



Thomas Sirna
Palm Beach Solid Waste Authority
7501 N. Jog Rd.
West Palm Beach, FL 33412

Log #: 414635
Report Period 2011/Q2

Client Project ID Central County Transfer
Collected By Client

| Laboratory Sample # | Client Sample # |
|---------------------|-----------------|
| 414635-001 | CTMW-4S |

Respectfully submitted,

Mike Kimmel

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL01273):
Florida(E86240), South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):
Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65516) 1.001
Xenco-Phoenix Mobile (EPA Lab code: AZ00901), Arizona (AZM757)
Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)

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MAY 16 2010



15-MAY-11

Project Manager: **Thomas Sirna**
Palm Beach Solid Waste Authority
7501 N. Jog Rd.
West Palm Beach, FL 33412

Reference: XENCO Report No: **414635**
Central County Transfer Station Wells
Project Address:

Thomas Sirna:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 414635. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 414635 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Mike Kimmel
Office Manager

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Order #: 414635-001

Client: Palm Beach Solid Waste Authority



XENCO Laboratories

Report for Analysis for DEP

Central County Transfer

Sheen: NONE

Color: LIGHT YELLOW

Odor: NONE

Matrix: Ground Water

Diameter (in): 2
Depth to Water (ft): 15.8
Total Depth (ft): 32.45
Top of Casing (ft): 20.95
Evacuation (gal): 9

PARAMETER MONITORING REPORT

Part III Analytical Results

Facility GMS #: _____ Sampling Date/Time: 04/26/2011 12:54

Test Site ID #: _____ Report Period: 2011/Q2

Well Name: CTMW-4S Well Purge (Y/N): Y

Classification of Ground Water: G-II Well Type: () Background

G W Elevation (NGVD): 5.15 () Intermediate

(X) Compliance
() Other

| Storet Code | Parameter Name | Samp Meth | Field Filter | Analysis Method | Analysis Date/Time | Analysis Results/Units | Detection Limits/Units | | Dil |
|-------------------------|----------------------|-----------|--------------|-----------------|--------------------|------------------------|------------------------|----------|--------|
| | | | | | | | MDL | RL | |
| Field Parameters | | | | | | | | | |
| 000664 | pH | Sub Pump | N | E150.1 | 04/26/11 12:54 | 6.54 SU | 1 | SU | 1 |
| 000010 | Temperature | Sub Pump | N | E170.1 | 04/26/11 12:54 | 26.3 Deg C | 1 | Deg C | 1 |
| 000537 | Specific conductance | Sub Pump | N | SW9050 | 04/26/11 12:54 | 537 umhos/cm | 10 | umhos/cm | 1 |
| 000299 | Dissolved Oxygen | Sub Pump | N | E360.1 | 04/26/11 12:54 | 0.880 mg/L | 0.1 | mg/L | 1 |
| 082078 | Turbidity | Sub Pump | N | E180.1 | 04/26/11 12:54 | 3.46 NTU | 1 | NTU | 1 |
| INORGANICS | | | | | | | | | |
| 001002 | Arsenic | Sub Pump | N | EPA 200.8 | 05/07/11 00:26 | 15.9 ug/L | 0.900 | 4.00 | ug/L 1 |



Flagging Criteria

FLORIDA Flagging Criteria

- A** Value reported is the mean (average) of two or more determinations. This code shall be used if the reported value is the average of results for two or more discrete and separate samples. These samples shall have been processed and analyzed independently. Do not use this code if the data are the result of replicate analysis on the same sample aliquot, extract or digestate.
- B** Results based upon colony counts outside the acceptable range. This code applies to microbiological tests and specifically to membrane filter colony counts. The code is to be used if the colony count is generated from a plate in which the total number of coliform colonies is outside the method indicated ideal range. This code is not to be used if a 100 mL sample has been filtered and the colony count is less than the lower value of the ideal range.
- F** When reporting species: F indicates the female sex. Otherwise it indicates RPD value is outside the acceptable range.
- H** Value based on field kit determination; results may not be accurate. This code shall be used if a field screening test (i.e., field gas chromatograph data, immunoassay, vendor-supplied field kit, etc.) was used to generate the value and the field kit or method has not been recognized by the Department as equivalent to laboratory methods.
- I** The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J** Estimated value. A "J" value shall be accompanied by a narrative justification for its use. Where possible, the organization shall report whether the actual value is less than or greater than the reported value. A "J" value shall not be used as a substitute for K, L, M, T, V, or Y, however, if additional reasons exist for identifying the value as estimate (e.g., matrix spiked failed to meet acceptance criteria), the "J" code may be added to a K, L, M, T, V, or Y. The following are some examples of narrative descriptions that may accompany a "J" code:
 - J1: No known quality control criteria exist for the component;
 - J2: The reported value failed to meet the established quality control criteria for either precision or accuracy (the specific failure must be identified);
 - J3: The sample matrix interfered with the ability to make any accurate determination;
 - J4: The data are questionable because of improper laboratory or field protocols (e.g., composite sample was collected instead of a grab sample).
 - J5: The field calibration verification did not meet calibration acceptance criteria.
 - J6: QC protocol not followed.

