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).

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).
- In accordance with NC General Statutes Chapter 89C and 89E and NC Solid Waste Management Rules 15A NCAC 13B, be sure to affix a seal to the bottom of this page, when applicable.
- 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):

Richardson Smith Gardner and Associates, Inc.

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

Name: Joan A. Smyth, P.G. Phone: 919-828-0577 x 122

E-mail: joan@rsgengineers.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Johnston County Phase 5 Landfill	680 County Home Road	51-02	.1600	10/20/08 - 10/21/08

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.

Joan A. Smyth, P.G.	Senior Hydrogeologist	919-828-0577 x122
Facility Representative Name (Print)	Title	(Area Code) Telephone Number

Joan A. Smyth 12/12/08

Signature Date

Affix NC Licensed/ Professional Geologist/Engineer Seal here:

NORTH CAROLINA LICENSED SEAL 1389 GEOLOGIST JOAN A. SMYTH

Revised 01/2007

Fall 2008 Ground Water Monitoring Report

Johnston County Landfill
Phase 5
Smithfield, North Carolina
NC Solid Waste Permit # 51-03

Prepared for:

Johnston County Department of Public Utilities
309 East Market Street
Smithfield, North Carolina 27577

RSG Project No. **Johnston - 4**

Joan A. Smyth 12/12/08

Joan A. Smyth, P.G.
Senior Hydrogeologist

NORTH CAROLINA LICENSED SEAL 1369 GEOLOGIST JOAN A. SMYTH

December 2008

RICHARDSON SMITH GARDNER & ASSOCIATES
Engineering and Geological Services
14 N. Boylan Avenue
Raleigh, North Carolina 27603

Johnston County Landfill
Phase 5

Ground Water Monitoring Report

October 2008 Semi-annual Monitoring Event

Johnston County Landfill
Smithfield, North Carolina
NC Solid Waste Permit # 51-02

Prepared for:
Johnston County Department of Public Utilities
309 East Market Street
Smithfield, North Carolina 27577

December 2008

Richardson Smith Gardner & Associates, Inc.
Engineering and Geological Services
14 North Boylan Avenue
Raleigh, North Carolina 27603

Johnston County – Phase 5 Lined Landfill
Semi-annual Ground Water Monitoring Report
October 2008 Sampling Event

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1.0 Introduction

Johnston County formerly operated a Subtitle-D landfill under Solid Waste Permit # 51-02 (Phase 5). This report presents the results of the second semi-annual ground water monitoring event for 2008 for Phase 5, conducted on October 20th - October 21st, 2008. This event was performed to comply with the semi-annual monitoring schedule required by NC Solid Waste Regulations.

The ground water monitoring network for the Phase 5 landfill includes 10 ground water monitoring wells and four leachate lagoon monitoring wells. This report includes summaries of the field procedures, laboratory analyses, statistical analyses, and ground water characterization for the Phase 5 unit. Also included are graphs of the data, and laboratory analytical reports.

2.0 Sampling Procedures

The sampling event, performed by trained personnel from Johnston County Landfill, consisted of collecting samples from 10 ground water monitoring wells (MW-5-1, MW-5-2, MW-5-3, MW-5-4, MW-5-5, MW-5-6, MW-5-7, MW-5-8, MW-5-9, and MW-5-10), shown in **Figure 1**. The sampling was conducted in accordance with the approved site Water Quality Monitoring Plan[1]. Also included in the analysis was a trip blank for quality control. Surface water samples were collected from two locations (SW-5-1 and SW-5-2) up and downstream from the landfill unit on Middle Creek.

Sampling methods followed the protocol outlined in the North Carolina Water Quality Monitoring Guidance Document for Solid Waste Facilities (NCDENR, DWM). The depth to water in each well was gauged prior to purging and sampling. Field measurements of pH, specific conductivity, and temperature were obtained from each well. Water table elevations and field parameter results are included in **Tables 1 and 2**, respectively.

All samples were collected by Johnston County personnel in laboratory prepared containers for the specified analytical procedures. Samples were obtained through dedicated Micropurge low flow pumps. Ground water samples were properly preserved, placed on ice, and transported to the laboratory facility, Environment 1, Inc., within the specified holding times for each analysis.

3.0 Field and Laboratory Results

3.1 Laboratory Analysis

Ground water samples were collected from the monitoring network associated with the Phase 5 landfill unit using dedicated low-flow pumps. These samples were analyzed for Appendix I constituents.

[1]G.N. Richardson and Associates, Inc. Permit to Construct Application (Design Hydrogeologic Report), Johnston County MSW Landfill- Phase 4a, Volume 2 of 2, (Appendix J). January 2002.

3.2 Field and Laboratory Results

All samples were transported to the laboratory facility under proper chain of custody analyzed at the specified DWM Solid Waste Section Limits (SWSL)[2] for Appendix I constituents. The laboratory report is attached for your review as **Appendix A**.

Ground water and field measurements included in **Table 2**, remained similar to previous results. The laboratory analysis detected five (5) inorganic constituents; beryllium, barium, cobalt, lead and zinc; and one (1) organic constituent, 1,2-dichloropropane. Of these, four (4) constituents were detected above 2L standards:

- beryllium.
- cobalt
- lead; and
- 1,2-dichloropropane

Beryllium and cobalt were detected at concentrations above the 2L standard because they do not have a 2L standard. **Table 3** summarizes the list of constituents detected. Constituents detected below the SWSL are denoted as "J" values and are also included in **Table 3.**

There are currently two surface water monitoring points associated with Phase 5 (SW-5-1, and SW-5-2). Laboratory analysis detected zinc in both surface water samples, SW-5-1 & SW-5-2.

4.0 Statistical Analysis & Results

4.1 Statistical Analysis

The laboratory analytical results were entered into our statistical database for the site. Data entry and analysis was performed using the Chempoint/Chemstat™ statistical software package developed specifically for RCRA Subtitle D sites (Starpoint Software, Cincinnati, OH). Chemstat follows EPA and DSWM protocols for approved statistical analysis methods for groundwater data.

The data from this monitoring event was added to our existing database for this site and was reviewed to evaluate the most appropriate analysis methods. Initial analysis consisted of a basic review of the data and of time-concentration graphs (included in **Appendix B**) to determine any major changes or trends in the data. Non-parametric testing methods were used on most wells due to the lack of normality, in the data. Statistical analysis was performed using MW-5-1 as background well and MW-5-2, MW-5-3, MW-5-4, MW-5-5, MW-5-6, MW-5-7, MW-5-8, MW-5-9 and MW-5-10 as the compliance wells. The statistical analysis reports are summarized in **Table 4**.

The following constituents were found to be statistically significant:

- 1,2-dichloropropane (MW-5-8)

[2] New Guidelines for electronic submittal of environmental monitoring data memo, NCDENR DWM, Solid Waste Section, October 27, 2006.

- barium (MW-5-2) & (MW-5-4)
- cobalt (MW-5-4); and
- lead (MW-5-4)

These are highlighted on **Table 4**.

4.2 2L/MCL Statistical Analysis

For wells that showed statistically significant differences from background concentrations, additional analysis was performed. This analysis has recently been required as part of ongoing Assessment monitoring for landfills in North Carolina. To perform the analysis, the respective 2L standard or MCL was determined for each parameter with statistically significant results. Each compliance well with statistical significance was re-analyzed against the lower of the 2L or MCL standard as a Ground Water Protection Standard (GWPS).

This analysis was performed using tolerance interval analysis. Since a smaller subset of wells was analyzed during this step, the compliance well data were retested for normal distribution. If the data were normally distributed, parametric tolerance intervals were constructed for each well and compared to the GWPS for each parameter. For those wells not exhibiting normal distribution, Poisson tolerance intervals were constructed. If the distribution of the data was marginally normal, both tests were run to cross-check the results. All of these cross-checks yielded the same results from both test methods.

The statistical results for this additional analysis are presented in **Table 4**. An upper tolerance limit higher than the GWPS standard was considered to be a statistically significant result. This analysis indicated statistically significant results for:

- 1,2-dichloropropane (MW-5-8)
- barium (MW-5-2) & (MW-5-4)
- cobalt (MW-5-4); and
- lead (MW-5-4)

5.0 Ground Water Characterization

A potentiometric surface map was prepared from ground water elevation data collected during this sampling event. Ground water velocity was calculated for each monitoring well on-site using the equation V = (KI)/n where:

K = hydraulic conductivity
I = ground water gradient
n = porosity

Ground water velocities ranged from 0.004 feet/day (MW-5-10) to 0.603 feet/day (MW-5-2). These calculations are included in **Table 1**. The data indicates that ground water is flowing generally to the north toward Middle Creek. This is consistent with ground water flow patterns previously seen at this site. The potentiometric surface map (**Figure 1**) is also attached for your review.

6.0 Ground Water Assessment

During previous events concentrations of 1,2-dichloropropane were detected. 1,2-dichloropropane has several uses, one of which is as a soil fumigant. Due to the historic use of this property for farming, we believe that is the source of this constituent.

