



Cardno

5670 Zip Drive  
Fort Myers, FL 33905  
USA

Phone: +1 239 277 0722  
Fax: +1 239 277 7179

[www.cardno.com](http://www.cardno.com)

# **SURVEY REPORT**

## **C-43 West Basin Storage Reservoir**

### **Vertical Control Survey for Piezometer Wells**

PROJECT NUMBER: 171204.02

WORK ORDER NO: 4600003699-WO2R1

REPORT DATE: May 16, 2018

PREPARED FOR: South Florida Water  
Management District

SFWMD PROJECT MANAGER: Elvie Ebanks

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**According to the:  
STATE OF FLORIDA  
Standards of Practice  
CHAPTER 472.027 Florida Statutes  
Chapter 5J-17.050 through 5J-17.052, Florida Administrative Code**

This report and copies thereof are not valid without the signature and original raised seal of a Florida Licensed Surveyor and Mapper. **This report is not valid without all deliverables referenced in this report.**

Additions or deletions to the report by other than the signing party are prohibited without written consent of the signing party.

All field work was performed by:

Cardno, Inc., LB00007975  
5670 Zip Drive  
Fort Myers, Florida 33905  
Phone: (239) 277-0722 Fax: (239) 277-7179  
Scott Urquhart, PSM 6524 (Surveyor and Mapper in Responsible Charge)  
LAST DATE OF SURVEY: April 27, 2018

I hereby certify that as a duly registered Florida Professional Land Surveyor, I have prepared this Report for the special purpose of providing **South Florida Water Management District** with the information as outlined. This report is not complete without the referenced information being available during an examination of said Report. I further certify that the precision achieved and the care taken in collecting the data to formulate this Report are adequate for the purpose of the assignment and that the standards set forth in Chapter 5J-17.050 through 5J-17.052 of the Florida Administrative Code have been met.

\_\_\_\_\_  
Scott R. Urquhart  
Professional Surveyor & Mapper  
Florida Certificate No. 6524  
(For the firm – LB 7975)

\_\_\_\_\_  
Date Signed

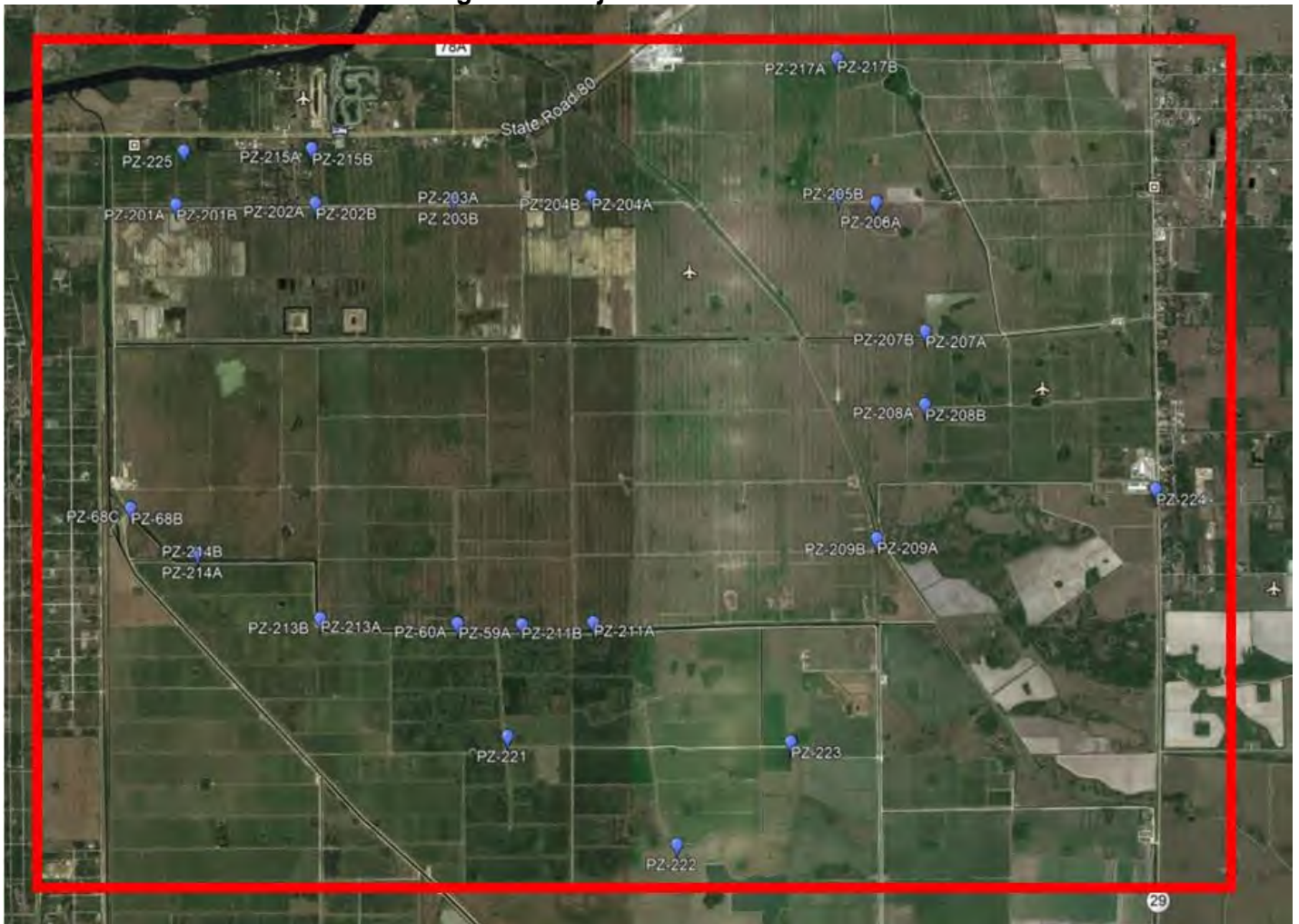
## **ABBREVIATIONS**

<b>DVD</b>	<b>Digital Video Disc</b>
<b>GPS</b>	<b>Global Positioning System</b>
<b>Inc.</b>	<b>Incorporated</b>
<b>LB</b>	<b>Florida Licensed Business Number</b>
<b>NAVD 88</b>	<b>North American Vertical Datum of 1988</b>
<b>NGS</b>	<b>National Geodetic Survey</b>
<b>No.</b>	<b>Number</b>
<b>PID</b>	<b>NGS Control Point Identification Number</b>
<b>PSM</b>	<b>Professional Surveyor and Mapper</b>
<b>RTK</b>	<b>Real-time Kinematic</b>
<b>SFWMD</b>	<b>South Florida Water Management District</b>
<b>+/-</b>	<b>More or less</b>

## PURPOSE OF SURVEY

The purpose of this survey is to establish two (2) benchmarks at each of eighteen (18) well clusters located within the project boundary and two (2) benchmarks at each of four (4) well clusters located outside of the project boundary. See **Figure 1** below for project limits and well clusters as provided by South Florida Water Management District.

**Figure 1: Project Limits**



## PROJECT CONTROL & DATUM

All survey data was geo-referenced to the following Horizontal Datum: Florida State Plane Coordinate System, East Zone, Units - U.S. Survey Feet, North American Datum of 1983 (2011 adjustment) based on RTK-GPS network corrections from the Trimble VRS Network.

The vertical information shown is in the North American Vertical Datum of 1988 (NAVD88).

Horizontal and vertical datum is based on survey ties to National Geodetic Survey control point "Alva", PID AD7649; "CAROLLO", PID DP7133; "R 519", PID AJ7273; "COMELLAS", PID DP7139; "J STANLEY", PID DP7138; "R 519", PID AJ7273; and "Q 519", PID AJ7272 (See **Appendix D**).

## PROCEDURES

Two benchmarks were set or recovered by each of the twenty-two (22) well clusters as provided by the South Florida Water Management District. All monuments set were either poured-in-place concrete monuments with a 1" (inside diameter) pipe and 2" aluminum SFWMD disk or an aluminum SFWMD disk drilled into an existing concrete pad at the well site. See **Appendix "B"** for an itemized spreadsheet containing the benchmark information for each cluster.

Each benchmark was photographed as a close-up and from +/- 10 feet away looking towards the mark (See **Appendix "A"**). All marks not set in an existing concrete pad were identified in the field with a carsonite witness post.

All benchmarks values were established using a Leica DNA03 digital level (serial # 337490) and based on ties to published National Geodetic Survey benchmarks "Cardno", "Carollo", "R 519" "Q 519" "Comellas" and "J Stanley. Some of the marks were elevated during the geodetic vertical control effort for SFWMD work order 4600003197-WO12 in which case single piece invar rods were used. All other marks were elevated using 3 piece aluminum rods with bar code.

The following marks were elevated during the geodetic vertical control effort for SFWMD work order 4600003197-WO12:

- PZ 202A
- PZ 203 A
- PZ 203 B
- PZ 204 A
- PZ 204 B
- PZ 205 A
- PZ 205 B
- PZ 206 A
- PZ 206 B
- PZ 207
- PZ 208
- PZ 209 A
- PZ 209 B
- PZ 211 A
- PZ 211 B

- PZ 213 A
- PZ 213 B
- PZ 59
- PZ 60 A
- PZ 60 B
- PZ 224
- PZ 224 B

The remaining marks were leveled at separate times also tying into existing or newly established NGS monuments. These marks are as follows:

- PZ 201 A
- PZ 201 B
- PZ 214 A
- PZ 214 B
- PZ 215 A
- PZ 215 B
- PZ 217 A
- PZ 217 B
- PZ 225 A
- PZ 225 B
- PZ 68 A
- PZ 221
- PZ 221 B
- PZ 222
- PZ 222 B
- PZ 223
- PZ 223 B

Horizontal values established for all benchmarks was achieved through RTK GPS procedures.

## **FEATURE ACCURACY**

The horizontal position of each benchmark was collected using RTK GPS procedures. It is estimated that the relative positional accuracy of said points is +/- 0.2 feet based on the survey ties to National Geodetic Survey control points.

All vertical data provided meets or exceeds NGS Third-order classification of Vertical Control Network Standards and has an accuracy better than 12mm  $\sqrt{\text{Dist (km)}}$ .

## **DATES OF FIELD DATA COLLECTION**

Field survey work by Cardno was performed between January 24, 2018 and April 27, 2018 and contained in Field Book 510, pages 5 - 42 and 44 - 72; and Field Book 516, page 12.

## **DELIVERABLES**

This report is not full or complete without the following data:

- Raw unedited benchmark photographs
- Field notes in PDF Format
- SFWMD Benchmark Description Sheets



# **Appendix A**

## **PROJECT RESULTS**



**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 3/07

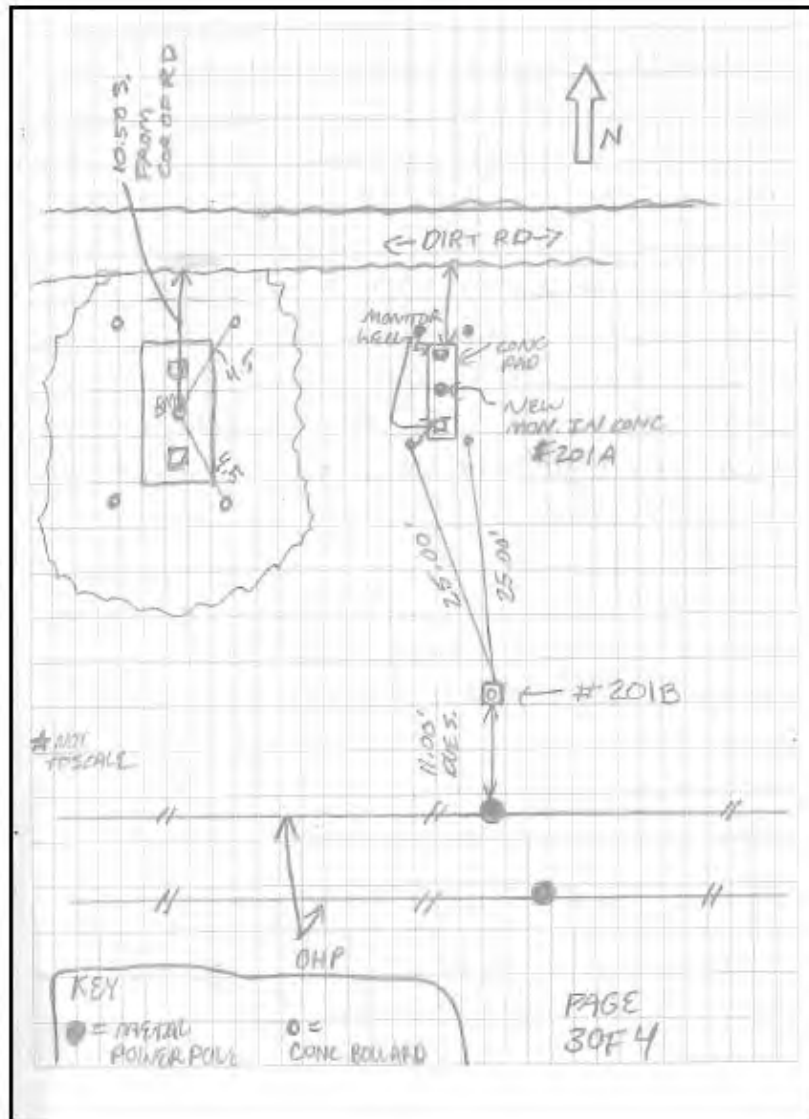
DESIGNATION: PZ 201 A		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY		DATE: FEBRUARY 21, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 32	TOWNSHIP: 43 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other: _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other: N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL ± 2 (3) N/A			
STATE PLANE COORDINATES	X = 476590.6	Y = 861225.2	NAVD 88 ELEV. 18.21' NGVD 29 ELEV. 19.46'
LATITUDE = N26° 42' 07.09"		LONGITUDE = W81° 33' 00.15"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 201A LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way, Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go West, along the dirt road, for 2.5 miles. The mark is on the left.			
Notable Land marks: PZ 201 A is an aluminum disk in a concrete pad stamped "SFWMD PZ 201A LB 7975 2018" and is 10.5 ft. South of the edge of a dirt road. 4.5 ft. SW of the NE bollard around wells. 4.5 ft. NW of the SE bollard around wells.			
FIELD BOOK: 510		PAGE: 20	



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

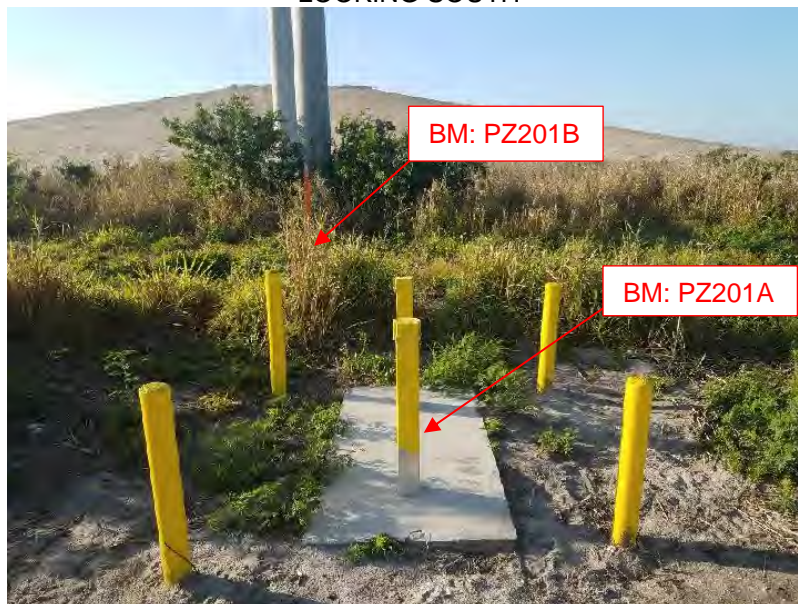
## SKETCH



C43PZ201  
BM: PZ201A  
LAT: 26°42'07.1" LONG: 81°33'00.2"



LOOKING SOUTH





# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 2007

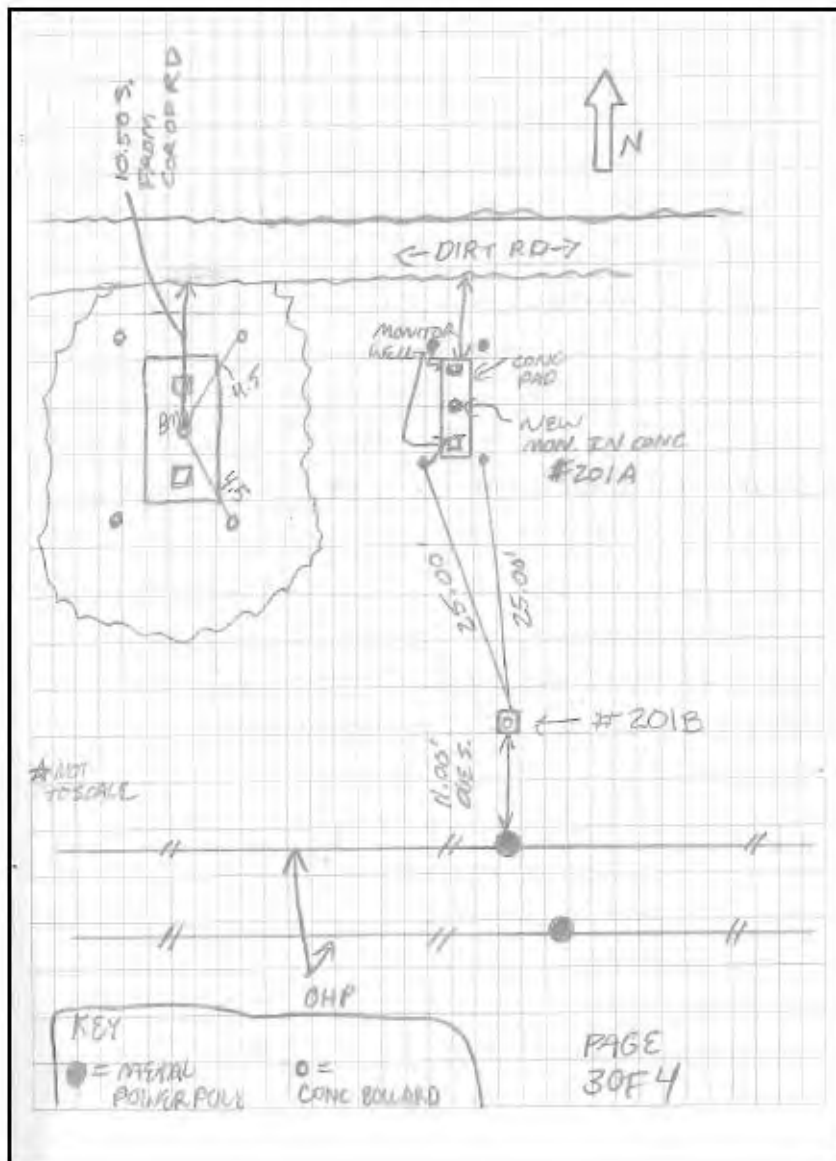
DESIGNATION: PZ 201 B		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: FEBRUARY 21, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 32	TOWNSHIP: 43 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other: _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other: N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 476596.0	Y = 861200.1	NAVD 88 ELEV. 17.63' NGVD 29 ELEV. 18.88'
LATITUDE = 26° 42' 06.84"		LONGITUDE = 81° 33' 00.09"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 201B LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go West, along the dirt road, for 2.5 miles. The mark is on the left.			
Notable Land marks: PZ 201 B. is a poured in place concrete monument with an aluminum disk stamped "SFWMD PZ 201B LB 7975 2018" and is 11.0 ft. North of a metal power pole with overhead power lines running East-West. 25.0 ft. South of the SE bollard around wells. 25.0 ft. South of the SW bollard around wells.			
FIELD BOOK: 510	PAGE: 20		



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ201  
BM: PZ201B  
LAT: 26°42'06.8" LONG: 81°33'00.1"



LOOKING SOUTH





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 3/07

DESIGNATION: PZ 59		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: MARCH 1, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 10	TOWNSHIP: 44 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
GEOGRAPHIC INDEX OF QUAD:			
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or (W)			
VERTICAL DATUM: MSL 1929 (1988) Other: N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 489638.6	Y = 845472.4	MAVD 88 ELEV. 24.28' NGVD 29 ELEV. 25.66'
LATITUDE = N26° 39' 31.62"		LONGITUDE = W81° 30' 35.59"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK SO: FLA. WATER MANAGEMENT DIST. "PZ 59 LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 southwest for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SPWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go West, along the dirt road, for 2.5 miles, to the intersection with a dirt road to the North. Thence go North, along the dirt road on the East side of a canal, for 0.4 miles to the junction of an East - West dirt road, thence East 0.26 miles to a junction of a dirt road South, 3 miles south the road turns West. Go West 0.30 miles, the mark is on the left.			
Notable Land marks: PZ 59, is an aluminum disk set in a concrete pad that is 65 feet North of the top of bank of the East - West canal, 3 feet south of the middle well in the row of three and 3 feet north of most southerly well in the row of three.			
FIELD BOOK: 510		PAGE: 36	

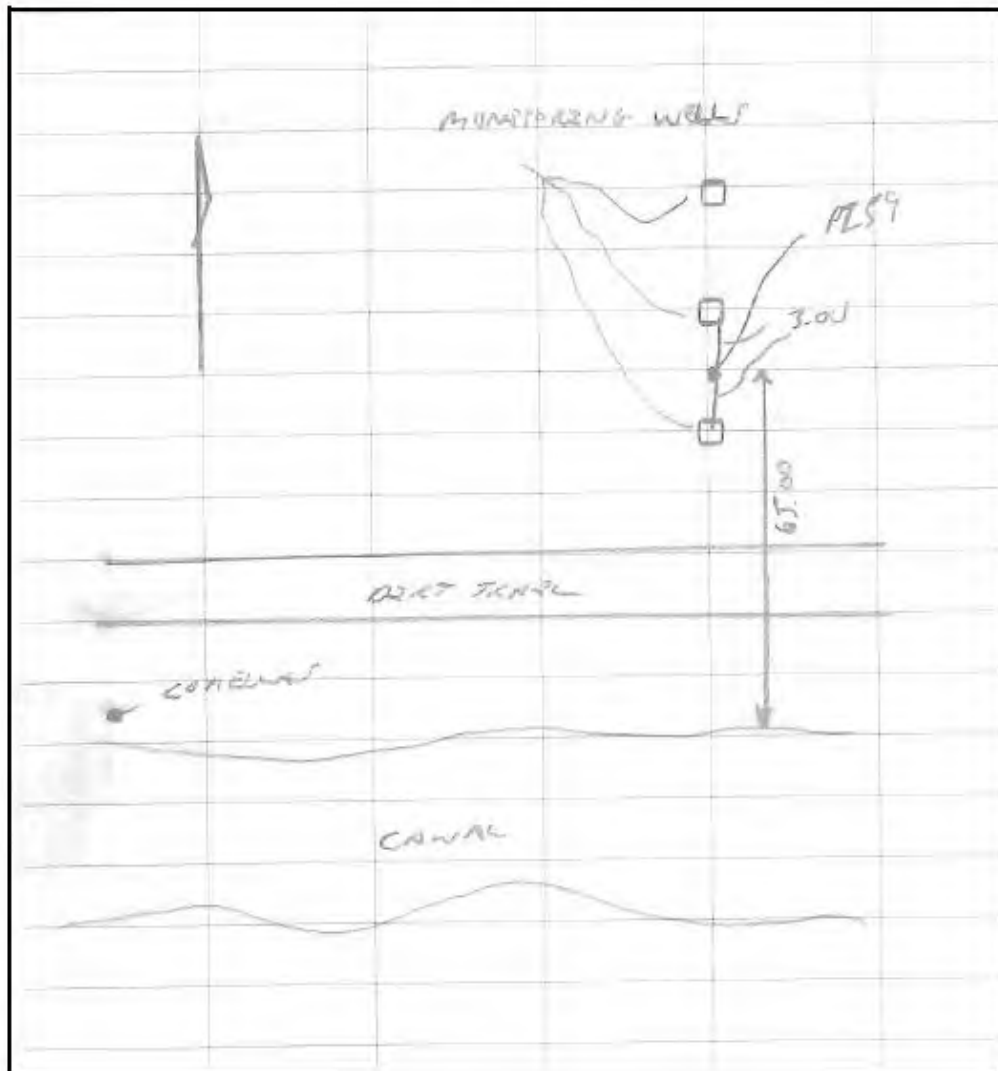




SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

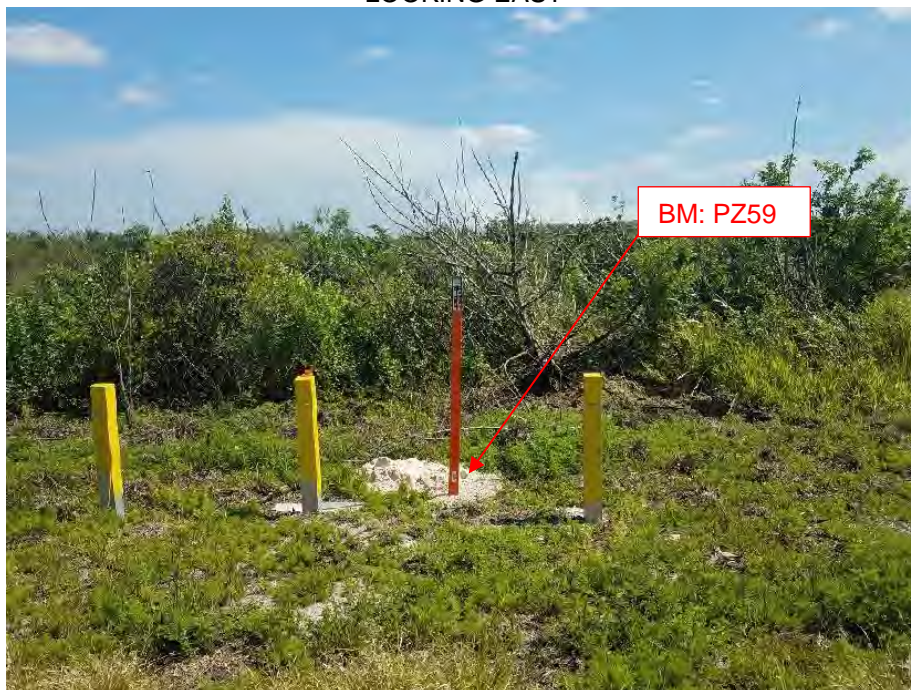
SKETCH



C43PZ59  
BM: PZ59  
LAT: 26°39'31.6" LONG: 82°30'35.6"



LOOKING EAST



## The NGS Data Sheet

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

```

PROGRAM = datasheet95, VERSION = 8.12.8
1 National Geodetic Survey, Retrieval Date = DECEMBER 28, 2017
DP7139 *****
DP7139 DESIGNATION - COMELLAS
DP7139 PID - DP7139
DP7139 STATE/COUNTY- FL/HENDRY
DP7139 COUNTRY - US
DP7139 USGS QUAD - ALVA (1573)
DP7139
DP7139 *CURRENT SURVEY CONTROL
DP7139
DP7139 NAD 83(1986) POSITION- 26 35 31.16 (N) 081 30 37.99 (W) HD HELD1
DP7139 NAVD 88 ORTHO HEIGHT - 7.401 (meters) 24.28 (feet) ADJUSTED
DP7139
DP7139 GEOID HEIGHT - -24.477 (meters) GEOID12B
DP7139 DYNAMIC HEIGHT - 7.388 (meters) 24.24 (feet) COMP
DP7139 MODELED GRAVITY - 979,075.7 (mgal) NAVD 88
DP7139
DP7139 VERT ORDER - SECOND CLASS I
DP7139
DP7139 The horizontal coordinates were determined by differentially corrected
DP7139 hand held GPS observations or other comparable positioning techniques
DP7139 and have an estimated accuracy of +/- 3 meters.
DP7139
DP7139 The orthometric height was determined by differential leveling and
DP7139 adjusted by the NATIONAL GEODETIC SURVEY
DP7139 in May 2015.
DP7139
DP7139 Significant digits in the geoid height do not necessarily reflect accuracy.
DP7139 GEOID12B height accuracy estimate available here.
DP7139
DP7139 Photographs are available for this station.
DP7139
DP7139 The dynamic height is computed by dividing the NAVD 88
DP7139 geopotential number by the normal gravity value computed on the
DP7139 Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
DP7139 degrees latitude (g = 980.6159 gals.).
DP7139
DP7139 The modeled gravity was interpolated from observed gravity values.
DP7139
DP7139: North East Units Estimated Accuracy
DP7139: SEC FL E - 257,686.6 149,175.6 MT (+/- 3 meters HH1 GPS)
DP7139
DP7139 U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK4919240730(NAD 83)
DP7139
DP7139 SUPERSEDED SURVEY CONTROL
DP7139
DP7139 No superseded survey control is available for this station.
DP7139
DP7139 MARKER: F = FLANGE-ENCASED ROD
DP7139 SETTING: 49 = STAINLESS STEEL ROD W/C SLEEVE (10 FT.+)

```

DP7139\_STAMPING: COMELLAS 2015  
 DP7139\_MARK LOGO: CARDNO  
 DP7139\_PROJECTION: RECESSED 15 CENTIMETERS  
 DP7139\_MAGNETIC: 0 = OTHER; SEE DESCRIPTION  
 DP7139\_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL  
 DP7139\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 DP7139+SATELLITE: SATELLITE OBSERVATIONS - February 05, 2015  
 DP7139\_ROD/PIPE-DEPTH: 17.8 meters  
 DP7139  

DP7139	HISTORY	Date	Condition	Report By
DP7139	HISTORY	- 20160205	MONUMENTED	CARDNO

 DP7139  
 DP7139  
 DP7139 STATION DESCRIPTION  
 DP7139  
 DP7139'DESCRIBED BY CARDNO INC 2015 (JH)  
 DP7139'THE STATION IS LOCATED APPROXIMATELY 9 MI (14.5 KM) SOUTHWEST OF  
 DP7139'LABELLE, 3.9 MI (6.3 KM) SOUTHEAST OF ALVA.  
 DP7139'  
 DP7139'THE STATION IS ON THE PROPERTY OF THE SOUTH FLORIDA WATER MANAGEMENT  
 DP7139'DISTRICT.  
 DP7139'  
 DP7139'TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 80 (PALM  
 DP7139'BEACH BLVD) AND WEST COWBOY WAY ON THE SOUTHWEST SIDE OF LABELLE, GO  
 DP7139'SOUTHWEST ALONG STATE ROAD 80 FOR 3.9 MI (6.3 KM) TO CONGEN ROAD ON  
 DP7139'THE LEFT (SOUTH), GO SOUTH ALONG CONGEN ROAD 0.14 MI (0.2 KM) TO  
 DP7139'GATE(PASS THROUGH GATE WITH SFWMD LOCK). CONTINUE SOUTH 0.4 MI (0.6  
 DP7139'KM) TO THE JUNCTION OF AN EAST - WEST DIRT ROAD, THENCE EAST ALONG  
 DP7139'DIRT ROAD FOR 0.26 MI (0.4 KM) TO THE JUNCTION OF A DIRT ROAD TO THE  
 DP7139'SOUTH, THENCE SOUTH ALONG DIRT ROAD FOR 3.0 MI (4.8 KM) TO THE  
 DP7139'JUNCTION OF A DIRT ROAD TO THE WEST, THENCE ALONG DIRT ROAD TO THE  
 DP7139'WEST FOR 0.4 MI (0.6 KM) TO THE MARK ON THE LEFT.  
 DP7139'  
 DP7139'IT IS 17.2 FT (5.2 M) NORTH OF THE TOP OF BANK OF A CANAL, 14.0 FT  
 DP7139'(4.3 M) NORTHEAST OF AN 18 INCH CABBAGE PALM, 12.4 FT (3.8 M) SOUTH OF  
 DP7139'THE CENTERLINE OF A DIRT ROAD AND 3 FT (0.9 M) NORTH OF A CARSONITE  
 DP7139'WITNESS POST.  
 DP7139'  
 DP7139'NOTE ACCESS TO THE DATUM POINT IS THROUGH A 5 INCH (13 CM) LOGO CAP.  
 \*\* retrieval complete.  
 Elapsed Time = 00:00:01

C43PZ59  
BM: COMELLAS  
LAT: 26°39'31.2" LONG: 82°30'38.0"



LOOKING SOUTH





# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

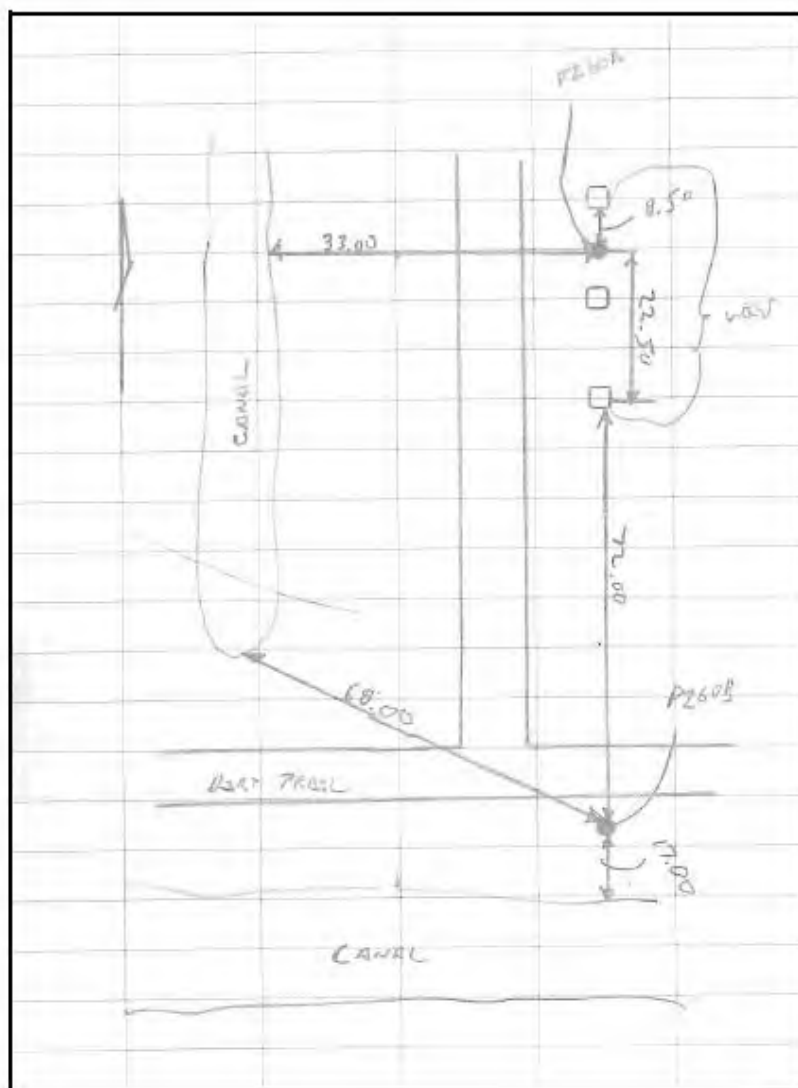
DESIGNATION: PZ 60A		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY		DATE: MARCH 1, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 9	TOWNSHIP: 34 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 487207.1	Y = 845532.8	NAVD 88 ELEV. 24.03' NGVD 29 ELEV. 25.35'
LATITUDE = N26° 39' 32.12"		LONGITUDE = W81° 31' 02.39"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. " PZ 60A LB: 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence East 0.26 miles to the junction of a dirt road south. Thence south for 3.0 miles till the road turns west. Go west 0.80 miles to the marks.			
Notable Land marks: PZ 60A is an aluminum disk set in a concrete pad stamped and is 33 ft. East of the top of bank of a North-South canal 22.50 ft. North of the most southern well and 8.50 ft. of the most northerly well.			
FIELD BOOK: 510		PAGE: 37	



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ60  
BM: PZ60A  
LAT: 26°39'32.1" LONG: 82°31'02.4"



LOOKING EAST







## SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 2007

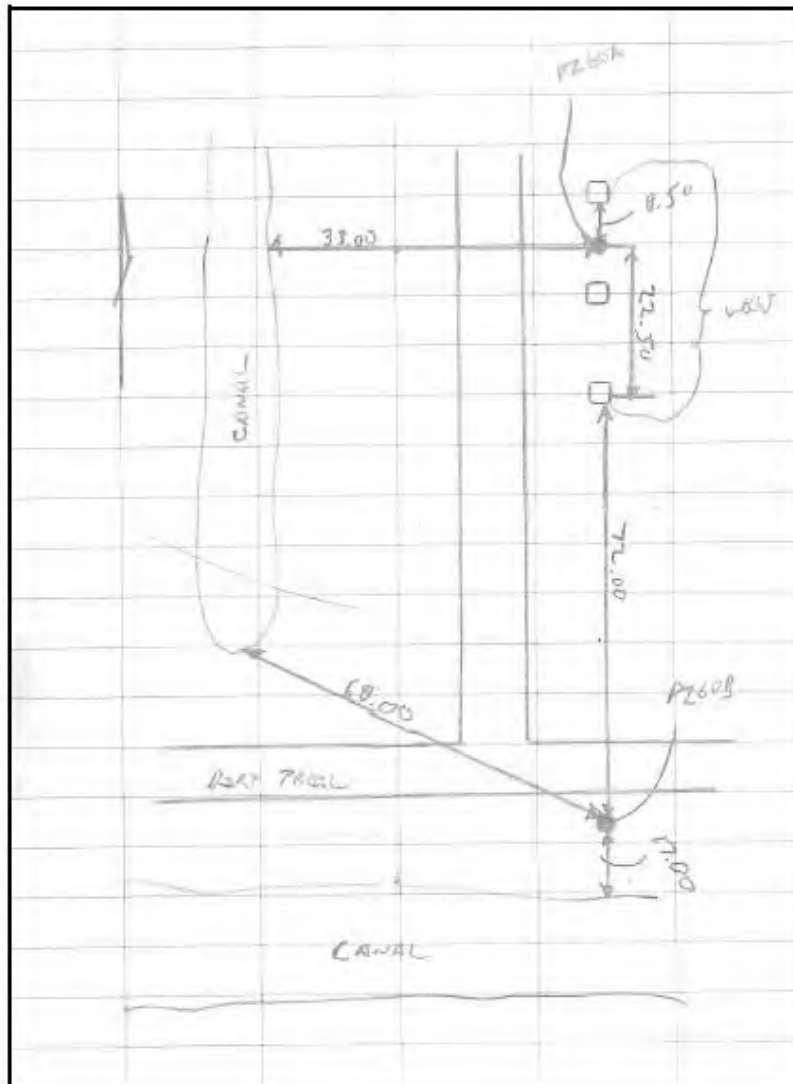
DESIGNATION: PZ 60B		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY		DATE: MARCH 1, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 9	TOWNSHIP: 44 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other: _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other: N/A (circle one)			
CONTROL ACCURACY; HORIZONTAL $\times$ 2 (3) _____ (circle one) VERTICAL $\div$ 2 (3) N/A			
STATE PLANE COORDINATES	X = 487207.0	Y = 845438.5	MAVD 88 ELEV. 26.05' MGVD 29 ELEV. 27.36'
LATITUDE = N26° 39' 31.19"		LONGITUDE = W81° 31' 02.38"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO FLA WATER MANAGEMENT DIST. "PZ 60B LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence East 0.26 miles to the junction of a dirt road south. Thence south for 3.0 miles till the road turns west. Go west 0.80 miles to the marks.			
Notable Land marks: PZ 60B is a poured in place concrete monument with an aluminum disk and is 72 ft. South of the most southerly well, 68 ft. Southeast of the top of bank at the center of the bullnose of of the North-South running canal, and 17 ft. North of the top of bank of the East-West running canal.			
FIELD BOOK: 510		PAGE: 57	



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ60  
BM: PZ60B  
LAT: 26°39'31.2" LONG: 82°31'02.4"



LOOKING SOUTH





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 8/07

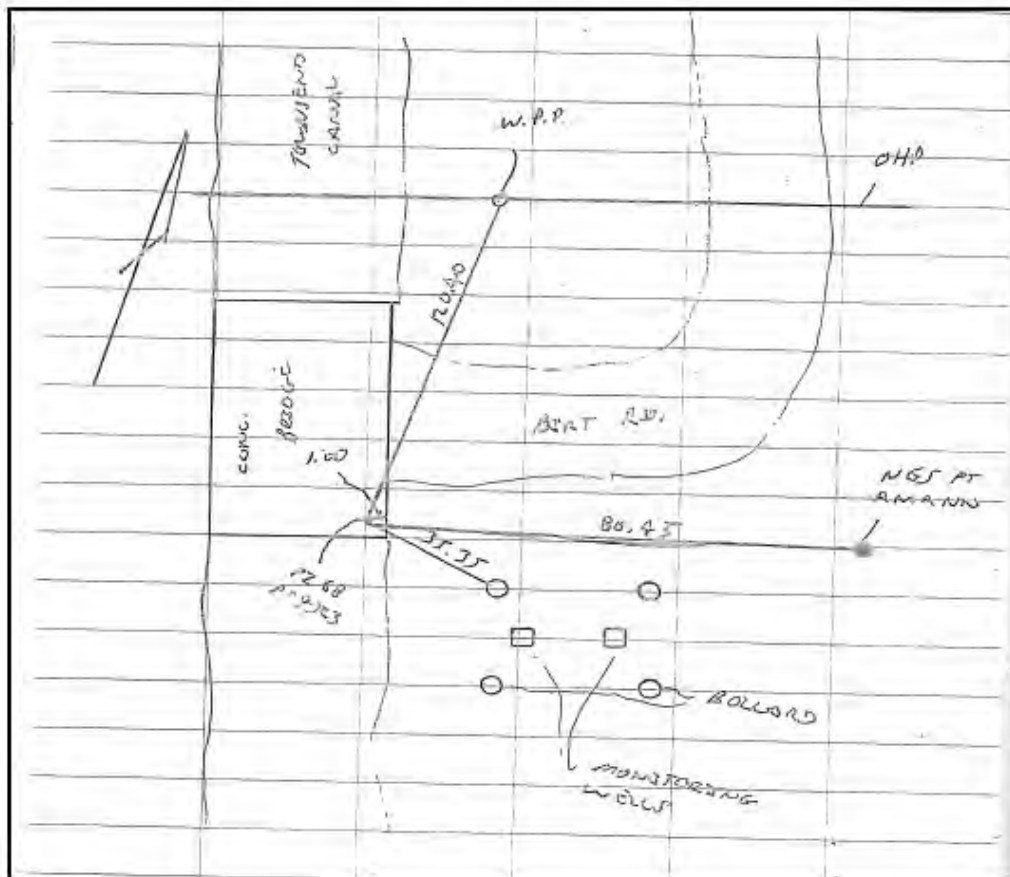
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ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: FEBRUARY 19, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 7	TOWNSHIP: 44 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
GEOGRAPHIC INDEX OF QUAD:			
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 474829.5	Y = 849831.7	NAVD 88 ELEV. 26.10' NGVD 29 ELEV. 27.35'
LATITUDE = N26° 40' 14.18"		LONGITUDE = W81° 33' 19.02"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 68 LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 southwest for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go West along dirt road for 3.0 miles to the junction of a North-South dirt road. Thence South along the dirt road for 2.2 miles. The marker is on the right.			
Notable Land marks: PZ 68, is an aluminum disk set in the southeast corner of a concrete bridge. 120.40 ft. southwest of a wood power pole. 80.95 ft. West of NGS bench mark AMANN. 35.35 ft. northwest of the northwest bollard around monitoring well. 1 ft. West of the East edge of the concrete bridge.			
FIELD BOOK: S10		PAGE: 30831	



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ68  
BM: PZ68  
LAT: 26°40'14.2" LONG: 82°33'19.0"



LOOKING WEST



## The NGS Data Sheet

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

```

PROGRAM = datasheet85, VERSION = 8.12.3
1      National Geodetic Survey, Retrieval Date = DECEMBER 28, 2017
DP7137 *****
DP7137 DESIGNATION - AMANN
DP7137 PID - DP7137
DP7137 STATE/COUNTY- FL/HENDEY
DP7137 COUNTRY - US
DP7137 USGS QUAD - ALVA (1973)
DP7137
DP7137 *CURRENT SURVEY CONTROL
DP7137
DP7137+ NAD 83(1986) POSITION- 26 40 14.71 (N) 081 33 18.36 (W) HD_HELD1
DP7137+ NAVD 83 ORTHO HEIGHT - 7.325 (meters) 23.72 (feet) ADJUSTED
DP7137
DP7137 GEOID HEIGHT - -24.461 (meters) GEOID12B
DP7137 DYNAMIC HEIGHT - 7.217 (meters) 23.68 (feet) COMP
DP7137 MODELED GRAVITY - 979,074.3 (mgal) NAVD 83
DP7137
DP7137 VERT ORDER - SECOND CLASS I
DP7137
DP7137.The horizontal coordinates were determined by differentially corrected
DP7137.hand held GPS observations or other comparable positioning techniques
DP7137.and have an estimated accuracy of +/- 3 meters.
DP7137
DP7137.The orthometric height was determined by differential leveling and
DP7137.adjusted by the NATIONAL GEODETIC SURVEY
DP7137.in May 2015.
DP7137
DP7137.Significant digits in the geoid height do not necessarily reflect accuracy.
DP7137.GEOID12B height accuracy estimate available here.
DP7137
DP7137.Photographs are available for this station.
DP7137
DP7137.The dynamic height is computed by dividing the NAVD 83
DP7137.geopotential number by the normal gravity value computed on the
DP7137.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
DP7137.degrees latitude (g = 980.6193 gals.).
DP7137
DP7137.The modeled gravity was interpolated from observed gravity values.
DP7137
DP7137;
DP7137;SPC FL E - North East Units Estimated Accuracy
DP7137; 289,048.4 144,746.8 MT (+/- 3 meters SRI GPS)
DP7137
DP7137 U.S. NATIONAL GRID SPATIAL ADDRESS: 17BMN4476680089(NAD 83)
DP7137
DP7137 SUPERSEDED SURVEY CONTROL
DP7137
DP7137.No superseded survey control is available for this station.
DP7137
DP7137_MARKER: F = FLANGE-ENCASED ROD
DP7137_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)

```

DP7137 STAMPING: AMANN 2015  
 DP7137 MARK LOGO: CARDNO  
 DP7137 PROJECTION: RECESSED 15 CENTIMETERS  
 DP7137 MAGNETIC: 0 = OTHER; SEE DESCRIPTION  
 DP7137 STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL  
 DP7137 SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 DP7137+SATELLITE: SATELLITE OBSERVATIONS - January 08, 2015  
 DP7137 ROD/PIPE-DEPTH: 15.6 meters

DP7137	HISTORY	- Date	Condition	Report By
DP7137	HISTORY	- 20150108	MONUMENTED	CARDNO

DP7137

STATION DESCRIPTION

DP7137

DP7137'DESCRIBED BY CARDNO INC 2015 (JH)

DP7137'THE STATION IS LOCATED APPROXIMATELY 9 MI (14.5 KM) SOUTHWEST OF

DP7137'LABELLE, 3.9 MI (6.3 KM) SOUTHEAST OF ALVA.

