

# Analytical Report 383737

for

**ES Consultants, Inc. - Kendall**

**Project Manager: Jeff Thompson**

**Biscayne Landing**

**2010031**

**11-AUG-10**



Florida Testing Services, LLC



Genapure™  
Analytical Services, Inc.



**3231 NW 7th Avenue, Boca Raton, FL 33431**

**Ph:(561) 447-7373 Fax:(561) 447-6136**

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 (LAC000312), 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: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)



11-AUG-10

Project Manager: **Jeff Thompson**  
**ES Consultants, Inc. - Kendall**  
7700 N. Kendall Dr.  
Suite # 607  
Miami, FL 33156

Reference: XENCO Report No: **383737**  
**Biscayne Landing**  
Project Address:

**Jeff Thompson:**

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 383737. 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. 383737 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,

**Christina Raschke**  
Office Manager

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## Sample Cross Reference 383737

### ES Consultants, Inc. - Kendall, Miami, FL

Biscayne Landing

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
D-5	W	Jul-30-10 10:17		383737-001
D-6	W	Jul-30-10 11:07		383737-002
D-7	W	Jul-30-10 11:50		383737-003
D-8	W	Jul-30-10 12:32		383737-004

**ES Consultants, Inc. - Kendall, Miami, FL**  
Biscayne Landing

Sample Id: <b>D-5</b>	Matrix: <b>Surface Water</b>	% Moisture:
Lab Sample Id: <b>383737-001</b>	Date Collected: <b>Jul-30-10 10:17</b>	
	Date Received: <b>Jul-30-10 15:15</b>	

<b>Analytical Method: Chrophyll A</b>	Prep Method: SM10200H_EXT
Analyst: RAF	Date Prep: Jul-31-10 19:00
Seq Number: 818432	Tech: RCA

Parameter	Cas Number	Result	PQL	MDL	Units	Analysis Date	Flag	Dil
Chlorophyll A	42617-16-3	25.9	5.00	2.00	MGM3	08/11/10 15:00		1

<b>Analytical Method: Fecal Coliform</b>	Prep Method:
Analyst: RAF	Date Prep:
Seq Number: 817612	Tech: RAF

Parameter	Cas Number	Result	PQL	MDL	Units	Analysis Date	Flag	Dil
Fecal Coliform		80.0	10.0	10.0	cfu/100ml	07/30/10 16:17		10

**ES Consultants, Inc. - Kendall, Miami, FL**  
Biscayne Landing

Sample Id: <b>D-6</b>	Matrix: <b>Surface Water</b>	% Moisture:
Lab Sample Id: <b>383737-002</b>	Date Collected: <b>Jul-30-10 11:07</b>	
	Date Received: <b>Jul-30-10 15:15</b>	

<b>Analytical Method: Chrophyll A</b>	Prep Method: SM10200H_EXT
Analyst: RAF	Date Prep: Jul-31-10 19:00
Seq Number: 818432	Tech: RCA

Parameter	Cas Number	Result	PQL	MDL	Units	Analysis Date	Flag	Dil
Chlorophyll A	42617-16-3	26.1	5.00	2.00	MGM3	08/11/10 15:00		1

<b>Analytical Method: Fecal Coliform</b>	Prep Method:
Analyst: RAF	Date Prep:
Seq Number: 817612	Tech: RAF

Parameter	Cas Number	Result	PQL	MDL	Units	Analysis Date	Flag	Dil
Fecal Coliform		1540	10.0	10.0	cfu/100ml	07/30/10 16:17		10

**Certificate of Analytical Results 383737**

**ES Consultants, Inc. - Kendall, Miami, FL**  
Biscayne Landing

Sample Id: <b>D-7</b>	Matrix: <b>Surface Water</b>	% Moisture:
Lab Sample Id: <b>383737-003</b>	Date Collected: <b>Jul-30-10 11:50</b>	
	Date Received: <b>Jul-30-10 15:15</b>	

<b>Analytical Method: Chrophyll A</b>	Prep Method: SM10200H_EXT
Analyst: RAF	Date Prep: Jul-31-10 19:00
Seq Number: 818432	Tech: RCA

Parameter	Cas Number	Result	PQL	MDL	Units	Analysis Date	Flag	Dil
Chlorophyll A	42617-16-3	79.8	5.00	2.00	MGM3	08/11/10 15:00		1

<b>Analytical Method: Fecal Coliform</b>	Prep Method:
Analyst: RAF	Date Prep:
Seq Number: 817612	Tech: RAF

Parameter	Cas Number	Result	PQL	MDL	Units	Analysis Date	Flag	Dil
Fecal Coliform		6400	10.0	10.0	cfu/100ml	07/30/10 16:17		10