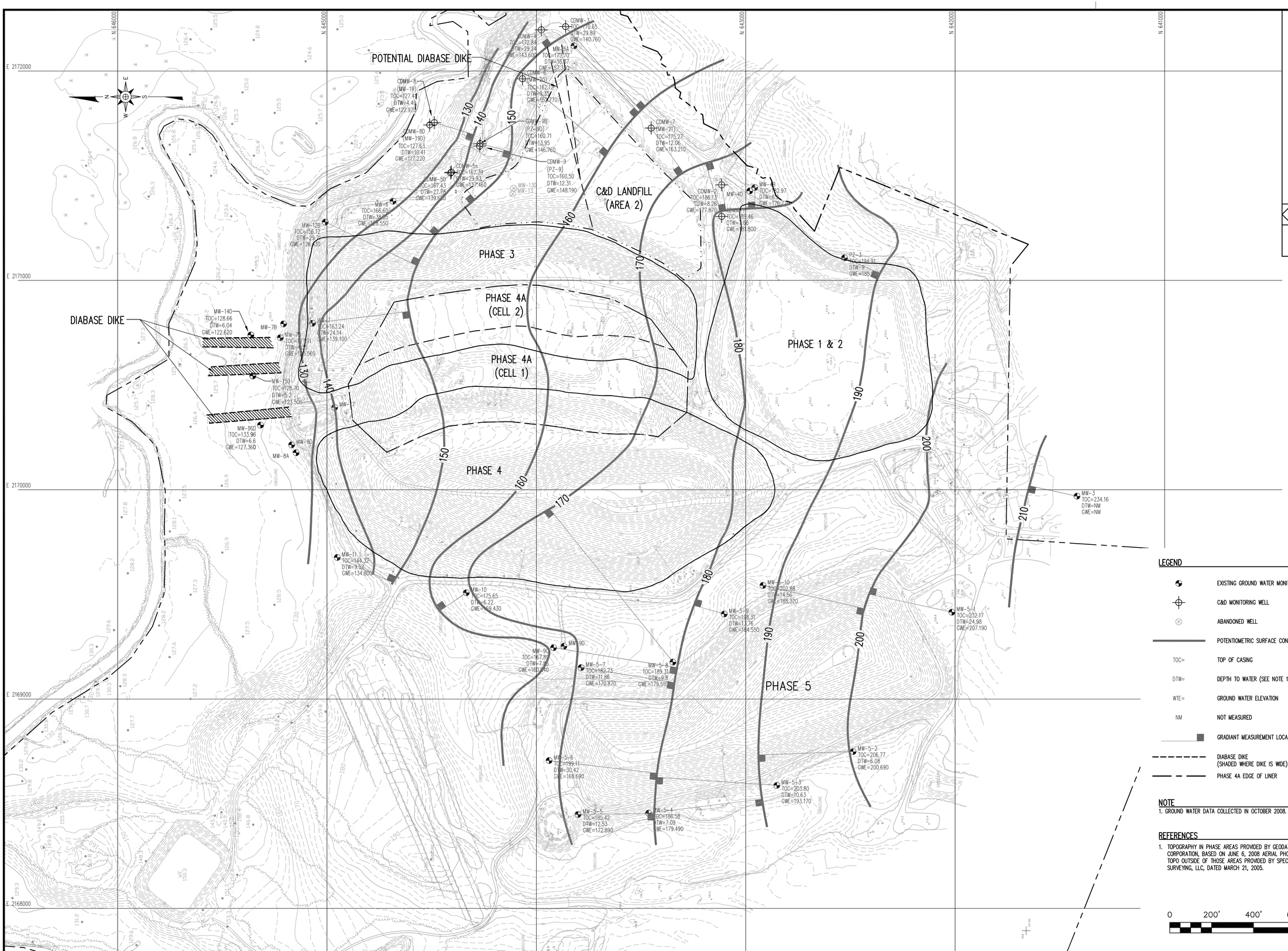
Leachate samples intermittently have had a "J-value" detection of this constituent that is below the Solid Waste Section (SWSL) and orders of magnitude below the detected level in the ground water. During several previous events this constituent has not been detected in leachate at all. Therefore, it is unlikely the landfill is the source of this impact. Additionally, no other constituent that has been detected in the leachate was found to be present in the samples from these wells. This information further supports the source as historical farming practices.

We will continue to monitor the levels of this constituent over the coming semi-annual events, as well as the barium, cobalt and lead levels which are likely due to natural variation and suspended solids in the samples.

7.0 Conclusions

The results of this monitoring event indicate four (4) constituents detectable in groundwater collected from wells associated with Phase 5. We are continuing to evaluate the detections of 1,2-dichloropropane in this phase but believe it to be due to historic farming practices of the site. The next semi-annual sampling event will be performed in spring 2009. These results will be reported upon receipt of the laboratory data and completion of the statistical analyses.

Figures



REVISION | DATE | NO.

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SEAL

SEAL

PROJECT TITLE:
JOHNSTON COUNTY LANDFILL
SMITHFIELD, NORTH CAROLINA

DRAWING TITLE:
GROUND WATER
POTENTIOMETRIC SURFACE MAP
OCTOBER 2008

DESIGNED BY: K.B.S.	DRAWN BY: W.R.B.
CHECKED BY:	PROJECT NO.: JOHN-4
SCALE: AS SHOWN	DATE: Dec. 2008
FILE NAME: JOHN-D0552	
SHEET NO.	DRAWING NO. FIG. 1

G:\CADD\Johnston\John-dsheet\JOHN-D0552.dwg - 12/9/2008 4:18 PM

Tables

Table 1
Johnston County Phase 5 Lined Landfill
Ground Water Elevations & Velocities
October 21st - 30th, 2008

Well	Northing	Easting	TOC Elevation (feet)	Water Level (feet)	GW Elev (feet)	Hyd. Cond. (ft/day)	Porosity (%)	Gradient (ft/ft)	Velocity (ft/day)
MW-5-1	642015.58	2169415.4	232.17	24.98	207.19	2.275	0.2	0.018	0.205
MW-5-2	642487.14	2168749.63	206.77	6.08	200.69	5.247	0.2	0.023	0.603
MW-5-3	642851.56	2168588.27	203.8	10.63	193.17	0.995	0.2	0.023	0.114
MW-5-4	643464.18	2168455.67	186.58	7.09	179.49	0.465	0.2	0.019	0.044
MW-5-5	643800.44	2168449.11	185.42	12.53	172.89	0.261	0.2	0.019	0.025
MW-5-6	643938.92	2168706.91	199.11	30.42	168.69	0.366	0.2	0.020	0.037
MW-5-7	643786.2	2169150.69	182.73	11.86	170.87	0.422	0.2	0.020	0.042
MW-5-8	643347.86	2169177.25	189.31	9.8	179.51	0.312	0.2	0.010	0.016
MW-5-9	643102.64	2169406.82	198.31	13.76	184.55	0.309	0.2	0.030	0.046
MW-5-10	642917.77	2169543.59	202.88	14.56	188.32	0.037	0.2	0.023	0.004
LL-1	645398.84	2168192.54	na	18.3	na	na	na	na	na
LL-2	645867.44	2168271.33	na	17.33	na	na	na	na	na
LL-3	645957.48	2168106	na	19.87	na	na	na	na	na
LL-4	645781.3	2167851.39	na	8.75	na	na	na	na	na

Notes: Velocity Calculated from V=K*I/n
V = velocity
K = Hydraulic Conductivity
I = Gradient
n = Porosity
Hydraulic Conductivity data from slug testing
Porosity values assumed from Groundwater & Wells (Driscoll)
na = not available

Table 2
Johnston County Phase 5 Lined Landfill
Field Parameters
October 21st - 30th, 2008

Well Identification #	Static Water Level (ft) * (DTW)	Temperature (°Celsius)	Turbidity (NTU)	pH	Specific Conductivity (uS/cm)
MW – 5-1	24.98	19.46	34.7	4.19	196
MW – 5-2	6.08	17.98	36.6	4.05	390
MW – 5-3	10.63	19.82	47.7	4.37	83
MW – 5-4	7.09	17.45	413	4.59	52
MW – 5-5	12.53	20.37	3.93	4.43	43
MW – 5-6	30.42	19.7	13.6	4.57	66
MW – 5-7	11.86	16.92	11.8	4.8	54
MW – 5-8	9.8	17.9	1.99	4.75	258
MW – 5-9	13.76	17.66	38.8	4.51	62
MW – 5-10	14.56	17.19	89.8	4.59	45
Phase 5 Direct Leachate	N/A	21.1	37.1	7.07	7030
Lagoon Lchte.#1	18.3	19.22	12.4	5.28	94
Lagoon Lchte. #2	17.33	17.51	3.28	5.36	103
Lagoon Lchte. #3	19.87	18.33	3.36	5.34	60
Lagoon Lchte. #4	8.75	17.46	5.48	5.42	105
SW5 – 1	N/A	10.8	4.02	7.04	307
SW5 – 2	N/A	11.06	20.5	7.19	154

N/A - Not Analyzed
Data collected by Kevin Shields of Johnston County

Table 3
Johnston County Phase 5 Lined Landfill
Detected Inorganic and Organic Constituents
October 21st - 30th, 2008

