Transmitted to #	Date	Doc ID#
AC	6/13/06	

34-12
4-17-02

May 9, 2002

HDR

Mr. Larry Rose
North Carolina Department of Environment
and Natural Resources
Division of Solid Waste Management
Solid Waste Section
P. O. Box 27687
Raleigh, North Carolina 27611-7687

- No VOCs
- Few metals <2L
- Pb >2 L MW-3R

MAY 2002
Received
Solid Waste Section

Re: Spring 2002 Semiannual Ground-Water Sampling Analytical and Landfill Gas Monitoring Results
Winston-Salem Construction and Demolition (C&D) Landfill (No. 34-12)
Forsyth County, North Carolina
HDR Project No. 00162-516-018

Dear Mr. Rose:

HDR Engineering, Inc. of the Carolinas (HDR), on behalf of the Winston-Salem City/County Utility Commission (the City), is hereby submitting the ground-water analytical and landfill gas monitoring results for the Spring 2002 monitoring period (January through June 2002) at the C&D Landfill (the Landfill) located in Forsyth County, North Carolina.

Ground-water samples were collected from on-site detection monitoring wells MW-1R, MW-2R, MW-3R, MW-4R, MW-5R, MW-6R, MW-7, and MW-8 on April 17 and 18, 2002, for the eight Resource Conservation and Recovery Act (RCRA) metals and Appendix I volatile organic compound (VOC) analysis. A trip blank and equipment blank were also included for Quality Assurance/Quality Control (QA/QC) purposes. Field measurements of pH, specific conductance, temperature, and redox potential (Eh) were also recorded during presampling well purging. These measurements were recorded on field forms, which have been attached to the Report of Laboratory Analysis. Monitoring well construction record drawings for each monitoring well sampled are also attached. Based on past ground-water flow characteristics for the site, ground-water monitoring well MW-1R is hydraulically upgradient of the Landfill and, therefore, is considered as "background" for the site.

In addition, landfill gas monitoring was performed from the six permanent methane gas monitoring stations (MM-1 through MM-6) located around the perimeter of Phase I of the Landfill. Methane stations MM-2 and MM-4 are nested monitoring stations, while all other stations are constructed as a single monitoring point. Methane gas probe monitoring construction record drawings for each station are attached to this submittal.

The metal concentrations detected are reflective of the naturally-occurring trace metals typically present in the saprolite of this region. In addition, all of the trace metal concentrations for this period were below their respective 2L ground-water standards, with the exception of lead in monitoring well MW-3R. As reflected by the Presampling Well Purging forms, the presence of these trace metal detections is due to the slight lingering well turbidity in each well.

HDR Engineering, Inc. of the Carolinas
Employee Owned

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No VOCs were detected this period in any of the ground-water monitoring wells, nor were any VOCs detected in the trip blank or equipment blank.

The Report of Laboratory Analysis for this sampling event at the Landfill is attached to this letter (including the Chain-of-Custody Record and field purging forms). Table 1 is also attached to this report summarizing the results of all sampling events performed to date at the Landfill. The results of this recent sampling event indicate that the existing ground-water monitoring well network at the Landfill is adequate to provide representative ground-water quality data and release detection determination for the Landfill.

No trace of methane was detected in the on-site methane monitoring stations. A copy of the Perimeter Gas Probe Monitoring Field Data Form is attached to this submittal.

A work plan to permit the design of Phases IV through VI for lateral expansion was sent to North Carolina Department of Environment and Natural Resources on March 22, 2002. This plan included the installation of 10 additional soil borings across the proposed expansion site and is expected to be initiated by the end of the month.

If you have any questions or comments concerning the information summarized in this letter or in the attached analytical data report, please do not hesitate to contact me at (704) 338-6700.

Sincerely,

HDR Engineering, Inc. of the Carolinas

FOR:

John R. Isham, PG
Senior Hydrogeologist

JRI/jvd

Attachments: Table 1, Summary of Ground-Water Analytical Results
Report of Laboratory Analysis (w/Chain-of-Custody Record)
Perimeter Gas Probe Monitoring Field Data Form
Presampling Well Purging Forms
Monitoring Well Construction Record Drawings
Methane Gas Monitoring Construction Record Drawings
Ground-Water and Methane Gas Monitoring Well Locations

cc: Edward Gibson, PE, Winston-Salem City/County Utility Commission
Danny Hockett, Winston-Salem City/County Utility Commission

TABLE 1
Summary of Ground-Water Analytical Results
Winston-Salem C&D Landfill
MW-1R

Parameter	1/17/96	10/24/96	5/13/97	10/30/97	5/5/98	11/5/98	6/2/99	11/19/99	6/5/00	12/14/00	7/31/01	11/29/01	4/17/02
Arsenic	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0058	<0.005
Barium	0.224	0.18	0.10	0.29	0.10	0.16	0.15	0.13	0.11	0.15	0.087	0.28	0.13
Cadmium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	<0.010	0.006	0.003	0.011	0.049	0.012	0.0078	0.0052	<0.002	0.0066	0.0066	0.022	0.005
Lead	0.006	<0.005	<0.005	0.012	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.010	<0.005
Mercury	0.0018	0.0002	<00002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002	NA	<0.0002
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Silver	<0.001	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005
Methyl Chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl Chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromomethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	<5	<5	<5	<5	<5	<5	<10	<10	<10	<10	<10	<10	<10
Acetone	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Methyl Iodide	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acrylonitrile	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Dichloromethane	<5	<5	<5	<5	<5	<5	13	<5	<5	<5	<5	<5	<5
Carbon Disulfide	23	<5	<5	<5	<5	28	<5	<5	<5	<5	<5	<5	<5
Trans-1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl Acetate	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Methyl Ethyl Ketone	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Cis-1,2-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromochloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon Tetrachloride	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Benzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

See footnotes at end of tables.

TABLE 1
Summary of Ground-Water Analytical Results
Winston-Salem C&D Landfill
MW-1R (continued)

Parameter	1/17/96	10/24/96	5/13/97	10/30/97	5/5/98	11/5/98	6/2/99	11/19/99	6/5/00	12/14/00	7/31/01	11/29/01	4/17/02
1,2-Dichloroporpane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dibromomethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromodichloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-Pentanone	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Cis-1,3-Dichloropropene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	21	<5
Trans-1,3-Dichloro-1-Propene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-Hexanone	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Dibromochloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethylene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dibromoethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Ethylbenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Xylenes (total)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Styrene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromoform	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2,3-Trichloropropane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trans-1,4-Dichloro-2-Butene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,4-Dichlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dibromo-3-Chloropropane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

See footnotes at end of tables.

TABLE 1
Summary of Ground-Water Analytical Results
Winston-Salem C&D Landfill
MW-2R

Parameter	1/17/96	10/24/96	5/13/97	10/30/97	5/5/98	11/5/98	6/2/99	11/20/99	6/5/00	12/14/00	7/31/01	11/29/01	4/17/02
Arsenic	<0.005	<0.005	<0.005	<0.005	<0.005	0.011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Barium	0.35	0.16	0.20	0.34	0.19	1.1	0.15	0.12	0.18	0.061	0.28	0.16	0.10
Cadmium	<0.010	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	0.012	0.009	0.004	0.043	0.034	0.21	0.0078	0.014	0.003	0.0039	0.016	0.016	<0.002
Lead	0.026	0.008	0.014	0.031	0.019	0.068	<0.005	0.0069	0.0065	<0.005	0.0089	0.007	<0.005
Mercury	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002	NA	<0.0002
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Silver	<0.005	<0.005	0.006	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Methyl Chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl Chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromomethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	<5	<5	<5	<5	<5	<5	<10	<10	<10	<10	<10	<10	<10
Acetone	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Methyl Iodide	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acrylonitrile	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Dichloromethane	<5	<5	<5	<5	<5	<5	13	<5	<5	<5	<5	<5	<5
Carbon Disulfide	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trans-1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl Acetate	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Methyl Ethyl Ketone	86	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Cis-1,2-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromochloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon Tetrachloride	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Benzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

See footnotes at end of tables.

TABLE 1
Summary of Ground-Water Analytical Results
Winston-Salem C&D Landfill
MW-2R (continued)

Parameter	1/17/96	10/24/96	5/13/97	10/30/97	5/5/98	11/5/98	6/2/99	11/20/99	6/5/00	12/14/00	7/31/01	11/29/01	4/17/02
1,2-Dichloroporpane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dibromomethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromodichloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-Pentanone	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Cis-1,3-Dichloropropene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trans-1,3-Dichloro-1-Propene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-Hexanone	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Dibromochloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethylene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dibromoethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Ethylbenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Xylenes (total)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Styrene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromoform	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2,3-Trichloropropane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trans-1,4-Dichloro-2-Butene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,4-Dichlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dibromo-3-Chloropropane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

See footnotes at end of tables.

TABLE 1
Summary of Ground-Water Analytical Results
Winston-Salem C&D Landfill
MW-3R

Parameter	1/17/96	10/24/96	5/13/97	10/30/97	5/5/98	11/5/98	6/2/99	11/20/99	6/5/00	12/15/00	7/31/01	11/29/01	4/17/02
Arsenic	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-----	0.0059	<0.005	0.031*	0.018	0.0084	0.0074
Barium	1.23	0.79	0.80	0.62	0.86	1.4	-----	0.052	0.30	1.5	0.95	0.40	0.37
Cadmium	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	-----	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	0.009	0.020	0.028	0.016	0.025	0.077	-----	0.024	<0.002	0.10	0.050	0.019	0.015
Lead	0.015	0.015	0.027	0.026	0.032	0.039	-----	0.040	<0.005	0.08	0.053	0.035	0.021
Mercury	0.0007	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	-----	<0.0002	<0.0002	NA	<0.0002	NA	<0.0002
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-----	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Silver	<0.001	<0.005	<0.005	<0.005	<0.002	<0.002	-----	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Methyl Chloride	<10	<10	<10	<10	<10	<10	-----	<10	<10	<10	<10	<10	<10
Vinyl Chloride	<10	<10	<10	<10	<10	<10	-----	<10	<10	<10	<10	<10	<10
Bromomethane	<10	<10	<10	<10	<10	<10	-----	<10	<10	<10	<10	<10	<10
Chloroethane	<10	<10	<10	<10	<10	<10	-----	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	<5	<5	<5	<5	<5	<5	-----	<10	<10	<10	<10	<10	<10
Acetone	<100	<100	<100	<100	<100	<100	-----	<100	<100	<100	<100	<100	<100
1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Methyl Iodide	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Acrylonitrile	<100	<100	<100	<100	<100	<100	-----	<100	<100	<100	<100	<100	<100
Dichloromethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Carbon Disulfide	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Trans-1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Vinyl Acetate	<50	<50	<50	<50	<50	<50	-----	<50	<50	<50	<50	<50	<50
Methyl Ethyl Ketone	<100	<100	<100	<100	<100	<100	-----	<100	<100	<100	<100	<100	<100
Cis-1,2-Dichloroethene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Chloroform	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Bromochloromethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Carbon Tetrachloride	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Benzene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Trichloroethene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5

See footnotes at end of tables.

TABLE 1
Summary of Ground-Water Analytical Results
Winston-Salem C&D Landfill
MW-3R (continued)

Parameter	1/17/96	10/24/96	5/13/97	10/30/97	5/5/98	11/5/98	6/2/99	11/20/99	6/5/00	12/15/00	7/31/01	11/29/01	4/17/02
1,2-Dichloroporpane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Dibromomethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Bromodichloromethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
4-Methyl-2-Pentanone	<50	<50	<50	<50	<50	<50	-----	<50	<50	<50	<50	<50	<50
Cis-1,3-Dichloropropene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Toluene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Trans-1,3-Dichloro-1-Propene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
2-Hexanone	<50	<50	<50	<50	<50	<50	-----	<50	<50	<50	<50	<50	<50
Dibromochloromethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Tetrachloroethylene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,2-Dibromoethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Chlorobenzene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Ethylbenzene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Xylenes (total)	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Styrene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Bromoform	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,2,3-Trichloropropane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Trans-1,4-Dichloro-2-Butene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,4-Dichlorobenzene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,2-Dichlorobenzene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,2-Dibromo-3-Chloropropane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5

See footnotes at end of tables.

TABLE 1
Summary of Ground-Water Analytical Results
Winston-Salem C&D Landfill
MW-4R

Parameter	1/17/96	10/24/96	5/13/97	10/30/97	5/5/98	11/6/98	6/2/99	11/20/99	6/5/00	12/15/00	7/31/01	11/29/01	4/17/02
Arsenic	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0075	<0.005	<0.005	0.0056	0.012	<0.005
Barium	0.595	0.72	0.28	0.65	0.85	2.0	0.95	0.86	0.57	0.35	0.55	0.90	0.061
Cadmium	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	0.021	0.047	<0.002	0.055	0.13	0.30	0.11	0.06	<0.002	0.028	0.038	0.095	<0.002
Lead	0.017	0.016	0.012	0.029	0.043	0.076	0.050	0.04	0.0095	0.0081	0.014	0.036	<0.005
Mercury	0.0017	0.0003	<0.0002	<0.0002	<0.0002	0.00021	<0.0002	0.00036	<0.0002	NA	<0.0002	NA	<0.0002
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Silver	<0.001	<0.005	0.006	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Methyl Chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl Chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromomethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	<5	<5	<5	<5	<5	<5	<10	<10	<10	<10	<10	<10	<10
Acetone	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Methyl Iodide	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acrylonitrile	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Dichloromethane	<5	<5	<5	<5	<5	<5	10	<5	<5	<5	<5	<5	<5
Carbon Disulfide	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trans-1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl Acetate	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Methyl Ethyl Ketone	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Cis-1,2-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromochloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon Tetrachloride	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Benzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

See footnotes at end of tables.

TABLE 1
Summary of Ground-Water Analytical Results
Winston-Salem C&D Landfill
MW-4R (continued)

Parameter	1/17/96	10/24/96	5/13/97	10/30/97	5/5/98	11/6/98	6/2/99	11/20/99	6/5/00	12/15/00	7/31/01	11/29/01	4/17/02
1,2-Dichloroporpane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dibromomethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromodichloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-Pentanone	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Cis-1,3-Dichloropropene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trans-1,3-Dichloro-1-Propene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-Hexanone	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Dibromochloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethylene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dibromoethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Ethylbenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Xylenes (total)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Styrene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromoform	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2,3-Trichloropropane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trans-1,4-Dichloro-2-Butene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,4-Dichlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dibromo-3-Chloropropane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

See footnotes at end of tables.

TABLE 1
Summary of Ground-Water Analytical Results
Winston-Salem C&D Landfill
MW-5R

Parameter	1/17/96	10/24/96	5/13/97	10/30/97	5/5/98	11/6/98	6/2/99	11/20/99	6/5/00	12/14/00	7/31/01	11/29/01	4/17/02
Arsenic	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	0.005*	<0.005	0.0070	<0.005
Barium	1.00	0.62	0.33	0.61	0.82	0.48	0.24	0.20	0.20	0.40	0.27	0.61	0.15
Cadmium	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	0.096	0.043	0.070	0.016	0.17	0.096	0.038	0.029	0.0081	0.082	0.049	0.14	0.023
Lead	0.019	0.020	0.014	0.031	0.069	0.029	0.016	0.0082	<0.005	0.0076	0.0076	0.013	<0.005
Mercury	0.0008	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002	NA	<0.0002
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Silver	<0.001	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Methyl Chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl Chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromomethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	<5	<5	<5	<5	<5	<5	<10	<10	<10	<10	<10	<10	<10
Acetone	<100	<100	<100	<100	<100	150	<100	<100	<100	<100	<100	<100	<100
1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Methyl Iodide	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acrylonitrile	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Dichloromethane	<5	<5	<5	<5	<5	<5	10	<5	<5	<5	<5	<5	<5
Carbon Disulfide	<5	<5	<5	<5	<5	25	<5	<5	<5	<5	<5	<5	<5
Trans-1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl Acetate	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Methyl Ethyl Ketone	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Cis-1,2-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromochloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon Tetrachloride	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Benzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

See footnotes at end of tables.

TABLE 1
Summary of Ground-Water Analytical Results
Winston-Salem C&D Landfill
MW-5R (continued)

Parameter	1/17/96	10/24/96	5/13/97	10/30/97	5/5/98	11/6/98	6/2/99	11/20/99	6/5/00	12/14/00	7/31/01	11/29/01	4/17/02
1,2-Dichloroporpane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dibromomethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromodichloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-Pentanone	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Cis-1,3-Dichloropropene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trans-1,3-Dichloro-1-Propene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-Hexanone	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Dibromochloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethylene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dibromoethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Ethylbenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Xylenes (total)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Styrene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromoform	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2,3-Trichloropropane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trans-1,4-Dichloro-2-Butene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,4-Dichlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dibromo-3-Chloropropane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

See footnotes at end of tables.

TABLE 1
Summary of Ground-Water Analytical Results
Winston-Salem C&D Landfill
MW-6R

Parameter	1/17/96	10/24/96	5/13/97	10/30/97	5/5/98	11/5/98	6/2/99	11/19/99	6/5/00	12/14/00	7/31/01	11/29/01	4/17/02
Arsenic	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-----	<0.005	<0.005	<0.005	<0.005	0.016	<0.005
Barium	1.40	0.59	0.30	0.26	0.36	0.16	-----	0.059	0.082	0.041	0.062	0.53	0.18
Cadmium	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	-----	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	0.012	0.010	0.021	0.014	0.033	0.012	-----	0.0028	<0.002	0.0026	0.0041	0.095	0.026
Lead	0.018	0.011	0.014	0.014	0.020	<0.005	-----	<0.005	0.0058	<0.005	<0.005	0.038	0.0076
Mercury	0.0014	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-----	<0.0002	<0.0002	NA	<0.0002	NA	<0.0002
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-----	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Silver	<0.001	<0.005	<0.005	<0.005	<0.002	<0.002	-----	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Methyl Chloride	<10	<10	<10	<10	<10	<10	-----	<10	<10	<10	<10	<10	<10
Vinyl Chloride	<10	<10	<10	<10	<10	<10	-----	<10	<10	<10	<10	<10	<10
Bromomethane	<10	<10	<10	<10	<10	<10	-----	<10	<10	<10	<10	<10	<10
Chloroethane	<10	<10	<10	<10	<10	<10	-----	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	<5	<5	<5	<5	<5	<5	-----	<10	<10	<10	<10	<10	<10
Acetone	<100	<100	<100	<100	<100	<100	-----	<100	<100	<100	<100	<100	<100
1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Methyl Iodide	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Acrylonitrile	<100	<100	<100	<100	<100	<100	-----	<100	<100	<100	<100	<100	<100
Dichloromethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Carbon Disulfide	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Trans-1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Vinyl Acetate	<50	<50	<50	<50	<50	<50	-----	<50	<50	<50	<50	<50	<50
Methyl Ethyl Ketone	<100	<100	<100	<100	<100	<100	-----	<100	<100	<100	<100	<100	<100
Cis-1,2-Dichloroethene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Chloroform	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Bromochloromethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Carbon Tetrachloride	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Benzene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Trichloroethene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5

See footnotes at end of tables.

TABLE 1
Summary of Ground-Water Analytical Results
Winston-Salem C&D Landfill
MW-6R (continued)

Parameter	1/17/96	10/24/96	5/13/97	10/30/97	5/5/98	11/5/98	6/2/99	11/19/99	6/5/00	12/14/00	7/31/01	11/29/01	4/17/02
1,2-Dichloroporpane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Dibromomethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Bromodichloromethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
4-Methyl-2-Pentanone	<50	<50	<50	<50	<50	<50	-----	<50	<50	<50	<50	<50	<50
Cis-1,3-Dichloropropene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Toluene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Trans-1,3-Dichloro-1-Propene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
2-Hexanone	<50	<50	<50	<50	<50	<50	-----	<50	<50	<50	<50	<50	<50
Dibromochloromethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Tetrachloroethylene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,2-Dibromoethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Chlorobenzene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Ethylbenzene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Xylenes (total)	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Styrene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Bromoform	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,2,3-Trichloropropane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
Trans-1,4-Dichloro-2-Butene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,4-Dichlorobenzene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,2-Dichlorobenzene	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5
1,2-Dibromo-3-Chloropropane	<5	<5	<5	<5	<5	<5	-----	<5	<5	<5	<5	<5	<5

See footnotes at end of tables.

TABLE 1
Summary of Ground-Water Analytical Results
Winston-Salem C&D Landfill
MW-7

Parameter	1/17/96	10/24/96	5/13/97	10/30/97	5/5/98	11/6/98	6/2/99	11/20/99	6/5/00	12/15/00	7/31/01	11/29/01	4/17/02
Arsenic	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0098	<0.005	<0.005	0.045	0.016	0.017	<0.005
Barium	1.93	0.97	0.75	1.8	1.2	1.3	0.96	0.39	0.36	2.6	1.3	1.3	0.084
Cadmium	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	0.028	0.021	0.18	0.41	0.43	0.35	0.19	0.062	0.0025	0.58	0.21	0.27	0.0068
Lead	0.017	0.006	0.023	0.053	0.038	0.036	0.03	0.012	0.0087	0.065	0.026	0.036	<0.005
Mercury	0.0014	0.0004	<0.0002	0.0002	<0.002	<0.002	<0.0002	<0.0002	<0.0002	NA	<0.0002	NA	<0.0002
Selenium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Silver	<0.001	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0026
Methyl Chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl Chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromomethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane	<5	<5	<5	<5	<5	<5	<10	<10	<10	<10	<10	<10	<10
Acetone	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Methyl Iodide	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acrylonitrile	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Dichloromethane	<5	<5	<5	<5	<5	<5	10	<5	<5	<5	<5	<5	<5
Carbon Disulfide	<5	<5	<5	<5	<5	9	<5	<5	<5	<5	<5	<5	<5
Trans-1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl Acetate	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Methyl Ethyl Ketone	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Cis-1,2-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromochloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon Tetrachloride	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Benzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

See footnotes at end of tables.

TABLE 1
Summary of Ground-Water Analytical Results
Winston-Salem C&D Landfill
MW-7 (continued)

Parameter	1/17/96	10/24/96	5/13/97	10/30/97	5/5/98	11/6/98	6/2/99	11/20/99	6/5/00	12/15/00	7/31/01	11/29/01	4/17/02
1,2-Dichloroporpane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dibromomethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromodichloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-Pentanone	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Cis-1,3-Dichloropropene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trans-1,3-Dichloro-1-Propene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-Hexanone	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Dibromochloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethylene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dibromoethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Ethylbenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Xylenes (total)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Styrene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromoform	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2,3-Trichloropropane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trans-1,4-Dichloro-2-Butene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,4-Dichlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dibromo-3-Chloropropane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

See footnotes at end of tables.

