



27 April 2015

Mr. F. Thomas Lubozynski, P.E.
Waste Program Administrator
Solid and Hazardous Waste Program
Florida Department of Environmental Protection, Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Re: Monitoring Well Abandonment Report
J.E.D. Solid Waste Management Facility, Osceola County, Florida
Permit No. SO49-0199726-024
WACS Facility ID #89544

Dear Mr. Lubozynski:

On behalf of behalf of Omni Waste of Osceola County, LLC (Omni) for the J.E.D. Solid Waste Management Facility (JED facility), Geosyntec Consultants (Geosyntec) is pleased to provide the Florida Department of Environmental Protection (FDEP) this report documenting the monitoring well abandonment activities at the above referenced site. The abandonment work was completed by a Florida licensed drilling contractor under the supervision of Geosyntec personnel.

PROJECT BACKGROUND

The J.E.D. Solid Waste Management (JED) facility is located in eastern Osceola County, Florida, west of highway U.S. 441, and approximately 6.5 miles south of Holopaw. The facility includes a Class I landfill which is linked to highway U.S. 441 by a 2.86-mile access road. The JED facility comprises a total of approximately 2,179 acres. The landfill footprint at build-out will be approximately 360 acres and consist of 23 landfill cells that will provide available waste capacity for a period of approximately 30 years. Prior to issuance of a landfill permit, a hydrological study was conducted to observe groundwater site conditions. Piezometers DP-14 and DP-15 were installed in November 2001 for purposes of the hydrological study.

Construction of the Cell 11 disposal area began in January 2015. The DP-14 and DP-15 piezometers were located within the footprint of Cell 11, therefore the abandonment of these piezometers was necessary to complete the construction of Cell 11. Piezometers DP-14 and DP-15 are currently used for groundwater elevations, but future groundwater elevations will be collected from proposed Cell 11 detection monitoring well MW-27, MW-28, and MW-29 clusters.

ABANDONMENT PROCEDURE

Geosyntec personnel met with Cascade Drilling, Inc., (Cascade) a Florida licensed drilling subcontractor, at the site on 2 March 2015 for the abandonment of monitoring wells DP-14 and DP-15. The wells were abandoned due to their interference with facility construction activities that were occurring to expand Cell 11. A map with the locations of the abandoned monitoring wells is provided as **Figure 1**. Photographs documenting the abandonment activities are included in **Attachment A** and a copy of the regulatory permits is included as **Attachment B**. Abandonment of the monitoring wells was completed by filling the well casing with bentonite grout (Portland Type I/II cement with approximately 3% to 5% bentonite clay by volume) from the bottom up to land surface using a tremie pipe. Prior to abandonment PWS personnel verified the total depth at monitoring wells DP-14 and DP-15 to be approximately 19 feet below land surface (ft bls) and 53 ft bls, respectively, using a weighted measuring tape.

Theoretical grout volumes were calculated based on the total internal volume of the PVC well and screen. In addition, a theoretical fill-volume was estimated based on the filter pack/well screen interval. Cement volumes were estimated based on;

$$C_{vol} = (W_c * W_{Total}) + (n_{Filt} * L_{Filt} * B_c)$$

where;

 C_{vol} = grout volume required to backplug the well including the well-screen filter pack;

 W_c = well capacity gallons-per-ft (gal/ft) (0.16 gal/ft [2" PVC casing]);

 W_{Total} = well length total includes casing and screen (ft);

 n_{Filt} = porosity of the filter pack (0.20);

 L_{Filt} = length of the well filter pack (ft);

 B_c = borehole capacity (annulus between casing and hole) [1.78 gal/ft (5 5/8" borehole)];

The theoretical grout volume required to backplug the 2 inch wells was estimated at approximately 5.6 gallons for DP-14 and 11 gallons for DP-15. Approximately 4 gallons of bentonite grout was used to abandon DP-14 and approximately 9 gallons for DP-15.

