Surveyor's Report

Specific Purpose Survey
L-8 Reservoir Project

SFWMD Work Order Number: 4600003709

Contractors Project No. 07050.33-01

Report Date: August 12, 2018
(updated September 28, 2018)

Submittal: Final

Prepared for:

South Florida Water Management District

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OVERVIEW OF THE PROJECT

PURPOSE

The South Florida Water Management District's (District) L-8 Reservoir Project is an in-ground storage reservoir converted rock mine in Western Palm Beach County. This in-ground water storage reservoir will be able to capture excess water in the wet season to improve year-round flows to the Grassy Waters Preserve, the Loxahatchee Slough, and the Loxahatchee River. This reservoir adds capacity to help manage regional water supply through seasonal fluctuations and improve the hydroperiods of regionally significant wetland systems. The site falls within a wildlife corridor that is being established to connect the J.W. Corbett Wildlife Management Area to the north with the storm-water treatment areas and National Wildlife Refuge to the south.

Current ground water levels are being monitored by forty-four (44) monitoring wells at 17 sites around the reservoir site.

The objectives of this work order are:

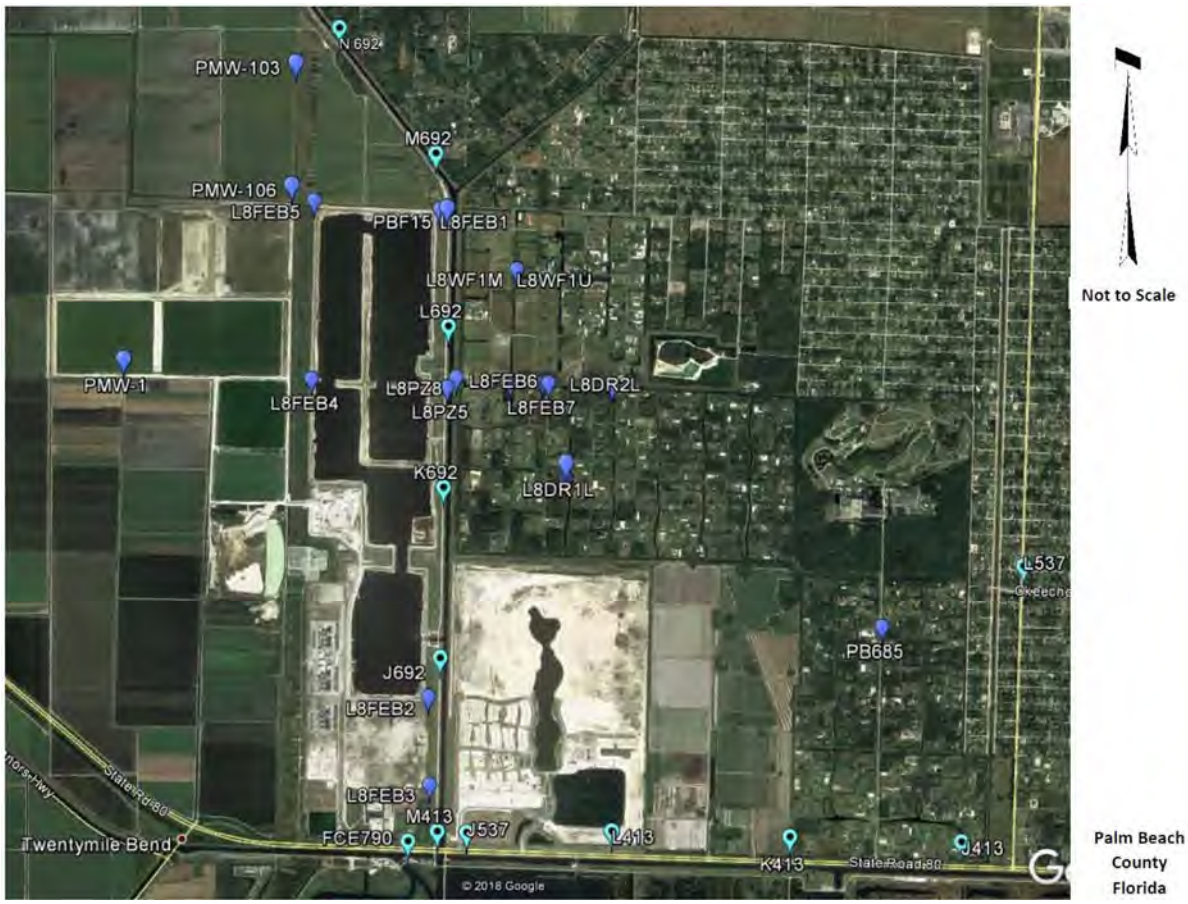
- Run a level line(s) from the National Geodetic Survey level lines along State Road 80 and along SFWMD's Levee 8, that connects all the forty-four (44) wells and their associated benchmarks.
- Establish new elevations at each of the forty-four (44) wells reference points and their associated benchmarks
- Prepare a chart showing the comparison of the new elevation values to the current elevation values at each well and benchmark.
- Take pictures of each of the well reference point and associated benchmarks.