Inorganic Constituents

Parameter	SWSL	2L	MW-5-1	MW-5-2	MW-5-3	MW-5-4	MW-5-5	MW-5-6	MW-5-7	MW-5-8	MW-5-9	MW-5-10	SW-5-1	SW-5-2
Antimony	6	---	ND	ND	ND	ND	ND	ND	ND	0.1 J	0.4 J	0.2 J	ND	0.1 J
Arsenic	10	50	0.8 J	0.3 J	0.4 J	2.5 J	0.1 J	0.2 J	0.1 J	0.2 J	1.2 J	0.6 J	0.3 J	0.7 J
Barium	100	2000	**278**	**555**	**145**	**583**	53.4 J	**117**	62.3 J	**407**	90.8 J	83.8 J	**362**	56.6 J
Beryllium	1	---	0.5 J	**1**	0.9 J	**2**	0.1 J	0.1 J	0.1 J	0.3 J	0.2 J	0.1 J	0.1 J	ND
Cadmium	1	1.75	0.1 J	0.3 J	0.1 J	0.2 J	0.1 J	0.1 J	0.1 J	0.2 J	0.2 J	0.1 J	0.1 J	ND
Cobalt	10	---	3.3 J	7.5 J	3.9 J	**16**	2.5 J	2.3 J	2.4 J	5.5 J	1.7 J	6.2 J	1.2 J	1 J
Copper	10	1000	1 J	2.2 J	5.4 J	6 J	1.4 J	2 J	1.3 J	1 J	2.5 J	1.6 J	0.9 J	2.1 J
Lead	10	15	4.5 J	8.4 J	**10**	**17**	3.3 J	4.7 J	1.2 J	4 J	2.5 J	4.6 J	0.3 J	0.8 J
Nickel	50	100	4.8 J	8.8 J	4.1 J	14.2 J	1.5 J	1.6 J	2.4 J	5.6 J	2.3 J	2.1 J	3.1 J	2.1 J
Selenium	10	50	0.4 J	1 J	ND	0.3 J	0.4 J	ND	ND	0.7 J	1 J	0.5 J	0.3 J	0.4 J
Silver	10	17.5	ND	0.1 J	ND	0.1 J	0.1 J	ND	ND	0.1 J	0.1 J	0.1 J	ND	ND
Total Chromium	10	50	1.4 J	1.3 J	2 J	0.8 J	0.5 J	0.5 J	0.3 J	ND	1.8 J	1.5 J	0.4 J	1.4 J
Vanandium	25	---	3.4 J	3.1 J	3.1 J	2 J	0.5 J	0.4 J	0.9 J	0.7 J	3.8 J	4.2 J	0.8 J	2.2 J
Thallium	5	---	0.1 J	0.2 J	0.1 J	0.3 J	0.1 J	0.1 J	0.1 J	0.2 J	0.1 J	0.1 J	0.1 J	ND
Zinc	10	1050	6.9 J	**22**	**15**	**39**	9.9 J	9.5 J	**10**	**12**	**25**	9 J	**41**	**23**

Organic Constituents

Parameter	SWSL	2L	MW-5-1	MW-5-2	MW-5-3	MW-5-4	MW-5-5	MW-5-6	MW-5-7	MW-5-8	MW-5-9	MW-5-10	SW-5-1	SW-5-2
1,1,2,2-Tetrachloroethane	3	70	ND	0.3 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	70	ND	ND	ND	ND	ND	0.4 J	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	0.51	0.2 J	**4.1**	ND	ND	ND	ND	0.3 J	**7.2**	ND	ND	ND	ND
Acetone	100	700	8.1 J	5.6 J	6.3 J	8.3 J	8.4 J	6.2 J	7.7 J	8.5 J	7.8 J	6.9 J	11.5 J	9.3 J
2-Butanone	100	---	1 J	ND	ND	1 J	ND	ND	0.9 J	0.9 J	ND	ND	1.3 J	ND
Benzene	1	1	ND	ND	ND	ND	ND	0.3 J	ND	ND	ND	ND	ND	ND
Chloroform	5	70	ND	ND	ND	ND	ND	0.3 J	ND	ND	ND	ND	ND	ND
Chloromethane	1	2.6	0.3 J	ND	ND	0.2 J	0.2 J	ND	ND	0.3 J	ND	ND	0.2 J	0.4 J
Cis-1,2-Dichloroethene	5	70	ND	ND	ND	ND	ND	0.4 J	ND	ND	ND	ND	ND	ND
Toluene	1	1000	ND	0.2 J	0.2 J	0.2 J	0.2 J	0.3 J	0.2 J	0.2 J	0.2 J	0.2 J	0.3 J	0.4 J
Vinyl Chloride	1	0.015	ND	ND	ND	ND	ND	0.5 J	ND	ND	ND	ND	ND	ND

ND	-	Not detected at or above SWSL
Shading	-	Levels above 2L standard or no 2L standard
Bold Letters	-	Constituent detected above SWSL
J	-	Detected constituents below SWSL limit

Table 4
Johnston County Phase 5 Landfill
Statistical Analysis Summary
October 21st - 30th, 2008

Location	Parameter	Result	Detection Limit	Test Units	%ND	%CL	Test	Statistically Significant?	2nd statistical Analysis	Test
MW-5-2	1,2-Dichloropropane	4.1	<1	ug/l	77.33	92.6	NPPL	N	---	---
MW-5-8	1,2-Dichloropropane	7.2	<1	ug/l	77.33	92.6	NPPL	Y	Y	MCL-PTI
MW-5-2	Barium	0.555	<0.100	mg/l	78.66	83.3	NPTL	Y	Y	MCL-PTI
MW-5-3	Barium	0.145	<0.100	mg/l	78.66	83.3	NPTL	N	---	---
MW-5-4	Barium	0.583	<0.100	mg/l	78.66	83.3	NPTL	Y	Y	MCL-PTI
MW-5-6	Barium	0.117	<0.100	mg/l	78.66	83.3	NPTL	N	---	---
MW-5-8	Barium	0.407	<0.100	mg/l	78.66	83.3	NPTL	N	---	---
MW-5-2	Beryllium	0.001	<0.001	mg/l	82.66	92.6	NPPL	N	---	---
MW-5-4	Beryllium	0.002	<0.001	mg/l	82.66	92.6	NPPL	N	---	---
MW-5-4	Cobalt	0.016	<0.010	mg/l	84	96.2	NPPL	Y	Y	MCL-PTI
MW-5-3	Lead	0.01	<0.010	mg/l	78.66	92.6	NPPL	N	---	---
MW-5-4	Lead	0.017	<0.010	mg/l	78.66	92.6	NPPL	Y	Y	MCL-PTI
MW-5-2	Zinc	0.022	<0.010	mg/l	83.42	80.6	NPTL	N	---	---
MW-5-3	Zinc	0.015	<0.010	mg/l	83.42	80.6	NPTL	N	---	---
MW-5-4	Zinc	0.039	<0.010	mg/l	83.42	80.6	NPTL	N	---	---
MW-5-7	Zinc	0.01	<0.010	mg/l	83.42	80.6	NPTL	N	---	---
MW-5-8	Zinc	0.012	<0.010	mg/l	83.42	80.6	NPTL	N	---	---
MW-5-9	Zinc	0.025	<0.010	mg/l	83.42	80.6	NPTL	N	---	---

Legend:

%ND	Method chosen due to percent non-detects
NPTL	Non-parametricTolerance Limit
NPPL	Non-parametric Prediction Interval

Shading indicates statistical significance.

Notes:
MW-5-1 was used as the background well

Appendix A

Laboratory Analytical Report

Environment 1, Incorporated

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

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

REC'D DEC 02 2008

Drinking Water ID: 37715
Wastewater ID: 10

ID#: 6033 A

JOHNSTON CO. LANDFILL (PHASE 5)
MR. KEVIN SHIELDS
P.O. BOX 2263
SMITHFIELD ,NC 27577

DATE COLLECTED: 10/21/08
DATE REPORTED : 11/21/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	Leachate	Analysis Date	Analyst	Method Code
BOD, mg/l	2.0	2.0	183	10/23/08	TRB	SM5210B
COD, mg/l	10.0	10.0	640	10/28/08	TRB	HACH8000
Total Suspended Residue, mg/l	1.0	1.0	83	10/23/08	MRJ	SM2540D
Ammonia Nitrogen, mg/l	0.04	0.04	20.20	10/24/08	TWA	EPA350.1
Nitrate Nitrogen, mg/l	0.03	10.0	--- U	10/24/08	ANO	EPA353.2
Total Phosphorus, mg/l	0.04	0.04	0.94	10/27/08	TWA	EPA365.4
Sulfate, mg/l	5.0	250.0	385.2	11/03/08	TRB	SM4500-SO4E
Antimony, ug/l	0.44	6.0	1.9 J	10/30/08	CMF	EPA200.8
Arsenic, ug/l	0.57	10.0	27	11/05/08	CMF	SM3113B
Barium, ug/l	0.11	100.0	236	10/30/08	CMF	EPA200.8
Beryllium, ug/l	0.06	1.0	0.1 J	10/30/08	CMF	EPA200.8
Cadmium, ug/l	0.05	1.0	0.47 J	10/30/08	CMF	EPA200.8
Cobalt, ug/l	0.03	10.0	21	10/30/08	CMF	EPA200.8
Copper, ug/l	0.05	10.0	5.0 J	10/30/08	CMF	EPA200.8
Total Chromium, ug/l	0.11	10.0	20	10/30/08	CMF	EPA200.8
Lead, ug/l	0.32	10.0	1.6 J	10/30/08	CMF	EPA200.8
Nickel, ug/l	0.06	50.0	38.1 J	10/30/08	CMF	EPA200.8
Selenium, ug/l	0.51	10.0	8.0 J	10/30/08	CMF	EPA200.8
Silver, ug/l	0.04	10.0	0.1 J	10/30/08	CMF	EPA200.8
Thallium, ug/l	0.63	5.0	0.2 J	10/30/08	CMF	EPA200.8
Vanadium, ug/l	0.07	25.0	13.2 J	10/30/08	CMF	EPA200.8
Zinc, ug/l	0.04	10.0	395	10/30/08	CMF	EPA200.8

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: JOHNSTON CO. LANDFILL (PHASE 5)
MR. KEVIN SHIELDS
P.O. BOX 2263
SMITHFIELD, NC 27577