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 5757 NW 158th St, Miami Lakes, FL 33014

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| (972) 481-9999 | (972) 481-9998 |
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| (813) 620-2000 | (813) 620-2033 |
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Flagging Criteria

J7: B/A results for Chlorophyll does not meet 1 - 1.7 ratio.

- K** Off-scale low. Actual value is known to be less than the value given. This code shall be used if:
1. The value is less than the lowest calibration standard and the calibration curve is known to be non-linear; or
 2. The value is known to be less than the reported value based on sample size, dilution. This code shall not be used to report values that are less than the laboratory practical quantitation limit or laboratory method detection limit.
- L** Off-scale high. Actual value is known to be greater than value given. To be used when the concentration of the analyte is above the acceptable level for quantitation (exceeds the linear range or highest calibration standard) and the calibration curve is known to exhibit a negative deflection.
- M** When reporting chemical analyses: presence of material is verified but not quantified; the actual value is less than the value given. The reported value shall be the laboratory practical quantitation limit. This code shall be used if the level is too low to permit accurate quantification, but the estimated concentration is greater than the method detection limit. If the value is less than the method detection limit use "T" below.
- N** Presumptive evidence of presence of material. This qualifier shall be used if:
1. The component has been tentatively identified based on mass spectral library search; or
 2. There is an indication that the analyte is present, but quality control requirements for confirmation were not met (i.e., presence of analyte was not confirmed by alternative procedures).
- O** Sampled, but analysis lost or not performed.
- Q** Sample held beyond the accepted holding time. This code shall be used if the value is derived from a sample that was prepared or analyzed after the approved holding time restrictions for sample preparation or analysis.
- T** Value reported is less than the laboratory method detection limit. The value is reported for informational purposes, only and shall not be used in statistical analysis.
- U** Indicates that the compound was analyzed for but not detected. This symbol shall be used to indicate that the specified component was not detected. The value associated with the qualifier shall be the laboratory method detection limit. Unless requested by the client, less than the method detection limit values shall not be reported (see "T" above).
- V** Indicates that the analyte was detected in both the sample and the associated method blank. Note: the value in the blank shall not be subtracted from associated samples.

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Flagging Criteria

- Y** The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z** Too many colonies were present for accurate counting. Historically, this condition has been reported as "too numerous to count" (TNTC). The "Z" qualifier code shall be reported when the total number of colonies of all types is more than 200 in all dilutions of the sample. When applicable to the observed test results, a numeric value for the colony count for the microorganism tested shall be estimated from the highest dilution factor (smallest sample volume) used for the test and reported with the qualifier code.
- ?** Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
- * Not reported due to interference.

The following codes deal with certain aspects of field activities. The codes shall be used if the laboratory has knowledge of the specific sampling event. The codes shall be added by the organization collecting samples if they apply:

- D** The sample result was reported from a dilution.
- E** Indicates that extra samples were taken at composite stations.
- R** Significant rain in the past 48 hours. (Significant rain typically involves rain in excess of 1/2 inch within the past 48 hours.) This code shall be used when the rainfall might contribute to a lower than normal value.
- !** Data deviate from historically established concentration ranges.
- +** Outside XENCO's scope of NELAC accreditation

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CHAIN OF CUSTODY RECORD

Atlanta: 9017 Financial Dr, Norcross, GA 30071 770-449-8800
 Boca Raton: 3231 NW 7th Ave, Boca Raton, FL 33431 561-447-7373
 Miami: 14100 Pelmetto Frontage Rd, Miami Lakes, FL 33016 305-623-9500