DP7137'

DP7137'THE STATION IS ON THE PROPERTY OF THE SOUTH FLORIDA WATER MANAGEMENT

DP7137'DISTRICT.

DP7137'

DP7137'TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 90 (PALM

DP7137'BEACH BLVD) AND WEST COWBOY WAY ON THE SOUTHWEST SIDE OF LABELLE, GO

DP7137'SOUTHWEST ALONG STATE ROAD 90 FOR 3.9 MI (6.3 KM) TO CONGEN ROAD ON

DP7137'THE LEFT (SOUTH), GO SOUTH ALONG CONGEN ROAD 0.14 MI (0.2 KM) TO

DP7137'GATE(PASS THROUGH GATE WITH SFWMD LOCK). CONTINUE SOUTH 0.4 MI (0.6

DP7137'KM) TO THE JUNCTION OF AN EAST - WEST DIRT ROAD, THENCE 3.0 MI (4.8

DP7137'KM) SOUTHWEST ALONG DIRT ROAD TO THE JUNCTION OF A NORTH - SOUTH DIRT

DP7137'ROAD, THENCE 2.2 MI (3.5 KM) OUTH AND SOUTHEAST ALONG DIRT ROAD TO A

DP7137'THE MARK ON THE LEFT.

DP7137'

DP7137'IT IS 130.5 FT (39.8 M) SOUTHEAST OF A WOOD POWER POLE WITH EAST -

DP7137'WEST RUNNING LINES, 79.3 FT (24.2 M) NORTHEAST OF THE NORTHEAST CORNER

DP7137'OF A CONCRETE BRIDGE, 41 FT (12.5 M) EAST OF THE CENTERLINE OF A DIRT

DP7137'ROAD, 13 FT (5.9 M) SOUTHWEST OF THE TOP OF BANK OF A CANAL AND 2 FT

DP7137'(0.6 M) NORTHWEST OF A CARSONITE WITNESS POST.

DP7137'

DP7137'NOTE ACCESS TO THE DATUM POINT IS THROUGH A 3 INCH (19 CM) LOGO CAP.

\*\*\* retrieval complete.

Elapsed Time = 00:00:01



C43PZ68  
BM: AMANN  
LAT: 26°40'14.7" LONG: 81°33'18.4"



LOOKING SOUTH





# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 6/07

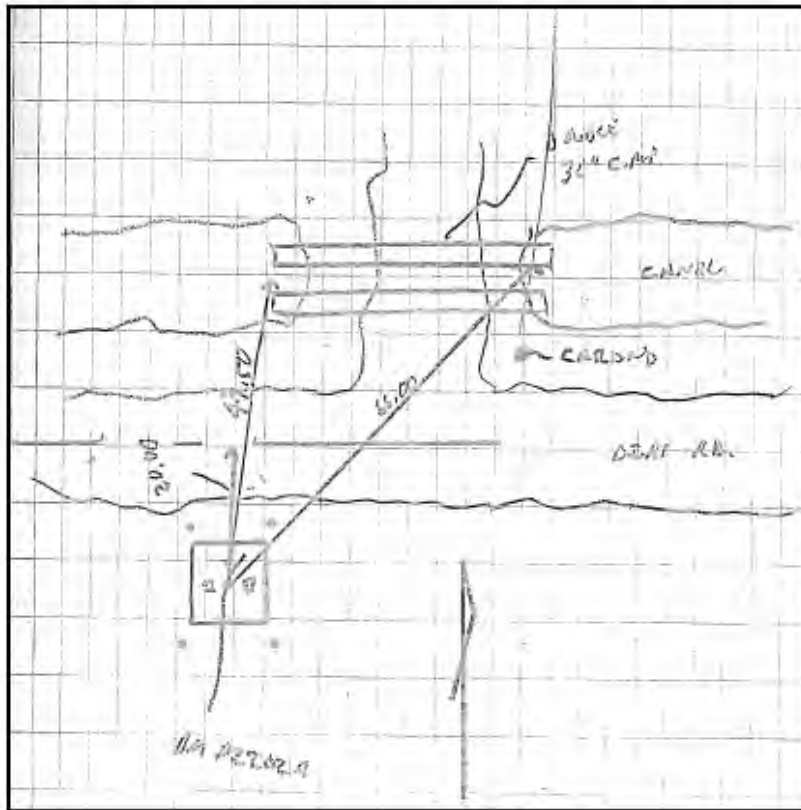
DESIGNATION: PZ 202 A		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: JANUARY 24, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 4	TOWNSHIP: 44 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 481858.1	Y = 861272.5	NAVD 88 ELEV. 20.71' NGVD 29 ELEV. 21.97'
LATITUDE = N26° 42' 07.78"		LONGITUDE = W81° 32' 02.07"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 202A LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go West along a dirt road for 1.5 miles to the junction of a dirt road on the right (North). The mark is on the left.			
Notable Land marks: PZ 202 A is an aluminum disk in a concrete pad between two monitoring wells and is 47.5 ft. South of the center of the West end of double 36" corrugated metal pipes. 66 ft. southwest of the center of the East end of double 36" corrugated metal pipes. 20 ft. South of the centerline of a dirt road.			
FIELD BOOK: 510	PAGE: 5		



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ202  
BM: PZ202A  
LAT: 26°42'07.8" LONG: 82°32'02.1"



LOOKING NORTH



## The NGS Data Sheet

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

```

PROGRAM = datasheet95, VERSION = 8.10.3
1 National Geodetic Survey, Retrieval Date = DECEMBER 28, 2017
DP7134 *****
DP7134 DESIGNATION - CARIMO
DP7134 PID - DP7134
DP7134 STATE/COUNTY- FL/HENDRY
DP7134 COUNTRY - US
DP7134 USGS QUAD - ALVA (1973)
DP7134
DP7134 *CURRENT SURVEY CONTROL
DP7134
DP7134 NAD 83(1986) POSITION- 76 42 09.14 (N) 081 02 01.66 (W) HD HELD1
DP7134 NAVD 88 ORTHO HEIGHT - 6.217 (meters) 20.40 (feet) ADJUSTED
DP7134
DP7134 GEOID HEIGHT - -24.486 (meters) GEOID12B
DP7134 DYNAMIC HEIGHT - 6.208 (meters) 20.37 (feet) COMP
DP7134 MODELED GRAVITY - 979,073.7 (mgal) NAVD 88
DP7134
DP7134 VERT ORDER - SECOND CLASS I
DP7134
DP7134 The horizontal coordinates were determined by differentially corrected
DP7134 hand held GPS observations or other comparable positioning techniques
DP7134 and have an estimated accuracy of +/- 3 meters.
DP7134
DP7134 The orthometric height was determined by differential leveling and
DP7134 adjusted by the NATIONAL GEODETIC SURVEY
DP7134 in May 2016.
DP7134
DP7134 Significant digits in the geoid height do not necessarily reflect accuracy.
DP7134 GEOID12B height accuracy estimate available here.
DP7134
DP7134 Photographs are available for this station.
DP7134
DP7134 The dynamic height is computed by dividing the NAVD 88
DP7134 geopotential number by the normal gravity value computed on the
DP7134 Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
DP7134 degrees latitude (g = 980.6199 gals.).
DP7134
DP7134 The modeled gravity was interpolated from observed gravity values.
DP7134
DP7134; North East Units Estimated Accuracy
DP7134; SPC FL Z - 262,827.4 146,882.1 MI (+/- 3 meters WHI GPS)
DP7134
DP7134 U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK4690083569(NAD 83)
DP7134
DP7134 SUPERSEDED SURVEY CONTROL
DP7134
DP7134 No superseded survey control is available for this station.
DP7134
DP7134 MARKER: F = FLANGE-ENCASED ROD
DP7134 SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)

```

DP7134 STAMPING: CARDNO 2014  
 DP7134 MARK LOGO: NONE  
 DP7134 PROJECTION: RECESSED 16 CENTIMETERS  
 DP7134 MAGNETIC: 0 = OTHER; SEE DESCRIPTION  
 DP7134 STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL  
 DP7134 SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 DP7134 SATELLITE: SATELLITE OBSERVATIONS - December 15, 2014  
 DP7134 ROD/PIPE-DEPTH: 13.0 meters

DP7134	HISTORY	- Date	Condition	Report By
DP7134	HISTORY	- 20141215	MONUMENTED	CARDNO

DP7134

DP7134

STATION DESCRIPTION

DP7134

DP7134 DESCRIBED BY CARDNO INC 2014 (JH)

DP7134 THE STATION IS LOCATED APPROXIMATELY 7.2 MI (11.6 KM) SOUTHWEST OF  
 DP7134 LABELLE, 4.8 MI (7.7 KM) SOUTHEAST OF ALVA.

DP7134

DP7134 THE STATION IS ON THE PROPERTY OF THE SOUTH FLORIDA WATER MANAGEMENT  
 DP7134 DISTRICT.

DP7134

DP7134 TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 80 (PALM  
 DP7134 BEACH BLVD) AND WEST COWBOY WAY ON THE SOUTHWEST SIDE OF LABELLE, GO  
 DP7134 SOUTHWEST ALONG STATE ROAD 80 FOR 3.9 MI (6.3 KM) TO OONGEN ROAD (N  
 DP7134 THE LEFT (SOUTH), GO SOUTH ALONG OONGEN ROAD 0.14 MI (0.2 KM) TO GATE  
 DP7134 (PASS THROUGH GATE WITH SPWD LOCK). CONTINUE SOUTH 0.4 MI (0.6 KM)  
 DP7134 TO THE JUNCTION OF AN EAST - WEST DIRT ROAD, THENCE 1.5 MI (2.4 KM)  
 DP7134 WEST ALONG DIRT ROAD TO THE JUNCTION WITH A DIRT ROAD ON THE RIGHT AND  
 DP7134 THE MARK.

DP7134

DP7134 IT IS 76 FT (23.2 M) NORTH OF THE MOST NORTHERLY EAST - WEST POWER  
 DP7134 LINE, 34.5 FT (10.5 M) SOUTHEAST OF THE CENTER AND END OF TWO 36 INCH  
 DP7134 CORRUGATED METAL PIPES, 15 FT (4.6 M) SOUTHWEST OF THE CENTER AND END  
 DP7134 OF TWO 36 INCH CORRUGATED METAL PIPES WITH RISERS, 14 FT (4.3 M) NORTH  
 DP7134 OF THE CENTERLINE OF AN EAST - WEST DIRT ROAD, 14 FT (4.3 M) EAST OF A  
 DP7134 DIRT ROAD RUNNING NORTH, 9 FT (1.2 M) SOUTHWEST OF THE TOP OF BANK OF  
 DP7134 A CANAL AND 1.6 FT (0.5 M) SOUTH OF A CARSONITE WITNESS POST.

DP7134

DP7134 NOTE ACCESS TO THE DATUM POINT IS THROUGH A 5 INCH (13 CM) LOGO CAP.

\*\*\* retrieval complete.

Elapsed Time = 00:00:01

C43PZ202  
BM: CARDNO  
LAT: 26°42'08.1" LONG: 81°32'01.7"



LOOKING EAST



BM: CARDNO



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 12/07

DESIGNATION: PZ 203A		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: FEBRUARY 21, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 4	TOWNSHIP: 44 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other: _____ (circle one) ZONE: (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other: N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 487074.3	Y = 861439.6	NAVD 88 ELEV. 20.70' NGVD 29 ELEV. 21.97'
LATITUDE = N26° 42' 09.65"		LONGITUDE = W81° 31' 04.57"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 203A LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go West for 0.55 miles to a canal crossing on the right (North). Thence go North, crossing canal, for 100 feet. The mark is on the left.			
Notable Land marks: PZ 203A is an aluminum disk in a concrete pad, between two monitoring wells and is 120 ft. North of the centerline of a dirt road, 124 ft. NW of the East end of a 36" corrugated metal pipe, 4 ft. SE of the NW bollard around wells and NW corner of concrete pad.			
FIELD BOOK: 510		PAGE: 7	

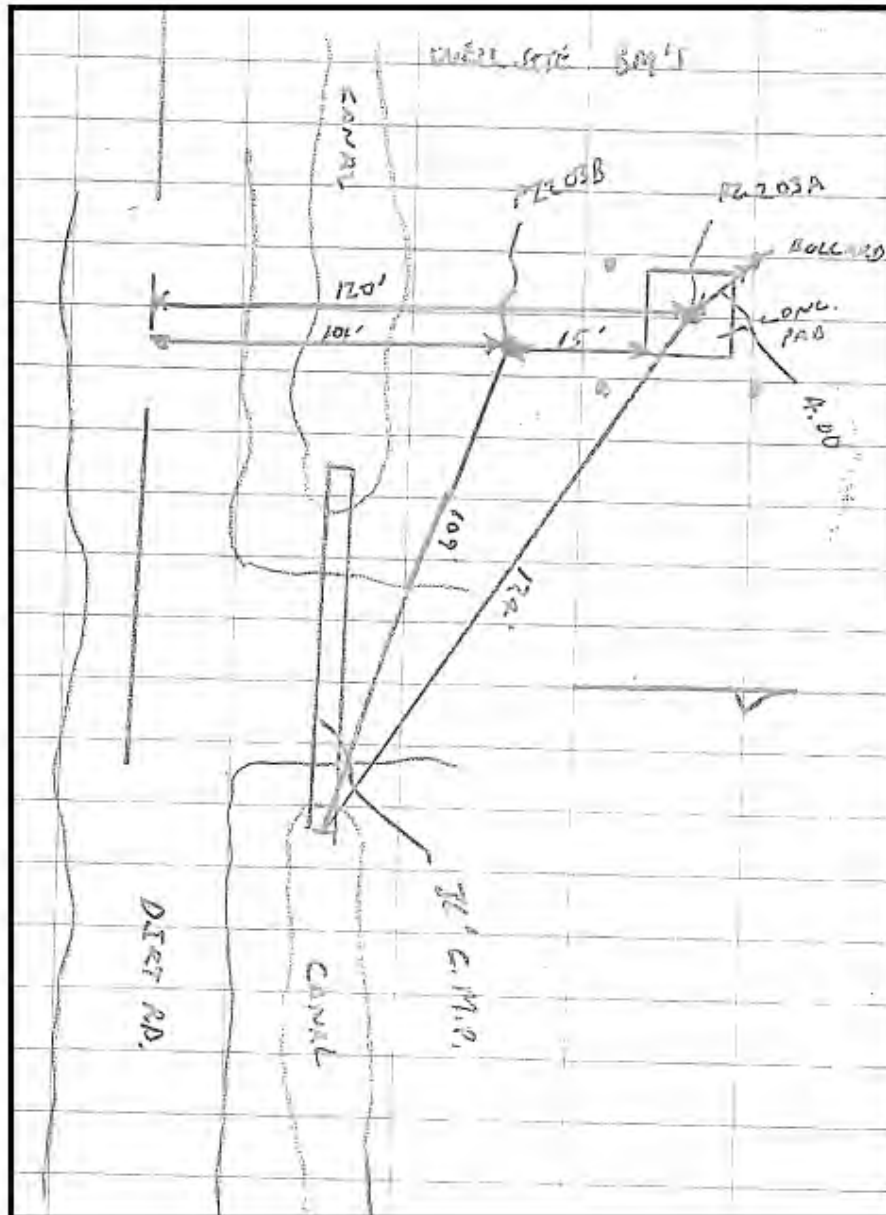




# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ203  
BM: PZ203A  
LAT: 26°42'09.6" LONG: 82°31'04.6"



LOOKING WEST





# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

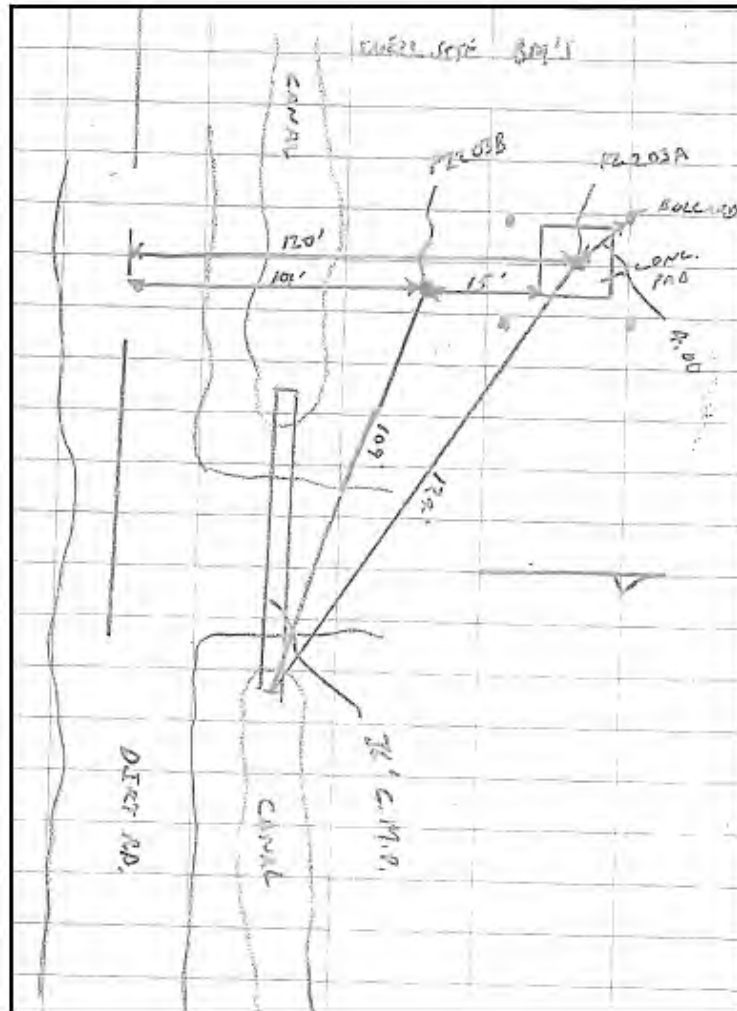
DESIGNATION: PZ 203B		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: FEBRUARY 21, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 4	TOWNSHIP: 44 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other: _____ (circle one)		ZONE (E) or W	
VERTICAL DATUM: MSL 1929 (1988) Other: N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 487075.4	Y = 861421.7	NAVD 88 ELEV. -19.77' NGVD 29 ELEV. -21.03'
LATITUDE = N26° 42' 09.47"		LONGITUDE = W81° 31' 04.55"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST "PZ 203B LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way, Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go West for 0.55 miles to a canal crossing on the right (North). Thence go North, crossing canal, for 100 feet. The mark is on the left.			
Notable Land marks: PZ 203 B, is a poured in place concrete monument with an aluminum disk, set 0.5 ft. below natural ground and is 15 ft. South of the SE corner of a concrete pad, 109 ft. NW of the East end of a 36" corrugated metal pipe, 101 ft. North of the centerline of a dirt road.			
FIELD BOOK: 510		PAGE: 7	



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

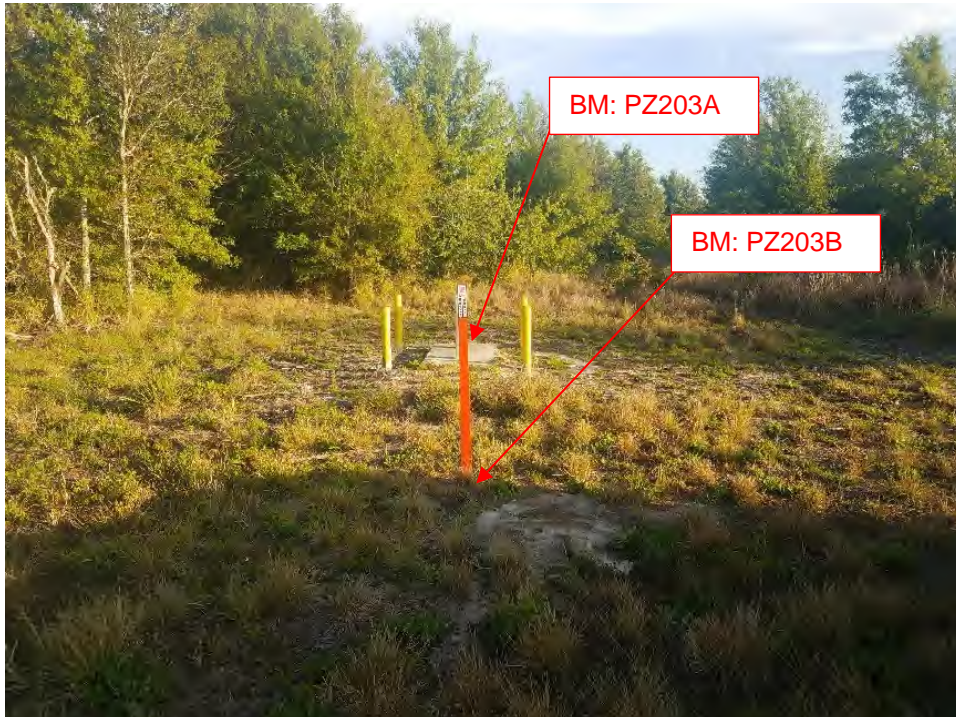
## SKETCH



C43PZ203  
BM: PZ203B  
LAT: 26°42'09.5" LONG: 82°31'04.6"



LOOKING NORTH





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 6/07

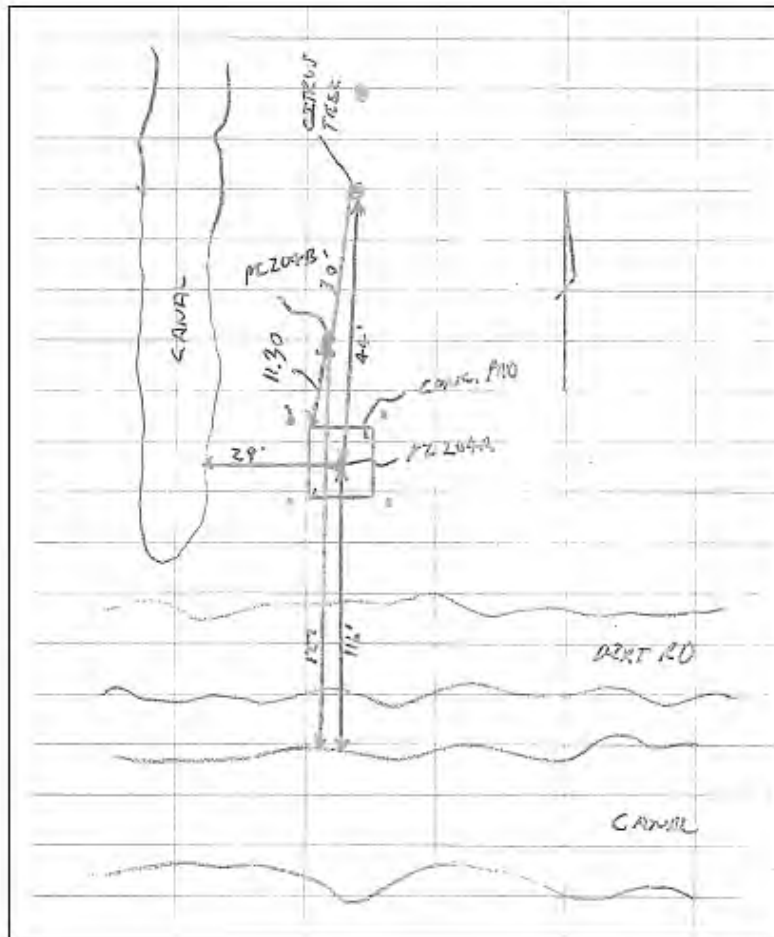
DESIGNATION: PZ 204A		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: FEBRUARY 21, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 27	TOWNSHIP: 43 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
GEOGRAPHIC INDEX OF QUAD:			
HORIZONTAL DATUM: 1927 (1983) Other: _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other: N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 492275.6	Y = 861525.9	NAVD 88 ELEV. 20.37' NGVD 29 ELEV. 21.64'
LATITUDE = N26° 42' 10.71"		LONGITUDE = W81° 30' 07.22"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 204A LB 7875 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go East, along the dirt road, for 0.4 miles. The mark is on the left.			
Notable Land marks: PZ 204 A is an aluminum disk in a concrete pad, between two monitoring wells and is 116 ft North of the top of bank of an East-West running canal, 29 ft East of the Top of Bank of a North-South running canal, 44ft South of the first citrus tree in the Westerly most row of citrus trees.			
FIELD BOOK:	510	PAGE:	9



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ204  
BM: PZ204A  
LAT: 26°42'10.7" LONG: 82°30'07.2"



LOOKING WEST







**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

FE 1811T

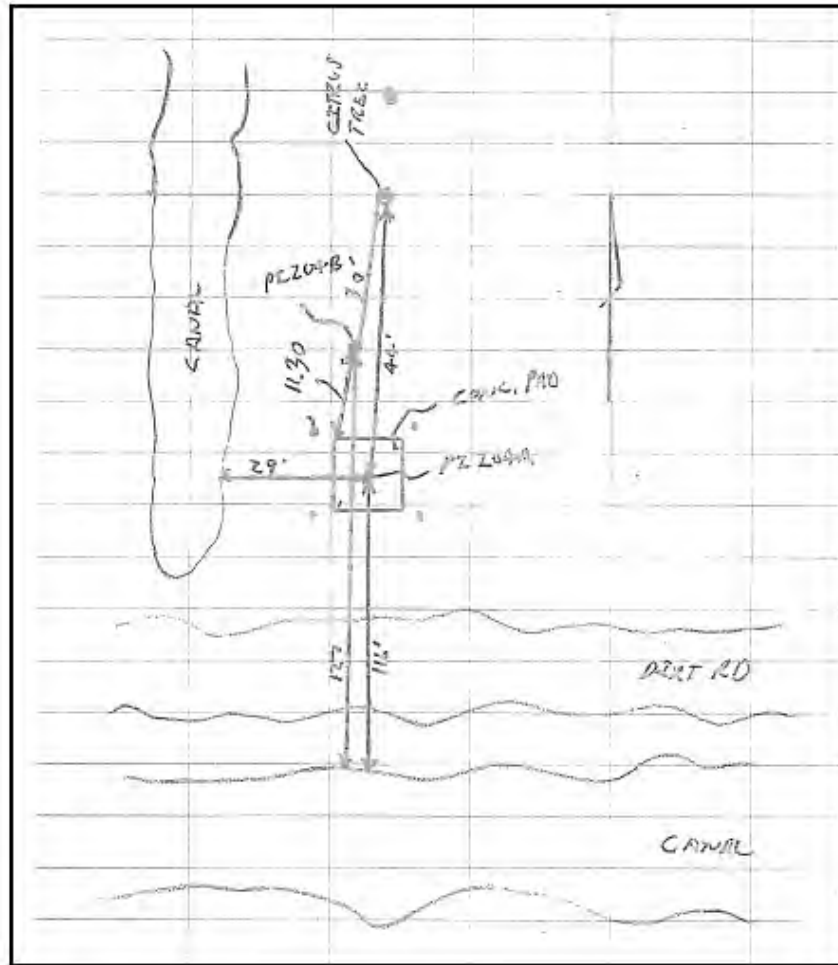
DESIGNATION: PZ 204B		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: FEBRUARY 21, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 27	TOWNSHIP: 43 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other: _____ (circle one)		ZONE: (E) or W	
VERTICAL DATUM: MSL 1929 (1988) Other: N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one)		VERTICAL 1 2 (3) N/A	
STATE PLANE COORDINATES	X = 492275.2	Y = 861539.9	NAVD 88 ELEV. 19.45'
			NGVD 29 ELEV. 20.73'
LATITUDE = N26° 42' 10.85"		LONGITUDE = W81° 30' 07.22"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 204B LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go East, along the dirt road, for 0.4 miles. The mark is on the left.			
Notable Land marks: PZ 204B, is a poured in place concrete monument with an aluminum disk and is 30 ft South of the first citrus tree in the Westerly most row of citrus trees. 11.3 ft North of the NW corner of a concrete pad. 127 ft. North of the Top of Bank of an East-West running canal.			
FIELD BOOK:	510	PAGE:	9



**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 8/07

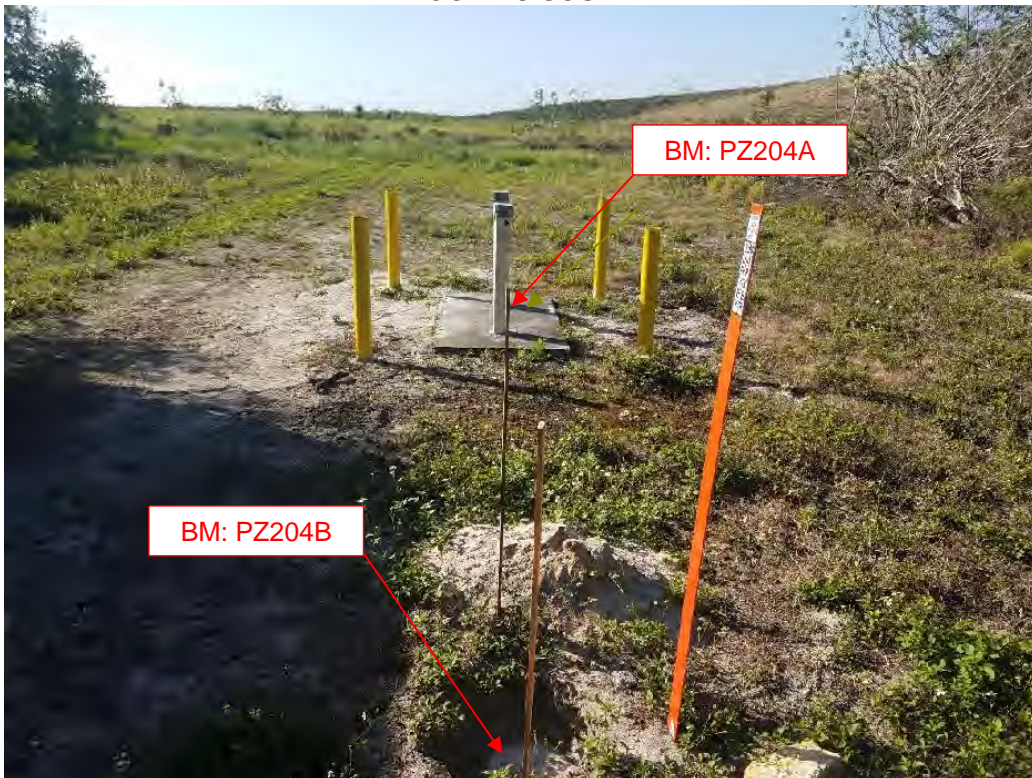
**SKETCH**



C43PZ204  
BM: PZ204B  
LAT: 26°42'10.8" LONG: 82°30'07.2"



LOOKING SOUTH





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 6/07

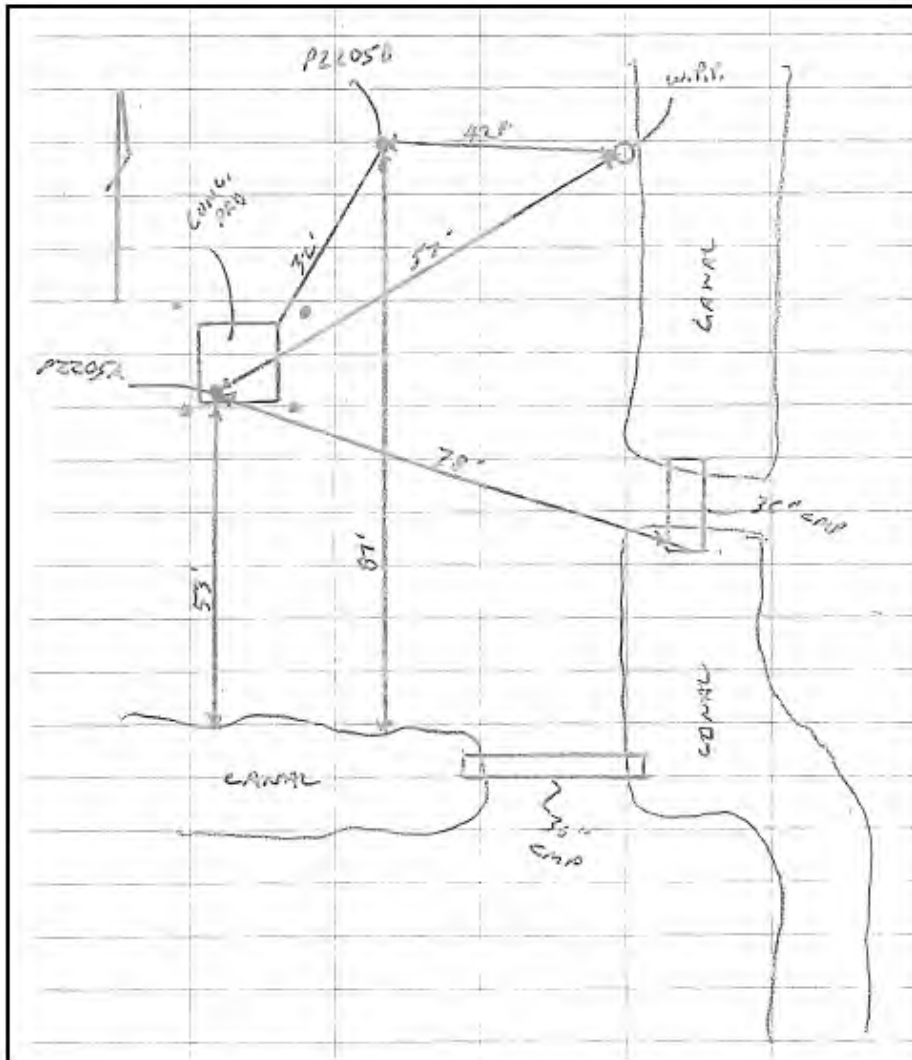
DESIGNATION: PZ 205A		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: JANUARY 25, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 26	TOWNSHIP: 43 SOUTH	RANGE: 28 EAST	
COUNTY: HENRY	NAME OF QUADRANGLE: ALVA		
GEOGRAPHIC INDEX OF QUAD:			
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 501600.1	Y = 861554.4	NAVD 88 ELEV, 22.52' NGVD 29 ELEV, 23.79'
LATITUDE = N26° 42' 11.35"		LONGITUDE = W81° 28' 24.40"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK 50. FLA. WATER MANAGEMENT DIST. "PZ 205A LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go East along the dirt road 1.2 miles to a bridge. Thence continue East 200 ft. to the junction of a North-South dirt road. Thence continue East on the South side of a canal for 1 mile to the junction of a North-South dirt road. Thence North for 75 ft. The mark is on the left.			
Notable Land marks: PZ 205A is an aluminum disk in the southwest corner of a concrete pad. 53 ft. North of the Top of Bank of an East-West canal. 57 ft. southwest of a wood power pole with overhead power lines running East-West. 78' northwest of the South end of a 36" corrugated metal pipe.			
FIELD BOOK: 510		PAGE: 11	



**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 8/07

**SKETCH**



C43PZ205  
BM: PZ205A  
LAT: 26°42'11.3" LONG: 82°28'24.4"



LOOKING NORTH





# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

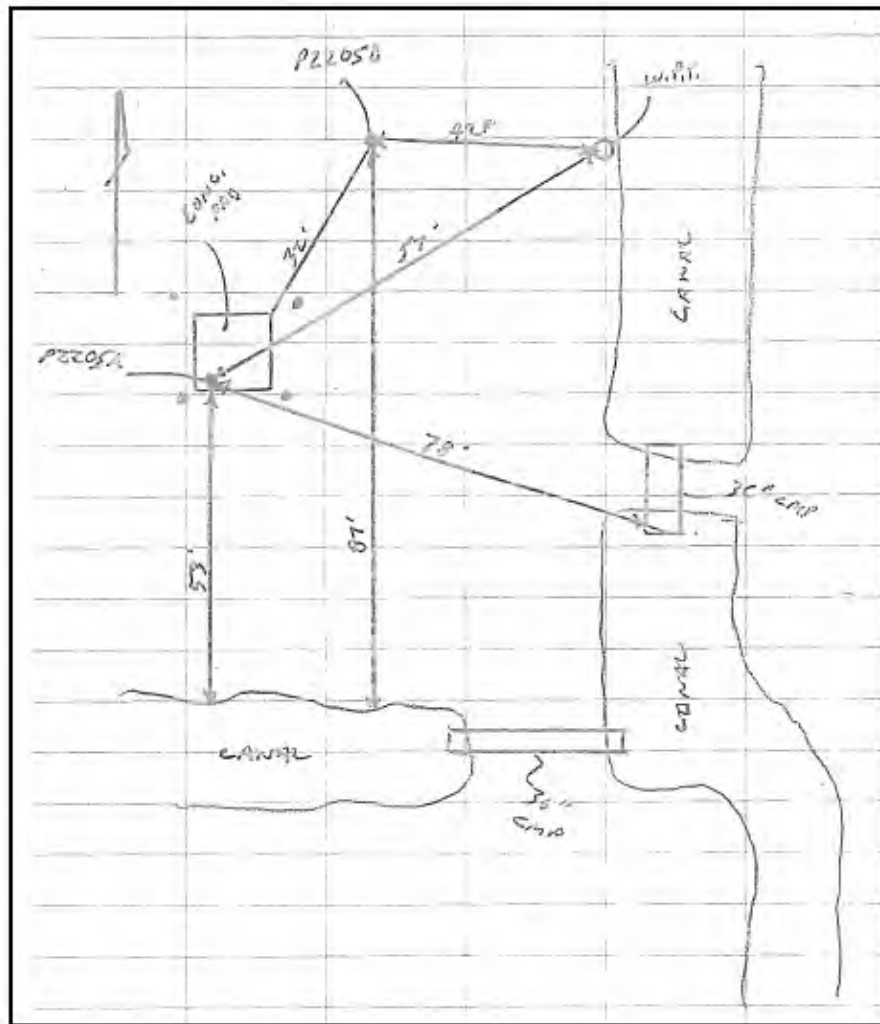
DESIGNATION: PZ 205B		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: JANUARY 25, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 25	TOWNSHIP: 43 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
GEOGRAPHIC INDEX OF QUAD:			
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other M/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) M/A			
STATE PLANE COORDINATES	X = 501612.7	Y = 861590.2	NAVD 88 ELEV. 21.47' NGVD 29 ELEV. 22.75'
LATITUDE = N26° 42' 11.70"		LONGITUDE = W81° 28' 24.26"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 205B LB 7875 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way; Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go East along the dirt road 1.2 miles to a bridge. Thence continue East 200 ft. to the junction of a North-South dirt road. Thence continue East on the South side of a canal for 1 mile to the junction of a North-South dirt road. Thence North for 75 ft. The mark is on the left.			
Notable Land marks: PZ 205B, is a poured in place concrete monument with an aluminum disk that is 42 ft. West of a wood power pole with overhead power lines running East-West, 32 ft. NE of the NE corner of a concrete pad, 87 ft. North of the Top of Bank of an East-West canal.			
FIELD BOOK: 510		PAGE: 11	



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH





C43PZ205  
BM: PZ205B  
LAT: 26°42'11.7" LONG: 82°28'24.3"



LOOKING WEST





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 8/07

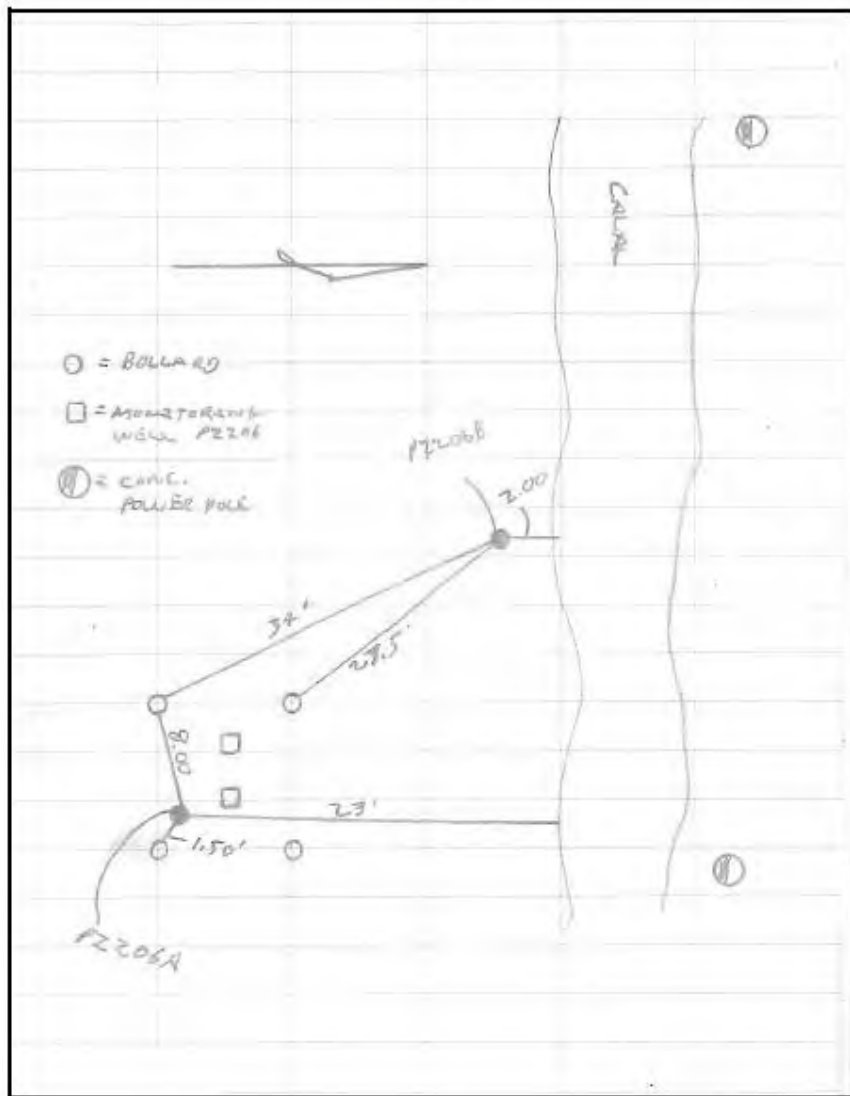
DESIGNATION: PZ 206A		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: JANUARY 25, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 31	TOWNSHIP: 43 SOUTH	RANGE: 29 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
GEOGRAPHIC INDEX OF QUAD:			
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 503028.1	Y = 861282.4	NAVD 88 ELEV. 24.21' NGVD 29 ELEV. 25.48'
LATITUDE = N26° 42' 08.70"		LONGITUDE = W81° 28' 08.64"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SQ. FLA. WATER MANAGEMENT DIST. "PZ 206A LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way, Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go East along the dirt road 1.2 miles to a bridge. Thence continue East 200 ft. to the junction of a North-South dirt road. Thence continue East on the North side of a canal for 1 mile to the junction of a North-South dirt road. Thence continue East crossing a North-South running ditch and staying on the South side of a canal for 0.3 miles. The mark is on the right.			
Notable Land marks: PZ 206A, is a poured in place concrete monument with an aluminum disk that is 1.5 ft. northwest of the southeast bollard around wells. 8.0 ft. East of the southwest bollard around the wells. 23 ft. South of the top of bank of an East-West running canal.			
FIELD BOOK: 510		PAGE: 12&13	



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ206  
BM: PZ206A  
LAT: 26°42'08.7" LONG: 82°28'08.7"



LOOKING EAST





# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

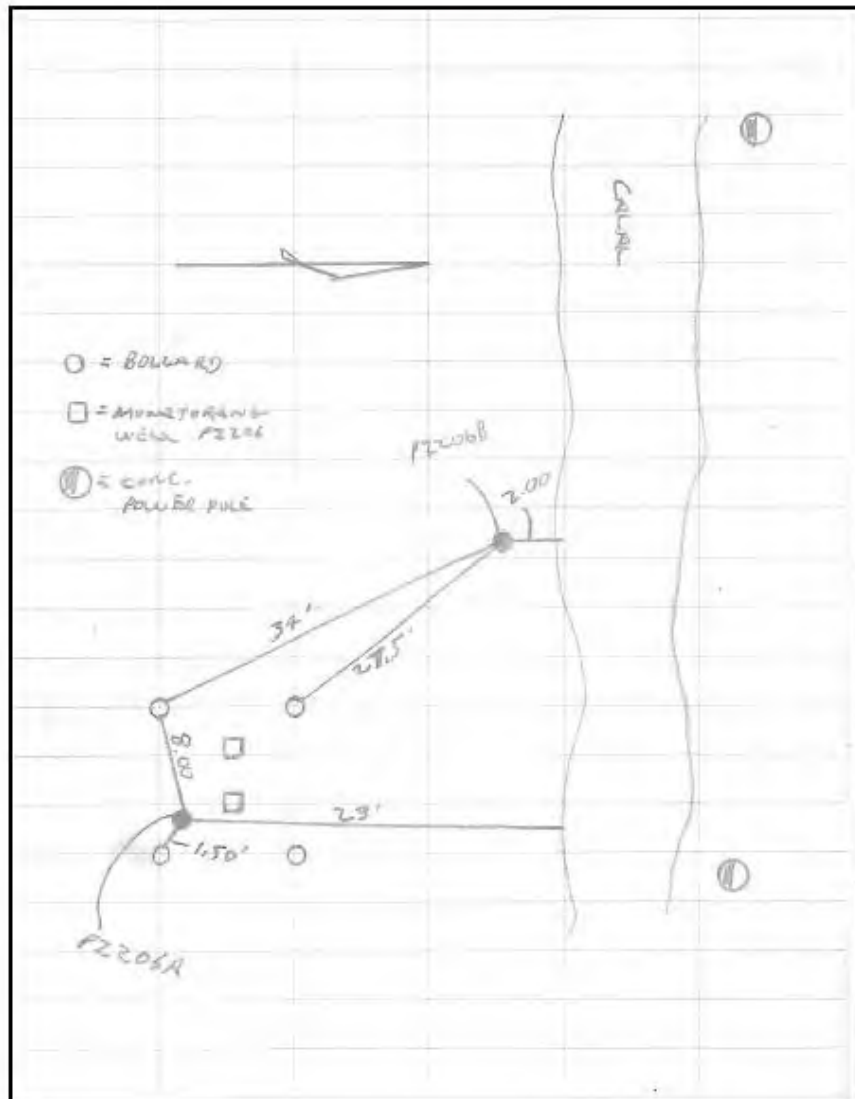
DESIGNATION: PZ 206B		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: JANUARY 25, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 31	TOWNSHIP: 43 SOUTH	RANGE: 29 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other: _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other: N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 502999.4	Y = 861298.7	NAVD 88 ELEV. 24.92' NGVD 29 ELEV. 26.19'
LATITUDE = N26° 42' 08.86"		LONGITUDE = W81° 28' 08.96"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 206B LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 southwest for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go East along the dirt road 1.2 miles to a bridge. Thence continue East 200 ft. to the junction of a North-South dirt road. Thence continue East on the North side of a canal for 1 mile to the junction of a North-South dirt road. Thence continue East crossing a North-South running ditch and staying on the South side of a canal for 0.3 miles. The mark is on the right.			
Notable Land marks: PZ 206B, is a poured in place concrete monument with an aluminum disk that is 2 ft. South of the top of bank of an East-West running canal 27.5 ft. NW of the NW bollard around wells. 34 ft. NW of the SW bollard around the wells.			
FIELD BOOK: 510		PAGE: 12&13	



