Barbee, Zinith

From: Barbee, Zinith
Sent: Tuesday, April 13, 2010 3:14 PM
To: 'tmiller@co.lenoir.nc.us'; 'mgerman@mesco.com'
Cc: Drummond, Jaclynne
Subject: Corrective Action Plan for Lenoir County Landfill (Permit 54-03)

Lenoir County Landfill
Permit 54-03
Doc ID 10345

Thank you for submitting the MNA sampling results for the Corrective Action Plan (CAP). The file has been entered into the SWS database with the Doc ID number specified above. The Doc ID number for the previously submitted data (results for the July 29, 2009 sampling event) has been corrected to Doc ID 9258.

The Permitting Branch currently handles the CAP for the Lenoir County Landfill. Ms. Jaclynne Drummond forwarded to me the data you sent to her. I am the Project Manager to whom the CAP is currently assigned. Please send future sampling results, data, and correspondence pertaining to the CAP to the SWS Permitting Branch. My contact information is below and I can be also be contacted at: zinith.barbee@ncdenr.gov.

Thank you again for submitting the MNA sampling results.

Zinith Barbee
Hydrogeologist
Solid Waste Section
Permitting Branch
Division of Waste Management

1646 Mail Service Center
Raleigh, NC 27699-1646
tel: 919.508.8401 fax: 919.733.4810

/E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties./

OPERATION/CONSTRUCTION MANAGERS

Municipal Services

CIVIL/SANITARY ENGINEERS

Engineering Company, P.A.

April 8, 2010

Ms. Jaclynne Drummond
Solid Waste Section
Division of Waste Management
North Carolina Department of Environment and Natural Resources
401 Oberlin Road, Suite 150
Raleigh, NC 27605

Re: Monitored Natural Attenuation Sampling Progress Report
Lenoir County Landfill
LaGrange, NC 28501

Permit No. 54-03
MESCO Project No. G07062.0

Dear Ms. Drummond:

The Lenoir County Closed Unlined Municipal Solid Waste Landfill (MSWLF) and Active Construction and Demolition (C&D) Landfill, currently operating under permit #54-03, has progressed with Monitored Natural Attenuation (MNA) monitoring in accordance with the Corrective Action Plan (CAP) designed by Municipal Engineering Services Company, P.A. (MESCO). This event was performed on January 12, 2010 along with traditional semi-annual water quality sampling.

As proposed in the CAP, Environment 1 reported groundwater sampling results and tested for MNA parameters from seven (7) monitoring wells (MW-1, MW-3 MW-4, MW-6, MW-9, MW-11 and MW-12). A facility map is provided on **Plate 1** illustrating monitoring well locations and general groundwater flow direction. No constituents of concern were detected above the 2L standard for this sampling event; therefore no additional plates are included in this submittal. This is the second consecutive sampling event that did not detect any constituents of concern. Sampling was conducted per the methodology listed in the approved CAP Groundwater and Surface Water Sampling and Analysis Plan.

Table 1 lists the wells with the required MNA sampling parameters results. In general the MNA parameters indicate reducing conditions Appendix 1 metals and VOC laboratory results for the current sampling event are included. As required by the Solid Waste Section an evaluation of MNA's effectiveness as a remedy will be presented in a Comprehensive MNA Evaluation Report after four sampling events are conducted.

The next semi-annual sampling event is scheduled for July 2010 and the lab results will be submitted upon completion. If you have any questions or comments regarding this sampling update, please contact me by phone at (919) 772-5393 or by email at mgerman@mesco.com.

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

Madeline German
Geoscientist

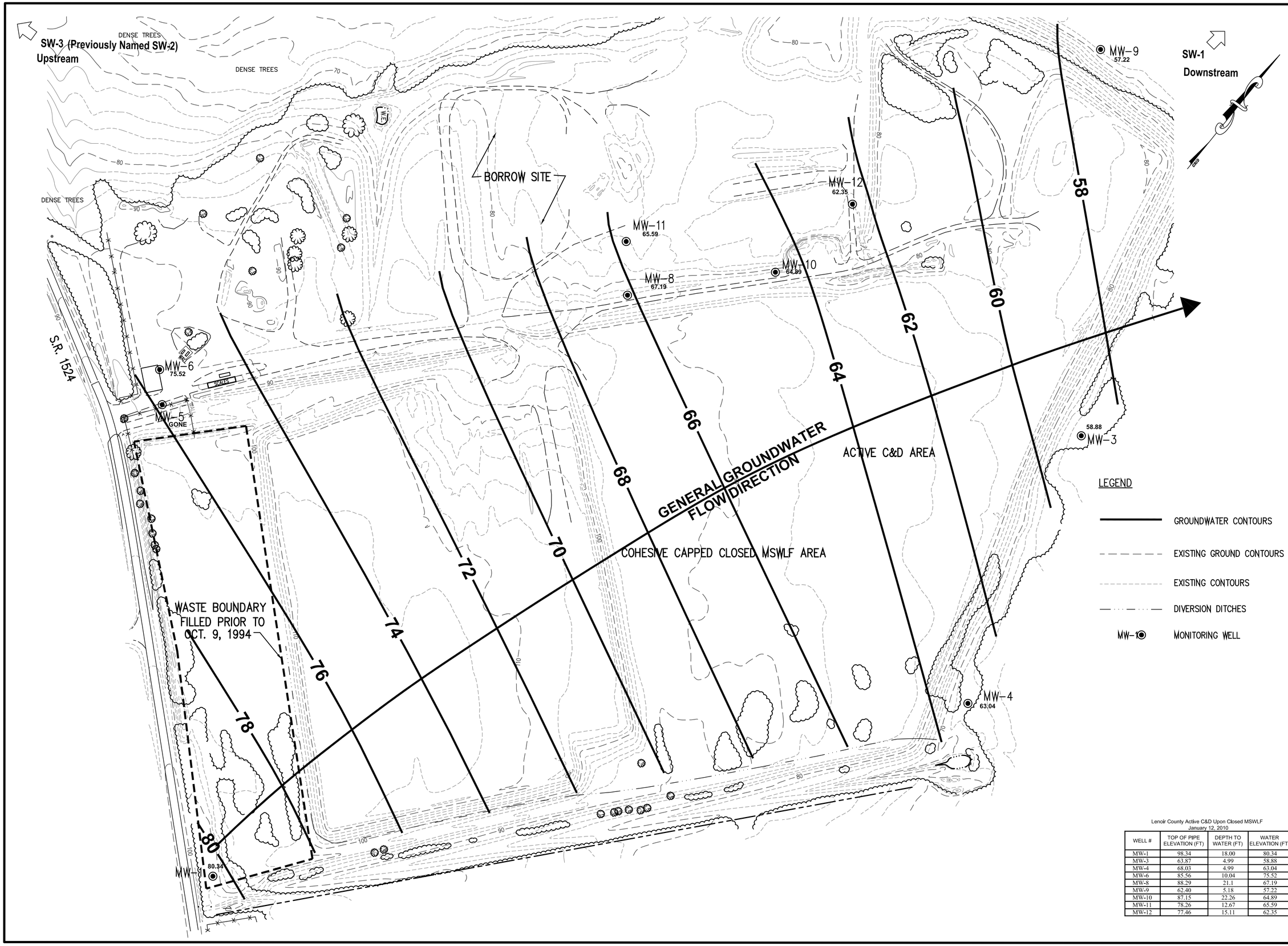
Enclosures
cc: Mr. Tom Miller, Lenoir County

