



## BOARD OF COUNTY COMMISSIONERS

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*District One*

May 26, 2010

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Examiner*

Mr. Charles Emery III, Solid Waste Administrator  
Florida Department of Environmental Protection  
P.O. Box 2549  
Fort Myers, FL 33902-2549

**Re: Lee County Resource Recovery Facility, PA-90-30H  
Second Quarter 2010 Water Quality Monitoring Report, WACS No. 93715**

Dear Mr. Emery:

Enclosed please find the Second Quarter, 2010, Water Quality Monitoring (WQM) Report for the Lee County Resource Recovery Facility (Facility). This WQM Report was prepared in accordance with the Department's requirements for submitting electronic water quality data to the Solid Waste Program. Flowers Chemical Laboratories, Inc. sampled the 'Group 2' ground water monitoring wells on April 7, 2010. The Group 2 wells include shallow (surficial aquifer) monitoring wells WTE-1S, WTE-3S, WTE-5S and WTE-6S and deep (sandstone aquifer) monitoring wells WTE-1D, WTE-3D, WTE-5D, and WTE-6D. The ground water samples were analyzed for the parameters listed in the quarterly monitoring program in accordance with the Facility's approved ground water monitoring plan dated August 1992 and revised on April 3, 1996. The results from the second quarter 2010 monitoring event were evaluated against the Department's water quality standards established in Chapter 62-550, F.A.C. and are summarized below.

### **Ground Water Monitoring Data Discussion**

Ground water from all Group 2 shallow monitoring wells exceeded the secondary drinking water standard for Iron which is 0.3 milligrams per liter (mg/L) as established by Rule 62-550, F.A.C. The Total Dissolved Solids (TDS) concentration of ground water from wells WTE-1D, WTE-3D, WTE-5S, WTE-5D and WTE-6D exceeded 500 mg/L, which is the secondary drinking water standard for TDS as established by Rule 62-550, F.A.C. However, the referenced rule allows the TDS concentration to exceed 500 mg/L in a well if no other water quality standard is exceeded in that well. Based on this allowance, only well WTE-5S exceeded the water quality standard for TDS.

Ground water from monitoring well WTE-3D also exceeded the water quality standard for Chloride which is 250 mg/L as established by Rule 62-550, F.A.C. The TDS and Iron concentrations for wells that exceeded the corresponding water quality standard for TDS and Iron are provided in Table 1.1 below. The parameter concentrations for wells that exceeded a water quality standard for parameters other than TDS and Iron are provided in Table 1.2 below.

Mr. Charles Emery III

May 26, 2010

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**Table 1.1– Summary of TDS and Iron Concentrations in Wells that Exceeded Department Standards for TDS and Iron as Established in Chapter 62-550, F.A.C.**

Parameter	WTE-1S	WTE-3S	WTE-5S	WTE-6S
Iron (mg/L)	2.35	1.25	2.16	1.84
TDS (mg/L)	BS	BS	600	BS
Parameter	WTE-1D	WTE-3D	WTE-5D	WTE-6D
Iron (mg/L)	BS	BS	BS	BS
TDS (mg/L)	506	1440	668	704

*Department (Water Quality) Standards: Iron-0.3 mg/L; TDS-500 mg/L (except as noted); BS-Below Standard. Where TDS > 500 mg/L but no other standard exceeded, TDS is below Department standard.*

**Table 1.2– Summary of Concentrations in Wells that Exceeded Department Standards for Parameters Other than TDS and Iron**

Parameter	WTE-3D
Chloride	516

*Department (Water Quality) Standards are established in Chapter 62-550, F.A.C.; WQS: Chloride-250 mg/L*

### **Electronic Data Files**

In accordance with the Department's electronic reporting requirements, this WQM Report includes the field and laboratory ADaPT files which are provided as separate electronic files prepared in the Department specified format.

### **Ground Water Elevations and Contour Maps**

The ground water elevations determined for each of the wells comprising the Facility's ground water monitoring well network are provided in Table 2 below. The elevations were determined in accordance with the Department's Standard Operating Procedures for Field Activities and specifically per FS2200, Ground Water Sampling, whereby the depth to water measurements were made at least 24 hours prior to purging and/or sampling the wells. The ground water elevations were computed using the known top of casing elevation and the depth to water measurement at each well. The data as noted above which was used to determine the ground water elevation for each of the Facility's monitoring wells are provided in Attachment B. Additionally, as required by Section A, Condition XXXI. D. of the Facility's modified Conditions of Certification PA90-30H dated March 22, 2010, the ground water elevations determined as described above and summarized in Table 2 below were used to develop ground water contour maps for the surficial and sandstone aquifers. The ground water contour maps are also provided in Attachment B of this WQM Report.

Mr. Charles Emery III

May 26, 2010

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**Table 2. Ground Water Elevations (ft., NGVD) Measured April 6, 2010**

WELL ID	Elevation (ft., NGVD)	WELL ID	Elevation (ft., NGVD)
WTE-1S	19.81	WTE-1D	12.38
WTE-2S	19.38	WTE-2D	18.28
WTE-3S	19.4	WTE-3D	18.41
WTE-4S	16.92	WTE-4D	16.02
WTE-5S	19.28	WTE-5D	17.9
WTE-6S	16.28	WTE-6D	15.45

### **Field Documentation and Report Certification**

This WQM Report includes the Ground Water Monitoring Report, DEP Form # 62-520.900(2), which provides the WQM Report Certification required by the Department. This WQM Report also provides copies of the sampling documents generated in the field, including the Ground Water Sampling Logs, Chain of Custodies, and other logs and/or forms which document the sampling activities performed during this monitoring event. These sampling documents are provided in the Attachments to this WQM Report.