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ206  
BM: PZ206B  
LAT: 26°42'08.8" LONG: 82°28'08.9"



LOOKING NORTH





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 3/07

DESIGNATION: PZ 207		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY		DATE: MARCH 1, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 31	TOWNSHIP: 43 SOUTH	RANGE: 29 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 504860.9	Y = 856441.9	NAVD 88 ELEV. 28.28' NGVD 29 ELEV. 29.55'
LATITUDE = N26° 41' 20.83"		LONGITUDE = W81° 27' 48.02"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 207 LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way, Go along S.R. 80 southwest for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go East along dirt road 1.2 miles to the junction of a dirt road running South. Go South 1.3 miles to the junction of a dirt road running East. Thence go East, crossing a bridge, for 0.9 miles. The mark is on the left.			
Notable Land marks: PZ 207, is a poured in place concrete monument with an aluminum disk that is 25.4 feet northwest of a gate post on the North side of the East - West running road, 16 feet North of the center line of the East - West running road, and 8 feet East of the northwest bollard around the wells.			
FIELD BOOK: 510		PAGE: 34	

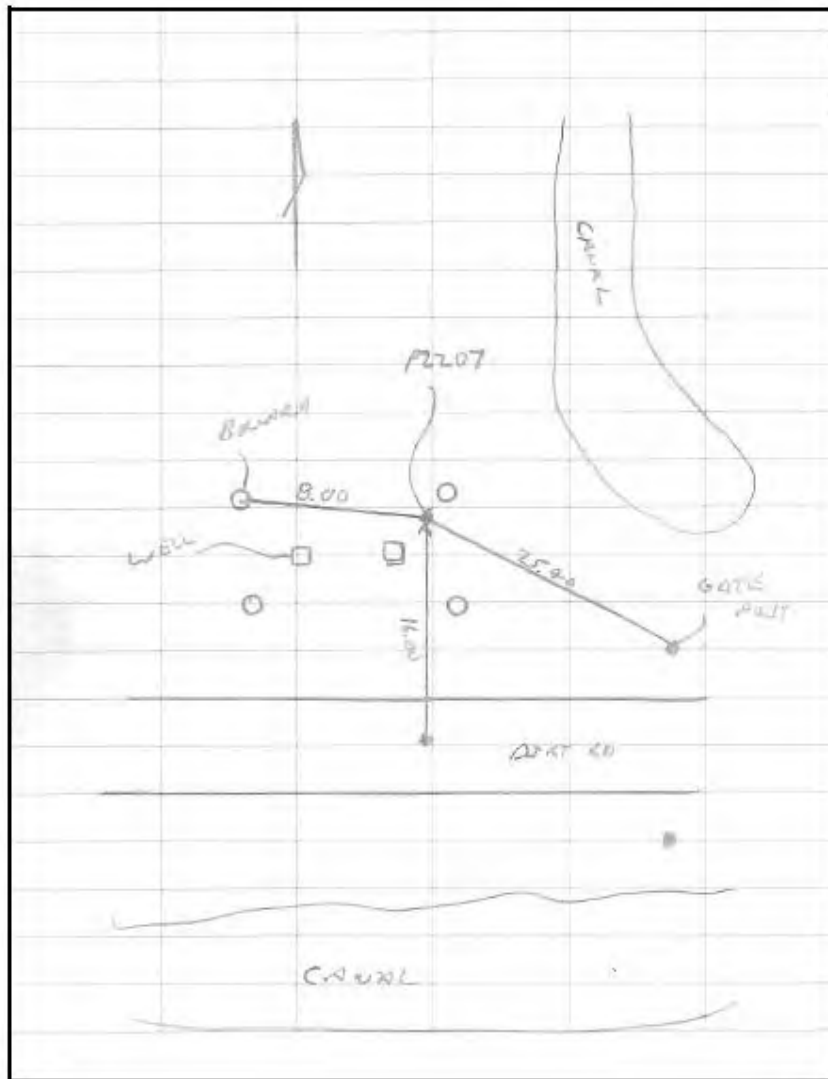




**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 8/07

**SKETCH**



C43PZ207  
BM: PZ207  
LAT: 26°41'20.8" LONG: 82°27'48.0"



LOOKING EAST



## The NGS Data Sheet

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

```
PROGRAM = datasheet95, VERSION = 8.12.4.1
1      National Geodetic Survey,   Retrieval Date = MAY 17, 2018
DQ7940 *****
DQ7940 DESIGNATION - C 43 RES 2
DQ7940 PID - DQ7940
DQ7940 STATE/COUNTY- FL/HENDRY
DQ7940 COUNTRY - US
DQ7940 USGS QUAD - SEARS (1973)
DQ7940
DQ7940 *CURRENT SURVEY CONTROL
DQ7940
DQ7940 NAD 83(1986) POSITION- 26 41 20.85 (N) 091 27 47.90 (W) HD HELD1
DQ7940 * NAVD 88 ORTHO HEIGHT - 8.478 (meters) 27.80 (feet) ADJUSTED
DQ7940
DQ7940 GEOID HEIGHT - -24.478 (meters) GEOID12B
DQ7940 DYNAMIC HEIGHT - 8.466 (meters) 27.78 (feet) COMP
DQ7940 MODELED GRAVITY - 979,388.2 (mgal) NAVD 88
DQ7940
DQ7940 VERT ORDER - SECOND CLASS I
DQ7940
DQ7940.The horizontal coordinates were determined by differentially corrected
DQ7940.hand held GPS observations or other comparable positioning techniques
DQ7940.and have an estimated accuracy of +/- 3 meters.
DQ7940.
DQ7940.The orthometric height was determined by differential leveling and
DQ7940.adjusted by the NATIONAL GEODETIC SURVEY
DQ7940.in May 2018.
DQ7940
DQ7940.Significant digits in the geoid height do not necessarily reflect accuracy.
DQ7940.GEOID12B height accuracy estimate available here.
DQ7940
DQ7940.The dynamic height is computed by dividing the NAVD 88
DQ7940.geopotential number by the normal gravity value computed on the
DQ7940.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 46
DQ7940.degrees latitude (g = 980.6199 gals.).
DQ7940
DQ7940.The modeled gravity was interpolated from observed gravity values.
DQ7940
DQ7940:
DQ7940: North East Units Estimated Accuracy
DQ7940:SPC FL E - 261,044.5 158,691.3 MT (+/- 3 meters HHL GPS)
DQ7940
DQ7940_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK5890752087(NAD 83)
DQ7940
DQ7940 SUPERSEDED SURVEY CONTROL
DQ7940
DQ7940.No superseded survey control is available for this station.
DQ7940
DQ7940_MARKER: DD = SURVEY DISK
DQ7940_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
DQ7940_STAMPING: C 43 RES 2 2018
DQ7940_MARK LOGO: CARDNO
```

DQ7940 PROJECTION: PROJECTING 5 CENTIMETERS  
DQ7940 MAGNETIC: N = NO MAGNETIC MATERIAL  
DQ7940 STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
DQ7940+STABILITY: SURFACE MOTION  
DQ7940 SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
DQ7940+SATELLITE: SATELLITE OBSERVATIONS - February 29, 2018

DQ7940  
DQ7940 HISTORY - Date Condition Report By  
DQ7940 HISTORY - 20180223 MONUMENTED CARDNO

DQ7940  
DQ7940 STATION DESCRIPTION

DQ7940 DESCRIBED BY CARDNO INC 2018 (SU)  
DQ7940 THE MARK IS LOCATED ABOUT 9.3 MI (15.0 KM) EAST OF ALVA, 6.2 MI (10.0  
DQ7940 KM) WEST-NORTHWEST OF SEARS AND 5.2 MI (8.4 KM) SOUTH-SOUTHWEST OF LA  
DQ7940 BELLE.

DQ7940  
DQ7940 TO REACH THE STATION FROM THE JUNCTION OF STATE ROAD 80, FORT DENAUD  
DQ7940 ROAD AND WEST COWBOY WAY, GO SOUTHWEST ALONG STATE ROAD 80 3.9 MI (6.3  
DQ7940 KM) TO THE JUNCTION OF CONGEN ROAD ON THE LEFT (SOUTH). TURN LEFT  
DQ7940 (SOUTH) ALONG CONGEN ROAD 0.14 MI (0.23 KM) TO A GATE (SFWD LOCK)  
DQ7940 CONTINUE THROUGH GATE AND SOUTH 0.4 MI (0.6 KM) TO THE JUNCTION OF AN  
DQ7940 EAST-WEST DIRT ROAD, THENCE GO EAST ALONG DIRT ROAD 1.2 MI (1.9 KM) TO  
DQ7940 THE JUNCTION OF A DIRT ROAD RUNNING SOUTHEAST, GO SOUTHEAST 1.3 MI  
DQ7940 (2.1 KM) TO THE JUNCTION OF A DIRT ROAD RUNNING EAST ON THE LEFT,  
DQ7940 THENCE TURN LEFT (EAST), CROSSING A BRIDGE, FOR 0.8 MI (1.4 KM) ALONG  
DQ7940 FIELD ROAD TO THE MARK ON THE LEFT.

DQ7940  
DQ7940 THE STATION IS LOCATED 19 FT (5.8 M) NORTH OF THE CENTER OF A FIELD  
DQ7940 DIRT ROAD, 18 FT (5.5 M) NORTHWEST OF AN 8 INCH (0.24 M) GATE POST, 10  
DQ7940 FT (3.0 M) EAST OF THE NORTHEAST BOLLARD AROUND MONITORING WELLS P2  
DQ7940 207 AND 1.5 FT (0.5 M) SOUTH OF A CARSONITE POST.

\*\*\* retrieval complete.  
Elapsed Time = 00:00:04

C43PZ207  
BM: C43RES2  
LAT: 26°41'20.9" LONG: 81°27'47.9"



LOOKING NORTH





# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 5/07

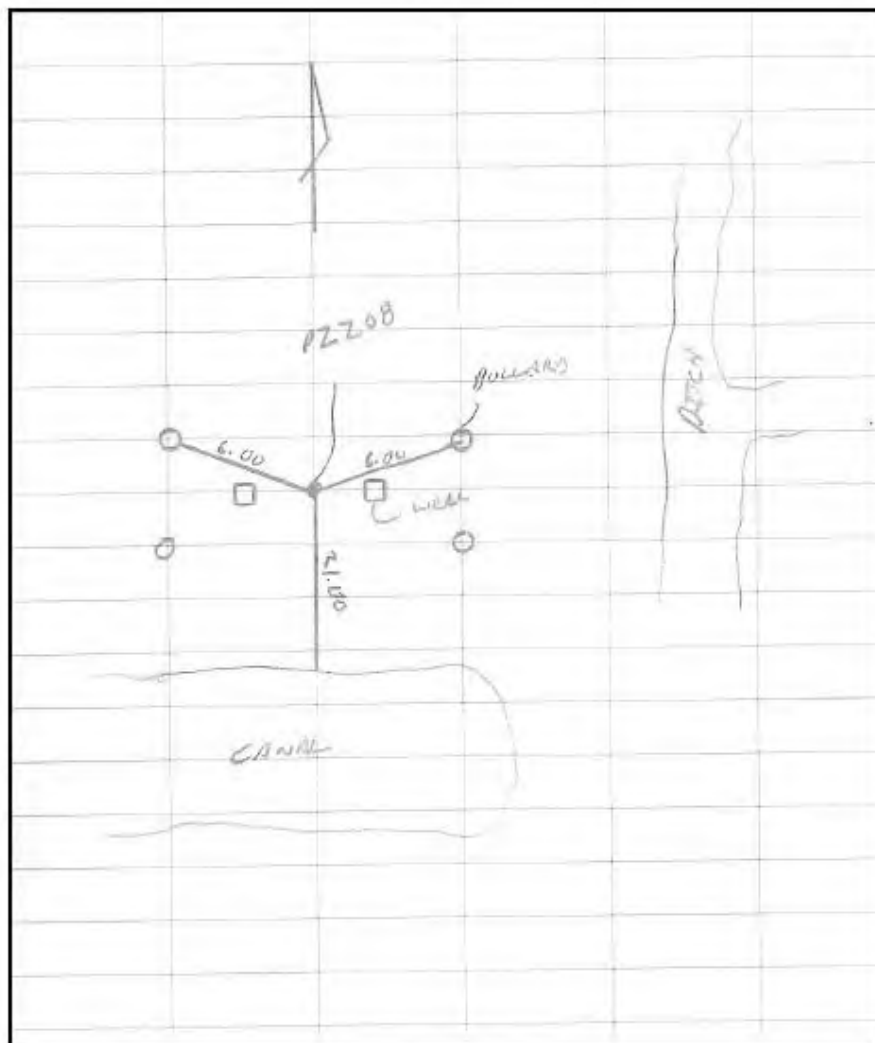
DESIGNATION: PZ 208		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: MARCH 1, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 6	TOWNSHIP: 44 SOUTH	RANGE: 29 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 504857.4	Y = 853690.2	NAVD 88 ELEV. 26.25' NGVD 29 ELEV. 27.52'
LATITUDE = N26° 40' 53.58"		LONGITUDE = W81° 27' 48.17"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 208 LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 southwest for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go East along dirt road 1.2 miles to the junction of a dirt road running South. Go South 1.3 miles to the junction of a dirt road running East. Thence go East, crossing a bridge, for 0.8 miles to the junction of a dirt road running South. Thence go South 0.5 miles to the junction of a dirt trail running East. Thence go East 0.1 miles, the mark is on the right.			
Notable Land marks: PZ 208, is an aluminum disk set in a concrete pad that is 21 feet North of the top of bank of the East - West running canal, 6 feet southeast of the northwest bollard around the wells, 6 feet southwest of the northeast bollard around the wells.			
FIELD BOOK: 510		PAGE: 35	



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ208  
BM: PZ208  
LAT: 26°40'53.6" LONG: 82°27'48.2"



LOOKING SOUTH





## The NGS Data Sheet

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

```
PROGRAM = datasheet95, VERSION = 8.12.4.1
1 National Geodetic Survey, Retrieval Date = MAY 17, 2018
DQ7941 *****
DQ7941 DESIGNATION - C 43 RES 5
DQ7941 PID - DQ7941
DQ7941 STATE/COUNTY- FL/HENDEY
DQ7941 COUNTRY - US
DQ7941 USGS QUAD - SEARS (1973)
DQ7941
DQ7941 *CURRENT SURVEY CONTROL
DQ7941
DQ7941 *-----*
DQ7941 * NAD 83(1986) POSITION- 26 40 53.60 (N) 091 27 47.81 (W) HD HELD1
DQ7941 * NAVD 88 ORTHO HEIGHT - 7.958 (meters) 26.11 (feet) ADJUSTED
DQ7941 *-----*
DQ7941 GEOID HEIGHT - -24.472 (meters) GEOID12B
DQ7941 DYNAMIC HEIGHT - 7.946 (meters) 26.07 (feet) COMP
DQ7941 MODELED GRAVITY - 979,082.3 (mgal) NAVD 88
DQ7941
DQ7941 VERT ORDER - SECOND CLASS I
DQ7941
DQ7941.The horizontal coordinates were determined by differentially corrected
DQ7941.hand held GPS observations or other comparable positioning techniques
DQ7941.and have an estimated accuracy of +/- 3 meters.
DQ7941.
DQ7941.The orthometric height was determined by differential leveling and
DQ7941.adjusted by the NATIONAL GEODETIC SURVEY
DQ7941.in May 2018.
DQ7941
DQ7941.Significant digits in the geoid height do not necessarily reflect accuracy.
DQ7941.GEOID12B height accuracy estimate available here.
DQ7941
DQ7941.The dynamic height is computed by dividing the NAVD 88
DQ7941.geopotential number by the normal gravity value computed on the
DQ7941.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
DQ7941.degrees latitude (g = 980.6199 gals.).
DQ7941
DQ7941.The modeled gravity was interpolated from observed gravity values.
DQ7941
DQ7941; North East Units Estimated Accuracy
DQ7941;SFC FL E - 260,205.8 153,890.7 MT (+/- 3 meters HPL GPS)
DQ7941
DQ7941 U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK5390651249 (NAD 83)
DQ7941
DQ7941 *-----*
DQ7941 * SUPERSEDED SURVEY CONTROL
DQ7941
DQ7941.No superseded survey control is available for this station.
DQ7941
DQ7941_MARKER: DD = SURVEY DISK
DQ7941_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
DQ7941_STAMPING: C 43 RES 5 2018
DQ7941_MARK LOGO: CARDNO
```

DQ7941 PROJECTION: RECESSED 8 CENTIMETERS  
DQ7941 MAGNETIC: N = NO MAGNETIC MATERIAL  
DQ7941 STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
DQ7941+STABILITY: SURFACE MOTION  
DQ7941 SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
DQ7941+SATELLITE: SATELLITE OBSERVATIONS - February 23, 2018

DQ7941  
DQ7941 HISTORY - Date Condition Report By  
DQ7941 HISTORY - 20180223 MONUMENTED CARDNO

DQ7941

STATION DESCRIPTION

DQ7941

DQ7941'DESCRIBED BY CARDNO INC 2018 (SU)

DQ7941'THE MARK IS LOCATED ABOUT 9.2 MI (14.8 KM) EAST-SOUTHEAST OF ALVA, 6.1

DQ7941'MI (9.8 KM) WEST-NORTHWEST OF SEARS AND 5.7 MI (9.2 KM)

DQ7941'SOUTH-SOUTHWEST OF LA BELLE.

DQ7941'

DQ7941'TO REACH THE STATION FROM THE JUNCTION OF STATE ROAD 80, FORT DENAUD

DQ7941'ROAD AND WEST COWBOY WAY, GO SOUTHWEST ALONG STATE ROAD 80 3.9 MI (6.3

DQ7941'KM) TO THE JUNCTION OF CONGEN ROAD ON THE LEFT (SOUTH). TURN LEFT

DQ7941'(SOUTH) ALONG CONGEN ROAD 0.14 MI (0.23 KM) TO A GATE (SPWMD LOCK)

DQ7941'CONTINUE THROUGH GATE AND SOUTH 0.4 MI (0.6 KM) TO THE JUNCTION OF AN

DQ7941'EAST-WEST DIRT ROAD, THENCE GO EAST ALONG DIRT ROAD 1.2 MI (1.9 KM) TO

DQ7941'THE JUNCTION OF A DIRT ROAD RUNNING SOUTHEAST, GO SOUTHEAST 1.3 MI

DQ7941'(2.1 KM) TO THE JUNCTION OF A DIRT ROAD RUNNING EAST ON THE LEFT,

DQ7941'THENCE TURN LEFT (EAST), CROSSING A BRIDGE, FOR 0.8 MI (1.3 KM) TO THE

DQ7941'JUNCTION OF A DIRT ROAD ON THE RIGHT (SOUTH), THENCE TURN RIGHT

DQ7941'(SOUTH) 0.8 MI (0.8 KM) TO THE JUNCTION OF A DIRT TRAIL ON THE LEFT

DQ7941'(EAST), THENCE TURN LEFT (EAST) 0.1 MI (0.2 KM) TO THE MARK ON THE

DQ7941'RIGHT.

DQ7941'

DQ7941'THE STATION IS LOCATED 27.90 FT (8.5 M) NORTHEAST OF THE SOUTHEAST

DQ7941'BOLLARD AROUND MONITORING WELLS PE 208, 27.76 FT (8.4 M) SOUTHWEST OF

DQ7941'THE NORTHEAST BOLLARD AROUND MONITORING WELLS PE 208, 16 FT (4.9 M)

DQ7941'WEST OF THE TOP OF BANK OF A DITCH RUNNING NORTH-SOUTH AND 2 FT (0.6

DQ7941'M) NORTH OF A CARBONITE POST.

\*\*\* retrieval complete.

Elapsed Time = 00:00:04

C43PZ208  
BM: C43RES5  
LAT: 26°40'53.6" LONG: 81°27'47.8"



LOOKING SOUTH





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 8/07

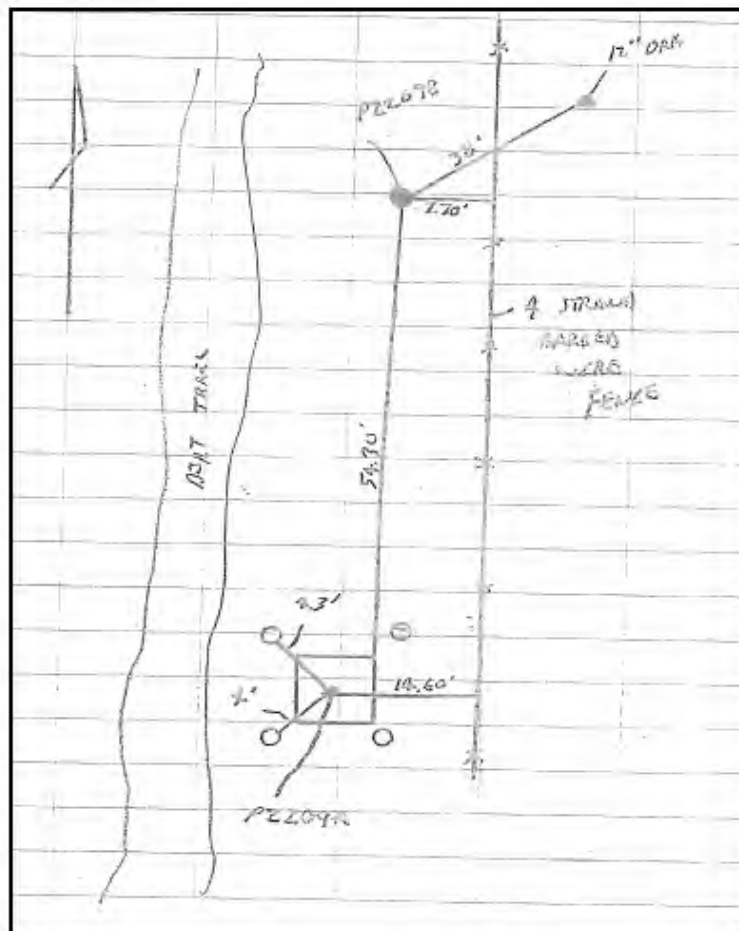
DESIGNATION: PZ 209A		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY		DATE: FEBRUARY 21, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 7	TOWNSHIP: 44 SOUTH	RANGE: 29 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 <input type="radio"/> 1983 <input checked="" type="radio"/> Other _____ (circle one) ZONE <input checked="" type="radio"/> E or W			
VERTICAL DATUM: MSL 1929 <input type="radio"/> 1988 <input checked="" type="radio"/> Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 <input checked="" type="radio"/> _____ (circle one) VERTICAL 1 2 <input checked="" type="radio"/> N/A			
STATE PLANE COORDINATES	X = 503033.8	Y = 848678.4	NAVD 88 ELEV. 28.59'
			NGVD 29 ELEV. 29.85'
LATITUDE = N26° 40' 03.88"		LONGITUDE = W81° 28' 08.07"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 209A LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 southwest for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go East 1.2 miles to junction of a dirt road running South. Go South along the dirt road for 2.3 miles to a crossing on the left (East). Thence East, using crossing, for 175 ft. to the junction of a dirt trail running North-South. Thence go South for 0.4 miles. The mark is on the left.			
Notable Land marks: PZ 209A is an aluminum disk in a concrete pad that is between two monitoring wells and is 4 ft. northeast of the southwest bollard around wells. 4.3 ft. southeast of the northwest bollard around wells. 14.6 ft. West of a four strand barbed wire fence.			
FIELD BOOK: 510		PAGE: 15	



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

SKETCH



C43PZ209  
BM: PZ209A  
LAT: 26°40'03.9" LONG: 82°28'08.1"



LOOKING EAST





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 2007

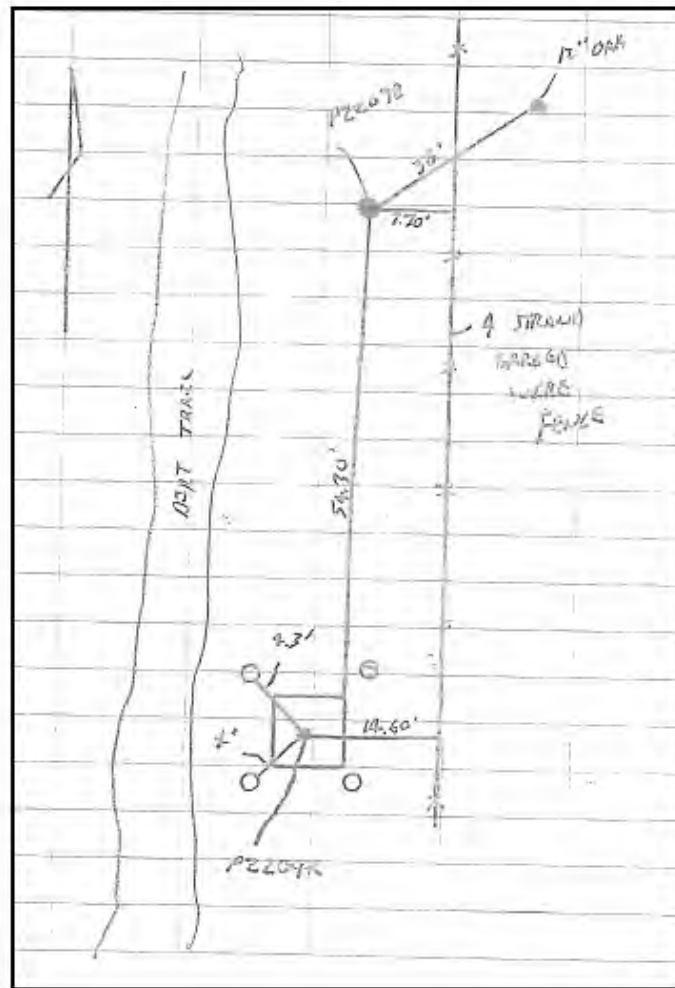
DESIGNATION: PZ 209B		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: FEBRUARY 21, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 7	TOWNSHIP: 44 SOUTH	RANGE: 29 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
GEOGRAPHIC INDEX OF QUAD:			
HORIZONTAL DATUM: 1927 (1983) Other: _____ (circle one) ZONE: (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other: N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL: 1 2 (3) _____ (circle one) VERTICAL: 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 503040.4	Y = 848735.5	NAVD 88 ELEV. 27.68' NGVD 29 ELEV. 28.95'
LATITUDE = N26° 40' 04.44"		LONGITUDE = W81° 28' 08.00"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SQ. FLA. WATER MANAGEMENT DIST. "PZ 209B LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way, Go along S.R. 80 southwest for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go East 1.2 miles to junction of a dirt road running South. Go South along the dirt road for 2.3 miles to a crossing on the left (East). Thence East, using crossing, for 175 ft. to the junction of a dirt trail running North-South. Thence go South for 0.4 miles. The mark is on the left.			
Notable Land marks: PZ 209B, is a poured in place concrete monument with an aluminum disk that is 7.7 ft. West of a four strand barbed wire fence. 38 ft. southwest of a 12" oak tree. 54.3 ft. North of the northeast corner of a concrete pad.			
FIELD BOOK: 510		PAGE: 15	



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH





C43PZ209  
BM: PZ209B  
LAT: 26°40'04.4" LONG: 82°28'08.0"



LOOKING SOUTH





# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

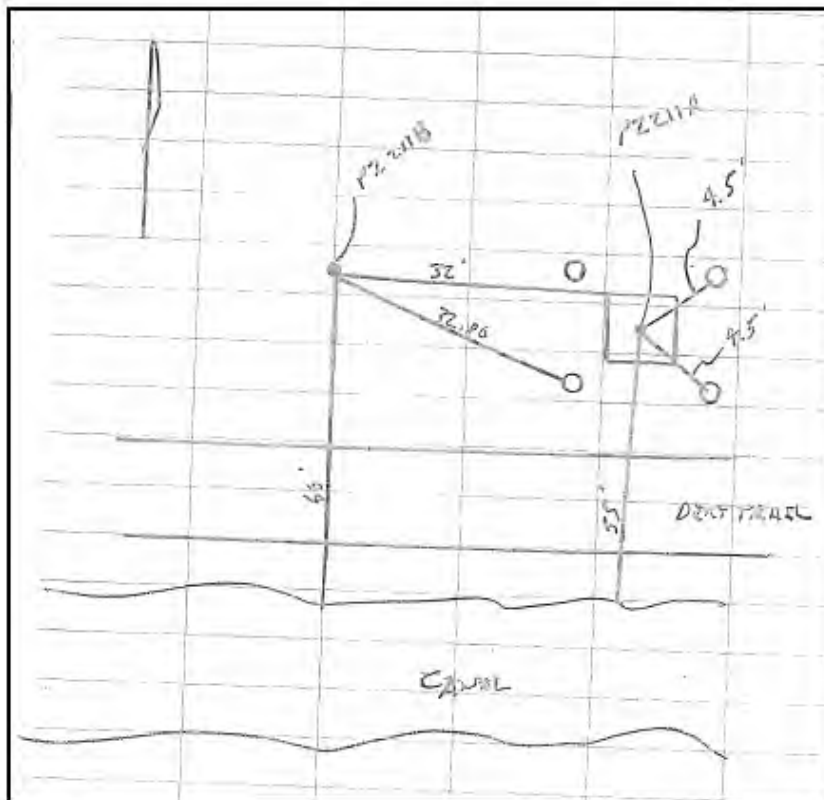
DESIGNATION: PZ 211A		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY		DATE: JANUARY 25, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 10	TOWNSHIP: 44 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 <input checked="" type="radio"/> 1983 <input type="radio"/> Other _____ (circle one) ZONE <input checked="" type="radio"/> E <input type="radio"/> W			
VERTICAL DATUM: MSL 1929 <input checked="" type="radio"/> 1988 <input type="radio"/> Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 <input checked="" type="radio"/> _____ (circle one) VERTICAL 1 2 <input checked="" type="radio"/> N/A			
STATE PLANE COORDINATES	X = 492334.1	Y = 845539.6	NAVD 88 ELEV. 24.83' NGVD 29 ELEV. 26.10'
LATITUDE = N26° 39' 32.38"		LONGITUDE = W81° 30' 05.88"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 211A LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way, Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence East for 0.26 miles to the junction of a dirt road to the South. Thence south 1 mile to a bridge. Thence continue South along the East side of a canal for 2.2 miles to an Eastward turn in the dirt road. Thence continue East for 0.1 miles. The mark is on the left.			
Notable Land marks: PZ 211A is an aluminum disk in a concrete pad between two monitoring wells and is 4.5 ft. southwest of the northeast bollard around wells. 4.5 ft. northwest of the southeast bollard around the wells. 55 ft. North of the top of bank of an East-West canal.			
FIELD BOOK: 510		PAGE: 16	



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ211  
BM: PZ211A  
LAT: 26°39'32.4" LONG: 82°30'05.9"



LOOKING EAST





# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

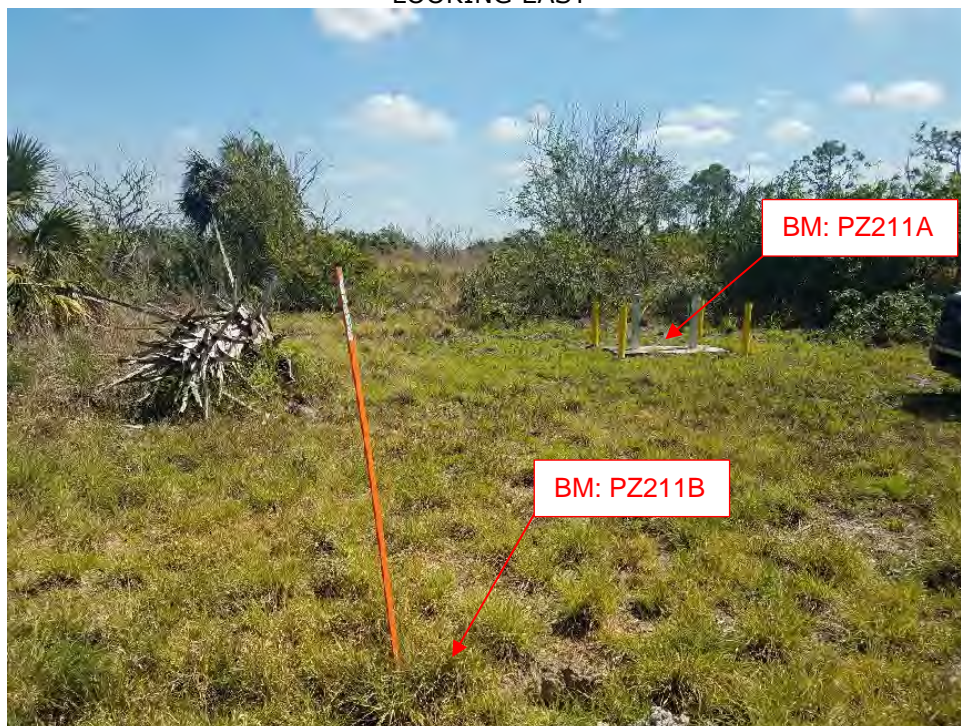
DESIGNATION: PZ 211B		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: JANUARY 25, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 10	TOWNSHIP: 44 SOUTH	RANGE: 20 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
GEOGRAPHIC INDEX OF QUAD:			
HORIZONTAL DATUM: 1927 <input checked="" type="radio"/> 1983 Other _____ (circle one) ZONE <input checked="" type="radio"/> E or W			
VERTICAL DATUM: MSL 1929 <input checked="" type="radio"/> 1988 Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 <input checked="" type="radio"/> _____ (circle one) VERTICAL 1 2 <input checked="" type="radio"/> N/A			
STATE PLANE COORDINATES	X = 492381.2	Y = 845548.9	NAVD 88 ELEV. 24.62' NGVD 29 ELEV. 25.88'
LATITUDE = N26° 38' 32.48"		LONGITUDE = W81° 30' 06.24"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO: FLA. WATER MANAGEMENT DIST. "PZ 211B LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence East for 0.36 miles to the junction of a dirt road to the South. Thence south 1 mile to a bridge. Thence continue South along the East side of a canal for 2.2 miles to an Eastward turn in the dirt road. Thence continue East for 0.1 miles. The mark is on the left.			
Notable Land marks: PZ 211B, is a poured in place concrete monument with an aluminum that is 32 ft. West of the northwest corner of a concrete pad. 32.8 ft. northwest of the southwest bollard around wells. 66 ft. North of the top of bank of an East-West canal.			
FIELD BOOK: 510		PAGE: 16	



C43PZ211  
BM: PZ211B  
LAT: 26°39'32.5" LONG: 82°30'06.3"



LOOKING EAST





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 8/07

DESIGNATION: PZ 213A		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT UROUHART	
RECOVERED BY		DATE: MARCH 1, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 9	TOWNSHIP: 44 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other: _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other: N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 482016.4	Y = 845709.4	NAVD 88 ELEV. 24.49' NGVD 29 ELEV. 25.81'
LATITUDE = 26° 39' 33.66"		LONGITUDE = 81° 31' 59.61"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. " PZ 213A LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way, Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence East 0.26 miles to the junction of a dirt road south. Thence south for 3.0 miles till the road turns west. Go west for 1.7 miles till the road turns North, continue 0.1 miles and the mark is on the right.			
Notable Land marks: PZ 213A is an aluminum disk set in the Northwest corner of the concrete well pad that is 52 ft. East of the top of bank of the canal where it turns North. 3.5 ft. Southwest of the Northeast bollard around the wells, and 2 ft. Southeast of the Northwest bollard around the wells.			
FIELD BOOK: 510		PAGE: 38	

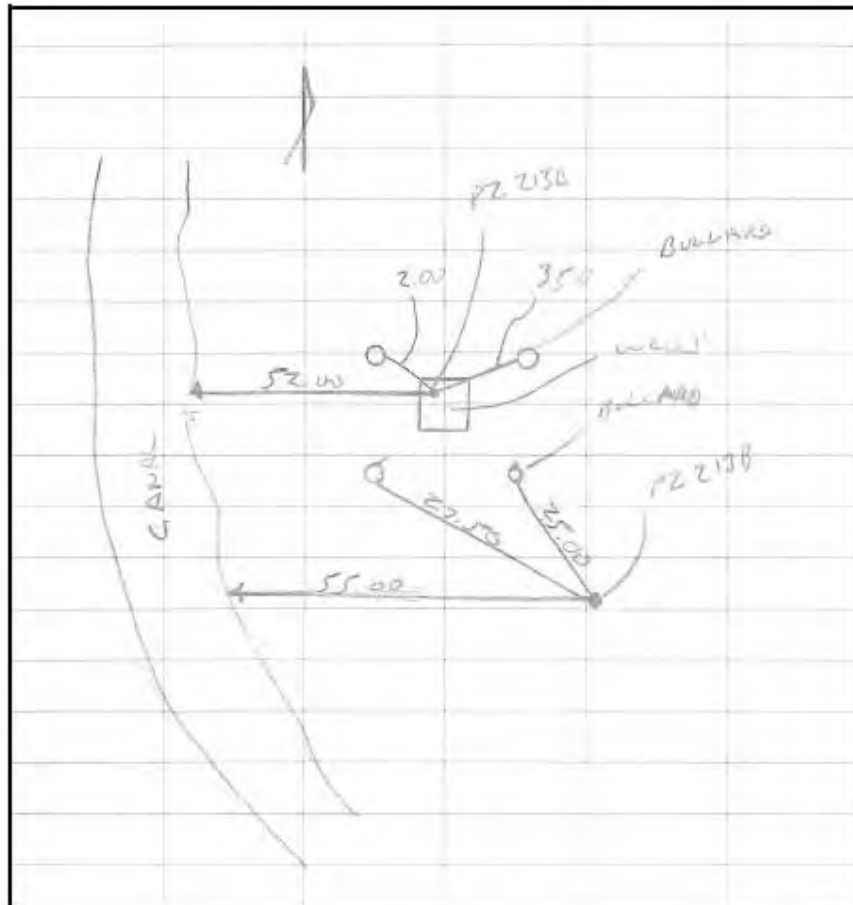




# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ213  
BM: PZ213A  
LAT: 26°39'33.6" LONG: 82°31'59.6"



LOOKING EAST





# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

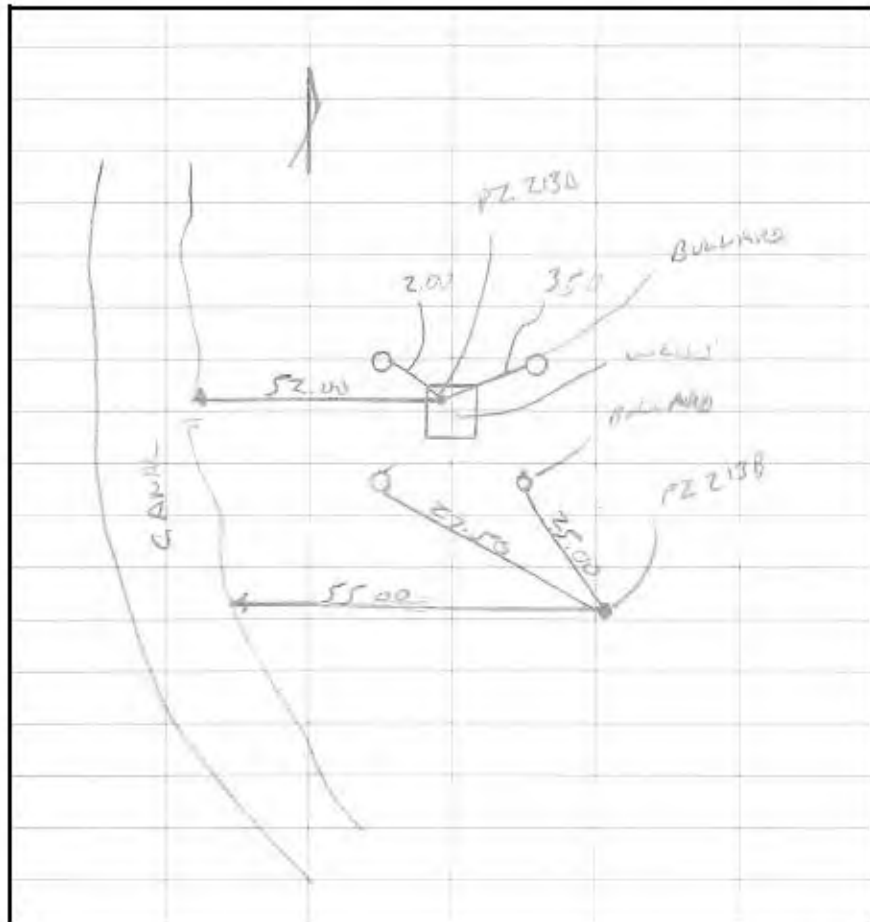
DESIGNATION: PZ 213B		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: MARCH 1, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 9	TOWNSHIP: 44 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL ± 2 (3) _____ (circle one) VERTICAL ± 2 (3) N/A			
STATE PLANE COORDINATES	X = 492030.8	Y = 845681.9	NAVD 88 ELEV. 23.80' NGVD 29 ELEV. 25.42'
LATITUDE = 26° 39' 33.39"		LONGITUDE = 81° 31' 53.45"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST "PZ 213B LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way, Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence East 0.26 miles to the junction of a dirt road south. Thence south for 3.0 miles till the road turns west. Go west for 1.7 miles till the road turns North. continue 0.1 miles and the mark is on the right.			
Notable Land marks: PZ 213B is a poured in place concrete monument with aluminum disk 55 ft. East of the top of bank of the canal where it turns North. 27.5 ft. Southeast of the Southwest bollard around the wells and 25.0 ft. Southeast of the of the Southeast bollard around the wells.			
FIELD BOOK: 510		PAGE: 38	



**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 8/07

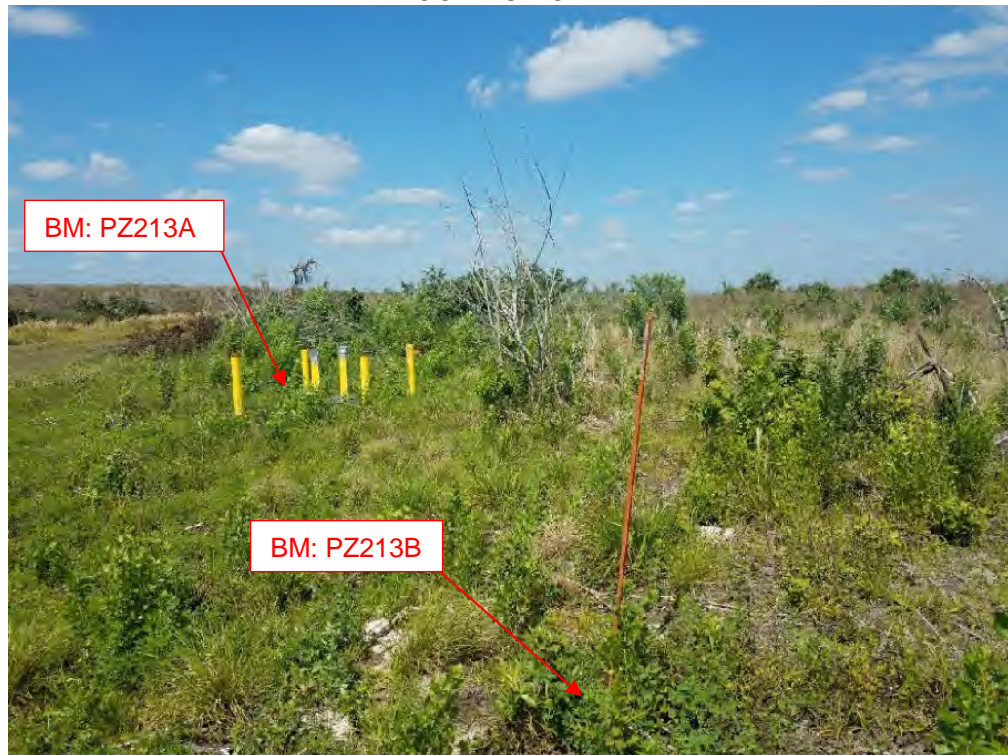
**SKETCH**



C43PZ213  
BM: PZ213B  
LAT: 26°39'33.4" LONG: 82°31'59.5"



LOOKING NORTH





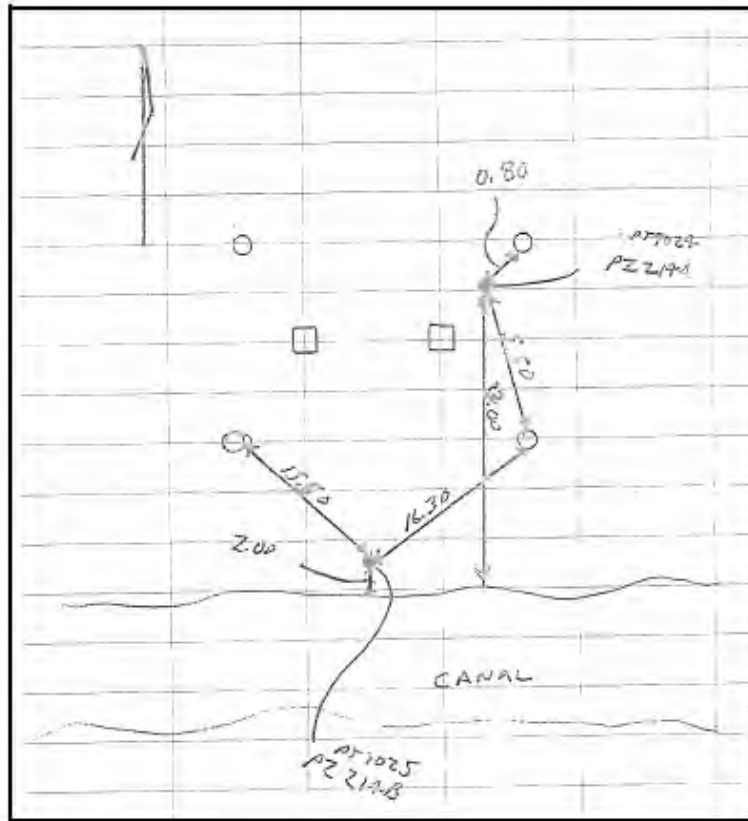
**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 8/07

DESIGNATION: PZ 214A		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: FEBRUARY 19, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 8	TOWNSHIP: 44 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 477399.3	Y = 848184.8	NAVD 88 ELEV. 22.65' NGVD 29 ELEV. 23.34'
LATITUDE = N26° 39' 57.98"		LONGITUDE = W81° 32' 50.62"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 214A LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go West along dirt road for 3.0 miles to the junction of a North-South dirt road. Thence South along the dirt road for 2.0 miles to a junction with a dirt road to the East. Thence go East, along the dirt road, for 0.65 miles, to a junction with a North-South dirt road. Thence South, along the dirt road, for a distance of 0.45 miles, to a curve to the right (West). Thence West, along a dirt road, for 0.1 miles to a mark on the left.			
Notable Land marks: PZ 214A, is a poured in place concrete monument with an aluminum disk that is 23 ft. North of the top of bank of an East-West canal. 5.50 ft. North of the southeast bollard around wells. 0.8 ft. southwest of the northeast bollard around wells.			
FIELD BOOK: 510		PAGE: 32	