CLIENT ID: 6033 A

ANALYST: MAO
DATE COLLECTED: 10/21/08
DATE ANALYZED: 10/31/08
DATE REPORTED: 11/21/08

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	Leachate
1. Chloromethane	0.18	1.0	--- U
2. Vinyl Chloride	0.34	1.0	2.10
3. Bromomethane	0.26	10.0	--- U
4. Chloroethane	0.29	10.0	0.80 J
5. Trichlorofluoromethane	0.13	1.0	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U
7. Acetone	1.21	100.0	221.00
8. Iodomethane	0.12	10.0	--- U
9. Carbon Disulfide	0.14	100.0	1.10 J
10. Methylene Chloride	0.14	1.0	1.00
11. trans-1,2-Dichloroethene	0.13	5.0	--- U
12. 1,1-Dichloroethane	0.16	5.0	0.60 J
13. Vinyl Acetate	0.20	50.0	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	5.30
15. 2-Butanone	0.85	100.0	111.00
16. Bromochloromethane	0.11	3.0	--- U
17. Chloroform	0.13	5.0	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U
20. Benzene	0.16	1.0	1.70
21. 1,2-Dichloroethane	0.12	1.0	3.30
22. Trichloroethene	0.13	1.0	0.50 J
23. 1,2-Dichloropropane	0.17	1.0	0.80 J
24. Bromodichloromethane	0.13	1.0	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	31.20 J
27. Toluene	0.13	1.0	22.40
28. trans-1,3-Dichloropropene	0.14	1.0	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U
30. Tetrachloroethene	0.16	1.0	0.20 J
31. 2-Hexanone	1.00	50.0	1.90 J
32. Dibromochloromethane	0.14	3.0	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U
34. Chlorobenzene	0.13	3.0	2.20 J
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U
36. Ethylbenzene	0.16	1.0	4.90
37. Xylenes	0.48	5.0	7.80
38. Dibromomethane	0.17	10.0	--- U
39. Styrene	0.16	1.0	0.50 J
40. Bromoform	0.11	3.0	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	2.50
44. 1,2-Dichlorobenzene	0.13	5.0	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U
46. Acrylonitrile	1.49	200.0	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- 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
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ID#: 6033

JOHNSTON CO. LANDFILL (PHASE 5)
MR. KEVIN SHIELDS
P.O. BOX 2263
SMITHFIELD ,NC 27577

DATE COLLECTED: 10/21/08
DATE REPORTED : 11/21/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	Leachate Lag #1	Leachate Lag #2	Leachate Lag #3	Leachate Lag #4	Leachate Jun Box	Analysis Date	Analyst	Method Code
BOD, mg/l	2.0	2.0					165	10/23/08	TRB	SM5210B
COD, mg/l	10.0	10.0					788	10/28/08	TRB	HACH8000
Total Suspended Residue, mg/l	1.0	1.0					96	10/23/08	MRJ	SM2540D
Ammonia Nitrogen, mg/l	0.04	0.04					327	10/24/08	TWA	EPA350.1
Nitrate Nitrogen, mg/l	0.03	10.0					--- U	10/24/08	ANO	EPA353.2
Total Phosphorus, mg/l	0.04	0.04					1.30	10/27/08	TWA	EPA365.4
Sulfate, mg/l	5.0	250.0					6.5 J	11/03/08	TRB	SM4500-SO4
Antimony, ug/l	0.44	6.0	--- U	--- U	--- U	--- U		10/28/08	LFJ	EPA200.8
Antimony, ug/l	0.44	6.0					2.1 J	10/30/08	CMF	EPA200.8
Arsenic, ug/l	0.57	10.0	0.8 J	0.3 J	0.2 J	0.3 J		10/28/08	LFJ	EPA200.8
Arsenic, ug/l	0.57	10.0					34	11/05/08	CMF	SM3113B
Barium, ug/l	0.11	100.0	11.6 J	8.7 J	15 J	1.7 J		10/28/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0					1042	10/30/08	CMF	EPA200.8
Beryllium, ug/l	0.06	1.0	--- U	--- U	--- U	--- U		10/28/08	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0					0.1 J	10/30/08	CMF	EPA200.8
Cadmium, ug/l	0.05	1.0	--- U	0.1 J	--- U	--- U		10/28/08	LFJ	EPA200.8
Cadmium, ug/l	0.05	1.0					0.5 J	10/30/08	CMF	EPA200.8
Cobalt, ug/l	0.03	10.0	0.6 J	3 J	0.4 J	0.6 J		10/28/08	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0					16	10/30/08	CMF	EPA200.8
Copper, ug/l	0.05	10.0	1.5 J	1.8 J	0.5 J	1.3 J		10/28/08	LFJ	EPA200.8
Copper, ug/l	0.05	10.0					8.2 J	10/30/08	CMF	EPA200.8
Total Chromium, ug/l	0.11	10.0	1.7 J	1.0 J	0.5 J	1 J		10/28/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0					10	10/30/08	CMF	EPA200.8
Lead, ug/l	0.32	10.0	1.2 J	0.3 J	0.1 J	0.2 J		10/28/08	LFJ	EPA200.8
Lead, ug/l	0.32	10.0					1.3 J	10/30/08	CMF	EPA200.8
Nickel, ug/l	0.06	50.0	2.8 J	2.6 J	1.3 J	0.6 J		10/28/08	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0					111	10/30/08	CMF	EPA200.8
Selenium, ug/l	0.51	10.0	2.4 J	--- U	--- U	0.2 J		10/28/08	LFJ	EPA200.8
Selenium, ug/l	0.51	10.0					0.8 J	11/06/08	CMF	SM3113B
Silver, ug/l	0.04	10.0	--- U	--- U	0.1 J	--- U		10/28/08	LFJ	EPA200.8
Silver, ug/l	0.04	10.0					0.2 J	10/30/08	CMF	EPA200.8
Thallium, ug/l	0.63	5.0	--- U	--- U	--- U	--- U		10/28/08	LFJ	EPA200.8
Thallium, ug/l	0.63	5.0					0.1 J	10/30/08	CMF	EPA200.8
Vanadium, ug/l	0.07	25.0	1.1 J	0.4 J	0.7 J	1.2 J		10/28/08	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0					9.1 J	10/30/08	CMF	EPA200.8
Zinc, ug/l	0.04	10.0	11	15	9.3 J	8.1 J		10/28/08	LFJ	EPA200.8
Zinc, ug/l	0.04	10.0					1759	10/30/08	CMF	EPA200.8

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: JOHNSTON CO. LANDFILL (PHASE 5)
MR. KEVIN SHIELDS
P.O. BOX 2263
SMITHFIELD, NC 27577

CLIENT ID: 6033

ANALYST: MAO
DATE COLLECTED: 10/21/08
DATE ANALYZED: 10/31/08
DATE REPORTED: 11/21/08

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	Leachate Lag #1	Leachate Lag #2	Leachate Lag #3	Leachate Lag #4	Leachate Jun Box
1. Chloromethane	0.18	1.0	0.20 J	--- U	0.20 J	0.20 J	0.30 J
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U	2.80
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	1.20 J
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	7.60 J	8.20 J	9.60 J	9.50 J	29.60 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	--- U	0.70 J
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	0.20 J
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	--- U	2.00 J
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	1.30 J
15. 2-Butanone	0.85	100.0	--- U	1.60 J	1.90 J	2.00 J	6.50 J
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	0.20 J	--- U	0.40 J	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	10.90
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U	0.20 J
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	1.50 J
27. Toluene	0.13	1.0	0.20 J	0.20 J	0.20 J	0.30 J	13.90
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	2.50 J
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	68.20
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	77.70
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	1.20
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	11.90
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	0.20 J
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	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

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CLIENT: JOHNSTON CO. LANDFILL (PHASE 5)
MR. KEVIN SHIELDS
P.O. BOX 2263
SMITHFIELD, NC 27577

CLIENT ID: 6033

ANALYST: MAO
DATE COLLECTED: 10/21/08
DATE ANALYZED: 10/31/08
DATE REPORTED: 11/21/08

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	Trip Blank	Equipment Blank
1. Chloromethane	0.18	1.0	--- U	0.20 J
2. Vinyl Chloride	0.34	1.0	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U
7. Acetone	1.21	100.0	3.00 J	11.60 J
8. Iodomethane	0.12	10.0	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	2.50 J
16. Bromochloromethane	0.11	3.0	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U
27. Toluene	0.13	1.0	1.00	--- U
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- 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
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ID#: 6033

JOHNSTON CO. LANDFILL (PHASE 5)
MR. KEVIN SHIELDS
P.O. BOX 2263
SMITHFIELD ,NC 27577

DATE COLLECTED: 10/20/08
DATE REPORTED : 11/12/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW5-1	MW5-2	MW5-3	MW5-4	MW5-6	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.08	6.0	--- U	--- U	--- U	--- U	--- U	10/28/08	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0	0.8 J	0.3 J	0.4 J	2.5 J	0.2 J	10/28/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0	278	555	145	583	117	10/28/08	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	0.5 J	1	0.9 J	2	0.1 J	10/28/08	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J	0.3 J	0.1 J	0.2 J	0.1 J	10/28/08	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0	3.3 J	7.5 J	3.9 J	16	2.3 J	10/28/08	LFJ	EPA200.8
Copper, ug/l	0.05	10.0	1.0 J	2.2 J	5.4 J	6 J	2 J	10/28/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0	1.4 J	1.3 J	2 J	0.8 J	0.5 J	10/28/08	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	4.5 J	8.4 J	10	17	4.7 J	10/28/08	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0	4.8 J	8.8 J	4.1 J	14.2 J	1.6 J	10/28/08	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	0.4 J	1.0 J	--- U	0.3 J	--- U	10/28/08	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	--- U	0.1 J	--- U	0.1 J	--- U	10/28/08	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0	0.1 J	0.2 J	0.1 J	0.3 J	0.1 J	10/28/08	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	3.4 J	3.1 J	3.1 J	2 J	0.4 J	10/28/08	LFJ	EPA200.8
Zinc, ug/l	0.04	10.0	6.9 J	22	15	39	9.5 J	10/28/08	LFJ	EPA200.8

