# RESEARCH & ANALYTICAL LABORATORIES, INC.

Analytical / Process Consultations
Phone (336) 996-2841

## CHAIN OF CUSTODY RECORD

COMPANY: Kernersville Landfill
STREET ADDRESS:
CITY, STATE, ZIP:
CONTACT: PHONE:
JOB NO.:
PROJECT:
SAMPLER NAME (PLEASE PRINT): Glen Rice
SAMPLER SIGNATURE:

WATER / WASTEWATER | MISC.

| SAMPLE NUMBER (LAB USE ONLY) | DATE | TIME | COMP | GRAB | TEMP °C | RES Cl | CHLORINE REMOVED (Y or N) | SAMPLE MATRIX (S or W) | SAMPLE LOCATION / I.D. | NO. OF CONTAINERS | 2L G (BNA, Herb. / Pest.) | 2 40ml Vials (VOA) HCL | 250ml G (TOX) | 250ml P (TOC) $H_2SO_4$ | 1L P.G (BOD, TSS, Unpreserved, etc.) | 1L G (Phenol, Oil & Grease) $H_2SO_4$ | 1L P.G (COD, N, P) $H_2SO_4$ | 1L P.G (Metals, Hardness) $HNO_3$ | Sterile P.G (CYANIDE) NaOH | Coliform | 1 · Small Plastic | | | | REQUESTED ANALYSIS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 663916 | 12/30/09 | 0925 | | ✓ | | | | W | GW-2 | 6 | 4 | | | | | | 1 | | | 1 | | | | | * See Remarks |
| 917 | | 1002 | | ✓ | | | | W | GW-3S | 6 | 4 | | | | | | 1 | | | 1 | | | | | |
| 918 | | 1041 | | ✓ | | | | W | GW-3D | 6 | 4 | | | | | | 1 | | | 1 | | | | | |
| 919 | | 0849 | | ✓ | | | | W | GW-4 | 6 | 4 | | | | | | 1 | | | 1 | | | | | |
| 920 | | 1107 | | ✓ | | | | W | GW-6 | 6 | 4 | | | | | | 1 | | | 1 | | | | | |
| 921 | | 1056 | | ✓ | | | | W | SW-1 | 6 | 4 | | | | | | 1 | | | 1 | | | | | |
| 922 | | 1116 | | ✓ | | | | W | SW-2 | 6 | 4 | | | | | | 1 | | | 1 | | | | | |
| 923 | | 0849 | | ✓ | | | | W | Duplicate | 6 | 4 | | | | | | 1 | | | 1 | | | | | |
| 924 | | 0530 | | ✓ | | | | W | TB | 5 | 4 | | | | | | 1 | | | | | | | | TB |
| 925 | | 1122 | | ✓ | | | | W | FB | 5 | 4 | | | | | | 1 | | | | | | | | FB |

| RELINQUISHED BY | DATE/TIME | RECEIVED BY |
|---|---|---|
| | 12/30/09 12:30 | |
| RELINQUISHED BY | DATE/TIME | RECEIVED BY |
| | | |

REMARKS: * Sb, As, Ba, Be, Cd, Cr, Co, Cu, Ni, Pb, Se, Ag, Ti, V, Zn, VOA (8260), Cond

ON ICE

SAMPLE TEMPERATURE AT RECEIPT 2.7 °C

# GROUNDWATER MONITORING FIELD LOG

| | | | | |
|---|---|---|---|---|
| | | | **Personnel Present:** | **COMMENTS:** |
| **Facility** | **Kernersville** | | **Glenn Price** | *** Well shaft bent ~ 6' down** |
| | **Landfill** | **December 30, 2009** | | **Unable to purge well** |
| **Weather** | **Cloudy - 28°F** | **Date** | | |

