FINAL
ANALYTICAL REPORT

ETL PROJECT ID: 17-0412 **2/24/2017 - Revision 0**

RICKY CORNELIUS
SOUTHLAND COMPLIANCE SERVICES
P.O. BOX 1063
NASHVILLE, GA 31639-
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CLIENT PROJECT NAME: CITY OF RAY CITY
CLIENT PROJECT ID:
FACILITY ID:

Enclosed are the analytical results for sample(s) received by Environmental Testing Laboratories on February 01, 2017. Results reported herein are reported on an as received basis and conform to current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Sample analyses performed by Environmental Testing Laboratories, Inc. (ETL) unless otherwise noted. ETL is accredited through NELAC and the Florida Department of Health, Certification #E87684. Scope of analyses: RCRA/CERCLA Metals, General Chemistry, Extractable Organics, and Volatile Organics. Effective Dates: February 14, 2002 through June 30, 2017.

Authorized for release by:

Brad Williams

Digitally signed by Brad Williams
DN: cn=Brad Williams, o=Environmental Testing Laboratories, Inc., ou, email=bwilliams@etl-inc.com, c=US
Date: 2017.02.25 21:12:56 -05'00'

ENVIRONMENTAL TESTING LABORATORIES INC

412 W. Walcott Street | Thomasville, GA 31792 | Phone: (229)-228-2592 | Fax: (229)-228-2594

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Laboratory Qualifiers

!	Data deviate from historically established concentration ranges.
#	Surrogate compound inadvertently omitted.
$	Due to dilution, surrogate compound was not detected.
*	Not reported due to interference
?	Data are rejected as should not be used.
A	Value reported is the arithmetic mean (average) of two or more determinations.
B	Results based upon colony counts outside the acceptable range.
D	Measurement made in the field.
E	Extra samples were taken at composite stations.
F	When reporting species, F indicates the female sex.
H	Value based on fied kit determination; results may not be accurate.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J	Estimated value.
K	Off-scale low. Actual value is known to be less than the value given.
L	Off-scale high. Actual value is known to be greater than the value given.
M	Presence of material is verified but not quantified; the actual value is less than the value given.
N	Presumptive evidence of presence of material.
O	Sampled, but analysis lost or not performed.
Q	Sample held beyond the accepted holding time.
R	Significant rain in the past 48 hours.
S1	Surrogate recovery reported is outside of laboratory established QA/QC Limits
S2	Analyte recovery reported is outside of laboratory established QA/QC Limits
S3	Analyte precision reported is outside of laboratory established QA/QC Limits
T	Value reported is less than the laboratory method detection limit.
U	Compound was analyzed for but not detected.
V	Indicates that the analyte was detected in both the sample and the associated method blank.
Y	Laboratory analysis was from an improperly preserved sample. Data may not be accurate.
Z	Too many colonies were present; numeric value represents the filtration volume.

Project Narrative

#E87684

Environmental Testing Laboratories, Inc. is accredited through NELAC and the Florida Department of Health.

Solid samples are reported on a dry weight basis unless otherwise noted.

Please refer to Section 4.0 of the ETL Quality Assurance Manual for a measure of uncertainty.

All analyses are performed using EPA or FL-DEP methods and certified to meet NELAC requirements, except where noted.

Analytical Method Summary

E87684

Environmental Testing Laboratories Inc.
412 W. Walcott Street, Thomasville, GA 31792
(229) 228-2592

EPA 1664 A

EPA 350.1

EPA 351.2

EPA 353.2 (Nitrate-Nitrite (N))

EPA 365.1 (Phosphorus -Total)

SM18 2540 C

Total Nitrogen

Sample Summary

Laboratory Sample ID	Client Sample ID	Matrix	End Date / Time Sampled	Grab / Composite	Percent Moisture
208687	EFF	AQUEOUS-Wastewater	2/1/2017 7:30	G	

