
Surveyor's Report

VERTICAL DATUM UPGRADE PROJECT

SFWMD Work Order Number: 4500019819

Contractors Project No.: 06-1108-08-01

Report Date: March 11, 2008 Revised June 5, 2008

Submittal: Final

Prepared for:

South Florida Water Management
District



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OVERVIEW OF THE PROJECT

PURPOSE

This survey request consists of the establishment of elevations to third order National Geodetic Survey (NGS) Standards at:

- C23FEC Martin County

- L31NT Miami-Dade County
- G119 Miami-Dade County
- KROME Miami-Dade County

- SAV1 St. Lucie County
- SAV4 Martin County
- SAV5 Martin County
- SAV6 Martin County

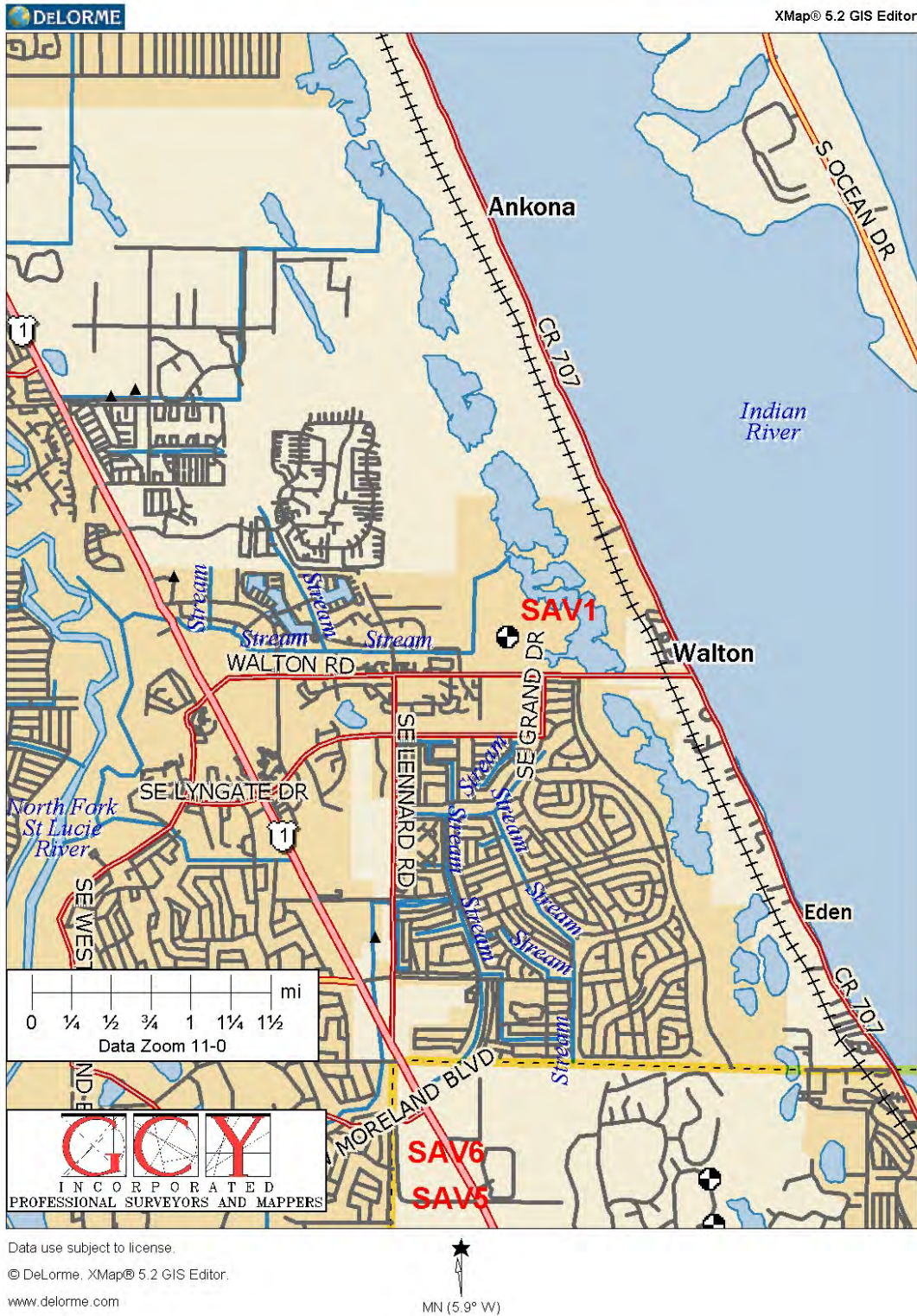
This survey request is associated with the District's Vertical Datum Upgrade Project (VDUP).

The objective of this Work Order is to establish a benchmark at the site and tie in the stilling wells by establishing NGS third order elevations referring to both the North American Vertical Datum of 1988 (NAVD 1988) and the National Geodetic Vertical Datum of 1929 (NGVD29) at the site.

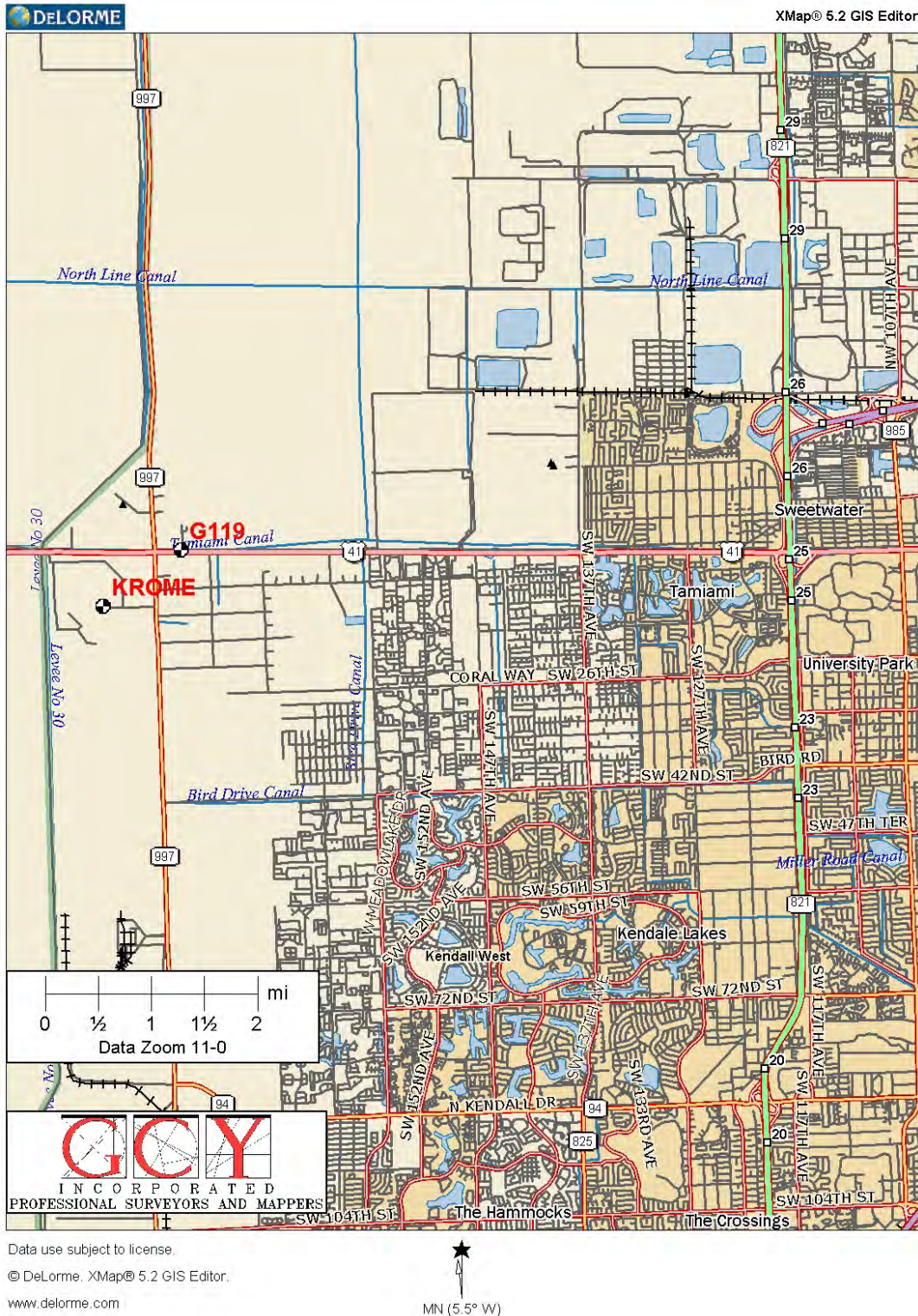
LOCATION OF PROJECT

The project is located St. Lucie, Martin and Miami-Dade Counties. Following are vicinity maps for each site.









ITEMS DELIVERED TO THE DISTRICT

The following items are delivered to the District with this report. Neither the report nor the items listed below are complete without the other.

1. Two signed and sealed paper copies of the surveyor's report.
2. A CD with the company's logo, Title of the Survey with a list of all sites, date of the survey on the face of the CD or DVD and on the top of the CD and in **SFWMD** file folder format containing the following:
 - The survey reports in Microsoft Word format and pdf format signed and seal copy.
 - Digital photos.
 - Scanned copies of field notes.
 - Any other digital files associated with the survey.
 - Completed District benchmark description sheet for all found or set benchmarks.
 - Completed Excel benchmark spread sheet
 - Completed Addendum sheet

VERTICAL DATUM FOR THE PROJECT

The vertical datum for the project is the North American Vertical Datum of 1988. For correlation with older data sets, the elevations of the benchmarks are also shown in the National Geodetic Vertical Datum (NGVD) of 1929. The NGVD 29 elevations were derived using data provided by the South Florida Water Management District in a file named "NGVD29.txt" when applicable, otherwise NGS superseded values were used. The linear unit for all elevations is the U.S. Survey Feet unless otherwise stated.

SITE “SAV 1”

NEW BENCHMARK

A new concrete monument was constructed at the site by digging a hole approximately 3 feet deep, having a bottom diameter of 12 to 14 inches and a top diameter of 10 inches. The hole was filled with approximately 280 pounds of concrete (3 1/2 80 lb bags) with an aluminum South Florida Water Management District disk stamped “So. FLA. Water Management Dist. Survey Marker SAV 1 2008” set in the top of the concrete monument. A “Deep One” magnet was placed alongside the monument for ease of locating. A “Carsonite” post was set 15’ west of the monument in the fence line.

LEVELING

All leveling was performed using a Leica NA2002 digital level with standard Leica 3-section fiberglass barcode rods.

Leveling began at the NGS benchmark “A 640” (NGS PID PENDING) and continued onto NGS benchmark “SAV 9” (NGS PID AJ8576) with a closure of 0.001 feet over a distance of 0.27 miles. Leveling continued through the newly constructed benchmark “SAV 1 2008” and closed on NGS benchmark “WEATHERINGTON” (NGS PID AA5069) with a cumulative closure of 0.004 feet over a distance of 2.25 miles. Leveling then continued onto and concluded at NGS benchmark “J 236” (NGS PID AJ3191) with a total cumulative error of 0.002 feet over a distance of 2.69 miles. Allowable error for this project is 0.03 feet per the $\sqrt{\text{of the distance run}}$ (in miles).

<i>SITE BENCHMARK DATA</i>	
DESIGNATION	SAV 1
NGVD 1929 ELEVATION	17.469
NAVD 1988 ELEVATION	15.986
LATITUDE	N 27 18 08.1
LONGITUDE	W 80 16 22.7
<i>WELL DATA</i>	
WELL NAME	SAV 1
REF. ELEVATION NGVD	20.342
REF. ELEVATION NAVD	18.859
DIST TO WATER	3.85’ DATE: 02-05-2008

NOTE: The 19 foot mark on the staff gauge at this site has an NGVD 1929 elevation of 18.72 feet.





SITE “SAV 4”

NEW BENCHMARK

A new concrete monument was constructed at the site by digging a hole approximately 3 feet deep, having a bottom diameter of 12 to 14 inches and a top diameter of 10 inches. The hole was filled with approximately 280 pounds of concrete (3 1/2 80 lb bags) with an brass South Florida Water Management District disk stamped “S. FL. Water Mgt District. Survey Marker SAV 4 2008” set in the top of the concrete monument. A “Deep One” magnet was placed alongside the monument for ease of locating. A “Carsonite” post was set along side the monument.

LEVELING

All leveling was performed using a Leica NA2002 digital level with standard Leica 3-section fiberglass barcode rods.

Leveling began at the NGS benchmark “GS 41” (NGS PID AB2495) and continued onto NGS benchmark “GCY D20” (NGS PID AJ5262) with a closure of 0.007 feet over a distance of 0.41 miles. Leveling continued through the newly constructed benchmark “SAV 4 2008”. Leveling continued through the newly constructed benchmark “SAV 5 2008”. Leveling continued through the newly constructed benchmark “SAV 6 2008” and closed back on NGS benchmark “GS 41” (NGS PID AB2495) with a cumulative closure of 0.001 feet over a distance of 2.11 miles. Allowable error for this project is 0.03 feet per the $\sqrt{\text{of the distance run}}$ (in miles).

<i>SITE BENCHMARK DATA</i>	
DESIGNATION	SAV 4
NGVD 1929 ELEVATION	15.785
NAVD 1988 ELEVATION	14.312
LATITUDE	N 27 14 46.5
LONGITUDE	W 80 15 00.8
<i>WELL DATA</i>	
WELL NAME	SAV 4
REF. ELEVATION NGVD	18.20
REF. ELEVATION NAVD	16.73
DIST TO WATER	3.88' DATE: 02-05-2008

NOTE: The 16 foot mark on the staff gauge at this site has an NGVD 1929 elevation of 16.73 feet.





SITE “SAV 5”

NEW BENCHMARK

A new concrete monument was constructed at the site by digging a hole approximately 3 feet deep, having a bottom diameter of 12 to 14 inches and a top diameter of 10 inches. The hole was filled with approximately 280 pounds of concrete (3 1/2 80 lb bags) with an brass South Florida Water Management District disk stamped “S. FL. Water Mgt District. Survey Marker SAV 5 2008” set in the top of the concrete monument. A “Deep One” magnet was placed alongside the monument for ease of locating. A “Carsonite” post was set along side the monument.

LEVELING

All leveling was performed using a Leica NA2002 digital level with standard Leica 3-section fiberglass barcode rods.

Leveling began at the NGS benchmark “GS 41” (NGS PID AB2495) and continued onto NGS benchmark “GCY D20” (NGS PID AJ5262) with a closure of 0.007 feet over a distance of 0.41 miles. Leveling continued through the newly constructed benchmark “SAV 4 2008”. Leveling continued through the newly constructed benchmark “SAV 5 2008”. Leveling continued through the newly constructed benchmark “SAV 6 2008” and closed back on NGS benchmark “GS 41” (NGS PID AB2495) with a cumulative closure of 0.001 feet over a distance of 2.11 miles. Allowable error for this project is 0.03 feet per the $\sqrt{\text{of the distance run}}$ (in miles).

<i>SITE BENCHMARK DATA</i>	
DESIGNATION	SAV 5
NGVD 1929 ELEVATION	15.752
NAVD 1988 ELEVATION	14.279
LATITUDE	N 27 14 55.8
LONGITUDE	W 80 15 07.0
<i>WELL DATA</i>	
WELL NAME	SAV 5
REF. ELEVATION NGVD	18.958
REF. ELEVATION NAVD	17.485
DIST TO WATER	4.39 DATE: 02-06-2008

NOTE: The 16 foot mark on the staff gauge at this site has an NGVD 1929 elevation of 16.72 feet.





SITE “SAV 6”

NEW BENCHMARK

A new concrete monument was constructed at the site by digging a hole approximately 3 feet deep, having a bottom diameter of 12 to 14 inches and a top diameter of 10 inches. The hole was filled with approximately 280 pounds of concrete (3 1/2 80 lb bags) with an brass South Florida Water Management District disk stamped “S. FL. Water Mgt District. Survey Marker SAV 6 2008” set in the top of the concrete monument. A “Deep One” magnet was placed alongside the monument for ease of locating. A “Carsonite” post was set along side the monument.

LEVELING

All leveling was performed using a Leica NA2002 digital level with standard Leica 3-section fiberglass barcode rods.

Leveling began at the NGS benchmark “GS 41” (NGS PID AB2495) and continued onto NGS benchmark “GCY D20” (NGS PID AJ5262) with a closure of 0.007 feet over a distance of 0.41 miles. Leveling continued through the newly constructed benchmark “SAV 4 2008”. Leveling continued through the newly constructed benchmark “SAV 5 2008”. Leveling continued through the newly constructed benchmark “SAV 6 2008” and closed back on NGS benchmark “GS 41” (NGS PID AB2495) with a cumulative closure of 0.001 feet over a distance of 2.11 miles. Allowable error for this project is 0.03 feet per the $\sqrt{\text{of the distance run}}$ (in miles).

