King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Apr 05 2006, 01:44 pm

Work Group: WG84754 (BL#636 PCBLL) for Department: 7 - Organics, Trace

Created: 08-MAR-06 PrepDate: 03-MAR-06 Due: Operator: JG

| Sample | Project Number | Project Description | PKey | C | Product | Matrix | Stat | UA | Workdate | Duedate |
|---|---|---|---|---|---|---|---|---|---|---|
| L38230-1 | 423589-090-1 | Lower Duwamish Phthalate Studies | S | | PCBLL | STORM WTR | DONE | U | 06-MAR-06 | 29-MAR-06 |
| L38230-2 | 423589-090-1 | Lower Duwamish Phthalate Studies | S | | PCBLL | STORM WTR | DONE | U | 06-MAR-06 | 29-MAR-06 |
| L38230-3 | 423589-090-1 | Lower Duwamish Phthalate Studies | S | | PCBLL | STORM WTR | DONE | U | 06-MAR-06 | 29-MAR-06 |
| L38230-4 | 423589-090-1 | Lower Duwamish Phthalate Studies | S | | PCBLL | STORM WTR | DONE | U | 06-MAR-06 | 29-MAR-06 |
| L38230-5 | 423589-090-1 | Lower Duwamish Phthalate Studies | S | | PCBLL | STORM WTR | DONE | U | 06-MAR-06 | 29-MAR-06 |
| WG84754-1 | MB | | S | | PCBLL | BLANK WTR | DONE | U | 08-MAR-06 | |
| WG84754-2 | SB | | S | | PCBLL | BLANK WTR | DONE | U | 08-MAR-06 | |
| WG84754-3 | MB | | S | | PCBLL | BLANK WTR | DONE | U | 08-MAR-06 | |
| WG84754-4 | SBD | | S | | PCBLL | BLANK WTR | DONE | U | 08-MAR-06 | |

Comments:

| | |
|---|---|
| L38230-1 | carboys |
| L38230-2 | carboys |
| L38230-3 | carboys |
| L38230-4 | carboys |
| L38230-5 | carboys |
| WG84754-1 | MB060303 |
| WG84754-2 | WG84754-1 |
| WG84754-3 | MB060306 |
| WG84754-4 | WG84754-2 WG84754-3 |



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SEA422191

Acetone Lot# 055604

Round 7 - Samples

# LIQUID SAMPLE EXTRACTION RECORD FOR BNA ANALYSIS
## TRACE ORGANICS LABORATORY

MeCL2 Lot # CP90D
QC BATCH NO.: BL #636 PHPAH600RLE via SPE
EPA SW-846 EXTRACTION METHOD: PCBLL via SPE
CONT. L-L EPA 3520 SEP. FUNNEL EPA 3510

WG84753 - PHPAH600RLE
WORKGROUP NO. WG84754 - PCBLL
BNA SURROGATE SPIKE: 1057 + 1205 (DMCS)
BNA MATRIX SPIKE: 1246

PCB Field Surr = 1217
PCB House Surr = 1216
PCBLL MS = 1203A

| Date/ Analyst | Sample Number | Project Number | Sample Description | coc | pH | Initial Amt. (ml) | Spike Amount (ul) | Vf (ml) | Conc. Anlyst | Turn Over Date | Comments | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JS 03/03/06 | WG84753-1 WG84754-1 | QC | MB | | 6 | 4000 | 1205-25µl 1057-100µl 1216-100µl 1217-100µl | 1.0 | JS | 03/17/06 03/20/06 | * 20 ml MeOH | 13.8 |
| | WG84753-2 WG84754-2 | QC | SB | | 6 | 4000 | + (1203A-100µl 1246-50µl) | 1.0 | JS | 03/17/06 03/20/06 | * 20 ml MeOH K-D down to 2-2.5 ml (4.0 ml is goal). | 13.3 |
| | L38230-1 | 423589-090-1 | OE-01-020206-022706 | | 5 | 3661 | | 1.0 | | 03/17/06 03/20/06 | * 19 ml MeOH ** Surr 1205 and 1217 spiked pre-deployment. | 15. |
| | L38230-3 | 423589-090-1 | BW-01-020206-022706 | | 5 | 3184 | | 1.0 | | 03/17/06 03/20/06 | * 16 ml MeOH ** Surr 1205 and 1217 spiked pre-deployment. | 11. |
| JS 03/06/06 | WG84753-3 WG84753-3 | QC | MB | | 6 | 4000 | 1205-25µl 1057-100µl 1216-100µl 1217-100µl | 1.0 | JS | 03/17/06 03/20/06 | * 20 ml MeOH | 14.3 |
| | L38230-2 | 423589-090-1 | CE-01-020206-022706 | | 5 | 3275 | | 1.0 | JS | 03/17/06 03/20/06 | * 17 ml MeOH ** Surr 1205 and 1217 spiked pre-deployment. | 14. |
| | L38230-5 | | KCIA-01-020206-022706 | | 5 | 3910 | | 1.0 | | 03/17/06 03/20/06 | * 19 ml MeOH ** Surr 1205 and 1217 spiked pre-deployment. | Trace Not meas |
| | L38230-4 | | SPCC-01-020206-022706 | | 5 | 4061 | | 1.0 | | 03/17/06 03/20/06 | * 20 ml MeOH ** Surr 1205 and 1217 spiked pre-deployment. | 18. |
| | WG84753-4 WG84754-4 | QC | SBD | | 6 | 4000 | + (1203A-100µl 1246-50µl) | 1.0 | | 03/17/06 03/20/06 | * 20 ml MeOH | 13. |

** For SB K-D a bit too long (2-2.5 ml versus target of 4.0 ml. Compare recoveries.

* For all samples - Vial Vol = 0.5 ml Final Vol = 1.0 ml

** For SB for PCBLL (WG84754-2) - Spilled ~ 65% of extract. Remainder brought to vial volume = 0.5 ml. Affected WG84754-2 only.

* All samples for PCBLL subject to alumina cleanup.



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# Trace Organics Data Anomaly Form

**Date(s) Occurred:** *3-27-06*

**WG #(s):** *WG84754*

☒ **All samples in WKGP(s) or Sample #(s):**

**Project #(s):** *423589*

**Matrix:** ☒ **Liquid** ☐ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

## I. Analysis/Extraction

| | | | |
|---|---|---|---|
| ☐ BNA | ☐ BNALL | ☐ EDC | ☐ EDC-LVI |
| ☐ CLPESTPCB | ☐ PEST | ☒ PCB | ☐ OPPEST |
| ☐ VOA-GCMS | ☐ NWTPH-GX | ☐ NWTPH-DX | ☐ NWTPH-HCID |
| ☐ BUTYL TIN | ☐ AIRTOX | ☐ AIR-SULFUR | |

☐ Other:
☐ Subcontracted:

## II. Instrument

GC/ICP/MS: ☐ P
GC/MS: ☐ D ☐ E ☐ J ☐ K ☐ L ☐ M ☐ N
GC: ☐ F ECD ☒ G ECD ☐ H FID ☐ H OI4450PID/FID ☐ I FID
Extraction/Cleanup: ☐ PFE ☐ GPC ☐ Other:

## III. Type of Sample/Analytical Anomaly

☒ Values Outside of Control Limits:

1 ☐ Blank Contamination
2 ☒ SB/SBD Spike Recoveries
3 ☐ MS/MSD Spike Recoveries
4 ☐ LCS/SRM Recoveries
5 ☐ Initial Calibration
6 ☐ Performance Checks
7 ☐ ISTD % Differences
8 ☒ Surrogate Spike Recoveries
9 ☒ SB/SBD RPD
10 ☐ MS/MSD RPD
11 ☐ Sample/LD RPD
12 ☐ Continuing Calibration Checks
13 ☐ Tuning Criteria

14 ☐ Holding time exceeded by:
15 ☐ Insufficient sample amount.
16 ☐ Inappropriate storage, container or preservation.
17 ☒ Other

**Anomaly Description:** *2,8. The SB (WG84754-2) had low recoveries for both Aroclor 1260 and the surrogate TCX. The prep sheet makes note of a spill of approximately 65% of the SB, which would account for the low recoveries. 9. The RPD for the SB and SBD is 96%, in large part due to the spill. No limits have been set for this analysis. 17. Once again aroclor 1016 is obscured by interfering peaks and has been deleted as a spike.*

## IV. Type of Project Anomaly

- ☐ SAP/Work Plan specified MDLs not met.
- ☐ SAP/Work Plan specified QC frequency or QC type not met.
- ☐ SAP/Work Plan specified methodology not used.
- ☐ Sample exceeds regulatory and/or hazardous waste limits.
- ☐ Sample data results are unusual or inconsistent with expected results.
- ☐ Other

**Anomaly Description:**

## V. Corrective Action Taken

- ☐ Sample(s) re-analyzed
- ☐ Sample(s) re-prepared and re-analyzed
- ☒ Sample(s) reported "AS IS"
- ☐ Data qualified with the following flags:
- ☐ Other

**Corrective Action Description:** *I am now thinking it would be best to do an acid cleanup on these and evaluate.*

## VI. Potential Effects on Data Quality

**Based upon the expected performance of this method:**

- ☐ It is likely the observed anomaly influenced the reported value(s).
- ☒ It is unlikely the observed anomaly influenced the reported value(s).
- ☐ The observed anomaly may have influenced the reported value(s).
- ☐ It is unknown whether or not the observed anomaly affected the reported value(s).

**Explanation:** *All other QC, spikes, and surrogates are acceptable.*

| | Signatures | Signature Dates |
|---|---|---|
| **Reported By:** *JSF* | | 4-3-06 |
| **Reviewer:** *Gretchen Nerlin* | | 4/3/06 |
| **Supervisor:** *Dana Walker* | Dana M. Walker | 4/4/06 |
| **QA Officer:** *Colin Elliott* (For QA1 only) | | |
| **cc: LPM:** | | |

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 03/30/06 11:10
Run ID: R112765 Workgroup: WG84754 (BL#636 PCBLL)

MB:WG84754-1 Matrix: BLANK WTR Listtype: ORPCBLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: STD
(Method Blank)

| Parameter | Mdl | Rdl | Units | MB Value | Qual |
|---|---|---|---|---|---|
| Aroclor 1016 | .013 | .025 | ug/L | <MDL | |
| Aroclor 1221 | .013 | .025 | ug/L | <MDL | |
| Aroclor 1232 | .013 | .025 | ug/L | <MDL | |
| Aroclor 1242 | .013 | .025 | ug/L | <MDL | |
| Aroclor 1248 | .013 | .025 | ug/L | <MDL | |
| Aroclor 1254 | .013 | .025 | ug/L | <MDL | |
| Aroclor 1260 | .013 | .025 | ug/L | <MDL | |

SBD:WG84754-4 SB:WG84754-2 MB:WG84754-1 Matrix: BLANK WTR Listtype: ORPCBLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: STD
(Spiked Blank Duplicate, Spike Blank, Method Blank)

| Parameter | Mdl | Rdl | Units | MB Value | Truevalue | SB Value | % Rec. | Qual | LabLimit | Truevalue | SBD Value | % Rec. | Qual | LabLimit | RPD | Qual | LabLimit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor 1260 | .013 | .025 | ug/L | <MDL | 0.0750 | .027 | 36 | * | 72-128 | 0.0750 | .0769 | 102 | | 13-198 | 96 | | |

MB:WG84754-3 Matrix: BLANK WTR Listtype: ORPCBLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: STD
(Method Blank)

| Parameter | Mdl | Rdl | Units | MB Value | Qual |
|---|---|---|---|---|---|
| Aroclor 1016 | .013 | .025 | ug/L | <MDL | |
| Aroclor 1221 | .013 | .025 | ug/L | <MDL | |
| Aroclor 1232 | .013 | .025 | ug/L | <MDL | |
| Aroclor 1242 | .013 | .025 | ug/L | <MDL | |
| Aroclor 1248 | .013 | .025 | ug/L | <MDL | |
| Aroclor 1254 | .013 | .025 | ug/L | <MDL | |
| Aroclor 1260 | .013 | .025 | ug/L | <MDL | |



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KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 03/30/06 11:10
Run ID: R112765 Workgroup: WG84754 (BL#636 PCBLL)

| Sample # (Lab Limits) | Decachlorobiphenyl 12-158 | 2,4,5,6-Tetrachloro-m-xylene 10-118 |
|---|---|---|
| L38230-1 | 90 | 64 |
| L38230-2 | 90 | 77 |
| L38230-3 | 99 | 56 |
| L38230-4 | 85 | 56 |
| L38230-5 | 115 | 64 |
| WG84754-1 | 81 | 25 |
| WG84754-2 | 31 | 9 |
| WG84754-3 | 63 | 29 |
| WG84754-4 | 75 | 26 |



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KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/30/06 11:11 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: WG84754-1 | Matrix: | BLANK WTR | List Type: | ORPCBLL | |
| | Project: | | Run ID: | R112765 | Col. Date: |
| | Locator: | MB | Work Group: | WG84754 | Rec. Date: 08-MAR-06 |
| | Site: | NONE | QC Type: | MB | Due Date: |
| | Method Code: | EPA 8081A/8082 (7-3-03-002) | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Aroclor 1016 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1221 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1232 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1242 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1248 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1254 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1260 | | ug/L | <MDL | .013 | .025 | |
| Decachlorobiphenyl | .0202 | ug/L | | .0013 | .0025 | |
| 2,4,5,6-Tetrachloro-m-xylene | .00622 | ug/L | | .0013 | .0025 | |
| Amount Analyzed | 4000 | ml | | | | |
| Standard Amount | 1 | ml | | | | |
| Dilution Factor | 1 | none | | | | |
| Date Analyzed | | | | | | 27-MAR-06 |
| Operator ID | | | | | | JSF |
| Porthandler File | | | | | | /usr/users/seed2/METROS3/files/gc/wg84754.txt |
| Instrument ID | | | | | | HP6890ECD-G |
| Prep Date | | | | | | 03-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| Decachlorobiphenyl | 81 | 12-158 |
| 2,4,5,6-Tetrachloro-m-xylene | 25 | 10-118 |

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/30/06 11:11 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: WG84754-2 | Matrix: | BLANK WTR | List Type: | ORPCBLL | |
| | Project: | | Run ID: | R112765 | Col. Date: |
| | Locator: | SB | Work Group: | WG84754 | Rec. Date: 08-MAR-06 |
| | Site: | NONE | QC Type: | SB | Due Date: |
| | Method Code: | EPA 8081A/8082 (7-3-03-002) | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Aroclor 1016 | .0282 | ug/L | | .013 | .025 | |
| Aroclor 1221 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1232 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1242 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1248 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1254 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1260 | .027 | ug/L | | .013 | .025 | |
| Decachlorobiphenyl | .00784 | ug/L | | .0013 | .0025 | |
| 2,4,5,6-Tetrachloro-m-xylene | .0022 | ug/L | <RDL | .0013 | .0025 | |
| Amount Analyzed | 4000 | ml | | | | |
| Standard Amount | 1 | ml | | | | |
| Dilution Factor | 1 | none | | | | |
| Date Analyzed | | | | | | 27-MAR-06 |
| Operator ID | | | | | | JSF |
| Porthandler File | | | | | | /usr/users/seed2/METROS3/files/gc/wg84754.txt |
| Instrument ID | | | | | | HP6890ECD-G |
| Prep Date | | | | | | 03-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| Decachlorobiphenyl | 31 | 12-158 |
| 2,4,5,6-Tetrachloro-m-xylene | 9 * | 10-118 |

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/30/06 11:11 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| SampleH: WG84754-3 | Matrix: | BLANK WTR | List Type: | ORPCBLL | |
| | Project: | | Run ID: | R112765 | Col. Date: |
| | Locator: | MB | Work Group: | WG84754 | Rec. Date: 08-MAR-06 |
| | Site: | NONE | QC Type: | MB | Due Date: |
| | Method Code: | EPA 8081A/8082 (7-3-03-002) | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Aroclor 1016 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1221 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1232 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1242 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1248 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1254 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1260 | | ug/L | <MDL | .013 | .025 | |
| Decachlorobiphenyl | .0157 | ug/L | | .0013 | .0025 | |
| 2,4,5,6-Tetrachloro-m-xylene | .00731 | ug/L | | .0013 | .0025 | |
| Amount Analyzed | 4000 | ml | | | | |
| Standard Amount | 1 | ml | | | | |
| Dilution Factor | 1 | none | | | | |
| Date Analyzed | | | | | | 27-MAR-06 |
| Operator ID | | | | | | JSF |
| Porthandler File | | | | | | /usr/users/seed2/METROS3/files/gc/wg84754.txt |
| Instrument ID | | | | | | HP6890ECD-G |
| Prep Date | | | | | | 03-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| Decachlorobiphenyl | 63 | 12-158 |
| 2,4,5,6-Tetrachloro-m-xylene | 29 | 10-118 |



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KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/30/06 11:11 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: WG84754-4 | Matrix: | BLANK WTR | List Type: | ORPCBLL | |
| | Project: | | Run ID: | R112765 | Col. Date: |
| | Locator: | SBD | Work Group: | WG84754 | Rec. Date: 08-MAR-06 |
| | Site: | NONE | QC Type: | SBD | Due Date: |
| | Method Code: | EPA 8081A/8082 (7-3-03-002) | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Aroclor 1016 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1221 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1232 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1242 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1248 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1254 | | ug/L | <MDL | .013 | .025 | |
| Aroclor 1260 | .0769 | ug/L | | .013 | .025 | |
| Decachlorobiphenyl | .0188 | ug/L | | .0013 | .0025 | |
| 2,4,5,6-Tetrachloro-m-xylene | .00651 | ug/L | | .0013 | .0025 | |
| Amount Analyzed | 4000 | ml | | | | |
| Standard Amount | 1 | ml | | | | |
| Dilution Factor | 1 | none | | | | |
| Date Analyzed | | | | | | 27-MAR-06 |
| Operator ID | | | | | | JSF |
| Porthandler File | | | | | | /usr/users/seed2/METROS3/files/gc/wg84754.txt |
| Instrument ID | | | | | | HP6890ECD-G |
| Prep Date | | | | | | 03-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| Decachlorobiphenyl | 75 | 12-158 |
| 2,4,5,6-Tetrachloro-m-xylene | 26 | 10-118 |

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/30/06 11:11 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230-1 | Matrix: | STORM WTR | List Type: | ORPCBLL | |
| | Project: | 423589-090-1 | Run ID: | R112765 | Col. Date: 27-FEB-06 |
| | Locator: | D2 | Work Group: | WG84754 | Rec. Date: 27-FEB-06 |
| | Site: | METRO | QC Type: | | Due Date: 29-MAR-06 |
| | Method Code: | EPA 8081A/8082 (7-3-03-002) | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Aroclor 1016 | | ug/L | <MDL | .014 | .0273 | |
| Aroclor 1221 | | ug/L | <MDL | .014 | .0273 | |
| Aroclor 1232 | | ug/L | <MDL | .014 | .0273 | |
| Aroclor 1242 | | ug/L | <MDL | .014 | .0273 | |
| Aroclor 1248 | | ug/L | <MDL | .014 | .0273 | |
| Aroclor 1254 | | ug/L | <MDL | .014 | .0273 | |
| Aroclor 1260 | | ug/L | <MDL | .014 | .0273 | |
| Decachlorobiphenyl | .0247 | ug/L | | .0014 | .00273 | |
| 2,4,5,6-Tetrachloro-m-xylene | .0174 | ug/L | | .0014 | .00273 | |
| Amount Analyzed | 3661 | ml | | | | |
| Standard Amount | 1 | ml | | | | |
| Dilution Factor | 1 | none | | | | |
| Date Analyzed | | | | | | 27-MAR-06 |
| Operator ID | | | | | | JSF |
| Porthandler File | | | | | | /usr/users/seed2/METROS3/files/gc/wg84754.txt |
| Instrument ID | | | | | | HP6890ECD-G |
| Prep Date | | | | | | 03-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| Decachlorobiphenyl | 90 | 12-158 |
| 2,4,5,6-Tetrachloro-m-xylene | 64 | 10-118 |