- Prepare a Surveyor's Report in accordance with Florida's Standards of Practice (SOP) and District requirements as specified in the work breakdown of this Statement of Work.

The services listed in this report were performed under the direction of a Professional Surveyor and Mapper (PSM) licensed in the State of Florida, in accordance with Chapter 472 of the Florida Statutes and 5J-17 of the Florida Administrative Code (FAC).

LOCATION OF PROJECT

The project is located in Palm Beach County near Twentymile Bend north of State Road 80 and west of Seminole Pratt Whitney Road.



ITEMS DELIVERED TO THE DISTRICT

The following items were delivered to the District with this report.

Two signed and sealed paper copies of the surveyor's report.

Two CD's\DVD's containing the following:

- The survey report in Microsoft Word format.
- The survey report in PDF format with electronic signature.
- Digital photos.
- Scanned copies of field notes.
- Any other digital files associated with the survey.
- Completed District benchmark description sheet for all set marks.
- Completed Excel benchmark spread sheet

VERTICAL DATUM FOR THE PROJECT

The vertical datum for the project is the North American Vertical Datum of 1988. The horizontal and vertical units for all measurements are in U.S. survey feet unless otherwise stated.

LEVELING METHODS

CONFIGURATION OF LEVEL RUN

Third-Order leveling procedures were used to establish elevations on the L-8 Reservoir benchmarks.

Level loops were ran between the following NGS Benchmarks:

- J 692 to M 413
  - L8FEB2
  - L8FEB3
- K 692 to L 692
  - L8FEB6
  - L8DR1
  - L8DR2
  - L8WF1
- M 692 to L 692
  - L8FEB1
  - L8RES6
  - L8FEB4
  - PBF15 (site removed from scope, but was on path of level loop)
- L 692 to N 692
  - PMW1
  - PMW106
  - PMW 103
- J 413 to K 413
  - PB685

The SFWMD maximum allowable misclosure for this type of run is 0.02' multiplied by the square root of the length of the level line in miles. All level runs closed less than the allowable misclosure.

EQUIPMENT USED
All leveling during the project was performed with a Wild (Leica) NA2 conventional level (Leica Art. No. 352036) and a three-section, fiberglass level rod.

GPS METHODS

A GPS horizontal value for the site benchmarks was required as part of this contract. The benchmarks were occupied for a minimum of 180 epochs with redundant, Real-Time Kinematic GPS receiving Florida Permanent Reference Network (FPRN) corrections to obtain sub-meter accuracy. All horizontal coordinates are referenced to the North American Vertical Datum of 1983 with the 2011 adjustment (NAD83/11).

The following instrumentation was used for the GPS observation:

(1) Trimble R8 GPS Unit

PROJECT RESULTS

Site Names	Well Designation	Ref. El. (NAVD88) 2014	Report Jan-2015	2018 Tags	**2018 KEITH SURVEY (NAVD 88)**	**KEITH Measured Diff.**	Site Benchmark	Benchmark Elevation (NAVD 88)	**2018 KEITH SURVEY (NAVD 88)**
L8FEB1	L8FEB1L	33.94	34.30		**34.28**	(Δ= -0.02')	L8FEB1	29.821	**29.82**
	L8FEB1M	33.81	34.17		**34.16**	(Δ= -0.01')			(Δ= -0.00')
	L8FEB1U	33.72	34.08		**34.07**	(Δ= -0.01')			
L8FEB2	L8FEB2L	32.99	33.34		**33.29**	(Δ= -0.05')	L8FEB2	28.75	**28.71**
	L8FEB2M	33.09	33.457		**33.42**	(Δ= -0.04')			(Δ= -0.04')
	L8FEB2U	32.77	33.13		**33.10**	(Δ= -0.03')			
L8FEB3	L8FEB3L	36.02	36.377		**36.34**	(Δ= -0.04')	L8FEB3	31.592	**31.56**
	L8FEBM	35.71	36.096		**36.06**	(Δ= -0.04')			(Δ= -0.03')
	L8FEB3U	35.75	36.11		**36.06**	(Δ= -0.05')			
L8FEB4	L8FEB4L	18.70	19.07		**19.06**	(Δ= -0.01')	L8FEB4	18.053	**18.05**
	L8FEB4M	18.70	19.08		**19.06**	(Δ= -0.02')			(Δ= -0.00')
	L8FEB4U	18.66	19.065		**19.06**	(Δ= -0.01')			
	L8FEB5L	18.95	19.32		**19.31**	(Δ= -0.01')	L8 RES Site	15.74	**15.74**
L8FEB5	L8FEB5M	18.46	18.93		**18.83**	(Δ= -0.10')			(Δ= 0.00')
	L8FEB5U	18.57	18.83		**18.93**	(Δ= +0.01')			
L8FEB6	L8FEB6E	15.86		15.86	**16.15**	(Δ= +0.29')	L8FEB6	16.071	**16.07**
	L8FEB6W	16.16		16.16	**15.86**	(Δ= -0.30')			(Δ= 0.00')
L8FEB7	L8FEB7E	14.79		14.79	**14.95**	(Δ= -0.16')	TUNA	16.26	**16.26**
	L8FEB7W	14.95		14.95	**14.80**	(Δ= -0.15')			(Δ= 0.00')
PZ5	PZ5A	22.97	23.08		**23.99**	(Δ= +0.91')	L8 Divide	15.20	**BM not**
	PZ5B	23.06	24.02		**24.03**	(Δ= +0.01')			**recovered**
	PZ5C	23.14	24.10		**24.11**	(Δ= +0.01')			
	PZ5D	23.02	24.21		**24.21**	(Δ= -0.00')			
PZ8	PZ8A	26.83	27.81		**27.83**	(Δ= +0.02')	MACKREL	23.849	**BM not**
	PZ8B	26.71	27.71		**27.73**	(Δ= +0.02')			**recovered**
PMW-1	PMW-1-DG	14.41		14.41	**14.44**	(Δ= +0.03')	PMW-1	11.41	**10.98**
	PMW-1-SG	14.67		14.67	**14.76**	(Δ= +0.09')			(Δ= -0.43')
PMW-103	PMW-103-D	20.58		20.58	**20.60**	(Δ= +0.02')	PMW-103	17.58	**BM not**
	PMW-103-S	20.76		20.76	**20.77**	(Δ= +0.01')			**recovered**
PMW-106	PMW-106-D	17.82		17.82	**17.83**	(Δ= +0.01')	PMW-106	14.54	**BM under 4+ ft**
	PMW-106-S	17.51		17.51	**17.51**	(Δ= -0.00')			**of new fill**
	L8DR1L	14.44		14.44	**14.88**	(Δ= +0.44')	L8DR1	14.864	**14.80**
L8DR1	L8DR1M	14.72		14.72	**14.70**	(Δ= -0.02')			(Δ= -0.06')
	L8DR1U	14.90		14.90	**14.41**	(Δ= -0.49')			
L8DR2	L8DR2L	15.67		15.67	**15.66**	(Δ= -0.01')	L8DR2	16.200	**16.18**
	L8DR2M	16.05		16.05	**16.04**	(Δ= -0.01')			(Δ= -0.02')
	L8DR2U	16.68		16.68	**16.67**	(Δ= -0.01')			
L8WF1	L8WF1L	16.48		16.48	**16.47**	(Δ= -0.01')	L8WF1	17.082	**17.07**
	L8WF1M	16.92		16.92	**16.88**	(Δ= -0.04')			(Δ= -0.01')
	L8WF1U	16.93		16.93	**16.91**	(Δ= -0.02')			
PB-685	PB-685				**18.46**	(N/A)	PB685	15.8135	**BM not**
									recovered

