HILLSBOROUGH COUNTY SOUTHEAST COUNTY LANDFILL EFFLUENT/LEACHATE STORAGE TANK CERTIFICATION OF CONSTRUCTION COMPLETION



ENVIRONMENTAL RESOURCE PERMIT NO. 29-0270881-003

Prepared for:

HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT

601 East Kennedy Boulevard County Center, 24th Floor Tampa, Florida 33602



Prepared by:

JONES EDMUNDS & ASSOCIATES, INC.

324 S. Hyde Park Avenue, Suite 250 Tampa, Florida 33606



P.E. CERTIFICATE OF AUTHORIZATION #1841

September 2009



LETTER OF TRANSMITTAL

TO:	Mr. R. Douglas Hyman, P.E.			DATE	Septembe	September 4, 2009		
	Storn South	nwater Eng nwest Distri	ineer ict	JOB. NO.	08449-03	08449-030-03 Task 2100		
	Florida Department of Environmental Protection 13051 N Telecom Parkway Temple Terrace, FL 33637-0926			RE:	Certificat Completi FDEP Po	Southeast County Landfill Certification of Construction Completion FDEP Permit No.: 29-0270881-003		
WE ARE SENDING YOU VIA:								
	U.S. FedE Hand		UPS Next Day UPS Ground Courier					
# Copies Date		Date		Description				
2 9		9/2009	Environmental Resource Permit Construction Completion Report					
2 9/2		9/2009	Effluent/Leachate Storage Tank Record Drawings					
THESE ARE TRANSMITTED AS CHECKED BELOW:								
$=4\lambda \omega$						FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SEP - 4 Zuij		
REMARKS: SOUTHWEST DISTRICT TAMPA								
Doug,								
Please find attached the documents listed above. Thank you.								
Copies to: Signed								
			If enclosures are not as noted	d, kindly noti	Jason Timmon fy us at once.	\$		
					1 /			



September 4, 2009

Mr. R. Douglas Hyman, P.E. Stormwater Engineer Southwest District Florida Department of Environmental Protection 13051 N Telecom Parkway Temple Terrace, FL 33637-0926

RE:

Southeast County Landfill

Certification of Construction Completion FDEP Permit No.: 29-0270881-003 JE Project No.: 08449-030-03 Task 5200

Dear Mr. Hyman:

Jones Edmunds & Associates, Inc., on behalf of the Hillsborough County Solid Waste Management Department (SWMD), is pleased to provide the enclosed Certification of Construction Completion Report for the Southeast County Landfill (SCLF) Effluent/Leachate Storage Tank project. In accordance with Permit Number 29-0270881-003, General Condition 13 and Specific Condition 10, this Certification of Construction Completion is being submitted within 75 days of construction completion, which was July 12, 2009. A 45 day extension to submit this report was granted by FDEP on August 18, 2009.

The enclosed completion report provides the Certification of Construction Completion including the following:

- Environmental Resource Permit As-Built Certification by a Registered Professional {DEP Form # 62-343.900(5)}.
- Request for Transfer of Environmental Resource Permit Construction Phase to Operation Phase {DEP Form # 62-343.900(7)}.
- Construction Completion Report.
- Completion photographs.
- Record Drawings (Drawings C-05, C-06, C-08, C-09, C-11, C-13). Please note that the Basin C Drawings Sheets B-5 and B-6 referenced in the permit previously submitted as part of the Section 9 project (permit # 29-0270881-001) transfer to operations submitted to FDEP in June 2008. These drawings include an asbuilt topographic survey.

Please let me know if you require any additional information.

Sincerely,

Jason Timmons, P.E.

Project Engineer

cc:

Patricia V. Berry, SWMD Megan Miller, SWMD Larry Ruiz, SWMD Susan Pelz, FDEP Ron Cope, HCEPC

324 South Hyde Park Avenue Suite 250 Tampa, FL 33606

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

SOUTHWEST DISTRICT

813.258.0703 Phone 813.254.6860 Fax www.jonesedmunds.com

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PART I

ENVIRONMENTAL RESOURCE PERMIT AS-BUILT CERTIFICATION BY A REGISTERED PROFESSIONAL {FDEP FORM # 62-343.900(5)}

Form #62-343.900(5), F.A.C. Form Title: As-Built Certification by a Registered Professional Effective Date: October 3, 1995

ENVIRONMENTAL RESOURCE PERMIT AS-BUILT CERTIFICATION BY A REGISTERED PROFESSIONAL

Permit Number: 29-0270881-003

Project Name: Effluent/Leachate Storage Tank Containment and Basin C Modifications System

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Jason i	E. T	immons,	P	Æ.
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Name (please print)

Jones Edmunds & Associates, Inc. Certificate of Authorization No. 1841 Company Name

324 S Hyde Park Ave Suite 250 Company Address

Tampa, Florida 33606 City, State, Zip Code

813-258-0703 Telephone Number Signature of Professional

Florida Registration Number

September 4, 2009

Date

(Affix Seal)

Substantial deviations from the approved plans and specifications: Please see attached report and summary.