### **Recommendations/Conclusions**

In conclusion, the second quarter 2010 water quality data is consistent with prior monitoring results and background data for the Facility with the exception of the Chloride and Total Dissolved Solids concentrations at well WTE-3D. The parameters reported to be above the Department's water quality standards at well WTE-3D are likely due to the old flowing well previously located near well WTE-3D. Because well WTE-3D is the most upgradient deep well at the Facility, the water quality reported at well WTE-3D can not be attributed to the Facility's operations. Therefore, no additional monitoring is recommended at this time. The facility will continue to implement the approved ground water monitoring plan and will report the results to the Department as required.

Please call me at (239) 533-8930 if you have any questions pertaining to this Water Quality Monitoring Report.

Sincerely,

LAURA A. GRAY  
Laura A. Gray, P.E.

Engineering Manager

No. 50118 Waste Division

Attachments

STATE OF

FLORIDA

PROFESSIONAL ENGINEER

LIC# 36610

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*Lee County Solid Waste Energy Recovery Facility  
WACS ID No. 0093715  
Second Quarter, 2010 Water Quality Monitoring Report*

LIST OF ATTACHMENTS

Attachment A - Ground Water Monitoring Report Certification,  
DEP Form # 62-520.900(2)

Attachment B –Ground Water Contour Maps and Supporting Data

Attachment C – Ground Water Monitoring Well Inspection Forms (All wells)

Attachment D – Sampling Documentation

D.1. Quarterly Monitoring Sampling Documentation (Shallow Wells)  
(Wells WTE-1S, 3S, 5S, 6S)

Chain of Custody  
Field Data Sheets  
Ground Water Sampling Logs, FD 9000-24

D.2. Quarterly Monitoring Sampling Documentation (Deep Wells)  
(Wells WTE-1D, 3D, 5D, 6D)

Chain of Custody (Same as D.1.)  
Field Data Sheets  
Ground Water Sampling Logs, FD 9000-24

*Lee County Solid Waste Energy Recovery Facility  
WACS ID No. 0093715  
Second Quarter, 2010 Water Quality Monitoring Report*

Attachment A-Ground Water Monitoring Report Certification,  
DEP Form # 62-520.900(2)

# Florida Department of Environmental Protection

Bob Martinez Office Bldg. 2600 Blair Stone Road Tallahassee, Florida 323992400

DEP Form # 62-520.900(2)

Form Title Ground Water Monitoring Report

Effective Date \_\_\_\_\_

DEP Application No. \_\_\_\_\_

## GROUND WATER MONITORING REPORT Rule 62-520.600(11)

### PART I GENERAL INFORMATION

(1) Facility Name : Lee County Resource Recovery Facility

Address 10500 Buckingham Road

City Ft. Myers

Zip 33905

Telephone Number ( 239 ) 533-8000

The GMS Identification Number : WACS ID No. 93715

(3) DEP Permit Number PA 90-30

(4) Authorized Representative Name Lindsey J. Sampson

Address 10500 Buckingham Road, 2<sup>nd</sup> floor

City Ft. Myers

Zip 33905

Telephone Number ( 239 ) 533-8000

(5) Type of Discharge NA

(6) Method of Discharge NA-Waste-to-Energy Facility

### Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Date: 5/26/10

Signature of Owner or Authorized Representative

### PART II QUALITY ASSURANCE REQUIREMENTS

Sample Organization Comp QAP # E83018

Analytical Lab Comp QAP # /HRS Certification # E83018

\*Comp QAP # /HRS Certification # \_\_\_\_\_

Lab Name Flowers Chemical Laboratories, Inc.

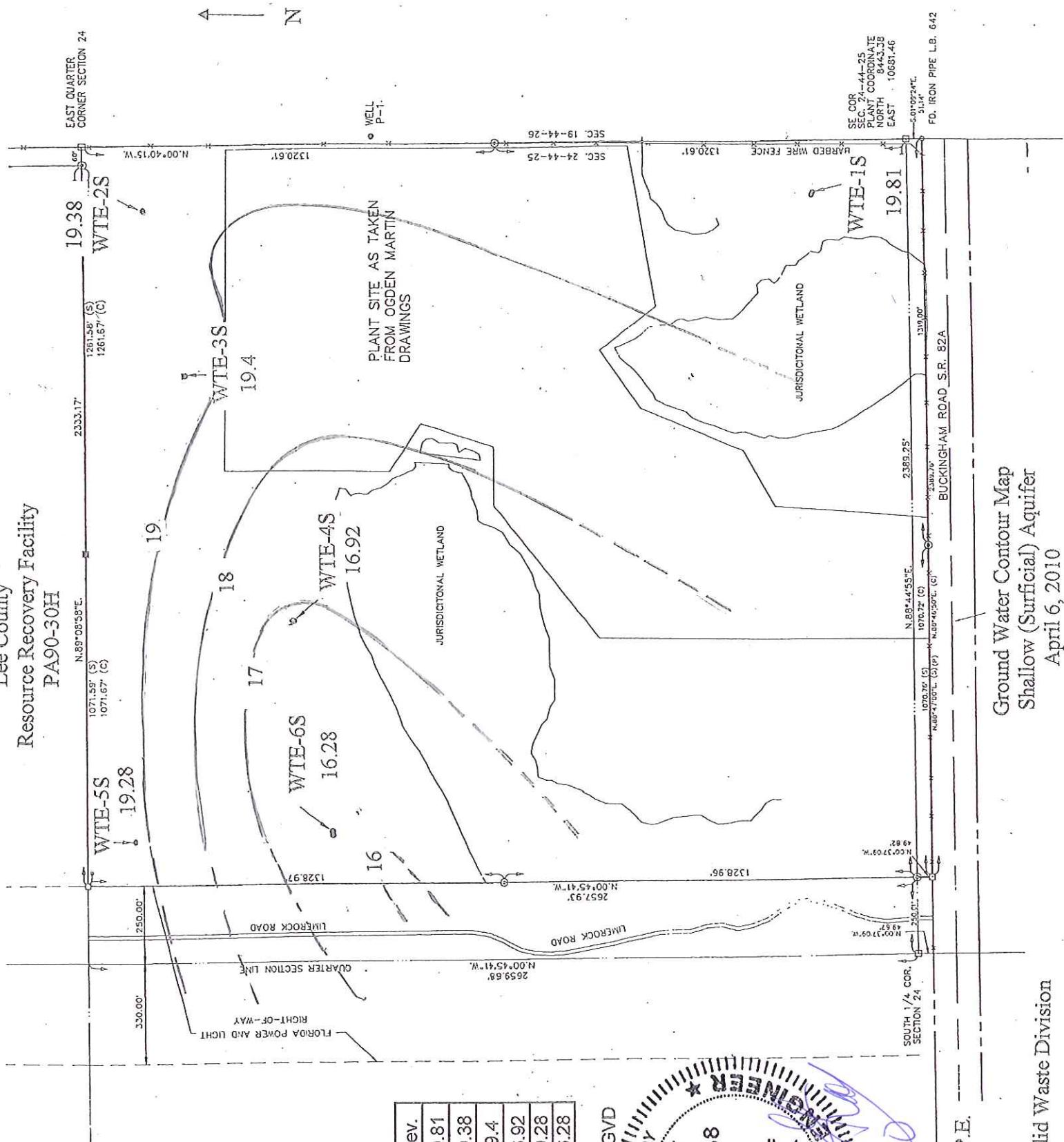
Address P.O. Box 150597, Altamonte Springs, FL 32715-0597