Following placement of the grout, the concrete pads and protective aluminum casings were removed. The well riser casing was removed to just below grade and then additional grout was added to make the borehole flush with grade. Plugging and abandonment activities were completed in general conformance with construction and

abandonment guidelines provided in the Water Well Construction Standards detailed in Florida Administrative Code Chapter 62-532.500(4).

CLOSURE

Should you have any questions regarding the information presented in this report, please contact Mr. Michael Kaiser at (904) 673-0446 or Matthew Wissler at (727) 330-9954.

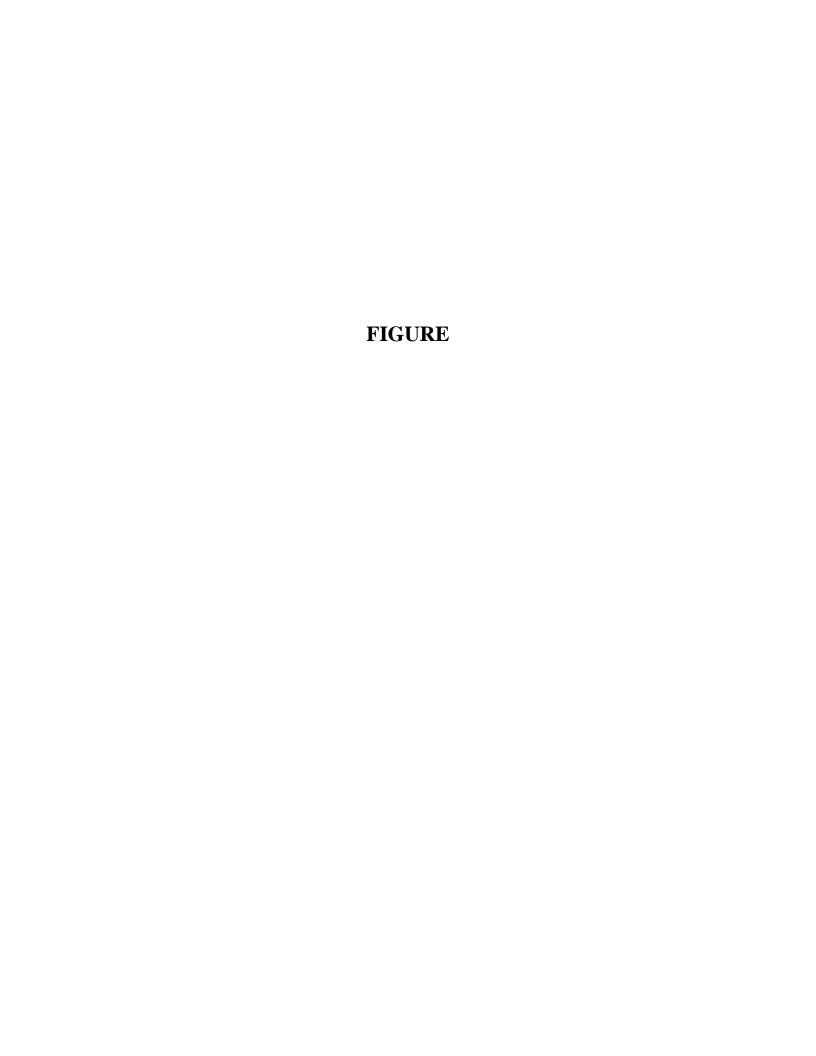
Sincerely,

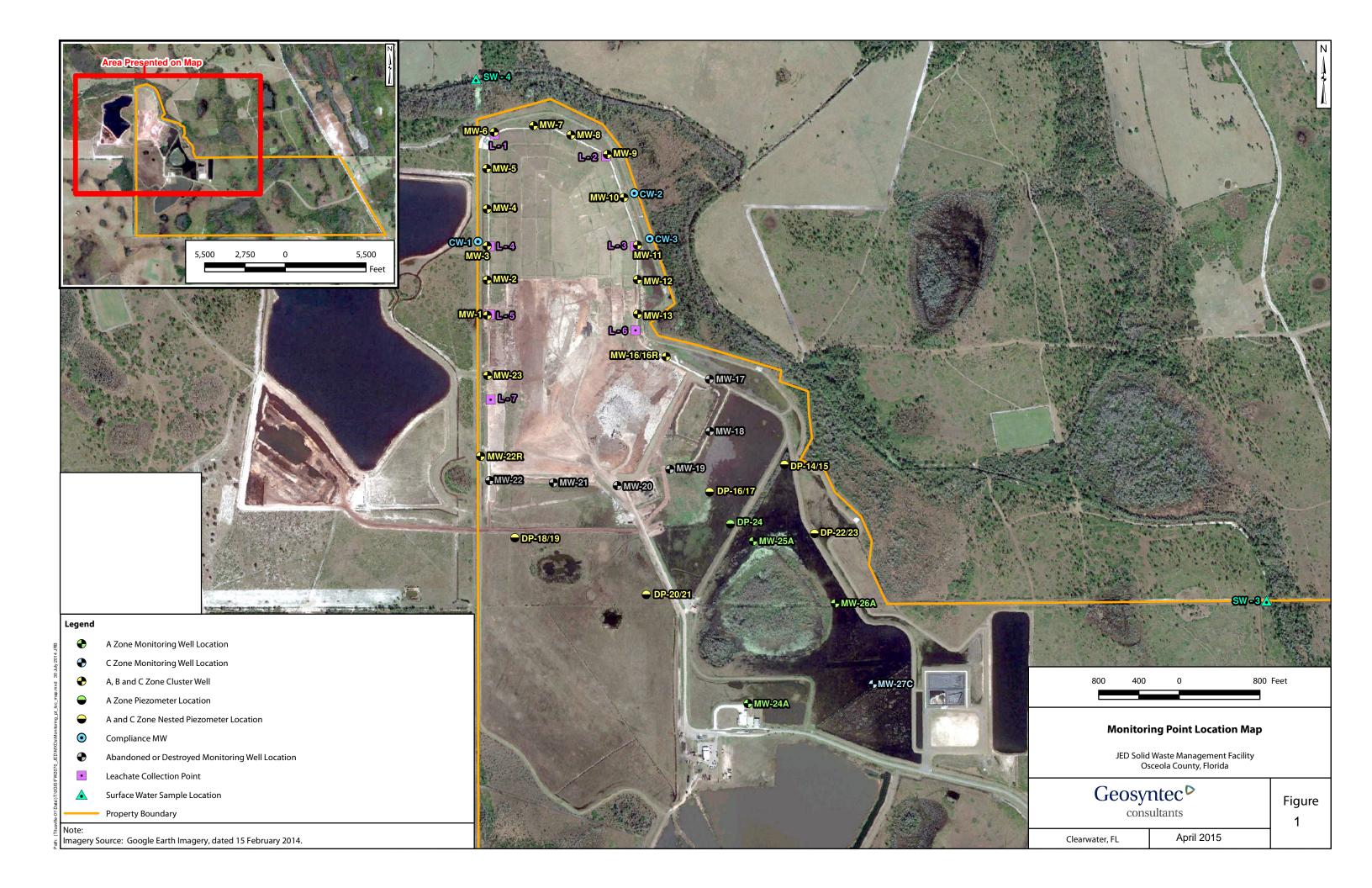
No. 2521
STATE OF CORIO

Matthew P. Wissler Senior Hydrogeologist State of Florida Professional Geologist #2521

Attachments

Copy: Michael Kaiser, PWS





ATTACHMENT A

Photographs

Geosyntec consultants

Photographic Log

Client: Progressive Waste Solutions of Florida

Geosyntec Project Number: FR2220A

Site Name: J.E.D Solid Waste Management Facility

Location: 1501 Omni Way St Cloud, FL 34773

Photograph 1

Date: 3/2/15

Direction: Down

Comments: A view of monitoring wells DP-14 and DP-15 after filling with bentonite grout.