<i>SITE BENCHMARK DATA</i>	
DESIGNATION	SAV 6
NGVD 1929 ELEVATION	14.723
NAVD 1988 ELEVATION	13.250
LATITUDE	N 27 15 10.8
LONGITUDE	W 80 15 08.4
<i>WELL DATA</i>	
WELL NAME	SAV 6
REF. ELEVATION NGVD	19.016
REF. ELEVATION NAVD	17.543
DIST TO WATER	4.79 DATE: 02-06-2008

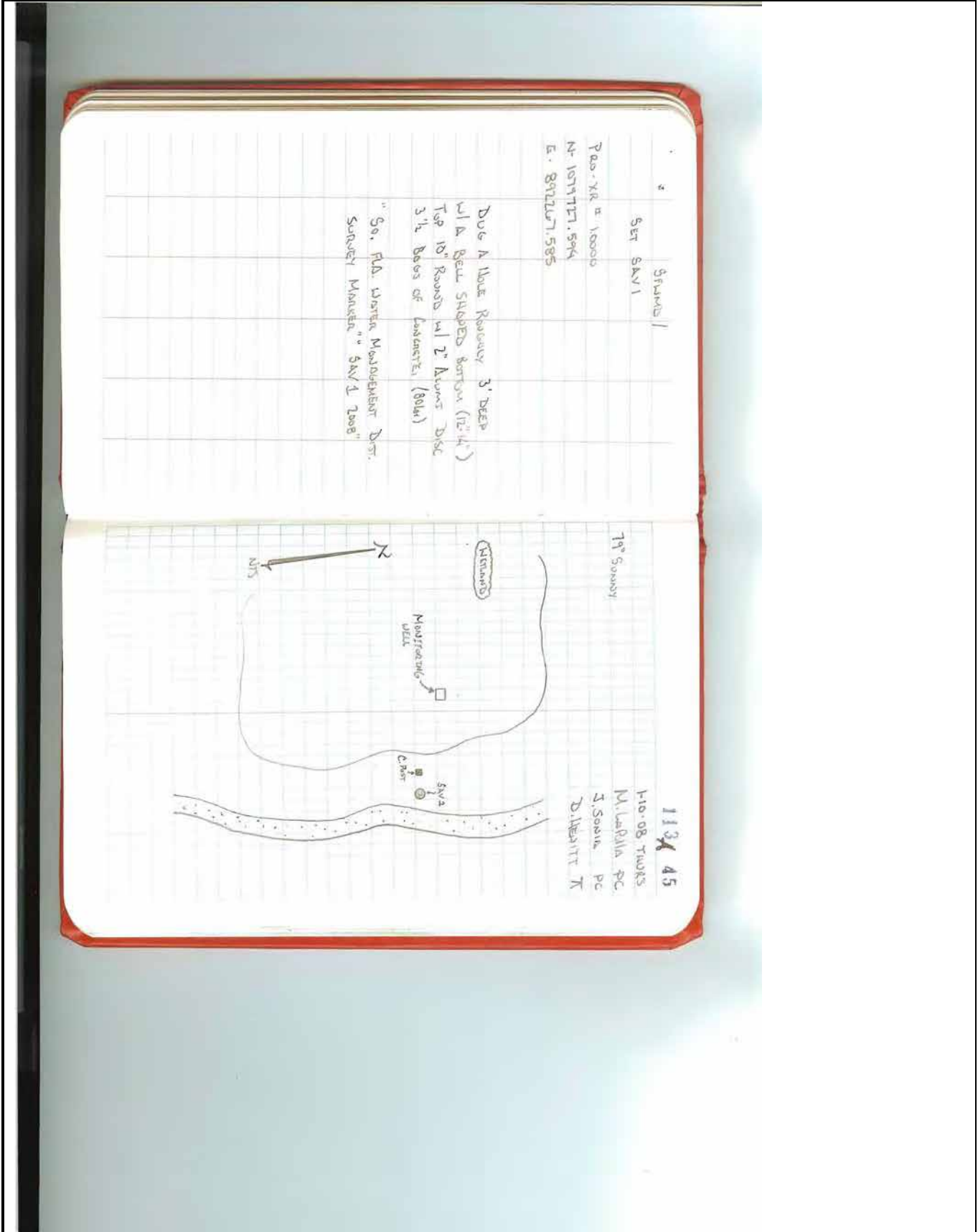
NOTE: The 16 foot mark on the staff gauge at this site has an NGVD 1929 elevation of 16.73 feet.





SAV 1 BENCHMARK DATASHEET

COUNTY : <u>ST. LUCIE</u>	PROJECT	DESIGNATION <u>SAV 1</u>
SECTION <u>31</u>	TOWNSHIP <u>36 SOUTH</u>	RANGE <u>41 EAST</u>
GEOGRAPHIC INDEX OF QUAD		
Established by : <u>GCY, INC</u> _____ Recovered by _____		NAME OF QUADRANGLE <u>ANKONA</u>
SURVEYOR <u>ANDERSEN</u> DATE: <u>1-10-2008</u>		FIELD BOOK <u>113A</u> PAGE <u>45</u>
HORIZONTAL DATUM: <u>1927</u> <u>1983</u> Other _____ (circle one) ZONE <u>E</u> or W		
STATE PLANE COORDINATES		
E <u>892268 FT</u>		N <u>1079728 FT</u>
LATITUDE: N DD MM SS.S <u>N 27 18 08.1</u>		LONGITUDE: W DD MM SS.S <u>W 80 16 22.7</u>
VERTICAL DATUM: MSL <u>1929</u> <u>1988</u> Other _____ (circle one)		EL. <u>15.986</u> ft
VERTICAL DATUM: MSL <u>1929</u> <u>1988</u> Other _____ (circle one)		EL. <u>17.469</u> ft
CONTROL ACCURACY: HORIZONTAL 1 2 3 <u>SUB-METER</u> (circle one) VERTICAL 1 2 <u>3</u>		
DESCRIPTION		
<p>To Reach: FROM INTERSECTION OF FEC RAILROAD AND WALTON ROAD, GO WEST 1 MILE TO ENTRANCE TO SOUTH SAVANNAS PARK FACILITY. FOLLOW TRAIL NORTHERLY ALONG WEST SIDE OF FACILITY FOR 1310 FEET MORE OR LESS TO STATION ON THE LEFT. STATION LIES BETWEEN DIRT TRAIL AND EDGE OF WETLAND.</p> <p>Benchmarks Used: NGS A640, SAV 9, WEATHERINGTON, J 236</p> <p>Notable Land marks:</p>		



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Picture

SAV 4 BENCHMARK DATASHEET

COUNTY : <u>MARTIN</u>	PROJECT	DESIGNATION <u>SAV 4</u>
SECTION <u>21</u>	TOWNSHIP <u>37 SOUTH</u>	RANGE <u>41 EAST</u>
GEOGRAPHIC INDEX OF QUAD		
Established by : <u>GCY, INC</u> _____ Recovered by	NAME OF QUADRANGLE <u>PALM CITY</u>	
SURVEYOR <u>ANDERSEN</u> DATE: <u>1-14-2008</u>	FIELD BOOK <u>113A</u> PAGE <u>49</u>	
HORIZONTAL DATUM: <u>1927</u> <u>1983</u> Other _____ (circle one) ZONE <u>E</u> or W		
STATE PLANE COORDINATES		
<u>E</u> <u>899781 FT</u>	<u>N</u> <u>1059401 FT</u>	
LATITUDE: N DD MM SS.S <u>N 27 14 46.5</u>	LONGITUDE: W DD MM SS.S <u>W 80 15 00.8</u>	
VERTICAL DATUM: MSL <u>1929</u> <u>1988</u> Other _____ (circle one)	EL. <u>14.312</u> ft	
VERTICAL DATUM: MSL <u>1929</u> <u>1988</u> Other _____ (circle one)	EL. <u>15.785</u> ft	
CONTROL ACCURACY: HORIZONTAL 1 2 3 <u>SUB-METER</u> (circle one) VERTICAL 1 2 <u>3</u>		
DESCRIPTION		
<p>To Reach: FROM INTERSECTION OF JENSEN BEACH BLVD AND GREEN RIVER PARKWAY, GO EAST ON JENSEN BEACH BLVD APPROX. 1075 FEET TO THE ENTRANCE TO SAVANNAS STATE PARK ON THE NORTH. GO INTO THE PARK TO THE SIDEWALK INTERSECTION BETWEEN THE PICNIC PAVILION AND THE REST ROOMS. STATION IS 39.5 FEET NW OF SAID SIDEWALK INTERSECTION AND 15.7 FEET EASTERLY OF THE NE CORNER OF THE PICNIC PAVILION.</p> <p>Benchmarks Used: NGS - GS 41, GCY D20,</p> <p>Notable Land marks:</p>		

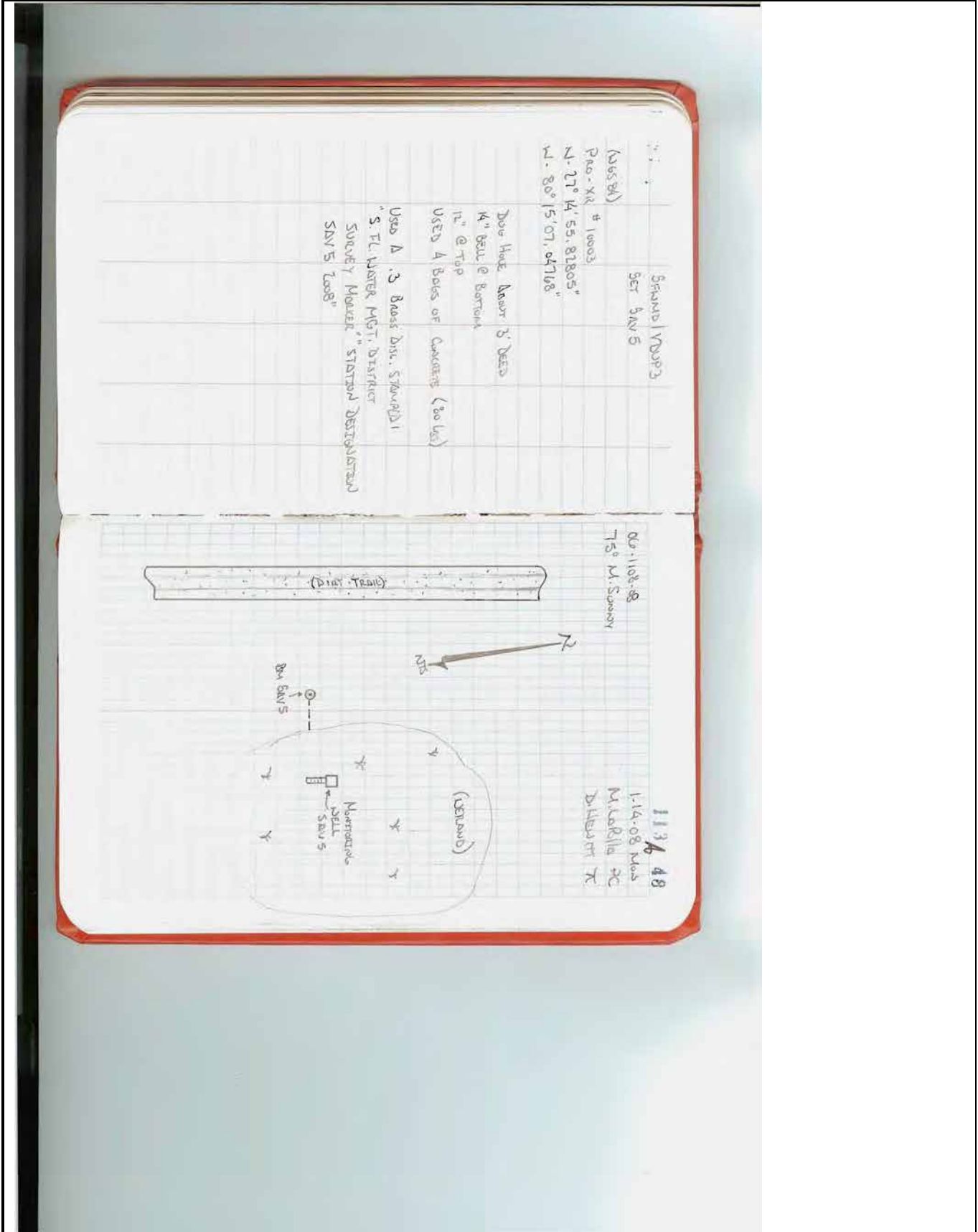
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Picture

SAV 5 BENCHMARK DATASHEET

COUNTY : <u>MARTIN</u>	PROJECT	DESIGNATION <u>SAV 5</u>
SECTION <u>21</u>	TOWNSHIP <u>37 SOUTH</u>	RANGE <u>41 EAST</u>
GEOGRAPHIC INDEX OF QUAD		
Established by : <u>GCY, INC</u> _____ Recovered by	NAME OF QUADRANGLE <u>PALM CITY</u>	
SURVEYOR <u>ANDERSEN</u> DATE: <u>1-14-2008</u>	FIELD BOOK <u>113A</u> PAGE <u>48</u>	
HORIZONTAL DATUM: <u>1927</u> <u>1983</u> Other _____ (circle one) ZONE <u>E</u> or <u>W</u>		
STATE PLANE COORDINATES		
<u>E</u> <u>899210 FT</u>	<u>N</u> <u>1060355 FT</u>	
LATITUDE: N DD MM SS.S <u>N 27 14 55.8</u>	LONGITUDE: W DD MM SS.S <u>W 80 15 07.0</u>	
VERTICAL DATUM: MSL <u>1929</u> <u>1988</u> Other _____ (circle one)	EL. <u>14.279</u> ft	
VERTICAL DATUM: MSL <u>1929</u> <u>1988</u> Other _____ (circle one)	EL. <u>15.752</u> ft	
CONTROL ACCURACY: HORIZONTAL 1 2 3 <u>SUB-METER</u> (circle one) VERTICAL 1 2 <u>3</u>		
DESCRIPTION		
<p>To Reach: FROM INTERSECTION OF JENSEN BEACH BLVD AND GREEN RIVER PARKWAY, GO EAST ON JENSEN BEACH BLVD APPROX. 230 FEET TO A DIRT ROAD ON THE NORTH SIDE OF JENSEN BEACH BLVD. THENCE GO NORTH ALONG SAID DIRT ROAD APPROX 1300 FEET TO THE STATION ON THE RIGHT. STATION IS APPROX. 225 FEET EAST OF THE DIRT ROAD AT THE WES SIDE OF A WETLAND.</p> <p>Benchmarks Used: NGS - GS 41, GCY D20,</p> <p>Notable Land marks:</p>		



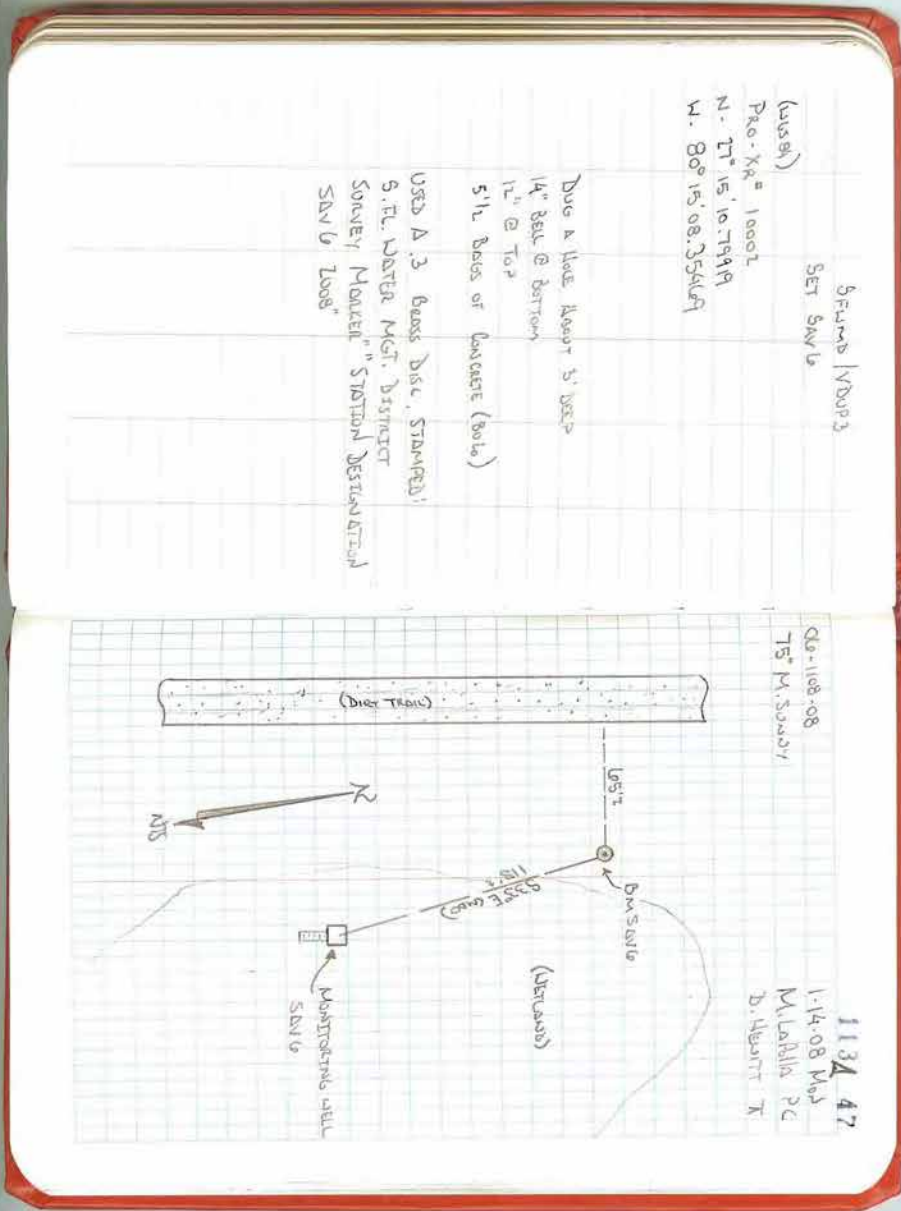
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Picture

SAV 6 BENCHMARK DATASHEET

COUNTY : <u>MARTIN</u>	PROJECT	DESIGNATION <u>SAV 6</u>
SECTION <u>16</u>	TOWNSHIP <u>37 SOUTH</u>	RANGE <u>41 EAST</u>
GEOGRAPHIC INDEX OF QUAD		
Established by : <u>GCY, INC</u> _____ Recovered by	NAME OF QUADRANGLE <u>ANKONA</u>	
SURVEYOR <u>ANDERSEN</u> DATE: <u>1-14-2008</u>	FIELD BOOK <u>113A</u> PAGE <u>47</u>	
HORIZONTAL DATUM: <u>1927</u> <u>1983</u> Other _____ (circle one) ZONE <u>E</u> or <u>W</u>		
STATE PLANE COORDINATES		
<u>E</u> <u>899082.5 FT</u>	<u>N</u> <u>1061866 FT</u>	
LATITUDE: N DD MM SS.S <u>N 27 15 10.8</u>	LONGITUDE: W DD MM SS.S <u>W 80 15 08.4</u>	
VERTICAL DATUM: MSL <u>1929</u> <u>1988</u> Other _____ (circle one)	EL. <u>13.250</u> ft	
VERTICAL DATUM: MSL <u>1929</u> <u>1988</u> Other _____ (circle one)	EL. <u>14.723</u> ft	
CONTROL ACCURACY: HORIZONTAL 1 2 3 <u>SUB-METER</u> (circle one) VERTICAL 1 2 <u>3</u>		
DESCRIPTION		
<p>To Reach: FROM INTERSECTION OF JENSEN BEACH BLVD AND GREEN RIVER PARKWAY, GO EAST ON JENSEN BEACH BLVD APPROX. 230 FEET TO A DIRT ROAD ON THE NORTH SIDE OF JENSEN BEACH BLVD. THENCE GO NORTH ALONG SAID DIRT ROAD APPROX 2830 FEET TO THE STATION ON THE RIGHT. STATION IS APPROX. 65 FEET EAST OF THE DIRT ROAD AT THE WEST SIDE OF A WETLAND.</p> <p>.</p> <p>Benchmarks Used: NGS - GS 41, GCY D20,</p> <p>Notable Land marks:</p>		



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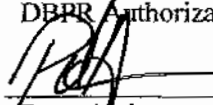
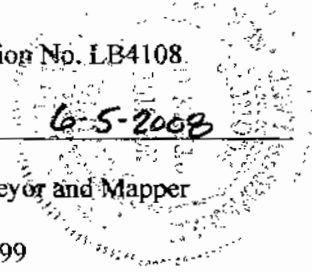


Picture

SURVEYOR'S CERTIFICATION

I hereby certify that this report of survey meets applicable portions of the Minimum Technical Standards set forth by the Florida Board of Professional Surveyors and Mappers in Chapter 61-G17, Florida Administrative Code. This report is prepared for the sole and specific use of the South Florida Water Management District and is not assignable.

