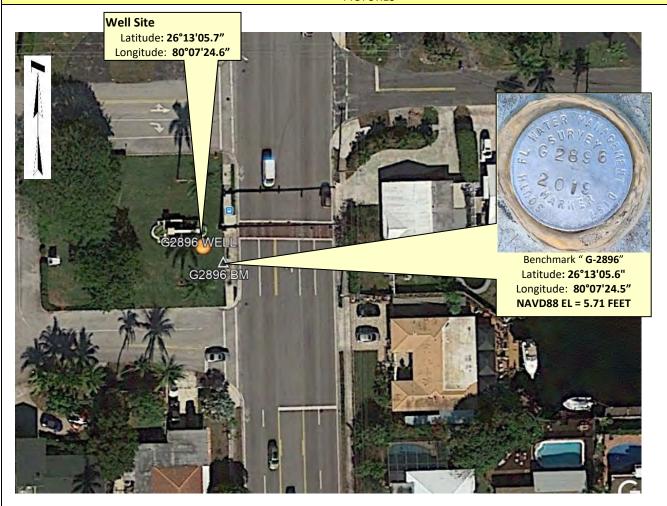


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U.S.G.S. Station Name: <b>G-2896</b>	U.S.G.S. Station Number: <b>261304080072501</b>		Agency: <b>SFWMD</b>		ate of Field Work:  09/25/19
Party Chief: <b>T. AVERY</b>	Field Book: SFWMD #1			:	Report Prepared by: <b>DEWBERRY</b>
	SITE SPECI	FIC DAT	A		
Site Benchmark:	Benchmark Elevation(s) (NAVD8	8):	R): Corpscon 6.0.1 Conversion Factor (NAVD88 to N		
G-2896	5.71		+ 1.58 feet		
Well Reference	e Elevation ( <i>NAVD88</i> ):	Ground Elevation (NAVD88):			Pad Elevation (NAVD88):
	5.32'	5.66′		N/A	
	GEOGRAP	HIC DAT	Ā		
Section 2	Township <b>49 SOU</b> '	тн		Range 42 EAST	
Well Latitude:	Well Longitude:		Location Source:		ource:
26°13'05.71"N	80°07'24.61"W	AVERAGED FPRN & TRIMBLE VRSNOW RTK			ABLE VRSNOW RTK
State Plane Coordinates:	Northing (Y) = <b>685988'</b>	Easting (X) = <b>943525'</b>			943525'

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

#### **PICTURES**

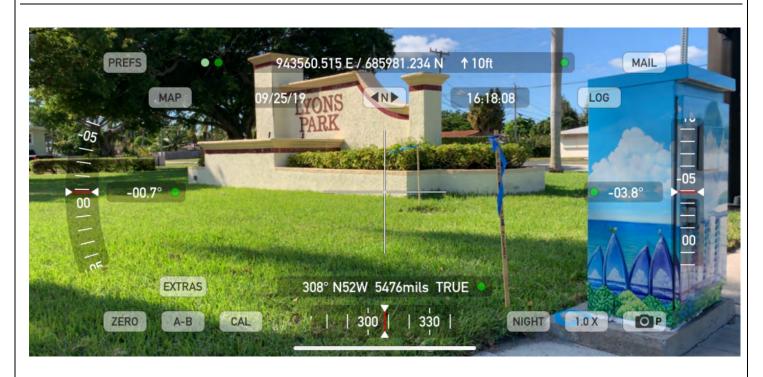


Not to scale (GoogleEarth product)



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#### **Well Site and Well Head**







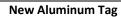
Well: 2½" PVC
Reference Point: North edge of 2½"
PVC well head

Reference Point El. = 5.32 feet NAVD88

Distance to water = -4.42 feet from reference point (09/25/19 at 04:15 PM)