SKETCH



C43PZ214  
BM: PZ214A  
LAT: 26°39'58.0" LONG: 82°32'50.6"



LOOKING NORTH







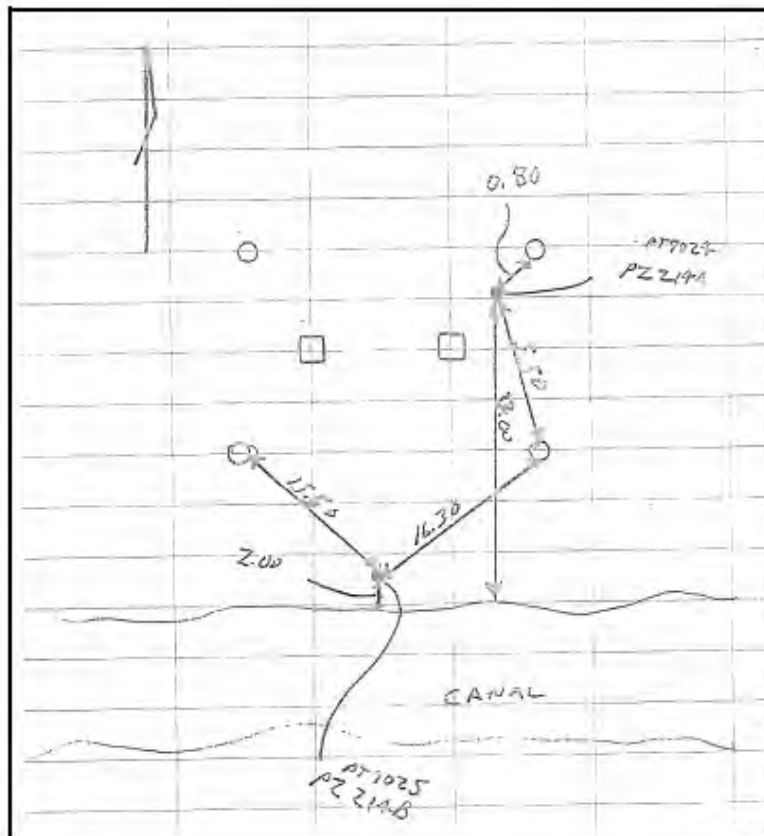
**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Feb. 2018

DESIGNATION: PZ 214B		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY		DATE: FEBRUARY 19, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 8	TOWNSHIP: 44 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
GEOGRAPHIC INDEX OF QUAD:			
HORIZONTAL DATUM: 1927 (1983) Other: _____ (circle one) ZONE: (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other: N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 477395.2	Y = 848163.9	MAVD 88 ELEV. 22.96' NGVD 29 ELEV. 24.21'
LATITUDE = N26° 39' 57.77"		LONGITUDE = W81° 32' 50.66"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 214B LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way, Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go West along dirt road for 3.0 miles to the junction of a North-South dirt road. Thence South along the dirt road for 2.0 miles to a junction with a dirt road to the East. Thence go East, along the dirt road, for 0.65 miles, to a junction with a North-South dirt road. Thence South, along the dirt road, for a distance of 0.45 miles, to a curve to the right (West). Thence West, along a dirt road, for 0.1 miles to a mark on the right.			
Notable Land marks: PZ 214B is a poured in place concrete monument with an aluminum disk that is 16.30 ft. southwest of the southeast bollard around wells. 15.50 ft. southeast of the southwest bollard around wells. 2.0 ft. North of the top of bank of an East-West canal.			
FIELD BOOK: 510		PAGE: 32	



SKETCH



C43PZ214  
BM: PZ214B  
LAT: 26°39'57.8" LONG: 82°32'50.7"



LOOKING SOUTH





# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 9/07

DESIGNATION: PZ 215A		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: E. DOULE		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: FEBRUARY 21, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 29	TOWNSHIP: 43 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 <input checked="" type="radio"/> 1983 Other: _____ (circle one)		ZONE <input checked="" type="radio"/> E or W	
VERTICAL DATUM: MSL 1929 <input checked="" type="radio"/> 1988 Other: N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 <input checked="" type="radio"/> _____ (circle one)		VERTICAL 1 2 <input checked="" type="radio"/> N/A	
STATE PLANE COORDINATES	X = 461720.7	Y = 863323.3	NAVD 88 ELEV. 19.58' NGVD 29 ELEV. 20.84'
LATITUDE = N26° 42' 28.09"		LONGITUDE = W81° 32' 03.68"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 215A LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go West along the dirt road, for 1.5 miles to a junction with a North-South dirt road. Thence go North along a dirt road, for 0.3 miles. The mark is on the left.			
Notable Land marks: PZ 215A, is an aluminum disk in a concrete pad, between two monitoring wells and is 4.5 ft. SW of the NE bollard around wells. 4.5 ft. NW of the SE bollard around wells. 10 ft. East of the Top of Bank of a North-South running canal.			
FIELD BOOK:	510	PAGE:	19



C43PZ215  
BM: PZ215A  
LAT: 26°42'28.1" LONG: 82°32'03.7"



LOOKING WEST





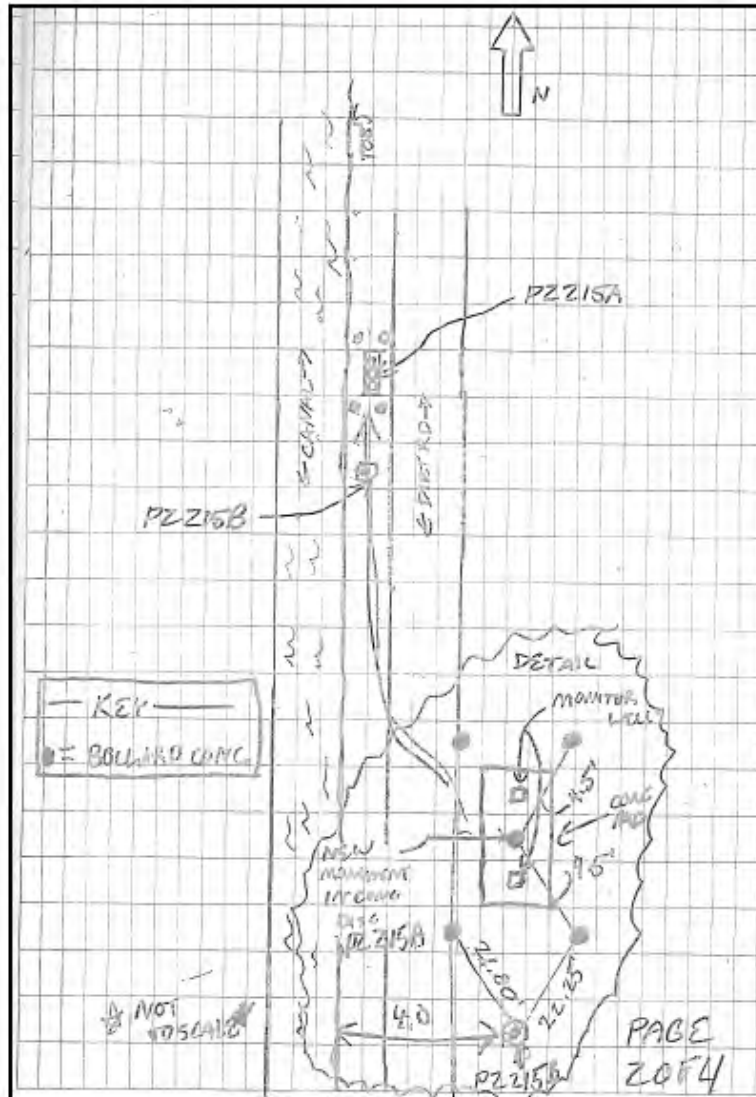
**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

FD-807

DESIGNATION: PZ 215B		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: E. DOULE		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: FEBRUARY 21, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 28	TOWNSHIP: 43 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
GEOGRAPHIC INDEX OF QUAD:			
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 481716.7	Y = 863298.1	NAVD 88 ELEV. 18.54' NGVD 29 ELEV. 19.80'
LATITUDE = N26° 42' 27.84"		LONGITUDE = W81° 32' 03.73"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 215B LB 7575 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go West, along the dirt road, for 1.5 miles to a junction with a North-South dirt road. Thence go North, along a dirt road, for 0.3 miles. The marks are on the left.			
Notable Land marks: PZ 215B, is a poured in place concrete monument with an aluminum disk and is 4.0 ft. East of the Top of Bank of a North-South running canal. 21.80 ft. SE of the SW bollard around wells. 20.25 ft. SW of the SE bollard around wells.			
FIELD BOOK: 510		PAGE: 13	



SKETCH

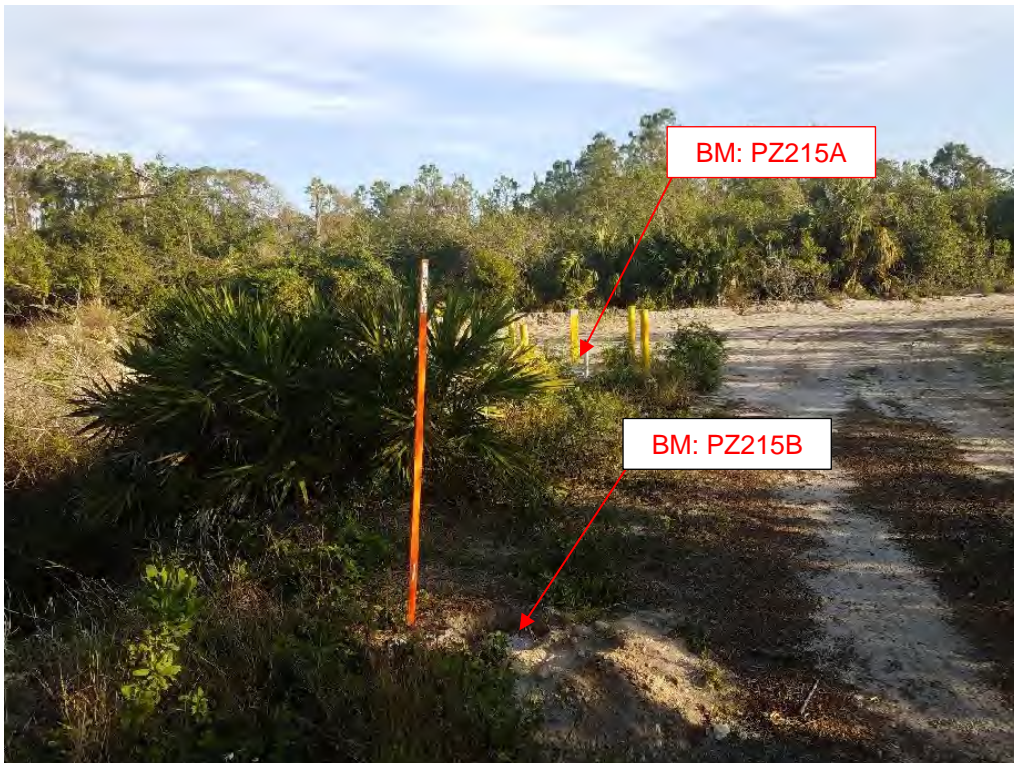




C43PZ215  
BM: PZ215B  
LAT: 26°42'27.8" LONG: 82°32'03.7"



LOOKING NORTH





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev 907

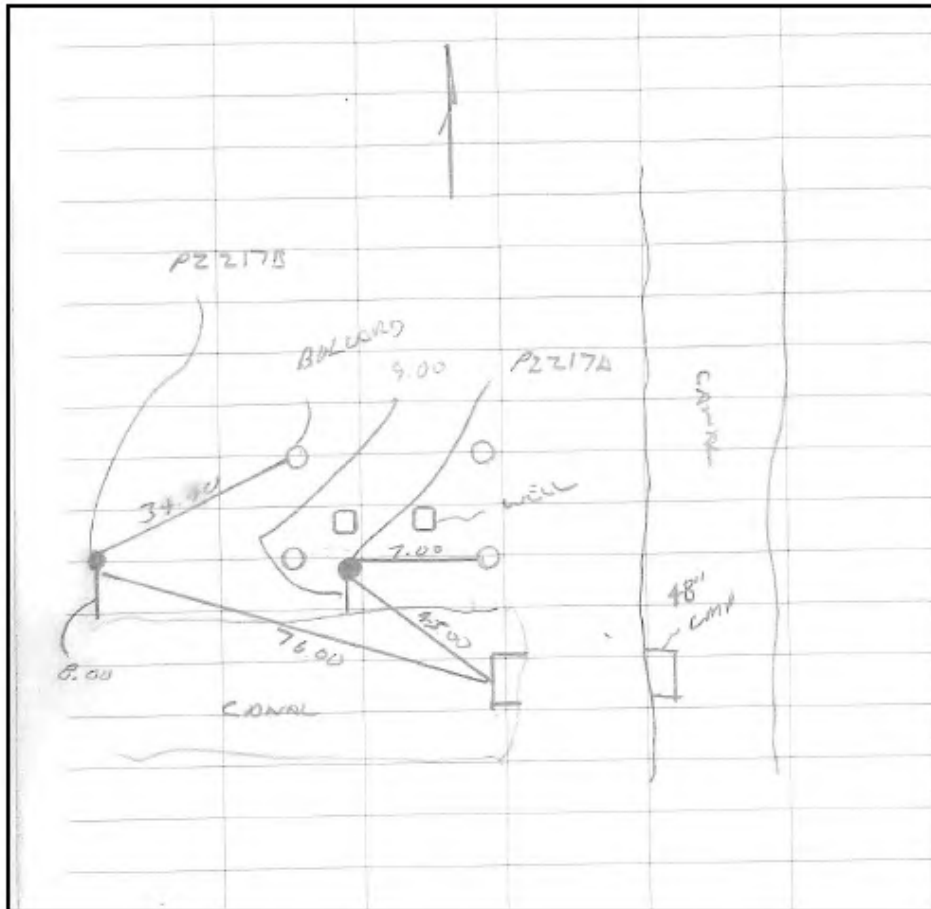
DESIGNATION: PZ 217A		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY		DATE: MARCH 1, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 25	TOWNSHIP: 43 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other N/A (circle one)			
CONTROL ACCURACY; HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 501542.8	Y = 866675.9	NAVD 86 ELEV. 18.05' NGVD 29 ELEV. 19.33'
LATITUDE = N26° 43' 02.08"		LONGITUDE = W81° 28' 25.24"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. PZ 217A LB 7975 2018'			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go East along the dirt road 1.2 miles to a bridge. Thence continue East 200 ft. to the junction of a North-South dirt road. Thence continue East on the South side of a canal for 1 mile to the junction of a North-South dirt road. From junction of North-South dirt road go North 1 mile. The marks on the left.			
Notable Land marks: PZ 217 A, is a poured in place concrete monument with an aluminum disk and is 45 feet northwest of the west end of a 48 inch corrugated metal pipe, 7 feet west of the southeast bollard around the wells, 9 feet North of the top of bank of the East - West canal, and 2 feet North of carsonite post.			
FIELD BOOK: 510		PAGE: 33	



**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 8/07

**SKETCH**



C43PZ217  
BM: PZ217A  
LAT: 26°43'02.1" LONG: 82°28'25.3"



LOOKING SOUTH





## SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

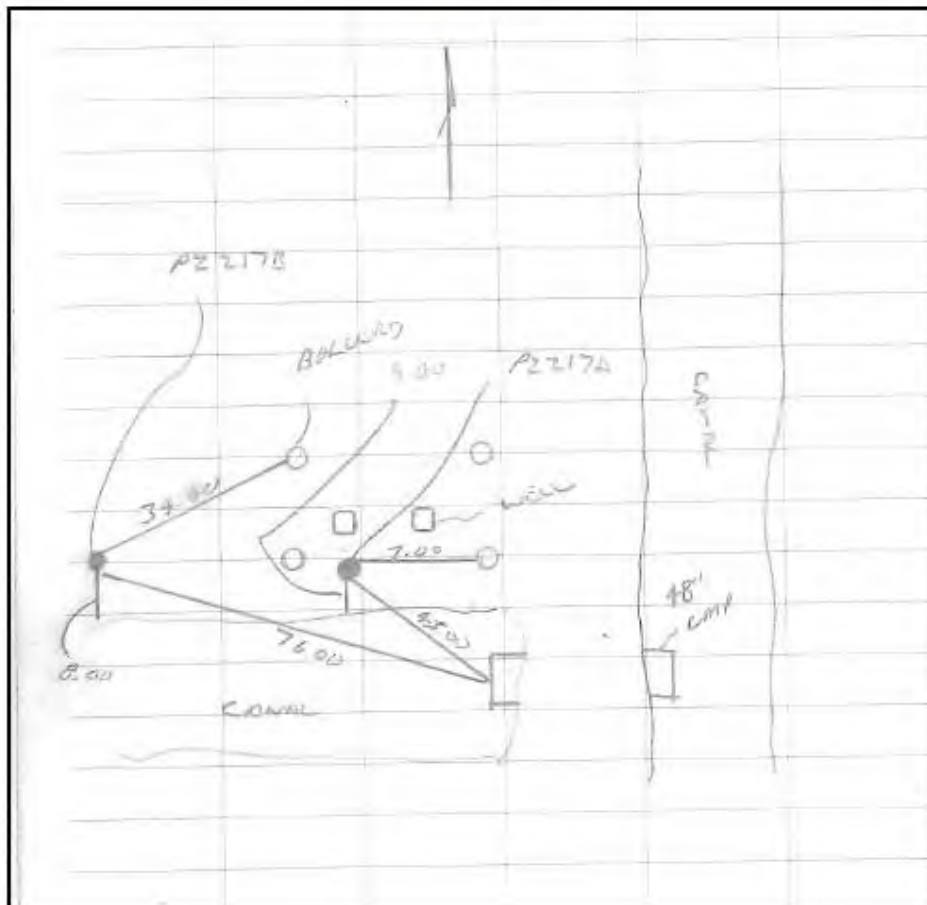
DESIGNATION: PZ 217B		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: MARCH 1, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 25	TOWNSHIP: 43 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
GEOGRAPHIC INDEX OF QUAD:			
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other, N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 501507.5	Y = 866675.6	NAVD 88 ELEV: 18.16' NGVD 29 ELEV: 19.44'
LATITUDE = N26° 43' 02.06"		LONGITUDE = W81° 28' 25.63"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST "PZ 217B LB 7575 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go East along the dirt road 1.2 miles to a bridge. Thence continue East 200 ft. to the junction of a North-South dirt road. Thence continue East on the South side of a canal for 1 mile to the junction of a North-South dirt road. From junction of North - South dirt road go North 1 mile. The marks on the left.			
Notable Land marks: PZ 217 B. is a poured in place concrete monument with an aluminum disk and is 76 feet northwest of the north end of 48 inch corrugated metal pipe, 34 feet southwest of the northwest bollard around monitoring wells, 8 feet North of top of bank of the East - West canal, and 2 feet north of carsonite post.			
FIELD BOOK: 510		PAGE: 33	



**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 8/07

**SKETCH**



C43PZ217  
BM: PZ217B  
LAT: 26°43'02.0" LONG: 82°28'25.6"



LOOKING SOUTH





# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 6/07

DESIGNATION: PZ 221		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT UROUHART	
RECOVERED BY:		DATE: MARCH 15, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 15	TOWNSHIP: 44 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1963) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 489063.0	Y = 841265.6	NAVD 88 ELEV. 26.84' NGVD 29 ELEV. 28.10'
LATITUDE = N26° 38' 49.94"		LONGITUDE = W81° 30' 41.74"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "BM PZ 221 2016"			
To Reach: To reach the station from the intersection of Cowboy Way and Highway 29 go South down Highway 29 for 7.6 miles to the entrance of Duda Farms on the right. Go west through entrance for 200 feet when the road turns North. Continue North for 150 feet to the guard shack. The road turns from pavement to dirt. Continue North for 0.20 miles where the road turns West. Go West 1.90 miles to a junction of a North - South dirt road. Go North 0.40 miles to junction of dirt road running West. Go West 2.70 miles to junction of a North running dirt road. 200 feet down the road the marks are on the right.			
Notable Land marks: PZ 221, is an aluminum disk (found) set in in concrete slab between two wells. It is 40 feet East of the center line of North - South dirt road. 14 feet Northwest of the Northeast corner of concrete pad. 11 Feet Northeast of the Northwest corner of concrete pad.			
FIELD BOOK: 510		PAGE: 45	

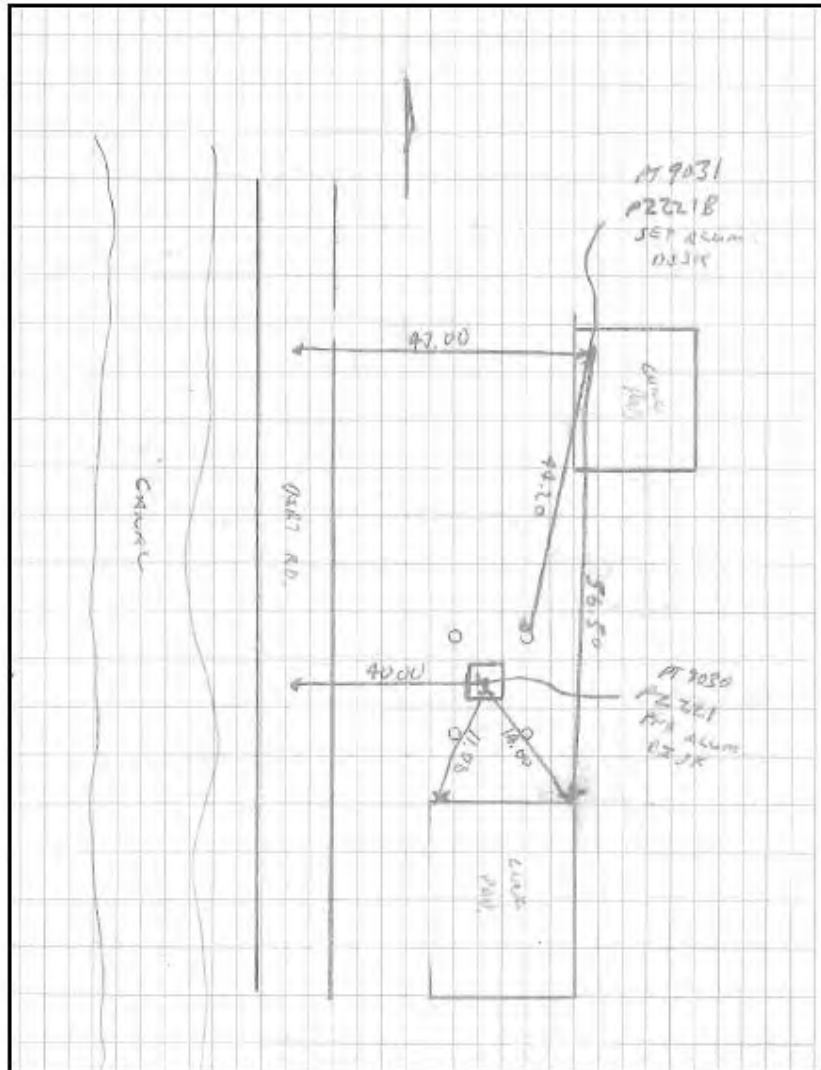




# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ221  
BM: PZ221  
LAT: 26°38'49.9" LONG: 82°30'41.8"



LOOKING NORTH





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 8/07

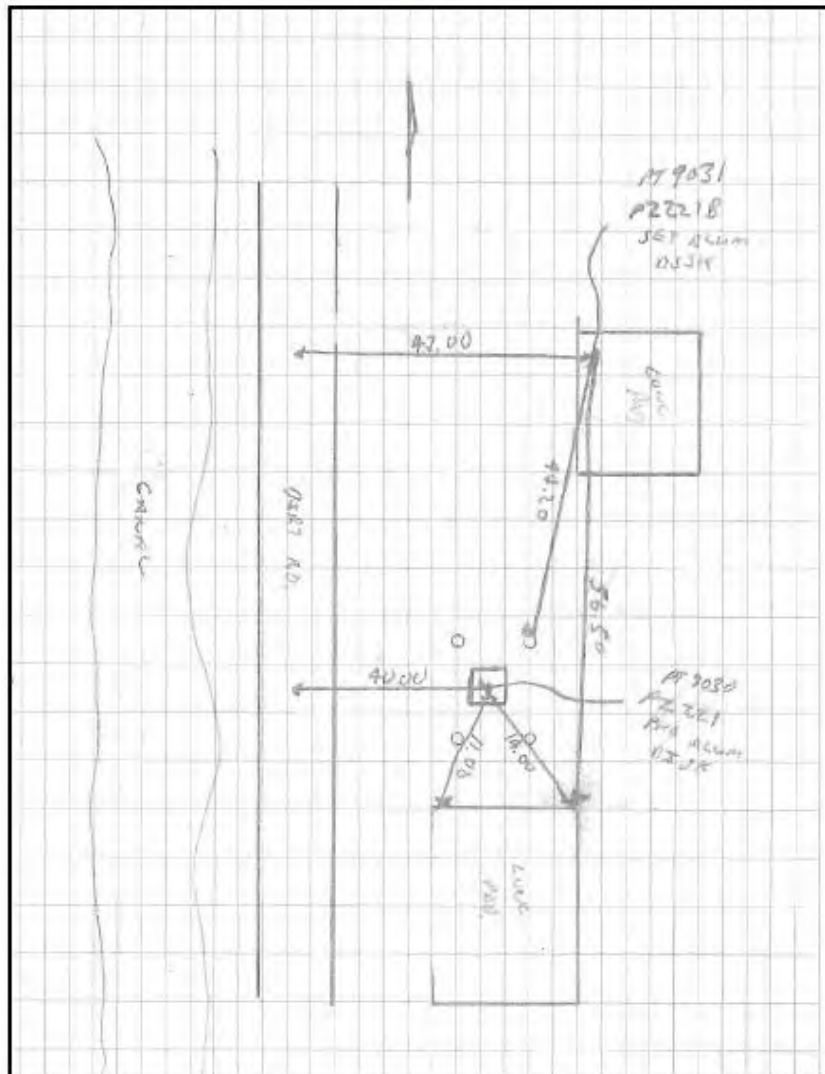
DESIGNATION: PZ 221B		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: MARCH 15, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 15	TOWNSHIP: 44 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
GEOGRAPHIC INDEX OF QUAD:			
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) of W			
VERTICAL DATUM: MSL 1929 (1988) Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 489063.3	Y = 841313.6	MAVD 88 ELEV. 26.49' NGVD 29 ELEV. 27.75'
LATITUDE = N26° 38' 50.41"		LONGITUDE = W81° 30' 41.74"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 221B LB 7975 2018"			
To Reach: To reach the station from the intersection of Cowboy Way and Highway 29 go South down Highway 29 for 7.6 miles to the entrance of Duda Farms on the right. Go west through entrance for 200 feet when the road turns North. Continue North for 150 feet to the guard shack. The road turns from pavement to dirt. Continue North for 0.20 miles where the road turns West. Go West 1.90 miles to a junction of a North - South dirt road. Go North 0.40 miles to junction of dirt road running West. Go West 2.70 miles to junction of a North running dirt road. 200 feet down the road the marks are on the right.			
Notable Land marks: PZ 221 B. is an aluminum disk set in the Northwest corner of a concrete pad. It is 47 feet East of the center line of North - South dirt road. 56.50 North of the Northeast corner of concrete pad. 44.20 feet Northeast of the Northeast bollard around the wells.			
FIELD BOOK: 510		PAGE: 45	



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ221  
BM: PZ221B  
LAT: 26°38'50.4" LONG: 82°30'41.8"



LOOKING EAST





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev 8/07

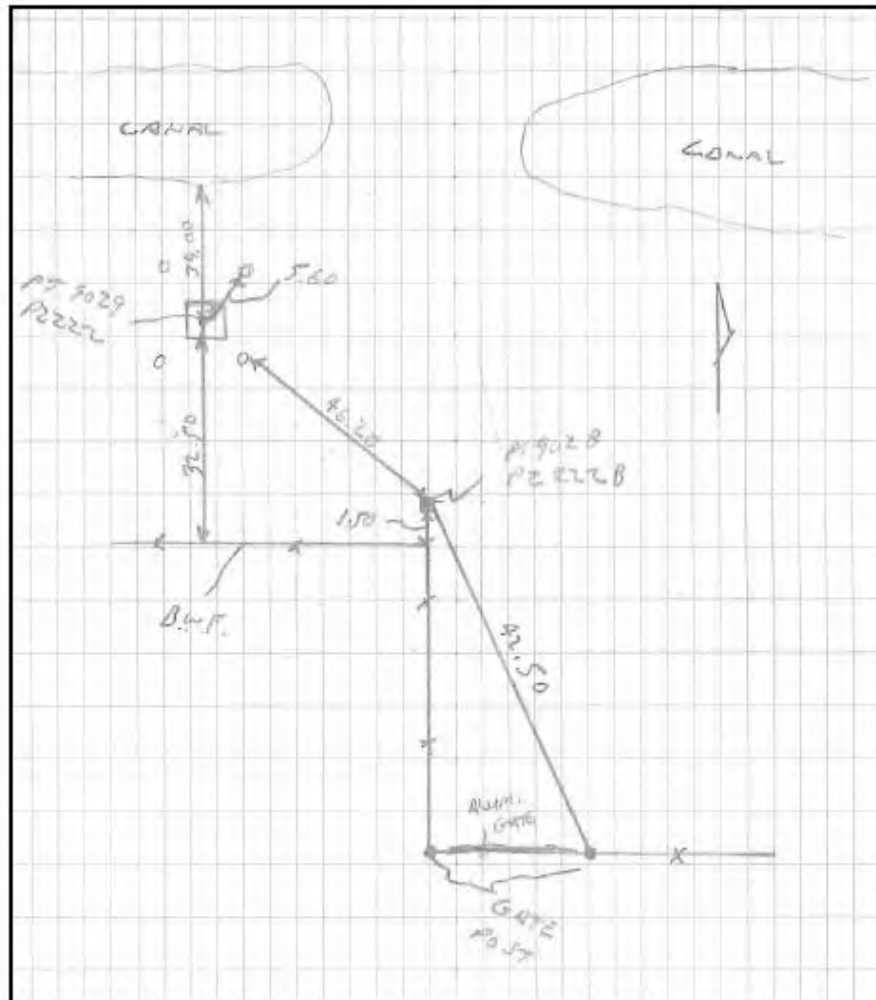
DESIGNATION: PZ 222		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY:		DATE: MARCH 15, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 23	TOWNSHIP: 44 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other M/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) M/A			
STATE PLANE COORDINATES	X = 495129.3	Y = 837232.8	NAVD 88 ELEV. 27.56' NGVD 29 ELEV. 28.82'
LATITUDE = N26° 38' 10.23"		LONGITUDE = W81° 26' 34".72"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK 50, FLA. WATER MANAGEMENT DIST. "BM PZ 222 2016"			
To Reach: To reach the station from the intersection of Cowboy Way and Highway 29 go South down Highway 29 for 7.6 miles to the entrance of Duda Farms on the right. Go west through entrance for 200 feet when the road turns North. Continue North for 150 feet to the guard shack. The road turns from pavement to dirt. Continue North for 0.20 miles where the road turns West. Go West 1.90 miles to a junction of a North - South dirt road. Go North 0.40 miles to junction of dirt road running West. Go West 1.7 miles to a North - South canal. Go South along the West bank of the North - South canal 0.75 miles. The marks are on the right.			
Notable Land marks: PZ 222 is an aluminum disk (found) set in concrete slab between two wells. It is 39 feet south of the top of back of the East - West running canal. 32.50 feet North of the East - West barbed wire fence. 5.60 feet Southwest of the Northeast bollard surrounding the wells.			
FIELD BOOK: 510		PAGE: 46	



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ222  
BM: PZ222  
LAT: 26°38'10.2" LONG: 82°29'34.7"



LOOKING NORTH







## SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

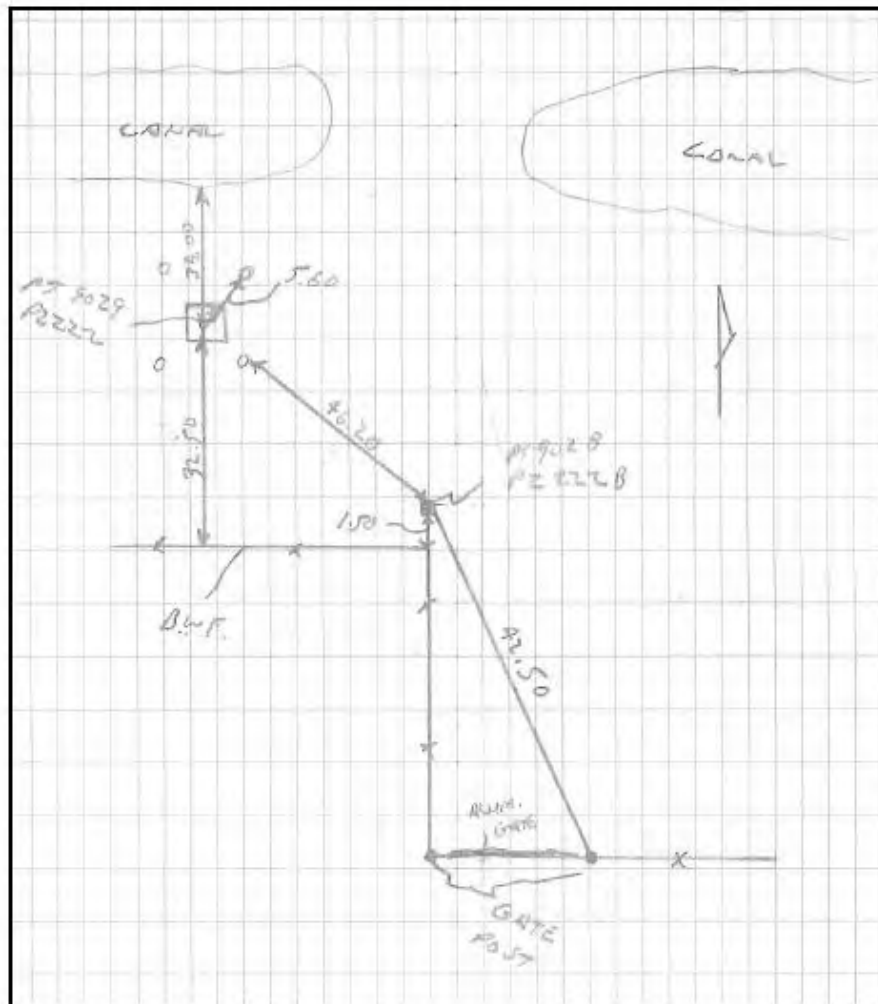
DESIGNATION: PZ 222B		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY		DATE: MARCH 15, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 23	TOWNSHIP: 44 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
GEOGRAPHIC INDEX OF QUAD:			
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 495174.4	Y = 837206.5	NAVD 88 ELEV. 26.65' NGVD 29 ELEV. 27.91'
LATITUDE = N28° 38' 09.97"		LONGITUDE = W81° 29' 34.22"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK. SO. FLA. WATER MANAGEMENT DIST "PZ 222B LB 7975 2018"			
To Reach: To reach the station from the intersection of Cowboy Way and Highway 29 go South down Highway 29 for 7.6 miles to the entrance of Duda Farms on the right. Go west through entrance for 200 feet when the road turns North. Continue North for 150 feet to the guard shack. The road turns from pavement to dirt. Continue North for 0.20 miles where the road turns West. Go West 1.90 miles to a junction of a North - South dirt road. Go North 0.40 miles to junction of dirt road running West. Go West 1.7 miles to a North - South canal. Go South along the West bank of the North - South canal 0.75 miles. The marks are on the right.			
Notable Land marks: PZ 222 B is an aluminum disk set in a poured in place concrete post. It is 46.20 feet Southeast of the Southeast bollard around the wells. 43.50 feet Northwest of East gate post. 1.50 feet North of fence corner and carsonite post.			
FIELD BOOK: 510		PAGE: 46	



**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 8/07

**SKETCH**



C43PZ222  
BM: PZ222B  
LAT: 26°38'09.9" LONG: 82°29'34.2"



LOOKING WEST





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

FE 207

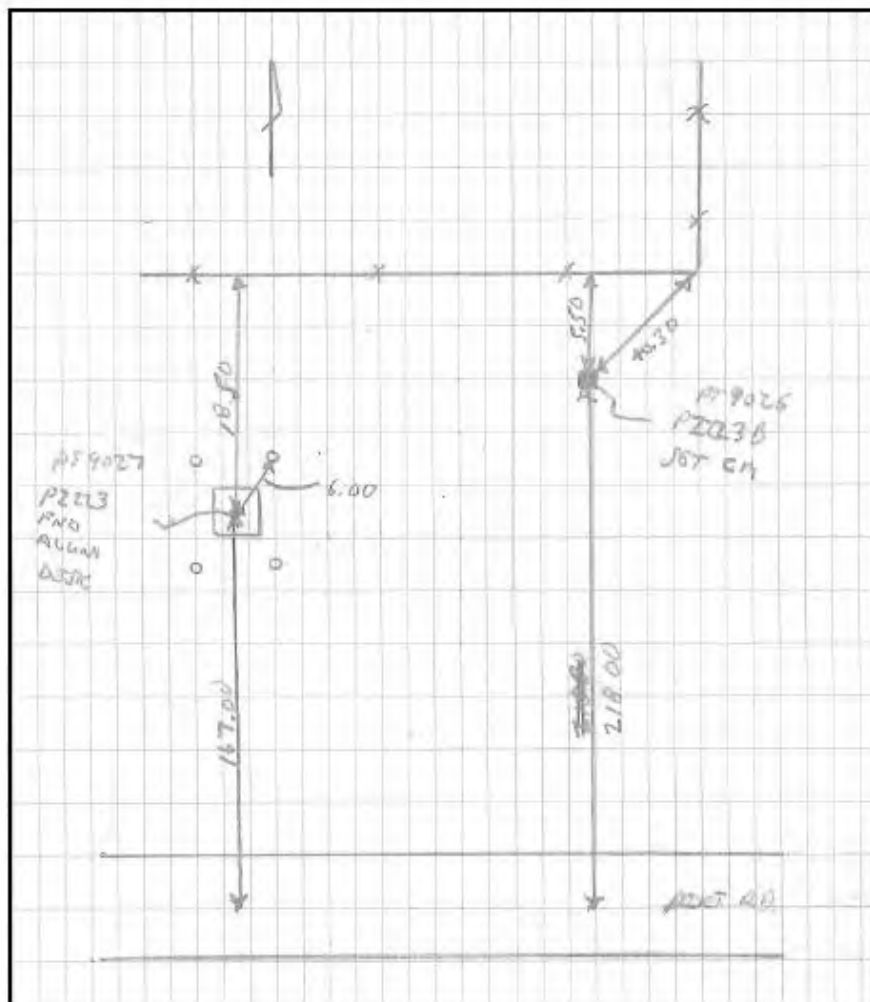
DESIGNATION: PZ 223		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY:		SURVEYOR: SCOTT URQUHART	
RECOVERED BY: J. HAYWOOD		DATE: MARCH 15, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 13	TOWNSHIP: 44 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
GEOGRAPHIC INDEX OF QUAD:			
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) of W			
VERTICAL DATUM: MSL 1929 (1988) Other: N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 500447.7	Y = 841069.2	NAVD 88 ELEV. 28.17' MGVD 29 ELEV. 29.43'
LATITUDE = 26° 38' 48.43"		LONGITUDE = 81° 28' 36.26"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "BM PZ 223 2018"			
To Reach: To reach the station from the intersection of Cowboy Way and Highway 29 go South down Highway 29 for 7.6 miles to the entrance of Duda Farms on the right. Go west through entrance for 200 feet when the road turns North. Continue North for 150 feet to the guard shack. The road turns from pavement to dirt. Continue North for 0.20 miles where the road turns West. Go West 1.90 miles to a junction of a North – South dirt road. Go North 0.40 miles to junction of dirt road running West. Go West 0.50 miles, the Marks are on the North side of the road.			
Notable Land marks: PZ 223 is an aluminum disk (found) set in concrete slab between the two wells. It is 167.00 North of the centerline of East – West dirt road. 18.5 feet South of East – West barbed wire fence. 6.00 feet Southwest of the Northeast bollard around the wells.			
FIELD BOOK: 510		PAGE: 44	



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ223  
BM: PZ223  
LAT: 26°38'48.4" LONG: 82°28'36.3"



LOOKING NORTH





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 6/07

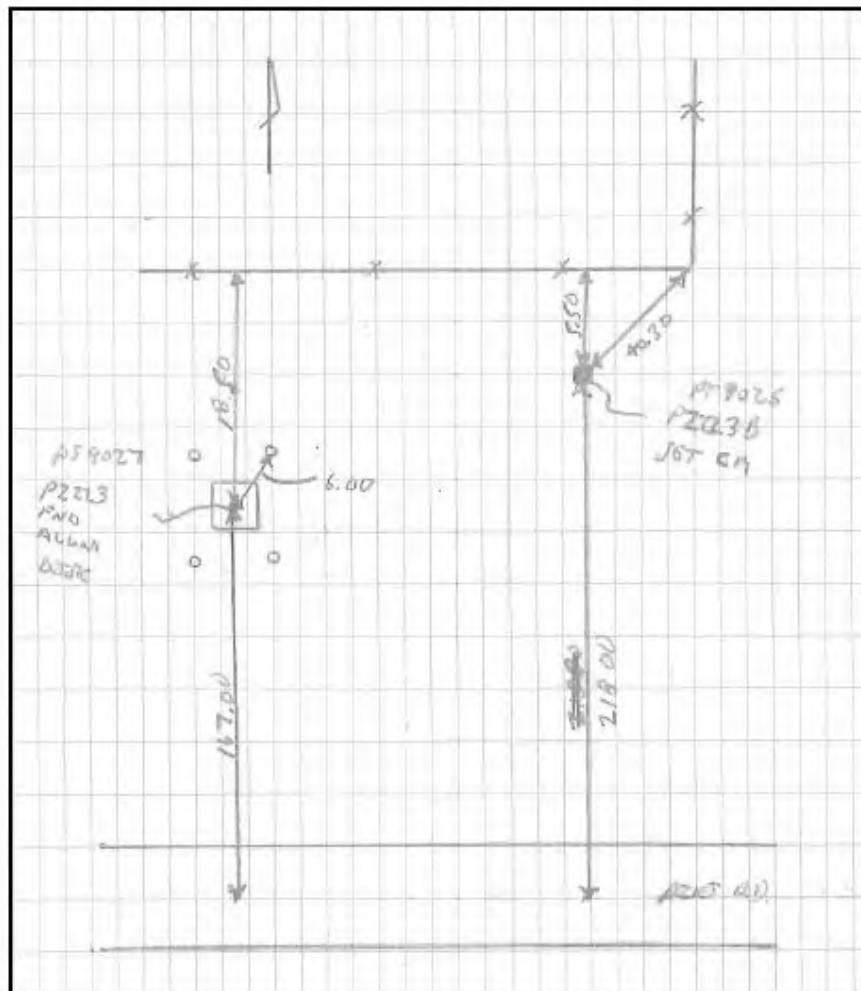
DESIGNATION: PZ 223B		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY:		SURVEYOR: SCOTT URQUHART	
RECOVERED BY: J. HAYWOOD		DATE: MARCH 15, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 13	TOWNSHIP: 44SOUTH	RANGE: 28EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 500509.0	Y = 841083.7	NAVD 88 ELEV. 27.16' NGVD 29 ELEV. 26.42'
LATITUDE = 26° 38' 48.57"		LONGITUDE = 81° 28' 35.59"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 223B LB 7975 2018"			
To Reach: To reach the station from the intersection of Cowboy Way and Highway 29 go South down Highway 29 for 7.6 miles to the entrance of Duda Farms on the right. Go west through entrance for 200 feet when the road turns North. Continue North for 150 feet to the guard shack. The road turns from pavement to dirt. Continue North for 0.20 miles where the road turns West. Go West 1.90 miles to a junction of a North - South dirt road. Go North 0.40 miles to junction of dirt road running West. Go West 0.50 miles, the Marks are on the North side of the road.			
Notable Land marks: PZ 223 B is a poured in place concrete monument with an aluminum disk. It is 218.00 feet North of centerline of East - West dirt road. 40.30 feet Southwest of the corner of barbed wire fence. 5.50 feet South of East - West barbed wire fence. 2.00 feet south of carsonite post.			
FIELD BOOK: 510		PAGE: 44	



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

SKETCH

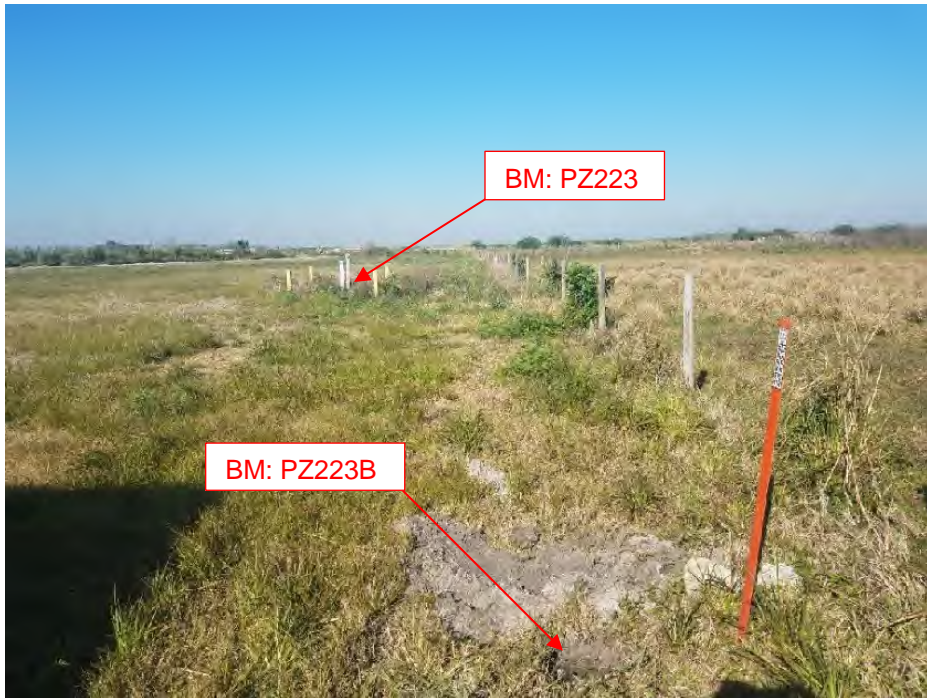




C43PZ223B  
BM: PZ223B  
LAT: 26°38'48.6" LONG: 82°28'35.6"