02/06/2008
Date of Survey

By:  
Peter Andersen
Professional Surveyor and Mapper
State of Florida
Certificate No. 5199

SFWMD /
SET SAV1

PRO-XR # 10000

N- 1079727.594

E- 892267.585

DUG A HOLE ROUGHLY 3' DEEP
W/ A BELL SHAPED BOTTOM (12" x 14")
TOP 10" ROUND W/ 2" ALUMS DISC
3 1/2 BAGS OF CONCRETE (80lb)

" SO. FLA. WATER MANAGEMENT DIST.
SURVEY MARKER " SAV1 2008 "

79° SUNNY

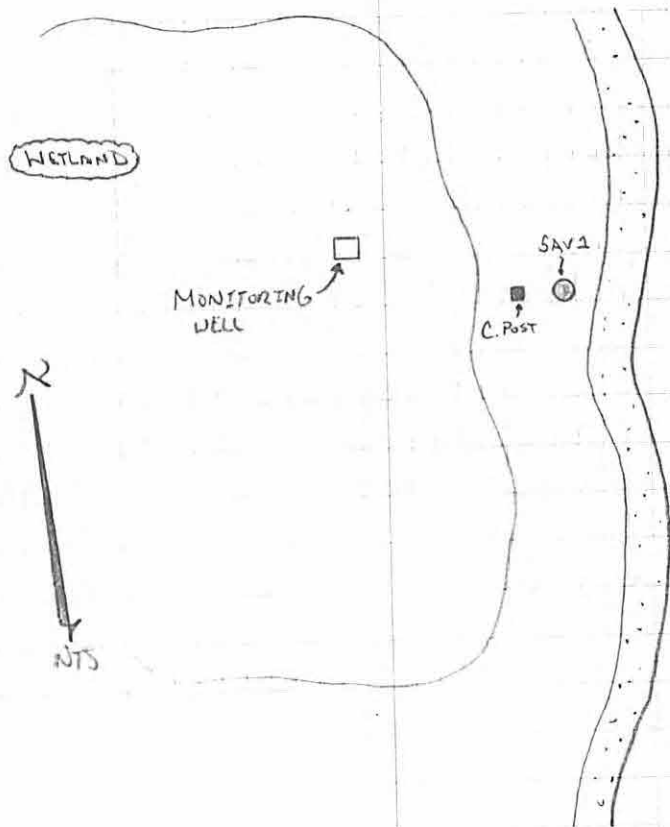
113/ 45

1-10-08 TAUWS

M. LABRITA PC

J. SONIA PC

D. HEWITT T



SFLWMD / VDUP3
SET SAV6

(W6584)

PRO-XR# 10002

N. $27^{\circ} 15' 10.79919$

W. $80^{\circ} 15' 08.35469$

1001865.97

899082.48

DUG A HOLE ABOUT 3' DEEP

14" BELL @ BOTTOM

12" @ TOP

5 1/2 BAGS OF CONCRETE (806)

USED A 3 BRASS DISC, STAMPED:
S.F.L. WATER MGT. DISTRICT
SURVEY MARKER "STATION DESIGNATION
SAV6 2008"

06-1108-08

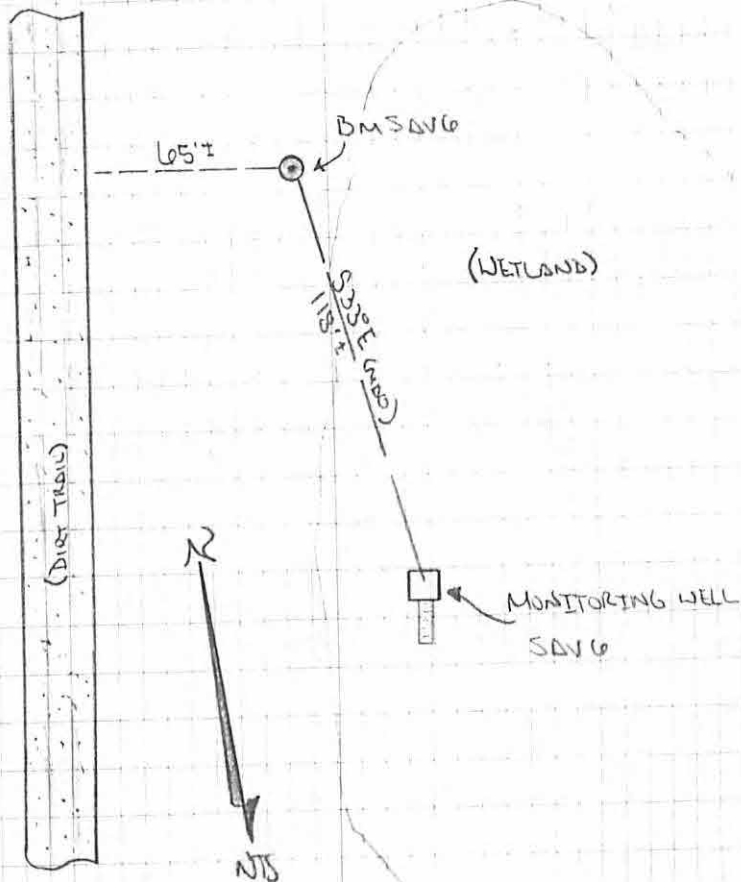
75° M. SUNNY

113A 47

1-14-08 Mon

M. LaPollo PC

D. HEWITT T



SFWMD / VDUP3

SET SAV 5

(WGS84)

PRO-XR # 10003

N. 27° 14' 55.82805"

10660354.9

W. 80° 15' 07.04768"

899209.5

DOG HOLE ABOUT 3' DEEP

14" BELL @ BOTTOM

12" @ TOP

USED 4 BAGS OF CONCRETE (80 LBS)

USED A 3 BRASS DISC. STAMPED

"S. FL. WATER MGT. DISTRICT

SURVEY MARKER" STATION DESIGNATION

SAV 5 2008"

06-1108-08

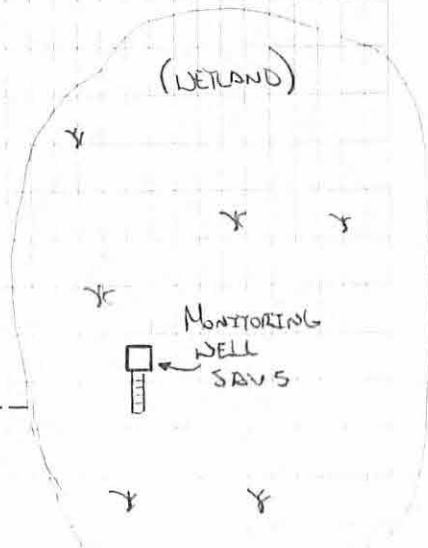
75° M. Sunny

113/48

1-14-08 Mon

M. LaRilla PC

D. NEWITT K



SFWMD/VDUP3
SET SAV4

(106584)

PRO-XR # 10004

N- 27° 41' 46.50183"

N- 80° 15' 00.77819"

1059416.5

899781.0

DOG & HOLE 3' DEEP

14" BELL @ BOTTOM

12" @ TOP

USED 3 1/2 BAGS OF CONCRETE (80LBS)

USED A .3 BRASS DISC, STAMPED:
"S. FL WATER MGT DISTRICT
SURVEY MARKER" "STATION DESIGNATION
SAV4 2008"

1134 49

1-14-08 Mon

M. LABRITA PC

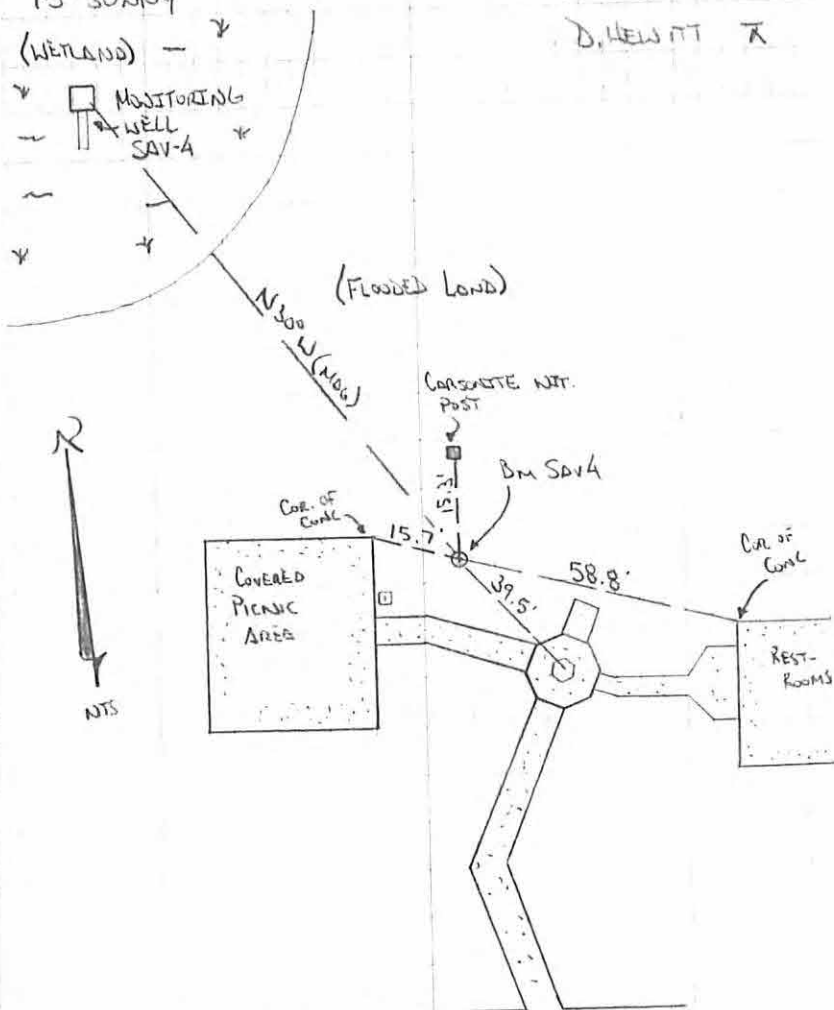
D. HEWITT K

06-1108-08

75° SUNNY

(WETLAND) -

MONITORING
WELL
SAV-A



(PARKING LOT)

SAVANNAH STATE PARK OFF OF JENSEN BEACH BLVD

SEWARD / VDUPB

BENCH RUN TO SAV 1

PEG TEST: COLL DIFF = "5.5"

ABS COLL = 20.1" *NAVD88*

STA	TOTAL DIST	GR. HT	ADJ.
Ø	-	15.273'	
3	1401.7'	17.323'	

12	5299.4'	15.985'	15.986'
		ADJ. NGVD 29 = 17.469'	

26	11890.5'	28.786'	
----	----------	---------	--

31	14224.0'	23.093'	
----	----------	---------	--

OLC-1108-08
65° KSM

BENCH MARK A640
NAVD 88 = 15.273'

SAV 9
NAVD 88 EL = 17.324'
FIELD = 17.323'
ERR = .001
MTS = .02

BENCH MARK SAV 1
PRO-XR# 10000
SEE PG 45 FOR MORE INFO

BENCH MARK WEATHERINGTON
NAVD 88 EL = 28.782'
FIELD = 28.786'
ERR = .004
MTS = .075

BENCH MARK J236
NAVD 88 EL = 23.091'
FIELD = 23.093'
ERR = .002
MTS = .082

2.69 MILES
SAV 9 - 17.324'
WEATHERINGTON - 28.782'

J236 - 23.091'

113A 51

1-17-08 THURS
M. LOBBIA PC
D. HEWITT X

STA	TOTAL DIST	Gr. Ht.	Adj
0	-	17.122'	-
5	2146.7'	13.851'	

PEG TEST: Ads Coll = 21.7"

Coll DIFF = 1.6"

BENCH RUN TO SAV 4, 5, AND 6

SFNWD / VDUP3

113A 52

06-11-08-08

70° FOG

1-18-08 FRI

M. LaRilla PC

D. NEWITT TX

8	3231.5'	14.313'	14.312'	Bm SAV 4	Pro XR# 10004
		ADJ. NGVD 29 = 15.785'		SEE PG 49	FOR MORE INFO.

16	5638.0'	14.281'	14.279'	Bm SAV 5	Pro XR# 10003
		ADJ. NGVD 29 = 15.752'		SEE PG 48	FOR MORE INFO.

24	7738.6'	13.251'	13.250'	Bm SAV 6	Pro XR# 10002
		ADJ. NGVD 29 = 14.723'		SEE PG 47	FOR MORE INFO.

36	11153.1'	17.123'		Bm GS 41	NAVD 88 EL = 17.122'
					FIELD = 17.123'
					ERR = .001
					MTS = .072

ADDED 1.473' TO ADJ. NAVD 88 EL'S TO GET TO NGVD 29 EL.

2.11 MILES

GS 26 = 13.858'

W.

SFWMD. VDUP3

BENCH RUN TO SAV1 WELL

STA	+	HI	-	NAVD88 ASS EL	NGVD29 ASS EL
0	5.694			15.986'	17.469'
	5.573				
	5.45				
	(5.572)	21.558'			
			3.293		
			2.70		
			2.105		
1			(2.699)	18.859'	20.342'
	3.13				
	2.546				
	1.95				
	(2.542)	21.401'			
			4.73		
			4.17		
			3.604		
2			(4.168)	17.233'	18.716'
	4.517				
	3.95				
	3.385				
	(3.950)	21.183'			
			5.317		
			5.198		
			5.074		
3			(5.196)	15.987'	

06-1108-08

77° SUNNY


1136 71

2-5-08 TUES

M. LAPILLA PL

D. HEWITT TA

DESC
BM SAV 1 NAVD 88 EL = 15.986'

 = REF. MARK SET ON TOP OF PLYWOOD INSIDE OF WELL "SAV 1"

19" MARK ON STAFF GAUGE

Bm SAV 1

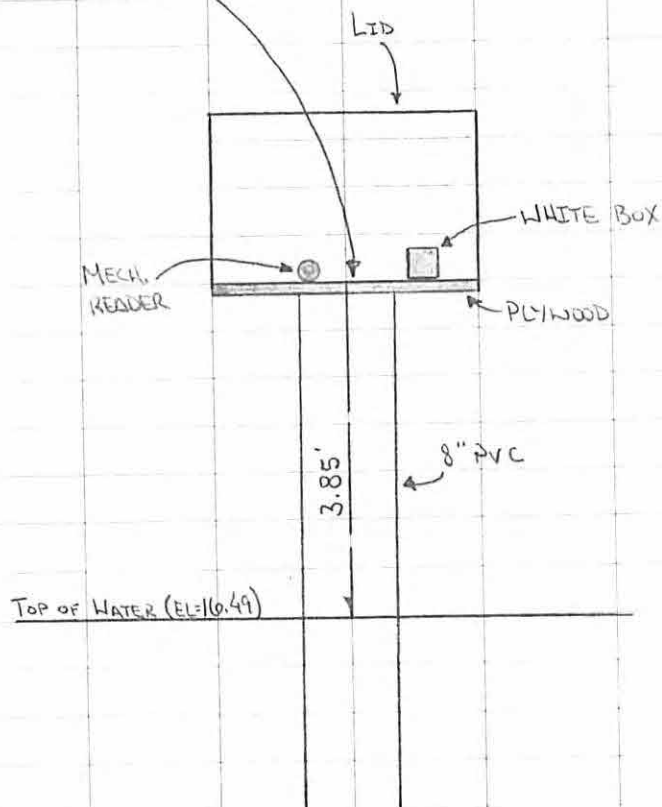
* ADDED 1.483' TO NAVD 88 EL TO CONVERT TO NGVD 29 EL.