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/30/06 11:11 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230-2 | Matrix: | STORM WTR | List Type: | ORPCBLL | |
| | Project: | 423589-090-1 | Run ID: | R112765 | Col. Date: 27-FEB-06 |
| | Locator: | CE | Work Group: | WG84754 | Rec. Date: 27-FEB-06 |
| | Site: | METRO | QC Type: | | Due Date: 29-MAR-06 |
| | Method Code: | EPA 8081A/8082 (7-3-03-002) | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Aroclor 1016 | | ug/L | <MDL | .015 | .0305 | |
| Aroclor 1221 | | ug/L | <MDL | .015 | .0305 | |
| Aroclor 1232 | | ug/L | <MDL | .015 | .0305 | |
| Aroclor 1242 | | ug/L | <MDL | .015 | .0305 | |
| Aroclor 1248 | | ug/L | <MDL | .015 | .0305 | |
| Aroclor 1254 | | ug/L | <MDL | .015 | .0305 | |
| Aroclor 1260 | | ug/L | <MDL | .015 | .0305 | |
| Decachlorobiphenyl | .0273 | ug/L | | .0015 | .00305 | |
| 2,4,5,6-Tetrachloro-m-xylene | .0234 | ug/L | | .0015 | .00305 | |
| Amount Analyzed | 3275 | ml | | | | |
| Standard Amount | 1 | ml | | | | |
| Dilution Factor | 1 | none | | | | |
| Date Analyzed | | | | | | 27-MAR-06 |
| Operator ID | | | | | | JSF |
| Porthandler File | | | | | | /usr/users/seed2/METROS3/files/gc/wg84754.txt |
| Instrument ID | | | | | | HP6890ECD-G |
| Prep Date | | | | | | 03-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| Decachlorobiphenyl | 90 | 12-158 |
| 2,4,5,6-Tetrachloro-m-xylene | 77 | 10-118 |



KCSlip4 55874

SEA422202

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/30/06 11:11 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230-3 | Matrix: | STORM WTR | List Type: | ORPCBLL | |
| | Project: | 423589-090-1 | Run ID: | R112765 | Col. Date: 27-FEB-06 |
| | Locator: | BW | Work Group: | WG84754 | Rec. Date: 27-FEB-06 |
| | Site: | METRO | QC Type: | | Due Date: 29-MAR-06 |
| | Method Code: | EPA 8081A/8082 (7-3-03-002) | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Aroclor 1016 | | ug/L | <MDL | .016 | .0314 | |
| Aroclor 1221 | | ug/L | <MDL | .016 | .0314 | |
| Aroclor 1232 | | ug/L | <MDL | .016 | .0314 | |
| Aroclor 1242 | | ug/L | <MDL | .016 | .0314 | |
| Aroclor 1248 | | ug/L | <MDL | .016 | .0314 | |
| Aroclor 1254 | | ug/L | <MDL | .016 | .0314 | |
| Aroclor 1260 | | ug/L | <MDL | .016 | .0314 | |
| Decachlorobiphenyl | .0311 | ug/L | | .0016 | .00314 | |
| 2,4,5,6-Tetrachloro-m-xylene | .0177 | ug/L | | .0016 | .00314 | |
| Amount Analyzed | 3184 | ml | | | | |
| Standard Amount | 1 | ml | | | | |
| Dilution Factor | 1 | none | | | | |
| Date Analyzed | | | | | | 27-MAR-06 |
| Operator ID | | | | | | JSF |
| Porthandler File | | | | | | /usr/users/seed2/METROS3/files/gc/wg84754.txt |
| Instrument ID | | | | | | HP6890ECD-G |
| Prep Date | | | | | | 03-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| Decachlorobiphenyl | 99 | 12-158 |
| 2,4,5,6-Tetrachloro-m-xylene | 56 | 10-118 |



KCSlip4 55875

SEA422203

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/30/06 11:11 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230-4 | Matrix: | STORM WTR | List Type: | ORPCBLL | |
| | Project: | 423589-090-1 | Run ID: | R112765 | Col. Date: 27-FEB-06 |
| | Locator: | SPCC | Work Group: | WG84754 | Rec. Date: 27-FEB-06 |
| | Site: | METRO | QC Type: | | Due Date: 29-MAR-06 |
| | Method Code: | EPA 8081A/8082 (7-3-03-002) | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Aroclor 1016 | | ug/L | <MDL | .012 | .0246 | |
| Aroclor 1221 | | ug/L | <MDL | .012 | .0246 | |
| Aroclor 1232 | | ug/L | <MDL | .012 | .0246 | |
| Aroclor 1242 | | ug/L | <MDL | .012 | .0246 | |
| Aroclor 1248 | | ug/L | <MDL | .012 | .0246 | |
| Aroclor 1254 | | ug/L | <MDL | .012 | .0246 | |
| Aroclor 1260 | | ug/L | <MDL | .012 | .0246 | |
| Decachlorobiphenyl | .0208 | ug/L | | .0012 | .00246 | |
| 2,4,5,6-Tetrachloro-m-xylene | .0137 | ug/L | | .0012 | .00246 | |
| Amount Analyzed | 4061 | ml | | | | |
| Standard Amount | 1 | ml | | | | |
| Dilution Factor | 1 | none | | | | |
| Date Analyzed | | | | | | 27-MAR-06 |
| Operator ID | | | | | | JSF |
| Porthandler File | | | | | | /usr/users/seed2/METROS3/files/gc/wg84754.txt |
| Instrument ID | | | | | | HP6890ECD-G |
| Prep Date | | | | | | 03-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| Decachlorobiphenyl | 85 | 12-158 |
| 2,4,5,6-Tetrachloro-m-xylene | 56 | 10-118 |



KCSlip4 55876

SEA422204

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/30/06 11:11 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230-5 | Matrix: STORM WTR | List Type: ORPCBLL | | | |
| | Project: 423589-090-1 | Run ID: R112765 | | Col. Date: | 27 FEB-06 |
| | Locator: KCIA | Work Group: WG84754 | | Rec. Date: | 27-FEB-06 |
| | Site: METRO | QC Type: | | Due Date: | 29-MAR-06 |
| | Method Code: EPA 8081A/8082 (7-3-03-002) | | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Aroclor 1016 | | ug/L | <MDL | .013 | .0256 | |
| Aroclor 1221 | | ug/L | <MDL | .013 | .0256 | |
| Aroclor 1232 | | ug/L | <MDL | .013 | .0256 | |
| Aroclor 1242 | | ug/L | <MDL | .013 | .0256 | |
| Aroclor 1248 | | ug/L | <MDL | .013 | .0256 | |
| Aroclor 1254 | | ug/L | <MDL | .013 | .0256 | |
| Aroclor 1260 | | ug/L | <MDL | .013 | .0256 | |
| Decachlorobiphenyl | .0295 | ug/L | | .0013 | .00256 | |
| 2,4,5,6-Tetrachloro-m-xylene | .0165 | ug/L | | .0013 | .00256 | |
| Amount Analyzed | 3910 | ml | | | | |
| Standard Amount | 1 | ml | | | | |
| Dilution Factor | 1 | none | | | | |
| Date Analyzed | | | | | | 27-MAR-06 |
| Operator ID | | | | | | JSF |
| Porthandler File | | | | | | /usr/users/seed2/METROS3/files/gc/wg84754.txt |
| Instrument ID | | | | | | HP6890ECD-G |
| Prep Date | | | | | | 03-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| Decachlorobiphenyl | 115 | 12-158 |
| 2,4,5,6-Tetrachloro-m-xylene | 64 | 10-118 |

| Data File Name | Sample Name | Date Acquired | Vial Numb | Sample Amount | Sample Multiplie | Isodrin (RT) | Isodrin (Height) | Leptophos (RT) | Leptophos (Height) | Isodrin #2 (RT) | Isodrin #2 (Height) | Leptoph (RT) | Leptophos #2 (Height) | Misc Info | Data File Path |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COND-01.D | conditioner | 3/27/2006 9:48 | 1 | 0 | 1 | | | | | | | | | | S:\MSDCHEM\2\DATA\060327\ |
| BLANK-01.D | blank | 3/27/2006 10:25 | 2 | 0 | 1 | | | | | | | | | | S:\MSDCHEM\2\DATA\060327\ |
| PCB-01.D | 1218D 1016/1260 500/50 | 3/27/2006 11:02 | 3 | 0 | 1 | 14.431 | 82376578 | 22.649 | 156335416 | 13.078 | 209239885 | 19.545 | 298302817 | | S:\MSDCHEM\2\DATA\060327\ |
| PCB-02.D | 1209.1 1248 500/50 | 3/27/2006 11:38 | 4 | 0 | 1 | 14.429 | 83312099 | 22.649 | 154585480 | 13.078 | 209428798 | 19.545 | 282494401 | | S:\MSDCHEM\2\DATA\060327\ |
| PCB-03.D | 1210.1 1254 500/50 | 3/27/2006 12:15 | 5 | 0 | 1 | 14.429 | 80958492 | 22.649 | 144303328 | 13.077 | 195554498 | 19.545 | 259042829 | | S:\MSDCHEM\2\DATA\060327\ |
| PCB-04.D | 1206.1 1221 500/50 | 3/27/2006 12:52 | 6 | 0 | 1 | 14.430 | 77097527 | 22.649 | 142589861 | 13.078 | 203007328 | 19.545 | 282538858 | | S:\MSDCHEM\2\DATA\060327\ |
| PCB-05.D | 1207.1 1232 500/50 | 3/27/2006 13:29 | 7 | 0 | 1 | 14.430 | 78891148 | 22.649 | 141631955 | 13.079 | 203337062 | 19.547 | 275538851 | | S:\MSDCHEM\2\DATA\060327\ |
| PCB-06.D | 1208.1 1242 500/50 | 3/27/2006 14:05 | 8 | 0 | 1 | 14.430 | 79362868 | 22.651 | 142792756 | 13.080 | 190669743 | 19.548 | 260110327 | | S:\MSDCHEM\2\DATA\060327\ |
| WG84754-1.D | MB | 3/27/2006 14:42 | 9 | 4000 | 1 | 14.432 | 77945093 | 22.650 | 147086102 | 13.079 | 202293252 | 19.547 | 270006140 | BL636 PCBLL DUWAMISH PTHALATE WATERS | S:\MSDCHEM\2\DATA\060327\ |
| WG84754-2.D | SB | 3/27/2006 15:19 | 10 | 4000 | 1 | 14.432 | 79927811 | 22.651 | 150106723 | 13.080 | 198419604 | 19.547 | 269298907 | BL636 PCBLL DUWAMISH PTHALATE WATERS | S:\MSDCHEM\2\DATA\060327\ |
| WG84754-3.D | MB | 3/27/2006 15:55 | 11 | 4000 | 1 | 14.431 | 71927224 | 22.651 | 137450505 | 13.080 | 188572115 | 19.548 | 266261731 | BL636 PCBLL DUWAMISH PTHALATE WATERS | S:\MSDCHEM\2\DATA\060327\ |
| WG84754-4.D | SB | 3/27/2006 16:32 | 12 | 4000 | 1 | 14.433 | 75365131 | 22.652 | 146243041 | 13.080 | 195569211 | 19.548 | 268612984 | BL636 PCBLL DUWAMISH PTHALATE WATERS | S:\MSDCHEM\2\DATA\060327\ |
| L38230-1.D | L38230-1 | 3/27/2006 17:09 | 13 | 3661 | 1 | 14.433 | 52997849 | 22.658 | 141199511 | 13.080 | 155207700 | 19.557 | 261548253 | BL636 PCBLL DUWAMISH PTHALATE WATERS | S:\MSDCHEM\2\DATA\060327\ |
| L38230-2.D | L38230-2 | 3/27/2006 17:45 | 14 | 3275 | 1 | 14.434 | 49068662 | 22.664 | 131811097 | 13.080 | 146514270 | 19.561 | 270456053 | BL636 PCBLL DUWAMISH PTHALATE WATERS | S:\MSDCHEM\2\DATA\060327\ |
| L38230-3.D | L38230-3 | 3/27/2006 18:22 | 15 | 3184 | 1 | 14.434 | 50591869 | 22.653 | 131737260 | 13.079 | 145661670 | 19.549 | 252353575 | BL636 PCBLL DUWAMISH PTHALATE WATERS | S:\MSDCHEM\2\DATA\060327\ |
| L38230-4.D | L38230-4 | 3/27/2006 18:59 | 16 | 4061 | 1 | 14.433 | 57005409 | 22.655 | 141929250 | 13.079 | 158764634 | 19.552 | 278772602 | BL636 PCBLL DUWAMISH PTHALATE WATERS | S:\MSDCHEM\2\DATA\060327\ |
| L38230-5.D | L38230-5 | 3/27/2006 19:36 | 17 | 3910 | 1 | 14.433 | 52383573 | 22.665 | 140161523 | 13.080 | 146598485 | 19.553 | 259893662 | BL636 PCBLL DUWAMISH PTHALATE WATERS | S:\MSDCHEM\2\DATA\060327\ |
| BLANK-02.D | blank | 3/27/2006 20:12 | 2 | 0 | 1 | | | | | | | | | | S:\MSDCHEM\2\DATA\060327\ |
| PCB-07.D | 1218D 1016/1260 500/50 | 3/27/2006 20:49 | 3 | 0 | 1 | 14.431 | 81407501 | 22.650 | 155599261 | 13.077 | 205477649 | 19.545 | 286755630 | | S:\MSDCHEM\2\DATA\060327\ |
| PCB-08.D | 1209.1 1248 500/50 | 3/27/2006 21:26 | 4 | 0 | 1 | 14.431 | 82069938 | 22.650 | 151715902 | 13.077 | 208529004 | 19.545 | 274366623 | | S:\MSDCHEM\2\DATA\060327\ |
| | | | | | Ave. | 14.432 | 71593508 | 22.652 | 144676234 | 13.079 | 186061454 | 19.549 | 271420720 | | |
| | | | | | Std. Dev. | 0.002 | 13005835 | 0.004 | 7634928 | 0.001 | 24529707 | 0.005 | 11481358 | | |
| | | | | | %RSD | | 18% | | 5% | | 13% | | 4% | | |



KCSlip4 55878
SEA422206

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Mar 17 2006, 04:36 pm

Work Group: WG84753 (BL#636 PHPAHSOURCE) for Department: 7 - Organics, Trace

Created: 08-MAR-06 PrepDate: 06-MAR-06 Due: Operator: JG

| Sample | Project Number | Project Description | PKey | C | Product | Matrix | Stat | UA | Workdate | Duedate |
|---|---|---|---|---|---|---|---|---|---|---|
| L38230-1 | 423589-090-1 | Lower Duwamish Phthalate Studies | | S | PHPAHSOURCE | STORM WTR | PREP | U | 13-MAR-06 | 29-MAR-06 |
| L38230-2 | 423589-090-1 | Lower Duwamish Phthalate Studies | | S | PHPAHSOURCE | STORM WTR | PREP | U | 13-MAR-06 | 29-MAR-06 |
| L38230-3 | 423589-090-1 | Lower Duwamish Phthalate Studies | | S | PHPAHSOURCE | STORM WTR | PREP | U | 13-MAR-06 | 29-MAR-06 |
| L38230-4 | 423589-090-1 | Lower Duwamish Phthalate Studies | | S | PHPAHSOURCE | STORM WTR | PREP | U | 13-MAR-06 | 29-MAR-06 |
| L38230-5 | 423589-090-1 | Lower Duwamish Phthalate Studies | | S | PHPAHSOURCE | STORM WTR | PREP | U | 13-MAR-06 | 29-MAR-06 |
| WG84753-1 | MB | | | S | PHPAHSOURCE | BLANK WTR | PREP | U | 08-MAR-06 | |
| WG84753-2 | SB | | | S | PHPAHSOURCE | BLANK WTR | PREP | U | 08-MAR-06 | |
| WG84753-3 | MB | | | S | PHPAHSOURCE | BLANK WTR | PREP | U | 08-MAR-06 | |
| WG84753-4 | SBD | | | S | PHPAHSOURCE | BLANK WTR | PREP | U | 08-MAR-06 | |

Comments:

| | |
|---|---|
| L38230-1 | carboys |
| L38230-2 | carboys |
| L38230-3 | carboys |
| L38230-4 | carboys |
| L38230-5 | carboys |
| WG84753-1 | MB060303 |
| WG84753-2 | WG84753-1 |
| WG84753-3 | MB060306 |
| WG84753-4 | WG84753-2 WG84753-3 |



KCSlip4 55879

SEA422207

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 04/11/06 07:24
Run ID: R112903 Workgroup: WG84753 (BL#636 PHPAHSOURCE)

MB:WG84753-1 Matrix: BLANK WTR Listtype: ORPHPAHSOURCE Method: 8270B Project: 423589-090-1 Pkey: STD
(Method Blank)

| Parameter | Mdl | Rdl | Units | MB Value | Qual |
|---|---|---|---|---|---|
| Naphthalene | .01 | .02 | ug/L | <MDL | |
| Acenaphthylene | .005 | .01 | ug/L | <MDL | |
| Dimethyl Phthalate | .005 | .01 | ug/L | <MDL | |
| Acenaphthene | .005 | .01 | ug/L | <MDL | |
| Fluorene | .005 | .01 | ug/L | <MDL | |
| Diethyl Phthalate | .0075 | .015 | ug/L | <MDL | |
| Phenanthrene | .005 | .01 | ug/L | <MDL | |
| Anthracene | .005 | .01 | ug/L | <MDL | |
| Di-N-Butyl Phthalate | .005 | .01 | ug/L | .0224 | B |
| Fluoranthene | .005 | .01 | ug/L | <MDL | |
| Pyrene | .005 | .01 | ug/L | <MDL | |
| Benzyl Butyl Phthalate | .005 | .01 | ug/L | .012 | B |
| Benzo(a)anthracene | .005 | .01 | ug/L | <MDL | |
| Chrysene | .005 | .01 | ug/L | <MDL | |
| Bis(2-Ethylhexyl)Phthalate | .005 | .01 | ug/L | .0591 | B |
| Di-N-Octyl Phthalate | .0075 | .015 | ug/L | <MDL | |
| Benzo(b)fluoranthene | .0075 | .015 | ug/L | <MDL | |
| Benzo(k)fluoranthene | .0075 | .015 | ug/L | <MDL | |
| Benzo(a)pyrene | .0075 | .015 | ug/L | <MDL | |
| Indeno(1,2,3-Cd)Pyrene | .0075 | .015 | ug/L | <MDL | |
| Dibenzo(a,h)anthracene | .0075 | .015 | ug/L | <MDL | |
| Benzo(g,h,i)perylene | .0075 | .015 | ug/L | <MDL | |
| 2-Methylnaphthalene | .0075 | .015 | ug/L | <MDL | |