Photograph 2

Date: 3/2/15

Direction: East

Comments: A view after DP-14 and DP-15 were abandoned. Well casings and concrete pads above ground were removed.



ATTACHMENT B Monitoring Well Abandonment Permit

STATE OF FLORIDA PERMIT A REPAIR, MODIFY, OR ABANDO □ Southwest □ Northwest PLEASE (Denot ☐ St. Johns River The water this form a appropriat ☐ South Florida ☐ Suwannee River

	PERMIT APPLICATION TO CONSTRUCT, R ABANDON A WELL	49-WP-1599551 Permit No. 49
□ Southwest	PLEASE FILL OUT ALL AFPLICABLE FIELDS	Florida Unique ID
□ Northwest □ St. Johns River	(Denotes Required Fields Where Applicable)	Permit Supurations Required (See Attached)
☐ South Florida ☐ Suwannee River	The water well contractor is responsible for completing this form and forwarding the permit application to the appropriate delegated authority where applicable.	62-524 Qued NoDelineation No
DEF		CUP/WUP Application No
Delegated Authority (If Applicable) Osceola County Health Dept.		ABOVE THIS LINE - FOR OFFICIAL USE UNLY

		20422	110=1 001 0700				
1. Omni Waste of Osceola CNTY LLC 2301 Eagle Parkway #200 Fort Worth	<u>TX</u>	76177	(407) 891-3720				
Owner, Legal Name if Corporation Address City	State	ZiP	Telephone Number				
 1501 Omni Way Saint Cloud, FL 34773 (JED Solid Waste Management Well Location - Address, Road Name or Number, City 	(Facility)						
3. 14-28-32-0000-0010-0000							
Parcel ID No. (PIN) or Alternate Key (Circle One)	Lot	Block	Unit				

