February 20, 2012

Mr. Nolin W. Moon, P.E.
Florida Department of Environmental Protection
South District Office
Post Office Box 2549
Fort Myers, Florida 33902-2549

RE: Request for Additional Information
Renewal of Industrial Wastewater Permit No. FL0037541-002-IW3S
E.R. Jahna Industries, Inc.
Ortona Sand Mine, Glades County, Florida
AMEC Project No. 300438

Dear Mr. Moon:

AMEC Environmental & Infrastructure, Inc. (AMEC) understands the Florida Department of Environmental Protection (FDEP) requires additional information in order to gain permit approval for the Renewal of Industrial Wastewater Permit No. FL0037541-002-IW3S. This permit was issued to E.R. Jahna Industries, Inc. for the Ortona Sand Mine, located in Glades County, Florida.

Below are AMEC's responses to the Request for Additional Information received from the FDEP, dated December 22, 2011:

1. Please refer to Form 2CS Section VII, Part A. Please complete column 2.a. Columns 2.b and 2.c should be completed if the data is available. Please note that you should incorporate the field monitoring data in exhibit 3 and the results reported in the monthly discharge monitoring reports (DMRs).

   Please refer to Exhibit 1, Form 2CS Section VII, Part A. The following narrative outlines the revisions noted in this section. Field pH and turbidity are monitored monthly and are recorded in Columns 2.b and 2.c. Flow data are recorded daily by way of a water level data logger. Monitoring for laboratory analytical data is not required for this permit, thus Columns 2.b and 2.c, rows a-g contain no data. However, as a permit renewal requirement, analytic data must be provided and is shown in Column 2.a. Mass flows are also shown in Column 2.a, and are calculated based on the greatest max daily flow of 5.97 MGD recorded for 2011.

2. The permit states that the discharge has an average daily flow of 1.5 million gallons per day (MGD) during rainfall events. The submitted DMRs report average values significantly greater than 1.5 MGD.

AMEC
Environment & Infrastructure
2000 E. Edgewood Drive, Suite 215
Lakeland, Florida
USA 33803
Tel (863) 667-2345
Fax (863) 667-2662

www.amec.com

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a. Please submit a wet-weather water balance and a dry-weather water balance.

Discharge flows from the Ortona Sand Mine are directly impacted by a number of factors including precipitation, antecedent conditions, dredge pond levels, and groundwater conditions. With respect to groundwater; this contribution is the most difficult to quantify, and is considered in the lag time referred to when correlating rainfall and discharge (following paragraph). Geographically, the mine sits in a large groundwater basin made up of thick coarse clean permeable sands that drain southward toward the river, and intercept the 250 +- acre pit. Rather than attempt to calculate a dry and wet season water balance, an evaluation of historic rainfall and discharge conditions was conducted based on data collected during the years 1998 through 2011.

As a first step, historic rainfall and discharge quantities were evaluated to identify reliable correlations. As would be expected discharge quantities were not well correlated with rainfall as a result of confounding effects associated with starting dredge pond levels, groundwater conditions, evapotranspiration rates, and complex and variable surface water runoff conditions. Since none of these factors are monitored their effects could not be specifically quantified. Accordingly, various lag and averaging scenarios were evaluated to identify the strongest correlation between rainfall and discharge. Exhibit II shows the strongest correlation identified (3-month rolling average rainfall with a one month lag in discharge), which was utilized in subsequent analyses.

To address the question of variability with respect to wet and dry weather conditions, a frequency analysis of the observed (1998 through 2011) 3-month rolling average rainfall quantities was conducted. Associated discharge quantities were correlated by descritizing and averaging observed discharges in terms of observed rainfall frequencies. Exhibit III shows the frequency distribution of observed rainfall and correlated discharge quantities.

Exhibit III provides a continuous distribution estimate of expected discharges from the Ortona Sand Mine correlated relative to precipitation probability and can be generalized as follows:

- **For the wettest conditions expected to occur 25 percent of the time, precipitation is expected to vary between 7 and 13 inches per month and the associated discharge is expected to vary from approximately 4 to 10 million gallons per day.**

- **For the inner quartile range of conditions (percent of time equaled or exceeded ranging from 25 to 75 percent), precipitation is expected to vary**

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D.E.P. South District

between 2 and 7 inches per month and the associated discharge is expected to vary from approximately 1.5 to 4 million gallons per day.

- **For the driest conditions expected to occur 25 percent of the time, precipitation is expected to vary from nearly 0 to 2 inches per month and the associated discharge is expected to vary from approximately 0 to 1.5 million gallons per day.**

- **For median conditions, monthly precipitation is expected to total approximately 4 inches per month with an associated discharge rate of approximately 2.8 million gallons per day.**

b. Please evaluate the quantity and sources of the discharge and report your findings on Page 2CS 18, Table IV.B.

Discharge sources for the Ortona Sand Mine include precipitation and groundwater inflows to the dredge pond. Please refer to Exhibit IV, Page 2CS 18, Table IV.B for the corrected discharge sources and quantities.

c. Please revise Section VII, as needed.

The revised maximum 30-day flow for the Ortona Sand Mine is 10 million gallons per day. The revised annual average flow is 2.8 million gallons per day. Please refer to Exhibit 1 for the revised maximum 30-day and annual average flows.

3. Please verify the latitude and longitude coordinates of the outfall. The given coordinates appear to be a point in the center of the barge canal.

Please refer to Exhibits V, depicting the location, and VI for the corrected latitude and longitude coordinates contained on page 2CS-16.

4. Please refer to page 2CS-17, Item III G. Please state whether you intend to continue use of the discharge's mixing zone.

E.R. Jahna plans to continue use of the aforementioned mixing zone for the purpose of pH compliance. Please refer to Exhibit VII, which contains the requested revision to page 2CS-17, Item III G.

5. If you intend to use the aforementioned mixing zone, please provide the latitude and longitude coordinates of monitoring location SWB-001.

Please refer to Exhibit V for the latitude and longitude coordinates of monitoring location SWB-001.

6. Please refer to the site plan. The background turbidity sample point and compliance pH sample point may not be the same location. Please propose a new monitoring location for the background turbidity.

   Please refer to Exhibit V for the proposed new monitoring location for background turbidity.

Please note also the inclusion of a revised site plan as Exhibit VIII. This revision incorporates the location changes requested in questions 5 and 6.

We trust that this answers the FDEPs questions. If you need any additional information, please don't hesitate to contact us.

Sincerely,

Leon C. Seale III, P.E.
Project Manager, Mining Services

LS:nb

cc: Kirk C. Davis, E. R. Jahna Industries, Inc.

Enclosures

CERTIFICATION
Lakeland

Engineering Certification

I hereby certify that I am a registered professional engineer in the State of Florida practicing with AMEC Environment & Infrastructure, Inc., (AMEC) 2000 E. Edgewood Drive, Suite 215, Lakeland, FL 33803, a corporation authorized to operate as a business providing engineering consulting services (5392) by the State of Florida Department of Professional Regulation, Board of Engineers. I further certify that I, or others under my direct supervision, have prepared the geotechnical engineering evaluations, findings, opinions, calculations, conclusions or technical advice hereby represented in this report.

SIGNATURE:

NAME: Leon C. Seale II, P.E.

LICENSE No.: 72344

DATE: February 21, 2012

Report Title:

Request for Additional Information
Renewal of Industrial Wastewater Permit No. FL0037541-002-IW3S
E.R. Jahna Industries, Inc.
Ortona Sand Mine, Glades County, Florida

AMEC Project No. 300438

Exhibit I
E.R. Jahna Industries, Inc.
Ortona Sand Mine – Request for Additional Information

Facility ID. Number: FL0037541 Outfall No. 001

PLEASE PRINT OR TYPE ONLY: You may report some or all of this information on separate sheets instead of completing these pages. Use the same format.
SEE INSTRUCTIONS.

VII. INTAKE AND EFFLUENT CHARACTERISTICS

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. Pollutant	2. Effluent							3.. Units		4. Intake (optional)		
	a. Max. Daily Value		b. Max. 30-day Value		c. Annual Avg. Value		d. No. of Analyses	a. Concentration	b. Mass	a. Long Term Avg. Value		b. No. of Analyses
	(1) Conc.	(2) Mass	(1) Conc.	(2) Mass	(1) Conc.	(2) Mass				(1) Conc.	(2) Mass	
a Carbonaceous Biochemical Oxygen Demand (CBOD)	1.0	22.6	N/A	N/A	N/A	N/A	1	mg/L	kg			
b. Chemical Oxygen Demand (COD)	5	113.0	N/A	N/A	N/A	N/A	1	mg/L	kg			
c. Total Organic Carbon (TOC)	7.1	160.5	N/A	N/A	N/A	N/A	1	mg/L	kg			
d. Total Suspended Solids (TSS)	3.6	81.4	N/A	N/A	N/A	N/A	1	mg/L	kg			
e. Total Nitrogen (as N)	0.15	3.39	N/A	N/A	N/A	N/A	1	mg/L	kg			
f. Total Phosphorus (as P)	0.5	11.3	0.5	N/A	N/A	N/A	1	mg/L	kg			
g. Ammonia (as N)	0.021	0.47	N/A	N/A	N/A	N/A	1	mg/L	kg			
h. Flow - actual or projected	Value 5.97		Value 10.0		Value 2.8		41	N/A	mgd	Value		
i. Flow - design	Value N/A		Value Intermittent		Value N/A		N/A	N/A	mgd	Value		
j. Specific Conductivity	Value 324		Value N/A		Value N/A		1	µmhos/cm	µmhos/cm	Value		
k. Temperature (winter)	Value N/A		Value N/A		Value N/A		N/A	°C		Value		
l. Temperature (summer)	Value N/A		Value N/A		Value N/A		N/A	°C		Value		
m. . pH	Min. 7.12	Max 7.66	Min. 7.12	Max. 7.66			1	STANDARD UNITS				

PART B - Mark "X" in column 2a for each pollutant you know or have reason to believe is present. Mark "X" in column 2b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additonal details and requirements.

1. Pollutant and CAS No. (if available)	2. Mark "X"		3. Effluent						d. No. of Analyses	4. Units		5. Intake (optional)		
	a. believed present	b. believed absent	a. Maximum Daily Value		b. Max. 30-day Value (if available)		c. Long Term Avg. Value (if available)			a. Conc.	b. Mass	a. Long Term Avg. Value		b. No. of Analyses
			(1) Conc...	(2) Mass	(1) Conc.	(2) Mass	(1) Conc.	(2) Mass				(1) Conc.	(2) Mass	
a. Bromide (24949-67-9)	☐	☒												
b. Chlorine, Total Residual	☐	☒												
c. Color	☐	☒												
d. Fecal Coliform	☐	☒												
e. Fluoride (16984-48-8)	☐	☒												
f. Nitrate-Nitrite s N)	☐	☒												

Exhibit II
E.R. Jahna Industries, Inc.
Ortona Sand Mine – Request for Additional Information

3-Month Rolling Average Rainfall vs. Total Monthly Discharge Lagged by One Month.

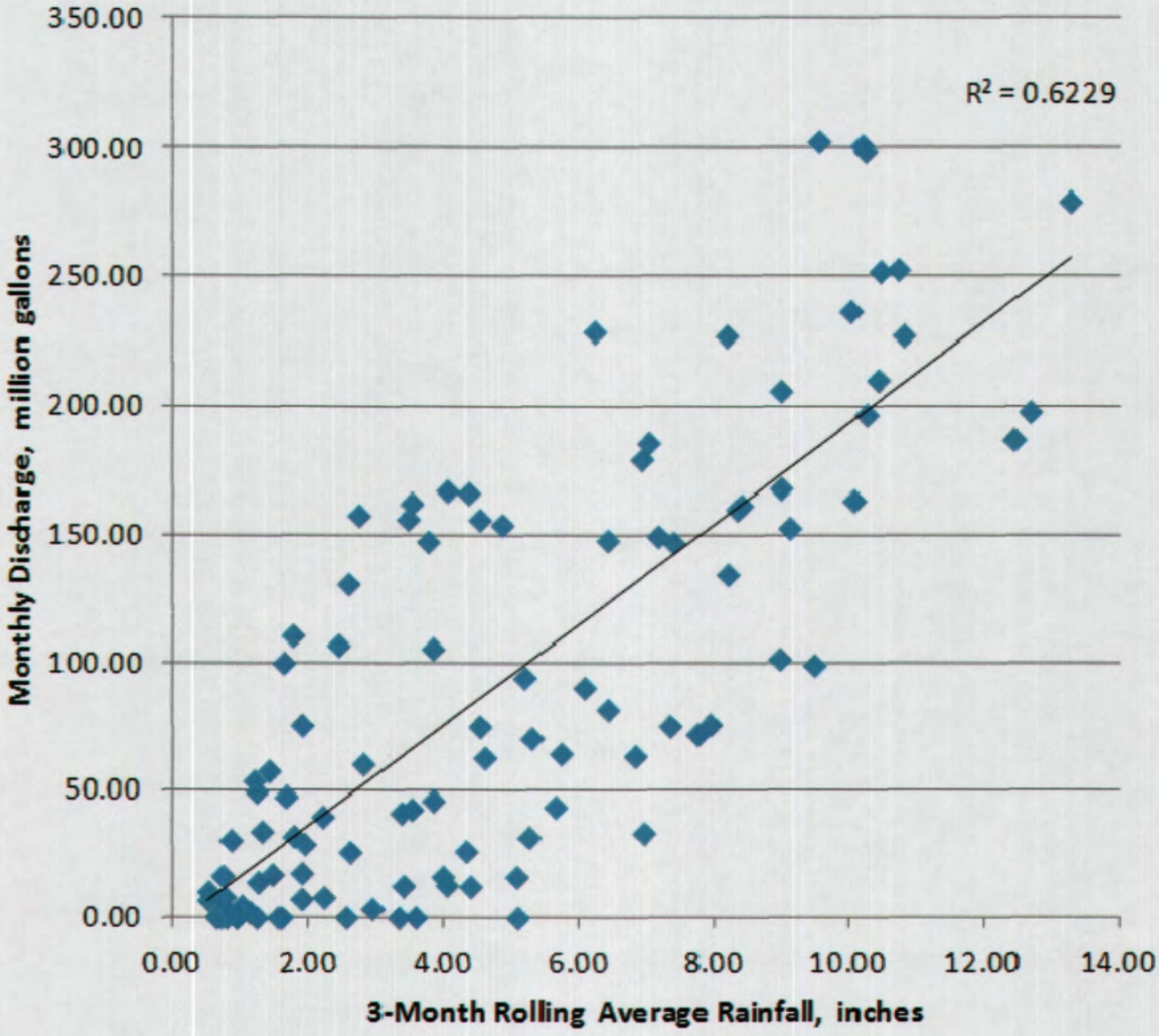


Exhibit III
E.R. Jahna Industries, Inc.
Ortona Sand Mine – Request for Additional Information

Frequency Distribution of Observed Rainfall and Correlated Discharge, Observed Data 1998 through 2011.

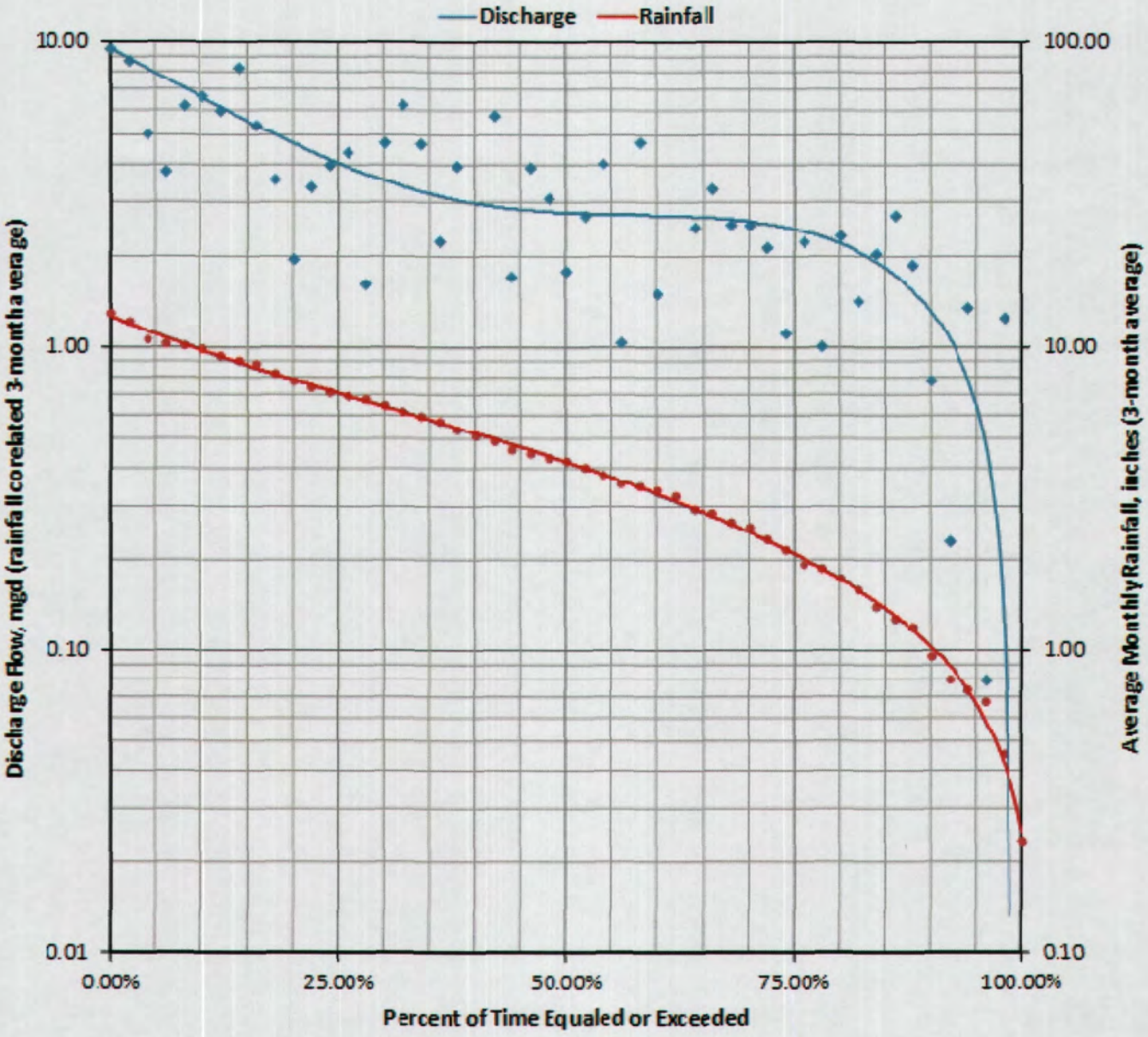


Exhibit IV
E.R. Jahna Industries, Inc.
Ortona Sand Mine – Request for Additional Information

IV B. Contd. Facility I.D. Number: FL0037541

(1) Outfall No. (List)	(2) Operation(s) Contributing Flow		(3) Treatment		
	(a) Operation (list)	(b) Avg. Flow & Units	(a) Description	(b) List Code from Table 2CS-1	
001	Precipitation and groundwater inflows	2.8 MGD	Gravity settling within the dredge pond	1-U	

Drawings are Exempt from s.119.07 (1) and s. 24(a), Art. 1 of the State Constitution

These figures have been moved to the Plans and Specifications Profile in the Wastewater Restricted Catalog.

Aerials

Exhibit VI
E.R. Jahna Industries, Inc.
Ortona Sand Mine – Request for Additional Information

FORM
2CS

WASTEWATER APPLICATION FOR PERMIT TO DISCHARGE PROCESS WASTEWATER FROM NEW OR EXISTING INDUSTRIAL WASTEWATER FACILITIES TO SURFACE WATERS

Facility I.D. Number: FL0037541

Please print or type information in the appropriate areas.

I OUTFALL LOCATION For each outfall, list the X,Y coordinates and the name of the receiving water.
(latitude/longitude to the nearest 15 seconds)

A. Outfall No. (List)	B. Latitude			C. Longitude			D. Name of Receiving Water
	Deg.	Min.	Sec.	Deg.	Min.	Sec.	
001	26	48	11.1	81	17	23.3	Caloosahatchee River
							(1/4 mile south of outfall)

II OUTFALL DESIGN

A. Outfall No. (List)	B. Design Configuration and Construction Materials	C. Distance from shore	D. Diameter	E. Elevation of Discharge Invert (MSL)	F. Receiving Water Depth at POD (MSL)
001	12-foot wide fixed crested rectangular weir with sharp weir blade on crest and side edges.	10 feet	N/A	13.77 feet	-26 feet
	Weir box discharges through two 4-foot by 6-foot box culverts.				

Exhibit VII
E.R. Jahna Industries, Inc.
Ortona Sand Mine – Request for Additional Information

Facility I.D. Number: FL0037541

III RECEIVING WATER INFORMATION

For each surface water that will receive effluent, supply the following information:

A. Name of Receiving Water	B. Check One		C. Classification (See Ch. 62-302, F.A.C.)	D. Type of Receiving Water (canal, river, lake, etc.)
	Fresh	Salt or Brackish		
Caloosahatchee River finger canal	☒	☐	Class III	Canal (man-made)
	☐	☐		
	☐	☐		
	☐	☐		
	☐	☐		
	☐	☐		

E. Minimum 7-day 10-year low flow of the receiving water at each outfall (if appropriate).

F. Identify and describe the flow of effluent from each outfall to a major body of water. A suitably marked map or aerial photograph may be used. **See attached Site Facility Plan (Exhibit 1).**

G. Do you request a mixing zone under Rule 62-4.244, F.A.C.? If yes, for what parameters or pollutants? **Jahna plans to continue use of the established mixing zone as shown on the Site Facility Plan (Exhibit 1). pH is the sole parameter monitored in the mixing zone located in the receiving finger canal. Turbidity shall be monitored downstream of the mixing zone at a newly proposed location shown on the site plan.**

IV FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures. **Refer to Narrative**.

