

9606-MSWLF-1998

96-06
Lined
.1600

Carmen Johnson

Fac/Perm/Co ID#	Date	Doc ID#
96-06	7/24/12	DIN

Semi-Annual Groundwater Sampling and Analysis Report

Prepared for

Wayne County Subtitle D Landfill
Dudley, North Carolina

August, 2004

Subitled

MW-2012
Lead > 2L
(natural)

Leachate
2-Butanone > 2L



MESCO Project Number: G04016.0

Completed on December 1, 2004



Municipal Engineering Services Company, P.A.
Garner, Boone and Morehead City, North Carolina

**Municipal
Services**



**Engineering
Company, P.A.**

December 1, 2004

Mr. Larry Rose
Solid Waste Section
Division of Waste Management
North Carolina Department of Environment and Natural Resources
401 Oberlin Road, Suite 150
Raleigh, NC 27605

Re: Groundwater Sampling and Analysis
Wayne County Subtitle D Landfill
MESCO Project No. G04016.0

Dear Mr. Rose:

The Wayne County Subtitle D Lined Landfill was sampled and analyzed for the Appendix I list of constituents by Environment 1, Inc. of Greenville on August 26, 2004. This semiannual event also coincided with the phase 2 baseline event #2. The results of the laboratory analyses for both the phase 1 & 2 lined landfills are included herein.

All detected constituents were analyzed for regulatory exceedance with reference to North Carolina Groundwater Standards. The results are shown in the enclosed table titled "Exceedance Scan". The following table summarizes those constituents that exceeded the Standard.

Table 1. Exceedance Summary

Well	Lead
MW-2	x
MW-12	x

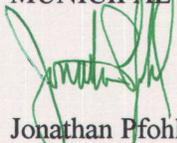
x=concentration greater than Standard

A few metals continue to be detected within the monitoring locations. Lead was detected within MW-2 and MW-12 in exceedance of the Standard. However the lead is likely of natural origin and not a product of leachate contamination.

MESCO completed the groundwater report including a potentiometric map with groundwater flow rates and direction for the sampling event. Statistical analyses will be conducted shortly on all detected constituents for inter-well and intra-well comparisons, and the results will be submitted to the Section upon completion. The landfill will continue detection monitoring and will be sampled for the Appendix I list of constituents in February 2005. The 4 independent phase 2 baseline

sampling events will also be completed prior to the next sampling event. If you have any questions regarding this report, please contact me by phone at (919) 772-5393 or by email at jpfohl@meco.com.

Sincerely,
MUNICIPAL ENGINEERING SERVICES CO., P.A.



Jonathan Pfohl
Environmental Specialist

Enclosures

cc: Mr. Lloyd Cook
Wayne County

Exceedance Scan
Wayne Co. Subtitle D Landfill

Well ID	Parameter Name ¹	Sample Date	Result	Unit	PQL ²	MCL ³	Exceedance
MW-1	Chromium, total	8/26/2004	0.033	mg/l	0.01	0.05	
MW-1	Vanadium	8/26/2004	0.061	mg/l	0.04	-	
MW-10	Chromium, total	8/26/2004	0.011	mg/l	0.01	0.05	
MW-2	Chromium, total	8/26/2004	0.143	mg/l	0.01	0.05	0.093
MW-2	Lead, total	8/26/2004	0.014	mg/l	0.01	0.015	
MW-2	Vanadium	8/26/2004	0.213	mg/l	0.04	-	
MW-4	Arsenic, total	8/26/2004	0.015	mg/l	0.01	0.05	
MW-4	Chromium, total	8/26/2004	0.014	mg/l	0.01	0.05	
MW-6	Chromium, total	8/26/2004	0.019	mg/l	0.01	0.05	
MW-7	Chromium, total	8/26/2004	0.011	mg/l	0.01	0.05	
MW-8	Chromium, total	8/26/2004	0.013	mg/l	0.01	0.05	
MW-8	Zinc, total	8/26/2004	0.063	mg/l	0.05	2.1	
MW-9	Chromium, total	8/26/2004	0.013	mg/l	0.01	0.05	
SW-4	Cadmium, total	8/25/2004	0.002	mg/l	0.001	0.005	
SW-5	Cadmium, total	8/25/2004	0.002	mg/l	0.001	0.005	
MW-12	Beryllium, total	8/26/2004	0.003	mg/l	0.002	-	
MW-12	Lead, total	8/26/2004	0.037	mg/l	0.01	0.015	0.022
MW-12	Zinc, total	8/26/2004	0.069	mg/l	0.05	2.1	
MW-13	Cadmium, total	8/26/2004	0.002	mg/l	0.001	0.005	
SW-4	Cadmium, total	8/25/2004	0.002	mg/l	0.001	0.005	
SW-5	Cadmium, total	8/25/2004	0.002	mg/l	0.001	0.005	
LEACHATE	Arsenic, total	8/26/2004	0.011	mg/l	0.01	0.05	
LEACHATE	Chromium, total	8/26/2004	0.022	mg/l	0.01	0.05	
LEACHATE	Sulfate, total	8/26/2004	6.6	mg/l		250	
LEACHATE	Zinc, total	8/26/2004	0.92	mg/l	0.05	2.1	
LEACHATE	2-Butanone	8/26/2004	619	ug/l	100	170	449
LEACHATE	Acetone	8/26/2004	169	ug/l	100	700	
LEACHATE	Toluene	8/26/2004	21.8	ug/l	5	1000	
LEACHATE	Xylene	8/26/2004	6.4	ug/l	5	530	

¹ Table only contains detected constituents.

² PQL = Practical Quantitation Limit

³ MCL = Maximum Contaminant Level (North Carolina Groundwater Standard)

Hydrologic Properties at Monitoring Well Locations
Wayne County Subtitle D Landfill

Monitoring Well	Hydraulic Conductivity (cm/sec)	Effective Porosity (%)	Hydraulic Gradient	Flow Rate (ft/yr)	Flow Direction
MW-1	3.21E-04	31%	0.012	12.80	S89W
MW-2	1.37E-03	31%	0.008	36.15	S37W
MW-3	9.72E-04	31%	0.040	130.67	S5E
MW-4	2.33E-04	9%	0.012	32.85	S60W
MW-5	1.45E-04	9%	0.012	20.28	S87W
MW-6	8.38E-05	31%	0.012	3.43	S88W
MW-7	6.84E-05	9%	0.014	10.74	N60W
MW-8	1.68E-04	9%	0.015	28.12	S75W
MW-9	6.37E-04	31%	0.008	16.51	S4E
MW-10	4.74E-04	31%	0.075	119.25	S3E

NOTE: Data for effective porosity obtained from Design Hydrogeologic Study for Wayne County.
Hydraulic Conductivity values were obtained from slug tests performed on each monitoring well.
Hydrologic Gradient taken from the August 26, 2004 sampling event.
Flow rate (Q) is defined by the equation:

$$Q = - \frac{K}{n_e} \cdot \frac{dh}{dl}$$

where

- K = hydraulic conductivity
- n_e = effective porosity
- dh = head difference
- dl = horizontal distance

Laboratory Data

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

Drinking Water ID: 37715
Wastewater ID: 10

ID#: 6029

WAYNE CO. LANDFILL (LINED)
MR. LLOYD COOK
460B LANDFILL ROAD
DUDLEY ,NC 28333

DATE COLLECTED: 08/26/04
DATE REPORTED : 09/20/04

REVIEWED BY: _____



PARAMETERS	Monitoring Well #1	Monitoring Well #2	Monitoring Well #3	Monitoring Well #4	Monitoring Well #5	Analysis Date	Analyst	Method Code
PH (field measurement), Units	4.7	4.6	4.9	4.6	4.5	08/26/04	RJH	EPA150.1
Antimony, mg/l	<0.030	<0.030	<0.030	<0.030	<0.030	09/09/04	CMF	EPA204.2
Arsenic, mg/l	<0.010	<0.010	<0.010	0.015	<0.010	09/07/04	CMF	EPA206.2
Barium, mg/l	<0.500	<0.500	<0.500	<0.500	<0.500	08/30/04	LFJ	EPA200.7
Beryllium, mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	08/30/04	LFJ	EPA200.7
Cadmium, mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	09/08/04	CMF	EPA213.2
Cobalt, mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	08/30/04	LFJ	EPA200.7
Copper, mg/l	<0.200	<0.200	<0.200	<0.200	<0.200	08/31/04	ADD	EPA220.1
Total Chromium, mg/l	0.033	0.143	<0.010	0.014	<0.010	08/30/04	LFJ	EPA200.7
Lead, mg/l	<0.010	0.014	<0.010	<0.010	<0.010	09/07/04	CMF	EPA239.2
Nickel, mg/l	<0.050	<0.050	<0.050	<0.050	<0.050	08/30/04	LFJ	EPA200.7
Selenium, mg/l	<0.020	<0.020	<0.020	<0.020	<0.020	09/13/04	CMF	EPA270.2
Silver, mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	08/30/04	LFJ	EPA200.7
Thallium, mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	09/16/04	CMF	EPA279.2
Vanadium, mg/l	0.061	0.213	<0.040	<0.040	<0.040	08/30/04	LFJ	EPA200.7
Zinc, mg/l	<0.050	<0.050	<0.050	<0.050	<0.050	09/01/04	ADD	EPA7950
Conductivity (at 25c), uMhos	52	128	150	36	34	08/26/04	RJH	SM2510B
Temperature, °C	20	21	20	17	18	08/26/04	RJH	SM2550B
Static Water Level, Feet	11.70	9.33	5.00	15.27	16.20	08/26/04	RJH	
Well Depth, feet	25.03	21.98	22.58	27.35	26.15	08/26/04	RJH	



Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

Drinking Water ID: 37715
Wastewater ID: 10

ID#: 6029

WAYNE CO. LANDFILL (LINED)
MR. LLOYD COOK
460B LANDFILL ROAD
DUDLEY ,NC 28333

DATE COLLECTED: 08/26/04
DATE REPORTED : 09/20/04

REVIEWED BY: 

PARAMETERS	Monitoring Well #6	Monitoring Well #7	Monitoring Well #8	Monitoring Well #9	Monitoring Well #10	Analysis Date	Analyst	Method Code
PH (field measurement), Units	4.5	4.7	4.9	4.5	4.4	08/26/04	RJH	EPA150.1
Antimony, mg/l	<0.030	<0.030	<0.030	<0.030	<0.030	09/09/04	CMF	EPA204.2
Arsenic, mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	09/07/04	CMF	EPA206.2
Barium, mg/l	<0.500	<0.500	<0.500	<0.500	<0.500	08/30/04	LFJ	EPA200.7
Beryllium, mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	08/30/04	LFJ	EPA200.7
Cadmium, mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	09/08/04	CMF	EPA213.2
Cobalt, mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	08/30/04	LFJ	EPA200.7
Copper, mg/l	<0.200	<0.200	<0.200	<0.200	<0.200	08/31/04	ADD	EPA220.1
Total Chromium, mg/l	0.019	0.011	0.013	0.013	0.011	08/30/04	LFJ	EPA200.7
Lead, mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	09/07/04	CMF	EPA239.2
Nickel, mg/l	<0.050	<0.050	<0.050	<0.050	<0.050	08/30/04	LFJ	EPA200.7
Selenium, mg/l	<0.020	<0.020	<0.020	<0.020	<0.020	09/13/04	CMF	EPA270.2
Silver, mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	08/30/04	LFJ	EPA200.7
Thallium, mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	09/16/04	CMF	EPA279.2
Vanadium, mg/l	<0.040	<0.040	<0.040	<0.040	<0.040	08/30/04	LFJ	EPA200.7
Zinc, mg/l	<0.050	<0.050	0.063	<0.050	<0.050	09/01/04	ADD	EPA7950
Conductivity (at 25c), uMhos	32	52	40	35	33	08/26/04	RJH	SM2510B
Temperature, °C	19	21	20	21	21	08/26/04	RJH	SM2550B
Static Water Level, Feet	16.01	5.84	7.65	10.98	12.34	08/26/04	RJH	
Well Depth, feet	27.19	22.63	22.69	24.03	25.19	08/26/04	RJH	

Environment 1, Incorporated

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Drinking Water ID: 37715
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WAYNE CO. LANDFILL (LINED)
MR. LLOYD COOK
460B LANDFILL ROAD
DUDLEY ,NC 28333

DATE COLLECTED: 08/26/04
DATE REPORTED : 09/20/04

REVIEWED BY: 