SBD:WG84753-4 SB:WG84753-2 MB:WG84753-1 Matrix: BLANK WTR Listtype: ORPHPAHSOURCE Method: 8270B Project: 423589-090-1 Pkey: STD
(Spiked Blank Duplicate, Spike Blank, Method Blank)

| Parameter | Mdl | Rdl | Units | MB Value | Truevalue | SB Value | % Rec. | Qual | LabLimit | Truevalue | SBD Value | % Rec. | Qual | LabLimit | RPD | Qual | LabLimit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthylene | .005 | .01 | ug/L | <MDL | 0.125 | .0641 | 51 | | 10-150 | 0.125 | .0681 | 54 | | 10-150 | 6 | | 100 |
| Dimethyl Phthalate | .005 | .01 | ug/L | <MDL | 0.125 | .0705 | 56 | | 10-150 | 0.125 | .0687 | 55 | | 10-150 | 2 | | 100 |
| Fluorene | .005 | .01 | ug/L | <MDL | 0.125 | .0707 | 57 | | 10-150 | 0.125 | .0803 | 64 | | 10-150 | 12 | | 100 |
| Diethyl Phthalate | .0075 | .015 | ug/L | <MDL | 0.125 | .102 | 81 | | 10-150 | 0.125 | .0995 | 80 | | 10-150 | 1 | | 100 |
| Phenanthrene | .005 | .01 | ug/L | <MDL | 0.125 | .1 | 80 | | 10-150 | 0.125 | .104 | 83 | | 10-150 | 4 | | 100 |
| Anthracene | .005 | .01 | ug/L | <MDL | 0.125 | .0863 | 69 | | 10-150 | 0.125 | .0898 | 72 | | 10-150 | 4 | | 100 |
| Di-N-Butyl Phthalate | .005 | .01 | ug/L | .0224 | 0.125 | .14 | 94 | | 10-150 | 0.125 | .133 | 90 | | 10-150 | 4 | | 100 |
| Pyrene | .005 | .01 | ug/L | <MDL | 0.125 | .137 | 109 | | 10-150 | 0.125 | .128 | 103 | | 10-150 | 6 | | 100 |
| Benzyl Butyl Phthalate | .005 | .01 | ug/L | .012 | 0.125 | .178 | 133 | | 10-150 | 0.125 | .163 | 121 | | 10-150 | 9 | | 100 |
| Benzo(a)anthracene | .005 | .01 | ug/L | <MDL | 0.125 | .117 | 94 | | 10-150 | 0.125 | .115 | 92 | | 10-150 | 2 | | 100 |
| Chrysene | .005 | .01 | ug/L | <MDL | 0.125 | .114 | 91 | | 10-150 | 0.125 | .115 | 92 | | 10-150 | 1 | | 100 |
| Bis(2-Ethylhexyl)Phthalate | .005 | .01 | ug/L | .0591 | 0.125 | .22 | 129 | | 10-150 | 0.125 | .179 | 101 | | 10-150 | 24 | | 100 |
| Benzo(b)fluoranthene | .0075 | .015 | ug/L | <MDL | 0.125 | .119 | 96 | | 10-150 | 0.125 | .113 | 90 | | 10-150 | 6 | | 100 |
| Benzo(k)fluoranthene | .0075 | .015 | ug/L | <MDL | 0.125 | .105 | 84 | | 10-150 | 0.125 | .121 | 96 | | 10-150 | 13 | | 100 |
| Benzo(a)pyrene | .0075 | .015 | ug/L | <MDL | 0.125 | .103 | 83 | | 10-150 | 0.125 | .1 | 80 | | 10-150 | 4 | | 100 |
| Indeno(1,2,3-Cd)Pyrene | .0075 | .015 | ug/L | <MDL | 0.125 | .112 | 89 | | 10-150 | 0.125 | .115 | 92 | | 10-150 | 3 | | 100 |
| Dibenzo(a,h)anthracene | .0075 | .015 | ug/L | <MDL | 0.125 | .109 | 87 | | 10-150 | 0.125 | .114 | 92 | | 10-150 | 6 | | 100 |
| Benzo(g,h,i)perylene | .0075 | .015 | ug/L | <MDL | 0.125 | .109 | 87 | | 10-150 | 0.125 | .113 | 90 | | 10-150 | 3 | | 100 |



KCSlip4 55880
SEA422208

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 04/11/06 07:24
Run ID: R112903 Workgroup: WG84753 (BL#636 PHPAHSOURCE)

MB:WG84753-3 Matrix: BLANK WTR Listtype: ORPHPAHSOURCE Method: 8270B Project: 423589-090-1 Pkey: STD
(Method Blank)

| Parameter | Mdl | Rdl | Units | MB Value | Qual |
|---|---|---|---|---|---|
| Naphthalene | .01 | .02 | ug/L | <MDL | |
| Acenaphthylene | .005 | .01 | ug/L | <MDL | |
| Dimethyl Phthalate | .005 | .01 | ug/L | <MDL | |
| Acenaphthene | .005 | .01 | ug/L | <MDL | |
| Fluorene | .005 | .01 | ug/L | <MDL | |
| Diethyl Phthalate | .0075 | .015 | ug/L | <MDL | |
| Phenanthrene | .005 | .01 | ug/L | <MDL | |
| Anthracene | .005 | .01 | ug/L | <MDL | |
| Di-N-Butyl Phthalate | .005 | .01 | ug/L | .0197 | B |
| Fluoranthene | .005 | .01 | ug/L | <MDL | |
| Pyrene | .005 | .01 | ug/L | <MDL | |
| Benzyl Butyl Phthalate | .005 | .01 | ug/L | .0119 | B |
| Benzo(a)anthracene | .005 | .01 | ug/L | <MDL | |
| Chrysene | .005 | .01 | ug/L | <MDL | |
| Bis(2-Ethylhexyl)Phthalate | .005 | .01 | ug/L | .0535 | B |
| Di-N-Octyl Phthalate | .0075 | .015 | ug/L | <MDL | |
| Benzo(b)fluoranthene | .0075 | .015 | ug/L | <MDL | |
| Benzo(k)fluoranthene | .0075 | .015 | ug/L | <MDL | |
| Benzo(a)pyrene | .0075 | .015 | ug/L | <MDL | |
| Indeno(1,2,3-Cd)Pyrene | .0075 | .015 | ug/L | <MDL | |
| Dibenzo(a,h)anthracene | .0075 | .015 | ug/L | <MDL | |
| Benzo(g,h,i)perylene | .0075 | .015 | ug/L | <MDL | |
| 2-Methylnaphthalene | .0075 | .015 | ug/L | <MDL | |



KCSlip4 55881
SEA422209

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 04/11/06 07:24
Run ID: R112903 Workgroup: WG84753 (BL#636 PHPAHSOURCE)

| Sample # (Lab Limits) | d14-Terphenyl 33-141 | D6-Dimethyl Phtha-late 0-150 | D8-Acenaphthylene 0-150 | D10-Fluorene 0-150 | D10-Anthracene 0-150 | D10-Pyrene 0-150 | D12-Benzo(a)pyren-e 0-150 |
|---|---|---|---|---|---|---|---|
| L38230-1 | 115 | 46 | 0 * | 1 * | 2 * | 17 | 45 |
| L38230-2 | 116 | 71 | 0 * | 5 * | 1 * | 27 | 30 |
| L38230-3 | 111 | 59 | 0 * | 5 * | 1 * | 16 | 13 |
| L38230-4 | 116 | 58 | 10 | 39 | 1 * | 36 | 47 |
| L38230-5 | 104 | 50 | 0 * | 4 * | 1 * | 27 | 35 |
| WG84753-1 | 100 | 63 | 67 | 69 | 75 | 80 | 91 |
| WG84753-2 | 101 | 56 | 65 | 67 | 75 | 77 | 89 |
| WG84753-3 | 98 | 53 | 56 | 64 | 72 | 79 | 86 |
| WG84753-4 | 99 | 55 | 63 | 70 | 73 | 78 | 86 |



KCSlip4 55882
SEA422210

Acetone Lot# D55604

Round 7 - Samples

# LIQUID SAMPLE EXTRACTION RECORD FOR BNA ANALYSIS

## TRACE ORGANICS LABORATORY

MeCL2 Lot # CP900

QC BATCH NO.: BL #636

EPA SW-846 EXTRACTION METHOD: PHPAH600RLE via SPE / PCB LL via SPE

CONT. L-L EPA 3520 SEP. FUNNEL EPA 3510

WG84753 - PHPAH600RLE

WORKGROUP NO. WG84754 - PCBLL

BNA SURROGATE SPIKE: 1057 + 1205 (DMCs)

BNA MATRIX SPIKE: 1246

PCB Field Surr = 1217

PCB House Surr = 1216

PCB LL MS = 1203A

| Date/ Analyst | Sample Number | Project Number | Sample Description | coc | pH | Initial Amt. (ml) | Spike Amount (ul) | Vf (ml) | Conc. Anlyst | Turn Over Date | Comments | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JB 03/03/06 | WG84753-1 WG84754-1 | QC | MB | | 6 | 4000 | 1205-25µl 1057-100µl 1216-100µl 1217-100µl | 1.0 | JB | 03/17/06 | * 20 ml MeOH | 13.8 |
| | WG84753-2 WG84754-2 | QC | SB | | 6 | 4000 | 1203A-100µl 1246-50µl | 1.0 | JB | 03/17/06 | * 20 ml MeOH K-D down to 2-2.5 ml (4.0 ml is goal). | 13.3 |
| | L38230-1 | 423589-090-1 | DZ-01-020206-022706 | | 5 | 3661 | | 1.0 | | 03/17/06 | * 19 ml MeOH ** Surr 1205 and 1217 spiked pre-deployment. | 15.3 |
| | L38230-3 | 423589-090-1 | BW-01-020206-022706 | | 5 | 3184 | | 1.0 | | 03/17/06 | * 16 ml MeOH ** Surr 1205 and 1217 spiked pre-deployment. | 11.9 |
| JB 03/06/06 | WG84753-3 WG84753-3 | QC | MB | | 6 | 4000 | 1205-25µl 1057-100µl 1216-100µl 1217-100µl | 1.0 | JB | 03/17/06 | * 20 ml MeOH | 14.7 |
| | L38230-2 | 423589-090-1 | CE-01-020206-022706 | | 5 | 3275 | | 1.0 | JB | 03/17/06 | * 17 ml MeOH ** Surr 1205 and 1217 spiked pre-deployment. | 14.7 |
| | L38230-5 | | KCIA-01-020206-022706 | | 5 | 3910 | | 1.0 | | 03/17/06 | * 19 ml MeOH ** Surr 1205 and 1217 spiked pre-deployment. | Time Not Measured |
| | L38230-4 | | SPCC-01-020206-022706 | | 5 | 4061 | | 1.0 | | 03/17/06 | * 20 ml MeOH ** Surr 1205 and 1217 spiked pre-deployment. | 18.7 |
| | WG84753-4 WG84754-4 | QC | SBD | | 6 | 4000 | 1203A-100µl 1246-50µl | 1.0 | | 03/17/06 | * 20 ml MeOH | 13.3 |
| | | | | | | | | | | | ** For SB K-D a bit too low (2-2.5 ml versus target of 4.0 ml. Compare recoveries. | |
| | * For all samples - Vial Vol = 0.5 ml | | | | | Final Vol = | | 1.0 ml | | | | |



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## 6890n DILUTION LOG

King County Environmental Laboratory

| Date & Initials | Sample Name/ Sample Number | Extract Vol Used (ml) | Final Vol | Dil Fac | IS # | Additional IS (ul) | Total IS (ul) |
|---|---|---|---|---|---|---|---|
| 3-20-06 DZ | L38230-1 | 0.1ml | 1.0ml | 10x | 55#969x200 | 20µl | 20µl |
| 3-20-06 DZ | L38230-2 | 0.1ml | 1.0ml | 10x | 55#969x200 | 20µl | 20µl |
| 3-20-06 DZ | L38230-3 | 0.1ml | 1.0ml | 10x | 55#969x200 | 20µl | 20µl |
| 3-20-06 DZ | L38230-4 | 0.1ml | 1.0ml | 10x | 55#969x200 | 20µl | 20µl |
| 3-20-06 DZ | L38230-5 | 0.1ml | 1.0ml | 10x | 55#969x200 | 20µl | 20µl |

## 6890n MAINTENANCE LOG

King County Environmental Laboratory

| Date & Initials | Maintenance Description |
|---|---|
| | |

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SEA422212

# Trace Organics Data Anomaly Form

**Date(s) Occurred:** *03-20-2006*

**WG #(s):** *84753*

☒ **All samples in WKGP(s) or Sample #(s):**

**Project #(s):** *423589-090-1*

**Matrix:** ☒ **Liquid** ☐ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

## I. Analysis/Extraction

| | | | |
|---|---|---|---|
| ☐ BNA | ☐ BNALL | ☐ EDC | ☐ EDC-LVI |
| ☐ CLPESTPCB | ☐ PEST | ☐ PCB | ☐ OPPEST |
| ☐ VOA-GCMS | ☐ NWTPH-GX | ☐ NWTPH-DX | ☐ NWTPH-HCID |
| ☐ BUTYL TIN | ☐ AIRTOX | ☐ AIR-SULFUR | |
| ☒ Other: *PHPAH* | | | |
| ☐ Subcontracted: | | | |

## II. Instrument

| | |
|---|---|
| GC/ICP/MS: | ☐ P |
| GC/MS: | ☐ D ☐ E ☐ J ☐ K ☐ L ☐ M ☒ N |
| GC: | ☐ F ECD ☐ G ECD ☐ H FID ☐ H OI4450PID/FID |
| | ☐ I FID |
| Extraction/Cleanup: | ☐ PFE ☐ GPC |
| | ☐ Other: |

## III. Type of Sample/Analytical Anomaly

☒ Values Outside of Control Limits:

| | |
|---|---|
| 1 ☐ Blank Contamination | 8 ☒ Surrogate Spike Recoveries |
| 2 ☐ SB/SBD Spike Recoveries | 9 ☐ SB/SBD RPD |
| 3 ☐ MS/MSD Spike Recoveries | 10 ☐ MS/MSD RPD |
| 4 ☐ LCS/SRM Recoveries | 11 ☐ Sample/LD RPD |
| 5 ☐ Initial Calibration | 12 ☒ Continuing Calibration Checks |
| 6 ☐ Performance Checks | 13 ☐ Tuning Criteria |
| 7 ☒ ISTD % Differences | |

14 ☐ Holding time exceeded by:
15 ☐ Insufficient sample amount.
16 ☐ Inappropriate storage, container or preservation.
17 ☐ Other

**Anomaly Description:** *(7) - Area counts for ISTD1 (1,4-Dichlorobenzene-d4) failed QA/QC acceptance limits for all samples in WG84753. (8) - MDL's and RDL's for Surrogates D8-Acenaphthylene, D10-Fluorene and D10-Anthracene were lowered in LIMS in order to report the low level recoveries of these compounds detected in samples L38230-1,2,3,4,5. (12) - The continuing calibration %D for Di-n-octylphthalate was 37% which exceeded the maximum %D of 20%.*

Batch: \\Orgizmo\EE\chem\6890n.i\060320.b

| # | Smp. # | Injection Time | Wkgp. # | QC # | Project # | Sample Description | Matrix | Amount | DilFac | IS#2-RT | IS#2-Area | Method | Init Cali | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | BLANK-1 | 20-MAR-2006 07:12 | SDGa1658 | SDGa16 | 421152 | Solvent Blank + ISTD's | WATER | 1000.000 | 1.0 | 6.833 | 487358 | PHPAH.m | 06-JAN-2006 | Dave Fada |
| 2 | DFTPP-1 | 20-MAR-2006 07:53 | SDGa2816 | SDGa28 | 421152 | SS#1254A DFTPP | NONE | 0.000 | 1.0 | 12.908 | 65096 | LVI_DFTP.m | | Dave Fada |
| 3 | CCALI-1 | 20-MAR-2006 08:35 | SDGa1658 | SDGa16 | 421152 | SS#1120E 250 ppb | WATER | 1.000 | 1.0 | 6.824 | 496736 | PHPAH.m | 06-JAN-2006 | Dave Fada |
| 4 | WG84753-1 | 20-MAR-2006 09:42 | WG84753 | BL#636 | 423589 | Method Blank (03-03-2006) | WATER | 4000.000 | 1.0 | 6.824 | 341675 | PHPAH.m | 06-JAN-2006 | Dave Fada |
| 5 | WG84753-3 | 20-MAR-2006 10:24 | WG84753 | BL#636 | 423589 | Method Blank (03-06-2006) | WATER | 4000.000 | 1.0 | 6.824 | 334084 | PHPAH.m | 06-JAN-2006 | Dave Fada |
| 6 | WG84753-2 | 20-MAR-2006 11:06 | WG84753 | BL#636 | 423589 | Spike Blank | WATER | 4000.000 | 1.0 | 6.824 | 393064 | PHPAH.m | 06-JAN-2006 | Dave Fada |
| 7 | WG84753-4 | 20-MAR-2006 11:48 | WG84753 | BL#636 | 423589 | Spike Blank Dup | WATER | 4000.000 | 1.0 | 6.824 | 344600 | PHPAH.m | 06-JAN-2006 | Dave Fada |
| 8 | L38230-1X | 20-MAR-2006 12:31 | WG84753 | BL#636 | 423589 | Lower Duwamish Phthalate Stu | WATER | 3661.000 | 10.0 | 6.824 | 416943 | phpah.m | 06-JAN-2006 | Dave Fada |
| 9 | L38230-2X | 20-MAR-2006 13:13 | WG84753 | BL#636 | 423589 | Lower Duwamish Phthalate Stu | WATER | 3275.000 | 10.0 | 6.824 | 403099 | phpah.m | 06-JAN-2006 | Dave Fada |
| 10 | L38230-3X | 20-MAR-2006 13:55 | WG84753 | BL#636 | 423589 | Lower Duwamish Phthalate Stu | WATER | 3184.000 | 10.0 | 6.824 | 412474 | phpah.m | 06-JAN-2006 | Dave Fada |
| 11 | L38230-4X | 20-MAR-2006 14:38 | WG84753 | BL#636 | 423589 | Lower Duwamish Phthalate Stu | WATER | 4061.000 | 10.0 | 6.824 | 440691 | phpah.m | 06-JAN-2006 | Dave Fada |
| 12 | L38230-5X | 20-MAR-2006 15:20 | WG84753 | BL#636 | 423589 | Lower Duwamish Phthalate Stu | WATER | 3910.000 | 10.0 | 6.824 | 397006 | phpah.m | 06-JAN-2006 | Dave Fada |
| 13 | L38230-1 | 20-MAR-2006 16:02 | WG84753 | BL#636 | 423589 | Lower Duwamish Phthalate Stu | WATER | 3661.000 | 1.0 | 6.824 | 343685 | PHPAH.m | 06-JAN-2006 | Dave Fada |
| 14 | L38230-2 | 20-MAR-2006 16:45 | WG84753 | BL#636 | 423589 | Lower Duwamish Phthalate Stu | WATER | 3275.000 | 1.0 | 6.824 | 401985 | PHPAH.m | 06-JAN-2006 | Dave Fada |
| 15 | L38230-3 | 20-MAR-2006 17:27 | WG84753 | BL#636 | 423589 | Lower Duwamish Phthalate Stu | WATER | 3184.000 | 1.0 | 6.824 | 347456 | PHPAH.m | 06-JAN-2006 | Dave Fada |
| 16 | L38230-4 | 20-MAR-2006 18:09 | WG84753 | BL#636 | 423589 | Lower Duwamish Phthalate Stu | WATER | 4061.000 | 1.0 | 6.833 | 358681 | PHPAH.m | 06-JAN-2006 | Dave Fada |
| 17 | L38230-5 | 20-MAR-2006 18:52 | WG84753 | BL#636 | 423589 | Lower Duwamish Phthalate Stu | WATER | 3910.000 | 1.0 | 6.833 | 419229 | PHPAH.m | 06-JAN-2006 | Dave Fada |