(Note: attach two copies of as-built plans when there are substantial deviations)

Within 30 days of completion of the system, submit two copies of the form to:

62-343.900(5) On-Line Document Formatted 12/01/97 kag

PART II

REQUEST FOR TRANSFER OF ENVIRONMENTAL RESOURCE PERMIT CONSTRUCTION PHASE TO OPERATION PHASE {FDEP FORM # 62-343.900(7)}

Form #: 62-353.900(7)F.A.C. Form Title: Request for Transfer to

Operation Phase Effective Date: September 25, 1995

Request for Transfer of Environmental Resource Permit **Construction Phase to Operation Phase**

(To be completed and submitted by the operating entited	SEP 4 20					
Florida Department of Environmental Protection	SED SED					
	SEP A 2003 SOUTHWEST DISTRICT					
It is requested that Department Permit Number <u>29-0270881-003</u> authorizing the construction and operation of a surface water management system for the below mention project be transferred from the construction phase permittee to the operation phase operating entity.						
Project: Effluent/Leachate Storage Tank Containmen	t and Basin C Modifications System					
From: Name: Same as Operating Entity Address: City: State: Zip:						
To: Name: Hillsborough County Southeast Coun Address: 15960 CR 672 City: Lithia State: Florida Zip: 33547	ty Landfill					
The surface water management facilities are hereby accepted for operation and maintenance in accordance with the engineers certification and as outlined in the restrictive covenants and articles of incorporation for the operating entity. Enclosed is a copy of the document transferring title of the operating entity for the common areas on which the surface water management system is located. Note that if the operating entity has not been previously approved, the applicant should contact the Department staff prior to filing for a permit transfer.						
The undersigned hereby agrees that all terms and conditions of the permit and subsequent modifications, if any, have been reviewed, are understood and are hereby accepted. Any proposed modifications shall be applied for and obtained prior to such modification.						
Operating Entity: Barry Boldissar Name Title: Director						
Telephone: 813-272-5680						
Enclosure						
 copy of recorded transfer of title surface water management system Coy of plat(s) Copy of recorded restrictive covenants, articles of incorporation, and certificate of incorporation. 						
62-343 900(7)						

On-Line Document Formatted 12/01/97 kag

PART III CONSTRUCTION COMPLETION REPORT

HILLSBOROUGH COUNTY SOUTHEAST COUNTY LANDFILL EFFLUENT/LEACHATE STORAGE TANK

CERTIFICATION OF CONSTRUCTION COMPLETION

Project No.: 08449-030-03

Permit No.: 29-0270881-003

Prepared For:

HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT

601 East Kennedy Boulevard County Center, 24th Floor Tampa, Florida 33602

Engineer:

JONES EDMUNDS & ASSOCIATES, INC.

324 S. Hyde Park Avenue, Suite 250 Tampa, Florida 33606

Certificate of Authorization #1841

September 2009

1.0 INTRODUCTION

Jones Edmunds & Associates, Inc. (Jones Edmunds) developed construction documents and provided oversight for the construction of the Hillsborough County Southeast County Landfill (SCLF) Effluent/Leachate Storage Tank Project. The design plans submitted as part of the permit application were reviewed and approved by the Florida Department of Environmental Protection (FDEP). An Environmental Resource Permit for the Effluent/Leachate Storage Tank project was issued on May 23, 2008 (FDEP Permit No. 29-0270881-003). The Effluent/Leachate Storage Tank project Notice to Proceed was issued to the Contractor on July 22, 2008.

The project included the activities related to the construction of the Effluent/Leachate Storage Tank, containment system, access roads, and truck loading facility. Construction activities included excavation, dewatering, stockpiling of excavated soils, improvements to the stormwater ditches, and installation of two 24-inch reinforced concrete pipes for stormwater.

Onsite observation was performed by the Jones Edmunds resident project representative and Ash Engineering, Inc. (Ash), a subcontractor working under the direct supervision of Jones Edmunds. Jones Edmunds and Ash worked in conjunction with the SCLF Operations Manager. Additional onsite observation and office support was provided by Jones Edmunds engineers and staff.

This report provides documentation demonstrating that the construction activity related to the Effluent/Leachate Storage Tank was completed in substantial conformance with Part IV of Chapter 373, F.S. and Chapter 40D-4, Florida Administration Code (FAC), the approved plans, and project specifications as required by the FDEP Environmental Resource Permit No. 29-0270881-003. Photographs of construction activities for the stormwater management systems for the storage tank area and access road construction are provided in Attachment 1.

2.0 <u>CONSTRUCTION ACTIVITY SUMMARY</u>

The construction activities for the Effluent/Leachate Storage Tank and access road stormwater management systems are described in the following sections.

2.1 EFFLUENT/LEACHATE STORAGE TANK CONSTRUCTION

A Preconstruction Meeting for the Effluent/Leachate Storage Tank Project, that included the modifications to Basin C, was held on July 22, 2008. The FDEP was notified of the meeting in accordance with Specific Condition 7 of the permit. The meeting was attended by representatives of the FDEP ERP Program.

As required in Specific Condition 8 of the permit, quarterly progress reports were submitted to the FDEP beginning on July 25, 2008 for the period from July 1 to October 1. The reports outlined the activities completed during the previous quarter and a projection of the work to be accomplished. These reports were dated July 25, 2008, October 1, 2008; January 1, 2009; March 30, 2009; and July 1, 2009.

Construction activities began with installation of a silt fence around the storage tank construction site, the construction trailers, equipment lay down area, and the stockpile area. Turbidity measurements were collected once per week in Mine Cut No. 1 at the Pond C discharge.

Turbidity was measured to monitor the performance of the sedimentation controls used during construction as directed in Specific Condition 14 and 15 of the permit. Starting on August 15, 2008, a total of five turbidity measurements were made before excavation started on September 23, 2008, to establish a background level. The background level was established at 8.2 NTUs. Since September 23, 2008, 34 turbidity measurements were recorded. No measurements exceeded the permit required limit of 29 NTUs above background levels (i.e. 37.2 NTUs). A summary of the turbidity measurements is provided in Attachment 2.

