



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

U.S.G.S. Station Name: G-2904	U.S.G.S. Station Number: 260534080110801	Agency: SFWMD	Date of Field Work: 09/20/19
Party Chief: T. AVERY	Field Book: SFWMD #1	Page(s): 25-28	Report Prepared by: DEWBERRY

SITE SPECIFIC DATA

Site Benchmark: G-2904	Benchmark Elevation(s) (NAVD88): 3.27'	Corpscon 6.0.1 Conversion Factor (NAVD88 to NGVD29) + 1.59'
Well Reference Elevation (NAVD88): 3.60'	Ground Elevation (NAVD88): 3.6'	Pad Elevation (NAVD88): N/A

GEOGRAPHIC DATA

Section 17	Township 50 SOUTH	Range 42 EAST
Well Latitude: 26°05'35.35"N	Well Longitude: 80°11'08.01"W	Location Source: AVERAGED FPRN & TRIMBLE VRSNOW RTK
State Plane Coordinates:	Northing (Y) = 640383'	Easting (X) = 923465'

Notes: **NAVD88** – North American Vertical Datum of 1988; **NGVD29**- National Geodetic Vertical Datum of 1929; **Corpscon 6.0.1** - A U.S. Army Corps of Engineers Engineering Research and Development Center Topographic Engineering Center Alexandria, Virginia Windows-based program to convert coordinates and elevations between datum's using vertcon05.txt and vertcon05.05 files supplied by the U.S. Army Corps of Engineers South Atlantic Division, Jacksonville FL.

PICTURES



Benchmark "G-2904"
Latitude: 26°05'35.0"
Longitude: 80°11'08.1"
NAVD88 EL = 3.27 FEET

Well Site
Latitude: 26°05'35.4"
Longitude: 80°11'08.0"

Not to scale (GoogleEarth product)



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Well Site and Well Head



Well: 2" PVC
Reference Point: North edge at top of metal casing
Reference Point El. = **3.60 feet NAVD88**
Distance to water = 2.93 feet from reference point (09/20/19 at 3:40 PM)



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New Aluminum Tag





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USGS RMs

NOTE: THERE ARE NO USGS REFERENCE MONUMENTS IN THE VICINITY OF WELL G-2904.



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Site Benchmark



Site BM: G2904



Latitude: 26°05'35.0"
Longitude: 80°11'08.1"
NAVD88 EL = 3.27 FEET



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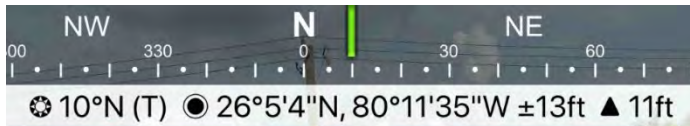
Source Benchmarks



NGS Benchmark "X 175 8696" (AJ8700)



Latitude: $26^{\circ}05'07.1''$
Longitude: $80^{\circ}11'01.3''$
NAVD88 EL = 24.65 FEET



NGS Benchmark "DALEY" (AJ8709)



Latitude: $26^{\circ}05'04.8''$
Longitude: $80^{\circ}11'35.4''$
NAVD88 EL = 3.87 FEET

18 Oct 2019, 11:36:08



South Florida Water Management District Benchmark Datasheet

Designation: G-2904	Project Name: USGS Ph 2, BROWARD	Type: V	State Plane Zone: FL East
Stamping: G2904 2019	Field Book Name: W210	Field Book Page: 38	
Established By: DEWBERRY / WHIDDEN	Recovered By: N/A	Recovery Date: N/A	
Surveyor: WILLIAM D. DONLEY	Established Date: 09/18/19	Status: New	

GEOGRAPHIC POSITION INFORMATION

Section: 17	Township: 50 SOUTH	Range: 42 EAST
County: BROWARD	Quadrangle: FORT LAUDERDALE SOUTH	Quad Index: 1702
NAD83 Adj. Year: 2011	Vertical Datum: NAVD1988	Horizontal Datum: NAD1983
NAVD88 Elevation (feet): 3.27	NGVD29 Elevation (feet): 4.86	2022 Elevation: N/A
NAVD88 Class: N/A	NGVD29 Class: N/A	Other Elevation: N/A
NAVD88 Order: 3	NGVD29 Order: N/A	Other Elevation Type: N/A

CORPSCON 6.0.1 CONVERSION FACTOR (NAVD88 TO NGVD29): (A U.S. Army Corps of Engineers Engineering Research and Development Center Topographic Engineering Center Alexandria, Virginia Windows-based program to convert coordinates and elevations between datum's using vertcon05.txt and vertcon05.05 files supplied by the U.S. Army Corps of Engineers South Atlantic Division, Jacksonville FL)

Vertical Datum Offset: + 1.59	Actual NGS Elevation or ngvd29.txt file: N/A	OPUS Ortho Height: N/A
Northing (Y) (feet): 640347.2	Easting (X) (feet): 923460.7	Source of Latitude & Longitude: AVERAGED FPRN & TRIMBLE VRSNOW RTK
Latitude: 26 DD°	5 MM'	34.99 SS"
Longitude: 80 DD°	11 MM'	8.05 SS"
Latitude (Decimal Degrees): 26.093053	Longitude (Decimal Degrees): -80.185569	