PO Box 97, Garner, North Carolina 27529 (919) 772-5393
PO Box 828, Morehead City, NC 28557 (252) 726-9481 PO Box 349, Boone, North Carolina 28607 (828) 262-1767

Table 1: MNA Parameters at Monitoring Well Locations Summary

Parameters	Method	mdl*	Units	MW-1	MW-3	MW-4	MW-6	MW-9	MW-11	MW-12
				01/12/10	01/12/10	01/12/10	01/12/10	01/12/10	01/12/10	01/12/10
VFA – Acetic Acid	AM23G	70	ug/L	<70	<70	<70	<70	<70	<70	<70
VFA – Butyric Acid	AM23G	70	ug/L	<70	<70	<70	<70	<70	<70	<70
VFA – Hexanoic Acid	AM23G	100	ug/L	<100	<100	<100	<100	<100	<100	<100
VFA – i-Hexanoic Acid	AM23G	100	ug/L	<100	<100	<100	<100	<100	<100	<100
VFA – i-Pentanoic Acid	AM23G	70	ug/L	<70	<70	<70	<70	<70	<70	<70
VFA – Lactic Acid	AM23G	100	ug/L	140	<100	<100	<100	<100	<100	<100
VFA – Pentaonic Acid	AM23G	70	ug/L	<70	<70	<70	<70	<70	<70	<70
VFA – Propionic Acid	AM23G	70	ug/L	71	<70	<70	<70	<70	<70	<70
VFA – Pyruvic Acid	AM23G	70	ug/L	<70	<70	<70	<70	<70	<70	<70
Hydrogen	AM20GAX	0.6	nM	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Methane	AM20GAX	0.015	ug/L	0.41	0.27	74	120	12	95	2000
Ethene	AM20GAX	0.01	ug/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.086
Ethane	AM20GAX	0.01	ug/L	<0.010	<0.010	<0.010	<0.010	0.01	<0.010	<0.010
CO2-Dissolved	SM4500CO2C	1	mg/L	20	31	108	182	147	27	294
Alkalinity	SM 2320B	1000	ug/L	<1000	10000	14000	<1000	11000	<1000	<1000
Sulfate	SM426C	5000	ug/L	9100	<5000	11200	33300	35100	10100	15100
Sulfide	SM4500-S2D	100	ug/L	<100	<100	<100	<100	<100	<100	<100
Chloride	SM 4500-CLB	5000	ug/L	9000	37000	6000	5000	11000	7000	51000
TOC	SM 5310C	150	ug/L	<150	2010	5880	1210	3190	<150	7.55
COD	HACH8000	10000	ug/L	<10000	<10000	<10000	<10000	<10000	<10000	<10000
BOD	SM5210B	2000	ug/L	<2000	<2000	<2000	<2000	<2000	<2000	<2000
Iron	SM3111B	14	ug/L	50	2289	6745	168	6025	303	306
Nitrate	EPA 353.2	30	ug/L	7300	<30	<30	4110	1850	2010	590
Temperature	SM2550B	0	Degrees C	17.38	10.01	13.44	16.24	18.95	18.22	20.28
ORP	SM2580B	-900	mV	280.1	258.8	163.2	254.5	213.5	225.2	228.2
DO	SM4500OG	0	mg/L	8.02	6.61	0.67	0.78	0.62	1.23	0.25
pH	SM4500HB	0	Standard Units	4.17	4.79	5.14	4.34	4.95	4.38	4.32
Specific Conductance	SM2510B	0	umhos	105	36	82	133	170	47	224
Turbidity	SM2130B	0	NTU	53.70	25.20	21.60	10.60	8.04	2.57	29.10

Notes:
VFA = Volatile Fatty Acids
mdl* = Lowest Method Detection Limit for Lab Parameters or Lowest Field Measurement Possible



Lenoir County Active C&D Upon Closed MSWLF
January 12, 2010

WELL #	TOP OF PIPE ELEVATION (FT)	DEPTH TO WATER (FT)	WATER ELEVATION (FT)
MW-1	98.34	18.00	80.34
MW-3	63.87	4.99	58.88
MW-4	68.03	4.99	63.04
MW-6	85.56	10.04	75.52
MW-8	88.29	21.1	67.19
MW-9	62.40	5.18	57.22
MW-10	87.15	22.26	64.89
MW-11	78.26	12.67	65.59
MW-12	77.46	15.11	62.35