TABLE 1
Summary of Ground-Water Analytical Results
Winston-Salem C&D Landfill
MW-8

Parameter	12/15/00	7/31/01	11/29/01	4/17/02							
Arsenic	0.089	0.046	0.036	<0.005							
Barium	4.2	2.6	2.7	0.15							
Cadmium	<0.001	<0.001	<0.001	<0.001							
Chromium	0.24	0.092	0.094	0.023							
Lead	0.40	0.21	0.15	<0.005							
Mercury	NA	<0.0002	NA	<0.0002							
Selenium	<0.005	<0.005	<0.005	<0.005							
Silver	<0.002	<0.002	<0.002	<0.002							
Methyl Chloride	<10	<10	<10	<10							
Vinyl Chloride	<10	<10	<10	<10							
Bromomethane	<10	<10	<10	<10							
Chloroethane	<10	<10	<10	<10							
Trichlorofluoromethane	<5	<5	<5	<5							
Acetone	<100	<100	<100	<100							
1,1-Dichloroethene	<5	<5	<5	<5							
Methyl Iodide	<5	<5	<5	<5							
Acrylonitrile	<100	<100	<100	<100							
Dichloromethane	<5	<5	<5	<5							
Carbon Disulfide	<5	<5	<5	<5							
Trans-1,1-Dichloroethene	<5	<5	<5	<5							
1,1-Dichloroethane	<5	<5	<5	<5							
Vinyl Acetate	<50	<50	<50	<50							
Methyl Ethyl Ketone	<100	<100	<100	<100							
Cis-1,2-Dichloroethene	<5	<5	<5	<5							
Chloroform	<5	<5	<5	<5							
Bromochloromethane	<5	<5	<5	<5							
1,1,1-Trichloroethane	<5	<5	<5	<5							
1,2-Dichloroethane	<5	<5	<5	<5							
Carbon Tetrachloride	<5	<5	<5	<5							
Benzene	<5	<5	<5	<5							
Trichloroethene	<5	<5	<5	<5							

See footnotes at end of tables.

TABLE 1
Summary of Ground-Water Analytical Results
Winston-Salem C&D Landfill
MW-8 (continued)

Parameter	12/15/00	7/31/01	11/29/01	4/17/02							
1,2-Dichloroporpane	<5	<5	<5	<5							
Dibromomethane	<5	<5	<5	<5							
Bromodichloromethane	<5	<5	<5	<5							
4-Methyl-2-Pentanone	<50	<50	<50	<50							
Cis-1,3-Dichloropropene	<5	<5	<5	<5							
Toluene	<5	<5	<5	<5							
Trans-1,3-Dichloro-1-Propene	<5	<5	<5	<5							
1,1,2-Trichloroethane	<5	<5	<5	<5							
2-Hexanone	<50	<50	<50	<50							
Dibromochloromethane	<5	<5	<5	<5							
Tetrachloroethylene	<5	<5	<5	<5							
1,2-Dibromoethane	<5	<5	<5	<5							
Chlorobenzene	<5	<5	<5	<5							
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5							
Ethylbenzene	<5	<5	<5	<5							
Xylenes (total)	<5	<5	<5	<5							
Styrene	<5	<5	<5	<5							
Bromoform	<5	<5	<5	<5							
1,1,2,2-Tetrachloroethane	<5	<5	<5	<5							
1,2,3-Trichloropropane	<5	<5	<5	<5							
Trans-1,4-Dichloro-2-Butene	<5	<5	<5	<5							
1,4-Dichlorobenzene	<5	<5	<5	<5							
1,2-Dichlorobenzene	<5	<5	<5	<5							
1,2-Dibromo-3-Chloropropane	<5	<5	<5	<5							

NA – Not available
Less than symbol (<) indicates compound analyzed for, but not detected at indicated quantitation limit.
All metals in ppm, all organics in ppb.

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May 01, 2002

Mr. Chris Randazzo
HDR Engineering
128 S. Tryon St. Suite 1400
Charlotte, NC 28202

RE: Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Dear Mr. Randazzo:

Enclosed are the analytical results for sample(s) received by the laboratory on April 18, 2002. 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,

Bonnie Kamla

Bonnie Kamla
Bonnie.Kamla@pacelabs.com
Project Manager

Enclosures

Pace Analytical™
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HDR Engineering
128 S. Tryon St. Suite 1400
Charlotte, NC 28202

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Attn: Mr. Chris Randazzo
Phone: (704)338-1800

Lab Sample No: 922215363
Client Sample ID: MW-2R

Project Sample Number: 9232163-001
Matrix: Water

Date Collected: 04/17/02 10:00
Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Arsenic	ND	mg/l	0.0050	04/29/02	DJR	7440-38-2		
Barium	0.10	mg/l	0.0050	04/29/02	DJR	7440-39-3		
Cadmium	ND	mg/l	0.0010	04/29/02	DJR	7440-43-9		
Chromium	ND	mg/l	0.0020	04/29/02	DJR	7440-47-3		
Lead	ND	mg/l	0.0030	04/29/02	DJR	7439-92-1		
Selenium	ND	mg/l	0.0050	04/29/02	DJR	7782-49-2		
Silver	ND	mg/l	0.0020	04/29/02	DJR	7440-22-4		
Date Digested				04/23/02				
Mercury, CVAAS, in Water	Prep/Method: EPA 7470 / EPA 7470							
Mercury	ND	mg/l	0.00020	04/23/02	LBG	7439-97-6		
GC/MS Volatiles								
GC/MS VOCs by 8260	Prep/Method: EPA 8260 / EPA 8260							
Acetone	ND	ug/l	100	04/24/02 14:47	DLK	67-64-1		
Acrylonitrile	ND	ug/l	100	04/24/02 14:47	DLK	107-13-1		
Benzene	ND	ug/l	5.0	04/24/02 14:47	DLK	71-43-2		
Bromochloromethane	ND	ug/l	5.0	04/24/02 14:47	DLK	74-97-5		
Bromodichloromethane	ND	ug/l	5.0	04/24/02 14:47	DLK	75-27-4		
Bromoform	ND	ug/l	5.0	04/24/02 14:47	DLK	75-25-2		
Bromomethane	ND	ug/l	10.	04/24/02 14:47	DLK	74-83-9		
2-Butanone (MEK)	ND	ug/l	100	04/24/02 14:47	DLK	78-93-3		
Carbon disulfide	ND	ug/l	10.	04/24/02 14:47	DLK	75-15-0		
Carbon tetrachloride	ND	ug/l	5.0	04/24/02 14:47	DLK	56-23-5		
Chlorobenzene	ND	ug/l	5.0	04/24/02 14:47	DLK	108-90-7		
Chloroethane	ND	ug/l	10.	04/24/02 14:47	DLK	75-00-3		
Chloroform	ND	ug/l	5.0	04/24/02 14:47	DLK	67-66-3		
Chloromethane	ND	ug/l	10.	04/24/02 14:47	DLK	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	04/24/02 14:47	DLK	96-12-8		

Date: 05/01/02

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215363 | Project Sample Number: 9232163-001 | Date Collected: 04/17/02 10:00
Client Sample ID: MW-2R | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
Dibromochloromethane	ND	ug/l	5.0	04/24/02 14:47	DLK	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	5.0	04/24/02 14:47	DLK	106-93-4		
Dibromomethane	ND	ug/l	5.0	04/24/02 14:47	DLK	74-95-3		
1,2-Dichlorobenzene	ND	ug/l	5.0	04/24/02 14:47	DLK	95-50-1		
1,4-Dichlorobenzene	ND	ug/l	5.0	04/24/02 14:47	DLK	106-46-7		
trans-1,4-Dichloro-2-butene	ND	ug/l	5.0	04/24/02 14:47	DLK	110-57-6		
1,1-Dichloroethane	ND	ug/l	5.0	04/24/02 14:47	DLK	75-34-3		
1,2-Dichloroethane	ND	ug/l	5.0	04/24/02 14:47	DLK	107-06-2		
1,1-Dichloroethene	ND	ug/l	5.0	04/24/02 14:47	DLK	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	5.0	04/24/02 14:47	DLK	156-59-2		
trans-1,2-Dichloroethene	ND	ug/l	5.0	04/24/02 14:47	DLK	156-60-5		
1,2-Dichloropropane	ND	ug/l	5.0	04/24/02 14:47	DLK	78-87-5		
cis-1,3-Dichloropropene	ND	ug/l	5.0	04/24/02 14:47	DLK	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/l	5.0	04/24/02 14:47	DLK	10061-02-6		
Ethylbenzene	ND	ug/l	5.0	04/24/02 14:47	DLK	100-41-4		
2-Hexanone	ND	ug/l	50.	04/24/02 14:47	DLK	591-78-6		
Iodomethane	ND	ug/l	10.	04/24/02 14:47	DLK	74-88-4		
Methylene chloride	ND	ug/l	5.0	04/24/02 14:47	DLK	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	50.	04/24/02 14:47	DLK	108-10-1		
Styrene	ND	ug/l	5.0	04/24/02 14:47	DLK	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0	04/24/02 14:47	DLK	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0	04/24/02 14:47	DLK	79-34-5		
Tetrachloroethene	ND	ug/l	5.0	04/24/02 14:47	DLK	127-18-4		
Toluene	ND	ug/l	5.0	04/24/02 14:47	DLK	108-88-3		
1,1,1-Trichloroethane	ND	ug/l	5.0	04/24/02 14:47	DLK	71-55-6		
1,1,2-Trichloroethane	ND	ug/l	5.0	04/24/02 14:47	DLK	79-00-5		
Trichloroethene	ND	ug/l	5.0	04/24/02 14:47	DLK	79-01-6		
Trichlorofluoromethane	ND	ug/l	10.	04/24/02 14:47	DLK	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	5.0	04/24/02 14:47	DLK	96-18-4		
Vinyl acetate	ND	ug/l	50.	04/24/02 14:47	DLK	108-05-4		
Vinyl chloride	ND	ug/l	10.	04/24/02 14:47	DLK	75-01-4		
m&p-Xylene	ND	ug/l	10.	04/24/02 14:47	DLK			
o-Xylene	ND	ug/l	5.0	04/24/02 14:47	DLK	95-47-6		
Toluene-d8 (S)	97	%		04/24/02 14:47	DLK	2037-26-5		
4-Bromofluorobenzene (S)	82	%		04/24/02 14:47	DLK	460-00-4		
Dibromofluoromethane (S)	120	%		04/24/02 14:47	DLK			
1,2-Dichloroethane-d4 (S)	117	%		04/24/02 14:47	DLK	17060-07-0		

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215371 | Project Sample Number: 9232163-002 | Date Collected: 04/17/02 11:00
Client Sample ID: MW-6R | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Arsenic	ND	mg/l	0.0050	04/29/02	DJR	7440-38-2		
Barium	0.18	mg/l	0.0050	04/29/02	DJR	7440-39-3		
Cadmium	ND	mg/l	0.0010	04/29/02	DJR	7440-43-9		
Chromium	0.026	mg/l	0.0020	04/29/02	DJR	7440-47-3		
Lead	0.0076	mg/l	0.0030	04/29/02	DJR	7439-92-1		
Selenium	ND	mg/l	0.0050	04/29/02	DJR	7782-49-2		
Silver	ND	mg/l	0.0020	04/29/02	DJR	7440-22-4		
Date Digested				04/23/02				
Mercury, CVAAS, in Water	Prep/Method: EPA 7470 / EPA 7470							
Mercury	ND	mg/l	0.00020	04/23/02	LBG	7439-97-6		
GC/MS Volatiles								
GC/MS VOCs by 8260	Prep/Method: EPA 8260 / EPA 8260							
Acetone	ND	ug/l	100	04/24/02 15:17	DLK	67-64-1		
Acrylonitrile	ND	ug/l	100	04/24/02 15:17	DLK	107-13-1		
Benzene	ND	ug/l	5.0	04/24/02 15:17	DLK	71-43-2		
Bromochloromethane	ND	ug/l	5.0	04/24/02 15:17	DLK	74-97-5		
Bromodichloromethane	ND	ug/l	5.0	04/24/02 15:17	DLK	75-27-4		
Bromoform	ND	ug/l	5.0	04/24/02 15:17	DLK	75-25-2		
Bromomethane	ND	ug/l	10.	04/24/02 15:17	DLK	74-83-9		
2-Butanone (MEK)	ND	ug/l	100	04/24/02 15:17	DLK	78-93-3		
Carbon disulfide	ND	ug/l	10.	04/24/02 15:17	DLK	75-15-0		
Carbon tetrachloride	ND	ug/l	5.0	04/24/02 15:17	DLK	56-23-5		
Chlorobenzene	ND	ug/l	5.0	04/24/02 15:17	DLK	108-90-7		
Chloroethane	ND	ug/l	10.	04/24/02 15:17	DLK	75-00-3		
Chloroform	ND	ug/l	5.0	04/24/02 15:17	DLK	67-66-3		
Chloromethane	ND	ug/l	10.	04/24/02 15:17	DLK	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	04/24/02 15:17	DLK	96-12-8		
Dibromochloromethane	ND	ug/l	5.0	04/24/02 15:17	DLK	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	5.0	04/24/02 15:17	DLK	106-93-4		
Dibromomethane	ND	ug/l	5.0	04/24/02 15:17	DLK	74-95-3		
1,2-Dichlorobenzene	ND	ug/l	5.0	04/24/02 15:17	DLK	95-50-1		
1,4-Dichlorobenzene	ND	ug/l	5.0	04/24/02 15:17	DLK	106-46-7		
trans-1,4-Dichloro-2-butene	ND	ug/l	5.0	04/24/02 15:17	DLK	110-57-6		
1,1-Dichloroethane	ND	ug/l	5.0	04/24/02 15:17	DLK	75-34-3		

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215371 | Project Sample Number: 9232163-002 | Date Collected: 04/17/02 11:00
Client Sample ID: MW-6R | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
1,2-Dichloroethane	ND	ug/l	5.0	04/24/02 15:17	DLK	107-06-2		
1,1-Dichloroethene	ND	ug/l	5.0	04/24/02 15:17	DLK	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	5.0	04/24/02 15:17	DLK	156-59-2		
trans-1,2-Dichloroethene	ND	ug/l	5.0	04/24/02 15:17	DLK	156-60-5		
1,2-Dichloropropane	ND	ug/l	5.0	04/24/02 15:17	DLK	78-87-5		
cis-1,3-Dichloropropene	ND	ug/l	5.0	04/24/02 15:17	DLK	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/l	5.0	04/24/02 15:17	DLK	10061-02-6		
Ethylbenzene	ND	ug/l	5.0	04/24/02 15:17	DLK	100-41-4		
2-Hexanone	ND	ug/l	50.	04/24/02 15:17	DLK	591-78-6		
Iodomethane	ND	ug/l	10.	04/24/02 15:17	DLK	74-88-4		
Methylene chloride	ND	ug/l	5.0	04/24/02 15:17	DLK	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	50.	04/24/02 15:17	DLK	108-10-1		
Styrene	ND	ug/l	5.0	04/24/02 15:17	DLK	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0	04/24/02 15:17	DLK	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0	04/24/02 15:17	DLK	79-34-5		
Tetrachloroethene	ND	ug/l	5.0	04/24/02 15:17	DLK	127-18-4		
Toluene	ND	ug/l	5.0	04/24/02 15:17	DLK	108-88-3		
1,1,1-Trichloroethane	ND	ug/l	5.0	04/24/02 15:17	DLK	71-55-6		
1,1,2-Trichloroethane	ND	ug/l	5.0	04/24/02 15:17	DLK	79-00-5		
Trichloroethene	ND	ug/l	5.0	04/24/02 15:17	DLK	79-01-6		
Trichlorofluoromethane	ND	ug/l	10.	04/24/02 15:17	DLK	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	5.0	04/24/02 15:17	DLK	96-18-4		
Vinyl acetate	ND	ug/l	50.	04/24/02 15:17	DLK	108-05-4		
Vinyl chloride	ND	ug/l	10.	04/24/02 15:17	DLK	75-01-4		
m&p-Xylene	ND	ug/l	10.	04/24/02 15:17	DLK			
o-Xylene	ND	ug/l	5.0	04/24/02 15:17	DLK	95-47-6		
Toluene-d8 (S)	98	%		04/24/02 15:17	DLK	2037-26-5		
4-Bromofluorobenzene (S)	84	%		04/24/02 15:17	DLK	460-00-4		
Dibromofluoromethane (S)	122	%		04/24/02 15:17	DLK		1	
1,2-Dichloroethane-d4 (S)	119	%		04/24/02 15:17	DLK	17060-07-0		

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Fax: 704.875.9091

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215389 | Project Sample Number: 9232163-003 | Date Collected: 04/17/02 13:15
Client Sample ID: MW-1R | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Arsenic	ND	mg/l	0.0050	04/29/02	DJR	7440-38-2		
Barium	0.13	mg/l	0.0050	04/29/02	DJR	7440-39-3		
Cadmium	ND	mg/l	0.0010	04/29/02	DJR	7440-43-9		
Chromium	0.0050	mg/l	0.0020	04/29/02	DJR	7440-47-3		
Lead	ND	mg/l	0.0030	04/29/02	DJR	7439-92-1		
Selenium	ND	mg/l	0.0050	04/29/02	DJR	7782-49-2		
Silver	ND	mg/l	0.0020	04/29/02	DJR	7440-22-4		
Date Digested				04/23/02				
Mercury, CVAAS, in Water	Prep/Method: EPA 7470 / EPA 7470							
Mercury	ND	mg/l	0.00020	04/23/02	LBG	7439-97-6		
GC/MS Volatiles								
GC/MS VOCs by 8260	Prep/Method: EPA 8260 / EPA 8260							
Acetone	ND	ug/l	100	04/24/02 16:18	DLK	67-64-1		
Acrylonitrile	ND	ug/l	100	04/24/02 16:18	DLK	107-13-1		
Benzene	ND	ug/l	5.0	04/24/02 16:18	DLK	71-43-2		
Bromochloromethane	ND	ug/l	5.0	04/24/02 16:18	DLK	74-97-5		
Bromodichloromethane	ND	ug/l	5.0	04/24/02 16:18	DLK	75-27-4		
Bromoform	ND	ug/l	5.0	04/24/02 16:18	DLK	75-25-2		
Bromomethane	ND	ug/l	10.	04/24/02 16:18	DLK	74-83-9		
2-Butanone (MEK)	ND	ug/l	100	04/24/02 16:18	DLK	78-93-3		
Carbon disulfide	ND	ug/l	10.	04/24/02 16:18	DLK	75-15-0		
Carbon tetrachloride	ND	ug/l	5.0	04/24/02 16:18	DLK	56-23-5		
Chlorobenzene	ND	ug/l	5.0	04/24/02 16:18	DLK	108-90-7		
Chloroethane	ND	ug/l	10.	04/24/02 16:18	DLK	75-00-3		
Chloroform	ND	ug/l	5.0	04/24/02 16:18	DLK	67-66-3		
Chloromethane	ND	ug/l	10.	04/24/02 16:18	DLK	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	04/24/02 16:18	DLK	96-12-8		
Dibromochloromethane	ND	ug/l	5.0	04/24/02 16:18	DLK	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	5.0	04/24/02 16:18	DLK	106-93-4		
Dibromomethane	ND	ug/l	5.0	04/24/02 16:18	DLK	74-95-3		
1,2-Dichlorobenzene	ND	ug/l	5.0	04/24/02 16:18	DLK	95-50-1		
1,4-Dichlorobenzene	ND	ug/l	5.0	04/24/02 16:18	DLK	106-46-7		
trans-1,4-Dichloro-2-butene	ND	ug/l	5.0	04/24/02 16:18	DLK	110-57-6		
1,1-Dichloroethane	ND	ug/l	5.0	04/24/02 16:18	DLK	75-34-3		

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215389 | Project Sample Number: 9232163-003 | Date Collected: 04/17/02 13:15
Client Sample ID: MW-1R | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Req Limit
1,2-Dichloroethane	ND	ug/l	5.0	04/24/02 16:18	DLK	107-06-2		
1,1-Dichloroethene	ND	ug/l	5.0	04/24/02 16:18	DLK	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	5.0	04/24/02 16:18	DLK	156-59-2		
trans-1,2-Dichloroethene	ND	ug/l	5.0	04/24/02 16:18	DLK	156-60-5		
1,2-Dichloropropane	ND	ug/l	5.0	04/24/02 16:18	DLK	78-87-5		
cis-1,3-Dichloropropene	ND	ug/l	5.0	04/24/02 16:18	DLK	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/l	5.0	04/24/02 16:18	DLK	10061-02-6		
Ethylbenzene	ND	ug/l	5.0	04/24/02 16:18	DLK	100-41-4		
2-Hexanone	ND	ug/l	50.	04/24/02 16:18	DLK	591-78-6		
Iodomethane	ND	ug/l	10.	04/24/02 16:18	DLK	74-88-4		
Methylene chloride	ND	ug/l	5.0	04/24/02 16:18	DLK	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	50.	04/24/02 16:18	DLK	108-10-1		
Styrene	ND	ug/l	5.0	04/24/02 16:18	DLK	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0	04/24/02 16:18	DLK	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0	04/24/02 16:18	DLK	79-34-5		
Tetrachloroethene	ND	ug/l	5.0	04/24/02 16:18	DLK	127-18-4		
Toluene	ND	ug/l	5.0	04/24/02 16:18	DLK	108-88-3		
1,1,1-Trichloroethane	ND	ug/l	5.0	04/24/02 16:18	DLK	71-55-6		
1,1,2-Trichloroethane	ND	ug/l	5.0	04/24/02 16:18	DLK	79-00-5		
Trichloroethene	ND	ug/l	5.0	04/24/02 16:18	DLK	79-01-6		
Trichlorofluoromethane	ND	ug/l	10.	04/24/02 16:18	DLK	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	5.0	04/24/02 16:18	DLK	96-18-4		
Vinyl acetate	ND	ug/l	50.	04/24/02 16:18	DLK	108-05-4		
Vinyl chloride	ND	ug/l	10.	04/24/02 16:18	DLK	75-01-4		
m&p-Xylene	ND	ug/l	10.	04/24/02 16:18	DLK			
o-Xylene	ND	ug/l	5.0	04/24/02 16:18	DLK	95-47-6		
Toluene-d8 (S)	101	%		04/24/02 16:18	DLK	2037-26-5		
4-Bromofluorobenzene (S)	86	%		04/24/02 16:18	DLK	460-00-4		
Dibromofluoromethane (S)	120	%		04/24/02 16:18	DLK		1	
1,2-Dichloroethane-d4 (S)	119	%		04/24/02 16:18	DLK	17060-07-0		