B. For each outfall, provide a description of:

1. All operations contributing wastewater to the effluent; including process wastewater, sanitary wastewater, cooling water, and stormwater runoff; **- Wastewater contributions include stormwater runoff, direct rainfall, and recirculated mine process water associated with the sand mine operation.**

2. The average flow contributed by each operation; **– The hydraulic dredges (two used at facility) pump a water and sand slurry to the sand processing plant which is recycled back to the dredge pond in a closed loop system. Only one dredge operates at a time. The dredge pumps at a rate of approximately 7000 gpm, and typically runs an average of 10 hours per day, 5 days per week depending on market demand for the sand. Hours of operation may extend to 24-hours per day during high demand periods.**

3. The treatment received by the wastewater. – **The sand plant washes and sorts the sand, and returns water and fines to the dredge pond. The pond effectively removes suspended solids via gravity settling. Stormwater runoff enters the pit primarily from the north and east. Stormwater contributions are generally intermittent and are dependent on local rainfall.**

Moon, Nolin

From: Moon, Nolin
Sent: Monday, January 23, 2012 3:08 PM
To: 'kdavis@jahna.com'
Cc: 'leon.seale@amec.com'
Subject: Ortona Sand Mine Wastewater Application - Extension of Due Date

Dear Mr. Davis,

Thank you for letting the Department know that you and your engineers will need additional time to answer the request for additional information. The new due date for your response is February 23, 2012. Please contact me if you have any questions.

Sincerely,

Nolin W. Moon, P.E.
Engineering Specialist IV
(239) 344-5672

FDEP South District Office
2295 Victoria Avenue, Ste 364
P.O. Box 2549
Fort Myers, FL 33902-2549

Cover Florida, developed by Governor Charlie Crist and the Florida Legislature, gives Floridians access to more affordable health insurance options. To learn more or to sign up for email updates, visit www.CoverFloridaHealthCare.com.

January 19, 2012

Nolin W. Moon, P.E.
FDEP South District Office
2295 Victoria Avenue, Ste 364
P.O. Box 2549
Fort Myers, FL 33902-2549

Re: Glades County Industrial Wastewater Permit Renewal
Ortona Sand Mine Application No. FL0037541-003
Caloosahatchee Basin
AMEC Project No. 300438

Dear Mr. Moon:

Thank you for your response to our recent application for the Ortona Sand Mine Industrial Wastewater Permit Renewal (No. FL0037541-003) submitted by AMEC Environment & Infrastructure, Inc. (AMEC), on behalf of E. R. Jahna Industries, Inc. We have reviewed the request for additional information, and are currently working to address the noted issues. Due to the data search required and the time necessary to calibrate and verify the method used to complete the wet and dry-weather water balance, AMEC respectfully requests a 60-day extension of the January 23, 2012 deadline. If you have any questions concerning this request please contact me at (863) 667-2345. Thank you for your help with this application.

Sincerely,

Leon C. Seale, III P.E.
Project Manager, Mining Services

ls/nb

cc: Kirk Davis, E.R. Jahna Industries, Inc.

AMEC
Environment & Infrastructure
2000 E. Edgewood Drive, Suite 215
Lakeland, Florida
USA 33803
Tel (863) 667-2345
Fax (863) 667-2662

Moon, Nolin

From: Kirk Davis [kdavis@jahna.com]
Sent: Friday, January 20, 2012 11:31 AM
To: Moon, Nolin
Subject: RE: Ortona Sand Mine Wastewater Permit

Mr. Moon,

AMEC is assisting Jahna in responding to your request for additional information. You should have received a request for time extension from Mr. Seale by overnight mail. As soon as our response is completed we will forward the information to you for your review.

Sincerely,

Kirk Davis

From: Moon, Nolin [mailto:Nolin.Moon@dep.state.fl.us]
Sent: Thursday, December 22, 2011 10:49 AM
To: kdavis@jahna.com
Cc: leon.seale@amec.com
Subject: Ortona Sand Mine Wastewater Permit

Dear Mr. Davis,

Please read the attached request for additional information regarding your application for a wastewater permit.

Sincerely,

Nolin W. Moon, P.E.
Engineering Specialist IV
(239) 344-5672

FDEP South District Office
2295 Victoria Avenue, Ste 364
P.O. Box 2549
Fort Myers, FL 33902-2549

Please take a few minutes to share your comments on the service you received from the department by clicking on this link. DEP Customer Survey.

Moon, Nolin

From: Moon, Nolin
Sent: Thursday, December 22, 2011 10:49 AM
To: 'kdavis@jahna.com'
Cc: 'leon.seale@amec.com'
Subject: Ortona Sand Mine Wastewater Permit
Attachments: RAI.pdf

Dear Mr. Davis,

Please read the attached request for additional information regarding your application for a wastewater permit.

Sincerely,

Nolin W. Moon, P.E.
Engineering Specialist IV
(239) 344-5672

FDEP South District Office
2295 Victoria Avenue, Ste 364
P.O. Box 2549
Fort Myers, FL 33902-2549

Florida Department of Environmental Protection

South District Office
Post Office Box 2549
Fort Myers, Florida 33902-2549

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

SENT VIA ELECTRONIC MAIL

December 22, 2011

E. R. Jahna Industries, Inc.
Kirk S. Davis
Director of Environmental and Geological Services
kdavis@jahna.com

Re: Glades County - IW
Ortona Sand Mine Wastewater
Application for Renewal
Application No. FL0037541-003
Caloosahatchee Basin

Dear Mr. Davis:

Thank you for your application for a wastewater permit for the above referenced facility. A Department staff review of the application and supporting documentation submitted on November 30, 2011, indicates the application is incomplete. Pursuant to the provisions of Section 62-620.510, Florida Administrative Code (FAC), please provide the following information:

1. Please refer to Form 2CS Section VII, Part A. Please complete column 2.a. Columns 2.b and 2.c should be completed if the data is available. Please note that you should incorporate the field monitoring data in Exhibit 3 and the results reported in the monthly discharge monitoring reports (DMRs). *[Form Instructions]*

2. The permit states that the discharge has an average daily flow of 1.5 million gallons per day (MGD) during rainfall events. The submitted DMRs report average values significantly greater than 1.5 MGD.

    a. Please submit a wet-weather water balance and a dry-weather water balance.
    b. Please evaluate the quantity and sources of the discharge and report your findings on Page 2CS 18, Table IV.B.
    c. Please revise Section VII, as needed.

    [Form Instructions and 120.60(1), Florida Statues]

3. Please verify the latitude and longitude coordinates of the outfall. The given coordinates appear to be a point in the center of the barge canal. *[Form Instructions]*

4. Please refer to page 2CS-17, Item III G. Please state whether you intend to continue use of the discharge's mixing zone. *[62-4.244(1)(f), FAC]*

5. If you intend to use the aforementioned mentioned mixing zone, please provide the latitude and longitude coordinates for monitoring location SWB-001. *[62-601.500(3), FAC]*

6. Please refer to the site plan. The background turbidity sample point and compliance pH sample point may not be the same location. Please propose a new monitoring location for the background turbidity. *[62-302.200(3)]*

The application will remain incomplete until receipt of the requested information. Please refer to this letter in your response and submit three copies, an original and two duplicates, of your response and

supporting documentation. Also, it is important that your response to this correspondence must be signed, sealed and dated by an engineer registered in the State of Florida.

Please note that pursuant to Rule 62-620.510(5), FAC, and Section 120.60, Florida Statutes, failure of an applicant to provide the timely requested information by the applicable deadline shall result in denial of the application. Please submit the requested information by January 23, 2012.

Please note that Chapter 62 of the Florida Administrative Code is available online at www.dep.state.fl.us/legal/Rules/mainrulelist.htm and the Florida Administrative Code is also available at www.flrules.org.

Should you have any questions, please contact me at (239) 344-5672. Thank you for your continued cooperation.

Sincerely,

Nolin Moon

Nolin W. Moon, P.E.
Engineering Specialist IV

Copy furnished to:
Leon C. Seale, III, P.E.

Memorandum

Florida Department of Environmental Protection

SOUTH DISTRICT

MEMO TO FILE
TELEPHONE CONVERSATION

TIME: 11:05 DATE: 12/16/11

PERSON TALKED TO: Virginia Buff

ORGANIZATION: EPA

FILE NO.: FL0037541-003 PHONE NUMBER: Called in

SUBJECT: EPA review of application

Ms. Buff was informed of the Ortona Sand Mine IW application for discharge and the existing mixing zone. The EPA has not reviewed the discharge for permit applications since 1996.

Ms. Buff stated that EPA will not review the applications for industrial wastewater discharges if they are for minor, non significant industries

She is aware that the discharge is 1.5 MGD

NAME & INITIAL: Nolin Moon NM

Moon, Nolin

From: Moon, Nolin
Sent: Thursday, December 08, 2011 4:45 PM
To: Livingston, Eric
Cc: Hubbard, Allen; Neuman, Lou
Subject: Ortona Sand Mine

Dear Mr. Livingston,

The owner of the Ortona Sand Mine applied for a permit renewal for the industrial wastewater discharge (number FL0037541). The application is for an individual permit to discharge process wastewater in surface waters. No chemical or additional water is added to the process water by the mining operation; the discharge occurs only during rain events. The facility has another permit issued by the Bureau of Mines (number 0211198). According to the permit writer for the mine permit, this is the only NPDES sand mine in Florida.

Should this discharge be authorized by an individual wastewater permit, a mine permit, an MSGP, or some other type of permit?

Sincerely,

Nolin W. Moon, P.E.
Engineering Specialist IV
(239) 344-5672

FDEP South District Office
2295 Victoria Avenue, Ste 364
P.O. Box 2549
Fort Myers, FL 33902-2549

Answer by phone call: the ~~Discharge~~ Facility must have a mine permit a storm water permit, and an industrial wastewater permit

- Nolin Moon 12/9/11

Memorandum

Florida Department of Environmental Protection

SOUTH DISTRICT

MEMO TO FILE
TELEPHONE CONVERSATION

TIME: 2:45 DATE: 12/8/11

PERSON TALKED TO: Kirk S. Davis

ORGANIZATION: E.R. Jahna Industries, Inc.

FILE NO.: FL0037541-003 PHONE NUMBER: 863-676-9431

SUBJECT: Preference of Correspondence

Mr. Davis prefers E-mail over normal mail for correspondence regarding the application for the Ortona Sand Mine.

The draft, intent, and permit will be e-mailed.

His e-mail address is kdavis@jahna.com

NAME & INITIAL: Nolin Moon NM

DEPARTMENT OF ENVIRONMENTAL PROTECTION
WATER FACILITIES - PERMIT DATA ENTRY FORM

Program Area: PW DW IW UIC

THIS FORM MUST BE COMPLETED AND RETURNED TO THE DATA PROCESSING TEAM WITHIN THREE BUSINESS DAYS FROM THE CHECK DATA RECEIVED LISTED BELOW, SUSPENSE 12/5/2011

LOG # 473 PROCESSOR'S NAME NM

CASH RECEIVING INFORMATION:

Check # 00079303 Amount $2,500.00 Date Rec'd 11/30/2011

Check # _____ Amount _____ Date Rec'd _____

CODING INFORMATION:		FEE INFORMATION:		OVERRIDE INFORMATION.:
Type	IWBS	Correct Fee	$2500.00	Override? Y or N
Subtype	NR	Fee Received	$2,500.00	Reason:
County	26	To Be Refunded	$ —	

SysReceipt # 764102 SysPayment # 1123330

SysApplication/PA # FL0037541 -003 - IWBS/NR CRA # 378894

WAFR Input: Facility # # _____ Generic PA Input: Site _____

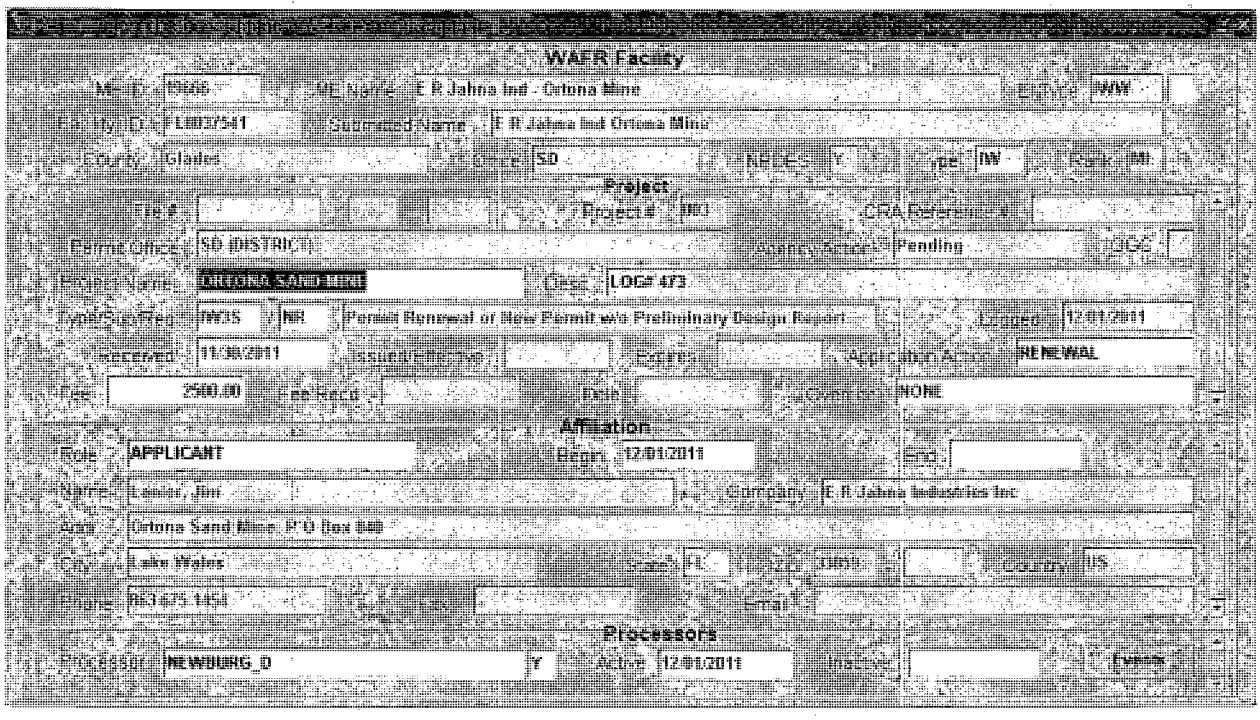
PROJECT: Ortona Sand Mine

FACILITY: Same

SUSPENSE (3 DAYS)	Receipt Date (Initial & Date)	Completion Date (Initial & Date)
Mailroom Processor (Stamping & Sorting)	RCD 11/30/2011	
Administrative Assistant (Mail Pick Up)		
Adm. Assistant (Fee Verification, Coding, & Assign Program)		
Permit Supervisor (PW)		
Permit Processor (Data Entry)	J.C. 12/01/11	
Senior Clerk (Project Creation & Money Linking)	DKD 12/01/11	DKD 12/01/11

COMMENTS:

Formsa\PDEntry 06-11-10 *isc


WAFR Facility
ME ID: 9666
ME Name: E R Jahna Ind - Ortona Mine
Facility ID: FL0037541
Submitted Name: E R Jahna Ind Ortona Mine
County: Glades
Office: SD
Notes: Y
Type: IW
Rank: MI
Project
File #:
Project #: NEW
CRA Reference #:
Permit Office: SD DISTRICT
Agency Action: Pending
LOG
Project Name: ORTONA SAND MINE
Desc: LOG# 473
Type/SubType: IW3S / NR
Permit Renewal or New Permit w/o Preliminary Design Report
Logged: 12/01/2011
Received: 11/30/2011
Issued/Effective:
Expires:
Application Action: RENEWAL
Fee: 2500.00
Fee Recd:
Date:
Contact: NONE
Affiliation
Role: APPLICANT
Begin: 12/01/2011
End:
Name: Lester, Jim
Company: E R Jahna Industries Inc
Addr: Ortona Sand Mine, P O Box 848
City: Lake Wales
State: FL
Zip: 33859
Country: US
Phone: 8631675 1454
Email:
Processors
Processor: NEWBURG_D
Y
Active: 12/01/2011
Inactive:
Events

December 01, 2011

E.R. Jahna Industries, Inc.
P. O. Drawer 840
Lake Wales FL 33859-0840

Dear Sir or Madam:

RE: Receipt Number 764102

Your remittance, check number 00079303 in the amount of $2,500.00, was received by the Department of Environmental Protection on November 30, 2011. Any future inquires regarding this payment should reference the above receipt number.

Sincerely,

Doretha Dick, Admin.
Department of Environmental Protection

dd

cc

November 28, 2011

Mr. Charles R. Davault
Industrial Wastewater Section
Florida Department of Environmental Protection
P.O. Box 2549
Fort Myers, FL 33902

RE: Renewal of Industrial Wastewater Permit No. FL0037541-002-IW3S
E.R. Jahna Industries, Inc.
Ortona Sand Mine, Glades County, Florida
AMEC Project No. 300438

Dear Mr. Davault:

Enclosed are two copies of the renewal application for Industrial Wastewater Permit No. FL0037541-002-IW3S, which is for the E.R. Jahna Industries, Inc. Ortona Sand Mine in Glades County, Florida. The current permit will expire on May 31, 2012.

The enclosed application includes a brief narrative, completed Florida Department of Environmental Protection Water Facility Forms 1 and 2CS, related exhibits, and a $2,500 check for the application fee. A facility site plan is also included that illustrates the major operational components of the mine on a recent aerial photograph.

If you have any questions or would like to schedule a site visit, please contact me at (863) 667-2345 ext 296 or Kirk Davis, Director of Environmental and Geologic Services at E.R. Jahna, at (863) 676-9431.

Sincerely,

Leon C. Seale III, P.E.
Mining Project Manager

lcs/nb
Attachments
cc: Mr.Kirk Davis, P.G., E.R. Jahna Industries, Inc.

RECEIVED
NOV 30 2011
D.E.P. South District

AMEC
2000 E. Edgewood Drive, Suite 215
Lakeland, Florida
USA 33803
Tel (863) 667-2345
Fax (863) 667-2662
www.amec.com

FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION
Renewal of Industrial Wastewater Permit
Ortona Sand Mine
Moore Haven, Florida

IW Permit Number FL0037541-002-IW3S

Prepared For:
E.R. Jahna Industries, Inc.

Prepared By:

AMEC
2000 E. Edgewood Drive Suite 215
Lakeland, FL 33803
863-667-2345

Project Number 300438

November 2011

RECEIVED
NOV 3 0 2011
D.E.P. South District

PERMIT RENEWAL CONTENTS

Narrative

Application - FDEP Form 1

Application - FDEP Form 2CS

Exhibits

- Exhibit 1 - Facility Site Plan
- Exhibit 2 - As-built Certification
  - Notification of Completion of Construction for Wastewater Facilities
  - FDEP Bureau of Mine Reclamation Certification
- Exhibit 3 - Field Monitoring Data
- Exhibit 4 - Water Discharge Graphs
- Exhibit 5 - Water Quality Report of Results

NARRATIVE

The Florida Department of Environmental Protection (FDEP) issued Industrial Wastewater (IW) Permit No. FL0037541-002-IW3S to E. R. Jahna Industries, Inc. (Jahna) for their Ortona Sand Mine in Moore Haven, Florida on December 24, 1996. The IW permit was renewed on April 30, 2002, and again on May 31, 2007. The mining operation includes two dredges that pump a sand/water slurry to the washer plant. The plant sorts the sand by size and returns water and fines to the mine dredge pond. The pond effectively removes suspended solids via gravity settling. Water is added to the pit via direct rainfall, surface water runoff (primarily from the south and east), and ground water inflows. Stormwater contributions are generally intermittent and are dependent on local rainfall. Water is removed from the pit via evaporation, lateral ground water flows, and surface discharge through a fixed crested weir.

Water discharges from the dredge pond to a barge canal via a weir constructed as a condition of the 1996 IW permit. The barge canal flows south to the Caloosahatchee River. The enclosed Facility Site Plan (**Exhibit 1**) is an aerial photograph that includes the location of the dredges, plant site, and outfall structure.

The outfall structure consists of a 12-foot wide fixed crested weir overflow box and two 4-foot by 6-foot concrete box culverts. The weir invert controlling discharge from the mine pit is at an elevation of 13.77 feet MSL. Coordinates for the weir are 80° 17' 22" west longitude, and 26° 48' 8" north latitude. Construction on the outfall structure began in December 1997, and the structure became operational on January 1, 1998. **Exhibit 2** includes a Notification of Completion of Construction of Wastewater Facilities dated February 27, 1998. Also included in **Exhibit 2** is a certification acknowledgement from the FDEP Bureau of Mine Reclamation dated March 31, 1998.

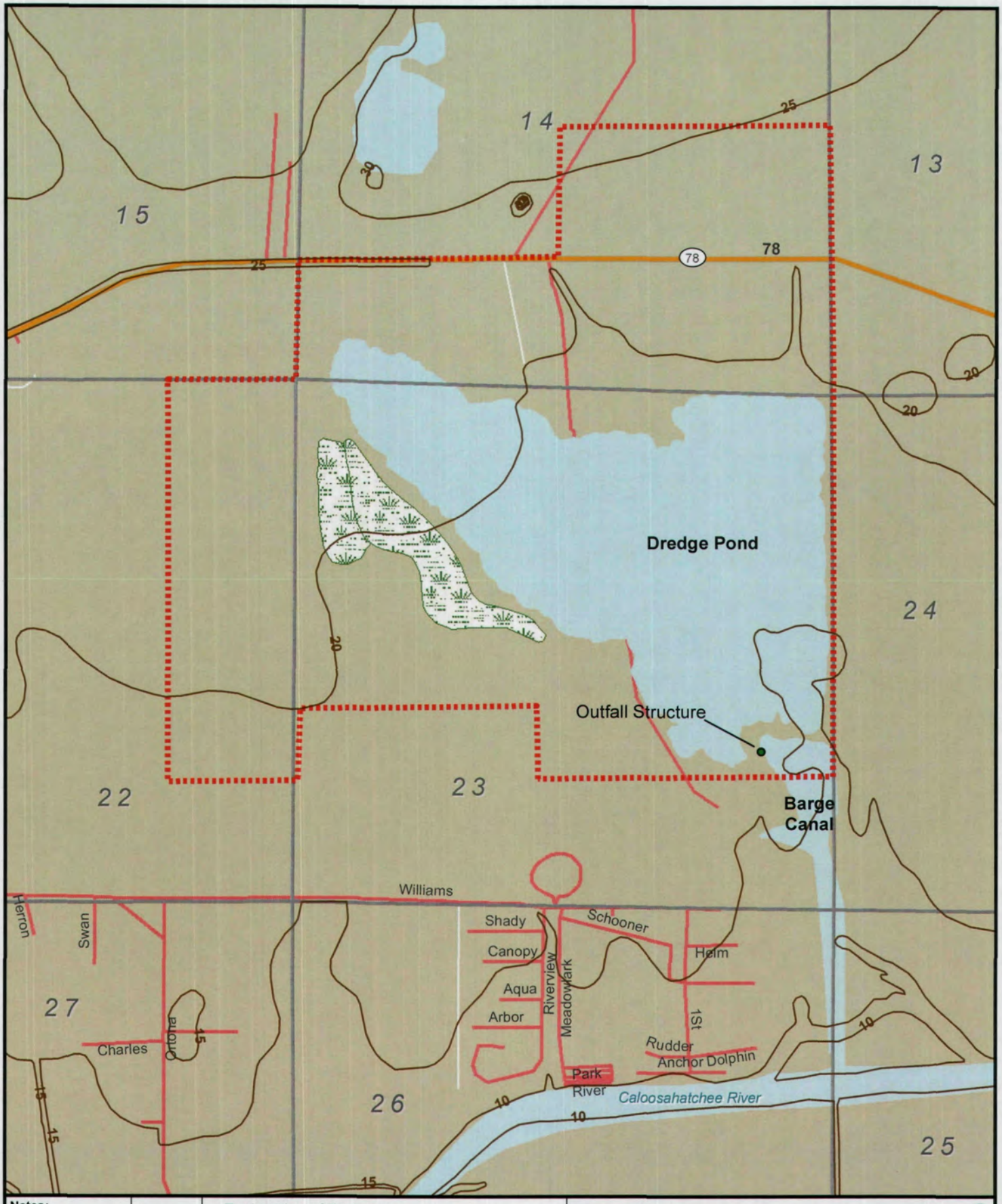
Jahna Ortona Sand Mine operates under additional environmental permits. These include Environmental Resource Permit No. 0211198-001 and U.S. Army Corps of Engineers permit No. 198990596 (IP-ML). In addition, the mine has a Water Use Permit from the South Florida Water Management District (#22-00076-W).