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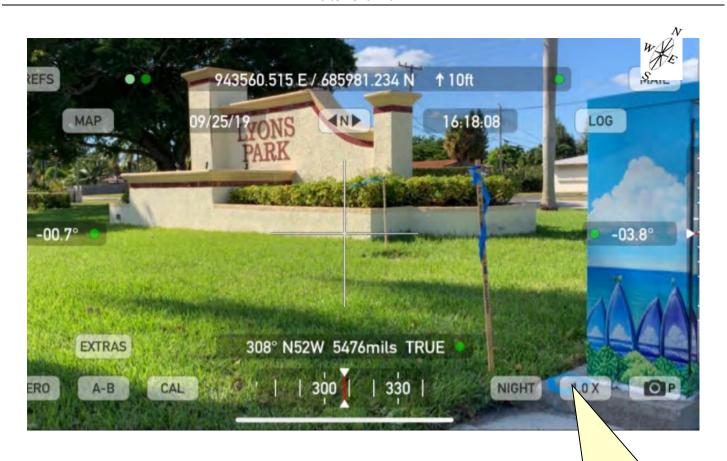


	Rev. 1/16
USGS RMs	
CININ CDCU	
THERE ARE NO LIGGORESEDENCE MONTH CONTROL THE MICHAELY OF WELL O	3.00.6
THERE ARE NO USGS REFERENCE MONUMENTS IN THE VICINITY OF WELL C	i-2896.



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### Site Benchmark









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#### **Source Benchmarks**



## NGS Benchmark "020" (DO2659)



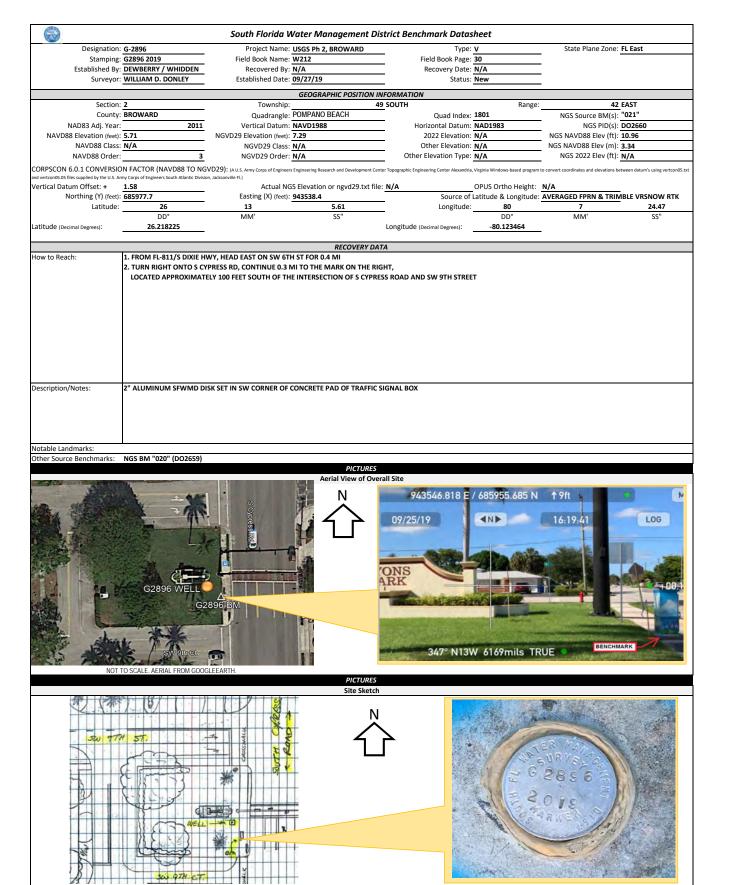
Latitude: 26°12'41.3" Longitude: 80°06'25.6" NAVD88 EL = 4.37 FEET



## NGS Benchmark "021" (DO2660)



Latitude: **26°12'40.6"** Longitude: **80°07'11.5"** NAVD88 EL = 10.96 FEET



Page 1 of 1



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#### "020" Benchmark Datasheet (1 of 2)