**Samples:** 10 **QC Samples + Misc.:** 5 **ContinuingCals:** 1 **Tunes:** 1 **Calibrations:** 0

```
   Sequence Name: C:\msdchem\1\sequence\060320.S
         Comment:
        Operator: Dave Fada
       Data Path: C:\MSDCHEM\1\DATA\060320\
Instrument Control  Pre-Seq Cmd:
Data Analysis       Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis      Post-Seq Cmd:

   Method Sections To Run      On A Barcode Mismatch
    (X) Full Method              (X) Inject Anyway
    ( ) Reprocessing Only        ( ) Don't Inject

   ---------------------------------------------------------------------
   Line                    Sample Name/Misc Info
   ---------------------------------------------------------------------
   1   Type: Blank         Solvent Blank + ISTD's
       Vial: 1             Solvent Blank + ISTD's
       Method   : PHPAH.M
       Datafile: BLANK-1.D
       Bar Code: 421152            Samp Amt: 1000        Multiplr: 1
       Matrix            :Method Default   Sublist          :Method Default
       Spikelist         :Method Default   Re-inject        :No
   ---------------------------------------------------------------------
   2   Type: Tune          SS#1254A DFTPP
       Vial: 2             DFTPP 0.5 ug/ml 20 ul injection
       Method   : LVI_DFTP.M
       Datafile: DFTPP-1.D
       Bar Code: 421152            Samp Amt: 1           Multiplr: 1
       Matrix            :Method Default   Sublist          :Method Default
       Spikelist         :Method Default   Re-inject        :No
   ---------------------------------------------------------------------
   3   Type: Cont.Cal      SS#1120E 250 ppb
       Vial: 3             Phthalate/PAH 250 ppb 20 ul injection
       Method   : PHPAH.M
       Datafile: CCALI-1.D
       Bar Code: 421152            Samp Amt: 1           Multiplr: 1
       Matrix            :Method Default   Sublist          :Method Default
       Spikelist         :Method Default   Re-inject        :No
   ---------------------------------------------------------------------
   4   Type: Blank         Method Blank (03-03-2006)
       Vial: 4             WG84753;BL#636;SS#969x200;SS#1057/1066
       Method   : PHPAH.M
       Datafile: WG84753-1.D
       Bar Code: 423589            Samp Amt: 4000        Multiplr: 1
       Matrix            :Liquid           Sublist          :Method Default
       Spikelist         :Method Default   Re-inject        :No
   ---------------------------------------------------------------------
   5   Type: Blank         Method Blank (03-06-2006)
       Vial: 5             WG84753;BL#636;SS#969x200;SS#1057/1066
       Method   : PHPAH.M
       Datafile: WG84753-3.D
       Bar Code: 423589            Samp Amt: 4000        Multiplr: 1
       Matrix            :Liquid           Sublist          :Method Default
       Spikelist         :Method Default   Re-inject        :No
   ---------------------------------------------------------------------
   6   Type: SB            Spike Blank
       Vial: 6             WG84753;BL#636;SS#969x200;SS#1057/1066
       Method   : PHPAH.M
       Datafile: WG84753-2.D
       Bar Code: 423589            Samp Amt: 4000        Multiplr: 1
       Matrix            :Liquid           Sublist          :Method Default
       Spikelist         :Method Default   Re-inject        :No
   ---------------------------------------------------------------------
   7   Type: SBD           Spike Blank Dup
       Vial: 7             WG84753;BL#636;SS#969x200;SS#1057/1066
       Method   : PHPAH.M
       Datafile: WG84753-4.D
       Bar Code: 423589            Samp Amt: 4000        Multiplr: 1
       Matrix            :Liquid           Sublist          :Method Default
       Spikelist         :Method Default   Re-inject        :No
   ---------------------------------------------------------------------
   8   Type: Sample        Lower Duwamish Phthalate Studies

   Sequence Last Modified  Mon Mar 20 09:27:46 2006        Page: 1
```

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```
    Vial: 8            WG84753;BL#636;SS#969x200;SS#1057/1066
    Method  : PHPAH.M
    Datafile: L38230-1X.D
    Bar Code: 423589            Samp Amt: 3661        Multiplr: 10
    Matrix            :Liquid            Sublist          :Method Default
    Spikelist         :Method Default    Re-inject        :No
-----------------------------------------------------------------------
9   Type: Sample       Lower Duwamish Phthalate Studies
    Vial: 9            WG84753;BL#636;SS#969x200;SS#1057/1066
    Method  : PHPAH.M
    Datafile: L38230-2X.D
    Bar Code: 423589            Samp Amt: 3275        Multiplr: 10
    Matrix            :Liquid            Sublist          :Method Default
    Spikelist         :Method Default    Re-inject        :No
-----------------------------------------------------------------------
10  Type: Sample       Lower Duwamish Phthalate Studies
    Vial: 10           WG84753;BL#636;SS#969x200;SS#1057/1066
    Method  : PHPAH.M
    Datafile: L38230-3X.D
    Bar Code: 423589            Samp Amt: 3184        Multiplr: 10
    Matrix            :Liquid            Sublist          :Method Default
    Spikelist         :Method Default    Re-inject        :No
-----------------------------------------------------------------------
11  Type: Sample       Lower Duwamish Phthalate Studies
    Vial: 11           WG84753;BL#636;SS#969x200;SS#1057/1066
    Method  : PHPAH.M
    Datafile: L38230-4X.D
    Bar Code: 423589            Samp Amt: 4061        Multiplr: 10
    Matrix            :Liquid            Sublist          :Method Default
    Spikelist         :Method Default    Re-inject        :No
-----------------------------------------------------------------------
12  Type: Sample       Lower Duwamish Phthalate Studies
    Vial: 12           WG84753;BL#636;SS#969x200;SS#1057/1066
    Method  : PHPAH.M
    Datafile: L38230-5X.D
    Bar Code: 423589            Samp Amt: 3910        Multiplr: 10
    Matrix            :Liquid            Sublist          :Method Default
    Spikelist         :Method Default    Re-inject        :No
-----------------------------------------------------------------------
13  Type: Sample       Lower Duwamish Phthalate Studies
    Vial: 13           WG84753;BL#636;SS#969x200;SS#1057/1066
    Method  : PHPAH.M
    Datafile: L38230-1.D
    Bar Code: 423589            Samp Amt: 3661        Multiplr: 1
    Matrix            :Liquid            Sublist          :Method Default
    Spikelist         :Method Default    Re-inject        :No
-----------------------------------------------------------------------
14  Type: Sample       Lower Duwamish Phthalate Studies
    Vial: 14           WG84753;BL#636;SS#969x200;SS#1057/1066
    Method  : PHPAH.M
    Datafile: L38230-2.D
    Bar Code: 423589            Samp Amt: 3275        Multiplr: 1
    Matrix            :Liquid            Sublist          :Method Default
    Spikelist         :Method Default    Re-inject        :No
-----------------------------------------------------------------------
15  Type: Sample       Lower Duwamish Phthalate Studies
    Vial: 15           WG84753;BL#636;SS#969x200;SS#1057/1066
    Method  : PHPAH.M
    Datafile: L38230-3.D
    Bar Code: 423589            Samp Amt: 3184        Multiplr: 1
    Matrix            :Liquid            Sublist          :Method Default
    Spikelist         :Method Default    Re-inject        :No
-----------------------------------------------------------------------
16  Type: Sample       Lower Duwamish Phthalate Studies
    Vial: 16           WG84753;BL#636;SS#969x200;SS#1057/1066
    Method  : PHPAH.M
    Datafile: L38230-4.D
    Bar Code: 423589            Samp Amt: 4061        Multiplr: 1
    Matrix            :Liquid            Sublist          :Method Default
    Spikelist         :Method Default    Re-inject        :No
-----------------------------------------------------------------------
17  Type: Sample       Lower Duwamish Phthalate Studies
    Vial: 17           WG84753;BL#636;SS#969x200;SS#1057/1066
    Method  : PHPAH.M
```



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```
    Datafile: L38230-5.D
    Bar Code: 423589            Samp Amt: 3910        Multiplr: 1
    Matrix          :Liquid           Sublist          :Method Default
    Spikelist       :Method Default   Re-inject        :No
-----------------------------------------------------------------------
18  Type: Blank
    Vial: 1
    Method  : LAST.M
    Datafile:
    Bar Code:                   Samp Amt: 0           Multiplr: 0
    Matrix          :Method Default   Sublist          :Method Default
    Spikelist       :Method Default   Re-inject        :No
-----------------------------------------------------------------------
```

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 04/11/06 07:53 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: WG84753-1 | Matrix: BLANK WTR | List Type: | ORPHPAHSOURCE | | |
| | Project: | Run ID: | R112903 | Col. Date: | |
| | Locator: MB | Work Group: | WG84753 | Rec. Date: | 08-MAR-06 |
| | Site: NONE | QC Type: | MB | Due Date: | |
| | Method Code: 8270B | | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Naphthalene | | ug/L | <MDL | .01 | .02 | |
| Acenaphthylene | | ug/L | <MDL | .005 | .01 | |
| Dimethyl Phthalate | | ug/L | <MDL | .005 | .01 | |
| Acenaphthene | | ug/L | <MDL | .005 | .01 | |
| Fluorene | | ug/L | <MDL | .005 | .01 | |
| Diethyl Phthalate | | ug/L | <MDL | .0075 | .015 | |
| Phenanthrene | | ug/L | <MDL | .005 | .01 | |
| Anthracene | | ug/L | <MDL | .005 | .01 | |
| Di-N-Butyl Phthalate | .0224 | ug/L | B | .005 | .01 | |
| Fluoranthene | | ug/L | <MDL | .005 | .01 | |
| Pyrene | | ug/L | <MDL | .005 | .01 | |
| Benzyl Butyl Phthalate | .012 | ug/L | B | .005 | .01 | |
| Benzo(a)anthracene | | ug/L | <MDL | .005 | .01 | |
| Chrysene | | ug/L | <MDL | .005 | .01 | |
| Bis(2-Ethylhexyl)Phthalate | .0591 | ug/L | B | .005 | .01 | |
| Di-N-Octyl Phthalate | | ug/L | <MDL | .0075 | .015 | |
| Benzo(b)fluoranthene | | ug/L | <MDL | .0075 | .015 | |
| Benzo(k)fluoranthene | | ug/L | <MDL | .0075 | .015 | |
| Benzo(a)pyrene | | ug/L | <MDL | .0075 | .015 | |
| Indeno(1,2,3-Cd)Pyrene | | ug/L | <MDL | .0075 | .015 | |
| Dibenzo(a,h)anthracene | | ug/L | <MDL | .0075 | .015 | |
| Benzo(g,h,i)perylene | | ug/L | <MDL | .0075 | .015 | |
| 2 Methylnaphthalene | | ug/L | <MDL | .0075 | .015 | |
| d14-Terphenyl | .311 | ug/L | | .005 | .01 | |
| D6-Dimethyl Phthalate | .0782 | ug/L | | .005 | .01 | |
| D8-Acenaphthylene | .0833 | ug/L | | .005 | .01 | |
| D10-Fluorene | .0866 | ug/L | | .005 | .01 | |
| D10-Anthracene | .094 | ug/L | | .005 | .01 | |
| D10-Pyrene | .0997 | ug/L | | .005 | .01 | |
| D12-Benzo(a)pyrene | .114 | ug/L | | .005 | .01 | |

| | | | |
|---|---|---|---|
| Amount Analyzed | 4000 | ml | |
| Standard Amount | 1000 | ml | |
| Dilution Factor | 1 | none | |
| Date Analyzed | | | 20-MAR-06 |
| Operator ID | | | Dave Fada |
| Porthandler File | | | /usr/users/seed2/METROS3/files/gcms/WG84753-1.rp |
| Instrument ID | | | 6890n.i |
| Prep Date | | | 06-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| d14-Terphenyl | 100 | 33-141 |
| D6-Dimethyl Phthalate | 63 | 0-150 |
| D8-Acenaphthylene | 67 | 0-150 |
| D10-Fluorene | 69 | 0-150 |
| D10-Anthracene | 75 | 0-150 |
| D10-Pyrene | 80 | 0-150 |
| D12-Benzo(a)pyrene | 91 | 0-150 |



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KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 04/11/06 07:53 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: WG84753-2 | Matrix: BLANK WTR | List Type: | ORPHPAHSOURCE | | |
| | Project: | Run ID: | R112903 | Col. Date: | |
| | Locator: SB | Work Group: | WG84753 | Rec. Date: | 08-MAR-06 |
| | Site: NONE | QC Type: | SB | Due Date: | |
| | Method Code: 8270B | | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Naphthalene | | ug/L | <MDL | .01 | .02 | |
| Acenaphthylene | .0641 | ug/L | | .005 | .01 | |
| Dimethyl Phthalate | .0705 | ug/L | | .005 | .01 | |
| Acenaphthene | | ug/L | <MDL | .005 | .01 | |
| Fluorene | .0707 | ug/L | | .005 | .01 | |
| Diethyl Phthalate | .102 | ug/L | | .0075 | .015 | |
| Phenanthrene | .1 | ug/L | | .005 | .01 | |
| Anthracene | .0863 | ug/L | | .005 | .01 | |
| Di-N-Butyl Phthalate | .14 | ug/L | | .005 | .01 | |
| Fluoranthene | | ug/L | <MDL | .005 | .01 | |
| Pyrene | .137 | ug/L | | .005 | .01 | |
| Benzyl Butyl Phthalate | .178 | ug/L | | .005 | .01 | |
| Benzo(a)anthracene | .117 | ug/L | | .005 | .01 | |
| Chrysene | .114 | ug/L | | .005 | .01 | |
| Bis(2-Ethylhexyl)Phthalate | .22 | ug/L | | .005 | .01 | |
| Di-N-Octyl Phthalate | | ug/L | <MDL | .0075 | .015 | |
| Benzo(b)fluoranthene | .119 | ug/L | | .0075 | .015 | |
| Benzo(k)fluoranthene | .105 | ug/L | | .0075 | .015 | |
| Benzo(a)pyrene | .103 | ug/L | | .0075 | .015 | |
| Indeno(1,2,3-Cd)Pyrene | .112 | ug/L | | .0075 | .015 | |
| Dibenzo(a,h)anthracene | .109 | ug/L | | .0075 | .015 | |
| Benzo(g,h,i)perylene | .109 | ug/L | | .0075 | .015 | |
| 2-Methylnaphthalene | | ug/L | <MDL | .0075 | .015 | |
| d14-Terphenyl | .316 | ug/L | | .005 | .01 | |
| D6-Dimethyl Phthalate | .0704 | ug/L | | .005 | .01 | |
| D8-Acenaphthylene | .081 | ug/L | | .005 | .01 | |
| D10-Fluorene | .0832 | ug/L | | .005 | .01 | |
| D10-Anthracene | .0938 | ug/L | | .005 | .01 | |
| D10-Pyrene | .0959 | ug/L | | .005 | .01 | |
| D12-Benzo(a)pyrene | .112 | ug/L | | .005 | .01 | |

| | | | |
|---|---|---|---|
| Amount Analyzed | 4000 | ml | |
| Standard Amount | 1000 | ml | |
| Dilution Factor | 1 | none | |
| Date Analyzed | | | 20-MAR-06 |
| Operator ID | | | Dave Fada |
| Porthandler File | | | /usr/users/seed2/METROS3/files/gcms/WG84753-2.rp |
| Instrument ID | | | 6890n.i |
| Prep Date | | | 06-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| d14-Terphenyl | 101 | 33-141 |
| D6-Dimethyl Phthalate | 56 | 0-150 |
| D8-Acenaphthylene | 65 | 0-150 |
| D10-Fluorene | 67 | 0-150 |
| D10-Anthracene | 75 | 0-150 |
| D10-Pyrene | 77 | 0-150 |
| D12-Benzo(a)pyrene | 89 | 0-150 |



KCSlip4 55891

SEA422219

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 04/11/06 07:53 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: WG84753-3 | Matrix: BLANK WTR | List Type: | ORPHPAHSOURCE | | |
| | Project: | Run ID: | R112903 | Col. Date: | |
| | Locator: MB | Work Group: | WG84753 | Rec. Date: | 08-MAR-06 |
| | Site: NONE | QC Type: | MB | Due Date: | |
| | Method Code: 8270B | | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Naphthalene | | ug/L | <MDL | .01 | .02 | |
| Acenaphthylene | | ug/L | <MDL | .005 | .01 | |
| Dimethyl Phthalate | | ug/L | <MDL | .005 | .01 | |
| Acenaphthene | | ug/L | <MDL | .005 | .01 | |
| Fluorene | | ug/L | <MDL | .005 | .01 | |
| Diethyl Phthalate | | ug/L | <MDL | .0075 | .015 | |
| Phenanthrene | | ug/L | <MDL | .005 | .01 | |
| Anthracene | | ug/L | <MDL | .005 | .01 | |
| Di-N-Butyl Phthalate | .0197 | ug/L | B | .005 | .01 | |
| Fluoranthene | | ug/L | <MDL | .005 | .01 | |
| Pyrene | | ug/L | <MDL | .005 | .01 | |
| Benzyl Butyl Phthalate | .0119 | ug/L | B | .005 | .01 | |
| Benzo(a)anthracene | | ug/L | <MDL | .005 | .01 | |
| Chrysene | | ug/L | <MDL | .005 | .01 | |
| Bis(2-Ethylhexyl)Phthalate | .0535 | ug/L | B | .005 | .01 | |
| Di-N-Octyl Phthalate | | ug/L | <MDL | .0075 | .015 | |
| Benzo(b)fluoranthene | | ug/L | <MDL | .0075 | .015 | |
| Benzo(k)fluoranthene | | ug/L | <MDL | .0075 | .015 | |
| Benzo(a)pyrene | | ug/L | <MDL | .0075 | .015 | |
| Indeno(1,2,3-Cd)Pyrene | | ug/L | <MDL | .0075 | .015 | |
| Dibenzo(a,h)anthracene | | ug/L | <MDL | .0075 | .015 | |
| Benzo(g,h,i)perylene | | ug/L | <MDL | .0075 | .015 | |
| 2-Methylnaphthalene | | ug/L | <MDL | .0075 | .015 | |
| d14-Terphenyl | .307 | ug/L | | .005 | .01 | |
| D6-Dimethyl Phthalate | .0667 | ug/L | | .005 | .01 | |
| D8-Acenaphthylene | .0702 | ug/L | | .005 | .01 | |
| D10-Fluorene | .0802 | ug/L | | .005 | .01 | |
| D10-Anthracene | .0898 | ug/L | | .005 | .01 | |
| D10-Pyrene | .0994 | ug/L | | .005 | .01 | |
| D12-Benzo(a)pyrene | .107 | ug/L | | .005 | .01 | |

| | | | |
|---|---|---|---|
| Amount Analyzed | 4000 | ml | |
| Standard Amount | 1000 | ml | |
| Dilution Factor | 1 | none | |
| Date Analyzed | | | 20-MAR-06 |
| Operator ID | | | Dave Fada |
| Porthandler File | | | /usr/users/seed2/METROS3/files/gcms/WG84753-3.rp |
| Instrument ID | | | 6890n.i |
| Prep Date | | | 06-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| d14-Terphenyl | 98 | 33-141 |
| D6-Dimethyl Phthalate | 53 | 0-150 |
| D8-Acenaphthylene | 56 | 0-150 |
| D10-Fluorene | 64 | 0-150 |
| D10-Anthracene | 72 | 0-150 |
| D10-Pyrene | 79 | 0-150 |
| D12-Benzo(a)pyrene | 86 | 0-150 |



