Data Sheet and Surveyor's Report
for
Buck Island Ranch
Monitoring Well Benchmarks

Description: **Monitoring Well "BUCK 01"** Date: June 17, 2005
Location: Buck Island Ranch, Highlands County, Florida

Benchmarks established:

1. **"BUCK 01A"**: 3" bronze survey disk set in concrete monument
   a. Elevation: **8.0479 m**
2. **"BUCK 01B"**: Top of existing 1.5" steel pipe
   a. Elevation: **8.0912 m**
3. **"BUCK 01C"**: Top of existing 3" PVC monitoring well casing
   a. Elevation: **8.9913 m**

Party Chief: **G. Royer** Field Book: **154,** Pages **1 - 45**

Survey Date: **February – May 2005** Bench Mark: **"H-437"** El. **9.395 m / 30.82 ft.**
"J-437" El. **11.555 m / 37.91 ft.**

Vertical Datum: **NAVD1988**

NGVD 1929 Offset: + **1.210 ft.** (add this value to convert to NGVD 1929)

Comments:
The offset value referred to as "NGVD 1929 Offset" was derived by subtracting the published NAVD 1988 elevation from the published NGVD 1929 elevation for NGS Benchmarks "H-437 and J-437".

G.P.S. POSITION (NAD 83, Florida East Zone, Sub-meter):

Well Site: **"BUCK 01A"** N = **1019042** E = **585756**

NAVD 88 - North American Vertical Datum of 1988
NGVD29 -National Geodetic Vertical Datum of 1929
NAD 83 (Horizontal Datum) North American Datum of 1983

*Note: See the SFWMD Benchmark Description Sheet for additional information

SURVEYOR'S REPORT

Hyatt Survey Services, Inc. operating under sub-contract to George F Young, Inc. and the South Florida Water Management District was tasked with the execution of a Vertical Control Survey in support of the District's Benchmark Densification and Monitoring Well Elevation Initiatives.

The purpose of this survey was to establish benchmarks at each of 22 monitoring wells on the Buck Island Ranch Facility in Highlands County, Florida. A minimum of two (2) benchmarks were established at each well.

1. **"A"** benchmarks are NGS Class "C", "poured-in-place," concrete monuments with SFWMD bronze disks set flush with the ground.
2. **"B"** benchmarks were set on the top of existing 1.5" steel pipes at each well site. Each pipe protrudes approximately 3" above the surrounding ground.
3. **"C"** benchmarks were set on the top of the 3" PVC well casing at each well site.

Elevations were determined by digital differential leveling performed in accordance with the Minimum Technical Standards (MTS) for Vertical Control Surveys as set forth in Chapter 61G17-6 FAC and the requirements for Second-Order Class II Vertical Control Surveys as established by the Federal Geodetic Control Sub-committee.

All elevations are based on National Geodetic Survey Benchmarks "H-437" and "J-437" both Second Order, Class I vertical control monuments. The vertical datum used was NAVD 88 (North American Vertical Datum of 1988).

All level runs were double-run under differing atmospheric conditions and meet or exceed the formula of the Square Root in miles of the level run multiplied by 0.03'. A Leica DNA 3003 digital level and two 3 meter aluminum bar-coded "Invar Rods" with aluminum struts were utilized to obtain all leveling data.

The processing of the field data was performed by and under the supervision of Mr. Ronnie Taylor, Florida's NGS Advisor. NGS' "WDDPROC" leveling software was utilized to process the field data and to create the NGS benchmark descriptions.

Prepared by: **Hyatt Survey Services, Inc.**
11007 8th Avenue East
Bradenton, Florida 34212
(941) 748-4693

Prepared for: **South Florida Water Management District**
3301 Gun Club Road
West Palm Beach, Florida 33406

Notes:
1) This survey meets all applicable requirements of the Florida Minimum Technical Standards as contained in Chapter 61G17-6 FAC.
2) Not valid without the signature and the original raised seal of the Florida Surveyor and Mapper in responsible Charge.
3) Additions or deletions to this data by anyone other than the signing party are prohibited without written consent of the signing party.

Hyatt Survey Services, Inc.
Russell P. Hyatt, PSM, VP
Professional Surveyor and Mapper
License Number 5303

Signed: _____ Seal:

BUCK01

Prime Contractor: George F. Young, Inc.
Subcontractor: Hyatt Survey Services, Inc.
Date of Photo: June 17, 2005
View: Well Site

BUCK01A

Prime Contractor: George F. Young, Inc.
Subcontractor: Hyatt Survey Services, Inc.
Date of Photo: June 9, 2005
View: Monument

BUCK01B

Prime Contractor: George F. Young, Inc.
Subcontractor: Hyatt Survey Services, Inc.
Date of Photo: June 9, 2005
View: Pipe

BUCK01C

Prime Contractor: George F. Young, Inc.
Subcontractor: Hyatt Survey Services, Inc.
Date of Photo: June 9, 2005
View: Well

LEICA DIGITAL GEODETIC LEVELING - BACKUP RECORDING SHEET

LINE	PROJECT	FILENAME	PAGE OF

SURVEY ORDER	SURVEY CLASS	TIME ZONE CODE		TEMP PROBE TOP HGT	TEMP PROBE BOTTOM HGT

CODE 1 - BEGINNING OF DAY OR CHANGE IN OBSERVER OR INSTRUMENT TYPE

INFO 1 DATE (MMDDYY)	INFO 2 OBS'R #	OBS'R INIT'S	INFO 3 -INST TYPE (2000, 2002, 3000, 3003)	INFO 4 -TEMP CODE (0 for C - 1 for F)
5/18/5				

CODE 2 - EQUIPMENT USED

INFO 1 - INST SERIAL #	INFO 2 - INST COLLIMATION	ROD CODE	INFO 3 - ROD 1 SERIAL #	INFO 4 - ROD 2 SERIAL #
		396		

CODE 11 - BEGINNING SECTION INFORMATION

SPSN #	BM DESIG	BENCH MARK STAMPING	INFO 1 TIME (HHMM)	INFO 2 Rod On Mark #	INFO 3 TEMP	DIR F B
16	BKK 2	BKK 2A "2005"	1240	1	88°	

CODE 99 - ENDING SECTION INFORMATION

SPSN #	BM DESIG	BENCH MARK STAMPING	INFO 1 TIME (HHMM)	INFO 2 Rod On Mark #	INFO 3 TEMP	INFO 4 W S #
15	BKK 1	BKK 1-A "2005"	1350	1	88°	1/2

SECTION OBSERVATONS INFORMATION (Recall from level using UP/DN arrows)

TOTAL SETUPS	TOTAL DISTANCE (D)	ACCUMULATED IMB (d)	ELEV DIFFERENCE (GROUND HGT)
7	644.87	-3.85	+0.0651

	CLOSURE	REMARKS
F		
B		
DIF		
ALW'D		

WIND CODE - (0) 0-6 MPH (1) 6-15 MPH (2) >15 MPH
SUN CODE - (0) 25% SUNNY (1) 25-75% SUNNY (2) >75% SUNNY

OTHER INFO CODES

CODE 22 - REJECT PREVIOUS BACKSIGHT AND FORSIGHT (NO INFO ENTRIES - PRESS REC)
CODE 33 - GRADIENT TEMPERATURES (INFO 1 - LOWER PROBE - NO DECIMAL 761 FOR 76.1)
(INFO 2 - UPPER PROBE - NO DECIMAL 761 FOR 76.1)
CODE 9999 - END OF DAY, CHG OBS, CHG EQUIPMENT (NO INFO ENTRIES - PRESS REC)

LEICA DIGITAL GEODETIC LEVELING - BACKUP RECORDING SHEET

LINE	PROJECT	FILENAME	PAGE OF

SURVEY ORDER	SURVEY CLASS	TIME ZONE CODE		TEMP PROBE TOP HGT	TEMP PROBE BOTTOM HGT

CODE 1 - BEGINNING OF DAY OR CHANGE IN OBSERVER OR INSTRUMENT TYPE

INFO 1 DATE (MMDDYY)	INFO 2 OBS'R #	OBS'R INIT'S	INFO 3 -INST TYPE (2000, 2002, 3000, 3003)	INFO 4 -TEMP CODE (0 for C - 1 for F)

CODE 2 - EQUIPMENT USED

INFO 1 - INST SERIAL #	INFO 2 - INST COLLIMATION	ROD CODE	INFO 3 - ROD 1 SERIAL #	INFO 4 - ROD 2 SERIAL #
		396		

CODE 11 - BEGINNING SECTION INFORMATION

SPSN #	BM DESIG	BENCH MARK STAMPING	INFO 1 TIME (HHMM)	INFO 2 Rod On Mark #	INFO 3 TEMP	DIR F (B)
15	BKK-1	BKK-1A "2005"	1557	1	87°	

CODE 99 - ENDING SECTION INFORMATION

SPSN #	BM DESIG	BENCH MARK STAMPING	INFO 1 TIME (HHMM)	INFO 2 Rod On Mark #	INFO 3 TEMP	INFO 4 W/S #
01	H-437	H-437 "1995"	1920	1	83°	1/2

SECTION OBSERVATONS INFORMATION (Recall from level using UP/DN arrows)

TOTAL SETUPS	TOTAL DISTANCE (D)	ACCUMULATED IMB (d)	ELEV DIFFERENCE (GROUND HGT)
21	1673.3	-1.9	+1.3486

	CLOSURE	REMARKS
F		
B		
DIF		
ALW'D		

WIND CODE - (0) 0-6 MPH (1) 6-15 MPH (2) >15 MPH
SUN CODE - (0) 25% SUNNY (1) 25-75% SUNNY (2) >75% SUNNY
OTHER INFO CODES
CODE 22 - REJECT PREVIOUS BACKSIGHT AND FORSIGHT (NO INFO ENTRIES - PRESS REC)
CODE 33 - GRADIENT TEMPERATURES (INFO 1 - LOWER PROBE - NO DECIMAL 761 FOR 76.1)
(INFO 2 - UPPER PROBE - NO DECIMAL 761 FOR 76.1)
CODE 9999 - END OF DAY, CHG OBS, CHG EQUIPMENT (NO INFO ENTRIES - PRESS REC)

LEICA DIGITAL GEODETIC LEVELING - BACKUP RECORDING SHEET

LINE	PROJECT	FILENAME	PAGE	OF
H-437	CREECHBEE MONT. WELLS		1	2

SURVEY ORDER	SURVEY CLASS	TIME ZONE CODE		TEMP PROBE TOP HGT	TEMP PROBE BOTTOM HGT
2	1	Q		N/A	N/A

CODE 1 - BEGINNING OF DAY OR CHANGE IN OBSERVER OR INSTRUMENT TYPE

INFO 1 DATE (MMDDYY)	INFO 2 OBS'R #	OBS'R INIT'S	INFO 3 -INST TYPE (2000, 2002, 3000, 3003)	INFO 4 -TEMP CODE (0 for C - 1 for F)
04.28.05	1	SR		168

CODE 2 - EQUIPMENT USED

INFO 1 - INST SERIAL #	INFO 2 - INST COLLIMATION	ROD CODE	INFO 3 - ROD 1 SERIAL #	INFO 4 - ROD 2 SERIAL #
283420	+2.2	396	29572	29720

CODE 11 - BEGINNING SECTION INFORMATION

SPSN =	BM DESIG	BENCH MARK STAMPING	INFO 1 TIME (HHMM)	INFO 2 Rod On Mark #	INFO 3 TEMP	DIR F (B)
0001	H-437	H-437 1995	0900AM	1	168	

CODE 99 - ENDING SECTION INFORMATION

SPSN =	BM DESIG	BENCH MARK STAMPING	INFO 1 TIME (HHMM)	INFO 2 Rod On Mark #	INFO 3 TEMP	INFO 4 W S =
0015	BUCK-1A	BUCK-01 2005	12:30PM	1	183°	0/2

SECTION OBSERVATONS INFORMATION (Recall from level using UP/DN arrows)

