DENR USE ONLY: ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

RECEIVED
APR 8 2015
SOLID WASTE SECTION

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Quible & Associates, P.C. (On behalf of Currituck County)

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Steve Jones (Environment 1) Phone: 252.756.6208

E-mail:

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Currituck County Landfill	216 Airport Road	27-01	.0500	December 23, 2014

Environmental Status: (Check all that apply)

☐ Initial/Background Monitoring ☒ Detection Monitoring ☐ Assessment Monitoring ☐ Corrective Action

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
☐ Groundwater monitoring data from private water supply wells
☐ Leachate monitoring data
☒ Surface water monitoring data
☐ Methane gas monitoring data
☐ Corrective action data (specify)
☐ Other(specify)

Notification attached?

☐ No. No groundwater or surface water standards were exceeded.
☒ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Warren Dennis Eadus — Agent — 252.261.3300

Facility Representative Name (Print) — Title — (Area Code) Telephone Number

Signature — 4/6/15 Date

Affix NC Licensed/ Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 1954 GEOLOGIST WARREN DENNIS EADUS 4/6/15

PO Drawer 870 Kitty Hawk, NC 27949

Facility Representative Address

PE Corporate License C-0208/ PG Corporate License C-468

NC PE Firm License Number (if applicable effective May 1, 2009)

Revised 6/2009

Quible

Quible & Associates, P.C.

ENGINEERING • ENVIRONMENTAL SCIENCES • PLANNING • SURVEYING

SINCE 1959

P.O. Drawer 870
Kitty Hawk, NC 27949
Phone: 252-261-3300
Fax: 252-261-1260
web: quible.com

April 6, 2015

Donald Herndon
NC DENR-Division of Waste Mgt-Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

Re: Environmental Reporting Form
Currituck County MSW Landfill
Permit #27-01

Mr. Herndon:

Please find enclosed an Environmental Monitoring Reporting Form and associated data and documentation related to the groundwater and surface water sampling activities conducted at the above referenced facility on December 23, 2014by Environment 1, Incorporated (Environment 1). Quible & Associates, P.C. (Quible) was asked to review the laboratory analytical data and provide the appropriate technical assistance in fulfilling the Division of Waste Management Solid Waste Sections' (Division) reporting requirements.

Based on the groundwater analytical results reported in the December 23, 2014 laboratory analytical report, the concentrations of arsenic reported in the groundwater samples collected from Well #6 (30 µg/L) exceed the SWSL. Concentrations of barium reported in the groundwater samples collected from Well #8 (181 µg/L) exceed the SWSL. Concentrations of cadmium reported in the groundwater samples collected from Well #1 (2 µg/L) exceed both the SWSL and the 2L GQS.

Concentrations of benzene reported in the groundwater samples collected from Well #6 (1.10 µg/L) and Well #8 (1.50 µg/L) exceed the 2L GQS and the SWSL.

Concentrations of chlorobenzene reported in the groundwater samples collected from Well #8 (3.60 µg/L) exceed the SWSL.

Based on the groundwater analytical results reported in the December 23, 2014 laboratory analytical report, no concentrations of any metals or volatile organic compounds were reported above the 2L GQS or the SWSL in the surface water sample collected.

Tables summarizing the groundwater analytical data for groundwater and surface water samples with detectable concentrations of metals and volatile organic constituents from the last 16 sampling events (seven years) have been included with this submission. A copy of the most recent laboratory analytical report and a table entitled; *Table of Values Which Exceed Established Standards And/Or Exceed Reporting Levels,* submitted to Currituck County by Environment 1 have also been included.

Barium and Arsenic are naturally occurring metals that are readily found in measurable quantities in both groundwater and soils in the coastal plain of North Carolina. Therefore, it is not clear if the concentrations reported in the laboratory report are a result of natural background levels of this naturally occurring metal.

A review of the last seven years of groundwater and surface water sampling data indicates that concentrations of all metals analyzed are generally stable and the concentrations that have or currently do exceed the 2L GQS are likely, or at least potentially, naturally occurring. Analytical data will continue to be monitored and any future irregularities or sharp increases in reported metal concentrations will be considered and addressed, as each case may warrant.

Benzene is typically associated with petroleum and/or petroleum based products. Concentrations of benzene that exceed the 2L GQS have been reported in the groundwater samples collected from Well #6 and Well #8 for the last five years and now consistently exceed the 2L GQS while benzene concentrations reported in the groundwater samples collected from Well #5 in previous years has decreased slightly with no detection of benzene at or above the specified MDL as reported in the laboratory report of analysis for the last year.

Total Xylenes were detected above the MDL (1.10 µg/L) in the groundwater samples collected from Well #8. This coincides with the expected fate and transport of petroleum contaminant constituents and was expected given the historical occurrence of benzene. The concentrations are below the SWSL and well below the 2L GQS and do not appear to pose a significant threat to human health or the environment.

Concentrations of chlorobenzene (3.60 µg/L) that exceed the SWSL were reported in the groundwater samples collected and analyzed from Well# 8. Chlorobenzene is commonly used in the manufacture of pesticides, dyes, and rubber and degrades only very slowly once dissolved in groundwater. Reported concentrations of chlorobenzene are relatively low and do not appear to pose a significant threat to human health or the environment.

There is continued migration of volatile organics occurring and reported contaminant concentrations for VOC's during this sampling event are generally consistent with concentrations observed over the last four or five years.

A thorough review of the data over the last seven years clearly shows that the contaminant levels in the groundwater samples is fairly constant with some minor fluctuation (possibly due to fluctuating seasonal well volume) in VOC's indicating that there is likely a source of VOC contamination in the landfill. However, the concentrations are apparently stable and there does not appear to be any immediate threat to human health or the environment as a result.

A Shallow Water Table Surface Map that has been generated using the reported depth to water measurements (performed by Environment 1) has been included. In general and based on the latest data, groundwater at the site is moving toward the southeast.

The next scheduled sampling event at the Currituck County Landfill is in June of 2015.

Please do not hesitate to contact the undersigned at 252.261.3300 if you have any questions or require any additional information in this matter.

Sincerely,

Quible & Associates, P.C.