PARAMETERS	Leachate Canal	Trip Blank	Duplicate (well 9)	Equipment Blank	Analysis Date	Analyst	Method Code
PH (field measurement), Units	6.5				08/26/04	RJH	EPA150.1
BOD, mg/l	500				08/26/04	TRB	SM5210B
COD, mg/l	904				08/31/04	TRB	HACH8000
Nitrate-Nitrite, mg/l	<0.04				08/27/04	CAI	EPA353.2
Total Phosphorus, mg/l	1.29				08/30/04	CAI	EPA365.4
Antimony, mg/l	<0.030	<0.030	<0.030	<0.030	09/09/04	CMF	EPA204.2
Arsenic, mg/l	0.011	<0.010	<0.010	<0.010	09/07/04	CMF	EPA206.2
Barium, mg/l	<0.500	<0.500	<0.500	<0.500	08/30/04	LFJ	EPA200.7
Beryllium, mg/l	<0.002	<0.002	<0.002	<0.002	08/30/04	LFJ	EPA200.7
Cadmium, mg/l	<0.001	<0.001	<0.001	<0.001	09/08/04	CMF	EPA213.2
Cobalt, mg/l	<0.010	<0.010	<0.010	<0.010	08/30/04	LFJ	EPA200.7
Copper, mg/l	<0.200	<0.200	<0.200	<0.200	08/31/04	ADD	EPA220.1
Total Chromium, mg/l	0.022	0.017	<0.010	<0.010	08/30/04	LFJ	EPA200.7
Lead, mg/l	<0.010	<0.010	<0.010	<0.010	09/07/04	CMF	EPA239.2
Nickel, mg/l	<0.050	<0.050	<0.050	<0.050	08/30/04	LFJ	EPA200.7
Selenium, mg/l	<0.020	<0.020	<0.020	<0.020	09/13/04	CMF	EPA270.2
Silver, mg/l	<0.010	<0.010	<0.010	<0.010	08/30/04	LFJ	EPA200.7
Thallium, mg/l	<0.010	<0.010	<0.010	<0.010	09/16/04	CMF	EPA279.2
Vanadium, mg/l	<0.040	<0.040	<0.040	<0.040	08/30/04	LFJ	EPA200.7
Zinc, mg/l	0.920	<0.050	<0.050	<0.050	09/01/04	ADD	EPA7950
Sulfate, mg/l	6.6				08/30/04	TRB	EPA375.4

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

CLIENT: WAYNE CO. LANDFILL (LINED)
MR. LLOYD COOK
460B LANDFILL ROAD
DUDLEY, NC 28333

CLIENT ID: 6029
ANALYST: MAO
DATE COLLECTED: 08/26/04
DATE REPORTED: 09/20/04

Page: 1

REVIEWED BY: 

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	Date Analyzed: 09/08/04 Monitoring Well #1	09/07/04 Monitoring Well #2	09/07/04 Monitoring Well #3	09/07/04 Monitoring Well #4	09/07/04 Monitoring Well #5
1. Chloromethane	<10.00	<10.00	<10.00	<10.00	<10.00
2. Vinyl Chloride	<10.00	<10.00	<10.00	<10.00	<10.00
3. Bromomethane	<10.00	<10.00	<10.00	<10.00	<10.00
4. Chloroethane	<10.00	<10.00	<10.00	<10.00	<10.00
5. Trichlorofluoromethane	<5.00	<5.00	<5.00	<5.00	<5.00
6. 1,1-Dichloroethene	<5.00	<5.00	<5.00	<5.00	<5.00
7. Acetone	<100.00	<100.00	<100.00	<100.00	<100.00
8. Iodomethane	<10.00	<10.00	<10.00	<10.00	<10.00
9. Carbon Disulfide	<100.00	<100.00	<100.00	<100.00	<100.00
10. Methylene Chloride	<10.00	<10.00	<10.00	<10.00	<10.00
11. trans-1,2-Dichloroethene	<5.00	<5.00	<5.00	<5.00	<5.00
12. 1,1-Dichloroethane	<5.00	<5.00	<5.00	<5.00	<5.00
13. Vinyl Acetate	<50.00	<50.00	<50.00	<50.00	<50.00
14. Cis-1,2-Dichloroethene	<5.00	<5.00	<5.00	<5.00	<5.00
15. 2-Butanone	<100.00	<100.00	<100.00	<100.00	<100.00
16. Bromochloromethane	<5.00	<5.00	<5.00	<5.00	<5.00
17. Chloroform	<5.00	<5.00	<5.00	<5.00	<5.00
18. 1,1,1-Trichloroethane	<5.00	<5.00	<5.00	<5.00	<5.00
19. Carbon Tetrachloride	<10.00	<10.00	<10.00	<10.00	<10.00
20. Benzene	<5.00	<5.00	<5.00	<5.00	<5.00
21. 1,2-Dichloroethane	<5.00	<5.00	<5.00	<5.00	<5.00
22. Trichloroethene	<5.00	<5.00	<5.00	<5.00	<5.00
23. 1,2-Dichloropropane	<5.00	<5.00	<5.00	<5.00	<5.00
24. Bromodichloromethane	<5.00	<5.00	<5.00	<5.00	<5.00
25. Cis-1,3-Dichloropropene	<10.00	<10.00	<10.00	<10.00	<10.00
26. 4-Methyl-2-Pentanone	<100.00	<100.00	<100.00	<100.00	<100.00
27. Toluene	<5.00	<5.00	<5.00	<5.00	<5.00
28. trans-1,3-Dichloropropene	<10.00	<10.00	<10.00	<10.00	<10.00
29. 1,1,2-Trichloroethane	<5.00	<5.00	<5.00	<5.00	<5.00
30. Tetrachloroethene	<5.00	<5.00	<5.00	<5.00	<5.00
31. 2-Hexanone	<50.00	<50.00	<50.00	<50.00	<50.00
32. Dibromochloromethane	<5.00	<5.00	<5.00	<5.00	<5.00
33. 1,2-Dibromoethane	<5.00	<5.00	<5.00	<5.00	<5.00
34. Chlorobenzene	<5.00	<5.00	<5.00	<5.00	<5.00
35. 1,1,1,2-Tetrachloroethane	<5.00	<5.00	<5.00	<5.00	<5.00
36. Ethylbenzene	<5.00	<5.00	<5.00	<5.00	<5.00
37. Xylenes	<5.00	<5.00	<5.00	<5.00	<5.00
38. Dibromomethane	<10.00	<10.00	<10.00	<10.00	<10.00
39. Styrene	<10.00	<10.00	<10.00	<10.00	<10.00
40. Bromoform	<5.00	<5.00	<5.00	<5.00	<5.00
41. 1,1,2,2-Tetrachloroethane	<5.00	<5.00	<5.00	<5.00	<5.00
42. 1,2,3-Trichloropropane	<15.00	<15.00	<15.00	<15.00	<15.00
43. 1,4-Dichlorobenzene	<5.00	<5.00	<5.00	<5.00	<5.00
44. 1,2-Dichlorobenzene	<5.00	<5.00	<5.00	<5.00	<5.00
45. 1,2-Dibromo-3-Chloropropane	<25.00	<25.00	<25.00	<25.00	<25.00
46. Acrylonitrile	<200.00	<200.00	<200.00	<200.00	<200.00
47. trans-1,4-Dichloro-2-Butene	<100.00	<100.00	<100.00	<100.00	<100.00

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CLIENT ID: 6029

ANALYST: MAO

DATE COLLECTED: 08/26/04

Page: 2

DATE REPORTED: 09/20/04

 REVIEWED BY: 
**VOLATILE ORGANICS
 EPA METHOD 8260B**

PARAMETERS, ug/l	Date Analyzed: 09/08/04 Monitoring Well #6	09/08/04 Monitoring Well #7	09/08/04 Monitoring Well #8	09/08/04 Monitoring Well #9	09/08/04 Monitoring Well #10
1. Chloromethane	<10.00	<10.00	<10.00	<10.00	<10.00
2. Vinyl Chloride	<10.00	<10.00	<10.00	<10.00	<10.00
3. Bromomethane	<10.00	<10.00	<10.00	<10.00	<10.00
4. Chloroethane	<10.00	<10.00	<10.00	<10.00	<10.00
5. Trichlorofluoromethane	<5.00	<5.00	<5.00	<5.00	<5.00
6. 1,1-Dichloroethene	<5.00	<5.00	<5.00	<5.00	<5.00
7. Acetone	<100.00	<100.00	<100.00	<100.00	<100.00
8. Iodomethane	<10.00	<10.00	<10.00	<10.00	<10.00
9. Carbon Disulfide	<100.00	<100.00	<100.00	<100.00	<100.00
10. Methylene Chloride	<10.00	<10.00	<10.00	<10.00	<10.00
11. trans-1,2-Dichloroethene	<5.00	<5.00	<5.00	<5.00	<5.00
12. 1,1-Dichloroethane	<5.00	<5.00	<5.00	<5.00	<5.00
13. Vinyl Acetate	<50.00	<50.00	<50.00	<50.00	<50.00
14. Cis-1,2-Dichloroethene	<5.00	<5.00	<5.00	<5.00	<5.00
15. 2-Butanone	<100.00	<100.00	<100.00	<100.00	<100.00
16. Bromochloromethane	<5.00	<5.00	<5.00	<5.00	<5.00
17. Chloroform	<5.00	<5.00	<5.00	<5.00	<5.00
18. 1,1,1-Trichloroethane	<5.00	<5.00	<5.00	<5.00	<5.00
19. Carbon Tetrachloride	<10.00	<10.00	<10.00	<10.00	<10.00
20. Benzene	<5.00	<5.00	<5.00	<5.00	<5.00
21. 1,2-Dichloroethane	<5.00	<5.00	<5.00	<5.00	<5.00
22. Trichloroethene	<5.00	<5.00	<5.00	<5.00	<5.00
23. 1,2-Dichloropropane	<5.00	<5.00	<5.00	<5.00	<5.00
24. Bromodichloromethane	<5.00	<5.00	<5.00	<5.00	<5.00
25. Cis-1,3-Dichloropropene	<10.00	<10.00	<10.00	<10.00	<10.00
26. 4-Methyl-2-Pentanone	<100.00	<100.00	<100.00	<100.00	<100.00
27. Toluene	<5.00	<5.00	<5.00	<5.00	<5.00
28. trans-1,3-Dichloropropene	<10.00	<10.00	<10.00	<10.00	<10.00
29. 1,1,2-Trichloroethane	<5.00	<5.00	<5.00	<5.00	<5.00
30. Tetrachloroethene	<5.00	<5.00	<5.00	<5.00	<5.00
31. 2-Hexanone	<50.00	<50.00	<50.00	<50.00	<50.00
32. Dibromochloromethane	<5.00	<5.00	<5.00	<5.00	<5.00
33. 1,2-Dibromoethane	<5.00	<5.00	<5.00	<5.00	<5.00
34. Chlorobenzene	<5.00	<5.00	<5.00	<5.00	<5.00
35. 1,1,1,2-Tetrachloroethane	<5.00	<5.00	<5.00	<5.00	<5.00
36. Ethylbenzene	<5.00	<5.00	<5.00	<5.00	<5.00
37. Xylenes	<5.00	<5.00	<5.00	<5.00	<5.00
38. Dibromomethane	<10.00	<10.00	<10.00	<10.00	<10.00
39. Styrene	<10.00	<10.00	<10.00	<10.00	<10.00
40. Bromoform	<5.00	<5.00	<5.00	<5.00	<5.00
41. 1,1,2,2-Tetrachloroethane	<5.00	<5.00	<5.00	<5.00	<5.00
42. 1,2,3-Trichloropropane	<15.00	<15.00	<15.00	<15.00	<15.00
43. 1,4-Dichlorobenzene	<5.00	<5.00	<5.00	<5.00	<5.00
44. 1,2-Dichlorobenzene	<5.00	<5.00	<5.00	<5.00	<5.00
45. 1,2-Dibromo-3-Chloropropane	<25.00	<25.00	<25.00	<25.00	<25.00
46. Acrylonitrile	<200.00	<200.00	<200.00	<200.00	<200.00
47. trans-1,4-Dichloro-2-Butene	<100.00	<100.00	<100.00	<100.00	<100.00

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

CLIENT: WAYNE CO. LANDFILL (LINED)
MR. LLOYD COOK
460B LANDFILL ROAD
DUDLEY, NC 28333

CLIENT ID: 6029

ANALYST: MAO
DATE COLLECTED: 08/26/04
DATE REPORTED: 09/20/04

Page: 3

REVIEWED BY: 