Municipal Services Engineering Company, P.A.
P.O. BOX 97 GARNER, N.C. 27529 (919) 772-5393
P.O. BOX 349 BOONE, N.C. 27529 (704) 262-1767
LICENSE NUMBER: C-0281

ACTIVE C&D LANDFILL OVER
CLOSED MSWLF
LENOIR COUNTY
NORTH CAROLINA

DATE	BY	REV.	DESCRIPTION

SINGLE DAY POTENTIOMETRIC MAP
JANUARY 12, 2010

SCALE: 1"=100'
DATE: 3/24/10
DRWN. BY: M. GERMAN
CHKD. BY: J. PFOHL
PROJECT NUMBER
G10015.0
DRAWING NO. PM
SHEET NO. PLATE 1

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

ID#: 6009 A

LENOIR CO. LANDFILL (OLD)
COUNTY OF LENOIR
MR. TOM MILLER
P.O. BOX 756
KINSTON ,NC 28502

DATE COLLECTED: 01/12/10
DATE REPORTED : 01/22/10

REVIEWED BY:

PARAMETERS	MDL	SWSL	Well #1	Well #3	Well #4	Well #6	Well #9	Analysis Date	Analyst	Method Code
BOD, mg/l	2.0	2.0	--- U	--- U	--- U	--- U	--- U	01/13/10	TRB	SM5210B
COD, mg/l	10.0	10.0	--- U	--- U	--- U	--- U	--- U	01/14/10	TRB	HACH8000
Nitrate Nitrogen as N, mg/l	0.03	10.0	7.30 J	--- U	--- U	4.11 J	1.85 J	01/13/10	ANO	EPA353.2
Total Organic Carbon, mg/l	0.15	1.0	--- U	2.01	5.88	1.21	3.19	01/19/10	SEJ	SM5310C
Total Alkalinity, mg/l	1.0	1.0	--- U	10	14	--- U	11	01/13/10	TRB	SM2320B
Chloride, mg/l	5.0	5.0	9	37	6	5	11	01/14/10	JIJ	SM4500-CLB
Sulfate, mg/l	5.0	250.0	9.1 J	--- U	11.2 J	33.3 J	35.1 J	01/19/10	TRB	SM426C
Iron, ug/l	14.0	300.0	50 J	2289	6745	168 J	6025	01/22/10	ADD	SM3111B
Mercury, ug/l	0.03	0.20	0.041 J	--- U	--- U	--- U	0.12 J	01/14/10	LFJ	EPA200.8
Sulfide, ug/l	100	1000	--- U	--- U	--- U	--- U	--- U	01/15/10	LFJ	SM4500-S2D
Dissolved Oxygen, mg/l			8.02	6.61	0.67	0.78	0.62	01/12/10	RJH	SM4500OG
Carbon Dioxide, mg/l			20	31	108	182	147	01/13/10	TRB	SM4500CO2C
ORP, mv			280.1	258.8	163.2	254.5	213.5	01/12/10	RJH	SM2580B

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 17715
Wastewater ID: 10

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

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

ID#: 6009 A

LENOIR CO. LANDFILL (OLD)
COUNTY OF LENOIR
MR. TOM MILLER
P.O. BOX 756
KINSTON ,NC 28502

DATE COLLECTED: 01/12/10
DATE REPORTED : 01/22/10

REVIEWED BY:

PARAMETERS	MDL	SWSL	Well #11	Well #12	SW-1	* SW-3	Analysis Date	Analyst	Method Code
BOD, mg/l	2.0	2.0	--- U	--- U			01/13/10	TRB	SM5210B
COD, mg/l	10.0	10.0	--- U	--- U			01/14/10	TRB	HACH8000
Nitrate Nitrogen as N, mg/l	0.03	10.0	2.01 J	0.59 J			01/13/10	ANO	EPA353.2
Total Organic Carbon, mg/l	0.15	1.0	--- U	7.55			01/19/10	SEJ	SM5310C
Total Alkalinity, mg/l	1.0	1.0	--- U	--- U			01/13/10	TRB	SM2320B
Chloride, mg/l	5.0	5.0	7	51			01/14/10	JIJ	SM4500-CLB
Sulfate, mg/l	5.0	250.0	10.1 J	15.1 J			01/19/10	TRB	SM426C
Iron, ug/l	14.0	300.0	303	306			01/22/10	ADD	SM3111B
Mercury, ug/l	0.03	0.20	--- U	--- U	--- U	--- U	01/14/10	LFJ	EPA200.8
Sulfide, ug/l	100	1000	--- U	--- U			01/15/10	LFJ	SM4500-S2D
Dissolved Oxygen, mg/l			1.23	0.25	4.54	Missing	01/12/10	RJH	SM4500OG
Carbon Dioxide, mg/l			27	294			01/13/10	TRB	SM4500CO2C
ORP, mv			225.2	228.2	228.6	Missing	01/12/10	RJH	SM2580B

* COLLECTED ON 01/11/10

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

microseeps
From insight comes solutions

Client Name: Environment 1, Inc.
Contact: Steve Jones
Address: PO Box 7085
114 Oakmont Drive
Greenville, NC 27835

Page: Page 1 of 8
Lab Proj #: P1001144
Report Date: 01/28/10
Client Proj Name: Lenoir County
Client Proj #: Lenoir County

Laboratory Results

Total pages in data package: 8

Lab Sample #	Client Sample ID
P1001144-01	WELL #1
P1001144-02	WELL #3
P1001144-03	WELL #4
P1001144-04	WELL #6
P1001144-05	WELL #9
P1001144-06	WELL #11
P1001144-07	WELL #12

Microseeps test results meet all the requirements of the NELAC standards or provide reasons and/or justification if they do not.