| **Monitoring Well No..** | **GW-1** | **GW-2-** | **GW-3S** | **GW-3D** | **GW-4 (DUP)** | ***GW-5** | **GW-6** | **SW-1** | **SW-2** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Depth (FT.)** | 34.69 | 13.18 | 24.00 | 56.96 | 14.40 | 11.36 | 24.00 | | | | | | |
| **Surface Depth (FT.)** | 33.97 | 3.03 | 13.03 | 11.77 | 5.93 | 4.11 | 18.21 | | | | | | |
| **Water Depth (FT.)** | 0.72 | 10.15 | 10.97 | 45.19 | 8.47 | 7.25 | 5.79 | | | | | | |
| **Diameter (IN.)** | 2" | 2" | 2" | 2" | 2" | 2" | 2" | | | | | | |
| **Conversion Factor** | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | | | | | | |
| **Well Volume (GAL.)** | 0.11 | 1.62 | 1.76 | 7.23 | 1.36 | 1.16 | 0.93 | | | | | | |
| **Volume (GAL.) X 3** | WELL DRY | 4.87 | 5.27 | 21.69 | 4.07 | 3.48 | 2.78 | | | | | | |
| **# Bails (L)** | | 20 | 22 | 87 | 17 | 14 | 12 | | | | | | |
| **Purge Date** | | 12/30/09 | 12/30/09 | 12/30/09 | 12/30/09 | * | 12/30/09 | | | | | | |
| **Purge Time (hrs.)** | | 0912 | 0938 | 1010 | 0834 | | 0820 | | | | | | |
| **Purge Method** | | **Bailer** | **Bailer** | **Bailer** | **Bailer** | | **Bailer** | | | | | | |
| **Volume Removed (GAL.)** | | 5.00 | 5.50 | 15.50-Dry | 1.50-Dry | | 0.50-Dry | | | | | | |
| **Sampling Date** | | 12/30/09 | 12/30/09 | 12/30/09 | 12/30/09 | | 12/30/09 | 12/30/09 | 12/30/09 | | | | |
| **Sampling Time (hrs.)** | | 0925 | 1002 | 1041 | 0849 | | 1107 | 1056 | 1116 | | | | |
| **Sampling Method** | | **Bailer** | **Bailer** | **Bailer** | **Bailer** | | **Bailer** | **Grab** | **Grab** | | | | |
| **pH (Standard Units)** | | 5.77 | 6.07 | 6.22 | 6.06 | | 5.83 | 6.44 | 6.29 | | | | |
| **Temperature (EC)** | | 13.6 | 14.4 | 14.3 | 12.7 | | 13.3 | 0.9 | 0.7 | | | | |
| **Conductivity (µmhos/cm)** | | 515 | 389 | 406 | 436 | | 56.8 | 92.2 | 112 | | | | |
| **Dissolved Oxygen (mg/L)** | | | | | | | | | | | | | |
| **Observations\Sampling** | | **Clear** | **Sl. Turbid** | **Clear** | **Clear** | | **Sl. Turbid** | **Clear** | **Clear** | | | | |

* Duplicate

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*Quality Control Summary Results for Project Identified as Kernersville Landfill collected 30 December 2009*