KCSlip4 55892

SEA422220

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 04/11/06 07:53 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: WG84753-4 | Matrix: BLANK WTR | List Type: | ORPHPAHSOURCE | | |
| | Project: | Run ID: | R112903 | Col. Date: | |
| | Locator: SBD | Work Group: | WG84753 | Rec. Date: | 08-MAR-06 |
| | Site: NONE | QC Type: | SBD | Due Date: | |
| | Method Code: 8270B | | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Naphthalene | | ug/L | <MDL | .01 | .02 | |
| Acenaphthylene | .0681 | ug/L | | .005 | .01 | |
| Dimethyl Phthalate | .0687 | ug/L | | .005 | .01 | |
| Acenaphthene | | ug/L | <MDL | .005 | .01 | |
| Fluorene | .0803 | ug/L | | .005 | .01 | |
| Diethyl Phthalate | .0995 | ug/L | | .0075 | .015 | |
| Phenanthrene | .104 | ug/L | | .005 | .01 | |
| Anthracene | .0898 | ug/L | | .005 | .01 | |
| Di-N-Butyl Phthalate | .133 | ug/L | | .005 | .01 | |
| Fluoranthene | | ug/L | <MDL | .005 | .01 | |
| Pyrene | .128 | ug/L | | .005 | .01 | |
| Benzyl Butyl Phthalate | .163 | ug/L | | .005 | .01 | |
| Benzo(a)anthracene | .115 | ug/L | | .005 | .01 | |
| Chrysene | .115 | ug/L | | .005 | .01 | |
| Bis(2-Ethylhexyl)Phthalate | .179 | ug/L | | .005 | .01 | |
| Di-N-Octyl Phthalate | | ug/L | <MDL | .0075 | .015 | |
| Benzo(b)fluoranthene | .113 | ug/L | | .0075 | .015 | |
| Benzo(k)fluoranthene | .121 | ug/L | | .0075 | .015 | |
| Benzo(a)pyrene | .1 | ug/L | | .0075 | .015 | |
| Indeno(1,2,3-Cd)Pyrene | .115 | ug/L | | .0075 | .015 | |
| Dibenzo(a,h)anthracene | .114 | ug/L | | .0075 | .015 | |
| Benzo(g,h,i)perylene | .113 | ug/L | | .0075 | .015 | |
| 2-Methylnaphthalene | | ug/L | <MDL | .0075 | .015 | |
| d14-Terphenyl | .311 | ug/L | | .005 | .01 | |
| D6-Dimethyl Phthalate | .0682 | ug/L | | .005 | .01 | |
| D8-Acenaphthylene | .0786 | ug/L | | .005 | .01 | |
| D10-Fluorene | .088 | ug/L | | .005 | .01 | |
| D10-Anthracene | .0917 | ug/L | | .005 | .01 | |
| D10-Pyrene | .097 | ug/L | | .005 | .01 | |
| D12-Benzo(a)pyrene | .107 | ug/L | | .005 | .01 | |
| Amount Analyzed | 4000 | ml | | | | |
| Standard Amount | 1000 | ml | | | | |
| Dilution Factor | 1 | none | | | | |
| Date Analyzed | | | | | | 20-MAR-06 |
| Operator ID | | | | | | Dave Fada |
| Porthandler File | | | | | | /usr/users/seed2/METROS3/files/gcms/WG84753-4.rp |
| Instrument ID | | | | | | 6890n.i |
| Prep Date | | | | | | 06-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| d14-Terphenyl | 99 | 33-141 |
| D6-Dimethyl Phthalate | 55 | 0-150 |
| D8-Acenaphthylene | 63 | 0-150 |
| D10-Fluorene | 70 | 0-150 |
| D10-Anthracene | 73 | 0-150 |
| D10-Pyrene | 78 | 0-150 |
| D12-Benzo(a)pyrene | 86 | 0-150 |



KCSlip4 55893

SEA422221

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 04/11/06 07:53 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230-1 | Matrix: | STORM WTR | List Type: | ORPHPAHSOURCE | |
| | Project: | 423589-090-1 | Run ID: | R112903 | Col. Date: 27-FEB-06 |
| | Locator: | DZ | Work Group: | WG84753 | Rec. Date: 27-FEB-06 |
| | Site: | METRO | QC Type: | | Due Date: 29-MAR-06 |
| | Method Code: | 8270B | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Naphthalene | .0349 | ug/L | | .011 | .0219 | |
| Acenaphthylene | .012 | ug/L | | .0055 | .0109 | |
| Dimethyl Phthalate | .028 | ug/L | | .0055 | .0109 | |
| Acenaphthene | .0073 | ug/L | <RDL | .0055 | .0109 | |
| Fluorene | .0142 | ug/L | | .0055 | .0109 | |
| Diethyl Phthalate | .013 | ug/L | <RDL | .0082 | .0164 | |
| Phenanthrene | .114 | ug/L | | .0055 | .0109 | |
| Anthracene | .0141 | ug/L | | .0055 | .0109 | |
| Di-N-Butyl Phthalate | .0514 | ug/L | B | .0055 | .0109 | |
| Fluoranthene | .131 | ug/L | | .0055 | .0109 | |
| Pyrene | .176 | ug/L | | .0055 | .0109 | |
| Benzyl Butyl Phthalate | .177 | ug/L | | .0055 | .0109 | |
| Benzo(a)anthracene | .0473 | ug/L | | .0055 | .0109 | |
| Chrysene | .114 | ug/L | | .0055 | .0109 | |
| Bis(2-Ethylhexyl)Phthalate | 1.51 | ug/L | TA | .0055 | .0109 | value from 10x dilution |
| Di-N-Octyl Phthalate | .388 | ug/L | TA | .0082 | .0164 | value from 10x dilution |
| Benzo(b)fluoranthene | .0902 | ug/L | | .0082 | .0164 | |
| Benzo(k)fluoranthene | .0799 | ug/L | | .0082 | .0164 | |
| Benzo(a)pyrene | .0489 | ug/L | | .0082 | .0164 | |
| Indeno(1,2,3-Cd)Pyrene | .0564 | ug/L | | .0082 | .0164 | |
| Dibenzo(a,h)anthracene | .012 | ug/L | <RDL | .0082 | .0164 | |
| Benzo(g,h,i)perylene | .0849 | ug/L | | .0082 | .0164 | |
| 2-Methylnaphthalene | .0261 | ug/L | | .0082 | .0164 | |
| d14-Terphenyl | .393 | ug/L | | .0055 | .0109 | |
| D6-Dimethyl Phthalate | .0628 | ug/L | | .0055 | .0109 | |
| D8-Acenaphthylene | .0005 | ug/L | <RDL | .000055 | .0109 | |
| D10-Fluorene | .0011 | ug/L | <RDL | .000055 | .0109 | |
| D10-Anthracene | .0024 | ug/L | <RDL | .000055 | .0109 | |
| D10-Pyrene | .0236 | ug/L | | .0055 | .0109 | |
| D12-Benzo(a)pyrene | .0608 | ug/L | | .0055 | .0109 | |

| | | | |
|---|---|---|---|
| Amount Analyzed | 3661 | ml | |
| Standard Amount | 1000 | ml | |
| Dilution Factor | 1 | none | |
| Date Analyzed | | | 20-MAR-06 |
| Operator ID | | | Dave Fada |
| Porthandler File | | | /usr/users/seed2/METROS3/files/gcms/L38230-1.rp |
| Instrument ID | | | 6890n.i |
| Prep Date | | | 06-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | | Lab Limits |
|---|---|---|---|
| d14-Terphenyl | 115 | | 33-141 |
| D6-Dimethyl Phthalate | 46 | | 0-150 |
| D8-Acenaphthylene | 0 | * | 0-150 |
| D10-Fluorene | 1 | * | 0-150 |
| D10-Anthracene | 2 | * | 0-150 |
| D10-Pyrene | 17 | | 0-150 |
| D12-Benzo(a)pyrene | 45 | | 0-150 |



KCSlip4 55894

SEA422222

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report 04/11/06 07:53 Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230 2 | Matrix: | STORM WTR | List Type: | ORPHPAHSOURCE | |
| | Project: | 423589-090-1 | Run ID: | R112903 | Col. Date: 27-FEB-06 |
| | Locator: | CE | Work Group: | WG84753 | Rec. Date: 27-FEB-06 |
| | Site: | METRO | QC Type: | | Due Date: 29-MAR-06 |
| | Method Code: | 8270B | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Naphthalene | .022 | ug/L | <RDL | .012 | .0244 | |
| Acenaphthylene | .0142 | ug/L | | .0061 | .0122 | |
| Dimethyl Phthalate | .0466 | ug/L | | .0061 | .0122 | |
| Acenaphthene | .0142 | ug/L | | .0061 | .0122 | |
| Fluorene | .0186 | ug/L | | .0061 | .0122 | |
| Diethyl Phthalate | .0604 | ug/L | | .0092 | .0183 | |
| Phenanthrene | .208 | ug/L | | .0061 | .0122 | |
| Anthracene | .0326 | ug/L | | .0061 | .0122 | |
| Di-N-Butyl Phthalate | .103 | ug/L | | .0061 | .0122 | |
| Fluoranthene | .269 | ug/L | | .0061 | .0122 | |
| Pyrene | .459 | ug/L | TA | .0061 | .0122 | value from 10x dilution |
| Benzyl Butyl Phthalate | .446 | ug/L | TA | .0061 | .0122 | value from 10x dilution |
| Benzo(a)anthracene | .12 | ug/L | | .0061 | .0122 | |
| Chrysene | .229 | ug/L | | .0061 | .0122 | |
| Bis(2-Ethylhexyl)Phthalate | 4.23 | ug/L | TA | .0061 | .0122 | value from 10x dilution |
| Di-N-Octyl Phthalate | .202 | ug/L | | .0092 | .0183 | |
| Benzo(b)fluoranthene | .164 | ug/L | | .0092 | .0183 | |
| Benzo(k)fluoranthene | .166 | ug/L | | .0092 | .0183 | |
| Benzo(a)pyrene | .143 | ug/L | | .0092 | .0183 | |
| Indeno(1,2,3-Cd)Pyrene | .101 | ug/L | | .0092 | .0183 | |
| Dibenzo(a,h)anthracene | .0265 | ug/L | | .0092 | .0183 | |
| Benzo(g,h,i)perylene | .142 | ug/L | | .0092 | .0183 | |
| 2-Methylnaphthalene | .014 | ug/L | <RDL | .0092 | .0183 | |
| d14-Terphenyl | .443 | ug/L | | .0061 | .0122 | |
| D6-Dimethyl Phthalate | .109 | ug/L | | .0061 | .0122 | |
| D8-Acenaphthylene | .00035 | ug/L | <RDL | .000061 | .0122 | |
| D10-Fluorene | .0071 | ug/L | <RDL | .0061 | .0122 | |
| D10-Anthracene | .0023 | ug/L | <RDL | .000061 | .0122 | |
| D10-Pyrene | .0412 | ug/L | | .0061 | .0122 | |
| D12-Benzo(a)pyrene | .0454 | ug/L | | .0061 | .0122 | |

| | | | |
|---|---|---|---|
| Amount Analyzed | 3275 | ml | |
| Standard Amount | 1000 | ml | |
| Dilution Factor | 1 | none | |
| Date Analyzed | | | 20-MAR-06 |
| Operator ID | | | Dave Fada |
| Porthandler File | | | /usr/users/seed2/METROSJ/files/gcms/L38230-2.rp |
| Instrument ID | | | 6890n.i |
| Prep Date | | | 06-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | | Lab Limits |
|---|---|---|---|
| d14-Terphenyl | 116 | | 33-141 |
| D6-Dimethyl Phthalate | 71 | | 0-150 |
| D8-Acenaphthylene | 0 | * | 0-150 |
| D10-Fluorene | 5 | * | 0-150 |
| D10-Anthracene | 1 | * | 0-150 |
| D10-Pyrene | 27 | | 0-150 |
| D12-Benzo(a)pyrene | 30 | | 0-150 |



KCSlip4 55895

SEA422223

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 04/11/06 07:53 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230-3 | Matrix: STORM WTR | List Type: ORPHPAHSOURCE | | | |
| | Project: 423589-090-1 | Run ID: R112903 | | Col. Date: | 27-FEB-06 |
| | Locator: BW | Work Group: WCB4753 | | Rec. Date: | 27-FEB-06 |
| | Site: METRO | QC Type: | | Due Date: | 29-MAR-06 |
| | Method Code: 8270B | | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Naphthalene | .02 | ug/L | <RDL | .013 | .0251 | |
| Acenaphthylene | | ug/L | <MDL | .0063 | .0126 | |
| Dimethyl Phthalate | .0138 | ug/L | | .0063 | .0126 | |
| Acenaphthene | | ug/L | <MDL | .0063 | .0126 | |
| Fluorene | .0076 | ug/L | <RDL | .0063 | .0126 | |
| Diethyl Phthalate | .0588 | ug/L | | .0094 | .0188 | |
| Phenanthrene | .0434 | ug/L | | .0063 | .0126 | |
| Anthracene | | ug/L | <MDL | .0063 | .0126 | |
| Di-N-Butyl Phthalate | .0844 | ug/L | | .0063 | .0126 | |
| Fluoranthene | .0388 | ug/L | | .0063 | .0126 | |
| Pyrene | .0476 | ug/L | | .0063 | .0126 | |
| Benzyl Butyl Phthalate | .152 | ug/L | | .0063 | .0126 | |
| Benzo(a)anthracene | .0139 | ug/L | | .0063 | .0126 | |
| Chrysene | .0325 | ug/L | | .0063 | .0126 | |
| Bis(2-Ethylhexyl)Phthalate | .872 | ug/L | TA | .0063 | .0126 | value from 10x dilution |
| Di-N-Octyl Phthalate | .0869 | ug/L | | .0094 | .0188 | |
| Benzo(b)fluoranthene | .0278 | ug/L | | .0094 | .0188 | |
| Benzo(k)fluoranthene | .0204 | ug/L | | .0094 | .0188 | |
| Benzo(a)pyrene | .013 | ug/L | <RDL | .0094 | .0188 | |
| Indeno(1,2,3-Cd)Pyrene | .016 | ug/L | <RDL | .0094 | .0188 | |
| Dibenzo(a,h)anthracene | | ug/L | <MDL | .0094 | .0188 | |
| Benzo(g,h,i)perylene | .0245 | ug/L | | .0094 | .0188 | |
| 2-Methylnaphthalene | .012 | ug/L | <RDL | .0094 | .0188 | |
| d14-Terphenyl | .434 | ug/L | | .0063 | .0126 | |
| D6-Dimethyl Phthalate | .0924 | ug/L | | .0063 | .0126 | |
| D8-Acenaphthylene | .00068 | ug/L | <RDL | .000063 | .0126 | |
| D10-Fluorene | .0075 | ug/L | <RDL | .0063 | .0126 | |
| D10-Anthracene | .0023 | ug/L | <RDL | .000063 | .0126 | |
| D10-Pyrene | .0248 | ug/L | | .0063 | .0126 | |
| D12 Benzo(a)pyrene | .0212 | ug/L | | .0063 | .0126 | |

| | | | |
|---|---|---|---|
| Amount Analyzed | 3194 | ml | |
| Standard Amount | 1000 | ml | |
| Dilution Factor | 1 | none | |
| Date Analyzed | | | 20-MAR-06 |
| Operator ID | | | Dave Fada |
| Porthandler File | | | /usr/users/seed2/METROS3/files/gcms/L38230-3.rp |
| Instrument ID | | | 6890n.i |
| Prep Date | | | 06-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | | Lab Limits |
|---|---|---|---|
| d14-Terphenyl | 111 | | 33-141 |
| D6 Dimethyl Phthalate | 59 | | 0-150 |
| D8-Acenaphthylene | 0 | * | 0-150 |
| D10-Fluorene | 5 | * | 0-150 |
| D10-Anthracene | 1 | * | 0-150 |
| D10-Pyrene | 16 | | 0-150 |
| D12-Benzo(a)pyrene | 13 | | 0-150 |



KCSlip4 55896

SEA422224

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 04/11/06 07:53 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230-4 | Matrix: STORM WTR | List Type: ORPHPAHSOURCE | | | |
| | Project: 423589-090-1 | Run ID: R112903 | Col. Date: | 27-FEB-06 |
| | Locator: SPCC | Work Group: WG84753 | Rec. Date: | 27-FEB-06 |
| | Site: METRO | QC Type: | Due Date: | 29-MAR-06 |
| | Method Code: 8270B | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Naphthalene | .0396 | ug/L | | .0098 | .0197 | |
| Acenaphthylene | .0117 | ug/L | | .0049 | .00985 | |
| Dimethyl Phthalate | .0206 | ug/L | | .0049 | .00985 | |
| Acenaphthene | | ug/L | <MDL | .0049 | .00985 | |
| Fluorene | .0122 | ug/L | | .0049 | .00985 | |
| Diethyl Phthalate | .0647 | ug/L | | .0074 | .0148 | |
| Phenanthrene | .0897 | ug/L | | .0049 | .00985 | |
| Anthracene | .0096 | ug/L | <RDL | .0049 | .00985 | |
| Di-N-Butyl Phthalate | .09 | ug/L | | .0049 | .00985 | |
| Fluoranthene | .0931 | ug/L | | .0049 | .00985 | |
| Pyrene | .122 | ug/L | | .0049 | .00985 | |
| Benzyl Butyl Phthalate | .905 | ug/L | TA | .0049 | .00985 | value from 10x dilution |
| Benzo(a)anthracene | .0301 | ug/L | | .0049 | .00985 | |
| Chrysene | .0686 | ug/L | | .0049 | .00985 | |
| Bis(2-Ethylhexyl)Phthalate | 1.46 | ug/L | TA | .0049 | .00985 | value from 10x dilution |
| Di-N-Octyl Phthalate | .0795 | ug/L | | .0074 | .0148 | |
| Benzo(b)fluoranthene | .0494 | ug/L | | .0074 | .0148 | |
| Benzo(k)fluoranthene | .0491 | ug/L | | .0074 | .0148 | |
| Benzo(a)pyrene | .0325 | ug/L | | .0074 | .0148 | |
| Indeno(1,2,3-Cd)Pyrene | .0277 | ug/L | | .0074 | .0148 | |
| Dibenzo(a,h)anthracene | .01 | ug/L | <RDL | .0074 | .0148 | |
| Benzo(g,h,i)perylene | .0407 | ug/L | | .0074 | .0148 | |
| 2-Methylnaphthalene | .0178 | ug/L | | .0074 | .0148 | |
| d14-Terphenyl | .358 | ug/L | | .0049 | .00985 | |
| D6-Dimethyl Phthalate | .0715 | ug/L | | .0049 | .00985 | |
| D8-Acenaphthylene | .0124 | ug/L | | .0049 | .00985 | |
| D10-Fluorene | .0482 | ug/L | | .0049 | .00985 | |
| D10-Anthracene | .0013 | ug/L | <RDL | .000049 | .00985 | |
| D10-Pyrene | .0441 | ug/L | | .0049 | .00985 | |
| D12-Benzo(a)pyrene | .0585 | ug/L | | .0049 | .00985 | |

| | | | |
|---|---|---|---|
| Amount Analyzed | 4061 | ml | |
| Standard Amount | 1000 | ml | |
| Dilution Factor | 1 | none | |
| Date Analyzed | | | 20-MAR-06 |
| Operator ID | | | Dave Fada |
| Porthandler File | | | /usr/users/seed2/METROS3/files/gcms/L38230-4.rp |
| Instrument ID | | | 6890n.i |
| Prep Date | | | 06-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| d14-Terphenyl | 116 | 33-141 |
| D6-Dimethyl Phthalate | 58 | 0-150 |
| D8-Acenaphthylene | 10 | 0-150 |
| D10-Fluorene | 39 | 0-150 |
| D10-Anthracene | 1 * | 0-150 |
| D10-Pyrene | 36 | 0-150 |
| D12-Benzo(a)pyrene | 47 | 0-150 |



