Pace Analytical®
New Orleans Laboratory

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
Saint Rose, LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

December 22, 2006

Luis Vega
EA Engineering,Science &Tech
405 S Highway 121
Building C Suite 100
Lewisville, TX 75067

RE: Project: 2064974
RE: Project ID: Gulfco Marine Superfund Site

Dear Luis Vega:

Enclosed are the analytical results for sample(s) received by the laboratory on December 08, 2006. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Randy Shackelford

ACCREDITED IN ACCORDANCE WITH nelac

**REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, execpt in full, without the written consent of Pace Analytical Services, Inc.

9425294

**Pace Analytical Services, Inc.**
*1000 Riverbend Blvd. Suite F*
*St. Rose , LA 70087*

*Phone: 504.469.0333*
*Fax: 504.469.0555*
*LELAP # 02006*

# Report of Laboratory Analysis

# Project Number: 2064974

12/22/2006 19:06:51

# Sample Cross Reference Report

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Client:** EA Engineering,Science &Tech

**Project:** Gulfco Marine Superfund Site

**Project No.:** 2064974

| Sample ID | Lab ID | Matrix | Collection Date/Time | | Received Date/Time | |
|---|---|---|---|---|---|---|
| 2WSW3-EPA | 20489231 | Water | 12/06/2006 | 15:05 | 12/08/2006 | 10:00 |
| TRIP BLANK | 20489232 | Water | 12/06/2006 | | 12/08/2006 | 10:00 |

12/22/2006 19:06:51

*New Orleans Laboratory Certifications*
*Louisiana Dept. of Environmental Quality (LELAP) - 02006*
*Arkansas Dept. of Environmental Quality - 88-0681*
*Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023*
*Florida Dept. of Health (NELAC) - E87595*
*Kansas Dept. of Health Environment - E-10266*
*U.S. Dept. of Agriculture Foreign Soil Permit - S-47270*

# Report of Laboratory Analysis

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St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Client:** EA Engineering,Science &Tech

**Client ID:** 2WSW3-EPA
**Site:** None

**Project:** Gulfco Marine Superfund Site
**Project No.:** 2064974
**Sample Qu:**

**Lab ID:** 20489231
**Matrix:** Water
**% Moisture:** n/a

**Description:** None
**Prep Level:** Water
**Batch:** 80059

**Method:** 8260 VOAs Full List Water
**Units:** ug/L
**Target List:** 826F_WL20

**Collected:** 12/06/06
**Received:** 12/08/06

**Prep Factor:** 1
**Prepared:** 12/18/06
**Analyzed:** 12/18/06 14:31 RMP (1)

| CAS Number | Parameter | Dilution | Result | Qu | Adjusted MDL | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 1 | ND | A11 | 5.90 | 10.0 | |
| 107-02-8 | Acrolein | 1 | ND | | 9.10 | 20.0 | |
| 107-13-1 | Acrylonitrile | 1 | ND | | 4.90 | 20.0 | |
| 71-43-2 | Benzene | 1 | ND | | 0.117 | 5.00 | |
| 108-86-1 | Bromobenzene | 1 | ND | | 0.156 | 5.00 | |
| 75-27-4 | Bromodichloromethane | 1 | ND | | 0.206 | 5.00 | |
| 75-25-2 | Bromoform | 1 | ND | | 0.259 | 5.00 | |
| 74-83-9 | Bromomethane | 1 | ND | | 1.94 | 5.00 | |
| 71-36-3 | n-Butanol | 1 | ND | | | 200. | |
| 78-93-3 | 2-Butanone (MEK) | 1 | ND | A11 | 2.25 | 10.0 | |
| 104-51-8 | n-Butylbenzene | 1 | ND | | 0.0819 | 5.00 | |
| 135-98-8 | sec-Butylbenzene | 1 | ND | | 0.0410 | 5.00 | |
| 98-06-6 | tert-Butylbenzene | 1 | ND | | 0.0660 | 5.00 | |
| 75-15-0 | Carbon disulfide | 1 | ND | | 0.257 | 5.00 | |
| 56-23-5 | Carbon tetrachloride | 1 | ND | | 0.592 | 5.00 | |
| 108-90-7 | Chlorobenzene | 1 | ND | | 0.119 | 5.00 | |
| 75-00-3 | Chloroethane | 1 | ND | | 0.647 | 5.00 | |
| 110-75-8 | 2-Chloroethylvinyl ether | 1 | ND | | 1.11 | 20.0 | |
| 67-66-3 | Chloroform | 1 | ND | | 0.479 | 5.00 | |
| 74-87-3 | Chloromethane | 1 | ND | | 0.305 | 5.00 | |
| 95-49-8 | 2-Chlorotoluene | 1 | ND | | 0.0906 | 5.00 | |
| 106-43-4 | 4-Chlorotoluene | 1 | ND | | 0.0916 | 5.00 | |
| 110-82-7 | Cyclohexane | 1 | ND | | 0.464 | 5.00 | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 1 | ND | | 1.22 | 5.00 | |
| 124-48-1 | Dibromochloromethane | 1 | ND | | 0.145 | 5.00 | |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 1 | ND | | 0.669 | 5.00 | |
| 74-95-3 | Dibromomethane | 1 | ND | | 1.39 | 5.00 | |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | ND | | 0.115 | 5.00 | |
| 541-73-1 | 1,3-Dichlorobenzene | 1 | ND | | 0.0894 | 5.00 | |
| 106-46-7 | 1,4-Dichlorobenzene | 1 | ND | | 0.139 | 5.00 | |
| 110-57-6 | trans-1,4-Dichloro-2-butene | 1 | ND | | 1.86 | 5.00 | |
| 75-71-8 | Dichlorodifluoromethane | 1 | ND | | 0.818 | 5.00 | |
| 75-34-3 | 1,1-Dichloroethane | 1 | ND | | 0.515 | 5.00 | |

12/22/2006 19:07:28

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***Florida Dept. of Health (NELAC) - E87595***
***Kansas Dept. of Health Environment - E-10266***
***U.S. Dept. of Agriculture Foreign Soil Permit - S-47270***

# Report of Laboratory Analysis

**Pace Analytical Services, Inc.**
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St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Client:** EA Engineering,Science &Tech

**Client ID:** 2WSW3-EPA
**Site:** None

**Project:** Gulfco Marine Superfund Site
**Project No.:** 2064974
**Sample Qu:**

**Lab ID:** 20489231
**Matrix:** Water
**% Moisture:** n/a

**Description:** None
**Prep Level:** Water
**Batch:** 80059

**Method:** 8260 VOAs Full List Water
**Units:** ug/L
**Target List:** 826F_WL20

**Collected:** 12/06/06
**Received:** 12/08/06

**Prep Factor:** 1
**Prepared:** 12/18/06
**Analyzed:** 12/18/06 14:31 RMP (1)

| CAS Number | Parameter | Dilution | Result | Qu | Adjusted MDL | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|---|
| 107-06-2 | 1,2-Dichloroethane | 1 | ND | | 0.212 | 5.00 | |
| 540-59-0 | 1,2-Dichloroethene (Total) | 1 | ND | | 0.839 | 10.0 | |
| 75-35-4 | 1,1-Dichloroethene | 1 | ND | | 0.493 | 5.00 | |
| 156-59-2 | cis-1,2-Dichloroethene | 1 | ND | | 0.394 | 5.00 | |
| 156-60-5 | trans-1,2-Dichloroethene | 1 | ND | | 0.733 | 5.00 | |
| 78-87-5 | 1,2-Dichloropropane | 1 | ND | | 0.328 | 5.00 | |
| 142-28-9 | 1,3-Dichloropropane | 1 | ND | | 0.239 | 5.00 | |
| 594-20-7 | 2,2-Dichloropropane | 1 | ND | | 0.855 | 5.00 | |
| 563-58-6 | 1,1-Dichloropropene | 1 | ND | | 0.342 | 5.00 | |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | ND | | 0.0869 | 5.00 | |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | ND | | 0.216 | 5.00 | |
| 87-68-3 | Hexachloro-1,3-butadiene | 1 | ND | | 0.246 | 5.00 | |
| 591-78-6 | 2-Hexanone | 1 | ND | | 0.468 | 10.0 | |
| 74-88-4 | Iodomethane | 1 | ND | | 0.621 | 5.00 | |
| 98-82-8 | Isopropylbenzene (Cumene) | 1 | ND | | 0.0368 | 5.00 | |
| 99-87-6 | p-Isopropyltoluene | 1 | ND | | 0.0504 | 5.00 | |
| 79-20-9 | Methyl acetate | 1 | ND | | 2.47 | 10.0 | |
| 108-87-2 | Methylcyclohexane | 1 | ND | | 1.60 | 10.0 | |
| 75-09-2 | Methylene chloride | 1 | ND | A11 | 0.710 | 5.00 | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 1 | ND | | 0.872 | 10.0 | |
| 103-65-1 | n-Propylbenzene | 1 | ND | | 0.0768 | 5.00 | |
| 100-42-5 | Styrene | 1 | ND | | 0.0763 | 5.00 | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1 | ND | | 0.291 | 5.00 | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1 | ND | | 0.238 | 5.00 | |
| 127-18-4 | Tetrachloroethene | 1 | ND | | 0.162 | 5.00 | |
| 108-88-3 | Toluene | 1 | ND | | 0.131 | 5.00 | |
| 100-41-4 | Ethylbenzene | 1 | ND | | 0.119 | 5.00 | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1 | ND | | 0.254 | 5.00 | |
| 71-55-6 | 1,1,1-Trichloroethane | 1 | ND | | 0.609 | 5.00 | |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | ND | | 0.328 | 5.00 | |
| 79-01-6 | Trichloroethene | 1 | ND | | 0.168 | 5.00 | |
| 75-69-4 | Trichlorofluoromethane | 1 | ND | | 1.57 | 5.00 | |
| 96-18-4 | 1,2,3-Trichloropropane | 1 | ND | | 1.49 | 5.00 | |

12/22/2006 19:07:28

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# Report of Laboratory Analysis

**Pace Analytical Services, Inc.**
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St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Client:** EA Engineering,Science &Tech

**Client ID:** 2WSW3-EPA
**Site:** None
**Project:** Gulfco Marine Superfund Site
**Project No.:** 2064974
**Sample Qu:**
**Lab ID:** 20489231
**Matrix:** Water
**% Moisture:** n/a
**Description:** None
**Prep Level:** Water
**Batch:** 80059
**Method:** 8260 VOAs Full List Water
**Units:** ug/L
**Target List:** 826F_WL20
**Collected:** 12/06/06
**Received:** 12/08/06
**Prep Factor:** 1
**Prepared:** 12/18/06
**Analyzed:** 12/18/06 14:31 RMP (1)

| CAS Number | Parameter | Dilution | Result | Qu | Adjusted MDL | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|---|
| 76-13-1 | 1,1,2-Trichlorotrifluoroethane | 1 | ND | | 0.381 | 5.00 | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 1 | ND | | 0.0844 | 5.00 | |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1 | ND | | 0.0614 | 5.00 | |
| 108-05-4 | Vinyl acetate | 1 | ND | | 0.686 | 10.0 | |
| 75-01-4 | Vinyl chloride | 1 | ND | | 0.463 | 5.00 | |
| | m&p-Xylene | 1 | ND | | 0.151 | 5.00 | |
| 95-47-6 | o-Xylene | 1 | ND | | 0.142 | 5.00 | |
| 1634-04-4 | Methyl-tert-butyl ether | 1 | ND | | 0.381 | 5.00 | |

**74 compound(s) reported**

12/22/2006 19:07:28

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LELAP # 02006

**Client:** EA Engineering,Science &Tech

**Client ID:** 2WSW3-EPA
**Site:** None

**Project:** Gulfco Marine Superfund Site
**Project No.:** 2064974
**Sample Qu:**

**Lab ID:** 20489231
**Matrix:** Water
**% Moisture:** n/a

**Description:** None
**Prep Level:** Water
**Batch:** 79793

**Method:** 8270 SVOAs Dual pH
**Units:** ug/L
**Target List:** 82702 WL20

**Collected:** 12/06/06
**Received:** 12/08/06

**Prep Factor:** 1
**Prepared:** 12/11/06
**Analyzed:** 12/14/06 16:27 JAM (1)

| CAS Number | Parameter | Dilution | Result | Qu | Adjusted MDL | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 1 | ND | | 0.704 | 10.0 | |
| 208-96-8 | Acenaphthylene | 1 | ND | | 0.986 | 10.0 | |
| 98-86-2 | Acetophenone | 1 | ND | | 1.42 | 10.0 | |
| 62-53-3 | Aniline | 1 | ND | | 1.72 | 10.0 | |
| 120-12-7 | Anthracene | 1 | ND | | 1.12 | 10.0 | |
| 1912-24-9 | Atrazine | 1 | ND | | | 10.0 | |
| 100-52-7 | Benzaldehyde | 1 | ND | | | 10.0 | |
| 92-87-5 | Benzidine | 1 | ND | | | 30.0 | |
| 56-55-3 | Benzo(a)anthracene | 1 | 1.35 | J | 0.785 | 10.0 | |
| 205-99-2 | Benzo(b)fluoranthene | 1 | ND | | 1.27 | 10.0 | |
| 207-08-9 | Benzo(k)fluoranthene | 1 | ND | | 1.27 | 10.0 | |
| 65-85-0 | Benzoic acid | 1 | ND | | 3.78 | 25.0 | |
| 191-24-2 | Benzo(g,h,i)perylene | 1 | ND | | 1.65 | 10.0 | |
| 50-32-8 | Benzo(a)pyrene | 1 | ND | | 1.08 | 10.0 | |
| 100-51-6 | Benzyl alcohol | 1 | ND | | 1.37 | 10.0 | |
| 92-52-4 | Biphenyl (Diphenyl) | 1 | ND | | | 10.0 | |
| 101-55-3 | 4-Bromophenylphenyl ether | 1 | ND | | 0.986 | 10.0 | |
| 85-68-7 | Butylbenzylphthalate | 1 | 1.56 | J | 1.20 | 10.0 | |
| 105-60-2 | Caprolactam | 1 | ND | | | 10.0 | |
| 86-74-8 | Carbazole | 1 | 2.61 | J | 1.36 | 10.0 | |
| 59-50-7 | 4-Chloro-3-methylphenol | 1 | ND | | 1.26 | 10.0 | |
| 106-47-8 | 4-Chloroaniline | 1 | ND | | 3.13 | 10.0 | |
| 111-91-1 | bis(2-Chloroethoxy)methane | 1 | ND | | 1.16 | 10.0 | |
| 111-44-4 | bis(2-Chloroethyl) ether | 1 | ND | | 1.02 | 10.0 | |
| 91-58-7 | 2-Chloronaphthalene | 1 | ND | | 0.902 | 10.0 | |
| 95-57-8 | 2-Chlorophenol | 1 | ND | | 1.07 | 10.0 | |
| 7005-72-3 | 4-Chlorophenylphenyl ether | 1 | ND | | 0.903 | 10.0 | |
| 218-01-9 | Chrysene | 1 | 1.55 | J | 0.894 | 10.0 | |
| 53-70-3 | Dibenz(a,h)anthracene | 1 | ND | | 1.60 | 10.0 | |
| 132-64-9 | Dibenzofuran | 1 | ND | | 0.886 | 10.0 | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1 | ND | | 5.86 | 20.0 | |
| 120-83-2 | 2,4-Dichlorophenol | 1 | ND | | 0.872 | 10.0 | |
| 84-66-2 | Diethylphthalate | 1 | ND | | 1.00 | 10.0 | |