RECOVERY DATA

How to Reach: **1. FROM FL-7, HEAD EAST ALONG RIVERLAND RD FOR 1.1 MI**
2. TURN LEFT ONTO FAIRMONT AVE, CONTINUE 300 FEET TO THE MARK ON THE RIGHT (IMMEDIATELY AFTER THE INTERSECTION WITH SW 23RD CT)

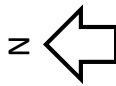
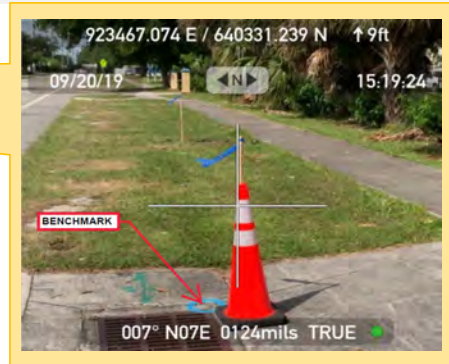
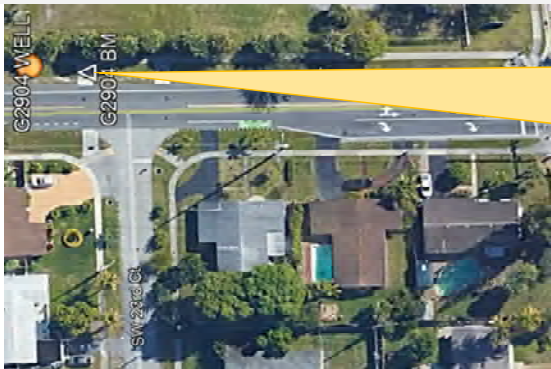
Description/Notes: **2" ALUMINUM SFWMD DISK SET IN CONCRETE SPILLWAY AT THE NORTHEAST CORNER OF METAL GRATE**

Notable Landmarks:

Other Source Benchmarks: **NGS "DALEY" (AJ8709)**

PICTURES

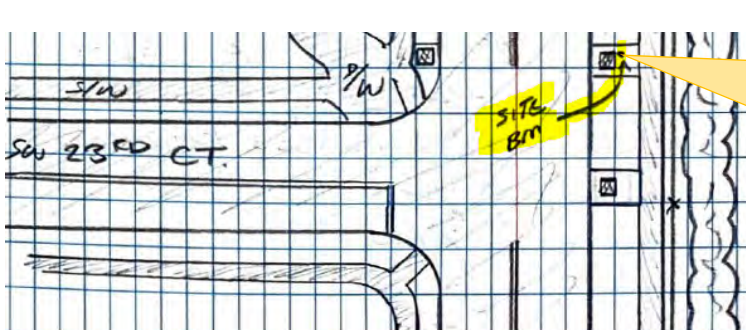
Aerial View of Overall Site



NOT TO SCALE. AERIAL FROM GOOGLEEARTH.

PICTURES

Site Sketch





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"X 175 8696" Benchmark Datasheet (1 of 4)

The NGS Data Sheet

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

PROGRAM = datasheet95, VERSION = 8.12.5.4

1 National Geodetic Survey, Retrieval Date = OCTOBER 18, 2019

AJ8700 *****

AJ8700 DESIGNATION - X 175 8696

AJ8700 PID - AJ8700

AJ8700 STATE/COUNTY- FL/BROWARD

AJ8700 COUNTRY - US

AJ8700 USGS QUAD - FORT LAUDERDALE SOUT (1994)

AJ8700

*CURRENT SURVEY CONTROL

AJ8700

AJ8700* NAD 83(2011) POSITION- 26 05 07.08904(N) 080 11 01.32498(W) ADJUSTED

AJ8700* NAD 83(2011) ELLIP HT- -18.066 (meters) (06/27/12) ADJUSTED

AJ8700* NAD 83(2011) EPOCH - 2010.00

AJ8700* [NAVD 88](#) ORTHO HEIGHT - 7.512 (meters) 24.65 (feet) ADJUSTED

AJ8700

AJ8700 GEOID HEIGHT - -25.532 (meters) GEOID18

AJ8700 NAD 83(2011) X - 977,274.353 (meters) COMP

AJ8700 NAD 83(2011) Y - -5,648,235.122 (meters) COMP

AJ8700 NAD 83(2011) Z - 2,787,545.013 (meters) COMP

AJ8700 LAPLACE CORR - -3.12 (seconds) DEFLEC18

AJ8700 DYNAMIC HEIGHT - 7.500 (meters) 24.61 (feet) COMP

AJ8700 MODELED GRAVITY - 979,056.6 (mgal) NAVD 88

AJ8700

AJ8700 VERT ORDER - FIRST CLASS II

AJ8700

AJ8700 Network accuracy estimates per FGDC Geospatial Positioning Accuracy

AJ8700 Standards:

AJ8700 FGDC (95% conf, cm) Standard deviation (cm) CorrNE

AJ8700 Horiz Ellip SD_N SD_E SD_h (unitless)

AJ8700

AJ8700 NETWORK 2.47 3.53 0.95 1.04 1.80 -0.31507982

AJ8700

AJ8700 Click [here](#) for local accuracies and other accuracy information.