**Certificate of Analytical Results 383737**

**ES Consultants, Inc. - Kendall, Miami, FL**  
Biscayne Landing

Sample Id: <b>D-8</b>	Matrix: <b>Surface Water</b>	% Moisture:
Lab Sample Id: <b>383737-004</b>	Date Collected: <b>Jul-30-10 12:32</b>	
	Date Received: <b>Jul-30-10 15:15</b>	

<b>Analytical Method: Chrophyll A</b>	Prep Method: SM10200H_EXT
Analyst: RAF	Date Prep: Jul-31-10 19:00
Seq Number: 818432	Tech: RCA

Parameter	Cas Number	Result	PQL	MDL	Units	Analysis Date	Flag	Dil
Chlorophyll A	42617-16-3	4.58	5.00	2.00	MGM3	08/11/10 15:00	I	1

<b>Analytical Method: Fecal Coliform</b>	Prep Method:
Analyst: RAF	Date Prep:
Seq Number: 817612	Tech: RAF

Parameter	Cas Number	Result	PQL	MDL	Units	Analysis Date	Flag	Dil
Fecal Coliform		430	10.0	10.0	cfu/100ml	07/30/10 16:17		10

# 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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(972) 481-9999	(972) 481-9998
(210) 509-3334	(201) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555

## 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 (TNTC); the numeric value represents the filtration volume.
- ?** 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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ES Consultants, Inc. - Kendall, Miami, FL  
Biscayne Landing

Sample Id: <b>570313-1-BLK</b>	Matrix: <b>WATER</b>
Lab Sample Id: <b>570313-1-BLK</b>	

<b>Analytical Method: Chrophyll A</b>	Prep Method: SM10200H_EXT
Date Analyzed: Aug-11-10 15:00	Analyst: RAF
Seq Number: 818432	Date Prep: Jul-31-10 19:00
	Tech: RCA

Parameter	Cas Number	Result	PQL	MDL	Units	Flag	Dil
Chlorophyll A	42617-16-3	U	5.00	2.00	MGM3	U	1

**ES Consultants, Inc. - Kendall, Miami, FL**  
Biscayne Landing

Sample Id: <b>817612-1-BLK</b>	Matrix: <b>WATER</b>
Lab Sample Id: <b>817612-1-BLK</b>	

<b>Analytical Method:</b> Fecal Coliform	<b>Prep Method:</b>
Date Analyzed: Jul-30-10 14:00      Analyst: RAF	Date Prep:      Tech: RAF
Seq Number: 817612	

Parameter	Cas Number	Result	PQL	MDL	Units	Flag	Dil
Fecal Coliform		U	1.00	1.00	:fu/100ml	U	1

# Sample Duplicate Recovery

**Project Name: Biscayne Landing**

**Work Order #:** 383737

**Lab Batch #:** 818432

**Project ID:** 2010031

**Date Analyzed:** 08/11/2010

**Date Prepared:** 07/31/2010

**Analyst:** RAF

**QC- Sample ID:** 383737-004 D

**Batch #:** 1

**Matrix:** Surface Water

**Reporting Units:** MGM3

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Chrophyll A  Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chlorophyll A	4.58	4.58	0	20	

**Lab Batch #:** 817612

**Date Analyzed:** 07/30/2010

**Date Prepared:** 07/30/2010

**Analyst:** RAF

**QC- Sample ID:** 383701-002 D

**Batch #:** 1

**Matrix:** Water

**Reporting Units:** cfu/100ml

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Fecal Coliform  Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Fecal Coliform	<1.00	<1.00	NC	25	

Spike Relative Difference RPD  $200 * |(B-A)/(B+A)|$   
 All Results are based on MDL and validated for QC purposes.  
 BRL - Below Reporting Limit



# CHAIN OF CUSTODY RECORD

Atlanta: 6017 Financial Dr., Norcross, GA 30071 770-449-8800  
 Boca Raton: 3231 NW 7th Ave, Boca Raton, FL 33431 561-447-7373  
 Miami: 14100 Palmetto Frontage Rd. Miami Lakes, FL 33016 305-923-8500

Orlando: 5448 Hoffner Av. Ste 408 Orlando, FL 32812 409-429-8022  
 Tampa: 2505 North Falkenburg Rd, Tampa, FL 33619 813-620-2000

Company: **ES CONSULTANTS, INC.**  
 Address: **7700 N. Kendall Dr.**  
 City: **Miami**  
 State: **FL** Zip: **33156**  
 Phone: **305-412-8105**  
 Fax: **305-412-8105**  
 Project Name: **Bay Club**  
 Project ID: **2010031**