KCSlip4 55897

SEA422225

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 04/11/06 07:53 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230-5 | Matrix: | STORM WTR | List Type: | ORPHPAHSOURCE | |
| | Project: | 423589-090-1 | Run ID: | R112903 | Col. Date: 27-FEB-06 |
| | Locator: | KCIA | Work Group: | WG84753 | Rec. Date: 27-FEB-06 |
| | Site: | METRO | QC Type: | | Due Date: 29-MAR-06 |
| | Method Code: | 8270B | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Naphthalene | .0298 | ug/L | | .01 | .0205 | |
| Acenaphthylene | .02 | ug/L | | .0051 | .0102 | |
| Dimethyl Phthalate | .0163 | ug/L | | .0051 | .0102 | |
| Acenaphthene | .0219 | ug/L | | .0051 | .0102 | |
| Fluorene | .0328 | ug/L | | .0051 | .0102 | |
| Diethyl Phthalate | .0624 | ug/L | | .0077 | .0153 | |
| Phenanthrene | .633 | ug/L | TA | .0051 | .0102 | value from 10x dilution |
| Anthracene | .0576 | ug/L | | .0051 | .0102 | |
| Di-N-Butyl Phthalate | .0733 | ug/L | | .0051 | .0102 | |
| Fluoranthene | 1.35 | ug/L | TA | .0051 | .0102 | value from 10x dilution |
| Pyrene | 1.43 | ug/L | TA | .0051 | .0102 | value from 10x dilution |
| Benzyl Butyl Phthalate | .384 | ug/L | TA | .0051 | .0102 | value from 10x dilution |
| Benzo(a)anthracene | .448 | ug/L | TA | .0051 | .0102 | value from 10x dilution |
| Chrysene | .943 | ug/L | TA | .0051 | .0102 | value from 10x dilution |
| Bis(2-Ethylhexyl)Phthalate | 1.12 | ug/L | TA | .0051 | .0102 | value from 10x dilution |
| Di-N-Octyl Phthalate | | ug/L | <MDL | .0077 | .0153 | |
| Benzo(b)fluoranthene | .934 | ug/L | TA | .0077 | .0153 | value from 10x dilution |
| Benzo(k)fluoranthene | .797 | ug/L | TA | .0077 | .0153 | value from 10x dilution |
| Benzo(a)pyrene | .615 | ug/L | TA | .0077 | .0153 | value from 10x dilution |
| Indeno(1,2,3-Cd)Pyrene | .567 | ug/L | TA | .0077 | .0153 | value from 10x dilution |
| Dibenzo(a,h)anthracene | .159 | ug/L | | .0077 | .0153 | |
| Benzo(g,h,i)perylene | .628 | ug/L | TA | .0077 | .0153 | value from 10x dilution |
| 2-Methylnaphthalene | .0182 | ug/L | | .0077 | .0153 | |
| d14-Terphenyl | .332 | ug/L | | .0051 | .0102 | |
| D6-Dimethyl Phthalate | .0633 | ug/L | | .0051 | .0102 | |
| D8-Acenaphthylene | .00062 | ug/L | <RDL | .000051 | .0102 | |
| D10-Fluorene | .0052 | ug/L | <RDL | .0051 | .0102 | |
| D10-Anthracene | .0014 | ug/L | <RDL | .000051 | .0102 | |
| D10-Pyrene | .034 | ug/L | | .0051 | .0102 | |
| D12-Benzo(a)pyrene | .0452 | ug/L | | .0051 | .0102 | |

| | | | |
|---|---|---|---|
| Amount Analyzed | 3910 | ml | |
| Standard Amount | 1000 | ml | |
| Dilution Factor | 1 | none | |
| Date Analyzed | | | 20-MAR-06 |
| Operator ID | | | Dave Fada |
| Porthandler File | | | /usr/users/seed2/METROS3/files/gcms/L38230-5.rp |
| Instrument ID | | | 6890n.i |
| Prep Date | | | 06-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | | Lab Limits |
|---|---|---|---|
| d14-Terphenyl | 104 | | 33-141 |
| D6-Dimethyl Phthalate | 50 | | 0-150 |
| D8-Acenaphthylene | 0 | * | 0-150 |
| D10-Fluorene | 4 | * | 0-150 |
| D10-Anthracene | 1 | * | 0-150 |
| D10-Pyrene | 27 | | 0-150 |
| D12-Benzo(a)pyrene | 35 | | 0-150 |



KCSlip4 55898

SEA422226

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Apr 05 2006, 01:43 pm

Work Group: WG84831 (PCBWIPE) for Department: 7 - Organics, Trace

Created: 14-MAR-06 PrepDate: 13-MAR-06 Due: Operator: MCD/JF

| Sample | Project Number | Project Description | PKey | C | Product | Matrix | Stat | UA | Workdate | Duedate |
|---|---|---|---|---|---|---|---|---|---|---|
| L38230-10 | 423589-090-1 | Lower Duwamish Phthalate Studies | S | | PCBWIPE | OTHR SOLID | DONE | U | 13-MAR-06 | 29-MAR-06 |
| L38230-6 | 423589-090-1 | Lower Duwamish Phthalate Studies | S | | PCBWIPE | OTHR SOLID | DONE | U | 13-MAR-06 | 29-MAR-06 |
| L38230-7 | 423589-090-1 | Lower Duwamish Phthalate Studies | S | | PCBWIPE | OTHR SOLID | DONE | U | 13-MAR-06 | 29-MAR-06 |
| L38230-8 | 423589-090-1 | Lower Duwamish Phthalate Studies | S | | PCBWIPE | OTHR SOLID | DONE | U | 13-MAR-06 | 29-MAR-06 |
| L38230-9 | 423589-090-1 | Lower Duwamish Phthalate Studies | S | | PCBWIPE | OTHR SOLID | DONE | U | 13-MAR-06 | 29-MAR-06 |
| WG84831-1 | MB | | S | | PCBWIPE | OTHR SOLID | DONE | U | 14-MAR-06 | |

Comments:

| | |
|---|---|
| L38230-10 | wipes |
| L38230-6 | wipes |
| L38230-7 | wipes |
| L38230-8 | wipes |
| L38230-9 | wipes |
| WG84831-1 | FILTER BLANK 13-MAR-06 |



KCSlip4 55899

SEA422227

# TRACE ORGANICS LABORATORY

QC BATCH NO.: BS

1:1 Acetone:MeCl2

EPA SW-846 EXTRACTION METHOD:

SONICATION EPA 3550 SOXHLET EPA 3540

WORKGROUP NO.: WG84830 BNA / WG84831 PCB

BNA SURROGATE SPIKE I.D.#: 100 uL BNA

BNA MATRIX SPIKE I.D.#: 50 uL PCB

Coprostanol:

Caffeine:

| Date/ Analyst | Sample Number | Project Number | Sample Description | coc | Init. Amt (g) | Spike Amount (uL) | Vf (mL) | Clean ups (GPC) | Conc. Anal. | Turn Over Date | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13-MAR-06 | WG84830-1 | | FILTER BLANK | | | 100 uL BNA, 50 uL PCB | 1 mL | AL for | PCB | | Samples conc to 1 mL split for BNA / PCB analysis |
| MMO | WG84831-1 | | | | | | | | | | • 5 BNA |
| | L38230-6 | | Funnel wipes | | | | | | | | • 5 PCB |
| | | -7 | | | | | | | | | |
| | | -8 | | | | | | | | | |
| | | -9 | | | | | | | | | |
| | | -10 | | | | | | | | | |

① Filter papers are cleaned with MeCl2

② Funnels wiped X2 with MeCl2 & placed filter paper

③ BNA & PCB surrogates added, samples extracted X 3 with 50 mls on sonic bath and conc to 1.0 mL.

④ .5 mL for BNA analyses. 0.5 mL exchanged to Hexane and AL cleaned and conc to .5 mL for PCB analyses.



KCSlip4 55900

SEA422228

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 03/29/06 01:44
Run ID: R112756 Workgroup: WG84831 (PCBWIPE)

MB:WG84831-1 Matrix: OTHR SOLID Listtype: ORPCBWIPE Method: 8270D-WIPETEST Project: Pkey: STD
(Method Blank)

| Parameter | Mdl | Rdl | Units | MB Value | Qual |
|---|---|---|---|---|---|
| Aroclor 1016 | 50 | 100 | ug | <MDL | |
| Aroclor 1221 | 50 | 100 | ug | <MDL | |
| Aroclor 1232 | 50 | 100 | ug | <MDL | |
| Aroclor 1242 | 50 | 100 | ug | <MDL | |
| Aroclor 1248 | 50 | 100 | ug | <MDL | |
| Aroclor 1254 | 50 | 100 | ug | <MDL | |
| Aroclor 1260 | 50 | 100 | ug | <MDL | |



KCSlip4 55901
SEA422229

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 03/29/06 01:44
Run ID: R112756 Workgroup: WG84831 (PCBWIPE)

| Sample # | Decachlorobipheny-1 |
|---|---|
| (Lab Limits) | 25-150 |
| L38230-6 | 68 |
| L38230-7 | 79 |
| L38230-8 | 78 |
| L38230-9 | 76 |
| L38230-10 | 77 |
| WG84831-1 | 107 |



KCSlip4 55902
SEA422230

| Data File Name | Sample Name | Date Acquired | Vial Numb | Sample Amount | Sample Multiple | Isodrin (RT) | Isodrin (Height) | Leptophos (RT) | Leptophos (Height) | Isodrin #2 (RT) | Isodrin #2 (Height) | Leptoph (RT) | Leptophos #2 (Height) | Misc Info | Data File Path |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COND-01.D | conditioner | 3/18/2006 12:40 | 1 | 0 | 1 | | | | | | | | | | S:\MSDCHEM\2\DATA\060318\ |
| BLANK-01.D | blank | 3/18/2006 13:17 | 2 | 0 | 1 | | | | | | | | | | S:\MSDCHEM\2\DATA\060318\ |
| PCB-01.D | 1218D 1016/1260 500/50 | 3/18/2006 13:54 | 3 | 0 | 1 | 14.426 | 98909202 | 22.842 | 183091195 | 13.073 | 263834083 | 19.539 | 402324938 | | S:\MSDCHEM\2\DATA\060318\ |
| PCB-02.D | 1209.1 1248 500/50 | 3/18/2006 14:31 | 4 | 0 | 1 | 14.423 | 109655039 | 22.842 | 192972496 | 13.072 | 291878352 | 19.538 | 423724677 | | S:\MSDCHEM\2\DATA\060318\ |
| PCB-03.D | 1210.1 1254 500/50 | 3/18/2006 15:07 | 5 | 0 | 1 | 14.425 | 88952904 | 22.842 | 164247692 | 13.073 | 232367972 | 19.538 | 340481337 | | S:\MSDCHEM\2\DATA\060318\ |
| PCB-04.D | 1206.1 1221 500/50 | 3/18/2006 15:44 | 6 | 0 | 1 | 14.425 | 92257740 | 22.842 | 170702514 | 13.073 | 238563610 | 19.539 | 352466644 | | S:\MSDCHEM\2\DATA\060318\ |
| PCB-05.D | 1207.1 1232 500/50 | 3/18/2006 16:21 | 7 | 0 | 1 | 14.425 | 92801366 | 22.842 | 164100103 | 13.073 | 244008698 | 19.538 | 361127317 | | S:\MSDCHEM\2\DATA\060318\ |
| PCB-06.D | 1208.1 1242 500/50 | 3/18/2006 16:58 | 8 | 0 | 1 | 14.424 | 90695513 | 22.841 | 167800258 | 13.073 | 237558609 | 19.537 | 338613838 | | S:\MSDCHEM\2\DATA\060318\ |
| WG84725-1.D | MB ALUMINA | 3/18/2006 17:34 | 9 | 9000 | 1 | 14.426 | 72776962 | 22.842 | 141266556 | 13.074 | 189960827 | 19.540 | 292938062 | BL633 PCBLL DUWAMISH PHTHALATES | S:\MSDCHEM\2\DATA\060318\ |
| WG84725-2.D | SB ALUMINA | 3/18/2006 18:11 | 10 | 9000 | 1 | 14.426 | 73018170 | 22.843 | 150390802 | 13.073 | 191617681 | 19.539 | 304037236 | BL633 PCBLL DUWAMISH PHTHALATES | S:\MSDCHEM\2\DATA\060318\ |
| L38008-2.D | L38008-2 ALUMINA | 3/18/2006 18:48 | 11 | 6260 | 1 | 14.426 | 58833128 | 22.848 | 147570659 | 13.074 | 187335053 | 19.548 | 348753375 | BL633 PCBLL DUWAMISH PHTHALATES | S:\MSDCHEM\2\DATA\060318\ |
| WG84831-1.D | MB | 3/18/2006 19:25 | 12 | 0 | 1 | 14.425 | 70395833 | 22.844 | 140553307 | 13.073 | 185738951 | 19.540 | 313305592 | PCBWIPE PCBLL DUWAMISH PHTHALATES | S:\MSDCHEM\2\DATA\060318\ |
| L38230-6.D | L38230-6 | 3/18/2006 20:01 | 13 | 0 | 1 | 14.425 | 66478716 | 22.843 | 124469102 | 13.073 | 178550095 | 19.538 | 292394694 | PCBWIPE PCBLL DUWAMISH PHTHALATES | S:\MSDCHEM\2\DATA\060318\ |
| L38230-7.D | L38230-7 | 3/18/2006 20:38 | 14 | 0 | 1 | 14.425 | 65264568 | 22.843 | 114494790 | 13.073 | 176548163 | 19.539 | 263883946 | PCBWIPE PCBLL DUWAMISH PHTHALATES | S:\MSDCHEM\2\DATA\060318\ |
| L38230-8.D | L38230-8 | 3/18/2006 21:15 | 15 | 0 | 1 | 14.425 | 66086163 | 22.843 | 120936984 | 13.073 | 183213782 | 19.537 | 271832063 | PCBWIPE PCBLL DUWAMISH PHTHALATES | S:\MSDCHEM\2\DATA\060318\ |
| L38230-9.D | L38230-9 | 3/18/2006 21:51 | 16 | 0 | 1 | 14.424 | 61557827 | 22.841 | 113655577 | 13.073 | 169237007 | 19.539 | 248371830 | PCBWIPE PCBLL DUWAMISH PHTHALATES | S:\MSDCHEM\2\DATA\060318\ |
| L38230-10.D | L38230-10 | 3/18/2006 22:27 | 17 | 0 | 1 | 14.424 | 64415410 | 22.842 | 125226175 | 13.074 | 175195608 | 19.540 | 264287363 | PCBWIPE PCBLL DUWAMISH PHTHALATES | S:\MSDCHEM\2\DATA\060318\ |
| PCB-07.D | 1218D 1016/1260 500/50 | 3/18/2006 23:04 | 3 | 0 | 1 | 14.424 | 101074955 | 22.843 | 186613397 | 13.074 | 261603193 | 19.540 | 383510839 | | S:\MSDCHEM\2\DATA\060318\ |
| PCB-08.D | 1209.1 1248 500/50 | 3/18/2006 23:41 | 4 | 0 | 1 | 14.426 | 109044358 | 22.843 | 199540663 | 13.074 | 269727158 | 19.538 | 433827965 | | S:\MSDCHEM\2\DATA\060318\ |
| | | | | | | | | | | | | | | | |
| | | | | | Ave. | 14.425 | 81130450 | 22.843 | 153586828 | 13.073 | 216293355 | 19.539 | 331510709 | | |
| | | | | | Std. Dev. | 0.001 | 17066915 | 0.002 | 27828747 | 0.001 | 40258654 | 0.002 | 57061412 | | |
| | | | | | %RSD | | 21% | | 18% | | 19% | | 17% | | |



KCSlip4 55903
SEA422231

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/29/06 01:45 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: WG84831-1 | Matrix: | OTHR SOLID | List Type: | ORPCBWIPE | |
| | Project: | | Run ID: | R112756 | Col. Date: |
| | Locator: | MB | Work Group: | WG84831 | Rec. Date: 14-MAR-06 |
| | Site: | NONE | QC Type: | MB | Due Date: |
| | Method Code: | 8270D-WIPETEST | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Aroclor 1016 | | ug | <MDL | 50 | 100 | |
| Aroclor 1221 | | ug | <MDL | 50 | 100 | |
| Aroclor 1232 | | ug | <MDL | 50 | 100 | |
| Aroclor 1242 | | ug | <MDL | 50 | 100 | |
| Aroclor 1248 | | ug | <MDL | 50 | 100 | |
| Aroclor 1254 | | ug | <MDL | 50 | 100 | |
| Aroclor 1260 | | ug | <MDL | 50 | 100 | |
| Decachlorobiphenyl | 66.9 | ug | | 5 | 10 | |
| Amount Analyzed | 1 | g | | | | |
| Standard Amount | 1 | g | | | | |
| Dilution Factor | 1 | none | | | | |
| Date Analyzed | | | | | | 18-MAR-06 |
| Operator ID | | | | | | JSF |
| Porthandler File | | | | | | /usr/users/seed2/METRO83/files/gc/wg84831.txt |
| Instrument ID | | | | | | HP6890ECD-G |
| Prep Date | | | | | | 13-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| Decachlorobiphenyl | 107 | 25-150 |



KCSlip4 55904

SEA422232

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report 03/29/06 01:45 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| SampleH: L38230-6 | Matrix: | OTHR SOLID | List Type: | ORPCBWIPE | |
| | Project: | 423589-090-1 | Run ID: | R112756 | Col. Date: 27-FEB-06 |
| | Locator: | D2 | Work Group: | WG84831 | Rec. Date: 27-FEB-06 |
| | Site: | METRO | QC Type: | | Due Date: 29-MAR-06 |
| | Method Code: | 8270D-WIPETEST | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Aroclor 1016 | | ug | <MDL | 50 | 100 | |
| Aroclor 1221 | | ug | <MDL | 50 | 100 | |
| Aroclor 1232 | | ug | <MDL | 50 | 100 | |
| Aroclor 1242 | | ug | <MDL | 50 | 100 | |
| Aroclor 1248 | | ug | <MDL | 50 | 100 | |
| Aroclor 1254 | | ug | <MDL | 50 | 100 | |
| Aroclor 1260 | | ug | <MDL | 50 | 100 | |
| Decachlorobiphenyl | 42.2 | ug | | 5 | 10 | |
| Amount Analyzed | 1 | g | | | | |
| Standard Amount | 1 | g | | | | |
| Dilution Factor | 1 | none | | | | |
| Date Analyzed | | | | | | 18-MAR-06 |
| Operator ID | | | | | | JSF |
| Porthandler File | | | | | | /usr/users/seed2/METROS3/files/gc/wg84831.txt |
| Instrument ID | | | | | | HP6890ECD-G |
| Prep Date | | | | | | 13-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| Decachlorobiphenyl | 68 | 25-150 |