12/22/2006 19:07:28

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LELAP # 02006

**Client:** EA Engineering,Science &Tech

**Client ID:** 2WSW3-EPA
**Site:** None

**Project:** Gulfco Marine Superfund Site
**Project No.:** 2064974
**Sample Qu:**

**Lab ID:** 20489231
**Matrix:** Water
**% Moisture:** n/a

**Description:** None
**Prep Level:** Water
**Batch:** 79793

**Method:** 8270 SVOAs Dual pH
**Units:** ug/L
**Target List:** 82702 WL20

**Collected:** 12/06/06
**Received:** 12/08/06

**Prep Factor:** 1
**Prepared:** 12/11/06
**Analyzed:** 12/14/06 16:27 JAM (1)

| CAS Number | Parameter | Dilution | Result | Qu | Adjusted MDL | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|---|
| 105-67-9 | 2,4-Dimethylphenol | 1 | ND | | 4.54 | 10.0 | |
| 131-11-3 | Dimethylphthalate | 1 | ND | | 0.836 | 10.0 | |
| 84-74-2 | Di-n-butylphthalate | 1 | 3.04 | J | 1.13 | 10.0 | |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 1 | ND | | 1.65 | 10.0 | |
| 51-28-5 | 2,4-Dinitrophenol | 1 | ND | | 1.10 | 10.0 | |
| 121-14-2 | 2,4-Dinitrotoluene | 1 | ND | | 0.879 | 10.0 | |
| 606-20-2 | 2,6-Dinitrotoluene | 1 | ND | | 1.01 | 10.0 | |
| 117-84-0 | Di-n-octylphthalate | 1 | ND | | 1.98 | 10.0 | |
| 122-66-7 | 1,2-Diphenylhydrazine | 1 | ND | | 1.79 | 10.0 | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1 | ND | | 8.62 | 10.0 | |
| 206-44-0 | Fluoranthene | 1 | 1.38 | J | 0.967 | 10.0 | |
| 86-73-7 | Fluorene | 1 | ND | | 0.876 | 10.0 | |
| 118-74-1 | Hexachlorobenzene | 1 | ND | | 1.07 | 10.0 | |
| 77-47-4 | Hexachlorocyclopentadiene | 1 | ND | | 0.750 | 10.0 | |
| 67-72-1 | Hexachloroethane | 1 | ND | | 1.08 | 10.0 | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1 | ND | | 1.45 | 10.0 | |
| 78-59-1 | Isophorone | 1 | ND | | 1.02 | 10.0 | |
| 91-57-6 | 2-Methylnaphthalene | 1 | ND | | 0.865 | 10.0 | |
| 95-48-7 | 2-Methylphenol (o-Cresol) | 1 | ND | | 2.78 | 10.0 | |
| 88-74-4 | 2-Nitroaniline | 1 | ND | | 0.743 | 10.0 | |
| 99-09-2 | 3-Nitroaniline | 1 | ND | | 4.26 | 10.0 | |
| 100-01-6 | 4-Nitroaniline | 1 | ND | | 2.71 | 10.0 | |
| 98-95-3 | Nitrobenzene | 1 | ND | | 1.98 | 10.0 | |
| 88-75-5 | 2-Nitrophenol | 1 | ND | | 0.927 | 10.0 | |
| 100-02-7 | 4-Nitrophenol | 1 | ND | | 1.33 | 10.0 | |
| 62-75-9 | N-Nitrosodimethylamine | 1 | ND | | 1.08 | 10.0 | |
| 621-64-7 | N-Nitroso-di-n-propylamine | 1 | ND | | 1.38 | 10.0 | |
| 86-30-6 | N-Nitrosodiphenylamine | 1 | ND | A10 | 3.65 | 10.0 | |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 1 | ND | | 0.986 | 10.0 | |
| 85-01-8 | Phenanthrene | 1 | ND | | 0.881 | 10.0 | |
| 108-95-2 | Phenol | 1 | ND | | 1.55 | 10.0 | |
| 129-00-0 | Pyrene | 1 | 1.53 | J | 1.36 | 10.0 | |
| 110-86-1 | Pyridine | 1 | ND | | 2.19 | 10.0 | |

12/22/2006 19:07:28

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Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Client:** EA Engineering,Science &Tech

**Client ID:** 2WSW3-EPA
**Site:** None
**Project:** Gulfco Marine Superfund Site
**Project No.:** 2064974
**Sample Qu:**
**Lab ID:** 20489231
**Matrix:** Water
**% Moisture:** n/a
**Description:** None
**Prep Level:** Water
**Batch:** 79793
**Method:** 8270 SVOAs Dual pH
**Units:** ug/L
**Target List:** 82702 WL20
**Collected:** 12/06/06
**Received:** 12/08/06
**Prep Factor:** 1
**Prepared:** 12/11/06
**Analyzed:** 12/14/06 16:27 JAM (1)

| CAS Number | Parameter | Dilution | Result | Qu | Adjusted MDL | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|---|
| 95-95-4 | 2,4,5-Trichlorophenol | 1 | ND | | 0.814 | 10.0 | |
| 88-06-2 | 2,4,6-Trichlorophenol | 1 | ND | | 0.660 | 10.0 | |

**68 compound(s) reported**

**ND denotes Not Detected at or above the adjusted reporting limit.**
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**Qu lists qualifiers. Specific qualifiers are defined at the end of the report.**
**For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.**
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12/22/2006 19:07:28

*New Orleans Laboratory Certifications*
*Louisiana Dept. of Environmental Quality (LELAP) - 02006*
*Arkansas Dept. of Environmental Quality - 88-0681*
*Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023*
*Florida Dept. of Health (NELAC) - E87595*
*Kansas Dept. of Health Environment - E-10266*
*U.S. Dept. of Agriculture Foreign Soil Permit - S-47270*

# Report of Laboratory Analysis

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Client:** EA Engineering,Science &Tech

**Client ID:** TRIP BLANK
**Site:** None

**Project:** Gulfco Marine Superfund Site
**Project No.:** 2064974
**Sample Qu:**

**Lab ID:** 20489232
**Matrix:** Water
**% Moisture:** n/a

**Description:** None
**Prep Level:** Water
**Batch:** 80059

**Method:** 8260 VOAs Full List Water
**Units:** ug/L
**Target List:** 826F_WL20

**Collected:** 12/06/06
**Received:** 12/08/06

**Prep Factor:** 1
**Prepared:** 12/18/06
**Analyzed:** 12/18/06 15:28 RMP (1)

| CAS Number | Parameter | Dilution | Result | Qu | Adjusted MDL | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | 1 | ND | A11 | 5.90 | 10.0 | |
| 107-02-8 | Acrolein | 1 | ND | | 9.10 | 20.0 | |
| 107-13-1 | Acrylonitrile | 1 | ND | | 4.90 | 20.0 | |
| 71-43-2 | Benzene | 1 | ND | | 0.117 | 5.00 | |
| 108-86-1 | Bromobenzene | 1 | ND | | 0.156 | 5.00 | |
| 75-27-4 | Bromodichloromethane | 1 | ND | | 0.206 | 5.00 | |
| 75-25-2 | Bromoform | 1 | ND | | 0.259 | 5.00 | |
| 74-83-9 | Bromomethane | 1 | ND | | 1.94 | 5.00 | |
| 71-36-3 | n-Butanol | 1 | ND | | | 200. | |
| 78-93-3 | 2-Butanone (MEK) | 1 | ND | A11 | 2.25 | 10.0 | |
| 104-51-8 | n-Butylbenzene | 1 | ND | | 0.0819 | 5.00 | |
| 135-98-8 | sec-Butylbenzene | 1 | ND | | 0.0410 | 5.00 | |
| 98-06-6 | tert-Butylbenzene | 1 | ND | | 0.0660 | 5.00 | |
| 75-15-0 | Carbon disulfide | 1 | ND | | 0.257 | 5.00 | |
| 56-23-5 | Carbon tetrachloride | 1 | ND | | 0.592 | 5.00 | |
| 108-90-7 | Chlorobenzene | 1 | ND | | 0.119 | 5.00 | |
| 75-00-3 | Chloroethane | 1 | ND | | 0.647 | 5.00 | |
| 110-75-8 | 2-Chloroethylvinyl ether | 1 | ND | | 1.11 | 20.0 | |
| 67-66-3 | Chloroform | 1 | ND | | 0.479 | 5.00 | |
| 74-87-3 | Chloromethane | 1 | ND | | 0.305 | 5.00 | |
| 95-49-8 | 2-Chlorotoluene | 1 | ND | | 0.0906 | 5.00 | |
| 106-43-4 | 4-Chlorotoluene | 1 | ND | | 0.0916 | 5.00 | |
| 110-82-7 | Cyclohexane | 1 | ND | | 0.464 | 5.00 | |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 1 | ND | | 1.22 | 5.00 | |
| 124-48-1 | Dibromochloromethane | 1 | ND | | 0.145 | 5.00 | |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 1 | ND | | 0.669 | 5.00 | |
| 74-95-3 | Dibromomethane | 1 | ND | | 1.39 | 5.00 | |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | ND | | 0.115 | 5.00 | |
| 541-73-1 | 1,3-Dichlorobenzene | 1 | ND | | 0.0894 | 5.00 | |
| 106-46-7 | 1,4-Dichlorobenzene | 1 | ND | | 0.139 | 5.00 | |
| 110-57-6 | trans-1,4-Dichloro-2-butene | 1 | ND | | 1.86 | 5.00 | |
| 75-71-8 | Dichlorodifluoromethane | 1 | ND | | 0.818 | 5.00 | |
| 75-34-3 | 1,1-Dichloroethane | 1 | ND | | 0.515 | 5.00 | |

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***Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023***
***Florida Dept. of Health (NELAC) - E87595***
***Kansas Dept. of Health Environment - E-10266***
***U.S. Dept. of Agriculture Foreign Soil Permit - S-47270***

# Report of Laboratory Analysis

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Client:** EA Engineering,Science &Tech

**Client ID:** TRIP BLANK
**Site:** None

**Project:** Gulfco Marine Superfund Site
**Project No.:** 2064974
**Sample Qu:**

**Lab ID:** 20489232
**Matrix:** Water
**% Moisture:** n/a

**Description:** None
**Prep Level:** Water
**Batch:** 80059

**Method:** 8260 VOAs Full List Water
**Units:** ug/L
**Target List:** 826F_WL20

**Collected:** 12/06/06
**Received:** 12/08/06

**Prep Factor:** 1
**Prepared:** 12/18/06
**Analyzed:** 12/18/06 15:28 RMP (1)

| CAS Number | Parameter | Dilution | Result | Qu | Adjusted MDL | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|---|
| 107-06-2 | 1,2-Dichloroethane | 1 | ND | | 0.212 | 5.00 | |
| 540-59-0 | 1,2-Dichloroethene (Total) | 1 | ND | | 0.839 | 10.0 | |
| 75-35-4 | 1,1-Dichloroethene | 1 | ND | | 0.493 | 5.00 | |
| 156-59-2 | cis-1,2-Dichloroethene | 1 | ND | | 0.394 | 5.00 | |
| 156-60-5 | trans-1,2-Dichloroethene | 1 | ND | | 0.733 | 5.00 | |
| 78-87-5 | 1,2-Dichloropropane | 1 | ND | | 0.328 | 5.00 | |
| 142-28-9 | 1,3-Dichloropropane | 1 | ND | | 0.239 | 5.00 | |
| 594-20-7 | 2,2-Dichloropropane | 1 | ND | | 0.855 | 5.00 | |
| 563-58-6 | 1,1-Dichloropropene | 1 | ND | | 0.342 | 5.00 | |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | ND | | 0.0869 | 5.00 | |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | ND | | 0.216 | 5.00 | |
| 87-68-3 | Hexachloro-1,3-butadiene | 1 | ND | | 0.246 | 5.00 | |
| 591-78-6 | 2-Hexanone | 1 | ND | | 0.468 | 10.0 | |
| 74-88-4 | Iodomethane | 1 | ND | | 0.621 | 5.00 | |
| 98-82-8 | Isopropylbenzene (Cumene) | 1 | ND | | 0.0368 | 5.00 | |
| 99-87-6 | p-Isopropyltoluene | 1 | ND | | 0.0504 | 5.00 | |
| 79-20-9 | Methyl acetate | 1 | ND | | 2.47 | 10.0 | |
| 108-87-2 | Methylcyclohexane | 1 | ND | | 1.60 | 10.0 | |
| 75-09-2 | Methylene chloride | 1 | ND | A11 | 0.710 | 5.00 | |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 1 | ND | | 0.872 | 10.0 | |
| 103-65-1 | n-Propylbenzene | 1 | ND | | 0.0768 | 5.00 | |
| 100-42-5 | Styrene | 1 | ND | | 0.0763 | 5.00 | |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1 | ND | | 0.291 | 5.00 | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1 | ND | | 0.238 | 5.00 | |
| 127-18-4 | Tetrachloroethene | 1 | ND | | 0.162 | 5.00 | |
| 108-88-3 | Toluene | 1 | ND | | 0.131 | 5.00 | |
| 100-41-4 | Ethylbenzene | 1 | ND | | 0.119 | 5.00 | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1 | ND | | 0.254 | 5.00 | |
| 71-55-6 | 1,1,1-Trichloroethane | 1 | ND | | 0.609 | 5.00 | |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | ND | | 0.328 | 5.00 | |
| 79-01-6 | Trichloroethene | 1 | ND | | 0.168 | 5.00 | |
| 75-69-4 | Trichlorofluoromethane | 1 | ND | | 1.57 | 5.00 | |
| 96-18-4 | 1,2,3-Trichloropropane | 1 | ND | | 1.49 | 5.00 | |

12/22/2006 19:07:28

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***U.S. Dept. of Agriculture Foreign Soil Permit - S-47270***

# Report of Laboratory Analysis

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Client:** EA Engineering,Science &Tech

**Client ID:** TRIP BLANK
**Site:** None
**Project:** Gulfco Marine Superfund Site
**Project No.:** 2064974
**Sample Qu:**
**Lab ID:** 20489232
**Matrix:** Water
**% Moisture:** n/a
**Description:** None
**Prep Level:** Water
**Batch:** 80059
**Method:** 8260 VOAs Full List Water
**Units:** ug/L
**Target List:** 826F_WL20
**Collected:** 12/06/06
**Received:** 12/08/06
**Prep Factor:** 1
**Prepared:** 12/18/06
**Analyzed:** 12/18/06 15:28 RMP (1)

| CAS Number | Parameter | Dilution | Result | Qu | Adjusted MDL | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|---|
| 76-13-1 | 1,1,2-Trichlorotrifluoroethane | 1 | ND | | 0.381 | 5.00 | |
| 95-63-6 | 1,2,4-Trimethylbenzene | 1 | ND | | 0.0844 | 5.00 | |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1 | ND | | 0.0614 | 5.00 | |
| 108-05-4 | Vinyl acetate | 1 | ND | | 0.686 | 10.0 | |
| 75-01-4 | Vinyl chloride | 1 | ND | | 0.463 | 5.00 | |
| | m&p-Xylene | 1 | ND | | 0.151 | 5.00 | |
| 95-47-6 | o-Xylene | 1 | ND | | 0.142 | 5.00 | |
| 1634-04-4 | Methyl-tert-butyl ether | 1 | ND | | 0.381 | 5.00 | |

**74 compound(s) reported**

12/22/2006 19:07:28

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# Report of Laboratory Analysis

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St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Client:** EA Engineering,Science &Tech

