobenzene | 0.008 | U | 0.002 | 0.008 |
| 87-68-3 | Hexachlorobutadiene | 0.008 | U | 0.005 | 0.008 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.008 | U | 0.00168 | 0.008 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.008 | U | 0.0068 | 0.008 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.008 | U | 0.0056 | 0.008 |
| 118-74-1 | Hexachlorobenzene | 0.008 | U | 0.00082 | 0.008 |
| 87-86-5 | Pentachlorophenol | 0.02 | U | 0.0028 | 0.02 |

# 8270 TCLP QC Summary

080911 1741

# SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.: 97416MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 97416MB Lab File ID: 6366MB.D

Sample wt/vol: 480 Units: ML Date Received: 08/25/11

Concentrated Extract Volume: 1 Date Extracted: 08/26/11

Level:(low/med) LOW Date Analyzed: 08/27/11 Time: 0450

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

## TCLP Analysis

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.00833 | U | 0.00438 | 0.00833 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.00833 | U | 0.00562 | 0.00833 |
| 95-48-7 | 2-Methylphenol | 0.00833 | U | 0.00542 | 0.00833 |
| 67-72-1 | Hexachloroethane | 0.00833 | U | 0.00542 | 0.00833 |
| 106-44-5 | 4-Methylphenol | 0.0208 | U | 0.0127 | 0.0208 |
| 98-95-3 | Nitrobenzene | 0.00833 | U | 0.00208 | 0.00833 |
| 87-68-3 | Hexachlorobutadiene | 0.00833 | U | 0.00521 | 0.00833 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.00833 | U | 0.00175 | 0.00833 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.00833 | U | 0.00708 | 0.00833 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.00833 | U | 0.00583 | 0.00833 |
| 118-74-1 | Hexachlorobenzene | 0.00833 | U | 0.000854 | 0.00833 |
| 87-86-5 | Pentachlorophenol | 0.0208 | U | 0.00292 | 0.0208 |

# SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.: 98470MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 98470MB Lab File ID: 6460MBT.D

Sample wt/vol: 480 Units: ML Date Received: 09/07/11

Concentrated Extract Volume: 1 Date Extracted: 09/07/11

Level:(low/med) LOW Date Analyzed: 09/07/11 Time: 1804

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8270 TCLP

GPC Cleanup : ( Y/N ) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

*CONCENTRATION UNITS:* MG/L

## TCLP Analysis

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 0.00833 | U | 0.00438 | 0.00833 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.00833 | U | 0.00562 | 0.00833 |
| 95-48-7 | 2-Methylphenol | 0.00833 | U | 0.00542 | 0.00833 |
| 67-72-1 | Hexachloroethane | 0.00833 | U | 0.00542 | 0.00833 |
| 106-44-5 | 4-Methylphenol | 0.0208 | U | 0.0127 | 0.0208 |
| 98-95-3 | Nitrobenzene | 0.00833 | U | 0.00208 | 0.00833 |
| 87-68-3 | Hexachlorobutadiene | 0.00833 | U | 0.00521 | 0.00833 |
| 88-06-2 | 2,4,6-Trichlorophenol | 0.00833 | U | 0.00175 | 0.00833 |
| 95-95-4 | 2,4,5-Trichlorophenol | 0.00833 | U | 0.00708 | 0.00833 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.00833 | U | 0.00583 | 0.00833 |
| 118-74-1 | Hexachlorobenzene | 0.00833 | U | 0.000854 | 0.00833 |
| 87-86-5 | Pentachlorophenol | 0.0208 | U | 0.00292 | 0.0208 |

2A

WATER SEMI-VOLATILE ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): HPMS-5 ID: 0.25 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 97416MB | 71.4 | 52.4 | 60.0 | 57.0 | 85.7 | 71.0 | 0 |
| 97418LCS | 76.2 | 57.1 | 62.0 | 60.0 | 85.7 | 71.0 | 0 |
| 98470MB | 71.4 | 57.1 | 57.0 | 60.0 | 90.5 | 66.0 | 0 |
| 98471LCS | 81.0 | 52.4 | 63.0 | 66.0 | 100.0 | 83.0 | 0 |
| KD-DISP-SOIL-01 | 70.0 | 55.0 | 58.0 | 61.0 | 90.0 | 76.0 | 0 |
| KD-SB-1 16ft-16.5ft | 82.6 | 65.2 | 65.5 | 65.5 | 91.3 | 82.7 | 0 |
| KD-SB-2 11ft-12ft | 2.2 * | 2.5 * | 28.0 * | 31.0 * | 4.2 * | 41.0 | 5 |
| KD-SB-2 11ft-12ftRE1 | 81.0 | 61.9 | 61.0 | 64.0 | 100.0 | 72.0 | 0 |
| KD-SB-6 3ft-4ft | 75.0 | 60.0 | 65.0 | 62.0 | 95.0 | 79.0 | 0 |
| KD-SB-9 3ft-4ft | 70.0 | 60.0 | 59.0 | 60.0 | 90.0 | 79.0 | 0 |

**Control Limits**

| | | | | |
|---|---|---|---|---|
| S1 | = | 2-Fluorophenol | 21 - | 120 |
| S2 | = | Phenol-d5 | 10 - | 94 |
| S3 | = | Nitrobenzene-d5 | 35 - | 114 |
| S4 | = | 2-Fluorobiphenyl | 43 - | 116 |
| S5 | = | 2,4,6-Tribromophenol | 10 - | 122 |
| S6 | = | p-Terphenyl-d14 | 33 - | 141 |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97418LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**TCLP Analysis**

| COMPOUND | SPIKE ADDED mg/L | LCS CONCENTRATION mg/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Pyridine | 0.0833 | 0.0573 | 68.8 | | 20.0 | 18 - 80 |
| 1,4-Dichlorobenzene | 0.0833 | 0.0625 | 75.0 | | 16.0 | 38 - 100 |
| 2-Methylphenol | 0.0833 | 0.0637 | 76.5 | | 15.0 | 47 - 110 |
| Hexachloroethane | 0.0833 | 0.0609 | 73.1 | | 17.0 | 32 - 95 |
| 4-Methylphenol | 0.0833 | 0.0638 | 76.6 | | 10.0 | 37 - 110 |
| Nitrobenzene | 0.0833 | 0.0704 | 84.5 | | 20.0 | 61 - 110 |
| Hexachlorobutadiene | 0.0833 | 0.0654 | 78.5 | | 20.0 | 42 - 105 |
| 2,4,6-Trichlorophenol | 0.0833 | 0.0724 | 86.9 | | 19.0 | 53 - 115 |
| 2,4,5-Trichlorophenol | 0.0833 | 0.0703 | 84.4 | | 20.0 | 50 - 110 |
| 2,4-Dinitrotoluene | 0.0833 | 0.0766 | 92.0 | | 18.0 | 69 - 120 |
| Hexachlorobenzene | 0.0833 | 0.0722 | 86.7 | | 20.0 | 68 - 110 |
| Pentachlorophenol | 0.0833 | 0.0669 | 80.3 | | 20.0 | 41 - 115 |

Spike Recovery: 0 out of 12 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

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Form III

## SEMI-VOLATILE ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

98471LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**TCLP Analysis**

| COMPOUND | SPIKE ADDED mg/L | LCS CONCENTRATION mg/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Pyridine | 0.0842 | 0.047 | 55.8 | | 20.0 | 18 - 80 |
| 1,4-Dichlorobenzene | 0.0842 | 0.0632 | 75.1 | | 16.0 | 38 - 100 |
| 2-Methylphenol | 0.0842 | 0.0632 | 75.1 | | 15.0 | 47 - 110 |
| Hexachloroethane | 0.0842 | 0.0561 | 66.6 | | 17.0 | 32 - 95 |
| 4-Methylphenol | 0.0842 | 0.0667 | 79.2 | | 10.0 | 37 - 110 |
| Nitrobenzene | 0.0842 | 0.0688 | 81.7 | | 20.0 | 61 - 110 |
| Hexachlorobutadiene | 0.0842 | 0.0689 | 81.8 | | 20.0 | 42 - 105 |
| 2,4,6-Trichlorophenol | 0.0842 | 0.0769 | 91.3 | | 19.0 | 53 - 115 |
| 2,4,5-Trichlorophenol | 0.0842 | 0.0743 | 88.2 | | 20.0 | 50 - 110 |
| 2,4-Dinitrotoluene | 0.0842 | 0.0749 | 89.0 | | 18.0 | 69 - 120 |
| Hexachlorobenzene | 0.0842 | 0.0822 | 97.6 | | 20.0 | 68 - 110 |
| Pentachlorophenol | 0.0842 | 0.067 | 79.6 | | 20.0 | 41 - 115 |

Spike Recovery: 0 out of 12 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1741

Form III

# Method 8082 PCB Organics

080911 1741

**CASE NARRATIVE**
**POLYCHLORINATED BIPHENYLS (PCB) SEMIVOLATILE ORGANIC**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

EPA SW846 8082 for Aroclor analysis

## IV. PREPARATION

Soil samples were prepared by SW846 EPA 3545 for 8082 semi-volatile analysis.
Water samples were prepared by SW846 EPA 3510 for 8082 semi-volatile analysis.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

All acceptance criteria were met.

**C. Surrogates:**

All acceptance criteria were met.

**D. Spikes:**

**PCB 1016 and PCB 1260 were used as the spiking solution for all QC spikes.**

**1. Laboratory Control Spikes (LCS)**

All acceptance criteria were met with the exception of:
LCS 97052LCSD was analyzed with the water samples extracted on 08/24/11. All percent recovery criteria were met. The following analyte(s) exceeded RPD criteria: Aroclor-1016 at 21.1 % with criteria of (10). Since all percent recovery criteria were met, no further action was taken.

LCS 97265LCS was analyzed with the soil samples extracted on 08/25/11. The following analyte(s) had marginal exceedance limit

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

failures: Aroclor-1016 at 124 % with criteria of (50.7-117.3). Since recovery was only slightly high, no further action was taken.

Samples coded accordingly.

**2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)**

No spikes requested by client.

**E. Internal Standards:**

This method does not require the use of internal standards.

**F. Samples:**

Data was collected using dual column analysis. Results reported from the primary column if the %D between the two columns is >40%, data is coded.

Sample analysis proceeded normally.
Sample KD-SB-6 3ft-4ft required a 10X dilution due to high concentration of the following analyte(s): Aroclor-1248 and Aroclor-1254.

Sample KD-SB-9 3ft-4ft required a 5X dilution due to high concentration of the following analyte: Aroclor-1248. Both full and diluted runs are reported.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

**Signature:**
**Name:** Brian C. Spanh **Title:** Lab Director

**SIGNED:** **DATE:**
**09/02/2011**

W:\Narratives\SemiVols\3503\3503862_8082.doc

# PCB ORGANIC CROSS REFERENCE TABLE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

**Method:** 8082

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-SB-9 3ft-4ftDL1 | 350386211DL1 |
| KD-DISP-SOIL-01 | 350386213 |
| KD-IDW-WATER-01 | 350386214 |

080911 1741

# 8082 Sample Data

080911 1741

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## PCB ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201 Lab File ID 86201.D

Sample wt/vol: 25.65 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 0857

PercentSolids: 95.2 decanted : Dilution Factor: 1

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 24 | U | 11 | 24 |
| 11096-82-5 | Aroclor-1260 | 24 | U | 5 | 24 |
| 11104-28-2 | Aroclor-1221 | 24 | U | 9.8 | 24 |
| 11141-16-5 | Aroclor-1232 | 24 | U | 16 | 24 |
| 53469-21-9 | Aroclor-1242 | 24 | U | 9 | 24 |
| 12672-29-6 | Aroclor-1248 | 24 | U | 9 | 24 |
| 11097-69-1 | Aroclor-1254 | 280 | | 7.8 | 24 |

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## PCB ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202 Lab File ID 86202.D

Sample wt/vol: 25.7 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 0912

PercentSolids: 74.4 decanted : Dilution Factor: 1

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 31 | U | 14 | 31 |
| 11096-82-5 | Aroclor-1260 | 31 | U | 6.4 | 31 |
| 11104-28-2 | Aroclor-1221 | 31 | U | 12 | 31 |
| 11141-16-5 | Aroclor-1232 | 31 | U | 21 | 31 |
| 53469-21-9 | Aroclor-1242 | 31 | U | 12 | 31 |
| 12672-29-6 | Aroclor-1248 | 31 | U | 12 | 31 |
| 11097-69-1 | Aroclor-1254 | 31 | U | 9.9 | 31 |

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## PCB ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210 Lab File ID 86210D10.D

Sample wt/vol: 25.21 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 1057

PercentSolids: 75.2 decanted : Dilution Factor: 10

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 320 | U | 140 | 320 |
| 11096-82-5 | Aroclor-1260 | 320 | U | 64 | 320 |
| 11104-28-2 | Aroclor-1221 | 320 | U | 130 | 320 |
| 11141-16-5 | Aroclor-1232 | 320 | U | 210 | 320 |
| 53469-21-9 | Aroclor-1242 | 320 | U | 120 | 320 |
| 12672-29-6 | Aroclor-1248 | 5200 | | 120 | 320 |
| 11097-69-1 | Aroclor-1254 | 1500 | | 100 | 320 |

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## PCB ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211 Lab File ID 86211.D

Sample wt/vol: 25.25 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 0942

PercentSolids: 74.4 decanted : Dilution Factor: 1

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 32 | U | 14 | 32 |
| 11096-82-5 | Aroclor-1260 | 32 | U | 6.5 | 32 |
| 11104-28-2 | Aroclor-1221 | 32 | U | 13 | 32 |
| 11141-16-5 | Aroclor-1232 | 32 | U | 21 | 32 |
| 53469-21-9 | Aroclor-1242 | 32 | U | 12 | 32 |
| 12672-29-6 | Aroclor-1248 | 3400 | E | 12 | 32 |
| 11097-69-1 | Aroclor-1254 | 980 | E | 10 | 32 |

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**PCB ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-SB-9 3ft-4ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211DL1 Lab File ID 86211D5.D

Sample wt/vol: 25.25 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 1112

PercentSolids: 74.4 decanted : Dilution Factor: 5

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 160 | U | 69 | 160 |
| 11096-82-5 | Aroclor-1260 | 160 | U | 32 | 160 |
| 11104-28-2 | Aroclor-1221 | 160 | U | 64 | 160 |
| 11141-16-5 | Aroclor-1232 | 160 | U | 110 | 160 |
| 53469-21-9 | Aroclor-1242 | 160 | U | 58 | 160 |
| 12672-29-6 | Aroclor-1248 | 3700 | | 58 | 160 |
| 11097-69-1 | Aroclor-1254 | 1000 | | 50 | 160 |

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**PCB ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-DISP-SOIL-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386213 Lab File ID 86213.D

Sample wt/vol: 25.37 Units: G Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/31/11 Time: 1012

PercentSolids: 90.1 decanted : Dilution Factor: 1

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 26 | U | 11 | 26 |
| 11096-82-5 | Aroclor-1260 | 26 | U | 5.3 | 26 |
| 11104-28-2 | Aroclor-1221 | 26 | U | 10 | 26 |
| 11141-16-5 | Aroclor-1232 | 26 | U | 18 | 26 |
| 53469-21-9 | Aroclor-1242 | 26 | U | 9.6 | 26 |
| 12672-29-6 | Aroclor-1248 | 210 | | 9.6 | 26 |
| 11097-69-1 | Aroclor-1254 | 91 | | 8.3 | 26 |

1

**PCB ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

KD-IDW-WATER-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214 Lab File ID 86214.D

Sample wt/vol: 980 Units: ML Date Received: 08/23/11

Concentrated Extract Volume: 10 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 08/29/11 Time: 1615

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 0.51 | U | 0.37 | 0.51 |
| 11096-82-5 | Aroclor-1260 | 0.51 | U | 0.26 | 0.51 |
| 11104-28-2 | Aroclor-1221 | 0.51 | U | 0.44 | 0.51 |
| 11141-16-5 | Aroclor-1232 | 0.51 | U | 0.2 | 0.51 |
| 53469-21-9 | Aroclor-1242 | 0.51 | U | 0.32 | 0.51 |
| 12672-29-6 | Aroclor-1248 | 1.2 | | 0.13 | 0.51 |
| 11097-69-1 | Aroclor-1254 | 0.34 | J | 0.12 | 0.51 |

# 8082 QC Summary

080911 1741

1

**PCB ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

97050MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 97050MB Lab File ID: 6322MB.D

Sample wt/vol: 1000 Units: ML Date Received: 08/24/11

Concentrated Extract Volume: 10 Date Extracted: 08/24/11

Level:(low/med) LOW Date Analyzed: 08/25/11 Time: 1544

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/L

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 0.5 | U | 0.36 | 0.5 |
| 11096-82-5 | Aroclor-1260 | 0.5 | U | 0.25 | 0.5 |
| 11104-28-2 | Aroclor-1221 | 0.5 | U | 0.43 | 0.5 |
| 11141-16-5 | Aroclor-1232 | 0.5 | U | 0.2 | 0.5 |
| 53469-21-9 | Aroclor-1242 | 0.5 | U | 0.31 | 0.5 |
| 12672-29-6 | Aroclor-1248 | 0.5 | U | 0.13 | 0.5 |
| 11097-69-1 | Aroclor-1254 | 0.5 | U | 0.12 | 0.5 |

1

**PCB ORGANIC ANALYSIS DATA SHEET**

EPA Sample No.