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Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215397 | Project Sample Number: 9232163-004 | Date Collected: 04/17/02 14:00
Client Sample ID: MW-3R | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Arsenic	0.0074	mg/l	0.0050	04/29/02	DJR	7440-38-2		
Barium	0.37	mg/l	0.0050	04/29/02	DJR	7440-39-3		
Cadmium	ND	mg/l	0.0010	04/29/02	DJR	7440-43-9		
Chromium	0.015	mg/l	0.0020	04/29/02	DJR	7440-47-3		
Lead	0.021	mg/l	0.0030	04/29/02	DJR	7439-92-1		
Selenium	ND	mg/l	0.0050	04/29/02	DJR	7782-49-2		
Silver	ND	mg/l	0.0020	04/29/02	DJR	7440-22-4		
Date Digested				04/23/02				
Mercury, CVAAS, in Water	Prep/Method: EPA 7470 / EPA 7470							
Mercury	ND	mg/l	0.00020	04/23/02	LBG	7439-97-6		
GC/MS Volatiles								
GC/MS VOCs by 8260	Prep/Method: EPA 8260 / EPA 8260							
Acetone	ND	ug/l	100	04/24/02 16:48	DLK	67-64-1		
Acrylonitrile	ND	ug/l	100	04/24/02 16:48	DLK	107-13-1		
Benzene	ND	ug/l	5.0	04/24/02 16:48	DLK	71-43-2		
Bromochloromethane	ND	ug/l	5.0	04/24/02 16:48	DLK	74-97-5		
Bromodichloromethane	ND	ug/l	5.0	04/24/02 16:48	DLK	75-27-4		
Bromoform	ND	ug/l	5.0	04/24/02 16:48	DLK	75-25-2		
Bromomethane	ND	ug/l	10.	04/24/02 16:48	DLK	74-83-9		
2-Butanone (MEK)	ND	ug/l	100	04/24/02 16:48	DLK	78-93-3		
Carbon disulfide	ND	ug/l	10.	04/24/02 16:48	DLK	75-15-0		
Carbon tetrachloride	ND	ug/l	5.0	04/24/02 16:48	DLK	56-23-5		
Chlorobenzene	ND	ug/l	5.0	04/24/02 16:48	DLK	108-90-7		
Chloroethane	ND	ug/l	10.	04/24/02 16:48	DLK	75-00-3		
Chloroform	ND	ug/l	5.0	04/24/02 16:48	DLK	67-66-3		
Chloromethane	ND	ug/l	10.	04/24/02 16:48	DLK	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	04/24/02 16:48	DLK	96-12-8		
Dibromochloromethane	ND	ug/l	5.0	04/24/02 16:48	DLK	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	5.0	04/24/02 16:48	DLK	106-93-4		
Dibromomethane	ND	ug/l	5.0	04/24/02 16:48	DLK	74-95-3		
1,2-Dichlorobenzene	ND	ug/l	5.0	04/24/02 16:48	DLK	95-50-1		
1,4-Dichlorobenzene	ND	ug/l	5.0	04/24/02 16:48	DLK	106-46-7		
trans-1,4-Dichloro-2-butene	ND	ug/l	5.0	04/24/02 16:48	DLK	110-57-6		
1,1-Dichloroethane	ND	ug/l	5.0	04/24/02 16:48	DLK	75-34-3		

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215397 | Project Sample Number: 9232163-004 | Date Collected: 04/17/02 14:00
Client Sample ID: MW-3R | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
1,2-Dichloroethane	ND	ug/l	5.0	04/24/02 16:48	DLK	107-06-2		
1,1-Dichloroethene	ND	ug/l	5.0	04/24/02 16:48	DLK	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	5.0	04/24/02 16:48	DLK	156-59-2		
trans-1,2-Dichloroethene	ND	ug/l	5.0	04/24/02 16:48	DLK	156-60-5		
1,2-Dichloropropane	ND	ug/l	5.0	04/24/02 16:48	DLK	78-87-5		
cis-1,3-Dichloropropene	ND	ug/l	5.0	04/24/02 16:48	DLK	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/l	5.0	04/24/02 16:48	DLK	10061-02-6		
Ethylbenzene	ND	ug/l	5.0	04/24/02 16:48	DLK	100-41-4		
2-Hexanone	ND	ug/l	50.	04/24/02 16:48	DLK	591-78-6		
Iodomethane	ND	ug/l	10.	04/24/02 16:48	DLK	74-88-4		
Methylene chloride	ND	ug/l	5.0	04/24/02 16:48	DLK	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	50.	04/24/02 16:48	DLK	108-10-1		
Styrene	ND	ug/l	5.0	04/24/02 16:48	DLK	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0	04/24/02 16:48	DLK	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0	04/24/02 16:48	DLK	79-34-5		
Tetrachloroethene	ND	ug/l	5.0	04/24/02 16:48	DLK	127-18-4		
Toluene	ND	ug/l	5.0	04/24/02 16:48	DLK	108-88-3		
1,1,1-Trichloroethane	ND	ug/l	5.0	04/24/02 16:48	DLK	71-55-6		
1,1,2-Trichloroethane	ND	ug/l	5.0	04/24/02 16:48	DLK	79-00-5		
Trichloroethene	ND	ug/l	5.0	04/24/02 16:48	DLK	79-01-6		
Trichlorofluoromethane	ND	ug/l	10.	04/24/02 16:48	DLK	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	5.0	04/24/02 16:48	DLK	96-18-4		
Vinyl acetate	ND	ug/l	50.	04/24/02 16:48	DLK	108-05-4		
Vinyl chloride	ND	ug/l	10.	04/24/02 16:48	DLK	75-01-4		
m&p-Xylene	ND	ug/l	10.	04/24/02 16:48	DLK			
o-Xylene	ND	ug/l	5.0	04/24/02 16:48	DLK	95-47-6		
Toluene-d8 (S)	97	%		04/24/02 16:48	DLK	2037-26-5		
4-Bromofluorobenzene (S)	85	%		04/24/02 16:48	DLK	460-00-4		
Dibromofluoromethane (S)	118	%		04/24/02 16:48	DLK			
1,2-Dichloroethane-d4 (S)	118	%		04/24/02 16:48	DLK	17060-07-0		

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215405 | Project Sample Number: 9232163-005 | Date Collected: 04/17/02 14:25
Client Sample ID: EQUIP BLANK | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
GC/MS Volatiles								
GC/MS VOCs by 8260	Prep/Method: EPA 8260 / EPA 8260							
Acetone	ND	ug/l	100	04/24/02 13:47	DLK	67-64-1		
Acrylonitrile	ND	ug/l	100	04/24/02 13:47	DLK	107-13-1		
Benzene	ND	ug/l	5.0	04/24/02 13:47	DLK	71-43-2		
Bromochloromethane	ND	ug/l	5.0	04/24/02 13:47	DLK	74-97-5		
Bromodichloromethane	ND	ug/l	5.0	04/24/02 13:47	DLK	75-27-4		
Bromoform	ND	ug/l	5.0	04/24/02 13:47	DLK	75-25-2		
Bromomethane	ND	ug/l	10.	04/24/02 13:47	DLK	74-83-9		
2-Butanone (MEK)	ND	ug/l	100	04/24/02 13:47	DLK	78-93-3		
Carbon disulfide	ND	ug/l	10.	04/24/02 13:47	DLK	75-15-0		
Carbon tetrachloride	ND	ug/l	5.0	04/24/02 13:47	DLK	56-23-5		
Chlorobenzene	ND	ug/l	5.0	04/24/02 13:47	DLK	108-90-7		
Chloroethane	ND	ug/l	10.	04/24/02 13:47	DLK	75-00-3		
Chloroform	ND	ug/l	5.0	04/24/02 13:47	DLK	67-66-3		
Chloromethane	ND	ug/l	10.	04/24/02 13:47	DLK	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	04/24/02 13:47	DLK	96-12-8		
Dibromochloromethane	ND	ug/l	5.0	04/24/02 13:47	DLK	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	5.0	04/24/02 13:47	DLK	106-93-4		
Dibromomethane	ND	ug/l	5.0	04/24/02 13:47	DLK	74-95-3		
1,2-Dichlorobenzene	ND	ug/l	5.0	04/24/02 13:47	DLK	95-50-1		
1,4-Dichlorobenzene	ND	ug/l	5.0	04/24/02 13:47	DLK	106-46-7		
trans-1,4-Dichloro-2-butene	ND	ug/l	5.0	04/24/02 13:47	DLK	110-57-6		
1,1-Dichloroethane	ND	ug/l	5.0	04/24/02 13:47	DLK	75-34-3		
1,2-Dichloroethane	ND	ug/l	5.0	04/24/02 13:47	DLK	107-06-2		
1,1-Dichloroethene	ND	ug/l	5.0	04/24/02 13:47	DLK	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	5.0	04/24/02 13:47	DLK	156-59-2		
trans-1,2-Dichloroethene	ND	ug/l	5.0	04/24/02 13:47	DLK	156-60-5		
1,2-Dichloropropane	ND	ug/l	5.0	04/24/02 13:47	DLK	78-87-5		
cis-1,3-Dichloropropene	ND	ug/l	5.0	04/24/02 13:47	DLK	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/l	5.0	04/24/02 13:47	DLK	10061-02-6		
Ethylbenzene	ND	ug/l	5.0	04/24/02 13:47	DLK	100-41-4		
2-Hexanone	ND	ug/l	50.	04/24/02 13:47	DLK	591-78-6		
Iodomethane	ND	ug/l	10.	04/24/02 13:47	DLK	74-88-4		
Methylene chloride	ND	ug/l	5.0	04/24/02 13:47	DLK	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	50.	04/24/02 13:47	DLK	108-10-1		
Styrene	ND	ug/l	5.0	04/24/02 13:47	DLK	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0	04/24/02 13:47	DLK	630-20-6		

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215405 | Project Sample Number: 9232163-005 | Date Collected: 04/17/02 14:25
Client Sample ID: EQUIP BLANK | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0	04/24/02 13:47	DLK	79-34-5		
Tetrachloroethene	ND	ug/l	5.0	04/24/02 13:47	DLK	127-18-4		
Toluene	ND	ug/l	5.0	04/24/02 13:47	DLK	108-88-3		
1,1,1-Trichloroethane	ND	ug/l	5.0	04/24/02 13:47	DLK	71-55-6		
1,1,2-Trichloroethane	ND	ug/l	5.0	04/24/02 13:47	DLK	79-00-5		
Trichloroethene	ND	ug/l	5.0	04/24/02 13:47	DLK	79-01-6		
Trichlorofluoromethane	ND	ug/l	10.	04/24/02 13:47	DLK	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	5.0	04/24/02 13:47	DLK	96-18-4		
Vinyl acetate	ND	ug/l	50.	04/24/02 13:47	DLK	108-05-4		
Vinyl chloride	ND	ug/l	10.	04/24/02 13:47	DLK	75-01-4		
m&p-Xylene	ND	ug/l	10.	04/24/02 13:47	DLK			
o-Xylene	ND	ug/l	5.0	04/24/02 13:47	DLK	95-47-6		
Toluene-d8 (S)	99	%		04/24/02 13:47	DLK	2037-26-5		
4-Bromofluorobenzene (S)	88	%		04/24/02 13:47	DLK	460-00-4		
Dibromofluoromethane (S)	116	%		04/24/02 13:47	DLK			
1,2-Dichloroethane-d4 (S)	120	%		04/24/02 13:47	DLK	17060-07-0		

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215413 | Project Sample Number: 9232163-006 | Date Collected: 04/18/02 09:50
Client Sample ID: MW-7 | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Arsenic	ND	mg/l	0.0050	04/29/02	DJR	7440-38-2		
Barium	0.084	mg/l	0.0050	04/29/02	DJR	7440-39-3		
Cadmium	ND	mg/l	0.0010	04/29/02	DJR	7440-43-9		
Chromium	0.0068	mg/l	0.0020	04/29/02	DJR	7440-47-3		
Lead	ND	mg/l	0.0030	04/29/02	DJR	7439-92-1		
Selenium	ND	mg/l	0.0050	04/29/02	DJR	7782-49-2		
Silver	0.0026	mg/l	0.0020	04/29/02	DJR	7440-22-4		
Date Digested				04/23/02				
Mercury, CVAAS, in Water	Prep/Method: EPA 7470 / EPA 7470							
Mercury	ND	mg/l	0.00020	04/23/02	LBG	7439-97-6		
GC/MS Volatiles								
GC/MS VOCs by 8260	Prep/Method: EPA 8260 / EPA 8260							
Acetone	ND	ug/l	100	04/25/02 10:29	DLK	67-64-1		
Acrylonitrile	ND	ug/l	100	04/25/02 10:29	DLK	107-13-1		
Benzene	ND	ug/l	5.0	04/25/02 10:29	DLK	71-43-2		
Bromochloromethane	ND	ug/l	5.0	04/25/02 10:29	DLK	74-97-5		
Bromodichloromethane	ND	ug/l	5.0	04/25/02 10:29	DLK	75-27-4		
Bromoform	ND	ug/l	5.0	04/25/02 10:29	DLK	75-25-2		
Bromomethane	ND	ug/l	10.	04/25/02 10:29	DLK	74-83-9		
2-Butanone (MEK)	ND	ug/l	100	04/25/02 10:29	DLK	78-93-3		
Carbon disulfide	ND	ug/l	10.	04/25/02 10:29	DLK	75-15-0		
Carbon tetrachloride	ND	ug/l	5.0	04/25/02 10:29	DLK	56-23-5		
Chlorobenzene	ND	ug/l	5.0	04/25/02 10:29	DLK	108-90-7		
Chloroethane	ND	ug/l	10.	04/25/02 10:29	DLK	75-00-3		
Chloroform	ND	ug/l	5.0	04/25/02 10:29	DLK	67-66-3		
Chloromethane	ND	ug/l	10.	04/25/02 10:29	DLK	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	04/25/02 10:29	DLK	96-12-8		
Dibromochloromethane	ND	ug/l	5.0	04/25/02 10:29	DLK	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	5.0	04/25/02 10:29	DLK	106-93-4		
Dibromomethane	ND	ug/l	5.0	04/25/02 10:29	DLK	74-95-3		
1,2-Dichlorobenzene	ND	ug/l	5.0	04/25/02 10:29	DLK	95-50-1		
1,4-Dichlorobenzene	ND	ug/l	5.0	04/25/02 10:29	DLK	106-46-7		
trans-1,4-Dichloro-2-butene	ND	ug/l	5.0	04/25/02 10:29	DLK	110-57-6		
1,1-Dichloroethane	ND	ug/l	5.0	04/25/02 10:29	DLK	75-34-3		

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215413 | Project Sample Number: 9232163-006 | Date Collected: 04/18/02 09:50
Client Sample ID: MW-7 | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
1,2-Dichloroethane	ND	ug/l	5.0	04/25/02 10:29	DLK	107-06-2		
1,1-Dichloroethene	ND	ug/l	5.0	04/25/02 10:29	DLK	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	5.0	04/25/02 10:29	DLK	156-59-2		
trans-1,2-Dichloroethene	ND	ug/l	5.0	04/25/02 10:29	DLK	156-60-5		
1,2-Dichloropropane	ND	ug/l	5.0	04/25/02 10:29	DLK	78-87-5		
cis-1,3-Dichloropropene	ND	ug/l	5.0	04/25/02 10:29	DLK	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/l	5.0	04/25/02 10:29	DLK	10061-02-6		
Ethylbenzene	ND	ug/l	5.0	04/25/02 10:29	DLK	100-41-4		
2-Hexanone	ND	ug/l	50.	04/25/02 10:29	DLK	591-78-6		
Iodomethane	ND	ug/l	10.	04/25/02 10:29	DLK	74-88-4		
Methylene chloride	ND	ug/l	5.0	04/25/02 10:29	DLK	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	50.	04/25/02 10:29	DLK	108-10-1		
Styrene	ND	ug/l	5.0	04/25/02 10:29	DLK	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0	04/25/02 10:29	DLK	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0	04/25/02 10:29	DLK	79-34-5		
Tetrachloroethene	ND	ug/l	5.0	04/25/02 10:29	DLK	127-18-4		
Toluene	ND	ug/l	5.0	04/25/02 10:29	DLK	108-88-3		
1,1,1-Trichloroethane	ND	ug/l	5.0	04/25/02 10:29	DLK	71-55-6		
1,1,2-Trichloroethane	ND	ug/l	5.0	04/25/02 10:29	DLK	79-00-5		
Trichloroethene	ND	ug/l	5.0	04/25/02 10:29	DLK	79-01-6		
Trichlorofluoromethane	ND	ug/l	10.	04/25/02 10:29	DLK	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	5.0	04/25/02 10:29	DLK	96-18-4		
Vinyl acetate	ND	ug/l	50.	04/25/02 10:29	DLK	108-05-4		
Vinyl chloride	ND	ug/l	10.	04/25/02 10:29	DLK	75-01-4		
m&p-Xylene	ND	ug/l	10.	04/25/02 10:29	DLK			
o-Xylene	ND	ug/l	5.0	04/25/02 10:29	DLK	95-47-6		
Toluene-d8 (S)	97	%		04/25/02 10:29	DLK	2037-26-5		
4-Bromofluorobenzene (S)	90	%		04/25/02 10:29	DLK	460-00-4		
Dibromofluoromethane (S)	112	%		04/25/02 10:29	DLK			
1,2-Dichloroethane-d4 (S)	109	%		04/25/02 10:29	DLK	17060-07-0		

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Fax: 704.875.9091

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215421 | Project Sample Number: 9232163-007 | Date Collected: 04/18/02 09:45
Client Sample ID: MW-4R | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Req Limit
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Arsenic	ND	mg/l	0.0050	04/29/02	DJR	7440-38-2		
Barium	0.061	mg/l	0.0050	04/29/02	DJR	7440-39-3		
Cadmium	ND	mg/l	0.0010	04/29/02	DJR	7440-43-9		
Chromium	ND	mg/l	0.0020	04/29/02	DJR	7440-47-3		
Lead	ND	mg/l	0.0030	04/29/02	DJR	7439-92-1		
Selenium	ND	mg/l	0.0050	04/29/02	DJR	7782-49-2		
Silver	ND	mg/l	0.0020	04/29/02	DJR	7440-22-4		
Date Digested				04/23/02				
Mercury, CVAAS, in Water	Prep/Method: EPA 7470 / EPA 7470							
Mercury	ND	mg/l	0.00020	04/23/02	LBG	7439-97-6		
GC/MS Volatiles								
GC/MS VOCs by 8260	Prep/Method: EPA 8260 / EPA 8260							
Acetone	ND	ug/l	100	05/01/02 02:29	DLK	67-64-1		
Acrylonitrile	ND	ug/l	100	05/01/02 02:29	DLK	107-13-1		
Benzene	ND	ug/l	5.0	05/01/02 02:29	DLK	71-43-2		
Bromochloromethane	ND	ug/l	5.0	05/01/02 02:29	DLK	74-97-5		
Bromodichloromethane	ND	ug/l	5.0	05/01/02 02:29	DLK	75-27-4		
Bromoform	ND	ug/l	5.0	05/01/02 02:29	DLK	75-25-2		
Bromomethane	ND	ug/l	10.	05/01/02 02:29	DLK	74-83-9		
2-Butanone (MEK)	ND	ug/l	100	05/01/02 02:29	DLK	78-93-3		
Carbon disulfide	ND	ug/l	10.	05/01/02 02:29	DLK	75-15-0		
Carbon tetrachloride	ND	ug/l	5.0	05/01/02 02:29	DLK	56-23-5		
Chlorobenzene	ND	ug/l	5.0	05/01/02 02:29	DLK	108-90-7		
Chloroethane	ND	ug/l	10.	05/01/02 02:29	DLK	75-00-3		
Chloroform	ND	ug/l	5.0	05/01/02 02:29	DLK	67-66-3		
Chloromethane	ND	ug/l	10.	05/01/02 02:29	DLK	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	05/01/02 02:29	DLK	96-12-8		
Dibromochloromethane	ND	ug/l	5.0	05/01/02 02:29	DLK	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	5.0	05/01/02 02:29	DLK	106-93-4		
Dibromomethane	ND	ug/l	5.0	05/01/02 02:29	DLK	74-95-3		
1,2-Dichlorobenzene	ND	ug/l	5.0	05/01/02 02:29	DLK	95-50-1		
1,4-Dichlorobenzene	ND	ug/l	5.0	05/01/02 02:29	DLK	106-46-7		
trans-1,4-Dichloro-2-butene	ND	ug/l	5.0	05/01/02 02:29	DLK	110-57-6		
1,1-Dichloroethane	ND	ug/l	5.0	05/01/02 02:29	DLK	75-34-3		

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215421 | Project Sample Number: 9232163-007 | Date Collected: 04/18/02 09:45
Client Sample ID: MW-4R | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
1,2-Dichloroethane	ND	ug/l	5.0	05/01/02 02:29	DLK	107-06-2		
1,1-Dichloroethene	ND	ug/l	5.0	05/01/02 02:29	DLK	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	5.0	05/01/02 02:29	DLK	156-59-2		
trans-1,2-Dichloroethene	ND	ug/l	5.0	05/01/02 02:29	DLK	156-60-5		
1,2-Dichloropropane	ND	ug/l	5.0	05/01/02 02:29	DLK	78-87-5		
cis-1,3-Dichloropropene	ND	ug/l	5.0	05/01/02 02:29	DLK	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/l	5.0	05/01/02 02:29	DLK	10061-02-6		
Ethylbenzene	ND	ug/l	5.0	05/01/02 02:29	DLK	100-41-4		
2-Hexanone	ND	ug/l	50.	05/01/02 02:29	DLK	591-78-6		
Iodomethane	ND	ug/l	10.	05/01/02 02:29	DLK	74-88-4		
Methylene chloride	ND	ug/l	5.0	05/01/02 02:29	DLK	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	50.	05/01/02 02:29	DLK	108-10-1		
Styrene	ND	ug/l	5.0	05/01/02 02:29	DLK	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0	05/01/02 02:29	DLK	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0	05/01/02 02:29	DLK	79-34-5		
Tetrachloroethene	ND	ug/l	5.0	05/01/02 02:29	DLK	127-18-4		
Toluene	ND	ug/l	5.0	05/01/02 02:29	DLK	108-88-3		
1,1,1-Trichloroethane	ND	ug/l	5.0	05/01/02 02:29	DLK	71-55-6		
1,1,2-Trichloroethane	ND	ug/l	5.0	05/01/02 02:29	DLK	79-00-5		
Trichloroethene	ND	ug/l	5.0	05/01/02 02:29	DLK	79-01-6		
Trichlorofluoromethane	ND	ug/l	10.	05/01/02 02:29	DLK	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	5.0	05/01/02 02:29	DLK	96-18-4		
Vinyl acetate	ND	ug/l	50.	05/01/02 02:29	DLK	108-05-4		
Vinyl chloride	ND	ug/l	10.	05/01/02 02:29	DLK	75-01-4		
m&p-Xylene	ND	ug/l	10.	05/01/02 02:29	DLK			
o-Xylene	ND	ug/l	5.0	05/01/02 02:29	DLK	95-47-6		
Toluene-d8 (S)	100	%		05/01/02 02:29	DLK	2037-26-5		
4-Bromofluorobenzene (S)	84	%		05/01/02 02:29	DLK	460-00-4		
Dibromofluoromethane (S)	127	%		05/01/02 02:29	DLK		1	
1,2-Dichloroethane-d4 (S)	122	%		05/01/02 02:29	DLK	17060-07-0		