TOTAL SETUPS	TOTAL DISTANCE (D)	ACCUMULATED IMB (d)	ELEV DIFFERENCE (GROUND HGT)
21	1879.1	-3.8	+0.0772

-1.3503

	CLOSURE	REMARKS
F		
B		
DIF		
ALW'D		

WIND CODE - (0) 0-6 MPH (1) 6-15 MPH (2) >15 MPH
SUN CODE - (0) 25% SUNNY (1) 25-75% SUNNY (2) >75% SUNNY
OTHER INFO CODES
CODE 22 - REJECT PREVIOUS BACKSIGHT AND FORSIGHT (NO INFO ENTRIES - PRESS REC)
CODE 33 - GRADIENT TEMPERATURES (INFO 1 - LOWER PROBE - NO DECIMAL 761 FOR 76.1)
(INFO 2 - UPPER PROBE - NO DECIMAL 761 FOR 76.1)
CODE 9999 - END OF DAY, CHG OBS, CHG EQUIPMENT (NO INFO ENTRIES - PRESS REC)

LEICA DIGITAL GEODETIC LEVELING - BACKUP RECORDING SHEET

LINE	PROJECT	FILENAME	PAGE	OF
			2	2

SURVEY ORDER	SURVEY CLASS	TIME ZONE CODE		TEMP PROBE TOP HGT	TEMP PROBE BOTTOM HGT
2	1	Q			

CODE 1 - BEGINNING OF DAY OR CHANGE IN OBSERVER OR INSTRUMENT TYPE

INFO 1 DATE (MMDDYY)	INFO 2 OBS'R #	OBS'R INIT'S	INFO 3 -INST TYPE (2000, 2002, 3000, 3003)	INFO 4 -TEMP CODE (0 for C - 1 for F)
04.28.05	1	SR		179

CODE 2 - EQUIPMENT USED

INFO 1 - INST SERIAL #	INFO 2 - INST COLLIMATION	ROD CODE	INFO 3 - ROD 1 SERIAL #	INFO 4 - ROD 2 SERIAL #
283420	+2.2	396		

CODE 11 - BEGINNING SECTION INFORMATION

SPSN =	BM DESIG	BENCH MARK STAMPING	INFO 1 TIME (HHMM)	INFO 2 Rod On Mark #	INFO 3 TEMP	DIR F (B)
0015	BKK-1	BKK-1A	13:20 PM	1	79°	

CODE 99 - ENDING SECTION INFORMATION

SPSN =	BM DESIG	BENCH MARK STAMPING	INFO 1 TIME (HHMM)	INFO 2 Rod On Mark #	INFO 3 TEMP	INFO 4 W/S =
0016	BKK-2	BKK-2A "2005"	14:43 PM	1	85°	0/2

SECTION OBSERVATONS INFORMATION (Recall from level using UP/DN arrows)

TOTAL SETUPS	TOTAL DISTANCE (D)	ACCUMULATED IMB (d)	ELEV DIFFERENCE (GROUND HGT)
7	610.2	+0.3	+0.0432

7
6

-0.0635

	CLOSURE	REMARKS
F		
B		
DIF		
ALW'D		

WIND CODE - (0) 0-6 MPH (1) 6-15 MPH (2) >15 MPH
SUN CODE - (0) 25% SUNNY (1) 25-75% SUNNY (2) >75% SUNNY
OTHER INFO CODES
CODE 22 - REJECT PREVIOUS BACKSIGHT AND FORSIGHT (NO INFO ENTRIES - PRESS REC)
CODE 33 - GRADIENT TEMPERATURES (INFO 1 - LOWER PROBE - NO DECIMAL 761 FOR 76.1)
(INFO 2 - UPPER PROBE - NO DECIMAL 761 FOR 76.1)
CODE 9999 - END OF DAY, CHG OBS, CHG EQUIPMENT (NO INFO ENTRIES - PRESS REC)

CREECHTREE MONT. WELLS

+	DIST	−	DIST DESC
1.8080	45.55	1.6633	45.33
1.5585	45.06	1.4154	45.73
1.3980	45.92	1.4491	44.96
1.8185	44.96	1.7492	46.00
1.2979	44.99	1.7794	45.13
1.2827	40.76	1.6462	49.92
1.0878	35.83	0.8487	40.13
1.5191	22.90	1.8402	36.19
1.5609	24.27	1.8658	23.05
END SECTION		1.4837	
1.6026	38.44		
1.4547	44.29	1.4665	38.33
1.5586	45.15	1.3116	44.96
1.4750	45.95	1.5056	45.08
1.48 4788	40.71	1.5772	45.51
1.4061	35.78	1.4790	40.73
1.3335	24.64	1.5567	35.63
1.5206	30.29	1.5192	24.62
END SECTION		1.4715	30.13

↑ S. ROYER
(B) ? TO. ROE
(A) ? TO. PITCHER

DESC	
TP-13	
TP-14	
TP-15	
TP-16	
TP-17	
TP-18	
TP-19	
TP-20	
TP-21	12:20PM @ 81°
TP-22 BUCK-01-A	SSN 0015
BUCK-1A SSN#0015	
TP-1	
TP-2	
TP-3	
TP-4	
TP-5	
TP-6	
TP-7	
TP-8 BUCK-2A	SSN #0016

CREEK-OBEE MONT. WELLS

+	DIST	−	DIST
1.5308	44.75		
1.6312	44.94	1.2910	44.34
1.4845	44.60	1.4040	45.38
1.4819	44.96	1.3596	44.90
1.5758	44.55	1.5905	45.18
1.4685	33.96	1.8054	45.07
1.5098	34.43	1.4864	35.52
1.4091	28.31	1.4978	35.05
END SECTION		1.5716	28.92
1.5290	50.83		
1.6929	43.95	0.7287	51.46
1.1646	44.85	1.8676	43.44
1.2641	44.77	0.9916	45.46
1.6112	44.75	1.1040	45.32
1.2763	44.23	1.4340	44.59
1.6381	44.78	1.3967	44.72
1.3182	35.91	1.5933	44.44
1.4297	34.68	1.5210	37.13
1.2983	34.73	1.2530	34.90
1.6185	34.62	1.4133	35.12

5/18/5

DESC	T	S	POWER
BLCK 2-A	(B) 9	D	POLE
	(A) 9	D	VETS
TP-1			
TP-2			
TP-3			
TP-4			
TP-5			
TP-6			
TP-7			
BLCK 1-A	SEN-15		
BLCK 1-A	"	"	
TP-1			
TP-2			
TP-3			
TP-4			
TP-5			
TP-6			
TP-7			
TP-8			
TP-9			
TP-10			

05.1238

OKEECHOBEE MONT WELLS

1.5398

1.4619

+	DST	-	DST
1.5308	44.75		
1.6312	44.94	1.2910	44.34
1.4845	44.65	1.4240	45.33
1.4619	44.96	1.3596	44.72
1.5758	44.55	1.5905	45.18
1.4685	33.96	1.8054	40.27
1.5098	34.43	1.4864	35.92
1.4091	28.31	1.4978	36.05
END SECTION		1.5216	28.92
1.5290	50.83		
1.6929	43.95	2.7287	51.46
1.1648	44.85	1.8576	43.44
1.2641	44.77	0.9916	45.46
1.6112	44.75	1.1040	45.32
1.2763	44.25	1.4310	44.59
1.6331	44.78	1.3967	44.72
1.3182	35.91	1.5933	44.44
1.4297	34.68	1.5210	37.13
1.2383	34.33	1.2530	34.92
1.6185	34.62	1.4133	35.12

5/10/5

1.5070

DESC		
BLK 2-A	TB 1 D RE (A) 1 D VEYS	P. BOTTER
TP-1		
TP-2		
TP-3		
TP-4		
TP-5		
TP-6		
TP-7		
BLK 1-A	SEN-15	
BLK 1-A	"	"
TP-1		
TP-2		
TP-3		
TP-4		
TP-5		
TP-6		
TP-7		
TP-8		
TP-9		
TP-10		

CREEK/CREEK MONT. WELL

	DIST		DIST
1.4891	44.23	1.5608	35.16
1.5914	44.30	1.6455	44.55
1.2818	44.44	1.4254	44.34
1.4516	37.62	1.5325	44.98
1.5334	35.14	1.3724	32.85
1.4060	34.01	1.4236	34.76
1.5886	34.79	1.4518	34.23
1.4112	34.59	1.6141	34.90
1.2995	43.21	1.2895	34.23
1.5650	10.11	0.9720	44.37
1.6021	14.50	1.3529	11.37
		1.7713	

5/18/5

LEGEND	
TP-11	(B) T. D. ROCK
TP-12	(A) T. D. WYES
TP-13	
TP-14	
TP-15	
TP-16	
TP-17	
TP-18	
TP-19	
TP-20	
TP-21	
H-437	SEN-01

↑ S. ROYER

#05.1236

OKEECHOBEE MON. WELLS

+	EAST	-	DIST DESC
1.8020	45.55	1.6633	45.33
1.5585	45.00	1.4154	45.73
1.3980	45.92	1.4491	44.92
1.8185	44.96	1.7492	46.00
1.2979	44.99	1.7794	45.13
1.2827	40.76	1.6462	49.92
1.0878	35.83	0.2487	40.13
1.591	22.90	1.8402	36.19
1.5609	24.27	1.8058	23.22
END SECTION		1.4837	
1.6026	38.44		
1.4547	44.24	1.4665	38.55
1.5586	45.15	1.3116	44.96
1.4150	45.95	1.5056	45.08
1.48 4788	40.71	1.5772	45.51
1.4261	35.78	1.4790	40.13
1.3335	24.64	1.5567	35.63
1.5206	30.29	1.5192	24.62
END SECTION		1.4715	30.13

DESC	
TP-13	(B) ↑ TO POLE (A) ↑ TO PITCHER
TP-14	
TP-15	
TP-16	
TP-17	
TP-18	
TP-19	
TP-20	
TP-21	12.20FM @ 8'
TP-22	BUCK-01-A SSN #0015
BUCK-1A	SSN #0015
TP-1	
TP-2	
TP-3	
TP-4	
TP-5	
TP-6	
TP-7	
TP-8	BUCK 2A SSN #0016

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Identification_Information:
        Citation:
                Citation_Information:
                        Originator: George F. Young, Inc.
                        Publication_Date: Unknown
                        Publication_Time: Unknown
                        Title: Buck Island Ranch Monitoring Well Benchmarks
                        Publication_Information:
                                Publication_Place: Not published
                                Publisher: None
        Description:
                Abstract:
                        South Florida Water Management District
                        Buck Island Ranch Monitoring Well Benchmarks
                Purpose:
                        To establish NAVD 88 and NGVD 29 elevations and
                        benchmarks at each of twenty two well sites.
        Time_Period_of_Content:
                Time_Period_Information:
                        Range_of_Dates/Times:
                                Beginning_Date: 20050217
                                Ending_Date: 20050617
                Currentness_Reference: Pending NGS Approval
        Status:
                Progress: In work
                Maintenance_and_Update_Frequency: Unknown
        Spatial_Domain:
                Bounding_Coordinates:
                        West_Bounding_Coordinate: -081°13'03"
                        East_Bounding_Coordinate: -080°12'06"
                        North_Bounding_Coordinate: +27°08'41"
                        South_Bounding_Coordinate: +27°07'50"
        Keywords:
                Theme:
                        Theme_Keyword_Thesaurus: None
                        Theme_Keyword: Record Survey
                        Theme_Keyword: Well Site
                Place:
                        Place_Keyword_Thesaurus: None
                        Place_Keyword: S.F.W.M.D. Well L28WFUVM
                        Place_Keyword: Sec. 18, Twp. 48 S., Rge. 33 E.
                        Place_Keyword: Hendry County, Florida
        Access_Constraints: None
        Use_Constraints: None
        Point_of_Contact:
                Contact_Information:
                        Contact_Person_Primary:
                                Contact_Person: Howard Ehmke
                                Contact_Organization: South Florida Water Management District
                        Contact_Position: Professional Surveyor & Mapper
                        Contact_Address:
                                Address_Type: mailing and physical address
                                Address: 3301 Gun Club Road
                                City: West Palm Beach
                                State_or_Province: Florida
                                Postal_Code: 33406
                                Country: USA
                        Contact_Voice_Telephone: (561) 686-8800, Ext. 4636
                        Contact_Facsimile_Telephone: (561) 681-6265
                        Contact_Electronic_Mail_Address: hehmke@sfwmd.gov
                        Hours_of_Service: 8:00 am to 5:00 pm EST
Data_Quality_Information:
        Attribute_Accuracy:
                Attribute_Accuracy_Report:
                        This survey was prepared using sub-meter GPS and DNA
                        3003 Leveling instruments. The horizontal location of the
                        well
                        and benchmark was performed using sub-meter GPS.
                        The vertical data was collected using a Leica DNA 3003
                        Level.
                        Coordinates are based on the Florida State Plane
                        Coordinate System, East Zone, NAD 83/90.
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Elevations are based on NAVD 88

Logical_Consistency_Report:

Horizontal data was established using Coastguard corrected sub-meter GPS

Vertical data was established using control points H-437 and J-437.