97264MB

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 97264MB Lab File ID: 6351MB.D

Sample wt/vol: 20.52 Units: G Date Received: 08/25/11

Concentrated Extract Volume: 10 Date Extracted: 08/25/11

Level:(low/med) LOW Date Analyzed: 08/29/11 Time: 1652

PercentSolids: 100 decanted : Dilution Factor: 1

Extraction: SONC Station ID: Method: 8082

GPC Cleanup : ( Y/N ) N pH:

Column(1): STX-CLP1 ID: 0.32 (mm)

*CONCENTRATION UNITS:* UG/KG

| *CAS NO.* | *ANALYTE* | *RESULT* | *Q* | *MDL* | *RL* |
|---|---|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 29 | U | 13 | 29 |
| 11096-82-5 | Aroclor-1260 | 29 | U | 5.9 | 29 |
| 11104-28-2 | Aroclor-1221 | 29 | U | 12 | 29 |
| 11141-16-5 | Aroclor-1232 | 29 | U | 19 | 29 |
| 53469-21-9 | Aroclor-1242 | 29 | U | 11 | 29 |
| 12672-29-6 | Aroclor-1248 | 29 | U | 11 | 29 |
| 11097-69-1 | Aroclor-1254 | 29 | U | 9.2 | 29 |

2A

WATER PCB ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): STX-CLP1 ID: 0.32 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 97050MB | 81.0 | | | | | | 0 |
| 97051LCS | 81.0 | | | | | | 0 |
| 97052LCSD | 81.0 | | | | | | 0 |
| KD-IDW-WATER-01 | 71.0 | | | | | | 0 |

**Control Limits**

S1 = Decachlorobiphenyl 16 - 116

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

080911 1741

2A

SOIL PCB ORGANIC SURROGATE RECOVERY

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG NO.: 3503862

Column(1): STX-CLP1 ID: 0.32 (mm)

| EPA Sample NO. | S1 # | S2 # | S3 # | S4 # | S5 # | S6 # | TOT OUT |
|---|---|---|---|---|---|---|---|
| 97264MB | 93.4 | | | | | | 0 |
| 97265LCS | 86.6 | | | | | | 0 |
| KD-DISP-SOIL-01 | 80.5 | | | | | | 0 |
| KD-SB-1 16ft-16.5ft | 112.0 | | | | | | 0 |
| KD-SB-2 11ft-12ft | 66.3 | | | | | | 0 |
| KD-SB-6 3ft-4ft | 111.0 | | | | | | 0 |
| KD-SB-9 3ft-4ft | 76.7 | | | | | | 0 |
| KD-SB-9 3ft-4ftDL1 | 95.5 | | | | | | 0 |

**Control Limits**

S1 = Decachlorobiphenyl 33 - 140

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out
Control limit source: (lab/method) METHOD

Form II

080911 1741

## PCB ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97051LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Aroclor-1016 | 10 | 8.9 | 89.0 | | 10.0 | 56 - 98 |
| Aroclor-1260 | 10 | 9.2 | 92.0 | | 18.0 | 52 - 101 |

Spike Recovery: 0 out of 2 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1741

Form III

## PCB ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

97052LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/L | LCS CONCENTRATION ug/L | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Aroclor-1016 | 10 | 7.2 | 72.0 | 21.1* | 10.0 | 56 - 98 |
| Aroclor-1260 | 10 | 9 | 90.0 | 2.2 | 18.0 | 52 - 101 |

Spike Recovery: 0 out of 2 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1741

Form III

## PCB ORGANIC LAB CONTROL SAMPLE RECOVERY

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 10 97265LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3503862

| COMPOUND | SPIKE ADDED ug/Kg | LCS CONCENTRATION ug/Kg | LCS % REC # | LCS % RPD | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Aroclor-1016 | 492 | 611 | 124.0 * | | 30.0 | 59 - 109 |
| Aroclor-1260 | 492 | 512 | 104.0 | | 30.0 | 74 - 111 |

Spike Recovery: 1 out of 2 outside limits

# Column to be used to flag recovery values with an asterisk

* Values outside QC limits

Control limit source: (lab/method) METHOD

COMMENTS:

080911 1741

Form III

# Inorganics

080911 1741

# Inorganic Data Qualifiers

**C (Concentration) Qualifier - Entries and their meanings are:**

**J** The reported value obtained was less than the RL but greater than or equal to the MDL.

**E** The reported value obtained was over calibration or linear range.

**U** The reported value obtained was less than the MDL or was not detected.

**Q Qualifier - Entries and their meanings are:**

**U** The reported value is estimated because of interference. An explanatory comment must be included under "Comments" on the Cover Page if the problem applies to all samples in this data package or on the individual FORM 1 if it is an isolated problem.

**M** Duplicate injection precision was not met (two analyses of the same sample did not agree).

**N** Spiked sample recovery not within control limits.

**E** Serial Dilution percent difference not within control limits.

**S** The reported value was determined by the Method of Standard Additions (MSA).

**W** Post-digestion spike for Furnace AA analysis is out of control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.

***** Duplicate analysis not within control limits.

**+** Correlation coefficient for the MSA is less than 0.995.

**X** The data is flagged as rejected by analyst utilizing analytical judgement.

Entering "S", "W", or "+" is mutually exclusive. No combination of these qualifiers can apear in the same field.

**M (Method) Qualifier - Enter one of the following:**

**P** ICP
**A** Flame AA
**F** Furnace AA
**CV** Manual Cold Vapor AA
**TC** Total Organic Carbon
**AS** Semi-Automated Spectrophotometric
**CA** Midi-Distillation Spectrophotometric
**T** Titrimetric
**C** Manual Spectrophotometric
**GR** Gravimetric
**NR** Analyte was not required by your lab

080911 1741

# Inorganic Sample ID Qualifiers

The qualifiers that may be appended to the lab sample ID and/or the client sample ID for inorganic analysis are defined below:

**DL** Diluted reanalysis. Indicates that the results of the original analysis of the sample contained compounds that exceeded the calibration range. The sample was diluted and reanalyzed. May be followed by a digit to indicate multiple dilutions of the sample. The results of more than one diluted reanalysis may be reported.

**R** Reanalysis. The extract was reanalyzed without re-extraction. The "R" is not used if the sample was also re-extracted. May be followed by a digit to indicate multiple reanalysis of the sample at the same dilution.

**RE** Re-extracted. The extract was reanalyzed with re-extraction. May be followed by a digit to indicate multiple re-extraction of the same sample at the same dilution.

**MS** Matrix spike (may be followed by a digit to indicate multiple matrix within a sample set).

**SD** Matrix spike duplicate (may be followed by a digit to indicate multiple matrix spike duplicate within a sample set).

**A** Post Digestion Spike.

**L** Serial Dilution.

080911 1741

# Metals Data Package

080911 1741

**CASE NARRATIVE**
**METALS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHOD

Analyses were performed according to the Spectrum Analytical Inc. Standard Operating Procedures and EPA Method 6010B for ICP metals.

## IV. PREPARATION

Soil samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Method 3050B.
Water samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Method 3010A.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

**1. Calibration Blanks:**

All acceptance criteria were met. No action required. The following ICB/CCB(s) had element concentrations below the RL:

ICB1011254 was analyzed on 08/24/11 08:26. The following analyte(s) were detected below RL: Barium at 0.498 ug/L, Silver at 6.69 ug/L.
CCB1011259 was analyzed on 08/24/11 09:00. The following analyte(s) were detected below RL: Barium at 0.259 ug/L.
ICB1011408 was analyzed on 08/25/11 08:28. The following analyte(s) were detected below RL: Barium at 0.239 ug/L, Silver at 6.83 ug/L.
CCB1011723 was analyzed on 08/25/11 18:19. The following analyte(s) were detected below RL: Silver at -0.582 ug/L.
ICB1012235 was analyzed on 08/26/11 08:51. The following analyte(s) were detected below RL: Barium at 0.25 ug/L, Silver at 6.29 ug/L.

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

CCB1012288 was analyzed on 08/26/11 13:53. The following analyte(s) were detected below RL: Barium at 1.3 ug/L.
CCB1012298 was analyzed on 08/26/11 14:47. The following analyte(s) were detected below RL: Silver at 0.588 ug/L. The hits in the blanks are below the RL, therefore, no corrective action was taken.

**2. Method Blanks:**

All acceptance criteria were met.

**C. Spikes:**

**1. Laboratory Control Spikes (LCS):**

An LCS/LCSD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met.

**2. Post Digestion Spike:**

All acceptance criteria were met.

**3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

A client requested MS/SD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met with the exception of:
MS - KD-SB-3 10ft-12ftMS was analyzed with the soil samples on 08/25/11. The following analyte(s) were recovered below criteria: Chromium at 66.5 % with criteria of (75-125) and the following analyte(s) were recovered above criteria: Arsenic at 138.2 % with criteria of (75-125).

SD - KD-SB-3 10ft-12ftSD was analyzed with the soil samples on 08/25/11.. The following analyte(s) exceeded RPD criteria: Arsenic at 28.4 % with criteria of (20). The most probable cause for the MS/MSD exceeding limits is sample matrix due to the samples requiring a dilution. The LCS/LCSD pass all quality control criteria. No further action was taken.
Samples coded accordingly.

**D. Duplicate:**

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

**E. Serial Dilution:**

All acceptance criteria were met with the exception of:
Serial Dilution 350386207L was analyzed with the soil samples on 08/25/11. The following analyte(s) exceeded criteria: Cadmium at 20 % with criteria of (10). The most probable cause for the SD exceeding limits is sample matrix due to the samples requiring a dilution. The LCS/LCSD pass all quality control criteria. No further action was taken.

**CASE NARRATIVE**
**METALS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

Samples coded accordingly.

**F. ICP Interference Check Samples:**

All acceptance criteria were met.

**G. Samples:**

Sample analysis proceeded normally.

Sample KD-DRUM-1 required a 25X dilution due to high concentration of the following analyte(s): Barium.
Sample KD-DRUM-1 required a 5X dilution due to high concentration of the following analyte(s): Lead.
Sample KD-DRUM-2 required a 5X dilution due to high concentration of the following analyte(s): Cadmium, Chromium.
Sample KD-SB-1 16ft-16.5ft required a 2X dilution due to high concentration of the following analyte(s): Barium.
Sample KD-SB-2 11ft-12ft required a 20X dilution due to high concentration of the following analyte(s): Chromium.
Sample KD-SB-2 11ft-12ft required a 2X dilution due to high concentration of the following analyte(s): Lead.
Sample KD-SB-2 6ft-8ft required a 5X dilution due to high concentration of the following analyte(s): Barium, Lead.
Sample KD-SB-3 10ft-12ft required a 5X dilution due to high concentration of the following analyte(s): Barium, Lead.
Sample KD-SS-01 required a 10X dilution due to high concentration of the following analyte(s): Barium, Chromium.
Sample KD-SS-01 required a 50X dilution due to high concentration of the following analyte(s): Lead.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

**SIGNED:** **DATE: 08/30/2011**

**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

Analyses were performed according to the Spectrum Analytical Inc. Standard Operating Procedures and EPA Method 7470A.

## IV. PREPARATION

Water samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Method 7470A.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

**1. Calibration Blanks:**

All acceptance criteria were met.

**2. Method Blanks:**

All acceptance criteria were met.

**C. Spikes:**

**1. Laboratory Control Spikes (LCS):**

An LCS/LCSD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met.

**2. Post Digestion Spike:**

All acceptance criteria were met.

**3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

No spikes requested by client.

**D. Duplicate:**

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

**E. Serial Dilution:**

All acceptance criteria were met.

**F. Samples:**

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:

Name: Troy L. Roberts Title: Inorg. Manager

**SIGNED:** **DATE: 08/26/2011**

**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

Samples were analyzed according to the Spectrum Analytical Inc. Standard Operating Procedures and EPA Method 7471A.

## IV. PREPARATION

Soil samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Method 7471A.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

**1. Calibration Blanks:**

All acceptance criteria were met.

**2. Method Blanks:**

All acceptance criteria were met.

**C. Spikes:**

**1. Laboratory Control Spikes (LCS):**

An LCS/LCSD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met.

**2. Post Digestion Spike:**

All acceptance criteria were met.

**3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

A client requested MS/SD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met with the exception of:
MS - KD-SB-3 10ft-12ftMS was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Mercury at 207.8 % with criteria of (80-120).

SD - KD-SB-3 10ft-12ftSD was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Mercury at 192.8 % with criteria of (80-120). The most probable cause for the MS/MSD exceeding limits is sample matrix due to the fact that the LCS/LCSD pass all quality control criteria. No further action was taken.
Samples coded accordingly.

**D. Duplicate:**

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

**E. Serial Dilution:**

All acceptance criteria were met.