**Client ID:** 2WSW3-EPA
**Site:** None
**Project:** Gulfco Marine Superfund Site
**Project No.:** 2064974
**Sample Qu:**
**Lab ID:** 20489231
**Matrix:** Water
**% Moisture:** n/a
**Description:** None
**Prep Level:** Water
**Batch:** 79516
**Method:** 8081 Pests Water
**Units:** ug/L
**Target List:** 8081_WL20
**Collected:** 12/06/06
**Received:** 12/08/06
**Prep Factor:** 1
**Prepared:** 12/12/06
**Analyzed:** 12/18/06 13:02 SLF (1)

| CAS Number | Parameter | Dilution | Result | Qu | Adjusted MDL | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|---|
| 309-00-2 | Aldrin | 1 | ND | | 0.0171 | 0.0500 | |
| 319-84-6 | alpha-BHC | 1 | ND | | 0.00654 | 0.0500 | |
| 319-85-7 | beta-BHC | 1 | ND | | 0.0115 | 0.0500 | |
| 319-86-8 | delta-BHC | 1 | ND | | 0.0141 | 0.0500 | |
| 58-89-9 | gamma-BHC (Lindane) | 1 | ND | | 0.00637 | 0.0500 | |
| 5103-71-9 | alpha-Chlordane | 1 | ND | | 0.0142 | 0.0500 | |
| 5103-74-2 | gamma-Chlordane | 1 | ND | | 0.0429 | 0.0500 | |
| 72-54-8 | 4,4'-DDD | 1 | ND | | 0.0180 | 0.100 | |
| 72-55-9 | 4,4'-DDE | 1 | ND | | 0.00793 | 0.100 | |
| 50-29-3 | 4,4'-DDT | 1 | ND | | 0.0249 | 0.100 | |
| 60-57-1 | Dieldrin | 1 | ND | | 0.00521 | 0.100 | |
| 959-98-8 | Endosulfan I | 1 | ND | | 0.0200 | 0.0500 | |
| 33213-65-9 | Endosulfan II | 1 | ND | | 0.0145 | 0.100 | |
| 1031-07-8 | Endosulfan sulfate | 1 | ND | | 0.00749 | 0.100 | |
| 72-20-8 | Endrin | 1 | ND | | 0.0128 | 0.100 | |
| 7421-93-4 | Endrin aldehyde | 1 | ND | | 0.0144 | 0.100 | |
| 53494-70-5 | Endrin ketone | 1 | ND | | 0.0629 | 0.100 | |
| 76-44-8 | Heptachlor | 1 | ND | | 0.00949 | 0.0500 | |
| 1024-57-3 | Heptachlor epoxide | 1 | ND | | 0.00469 | 0.0500 | |
| 72-43-5 | Methoxychlor | 1 | ND | | 0.0780 | 0.500 | |
| 8001-35-2 | Toxaphene | 1 | ND | | | 2.00 | |

**21 compound(s) reported**

12/22/2006 19:07:44

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# Report of Laboratory Analysis

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Client:** EA Engineering,Science &Tech

**Client ID:** 2WSW3-EPA
**Site:** None

**Project:** Gulfco Marine Superfund Site
**Project No.:** 2064974
**Sample Qu:**

**Lab ID:** 20489231
**Matrix:** Water
**% Moisture:** n/a

**Description:** None
**Prep Level:** Water
**Batch:** 79789

**Method:** 8082 PCBs Water
**Units:** ug/L
**Target List:** 8082_WL20

**Collected:** 12/06/06
**Received:** 12/08/06

**Prep Factor:** 1
**Prepared:** 12/12/06
**Analyzed:** 12/19/06 11:58 SLF (1)

| CAS Number | Parameter | Dilution | Result | Qu | Adjusted MDL | Reporting Limit | Reg. Limit |
|---|---|---|---|---|---|---|---|
| 12674-11-2 | PCB-1016 (Aroclor 1016) | 1 | ND | | 0.169 | 1.00 | |
| 11104-28-2 | PCB-1221 (Aroclor 1221) | 1 | ND | | 0.200 | 1.00 | |
| 11141-16-5 | PCB-1232 (Aroclor 1232) | 1 | ND | | 0.200 | 1.00 | |
| 53469-21-9 | PCB-1242 (Aroclor 1242) | 1 | ND | | 0.200 | 1.00 | |
| 12672-29-6 | PCB-1248 (Aroclor 1248) | 1 | ND | | 0.200 | 1.00 | |
| 11097-69-1 | PCB-1254 (Aroclor 1254) | 1 | ND | | 0.200 | 1.00 | |
| 11096-82-5 | PCB-1260 (Aroclor 1260) | 1 | ND | | 0.112 | 1.00 | |

**7 compound(s) reported**

12/22/2006 19:07:44

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# Report of Laboratory Analysis

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Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Client ID:** 2WSW3-EPA
**Client:** EA Engineering,Science &Tech
**Project:** Gulfco Marine Superfund Site
**Site:** None
**Lab ID:** 20489231
**Project No.:** 2064974
**Description:** None
**Matrix:** Water
**%Moisture:** n/a
**Collected:** 12/06/06
**Received:** 12/08/06

| ParameterName | Method | Batch | DF | Result | Qu | Units | Adjusted MDL | Reporting Limit | Prep. | Analysis | Reg. Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | EPA 6010 | 80238 | 1 | 252. | | ug/L | 41.3 | 200. | 12/20 | 12/21 14:03 KJR (1) | |
| Aluminum, Dissolved | EPA 6010 | 80241 | 1 | 313. | | ug/L | 74.8 | 200. | 12/20 | 12/21 12:25 KJR (1) | |
| Antimony | EPA 6010 | 80238 | 1 | ND | | ug/L | 11.1 | 60.0 | 12/20 | 12/21 14:03 KJR (1) | |
| Antimony, Dissolved | EPA 6010 | 80241 | 1 | ND | | ug/L | 10.2 | 60.0 | 12/20 | 12/21 12:25 KJR (1) | |
| Arsenic | EPA 6010 | 80238 | 1 | ND | | ug/L | 6.05 | 10.0 | 12/20 | 12/21 14:03 KJR (1) | |
| Arsenic, Dissolved | EPA 6010 | 80241 | 1 | 12.3 | | ug/L | 5.12 | 10.0 | 12/20 | 12/21 12:25 KJR (1) | |
| Barium | EPA 6010 | 80238 | 1 | 147. | J | ug/L | 7.06 | 200. | 12/20 | 12/21 14:03 KJR (1) | |
| Barium, Dissolved | EPA 6010 | 80241 | 1 | 141. | J | ug/L | 1.50 | 200. | 12/20 | 12/21 12:25 KJR (1) | |
| Beryllium | EPA 6010 | 80238 | 1 | ND | | ug/L | 0.380 | 5.00 | 12/20 | 12/21 14:03 KJR (1) | |
| Beryllium, Dissolved | EPA 6010 | 80241 | 1 | ND | | ug/L | 0.874 | 5.00 | 12/20 | 12/21 12:25 KJR (1) | |
| Boron | EPA 6010 | 80238 | 1 | 1440 | | ug/L | 8.82 | 50.0 | 12/20 | 12/21 14:03 KJR (1) | |
| Boron, Dissolved | EPA 6010 | 80241 | 1 | 1430 | | ug/L | 6.78 | 50.0 | 12/20 | 12/21 12:25 KJR (1) | |
| Cadmium | EPA 6010 | 80238 | 1 | 0.531 | J | ug/L | 0.374 | 5.00 | 12/20 | 12/21 14:03 KJR (1) | |
| Cadmium, Dissolved | EPA 6010 | 80241 | 1 | 0.526 | J | ug/L | 0.486 | 5.00 | 12/20 | 12/21 12:25 KJR (1) | |
| Cobalt | EPA 6010 | 80238 | 1 | 2.30 | J | ug/L | 1.95 | 10.0 | 12/20 | 12/21 14:03 KJR (1) | |
| Cobalt, Dissolved | EPA 6010 | 80241 | 1 | 2.17 | J | ug/L | 0.771 | 10.0 | 12/20 | 12/21 12:25 KJR (1) | |
| Copper | EPA 6010 | 80238 | 1 | ND | | ug/L | 3.18 | 10.0 | 12/20 | 12/21 14:03 KJR (1) | |
| Copper, Dissolved | EPA 6010 | 80241 | 1 | ND | | ug/L | 1.31 | 10.0 | 12/20 | 12/21 12:25 KJR (1) | |
| Iron | EPA 6010 | 80238 | 1 | 210. | | ug/L | 49.5 | 100. | 12/20 | 12/21 14:03 KJR (1) | |
| Iron, Dissolved | EPA 6010 | 80241 | 1 | 113. | | ug/L | 9.62 | 100. | 12/20 | 12/21 12:25 KJR (1) | |
| Lead | EPA 6010 | 80238 | 1 | ND | | ug/L | 2.90 | 5.00 | 12/20 | 12/21 14:03 KJR (1) | |
| Lead, Dissolved | EPA 6010 | 80241 | 1 | ND | | ug/L | 3.50 | 5.00 | 12/20 | 12/21 12:25 KJR (1) | |
| Lithium | EPA 6010 | 80238 | 1 | 224. | | ug/L | 6.62 | 50.0 | 12/20 | 12/21 14:03 KJR (1) | |
| Lithium, Dissolved | EPA 6010 | 80241 | 1 | 212. | | ug/L | 3.34 | 50.0 | 12/20 | 12/21 12:25 KJR (1) | |
| Manganese | EPA 6010 | 80238 | 1 | 25.6 | | ug/L | 9.84 | 15.0 | 12/20 | 12/21 14:03 KJR (1) | |
| Manganese, Dissolved | EPA 6010 | 80241 | 1 | 28.2 | | ug/L | 9.37 | 15.0 | 12/20 | 12/21 12:25 KJR (1) | |
| Mercury | EPA 7470 | 80237 | 1 | ND | | ug/L | 0.0111 | 0.200 | 12/20 | 12/20 12:06 KDG (1) | |
| Mercury, Dissolved | EPA 7470 | 80239 | 1 | 0.0139 | J | ug/L | 0.0111 | 0.200 | 12/20 | 12/20 12:43 KDG (1) | |
| Nickel | EPA 6010 | 80238 | 1 | ND | | ug/L | 28.6 | 40.0 | 12/20 | 12/21 14:03 KJR (1) | |
| Nickel, Dissolved | EPA 6010 | 80241 | 1 | ND | | ug/L | 18.4 | 40.0 | 12/20 | 12/21 12:25 KJR (1) | |
| Selenium | EPA 6010 | 80238 | 1 | 26.1 | J | ug/L | 5.91 | 35.0 | 12/20 | 12/21 14:03 KJR (1) | |
| Selenium, Dissolved | EPA 6010 | 80241 | 1 | 25.4 | J | ug/L | 11.4 | 35.0 | 12/20 | 12/21 12:25 KJR (1) | |
| Silver | EPA 6010 | 80238 | 1 | 1.79 | J | ug/L | 1.50 | 10.0 | 12/20 | 12/21 14:03 KJR (1) | |
| Silver, Dissolved | EPA 6010 | 80241 | 1 | ND | | ug/L | 1.64 | 10.0 | 12/20 | 12/21 12:25 KJR (1) | |
| Thallium | EPA 6010 | 80238 | 1 | ND | | ug/L | 4.31 | 10.0 | 12/20 | 12/21 14:03 KJR (1) | |

12/22/2006 19:08:00

**ND denotes Not Detected at or above the adjusted reporting limit.**
**DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.**
**Reporting Limit is corrected for sample size, dilution and moisture content if applicable.**
**Qu lists qualifiers. Specific qualifiers are defined at the end of the report.**
**For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.**
**(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.**
**(1b) Flash point less than 140 degrees F is hazardous for ignitibility.**
**Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.**

***New Orleans Laboratory Certifications***
***Louisiana Dept. of Environmental Quality (LELAP) - 02006***
***Arkansas Dept. of Environmental Quality - 88-0681***
***Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023***
***Florida Dept. of Health (NELAC) - E87595***
***Kansas Dept. of Health Environment - E-10266***
***U.S. Dept. of Agriculture Foreign Soil Permit - S-47270***

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Thallium, Dissolved | EPA 6010 | 80241 | 1 | ND | | ug/L | 5.11 | 10.0 | 12/20 | 12/21 | 12:25 | KJR (1) |
| Titanium | EPA 6010 | 80238 | 1 | 1.64 | J | ug/L | 0.512 | 10.0 | 12/20 | 12/21 | 14:03 | KJR (1) |
| Titanium, Dissolved | EPA 6010 | 80241 | 1 | ND | | ug/L | 0.871 | 10.0 | 12/20 | 12/21 | 12:25 | KJR (1) |
| Zinc | EPA 6010 | 80238 | 1 | ND | | ug/L | 2.62 | 20.0 | 12/20 | 12/21 | 14:03 | KJR (1) |
| Zinc, Dissolved | EPA 6010 | 80241 | 1 | ND | | ug/L | 9.53 | 20.0 | 12/20 | 12/21 | 12:25 | KJR (1) |

**40 parameter(s) reported**

12/22/2006 19:08:00

**ND denotes Not Detected at or above the adjusted reporting limit.**
**DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.**
**Reporting Limit is corrected for sample size, dilution and moisture content if applicable.**
**Qu lists qualifiers. Specific qualifiers are defined at the end of the report.**
**For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.**
**(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.**
**(1b) Flash point less than 140 degrees F is hazardous for ignitibility.**
**Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.**

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***Arkansas Dept. of Environmental Quality - 88-0681***
***Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023***
***Florida Dept. of Health (NELAC) - E87595***
***Kansas Dept. of Health Environment - E-10266***
***U.S. Dept. of Agriculture Foreign Soil Permit - S-47270***

# Report of Quality Control

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Method:** EPA 8260 **Project:** 2064974 **LCS:** 20490722 12/18/2006 1:45:00 PM