### The NGS Data Sheet

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

```
PROGRAM = datasheet95, VERSION = 8.12.5.2
DO2659 DESIGNATION - 020
 D02659 PID
DO2659 STATE/COUNTY- FL/BROWARD
 DO2659 COUNTRY
                 - US
 DO2659 USGS QUAD - POMPANO BEACH (1983)
D02659
 D02659
                              *CURRENT SURVEY CONTROL
D02659
 DO2659* NAD 83(1986) POSITION- 26 12 41.
                                            (N) 080 06 25.
                                                              (W)
                                                                   SCALED
DO2659* NAVD 88 ORTHO HEIGHT -
                                                       4.37 (feet) ADJUSTED
                                  1.331 (meters)
D02659
 DO2659 GEOID HEIGHT
                               -25.837 (meters)
                                                                   GEOID12B
 DO2659 DYNAMIC HEIGHT -
                                 1.328 (meters)
                                                       4.36 (feet) COMP
 DO2659 MODELED GRAVITY -
                            979,067.7 (mgal)
                                                                   NAVD 88
D02659
DO2659 VERT ORDER

    SECOND

                                  CLASS II
D02659
DO2659. The horizontal coordinates were scaled from a topographic map and have
 DO2659.an estimated accuracy of +/- 6 seconds.
D02659.
 DO2659. The orthometric height was determined by differential leveling and
DO2659.adjusted by the NATIONAL GEODETIC SURVEY
 D02659.in December 2012.
D02659
DO2659.Significant digits in the geoid height do not necessarily reflect accuracy.
 DO2659.GEOID12B height accuracy estimate available here.
D02659
 D02659. Photographs are available for this station.
D02659
DO2659. The dynamic height is computed by dividing the NAVD 88
 DO2659.geopotential number by the normal gravity value computed on the
 DO2659.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 D02659.degrees latitude (g = 980.6199 gals.).
D02659
D02659. The modeled gravity was interpolated from observed gravity values.
 D02659
 D02659:
                          North
                                        Fast
                                               Units Estimated Accuracy
 D02659;SPC FL E
                  - 208,340.
                                     289,250.
                                                MT (+/- 180 meters Scaled)
D02659
 DO2659 U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ892994(NAD 83)
 D02659
                               SUPERSEDED SURVEY CONTROL
 D02659
 D02659
DO2659.No superseded survey control is available for this station.
 DO2659_MARKER: DB = BENCH MARK DISK
 DO2659_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 D02659 STAMPING: 020 2011
 DO2659 MARK LOGO: FL2570
 DO2659_PROJECTION: RECESSED 5 CENTIMETERS
 DO2659_MAGNETIC: R = STEEL ROD IMBEDDED IN MONUMENT
 DO2659 STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
 DO2659_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
```



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#### "020" Benchmark Datasheet (2 of 2)