Approved By: Heather Hauser ***Date:*** 2/12/10

Project Manager: Heather Hauser

The analytical results reported here are reliable and usable to the precision expressed in this report. As required by some regulating authorities, a full discussion of the uncertainty in our analytical results can be obtained at our web site or through customer service. Unless otherwise specified, all results are reported on a wet weight basis.

As a valued client we would appreciate your comments on our service.
Please call customer service at (412)826-5245 or email customerservice@microseeps.com.

Case Narrative: The client sample ID for P1001144-03 has been corrected per the client's request on 2/12/10.

Client Name: Environment 1, Inc.
Contact: Steve Jones
Address: PO Box 7085
114 Oakmont Drive
Greenville, NC 27835

Lab Proj #: P1001144
Report Date: 01/28/10
Client Proj Name: Lenoir County
Client Proj #: Lenoir County

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
WELL #1	Vapor	P1001144-01	12 Jan. 10	14 Jan. 10 12:52

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	<0.010	0.010	ug/L	AM20GAX	1/14/10	sl
N Ethene	<0.010	0.010	ug/L	AM20GAX	1/14/10	sl
N Hydrogen	<0.600	0.600	nM	AM20GAX	1/14/10	sl
N Methane	0.410	0.015	ug/L	AM20GAX	1/14/10	sl
SemiVolatiles						
N Acetic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Butyric Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Hexanoic Acid	<0.100	0.100	mg/L	AM23G	1/26/10	kb
N i-Hexanoic Acid	<0.100	0.100	mg/L	AM23G	1/26/10	kb
N i-Pentanoic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Lactic Acid	0.140	0.100	mg/L	AM23G	1/26/10	kb
N Pentanoic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Propionic Acid	0.071	0.070	mg/L	AM23G	1/26/10	kb
N Pyruvic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb

N - NELAC certified analysis

Client Name: Environment 1, Inc.
Contact: Steve Jones
Address: PO Box 7085
114 Oakmont Drive
Greenville, NC 27835

Lab Proj #: P1001144
Report Date: 01/28/10
Client Proj Name: Lenoir County
Client Proj #: Lenoir County

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
WELL #3	Vapor	P1001144-02	12 Jan. 10	14 Jan. 10 12:52

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	<0.010	0.010	ug/L	AM20GAX	1/14/10	sl
N Ethene	<0.010	0.010	ug/L	AM20GAX	1/14/10	sl
N Hydrogen	<0.600	0.600	nM	AM20GAX	1/14/10	sl
N Methane	0.270	0.015	ug/L	AM20GAX	1/14/10	sl
SemiVolatiles						
N Acetic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Butyric Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Hexanoic Acid	<0.100	0.100	mg/L	AM23G	1/26/10	kb
N i-Hexanoic Acid	<0.100	0.100	mg/L	AM23G	1/26/10	kb
N i-Pentanoic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Lactic Acid	<0.100	0.100	mg/L	AM23G	1/26/10	kb
N Pentanoic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Propionic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Pyruvic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb

N - NELAC certified analysis

Client Name: Environment 1, Inc.
Contact: Steve Jones
Address: PO Box 7085
114 Oakmont Drive
Greenville, NC 27835

Lab Proj #: P1001144
Report Date: 01/28/10
Client Proj Name: Lenoir County
Client Proj #: Lenoir County

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
WELL #4	Vapor	P1001144-03	12 Jan. 10	14 Jan. 10 12:52

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	<0.010	0.010	ug/L	AM20GAX	1/14/10	sl
N Ethene	<0.010	0.010	ug/L	AM20GAX	1/14/10	sl
N Hydrogen	<0.600	0.600	nM	AM20GAX	1/14/10	sl
N Methane	74.000	0.015	ug/L	AM20GAX	1/14/10	sl
SemiVolatiles						
N Acetic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Butyric Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Hexanoic Acid	<0.100	0.100	mg/L	AM23G	1/26/10	kb
N i-Hexanoic Acid	<0.100	0.100	mg/L	AM23G	1/26/10	kb
N i-Pentanoic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Lactic Acid	<0.100	0.100	mg/L	AM23G	1/26/10	kb
N Pentanoic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Propionic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Pyruvic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb

N - NELAC certified analysis

Client Name: Environment 1, Inc.
Contact: Steve Jones
Address: PO Box 7085
114 Oakmont Drive
Greenville, NC 27835

Lab Proj #: P1001144
Report Date: 01/28/10
Client Proj Name: Lenoir County
Client Proj #: Lenoir County

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
WELL #6	Vapor	P1001144-04	12 Jan. 10	14 Jan. 10 12:52

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	<0.010	0.010	ug/L	AM20GAX	1/14/10	sl
N Ethene	<0.010	0.010	ug/L	AM20GAX	1/14/10	sl
N Hydrogen	<0.600	0.600	nM	AM20GAX	1/14/10	sl
N Methane	120.000	0.015	ug/L	AM20GAX	1/14/10	sl
SemiVolatiles						
N Acetic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Butyric Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Hexanoic Acid	<0.100	0.100	mg/L	AM23G	1/26/10	kb
N i-Hexanoic Acid	<0.100	0.100	mg/L	AM23G	1/26/10	kb
N i-Pentanoic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Lactic Acid	<0.100	0.100	mg/L	AM23G	1/26/10	kb
N Pentanoic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Propionic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Pyruvic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb

N - NELAC certified analysis

Client Name: Environment 1, Inc.
Contact: Steve Jones
Address: PO Box 7085
114 Oakmont Drive
Greenville, NC 27835

Lab Proj #: P1001144
Report Date: 01/28/10
Client Proj Name: Lenoir County
Client Proj #: Lenoir County

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
WELL #9	Vapor	P1001144-05	12 Jan. 10	14 Jan. 10 12:52