**Batch:** 80059 **MS:** 20490723 12/18/2006 2:50:00 PM

**Units:** ug/L **Original for MS:** 20489231 Client Sample

| Parameter Name | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | QC Limits LCS | QC Limits MS/MSD | Max RPD | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 50 | 157 | | | 50 | 94 | 150 | 45 * | 22 - 165 | 11 - 171 | 20 | A11 |
| Acrolein | 100 | 68 | | | 100 | 48 | 7 * | 151 * | 10 - 150 | 10 - 150 | 20 | |
| Acrylonitrile | 150 | 139 | | | 150 | 88 | 130 | 39 * | 10 - 150 | 10 - 150 | 20 | |
| Benzene | 50 | 97 | | | 50 | 98 | 86 | 13 | 70 - 135 | 60 - 144 | 20 | |
| Bromobenzene | 50 | 88 | | | 50 | 88 | 80 | 10 | 72 - 127 | 73 - 139 | 20 | |
| Bromodichloromethane | 50 | 102 | | | 50 | 93 | 91 | 2 | 61 - 156 | 59 - 156 | 20 | |
| Bromoform | 50 | 103 | | | 50 | 80 | 92 | 14 | 56 - 154 | 50 - 153 | 20 | |
| Bromomethane | 50 | 83 | | | 50 | 89 | 78 | 13 | 44 - 158 | 37 - 165 | 20 | |
| 2-Butanone (MEK) | 50 | 147 | | | 50 | 95 | 143 | 40 * | 32 - 157 | 20 - 168 | 20 | A11 |
| n-Butylbenzene | 50 | 88 | | | 50 | 97 | 74 | 27 * | 61 - 140 | 59 - 146 | 20 | |
| sec-Butylbenzene | 50 | 84 | | | 50 | 94 | 73 | 25 * | 66 - 136 | 63 - 142 | 20 | |
| tert-Butylbenzene | 50 | 98 | | | 50 | 106 | 85 | 21 * | 56 - 145 | 58 - 153 | 20 | |
| Carbon disulfide | 50 | 99 | | | 50 | 104 | 93 | 12 | 40 - 147 | 36 - 152 | 20 | |
| Carbon tetrachloride | 50 | 104 | | | 50 | 110 | 93 | 18 | 50 - 166 | 44 - 170 | 20 | |
| Chlorobenzene | 50 | 91 | | | 50 | 94 | 82 | 14 | 73 - 129 | 67 - 134 | 20 | |
| Chloroethane | 50 | 128 | | | 50 | 136 | 119 | 13 | 38 - 163 | 34 - 170 | 20 | |
| Chloroform | 50 | 101 | | | 50 | 97 | 93 | 4 | 71 - 133 | 64 - 140 | 20 | |
| Chloromethane | 50 | 86 | | | 50 | 88 | 79 | 10 | 32 - 149 | 22 - 163 | 20 | |
| 2-Chlorotoluene | 50 | 77 | | | 50 | 81 | 71 | 13 | 67 - 136 | 62 - 146 | 20 | |
| 4-Chlorotoluene | 50 | 83 | | | 50 | 89 | 74 | 18 | 67 - 133 | 38 - 156 | 20 | |
| Cyclohexane | 50 | 91 | | | 50 | 95 | 82 | 14 | 63 - 113 | 70 - 130 | 20 | |
| 1,2-Dibromo-3-chloropropane | 50 | 106 | | | 50 | 75 | 96 | 24 * | 34 - 145 | 28 - 150 | 20 | |
| Dibromochloromethane | 50 | 96 | | | 50 | 82 | 87 | 6 | 63 - 147 | 58 - 147 | 20 | |
| 1,2-Dibromoethane (EDB) | 50 | 123 | | | 50 | 93 | 110 | 17 | 60 - 147 | 55 - 149 | 20 | |
| Dibromomethane | 50 | 108 | | | 50 | 87 | 100 | 14 | 60 - 147 | 56 - 148 | 20 | |
| 1,2-Dichlorobenzene | 50 | 84 | | | 50 | 82 | 76 | 8 | 67 - 135 | 61 - 139 | 20 | |
| 1,3-Dichlorobenzene | 50 | 83 | | | 50 | 86 | 74 | 16 | 69 - 129 | 66 - 134 | 20 | |
| 1,4-Dichlorobenzene | 50 | 84 | | | 50 | 86 | 75 | 13 | 66 - 133 | 64 - 133 | 20 | |
| trans-1,4-Dichloro-2-butene | 100 | 103 | | | 100 | 79 | 94 | 17 | 17 - 178 | 21 - 164 | 20 | |
| 1,1-Dichloroethane | 50 | 102 | | | 50 | 102 | 94 | 9 | 64 - 135 | 59 - 142 | 20 | |
| 1,2-Dichloroethane | 50 | 117 | | | 50 | 101 | 106 | 6 | 53 - 164 | 51 - 161 | 20 | |
| 1,1-Dichloroethene | 50 | 99 | | | 50 | 104 | 93 | 11 | 51 - 143 | 44 - 152 | 20 | |
| cis-1,2-Dichloroethene | 50 | 91 | | | 50 | 88 | 85 | 4 | 59 - 139 | 56 - 145 | 20 | |
| trans-1,2-Dichloroethene | 50 | 96 | | | 50 | 100 | 90 | 10 | 59 - 139 | 56 - 145 | 20 | |
| 1,2-Dichloropropane | 50 | 109 | | | 50 | 105 | 100 | 4 | 69 - 135 | 66 - 138 | 20 | |
| 1,3-Dichloropropane | 50 | 103 | | | 50 | 86 | 93 | 7 | 71 - 131 | 60 - 140 | 20 | |
| 2,2-Dichloropropane | 50 | 102 | | | 50 | 105 | 93 | 13 | 52 - 138 | 53 - 139 | 20 | |
| 1,1-Dichloropropene | 50 | 103 | | | 50 | 108 | 90 | 19 | 64 - 140 | 64 - 142 | 20 | |
| cis-1,3-Dichloropropene | 50 | 117 | | | 50 | 105 | 105 | 0 | 66 - 141 | 58 - 142 | 20 | |

12/22/2006 19:08:16

*** denotes recovery outside of QC limits.**
**MS spike concentrations are not corrected for moisture content of the spiked sample.**
**(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.**

*New Orleans Laboratory Certifications*
*Louisiana Dept. of Environmental Quality (LELAP) - 02006*
*Arkansas Dept. of Environmental Quality - 88-0681*
*Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023*
*Florida Dept. of Health (NELAC) - E87595*
*Kansas Dept. of Health Environment - E-10266*
*U.S. Dept. of Agriculture Foreign Soil Permit - S-47270*

# Report of Quality Control

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Method:** EPA 8260 **Project:** 2064974 **LCS:** 20490722 12/18/2006 1:45:00 PM

**Batch:** 80059 **MS:** 20490723 12/18/2006 2:50:00 PM

**Units:** ug/L **Original for MS:** 20489231 Client Sample

| Parameter Name | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | QC Limits LCS | QC Limits MS/MSD | Max RPD | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | 50 | 118 | | | 50 | 99 | 107 | 8 | 57 - 150 | 50 - 151 | 20 | |
| Ethylbenzene | 50 | 87 | | | 50 | 94 | 77 | 20 | 67 - 132 | 58 - 138 | 20 | |
| Hexachloro-1,3-butadiene | 50 | 76 | | | 50 | 80 | 62 | 24 * | 49 - 167 | 27 - 195 | 20 | |
| 2-Hexanone | 50 | 134 | | | 50 | 93 | 125 | 29 * | 36 - 154 | 25 - 163 | 20 | |
| Iodomethane | 50 | 89 | | | 50 | 89 | 84 | 6 | 43 - 159 | 36 - 160 | 20 | |
| Isopropylbenzene (Cumene) | 50 | 88 | | | 50 | 98 | 77 | 24 * | 55 - 133 | 45 - 143 | 20 | |
| p-Isopropyltoluene | 50 | 83 | | | 50 | 92 | 75 | 21 * | 66 - 133 | 67 - 135 | 20 | |
| Methylcyclohexane | 50 | 94 | | | 50 | 99 | 83 | 18 | 70 - 130 | 70 - 130 | 20 | |
| Methylene chloride | 50 | 85 | | | 50 | 74 | 75 | 1 | 29 - 159 | 19 - 158 | 20 | A11 |
| 4-Methyl-2-pentanone (MIBK) | 50 | 143 | | | 50 | 100 | 133 | 28 * | 13 - 162 | 10 - 157 | 20 | |
| Methyl-tert-butyl ether | 50 | 129 | | | 50 | 99 | 121 | 20 | 48 - 145 | 39 - 157 | 20 | |
| n-Propylbenzene | 50 | 84 | | | 50 | 94 | 73 | 25 * | 66 - 135 | 61 - 143 | 20 | |
| Styrene | 50 | 96 | | | 50 | 97 | 85 | 13 | 71 - 134 | 54 - 144 | 20 | |
| 1,1,1,2-Tetrachloroethane | 50 | 92 | | | 50 | 92 | 83 | 10 | 73 - 146 | 65 - 150 | 20 | |
| 1,1,2,2-Tetrachloroethane | 50 | 100 | | | 50 | 78 | 91 | 16 | 50 - 142 | 46 - 145 | 20 | |
| Tetrachloroethene | 50 | 87 | | | 50 | 96 | 77 | 22 * | 42 - 156 | 39 - 151 | 20 | |
| Toluene | 50 | 95 | | | 50 | 97 | 84 | 14 | 72 - 132 | 64 - 139 | 20 | |
| 1,2,4-Trichlorobenzene | 50 | 74 | | | 50 | 71 | 66 | 7 | 56 - 144 | 46 - 149 | 20 | |
| 1,1,1-Trichloroethane | 50 | 98 | | | 50 | 101 | 89 | 13 | 65 - 136 | 59 - 141 | 20 | |
| 1,1,2-Trichloroethane | 50 | 111 | | | 50 | 88 | 101 | 14 | 67 - 144 | 60 - 146 | 20 | |
| Trichloroethene | 50 | 95 | | | 50 | 98 | 85 | 14 | 69 - 136 | 61 - 141 | 20 | |
| Trichlorofluoromethane | 50 | 97 | | | 50 | 104 | 93 | 11 | 42 - 161 | 38 - 160 | 20 | |
| 1,2,3-Trichloropropane | 50 | 105 | | | 50 | 82 | 99 | 18 | 52 - 152 | 51 - 151 | 20 | |
| 1,1,2-Trichlorotrifluoroethane | 50 | 82 | | | 50 | 88 | 77 | 13 | 44 - 147 | 20 - 174 | 20 | |
| 1,2,4-Trimethylbenzene | 50 | 86 | | | 50 | 94 | 76 | 21 * | 59 - 137 | 41 - 155 | 20 | |
| 1,3,5-Trimethylbenzene | 50 | 86 | | | 50 | 95 | 75 | 23 * | 69 - 135 | 55 - 150 | 20 | |
| Vinyl acetate | 50 | 199 * | | | 50 | 143 | 181 | 23 * | 21 - 190 | 10 - 185 | 20 | Q10 |
| Vinyl chloride | 50 | 100 | | | 50 | 108 | 96 | 12 | 40 - 146 | 28 - 161 | 20 | |
| m&p-Xylene | 100 | 88 | | | 100 | 95 | 77 | 21 * | 70 - 129 | 66 - 132 | 20 | |
| o-Xylene | 50 | 86 | | | 50 | 90 | 76 | 17 | 70 - 129 | 66 - 132 | 20 | |

**69 compound(s) reported**

*** denotes recovery outside of QC limits.**
**MS spike concentrations are not corrected for moisture content of the spiked sample.**
**(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.**

12/22/2006 19:08:16

*New Orleans Laboratory Certifications*
*Louisiana Dept. of Environmental Quality (LELAP) - 02006*
*Arkansas Dept. of Environmental Quality - 88-0681*
*Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023*
*Florida Dept. of Health (NELAC) - E87595*
*Kansas Dept. of Health Environment - E-10266*
*U.S. Dept. of Agriculture Foreign Soil Permit - S-47270*

# Report of Quality Control

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Method:** EPA 8270 **Project:** 2064974 **LCS:** 20489337 12/14/2006 11:12:00 A

**Batch:** 79793 **MS:** 20489338 12/14/2006 1:24:00 PM

**Units:** ug/L **Original for MS:** 20488920 Batch Sample

| Parameter Name | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | QC Limits LCS | QC Limits MS/MSD | Max RPD | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 50 | 77 | | | 50 | 84 | 76 | 9 | 42 - 113 | 35 - 115 | 20 | |
| Acenaphthylene | 50 | 75 | | | 50 | 80 | 72 | 11 | 41 - 111 | 32 - 113 | 20 | |
| Acetophenone | 50 | 92 | | | 50 | 98 | 97 | 1 | 40 - 120 | 40 - 120 | 20 | |
| Aniline | 50 | 116 | | | 50 | 57 | 50 | 13 | 40 - 120 | 40 - 120 | 20 | |
| Anthracene | 50 | 77 | | | 50 | 79 | 70 | 12 | 46 - 115 | 36 - 115 | 20 | |
| Benzo(a)anthracene | 50 | 68 | | | 50 | 57 | 60 | 5 | 46 - 117 | 31 - 118 | 20 | |
| Benzo(b)fluoranthene | 50 | 71 | | | 50 | 56 | 62 | 10 | 39 - 129 | 24 - 130 | 20 | |
| Benzo(k)fluoranthene | 50 | 83 | | | 50 | 65 | 71 | 8 | 35 - 132 | 21 - 128 | 20 | |
| Benzoic acid | 50 | 87 | | | 50 | 94 | 114 | 19 | 10 - 132 | 10 - 162 | 20 | |
| Benzo(g,h,i)perylene | 50 | 60 | | | 50 | 39 | 41 | 6 | 24 - 136 | 10 - 128 | 20 | |
| Benzo(a)pyrene | 50 | 71 | | | 50 | 55 | 58 | 5 | 40 - 120 | 22 - 118 | 20 | |
| Benzyl alcohol | 50 | 88 | | | 50 | 90 | 90 | 0 | 27 - 120 | 22 - 123 | 20 | |
| 4-Bromophenylphenyl ether | 50 | 76 | | | 50 | 74 | 70 | 5 | 44 - 117 | 36 - 116 | 20 | |
| Butylbenzylphthalate | 50 | 66 | | | 50 | 65 | 63 | 3 | 38 - 126 | 30 - 126 | 20 | |
| Carbazole | 50 | 87 | | | 50 | 102 | 95 | 7 | 32 - 130 | 25 - 138 | 20 | |
| 4-Chloro-3-methylphenol | 50 | 68 | | | 50 | 76 | 78 | 2 | 37 - 118 | 30 - 123 | 20 | |
| 4-Chloroaniline | 50 | 42 | | | 50 | 44 | 39 | 10 | 10 - 114 | 10 - 115 | 20 | |
| bis(2-Chloroethoxy)methane | 50 | 77 | | | 50 | 84 | 79 | 7 | 32 - 113 | 28 - 115 | 20 | |
| bis(2-Chloroethyl) ether | 50 | 83 | | | 50 | 84 | 80 | 5 | 27 - 113 | 22 - 115 | 20 | |
| 2-Chloronaphthalene | 50 | 76 | | | 50 | 83 | 76 | 10 | 41 - 111 | 35 - 112 | 20 | |
| 2-Chlorophenol | 50 | 67 | | | 50 | 68 | 66 | 2 | 26 - 115 | 23 - 115 | 20 | |
| 4-Chlorophenylphenyl ether | 50 | 85 | | | 50 | 92 | 87 | 6 | 42 - 117 | 37 - 115 | 20 | |
| Chrysene | 50 | 68 | | | 50 | 58 | 62 | 8 | 45 - 118 | 31 - 117 | 20 | |
| Dibenz(a,h)anthracene | 50 | 79 | | | 50 | 50 | 54 | 9 | 29 - 136 | 11 - 132 | 20 | |
| Dibenzofuran | 50 | 85 | | | 50 | 96 | 87 | 10 | 45 - 113 | 38 - 115 | 20 | |
| 1,2-Dichlorobenzene | 50 | 66 | | | 50 | 70 | 66 | 5 | 20 - 99 | 13 - 102 | 20 | |
| 1,3-Dichlorobenzene | 50 | 60 | | | 50 | 63 | 59 | 8 | 16 - 96 | 11 - 96 | 20 | |
| 1,4-Dichlorobenzene | 50 | 63 | | | 50 | 66 | 62 | 6 | 17 - 97 | 12 - 98 | 20 | |
| 3,3'-Dichlorobenzidine | 50 | 45 | | | 50 | 10 | 0 * | 200 * | 10 - 124 | 10 - 106 | 20 | Q1 |
| 2,4-Dichlorophenol | 50 | 63 | | | 50 | 66 | 62 | 5 | 36 - 116 | 29 - 119 | 20 | |
| Diethylphthalate | 50 | 78 | | | 50 | 88 | 87 | 1 | 43 - 120 | 37 - 120 | 20 | |
| 2,4-Dimethylphenol | 50 | 62 | | | 50 | 76 | 70 | 8 | 18 - 110 | 16 - 121 | 20 | |
| Dimethylphthalate | 50 | 78 | | | 50 | 87 | 83 | 5 | 45 - 116 | 39 - 117 | 20 | |
| Di-n-butylphthalate | 50 | 86 | | | 50 | 85 | 83 | 2 | 43 - 123 | 34 - 121 | 20 | |
| 4,6-Dinitro-2-methylphenol | 50 | 70 | | | 50 | 65 | 71 | 10 | 33 - 137 | 24 - 144 | 20 | |
| 2,4-Dinitrophenol | 50 | 67 | | | 50 | 73 | 71 | 3 | 17 - 148 | 10 - 170 | 20 | |
| 2,4-Dinitrotoluene | 50 | 91 | | | 50 | 107 | 103 | 4 | 43 - 121 | 36 - 125 | 20 | |
| 2,6-Dinitrotoluene | 50 | 75 | | | 50 | 87 | 81 | 7 | 45 - 119 | 40 - 121 | 20 | |
| Di-n-octylphthalate | 50 | 87 | | | 50 | 64 | 75 | 16 | 32 - 140 | 16 - 144 | 20 | |