Executive Summary

Analyte	Analytical Method	Result	Units	Qualifiers	Result Comments
EFF (208687)					
Nitrogen- Total Kjeldahl	EPA 351.2	4.6	mg/L		
Nitrogen- Total	Total Nitrogen	5.9	mg/L		
Nitrate-Nitrite (N)	EPA 353.2 (Nitrate-Nitrite (N))	1.3	mg/L		
Phosphorus- Total	EPA 365.1 (Phosphorus -Total)	1.5	mg/L		
Ammonia (N)	EPA 350.1	3.6	mg/L		
Residues- Filterable (TDS)	SM18 2540 C	130	mg/L		

Analytical Data

Client Sample ID: EFF
Laboratory Sample ID: 208687
Sample Location:
Matrix: AQUEOUS-Wastewater
Date Collected: 02/01/2017 07:30 AM
Percent Moisture:

General Chemistry

Analyte	DF	Result	Qualifier	Units	MDL	PQL	Analysis Date
Ammonia (N)	2.0	**3.6**		mg/L	0.36	0.60	2/14/2017 11:13:00 AM
Nitrate-Nitrite (N)	1.0	**1.3**		mg/L	0.042	0.050	2/13/2017 10:28:00 AM
Nitrogen- Total	1.0	**5.9**		mg/L	0.10	0.20	2/13/2017 10:28:00 AM
Nitrogen- Total Kjeldahl	1.0	**4.6**		mg/L	0.24	0.50	2/10/2017 11:01:00 AM
Oil & Grease	1.0	1.4	U	mg/L	1.4	2.0	2/23/2017 9:35:00 AM
Phosphorus- Total	1.0	**1.5**		mg/L	0.023	0.050	2/8/2017 4:19:00 AM
Residues- Filterable (TDS)	1.0	**130**		mg/L	13	20	2/4/2017 10:00:00 AM

PQL: Practical Quantitation Limit MDL: Method Detection Limit DF: Dilution Factor

Data Chronicle

Client Sample ID: EFF
Laboratory Sample ID: 208687
Sample Location:
Matrix: AQUEOUS-Wastewater
Date Collected: 02/01/2017 07:30 AM
Percent Moisture:

Prep	Analysis	Analytical Method	Dilution	Batch	Prepared	Analyzed	Analyst	Lab
TOT	RES	EPA 1664 A	1.0	OGA022317	2/23/2017 9:35:00 AM	2/23/2017 9:35:00 AM	PE	E87684
TOT	RES	EPA 350.1	2.0	021417ANH3	2/13/2017 4:07:00 PM	2/14/2017 11:13:00 AM	GG	E87684
TOT	RES	EPA 351.2	1.0	021017ATKN		2/10/2017 11:01:00 AM	GG	E87684
TOT	RES	EPA 353.2 (Nitrate-Nitrite (N))	1.0	021317ANO23	2/13/2017 10:28:00 AM	2/13/2017 10:28:00 AM	GG	E87684
TOT	RES	EPA 365.1 (Phosphorus -Total)	1.0	020817BTP	2/3/2017 11:56:00 AM	2/8/2017 4:19:00 AM	GG	E87684
TOT	RES	SM18 2540 C	1.0	TDS020417	2/4/2017 10:00:00 AM	2/4/2017 10:00:00 AM	JE	E87684
TOT	RES	Total Nitrogen	1.0	TN021317	2/13/2017 10:28:00 AM	2/13/2017 10:28:00 AM	CALC	E87684

QUALITY ASSURANCE / QUALITY CONTROL DATA

Preparation Batch ID: 020817BTP | Analysis Method: EPA 365.1 (Phosphorus -Total) | Preparation Type: 365.1

Method Batch ID: M020817BTP | Preparation Date:

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB	Lab Sample ID: 020817BTPMB			Client Sample ID: 020817BTPMB						Date Analyzed: 2/8/2017 4:14:00 AM		
Phosphorus- Total	0.023	0.050	0.023	U	mg/L							
QA/QC Type: LCS	Lab Sample ID: 020817BTPLCS			Client Sample ID: 020817BTPLCS						Date Analyzed: 2/8/2017 4:07:00 AM		
Phosphorus- Total	0.023	0.050	2.37		mg/L	2.35	101	90	-	110		
QA/QC Type: LCSD	Lab Sample ID: 020817BTPLCSD			Client Sample ID: 020817BTPLCSD						Date Analyzed: 2/8/2017 4:08:00 AM		
Phosphorus- Total	0.023	0.050	2.38		mg/L	2.35	101	90	-	110	0.42	20
QA/QC Type: MS	Lab Sample ID: 020817BTPMS			Client Sample ID: 208723MS						Date Analyzed: 2/8/2017 4:24:00 AM		
Phosphorus- Total	0.023	0.050	1.19		mg/L	1.00	106	90	-	110		
QA/QC Type: MSD	Lab Sample ID: 020817BTPMSD			Client Sample ID: 208723MSD						Date Analyzed: 2/8/2017 4:26:00 AM		
Phosphorus- Total	0.023	0.050	1.19		mg/L	1.00	106	90	-	110	0	20
QA/QC Type: DUP	Lab Sample ID: 020817BTPDUP			Client Sample ID: 208723DUP						Date Analyzed: 2/8/2017 4:22:00 AM		
Phosphorus- Total	0.023	0.050	0.13		mg/L						0	20

Comments:

Preparation Batch ID: 021017ATKN | Analysis Method: EPA 351.2 | Preparation Type: 351.2

Method Batch ID: M021017ATKN | Preparation Date:

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB	Lab Sample ID: 021017ATKNMB			Client Sample ID: 021017ATKNMB						Date Analyzed: 2/10/2017 10:26:00 AM		
Nitrogen- Total Kjeldahl	0.24	0.50	0.24	U	mg/L							
QA/QC Type: LCS	Lab Sample ID: 021017ATKNLCS			Client Sample ID: 021017ATKNLCS						Date Analyzed: 2/10/2017 10:19:00 AM		
Nitrogen- Total Kjeldahl	0.24	0.50	6.63		mg/L	7.15	92.7	90	-	110		
QA/QC Type: LCSD	Lab Sample ID: 021017ATKNLCSD			Client Sample ID: 021017ATKNLCSD						Date Analyzed: 2/10/2017 10:21:00 AM		
Nitrogen- Total Kjeldahl	0.24	0.50	6.65		mg/L	7.15	93.0	90	-	110	0.30	20

QUALITY ASSURANCE / QUALITY CONTROL DATA

J

Preparation Batch ID: 021017ATKN Analysis Method: EPA 351.2 Preparation Type: 351.2

Method Batch ID: M021017ATKN Preparation Date:

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MS Lab Sample ID: 021017ATKNMS Client Sample ID: 208671MS Date Analyzed: 2/10/2017 10:34:00 AM												
Nitrogen- Total Kjeldahl	0.24	0.50	6.26		mg/L	5.00	109	90	-	110		
QA/QC Type: MSD Lab Sample ID: 021017ATKNMSD Client Sample ID: 208671MSD Date Analyzed: 2/10/2017 10:35:00 AM												
Nitrogen- Total Kjeldahl	0.24	0.50	6.31		mg/L	5.00	110	90	-	110	0.80	20
QA/QC Type: DUP Lab Sample ID: 021017ATKNDUP Client Sample ID: 208671DUP Date Analyzed: 2/10/2017 10:33:00 AM												
Nitrogen- Total Kjeldahl	0.24	0.50	0.83		mg/L						0	20

Comments:

Preparation Batch ID: 021317ANO23 Analysis Method: EPA 353.2 (Nitrate-Nitrite (N)) Preparation Type: Gen Prep