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	Date Analyzed: 09/08/04 Leachate Canal	09/07/04 Trip Blank	09/08/04 Duplicate (well 9)	09/07/04 Equipment Blank
1. Chloromethane	<10.00	<10.00	<10.00	<10.00
2. Vinyl Chloride	<10.00	<10.00	<10.00	<10.00
3. Bromomethane	<10.00	<10.00	<10.00	<10.00
4. Chloroethane	<10.00	<10.00	<10.00	<10.00
5. Trichlorofluoromethane	<5.00	<5.00	<5.00	<5.00
6. 1,1-Dichloroethene	<5.00	<5.00	<5.00	<5.00
7. Acetone	169.00	<100.00	<100.00	<100.00
8. Iodomethane	<10.00	<10.00	<10.00	<10.00
9. Carbon Disulfide	<100.00	<100.00	<100.00	<100.00
10. Methylene Chloride	<10.00	<10.00	<10.00	<10.00
11. trans-1,2-Dichloroethene	<5.00	<5.00	<5.00	<5.00
12. 1,1-Dichloroethane	<5.00	<5.00	<5.00	<5.00
13. Vinyl Acetate	<50.00	<50.00	<50.00	<50.00
14. Cis-1,2-Dichloroethene	<5.00	<5.00	<5.00	<5.00
15. 2-Butanone	619.00	<100.00	<100.00	<100.00
16. Bromochloromethane	<5.00	<5.00	<5.00	<5.00
17. Chloroform	<5.00	<5.00	<5.00	<5.00
18. 1,1,1-Trichloroethane	<5.00	<5.00	<5.00	<5.00
19. Carbon Tetrachloride	<10.00	<10.00	<10.00	<10.00
20. Benzene	<5.00	<5.00	<5.00	<5.00
21. 1,2-Dichloroethane	<5.00	<5.00	<5.00	<5.00
22. Trichloroethene	<5.00	<5.00	<5.00	<5.00
23. 1,2-Dichloropropane	<5.00	<5.00	<5.00	<5.00
24. Bromodichloromethane	<5.00	<5.00	<5.00	<5.00
25. Cis-1,3-Dichloropropene	<10.00	<10.00	<10.00	<10.00
26. 4-Methyl-2-Pentanone	<100.00	<100.00	<100.00	<100.00
27. Toluene	21.80	<5.00	<5.00	<5.00
28. trans-1,3-Dichloropropene	<10.00	<10.00	<10.00	<10.00
29. 1,1,2-Trichloroethane	<5.00	<5.00	<5.00	<5.00
30. Tetrachloroethene	<5.00	<5.00	<5.00	<5.00
31. 2-Hexanone	<50.00	<50.00	<50.00	<50.00
32. Dibromochloromethane	<5.00	<5.00	<5.00	<5.00
33. 1,2-Dibromoethane	<5.00	<5.00	<5.00	<5.00
34. Chlorobenzene	<5.00	<5.00	<5.00	<5.00
35. 1,1,1,2-Tetrachloroethane	<5.00	<5.00	<5.00	<5.00
36. Ethylbenzene	<5.00	<5.00	<5.00	<5.00
37. Xylenes	6.40	<5.00	<5.00	<5.00
38. Dibromomethane	<10.00	<10.00	<10.00	<10.00
39. Styrene	<10.00	<10.00	<10.00	<10.00
40. Bromoform	<5.00	<5.00	<5.00	<5.00
41. 1,1,2,2-Tetrachloroethane	<5.00	<5.00	<5.00	<5.00
42. 1,2,3-Trichloropropane	<15.00	<15.00	<15.00	<15.00
43. 1,4-Dichlorobenzene	<5.00	<5.00	<5.00	<5.00
44. 1,2-Dichlorobenzene	<5.00	<5.00	<5.00	<5.00
45. 1,2-Dibromo-3-Chloropropane	<25.00	<25.00	<25.00	<25.00
46. Acrylonitrile	<200.00	<200.00	<200.00	<200.00
47. trans-1,4-Dichloro-2-Butene	<100.00	<100.00	<100.00	<100.00

Environment 1, Inc.
 P.O. Box 7085, 114 Oakmont Dr.
 Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CLIENT 6029

Week: 33

WAYNE CO. LANDFILL (LINED)
 MR. LLOYD COOK
 460B LANDFILL ROAD
 DUDLEY NC 28333

(919) 689-2994

CHAIN OF CUSTODY RECORD

SAMPLE LOCATION	COLLECTION TIME		TOTAL CHLORINE, mg/l	AT COLLECTION TEMPERATURE, °C	# OF CONTAINERS	DISINFECTION			Field pH	BOD	COD	Nitrate-Nitrite	PO4	Metals	Sulfate	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2	8260 Dup. 3	PARAMETERS	CHEMICAL PRESERVATION	CONTAINER TYPE, P/G	pH CHECK (LAB)	CHLORINE NEUTRALIZED AT COLLECTION
	DATE	TIME				CHLORINE	UV	NONE																			
Trip Blank					2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																			
Duplicate (W19)	08/26/04	0855		21	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																			
Equipment Blank	08/26/04				3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																			
RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	COMMENTS:																							
Bob H. Cooper	08/26/04 2:30	Amtha Indh	8-26-04 2:30	Hoge fot																							
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	SAMPLES RECEIVED IN LAB AT 3.6 °C																							
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME																								

Instructions for completing this form are on the reverse side.

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested

CHAIN OF CUSTODY RECORD

Environment 1, Inc.
 P.O. Box 7085, 114 Oakmont Dr.
 Greenville, NC 27858

Phone (252) 756-6208 • Fax (252) 756-0633

CLIENT 6029

Week: 33

WAYNE CO. LANDFILL (LINED)
 MR. LLOYD COOK
 460B LANDFILL ROAD
 DUDLEY NC 28333

(919) 689-2994

SAMPLE LOCATION	COLLECTION		TOTAL CHLORINE mg/l AT COLLECTION	TEMPERATURE °C AT COLLECTION	# OF CONTAINERS AT COLLECTION	Field pH	BOD	COD	Nitrate-Nitrite	PO4	Metals	Sulfate	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2	8260 Dup. 3	PARAMETERS	CHEMICAL PRESERVATION	CONTAINER TYPE, P/G	pH CHECK (LAB)	CHLORINE NEUTRALIZED AT COLLECTION
	DATE	TIME																						
Monitoring Well #1	08/26/04	1145		20	6	C																		
Monitoring Well #2	08/26/04	1300		21	4	C																		
Monitoring Well #3	08/26/04	0840		20	4	C																		
Monitoring Well #4	08/26/04	0955		17	4	C																		
Monitoring Well #5	08/26/04	0940		18	4	C																		
Monitoring Well #6	08/26/04	0845		19	4	C																		
Monitoring Well #7	08/26/04	1000		21	4	C																		
Monitoring Well #8	08/26/04	1030		20	4	C																		
Monitoring Well #9	08/26/04	0855		21	4	C																		
Monitoring Well #10	08/26/04	0910		21	6	C																		
Leachate Canal	08/26/04	1010		21	9	C																		
RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME	COMMENTS:																				
Bob Hogue	08/26/04 12:30	A. Smith	8/26/04 2:30	SAMPLER RECEIVED IN LAB AT 3.4°C																				
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME																					
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME																					

Environment 1, Inc.

Sampled By <input checked="" type="checkbox"/> Bob Hilgoe <input checked="" type="checkbox"/> Bobby Fox Other: _____	Facility <u>WAYNE CO.</u> Project No. _____	Site ID <u>6029</u> Date (m/d/y) <u>8.25.04</u>
--	--	--

Site Description Monitoring Well Extraction Well Irrigation Well Spring Borehole Probe Other: _____

Air Temp: °C °F Weather: _____

Well Locked? yes no Damaged/Repairs Needed: _____

x TOC Description:

TOC Stickup: _____ ft. above/below ground Well Inside Diameter (ID): 2-inch 4-inch Other: _____

Site Remarks (nearby wells pumping, tide, stream stage, etc.) _____

Water Level Data Measurement Units: ft. Well or Borehole Total Depth (TD) from TOC: _____

<input checked="" type="checkbox"/> E-Tape, # 2 <input type="checkbox"/> Steel Tape <input type="checkbox"/> Other	Pre-Purge Initial	Pre-Purge Confirmation	Purging Start	During Purging	Purging End	After Sampling	Remarks
Time (hh:mm; 24-hr clock)							
Depth to Water							
Tape Correction							
Water Level (WL)							
Product Thickness							
Product Recovery <input type="checkbox"/> gallons <input type="checkbox"/> liters							

Measure water level from fixed measuring point (MP) or top of well casing (TOC). Record water depth to nearest 0.01 ft or 0.002 m, with minus (-) sign if level is above MP or TOC. If no mark on MP or TOC, measure water level from north side of casing. Measure static or pre-purging water level twice; record initial and confirmation measurements and measurement times (in 24-hour clock format). MP/TOC Stickup measurement is from ground surface to nearest 0.1 ft or 0.01 m. Depth to Water codes: N - not measured; D - dry; O - obstructed; P - pumping; F - flowing (artesian well); R - recently pumped; C - cascading. Water Level (WL) = Depth to Water - Tape Correction factor. Record free product presence at time of water level measurement; use "S" for free product thickness if sheen observed. If free product removed from well, record volume removed in gallons or liters, list product type in "Remarks" column.

Field WQ Data Purge Depth: _____ Grab Bailer Pump Description: _____

Casing Volume: [_____(TD) - _____(WL)] • [_____(Well ID)]² • [_____(Conversion Factor)] = _____ gals
 Conversion Factor = 0.0408 for feet and gallons; 0.1544 for feet and liters; 0.5066 for meters and liters; Well ID in inches

Cum. Vol. Purged Pumping Rate (Final) Meter Type Remarks

Time (hh:mm; 24-hr clock)							
pH (Temperature Corrected? <input type="checkbox"/>)	<u>4.7</u>	<u>4.6</u>	<u>4.7</u>			OAKTON	4.0/7.0/10.0 Buffers
Temperature, °C							
Dissolved Oxygen mg/L							
S Conductivity μS/cm						OAKTON	<u>1413</u> <u>498</u>
Turbidity <input type="checkbox"/> NTU							
Color/Tint							
Odor							

Record time purging starts and ends in "Purging Start" and "Purging End" columns in Water Level Data section. Cum. Vol. Purged: cumulative volume removed before sampling, in gallons or liters. Pumping Rate is gpm or Lpm, depending on box checked in casing volume calculation. Use "Final" column above for recording sample field measurements, total volume purged before sampling or average pumping rate during purging. Record equipment calibration methods, decontamination procedures, equipment failures, purge water disposal method, etc. in daily field notes. SC: Specific Conductance corrected for temperature (μS/cm at 25°C); EC: Electrical Conductivity not corrected for temperature (μS/cm). μS/cm = μmho/cm. 1 gallon (US) = 3.785 L = 0.833 Imperial gallon

Sample Data Sample Depth: _____ Grab Bailer Pump Description: _____

Field Sample ID (unique ID on bottles)	Result Code	Date (m/d/y)	Time (hh:mm)	Bottles (total to lab)	Filtered (0.45 μm)	Lab ID	Case ID	SDG ID	Remarks
<u>WELL1</u>									

Sample ID may be up to 15 characters. Sample Result Code, Date, and Time must be entered. Result Codes: P0, Primary Sample; D#, Duplicate Sample; S#, Split Sample (sent to second lab); BF#, Field Blank; BR#, Equipment Rinsate; BT#, Trip Blank; SF#, Field Spike (# = 1 to 9). Lab ID (up to 5 characters) is name of laboratory that will analyze the sample. Case ID (up to 5 characters) and SDG ID (sample delivery group, up to 15 characters) are required for blanks. Case ID may be the lab service request number or yy-mm. SDG may be lab's SDG, a cooler ID number, or mmdyyy. Enter sample preservation and handling data on chain-of-custody form. Also record detailed information about duplicate, split, rinsate, spike, and/or blank sample collection/handling in daily field notes.

Sampler's Name (print) _____	Signature _____
-------------------------------------	------------------------

Environment 1, Inc.

Sampled By <input checked="" type="checkbox"/> Bob Hilgoe <input checked="" type="checkbox"/> Bobby Fox Other:	Facility WAYNE CO. Project No.	Site ID 6029 Date (m/d/y) 8/25/04
--	---	--

Site Description Monitoring Well Extraction Well Irrigation Well Spring Borehole Probe Other:

Air Temp: °C °F Weather:

Well Locked? yes no Damaged/Repairs Needed:

x TOC Description:

TOC Stickup: _____ ft. above/below ground Well Inside Diameter (ID): 2-inch 4-inch Other:

Site Remarks (nearby wells pumping, tide, stream stage, etc.):

Water Level Data Measurement Units: ft. Well or Borehole Total Depth (TD) from TOC:

x E-Tape, # 2 <input type="checkbox"/> Steel Tape <input type="checkbox"/> Other	Pre-Purge Initial	Pre-Purge Confirmation	Purging Start	During Purging	Purging End	After Sampling	Remarks
Time (hh:mm; 24-hr clock)							
Depth to Water							
Tape Correction							
Water Level (WL)							
Product Thickness							
Product Recovery <input type="checkbox"/> gallons <input type="checkbox"/> liters							

Measure water level from fixed measuring point (MP) or top of well casing (TOC). Record water depth to nearest 0.01 ft or 0.002 m, with minus (-) sign if level is above MP or TOC. If no mark on MP or TOC, measure water level from north side of casing. Measure static or pre-purging water level twice; record initial and confirmation measurements and measurement times (in 24-hour clock format). MP/TOC Stickup measurement is from ground surface to nearest 0.1 ft or 0.01 m. Depth to Water codes: N - not measured; D - dry; O - obstructed; P - pumping; F - flowing (artesian well); R - recently pumped; C - cascading. Water Level (WL) = Depth to Water - Tape Correction factor. Record free product presence at time of water level measurement; use "S" for free product thickness if sheen observed. If free product removed from well, record volume removed in gallons or liters, list product type in "Remarks" column.

Field WQ Data Purge Depth: Grab Bailer Pump Description:

Casing Volume: [_____(TD) - _____(WL)] • [_____(Well ID)]² • [_____(Conversion Factor)] = _____ gals
 Conversion Factor = 0.0408 for feet and gallons; 0.1544 for feet and liters; 0.5066 for meters and liters; Well ID in inches

Well Goes Dry While Purging

Cum. Vol. Purged <input type="checkbox"/> Pumping Rate	Time (hh:mm; 24-hr clock)	pH (Temperature Corrected? <input type="checkbox"/>)	Temperature, °C	Dissolved Oxygen mg/L	S Conductivity μS/cm	Turbidity <input type="checkbox"/> NTU	Color/Tint	Odor	(Final)	Meter Type	Remarks
		4.6								OAKTON	4.0/7.0/10.0 Buffers
		4.6								OAKTON	1413 498

Record time purging starts and ends in "Purging Start" and "Purging End" columns in Water Level Data section. Cum. Vol. Purged: cumulative volume removed before sampling, in gallons or liters. Pumping Rate is gpm or Lpm, depending on box checked in casing volume calculation. Use "Final" column above for recording sample field measurements, total volume purged before sampling or average pumping rate during purging. Record equipment calibration methods, decontamination procedures, equipment failures, purge water disposal method, etc. in daily field notes. SC: Specific Conductance corrected for temperature (μS/cm at 25°C); EC: Electrical Conductivity not corrected for temperature (μS/cm). μS/cm = μmho/cm. 1 gallon (US) = 3.785 L = 0.833 Imperial gallon

Sample Data Sample Depth: Grab Bailer Pump Description:

Field Sample ID (unique ID on bottles)	Result Code	Date (m/d/y)	Time (hh:mm)	Bottles (total to lab)	Filtered (0.45 μm)	Lab ID	Case ID	SDG ID	Remarks
WELL 2									

Sample ID may be up to 15 characters. Sample Result Code, Date, and Time must be entered. Result Codes: P0, Primary Sample; D#, Duplicate Sample; S#, Split Sample (sent to second lab); BF#, Field Blank; BR#, Equipment Rinsate; BT#, Trip Blank; SF#, Field Spike (# = 1 to 9). Lab ID (up to 5 characters) is name of laboratory that will analyze the sample. Case ID (up to 5 characters) and SDG ID (sample delivery group, up to 15 characters) are required for blanks. Case ID may be the lab service request number or yy-mm. SDG may be lab's SDG, a cooler ID number, or mmdyy. Enter sample preservation and handling data on chain-of-custody form. Also record detailed information about duplicate, split, rinsate, spike, and/or blank sample collection/handling in daily field notes.