AJ8700

AJ8700

AJ8700.The horizontal coordinates were established by GPS observations

AJ8700.and adjusted by the National Geodetic Survey in June 2012.

AJ8700

AJ8700.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has

AJ8700.been affixed to the stable North American tectonic plate. See

AJ8700.[NA2011](#) for more information.

AJ8700

AJ8700.The horizontal coordinates are valid at the epoch date displayed above

AJ8700.which is a decimal equivalence of Year/Month/Day.

AJ8700

AJ8700.The orthometric height was determined by differential leveling and

AJ8700.adjusted by the NATIONAL GEODETIC SURVEY

AJ8700.in May 2002.

AJ8700

AJ8700.Significant digits in the geoid height do not necessarily reflect accuracy.



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"X 175 8696" Benchmark Datasheet (2 of 4)

AJ8700.GEOID18 height accuracy estimate available [here](#).
 AJ8700
 AJ8700.Click [here](#) to see if photographs exist for this station.
 AJ8700
 AJ8700.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AJ8700
 AJ8700.The Laplace correction was computed from DEFLEC18 derived deflections.
 AJ8700
 AJ8700.The ellipsoidal height was determined by GPS observations
 AJ8700.and is referenced to NAD 83.
 AJ8700
 AJ8700.The dynamic height is computed by dividing the NAVD 88
 AJ8700.geopotential number by the normal gravity value computed on the
 AJ8700.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ8700.degrees latitude (g = 980.6199 gals.).
 AJ8700
 AJ8700.The modeled gravity was interpolated from observed gravity values.
 AJ8700
 AJ8700. The following values were computed from the NAD 83(2011) position.
 AJ8700

AJ8700;		North	East	Units	Scale Factor	Converg.
AJ8700;SPC FL E	-	194,320.646	281,663.741	MT	1.00002349	+0 21 32.2
AJ8700;SPC FL E	-	637,533.65	924,091.79	sFT	1.00002349	+0 21 32.2
AJ8700;UTM 17	-	2,885,386.327	581,635.878	MT	0.99968228	+0 21 32.2

AJ8700!
 - Elev Factor x Scale Factor = Combined Factor
 AJ8700!SPC FL E - 1.00000284 x 1.00002349 = 1.00002633
 AJ8700!UTM 17 - 1.00000284 x 0.99968228 = 0.99968512
 AJ8700
 AJ8700_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ8163585386(NAD 83)
 AJ8700
 AJ8700 SUPERSEDED SURVEY CONTROL
 AJ8700

AJ8700	NAD 83(2007)-	26 05 07.08912(N)	080 11 01.32559(W)	AD(2002.00)	0
AJ8700	ELLIP H (02/10/07)	-18.048 (m)		GP(2002.00)	
AJ8700	NAD 83(1999)-	26 05 07.08915(N)	080 11 01.32563(W)	AD()	1
AJ8700	ELLIP H (12/12/02)	-18.045 (m)		GP()	4 1
AJ8700	NAVD 88	7.51 (m)	24.6 (f)	LEVELING	3

AJ8700
 AJ8700.Superseded values are not recommended for survey control.
 AJ8700
 AJ8700.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AJ8700.See file [dsdata.pdf](#) to determine how the superseded data were derived.
 AJ8700
 AJ8700_MARKER: DD = SURVEY DISK
 AJ8700_SETTING: 31 = SET IN A PAVEMENT SUCH AS STREET, SIDEWALK, CURB, ETC.
 AJ8700_SP SET: CONCRETE WALK
 AJ8700_STAMPING: 8696 X 175
 AJ8700_MARK LOGO: FLDT
 AJ8700_MAGNETIC: N = NO MAGNETIC MATERIAL
 AJ8700_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY
 AJ8700_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AJ8700+SATELLITE: SATELLITE OBSERVATIONS - November 19, 2012
 AJ8700

AJ8700	HISTORY	- Date	Condition	Report By
AJ8700	HISTORY	- UNK	MONUMENTED	FLDT
AJ8700	HISTORY	- 20011018	GOOD	LDLBS
AJ8700	HISTORY	- 20020512	GOOD	MAPTEC
AJ8700	HISTORY	- 20090527	GOOD	FLDT
AJ8700	HISTORY	- 20121119	GOOD	INDIV



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"X 175 8696" Benchmark Datasheet (4 of 4)