SFWMD - VDUP3
 MEASURE DOWN TO TOP OF WATER
 @ WELL SAV 1

NGVD 29 EL = 20.34'

@ REFF. MARK SET

ON TOP OF PLYWOOD



113A 72

06-11-08-08

75° SUNNY

2-5-08 TUES

M. LaPolla PC

D. HEWITT TX

PICTURES @ SAV 1

- 287 Looking Down @ Bm SAV1
- 288 " " "
- 289 Looking NW @ Bm + WELL
- 290 " " "
- 291 " " "
- 292 Looking NORTH @ Bm SAV1
- 293 STANDING OVER Bm SAV1 Looking W. @ WELL
- 294 Looking WEST @ WELL + STAFF GAUGE
- 295 Looking S. @ Bm SAV1
- 296 " " "
- 297 Looking DOWN INSIDE WELL SAV1 *
- 298 " " "
- 299 " " "
- 300 Looking EAST @ Bm SAV1, STANDING @ SAV1 WELL
- 301 Looking E STAFF GAUGE BY WELL SAV1
- 302 " " "

SFHMD - VDUP3

113A 73

BENCH RUN TO SAV 4 WELL + STAFF GAUGE

05-11-08

2-5-08 TUES

77° SUNNY

M. LaPolla PC

D. HEWITT T

STA	+	HI	-	NGVD ⁸³ EL
0	4.84			15.785'
	4.088			
	3.331			
	(4.086)	19.871'	2.346	
			1.67	
			1.00	
1			(1.672)	18.199'
	2.088			
	1.415			
	0.74			
	(1.411)	19.611'	3.525	
			2.883	
			2.24	
2			(2.882)	16.728'
	3.22			
	2.58			
	1.94			
	(2.58)	19.308'	4.271	
			3.521	
			2.768	
3			(3.52)	15.788'

DESC
 BM SAV 4 LISTED NGVD 29 EL= 15.785'



REF. MARK SET INSIDE WELL SAV 4 ON TOP
 OF PLYWOOD

16' MARK ON STAFF GAUGE

B.M. SAV 4 LISTED: 15.785'

SFLIND VDUP3

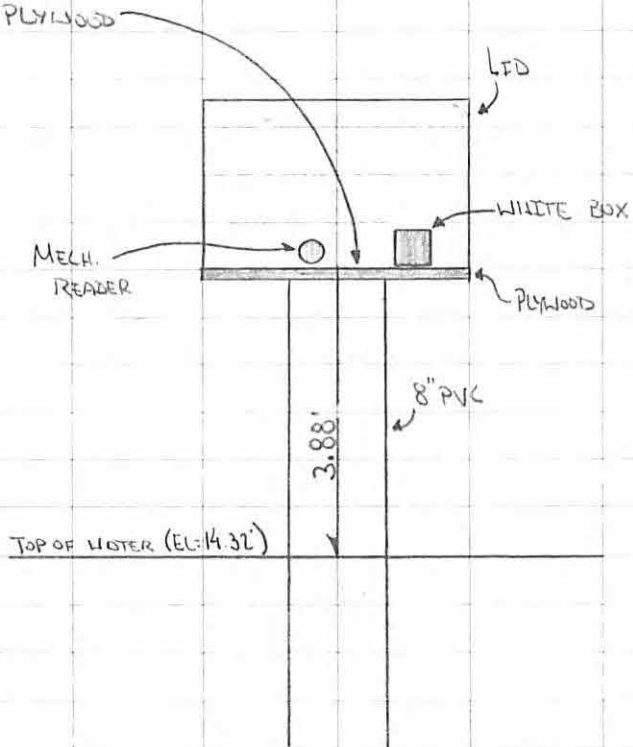
MEASURE DOWN TO TOP OF WATER @

WELL SAV 4

NGVD 29 EL = 18.20'

☒ = REFF MARK SET ON TOP

OF PLYWOOD



113A 74

06-11-08

TP COUNTY

2-5-08 TUES

M. LAPOLLO PC

D. HEWITT X

PICTURES @ SAV 4

- 303 Looking Down @ BM SAV 4
- 304 "
- 305 Looking N. @ BM SAV 4
- 306 Looking N. @ BM SAV 4
- 307 Looking E. @ BM SAV 4
- 308 Standing @ BM SAV 4, Looking @ WELL SAV 4
- 309 "
- 310 Looking NW @ BM + WELL SAV 4
- 311 Looking INSIDE WELL SAV 4
- 312 "
- 313 "
- 314 Looking SE @ BM SAV 4 AREA, Standing @ WELL SAV 4
- 315 "
- 316 Looking @ STAFF GAUGE BY WELL SAV 4
- 317-318 "
- 319 Looking @ WELL + STAFF GAUGE
- 320 Looking S. @ BM SAV 4 AREA
- 321 Looking SE @ BM SAV 4
- 322 "

SFMMD - VDUP3
 BENCH RUN TO SAVG & STAFF GAUGE

STA	+	HI	-	NGVD29 EL
Ø	5.004			14.723'
	4.703			
	4.402			
	(4.703)	19.426'	0.70	
			0.41	
			0.118	
1			(0.409)	19.016'
	0.62			
	0.33			
	0.04			
	(0.33)	19.346'	2.93	
			2.62	
			2.31	
2			(2.62)	16.726'
	2.77			
	2.46			
	2.15			
	(2.46)	19.186'	4.765	
			4.464	
			4.163	
3			(4.464)	14.722'

113A 75

06-11-08-08

75° SUNNY

2-6-08 WED

M. LABILLA PC

D. HEWITT R

DESC
 BM SAVG NGVD 29 = 14.723'



REF. MARK SET INSIDE WELL SAVG ON
 TOP OF PLYWOOD

16' MARK ON STAFF GAUGE

BM SAVG Listed = 14.723' Error = 7.001

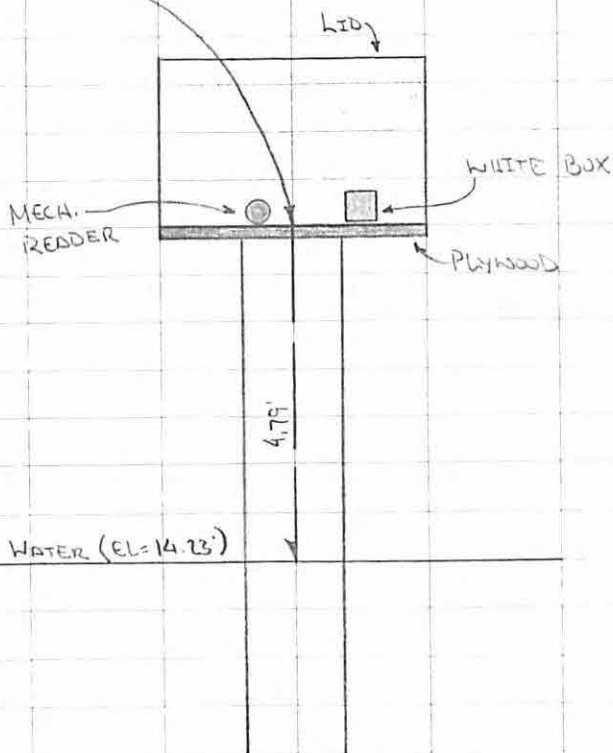
SFWMD - VDUP3

MEASURE DOWN TO TOP OF WATER @
WELL SAV 6

NGVD 29 EL = 19.02'

☒ = REFF. MARK SET ON TOP

OF PLYWOOD



113A 76

06-11-08-08

75° SUNNY

2-6-08 WED

M. LAPOLLA PC

D. HEWITT TX

PICTURES

PIC #

DESC

- | PIC # | DESC |
|-------|--|
| 331 | LOOKING DOWN INSIDE WELL SAV 6 |
| 332 | " " " " |
| 333 | " " " " |
| 334 | STANDING @ WELL LOOKING NW @ BM SAV 6 AREA |
| 335 | " " " SE |
| 336 | LOOKING @ STAFF GAUGE |
| 337 | " " " " |
| 338 | LOOKING @ STAFF GAUGE + WELL |
| 339 | STANDING @ BM SAV 6, LOOKING SE @ WELL |
| 340 | LOOKING DOWN @ BM SAV 6 |
| 341 | LOOKING N. @ BM SAV 6 |
| 342 | LOOKING E @ BM SAV 6 |
| 343 | LOOKING W. @ BM SAV 6 |
| 344 | LOOKING DOWN @ BM SAV 6 |
| 345 | " " " " |

SFWM - VDUP3				
BENCH RUN TO SAV 5 + STAFF GAUGE				
STA	+	HI	-	NGVD 29 EL
Ø	4.804			15.752'
	4.67			
	4.534			
	(4.669)	20.421'	1.828	
			1.462	
			1.099	
1			(1.463)	18.958'
	1.67			
	1.303			
	0.94			
	(1.304)	20.262'	3.89	
			3.541	
			3.193	
2			(3.541)	16.721'
	3.668			
	3.318			
	2.968			
	(3.318)	20.039'	4.422	
			4.288	
			4.153	
3			(4.287)	15.751'

06-1108-02

75° SUNNY

113A 77

2-6-08 WED

M. LaRolle PC

D. HEWITT T

DESC

BM SAV 5 NGVD 29 EL= 15.752'



REF MARK SET INSIDE WELL SAV 5 ON TOP
OF PLYWOOD

16' MARK ON STAFF GAUGE

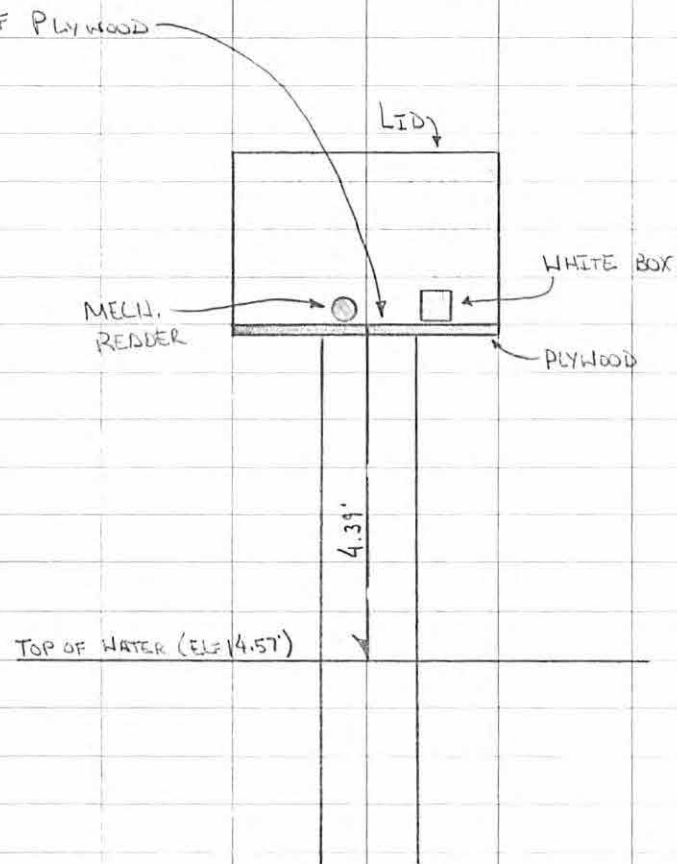
Bm SAV 5 LISTED: 15.752' ERR: .001

SFWMD VDUP3
 MEASURE DOWN TO TOP OF WATER @
 WELL SAV 5

NGVD 29 EL = 18.96'

☒ = REFF. MARK SET ON TOP

OF PLYWOOD



113A 78

08-11-08-08

2-6-08 WED

75° SUNNY

M. LABILLA PC

D. HEWITT T

PICTURES

PICTURE #	DESC
346	LOOKING DOWN @ BM SAV 5
347	" " " "
348	" " " "
349	STANDING @ BM SAV 5, LOOKING E. @ WELL SAV 5
350	LOOKING NE @ WELL SAV 5
351	LOOKING DOWN INSIDE WELL SAV 5
352	" " " "
353	" " " "
354	LOOKING @ STAFF GAUGE + WELL " "
355	" " " "
356	" " " "
357	STANDING @ WELL SAV 5, LOOKING W. @ BM SAV 5 " "
358	" " " "
359	LOOKING NE @ WELL SAV 5
360	LOOKING E @ WELL + BM SAV 5

From the "ngvd29.txt" file provided by NGS for the CERP Geodetic Vertical Control Project.
 Line/Part: L26245 SSN+: mark floated, SSN*: mark constrained, SSN#: mark floated
 & constrained

The NGS Data Sheet

Mark ID	SSN	PID	Designation	Geopotential	Elevation	Codes
1806	3159	AJ8574	X 543	8.1186	8.2843	
1807	3160	AJ8575	Y 543	8.0291	8.1930	
1808	3161	AJ8576	Z 543	8.1620	8.3286	
1809	3162	AJ8577	A 544	8.0789	8.2438	

See file [dsdata.txt](#) for more information about t

PROGRAM = datasheet95, VERSION = 8.8

1 National Geodetic Survey, Retrieval Date = DECEMBER 7, 2015

AJ8577 *****

AJ8577 DESIGNATION - A 544

AJ8577 PID - AJ8577

AJ8577 STATE/COUNTY- FL/ST LUCIE

AJ8577 COUNTRY - US

AJ8577 USGS QUAD - BLUEFIELD (1970)

AJ8577

AJ8577 *CURRENT SURVEY CONTROL

AJ8577

AJ8577* NAD 83(1986) POSITION- 27 13 33. (N) 080 34 46. (W) SCALED

AJ8577* [NAVD 88](#) ORTHO HEIGHT - 7.803 (meters) 25.60 (feet) ADJUSTED

AJ8577

AJ8577 GEOID HEIGHT - -26.988 (meters) GEOID12B

AJ8577 DYNAMIC HEIGHT - 7.790 (meters) 25.56 (feet) COMP

AJ8577 MODELED GRAVITY - 979,102.8 (mgal) NAVD 88

AJ8577

AJ8577 VERT ORDER - FIRST CLASS II

AJ8577

AJ8577.The horizontal coordinates were scaled from a topographic map and have

AJ8577.an estimated accuracy of +/- 6 seconds.

AJ8577.

AJ8577.The orthometric height was determined by differential leveling and

AJ8577.adjusted by the NATIONAL GEODETIC SURVEY

AJ8577.in May 2002.

AJ8577

AJ8577.Significant digits in the geoid height do not necessarily reflect accuracy.

AJ8577.GEOID12B height accuracy estimate available [here](#).

AJ8577

AJ8577.The dynamic height is computed by dividing the NAVD 88

AJ8577.geopotential number by the normal gravity value computed on the

AJ8577.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

AJ8577.degrees latitude (g = 980.6199 gals.).

AJ8577

AJ8577.The modeled gravity was interpolated from observed gravity values.

AJ8577

AJ8577; North East Units Estimated Accuracy

AJ8577;SPC FL E - 320,500. 241,660. MT (+/- 180 meters Scaled)

AJ8577

AJ8577 SUPERSEDED SURVEY CONTROL

AJ8577

AJ8577.No superseded survey control is available for this station.

AJ8577

AJ8577_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL416115(NAD 83)

AJ8577

AJ8577_MARKER: DD = SURVEY DISK

AJ8577_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

AJ8577_STAMPING: A 544 2001 CERP

AJ8577_MARK LOGO: USE

AJ8577_PROJECTION: RECESSED 8 CENTIMETERS

AJ8577_MAGNETIC: O = OTHER; SEE DESCRIPTION

AJ8577_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AJ8577+STABILITY: SURFACE MOTION

AJ8577_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AJ8577+SATELLITE: SATELLITE OBSERVATIONS - January 29, 2008

AJ8577

AJ8577	HISTORY	- Date	Condition	Report By
AJ8577	HISTORY	- 20010919	MONUMENTED	FOST
AJ8577	HISTORY	- 20080129	GOOD	GCYI

AJ8577

AJ8577

STATION DESCRIPTION

AJ8577

AJ8577'DESCRIBED BY CHARLEY FOSTER AND ASSOCIATES 2001 (JB)

AJ8577'THE MONUMENT IS LOCATED 15.7 MILES (25.27 KM) NORTH OF INDIANTOWN, FL.

AJ8577'AND 19.7 MILES (31.67 KM)

AJ8577'NORTHWEST OF PALM CITY, FL., SECTION 30, TOWNSHIP 37 SOUTH, RANGE 38

AJ8577'EAST.

AJ8577'

AJ8577'OWNERSHIP IS SOUTH FLORIDA WATER MANAGEMENT DISTRICT.

AJ8577'

AJ8577'TO REACH THE MONUMENT FROM THE INTERSECTION OF COUNTY ROAD 714 AND

AJ8577'COUNTY ROAD 609, 11.1 MILES

AJ8577'(17.86 KM) WEST OF THE JUNCTION OF THE FLORIDA TURNPIKE, STATE ROAD

AJ8577'714 AND COUNTY ROAD 714 IN

AJ8577'PALM CITY FL., GO NORTH ON COUNTY ROAD 609 FOR 3.0 MILES (4.83 KM) TO

AJ8577'THE NORTH END OF BRIDGE NO.

AJ8577'940026 AND TURN LEFT ONTO CANAL/ORANGE GROVE ACCESS ROAD AND GO WEST

AJ8577'0.05 MILES (0.08 KM) TO A

AJ8577'LOCKED GATE SOUTH OF CANAL LEVEE AND NORTH OF CANAL. CONTINUE WEST

AJ8577'ALONG ROADWAY AREA ON

AJ8577'THE NORTH SIDE OF CANAL 6.0 MILES (9.66 KM) TO A NORTHEAST/SOUTHWEST

AJ8577'RUNNING RAILROAD CROSSING

AJ8577'WITH LOCKED GATES ON BOTH SIDES. THENCE CONTINUE NORTH 1.30 MILES

AJ8577'(2.09 KM) ALONG ROADWAY AREA

AJ8577'ON EAST SIDE OF CANAL TO MONUMENT LOCATION.