D02659+SATELLITE: SATELLITE OBSERVATIONS - December 22, 2011 D02659 DO2659 HISTORY - Date Condition Report By DO2659 HISTORY - 20111222 MONUMENTED STONER D02659 STATION DESCRIPTION D02659 D02659 DO2659'DESCRIBED BY STONER AND ASSOCIATES INC 2011 (DWS) DO2659'THE MARK IS ABOUT 9.3 MI (15.0 KM) SOUTHEAST OF WEST DIXIE BEND, 6.6 DO2659'MI (10.6 KM) NORTH-NORTHEAST OF FORT LAUDERDALE, 2.1 MI (3.4 KM) DO2659'SOUTH-SOUTHEAST OF POMPANO BEACH, IN SECTION 12, TOWNSHIP 49 SOUTH, DO2659 RANGE 42 EAST. OWNERSHIP IS THE FLORIDA DEPARTMENT OF TRANSPORTATION. DO2659'TO REACH THE MARK FROM THE INTERSECTION OF WEST ATLANTIC BOULEVARD AND DO2659'NORTH DIXIE HIGHWAY IN POMPANO BEACH, GO EAST ON EAST ATLANTIC DO2659'BOULEVARD FOR 1.5 MI (2.4 KM) TO THE INTERSECTION OF FEDERAL HIGHWAY DO2659'(U.S. HIGHWAY 1). TURN RIGHT ON SOUTH FEDERAL HIGHWAY (U.S. HIGHWAY DO2659'1) AND GO SOUTH FOR 1.4 MI (2.3 KM) TO THE MARK ON THE RIGHT, SET IN DO2659'THE TOP OF A 10-INCH (25 CM) ROUND CONCRETE MONUMENT RECESSED 0.2 FT DO2659'(6 CM) BELOW THE LEVEL OF THE GROUND AND 0.5 FT (15 CM) BELOW THE DO2659'LEVEL OF SOUTH FEDERAL HIGHWAY (U.S. HIGHWAY 1). D02659' D02659'LOCATED 82.0 FT (25.0 M) WEST OF THE CENTERLINE OF SOUTH FEDERAL DO2659'HIGHWAY (U.S. HIGHWAY 1), 45.0 FT (13.7 M) SOUTH OF THE CENTERLINE OF DO2659'MCNAB ROAD, 18.8 FT (5.7 M) NORTHEAST OF A TRAFFIC SIGNAL POLE, 16.5 DO2659'FT (5.0 M) SOUTHEAST OF A CONCRETE POWER POLE, 15.5 FT (4.7 M) DO2659'NORTHEAST OF THE EAST END OF A CVS PHARMACY SIGN, 9.3 FT (2.8 M) DO2659'SOUTHWEST OF A TRAFFIC SIGNAL POLE AND 1.2 FT (0.4 M) NORTHEAST OF A DO2659'CARSONITE WITNESS POST. D026591 DO2659'NOTE REBAR ROD IS IMBEDDED IN THE MONUMENT.

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



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#### "021" Benchmark Datasheet (1 of 2)

### The NGS Data Sheet

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

```
PROGRAM = datasheet95, VERSION = 8.12.5.2
        National Geodetic Survey, Retrieval Date = MAY 20, 2019
DO2660 DESIGNATION - 021
D02660 PID

    D02660

DO2660 STATE/COUNTY- FL/BROWARD
 DO2660 COUNTRY
                   - US
DO2660 USGS QUAD - POMPANO BEACH (1983)
D02660
                               *CURRENT SURVEY CONTROL
D02660
D02660
DO2660* NAD 83(1986) POSITION- 26 12 40.
                                            (N) 080 07 11.
                                                               (W)
                                                                    SCALED
 DO2660* NAVD 88 ORTHO HEIGHT -
                                  3.340 (meters)
                                                       10.96 (feet) ADJUSTED
D02660
                                 -25.795 (meters)
DO2660 GEOID HEIGHT
                                                                     GEOID12B
 DO2660 DYNAMIC HEIGHT
                                  3.335 (meters)
                                                       10.94 (feet) COMP
DO2660 MODELED GRAVITY -
                             979,068.0
                                        (mgal)
                                                                     NAVD 88
D02660
DO2660 VERT ORDER

    SECOND

                                    CLASS II
D02660
DO2660. The horizontal coordinates were scaled from a topographic map and have
DO2660.an estimated accuracy of +/- 6 seconds.
D02660. The orthometric height was determined by differential leveling and
DO2660.adjusted by the NATIONAL GEODETIC SURVEY
 DO2660.in December 2012.
D02660
 DO2660.Significant digits in the geoid height do not necessarily reflect accuracy.
 DO2660.GEOID12B height accuracy estimate available here.
D02660
D02660. Photographs are available for this station.
DO2660. The dynamic height is computed by dividing the NAVD 88
DO2660.geopotential number by the normal gravity value computed on the
 DO2660.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 D02660.degrees latitude (g = 980.6199 gals.).
D02660
DO2660. The modeled gravity was interpolated from observed gravity values.
 D02660
D02660;
                           North
                                        East
                                                Units Estimated Accuracy
D02660;SPC FL E
                        208,300.
                                     287,970.
                                                   MT (+/- 180 meters Scaled)
 D02660
DO2660_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ879993(NAD 83)
D02660
D02660
                                SUPERSEDED SURVEY CONTROL
D02660
DO2660.No superseded survey control is available for this station.
D02660
 DO2660_MARKER: DB = BENCH MARK DISK
 DO2660_SETTING: 32 = SET IN A RETAINING WALL OR CONCRETE LEDGE
 DO2660 SP SET: WING WALL
 DO2660_STAMPING: 021 2011
 DO2660_MARK LOGO: FL2570
 DO2660_MAGNETIC: N = NO MAGNETIC MATERIAL
 DO2660 STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 DO2660+STABILITY: SURFACE MOTION
```