Dewatering operations for the storage tank construction area, which began on October 2, 2008, were completed on October 9, 2008, after completion of excavation and backfill activities. Rainfall and groundwater that accumulated in the excavation was conveyed to the sock drain surrounding the excavation area, where it was pumped into the permitted dewatering Rapid Infiltration Basin (RIB) area.

The two 24-inch RCP pipes under the driveway connecting the truck loading area and East Access Road to the south of the storage tank area were installed in December 2008. The final invert elevations for the RCP pipes are depicted on the record drawings.

The access roadway construction around the storage tank area was completed in May 2009. Construction of the drainage swale to the west of the access road and restoration of the stormwater ditches to the south of the truck loading area were completed in April 2009.

A Decommissioning Plan submitted to the Department of Environmental Protection on August 10, 2007 as part of Permit # 29-0270881-001 called for the RIB basin to be graded and seeded when construction is completed. The RIB is currently within the SCLF active borrow area, so final grades within this area have not been achieved. As the SCLF needs borrow material, soil will be excavated from the stockpile and RIB area to lower the elevations. As it currently exists, both the stockpile and the RIB area are surrounded by higher ground and a berm that would prevent runoff from entering the adjacent mine cuts or run off-site. Thus, in our professional opinion, fully implementing the Decommissioning Plan at this time is not needed.

BASIN C MODIFICATION CONSTRUCTION 2.2

The modifications to Basin C were completed as part of the Section 9 construction project and as-built and certification documents were submitted as part of the Section 9 Completion Certification Documentation submitted to FDEP in June 2008. The Basin C modifications were transferred to operations by FDEP in correspondence dated January 16, 2009.

RECORD DRAWINGS 2.3

The completed stormwater management systems for the Effluent/Leachate Storage Tank area and access road are shown in the Record Drawings provided in Attachment 3. Full sized, signed and sealed Record Drawings are provided separately. Revisions to the permitted design drawings are marked by a cloud while deletions are marked with strikethroughs. All deviations were reviewed and approved by the Engineer of Record and are made part of this certified completion report.

COMPARISON OF PERMITTED EFFLUENT/LEACHATE STORAGE TANK AREA 3.0 VERSUS AS-BUILT CONDITIONS

The following is a listing of the changes made to the original permit, ERP Permit No. ERP Permit No. 29-0270881-003.

- During construction, it was found that stormwater could not be routed to the existing ditch system east of the storage tank from the access road. Therefore, a swale to the west of the access road was constructed to convey stormwater to the ditch south of the storage tank area. The ditch in turn conveys stormwater to Pond C. This modification does not change the intended destination of stormwater for the Effluent/Leachate Storage Tank Area and access road.
- The invert elevations for the 2 24-inch RCP stormwater pipes to the south of the Effluent/Leachate Storage truck loading area was adjusted in order to maintain the required FDOT minimum cover under the paved access roads. The revised invert elevations are shown in the record drawings provided with this report. The invert elevation changes do not impact the function or routing of stormwater to Basin C.

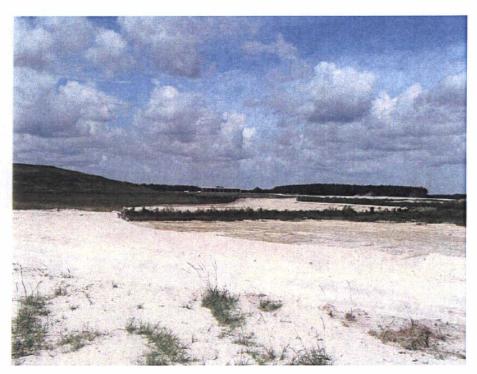
The construction of the Effluent/Leachate Storage Tank area stormwater management system were completed in accordance with the general and specific conditions provided in ERP Permit No. 29-0270881-003 and there were no other revisions which deviated from the original stormwater models and plans.

ATTACHMENT 1 CONSTRUCTION COMPLETION PHOTOGRAPHS





August 12, 2008. The Effluent/Leachate Storage Tank Excavation Area Preconstruction Photo - Facing east towards the LTRF. This area has been excavated by the SWMD for the sand material and work will continue by Woodruff.



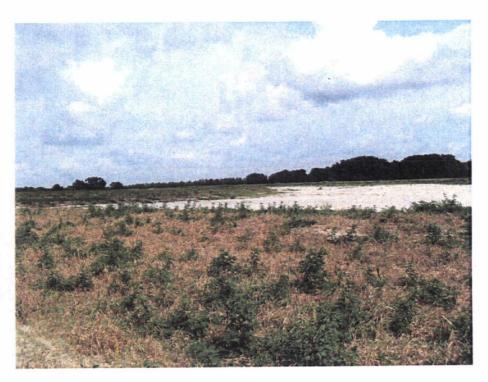
August 12, 2008. Effluent/Leachate Storage Tank Preconstruction Photo - Work area including the site for the truck loading facility facing west towards the tire site and the north side of Sections 8 and 9.