Completeness_Report:

Horizontal location taken at approximate center of well.

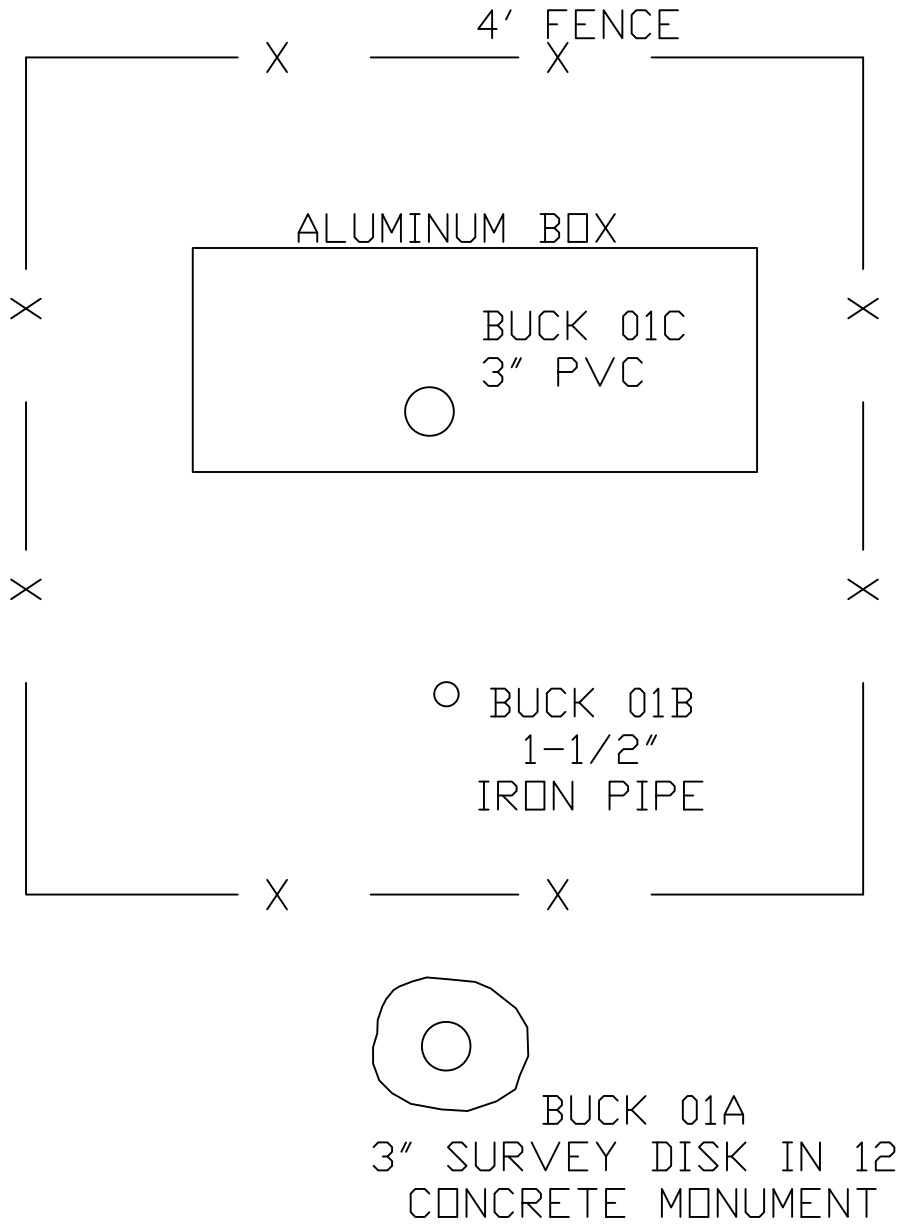
Site Benchmark is a 3" bronze disk set in top of poured in place 48"x12" round concrete monument

THE MARK IS ABOUT 15 MI SOUTHEAST OF LAKE PLACID, 12.5 MI NORTHWEST OF LAKEPORT IN SECTION 34, TOWNSHIP 38 SOUTH, RANGE 31 EAST.TO REACH THE MARK FROM THE JUNCTION OF U.S. HIGHWAY 27 AND STATE ROAD 70, GO EAST ON STATE ROAD 70 FOR 7.16 MI TO JC DURRANCE ROAD (A DIRT ROAD) ON THE RIGHT, TURN RIGHT AND GO SOUTH FOR 4.51 MI TO THE END OF JC DURRANCE ROAD AND A TEE INTERSECTION WITH UNNAMED DIRT ROAD. TURN RIGHT, GO THROUGH A GATE AND HEAD WEST 0.5 MI TO THREE GATES. GO THROUGH THE CENTER GATE AND HEAD SOUTH 0.59 MI TO THE SOUTH SIDE OF A BRIDGE OVER A CANAL AND THE NORTH SIDE OF A LARGE FENCED PASTURE. THE MARK IS 4,873 FT WEST AND 212 FT SOUTH OF THE SOUTH END OF THE BRIDGE.THE MARK IS LOCATED ON THE SOUTH SIDE OF A MONITORING WELL ENCLOSED BY A 4 FT WOODEN FENCE. THE MARK IS A 3 IN BRONZE SURVE DISK SET IN CONCRETE, 2 FT SOUTH OF THE FENCE, SET FLUSH WITH THE GROUND. THE NAD 1983 STATE PLANE COORDINATE POSITION OF THE 585756 FT.NOTE A MAGNET WAS IMBEDDED IN THE GROUND ON THE NONE

THE MARK IS ABOUT 15 MI SOUTHEAST OF LAKE PLACID, 12.5 MI NORTHWEST OF LAKEPORT IN SECTION 27, TOWNSHIP 38 SOUTH, RANGE 31 EAST.TO REACH THE MARK FROM THE JUNCTION OF U.S. HIGHWAY 27 AND STATE ROAD 70, GO EAST ON STATE ROAD 70 FOR 7.16 MI TO JC DURRANCE ROAD (A DIRT ROAD) ON THE RIGHT, TURN RIGHT AND GO SOUTH FOR 4.51 MI TO THE END OF JC DURRANCE ROAD AND A TEE INTERSECTION WITH UNNAMED DIRT ROAD. TURN RIGHT, GO THROUGH A GATE AND HEAD WEST 0.5 MI TO THREE GATES. GO THROUGH THE CENTER GATE AND HEAD SOUTH 0.59 MI TO THE SOUTH SIDE OF A BRIDGE OVER A CANAL AND THE NORTH SIDE OF A LARGE FENCED PASTURE. THE MARK IS 4,875 FT WEST AND 210 FT SOUTH OF THE SOUTH END OF THE BRIDGE.THE MARK IS LOCATED ON THE SOUTH SIDE OF A MONITORING WELL ENCLOSED BY A 4 FT WOODEN FENCE. THE MARK IS 1.5 IN STEEL PIPE, 1 FT INSIDE THE FENCED ENCLOSURE, SET 3 IN ABOVE THE SURROUNDING GROUND. THE NAD 1983 STATE PLANE COORDINATE POSITION OF THE 1019045 FT, E=585756 FT.Notable Land NONE

THE MARK IS ABOUT 15 MI SOUTHEAST OF LAKE PLACID, 12.5 MI NORTHWEST OF LAKEPORT IN SECTION 27, TOWNSHIP 38 SOUTH, RANGE 31 EAST.TO REACH THE MARK FROM THE JUNCTION OF U.S. HIGHWAY 27 AND STATE ROAD 70, GO EAST ON STATE ROAD 70 FOR 7.16 MI TO JC DURRANCE ROAD (A DIRT ROAD) ON THE RIGHT, TURN RIGHT AND GO SOUTH FOR 4.51 MI TO THE END OF JC DURRANCE ROAD AND A TEE INTERSECTION WITH UNNAMED DIRT ROAD. TURN RIGHT, GO THROUGH A GATE AND HEAD WEST 0.5 MI TO THREE GATES. GO THROUGH THE CENTER GATE AND HEAD SOUTH 0.59 MI TO THE SOUTH SIDE OF A BRIDGE

```
                OVER A CANAL AND THE NORTH SIDE OF A LARGE
                FENCED PASTURE. THE MARK IS 4,875 FT WEST
                AND 208 FT SOUTH OF THE SOUTH END OF THE
                BRIDGE.THE MARK IS A 3 IN PVC MONITORING WELL
                PIPE INSIDE A STEEL BOX SURROUNDED BY A 4 FT
                WOODEN FENCE. THE MARK IS SET 4 FT ABOVE THE
                SURROUNDING GROUND. THE NAD 1983 STATE
                PLANE COORDINATE POSITION OF THE MARK IS
                1019047 FT, E=585755 FT.Notable Land marks:
                NONE
                Lat. N270813
                Long. W0811259
        Positional_Accuracy:
                Horizontal_Positional_Accuracy:
                        Horizontal_Positional_Accuracy_Report:
                                The horizontal positions were established with sub-meter
                                GPS
                Vertical_Positional_Accuracy:
                        Vertical_Positional_Accuracy_Report:
                                Second Order, Class II
                                The methodology was approved by Mr. Ronnie Taylor,
                                State, Geodetic Advisor
                                The NAVD 88 elevations established for this survey was
                                determined by using the published values for benchmark
                                H-437 and J-437.
        Lineage:
                Process_Step:
                        Process_Description:
                                Horizontal data was established using Coastguard
                                corrected sub-meter GPS
                                Vertical data was established using control
                                points H-437 and J-437.
                        Process_Date: 20050617
Metadata_Reference_Information:
        Metadata_Date: 20050617
        Metadata_Contact:
                Contact_Information:
                        Contact_Person_Primary:
                                Contact_Person: Catherine A. Pollak
                                Contact_Organization: George F. Young, Inc.
                        Contact_Position: Project Surveyor
                        Contact_Address:
                                Address_Type: mailing and physical address
                                Address:
                                        299 Dr. Martin Luther King, Jr.
                                        Street, North
                                City: St. Petersburg
                                State_or_Province: Florida
                                Postal_Code: 33701
                                Country: USA
                        Contact_Voice_Telephone: (727) 822-4317
                        Contact_Facsimile_Telephone: (727) 822-2919
                        Contact_Electronic_Mail_Address: pollak@georgefyoung.com
                        Hours_of_Service: 8:00 am to 5:00 pm EST
        Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata
        Metadata_Standard_Version: 19980601
```



TITLE

SKETCH OF BUCK 01 MONITORING WELL

Hyatt Survey Services, Inc.

Geographic Data Specialists

11007 8TH AVENUE EAST BRADENTON, FLORIDA 34212

PH. (941) 748-4693 FAX (941) 744-1643 LB No.: 7203

JOB NUMBER	REVISION	SCALE	DATE	DRAWN BY	FILE NAME	SHEET
12-0538		NOT TO SCALE	6/17/05	RSF	BUCK01.DWG	1 OF 1

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/01

COUNTY: HIGHLANDS	**PROJECT: BUCK ISLAND RANCH**	**DESIGNATION: BUCK 01A**
SECTION 27	**TOWNSHIP 38 SOUTH**	**RANGE 31 EAST**
GEOGRAPHIC INDEX OF QUAD		
Established by HYATT SURVEY SERVICES _____ Recovered by	**NAME OF QUADRANGLE: BRIGHTON NW**	
SURVEYOR R. HYATT **DATE** 06 /16 / 2005	**FIELD BOOK** 154 **PAGE** 1 - 45	
HORIZONTAL DATUM: **1927** **1983** **Other**_____ (circle one) ZONE **E** or **W**		
VERTICAL DATUM: MSL **1929** **1988** **Other** _____ (circle one)		
CONTROL ACCURACY: HORIZONTAL 1 2 3 4th (circle one) **VERTICAL 1 2 3**		
STATE PLANE COORDINATES	**X = 585756 FT**	**Y = 1019042 FT**	**EL. = 8.0479 m**
LATITUDE : N270813	LONGITUDE: W0811259	

DESCRIPTION

To Reach:

THE MARK IS ABOUT 15 MI SOUTHEAST OF LAKE PLACID, 12.5 MI NORTHWEST OF LAKEPORT IN SECTION 34, TOWNSHIP 38 SOUTH, RANGE 31 EAST.