Method Batch ID: M021317ANO23 Preparation Date: 2/13/2017 10:24:00 AM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB Lab Sample ID: 021317ANO23MB Client Sample ID: 021317ANO23MB Date Analyzed: 2/13/2017 10:24:00 AM												
Nitrate-Nitrite (N)	0.042	0.050	0.042	U	mg/L							
Nitrate (N)	0.042	0.050	0.042	U	mg/L							
QA/QC Type: LCS Lab Sample ID: 021317ANO23LCS Client Sample ID: 021317ANO23LCS Date Analyzed: 2/13/2017 10:18:00 AM												
Nitrate (N)	0.042	0.050	2.02		mg/L	2.04	99.0	90	-	110		
Nitrate-Nitrite (N)	0.042	0.050	2.02		mg/L	2.04	99.0	90	-	110		
QA/QC Type: LCSD Lab Sample ID: 021317ANO23LCSD Client Sample ID: 021317ANO23LCSD Date Analyzed: 2/13/2017 10:20:00 AM												
Nitrate (N)	0.042	0.050	2.07		mg/L	2.04	101	90	-	110	2.4	20
Nitrate-Nitrite (N)	0.042	0.050	2.07		mg/L	2.04	101	90	-	110	2.4	20
QA/QC Type: MS Lab Sample ID: 021317ANO23MS Client Sample ID: 208979MS Date Analyzed: 2/13/2017 10:31:00 AM												
Nitrate-Nitrite (N)	0.042	0.050	2.47		mg/L	1.00	107	90	-	110		
QA/QC Type: MSD Lab Sample ID: 021317ANO23MSD Client Sample ID: 208979MSD Date Analyzed: 2/13/2017 10:32:00 AM												
Nitrate-Nitrite (N)	0.042	0.050	2.45		mg/L	1.00	105	90	-	110	0.81	20

QUALITY ASSURANCE / QUALITY CONTROL DATA

Preparation Batch ID: 021317ANO23 Analysis Method: EPA 353.2 (Nitrate-Nitrite (N)) Preparation Type: Gen Prep

Method Batch ID: M021317ANO23 Preparation Date: 2/13/2017 10:24:00 AM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: DUP Lab Sample ID: 021317ANO23DUP Client Sample ID: 208979DUP Date Analyzed: 2/13/2017 10:30:00 AM												
Nitrate-Nitrite (N)	0.042	0.050	1.4		mg/L						0	20
Nitrate (N)	0.042	0.050	1.4		mg/L							20

Comments:

Preparation Batch ID: 021417ANH3 Analysis Method: EPA 350.1 Preparation Type: Distillation

Method Batch ID: M021417ANH3 Preparation Date:

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB Lab Sample ID: 021417ANH3MB Client Sample ID: 021417ANH3MB Date Analyzed: 2/14/2017 10:02:00 AM												
Ammonia (N)	0.18	0.30	0.18	U	mg/L							
QA/QC Type: LCS Lab Sample ID: 021417ANH3LCS Client Sample ID: 021417ANH3LCS Date Analyzed: 2/14/2017 9:55:00 AM												
Ammonia (N)	0.18	0.30	3.43		mg/L	3.30	104	90	-	110		
QA/QC Type: LCSD Lab Sample ID: 021417ANH3LCSD Client Sample ID: 021417ANH3LCSD Date Analyzed: 2/14/2017 9:56:00 AM												
Ammonia (N)	0.18	0.30	3.45		mg/L	3.30	105	90	-	110	0.58	20
QA/QC Type: MS Lab Sample ID: 021417ANH3MS Client Sample ID: 208712MS Date Analyzed: 2/14/2017 10:11:00 AM												
Ammonia (N)	0.18	0.30	1.25		mg/L	1.00	106	90	-	110		
QA/QC Type: MSD Lab Sample ID: 021417ANH3MSD Client Sample ID: 208712MSD Date Analyzed: 2/14/2017 10:13:00 AM												
Ammonia (N)	0.18	0.30	1.25		mg/L	1.00	106	90	-	110	0	20
QA/QC Type: DUP Lab Sample ID: 021417ANH3DUP Client Sample ID: 208712DUP Date Analyzed: 2/14/2017 10:10:00 AM												
Ammonia (N)	0.18	0.30	0.28	IS3	mg/L						38	20