**F. Samples:**

Sample analysis proceeded normally.
Sample KD-SB-3 10ft-12ft required a 2X dilution due to high concentration of the following analyte(s): Mercury.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

**SIGNED:** **DATE: 08/30/2011**

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# U.S. EPA - CLP

## COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 /

Lab Code : PEL Case No.: SDG No.: 3503862

SOW No.:

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-1 16ft-16.5ftDL1 | 350386201DL1 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-SB-2 11ft-12ftDL1 | 350386202DL1 |
| KD-SB-2 11ft-12ftDL2 | 350386202DL2 |
| KD-DRUM-1 | 350386203 |
| KD-DRUM-1DL1 | 350386203DL1 |
| KD-DRUM-1DL2 | 350386203DL2 |
| KD-DRUM-2 | 350386204 |
| KD-DRUM-2DL1 | 350386204DL1 |
| KD-SS-01 | 350386205 |
| KD-SS-01DL1 | 350386205DL1 |
| KD-SS-01DL2 | 350386205DL2 |
| KD-SB-2 6ft-8ft | 350386206 |
| KD-SB-2 6ft-8ftDL1 | 350386206DL1 |
| KD-SB-3 10ft-12ft | 350386207 |
| KD-SB-3 10ft-12ftDL1 | 350386207DL1 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-SB-7 4ft-6ft | 350386212 |
| KD-IDW-WATER-01 | 350386214 |

| | | |
|---|---|---|
| Were ICP interelement corrections applied? | Yes/No | Yes |
| Were ICP background corrections applied? | Yes/No | Yes |
| If yes - were raw data generated before application of background corrections? | Yes/No | No |

Comments:

080911 1741

# Metals Inorganic Sample Data

080911 1741

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 95.2 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 5.66 | | | P | | 0.37 | 0.741 |
| 7440-43-9 | Cadmium | 0.817 | | | P | | 0.037 | 0.37 |
| 7440-47-3 | Chromium | 14.1 | | | P | | 0.118 | 0.37 |
| 7439-92-1 | Lead | 54.2 | | | P | | 0.252 | 0.593 |
| 7439-97-6 | Mercury | 0.0264 | | | CV | | 0.003 | 0.0161 |
| 7782-49-2 | Selenium | 1.48 | U | | P | | 0.296 | 1.48 |
| 7440-22-4 | Silver | 0.37 | U | | P | | 0.118 | 0.37 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

080911 1741

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 95.2 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-39-3 | Barium | 506 | | | P | | 0.237 | 0.741 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 74.4 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.932 | U | | P | | 0.466 | 0.932 |
| 7440-39-3 | Barium | 356 | | | P | | 0.149 | 0.466 |
| 7440-43-9 | Cadmium | 60.3 | | | P | | 0.0466 | 0.466 |
| 7439-97-6 | Mercury | 0.251 | | | CV | | 0.0046 | 0.0248 |
| 7782-49-2 | Selenium | 1.6 | J | | P | | 0.373 | 1.86 |
| 7440-22-4 | Silver | 14.5 | | | P | | 0.149 | 0.466 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 74.4 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 4030 | | | P | | 2.98 | 9.32 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ftDL2

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202DL2

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 74.4 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | 828 | | | P | | 0.634 | 1.49 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386203

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 66.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 2.01 | | | P | | 0.65 | 1.3 |
| 7440-43-9 | Cadmium | 6.66 | | | P | | 0.065 | 0.65 |
| 7440-47-3 | Chromium | 44.2 | | | P | | 0.208 | 0.65 |
| 7439-97-6 | Mercury | 0.0922 | | | CV | | 0.0051 | 0.0277 |
| 7782-49-2 | Selenium | 4.11 | | | P | | 0.52 | 2.6 |
| 7440-22-4 | Silver | 0.65 | U | | P | | 0.208 | 0.65 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-1DL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386203DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 66.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-39-3 | Barium | 14700 | | | P | | 5.2 | 16.3 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-1DL2

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386203DL2

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 66.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | 2360 | | | P | | 2.21 | 5.2 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-2

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386204

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 93.1 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 57.9 | | | P | | 0.286 | 0.572 |
| 7440-39-3 | Barium | 44.2 | | | P | | 0.0915 | 0.286 |
| 7439-92-1 | Lead | 108 | | | P | | 0.194 | 0.458 |
| 7439-97-6 | Mercury | 0.0191 | J | | CV | | 0.004 | 0.0214 |
| 7782-49-2 | Selenium | 1.14 | U | | P | | 0.229 | 1.14 |
| 7440-22-4 | Silver | 2.19 | | | P | | 0.0915 | 0.286 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-2DL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386204DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 93.1 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-43-9 | Cadmium | 441 | | | P | | 0.143 | 1.43 |
| 7440-47-3 | Chromium | 792 | | | P | | 0.458 | 1.43 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SS-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386205

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 70.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 1.2 | U | | P | | 0.598 | 1.2 |
| 7440-43-9 | Cadmium | 0.769 | | | P | | 0.0598 | 0.598 |
| 7439-97-6 | Mercury | 0.115 | | | CV | | 0.0035 | 0.0187 |
| 7782-49-2 | Selenium | 2.39 | U | | P | | 0.478 | 2.39 |
| 7440-22-4 | Silver | 0.294 | J | | P | | 0.191 | 0.598 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SS-01DL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386205DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 70.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-39-3 | Barium | 900 | | | P | | 1.91 | 5.98 |
| 7440-47-3 | Chromium | 3980 | | | P | | 1.91 | 5.98 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SS-01DL2

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386205DL2

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 70.5 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | 16100 | | | P | | 20.3 | 47.8 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 6ft-8ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386206

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 80 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 39.8 | | | P | | 0.427 | 0.854 |
| 7440-43-9 | Cadmium | 21.6 | | | P | | 0.0427 | 0.427 |
| 7440-47-3 | Chromium | 150 | | | P | | 0.137 | 0.427 |
| 7439-97-6 | Mercury | 0.294 | | | CV | | 0.0026 | 0.014 |
| 7782-49-2 | Selenium | 1.12 | J | | P | | 0.342 | 1.71 |
| 7440-22-4 | Silver | 7 | | | P | | 0.137 | 0.427 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 6ft-8ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386206DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 80 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-39-3 | Barium | 632 | | | P | | 0.683 | 2.13 |
| 7439-92-1 | Lead | 1500 | | | P | | 1.45 | 3.42 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-3 10ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386207

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 82 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 23.9 | | *N | P | | 0.531 | 1.06 |
| 7440-43-9 | Cadmium | 23.2 | | E | P | | 0.0531 | 0.531 |
| 7440-47-3 | Chromium | 109 | | N | P | | 0.17 | 0.531 |
| 7439-97-6 | Mercury | 0.706 | | N | CV | | 0.0069 | 0.0373 |
| 7782-49-2 | Selenium | 3.85 | | | P | | 0.425 | 2.12 |
| 7440-22-4 | Silver | 10.5 | | | P | | 0.17 | 0.531 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-3 10ft-12ftDL1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386207DL1

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 82 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-39-3 | Barium | 485 | | | P | | 0.85 | 2.66 |
| 7439-92-1 | Lead | 1380 | | | P | | 1.8 | 4.25 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 75.2 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 13.4 | | | P | | 0.578 | 1.16 |
| 7440-39-3 | Barium | 58.6 | | | P | | 0.185 | 0.578 |
| 7440-43-9 | Cadmium | 0.609 | | | P | | 0.0578 | 0.578 |
| 7440-47-3 | Chromium | 20.6 | | | P | | 0.185 | 0.578 |
| 7439-92-1 | Lead | 28.6 | | | P | | 0.393 | 0.925 |
| 7439-97-6 | Mercury | 0.282 | | | CV | | 0.0037 | 0.0197 |
| 7782-49-2 | Selenium | 2.31 | U | | P | | 0.462 | 2.31 |
| 7440-22-4 | Silver | 0.578 | U | | P | | 0.185 | 0.578 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 74.4 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 8.24 | | | P | | 0.632 | 1.26 |
| 7440-39-3 | Barium | 47.9 | | | P | | 0.202 | 0.632 |
| 7440-43-9 | Cadmium | 0.574 | J | | P | | 0.0632 | 0.632 |
| 7440-47-3 | Chromium | 18.6 | | | P | | 0.202 | 0.632 |
| 7439-92-1 | Lead | 30 | | | P | | 0.43 | 1.01 |
| 7439-97-6 | Mercury | 0.221 | | | CV | | 0.0046 | 0.0247 |
| 7782-49-2 | Selenium | 2.53 | U | | P | | 0.505 | 2.53 |
| 7440-22-4 | Silver | 0.632 | U | | P | | 0.202 | 0.632 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-7 4ft-6ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386212

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 76.4 Station ID:

*CONCENTRATION UNITS: MG/KG*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 12 | | | P | | 0.528 | 1.06 |
| 7440-39-3 | Barium | 97.4 | | | P | | 0.169 | 0.528 |
| 7440-43-9 | Cadmium | 0.361 | J | | P | | 0.0528 | 0.528 |
| 7440-47-3 | Chromium | 25 | | | P | | 0.169 | 0.528 |
| 7439-92-1 | Lead | 38.6 | | | P | | 0.359 | 0.844 |
| 7439-97-6 | Mercury | 0.0603 | | | CV | | 0.0038 | 0.0205 |
| 7782-49-2 | Selenium | 1 | J | | P | | 0.422 | 2.11 |
| 7440-22-4 | Silver | 0.528 | U | | P | | 0.169 | 0.528 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-IDW-WATER-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Lab Sample ID: 350386214

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

*CONCENTRATION UNITS: UG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 21.3 | | | P | | 3.31 | 10 |
| 7440-39-3 | Barium | 401 | | | P | | 0.22 | 10 |
| 7440-43-9 | Cadmium | 6.43 | | | P | | 0.72 | 5 |
| 7440-47-3 | Chromium | 146 | | | P | | 0.43 | 10 |
| 7439-92-1 | Lead | 347 | | | P | | 3.7 | 15 |
| 7439-97-6 | Mercury | 0.83 | | | CV | | 0.037 | 0.2 |
| 7782-49-2 | Selenium | 20 | U | | P | | 4.1 | 20 |
| 7440-22-4 | Silver | 10 | U | | P | | 0.52 | 10 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

080911 1741

# Metals Inorganic QC Summary Data

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5A

SPIKE SAMPLE RECOVERY

EPA Sample No.

KD-SB-3 10ft-12ftMS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Level:(low/med) LOW

% Solids for Sample: 82

Concentration Units (mg/L or mg/kg): mg/Kg

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 75 - 125 | 94.5 | | 23.9 | | 51.1 | 138.2 | N | P |
| Barium | - | | | | | | | | NR |
| Cadmium | 75 - 125 | 66.0 | | 23.2 | | 51.1 | 83.8 | | P |
| Chromium | 75 - 125 | 143 | | 109 | | 51.1 | 66.5 | N | P |
| Lead | - | | | | | | | | NR |
| Mercury | 80 - 120 | 1.24 | | 0.706 | | 0.257 | 207.8 | N | CV |
| Selenium | 75 - 125 | 48.6 | | 3.85 | | 51.1 | 87.6 | | P |
| Silver | 75 - 125 | 35.2 | | 10.5 | | 20.5 | 120.5 | | P |

Comments:

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5A

SPIKE SAMPLE RECOVERY

EPA Sample No.

KD-SB-3 10ft-12ftSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Level:(low/med) LOW

% Solids for Sample: 82

Concentration Units (mg/L or mg/kg): mg/Kg

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 75 - 125 | 71.0 | | 23.9 | | 52.9 | 89 | | P |
| Barium | - | | | | | | | | NR |
| Cadmium | 75 - 125 | 66.2 | | 23.2 | | 52.9 | 81.3 | | P |
| Chromium | 75 - 125 | 154 | | 109 | | 52.9 | 85.1 | | P |
| Lead | - | | | | | | | | NR |
| Mercury | 80 - 120 | 1.19 | | 0.706 | | 0.251 | 192.8 | N | CV |
| Selenium | 75 - 125 | 45.8 | | 3.85 | | 52.9 | 79.3 | | P |
| Silver | 75 - 125 | 30.4 | | 10.5 | | 21.2 | 93.9 | | P |

Comments:

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5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA Sample No.

350386102A

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: Water Level:(low/med) LOW

Concentration Units (ug/L or mg/kg): ug/L

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 80 - 120 | 538.00 | | 4.11 | J | 500 | 106.8 | | P |
| Barium | 80 - 120 | 1610.00 | | 58.12 | | 1500 | 103.6 | | P |
| Cadmium | 80 - 120 | 517.00 | | 0.17 | U | 500 | 103.4 | | P |
| Chromium | 80 - 120 | 533.00 | | 2.13 | J | 500 | 106.2 | | P |
| Lead | 80 - 120 | 534.00 | | 2.82 | U | 500 | 106.8 | | P |
| Selenium | 80 - 120 | 542.00 | | -4.39 | U | 500 | 108.4 | | P |
| Silver | 80 - 120 | 195.00 | | -0.09 | U | 200 | 97.5 | | P |

Comments:

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5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA Sample No.

350386207A

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: Soil Level:(low/med) LOW

Concentration Units (ug/L or mg/kg): ug/L

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 80 - 120 | 743.00 | | 225.41 | | 500 | 103.6 | | P |
| Cadmium | 80 - 120 | 698.00 | | 218.70 | | 500 | 95.8 | | P |
| Chromium | 80 - 120 | 1480.00 | | 1028.91 | | 500 | 89.7 | | P |
| Mercury | - | 14.10 | | 7.57 | | 6 | 108.8 | | CV |
| Selenium | 80 - 120 | 568.00 | | 36.25 | | 500 | 106.3 | | P |
| Silver | 80 - 120 | 310.00 | | 99.23 | | 200 | 105.2 | | P |

Comments:

080911 1741

U.S. EPA - CLP

5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA Sample No.

350386214A

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: Water Level:(low/med) LOW

Concentration Units (ug/L or mg/kg): ug/L

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 80 - 120 | 3.47 | | 0.83 | | 3 | 88.0 | | CV |

Comments:

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6

DUPLICATES

EPA Sample No.

97163LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Level:(low/med) LOW

% Solids for Sample: 100 % Solids for Duplicate: 100

Concentration Units (mg/L or mg/kg): mg/Kg

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 20 | 49.7 | | 49.7 | | 0.0 | | P |
| Barium | 20 | 147 | | 148 | | 0.7 | | P |
| Cadmium | 20 | 48.4 | | 48.5 | | 0.2 | | P |
| Chromium | 20 | 49.8 | | 49.7 | | 0.2 | | P |
| Lead | 20 | 49.8 | | 49.8 | | 0.0 | | P |
| Selenium | 20 | 49.2 | | 48.6 | | 1.2 | | P |
| Silver | 20 | 20.6 | | 20.4 | | 1.0 | | P |

Comments:

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6

DUPLICATES

EPA Sample No.

97288LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): ug/L

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Mercury | 20 | 2.82 | | 2.89 | | 2.5 | | CV |

Comments:

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6

DUPLICATES

EPA Sample No.

97564LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Level:(low/med) LOW

% Solids for Sample: 100 % Solids for Duplicate: 100

Concentration Units (mg/L or mg/kg): mg/Kg

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Mercury | 20 | 0.304 | | 0.303 | | 0.3 | | CV |

Comments:

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6

DUPLICATES

EPA Sample No.