NORTH CAROLINA LICENSED SEAL 1954 GEOLOGIST WARREN DENNIS EADUS

4/6/15

Warren Eadus, P.G.

enc As stated
pdf copy of all documentation

cc Brenda McQueen
file

Table of Values Which Exceed Established Standards And/Or Exceed Reporting Levels

Facility Name: CURRITUCK COUNTY LANDFILL Permit #: 2701 Lab ID# 6028

Location	Collection Date	Exceeds Std	Parameter	CAS #	Result, ug/l	NC 2L STD **	NC GWP STD **	NC 2B SWS **
Well #1	12/23/2014		Cadmium	7440-43-9	2	2.0		
Well #6	12/23/2014	Y	Arsenic	7440-38-2	30	10		
Well #6	12/23/2014	Y	Benzene	71-43-2	1.10	1		
Well #8	12/23/2014		Barium	7440-39-3	181	700		
Well #8	12/23/2014	Y	Benzene	71-43-2	1.50	1		
Well #8	12/23/2014		Chlorobenzene	108-90-7	3.60	50		

** Note: NC 2L STD = NC 2L Ground Water Standard
NC GWP STD = NC Solid Waste Groundwater Protection Standard
NC 2B SWS = NC 2B Surface Water Standard

Table of Values Which Exceed Established Standards And/Or Exceed Reporting Levels

Facility Name: CURRITUCK COUNTY LANDFILL Permit #: 2701 Lab ID# 6028

Location	Collection Date	Exceeds Std	Parameter	CAS #	Result, ug/l	NC 2L STD **	NC GWP STD **	NC 2B SWS **
Well #1	12/23/2014		Cadmium	7440-43-9	2	2.0		
Well #6	12/23/2014	Y	Arsenic	7440-38-2	30	10		
Well #6	12/23/2014	Y	Benzene	71-43-2	1.10	1		
Well #8	12/23/2014		Barium	7440-39-3	181	700		
Well #8	12/23/2014	Y	Benzene	71-43-2	1.50	1		
Well #8	12/23/2014		Chlorobenzene	108-90-7	3.60	50		

** Note: NC 2L STD = NC 2L Ground Water Standard
NC GWP STD = NC Solid Waste Groundwater Protection Standard
NC 2B SWS = NC 2B Surface Water Standard

Summary of Groundwater and Surface Water Analytical Data-Metals
Currituck County Landfill Permit #27-01

Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
Arsenic	6/27/2007	**61**	6.6	4.7	<0.47	3.8	**17**	1.1	0.8	0.6	10	10
	12/6/2007	**55**	5.9	5.5	1.7	5.7	**36**	3.1	2	<0.47		
	6/27/2008	**166**	5.1	5	0.7	7	**24**	2.8	24	0.9		
	12/10/2008	8.3	4.1	3.3	0.7	4	**18**	2.9	2.5	1		
	6/16/2009	**134**	4.2	4.4	0.7	3.9	**29**	4.1	1.6	0.6		
	12/7/2009	**41**	3	4.2	0.2	1.4	**23**	7.4	2	<0.17		
	6/14/2010	**279**	4.3	**39**	0.5	2	**15**	4.7	2.1	0.8		
	12/21/2010	**32**	3.4	8	1.2	1.8	**21**	5.2	6.2	0.4		
	6/9/2011	**59**	4.4	8	0.39	1.1	**15**	3.8	2.5	0.85		
	12/8/2011	**14**	3.4	5.6	0.43	0.54	**13**	8	3.3	0.4		
	6/4/2012	**27**	5.5	4.3	0.2	0.38	**57**	9	2.1	0.74		
	12/13/2012	**73**	6.2	4.9	0.44	0.98	**67**	**11**	3.3	0.57		
	6/20/2013	**20**	5.1	4.3	0.08	0.55	**10**	4	3.3	0.73		
	12/18/2013	1.3	5.6	3.7	<0.05	0.17	**12**	1.9	2.8	0.46		
	6/12/2014	2.9	9	4.3	<0.10	0.36	8	0.82	2.8	0.2		
	12/23/2014	4.4	0.98	3.8	<0.10	0.16	**30**	2.3	3.5	0.53		
Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
Barium	6/27/2007	38.2	**121**	8.6	43.5	**159**	26	26.9	51	15.3	700	100
	12/6/2007	30.3	96.3	8.4	65.3	**172**	35.8	23.7	**162**	18.3		
	6/27/2008	52.3	**100**	9.2	48.4	**184**	29	20.8	**165**	14.7		
	12/10/2008	37.4	**125**	8.6	45.1	**116**	29.6	17.5	**226**	8		
	6/16/2009	48.4	**116**	10.5	42.8	**117**	26.4	32.9	**359**	7		
	12/7/2009	60.3	73.6	11.3	34.4	58.7	22.8	17	**394**	15.7		
	6/14/2010	52.6	**135**	9.6	42.6	98.5	28.7	30.7	**286**	37		
	12/21/2010	45.1	**100**	8.1	57.7	63.5	22.8	24.2	**333**	12.9		
	6/9/2011	50.6	**109**	10	43.8	86.8	24.6	18.7	**493**	15.3		
	12/8/2011	45	77.3	7	71.6	46.3	23.1	20.1	**228**	13.4		
	6/4/2012	40.1	76.5	8.5	31.5	16.9	22.6	16.7	**444**	113		
	12/13/2012	48.4	45.3	8.7	37.9	46.1	22.3	24.8	**213**	11.2		
	6/20/2013	36.1	45.2	9.2	42.3	38.4	21.1	23.1	**335**	9		
	12/18/2013	36	34.5	9.1	34.4	6.1	22.7	21.2	**226**	11.9		
	6/12/2014	26.6	89.4	7.9	36.5	27.1	24.0	23.9	**293**	7.8		
	12/23/2014	34.2	45.5	11.0	61.0	24.6	22.8	26.5	**181**	10.3		

Summary of Groundwater and Surface Water Analytical Data-Metals
Currituck County Landfill Permit #27-01

Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
Cadmium	6/27/2007	0.3	0.2	<0.06	0.9	<0.06	<0.06	0.1	0.8	0.7	2.0	1.0
	12/6/2007	0.1	0.2	0.1	1.2	0.1	0.2	0.2	0.8	<0.06		
	6/27/2008	0.2	0.2	0.1	0.3	0.1	<0.04	0.1	0.4	0.1		
	12/10/2008	0.3	0.2	<0.04	0.2	<0.04	0.1	0.4	0.3	0.1		
	6/16/2009	0.4	0.1	0.2	0.3	<0.04	0.1	0.5	0.6	0.1		
	12/7/2009	0.3	0.2	0.1	0.2	<0.04	<0.04	0.1	0.6	<0.04		
	6/14/2010	0.2	0.1	0.1	0.4	<0.02	0.5	0.2	0.3	0.1		
	12/21/2010	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.8	0.1		
	6/9/2011	**1**	0.18	0.52	0.2	0.06	0.06	0.15	0.23	0.06		
	12/8/2011	0.06	0.19	0.07	0.19	0.22	<0.02	0.06	0.18	<0.02		
	6/4/2012	0.08	0.33	0.16	0.13	0.04	0.11	0.06	0.67	0.03		
	12/13/2012	0.13	0.11	0.12	0.15	0.03	<0.03	0.11	0.41	<0.03		
	6/20/2013	0.14	0.06	0.05	0.14	0.08	<0.05	0.08	0.26	0.23		
	12/18/2013	0.06	0.27	<0.05	0.07	<0.05	<0.05	0.09	0.11	<0.05		
	6/12/2014	<0.04	<0.04	<0.04	0.07	<0.04	<0.04	<0.04	0.21	<0.04		
	12/23/2014	**2**	0.09	0.12	0.52	0.13	0.08	0.64	0.29	<0.04		
Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
Total Chromium	6/27/2007	1.9	1.1	0.5	1.5	4.1	0.4	0.9	1.4	0.5	10	10
	12/6/2007	1	0.3	<0.24	1.5	4.3	<0.24	0.4	1.7	<0.24		
	6/27/2008	1.7	0.5	<0.11	0.8	4.1	<0.11	0.2	1.6	<0.11		
	12/10/2008	<0.11	1.3	<0.11	0.7	4.2	<0.11	<0.11	1.8	<0.11		
	6/16/2009	2.5	0.7	<0.10	0.3	3.7	<0.10	0.4	2.2	<0.10		
	12/7/2009	0.3	0.8	<0.10	0.3	2.4	<0.10	<0.10	1.1	<0.10		
	6/14/2010	3.4	0.2	0.7	0.6	2.7	<0.03	0.4	1.3	<0.03		
	12/21/2010	0.8	1.9	0.3	0.7	2.8	0.2	0.8	3.5	0.1		
	6/9/2011	1.2	0.5	0.24	0.55	2.5	<0.04	0.72	2.2	0.1		
	12/8/2011	0.25	0.74	<0.04	0.36	1.9	<0.04	0.59	3.1	0.6		
	6/4/2012	1.2	1.1	0.25	0.40	1.3	0.24	0.66	2.4	0.42		
	12/13/2013	1.50	0.92	<0.18	0.27	2.0	<0.18	0.94	2.7	0.49		
	6/20/2013	0.29	0.54	<0.04	<0.04	1.1	<0.04	0.2	2.2	<0.04		
	12/18/2013	0.32	0.92	0.14	0.09	1.3	<0.04	0.25	2.4	0.5		
	6/12/2014	0.46	0.76	<0.14	<0.14	1.00	<0.14	<0.14	2.3	<0.14		
	12/23/2014	1.4	1.3	0.40	0.40	1.7	0.4	0.78	3.0	0.14		

Summary of Groundwater and Surface Water Analytical Data-Metals
Currituck County Landfill Permit #27-01

Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
Lead	6/27/2007	1.4	0.4	<0.07	1.4	<0.07	<0.07	<0.07	1.2	<0.07	15	10
	12/6/2007	1.1	2.8	0.3	2.2	0.3	0.2	0.2	1.3	0.3		
	6/27/2008	2.8	0.6	0.2	1.8	0.1	0.1	0.1	0.6	0.1		
	12/10/2008	0.4	0.7	0.1	3.3	0.1	<0.04	0.5	0.2	0.1		
	6/16/2009	5	0.1	0.1	1.1	0.1	0.1	0.1	0.5	0.1		
	12/7/2009	1.1	0.9	0.3	2	0.2	<0.04	0.1	0.7	0.1		
	6/14/2010	5.6	0.1	0.3	1.5	<0.01	<0.01	0.1	0.1	0.2		
	12/21/2010	1	0.9	0.2	2	0.3	0.1	0.2	1.4	0.1		
	6/9/2011	1.3	0.21	0.25	1.4	0.11	0.06	0.12	0.26	0.18		
	12/8/2011	0.4	0.32	0.21	0.97	0.21	0.08	0.18	0.16	0.47		
	6/4/2012	0.81	0.73	0.44	1.1	0.33	0.20	0.16	0.72	0.43		
	12/13/2013	2.5	0.39	0.37	0.73	0.10	0.10	0.15	0.35	0.83		
	6/20/2013	0.44	0.92	0.05	0.42	0.09	<0.02	0.06	0.1	0.29		
	12/18/2013	0.11	0.67	0.06	0.24	0.3	0.1	0.35	0.08	0.07		
	6/12/2014	<0.13	1.0	<0.13	<0.13	<0.13	<0.13	<0.13	0.24	<0.13		
	12/23/2015	1.4	<0.13	<0.13	0.37	0.25	<0.13	<0.13	<0.13	<0.13		
Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
Mercury	6/27/2007	<0.04	<0.04	<0.04	<0.04	<0.04	0.05	<0.04	<0.04	<0.04	1.0	0.2
	12/6/2007	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		
	6/27/2008	0.05	0.02	0.04	0.01	<0.01	0.03	<0.01	0.04	0.01		
	12/10/2008	0.05	0.04	0.04	0.04	0.03	<0.01	0.02	<0.01	<0.01		
	6/16/2009	<0.03	<0.03	0.07	<0.03	<0.03	0.07	<0.03	<0.03	<0.03		
	12/7/2009	0.04	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		
	6/14/2010	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08		
	12/21/2010	<0.08	<0.08	<0.08	<0.08	<0.08	0.17	<0.08	<0.08	<0.08		
	6/9/2011	**0.2**	<0.05	<0.05	<0.05	<0.05	0.09	<0.05	<0.05	<0.05		
	12/8/2011	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
	6/4/2012	<0.02	0.08	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
	12/13/2013	<0.02	<0.02	<0.02	<0.02	0.02	0.05	<0.02	<0.02	<0.02		
	6/20/2013	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01		
	12/18/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
	6/12/2014	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06		
	12/23/2015	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16		