12/22/2006 19:08:16

*** denotes recovery outside of QC limits.**
**MS spike concentrations are not corrected for moisture content of the spiked sample.**
**(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.**

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*Louisiana Dept. of Environmental Quality (LELAP) - 02006*
*Arkansas Dept. of Environmental Quality - 88-0681*
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*Florida Dept. of Health (NELAC) - E87595*
*Kansas Dept. of Health Environment - E-10266*
*U.S. Dept. of Agriculture Foreign Soil Permit - S-47270*

# Report of Quality Control

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Method:** EPA 8270 **Project:** 2064974 **LCS:** 20489337 12/14/2006 11:12:00 A

**Batch:** 79793 **MS:** 20489338 12/14/2006 1:24:00 PM

**Units:** ug/L **Original for MS:** 20488920 Batch Sample

| Parameter Name | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | QC Limits LCS | QC Limits MS/MSD | Max RPD | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Diphenylhydrazine | 50 | 92 | | | 50 | 90 | 83 | 8 | 40 - 120 | 40 - 120 | 20 | |
| bis(2-Ethylhexyl)phthalate | 50 | 70 | | | 50 | 55 | 64 | 14 | 30 - 154 | 16 - 145 | 20 | |
| Fluoranthene | 50 | 80 | | | 50 | 82 | 77 | 7 | 45 - 121 | 35 - 121 | 20 | |
| Fluorene | 50 | 87 | | | 50 | 96 | 89 | 8 | 45 - 116 | 36 - 120 | 20 | |
| Hexachloro-1,3-butadiene | 50 | 64 | | | 50 | 67 | 62 | 6 | 20 - 101 | 14 - 102 | 20 | |
| Hexachlorobenzene | 50 | 84 | | | 50 | 74 | 74 | 0 | 44 - 119 | 32 - 119 | 20 | |
| Hexachlorocyclopentadiene | 50 | 18 | | | 50 | 7 * | 13 | 64 * | 10 - 60 | 10 - 58 | 20 | Q1 |
| Hexachloroethane | 50 | 67 | | | 50 | 67 | 67 | 0 | 15 - 96 | 10 - 101 | 20 | |
| Indeno(1,2,3-cd)pyrene | 50 | 72 | | | 50 | 45 | 49 | 10 | 29 - 131 | 12 - 126 | 20 | |
| Isophorone | 50 | 82 | | | 50 | 89 | 83 | 6 | 38 - 115 | 31 - 118 | 20 | |
| 2-Methylnaphthalene | 50 | 71 | | | 50 | 81 | 75 | 7 | 36 - 110 | 29 - 114 | 20 | |
| 2-Methylphenol (o-Cresol) | 50 | 63 | | | 50 | 68 | 68 | 0 | 32 - 115 | 27 - 118 | 20 | |
| 2-Nitroaniline | 50 | 92 | | | 50 | 104 | 100 | 4 | 34 - 120 | 23 - 126 | 20 | |
| 3-Nitroaniline | 50 | 55 | | | 50 | 49 | 60 | 21 * | 22 - 126 | 10 - 126 | 20 | |
| 4-Nitroaniline | 50 | 60 | | | 50 | 69 | 71 | 3 | 26 - 127 | 10 - 129 | 20 | |
| Nitrobenzene | 50 | 88 | | | 50 | 92 | 84 | 9 | 31 - 118 | 16 - 136 | 20 | |
| 2-Nitrophenol | 50 | 63 | | | 50 | 68 | 64 | 6 | 33 - 117 | 25 - 124 | 20 | |
| 4-Nitrophenol | 50 | 74 | | | 50 | 88 | 87 | 1 | 25 - 140 | 10 - 158 | 20 | |
| N-Nitrosodimethylamine | 50 | 95 | | | 50 | 68 | 65 | 4 | 40 - 120 | 40 - 120 | 20 | |
| N-Nitroso-di-n-propylamine | 50 | 84 | | | 50 | 89 | 91 | 3 | 34 - 115 | 26 - 119 | 20 | |
| N-Nitrosodiphenylamine | 50 | 73 | | | 50 | 62 | 47 | 29 * | 32 - 115 | 12 - 118 | 20 | A10 |
| 2,2'-Oxybis(1-chloropropane) | 50 | 79 | | | 50 | 84 | 82 | 2 | 21 - 123 | 14 - 125 | 20 | |
| Phenanthrene | 50 | 78 | | | 50 | 84 | 78 | 8 | 48 - 115 | 38 - 117 | 20 | |
| Phenol | 50 | 70 | | | 50 | 67 | 70 | 5 | 24 - 118 | 17 - 125 | 20 | |
| Pyrene | 50 | 60 | | | 50 | 66 | 63 | 4 | 42 - 119 | 31 - 122 | 20 | |
| Pyridine | 50 | 95 | | | 50 | 67 | 49 | 32 * | 40 - 120 | 40 - 120 | 20 | |
| 2,4,5-Trichlorophenol | 50 | 74 | | | 50 | 76 | 74 | 2 | 41 - 120 | 35 - 122 | 20 | |
| 2,4,6-Trichlorophenol | 50 | 66 | | | 50 | 68 | 65 | 5 | 39 - 120 | 33 - 124 | 20 | |

**67 compound(s) reported**

*** denotes recovery outside of QC limits.**
**MS spike concentrations are not corrected for moisture content of the spiked sample.**
**(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.**

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*Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023*
*Florida Dept. of Health (NELAC) - E87595*
*Kansas Dept. of Health Environment - E-10266*
*U.S. Dept. of Agriculture Foreign Soil Permit - S-47270*

# Report of Batch Surrogate Recovery

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Report: 2064974** **Batch: 79793**

| Lab ID | Type and Qualifiers | Sur 1 %Rec | Sur 2 %Rec | Sur 3 %Rec | Sur 4 %Rec | Sur 5 %Rec | Sur 6 %Rec | Sur 7 %Rec | Sur 8 %Rec |
|---|---|---|---|---|---|---|---|---|---|
| 20488920 | OQS | 44 | 74 | 30 | 75 | 41 | 90 | | |
| 20489231 | Sample | 107 | 79 | 65 | 84 | 65 | 99 | | |
| 20489336 | BLANK | 91 | 84 | 71 | 80 | 73 | 107 | | |
| 20489337 | LCS | 96 | 100 | 79 | 96 | 80 | 81 | | |
| 20489338 | MS | 102 | 97 | 68 | 100 | 78 | 63 | | |
| 20489339 | MSD | 101 | 88 | 62 | 92 | 80 | 74 | | |
| | QC limits: | 25-133 | 36-108 | 10-109 | 21-120 | 15-113 | 17-130 | | |

Sur 1: 2,4,6-Tribromophenol (S)
Sur 2: 2-Fluorobiphenyl (S)
Sur 3: 2-Fluorophenol (S)
Sur 4: Nitrobenzene-d5 (S)
Sur 5: Phenol-d5 (S)
Sur 6: Terphenyl-d14 (S)

*** denotes surrogate recovery outside of QC limits.**
**D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.**
**A Lab ID consisting of a batch number with a B suffix is a method blank.**
**A Lab ID consisting of a batch number with a S suffix is an LCS.**
**A Lab ID with a MS suffix is a matrix spike.**
**A Lab ID with a MSD suffix is a matrix spike duplicate.**

12/22/2006 19:08:32

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***Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023***
***Florida Dept. of Health (NELAC) - E87595***
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***U.S. Dept. of Agriculture Foreign Soil Permit - S-47270***

# Report of Batch Surrogate Recovery

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Report: 2064974** **Batch: 80059**

| Lab ID | Type and Qualifiers | Sur 1 %Rec | Sur 2 %Rec | Sur 3 %Rec | Sur 4 %Rec | Sur 5 %Rec | Sur 6 %Rec | Sur 7 %Rec | Sur 8 %Rec |
|---|---|---|---|---|---|---|---|---|---|
| 20489231 | Sample | 104 | 105 | 101 | | | | | |
| 20489232 | Sample | 104 | 103 | 101 | | | | | |
| 20490721 | BLANK | 96 | 103 | 102 | | | | | |
| 20490722 | LCS | 86 | 98 | 102 | | | | | |
| 20490723 | MS | 85 | 89 | 102 | | | | | |
| 20490724 | MSD | 87 | 103 | 102 | | | | | |
| 20491322 | BLANK | 109 | 117 | 92 | | | | | |
| 20491323 | LCS | 91 | 106 | 95 | | | | | |
| | QC limits: | 71-129 | 68-124 | 74-122 | | | | | |

Sur 1: 4-Bromofluorobenzene (S)
Sur 2: Dibromofluoromethane (S)
Sur 3: Toluene-d8 (S)

*** denotes surrogate recovery outside of QC limits.**
**D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.**
**A Lab ID consisting of a batch number with a B suffix is a method blank.**
**A Lab ID consisting of a batch number with a S suffix is an LCS.**
**A Lab ID with a MS suffix is a matrix spike.**
**A Lab ID with a MSD suffix is a matrix spike duplicate.**

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***Kansas Dept. of Health Environment - E-10266***
***U.S. Dept. of Agriculture Foreign Soil Permit - S-47270***

# Report of Method Blank

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Lab ID:** 20489336

**Description:** 8270 SVOAs Dual pH **Project No.:** 2064974

**Method:** EPA 8270 **Batch:** 79793 **Units:** ug/L

**Prep Factor:** 1 **Leached:** **Prepared:** 11-Dec-06 **Analyzed:** 12/14/06 10:44 JAM (1)

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 1 | ND | | 10.0 |
| 208-96-8 | Acenaphthylene | 1 | ND | | 10.0 |
| 98-86-2 | Acetophenone | 1 | ND | | 10.0 |
| 62-53-3 | Aniline | 1 | ND | | 10.0 |
| 120-12-7 | Anthracene | 1 | ND | | 10.0 |
| 1912-24-9 | Atrazine | 1 | ND | | 10.0 |
| 100-52-7 | Benzaldehyde | 1 | ND | | 10.0 |
| 92-87-5 | Benzidine | 1 | ND | | 30.0 |
| 56-55-3 | Benzo(a)anthracene | 1 | ND | | 10.0 |
| 205-99-2 | Benzo(b)fluoranthene | 1 | ND | | 10.0 |
| 207-08-9 | Benzo(k)fluoranthene | 1 | ND | | 10.0 |
| 65-85-0 | Benzoic acid | 1 | ND | | 25.0 |
| 191-24-2 | Benzo(g,h,i)perylene | 1 | ND | | 10.0 |
| 50-32-8 | Benzo(a)pyrene | 1 | ND | | 10.0 |
| 100-51-6 | Benzyl alcohol | 1 | ND | | 10.0 |
| 92-52-4 | Biphenyl (Diphenyl) | 1 | ND | | 10.0 |
| 101-55-3 | 4-Bromophenylphenyl ether | 1 | ND | | 10.0 |
| 85-68-7 | Butylbenzylphthalate | 1 | ND | | 10.0 |
| 105-60-2 | Caprolactam | 1 | ND | | 10.0 |
| 86-74-8 | Carbazole | 1 | ND | | 10.0 |
| 59-50-7 | 4-Chloro-3-methylphenol | 1 | ND | | 10.0 |
| 106-47-8 | 4-Chloroaniline | 1 | ND | | 10.0 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 1 | ND | | 10.0 |
| 111-44-4 | bis(2-Chloroethyl) ether | 1 | ND | | 10.0 |
| 91-58-7 | 2-Chloronaphthalene | 1 | ND | | 10.0 |
| 95-57-8 | 2-Chlorophenol | 1 | ND | | 10.0 |
| 7005-72-3 | 4-Chlorophenylphenyl ether | 1 | ND | | 10.0 |
| 218-01-9 | Chrysene | 1 | ND | | 10.0 |
| 53-70-3 | Dibenz(a,h)anthracene | 1 | ND | | 10.0 |
| 132-64-9 | Dibenzofuran | 1 | ND | | 10.0 |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | ND | | 10.0 |
| 541-73-1 | 1,3-Dichlorobenzene | 1 | ND | | 10.0 |
| 106-46-7 | 1,4-Dichlorobenzene | 1 | ND | | 10.0 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 1 | ND | | 20.0 |
| 120-83-2 | 2,4-Dichlorophenol | 1 | ND | | 10.0 |
| 84-66-2 | Diethylphthalate | 1 | ND | | 10.0 |

12/22/2006 19:08:48

**ND denotes Not Detected at or above the reporting limit.**
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**Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.**

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*Arkansas Dept. of Environmental Quality - 88-0681*
*Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023*
*Florida Dept. of Health (NELAC) - E87595*
*Kansas Dept. of Health Environment - E-10266*
*U.S. Dept. of Agriculture Foreign Soil Permit - S-47270*

# Report of Method Blank

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Lab ID:** 20489336

**Description:** 8270 SVOAs Dual pH **Project No.:** 2064974

**Method:** EPA 8270 **Batch:** 79793 **Units:** ug/L

**Prep Factor:** 1 **Leached:** **Prepared:** 11-Dec-06 **Analyzed:** 12/14/06 10:44 JAM (1)

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| 105-67-9 | 2,4-Dimethylphenol | 1 | ND | | 10.0 |
| 131-11-3 | Dimethylphthalate | 1 | ND | | 10.0 |
| 84-74-2 | Di-n-butylphthalate | 1 | ND | | 10.0 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 1 | ND | | 10.0 |
| 99-65-0 | 1,3-Dinitrobenzene | 1 | ND | | 10.0 |
| 51-28-5 | 2,4-Dinitrophenol | 1 | ND | | 10.0 |
| 121-14-2 | 2,4-Dinitrotoluene | 1 | ND | | 10.0 |
| 606-20-2 | 2,6-Dinitrotoluene | 1 | ND | | 10.0 |
| 117-84-0 | Di-n-octylphthalate | 1 | ND | | 10.0 |
| 88-85-7 | Dinoseb | 1 | ND | | 10.0 |
| 122-66-7 | 1,2-Diphenylhydrazine | 1 | ND | | 10.0 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 1 | ND | | 10.0 |
| 206-44-0 | Fluoranthene | 1 | ND | | 10.0 |
| 86-73-7 | Fluorene | 1 | ND | | 10.0 |
| 87-68-3 | Hexachloro-1,3-butadiene | 1 | ND | | 10.0 |
| 118-74-1 | Hexachlorobenzene | 1 | ND | | 10.0 |
| 77-47-4 | Hexachlorocyclopentadiene | 1 | ND | | 10.0 |
| 67-72-1 | Hexachloroethane | 1 | ND | | 10.0 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 1 | ND | | 10.0 |
| 78-59-1 | Isophorone | 1 | ND | | 10.0 |
| 91-57-6 | 2-Methylnaphthalene | 1 | ND | | 10.0 |
| 95-48-7 | 2-Methylphenol (o-Cresol) | 1 | ND | | 10.0 |
| 88-74-4 | 2-Nitroaniline | 1 | ND | | 10.0 |
| 99-09-2 | 3-Nitroaniline | 1 | ND | | 10.0 |
| 100-01-6 | 4-Nitroaniline | 1 | ND | | 10.0 |
| 98-95-3 | Nitrobenzene | 1 | ND | | 10.0 |
| 88-75-5 | 2-Nitrophenol | 1 | ND | | 10.0 |
| 100-02-7 | 4-Nitrophenol | 1 | ND | | 10.0 |
| 62-75-9 | N-Nitrosodimethylamine | 1 | ND | | 10.0 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 1 | ND | | 10.0 |
| 86-30-6 | N-Nitrosodiphenylamine | 1 | ND | A10 | 10.0 |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 1 | ND | | 10.0 |
| 87-86-5 | Pentachlorophenol | 1 | ND | | 10.0 |
| 85-01-8 | Phenanthrene | 1 | ND | | 10.0 |
| 108-95-2 | Phenol | 1 | ND | | 10.0 |
| 129-00-0 | Pyrene | 1 | ND | | 10.0 |