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#: 6033

JOHNSTON CO. LANDFILL (PHASE 5)
MR. KEVIN SHIELDS
P.O. BOX 2263
SMITHFIELD ,NC 27577

DATE COLLECTED: 10/20/08
DATE REPORTED : 11/12/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW5-7	MW5-8	MW5-9	Surface Water #5-1	Surface Water #5-2	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.08	6.0	--- U	0.1 J	0.4 J	--- U	0.1 J	10/28/08	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0	0.1 J	0.2 J	1.2 J	0.3 J	0.7 J	10/28/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0	62.3 J	407	90.8 J		56.6 J	10/28/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0				362		10/30/08	CMF	EPA200.8
Beryllium, ug/l	0.06	1.0	0.1 J	0.3 J	0.2 J	0.1 J	--- U	10/28/08	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J	0.2 J	0.2 J	0.1 J	--- U	10/28/08	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0	2.4 J	5.5 J	1.7 J	1.2 J	1.0 J	10/28/08	LFJ	EPA200.8
Copper, ug/l	0.05	10.0	1.3 J	1 J	2.5 J	0.9 J	2.1 J	10/28/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0	0.3 J	--- U	1.8 J	0.4 J	1.4 J	10/28/08	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	1.2 J	4 J	2.5 J	0.3 J	0.8 J	10/28/08	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0	2.4 J	5.6 J	2.3 J	3.1 J	2.1 J	10/28/08	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	--- U	0.7 J	1.0 J	0.3 J	0.4 J	10/28/08	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	--- U	0.1 J	0.1 J	--- U	--- U	10/28/08	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0	0.1 J	0.2 J	0.1 J	0.1 J	--- U	10/28/08	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	0.9 J	0.7 J	3.8 J	0.8 J	2.2 J	10/28/08	LFJ	EPA200.8
Zinc, ug/l	0.04	10.0	10	12	25	41	23	10/28/08	LFJ	EPA200.8

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#: 6033

JOHNSTON CO. LANDFILL (PHASE 5)
MR. KEVIN SHIELDS
P.O. BOX 2263
SMITHFIELD ,NC 27577

DATE COLLECTED: 10/20/08
DATE REPORTED : 11/12/08

REVIEWED BY:

PARAMETERS	MDL	SWSL	MW-5(5')	MW-5(10')	Trip Blank	Analysis Date	Analyst	Method Code
Antimony, ug/l	0.08	6.0	--- U	0.2 J		10/28/08	LFJ	EPA200.8
Arsenic, ug/l	0.07	10.0	0.1 J	0.6 J		10/28/08	LFJ	EPA200.8
Barium, ug/l	0.11	100.0	53.4 J	83.8 J		10/28/08	LFJ	EPA200.8
Beryllium, ug/l	0.06	1.0	0.1 J	0.1 J		10/28/08	LFJ	EPA200.8
Cadmium, ug/l	0.04	1.0	0.1 J	0.1 J		10/28/08	LFJ	EPA200.8
Cobalt, ug/l	0.03	10.0	2.5 J	6.5 J		10/28/08	LFJ	EPA200.8
Copper, ug/l	0.05	10.0	1.4 J	1.6 J		10/28/08	LFJ	EPA200.8
Total Chromium, ug/l	0.11	10.0	0.5 J	1.5 J		10/28/08	LFJ	EPA200.8
Lead, ug/l	0.04	10.0	3.3 J	4.6 J		10/28/08	LFJ	EPA200.8
Nickel, ug/l	0.06	50.0	1.5 J	2.1 J		10/28/08	LFJ	EPA200.8
Selenium, ug/l	0.14	10.0	0.4 J	0.5 J		10/28/08	LFJ	EPA200.8
Silver, ug/l	0.04	10.0	0.1 J	0.1 J		10/28/08	LFJ	EPA200.8
Thallium, ug/l	0.04	5.0	0.1 J	0.1 J		10/28/08	LFJ	EPA200.8
Vanadium, ug/l	0.07	25.0	0.5 J	4.2 J		10/28/08	LFJ	EPA200.8
Zinc, ug/l	0.04	10.0	9.9 J	9 J		10/28/08	LFJ	EPA200.8

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: JOHNSTON CO. LANDFILL (PHASE 5)
MR. KEVIN SHIELDS
P.O. BOX 2263
SMITHFIELD, NC 27577

CLIENT ID: 6033

ANALYST: MAO
DATE COLLECTED: 10/20/08
DATE REPORTED: 11/12/08

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	Date Analyzed: 10/31/08 MW5-1	10/30/08 MW5-2	10/30/08 MW5-3	10/30/08 MW5-4	10/30/08 MW5-6
1. Chloromethane	0.18	1.0	0.30 J	--- U	--- U	0.20 J	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U	0.50 J
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	8.10 J	5.60 J	6.30 J	8.30 J	6.20 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	--- U	0.40 J
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	0.40 J
15. 2-Butanone	0.85	100.0	1.00 J	--- U	--- U	1.00 J	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U	0.30 J
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U	0.30 J
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	0.20 J	4.10	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	--- U	0.20 J	0.20 J	0.20 J	0.30 J
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	0.30 J	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	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: JOHNSTON CO. LANDFILL (PHASE 5)
MR. KEVIN SHIELDS
P.O. BOX 2263
SMITHFIELD, NC 27577

CLIENT ID: 6033

ANALYST: MAO
DATE COLLECTED: 10/20/08
DATE REPORTED: 11/12/08

REVIEWED BY: _____

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/1	MDL	SWSL	10/31/08 MW5-7	10/31/08 MW5-8	10/31/08 MW5-9	10/31/08 Surface Water #5-1	10/31/08 Surface Water #5-2
	Date Analyzed:						
1. Chloromethane	0.18	1.0	--- U	0.30 J	--- U	0.20 J	0.40 J
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
7. Acetone	1.21	100.0	7.70 J	8.50 J	7.80 J	11.50 J	9.30 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	0.90 J	0.90 J	--- U	1.30 J	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	0.30 J	7.20	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U	--- U	--- U
27. Toluene	0.13	1.0	0.20 J	0.20 J	0.20 J	0.30 J	0.40 J
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	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: JOHNSTON CO. LANDFILL (PHASE 5)
MR. KEVIN SHIELDS
P.O. BOX 2263
SMITHFIELD, NC 27577

CLIENT ID: 6033

ANALYST: MAO
DATE COLLECTED: 10/20/08
DATE REPORTED: 11/12/08

REVIEWED BY:

VOLATILE ORGANICS
EPA METHOD 8260B

PARAMETERS, ug/l	MDL	SWSL	Date Analyzed: 10/31/08 MW-5(5')	10/31/08 MW-5(10')	10/31/08 Trip Blank
1. Chloromethane	0.18	1.0	0.20 J	--- U	--- U
2. Vinyl Chloride	0.34	1.0	--- U	--- U	--- U
3. Bromomethane	0.26	10.0	--- U	--- U	--- U
4. Chloroethane	0.29	10.0	--- U	--- U	--- U
5. Trichlorofluoromethane	0.13	1.0	--- U	--- U	--- U
6. 1,1-Dichloroethene	0.14	5.0	--- U	--- U	--- U
7. Acetone	1.21	100.0	8.40 J	6.90 J	1.70 J
8. Iodomethane	0.12	10.0	--- U	--- U	--- U
9. Carbon Disulfide	0.14	100.0	--- U	--- U	--- U
10. Methylene Chloride	0.14	1.0	--- U	--- U	--- U
11. trans-1,2-Dichloroethene	0.13	5.0	--- U	--- U	--- U
12. 1,1-Dichloroethane	0.16	5.0	--- U	--- U	--- U
13. Vinyl Acetate	0.20	50.0	--- U	--- U	--- U
14. Cis-1,2-Dichloroethene	0.14	5.0	--- U	--- U	--- U
15. 2-Butanone	0.85	100.0	--- U	--- U	--- U
16. Bromochloromethane	0.11	3.0	--- U	--- U	--- U
17. Chloroform	0.13	5.0	--- U	--- U	--- U
18. 1,1,1-Trichloroethane	0.11	1.0	--- U	--- U	--- U
19. Carbon Tetrachloride	0.13	1.0	--- U	--- U	--- U
20. Benzene	0.16	1.0	--- U	--- U	--- U
21. 1,2-Dichloroethane	0.12	1.0	--- U	--- U	--- U
22. Trichloroethene	0.13	1.0	--- U	--- U	--- U
23. 1,2-Dichloropropane	0.17	1.0	--- U	--- U	--- U
24. Bromodichloromethane	0.13	1.0	--- U	--- U	--- U
25. Cis-1,3-Dichloropropene	0.17	1.0	--- U	--- U	--- U
26. 4-Methyl-2-Pentanone	0.68	100.0	--- U	--- U	--- U
27. Toluene	0.13	1.0	0.20 J	0.20 J	0.70 J
28. trans-1,3-Dichloropropene	0.14	1.0	--- U	--- U	--- U
29. 1,1,2-Trichloroethane	0.20	1.0	--- U	--- U	--- U
30. Tetrachloroethene	0.16	1.0	--- U	--- U	--- U
31. 2-Hexanone	1.00	50.0	--- U	--- U	--- U
32. Dibromochloromethane	0.14	3.0	--- U	--- U	--- U
33. 1,2-Dibromoethane	0.13	1.0	--- U	--- U	--- U
34. Chlorobenzene	0.13	3.0	--- U	--- U	--- U
35. 1,1,1,2-Tetrachloroethane	0.14	5.0	--- U	--- U	--- U
36. Ethylbenzene	0.16	1.0	--- U	--- U	--- U
37. Xylenes	0.48	5.0	--- U	--- U	--- U
38. Dibromomethane	0.17	10.0	--- U	--- U	--- U
39. Styrene	0.16	1.0	--- U	--- U	--- U
40. Bromoform	0.11	3.0	--- U	--- U	--- U
41. 1,1,2,2-Tetrachloroethane	0.16	3.0	--- U	--- U	--- U
42. 1,2,3-Trichloropropane	0.06	1.0	--- U	--- U	--- U
43. 1,4-Dichlorobenzene	0.21	1.0	--- U	--- U	--- U
44. 1,2-Dichlorobenzene	0.13	5.0	--- U	--- U	--- U
45. 1,2-Dibromo-3-Chloropropane	0.26	13.0	--- U	--- U	--- U
46. Acrylonitrile	1.49	200.0	--- U	--- U	--- U
47. trans-1,4-Dichloro-2-Butene	0.14	100.0	--- U	--- U	--- U