Comments:

QUALITY ASSURANCE / QUALITY CONTROL DATA

Preparation Batch ID: OGA022317 | Analysis Method: EPA 1664 A | Preparation Type: No Prep
Method Batch ID: MOGA022317 | Preparation Date: 2/23/2017 9:35:00 AM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB	Lab Sample ID: OGA022317MB			Client Sample ID: OGA022317MB				Date Analyzed: 2/23/2017 9:35:00 AM				
Oil & Grease	1.4	2.0	1.4	U	mg/L							
QA/QC Type: LCS	Lab Sample ID: OGA022317LCS			Client Sample ID: OGA022317LCS				Date Analyzed: 2/23/2017 9:35:00 AM				
Oil & Grease	1.4	2.0	31.9		mg/L	40.0	79.8	78	-	114		
QA/QC Type: LCSD	Lab Sample ID: OGA022317LCSD			Client Sample ID: OGA022317LCSD				Date Analyzed: 2/23/2017 9:35:00 AM				
Oil & Grease	1.4	2.0	31.7		mg/L	40.0	79.2	78	-	114	0.63	18
QA/QC Type: MS	Lab Sample ID: OGA022317MS			Client Sample ID: 209358MS				Date Analyzed: 2/23/2017 9:35:00 AM				
Oil & Grease	1.4	2.0	34.3		mg/L	40.0	85.8	78	-	114		
QA/QC Type: DUP	Lab Sample ID: OGA022317DUP			Client Sample ID: 209212DUP				Date Analyzed: 2/23/2017 9:35:00 AM				
Oil & Grease	1.4	2.0	140		mg/L						7.4	18

Comments:

Preparation Batch ID: TDS020417 | Analysis Method: SM18 2540 C | Preparation Type: No Prep
Method Batch ID: MTDS020417 | Preparation Date: 2/4/2017 10:00:00 AM

Analyte	MDL	PQL	Result	Qual	Units	Spike Amount	% REC	% REC Low Limit	-	% REC High Limit	%RPD	% RPD Limit
QA/QC Type: MB	Lab Sample ID: TDS020417MB			Client Sample ID: TDS020417MB				Date Analyzed: 2/4/2017 10:00:00 AM				
Residues- Filterable (TDS)	13	20	13	U	mg/L							
QA/QC Type: LCS	Lab Sample ID: TDS020417LCS			Client Sample ID: TDS020417LCS				Date Analyzed: 2/4/2017 10:00:00 AM				
Residues- Filterable (TDS)	13	20	475		mg/L	500	95.0	80	-	120		
QA/QC Type: LCSD	Lab Sample ID: TDS020417LCSD			Client Sample ID: TDS020417LCSD				Date Analyzed: 2/4/2017 10:00:00 AM				
Residues- Filterable (TDS)	13	20	485		mg/L	500	97.0	80	-	120	2.1	20
QA/QC Type: DUP	Lab Sample ID: TDS020417DUP			Client Sample ID: 208749DUP				Date Analyzed: 2/4/2017 10:00:00 AM				
Residues- Filterable (TDS)	13	20	1000		mg/L						0	20

Comments:

Chain of Custody Record

Company: Southland Compliance Services

Address: P.O. Box 1063 Nashville GA 31639

Telephone Number: Telefax Number:

Sampled by [Print Name(s)] / Affiliation: Joey Harlow

Sampler(s) Signature(s):

Environmental Testing Laboratories, Inc.
412 W. Walcott Street
Thomasville, GA 31792-4359
229/228-2592 (telephone)
229/228-2594 (telefax)
www.etl-inc.com

Page 1 of 1

Project Name: City of Ray City

Project Number:

Project Manager:

Facility ID Number:

REQUESTED DUE DATE: / /

Item No.	Field ID No.	Sample Date	Sample Time	Grab or Composite	Matrix (see Codes)	Number of Containers	Oil & Grease	TP	NH3	TKN	Nitrate+ Nitrogen	TDS				Remarks	Lab Number
1	EFF	2/1/17	730	G	WW	2	✓										208687
2	EFF	2/1/17	730	G	WW	1		✓	✓	✓	✓						
3	EFF	2/1/17	730	G	WW	1						✓					

Shipment Method | Total Number of Containers

← Preservatives (see Codes) ICE: ☐ Yes ☐ No

			Item No.	Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time
Out:	/ /	Via:							
Returned:	/ /	Via:		TSC	2/1/17	1000		2-1-17	1000

Additional Comments:

Cooler Number(s) / Temperature(s) (°C): Yellow 2.1

Sampling Kit Number:

Received in Lab By: [illegible] DBC 2/1/17 1525

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Wastewater O = Other (specify)

PRESERVATIVE CODES: H = Hydrochloric acid S = Sulfuric acid N = Nitric Na = Sodium Hydroxide O = Other (specify)

PRESERVATIVE CODES: SOIL VOCS MS = Methanol / Sodium Bisulfate MD = Methanol / DI Water

ETL PROJECT NO. 17-0417

pH 7.75 DO 7.7 mg/L Temp 13.1 °C

ENVIRONMENTAL TESTING LABORATORIES inc

Project Receipt Summary

17-0412

Project Details

Client: SOUTHLAND COMPLIANCE SERVICES

Project Name: CITY OF RAY CITY

Shipping and Receiving

Date/Time Received: 2/1/2017 3:25:00 PM

Sampling Personnel: JOEY HANON

Shipping Method: Client Drop-Off

Shipping Tracking Number:

If present, were cooler custody seals intact?

○ Yes ○ No ◉ N/A

If present, were sample bottle custody seals intact

○ Yes ○ No ◉ N/A

Thermal Preservation

Cooler Temp Method: Sample Temperature

Thermometer ID: 160372413

Number of Coolers: 1

Were cooler temperatues in compliance? (0.1-6.0C)

◉ Yes ○ No ○ N/A

Cooler Temperatures: 2.1

Chain of Custody

Was the chain-of-custody received in coolers?	◉ Yes	○ No	○ N/A
Was the chain-of-custody signed and properly relinquished?	◉ Yes	○ No	○ N/A
Does the chain-of-custody agree with samples and analyses?	◉ Yes	○ No	○ N/A

Container Receipt

Were samples received in appropriate bottleware for analyses?	◉ Yes	○ No	○ N/A
Was sufficient volume submitted for analyses requested?	◉ Yes	○ No	○ N/A
Were samples received within method holding times?	◉ Yes	○ No	○ N/A
Were VOA vials received with zero headspace?	○ Yes	○ No	◉ N/A
Were aqeuous samples received at an acceptable pH?	◉ Yes	○ No	○ N/A

pH Test Strip Lot: 420317924359

Comments

I certify I have answered the questions contained herein to the best of my knowledge and have affixed labels with unique IDs onto each sample container received. I certify any discrepancies regarding the samples as received by the laboratory have been documented completely in the comments section of this form.

Dillan Gilliard

ENVIRONMENTAL TESTING LABORATORIES INC

Project Receipt Summary

17-0412

Project Sample Detail

Lab Sample ID	Client Sample ID	Matrix	SPLP	TRPH Speciation	MaVPH MaEPH
208687	**EFF**	**AQUEOUS-Wastewater**	☐	☐	☐
208687-E1 (NO2+NO3/TKN/TP/NH3)					
208687-E2 (Oil & Grease)					
208687-E3 (Oil & Grease)					
208687-E4 (TDS)					

ENVIRONMENTAL TESTING LABORATORIES Inc.

Project Receipt Summary

17-0412

Project Bottle Count Summary

Container Type	Preservative	Number of Containers
1-L Amber Glass	HCL	2
HDPE Plastic	H2SO4	1
HDPE Plastic	NONE	1
	Total	4