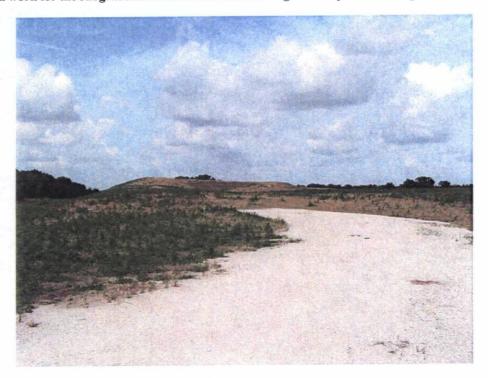
August 13, 2008. The Effluent/Leachate Storage Tank Excavation Area Preconstruction Photo – This photo is facing west from the LTRF to Section 8 across the entire Effluent/Leachate Storage Tank work area. This area has been excavated by the SWMD for the sand material and work will continue by Woodruff.



August 13, 2008. Effluent/Leachate Storage Tank Preconstruction Photo - Work area for the Effluent/Leachate Storage Tank project facing south from the LTRF. The existing maintenance building at the LTRF is shown to the left.



August 12, 2008. Soil Recovery Area Preconstruction Photo – Depicting the Soil Recovery Area before excavation work for the subgrade material for the tank has begun. This photo is facing north.



August 12, 2008. Soil Recovery Area Preconstruction Photo – Depicting the Soil Recovery Area before excavation work for the subgrade material for the tank has begun. This photo is facing west.



September 11, 2008. The Effluent/Leachate Storage Tank Excavation Area Preconstruction Photo - Facing east towards the LTRF. This area has been excavated by the SWMD for the sand material and work will continue by Woodruff.



September 11, 2008. Effluent/Leachate Storage Tank Preconstruction Photo - Work area including the site for the truck loading facility facing west towards the tire site and the north side of Sections 8 and 9.



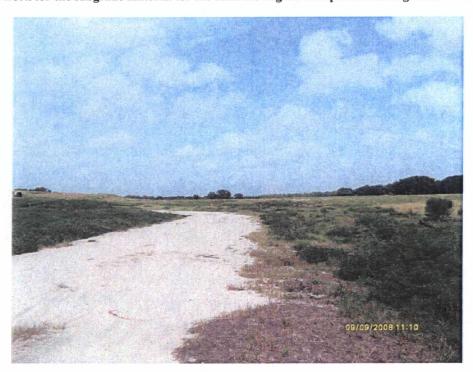
September 11, 2008. The Effluent/Leachate Storage Tank Excavation Area Preconstruction Photo – This photo is facing west from the LTRF to Section 8 across the entire Effluent/Leachate Storage Tank work area. This area has been excavated by the SWMD for the sand material and work will continue by Woodruff.



September 11, 2008. Effluent/Leachate Storage Tank Preconstruction Photo - Work area for the Effluent/Leachate Storage Tank project facing south from the LTRF. The existing maintenance building at the LTRF is shown to the left.



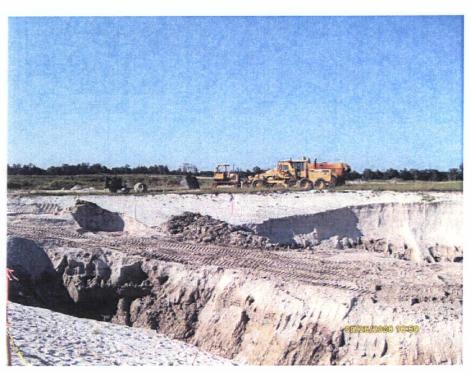
September 9, 2008. Soil Recovery Area Preconstruction Photo – Depicting the Soil Recovery Area before excavation work for the subgrade material for the tank has begun. This photo is facing west.



September 9, 2008. Soil Recovery Area Preconstruction Photo – Depicting the Soil Recovery Area before excavation work for the subgrade material for the tank has begun. This photo is facing northwest.



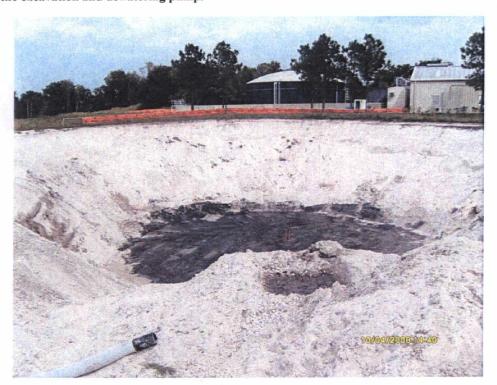
September 25, 2008. The Effluent/Leachate Storage Tank Beginning Excavation/Dewatering - Facing east towards the LTRF. WSI has constructed a rim ditch in the area to begin initial dewatering investigations and pumping.



September 25, 2008. Effluent/Leachate Storage Tank Beginning Excavation/Dewatering - Work area including the site for the truck loading facility looking to the northwest.



October 4, 2008. The Effluent/Leachate Storage Tank Excavation Area – Looking to the east to the LTRF showing the excavation and dewatering pump.



October 4, 2008. Effluent/Leachate Storage Tank Excavation – The bottom of the tank excavation is shown. The waste clays have been removed from the site and the natural ground (dark soil) is at the bottom. The site has been dewatered and the water level is below the excavation bottom.



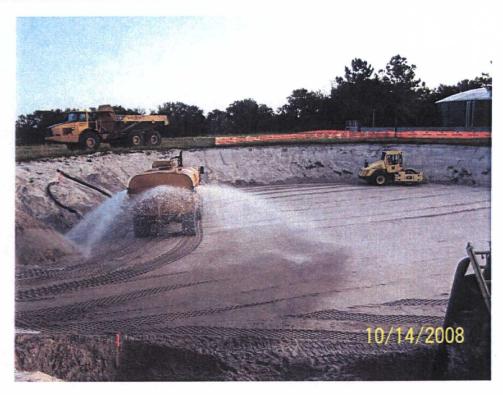
October 14, 2008. The Effluent/Leachate Storage Tank Excavation Backfill Operations – Looking to the east to the LTRF showing the backfill operations for the excavation area. The Kelly Well used for dewatering operation is also shown on the right side of the photo.