Phone Number (407) 339 -5984

*Lee County Solid Waste Energy Recovery Facility  
WACS ID No. 0093715  
Second Quarter, 2010 Water Quality Monitoring Report*

Attachment B –Ground Water Contour Maps and Supporting Data

Lee County  
Resource Recovery Facility  
PA90-3OH



A circular professional engineer license stamp. The outer ring contains the word "PROFESSIONAL" at the top and "ENGINEER" at the bottom. The inner circle contains "Elev. In Fl.", "LAURA A. GRAY", "LICENSE", "No. 50138", and a star symbol. At the top of the inner circle, it says "STATE OF FLORIDA". There is also a handwritten signature "Laura A. Gray" over the stamp.

Laura A. Gray, P.E.  
#50138

Lee County Solid Waste Division

Ground Water Contour Map  
Shallow (Surficial) Aquifer  
April 6, 2010



**WTE Ground Water Monitoring Well Elevations**  
**Elevation Computation Table Given TOC Elev and Measured Depth to Water**  
**Depth to Water Measurements Taken on April 6, 2010 (2nd Quarter 2010)**

Well No.	Elev. TOC, NGVD	Depth to Water, Ft.	Water Elevation, Ft., NGVD
WTE-1S	21.91	2.1	19.81
WTE-1D	22.96	10.58	12.38
WTE-2S	24.18	4.8	19.38
WTE-2D	23.52	5.24	18.28
WTE-3S	25.75	6.35	19.4
WTE-3D	27.13	8.72	18.41
WTE-4S	22.48	5.56	16.92
WTE-4D	23.81	7.79	16.02
WTE-5S	23.81	4.53	19.28
WTE-5D	24.5	6.6	17.9
WTE-6S	23.66	7.38	16.28
WTE-6D	22.91	7.46	15.45

*Depth to Water Measurements were taken at least 24 hours prior purging wells for sampling.*

*All deep wells are 4 inch diameter and all shallow well are 2 inches diameter.*

*S' denotes a shallow (surficial aquifer) well and 'D' denotes a deep (sandstone aquifer) well.*

*Lee County Solid Waste Energy Recovery Facility  
WACS ID No. 0093715  
Second Quarter, 2010 Water Quality Monitoring Report*

Attachment C – Ground Water Monitoring Well Inspection Forms  
(All wells)

FCL/LCSWD

Monitoring Well Inspection Form

DATE: 4/6/10

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE - 15  Shallow  Deep WELL DIAMETER: 3.00"

LOCATION:  Landfill  Percolation Pond  O&M Building  WTE Site

WELL TYPE:  Background  Detection  Compliance

TOC Elevation: 21.91' TOTAL WELL DEPTH: 14.60" STATIC DEPTH TO WATER 2.10'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 19.81'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):

Everything was Inspected, Everything is Ok.

DATE: 4/6/10

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE - 10  Shallow  Deep WELL DIAMETER: 4.00"

LOCATION:  Landfill  Percolation Pond  O&M Building  WTE Site

WELL TYPE:  Background  Detection  Compliance

TOC Elevation: 22.96' TOTAL WELL DEPTH: 13.55" STATIC DEPTH TO WATER 10.58'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 12.38'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):

Everything was Inspected, Everything is Ok.



FCL/LCSWD  
Monitoring Well Inspection Form

DATE: 4/6/10

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE-2S  Shallow  Deep WELL DIAMETER: 2.00"

LOCATION:  Landfill  Percolation Pond  O&M Building  WTE Site

WELL TYPE:  Background  Detection  Compliance

TOC Elevation: 24.18' TOTAL WELL DEPTH: 12.00' STATIC DEPTH TO WATER 4.80

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 19.38

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):  
Everything was Inspected. Everything is OK.

DATE: 4/6/10

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE-2D  Shallow  Deep WELL DIAMETER: 4.00"

LOCATION:  Landfill  Percolation Pond  O&M Building  WTE Site

WELL TYPE:  Background  Detection  Compliance

TOC Elevation: 23.52' TOTAL WELL DEPTH: 93.00' STATIC DEPTH TO WATER 5.24

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 18.28

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):  
Everything was Inspected. Everything is OK.