The current IW permit requires the operator to report the maximum daily, and daily average discharges on a monthly basis. In addition, turbidity in the outfall, and background turbidity and pH in the receiving barge canal are measured once on the first discharge of the month. **Exhibit 3** includes field monitoring data for the period July 2007 through September 2011. **Exhibit 4** includes two graphical illustrations of the water quality (pH and turbidity) and flow data. **Exhibit 4A** is a plot of rainfall, maximum daily flow and total monthly flow. **Exhibit 4B** is a plot of pH (in the barge canal), turbidity (at the outfall) and total monthly flow. Calibration logs and up-to-date calibration standards for water quality instruments are kept at the Ortona Mine site, and are available for FDEP inspection.

Water quality samples were collected from the dredge pond on August 13, 1996 prior to the application submittal. Further sampling was accomplished on September 5, 2001, September 19, 2006, and most recently November 1, 2011 as part of this permit renewal effort. **Table 1** below includes a summary of the water quality data. **Exhibit 5** includes the November 2011 laboratory Report of Results.

Table 1
Comparison of Water Quality Data
From the Ortona Sand Mine Dredge Pond

Parameter	Units	Sample 8/13/1996	Sample 9/5/2001	DEP Watershed Monitoring Program 10/15/01					Sample 9/19/2006	Sample 11/1/2011
BOD	mg/l	<1.0	<2.0	---	---	---	---	---	<2.0	<2.0
pH	S. U.	3.46	6	6.07	6.03	5.9	6.01	6.02	6.7	7.22
Total Suspended Solids	mg/l	<1.0	<5.0	1.36	<6.0	<5.0	<4.0	<6.0	32	3.6
Specific Conductance	µS/cm	410	330	328	328	327	326	327	255	324
Total Nitrogen	mg/l	<0.10	<0.25	0.089	0.11	0.1	0.11	0.12	0.39	0.15
Total Phosphorus	mg/l	0.03	0.1	0.048	0.065	0.055	0.05	0.065	0.85	<0.10
Total Organic Carbon	mg/l	0.55	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.4	7.1
Ammonia - Nitrogen	mg/l	<0.01	<0.05	<0.01	<0.01	<0.01	0.024	<0.01	0.029	0.021
Chemical Oxygen Demand	mg/l	14	20	---	---	---	---	---	35	<10



Notes:

1- Project No.: 300438

2- *Data Source* - 2011 Aerial Imagry

3- This map is intended to be used for planning purposes only. It is not a survey.

P.E.
FLA. REG. NO.

Date: 11/15/11
Revised:WH
Checked By: LS

Explanation of Features

- Outfall Structure
- *Topographic Contours*
- Mine Lease Boundary
- Section Lines
- Wetland Mitigation
- Water

N

0 0.125 0.25

1" = .25 Miles

Facility Site Plan
E.R. Jahna Industries, Inc.
Ortona Sand Mine
Glades County, Florida

AMEC - 2000 E. Edgewood Drive Ste #215 - Lakeland, FL 33803 - CA-0007867 - (863) 667-2345

Path: V:\300438_Jahna_ortona\MXD\Facility_Site_Plan_85x11_20111115.mxd

WASTEWATER FACILITY OR ACTIVITY PERMIT APPLICATION FORM 1 GENERAL INFORMATION

This form must be completed by all persons applying for a permit for a wastewater facility or activity under Chapter 62-620, F.A.C. See Form 1 to determine which other application forms you will need.

DESCRIPTION OF PERMIT APPLICATION FORMS

Form 1 - General information. This booklet includes general information on applying for a permit for a wastewater facility or activity under Chapter 62-620, Florida Administrative Code (F.A.C.). **Form 1 is required for all permit applications.**

Form 2 - Specific information. This group of forms includes the specific information required for the type of wastewater facility or activity for which a permit is needed. Select the appropriate form(s) to be submitted with Form 1.

- Form 2A - Domestic Wastewater Facilities.
- Form 2B - Concentrated Animal Feeding Operations and Aquatic Animal Production Facilities.
- Form 2CS -Industrial Wastewater Facilities (discharging process wastewater to surface waters).
- Form 2CG -Industrial Wastewater Facilities (discharging process wastewater to ground water).
- Form 2ES -Industrial Wastewater Facilities (discharging non-process wastewater to surface waters).
- Form 2EG -Industrial Facilities (discharging non-process wastewater to ground water).
- Form 2F - Stormwater Discharge Associated with Industrial Activity
- Form 2CR -Non-Discharging/Closed Loop Recycle System.

SECTION A - GENERAL INSTRUCTIONS

Who Must Apply:

Persons who are or are going to discharge wastewater to waters of Florida or the United States must file for and be granted a permit under Sections 403.087, 403.088, or 403.0885, Florida Statutes (F.S.). Persons that discharge stormwater associated with industrial activity to surface waters of the state must file for and be granted a permit under Section 403.0885, F.S. There are severe penalties for discharging without a permit.

There are some exceptions to this requirement. Discharges of domestic sewage from vessels and discharges from properly operating marine engines are not required to have a permit under the laws listed above. However, discharges of rubbish, trash, garbage or other such materials discharged overboard do require permits. Vessels operated in a capacity other than as a means of transportation are required to have a permit if they are discharging to waters. These types include vessels used as an energy or mining facility, a storage facility, a seafood processing facility, or an anchored facility for the purpose of mineral or oil exploration or development.

The introduction of sewage, industrial wastes, or other pollutants into a domestic wastewater treatment facility does not need a permit under Sections 403.087, 403.088 or 403.0885, F.S. Persons discharging to permitted wastewater treatment facilities must comply with all applicable pretreatment standards. If a person has a plan or an agreement to switch from direct discharge into waters of the state to discharge to a domestic treatment facility, it does not relieve the person from obtaining a permit for the discharge until such time as the connection is made and the discharge is stopped.

Most discharges from agricultural and silvicultural activities to waters of the state do not require a permit under Sections 403.087, 403.088, or 403.0885, F.S. However, permits under those sections are required for discharges from concentrated animal feeding operations, concentrated aquatic animal production facilities, activities associated with approved aquaculture projects, and silvicultural point sources.

Where to Apply:

Permit applications must be filed with the Department of Environmental Protection (DEP) district office shown in Figure 1 for the county in which the wastewater facility or activity is located, except for permit applications for steam electrical generating power plants which are filed with the DEP office in Tallahassee. DEP offices are located at

Figure 1. State Map Showing DEP District Offices

NORTHWEST DISTRICT
160 Government Center, Ste 308
Pensacola, Florida 32501-5794
Phone No. (850) 585-8300

NORTHEAST DISTRICT
7825 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256-7577
Phone No. (904) 448-4300

SOUTHWEST DISTRICT
13051 N. Telecom Parkway
Temple Terrace, Florida 33637-0926
Phone No. (813) 632-7600

CENTRAL DISTRICT
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767
Phone No. (407) 894-7555

SOUTH DISTRICT
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33901
Phone No. (239) 332-6975

SOUTHEAST DISTRICT
400 North Congress Avenue
West Palm Beach, Florida 33401
Phone No. (561) 681-6600

When to Apply:

Applications must be filed with the appropriate DEP office 180 days before your current permit expires or 180 days before startup of a new or modified facility. If the submitted application is for a new facility or for a modification of an existing facility, the information required for describing the construction must be filed at least 90 days before construction begins. The DEP encourages applicants to file the materials describing the construction of a new facility or the modification of an existing facility as early as possible to avoid problems with delays in startup or facility redesign to achieve effluent limitations.

Federal regulations provide that a new source in the NPDES program may not be constructed or started to be constructed before the issuance of an operation permit. Because of this regulation, a permit application for a new source may need to be submitted well in advance of the required 180 days.

Fees:

Application fees are listed in Section 62-4.050, Florida Administrative Code (F.A.C.). An application will not be processed until the application fee has been paid. If the DEP determines that a permit should be issued for less than five years duration, the application fee will be pro rated.

If a permit is issued for a surface water discharge, the permittee will be assessed a regulatory and surveillance program fee annually. Those fees are listed in Section 62-4.052, F.A.C. Failure to pay the annual fee may result in revocation of the permit.

Availability of Information to the Public:

Information contained in these applications forms will, upon request, be made available to the public for inspection and copying. However, you may request confidential treatment for certain information which you may submit to supplement the information requested on these forms. Section 62-620.302, F.A.C., and 40 CFR 2 provide set forth the procedures for making the claim. No information on Forms 1 and 2A through 2EG may be claimed as confidential.

Completion of Forms:

Unless otherwise specified in instructions to the forms, each item in each form must be answered. To indicate that each item has been considered, enter "NA", for not applicable, if a particular item does not fit the circumstances or characteristics of your facility or activity.

If you have previously submitted information to the DEP which answers a question, you may either repeat the information in the space provided or attach a copy of the previous submission. DO NOT WRITE "ON FILE". Some items in the form require narrative explanation. If more space is necessary to answer a question, attach a separate sheet entitled "Additional Information."

SECTION B - FORM 1 LINE-BY-LINE INSTRUCTIONS

This form must be completed by all applicants.

Completing This Form:

Please type or print in the underlined areas only. Some items have a limited number of spaces or characters so that your response may be entered into a computer program. Please do not exceed this maximum number with your response. Abbreviate if necessary to stay within the number of characters allowed for each item. Use one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response.

Item I

Space is provided at the upper right hand corner of Form 1 for insertion of your Facility Identification Number. If you have an existing facility, enter your identification number. If you don't know your identification number, please contact the appropriate DEP office which will provide you with your number. If your facility is new (not yet constructed), leave this item blank.

Item II

Answer each question to determine which supplementary forms you need to fill out. Be sure to check the glossary in Section C of these instructions for the legal definitions of any words you are not certain of their meaning.

If you answer "no" to every question, then you may not need a permit. However, you should call the appropriate district office to determine if you have made a correct determination. If you answer "yes" to any question, then you must complete and file the supplementary form by the deadline listed in Section A along with this form.

Item III

Enter the facility's official or legal name. Do not use a colloquial name.

Item IV

Give the name, title, and work telephone number of a person who is thoroughly familiar with the operation of the facility, with the facts reported in this application, and who can be contacted by reviewing offices if necessary.

Item V

Give the complete mailing address of the office where correspondence should be sent. This often is not the address used to designate the location of the facility or activity.

Item VI

Give the address or location of the facility identified in Item III of this form. If the facility lacks a street name or route number, give the most accurate alternative geographic information (for example, section number or quarter section number from county records or at intersection of Rts 426 and 22).

Item VII

List four, in descending order of significance, 4-digit standard industrial classification (SIC) codes which best describe your facility in terms of the principal products or services you produce or provide. Also, specify each classification in words. These classifications may differ from the SIC codes describing the operation generating the discharge from the facility.

SIC code numbers are descriptions which may be found in the "Standard Industrial Classification Manual" prepared by the Executive Office of the President, Office of Management and Budget, which is available from the Government Printing Office, Washington, D.C. Your local library may have a copy of this publication which you may use. Use the current edition of the manual. If you have any questions concerning the appropriate SIC code for your facility, please contact the appropriate DEP district office.

Item VIII-A

Give the name, as it is legally referred to, of the person, firm, public organization, or any other entity which operates the facility described in this application. This may or may not be the same name as the facility. The operator of the facility is the legal entity which controls the facility's operation rather than the plant or site manager. Do not use a colloquial name.

Item VIII-B

Indicate whether the entity which operates the facility also owns it by marking the appropriate box.

Item VIII-C

Enter the appropriate letter to indicate the legal status of the operator of the facility. Indicate "public" for a facility solely owned by a local government, such as a city, town, county, etc.

Items VIII-D through H

Enter the telephone number and address of the operator identified in Item VIII-A.

Item IX

Indicate whether the facility is located on Indian Lands.

Item X

Give the number of each presently effective wastewater and stormwater permit issued to the facility listed in this application. List relevant federal, state, and local permits. DO NOT LIST ALL YOUR PERMITS. LIST ONLY CURRENT ENVIRONMENTAL PERMITS RELATING TO THIS PROJECT.

Item XI

Provide a topographic map or maps of the area extending at least to one mile beyond the property boundaries of the facility which clearly show the following:

The legal boundaries of the facility;

The location and serial number of each of your existing and proposed intake and discharge structures;

All hazardous waste management facilities;

Each well where you inject fluids underground; and

All springs and surface water bodies in the area, plus all drinking water wells within 1/4 mile of the facility which are identified in the public record or otherwise known to you.

If an intake or discharge structure, hazardous waste disposal site, or injection well associated with the facility is located more than one mile from the plant, include it on the map, if possible. If not, attach additional sheets describing the location of the structure, disposal site, or well, and identify the U.S. Geological Survey (or other) map corresponding to the location.

On each map, include the map scale, a meridian arrow showing north, and latitude and longitude at the nearest whole second. On all maps of rivers, show the direction of the current, and in tidal waters, show the directions of the ebb and flow tides. Use a 7-1/2 minute series map published by the U.S. Geological Survey. If a 7-1/2 minute series map has not been published for your facility site, then you may use a 15 minute series map from the U.S. Geological Survey. If neither a 7-1/2 nor 15 minute series map has been published for your facility site, use a plat map or other appropriate map, including all the requested information; in this case, briefly describe land uses in the map area (for example, residential, commercial).

You may trace your map from a geological survey chart, or other map meeting the above specifications. If you do, your map should bear a note showing the number or title of the map or chart from which it was traced. Include the names of nearby towns, water bodies, and other prominent points.

You may obtain a topographic map from:

Eastern Mapping Center
National Cartographic Information Center
U.S. Geological Survey
536 National Center
Reston, VA 22092

Item XII

Briefly describe the nature of your business (for example, products produced or services provided).

Item XIII

Section 403.161, F.S., provides severe penalties for submitting false information on this application form or any reports or records required by a permit, if issued. There are both civil and criminal penalties, in addition to the revocation of the permit.

Rule 62-620.305, F.A.C., requires that the application and any reports required by the permit, if issued, to be signed as follows:

A. For a corporation, by a responsible corporate officer as described in Rule 62-620.305, F.A.C.;
B. For partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
C. For a municipality, state, federal or other public facility, by a principal executive officer or elected official.

SECTION C - GLOSSARY

NOTE: This Glossary includes terms used in the instructions and in Forms 1, 2A through 2EG. If you have any questions concerning the meaning of any of these terms, please contact your DEP district office.

Activity means any action which results in a discharge of wastes into waters of the State or that is reasonably expected to be a source of water pollution.

Aliquot means a sample of specified volume used to make up a total composite sample.

Animal Feeding Operation means a lot or facility (other than an aquatic animal production facility) where the following conditions are met:

A. Animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12 month period; and

B. Crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

Two or more animal feeding operations under common ownership are a single animal feeding operation if they adjoin each other or if they use a common area or system for the disposal of wastes.

Animal Unit means a unit of measurement for any animal feeding operation calculated by adding the following number: The number of slaughter and feeder cattle multiplied by 1.0; plus the number of mature dairy cattle multiplied by 1.4; plus the number of swine weighing over 25 kilograms (approximately 55 pounds) multiplied by 0.4; plus the number of sheep multiplied by 0.1; plus the number of horses multiplied by 2.0.

Application means the approved DEP standard forms for applying for a permit, including any approved additions, revisions, or modifications to the forms. Approved forms are numbered, Form 62-620.910, and have an effective date of October 1, 1994, or later.

Aquifer means a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

Best Management Practices (BMP) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs include treatment requirements, operation procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Biological Monitoring Test means any test which include the use of aquatic algal, invertebrate, or vertebrate species to measure acute or chronic toxicity, and any biological or chemical measure of bioaccumulation.

Bypass means the intentional diversion of wastes from any portion of a treatment facility.

Concentrated Animal Feeding Operation means an animal feeding operation which meets the criteria set forth in Chapter 62-670, F.A.C.

Concentrated Aquatic Animal Production Facility means a hatchery, fish farm, or other facility which contains, grows or hold aquatic animals as set forth in Chapter 62-660, F.A.C.

Contact Cooling Water means water used to reduce temperature which comes into contact with a raw material, intermediate product, waste product other than heat, or finished product.

CWA means the Clean Water Act as amended, 33 U.S.C. 1251 et seq.

Dike means any embankment or ridge of either natural or manmade materials used to prevent the movement of liquids, sludges, solids, or other materials.

Discharge (of a Pollutant) means any addition of any pollutant or combination of pollutants to waters of the State from any point source; or any addition of any pollutant or combination of pollutants to the marine waters of the State from any point source other than a vessel or other floating craft which is being used as a means of transportation.

This definition includes discharges into waters of the State from surface runoff which is collected or channelled by man; discharges through pipes, sewers, or other conveyances owned by the State, a municipality, or other person which do not lead to POTWs; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any indirect discharge.

Effluent Limitation mean any restriction imposed by the DEP on quantities, discharge rates, and concentrations of pollutants which are discharged from point sources into waters of the State.

Effluent Limitation Guideline means a regulation published under Section 304(b) of the Clean Water Act to adopt or revise effluent limitations.

EPA means the United States Environmental Protection Agency.

Existing Source or Existing Discharger means any source which is not a new source or a new discharger.

Facility or wastewater facility means any facility which can reasonably be expected to be a source of pollution and includes any or all of the following: a collection and transmission system, a wastewater treatment works, a reuse or disposal system, and a residuals management facility.

Ground Water means water below the land surface in a zone of saturation.

Indirect Discharger means an industrial discharger introducing pollutants to a publicly owned treatment works.

Injection Well mean a well into which fluids are injected.

MGD means millions of gallons per day.

Municipality means a city, village, town, borough, county, district, association, or other public body created by or under State law and have jurisdiction over disposal of sewage, industrial wastes, or other wastes.

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, termination, monitoring and enforcing permits and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the CWA. The term includes a State program which has been authorized by EPA under 40 CFR Part 123.

New Discharger mean any building, structure, facility, or installation: (A) from which there is or may be a new or additional discharge of pollutants at a site at which on October 18, 1972, it had never discharged pollutants; (B) which has never received a finally effective NPDES permit for discharges at that site; and (C) which is not a "new source." This definition includes an indirect discharger which commences discharging into water of the State. It also includes any existing mobile point source, such as an offshore oil drilling rig, seafood processing vessel, or aggregate plant that begins discharging at a location for which it does not have an existing permit.

New Source means any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced: (A) after promulgation of standards of performance under Section 306 of the CWA which are applicable to such source; or (B) after proposal of standards of performance in accordance with Section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal.

Non-Contact Cooling Water means water used to reduce temperature which does not come into direct contact with any raw material, intermediate produce, waste product (other than heat), or finished product.

Off-Site means any site which is not "on-site."

On-Site means on the same or geographically contiguous property which may be divided by public or private right(s)-of-way, provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along, the right(s)-of-way. Non-contiguous properties owned by the same person, but connected by a right-of-way which the person controls and to which the public does not have access, is also considered on-site property.

Operator means the person responsible for the overall operation of a facility.

Outfall means a point source.

Owner means the person who owns a facility or part of a facility.

Permit means an authorization, license, or equivalent control document issued by the State to implement the requirements of 40 CFR 122, 123, and 124 and Chapter 403, F.S.

Point Source means any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical waste, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended), heat, wrecked or discarded equipment, rocks, sand, cellar dirt and industrial, municipal, and agriculture waste discharged into water. It does NOT mean: (A) sewage from vessels; or (B) water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources.

Privately Owned Treatment Works means any device or system which is used to treat domestic wastewater from any facility which is not a POTW.

Process Wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Publicly Owned Treatment Works (POTW) means any device or system used in the treatment (including recycling and reclamation) of domestic sewage or industrial wastes of a liquid nature which is owned by a State or municipality. This definition includes any sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

Residuals means the solid, semisolid, or liquid residue generated during the treatment of domestic wastewater. Not included are solids removed from pump stations and lift stations, and screenings and grit removed from the headworks of domestic wastewater treatment facilities. Also not included are other solids removed prior to treatment of the residuals to meet the stabilization standards of Chapter 62-640, F.A.C., or ash generated during the incineration of residuals.

Sewage From Vessels means human body wastes and the wastes from toilets and other receptacles intended to receive or retain body wastes that are discharged from vessels and regulated under Section 312 of the CWA.

Sewage Sludge means residuals.

Silvicultural Point Source means any discernable, confined and discrete conveyance related to rock crushing, gravel washing, log sorting, or log storage facilities which are operated in connection with silvicultural activities and from which pollutants are discharged into water of the State.

Stormwater Discharge Associated with Industrial Activity is as defined in 40 CFR 122.26(b)(14).

Surface Impoundment or Impoundment means a facility or part of a facility which is a natural topographic depression, manmade excavation, or diked area formed primarily of earthen materials (although it may be lined with manmade materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

Toxic Pollutant means any pollutant listed as toxic under Section 307(a)(1) of the CWA.

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Waters of the State means the waters defined in Section 403.031, F.S., and including waters of the United States to the seaward boundaries of the State.