Sampler's Name (print)	Signature
------------------------	-----------

Environment 1, Inc.

Sampled By <input type="checkbox"/> Bob Hilgoe <input checked="" type="checkbox"/> Bobby Fox Other:	Facility <u>WAYNE CO.</u> Project No.	Site ID <u>6029</u> Date (m/d/y) <u>8.23.04</u>
--	--	--

Site Description Monitoring Well Extraction Well Irrigation Well Spring Borehole Probe Other:

Air Temp: °C °F Weather:

Well Locked? yes no Damaged/Repairs Needed:

x TOC Description:

TOC Stickup: _____ ft. above/below ground Well Inside Diameter (ID): 2-inch 4-inch Other:

Site Remarks (nearby wells pumping, tide, stream stage, etc.)

Water Level Data Measurement Units: ft. Well or Borehole Total Depth (TD) from TOC:

x E-Tape, # 2 <input type="checkbox"/> Steel Tape <input type="checkbox"/> Other	Pre-Purge Initial	Pre-Purge Confirmation	Purging Start	During Purging	Purging End	After Sampling	Remarks
Time (hh:mm; 24-hr clock)							
Depth to Water							
Tape Correction							
Water Level (WL)							
Product Thickness							
Product Recovery <input type="checkbox"/> gallons <input type="checkbox"/> liters							

Measure water level from fixed measuring point (MP) or top of well casing (TOC). Record water depth to nearest 0.01 ft or 0.002 m, with minus (-) sign if level is above MP or TOC. If no mark on MP or TOC, measure water level from north side of casing. Measure static or pre-purging water level twice; record initial and confirmation measurements and measurement times (in 24-hour clock format). MP/TOC Stickup measurement is from ground surface to nearest 0.1 ft or 0.01 m. Depth to Water codes: N - not measured; D - dry; O - obstructed; P - pumping; F - flowing (artesian well); R - recently pumped; C - cascading. Water Level (WL) = Depth to Water - Tape Correction factor. Record free product presence at time of water level measurement; use "S" for free product thickness if sheen observed. If free product removed from well, record volume removed in gallons or liters, list product type in "Remarks" column.

Field WQ Data Purge Depth: Grab Bailer Pump Description:

Casing Volume: [_____(TD) - _____(WL)] • [_____(Well ID)]² • [_____(Conversion Factor)] = _____ gals
 Conversion Factor = 0.0408 for feet and gallons; 0.1544 for feet and liters; 0.5066 for meters and liters; Well ID in inches

Well Goes Dry While Purging

<input type="checkbox"/> Cum. Vol. Purged <input type="checkbox"/> Pumping Rate					(Final)	Meter Type	Remarks
Time (hh:mm; 24-hr clock)							
pH (Temperature Corrected? <input type="checkbox"/>)	<u>4.6</u>	<u>4.8</u>	<u>4.9</u>			OAKTON	4.0/7.0/10.0 Buffers
Temperature, °C							
Dissolved Oxygen mg/L							
S Conductivity μS/cm						OAKTON	<u>1413</u> <u>498</u>
Turbidity <input type="checkbox"/> NTU							
Color/Tint							
Odor							

Record time purging starts and ends in "Purging Start" and "Purging End" columns in Water Level Data section. Cum. Vol. Purged: cumulative volume removed before sampling, in gallons or liters. Pumping Rate is gpm or Lpm, depending on box checked in casing volume calculation. Use "Final" column above for recording in casing field volume calculation. Use "Final" column above for recording sample field measurements, total volume purged before sampling or average pumping rate during purging. Record equipment calibration methods, decontamination procedures, equipment failures, purge water disposal method, etc. in daily field notes. SC: Specific Conductance corrected for temperature (μS/cm at 25°C); EC: Electrical Conductivity not corrected for temperature (μS/cm). μS/cm = μmho/cm. 1 gallon (US) = 3.785 L = 0.833 Imperial gallon

Sample Data Sample Depth: Grab Bailer Pump Description:

Field Sample ID (unique ID on bottles)	Result Code	Date (m/d/y)	Time (hh:mm)	Bottles (total to lab)	Filtered (0.45 μm)	Lab ID	Case ID	SDG ID	Remarks
<u>WELL 3</u>									

Sample ID may be up to 15 characters. Sample Result Code, Date, and Time must be entered. Result Codes: P0, Primary Sample; D#, Duplicate Sample; S#, Split Sample (sent to second lab); BF#, Field Blank; BR#, Equipment Rinsate; BT#, Trip Blank; SF#, Field Spike (# = 1 to 9). Lab ID (up to 5 characters) is name of laboratory that will analyze the sample. Case ID (up to 5 characters) and SDG ID (sample delivery group, up to 15 characters) are required for blanks. Case ID may be the lab service request number or yy-mm. SDG may be lab's SDG, a cooler ID number, or mmdyy. Enter sample preservation and handling data on chain-of-custody form. Also record detailed information about duplicate, split, rinsate, spike, and/or blank sample collection/handling in daily field notes.

Sampler's Name (print)	Signature
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Environment 1, Inc.

Sampled By <input type="checkbox"/> Bob Hilgoe <input checked="" type="checkbox"/> Bobby Fox Other:	Facility <u>WAYNE CO.</u>	Site ID <u>6029</u>
	Project No.	Date (m/d/y) <u>8/25/04</u>

Site Description Monitoring Well Extraction Well Irrigation Well Spring Borehole Probe Other:

Air Temp: °C °F Weather:

Well Locked? yes no Damaged/Repairs Needed:

TOC Description:

TOC Stickup: _____ ft. above/below ground Well Inside Diameter (ID): 2-inch 4-inch Other:

Site Remarks (nearby wells pumping, tide, stream stage, etc.)

Water Level Data Measurement Units: ft. Well or Borehole Total Depth (TD) from TOC:

<input checked="" type="checkbox"/> E-Tape, # 2 <input type="checkbox"/> Steel Tape <input type="checkbox"/> Other	Pre-Purge Initial	Pre-Purge Confirmation	Purging Start	During Purging	Purging End	After Sampling	Remarks
Time (hh:mm; 24-hr clock)							
Depth to Water							
Tape Correction							
Water Level (WL)							
Product Thickness							
Product Recovery <input type="checkbox"/> gallons <input type="checkbox"/> liters							

Measure water level from fixed measuring point (MP) or top of well casing (TOC). Record water depth to nearest 0.01 ft or 0.002 m, with minus (-) sign if level is above MP or TOC. If no mark on MP or TOC, measure water level from north side of casing. Measure static or pre-purging water level twice; record initial and confirmation measurements and measurement times (in 24-hour clock format). MP/TOC Stickup measurement is from ground surface to nearest 0.1 ft or 0.01 m. Depth to Water codes: N - not measured; D - dry; O - obstructed; P - pumping; F - flowing (artesian well); R - recently pumped; C - cascading. Water Level (WL) = Depth to Water - Tape Correction factor. Record free product presence at time of water level measurement; use "S" for free product thickness if sheen observed. If free product removed from well, record volume removed in gallons or liters, list product type in "Remarks" column.

Field WQ Data Purge Depth: Grab Bailer Pump Description:

Casing Volume: [_____(TD) - _____(WL)] • [_____(Well ID)]² • [_____(Conversion Factor)] = _____ gals
 Conversion Factor = 0.0408 for feet and gallons; 0.1544 for feet and liters; 0.5066 for meters and liters; Well ID in inches

Cum. Vol. Purged Pumping Rate (Final) Meter Type Remarks

Time (hh:mm; 24-hr clock)							
pH (Temperature Corrected? <input type="checkbox"/>)	<u>4.5</u>	<u>4.4</u>	<u>4.5</u>			OAKTON	4.0/7.0/10.0 Buffers
Temperature, °C							
Dissolved Oxygen mg/L							
S Conductivity μS/cm						OAKTON	<u>1413</u> <u>498</u>
Turbidity <input type="checkbox"/> NTU							
Color/Tint							
Odor							

Record time purging starts and ends in "Purging Start" and "Purging End" columns in Water Level Data section. Cum. Vol. Purged: cumulative volume removed before sampling, in gallons or liters. Pumping Rate is gpm or lpm, depending on box checked in casing volume calculation. Use "Final" column above for recording sample field measurements, total volume purged before sampling or average pumping rate during purging. Record equipment calibration methods, decontamination procedures, equipment failures, purge water disposal method, etc. in daily field notes. SC: Specific Conductance corrected for temperature (μS/cm at 25°C); EC: Electrical Conductivity not corrected for temperature (μS/cm). μS/cm = μmho/cm. 1 gallon (US) = 3.785 L = 0.833 Imperial gallon

Sample Data Sample Depth: Grab Bailer Pump Description:

Field Sample ID (unique ID on bottles)	Result Code	Date (m/d/y)	Time (hh:mm)	Bottles (total to lab)	Filtered (0.45 μm)	Lab ID	Case ID	SDG ID	Remarks
<u>WELL 9</u>									

Sample ID may be up to 15 characters. Sample Result Code, Date, and Time must be entered. Result Codes: P0, Primary Sample; D#, Duplicate Sample; S#, Split Sample (sent to second lab); BF#, Field Blank; BR#, Equipment Rinsate; BT#, Trip Blank; SF#, Field Spike (# = 1 to 9). Lab ID (up to 5 characters) is name of laboratory that will analyze the sample. Case ID (up to 5 characters) and SDG ID (sample delivery group, up to 15 characters) are required for blanks. Case ID may be the lab service request number or yy-mm. SDG may be lab's SDG, a cooler ID number, or mmdyy. Enter sample preservation and handling data on chain-of-custody form. Also record detailed information about duplicate, split, rinsate, spike, and/or blank sample collection/handling in daily field notes.

Sampler's Name (print)	Signature
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Environment 1, Inc.

Sampled By <input checked="" type="checkbox"/> Bob Hilgoe <input checked="" type="checkbox"/> Bobby Fox Other:	Facility <u>WAYNE CO.</u> Project No.	Site ID <u>6029</u> Date (m/d/y) <u>8/25/04</u>
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Site Description Monitoring Well Extraction Well Irrigation Well Spring Borehole Probe Other:

Air Temp: °C °F Weather:

Well Locked? yes no Damaged/Repairs Needed:

x TOC Description:

TOC Stickup: _____ ft. above/below ground Well Inside Diameter (ID): 2-inch 4-inch Other:

Site Remarks (nearby wells pumping, tide, stream stage, etc.)

Water Level Data Measurement Units: ft. Well or Borehole Total Depth (TD) from TOC:

x E-Tape, # 2 <input type="checkbox"/> Steel Tape <input type="checkbox"/> Other	Pre-Purge Initial	Pre-Purge Confirmation	Purging Start	During Purging	Purging End	After Sampling	Remarks
Time (hh:mm; 24-hr clock)							
Depth to Water							
Tape Correction							
Water Level (WL)							
Product Thickness							
Product Recovery <input type="checkbox"/> gallons <input type="checkbox"/> liters							

Measure water level from fixed measuring point (MP) or top of well casing (TOC). Record water depth to nearest 0.01 ft or 0.002 m, with minus (-) sign if level is above MP or TOC. If no mark on MP or TOC, measure water level from north side of casing. Measure static or pre-purging water level twice; record initial and confirmation measurements and measurement times (in 24-hour clock format). MP/TOC Stickup measurement is from ground surface to nearest 0.1 ft or 0.01 m. Depth to Water codes: N - not measured; D - dry; O - obstructed; P - pumping; F - flowing (artesian well); R - recently pumped; C - cascading. Water Level (WL) = Depth to Water - Tape Correction factor. Record free product presence at time of water level measurement; use "S" for free product thickness if sheen observed. If free product removed from well, record volume removed in gallons or liters, list product type in "Remarks" column.