Orlando: 5448 Hoffner Av, Ste 408 Orlando, FL 32812 409-429-8022
 Tampa: 2505 North Falkenburg Rd, Tampa, FL 33619 813-820-2000

Company: **OB SWA** PO # _____
 Address: **7501 N. Jog Rd** Quote # _____
 City: **WPB** State: **FL** Zip: **33412**
 PM/Attn: **Thomas Sma** Phone: **640-4000**
 Email: **640-3480** Fax: _____

Project Name: **Central County Sanofus**
 Sampler Signature: **[Signature]**
 Project ID: _____

Circle One Event: Daily Weekly Monthly
 Quarterly Semi-Annual Annual N/A

Collect Date: _____ Collect Time: _____
 Matrix Code: _____
 Total # of Containers: _____
 Filled: _____
 Field or Grab: _____
 Composite: _____

Sample ID: _____
 # Cont: _____ Lab Only: _____

- * Container Type Codes
- VA Vial Amber
 - ES Encore Sampler
 - VC Vial Clear
 - TS TerraCore Sampler
 - VP Vial Pre-preserved
 - AC Air Canister
 - GA Glass Amber
 - TB Tediar Bag
 - GC Glass Clear
 - ZB Zip Lock Bag
 - PA Plastic Amber
 - PC Plastic Clear
 - Other: _____

- ** Preservative Type Codes
- A. None
 - B. HNO₃
 - C. H₂SO₄
 - D. NaOH
 - E. HCl
 - F. NaOH
 - G. Na₂SO₄
 - H. NaHSO₄
 - I. Ice
 - J. MCAA
 - K. ZnAcAc/NaOH
 - L. AscAc/NaOH
 - O. _____

- ^ Matrix Type Codes
- GW Ground Water
 - WW Waste Water
 - DW Drinking Water
 - SW Surface Water
 - OW Ocean/Sea Water
 - PL Product/Liquid
 - PS Product-Solid
 - SL Sludge
 - Other: _____

| ANALYSES REQUESTED | | |
|--------------------|-------------|---------------|
| Cont Type* | Pres Type** | Matrix Type** |
| AS | | |

| Sample # | Reg. Program / Clean-up Std | STATE for Certs & Regs FL TX GA NC SC NJ PA OK LA AL IL Other: | Relinquished by Signature | Affiliation | Date | Time | QA/QC Level & Certification ADAPT SEED ERPIMS XLS Other: | EDDs Received by Signature | COC & Labels Match Incomplete Absent Unclear | Coolers Temp °C | Lab Use Only | | | REMARKS |
|----------|-----------------------------|--|------------------------------|-------------|---------|-------|--|-------------------------------|--|-----------------|--------------|---|---|---------------------------------------|
| | | | | | | | | | | | 1 | 2 | 3 | |
| 1 | CTMW-4S | | 4/27/11 16:10 | Xenco | 4/27/11 | 16:00 | | MW | | | | | | See field sheets for field parameters |
| 2 | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | | | |

Solid Waste Authority of Palm Beach County GROUNDWATER SAMPLING LOG

| | | | |
|--|---------------------------------|--|---|
| SITE NAME: Central County Transfer Station | | Facility GMS#: | DATE: 4/26/11 30 |
| WELL NO: CTMW- 4S | Well Type: Compliance | Well Location: Park on Hillside Drive | SITE LOCATION: 1810 Lantana Road, Lantana, FL |