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215439 | Project Sample Number: 9232163-008 | Date Collected: 04/18/02 09:30
Client Sample ID: MW-5R | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Req Limit
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Arsenic	ND	mg/l	0.0050	04/29/02	DJR	7440-38-2		
Barium	0.15	mg/l	0.0050	04/29/02	DJR	7440-39-3		
Cadmium	ND	mg/l	0.0010	04/29/02	DJR	7440-43-9		
Chromium	0.023	mg/l	0.0020	04/29/02	DJR	7440-47-3		
Lead	ND	mg/l	0.0030	04/29/02	DJR	7439-92-1		
Selenium	ND	mg/l	0.0050	04/29/02	DJR	7782-49-2		
Silver	ND	mg/l	0.0020	04/29/02	DJR	7440-22-4		
Date Digested				04/23/02				
Mercury, CVAAS, in Water	Prep/Method: EPA 7470 / EPA 7470							
Mercury	ND	mg/l	0.00020	04/23/02	LBG	7439-97-6		
GC/MS Volatiles								
GC/MS VOCs by 8260	Prep/Method: EPA 8260 / EPA 8260							
Acetone	ND	ug/l	100	05/01/02 02:59	DLK	67-64-1		
Acrylonitrile	ND	ug/l	100	05/01/02 02:59	DLK	107-13-1		
Benzene	ND	ug/l	5.0	05/01/02 02:59	DLK	71-43-2		
Bromochloromethane	ND	ug/l	5.0	05/01/02 02:59	DLK	74-97-5		
Bromodichloromethane	ND	ug/l	5.0	05/01/02 02:59	DLK	75-27-4		
Bromoform	ND	ug/l	5.0	05/01/02 02:59	DLK	75-25-2		
Bromomethane	ND	ug/l	10.	05/01/02 02:59	DLK	74-83-9		
2-Butanone (MEK)	ND	ug/l	100	05/01/02 02:59	DLK	78-93-3		
Carbon disulfide	ND	ug/l	10.	05/01/02 02:59	DLK	75-15-0		
Carbon tetrachloride	ND	ug/l	5.0	05/01/02 02:59	DLK	56-23-5		
Chlorobenzene	ND	ug/l	5.0	05/01/02 02:59	DLK	108-90-7		
Chloroethane	ND	ug/l	10.	05/01/02 02:59	DLK	75-00-3		
Chloroform	ND	ug/l	5.0	05/01/02 02:59	DLK	67-66-3		
Chloromethane	ND	ug/l	10.	05/01/02 02:59	DLK	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	05/01/02 02:59	DLK	96-12-8		
Dibromochloromethane	ND	ug/l	5.0	05/01/02 02:59	DLK	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	5.0	05/01/02 02:59	DLK	106-93-4		
Dibromomethane	ND	ug/l	5.0	05/01/02 02:59	DLK	74-95-3		
1,2-Dichlorobenzene	ND	ug/l	5.0	05/01/02 02:59	DLK	95-50-1		
1,4-Dichlorobenzene	ND	ug/l	5.0	05/01/02 02:59	DLK	106-46-7		
trans-1,4-Dichloro-2-butene	ND	ug/l	5.0	05/01/02 02:59	DLK	110-57-6		
1,1-Dichloroethane	ND	ug/l	5.0	05/01/02 02:59	DLK	75-34-3		

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215439
Client Sample ID: MW-5R

Project Sample Number: 9232163-008
Matrix: Water

Date Collected: 04/18/02 09:30
Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
1,2-Dichloroethane	ND	ug/l	5.0	05/01/02 02:59	DLK	107-06-2		
1,1-Dichloroethene	ND	ug/l	5.0	05/01/02 02:59	DLK	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	5.0	05/01/02 02:59	DLK	156-59-2		
trans-1,2-Dichloroethene	ND	ug/l	5.0	05/01/02 02:59	DLK	156-60-5		
1,2-Dichloropropane	ND	ug/l	5.0	05/01/02 02:59	DLK	78-87-5		
cis-1,3-Dichloropropene	ND	ug/l	5.0	05/01/02 02:59	DLK	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/l	5.0	05/01/02 02:59	DLK	10061-02-6		
Ethylbenzene	ND	ug/l	5.0	05/01/02 02:59	DLK	100-41-4		
2-Hexanone	ND	ug/l	50.	05/01/02 02:59	DLK	591-78-6		
Iodomethane	ND	ug/l	10.	05/01/02 02:59	DLK	74-88-4		
Methylene chloride	ND	ug/l	5.0	05/01/02 02:59	DLK	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	50.	05/01/02 02:59	DLK	108-10-1		
Styrene	ND	ug/l	5.0	05/01/02 02:59	DLK	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0	05/01/02 02:59	DLK	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0	05/01/02 02:59	DLK	79-34-5		
Tetrachloroethene	ND	ug/l	5.0	05/01/02 02:59	DLK	127-18-4		
Toluene	ND	ug/l	5.0	05/01/02 02:59	DLK	108-88-3		
1,1,1-Trichloroethane	ND	ug/l	5.0	05/01/02 02:59	DLK	71-55-6		
1,1,2-Trichloroethane	ND	ug/l	5.0	05/01/02 02:59	DLK	79-00-5		
Trichloroethene	ND	ug/l	5.0	05/01/02 02:59	DLK	79-01-6		
Trichlorofluoromethane	ND	ug/l	10.	05/01/02 02:59	DLK	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	5.0	05/01/02 02:59	DLK	96-18-4		
Vinyl acetate	ND	ug/l	50.	05/01/02 02:59	DLK	108-05-4		
Vinyl chloride	ND	ug/l	10.	05/01/02 02:59	DLK	75-01-4		
m&p-Xylene	ND	ug/l	10.	05/01/02 02:59	DLK			
o-Xylene	ND	ug/l	5.0	05/01/02 02:59	DLK	95-47-6		
Toluene-d8 (S)	97	%		05/01/02 02:59	DLK	2037-26-5		
4-Bromofluorobenzene (S)	80	%		05/01/02 02:59	DLK	460-00-4		
Dibromofluoromethane (S)	129	%		05/01/02 02:59	DLK		1	
1,2-Dichloroethane-d4 (S)	130	%		05/01/02 02:59	DLK	17060-07-0		

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215447 | Project Sample Number: 9232163-009 | Date Collected: 04/18/02 10:00
Client Sample ID: MW-8 | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
Metals								
Metals by Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Arsenic	ND	mg/l	0.0050	04/29/02	DJR	7440-38-2		
Barium	0.15	mg/l	0.0050	04/29/02	DJR	7440-39-3		
Cadmium	ND	mg/l	0.0010	04/29/02	DJR	7440-43-9		
Chromium	0.023	mg/l	0.0020	04/29/02	DJR	7440-47-3		
Lead	ND	mg/l	0.0030	04/29/02	DJR	7439-92-1		
Selenium	ND	mg/l	0.0050	04/29/02	DJR	7782-49-2		
Silver	ND	mg/l	0.0020	04/29/02	DJR	7440-22-4		
Date Digested				04/23/02				
Mercury, CVAAS, in Water	Prep/Method: EPA 7470 / EPA 7470							
Mercury	ND	mg/l	0.00020	04/23/02	LBG	7439-97-6		
GC/MS Volatiles								
GC/MS VOCs by 8260	Prep/Method: EPA 8260 / EPA 8260							
Acetone	ND	ug/l	100	05/01/02 03:30	DLK	67-64-1		
Acrylonitrile	ND	ug/l	100	05/01/02 03:30	DLK	107-13-1		
Benzene	ND	ug/l	5.0	05/01/02 03:30	DLK	71-43-2		
Bromochloromethane	ND	ug/l	5.0	05/01/02 03:30	DLK	74-97-5		
Bromodichloromethane	ND	ug/l	5.0	05/01/02 03:30	DLK	75-27-4		
Bromoform	ND	ug/l	5.0	05/01/02 03:30	DLK	75-25-2		
Bromomethane	ND	ug/l	10.	05/01/02 03:30	DLK	74-83-9		
2-Butanone (MEK)	ND	ug/l	100	05/01/02 03:30	DLK	78-93-3		
Carbon disulfide	ND	ug/l	10.	05/01/02 03:30	DLK	75-15-0		
Carbon tetrachloride	ND	ug/l	5.0	05/01/02 03:30	DLK	56-23-5		
Chlorobenzene	ND	ug/l	5.0	05/01/02 03:30	DLK	108-90-7		
Chloroethane	ND	ug/l	10.	05/01/02 03:30	DLK	75-00-3		
Chloroform	ND	ug/l	5.0	05/01/02 03:30	DLK	67-66-3		
Chloromethane	ND	ug/l	10.	05/01/02 03:30	DLK	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	05/01/02 03:30	DLK	96-12-8		
Dibromochloromethane	ND	ug/l	5.0	05/01/02 03:30	DLK	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	5.0	05/01/02 03:30	DLK	106-93-4		
Dibromomethane	ND	ug/l	5.0	05/01/02 03:30	DLK	74-95-3		
1,2-Dichlorobenzene	ND	ug/l	5.0	05/01/02 03:30	DLK	95-50-1		
1,4-Dichlorobenzene	ND	ug/l	5.0	05/01/02 03:30	DLK	106-46-7		
trans-1,4-Dichloro-2-butene	ND	ug/l	5.0	05/01/02 03:30	DLK	110-57-6		
1,1-Dichloroethane	ND	ug/l	5.0	05/01/02 03:30	DLK	75-34-3		

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215447 | Project Sample Number: 9232163-009 | Date Collected: 04/18/02 10:00
Client Sample ID: MW-8 | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
1,2-Dichloroethane	ND	ug/l	5.0	05/01/02 03:30	DLK	107-06-2		
1,1-Dichloroethene	ND	ug/l	5.0	05/01/02 03:30	DLK	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	5.0	05/01/02 03:30	DLK	156-59-2		
trans-1,2-Dichloroethene	ND	ug/l	5.0	05/01/02 03:30	DLK	156-60-5		
1,2-Dichloropropane	ND	ug/l	5.0	05/01/02 03:30	DLK	78-87-5		
cis-1,3-Dichloropropene	ND	ug/l	5.0	05/01/02 03:30	DLK	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/l	5.0	05/01/02 03:30	DLK	10061-02-6		
Ethylbenzene	ND	ug/l	5.0	05/01/02 03:30	DLK	100-41-4		
2-Hexanone	ND	ug/l	50.	05/01/02 03:30	DLK	591-78-6		
Iodomethane	ND	ug/l	10.	05/01/02 03:30	DLK	74-88-4		
Methylene chloride	ND	ug/l	5.0	05/01/02 03:30	DLK	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	50.	05/01/02 03:30	DLK	108-10-1		
Styrene	ND	ug/l	5.0	05/01/02 03:30	DLK	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0	05/01/02 03:30	DLK	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0	05/01/02 03:30	DLK	79-34-5		
Tetrachloroethene	ND	ug/l	5.0	05/01/02 03:30	DLK	127-18-4		
Toluene	ND	ug/l	5.0	05/01/02 03:30	DLK	108-88-3		
1,1,1-Trichloroethane	ND	ug/l	5.0	05/01/02 03:30	DLK	71-55-6		
1,1,2-Trichloroethane	ND	ug/l	5.0	05/01/02 03:30	DLK	79-00-5		
Trichloroethene	ND	ug/l	5.0	05/01/02 03:30	DLK	79-01-6		
Trichlorofluoromethane	ND	ug/l	10.	05/01/02 03:30	DLK	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	5.0	05/01/02 03:30	DLK	96-18-4		
Vinyl acetate	ND	ug/l	50.	05/01/02 03:30	DLK	108-05-4		
Vinyl chloride	ND	ug/l	10.	05/01/02 03:30	DLK	75-01-4		
m&p-Xylene	ND	ug/l	10.	05/01/02 03:30	DLK			
o-Xylene	ND	ug/l	5.0	05/01/02 03:30	DLK	95-47-6		
Toluene-d8 (S)	102	%		05/01/02 03:30	DLK	2037-26-5		
4-Bromofluorobenzene (S)	80	%		05/01/02 03:30	DLK	460-00-4		
Dibromofluoromethane (S)	133	%		05/01/02 03:30	DLK		1	
1,2-Dichloroethane-d4 (S)	131	%		05/01/02 03:30	DLK	17060-07-0		

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215454 | Project Sample Number: 9232163-010 | Date Collected: 04/18/02 00:00
Client Sample ID: TRIP BLANK | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
GC/MS Volatiles								
GC/MS VOCs by 8260	Prep/Method: EPA 8260 / EPA 8260							
Acetone	ND	ug/l	100	05/01/02 01:58	DLK	67-64-1		
Acrylonitrile	ND	ug/l	100	05/01/02 01:58	DLK	107-13-1		
Benzene	ND	ug/l	5.0	05/01/02 01:58	DLK	71-43-2		
Bromochloromethane	ND	ug/l	5.0	05/01/02 01:58	DLK	74-97-5		
Bromodichloromethane	ND	ug/l	5.0	05/01/02 01:58	DLK	75-27-4		
Bromoform	ND	ug/l	5.0	05/01/02 01:58	DLK	75-25-2		
Bromomethane	ND	ug/l	10.	05/01/02 01:58	DLK	74-83-9		
2-Butanone (MEK)	ND	ug/l	100	05/01/02 01:58	DLK	78-93-3		
Carbon disulfide	ND	ug/l	10.	05/01/02 01:58	DLK	75-15-0		
Carbon tetrachloride	ND	ug/l	5.0	05/01/02 01:58	DLK	56-23-5		
Chlorobenzene	ND	ug/l	5.0	05/01/02 01:58	DLK	108-90-7		
Chloroethane	ND	ug/l	10.	05/01/02 01:58	DLK	75-00-3		
Chloroform	ND	ug/l	5.0	05/01/02 01:58	DLK	67-66-3		
Chloromethane	ND	ug/l	10.	05/01/02 01:58	DLK	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	5.0	05/01/02 01:58	DLK	96-12-8		
Dibromochloromethane	ND	ug/l	5.0	05/01/02 01:58	DLK	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	5.0	05/01/02 01:58	DLK	106-93-4		
Dibromomethane	ND	ug/l	5.0	05/01/02 01:58	DLK	74-95-3		
1,2-Dichlorobenzene	ND	ug/l	5.0	05/01/02 01:58	DLK	95-50-1		
1,4-Dichlorobenzene	ND	ug/l	5.0	05/01/02 01:58	DLK	106-46-7		
trans-1,4-Dichloro-2-butene	ND	ug/l	5.0	05/01/02 01:58	DLK	110-57-6		
1,1-Dichloroethane	ND	ug/l	5.0	05/01/02 01:58	DLK	75-34-3		
1,2-Dichloroethane	ND	ug/l	5.0	05/01/02 01:58	DLK	107-06-2		
1,1-Dichloroethene	ND	ug/l	5.0	05/01/02 01:58	DLK	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	5.0	05/01/02 01:58	DLK	156-59-2		
trans-1,2-Dichloroethene	ND	ug/l	5.0	05/01/02 01:58	DLK	156-60-5		
1,2-Dichloropropane	ND	ug/l	5.0	05/01/02 01:58	DLK	78-87-5		
cis-1,3-Dichloropropene	ND	ug/l	5.0	05/01/02 01:58	DLK	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/l	5.0	05/01/02 01:58	DLK	10061-02-6		
Ethylbenzene	ND	ug/l	5.0	05/01/02 01:58	DLK	100-41-4		
2-Hexanone	ND	ug/l	50.	05/01/02 01:58	DLK	591-78-6		
Iodomethane	ND	ug/l	10.	05/01/02 01:58	DLK	74-88-4		
Methylene chloride	ND	ug/l	5.0	05/01/02 01:58	DLK	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/l	50.	05/01/02 01:58	DLK	108-10-1		
Styrene	ND	ug/l	5.0	05/01/02 01:58	DLK	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	5.0	05/01/02 01:58	DLK	630-20-6		

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

Lab Sample No: 922215454 | Project Sample Number: 9232163-010 | Date Collected: 04/18/02 00:00
Client Sample ID: TRIP BLANK | Matrix: Water | Date Received: 04/18/02 16:00

Parameters	Results	Units	Report Limit	Analyzed	by	CAS No.	Ftnote	Reg Limit
1,1,2,2-Tetrachloroethane	ND	ug/l	5.0	05/01/02 01:58	DLK	79-34-5		
Tetrachloroethene	ND	ug/l	5.0	05/01/02 01:58	DLK	127-18-4		
Toluene	ND	ug/l	5.0	05/01/02 01:58	DLK	108-88-3		
1,1,1-Trichloroethane	ND	ug/l	5.0	05/01/02 01:58	DLK	71-55-6		
1,1,2-Trichloroethane	ND	ug/l	5.0	05/01/02 01:58	DLK	79-00-5		
Trichloroethene	ND	ug/l	5.0	05/01/02 01:58	DLK	79-01-6		
Trichlorofluoromethane	ND	ug/l	10.	05/01/02 01:58	DLK	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	5.0	05/01/02 01:58	DLK	96-18-4		
Vinyl acetate	ND	ug/l	50.	05/01/02 01:58	DLK	108-05-4		
Vinyl chloride	ND	ug/l	10.	05/01/02 01:58	DLK	75-01-4		
m&p-Xylene	ND	ug/l	10.	05/01/02 01:58	DLK			
o-Xylene	ND	ug/l	5.0	05/01/02 01:58	DLK	95-47-6		
Toluene-d8 (S)	99	%		05/01/02 01:58	DLK	2037-26-5		
4-Bromofluorobenzene (S)	84	%		05/01/02 01:58	DLK	460-00-4		
Dibromofluoromethane (S)	125	%		05/01/02 01:58	DLK		1	
1,2-Dichloroethane-d4 (S)	125	%		05/01/02 01:58	DLK	17060-07-0		

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

PARAMETER FOOTNOTES

ND Not detected at or above adjusted reporting limit
NC Not Calculable
J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
(S) Surrogate
[1] The surrogate and/or spike recovery was outside acceptance limits.

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QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

QC Batch: 56385 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS VOCs by 8260
Associated Lab Samples: 922215363 922215371 922215389 922215397 922215405

METHOD BLANK: 922223821
Associated Lab Samples: 922215363 922215371 922215389 922215397 922215405

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Acetone	ug/l	ND	100	
Acrylonitrile	ug/l	ND	100	
Benzene	ug/l	ND	5.0	
Bromochloromethane	ug/l	ND	5.0	
Bromodichloromethane	ug/l	ND	5.0	
Bromoform	ug/l	ND	5.0	
Bromomethane	ug/l	ND	10.	
2-Butanone (MEK)	ug/l	ND	100	
Carbon disulfide	ug/l	ND	10.	
Carbon tetrachloride	ug/l	ND	5.0	
Chlorobenzene	ug/l	ND	5.0	
Chloroethane	ug/l	ND	10.	
Chloroform	ug/l	ND	5.0	
Chloromethane	ug/l	ND	10.	
1,2-Dibromo-3-chloropropane	ug/l	ND	5.0	
Dibromochloromethane	ug/l	ND	5.0	
1,2-Dibromoethane (EDB)	ug/l	ND	5.0	
Dibromomethane	ug/l	ND	5.0	
1,2-Dichlorobenzene	ug/l	ND	5.0	
1,4-Dichlorobenzene	ug/l	ND	5.0	
trans-1,4-Dichloro-2-butene	ug/l	ND	5.0	
1,1-Dichloroethane	ug/l	ND	5.0	
1,2-Dichloroethane	ug/l	ND	5.0	
1,1-Dichloroethene	ug/l	ND	5.0	
cis-1,2-Dichloroethene	ug/l	ND	5.0	
trans-1,2-Dichloroethene	ug/l	ND	5.0	
1,2-Dichloropropane	ug/l	ND	5.0	
cis-1,3-Dichloropropene	ug/l	ND	5.0	
trans-1,3-Dichloropropene	ug/l	ND	5.0	
Ethylbenzene	ug/l	ND	5.0	

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QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

METHOD BLANK: 922223821
Associated Lab Samples: 922215363 922215371 922215389 922215397 922215405

Parameter	Units	Blank Result	Reporting Limit	Footnotes
2-Hexanone	ug/l	ND	50.	
Iodomethane	ug/l	ND	10.	
Methylene chloride	ug/l	ND	5.0	
4-Methyl-2-pentanone (MIBK)	ug/l	ND	50.	
Styrene	ug/l	ND	5.0	
1,1,1,2-Tetrachloroethane	ug/l	ND	5.0	
1,1,2,2-Tetrachloroethane	ug/l	ND	5.0	
Tetrachloroethene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
1,1,1-Trichloroethane	ug/l	ND	5.0	
1,1,2-Trichloroethane	ug/l	ND	5.0	
Trichloroethene	ug/l	ND	5.0	
Trichlorofluoromethane	ug/l	ND	10.	
1,2,3-Trichloropropane	ug/l	ND	5.0	
Vinyl acetate	ug/l	ND	50.	
Vinyl chloride	ug/l	ND	10.	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	101		
4-Bromofluorobenzene (S)	%	87		
Dibromofluoromethane (S)	%	119		
1,2-Dichloroethane-d4 (S)	%	114		

LABORATORY CONTROL SAMPLE: 922223839

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Acetone	ug/l	100	84.85	85	
Acrylonitrile	ug/l	250	440.9	176	1
Benzene	ug/l	50	42.19	84	
Bromochloromethane	ug/l	50	38.16	76	
Bromodichloromethane	ug/l	50	44.06	88	
Bromoform	ug/l	50	45.87	92	
Bromomethane	ug/l	50	31.15	62	

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QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

LABORATORY CONTROL SAMPLE: 922223839

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
2-Butanone (MEK)	ug/l	100	83.23	83	
Carbon disulfide	ug/l	100	85.95	86	
Carbon tetrachloride	ug/l	50	44.19	88	
Chlorobenzene	ug/l	50	46.77	94	
Chloroethane	ug/l	50	41.66	83	
Chloroform	ug/l	50	39.13	78	
Chloromethane	ug/l	50	34.22	68	
1,2-Dibromo-3-chloropropane	ug/l	50	49.54	99	
Dibromochloromethane	ug/l	50	47.64	95	
1,2-Dibromoethane (EDB)	ug/l	50	44.92	90	
Dibromomethane	ug/l	50	42.82	86	
1,2-Dichlorobenzene	ug/l	50	49.61	99	
1,4-Dichlorobenzene	ug/l	50	46.22	92	
trans-1,4-Dichloro-2-butene	ug/l	50	37.99	76	
1,1-Dichloroethane	ug/l	50	37.17	74	
1,2-Dichloroethane	ug/l	50	39.22	78	
1,1-Dichloroethene	ug/l	50	39.57	79	
cis-1,2-Dichloroethene	ug/l	50	37.26	74	
trans-1,2-Dichloroethene	ug/l	50	39.34	79	
1,2-Dichloropropane	ug/l	50	41.46	83	
cis-1,3-Dichloropropene	ug/l	50	35.89	72	
trans-1,3-Dichloropropene	ug/l	50	38.42	77	
Ethylbenzene	ug/l	50	48.88	98	
2-Hexanone	ug/l	100	85.72	86	
Iodomethane	ug/l	100	91.90	92	
Methylene chloride	ug/l	50	35.75	72	
4-Methyl-2-pentanone (MIBK)	ug/l	100	83.39	83	
Styrene	ug/l	50	45.67	91	
1,1,1,2-Tetrachloroethane	ug/l	50	46.11	92	
1,1,2,2-Tetrachloroethane	ug/l	50	48.96	98	
Tetrachloroethene	ug/l	50	46.54	93	
Toluene	ug/l	50	44.89	90	
1,1,1-Trichloroethane	ug/l	50	40.75	82	
1,1,2-Trichloroethane	ug/l	50	45.12	90	
Trichloroethene	ug/l	50	42.42	85	
Trichlorofluoromethane	ug/l	50	43.02	86	

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QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

LABORATORY CONTROL SAMPLE: 922223839

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
1,2,3-Trichloropropane	ug/l	50	49.26	98	
Vinyl acetate	ug/l	100	44.48	44	2
Vinyl chloride	ug/l	50	32.62	65	
m&p-Xylene	ug/l	100	96.57	97	
o-Xylene	ug/l	50	48.71	97	
Toluene-d8 (S)				106	
4-Bromofluorobenzene (S)				97	
Dibromofluoromethane (S)				99	
1,2-Dichloroethane-d4 (S)				96	