Field WQ Data Purge Depth: Grab Bailer Pump Description:

Casing Volume: [_____(TD) - _____(WL)] • [_____(Well ID)]² • [_____(Conversion Factor)] = _____ gals
 Conversion Factor = 0.0408 for feet and gallons; 0.1544 for feet and liters; 0.5066 for meters and liters; Well ID in inches

Well Goes Dry While Purging

<input type="checkbox"/> Cum. Vol. Purged <input type="checkbox"/> Pumping Rate	(Final)	Meter Type	Remarks
Time (hh:mm; 24-hr clock)			
pH (Temperature Corrected? <input type="checkbox"/>	<u>4.4</u>	<u>4.3</u>	<u>4.4</u>
Temperature, °C			
Dissolved Oxygen mg/L			
S Conductivity μS/cm		OAKTON	<u>1413</u> <u>498</u>
Turbidity <input type="checkbox"/> NTU			
Color/Tint			
Odor			

Record time purging starts and ends in "Purging Start" and "Purging End" columns in Water Level Data section. Cum. Vol. Purged: cumulative volume removed before sampling, in gallons or liters. Pumping Rate is gpm or Lpm, depending on box checked in casing volume calculation. Use "Final" column above for recording sample field measurements, total volume purged before sampling or average pumping rate during purging. Record equipment calibration methods, decontamination procedures, equipment failures, purge water disposal method, etc. in daily field notes. SC: Specific Conductance corrected for temperature (μS/cm at 25°C); EC: Electrical Conductivity not corrected for temperature (μS/cm). μS/cm = μmho/cm. 1 gallon (US) = 3.785 L = 0.833 Imperial gallon

Sample Data Sample Depth: Grab Bailer Pump Description:

Field Sample ID (unique ID on bottles)	Result Code	Date (m/d/y)	Time (hh:mm)	Bottles (total to lab)	Filtered (0.45 μm)	Lab ID	Case ID	SDG ID	Remarks
<u>WELL ID</u>									

Sample ID may be up to 15 characters. Sample Result Code, Date, and Time must be entered. Result Codes: P0, Primary Sample; D#, Duplicate Sample; S#, Split Sample (sent to second lab); BF#, Field Blank; BR#, Equipment Rinsate; BT#, Trip Blank; SF#, Field Spike (# = 1 to 9). Lab ID (up to 5 characters) is name of laboratory that will analyze the sample. Case ID (up to 5 characters) and SDG ID (sample delivery group, up to 15 characters) are required for blanks. Case ID may be the lab service request number or yy-mm. SDG may be lab's SDG, a cooler ID number, or mmdyyy. Enter sample preservation and handling data on chain-of-custody form. Also record detailed information about duplicate, split, rinsate, spike, and/or blank sample collection/handling in daily field notes.

Sampler's Name (print)	Signature
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Environment 1, Inc.

Sampled By <input checked="" type="checkbox"/> Bob Hilgoe <input type="checkbox"/> Bobby Fox	Facility WAYNE CO.	Site ID 6029
Other:	Project No.	Date (m/d/y) 8/25/04

Site Description Monitoring Well Extraction Well Irrigation Well Spring Borehole Probe Other:

Air Temp: °C °F Weather:

Well Locked? yes no Damaged/Repairs Needed:

TOC Description:

TOC Stickup: _____ ft. above/below ground Well Inside Diameter (ID): 2-inch 4-inch Other:

Site Remarks (nearby wells pumping, tide, stream stage, etc.)

Water Level Data Measurement Units: _____ ft. Well or Borehole Total Depth (TD) from TOC: _____

<input checked="" type="checkbox"/> E-Tape, # 2 <input type="checkbox"/> Steel Tape <input type="checkbox"/> Other	Pre-Purge Initial	Pre-Purge Confirmation	Purging Start	During Purging	Purging End	After Sampling	Remarks
Time (hh:mm; 24-hr clock)							
Depth to Water							
Tape Correction							
Water Level (WL)							
Product Thickness							
Product Recovery							
<input type="checkbox"/> gallons <input type="checkbox"/> liters							

Measure water level from fixed measuring point (MP) or top of well casing (TOC). Record water depth to nearest 0.01 ft or 0.002 m, with minus (-) sign if level is above MP or TOC. If no mark on MP or TOC, measure water level from north side of casing. Measure static or pre-purging water level twice; record initial and confirmation measurements and measurement times (in 24-hour clock format). MP/TOC Stickup measurement is from ground surface to nearest 0.1 ft or 0.01 m. Depth to Water codes: N - not measured; D - dry; O - obstructed; P - pumping; F - flowing (artesian well); R - recently pumped; C - cascading. Water Level (WL) = Depth to Water - Tape Correction factor. Record free product presence at time of water level measurement; use "S" for free product thickness if sheen observed. If free product removed from well, record volume removed in gallons or liters, list product type in "Remarks" column.

Field WQ Data Purge Depth: _____ Grab Bailer Pump Description:

Casing Volume: [_____(TD) - _____(WL)] • [_____(Well ID)]² • [_____(Conversion Factor)] = _____ gals
 Conversion Factor = 0.0408 for feet and gallons; 0.1544 for feet and liters; 0.5066 for meters and liters; Well ID in inches

<input type="checkbox"/> Cum. Vol. Purged <input type="checkbox"/> Pumping Rate	Time (hh:mm; 24-hr clock)	pH (Temperature Corrected? <input type="checkbox"/>)	Temperature, °C	Dissolved Oxygen mg/L	S Conductivity μS/cm	Turbidity <input type="checkbox"/> NTU	Color/Tint	Odor	(Final)	Meter Type	Remarks
		4.4	4.6							OAKTON	4.0/7.0/10.0 Buffers
										OAKTON	1473 498

Record time purging starts and ends in "Purging Start" and "Purging End" columns in Water Level Data section. Cum. Vol. Purged: cumulative volume removed before sampling, in gallons or liters. Pumping Rate is gpm or Lpm, depending on box checked in casing volume calculation. Use "Final" column above for recording sample field measurements, total volume purged before sampling or average pumping rate during purging. Record equipment calibration methods, decontamination procedures, equipment failures, purge water disposal method, etc. in daily field notes. SC: Specific Conductance corrected for temperature (μS/cm at 25°C); EC: Electrical Conductivity not corrected for temperature (μS/cm). μS/cm = μmho/cm. 1 gallon (US) = 3.785 L = 0.833 Imperial gallon

Sample Data Sample Depth: _____ Grab Bailer Pump Description:

Field Sample ID (unique ID on bottles)	Result Code	Date (m/d/y)	Time (hh:mm)	Bottles (total to lab)	Filtered (0.45 μm)	Lab ID	Case ID	SDG ID	Remarks
WELL 4									

Sample ID may be up to 15 characters. Sample Result Code, Date, and Time must be entered. Result Codes: P0, Primary Sample; D#, Duplicate Sample; S#, Split Sample (sent to second lab); BF#, Field Blank; BR#, Equipment Rinsate; BT#, Trip Blank; SF#, Field Spike (# = 1 to 9). Lab ID (up to 5 characters) is name of laboratory that will analyze the sample. Case ID (up to 5 characters) and SDG ID (sample delivery group, up to 15 characters) are required for blanks. Case ID may be the lab service request number or yy-mm. SDG may be lab's SDG, a cooler ID number, or mmdydy. Enter sample preservation and handling data on chain-of-custody form. Also record detailed information about duplicate, split, rinsate, spike, and/or blank sample collection/handling in daily field notes.

Sampler's Name (print)	Signature
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Environment 1, Inc.

Sampled By <input type="checkbox"/> Bob Hilgoe <input checked="" type="checkbox"/> Bobby Fox Other: _____	Facility <u>WAYNE CO.</u> Project No. _____	Site ID <u>6029</u> Date (m/d/y) <u>8/25/04</u>
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Site Description Monitoring Well Extraction Well Irrigation Well Spring Borehole Probe Other:

Air Temp: °C °F Weather: _____

Well Locked? yes no Damaged/Repairs Needed: _____

x TOC Description:

TOC Stickup: _____ ft. above/below ground Well Inside Diameter (ID): 2-inch 4-inch Other: _____

Site Remarks (nearby wells pumping, tide, stream stage, etc.) _____

Water Level Data Measurement Units: ft. Well or Borehole Total Depth (TD) from TOC: _____

<input checked="" type="checkbox"/> E-Tape, #2 <input type="checkbox"/> Steel Tape <input type="checkbox"/> Other	Pre-Purge Initial	Pre-Purge Confirmation	Purging Start	During Purging	Purging End	After Sampling	Remarks
Time (hh:mm; 24-hr clock)							
Depth to Water							
Tape Correction							
Water Level (WL)							
Product Thickness							
Product Recovery <input type="checkbox"/> gallons <input type="checkbox"/> liters							

Measure water level from fixed measuring point (MP) or top of well casing (TOC). Record water depth to nearest 0.01 ft or 0.002 m, with minus (-) sign if level is above MP or TOC. If no mark on MP or TOC, measure water level from north side of casing. Measure static or pre-purging water level twice; record initial and confirmation measurements and measurement times (in 24-hour clock format). MP/TOC Stickup measurement is from ground surface to nearest 0.1 ft or 0.01 m. Depth to Water codes: N - not measured; D - dry; O - obstructed; P - pumping; F - flowing (artesian well); R - recently pumped; C - cascading. Water Level (WL) = Depth to Water - Tape Correction factor. Record free product presence at time of water level measurement; use "S" for free product thickness if sheen observed. If free product removed from well, record volume removed in gallons or liters, list product type in "Remarks" column.

Field WQ Data Purge Depth: _____ Grab Bailer Pump Description: _____

Casing Volume: [_____ (TD) - _____ (WL)] • [_____ (Well ID)]² • [_____ (Conversion Factor)] = _____ gals
 Conversion Factor = 0.0408 for feet and gallons; 0.1544 for feet and liters; 0.5066 for meters and liters; Well ID in inches

<input type="checkbox"/> Cum. Vol. Purged <input type="checkbox"/> Pumping Rate	Time (hh:mm; 24-hr clock)	pH (Temperature Corrected? <input type="checkbox"/>)	Temperature, °C	Dissolved Oxygen mg/L	S Conductivity μS/cm	Turbidity <input type="checkbox"/> NTU	Color/Tint	Odor	(Final)	Meter Type	Remarks
		4.3								OAKTON	4.0/7.0/10.0 Buffers
										OAKTON	1413 498

Record time purging starts and ends in "Purging Start" and "Purging End" columns in Water Level Data section. Cum. Vol. Purged: cumulative volume removed before sampling, in gallons or liters. Pumping Rate is gpm or Lpm, depending on box checked in casing volume calculation. Use "Final" column above for recording sample field measurements, total volume purged before sampling or average pumping rate during purging. Record equipment calibration methods, decontamination procedures, equipment failures, purge water disposal method, etc. in daily field notes. SC: Specific Conductance corrected for temperature (μS/cm at 25°C); EC: Electrical Conductivity not corrected for temperature (μS/cm). μS/cm = μmho/cm. 1 gallon (US) = 3.785 L = 0.833 Imperial gallon

Sample Data Sample Depth: _____ Grab Bailer Pump Description: _____

Field Sample ID (unique ID on bottles)	Result Code	Date (m/d/y)	Time (hh:mm)	Bottles (total to lab)	Filtered (0.45 μm)	Lab ID	Case ID	SDG ID	Remarks
<u>WELL 5</u>									

Sample ID may be up to 15 characters. Sample Result Code, Date, and Time must be entered. Result Codes: P0, Primary Sample; D#, Duplicate Sample; S#, Split Sample (sent to second lab); BF#, Field Blank; BR#, Equipment Rinsate; BT#, Trip Blank; SF#, Field Spike (# = 1 to 9). Lab ID (up to 5 characters) is name of laboratory that will analyze the sample. Case ID (up to 5 characters) and SDG ID (sample delivery group, up to 15 characters) are required for blanks. Case ID may be the lab service request number or yy-mm. SDG may be lab's SDG, a cooler ID number, or mmdydy. Enter sample preservation and handling data on chain-of-custody form. Also record detailed information about duplicate, split, rinsate, spike, and/or blank sample collection/handling in daily field notes.

Sampler's Name (print) _____	Signature _____
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Environment 1, Inc.

Sampled By <input checked="" type="checkbox"/> Bob Hilgoe <input checked="" type="checkbox"/> Bobby Fox	Facility WAYNE CO.	Site ID 6029
Other:	Project No.	Date (m/d/y) 8/25/04

Site Description Monitoring Well Extraction Well Irrigation Well Spring Borehole Probe Other:

Air Temp: °C °F Weather:

Well Locked? yes no Damaged/Repairs Needed:

TOC Description:

TOC Stickup: _____ ft. above/below ground Well Inside Diameter (ID): 2-inch 4-inch Other:

Site Remarks (nearby wells pumping, tide, stream stage, etc.)

Water Level Data Measurement Units: ft. Well or Borehole Total Depth (TD) from TOC:

<input checked="" type="checkbox"/> E-Tape, # 2 <input type="checkbox"/> Steel Tape <input type="checkbox"/> Other	Pre-Purge Initial	Pre-Purge Confirmation	Purging Start	During Purging	Purging End	After Sampling	Remarks
Time (hh:mm; 24-hr clock)							
Depth to Water							
Tape Correction							
Water Level (WL)							
Product Thickness							
Product Recovery							
<input type="checkbox"/> gallons <input type="checkbox"/> liters							

Measure water level from fixed measuring point (MP) or top of well casing (TOC). Record water depth to nearest 0.01 ft or 0.002 m, with minus (-) sign if level is above MP or TOC. If no mark on MP or TOC, measure water level from north side of casing. Measure static or pre-purging water level twice; record initial and confirmation measurements and measurement times (in 24-hour clock format). MP/TOC Stickup measurement is from ground surface to nearest 0.1 ft or 0.01 m. Depth to Water codes: N - not measured; D - dry; O - obstructed; P - pumping; F - flowing (artesian well); R - recently pumped; C - cascading. Water Level (WL) = Depth to Water - Tape Correction factor. Record free product presence at time of water level measurement; use "S" for free product thickness if seen observed. If free product removed from well, record volume removed in gallons or liters, list product type in "Remarks" column.