WASTEWATER FACILITY OR ACTIVITY PERMIT APPLICATION FORM 1 GENERAL INFORMATION

I IDENTIFICATION NUMBER:

Facility ID FL0037541

II CHARACTERISTICS:

INSTRUCTIONS: Complete the questions below to determine whether you need to submit any permit application forms to the Department of Environmental Protection. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the blank in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements. See Section B of the instructions. See also, Section C of the instructions for definitions of the terms used here.

SPECIFIC QUESTIONS	YES	NO	FORM ATTACHED
A. Is this facility a domestic wastewater facility which results in a discharge to surface or ground waters?		X	
B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters?		X	
C. Does or will this facility (other than those describe in A. or B.) discharge process wastewater, or non-process wastewater regulated by effluent guidelines or new source performance standards, to surface waters?	X		See Form 2CS
D. Does or will this facility (other than those described in A. or B.) discharge process wastewater to ground waters?		X	
E. Does or will this facility discharge non-process wastewater, not regulated by effluent guidelines or new source performance standards, to surface waters?		X	
F. Does or will this facility discharge non-process wastewater to ground waters?		X	
G. Does or will this facility discharge stormwater associated with industrial activity to surface waters?	X		See Form 2CS
H. Is this facility a non-discharging/closed loop recycle system?		X	
I. Is this facility a public water system whose primary purpose is the production of potable water for public consumption and which discharges demineralization concentrate to surface water or groundwater?		X	

III NAME OF FACILITY: (40 characters and spaces)

E. R. Jahna Ind., Ortona Sand Mine

DEP Form 62-620.910(1)
(Effective July 7, 2006 Revised July 30, 2010)

Facility ID FL0037541

IV FACILITY CONTACT: (A. 30 characters and spaces)

A. Name and Title (Last, first, & title)	B. Phone (area code & no.)
Jim Lanier, Mine Manager	863 675-1454

V FACILITY MAILING ADDRESS: (A. 30 characters and spaces; B. 25 characters and spaces)

A. Street or P.O. Box: P. O. Box 786		
B. City or Town: Labelle	State: FL	Zip Code: 33975

VI FACILITY LOCATION: (A. 30 characters and spaces; B. 24 characters and spaces; C. 3 spaces (if known); D. 25 characters and spaces; E. 2 spaces; F. 9 spaces)

A. Street, Route or Other Specific Identifier: 8561 W SR 78		
B. County Name: Glades	C. County Code (if known): 5	
D. City or Town: Moore Haven	E. State: FL	F. Zip Code: 33471

VII SIC CODES: (4-digit, in order of priority)

1. Code #: 1442	(Specify) Sand Mining	2. Code #:	(Specify)
3. Code #:	(Specify)	4. Code #:	(Specify)

VIII OPERATOR INFORMATION: (A. 40 characters and spaces; B. 1 character; C. 1 character (if other, specify); D. 12 characters; E. 30 characters and spaces; F. 25 characters and spaces; G. 2 characters; H. 9 characters)

A. Name: E. R. Jahna Industries, Inc.		B. Is the name in VIII A. the owner? ☐Yes ☒No	
C. Status of Operator: F = Federal; S = State; P = Private; O = Other; M = Public (other than F or S)	(code) P	(specify)	D. Phone No.: 863 676-9431
E. Street or P. O. Box: P. O. Box: Drawer 840			
F. City or Town: Lake Wales		G. State: FL	H. Zip Code: 33859

IX INDIAN LAND: Is the facility located on Indian lands? ☐ Yes ☒ No

Facility ID FL0037541

X EXISTING ENVIRONMENTAL PERMITS:

A. NPDES Permit No.	B. UIC Permit No.	C. Other (specify)	D. Other (specify)
FL0037541		COE 198990596 IP-ML	ERP 0211198-001

XI MAP: Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII NATURE OF BUSINESS (provide a brief description)

This is a closed circuit, hydraulic dredge and mining operation. The active pit receives surface water inflows and acts as a flow-through system for contributing surface and groundwater. Discharge to an adjacent canal of the Caloosahatchee River occurs through a crested weir and box culvert structure.

XIII CERTIFICATION (see instructions)

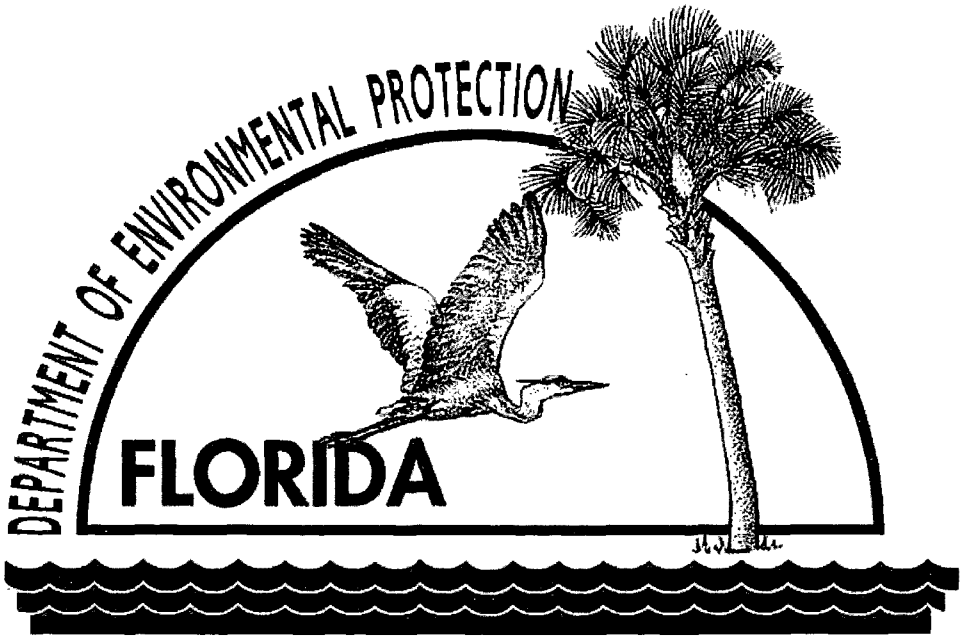
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information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

Kirk S. Davis, P. G.
A. Name (type or print)

Kirk S. Davis
B. Signature

Director of Environmental and Geological Services
Official Title (type or print)

11/28/11
C. Date Signed



WASTEWATER APPLICATION FORM 2CS

PERMIT TO DISCHARGE PROCESS WASTEWATER
FROM NEW OR EXISTING
INDUSTRIAL WASTEWATER FACILITIES
TO SURFACE WATER

INSTRUCTIONS - FORM 2CS

This form must be completed by all applicants who check "yes" to Item II-C in DEP Form 62-620.910(1).

Public Availability of Submitted Information.

You may not claim as confidential any information required by this form or DEP Form 62-620.910(1), whether the information is reported on the forms or in an attachment. This information will be made available to the public upon request. Any information you submit to the Department which goes beyond that required by this form or DEP Form 62-620.910(1) you may claim as confidential, but claims for information which is effluent data will be denied. If you do not assert a claim of confidentiality at the time of submitting the information, the Department may make the information public without further notice to you. Claims of confidentiality must be in accordance with Rule 62-620.302, Florida Administrative Code.

Completeness

Your application will not be considered complete unless you answer every question on this form (DEP Form 62-620.910(5))and on Form 1 (DEP Form 62-620.910(1)). If an item does not apply to you, enter "NA" (for "not applicable") to show that you considered the question. Also, you may need a Plan of Study (POS) to develop Water Quality Effluent Limitations (WQBEL) required by Rule 62-650, F.A.C. Please contact the Department for information.

Follow-up Requirements (for New or Substantially Modified Facilities)

Although you are now required to submit estimated data on this form, please note that no later than six months after you begin discharging from the proposed or substantially modified facility, you must complete and submit items VII and VIII of this Form 2CS (DEP Form 62-620.910(5)). However, you need not complete those portions of Item V requiring test which you have already performed under the discharge monitoring requirements of your permit.

Definitions

All significant terms used in these instructions and in the form are defined in the glossary found in the General Instructions which accompany Form 1.

DEP ID Number

If you are applying for a renewal of an existing permit or for a substantial revision to an existing permit, fill in your DEP Identification Number at the top of each page of Form 2CS. You may copy this number directly from Item 1 of Form 1. If you are applying for a permit for a proposed facility, leave the DEP Identification Number blank. The Department will assign a number.

Item I

You may use the map you provided for Item XI of Form 1 to determine the latitude and longitude of each of your discharge locations.

Item II

Describe the design of each outfall, including construction materials used or to be used.

Item III

Describe the surface water body which will be or is receiving effluent from the wastewater facility.

Item IV

A. The line drawing should show generally the route taken by water in your facility from intake to discharge. Show all operations contributing wastewater, including process and production areas, sanitary flows, cooling water, and stormwater runoff. You may group similar operations into a single unit, labeled to correspond to the more detailed listing in Item III B. The water balance should show average flows. Show all significant losses of water to products, atmosphere, and discharge. You should use actual measurements whenever available; otherwise, use your best estimate.

B. List all sources of wastewater to each discharge point. Operations may be described in general terms (for example, "dye-making reactor" or "distillation tower"). You may estimate the flow contributed by each source if no data are available. For stormwater discharges you may estimate the average flow, but you must indicate the rainfall event upon which the estimate is based and the method of estimation. For each treatment unit, indicate its size, flow rate, and retention time, and describe the ultimate disposal of any solid or liquid wastes not discharged. Treatment units should be listed in order and you should select the proper code from Table 2CS-1 to fill in column 3-b for each treatment unit. Insert "XX" into column 3-b if no code corresponds to a treatment unit you list.

C. A discharge is intermittent unless it occurs without interruption during the operating hours of the facility, except for infrequent shut-downs for maintenance, process changes, or other similar activities. A discharge is seasonal if it occurs only during certain parts of the year. Fill in every applicable column in this item for each source of intermittent or seasonal discharges. Base your answers on actual data whenever available; otherwise, provide your best estimate. Report the highest daily value for flow rate and total volume in the "Max. Daily" columns (columns 4-a and 4-b). Report the average of all daily values measured during days when the discharge occurred within the last year in the "Long Term Avg." columns (columns 4-a and 4-b).

Item V

"Production" in this question refers to those goods which the proposed, substantially modified, or existing facility will produce or is producing, not to "wastewater" production. This information is only necessary where production-based new source performance standards (NSPS) or effluent guidelines apply to your facility. Your estimated production figures should be based on a realistic projection of actual daily production level (not design capacity) for each of the first three operating years of the facility. This estimate must be a long-term-average estimate (e.g., average production on an annual basis). If production will vary depending on long-term shifts in operating schedule or capacity, you may report alternate production estimates and the basis for the alternate estimates.

A. All NSPS and effluent guidelines promulgated by EPA appear in the Federal Register and are published annually in 40 CFR Subchapter N. A guideline applies to you if you have any operations contributing process wastewater in any subcategory covered by a BPT, BCT, or BAT guideline. If you are unsure whether you are covered by a promulgated NSPS or effluent guideline, check with your DEP district office (*Figure 1 in the Form 1 instructions*). You must check "yes" if an applicable NSPS or effluent guideline has been promulgated, even if the guideline limitations are being contested in court. If you believe that a promulgated NSPS or effluent guideline has been remanded for reconsideration by a court and does not apply to your operations, you may check "no."

B. An NSPS or effluent guideline is expressed in terms of production (*or other measure of operation*) if the limitation is expressed as mass of pollutant per operational parameter: for example, "pounds of BOD per cubic foot of logs from which bark is removed," or "pounds of TSS per megawatt hour of electrical energy consumed by smelting furnace." An example of a guideline not expressed in terms of a measure of operation is one which limits the concentration of pollutants.

C. This item must be completed only if you checked "yes" to Item V-B. The production information requested here is necessary to apply effluent guidelines to your facility and you cannot claim it as confidential. However, you do not have to indicate how the reported information was calculated. Report quantities in the units of measurement used in the applicable NSPS or effluent guideline. The production figures provided must be based on actual daily production and not on design capacity or on predictions of future operations. To obtain alternate limits under Rule 62-620.620(2)(b)3., F.A.C., you must define your maximum production capability and demonstrate to the Department that your actual production is substantially below maximum production capability and that there is a reasonable potential for an increase above actual production during the duration of the permit.

Item VI

A. If you check "yes" to this question, complete all parts of the chart, or attach a copy of any previous submission you have made to the Department containing the same information.

B. You are not required to submit a description of future pollution control projects if you do not wish to or if none is planned.

Item VII (*A, B, C, and D, including Tables VII-A, VII-B, and VII-C*)

This item requires you to collect and report data on the pollutants discharged from each of your discharge points. Each part of this item addresses a different set of pollutants and must be completed in accordance with the specific instructions for that part. The following general instructions apply to the entire item.

General Instructions

Part A requires you to report at least one analysis for each pollutant listed. Parts B and C require you to report analytical data in two ways. For some pollutants, you may be required to mark "X" in the "Testing Required" column (*column 2-a, Part C*), and test (*sample and analyze*) and report the levels of the pollutants in your discharge whether or not you expect them to be present in your discharge. For all other, you must mark "X" in either the "Believe Present" column or the "Believe Absent" column (*columns 2-a or 2-b, Part B, and Columns 2-b or 2-c, Part C*) based on your best estimate, and test for those which you believe to be present. (*See specific instructions on the form and below for Parts A through D.*) Base your determination that a pollutant is present in or absent from your discharge on your knowledge of your raw materials, maintenance chemicals, intermediate and final products and by-products, and any previous analyses known to you of your effluent or similar effluent. (*For example, if you manufacture pesticides, you should expect those pesticides to be present in contaminated stormwater runoff.*) If you would expect a pollutant to be present solely as a result of its presence in your intake water, you must mark "Believe Present" but you are not required to analyze for that pollutant. Instead, mark an "X" in the "Intake" column.

A. Reporting

All levels must be reported as concentration and as total mass. You may report some or all of the required data by attaching separate sheets of paper instead of filling out pages *VII*-1 to *VII*-10 if the separate sheets contain all the required information in a format which is consistent with pages *VII*-1 to *VII*-10 in spacing and in identification of pollutants and columns. (*For example, the data systems used in your GC/MS analysis may be able to print data in the proper format.*) Use the following abbreviations in the columns headed "Units" (*column 3, Part A, and Column 4, Parts B and C*).

Concentration
ppm - parts per million
mg/l - milligrams per liter
ppb - parts per billion
µg/l - micrograms per liter

Mass
lbs - pounds
ton - tons (English tons)
mg - milligrams
g - grams
kg - kilograms
T - tonnes (metric tons)

All reporting of values for metals must be in terms of "total recoverable metal," unless (1) an applicable, promulgated effluent limitation or standard specifies the limitation for the metal in dissolved, valent, or total form; or (2) all approved analytical methods for the metal inherently measure only its dissolved form (e.g., hexavalent chromium). If you measure only one daily value, complete only "Max. Daily Values" columns and insert "1" into the "Number of Analyses" column (*columns 2-a and 2-d, Part A, and column 3-a, 3-d, Parts B and C*). The Department may require you to conduct additional analyses to further characterize your discharges. For composite sample, the daily value is the total mass or average concentration found in a composite sample taken over the operating hours of the facility during a 24-hour period; for grab samples, the daily value is the arithmetic or flow-weighted total mass or average concentration found in a series of at least four grab samples taken over the operating hours of the facility during a 24-hour period. If you measure more than one daily value for a pollutant and those values are representative of your waste stream, you must report them. You must describe your method of testing and data analysis. You also must determine the average of all values within the last year and report the concentration and mass under the "Long Term Avg. Values" columns (*column 2-c, Part A, and column 3-c, Parts B and C*), and the total number of daily values under the "Number of Analyses" columns (*column 2-d, Part A, and columns 3-d, Parts B and C*). Also determine the average of all daily values taken during each calendar month, and report the highest average under the "Max. 30-day Values" columns (*column 2-c, Part A, and column 3-b, Parts B and C*).

B. Sampling

The collection of the samples for the reported analyses should be supervised by a person experienced in performing sampling of industrial wastewater. Any specific requirements contained in the applicable analytical methods should be followed for sample containers, sample preservation, holding times, the collection of duplicate samples, etc. The time when you sample should be representative of your normal operation, to the extent feasible, with all processes which contribute wastewater in normal operation, and with your treatment system operating properly with no system upsets. Samples should be collected from the center of the flow channel, where turbulence is at a maximum, at a site specified in your present permit, or at any site adequate for the collection of a representative sample. Sampling for metals that are hardness-dependent shall also include sampling for hardness.

For pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, and fecal coliform, grab samples must be used. For all other pollutants 24-hour composite samples must be used. However, a minimum of one grab sample may be taken for effluents from holding ponds, or other impoundments with a retention period of greater than 24 hours. For stormwater discharges a minimum of one to four grab samples may be taken, depending on the duration of the discharge. One grab must be taken in the first hour (*or less*) of discharge, with one additional grab (*up to a minimum of four*) taken in each succeeding hour of discharge for discharges lasting four or more hours. The Department may waive composite sampling for any discharge point for which you demonstrate that use of an automatic sampler is infeasible and that a minimum of four grab samples will be representative of your discharge.

Grab and composite samples[1] are defined as follows:

> Grab sample: An individual sample or at least 100 milliliters collected at a randomly-selected time over a period not exceeding 15 minutes.

[1]Sampling requirements are periodically reviewed in light of recent research on testing methods. Upon completion of the review, changes to sampling requirements may be made. Before starting any required sampling or submitting past sampling to the Department, be sure that you have a current copy of 40 CFR Part 136 or Chapter 160, Florida Administrative Code.

Composite sample: A combination of at least 8 sample aliquots of a least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24-hour period. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically. For GC/MS Volatile Organic Analysis (VOA), aliquots must be combined in the laboratory immediately before analysis. Four (4) (*rather than eight*) aliquots or grab samples should be collected for VOA. These four samples should be collected during actual hours of discharge over a 24-hour period and need not be flow proportioned. Only one analysis is required.

Data from samples taken in the past may be used if all data requirement are met; sampling was done no more than three years before submission; and all data are representative of the present discharge. Among the factors which would cause the data to be unrepresentative are significant changes in production level; changes in raw materials, processes, or final products; and changes in wastewater treatment. When EPA promulgates new analytical methods in 40 CFR Part 136, EPA will provide information as to when you should use the new methods to generate data on your discharges. The Department may promulgate new methods in Chapter 160, Florida Administrative Code, with the date when the new methods are to be used. Always be sure you have current copies of these two documents before you take samples or submit sampling data to the Department. If you have submitted data from past sampling, the Department may request additional information, including current quantitative data, if it is determined to be necessary to assess your discharges.

C. Analysis

You must use test methods promulgated in 40 CFR Part 136 or Chapter 160, Florida Administrative Code; however, if none has been promulgated for a particular pollutant, you may use any suitable method for measuring the level of the pollutant in your discharge if you submit a description of the method or a reference to a published method. Your description should include the sample holding time, preservation techniques, and the quality control measures which you used. If you have two or more substantially identical discharge points, you may request permission from the Department to sample and analyze only one point and submit the results of the analysis for other substantially identical points. If your request is granted by the Department, or a separate sheet attached to the application form identify which point you did test, and describe why the other points you did not test are substantially identical to the point which you did test.

D. Reporting of Intake Data

You are not required to report data under the "Intake" columns unless you wish to demonstrate your eligibility for a "net" effluent limitation for one or more pollutants, that is, an effluent limitation adjusted by subtracting the average level of the pollutant(s) present in your intake water. To demonstrate your eligibility, under the "Intake" columns report the average of the results of analyses on your intake water (*If your water is treated before use, test the water after it is treated.*), and discuss the requirements for a new limitation with the appropriate district office.

Part VII-A

Part VII-A must be completed by all applicants for all discharge points including discharges of non-contact cooling water or storm runoff. However, at your request, the Department may waive the requirement to test for one or more of these pollutants, upon a determination that available information is adequate to support issuance of the permit with less stringent reporting requirements for these pollutants. Use composite samples for all pollutants in this Part, except use grab samples for pH and temperature. See the discussion in General Instructions to item *VII* for definitions of the columns in Part A. The "Long Term Avg. Values" column (*column 2-c*) and "Max. 30-day Values" column (*column 2-b*) are not compulsory but should be filled out if data are available.

Part VII-B

Part VII-B must be completed by all applicants for all discharge points, including points containing only non-contact cooling water or storm runoff. You must report quantitative data if the pollutant(s) in question is limited in an effluent limitation either directly or indirectly but expressly through a limitation on an indicator (*e.g., use of TSS as an indicator to control the discharge of iron and aluminum*). For other discharged pollutants you must provide quantitative data or explain their presence in your discharge. The Department will consider a request to eliminate the requirement to test for pollutants for an industrial category or subcategory. Your request must be supported by data representative of the industrial category or subcategory in question. The data must demonstrate that individual testing for each applicant is unnecessary, because the facilities in the category or subcategory discharge substantially identical levels of the pollutant or discharge the pollutant uniformly at sufficiently low levels. Use composite samples for all pollutants you analyze for in this part, except use grab samples for residual chlorine, oil and grease, and fecal coliform. The "Long Term Avg. Values" column (*column 2-c*) and "Max. 30-day Values" column (*column 2-b*) are not compulsory but should be filled out if data are available.

Part VII-C

Table 2CS-2 at the end of these instructions lists 34 primary industry categories. For each discharge point, if any of your processes which contribute wastewater falls into one of those categories, you must mark "X" in "Testing Required" column (*column 2-a)* and test for (1) all of the toxic metals, cyanide, and total phenols; and (2) the organic toxic pollutants contained in Table 2CS-3 as applicable to your category. The organic toxic pollutants are listed by GC/MS fractions on pages *VII*-4 to *VII*-10 in Part *VII*-C. The inclusion of total phenols in Part VII-C is not intended to classify total phenols as a toxic pollutant. When you determine which industry category you are in to find your testing requirements, you are not determining your category for any other purpose and you are not giving up your right to challenge your inclusion in that category before your permit is issued. For all other cases (*secondary industries, non-process wastewater discharge points, and GC/MS fractions that are not required*), you must mark "X" in either the "Believed Present" column or the "Believed Absent" column for each pollutant.

You must report quantitative data as follows:

For every pollutant you know or have reason to believe is present in your discharge in concentrations of 10 ppb or greater;

For acrolein; acrylonitrile; 2,4 dinitrophenol; and 2-methyl-4,6 dinitrophenol where you expect these four pollutants to be discharged in concentrations of 100 ppb or greater; and

For every pollutant expected to be discharged in concentrations less that the thresholds specified above. For pollutants in this last category, in lieu of quantitative data, you may briefly describe the reasons the pollutant is expected to be discharged.