KD-SB-3 10ft-12ftSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Level:(low/med) LOW

% Solids for Sample: 82 % Solids for Duplicate: 82

Concentration Units (mg/L or mg/kg): mg/Kg

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 20 | 94.5 | | 71 | | 28.4 | * | P |
| Cadmium | 20 | 66 | | 66.2 | | 0.3 | | P |
| Chromium | 20 | 143 | | 154 | | 7.4 | | P |
| Mercury | 20 | 1.24 | | 1.19 | | 4.1 | | CV |
| Selenium | 20 | 48.6 | | 45.8 | | 5.9 | | P |
| Silver | 20 | 35.2 | | 30.4 | | 14.6 | | P |

Comments:

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97025LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 40661, 42025, 42664,

| | Aqueous (ug/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Arsenic | 500 | 511 | 102.2 | | | | - | |
| Barium | 1500 | 1480 | 98.7 | | | | - | |
| Cadmium | 500 | 494 | 98.8 | | | | - | |
| Chromium | 500 | 505 | 101.0 | | | | - | |
| Lead | 500 | 506 | 101.2 | | | | - | |
| Selenium | 500 | 515 | 103.0 | | | | - | |
| Silver | 200 | 197 | 98.5 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97026LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 40661, 42025, 42664,

| | Aqueous (ug/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Arsenic | 500 | 514 | 102.8 | | | | - | |
| Barium | 1500 | 1500 | 100.0 | | | | - | |
| Cadmium | 500 | 492 | 98.4 | | | | - | |
| Chromium | 500 | 505 | 101.0 | | | | - | |
| Lead | 500 | 510 | 102.0 | | | | - | |
| Selenium | 500 | 515 | 103.0 | | | | - | |
| Silver | 200 | 197 | 98.5 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97162LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source: 40661, 42025, 42449,

Aqueous LCS Source:

| Analyte | Aqueous True | Aqueous Found | Aqueous %R | Solid (mg/Kg) True | Solid Found | C | Limits | %R |
|---|---|---|---|---|---|---|---|---|
| Arsenic | | | | 49.8 | 49.7 | | 80 - 120 | 99.8 |
| Barium | | | | 149 | 147 | | 80 - 120 | 98.7 |
| Cadmium | | | | 49.8 | 48.4 | | 80 - 120 | 97.2 |
| Chromium | | | | 49.8 | 49.8 | | 80 - 120 | 100.0 |
| Lead | | | | 49.8 | 49.8 | | 80 - 120 | 100.0 |
| Selenium | | | | 49.8 | 49.2 | | 80 - 120 | 98.8 |
| Silver | | | | 19.9 | 20.6 | | 80 - 120 | 103.5 |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97163LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source: 40661, 42025, 42449,

Aqueous LCS Source:

| Analyte | Aqueous True | Aqueous Found | Aqueous %R | Solid (mg/Kg) True | Solid Found | C | Limits | %R |
|---|---|---|---|---|---|---|---|---|
| Arsenic | | | | 49.9 | 49.7 | | 80 - 120 | 99.6 |
| Barium | | | | 150 | 148 | | 80 - 120 | 98.7 |
| Cadmium | | | | 49.9 | 48.5 | | 80 - 120 | 97.2 |
| Chromium | | | | 49.9 | 49.7 | | 80 - 120 | 99.6 |
| Lead | | | | 49.9 | 49.8 | | 80 - 120 | 99.8 |
| Selenium | | | | 49.9 | 48.6 | | 80 - 120 | 97.4 |
| Silver | | | | 20 | 20.4 | | 80 - 120 | 102.0 |

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LABORATORY CONTROL SAMPLE

EPA Sample No.

97287LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42189

| | Aqueous (ug/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Mercury | 3 | 2.82 | 94.0 | | | | - | |

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LABORATORY CONTROL SAMPLE

EPA Sample No.

97288LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42189

| | Aqueous (ug/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Mercury | 3 | 2.89 | 96.3 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97563LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source: 42189

Aqueous LCS Source:

| Analyte | Aqueous True | Aqueous Found | Aqueous %R | Solid (mg/Kg) True | Solid (mg/Kg) Found | C | Limits | %R |
|---|---|---|---|---|---|---|---|---|
| Mercury | | | | 0.296 | 0.304 | | 80 - 120 | 102.7 |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97564LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source: 42189

Aqueous LCS Source:

| | Aqueous | | | Solid (mg/Kg) | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Mercury | | | | 0.298 | 0.303 | | 80 - 120 | 101.7 |

080911 1741

# TCLP Metals Data Package

080911 1741

**CASE NARRATIVE**
**METALS**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

Analyses were performed according to the Spectrum Analytical Inc. Standard Operating Procedures and EPA Method 6010B for ICP metals.

## IV. PREPARATION

Samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Methods 1311 and 3010A.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

**1. Calibration Blanks:**

All acceptance criteria were met.

**2. Method Blanks:**

All acceptance criteria were met.

**C. Spikes:**

**1. Laboratory Control Spikes (LCS):**

An LCS/LCSD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met.

**2. Post Digestion Spike:**

All acceptance criteria were met with the exception of:
Post Digestion Spike 350386201A was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Barium at

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

131.3 % with criteria of (80-120). The most probable cause for the PDS exceeding limits is sample matrix due to the fact that the LCS/LCSD pass all quality control criteria. No further action was taken.

**3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

No spikes requested by client.

**D. Duplicate:**

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

**E. Serial Dilution:**

All acceptance criteria were met.

**F. ICP Interference Check Samples:**

All acceptance criteria were met.

**G. Samples:**

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:

Name: Troy L. Roberts Title: Inorg. Manager

**SIGNED:** **DATE: 08/31/2011**

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**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

## I. RECEIPT

Exceptions encountered upon receipt are addressed in the Sample Receipt Confirmation Report, included with the Chain-of-Custody documentation, or communication included in the addendum with this package.

## II. HOLDING TIMES

**A. Sample Preparation:** All holding times were met.

**B. Sample Analysis:** All holding times were met.

## III. METHODS

Analyses were performed according to the Spectrum Analytical Inc. Standard Operating Procedures and EPA Method 7470A.

## IV. PREPARATION

Samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Methods 1311 and 7470A.

## V. ANALYSIS

**A. Calibration:**

All acceptance criteria were met.

**B. Blanks:**

**1. Calibration Blanks:**

All acceptance criteria were met.

**2. Method Blanks:**

All acceptance criteria were met.

**C. Spikes:**

**1. Laboratory Control Spikes (LCS):**

An LCS/LCSD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met.

**2. Post Digestion Spike:**

All acceptance criteria were met.

**CASE NARRATIVE**
**MERCURY**

**Spectrum Analytical Inc. Lab Reference No./SDG:** 3503862

**Client:** OTIE

**3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

No spikes requested by client.

**D. Duplicate:**

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

**E. Serial Dilution:**

All acceptance criteria were met.

**F. Samples:**

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature: _____
Name: Troy L. Roberts Title: Inorg. Manager

**SIGNED:** **DATE: 08/30/2011**

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# U.S. EPA - CLP

## COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 /

Lab Code : PEL Case No.: SDG No.: 3503862

SOW No.:

| EPA Sample No | Lab Sample ID |
|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 |
| KD-SB-2 11ft-12ft | 350386202 |
| KD-DRUM-1 | 350386203 |
| KD-DRUM-2 | 350386204 |
| KD-SS-01 | 350386205 |
| KD-SB-2 6ft-8ft | 350386206 |
| KD-SB-3 10ft-12ft | 350386207 |
| KD-SB-6 3ft-4ft | 350386210 |
| KD-SB-9 3ft-4ft | 350386211 |
| KD-SB-7 4ft-6ft | 350386212 |
| KD-DISP-SOIL-01 | 350386213 |

Were ICP interelement corrections applied? Yes/No Yes

Were ICP background corrections applied? Yes/No Yes

If yes - were raw data generated before application of background corrections? Yes/No No

Comments:

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# Metalst Inorganic Sample Data

080911 1742

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-1 16ft-16.5ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386201

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 3.68 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.00886 | J | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.011 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.0877 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.00603 | J | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

080911 1742

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 11ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386202

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.593 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.05 | U | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0574 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.0507 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.00759 | J | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-1

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386203

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 6.6 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.0231 | J | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.00815 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 1.18 | | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DRUM-2

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386204

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.401 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.836 | | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0168 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.15 | U | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.00747 | J | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SS-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386205

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 3.33 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.0126 | J | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0282 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 8.35 | | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-2 6ft-8ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386206

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.802 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.0626 | | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0106 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 2.84 | | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

080911 1742

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-3 10ft-12ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386207

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.898 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.03 | J | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0136 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.138 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-6 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386210

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.746 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.05 | U | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0111 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.0712 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-9 3ft-4ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386211

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.0162 | J | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.05 | U | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.1 | U | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.15 | U | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.00982 | J | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-SB-7 4ft-6ft

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386212

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 0.493 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.00756 | J | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.1 | U | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.0485 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

KD-DISP-SOIL-01

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1012

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: SOIL Lab Sample ID: 350386213

Level:(low/med) LOW Date Received: 8/23/2011

PercentSolids: 0 Station ID:

## TCLP Analysis

*CONCENTRATION UNITS: MG/L*

| CAS NO. | ANALYTE | Concentration | C | Q | M | | MDL | RL |
|---|---|---|---|---|---|---|---|---|
| 7440-38-2 | Arsenic | 0.1 | U | | P | | 0.0331 | 0.1 |
| 7440-39-3 | Barium | 1.05 | | | P | | 0.0022 | 0.1 |
| 7440-43-9 | Cadmium | 0.05 | U | | P | | 0.0072 | 0.05 |
| 7440-47-3 | Chromium | 0.0097 | J | | P | | 0.0043 | 0.1 |
| 7439-92-1 | Lead | 0.0556 | J | | P | | 0.037 | 0.15 |
| 7439-97-6 | Mercury | 0.002 | U | | CV | | 0.0004 | 0.002 |
| 7782-49-2 | Selenium | 0.2 | U | | P | | 0.041 | 0.2 |
| 7440-22-4 | Silver | 0.1 | U | | P | | 0.0052 | 0.1 |

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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# Metalst Inorganic QC Summary Data

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5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA Sample No.

350386201A

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: Soil Level:(low/med) LOW

**TCLP Analysis**

Concentration Units (ug/L or mg/kg): ug/L

| Analyte | Control Limit %R | Spiked Sample | C | Sample Result (SR) | C | Spike Added (SA) | %R | Q | M |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 80 - 120 | 561.00 | | 0.34 | U | 500 | 112.2 | | P |
| Barium | 80 - 120 | 1970.00 | | 367.84 | | 1500 | 131.3 | | P |
| Cadmium | 80 - 120 | 543.00 | | 0.89 | J | 500 | 108.6 | | P |
| Chromium | 80 - 120 | 548.00 | | 1.10 | J | 500 | 109.6 | | P |
| Lead | 80 - 120 | 564.00 | | 8.77 | J | 500 | 112.8 | | P |
| Mercury | 80 - 120 | 2.77 | | -0.06 | U | 3 | 92.2 | | CV |
| Selenium | 80 - 120 | 595.00 | | -9.56 | U | 500 | 119.0 | | P |
| Silver | 80 - 120 | 213.00 | | 0.60 | J | 200 | 106.5 | | P |

Comments:

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6

DUPLICATES

EPA Sample No.

97451LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 101

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

**TCLP Analysis**

Concentration Units (mg/L or mg/kg): mg/L

| Analyte | Control Limit | Sample (S) | C | Duplicate (D) | C | RPD | Q | M |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 20 | 5.12 | | 5.27 | | 2.9 | | P |
| Barium | 20 | 14.9 | | 15.4 | | 3.3 | | P |
| Cadmium | 20 | 4.98 | | 5.12 | | 2.8 | | P |
| Chromium | 20 | 5.05 | | 5.2 | | 2.9 | | P |
| Lead | 20 | 5.1 | | 5.24 | | 2.7 | | P |
| Selenium | 20 | 5.36 | | 5.57 | | 3.8 | | P |
| Silver | 20 | 2.06 | | 2.09 | | 1.4 | | P |

Comments:

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97450LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42664, 41688

**TCLP Analysis**

| | Aqueous (mg/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Arsenic | 5 | 5.12 | 102.4 | | | | - | |
| Barium | 15 | 14.9 | 99.3 | | | | - | |
| Cadmium | 5 | 4.98 | 99.6 | | | | - | |
| Chromium | 5 | 5.05 | 101.0 | | | | - | |
| Lead | 5 | 5.1 | 102.0 | | | | - | |
| Selenium | 5 | 5.36 | 107.2 | | | | - | |
| Silver | 2 | 2.06 | 103.0 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97451LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42664, 41688

**TCLP Analysis**

| Analyte | Aqueous (mg/L) True | Found | %R | Solid True | Found | C | Limits | %R |
|---|---|---|---|---|---|---|---|---|
| Arsenic | 5 | 5.27 | 105.4 | | | | - | |
| Barium | 15 | 15.4 | 102.7 | | | | - | |
| Cadmium | 5 | 5.12 | 102.4 | | | | - | |
| Chromium | 5 | 5.2 | 104.0 | | | | - | |
| Lead | 5 | 5.24 | 104.8 | | | | - | |
| Selenium | 5 | 5.57 | 111.4 | | | | - | |
| Silver | 2 | 2.09 | 104.5 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97539LCS

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42189

**TCLP Analysis**

| | Aqueous (mg/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Mercury | 0.03 | 0.0271 | 90.3 | | | | - | |

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7

LABORATORY CONTROL SAMPLE

EPA Sample No.