AJ8700'(10.13 MI) TO THE JUNCTION WITH STATE ROAD 84, GO EAST ON STATE ROAD
AJ8700'84 2.4 KM
AJ8700'(1.51 MI) TO THE EAST END OF A DRAW BRIDGE (BRIDGE NUMBER 860008) AND
AJ8700'THE MARK
AJ8700'ON THE LEFT. ALSO TO REACH THE MARK FROM THE INTERSECTION OF STATE
AJ8700'ROAD 84 AND
AJ8700'EISENHOWER BOULEVARD IN PORT EVERGLADES, GO WEST ON STATE ROAD 84 1.0
AJ8700'KM (0.62
AJ8700'MI) TO THE ENTRANCE-EXIT OF PORT EVERGLADES, CONTINUE WEST ON STATE
AJ8700'ROAD 84
AJ8700'5.1 KM (3.15 MI) TO THE EAST END OF A DRAW BRIDGE (BRIDGE NUMBER
AJ8700'860008) AND
AJ8700'THE MARK ON THE RIGHT.
AJ8700'
AJ8700'THE MARK IS 27.13 M (89.0 FT) EAST OF THE EAST EDGE OF THE DRAW BRIDGE
AJ8700'STEEL
AJ8700'GRATING, 4.42 M (14.5 FT) NORTH OF THE CENTERLINE OF THE WESTBOUND
AJ8700'LANES OF
AJ8700'STATE ROAD 84 AND 0.27 M (0.9 FT) WEST OF A EXPANSION JOINT (BETWEEN
AJ8700'BRIDGE
AJ8700'AND ABUTMENT). THE MARK IS A DISK SET FLUSH IN A CONCRETE WALK AT THE
AJ8700'NORTHEAST CORNER OF A DRAW BRIDGE (BRIDGE NUMBER 860008).
AJ8700'
AJ8700'STATION RECOVERY (2002)
AJ8700'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CP)
AJ8700'RECOVERED AS DESCRIBED.
AJ8700'
AJ8700' STATION RECOVERY (2009)
AJ8700'
AJ8700'RECOVERY NOTE BY FLORIDA DEPARTMENT OF TRANSPORTATION 2009 (JS)
AJ8700'RECOVERED AS DESCRIBED
AJ8700'
AJ8700'THIS MARK MAY BE DESTROYED IN THE NEXT COUPLE OF YEARS DUE TO MAJOR
AJ8700'RECONSTRUCTION ON I-595.
AJ8700'
AJ8700' STATION RECOVERY (2012)
AJ8700'
AJ8700'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2012 (ADC)
AJ8700'RECOVERED AS FOUND ON NORTHEAST CORNER OF DRAWBRIDGE IN GOOD
AJ8700'CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:03



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"DALEY" Benchmark Datasheet (1 OF 5)

The NGS Data Sheet

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

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PROGRAM = datasheet95, VERSION = 8.12.5.4
1      National Geodetic Survey,  Retrieval Date = OCTOBER 18, 2019
AJ8709 *****
AJ8709 DESIGNATION - DALEY
AJ8709 PID - AJ8709
AJ8709 STATE/COUNTY- FL/BROWARD
AJ8709 COUNTRY - US
AJ8709 USGS QUAD - FORT LAUDERDALE SOUT (1994)
AJ8709
AJ8709 *CURRENT SURVEY CONTROL
AJ8709
AJ8709* NAD 83(2011) POSITION- 26 05 04.76868(N) 080 11 35.43431(W) ADJUSTED
AJ8709* NAD 83(2011) ELLIP HT- -24.371 (meters) (06/27/12) ADJUSTED
AJ8709* NAD 83(2011) EPOCH - 2010.00
AJ8709* NAVD 88 ORTHO HEIGHT - 1.180 (meters) 3.87 (feet) ADJUSTED
AJ8709
AJ8709 GEOID HEIGHT - -25.502 (meters) GEOID18
AJ8709 NAD 83(2011) X - 976,344.693 (meters) COMP
AJ8709 NAD 83(2011) Y - -5,648,422.013 (meters) COMP
AJ8709 NAD 83(2011) Z - 2,787,478.106 (meters) COMP
AJ8709 LAPLACE CORR - -3.00 (seconds) DEFLEC18
AJ8709 DYNAMIC HEIGHT - 1.179 (meters) 3.87 (feet) COMP
AJ8709 MODELED GRAVITY - 979,056.7 (mgal) NAVD 88
AJ8709
AJ8709 VERT ORDER - FIRST CLASS II
AJ8709
AJ8709 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
AJ8709 Standards:
AJ8709 FGDC (95% conf, cm) Standard deviation (cm) CorrNE
AJ8709 Horiz Ellip SD_N SD_E SD_h (unitless)
AJ8709 -----
AJ8709 NETWORK 1.87 2.69 0.74 0.77 1.37 -0.28105523
AJ8709 -----
AJ8709 Click here for local accuracies and other accuracy information.
AJ8709
AJ8709
AJ8709.The horizontal coordinates were established by GPS observations
AJ8709.and adjusted by the National Geodetic Survey in June 2012.
AJ8709
AJ8709.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
AJ8709.been affixed to the stable North American tectonic plate. See
AJ8709.NA2011 for more information.
AJ8709
AJ8709.The horizontal coordinates are valid at the epoch date displayed above
AJ8709.which is a decimal equivalence of Year/Month/Day.
AJ8709
AJ8709.The orthometric height was determined by differential leveling and
AJ8709.adjusted by the NATIONAL GEODETIC SURVEY
AJ8709.in May 2002.
AJ8709
AJ8709
AJ8709.Significant digits in the geoid height do not necessarily reflect accuracy.

