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Southwest District

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#### MEMORANDUM

Patricia G. Bean

DATE: January 12, 2010

TO: Patricia Berry, Section Manager, Solid Waste Management Department

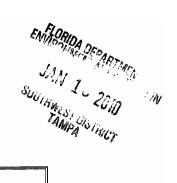
FROM: Larry Ruiz, General Manager III, Solid Waste Management Department

**SUBJECT:** Top of Phosphatic Clay Liner Elevations, Southeast County Landfill

The Hillsborough County Solid Waste Management Department staff has received and reviewed the attached Report of Survey from Pickett & Associates, Inc. (Pickett) dated January 4, 2010. The elevations provided by Pickett are used to calculate the approximate elevations of the top of the phosphatic clay liner at the Pump Station B Sump location. As shown on Table 1, the Pump Station B sump continued to show a slight downward change in elevation for this quarter.

Please advise should you have any questions concerning the information provided.

Attachments



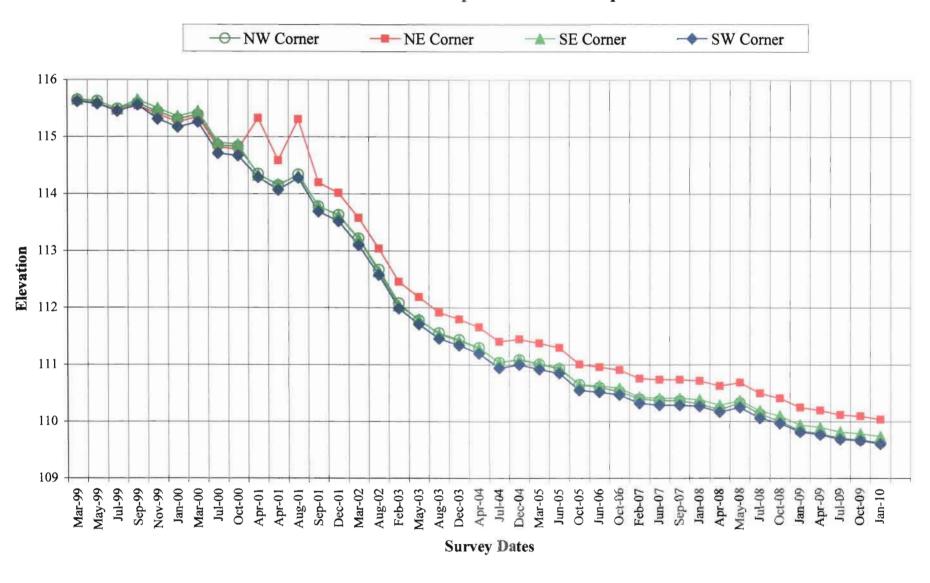
### TABLE 1. APPROXIMATE TOP OF CLAY ELEVATIONS **PUMP STATION B SUMP** SOUTHEAST COUNTY LANDFILL