Summary of Groundwater and Surface Water Analytical Data-Metals
Currituck County Landfill Permit #27-01

Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
Selenium	6/27/2007	<0.35	1.7	0.5	0.5	5	0.6	1.1	0.6	<0.35	20	10
	12/6/2007	0.4	3.7	0.6	4.8	**11**	0.9	4	3.6	<0.35		
	6/27/2008	1.7	5.3	1	0.6	**18**	2.5	2.4	5.2	0.5		
	12/10/2008	0.2	2.9	0.7	0.5	7.4	0.6	4.4	3.8	0.3		
	6/16/2009	1.2	3.6	0.9	0.4	8.1	1.6	3.2	3.4	0.2		
	12/7/2009	<0.12	2.6	0.7	0.2	3.5	1.5	0.9	4.3	<0.12		
	6/14/2010	1.5	2	1.5	<0.32	2.2	1.5	0.9	3.2	0.5		
	12/21/2010	<0.32	1.6	0.8	2.2	2.8	1.1	2.3	2.9	<0.32		
	6/9/2011	0.38	1.5	0.55	0.3	1.5	1.3	0.71	4.9	0.28		
	12/8/2011	<0.20	0.94	<0.20	0.56	0.63	0.68	0.88	6.5	<0.20		
	6/4/2012	0.45	1.6	0.54	<0.17	0.52	1.1	0.60	3.7	0.45		
	12/13/2013	0.28	0.98	0.60	0.34	1.6	1.5	1.8	5.7	0.28		
	6/20/2013	0.29	2	0.67	0.13	0.88	1.4	1.90	6.6	0.25		
	12/18/2013	<0.06	1.2	1	<0.06	<0.06	2	0.55	7.1	0.72		
	6/12/2014	<0.16	1.4	<0.16	<0.16	<0.16	0.43	<0.16	5.5	<0.16		
	12/23/2015	0.21	1.2	0.38	<0.16	0.16	0.59	0.42	8.9	0.53		
Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
Silver	6/27/2007	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	20	10
	12/6/2007	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52		
	6/27/2008	0.1	<0.04	0.1	<0.04	0.1	<0.04	0.1	0.1	<0.04		
	12/10/2008	<0.04	0.8	<0.04	<0.04	0.1	<0.04	0.1	0.1	0.1		
	6/16/2009	<0.04	<0.04	0.1	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		
	12/7/2009	0.1	0.1	0.1	<0.04	0.1	<0.04	<0.04	<0.04	0.1		
	6/14/2010	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.1		
	12/21/2010	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		
	6/9/2011	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04		
	12/8/2011	<0.02	0.04	<0.02	<0.02	0.04	<0.02	<0.02	<0.02	<0.02		
	6/4/2012	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		
	12/13/2013	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		
	6/20/2013	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.03		
	12/18/2013	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.09		
	6/12/2014	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		
	12/23/2015	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		

Notes:

1. Groundwater and surface water samples collected by Environment 1, Incorporated on behalf of Currituck County.
2. Laboratory Analytical Reports provided by Currituck County. All results reported in µg/L.
3. NC DENR Division of Water Quality Title 15A NCAC 2L .0202 Groundwater Quality Standards effective April 1, 2013.
4. NC DENR Division of Waste Management Solid Waste Section Limit.
5. Concentrations in bold type meet or exceed either of the current 2L GQS or SWSL.

Summary of Groundwater and Surface Water Analytical Data-Volatile Organics
Currituck County Landfill #27-24

Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
Benzene	6/27/2007	<0.16	0.8	<0.16	<1.0	**1.8**	0.8	<0.16	<0.16	<0.16	1.0	1.0
	12/6/2007	<0.16	0.4	<0.16	<0.16	**1.6**	0.7	<0.16	0.9	<0.16		
	6/27/2008	<0.16	0.5	<0.16	<0.16	**1.5**	0.7	<0.16	0.8	<0.16		
	12/10/2008	<0.16	0.6	<0.16	<0.16	**1.4**	0.5	<0.16	0.7	<0.16		
	6/16/2009	<0.16	0.7	<0.16	<0.16	**1.6**	0.6	<0.16	0.7	<0.16		
	12/7/2009	<0.24	<0.24	<0.24	<0.24	**1.1**	**1.3**	<0.24	0.8	<0.24		
	6/14/2010	<0.24	0.4	<0.24	<0.24	0.9	**1.8**	<0.24	0.9	<0.24		
	12/21/2010	<0.24	<0.24	<0.24	<0.24	<0.24	0.6	<0.24	**1.4**	<0.24		
	6/9/2011	<0.24	<0.24	<0.24	<0.24	0.6	**1.6**	<0.24	**1.2**	<0.24		
	12/8/2011	<0.24	<0.24	<0.24	<0.24	0.5	**2.0**	<0.24	**1.9**	<0.24		
	6/4/2012	<0.24	<0.24	<0.24	<0.24	<0.24	**2.10**	<0.24	**1.20**	<0.24		
	12/13/2012	<0.24	<0.24	<0.24	<0.24	0.90	**1.70**	<0.24	**1.00**	<0.24		
	6/20/2013	<0.24	<0.24	<0.24	<0.24	0.4	**1.70**	<0.24	**1.40**	<0.24		
	12/18/2013	<0.24	<0.24	<0.24	<0.24	<0.24	**1.70**	<0.24	**1.20**	<0.24		
	6/12/2014	<0.24	<0.24	<0.24	<0.24	<0.24	**1.80**	<0.24	**1.60**	<0.24		
	12/23/2014	<0.24	<0.24	<0.24	<0.24	<0.24	**1.10**	<0.24	**1.50**	<0.24		
Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
Chlorobenzene	6/27/2007	<0.13	**34.9**	<0.13	<0.13	1	<0.13	<0.13	<0.13	<0.13	50	3.0
	12/6/2007	<0.13	**10.5**	<0.13	<0.13	1.4	0.2	<0.13	0.9	<0.13		
	6/27/2008	<0.13	**6**	<0.13	<0.13	1.3	<0.13	<0.13	1	<0.13		
	12/10/2008	<0.13	**5.7**	<0.13	<0.13	1	<0.13	<0.13	1.4	<0.13		
	6/16/2009	<0.13	**5.3**	<0.13	<0.13	1.7	<0.13	0.3	0.8	<0.13		
	12/7/2009	<0.30	1.2	<0.30	<0.30	1.1	<0.30	<0.30	0.8	<0.30		
	6/14/2010	<0.30	**7.8**	<0.30	<0.30	0.6	<0.30	<0.30	1.2	<0.30		
	12/21/2010	<0.30	2.8	<0.30	<0.30	0.4	<0.30	<0.30	**3.4**	<0.30		
	6/9/2011	<0.30	**5**	<0.30	<0.30	0.6	<0.30	<0.30	**3.7**	<0.30		
	12/8/2011	<0.30	**4.2**	<0.30	<0.30	<0.30	0.6	0.3	**6.7**	<0.30		
	6/4/2012	<0.30	2.7	<0.30	<0.30	<0.30	0.4	<0.30	**3.4**	<0.30		
	12/13/2012	<0.30	1.2	<0.30	<0.30	0.70	0.40	0.50	**4.70**	<0.30		
	6/20/2013	<0.30	1.9	<0.30	<0.30	<0.30	0.5	0.4	**3.3**	<0.30		
	12/18/2013	<0.30	<0.30	<0.30	<0.30	<0.30	0.70	0.30	2.60	<0.30		
	6/12/2014	<0.30	**4.4**	<0.30	<0.30	<0.30	0.80	<0.30	**4.00**	<0.30		
	12/23/2014	<0.30	<0.30	<0.30	<0.30	<0.30	0.50	<0.30	**3.60**	<0.30		