97542LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Kokomo Dump / 2010101 / 1

Lab Code : PEL Case No.: SAS No: SDG No.: 3503862

Solid LCS Source:

Aqueous LCS Source: 42189

**TCLP Analysis**

| | Aqueous (mg/L) | | | Solid | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | True | Found | %R | True | Found | C | Limits | %R |
| Mercury | 0.03 | 0.027 | 90.0 | | | | - | |

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# Chain of Custody Documentation

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# Addendum

080911 1742

# pH LOG SHEET

**WO#:** 3503862

**Client/Project** KOKOMO

| SampNumber | Method | Matrix | | pH | Containers | Temp | Acid | |
|---|---|---|---|---|---|---|---|---|
| 350386214 | 8260 | W | < | 2 | (3) | | HCL | nlabus 23-Aug-11 |
| 350386214 | 7470 | W | < | 2 | (1) | | HNO3 | nlabus 23-Aug-11 |
| 350386214 | 6010 | W | < | 2 | (1) | | HNO3 | nlabus 23-Aug-11 |
| 350386215 | 8260 | W | < | 2 | (3) | | HCL | nlabus 23-Aug-11 |

# SAMPLE RECEIPT CONFIRMATION SHEET

## Client Information

| | | | |
|---|---|---|---|
| **SDG:** | 3503862 | **Req:** | 90993 |
| **Client:** | OTIE | **Project:** | KOKOMO DUMP SITE, Indiana |
| **Level:** | 2 | **Date Rec'd:** | 8/23/2011 9:00:00 AM |
| **Rec'd via:** | Fed-Ex | **Due Date:** | 9/6/2011 |

## Sample Verification

| | | | |
|---|---|---|---|
| **Samples/Cooler Secure?** | Yes | **All Samples on COC accounted For?** | Yes |
| **Temperature of Samples(Celsius)** | -18C-5.6C | **All Samples Rec'd Intact?** | No |
| **pH Verified?** | Yes | **Sample Vol. Sufficient For Analysis** | Yes |
| **pH WNL?** | Yes | **Samples Rec'd W/I Hold Time?** | Yes |
| **Soil Origin (Domestic/Foreign):** | Domestic | **Are All Samples to be Analyzed?** | Yes |
| **Site Location/Project on COC?** | Yes | **Correct Sample Containers?** | Yes |
| **Client Project # on COC?** | Yes | **COC Comments written on COC?** | Yes |
| **Project Mgr. Indicated on COC?** | Yes | **Samplers Initials on COC?** | Yes |
| **COC relinquished/Dated by Client?** | Yes | **Sample Date/Time Indicated?** | Yes |
| **COC Received/Dated by PEL?** | Yes | **TAT Requested:** | STD |
| **Specific Subcontract Indicated?** | No | **Client Requests Verbal Results?** | No |
| **Samples Received By** | Fed-Ex | **Client Requests Faxed Results?** | No |
| **PEL to Conduct ALL Analyses?** | Yes | | |
| **Radioactivity Check?** | No | | |
| **COC Present?** | Yes | | |

**PEER REVIEW:** _____

Client: OTIE

WONo: 3503862 Profile Name: KOKOMO Profile #: 90993

MATRIX S

| Sample # | Bottle | Parameter | | Check | Received | Date |
|---|---|---|---|---|---|---|
| 01 | 003 | 6010 | Metals | In | [redacted] | 8/23/2011 12:20:35 PM |
| 01 | 003 | 6010 | Metals | Out | [redacted] | 8/24/2011 11:24:27 AM |
| 01 | 003 | 6010 | Metals | In | [redacted] | 8/24/2011 11:53:01 AM |
| 01 | 004 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/23/2011 12:25:30 PM |
| 01 | 003 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/24/2011 1:45:01 PM |
| 01 | 003 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/24/2011 1:48:37 PM |
| 01 | 004 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/24/2011 1:50:47 PM |
| 01 | 004 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/24/2011 5:46:03 PM |
| 01 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/25/2011 4:15:05 PM |
| 01 | 009 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/25/2011 4:15:10 PM |
| 01 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/26/2011 11:09:35 AM |
| 01 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/26/2011 12:24:28 PM |
| 01 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/29/2011 8:14:07 AM |
| 01 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/29/2011 10:24:50 AM |
| 01 | 004 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/23/2011 12:25:30 PM |
| 01 | 003 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/24/2011 1:45:01 PM |
| 01 | 003 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/24/2011 1:48:38 PM |
| 01 | 004 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/24/2011 1:50:47 PM |
| 01 | 004 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/24/2011 5:46:03 PM |
| 01 | 006 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/25/2011 4:15:05 PM |
| 01 | 006 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/26/2011 11:09:35 AM |
| 01 | 006 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/26/2011 12:24:28 PM |
| 01 | 006 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/29/2011 8:14:07 AM |
| 01 | 006 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/29/2011 10:24:51 AM |



24 names Ex. 4

3503862

692

| | | | | | | |
|---|---|---|---|---|---|---|
| 01 | 003 | 7471 | Mercury | In | [redacted] | 8/23/2011 12:20:36 PM |
| 01 | 003 | 7471 | Mercury | Out | [redacted] | 8/29/2011 8:23:05 AM |
| 01 | 003 | 7471 | Mercury | In | [redacted] | 8/29/2011 10:25:35 AM |
| 01 | 003 | 8082 | PCB | In | [redacted] | 8/23/2011 12:19:25 PM |
| 01 | 003 | 8082 | PCB | Out | [redacted] | 8/24/2011 3:54:59 PM |
| 01 | 003 | 8082 | PCB | In | [redacted] | 8/24/2011 4:04:54 PM |
| 01 | 003 | 8082 | PCB | Out | [redacted] | 8/25/2011 9:39:59 AM |
| 01 | 003 | 8082 | PCB | In | [redacted] | 8/25/2011 3:55:50 PM |
| 01 | 005 | 8260 | Volatile Organic Compounds | In | [redacted] | 8/23/2011 12:20:15 PM |
| 01 | 005 | 8260 | Volatile Organic Compounds | Consumed | [redacted] | 8/23/2011 12:43:19 PM |
| 01 | 003 | 8260_TCLP | Volatiles in Soil by 1311/8260 | Out | [redacted] | 8/24/2011 1:45:01 PM |
| 01 | 003 | 8260_TCLP | Volatiles in Soil by 1311/8260 | In | [redacted] | 8/24/2011 1:48:39 PM |
| 01 | 004 | 8260_TCLP | Volatiles in Soil by 1311/8260 | Out | [redacted] | 8/24/2011 1:50:47 PM |
| 01 | 004 | 8260_TCLP | Volatiles in Soil by 1311/8260 | In | [redacted] | 8/24/2011 5:46:03 PM |
| 01 | 010 | 8260_TCLP | Volatiles in Soil by 1311/8260 | In | [redacted] | 8/25/2011 4:14:22 PM |
| 01 | 010 | 8260_TCLP | Volatiles in Soil by 1311/8260 | Consumed | [redacted] | 8/31/2011 3:55:16 PM |
| 01 | 003 | 8270 | GCMS semivolatile | In | [redacted] | 8/23/2011 12:19:27 PM |
| 01 | 003 | 8270 | GCMS semivolatile | Out | [redacted] | 8/24/2011 3:55:00 PM |
| 01 | 003 | 8270 | GCMS semivolatile | In | [redacted] | 8/24/2011 4:04:54 PM |
| 01 | 003 | 8270 | GCMS semivolatile | Out | [redacted] | 8/25/2011 9:40:08 AM |
| 01 | 003 | 8270 | GCMS semivolatile | In | [redacted] | 8/25/2011 3:55:51 PM |
| 01 | 004 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/23/2011 12:25:32 PM |
| 01 | 003 | 8270_TCLP | TCLP Semivolatiles by 8270 | Out | [redacted] | 8/24/2011 1:45:01 PM |
| 01 | 003 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/24/2011 1:48:40 PM |
| 01 | 004 | 8270_TCLP | TCLP Semivolatiles by 8270 | Out | [redacted] | 8/24/2011 1:50:47 PM |
| 01 | 004 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/24/2011 5:46:03 PM |



[redacted]
26 names Ex. 4
3503862
693

| | | | | | | |
|---|---|---|---|---|---|---|
| 01 | 009 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/25/2011 4:15:17 PM |
| 01 | 009 | 8270_TCLP | TCLP Semivolatiles by 8270 | Consumed | [redacted] | 8/26/2011 8:58:03 AM |
| 01 | 004 | Dry Weight | Dry Weight | In | [redacted] | 8/23/2011 12:25:30 PM |
| 01 | 003 | Dry Weight | Dry Weight | Out | [redacted] | 8/25/2011 12:28:23 PM |
| 01 | 003 | Dry Weight | Dry Weight | In | [redacted] | 8/25/2011 1:02:18 PM |
| 02 | 004 | 6010 | Metals | In | [redacted] | 8/23/2011 12:20:40 PM |
| 02 | 003 | 6010 | Metals | Out | [redacted] | 8/24/2011 11:23:20 AM |
| 02 | 003 | 6010 | Metals | In | [redacted] | 8/24/2011 11:53:07 AM |
| 02 | 003 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/23/2011 12:25:20 PM |
| 02 | 004 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/24/2011 1:44:39 PM |
| 02 | 003 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/24/2011 1:46:23 PM |
| 02 | 004 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/24/2011 1:48:43 PM |
| 02 | 003 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/24/2011 5:45:57 PM |
| 02 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/25/2011 4:15:03 PM |
| 02 | 009 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/25/2011 4:15:20 PM |
| 02 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/26/2011 11:09:45 AM |
| 02 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/26/2011 12:24:27 PM |
| 02 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/29/2011 8:13:53 AM |
| 02 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/29/2011 10:24:53 AM |
| 02 | 003 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/23/2011 12:25:20 PM |
| 02 | 004 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/24/2011 1:44:39 PM |
| 02 | 003 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/24/2011 1:46:23 PM |
| 02 | 004 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/24/2011 1:48:43 PM |
| 02 | 003 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/24/2011 5:45:57 PM |
| 02 | 006 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/25/2011 4:15:03 PM |
| 02 | 009 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/25/2011 4:15:20 PM |
| 02 | 006 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/26/2011 11:09:45 AM |



[redacted]

| | | | | | | |
|---|---|---|---|---|---|---|
| 02 | 006 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/26/2011 12:24:27 PM |
| 02 | 006 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/29/2011 8:13:53 AM |
| 02 | 006 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/29/2011 10:24:53 AM |
| 02 | 004 | 7471 | Mercury | In | [redacted] | 8/23/2011 12:20:40 PM |
| 02 | 004 | 7471 | Mercury | Out | [redacted] | 8/29/2011 8:23:13 AM |
| 02 | 004 | 7471 | Mercury | In | [redacted] | 8/29/2011 10:25:38 AM |
| 02 | 004 | 8082 | PCB | In | [redacted] | 8/23/2011 12:19:34 PM |
| 02 | 004 | 8082 | PCB | Out | [redacted] | 8/24/2011 3:55:01 PM |
| 02 | 004 | 8082 | PCB | In | [redacted] | 8/24/2011 4:04:53 PM |
| 02 | 004 | 8082 | PCB | Out | [redacted] | 8/25/2011 9:40:14 AM |
| 02 | 004 | 8082 | PCB | In | [redacted] | 8/25/2011 3:55:55 PM |
| 02 | 009 | 8260 | Volatile Organic Compounds | In | [redacted] | 8/23/2011 12:25:20 PM |
| 02 | 001 | 8260 | Volatile Organic Compounds | Consumed | [redacted] | 8/23/2011 12:45:31 PM |
| 02 | 004 | 8260_TCLP | Volatiles in Soil by 1311/8260 | Out | [redacted] | 8/24/2011 1:44:39 PM |
| 02 | 003 | 8260_TCLP | Volatiles in Soil by 1311/8260 | Out | [redacted] | 8/24/2011 1:46:23 PM |
| 02 | 004 | 8260_TCLP | Volatiles in Soil by 1311/8260 | In | [redacted] | 8/24/2011 1:48:43 PM |
| 02 | 003 | 8260_TCLP | Volatiles in Soil by 1311/8260 | In | [redacted] | 8/24/2011 5:46:00 PM |
| 02 | 010 | 8260_TCLP | Volatiles in Soil by 1311/8260 | In | [redacted] | 8/25/2011 4:14:05 PM |
| 02 | 010 | 8260_TCLP | Volatiles in Soil by 1311/8260 | Consumed | [redacted] | 8/31/2011 3:55:27 PM |
| 02 | 004 | 8270 | GCMS semivolatile | In | [redacted] | 8/23/2011 12:19:34 PM |
| 02 | 004 | 8270 | GCMS semivolatile | Out | [redacted] | 8/24/2011 3:55:01 PM |
| 02 | 004 | 8270 | GCMS semivolatile | In | [redacted] | 8/24/2011 4:04:53 PM |
| 02 | 004 | 8270 | GCMS semivolatile | Out | [redacted] | 8/25/2011 9:40:14 AM |
| 02 | 004 | 8270 | GCMS semivolatile | In | [redacted] | 8/25/2011 3:55:55 PM |
| 02 | 003 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/23/2011 12:25:23 PM |
| 02 | 004 | 8270_TCLP | TCLP Semivolatiles by 8270 | Out | [redacted] | 8/24/2011 1:44:39 PM |
| 02 | 003 | 8270_TCLP | TCLP Semivolatiles by 8270 | Out | [redacted] | 8/24/2011 1:46:23 PM |

[redacted]

| | | | | | | |
|---|---|---|---|---|---|---|
| 02 | 004 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/24/2011 1:48:43 PM |
| 02 | 003 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/24/2011 5:46:01 PM |
| 02 | 009 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/25/2011 4:15:20 PM |
| 02 | 009 | 8270_TCLP | TCLP Semivolatiles by 8270 | Out | [redacted] | 8/26/2011 8:58:49 AM |
| 02 | 009 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/26/2011 4:15:33 PM |
| 02 | 003 | 8270_TCLP | TCLP Semivolatiles by 8270 | Out | [redacted] | 9/6/2011 10:03:39 AM |
| 02 | 003 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 9/6/2011 10:39:59 AM |
| 02 | 011 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 9/7/2011 9:33:23 AM |
| 02 | 011 | 8270_TCLP | TCLP Semivolatiles by 8270 | Consumed | [redacted] | 9/7/2011 9:41:29 AM |
| 02 | 003 | Dry Weight | Dry Weight | In | [redacted] | 8/23/2011 12:25:20 PM |
| 02 | 004 | Dry Weight | Dry Weight | Out | [redacted] | 8/25/2011 12:28:25 PM |
| 02 | 004 | Dry Weight | Dry Weight | In | [redacted] | 8/25/2011 1:02:23 PM |
| 03 | 001 | 6010 | Metals | Out | [redacted] | 8/24/2011 11:24:55 AM |
| 03 | 001 | 6010 | Metals | In | [redacted] | 8/24/2011 11:53:09 AM |
| 03 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/23/2011 12:25:16 PM |
| 03 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/24/2011 1:46:01 PM |
| 03 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/24/2011 5:45:54 PM |
| 03 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/25/2011 4:15:02 PM |
| 03 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/26/2011 11:09:07 AM |
| 03 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/26/2011 12:24:30 PM |
| 03 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/29/2011 8:14:25 AM |
| 03 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/29/2011 10:24:54 AM |
| 03 | 001 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/23/2011 12:25:16 PM |

[redacted]
*23 names Ex. 4*

| | | | | | | |
|---|---|---|---|---|---|---|
| 03 | 001 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/24/2011 1:46:01 PM |
| 03 | 001 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/24/2011 5:45:54 PM |
| 03 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/25/2011 4:15:02 PM |
| 03 | 002 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/26/2011 11:09:07 AM |
| 03 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/26/2011 12:24:30 PM |
| 03 | 002 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/29/2011 8:14:25 AM |
| 03 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/29/2011 10:24:54 AM |
| 03 | 001 | 7471 | Mercury | Out | [redacted] | 8/29/2011 8:20:29 AM |
| 03 | 001 | 7471 | Mercury | In | [redacted] | 8/29/2011 10:25:39 AM |
| 03 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/23/2011 12:25:16 PM |
| 03 | 001 | Dry Weight | Dry Weight | Out | [redacted] | 8/25/2011 12:28:28 PM |
| 03 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/25/2011 1:02:25 PM |
| 04 | 001 | 6010 | Metals | Out | [redacted] | 8/24/2011 11:25:19 AM |
| 04 | 001 | 6010 | Metals | In | [redacted] | 8/24/2011 11:53:11 AM |
| 04 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/23/2011 12:23:49 PM |
| 04 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/24/2011 1:46:11 PM |
| 04 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/24/2011 5:45:49 PM |
| 04 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/25/2011 4:15:01 PM |
| 04 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/26/2011 11:09:18 AM |
| 04 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/26/2011 12:24:25 PM |
| 04 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/29/2011 8:13:59 AM |
| 04 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/29/2011 10:24:58 AM |
| 04 | 001 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/23/2011 12:23:49 PM |
| 04 | 001 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/24/2011 1:46:11 PM |
| 04 | 001 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/24/2011 5:45:49 PM |
| 04 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/25/2011 4:15:01 PM |
| 04 | 002 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/26/2011 11:09:18 AM |
| 04 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/26/2011 12:24:25 PM |