Field WQ Data Purge Depth: Grab Bailer Pump Description:

Casing Volume: [_____(TD) - _____(WL)] • [_____(Well ID)]² • [_____(Conversion Factor)] = _____ gals
 Conversion Factor = 0.0408 for feet and gallons; 0.1544 for feet and liters; 0.5066 for meters and liters; Well ID in inches

Well Goes Dry While Purging

<input type="checkbox"/> Cum. Vol. Purged <input type="checkbox"/> Pumping Rate	(Final)	Meter Type	Remarks
Time (hh:mm; 24-hr clock)			
pH (Temperature Corrected? <input type="checkbox"/>)	4.7	4.7	4.7
Temperature, °C			
Dissolved Oxygen mg/L			
S Conductivity μS/cm			
Turbidity <input type="checkbox"/> NTU			
Color/Tint			
Odor			

Record time purging starts and ends in "Purging Start" and "Purging End" columns in Water Level Data section. Cum. Vol. Purged: cumulative volume removed before sampling, in gallons or liters. Pumping Rate is gpm or Lpm, depending on box checked in casing volume calculation. Use "Final" column above for recording sample field measurements, total volume purged before sampling or average pumping rate during purging. Record equipment calibration methods, decontamination procedures, equipment failures, purge water disposal method, etc. in daily field notes. SC: Specific Conductance corrected for temperature (μS/cm at 25°C); EC: Electrical Conductivity not corrected for temperature (μS/cm). μS/cm = μmho/cm. 1 gallon (US) = 3.785 L = 0.833 Imperial gallon

Sample Data Sample Depth: Grab Bailer Pump Description:

Field Sample ID (unique ID on bottles)	Result Code	Date (m/d/y)	Time (hh:mm)	Bottles (total to lab)	Filtered (0.45 μm)	Lab ID	Case ID	SDG ID	Remarks
WELL 7									

Sample ID may be up to 15 characters. Sample Result Code, Date, and Time must be entered. Result Codes: P0, Primary Sample; D#, Duplicate Sample; S#, Split Sample (sent to second lab); BF#, Field Blank; BR#, Equipment Rinsate; BT#, Trip Blank; SF#, Field Spike (# = 1 to 9). Lab ID (up to 5 characters) is name of laboratory that will analyze the sample. Case ID (up to 5 characters) and SDG ID (sample delivery group, up to 15 characters) are required for blanks. Case ID may be the lab service request number or yy-mm. SDG may be lab's SDG, a cooler ID number, or mmdydy. Enter sample preservation and handling data on chain-of-custody form. Also record detailed information about duplicate, split, rinsate, spike, and/or blank sample collection/handling in daily field notes.

Sampler's Name (print)	Signature
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Environment 1, Inc.

Sampled By <input checked="" type="checkbox"/> Bob Hilgoe <input checked="" type="checkbox"/> Bobby Fox	Facility WAYNE CO.	Site ID 6029
Other:	Project No.	Date (m/d/y) 8/25/04

Site Description Monitoring Well Extraction Well Irrigation Well Spring Borehole Probe Other:

Air Temp: <input type="checkbox"/> °C <input type="checkbox"/> °F	Weather:
Well Locked? <input type="checkbox"/> yes <input type="checkbox"/> no	Damaged/Repairs Needed:
x TOC Description:	
TOC Stickup: _____ ft. above/below ground	Well Inside Diameter (ID): <input checked="" type="checkbox"/> 2-inch <input type="checkbox"/> 4-inch <input type="checkbox"/> Other:
Site Remarks (nearby wells pumping, tide, stream stage, etc.)	

Water Level Data Measurement Units: ft. Well or Borehole Total Depth (TD) from TOC:

<input checked="" type="checkbox"/> E-Tape, # 2 <input type="checkbox"/> Steel Tape <input type="checkbox"/> Other	Pre-Purge Initial	Pre-Purge Confirmation	Purging Start	During Purging	Purging End	After Sampling	Remarks
Time (hh:mm; 24-hr clock)							
Depth to Water							
Tape Correction							
Water Level (WL)							
Product Thickness							
Product Recovery <input type="checkbox"/> gallons <input type="checkbox"/> liters							

Measure water level from fixed measuring point (MP) or top of well casing (TOC). Record water depth to nearest 0.01 ft or 0.002 m, with minus (-) sign if level is above MP or TOC. If no mark on MP or TOC, measure water level from north side of casing. Measure static or pre-purging water level twice; record initial and confirmation measurements and measurement times (in 24-hour clock format). MP/TOC Stickup measurement is from ground surface to nearest 0.1 ft or 0.01 m. Depth to Water codes: N - not measured; D - dry; O - obstructed; P - pumping; F - flowing (artesian well); R - recently pumped; C - cascading. Water Level (WL) = Depth to Water - Tape Correction factor. Record free product presence at time of water level measurement; use "S" for free product thickness if seen observed. If free product removed from well, record volume removed in gallons or liters, list product type in "Remarks" column.

Field WQ Data Purge Depth: Grab Bailer Pump Description:

Casing Volume: [_____(TD) - _____(WL)] • [_____(Well ID)] ² • [_____(Conversion Factor)] = _____ gals Conversion Factor = 0.0408 for feet and gallons; 0.1544 for feet and liters; 0.5066 for meters and liters; Well ID in inches							Well Goes Dry While Purging <input type="checkbox"/>				
<input type="checkbox"/> Cum. Vol. Purged <input type="checkbox"/> Pumping Rate	Time (hh:mm; 24-hr clock)	pH (Temperature Corrected? <input type="checkbox"/>)	Temperature, °C	Dissolved Oxygen mg/L	S Conductivity μS/cm	Turbidity <input type="checkbox"/> NTU	Color/Tint	Odor	(Final)	Meter Type	Remarks
		4.9								OAKTON	4.0/7.0/10.0 Buffers
		4.9								OAKTON	1413 498
		4.9									

Record time purging starts and ends in "Purging Start" and "Purging End" columns in Water Level Data section. Cum. Vol. Purged: cumulative volume removed before sampling, in gallons or liters. Pumping Rate is gpm or Lpm, depending on box checked in casing volume calculation. Use "Final" column above for recording sample field measurements, total volume purged before sampling or average pumping rate during purging. Record equipment calibration methods, decontamination procedures, equipment failures, purge water disposal method, etc. in daily field notes. SC: Specific Conductance corrected for temperature (μS/cm at 25°C); EC: Electrical Conductivity not corrected for temperature (μS/cm). μS/cm = μmho/cm. 1 gallon (US) = 3.785 L = 0.833 Imperial gallon

Sample Data Sample Depth: Grab Bailer Pump Description:

Field Sample ID (unique ID on bottles)	Result Code	Date (m/d/y)	Time (hh:mm)	Bottles (total to lab)	Filtered (0.45 μm)	Lab ID	Case ID	SDG ID	Remarks
WELL 8									

Sample ID may be up to 15 characters. Sample Result Code, Date, and Time must be entered. Result Codes: P0, Primary Sample; D#, Duplicate Sample; S#, Split Sample (sent to second lab); BF#, Field Blank; BR#, Equipment Rinsate; BT#, Trip Blank; SF#, Field Spike (# = 1 to 9). Lab ID (up to 5 characters) is name of laboratory that will analyze the sample. Case ID (up to 5 characters) and SDG ID (sample delivery group, up to 15 characters) are required for blanks. Case ID may be the lab service request number or yy-mm. SDG may be lab's SDG, a cooler ID number, or mmdyy. Enter sample preservation and handling data on chain-of-custody form. Also record detailed information about duplicate, split, rinsate, spike, and/or blank sample collection/handling in daily field notes.

Sampler's Name (print)	Signature
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Environment 1, Inc.

Sampled By <input checked="" type="checkbox"/> Bob Hilgoe <input checked="" type="checkbox"/> Bobby Fox	Facility WAYNE CO.	Site ID 6029
Other:	Project No.	Date (m/d/y) 8/25/04

Site Description Monitoring Well Extraction Well Irrigation Well Spring Borehole Probe Other:

Air Temp: °C °F Weather:

Well Locked? yes no Damaged/Repairs Needed:

TOC Description:

TOC Stickup: _____ ft. above/below ground Well Inside Diameter (ID): 2-inch 4-inch Other:

Site Remarks (nearby wells pumping, tide, stream stage, etc.)

Water Level Data Measurement Units: ft. Well or Borehole Total Depth (TD) from TOC:

<input checked="" type="checkbox"/> E-Tape, # 2 <input type="checkbox"/> Steel Tape <input type="checkbox"/> Other	Pre-Purge Initial	Pre-Purge Confirmation	Purging Start	During Purging	Purging End	After Sampling	Remarks
Time (hh:mm; 24-hr clock)							
Depth to Water							
Tape Correction							
Water Level (WL)							
Product Thickness							
Product Recovery <input type="checkbox"/> gallons <input type="checkbox"/> liters							

Measure water level from fixed measuring point (MP) or top of well casing (TOC). Record water depth to nearest 0.01 ft or 0.002 m, with minus (-) sign if level is above MP or TOC. If no mark on MP or TOC, measure water level from north side of casing. Measure static or pre-purging water level twice; record initial and confirmation measurements and measurement times (in 24-hour clock format). MP/TOC Stickup measurement is from ground surface to nearest 0.1 ft or 0.01 m. Depth to Water codes: N - not measured; D - dry; O - obstructed; P - pumping; F - flowing (artesian well); R - recently pumped; C - cascading. Water Level (WL) = Depth to Water - Tape Correction factor. Record free product presence at time of water level measurement; use "S" for free product thickness if sheen observed. If free product removed from well, record volume removed in gallons or liters, list product type in "Remarks" column.

Field WQ Data Purge Depth: Grab Bailer Pump Description:

Casing Volume: [_____(TD) - _____(WL)] • [_____(Well ID)] ² • [_____(Conversion Factor)] = _____ gals							Well Goes Dry While Purging <input type="checkbox"/>	
Conversion Factor = 0.0408 for feet and gallons; 0.1544 for feet and liters; 0.5066 for meters and liters; Well ID in inches								
<input type="checkbox"/> Cum. Vol. Purged						(Final)	Meter Type	Remarks
<input type="checkbox"/> Pumping Rate								
Time (hh:mm; 24-hr clock)								
pH (Temperature Corrected? <input type="checkbox"/>)	4.7	4.5	4.5				OAKTON	4.0/7.0/10.0 Buffers
Temperature, °C								
Dissolved Oxygen mg/L								
S Conductivity μS/cm							OAKTON	1413 498
Turbidity <input type="checkbox"/> NTU								
Color/Tint								
Odor								

Record time purging starts and ends in "Purging Start" and "Purging End" columns in Water Level Data section. Cum. Vol. Purged: cumulative volume removed before sampling, in gallons or liters. Pumping Rate is gpm or lpm, depending on box checked in casing volume calculation. Use "Final" column above for recording sample field measurements, total volume purged before sampling or average pumping rate during purging. Record equipment calibration methods, decontamination procedures, equipment failures, purge water disposal method, etc. in daily field notes. SC: Specific Conductance corrected for temperature (μS/cm at 25°C); EC: Electrical Conductivity not corrected for temperature (μS/cm). μS/cm = μmho/cm. 1 gallon (US) = 3.785 L = 0.833 Imperial gallon

Sample Data Sample Depth: Grab Bailer Pump Description:

Field Sample ID (unique ID on bottles)	Result Code	Date (m/d/y)	Time (hh:mm)	Bottles (total to lab)	Filtered (0.45 μm)	Lab ID	Case ID	SDG ID	Remarks
WELL 6									

Sample ID may be up to 15 characters. Sample Result Code, Date, and Time must be entered. Result Codes: P0, Primary Sample; D#, Duplicate Sample; S#, Split Sample (sent to second lab); BF#, Field Blank; BR#, Equipment Rinsate; BT#, Trip Blank; SF#, Field Spike (# = 1 to 9). Lab ID (up to 5 characters) is name of laboratory that will analyze the sample. Case ID (up to 5 characters) and SDG ID (sample delivery group, up to 15 characters) are required for blanks. Case ID may be the lab service request number or yy-mm. SDG may be lab's SDG, a cooler ID number, or mmdyyy. Enter sample preservation and handling data on chain-of-custody form. Also record detailed information about duplicate, split, rinsate, spike, and/or blank sample collection/handling in daily field notes.

Sampler's Name (print)	Signature
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Environment 1, Inc.