Comments

Party Chief: D. Ferels
Field Book: 458 Pages 67-77
Field Book: 836 Pages 1-55

BM - Benchmark
NAVD 88 - North American Vertical Datum of 1988
NGS - National Geodetic Survey
SFWMD - South Florida Water Management District
L.B. - Licensed Business
RTK – Real Time Kinematic
K&A – Keith and Associates
PSM – Professional Surveyor & Mapper
USGS – United States Geological Survey
QUAD – Quadrangle Map
PID - Permanent Identifier
Δ – Difference between Keith Survey and Record

SURVEYOR'S CERTIFICATION

I hereby certify that this Specific Purpose Survey meets applicable portions of the Standards of Practice set forth by the Florida Board of Professional Surveyors and Mappers in Chapter 5J-17, Florida Administrative Code. This report is prepared for the sole and specific use of the South Florida Water Management District and is not assignable.

Keith and Associates, Inc.
L.B. number 6860

By:

Date of Last Fieldwork
August 7, 2018

Lee Powers, PSM
Professional Surveyor and Mapper
State of Florida
Certificate No. 6805

BM		BS	DIST	HI		FS	DIST	ELEV (FT.)	BM ELEV (FT	DIST	DIST*ERR/FT	CORRECTION	ADJ. ELEV
	3.580												
BM1	3.210	3.210		21.257				18.047	**18.047**			0.000	18.047
L8FEB4	2.840												
			74.000										
	4.810				6.990								
TP1	4.560	4.560		19.137	6.680	6.680		14.577		136.000	-0.0000637	-0.0000637	14.577
	4.310				6.370								
			50.000				62.000						
	6.530				5.850								
TP2	6.395	6.395		20.042	5.490	5.490		13.647		122.000	-0.0000572	-0.0001209	13.647
	6.260				5.130								
			27.000				72.000						
	6.130				5.300								
TP3	5.370	5.370		20.282	5.130	5.130		14.912		61.000	-0.0000286	-0.0001495	14.912
	4.610				4.960								
			152.000				34.000						
	5.790				7.650								
TP4	4.880	4.880		18.642	6.520	6.520		13.762		378.000	-0.0001771	-0.0003266	13.762
	3.970				5.390								
			182.000				226.000						
	6.330				9.630								
TP5	5.165	5.165		15.112	8.695	8.695		9.947		369.000	-0.0001729	-0.0004995	9.947
	4.000				7.760								
			233.000				187.000						
	6.160				6.940								
TP6	4.855	4.855		14.187	5.780	5.780		9.332		465.000	-0.0002179	-0.0007174	9.331
	3.550				4.620								
			261.000				232.000						
	6.240				6.470								
TP7	5.010	5.010		14.052	5.145	5.145		9.042		526.000	-0.0002465	-0.0009639	9.041
	3.780				3.820								
			246.000				265.000						
	6.315				6.740								
TP8	5.075	5.075		13.622	5.505	5.505		8.547		493.000	-0.0002310	-0.0011949	8.546
	3.835				4.270								
			248.000				247.000						
	7.250				6.190								
TP9	5.935	5.935		14.592	4.965	4.965		8.657		493.000	-0.0002310	-0.0014259	8.656
	4.620				3.740								
			263.000				245.000						
	6.720				6.030								
TP10	5.450	5.450		15.332	4.710	4.710		9.882		527.000	-0.0002469	-0.0016728	9.880
	4.180				3.390								
			254.000				264.000						
	6.650				6.590								
TP11	5.380	5.380		15.382	5.330	5.330		10.002		506.000	-0.0002371	-0.0019099	10.000
	4.110				4.070								
			254.000				252.000						
	6.800				6.630								
TP12	5.540	5.540		15.562	5.360	5.360		10.022		508.000	-0.0002380	-0.0021480	10.020