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#### "021" Benchmark Datasheet (2 of 2)

DO2660\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

DO2660+SATELLITE: SATELLITE OBSERVATIONS - January 03, 2012

D02660

DO2660 HISTORY - Date Condition Report By DO2660 HISTORY - 20120103 MONUMENTED STONER

D02660

DO2660 STATION DESCRIPTION

D02660

DO2660'DESCRIBED BY STONER AND ASSOCIATES INC 2012 (DWS)

DO2660'THE MARK IS ABOUT 8.8 MI (14.2 KM) SOUTHEAST OF WEST DIXIE BEND, 6.3 DO2660'MI (10.1 KM) NORTH-NORTHEAST OF FORT LAUDERDALE, 1.8 MI (2.9 KM) SOUTH DO2660'OF POMPANO BEACH, IN SECTION 1, TOWNSHIP 49 SOUTH, RANGE 42 EAST. DO2660'OWNERSHIP IS THE FLORIDA DEPARTMENT OF TRANSPORTATION. DO2660'

DO2660'TO REACH THE MARK FROM THE INTERSECTION OF WEST ATLANTIC BOULEVARD AND DO2660'NORTH DIXIE HIGHWAY IN POMPANO BEACH, GO EAST ON EAST ATLANTIC DO2660'BOULEVARD FOR 1.5 MI (2.4 KM) TO THE INTERSECTION OF FEDERAL HIGHWAY DO2660'(U.S. HIGHWAY 1). TURN RIGHT ON SOUTH FEDERAL HIGHWAY (U.S. HIGHWAY DO2660'1) AND GO SOUTH FOR 1.4 MI (2.3 KM) TO THE INTERSECTION OF EAST MCNAB DO2660'ROAD ON THE RIGHT AND SOUTHEAST 15TH STREET ON THE LEFT. TURN RIGHT DO2660'ON EAST MCNAB ROAD AND GO EAST FOR 0.8 MI (1.3 KM) TO THE MARK ON THE DO2660'RIGHT, SET FLUSH IN THE TOP OF THE NORTHEAST WING WALL OF THE BRIDGE DO2660'OVER THE CYPRESS CREEK CANAL.

D02660'

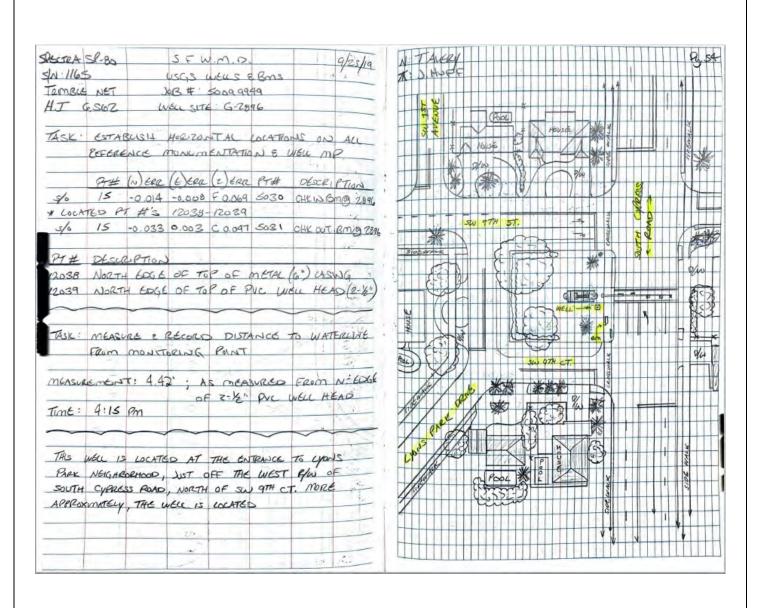
DO2660'LOCATED 59.3 FT (18.1 M) NORTHEAST OF A CONCRETE POWER POLE NUMBER DO2660'85C11, 28.2 FT (8.6 M) SOUTHWEST OF A WOODEN POWER POLE, 24.5 FT (7.5 DO2660'M) NORTH OF THE CENTERLINE OF EAST MCNAB ROAD AND 24.0 FT (7.3 M) DO2660'SOUTHWEST OF THE WEST END OF A CONCRETE WALK.