AJ8577'

AJ8577'THE MONUMENT IS 17.0 FEET (5.18 M) EAST OF THE EAST TOP BANK OF COUNTY

AJ8577'LINE CANAL, 28.5 FEET (8.69 M)

AJ8577'WEST OF BARBED WIRE FENCELINE, 29.0 FEET (8.84 M) WEST OF TOE OF CANAL

AJ8577'LEVEE AND 28.0 FEET (8.53 M)

AJ8577'WEST OF CARSONITE WITNESS POST. NOTE A MAGNET WAS BURIED NEARBY AT AN

AJ8577'UNSPECIFIED POSITION.

AJ8577'FOR KEY, CONTACT SOUTH FLORIDA WATER MANAGEMENT DISTRICT, WEST PALM

AJ8577'BEACH, FL. AT PHONE

AJ8577'NUMBER (407) 686-8800.

AJ8577'

AJ8577

STATION RECOVERY (2008)

AJ8577

AJ8577'RECOVERY NOTE BY G.C.Y., INCORPORATED 2008 (MEL)

AJ8577'RECOVERED IN GOOD CONDITION.

*** retrieval complete.

Elapsed Time = 00:00:02

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

```

PROGRAM = datasheet95, VERSION = 8.8
1      National Geodetic Survey,  Retrieval Date = DECEMBER 7, 2015
DK3571 *****
DK3571 DESIGNATION - A 640
DK3571 PID - DK3571
DK3571 STATE/COUNTY- FL/ST LUCIE
DK3571 COUNTRY - US
DK3571 USGS QUAD - ANKONA (1983)
DK3571
DK3571 *CURRENT SURVEY CONTROL
DK3571
DK3571* NAD 83(1986) POSITION- 27 17 36. (N) 080 15 56. (W) SCALED
DK3571* NAVD 88 ORTHO HEIGHT - 4.655 (meters) 15.27 (feet) ADJUSTED
DK3571
DK3571 GEOID HEIGHT - -27.541 (meters) GEOID12B
DK3571 DYNAMIC HEIGHT - 4.648 (meters) 15.25 (feet) COMP
DK3571 MODELED GRAVITY - 979,130.5 (mgal) NAVD 88
DK3571
DK3571 VERT ORDER - SECOND CLASS II
DK3571
DK3571.The horizontal coordinates were scaled from a topographic map and have
DK3571.an estimated accuracy of +/- 6 seconds.
DK3571.
DK3571.The orthometric height was determined by differential leveling and
DK3571.adjusted by the NATIONAL GEODETIC SURVEY
DK3571.in November 2008.
DK3571
DK3571.No vertical observational check was made to the station.
DK3571
DK3571.Significant digits in the geoid height do not necessarily reflect accuracy.
DK3571.GEOID12B height accuracy estimate available here.
DK3571
DK3571.The dynamic height is computed by dividing the NAVD 88
DK3571.geopotential number by the normal gravity value computed on the
DK3571.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
DK3571.degrees latitude (g = 980.6199 gals.).
DK3571
DK3571.The modeled gravity was interpolated from observed gravity values.
DK3571
DK3571;
DK3571;SPC FL E - North East Units Estimated Accuracy
DK3571; 328,120. 272,700. MT (+/- 180 meters Scaled)
DK3571
DK3571 SUPERSEDED SURVEY CONTROL
DK3571
DK3571.No superseded survey control is available for this station.
DK3571
DK3571_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL726191(NAD 83)
DK3571
DK3571_MARKER: DD = SURVEY DISK
DK3571_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
DK3571_STAMPING: A 640 2005
DK3571_MARK LOGO: SFLWMD
DK3571_PROJECTION: FLUSH
DK3571_MAGNETIC: O = OTHER; SEE DESCRIPTION
DK3571_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
DK3571+STABILITY: SURFACE MOTION
DK3571_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

```

DK3571+SATELLITE: SATELLITE OBSERVATIONS - October 16, 2011

DK3571

DK3571	HISTORY	- Date	Condition	Report By
DK3571	HISTORY	- 20050817	MONUMENTED	GCYI
DK3571	HISTORY	- 20111016	GOOD	GEOCAC

DK3571

DK3571

DK3571

STATION DESCRIPTION

DK3571'DESCRIBED BY G.C.Y., INCORPORATED 2005

DK3571'THE MARK IS LOCATED 4.89 MI (7.87 KM) NORTHEAST OF PORT ST LUCIE,

DK3571'11.24 MI (18.34 KM) NORTH NORTHWEST OF FORT PIERCE, AND 6.71 MI (10.80

DK3571'KM) SOUTH OF STUART IN SECTION 32, TOWNSHIP 36 SOUTH, RANGE 40 EAST.

DK3571'

DK3571'OWNERSHIP-CITY OF PORT ST LUCIE TO REACH THE MARK FROM THE

DK3571'INTERSECTION OF US 1 AND WALTON ROAD IN PORT ST LUCIE, PROCEED EAST ON

DK3571'WALTON ROAD 2.2 MI (3.54 KM) TO GREEN RIVER PARKWAY ON THE RIGHT, GO

DK3571'SOUTH ON GREEN RIVER PARKWAY 0.4 MI (.64 KM) TO THE MARK ON THE RIGHT.

DK3571'THE MARK IS 78' (23.8 M) NORTHEAST OF THE CENTERLINE OF GREEN RIVER

DK3571'PARKWAY, 3.5' (1.0 M) SOUTHWEST OF BRACE POST OF 4.5' (1.37 M) BARBED

DK3571'WIRE FENCE. NOTE- DEEP ONE MAGNET IS BURIED ON THE NORTH SIDE OF

DK3571'CONCRETE MONUMENT

DK3571

DK3571

STATION RECOVERY (2011)

DK3571

DK3571'RECOVERY NOTE BY GEOCACHING 2011 (JL)

DK3571'DESCRPTION SLIGHTLY INACCURATE. DESCRIPTION SHOULD READ ''...TO THE

DK3571'MARK ON THE LEFT''.

DK3571'

DK3571'WITNESS POST CURRENTLY LOCATED ADJACENT TO MARK.

DK3571'

DK3571'MY HANDHELD GPS COORDINATES N 27 17.602 W 80 15.938

*** retrieval complete.

Elapsed Time = 00:00:02

From the "ngvd29.txt" file provided by NGS for the CERP Geodetic Vertical Control Project.
 Line/Part: L26368 SSN+: mark floated, SSN*: mark constrained, SSN#: mark floated & constrained

The NGS Data Sheet

Mark ID	SSN	PID	Designation	Geopotential	Elevation	Codes
2047	1003	AB2495	GS 41	5.5571	5.6706	
2048	1004	AJ5262	GCY D20	4.5827	4.6762	

See file [dsdata.txt](#) for more information about the datasheet.

```

PROGRAM = datasheet95, VERSION = 8.8
1 National Geodetic Survey, Retrieval Date = DECEMBER 7, 2015
AJ5262 *****
AJ5262 DESIGNATION - GCY D20
AJ5262 PID - AJ5262
AJ5262 STATE/COUNTY- FL/MARTIN
AJ5262 COUNTRY - US
AJ5262 USGS QUAD - ST LUCIE INLET (1983)
AJ5262
AJ5262 *CURRENT SURVEY CONTROL
AJ5262
AJ5262* NAD 83(2011) POSITION- 27 14 43.20055(N) 080 14 52.04004(W) ADJUSTED
AJ5262* NAD 83(2011) ELLIP HT- -23.333 (meters) (06/27/12) ADJUSTED
AJ5262* NAD 83(2011) EPOCH - 2010.00
AJ5262* NAVD 88 ORTHO HEIGHT - 4.222 (meters) 13.85 (feet) ADJUSTED
AJ5262
AJ5262 NAD 83(2011) X - 961,184.894 (meters) COMP
AJ5262 NAD 83(2011) Y - -5,592,473.501 (meters) COMP
AJ5262 NAD 83(2011) Z - 2,902,399.777 (meters) COMP
AJ5262 LAPLACE CORR - -2.70 (seconds) DEFLEC12B
AJ5262 GEOID HEIGHT - -27.561 (meters) GEOID12B
AJ5262 DYNAMIC HEIGHT - 4.215 (meters) 13.83 (feet) COMP
AJ5262 MODELED GRAVITY - 979,123.1 (mgal) NAVD 88
AJ5262
AJ5262 VERT ORDER - FIRST CLASS II
AJ5262
AJ5262 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
AJ5262 Standards:
AJ5262 FGDC (95% conf, cm) Standard deviation (cm) CorrNE
AJ5262 Horiz Ellip SD_N SD_E SD_h (unitless)
AJ5262 -----
AJ5262 NETWORK 0.77 1.74 0.33 0.30 0.89 -0.05111718
AJ5262 -----
AJ5262 Click here for local accuracies and other accuracy information.
AJ5262
AJ5262
AJ5262.The horizontal coordinates were established by GPS observations
AJ5262.and adjusted by the National Geodetic Survey in June 2012.
AJ5262
AJ5262.NAD 83(2011) refers to NAD 83 coordinates where the reference
AJ5262.frame has been affixed to the stable North American tectonic plate. See
AJ5262.NA2011 for more information.
AJ5262
AJ5262.The horizontal coordinates are valid at the epoch date displayed above
AJ5262.which is a decimal equivalence of Year/Month/Day.
AJ5262
AJ5262.The orthometric height was determined by differential leveling and
AJ5262.adjusted by the NATIONAL GEODETIC SURVEY
AJ5262.in September 2013.
AJ5262
AJ5262.No vertical observational check was made to the station.
AJ5262
AJ5262.Significant digits in the geoid height do not necessarily reflect accuracy.
AJ5262.GEOID12B height accuracy estimate available here.
AJ5262
AJ5262.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ5262
    
```

AJ5262.The Laplace correction was computed from DEFLEC12B derived deflections.

AJ5262

AJ5262.The ellipsoidal height was determined by GPS observations

AJ5262.and is referenced to NAD 83.

AJ5262

AJ5262.The dynamic height is computed by dividing the NAVD 88

AJ5262.geopotential number by the normal gravity value computed on the

AJ5262.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

AJ5262.degrees latitude (g = 980.6199 gals.).

AJ5262

AJ5262.The modeled gravity was interpolated from observed gravity values.

AJ5262

AJ5262. The following values were computed from the NAD 83(2011) position.

AJ5262

AJ5262;		North	East	Units	Scale Factor	Converg.
AJ5262;SPC FL E	-	322,810.616	274,494.795	MT	1.00000966	+0 20 39.8
AJ5262;SPC FL E	-	1,059,087.83	900,571.67	sFT	1.00000966	+0 20 39.8
AJ5262;UTM 17	-	3,013,832.456	574,469.377	MT	0.99966846	+0 20 39.8

AJ5262

AJ5262! - Elev Factor x Scale Factor = Combined Factor

AJ5262!SPC FL E - 1.00000367 x 1.00000966 = 1.00001333

AJ5262!UTM 17 - 1.00000367 x 0.99966846 = 0.99967212

AJ5262

SUPERSEDED SURVEY CONTROL

AJ5262

AJ5262	NAD 83(2007)-	27 14 43.20085(N)	080 14 52.04102(W)	AD(2002.00)	0
AJ5262	ELLIP H (02/10/07)	-23.311 (m)		GP(2002.00)	
AJ5262	NAD 83(1999)-	27 14 43.20096(N)	080 14 52.04139(W)	AD()	1
AJ5262	ELLIP H (09/27/01)	-23.293 (m)		GP()	4 2
AJ5262	NAVD 88 (08/02/02)	4.224 (m)	13.86 (f)	SUPERSEDED	2 1
AJ5262	NAVD 88 (09/27/01)	4.2 (m)	GEOID99 model used	GPS OBS	

AJ5262

AJ5262.Superseded values are not recommended for survey control.

AJ5262

AJ5262.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AJ5262.[See file dsdata.txt](#) to determine how the superseded data were derived.

AJ5262

AJ5262_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL7446913832(NAD 83)

AJ5262

AJ5262_MARKER: DH = HORIZONTAL CONTROL DISK

AJ5262_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

AJ5262_STAMPING: GCY D20 2001

AJ5262_MARK LOGO: FL-085

AJ5262_PROJECTION: FLUSH

AJ5262_MAGNETIC: N = NO MAGNETIC MATERIAL

AJ5262_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AJ5262+STABILITY: SURFACE MOTION

AJ5262_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AJ5262+SATELLITE: SATELLITE OBSERVATIONS - June 22, 2011

AJ5262

AJ5262	HISTORY	- Date	Condition	Report By
AJ5262	HISTORY	- 20010514	MONUMENTED	GCYI
AJ5262	HISTORY	- 20020408	GOOD	GCYI
AJ5262	HISTORY	- 20080118	GOOD	GCYI
AJ5262	HISTORY	- 20090317	GOOD	JOHNSN
AJ5262	HISTORY	- 20110622	GOOD	FLDEP

AJ5262

STATION DESCRIPTION

AJ5262

AJ5262'DESCRIBED BY G.C.Y., INCORPORATED 2001 (MDL)

AJ5262'THE STATION IS LOCATED 1.6 KM (1 MI) WEST OF JENSEN BEACH AND 5.3 KM

AJ5262'(3.3 MI)

AJ5262'NORTH OF STUART NEAR THE NORTH RIGHT OF WAY OF JENSEN BEACH

AJ5262'BOULEVARD IN SECTION 16, TOWNSHIP 37 SOUTH, RANGE 41 EAST, MARTIN

AJ5262'COUNTY, FLORIDA.

AJ5262'

From the "ngvd29.txt" file provided by NGS for the CERP Geodetic Vertical Control Project.
 Line/Part: L26368 SSN+: mark floated, SSN*: mark constrained, SSN#: mark floated & constrained

The NGS Data Sheet

Mark ID	SSN	PID	Designation	Geopotential	Elevation	Codes
2047	1003	AB2495	GS 41	5.5571	5.6706	
2048	1004	AJ5262	GCV D20	4.5827	4.6762	

See file [dsdata.txt](#) for more information about the datasheet.

```

PROGRAM = datasheet95, VERSION = 8.8
1      National Geodetic Survey,      Retrieval Date = DECEMBER 7, 2015
AB2495 *****
AB2495 DESIGNATION - GS 41
AB2495 PID - AB2495
AB2495 STATE/COUNTY- FL/MARTIN
AB2495 COUNTRY - US
AB2495 USGS QUAD - PALM CITY (1983)
AB2495
AB2495 *CURRENT SURVEY CONTROL
AB2495
AB2495* NAD 83(2011) POSITION- 27 14 42.98047(N) 080 15 15.29060(W) ADJUSTED
AB2495* NAD 83(2011) ELLIP HT- -22.313 (meters) (06/27/12) ADJUSTED
AB2495* NAD 83(2011) EPOCH - 2010.00
AB2495* NAVD 88 ORTHO HEIGHT - 5.219 (meters) 17.12 (feet) ADJUSTED
AB2495
AB2495 NAD 83(2011) X - 960,555.172 (meters) COMP
AB2495 NAD 83(2011) Y - -5,592,585.763 (meters) COMP
AB2495 NAD 83(2011) Z - 2,902,394.221 (meters) COMP
AB2495 LAPLACE CORR - -2.65 (seconds) DEFLEC12B
AB2495 GEOID HEIGHT - -27.545 (meters) GEOID12B
AB2495 DYNAMIC HEIGHT - 5.211 (meters) 17.10 (feet) COMP
AB2495 MODELED GRAVITY - 979,123.0 (mgal) NAVD 88
AB2495
AB2495 VERT ORDER - SECOND CLASS I
AB2495
AB2495 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
AB2495 Standards:
AB2495 FGDC (95% conf, cm) Standard deviation (cm) CorrNE
AB2495 Horiz Ellip SD_N SD_E SD_h (unitless)
AB2495 -----
AB2495 NETWORK 0.77 1.31 0.33 0.30 0.67 -0.03218746
AB2495 -----
AB2495 Click here for local accuracies and other accuracy information.
AB2495
AB2495
AB2495.The horizontal coordinates were established by GPS observations
AB2495.and adjusted by the National Geodetic Survey in June 2012.
AB2495
AB2495.NAD 83(2011) refers to NAD 83 coordinates where the reference
AB2495.frame has been affixed to the stable North American tectonic plate. See
AB2495.NA2011 for more information.
AB2495
AB2495.The horizontal coordinates are valid at the epoch date displayed above
AB2495.which is a decimal equivalence of Year/Month/Day.
AB2495
AB2495.The orthometric height was determined by differential leveling and
AB2495.adjusted by the NATIONAL GEODETIC SURVEY
AB2495.in August 2002.
AB2495
AB2495.Significant digits in the geoid height do not necessarily reflect accuracy.
AB2495.GEOID12B height accuracy estimate available here.
AB2495
AB2495.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AB2495
AB2495.The Laplace correction was computed from DEFLEC12B derived deflections.
AB2495
    
```


AB2495.The ellipsoidal height was determined by GPS observations
 AB2495.and is referenced to NAD 83.

AB2495

AB2495.The dynamic height is computed by dividing the NAVD 88
 AB2495.geopotential number by the normal gravity value computed on the
 AB2495.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AB2495.degrees latitude (g = 980.6199 gals.).

AB2495

AB2495.The modeled gravity was interpolated from observed gravity values.

AB2495

AB2495. The following values were computed from the NAD 83(2011) position.