	4.280				4.090								
			252.000				254.000						
	6.285				6.710								
TP13	5.035	5.035		15.137	5.460	5.460		10.102		502.000	-0.0002352	-0.0023832	10.100
	3.785				4.210								
			250.000				250.000						
	5.860				7.510								
TP14	4.935	4.935		13.812	6.260	6.260		8.877		500.000	-0.0002343	-0.0026175	8.874
	4.010				5.010								
			185.000				250.000						
	10.780				7.390								
TP15	10.555	10.555		17.867	6.500	6.500		7.312		363.000	-0.0001701	-0.0027876	7.309
	10.330				5.610								
			45.000				178.000						
	6.950				7.180								
TP16	6.650	6.650		17.637	6.880	6.880		10.987		105.000	-0.0000492	-0.0028368	10.984
PMW-1	6.350				6.580								
			60.000				60.000						
	7.610				10.530								
TP17	6.375	6.375		13.702	10.310	10.310		7.327		104.000	-0.0000487	-0.0028855	7.324
	5.140				10.090								
			247.000				44.000						
	6.980				5.570								
TP18	5.710	5.710		15.092	4.320	4.320		9.382		497.000	-0.0002329	-0.0031184	9.379
	4.440				3.070								
			254.000				250.000						
	6.140				6.145								
TP19	4.855	4.855		15.082	4.865	4.865		10.227		510.000	-0.0002390	-0.0033574	10.224
	3.570				3.585								
			257.000				256.000						
	5.770				5.950								
TP20	4.550	4.550		14.962	4.670	4.670		10.412		513.000	-0.0002404	-0.0035978	10.408
	3.330				3.390								
			244.000				256.000						
	5.805				5.940								
TP21	4.595	4.595		14.827	4.730	4.730		10.232		486.000	-0.0002277	-0.0038255	10.228
	3.385				3.520								
			242.000				242.000						
	5.450				6.370								
TP22	4.180	4.180		13.837	5.170	5.170		9.657		482.000	-0.0002259	-0.0040514	9.653
	2.910				3.970								
			254.000				240.000						
	6.140				6.590								
TP23	4.990	4.990		13.497	5.330	5.330		8.507		506.000	-0.0002371	-0.0042885	8.503
	3.840				4.070								
			230.000				252.000						
	6.670				6.120								
TP24	5.435	5.435		13.962	4.970	4.970		8.527		460.000	-0.0002155	-0.0045040	8.522
	4.200				3.820								
			247.000				230.000						

	6.420				6.490								
TP25	5.100	5.100		13.802	5.260	5.260		8.702		493.000	-0.0002310	-0.0047350	8.697
	3.780				4.030								
			264.000				246.000						
	6.530				5.480								
TP26	5.320	5.320		14.952	4.170	4.170		9.632		526.000	-0.0002465	-0.0049815	9.627
	4.110				2.860								
			242.000				262.000						
	8.120				5.720								
TP27	6.870	6.870		17.312	4.510	4.510		10.442		484.000	-0.0002268	-0.0052083	10.437
	5.620				3.300								
			250.000				242.000						
	7.100				6.390								
TP28	5.850	5.850		18.012	5.150	5.150		12.162		498.000	-0.0002334	-0.0054417	12.157
	4.600				3.910								
			250.000				248.000						
	6.350				6.375								
TP29	5.115	5.115		18.002	5.125	5.125		12.887		500.000	-0.0002343	-0.0056760	12.881
	3.880				3.875								
			247.000				250.000						
	6.435				6.230								
TP30	5.155	5.155		18.147	5.010	5.010		12.992		491.000	-0.0002301	-0.0059060	12.986
	3.875				3.790								
			256.000				244.000						
	7.475				6.520								
TP31	6.170	6.170		19.062	5.255	5.255		12.892		509.000	-0.0002385	-0.0061445	12.886
	4.865				3.990								
			261.000				253.000						
	9.435				5.860								
TP32	8.185	8.185		22.687	4.560	4.560		14.502		521.000	-0.0002441	-0.0063887	14.496
	6.935				3.260								
			250.000				260.000						
	6.910				5.480								
TP33	5.690	5.690		24.157	4.220	4.220		18.467		502.000	-0.0002352	-0.0066239	18.460
	4.470				2.960								
			244.000				252.000						
	6.300				6.680								
TP34	5.050	5.050		23.747	5.460	5.460		18.697		488.000	-0.0002287	-0.0068526	18.690
	3.800				4.240								
			250.000				244.000						
	6.785				5.895								
TP35	5.510	5.510		24.607	4.650	4.650		19.097		499.000	-0.0002338	-0.0070864	19.090
	4.235				3.405								
			255.000				249.000						
	5.945				6.070								
TP36	4.710	4.710		24.537	4.780	4.780		19.827		513.000	-0.0002404	-0.0073268	19.820
	3.475				3.490								
			247.000				258.000						
	3.570				6.830								
TP37	2.390	2.390		21.357	5.570	5.570		18.967		499.000	-0.0002338	-0.0075606	18.959
PMW106	1.210				4.310								