[redacted]

| | | | | | | |
|---|---|---|---|---|---|---|
| 04 | 002 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/29/2011 8:13:59 AM |
| 04 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/29/2011 10:24:58 AM |
| 04 | 001 | 7471 | Mercury | Out | [redacted] | 8/29/2011 8:19:59 AM |
| 04 | 001 | 7471 | Mercury | In | [redacted] | 8/29/2011 10:25:42 AM |
| 04 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/23/2011 12:23:49 PM |
| 04 | 001 | Dry Weight | Dry Weight | Out | [redacted] | 8/25/2011 12:28:29 PM |
| 04 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/25/2011 1:02:28 PM |
| 05 | 001 | 6010 | Metals | Out | [redacted] | 8/24/2011 11:25:29 AM |
| 05 | 001 | 6010 | Metals | In | [redacted] | 8/24/2011 11:53:13 AM |
| 05 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/23/2011 12:23:44 PM |
| 05 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/24/2011 1:45:51 PM |
| 05 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/24/2011 5:45:36 PM |
| 05 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/25/2011 4:14:51 PM |
| 05 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/26/2011 11:09:26 AM |
| 05 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/26/2011 12:24:31 PM |
| 05 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/29/2011 8:14:16 AM |
| 05 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/29/2011 10:25:00 AM |
| 05 | 001 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/23/2011 12:23:44 PM |
| 05 | 001 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/24/2011 1:45:51 PM |
| 05 | 001 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/24/2011 5:45:36 PM |
| 05 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/25/2011 4:14:51 PM |
| 05 | 002 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/26/2011 11:09:26 AM |
| 05 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/26/2011 12:24:31 PM |
| 05 | 002 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/29/2011 8:14:16 AM |
| 05 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/29/2011 10:25:00 AM |
| 05 | 001 | 7471 | Mercury | Out | [redacted] | 8/29/2011 8:20:06 AM |
| 05 | 001 | 7471 | Mercury | In | [redacted] | 8/29/2011 10:25:44 AM |
| 05 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/23/2011 12:23:44 PM |

[redacted]
*28 names Ex. 4*

| | | | | | | |
|---|---|---|---|---|---|---|
| 05 | 001 | Dry Weight | Dry Weight | Out | [redacted] | 8/25/2011 12:28:30 PM |
| 05 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/25/2011 1:02:31 PM |
| 06 | 001 | 6010 | Metals | Out | [redacted] | 8/24/2011 11:23:03 AM |
| 06 | 001 | 6010 | Metals | In | [redacted] | 8/24/2011 11:53:14 AM |
| 06 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/23/2011 12:25:35 PM |
| 06 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/24/2011 1:45:42 PM |
| 06 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/24/2011 5:45:33 PM |
| 06 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/25/2011 4:14:58 PM |
| 06 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/26/2011 11:08:48 AM |
| 06 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/26/2011 12:24:24 PM |
| 06 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/29/2011 8:13:41 AM |
| 06 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/29/2011 10:25:02 AM |
| 06 | 001 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/23/2011 12:25:35 PM |
| 06 | 001 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/24/2011 1:45:42 PM |
| 06 | 001 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/24/2011 5:45:33 PM |
| 06 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/25/2011 4:14:58 PM |
| 06 | 002 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/26/2011 11:08:48 AM |
| 06 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/26/2011 12:24:24 PM |
| 06 | 002 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/29/2011 8:13:41 AM |
| 06 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/29/2011 10:25:02 AM |
| 06 | 001 | 7471 | Mercury | Out | [redacted] | 8/29/2011 8:22:27 AM |
| 06 | 001 | 7471 | Mercury | In | [redacted] | 8/29/2011 10:25:47 AM |
| 06 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/23/2011 12:25:35 PM |
| 06 | 001 | Dry Weight | Dry Weight | Out | [redacted] | 8/25/2011 12:28:33 PM |
| 06 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/25/2011 1:02:35 PM |
| 07 | 001 | 6010 | Metals | Out | [redacted] | 8/24/2011 11:23:28 AM |
| 07 | 001 | 6010 | Metals | In | [redacted] | 8/24/2011 11:53:17 AM |
| 07 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/23/2011 12:25:25 PM |

[redacted]
*28 names Ex. 4*

| | | | | | | |
|---|---|---|---|---|---|---|
| 07 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/24/2011 1:45:24 PM |
| 07 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/24/2011 5:45:30 PM |
| 07 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/25/2011 4:14:59 PM |
| 07 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/26/2011 11:08:42 AM |
| 07 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/26/2011 12:24:23 PM |
| 07 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/29/2011 8:13:15 AM |
| 07 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/29/2011 10:25:03 AM |
| 07 | 001 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/23/2011 12:25:25 PM |
| 07 | 001 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/24/2011 1:45:24 PM |
| 07 | 001 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/24/2011 5:45:30 PM |
| 07 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/25/2011 4:14:59 PM |
| 07 | 002 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/26/2011 11:08:42 AM |
| 07 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/26/2011 12:24:23 PM |
| 07 | 002 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/29/2011 8:13:15 AM |
| 07 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/29/2011 10:25:03 AM |
| 07 | 001 | 7471 | Mercury | Out | [redacted] | 8/29/2011 8:22:37 AM |
| 07 | 001 | 7471 | Mercury | In | [redacted] | 8/29/2011 10:25:49 AM |
| 07 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/23/2011 12:25:25 PM |
| 07 | 001 | Dry Weight | Dry Weight | Out | [redacted] | 8/25/2011 12:28:36 PM |
| 07 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/25/2011 1:02:36 PM |
| 08 | 001 | 6010 | Metals | In | [redacted] | 8/23/2011 12:24:50 PM |
| 08 | 001 | 6010 | Metals | Out | [redacted] | 8/24/2011 11:23:58 AM |
| 08 | 001 | 6010 | Metals | In | [redacted] | 8/24/2011 11:53:25 AM |
| 08 | 001 | 7471 | Mercury | In | [redacted] | 8/23/2011 12:24:50 PM |
| 08 | 001 | 7471 | Mercury | Out | [redacted] | 8/29/2011 8:22:49 AM |
| 08 | 001 | 7471 | Mercury | In | [redacted] | 8/30/2011 9:39:47 AM |
| 08 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/23/2011 12:24:04 PM |
| 08 | 001 | Dry Weight | Dry Weight | Out | [redacted] | 8/25/2011 12:30:06 PM |
| 08 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/25/2011 1:02:38 PM |



[redacted]

| | | | | | | |
|---|---|---|---|---|---|---|
| 09 | 001 | 6010 | Metals | In | [redacted] | 8/23/2011 12:24:44 PM |
| 09 | 001 | 6010 | Metals | Out | [redacted] | 8/24/2011 11:26:17 AM |
| 09 | 001 | 6010 | Metals | In | [redacted] | 8/24/2011 11:53:19 AM |
| 09 | 001 | 7471 | Mercury | In | [redacted] | 8/23/2011 12:24:43 PM |
| 09 | 001 | 7471 | Mercury | Out | [redacted] | 8/29/2011 8:22:53 AM |
| 09 | 001 | 7471 | Mercury | In | [redacted] | 8/29/2011 10:25:50 AM |
| 09 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/23/2011 12:24:38 PM |
| 09 | 001 | Dry Weight | Dry Weight | Out | [redacted] | 8/25/2011 12:30:05 PM |
| 09 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/25/2011 1:02:41 PM |
| 10 | 001 | 6010 | Metals | In | [redacted] | 8/23/2011 12:20:39 PM |
| 10 | 001 | 6010 | Metals | Out | [redacted] | 8/24/2011 11:24:19 AM |
| 10 | 001 | 6010 | Metals | In | [redacted] | 8/24/2011 11:53:21 AM |
| 10 | 003 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/23/2011 12:23:55 PM |
| 10 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/24/2011 1:44:10 PM |
| 10 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/24/2011 1:48:52 PM |
| 10 | 003 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/24/2011 1:50:07 PM |
| 10 | 003 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/24/2011 5:45:46 PM |
| 10 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/25/2011 4:14:57 PM |
| 10 | 009 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/25/2011 4:15:25 PM |
| 10 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/26/2011 11:08:59 AM |
| 10 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/26/2011 12:24:22 PM |
| 10 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/29/2011 8:13:47 AM |
| 10 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/29/2011 10:25:05 AM |
| 10 | 003 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/23/2011 12:23:55 PM |
| 10 | 001 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/24/2011 1:44:10 PM |
| 10 | 001 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/24/2011 1:48:52 PM |
| 10 | 003 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/24/2011 1:50:07 PM |
| 10 | 003 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/24/2011 5:45:46 PM |
| 10 | 006 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/25/2011 4:14:57 PM |



[redacted]

| | | | | | | |
|---|---|---|---|---|---|---|
| 10 | 009 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/25/2011 4:15:25 PM |
| 10 | 006 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/26/2011 11:08:59 AM |
| 10 | 006 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/26/2011 12:24:22 PM |
| 10 | 006 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/29/2011 8:13:47 AM |
| 10 | 006 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/29/2011 10:25:05 AM |
| 10 | 001 | 7471 | Mercury | In | [redacted] | 8/23/2011 12:20:39 PM |
| 10 | 001 | 7471 | Mercury | Out | [redacted] | 8/29/2011 8:20:50 AM |
| 10 | 001 | 7471 | Mercury | In | [redacted] | 8/29/2011 10:25:53 AM |
| 10 | 001 | 8082 | PCB | In | [redacted] | 8/23/2011 12:19:44 PM |
| 10 | 001 | 8082 | PCB | Out | [redacted] | 8/24/2011 3:55:11 PM |
| 10 | 001 | 8082 | PCB | In | [redacted] | 8/24/2011 4:04:50 PM |
| 10 | 001 | 8082 | PCB | Out | [redacted] | 8/25/2011 9:40:18 AM |
| 10 | 001 | 8082 | PCB | In | [redacted] | 8/25/2011 3:57:17 PM |
| 10 | 009 | 8260 | Volatile Organic Compounds | In | [redacted] | 8/23/2011 12:20:25 PM |
| 10 | 002 | 8260 | Volatile Organic Compounds | Consumed | [redacted] | 8/23/2011 12:45:35 PM |
| 10 | 001 | 8260_TCLP | Volatiles in Soil by 1311/8260 | Out | [redacted] | 8/24/2011 1:44:10 PM |
| 10 | 001 | 8260_TCLP | Volatiles in Soil by 1311/8260 | In | [redacted] | 8/24/2011 1:48:52 PM |
| 10 | 003 | 8260_TCLP | Volatiles in Soil by 1311/8260 | Out | [redacted] | 8/24/2011 1:50:07 PM |
| 10 | 003 | 8260_TCLP | Volatiles in Soil by 1311/8260 | In | [redacted] | 8/24/2011 5:45:46 PM |
| 10 | 010 | 8260_TCLP | Volatiles in Soil by 1311/8260 | In | [redacted] | 8/25/2011 4:14:11 PM |
| 10 | 010 | 8260_TCLP | Volatiles in Soil by 1311/8260 | Consumed | [redacted] | 8/31/2011 3:55:32 PM |
| 10 | 001 | 8270 | GCMS semivolatile | In | [redacted] | 8/23/2011 12:19:44 PM |
| 10 | 001 | 8270 | GCMS semivolatile | Out | [redacted] | 8/24/2011 3:55:12 PM |
| 10 | 001 | 8270 | GCMS semivolatile | In | [redacted] | 8/24/2011 4:04:50 PM |
| 10 | 001 | 8270 | GCMS semivolatile | Out | [redacted] | 8/25/2011 9:40:18 AM |
| 10 | 001 | 8270 | GCMS semivolatile | In | [redacted] | 8/25/2011 3:57:17 PM |
| 10 | 003 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/23/2011 12:24:00 PM |
| 10 | 001 | 8270_TCLP | TCLP Semivolatiles by 8270 | Out | [redacted] | 8/24/2011 1:44:10 PM |



[redacted]

| | | | | | | |
|---|---|---|---|---|---|---|
| 10 | 001 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/24/2011 1:48:52 PM |
| 10 | 003 | 8270_TCLP | TCLP Semivolatiles by 8270 | Out | [redacted] | 8/24/2011 1:50:07 PM |
| 10 | 003 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/24/2011 5:45:46 PM |
| 10 | 009 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/25/2011 4:15:25 PM |
| 10 | 009 | 8270_TCLP | TCLP Semivolatiles by 8270 | Out | [redacted] | 8/26/2011 8:58:44 AM |
| 10 | 009 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/26/2011 4:15:38 PM |
| 10 | 003 | Dry Weight | Dry Weight | In | [redacted] | 8/23/2011 12:23:55 PM |
| 10 | 003 | Dry Weight | Dry Weight | Out | [redacted] | 8/25/2011 12:28:38 PM |
| 10 | 003 | Dry Weight | Dry Weight | In | [redacted] | 8/29/2011 10:37:04 AM |
| 11 | 005 | 6010 | Metals | In | [redacted] | 8/23/2011 12:20:42 PM |
| 11 | 005 | 6010 | Metals | Out | [redacted] | 8/24/2011 11:24:05 AM |
| 11 | 005 | 6010 | Metals | In | [redacted] | 8/24/2011 11:53:29 AM |
| 11 | 004 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/23/2011 12:25:08 PM |
| 11 | 005 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/24/2011 1:44:26 PM |
| 11 | 005 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/24/2011 1:48:49 PM |
| 11 | 004 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/24/2011 1:49:38 PM |
| 11 | 004 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/24/2011 5:45:39 PM |
| 11 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/25/2011 4:14:54 PM |
| 11 | 009 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/25/2011 4:15:27 PM |
| 11 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/26/2011 11:08:28 AM |
| 11 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/26/2011 12:24:20 PM |
| 11 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/29/2011 8:13:22 AM |
| 11 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/29/2011 10:25:07 AM |
| 11 | 004 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/23/2011 12:25:09 PM |
| 11 | 005 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/24/2011 1:44:26 PM |