KCSlip4 55905

SEA422233

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/29/06 01:45 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230-7 | Matrix: | OTHR SOLID | List Type: | ORPCBWIPE | |
| | Project: | 423589-090-1 | Run ID: | R112756 | Col. Date: 27-FEB-06 |
| | Locator: | CE | Work Group: | WG84831 | Rec. Date: 27-FEB-06 |
| | Site: | METRO | QC Type: | | Due Date: 29-MAR-06 |
| | Method Code: | 8270D-WIPETEST | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Aroclor 1016 | | ug | <MDL | 50 | 100 | |
| Aroclor 1221 | | ug | <MDL | 50 | 100 | |
| Aroclor 1232 | | ug | <MDL | 50 | 100 | |
| Aroclor 1242 | | ug | <MDL | 50 | 100 | |
| Aroclor 1248 | | ug | <MDL | 50 | 100 | |
| Aroclor 1254 | | ug | <MDL | 50 | 100 | |
| Aroclor 1260 | | ug | <MDL | 50 | 100 | |
| Decachlorobiphenyl | 49.2 | ug | | 5 | 10 | |
| Amount Analyzed | 1 | g | | | | |
| Standard Amount | 1 | g | | | | |
| Dilution Factor | 1 | none | | | | |
| Date Analyzed | | | | | | 18-MAR-06 |
| Operator ID | | | | | | JSF |
| Porthandler File | | | | | | /usr/users/seed2/METROS3/files/gc/wg84831.txt |
| Instrument ID | | | | | | HP6890ECD-G |
| Prep Date | | | | | | 13-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| Decachlorobiphenyl | 79 | 25-150 |



KCSlip4 55906

SEA422234

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/29/06 01:45 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230-8 | Matrix: | OTHR SOLID | List Type: | ORPCBWIPE | |
| | Project: | 423589-090-1 | Run ID: | RI12756 | Col. Date: 27-FEB-06 |
| | Locator: | BW | Work Group: | WG84831 | Rec. Date: 27-FEB-06 |
| | Site: | METRO | QC Type: | | Due Date: 29-MAR-06 |
| | Method Code: | 8270D-WIPETEST | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Aroclor 1016 | | ug | <MDL | 50 | 100 | |
| Aroclor 1221 | | ug | <MDL | 50 | 100 | |
| Aroclor 1232 | | ug | <MDL | 50 | 100 | |
| Aroclor 1242 | | ug | <MDL | 50 | 100 | |
| Aroclor 1248 | | ug | <MDL | 50 | 100 | |
| Aroclor 1254 | | ug | <MDL | 50 | 100 | |
| Aroclor 1260 | | ug | <MDL | 50 | 100 | |
| Decachlorobiphenyl | 48.7 | ug | | 5 | 10 | |
| Amount Analyzed | 1 | g | | | | |
| Standard Amount | 1 | g | | | | |
| Dilution Factor | 1 | none | | | | |
| Date Analyzed | | | | | | 18-MAR-06 |
| Operator ID | | | | | | JSF |
| Porthandler File | | | | | | /usr/users/seed2/METROS3/files/gc/wg84831.txt |
| Instrument ID | | | | | | HP6890ECD-G |
| Prep Date | | | | | | 13-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| Decachlorobiphenyl | 78 | 25-150 |



KCSlip4 55907

SEA422235

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/29/06 01:45 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230-9 | Matrix: | OTHR SOLID | List Type: | ORPCBWIPE | |
| | Project: | 423589-090-1 | Run ID: | R112756 | Col. Date: 27-FEB-06 |
| | Locator: | SPCC | Work Group: | WG84831 | Rec. Date: 27-FEB-06 |
| | Site: | METRO | QC Type: | | Due Date: 29-MAR-06 |
| | Method Code: | 8270D-WIPETEST | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Aroclor 1016 | | ug | <MDL | 50 | 100 | |
| Aroclor 1221 | | ug | <MDL | 50 | 100 | |
| Aroclor 1232 | | ug | <MDL | 50 | 100 | |
| Aroclor 1242 | | ug | <MDL | 50 | 100 | |
| Aroclor 1248 | | ug | <MDL | 50 | 100 | |
| Aroclor 1254 | | ug | <MDL | 50 | 100 | |
| Aroclor 1260 | | ug | <MDL | 50 | 100 | |
| Decachlorobiphenyl | 47.5 | ug | | 5 | 10 | |
| Amount Analyzed | 1 | g | | | | |
| Standard Amount | 1 | g | | | | |
| Dilution Factor | 1 | none | | | | |
| Date Analyzed | | | | | | 18-MAR-06 |
| Operator ID | | | | | | JSF |
| Porthandler File | | | | | | /usr/users/seed2/METROS1/files/gc/wg84831.txt |
| Instrument ID | | | | | | HP6890ECD-G |
| Prep Date | | | | | | 13-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| Decachlorobiphenyl | 76 | 25-150 |



KCSlip4 55908

SEA422236

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/29/06 01:45 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230-10 | Matrix: | OTHR SOLID | List Type: | ORPCBWIPE | |
| | Project: | 423589-090-1 | Run ID: | R112756 | Col. Date: 27-FEB-06 |
| | Locator: | KCIA | Work Group: | WG84831 | Rec. Date: 27-FEB-06 |
| | Site: | METRO | QC Type: | | Due Date: 29-MAR-06 |
| | Method Code: | 8270D-WIPETEST | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Aroclor 1016 | | ug | <MDL | 50 | 100 | |
| Aroclor 1221 | | ug | <MDL | 50 | 100 | |
| Aroclor 1232 | | ug | <MDL | 50 | 100 | |
| Aroclor 1242 | | ug | <MDL | 50 | 100 | |
| Aroclor 1248 | | ug | <MDL | 50 | 100 | |
| Aroclor 1254 | | ug | <MDL | 50 | 100 | |
| Aroclor 1260 | | ug | <MDL | 50 | 100 | |
| Decachlorobiphenyl | 48.2 | ug | | 5 | 10 | |
| Amount Analyzed | 1 | g | | | | |
| Standard Amount | 1 | g | | | | |
| Dilution Factor | 1 | none | | | | |
| Date Analyzed | | | | | | 18-MAR-06 |
| Operator ID | | | | | | JSF |
| Porthandler File | | | | | | /usr/users/seed2/METRO83/files/gc/wg84831.txt |
| Instrument ID | | | | | | HP6890ECD-G |
| Prep Date | | | | | | 13-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| Decachlorobiphenyl | 77 | 25-150 |



KCSlip4 55909

SEA422237

A/M
3/29/06
MS

King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Mar 14 2006, 11:13 am

Work Group: WG84830 (PHPAHWIPE) for Department: 7 - Organics, Trace

Created: 14-MAR-06 PrepDate: 13-MAR-06 Due: Operator: MCD

| Sample | Project Number | Project Description | PKey | C | Product | Matrix | Stat | UA | Workdate | Duedate |
|---|---|---|---|---|---|---|---|---|---|---|
| L38230-10 | 423589-090-1 | Lower Duwamish Phthalate Studies | S | | PHPAHWIPE | OTHR SOLID | WKGP | U | 13-MAR-06 | 29-MAR-06 |
| L38230-6 | 423589-090-1 | Lower Duwamish Phthalate Studies | S | | PHPAHWIPE | OTHR SOLID | WKGP | U | 13-MAR-06 | 29-MAR-06 |
| L38230-7 | 423589-090-1 | Lower Duwamish Phthalate Studies | S | | PHPAHWIPE | OTHR SOLID | WKGP | U | 13-MAR-06 | 29-MAR-06 |
| L38230-8 | 423589-090-1 | Lower Duwamish Phthalate Studies | S | | PHPAHWIPE | OTHR SOLID | WKGP | U | 13-MAR-06 | 29-MAR-06 |
| L38230-9 | 423589-090-1 | Lower Duwamish Phthalate Studies | S | | PHPAHWIPE | OTHR SOLID | WKGP | U | 13-MAR-06 | 29-MAR-06 |
| WG84830-1 | MB | | S | | PHPAHWIPE | OTHR SOLID | WKGP | U | 14-MAR-06 | |

Comments:

| | |
|---|---|
| L38230-10 | wipes |
| L38230-6 | wipes |
| L38230-7 | wipes |
| L38230-8 | wipes |
| L38230-9 | wipes |
| WG84830-1 | FILTER BLANK 13-MAR-06 |



KCSlip4 55910

SEA422238

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 03/22/06 07:01
Run ID: R112632 Workgroup: WG84830 (PHPAHWIPE)

A/M
3/29/06

MB:WG84830-1 Matrix: OTHR SOLID Listtype: ORPHPAHWIPE Method: 8270D-WIPETEST Project: 423589-090-1 Pkey: STD
(Method Blank)

| Parameter | Mdl | Rdl | Units | MB Value | Qual | |
|---|---|---|---|---|---|---|
| Naphthalene | .02 | .04 | ug | <MDL | | |
| Acenaphthylene | .01 | .02 | ug | <MDL | | |
| Dimethyl Phthalate | .05 | .1 | ug | <MDL | | |
| Acenaphthene | .01 | .02 | ug | <MDL | | |
| Fluorene | .01 | .02 | ug | <MDL | | |
| Diethyl Phthalate | .05 | .1 | ug | .055 | B | X3 = 0.165 |
| Phenanthrene | .01 | .02 | ug | <MDL | | |
| Anthracene | .01 | .02 | ug | <MDL | | |
| Di-N-Butyl Phthalate | .05 | .1 | ug | .378 | B | X3 = 1.134 |
| Fluoranthene | .01 | .02 | ug | <MDL | | |
| Pyrene | .01 | .02 | ug | <MDL | | |
| Benzyl Butyl Phthalate | .05 | .1 | ug | .404 | B | X3 = 1.212 |
| Benzo(a)anthracene | .01 | .02 | ug | <MDL | | |
| Chrysene | .01 | .02 | ug | <MDL | | |
| Bis(2-Ethylhexyl)Phthalate | .05 | .1 | ug | .604 | B | X3 = 1.812 |
| Di-N-Octyl Phthalate | .05 | .1 | ug | <MDL | | |
| Benzo(b)fluoranthene | .02 | .04 | ug | <MDL | | |
| Benzo(k)fluoranthene | .02 | .04 | ug | <MDL | | |
| Benzo(a)pyrene | .02 | .04 | ug | <MDL | | |
| Indeno(1,2,3-Cd)Pyrene | .02 | .04 | ug | <MDL | | |
| Dibenzo(a,h)anthracene | .02 | .04 | ug | <MDL | | |
| Benzo(g,h,i)perylene | .02 | .04 | ug | <MDL | | |
| 2-Methylnaphthalene | .01 | .02 | ug | <MDL | | |



KCSlip4 55911
SEA422239

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 03/22/06 07:01
Run ID: R112632 Workgroup: WG84830 (PHPAHWIPE)

| Sample # (Lab Limits) | 2-Fluorobiphenyl 30-115 | d14-Terphenyl 18-137 |
|---|---|---|
| L38230-6 | 96 | 109 |
| L38230-7 | 97 | 112 |
| L38230-8 | 108 | 119 |
| L38230-9 | 101 | 119 |
| L38230-10 | 98 | 110 |
| WG84830-1 | 106 | 114 |



KCSlip4 55912
SEA422240

Sequence Name: C:\MSDChem\1\sequence\060314.S
Comment:
Operator:
Data Path: C:\MSDChem\1\data\060314\

Top Pre-Seq Cmd:
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Top Post-Seq Cmd:
Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

---

| Line | | | Sample Name/Misc Info | | |
|---|---|---|---|---|---|
| 1) | Sample | 1 | cond-01 | 8270B1 | cond |
| 2) | Blank | 2 | BLANK-01 | 8270B1 | MECL2 |
| 3) | Tune | 3 | DFTPP-1 | DFTPP | 10 NG/UL DFTPP MIX |
| 4) | Sample | 4 | CCALI-01 | 8270B1 | SS#1188 I 0.100 PPM BNA STD |
| 5) | Sample | 5 | CCALI-02 | 8270B1 | SS#1188 H 0.200 PPM BNA STD |
| 6) | Sample | 6 | CCALI-03 | 8270B1 | SS#1188 G 0.500 PPM BNA STD |
| 7) | Sample | 7 | CCALI-04 | 8270B1 | SS#1188 F 1.00 PPM BNA STD |
| 8) | Sample | 8 | CCALI-05 | 8270B1 | SS#1188 E 2.00 PPM BNA STD |
| 9) | Sample | 9 | CCALI-06 | 8270B1 | SS#1188 D 6.00 PPM BNA STD |
| 10) | Blank | 2 | BLANK-02 | 8270B1 | MECL2 |
| 11) | Blank | 10 | | | |
| | Datafile | | WG84830-1 | | |
| | Method | | 8270B1 | | |
| 12) | Blank | 11 | L38230-6 | 8270B1 | L38230-6 FUNNEL WIPE |
| 13) | Blank | 12 | L38230-7 | 8270B1 | L38230-7 FUNNEL WIPE |
| 14) | Blank | 13 | L38230-8 | 8270B1 | L38230-8 FUNNEL WIPE |
| 15) | Blank | 14 | L38230-9 | 8270B1 | L38230-9 FUNNEL WIPE |
| 16) | Blank | 15 | | | |
| | Datafile | | L38230-10 | | |
| | Method | | 8270B1 | | |



KCSlip4 55913

SEA422241

**Batch: \\orgizmo\EE\chem\6890j.i\060314.b**

| # | Smp. # | Injection Time | Wkgp. # | QC # | Project # | Sample Description | Matrix | Amount | DilFac | IS#2-RT | IS#2-Area | Method | Init Cali | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | COND-01 | 14-MAR-2006 07:37 | SDGa0282 | SDGa02 | | cond | SOIL | 0.000 | 1.0 | 20.031 | 3199 | 8270B1.m | 14-MAR-2006 | M.Doubrava |
| 2 | BLANK-01 | 14-MAR-2006 08:17 | SDGa0282 | SDGa02 | | MECL2 | SOIL | 0.000 | 1.0 | 0.000 | 0 | 8270B1.m | 14-MAR-2006 | M.Doubrava |
| 3 | DFTPP-1 | 14-MAR-2006 08:59 | SDGa0971 | SDGa09 | | 10 NG/UL DFTPP MIX | NONE | 0.000 | 1.0 | 13.284 | 196544 | DFTPP.m | | M.Doubrava |
| 4 | CCALI-01 | 14-MAR-2006 09:34 | SDGa0282 | SDGa02 | | SS#1188 I 0.100 PPM BNA STD | SOIL | 0.000 | 1.0 | 8.493 | 1084397 | 8270b1.m | 14-MAR-2006 | M.Doubrava |
| 5 | CCALI-02 | 14-MAR-2006 10:15 | SDGa0282 | SDGa02 | | SS#1188 H 0.200 PPM BNA STD | SOIL | 0.000 | 1.0 | 8.493 | 791517 | 8270b1.m | 14-MAR-2006 | M.Doubrava |
| 6 | CCALI-03 | 14-MAR-2006 10:56 | SDGa0282 | SDGa02 | | SS#1188 G 0.500 PPM BNA STD | SOIL | 0.000 | 1.0 | 8.493 | 860894 | 8270b1.m | 14-MAR-2006 | M.Doubrava |
| 7 | CCALI-04 | 14-MAR-2006 11:37 | SDGa0282 | SDGa02 | | SS#1188 F 1.00 PPM BNA STD | SOIL | 0.000 | 1.0 | 8.484 | 1081440 | 8270b1.m | 14-MAR-2006 | M.Doubrava |
| 8 | CCALI-05 | 14-MAR-2006 12:19 | SDGa0282 | SDGa02 | | SS#1188 E 2.00 PPM BNA STD | SOIL | 0.000 | 1.0 | 8.493 | 649843 | 8270b1.m | 14-MAR-2006 | M.Doubrava |
| 9 | CCALI-06 | 14-MAR-2006 13:00 | SDGa0282 | SDGa02 | | SS#1188 D 6.00 PPM BNA STD | SOIL | 0.000 | 1.0 | 8.484 | 1161220 | 8270b1.m | 14-MAR-2006 | M.Doubrava |
| 10 | BLANK-02 | 14-MAR-2006 13:41 | SDGa0282 | SDGa02 | | MECL2 | SOIL | 0.000 | 1.0 | 0.000 | 0 | 8270B1.m | 14-MAR-2006 | M.Doubrava |
| 11 | WG84830-1 | 14-MAR-2006 14:23 | WG84830 | SDGa02 | | WG84830-1 FILTER BLANK | SOIL | 1.000 | 1.0 | 8.493 | 615291 | 8270b1.m | 14-MAR-2006 | M.Doubrava |
| 12 | L38230-6 | 14-MAR-2006 15:04 | WG84830 | SDGa02 | | L38230-6 FUNNEL WIPE | SOIL | 1.000 | 1.0 | 8.493 | 846937 | 8270b1.m | 14-MAR-2006 | M.Doubrava |
| 13 | L38230-7 | 14-MAR-2006 15:45 | WG84830 | SDGa02 | | L38230-7 FUNNEL WIPE | SOIL | 1.000 | 1.0 | 8.493 | 506895 | 8270b1.m | 14-MAR-2006 | M.Doubrava |
| 14 | L38230-8 | 14-MAR-2006 16:27 | WG84830 | SDGa02 | | L38230-8 FUNNEL WIPE | SOIL | 1.000 | 1.0 | 8.493 | 757023 | 8270b1.m | 14-MAR-2006 | M.Doubrava |
| 15 | L38230-9 | 14-MAR-2006 17:08 | WG84830 | SDGa02 | | L38230-9 FUNNEL WIPE | SOIL | 1.000 | 1.0 | 8.493 | 599737 | 8270b1.m | 14-MAR-2006 | M.Doubrava |
| 16 | L38230-10 | 14-MAR-2006 17:49 | WG84830 | SDGa02 | | L38230-10 FUNNEL WIPE | SOIL | 1.000 | 1.0 | 8.493 | 617028 | 8270b1.m | 14-MAR-2006 | M.Doubrava |