| Volatile Organics EPA Method 8260 Parameter | Method Blank (mg/L) | Matrix Spike % Recovery | Spike Diplicate % Recovery | Quality Control Limits | Analyst |
|---|---|---|---|---|---|
| Methylene Chloride | ND | N/A | N/A | N/A | NM |
| Trichlorofluoromethane | ND | N/A | N/A | N/A | NM |
| 1,1-Dichloroethene | ND | **89** | **86** | 61-145 | NM |
| 1,1-Dichloroethane | ND | N/A | N/A | N/A | NM |
| Chloroform | ND | N/A | N/A | N/A | NM |
| Carbon Tetrachloride | ND | N/A | N/A | N/A | NM |
| 1,2-Dichloropropane | ND | N/A | N/A | N/A | NM |
| Trichloroethene | ND | **93** | **91** | 71-120 | NM |
| Dibromochloromethane | ND | N/A | N/A | N/A | NM |
| 1,1,2-Trichloroethane | ND | N/A | N/A | N/A | NM |
| Tetrachloroethene | ND | N/A | N/A | N/A | NM |
| Chlorobenzene | ND | **99** | **96** | 75-130 | NM |
| Trans-1,2-Dichloroethene | ND | N/A | N/A | N/A | NM |
| 1,2-Dichloroethane | ND | N/A | N/A | N/A | NM |
| 1,1,1-Trichloroethane | ND | N/A | N/A | N/A | NM |
| Bromodichloromethane | ND | N/A | N/A | N/A | NM |
| Cis-1,3-Dichloropropene | ND | N/A | N/A | N/A | NM |
| Benzene | ND | **97** | **93** | 76-127 | NM |
| Trans-1,3-Dichloropropene | ND | N/A | N/A | N/A | NM |
| Bromoform | ND | N/A | N/A | N/A | NM |
| 1,1,2,2-Tetrachloroethane | ND | N/A | N/A | N/A | NM |
| Toluene | ND | **82** | **80** | 76-125 | NM |
| Ethyl Benzene | ND | N/A | N/A | N/A | NM |
| Chloromethane | ND | N/A | N/A | N/A | NM |
| Bromomethane | ND | N/A | N/A | N/A | NM |
| Vinyl Chloride | ND | N/A | N/A | N/A | NM |
| Chloroethane | ND | N/A | N/A | N/A | NM |
| Acetone | ND | N/A | N/A | N/A | NM |
| Carbon Disulfide | ND | N/A | N/A | N/A | NM |
| Vinyl Acetate | ND | N/A | N/A | N/A | NM |
| 2-Butanone | ND | N/A | N/A | N/A | NM |
| 4-Methyl-2-Pentanone | ND | N/A | N/A | N/A | NM |
| 2-Hexanone | ND | N/A | N/A | N/A | NM |
| Styrene | ND | N/A | N/A | N/A | NM |
| Total Xylenes | ND | N/A | N/A | N/A | NM |
| Acrylonitrile | ND | N/A | N/A | N/A | NM |
| 1,2-Dichlorobenzene | ND | N/A | N/A | N/A | NM |
| 1,4-Dichlorobenzene | ND | N/A | N/A | N/A | NM |
| Trans-1,4-Dichloro-2-butene | ND | N/A | N/A | N/A | NM |
| Cis-1,2-Dichloroethene | ND | N/A | N/A | N/A | NM |
| Methyl Iodide | ND | N/A | N/A | N/A | NM |
| Bromochloromethane | ND | N/A | N/A | N/A | NM |
| Dibromomethane | ND | N/A | N/A | N/A | NM |
| 1,1,1,2-Tetrachloroethane | ND | N/A | N/A | N/A | NM |
| 1,2,3-Trichloropropane | ND | N/A | N/A | N/A | NM |
| 1,2-Dibromo-3-Chloropropane(DBCP) | ND | N/A | N/A | N/A | NM |
| 1,2-Dibromoethane (EDB) | ND | N/A | N/A | N/A | NM |

**COMMENTS:**

Corresponding Samples: **663916-925**

% = Percent

ND = Non Detected

N/A = Not Available

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*Quality Control Summary Results for Project Identified as Kernersville Landfill collected 30 December 2009*

| Inorganics Appendix I Parameter | Prep. Blank (µg/L) | ICV Recovery % | CCV Recovery % | LCS Recovery % | Spike Recovery % | % Difference |
|---|---|---|---|---|---|---|
| Antimony | BDL | 102 | 100<br>100 | 96 | 95 | 0 |
| Arsenic | BDL | 94 | 103<br>102<br>104<br>103 | 94 | 92 | 1 |
| Barium | BDL | 96 | 103<br>103<br>103<br>103 | 89 | 89 | 4 |
| Beryllium | BDL | 94 | 104<br>100<br>101<br>100 | 93 | 98 | 0 |
| Cadmium | BDL | 100 | 103<br>103<br>103<br>104 | 94 | 94 | 1 |
| Chromium | BDL | 96 | 103<br>103<br>103<br>103 | 92 | 94 | 0 |
| Cobalt | BDL | 97 | 103<br>103<br>103<br>103 | 92 | 91 | 1 |
| Copper | BDL | 90 | 101<br>101<br>101<br>101 | 90 | 88 | 1 |
| Lead | BDL | 95 | 104<br>103<br>104<br>104 | 91 | 88 | 1 |
| Nickel | BDL | 97 | 103<br>103<br>103<br>104 | 94 | 91 | 1 |
| Selenium | BDL | 95 | 104<br>103<br>104<br>105 | 99 | 100 | 3 |
| Silver | BDL | 95 | 101<br>101<br>101<br>101 | 90 | 92 | 2 |
| Thallium | BDL | 97 | 98<br>98<br>97 | 93 | 92 | 0 |
| Vanandium | BDL | 97 | 101<br>101<br>101<br>101 | 90 | 96 | 1 |
| Zinc | BDL | 97 | 104<br>104<br>104<br>104 | 94 | 94 | 3 |

COMMENTS: 663916-925

% = Percent

ICV = Initial Calibration Verification

CCV = Continuing Calibration Verification

LCS = Laboratory Control Sample

N/A = Not Available

* Post Spike