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	0.011	0.010	ug/L	AM20GAX	1/14/10	sl
N Ethene	<0.010	0.010	ug/L	AM20GAX	1/14/10	sl
N Hydrogen	<0.600	0.600	nM	AM20GAX	1/14/10	sl
N Methane	12.000	0.015	ug/L	AM20GAX	1/14/10	sl
SemiVolatiles						
N Acetic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Butyric Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Hexanoic Acid	<0.100	0.100	mg/L	AM23G	1/26/10	kb
N i-Hexanoic Acid	<0.100	0.100	mg/L	AM23G	1/26/10	kb
N i-Pentanoic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Lactic Acid	<0.100	0.100	mg/L	AM23G	1/26/10	kb
N Pentanoic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Propionic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb
N Pyruvic Acid	<0.070	0.070	mg/L	AM23G	1/26/10	kb

N - NELAC certified analysis

Client Name: Environment 1, Inc.
Contact: Steve Jones
Address: PO Box 7085
114 Oakmont Drive
Greenville, NC 27835

Lab Proj #: P1001144
Report Date: 01/28/10
Client Proj Name: Lenoir County
Client Proj #: Lenoir County

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
WELL #11	Vapor	P1001144-06	12 Jan. 10	14 Jan. 10 12:52

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	<0.010	0.010	ug/L	AM20GAX	1/14/10	sl
N Ethene	<0.010	0.010	ug/L	AM20GAX	1/14/10	sl
N Hydrogen	<0.600	0.600	nM	AM20GAX	1/14/10	sl
N Methane	95.000	0.015	ug/L	AM20GAX	1/14/10	sl
SemiVolatiles						
N Acetic Acid	<0.070	0.070	mg/L	AM23G	1/27/10	kb
N Butyric Acid	<0.070	0.070	mg/L	AM23G	1/27/10	kb
N Hexanoic Acid	<0.100	0.100	mg/L	AM23G	1/27/10	kb
N i-Hexanoic Acid	<0.100	0.100	mg/L	AM23G	1/27/10	kb
N i-Pentanoic Acid	<0.070	0.070	mg/L	AM23G	1/27/10	kb
N Lactic Acid	<0.100	0.100	mg/L	AM23G	1/27/10	kb
N Pentanoic Acid	<0.070	0.070	mg/L	AM23G	1/27/10	kb
N Propionic Acid	<0.070	0.070	mg/L	AM23G	1/27/10	kb
N Pyruvic Acid	<0.070	0.070	mg/L	AM23G	1/27/10	kb

N - NELAC certified analysis

Client Name: Environment 1, Inc.
Contact: Steve Jones
Address: PO Box 7085
114 Oakmont Drive
Greenville, NC 27835

Lab Proj #: P1001144
Report Date: 01/28/10
Client Proj Name: Lenoir County
Client Proj #: Lenoir County

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
WELL #12	Vapor	P1001144-07	12 Jan. 10	14 Jan. 10 12:52

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	<0.010	0.010	ug/L	AM20GAX	1/14/10	sl
N Ethene	0.086	0.010	ug/L	AM20GAX	1/14/10	sl
N Hydrogen	<0.600	0.600	nM	AM20GAX	1/14/10	sl
N Methane	2000.000	0.015	ug/L	AM20GAX	1/14/10	sl
SemiVolatiles						
N Acetic Acid	<0.070	0.070	mg/L	AM23G	1/27/10	kb
N Butyric Acid	<0.070	0.070	mg/L	AM23G	1/27/10	kb
N Hexanoic Acid	<0.100	0.100	mg/L	AM23G	1/27/10	kb
N i-Hexanoic Acid	<0.100	0.100	mg/L	AM23G	1/27/10	kb
N i-Pentanoic Acid	<0.070	0.070	mg/L	AM23G	1/27/10	kb
N Lactic Acid	<0.100	0.100	mg/L	AM23G	1/27/10	kb
N Pentanoic Acid	<0.070	0.070	mg/L	AM23G	1/27/10	kb
N Propionic Acid	<0.070	0.070	mg/L	AM23G	1/27/10	kb
N Pyruvic Acid	<0.070	0.070	mg/L	AM23G	1/27/10	kb

N - NELAC certified analysis

Microseeps Lab. Proj. # Pioonu

CHAIN - OF - CUSTODY RECORD

Microseeps COC cont. #

Phone: (412) 826-5245 | Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238 | Fax No. : (412) 826-3433

Company : ENVIRONMENT 1, INC.
Co. Address : 114 OAKNOLL DR, GREENVILLE NC
Phone # : 252-756-6208 Fax # : 252-756-0635
Proj. Manager : STEVE JONES
Proj. Name/Number : LENOIR COUNTY (6009)
Sampler's signature : Bob Hogge

Cooler Temp.

Results to :

Invoice to :

Parameters Requested: HYDROCARBON; LL VOL BTEX ACIDS; METH/ETHAN/ETHENE

Sample ID	Sample Description	Sample Type Water	Vapor	Solid	Date	Time	# Bottles	HYDROCARBON	LL VOL BTEX ACIDS	METH/ETHAN/ETHENE	Remarks :
WELL #1	WELL 1	✓	✓		9/12/10	NA	4	✓	✓	✓	LOWEST REPORTING
WELL #3	WELL 3	✓	✓		↓	↓	4	✓	✓	✓	LEVELS
WELL #4 SS 2/12/10	WL4R	✓	✓		↓	↓	4	✓	✓	✓	↓
WELL #6	WELL 6	✓	✓		↓	↓	4	✓	✓	✓	↓
WELL #9	WELL 9	✓	✓		↓	↓	4	✓	✓	✓	↓
WELL #11	WL 11	✓	✓		↓	↓	4	✓	✓	✓	↓
WELL #12	WL 12	✓	✓		↓	↓	4	✓	✓	✓	↓

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
[illegible]	ENVIRONMENT 1	1/18/10	9:00A	[illegible]	[illegible]	1/19	[illegible]
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Accompany Samples YELLOW COPY : Laboratory File PINK COPY : Submitter