October 14, 2008. Effluent/Leachate Storage Tank Backfill - Backfill in the effluent/leachate storage tank area.



October 14, 2008. Effluent/Leachate Storage Tank Backfill - Facing east towards the LTRF. Compaction of subgrade and subbase material for tank area.



October 14, 2008. Effluent/Leachate Storage Tank Backfill - Facing east towards the LTRF. Compaction of subgrade and subbase material for tank area including watering.



October 23, 2008. Effluent/Leachate Storage Tank Backfill - Facing west towards the borrow area. Compaction and placement of crushed rock for concrete pad foundation.



October 23, 2008. Effluent/Leachate Storage Tank Backfill - Facing west towards the borrow area. Compaction and placement of crushed rock for concrete pad foundation.



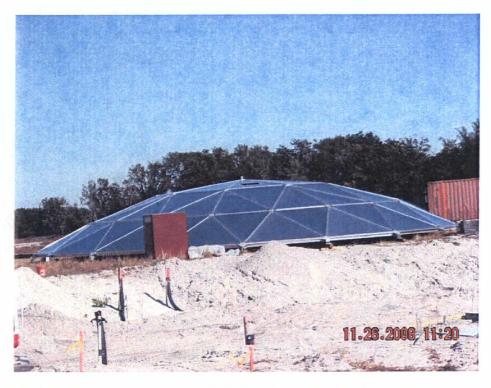
November 10, 2008. Effluent/Leachate Storage Tank Ring Wall Foundation Installation – Form boards and rebar for ring wall.



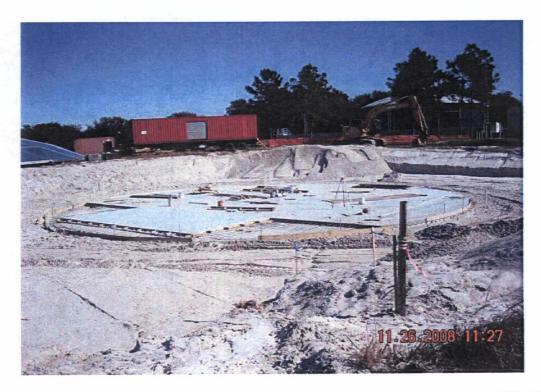
November 10, 2008. Effluent/Leachate Storage Tank Ring Wall Foundation Installation – Form boards and rebar for ring wall. Concrete pour into ring wall footer forms.



November 20, 2008. Effluent/Leachate Storage Tank Concrete Slab – Working on the tie in area on the south side of the tank site.



November 26, 2008. Effluent/Leachate Storage Tank Alumadome Roof – Facing north from the tank site. The roof construction is completed.



November 26, 2008. Effluent/Leachate Storage Tank Concrete Slab - Facing east towards the LTRF. The final tie-in areas are left to pour.



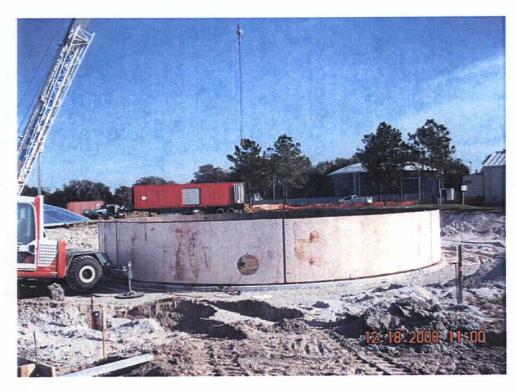
November 26, 2008. Effluent/Leachate Storage Tank Concrete Slab Construction - Facing west towards the borrow area.



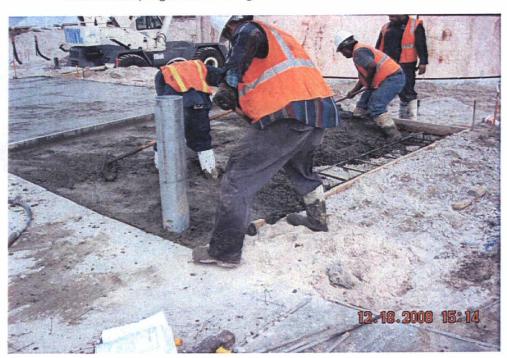
December 4, 2008. Effluent/Leachate Storage Tank Concrete Slab – Finished concrete slab. All pours completed.



December 4, 2008. Effluent/Leachate Storage Tank Truck Loading Area Trench Drain and truck loading slab – Facing north from the tank site. Pouring the concrete for the truck loading area floor slab.



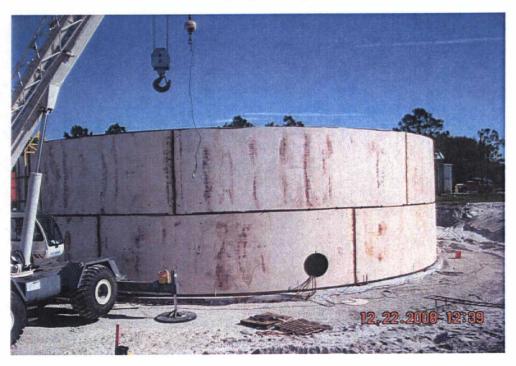
December 18, 2008. Effluent/Leachate Storage Tank - Facing east towards the LTRF. Tampa Tank (tank manufacturer) begins constructing the tank structure on the tank slab.