MATRIX SPIKE: 922223854

Parameter	Units	922215397 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Benzene	ug/l	0	50.00	42.07	84	
Chlorobenzene	ug/l	0	50.00	46.86	94	
1,1-Dichloroethene	ug/l	0	50.00	38.12	76	
Toluene	ug/l	0	50.00	44.14	88	
Trichloroethene	ug/l	0	50.00	42.59	85	
Toluene-d8 (S)					103	
4-Bromofluorobenzene (S)					100	
Dibromofluoromethane (S)					100	
1,2-Dichloroethane-d4 (S)					98	

SAMPLE DUPLICATE: 922223847

Parameter	Units	922215371 Result	DUP Result	RPD	Footnotes
Acetone	ug/l	ND	ND	NC	
Acrylonitrile	ug/l	ND	ND	NC	
Benzene	ug/l	ND	ND	NC	
Bromochloromethane	ug/l	ND	ND	NC	
Bromodichloromethane	ug/l	ND	ND	NC	
Bromoform	ug/l	ND	ND	NC	

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QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

SAMPLE DUPLICATE: 922223847

Parameter	Units	922215371 Result	DUP Result	RPD	Footnotes
Bromomethane	ug/l	ND	ND	NC	
2-Butanone (MEK)	ug/l	ND	ND	NC	
Carbon disulfide	ug/l	ND	ND	NC	
Carbon tetrachloride	ug/l	ND	ND	NC	
Chlorobenzene	ug/l	ND	ND	NC	
Chloroethane	ug/l	ND	ND	NC	
Chloroform	ug/l	ND	ND	NC	
Chloromethane	ug/l	ND	ND	NC	
1,2-Dibromo-3-chloropropane	ug/l	ND	ND	NC	
Dibromochloromethane	ug/l	ND	ND	NC	
1,2-Dibromoethane (EDB)	ug/l	ND	ND	NC	
Dibromomethane	ug/l	ND	ND	NC	
1,2-Dichlorobenzene	ug/l	ND	ND	NC	
1,4-Dichlorobenzene	ug/l	ND	ND	NC	
trans-1,4-Dichloro-2-butene	ug/l	ND	ND	NC	
1,1-Dichloroethane	ug/l	ND	ND	NC	
1,2-Dichloroethane	ug/l	ND	ND	NC	
1,1-Dichloroethene	ug/l	ND	ND	NC	
cis-1,2-Dichloroethene	ug/l	ND	ND	NC	
trans-1,2-Dichloroethene	ug/l	ND	ND	NC	
1,2-Dichloropropane	ug/l	ND	ND	NC	
cis-1,3-Dichloropropene	ug/l	ND	ND	NC	
trans-1,3-Dichloropropene	ug/l	ND	ND	NC	
Ethylbenzene	ug/l	ND	ND	NC	
2-Hexanone	ug/l	ND	ND	NC	
Iodomethane	ug/l	ND	ND	NC	
Methylene chloride	ug/l	ND	ND	NC	
4-Methyl-2-pentanone (MIBK)	ug/l	ND	ND	NC	
Styrene	ug/l	ND	ND	NC	
1,1,1,2-Tetrachloroethane	ug/l	ND	ND	NC	
1,1,2,2-Tetrachloroethane	ug/l	ND	ND	NC	
Tetrachloroethene	ug/l	ND	ND	NC	
Toluene	ug/l	ND	ND	NC	
1,1,1-Trichloroethane	ug/l	ND	ND	NC	
1,1,2-Trichloroethane	ug/l	ND	ND	NC	
Trichloroethene	ug/l	ND	ND	NC	

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QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

SAMPLE DUPLICATE: 922223847

Parameter	Units	922215371 Result	DUP Result	RPD	Footnotes
Trichlorofluoromethane	ug/l	ND	ND	NC	
1,2,3-Trichloropropane	ug/l	ND	ND	NC	
Vinyl acetate	ug/l	ND	ND	NC	
Vinyl chloride	ug/l	ND	ND	NC	
m&p-Xylene	ug/l	ND	ND	NC	
o-Xylene	ug/l	ND	ND	NC	
Toluene-d8 (S)	%	98	101		
4-Bromofluorobenzene (S)	%	84	84		
Dibromofluoromethane (S)	%	122	121		2
1,2-Dichloroethane-d4 (S)	%	119	125		

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QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

QC Batch: 56455 — Analysis Method: EPA 8260
QC Batch Method: EPA 8260 — Analysis Description: GC/MS VOCs by 8260
Associated Lab Samples: 922215413

METHOD BLANK: 922226428
Associated Lab Samples: 922215413

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Acetone	ug/l	ND	100	
Acrylonitrile	ug/l	ND	100	
Benzene	ug/l	ND	5.0	
Bromochloromethane	ug/l	ND	5.0	
Bromodichloromethane	ug/l	ND	5.0	
Bromoform	ug/l	ND	5.0	
Bromomethane	ug/l	ND	10.	
2-Butanone (MEK)	ug/l	ND	100	
Carbon disulfide	ug/l	ND	10.	
Carbon tetrachloride	ug/l	ND	5.0	
Chlorobenzene	ug/l	ND	5.0	
Chloroethane	ug/l	ND	10.	
Chloroform	ug/l	ND	5.0	
Chloromethane	ug/l	ND	10.	
1,2-Dibromo-3-chloropropane	ug/l	ND	5.0	
Dibromochloromethane	ug/l	ND	5.0	
1,2-Dibromoethane (EDB)	ug/l	ND	5.0	
Dibromomethane	ug/l	ND	5.0	
1,2-Dichlorobenzene	ug/l	ND	5.0	
1,4-Dichlorobenzene	ug/l	ND	5.0	
trans-1,4-Dichloro-2-butene	ug/l	ND	5.0	
1,1-Dichloroethane	ug/l	ND	5.0	
1,2-Dichloroethane	ug/l	ND	5.0	
1,1-Dichloroethene	ug/l	ND	5.0	
cis-1,2-Dichloroethene	ug/l	ND	5.0	
trans-1,2-Dichloroethene	ug/l	ND	5.0	
1,2-Dichloropropane	ug/l	ND	5.0	
cis-1,3-Dichloropropene	ug/l	ND	5.0	
trans-1,3-Dichloropropene	ug/l	ND	5.0	
Ethylbenzene	ug/l	ND	5.0	

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QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

METHOD BLANK: 922226428
Associated Lab Samples: 922215413

Parameter	Units	Blank Result	Reporting Limit	Footnotes
2-Hexanone	ug/l	ND	50.	
Iodomethane	ug/l	ND	10.	
Methylene chloride	ug/l	ND	5.0	
4-Methyl-2-pentanone (MIBK)	ug/l	ND	50.	
Styrene	ug/l	ND	5.0	
1,1,1,2-Tetrachloroethane	ug/l	ND	5.0	
1,1,2,2-Tetrachloroethane	ug/l	ND	5.0	
Tetrachloroethene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
1,1,1-Trichloroethane	ug/l	ND	5.0	
1,1,2-Trichloroethane	ug/l	ND	5.0	
Trichloroethene	ug/l	ND	5.0	
Trichlorofluoromethane	ug/l	ND	10.	
1,2,3-Trichloropropane	ug/l	ND	5.0	
Vinyl acetate	ug/l	ND	50.	
Vinyl chloride	ug/l	ND	10.	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	96		
4-Bromofluorobenzene (S)	%	87		
Dibromofluoromethane (S)	%	111		
1,2-Dichloroethane-d4 (S)	%	109		

LABORATORY CONTROL SAMPLE: 922226436

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Acetone	ug/l	100	81.62	82	
Acrylonitrile	ug/l	250	206.5	83	
Benzene	ug/l	50	52.55	105	
Bromochloromethane	ug/l	50	46.27	92	
Bromodichloromethane	ug/l	50	53.42	107	
Bromoform	ug/l	50	50.45	101	
Bromomethane	ug/l	50	93.99	188	1

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QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

LABORATORY CONTROL SAMPLE: 922226436

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
2-Butanone (MEK)	ug/l	100	74.09	74	
Carbon disulfide	ug/l	100	92.29	92	
Carbon tetrachloride	ug/l	50	53.24	106	
Chlorobenzene	ug/l	50	50.28	101	
Chloroethane	ug/l	50	28.71	57	
Chloroform	ug/l	50	46.95	94	
Chloromethane	ug/l	50	22.95	46	2
1,2-Dibromo-3-chloropropane	ug/l	50	44.95	90	
Dibromochloromethane	ug/l	50	50.57	101	
1,2-Dibromoethane (EDB)	ug/l	50	49.01	98	
Dibromomethane	ug/l	50	50.24	100	
1,2-Dichlorobenzene	ug/l	50	50.72	101	
1,4-Dichlorobenzene	ug/l	50	47.66	95	
trans-1,4-Dichloro-2-butene	ug/l	50	45.69	91	
1,1-Dichloroethane	ug/l	50	47.16	94	
1,2-Dichloroethane	ug/l	50	46.22	92	
1,1-Dichloroethene	ug/l	50	49.38	99	
cis-1,2-Dichloroethene	ug/l	50	48.78	98	
trans-1,2-Dichloroethene	ug/l	50	49.13	98	
1,2-Dichloropropane	ug/l	50	50.78	102	
cis-1,3-Dichloropropene	ug/l	50	45.18	90	
trans-1,3-Dichloropropene	ug/l	50	45.55	91	
Ethylbenzene	ug/l	50	54.31	109	
2-Hexanone	ug/l	100	86.27	86	
Iodomethane	ug/l	100	120.3	120	
Methylene chloride	ug/l	50	49.24	98	
4-Methyl-2-pentanone (MIBK)	ug/l	100	85.37	85	
Styrene	ug/l	50	46.87	94	
1,1,1,2-Tetrachloroethane	ug/l	50	50.05	100	
1,1,2,2-Tetrachloroethane	ug/l	50	47.48	95	
Tetrachloroethene	ug/l	50	52.09	104	
Toluene	ug/l	50	53.16	106	
1,1,1-Trichloroethane	ug/l	50	48.45	97	
1,1,2-Trichloroethane	ug/l	50	50.34	101	
Trichloroethene	ug/l	50	51.75	103	
Trichlorofluoromethane	ug/l	50	35.93	72	

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

LABORATORY CONTROL SAMPLE: 922226436

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
1,2,3-Trichloropropane	ug/l	50	49.30	99	
Vinyl acetate	ug/l	100	64.65	65	
Vinyl chloride	ug/l	50	23.59	47	2
m&p-Xylene	ug/l	100	98.28	98	
o-Xylene	ug/l	50	49.00	98	
Toluene-d8 (S)				104	
4-Bromofluorobenzene (S)				101	
Dibromofluoromethane (S)				93	
1,2-Dichloroethane-d4 (S)				91	

SAMPLE DUPLICATE: 922226444

Parameter	Units	922215413 Result	DUP Result	RPD	Footnotes
Acetone	ug/l	ND	ND	NC	
Acrylonitrile	ug/l	ND	ND	NC	
Benzene	ug/l	ND	ND	NC	
Bromochloromethane	ug/l	ND	ND	NC	
Bromodichloromethane	ug/l	ND	ND	NC	
Bromoform	ug/l	ND	ND	NC	
Bromomethane	ug/l	ND	ND	NC	
2-Butanone (MEK)	ug/l	ND	ND	NC	
Carbon disulfide	ug/l	ND	ND	NC	
Carbon tetrachloride	ug/l	ND	ND	NC	
Chlorobenzene	ug/l	ND	ND	NC	
Chloroethane	ug/l	ND	ND	NC	
Chloroform	ug/l	ND	ND	NC	
Chloromethane	ug/l	ND	ND	NC	
1,2-Dibromo-3-chloropropane	ug/l	ND	ND	NC	
Dibromochloromethane	ug/l	ND	ND	NC	
1,2-Dibromoethane (EDB)	ug/l	ND	ND	NC	
Dibromomethane	ug/l	ND	ND	NC	
1,2-Dichlorobenzene	ug/l	ND	ND	NC	
1,4-Dichlorobenzene	ug/l	ND	ND	NC	
trans-1,4-Dichloro-2-butene	ug/l	ND	ND	NC	

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QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

SAMPLE DUPLICATE: 922226444

Parameter	Units	922215413 Result	DUP Result	RPD	Footnotes
1,1-Dichloroethane	ug/l	ND	ND	NC	
1,2-Dichloroethane	ug/l	ND	ND	NC	
1,1-Dichloroethene	ug/l	ND	ND	NC	
cis-1,2-Dichloroethene	ug/l	ND	ND	NC	
trans-1,2-Dichloroethene	ug/l	ND	ND	NC	
1,2-Dichloropropane	ug/l	ND	ND	NC	
cis-1,3-Dichloropropene	ug/l	ND	ND	NC	
trans-1,3-Dichloropropene	ug/l	ND	ND	NC	
Ethylbenzene	ug/l	ND	ND	NC	
2-Hexanone	ug/l	ND	ND	NC	
Iodomethane	ug/l	ND	ND	NC	
Methylene chloride	ug/l	ND	ND	NC	
4-Methyl-2-pentanone (MIBK)	ug/l	ND	ND	NC	
Styrene	ug/l	ND	ND	NC	
1,1,1,2-Tetrachloroethane	ug/l	ND	ND	NC	
1,1,2,2-Tetrachloroethane	ug/l	ND	ND	NC	
Tetrachloroethene	ug/l	ND	ND	NC	
Toluene	ug/l	ND	ND	NC	
1,1,1-Trichloroethane	ug/l	ND	ND	NC	
1,1,2-Trichloroethane	ug/l	ND	ND	NC	
Trichloroethene	ug/l	ND	ND	NC	
Trichlorofluoromethane	ug/l	ND	ND	NC	
1,2,3-Trichloropropane	ug/l	ND	ND	NC	
Vinyl acetate	ug/l	ND	ND	NC	
Vinyl chloride	ug/l	ND	ND	NC	
m&p-Xylene	ug/l	ND	ND	NC	
o-Xylene	ug/l	ND	ND	NC	
Toluene-d8 (S)	%	97	100		
4-Bromofluorobenzene (S)	%	90	88		
Dibromofluoromethane (S)	%	112	115		
1,2-Dichloroethane-d4 (S)	%	109	110		

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QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

QC Batch: 56456 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS VOCs by 8260
Associated Lab Samples: 922215421 922215439 922215447 922215454

METHOD BLANK: 922226519
Associated Lab Samples: 922215421 922215439 922215447 922215454

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Acetone	ug/l	ND	100	
Acrylonitrile	ug/l	ND	100	
Benzene	ug/l	ND	5.0	
Bromochloromethane	ug/l	ND	5.0	
Bromodichloromethane	ug/l	ND	5.0	
Bromoform	ug/l	ND	5.0	
Bromomethane	ug/l	ND	10.	
2-Butanone (MEK)	ug/l	ND	100	
Carbon disulfide	ug/l	ND	10.	
Carbon tetrachloride	ug/l	ND	5.0	
Chlorobenzene	ug/l	ND	5.0	
Chloroethane	ug/l	ND	10.	
Chloroform	ug/l	ND	5.0	
Chloromethane	ug/l	ND	10.	
1,2-Dibromo-3-chloropropane	ug/l	ND	5.0	
Dibromochloromethane	ug/l	ND	5.0	
1,2-Dibromoethane (EDB)	ug/l	ND	5.0	
Dibromomethane	ug/l	ND	5.0	
1,2-Dichlorobenzene	ug/l	ND	5.0	
1,4-Dichlorobenzene	ug/l	ND	5.0	
trans-1,4-Dichloro-2-butene	ug/l	ND	5.0	
1,1-Dichloroethane	ug/l	ND	5.0	
1,2-Dichloroethane	ug/l	ND	5.0	
1,1-Dichloroethene	ug/l	ND	5.0	
cis-1,2-Dichloroethene	ug/l	ND	5.0	
trans-1,2-Dichloroethene	ug/l	ND	5.0	
1,2-Dichloropropane	ug/l	ND	5.0	
cis-1,3-Dichloropropene	ug/l	ND	5.0	
trans-1,3-Dichloropropene	ug/l	ND	5.0	
Ethylbenzene	ug/l	ND	5.0	

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QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

METHOD BLANK: 922226519
Associated Lab Samples: 922215421 922215439 922215447 922215454

Parameter	Units	Blank Result	Reporting Limit	Footnotes
2-Hexanone	ug/l	ND	50.	
Iodomethane	ug/l	ND	10.	
Methylene chloride	ug/l	ND	5.0	
4-Methyl-2-pentanone (MIBK)	ug/l	ND	50.	
Styrene	ug/l	ND	5.0	
1,1,1,2-Tetrachloroethane	ug/l	ND	5.0	
1,1,2,2-Tetrachloroethane	ug/l	ND	5.0	
Tetrachloroethene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
1,1,1-Trichloroethane	ug/l	ND	5.0	
1,1,2-Trichloroethane	ug/l	ND	5.0	
Trichloroethene	ug/l	ND	5.0	
Trichlorofluoromethane	ug/l	ND	10.	
1,2,3-Trichloropropane	ug/l	ND	5.0	
Vinyl acetate	ug/l	ND	50.	
Vinyl chloride	ug/l	ND	10.	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	99		
4-Bromofluorobenzene (S)	%	86		
Dibromofluoromethane (S)	%	103		
1,2-Dichloroethane-d4 (S)	%	101		

LABORATORY CONTROL SAMPLE: 922226527

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Acetone	ug/l	100	84.28	84	
Acrylonitrile	ug/l	250	202.3	81	
Benzene	ug/l	50	52.24	104	
Bromochloromethane	ug/l	50	45.67	91	
Bromodichloromethane	ug/l	50	50.83	102	
Bromoform	ug/l	50	45.29	91	
Bromomethane	ug/l	50	91.88	184	1

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QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

LABORATORY CONTROL SAMPLE: 922226527

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
2-Butanone (MEK)	ug/l	100	79.16	79	
Carbon disulfide	ug/l	100	80.33	80	
Carbon tetrachloride	ug/l	50	53.05	106	
Chlorobenzene	ug/l	50	49.14	98	
Chloroethane	ug/l	50	34.27	68	
Chloroform	ug/l	50	47.54	95	
Chloromethane	ug/l	50	22.26	44	2
1,2-Dibromo-3-chloropropane	ug/l	50	47.35	95	
Dibromochloromethane	ug/l	50	48.77	98	
1,2-Dibromoethane (EDB)	ug/l	50	49.63	99	
Dibromomethane	ug/l	50	50.42	101	
1,2-Dichlorobenzene	ug/l	50	49.34	99	
1,4-Dichlorobenzene	ug/l	50	47.09	94	
trans-1,4-Dichloro-2-butene	ug/l	50	40.19	80	
1,1-Dichloroethane	ug/l	50	47.19	94	
1,2-Dichloroethane	ug/l	50	45.72	91	
1,1-Dichloroethene	ug/l	50	50.94	102	
cis-1,2-Dichloroethene	ug/l	50	48.74	98	
trans-1,2-Dichloroethene	ug/l	50	50.35	101	
1,2-Dichloropropane	ug/l	50	50.40	101	
cis-1,3-Dichloropropene	ug/l	50	44.12	88	
trans-1,3-Dichloropropene	ug/l	50	43.26	86	
Ethylbenzene	ug/l	50	52.78	106	
2-Hexanone	ug/l	100	87.14	87	
Iodomethane	ug/l	100	114.0	114	
Methylene chloride	ug/l	50	40.64	81	
4-Methyl-2-pentanone (MIBK)	ug/l	100	86.55	86	
Styrene	ug/l	50	45.82	92	
1,1,1,2-Tetrachloroethane	ug/l	50	50.15	100	
1,1,2,2-Tetrachloroethane	ug/l	50	47.06	94	
Tetrachloroethene	ug/l	50	52.87	106	
Toluene	ug/l	50	51.83	104	
1,1,1-Trichloroethane	ug/l	50	48.53	97	
1,1,2-Trichloroethane	ug/l	50	48.55	97	
Trichloroethene	ug/l	50	49.52	99	
Trichlorofluoromethane	ug/l	50	36.23	72	

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

REPORT OF LABORATORY ANALYSIS
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Laboratory Certification IDs
LA Wastewater 04034
VA Drinking Water 213
FL NELAP E87627

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Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

LABORATORY CONTROL SAMPLE: 922226527

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
1,2,3-Trichloropropane	ug/l	50	49.89	100	
Vinyl acetate	ug/l	100	61.39	61	
Vinyl chloride	ug/l	50	22.29	45	2
m&p-Xylene	ug/l	100	97.49	98	
o-Xylene	ug/l	50	47.75	96	
Toluene-d8 (S)				104	
4-Bromofluorobenzene (S)				100	
Dibromofluoromethane (S)				95	
1,2-Dichloroethane-d4 (S)				94	

MATRIX SPIKE: 922226535

Parameter	Units	922215439 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Benzene	ug/l	0	50.00	48.21	96	
Chlorobenzene	ug/l	0	50.00	48.04	96	
1,1-Dichloroethene	ug/l	0	50.00	46.94	94	
Toluene	ug/l	0	50.00	49.21	98	
Trichloroethene	ug/l	0	50.00	47.97	96	
Toluene-d8 (S)					105	
4-Bromofluorobenzene (S)					105	
Dibromofluoromethane (S)					96	
1,2-Dichloroethane-d4 (S)					95	

SAMPLE DUPLICATE: 922231642

Parameter	Units	922217096 Result	DUP Result	RPD	Footnotes
Acetone	ug/l	ND	ND	NC	
Acrylonitrile	ug/l	ND	ND	NC	
Benzene	ug/l	5.000	5.000	1	
Bromochloromethane	ug/l	ND	ND	NC	
Bromodichloromethane	ug/l	ND	ND	NC	
Bromoform	ug/l	ND	ND	NC	

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VA Drinking Water 213
FL NELAP E87627

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QUALITY CONTROL DATA

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

SAMPLE DUPLICATE: 922231642

Parameter	Units	922217096 Result	DUP Result	RPD	Footnotes
Bromomethane	ug/l	ND	ND	NC	
2-Butanone (MEK)	ug/l	ND	ND	NC	
Carbon disulfide	ug/l	ND	ND	NC	
Carbon tetrachloride	ug/l	ND	ND	NC	
Chlorobenzene	ug/l	ND	ND	NC	
Chloroethane	ug/l	ND	ND	NC	
Chloroform	ug/l	ND	ND	NC	
Chloromethane	ug/l	ND	ND	NC	
1,2-Dibromo-3-chloropropane	ug/l	ND	ND	NC	
Dibromochloromethane	ug/l	ND	ND	NC	
1,2-Dibromoethane (EDB)	ug/l	ND	ND	NC	
Dibromomethane	ug/l	ND	ND	NC	
1,2-Dichlorobenzene	ug/l	ND	ND	NC	
1,4-Dichlorobenzene	ug/l	ND	ND	NC	
trans-1,4-Dichloro-2-butene	ug/l	ND	ND	NC	
1,1-Dichloroethane	ug/l	ND	ND	NC	
1,2-Dichloroethane	ug/l	ND	ND	NC	
1,1-Dichloroethene	ug/l	ND	ND	NC	
cis-1,2-Dichloroethene	ug/l	ND	ND	NC	
trans-1,2-Dichloroethene	ug/l	ND	ND	NC	
1,2-Dichloropropane	ug/l	ND	ND	NC	
cis-1,3-Dichloropropene	ug/l	ND	ND	NC	
trans-1,3-Dichloropropene	ug/l	ND	ND	NC	
Ethylbenzene	ug/l	ND	ND	NC	
2-Hexanone	ug/l	ND	ND	NC	
Iodomethane	ug/l	ND	ND	NC	
Methylene chloride	ug/l	ND	ND	NC	
4-Methyl-2-pentanone (MIBK)	ug/l	ND	ND	NC	
Styrene	ug/l	ND	ND	NC	
1,1,1,2-Tetrachloroethane	ug/l	ND	ND	NC	
1,1,2,2-Tetrachloroethane	ug/l	ND	ND	NC	
Tetrachloroethene	ug/l	ND	ND	NC	
Toluene	ug/l	ND	ND	NC	
1,1,1-Trichloroethane	ug/l	ND	ND	NC	
1,1,2-Trichloroethane	ug/l	ND	ND	NC	
Trichloroethene	ug/l	ND	ND	NC	