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

- 1 COOLER -

CHAIN OF CUSTODY RECORD

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

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CLIENT: 6033 **Week: 42**

JOHNSTON CO. LANDFILL (PHASE 5)
MR. KEVIN SHIELDS
P.O. BOX 2263
SMITHFIELD NC 27577

(919) 938-4747

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

CHLORINE NEUTRALIZED AT COLLECTION																			
pH CHECK (LAB)									2	2	2	2	2						
CONTAINER TYPE, P/G			P	P	P	P	P	P	P	P	G	G	G	G					
CHEMICAL PRESERVATION			A	C	A	C	A	C	A	A	E	E	E	E					
SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	BOD	COD	TSR	Ammonia Nitro.	Nitrate	T. Phosphorus	Sulfate	Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2	8260 Dup. 3			
MW5-1	10/20/08	16:27	N/A	19	4														
MW5-2		14:25	N/A	18	3														
MW5-3		15:05	N/A	20	3														
MW5-4		12:41	N/A	17	3														
MW5-6		15:52	N/A	20	3														
MW5-7		10:03	N/A	17	3														
MW5-8		10:51	N/A	18	3														
MW5-9		11:27	N/A	18	3														
Leachate Lag #1					3														
Leachate Lag #2					3														
Leachate Lag #3					3														

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) KEVIN J. SHIELDS

SAMPLES RECEIVED IN LAB AT 0.8 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
[signature]	10/21/08	[signature]	10/21/08 4:00
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

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.

№ 168115

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: 6033 **Week: 42**

JOHNSTON CO. LANDFILL (PHASE 5)
MR. KEVIN SHIELDS
P.O. BOX 2263
SMITHFIELD NC 27577

(919) 938-4747

DISINFECTION: ☐ CHLORINE ☐ UV ☐ NONE ☐ _____

PARAMETERS	BOD	COD	TSR	Ammonia Nitro.	Nitrate	T. Phosphorus	Sulfate	Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2	8260 Dup. 3				
CHLORINE NEUTRALIZED AT COLLECTION																
pH CHECK (LAB)								L2	L2	L2	L2	L2				
CONTAINER TYPE, P/G	P	P	P	P	P	P	P	P	G	G	G	G				
CHEMICAL PRESERVATION	A	C	A	C	A	C	A	A	E	E	E	E				

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

SAMPLE LOCATION	COLLECTION DATE	COLLECTION TIME	TOTAL CHLORINE, mg/l AT COLLECTION	TEMPERATURE, °C AT COLLECTION	# OF CONTAINERS	BOD	COD	TSR	Ammonia Nitro.	Nitrate	T. Phosphorus	Sulfate	Metals	EPA 8260B	8260 Dup. 1	8260 Dup. 2	8260 Dup. 3
~~Leachate Lag #4~~					5												
Surface Water #5-1	10/20/08	08:49	N/A	11	3												
Surface Water #5-2	10/20/08	09:22	N/A	11	3												
~~Leachate Jun Box~~					10												
MW-5(5')	10/20/08	13:25	N/A	20	3												
MW-5(10')	10/20/08	12:01	N/A	17	3												
Trip Blank	10/20/08	N/A	N/A	N/A	1										X		
~~Equipment Blank~~					2												

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

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

SAMPLES COLLECTED BY: (Please Print) KEVIN J. SHIELDS

SAMPLES RECEIVED IN LAB AT 0.8 °C

RELINQUISHED BY (SIG.) (SAMPLER)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
[signature]	10/21/08	[signature]	10/21/08 4:00
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME
RELINQUISHED BY (SIG.)	DATE/TIME	RECEIVED BY (SIG.)	DATE/TIME

COMMENTS:

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.