PURGING DATA

| Top of Casing Elevation(ft): 20.95 | Static Depth To Water (ft): 15.80 | Water Table Elevation NGVD (ft): 5.15 | Column Height (ft): 16.65 | Total Well Depth (ft): 32.45' | | | | | |
|--|--|--|----------------------------------|--------------------------------------|------|------------|---------------|-------------------------|------------------|
| WELLDIAMETER (in): 2" PVC | 1 WELL VOLUME (gal) = (TOTAL WELL DEPTH - DEPTH TO WATER) X WELL CAPACITY = 3 | | | GALLONS | | | | | |
| WELL CAPACITY (gal/ft): 0.16 | = (32.45' - 15.80' = 16.65') X 0.16 = 2.66 | | | | | | | | |
| PURGE METHOD: Redi-flo | | PURGE INITIATED AT: 12:44 | PURGE ENDED AT: 12:53 | TOTAL VOL. PURGED (gal): 9 | | | | | |
| WELL VOLS. Purged | Volume Purged (gal) | CUMUL. VOL. Purged (gal) | PURGE RATE (gpm) | DEPTH TO WATER (ft) | pH | TEMP. (°C) | COND. (µmhos) | DISSOLVED OXYGEN (mg/L) | TURBIDITY (NTUs) |
| 1 | 3 | 3 | 1.0 | 15.98 | 6.35 | 26.5 | 541 | 176 | 8.61 |
| 1 | 3 | 6 | 1.0 | 15.98 | 6.44 | 26.5 | 537 | .82 | 4.83 |
| 1 | 3 | 9 | 1.0 | 15.97 | 6.54 | 26.3 | 537 | .88 | 3.46 |
| FINAL FIELD VALUES → | | | | ORP | pH | TEMP. (°C) | COND. (µmhos) | DISSOLVED OXYGEN (mg/L) | TURBIDITY (NTUs) |
| | | | | | 6.54 | 26.3 | 537 | .88 | 3.46 |
| Color: None | Odor: None | Sheen: None | Comments | | | | | | |
| 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 | | | | | | | | | |

SAMPLING DATA

| SAMPLING METHOD(S): Redi-flo Pump | SAMPLING INITIATED AT: 12:54 | SAMPLING ENDED AT: 13:00 | Weather: Sunny, warm windy | | |
|---|-------------------------------------|---|-----------------------------------|---|---------------------------------|
| FIELD DECONTAMINATION: No | FIELD-FILTERED: No | DUPLICATE: Y <input checked="" type="radio"/> N <input type="radio"/> | | | |
| SAMPLE CONTAINER SPECIFICATION | | SAMPLE PRESERVATION | | | INTENDED ANALYSIS AND/OR METHOD |
| NO. | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOLUME ADDED IN FIELD (mL) | |
| 1 | HDPE | 1-LITER | HNO3 | | Metals |
| 2 | HDPE | | H2SO4 | 20 | Ammonia |
| MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDPE = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY) | | | | | |
| SAMPLED BY (PRINT): B. Downey MAL | | | | SAMPLER(S) SIGNATURE(S): Brenda Dany | |

XENCO LABORATORIES Container Receipt Verification Form

Work Order Number: _____

414635

Chain of Custody Number(s): _____

| Tests | Container Type/ Pres. | gal GA/ | 32oz NM GA/ | 32oz NM GA/ | 32oz W/M GA/ | VOA/ | VOA/ | VOA/ | 120mL P w. PIM/ | 4oz Plastic/ | 4oz Plastic/ | 250mL HDPE/ | 250mL HDPE/ | 500mL HDPE/ | 500mL HDPE/ | 500mL HDPE/ | 500mL HDPE/ | 500mL HDPE/ | 90z GC/ | 90z GC/ | 90z GC/ | 4oz GC/ | 4oz GC/ | 2oz GC/ | 2oz GC/ | Tedar Bag | Ampules/ | Other/ | Comments | | | | |
|-------|--------------------------|---------|-------------|-------------|--------------|------|------|------|-----------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------|---------|---------|---------|---------|---------|---------|-----------|----------|--------|----------|--|--|--|--|
| | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Reserve KW02

Abbreviations:
 Gal GA = One gallon amber
 32oz N/M GA = 32 oz Amberglass
 VOA = 40mL vials
 32oz W/M GA = 32 oz Wide Mouth Amberglass

8oz GC = 8oz Soil Jar
 4oz GC = 4oz Soil Jar
 2oz GC = 2oz soil jar

120mL Plastic w. Pili = BacT
 Zip = Ziplock Bag
 4oz Plastic = 4oz Plastic Bottle

HCl = Hydrochloric Acid
 H₂SO₄ = Sulfuric Acid
 NaOH = Sodium Hydroxide
 MeOH = Methanol
 HNO₃ = Nitric Acid
 ZnAc = Zinc Acetate
 Na₂S₂O₃ = Sodium Thiosulfate

NH₄Cl₂ = Ammonium Chloride
 DI H₂O = DI Water
 MCAA = Monochloroacetic Acid

Reviewed By: _____