Sampled By <input checked="" type="checkbox"/> Bob Hilgoe <input checked="" type="checkbox"/> Bobby Fox Other: _____	Facility WAYNE CO. Project No. _____	Site ID 6029 Date (m/d/y) 8 ²⁵ 26 04
--	---	--

Site Description Monitoring Well Extraction Well Irrigation Well Spring Borehole Probe Other: _____

Air Temp: °C °F Weather: _____

Well Locked? yes no Damaged/Repairs Needed: _____

TOC Description: _____

TOC Stickup: _____ ft. above/below ground Well Inside Diameter (ID): 2-inch 4-inch Other: _____

Site Remarks (nearby wells pumping, tide, stream stage, etc.) _____

Water Level Data Measurement Units: ft. Well or Borehole Total Depth (TD) from TOC: _____

<input checked="" type="checkbox"/> E-Tape, # 2 <input type="checkbox"/> Steel Tape <input type="checkbox"/> Other	Pre-Purge Initial	Pre-Purge Confirmation	Purging Start	During Purging	Purging End	After Sampling	Remarks
Time (hh:mm; 24-hr clock)							
Depth to Water							
Tape Correction							
Water Level (WL)							
Product Thickness							
Product Recovery <input type="checkbox"/> gallons <input type="checkbox"/> liters							

Measure water level from fixed measuring point (MP) or top of well casing (TOC). Record water depth to nearest 0.01 ft or 0.002 m, with minus (-) sign if level is above MP or TOC. If no mark on MP or TOC, measure water level from north side of casing. Measure static or pre-purging water level twice; record initial and confirmation measurements and measurement times (in 24-hour clock format). MP/TOC Stickup measurement is from ground surface to nearest 0.1 ft or 0.01 m. Depth to Water codes: N - not measured; D - dry; O - obstructed; P - pumping; F - flowing (artesian well); R - recently pumped; C - cascading. Water Level (WL) = Depth to Water - Tape Correction factor. Record free product presence at time of water level measurement; use "S" for free product thickness if seen observed. If free product removed from well, record volume removed in gallons or liters, list product type in "Remarks" column.

Field WQ Data Purge Depth: Grab Bailer Pump Description: _____

Casing Volume: [_____ (TD) - _____ (WL)] • [_____ (Well ID)]² • [_____ (Conversion Factor)] = _____ gals
 Conversion Factor = 0.0408 for feet and gallons; 0.1544 for feet and liters; 0.5066 for meters and liters; Well ID in inches

<input type="checkbox"/> Cum. Vol. Purged <input type="checkbox"/> Pumping Rate	(Final)	Meter Type	Remarks
Time (hh:mm; 24-hr clock)			
pH (Temperature Corrected? <input type="checkbox"/>)	4.4	4.1	4.1
Temperature, °C			OAKTON 4.0/7.0/10.0 Buffers
Dissolved Oxygen mg/L			
S Conductivity μS/cm			OAKTON 1413 498
Turbidity <input type="checkbox"/> NTU			
Color/Tint			
Odor			

Record time purging starts and ends in "Purging Start" and "Purging End" columns in Water Level Data section. Cum. Vol. Purged: cumulative volume removed before sampling, in gallons or liters. Pumping Rate is gpm or Lpm, depending on box checked in casing volume calculation. Use "Final" column above for recording sample field measurements, total volume purged before sampling or average pumping rate during purging. Record equipment calibration methods, decontamination procedures, equipment failures, purge water disposal method, etc. in daily field notes. SC: Specific Conductance corrected for temperature (μS/cm at 25°C); EC: Electrical Conductivity not corrected for temperature (μS/cm). μS/cm = μmho/cm. 1 gallon (US) = 3.785 L = 0.833 Imperial gallon

Sample Data Sample Depth: Grab Bailer Pump Description: _____

Field Sample ID (unique ID on bottles)	Result Code	Date (m/d/y)	Time (hh:mm)	Bottles (total to lab)	Filtered (0.45 μm)	Lab ID	Case ID	SDG ID	Remarks
WELL 11									

Sample ID may be up to 15 characters. Sample Result Code, Date, and Time must be entered. Result Codes: P0, Primary Sample; D#, Duplicate Sample; S#, Split Sample (sent to second lab); BF#, Field Blank; BR#, Equipment Rinsate; BT#, Trip Blank; SF#, Field Spike (# = 1 to 9). Lab ID (up to 5 characters) is name of laboratory that will analyze the sample. Case ID (up to 5 characters) and SDG ID (sample delivery group, up to 15 characters) are required for blanks. Case ID may be the lab service request number or yy-mm. SDG may be lab's SDG, a cooler ID number, or mmdydy. Enter sample preservation and handling data on chain-of-custody form. Also record detailed information about duplicate, split, rinsate, spike, and/or blank sample collection/handling in daily field notes.

Sampler's Name (print) _____	Signature _____
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Environment 1, Inc.

Sampled By <input checked="" type="checkbox"/> Bob Hilgoe <input checked="" type="checkbox"/> Bobby Fox Other:	Facility WAYNE CO	Site ID 6029
	Project No.	Date (m/d/y) 8/25/04

Site Description Monitoring Well Extraction Well Irrigation Well Spring Borehole Probe Other:

Air Temp: <input type="checkbox"/> °C <input type="checkbox"/> °F	Weather:
Well Locked? <input type="checkbox"/> yes <input type="checkbox"/> no	Damaged/Repairs Needed:
x TOC Description:	
TOC Stickup: _____ ft. above/below ground	Well Inside Diameter (ID): <input checked="" type="checkbox"/> 2-inch <input type="checkbox"/> 4-inch Other:
Site Remarks (nearby wells pumping, tide, stream stage, etc.)	

Water Level Data Measurement Units: ft. Well or Borehole Total Depth (TD) from TOC:

x E-Tape, # 2 <input type="checkbox"/> Steel Tape <input type="checkbox"/> Other	Pre-Purge Initial	Pre-Purge Confirmation	Purging Start	During Purging	Purging End	After Sampling	Remarks
Time (hh:mm; 24-hr clock)							
Depth to Water							
Tape Correction							
Water Level (WL)							
Product Thickness							
Product Recovery <input type="checkbox"/> gallons <input type="checkbox"/> liters							

Measure water level from fixed measuring point (MP) or top of well casing (TOC). Record water depth to nearest 0.01 ft or 0.002 m, with minus (-) sign if level is above MP or TOC. If no mark on MP or TOC, measure water level from north side of casing. Measure static or pre-purging water level twice; record initial and confirmation measurements and measurement times (in 24-hour clock format). MP/TOC Stickup measurement is from ground surface to nearest 0.1 ft or 0.01 m. Depth to Water codes: N - not measured; D - dry; O - obstructed; P - pumping; F - flowing (artesian well); R - recently pumped; C - cascading. Water Level (WL) = Depth to Water - Tape Correction factor. Record free product presence at time of water level measurement; use "S" for free product thickness if seen observed. If free product removed from well, record volume removed in gallons or liters, list product type in "Remarks" column.

Field WQ Data Purge Depth: Grab Bailer Pump Description:

Casing Volume: [_____(TD) - _____(WL)] • [_____(Well ID)] ² • [_____(Conversion Factor)] = _____ gals							Well Goes Dry While Purging <input type="checkbox"/>		
Conversion Factor = 0.0408 for feet and gallons; 0.1544 for feet and liters; 0.5066 for meters and liters; Well ID in inches							(Final)	Meter Type	Remarks
<input type="checkbox"/> Cum. Vol. Purged									
<input type="checkbox"/> Pumping Rate									
Time (hh:mm; 24-hr clock)									
pH (Temperature Corrected? <input type="checkbox"/>)	5.0	5.1	5.1				OAKTON	4.0/7.0/10.0 Buffers	
Temperature, °C									
Dissolved Oxygen mg/L									
S Conductivity μS/cm							OAKTON	1413 498	
Turbidity <input type="checkbox"/> NTU									
Color/Tint									
Odor									

Record time purging starts and ends in "Purging Start" and "Purging End" columns in Water Level Data section. Cum. Vol. Purged: cumulative volume removed before sampling, in gallons or liters. Pumping Rate is gpm or Lpm, depending on box checked in casing volume calculation. Use "Final" column above for recording sample field measurements, total volume purged before sampling or average pumping rate during purging. Record equipment calibration methods, decontamination procedures, equipment failures, purge water disposal method, etc. in daily field notes. SC: Specific Conductance corrected for temperature (μS/cm at 25°C); EC: Electrical Conductivity not corrected for temperature (μS/cm). μS/cm = μmho/cm. 1 gallon (US) = 3.785 L = 0.833 Imperial gallon

Sample Data Sample Depth: Grab Bailer Pump Description:

Field Sample ID (unique ID on bottles)	Result Code	Date (m/d/y)	Time (hh:mm)	Bottles (total to lab)	Filtered (0.45 μm)	Lab ID	Case ID	SDG ID	Remarks
WELL12									

Sample ID may be up to 15 characters. Sample Result Code, Date, and Time must be entered. Result Codes: P0, Primary Sample; D#, Duplicate Sample; S#, Split Sample (sent to second lab); BF#, Field Blank; BR#, Equipment Rinsate; BT#, Trip Blank; SF#, Field Spike (# = 1 to 9). Lab ID (up to 5 characters) is name of laboratory that will analyze the sample. Case ID (up to 5 characters) and SDG ID (sample delivery group, up to 15 characters) are required for blanks. Case ID may be the lab service request number or yy-mm. SDG may be lab's SDG, a cooler ID number, or mmdyy. Enter sample preservation and handling data on chain-of-custody form. Also record detailed information about duplicate, split, rinsate, spike, and/or blank sample collection/handling in daily field notes.

Sampler's Name (print)	Signature
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Environment 1, Inc.

Sampled By <input type="checkbox"/> Bob Hilgoe <input checked="" type="checkbox"/> Bobby Fox	Facility WAYNE CO.	Site ID 6029
Other:	Project No.	Date (m/d/y) 8/25/04

Site Description Monitoring Well Extraction Well Irrigation Well Spring Borehole Probe Other:

Air Temp: °C °F Weather:

Well Locked? yes no Damaged/Repairs Needed:

x TOC Description:

TOC Stickup: _____ ft. above/below ground Well Inside Diameter (ID): 2-inch 4-inch Other:

Site Remarks (nearby wells pumping, tide, stream stage, etc.)

Water Level Data Measurement Units: ft. Well or Borehole Total Depth (TD) from TOC:

<input checked="" type="checkbox"/> E-Tape, # 2 <input type="checkbox"/> Steel Tape <input type="checkbox"/> Other	Pre-Purge Initial	Pre-Purge Confirmation	Purging Start	During Purging	Purging End	After Sampling	Remarks
Time (hh:mm; 24-hr clock)							
Depth to Water							
Tape Correction							
Water Level (WL)							
Product Thickness							
Product Recovery <input type="checkbox"/> gallons <input type="checkbox"/> liters							

Measure water level from fixed measuring point (MP) or top of well casing (TOC). Record water depth to nearest 0.01 ft or 0.002 m, with minus (-) sign if level is above MP or TOC. If no mark on MP or TOC, measure water level from north side of casing. Measure static or pre-purging water level twice; record initial and confirmation measurements and measurement times (in 24-hour clock format). MP/TOC Stickup measurement is from ground surface to nearest 0.1 ft or 0.01 m. Depth to Water codes: N - not measured; D - dry; O - obstructed; P - pumping; F - flowing (artesian well); R - recently pumped; C - cascading. Water Level (WL) = Depth to Water - Tape Correction factor. Record free product presence at time of water level measurement; use "S" for free product thickness if sheen observed. If free product removed from well, record volume removed in gallons or liters, list product type in "Remarks" column.

Field WQ Data Purge Depth: Grab Bailer Pump Description:

Casing Volume: [_____(TD) - _____(WL)] • [_____(Well ID)]² • [_____(Conversion Factor)] = _____ gals
 Conversion Factor = 0.0408 for feet and gallons; 0.1544 for feet and liters; 0.5066 for meters and liters; Well ID in inches

<input type="checkbox"/> Cum. Vol. Purged <input type="checkbox"/> Pumping Rate						(Final)	Meter Type	Remarks
Time (hh:mm; 24-hr clock)								
pH (Temperature Corrected? <input type="checkbox"/>)	4.5	4.5	4.5				OAKTON	4.0/7.0/10.0 Buffers
Temperature, °C								
Dissolved Oxygen mg/L								
S Conductivity μS/cm							OAKTON	1413 498
Turbidity <input type="checkbox"/> NTU								
Color/Tint								
Odor								

Record time purging starts and ends in "Purging Start" and "Purging End" columns in Water Level Data section. Cum. Vol. Purged: cumulative volume removed before sampling, in gallons or liters. Pumping Rate is gpm or Lpm, depending on box checked in casing volume calculation. Use "Final" column above for recording sample field measurements, total volume purged before sampling or average pumping rate during purging. Record equipment calibration methods, decontamination procedures, equipment failures, purge water disposal method, etc. in daily field notes. SC: Specific Conductance corrected for temperature (μS/cm at 25°C); EC: Electrical Conductivity not corrected for temperature (μS/cm). μS/cm = μmho/cm. 1 gallon (US) = 3.785 L = 0.833 Imperial gallon

Sample Data Sample Depth: Grab Bailer Pump Description:

Field Sample ID (unique ID on bottles)	Result Code	Date (m/d/y)	Time (hh:mm)	Bottles (total to lab)	Filtered (0.45 μm)	Lab ID	Case ID	SDG ID	Remarks
WELL 13									

Sample ID may be up to 15 characters. Sample Result Code, Date, and Time must be entered. Result Codes: P0, Primary Sample; D#, Duplicate Sample; S#, Split Sample (sent to second lab); BF#, Field Blank; BR#, Equipment Rinsate; BT#, Trip Blank; SF#, Field Spike (# = 1 to 9). Lab ID (up to 5 characters) is name of laboratory that will analyze the sample. Case ID (up to 5 characters) and SDG ID (sample delivery group, up to 15 characters) are required for blanks. Case ID may be the lab service request number or yy-mm. SDG may be lab's SDG, a cooler ID number, or mmdyy. Enter sample preservation and handling data on chain-of-custody form. Also record detailed information about duplicate, split, rinsate, spike, and/or blank sample collection/handling in daily field notes.