Sampler Signature: *[Signature]*  
 Sample ID: **0-5**  
 Collect Date: **10/17/07**  
 Collect Time: **11:07**  
 Matrix Code: **SW**  
 Total # of Containers: **2**

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code	Composite or Grab	Field Filtered	Total # of Containers	Circle One Event:			# Cont	Lab Only	
								Quarterly	Semi-Annual	Monthly			
1	0-5	10/17/07	11:07	SW			2						
2	0-6	11/07	11:50				1						
3	0-7	11/07	11:50				1						
4	0-8	12/32	12:32				1						

Sample #	Reg. Program / Clean-up Std	STATE for Certs & Regs				QA/QC Level & Certification				EDDs		COC & Labels		Coolers	Temp °C	Lab Use Only	YES NO N/A	
		FL	TX	GA	NC	1	2	3	4	ADAPT	SEDD	Match	Incomplete					Received by
1	NPDES																	
2	DW																	
3	POST																	
4	DryCh																	

Received by: *[Signature]* Date: **10/17/07**  
 Received by: *[Signature]* Date: **11/07/07**  
 Received by: *[Signature]* Date: **11/07/07**  
 Received by: *[Signature]* Date: **12/32/07**

Non-Conformances found?   
 Samples intact upon arrival?   
 Labeled with proper preservatives?   
 Received within holding time?   
 Custody seals intact?   
 VOCs rec'd w/ headspace?   
 Proper containers used?   
 pH verified-acceptable, excl VOCs?   
 Received on time to meet HTS?



Prelogin/Nonconformance Report- Sample Log-In

Client: ESC  
 Date/ Time Received: 07.30.10  
 WO ID #: 395737  
 Project Name: Biscayne Landfill  
 Name of Sample Receipt Person: JEZ  
 Name of Sample Login Person: JEZ  
 Checklist completed by/Date/Time: JEZ

Acceptable Temperature Range: 2-6° C  
 Acceptable pH Range(s):  
 <2 for samples preserved with HNO3, HCL, H2SO4  
 >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH  
 Delivered by/Airbill #(s): Frank  
 PM Signature/Date: \_\_\_\_\_  
 Temperature Measuring device used: SC#109

Sample Receipt Checklist

#	*Description	# of Coolers			Other
		Yes	No	None	
#1	*Temperature of cooler(s)?				5 °C
#2	*Shipping container in good condition?	<u>YES</u>	No	None	
#3	*Samples received on ice?	<u>YES</u>	No	N/A	Blue/Water
#4	*Custody Seals intact on shipping container/ cooler?	Yes	No	<u>N/A</u>	
#5	Custody Seals intact on sample bottles/ container?	Yes	No	<u>N/A</u>	
#6	Custody Seals Signed and dated for Containers/coolers/bottles	Yes	No	<u>N/A</u>	
#7	*Chain of Custody present?	<u>YES</u>	No		
#8	Sample instructions complete on Chain of Custody?	<u>YES</u>	No		
#9	Any missing/extra samples?	Yes	<u>NO</u>		
#10	Chain of Custody signed when relinquished/ received?	<u>YES</u>	No		
#11	Chain of Custody agrees with sample label(s)?	<u>YES</u>	No		
#12	Container label(s) legible and intact?	<u>YES</u>	No		
#13	Sample matrix/ properties agree with Chain of Custody?	<u>YES</u>	No		
#14	Samples in proper container/ bottle?	<u>YES</u>	No		
#15	Samples properly preserved?	<u>YES</u>	No	N/A	See Notes below
#16	Sample container(s) intact?	<u>YES</u>	No		
#17	Sufficient sample amount for indicated test(s)?	<u>YES</u>	No		
#18	All samples received within hold time?	<u>YES</u>	No		
#19	Subcontract of sample(s)?	Yes	<u>NO</u>		
#20	VOC samples have zero headspace (less than 1/4 inch bubble)?	YES	No	<u>N/A</u>	

\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Notes on pH check: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Nonconformance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_  
 Regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# XENCO LABORATORIES

## Container Receipt Verification Form

Work Order Number: 383737

Chain of Custody Number(s): \_\_\_\_\_

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

**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  
 1L HDPE = 1L (1000mL) Plastic Bottle  
 500mL HDPE = 500mL Plastic Bottle  
 250mL HDPE = 250mL Plastic Bottle

8oz GC = 8oz Soil Jar  
 4oz GC = 4oz Soil Jar  
 2oz GC = 2oz soil jar  
 120mL Plastic w. Pill = 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: \_\_\_\_\_