[redacted]

| | | | | | | |
|---|---|---|---|---|---|---|
| 11 | 005 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/24/2011 1:48:49 PM |
| 11 | 004 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/24/2011 1:49:38 PM |
| 11 | 004 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/24/2011 5:45:39 PM |
| 11 | 006 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/25/2011 4:14:54 PM |
| 11 | 009 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/25/2011 4:15:27 PM |
| 11 | 006 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/26/2011 11:08:28 AM |
| 11 | 006 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/26/2011 12:24:20 PM |
| 11 | 006 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/29/2011 8:13:22 AM |
| 11 | 006 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/29/2011 10:25:07 AM |
| 11 | 005 | 7471 | Mercury | In | [redacted] | 8/23/2011 12:20:42 PM |
| 11 | 005 | 7471 | Mercury | Out | [redacted] | 8/29/2011 8:20:20 AM |
| 11 | 005 | 7471 | Mercury | In | [redacted] | 8/29/2011 10:25:55 AM |
| 11 | 005 | 8082 | PCB | In | [redacted] | 8/23/2011 12:19:39 PM |
| 11 | 005 | 8082 | PCB | Out | [redacted] | 8/24/2011 3:55:14 PM |
| 11 | 005 | 8082 | PCB | In | [redacted] | 8/24/2011 4:04:40 PM |
| 11 | 005 | 8082 | PCB | Out | [redacted] | 8/25/2011 9:40:22 AM |
| 11 | 005 | 8082 | PCB | In | [redacted] | 8/25/2011 3:57:11 PM |
| 11 | 002 | 8260 | Volatile Organic Compounds | In | [redacted] | 8/23/2011 12:20:31 AM |
| 11 | 003 | 8260 | Volatile Organic Compounds | In | [redacted] | 8/23/2011 12:20:27 PM |
| 11 | 002 | 8260 | Volatile Organic Compounds | Consumed | [redacted] | 8/23/2011 12:43:48 PM |
| 11 | 003 | 8260 | Volatile Organic Compounds | Consumed | [redacted] | 8/25/2011 2:20:23 PM |
| 11 | 005 | 8260_TCLP | Volatiles in Soil by 1311/8260 | Out | [redacted] | 8/24/2011 1:44:26 PM |
| 11 | 005 | 8260_TCLP | Volatiles in Soil by 1311/8260 | In | [redacted] | 8/24/2011 1:48:49 PM |
| 11 | 004 | 8260_TCLP | Volatiles in Soil by 1311/8260 | Out | [redacted] | 8/24/2011 1:49:38 PM |
| 11 | 004 | 8260_TCLP | Volatiles in Soil by 1311/8260 | In | [redacted] | 8/24/2011 5:45:42 PM |
| 11 | 010 | 8260_TCLP | Volatiles in Soil by 1311/8260 | In | [redacted] | 8/25/2011 4:14:14 PM |
| 11 | 010 | 8260_TCLP | Volatiles in Soil by 1311/8260 | Consumed | [redacted] | 8/31/2011 3:55:37 PM |
| 11 | 005 | 8270 | GCMS semivolatile | In | [redacted] | 8/23/2011 12:19:39 PM |



[redacted]

| | | | | | | |
|---|---|---|---|---|---|---|
| 11 | 005 | 8270 | GCMS semivolatile | Out | [redacted] | 8/24/2011 3:55:14 PM |
| 11 | 005 | 8270 | GCMS semivolatile | In | [redacted] | 8/24/2011 4:04:43 PM |
| 11 | 005 | 8270 | GCMS semivolatile | Out | [redacted] | 8/25/2011 9:40:22 AM |
| 11 | 005 | 8270 | GCMS semivolatile | In | [redacted] | 8/25/2011 3:57:12 PM |
| 11 | 004 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/23/2011 12:25:11 PM |
| 11 | 005 | 8270_TCLP | TCLP Semivolatiles by 8270 | Out | [redacted] | 8/24/2011 1:44:26 PM |
| 11 | 005 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/24/2011 1:48:49 PM |
| 11 | 004 | 8270_TCLP | TCLP Semivolatiles by 8270 | Out | [redacted] | 8/24/2011 1:49:38 PM |
| 11 | 004 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/24/2011 5:45:42 PM |
| 11 | 009 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/25/2011 4:15:27 PM |
| 11 | 009 | 8270_TCLP | TCLP Semivolatiles by 8270 | Out | [redacted] | 8/26/2011 8:59:00 AM |
| 11 | 009 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/26/2011 4:15:35 PM |
| 11 | 004 | Dry Weight | Dry Weight | In | [redacted] | 8/23/2011 12:25:12 PM |
| 11 | 004 | Dry Weight | Dry Weight | Out | [redacted] | 8/25/2011 12:28:40 PM |
| 11 | 004 | Dry Weight | Dry Weight | In | [redacted] | 8/29/2011 10:36:55 AM |
| 12 | 001 | 6010 | Metals | Out | [redacted] | 8/24/2011 11:23:13 AM |
| 12 | 001 | 6010 | Metals | In | [redacted] | 8/24/2011 11:53:33 AM |
| 12 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/23/2011 12:25:28 PM |
| 12 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/24/2011 1:45:31 PM |
| 12 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/24/2011 5:45:22 PM |
| 12 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/25/2011 4:14:53 PM |
| 12 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/26/2011 11:08:20 AM |
| 12 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/26/2011 12:24:19 PM |
| 12 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/29/2011 8:13:27 AM |

[redacted]
*25 names Ex. 4*

| | | | | | | |
|---|---|---|---|---|---|---|
| 12 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/29/2011 10:25:08 AM |
| 12 | 001 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/23/2011 12:25:28 PM |
| 12 | 001 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/24/2011 1:45:31 PM |
| 12 | 001 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/24/2011 5:45:25 PM |
| 12 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/25/2011 4:14:53 PM |
| 12 | 002 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/26/2011 11:08:20 AM |
| 12 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/26/2011 12:24:19 PM |
| 12 | 002 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/29/2011 8:13:27 AM |
| 12 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/29/2011 10:25:08 AM |
| 12 | 001 | 7471 | Mercury | Out | [redacted] | 8/29/2011 8:20:42 AM |
| 12 | 001 | 7471 | Mercury | In | [redacted] | 8/29/2011 10:25:56 AM |
| 12 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/23/2011 12:25:28 PM |
| 12 | 001 | Dry Weight | Dry Weight | Out | [redacted] | 8/25/2011 12:28:42 PM |
| 12 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/25/2011 1:02:45 PM |
| 13 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/23/2011 12:22:59 PM |
| 13 | 002 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/23/2011 12:23:40 PM |
| 13 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/24/2011 1:49:57 PM |
| 13 | 001 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/24/2011 5:46:06 PM |
| 13 | 003 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/25/2011 4:14:55 PM |
| 13 | 006 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/25/2011 4:15:28 PM |
| 13 | 003 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/26/2011 11:08:35 AM |
| 13 | 003 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/26/2011 12:24:17 PM |
| 13 | 003 | 6010_TCLP | TCLP Metals by 1311/6010 | Out | [redacted] | 8/29/2011 8:13:34 AM |
| 13 | 003 | 6010_TCLP | TCLP Metals by 1311/6010 | In | [redacted] | 8/29/2011 10:25:11 AM |
| 13 | 001 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/23/2011 12:23:00 PM |
| 13 | 002 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/23/2011 12:23:40 PM |
| 13 | 001 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/24/2011 1:49:57 PM |
| 13 | 001 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/24/2011 5:46:06 PM |



[redacted]

| | | | | | | |
|---|---|---|---|---|---|---|
| 13 | 003 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/25/2011 4:14:55 PM |
| 13 | 006 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/25/2011 4:15:28 PM |
| 13 | 003 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/26/2011 11:08:35 AM |
| 13 | 003 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/26/2011 12:24:17 PM |
| 13 | 003 | 7470_TCLP | 7470 TCLP Mercury | Out | [redacted] | 8/29/2011 8:13:34 AM |
| 13 | 003 | 7470_TCLP | 7470 TCLP Mercury | In | [redacted] | 8/29/2011 10:25:11 AM |
| 13 | 002 | 8082 | PCB | Out | [redacted] | 8/24/2011 4:02:24 PM |
| 13 | 002 | 8082 | PCB | In | [redacted] | 8/24/2011 4:04:37 PM |
| 13 | 002 | 8082 | PCB | Out | [redacted] | 8/25/2011 9:40:29 AM |
| 13 | 002 | 8082 | PCB | In | [redacted] | 8/25/2011 3:57:20 PM |
| 13 | 001 | 8260_TCLP | Volatiles in Soil by 1311/8260 | Out | [redacted] | 8/24/2011 1:49:57 PM |
| 13 | 001 | 8260_TCLP | Volatiles in Soil by 1311/8260 | In | [redacted] | 8/24/2011 5:46:06 PM |
| 13 | 007 | 8260_TCLP | Volatiles in Soil by 1311/8260 | In | [redacted] | 8/25/2011 4:14:18 PM |
| 13 | 007 | 8260_TCLP | Volatiles in Soil by 1311/8260 | Consumed | [redacted] | 8/31/2011 3:55:46 PM |
| 13 | 001 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/23/2011 12:23:02 PM |
| 13 | 002 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/23/2011 12:23:40 PM |
| 13 | 001 | 8270_TCLP | TCLP Semivolatiles by 8270 | Out | [redacted] | 8/24/2011 1:49:57 PM |
| 13 | 001 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/24/2011 5:46:06 PM |
| 13 | 006 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/25/2011 4:15:28 PM |
| 13 | 006 | 8270_TCLP | TCLP Semivolatiles by 8270 | Out | [redacted] | 8/26/2011 8:59:06 AM |
| 13 | 006 | 8270_TCLP | TCLP Semivolatiles by 8270 | In | [redacted] | 8/26/2011 4:15:37 PM |
| 13 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/23/2011 12:23:03 PM |
| 13 | 002 | Dry Weight | Dry Weight | In | [redacted] | 8/23/2011 12:23:40 PM |
| 13 | 001 | Dry Weight | Dry Weight | Out | [redacted] | 8/25/2011 12:28:44 PM |
| 13 | 001 | Dry Weight | Dry Weight | In | [redacted] | 8/25/2011 1:02:48 PM |



[redacted]

WONo: 3503862 Profile Name: KOKOMO Profile #: 90993

MATRIX W

| Sample # | Bottle | Parameter | | Check | Received | Date |
|---|---|---|---|---|---|---|
| 14 | 002 | 6010 | Metals | In | [redacted] | 8/23/2011 12:20:48 AM |
| 14 | 002 | 6010 | Metals | Out | [redacted] | 8/23/2011 1:29:57 PM |
| 14 | 002 | 6010 | Metals | In | [redacted] | 8/23/2011 1:43:34 PM |
| 14 | 002 | 7470 | Mercury | Out | [redacted] | 8/25/2011 9:23:34 AM |
| 14 | 002 | 7470 | Mercury | In | [redacted] | 8/25/2011 9:53:13 AM |
| 14 | 001 | 8082 | PCB | In | [redacted] | 8/23/2011 2:32:17 PM |
| 14 | 001 | 8082 | PCB | Consumed | [redacted] | 8/24/2011 8:49:31 AM |
| 14 | 005 | 8260 | Volatile Organic Compounds | In | [redacted] | 8/23/2011 12:20:10 PM |
| 14 | 006 | 8260 | Volatile Organic Compounds | In | [redacted] | 8/23/2011 12:20:13 PM |
| 14 | 006 | 8260 | Volatile Organic Compounds | Consumed | [redacted] | 8/30/2011 3:19:06 PM |
| 14 | 005 | 8260 | Volatile Organic Compounds | Consumed | [redacted] | 9/2/2011 9:59:53 AM |
| 14 | 003 | 8270 | GCMS semivolatile | In | [redacted] | 8/23/2011 2:32:25 PM |
| 14 | 004 | 8270 | GCMS semivolatile | In | [redacted] | 8/23/2011 2:32:29 PM |
| 14 | 003 | 8270 | GCMS semivolatile | Consumed | [redacted] | 8/24/2011 8:49:04 AM |
| 15 | 001 | 8260 | Volatile Organic Compounds | In | [redacted] | 8/23/2011 12:20:00 AM |
| 15 | 001 | 8260 | Volatile Organic Compounds | Consumed | [redacted] | 9/3/2011 11:29:07 AM |

[redacted]

# Addendum

080911 1742

# Letter of Acceptance

**Customer Name:** Oneida Total Integrated Enterprises

**Date and Time Received:** 8/23/2011 9:00:00 AM

**Date to be Reported:** 9/13/2011

**Laboratory Submission Number/SDG:** 3503862

**Get Detailed Analyte List here:** www.pelab.com/webdms/Default.asp?LoaSDG=3503862

**Project:** Kokomo Dump / 2010101 / 1012

**Samples:** The submission consisted of 15 samples, including QC, with sample identification shown in the attached data tables.

**Tests:** The Samples will be analyzed for EPA methods: 6010, 6010_TCLP, 7470, 7470_TCLP, 7471, 8082, 8260, 8270, 8270_TCLP.

**Sample Custody/COC discrepancies:**

None.

**Notes:**

temp -18C, 3.5C, 5.6C
pH<2 8260, 6010
p/w vials received
8260 soils received frozen on dry ice
Sample 01= one 8oz jar received broken in transit and instructed to analyze
Sample -14 and -15 were crossed off on the COC but containers were received for total 8260 and will be rum
KitID # 11065

**Distribution of Report to:**

Oneida Total Integrated Enterprises
Attn: Naren Babu
(W): 312-220-7000

**Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. PEL letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar materials**

# Log-in Report

**Level: 2**

**Total of: 83 analyses on 15 samples (including QC)** *23-Aug-11*

## Report/SDG #: 3503862

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-1 16ft-16.5ft | 350386201 | | S | 8/19/2011 10:45:00 AM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| 8082 | PCB | 8082 |
| 8260 | Volatile Organic Compounds | 8260 |
| 8270 | GCMS semivolatile | 8270 |
| 8270_TCLP | TCLP Semivolatiles by 8270 | 8270 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-2 11ft-12ft | 350386202 | | S | 8/19/2011 11:45:00 AM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| 8082 | PCB | 8082 |
| 8260 | Volatile Organic Compounds | 8260 |
| 8270 | GCMS semivolatile | 8270 |
| 8270_TCLP | TCLP Semivolatiles by 8270 | 8270 |
| Dry Weight | Dry Weight | Dry Weight |

## Report/SDG #: 3503862

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-DRUM-1 | 350386203 | | S | 8/19/2011 11:30:00 AM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-DRUM-2 | 350386204 | | S | 8/19/2011 11:35:00 AM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SS-01 | 350386205 | | S | 8/19/2011 11:40:00 AM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

## Report/SDG #: 3503862

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-2 6ft-8ft | 350386206 | | S | 8/19/2011 1:30:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-3 10ft-12ft | 350386207 | | S | 8/19/2011 2:30:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-3 10ft-12ftMS | 350386208 | | S | 8/19/2011 2:30:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-3 10ft-12ftSD | 350386209 | | S | 8/19/2011 2:30:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

## Report/SDG #: 3503862

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-6 3ft-4ft | 350386210 | | S | 8/19/2011 4:00:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| 8082 | PCB | 8082 |
| 8260 | Volatile Organic Compounds | 8260 |
| 8270 | GCMS semivolatile | 8270 |
| 8270_TCLP | TCLP Semivolatiles by 8270 | 8270 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-9 3ft-4ft | 350386211 | | S | 8/19/2011 4:00:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| 8082 | PCB | 8082 |
| 8260 | Volatile Organic Compounds | 8260 |
| 8270 | GCMS semivolatile | 8270 |
| 8270_TCLP | TCLP Semivolatiles by 8270 | 8270 |
| Dry Weight | Dry Weight | Dry Weight |

## Report/SDG #: 3503862

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-SB-7 4ft-6ft | 350386212 | | S | 8/19/2011 4:40:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 7471 | Mercury | 7471 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-DISP-SOIL-01 | 350386213 | | S | 8/19/2011 5:00:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010_TCLP | TCLP Metals by 1311/6010 | 6010 |
| 7470_TCLP | 7470 TCLP Mercury | 7470 |
| 8082 | PCB | 8082 |
| 8270_TCLP | TCLP Semivolatiles by 8270 | 8270 |
| Dry Weight | Dry Weight | Dry Weight |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| KD-IDW-WATER-01 | 350386214 | | W | 8/19/2011 5:05:00 PM | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 6010 | Metals | 6010 |
| 7470 | Mercury | 7470 |
| 8082 | PCB | 8082 |
| 8260 | Volatile Organic Compounds | 8260 |
| 8270 | GCMS semivolatile | 8270 |

| SampleID | LAB ID | StationID | Matrix | SampleDate | ReceiveDate |
|---|---|---|---|---|---|
| TRIP-1 | 350386215 | | W | 8/19/2011 | 8/23/2011 9:00:00 AM |

| Method | | |
|---|---|---|
| 8260 | Volatile Organic Compounds | 8260 |

## Mark Gudnason [Tampa]

**From:** Mark Gudnason [Tampa]
**Sent:** Tuesday, August 23, 2011 11:31 AM
**To:** Naren Babu
**Cc:** Mark Gudnason [Tampa]
**Subject:** RE: FedEx MPS Shipment 795104345056 Delivered /Kokomo Dump site

Naren,

Per our telephone conversation we will run the Trip Blank and the total metals, total SVOCs, and PCBs on KD-SB-1 16'-16.5'. We will HOLD the TCLP tests on KD-SB-1 16'-16.5' pending your instructions.