FCL/LCSWD  
Monitoring Well Inspection Form

DATE: 4/6/10

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE-35  Shallow  Deep WELL DIAMETER: 2.00"

LOCATION:  Landfill  Percolation Pond  O&M Building  WTE Site

WELL TYPE:  Background  Detection  Compliance

TOC Elevation: 25.75' TOTAL WELL DEPTH: 16.95' STATIC DEPTH TO WATER: 6.35'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 19.40'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):

Everything was Inspected, Everything is O.K.

DATE: 4/6/10

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE-3D  Shallow  Deep WELL DIAMETER: 4.00"

LOCATION:  Landfill  Percolation Pond  O&M Building  WTE Site

WELL TYPE:  Background  Detection  Compliance

TOC Elevation: 27.13' TOTAL WELL DEPTH: 92.00' STATIC DEPTH TO WATER: 8.72'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 18.41'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):

Everything was Inspected, Everything is O.K.

FCL/LCSWD  
Monitoring Well Inspection Form

DATE: 4/6/10

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE-45  Shallow  Deep WELL DIAMETER: 2.00"

LOCATION:  Landfill  Percolation Pond  O&M Building  WTE Site

WELL TYPE:  Background  Detection  Compliance

TOC Elevation: 22.48' TOTAL WELL DEPTH: 13.40' STATIC DEPTH TO WATER 5.56'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 16.92'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):

Everything was Inspected, Everything is O.K.

DATE: 4/6/10

SITE NAME: WTE

SITE LOCATION: Lee County

WELL NUMBER: WTE-412  Shallow  Deep WELL DIAMETER: 4.00"

LOCATION:  Landfill  Percolation Pond  O&M Building  WTE Site

WELL TYPE:  Background  Detection  Compliance

TOC Elevation: 23.81' TOTAL WELL DEPTH: 96.00' STATIC DEPTH TO WATER 7.79'

GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 16.02'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):

Everything was Inspected, Everything is O.K.

FCL/LCSWD  
Monitoring Well Inspection FormDATE: 4/6/10SITE NAME: WTESITE LOCATION: Lee CountyWELL NUMBER: WTE-55  Shallow  Deep WELL DIAMETER: 2.00"LOCATION:  Landfill  Percolation Pond  O&M Building  WTE SiteWELL TYPE:  Background  Detection  ComplianceTOC Elevation: 23.81' TOTAL WELL DEPTH: 17.45' STATIC DEPTH TO WATER 4.53'GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 19.28'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):

Everything was Inspected, Everything is O.K.DATE: 4/6/10SITE NAME: WTESITE LOCATION: Lee CountyWELL NUMBER: WTE-51  Shallow  Deep WELL DIAMETER: 4.00"LOCATION:  Landfill  Percolation Pond  O&M Building  WTE SiteWELL TYPE:  Background  Detection  ComplianceTOC Elevation: 24.50' TOTAL WELL DEPTH: 94.00' STATIC DEPTH TO WATER 6.60'GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 17.90'

Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):

Everything was Inspected, Everything is O.K.

FCL/LCSWD  
Monitoring Well Inspection FormDATE: 4/6/10SITE NAME: WTESITE LOCATION: Lee CountyWELL NUMBER: WTE-65  Shallow  Deep WELL DIAMETER: 2.00"LOCATION:  Landfill  Percolation Pond  O&M Building  WTE SiteWELL TYPE:  Background  Detection  ComplianceTOC Elevation: 23.66' TOTAL WELL DEPTH: 19.98' STATIC DEPTH TO WATER 7.38'GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 16.28'Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):  
Everything was Inspected, Everything is O.K.DATE: 4/6/10SITE NAME: WTESITE LOCATION: Lee CountyWELL NUMBER: WTE-60  Shallow  Deep WELL DIAMETER: 4.00"LOCATION:  Landfill  Percolation Pond  O&M Building  WTE SiteWELL TYPE:  Background  Detection  ComplianceTOC Elevation: 22.91' TOTAL WELL DEPTH: 96.00' STATIC DEPTH TO WATER 7.46'GROUNDWATER NGVD: (TOC Elevation - Static Depth to Water) 15.95'Comments: (PER Monitoring Well Inspection on A12 of A19 of Contract):  
Everything was Inspected, Everything is O.K.

Attachment D – Sampling Documentation

D1. Quarterly Monitoring (Shallow) Sampling Documentation  
(Wells WTE-1S, -3S, -5S and -6S)

Chain of Custody  
Field Data Sheet  
Ground Water (GW) Sampling Logs, FD 9000-24

D.2. Quarterly Monitoring (Deep) Sampling Documentation  
(Wells WTE-1D, -3D, -5D and -6D)

Chain of Custody (same as D.1.)  
Field Data Sheet  
Ground Water (GW) Sampling Logs, FD 9000-24

*Lee County Solid Waste Energy Recovery Facility  
WACS ID No. 0093715  
Second Quarter, 2010 Water Quality Monitoring Report*

Attachment D – Sampling Documentation

D1. Quarterly Monitoring (Shallow) Sampling Documentation  
(Wells WTE-1S, -3S, -5S and -6S)

Chain of Custody  
Field Data Sheet  
Ground Water (GW) Sampling Logs, FD 9000-24

*Lee County Solid Waste Energy Recovery Facility  
WACS ID No. 0093715  
Second Quarter, 2010 Water Quality Monitoring Report*

Chain of Custody

**Check Box That Applies To Your Location**

- Flowers Chemical
- Flowers Chemical
- Labs-South
- West Park Industrial Plaza
- 812 S.W. Harvey Greene Dr.
- 571 N.W. Mercantile Pl., Ste. 111
- Madison, FL 322340
- Bus: 850-973-6878
- Fax: 850-973-6878
- Altamonte Springs, FL 32701
- Port St. Lucie, FL 34986
- Bus: 772-343-8006
- Fax: 772-343-8089