TO REACH THE MARK FROM THE JUNCTION OF U.S. HIGHWAY 27 AND STATE ROAD 70, GO EAST ON STATE ROAD 70 FOR 7.16 MI TO JC DURRANCE ROAD (A DIRT ROAD) ON THE RIGHT, TURN RIGHT AND GO SOUTH FOR 4.51 MI TO THE END OF JC DURRANCE ROAD AND A TEE INTERSECTION WITH UNNAMED DIRT ROAD. TURN RIGHT, GO THROUGH A GATE AND HEAD WEST 0.5 MI TO THREE GATES. GO THROUGH THE CENTER GATE AND HEAD SOUTH 0.59 MI TO THE SOUTH SIDE OF A BRIDGE OVER A CANAL AND THE NORTH SIDE OF A LARGE FENCED PASTURE. THE MARK IS 4,873 FT WEST AND 212 FT SOUTH OF THE SOUTH END OF THE BRIDGE.

THE MARK IS LOCATED ON THE SOUTH SIDE OF A MONITORING WELL ENCLOSED BY A 4 FT WOODEN FENCE. THE MARK IS A 3 IN BRONZE SURVE DISK SET IN CONCRETE, 2 FT SOUTH OF THE FENCE, SET FLUSH WITH THE GROUND. THE NAD 1983 STATE PLANE COORDINATE POSITION OF THE MARK IS N=1019042 FT, E=585756 FT.

NOTE A MAGNET WAS IMBEDDED IN THE GROUND ON THE SOUTH SIDE OF THE MONUMENT.

Notable Land marks: NONE

SKETCH: SEE ATTACHED SKETCH

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/01

COUNTY: HIGHLANDS	**PROJECT: BUCK ISLAND RANCH**	**DESIGNATION: BUCK 01B**
SECTION 27	**TOWNSHIP 38 SOUTH**	**RANGE 31 EAST**
GEOGRAPHIC INDEX OF QUAD		
Established by HYATT SURVEY SERVICES _____ Recovered by	**NAME OF QUADRANGLE: BRIGHTON NW**	
SURVEYOR R. HYATT **DATE** 06 /16 / 2005	**FIELD BOOK** 154 **PAGE** 1 - 45	
HORIZONTAL DATUM: **1927** **1983** **Other**_____ (circle one) ZONE **E** or **W**		
VERTICAL DATUM: MSL **1929** **1988** **Other** _____ (circle one)		
CONTROL ACCURACY: HORIZONTAL 1 2 3 4th (circle one) **VERTICAL 1 2 3**		
STATE PLANE COORDINATES	**X = 585756 FT**	**Y = 1019045 FT**	**EL. = 8.0912 m**
LATITUDE : N270813		LONGITUDE: W0811259

DESCRIPTION

To Reach:

THE MARK IS ABOUT 15 MI SOUTHEAST OF LAKE PLACID, 12.5 MI NORTHWEST OF LAKEPORT IN SECTION 27, TOWNSHIP 38 SOUTH, RANGE 31 EAST.

TO REACH THE MARK FROM THE JUNCTION OF U.S. HIGHWAY 27 AND STATE ROAD 70, GO EAST ON STATE ROAD 70 FOR 7.16 MI TO JC DURRANCE ROAD (A DIRT ROAD) ON THE RIGHT, TURN RIGHT AND GO SOUTH FOR 4.51 MI TO THE END OF JC DURRANCE ROAD AND A TEE INTERSECTION WITH UNNAMED DIRT ROAD. TURN RIGHT, GO THROUGH A GATE AND HEAD WEST 0.5 MI TO THREE GATES. GO THROUGH THE CENTER GATE AND HEAD SOUTH 0.59 MI TO THE SOUTH SIDE OF A BRIDGE OVER A CANAL AND THE NORTH SIDE OF A LARGE FENCED PASTURE. THE MARK IS 4,875 FT WEST AND 210 FT SOUTH OF THE SOUTH END OF THE BRIDGE.

THE MARK IS LOCATED ON THE SOUTH SIDE OF A MONITORING WELL ENCLOSED BY A 4 FT WOODEN FENCE. THE MARK IS 1.5 IN STEEL PIPE, 1 FT INSIDE THE FENCED ENCLOSURE, SET 3 IN ABOVE THE SURROUNDING GROUND. THE NAD 1983 STATE PLANE COORDINATE POSITION OF THE MARK IS N=1019045 FT, E=585756 FT.

Notable Land marks: NONE

SKETCH: SEE ATTACHED SKETCH

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/01

COUNTY: HIGHLANDS	**PROJECT: BUCK ISLAND RANCH**	**DESIGNATION: BUCK 01C**
SECTION 27	**TOWNSHIP 38 SOUTH**	**RANGE 31 EAST**
GEOGRAPHIC INDEX OF QUAD		
Established by HYATT SURVEY SERVICES _____ Recovered by	**NAME OF QUADRANGLE: BRIGHTON NW**	
SURVEYOR R. HYATT **DATE** 06 /16 / 2005	**FIELD BOOK** 154 **PAGE** 1 - 45	
HORIZONTAL DATUM: **1927** **1983** **Other**_____ (circle one) ZONE **E** or **W**		
VERTICAL DATUM: MSL **1929** **1988** **Other** _____ (circle one)		
CONTROL ACCURACY: HORIZONTAL 1 2 3 4th (circle one) **VERTICAL 1 2 3**		
STATE PLANE COORDINATES	**X = 585755 FT**	**Y = 1019047 FT**	**EL. = 8.9913 m**
LATITUDE : N270813		LONGITUDE: W0811259

DESCRIPTION

To Reach:

THE MARK IS ABOUT 15 MI SOUTHEAST OF LAKE PLACID, 12.5 MI NORTHWEST OF LAKEPORT IN SECTION 27, TOWNSHIP 38 SOUTH, RANGE 31 EAST.

TO REACH THE MARK FROM THE JUNCTION OF U.S. HIGHWAY 27 AND STATE ROAD 70, GO EAST ON STATE ROAD 70 FOR 7.16 MI TO JC DURRANCE ROAD (A DIRT ROAD) ON THE RIGHT, TURN RIGHT AND GO SOUTH FOR 4.51 MI TO THE END OF JC DURRANCE ROAD AND A TEE INTERSECTION WITH UNNAMED DIRT ROAD. TURN RIGHT, GO THROUGH A GATE AND HEAD WEST 0.5 MI TO THREE GATES. GO THROUGH THE CENTER GATE AND HEAD SOUTH 0.59 MI TO THE SOUTH SIDE OF A BRIDGE OVER A CANAL AND THE NORTH SIDE OF A LARGE FENCED PASTURE. THE MARK IS 4,875 FT WEST AND 208 FT SOUTH OF THE SOUTH END OF THE BRIDGE.

THE MARK IS A 3 IN PVC MONITORING WELL PIPE INSIDE A STEEL BOX SURROUNDED BY A 4 FT WOODEN FENCE. THE MARK IS SET 4 FT ABOVE THE SURROUNDING GROUND. THE NAD 1983 STATE PLANE COORDINATE POSITION OF THE MARK IS N=1019047 FT, E=585755 FT.

Notable Land marks: NONE

SKETCH: SEE ATTACHED SKETCH

The NGS Data Sheet

See file _dsdata.txt for more information about the datasheet.

```
DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.12
1        National Geodetic Survey,   Retrieval Date = JANUARY 26, 2005
 AE6391 ***********************************************************************
 AE6391  DESIGNATION -  H 437
 AE6391  PID         -  AE6391
 AE6391  STATE/COUNTY-  FL/HIGHLANDS
 AE6391  USGS QUAD   -  BRIGHTON NW (1983)
 AE6391
 AE6391                         *CURRENT SURVEY CONTROL
 AE6391  ______________________________________________________________________
 AE6391* NAD 83(1986)-  27 08 14.     (N)    081 12 06.     (W)     SCALED
 AE6391* NAVD 88     -         9.395  (meters)      30.82   (feet)  ADJUSTED
 AE6391  ______________________________________________________________________
 AE6391  GEOID HEIGHT-         -25.20  (meters)                     GEOID03
 AE6391  DYNAMIC HT  -           9.380 (meters)      30.77  (feet)  COMP
 AE6391  MODELED GRAV-     979,125.1   (mgal)                       NAVD 88
 AE6391
 AE6391  VERT ORDER  -  SECOND    CLASS I
 AE6391
 AE6391.The horizontal coordinates were scaled from a topographic map and have
 AE6391.an estimated accuracy of +/- 6 seconds.
 AE6391
 AE6391.The orthometric height was determined by differential leveling
 AE6391.and adjusted by the National Geodetic Survey in March 1998.
 AE6391
 AE6391.The geoid height was determined by GEOID03.
 AE6391
 AE6391.The dynamic height is computed by dividing the NAVD 88
 AE6391.geopotential number by the normal gravity value computed on the
 AE6391.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AE6391.degrees latitude (g = 980.6199 gals.).
 AE6391
 AE6391.The modeled gravity was interpolated from observed gravity values.
 AE6391
 AE6391;                    North         East     Units  Estimated Accuracy
 AE6391;SPC FL E     -   310,620.      180,010.      MT  (+/- 180 meters Scaled)
 AE6391
 AE6391                          SUPERSEDED SURVEY CONTROL
 AE6391
 AE6391.No superseded survey control is available for this station.
 AE6391
 AE6391_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RML800016(NAD 83)
 AE6391_MARKER: DV = VERTICAL CONTROL DISK
 AE6391_SETTING: 38 = BRIDGE ABUTMENT
 AE6391_STAMPING: H 437 1995
 AE6391_MARK LOGO: NGS
 AE6391_MAGNETIC: N = NO MAGNETIC MATERIAL
 AE6391_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
 AE6391_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AE6391+SATELLITE: SATELLITE OBSERVATIONS - 1995
 AE6391
 AE6391  HISTORY     - Date     Condition        Report By
 AE6391  HISTORY     - 1995     MONUMENTED       FLDEP
 AE6391
 AE6391                          STATION DESCRIPTION
 AE6391
 AE6391'DESCRIBED BY FL DEPT OF ENV PRO 1995 (LGB)
 AE6391'THE MARK IS ABOUT 15.0 MI (24.1 KM) SOUTHEAST OF LAKE PLACID, 12.5 MI
 AE6391'(20.1 KM) NORTHWEST OF LAKEPORT IN SECTION 27, TOWNSHIP 38 SOUTH,
 AE6391'RANGE 31 EAST. TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY
 AE6391'27 AND STATE ROAD 70 SOUTH OF LAKE PLACID, GO EAST ON STATE ROAD 70
 AE6391'FOR 7.7 MI (12.4 KM) TO THE WEST END OF THE BRIDGE OVER CANAL C 41
 AE6391'(HARNEY POND CANAL), TURN RIGHT AT THE WEST END OF BRIDGE, PASSING
 AE6391'THROUGH THE GATE, GO SOUTH ON THE LEVEE ROAD FOR 1.05 MI (1.69 KM) TO
 AE6391'A SHARP CURVE TO THE RIGHT, CONTINUE WEST ON THE LEVEE ROAD FOR 1.85
 AE6391'MI (2.98 KM) TO A CURVE TO THE LEFT, CONTINUE SOUTH ON THE LEVEE ROAD
 AE6391'FOR 2.1 MI (3.4 KM) TO A CURVE TO THE LEFT, CONTINUE SOUTHEAST ON THE
 AE6391'LEVEE ROAD FOR 2.7 MI (4.3 KM) TO A BRIDGE ON THE LEFT AND THE MARK
 AE6391'SET FLUSH IN THE SOUTHWEST BRIDGE ABUTMENT. LOCATED 41.7 FT (12.7 M)
```

AE6391'NORTH OF THE APPROXIMATE CENTERLINE OF THE LEVEE ROAD, 18.9 FT (5.8 M)
AE6391'NORTH OF A CARSONITE WITNESS POST, 8.4 FT (2.6 M) WEST OF THE
AE6391'APPROXIMATE CENTERLINE OF THE BRIDGE AND 5.9 FT (1.8 M) SOUTH OF A
AE6391'GATE. NOTE ALL GATES ON LEVEE ARE LOCKED, FOR KEY CONTACT CARL ZEISS,
AE6391'SOUTH FLORIDA WATER MANAGEMENT DISTRICT, WEST PALM BEACH, FL. PHONE
AE6391'NUMBER (407) 686-8800.