LOOKING WEST





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 6/07

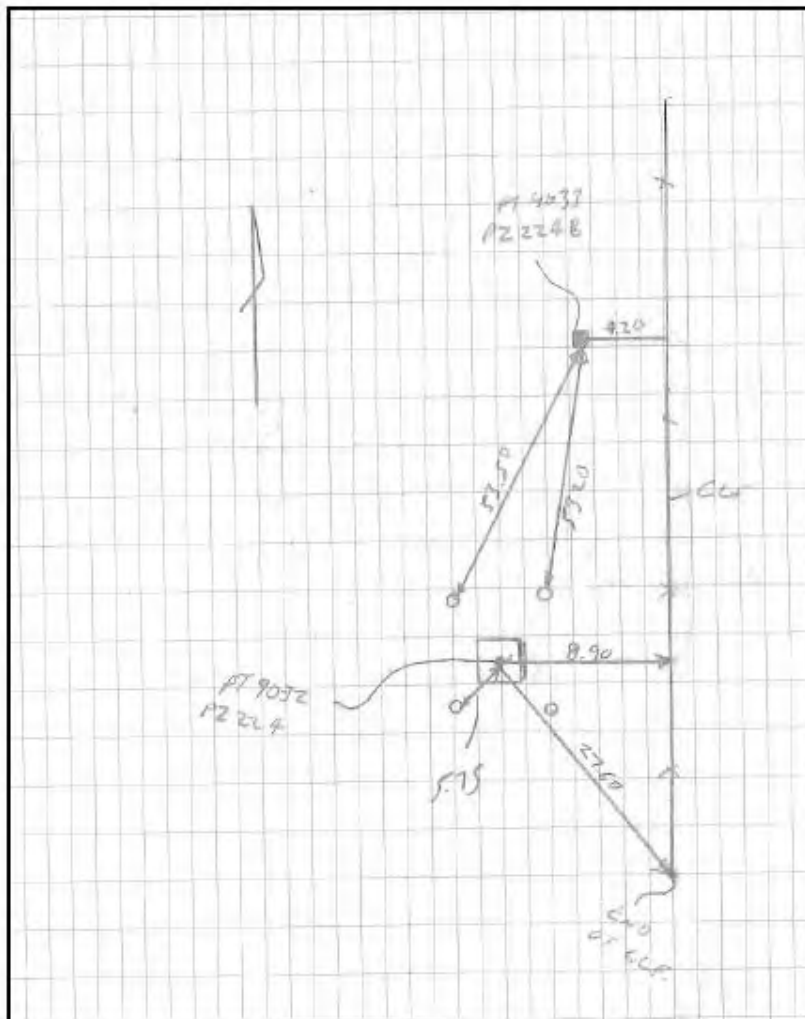
DESIGNATION: PZ 224		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY:		SURVEYOR: SCOTT URQUHART	
RECOVERED BY: J. HAYWOOD		DATE: MARCH 15, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 9	TOWNSHIP: 44 SOUTH	RANGE: 29 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
GEOGRAPHIC INDEX OF QUAD:			
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other: N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1/2 (3) _____ (circle one) VERTICAL 1/2 (3) N/A			
STATE PLANE COORDINATES	X = 513517.9	Y = 850519.6	NAVD 88 ELEV. 29.20' FIGVD 29 ELEV. 30.47'
LATITUDE = N26° 40' 22.48"		LONGITUDE = W81° 26' 12.57"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. "PZ 224 BM 2017"			
To Reach: To reach the station from the intersection of Cowboy Way and Highway 29 go South down Highway 29 for 7.6 miles to the entrance of Duda Farms on the right. Go west through entrance for 200 feet when the road turns North. Continue North for 150 feet to the guard shack. The marks are on the left 0.10 miles south of the entrance.			
Notable Land marks: PZ 224, is an aluminum disk (found) set in concrete slab between two wells. Ans is 27.60 feet Northwest of the end of chain link fence. 8.90 feet West of centerline of chain link fence. 5.75 feet Northeast of the Southwest bollard around the wells.			
FIELD BOOK:	510	PAGE:	47



**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 8/07

**SKETCH**



C43PZ224  
BM: PZ224  
LAT: 26°40'22.5" LONG: 82°26'12.6"



LOOKING EAST





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev. 9/07

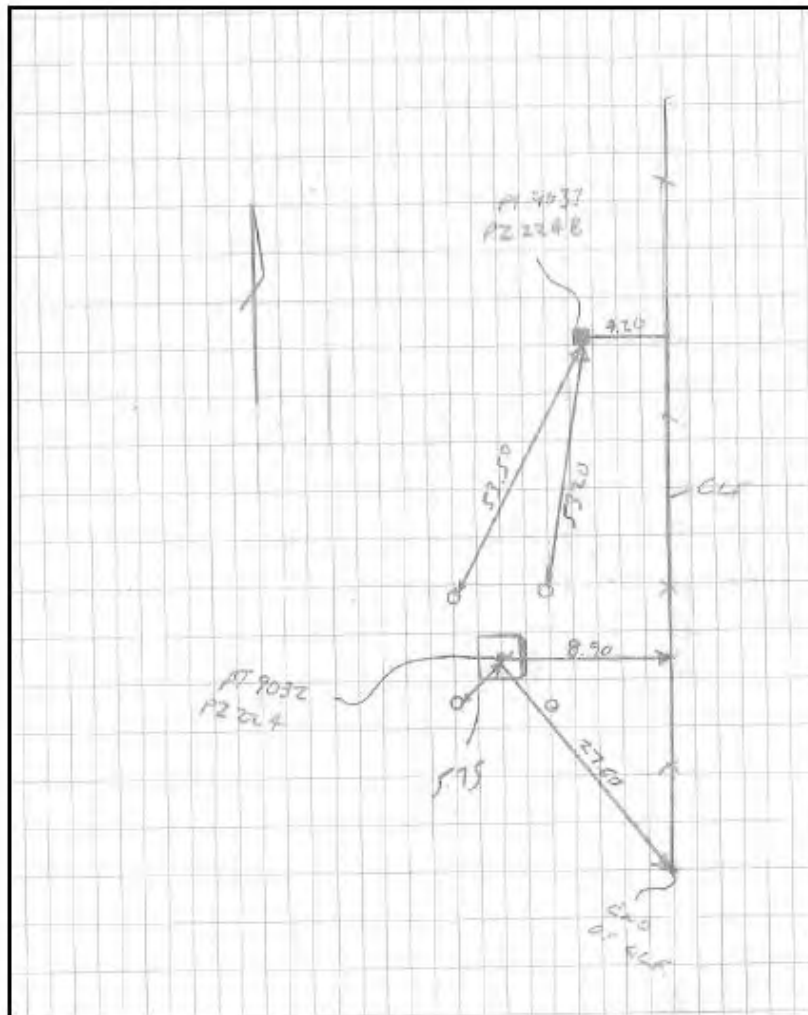
DESIGNATION: PZ224B		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URDUHART	
RECOVERED BY:		DATE: MARCH 15, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 9	TOWNSHIP: 44 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
GEOGRAPHIC INDEX OF QUAD:			
HORIZONTAL DATUM: 1927 (1983) Other: _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other: N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 513521.6	Y = 850577.7	NAVD 88 ELEV. 28.08' NGVD 29 ELEV. 29.35'
LATITUDE = N26° 40' 23.86"		LONGITUDE = W81° 26' 12.53"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST " PZ 224 B LB 7975"			
To Reach: To reach the station from the intersection of Cowboy Way and Highway 29 go South down Highway 29 for 7.6 miles to the entrance of Duda Farms on the right. Go west through entrance for 200 feet when the road turns North. Continue North for 150 feet to the guard slack. The marks are on the left 0.10 miles south of the entrance.			
Notable Land marks: PZ 224 B. is an aluminum disk set in a poured in place concrete post. It is 53.50 feet Northeast of the Northwest bollard around the wells. 53.20 feet North of the Northeast bollard around the wells. 4.20 feet west of center line of chain link fence and carsonite post.			
FIELD BOOK:	510	PAGE:	47



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ224  
BM: PZ224B  
LAT: 26°40'23.0" LONG: 82°26'12.5"



LOOKING EAST





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

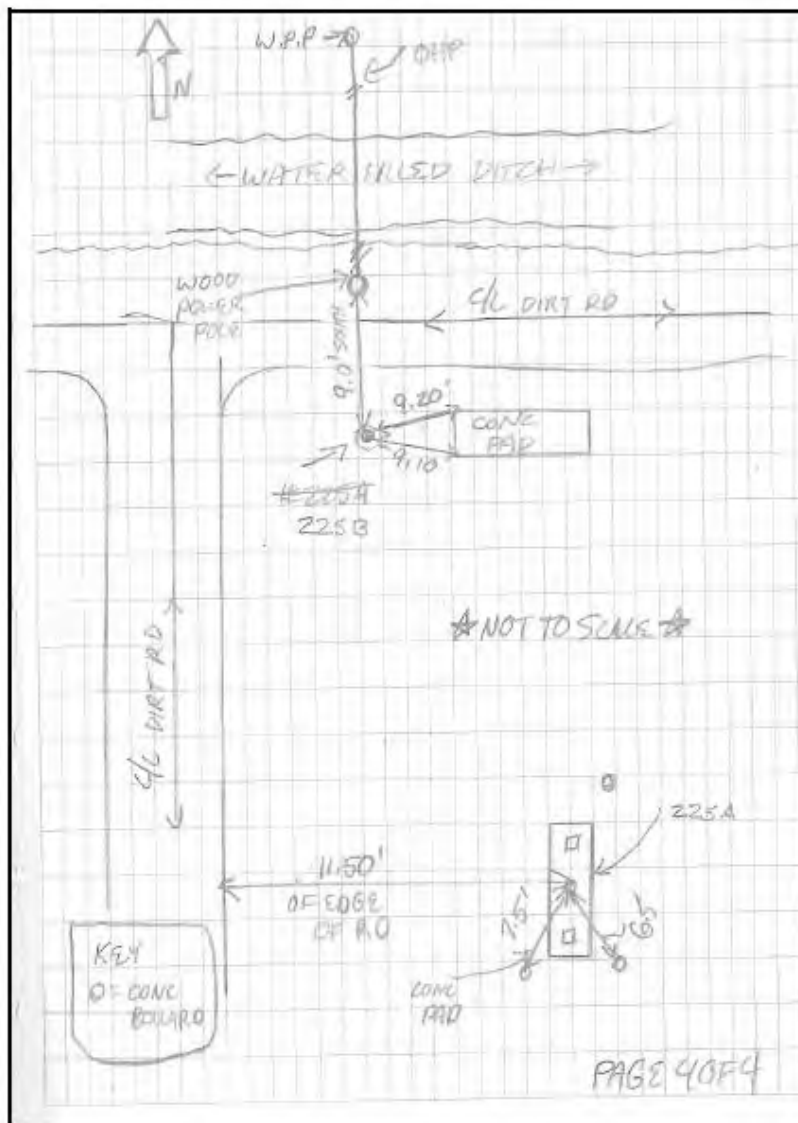
Rev. 9/07

DESIGNATION: PZ 225A.		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY		DATE: JANUARY 29, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 29	TOWNSHIP: 43 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
	GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (1988) Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 476661.7	Y = 863256.4	NAVD 88 ELEV. 12.58' NGVD 29 ELEV. 13.84'
LATITUDE = N26° 42' 27.20"		LONGITUDE = W81° 32' 59.47"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: SET ALUMINIUM DISK SD. FLA. WATER MANAGEMENT DIST. "PZ 225A LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way. Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go West, along the dirt road, for 2.5 miles, to the intersection with a dirt road to the North. Thence go North, along the dirt road on the East side of a canal, for 0.4 miles, to the well site.			
Notable Land marks: PZ 225 A, is an aluminum disk set in a concrete pad and is 11.5 ft. East of the edge of a dirt road, 7.5 ft. NE. of SW bollard around wells, 6.5 ft. NW of SE bollard around wells.			
FIELD BOOK: 510		PAGE: 21	





SKETCH



C43PZ225  
BM: PZ225A  
LAT: 26°42'27.2" LONG: 82°32'59.5"



LOOKING NORTH





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

Rev 8/07

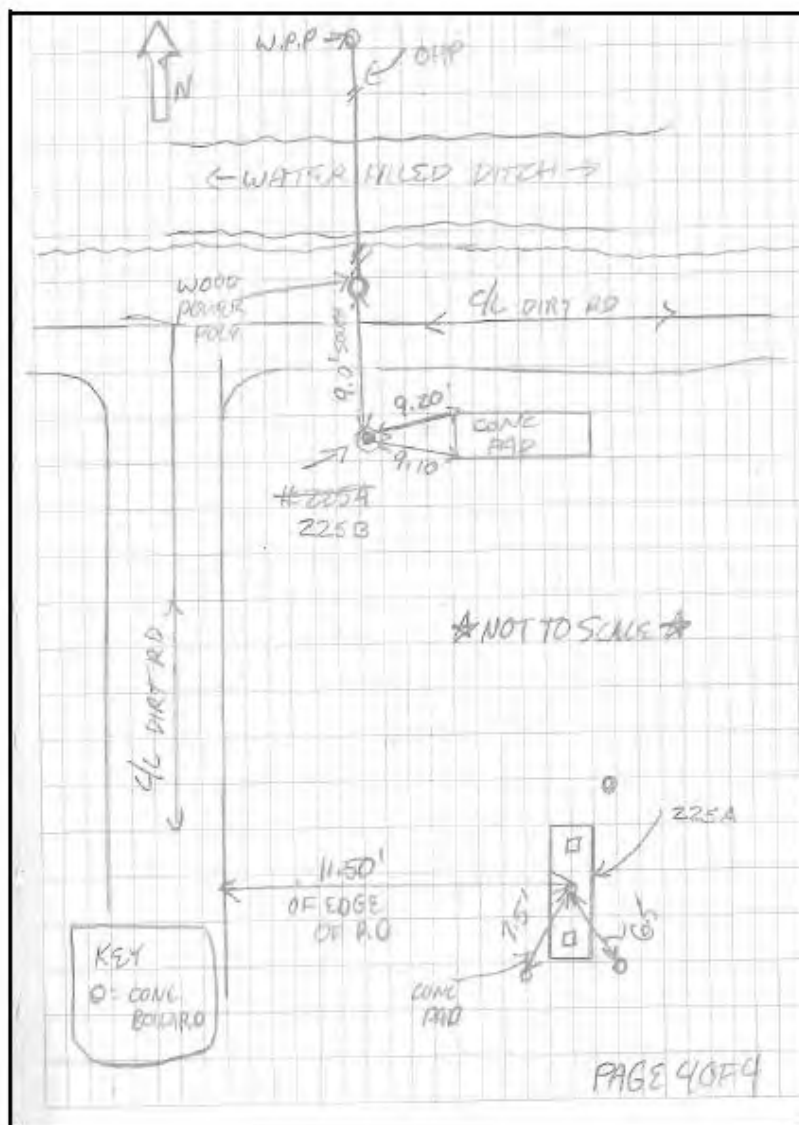
DESIGNATION: PZ 225B		PROJECT: C-43 VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS	
ESTABLISHED BY: J. HAYWOOD		SURVEYOR: SCOTT URQUHART	
RECOVERED BY		DATE: JANUARY 29, 2018	
<b>GEOGRAPHIC POSITION</b>			
SECTION: 29	TOWNSHIP: 43 SOUTH	RANGE: 28 EAST	
COUNTY: HENDRY	NAME OF QUADRANGLE: ALVA		
GEOGRAPHIC INDEX OF QUAD:			
HORIZONTAL DATUM: 1927 (1983) Other _____ (circle one) ZONE (E) of W			
VERTICAL DATUM: MSL 1929 (1988) Other N/A (circle one)			
CONTROL ACCURACY: HORIZONTAL 1 2 (3) _____ (circle one) VERTICAL 1 2 (3) N/A			
STATE PLANE COORDINATES	X = 476647.0	Y = 863307.6	NAVD 88 ELEV. 12.29' NGVD 29 ELEV. 13.55'
LATITUDE = N26° 42' 27.72"		LONGITUDE = W81° 32' 59.63"	
<b>RECOVERY DESCRIPTION</b>			
Stamping: POURED IN PLACE CONCRETE MONUMENT WITH ALUMINIUM DISK SO. FLA. WATER MANAGEMENT DIST. PZ 225B LB 7975 2018"			
To Reach: To reach the station from the intersection of S.R. 80 and West Cowboy Way, Go along S.R. 80 SW for 3.9 miles to Congen Rd. on the left. Go along Congen Rd. South 0.14 miles to gate (SFWMD Lock) continue South 0.4 miles to the intersection of an East-West dirt road. Thence go West, along the dirt road, for 2.5 miles, to the intersection with a dirt road to the North. Thence go North, along the dirt road on the East side of a canal, for 0.4 miles, to the well site.			
Notable Land marks: PZ 225 B. is a poured in place concrete monument with an aluminum disk and is 4.0 ft. South of a wood power pole with overhead power lines running North. 9.2 ft. SW of the NW corner of a concrete pad. 9.1 ft. NW of the SW corner of a concrete pad.			
FIELD BOOK: 510		PAGE: 21	



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 8/07

## SKETCH



C43PZ225  
BM: PZ225B  
LAT: 26°42'27.7" LONG: 82°32'59.6"



LOOKING NORTH



# **Appendix B**

## **SPREADSHEET**

<b>PROJECT TITLE:</b>		VERTICAL CONTROL SURVEY FOR PIEZOMETER WELLS					
<b>WORK ORDER NAME:</b>		4600003699-WO2R1					
<b>PIEZOMETER WELL / STATION</b>	<b>BENCHMARK DESIGNATION</b>	<b>BM ELEVATION (NAVD88)</b>	<b>BM LATITUDE</b>	<b>BM LONGITUDE</b>	<b>BM NORTHING</b>	<b>BM EASTING</b>	<b>RECOVERY NOTE</b>
PZ 59	PZ 59	24.28'	26°39'31.62"	81°30'35.59"	845472.4370'	489638.5840'	DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 59 LB 7975 2018"
	COMELLAS	24.28'	26°39'31.16"	81°30'37.99"	845426.8699'	489420.3379'	ACCESS SLEEVE STAMPED "COMELLAS 2015"
PZ 60	PZ 60A	24.03'	26°39'32.12"	81°31'02.39"	845532.7790'	487207.1380'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 60A LB 7975 2018"
	PZ 60B	26.05'	26°39'31.19"	81°31'02.39"	845438.5090'	487206.9890'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 60B LB 7975 2018"
PZ 68	PZ 68	26.10'	26°40'14.18"	81°33'19.02"	849831.7390'	474829.9020'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN CONCRETE BRIDGE HEADWALL STAMPED "PZ 68 LB 7975 2018"
	AMANN	23.72'	26° 40' 14.71"	81°33'18.36"	849884.9130'	474890.0900'	FOUND STAINLESS STEEL ROD IN ACCESS SLEEVE STAMPED "AMANN 2015"
PZ 201	PZ 201A	18.21'	26°42'07.09"	81°33'00.15"	861225.1590'	476590.6210'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN CONCRETE PAD STAMPED "PZ 201A LB 7975 2018"
	PZ 201B	17.63'	26°42'06.84"	81°33'00.09"	861200.1100'	476596.0420'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 201B LB 7975 2018"
PZ 202	PZ 202A	20.71'	26°42'07.78"	81°32'02.07"	861272.5210'	481858.1140'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN CONCRETE PAD STAMPED "PZ 202A LB 7975 2018"
	CARDNO	20.40'	26°42'08.14"	81°32'01.66"	861308.8920'	481895.4160'	FOUND STAINLESS STEEL ROD IN ACCESS SLEEVE STAMPED "CARDNO 2014"
PZ 203	PZ 203A	20.70'	26°42'09.65"	81°31'04.57"	861439.6580'	487074.3120'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN CONCRETE PAD STAMPED "PZ 203A LB 7975 2018"
	PZ 203B	19.77'	26°42'09.47"	81°31'04.55"	861421.7180'	487075.4370'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 203B LB 7975 2018"
PZ 204	PZ 204A	20.37'	26°42'10.71"	81°30'07.22"	861525.8670'	492275.6260'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN CONCRETE PAD STAMPED "PZ 204A LB 7975 2018"
	PZ 204B	19.45'	26°42'10.85"	81°30'07.22"	861539.8510'	492275.2210'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 204B LB 7975 2018"
PZ 205	PZ 205A	22.52'	26°42'11.35"	81°28'24.40"	861554.3840'	501600.0930'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN CONCRETE PAD STAMPED "PZ 205A LB 7975 2018"
	PZ 205B	21.47'	26°42'11.70"	81°28'24.26"	861590.2370'	501612.6930'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 205B LB 7975 2018"

PIEZOMETER WELL / STATION	BENCHMARK DESIGNATION	BM ELEVATION (NAVD88)	BM LATITUDE	BM LONGITUDE	BM NORTHING	BM EASTING	RECOVERY NOTE
PZ 206	PZ 206A	24.21	26°42'08.70"	81°28'08.64"	861282.3660'	503028.1200'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 206A LB 7975 2018"
	PZ 206B	24.92	26°42'08.86"	81°28'08.96"	861298.6460'	502999.4380'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 206B LB 7975 2018"
PZ 207	PZ 207	28.28'	26°41'20.83"	81°27'48.02"	856441.8500'	504880.8620'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 207 LB 7975 2018"
	C43 RES 2	27.82'	26°41'20.86"	81°27'47.91"	856444.2520'	504891.0690'	FOUND 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "C43 RES2 2018"
PZ 208	PZ 208	26.25'	26°40'53.58"	81°27'48.17"	853690.2300'	504857.4260'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 208 LB 7975 2018"
	C43 RES 5	26.11'	26°40'53.60"	81°27'47.81"	853692.1710'	504889.5780'	FOUND 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "C43 RES5 2018"
PZ 209	PZ 209A	28.59'	26°40'03.88"	81°28'08.07"	848678.3490'	503033.7670'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN CONCRETE PAD STAMPED "PZ 209A LB 7975 2018"
	PZ 209B	27.68'	26°40'04.44"	81°28'08.00"	848735.4530'	503040.1100'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 209B LB 7975 2018"
PZ 211	PZ 211A	24.83'	26°39'32.39"	81°30'05.88"	845539.6210'	492334.1300'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN CONCRETE PAD STAMPED "PZ 211A LB 7975 2018"
	PZ 211B	24.62'	26°39'32.48"	81°30'06.24"	845548.8840'	492301.1650'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 211B LB 7975 2018"
PZ 213	PZ 213A	24.49'	26°39'33.66"	81°31'59.61"	845709.4220'	482016.4130'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN CONCRETE PAD STAMPED "PZ 213A LB 7975 2018"
	PZ 213B	23.80'	26°39'33.39"	81°31'59.45"	845681.9180'	482030.8420'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 213B LB 7975 2018"
PZ 214	PZ 214A	22.69'	26°39'57.98"	81°32'50.62"	848184.8440'	477399.3440'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 214A LB 7975 2018"
	PZ 214B	22.96'	26°39'57.77"	81°32'50.66"	848163.8600'	477395.1930'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 214B LB 7975 2018"



PIEZOMETER WELL / STATION	BENCHMARK DESIGNATION	BM ELEVATION (NAVD88)	BM LATITUDE	BM LONGITUDE	BM NORTHING	BM EASTING	RECOVERY NOTE
PZ 214	PZ 214A	22.69'	26°39'57.98"	81°32'50.62"	848184.8440'	477399.3440'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 214A LB 7975 2018"
	PZ 214B	22.96'	26°39'57.77"	81°32'50.66"	848163.8600'	477395.1930'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 214B LB 7975 2018"
PZ 215	PZ 215A	19.58'	26°42'28.09"	81°32'03.68"	863323.3280'	481720.7150'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN CONCRETE PAD STAMPED "PZ 215A LB 7975 2018"
	PZ 215B	18.54'	26°42'27.84"	81°32'03.73"	863298.1000'	481716.6520'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 215B LB 7975 2018"
PZ 217	PZ 217A	18.05'	26°43'02.08"	81°28'25.24"	866676.9100'	501542.7910'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 217A LB 7975 2018"
	PZ 217B	18.16'	26°43'02.06"	81°28'25.63"	866675.5300'	501507.5170'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 217B LB 7975 2018"
PZ 221	PZ 221	26.84'	26°38'49.94"	81°30'41.74"	841265.8030'	489063.0180'	FOUND 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "BM PZ 221 2016"
	PZ 221B	26.49'	26°38'50.41"	81°30'41.74"	841313.6220'	489063.2470'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 221B LB 7975 2018"
PZ 222	PZ222	27.56'	26°38'10.23"	81°29'34.72"	837232.7560'	495129.2920'	FOUND 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "BM PZ 222 2016"
	PZ 222B	26.65'	26°38'09.97"	81°29'34.22"	837206.5280'	495174.4010'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 222B LB 7975 2018"
PZ 223	PZ 223	28.17'	26°38'48.43"	81°28'36.26"	841069.2210'	500447.7280'	FOUND 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "BM PZ 223 2016"
	PZ 223B	27.16'	26°38'48.57"	81°28'35.59"	841083.6840'	500508.9560'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 223B LB 7975 2018"

PIEZOMETER WELL / STATION	BENCHMARK DESIGNATION	BM ELEVATION (NAVD88)	BM LATITUDE	BM LONGITUDE	BM NORTHING	BM EASTING	RECOVERY NOTE
PZ 224	PZ 224	29.20'	26°40'22.48"	81°26'12.57"	850519.6410'	513517.8580'	FOUND 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 224 BM 2017"
	PZ 224B	28.08'	26°40'23.06"	81°26'12.53"	850577.7080'	513521.6270'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 224B LB 7975 2018"
PZ 225	PZ 225A	12.58'	26°42'27.20"	81°32'59.47"	863255.3990'	476661.7390'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 225A LB 7975 2018"
	PZ 225B	12.29'	26°42'27.72"	81°32'59.63"	863307.6450'	476646.9630'	SET 2" SO. FLA. WATER MANAGEMENT DIST. ALUMINUM DISK IN POURED IN PLACE CONCRETE MOUMENT STAMPED "PZ 225B LB 7975 2018"

# **Appendix C**

## **FIELD NOTES**

C-43

WELL SITE B.M.'S

FZC's: C43 JN 01-24-18

PT 9000 = SET ALUM. DISK IN CONC. PAD S.F.W.N. 2

PZ 2022A L87175 2018

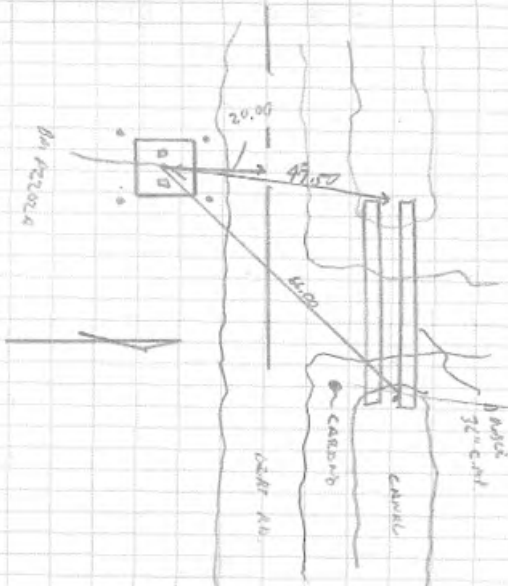
FROM INTERSECTION OF SR80 & W. COURTYARD, GO  
 ALONG SR80 SW FOR 3.9 METERS TO CONCR. PAD. ON  
 LEFT, GO S. ALONG CONCR. RD 0.18 METERS TO BRK  
 (LOCKED). COURSE IS 0.40 METER TO JUNCTION OF  
 6" WIDT BRK RD. THENCE 1.5 METERS WEST  
 ALONG BRK RD. TO JUNCTION WITH DRIP RD ON  
 RIGHT. THE MARK IS ON THE LEFT IN CONCRTE  
 PAD BETWEEN TWO MANHOLESES WIDTH 47.5 FT  
 S. OF CENTER OF W. END OF DOUBLE 3" CMP. S.  
 68 FT SW. OF CENTER OF E. END OF DOUBLE  
 3" CMP. 20 FT S. OF E. OF DRIP RD.  
 AT 9001 = NET MARK CALDRO

J. HINKLEY  
J. WICKER

FO 510

1/24/18

PG 5



C-43

EXCEL SITE Bm 5

PT 9003 = SET ALUM. DISK SW CORN. PAD.

SEUMD PZ 203A LB. 7975 2018

FROM SUPERVISOR OF SR Bt in CONCRETE

Go SW ALONG SR Bt FOR 39 METERS TO CORNER RD

ON THE LEFT, GO S. ALONG CORNER RD (1/4 MILE)

TO GATE (LOCKED FURNED) COURSE OF OLD RAIL

TO JUNCTION OF EAST-WEST RPT RD THERE

0.55 MILE WEST ALONG RPT TO CORNER CROSSING

ON THE RIGHT, GO N. ALONG CORNER CROSSING

100' MARK AND ON THE LEFT

Bm PZ203B IS SW CORNER OF CORN. PAD

BEHIND & MONITORING WELL. 120 FT N. OF

E. OF OLD RD. 124 FT NW OF E. END

OF 36" COMP. 4 FT S.E. OF THE BOLLARD

MARKER COR OF CORN. PAD

J. HAYWOOD

FB 510

pg 6

J. WALKER

11/24/18

PT 9003 = PAVED SW CORNER C.M. W/ ALUM.

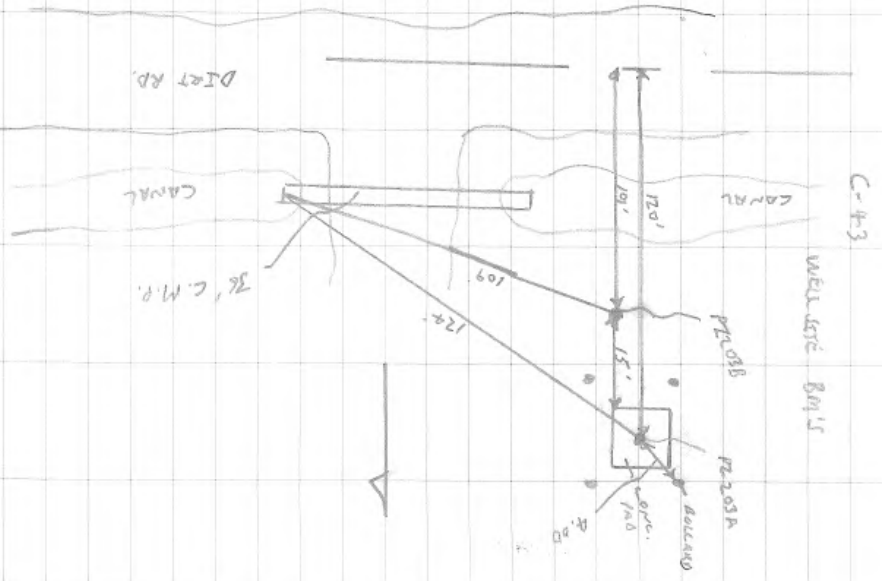
DISK SEUMD PZ 203B LB 7975 2018

Bm PZ203B C.M. SET 0.50 BEHIND PAV. GRASS,

WEST SPAIN OF S.E. CORN. OF CORN. PAD.

100 FT NW E. END OF 36" COMP. 10/15/18

OF E. OF DIRT RD.



C-43  
WELL SITE BLD'G

J. HAYWOOD  
J. WALKER

FB 510

1/24/18

Pg-7

C-43  
well site BM's

PT 9004: SAT ALUM DISK IN CONC, PAD  
S.F. W. M.D., PZ204A 107575 2018

FROM INTERSECTION OF SR 80 IN COURBY WAY  
GO ALONG SR 80 SW. FOR 1.9 MILES TO CONCERN  
RD. ON THE LEFT. GO S ALONG CONCERN RD  
APPROX 70 FEET (GROUND LEVEL) CONTINUE S.  
APPROX 70 FEET TO JUNCTION OF OLD - WEST DIRT  
RD. + TRUSS AND BRIDGE. ALUM DISK IN  
THE BANK AND ON THE LEFT.

BM PZ204A IS IN CENTER OF CONC, PAD  
BETWEEN MOUNTAIN WELLS. 11.5 FT N OF TOLL  
OFF CONC RAMPWAY E. W. 1. 29 FT E. OF TOLL  
OFF CONC RAMPWAY N. S. + 44 FT S. OF  
STAIN STEEL PILE IN PAD WASTEWATER AND  
ON TRUCK.

J. H. H. W. W. W. W.  
J. W. W. W. W. W.

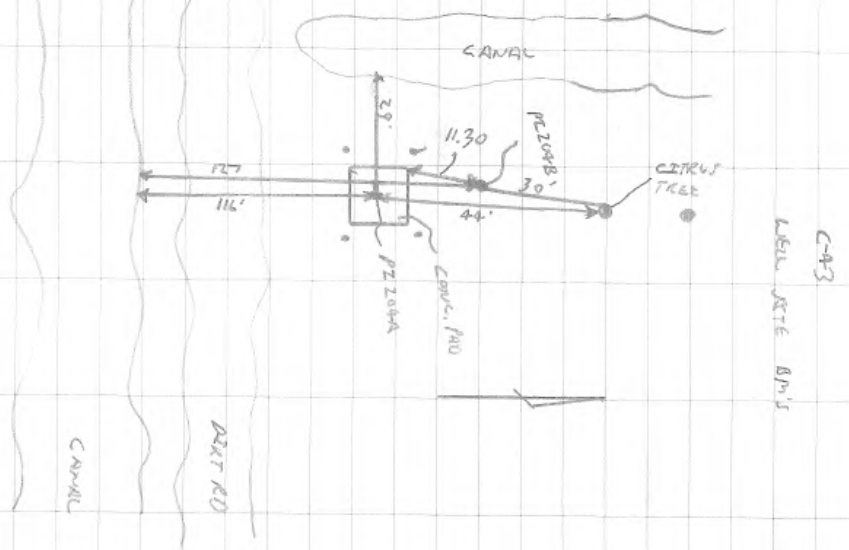
F0510

1/24/18

Pg 8

PT 9005: PUGHEN IN CONC CONC. W/ BUSH.  
DISK S.F. W. M.D. PZ204B 107575 2018

BM PZ204B IS LEFT S. OF STREET STRIPS  
TRUCK ON THE EAST WEBSIDE NOW OF TRUCK,  
11.3 FT N. OF THE N.W. COR OF CONC.  
PAD. 127 FT W. OF TOLL OF CONC RAMPWAY  
E. S. W.



C-43  
 LITTLE SITE Bn's

J. H. WILSON  
 J. WILSON

F.R. SID

1-24-19

P&G



C-43  
Well 127A 0415

PT 9085 - SET ALUM. PIPE IN CONC. PILE  
JANUARY PZ 205A LG 7975 2018

FROM INTERSECTION OF J.A. RD. 3 mi. S. W. CORNER WAY  
GO ALONG JR. 80 SW. FOR 3.9 miles TO CORNER  
RD. ON THE LEFT, GO ALONG TOWARD RD. S. 0.14

MI. TO A SAND (SANDY) CONCRETE  
D. 40' NORTH TO JUNCTION OF DUT-WEST. 0200T RD.

TRAVEL 60 1/2 MILES E. ALONG DUT RD. TO  
A BRIDGE, 20 FT TO JUNCTION OF WEST JERRY

DUT RD. & CONTINUE EAST ON S. SIDE OF  
CROSS FOR APPROX. TO JUNCTION OF NORTH-

JERRY 0201 RD. GO  $\frac{1}{2}$  M 75 FT THE MARK  
ON THE LEFT

JANUARY

FA 510

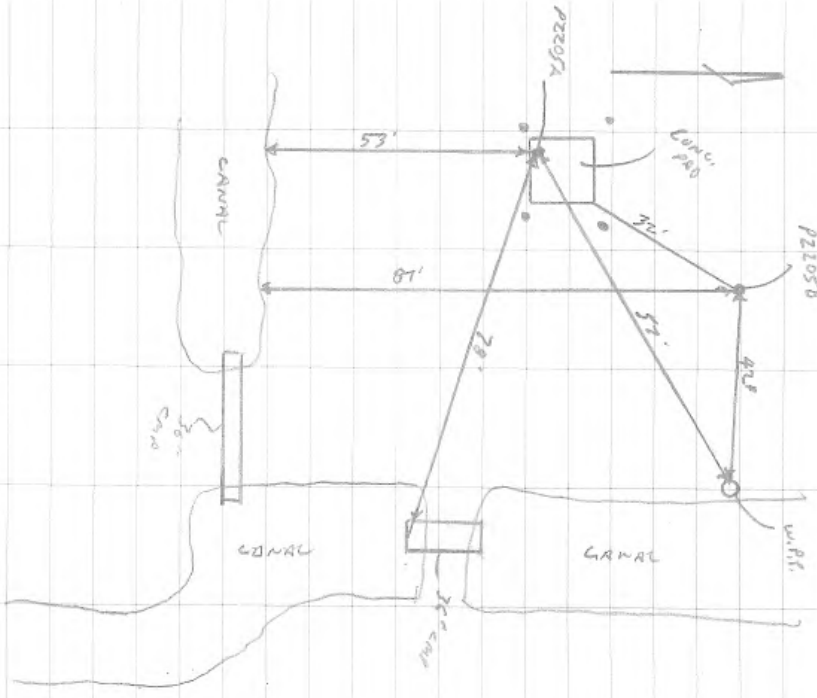
1/25/18

Pa 10

BM PZ 205A IS ON THE SW. CORNER OF CONC.  
PAD. 53 FT NORTH OF 798 OF SANDY CONCRETE  
EAST-WEST, 57 FT SW. OF WOOD. POWER POLE  
W/ POWER LINES ALONG DUT-WEST, 78 FT N.  
OF JERRY RD. OR 30" CIP.

PT 9087 & SET PAVICIA IN PLACE ON W/ ALUM.  
PIPE PZ 205A LG 7175 2018

DUT 12 205B IS 42 FT WEST OF WOOD PAD  
PILAR AND WEST ALONG DUT-WEST, 32 FT W. D.  
OF 45'. CARRIAGE OF CONC. PAD. 87 FT  
NORTH OF TOP OF SAND REMAINS  
CIP-WEST.



C-45  
WELL SITE PLAN

J. N. BRADY  
J. L. WALKER

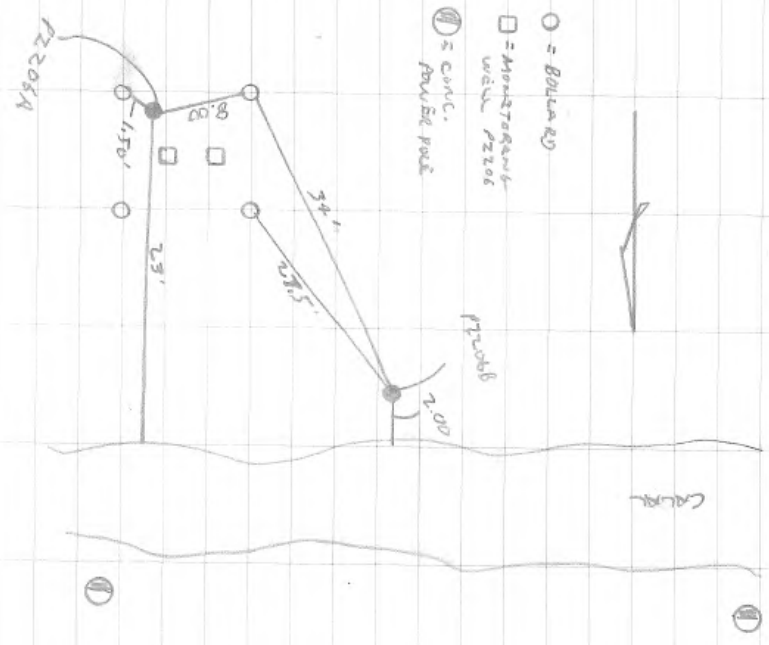
FIG. 51.2

1/25/18

P. 5. 11



C-45  
 CALIFORNIA BAY



J. HAYWOOD  
 J. L. PUGH

F.D. 110

1/25/18

16-13

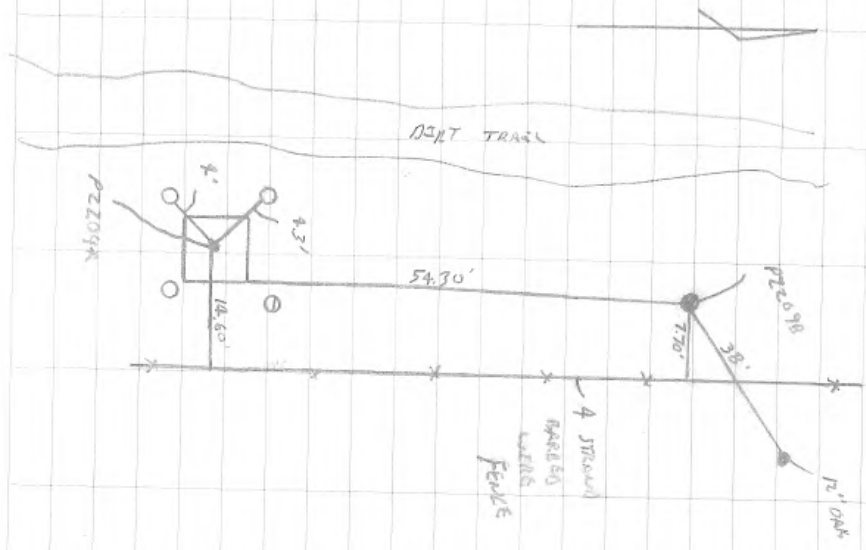
C-43  
WEST SIDE BRIDGE

PT 900 = SET ALONG HIGH IN CORNER PAD W/ ALUM. OILK PZ209A W87925 2018  
FROM SOURCE SECTION OF S.W. 90° IN CORNER WAY.  
GO NORTH 1850 SW FOR 3.9 MILES TO CORNER RO ON THE LEFT, GO ALONG CORNER RO 0.14 MILES TO GATE (STRAWY WOOD) CORNER.  
S. 0.40 TO JUNCTION OF EAST-RIGHT ROAD BR. TURNED GO EAST 1/2 MILE TO JUNCTION OF OAK IN RUNNING JONES. GO SOUTH ALONG WEST RD, 2.3 MILES TO N CORNER OF THE CORNER. GO E. WIND CHAIRMAN FOR 175 FT TO JUNCTION OF OAK TRAIL RUNNING NORTH-SOUTH. GO SOUTH 0.40 MILES. THE PAD IS ON THE LEFT

J. HAYWOOD  
J. CURRICK

FB 570  
1/25/18  
PG 14

BM 209A IN CORNER PAD BETWEEN 2 MINATORQUE WELLS, 4' N.E. OF SW. CORNER AROUND WELL. 43 SET OF NEW RUNNING AROUND WELLS. 14.6' WEST OF 4 STRAWY WOODS WIRE FENCE.  
PT 901 = SET ALONG IN PAD E. W. / ALUM. OILK W. L. H. 1850 PZ209B W87925 2018  
BY PZ209B 770 FT W. OF 4 STRAWY BARRIED WIRE FENCE & 38 FT SW. OF 12" OAKS 54.10 N. OF N.E. CORNER OF CORNER PAD.



C-43  
WALK SIDE STR.

J. WALKER

100 510

1/25/19

Fig 15



C-43

well site only

PT 9012: SET ALUM. W/RT 20 CONC. PROD

S.F. W/RT. PZ 2118 48 7975 2018

FROM INDENTATION OF SR 90 1' W. CORNER W/RT.

GO SW ALONG SR 80 FOR 3.5 METERS TO

CORNER NO. ON THE LEFT, GO DOWN ON

CAUSEWAY 0.15 TO GNEC (SR 90, 100)

CONSTRUCT 1.0 x 1.0 METERS TO CENTER OF DIST

RY. EAST-WEST, TRIPLE E. FOR 0.2 METERS

LENGTH OF DIST RY TO THE SOUTH TRUCKS

FRONT / METERS TO BRIDGE, CONSTRUCT MARK

ON E. SIDE OF CAUSEWAY 2.2 METERS FROM

TRUCK E. LENGTH 5.010 METERS THE

MARKERS ON THE LEFT, @ WELL SITE

BY PZ 2118 IN CONC. PROD BETWEEN 2

MARKERS ON E. SIDE, 4.5' SW. OF THE W/RT

BEHIND ROAD W/RT. 4.5' NW OF S.E.

BEHIND ROAD W/RT. 55' N OF TRG

OF EAST-WEST CAUSEWAY.