AB2495

AB2495;		North	East	Units	Scale	Factor	Converg.
AB2495;SPC FL E	-	322,800.014	273,855.201	MT	1.00000849	+0 20	29.1
AB2495;SPC FL E	-	1,059,053.05	898,473.27	sFT	1.00000849	+0 20	29.1
AB2495;UTM 17	-	3,013,821.858	573,830.002	MT	0.99966729	+0 20	29.1
AB2495!	-	Elev Factor	x	Scale Factor	=	Combined Factor	
AB2495!SPC FL E	-	1.00000351	x	1.00000849	=	1.00001200	
AB2495!UTM 17	-	1.00000351	x	0.99966729	=	0.99967079	

AB2495

SUPERSEDED SURVEY CONTROL

AB2495

AB2495	NAD 83(2007)-	27 14 42.98080(N)	080 15 15.29158(W)	AD(2002.00)	0
AB2495	ELLIP H (02/10/07)	-22.294 (m)		GP(2002.00)	
AB2495	NAD 83(1999)-	27 14 42.98099(N)	080 15 15.29194(W)	AD()	1
AB2495	ELLIP H (06/19/01)	-22.274 (m)		GP()	4 1
AB2495	NAD 83(1990)-	27 14 42.97973(N)	080 15 15.29087(W)	AD()	1
AB2495	ELLIP H (03/26/96)	-22.262 (m)		GP()	3 2
AB2495	NAVD 88 (03/26/96)	5.2 (m)	GEOID93 model used	GPS OBS	

AB2495

AB2495.Superseded values are not recommended for survey control.

AB2495

AB2495.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AB2495.[See file dsdata.txt](#) to determine how the superseded data were derived.

AB2495

AB2495_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL7383013821(NAD 83)

AB2495

AB2495_MARKER: DD = SURVEY DISK

AB2495_SETTING: 9 = SET IN PREFABRICATED CONCRETE POST IMBEDDED IN GROUND

AB2495_STAMPING: GS 41 1992

AB2495_MARK LOGO: FL-085

AB2495_PROJECTION: FLUSH

AB2495_MAGNETIC: N = NO MAGNETIC MATERIAL

AB2495_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY

AB2495_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AB2495+SATELLITE: SATELLITE OBSERVATIONS - March 17, 2009

AB2495

AB2495	HISTORY	-	Date	Condition	Report By
AB2495	HISTORY	-	1992	MONUMENTED	KEISCH
AB2495	HISTORY	-	19950209	GOOD	SFLWMD
AB2495	HISTORY	-	20010730	GOOD	GCIYI
AB2495	HISTORY	-	20020408	GOOD	GCIYI
AB2495	HISTORY	-	20080118	GOOD	GCIYI
AB2495	HISTORY	-	20090317	GOOD	JOHNSN
AB2495	HISTORY	-	20110621	MARK NOT FOUND	FLDEP

AB2495

STATION DESCRIPTION

AB2495

AB2495'DESCRIBED BY S FL WATER MGMT DIST 1995 (MEH)

AB2495'RECOVERED AS DESCRIBED.

AB2495

STATION RECOVERY (2001)

AB2495

AB2495'RECOVERY NOTE BY G.C.Y., INCORPORATED 2001 (PA)

AB2495'RECOVERED IN GOOD CONDITION.

AB2495
AB2495 STATION RECOVERY (2002)
AB2495
AB2495'RECOVERY NOTE BY G.C.Y., INCORPORATED 2002 (PA)
AB2495'MARK RECOVERED AS DESCRIBED.
AB2495'
AB2495
AB2495 STATION RECOVERY (2008)
AB2495
AB2495'RECOVERY NOTE BY G.C.Y., INCORPORATED 2008 (MEL)
AB2495'RECOVERED IN GOOD CONDITION.
AB2495
AB2495 STATION RECOVERY (2009)
AB2495
AB2495'RECOVERY NOTE BY JOHNSON ENGINEERING INCORPORATED 2009 (TL)
AB2495'RECOVERED IN GOOD CONDITION.
AB2495
AB2495 STATION RECOVERY (2011)
AB2495
AB2495'RECOVERY NOTE BY FL DEPT OF ENV PRO 2011 (DMP)
AB2495'NOT RECOVERED. A THOROUGH SEARCH REVEALED NO EVIDENCE OF THE MARK.

*** retrieval complete.

Elapsed Time = 00:00:02

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

```

PROGRAM = datasheet95, VERSION = 8.8
1      National Geodetic Survey,   Retrieval Date = DECEMBER 7, 2015
AF3191 *****
AF3191 DESIGNATION - J 236
AF3191 PID - AF3191
AF3191 STATE/COUNTY- FL/ST LUCIE
AF3191 COUNTRY - US
AF3191 USGS QUAD - ANKONA (1983)
AF3191
AF3191 *CURRENT SURVEY CONTROL
AF3191
AF3191* NAD 83(1986) POSITION- 27 17 32. (N) 080 15 13. (W) SCALED
AF3191* NAVD 88 ORTHO HEIGHT - 7.038 (meters) 23.09 (feet) ADJUSTED
AF3191
AF3191 GEOID HEIGHT - -27.569 (meters) GEOID12B
AF3191 DYNAMIC HEIGHT - 7.027 (meters) 23.05 (feet) COMP
AF3191 MODELED GRAVITY - 979,130.9 (mgal) NAVD 88
AF3191
AF3191 VERT ORDER - FIRST CLASS I
AF3191
AF3191.The horizontal coordinates were scaled from a topographic map and have
AF3191.an estimated accuracy of +/- 6 seconds.
AF3191.
AF3191.The orthometric height was determined by differential leveling and
AF3191.adjusted by the NATIONAL GEODETIC SURVEY
AF3191.in June 1991.
AF3191
AF3191.Significant digits in the geoid height do not necessarily reflect accuracy.
AF3191.GEOID12B height accuracy estimate available here.
AF3191
AF3191.The dynamic height is computed by dividing the NAVD 88
AF3191.geopotential number by the normal gravity value computed on the
AF3191.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AF3191.degrees latitude (g = 980.6199 gals.).
AF3191
AF3191.The modeled gravity was interpolated from observed gravity values.
AF3191
AF3191; North East Units Estimated Accuracy
AF3191;SPC FL E - 328,000. 273,890. MT (+/- 180 meters Scaled)
AF3191
AF3191 SUPERSEDED SURVEY CONTROL
AF3191
AF3191 NGVD 29 (??/??/92) 7.489 (m) 24.57 (f) ADJ UNCH 1 1
AF3191
AF3191.Superseded values are not recommended for survey control.
AF3191
AF3191.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AF3191.See file dsdata.txt to determine how the superseded data were derived.
AF3191
AF3191_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL738190(NAD 83)
AF3191
AF3191_MARKER: DB = BENCH MARK DISK
AF3191_SETTING: 46 = COPPER-CLAD STEEL ROD W/O SLEEVE (10 FT.+)
AF3191_STAMPING: J 236 1965
AF3191_MARK LOGO: CGS
AF3191_PROJECTION: FLUSH
AF3191_MAGNETIC: I = MARKER IS A STEEL ROD

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DATASHEETS

AF3191_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
 AF3191_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR
 AF3191+SATELLITE: SATELLITE OBSERVATIONS - August 31, 2006
 AF3191_ROD/PIPE-DEPTH: 12.2 meters

AF3191	HISTORY	- Date	Condition	Report By
AF3191	HISTORY	- 1965	MONUMENTED	CGS
AF3191	HISTORY	- 1972	GOOD	NGS
AF3191	HISTORY	- 1988	GOOD	USPSQD
AF3191	HISTORY	- 1990	GOOD	USPSQD
AF3191	HISTORY	- 1991	GOOD	USPSQD
AF3191	HISTORY	- 19910130	GOOD	NGS
AF3191	HISTORY	- 20050604	GOOD	GCIYI
AF3191	HISTORY	- 20050811	GOOD	GCIYI
AF3191	HISTORY	- 20060831	GOOD	FLDEP
AF3191	HISTORY	- 20080117	GOOD	GCIYI

AF3191
 AF3191 STATION DESCRIPTION

AF3191'DESCRIBED BY COAST AND GEODETIC SURVEY 1965
 AF3191'11.3 MI S FROM FT PIERCE.
 AF3191'ABOUT 11.3 MILES SOUTH ALONG THE FLORIDA EAST COAST RAILWAY FROM
 AF3191'THE STATION AT FT PIERCE, ABOUT 0.4 MILE SOUTH OF THE CROSSING
 AF3191'OF WALTON ROAD, IN SECTION 5, R 41 E, T 37 S, AT A SAND ROAD
 AF3191'CROSSING, 186 FEET SOUTHWEST OF MILEPOST 253, 191 FEET NORTHWEST
 AF3191'OF THE CENTER OF THE CROSSING OF SAND ROAD AND THE WEST TRACK,
 AF3191'43.1 FEET WEST OF THE WEST RAIL OF THE WEST TRACK, 21 1/2 FEET
 AF3191'EAST OF THE CENTER LINE OF A NORTH-SOUTH SAND ROAD, 1 1/2 FEET
 AF3191'NORTH OF A POWER LINE POLE, 1.9 FEET SOUTH OF A METAL WITNESS
 AF3191'POST, ABOUT LEVEL WITH THE SAND ROAD, 2 FEET BELOW THE LEVEL
 AF3191'OF THE TRACK AND IS A DISK ON THE TOP OF A COPPER COATED STEEL
 AF3191'ROD PROJECTING 2 INCHES ABOVE THE LEVEL OF THE GROUND AND
 AF3191'PROTECTED BY A 5 INCH METAL PIPE WHICH PROJECTS 6 INCHES ABOVE
 AF3191'THE LEVEL OF THE GROUND. THE ROD WAS DRIVEN TO A DEPTH OF 40
 AF3191'FEET. MARK MAY ALSO BE REACHED BY GOING 8.4 MILES NORTH ALONG
 AF3191'THE FLORIDA EAST COAST RAILWAY FROM THE STATION AT STUART.

AF3191
 AF3191 STATION RECOVERY (1972)

AF3191'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1972
 AF3191'RECOVERED IN GOOD CONDITION.

AF3191
 AF3191 STATION RECOVERY (1988)

AF3191'RECOVERY NOTE BY US POWER SQUADRON 1988 (DHF)
 AF3191'RECOVERED IN GOOD CONDITION.

AF3191
 AF3191 STATION RECOVERY (1990)

AF3191'RECOVERY NOTE BY US POWER SQUADRON 1990 (DHF)
 AF3191'RECOVERED IN GOOD CONDITION.

AF3191
 AF3191 STATION RECOVERY (1991)

AF3191'RECOVERY NOTE BY US POWER SQUADRON 1991 (DHF)
 AF3191'RECOVERED IN GOOD CONDITION.

AF3191
 AF3191 STATION RECOVERY (1991)

AF3191'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1991
 AF3191'5.3 KM (3.3 MI) NORTHWESTERLY ALONG COUNTY ROAD 707 (NORTHEAST INDIAN
 AF3191'RIVER DRIVE) FROM THE JUNCTION OF STATE HIGHWAY 732 (SOUTHEAST
 AF3191'CAUSEWAY ROAD) IN JENSEN BEACH, THENCE 0.3 KM (0.2 MI) WESTERLY ALONG
 AF3191'RIVERVIEW DRIVE, 55.5 M (182.1 FT) NORTHWEST OF THE CENTER OF THE
 AF3191'DRIVE, 17.2 M (56.4 FT) SOUTHWEST OF THE NEAR RAIL, 6.9 M (22.6 FT)
 AF3191'NORTHEAST OF THE CENTER OF CONANT ROAD, AND 0.6 M (2.0 FT) SOUTHEAST

AF3191'OF A WITNESS POST. NOTE--THE DISK IS ENCASED IN A 4-INCH METAL PIPE
AF3191'THAT IS FLUSH WITH THE GROUND SURFACE.

AF3191

STATION RECOVERY (2005)

AF3191

AF3191'RECOVERY NOTE BY G.C.Y., INCORPORATED 2005 (PA)

AF3191'RECOVERED IN GOOD CONDITION. NOTE-- CONANT ROAD IS NOW GUMBO LIMBO

AF3191'LANE AND MARK IS NOW RECESSED ABOUT 6 IN BELOW CURRENT GRADE.

AF3191

STATION RECOVERY (2005)

AF3191

AF3191'RECOVERY NOTE BY G.C.Y., INCORPORATED 2005 (JES)

AF3191'CONANT ROAD IS NOW GUMBO LIMBO LANE.

AF3191

STATION RECOVERY (2006)

AF3191

AF3191'RECOVERY NOTE BY FL DEPT OF ENV PRO 2006 (BPJ)

AF3191'RECOVERED IN GOOD CONDITION WITH A NEW TO REACH AS FOLLOWS, TO REACH

AF3191'THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY 1 AND SOUTHEAST PORT

AF3191'ST. LUCIE BOULEVARD (STATE ROAD 710) IN PORT ST. LUCIE, GO NORTHWEST

AF3191'ON U.S. HIGHWAY 1 FOR 2.1 MI TO THE INTERSECTION OF MIDPORT ROAD ON

AF3191'THE LEFT AND WALTON ROAD ON THE RIGHT, TURN RIGHT ON WALTON ROAD AND

AF3191'GO EAST FOR 3.1 MI TO THE JUNCTION OF COUNTY ROAD 707 (SOUTH INDIAN

AF3191'RIVER ROAD) ON THE RIGHT, TURN RIGHT ON COUNTY ROAD 707 AND GO

AF3191'SOUTHEAST FOR 0.45 MI TO THE JUNCTION OF RIVERVIEW DRIVE ON THE

AF3191'RIGHT, TURN RIGHT ON RIVERVIEW DRIVE AND GO WEST FOR 0.15 MI TO THE

AF3191'JUNCTION OF GUMBO LIMBO LANE ON THE RIGHT, TURN RIGHT ON GUMBO LIMBO

AF3191'LANE AND GO NORTHWEST FOR ABOUT 50 YARDS TO THE MARK ON THE RIGHT.

AF3191

STATION RECOVERY (2008)

AF3191

AF3191'RECOVERY NOTE BY G.C.Y., INCORPORATED 2008 (MEL)

AF3191'RECOVERED IN GOOD CONDITION.

*** retrieval complete.

Elapsed Time = 00:00:02

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

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PROGRAM = datasheet95, VERSION = 8.8
1      National Geodetic Survey,      Retrieval Date = DECEMBER 7, 2015
AA5078 *****
AA5078 DESIGNATION - SAV 9
AA5078 PID - AA5078
AA5078 STATE/COUNTY- FL/ST LUCIE
AA5078 COUNTRY - US
AA5078 USGS QUAD - ANKONA (1983)
AA5078
AA5078 *CURRENT SURVEY CONTROL
AA5078
AA5078* NAD 83(2011) POSITION- 27 17 49.17957(N) 080 15 59.85658(W) ADJUSTED
AA5078* NAD 83(2011) ELLIP HT- -22.233 (meters) (06/27/12) ADJUSTED
AA5078* NAD 83(2011) EPOCH - 2010.00
AA5078* NAVD 88 ORTHO HEIGHT - 5.280 (meters) 17.32 (feet) ADJUSTED
AA5078
AA5078 NAD 83(2011) X - 958,902.850 (meters) COMP
AA5078 NAD 83(2011) Y - -5,590,205.007 (meters) COMP
AA5078 NAD 83(2011) Z - 2,907,488.405 (meters) COMP
AA5078 LAPLACE CORR - -2.50 (seconds) DEFLEC12B
AA5078 GEOID HEIGHT - -27.540 (meters) GEOID12B
AA5078 DYNAMIC HEIGHT - 5.272 (meters) 17.30 (feet) COMP
AA5078 MODELED GRAVITY - 979,131.0 (mgal) NAVD 88
AA5078
AA5078 VERT ORDER - FIRST CLASS II
AA5078
AA5078 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
AA5078 Standards:
AA5078 FGDC (95% conf, cm) Standard deviation (cm) CorrNE
AA5078 Horiz Ellip SD_N SD_E SD_h (unitless)
AA5078 -----
AA5078 NETWORK 1.04 1.18 0.46 0.38 0.60 0.12651665
AA5078 -----
AA5078 Click here for local accuracies and other accuracy information.
AA5078
AA5078
AA5078.The horizontal coordinates were established by GPS observations
AA5078.and adjusted by the National Geodetic Survey in June 2012.
AA5078
AA5078.NAD 83(2011) refers to NAD 83 coordinates where the reference
AA5078.frame has been affixed to the stable North American tectonic plate. See
AA5078.NA2011 for more information.
AA5078
AA5078.The horizontal coordinates are valid at the epoch date displayed above
AA5078.which is a decimal equivalence of Year/Month/Day.
AA5078
AA5078.The orthometric height was determined by differential leveling and
AA5078.adjusted by the NATIONAL GEODETIC SURVEY
AA5078.in November 2008.
AA5078
AA5078.No vertical observational check was made to the station.
AA5078
AA5078.Significant digits in the geoid height do not necessarily reflect accuracy.
AA5078.GEOID12B height accuracy estimate available here.
AA5078
AA5078.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AA5078

```

AA5078.The Laplace correction was computed from DEFLEC12B derived deflections.

AA5078

AA5078.The ellipsoidal height was determined by GPS observations

AA5078.and is referenced to NAD 83.

AA5078

AA5078.The dynamic height is computed by dividing the NAVD 88

AA5078.geopotential number by the normal gravity value computed on the

AA5078.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

AA5078.degrees latitude (g = 980.6199 gals.).

AA5078

AA5078.The modeled gravity was interpolated from observed gravity values.

AA5078

AA5078. The following values were computed from the NAD 83(2011) position.