Mark

-----Original Message-----
From: Mark Gudnason [Tampa]
Sent: Tuesday, August 23, 2011 10:11 AM
To: 'Naren Babu'
Subject: RE: FedEx MPS Shipment 795104345056 Delivered /Kokomo Dump site

Yes,
We received the 4 coolers (one had unused jars).

They are inspecting them now.

Attached is a copy of the COCs.

The 8-oz jar received for sample KD-SB-1 16'-16.5' was received broken and loose inside the plastic bag with the 2 oz jar. The 2 oz jar will not be enough to complete the testing.

The Trip Blank was crossed out for 8260. Is it to be discarded?

Please advise.

Mark

-----Original Message-----
From: Naren Babu [mailto:NBabu@otie.com]
Sent: Tuesday, August 23, 2011 9:54 AM
To: Mark Gudnason [Tampa]
Subject: Fwd: FedEx MPS Shipment 795104345056 Delivered

Mark

4 coolers were delivered at your lab today. Please check the samples and COC for accuracy and Send me sample login documents if there are any.

Thanks
Naren
312-656-7685

Begin forwarded message:

From: Raghu Nagam <RNagam@otie.com<mailto:RNagam@otie.com>>
Date: August 23, 2011 8:48:13 AM CDT
To: Naren Babu <NBabu@otie.com<mailto:NBabu@otie.com>>

Subject: FW: FedEx MPS Shipment 795104345056 Delivered

Both shipment (4 coolers) were delivered. See email below

Raghu Nagam
Oneida Total Integrated Enterprises (OTIE)
(312)220-7005 office
(312) 217-7003cell
(312)220-7004 fax
www.otie.com<http://www.otie.com/>
From: trackingupdates@fedex.com<mailto:trackingupdates@fedex.com>
[mailto:trackingupdates@fedex.com]
Sent: Tuesday, August 23, 2011 8:43 AM
To: Raghu Nagam
Subject: FedEx MPS Shipment 795104345056 Delivered

---

This tracking update has been requested by:
Name:

Raghu Nagam

E-mail:

<mailto:rnagam@otie.com>rnagam@otie.com<mailto:rnagam@otie.com>

---

Our records indicate that the following MPS shipment has been delivered:
Reference:

20101011012080100001

Ship (P/U) date:

Aug 22, 2011

Delivery date:

Aug 23, 2011 8:58 AM

Sign for by:

R.STALLONE

Delivery location:

TAMPA, FL

Service type:

FedEx Priority Overnight

Number of pieces:

3

Total shipment weight:

80.00 lb.

Special handling/Services:

Deliver Weekday

Master tracking number:

795104345056<https://www.fedex.com/insight/findit/nrp.jsp?tracknumbers=795104345056&opco=&language=en&clienttype=ivother> (1 of 3)

Delivered to:

Shipping/Receiving

Packaging type:

Your Packaging

Weight:

30.00 lb.

Special handling/Services:

Additional Handling Surcharge

Tracking number:

795104345115<https://www.fedex.com/insight/findit/nrp.jsp?tracknumbers=795104345115&opco=&language=en&clienttype=ivother> (2 of 3)

Delivered to:

Shipping/Receiving

Packaging type:

Your Packaging

Weight:

30.00 lb.

Tracking number:

795104345181<https://www.fedex.com/insight/findit/nrp.jsp?tracknumbers=795104345181&opco=&language=en&clienttype=ivother> (3 of 3)

Delivered to:

Shipping/Receiving

Packaging type:

Your Packaging

Weight:

20.00 lb.

Shipper Information

Raghu Nagam

100 W Monroe

Suite 300

Chicago

US

60603

Recipient Information

Attn: Mark - Lab

PEL

8405 BENJAMIN RD STE A

TAMPA

US

33634

Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 8:33 AM CDT on 08/23/2011.
To learn more about FedEx Express, please visit our website at <https://www.fedex.com> fedex.com<http://fedex.com>.

All weights are estimated.
To track the latest status of your shipment, click on the tracking number above, or visit us at <https://www.fedex.com> fedex.com<http://fedex.com>.
This tracking update has been sent to you by FedEx on the behalf of the Requestor noted above. FedEx does not validate the authenticity of the requestor and does not validate, guarantee or warrant the authenticity of the request, the requestor's message, or the accuracy of this tracking update. For tracking results and fedex.com<http://fedex.com>'s terms of use, go to <https://www.fedex.com> fedex.com<http://fedex.com>.

Thank you for your business.

## Mark Gudnason [Tampa]

**From:** Keely Meadows [KMeadows@otie.com]
**Sent:** Tuesday, August 23, 2011 11:58 AM
**To:** Mark Gudnason [Tampa]
**Cc:** Raghu Nagam; Naren Babu
**Subject:** Kokomo Dump

Mark,
For the Kokomo Dump site, please go ahead with the testing for sample KD-SB-1 16'-16.5'. I am aware that the 8-oz sample jar was received broken and loose inside the plastic bag. However, you may use the soil inside the plastic bag to run the analyses.

Please e-mail or call me with any questions.

Thanks,

**Keely Meadows**
*Chemical/Environmental Engineer*

**Oneida Total Integrated Enterprises (OTIE)**
1220 Kennestone Circle, Suite 106
Marietta, GA 30060
678.355.5550 office
678.778.7531 cell
770.528.0167 fax
www.otie.com

*Engineering, Science and Construction*

## Mark Gudnason [Tampa]

**From:** Naren Babu [NBabu@otie.com]
**Sent:** Wednesday, August 24, 2011 10:49 AM
**To:** Mark Gudnason [Tampa]
**Cc:** Keely Meadows; Raghu Nagam
**Subject:** Re: Kokomo Dump / 2010101 / 1012: LOA3503862

Mark

Please include TCLP 8260 analysis for the following samples. TCLP analysis originally written in the COC was wrongly struck off.

KD-SB-1 16'-16.5'
KD-SB-2 11'-12'
KD-SB-6 3'-4'
KD-SB-9 3'-4'
KD-DISP-Solid-01

Thanks
Naren

On Aug 23, 2011, at 4:35 PM, "Mark Gudnason [Tampa]" <mgudnason@pelab.com> wrote:

> <<LOA3503862.pdf>>
>
> Good afternoon.
>
> Please review the attached LOA (Letter of Acceptance) for accuracy and
> let me know of any changes prior to reporting.
>
> Please note:
> None of the samples are marked for TCLP 8260.
> Sample 01= one 8oz jar received broken in transit and instructed to
> analyze Sample -14 and -15 were crossed off on the COC but containers
> were received for total 8260 and will be rum
>
> Please confirm this to be correct.
>
> Thank you,
> Mark
>
>
>
>
> The message is ready to be sent with the following file or link
> attachments:
>
> LOA3503862
>
>
> Note: To protect against computer viruses, e-mail programs may prevent
> sending or receiving certain types of file attachments. Check your
> e-mail security settings to determine how attachments are handled.
> <COC3503862.pdf>
> <LOA3503862.pdf>

## Mark Gudnason [Tampa]

**From:** Mark Gudnason [Tampa]
**Sent:** Tuesday, August 30, 2011 10:31 AM
**To:** 'Keely Meadows'; 'Naren Babu'; Raghu Nagam
**Subject:** FW: 3503862 / OTIE / 6010

Good afternoon.
This will be in the case narrative for the referenced method.

1. **Calibration Blanks:**

All acceptance criteria were met. No action required. The following ICB/CCB(s) had element concentrations below the RL:
ICB1011254 was analyzed on 08/24/11 08:26. The following analyte(s) were detected below RL: Barium at 0.498 ug/L, Silver at 6.69 ug/L.
CCB1011259 was analyzed on 08/24/11 09:00. The following analyte(s) were detected below RL: Barium at 0.259 ug/L.
ICB1011408 was analyzed on 08/25/11 08:28. The following analyte(s) were detected below RL: Barium at 0.239 ug/L, Silver at 6.83 ug/L.
CCB1011723 was analyzed on 08/25/11 18:19. The following analyte(s) were detected below RL: Silver at -0.582 ug/L.
ICB1012235 was analyzed on 08/26/11 08:51. The following analyte(s) were detected below RL: Barium at 0.25 ug/L, Silver at 6.29 ug/L.
CCB1012288 was analyzed on 08/26/11 13:53. The following analyte(s) were detected below RL: Barium at 1.3 ug/L.
CCB1012298 was analyzed on 08/26/11 14:47. The following analyte(s) were detected below RL: Silver at 0.588 ug/L. The hits in the blanks are below the RL, therefore, no corrective action was taken.

2. **Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

A client requested MS/SD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met with the exception of:
MS - KD-SB-3 10ft-12ftMS was analyzed with the soil samples on 08/25/11. The following analyte(s) were recovered below criteria: Chromium at 66.5 % with criteria of (75-125) and the following analyte(s) were recovered above criteria: Arsenic at 138.2 % with criteria of (75-125).

SD - KD-SB-3 10ft-12ftSD was analyzed with the soil samples on 08/25/11.. The following analyte(s) exceeded RPD criteria: Arsenic at 28.4 % with criteria of (20). The most probable cause for the MS/MSD exceeding limits is sample matrix due to the samples requiring a dilution. The LCS/LCSD pass all quality control criteria. No further action was taken.
Samples coded accordingly.

**B. Serial Dilution:**

All acceptance criteria were met with the exception of:
Serial Dilution 350386207L was analyzed with the soil samples on 08/25/11. The following analyte(s) exceeded criteria: Cadmium at 20 % with criteria of (10). The most probable cause for the SD exceeding limits is sample matrix due to the samples requiring a dilution. The LCS/LCSD pass all quality control criteria. No further action was taken.

**C. Samples:**

Sample analysis proceeded normally.
Sample KD-DRUM-1 required a 25X dilution due to high concentration of the following analyte

(s): Barium.
Sample KD-DRUM-1 required a 5X dilution due to high concentration of the following analyte(s): Lead.
Sample KD-DRUM-2 required a 5X dilution due to high concentration of the following analyte(s): Cadmium, Chromium.
Sample KD-SB-1 16ft-16.5ft required a 2X dilution due to high concentration of the following analyte(s): Barium.
Sample KD-SB-2 11ft-12ft required a 20X dilution due to high concentration of the following analyte(s): Chromium.
Sample KD-SB-2 11ft-12ft required a 2X dilution due to high concentration of the following analyte(s): Lead.
Sample KD-SB-2 6ft-8ft required a 5X dilution due to high concentration of the following analyte(s): Barium, Lead.
Sample KD-SB-3 10ft-12ft required a 5X dilution due to high concentration of the following analyte(s): Barium, Lead.
Sample KD-SS-01 required a 10X dilution due to high concentration of the following analyte(s): Barium, Chromium.
Sample KD-SS-01 required a 50X dilution due to high concentration of the following analyte(s): Lead.

## Mark Gudnason [Tampa]

**From:** Mark Gudnason [Tampa]
**Sent:** Tuesday, August 30, 2011 6:22 PM
**To:** 'Keely Meadows'; 'Naren Babu'; Raghu Nagam
**Subject:** FW: 3503862 / OTIE Kokomo / 7471

Good afternoon.
This will be in the case narrative for the referenced method.

**1. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):**

A client requested MS/SD set was analyzed.
All percent recovery and relative percent difference (RPD) criteria were met with the exception of:
MS - KD-SB-3 10ft-12ftMS was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Mercury at 207.8 % with criteria of (80-120).

SD - KD-SB-3 10ft-12ftSD was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Mercury at 192.8 % with criteria of (80-120). The most probable cause for the MS/MSD exceeding limits is sample matrix due to the fact that the LCS/LCSD pass all quality control criteria. No further action was taken.
Samples coded accordingly.

**B. Samples:**

Sample analysis proceeded normally.
Sample KD-SB-3 10ft-12ft required a 2X dilution due to high concentration of the following analyte(s): Mercury.

## Mark Gudnason [Tampa]

**From:** Mark Gudnason [Tampa]
**Sent:** Wednesday, August 31, 2011 12:46 PM
**To:** 'Keely Meadows'; 'Naren Babu'; Raghu Nagam
**Subject:** RE: 3503862 / OTIE / 6010_TCLP

Good afternoon.
This will be in the case narrative for the referenced method.

1. **Post Digestion Spike:**

   All acceptance criteria were met with the exception of:
   Post Digestion Spike 350386201A was analyzed with the soil samples on 08/29/11. The following analyte(s) were recovered above criteria: Barium at 131.3 % with criteria of (80-120). The most probable cause for the PDS exceeding limits is sample matrix due to the fact that the LCS/LCSD pass all quality control criteria. No further action was taken.

## Mark Gudnason [Tampa]

**From:** Mark Gudnason [Tampa]
**Sent:** Friday, September 02, 2011 4:20 PM
**To:** 'Keely Meadows'; 'Naren Babu'; Raghu Nagam
**Subject:** FW: 3503862-8082-Kokomo Dump

Good afternoon.
This will be in the case narrative for the referenced method.

**A. Samples:**

Data was collected using dual column analysis. Results reported from the primary column if the %D between the two columns is >40%, data is coded.

Sample analysis proceeded normally.
Sample KD-SB-6 3ft-4ft required a 10X dilution due to high concentration of the following analyte(s): Aroclor-1248 and Aroclor-1254.

Sample KD-SB-9 3ft-4ft required a 5X dilution due to high concentration of the following analyte: Aroclor-1248. Both full and diluted runs are reported.

**PCB 1016 and PCB 1260 were used as the spiking solution for all QC spikes.**

**1. Laboratory Control Spikes (LCS)**

All acceptance criteria were met with the exception of:
LCS 97052LCSD was analyzed with the water samples extracted on 08/24/11. All percent recovery criteria were met. The following analyte(s) exceeded RPD criteria: Aroclor-1016 at 21.1 % with criteria of (10). Since all percent recovery criteria were met, no further action was taken.

LCS 97265LCS was analyzed with the soil samples extracted on 08/25/11. The following analyte(s) had marginal exceedance limit failures: Aroclor-1016 at 124 % with criteria of (50.7-117.3). Since recovery was only slightly high, no further action was taken.

# End Of Report

080911 1742