Summary of Groundwater and Surface Water Analytical Data-Volatile Organics
Currituck County Landfill #27-24

Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
1,4-dichlorobenzene	6/27/2007	<0.21	0.4	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	6	2L GQS
	12/6/2007	<0.21	0.3	<0.21	<0.21	<0.21	<0.21	<0.21	0.3	<0.21		
	6/27/2008	<0.21	0.3	<0.21	<0.21	<0.21	<0.21	<0.21	0.3	<0.21		
	12/10/2008	<0.21	0.3	<0.21	<0.21	<0.21	<0.21	<0.21	0.3	<0.21		
	6/16/2009	<0.21	0.4	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21		
	12/7/2009	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39		
	6/14/2010	<0.39	0.5	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39		
	12/21/2010	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	0.8	<0.39		
	6/9/2011	<0.39	0.4	<0.39	<0.39	<0.39	<0.39	<0.39	0.7	<0.39		
	12/8/2011	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	1	<0.39		
	6/4/2012	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	0.6	<0.39		
	12/13/2012	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	0.70	<0.39		
	6/20/2013	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	0.6	<0.39		
	12/18/2013	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	0.60	<0.39		
	6/12/2014	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	0.60	<0.39		
	12/23/2015	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	0.50	<0.39		

Summary of Groundwater and Surface Water Analytical Data-Volatile Organics
Currituck County Landfill #27-24

Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
Vinyl chloride	6/27/2007	<0.34	<0.34	<0.34	<0.34	0.604	0.5	<0.34	<0.34	<0.34	0.03	1.0
	12/6/2007	<0.34	<0.34	<0.34	<0.34	0.9	<0.34	<0.34	<0.34	<0.34		
	6/27/2008	<0.34	<0.34	<0.34	<0.34	**1.1**	0.4	<0.34	<0.34	<0.34		
	12/10/2008	<0.34	<0.34	<0.34	<0.34	0.4	<0.34	<0.34	<0.34	<0.34		
	6/16/2009	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34	<0.34		
	12/7/2009	<0.63	<0.63	<0.63	<0.63	<0.63	0.9	<0.63	<0.63	<0.63		
	6/14/2010	<0.77	<0.77	<0.77	<0.77	<0.77	**1.1**	<0.77	<0.77	<0.77		
	12/21/2010	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63		
	6/9/2011	<0.63	<0.63	<0.63	<0.63	<0.63	0.9	<0.63	<0.63	<0.63		
	12/8/2011	<0.63	<0.63	<0.63	<0.63	<0.63	0.9	<0.63	<0.63	<0.63		
	6/4/2012	<0.63	<0.63	<0.63	<0.63	<0.63	0.7	<0.63	<0.63	<0.63		
	12/13/2012	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63		
	6/20/2013	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63		
	12/18/2013	<0.63	<0.63	<0.63	<0.63	<0.63	0.80	<0.63	<0.63	<0.63		
	6/12/2014	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63		
	12/23/2015	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63		
Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
Acetone	6/27/2007	<1.21	<1.21	1.7	1.4	1.7	<1.21	3.2	1.5	2.4	6000	100
	12/6/2007	<1.21	<1.21	<1.21	<1.21	1.3	<1.21	<1.21	<1.21	<1.21		
	6/27/2008	2.4	3.8	3	2.6	7.5	2.5	3.4	4.4	3.8		
	12/10/2008	<1.21	<1.21	<1.21	<1.21	<1.21	<1.21	<1.21	<1.21	<1.21		
	6/16/2009	3.2	3	3.6	3.4	4	1.5	2.2	3.1	5.6		
	12/7/2009	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06		
	6/14/2010	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06		
	12/21/2010	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06		
	6/9/2011	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	11.2		
	12/8/2011	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06		
	6/4/2012	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06		
	12/13/2012	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06		
	6/20/2013	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06		
	12/18/2013	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06		
	6/12/2014	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06		
	12/23/2015	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06	<9.06		