December 18, 2008. Effluent/Leachate Storage Tank Booster Pump Pad - Facing east from the Truck Loading Area. Crews installing bollards and pouring concrete for the booster pump slab.



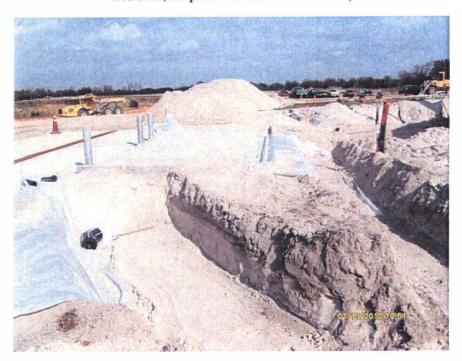
December 18, 2008. Effluent/Leachate Storage Tank - Facing north. Completed truck loading area and booster pump station pads.



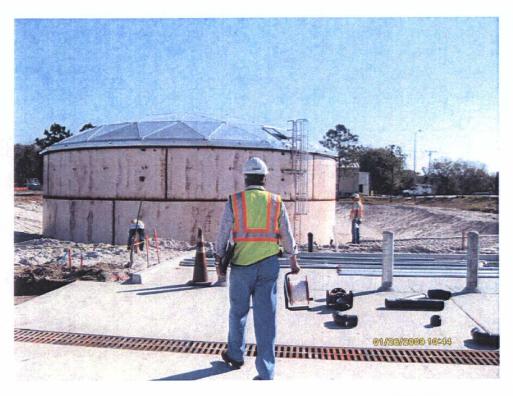
December 22, 2008. Effluent/Leachate Storage Tank – Facing east towards the LTRF. Tampa Tank erecting the second ring of the tank structure.



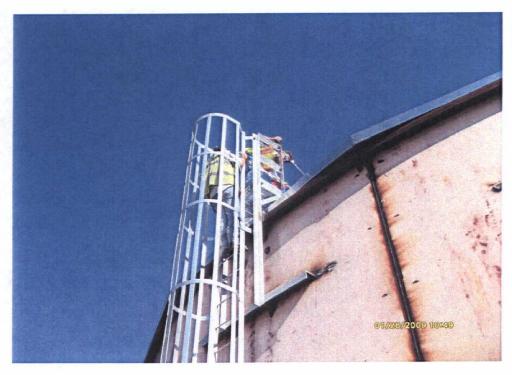
January 13, 2009. Effluent/Leachate Storage Tank – Facing east towards the LTRF. The aluminum dome roof placed on supports and connected to upper tier of storage tank. (Please note the photo indicates 1/13/2010, the photo was taken on 1/13/2009)



January 13, 2009. Effluent/Leachate Storage Tank – Facing north. The truck loading pad and booster pump station pad have been completed and the forcemain trenches have been excavated. (Please note the photo indicates 1/13/2010, the photo was taken on 1/13/2009)



January 26, 2009. Effluent/Leachate Storage Tank - Facing east towards the LTRF. The tank construction has been completed. Contractor and Jones Edmunds are preparing for the hydrostatic test.



January 26, 2009. Effluent/Leachate Storage Tank. Jones Edmunds representative initiating the hydrostatic test by setting the initial water level.



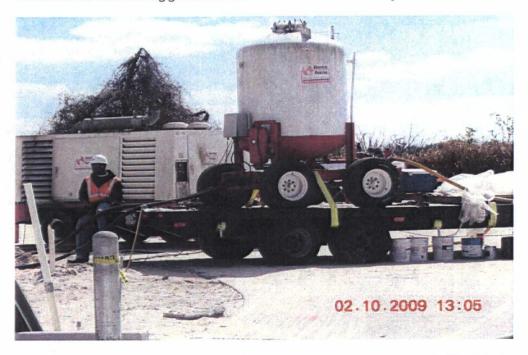
January 30, 2009. Effluent/Leachate Storage Tank Access Road - Facing east towards the LTRF. The crushed concrete base has been installed in a portion of the roadway.



January 30, 2009. Effluent/Leachate Storage Tank Access Road – Facing north from the LTRF. Crushed concrete base installed to the north of the existing truck loading area.



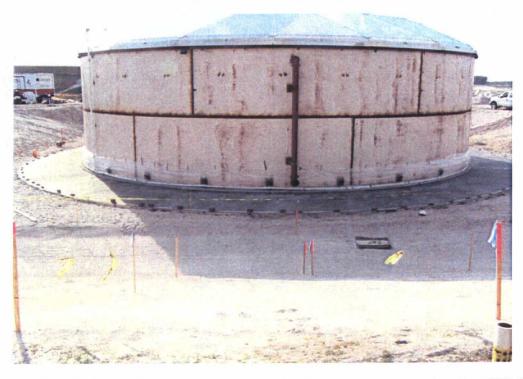
February 10, 2009. Effluent/Leachate Storage Tank – Facing east towards the LTRF. The area around the bottom of the tank is being graded for sidewalk construction around perimeter of the tank.