DATE	NW	NE	SE	sw
March 3, 1999	115.65	115.63	115.66	115.62
May 4, 1999	115.63	115.59	115.63	115.58
July 28, 1999	115.49	115.46	115.49	115.45
September 17, 1999 <sup>2</sup>	115,59	115.55	115.65	115.56
November 11, 1999	115.44	115.40	115.50	115.31
January 3, 2000	115.31	115.26	115.36	115.17
March 30, 2000	115.39	115.35	115.45	115.26
July 5, 2000 <sup>3</sup>	114.85	114.82	114.90	114.71
October 5, 2000	114.83	114.78	114.87	114.67
April 6, 2001	114.35	115.33	114.33	114.29
April 18, 2001 <sup>2</sup>	114.15	114.59	114.17	114.07
August 8, 2001	114.34	115.31	114.32	114.28
September 19, 2001 <sup>2</sup>	113.78	114.20	113.79	113.69
December 18, 2001	113.63	114.02	113.62	113.52
March 29, 2002	113,22	113.58	113.21	113.10
August 15, 2002 <sup>2</sup>	112.67	113.04	112.64	112.58
February 1, 2003	112.08	112.46	112.04	111.99
May 1, 2003	111.78	112.19	111.80	111.71
September 2, 2003	111.56	111.92	111.54	111.46
December 1, 2003	111.44	111.80	111.42	111.34
April 1, 2004	111.30	111.66	111.29	111.20
July 31, 2004	111.04	111.41	111.04	110.94
December 1, 2004	111.09	111.45	111.10	111.00
March 1, 2005	111.01	111.38	111.02	110.92
June 2, 2005	110.93	111.30	110.95	110.85
October 1, 2005	110.65	111.01	110.65	110.55
February 1, 2006	110.67	111.03	110.69	110,58
June 6, 2006	110.60	110.96	110.63	110.52
October 2, 2006	110.53	110.91	110.59	110.47
February 1, 2007	110.40	110.76	110.43	110.32
June 1, 2007	110.37	110.74	110.41	110.29
September 1, 2007 <sup>2</sup>	110.37	110.74	110.41	110.29
January 2, 2008	110.31	110.72	110.39	110.27
April 1, 2008	110.21	110.63	110.29	110.17
May 8, 2008 <sup>2</sup>	110.33	110.69	110.37	110.25
July 1, 2008	110,13	110.50	110.19	110.06
October 1, 2008	110.01	110.41	110.10	109.97
January 2, 2009	109.84	110.25	109.94	109.82
April 1, 2009	109.79	110.20	109.90	109.77
July 2, 2009	109.71	110.12	109.82	109.69
October 8, 2009	109.68	110.10	109.79	109.67
January 4, 2010	109.63	110.04	109.74	109.61

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- Vertical Datum based on feet NGVD 1929.
  WMI extended the rods of the settling plates.
- 3. Benchmarks used in March 30, 2000 survey were found to have settled; elevations shown for July 5, 2000 were tied into new benchmarks.

# **Settlement of Pump Station B Sump**





#### REPORT OF SURVEY

NOTE: THIS REPORT IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

PICKETT & ASSOCIATES, PROJECT NO.: 12131-1

DRAWING NO: N/A

TITLE/TYPE OF SURVEY: SPECIFIC PURPOSE SURVEY

DATE OF SURVEY: 01/04/10

SUBJECT: SOUTHEAST HILLSBOROUGH COUNTY LANDFILL SITE

CLIENT: WASTE MANAGEMENT, INC. OF FLORIDA

PIPE	NORTHING	EASTING	ELEVATION	DESCRIPTION
SW	1251010.3	596333.8	192.03'	Top of 4" pipe
			191.73'	Top of 1" pipe
SE	1251004.7	596339.5	192.07'	Top of 4" pipe
			191.92'	Top of 1" pipe
NE	1251014.2	596344.4	192.07'	Top of 4" pipe
	: îr		191.87'	Top of 1" pipe
NW	1251014.5	596336.5	191.56'	Top of 4" pipe
	 		191.73'	Top of 1" pipe

METHODOLOGY AND ACCURACY STATEMENT: The top of the 4" pipe located at the northwest corner of the vault was used as a benchmark and surveyed with RTK GPS and was observed at least twice with a new initialization between each observation. Observation time at that point did not exceed 10 minutes. This point has an estimated horizontal positional accuracy of 0.08' or less and a vertical positional accuracy of 0.10' or less.

#### DATUM:

HORIZONTAL: North and the Coordinates are based on the West Zone of the Florida State Plane Coordinate System, NAD 83 1990 adjustment and are based upon provided control referenced to Hillsborough County Horizontal Control Monument LW-H (PID AG8963) and BY-E (PID AG8747).

**VERTICAL:** Elevations are to National Geodetic Vertical Datum of 1929 and are based upon provided control referenced to Hillsborough County Horizontal Control Monument VR-B (PID AG9078), elevation is 103.08' from Hillsborough County's Vertical Control Network.

## PICKETT &ASSOCIATES, INC.

### **NOTES:**

The quarterly Specific Purpose Survey was prepared to show the existing conditions of the above ground pipes coming from the vault located at the above referenced landfill.

Sherry A. Kopec, P.S.M. Florida Registration No. 6648

Pickett & Associates, Inc.

Florida Registration No. 364

01/04/10

Survey Date