You are required to mark "Testing Required" for dioxin if you use or manufacture one of the following compounds:

(a) 2,4,5-trichlorophenoxy acetic acid, (2,4,5-T);
(b) 2-(2,4,5-trichlorophenoxy) propanoic acid, (Silvex, 2,4,5-TP);
(c) 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate, (Erbon);
(d) 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate, (Ronnel);
(e) 2,4,5-trichlorophenol, (TCP); or
(f) hexachlorophene, (HCP).

If you mark "testing Required" or "Believed Present," you must perform a screening analysis for dioxin, using gas chromatography with an electron capture detector. A TCDD standard for quantitation is not required. Describe the results of this analysis in the space provided: for example, "no measurable baseline deflection at the retention time of TCDD" or "a measurable peak within the tolerances of the retention time of TCDD." The Department may require you to perform a quantitative analysis if you report a quantitative analysis if you report a positive result.

Part VII-D

List any pollutants in Table 2CS-3 that you believe to be present and explain why you believe them to be present. No analysis is required, but if you have analytical data, you must report it. For discharges of the hazardous substances listed in Table 2CS-4, you may be exempt from the reporting requirements of section 311 of the Clean Water Act. Please contact the Department for information.

Item VIII

This requirement applies to current use or manufacture of a toxic pollutant as an intermediate or final product or by-product. The Department may waive or modify the requirement if you demonstrate that it would be unduly burdensome to identify each toxic pollutant and the Department has adequate information to issue your permit. You may not claim this information as confidential; however, you do not have to distinguish between use or production of the pollutants or list the amounts.

Item IX

This item is self explanatory.

Item X

This item is self explanatory.

Item XI

This item is self explanatory.

Item XII

There are severe penalties for submitting false information on this application form. Chapter 62-620, Florida Administrative Code, requires, in addition to the certification provided by a professional engineer, a certification from the owner or responsible authority of the facility as follows:

A. For a corporation: by a responsible corporate official. For purposes of this section, a responsible corporate official means (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or (2) the manager of one or more manufacturing, production or operating facilities employing more than 250 person or have gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

B. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

C. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. A principal executive officer includes the chief executive officer of the agency or a senior executive officer having the responsibility for the overall operations of a principal geographic unit of the agency, for example, a regional or district administrator.

TABLE 2CS-1
CODES FOR TREATMENT UNITS

PHYSICAL TREATMENT PROCESSES			
1-A	Ammonia Stripping	1-N	Microstraining
1-B	Dialysis	1-O	Mixing
1-C	Diatomaceous Earth Filtration	1-P	Moving Bed Filters
1-D	Distillation	1-Q	Multimedia Filtration
1-E	Electrodialysis	1-R	Rapid Sand Filtration
1-F	Evaporation	1-S	Reverse Osmosis (Hyperfiltration)
1-G	Flocculation	1-T	Screening
1-H	Flotation	1-U	Sedimentation (Settling)
1-I	Foam Fractionation	1-V	Slow Sand Filtration
1-J	Freezing	1-W	Solvent Extraction
1-K	Gas-Phase Separation	1-X	Sorption
1-L	Grinding (Comminutors)	1-Y	Percolation Pond
1-M	Grit Removal		
CHEMICAL TREATMENT PROCESSES			
2-A	Carbon Adsorption	2-G	Disinfection (*Ozone*)
2-B	Chemical Oxidation	2-H	Disinfection (*Other*)
2-C	Chemical Precipitation	2-I	Electrochemical Treatment
2-D	Coagulation	2-J	Ion Exchange
2-E	Dechlorination	2-K	Neutralization
2-F	Disinfection (*Chlorine*)	2-L	Reduction
BIOLOGICAL TREATMENT PROCESSES			
3-A	Activated Sludge	3-E	Pre-Aeration
3-B	Aerated Lagoons	3-F	Spray Irrigation/Land Application

Table 2CS-1, Codes for Treatment Units contd.

3-C	Anaerobic Treatment	3-G	Stabilization Ponds
3-D	Nitrification-Denitrification	3-H	Trickling Filter
OTHER PROCESSES			
4-A	Discharge to Surface Water	4-C	Reuse/Recycle of Treated Effluent
4-B	Ocean Discharge Through Outfall	4-D	Underground Injection
SLUDGE TREATMENT AND DISPOSAL PROCESSES			
5-A	Aerobic Digestion	5-M	Heat Drying
5-B	Anaerobic Digestion	5-N	Heat Treatment
5-C	Belt Filtration	5-O	Incineration
5-D	Centrifugation	5-P	Land Application
5-E	Chemical Conditioning	5-Q	Landfill
5-F	Chlorine Treatment	5-R	Pressure Filtration
5-G	Composting	5-S	Pyrolysis
5-H	Drying Beds	5-T	Sludge Lagoons
5-I	Elutriation	5-U	Vacuum Filtration
5-J	Flotation Thickening	5-V	Vibration
5-K	Freezing	5-W	Wet Oxidation
5-L	Gravity Thickening		

TABLE 2CS-2
TESTING REQUIREMENTS FOR ORGANIC TOXIC POLLUTANTS INDUSTRY CATEGORY

INDUSTRY CATEGORY	GC/MS FRACTION[1]			
	Volatile	Acid	Base/Neutral	Pesticide
Adhesives and sealants	X	X	X	
Aluminum forming	X	X	X	
Auto and other laundries	X	X	X	X
Battery manufacturing	X		X	
Coal mining	X	X	X	X

Table 2CS-2, Testing Requirements for Organic Toxic Pollutants Industry Category contd.

Coil coating	X	X	X	
Copper forming	X	X	X	
Electric and electronic compounds	X	X	X	X
Electroplating	X	X	X	
Explosives manufacturing		X	X	
Foundries	X	X	X	
Gum and wood chemicals	X	X	X	X
Inorganic chemicals manufacturing	X	X	X	
Iron and steel manufacturing	X	X	X	
Leather tanning and finishing	X	X	X	X
Mechanical products manufacturing	X	X	X	
Nonferrous metals manufacturing	X	X	X	X
Ore mining	X	X	X	X
Organic chemicals manufacturing	X	X	X	X
Paint and ink formulation	X	X	X	X
Pesticides	X	X	X	X
Petroleum refining	X	X	X	X
Pharmaceutical preparations	X	X	X	
Photographic equipment and supplies	X	X	X	X
Plastic and synthetic materials manufacturing	X	X	X	X
Plastic processing	X			
Porcelain enameling	X		X	X
Printing and publishing	X	X	X	X
Pulp and paperboard mills	X	X	X	X
Rubber processing	X	X	X	
Soap and detergent manufacturing	X	X	X	
Steam electric power plants	X	X	X	
Textile mills	X	X	X	X
Timber products processing	X	X	X	X

[1]The pollutants in each fraction are listed in Item VII-C . X = Testing required.

TABLE 2CS-3
TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES REQUIRED TO BE IDENTIFIED BY APPLICANTS IF EXPECTED TO BE PRESENT

Toxic Pollutant

Asbestos

Hazardous Substances

Acetaldehyde
Allyl alcohol
Allylchloride
Amyl acetate
Aniline
Benzonitrile
Benzyl chloride
Butyl acetate
Butylamine
Captan
Carbaryl
Carbofuran
Carbon disulfide
Chlopyrifos
Coumpahos
Cresol
Crotonaldehyde
Cyclohexane
2,4-D (2,4-Dichlorophinoxyacetic acid)
Diazinon
Dicamba
Dichlobenil
Dichlone

Hazardous Substances

2,2 Dichloropropionic acid
Dichlorvos
Diethyl amine
Dimethyl amine
Dintrobenzene
Diquat
Disulfoton
Diuron
Epichlorohydrin
Ethion
Ethylene diamine
Formaldehyde
Furfural
Guthion
Isoprene
Isopropanolamine dodecylbenzenesulfonate
Kelthane
Kepone
Malathion
Mercaptodimethur
Methoxychlor
Methyl mercaptan
Methyl methacrylate
Methyl parathion
Mevinphos
Mexacarbate
Monoethyl amiine

Hazardous Substances

Monomethyl amine
Naled
Naphthenic acid
Nitrotoluene
Parathion
Phenolsulfonate
Phosgene
Propargite
Propylene oxide
Pyrethrins
Quinoline
Resorcinol
Strontium
Strychnine
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)
TDE (Terochlorodiphenyl ethane)
2,4,5-TP [2-(2,4,5-Trichlorophenoxyl)propanic acide]
Trichlorofon
Triethanolamine dodecylbenzenesulfonate
Triethylamine
Uranium
Vanadium
Vinyl acetate
Xylene
Xylenol
Zirconium

TABLE 2CS-4
HAZARDOUS SUBSTANCES

1. Acetaldehyde
2. Acetic acid
3. Acetic anhydride
4. Acetone cyanohydrin
5. Acetyl bromide
6. Acetyl chloride
7. Acrolein
8. Acrylonitrile
9. Adipic acid
10. Aldrin
11. Allyl alcohol
12. Alyll chloride
13. Aluminum sulfate
14. Ammonia
15. Ammonium acetate
16. Ammonium benzoate
17. Ammonium bicarbonate
18. Ammonium bichromate
19. Ammonium bifluoride
20. Ammonium bisulfite
21. Ammonium carbamate
22. Ammonium carbonate
23. Ammonium chloride
24. Ammonium chromate
25. Ammonium citrate
26. Ammonium fluoroborate
27. Ammonium fluoride
28. Ammonium hydroxide
29. Ammonium oxalate
30. Ammonium silicofluoride
31. Ammonium sulfamate
32. Ammonium sulfide
33. Ammonium sulfite
34. Ammonium tartrate
35. Ammonium thiocyanate
36. Ammonium thiosulfate
37. Amyl acetate
38. Aniline
39. Antimony pentachloride
40. Antimony potassium tartrate
41. Antimony tribromide
42. Antimony trichloride
43. Antimony trifluoride
44. Antimony trioxide
45. Arsenic disulfide
46. Arsenic pentoxide
47. Arsenic trichloride
48. Arsenic trioxide
49. Arsenic trisulfide
50. Barium cyanide
51. Benzene
52. Benzoic acid
53. Benzonitrile
54. Benzoyl chloride
55. Benzyl chloride
56. Beryllium chloride
57. Beryllium fluoride
58. Beryllium nitrate
59. Butylacetate
60. n-Butylphthalate
61. Butylamine
62. Butyric acid
63. Cadmium acetate
64. Cadmium bromide
65. Cadmium chloride
66. Calcium arsenate
67. Calcium arsenite
68. Calcium carbide
69. Calcium chromate
70. Calcium cyanide
71. Calcium dodecylbenzenesulfonate
72. Calcium hypochlorite
73. Captan
74. Carbaryl
75. Carbofuran
76. Carbon disulfide
77. Carbon tetrachloride
78. Chlordane
79. Chlorine
80. Chlorobenzene
81. Chloroform
82. Chloropyrifos
83. Chlorosulfonic acid
84. Chromic acetate
85. Chromic acid
86. Chromic sulfate
87. Chromous chloride
88. Cobaltous bromide
89. Cobaltous formate
90. Cobaltous sulfamate
91. Coumaphos
92. Cresol
93. Crotonaldehyde
94. Cupric acetate
95. Cupric acetoarsenite
96. Cupric chloride
97. Cupric nitrate
98. Cupric oxalate
99. Cupric sulfate
100. Cupric sulfate ammoniated
101. Cupric tartrate
102. Cyanogen chloride
103. Cyclohexane
104. 2,4-D acid (2,4-Dichlorophenoxyacetic acid)
105. 2,4-D esters (2,4-Dichlorophenoxyacetic acid esters)
106. DDT
107. Diazinon
108. Dicamba
109. Dichlobenil
110. Dichlone
111. Dichlorobenzene
112. Dichloropropane
113. Dichloropropene
114. Dichloropropene-Dichloropropane mix
115. 2,2-Dichloropropionic acid
116. Dichlorvos
117. Dieldrin
118. Diethylamine
119. Dimethylamine
120. Dinitrobenzene
121. Dinitrophenol
122. Dinitrotoluene
123. Diquat
124. Disulfoton
125. Diuron
126. Dodecylbenzesulfonic acid
127. Endosulfan
128. Endrin
129. Epichlorohydrin
130. Ethion
131. Ethylbenzene
132. Ethylenediamine
133. Ethylene dibromide
134. Ethylene dichloride
135. Ethylene Diaminetetracetic acid (EDTA)
136. Ferric ammonium citrate
137. Ferric ammonium oxalate
138. Ferric chloride
139. Ferric fluoride
140. Ferric nitrate

HAZARDOUS SUBSTANCES (contd.)

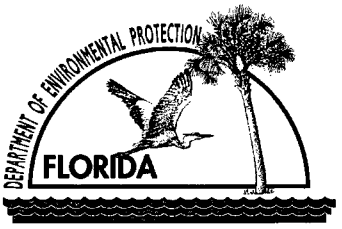
141. Ferric sulfate
142. Ferrous ammonium sulfate
143. Ferrous chloride
144. Ferrous sulfate
145. Formaldehyde
146. Formic acid
147. Fumaric acid
148. Furfural
149. Guthion
150. Heptachlor
151. Hexachlorocyclopentadiene
152. Hydrochloric acid
153. Hydrofluoric acid
154. Hydrogen cyanide
155. Hydrogen sulfide
156. Isoprene
157. Isopropanolamine dodecylbenzenesulfonate
158. Kelthane
159. Kepone
160. Lead acetate
161. Lead arsenate
162. Lead chloride
163. Lead fluoborate
164. Lead fluorite
165. Lead iodide
166. Lead nitrate
167. Lead stearate
168. Lead sulfate
169. Lead sulfide
170. Lead thiocyanate
171. Lindane
172. Lithium chromate
173. Malathion
174. Maleic acid
175. Maleic anhydride
176. Mercaptodimethur
177. Mercuric cyanide
178. Mercuric nitrate
179. Mercuric sulfate
180. Mercuric thiocyanate
181. Mercurous nitrate
182. Methoxychlor
183. Methyl mercaptan
184. Methyl methacrylate
185. Methyl parathion
186. Mevinphos
187. Mexacarbate
188. Monoethylamine
189. Monomethylamine
190. Naled
191. Naphthalene
192. Naphthenic acid
193. Nickel ammonium sulfate
194. Nickel chloride
195. Nickel hydroxide
196. Nickel nitrate
197. Nickel sulfate
198. Nitric acid
199. Nitrobenzene
200. Nitrogen dioxide
201. Nitrophenil
202. Nitrotoluene
203. Paraformaldehyde
204. Parathion
205. Pentachlorophenol
206. Phenol
207. Phosoene
208. Phosphoric acid
209. Phosphorus
210. Phosphorus oxychloride
211. Phosphorus pentasulfide
212. Phosphorus trichloride
213. Polychlorinated biphenyls (PCB)
214. Potassium arsenate
215. Potassium arsenite
216. Potassium bichromate
217. Potassium chromate
218. Potassium cyanide
219. Potassium hydroxide
220. Potassium permanganate
221. Propargite
222. Propionic acid
223. Propionic anhydride
224. Propylene oxide
225. Pyrethrins
226. Quinoline
227. Resorcinol
228. Selenium oxide
229. Silver nitrate
230. Sodium
231. Sodium arsenate
232. Sodium arsenite
233. Sodium bichromate
234. Sodium bifluoride
235. Sodium bisulfite
236. Sodium chromate
237. Sodium cyanide
238. Sodium dodecylbenzensulfonate
239. Sodium fluoride
240. Sodium hydrosulfide
241. Sodium hydroxide
242. Sodium hypochlorite
243. Sodium methylate
244. Sodium nitrate
245. Sodium phospate (dibasic)
246. Sodium phosphate (tribasic)
247. Sodium selenite
248. Strontium chromate
249. Strychnine
250. Styrene
251. Sulfuric acid
252. Sulfur monochloride
253. 2,4,5-T acid (2,4,5-Trichlorophenoxy acetic acid)
254. 2,4,5-T amines (2,4,5-Trichlorophenoxy acetic cid amines)
255. 2,4,5-T esters (2,4,5-Trichlorophenoxy acetic cid esters)
256. 2,4,5-T salts (2,4,5-Trichlorophenoxy acetic acid salts)
257. 2,4,5-TP acid (2,4,5-Trichlorophenoxy propanoic acid)
258. 2,4,5-TP acid esters (2,4,5-Trichlorophenoxy propanoic acid esters)
259. TDE (Tetrachlorodiphenyl ethane)
260. Tetraethyl lead
261. Tetraethyl pyrophosphate
262. Thallium sulfate
263. Toluene
264. Toxaphene
265. Trichlorofon
266. Trichloroethylene
267. Trichlorophenol
268. Triethanolamine dodecylbenzenesulfonate
269. Triethylamine
270. Trimethylamine
271. Uranyl acetate
272. Uranyl nitrate
273. Vanadium pentoxide
274. Vanadyl sulfate
275. Vinyl acetate
276. Vinylidene chloride
277. Xylene
278. Xylenol
279. Zinc acetate
280. Zinc ammonium chloride

HAZARDOUS SUBSTANCES (contd.)

281. Zinc borate
282. Zinc bromide
283. Zinc carbonate
284. Zinc chloride
285. Zinc cyanide
286. Zinc fluoride
287. Zinc formate
288. Zinc hydrosulfite
289. Zinc nitrate
290. Zinc phenolsulfonate
291. Zinc phosphide
292. Zinc silcofluoride
293. Zinc sulfate
294. Zirconium nitrate
295. Zirconium potassium fluoride
296. Zirconium sulfate
297. Zirconium tetrachloride

FORM

2CS



WASTEWATER APPLICATION FOR PERMIT TO DISCHARGE PROCESS WASTEWATER FROM NEW OR EXISTING INDUSTRIAL WASTEWATER FACILITIES TO SURFACE WATERS

Facility I.D. Number: FL0037541

Please print or type information in the appropriate areas.

I OUTFALL LOCATION For each outfall, list the X,Y coordinates and the name of the receiving water.
(latitude/longitude to the nearest 15 seconds)

A. Outfall No. (List)	B. Latitude			C. Longitude			D. Name of Receiving Water
	Deg.	Min.	Sec.	Deg.	Min.	Sec.	
001	26	48	8	81	17	22	Caloosahatchee River
							(1/4 mile south of outfall)

II OUTFALL DESIGN

A. Outfall No. (List)	B. Design Configuration and Construction Materials	C. Distance from shore	D. Diameter	E. Elevation of Discharge Invert (MSL)	F. Receiving Water Depth at POD (MSL)
001	12-foot wide fixed crested rectangular weir with sharp weir blade on crest and side edges.	10 feet	N/A	13.77 feet	-26 feet
	Weir box discharges through two 4-foot by 6-foot box culverts.				

Facility I.D. Number: FL0037541

III RECEIVING WATER INFORMATION

For each surface water that will receive effluent, supply the following information:

A. Name of Receiving Water	B. Check One		C. Classification (See Ch. 62-302, F.A.C.)	D. Type of Receiving Water (canal, river, lake, etc.)
	Fresh	Salt or Brackish		
Caloosahatchee River finger canal	☒	☐	Class III	Canal (man-made)
	☐	☐		
	☐	☐		
	☐	☐		
	☐	☐		
	☐	☐		

E. Minimum 7-day 10-year low flow of the receiving water at each outfall (if appropriate).

F. Identify and describe the flow of effluent from each outfall to a major body of water. A suitably marked map or aerial photograph may be used. **See attached Site Facility Plan (Exhibit 1).**

G. Do you request a mixing zone under Rule 62-4.244, F.A.C.? If yes, for what parameters or pollutants?

IV FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures. **Refer to Narrative.**

B. For each outfall, provide a description of:

1. All operations contributing wastewater to the effluent; including process wastewater, sanitary wastewater, cooling water, and stormwater runoff; - **Wastewater contributions include stormwater runoff, direct rainfall, and recycled mine water.**

2. The average flow contributed by each operation; – **The dredges pump about 2.5 mgd to the plant which is recycled to the dredge pond.**

3. The treatment received by the wastewater. – **The plant washes and sorts the sand, and returns water and fines to the dredge pond. The pond effectively removes suspended solids via gravity settling. Stormwater runoff enters the pit primarily from the north and east. Stormwater contributions are generally intermittent and are dependent on local rainfall.**

Use the space on the next page. Continue on additional sheets, if necessary.

IV B. Contd.

Facility I.D. Number: FL0037541

(1) Outfall No. (List)	(2) Operation(s) Contributing Flow		(3) Treatment		
	(a) Operation (list)	(b) Avg. Flow & Units	(a) Description	(b) List Code from Table 2CS-1	
001	Stormwater runoff		Gravity settling within the dredge pond	1-U	
	Direct rain into dredge pond				
	Recycled pond water	2.5 MGD			

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?
☐ Yes (complete the following table) ☒ No (go to D. below)

(1) Outfall No. (List)	(2)Operation(s) Contributing Flow(List)	(3) Frequency		(4) Flow				
		(a) Days per Week (specify avg.)	(b) Months per Yr. (specify avg.)	(a) Flow Rate (in mgd)		(b) Total Volume (specify with units)		(c) Duration (in days)
				Long Term Avg.	Max. Daily	Long Term Avg.	Max. Daily	

D. Describe practices to be followed to ensure adequate wastewater treatment during emergencies such as power loss and equipment failures causing shutdown of pollution abatement equipment of the proposed/permitted facilities. **Pollution abatement measures do not require power, and are unaffected by equipment failure.**

E. List the method(s) and location(s) of flow measurement. **Flow measurements are made at the weir immediately upstream of the discharge culvert, and flow is calculated based on the empirical flow rating for the structure (see Exhibit 1).**

V PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ Yes (complete Item V-B) ☐ No (go to Section VI) **Specifically pH, turbidity, and flow.**

B. Are the limitations in the applicable guideline expressed in terms of production (or other measure of operation)?

☐ Yes (complete Item V-C) ☒ No (go to Section VI)

C. If you answered "yes" to Item V-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. Affected Outfalls
a. Quantity per Day	b. Units of Measure	c. Operation, Product, Materials, Etc. (specify)	(list outfall nos.)

VI IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement order, enforcement compliance schedule letter, stipulations, court orders, and grant or loan conditions.

☐ Yes (complete the following table) ☒ No (go to Item VI-B)

1. Identification of Condition, Agreement, Etc.	2. Affected Outfalls		3. Brief Description of Project	4. Final Compliance Date	
	a. No.	b. Source of Discharge		a. Required	B. Projected

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ Mark "X" if description of additional control programs is attached.