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6009 A **Week: 4**

LENOIR CO. LANDFILL (OLD)
COUNTY OF LENOIR
MR. TOM MILLER
P.O. BOX 756
KINSTON NC 28502

(252) 566-5408

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

SAMPLE LOCATION		COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	BOD	COD	Nitrate	TOC	Alkalinity	Chloride	Sulfate	Metals	Sulfide	DO	CO2	ORP				
CHLORINE NEUTRALIZED AT COLLECTION																						
pH CHECK (LAB)								<2		<2				<2	>9							
CONTAINER TYPE, P/G							P	P	P	P	P	P	P	P	P	P	P	P				
CHEMICAL PRESERVATION							A	C	A	C	A	A	A	A	F D	A	A	A				
Well #1	01	12 10	1505		12.38	11	G	G	G	G	G	G	G	G	G	G	G	G				
Well #3	01	12 10	1230		10.01	11	G	G	G	G	G	G	G	G	G	G	G	G				
Well #4R	01	12 10	1310		13.44	11	G	G	G	G	G	G	G	G	G	G	G	G				
Well #6	01	12 10	1420		16.24	11	G	G	G	G	G	G	G	G	G	G	G	G				
Well #9	01	12 10	1145		18.95	11	G	G	G	G	G	G	G	G	G	G	G	G				
Well #11	01	12 10	1015		18.22	11	G	G	G	G	G	G	G	G	G	G	G	G				
Well #12	01	12 10	1055		20.08	11	G	G	G	G	G	G	G	G	G	G	G	G				
SW-1	01	12 10	1335		5.95	2								G		G		G				
~~SW-3~~	01	11 10	1215		5	2								G		G		G				

PARAMETERS

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE
G - NA THIOSULFATE

CLASSIFICATION:
☐ WASTEWATER (NPDES)
☐ DRINKING WATER
☐ DWQ/GW
☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY: Y N

SAMPLES COLLECTED BY: (Please Print) H Dage / Fox

SAMPLES RECEIVED IN LAB AT 0.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bob H Dage 01	12 10	15	1/13 8:07
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:
SW 3 WAS COLLECTED / SEE / 2/15/10
BUT NO DO / ORP

PLEASE READ Instructions for completing this form 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.

№ 199034

FORM #5

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

ID#: 6009

LENOIR CO. LANDFILL (OLD)
COUNTY OF LENOIR
MR. TOM MILLER
P.O. BOX 756
KINSTON ,NC 28502

DATE COLLECTED: 01/12/10
DATE REPORTED : 02/05/10

REVIEWED BY:

PARAMETERS	MDL	SWSL	Well #1	Well #3	Well #4	Well #6	Well #8	Analysis Date	Analyst	Method Code
PH (field measurement), Units			4.17	4.79	5.14	4.34		01/12/10	RJH	SM4500HB
Antimony, ug/l	0.06	6.0	0.1 J	--- U	0.1 J	0.1 J		01/14/10	LFJ	EPA200.8
Arsenic, ug/l	0.17	10.0	0.2 J	0.5 J	2.1 J	--- U		01/14/10	LFJ	EPA200.8
Barium, ug/l	0.04	100.0	45.8 J	31.5 J	21.7 J	51.5 J		01/14/10	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	0.1 J	--- U	--- U	0.1 J		01/14/10	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J	--- U	--- U	0.1 J		01/14/10	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	1.5 J	0.1 J	0.5 J	0.6 J		01/14/10	LFJ	EPA200.8
Copper, ug/l	0.04	10.0	1.2 J	0.4 J	0.5 J	0.2 J		01/14/10	LFJ	EPA200.8
Total Chromium, ug/l	0.10	10.0	--- U	0.8 J	0.6 J	--- U		01/14/10	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	0.8 J	0.4 J	--- U	0.6 J		01/14/10	LFJ	EPA200.8
Nickel, ug/l	0.04	50.0	1.6 J	0.4 J	0.6 J	0.8 J		01/14/10	LFJ	EPA200.8
Selenium, ug/l	0.12	10.0	--- U	--- U	--- U	--- U		01/14/10	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	0.7 J	0.1 J	0.1 J	0.1 J		01/14/10	LFJ	EPA200.8
Thallium, ug/l	0.03	5.0	0.1 J	--- U	--- U	--- U		01/14/10	LFJ	EPA200.8
Vanadium, ug/l	0.28	25.0	0.4 J	1.8 J	3.1 J	--- U		01/14/10	LFJ	EPA200.8
Zinc, ug/l	0.14	10.0	5.1 J	25	5.3 J	4.6 J		01/14/10	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	53.70	25.20	21.60	10.60		01/12/10	RJH	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	105	36	82	133		01/12/10	RJH	SM2510B
Temperature, °C			17.38	10.01	13.44	16.24		01/12/10	RJH	SM2550B
Static Water Level, feet			18.00	4.99	4.99	10.04	21.14	01/12/10	RJH	
Well Depth, feet			38.94	15.82	15.84	16.96		01/12/10	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

ID#: 6009

LENOIR CO. LANDFILL (OLD)
COUNTY OF LENOIR
MR. TOM MILLER
P.O. BOX 756
KINSTON ,NC 28502

DATE COLLECTED: 01/12/10
DATE REPORTED : 02/05/10

REVIEWED BY:

PARAMETERS	MDL	SWSL	Well #9	Well #10	Well #11	Well #12	SW-1	Analysis Date	Analyst	Method Code
PH (field measurement), Units			4.95		4.38	4.32	5.82	01/12/10	RJH	SM4500HB
Antimony, ug/l	0.06	6.0	--- U		--- U	--- U	0.1 J	01/14/10	LFJ	EPA200.8
Arsenic, ug/l	0.17	10.0	2.3 J		--- U	0.3 J	0.3 J	01/14/10	LFJ	EPA200.8
Barium, ug/l	0.04	100.0	72.8 J		25.8 J	215	51.9 J	01/14/10	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	0.1 J		0.1 J	0.1 J	0.1 J	01/14/10	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J		--- U	0.2 J	--- U	01/14/10	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	11		0.2 J	2.1 J	0.6 J	01/14/10	LFJ	EPA200.8
Copper, ug/l	0.04	10.0	0.3 J		0.2 J	0.7 J	0.5 J	01/14/10	LFJ	EPA200.8
Total Chromium, ug/l	0.10	10.0	--- U		--- U	0.4 J	0.2 J	01/14/10	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	0.1 J		--- U	--- U	0.2 J	01/14/10	LFJ	EPA200.8
Nickel, ug/l	0.04	50.0	3.2 J		0.4 J	3 J	0.9 J	01/14/10	LFJ	EPA200.8
Selenium, ug/l	0.12	10.0	--- U		--- U	1.3 J	--- U	01/14/10	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	0.1 J		0.2 J	0.2 J	0.1 J	01/14/10	LFJ	EPA200.8
Thallium, ug/l	0.03	5.0	0.1 J		--- U	--- U	--- U	01/14/10	LFJ	EPA200.8
Vanadium, ug/l	0.28	25.0	0.6 J		--- U	0.5 J	0.5 J	01/14/10	LFJ	EPA200.8
Zinc, ug/l	0.14	10.0	11		2.3 J	1.8 J	14	01/14/10	LFJ	EPA200.8
Turbidity, NTU	1.0	1.0	16.70		8.04	2.57	29.10	01/12/10	RJH	SM2130B
Conductivity (at 25c), uMhos	1.0	1.0	170		47	224	120	01/12/10	RJH	SM2510B
Temperature, °C			18.95		18.22	20.28	5.95	01/12/10	RJH	SM2550B
Static Water Level, feet			5.18	22.26	12.67	15.11		01/12/10	RJH	
Well Depth, feet			21.82		35.61	38.39		01/12/10	RJH	

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

ID#: 6009

LENOIR CO. LANDFILL (OLD)
COUNTY OF LENOIR
MR. TOM MILLER
P.O. BOX 756
KINSTON ,NC 28502

DATE COLLECTED: 01/12/10
DATE REPORTED : 02/05/10

REVIEWED BY:

PARAMETERS	MDL	SWSL	* SW-3	Trip Blank	Equipment Blank	Analysis Date	Analyst	Method Code
PH (field measurement), Units			5.8			01/11/10	RJH	SM4500HB
Antimony, ug/l	0.06	6.0	0.1 J		--- U	01/14/10	LFJ	EPA200.8
Arsenic, ug/l	0.17	10.0	0.2 J		--- U	01/14/10	LFJ	EPA200.8
Barium, ug/l	0.04	100.0	50.6 J		0.1 J	01/14/10	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	--- U		--- U	01/14/10	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	--- U		--- U	01/14/10	LFJ	EPA200.8
Cobalt, ug/l	0.02	10.0	0.1 J		--- U	01/14/10	LFJ	EPA200.8
Copper, ug/l	0.04	10.0	0.6 J		--- U	01/14/10	LFJ	EPA200.8
Total Chromium, ug/l	0.10	10.0	0.2 J		--- U	01/14/10	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	0.1 J		--- U	01/14/10	LFJ	EPA200.8
Nickel, ug/l	0.04	50.0	0.4 J		--- U	01/14/10	LFJ	EPA200.8
Selenium, ug/l	0.12	10.0	--- U		--- U	01/14/10	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	--- U		0.1 J	01/14/10	LFJ	EPA200.8
Thallium, ug/l	0.03	5.0	--- U		--- U	01/14/10	LFJ	EPA200.8
Vanadium, ug/l	0.28	25.0	0.5 J		0.3 J	01/14/10	LFJ	EPA200.8
Zinc, ug/l	0.14	10.0	6.4 J		--- U	01/14/10	LFJ	EPA200.8
Turbidity, NTU	0.14	10.0						
Conductivity (at 25c), uMhos	0.14	10.0	129			01/11/10	RJH	SM2510B
Temperature, °C	0.14	10.0	5			01/11/10	RJH	SM2550B

* COLLECTED ON 01/11/10

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: LENOIR CO. LANDFILL (OLD)
COUNTY OF LENOIR
MR. TOM MILLER
P.O. BOX 756
KINSTON, NC 28502

CLIENT ID: 6009

ANALYST: MAO
DATE COLLECTED: 01/12/10
DATE ANALYZED: 01/18/10
DATE REPORTED: 02/05/10

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	Well #1	Well #3	Well #4	Well #6	Well #9
1. Chloromethane	0.77	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.63	1.0	--- U	--- U	--- U	--- U	--- U
3. Bromomethane	0.67	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.48	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.24	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.17	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	9.06	100.0	--- U	--- U	--- U	--- U	--- U
8. Iodomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.23	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.64	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.20	5.0	--- U	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	--- U	--- U	--- U	--- U	--- U
15. 2-Butanone	2.21	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U	0.20 J	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.68	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: LENOIR CO. LANDFILL (OLD)
COUNTY OF LENOIR
MR. TOM MILLER
P.O. BOX 756
KINSTON, NC 28502

CLIENT ID: 6009

ANALYST: MAO
DATE COLLECTED: 01/12/10
DATE ANALYZED: 01/18/10
DATE REPORTED: 02/05/10

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	Well #11	Well #12	SW-1	Trip Blank	Equipment Blank
1. Chloromethane	0.77	1.0	--- U	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.63	1.0	--- U	0.80 J	--- U	--- U	--- U
3. Bromomethane	0.67	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.48	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.24	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.17	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	9.06	100.0	--- U	--- U	--- U	--- U	--- U
8. Iodomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.23	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.64	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.20	5.0	--- U	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	--- U	--- U	--- U	--- U	--- U
15. 2-Butanone	2.21	100.0	--- U	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.24	1.0	--- U	2.50	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	0.40 J	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.23	1.0	--- U	--- U	--- U	--- U	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.68	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- U	--- U	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