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

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QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

SAMPLE DUPLICATE: 922231642

Parameter	Units	922217096 Result	DUP Result	RPD	Footnotes
Trichlorofluoromethane	ug/l	ND	ND	NC	
1,2,3-Trichloropropane	ug/l	ND	ND	NC	
Vinyl acetate	ug/l	ND	ND	NC	
Vinyl chloride	ug/l	ND	ND	NC	
m&p-Xylene	ug/l	ND	ND	NC	
o-Xylene	ug/l	ND	ND	NC	
Toluene-d8 (S)	%	106	102		
4-Bromofluorobenzene (S)	%	92	88		
Dibromofluoromethane (S)	%	113	113		
1,2-Dichloroethane-d4 (S)	%	110	109		

Laboratory Certification IDs
NC Wastewater 12
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QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

QC Batch: 56279 — Analysis Method: EPA 7470
QC Batch Method: EPA 7470 — Analysis Description: Mercury, CVAAS, in Water
Associated Lab Samples: 922215363 922215371 922215389 922215397 922215413 922215421 922215439 922215447

METHOD BLANK: 922219134
Associated Lab Samples: 922215363 922215371 922215389 922215397 922215413 922215421 922215439 922215447

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Mercury	mg/l	ND	0.0002	

LABORATORY CONTROL SAMPLE: 922219175

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Mercury	mg/l	0.0050	0.0052	103	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922219142 922219159

Parameter	Units	922209796 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Mercury	mg/l	0.00001	0.0050	0.0057	0.0053	114	106	7	

SAMPLE DUPLICATE: 922219167

Parameter	Units	922209234 Result	DUP Result	RPD	Footnotes
Mercury	mg/l	0.00180	0.00140	24	

Laboratory Certification IDs
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QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

QC Batch: 56294 — Analysis Method: EPA 6010
QC Batch Method: EPA 3010 — Analysis Description: Metals by Trace ICP
Associated Lab Samples: 922215363 922215371 922215389 922215397 922215413 922215421 922215439 922215447

METHOD BLANK: 922219613
Associated Lab Samples: 922215363 922215371 922215389 922215397 922215413 922215421 922215439 922215447

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Arsenic	mg/l	ND	0.0050	
Barium	mg/l	ND	0.0050	
Cadmium	mg/l	ND	0.0010	
Chromium	mg/l	ND	0.0020	
Lead	mg/l	ND	0.0030	
Selenium	mg/l	ND	0.0050	
Silver	mg/l	ND	0.0020	

LABORATORY CONTROL SAMPLE: 922219654

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Arsenic	mg/l	0.2500	0.2580	103	
Barium	mg/l	0.2500	0.2710	108	
Cadmium	mg/l	0.2500	0.2580	103	
Chromium	mg/l	0.2500	0.2460	98	
Lead	mg/l	0.2500	0.2530	101	
Selenium	mg/l	0.2500	0.2540	102	
Silver	mg/l	0.2500	0.2400	96	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922219621 922219639

Parameter	Units	922214093 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Arsenic	mg/l	0.00309	0.2500	0.2500	0.2620	99	104	5	
Barium	mg/l	0.1720	0.2500	0.4340	0.4420	105	108	2	

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QUALITY CONTROL DATA

Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 922219621 922219639

Parameter	Units	922214093 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Cadmium	mg/l	0	0.2500	0.2470	0.2560	99	102	4	
Chromium	mg/l	0.00565	0.2500	0.2410	0.2510	94	98	4	
Lead	mg/l	0.00016	0.2500	0.2420	0.2500	97	100	3	
Selenium	mg/l	0.00442	0.2500	0.2410	0.2520	95	99	4	
Silver	mg/l	0.00555	0.2500	0.2410	0.2490	94	97	3	

SAMPLE DUPLICATE: 922219647

Parameter	Units	922214101 Result	DUP Result	RPD	Footnotes
Arsenic	mg/l	0.02400	0.02100	13	
Barium	mg/l	0.3500	0.3500	2	
Cadmium	mg/l	ND	ND	NC	
Chromium	mg/l	0.07800	0.07800	1	
Lead	mg/l	0.02400	0.02200	7	
Selenium	mg/l	ND	ND	NC	
Silver	mg/l	0.00240	ND	NC	

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Lab Project Number: 9232163
Client Project ID: W-S OSR 00162-516-018-01

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D) Laboratory Control Sample (Duplicate)
MS(D) Matrix Spike (Duplicate)
DUP Sample Duplicate
ND Not detected at or above adjusted reporting limit
NC Not Calculable
J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
RPD Relative Percent Difference
(S) Surrogate
[1] Recovery falls outside of QC limits, however, this compound is not found in the associated samples.
[2] The surrogate and/or spike recovery was outside acceptance limits.

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CHAIN-OF-CUSTODY / Analytical Request Document

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

641021

Page: 1 of 1

Required Client Information: Section A

Company: IDR Engineering
Address: 128 S Tryon St
Charlotte, NC 28202
Phone: 704 338.6700 Fax: 704 338.6760

Required Client Information: Section B

Report To: C. Randazzo
Copy To:
Invoice To: J. Isham
P.O.
Project Name: W-5 OSR
Project Number: 00162-516-018-01

Client Information (Check quote/contract):
Requested Due Date: *TAT: NORM

* Turn around times less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calendar days.

To Be Completed by Pace Analytical and Client: Section C

Quote Reference:
Project Manager: BILL
Project #: 91232163
Profile #:

Section D Required Client Information:

SAMPLE ID
One character per box.
(A–Z, 0–9 / .–)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes ←

MATRIX	CODE
WATER	WT
SOIL	SL
OIL	OL
WIPE	WP
AIR	AR
TISSUE	TS
OTHER	OT

Requested Analysis: 1 VOCs, RCRA METALS, PPB

ITEM #	SAMPLE ID	MATRIX CODE	DATE COLLECTED (mm/dd/yy)	TIME COLLECTED (hh:mm a/p)	# Containers	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other			Remarks / Lab ID
1	MW-2R	WT	4/17/02	1000	5	X		1	4					X	X	92215363
2	MW-6R			1100	5	X		1	4					X	X	92215371
3	MW-1R			1315	5			1	4					X	X	92215359
4	MW-3R			1400	5			1	4					X	X	92215397
5	EQUIP BLANK			1425	4				4					X		92215405
6	MW-7		4/18/02	0950	5			1	4					X	X	92215413
7	MW-4R			0945	5			1	4					X	X	92215421
8	MW-5R			0930	5			1	4					X	X	92215439
9	MW-8			1000	5			1	4					X	X	92215497
10	TRIP BLANK				2				2					X		92215959
11																
12																

SHIPMENT METHOD	AIRBILL NO.	SHIPPING DATE	NO. OF COOLERS	ITEM NUMBER	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
				1-10	Chris Randazzo / IDR	4/18/02				

SAMPLE CONDITION

Temp in °C	7
Received on Ice	Y/N
Sealed Cooler	Y/N
Samples Intact	Y/N

SAMPLE NOTES

Additional Comments:

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chris Randazzo
SIGNATURE of SAMPLER: [signature]
DATE Signed: (MM/DD/YY) 4/18/02

SEE REVERSE SIDE FOR INSTRUCTIONS

Form COC01 Rev 0601

PERIMETER GAS PROBE MONITORING
FIELD DATA FORM

FORM 1

Date: 4/17/2002	Inspector: C.Randazzo	Site Name: Old Salisbury Road C&D Landfill	Instrument (%)-S/No.: Gas Port Instrument (%)-M/No.:
Temperature @ Start: 80°F Temperature @ End: 80°F		Weather: Clear Barometric Pressure: NA	Legend: T = Trace CO = Carbon monoxide W = Water NA = No reading taken ppm = Parts per million LEL = Lower explosive limit

MM #	Time	Static Pressure	Methane (%/ppm)	Oxygen (%)	CO_2 (ppm)	Remarks
1	0930	NA	0 / 0.0	19.6	0	
2S	1040	NA	0 / 0.0	19.9	0	
2D	1045	NA	0 / 0.0	20.0	0	
3	1330	NA	0 / 0.0	21.0	0	CO peak @ 1 ppm
4S	1500	NA	0 / 0.0	21.1	0	
4D	1505	NA	0 / 0.0	21.1	0	CO peak @ 1 ppm
5	1415	NA	0 / 0.0	18.9	0	
6	1450	NA	0 / 0.0	18.2	0	

HDR
HDR Engineering, Inc.

PRE-SAMPLING WELL PURGING

PROJECT W-S: OSR
WELL NUMBER MW-1R
WELL INSIDE DIAMETER 2 INCHES
DEPTH OF BOTTOM 62.30 FEET
LENGTH OF GRAVEL PACK _____ FEET
DIAMETER OF GRAVEL PACK _____ INCHES

PROJECT NUMBER 00162-516018-01
DATE 4/17/02 PAGE 1 OF 1
AIR TEMPERATURE (FAHRENHEIT) 87
WEATHER CONDITIONS CLEAR
HNU/OVA READING _____
METHOD OF EVACUATION AND TYPE OF EQUIPMENT USED
DISPOSABLE BAILER

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE	41.53				
WATER LEVEL AFTER					
TIME BEGIN FLUSHING	12:20				
TIME END FLUSHING				13:15	
ESTIMATED VOLUME FLUSHING (gal)	0	4	7	11	
WELL VOLUMES REMOVED	0	1.2	2.1	3.2	
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	17.7	16.2	15.9	16.6	
SAMPLE (pH)	6.08	5.98	5.98	6.09	
Eh (mV)	53.2	57.4	57.6	54.6	
CONDUCTIVITY (mS, µS)	88.6	81.1	79.5	79.7	
BUFFER (4,7)	✓				
ODOR (FAINT, MODERATE, STRONG)	None	None	None	None	
COLOR	Clear	Clear	Clear	Clear	
OTHER (RELATIVE TURBIDITY)	LOW	LOW	LOW	LOW	

COMMENTS

TEAM I.D. C.R., I.B.

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)
$\pi r^2 \times h$ = WELL VOLUME IN FT^3
π = 3.14

r = RADIUS IN INCHES/12 = RADIUS IN FEET
h = HEIGHT OF WATER COLUMN IN WELL IN FEET
CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

WELL RADIUS = 1 IN/12 = 0.083 FT
h = 62.30 (WELL DEPTH) − 41.53 (DEPTH TO WATER) = 20.77 FT = h
3.14 × 0.0069 (r^2) × h = 0.45 FT^3 × 7.48 gal/FT^3 = 1 WELL VOLUME IN GAL = 3.4

WELLPURG.DWG

HDR
HDR Engineering, Inc.

PRE-SAMPLING WELL PURGING

PROJECT W-S: OSR
WELL NUMBER MW-2R
WELL INSIDE DIAMETER 2 INCHES
DEPTH OF BOTTOM 24.64 FEET
LENGTH OF GRAVEL PACK — FEET
DIAMETER OF GRAVEL PACK _____ INCHES

PROJECT NUMBER 00162-516018-01
DATE 4/17/02 PAGE 1 OF 1
AIR TEMPERATURE (FAHRENHEIT) 80
WEATHER CONDITIONS Clear
HNU/OVA READING _____
METHOD OF EVACUATION AND TYPE OF EQUIPMENT USED
DISPOSABLE BAILER

WITHDRAWAL OF WELL VOLUMES

FLUSHING	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
WATER LEVEL BEFORE	10.80				
WATER LEVEL AFTER					
TIME BEGIN FLUSHING	0940				
TIME END FLUSHING				1000	
ESTIMATED VOLUME FLUSHING (gal)	0	3	5	7	
WELL VOLUMES REMOVED	0	1.4	2.3	3.2	
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	13.1	12.1	12.7	13.8	
SAMPLE (pH)	7.60	7.19	6.85	36.9	
Eh (mV)	-18.0	-2.0	12.6	6.39	
CONDUCTIVITY (mS, µS)	162.3 µS	129.7 µS	142.6 µS	159.2 µS	
BUFFER (4,7)	✓				
ODOR (FAINT, MODERATE, STRONG)	N	None	None	None	
COLOR	Clear	Clear	Clear	Clear	
OTHER (RELATIVE TURBIDITY)	LOW	LOW	LOW	LOW	

COMMENTS

TEAM I.D. C.R., I.B.

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)
$\pi r^2 \times h$ = WELL VOLUME IN FT^3
π = 3.14

r = RADIUS IN INCHES/12 = RADIUS IN FEET
h = HEIGHT OF WATER COLUMN IN WELL IN FEET
CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

WELL RADIUS = 1 IN/12 = 0.083 FT
h = 24.64 (WELL DEPTH) - 10.80 (DEPTH TO WATER) = 13.84 FT = h
3.14 x 0.0069 (r^2) x h = 0.3 FT^3 x 7.48 gal/FT^3 = 1 WELL VOLUME IN GAL = 2.2

WELLPURG.DWG

HDR
HDR Engineering, Inc.

PRE-SAMPLING WELL PURGING

PROJECT W-S: OSR
WELL NUMBER MW-3R
WELL INSIDE DIAMETER 2 INCHES
DEPTH OF BOTTOM 31.15 FEET
LENGTH OF GRAVEL PACK _____ FEET
DIAMETER OF GRAVEL PACK _____ INCHES

PROJECT NUMBER 00162-516018-01
DATE 04/17/02 PAGE 1 OF 1
AIR TEMPERATURE (FAHRENHEIT) 91
WEATHER CONDITIONS Clear
HNU/OVA READING _____
METHOD OF EVACUATION AND TYPE OF EQUIPMENT USED
DISPOSABLE BAILER

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE	26.50				
WATER LEVEL AFTER					
TIME BEGIN FLUSHING	13:35				
TIME END FLUSHING				1400	
ESTIMATED VOLUME FLUSHING (gal)	0	1	2	3	
WELL VOLUMES REMOVED	0	1.25	2.5	3.8	
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	15.9	15.2	14.6	14.6	
SAMPLE (pH)	5.68	5.76	5.70	5.55	
Eh (mV)	72.3	68.0	70.9	78.1	
CONDUCTIVITY (mS, µS)	101.2µS	80.0µS	76.7µS	74.0µS	
BUFFER (4,7)	✓				
ODOR (FAINT, MODERATE, STRONG)	None	None	None	None	
COLOR	Cloudy	Cloudy	Cloudy	Cloudy	
OTHER (RELATIVE TURBIDITY)	High	high	High	Low	

COMMENTS

TEAM I.D. C.R., I.B.

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)
$\pi r^2 \times h$ = WELL VOLUME IN FT^3
π = 3.14

r = RADIUS IN INCHES/12 = RADIUS IN FEET
h = HEIGHT OF WATER COLUMN IN WELL IN FEET
CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

WELL RADIUS = 1 IN/12 = 0.083 FT
h = 31.15 (WELL DEPTH) − 26.50 (DEPTH TO WATER) = 4.65 FT = h
3.14 × 0.0069 (r^2) × h = 0.10 FT^3 × 7.48 gal/FT^3 = 1 WELL VOLUME IN GAL = 0.8

WELLPURC.DWG

HDR
HDR Engineering, Inc.

PRE-SAMPLING WELL PURGING

PROJECT W-S: OSR
WELL NUMBER MW-4R
WELL INSIDE DIAMETER 2 INCHES
DEPTH OF BOTTOM 21.25 FEET
LENGTH OF GRAVEL PACK ____ FEET
DIAMETER OF GRAVEL PACK ____ INCHES

PROJECT NUMBER 00162-516018-01
DATE 04/17/02 PAGE 1 OF 1
AIR TEMPERATURE (FAHRENHEIT) 92
WEATHER CONDITIONS Clear
HNU/OVA READING ____
METHOD OF EVACUATION AND TYPE OF EQUIPMENT USED
DISPOSABLE BAILER

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE	11.88				
WATER LEVEL AFTER					
TIME BEGIN FLUSHING	15:30				
TIME END FLUSHING				1545	
ESTIMATED VOLUME FLUSHING (gal)	0	2	3	5	
WELL VOLUMES REMOVED	0	1.3	2	3.3	
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	14.2	13.1	12.8	12.7	
SAMPLE (pH)	6.00	5.91	5.92	5.95	
Eh (mV)	58.0	60.4	59.3	58.1	
CONDUCTIVITY (mS, µS)	117.3 µS	150.4 µS	142.0 µS	139.0 µS	
BUFFER (4,7)	✓				
ODOR (FAINT, MODERATE, STRONG)	N	N	N	N	
COLOR	Clear	Cloudy	Cloudy	Cloudy	
OTHER (RELATIVE TURBIDITY)	Medium	Medium	Medium	Medium	

COMMENTS
Come back to sample tomorrow
TEAM I.D. C.R., I.B.

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)
$\pi r^2 \times h$ = WELL VOLUME IN FT^3
π = 3.14
r = RADIUS IN INCHES/12 = RADIUS IN FEET
h = HEIGHT OF WATER COLUMN IN WELL IN FEET
CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

WELL RADIUS = 1 IN/12 = 0.083 FT
h = 21.25 (WELL DEPTH) − 11.88 (DEPTH TO WATER) = 9.4 FT = h
3.14 × 0.0069 (r^2) × h = 0.20 FT^3 × 7.48 gal/FT^3 = 1 WELL VOLUME IN GAL = 1.5

WELLPURG.DWG

HDR
HDR Engineering, Inc.

PRE-SAMPLING WELL PURGING

PROJECT W-S: OSR
WELL NUMBER MW1-5R
WELL INSIDE DIAMETER 2 INCHES
DEPTH OF BOTTOM 31.90 FEET
LENGTH OF GRAVEL PACK - FEET
DIAMETER OF GRAVEL PACK _____ INCHES

PROJECT NUMBER 00162-516018-01
DATE 04/18/02 PAGE 1 OF 1
AIR TEMPERATURE (FAHRENHEIT) 75
WEATHER CONDITIONS Clear
HNU/OVA READING _____
METHOD OF EVACUATION AND TYPE OF EQUIPMENT USED
DISPOSABLE BAILER

WITHDRAWAL OF WELL VOLUMES

FLUSHING	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
WATER LEVEL BEFORE	12.80				
WATER LEVEL AFTER					
TIME BEGIN FLUSHING					
TIME END FLUSHING					
ESTIMATED VOLUME FLUSHING (gal)	0	4	7	10	
WELL VOLUMES REMOVED	0	1.3	2.3	3.2	
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	13.7	13.7	14.1	14.0	
SAMPLE (pH)	6.28	6.74	6.61	6.53	
Eh (mV)	15.0	19.0	25.7	29.4	
CONDUCTIVITY (mS, µS)	154.2 µS	143.1 µS	140.9 µS	141.6 µS	
BUFFER (4,7)	✓				
ODOR (FAINT, MODERATE, STRONG)	None	None	None	None	
COLOR	CLEAR	None	Clear	Clear	
OTHER (RELATIVE TURBIDITY)	Low	Low	Low	Low	

COMMENTS	
TEAM I.D.	C.R., I.B.

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)
$\pi r^2 \times h$ = WELL VOLUME IN FT^3
π = 3.14

r = RADIUS IN INCHES/12 = RADIUS IN FEET
h = HEIGHT OF WATER COLUMN IN WELL IN FEET
CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

WELL RADIUS = 1 IN/12 = 0.083 FT
h = 31.90 (WELL DEPTH) − 12.80 (DEPTH TO WATER) = 19.1 FT = h
3.14 × 0.0069 (r^2) × h = 0.41 FT^3 × 7.48 gal/FT^3 = 1 WELL VOLUME IN GAL = 3.1

WELLPURG.DWG

HDR
HDR Engineering, Inc.

PRE-SAMPLING WELL PURGING

PROJECT W-S: OSR
WELL NUMBER MW-6R
WELL INSIDE DIAMETER 2 INCHES
DEPTH OF BOTTOM 75.30 FEET
LENGTH OF GRAVEL PACK ____ FEET
DIAMETER OF GRAVEL PACK ____ INCHES

PROJECT NUMBER 00162-516018-01
DATE 04/17/02 PAGE 1 OF 1
AIR TEMPERATURE (FAHRENHEIT) 80
WEATHER CONDITIONS Clear
HNU/OVA READING ____
METHOD OF EVACUATION AND TYPE OF EQUIPMENT USED
DISPOSABLE BAILER

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE	52.56				
WATER LEVEL AFTER					
TIME BEGIN FLUSHING	10:30				
TIME END FLUSHING				11:00	
ESTIMATED VOLUME FLUSHING (gal)	0	4	8	12	
WELL VOLUMES REMOVED	0	1.1	2.2	3.2	
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	15.5	15.0	15.1	15.1	
SAMPLE (pH)	6.55	6.46	6.37	6.30	
Eh (mV)	29.7	33.2	37.8	42.0	
CONDUCTIVITY (mS, µS)	678 µS	65.0	63.4	63.1	
BUFFER (4,7)	✓				
ODOR (FAINT, MODERATE, STRONG)	N	None	None	None	
COLOR	CLEAR	Clear	Clear	Clear	
OTHER (RELATIVE TURBIDITY)	LOW	Low	MOD	LOW	

COMMENTS
TEAM I.D. C.R., I.B.

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)
$\pi r^2 \times h$ = WELL VOLUME IN FT^3
π = 3.14
r = RADIUS IN INCHES/12 = RADIUS IN FEET
h = HEIGHT OF WATER COLUMN IN WELL IN FEET
CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

WELL RADIUS = 1 IN/12 = 0.083 FT
h = 75.30 (WELL DEPTH) − 52.56 (DEPTH TO WATER) = 22.74 FT = h
3.14 × 0.0069 (r^2) × h = 0.49 FT^3 × 7.48 gal/FT^3 = 1 WELL VOLUME IN GAL = 3.7

WELLPURG.DWG

HDR
HDR Engineering, Inc.