VII INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding--Complete one set of tables for each outfall -- Annotate the outfall number in the space provided. NOTE: Tables VII-A, VII-B, and VII-C are included on separate sheets number VII-1 through VII-9.

D. Use the space below to list any of the pollutants listed in Table 2CS-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. Pollutant	2. Source	1. Pollutant	2. Source
pH	Natural Background		
Turbidity	Dredging Operation (effectively removed in dredge Pond by gravity settling prior To discharge)		

VIII POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item VII-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or by-product?

☐ YES (list all such pollutants below) ☒ NO (go to IX)

IX BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (identify the test(s) and describe their purposes below) ☒ NO (go to Section X)

X CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item VII performed by a contract laboratory or consulting firm?

☒ YES (list the name, address, telephone number, and certification number of, and pollutants analyzed by each such laboratory or firm below) ☐ NO (go to Section XI)

A. Name	B. Address	C. Telephone (area code & no.)	D. Pollutants Analyzed (list)
TestAmerica	6712 Benjamin Road, Suite 100 Tampa, FL 33634	813 318-1485	BOD, COD, TOC, TSS, TN, TP, Ammonia as N, Conductivity, pH

Facility I.D. Number: FL0037541

XI CONNECTION TO REGIONAL POTW

A. Indicate the relationship between this project and area regional planning for wastewater treatment. List steps to be taken for this industrial wastewater facility to become part of an area-wide wastewater treatment system.

N/A

XII-A CERTIFICATIONS FOR NEW OR MODIFIED FACILITIES

This is to certify the engineering features of this pollution control project have been designed by me and found to be in conformity with sound engineering principles, applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules of the Department. It is also agreed that the undersigned, if authorized by the owner, will furnish the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

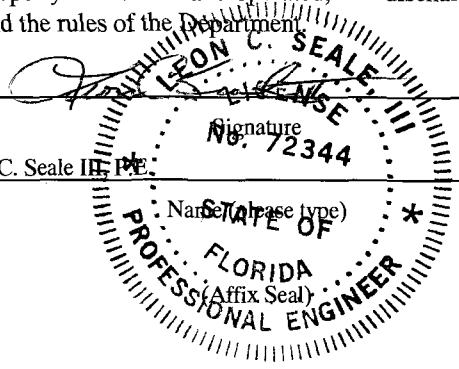
Signature	Company Name
Name (please type)	Address
(Affix Seal)	Florida Registration No.:
	Telephone No::
	Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name & Official Title (Please type or print)	Signature
Telephone No. (area code & No.)	Date Signed

XII-B CERTIFICATIONS FOR PERMIT RENEWALS

This is to certify the engineering features of this pollution control project have been examined by me and found to be in conformity with sound engineering principles, applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules of the Department.



Signature

Leon C. Seale III, P.E.

Name (Please type)

(Affix Seal)

AMEC

Company Name

Address 2000 E. Edgewood Drive, Suite 215

Lakeland, FL 33803

Florida Registration No.: 72344

Telephone No:: (863) 667-2345

Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Kirk S. Davis, P.G., Director of Env. And Geol. Services

Name & Official Title (Please type or print)

(863) 676-9431

Telephone No. (area code & No.)

Signature

11/22/11

Date Signed

Facility ID. Number: FL0037541 Outfall No. 001

PLEASE PRINT OR TYPE ONLY: You may report some or all of this information on separate sheets instead of completing these pages. Use the same format.
SEE INSTRUCTIONS.

VII. INTAKE AND EFFLUENT CHARACTERISTICS

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. Pollutant	2. Effluent							3.. Units		4. Intake (optional)		
	a. Max. Daily Value		b. Max. 30-day Value		c. Annual Avg. Value		d. No. of Analyses	a. Concentration	b. Mass	a. Long Term Avg. Value		b. No. of Analyses
	(1) Conc.	(2) Mass	(1) Conc.	(2) Mass	(1) Conc.	(2) Mass				(1) Conc.	(2) Mass	
a Carbonaceous Biochemical Oxygen Demand (CBOD)			< 2.0				1	mg/L				
b. Chemical Oxygen Demand (COD)			< 10				1	mg/L				
c. Total Organic Carbon (TOC)			7.1				1	mg/L				
d. Total Suspended Solids (TSS)			3.6				1	mg/L				
e. Total Nitrogen (as N)			0.15				1	mg/L				
f. Total Phosphorus (as P)			< 0.10				1	mg/L				
g. Ammonia (as N)			0.021				1	mg/L				
h. Flow - actual or projected	Value		Value		Value 1.5 mgd					Value		
i. Flow - design	Value		Value Intermittent		Value					Value		
j. Specific Conductivity	Value		Value 324		Value		1	µmhos/cm		Value		
k. Temperature (winter)	Value		Value		Value			°C		Value		
l. Temperature (summer)	Value		Value		Value			°C		Value		
m. . pH	Min.	Max.	Min. 7.22	Max.			1	STANDARD UNITS				

PART B - Mark "X" in column 2a for each pollutant you know or have reason to believe is present. Mark "X" in column 2b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additonal details and requirements.

1. Pollutant and CAS No. (if available)	2. Mark "X"		3. Effluent							4. Units		5. Intake (optional)		
	a. believed present	b. believed absent	a. Maximum Daily Value		b. Max. 30-day Value (if available)		c. Long Term Avg. Value (if available)		d. No. of Analyses	a. Conc.	b. Mass	a. Long Term Avg. Value		b. No. of Analyses
			(1) Conc...	(2) Mass	(1) Conc.	(2) Mass	(1) Conc.	(2) Mass				(1) Conc.	(2) Mass	
a. Bromide (24949-67-9)	☐	☒												
b. Chlorine, Total Residual	☐	☒												
c. Color	☐	☒												
d. Fecal Coliform	☐	☒												
e. Fluoride (16984-48-8)	☐	☒												
f. Nitrate-Nitrite (as N)	☐	☒												

: Item VII-B Contd.

Facility ID. Number FL0037541 Outfall No. 001

1. Pollutant and CAS No. (if available)	2. Mark "X"		3. Effuent							4. Units		5. Intake (optional)		
	a .believed present	b. believed absent	a. Maximum Daily Value		b. Max. 30-day Value (if available)		c. Long Term Avg. Value (if available)		d. No. of Analyses	a. Conc.	b. Mass	a. Long Term Avg. Value		b. No. of Analyses
			(1) Conc.	(2) Mass	(1) Conc.	(2) Mass	(1) Conc.	(2) Mass				(1) Conc.	(2) Mass	
g. Nitrogen, Total Organic (as N)	☐	☒												
h. Oil and grease	☐	☒												
i. Phosphorus, Total (as P) (7723-14-0)	☐	☒												
j. Radioactivity														
(1) Alpha, Total	☐	☒												
(2) Beta, Total	☐	☒												
(3) Radium, Total	☐	☒												
(4) Radium 226, Total	☐	☒												
k. Sulfate (as SO_4) (14808-79-8)	☐	☒												
l. Sulfide (as S)	☐	☒												
m. Sulfite (as SO_3) (14265-45-3)	☐	☒												
n. Surfactants	☐	☒												
o. Aluminum, Total (7429-90-5)	☐	☒												
p. Barium, Total (7440-39-3)	☐	☒												
q. Boron, Total (7440-42-8)	☐	☒												
r. Cobalt, Total (7440-48-4)	☐	☒												
s. Iron, Total (7439-89-6)	☐	☒												
t. Maagnesium, Total (7439-95-4)	☐	☒												
u. Molybdenum, Total (7439-98-7)	☐	☒												
v. Manganese, Total (7439-96-5)	☐	☒												
w. Tin, Total (7440-31-5)	☐	☒												
x. Titanium, Total (7440-32-6)	☐	☒												

Facility ID. Number: FL0037541 Outfall No. 001

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2a for all GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2a (secondary industries, non-process wastewater outfalls, and non-required GC/MS fractions), mark "X" in column 2b for each pollutant you know or have reason to believe is present. Mark "X" in column 2c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one anlysis for that pollutnat if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4,dinitrophenol, or 2-methyl-4,6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. Pollutant and CAS No. (if available)	2. Mark "X"			3. Effluent							4. Units		5. Intake (optional)		
	a. testing required	b. believed present	c. believed absent	a. Maximum Daily Value		b. Max. 30-day Value (if available)		c. Long Term Avg. Value (if available)		d. No. of Analyses	a. Conc.	b. Mass	a. Long Term Avg. Value		b. No. of Analyses
				(1) Conc.	(2) Mass	(1) Conc.	(2) Mass	(1) Conc.	(2) Mass				(1) Conc.	(2) Mass	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	☐	☐	☒												
2M. Arsenic, Total (7723-14-0)	☐	☐	☒												
3M. Beryllium, Total (7440-41-7)	☐	☐	☒												
4M. Cadmium, Total (7440-43-9)	☐	☐	☒												
5M. Chromium, Total (7440-47-3)	☐	☐	☒												
6M. Copper, Total (7440-50-8)	☐	☐	☒												
7M. Lead, Total (7439-92-1)	☐	☐	☒												
8M. Mercury, Total (7439-97-6)	☐	☐	☒												
9M. Nickel, Total (7440-02-0)	☐	☐	☒												
10M. Selenium, Total (7782-49-2)	☐	☐	☒												
11M. Silver, Total (7440-22-4)	☐	☐	☒												
12M. Thallium, Total (7440-28-0)	☐	☐	☒												
13M. Zinc, Total (7440-66-6)	☐	☐	☒												
14M. Cyanide, Total (57-12-5)	☐	☐	☒												
15M. Phenols, Total	☐	☐	☒												
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)	☐	☐	☒												
GC/MS FRACTION-VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	☐	☐	☒												
2V. Acrylonitrile (107-13-1)	☐	☐	☒												

Facility ID. Number: FL0037541 Outfall No. 001

1. Pollutant and CAS No. (if available)	2. Mark "X"			3. Effluent							4. Units		5. Intake (optional)		
	a. testing required	b. believed present	c. believed absent	a. Maximum Daily Value		b. Max. 30-day Value (if available)		c. Long Term Avg. Value (if available)		d. No. of Analyses	a. Conc.	b. Mass	a. Long Term Avg. Value		b. No. of Analyses
				(1) Conc.	(2) Mass	(1) Conc.	(2) Mass	(1) Conc.	(2) Mass				(1) Conc.	(2) Mass	
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)															
3V. Benzene (71-43-2)	☐	☐	☒												
4V. Bis (Chloromethyl) Ether (542-88-1)	☐	☐	☒												
5V. Bromoform (75-25-2)	☐	☐	☒												
6V. Carbon Tetrachloride (56-23-5)	☐	☐	☒												
7V Chlorobenzene (108-90-7)	☐	☐	☒												
8V. Chlorodi-bromomethane (124-8-1)	☐	☐	☒												
9V. Chloroethane (74-00-3)	☐	☐	☒												
10V. 2-Chloro-ethylvinyl Ether (110-75-8)	☐	☐	☒												
11V. Chloroform (67-86-3)	☐	☐	☒												
12V. Dichloro-bromomethane (75-24-4)	☐	☐	☒												
13V. Dichloro-difluoromethane (75-71-8)	☐	☐	☒												
14V. 1,1-Dichloroethane (75-34-3)	☐	☐	☒												
15V. 1,2-Dichloroethane (107-06-2)	☐	☐	☒												
16V. 1,1-Dichloroethylene (75-35-4)	☐	☐	☒												
17V. 1,2,-Dichloropropane (78-87-5)	☐	☐	☒												
18V. 1,3-Dichloropropylene (542-75-6)	☐	☐	☒												
19V. Ethylbenzene (100-41-4)	☐	☐	☒												
20V. Methyl Bromide (74-83-9)	☐	☐	☒												
21V. Methyl Chloride (74-87-3)	☐	☐	☒												
22V. Methylene Chloride (74-98-2)	☐	☐	☒												
23V. 1,1,2,2-Tetra-chloroethane (79-34-5)	☐	☐	☒												
24V. Tetrachloroethylene (127-18-4)	☐	☐	☒												

Facility ID. Number: FL0037541 Outfall No. 001

1. Pollutant and CAS No. (if available)	2. Mark "X"			3. Effluent							4. Units		5. Intake (optional)		
	a. testing required	b. believed present	c. believed absent	a. Maximum Daily Value		b. Max. 30-day Value (if available)		c. Long Term Avg. Value (if available)		d. No. of Analyses	a. Conc.	b. Mass	a. Long Term Avg. Value		b. No. of Analyses
				(1) Conc.	(2) Mass	(1) Conc.	(2) Mass	(1) Conc.	(2) Mass				(1) Conc.	(2) Mass	
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)															
25V. Toluene (108-88-3)	☐	☐	☒												
26V. 1,2-Trans-Dichloroethylene (156-60-5)	☐	☐	☒												
27V. 1,1,2-Trichloroethane (71-55-6)	☐	☐	☒												
28V. 1,1,2-Trichloroethane (79-00-5)	☐	☐	☒												
29V. Trichloroethylene (79-01-6)	☐	☐	☒												
30V. Trichloro-fluoromethane (75-69-4)	☐	☐	☒												
31V. Vinyl Chloride (75-01-4)	☐	☐	☒												
GC/MS FRACTION - ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	☐	☐	☒												
2A. 2,4-Dichlorophenol (120-83-2)	☐	☐	☒												
3A. 2,4-Dimethylphenol (105-67-9)	☐	☐	☒												
4A. 4,6-Dinitro-O-Cresol (534-53-1)	☐	☐	☒												
5A. 2,4-Dinitrophenol (51-28-5)	☐	☐	☒												
6A. 2-Nitrophenol (88-75-5)	☐	☐	☒												
7A. 4-Nitrophenol (100-02-7)	☐	☐	☒												
8A P-Chloro-M-Cresol (59-50-7)	☐	☐	☒												
9A Pentachlorophenol (87-86-5)	☐	☐	☒												
10A Phenol (108-95-2)	☐	☐	☒												
11A 2,4,5-Trichloro-phenol (88-06-2)	☐	☐	☒												
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (63-32-9)	☐	☐	☒												
2B. Acenaphtylene (208-96-8)	☐	☐	☒												
3B. Anthracene (120-12-7)	☐	☐	☒												
4B. Benzidine (92-87-5)	☐	☐	☒												

Facility ID. Number: FL0037541 Outfall No. 001

1. Pollutant and CAS No. (if available)	2. Mark "X"			3. Effluent							4. Units		5. Intake (optional)		
	a. testing required	b. believed present	c. believed absent	a. Maximum Daily Value		b. Max. 30-day Value (if available)		c. Long Term Avg. Value (if available)		d. No. of Analyses	a. Conc.	b. Mass	a. Long Term Avg. Value		b. No. of Analyses
				(1) Conc.	(2) Mass	(1) Conc.	(2) Mass	(1) Conc.	(2) Mass				(1) Conc.	(2) Mass	
5B. Benzo *(a)* Anthracene (56-55-3)	☐	☐	☒												
6B. Benzo *(a)* Pyrene (50-32-8)	☐	☐	☒												
7B. 3,4-Benzo-fluoranthene (205-99-2)	☐	☐	☒												
8B. Benzo *(ghi)* Perylene (191-24-2)	☐	☐	☒												
9B. Benzo *(k)* Fluoranthene (207-08-9)	☐	☐	☒												
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)	☐	☐	☒												
11B. Bis *(2-chloroethyl)* Ether (111-44-4)	☐	☐	☒												
12B. Bis *(2-Chloroisopropyl)* Ether (102-60-1)	☐	☐	☒												
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)	☐	☐	☒												
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	☐	☐	☒												
15B Butyl Benzyl Phthalate (84-68-7)	☐	☐	☒												
16B. 2-Chloronaphthalene (91-58-7)	☐	☐	☒												
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	☐	☐	☒												
18B. Chrysene (218-01-9)	☐	☐	☒												
19B. Dibenzo *(a,h)* Anthracene (53-70-3)	☐	☐	☒												
20B. 1,2-Dichlorobenzene (95-50-1)	☐	☐	☒												
21B. 1,3-Dichlorobenzene (541-73-1)	☐	☐	☒												
22B. 1,4-Dichlorobenzene (106-46-7)	☐	☐	☒												
23B. 3,3'-Dichlorobenzidine (92-94-1)	☐	☐	☒												
24B. Diethyl Phthalate (84-66-2)	☐	☐	☒												
25B. Dimethyl Phthalate (131-11-3)	☐	☐	☒												
26B. Di-N-Butyl Phthalate (84-74-2)	☐	☐	☒												
27B. 2,4-Dinitrotoluene (121-14-2)	☐	☐	☒												
28B. 2,6-Dinitrotoluene (606-20-2)	☐	☐	☒												

Facility ID. Number: FL0037541 Outfall No. 001

1. Pollutant and CAS No. (if available)	2. Mark "X"			3. Effluent							4. Units		5. Intake (optional)		
	a. testing required	b. believed present	c. believed absent	a. Maximum Daily Value		b. Max. 30-day Value (if available)		c. Long Term Avg. Value (if available)		d. No. of Analyses	a. Conc.	b. Mass	a. Long Term Avg. Value		b. No. of Analyses
				(1) Conc.	(2) Mass	(1) Conc.	(2) Mass	(1) Conc.	(2) Mass				(1) Conc.	(2) Mass	
29B. *Di-N-Octyl Phthalate* (117-84-0)	☐	☐	☒												
30B. 1,2-Diphenylhydrazine *(as Azobenzene)* (122-66-7)	☐	☐	☒												
31B. Fluoranthene (206-44-0)	☐	☐	☒												
32B. Fluorene (86-73-7)	☐	☐	☒												
33B. Hexachlorobenzene (118-74-1)	☐	☐	☒												
34B. Hexachlorobutadiene (87-68-3)	☐	☐	☒												
35B. Hexachlorocyclopentadiene (77-47-4)	☐	☐	☒												
36B. Hexachloroethane (67-72-1)	☐	☐	☒												
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)	☐	☐	☒												
38B. Isophorone (78-59-1)	☐	☐	☒												
39B. Naphthalene (91-20-3)	☐	☐	☒												
40B. Nitrobenzene (98-95-9)	☐	☐	☒												
41B N-Nitrosodimethylamine (62-75-9)	☐	☐	☒												
42B. N-Nitrosodi-N-Propylamine (621-64-7)	☐	☐	☒												
43B. N-Nitro-sodiphenylamine (86-30-6)	☐	☐	☒												
44B Phenanthrene (85-01-8)	☐	☐	☒												
45B. Pyrene (129-00-0)	☐	☐	☒												
46B. 1,2,4-Trichlorobenzene (120-82-1)	☐	☐	☒												
GC/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)	☐	☐	☒												
2P. -BHC (319-84-6)	☐	☐	☒												
3P -BHC (319-85-7)	☐	☐	☒												
4P. -BHC (58-89-9)	☐	☐	☒												
5P. -BHC (319-86-8)	☐	☐	☒												

Facility ID. Number: FL0037541 Outfall No. 001

1. Pollutant and CAS No. (if available)	2. Mark "X"			3. Effluent							4. Units		5. Intake (optional)		
	a. testing required	b. believed present	c. believed absent	a. Maximum Daily Value		b. Max. 30-day Value (if available)		c. Long Term Avg. Value (if available)		d. No. of Analyses	a. Conc.	b. Mass	a. Long Term Avg. Value		b. No. of Analyses
				(1) Conc.	(2) Mass	(1) Conc.	(2) Mass	(1) Conc.	(2) Mass				(1) Conc.	(2) Mass	
6P. Chlordane (57-74-9)	☐	☐	☒												
7P. 4,4'-DDT (50-29-3)	☐	☐	☒												
8P. 4,4'-DDE (72-55-9)	☐	☐	☒												
9P. 4,4'-DDD (72-54-8)	☐	☐	☒												
10P. Dieldrin (60-57-1)	☐	☐	☒												
11P. -Endosulfan (115-29-7)	☐	☐	☒												
12P. -Endosulfan (115-29-7)	☐	☐	☒												
13P. Endosulfan Sulfate (1031-07-8)	☐	☐	☒												
14P. Endrin (72-20-8)	☐	☐	☒												
15P. Endrin Aldehyde (7421-92-4)	☐	☐	☒												
16P. Heptachlor (76-44-8)	☐	☐	☒												
17P. Heptachlor Epoxide (1024-57-3)	☐	☐	☒												
18P. PCB-1242 (53469-21-9)	☐	☐	☒												
19P. PCB-1254 (11097-69-1)	☐	☐	☒												
20P. PCB-1221 (11104-28-2)	☐	☐	☒												
21P. PCB-1232 (11141-16-5)	☐	☐	☒												
22P. PCB-1248 (12672-29-6)	☐	☐	☒												
23P. PCB-1260 (11096-82-5)	☐	☐	☒												
24P. PCB-1016 (12674-11-2)	☐	☐	☒												
25P. Toxaphene (8001-35-2)	☐	☐	☒												

Drawings are Exempt from s.119.07 (1) and s. 24(a), Art. 1 of the State Constitution

These figures have been moved to the Plans and Specifications Profile in the Wastewater Restricted Catalog.

Site Plan

Exhibit 2 - As-Built Certification
Notification of Completion of Construction for Wastewater Facilities
FDEP Bureau of Mine Reclamation Certification

NOTIFICATION OF COMPLETION OF CONSTRUCTION FOR WASTEWATER FACILITIES

1. Instructions

a. In accordance with Rule 62-620.610, F.A.C., this form must be submitted to the Department's appropriate district office or approved local program prior to placing a newly constructed facility or modified portion of an existing facility into operation for any purpose other than testing for leaks and equipment operation.
b. Each applicable item must be completed in full. Where attached sheets or other technical documentation are used in lieu of the blank spaces provided, indicate appropriate cross-references in the spaces.
c. Three (3) copies of this notification with supporting documentation shall be submitted with this form.
d. All information is to be typed or printed in ink. Dates are to be entered in MM/DD/YR format.

2. Facility Information

a. Permit Number 222833079 b. Facility Identification Number _____

c. Project/Facility Name Ortona Sand Mine

d. Contact Name Kirk S. Davis
Number and Street P O Box 840
City/State/Zip Code Lake Wales, FL 33859-0840
Telephone (941) 676-8431

3. Description of Facilities to be Placed into Operation:

Cast-in-Place fixed crested outfall structure

4. Description of Substantial Deviations from the Permit, Approved Preliminary Design Report, and Application Materials:

No deviations, see attached as-built drawings and photos

5. Implementation Dates

a. Actual Date Construction Began	12 /01 / 97
b. Scheduled Date to Place Facilities into Operation	1 /02 / 98
c. Scheduled Date to Attain Operational Level	1 /16 / 98
d. Scheduled Date to Submit DEP Form 62-620.910(13)[1]	2 /27 / 98

[1]In accordance with Rule 17-620.610, F.A.C., DEP Form 17-620.910(13) Notification of Availability of Record Drawings and Final Operation and Maintenance Manuals for Wastewater Facilities must be submitted within six month after the facilites are placed into operation.