**Samples:** 1 **QC Samples + Misc.:** 8 **ContinuingCals:** 0 **Tunes:** 1 **Calibrations:** 6

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/29/06 09:03 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: WG84830-1 | Matrix: | OTHR SOLID | List Type: | ORPHPAHWIPE | |
| | Project: | | Run ID: | R112632 | Col. Date: |
| | Locator: | MB | Work Group: | WG84830 | Rec. Date: 14-MAR-06 |
| | Site: | NONE | QC Type: | MB | Due Date: |
| | Method Code: | 8270D-WIPETEST | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Naphthalene | | ug | <MDL | .02 | .04 | |
| Acenaphthylene | | ug | <MDL | .01 | .02 | |
| Dimethyl Phthalate | | ug | <MDL | .05 | .1 | |
| Acenaphthene | | ug | <MDL | .01 | .02 | |
| Fluorene | | ug | <MDL | .01 | .02 | |
| Diethyl Phthalate | .055 | ug | <RDL,B | .05 | .1 | |
| Phenanthrene | | ug | <MDL | .01 | .02 | |
| Anthracene | | ug | <MDL | .01 | .02 | |
| Di-N-Butyl Phthalate | .378 | ug | B | .05 | .1 | |
| Fluoranthene | | ug | <MDL | .01 | .02 | |
| Pyrene | | ug | <MDL | .01 | .02 | |
| Benzyl Butyl Phthalate | .404 | ug | B | .05 | .1 | |
| Benzo(a)anthracene | | ug | <MDL | .01 | .02 | |
| Chrysene | | ug | <MDL | .01 | .02 | |
| Bis(2-Ethylhexyl)Phthalate | .604 | ug | B | .05 | .1 | |
| Di-N-Octyl Phthalate | | ug | <MDL | .05 | .1 | |
| Benzo(b)fluoranthene | | ug | <MDL | .02 | .04 | |
| Benzo(k)fluoranthene | | ug | <MDL | .02 | .04 | |
| Benzo(a)pyrene | | ug | <MDL | .02 | .04 | |
| Indeno(1,2,3-Cd)Pyrene | | ug | <MDL | .02 | .04 | |
| Dibenzo(a,h)anthracene | | ug | <MDL | .02 | .04 | |
| Benzo(g,h,i)perylene | | ug | <MDL | .02 | .04 | |
| 2-Methylnaphthalene | | ug | <MDL | .01 | .02 | |
| 2-Fluorobiphenyl | 2.66 | ug | | .02 | .04 | |
| d14-Terphenyl | 2.86 | ug | | .02 | .04 | |

| | | | |
|---|---|---|---|
| Amount Analyzed | 1 | g | |
| Standard Amount | 1 | g | |
| Dilution Factor | 1 | none | |
| Date Analyzed | | | 14-MAR-06 |
| Operator ID | | | M.Doubrava |
| Porthandler File | | | /usr/users/seed2/METROSJ/files/gcms/WG84830-1.rp |
| Instrument ID | | | 6890j.i |
| Prep Date | | | 13-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| 2-Fluorobiphenyl | 106 | 30-115 |
| d14-Terphenyl | 114 | 18-137 |



KCSlip4 55915

SEA422243

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/29/06 09:03 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| SampleH: L38230-6 | Matrix: | OTHR SOLID | List Type: | ORPHPAHWIPE | |
| | Project: | 423589-090-1 | Run ID: | R112632 | Col. Date: 27-FEB-06 |
| | Locator: | DZ | Work Group: | WG84830 | Rec. Date: 27-FEB-06 |
| | Site: | METRO | QC Type: | | Due Date: 29-MAR-06 |
| | Method Code: | 8270D-WIPETEST | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Naphthalene | | ug | <MDL | .02 | .04 | |
| Acenaphthylene | | ug | <MDL | .01 | .02 | |
| Dimethyl Phthalate | | ug | <MDL | .05 | .1 | |
| Acenaphthene | | ug | <MDL | .01 | .02 | |
| Fluorene | | ug | <MDL | .01 | .02 | |
| Diethyl Phthalate | .058 | ug | <RDL,B | .05 | .1 | |
| Phenanthrene | .032 | ug | | .01 | .02 | |
| Anthracene | | ug | <MDL | .01 | .02 | |
| Di-N-Butyl Phthalate | .319 | ug | B | .05 | .1 | |
| Fluoranthene | .019 | ug | <RDL | .01 | .02 | |
| Pyrene | .013 | ug | <RDL | .01 | .02 | |
| Benzyl Butyl Phthalate | .419 | ug | B | .05 | .1 | |
| Benzo(a)anthracene | | ug | <MDL | .01 | .02 | |
| Chrysene | | ug | <MDL | .01 | .02 | |
| Bis(2-Ethylhexyl)Phthalate | .626 | ug | B | .05 | .1 | |
| Di-N-Octyl Phthalate | | ug | <MDL | .05 | .1 | |
| Benzo(b)fluoranthene | | ug | <MDL | .02 | .04 | |
| Benzo(k)fluoranthene | | ug | <MDL | .02 | .04 | |
| Benzo(a)pyrene | | ug | <MDL | .02 | .04 | |
| Indeno(1,2,3-Cd)Pyrene | | ug | <MDL | .02 | .04 | |
| Dibenzo(a,h)anthracene | | ug | <MDL | .02 | .04 | |
| Benzo(g,h,i)perylene | | ug | <MDL | .02 | .04 | |
| 2-Methylnaphthalene | | ug | <MDL | .01 | .02 | |
| 2-Fluorobiphenyl | 2.39 | ug | | .02 | .04 | |
| d14-Terphenyl | 2.72 | ug | | .02 | .04 | |

| | | | |
|---|---|---|---|
| Amount Analyzed | 1 | g | |
| Standard Amount | 1 | g | |
| Dilution Factor | 1 | none | |
| Date Analyzed | | | 14-MAR-06 |
| Operator ID | | | M.Doubrava |
| Porthandler File | | | /usr/users/seed2/METROS3/files/gcms/L38230-6.rp |
| Instrument ID | | | 6890j.i |
| Prep Date | | | 13-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| 2-Fluorobiphenyl | 96 | 30-115 |
| d14-Terphenyl | 109 | 18-137 |



KCSlip4 55916

SEA422244

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/29/06 09:03 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230-7 | Matrix: | OTHR SOLID | List Type: | ORPHPAHWIPE | |
| | Project: | 423589-090-1 | Run ID: | R112632 | Col. Date: 27-FEB-06 |
| | Locator: | CE | Work Group: | WG84830 | Rec. Date: 27-FEB-06 |
| | Site: | METRO | QC Type: | | Due Date: 29-MAR-06 |
| | Method Code: | 8270D-WIPETEST | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Naphthalene | | ug | <MDL | .02 | .04 | |
| Acenaphthylene | | ug | <MDL | .01 | .02 | |
| Dimethyl Phthalate | | ug | <MDL | .05 | .1 | |
| Acenaphthene | | ug | <MDL | .01 | .02 | |
| Fluorene | | ug | <MDL | .01 | .02 | |
| Diethyl Phthalate | .053 | ug | <RDL,B | .05 | .1 | |
| Phenanthrene | .0278 | ug | | .01 | .02 | |
| Anthracene | | ug | <MDL | .01 | .02 | |
| Di-N-Butyl Phthalate | .37 | ug | B | .05 | .1 | |
| Fluoranthene | .0304 | ug | | .01 | .02 | |
| Pyrene | .0251 | ug | | .01 | .02 | |
| Benzyl Butyl Phthalate | .44 | ug | B | .05 | .1 | |
| Benzo(a)anthracene | | ug | <MDL | .01 | .02 | |
| Chrysene | | ug | <MDL | .01 | .02 | |
| Bis(2-Ethylhexyl)Phthalate | 1.27 | ug | B | .05 | .1 | |
| Di-N-Octyl Phthalate | | ug | <MDL | .05 | .1 | |
| Benzo(b)fluoranthene | | ug | <MDL | .02 | .04 | |
| Benzo(k)fluoranthene | | ug | <MDL | .02 | .04 | |
| Benzo(a)pyrene | | ug | <MDL | .02 | .04 | |
| Indeno(1,2,3-Cd)Pyrene | | ug | <MDL | .02 | .04 | |
| Dibenzo(a,h)anthracene | | ug | <MDL | .02 | .04 | |
| Benzo(g,h,i)perylene | | ug | <MDL | .02 | .04 | |
| 2-Methylnaphthalene | | ug | <MDL | .01 | .02 | |
| 2-Fluorobiphenyl | 2.42 | ug | | .02 | .04 | |
| d14-Terphenyl | 2.79 | ug | | .02 | .04 | |

| | | | |
|---|---|---|---|
| Amount Analyzed | 1 | g | |
| Standard Amount | 1 | g | |
| Dilution Factor | 1 | none | |
| Date Analyzed | | | 14-MAR-06 |
| Operator ID | | | M.Doubrava |
| Porthandler File | | | /usr/users/seed2/METROSJ/files/gcms/L38230-7.rp |
| Instrument ID | | | 6890j.i |
| Prep Date | | | 13-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| 2-Fluorobiphenyl | 97 | 30-115 |
| d14-Terphenyl | 112 | 18-137 |



KCSlip4 55917

SEA422245

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/29/06 09:03 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230-8 | Matrix: | OTHR SOLID | List Type: | ORPHPAHWIPE | |
| | Project: | 423589-090-1 | Run ID: | R112632 | Col. Date: 27-FEB-06 |
| | Locator: | BW | Work Group: | WG84830 | Rec. Date: 27-FEB-06 |
| | Site: | METRO | QC Type: | | Due Date: 29-MAR-06 |
| | Method Code: | 8270D-WIPETEST | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Naphthalene | | ug | <MDL | .02 | .04 | |
| Acenaphthylene | | ug | <MDL | .01 | .02 | |
| Dimethyl Phthalate | | ug | <MDL | .05 | .1 | |
| Acenaphthene | | ug | <MDL | .01 | .02 | |
| Fluorene | | ug | <MDL | .01 | .02 | |
| Diethyl Phthalate | | ug | <MDL | .05 | .1 | |
| Phenanthrene | | ug | <MDL | .01 | .02 | |
| Anthracene | | ug | <MDL | .01 | .02 | |
| Di-N-Butyl Phthalate | .316 | ug | B | .05 | .1 | |
| Fluoranthene | | ug | <MDL | .01 | .02 | |
| Pyrene | | ug | <MDL | .01 | .02 | |
| Benzyl Butyl Phthalate | .395 | ug | B | .05 | .1 | |
| Benzo(a)anthracene | | ug | <MDL | .01 | .02 | |
| Chrysene | | ug | <MDL | .01 | .02 | |
| Bis(2-Ethylhexyl)Phthalate | .548 | ug | B | .05 | .1 | |
| Di-N-Octyl Phthalate | | ug | <MDL | .05 | .1 | |
| Benzo(b)fluoranthene | | ug | <MDL | .02 | .04 | |
| Benzo(k)fluoranthene | | ug | <MDL | .02 | .04 | |
| Benzo(a)pyrene | | ug | <MDL | .02 | .04 | |
| Indeno(1,2,3-Cd)Pyrene | | ug | <MDL | .02 | .04 | |
| Dibenzo(a,h)anthracene | | ug | <MDL | .02 | .04 | |
| Benzo(g,h,i)perylene | | ug | <MDL | .02 | .04 | |
| 2-Methylnaphthalene | | ug | <MDL | .01 | .02 | |
| 2-Fluorobiphenyl | 2.69 | ug | | .02 | .04 | |
| d14-Terphenyl | 2.99 | ug | | .02 | .04 | |

| | | | |
|---|---|---|---|
| Amount Analyzed | 1 | g | |
| Standard Amount | 1 | g | |
| Dilution Factor | 1 | none | |
| Date Analyzed | | | 14-MAR-06 |
| Operator ID | | | M.Doubrava |
| Porthandler File | | | /usr/users/seed2/METROS3/files/gcms/L38230-8.rp |
| Instrument ID | | | 6890j.i |
| Prep Date | | | 13-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| 2-Fluorobiphenyl | 108 | 30-115 |
| d14-Terphenyl | 119 | 18-137 |



KCSlip4 55918

SEA422246

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/29/06 09:03 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230-9 | Matrix: | OTHR SOLID | List Type: | ORPHPAHWIPE | |
| | Project: | 423589-090-1 | Run ID: | R112632 | Col. Date: 27-FEB-06 |
| | Locator: | SPCC | Work Group: | WG84830 | Rec. Date: 27-FEB-06 |
| | Site: | METRO | QC Type: | | Due Date: 29-MAR-06 |
| | Method Code: | 8270D-WIPETEST | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Naphthalene | | ug | <MDL | .02 | .04 | |
| Acenaphthylene | | ug | <MDL | .01 | .02 | |
| Dimethyl Phthalate | | ug | <MDL | .05 | .1 | |
| Acenaphthene | | ug | <MDL | .01 | .02 | |
| Fluorene | | ug | <MDL | .01 | .02 | |
| Diethyl Phthalate | .086 | ug | <RDL,B | .05 | .1 | |
| Phenanthrene | .0236 | ug | | .01 | .02 | |
| Anthracene | | ug | <MDL | .01 | .02 | |
| Di-N-Butyl Phthalate | .398 | ug | B | .05 | .1 | |
| Fluoranthene | | ug | <MDL | .01 | .02 | |
| Pyrene | | ug | <MDL | .01 | .02 | |
| Benzyl Butyl Phthalate | .457 | ug | B | .05 | .1 | |
| Benzo(a)anthracene | | ug | <MDL | .01 | .02 | |
| Chrysene | | ug | <MDL | .01 | .02 | |
| Bis(2-Ethylhexyl)Phthalate | .521 | ug | B | .05 | .1 | |
| Di N-Octyl Phthalate | | ug | <MDL | .05 | .1 | |
| Benzo(b)fluoranthene | | ug | <MDL | .02 | .04 | |
| Benzo(k)fluoranthene | | ug | <MDL | .02 | .04 | |
| Benzo(a)pyrene | | ug | <MDL | .02 | .04 | |
| Indeno(1,2,3-Cd)Pyrene | | ug | <MDL | .02 | .04 | |
| Dibenzo(a,h)anthracene | | ug | <MDL | .02 | .04 | |
| Benzo(g,h,i)perylene | | ug | <MDL | .02 | .04 | |
| 2-Methylnaphthalene | | ug | <MDL | .01 | .02 | |
| 2-Fluorobiphenyl | 2.54 | ug | | .02 | .04 | |
| d14-Terphenyl | 2.97 | ug | | .02 | .04 | |

| | | | |
|---|---|---|---|
| Amount Analyzed | 1 | g | |
| Standard Amount | 1 | g | |
| Dilution Factor | 1 | none | |
| Date Analyzed | | | 14-MAR-06 |
| Operator ID | | | M.Doubrava |
| Porthandler File | | | /usr/users/seed2/METROS3/files/gcms/L38230-9.rp |
| Instrument ID | | | 6890g.i |
| Prep Date | | | 13-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| 2-Fluorobiphenyl | 101 | 30-115 |
| d14-Terphenyl | 119 | 18-137 |



KCSlip4 55919

SEA422247

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 03/29/06 09:03 - Data Source: ELD

| | | | | | |
|---|---|---|---|---|---|
| Sample#: L38230-10 | Matrix: OTHR SOLID | List Type: ORPHPAHWIPE | | | |
| | Project: 423589-090-1 | Run ID: R112632 | | Col. Date: | 27-FEB-06 |
| | Locator: KCIA | Work Group: WG84830 | | Rec. Date: | 27-FEB-06 |
| | Site: METRO | QC Type: | | Due Date: | 29-MAR-06 |
| | Method Code: 8270D-WIPETEST | | | | |

| Parameter | Value | Units | Valq | Mdl | Rdl | Textvalue |
|---|---|---|---|---|---|---|
| Naphthalene | | ug | <MDL | .02 | .04 | |
| Acenaphthylene | | ug | <MDL | .01 | .02 | |
| Dimethyl Phthalate | | ug | <MDL | .05 | .1 | |
| Acenaphthene | | ug | <MDL | .01 | .02 | |
| Fluorene | | ug | <MDL | .01 | .02 | |
| Diethyl Phthalate | | ug | <MDL | .05 | .1 | |
| Phenanthrene | | ug | <MDL | .01 | .02 | |
| Anthracene | | ug | <MDL | .01 | .02 | |
| Di-N-Butyl Phthalate | .312 | ug | B | .05 | .1 | |
| Fluoranthene | .0531 | ug | | .01 | .02 | |
| Pyrene | .0372 | ug | | .01 | .02 | |
| Benzyl Butyl Phthalate | .393 | ug | B | .05 | .1 | |
| Benzo(a)anthracene | | ug | <MDL | .01 | .02 | |
| Chrysene | .0297 | ug | | .01 | .02 | |
| Bis(2-Ethylhexyl)Phthalate | .595 | ug | B | .05 | .1 | |
| Di-N-Octyl Phthalate | | ug | <MDL | .05 | .1 | |
| Benzo(b)fluoranthene | | ug | <MDL | .02 | .04 | |
| Benzo(k)fluoranthene | | ug | <MDL | .02 | .04 | |
| Benzo(a)pyrene | .032 | ug | <RDL | .02 | .04 | |
| Indeno(1,2,3-Cd)Pyrene | | ug | <MDL | .02 | .04 | |
| Dibenzo(a,h)anthracene | | ug | <MDL | .02 | .04 | |
| Benzo(g,h,i)perylene | .031 | ug | <RDL | .02 | .04 | |
| 2-Methylnaphthalene | | ug | <MDL | .01 | .02 | |
| 2-Fluorobiphenyl | 2.44 | ug | | .02 | .04 | |
| d14-Terphenyl | 2.75 | ug | | .02 | .04 | |

| | | | |
|---|---|---|---|
| Amount Analyzed | 1 | g | |
| Standard Amount | 1 | g | |
| Dilution Factor | 1 | none | |
| Date Analyzed | | | 14-MAR-06 |
| Operator ID | | | M.Doubrava |
| Porthandler File | | | /usr/users/seed2/METROS3/files/gcms/L38230-10.rp |
| Instrument ID | | | 6890j.i |
| Prep Date | | | 13-MAR-06 |

SURROGATE RECOVERY INFORMATION

| Parameter | % Rec | Lab Limits |
|---|---|---|
| 2-Fluorobiphenyl | 98 | 30-115 |
| d14-Terphenyl | 110 | 18-137 |



KCSlip4 55920

SEA422248

# EXTRACTION RECORD FOR BNA ANALYSIS
## TRACE ORGANICS LABORATORY

QC BATCH NO.: BS

1:1 Acetone:MeCl2

EPA SW-846 EXTRACTION METHOD:

SONICATION EPA 3550 SOXHLET EPA 3540

WORKGROUP NO.: WG84830 BNA / WG84831 PCB

BNA SURROGATE SPIKE I.D.#: 100 uL BNA

BNA MATRIX SPIKE I.D.#: 50 uL PCB

Coprostanol:

Caffeine:

| Date/ Analyst | Sample Number | Project Number | Sample Description | coc | Init. Amt (g) | Spike Amount (uL) | Vf (mL) | Clean ups (GPC) | Conc. Anal. | Turn Over Date | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13-MAR-06 | WG84830-1 | | Filter BLANK | | | 100 uL BNA | 1 mL | AL for | PCB | | Samples conc to |
| MMO | WG84831-1 | | | | | 50 uL PESTICIDE | | | | | 1 mL split for |
| | L38230-6 | | Funnel WIPES | | | | | | | | BNA / PCB ANALYSIS |
| | | -7 | | | | | | | | | .5 BNA |
| | | -8 | | | | | | | | | .5 PCB |
| | | -9 | | | | | | | | | |
| | | -10 | | | | | | | | | |

① Filter papers are cleaned with MeCl2
② Funnels spiked X2 with MeCl2 soaked filter paper
③ BNA & PESTICIDE surrogates added samples extracted X3 with 50 mls on sonic bath and conc to 1.0 mL.
④ .5 mL for BNA analyses. 0.5 mL exchanged to Hexane and AL cleaned and conc to .5 mL for PCB analyses.



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SEA422249