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



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### **Dewberry Field Notes (1 of 4)**





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### **Dewberry Field Notes (2 of 4)**

Tolcon			SFL	1. m. D.			39/25/19	NIT	T.A.
AT-GZ		U	SGS WE	us e B	ms		1 1	太:	H
JN: 143	9		C#: 50						
		(	WELL ST	Tt: G.	2896			1	
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	MONUM	ENTATE	a), E	GROUNT	> CEVEL	@ W6	L SITE,		H
	ELEV	ATION	DESCR	LATION					
BEGING			Aumin	oum O	isc F	QUND	12	T3 P	1
	5.		Leck	Box , L	OCATED	SOUTH	EAST	OF U	UEC
		W(MAN							Ш
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	4.735			5.01					H
BM	4.675	4 6767	104.6161	4,90	4 900	90 777	5537	Noga	14
1211	4.570	1-10 100 1	10.3867	9.79	1 100	La La	5.487	WEC	
	21.5/21.	1	10	22/43			-		
	121.			7 - 12 -					
				5.03					
11 11	1		D 11	4.415	4,9150	99 7617	5.522	EAST	C
			11 34	4.00			5.472	CASI	JC
				23 /44.	5				H
				5.03	_				+
14 17			at //	- 4.925	4 9233	99.7555	5.513	SOUT	4 0
			11 11	4.815	1.1233	1. 1000	5.463	C430	
				21.5/43					T
				5.035					H
4 11	0	) 11	10 10	4.93	4.9300	99.1461	5.507	WES-	1 1
			W III	4.825			5.457	CAS	
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OF WELL E	DONCE	TE SLAB E STAMPED	BASE SFWMD	FOR MET	al eker "
FORESIGNE DESCRIPTION			-37	43	8
NORTH COR		CONCRET	e scas	AROUND	
CASING	er of	CONCRETE	SCAB A	aano ne	
SOUTH CORN	ER OF	CONCRETE	SLAC AR	counts well	
943N G		7 3			
WEST CORNI	te of	CONCRETE	SUAB AR	one were	