Sampler's Name (print)	Signature
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Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

Drinking Water ID: 37715

Wastewater ID: 10

ID#: 6029 A

WAYNE CO. LANDFILL (LINED)
MR. LLOYD COOK
460B LANDFILL ROAD
DUDLEY ,NC 28333

DATE COLLECTED: 08/25/04

DATE REPORTED : 09/20/04

REVIEWED BY: 

PARAMETERS	Surface Water #1	Surface Water #2	Surface Water #3	Surface Water #4	Surface Water #5	Analysis Date	Analyst	Method Code
PH (field measurement), Units	Missing	5.8	6.7	5.8	6.5	08/25/04	RJH	EPA150.1
Antimony, mg/l	Missing	<0.030	<0.030	<0.030	<0.030	09/09/04	CMF	EPA204.2
Arsenic, mg/l	Missing	<0.010	<0.010	<0.010	<0.010	09/07/04	CMF	EPA206.2
Barium, mg/l	Missing	<0.500	<0.500	<0.500	<0.500	08/30/04	LFJ	EPA200.7
Beryllium, mg/l	Missing	<0.002	<0.002	<0.002	<0.002	08/30/04	LFJ	EPA200.7
Cadmium, mg/l	Missing	<0.001	<0.001	0.002	0.002	09/08/04	CMF	EPA213.2
Cobalt, mg/l	Missing	<0.010	<0.010	<0.010	<0.010	08/30/04	LFJ	EPA200.7
Copper, mg/l	Missing	<0.200	<0.200	<0.200	<0.200	08/31/04	ADD	EPA220.1
Total Chromium, mg/l	Missing	<0.010	<0.010	<0.010	<0.010	08/30/04	LFJ	EPA200.7
Lead, mg/l	Missing	<0.010	<0.010	<0.010	<0.010	09/07/04	CMF	EPA239.2
Nickel, mg/l	Missing	<0.050	<0.050	<0.050	<0.050	08/30/04	LFJ	EPA200.7
Selenium, mg/l	Missing	<0.020	<0.020	<0.020	<0.020	09/13/04	CMF	EPA270.2
Silver, mg/l	Missing	<0.010	<0.010	<0.010	<0.010	08/30/04	LFJ	EPA200.7
Thallium, mg/l	Missing	<0.010	<0.010	<0.010	<0.010	09/16/04	CMF	EPA279.2
Vanadium, mg/l	Missing	<0.040	<0.040	<0.040	<0.040	08/30/04	LFJ	EPA200.7
Zinc, mg/l	Missing	<0.050	<0.050	<0.050	<0.050	09/01/04	ADD	EPA7950
Conductivity (at 25c), uMhos	Missing	37	389	98	112	08/25/04	RJH	SM2510B
Temperature, °C	Missing	23	23	23	26	08/25/04	RJH	SM2550B
EPA Method 8260B Volatiles 8260 (Duplicate)	Missing					08/25/04		/ /



P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

CLIENT: WAYNE CO. LANDFILL (LINED)
MR. LLOYD COOK
460B LANDFILL ROAD
DUDLEY, NC 28333

CLIENT ID: 6029 A
ANALYST: MAO
DATE COLLECTED: 08/25/04
DATE REPORTED: 09/20/04

Page: 1

REVIEWED BY: 

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	Date Analyzed:	09/03/04	09/03/04	09/07/04	09/07/04
		Surface Water #2	Surface Water #3	Surface Water #4	Surface Water #5
1. Chloromethane		<10.00	<10.00	<10.00	<10.00
2. Vinyl Chloride		<10.00	<10.00	<10.00	<10.00
3. Bromomethane		<10.00	<10.00	<10.00	<10.00
4. Chloroethane		<10.00	<10.00	<10.00	<10.00
5. Trichlorofluoromethane		<5.00	<5.00	<5.00	<5.00
6. 1,1-Dichloroethene		<5.00	<5.00	<5.00	<5.00
7. Acetone		<100.00	<100.00	<100.00	<100.00
8. Iodomethane		<10.00	<10.00	<10.00	<10.00
9. Carbon Disulfide		<100.00	<100.00	<100.00	<100.00
10. Methylene Chloride		<10.00	<10.00	<10.00	<10.00
11. trans-1,2-Dichloroethene		<5.00	<5.00	<5.00	<5.00
12. 1,1-Dichloroethane		<5.00	<5.00	<5.00	<5.00
13. Vinyl Acetate		<50.00	<50.00	<50.00	<50.00
14. Cis-1,2-Dichloroethene		<5.00	<5.00	<5.00	<5.00
15. 2-Butanone		<100.00	<100.00	<100.00	<100.00
16. Bromochloromethane		<5.00	<5.00	<5.00	<5.00
17. Chloroform		<5.00	<5.00	<5.00	<5.00
18. 1,1,1-Trichloroethane		<5.00	<5.00	<5.00	<5.00
19. Carbon Tetrachloride		<10.00	<10.00	<10.00	<10.00
20. Benzene		<5.00	<5.00	<5.00	<5.00
21. 1,2-Dichloroethane		<5.00	<5.00	<5.00	<5.00
22. Trichloroethene		<5.00	<5.00	<5.00	<5.00
23. 1,2-Dichloropropane		<5.00	<5.00	<5.00	<5.00
24. Bromodichloromethane		<5.00	<5.00	<5.00	<5.00
25. Cis-1,3-Dichloropropene		<10.00	<10.00	<10.00	<10.00
26. 4-Methyl-2-Pentanone		<100.00	<100.00	<100.00	<100.00
27. Toluene		<5.00	<5.00	<5.00	<5.00
28. trans-1,3-Dichloropropene		<10.00	<10.00	<10.00	<10.00
29. 1,1,2-Trichloroethane		<5.00	<5.00	<5.00	<5.00
30. Tetrachloroethene		<5.00	<5.00	<5.00	<5.00
31. 2-Hexanone		<50.00	<50.00	<50.00	<50.00
32. Dibromochloromethane		<5.00	<5.00	<5.00	<5.00
33. 1,2-Dibromoethane		<5.00	<5.00	<5.00	<5.00
34. Chlorobenzene		<5.00	<5.00	<5.00	<5.00
35. 1,1,1,2-Tetrachloroethane		<5.00	<5.00	<5.00	<5.00
36. Ethylbenzene		<5.00	<5.00	<5.00	<5.00
37. Xylenes		<5.00	<5.00	<5.00	<5.00
38. Dibromomethane		<10.00	<10.00	<10.00	<10.00
39. Styrene		<10.00	<10.00	<10.00	<10.00
40. Bromoform		<5.00	<5.00	<5.00	<5.00
41. 1,1,2,2-Tetrachloroethane		<5.00	<5.00	<5.00	<5.00
42. 1,2,3-Trichloropropane		<15.00	<15.00	<15.00	<15.00
43. 1,4-Dichlorobenzene		<5.00	<5.00	<5.00	<5.00
44. 1,2-Dichlorobenzene		<5.00	<5.00	<5.00	<5.00
45. 1,2-Dibromo-3-Chloropropane		<25.00	<25.00	<25.00	<25.00
46. Acrylonitrile		<200.00	<200.00	<200.00	<200.00
47. trans-1,4-Dichloro-2-Butene		<100.00	<100.00	<100.00	<100.00

Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208
FAX (252) 756-0633

Drinking Water ID: 37715
Wastewater ID: 10

ID#: 6029 C

WAYNE CO. LANDFILL (LINED)
MR. LLOYD COOK
460B LANDFILL ROAD
DUDLEY ,NC 28333

DATE COLLECTED: 08/26/04

DATE REPORTED : 09/20/04

REVIEWED BY: _____

PARAMETERS	Monitoring Well #11	Monitoring Well #12	Monitoring Well #13	Analysis Date	Analyst	Method Code
PH (field measurement), Units	4.1	5.1	4.5	08/26/04	RJH	EPA150.1
Antimony, mg/l	<0.030	<0.030	<0.030	09/09/04	CMF	EPA204.2
Arsenic, mg/l	<0.010	<0.010	<0.010	09/07/04	CMF	EPA206.2
Barium, mg/l	<0.500	<0.500	<0.500	08/30/04	LFJ	EPA200.7
Beryllium, mg/l	<0.002	0.003	<0.002	08/30/04	LFJ	EPA200.7
Cadmium, mg/l	<0.001	<0.001	0.002	09/08/04	CMF	EPA213.2
Cobalt, mg/l	<0.010	<0.010	<0.010	08/30/04	LFJ	EPA200.7
Copper, mg/l	<0.200	<0.200	<0.200	08/31/04	ADD	EPA220.1
Total Chromium, mg/l	<0.010	<0.010	<0.010	08/30/04	LFJ	EPA200.7
Lead, mg/l	<0.010	0.037	<0.010	09/07/04	CMF	EPA239.2
Nickel, mg/l	<0.050	<0.050	<0.050	08/30/04	LFJ	EPA200.7
Selenium, mg/l	<0.020	<0.020	<0.020	09/13/04	CMF	EPA270.2
Silver, mg/l	<0.010	<0.010	<0.010	08/30/04	LFJ	EPA200.7
Thallium, mg/l	<0.010	<0.010	<0.010	09/16/04	CMF	EPA279.2
Vanadium, mg/l	<0.040	<0.040	<0.040	08/30/04	LFJ	EPA200.7
Zinc, mg/l	<0.050	0.069	<0.050	09/01/04	ADD	EPA7950
Conductivity (at 25c), uMhos	52	53	42	08/26/04	RJH	SM2510B
Temperature, °C	24	24	20	08/26/04	RJH	SM2550B
Static Water Level, Feet	4.31	3.63	6.65	08/26/04	RJH	
Well Depth, feet	18.40	19.35	19.22	08/26/04	RJH	



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 CLIENT: WAYNE CO. LANDFILL (LINED)
 MR. LLOYD COOK
 460B LANDFILL ROAD
 DUDLEY, NC 28333

CLIENT ID: 6029 C

 ANALYST: MAO
 DATE COLLECTED: 08/26/04
 DATE ANALYZED: 09/08/04
 DATE REPORTED: 09/20/04

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 VOLATILE ORGANICS
 EPA METHOD 8260B

PARAMETERS, ug/l	Monitoring Well #11	Monitoring Well #12	Monitoring Well #13
1. Chloromethane	<10.00	<10.00	<10.00
2. Vinyl Chloride	<10.00	<10.00	<10.00
3. Bromomethane	<10.00	<10.00	<10.00
4. Chloroethane	<10.00	<10.00	<10.00
5. Trichlorofluoromethane	<5.00	<5.00	<5.00
6. 1,1-Dichloroethene	<5.00	<5.00	<5.00
7. Acetone	<100.00	<100.00	<100.00
8. Iodomethane	<10.00	<10.00	<10.00
9. Carbon Disulfide	<100.00	<100.00	<100.00
10. Methylene Chloride	<10.00	<10.00	<10.00
11. trans-1,2-Dichloroethene	<5.00	<5.00	<5.00
12. 1,1-Dichloroethane	<5.00	<5.00	<5.00
13. Vinyl Acetate	<50.00	<50.00	<50.00
14. Cis-1,2-Dichloroethene	<5.00	<5.00	<5.00
15. 2-Butanone	<100.00	<100.00	<100.00
16. Bromochloromethane	<5.00	<5.00	<5.00
17. Chloroform	<5.00	<5.00	<5.00
18. 1,1,1-Trichloroethane	<5.00	<5.00	<5.00
19. Carbon Tetrachloride	<10.00	<10.00	<10.00
20. Benzene	<5.00	<5.00	<5.00
21. 1,2-Dichloroethane	<5.00	<5.00	<5.00
22. Trichloroethene	<5.00	<5.00	<5.00
23. 1,2-Dichloropropane	<5.00	<5.00	<5.00
24. Bromodichloromethane	<5.00	<5.00	<5.00
25. Cis-1,3-Dichloropropene	<10.00	<10.00	<10.00
26. 4-Methyl-2-Pentanone	<100.00	<100.00	<100.00
27. Toluene	<5.00	<5.00	<5.00
28. trans-1,3-Dichloropropene	<10.00	<10.00	<10.00
29. 1,1,2-Trichloroethane	<5.00	<5.00	<5.00
30. Tetrachloroethene	<5.00	<5.00	<5.00
31. 2-Hexanone	<50.00	<50.00	<50.00
32. Dibromochloromethane	<5.00	<5.00	<5.00
33. 1,2-Dibromoethane	<5.00	<5.00	<5.00
34. Chlorobenzene	<5.00	<5.00	<5.00
35. 1,1,1,2-Tetrachloroethane	<5.00	<5.00	<5.00
36. Ethylbenzene	<5.00	<5.00	<5.00
37. Xylenes	<5.00	<5.00	<5.00
38. Dibromomethane	<10.00	<10.00	<10.00
39. Styrene	<10.00	<10.00	<10.00
40. Bromoform	<5.00	<5.00	<5.00
41. 1,1,2,2-Tetrachloroethane	<5.00	<5.00	<5.00
42. 1,2,3-Trichloropropane	<15.00	<15.00	<15.00
43. 1,4-Dichlorobenzene	<5.00	<5.00	<5.00
44. 1,2-Dichlorobenzene	<5.00	<5.00	<5.00
45. 1,2-Dibromo-3-Chloropropane	<25.00	<25.00	<25.00
46. Acrylonitrile	<200.00	<200.00	<200.00
47. trans-1,4-Dichloro-2-Butene	<100.00	<100.00	<100.00