1. HANDBOOK

2. WATER

PZ 510

1/25/18

Pg 17

PT 9013: SET MARKED SURFACE C/M, W/ALUM. DIST

S.F. W/RT. PZ 2118 48 7975 2018

BY PZ 2118 32' W. OF N.W. CORNER OF

CONC. PROD. 32.80 W/RT. OF SW CORNER

ALONG WEST 66' N. OF TRAIL OF EAST-WEST

CAUSEWAY

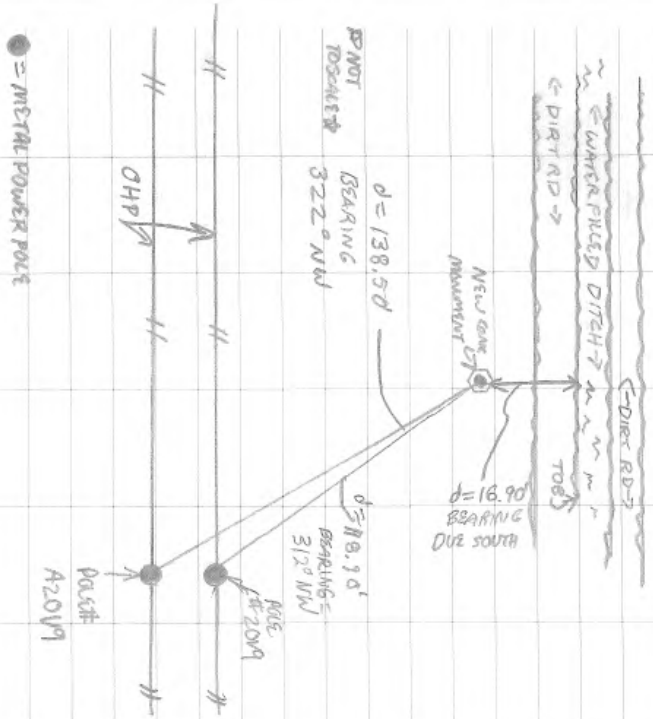
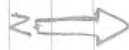


C-43

GEODETIC MONUMENT

RES#1

MONUMENT REF DESC'S



2 DRIVE  
B RAIDER

1/24/10

FB 510 PG 18

PAGE  
1054

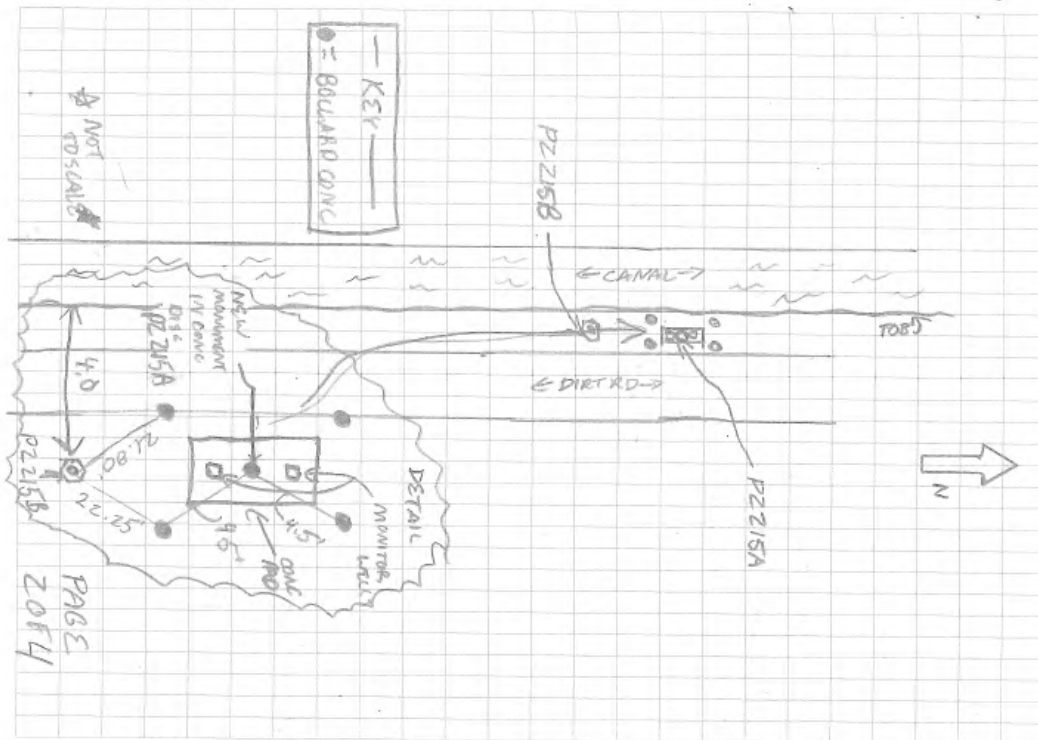
C-43  
DESCRIPTION FOR PZ

TO REACH STATION FROM INTERSECTION OF STATE RD 80 AND WEST COWBOY WAY ON THE SW SIDE OF LABEUE GO SW ALONG STATE ROAD 80 FOR 3.9 MILES TO CONGEN RD ON THE LEFT (SOUTH) GO ALONG CONGEN RD 0.14 MILE TO GATE (SURROUND GATE W/LOCK) CONTINUE SOUTH 0.4 MILE TO THE DIRECTION OF AN EAST-WEST DIRT RD THENCE 1.5 MILE WEST ALONG DIRT ROAD TO THE DIRECTION WITH A NORTH-SOUTH DIRT RD THENCE 0.30 OF A MILE ON DIRT RD NORTH TO PZ ZISA CONC MONUMENT, MARKS ARE ON THE WEST SIDE OF ROAD

BM PZ ZISB IS IN CONC BETWEEN 2 MONITORING WELLS 4.5' SW OF THE NE CONC BOUNDARY 4.5' NW OF SE CONC BOUNDARY 10' EAST OF TOB OF NORTH-SOUTH CANAL

\*NOTE ZISB IS A DISC DRILLED + GULVED INTO CONC.

C DOUBLE 1/29/18  
B RESIDER  
E8570 P819



PAGE 2084

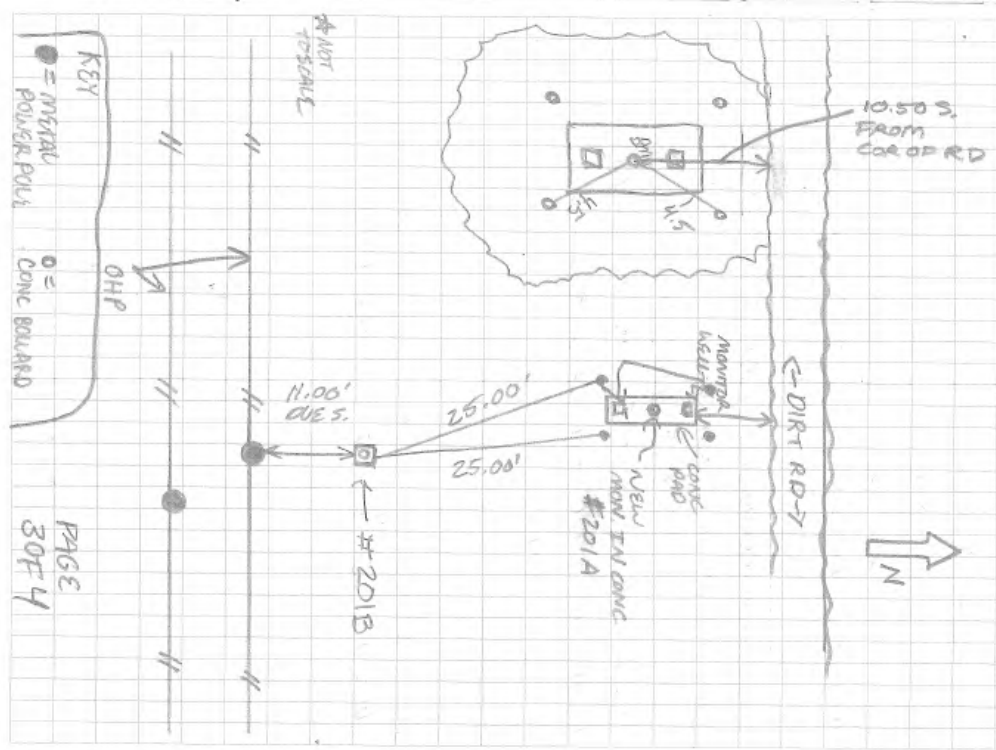
C-43

DESCRIPTION FOR PZ2014TB

TO REACH STATION FROM INTERSECTION OF STATE RD 80 AND WEST CANYONWAY ON THE SW SIDE OF CABELE GOSKY ALONG STATE RD 80 FOR 3.9 MILES TO CONGEN RD ON THE LEFT (SOUTH) GO ALONG CONGEN RD RD 0.4 MILE TO GATE (SUELUMP GATE W/LOCK) CONTINUE SOUTH 0.4 MILE TO THE JUNCTION OF AN EAST-WEST RD 2.5 MILES, MARK 15 ON LEFT IN CONC PAD NEAR MONITORING WELLS #201A

BM # 201B IS A CONC MONUMENT 11.00' DUE NORTH OF METAL POWER POLE # 16V6 25.00' OFF SE + SW BOLLARDS  
 \* NOTE # 201B IS A DISC DRILLED + GLOUED INTO CONC.

E DOUGL B REIDER 1-29-18 FB 510 PG 20

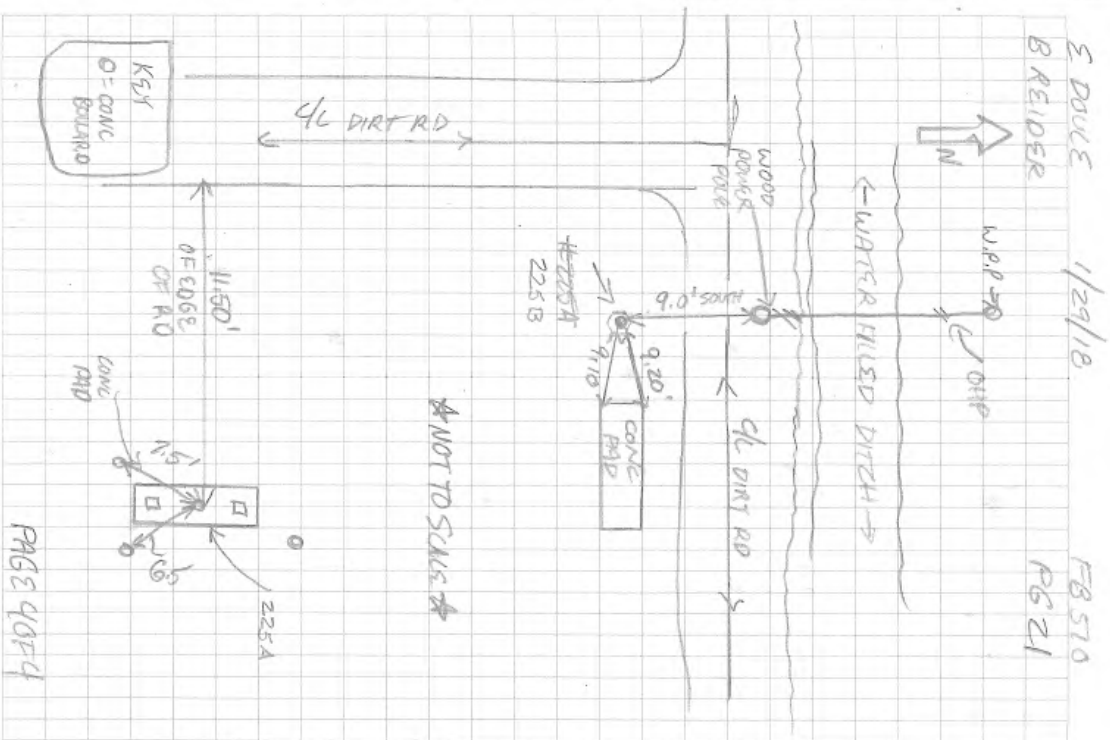


C-43

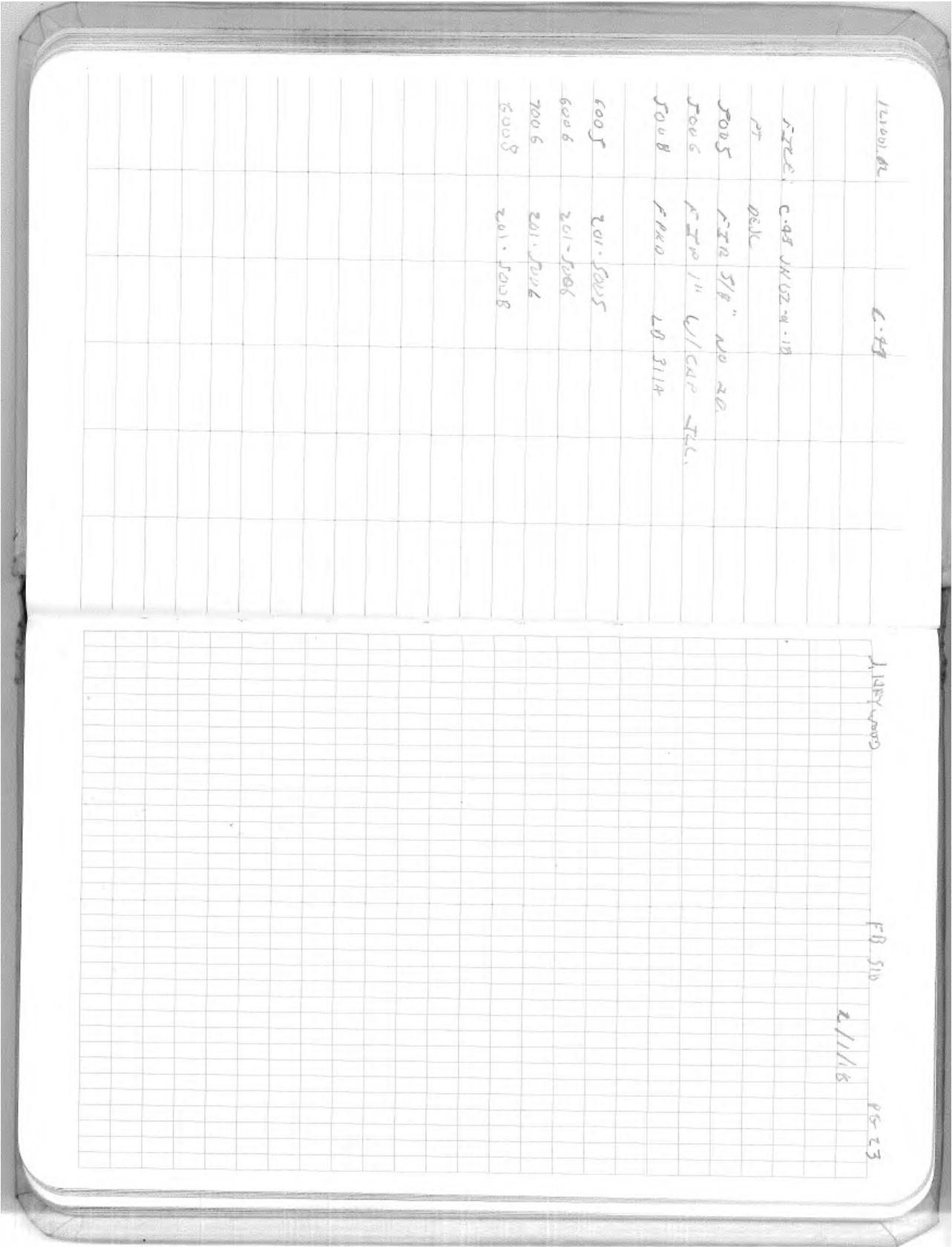
DESCRIPTION FOR P225A+B

TO REACH STATION FROM INTERSECTION OF STATE RD 80 AND WEST CARRYWAY ON THE SW SIDE OF LABELLE GO SW ALONG STATE RD 80 FOR 3.9 MILES TO CONGEN RD ON THE LEFT (SOUTH) GO ALONG CONGEN RD 0.4 TO GATE. (SW FUND GATE W/ LOCK) CONTINUE SOUTH 0.4 MILE TO THE JUNCTION OF AN EAST-WEST RD 2.5 MILES THENCE HEAD DUE NORTH ON DIRT RD EAST SIDE OF CANAL FOR 0.4 MILES #225A CONC MONUMENT

BM PZ#225B IS A CONC MONUMENT (DISC PAILED + GLUED TO CONC) 11.50' DUE EAST OF EDGE OF DIRT RD + 6.5' OFF CONC BOLLARD'S SET SW SIDE.







121001 R2

C-43

PT C-43 JUN 02 - 8.18

PT DSK

5005 FIRE 5/8" NO 20

5006 FIRE 1" 6/1 CAR TEL

5008 FIRE LB 3114

5005 201-5005

5006 201-5006

5006 201-5006

5008 201-5008

JUN 02 2005

FB 510

2/1/18

PS 23

12/11/12

C-43

GPS ✓ IZUB PT 1 AUCN ( 7.30 )

Obs N: 863874.247 E: 471244.419 Alt:

Obs W: 863874.190 E: 471244.380 Alt:

FZLE: C-43 JN 02-5-18

PT 52000 HA: 6.562

PT 52000 - 52155 : X-SECTION @  
TOWARDING CRUAK

GPS ✓ IZUB PT 1 AUCN ( 2.34 )

Obs N: 815874.212 E: 471244.401 Alt: 9.637

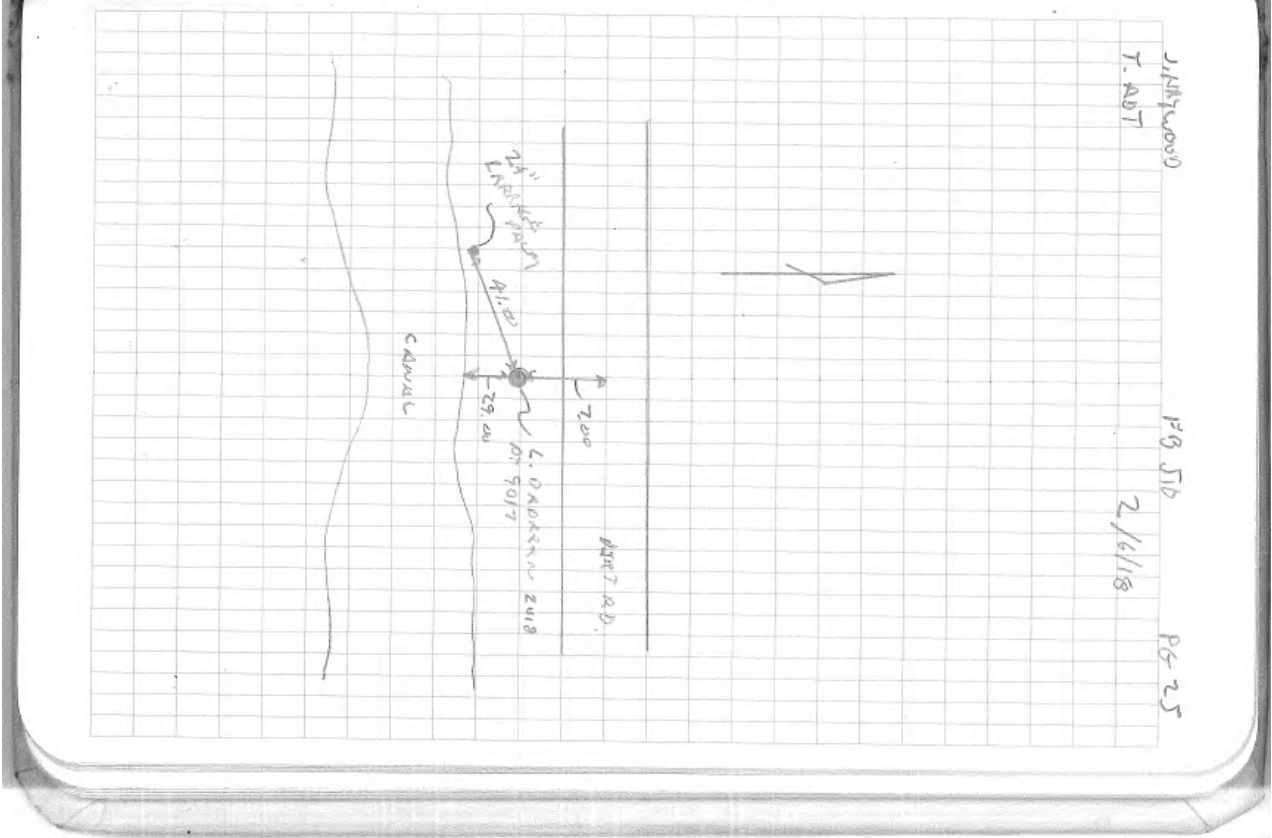
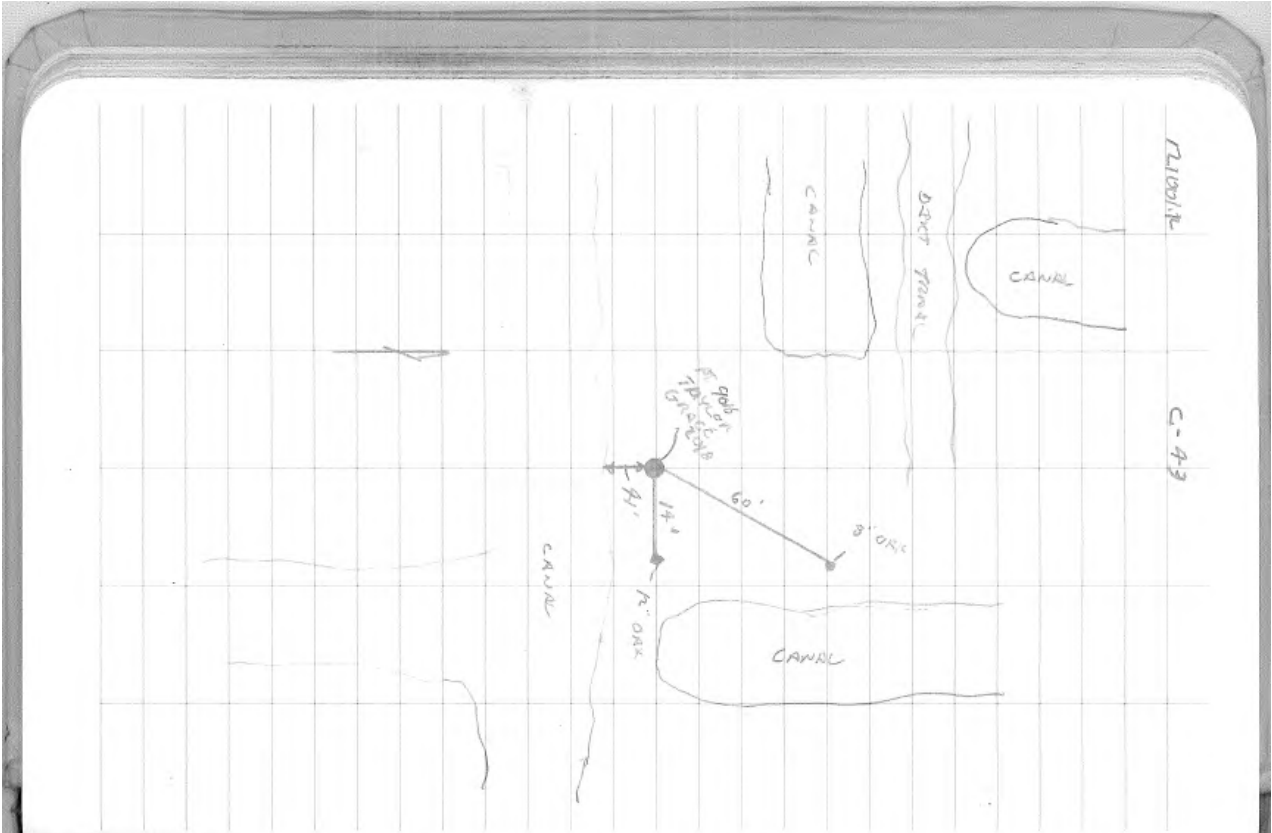
Obs W: 815874.190 E: 471244.388 Alt: 9.64

J. Hayward  
J. Wainker

FB 510

21/5/18

pg 24





12/20/01, n

C-43

FIELD: C-43 N102-06-16

PT 0415-

5009 FCM. 4' X 4" NO ED.

6009 201-5009

5016 ROD MARK TAYLOR SKULL

5017 ROD MARK L. DARRER

J. HARRISON  
T. ADT

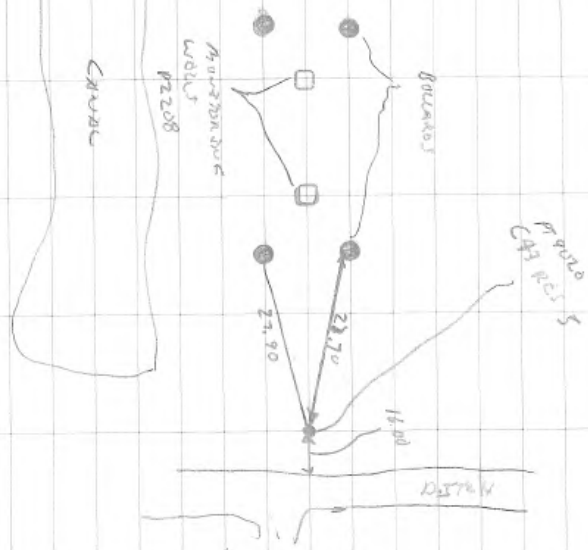
FB 700

pg 26



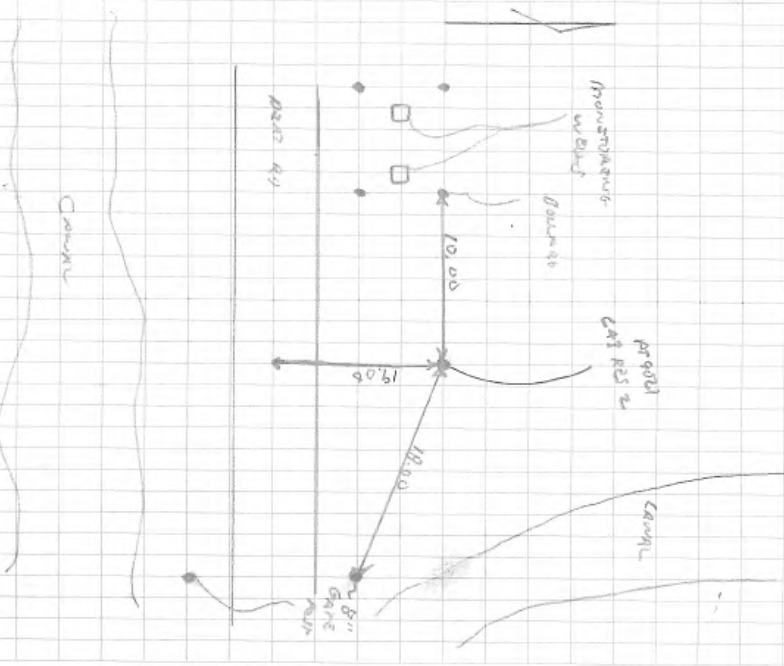
12/20/08

C-43



J. HARTWOOD  
T, ADT

PROVIDE  
2/14/16  
PIS 28





77201802

C-43

RM PZ 68

DATE: C-43 1402-1918

PT 8023 - ET AUM. OCH. SIBLING

PZ 68 407975 2018 IN DRAGS

DECK

TO BACK DOWN FROM DISTRIBUTION OF RR 80

IN COVER WAY. GO SW, ALONG RR 80 39 FEET

TO CENTER RD ON THE LEFT. GO SOUTH ALONG CENTER

RD APPROX 70 YDS (GROUND LEVEL) SOUTH

0.9 MILES TO JUNCTION OF EASTWEST ON RR 40.

PROCEED SOUTH ~~SW~~ ALONG RR 40 TO JUNCTION

OF NORTH-SOUTH ON RR, TRAVEL 2.7 MILES

TO REACH THE POINT AT ON THE WEST

ON PZ 68 AT THE SW CORNER OF CONC DRIVE.

PROCEED SW ON ROAD NORTH SIDE, 80 FT W OF

AND ON ANOTHER 355 FT NW OF THE NW

CORNER AROUND MOUNTAIN WELLS. 177 W OF

EAST SIDE OF CONC DRIVE

J. Morrison  
J. W. W. W.

EQ 510

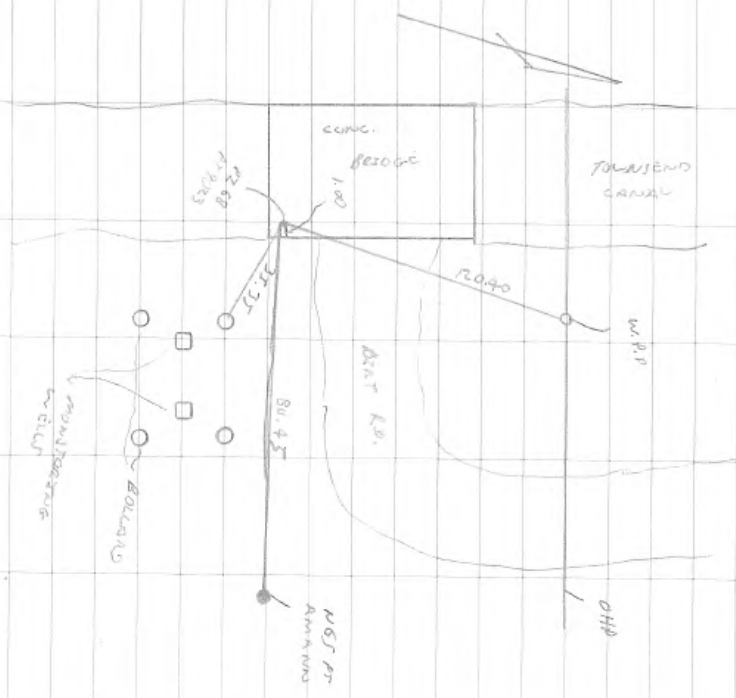
2/15/18

PG 30

17204.02

DM P268

C-43



J. MATHEWS  
J. LUKASIK

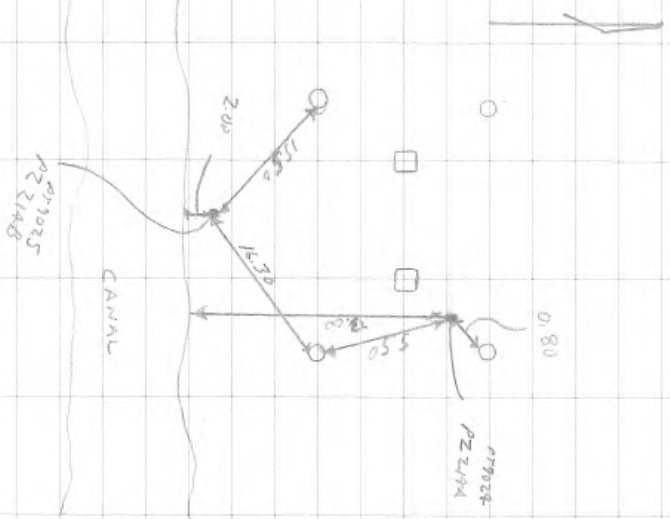
P.O. Box

2/15/10

P2-31

17209.62

C-43  
BM PZ 21 + A 3 B



PG 50

2/19/19

P632

J. W. WILSON

PT 9024 - MYSTED IN PLACE C.M. W/ ALUM. DIX

SMITHSON 0 PZ 2148 18 2375 2018

PT 9025 - PLYWOOD PLATE C.M. W/ ALUM. DIX

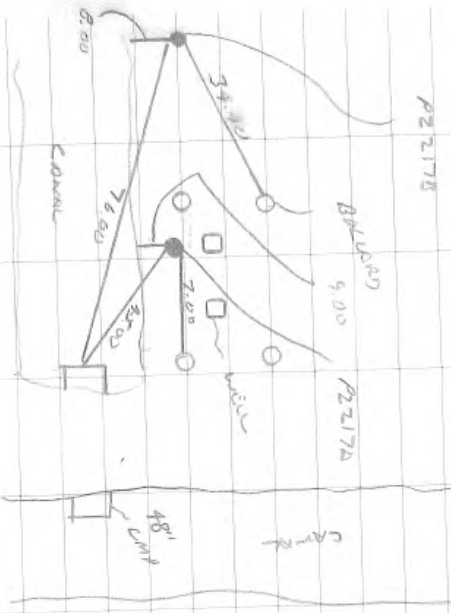
WILSON PZ 2148 18 2375 2018

TO BEING DISTURB FROM INTERSECTION OF SR 80 & W. CAULFIELD RD. GO S.W. ALONG SR 80 29 FEET TO CORNER ON THE LEFT. GO S.W. ALONG CURVED RD 014 FEET TO CORNER (SPRING CORN) CORN. POINT 0.80 MUST BE IN DIRECTION OF END-LEVEL MUST NOT PASSIVE WEST POINT TO INTERSECTION OF W. CAULFIELD RD. <sup>THUSIDE</sup> ~~W. CAULFIELD~~ POINT 2018 IN DIRECTION OF EAST CORN. RD. GO EAST 65 FEET TO INTERSECTION OF S.W. CORN. RD. - POINT'S POINT 0.80 MUST BE IN DIRECTION OF WEST CORN. RD. POINT'S CORNER MUST BE TO THE RIGHT.

BM PZ 2148 IS 16.30 IN W. OF THE S.E. CORNER ALONG W. CAULFIELD RD. IN THE S.W. QUARTER ALONG W. CAULFIELD RD. N. OF THE S.E. CORNER ALONG W. CAULFIELD RD.

171204-02

C-43



J. HAYWOOD

FB 510

3/1/18

Pg 33

PZ 217A & PZ 217B ARE PRODUCTION FROM PZ 205A & 205B BUT REFLUKE ANDI LINE W/ FROM INJECTOR OF NORTH POINT DIST PD GEO WORK 1/2 MILE THE NORTH <sup>48'</sup> OF THE WEST

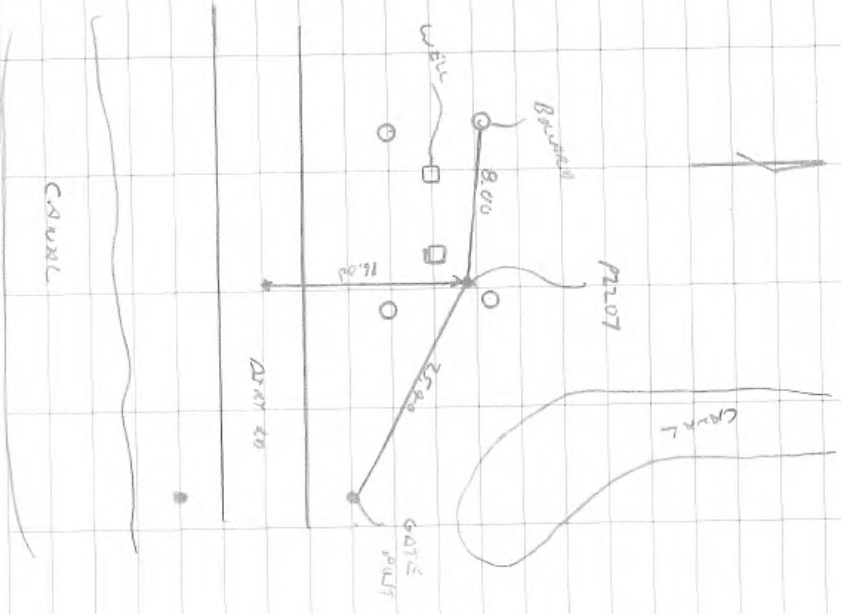
ON PZ 217A 95 FT NW. OF WEST END OF 48' C.M.H., 7 FT WEST OF TIE S.A. LOCATED ABOVE PRODUCTION WELL. 9 FT NORTH OF TIE OF EAST WEST CANAL. 15 FT N. OF CALVERT PACT.

PZ 217B 71 FT NW. OF N. END OF 48' C.M.H. THIS S.W. OF TIE NW. LOCATED ABOVE PRODUCTION WELL, 8 FT N. OF TIE OF EAST-WEST CANAL, 2 FT N. OF CALVERT PACT



17th Dec 02

C-43



J. HICKWOOD

F8 510

3/1/18

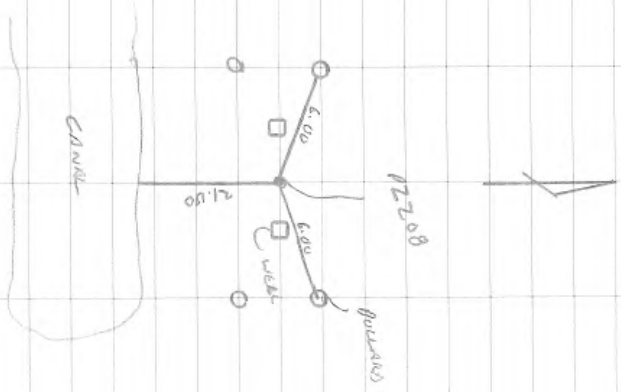
pg 34

P2207 25.00 FT NW. OF GATE PULL,  
 147 FT OF E. OF GATE. EAST NW, 8.00 FT  
 E. OF THE NW. BARRAGE THROUGH WALL

\* Same DISTANCE TO POINT AS C-43-NB Z

17728462

C-43



J. HANCOCK

FB 810

3/1/10

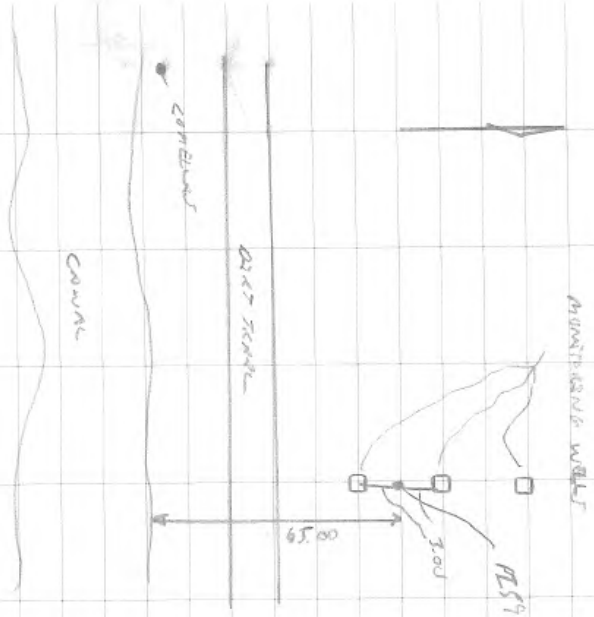
P-35

PZ 208 21 FT NW OF TREE OF EAST-WEST  
 CORNER, 6 FT SE OF THE NW CORNER AND  
 WELL, 6 FT SW OF THE N.E. BOUARDS  
 AREA WITH

\* SOME DISTANCE TO THE  
 C-43 KEYS

171208.02

C-43



SP. A NEWBORN

FIG 510

3/1/18

pg 36

FROM INTERSECTION OF SR 300 & W. COUNTY ROAD.  
 GO SW ALONG SR 300 FOR 3.9 MILES TO CONCRETE RD OR  
 ROAD LEFT. GO S. ALONG CONCRETE RD, DISTANCE TO  
 GATE (STONE LOCK) CONTINUE S 0.9 MILES TO THE JUNCTION  
 OF BURT WELSH DIRT RD. THENCE E. 0.26 MILES TO  
 JUNCTION OF DIRT RD TO THE S., THENCE S. FOR  
 3.0 MILES THE RD. TURNS WEST. \*

\* P259. GO WEST 0.50 MILES TO THE MARK AS ON THE  
 LEFT

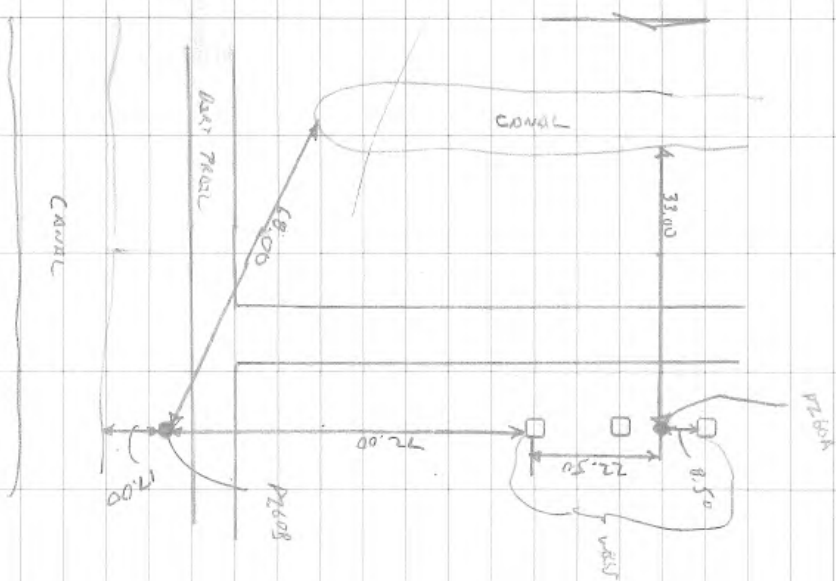
\* P260. GO WEST 0.80 MILES TO THE MARKS

\* P2713. GO WEST 1.7 MILES. ROAD TURNS NORTH,  
 CONCRETE W. 0.1 MILES THE MARKS ARE ON THE RIGHT

P259 6577 N. OF TABLE OF CHANGES CONCL.  
 307 S. OF MESSURE WELL IN A ROW OF 5 WELLS.  
 357 N. OF S. WELLS ON CURVE OF TURN LEFT

Mt. Hope

C-43



1/11/19

FB 111

31118

Pg 31

PZ 60 A 33 FT EAST OF TRG OF NORTH-SOUTH  
 CANAL. 72.50 FT N OF NORTH-SOUTH WELL.  
 8.50 FT S OF EAST-WEST CANAL.  
 68 FT S OF EAST-WEST CANAL.  
 72 FT S OF EAST-WEST CANAL.  
 17 FT N OF ROAD OF EAST-WEST  
 CANAL.

1720802

C-43



J. H. H. H. H.

FO 515

3/1/18

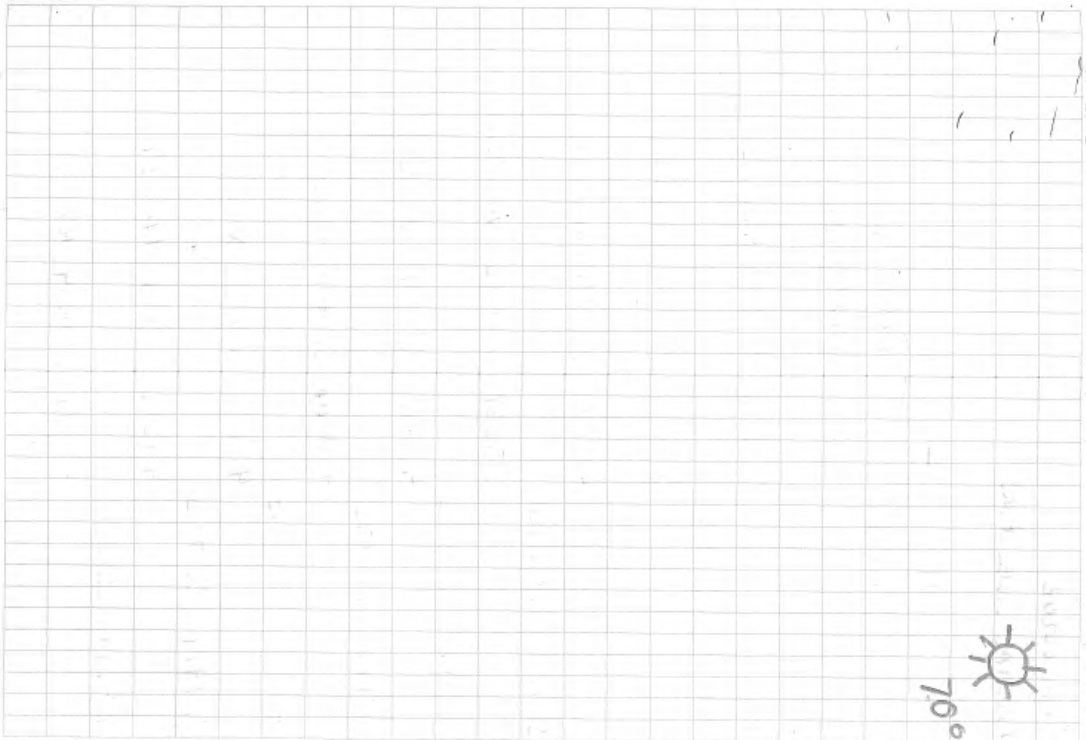
P-38

P2213A 5 FT E. OF TOG OF CANAL. 35 FT  
 SW OF THE N.E. CORNER ALONG MONITORING  
 WELL. 27 FT S.E. OF THE N.W. CORNER  
 ALONG MONITORING WELL. ALIEN-DIE SET SW  
 NW CORNER OF CONC. PAV.

P2213B 5 FT E. OF TOG OF CANAL.  
 27 FT S.E. OF THE S.W. CORNER  
 ALONG MONITORING WELL. 25 FT S.E.  
 OF THE S.E. CORNER ALONG  
 MONITORING WELL



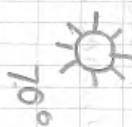
171204.02		C-43				SFWMS
(00100202						
Digital Level Run						
	+	H/	-	ELE	DESC	
4.7321	19.5494			14.8173	NAIL 10	
4.3474	17.9120			13.5645	NAIL 11	
4.8346	17.7210			12.8864	NAIL 12	
5.2299	17.8090			12.5791	Topof Disk Pz 225A	
5.7839	18.0713			12.2874	Topof Disk Pz 225B	
4.8805	17.3857			12.5661	NAIL 15	
5.2260	17.7475			12.5215	NAIL 16	
6.1627	18.5526			12.3898	NAIL 17	
5.0821	19.3976			14.2371	NAIL 18	
4.8660	20.8361			15.9700	NAIL 19	
				18.0034	NAIL 20	



R. Pawlowski  
D. Zielke

3-8-18

510/40



+	HI	-	ELE	DESC
4.8945	22.8980	3.1151	18.0034	NAIL 20
4.3349	24.1177	4.2836	19.8340	NAIL 22
5.1814	25.0155	5.0157	19.9397	NAIL 23
5.1790	25.1188	4.9138	20.2050	NAIL 24
5.4270	25.6320	3.7687	21.8633	NAIL 25
3.5943	25.4576	4.7986	20.6590	NAIL 26
4.7770	25.4861	4.6666	20.7694	NAIL 27
4.3979	25.1673	4.3177	20.8496	NAIL 28
4.1919	25.0415	4.2374	20.8040	NAIL 29
4.4171	25.2212	4.3777	20.8434	NAIL 30

171204.02

C-43

SFWND

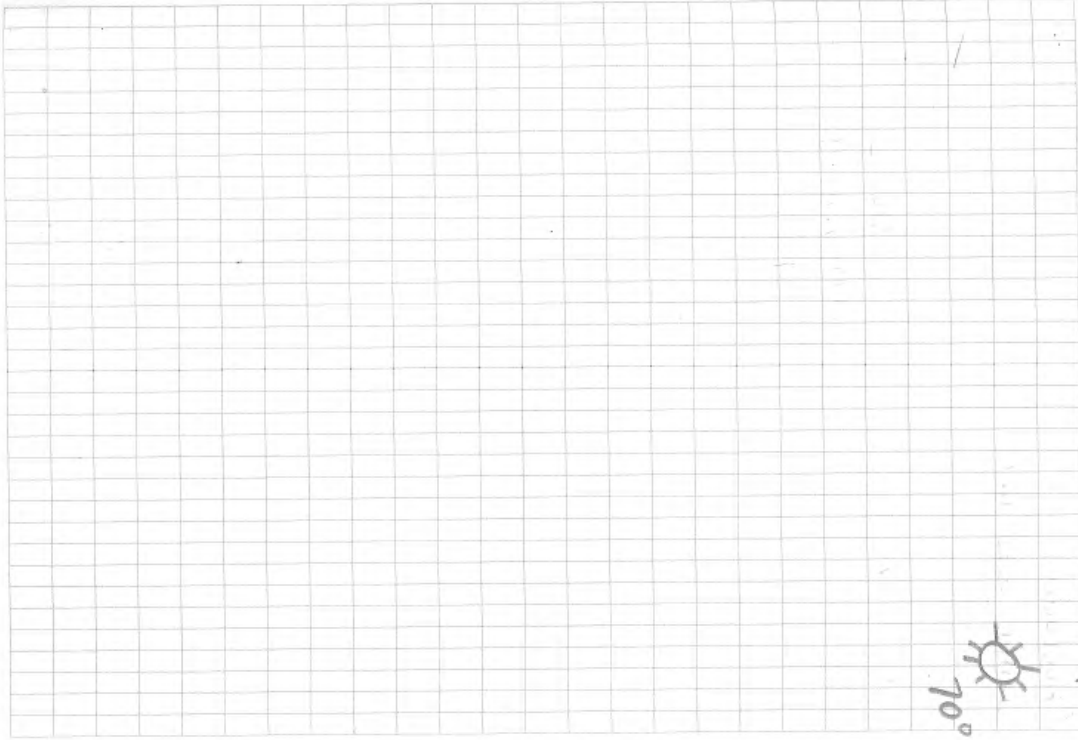
(R0100202

DIGITAL LEVEL RUN

R. Pawlowski  
D. Ziemia

3-8-18

510/41









17th Nov

C-43

WELL Bm's

TO REACH THE JUNCTION FROM INTERSECTION OF  
 COWLEY WAY & HWY 29 GO SOUTH ALONG HWY  
 29 7.6km TO ENTRANCE TO DUBA ON THE RIGHT  
 GO WEST THROUGH ENTRANCE 200FT THE RD TAKES  
 NORTH OR WEST 150FT TO GUARD TRACK, <sup>ROAD</sup> ~~ENTRANCE~~  
 GOE! FROM ENTRANCE TO DUBA CONTINUE 0.2 MILES  
 NORTH THE RD TAKES WEST. CONTINUE WEST  
 1.9 MILES TO JUNCTION OF NORTH-SOUTH DUBA RD.  
 GO WEST ALONG DUBA RD. APPROX 1/2 MILE TO JUNCTION  
 OF DUBA ROUNDABOUT WEST GO WEST 2.7 MILES  
 TO JUNCTION OF DUBA RD AL-SHARAH AL-DHA. GO  
 NORTH TOWARD THE POINT AND ON THE RIGHT  
 0.2 MILE WEST END OF S. OF NORTH-SOUTH DUBA RD,  
 WEST SIDE OF THE AND CORNER WE CAN SEE PAV  
 WITH NO. 6 OF THE NEW COURSE OF CONC. AND  
 APPROX 1/2 MILE SOUTH OF WELL.