*** retrieval complete.
Elapsed Time = 00:00:00

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

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DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.12
1        National Geodetic Survey,   Retrieval Date = JANUARY 26, 2005
 AE6392 ***********************************************************************
 AE6392  DESIGNATION -  J 437
 AE6392  PID         -  AE6392
 AE6392  STATE/COUNTY-  FL/HIGHLANDS
 AE6392  USGS QUAD   -  BRIGHTON NW (1983)
 AE6392
 AE6392                        *CURRENT SURVEY CONTROL
 AE6392  ______________________________________________________________________
 AE6392* NAD 83(1999)-  27 08 13.27828(N)    081 11 02.84354(W)     ADJUSTED
 AE6392* NAVD 88     -        11.555  (meters)      37.91   (feet)  ADJUSTED
 AE6392  ______________________________________________________________________
 AE6392  X           -     870,509.596 (meters)                     COMP
 AE6392  Y           -  -5,612,861.809 (meters)                     COMP
 AE6392  Z           -   2,891,728.917 (meters)                     COMP
 AE6392  LAPLACE CORR-           -3.52  (seconds)                   DEFLEC99
 AE6392  ELLIP HEIGHT-         -13.67  (meters)          (05/31/01) GPS OBS
 AE6392  GEOID HEIGHT-         -25.25  (meters)                     GEOID03
 AE6392  DYNAMIC HT  -          11.537 (meters)      37.85  (feet)  COMP
 AE6392  MODELED GRAV-     979,122.9   (mgal)                       NAVD 88
 AE6392
 AE6392  HORZ ORDER  -  FIRST
 AE6392  VERT ORDER  -  SECOND    CLASS I
 AE6392  ELLP ORDER  -  FOURTH    CLASS I
 AE6392
 AE6392.The horizontal coordinates were established by GPS observations
 AE6392.and adjusted by the National Geodetic Survey in May 2001.
 AE6392
 AE6392.The orthometric height was determined by differential leveling
 AE6392.and adjusted by the National Geodetic Survey in March 1998.
 AE6392
 AE6392.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AE6392
 AE6392.The Laplace correction was computed from DEFLEC99 derived deflections.
 AE6392
 AE6392.The ellipsoidal height was determined by GPS observations
 AE6392.and is referenced to NAD 83.
 AE6392
 AE6392.The geoid height was determined by GEOID03.
 AE6392
 AE6392.The dynamic height is computed by dividing the NAVD 88
 AE6392.geopotential number by the normal gravity value computed on the
 AE6392.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AE6392.degrees latitude (g = 980.6199 gals.).
 AE6392
 AE6392.The modeled gravity was interpolated from observed gravity values.
 AE6392
 AE6392;                    North         East     Units Scale Factor Converg.
 AE6392;SPC FL E     -   310,599.174   181,748.129   MT  0.99994529   -0 05 02.3
 AE6392;UTM  17      - 3,001,625.181   481,754.356   MT  0.99960411   -0 05 02.3
 AE6392
 AE6392!             -  Elev Factor  x  Scale Factor =   Combined Factor
 AE6392!SPC FL E     -   1.00000215  x   0.99994529  =   0.99994744
 AE6392!UTM  17      -   1.00000215  x   0.99960411  =   0.99960626
 AE6392
 AE6392                          SUPERSEDED SURVEY CONTROL
 AE6392
 AE6392  NAD 83(1990)-  27 08 13.27723(N)    081 11 02.84324(W) AD(       ) 1
 AE6392  ELLIP H (05/30/00)  -13.70   (m)                        GP(       ) 3 2
 AE6392  NAVD 88 (05/30/00)   11.55   (m)           37.9    (f) LEVELING    3
 AE6392
 AE6392.Superseded values are not recommended for survey control.
 AE6392.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AE6392.See file dsdata.txt to determine how the superseded data were derived.
 AE6392
 AE6392_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RML8175401625(NAD 83)
 AE6392_MARKER: I = METAL ROD
 AE6392_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
```

AE6392_STAMPING: J 437 1995
AE6392_MARK LOGO: NGS
AE6392_PROJECTION: FLUSH
AE6392_MAGNETIC: N = NO MAGNETIC MATERIAL
AE6392_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AE6392_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AE6392+SATELLITE: SATELLITE OBSERVATIONS - July 13, 1999
AE6392_ROD/PIPE-DEPTH: 24.4 meters
AE6392
AE6392 HISTORY   - Date   Condition   Report By
AE6392 HISTORY   - 1995   MONUMENTED   FLDEP
AE6392 HISTORY   - 19990713 GOOD   BAH
AE6392
AE6392   STATION DESCRIPTION
AE6392
AE6392'DESCRIBED BY FL DEPT OF ENV PRO 1995 (LGB)
AE6392'THE MARK IS ABOUT 15.0 MI (24.1 KM) SOUTHEAST OF LAKE PLACID, 12.1 MI
AE6392'(19.5 KM) NORTHWEST OF LAKEPORT IN SECTION 25, TOWNSHIP 38 SOUTH,
AE6392'RANGE 31 EAST. TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY
AE6392'27 AND STATE ROAD 70 SOUTH OF LAKE PLACID, GO EAST ON STATE ROAD 70
AE6392'FOR 7.7 MI (12.4 KM) TO THE WEST END OF THE BRIDGE OVER CANAL C 41
AE6392'(HARNEY POND CANAL), TURN RIGHT AT THE WEST END OF BRIDGE, PASSING
AE6392'THROUGH THE GATE, GO SOUTH ON THE LEVEE ROAD FOR 1.05 MI (1.69 KM) TO
AE6392'A SHARP CURVE TO THE RIGHT, CONTINUE WEST ON THE LEVEE ROAD FOR 1.85
AE6392'MI (2.98 KM) TO A CURVE TO THE LEFT, CONTINUE SOUTH ON THE LEVEE ROAD
AE6392'FOR 2.1 MI (3.4 KM) TO A CURVE TO THE LEFT, CONTINUE SOUTHEAST ON THE
AE6392'LEVEE ROAD FOR 2.7 MI (4.3 KM) TO ANOTHER CURVE TO THE LEFT, CONTINUE
AE6392'EAST ON THE LEVEE ROAD FOR 1.1 MI (1.8 KM) TO A PAIR OF 5.0 FT (1.5 M)
AE6392'DIAMETER CULVERTS, A GATE, AND THE MARK JUST EAST OF THE GATE ON THE
AE6392'RIGHT, A STAINLESS STEEL ROD DRIVEN TO THE DEPTH OF 80.0 FT (24.4 M)
AE6392'RECESSED 0.4 FT (12.2 CM) WITH A LOGO CAP FLUSH WITH THE GROUND.
AE6392'LOCATED 118.0 FT (36.0 M) SOUTH OF THE TOP SCARP OF CANAL C 41, 90.0
AE6392'FT (27.4 M) NORTH OF A FENCE LINE, 6.0 FT (1.8 M) EAST OF THE SOUTH
AE6392'GATE POST AND 2.5 FT (0.8 M) EAST OF A CARSONITE WITNESS POST. NOTE
AE6392'ACCESS TO DATUM POINT IS HAD THROUGH A 5-INCH LOGO CAP. NOTE ALL GATES
AE6392'ON LEVEE ARE LOCKED, FOR KEY CONTACT CARL ZEISS, SOUTH FLORIDA WATER
AE6392'MANAGEMENT DISTRICT, WEST PALM BEACH, FL. PHONE NUMBER (407)
AE6392'686-8800.
AE6392
AE6392   STATION RECOVERY (1999)
AE6392
AE6392'RECOVERY NOTE BY BERRYMAN & HENIGAR 1999 (BH)
AE6392'RECOVERED AS DESCRIBED.

*** retrieval complete.
Elapsed Time = 00:00:00

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

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DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.12
1        National Geodetic Survey,   Retrieval Date = JANUARY 26, 2005
 AE6393 ***********************************************************************
 AE6393  DESIGNATION -  K 437
 AE6393  PID         -  AE6393
 AE6393  STATE/COUNTY-  FL/HIGHLANDS
 AE6393  USGS QUAD   -  BRIGHTON NW (1983)
 AE6393
 AE6393                        *CURRENT SURVEY CONTROL
 AE6393  ______________________________________________________________________
 AE6393* NAD 83(1999)-  27 07 58.62491(N)    081 10 13.53679(W)     ADJUSTED
 AE6393* NAVD 88     -        11.431  (meters)      37.50   (feet)  ADJUSTED
 AE6393  ______________________________________________________________________
 AE6393  X           -     871,882.854 (meters)                     COMP
 AE6393  Y           -  -5,612,856.674 (meters)                     COMP
 AE6393  Z           -   2,891,327.461 (meters)                     COMP
 AE6393  LAPLACE CORR-           -3.59  (seconds)                   DEFLEC99
 AE6393  ELLIP HEIGHT-         -13.84  (meters)          (05/31/01) GPS OBS
 AE6393  GEOID HEIGHT-         -25.29  (meters)                     GEOID03
 AE6393  DYNAMIC HT  -          11.414 (meters)      37.45  (feet)  COMP
 AE6393  MODELED GRAV-     979,121.2   (mgal)                       NAVD 88
 AE6393
 AE6393  HORZ ORDER  -  FIRST
 AE6393  VERT ORDER  -  SECOND    CLASS I
 AE6393  ELLP ORDER  -  FOURTH    CLASS I
 AE6393
 AE6393.The horizontal coordinates were established by GPS observations
 AE6393.and adjusted by the National Geodetic Survey in May 2001.
 AE6393
 AE6393.The orthometric height was determined by differential leveling
 AE6393.and adjusted by the National Geodetic Survey in March 1998.
 AE6393
 AE6393.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AE6393
 AE6393.The Laplace correction was computed from DEFLEC99 derived deflections.
 AE6393
 AE6393.The ellipsoidal height was determined by GPS observations
 AE6393.and is referenced to NAD 83.
 AE6393
 AE6393.The geoid height was determined by GEOID03.
 AE6393
 AE6393.The dynamic height is computed by dividing the NAVD 88
 AE6393.geopotential number by the normal gravity value computed on the
 AE6393.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AE6393.degrees latitude (g = 980.6199 gals.).
 AE6393
 AE6393.The modeled gravity was interpolated from observed gravity values.
 AE6393
 AE6393;                    North         East     Units Scale Factor Converg.
 AE6393;SPC FL E     -   310,146.263   183,105.216   MT  0.99994470   -0 04 39.8
 AE6393;UTM  17      - 3,001,172.424   483,110.981   MT  0.99960352   -0 04 39.8
 AE6393
 AE6393!             -  Elev Factor  x  Scale Factor =   Combined Factor
 AE6393!SPC FL E     -   1.00000217  x   0.99994470  =   0.99994687
 AE6393!UTM  17      -   1.00000217  x   0.99960352  =   0.99960569
 AE6393
 AE6393                         SUPERSEDED SURVEY CONTROL
 AE6393
 AE6393  NAD 83(1990)-  27 07 58.62388(N)    081 10 13.53647(W) AD(       ) 1
 AE6393  ELLIP H (05/30/00)  -13.87   (m)                        GP(       ) 3 2
 AE6393  NAVD 88 (05/30/00)   11.43   (m)           37.5    (f) LEVELING    3
 AE6393
 AE6393.Superseded values are not recommended for survey control.
 AE6393.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AE6393.See file dsdata.txt to determine how the superseded data were derived.
 AE6393
 AE6393_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RML8311101172(NAD 83)
 AE6393_MARKER: DV = VERTICAL CONTROL DISK
 AE6393_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
```