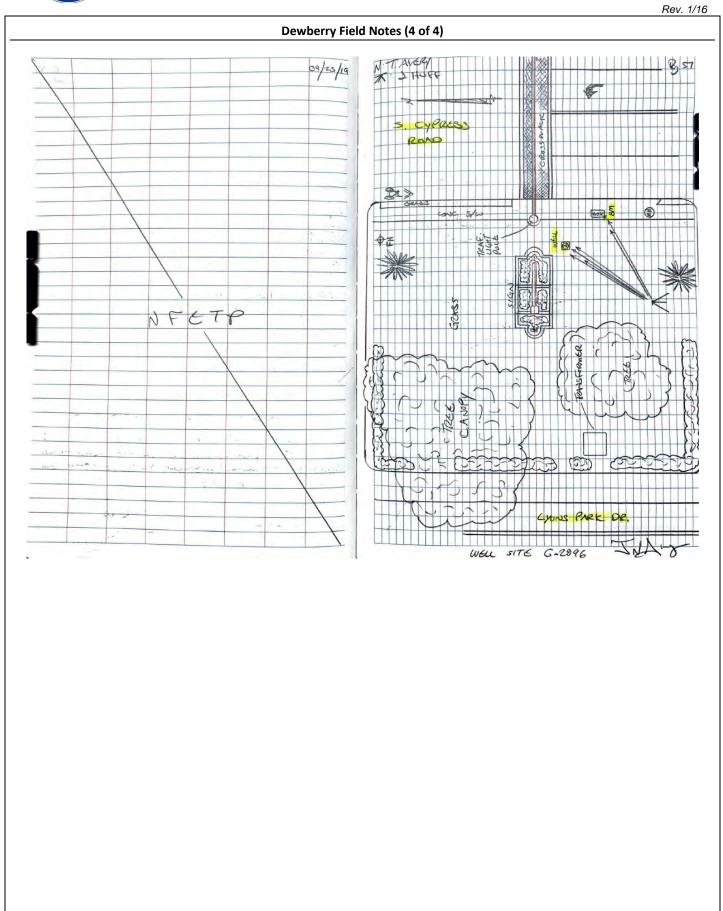


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### **Dewberry Field Notes (3 of 4)**

Topcan			S FW.				09/25/19	N: TAKERY
AT-GZ			sas w					A: D: HUEE
S/N: 143	3	3	B# E	1				
			were s	ITE G	-2896			
TASK.	CONTIN	OUE EL	EVATIN	5 Pol	TS OF	INTER	EST	
BA	CKSIGI	T(+)	不	FORES	IGHT.		A0)	FORESIGHT (F)
STA ID			ELEV.	RDs	MEAN	ELEV.	ELEV	DESCRIPTIONS
_				4 835				
BM			104.0767		4.7233	an ace	5.743	GROWD SHOTT HORTH OF CINCRETE SCAR A
			103867	4.610	1		5.663	WELL CASING
	ŧ			22.5/44	1			
				5.175				
it h			AL II	5.065	5.0650	996117	5.378	MEASURING POINT BY NORTH GOGE OF PUR
			11	4.955			5.322	GRENNG (Z. S" PIRE SCHED, 40 PUEN(a.D)
				22/43.5	•			
h //			0 1	5.015			77	
			10 11		4,9050	99:7747		MEASURING POINT B WATH EDGS OF MET
				4.795			5.482	caswa 1
				7-100				
* BREAK	SET-UP							
	5.435			5.205				
	5 325	5.325			5:0983	77.7733	5.758	BACK & STARTING POINT (SITE BM)
	5.215		10.807	4.49			5.709	
	32 /65.5			21.5/87				
								Check In=to, golf
* END	LEVEL	LOOP						







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Whidden Field Notes (1 of 2)							
G-1896 DIN 755642 TRIVISCE 1888 461611 RG-44 0220	3539   BH   3500  2650H						
DEO 10.713	6.32 8 441						
5,272 9,797	4.956 4.571 4.532 4.539						
7 P 2	7P 75 5.7D 4.763						
70 9 5 775 85789	5 672						
77 5 2.877 S. 777 S. 77	7V (Y						
7 P 9 C 1 P S S S S S S S S S S S S S S S S S S	5.754 10.706 TP 19 . 5.438 . 5.268						
1.4.4.4.4.8.8.8.8.8.8.8.8.8.8.8.8.8.8.8.	5 723 10 935 62,894 4,749 5,714						
7 V 10 3.59& 4.942	777 22 5.1190 5.201						
3.182 14.782 3.182 14.782	8.549. 70.076						



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### Whidden Field Notes (2 of 2)

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70 23			5 25/	5 424	
	4.802	10.428			
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77 25			5.744	4863	
	5,021	7.884			
7/2/4	1,014	10.868	5.091	4.873	
77 27			.5.325	5. 793	
	14.45	9.543			
7/2/8					

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77		4	1 019	5 365	
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++++++	4.660	10,279	+++++++++++++++++++++++++++++++++++++++		<del>                                      </del>
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+++++++++		<del>                                      </del>	++++++		++++++++++++++++++++++++++++++++++++