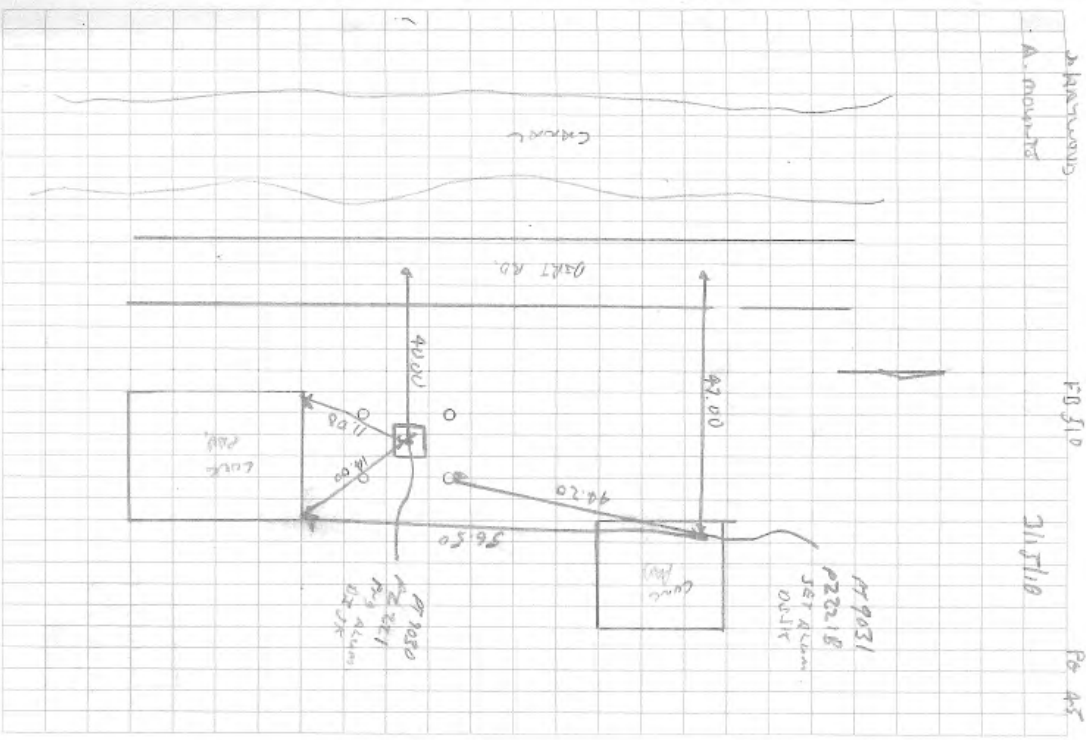
P22018 4117 END OF S. OF NORTH-SOUTH DUBA RD.  
 5.5 M NORTH OF THE N.E. CORNER OF CONC. PAD  
 49.20 N. 6. OR THE N.W. CORNER AROUND WELLS,  
 CORNER N.E. END N.W. CORNER OF CONC. PAD.

A. Mountain

FD 310

31/5/10

Page 45



171104.07

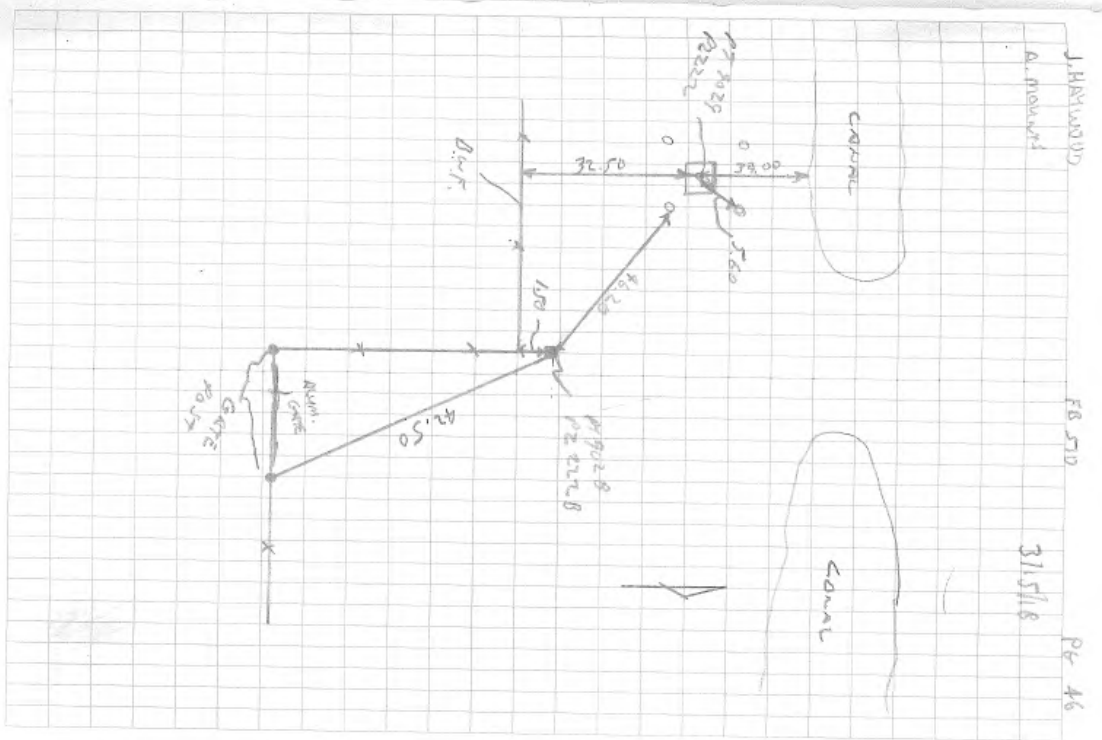
C-43

W. 21. 8th S

TO REACH THE PROPOSED FARM INTERSECTION OF  
 COLLEGE WAY & HWY 29 GO SOUTH ALONG HWY 29  
 APPROX 1/2 MILE TO BRIDGE TO DUDA ON THE NORTH. GO  
 WEST THROUGH BRIDGE 200 FT TO R3 TURN NORTH.  
 CONTINUE NORTH 150 FT TO GRAVEL DRIVE, CONTINUE  
 NORTH 0.20 MILES TO END TRACT WEST CORNER &  
 WEST 1/4 CORNER TO INTERSECTION OF HWY 29 & R3  
 GO WEST APPROX 1/2 MILE TO INTERSECTION OF DUDA RD.  
 REMAIN ON DUDA. GO WEST APPROX 1/2 MILE TO A  
 NORTH-SOUTH CANAL. GO SOUTH ALONG THE WEST  
 END OF NORTH-SOUTH CANAL 0.75 MILES THE  
 BRANCH ONE ON THE RIGHT.

PT 222 39 FT SOUTH THE TO B. OF EAST-WEST CANAL.  
 34.50 FT NORTH OF DUDA WIDE FENCE, 560 SW  
 OF THE NE. BRIDGE APPROX W. END, MARK S1 IN  
 CONCRETE REVISION TWO & 61 FT.

PT 221 B 46.20 FT S.E. OF THE S.E. BRIDGE ALONG  
 WEST, 42.50 W. END OF THE CANAL ON E. END OF  
 GATE, 1.50 NORTH OF FENCE CORNER & CONCRETE  
 POST



17204.00

C-43

WELL No. 5

TO REACH THE STATION FROM INTERSECTION  
 OF COUNTRY WAY & HWY 29 GO DOWN 5 MILES  
 TO A TRAILHOLE DRIVE ON THE RIGHT, ENTER  
 ENTRANCE THROUGH GATE w/ GRASS SIGN. THE  
 MARKET ARE ON THE LEFT OLD HILLS SOUTH OF  
 ENTRANCE.

PZ 224 27,800' NW OF THE END OF COUNTRY  
 WAY DRIVE, 8' EAST W/ 100' OF C.L.F., 5700'  
 N.E. OF THE L.W. BUILDING AROUND WEST

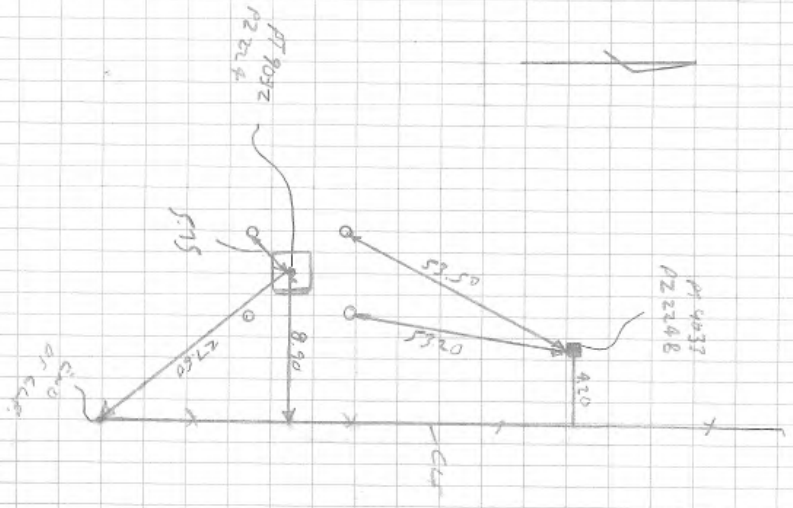
PZ 224 53,500' N.E. OF THE NW.  
 BUILDING AROUND WALL, 5120' NORTH OF  
 THE N.E. BUILDING AROUND WALL, 4200'  
 WEST OF C.L.F. ? CROSSWALK EAST.

2.11.1948

FB 510

31.518

PG 47



17/204.02 C43 PZ BENCHMARK'S  
DIGITAL LEVEL

INST: L5 10  
FILE: C433-23-18  
\* DID NOT USE GPS TODAY! (TP=TURN POINT)  
\* NOTE DID NOT SET PERMANENT TURN PTS  
PGR SCOTT URBANHART!

	HI	-	ELV	DESS
4.895	25.265			N65 PT 'CARDNO' ELEV = 20.37(69)
5.187	25.069	5.382	19.892	TP#1
4.559	24.565	5.063	20.005	TP#2
		5.433	19.132	TP#3
4.502	23.634			

S DOUGS 3/23/18 FB 510  
R 2105R PG 48  
RAN FROM CARDNO NORTH TO PZ 215

	HI	-	ELV	DESS
5.124	18.570			PZ 215 B (A IN LEVEL) (Gone post)
5.505	19.549			PZ 215 A (LOW CONC SURF (DRSD) ON MAINTENANCE WELL)
4.307	23.856	5.245	18.511	PZ 215 B (PZ 215 A IN LEVEL)
5.114	23.625	4.261	19.364	TP#4

PAGE 1 OF 3

	HI	-	ELV	DESC
5.288	24.652			
4.744	24.960			
5.133	25.251			
		4.437	20.215	TP#5
		4.842	20.118	TP#6
		4.876	26.375	CARDNO NG5 PT CARDNO 1 IN LEVEL VIN EL=20.37

C43 BENCHRUN CNT

	HI	-	ELV	DESC
4.662	104.662			P2 205 (GaussNB) *ASSUMED 100.00!
6.201	105.158			P2 205 B (Gauss POST)
4.116	104.571			
4.419	103.565			
5.590	97.974			TP#3 PAGE 2083
5.433	99.146			TP#2
4.695	100.463			TP#1
5.705	98.957			

S DOUCE 3/23/8 FB570  
BASIDR PG49

BENCHRUN FROM P2 205 TO P2 217  
RUN FROM P2 205 NORTH  
FILEDCY33-23-18 B  
INSTR8 LS10  
\*NOTE ALL TPs  
ARE TEMPORARY!

C43

+	HI	-	SLV	DESC
5.176	103.150			
		5.013	98.137	TP#4
4.705	102.893			
		5.160	97.682	TP#5
4.654	102.337			
		5.062	97.274	TP#6
4.843	102.118			
		5.572	96.746	TP#7
5.579	102.325			

E DOWE  
B REISSER  
3/23/18  
F8510  
Pg 50

+	HI	-	SLV	DESC
5.041	101.185			
		6.181	96.148	TP#8
4.729	101.281			
		4.630	96.555	TP#9
5.314	100.899			
		5.750	95.534	PZ 217A (WELL PT ON SLAB)
5.205	95.643			PZ 217B (CANC POST)
				* NOTE * NEED TO RUN THIS RUN BACK TO PZ 205

PAGE 30F3



171204.02 C43

P2 BENCH RUNS

DIGITAL LEVEL

INST: LS20

FILE: C43-26-18

RUN FROM P2217 TO 205 TO THE SOUTH

TP= TURN PT (TEMP ONLY)

+	HI	-	ELV	DESC
5.159	100.802			P2217 B (CONE POST) EL=95.643
		5.268	95.533	P2217 A
5.650	101.184			
		5.358	95.825	TP#1
4.990	100.816			
		4.686	96.129	TP#2
6.103	102.233			
		5.586	96.647	TP#3

S DOUGL  
B READER

3/26/18

FB570  
PG57

+	HI	-	ELV	DESC
5.095	101.742			
		4.879	96.863	TP#4
5.399	102.262			
		4.821	97.440	TP#5
5.538	102.979			
		5.620	97.359	TP#6
5.356	102.716			
		4.599	98.116	TP#7
4.799	102.916			
		3.742	99.173	TP#8
5.237	104.411			
				PAGE 10F2

	+	HI	-	ELV	DISC
					PP#9
	4.298	100.113	4.298	100.113	PP#9
	5.220	105.333	4.949	100.383	PP#10
	4.669	105.053	6.100	98.952	PZ 2068 (conc post)
					PZ 205 206 INLEVEL
	5.701	104.654	4.658	99.996	PZ 205A (conc with PA)
					ASSUMED 100.00 ELCV

S DOUCE  
B MIDEA  
3/26/18  
F8570  
PG 52

PAGE 2 OF 2

171204.02 C43

LOCATED PZ WELLS W/GPS

CHECK IN PT #100 NGS PT ALVA

863874.247 471244.419

863874.187 471244.397

H0.09 V0.07

GPS RAD HEIGHT 6.582

FILE: 171204.02 E03.30.18

\* NOTE ALL DISCS ON MONUMENT ARE THE SAME

PT # DISC AS DISC FOR #100

9035 CONC POST (MONUMENT)

WITH 2 INCH ALUM DISC

SURFUND LB 7975 PZ 215B

9036 2 IN ALUM DISC DRILLED +

GLUED ON TO WELL SITE CONC

PHD (DISC STAMPED SURFUND

LB 7975 PZ 215A)

9037 PZ 201A (ALUM DISC IN

CONC WELLS SHAFT)

9038 PZ 201B CONC POST (MONUMENT)

WITH 2 IN ALUM DISC

S DOUGL 3-30-18

R RESIDER

FB 510 PG 53

PTS 9035 - 9045

PT # DISC

9039 PZ 225B CONC POST

(MONUMENT) 2 INCH ALUM DISC

9040 PZ 225A ALUM DISC DRILLED +

GLUED IN WELL SHAFT

9041 PZ 207 CONC POST (MONUMENT)

WITH 2 INCH ALUM DISC

9042 PZ 208 CONC POST (MONUMENT)

WITH 2 INCH ALUM DISC

9043 PZ 69 CONC POST (MONUMENT)

WITH 2 INCH ALUM DISC

9044 PZ 60A CONC POST (MONUMENT)

WITH 2 INCH ALUM DISC

9045 PZ 60B CONC POST (MONUMENT)

WITH 2 INCH ALUM DISC



C43

+	HI	-	ELV	DESC
5.694	108.017			
4.583	106.665			
		6.015	102.081	TP#3
		5.179	101.486	TP#4
6.175	107.661			
		7.667	99.998	VIN PZ 205B (PZ 205B1) IN LEVEL BL=100.00

E DOWE 4/3/18 FB 510  
B REIDER PG 55  
PAGE 20#2

LEVEL RUN (OPTICAL) FROM BM CARONO  
TO PZ 202A

+	HI	-	ELV	DESC
5.11 4.9249 4.81	25.33			BM CARONO, NGS OF ELEV = 20.37 (88)
		4.81 4.65465 4.49	20.68	Tot. Elev. DSK PZ 202A
		4.77 4.6194 4.45		
		5.07 4.92472 4.77	20.37	BM ELEV 20.37 VIN

17120402 C43

LOCATED AND ELEVATED PZ WELLS

CHECK IN PT (OOD) ALUM NGS PT

863874.247 471244.419

863874.220 471244.435

H 0.03 V 0.01

FILE: 171204.02 EDO40Y18

INSTR: R10

ROD HEIGHT 6.562

PTS 9048-9049

PT #	DESC
9048	PZ 217A CONC POST w/2 IN ALUM DISC (CONC MAN)

9049	PZ 217B CONC POST w/2 IN ALUM DISC (CONC MAN)
------	---

EDOUSS

4/9/18

FB570

GREIDER

PG56

PAGE 10F4

BENCH RUN (DIGITAL) FROM NGS PT AUSTIN

TO PZ 201 TO PZ 225 (RAN IN REVERSE AND

FILE: C43 4-4-18 ED CHECKED IN NGS

INSTR: L570

\*NOTE ALL TP (TURNPT) ARE TEMP

+	HT	SLV	DESC
0.496	22.276		NGS PT AUSTIN SLBV 15.78 (88)

5.215 17.060 TP#1

5.573 22.633

4.764 17.869 TP#2

5.027 22.896

4.879 18.017 TP#3

5.167 23.185

4.973 ~~18.211~~ PZ 201A

(CONCRETE SLAB  
w/ DRILLED + GROUTED  
2" IN ALUM DISC)

	HI	-	BLV	DESC	
4.942	23.154				
5.520	17,633		PZ 201B	CONC POST (CONC MONUMENT) w/ 2 IN ALUM DISC	
5.315	22,949				
4.737	18,211		PZ 201A	(PZ 201A) IN LIND	
6.026	24,237		5.916	18,321	TP#4
3.606	21,928		5.506	16,422	TP#5

C43

	HI	-	BLV	DESC	
4.121	20,573				
5.592	14,950		TP#6		
4.381	19,332				
6.147	13,184		TP#7		
5.128	18,313		5.734	12,579	PZ 225A WELL SAND AT 2 IN ALUM DISC DRIVEN + BLUE DYN CONC PAD
5.572	18,152		5.864	12,287	PZ 225B CONC POST (CONC MON) 2 IN ALUM DISC
5.712	18,000		5.421	12,579	PZ 225A (PZ 225A) IN LIND

S DOWSE  
BR 18182

4/4/18

FB570  
PG57  
PAGE 20F4

	HI	ELV	DESC
5.826	18,405		
5.353	18,717		
5.803	20,551		
6.224	22,739		
4.288	23,484		
5.041	13,363		TP#8
3.970	14,747		TP#9
4.035	16,575		TP#10
3.543	19,196		TP#11
5.270	18,214		PZ 201A (PZ 201A2 IN LV)

	HI	ELV	DESC
4.946	23,160		
4.952	22,888		
4.478	22,528		
5.484	22,411		
5.224	17,936		TP#12
4.830	18,050		TP#13
5.602	16,926		TP#14
6.633	15,777		V IN NGS AUSTIN EL= 15.78

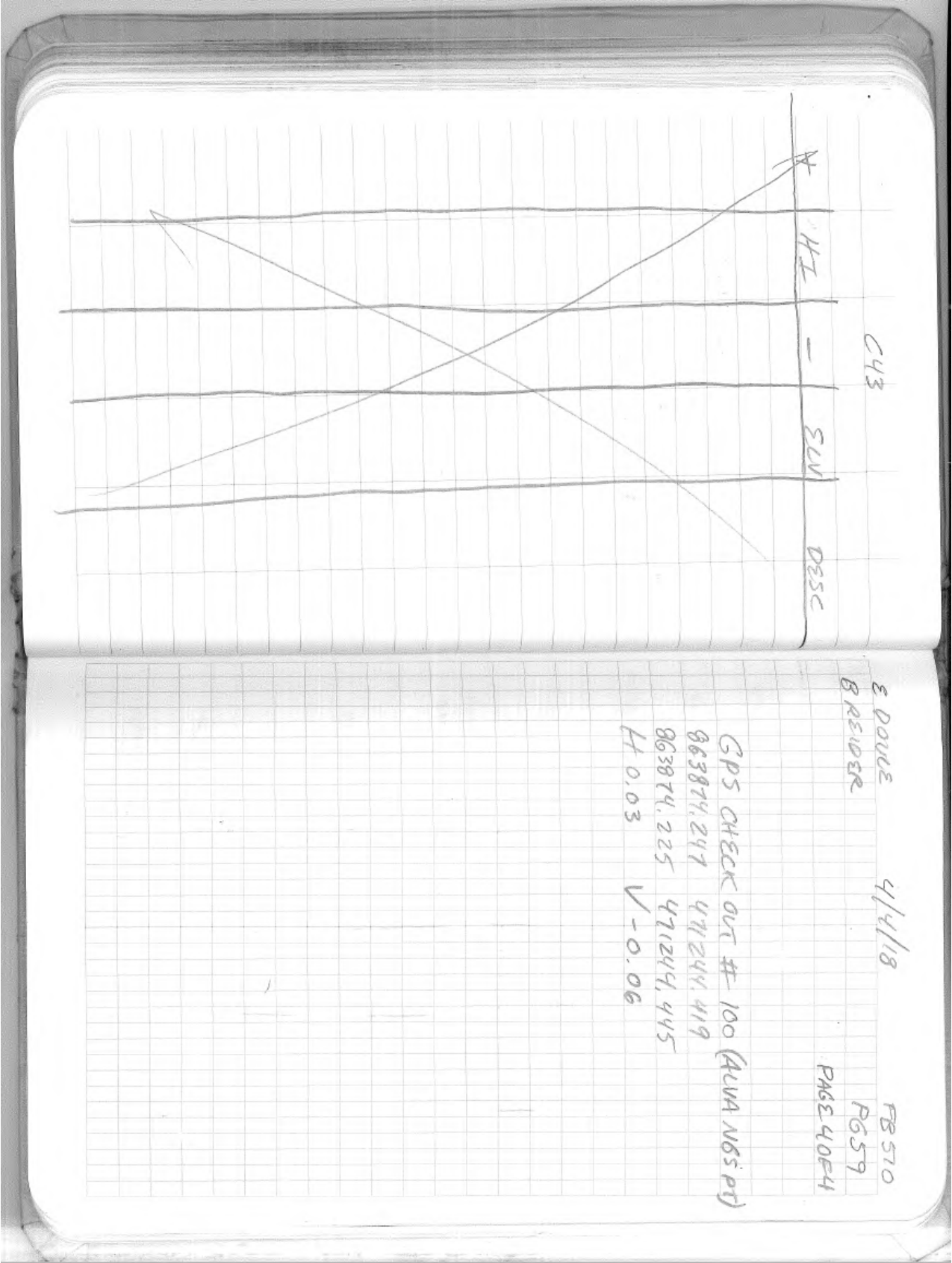
C43

E DOUG  
B REIDER

4/4/18

FB510  
P658  
PAGE 3064





E DOUCE  
BREIDBR

4/4/18

FB 570  
PG 59  
PAGE 4024

GPS CHECK OUT # 100 (ALVA N65 PT)  
863874, 247 471244, 419  
863874, 225 471244, 445  
H 0.03 V -0.06

17120402 C43

LEVEL RUNS TO PZ WELLS  
ON DUDA FARMS PROPERTY

LEVEL: L530

SET PT ON DUDA FARM # 100,000  
PT IS 300' +/- SOUTH OF N65  
PT ' TAYLOR GRACE ON OTHER SIDE  
OF CANAL ON TOB NEAR ROAD  
PT 100,000 IS A IRON ROD AND CAP  
LB 2975 BETWEEN A CAGS.

OPTICAL RUN TO SET PT # 100,000

+	HI	-	ELV	DESC
10.18	109.29			N65 PT TAYLOR GRACE ASSUMED
9.29				100.00
8.41				
		6.14		
		5.84589	103.40	PT # 100,000
		5.145		
				Return
6.10	109.25			
5.85835				
5.160				
		10.13		EL: 100
		9.25925	100	N65 PT
		8.36		TAYLOR GRACE

2 DOUCE  
B REIDER

4/10/18

FB570  
PG60

REC'D TO PZ WELLSITES  
IN DUDA #'S 223, 222 + 221  
\* DID NOT USE GPS TODAY!

171204.02 C43

DIGITAL LEVEL RUN ON DUDA TO PE  
CELLS

CHECK IN PT # 9037 (PZ 2014)

861225.159 476590.621

861225.145 476590.648

H 0.02 V 0.009

FILE # 171204.02 2D3-30-18

INST # R10

LOCATED CONTROL PT # 100,000  
ON DUDA PROPERTY

# 100,000 IS A IRON ROD+CAP (L8-7975)

IN A CAGE

# 100,000

N 845487.995

E 503024.365

ELEV 29.94 (GCS)

SHOT PT FOR 3:00 MIN

★ DID NOT DUMP FILE!

Σ DONE 4/11/18

B REIDER

FB510  
PG 61  
PAGE 10F2

DIGITAL LEVEL RUN FROM

# 100,000 TO PZ 223

FILE # C43 DUDA 4-11-18

INST # L510

ALL TURN PTS (TP) ARE TEMPORARILY!

+	HI	-	ELEV	DESC
4.847	114.137			#100,000 ELEV=109.29
		4.704	109.432	TP#1
		5.255	108.599	TP#2
		4.352	110.252	TP#3
		5.476	109.261	TP#4

4.847 114.137

4.421 113.854

6.006 114.606

4.485 114.738

C43

+	HI	-	ELV	DESC
4.611	113.872			
		4.644	109.228	TP# 5
4.283	113.512			
		5.396	108.115	TP# 6
5.708	113.823			
		4.467	109.356	TP# 7
3.689	113.045			
		4.656	108.389	TP# 8
4.442	112.831			
		4.468	108.362	TP# 9
4.464	112.827			

4/11/18

FB520  
PG 62  
PAGE 2042

S DANCE 8 NUMBER	+	HI	-	ELV	DESC
		4.191	112.159		
		4.859	107.968		TP# 10
		4.304	107.854		TP# 11
	4.368	112.223			
		5.785	106.437		PZ 223 B (CANE POST) MON.
	6.069	112.506			
		5.055	107.950		PZ 223 WELL PAD ALUM DISC

171204.02 C43

DIGITAL LEVEL RUN FROM PZ223  
TO BM #2 (SET IRK) SET PG 64 FOR DIST

INST: L540

FILE: C43 DUDA 4-13-18

ONLY TEMP TURN PTS USED! (TP)

+	HT	—	SLV	DESC
6.524	112.961			PZ223 B CONC POST SLV = 106.437
4.267	112.468	4.760	108.201	TP#1
4.745	112.363	4.850	107.617	TP#2
5.251	112.481	5.133	107.230	TP#3

5 DANCE  
B RICE

4/13/18

FB570  
PG63

+	HT	—	SLV	DESC
5.228	113.247			
4.894	112.825	5.316	107.930	TP#6
4.882	112.458	5.254	107.510	TP#7
5.674	112.900	4.882	108.018	TP#5
5.255	107.226	5.531	106.838	TP#9
4.795	112.361	4.880	107.514	TP#8

	HI		ELV	DESC
+	112.176	-		
		3.817	100.358	BM #2
				SET IRON ROD + CAP ON EAST - WEST DIREC D INTERSECTION 0.70 OF A MILE NORTH OF PZ 222

	HI		ELV	DESC
+		-		
				EB510 P664

E DOUCE  
 BRIDGR  
 4/13/18

11204.02

C43

DIGITAL LEVEL RUN FROM BM # 2 TO PZ 222 AND BACK TO BM # 2

ADID NOT USE GPS TODAY # FILE: C43 D0044-17-18

INST: LS10

# ALL TURN PTS (GP) TEMPORARY ONLY!

HTI	SLV	DESC
4.520	111.955	BM# 2 SLV= 108.388 SEE FIG 64 FOR DESC
4.770	107.934	TP# 1
5.092	106.862	TP# 2
5.166	111.969	TP# 3
4.985	112.141	

E DOUCE

4/12/18

E8510

B REIDER

PAGE 1052

HTI	SLV	DESC
4.860	112.063	TP# 4
5.090	106.973	TP# 5
4.317	107.716	TP# 6
6.210	114.011	PZ 222
7.207	106.839	ZINCH ALUM
7.029	113.869	DISC IN CONC WELL SLAB
7.941	105.928	PZ 222 B CONC MOVEMENT w/ ZINCH ALUM DISC

C43

+	HI	-	ELV	DESC
7.648	113.576			
		6.738	106.838	P2 222 (P2 2221 IN 4318)
7.095	113.933			
		6.158	107.775	TP# 7
4.269	112.044			
		5.022	107.022	TP# 8
4.930	111.953			
		4.766	107.186	TP# 9
4.742	111.929			
		4.730	107.198	TP# 10
4.828	112.027			

E DOUCE  
BRAIDED  
4/12/18  
FR 576  
PG 66  
PAGE 2062

+	HI	-	ELV	DESC
		4.776	111.844	
		4.959	107.061	TP# 11
		4.680	107.163	TP# 12
		4.917	112.081	
		4.759	107.322	TP# 13
		5.229	112.531	
		4.197	108.353	BM # 2 CHK IN EL=108.358



171204.02 C43

LEVEL RUN FROM COMELLAS N55 PT  
 TO BM ON OUDA PROPERTY  
 BM #3 (SET IR+L B 7975 W/CASE)  
 & CANAL CROSSING  
 INST: US10 (OPTICAL ONLY)  
 \* NO GPS USED TODAY

+	HI	-	SLV	DISC
14.15 13.58 13.01	113.58	8.93 8.35 7.74	105.23	COMELLAS N55 PT ASSUMED 100.00
9.69 9.12 8.55	114.35	14.92 14.34 13.77	100.01	CHECK IN COMELLAS N55 PT EL=100.00 ✓

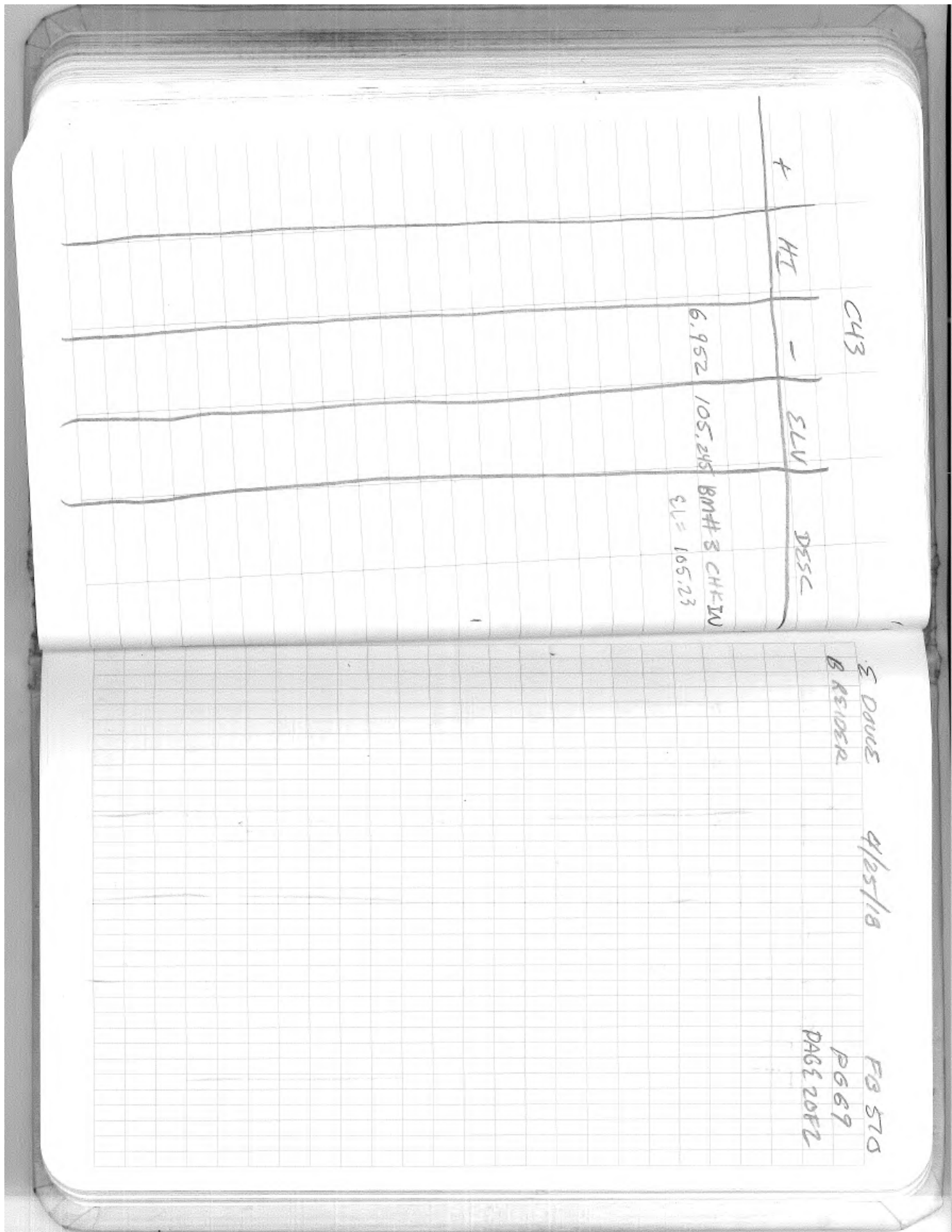
E DOUCE  
 B RIDDER  
 4/19/18  
 FB 510  
 PG 67

171204.02 C43  
 LEVEL RUN FROM BM #3 TO BM#4  
 (BM#4 SET IATE CB 7775 W/CAGE)  
~~BM#4~~  
 INST: 2510 (DIGITAL)  
 FILE: C43.DUDA 4-25-18  
 TP (TURN PT TEMP ONLY)

HI	ELV	DESC
7.077	112.307	BM#3 EL=105.23
	5.651	TP#1
0.5830	107.238	
	4.755	TP#2
4.823	107.306	
	4.912	TP#3
5.730	108.124	
	5.328	TP#4

E DOVE 4/25/18  
 B REIDER  
 FB510  
 P688  
 PAGE 10P2

HI	ELV	DESC
4.763	107.560	
	5.342	BM#4
5.124	107.341	
	4.641	TP#5
5.490	108.19	
	5.771	TP#6
4.872	107.292	
	4.557	TP#7
4.553	107.288	
	1.291	TP#8
6.201	112.198	



	HI	SLV	DSSC
+	6.952	105.248	BM# 3 CHELV CL = 165.23

C43

S DANCE  
B R10BR

4/25/18

PG 570  
PG 69  
PAGE 20R2

171204.02 C43  
DIGITAL LEVEL RUN ON DUDA  
PROPERTY FROM BM#2 TO PZ221  
TO BM#4  
B ALL (FD) TURN PTS ARES TEMP!

+	HI	ELV	DESC
3.130	111.488		Bm# 2 SEE PG 64 502 DESC ELV=108.35
		5.409	106.078 TP#1
5.555	111.633		4.675 106.958 TP#2
		5.382	106.728 TP#3
5.152	112.110		
		5.717	112.445
		5.957	106.487 TP#4
6.907	113.395		

E DODGE 4/27/18 FB 570  
BRE 108R ENUST8LS10 PG 70  
T ADT FILES C43 DUDA 4-27-18 PAGE 1023

+	HI	ELV	DESC
4.672	111.879		6.188 107.207 TP#5
		5.349	106.580 TP#6
4.900	111.438		4.703 106.706 TP#7
		5.211	111.938
		5.854	106.083 TP#8
5.645	111.728		
		5.614	106.113 PZ221
		4.944	111.088
			WELL PAD PT ZIN ALUM DISC DRILLED & GUNN ON CONC

17/204.02 C43

+	HI	-	ELV	DESC
5.294	105.763			
		5.294	105.763	P221B #2 IN ACUM DISC DRAINED + SLOPED INFO CONT. SUBB ADJUST TO W84
5.741	111.504			
		5.285	106.217	TP# <del>9</del> 9 (P2202 01.11) LEVEL
4.094	110.313			
		4.181	106.132	TP#10
5.491	111.623			

4/27/18

8 DOUBT  
8 REIDER  
7 ADT

PG 570  
PG 71  
PAGE 2 OF 3

+	HI	-	ELV	DESC
		5.845	65.779	VIN B#44 EL=102.217 (DID NOT CHK DVS. TO ASSUMING 100)

171204.02 C413

BENCHMARK FROM N65 PT  
AMANN TO P2 G8

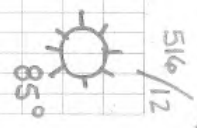
+	H I	-	SLV	DESC
578	29.28			N65 PT AMANN CL = 23.76
5.56		3.39	2.6.10	P2 G8
5.35		3.18		2 IN ALUM
		2.97		DAILY 60 FT IN 19.1066 2

S DOUG 4/27/18 FB 510  
BRIDGE PG 72  
TADT PAGE 3043

+	H I	-	SLV	DESC
3.54	29.44			
3.34		5.93		
3.18		5.72	23.72	V IN N65 PT AMANN CL = 23.72
		5.51		

Level	Run From	Amann To J	STANLEY	DESC	SOUND
171204.02		C-43			
5.6027	29.3227		23.72	Amann	
5.0824	28.7670		23.6846	TP 1	
6.0243	29.1383		23.1139	TP 2	
4.9892	28.2345		23.7725	TP 4	
5.2415	29.0140		23.7549	TP 5	
4.7000	28.4550		23.3146	TP 6	
4.4924	27.8010		22.9460	TP 7	
4.7686	27.7146		22.9591	P2 214B	
5.2907	28.2499		22.6879	P2 214A	
5.6809	28.3688		23.1724	TP 10	WEST
5.0842	28.2567		23.3329	TP 11	EAST

Level	Run From	Amann To J	STANLEY	DESC	SOUND
4.9965	28.2295		23.0246	TP 12	
5.1243	28.1489		23.6857	TP 13	
5.3375	28.9732		24.3610	TP 14	
4.6742	29.0353		24.3310	TP 15	
4.5386	28.9756		24.0551	TP 16	
4.9762	29.0314		24.2664	TP 17	
4.9600	29.2265		24.7124	TP 18	
4.7657	29.4781		24.0354	TP 19	
5.0395	29.0754		24.0877	TP 20	
4.5700	29.4577		24.2092	STANLEY	
			(24.18)		



S16/12

3-28-18

R. Pankowicki  
D. ZIEGLER

# **Appendix D**

## **NGS CONTROL**



## The NGS Data Sheet

See file [data.dtm.gdf](#) for more information about the datasheet.

```

PROGRAM = datasheet3a; VERSION = 3.12.4.1
- #National Geodetic Survey, Retrieval Date = MAY 15, 2018
AJ7273 *****
AJ7273 DESIGNATION - S 518
AJ7273 PID - AJ7273
AJ7273 STATE/COUNTY- FL/HERNAND
AJ7273 COUNTRY - US
AJ7273 USGS QUAL - BEARS (1971)
AJ7273
AJ7273 CURRENT SURVEY CONTROL
AJ7273
AJ7273 NAD 83(2011) POSITION- DG 80 08.80175(N) 081 26 21.91637(W) ADJUSTED
AJ7273 NAD 83(2011) ELLIP HI- -16.144 (meters) 08(27)12 ADJUSTED
AJ7273 NAD 83(1981) EPOCH - 2010.00
AJ7273 NAD 83 ORTHO HEIGHT - 0.000 (meters) 16.69 (feet) ADJUSTED
AJ7273
AJ7273 GEOID HEIGHT - -04.465 (meters) GEOID08
AJ7273 NAD 83(2011) Z - 848,285.270 (meters) COGS
AJ7273 NAD 83(1981) Z - -8,639,813.827 (meters) COGS
AJ7273 NAD 83(2011) Z - 0,948,304.425 (meters) COGS
AJ7273 CASFACE CORR - 0.07 (seconds) DEFLAG12B
AJ7273 DYNAMIC HEIGHT - 8.124 (meters) 16.64 (feet) COGS
AJ7273 MODELED GRAVITY - 979,360.7 (mgal) NAVD 83
AJ7273
AJ7273 VERT ORDER - FIRST CLASS II
AJ7273
AJ7273 Network accuracy estimates per IPDC Geospatial Positioning Accuracy
AJ7273 Standards:
AJ7273 IPDC (95% conf. cm) Standard deviation (cm) Closure
AJ7273 Horiz Ellip SD_N SD_E SD_u (mm/less)
AJ7273 -----
AJ7273 BEINGS 1.95 2.94 0.75 0.76 1.80 -0.7568748E
AJ7273 -----
AJ7273 Click here for local accuracies and other accuracy information.
AJ7273
AJ7273
AJ7273 The horizontal coordinates were established by GPS observations
AJ7273 and adjusted by the National Geodetic Survey in June 2012.
AJ7273
AJ7273 NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
AJ7273 been affixed to the stable North American tectonic plate. See
AJ7273 NA11L for more information.
AJ7273
AJ7273 The horizontal coordinates are valid at the epoch date displayed above
AJ7273 which is a decimal equivalent of Year/Month/Day.
AJ7273
AJ7273 The orthometric height was determined by differential leveling and
AJ7273 adjusted by the NATIONAL GEODETIC SURVEY
AJ7273 in February 2001.
AJ7273
AJ7273 Significant digits in the geoid height do not necessarily reflect accuracy.
    
```

AJ7273 GEOID12B Height Accuracy Estimate Available [Here](#).  
 AJ7273  
 AJ7273 The N, Y, and Z were computed from the position and the ellipsoidal ht.  
 AJ7273  
 AJ7273 The Laplace correction was computed from IAPF0212B derived deflections.  
 AJ7273  
 AJ7273 The ellipsoidal height was determined by GPS observations  
 AJ7273 and is referenced to WAD 88.  
 AJ7273  
 AJ7273 The dynamic height is computed by dividing the WVD 88  
 AJ7273 geopotential number by the normal gravity value computed on the  
 AJ7273 Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45  
 AJ7273 degrees latitude ( $g = 9.80665$  gal/s).  
 AJ7273  
 AJ7273 The modeled gravity was interpolated from observed gravity values.  
 AJ7273  
 AJ7273 The following values were computed from the WAD 93 (2011) position.  
 AJ7273  
 AJ7273

	North	East	Units	Scale Factor	Converg.
AJ7273: SFC EL E	- 358,852.083	158,540.636	MT	0.99996448	-0 12 48.4
AJ7273: SFC FB E	- 349,251/93	513,905/93	FT	0.99996448	-0 12 48.4
AJ7273: UTM z7	- 0 349,835.694	458,560.453	MT	0.999962328	-0 22 48.4

AJ7273  
 AJ7273: Elev Factor = Scale Factor = Combined Factor  
 AJ7273: SFC FL E - 1.00000287 = 0.99996448 = 0.99996708  
 AJ7273: UTM z7 - 1.00000287 = 0.999962328 = 0.99996468  
 AJ7273  
 AJ7273 U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNM6666149038 (WAD 88)  
 AJ7273  
 AJ7273  
 AJ7273 SUPERSEDED SURVEY CONTROL  
 AJ7273  
 AJ7273 WAD 88 (2007) - 16 80 88.60189 (M) 091 26 23.60710 (W) AD (2008, 09) 0  
 AJ7273 EL12B E (02/10/07) -18,319 (m) 091 26 23.60710 (W) GP (2008, 09) 0  
 AJ7273 WAD 88 (1995) - 06 80 88.60107 (M) 091 08 43.68721 (W) AD 0  
 AJ7273 EL12B E (11/12/02) -18,331 (m) 091 08 43.68721 (W) GP 4 L  
 AJ7273 WVD 88 8.18 (m) 86.7 (g) LEVERING 3  
 AJ7273  
 AJ7273 Superseded values are not recommended for survey control.  
 AJ7273  
 AJ7273 WGS no longer adjusts projects to the WAD 27 or WVD 88 datums.  
 AJ7273 See file [Bemarks.pdf](#) to determine how the superseded data were derived.  
 AJ7273  
 AJ7273 MARKER: 00 = SURVEY BISE.  
 AJ7273 SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT  
 AJ7273 STAMPING: R SUR SURF CERR  
 AJ7273 MARK LOGS: USE  
 AJ7273 PROJECTION: RECESSED @ CENTIMETERS  
 AJ7273 MAGNETIC: 0 = OTHER: SEE DESCRIPTION  
 AJ7273 STABILITY: 0 = MAY MOVE, BUT OF TYPE COMMONLY SUBJECT TO  
 AJ7273+STABILITY: SURFACE MOTION  
 AJ7273 SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 AJ7273+SATELLITE: SATELLITE OBSERVATIONS - February 10, 2015  
 AJ7273  
 AJ7273 HISTORY - Date Condition Report By  
 AJ7273 HISTORY - 201105 UNDOCUMENTED FCST  
 AJ7273 HISTORY - 20120405 GOOD MAPTEC  
 AJ7273 HISTORY - 20150118 GOOD GARDNO  
 AJ7273  
 AJ7273  
 AJ7273 STATION DESCRIPTION  
 AJ7273