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"DALEY" Benchmark Datasheet (2 OF 5)

AJ8709.GEOID18 height accuracy estimate available [here](#).
 AJ8709
 AJ8709.Click [here](#) to see if photographs exist for this station.
 AJ8709
 AJ8709.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AJ8709
 AJ8709.The Laplace correction was computed from DEFLEC18 derived deflections.
 AJ8709
 AJ8709.The ellipsoidal height was determined by GPS observations
 AJ8709.and is referenced to NAD 83.
 AJ8709
 AJ8709.The dynamic height is computed by dividing the NAVD 88
 AJ8709.geopotential number by the normal gravity value computed on the
 AJ8709.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ8709.degrees latitude (g = 980.6199 gals.).
 AJ8709
 AJ8709.The modeled gravity was interpolated from observed gravity values.
 AJ8709
 AJ8709. The following values were computed from the NAD 83(2011) position.
 AJ8709
 AJ8709:

	North	East	Units	Scale Factor	Converg.
AJ8709;SPC FL E	- 194,243.333	280,716.270	MT	1.00002159	+0 21 17.2
AJ8709;SPC FL E	- 637,280.00	920,983.30	sFT	1.00002159	+0 21 17.2
AJ8709;UTM 17	- 2,885,309.040	580,688.729	MT	0.99968039	+0 21 17.2

	Elev Factor	x	Scale Factor	=	Combined Factor
AJ8709!SPC FL E	- 1.00000383	x	1.00002159	=	1.00002542
AJ8709!UTM 17	- 1.00000383	x	0.99968039	=	0.99968422

 AJ8709_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ8068885309 (NAD 83)
 AJ8709
 AJ8709 SUPERSEDED SURVEY CONTROL
 AJ8709

AJ8709	NAD 83(2007)-	26 05 04.76876(N)	080 11 35.43492(W)	AD(2002.00)	0
AJ8709	ELLIP H (02/10/07)	-24.354 (m)		GP(2002.00)	
AJ8709	NAD 83(1999)-	26 05 04.76878(N)	080 11 35.43495(W)	AD()	1
AJ8709	ELLIP H (12/12/02)	-24.352 (m)		GP()	4 1
AJ8709	NAVD 88	1.18 (m)	3.9	(f) LEVELING	3

 AJ8709.Superseded values are not recommended for survey control.
 AJ8709
 AJ8709.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AJ8709.See file [dsdata.pdf](#) to determine how the superseded data were derived.
 AJ8709
 AJ8709_MARKER: DD = SURVEY DISK
 AJ8709_SETTING: 31 = SET IN A PAVEMENT SUCH AS STREET, SIDEWALK, CURB, ETC.
 AJ8709_SP_SET: DROP INLET
 AJ8709_STAMPING: DALEY 1996
 AJ8709_MARK LOGO: NGS
 AJ8709_MAGNETIC: N = NO MAGNETIC MATERIAL
 AJ8709_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY
 AJ8709_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AJ8709+SATELLITE: SATELLITE OBSERVATIONS - July 01, 2014
 AJ8709

	Date	Condition	Report By
AJ8709 HISTORY	- UNK	MONUMENTED	NGS
AJ8709 HISTORY	- 20011017	GOOD	LDBLS
AJ8709 HISTORY	- 20020512	GOOD	MAPTEC
AJ8709 HISTORY	- 20060619	GOOD	FB
AJ8709 HISTORY	- 20080512	GOOD	FLDT



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"DALEY" Benchmark Datasheet (3 OF 5)