AE6393_STAMPING: K 437 1995
AE6393_MARK LOGO: NGS
AE6393_MAGNETIC: N = NO MAGNETIC MATERIAL
AE6393_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AE6393+STABILITY: SURFACE MOTION
AE6393_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AE6393+SATELLITE: SATELLITE OBSERVATIONS - July 13, 1999
AE6393
AE6393 HISTORY   - Date   Condition   Report By
AE6393 HISTORY   - 1995   MONUMENTED   FLDEP
AE6393 HISTORY   - 19990713 GOOD   BAH
AE6393
AE6393   STATION DESCRIPTION
AE6393
AE6393'DESCRIBED BY FL DEPT OF ENV PRO 1995 (LGB)
AE6393'THE MARK IS ABOUT 16.3 MI (26.2 KM) SOUTHEAST OF LAKE PLACID, 11.6 MI
AE6393'(18.7 KM) NORTH-NORTHWEST OF LAKEPORT IN SECTION 36, TOWNSHIP 38
AE6393'SOUTH, RANGE 31 EAST. TO REACH THE MARK FROM THE INTERSECTION OF U.S.
AE6393'HIGHWAY 27 AND STATE ROAD 70 SOUTH OF LAKE PLACID, GO EAST ON STATE
AE6393'ROAD 70 FOR 7.7 MI (12.4 KM) TO THE WEST END OF THE BRIDGE OVER CANAL
AE6393'C 41 (HARNEY POND CANAL), TURN RIGHT AT THE WEST END OF THE BRIDGE,
AE6393'PASSING THROUGH LOCKED GATE, GO SOUTH ON THE LEVEE ROAD FOR 1.05 MI
AE6393'(1.69 KM) TO A SHARP CURVE TO THE RIGHT, CONTINUE WEST ON THE LEVEE
AE6393'ROAD FOR 1.85 MI (2.98 KM) TO A CURVE TO THE LEFT, CONTINUE SOUTH ON
AE6393'THE LEVEE ROAD FOR 2.1 MI (3.4 KM) TO A CURVE TO THE LEFT, CONTINUE
AE6393'SOUTHEAST ON THE LEVEE ROAD FOR 2.7 MI (4.3 KM) TO A CURVE TO THE
AE6393'LEFT, CONTINUE EAST ON THE LEVEE ROAD FOR 1.9 MI (3.1 KM) TO THE
AE6393'APPROXIMATE CENTER OF A CURVE TO THE RIGHT, CONTINUE SOUTHEAST ON THE
AE6393'LEVEE ROAD FOR 0.15 MI (0.24 KM) TO THE MARK SET IN THE TOP OF A
AE6393'CONCRETE MONUMENT IN THE APPROXIMATE CENTER OF THEE LEVEE ROAD AND
AE6393'RECESSED 0.5 FT (15.2 CM) BELOW THE LEVEL OF THE GROUND. LOCATED 80.0
AE6393'FT (24.4 M) SOUTHWEST OF THE TOP SCARP OF C 41, 70.2 FT (21.4 M)
AE6393'NORTHEAST OF A GROUP OF THREE PALM TREES AND 68.7 FT (20.9 M)
AE6393'NORTHEAST OF A CARSONITE WITNESS POST. NOTE ALL GATES ON LEVEE ARE
AE6393'LOCKED, FOR KEY CONTACT CARL ZEISS, SOUTH FLORIDA WATER MANAGEMENT
AE6393'DISTRICT, WEST PALM BEACH, FL. PHONE NUMBER (407) 686-8800.
AE6393
AE6393   STATION RECOVERY (1999)
AE6393
AE6393'RECOVERY NOTE BY BERRYMAN & HENIGAR 1999 (BH)
AE6393'RECOVERED AS DESCRIBED.

*** retrieval complete.
Elapsed Time = 00:00:00

SFWMD - Buck Island Ranch
Monitoring Well Benchmarks
Computation Sheet

West Side Bench Runs

				Foreward Run #1								**Reverse Run #2**					**Preliminary**	**Preliminary**	
Plus	**HI**	**Minus**	**Elevation**	**Benchmark Description**	**Sum of "Plus" Column**	**Sum of "Minus" Column**	**Delta = Difference in Elevation**	**Plus**	**HI**	**Minus**	**Elevation**	**Description**	**Sum of "Plus" Column**	**Sum of "Minus" Column**	**Delta = Difference in Elevation**	**Mean Delta**	**Adjusted Elevation (meters)**	**Prorated Elevation Adjustment**	**Benchmark Description**
1.5769	10.9719		9.3950	**H-437**				1.5290	9.5759		8.0469	**Buck 1A**					8.0469	**8.0479**	**Buck 1A**
1.2373	10.2816	1.9276	9.0443					1.6929	10.5401	0.7287	8.8472								
1.4202	10.2451	1.4567	8.8249					1.1648	9.8373	1.8676	8.6725								
1.9284	10.2106	1.9629	8.2822					1.2641	10.1098	0.9916	8.8457								
1.4947	10.3185	1.3868	8.8238					1.6112	10.6170	1.1040	9.0058								
1.4255	10.4332	1.3108	9.0077					1.2763	10.4593	1.4340	9.1830								
1.6000	10.3754	1.6578	8.7754					1.6381	10.7007	1.3967	9.0626								
1.4450	10.3749	1.4455	8.9299					1.3182	10.4256	1.5933	9.1074								
1.3653	10.2412	1.4990	8.8759					1.4297	10.3343	1.5210	8.9046								
1.3029	10.4064	1.1377	9.1035					1.2983	10.3796	1.2530	9.0813								
1.4358	10.4914	1.3508	9.0556					1.6185	10.5848	1.4133	8.9663								
1.4350	10.5093	1.4171	9.0743					1.4891	10.5131	1.5608	9.0240								
1.3662	10.3915	1.4840	9.0253					1.5914	10.4590	1.6455	8.8676								
1.8000	10.5282	1.6633	8.7282					1.2818	10.3154	1.4254	9.0336								
1.5585	10.6713	1.4154	9.1128					1.4516	10.2345	1.5325	8.7829								
1.3980	10.6202	1.4491	9.2222					1.5334	10.3955	1.3724	8.8621								
1.8185	10.6895	1.7492	8.8710					1.4060	10.3779	1.4236	8.9719								
1.2979	10.2080	1.7794	8.9101					1.5885	10.5146	1.4518	8.9261								
1.2827	9.8445	1.6462	8.5618					1.4112	10.3117	1.6141	8.9005								
1.0878	10.0836	0.8487	8.9958					1.2995	10.3217	1.2895	9.0222								
1.5901	9.8335	1.8402	8.2434					1.5650	10.9147	0.9720	9.3497								
1.5609	9.5286	1.8658	7.9677					1.6021	11.1659	1.3509	9.5638								
		1.4837	8.0449	**Buck 1A**	32.4276	33.7777	-1.3501			1.7713	9.3946	**H-437**	32.0607	30.713	1.3477	1.3489			
1.6026	9.6475		8.0449	**Buck 1A**				1.5308	9.5124		7.9816	**Buck 2A**					7.98255	**7.9839**	**Buck 2A**
1.4547	9.6357	1.4665	8.1810					1.6312	9.8526	1.2910	8.2214								
1.5586	9.8827	1.3116	8.3241					1.4845	9.9331	1.4040	8.4486								
1.4750	9.8521	1.5056	8.3771					1.4619	10.0354	1.3596	8.5735								
1.4788	9.7537	1.5772	8.2749					1.5758	10.0207	1.5905	8.4449								
1.4061	9.6808	1.4790	8.2747					1.4685	9.6838	1.8054	8.2153								
1.3335	9.4576	1.5567	8.1241					1.5098	9.7072	1.4864	8.1974								
1.5206	9.4590	1.5192	7.9384					1.4091	9.6185	1.4978	8.2094								
		1.4775	7.9815	**Buck 2A**	11.8299	11.8933	-0.0634			1.5716	8.0469	**Buck 1A**	12.0716	12.0063	0.0653	0.06435			
1.4975	9.4790		7.9815	**Buck 2A**				1.2116	9.4564		8.2448	**Buck 3B**					8.2455	**8.2470**	**Buck 3B**
1.4772	9.5316	1.4246	8.0544					1.4400	9.5453	1.3511	8.1053								
1.5121	9.5761	1.4676	8.0640					1.6740	9.6000	1.6193	7.9260								
1.5604	9.7000	1.4365	8.1396					1.1349	9.4657	1.2692	8.3308								
		1.4558	8.2442	**Buck 3B**	6.0472	5.7845	0.2627			1.4841	7.9816	**Buck 2A**	5.4605	5.7237	-0.2632	-0.26295			
1.4879	9.7321		8.2442	**Buck 3B**				1.6343	9.8822		8.2479	**Buck 4A**					8.248	**8.2497**	**Buck 4A**
1.4041	9.9134	1.2228	8.5093					1.5949	9.9508	1.5263	8.3559								
1.4722	9.8024	1.5832	8.3302					1.5594	9.9624	1.5478	8.4030								
1.4825	9.8099	1.4750	8.3274					1.2978	9.7127	1.5475	8.4149								
		1.5638	8.2461	**Buck 4A**	5.8467	5.8448	0.0019			1.4679	8.2448	**Buck 3B**	6.0864	6.0895	-0.0031	-0.0025			
1.7678	10.0139		8.2461	**Buck 4A**				1.8997	10.1476		8.2479	**Buck 4A**							
1.4169	9.6490	1.7818	8.2321					1.9971	10.2401	1.9046	8.2430								
1.1706	9.6231	1.1965	8.4525					1.4298	9.6335	2.0364	8.2037								
1.5580	9.6904	1.4907	8.1324					1.4292	9.6045	1.4582	8.1753								
1.4653	9.7145	1.4412	8.2492					1.4951	9.7084	1.3912	8.2133								
1.4034	9.6725	1.4454	8.2691					1.4795	9.7894	1.3985	8.3099								
		1.3634	8.3091	**Buck 5B**	8.7820	8.7190	0.0630			1.4787	8.3107	**Buck 5B**	9.7304	9.6676	0.0628	0.0629	8.3109	**8.3129**	**Buck 5B**