AJ7273 DESCRIBED BY CHARLEY FOSTER AND ASSOCIATES 1001 (3E)  
 AJ7273 THE MONUMENT IS LOCATED 6.3 MILES (10.14 KM) SOUTH OF LABELLE, FL. AND  
 AJ7273 6.7 MILES (10.80 KM) NORTH OF  
 AJ7273 FELDA, FL. IN SECTION 9, TOWNSHIP 44 SOUTH, RANGE 29 EAST  
 AJ7273  
 AJ7273 OWNERSHIP IS THE FLORIDA DEPARTMENT OF TRANSPORTATION.  
 AJ7273  
 AJ7273 TO REACH THE MONUMENT FROM THE INTERSECTION OF STATE ROAD 29 AND US  
 AJ7273 HIGHWAY 90 IN LA BELLE, FL  
 AJ7273 6.3 MILES (10.14 KM) SOUTH ON STATE ROAD 29 AND THE MONUMENT IS ON THE  
 AJ7273 WEST SIDE (RIGHT) OF THE  
 AJ7273 ROAD AT FENCE CORNER. THE MONUMENT IS LOCATED 12.6 MILES (20.29 KM)  
 AJ7273 NORTH OF THE JUNCTION OF  
 AJ7273 STATE ROAD 29 AND STATE ROAD 12.  
 AJ7273  
 AJ7273 THE MONUMENT IS 60.0 FEET (18.29 M) WEST OF THE CENTERLINE OF STATE  
 AJ7273 ROAD 29, 50.0 FEET (15.24 M) SOUTH  
 AJ7273 OF THE CENTER OF A DRIVEWAY, 14.6 FEET (4.48 M) WEST OF THE  
 AJ7273 APPROXIMATE CENTER OF A CONCRETE  
 AJ7273 DRIVEWAY CULVERT AND 1.4 FEET (0.43 M) EAST OF A CARBONITE WITNESS  
 AJ7273 POST. NOTE A SIGN WAS  
 AJ7273 BURIED NEARBY AT AN UNSPECIFIED POSITION.  
 AJ7273  
 AJ7273 STATION RECOVERY (1000)  
 AJ7273  
 AJ7273 RECOVERY NOTE BY MASTER INCORPORATED 1001 (02)  
 AJ7273 RECOVERED AS DESCRIBED  
 AJ7273  
 AJ7273 STATION RECOVERY (1010)  
 AJ7273  
 AJ7273 RECOVERY NOTE BY CARNO INC 0010 (01)  
 AJ7273 RECOVERED AS DESCRIBED.  
 -!! retrieval complete.  
 Elapsed Time = 00:00:04

## The NGS Data Sheet

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

```

PROGRAM = datasheet88; VERSION = 8 12.4.1
- National Geodetic Survey, Retrieval Date = MAY 16, 2018
AJ7272 *****
AJ7272 DESIGNATION - Q 619
AJ7272 PID - 207502
AJ7272 STATE/COUNTY - FL/HENNESSY
AJ7272 COUNTRY - US
AJ7272 USGS QWAL - SEAS (1971)
AJ7272
AJ7272 CURRENT SURVEY CONTROL
AJ7272
AJ7272 NAD 83(2011) POSITION- DG at 01.19782(N) 081 26 12.6370eW ADJUSTED
AJ7272 NAD 83(2011) ELLIP HT- -16.460 (meters) 08/27/12 ADJUSTED
AJ7272 NAD 83(1981) EPOCH - 2010.00
AJ7272 NAD 83 OSTEO HEIGHT - 0.001 (meters) 16.00 (feet) ADJUSTED
AJ7272
AJ7272 GEOID HEIGHT - -04.466 (meters) GEOID08
AJ7272 NAD 83(2011) X - 849,128.492 (meters) COGS
AJ7272 NAD 83(2011) Y - -3,639,119.043 (meters) COGS
AJ7272 NAD 83(2011) Z - 0,946,947.008 (meters) COGS
AJ7272 LAPLACE CORR. - 0.00 (seconds) DEFLAG12B
AJ7272 DYNAMIC HEIGHT - 0.005 (meters) 16.00 (feet) COGS
AJ7272 MODELED GRAVITY - 979,864.3 (mgal) NAVD 83
AJ7272
AJ7272 VERT ORDER - FIRST CLASS II
AJ7272
AJ7272 Network accuracy estimates per IAGG Geospatial Positioning Accuracy
AJ7272 Standards:
AJ7272 PDOP (95% conf. cm) Standard deviation (cm) CORRE
AJ7272 Horiz Ellip SD_N SD_E SD_u (magnets)
AJ7272 -----
AJ7272 NETWORK 2.75 2.75 0.71 0.71 1.41 -0.06450182
AJ7272 -----
AJ7272 Click here for local accuracies and other accuracy information.
AJ7272
AJ7272
AJ7272 The horizontal coordinates were established by GPS observations
AJ7272 and adjusted by the National Geodetic Survey in June 2012.
AJ7272
AJ7272 NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
AJ7272 been affixed to the stable North American tectonic plate. See
AJ7272 NA11L for more information.
AJ7272
AJ7272 The horizontal coordinates are valid at the epoch date displayed above
AJ7272 which is a decimal equivalent of Year/Month/Day.
AJ7272
AJ7272 The orthometric height was determined by differential leveling and
AJ7272 adjusted by the NATIONAL GEODETIC SURVEY
AJ7272 in February 2001.
AJ7272
AJ7272 Significant digits in the geoid height do not necessarily reflect accuracy.
    
```

AJ7270: GEODOID height accuracy estimate available [file](#).  
 AJ7270  
 AJ7270: The X, Y, and Z were computed from the position and the ellipsoidal ht.  
 AJ7270  
 AJ7270: The Laplace correction was computed from DEFLECTIO derived deflections.  
 AJ7270  
 AJ7270: The ellipsoidal height was determined by GPS observations  
 AJ7270: and is referenced to MAD 93.  
 AJ7270  
 AJ7270: The dynamic height is computed by dividing the NAVD 83  
 AJ7270: geopotential number by the normal gravity value computed on the  
 AJ7270: Geodetic Reference System of 1990 (GRS 90) ellipsoid at 45  
 AJ7270: degree latitude ( $g = 980.6195 \text{ m/s}^2$ ).  
 AJ7270  
 AJ7270: The modeled gravity was interpolated from observed gravity values.  
 AJ7270  
 AJ7270: The following values were computed from the NAD 83 (2011) position.  
 AJ7270  
 AJ7270:  

	North	East	Units	Scale Factor	Converg.
AJ7270: SPC FL E	- 360,418.871	156,810.795	MT	0.9998450	-0 11 46.2
AJ7270: SPC FL E	- 358,448.88	518,828.02	SFT	0.9998450	-0 11 46.2
AJ7270: UTM 17	- 351,478.681	456,817.630	MT	0.9998332	-0 11 46.2

 AJ7270  
 AJ7270: = Elev Factor \* Scale Factor = Combined Factor  
 AJ7270: SPC FL E - 1.00000188 = 0.9998450 = 0.9998468  
 AJ7270: UTM 17 - 1.00000288 = 0.9998332 = 0.9998360  
 AJ7270  
 AJ7270: U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMS6650751475 (NAD 83)  
 AJ7270  
 AJ7270: SUPERSEDED SURVEY CONTROL  
 AJ7270  

Control	Year	North	East	Units	Leveling
AJ7270: NAD 83 (2007)	05	361,397.97(N)	156,810.795(W)	AD (2002) (G)	0
AJ7270: ELLIP E (02/10/07)	-16.483	mm		SP (2002) (G)	1
AJ7270: NAD 83 (1995)	16	361,396.14(N)	156,810.795(W)	AD/	1
AJ7270: ELLIP E (15/02/02)	-16.483	mm		SP/	4
AJ7270: NAVD 83	8,00	mm		SP, (E) LEVELING	3

 AJ7270  
 AJ7270: Superseded values are not recommended for survey control.  
 AJ7270  
 AJ7270: NGS no longer adjusts projects to the NAD 83 or NGVD 83 datum.  
 AJ7270: See file [data.pdf](#) to Determine how the superseded data were derived.  
 AJ7270  
 AJ7270: MARKER: S = FLANGE-ENCASED ROD  
 AJ7270: SETTING: 43 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.-)  
 AJ7270: STAMPING: Q 619 0991 CERP  
 AJ7270: MARK LOGO: NONE  
 AJ7270: PROJECTION: RECESSED 25 CENTIMETERS  
 AJ7270: MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET  
 AJ7270: STABILITY: S = PROBABLY HOLD POSITION; ELEVATION WELL  
 AJ7270: SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 AJ7270: SATELLITE OBSERVATIONS - February 10, 2018  
 AJ7270: ROD/RISE-DEPTH: 10.8 meters  
 AJ7270  

History	Date	Condition	Report By
AJ7270: HISTORY	- 201104	MONUMENTED	POST
AJ7270: HISTORY	- 20090303	GOOD	SAFTEC
AJ7270: HISTORY	- 20071101	GOOD	GCT
AJ7270: HISTORY	- 20180318	GOOD	CARDNO

 AJ7270  
 AJ7270: STATION DESCRIPTION

AJ7272  
 AJ7272 DESCRIBED BY CHARLEY FOSTER AND ASSOCIATES 2001 (FB)  
 AJ7272 THE MONUMENT IS LOCATED 8.3 MILES (13.35 KM) SOUTH OF LABELLE, FL AND  
 AJ7272 3.7 MILES (5.94 KM) NORTH OF  
 AJ7272 FELDA, FL. IN SECTION 4, TOWNSHIP 84 SOUTH, RANGE 25 EAST.  
 AJ7272  
 AJ7272 OWNERSHIP IS THE FLORIDA DEPARTMENT OF TRANSPORTATION.  
 AJ7272  
 AJ7272 TO REACH THE MONUMENT FROM THE INTERSECTION OF STATE ROAD 28 AND US  
 AJ7272 HIGHWAY 84 IN LA BELLE, SC  
 AJ7272 SOUTH 8.3 MILES (13.35 KM) ON STATE ROAD 28 AND THE MONUMENT IS ON THE  
 AJ7272 WEST SIDE (RIGHT) OF THE  
 AJ7272 ROAD. THE MONUMENT IS LOCATED 23.6 MILES (37.99 KM) NORTH OF THE  
 AJ7272 JUNCTION OF STATE ROAD 28 AND  
 AJ7272 STATE ROAD 91.  
 AJ7272  
 AJ7272 THE MONUMENT IS 23.6 FEET (7.19 M) WEST OF THE CENTERLINE OF STATE  
 AJ7272 ROAD 28, 207.7 FEET (63.62 M)  
 AJ7272 NORTHWEST OF UTILITY POLE NO. 86620-7793-07 AND 13.2 FEET (4.02 M)  
 AJ7272 EAST OF A CARSMITH WITNESS POST  
 AJ7272 NOTE ACCESS TO THE DATUM POINT (THE TOP OF A STAINLESS STEEL ROD) IS  
 AJ7272 GAINED THROUGH A 6 INCH LOG  
 AJ7272 CAP. NOTE A MAGNET WAS PLACED INSIDE THE END PIPE.  
 AJ7272  
 AJ7272  
 AJ7272 STATION RECOVERY (2002)  
 AJ7272  
 AJ7272 RECOVERY NOTE BY WAPTECH INCORPORATED 2002 (COP)  
 AJ7272 RECOVERED AS DESCRIBED  
 AJ7272  
 AJ7272  
 AJ7272 STATION RECOVERY (2007)  
 AJ7272  
 AJ7272 RECOVERY NOTE BY JUSTIN, COOPER, AND TUCKER, I 2007 (ENR)  
 AJ7272 RECOVERED IN GOOD CONDITION.  
 AJ7272  
 AJ7272  
 AJ7272 STATION RECOVERY (2011)  
 AJ7272  
 AJ7272 RECOVERY NOTE BY CARNO INC 2011 (ST)  
 AJ7272 RECOVERED AS DESCRIBED.

\*\*\* retrieval complete.  
 Elapsed Time = 00:00:05



DP7138\_STAMPING: J STANLEY 2016  
 DP7138\_MARK LOGO: CARDNO  
 DP7138\_PROJECTION: RECESSED IS CENTIMETERS  
 DP7138\_MAGNETIC: 0 = OTHER; SEE DESCRIPTION  
 DP7138\_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL  
 DP7138\_SATELLITE: ONE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 DP7138+SATELLITE: SATELLITE OBSERVATIONS - January 07, 2016  
 DP7138\_ROD/PIPE-DEPTH: 24.8 meters  
 DP7138

HISTORY	Date	Condition	Report By
HISTORY	- 20160103	MONUMENTED	CARDNO

DP7138

DP7138

## STATION DESCRIPTION

DP7138

DP7138 DESCRIBED BY CARDNO 11/2 2016 (E)

DP7138 THE STATION IS LOCATED APPROXIMATELY 8 MI (12.8 KM) SOUTHWEST OF  
 DP7138 LABELLE, 3.9 MI (6.3 KM) SOUTHEAST OF ALVA.

DP7138

DP7138 THE STATION IS ON THE PROPERTY OF THE SOUTH FLORIDA WATER MANAGEMENT  
 DP7138 DISTRICT.

DP7138

DP7138 TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 50 (PALM  
 DP7138 BEACH BLVD) AND WEST COWBOY WAY ON THE SOUTHWEST SIDE OF LABELLE, GO  
 DP7138 SOUTHWEST ALONG STATE ROAD 50 FOR 5.3 MI (8.5 KM) TO GUNGER ROAD ON  
 DP7138 THE LEFT (SOUTH), GO SOUTH ALONG GUNGER ROAD 3.24 MI (5.2 KM) TO  
 DP7138 SAFFERS THROUGH GATE WITH SPREAD LOCK. CONTINUE SOUTH 0.4 MI (0.6  
 DP7138 KM) TO THE JUNCTION OF AN EAST - WEST DIRT ROAD, THENCE EAST ALONG  
 DP7138 DIRT ROAD FOR 0.25 MI (0.4 KM) TO THE JUNCTION OF A DIRT ROAD TO THE  
 DP7138 SOUTH, THENCE SOUTH ALONG DIRT ROAD FOR 8.0 MI (12.8 KM) TO THE  
 DP7138 JUNCTION OF A DIRT ROAD TO THE WEST, THENCE ALONG DIRT ROAD TO THE  
 DP7138 WEST FOR 1.8 MI (2.9 KM), THENCE CURVING NORTHWEST AND THEN NORTH ALONG  
 DP7138 DIRT ROAD FOR 0.25 MI (0.4 KM) TO THE MARK ON THE LEFT.

DP7138

DP7138 IT IS 54.8 FT (16.7 M) SOUTHEAST OF A 1.5 INCH (3.8 CM) PINE TREE, 7 FT  
 DP7138 (2.1 M) EAST OF THE END OF BANK OF A CANAL, 6 FT (1.8 M) WEST OF THE  
 DP7138 CENTERLINE OF A DIRT ROAD AND 3 FT (.9 M) EAST OF A CARPENTER WITNESS  
 DP7138 POST.

DP7138

DP7138 DOSE ACCESS TO THE STATION POINT IS THROUGH A 3 INCH (.8 CM) LOGO CAB.

))) retrieval complete.

Elapsed Time = 00:00:01



## The NGS Data Sheet

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

```

PROGRAM = datasheet98, VERSION = 8.10.8
1 National Geodetic Survey, Retrieval Date = DECEMBER 28, 2017
DP7189 *****
DP7189 DESIGNATION = COMELLAS
DP7189 BID = DP7189
DP7189 STATE/COUNTY = FL/HENDRY
DP7189 COUNTRY = US
DP7189 USGS BIRD = ALVA (1978)
DP7189
DP7189 *CURRENT SURVEY CONTROL
DP7189
DP7189 BIRD (S(1986) POSITION= 28 38 31.15 (N) 81 30 57.89 (W) BD HEIGHT
DP7189 BIRD (S( ORTHO HEIGHT = 7.401 (meters) 24.29 (feet) ADJUSTED
DP7189
DP7189 GEOID HEIGHT = -24.477 (meters) GEOIDIDE
DP7189 DYNAMIC HEIGHT = 7.883 (meters) 24.24 (feet) COMB
DP7189 MODELED GRAVITY = 378.07517 (mgals) NAVD 83
DP7189
DP7189 VERT ORDER = SECOND CLASS I
DP7189
DP7189 The horizontal coordinates were determined by differentially corrected
DP7189 hand held GPS observations or other compatible positioning techniques
DP7189 and have an estimated accuracy of +/- 3 meters
DP7189
DP7189 The orthometric height was determined by differential leveling and
DP7189 adjusted by the NATIONAL GEODESIC SURVEY
DP7189 in May 2015,
DP7189
DP7189 Significant digits in the geoid height do not necessarily reflect accuracy.
DP7189 GEOIDIDE height accuracy estimate available here.
DP7189
DP7189 Parameters are available for this station.
DP7189
DP7189 The dynamic height is computed by dividing the BIRD (S(
DP7189 geopotential number by the normal gravity value computed on the
DP7189 Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
DP7189 degree latitude ( $g = 9.80665$  m/s2).
DP7189
DP7189 The modeled gravity was interpolated from observed gravity values.
DP7189
DP7189
DP7189 North East Units Estimated Accuracy
DP7189 BIRD (S( FL E = 157,606.0 149,078.0 M (+/- 3 meters RM1 GR3)
DP7189
DP7189 U.S. NATIONAL GRID SPATIAL ADDRESS: 17MK4519246780 (NAD 83)
DP7189
DP7189 SUPERSEDED SURVEY CONTROL
DP7189
DP7189 No superseded survey control is available for this station.
DP7189
DP7189 MARSIS: F = FLANKER-ENCASED ROD
DP7189 SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)

```



## The NGS Data Sheet

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

```

PROGRAM = datasheetSE, VERSION = 8.10.3
National Geodetic Survey, Retrieval Date = DECEMBER 29, 2017
DP7133 *****
DP7133 DESIGNATION - CAROLLO
DP7133 SID - DP7133
DP7133 STATE/COUNTY- FL/HENDRY
DP7133 COUNTRY - US
DP7133 USGS WTD - ALVA (1973)
DP7133
DP7133 *CURRENT SURVEY CONTROL
DP7133
DP7133| MAD 83(1986) POSITION- DE 42 06.87 N/ WED 30 53.08 W/ | EQ_HED01
DP7133| MAD 83 ORTHO HEIGHT - 6.105 (meters) | 20.36 (feet) | ADJUSTED
DP7133|-----|-----|-----|
DP7133| GEOID HEIGHT - -04.489 (meters) | | GEOID12B
DP7133| DYNAMIC HEIGHT - 6.155 (meters) | 20.32 (feet) | COMF
DP7133| MODELED GRAVITY - 979,041.1 (mgal) | | MAD 83
DP7133|
DP7133| VERT ORDER - SECOND CLASS I
DP7133|
DP7133| The horizontal coordinates were determined by differentially corrected
DP7133| hand held GPS observations or other comparable positioning techniques
DP7133| and have an estimated accuracy of +/- 3 meters.
DP7133|
DP7133| The orthometric height was determined by differential leveling and
DP7133| adjusted by the NATIONAL GEODETIC SURVEY
DP7133| in May 2015.
DP7133|
DP7133| Significant digits in the geoid height do not necessarily reflect accuracy.
DP7133| GEOID12B height accuracy estimate available here.
DP7133|
DP7133| Elevation are available for this station.
DP7133|
DP7133| The dynamic height is computed by dividing the MAD 83
DP7133| geopotential number by the normal gravity value computed on the
DP7133| Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
DP7133| degrees latitude (g = 980.6158 gals.)
DP7133|
DP7133| The modeled gravity was interpolated from observed gravity values.
DP7133|
DP7133| North East Units Estimated Accuracy
DP7133| SEC FL E - 263,883.8 149,381.3 (MT) (+/- 8 meters RM) (99)
DP7133|
DP7133| U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMFA284896382 (MAD 83)
DP7133|
DP7133| SUPERSEDED SURVEY CONTROL
DP7133|
DP7133| No superseded survey control is available for this station.
DP7133|
DP7133| MARKER: F = FLANGE-INCREASED ROD
DP7133| SETTING: 45 = STAINLESS STEEL ROD W/O SLEEVE (1.0 FT +/-)

```

## The NGS Data Sheet

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

```

PROGRAM = datasheet33, VERSION = 3.12.3
# National Geodetic Survey, Retrieval Date = DECEMBER 10, 2017
DP7134 *****
DP7134 DESIGNATION - CARDNO
DP7134 BID - DP7134
DP7134 STATE COUNTY- FL/HENDRY
DP7134 COUNTRY - US
DP7134 USGS QUAD - ALVA (1973)
DP7134
DP7134 CURRENT SURVEY CONTROL
DP7134
DP7134 STD 83(1984) POSITION- 28 42 08.14 (N) 01 32 01.66 (W) HD_HEIGHT
DP7134 SURV 83 ORTHO HEIGHT - 6.217 (meters) 20.40 (feet) ADJUSTED
DP7134
DP7134 GEOID HEIGHT - -04.485 (meters) GEOID12B
DP7134 DYNAMIC HEIGHT - 8.208 (meters) 26.97 (feet) OGBM
DP7134 MODELED GRAVITY + 378,075.0 (mgals) NAVD 83
DP7134
DP7134 VEAT ORDER + SECOND CLASS I
DP7134
DP7134 The horizontal coordinates were determined by differentially corrected
DP7134 hand held GPS observations or other comparable positioning techniques
DP7134 and have an estimated accuracy of +/- 3 meters
DP7134
DP7134 The orthometric height was determined by differential leveling and
DP7134 adjusted by the NATIONAL GEODETIC SURVEY
DP7134 in May 2015.
DP7134
DP7134 Significant digits in the geoid height do not necessarily reflect accuracy.
DP7134 GEOID12B height accuracy estimate available here.
DP7134
DP7134 Elevation are available for this station.
DP7134
DP7134 The dynamic height is computed by dividing the SURV 83
DP7134 geopotential number by the normal gravity value computed on the
DP7134 Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
DP7134 degrees latitude (g = 9.80665 m/s^2).
DP7134
DP7134 The modeled gravity was interpolated from observed gravity values:
DP7134
DP7134 North East Units Estimated Accuracy
DP7134 SURV 83 FL I - 146,827.4 146,302.1 MT (+/- 3 meters ENL OGB)
DP7134
DP7134 U.S. NATIONAL GRID SPATIAL ADDRESS: 176MFA680003368 (NAD 83)
DP7134
DP7134 SUPERSEDED SURVEY CONTROL
DP7134
DP7134 No superseded survey control is available for this station.
DP7134
DP7134 _MARKER: F = FLANGE-ENCASED ROD
DP7134 _SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)

```



DP7133\_STAMPING: CAROLLO 2014  
 DP7133\_MARK LOGO: NONE  
 DP7133\_PROJECTION: RECESSED 18 CENTIMETERS  
 DP7133\_MAGNETIC: 0 = OTHER; SEE DESCRIPTION  
 DP7133\_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL  
 DP7133\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 DP7133+SATELLITE: SATELLITE OBSERVATIONS - December 09, 2014  
 DP7133\_ROD/PIPE-DEPTH: 14.5 meters  
 DP7133  

DP7133	HISTORY	- Date	Condition	Report By
DP7133	HISTORY	- 20141209	MONUMENTED	CARDNO

 DP7133  
 DP7133 STATION DESCRIPTION  
 DP7133  
 DP7133\*DESCRIBED BY CARDNO INC 2014 (JH)  
 DP7133\*THE STATION IS LOCATED APPROXIMATELY 6 MI (9.7 KM) SOUTHWEST OF  
 DP7133\*LABELLE, 6.3 MI (10.1 KM) SOUTHEAST OF ALVA.  
 DP7133\*  
 DP7133\*THE STATION IS ON THE PROPERTY OF THE SOUTH FLORIDA WATER MANAGEMENT  
 DP7133\*DISTRICT.  
 DP7133\*  
 DP7133\*TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 80 (PALM  
 DP7133\*BEACH BLVD) AND WEST COWBOY WAY ON THE SOUTHWEST SIDE OF LABELLE, GO  
 DP7133\*SOUTHWEST ALONG STATE ROAD 80 FOR 3.9 MI (6.3 KM) TO CONGEN ROAD ON  
 DP7133\*THE LEFT (SOUTH), GO SOUTH ALONG CONGEN ROAD 0.14 MI (0.2 KM) TO  
 DP7133\*GATE (PASS THROUGH GATE WITH SFWMD LOCK). CONTINUE SOUTH 0.4 MI (0.6  
 DP7133\*KM) TO THE JUNCTION OF AN EAST - WEST DIRT ROAD, THENCE 80 FT (24.4 M)  
 DP7133\*WEST ALONG DIRT TO THE MARK ON THE LEFT.  
 DP7133\*  
 DP7133\*IT IS 157.5 FT (48.0 M) NORTHEAST OF A 3 FT (0.9 M) DIAMETER CONCRETE  
 DP7133\*POWER POLE WITH POWER LINES RUNNING EAST - WEST, 132 FT (40.2 M) EAST  
 DP7133\*OF A GUY ANCHOR, 102 FT (31.1 M) SOUTHWEST OF THE JUNCTION OF EAST  
 DP7133\*-WEST DIRT ROAD AND NORTH - SOUTH DIRT ROAD, 29 FT (8.8 M) SOUTH OF  
 DP7133\*EAST - WEST DIRT ROAD AND 1.4 FT (0.4 M) NORTH OF A CARSONITE WITNESS  
 DP7133\*POST.  
 DP7133\*  
 DP7133\*NOTE ACCESS TO THE DATUM POINT IS THROUGH A 5 INCH (13 CM) LOGO CAP.  
  
 \*\*\* retrieval complete.  
 Elapsed Time = 00:00:01

## The NGS Data Sheet

See file [data0.pdf](#) for more information about the datasheet.

```

PROGRAM = datasheetSS, VERSION = 8.12.3
1 National Geodetic Survey, Retrieval Date = DECEMBER 28, 2017
DP7137
DP7137 DESIGNATION = AMANK
DP7137 BID = DP7137
DP7137 STATE/COUNTY = FL/HERNAN
DP7137 COUNTRY = US
DP7137 USGS QUAD = 31VA (1979)
DP7137
DP7137 CURRENT SURVEY CONTROL
DP7137
DP7137# NAD 83(1983) POSITION- 28 40 18.71 (N) 080 33 48.16 (W) HD_READ1
DP7137# NAVD 83 ORTHO HEIGHT = 7.203 (meters) 23.72 (feet) ADJUSTED
DP7137
DP7137# GEOID HEIGHT = -24.451 (meters) GEOID12B
DP7137# DYNAMIC HEIGHT = 7.217 (meters) 23.68 (feet) COMP
DP7137# MODELED GRAVITY = 979,074.3 (mgals) NAVD 83
DP7137
DP7137# VERT ORDER = SECOND CLASS I
DP7137
DP7137# The horizontal coordinates were determined by differentially corrected
DP7137# hand held GPS observations or other comparable positioning techniques
DP7137# and have an estimated accuracy of +/- 3 meters.
DP7137
DP7137# The orthometric height was determined by differential leveling and
DP7137# adjusted by the NATIONAL GEODETIC SURVEY
DP7137# in May 2016.
DP7137
DP7137# Significant digits in the geoid height do not necessarily reflect accuracy.
DP7137# GEOID12B height accuracy estimate available here.
DP7137
DP7137# Photocoordinates are available for this station.
DP7137
DP7137# The dynamic height is computed by dividing the NAVD 83
DP7137# geopotential number by the normal gravity value computed on the
DP7137# Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
DP7137# degrees latitude (g = 980.6159 gals.).
DP7137
DP7137# The modeled gravity was interpolated from observed gravity values.
DP7137
DP7137#
DP7137# North East Units Estimated Accuracy
DP7137# SBC FL E = 389,048.4 144,746.9 MT +/- 3 meters HRL 1983
DP7137
DP7137# U.S. NATIONAL GRID SPATIAL ADDRESS: 18N080413000000 (NAD 83)
DP7137
DP7137# SUPERSEDED SURVEY CONTROL
DP7137
DP7137# No superseded survey control is available for this station.
DP7137
DP7137# MARKER: 8 = FLANGE-ENCASED ROD
DP7137# SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)

```

097157 STAMPING: APRIL 2015  
 097157 MARK LOGO: CARDNO  
 097157 PROJECTION: RECESSED 28 CENTIMETERS  
 097157 MAGNETIC: 0 = OTHER; SEE DESCRIPTION  
 097157 STABILITY: 8 = PROBABLY WILD POSITION/ELEVATION WILD  
 097157 SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 097157+SATELLITE: SATELLITE OBSERVATIONS - January 03, 2015  
 097157 GCD SIZE-DEPTH: 15.6 meters  
 097157  

097157	HISTOGRAM	- Date	Commission	Report By
097157	HISTOGRAM	- 09/01/08	MONUMENTED	CARDNO

097157  
 097157  
 097157 STATION DESCRIPTION  
 097157  
 097157 DESCRIBED BY CARDNO INC 2015 (JH)  
 097157 THE STATION IS LOCATED APPROXIMATELY 8 MI (14.5 KM) SOUTHWEST OF  
 097157 LABELLE, 8.8 MI (14.3 KM) SOUTHWEST OF SALVA.  
 097157  
 097157 THE STATION IS ON THE PROPERTY OF THE SOUTH FLORIDA WATER MANAGEMENT  
 097157 DISTRICT.  
 097157  
 097157 TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 90 (PALM  
 097157 BEACH BLVD) AND WEST COWBOY WAY ON THE SOUTHWEST SIDE OF LABELLE, GO  
 097157 SOUTHWEST ALONG STATE ROAD 90 FOR 3.9 MI (6.3 KM) TO COGGEN ROAD ON  
 097157 THE LEFT (SOUTH), GO SOUTH ALONG COGGEN ROAD 0.14 MI (0.2 KM) TO  
 097157 GATE/PASS THROUGH GATE WITH SPWMD LOGO. CONTINUE SOUTH 0.4 MI (0.6  
 097157 KM) TO THE JUNCTION OF A NORTH - WEST DIRT ROAD, THENCE 0.8 MI (1.3  
 097157 KM) SOUTHWEST ALONG DIRT ROAD TO THE JUNCTION OF A NORTH - SOUTH DIRT  
 097157 ROAD, THENCE 0.8 MI (1.3 KM) OUT AND SOUTHWEST ALONG DIRT ROAD TO A  
 097157 THE MARK ON THE LEFT.  
 097157  
 097157 IT IS 110.5 FT (33.8 M) SOUTHWEST OF A WOOD POWER POLE WITH EAST -  
 097157 WEST RUNNING LINES, 75.3 FT (22.9 M) NORTHEAST OF THE SOUTHWEST CORNER  
 097157 OF A CONCRETE BRIDGE, 41 FT (12.5 M) EAST OF THE CENTERLINE OF A DIRT  
 097157 ROAD, 88 FT (26.8 M) SOUTHWEST OF THE TOP OF BANK OF A CREEK AND 0 FT  
 097157 (0.0 M) NORTHWEST OF A GRANITE WITNESS POST.  
 097157  
 097157 NOTE ACCESS TO THE DATA POINT IS THROUGH A 3 INCH (7.6 CM) LOGO C&D.  
 097157  
 097157 retrieval complete.  
 097157 elapsed time = 00:00:01



## The NGS Data Sheet

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

```

PROGRAM = dataSheet05, VERSION = 0.17.0
1 National Geodetic Survey, Retrieval Date = DECEMBER 09, 2017
DP7134
DP7134 *****
DP7134 DESIGNATION = CARINO
DP7134 PID = DP7134
DP7134 STATE/COUNTY= FL/HENRY
DP7134 COUNTRY = US
DP7134 USGS QUAZ = ALVA (1973)
DP7134
DP7134 CURRENT SURVEY CONTROL
DP7134
DP7134 NAD 83 (1983) POSITION= 16 42 08.14 (N) 081 07 01.66 (W) PD_HLD1
DP7134 NAVD 83 ORTHO HEIGHT = 6.217 (meters) 20.39 (feet) ADJUSTED
DP7134
DP7134 GEOID HEIGHT = -24.495 (meters) GEOID12B
DP7134 DYNAMIC HEIGHT = 6.203 (meters) 20.37 (feet) COME
DP7134 MODELED GRAVITY = 979,979.7 (mgal) SMOV 88
DP7134
DP7134 VERT ORDER = SECOND CLASS I
DP7134
DP7134 The horizontal coordinates were determined by differentially corrected
DP7134 hand held GPS observations or other comparable positioning techniques
DP7134 and have an estimated accuracy of +/- 3 meters.
DP7134
DP7134 The orthometric height was determined by differential leveling and
DP7134 adjusted by the NATIONAL GEODETIC SURVEY
DP7134 in May 2018.
DP7134
DP7134 Significant digits in the geoid height do not necessarily reflect accuracy.
DP7134 GEOID12B height accuracy estimate available here.
DP7134
DP7134 Elevation are available for this station.
DP7134
DP7134 The dynamic height is computed by dividing the NAVD 83
DP7134 geopotential number by the normal gravity value computed on the
DP7134 Geodetic Reference System of 1980 (GRS 80) spheroid at 45
DP7134 degrees latitude (g = 9.80665 m/s^2).
DP7134
DP7134 The modeled gravity was interpolated from observed gravity values.
DP7134
DP7134
DP7134 North East Units Estimated Accuracy
DP7134,SPC FL E - 262,827.4 146,882.1 MI +/- 3 meters NEI GPS
DP7134
DP7134 U.S. NATIONAL GRID SPATIAL ADDRESS= 17QMS4690031569 (NAD 83)
DP7134
DP7134 SUPERSEDED SURVEY CONTROL
DP7134
DP7134 No superseded survey control is available for this station.
DP7134
DP7134 MARKER: 5 = FLANG-ENCASED ROD
DP7134 SETTING: 48 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
```

097134 STAMPING: CASINO 2014  
 097134 MARK LOGO: NONE  
 097134 PROJECTION: PROCESSED IN CENTIMETERS  
 097134 MAGNETIC: 0 = OTHER, SEE DESCRIPTION  
 097134 STABILITY: 3 = PROBABLY BOLD POSITION/STATION WELL  
 097134 SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 097134 SATELLITE SATELLITE OBSERVATIONS - December 15, 2014  
 097134 GND/PIPE-DEPTH: 13.0 meters  
 097134

097134	HISTORY	Date	Condition	Report By
097134	HISTORY	20141115	MONUMENTED	CARDNO

097134

097134

## STATION DESCRIPTION

097134

097134

097134 DESCRIBED BY CASINO ENC 2014 JH  
 097134 THE STATION IS LOCATED APPROXIMATELY 7.8 MI (12.5 KM) SOUTHWEST OF  
 097134 LABELLE, 4.8 MI (7.7 KM) SOUTHEAST OF SIYA.

097134

097134 THE STATION IS ON THE PROPERTY OF THE SOUTH FLORIDA WATER MANAGEMENT  
 097134 DISTRICT.

097134

097134 TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 90 (PALM  
 097134 BEACH BLVD) AND WEST COWBOY WAY ON THE SOUTHWEST SIDE OF LABELLE, GO  
 097134 SOUTHWEST ALONG STATE ROAD 90 FOR 3.9 MI (6.3 KM) TO COWBOY ROAD (ON  
 097134 THE LEFT (SOUTH), GO SOUTH ALONG COWBOY ROAD 1.14 MI (1.8 KM) TO GATE  
 097134 (PASS THROUGH GATE WITH SPEED LOCK). CONTINUE SOUTH 0.4 MI (0.6 KM)  
 097134 TO THE JUNCTION OF AN EAST - WEST DIRT ROAD, THROUGH 1.5 MI (2.4 KM)  
 097134 WOOD ALONG DIRT ROAD TO THE JUNCTION WITH A DIRT ROAD ON THE RIGHT AND  
 097134 THE MARK.

097134

097134 IT IS 76 FT (23.2 M) NORTH OF THE MOST NORTHERLY EAST - WEST POWER  
 097134 LINE, 84.5 FT (25.8 M) SOUTHWEST OF THE CENTER AND END OF TWO 36 INCH  
 097134 CORRUGATED METAL PIPES, 15 FT (4.6 M) SOUTHWEST OF THE CENTER AND END  
 097134 OF TWO 36 INCH CORRUGATED METAL PIPES WITH RISERS, 14 FT (4.3 M) NORTH  
 097134 OF THE CENTERLINE OF AN EAST - WEST DIRT ROAD, 19 FT (5.8 M) EAST OF A  
 097134 DIRT ROAD RUNNING NORTH, 4 FT (1.2 M) SOUTHWEST OF THE TOP OF BANK OF  
 097134 A CANAL AND 1.6 FT (0.5 M) SOUTH OF A CARSONITE WITNESS POST.

097134

097134 NOTE ACCESS TO THE STATION POINT IS THROUGH A 5 INCH (13 CM) LOGO CAP.

\*\* - retrieval complete.

Elapsed Time = 00:00:01

## The NGS Data Sheet

See file [#000113.rst](#) for more information about the datasheet.

```
PROGRAM = datasheet35, VERSION = 3.12.4.1
1. National Geodetic Survey, Retrieval Date = MAY 17 2018
DQ7940 *****
DQ7940 DESIGNATION - C 43 RES B
DQ7940 IID - DQ7940
DQ7940 STATE/COUNTY - FL/HERNAND
DQ7940 COUNTY - DS
DQ7940 NAD83 QCRD - SERSB (1973)
DQ7940
DQ7940 (CURRENT SURVEY CONTROL)
DQ7940
DQ7940 NAD 83 (1983) POSITION- 26 41 29.85 -W) 091 07 47.80 -W) HD HELD
DQ7940 NAD 83 ORTHO HEIGHT - 9.478 (meters) 31.80 (feet) ADJUSTED
DQ7940
DQ7940 GEOID HEIGHT - -14.378 (meters) GEOID12B
DQ7940 DYNAMIC HEIGHT - 0.468 (meters) 15.38 (feet) COMB
DQ7940 MODELED GRAVITY - 979,289.2 (mgal) NAD 83
DQ7940
DQ7940 NEXT ORDER - SECOND CLASS I
DQ7940
DQ7940 The horizontal coordinates were determined by differentially corrected
DQ7940 hand held GPS observations or other comparable positioning techniques
DQ7940 and have an estimated accuracy of +/- 3 meters.
DQ7940
DQ7940 The orthometric height was determined by differential leveling and
DQ7940 adjusted by the NATIONAL GEODETIC SURVEY
DQ7940 in May 2018.
DQ7940
DQ7940 Significant digits in the geoid height do not necessarily reflect accuracy.
DQ7940 GEOID12B height accuracy estimate available here.
DQ7940
DQ7940 The dynamic height is computed by dividing the NAD 83
DQ7940 geopotential number by the normal gravity value computed on the
DQ7940 Geodetic Reference System of 1980 (GRS 80) ellipsoid at 46
DQ7940 degrees latitude (g = 9.80665 m/s^2).
DQ7940
DQ7940 The modeled gravity was interpolated from observed gravity values.
DQ7940
DQ7940: North East Units Estimated Accuracy
DQ7940: SPC FL E - 161,044.5 188,691.3 M +/- 3 meters HHL GPS
DQ7940
DQ7940 U.S. NATIONAL GRID SPATIAL ADDRESS: 17SMW590760097 (NAD 83)
DQ7940
DQ7940 SUPERSEDED SURVEY CONTROL
DQ7940
DQ7940 No superseded survey control is available for this station.
DQ7940
DQ7940 MARKER: IC = SURVEY DISK
DQ7940 SETTING: 1 = SET IN TOP OF CONCRETE MONUMENT
DQ7940 STANDING: C 43 RES B 2018
DQ7940 MARK LOGO: MARKED
```

007940 PROJECTION: PROSPECTING 8 CENTIMETERS  
 007940 MAGNETIC: M = NO MAGNETIC MATERIAL  
 007940 STABILITY: S = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
 007940 STABILITY: SURFACE NOTICES  
 007940 SATELLITE: THE SITE LOCATION WAS ASSUMED AS SUITABLE FOR  
 007940 SATELLITE: SATELLITE OBSERVATIONS - February 29, 2013

007940	HISTORY	Date	Condition	Report By
007940	HISTORY	- 20130229	DOCUMENTED	CRJING

007940

STATION DESCRIPTION

007940

007940

007940 DESCRIBED BY CARSON INC 2013 (SU)

007940 THE MARK IS LOCATED ABOUT 9.8 MI (15.7 KM) EAST OF ALVA, 8.0 MI (12.8

007940 KM) WEST-NORTHWEST OF SEARS AND 5.2 MI (8.4 KM) SOUTH-SOUTHWEST OF IS

007940 BELLS.

007940

007940 TO REACH THE STATION FROM THE JUNCTION OF STATE ROAD 80, FORT BENTON

007940 ROAD AND WEST BOWDOY WAY, GO SOUTHWEST ALONG STATE ROAD 80 8.9 MI (14.3

007940 KM) TO THE JUNCTION OF CONGEN ROAD ON THE LEFT (SOUTH). TURN LEFT

007940 (SOUTH) ALONG CONGEN ROAD 3.14 MI (5.05 KM) TO A GATE (SEMI LOCK)

007940 CONTINUE THROUGH GATE AND SOUTH 0.4 MI (0.6 KM) TO THE JUNCTION OF AN

007940 EAST-WEST DIRT ROAD. THENCE GO EAST ALONG DIRT ROAD 1.1 MI (1.7 KM) TO

007940 THE JUNCTION OF A DIRT ROAD RUNNING SOUTHEAST. GO SOUTHEAST 2.8 MI

007940 (4.5 KM) TO THE JUNCTION OF A DIRT ROAD RUNNING EAST ON THE LEFT.

007940 THENCE TURN LEFT (EAST), CROSSING A BRIDGE, FOR 0.8 MI (1.4 KM) ALONG

007940 FIELD ROAD TO THE MARK ON THE LEFT.

007940

007940 THE STATION IS LOCATED 18 FT (5.5 M) NORTH OF THE CENTER OF A FIELD

007940 DIRT ROAD, 18 FT (5.5 M) NORTHWEST OF AN 8 INCH (20.3 CM) GATE POST, 11

007940 FT (3.3 M) EAST OF THE NORTHEAST BOLLARD ABOVE MONITORING WELLS 27

007940 207 AND 1.8 FT (0.5 M) SOUTH OF A CRANITE POST.

007940

-- retrieval complete

Elapsed Time = 00:00:24

## The NGS Data Sheet

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

```
PROGRAM = datasheet96, VERSION = 8.12.8.1
1 National Geodetic Survey, Retrieval Date = MAY 17, 2018
Q07941 *****
Q07941 DESIGNATION - C 43 BBS 5
Q07941 PID - Q07941
Q07941 STATE/COUNTY - FL/HENDRY
Q07941 COUNTRY - US
Q07941 USGS QUAD - 8E48 19781
Q07941
Q07941 CURRENT SURVEY CONTROL
Q07941
Q07941 NAD 83(1983) POSITION- 26 40 53.60 (N) 891.27 47.61 (W) HD HELD1
Q07941 NAVD 88 ORIGN HEIGHT - 7.968 (meters) 26.11 (feet) ADJUSTED
Q07941
Q07941 GEOID HEIGHT - -24.472 (meters) GEOID13S
Q07941 DYNAMIC HEIGHT - 7.946 (meters) 26.07 (feet) COMP
Q07941 MODELED GRAVITY - 979.032.3 (mgal) NAVD 88
Q07941
Q07941 VERT ORDER - SECOND CLASS I
Q07941
Q07941 The horizontal coordinates were determined by differentially corrected
Q07941 hand held GPS observations or other comparable positioning techniques
Q07941 and have an estimated accuracy of +/- 3 meters.
Q07941
Q07941 The orthometric height was determined by differential leveling and
Q07941 adjusted by the NATIONAL GEODETIC SURVEY
Q07941 in May 2018.
Q07941
Q07941 Significant digits in the geoid height do not necessarily reflect accuracy.
Q07941 GEOID13S height accuracy estimate available here.
Q07941
Q07941 The dynamic height is computed by dividing the NAVD 88
Q07941 geopotential number by the normal gravity value computed on the
Q07941 Geodetic Reference System of 1980 (GRS 80) ellipsoid at 43
Q07941 degrees latitude (g = 979.6159 m/s^2).
Q07941
Q07941 The modeled gravity was interpolated from observed gravity values.
Q07941
Q07941
Q07941 North East Units Estimated Accuracy
Q07941 268,235.8 133,890.7 M (+/- 3 meters ENL 95)
Q07941
Q07941 U.S. NATIONAL GRID SPATIAL ADDRESS: 1784N319081148 (NAD 83)
Q07941
Q07941 SUPERSEDED SURVEY CONTROL
Q07941
Q07941 No superseded survey control is available for this station.
Q07941
Q07941 MARKER: DD = SURVEY DISH
Q07941 SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
Q07941 STAMPING: C 43 BBS 5 2018
Q07941 BRN LOGO: CARDNO
```

DQ7841 PROJECTION: REDUCED 8 CENTIMETERS  
 DQ7841 MAGNETIC: 0 = NO MAGNETIC MATERIAL  
 DQ7841 STABILITY: 0 = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
 DQ7841 STABILITY: SURFACE MOTION  
 DQ7841 SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
 DQ7841 SATELLITE: SATELLITE OBSERVATIONS - February 18 2018

DQ7841  
 DQ7841 HISTORY - Date Condition Report By  
 DQ7841 HISTORY - 20180218 MONUMENTED CARDNO

STATION DESCRIPTION

DQ7841 DESCRIBED BY CARDNO DMC 2018 (SU)  
 DQ7841 THE MARK IS LOCATED ABOUT 3.2 MI (4.9 KM) EAST-SOUTHEAST OF ALMA, 5.4  
 DQ7841 MI (8.8 KM) WEST-NORTHWEST OF BEARS AND 5.7 MI (9.2 KM)  
 DQ7841 SOUTH-SOUTHWEST OF LA BELLE.  
 DQ7841  
 DQ7841 TO REACH THE STATION FROM THE JUNCTION OF STATE ROAD 89, FORD BEND  
 DQ7841 ROAD AND WEST COWBOY WAY, GO SOUTHWEST ALONG STATE ROAD 89 3.9 MI (6.3  
 DQ7841 MI) TO THE JUNCTION OF CONCEN ROAD ON THE LEFT (SOUTH). TURN LEFT  
 DQ7841 (SOUTH) ALONG CONCEN ROAD 0.14 MI (0.23 KM) TO A GATE (SPRING LOG)  
 DQ7841 CONTINUE THROUGH GATE AND SOUTH 0.4 MI (0.6 KM) TO THE JUNCTION OF AN  
 DQ7841 EAST-WEST DIRT ROAD, THENCE GO EAST ALONG DIRT ROAD 1.2 MI (1.9 KM) TO  
 DQ7841 THE JUNCTION OF A DIRT ROAD RUNNING SOUTHEAST, GO SOUTHEAST 2.3 MI  
 DQ7841 (3.7 KM) TO THE JUNCTION OF A DIRT ROAD RUNNING EAST ON THE LEFT,  
 DQ7841 THENCE TURN LEFT (EAST), CROSSING A BRIDGE, FOR 0.8 MI (1.3 KM) TO THE  
 DQ7841 JUNCTION OF A DIRT ROAD ON THE RIGHT (SOUTH), THENCE TURN RIGHT  
 DQ7841 (SOUTH) 0.3 MI (0.5 KM) TO THE JUNCTION OF A DIRT TRAIL ON THE LEFT  
 DQ7841 (EAST), THENCE TURN LEFT (EAST) 0.1 MI (0.2 KM) TO THE MARK ON THE  
 DQ7841 RIGHT.  
 DQ7841  
 DQ7841 THE STATION IS LOCATED 27.90 FT (8.5 M) NORTHEAST OF THE SOUTHEAST  
 DQ7841 BOLLARD AROUND MONITORING WELLS EC 208, 27.70 FT (8.4 M) SOUTHWEST OF  
 DQ7841 THE NORTHEAST BOLLARD AROUND MONITORING WELLS EC 208, 16 FT (4.9 M)  
 DQ7841 WEST OF THE TOP OF BANK OF A DITCH RUNNING NORTH-SOUTH AND 2 FT (0.6  
 DQ7841 M) NORTH OF A CARSONITE POST.

\*\*\* Retrieval complete.  
 Elapsed Time = 00:00:34