Summary of Groundwater and Surface Water Analytical Data-Volatile Organics

Currituck County Landfill #27-24

Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
1,1-dichloroethane	6/27/2007	<0.16	<0.16	<0.16	<0.16	0.2	<0.16	<0.16	<0.16	<0.16	6	2L GQS
	12/6/2007	<0.16	<0.16	<0.16	<0.16	0.4	<0.16	<0.16	<0.16	<0.16		
	6/27/2008	<0.16	<0.16	<0.16	<0.16	0.2	<0.16	<0.16	0.2	<0.16		
	12/10/2008	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	1.1	<0.16		
	6/16/2009	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	0.4	<0.16		
	12/7/2009	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		
	6/14/2010	<0.20	<0.20	<0.20	<0.20	<0.20	0.4	<0.20	<0.20	<0.20		
	12/21/2010	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.4	<0.20		
	6/9/2011	<0.20	<0.20	<0.20	<0.20	<0.20	0.5	<0.20	0.7	<0.20		
	12/8/2011	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.4	<0.20		
	6/4/2012	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.7	<0.27		
	12/13/2012	<0.20	<0.20	<0.20	<0.20	<0.20	0.30	<0.20	0.60	<0.20		
	6/20/2013	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17		
	12/18/2013	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	<0.20	0.50	<0.20		
	6/12/2014	<0.20	<0.20	<0.20	<0.20	<0.20	0.30	<0.20	0.40	<0.20		
	12/23/2015	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.60	<0.20		
Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
Chloroethane	6/27/2007	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	3,000	10
	12/6/2007	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	0.4	<0.29		
	6/27/2008	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29		
	12/10/2008	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	3.8	<0.29		
	6/16/2009	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	0.8	<0.29		
	12/7/2009	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	1.1	<0.48		
	6/14/2010	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	0.8	<0.48		
	12/21/2010	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48		
	6/9/2011	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	0.9	<0.48		
	12/8/2011	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.70	<0.48		
	6/4/2012	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	1.2	<0.48		
	12/13/2012	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48		
	6/20/2013	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48		
	12/18/2013	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48		
	6/12/2014	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	1.30	<0.48		
	12/23/2015	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	0.50	<0.48		

Currituck County Landfill #27-24

Summary of Groundwater and Surface Water Analytical Data-Volatile Organics

Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
Cis-1,2 Dichloroethene	6/27/2007	<0.14	<0.14	<0.14	<0.14	0.2	0.8	<0.14	<0.14	<0.14	70	5
	12/6/2007	<0.14	<0.14	<0.14	<0.14	0.2	0.3	<0.14	<0.14	<0.14		
	6/27/2008	<0.14	<0.14	<0.14	<0.14	0.2	0.8	<0.14	<0.14	<0.14		
	12/10/2008	<0.14	<0.14	<0.14	<0.14	<0.14	0.2	<0.14	<0.14	<0.14		
	6/16/2009	<0.14	<0.14	<0.14	<0.14	<0.14	0.5	<0.14	<0.14	<0.14		
	12/7/2009	<0.25	<0.25	<0.25	<0.25	<0.25	0.8	<0.25	<0.25	<0.25		
	6/14/2010	<0.25	<0.25	<0.25	<0.25	<0.25	0.7	<0.25	<0.25	<0.25		
	12/21/2010	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25		
	6/9/2011	<0.25	<0.25	<0.25	<0.25	<0.25	0.7	<0.25	<0.25	<0.25		
	12/8/2011	<0.25	<0.25	<0.25	<0.25	<0.25	0.6	<0.25	<0.25	<0.25		
	6/4/2012	<0.25	<0.25	<0.25	<0.25	<0.25	0.4	<0.25	<0.25	<0.25		
	12/13/2012	<0.25	<0.25	<0.25	<0.25	<0.25	0.50	<0.25	<0.25	<0.25		
	6/20/2013	<0.25	<0.25	<0.25	<0.25	<0.25	0.5	<0.25	<0.25	<0.25		
	12/18/2013	<0.25	<0.25	<0.25	<0.25	<0.25	0.50	<0.25	<0.25	<0.25		
	6/12/2014	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25		
	12/23/2015	<0.25	<0.25	<0.25	<0.25	<0.25	0.30	<0.25	<0.25	<0.25		
Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
Toluene	12/8/2011	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	0.3	<0.23	600	1
	6/4/2012	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23		
	12/13/2012	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	0.3	<0.23		
	6/20/2013	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23		
	12/18/2013	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23		
	6/12/2014	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23		
	12/23/2015	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	0.30	<0.23		
Sample ID	Date	Well #1	Well #2	Well #3	Well #4	Well #5	Well #6	Well #7	Well #8	Pond	2L GQS[2]	SWSL[3]
Xylenes	12/8/2011	<0.25	<0.25	<0.25	<0.25	<0.25	0.6	<0.25	<0.25	<0.25	500	5
	6/4/2012	<0.68	<0.68	<0.68	<0.68	<0.68	0.8	<0.68	<0.68	<0.68		
	12/13/2012	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68		
	6/20/2013	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68		
	12/18/2013	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68	<0.68		
	6/12/2014	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23		
	12/23/2015	<0.23	<0.23	<0.23	<0.23	<0.68	<0.68	<0.68	1.10	<0.68		

Notes:

1. Groundwater and surface water samples collected by Environment 1, Incorporated on behalf of Currituck County.
2. Laboratory Analytical Reports provided by Currituck County. All results reported in µg/L.
3. NC DENR Division of Water Quality Title 15A NCAC 2L .0202 Groundwater Quality Standards effective April 1, 2013.
4. NC DENR Division of Waste Management Solid Waste Section Limit.
5. Concentrations in bold type meet or exceed either of the current 2L GQS or SWSL.

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#: 6028

CURRITUCK COUNTY LANDFILL
PUBLIC WORKS DEPARTMENT
153 COURTHOUSE RD SUITE 302
CURRITUCK ,NC 27929

DATE COLLECTED: 12/23/14
DATE REPORTED : 02/23/15

REVIEWED BY:

PARAMETERS	MDL	SWSL	Well #1	Well #2	Well #3	Well #4	Well #5	Analysis Date	Analyst	Method Code
PH (field measurement), Units			5.0	6.4	6.0	5.7	6.1	12/23/14	BF	4500HB-00
Arsenic, ug/l	0.10	10.0	4.4 J	0.98 J	3.8 J	--- U	0.16 J	01/02/15	LFJ	EPA200.8
Barium, ug/l	0.12	100.0	34.2 J	45.5 J	11.0 J	61.0 J	24.6 J	01/02/15	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	2	0.09 J	0.12 J	0.52 J	0.13 J	01/02/15	LFJ	EPA200.8
Total Chromium, ug/l	0.14	10.0	1.4 J	1.3 J	0.40 J	0.40 J	1.7 J	01/02/15	LFJ	EPA200.8
Lead, ug/l	0.13	10.0	1.4 J	--- U	--- U	0.37 J	0.25 J	01/02/15	LFJ	EPA200.8
Mercury, ug/l	0.06	0.20	--- U	--- U	--- U	--- U	--- U	01/08/15	MTM	245.1 R3-9
Selenium, ug/l	0.16	10.0	0.21 J	1.2 J	0.38 J	--- U	0.16 J	01/02/15	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	--- U	--- U	--- U	--- U	--- U	01/05/15	LFJ	EPA200.8
Conductivity (at 25c), uMhos/cm	1.0	1.0	126	491	280	221	191	12/23/14	BF	2510B-97
Temperature, °C			15	13	16	15	17	12/23/14	BF	2550B-00
Static Water Level, feet			4.13	2.41	4.03	8.20	6.80	12/23/14	BF	
Well Depth, feet			21.15	18.63	21.34	23.60	20.34	12/23/14	BF	