**DOWNLOAD REPORTS, INVOICES AND CHAINS OF CUSTODY** [www.flowerslabs.com](http://www.flowerslabs.com)

Client

*Lee Co. Solid Waste*

Address

Laura Gray

FAX

E-MAIL

Phone

Phil Lovels

FAX

Project Name

*WTE Group 2 - Q-wells*

P.O. #

Client Contact

*Laura Gray*

FAX

Date Sampled

*4/7/10*

Matrix

*HW*

Sampling Fee

\$

Comments

Total # Containers

*5*

Comments

**FINANCE CHARGES APPLIED TO PAST DUE INVOICES**

• WHITE - Lab Copy - To Be Scanned

• YELLOW - Client Copy

*Lee County Solid Waste Energy Recovery Facility  
WACS ID No. 0093715  
Second Quarter, 2010 Water Quality Monitoring Report*

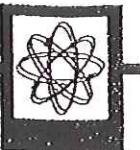
Field Data Sheet

Lab #  
D20621

## FIELD DATA SHEET

FLOWERS

CHEMICAL  
LABORATORIES  
INCORPORATED



Sampler(s) Tommy Cross

Date 4/7/10

Page 1 of 5

Project Name Lee Co. : WTE - Q - wells

Sample Type	WW	SW	BW	DW	Reag.Wtr.	Sludge	Sediment	Soil	Other
-------------	----	----	----	----	-----------	--------	----------	------	-------

Sample Site Identification WTE-1S, WTE-3S, WTE-6S, WTE-5S

Sampling Method	Grab <input type="checkbox"/>	Composite <input type="checkbox"/>	Monitoring Well <input checked="" type="checkbox"/>	Bailer. <input type="checkbox"/>	Pump <input checked="" type="checkbox"/>
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Sampling Equipment Geotech II peristaltic pump, Polyethylene + Silicon Tubing

Site & Weather Conditions clear + mild

### Field Instrument Beginning Calibration

									Slope
pH Meter	YES	<input checked="" type="checkbox"/>	NO	Buffer	4.0	4.07	7.0	7.07	10.0
Conductivity Meter	YES	<input checked="" type="checkbox"/>	NO	Buffer	100	1413	1000	1414	
Turbidity Meter	YES	<input checked="" type="checkbox"/>	NO	Buffer	1.0		10.0	10.0	
DO Meter	YES	<input checked="" type="checkbox"/>	NO	99.7% saturation					

Field Filtered	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	Duplicate	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	Field Decontamination	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
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Parameter	Sample Containers	pH Check
<input checked="" type="checkbox"/> Nutrient	Plastic - H <sub>2</sub> SO <sub>4</sub>	< 2
<input type="checkbox"/> Metals	Plastic - HNO <sub>3</sub>	< 2
<input type="checkbox"/> Sulfide	Plastic - NaDH / Zn Acetate	< 12
<input type="checkbox"/> Cyanide	Plastic - NaDH / Zn (No sulfide)/Ascorbic Acid	> 12
<input type="checkbox"/> Bacteriological	Glass - Thiosulfate (DW NO Chlorine Res)	
<input type="checkbox"/> Oil & Grease	Glass - HCl	< 2
<input checked="" type="checkbox"/> TOC	Plastic - HCl	< 2
<input type="checkbox"/> VOA	Glass - HCl	< 2
<input type="checkbox"/> SVOC	Glass - HCl (DW NO Chlorine Res)	
<input type="checkbox"/> Phenols	Glass - H <sub>2</sub> SO <sub>4</sub>	< 2
<input checked="" type="checkbox"/> Other	Unpreserved	

Well Diameter	Multiplier
1.5 inches	0.092
2.0 inches	0.163
4.0 inches	0.653
6.0 inches	1.469

### Field Instrument Ending Calibration

									Slope
pH Meter	YES	<input checked="" type="checkbox"/>	NO	Buffer	4.0		7.0	7.09	10.0
Conductivity Meter	YES	<input checked="" type="checkbox"/>	NO	Buffer	100	1413	1000	1427	
Turbidity Meter	YES	<input checked="" type="checkbox"/>	NO	Buffer	1.0		10.0	10.0	
DO Meter	YES	<input checked="" type="checkbox"/>	NO	100.1% saturation					

### General Site Information / Comments

*Lee County Solid Waste Energy Recovery Facility  
WACS ID No. 0093715  
Second Quarter, 2010 Water Quality Monitoring Report*

Ground Water (GW) Sampling Logs, FD 9000-24

DEP-SOP-001/01  
FS 2200 Groundwater Sampling  
Form FD 9000-24

# GROUNDWATER SAMPLING LOG

#### **SAMPLING DATA**

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**REMARKS:**

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING/PURGING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump  
 RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

**NOTES:** 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE ES 2212, SECTION 3)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2^\circ\text{C}$  Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally  $\pm 0.2 \text{ mg/L}$  or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $< 20 \text{ NTU}$ ; optionally  $\pm 5 \text{ NTU}$  or  $\pm 10\%$  (whichever is greater)

DEP-SOP-001/01  
FS 2200 Groundwater Sampling  
Form FD 9000-24

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>Tommy Cross / FCL</i>		SAMPLER(S) SIGNATURES: <i>[Signature]</i>		SAMPLING INITIATED AT: <b>1025</b>	SAMPLING ENDED AT: <b>1030</b>		
PUMP OR TUBING DEPTH IN WELL (feet): <b>900</b>		SAMPLE PUMP FLOWRATE (mL per minute): <b>&gt; 1Ltr</b>		TUBING MATERIAL CODE: <b>STPE</b>			
FIELD DECONTAMINATION: <b>O</b> N		FIELD-FILTERED: <b>Y</b> <i>N</i> FILTER SIZE: _____ μm Filtration Equipment Type:		DUPLICATE: <b>Y</b> <i>N</i>			
SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	
<i>*See C.O.C.*</i>							
REMARKS:							
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)							
SAMPLING/PURGING EQUIPMENT CODES:		APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;		PP = Peristaltic Pump			
		RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap;		O = Other (Specify)			