PRE-SAMPLING WELL PURGING

PROJECT W-S: OSR
WELL NUMBER MW-7
WELL INSIDE DIAMETER 2 INCHES
DEPTH OF BOTTOM 46.85 FEET
LENGTH OF GRAVEL PACK _____ FEET
DIAMETER OF GRAVEL PACK _____ INCHES

PROJECT NUMBER 00162-516018-01
DATE 04/17/02 PAGE 1 OF 1
AIR TEMPERATURE (FAHRENHEIT) 92
WEATHER CONDITIONS Clear
HNU/OVA READING _____
METHOD OF EVACUATION AND TYPE OF EQUIPMENT USED
DISPOSABLE BAILER

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE	40.15				
WATER LEVEL AFTER					
TIME BEGIN FLUSHING	14:20				
TIME END FLUSHING				1450	
ESTIMATED VOLUME FLUSHING (gal)	0	2	3	4	
WELL VOLUMES REMOVED	0	1.8	2.7	3.6	
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	15.4	15.0	14.8	14.9	
SAMPLE (pH)	5.82	5.83	5.80	5.93	
Eh (mV)	65.5	65.1	65.7	69.7	
CONDUCTIVITY (mS, µS)	83.7	79.5	77.8	77.5	
BUFFER (4,7)	✓				
ODOR (FAINT, MODERATE, STRONG)	None	None	None	None	
COLOR	Clear	Cloudy	Tan	Tan	
OTHER (RELATIVE TURBIDITY)	LOW	MED	MED	LOW	

COMMENTS

TEAM I.D.

Come Back to Sample tomorrow
C.R., I.B.

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)
$\pi r^2 \times h$ = WELL VOLUME IN FT^3
π = 3.14

r = RADIUS IN INCHES/12 = RADIUS IN FEET
h = HEIGHT OF WATER COLUMN IN WELL IN FEET
CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

WELL RADIUS = 1 IN/12 = 0.083 FT
h = 46.85 (WELL DEPTH) − 40.15 (DEPTH TO WATER) = 6.7 FT = h
3.14 × 0.0069 (r^2) × h = 0.15 FT^3 × 7.48 gal/FT^3 = 1 WELL VOLUME IN GAL = 1.1

WELLPURG.DWG

HDR
HDR Engineering, Inc.

PRE-SAMPLING WELL PURGING

PROJECT W-S: OSR
WELL NUMBER MW-8
WELL INSIDE DIAMETER 2 INCHES
DEPTH OF BOTTOM 29.95 FEET
LENGTH OF GRAVEL PACK - FEET
DIAMETER OF GRAVEL PACK INCHES

PROJECT NUMBER 00162-516018-01
DATE 04/17/02 PAGE 1 OF 1
AIR TEMPERATURE (FAHRENHEIT) 80
WEATHER CONDITIONS Clear
HNU/OVA READING
METHOD OF EVACUATION AND TYPE OF EQUIPMENT USED
DISPOSABLE BAILER

WITHDRAWAL OF WELL VOLUMES

	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME	WELL VOLUME
FLUSHING					
WATER LEVEL BEFORE	23.08				
WATER LEVEL AFTER					
TIME BEGIN FLUSHING	11:05				
TIME END FLUSHING				11:25	
ESTIMATED VOLUME FLUSHING (gal)	0	2	3	4	
WELL VOLUMES REMOVED	0	1.8	2.7	3.6	
FIELD ANALYSIS					
WATER TEMPERATURE (°C)	15.5	15.2	15.0	15.4	
SAMPLE (pH)	6.24	6.15	6.12	6.02	
Eh (mV)	42.0	48.6	50.0	55.4	
CONDUCTIVITY (mS, µS)	47.9µS	45.8µS	47.2	45.3	
BUFFER (4,7)	✓				
ODOR (FAINT, MODERATE, STRONG)	None	None	None	None	
COLOR	Cloudy	V. Cloudy	V. Cloudy	V. Cloudy	
OTHER (RELATIVE TURBIDITY)	High	High	High	High	

COMMENTS
Wait to Sample
TEAM I.D. C.R., I.B.

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)
$\pi r^2 \times h$ = WELL VOLUME IN FT^3
π = 3.14
r = RADIUS IN INCHES/12 = RADIUS IN FEET
h = HEIGHT OF WATER COLUMN IN WELL IN FEET
CONVERSION FROM FT^3 TO GALLONS = 7.48 gal/ft^3

WELL RADIUS = 1 IN/12 = 0.083 FT
h = 29.95 (WELL DEPTH) − 23.08 (DEPTH TO WATER) = 6.87 FT = h
3.14 × 0.0069 (r^2) × h = 0.15 FT^3 × 7.48 gal/FT^3 = 1 WELL VOLUME IN GAL = 1.1

WELLPURG.DWG

Pace Analytical™
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

641021

Page: 1 of 1

Required Client Information: **Section A**

Company: HDR Engineering
Address: 128 S. Tryon St
Charlotte, NC 28202
Phone: 704 338.6700 Fax: 704 338.6760

Required Client Information: **Section B**

Report To: C. Randazzo
Copy To:
Invoice To: J. Isham
P.O.
Project Name: W-S OSR
Project Number: 00162-516-018-01

Client Information (Check quote/contract):
Requested Due Date: *TAT: Norm

* Turn around times less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calendar days.

To Be Completed by Pace Analytical and Client **Section C**

Quote Reference:
Project Manager:
Project #:
Profile #:

Section D **Required** Client Information:

SAMPLE ID
One character per box.
(A–Z, 0–9 / .–)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
WATER	WT
SOIL	SL
OIL	OL
WIPE	WP
AIR	AR
TISSUE	TS
OTHER	OT

Requested Analysis: VOCs, METALS, RCRA

ITEM #	SAMPLE ID	MATRIX CODE	DATE COLLECTED (mm / dd / yy)	TIME COLLECTED (hh:mm a/p)	# Containers	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	VOCs	METALS	RCRA	Remarks / Lab ID
1	MW-2R	WT	4/17/02	1000	5	~~X~~ CR		1	4					X	X		
2	MW-6R			1100	5			1	4					X	X		
3	MW-1R			1315	5			1	4					X	X		
4	MW-3R			1400	5			1	4					X	X		
5	EQUIP BLANK			1425	4				4					X			
6	MW-7		4/18/02	0950	5			1	4					X	X		
7	MW-4R			0945	5			1	4					X	X		
8	MW-5R			0930	5			1	4					X	X		
9	MW-8			1000	5			1	4					X	X		
10	TRIP BLANK				2				2					X			
11																	
12																	

SHIPMENT METHOD	AIRBILL NO.	SHIPPING DATE	NO. OF COOLERS

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
1-10	Chris Randazzo / HDR	4/18/02	4:00	[illegible]	4/18	4:00

SAMPLE CONDITION

Temp in °C	
Received on Ice	Y/N
Sealed Cooler	Y/N
Samples Intact	Y/N

SAMPLE NOTES

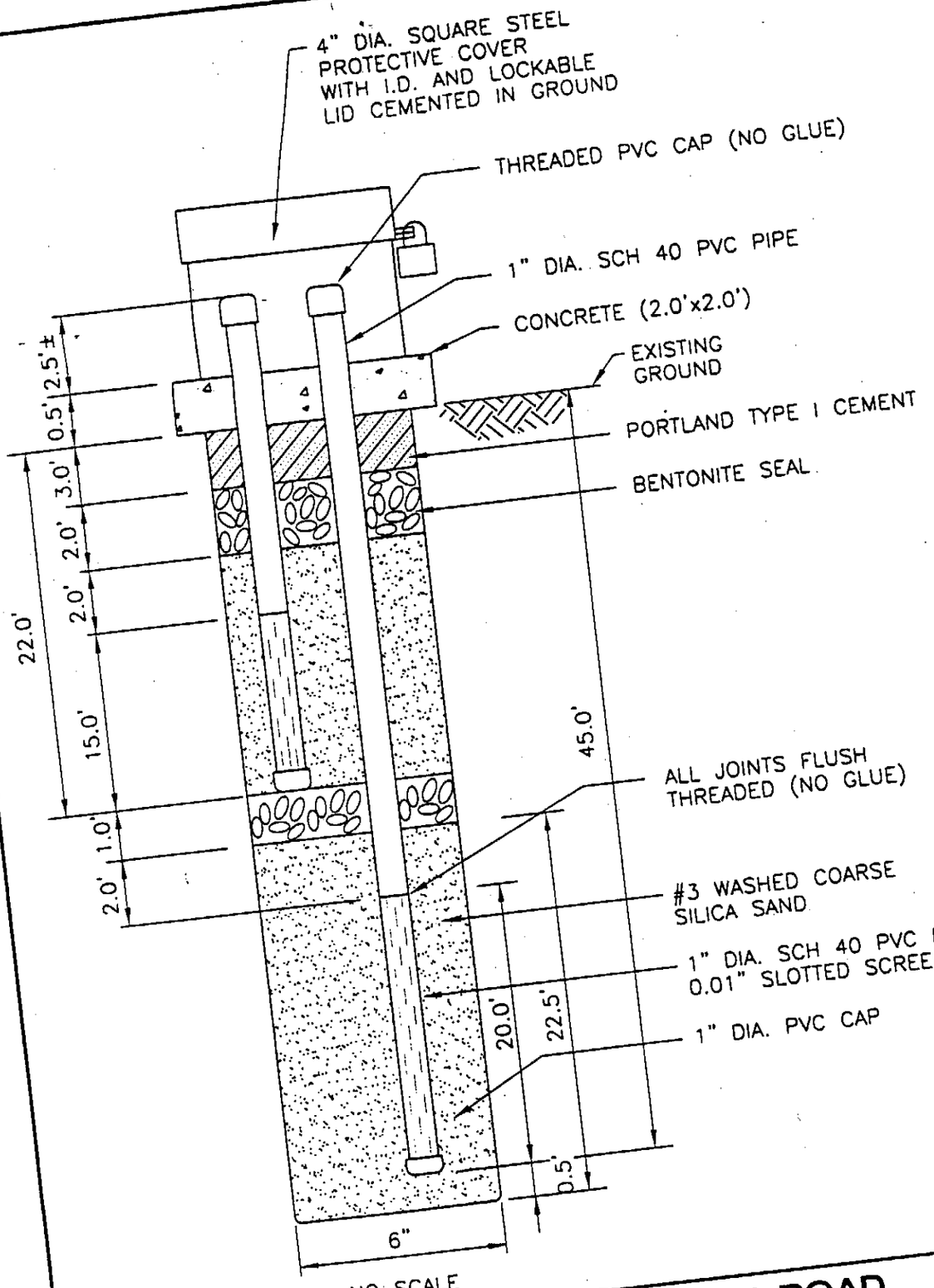
Additional Comments:

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chris Randazzo
SIGNATURE of SAMPLER: [signature]
DATE Signed: (MM / DD / YY) 4/18/02

SEE REVERSE SIDE FOR INSTRUCTIONS

Form COC01 Rev 0601



NO SCALE

MM-2S/2D

HDR

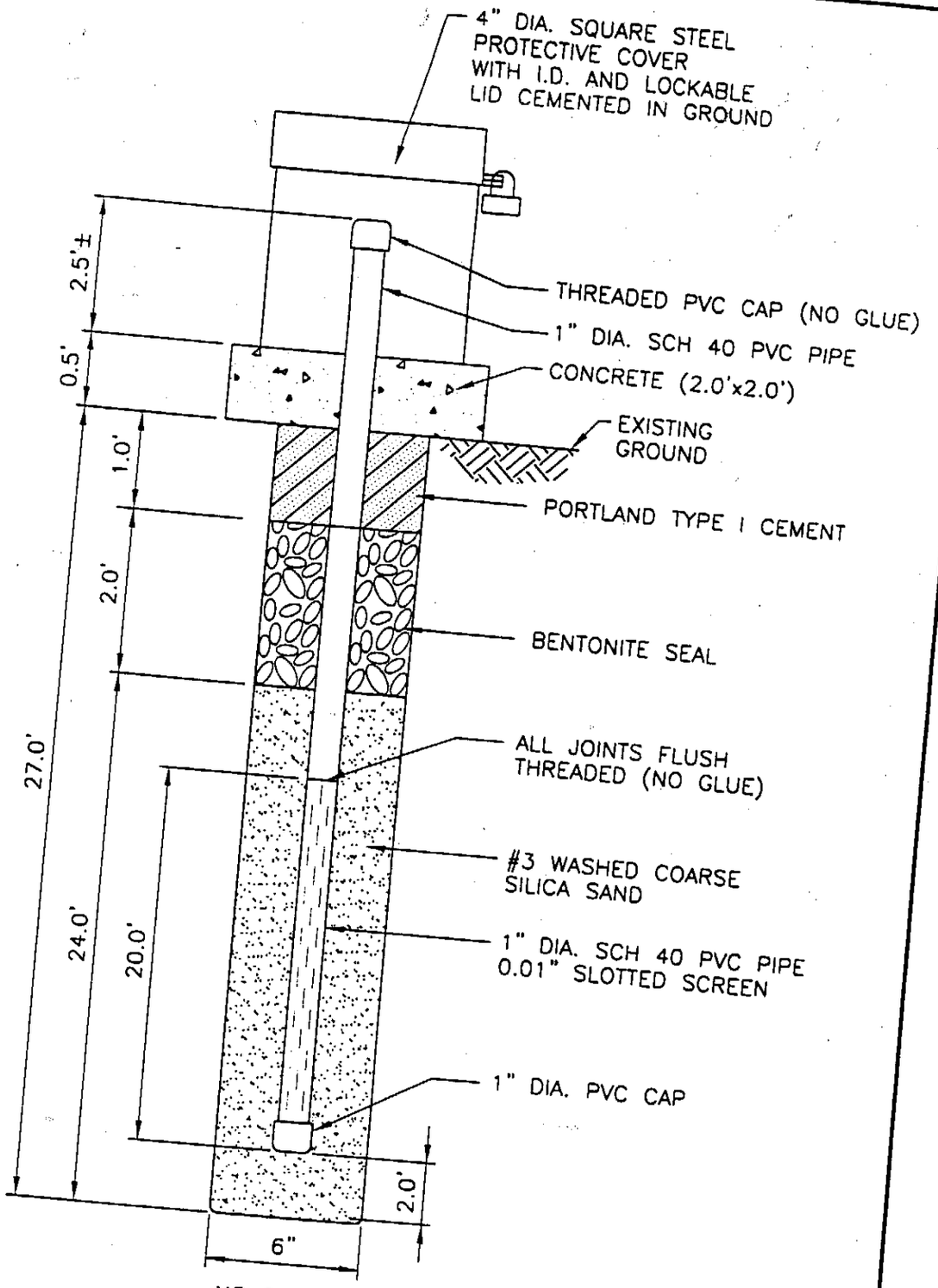
HDR Engineering, Inc. of the Carolinas
Suite 1400
128 S. Tryon Street
Charlotte, NC 28202-5001
(704) 338-1800

OLD SALISBURY ROAD C & D LANDFILL METHANE MONITORING PROBE DETAIL

Date 9/1999

Figure 2

INSL-CD\METH-F2.DWG



NO SCALE

HDR

HDR Engineering, Inc. of the Carolinas
Suite 1400
128 S. Tryon Street
Charlotte, NC 28202-5001
(704) 338-1800

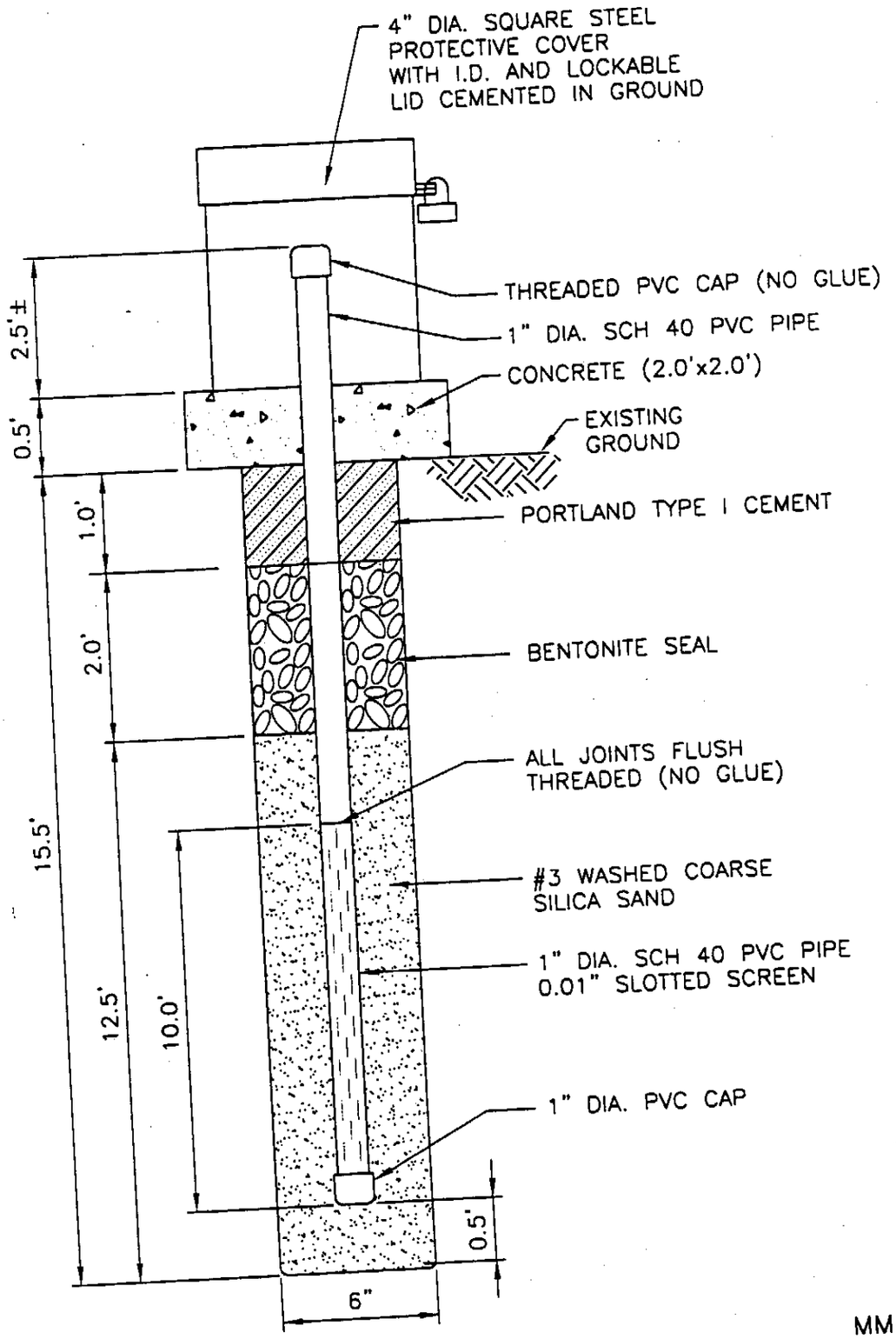
OLD SALISBURY ROAD C & D LANDFILL METHANE MONITORING PROBE DETAIL

MM-1

Date 9/1999

Figure 1

P:\WINSLCD\METH-F1.DWG



NO SCALE

MM-3

HDR

HDR Engineering, Inc. of the Carolinas

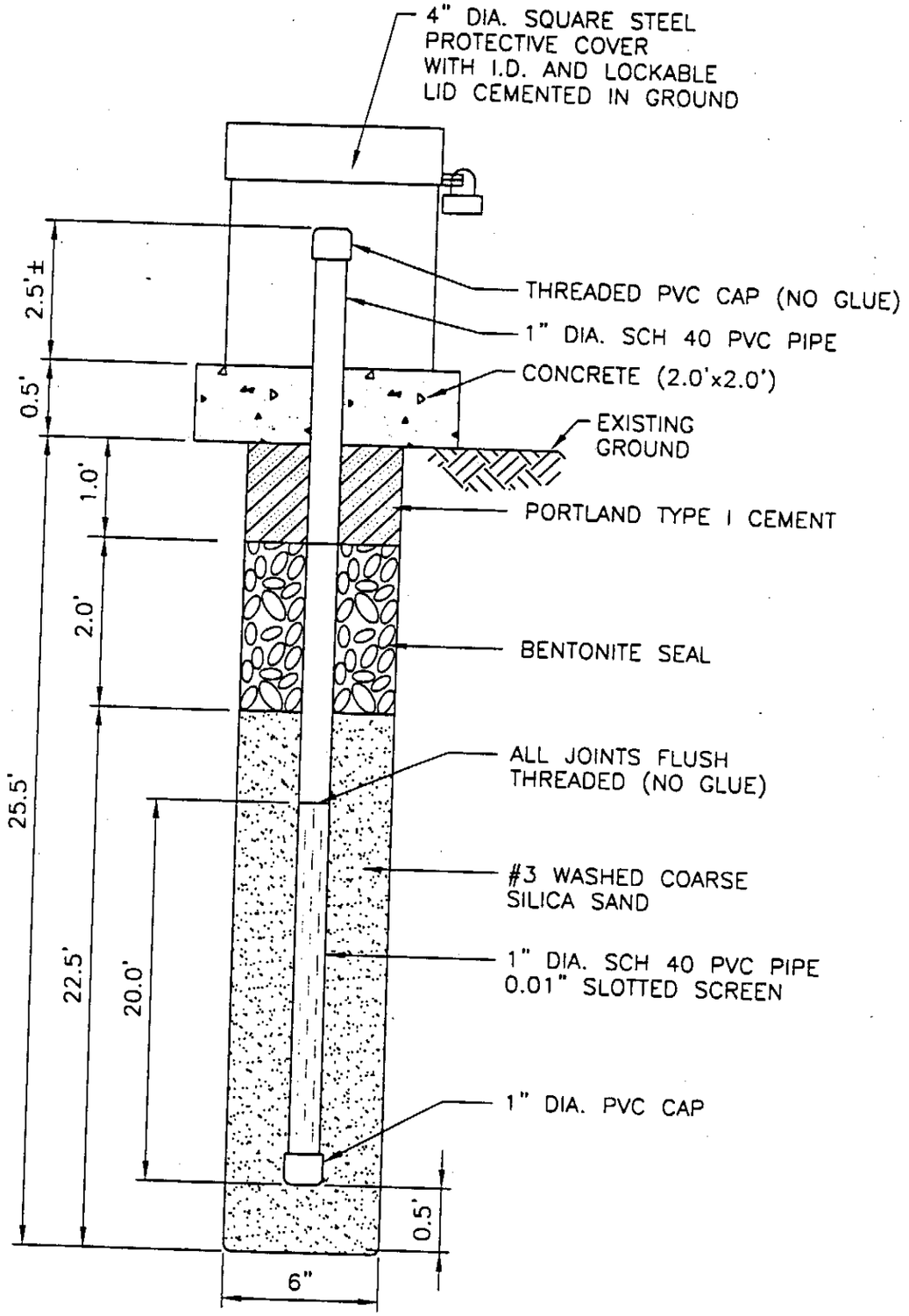
Suite 1400
128 S. Tryon Street
Charlotte, NC 28202-5001
(704) 338-1800

OLD SALISBURY ROAD C & D LANDFILL METHANE MONITORING PROBE DETAIL

Date 9/1999

Figure 3

:\WINSLCD\METH-F3.DWG



NO SCALE

MM-6

HDR Engineering, Inc. of the Carolinas
Suite 1400
128 S. Tryon Street
Charlotte, NC 28202-5001
(704) 338-1800