6. Certifications

a. Applicant or Authorized Representative

I certify that the statements made in this notification and all attachments are true, correct and complete to the best of my knowledge and belief. I agree to operate and maintain these wastewater facilities in such a manner as to comply with the provisions of Chapter 403, F.S., Chapter 62-600, F.A.C., and all other applicable rules of the Department. Further, an appropriate draft operation and maintenance manual which has been examined by a professional engineer as certified below is available and located at Ortona Sand Mine and can be submitted upon request.

Kirk S. Davis — February 26, 1998

(Signature of Applicant or Authorized Representative[2]) (Date)

Name (please type) Kirk S. Davis Company Name E R Jahna
Title Director of Env. & Geo. Services Company Address P O Box 840
Phone 941-676-9431 City/State/Zip Code Lake Wales, FL 33859-0840

b. Professional Engineer Registered in Florida

I certify that the facilities listed above have been completed to the point where the facilities are functionally complete. I further certify that construction on these facilities has proceeded substantially in accordance with the permit and the approved preliminary design report and application materials, or that deviations noted above will not prevent the system from functioning in compliance with all applicable statutes of the State of Florida and rules of the Department when properly operated and maintained. These determinations have been based upon on-site observation of construction, scheduled and conducted by me or by a project representative under my direct supervision, for the purpose of determining if the work proceeded in compliance with the permit and the approved preliminary design report and application materials.

Company Name BCI Engineers & Scientists Name (please type) Walter R. Reigner
Company Address P O Box 5467
City/State/Zip Code Lakeland, FL 33807-5467
Phone Number (941) 667-2345 Walter R. Reigner 2/27/98

(Seal, Signature, Date, and Registration Number)

c. Professional Engineer Registered in Florida

I certify that the draft operation and maintenance manual for these wastewater facilities has been prepared or examined by me or by individual(s) under my direct supervision and that there is reasonable assurance, in my professional judgement, that the facilities, when properly operated and maintained in accordance with this manual, will comply with all applicable statutes of the State of Florida and rules of the Department.

Company Name BCI Engineers & Scientists Name (please type) Walter R. Reigner
Company Address P O Box 5467
City/State/Zip Code Lakeland, FL 33807-5467
Phone Number (941) 667-2345 Walter R. Reigner 2/27/98

(Seal, Signature, Date, and Registration Number)

[2]If signed by the authorized representative, attach a letter of authorization.

Drawings are Exempt from s.119.07 (1) and s. 24(a), Art. 1 of the State Constitution

These figures have been moved to the Plans and Specifications Profile in the Wastewater Restricted Catalog.

Photos

Drawings

Florida Department of
Environmental Protection

Memorandum

TO: Lou Neuman, Program Manager
Mandatory Nonphosphate

FROM: Stephen H. Partney, P.E. Administrator SHP
Technical Support Section

DATE: March 31, 1998

SUBJECT: Environmental Resource Permit 222833079 As-Built Drawings and certification of completion of outfall structure.

You and I inspected the site on March 23, 1998, with Kirk Davis and Jim Lanier, and I hereby confirm that the drawings are an accurate representation of the completed structures. These are also in accordance with the permit. This structure is expected to be perpetual.

SHP/sp

Department of Environmental Protection

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

CERTIFICATION

COUNTY: GLADES
APPLICANT NAME: E. R. Jahna Industries, Inc.
PROJECT NAME: ORTONA SAND MINE
FILE NUMBERS: 221685719 AND 22-00076-S

I HEREBY CERTIFY that the engineering features described in the referenced application to alter and operate a surface water management system associated with a sand mine provide reasonable assurance of compliance with Part IV, Chapter 373, Florida Statutes, and Chapter 40E-4, Florida Administrative Code. However, I have not evaluated and I do not certify aspects of the proposal outside my area of expertise (including but not limited to any electrical, mechanical, structural, and biological features which were described or implied).

Stephen H. Partney, P.E. 12/22/96
Date

(Seal)

Stephen H. Partney, P.E.
Bureau of Mine Reclamation

Department of
Environmental Protection

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

CERTIFICATION

PROJECT NAME: E. R. Jahna - Ortona Mine - Outfall Structure

APPLICATION DESIGNATION: Environmental Resource Permit No.222833079

I HEREBY CERTIFY that the completed structure fulfills the specifications of the engineering features described in the referenced permit in compliance with the applicable provisions of Part IV, Chapter 373, Florida Statutes, and Chapter 40E-4, Florida Administrative Code. A reclamation plan fulfilling the requirements of Chapter 378, F.S., has been filed with the Bureau of Mine Reclamation. However, I have not evaluated and I do not certify aspects of the proposal outside my area of expertise (including but not limited to any electrical, mechanical, structural, and biological features which were described or implied).

Stephen H. Partney, P.E. / Date 12/31/98
(Seal)

Exhibit 3 - Field Monitoring Data

Ortona Sand Mine
E. R. Jahna Industries, Inc.

Industrial Wastewater/NPDES Permit No. FL0037541
Field Monitoring Data

Date Month/Year	Did water discharge over weir this month? Yes	No	Total Rainfall (inches)	Staff Gauge Max. Reading* (feet)	Flow Max. Daily Discharge** MGD	Flow Total Monthly Discharge MG	pH Reading in Barge canal	Turbidity Reading at Outfall D001 (NTU)
Jan-11		✓	4.90	N/A	N/A	N/A	N/A	N/A
Feb-11		✓	1.20	N/A	N/A	N/A	N/A	N/A
Mar-11		✓	3.20	N/A	N/A	N/A	N/A	N/A
Apr-11		✓	1.70	N/A	N/A	N/A	N/A	N/A
May-11		✓	2.00	N/A	N/A	N/A	N/A	N/A
Jun-11		✓	9.00	N/A	N/A	N/A	N/A	N/A
Jul-11	✓		8.96	0.34	5.47	63.2	7.12	2.8
Aug-11	✓		12.40	0.35	5.97	98.9	7.66	8.5
Sep-11	✓		7.60	-	-	-	7.32	4.7
Oct-11			13.20					
Nov-11								
Dec-11								

*Weir crest is at an elevation of 13.77 MSL. Staff gauge reading of 0.00 corresponds to level of weir crest.
**Daily flow rate calculated on stage/discharge graph as developed from empirical rating based on outfall construction details.

-Data not available, water level data logger under repair
N/A not applicable no discharge

Ortona Sand Mine
E. R. Jahna Industries, Inc.

Industrial Wastewater/NPDES Permit No. FL0037541
Field Monitoring Data

Date Month/Year	Did water discharge over weir this month? Yes	No	Total Rainfall (inches)	Staff Gauge Max. Reading* (feet)	Flow Max. Daily Discharge** MGD	Flow Total Monthly Discharge MG	pH Reading in Barge canal	Turbidity Reading at Outfall D001 (NTU)
Jan-10	✓		0.40	0.34	5.47	100.1	7.06	5.0
Feb-10	✓		1.70	0.33	5.23	117.8	7.07	6.0
Mar-10	✓		6.70	0.52	10.42	195.5	7.07	6.0
Apr-10	✓		6.20	0.63	13.95	276.8	7.46	8.0
May-10	✓		5.40	0.56	11.66	277.9	7.40	7.1
Jun-10	✓		5.00	0.46	8.65	189.4	7.25	3.2
Jul-10	✓		3.10	0.41	7.26	167.0	7.06	3.2
Aug-10	✓		9.20	0.40	7.00	141.2	7.91	4.4
Sep-10	✓		5.50	0.42	7.53	142.3	7.01	2.7
Oct-10	✓		2.80	0.26	3.66	48.2	6.76	8.1
Nov-10	✓		2.50	0.12	1.20	6.4	7.03	8.1
Dec-10		✓	2.60	N/A	N/A	N/A	N/A	N/A

*Weir crest is at an elevation of 13.77 MSL. Staff gauge reading of 0.00 corresponds to level of weir crest.
**Daily flow rate calculated on stage/discharge graph as developed from empirical rating based on outfall construction details.

N/A not applicable no discharge

Ortona Sand Mine
E. R. Jahna Industries, Inc.

Industrial Wastewater/NPDES Permit No. FL0037541
Field Monitoring Data

Date Month/Year	Did water discharge over weir this month?		Total Rainfall (inches)	Staff Gauge Max. Reading* (feet)	Flow Max. Daily Discharge** MGD	Flow Total Monthly Discharge MG	pH Reading in Barge canal	Turbidity Reading at Outfall D001 (NTU)
	Yes	No						
Jan-09	✓		0.50	0.20	2.48	33.3	7.20	16.7
Feb-09	✓		0.10	0.09	0.83	1.53	7.40	44.3
Mar-09		✓	0.20	N/A	N/A	N/A	N/A	N/A
Apr-09		✓	0.30	N/A	N/A	N/A	N/A	N/A
May-09	✓		12.10	0.24	3.25	6.7	7.90	4.4
Jun-09	✓		10.40	0.52	10.42	182.7	8.00	2.5
Jul-09	✓		6.80	0.43	8.09	182.4	7.11	2.9
Aug-09	✓		4.30	0.32	5.23	132.3	7.09	8.0
Sep-09	✓		8.40	0.56	11.66	251.7	7.02	5.0
Oct-09	✓		0.00	0.38	6.48	108.7	6.99	7.0
Nov-09	✓		0.00	0.19	2.31	14.6	6.67	5.0
Dec-09	✓		5.50	0.36	5.97	113.0	6.85	8.0

*Weir crest is at an elevation of 13.77 MSL. Staff gauge reading of 0.00 corresponds to level of weir crest.
**Daily flow rate calculated on stage/discharge graph as developed from empirical rating based on outfall construction details.

N/A not applicable no discharge

Ortona Sand Mine
E. R. Jahna Industries, Inc.

Industrial Wastewater/NPDES Permit No. FL0037541
Field Monitoring Data

Date Month/Year	Did water discharge over weir this month?		Total Rainfall (inches)	Staff Gauge Max. Reading* (feet)	Flow Max. Daily Discharge** MGD	Flow Total Monthly Discharge MG	pH Reading in Barge canal	Turbidity Reading at Outfall D001 (NTU)
	Yes	No						
Jan-08	✓		5.00	0.23	3.11	18.2	-	39.0
Feb-08	✓		9.85	0.19	2.30	21.3	7.02	42.3
Mar-08	✓		7.40	0.39	6.86	89.0	8.53	37.8
Apr-08	✓		3.40	0.52	10.45	164.5	8.29	27.5
May-08	✓		2.00	0.11	1.02	4.0	7.78	14.5
Jun-08	✓		8.70	0.18	2.11	9.9	7.71	5.5
Jul-08	✓		9.70	0.60	12.89	280.9	7.06	11.1
Aug-08	✓		19.70***	1.60	58.98	727.7	7.00	6.9
Sep-08	✓		5.10	0.80	20.20	302.9	6.90	26.1
Oct-08	✓		2.20	0.62	13.74	231.6	6.90	20.9
Nov-08	✓		1.40	0.28	4.05	84.6	7.00	28.6
Dec-08	✓		0.30	0.27	3.95	88.5	7.00	21.5

*Weir crest is at an elevation of 13.77 MSL. Staff gauge reading of 0.00 corresponds to level of weir crest.
**Daily flow rate calculated on stage/discharge graph as developed from empirical rating based on outfall construction details.

***Tropical Storm
-Data not available, pH meter under repair

Ortona Sand Mine
E. R. Jahna Industries, Inc.

Industrial Wastewater/NPDES Permit No. FL0037541
Field Monitoring Data

Date Month/Year	Did water discharge over weir this month?		Total Rainfall (inches)	Staff Gauge Max. Reading* (feet)	Flow Max. Daily Discharge** MGD	Flow Total Monthly Discharge MG	pH Reading in Barge canal	Turbidity Reading at Outfall D001 (NTU)
	Yes	No						
Jan-07			0.00					
Feb-07			0.40					
Mar-07			0.20					
Apr-07			3.00					
May-07			1.90					
Jun-07		✓	5.90	N/A	N/A	N/A	N/A	N/A
Jul-07	✓		17.90	0.26	3.72	35.8	7.40	21.2
Aug-07	✓		5.80	0.35	5.80	118.2	7.50	17.5
Sep-07	✓		7.20	0.39	6.65	103.4	7.40	15.0
Oct-07	✓		2.10	0.36	6.00	145.3	7.40	27.1
Nov-07	✓		1.20	0.34	5.63	72.4	6.80	44.0
Dec-07	✓		3.50	0.24	3.29	47.8	-	31.9

*Weir crest is at an elevation of 13.77 MSL. Staff gauge reading of 0.00 corresponds to level of weir crest.
**Daily flow rate calculated on stage/discharge graph as developed from empirical rating based on outfall construction details.

- no reading pH meter under repair
N/A not applicable no discharge

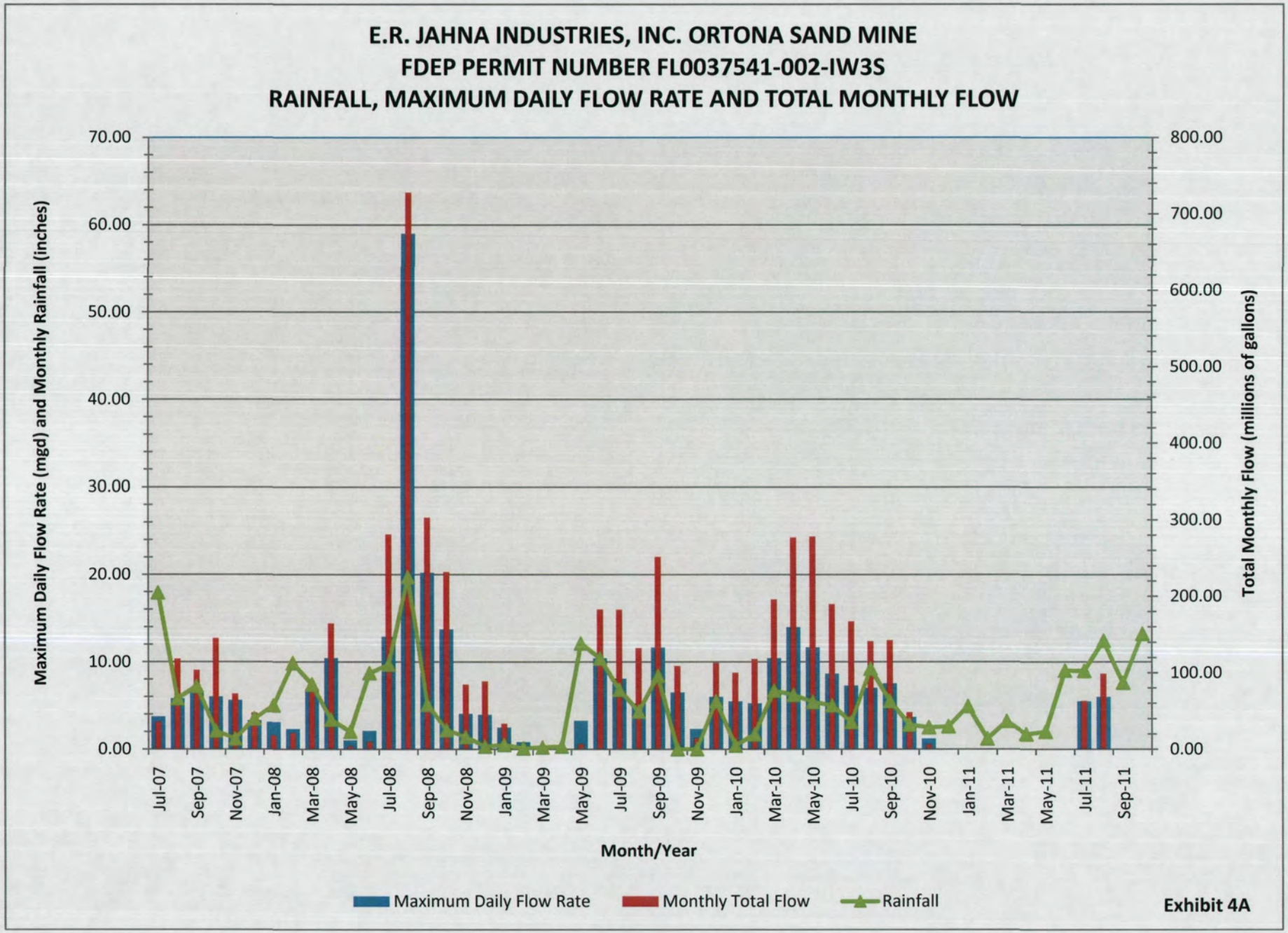
Ortona Sand Mine
E. R. Jahna Industries, Inc.

Industrial Wastewater/NPDES Permit No. FL0037541
Field Monitoring Data

Date Month/Year	Did water discharge over weir this month?		Total Rainfall (inches)	Staff Gauge Max. Reading* (feet)	Flow Max. Daily Discharge** MGD	Flow Total Monthly Discharge MG	pH Reading in Barge canal	Turbidity Reading at Outfall D001 (NTU)
	Yes	No						
Jan-06	✓		4.20	0.04	0.34	2.02	6.97	26.8
Feb-06	✓		1.50	0.18	1.7	19.56	6.99	41.8
Mar-06	✓		0.00	0.04	0.34	2.02	6.99	32.5
Apr-06		✓	0.50	N/A	N/A	N/A	N/A	N/A
May-06		✓	2.30	N/A	N/A	N/A	N/A	N/A
Jun-06		✓	10.40	N/A	N/A	N/A	N/A	N/A
Jul-06	✓		10.55	0.30	4.55	36.70	7.22	56.0
Aug-06	✓		9.80	0.62	13.62	178.28	7.0	54.0
Sep-06	✓		7.10	1.01	28.81	374.49	7.53	43.6
Oct-06								
Nov-06								
Dec-06								

*Weir crest is at an elevation of 13.77 MSL. Staff gauge reading of 0.00 corresponds to level of weir crest.
**Daily flow rate calculated on stage/discharge graph as developed from empirical rating based on outfall construction details.

Exhibit 4 - Water Discharge Graphs


E.R. JAHNA INDUSTRIES, INC. ORTONA SAND MINE
FDEP PERMIT NUMBER FL0037541-002-IW3S
RAINFALL, MAXIMUM DAILY FLOW RATE AND TOTAL MONTHLY FLOW
Maximum Daily Flow Rate (mgd) and Monthly Rainfall (inches)
Total Monthly Flow (millions of gallons)
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
Jul-07
Sep-07
Nov-07
Jan-08
Mar-08
May-08
Jul-08
Sep-08
Nov-08
Jan-09
Mar-09
May-09
Jul-09
Sep-09
Nov-09
Jan-10
Mar-10
May-10
Jul-10
Sep-10
Nov-10
Jan-11
Mar-11
May-11
Jul-11
Sep-11
Month/Year
Maximum Daily Flow Rate
Monthly Total Flow
Rainfall
Exhibit 4A

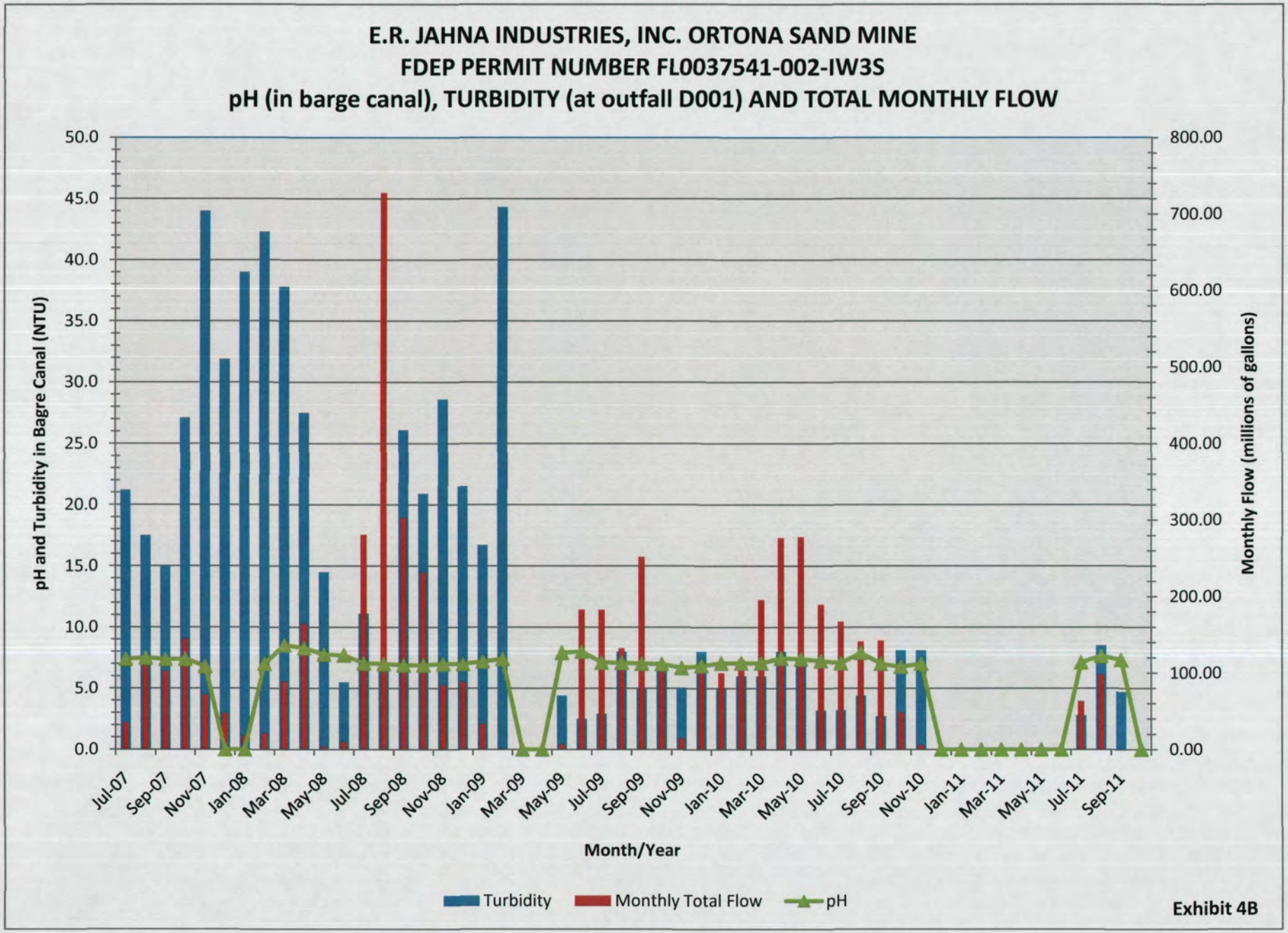
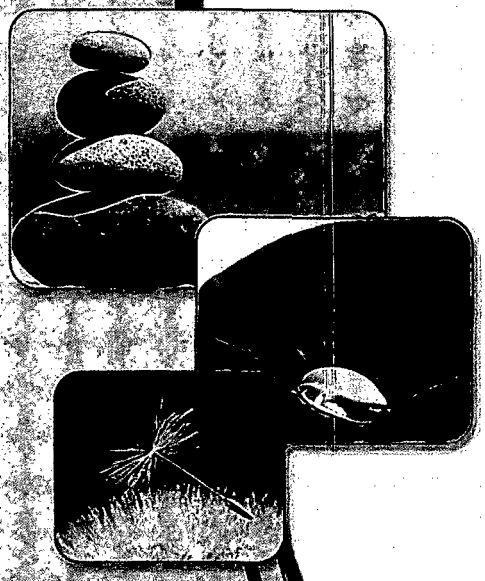

E.R. JAHNA INDUSTRIES, INC. ORTONA SAND MINE
FDEP PERMIT NUMBER FL0037541-002-IW3S
pH (in barge canal), TURBIDITY (at outfall D001) AND TOTAL MONTHLY FLOW
pH and Turbidity in Bagre Canal (NTU)
Monthly Flow (millions of gallons)
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
Jul-07
Sep-07
Nov-07
Jan-08
Mar-08
May-08
Jul-08
Sep-08
Nov-08
Jan-09
Mar-09
May-09
Jul-09
Sep-09
Nov-09
Jan-10
Mar-10
May-10
Jul-10
Sep-10
Nov-10
Jan-11
Mar-11
May-11
Jul-11
Sep-11
Month/Year
Turbidity
Monthly Total Flow
pH
Exhibit 4B

Exhibit 5 - Water Quality Report of Results



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Tampa
6712 Benjamin Road
Suite 100
Tampa, FL 33634
Tel: (813)885-7427

TestAmerica Job ID: 660-44439-1
Client Project/Site: Discharge 001 Ortona Sand Mine

For:
AMEC-BCI Engineers & Scientists, Inc
PO BOX 5467
2000 E. Edgewood Dr., Suite 215
Lakeland, Florida 33803

Attn: Mr. Leon Seale

Authorized for release by:
11/15/2011 2:28:33 PM

Nancy Robertson
Project Manager II
nancy.robertson@testamericainc.com

LINKS

Review your project results through TotalAccess

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Detection Summary 5
Client Sample Results 6
QC Sample Results 7
QC Association Summary 12
Lab Chronicle 14
Certification Summary 15
Method Summary 16
Sample Summary 17
Chain of Custody 18
Receipt Checklists 19

Qualifiers

General Chemistry

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 660-44439-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative
660-44439-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

Metals
No analytical or quality issues were noted.