**NOTES:** 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

### **1. The above do not constitute all of the information required by Chapter 32-100, F.A.C.**

### **2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)**

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2^\circ\text{C}$  Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2 \text{ mg/L}$  or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20 \text{ NTU}$ ; optionally  $\pm 5 \text{ NTU}$  or  $\pm 10\%$  (whichever is greater)

DEP-SOP-001/01  
FS 2200 Groundwater Sampling  
Form FD 9000-24

#### SAMPLING DATA

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING/PURGING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump  
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

## 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm$  0.2 units Temperature:  $\pm$  0.2 °C Specific Conductance:  $\pm$  5% Dissolved Oxygen: all readings  $\leq$  20% saturation (see Table FS 2200-2); optionally,  $\pm$  0.2 mg/L or  $\pm$  10% (whichever is greater) Turbidity: all readings  $\leq$  20 NTU; optionally  $\pm$  5 NTU or  $\pm$  10% (whichever is greater)

DEP-SOP-001/01  
FS 2200 Groundwater Sampling  
Form FD 9000-24

#### **SAMPLING DATA**

**REMARKS:**

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING/PURGING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump  
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

**NOTES:** 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

**2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)**

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2^\circ\text{C}$  Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $+0.2\text{ mg/L}$  or  $+10\%$  (whichever is greater) Turbidity: all readings  $\leq 20\text{ NTU}$ ; optionally  $\pm 5\text{ NTU}$  or  $\pm 10\%$  (whichever is greater)

*Lee County Solid Waste Energy Recovery Facility  
WACS ID No. 0093715  
Second Quarter, 2010 Water Quality Monitoring Report*

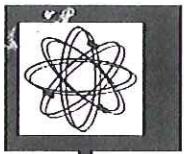
Attachment D – Sampling Documentation

D.2. Quarterly Monitoring (Deep) Sampling Documentation  
(Wells WTE-1D, -3D, -5D and -6D)

Chain of Custody (same as D.1.)  
Field Data Sheet  
Ground Water (GW) Sampling Logs, FD 9000-24

*Lee County Solid Waste Energy Recovery Facility  
WACS ID No. 0093715  
Second Quarter, 2010 Water Quality Monitoring Report*

Chain of Custody



**FLOWERS**  
**CHEMICAL**  
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571 N.W. Mercantile Pl., Ste. 111  
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Fax: 772-343-8089

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*Lee County Solid Waste Energy Recovery Facility  
WACS ID No. 0093715  
Second Quarter, 2010 Water Quality Monitoring Report*

Field Data Sheet

Lee Co.  
W.T.E.

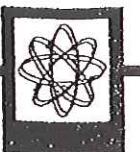
P.M. Phil  
Louchks

FIELD DATA SHEET

LAB. # 120621

FLOWERS

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Sampler(s)

Mike PAYNE Date 4-7-10 Page 1 of 5

Project Name WASTE TO ENERGY-Group 2 -Q- wells

Sample Type	WW	SW	GW	DW	Reag.Wtr.	Sludge	Sediment	Soil	Other
-------------	----	----	----	----	-----------	--------	----------	------	-------

Sample Site Identification W.T.E. 1D, 3D, 5D, 6D.

Sampling Method	Grab <input checked="" type="checkbox"/>	Composite <input type="checkbox"/>	Monitoring Well <input checked="" type="checkbox"/>	Bailer. <input type="checkbox"/>	Pump <input checked="" type="checkbox"/>
-----------------	--	------------------------------------	---	----------------------------------	--

Sampling Equipment RFPP. silicone + polyeth. TUBING.

Site & Weather Conditions MILD, BREEZY.

Field Instrument Beginning Calibration

									Slope
pH Meter	YES	<input checked="" type="checkbox"/>	NO	Buffer	4.0	4.02	7.0	7.0	10.0
Conductivity Meter	YES	<input checked="" type="checkbox"/>	NO	Buffer	100	100	1000	1411	
Turbidity Meter	YES	<input checked="" type="checkbox"/>	NO	Buffer	1.0		10.0	10.02	
DO Meter	YES	<input checked="" type="checkbox"/>	NO	98.6%					

Field Filtered  YES  NO

Duplicate  YES  NO

Field Decontamination  YES  NO

+ LAB. Decon.

Parameter	Sample Containers	pH Check
<input checked="" type="checkbox"/> Nutrient	Plastic - H <sub>2</sub> SO <sub>4</sub>	< 2
<input checked="" type="checkbox"/> Metals	Plastic - HNO <sub>3</sub>	< 2
<input type="checkbox"/> Sulfide -	Plastic - NaDH / Zn Acetate	< 12
<input type="checkbox"/> Cyanide	Plastic - NaDH / Zn (No sulfide)/Ascorbic Acid	> 12
<input type="checkbox"/> Bacteriological	Glass - Thiosulfate (DW NO Chlorine Res)	
<input type="checkbox"/> Oil & Grease	Glass - HCl	< 2
<input checked="" type="checkbox"/> TOC	Plastic - HCl	< 2
<input type="checkbox"/> VOA	Glass - HCl	< 2
<input type="checkbox"/> SVOC	Glass - HCl (DW NO Chlorine Res)	
<input type="checkbox"/> Phenols	Glass - H <sub>2</sub> SO <sub>4</sub>	< 2
<input checked="" type="checkbox"/> Other	Unpreserved	

Well Diameter	Multiplier
1.5 inches	0.092
2.0 inches	0.163
4.0 inches	0.653
6.0 inches	1.469

Field Instrument Ending Calibration

pH Meter	YES		NO		Buffer	4.0		7.0		10.0	
Conductivity Meter	YES		NO		Buffer	100		1000			
Turbidity Meter	YES		NO		Buffer	1.0		10.0			
DO Meter	YES		NO								

General Site Information / Comments

purged per FEP sop 2200. Next event is July 2010.