AA5078

AA5078;		North	East	Units	Scale Factor	Converg.
AA5078;SPC FL E	-	328,523.904	272,595.556	MT	1.00000621	+0 20 10.8
AA5078;SPC FL E	-	1,077,832.18	894,340.59	sFT	1.00000621	+0 20 10.8
AA5078;UTM 17	-	3,019,543.795	572,570.787	MT	0.99966501	+0 20 10.8

AA5078

AA5078! Elev Factor x Scale Factor = Combined Factor

AA5078!SPC FL E - 1.00000349 x 1.00000621 = 1.00000970

AA5078!UTM 17 - 1.00000349 x 0.99966501 = 0.99966850

AA5078

AA5078

SUPERSEDED SURVEY CONTROL

AA5078

AA5078 NAD 83(2007)- 27 17 49.17962(N) 080 15 59.85722(W) AD(2002.00) 0

AA5078 ELLIP H (02/10/07) -22.210 (m) GP(2002.00)

AA5078 NAD 83(1999)- 27 17 49.17983(N) 080 15 59.85748(W) AD() 2

AA5078 ELLIP H (07/06/01) -22.198 (m) GP() 4 2

AA5078 NAD 83(1990)- 27 17 49.17859(N) 080 15 59.85638(W) AD() 2

AA5078 ELLIP H (03/31/95) -22.158 (m) GP() 4 1

AA5078 NAVD 88 (03/31/95) 5.3 (m) GEOID93 model used GPS OBS

AA5078

AA5078.Superseded values are not recommended for survey control.

AA5078

AA5078.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AA5078.[See file dsdata.txt](#) to determine how the superseded data were derived.

AA5078

AA5078_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL7257019543(NAD 83)

AA5078

AA5078_MARKER: DD = SURVEY DISK

AA5078_SETTING: 15 = METAL ROD DRIVEN INTO GROUND. SEE TEXT FOR ADDITIONAL

AA5078+WITH SETTING: INFORMATION.

AA5078_STAMPING: GCY INC. GPS SAV 9

AA5078_MARK LOGO: GCYI

AA5078_MAGNETIC: R = STEEL ROD IMBEDDED IN MONUMENT

AA5078_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY

AA5078_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AA5078+SATELLITE: SATELLITE OBSERVATIONS - August 29, 2006

AA5078

AA5078	HISTORY	- Date	Condition	Report By
AA5078	HISTORY	- 1992	MONUMENTED	GCYI
AA5078	HISTORY	- 20050811	GOOD	GCYI
AA5078	HISTORY	- 20060829	GOOD	FLDEP

AA5078 HISTORY - 1992 MONUMENTED GCYI

AA5078 HISTORY - 20050811 GOOD GCYI

AA5078 HISTORY - 20060829 GOOD FLDEP

AA5078

AA5078

STATION DESCRIPTION

AA5078

AA5078'DESCRIBED BY G.C.Y., INCORPORATED 1992 (GCY)

AA5078'IN ST. LUCIE COUNTY, SOUTH ON MIDPORT RD. FROM THE U.S. POST OFFICE

AA5078'0.15 MI (0.24 KM) TO PORT ST. LUCIE BLVD. EAST ON PORT ST. LUCIE

AA5078'BLVD. 1.65 MI (2.66 KM) TO U.S. HIGHWAY NO. 1, NORTH ON U.S. HIGHWAY

AA5078'NO. 1, 2.0 MI (3.2 KM) TO WALTON RD. EAST ON WALTON RD. 2.3 MI (3.7

AA5078'KM) TO GREEN RIVER PARKWAY. SOUTH ON GREEN RIVER PARKWAY 0.20 MI

AA5078'(0.32 KM) TO GPS MARK SAV 9. THE MARK IS LOCATED 74.0 FT (22.6 M)

AA5078'EAST OF THE EAST EDGE OF PAVEMENT OF SAID PARKWAY ON THE WEST TOP OF

AA5078'BANK OF AN EXISTING CANAL, 500.26 FT (152.48 M) SOUTHEASTERLY OF A

DATASHEETS

AA5078'REFERENCE MARK SET 1.0 FT (0.3 M) WEST OF THE EAST EDGE OF PAVEMENT
AA5078'ACROSS FROM A HOUSE AT 2766 GREEN RIVER PARKWAY, 290.48 FT (88.54 M)
AA5078'SOUTHEASTERLY OF A REFERENCE MARK SET IN A WOOD POWER POLE (NO
AA5078'NUMBER), BEING THE FOURTH POLE SOUTH OF WALTON RD., 154.29 FT (47.03
AA5078'M) EASTERLY OF A REFERENCE MARK SET IN A SECOND WOOD POWER POLE (POLE
AA5078'NO. 6-6765-6252-0-9), BEING THE FIFTH POLE SOUTH OF WALTON RD., 138.90
AA5078'FT (42.34 M) NORTHEASTERLY OF A REFERENCE MARK SET IN A THIRD WOOD
AA5078'POWER POLE (NO NUMBER), BEING THE SIXTH POLE SOUTH OF WALTON RD. ALL
AA5078'POLES ARE ON THE WEST SIDE OF GREEN RIVER PARKWAY AND ALL REFERENCE
AA5078'MARKS ARE P.K. NAIL AND DISKS STAMPED W.E.S. TRAVERSE PT. AND NEAR A 2
AA5078'1/2" DIAMETER GALVANIZED METAL WITNESS POST. THERE IS A SECONDARY
AA5078'MARK LOCATED APPROXIMATELY 3.0 FT (0.9 M) BELOW SAID MARK, SAID MARK
AA5078'BEING A 1/2" IRON ROD WITH CAP MARKED GCY, INC. TRAVERSE PT.

AA5078

AA5078 STATION RECOVERY (2005)

AA5078

AA5078'RECOVERY NOTE BY G.C.Y., INCORPORATED 2005 (JES)

AA5078'RECOVERED AS DESCRIBED.

AA5078

AA5078 STATION RECOVERY (2006)

AA5078

AA5078'RECOVERY NOTE BY FL DEPT OF ENV PRO 2006 (BPJ)

AA5078'RECOVERED AS DESCRIBED.