SFWMD - Buck Island Ranch
Monitoring Well Benchmarks
Computation Sheet

Plus	HI	Minus	Elevation	Benchmark Description	Sum of "Plus" Column	Sum of "Minus" Column	Delta = Difference in Elevation	Plus	HI	Minus	Elevation	Description	Sum of "Plus" Column	Sum of "Minus" Column	Delta = Difference in Elevation	Mean Delta	Adjusted Elevation (meters)	Prorated Elevation Adjustment	Benchmark Description
1.3852	9.6943		8.3091	**Buck 5B**				1.5646	9.6835		8.1189	**Buck 6A**					8.1187	**8.1209**	**Buck 6A**
1.5208	9.7372	1.4779	8.2164					1.4111	9.7320	1.3626	8.3209								
1.5257	9.6598	1.6031	8.1341					1.3968	9.6907	1.4381	8.2939								
1.5919	9.6750	1.5767	8.0831					1.4174	9.7126	1.3955	8.2952								
		1.5585	8.1165	**Buck 6A**	6.0236	6.2162	-0.1926			1.4019	8.3107	**Buck 5B**	5.7899	5.5981	0.1918	0.1922			
								1.5887	9.7312		8.1425	**Buck 8A**					8.14155	**8.1440**	**Buck 8A**
1.6317	9.7482		8.1165	**Buck 6A**				1.3058	9.5511	1.4859	8.2453								
1.4351	9.6364	1.5469	8.2013					1.6044	9.7062	1.4493	8.1018								
1.4827	9.6109	1.5082	8.1282					1.3667	9.6462	1.4267	8.2795								
1.4376	9.5918	1.4567	8.1542					1.4273	9.7208	1.3527	8.2935								
		1.4532	8.1386	**Buck 8A**	5.9871	5.9650	0.0221	1.4462	9.6843	1.4827	8.2381								
										1.5654	8.1189	**Buck 6A**	8.7391	8.7627	-0.0236	-0.02285			
1.3758	9.5144		8.1386	**Buck 8A**				1.4994	9.6103		8.1109	**Buck 9B**					8.10865	**8.1114**	**Buck 9B**
1.5503	9.5724	1.4923	8.0221					1.5640	9.6830	1.4913	8.1190								
1.0713	9.6368	1.0069	8.5655					1.4371	9.6004	1.5197	8.1633								
1.4559	9.6916	1.4011	8.2357					1.6971	9.6475	1.6500	7.9504								
1.3825	9.5313	1.5428	8.1488					0.9355	9.5707	1.0123	8.6352								
1.4845	9.5301	1.4857	8.0456					1.2466	9.3390	1.4783	8.0924								
1.6291	9.7701	1.3891	8.1410							1.1965	8.1425	**Buck 8A**	8.3797	8.3481	0.0316	0.0329			
1.5410	9.6333	1.6778	8.0923																
		1.5289	8.1044	**Buck 9B**	11.4904	11.5246	-0.0342												
1.5075	9.6119		8.1044	**Buck 9B**				2.0806	10.0293		7.9487	**Buck 10A**					7.9461	**7.9490**	**Buck 10A**
1.3061	9.5092	1.4088	8.2031					1.3675	9.5893	1.8075	8.2218								
1.6681	9.4778	1.6995	7.8097					1.5019	9.5761	1.5151	8.0742								
1.6949	9.5309	1.6418	7.8360					1.3489	9.5642	1.3608	8.2153								
		1.5894	7.9415	**Buck 10A**	6.1766	6.3395	-0.1629			1.4533	8.1109	**Buck 9B**	6.2989	6.1367	0.1622	0.16255			
								1.3549	9.3894		8.0345	**Buck 11B**					8.03075	**8.0340**	**Buck 11B**
1.5843	9.5258		7.9415	**Buck 10A**				1.3880	9.4430	1.3344	8.0550								
1.4540	9.5784	1.4014	8.1244					1.4131	9.5210	1.3351	8.1079								
1.4155	9.4682	1.5257	8.0527					1.5197	9.6189	1.4218	8.0992								
1.3800	9.5978	1.2504	8.2178					1.4410	9.5470	1.5129	8.1060								
1.4729	9.4851	1.5856	8.0122					1.4633	9.5983	1.4120	8.1350								
1.1798	9.2667	1.3982	8.0869					1.4779	9.6110	1.4652	8.1331								
		1.2417	8.0250	**Buck 11B**	8.4865	8.4030	0.0835	1.4363	9.4476	1.5997	8.0113								
										1.4989	7.9487	**Buck 10A**	11.4942	11.58	-0.0858	-0.08465			
1.5778	9.6028		8.0250	**Buck 11B**				1.5857	10.9807		9.3950	**H-437**					9.3913	**9.3950**	**H-437**
1.6708	10.3053	0.9683	8.6345					1.1452	10.3988	1.7271	9.2536								
1.4559	10.1500	1.6112	8.6941					1.2592	10.1930	1.4650	8.9338								
1.2135	10.0147	1.3488	8.8012					1.5455	10.3269	1.4116	8.7814								
1.3837	10.2113	1.1871	8.8276					1.4370	10.1415	1.6224	8.7045								
1.2700	10.0314	1.4499	8.7614					1.7494	10.1537	1.7372	8.4043								
1.3796	10.1104	1.3006	8.7308					1.4437	9.9914	1.6060	8.5477								
1.2350	10.0850	1.2604	8.8500					1.3080	9.7107	1.5887	8.4027								
1.7861	10.3916	1.4795	8.6055					1.5859	9.6785	1.6181	8.0926								
1.5440	10.3077	1.6279	8.7637					1.3894	9.5304	1.5375	8.1410								
1.4888	10.1134	1.6831	8.6246							1.4959	8.0345	**Buck 11B**	14.449	15.8095	-1.3605	-1.36055			
1.4763	10.2948	1.2949	8.8185																
2.0240	10.6456	1.6732	8.6216																
1.6362	11.0869	1.1949	9.4507																
		1.7013	9.3856	**H-437**	21.1417	19.7811	1.3606												
1.6157	11.0107		9.3950	**H-437**				1.4494	9.7318		8.2824	**Buck 7B**					8.28275	**8.2828**	**Buck 7B**
0.9892	10.1507	1.8492	9.1615					1.2762	9.7976	1.2104	8.5214								
1.1855	9.8518	1.4844	8.6663					1.5941	10.1972	1.1945	8.6031								
1.2020	9.7236	1.3302	8.5216					1.8115	10.9892	1.0195	9.1777								
		1.4412	8.2824	**Buck 7B**	4.9924	6.1050	-1.1126			1.5949	9.3943	**H-437**	6.1312	5.0193	1.1119	1.11225			

SFWMD - Buck Island Ranch
Monitoring Well Benchmarks
Computation Sheet

East Side Bench Runs																			
Foreward Run #1								Reverse Run #2									Preliminary	Preliminary	
Plus	HI	Minus	Elevation	Benchmark Description	Sum of "Plus" Column	Sum of "Minus" Column	Delta = Difference in Elevation	Plus	HI	Minus	Elevation	Description	Sum of "Plus" Column	Sum of "Minus" Column	Delta = Difference in Elevation	Mean Delta	Adjusted Elevation (meters)	Prorated Elevation Adjustment	Benchmark Description
0.9432	12.4982		11.5550	**J-437**				1.9986	9.8717		7.8731	**Buck 20A**							
1.3173	11.0350	2.7805	9.7177					1.5150	9.3642	2.0225	7.8492								
1.2316	9.8580	2.4086	8.6264					2.9798	11.6494	0.6946	8.6696								
2.3465	10.9722	1.2323	8.6257					1.4440	9.8614	3.2320	8.4174								
1.7698	10.3788	2.3632	8.6090					2.8779	12.3977	0.3416	9.5198								
1.3100	9.2574	2.4314	7.9474					1.6664	13.4310	0.6331	11.7646								
		1.3872	7.8702	**Buck 20A**	8.9184	12.6032	-3.6848			1.8767	11.5543	**J-437**	12.4817	8.8005	3.6812	3.683	11.55985	**11.5550**	**J-437**
1.9430	9.8132		7.8702	**Buck 20A**				1.4105	9.4864		8.0759	**Buck 12B**							
1.8603	9.4222	2.2513	7.5619					2.0659	9.7420	1.8103	7.6761								
1.5142	9.4850	1.4514	7.9708					1.4043	9.7940	1.3523	8.3897								
1.4106	9.5257	1.3699	8.1151					1.2964	9.8695	1.2209	8.5731								
1.6551	9.7508	1.4300	8.0957					1.3240	9.8208	1.3727	8.4968								
1.3601	9.5419	1.5690	8.1818					1.3201	9.8779	1.2630	8.5578								
1.4092	9.5751	1.3760	8.1659					1.4787	9.9123	1.4443	8.4336								
1.3745	9.4837	1.4659	8.1092					1.4935	9.8331	1.5727	8.3396								
		1.4120	8.0717	**Buck 12B**	12.5270	12.3255	0.2015	1.3980	9.7105	1.5206	8.3125								
								1.0214	9.4757	1.2562	8.4543								
										1.6026	7.8731	**Buck 20A**	14.2128	14.4156	-0.2028	-0.20215	7.87685	**7.8725**	**Buck 20A**
1.5000	9.5717		8.0717	**Buck 12B**				1.5960	9.4309		7.8349	**Buck 13A**							
1.6934	9.4443	1.8208	7.7509					1.3913	9.3609	1.4613	7.9696								
1.5228	9.5503	1.4168	8.0275					1.5033	9.4892	1.3750	7.9859								
1.4841	9.4715	1.5629	7.9874					1.4601	9.5350	1.4143	8.0749								
		1.6424	7.8291	**Buck 13A**	6.2003	6.4429	-0.2426			1.4591	8.0759	**Buck 12B**	5.9507	5.7097	0.241	0.2418	8.079	**8.0754**	**Buck 12B**
1.7948	9.6239		7.8291	**Buck 13A**				1.5509	9.4585		7.9076	**Buck 14B**							
1.4983	9.4595	1.6627	7.9612					1.9861	9.6285	1.8161	7.6424								
		1.5574	7.9021	**Buck 14B**	3.2931	3.2201	0.0730			1.7936	7.8349	**Buck 13A**	3.537	3.6097	-0.0727	-0.07285	7.8372	**7.8339**	**Buck 13A**
1.5392	9.4413		7.9021	**Buck 14B**				1.5528	9.4298		7.8770	**Buck 15A**							
1.6278	9.4424	1.6267	7.8146					1.4583	9.4860	1.4021	8.0277								
		1.5717	7.8707	**Buck 15A**	3.1670	3.1984	-0.0314			1.5784	7.9076	**Buck 14B**	3.0111	2.9805	0.0306	0.031	7.91005	**7.9069**	**Buck 14B**
1.5848	9.4555		7.8707	**Buck 15A**				1.4814	9.4556		7.9742	**Buck 16B**							
0.8872	9.4610	0.8817	8.5738					1.7663	9.7838	1.4381	8.0175								
1.4545	9.4376	1.4779	7.9831					1.4105	9.3790	1.8153	7.9685								
		1.4707	7.9669	**Buck 16B**	3.9265	3.8303	0.0962	1.4276	9.4175	1.3891	7.9899								
										1.5405	7.8770	**Buck 15A**	6.0858	6.183	-0.0972	-0.0967	7.87905	**7.8761**	**Buck 15A**
1.4462	9.4131		7.9669	**Buck 16B**				1.6125	9.4649		7.8524	**Buck 17A**							
1.6787	9.4573	1.6345	7.7786					1.3993	9.4322	1.4320	8.0329								
		1.6114	7.8459	**Buck 17A**	3.1249	3.2459	-0.1210			1.4580	7.9742	**Buck 16B**	3.0118	2.89	0.1218	0.1214	7.97575	**7.9731**	**Buck 16B**
1.6085	9.4544		7.8459	**Buck 17A**				1.5574	9.5152		7.9578	**Buck 18B**							
1.5033	9.5050	1.4527	8.0017					1.4904	9.4713	1.5343	7.9809								
		1.5548	7.9502	**Buck 18B**	3.1118	3.0075	0.1043			1.6189	7.8524	**Buck 17A**	3.0478	3.1532	-0.1054	-0.10485	7.85435	**7.8518**	**Buck 17A**
1.4811	9.4313		7.9502	**Buck 18B**				1.6693	9.6490		7.9797	**Buck 19A**							
1.8287	9.9701	1.2899	8.1414					1.1914	9.4936	1.3468	8.3022								
1.5083	9.6509	1.8275	8.1426							1.5358	7.9578	**Buck 18B**	2.8607	2.8826	-0.0219	-0.02055	7.9592	**7.9569**	**Buck 18B**
		1.6815	7.9694	**Buck 19A**	4.8181	4.7989	0.0192												

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Plus	HI	Minus	Elevation	Benchmark Description	Sum of "Plus" Column	Sum of "Minus" Column	Delta = Difference in Elevation	Plus	HI	Minus	Elevation	Description	Sum of "Plus" Column	Sum of "Minus" Column	Delta = Difference in Elevation	Mean Delta	Adjusted Elevation (meters)	Prorated Elevation Adjustment	Benchmark Description
1.6394	9.6088		7.9694	**Buck 19A**				1.9151	9.8872		7.9721	**Buck 22B**							
1.4109	9.6314	1.3883	8.2205					1.9112	9.9174	1.8810	8.0062								
1.3867	9.5068	1.5113	8.1201					1.4913	9.8750	1.5337	8.3837								
1.5512	9.6179	1.4401	8.0667					1.3551	9.8051	1.4250	8.4500								
1.8902	9.9212	1.5869	8.0310					1.5823	9.8941	1.4933	8.3118								
1.6636	9.7215	1.8633	8.0579					1.3200	9.6218	1.5923	8.3018								
		1.7591	7.9624	**Buck 22B**	9.5420	9.5490	-0.0070			1.6421	7.9797	**Buck 19A**	9.575	9.5674	0.0076	0.0073	7.97975	**7.9776**	**Buck 19A**
1.8973	9.8597		7.9624	**Buck 22B**				2.0585	9.8161		7.7576	**Buck 21A**							
1.5705	9.7389	1.6913	8.1684					1.4509	9.6525	1.6145	8.2016								
1.4919	9.4512	1.7796	7.9593					1.6103	9.6259	1.6369	8.0156								
1.4377	9.5509	1.3380	8.1132					1.4082	9.5472	1.4869	8.1390								
1.7685	9.7568	1.5626	7.9883					1.5949	9.6252	1.5169	8.0303								
1.1950	9.4128	1.5390	8.2178					1.4346	9.7306	1.3292	8.2960								
		1.6649	7.7479	**Buck 21A**	9.3609	9.5754	-0.2145	1.0665	9.4916	1.3055	8.4251								
								1.4202	9.3873	1.5245	7.9671								
										1.4152	7.9721	**Buck 22B**	12.0441	11.8296	0.2145	0.2145	7.97245	**7.9707**	**Buck 22B**
1.6015	9.3494		7.7479	**Buck 21A**				1.2360	12.7910		11.5550	**J-437**					11.555		
1.3305	9.3566	1.3233	8.0261					1.1291	12.5386	1.3815	11.4095								
1.7334	9.6698	1.4202	7.9364					1.2447	12.2862	1.4971	11.0415								
1.7039	9.6545	1.7192	7.9506					1.6178	12.4240	1.4800	10.8062								
1.6311	9.5663	1.7193	7.9352					1.2294	12.8978	0.7556	11.6684								
1.5721	9.7729	1.3655	8.2008					1.4177	13.0188	1.2967	11.6011								
1.5992	9.7704	1.6017	8.1712					1.5680	12.8936	1.6932	11.3256								
1.6002	9.8496	1.5210	8.2494					0.6027	11.2540	2.2423	10.6513								
1.6236	9.7572	1.7160	8.1336					1.3210	10.3158	2.2592	8.9948								
2.5383	10.8480	1.4475	8.3097					1.3232	10.4815	1.1575	9.1583								
1.1523	11.1014	0.8989	9.9491					0.9842	9.3059	2.1598	8.3217								
1.1276	9.6786	2.5504	8.5510					1.4235	9.3712	1.3582	7.9477								
2.7434	11.3156	1.1064	8.5722					1.7020	9.3506	1.7226	7.6486								
2.2914	13.0662	0.5408	10.7748					1.6132	9.5637	1.4001	7.9505								
		1.5216	11.5446	**J-437**	24.2485	20.4518	3.7967			1.8061	7.7576	**Buck 21A**	18.4125	22.2099	-3.7974	-3.79705	7.75795	**7.7569**	**Buck 21A**