AJ8709 HISTORY - 20090527 GOOD FLDT
AJ8709 HISTORY - 20140701 GOOD INDIV
AJ8709
AJ8709 STATION DESCRIPTION
AJ8709
AJ8709'DESCRIBED BY LD BRADLEY LAND SURVEYORS 2001 (JCH)
AJ8709'THE MARK IS ABOUT 2.4 KM (1.51 MI) WEST OF FORT LAUDERDALE, ABOUT 6.0
AJ8709'KM (3.74
AJ8709'MI) WEST OF FORT EVERGLADES IN SECTION 19, TOWNSHIP 50 SOUTH, RANGE 42
AJ8709'EAST,
AJ8709'BROWARD COUNTY, FLORIDA. OWNERSHIP - FLORIDA DEPARTMENT OF
AJ8709'TRANSPORTATION
AJ8709'
AJ8709'TO REACH THE MARK FROM THE INTERSECTION OF INTERSTATE HIGHWAY 75 AND
AJ8709'U.S.
AJ8709'HIGHWAY 27 (I-75 EXIT 13, NEAR ANDYTOWN) GO EAST ON INTERSTATE HIGHWAY
AJ8709'75 8.1
AJ8709'KM (5.04 MI) TO THE JUNCTION WITH INTERSTATE HIGHWAY 595 EAST, EXIT
AJ8709'RIGHT ONTO
AJ8709'INTERSTATE HIGHWAY 595 EAST, AND GO EAST ALONG INTERSTATE HIGHWAY 595
AJ8709'16.3 KM
AJ8709'(10.13 MI) TO THE JUNCTION WITH STATE ROAD 84, GO EAST ON STATE ROAD
AJ8709'84 1.5 KM
AJ8709'(0.92 MI) TO THE MARK IN THE MEDIAN ON THE LEFT. ALSO TO REACH THE
AJ8709'MARK FROM
AJ8709'THE INTERSECTION OF STATE ROAD 84 AND EISENHOWER BOULEVARD IN PORT
AJ8709'EVERGLADES,
AJ8709'GO WEST ON STATE ROAD 84 1.0 KM (0.62 MI) TO THE ENTRANCE-EXIT OF PORT
AJ8709'EVERGLADES, CONTINUE WEST ON STATE ROAD 84 6.0 KM (3.74 MI) TO THE
AJ8709'MARK IN THE
AJ8709'MEDIAN ON THE LEFT.
AJ8709'
AJ8709'THE MARK IS 60.50 M (198.5 FT) WEST OF THE CENTERLINE OF AN ASPHALT
AJ8709'CROSS-OVER
AJ8709'(BETWEEN WESTBOUND AND EASTBOUND LANES), 57.39 M (188.3 FT) EAST OF A
AJ8709'UPRIGHT
AJ8709'SIGN SUPPORT FOR A OVERHEAD SIGN ACROSS WESTBOUND LANES, 18.29 M (60.0
AJ8709'FT)
AJ8709'NORTH OF THE CENTERLINE OF THE EASTBOUND LANES, 13.41 M (44.0 FT)
AJ8709'SOUTH OF THE
AJ8709'CENTERLINE OF THE WESTBOUND LANES, 1.68 M (5.5 FT) EAST OF THE WEST
AJ8709'EDGE OF A
AJ8709'CONCRETE DROP INLET APRON, 1.37 M (4.5 FT) WEST OF THE EAST EDGE OF A
AJ8709'CONCRETE
AJ8709'DROP INLET APRON, AND 0.33 M (1.1 FT) SOUTH OF THE NORTH EDGE OF A
AJ8709'CONCRETE
AJ8709'DROP INLET APRON. THE MARK IS A DISK SET FLUSH IN THE NORTH SIDE OF A
AJ8709'CONCRETE
AJ8709'DROP INLET APRON, FLUSH WITH THE LEVEL OF THE GROUND, ABOUT 1.00 M
AJ8709'(3.3 FT)
AJ8709'BELOW THE LEVEL OF THE HIGHWAY.
AJ8709
AJ8709 STATION RECOVERY (2002)
AJ8709
AJ8709
AJ8709'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AJ8709'THE MARK IS ABOUT 2.4 KM (1.51 MI) WEST OF FORT LAUDERDALE, ABOUT 6.0
AJ8709'KM (3.74
AJ8709'MI) WEST OF FORT EVERGLADES IN SECTION 19, TOWNSHIP 50 SOUTH, RANGE 42
AJ8709'EAST,
AJ8709'BROWARD COUNTY, FLORIDA. OWNERSHIP - FLORIDA DEPARTMENT OF



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"DALEY" Benchmark Datasheet (5 OF 5)

AJ8709'THIS MARK MAY BE DESTROYED IN THE NEXT COUPLE OF YEARS DUE TO MAJOR
AJ8709'RECONSTRUCTION ON I-595.

AJ8709

AJ8709 STATION RECOVERY (2014)

AJ8709

AJ8709'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2014 (PED)

AJ8709'RECOVERD

*** retrieval complete.

Elapsed Time = 00:00:04



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Dewberry Field Notes (1 OF 4)

SPECTRA SP-90 SEWMCD 09/20/19
 Route #/A: USGS WELLS & BMS 09/27/19
 TRIMBLE NET JOB # 5009999A
 TOWER HT: 6.362 WELL SITE: G-2904

TASK: ESTABLISH HORIZONTAL COORDINATES ON MEASURING POINT & ANY REFERENCE MONUMENTATION.

(9/27/19)	PT#	(N)ERR	(E)ERR	(C)ERR	PT#	DESCRIPTION
5/0	20	-0.024	0.034	0.124	5054	CHE IN BM @ G2904
* LOCATED PT #'S 12083-12084						
5/0	20	-0.021	0.079	0.166	5055	CHE OUT BM @ G2904