FORM #5

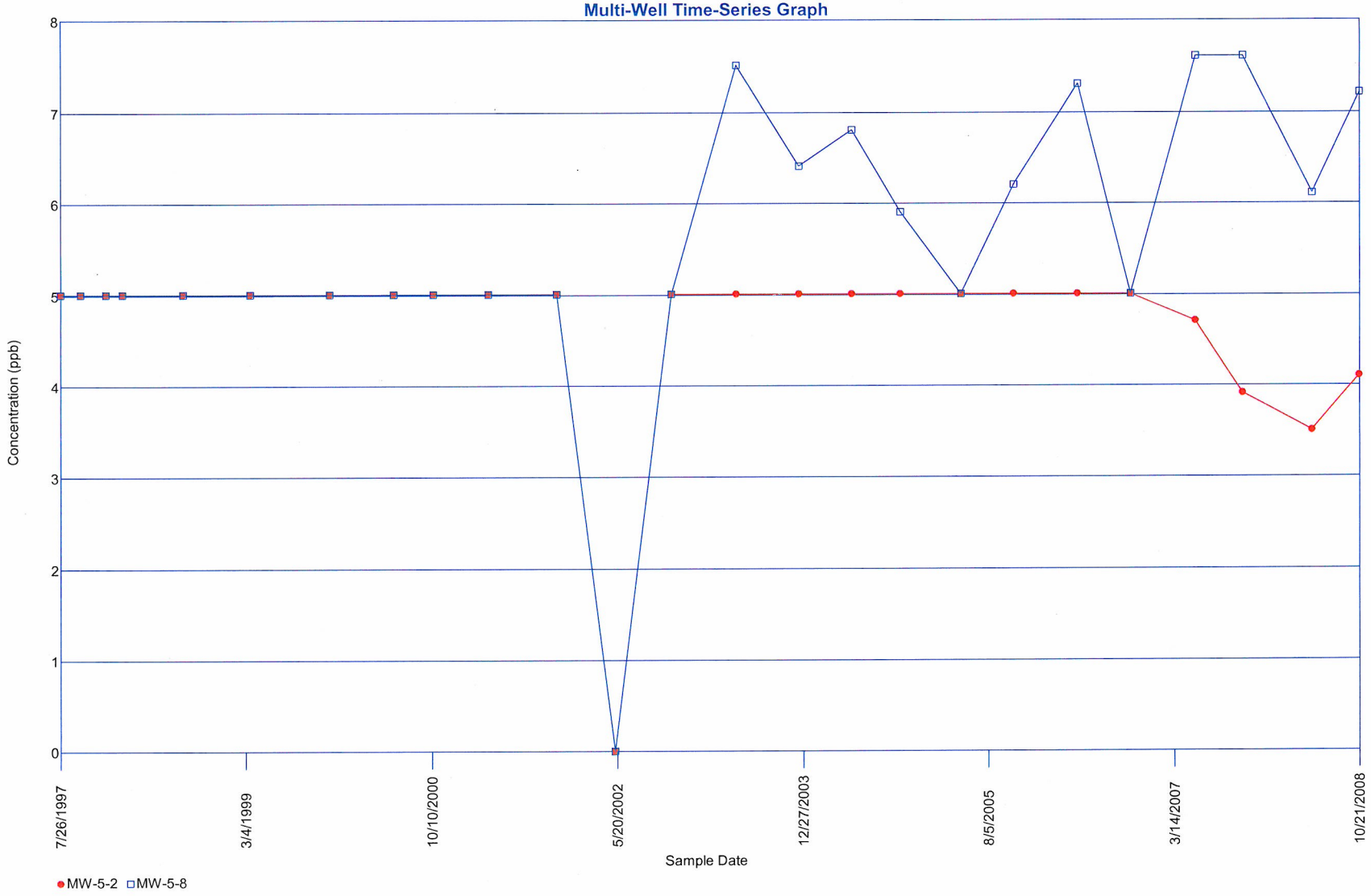
№ 168114

Appendix B

Time vs. Concentration Graphs

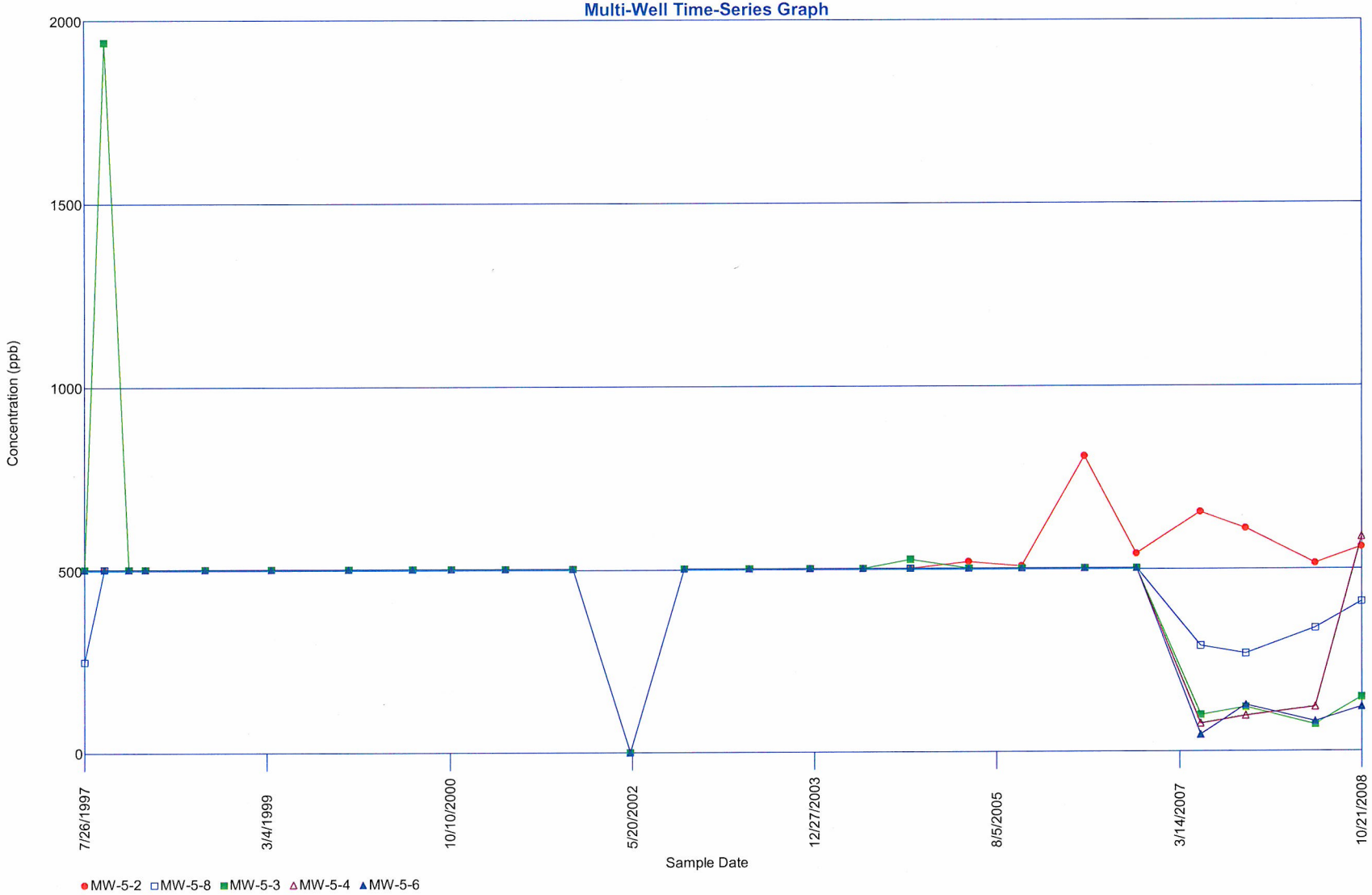
1,2-Dichloropropane

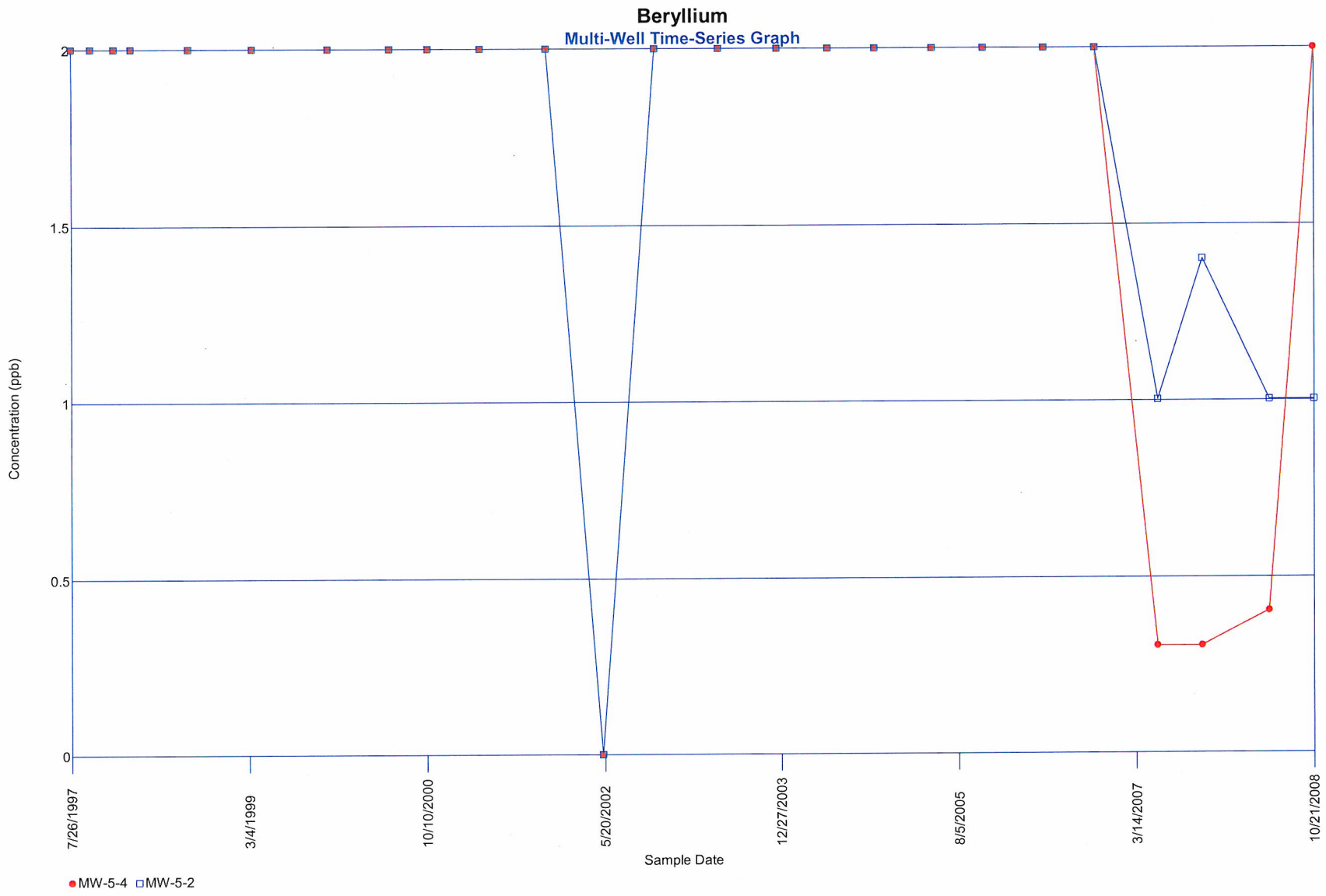
Multi-Well Time-Series Graph



Barium

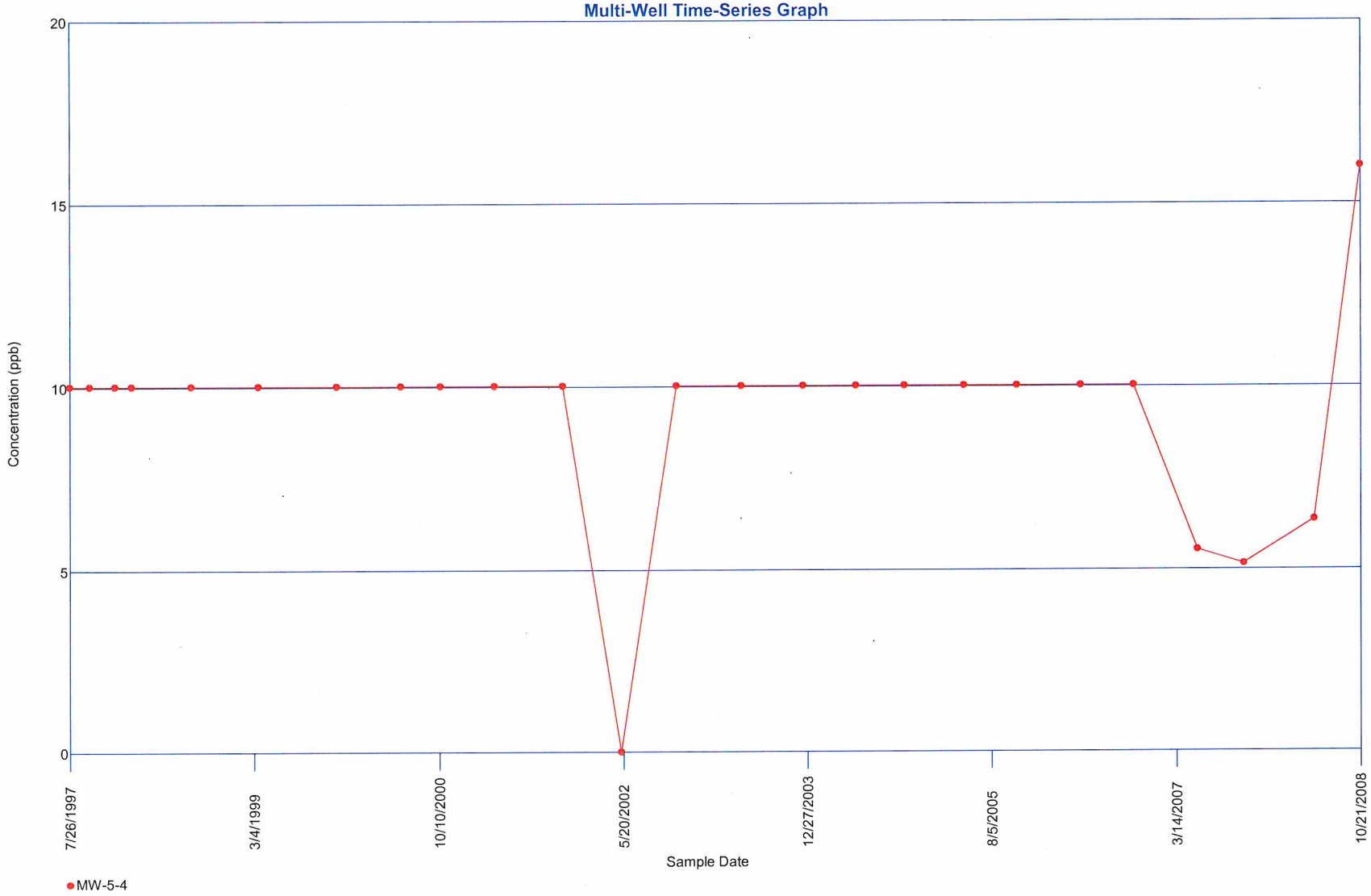
Multi-Well Time-Series Graph




Beryllium
Multi-Well Time-Series Graph