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Subordinate Bench Runs																			
Plus	HI	Minus	Elevation	Benchmark Description	Delta = Difference in Elevation	Mean Delta	Preliminary Adjusted Elevation	Benchmark Description			Plus	HI	Minus	Elevation	Benchmark Description	Delta = Difference in Elevation	Mean Delta	Preliminary Adjusted Elevation	Benchmark Description
1.6484	9.4823		7.8339	**Buck 13A**							1.5924	9.4993		7.9069	**Buck 14B**				
		0.6309	8.8514	**Buck 13C**	1.0175								0.6432	8.8561	**Buck 14C**	0.9492			
0.6310	9.4824		8.8514	**Buck 13C**							0.6432	9.4993		8.8561	**Buck 14C**				
		1.6486	7.8338	**Buck 13A**	-1.0176	1.0176	**8.8515**	**Buck 13C**					1.5924	7.9069	**Buck 14B**	-0.9492	0.9492	**8.8561**	**Buck 14C**
1.4950	9.3711		7.8761	**Buck 15A**							1.5014	9.3775		7.8761	**Buck 15A**				
		1.4543	7.9168	**Buck 15B**	0.0407								0.6178	8.7597	**Buck 15C**	0.8836			
1.4541	9.3709		7.9168	**Buck 15B**							0.6176	9.3773		8.7597	**Buck 15C**				
		1.4950	7.8759	**Buck 15A**	-0.0409	0.0408	**7.9169**	**Buck 15B**					1.5015	7.8758	**Buck 15A**	-0.8839	0.88375	**8.7598**	**Buck 15C**
1.4968	9.4699		7.9731	**Buck 16B**							1.6031	9.5600		7.9569	**Buck 18B**				
		0.6344	8.8355	**Buck 16C**	0.8624								0.6598	8.9002	**Buck 18C**	0.9433			
0.6344	9.4699		8.8355	**Buck 16C**							0.6585	9.5587		8.9002	**Buck 18C**				
		1.4969	7.9730	**Buck 16B**	-0.8625	0.8625	**8.8355**	**Buck 16C**					1.6019	7.9568	**Buck 18B**	-0.9434	0.94335	**8.9002**	**Buck 18C**
1.5298	9.3816		7.8518	**Buck 17A**							1.5299	9.4060		7.8761	**Buck 17A**				
		1.4450	7.9366	**Buck 17B**	0.0848								0.5377	8.8683	**Buck 17C**	0.9922			
1.4461	9.3827		7.9366	**Buck 17B**							0.5378	9.4061		8.8683	**Buck 17C**				
		1.5300	7.8527	**Buck 17A**	-0.0839	0.0844	**7.9362**	**Buck 17B**					1.5296	7.8765	**Buck 17A**	-0.9918	0.992	**8.8681**	**Buck 17C**
1.4539	9.5293		8.0754	**Buck 12B**							1.4625	9.4332		7.9707	**Buck 22B**				
		0.5987	8.9306	**Buck 12C**	0.8552								0.4901	8.9431	**Buck 22C**	0.9724			
0.6001	9.5307		8.9306	**Buck 12C**							0.4924	9.4355		8.9431	**Buck 22C**				
		1.4559	8.0748	**Buck 12B**	-0.8558	0.8555	**8.9309**	**Buck 12C**					1.4650	7.9705	**Buck 22B**	-0.9726	0.9725	**8.9432**	**Buck 22C**
1.5261	9.5037		7.9776	**Buck 19A**							1.5237	9.5013		7.9776	**Buck 19A**				
		1.3454	8.1583	**Buck 19B**	0.1807								0.532	8.9693	**Buck 19C**	0.9917			
1.3431	9.5014		8.1583	**Buck 19B**							0.5324	9.5017		8.9693	**Buck 19C**				
		1.5236	7.9778	**Buck 19A**	-0.1805	0.1806	**8.1582**	**Buck 19B**					1.5234	7.9783	**Buck 19A**	-0.991	0.99135	**8.9689**	**Buck 19C**
1.6168	9.3737		7.7569	**Buck 21A**							1.6190	9.3759		7.7569	**Buck 21A**				
		1.5146	7.8591	**Buck 21B**	0.1022								0.5827	8.7932	**Buck 21C**	1.0363			
1.5183	9.3774		7.8591	**Buck 21B**							0.5806	9.3738		8.7932	**Buck 21C**				
		1.6206	7.7568	**Buck 21A**	-0.1023	0.1023	**7.8591**	**Buck 21B**					1.6166	7.7572	**Buck 21A**	-1.036	1.03615	**8.7930**	**Buck 21C**
1.4749	9.3474		7.8725	**Buck 20A**							1.4775	9.3500		7.8725	**Buck 20A**				
		1.4620	7.8854	**Buck 20B**	0.0129								0.4893	8.8607	**Buck 20C**	0.9882			
1.4647	9.3501		7.8854	**Buck 20B**							0.4859	9.3466		8.8607	**Buck 20C**				
		1.4775	7.8726	**Buck 20A**	-0.0128	0.0129	**7.8853**	**Buck 20B**					1.4744	7.8722	**Buck 20A**	-0.9885	0.98835	**8.8608**	**Buck 20C**
1.5426	9.5905		8.0479	**Buck 1A**							1.5400	9.5879		8.0479	**Buck 1A**				
		1.4994	8.0911	**Buck 1B**	0.0432								0.5966	8.9913	**Buck 1C**	0.9434			
1.4973	9.5884		8.0911	**Buck 1B**							0.6008	9.5921		8.9913	**Buck 1C**				
		1.5408	8.0476	**Buck 1A**	-0.0435	0.0433	**8.0912**	**Buck 1B**					1.5442	8.0479	**Buck 1A**	-0.9434	0.9434	**8.9913**	**Buck 1C**
1.5526	9.5365		7.9839	**Buck 2A**							1.5520	9.5359		7.9839	**Buck 2A**				
		1.4119	8.1246	**Buck 2B**	0.1407								0.5536	8.9823	**Buck 2C**	0.9984			
1.4106	9.5352		8.1246	**Buck 2B**							0.5974	9.5797		8.9823	**Buck 2C**				
		1.5495	7.9857	**Buck 2A**	-0.1389	0.1398	**8.1237**	**Buck 2B**					1.5945	7.9852	**Buck 2A**	-0.9971	0.99775	**8.9817**	**Buck 2C**

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Plus	HI	Minus	Elevation	Benchmark Description	Delta = Difference in Elevation	Mean Delta	Preliminary Adjusted Elevation	Benchmark Description			Plus	HI	Minus	Elevation	Benchmark Description	Delta = Difference in Elevation	Mean Delta	Preliminary Adjusted Elevation	Benchmark Description
1.4742	9.7212		8.2470	**Buck 3B**							1.4047	9.7176		8.3129	**Buck 5B**				
		0.6842	9.0370	**Buck 3C**	0.7900								0.5447	9.1729	**Buck 5C**	0.86			
0.6855	9.7225		9.0370	**Buck 3C**							0.4953	9.6682		9.1729	**Buck 5C**				
		1.4740	8.2485	**Buck 3B**	-0.7885	0.7893	**9.0363**	**Buck 3C**					1.3549	8.3133	**Buck 5B**	-0.8596	0.8598	**9.1727**	**Buck 5C**
1.5430	9.7927		8.2497	**Buck 4A**							1.5457	9.7954		8.2497	**Buck 4A**				
		1.4687	8.3240	**Buck 4B**	0.0743								0.5753	9.2201	**Buck 4C**	0.9704			
1.4713	9.7953		8.3240	**Buck 4B**							0.5754	9.7955		9.2201	**Buck 4C**				
		1.5458	8.2495	**Buck 4A**	-0.0745	0.0744	**8.3241**	**Buck 4B**					1.5456	8.2499	**Buck 4A**	-0.9702	0.9703	**9.2200**	**Buck 4C**
1.5171	9.6380		8.1209	**Buck 6A**							1.5095	9.6304		8.1209	**Buck 6A**				
		1.3944	8.2436	**Buck 6B**	0.1227								0.4809	9.1495	**Buck 6C**	1.0286			
1.3862	9.6298		8.2436	**Buck 6B**							0.4782	9.6277		9.1495	**Buck 6C**				
		1.5091	8.1207	**Buck 6A**	-0.1229	0.1228	**8.2437**	**Buck 6B**					1.5062	8.1215	**Buck 6A**	-1.028	1.0283	**9.1492**	**Buck 6C**
1.4219	9.4559		8.0340	**Buck 11B**							1.4762	9.5876		8.1114	**Buck 9B**				
		0.5336	8.9223	**Buck 11C**	0.8883								0.6243	8.9633	**Buck 9C**	0.8519			
0.5364	9.4587		8.9223	**Buck 11C**							0.6285	9.5918		8.9633	**Buck 9C**				
		1.4240	8.0347	**Buck 11B**	-0.8876	0.8880	**8.9219**	**Buck 11C**					1.4802	8.1116	**Buck 9B**	-0.8517	0.8518	**8.9632**	**Buck 9C**
1.7537	9.7027		7.9490	**Buck 10A**							1.7556	9.7046		7.9490	**Buck 10A**				
		1.6537	8.0490	**Buck 10B**	0.1000								0.8109	8.8937	**Buck 10C**	0.9447			
1.6553	9.7043		8.0490	**Buck 10B**							0.808	9.7017		8.8937	**Buck 10C**				
		1.7548	7.9495	**Buck 10A**	-0.0995	0.0998	**8.0487**	**Buck 10B**					1.7521	7.9496	**Buck 10A**	-0.9441	0.9444	**8.8934**	**Buck 10C**
1.5719	9.7159		8.1440	**Buck 8A**							1.5690	9.7130		8.1440	**Buck 8A**				
		1.4423	8.2736	**Buck 8B**	0.1296								0.6185	9.0945	**Buck 8C**	0.9505			
1.4388	9.7124		8.2736	**Buck 8B**							0.618	9.7125		9.0945	**Buck 8C**				
		1.5691	8.1433	**Buck 8A**	-0.1303	0.1300	**8.2739**	**Buck 8B**					1.5686	8.1439	**Buck 8A**	-0.9506	0.95055	**9.0945**	**Buck 8C**
1.5024	9.7852		8.2828	**Buck 7B**															
		0.6280	9.1572	**Buck 7C**	0.8744														
0.6249	9.7821		9.1572	**Buck 7C**															
		1.5006	8.2815	**Buck 7B**	-0.8757	0.8751	**9.1578**	**Buck 7C**											