*Lee County Solid Waste Energy Recovery Facility  
WACS ID No. 0093715  
Second Quarter, 2010 Water Quality Monitoring Report*

Ground Water (GW) Sampling Logs, FD 9000-24

**DEP-SOP-001/01  
FS 2200 Groundwater Sampling  
Form FD 9000-24**

SITE NAME:	WASTE TO ENERGY	SITE LOCATION:	Lee Co.
WELL NO:	WTE 1D	SAMPLE ID:	SAME
		DATE: 4-7-10	

## PURGING DATA

WELL DIAMETER (inches): 4 TUBING DIAMETER (inches): .25 WELL SCREEN INTERVAL DEPTH: 72 feet to 62 feet STATIC DEPTH TO WATER (feet) 10.58 PURGE PUMP TYPE OR BAILER: RFBP

**WELL VOLUME PURGE:** 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY  
only fill out if applicable)

$$= (\text{feet} - \text{feet}) \times \text{gallons/foot} = \text{gallons}$$

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME  
 (only fill out if applicable) = 18 gallons + (.0026 gallons/foot X 67' feet) + .35 gallons = .42 gallons <.5

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): . 67' FINAL PUMP OR TUBING DEPTH IN WELL (feet): 67' PURGING INITIATED AT 0909 PURGING ENDED AT 0928 TOTAL VOLUME PURGED (gallons) 2.25

**WELL CAPACITY** (Gallons Per Foot):  $0.75'' = 0.02$ ;  $1'' = 0.04$ ;  $1.25'' = 0.06$ ;  $2'' = 0.16$ ;  $3'' = 0.37$ ;  $4'' = 0.65$ ;  $5'' = 1.02$ ;  $6'' = 1.47$ ;  $12'' = 5.88$   
**TUBING INSIDE DIA. CAPACITY** (Gal./Ft.):  $1/8'' = 0.0006$ ;  $3/16'' = 0.0014$ ;  $1/4'' = 0.0026$ ;  $5/16'' = 0.004$ ;  $3/8'' = 0.008$ ;  $1/2'' = 0.010$ ;  $5/8'' = 0.016$

## **SAMPLING DATA**

REMARKS

\* NO SHEETS -

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING/PURGING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump  
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

**NOTES:** 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2^\circ\text{C}$  Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2\text{ mg/L}$  or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $< 20\text{ NTU}$ ; optionally  $\pm 5\text{ NTU}$  or  $\pm 10\%$  (whichever is greater)

**DEP-SOP-001/01  
FS 2200 Groundwater Sampling  
Form FD 9000-24**

SITE NAME:	WASTE TO ENERGY		SITE LOCATION:	Lee Co.							
WELL NO:	W.T.E. 3D		SAMPLE ID:	SAME							
PURGING DATA											
WELL DIAMETER (inches) <u>4</u>	TUBING DIAMETER (inches) <u>.25</u>	WELL SCREEN INTERVAL DEPTH: <u>71</u> feet to <u>-61</u> feet	STATIC DEPTH TO WATER (feet) <u>8.88</u>	PURGE PUMP TYPE OR BAILER: <u>RFPP</u>							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)											
= ( <u>71</u> feet - <u>8.88</u> feet ) X <u>.25</u> gallons/foot = <u>17.50</u> gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)											
= <u>8</u> gallons + (.0026 gallons/foot X <u>66'</u> feet) + <u>.25</u> gallons = <u>.42</u> gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): <u>66'</u>		FINAL PUMP OR TUBING DEPTH IN WELL (feet): <u>66'</u>		PURGING INITIATED AT <u>1002</u>	PURGING ENDED AT: <u>1024</u>						
TOTAL VOLUME PURGED (gallons): <u>3.5</u>											
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmho/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/l or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
<u>1016</u>	<u>2.50</u>	<u>2.5</u>	<u>0.15</u>	<u>10.16</u>	<u>8.09</u>	<u>24.7</u>	<u>2239</u>	<u>0.95</u>	<u>4.67</u>	<u>NONE</u>	<u>NONE</u>
<u>1020</u>	<u>.50</u>	<u>3.0</u>	<u>1</u>	<u>1</u>	<u>8.06</u>	<u>24.5</u>	<u>2242</u>	<u>0.97</u>	<u>5.14</u>	<u>1</u>	<u>1</u>
<u>1024</u>	<u>1</u>	<u>3.5</u>	<u>1</u>	<u>1</u>	<u>8.05</u>	<u>1</u>	<u>2244</u>	<u>0.94</u>	<u>4.42</u>	<u>1</u>	<u>1</u>
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
SAMPLING DATA											
SAMPLED BY (PRINT) / AFFILIATION: <u>Mike PAYNE F.C.L.</u>			SAMPLER(S) SIGNATURES: <u>Mike Payne</u>			SAMPLING INITIATED AT: <u>1025</u>	SAMPLING ENDED AT: <u>1030</u>				
PUMP OR TUBING DEPTH IN WELL (feet): <u>66</u>			SAMPLE PUMP FLOW RATE (mL per minute) <u>1 CTA</u>			TUBING MATERIAL CODE: <u>S+PE</u>					
FIELD DECONTAMINATION: <u>Y</u> <u>N</u> <u>14AD</u> <u>Decon.</u>			FIELD-FILTERED: <u>Y</u> <u>N</u> <u>Filtration Equipment Type:</u>			FILTER SIZE: <u>10</u> µm			DUPPLICATE: <u>Y</u> <u>N</u>		
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					
<p style="text-align: center;"><u>* SEE C.D.C.</u></p>											
REMARKS: <u>* NO SHEENS -</u>											
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other.(Specify)											
SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)											