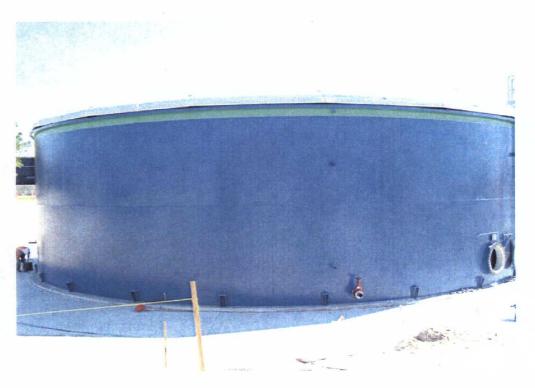
February 10, 2009. Effluent/Leachate Storage Tank – Facing south away from the tank. The painting crew is beginning to sand blast interior of storage tank.



February 25, 2009. Effluent/Leachate Storage Tank Sidewalk - Facing west away from the LTRF. The concrete sidewalk has been poured and the Polylock system is being set in place.



February 25, 2009. Effluent/Leachate Storage Tank Sidewalk. – Facing west away from the LTRF. The sidewalk has been completed and the Polylock installed. Bricks were used on top of the Polylock to maintain its position until the concrete set.



March 5, 2009. Effluent/Leachate Storage Tank - Facing east towards the LTRF. The tank has been completely painted on the inside and outside.



March 10, 2009. Effluent/Leachate Storage Tank Geomembrane Liner. Installation on northeast corner of containment down to the secondary sump area.



March 11, 2009. Effluent/Leachate Storage Tank Geomembrane Liner. The installation crews prepare the Polylock to weld the geomembrane liner to it.



March 11, 2009. Effluent/Leachate Storage Tank – Facing south towards the truck loading area. The geomembrane liner has been installed and the access platform erected.



March 24, 2009. Effluent/Leachate Storage Tank. - Facing north across the storage tank area. The piping for the stormwater side slope riser pump is being installed.



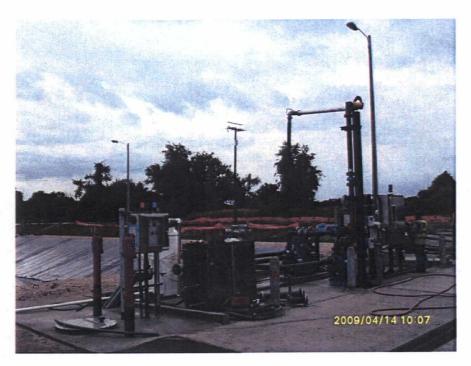
March 24, 2009. Effluent/Leachate Storage Tank. – Facing southwest across the truck loading pad pump station. Piping and fittings being installed and leveled.



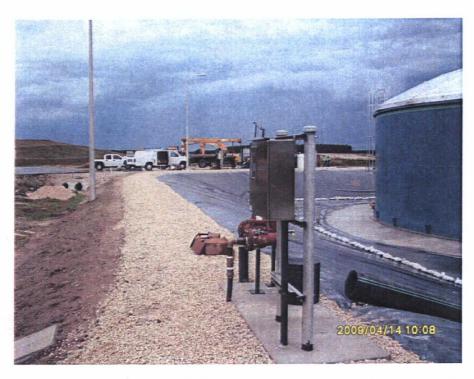
April 2, 2009. Effluent/Leachate Storage Tank. – Facing west. The control panel for the stormwater slide slope riser pump has been installed. Gravel placed around boundary of the containment area for fence installation.



April 7, 2009. Effluent/Leachate Storage Tank. Facing south towards truck loading area. Pavement on truck loading access road completed.



April 14, 2009. Effluent/Leachate Storage Tank. Facing southeast towards pump pad. Piping installed with pipe stands. Control panel mounted. Truck loading arm installed. Waiting pressure testing.



April 14, 2009. Effluent/Leachate Storage Tank – Facing west. Installation of stormwater side slope riser pumps and control panel. Gravel installation complete surrounding tank containment area.



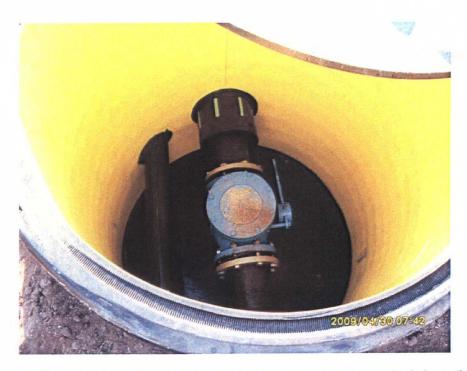
April 15, 2009. Effluent/Leachate Storage Tank. – Aerial view of storage tank, containment area, truck loading station and pad, and access roads.



April 28, 2009. Effluent/Leachate Storage Tank. – Existing leachate and effluent force main tie-in south of the storage tank. A sump was constructed and lined with plastic. The force mains were drained the previous day, before cutting the lines, to limit liquid and a pump was placed in the sump to pump to the Hillsborough County leachate tanker for disposal of any liquid that drained from the lines.



April 28, 2009. Effluent/Leachate Storage Tank. – Completed tie-in to existing leachate and effluent force mains south of the tank. The valve vault for the double-wall leachate force main completed at tie-in. System was re-activated and observed for any leaks before backfill and compaction.



April 30, 2009. Effluent/Leachate Storage Tank. Interior of valve vault at force main tie-in south of storage tank. Check valve installed on double-wall leachate force main to stop leachate flow from effluent/leachate storage tank from going back to the main leachate pump station.



May 4, 2009. Effluent/Leachate Storage Tank – Piping modification at existing leachate storage tank for leachate and effluent lines to the new effluent/leachate storage tank.