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

Environment 1, Incorporated

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

Drinking Water ID: 37715
Wastewater ID: 10

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

ID#: 6028

CURRITUCK COUNTY LANDFILL
PUBLIC WORKS DEPARTMENT
153 COURTHOUSE RD SUITE 302
CURRITUCK ,NC 27929

DATE COLLECTED: 12/23/14
DATE REPORTED : 02/23/15

REVIEWED BY:

PARAMETERS	MDL	SWSL	Well #6	Well #7	Well #8	Pond	Analysis Date	Analyst	Method Code
PH (field measurement), Units			5.5	6.5	6.6	6.9	12/23/14	BF	4500HB-00
Arsenic, ug/l	0.10	10.0	30	2.3 J	3.5 J	0.53 J	01/02/15	LFJ	EPA200.8
Barium, ug/l	0.12	100.0	22.8 J	26.5 J	181	10.3 J	01/02/15	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.08 J	0.64 J	0.29 J	--- U	01/02/15	LFJ	EPA200.8
Total Chromium, ug/l	0.14	10.0	0.40 J	0.78 J	3.0 J	0.14 J	01/02/15	LFJ	EPA200.8
Lead, ug/l	0.13	10.0	--- U	--- U	--- U	--- U	01/02/15	LFJ	EPA200.8
Mercury, ug/l	0.06	0.20	--- U	--- U	--- U	--- U	01/08/15	MTM	245.1 R3-94
Selenium, ug/l	0.16	10.0	0.59 J	0.42 J	8.9 J	0.53 J	01/02/15	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	--- U	--- U	--- U	--- U	01/05/15	LFJ	EPA200.8
Conductivity (at 25c), uMhos/cm	1.0	1.0	198	529	2340	130	12/23/14	BF	2510B-97
Temperature, °C			17	17	16	10	12/23/14	BF	2550B-00
Static Water Level, feet			4.14	5.43	3.30		12/23/14	BF	
Well Depth, feet			20.92	20.40	20.88		12/23/14	BF	

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

Environment 1, Incorporated

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

Drinking Water ID: [illegible]
Wastewater ID: 10

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

CLIENT: CURRITUCK COUNTY LANDFILL
PUBLIC WORKS DEPARTMENT
153 COURTHOUSE RD SUITE 302
CURRITUCK, NC 27929

CLIENT ID: 6028

ANALYST: MAO
DATE COLLECTED: 12/23/14
DATE REPORTED: 02/23/15

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	Date Analyzed: MDL	SWSL	12/31/14 Well #1	12/31/14 Well #2	12/31/14 Well #3	12/31/14 Well #4	12/31/14 Well #5
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	--- 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 Quantitation 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: CURRITUCK COUNTY LANDFILL
PUBLIC WORKS DEPARTMENT
153 COURTHOUSE RD SUITE 302
CURRITUCK, NC 27929

CLIENT ID: 6028

ANALYST: MAO
DATE COLLECTED: 12/23/14
DATE REPORTED: 02/23/15

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B R1(96)

PARAMETERS, ug/l	Date Analyzed: MDL	SWSL	12/31/14 Well #6	12/31/14 Well #7	12/31/14 Well #8	01/14/15 Pond
1. Chloromethane	0.77	1.0	--- U	--- U	--- U	--- U
2. Vinyl Chloride	0.63	1.0	--- U	--- U	--- U	--- U
3. Bromomethane	0.67	10.0	--- U	--- U	--- U	--- U
4. Chloroethane	0.48	10.0	--- U	--- U	0.50 J	--- U
5. Trichlorofluoromethane	0.24	1.0	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.17	5.0	--- U	--- U	--- U	--- U
7. Acetone	9.06	100.0	--- U	--- U	--- U	--- U
8. Iodomethane	0.26	10.0	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.23	100.0	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.64	1.0	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.23	5.0	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.20	5.0	--- U	--- U	0.60 J	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.25	5.0	0.30 J	--- U	--- U	--- U
15. 2-Butanone	2.21	100.0	--- U	--- U	--- U	--- U
16. Bromochloromethane	0.27	3.0	--- U	--- U	--- U	--- U
17. Chloroform	0.25	5.0	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.19	1.0	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.22	1.0	--- U	--- U	--- U	--- U
20. Benzene	0.24	1.0	1.10	--- U	1.50	--- U
21. 1,2-Dichloroethane	0.27	1.0	--- U	--- U	--- U	--- U
22. Trichloroethene	0.23	1.0	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.21	1.0	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.21	1.0	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.24	1.0	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	1.19	100.0	--- U	--- U	--- U	--- U
27. Toluene	0.23	1.0	--- U	--- U	0.30 J	--- U
28. trans-1,3-Dichloropropene	0.28	1.0	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.25	1.0	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.17	1.0	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.57	50.0	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.24	3.0	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.26	1.0	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.30	3.0	0.50 J	--- U	3.60	--- U
35. 1,1,1,2-Tetrachloroethane	0.22	5.0	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.21	1.0	--- U	--- U	--- U	--- U
37. Xylenes	0.68	5.0	--- U	--- U	1.10 J	--- U
38. Dibromomethane	0.28	10.0	--- U	--- U	--- U	--- U
39. Styrene	0.19	1.0	--- U	--- U	--- U	--- U
40. Bromoform	0.20	3.0	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.26	3.0	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.43	1.0	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.39	1.0	--- U	--- U	0.50 J	--- U
44. 1,2-Dichlorobenzene	0.32	5.0	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.34	13.0	--- U	--- U	--- U	--- U
46. Acrylonitrile	2.72	200.0	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.42	100.0	--- U	--- U	--- U	--- U

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

NOTE: EPA METHOD 8260B R1 (96): Pond sample analyzed past holding time due to laboratory instrumentation problems.