*** retrieval complete.

Elapsed Time = 00:00:03

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

```

PROGRAM = datasheet95, VERSION = 8.8
1      National Geodetic Survey,      Retrieval Date = DECEMBER 7, 2015
AA5069 *****
AA5069 DESIGNATION - WEATHERINGTON
AA5069 PID - AA5069
AA5069 STATE/COUNTY- FL/ST LUCIE
AA5069 COUNTRY - US
AA5069 USGS QUAD - ANKONA (1983)
AA5069
AA5069 *CURRENT SURVEY CONTROL
AA5069
AA5069* NAD 83(2011) POSITION- 27 17 55.62811(N) 080 15 24.14800(W) ADJUSTED
AA5069* NAD 83(2011) ELLIP HT- -18.773 (meters) (06/27/12) ADJUSTED
AA5069* NAD 83(2011) EPOCH - 2010.00
AA5069* NAVD 88 ORTHO HEIGHT - 8.773 (meters) 28.78 (feet) ADJUSTED
AA5069
AA5069 NAD 83(2011) X - 959,855.727 (meters) COMP
AA5069 NAD 83(2011) Y - -5,589,952.232 (meters) COMP
AA5069 NAD 83(2011) Z - 2,907,666.373 (meters) COMP
AA5069 LAPLACE CORR - -2.58 (seconds) DEFLEC12B
AA5069 GEOID HEIGHT - -27.564 (meters) GEOID12B
AA5069 DYNAMIC HEIGHT - 8.759 (meters) 28.74 (feet) COMP
AA5069 MODELED GRAVITY - 979,131.5 (mgal) NAVD 88
AA5069
AA5069 VERT ORDER - FIRST CLASS II
AA5069
AA5069 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
AA5069 Standards:
AA5069 FGDC (95% conf, cm) Standard deviation (cm) CorrNE
AA5069 Horiz Ellip SD_N SD_E SD_h (unitless)
AA5069 -----
AA5069 NETWORK 0.80 0.84 0.34 0.31 0.43 0.06971765
AA5069 -----
AA5069 Click here for local accuracies and other accuracy information.
AA5069
AA5069
AA5069.The horizontal coordinates were established by GPS observations
AA5069.and adjusted by the National Geodetic Survey in June 2012.
AA5069
AA5069.NAD 83(2011) refers to NAD 83 coordinates where the reference
AA5069.frame has been affixed to the stable North American tectonic plate. See
AA5069.NA2011 for more information.
AA5069
AA5069.The horizontal coordinates are valid at the epoch date displayed above
AA5069.which is a decimal equivalence of Year/Month/Day.
AA5069
AA5069.The orthometric height was determined by differential leveling and
AA5069.adjusted by the NATIONAL GEODETIC SURVEY
AA5069.in November 2008.
AA5069
AA5069.No vertical observational check was made to the station.
AA5069
AA5069.Significant digits in the geoid height do not necessarily reflect accuracy.
AA5069.GEOID12B height accuracy estimate available here.
AA5069
AA5069.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AA5069

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AA5069.The Laplace correction was computed from DEFLEC12B derived deflections.

AA5069

AA5069.The ellipsoidal height was determined by GPS observations

AA5069.and is referenced to NAD 83.

AA5069

AA5069.The dynamic height is computed by dividing the NAVD 88

AA5069.geopotential number by the normal gravity value computed on the

AA5069.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

AA5069.degrees latitude (g = 980.6199 gals.).

AA5069

AA5069.The modeled gravity was interpolated from observed gravity values.

AA5069

AA5069. The following values were computed from the NAD 83(2011) position.

AA5069

AA5069;		North	East	Units	Scale Factor	Converg.
AA5069;SPC FL E	-	328,728.192	273,576.280	MT	1.00000798	+0 20 27.3
AA5069;SPC FL E	-	1,078,502.41	897,558.18	sFT	1.00000798	+0 20 27.3
AA5069;UTM 17	-	3,019,748.013	573,551.176	MT	0.99966678	+0 20 27.3

AA5069

AA5069! - Elev Factor x Scale Factor = Combined Factor

AA5069!SPC FL E - 1.00000295 x 1.00000798 = 1.00001093

AA5069!UTM 17 - 1.00000295 x 0.99966678 = 0.99966973

AA5069

AA5069

SUPERSEDED SURVEY CONTROL

AA5069

AA5069 NAD 83(2007)- 27 17 55.62816(N) 080 15 24.14863(W) AD(2002.00) 0

AA5069 ELLIP H (02/10/07) -18.751 (m) GP(2002.00)

AA5069 NAD 83(1999)- 27 17 55.62840(N) 080 15 24.14886(W) AD() 1

AA5069 ELLIP H (06/19/01) -18.740 (m) GP() 4 1

AA5069 NAD 83(1990)- 27 17 55.62712(N) 080 15 24.14784(W) AD() 1

AA5069 ELLIP H (03/31/95) -18.689 (m) GP() 4 1

AA5069 NAVD 88 (03/31/95) 8.8 (m) GEOID93 model used GPS OBS

AA5069

AA5069.Superseded values are not recommended for survey control.

AA5069

AA5069.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AA5069.[See file dsdata.txt](#) to determine how the superseded data were derived.

AA5069

AA5069_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL7355119748(NAD 83)

AA5069

AA5069_MARKER: DD = SURVEY DISK

AA5069_SETTING: 9 = SET IN PREFABRICATED CONCRETE POST IMBEDDED IN GROUND

AA5069_STAMPING: GCY INC GPS WEATHERINGTON

AA5069_MARK LOGO: GCYI

AA5069_PROJECTION: RECESSED 8 CENTIMETERS

AA5069_MAGNETIC: R = STEEL ROD IMBEDDED IN MONUMENT

AA5069_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY

AA5069_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AA5069+SATELLITE: SATELLITE OBSERVATIONS - January 17, 2008

AA5069

AA5069	HISTORY	- Date	Condition	Report By
AA5069	HISTORY	- 1991	MONUMENTED	GCYI
AA5069	HISTORY	- 19930913	GOOD	GENGRP
AA5069	HISTORY	- 20050604	GOOD	GCYI
AA5069	HISTORY	- 20060829	GOOD	FLDEP
AA5069	HISTORY	- 20080117	GOOD	GCYI

AA5069 HISTORY - 1991 MONUMENTED GCYI

AA5069 HISTORY - 19930913 GOOD GENGRP

AA5069 HISTORY - 20050604 GOOD GCYI

AA5069 HISTORY - 20060829 GOOD FLDEP

AA5069 HISTORY - 20080117 GOOD GCYI

AA5069

AA5069

STATION DESCRIPTION

AA5069

AA5069'DESCRIBED BY G.C.Y., INCORPORATED 1991 (GCY)

AA5069'IN ST. LUCIE COUNTY, SOUTH ON MIDPORT RD. FROM THE U.S. POST OFFICE

AA5069'0.15 MI (0.24 KM) TO PORT ST. LUCIE BLVD. EAST ON PORT ST. LUCIE

AA5069'BLVD. 1.65 MI (2.66 KM) TO U.S. HIGHWAY NO. 1, NORTH ON U.S. HIGHWAY

AA5069'NO. 1, 2.0 MI (3.2 KM) TO WALTON RD., EAST ON WALTON RD. 2.9 MI (4.7

AA5069'KM) TO THE F.E.C. RAILROAD AND GPS MARK WEATHERINGTON. THE MARK IS

AA5069'LOCATED 28.0 FT (8.5 M) NORTH OF THE NORTH EDGE OF PAVEMENT OF WALTON

AA5069'RD., 25.0 FT (7.6 M) EAST OF THE EAST RAIL OF THE TRACKS, 2.0 FT (0.6
AA5069'M) EAST OF A METAL GUARDRAIL, 186.90 FT (56.97 M) NORTHWESTERLY OF A
AA5069'REFERENCE MARK SET IN A WOOD POWER POLE (NO NUMBER) LOCATED EAST OF
AA5069'THE TRACKS ON THE NORTH SIDE OF WALTON RD., 108.45 FT (33.06 M)
AA5069'NORTHERLY OF A REFERENCE MARK SET IN A SECOND WOOD POWER POLE (NO
AA5069'NUMBER) LOCATED EAST OF THE TRACKS ON THE SOUTH SIDE OF WALTON RD.,
AA5069'115.01 FT (35.06 M) NORTHEASTERLY OF A REFERENCE MARK SET IN A THIRD
AA5069'WOOD POWER POLE (NO NUMBER) LOCATED WEST OF THE TRACKS ON THE SOUTH
AA5069'SIDE OF WALTON RD. AND NEAR A 2 1/2" DIAMETER GALVANIZED METAL WITNESS
AA5069'POST. ALL REFERENCE MARKS ARE P.K. NAIL AND DISKS STAMPED W.E.S.
AA5069'TRAVERSE PT. THERE IS A SECONDARY MARK LOCATED APPROXIMATELY 3.0 FT
AA5069'(0.9 M) BELOW SAID MARK, SAID MARK BEING A 1/2" IRON ROD WITH CAP
AA5069'MARKED GCY, INC. TRAVERSE PT.

AA5069

AA5069 STATION RECOVERY (1993)

AA5069

AA5069'RECOVERY NOTE BY GENESIS GROUP INCORPORATED SE 1993 (JEK)

AA5069'RECOVERED AS DESCRIBED.

AA5069

AA5069 STATION RECOVERY (2005)

AA5069

AA5069'RECOVERY NOTE BY G.C.Y., INCORPORATED 2005 (PA)

AA5069'RECOVERED AS DESCRIBED.

AA5069

AA5069 STATION RECOVERY (2006)

AA5069

AA5069'RECOVERY NOTE BY FL DEPT OF ENV PRO 2006 (BPJ)

AA5069'RECOVERED AS DESCRIBED.

AA5069

AA5069 STATION RECOVERY (2008)

AA5069

AA5069'RECOVERY NOTE BY G.C.Y., INCORPORATED 2008 (MEL)

AA5069'RECOVERED IN GOOD CONDITION.

*** retrieval complete.

Elapsed Time = 00:00:02

From the "ngvd29.txt" file provided by NGS for the CERP Geodetic Vertical Control Project.

Line/Part: L26245 SSN+: mark floated, SSN*: mark constrained, SSN#: mark floated & constrained

Mark ID	SSN	PID	Designation	Geopotential	Elevation
1806	3159	AJ8574	X 543	8.1186	8.2843
1807	3160	AJ8575	Y 543	8.0291	8.1930
1808	3161	AJ8576	Z 543	8.1620	8.3286
1809	3162	AJ8577	A 544	8.0789	8.2438

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the

PROGRAM = datasheet95, VERSION = 8.8

1 National Geodetic Survey, Retrieval Date = DECEMBER 7, 2015

AJ8574 *****

AJ8574 DESIGNATION - X 543

AJ8574 PID - AJ8574

AJ8574 STATE/COUNTY- FL/ST LUCIE

AJ8574 COUNTRY - US

AJ8574 USGS QUAD - BLUEFIELD (1970)

AJ8574

AJ8574 *CURRENT SURVEY CONTROL

AJ8574

AJ8574* NAD 83(1986) POSITION- 27 12 23. (N) 080 33 02. (W) SCALED

AJ8574* [NAVD 88](#) ORTHO HEIGHT - 7.845 (meters) 25.74 (feet) ADJUSTED

AJ8574

AJ8574 GEOID HEIGHT - -26.999 (meters) GEOID12B

AJ8574 DYNAMIC HEIGHT - 7.833 (meters) 25.70 (feet) COMP

AJ8574 MODELED GRAVITY - 979,101.9 (mgal) NAVD 88

AJ8574

AJ8574 VERT ORDER - FIRST CLASS II

AJ8574

AJ8574.The horizontal coordinates were scaled from a topographic map and have

AJ8574.an estimated accuracy of +/- 6 seconds.

AJ8574.

AJ8574.The orthometric height was determined by differential leveling and

AJ8574.adjusted by the NATIONAL GEODETIC SURVEY

AJ8574.in May 2002.

AJ8574

AJ8574.Significant digits in the geoid height do not necessarily reflect accuracy.

AJ8574.GEOID12B height accuracy estimate available [here](#).

AJ8574

AJ8574.The dynamic height is computed by dividing the NAVD 88

AJ8574.geopotential number by the normal gravity value computed on the

AJ8574.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

AJ8574.degrees latitude (g = 980.6199 gals.).

AJ8574

AJ8574.The modeled gravity was interpolated from observed gravity values.

AJ8574

AJ8574; North East Units Estimated Accuracy

AJ8574;SPC FL E - 318,350. 244,530. MT (+/- 180 meters Scaled)

AJ8574

AJ8574 SUPERSEDED SURVEY CONTROL

AJ8574

AJ8574.No superseded survey control is available for this station.

AJ8574

AJ8574_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL445093(NAD 83)

AJ8574

AJ8574_MARKER: DD = SURVEY DISK

AJ8574_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

AJ8574_STAMPING: X 543 2001 CERP

AJ8574_MARK LOGO: USE

AJ8574_PROJECTION: RECESSED 8 CENTIMETERS

AJ8574_MAGNETIC: O = OTHER; SEE DESCRIPTION

AJ8574_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AJ8574+STABILITY: SURFACE MOTION

AJ8574_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AJ8574+SATELLITE: SATELLITE OBSERVATIONS - January 29, 2008

AJ8574

AJ8574	HISTORY	- Date	Condition	Report By
AJ8574	HISTORY	- 20010918	MONUMENTED	FOST
AJ8574	HISTORY	- 20080129	GOOD	GCYI

AJ8574

AJ8574

STATION DESCRIPTION

AJ8574

AJ8574'DESCRIBED BY CHARLEY FOSTER AND ASSOCIATES 2001 (JB)

AJ8574'THE MONUMENT IS LOCATED 13.9 MILES (22.37 KM) NORTH OF INDIANTOWN, FL.

AJ8574'AND 17.8 MILES (28.65 KM) WEST

AJ8574'OF PALM CITY, FL., SECTION 32, TOWNSHIP 37 SOUTH, RANGE 38 EAST.

AJ8574'

AJ8574'OWNERSHIP IS SOUTH FLORIDA WATER MANAGEMENT DISTRICT.

AJ8574'

AJ8574'TO REACH THE MONUMENT FROM THE INTERSECTION OF COUNTY ROAD 714 AND

AJ8574'COUNTY ROAD 609, 11.1 MILES

AJ8574'(17.86 KM) WEST OF THE JUNCTION OF THE FLORIDA TURNPIKE, STATE ROAD

AJ8574'714 AND COUNTY ROAD 714 IN

AJ8574'PALM CITY FL., GO NORTH ON COUNTY ROAD 609 FOR 3.0 MILES (4.83 KM) TO

AJ8574'THE NORTH END OF BRIDGE NO.

AJ8574'940026 AND TURN LEFT ONTO CANAL/ORANGE GROVE ACCESS ROAD AND GO WEST

AJ8574'0.05 MILES (0.08 KM) TO A

AJ8574'LOCKED GATE SOUTH OF CANAL LEVEE AND NORTH OF CANAL. CONTINUE WEST

AJ8574'ALONG ROADWAY AREA ON

AJ8574'THE NORTH SIDE OF CANAL 4.25 MILES (6.84 KM) TO MONUMENT LOCATION. THE

AJ8574'MONUMENT IS 0.30 MILES (0.48

AJ8574'KM) WEST OF A PUMPING STATION AND 0.25 MILES (0.40 KM) WEST OF A

AJ8574'LOCKED GATE.

AJ8574'

AJ8574'THE MONUMENT IS 15.0 FEET (4.57 M) NORTH OF THE NORTH TOP BANK OF

AJ8574'COUNTY LINE CANAL, 27.0 FEET (8.23

AJ8574'M) SOUTH OF BARBED WIRE FENCELINE, 27.0 FEET (8.23 M) SOUTH OF TOE OF

AJ8574'CANAL LEVEE AND 26.5 FEET (8.08

AJ8574'M) SOUTH OF CARSONITE WITNESS POST. NOTE A MAGNET WAS BURIED NEARBY AT

AJ8574'AN UNSPECIFIED

AJ8574'POSITION. FOR KEY, CONTACT SOUTH FLORIDA WATER MANAGEMENT DISTRICT,

AJ8574'WEST PALM BEACH, FL. AT

AJ8574'PHONE NUMBER (407) 686-8800.

AJ8574'

AJ8574

STATION RECOVERY (2008)

AJ8574

AJ8574'RECOVERY NOTE BY G.C.Y., INCORPORATED 2008 (MEL)

AJ8574'RECOVERED IN GOOD CONDITION.

*** retrieval complete.

Elapsed Time = 00:00:01

From the "ngvd29.txt" file provided by NGS for the CERP Geodetic Vertical Control Project.

Line/Part: L26245 SSN+: mark floated, SSN*: mark constrained, SSN#: mark floated & constrained

Mark ID	SSN	PID	Designation	Geopotential	Elevation
1806	3159	AJ8574	X 543	8.1186	8.2843
1807	3160	AJ8575	Y 543	8.0291	8.1930
1808	3161	AJ8576	Z 543	8.1620	8.3286
1809	3162	AJ8577	A 544	8.0789	8.2438

The NGS Data Sheet

See file [dsdata.txt](#) for more information about the

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PROGRAM = datasheet95, VERSION = 8.8
1 National Geodetic Survey, Retrieval Date = DECEMBER 7, 2015
AJ8575 *****
AJ8575 DESIGNATION - Y 543
AJ8575 PID - AJ8575
AJ8575 STATE/COUNTY- FL/ST LUCIE
AJ8575 COUNTRY - US
AJ8575 USGS QUAD - BLUEFIELD (1970)
AJ8575
AJ8575 *CURRENT SURVEY CONTROL
AJ8575
AJ8575* NAD 83(1986) POSITION- 27 12 23. (N) 080 34 03. (W) SCALED
AJ8575* NAVD 88 ORTHO HEIGHT - 7.753 (meters) 25.44 (feet) ADJUSTED
AJ8575
AJ8575 GEOID HEIGHT - -26.977 (meters) GEOID12B
AJ8575 DYNAMIC HEIGHT - 7.741 (meters) 25.40 (feet) COMP
AJ8575 MODELED GRAVITY - 979,101.0 (mgal) NAVD 88
AJ8575
AJ8575 VERT ORDER - FIRST CLASS II
AJ8575
AJ8575.The horizontal coordinates were scaled from a topographic map and have
AJ8575.an estimated accuracy of +/- 6 seconds.
AJ8575.
AJ8575.The orthometric height was determined by differential leveling and
AJ8575.adjusted by the NATIONAL GEODETIC SURVEY
AJ8575.in May 2002.
AJ8575
AJ8575.Significant digits in the geoid height do not necessarily reflect accuracy.
AJ8575.GEOID12B height accuracy estimate available here.
AJ8575
AJ8575.The dynamic height is computed by dividing the NAVD 88
AJ8575.geopotential number by the normal gravity value computed on the
AJ8575.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ8575.degrees latitude (g = 980.6199 gals.).
AJ8575
AJ8575.The modeled gravity was interpolated from observed gravity values.
AJ8575
AJ8575; North East Units Estimated Accuracy
AJ8575;SPC FL E - 318,350. 242,850. MT (+/- 180 meters Scaled)
AJ8575
AJ8575 SUPERSEDED SURVEY CONTROL
AJ8575
AJ8575.No superseded survey control is available for this station.
AJ8575
AJ8575_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL428093(NAD 83)
AJ8575
AJ8575_MARKER: DD = SURVEY DISK
AJ8575_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ8575_STAMPING: Y 543 2001 CERP
AJ8575_MARK LOGO: USE
AJ8575_PROJECTION: RECESSED 8 CENTIMETERS
AJ8575_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ8575_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ8575+STABILITY: SURFACE MOTION
AJ8575_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ8575+SATELLITE: SATELLITE OBSERVATIONS - January 29, 2008
AJ8575
    
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DATASHEETS

AJ8575	HISTORY	- Date	Condition	Report By
AJ8575	HISTORY	- 20010918	MONUMENTED	FOST
AJ8575	HISTORY	- 20080129	GOOD	GCYI

AJ8575

AJ8575

STATION DESCRIPTION

AJ8575

AJ8575'DESCRIBED BY CHARLEY FOSTER AND ASSOCIATES 2001 (JB)

AJ8575'THE MONUMENT IS LOCATED 14.2 MILES (22.85 KM) NORTH OF INDIANTOWN, FL.

AJ8575'AND 18.8 MILES (30.26 KM) WEST

AJ8575'OF PALM CITY, FL., SECTION 31, TOWNSHIP 37 SOUTH, RANGE 38 EAST.

AJ8575'

AJ8575'OWNERSHIP IS SOUTH FLORIDA WATER MANAGEMENT DISTRICT.

AJ8575'

AJ8575'TO REACH THE MONUMENT FROM THE INTERSECTION OF COUNTY ROAD 714 AND

AJ8575'COUNTY ROAD 609, 11.1 MILES

AJ8575'(17.86 KM) WEST OF THE JUNCTION OF THE FLORIDA TURNPIKE, STATE ROAD

AJ8575'714 AND COUNTY ROAD 714 IN

AJ8575'PALM CITY FL., GO NORTH ON COUNTY ROAD 609 FOR 3.0 MILES (4.83 KM) TO

AJ8575'THE NORTH END OF BRIDGE NO.

AJ8575'940026 AND TURN LEFT ONTO CANAL/ORANGE GROVE ACCESS ROAD AND GO WEST

AJ8575'0.05 MILES (0.08 KM) TO A

AJ8575'LOCKED GATE SOUTH OF CANAL LEVEE AND NORTH OF CANAL. CONTINUE WEST

AJ8575'ALONG ROADWAY AREA ON

AJ8575'THE NORTH SIDE OF CANAL 5.25 MILES (8.45 KM) TO MONUMENT LOCATION. THE

AJ8575'MONUMENT IS 1.30 MILES (2.09

AJ8575'KM) WEST OF A PUMPING STATION AND 1.25 MILES (2.01 KM) WEST OF A

AJ8575'LOCKED GATE.

AJ8575'

AJ8575'THE MONUMENT IS 14.0 FEET (4.27 M) NORTH OF THE NORTH TOP BANK OF

AJ8575'COUNTY LINE CANAL, 34.7 FEET (10.58

AJ8575'M) SOUTH OF BARBED WIRE FENCELINE, 36.0 FEET (10.97 M) SOUTH OF TOE OF

AJ8575'CANAL LEVEE AND 33.7 FEET (10.27

AJ8575'M) SOUTH OF CARSONITE WITNESS POST. NOTE A MAGNET WAS BURIED NEARBY AT

AJ8575'AN UNSPECIFIED

AJ8575'POSITION. FOR KEY, CONTACT SOUTH FLORIDA WATER MANAGEMENT DISTRICT,

AJ8575'WEST PALM BEACH, FL. AT

AJ8575'PHONE NUMBER (407) 686-8800.

AJ8575'

AJ8575

STATION RECOVERY (2008)

AJ8575

AJ8575'RECOVERY NOTE BY G.C.Y., INCORPORATED 2008 (MEL)

AJ8575'RECOVERED IN GOOD CONDITION.

*** retrieval complete.

Elapsed Time = 00:00:02

From the "ngvd29.txt" file provided by NGS for the CERP Geodetic Vertical Control Project.
 Line/Part: L26245 SSN+: mark floated, SSN*: mark constrained, SSN#: mark floated & constrained

The NGS Data Sheet

Mark ID	SSN	PID	Designation	Geopotential	Elevation	Codes
1806	3159	AJ8574	X 543	8.1186	8.2843	
1807	3160	AJ8575	Y 543	8.0291	8.1930	
1808	3161	AJ8576	Z 543	8.1620	8.3286	
1809	3162	AJ8577	A 544	8.0789	8.2438	

See file [dsdata.txt](#) for more information about

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PROGRAM = datasheet95, VERSION = 8.8
1 National Geodetic Survey, Retrieval Date = DECEMBER 7, 2015
AJ8576 *****
AJ8576 DESIGNATION - Z 543
AJ8576 PID - AJ8576
AJ8576 STATE/COUNTY- FL/ST LUCIE
AJ8576 COUNTRY - US
AJ8576 USGS QUAD - BLUEFIELD (1970)
AJ8576
AJ8576 *CURRENT SURVEY CONTROL
AJ8576
AJ8576* NAD 83(1986) POSITION- 27 12 35. (N) 080 34 47. (W) SCALED
AJ8576* NAVD 88 ORTHO HEIGHT - 7.888 (meters) 25.88 (feet) ADJUSTED
AJ8576
AJ8576 GEOID HEIGHT - -26.967 (meters) GEOID12B
AJ8576 DYNAMIC HEIGHT - 7.876 (meters) 25.84 (feet) COMP
AJ8576 MODELED GRAVITY - 979,100.7 (mgal) NAVD 88
AJ8576
AJ8576 VERT ORDER - FIRST CLASS II
AJ8576
AJ8576.The horizontal coordinates were scaled from a topographic map and have
AJ8576.an estimated accuracy of +/- 6 seconds.
AJ8576.
AJ8576.The orthometric height was determined by differential leveling and
AJ8576.adjusted by the NATIONAL GEODETIC SURVEY
AJ8576.in May 2002.
AJ8576
AJ8576.Significant digits in the geoid height do not necessarily reflect accuracy.
AJ8576.GEOID12B height accuracy estimate available here.
AJ8576
AJ8576.The dynamic height is computed by dividing the NAVD 88
AJ8576.geopotential number by the normal gravity value computed on the
AJ8576.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ8576.degrees latitude (g = 980.6199 gals.).
AJ8576
AJ8576.The modeled gravity was interpolated from observed gravity values.
AJ8576
AJ8576; North East Units Estimated Accuracy
AJ8576;SPC FL E - 318,710. 241,640. MT (+/- 180 meters Scaled)
AJ8576
AJ8576 SUPERSEDED SURVEY CONTROL
AJ8576
AJ8576.No superseded survey control is available for this station.
AJ8576
AJ8576_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL416097(NAD 83)
AJ8576
AJ8576_MARKER: F = FLANGE-ENCASED ROD
AJ8576_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AJ8576_STAMPING: Z 543 2001 CERP
AJ8576_MARK LOGO: NONE
AJ8576_PROJECTION: RECESSED 8 CENTIMETERS
AJ8576_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ8576_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ8576_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ8576+SATELLITE: SATELLITE OBSERVATIONS - January 29, 2008
AJ8576_ROD/PIPE-DEPTH: 24.4 meters
AJ8576
    
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AJ8576	HISTORY	- Date	Condition	Report By
AJ8576	HISTORY	- 20010919	MONUMENTED	FOST
AJ8576	HISTORY	- 20080129	GOOD	GCYI

AJ8576

AJ8576

STATION DESCRIPTION

AJ8576

AJ8576'DESCRIBED BY CHARLEY FOSTER AND ASSOCIATES 2001 (JB)

AJ8576'THE MONUMENT IS LOCATED 14.8 MILES (23.82 KM) NORTH OF INDIANTOWN, FL.

AJ8576'AND 19.6 MILES (31.54 KM)

AJ8576'NORTHWEST OF PALM CITY, FL., SECTION 31, TOWNSHIP 37 SOUTH, RANGE 38

AJ8576'EAST.

AJ8576'

AJ8576'OWNERSHIP IS SOUTH FLORIDA WATER MANAGEMENT DISTRICT.

AJ8576'

AJ8576'TO REACH THE MONUMENT FROM THE INTERSECTION OF COUNTY ROAD 714 AND

AJ8576'COUNTY ROAD 609, 11.1 MILES

AJ8576'(17.86 KM) WEST OF THE JUNCTION OF THE FLORIDA TURNPIKE, STATE ROAD

AJ8576'714 AND COUNTY ROAD 714 IN

AJ8576'PALM CITY FL., GO NORTH ON COUNTY ROAD 609 FOR 3.0 MILES (4.83 KM) TO

AJ8576'THE NORTH END OF BRIDGE NO.

AJ8576'940026 AND TURN LEFT ONTO CANAL/ORANGE GROVE ACCESS ROAD AND GO WEST

AJ8576'0.05 MILES (0.08 KM) TO A

AJ8576'LOCKED GATE SOUTH OF CANAL LEVEE AND NORTH OF CANAL. CONTINUE WEST

AJ8576'ALONG ROADWAY AREA ON

AJ8576'THE NORTH SIDE OF CANAL 6.0 MILES (9.66 KM) TO A NORTHEAST/SOUTHWEST

AJ8576'RUNNING RAILROAD CROSSING

AJ8576'WITH LOCKED GATES ON BOTH SIDES. THENCE CONTINUE NORTH 0.20 MILES

AJ8576'(0.32 KM) ALONG ROADWAY AREA

AJ8576'ON EAST SIDE OF CANAL TO MONUMENT LOCATION.

AJ8576'

AJ8576'THE MONUMENT IS 16.0 FEET (4.88 M) EAST OF THE EAST TOP BANK OF COUNTY

AJ8576'LINE CANAL, 24.0 FEET (7.32 M)

AJ8576'WEST OF BARBED WIRE FENCELINE, 30.0 FEET (9.14 M) WEST OF TOE OF CANAL

AJ8576'LEVEE AND 23.0 FEET (7.01 M)

AJ8576'WEST OF CARSONITE WITNESS POST. NOTE ACCESS TO THE DATUM POINT (TOP OF

AJ8576'A STAINLESS STEEL ROD)

AJ8576'IS HAD THROUGH A 5 INCH LOGO CAP. NOTE A MAGNET WAS PLACED INSIDE THE

AJ8576'PVC PIPE. FOR KEY, CONTACT

AJ8576'SOUTH FLORIDA WATER MANAGEMENT DISTRICT, WEST PALM BEACH, FL. AT PHONE

AJ8576'NUMBER (407) 686-8800.

AJ8576'

AJ8576

AJ8576

STATION RECOVERY (2008)

AJ8576

AJ8576'RECOVERY NOTE BY G.C.Y., INCORPORATED 2008 (MEL)

AJ8576'RECOVERED IN GOOD CONDITION.

*** retrieval complete.

Elapsed Time = 00:00:02