12/22/2006 19:08:48

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**Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.**

***New Orleans Laboratory Certifications***
***Louisiana Dept. of Environmental Quality (LELAP) - 02006***
***Arkansas Dept. of Environmental Quality - 88-0681***
***Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023***
***Florida Dept. of Health (NELAC) - E87595***
***Kansas Dept. of Health Environment - E-10266***
***U.S. Dept. of Agriculture Foreign Soil Permit - S-47270***

# Report of Method Blank

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Lab ID:** 20489336

**Description:** 8270 SVOAs Dual pH **Project No.:** 2064974

**Method:** EPA 8270 **Batch:** 79793 **Units:** ug/L

**Prep Factor:** 1 **Leached:** **Prepared:** 11-Dec-06 **Analyzed:** 12/14/06 10:44 JAM (1)

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| 110-86-1 | Pyridine | 1 | ND | | 10.0 |
| 95-94-3 | 1,2,4,5-Tetrachlorobenzene | 1 | ND | | 10.0 |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 1 | ND | | 10.0 |
| 95-95-4 | 2,4,5-Trichlorophenol | 1 | ND | | 10.0 |
| 88-06-2 | 2,4,6-Trichlorophenol | 1 | ND | | 10.0 |

**77 compound(s) reported**

12/22/2006 19:08:48

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# Report of Method Blank

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Lab ID:** 20490721

**Description:** 8260 VOAs Full List Water BLK **Project No.:** 2064974

**Method:** EPA 8260 **Batch:** 80059 **Units:** ug/L

**Prep Factor:** 1 **Leached:** **Prepared:** 18-Dec-06 **Analyzed:** 12/18/06 13:26 RMP (1)

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 1 | ND | A11 | 50.0 |
| 107-02-8 | Acrolein | 1 | ND | | 100. |
| 107-13-1 | Acrylonitrile | 1 | ND | | 100. |
| 71-43-2 | Benzene | 1 | ND | | 25.0 |
| 108-86-1 | Bromobenzene | 1 | ND | | 25.0 |
| 75-27-4 | Bromodichloromethane | 1 | ND | | 25.0 |
| 75-25-2 | Bromoform | 1 | ND | | 25.0 |
| 74-83-9 | Bromomethane | 1 | ND | | 25.0 |
| 71-36-3 | n-Butanol | 1 | ND | | 1000 |
| 78-93-3 | 2-Butanone (MEK) | 1 | ND | A11 | 50.0 |
| 104-51-8 | n-Butylbenzene | 1 | ND | | 25.0 |
| 135-98-8 | sec-Butylbenzene | 1 | ND | | 25.0 |
| 98-06-6 | tert-Butylbenzene | 1 | ND | | 25.0 |
| 75-15-0 | Carbon disulfide | 1 | ND | | 25.0 |
| 56-23-5 | Carbon tetrachloride | 1 | ND | | 25.0 |
| 108-90-7 | Chlorobenzene | 1 | ND | | 25.0 |
| 75-00-3 | Chloroethane | 1 | ND | | 25.0 |
| 110-75-8 | 2-Chloroethylvinyl ether | 1 | ND | | 100. |
| 67-66-3 | Chloroform | 1 | ND | | 25.0 |
| 74-87-3 | Chloromethane | 1 | ND | | 25.0 |
| 95-49-8 | 2-Chlorotoluene | 1 | ND | | 25.0 |
| 106-43-4 | 4-Chlorotoluene | 1 | ND | | 25.0 |
| 110-82-7 | Cyclohexane | 1 | ND | | 25.0 |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 1 | ND | | 25.0 |
| 124-48-1 | Dibromochloromethane | 1 | ND | | 25.0 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 1 | ND | | 25.0 |
| 74-95-3 | Dibromomethane | 1 | ND | | 25.0 |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | ND | | 25.0 |
| 541-73-1 | 1,3-Dichlorobenzene | 1 | ND | | 25.0 |
| 106-46-7 | 1,4-Dichlorobenzene | 1 | ND | | 25.0 |
| 110-57-6 | trans-1,4-Dichloro-2-butene | 1 | ND | | 25.0 |
| 75-71-8 | Dichlorodifluoromethane | 1 | ND | | 25.0 |
| 75-34-3 | 1,1-Dichloroethane | 1 | ND | | 25.0 |
| 107-06-2 | 1,2-Dichloroethane | 1 | ND | | 25.0 |
| 540-59-0 | 1,2-Dichloroethene (Total) | 1 | ND | | 50.0 |
| 75-35-4 | 1,1-Dichloroethene | 1 | ND | | 25.0 |

12/22/2006 19:08:48

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*Kansas Dept. of Health Environment - E-10266*
*U.S. Dept. of Agriculture Foreign Soil Permit - S-47270*

# Report of Method Blank

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Lab ID:** 20490721

**Description:** 8260 VOAs Full List Water BLK **Project No.:** 2064974

**Method:** EPA 8260 **Batch:** 80059 **Units:** ug/L

**Prep Factor:** 1 **Leached:** **Prepared:** 18-Dec-06 **Analyzed:** 12/18/06 13:26 RMP (1)

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| 156-59-2 | cis-1,2-Dichloroethene | 1 | ND | | 25.0 |
| 156-60-5 | trans-1,2-Dichloroethene | 1 | ND | | 25.0 |
| 78-87-5 | 1,2-Dichloropropane | 1 | ND | | 25.0 |
| 142-28-9 | 1,3-Dichloropropane | 1 | ND | | 25.0 |
| 594-20-7 | 2,2-Dichloropropane | 1 | ND | | 25.0 |
| 563-58-6 | 1,1-Dichloropropene | 1 | ND | | 25.0 |
| 10061-01-5 | cis-1,3-Dichloropropene | 1 | ND | | 25.0 |
| 10061-02-6 | trans-1,3-Dichloropropene | 1 | ND | | 25.0 |
| 100-41-4 | Ethylbenzene | 1 | ND | | 25.0 |
| 87-68-3 | Hexachloro-1,3-butadiene | 1 | ND | | 25.0 |
| 591-78-6 | 2-Hexanone | 1 | ND | | 50.0 |
| 74-88-4 | Iodomethane | 1 | ND | | 25.0 |
| 98-82-8 | Isopropylbenzene (Cumene) | 1 | ND | | 25.0 |
| 99-87-6 | p-Isopropyltoluene | 1 | ND | | 25.0 |
| 79-20-9 | Methyl acetate | 1 | ND | | 50.0 |
| 108-87-2 | Methylcyclohexane | 1 | ND | | 50.0 |
| 75-09-2 | Methylene chloride | 1 | ND | A11 | 25.0 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 1 | ND | | 50.0 |
| 1634-04-4 | Methyl-tert-butyl ether | 1 | ND | | 25.0 |
| 103-65-1 | n-Propylbenzene | 1 | ND | | 25.0 |
| 100-42-5 | Styrene | 1 | ND | | 25.0 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 1 | ND | | 25.0 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1 | ND | | 25.0 |
| 127-18-4 | Tetrachloroethene | 1 | ND | | 25.0 |
| 108-88-3 | Toluene | 1 | ND | | 25.0 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1 | ND | | 25.0 |
| 71-55-6 | 1,1,1-Trichloroethane | 1 | ND | | 25.0 |
| 79-00-5 | 1,1,2-Trichloroethane | 1 | ND | | 25.0 |
| 79-01-6 | Trichloroethene | 1 | ND | | 25.0 |
| 75-69-4 | Trichlorofluoromethane | 1 | ND | | 25.0 |
| 96-18-4 | 1,2,3-Trichloropropane | 1 | ND | | 25.0 |
| 76-13-1 | 1,1,2-Trichlorotrifluoroethane | 1 | ND | | 25.0 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 1 | ND | | 25.0 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 1 | ND | | 25.0 |
| 108-05-4 | Vinyl acetate | 1 | ND | | 50.0 |
| 75-01-4 | Vinyl chloride | 1 | ND | | 25.0 |

12/22/2006 19:08:48

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**Qu lists qualifiers. Specific qualifiers are defined at the end of the report.**
**Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.**

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***Arkansas Dept. of Environmental Quality - 88-0681***
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***Florida Dept. of Health (NELAC) - E87595***
***Kansas Dept. of Health Environment - E-10266***
***U.S. Dept. of Agriculture Foreign Soil Permit - S-47270***

# Report of Method Blank

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Lab ID:** 20490721

**Description:** 8260 VOAs Full List Water BLK **Project No.:** 2064974

**Method:** EPA 8260 **Batch:** 80059 **Units:** ug/L

**Prep Factor:** 1 **Leached:** **Prepared:** 18-Dec-06 **Analyzed:** 12/18/06 13:26 RMP (1)

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| | m&p-Xylene | 1 | ND | | 25.0 |
| 95-47-6 | o-Xylene | 1 | ND | | 25.0 |

**74 compound(s) reported**

ND denotes Not Detected at or above the reporting limit.
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Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

12/22/2006 19:08:48

*New Orleans Laboratory Certifications*
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*Arkansas Dept. of Environmental Quality - 88-0681*
*Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023*
*Florida Dept. of Health (NELAC) - E87595*
*Kansas Dept. of Health Environment - E-10266*
*U.S. Dept. of Agriculture Foreign Soil Permit - S-47270*

# Report of Quality Control

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Method:** EPA 8081 **Project:** 2064974 **LCS:** 20489673 12/18/2006 12:29:00 P

**Batch:** 79516 **MS:** 20487820 12/15/2006 9:40:00 PM

**Units:** ug/L **Original for MS:** 20487405 Batch Sample

| Parameter Name | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | QC Limits LCS | QC Limits MS/MSD | Max RPD | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aldrin | 0.5 | 60 | | | 0.5 | 83 | 42 | 65 * | 40 - 149 | 10 - 169 | 20 | |
| alpha-BHC | 0.5 | 82 | | | 0.5 | 90 | 53 | 51 * | 24 - 157 | 10 - 173 | 20 | |
| beta-BHC | 0.5 | 88 | | | 0.5 | 86 | 64 | 30 * | 34 - 172 | 10 - 190 | 20 | |
| delta-BHC | 0.5 | 99 | | | 0.5 | 109 | 71 | 42 * | 41 - 169 | 16 - 187 | 20 | |
| gamma-BHC (Lindane) | 0.5 | 86 | | | 0.5 | 97 | 56 | 55 * | 39 - 153 | 18 - 171 | 20 | |
| alpha-Chlordane | 0.5 | 79 | | | 0.5 | 85 | 49 | 54 * | 44 - 139 | 22 - 147 | 20 | |
| gamma-Chlordane | 0.5 | 79 | | | 0.5 | 86 | 52 | 50 * | 44 - 139 | 11 - 168 | 20 | |
| 4,4'-DDD | 0.5 | 74 | | | 0.5 | 86 | 53 | 47 * | 41 - 154 | 11 - 172 | 20 | |
| 4,4'-DDE | 0.5 | 64 | | | 0.5 | 79 | 46 | 52 * | 47 - 142 | 10 - 167 | 20 | |
| 4,4'-DDT | 0.5 | 81 | | | 0.5 | 93 | 62 | 39 * | 34 - 164 | 10 - 174 | 20 | |
| Dieldrin | 0.5 | 81 | | | 0.5 | 87 | 53 | 48 * | 43 - 147 | 22 - 164 | 20 | |
| Endosulfan I | 0.5 | 77 | | | 0.5 | 76 | 46 | 50 * | 25 - 137 | 10 - 148 | 20 | |
| Endosulfan II | 0.5 | 81 | | | 0.5 | 83 | 51 | 48 * | 30 - 142 | 15 - 153 | 20 | |
| Endosulfan sulfate | 0.5 | 84 | | | 0.5 | 97 | 60 | 47 * | 42 - 155 | 22 - 167 | 20 | |
| Endrin | 0.5 | 97 | | | 0.5 | 107 | 64 | 50 * | 49 - 171 | 30 - 187 | 20 | |
| Endrin aldehyde | 0.5 | 87 | | | 0.5 | 103 | 60 | 53 * | 23 - 179 | 10 - 174 | 20 | |
| Endrin ketone | 0.5 | 79 | | | 0.5 | 87 | 53 | 48 * | 38 - 150 | 25 - 161 | 20 | |
| Heptachlor | 0.5 | 78 | | | 0.5 | 79 | 49 | 46 * | 33 - 152 | 14 - 159 | 20 | |
| Heptachlor epoxide | 0.5 | 82 | | | 0.5 | 87 | 53 | 49 * | 45 - 144 | 24 - 158 | 20 | |
| Methoxychlor | 0.5 | 85 | | | 0.5 | 112 | 67 | 51 * | 19 - 178 | 10 - 194 | 20 | |

**20 compound(s) reported**

*** denotes recovery outside of QC limits.**
**MS spike concentrations are not corrected for moisture content of the spiked sample.**
**(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.**

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*New Orleans Laboratory Certifications*
*Louisiana Dept. of Environmental Quality (LELAP) - 02006*
*Arkansas Dept. of Environmental Quality - 88-0681*
*Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023*
*Florida Dept. of Health (NELAC) - E87595*
*Kansas Dept. of Health Environment - E-10266*
*U.S. Dept. of Agriculture Foreign Soil Permit - S-47270*

# Report of Quality Control

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Method:** EPA 8082 **Project:** 2064974 **LCS:** 20489675 12/19/2006 11:28:00 A

**Batch:** 79789 **MS:**

**Units:** ug/L **Original for MS:**

| Parameter Name | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | QC Limits LCS | QC Limits MS/MSD | Max RPD | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016 (Aroclor 1016) | 10 | 76 | | | | | | | 43 - 143 | - | | Q5 |
| PCB-1260 (Aroclor 1260) | 10 | 64 | | | | | | | 45 - 138 | - | | Q5 |

**2 compound(s) reported**

*** denotes recovery outside of QC limits.**
**MS spike concentrations are not corrected for moisture content of the spiked sample.**
**(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.**

12/22/2006 19:09:04

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# Report of Batch Surrogate Recovery

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Report: 2064974** **Batch: 79516**

| Lab ID | Type and Qualifiers | Sur 1 %Rec | Sur 2 %Rec | Sur 3 %Rec | Sur 4 %Rec | Sur 5 %Rec | Sur 6 %Rec | Sur 7 %Rec | Sur 8 %Rec |
|---|---|---|---|---|---|---|---|---|---|
| 20487405 | OQS | 74 | 58 | 54 | 58 | | | | |
| 20487818 | BLANK | 76 | 73 | 48 | 51 | | | | |
| 20487819 | LCS | 69 | 74 | 54 | 52 | | | | |
| 20487820 | MS | 75 | 70 | 60 | 56 | | | | |
| 20487821 | MSD | 46 | 33 | 34 | 37 | | | | |
| 20489231 | Sample | 63 | 61 | 45 | 51 | | | | |
| 20489672 | BLANK | 69 | 72 | 56 | 65 | | | | |
| 20489673 | LCS | 61 | 65 | 57 | 58 | | | | |
| | QC limits: | 10-157 | 10-157 | 18-171 | 18-171 | | | | |