Environment 1, Inc.
P.O. Box 7085, 114 Oakmont Dr.
Greenville, NC 27858
environment1inc.com
Phone (252) 756-6208 • Fax (252) 756-0633

CHAIN OF CUSTODY RECORD

CLIENT: 6028 **Week:** 52

CURRITUCK COUNTY LANDFILL
PUBLIC WORKS DEPARTMENT
153 COURTHOUSE RD SUITE 302
CURRITUCK NC 27929

(252) 232-2769

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

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l OR ug/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	Field pH	Metals	Conductivity	Temperature	Field Parameter	EPA 8260B	8260 Dup. 1	8260 Dup. 2
							12						
						P	P	P	P		G	G	G
						A	A	A	A		E	E	E
Well #1	12-23-14	0915		15	5	G	G	G	G	G	G	G	G
Well #2	12-23-14	0855		13	4	G	G	G	G	G	G	G	
Well #3	12-23-14	0936		16	4	G	G	G	G	G	G	G	
Well #4	12-23-14	1050		15	4	G	G	G	G	G	G	G	
Well #5	12-23-14	1105		17	4	G	G	G	G	G	G	G	
Well #6	12-23-14	0945		17	4	G	G	G	G	G	G	G	
Well #7	12-23-14	1015		17	4	G	G	G	G	G	G	G	
Well #8	12-23-14	1030		16	4	G	G	G	G	G	G	G	
Pond	12-23-14	1005		10	4	G	G	G	G		G	G	

CHLORINE NEUTRALIZED AT COLLECTION

pH CHECK (LAB)

CONTAINER TYPE, P/G

CHEMICAL PRESERVATION

PARAMETERS/TESTS

A - NONE D - NAOH
B - HNO_3 E - HCL
C - H_2SO_4 F - ZINC ACETATE/NAOH
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)
Bobby / Tom

SAMPLES RECEIVED IN LAB AT 1.2 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
Tom Beasly	12-23-14 1415	[signature]	12/23/14 218
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

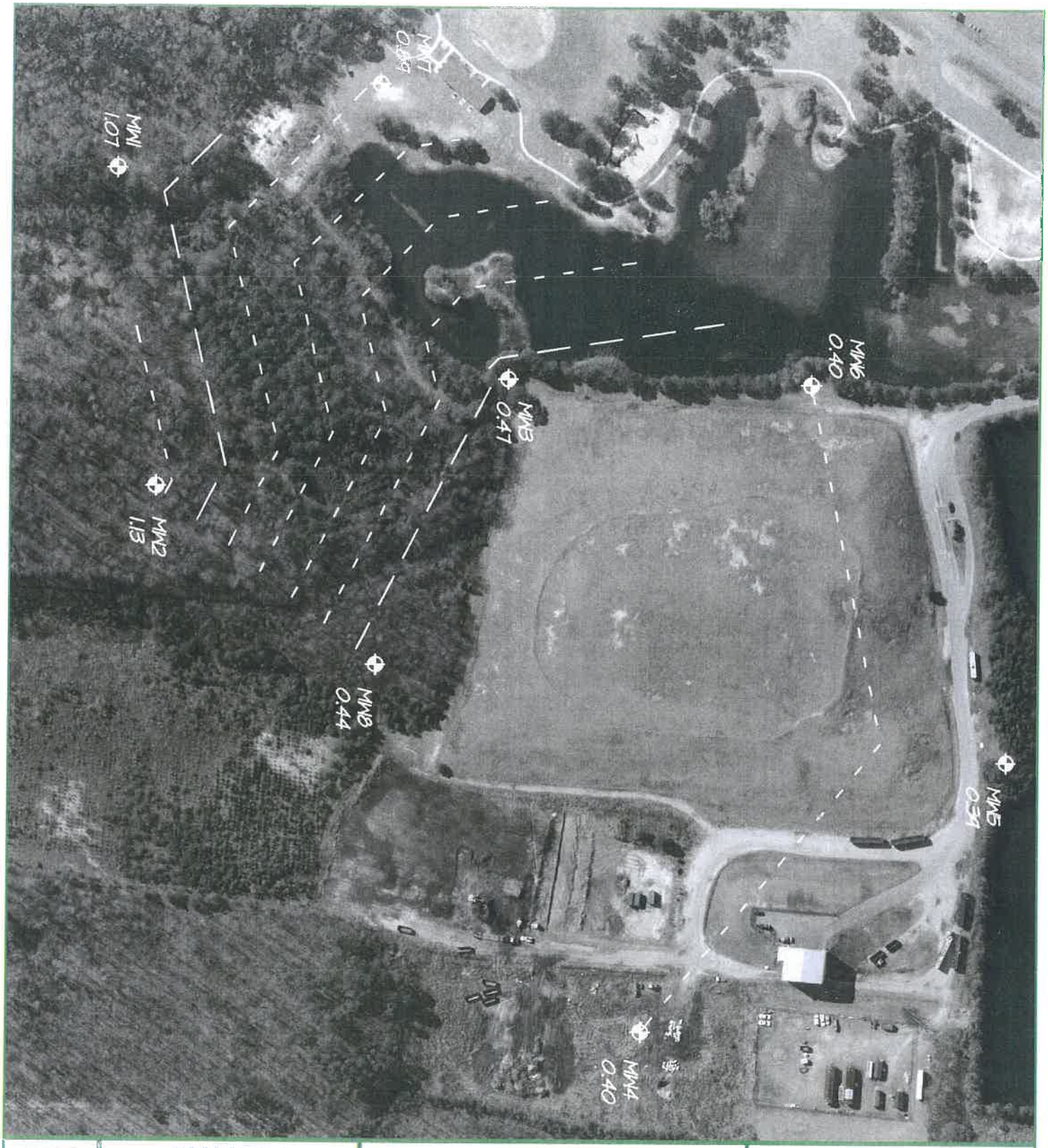
COMMENTS:

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

FORM #5

Nº 291412



07014.1	
CADD	
WDE	
09/05/13	

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SHALLOW WATER TABLE SURFACE MAP

CURRITUCK COUNTY
MSW LANDFILL 27-03

MAPLE TOWNSHIP — CURRITUCK

NORTH CAROLINA

0 — 300 — 600

GRAPHIC SCALE IN FEET 1"=300

Quible & Associates, P.C.