Concentration (ppb)
2
1.5
1
0.5
0
7/26/1997
3/4/1999
10/10/2000
5/20/2002
12/27/2003
8/5/2005
3/14/2007
10/21/2008
Sample Date
MW-5-4
MW-5-2

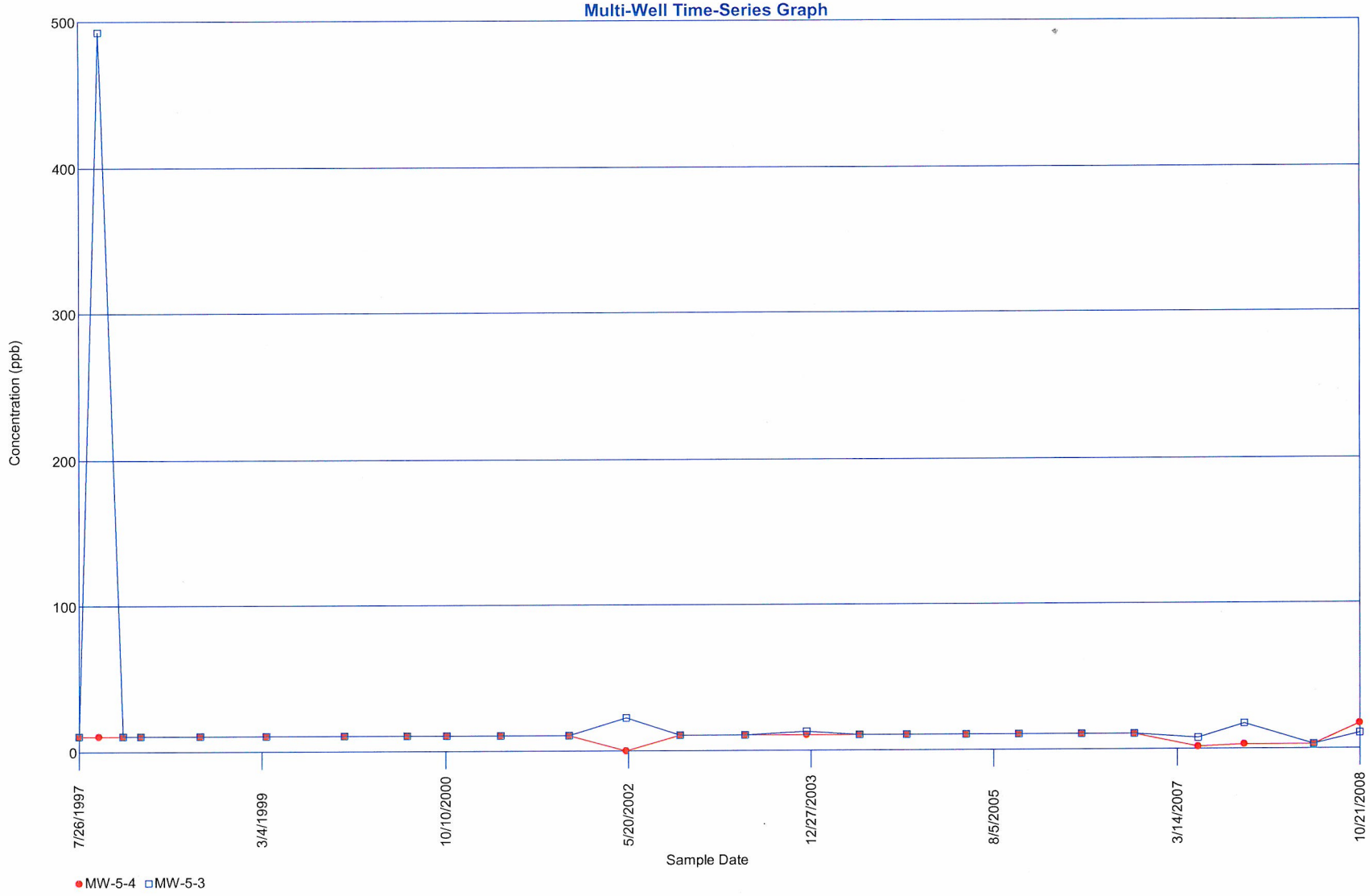
Cobalt

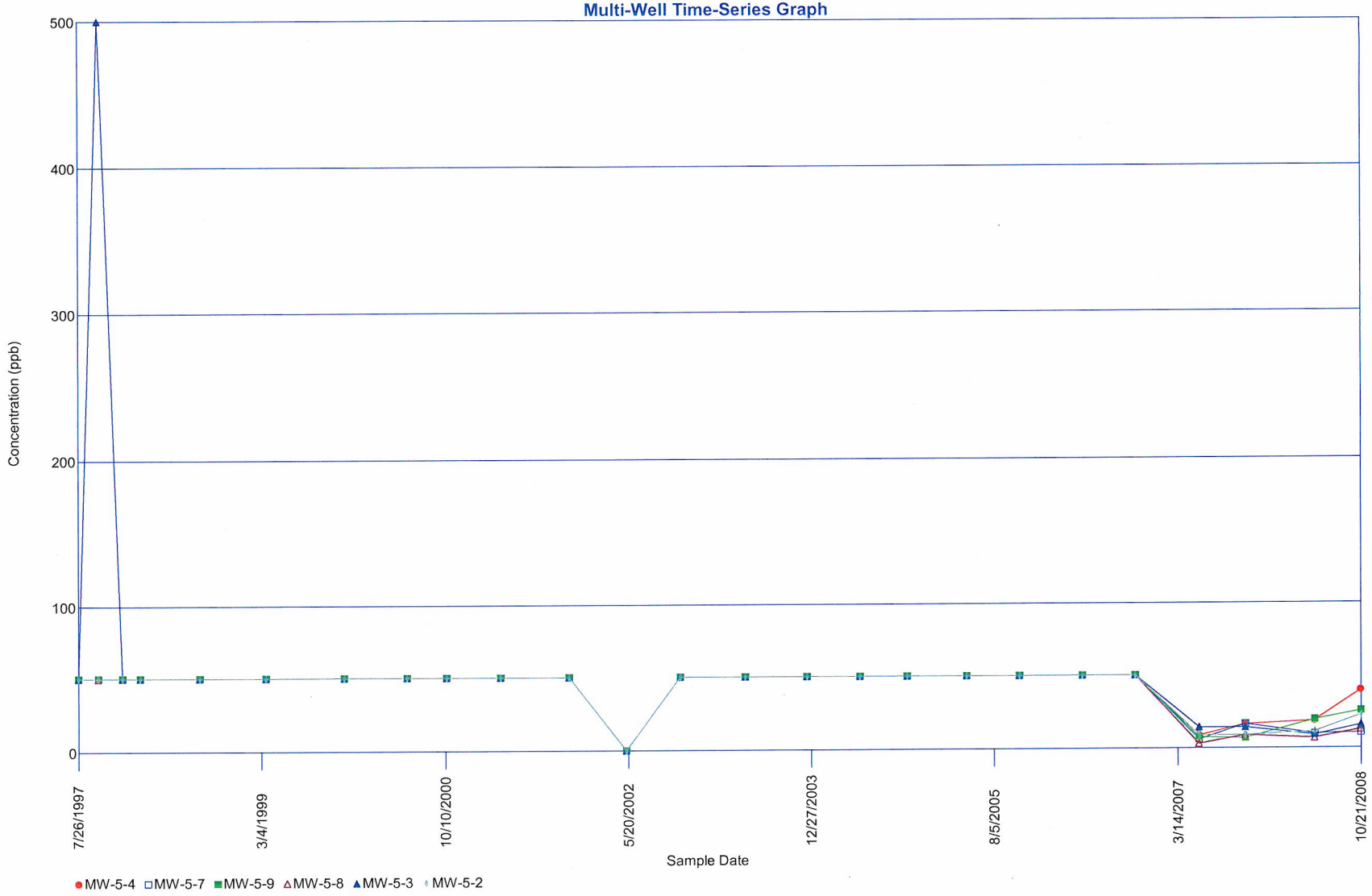
Multi-Well Time-Series Graph



Lead

Multi-Well Time-Series Graph



Zinc

Multi-Well Time-Series Graph