Sur 1: Decachlorobiphenyl (Conf)(S)
Sur 2: Decachlorobiphenyl (S)
Sur 3: Tetrachloro-m-xylene (Conf)(S)
Sur 4: Tetrachloro-m-xylene (S)

*** denotes surrogate recovery outside of QC limits.**
**D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.**
**A Lab ID consisting of a batch number with a B suffix is a method blank.**
**A Lab ID consisting of a batch number with a S suffix is an LCS.**
**A Lab ID with a MS suffix is a matrix spike.**
**A Lab ID with a MSD suffix is a matrix spike duplicate.**

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***Kansas Dept. of Health Environment - E-10266***
***U.S. Dept. of Agriculture Foreign Soil Permit - S-47270***

# Report of Batch Surrogate Recovery

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Report: 2064974** **Batch: 79789**

| Lab ID | Type and Qualifiers | Sur 1 %Rec | Sur 2 %Rec | Sur 3 %Rec | Sur 4 %Rec | Sur 5 %Rec | Sur 6 %Rec | Sur 7 %Rec | Sur 8 %Rec |
|---|---|---|---|---|---|---|---|---|---|
| 20489231 | Sample | 65 | 66 | 44 | 49 | | | | |
| 20489674 | BLANK | 64 | 72 | 50 | 46 | | | | |
| 20489675 | LCS | 66 | 70 | 62 | 56 | | | | |
| | QC limits: | 10-157 | 10-157 | 18-171 | 18-171 | | | | |

Sur 1: Decachlorobiphenyl (Conf)(S)
Sur 2: Decachlorobiphenyl (S)
Sur 3: Tetrachloro-m-xylene (Conf)(S)
Sur 4: Tetrachloro-m-xylene (S)

*** denotes surrogate recovery outside of QC limits.**
**D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.**
**A Lab ID consisting of a batch number with a B suffix is a method blank.**
**A Lab ID consisting of a batch number with a S suffix is an LCS.**
**A Lab ID with a MS suffix is a matrix spike.**
**A Lab ID with a MSD suffix is a matrix spike duplicate.**

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***Kansas Dept. of Health Environment - E-10266***
***U.S. Dept. of Agriculture Foreign Soil Permit - S-47270***

# Report of Method Blank

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Lab ID:** 20489672

**Description:** 8081 Pests Water **Project No.:** 2064974

**Method:** EPA 8081 **Batch:** 79516 **Units:** ug/L

**Prep Factor:** 1 **Leached:** **Prepared:** 12-Dec-06 **Analyzed:** 12/18/06 12:12 SLF (1)

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| 309-00-2 | Aldrin | 1 | ND | | 0.0500 |
| 319-84-6 | alpha-BHC | 1 | ND | | 0.0500 |
| 319-85-7 | beta-BHC | 1 | ND | | 0.0500 |
| 319-86-8 | delta-BHC | 1 | ND | | 0.0500 |
| 58-89-9 | gamma-BHC (Lindane) | 1 | ND | | 0.0500 |
| 5103-71-9 | alpha-Chlordane | 1 | ND | | 0.0500 |
| 5103-74-2 | gamma-Chlordane | 1 | ND | | 0.0500 |
| 72-54-8 | 4,4'-DDD | 1 | ND | | 0.100 |
| 72-55-9 | 4,4'-DDE | 1 | ND | | 0.100 |
| 50-29-3 | 4,4'-DDT | 1 | ND | | 0.100 |
| 60-57-1 | Dieldrin | 1 | ND | | 0.100 |
| 959-98-8 | Endosulfan I | 1 | ND | | 0.0500 |
| 33213-65-9 | Endosulfan II | 1 | ND | | 0.100 |
| 1031-07-8 | Endosulfan sulfate | 1 | ND | | 0.100 |
| 72-20-8 | Endrin | 1 | ND | | 0.100 |
| 7421-93-4 | Endrin aldehyde | 1 | ND | | 0.100 |
| 53494-70-5 | Endrin ketone | 1 | ND | | 0.100 |
| 76-44-8 | Heptachlor | 1 | ND | | 0.0500 |
| 1024-57-3 | Heptachlor epoxide | 1 | ND | | 0.0500 |
| 72-43-5 | Methoxychlor | 1 | ND | | 0.500 |
| 8001-35-2 | Toxaphene | 1 | ND | | 2.00 |

**21 compound(s) reported**

12/22/2006 19:09:35

**ND denotes Not Detected at or above the reporting limit.**
**DF denotes Dilution Factor.**
**RL denotes sample Reporting Limit.**
**Qu lists qualifiers. Specific qualifiers are defined at the end of the report.**
**Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.**

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*Florida Dept. of Health (NELAC) - E87595*
*Kansas Dept. of Health Environment - E-10266*
*U.S. Dept. of Agriculture Foreign Soil Permit - S-47270*

# Report of Method Blank

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Lab ID:** 20489674

**Description:** 8082 PCBs Water **Project No.:** 2064974

**Method:** EPA 8082 **Batch:** 79789 **Units:** ug/L

**Prep Factor:** 1 **Leached:** **Prepared:** 12-Dec-06 **Analyzed:** 12/19/06 11:13 SLF (1)

| CAS Number | Parameter | Dilution | Result | Qu | Reporting Limit |
|---|---|---|---|---|---|
| 12674-11-2 | PCB-1016 (Aroclor 1016) | 1 | ND | | 1.00 |
| 11104-28-2 | PCB-1221 (Aroclor 1221) | 1 | ND | | 1.00 |
| 11141-16-5 | PCB-1232 (Aroclor 1232) | 1 | ND | | 1.00 |
| 53469-21-9 | PCB-1242 (Aroclor 1242) | 1 | ND | | 1.00 |
| 12672-29-6 | PCB-1248 (Aroclor 1248) | 1 | ND | | 1.00 |
| 11097-69-1 | PCB-1254 (Aroclor 1254) | 1 | ND | | 1.00 |
| 11096-82-5 | PCB-1260 (Aroclor 1260) | 1 | ND | | 1.00 |

**7 compound(s) reported**

12/22/2006 19:09:35

**ND denotes Not Detected at or above the reporting limit.**
**DF denotes Dilution Factor.**
**RL denotes sample Reporting Limit.**
**Qu lists qualifiers. Specific qualifiers are defined at the end of the report.**
**Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.**

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# Report of Quality Control

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Project:** 2064974

| Parameter | Batch | Blank | ARL | Units | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS DUP RPD | RPD | QC Limits LCS | QC Limits MS/MSD | RPD Max | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 80237 | | | ug/L | | | | | 1 | 102 | 102 | 0 | | - | 75 - 125 | 20 | |
| Mercury | 80237 | ND | 0.200 | ug/L | 1 | 103 | | | 1 | 98 | 102 | 4 | | 80 - 120 | 75 - 125 | 20 | |
| Mercury | 80237 | | | ug/L | | | | | 1 | 99 | 100 | 2 | | - | 75 - 125 | 20 | |
| Aluminum | 80238 | | | ug/L | | | | | 10000 | 108 | 140 | 23 * | | - | 34 - 177 | 20 | |
| Aluminum | 80238 | | | ug/L | | | | | 10000 | 162 | 163 | 0 | | - | 34 - 177 | 20 | |
| Aluminum | 80238 | ND | 200. | ug/L | 10000 | 102 | | | 10000 | 141 | 118 | 8 | | 71 - 132 | 34 - 177 | 20 | |
| Antimony | 80238 | ND | 60.0 | ug/L | 1000 | 100 | | | 1000 | 88 | 88 | 0 | | 78 - 128 | 51 - 146 | 20 | |
| Antimony | 80238 | | | ug/L | | | | | 1000 | 83 | 98 | 17 | | - | 51 - 146 | 20 | |
| Antimony | 80238 | | | ug/L | | | | | 1000 | 93 | 91 | 3 | | - | 51 - 146 | 20 | |
| Arsenic | 80238 | | | ug/L | | | | | 1000 | 82 | 100 | 18 | | - | 68 - 130 | 20 | |
| Arsenic | 80238 | ND | 10.0 | ug/L | 1000 | 100 | | | 1000 | 88 | 89 | 0 | | 79 - 122 | 68 - 130 | 20 | |
| Arsenic | 80238 | | | ug/L | | | | | 1000 | 90 | 92 | 2 | | - | 68 - 130 | 20 | |
| Barium | 80238 | ND | 200. | ug/L | 1000 | 102 | | | 1000 | 91 | 85 | 3 | | 80 - 120 | 56 - 133 | 20 | |
| Barium | 80238 | | | ug/L | | | | | 1000 | 89 | 93 | 2 | | - | 56 - 133 | 20 | |
| Barium | 80238 | | | ug/L | | | | | 1000 | 83 | 109 | 19 | | - | 56 - 133 | 20 | |
| Beryllium | 80238 | ND | 5.00 | ug/L | 1000 | 98 | | | 1000 | 90 | 88 | 2 | | 81 - 118 | 66 - 129 | 20 | |
| Beryllium | 80238 | | | ug/L | | | | | 1000 | 83 | 99 | 17 | | - | 66 - 129 | 20 | |
| Beryllium | 80238 | | | ug/L | | | | | 1000 | 92 | 94 | 2 | | - | 66 - 129 | 20 | |
| Boron | 80238 | | | ug/L | | | | | 1000 | 85 | 83 | 2 | | - | 51 - 140 | 20 | |
| Boron | 80238 | ND | 50.0 | ug/L | 1000 | 88 | | | 1000 | 78 | 75 | 2 | | 76 - 121 | 51 - 140 | 20 | |
| Boron | 80238 | | | ug/L | | | | | 1000 | 70 | 92 | 18 | | - | 51 - 140 | 20 | |
| Cadmium | 80238 | | | ug/L | | | | | 1000 | 85 | 88 | 4 | | - | 44 - 146 | 20 | |
| Cadmium | 80238 | ND | 5.00 | ug/L | 1000 | 99 | | | 1000 | 84 | 83 | 2 | | 81 - 119 | 44 - 146 | 20 | |
| Cadmium | 80238 | | | ug/L | | | | | 1000 | 80 | 96 | 18 | | - | 44 - 146 | 20 | |
| Cobalt | 80238 | | | ug/L | | | | | 1000 | 86 | 89 | 3 | | - | 63 - 123 | 20 | |
| Cobalt | 80238 | | | ug/L | | | | | 1000 | 81 | 97 | 18 | | - | 63 - 123 | 20 | |
| Cobalt | 80238 | ND | 10.0 | ug/L | 1000 | 98 | | | 1000 | 83 | 82 | 2 | | 82 - 120 | 63 - 123 | 20 | |
| Copper | 80238 | | | ug/L | | | | | 1000 | 92 | 96 | 4 | | - | 62 - 136 | 20 | |
| Copper | 80238 | ND | 10.0 | ug/L | 1000 | 100 | | | 1000 | 99 | 97 | 2 | | 77 - 123 | 62 - 136 | 20 | |
| Copper | 80238 | | | ug/L | | | | | 1000 | 87 | 106 | 19 | | - | 62 - 136 | 20 | |
| Iron | 80238 | | | ug/L | | | | | 10000 | 87 | 121 | 20 | | - | 13 - 188 | 20 | |
| Iron | 80238 | ND | 100. | ug/L | 10000 | 98 | | | 10000 | 75 | 57 | 4 | | 74 - 128 | 13 - 188 | 20 | |
| Iron | 80238 | | | ug/L | | | | | 10000 | 94 | 97 | 1 | | - | 13 - 188 | 20 | |
| Lead | 80238 | ND | 5.00 | ug/L | 1000 | 99 | | | 1000 | 84 | 84 | 0 | | 79 - 122 | 58 - 131 | 20 | |
| Lead | 80238 | | | ug/L | | | | | 1000 | 88 | 90 | 2 | | - | 58 - 131 | 20 | |
| Lead | 80238 | | | ug/L | | | | | 1000 | 80 | 95 | 17 | | - | 58 - 131 | 20 | |
| Lithium | 80238 | | | ug/L | | | | | 1000 | 91 | 93 | 2 | | - | 49 - 154 | 20 | |
| Lithium | 80238 | | | ug/L | | | | | 1000 | 86 | 98 | 13 | | - | 49 - 154 | 20 | |
| Lithium | 80238 | ND | 50.0 | ug/L | 1000 | 98 | | | 1000 | 109 | 106 | 3 | | 83 - 119 | 49 - 154 | 20 | |
| Manganese | 80238 | | | ug/L | | | | | 1000 | 62 | 100 | 17 | | - | 38 - 155 | 20 | |
| Manganese | 80238 | ND | 15.0 | ug/L | 1000 | 100 | | | 1000 | 75 | 62 | 3 | | 80 - 122 | 38 - 155 | 20 | |

12/22/2006 19:09:51

**ARL denotes Adjusted Reporting Limit , corrected for sample size, dilution and moisture content as applicable.**
*** denotes recovery outside of QC limits.**
**(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.**