General Chemistry
Method 350.1: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 117196 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 351.2: The matrix spike (MS) recovery for batch 117173 was outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. The sample is flagged with J3.

Method 353.2: The matrix spike (MS) recovery for batch 117178 was outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. The sample is flagged with J3.

No other analytical or quality issues were noted.

Detection Summary

Client: AMEC-BCI Engineers & Scientists, Inc
Project/Site: Discharge 001 Ortona Sand Mine

TestAmerica Job ID: 660-44439-1

Client Sample ID: Discharge 001 **Lab Sample ID: 660-44439-1**

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ammonia as N	0.021		0.020	0.010	mg/L	1		350.1	Total/NA
Nitrogen, Kjeldahl	0.29	J3	0.20	0.050	mg/L	1		351.2	Total/NA
Total Suspended Solids	3.6		1.0	1.0	mg/L	1		SM 2540D	Total/NA
Total Organic Carbon	7.1		1.0	0.35	mg/L	1		SM 5310C	Total/NA
Nitrogen, Total	0.29	I	0.70	0.15	mg/L	1		Total Nitrogen	Total/NA

Client: AMEC-BCI Engineers & Scientists, Inc
Project/Site: Discharge 001 Ortona Sand Mine

TestAmerica Job ID: 660-44439-1

Client Sample ID: Discharge 001
Date Collected: 11/01/11 11:05
Date Received: 11/02/11 11:20

Lab Sample ID: 660-44439-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	**0.021**		0.020	0.010	mg/L			11/07/11 16:15	1
Nitrogen, Kjeldahl	**0.29**	**J3**	0.20	0.050	mg/L		11/04/11 11:30	11/07/11 11:18	1
Nitrate Nitrite as N	0.10	U J3	0.50	0.10	mg/L			11/07/11 12:02	1
Phosphorus, Total	0.10	U	0.30	0.10	mg/L		11/04/11 11:30	11/07/11 11:18	1
Total Suspended Solids	**3.6**		1.0	1.0	mg/L			11/03/11 10:05	1
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			11/03/11 13:45	1
Chemical Oxygen Demand	10	U	20	10	mg/L		11/09/11 10:25	11/09/11 12:50	1
Total Organic Carbon	**7.1**		1.0	0.35	mg/L			11/07/11 20:35	1
Nitrogen, Total	**0.29**	**I**	0.70	0.15	mg/L			11/07/11 15:10	1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 660-117196/3
Matrix: Water
Analysis Batch: 117196

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.010	U	0.020	0.010	mg/L			11/07/11 16:01	1

Lab Sample ID: LCS 660-117196/4
Matrix: Water
Analysis Batch: 117196

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia as N	0.500	0.498		mg/L		100	90 - 110

Lab Sample ID: 660-44490-C-1 MS
Matrix: Water
Analysis Batch: 117196

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia as N	0.73	J3	1.00	1.59	J3	mg/L		86	90 - 110

Lab Sample ID: 660-44490-C-1 MSD
Matrix: Water
Analysis Batch: 117196

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia as N	0.73	J3	1.00	1.58	J3	mg/L		85	90 - 110	1	30

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 660-117119/10-A
Matrix: Water
Analysis Batch: 117173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 117119

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	0.050	U	0.20	0.050	mg/L		11/04/11 11:30	11/07/11 11:16	1

Lab Sample ID: LCS 660-117119/11-A
Matrix: Water
Analysis Batch: 117173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 117119

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	3.00	2.92		mg/L		97	90 - 110

Lab Sample ID: 660-44439-1 MS
Matrix: Water
Analysis Batch: 117173

Client Sample ID: Discharge 001
Prep Type: Total/NA
Prep Batch: 117119

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	0.29	J3	3.00	2.71	J3	mg/L		81	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: 660-44439-1 MSD — **Client Sample ID: Discharge 001**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 117173 — **Prep Batch: 117119**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	0.29	J3	3.00	3.12		mg/L		94	90 - 110	14	30

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 660-117178/12 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 117178

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	0.10	U	0.50	0.10	mg/L			11/07/11 11:56	1

Lab Sample ID: LCS 660-117178/13 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 117178

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.00	0.928		mg/L		93	90 - 110

Lab Sample ID: 660-44439-1 MS — **Client Sample ID: Discharge 001**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 117178

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.10	U J3	1.00	1.13	J3	mg/L		113	90 - 110

Lab Sample ID: 660-44439-1 MSD — **Client Sample ID: Discharge 001**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 117178

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	0.10	U J3	1.00	0.967		mg/L		97	90 - 110	16	30

Method: 365.4 - Phosphorus, Total

Lab Sample ID: MB 660-117117/10-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 117174 — **Prep Batch: 117117**

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus, Total	0.10	U	0.30	0.10	mg/L		11/04/11 11:30	11/07/11 11:16	1

Lab Sample ID: LCS 660-117117/11-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 117174 — **Prep Batch: 117117**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	7.00	6.79		mg/L		97	90 - 110

Method: 365.4 - Phosphorus, Total (Continued)

Lab Sample ID: 660-44439-1 MS — **Client Sample ID: Discharge 001**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 117174 — **Prep Batch: 117117**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	0.10	U	1.00	0.946		mg/L		95	90 - 110

Lab Sample ID: 660-44439-1 MSD — **Client Sample ID: Discharge 001**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 117174 — **Prep Batch: 117117**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phosphorus, Total	0.10	U	1.00	0.991		mg/L		99	90 - 110	5	30

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 660-117045/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 117045

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	1.0	U	1.0	1.0	mg/L			11/03/11 10:05	1

Lab Sample ID: LCS 660-117045/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 117045

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	95.2		mg/L		95	80 - 120

Lab Sample ID: 660-44439-1 DU — **Client Sample ID: Discharge 001**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 117045

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	3.6		3.60		mg/L		0	20

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: SCB 660-117090/2 SCB — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 117090

Analyte	SCB Result	SCB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			11/03/11 13:45	1

Lab Sample ID: USB 660-117090/1 USB — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 117090

Analyte	USB Result	USB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	2.0	U	2.0	2.0	mg/L			11/03/11 13:45	1

Method: SM 5210B - BOD, 5-Day (Continued)

Lab Sample ID: LCS 660-117090/3
Matrix: Water
Analysis Batch: 117090

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	217		mg/L		110	85 - 115

Method: SM 5220D - COD

Lab Sample ID: MB 660-117297/3-A
Matrix: Water
Analysis Batch: 117299

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 117297

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	10	U	20	10	mg/L		11/09/11 10:25	11/09/11 12:50	1

Lab Sample ID: LCS 660-117297/4-A
Matrix: Water
Analysis Batch: 117299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 117297

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	50.0	49.3		mg/L		99	90 - 110

Lab Sample ID: 640-35979-A-4-C MS
Matrix: Water
Analysis Batch: 117299

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 117297

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	10	U	50.0	53.9		mg/L		108	90 - 110

Lab Sample ID: 640-35979-A-4-D MSD
Matrix: Water
Analysis Batch: 117299

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 117297

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	10	U	50.0	52.9		mg/L		106	90 - 110	2	20

Method: SM 5310C - TOC

Lab Sample ID: MB 640-86868/6
Matrix: Water
Analysis Batch: 86868

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	0.35	U	1.0	0.35	mg/L			11/07/11 16:37	1

Lab Sample ID: LCS 640-86868/7
Matrix: Water
Analysis Batch: 86868

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	10.1		mg/L		101	80 - 120

Method: SM 5310C - TOC (Continued)

Lab Sample ID: LCSD 640-86868/8
Matrix: Water
Analysis Batch: 86868

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	10.0	10.1		mg/L		101	80 - 120	1	25

Lab Sample ID: 660-44479-B-1 MSD
Matrix: Water
Analysis Batch: 86868

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	18		5.00	22.7		mg/L		93	80 - 120	1	25

Lab Sample ID: 660-44479-C-1 MS
Matrix: Water
Analysis Batch: 86868

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	18		5.00	22.4		mg/L		88	80 - 120

Lab Sample ID: 660-44479-B-5 DU
Matrix: Water
Analysis Batch: 86868

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	0.35	U	0.35	U	mg/L		NC	25

General Chemistry

Analysis Batch: 86868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-44439-1	Discharge 001	Total/NA	Water	SM 5310C	
660-44479-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310C	
660-44479-B-5 DU	Duplicate	Total/NA	Water	SM 5310C	
660-44479-C-1 MS	Matrix Spike	Total/NA	Water	SM 5310C	
LCS 640-86868/7	Lab Control Sample	Total/NA	Water	SM 5310C	
LCSD 640-86868/8	Lab Control Sample Dup	Total/NA	Water	SM 5310C	
MB 640-86868/6	Method Blank	Total/NA	Water	SM 5310C	

Analysis Batch: 117045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-44439-1	Discharge 001	Total/NA	Water	SM 2540D	
660-44439-1 DU	Discharge 001	Total/NA	Water	SM 2540D	
LCS 660-117045/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 660-117045/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 117090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-44439-1	Discharge 001	Total/NA	Water	SM 5210B	
LCS 660-117090/3	Lab Control Sample	Total/NA	Water	SM 5210B	
SCB 660-117090/2 SCB	Method Blank	Total/NA	Water	SM 5210B	
USB 660-117090/1 USB	Method Blank	Total/NA	Water	SM 5210B	

Prep Batch: 117117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-44439-1	Discharge 001	Total/NA	Water	365.2/365.3/365	
660-44439-1 MS	Discharge 001	Total/NA	Water	365.2/365.3/365	
660-44439-1 MSD	Discharge 001	Total/NA	Water	365.2/365.3/365	
LCS 660-117117/11-A	Lab Control Sample	Total/NA	Water	365.2/365.3/365	
MB 660-117117/10-A	Method Blank	Total/NA	Water	365.2/365.3/365	

Prep Batch: 117119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-44439-1	Discharge 001	Total/NA	Water	351.2	
660-44439-1 MS	Discharge 001	Total/NA	Water	351.2	
660-44439-1 MSD	Discharge 001	Total/NA	Water	351.2	
LCS 660-117119/11-A	Lab Control Sample	Total/NA	Water	351.2	
MB 660-117119/10-A	Method Blank	Total/NA	Water	351.2	

Analysis Batch: 117173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-44439-1	Discharge 001	Total/NA	Water	351.2	117119
660-44439-1 MS	Discharge 001	Total/NA	Water	351.2	117119
660-44439-1 MSD	Discharge 001	Total/NA	Water	351.2	117119
LCS 660-117119/11-A	Lab Control Sample	Total/NA	Water	351.2	117119
MB 660-117119/10-A	Method Blank	Total/NA	Water	351.2	117119

Analysis Batch: 117174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-44439-1	Discharge 001	Total/NA	Water	365.4	117117
660-44439-1 MS	Discharge 001	Total/NA	Water	365.4	117117
660-44439-1 MSD	Discharge 001	Total/NA	Water	365.4	117117
LCS 660-117117/11-A	Lab Control Sample	Total/NA	Water	365.4	117117

General Chemistry (Continued)

Analysis Batch: 117174 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 660-117117/10-A	Method Blank	Total/NA	Water	365.4	117117

Analysis Batch: 117178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-44439-1	Discharge 001	Total/NA	Water	353.2	
660-44439-1 MS	Discharge 001	Total/NA	Water	353.2	
660-44439-1 MSD	Discharge 001	Total/NA	Water	353.2	
LCS 660-117178/13	Lab Control Sample	Total/NA	Water	353.2	
MB 660-117178/12	Method Blank	Total/NA	Water	353.2	

Analysis Batch: 117193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-44439-1	Discharge 001	Total/NA	Water	Total Nitrogen	

Analysis Batch: 117196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-44439-1	Discharge 001	Total/NA	Water	350.1	
660-44490-C-1 MS	Matrix Spike	Total/NA	Water	350.1	
660-44490-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
LCS 660-117196/4	Lab Control Sample	Total/NA	Water	350.1	
MB 660-117196/3	Method Blank	Total/NA	Water	350.1	

Prep Batch: 117297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-35979-A-4-C MS	Matrix Spike	Total/NA	Water	SM 5220	
640-35979-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220	
660-44439-1	Discharge 001	Total/NA	Water	SM 5220	
LCS 660-117297/4-A	Lab Control Sample	Total/NA	Water	SM 5220	
MB 660-117297/3-A	Method Blank	Total/NA	Water	SM 5220	

Analysis Batch: 117299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-35979-A-4-C MS	Matrix Spike	Total/NA	Water	SM 5220D	117297
640-35979-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	117297
660-44439-1	Discharge 001	Total/NA	Water	SM 5220D	117297
LCS 660-117297/4-A	Lab Control Sample	Total/NA	Water	SM 5220D	117297
MB 660-117297/3-A	Method Blank	Total/NA	Water	SM 5220D	117297

Client Sample ID: Discharge 001
Date Collected: 11/01/11 11:05
Date Received: 11/02/11 11:20

Lab Sample ID: 660-44439-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5310C		1	86868	11/07/11 20:35	AJN	TAL TAL
Total/NA	Analysis	SM 2540D		1	117045	11/03/11 10:05	TO	TAL TAM
Total/NA	Analysis	SM 5210B		1	117090	11/03/11 13:45	AG	TAL TAM
Total/NA	Prep	351.2			117119	11/04/11 11:30	TO	TAL TAM
Total/NA	Analysis	351.2		1	117173	11/07/11 11:18	TO	TAL TAM
Total/NA	Prep	365.2/365.3/365			117117	11/04/11 11:30	TO	TAL TAM
Total/NA	Analysis	365.4		1	117174	11/07/11 11:18	TO	TAL TAM
Total/NA	Analysis	353.2		1	117178	11/07/11 12:02	TS	TAL TAM
Total/NA	Analysis	Total Nitrogen		1	117193	11/07/11 15:10	RWF	TAL TAM
Total/NA	Analysis	350.1		1	117196	11/07/11 16:15	TO	TAL TAM
Total/NA	Prep	SM 5220			117297	11/09/11 10:25	EM	TAL TAM
Total/NA	Analysis	SM 5220D		1	117299	11/09/11 12:50	EM	TAL TAM

Laboratory References:

TAL TAL = TestAmerica Tallahassee, 2846 Industrial Plaza Drive, Tallahassee, FL 32301, TEL (850)878-3994

TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Certification Summary

Client: AMEC-BCI Engineers & Scientists, Inc
Project/Site: Discharge 001 Ortona Sand Mine

TestAmerica Job ID: 660-44439-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Tampa	Alabama	State Program	4	40610
TestAmerica Tampa	Florida	NELAC	4	E84282
TestAmerica Tampa	Georgia	State Program	4	905
TestAmerica Tampa	USDA	USDA		P330-11-00177
TestAmerica Tallahassee	Florida	NELAC	4	E81005
TestAmerica Tallahassee	Louisiana	NELAC	6	30663
TestAmerica Tallahassee	New Jersey	NELAC	2	FL012
TestAmerica Tallahassee	Oklahoma	State Program	6	9986
TestAmerica Tallahassee	Texas	NELAC	6	T104704459-11-2
TestAmerica Tallahassee	USDA	USDA		P330-08-00158

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: AMEC-BCI Engineers & Scientists, Inc
Project/Site: Discharge 001 Ortona Sand Mine

TestAmerica Job ID: 660-44439-1

Method	Method Description	Protocol	Laboratory
350.1	Nitrogen, Ammonia	MCAWW	TAL TAM
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL TAM
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL TAM
365.4	Phosphorus, Total	EPA	TAL TAM
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL TAM
SM 5210B	BOD, 5-Day	SM	TAL TAM
SM 5220D	COD	SM	TAL TAM
SM 5310C	TOC	SM	TAL TAL
Total Nitrogen	Nitrogen, Total	EPA	TAL TAM

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL TAL = TestAmerica Tallahassee, 2846 Industrial Plaza Drive, Tallahassee, FL 32301, TEL (850)878-3994

TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Sample Summary

Client: AMEC-BCI Engineers & Scientists, Inc
Project/Site: Discharge 001 Ortona Sand Mine

TestAmerica Job ID: 660-44439-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-44439-1	Discharge 001	Water	11/01/11 11:05	11/02/11 11:20

TestAmerica Tampa
6712 Benjamin Road Suite 100
Tampa, FL 33634
Phone (813) 885-7427 Fax (813) 885-7049

660-44439

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

11/15/2011

Client Information	Sampler: WINK WINKLER	Lab PM: Robertson, Nancy	Carrier Tracking No(s):	COC No: 660-37917-12381.1
Client Contact: Mr. Leon Seale	Phone: 863 557 0052	E-Mail: nancy.robertson@testamericainc.com		Page: Page 1 of 1
Company: AMEC-BCI Engineers & Scientists, Inc				Job #:
Address: PO BOX 5467 2000 E. Edgewood Dr., Suite 215	Due Date Requested:			
City: Lakeland	TAT Requested (days):			
State, Zip: FL, 33803				
Phone: 863-667-2345(Tel)	PO #: Purchase Order not requir			
Email: leon.seale@amec.com	WO #:			
Project Name: ~~Groundwater Sample~~ SURFACE WATER	Project #: 66005360			
Site: DISCHARGE 001 ORTONA SAND MINE	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	5310C - Total Organic Carbon	350.1, 351.2, 353.2, 365.4	5220D - Chemical Oxygen Demand	2540D, 5210B	Total Number of containers	Special Instructions/Note:
			Preservation Code:				S	S	S	N		
DISCHARGE 001	1 NOV 11	11:05A	G	Water			1	1	1	1		

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)** ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date: 10/31/11	Time: 16:28	Method of Shipment: Courier			
Relinquished by: WINK WINKLER	Date/Time: 11/1/11 1605	Company: AMEC	Received by:	Date/Time: 11/1/11 1605	Company: AMEC		
Relinquished by:	Date/Time: 11/1/11 1605	Company: AMEC	Received by:	Date/Time: 11-2-11 1120	Company: TA TRA		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 4.4° C CuOT				

Login Sample Receipt Checklist

Client: AMEC-BCI Engineers & Scientists, Inc

Job Number: 660-44439-1

Login Number: 44439

List Number: 1

Creator: Redding, Charles S

List Source: TestAmerica Tampa

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	4.4 degrees C Cu-07
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Login Sample Receipt Checklist

Client: AMEC-BCI Engineers & Scientists, Inc

Job Number: 660-44439-1

Login Number: 44439
List Number: 1
Creator: Savoie, Noel

List Source: TestAmerica Tallahassee
List Creation: 11/05/11 10:51 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) YSI 556 **INSTRUMENT #** 04M1924AA

PARAMETER: *[check only one]*

☐ TEMPERATURE X CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP

☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A 100 Geotech Lot# 0AI161 Expires Sep 2011

Standard B 300 Geotech Lot# 1AF469 Expires June 2012

Standard C 3500 Geotech Lot# 1AF471 Expires June 2012

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% of STD	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
11/11/01	1552	B	300	304		Yes	Init.	DCK
11/11/01	1556	C	3,500	3,440		Yes	Init.	DCK

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) YSI 556 **INSTRUMENT #** 04M1924AA

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY X pH ☐ ORP

☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A 7.0 Geotech Lot# 1AB105 Expires Feb. 2013

Standard B 4.0 Geotech Lot# 1AC329 Expires Mar. 2013

Standard C 10.0 Geotech Lot# 9AK177 Expires Nov. 2011

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	+/- of STD	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
11/11/01	1540	A	7.0	7.08	0.08	Yes	Init	DCK
11/11/01	1544	B	4.0	3.87	0.13	Yes	Init	DCK
11/11/01	1548	C	10.0	9.73	0.27	Yes	Init	DCK