PT# DESCRIPTION

12083 N. EDGE PVC WELL HEAD
 12084 N. EDGE @ TOP OF METAL CASING

9/20/19

TASK: MEASURE DISTANCE TO WATERLINE FROM MEASURING POINT

MP: TOP OF METAL CASING @ NORTH EDGE

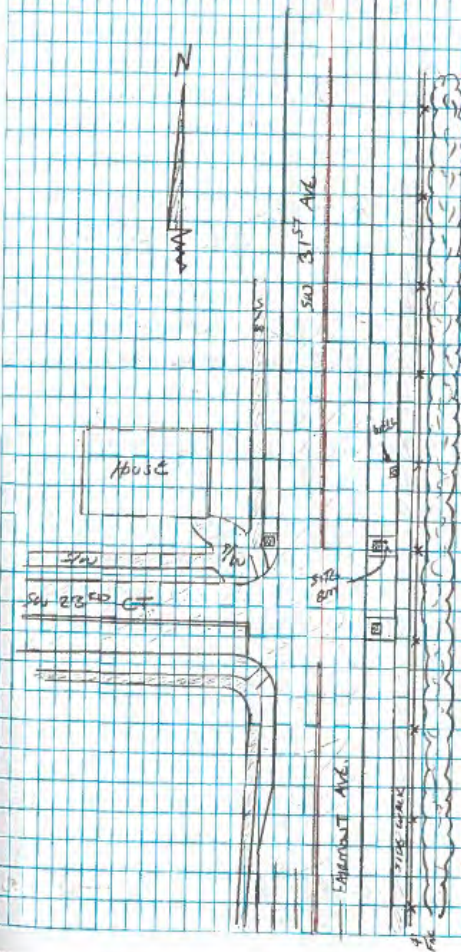
TIME: 3:40 PM on 9/20/19

MEASURE: 2.93'

SITE LOCATION: THIS IS AN 'INGROUND' WELL SITE
 LOCATED TO THE NE OF THE
 INTERSECTION @ FAIRMONT AVE. &
 SW 23RD CT. ON THE EASTERN HWY
 OF FAIRMONT AVE BETWEEN SIDEWALK
 & EDGE OF PAVEMENT.

N: T. AVERY
 PI: J. HUFF

Pg. 25





SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Dewberry Field Notes (2 OF 4)

TPCW
 AT-62
 S/N 14324
 SFWMD
 USGS WELLS & BM's
 BG # S009 9999
 WELL SITE: G-2904
 09/20/19

TASK: ELEVATE MONITORING POINT, GROUND, CORNERS OF CONC. SLAB, E. TOP OF WELL CASING & MEASURING POINT (MP).

ELEVATION		DESCRIPTION	
BEGIN @	100.00 3.27	ALUMINUM DISC W/ TOP OF (WHIDDEN) (NAVD88)	
BACKSIGHT (+)		FORESIGHT (-) ASMP AD	
STAB	READING	MEAN ELEV.	READING MEAN ELEV. ELEV.
			100.00
	5.51	5.19	
B17	5.27	5.2733	100.2133 4.96 4.9600 100.2133 3.5833
	5.04	8.5433	4.73
	47' / 47'		46' / 73'
		5.21	
Bm	"	4.99	4.9883 100.2083 3.5550
	"	4.765	
		44.5' / 91.5'	
		5.21	
Bm	"	4.985	4.9867 100.2067 3.5566
	"	4.765	
		44.5' / 91.5'	
		5.22	
Bm	"	4.99	4.9900 100.2033 3.5533
	"	4.76	
		46' / 92'	

M: T. Avery
 T. J. Huff
 Pg. 26

CATCH BASIN ON EASTERLY R/W OF S/W 31ST AVENUE

FORESIGHT (-)	
DESCRIPTION	ELEVATION
NE CORNER OF SLAB AROUND CASING	
NW CORNER OF SLAB AROUND CASING	
SW CORNER OF SLAB AROUND CASING	
SE CORNER OF SLAB AROUND CASING	



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Dewberry Field Notes (3 OF 4)

Tiploc		SFWMD		09/20/19	
ATT-GT		USGS WELLS & BMS			
S/N: 143A		JOB# 5009999A			
TASK		WELL SITE: G-2904			
BACKSIGHT (+)		FORESIGHT (-)		ADJ	
STA ID	READINGS (MEAN)	ELEV	READINGS (MEAN)	ELEV	ELEV
		5.13			
BM	" "	4.90	4.9033	4.9033	3.6400
		4.68			
		95' / 92'			
		5.165			
BM	" "	4.94	4.9417	4.9417	3.6016
		4.72			
		99.6' / 91.5'			
± BREAK SETUP					
	5.05		5.40		
MP	4.83	4.8300	4.8300	5.1650	5.1650
	4.61		8.4316	4.93	4.93
		44' / 35.5'		17' / 18.5	3.2666
± END LEVEL LOOP					

N. T. AVERY
K. J. HUFF Pg. 27

FORESIGHT (-)
DESCRIPTION

GROUND SHOT (N. OF SCAR AROUND CASING)

MP (MEASURING POINT @ NORTH EDGE OF CASING)

BACK @ STARTING POINT (SITE BENCHMARK)