4. 14 28s 32e Osceola Section or Land Grant Township Range County Subdivision			62-524; Yes No				
5. Brian Gose 2697 (206) 396-1561	Management Management		drilling.com				
Water Well Contractor License Number Telephone Number	E-mail A		32809				
6. 6424 Pinecastle Blvd. Suite D Orlando Water Well Contractor's Address City		FL State	ZIP				
7. "Type of Work: Construction Repair Modification Abandonment _No Li	onger in Service	O (G/G	Sec. 1 F				
B. Number of Proposed Wells 2	n for Repair, Monitorio	en, or Abeccionmen	1				
9. Specify Intended Use(s) of Well(s):		I	Dale Slamp				
	Site Investigati	ion					
Bottled Water Supply Recreation Area Irrigation Livestock	Monitoring						
	Test	Casibanas					
Public Water Supply (Community or Non-Community/DEP) Commercial/Industrial Public Water Supply (Community or Non-Community/DEP) Golf Course Irrigation	Earth-Coupled HVAC Supply						
Class I Injection	HVAC Return	1					
Class V Injection: Recharge Commercial/Industrial Disposal Aquifer Storage and	RecoveryD	rainage					
Remediation: Recovery Air Sparge Other (Describe)			Official Use Only				
	emiliari bu a piyan car	million authority)	Olivoi Osc Orry				
10. Distance from Septic System if ≤200 ft. 11. Facility Description Landfill / Solid V			tert Date 04/15/15				
13. Estimated Well Depth 40' ft. "Estimated Casing Depth 35' ft. "Primary Casing Diam							
Anger Marie Toron B. Marie Marie Marie J. Wash St. M. C.	nerei Z III.	Орен пова.	17011				
14. Estimated Screen Interval: From 35 To 40 ft.							
15.*Primary Casing Material:Black SteelGalvanized✓ PVC	Stainless Ste	el					
Not Cased Other:		Total Control of the Control of					
16. Secondary Casing:Telescope CasingLiner Surface Casing Diameter	Publication and address of the second						
17, Secondary Casing Material:Black SteelGalvanizedPVCStainle	ss Steel(Other					
18. Method of Construction, Repair, or Abandonment:AugerCable Tool							
Combination (Two or More Methods)Hand Driven (Well Point, Sand Point)	Hydraulic P	oint (Direct Pu	ish)				
Horizontal Drilling ✓ Plugged by Approved Method Other (Gascribe)							
19. Proposed Grouting Interval for the Primary, Secondary, and Additional Casing:							
From 0 To 40 Seal Material (Bentonite V Neat Cement Other From To Seal Material (Bentonite Neat Cement Other							
From To Seal Material (Bentonite Neat Cement Other)						
From To Seal Material (Bentonite Neat Cement Other)						
20. Indicate total number of existing wells on site NA List number of existing unit	used wells on site	NA					
21. Is this well or any existing well or water withdrawal on the owner's contiguous property covered	under a Consum;	otive/Water Use	e Permit (CUP/WUP)				
or CUP/WUP Application? Yes ✓ No If yes, complete the following: CUF/WUP N	lo	District W	ell ID No				
22. LatitudeLongitude			1 444/40 9000101				
	VAD 27 N/	AD 83	WGS 84				
		foor at on provided is a	courate, and that I am aware of my therecan this well, or, I certify that I am				
use parmi er antidal notherpe permi, if readed, has been er wil be obtened prot us commencement de wei i exponsibilités under Cha construction. I further carrily that et information produkt in yijle appropriate à construit évant their live d'obten in the agent for the order in processing approvait sum obten federal, stale, et leon govergénant, il approble i agree la proviée a wei i responsibilitées es situations.	erler 373. Florida Wahres 10 het she informacion provided	to ecourate, and that I h	test the first west of 1 density and 1 density of the first see the first see that the first see that the first seed of				
completion report to the Grand within 30 days with properties of the construction, repair, profilement, or 10 dis web site during the	phasecien, repair, medica	eten, er aber er forent	cultonized by this pound				
ebuncentrary suppled by this partit, or the partit explicition, which ever cooking this.	20	4					
1/1 J	1100		04/07/15				
Signature of Contractor License No Signature of Own	ner or Agent		*Date				
BELOW THIS LINE - FOR OFFICIAL USE ONLY							
Approval Granted By Str & June Issue Date 1/13/15 E	expiration Data	Hydro	ogist Approval				
Fea Received S Receipt No.	Check No						
THIS PERMIT IS NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WIND OR DELEGATED AUTHORITY. THE							
PERMIT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL CONSTRUCTION, REPAIR, MODIFICATION, OR ABANDON/ENT ACTIVITIES.							



Osceola County Health Department

1 Courthouse Sq Kissimmee, FL 34741

PAYING ON:	PERMIT #: 49-WP-1599551 BILL DOC #:49	-BID-2748190			
RECEIVED FROM:	Omni Waste of Osceola CNTY LLC	AMOUN	IT PAID:	\$ 100.00	
PAYMENT FORM:	CREDIT CARD 511547-MC	PAYME	NT DATE:	04/13/2015	5
2301 Eag 200	aste of Osceola CNTY LLC gle Pkwy n, TX 76177				
FACILITY NAME :	Abandonment - Omni Waste of Osceola	CNTY LLC			
PROPERTY LOCAT					
1501 Omni W					
Saint Cloud, Fl	L 34773				
Lak	BI				
		ock:			NEW CONTROL OF THE PERSON OF T
Property ID:					pro-custo-invieros
	EXPLANATION or DESCRIPTION:		QUANTITY		FEE
-1 - Well Abandonr	nent		2	\$	100.00
RECEIVED BY:	ValderramosMC	AUDIT CONTR	OL NO. <u>49-</u>	PID-2634844	