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# Report of Quality Control

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Project:** 2064974

| Parameter | Batch | Blank | ARL | Units | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS DUP RPD | RPD | QC Limits LCS | QC Limits MS/MSD | RPD Max | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Manganese | 80238 | | | ug/L | | | | | 1000 | 85 | 81 | 1 | | - | 38 - 155 | 20 | |
| Nickel | 80238 | | | ug/L | | | | | 1000 | 87 | 91 | 3 | | - | 57 - 129 | 20 | |
| Nickel | 80238 | | | ug/L | | | | | 1000 | 82 | 99 | 18 | | - | 57 - 129 | 20 | |
| Nickel | 80238 | ND | 40.0 | ug/L | 1000 | 101 | | | 1000 | 85 | 84 | 1 | | 80 - 121 | 57 - 129 | 20 | |
| Selenium | 80238 | ND | 35.0 | ug/L | 1000 | 104 | | | 1000 | 89 | 92 | 3 | | 76 - 120 | 59 - 131 | 20 | |
| Selenium | 80238 | | | ug/L | | | | | 1000 | 84 | 100 | 17 | | - | 59 - 131 | 20 | |
| Selenium | 80238 | | | ug/L | | | | | 1000 | 92 | 97 | 4 | | - | 59 - 131 | 20 | |
| Silver | 80238 | ND | 10.0 | ug/L | 500 | 96 | | | 500 | 92 | 90 | 2 | | 67 - 129 | 10 - 154 | 20 | |
| Silver | 80238 | | | ug/L | | | | | 500 | 93 | 93 | 0 | | - | 10 - 154 | 20 | |
| Silver | 80238 | | | ug/L | | | | | 500 | 108 | 100 | 7 | | - | 10 - 154 | 20 | |
| Thallium | 80238 | ND | 10.0 | ug/L | 1000 | 98 | | | 1000 | 74 | 74 | 1 | | 75 - 122 | 47 - 133 | 20 | |
| Thallium | 80238 | | | ug/L | | | | | 1000 | 77 | 92 | 17 | | - | 47 - 133 | 20 | |
| Thallium | 80238 | | | ug/L | | | | | 1000 | 79 | 82 | 4 | | - | 47 - 133 | 20 | |
| Titanium | 80238 | | | ug/L | | | | | 1000 | 96 | 94 | 1 | | - | 55 - 134 | 20 | |
| Titanium | 80238 | ND | 10.0 | ug/L | 1000 | 98 | | | 1000 | 91 | 86 | 5 | | 79 - 120 | 55 - 134 | 20 | |
| Titanium | 80238 | | | ug/L | | | | | 1000 | 85 | 103 | 18 | | - | 55 - 134 | 20 | |
| Zinc | 80238 | | | ug/L | | | | | 1000 | 94 | 90 | 4 | | - | 51 - 139 | 20 | |
| Zinc | 80238 | | | ug/L | | | | | 1000 | 83 | 99 | 17 | | - | 51 - 139 | 20 | |
| Zinc | 80238 | ND | 20.0 | ug/L | 1000 | 101 | | | 1000 | 86 | 85 | 1 | | 78 - 124 | 51 - 139 | 20 | |
| Mercury, Diss | 80239 | | | ug/L | | | | | 1 | 113 | 97 | 15 | | - | 75 - 125 | 20 | |
| Mercury, Diss | 80239 | ND | 0.200 | ug/L | 1 | 103 | | | 1 | 98 | 100 | 2 | | 80 - 120 | 75 - 125 | 20 | |
| Mercury, Diss | 80239 | | | ug/L | | | | | 1 | 103 | 101 | 2 | | - | 75 - 125 | 20 | |
| Aluminum, Di | 80241 | | | ug/L | | | | | 10000 | 89 | 88 | 1 | | - | 55 - 123 | 20 | |
| Aluminum, Di | 80241 | ND | 200. | ug/L | 10000 | 102 | | | 10000 | 92 | 93 | 0 | | 66 - 138 | 55 - 123 | 20 | |
| Aluminum, Di | 80241 | | | ug/L | | | | | 10000 | 88 | 89 | 2 | | - | 55 - 123 | 20 | |
| Antimony, Dis | 80241 | ND | 60.0 | ug/L | 1000 | 98 | | | 1000 | 84 | 86 | 3 | | 68 - 118 | 58 - 123 | 20 | |
| Antimony, Dis | 80241 | | | ug/L | | | | | 1000 | 84 | 84 | 1 | | - | 58 - 123 | 20 | |
| Antimony, Dis | 80241 | | | ug/L | | | | | 1000 | 84 | 85 | 1 | | - | 58 - 123 | 20 | |
| Arsenic, Disso | 80241 | | | ug/L | | | | | 1000 | 89 | 88 | 1 | | - | 60 - 123 | 20 | |
| Arsenic, Disso | 80241 | ND | 10.0 | ug/L | 1000 | 101 | | | 1000 | 91 | 94 | 3 | | 72 - 116 | 60 - 123 | 20 | |
| Arsenic, Disso | 80241 | | | ug/L | | | | | 1000 | 90 | 90 | 0 | | - | 60 - 123 | 20 | |
| Barium, Disso | 80241 | | | ug/L | | | | | 1000 | 85 | 84 | 1 | | - | 42 - 126 | 20 | |
| Barium, Disso | 80241 | | | ug/L | | | | | 1000 | 85 | 83 | 2 | | - | 42 - 126 | 20 | |
| Barium, Disso | 80241 | ND | 200. | ug/L | 1000 | 102 | | | 1000 | 78 | 85 | 4 | | 77 - 115 | 42 - 126 | 20 | |
| Beryllium, Dis | 80241 | | | ug/L | | | | | 1000 | 84 | 87 | 3 | | - | 49 - 132 | 20 | |
| Beryllium, Dis | 80241 | ND | 5.00 | ug/L | 1000 | 98 | | | 1000 | 85 | 89 | 5 | | 73 - 117 | 49 - 132 | 20 | |
| Beryllium, Dis | 80241 | | | ug/L | | | | | 1000 | 85 | 87 | 2 | | - | 49 - 132 | 20 | |
| Boron, Dissolv | 80241 | | | ug/L | | | | | 1000 | 73 * | 74 * | 1 | | - | 75 - 125 | 20 | Q1 |
| Boron, Dissolv | 80241 | ND | 50.0 | ug/L | 1000 | 85 | | | 1000 | 71 * | 75 | 4 | | 80 - 120 | 75 - 125 | 20 | Q1 |
| Boron, Dissolv | 80241 | | | ug/L | | | | | 1000 | 73 * | 74 * | 1 | | - | 75 - 125 | 20 | Q1 |
| Cadmium, Dis | 80241 | | | ug/L | | | | | 1000 | 82 | 81 | 1 | | - | 28 - 151 | 20 | |

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**(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.**

***New Orleans Laboratory Certifications***
***Louisiana Dept. of Environmental Quality (LELAP) - 02006***
***Arkansas Dept. of Environmental Quality - 88-0681***
***Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023***
***Florida Dept. of Health (NELAC) - E87595***
***Kansas Dept. of Health Environment - E-10266***
***U.S. Dept. of Agriculture Foreign Soil Permit - S-47270***

# Report of Quality Control

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Project:** 2064974

| Parameter | Batch | Blank | ARL | Units | LCS Spike | LCS %Rec | LCSD %Rec | LCS RPD | MS Spike | MS %Rec | MSD %Rec | (1)MS RPD | DUP RPD | QC Limits LCS | QC Limits MS/MSD | RPD Max | Qu |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cadmium, Dis | 80241 | | | ug/L | | | | | 1000 | 82 | 80 | 2 | | - | 28 - 151 | 20 | |
| Cadmium, Dis | 80241 | ND | 5.00 | ug/L | 1000 | 99 | | | 1000 | 79 | 83 | 5 | | 77 - 116 | 28 - 151 | 20 | |
| Cobalt, Dissol | 80241 | | | ug/L | | | | | 1000 | 81 | 80 | 1 | | - | 60 - 110 | 20 | |
| Cobalt, Dissol | 80241 | ND | 10.0 | ug/L | 1000 | 96 | | | 1000 | 76 | 80 | 6 | | 76 - 116 | 60 - 110 | 20 | |
| Cobalt, Dissol | 80241 | | | ug/L | | | | | 1000 | 81 | 79 | 2 | | - | 60 - 110 | 20 | |
| Copper, Dissol | 80241 | | | ug/L | | | | | 1000 | 86 | 86 | 0 | | - | 56 - 119 | 20 | |
| Copper, Dissol | 80241 | ND | 10.0 | ug/L | 1000 | 100 | | | 1000 | 90 | 95 | 5 | | 71 - 118 | 56 - 119 | 20 | |
| Copper, Dissol | 80241 | | | ug/L | | | | | 1000 | 89 | 88 | 2 | | - | 56 - 119 | 20 | |
| Iron, Dissolve | 80241 | ND | 100. | ug/L | 10000 | 97 | | | 10000 | 79 | 83 | 4 | | 69 - 121 | 36 - 138 | 20 | |
| Iron, Dissolve | 80241 | | | ug/L | | | | | 10000 | 80 | 83 | 4 | | - | 36 - 138 | 20 | |
| Iron, Dissolve | 80241 | | | ug/L | | | | | 10000 | 82 | 84 | 3 | | - | 36 - 138 | 20 | |
| Lead, Dissolve | 80241 | | | ug/L | | | | | 1000 | 80 | 80 | 0 | | - | 51 - 119 | 20 | |
| Lead, Dissolve | 80241 | ND | 5.00 | ug/L | 1000 | 97 | | | 1000 | 80 | 82 | 3 | | 75 - 118 | 51 - 119 | 20 | |
| Lead, Dissolve | 80241 | | | ug/L | | | | | 1000 | 80 | 81 | 1 | | - | 51 - 119 | 20 | |
| Lithium, Disso | 80241 | | | ug/L | | | | | 1000 | 87 | 85 | 2 | | - | 75 - 125 | 20 | |
| Lithium, Disso | 80241 | ND | 50.0 | ug/L | 1000 | 98 | | | 1000 | 99 | 100 | 1 | | 80 - 120 | 75 - 125 | 20 | |
| Lithium, Disso | 80241 | | | ug/L | | | | | 1000 | 87 | 87 | 1 | | - | 75 - 125 | 20 | |
| Manganese, D | 80241 | | | ug/L | | | | | 1000 | 71 | 75 | 1 | | - | 21 - 154 | 20 | |
| Manganese, D | 80241 | ND | 15.0 | ug/L | 1000 | 101 | | | 1000 | 71 | 80 | 4 | | 72 - 121 | 21 - 154 | 20 | |
| Manganese, D | 80241 | | | ug/L | | | | | 1000 | 83 | 82 | 2 | | - | 21 - 154 | 20 | |
| Nickel, Dissol | 80241 | ND | 40.0 | ug/L | 1000 | 98 | | | 1000 | 78 | 82 | 5 | | 75 - 117 | 51 - 115 | 20 | |
| Nickel, Dissol | 80241 | | | ug/L | | | | | 1000 | 84 | 81 | 4 | | - | 51 - 115 | 20 | |
| Nickel, Dissol | 80241 | | | ug/L | | | | | 1000 | 82 | 82 | 0 | | - | 51 - 115 | 20 | |
| Selenium, Dis | 80241 | ND | 35.0 | ug/L | 1000 | 106 | | | 1000 | 94 | 97 | 3 | | 74 - 116 | 55 - 127 | 20 | |
| Selenium, Dis | 80241 | | | ug/L | | | | | 1000 | 93 | 94 | 0 | | - | 55 - 127 | 20 | |
| Selenium, Dis | 80241 | | | ug/L | | | | | 1000 | 97 | 98 | 0 | | - | 55 - 127 | 20 | |
| Silver, Dissolv | 80241 | ND | 10.0 | ug/L | 500 | 93 | | | 500 | 80 | 85 | 7 | | 64 - 127 | 10 - 152 | 20 | |
| Silver, Dissolv | 80241 | | | ug/L | | | | | 500 | 81 | 80 | 1 | | - | 10 - 152 | 20 | |
| Silver, Dissolv | 80241 | | | ug/L | | | | | 500 | 82 | 83 | 0 | | - | 10 - 152 | 20 | |
| Thallium, Diss | 80241 | ND | 10.0 | ug/L | 1000 | 98 | | | 1000 | 76 | 79 | 4 | | 72 - 122 | 40 - 124 | 20 | |
| Thallium, Diss | 80241 | | | ug/L | | | | | 1000 | 79 | 80 | 0 | | - | 40 - 124 | 20 | |
| Thallium, Diss | 80241 | | | ug/L | | | | | 1000 | 79 | 78 | 1 | | - | 40 - 124 | 20 | |
| Titanium, Diss | 80241 | | | ug/L | | | | | 1000 | 85 | 87 | 2 | | - | 75 - 125 | 20 | |
| Titanium, Diss | 80241 | ND | 10.0 | ug/L | 1000 | 97 | | | 1000 | 84 | 88 | 5 | | 80 - 120 | 75 - 125 | 20 | |
| Titanium, Diss | 80241 | | | ug/L | | | | | 1000 | 83 | 87 | 4 | | - | 75 - 125 | 20 | |
| Zinc, Dissolve | 80241 | ND | 20.0 | ug/L | 1000 | 100 | | | 1000 | 86 | 89 | 3 | | 72 - 119 | 47 - 125 | 20 | |
| Zinc, Dissolve | 80241 | | | ug/L | | | | | 1000 | 83 | 84 | 1 | | - | 47 - 125 | 20 | |
| Zinc, Dissolve | 80241 | | | ug/L | | | | | 1000 | 85 | 86 | 1 | | - | 47 - 125 | 20 | |

12/22/2006 19:09:51

**ARL denotes Adjusted Reporting Limit , corrected for sample size, dilution and moisture content as applicable.**
*** denotes recovery outside of QC limits.**
**(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.**

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# Report Qualifiers

**Pace Analytical Services, Inc.**
1000 Riverbend Blvd. Suite F
St. Rose , LA 70087

Phone: 504.469.0333
Fax: 504.469.0555
LELAP # 02006

**Project: 2064974**

**Analyte Qualifiers**

| Qualifier | Qualifier Description |
|---|---|
| A10 | N-Nitrosodiphenylamine is reported as diphenylamine. |
| A11 | This analyte is a common solvent. Its presence in field samples may be an artifact of sample collection, transport, laboratory storage or analysis. |
| J | This estimated value for the analyte is below the adjusted reporting limit but above the instrument reporting limit. |

**QC Qualifiers**

| Qualifier | Qualifier Description |
|---|---|
| Q1 | The matrix spike recoveries are poor. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample recovery. |
| Q10 | The spike recovery was above the laboratory QC limits, however, the data are reported without qualification since the target analyte was not detected in the corresponding samples. |
| Q5 | Insufficient sample was provided to perform matrix spike analyses on any sample in this analytical batch. Method performance for this analyte has been demonstrated by the laboratory control sample recovery. |



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Pace Analytical®

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

2064974

Page: of 1046287

**Section A** Required Client Information:

Company: EA Engineering
Address: 6060 W. Sam Houston Pkwy N #420, Houston, TX 77041
Email To: lvega@eaest.com
Phone: 972-315-3922 Fax: 972-315-3950
Requested Due Date/TAT:

**Section B** Required Project Information:

Report To: Luis Vega
Copy To: Duane Thomas
Purchase Order No.:
Project Name: Galveston Marine Maint.
Project Number: 0006-RKD-0032

**Section C** Invoice Information:

Attention: Luis Vega
Company Name: EA EST Inc
Address: 405 S. Hwy 121 Bdg C suite 100, Lewisville TX 75067
Pace Quote Reference:
Pace Project Manager: Randy Shackelford
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ Other_____

SITE LOCATION: ☐GA ☐IL ☐IN ☐MI ☐MN ☐NC ☐OH ☐SC ☐WI ☐OTHER _____

**Section D** Required Client Information

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS

| ITEM # | SAMPLE ID (One Character per box. (A-Z, 0-9 / .-) Samples IDs MUST BE UNIQUE) | MATRIX CODE | SAMPLE TYPE G=GRAB C=COMP | COLLECTED COMPOSITE START DATE | COMPOSITE START TIME | COMPOSITE END/GRAB DATE | COMPOSITE END/GRAB TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Unpreserved | $H_2SO_4$ | $HNO_3$ | HCl | NaOH | $Na_2S_2O_3$ | Methanol | Other | Filtered (Y/N) | Requested Analysis: VOC's 8260 | SVOC's 8270C | Metals (Diss. Part. 6020A) | PCB's 8082 | Residual Chlorine (Y/N) | Pace Project Number / Lab I.D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2WSWS-EPA | WT | G | 12/6/06 | 15:05 | 12/6/06 | 15:05 | | 9 | X | | X | X | | | | | | X | X | X | X | | 2049631 |
| 2 | TEMP BLANK | WT | | | | | | | 1 | | | | | | | | | | | | | | | Total ☆ |
| 3 | TRIP BLANK | WT | | | | | | | 1 | | | | | | | | | | | | 5232 | | | Diss metals |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | |

Additional Comments:

Metals sample contains both filtered & unfiltered bottles.

| RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITION | | | |
|---|---|---|---|---|---|---|---|---|---|
| Duane Thomas/EAEST | 12/07/06 | 12:45 | | | | | Y/N | Y/N | Y/N |
| Fed Ex | 12-8-06 | 1000 | M mill | 12-8-06 | 1000 | 5.0 | Y/N | Y/N | Y/N |
| | | | | | | | Y/N | Y/N | Y/N |

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Duane Thomas

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 12/07/06

Temp in °C | Received on Ice | Custody Sealed Cooler | Samples Intact

SEE REVERSE SIDE FOR INSTRUCTIONS

ORIGINAL

ALLQ020rev.3,31Mar05