**NOTES:** 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

**2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)**

pH:  $\pm$  0.2 units Temperature:  $\pm$  0.2 °C Specific Conductance:  $\pm$  5% Dissolved Oxygen: all readings  $\leq$  20% saturation (see Table FS 2200-2); optionally,  $\pm$  0.2 mg/L or  $\pm$  10% (whichever is greater) Turbidity: all readings  $\leq$  20 NTU; optionally  $\pm$  5 NTU or  $\pm$  10% (whichever is greater)

DEP-SOP-001/01  
FS 2200 Groundwater Sampling  
Form FD 9000-24

SITE NAME:	WASTE TO Energy	SITE LOCATION:	Lee Co.
WELL NO:	W.T.E. SD	SAMPLE ID:	SAME
		DATE: 4-7-10	

## PURGING DATA

WELL DIAMETER (inches)	4	TUBING DIAMETER (inches)	25	WELL SCREEN INTERVAL DEPTH: 73 feet to 63 feet	STATIC DEPTH TO WATER (feet)	PURGE PUMP TYPE OR BAILER:
---------------------------	---	-----------------------------	----	---	---------------------------------	-------------------------------

**WELL VOLUME PURGE:** 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) · X WELL CAPACITY  
only fill out if applicable)

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME  
 (only fill out if applicable)  $= 0.0026 \text{ gallons} + (.25 \text{ gallons/foot}) \times 68' = .42 \text{ gallons}$

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 68' FINAL PUMP OR TUBING DEPTH IN WELL (feet): 68' PURGING INITIATED AT: 1148 PURGING ENDED AT: 1213 TOTAL VOLUME PURGED (gallons): 3.5

**WELL CAPACITY** (Gallons Per Foot):  $0.75'' = 0.02$ ;  $1'' = 0.04$ ;  $1.25'' = 0.06$ ;  $2'' = 0.16$ ;  $3'' = 0.37$ ;  $4'' = 0.65$ ;  $5'' = 1.02$ ;  $6'' = 1.47$ ;  $12'' = 5.88$   
**TUBING INSIDE DIA. CAPACITY** (Gal./Ft.):  $1/8'' = 0.0006$ ;  $3/16'' = 0.0014$ ;  $1/4'' = 0.0026$ ;  $5/16'' = 0.004$ ;  $3/8'' = 0.006$ ;  $1/2'' = 0.010$ ;  $5/8'' = 0.016$

## SAMPLING DATA

REMARKS: **\* NO SHEENS -**  
 MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)  
 SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump  
 RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

**NOTES:** 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

**2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)**

**pH:**  $\pm$  0.2 units **Temperature:**  $\pm$  0.2 °C **Specific Conductance:**  $\pm$  5% **Dissolved Oxygen:** all readings  $\leq$  20% saturation (see Table FS 2200-2); optionally,  $\pm$  0.2 mg/L or  $\pm$  10% (whichever is greater) **Turbidity:** all readings  $\leq$  20 NTU; optionally  $\pm$  5 NTU or  $\pm$  10% (whichever is greater)

**DEP-SOP-001/01  
FS 2200 Groundwater Sampling  
Form FD 9000-24**

SITE NAME:	WASTE TO ENERGY	SITE LOCATION:	Lee Co.
WELL NO:	W.T.E. 6D	SAMPLE ID:	SAME
		DATE: 9-7-10	

## PURGING DATA

WELL 4 TUBING .25 WELL SCREEN INTERVAL  
DIAMETER (inches): DIAMETER (inches): DEPTH: 75 feet to 65 feet STATIC DEPTH  
TO WATER (feet): 7.67 PURGE PUMP TYPE  
OR BAILER: RFPP  
WELL VOLUME SURGE: 4 WELL VOLUME: TOTAL WELL DEPTH: STATIC DEPTH TO WATER: X WELL CAPACITY:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) · X WELL CAPACITY  
only fill out if applicable)

$$= (\text{feet} - \text{feet}) \times \text{gallons/foot} = \text{gallons}$$

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME < .50  
(only fill out if applicable)

$$= 8 \text{ gallons} + (.0026 \text{ gallons/foot} \times 70' \text{ feet}) + .25 \text{ gallons} = 43 \text{ gallons}$$

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): . 78' FINAL PUMP OR TUBING DEPTH IN WELL (feet): 78' PURGING INITIATED AT: 1053 PURGING ENDED AT: 1120 TOTAL VOLUME PURGED (gallons): 4.25

**WELL CAPACITY** (Gallons Per Foot):  $0.75'' = 0.02$ ;  $1'' = 0.04$ ;  $1.25'' = 0.06$ ;  $2'' = 0.16$ ;  $3'' = 0.37$ ;  $4'' = 0.65$ ;  $5'' = 1.02$ ;  $6'' = 1.47$ ;  $12'' = 5.88$   
**TUBING INSIDE DIA. CAPACITY** (Gal./Ft.):  $1/8'' = 0.0006$ ;  $3/16'' = 0.0014$ ;  $1/4'' = 0.0026$ ;  $5/16'' = 0.004$ ;  $3/8'' = 0.006$ ;  $1/2'' = 0.010$ ;  $5/8'' = 0.016$

## **SAMPLING DATA**

REMARKS:

\* NO SHEENS —

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING/PURGING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump  
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

**NOTES:** 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

#### **2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)**

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2^\circ\text{C}$  Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2\text{ mg/L}$  or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $< 20\text{ NTU}$ ; optionally  $\pm 5\text{ NTU}$  or  $\pm 10\%$  (whichever is greater)