May 12, 2009. Effluent/Leachate Storage Tank. Area south of storage tank completed and sod placement.

Begin installation of fencing along perimeter of storage tank area.



May 20, 2009. Effluent/Leachate Storage Tank. – The fencing around the perimeter of the tank site has been completed.



May 20, 2009. Effluent/Leachate Storage Tank Side Slope Riser Pump. – The side slope riser pump was reset within the casing and now operates effectively.



May 26, 2009. Effluent/Leachate Storage Tank Pump Pad. – The canopy roof construction is underway and is approximately 60% complete.



June 2, 2009. Effluent/Leachate Storage Truck Loading Pump Flow Readout.



June 9, 2009. Effluent/Leachate Storage Tank Pump Pad. The canopy roof above the pump pad has been completed.



June 9, 2009. Effluent/Leachate Storage Tank Pump Pad – The completed pump pad area; including canopy roof, piping systems and pumps, and truck loading arm.

ATTACHMENT 2 . TURBIDITY MEASUREMENT RECORDS



Project Number: <u>08449-030-02</u>

Project Name: SCLF Effluent/Leachate Storage Tank
Subject: Turbidity Measurements Summary Table
By: M. Ellis Date: 6/2/09

Checked by: G. S. Fruecht

TURBIDITY MEASUREMENTS SUMMARY TABLE (MEASURED AT POND C DISCHARGE)

			-NOUNED AT TOND		
Date	Known Standard (NTU)	Known Standard (NTU)	Calibration Reading (NTU)	Turbidity Reading (NTU)	Comment
8/15/2008	5.55	49.3	5.50 / 49.3	7.80	Baseline Data - Prior to Mobilization
8/20/2008	5.55	49.3	5.54 / 49.1	12.70	Significant increase due to Tropical Storm Fay rainfall events.
8/22/2008	5.55	49.3	5.54 / 49.3	8.60	
9/9/2008	5.55	49.3	5.55 / 49.3	6.0 , 8.0	Multiple readings recorded
9/16/2008	5.55	49.3	5.54 / 49.3	6.0 , 8.0	Multiple readings recorded
9/23/2008	5.55	49.3	5.54 / 49.1	8.00	
9/30/2008	5.55	49.3	5.51 / 49.0	6.0 , 8.0	Multiple readings recorded
10/7/2008	5.55	49.3	5.51 / 49.3	6.0 , 7.2	Multiple readings recorded
10/14/2008	5.55	49.3	5.54 / 49.3	7.2 , 7.6	Multiple readings recorded
10/21/2008	5.55	49.3	5.54 / 49.3	7.00	
10/28/2008	5.55	49.3	5.51 / 49.2	7.2 , 7.4	Multiple readings recorded
11/4/2008	5.55	49.3	5.51 / 49.2	8.6, 8.8	Slight increase due to rainfall events.
11/10/2008	5.55	49.3	5.51 / 49.1	7.2 , 7.3	Multiple readings recorded
11/18/2008	5.55	49.3	5.55 / 49.2	7.4 , 7.8	Multiple readings recorded
11/25/2008	5.55	49.3	5.54 / 49.2	7.2 , 7.6	Multiple readings recorded
12/2/2008	5.55	49.3	5.55 / 49.3	8.4 , 8.6	Slight increase due to rainfall events.
12/9/2008	5.55	49.3	5.55 / 49.3	7.6 , 7.9	Multiple readings recorded
12/16/2008	5.55	49.3	5.54 / 49.1	7.8 , 8.2	Multiple readings recorded
1/6/2009	5.55	49.3	5.53 / 49.3	7.80	
1/13/2009	5.55	49.3	5.54 / 49.2	7.90	
1/20/2009	5.55	49.3	5.51 / 49.1	6.40	
1/27/2009	5.55	49.3	5.51 / 49.1	6.80	
2/3/2009	5.55	49.3	5.54 / 49.1	7.13	

2/10/2009	5.55	49.3	5.54 / 49.2	9.40	9.40 reading taken from the usual pond test site. Sligh increase due to rainfall event.
2/17/2009	5.55	49.3	5.53 / 49.3	7.80	
2/24/2009	5.55	49.3	5.53 / 49.1	7.80	
3/3/2009	5.55	49.3	5.54 / 49.2	7.80	
3/10/2009	6.12	60.3	6.12 / 60.2	7.50	Replaced Calibration Standard Gels
3/17/2009	6.12	60.3	6.11 / 60.1	7.10	
3/24/2009	6.12	60.3	6.11 / 60.3	7.90	
4/7/2009	6.12	60.3	6.12 / 60.1	7.68	
4/14/2009	6.12	60.3	6.12 / 60.3	7.90	
4/16/2009	6.12	60.3	6.10 / 60.1	7.84	
4/21/2009	6.12	60.3	6.10 / 60.1	7.33	
4/29/2009	6.12	60.3	6.12 / 60.2	7.91	
5/4/2009	6.12	60.3	6.11 / 60.3	8.03	
5/12/2009	6.12	60.3	6.12 / 60.3	7.42	1
5/20/2009	6.12	60.3	6.11 / 60.1	8.55	Slight increase due to rainfall events.
5/29/2009	6.12	60.3	6.10 / 60.2	8.60	Slight increase due to rainfall events.
6/2/2009	6.12	60.3	6.11 / 60.1	7.92	Contractor has demobilized equipment

ATTACHMENT 3 RECORD DRAWINGS