OLD SALISBURY ROAD C & D LANDFILL METHANE MONITORING PROBE DETAIL

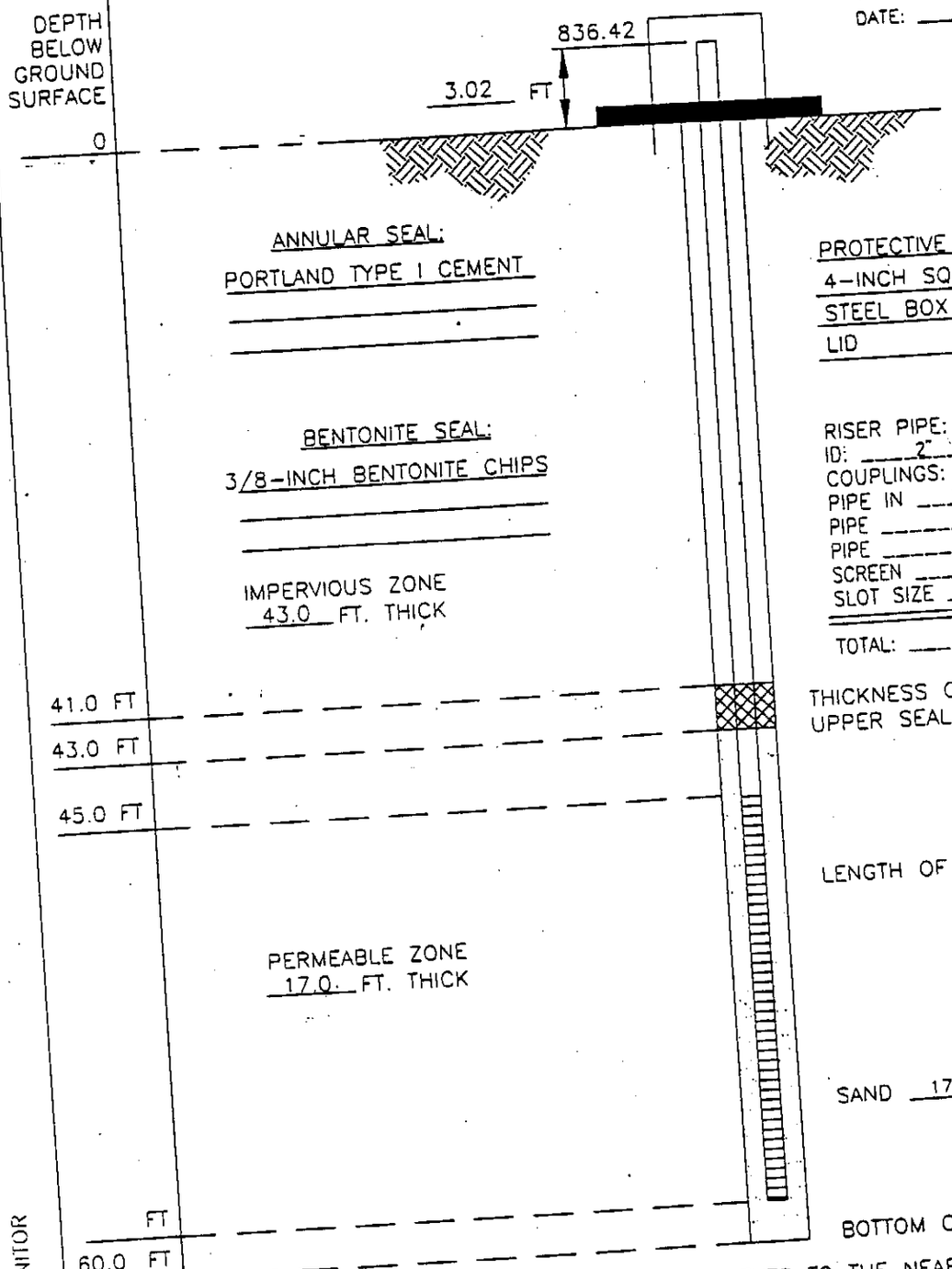
Date 9/1999

Figure 6

P:\WINSLCD\METH-F6.DWG

MONITORING WELL INSTALLATION DIAGRAM

LOCATION: WINSTON-SALEM C&D
WELL NO.: MW-1R
BORING NO.:
JOB NO.: 00162-082-018
PREPARED BY: J. ISHAM
CHECKED BY:
DATE: 12/27/95



PROTECTIVE METAL CASING
4-INCH SQUARE SILVER STEEL BOX WITH LOCKING LID

RISER PIPE: SCHEDULE 40
ID: 2" OD:
COUPLINGS: THREADED

PIPE IN	10.0	FT. LENGTHS
PIPE	1-8.0	FT
PIPE	4-10.0	FT
SCREEN	15.0	FT
SLOT SIZE	0.010	IN
TOTAL:	63.0	FT

THICKNESS OF UPPER SEAL 2.0 FT

LENGTH OF SCREEN 15.0 FT

SAND 17.0 FT

BOTTOM OF BORING

REMARKS: ALL MEASUREMENTS TO THE NEAREST 0.1 FT.

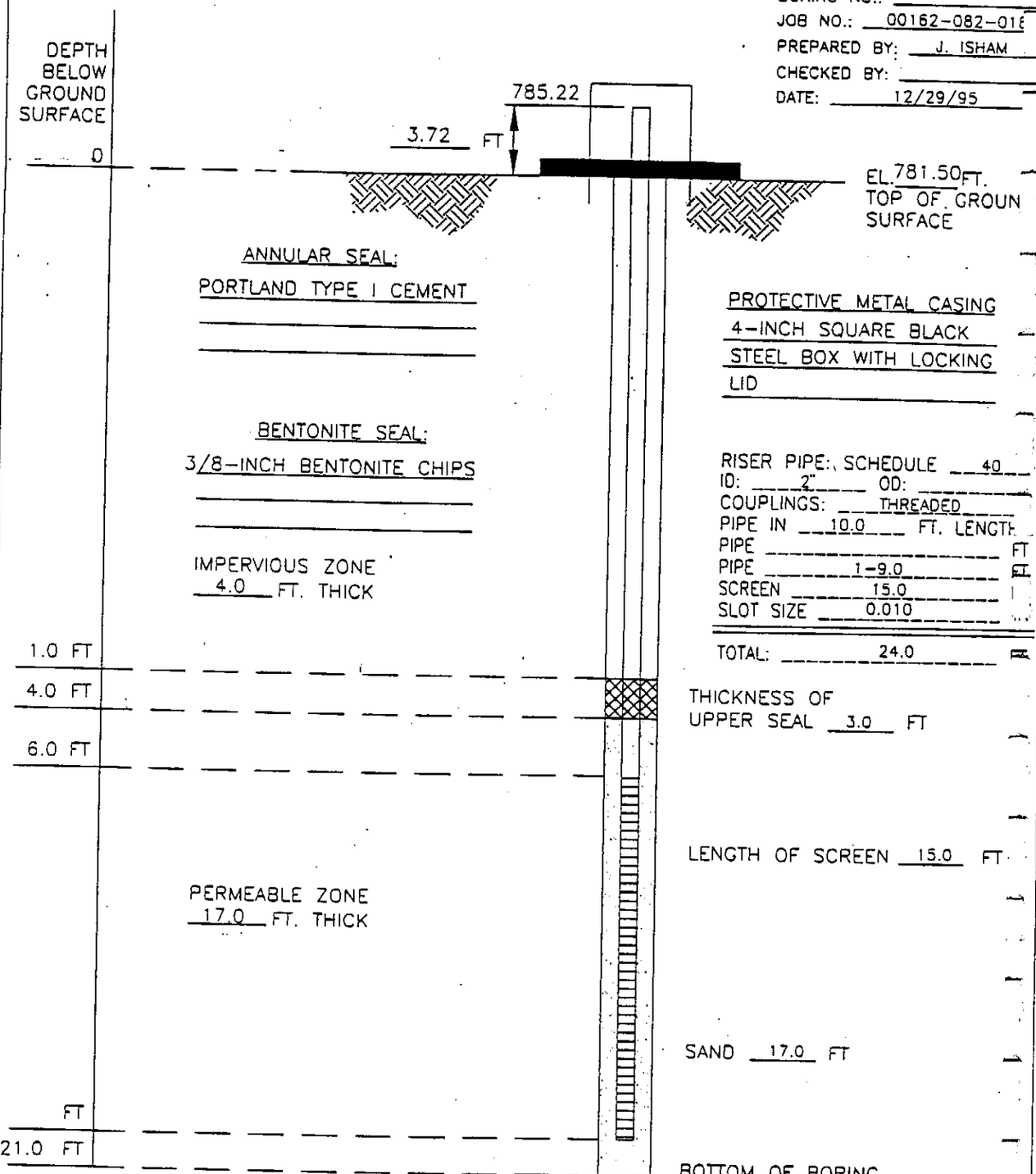
HDR

HDR Engineering, Inc.

FILENAME: MONITOR

MONITORING WELL INSTALLATION DIAGRAM

LOCATION: WINSTON-SALEM C
WELL NO.: MW-2R
BORING NO.:
JOB NO.: 00162-082-01E
PREPARED BY: J. ISHAM
CHECKED BY:
DATE: 12/29/95



REMARKS: ALL MEASUREMENTS TO THE NEAREST 0.1 FT.

HDR

HDR Engineering, Inc.

FILENAME: MONITOR

Project No: 00162-090-018

Project: Winston-Salem C&D Landfill

Client: City of Winston-Salem

Location: Old Salisbury Road

Geologist Log B-3R (MW-3R)

Ground Elevation: 772.9' MSL

Geologist: John R. Isham, PG.

HDR

Depth	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	Shear Strength blows/ft (20 40 60 80)	Well Data	Remarks
		Ground Surface	0 / 773							
0–1		***RESIDUUM*** Dark to medium brown, micaceous silty clayey sand, slightly plastic, slightly moist, organics mixed, rooted.	1 / 772							
1–7		***CLAYEY SAND (SC)*** Orange-brown to tan, micaceous clayey sand, fine to medium-grained, some quartz granules, slightly plastic, moist.	7 / 766	1		8	40%			Portland Type I Cement with 3% Bentonite; 3/8-inch Bentonite Chips
7–17.5		***SANDY CLAY (CL)*** Gray, soft, plastic, micaceous, mottled with orange-brown iron oxide staining, medium to coarse-grained quartz grains, very moist.	17.5 / 755	2		5	40%			Old Creek Deposits
				3		8	40%			
17.5–20										Granitic Saprolite

Drilled By: Engineering Tectonics, PA.

Drill Method: 4.25-inch ID HSA

Drill Date: July 7, 1999

HDR Engineering, Inc. of the Carolinas
128 S. Tryon Street
Suite 1400
Charlotte, NC. 28202

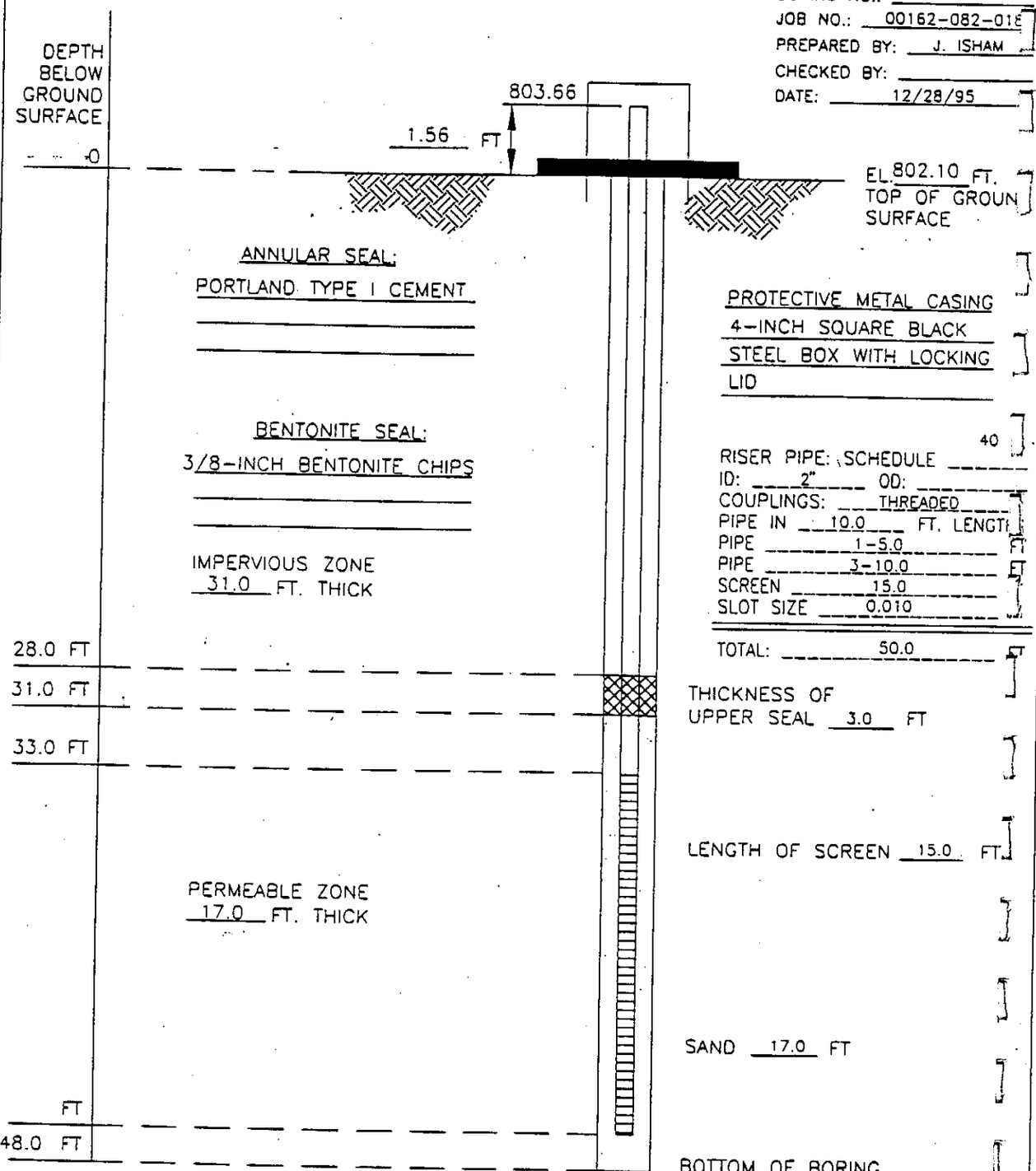
Hole Size 8-inch Diameter

Top-of-Casing 776.6' MSL

Sheet: 1 of 2

MONITORING WELL INSTALLATION DIAGRAM

LOCATION: WINSTON-SALEM C
WELL NO.: MW-7
BORING NO.:
JOB NO.: 00162-082-01E
PREPARED BY: J. ISHAM
CHECKED BY:
DATE: 12/28/95



REMARKS: ALL MEASUREMENTS TO THE NEAREST 0.1 FT.

HDR

HDR Engineering, Inc.

FILENAME: MONITOR

Geologist Log B-8 (MW-8)

HDR

Project No: 00162-090-018

Project: Winston-Salem C&D Landfill

Client: City of Winston-Salem

Location: Old Salisbury Road

Ground Elevation: 759.8' MSL

Geologist: John R. Isham, PG.

SUBSURFACE PROFILE				SAMPLE						
Depth	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	Shear Strength blows/ft (20 40 60 80)	Well Data	Remarks
		Ground Surface	0 / 760							
0		*TOPSOIL* Brown silty sandy loam, rooted, organic-rich.	1 / 759							
1–2		*SANDY SILT (ML)* Tan to yellow-brown.								Portland Type I Cement with 3% Bentonite
3–7		*CLAYEY SAND (SC)* Yellow-brown to tan, micaceous, fine to coarse-grained quartz grains, mottled with iron oxide staining, very moist.		1		24	80%			3/8-inch Bentonite Chips
			8 / 752							
8–14		*SANDY CLAY (CL)* Gray and tan, fine to very coarse-grained quartz grains, iron oxide staining, no mica, plastic, sticky, very moist.		2		12	75%			Old Creek Deposits 8-23.5'
			14.5 / 745							
14–20		*CLAYEY SAND (SC)* Tan to yellow-brown, slightly plastic, fine to coarse-grained quartz grains, no structure, very moist to wet.		3		9	100%			2-inch Diameter SCH 40 PVC 0.010-inch Slots

Drilled By: Engineering Tectonics, PA.

Drill Method: 4.25-inch ID HSA

Drill Date: July 7, 1999

HDR Engineering, Inc. of the Carolinas
128 S. Tryon Street
Suite 1400
Charlotte, NC. 28202

Hole Size 8-inch Diameter

Top-of-Casing 762.5' MSL

Sheet: 1 of 2

Project No: 00162-090-018

Project: Winston-Salem C&D Landfill

Client: City of Winston-Salem

Location: Old Salisbury Road

Geologist Log B-8 (MW-8)

Ground Elevation: 759.8' MSL

Geologist: John R. Isham, PG.

HDR

SUBSURFACE PROFILE				SAMPLE						
Depth	Symbol	Description	Depth/Elev.	Number	Type	Blows/ft	Recovery	Shear Strength blows/ft 20 40 60 80	Well Data	Remarks
21		*CLAYEY GRAVEL (GM)* Yellow-brown to tan, poorly graded, large angular quartz gravel, limonite staining, very wet.	21 / 739	4		14	100%			2-inch Diameter SCH 40 PVC 0.010-inch Slots
22										
23										
24		*SILTY SAND (SM)* Brown, white and tan, micaceous, fine to very coarse-grained quartz grains, weak horizontal mineral alignment, pegmatite zone at base, wet.	23.5 / 736							
25										
26				5		14	90%			Granitic Saprolite @ 23.5'
27			27 / 733							
28		End of Borehole								
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Drilled By: Engineering Tectonics, PA.

Drill Method: 4.25-inch ID HSA

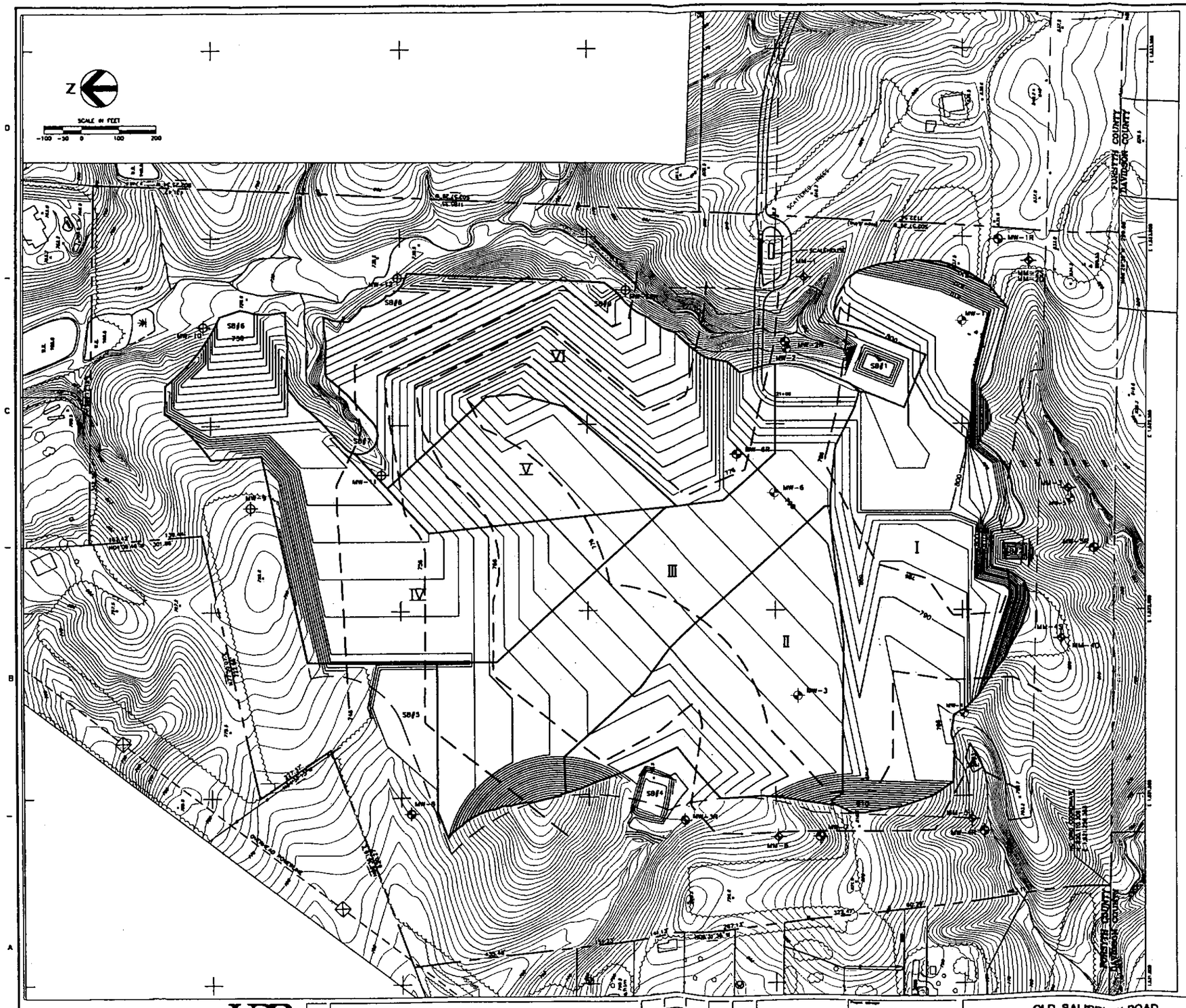
Drill Date: July 7, 1999

HDR Engineering, Inc. of the Carolinas
128 S. Tryon Street
Suite 1400
Charlotte, NC. 28202

Hole Size 8-inch Diameter

Top-of-Casing 762.5' MSL

Sheet: 2 of 2



LEGEND

- 780 — PROPOSED CONTOURS
- 840 — EXISTING CONTOURS
- PROPERTY BOUNDARY
- COUNTY LINE
- STREAM
- POTENTIAL EXTENT OF WASTE
- PROPOSED PHASING BOUNDARY
- SEASONAL HIGH GROUND-WATER CONTOURS
- EXISTING GROUND-WATER MONITORING WELL
- EXISTING METHANE GAS MONITORING PROBE
- PROPOSED GROUND-WATER MONITORING WELL ("R" - DENOTES REPLACEMENT WELL)
- ABANDONED MONITORING WELLS
- PRIVATE WATER SUPPLY WELL
- SB#2 SEDIMENTATION BASIN

NOTES

1. TOPOGRAPHIC INFORMATION PROVIDED BY CARTOGRAPHIC AERIAL MAPPING DATED NOVEMBER 12, 1993.
2. PROPERTY SURVEY TAKEN FROM DATA SUPPLIED BY BRADY SURVEYING, INC. DATED MARCH 15, 1994.
3. THIS DRAWING SHOWS ABANDONED, EXISTING AND PROPOSED MONITORING WELLS, AND METHANE GAS MONITORING PROBES.
4. S - DEPICTS SHALLOW
   D - DEPICTS DEEP

MW-8 Location?

HDR

HDR Engineering, Inc. of the Carolinas

C	ADDED METHANE GAS PROBES MW-1 TO MW-6	8/22/96	GRH
			GRH
			GRH

Project Manager: J.C. HEADLINE, P.E.
Designed: G.R./Phillips
Drawn: G.A. WRIGHT, P.E.
Checked: Submitted

OLD SALISBURY ROAD
CONSTRUCTION AND DEMOLITION LANDFILL
PHASE II AND III

EXIST. AND PROP. GROUND-WATER MONITORING WELL AND METHANE GAS PROBE LOCATIONS