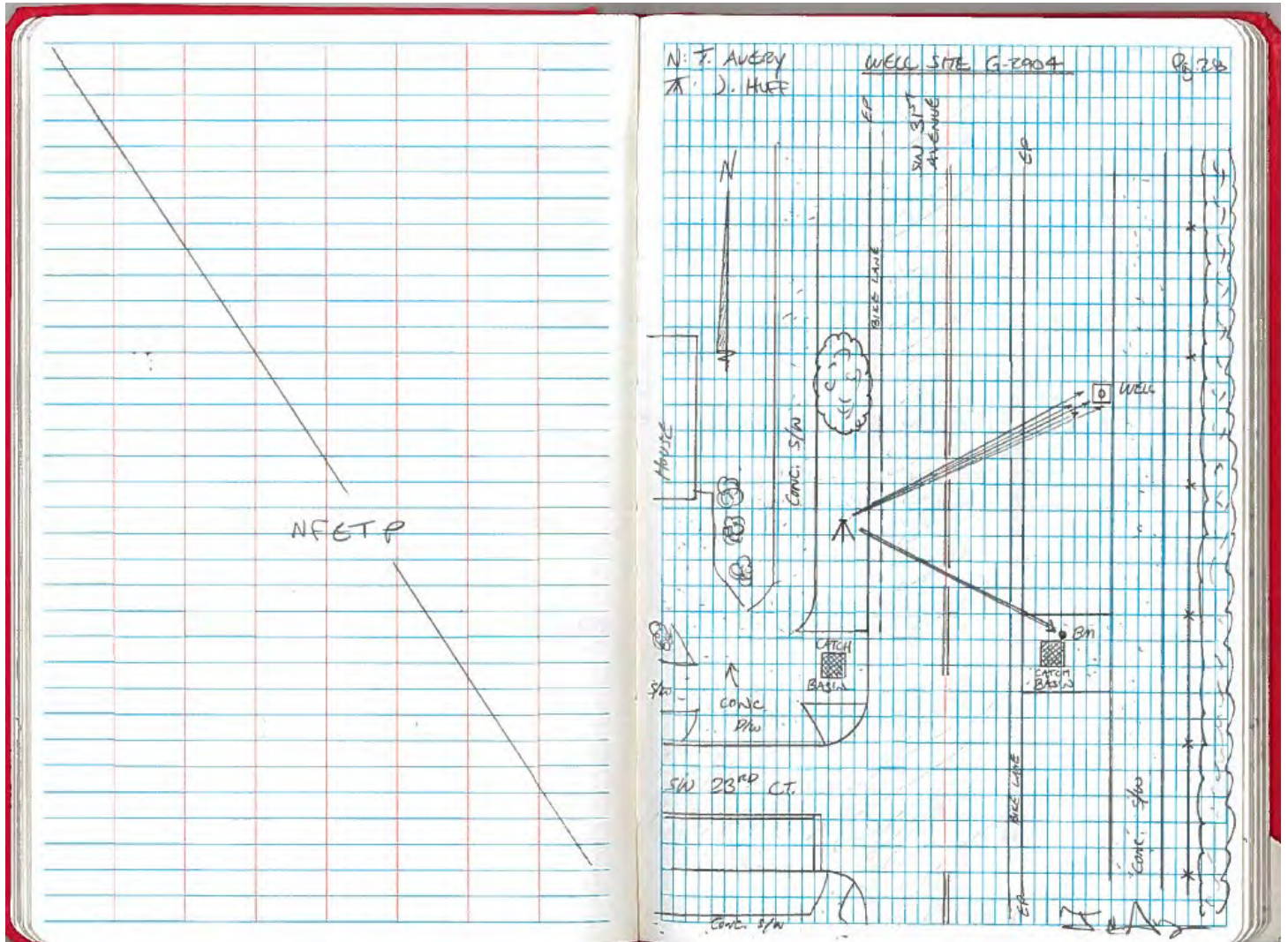
Check In = -0.0034



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Dewberry Field Notes (4 OF 4)





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Whidden Field Notes (2 OF 5)

G 2904 CONT				BC BM
STB	+	HI	-	ELEV
				12.627
5.555		18.192		
TP 8			1.548	16.644
5.570		22.214		
TP 9			1.590	20.626
5.585		26.950		
X.175 2696			1.204	24.044 (24.65)

9-18-19	
W210/39	
Turtle	
Turtle	
AJ8700 BRASS DISK @ NE COR BRIDGE STRX1752696	



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Whidden Field Notes (3 OF 5)

G2904 Cont				BC PSM
STA	+	-	ELEV	
TR6			3.232	W210/32
TR10	4.054	13.086	5.720	7.258
	4.314	11.602		
TR11			5.095	5.111
	4.378	10.156		
TR12			4.935	5.221
	4.410	9.631		
TR13			4.815	4.817
	4.643	8.460		
TR14			5.058	3.662
	4.753	8.355		
TR15			4.319	4.006
	4.506	8.512		
TR16			4.404	4.111

9-18-19

W210/40

SEE W210/32



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Whidden Field Notes (4 OF 5)

G-2904 CONT				PCL
				BM
STN	+	-	ELEV	
				4.111
TP 17	4.926	9.037	4.713	4.324
TP 18	5.666	9.991	5.358	4.462
TP 19	5.302	9.994	5.708	4.206
TP 20	4.857	9.143	5.869	3.273
TP 21	5.818	9.091	5.506	3.585
TP 22	4.782	8.368	4.680	3.688
TP 23	5.241	8.929	4.992	3.947

9-18-17 W210/41

STATION DISK IN NORTHERN BASIN "G-2904 CONT"



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Whidden Field Notes (5 OF 5)

62904 CONT

STA	T	L	-	ELEV
	6.076	10.823		3.947
TP 24			5.320	4.723
	5.640	10.342		
TP 25			5.007	5.836
	5.937	11.273		
TP 26			5.039	6.234
	6.067	12.301		
TP 27			4.61	7.690
	5.491	13.182		
TP 6			8.153	9.072

7-12-19

W210/22

SAE W210/22