Environment 1, Incorporated

Drinking Water ID: 37715
Wastewater ID: 10

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

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

CLIENT: LENOIR CO. LANDFILL (OLD)
COUNTY OF LENOIR
MR. TOM MILLER
P.O. BOX 756
KINSTON, NC 28502

CLIENT ID: 6009 B

ANALYST: MAO
DATE COLLECTED: 01/11/10
DATE ANALYZED: 01/13/10
DATE REPORTED: 02/15/10

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	SW-3
1. Chloromethane	0.77	1.0	--- U
2. Vinyl Chloride	0.63	1.0	--- U
3. Bromomethane	0.67	10.0	--- U
4. Chloroethane	0.48	10.0	--- U
5. Trichlorofluoromethane	0.24	1.0	--- U
6. 1,1-Dichloroethene	0.17	5.0	--- U
7. Acetone	9.06	100.0	--- U
8. Iodomethane	0.26	10.0	--- U
9. Carbon Disulfide	0.23	100.0	--- U
10. Methylene Chloride	0.64	1.0	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U
12. 1,1-Dichloroethane	0.20	5.0	--- U
13. Vinyl Acetate	0.20	50.0	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	--- U
15. 2-Butanone	2.21	100.0	--- U
16. Bromochloromethane	0.27	3.0	--- U
17. Chloroform	0.25	5.0	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U
20. Benzene	0.24	1.0	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U
22. Trichloroethene	0.23	1.0	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U
24. Bromodichloromethane	0.21	1.0	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U
27. Toluene	0.23	1.0	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U
30. Tetrachloroethene	0.17	1.0	--- U
31. 2-Hexanone	1.57	50.0	--- U
32. Dibromochloromethane	0.24	3.0	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U
34. Chlorobenzene	0.30	3.0	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U
36. Ethylbenzene	0.21	1.0	--- U
37. Xylenes	0.68	5.0	--- U
38. Dibromomethane	0.28	10.0	--- U
39. Styrene	0.19	1.0	--- U
40. Bromoform	0.20	3.0	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U
46. Acrylonitrile	2.72	200.0	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U

J = Between MDL and SWSL, U = Below ALL Quanititation Limits.

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6009 **Week: 3**

LENOIR CO. LANDFILL (OLD)
COUNTY OF LENOIR
MR. TOM MILLER
P.O. BOX 756
KINSTON NC 28502

(252) 566-5408

DISINFECTION
- [ ] CHLORINE
- [ ] UV
- [ ] NONE
- [ ] _____

SAMPLE LOCATION		COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field pH	Metals	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2
								12					12	12	12
							P	P	P	P	P		G	G	G
							A	A	A	A	A		E	E	E
Well #1	01	1210	1505		17.38	5	G	G	G	G	G	G	G	G	G
Well #3	01	1210	1230		10.01	4	G	G	G	G	G	G	G	G	
Well #4R	01	1210	1310		13.44	4	G	G	G	G	G	G	G	G	
Well #6	01	1210	1420		16.24	4	G	G	G	G	G	G	G	G	
Well #8	01	1210				1						G			
Well #9	01	1210	1145		18.95	4	G	G	G	G	G	G	G	G	
Well #10	01	1210				1						G			
Well #11	01	1210	1015		18.72	4	G	G	G	G	G	G	G	G	
Well #12	01	1210	1055		20.28	4	G	G	G	G	G	G	G	G	
SW-1	01	1210	1335		5.95	4	G	G	G	G	G		G	G	
SW-3	01	1210	1215		5	4	G	G	G	G	G		G	G	

SW-3 WAS COLLECTED SS 2/15/10

PARAMETERS

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB)

CONTAINER TYPE, P/G

CHEMICAL PRESERVATION

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE
G - NA THIOSULFATE

CLASSIFICATION:
- [ ] WASTEWATER (NPDES)
- [ ] DRINKING WATER
- [ ] DWQ/GW
- [X] SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
(Y) N

SAMPLES COLLECTED BY: (Please Print) Hilgoe / [illegible]

SAMPLES RECEIVED IN LAB AT 0.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Bob Hilgoe 01	1210	B [illegible]	1-13 8:00
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

~~SW-3 DRY~~ SS 2/15/10

PLEASE READ Instructions for completing this form 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.

№ 195632

FORM #5

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

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

CHAIN OF CUSTODY RECORD

CLIENT: 6009 **Week: 3**

LENOIR CO. LANDFILL (OLD)
COUNTY OF LENOIR
MR. TOM MILLER
P.O. BOX 756
KINSTON NC 28502

(252) 566-5408

DISINFECTION
- ☐ CHLORINE
- ☐ UV
- ☐ NONE
- ☐ _____

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field pH	Metals	Turbidity	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2
							12					12	12	12
						P	P	P	P	P		G	G	G
						A	A	A	A	A		E	E	E
Trip Blank					2									
Equipment Blank (S)	12 10				3		G					G	G	

PARAMETERS

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB)

CONTAINER TYPE, P/G

CHEMICAL PRESERVATION

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE
G - NA THIOSULFATE

CLASSIFICATION:
- ☐ WASTEWATER (NPDES)
- ☐ DRINKING WATER
- ☐ DWQ/GW
- ☒ SOLID WASTE SECTION

CHAIN OF CUSTODY MAINTAINED DURING SHIPMENT/DELIVERY
(Y) N

SAMPLES COLLECTED BY: (Please Print)
[signature]

SAMPLES RECEIVED IN LAB AT 0.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
[signature]	12 10	[signature]	1-13 8:07
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

PLEASE READ Instructions for completing this form 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.

№ 195631

FORM #5