			236.000				252.000						
	4.600				4.080								
TP38	4.110	4.110		22.607	2.860	2.860		18.497		480.000	-0.0002249	-0.0077855	18.489
	3.620				1.640								
			98.000				244.000						
	6.800				6.650								
TP39	5.510	5.510		21.957	6.160	6.160		16.447		196.000	-0.0000918	-0.0078774	16.439
	4.220				5.670								
			258.000				98.000						
	6.490				6.220								
TP40	5.220	5.220		22.247	4.930	4.930		17.027		516.000	-0.0002418	-0.0081191	17.019
	3.950				3.640								
			254.000				258.000						
	6.670				6.535								
TP41	5.445	5.445		22.442	5.250	5.250		16.997		511.000	-0.0002394	-0.0083586	16.989
	4.220				3.965								
			245.000				257.000						
	6.100				6.390								
TP42	4.845	4.845		22.117	5.170	5.170		17.272		489.000	-0.0002291	-0.0085877	17.263
	3.590				3.950								
			251.000				244.000						
	6.720				6.390								
TP43	5.480	5.480		22.442	5.155	5.155		16.962		498.000	-0.0002334	-0.0088211	16.953
	4.240				3.920								
			248.000				247.000						
	7.090				6.155								
TP44	5.825	5.825		23.342	4.925	4.925		17.517		494.000	-0.0002315	-0.0090526	17.508
	4.560				3.695								
			253.000				246.000						
	6.420				7.155								
TP45	5.150	5.150		22.602	5.890	5.890		17.452		506.000	-0.0002371	-0.0092897	17.443
	3.880				4.625								
			254.000				253.000						
	6.335				5.965								
TP46	5.070	5.070		22.977	4.695	4.695		17.907		508.000	-0.0002380	-0.0095277	17.897
PMW103	3.805				3.425								
			253.000				254.000						
	6.730				6.360								
TP47	5.510	5.510		23.387	5.100	5.100		17.877		505.000	-0.0002366	-0.0097643	17.867
	4.290				3.840								
			244.000				252.000						
	6.455				6.110								
TP48	5.245	5.245		23.742	4.890	4.890		18.497		488.000	-0.0002287	-0.0099930	18.487
	4.035				3.670								
			242.000				244.000						
	7.180				6.950								
TP49	6.020	6.020		24.012	5.750	5.750		17.992		482.000	-0.0002259	-0.0102189	17.982
	4.860				4.550								
			232.000				240.000						
	6.000				5.985								

TP50	5.180	5.180		24.352	4.840	4.840		19.172		461.000	-0.0002160	-0.0104349	19.162
	4.360				3.695								
			164.000				229.000						
	6.820				5.460								
TP51	5.625	5.625		25.337	4.640	4.640		19.712		328.000	-0.0001537	-0.0105886	19.701
	4.430				3.820								
			239.000				164.000						
	5.860				2.890								
TP52	4.885	4.885		28.497	1.725	1.725		23.612		472.000	-0.0002212	-0.0108098	23.601
	3.910				0.560								
			195.000				233.000						
					5.565								
TP53		0.000		23.987	4.510	4.510		23.987	**23.976**	406.000	-0.0001902	-0.0110000	23.976
N 692					3.455								
			0.000				211.000						
								ERROR	-0.011	23475.000	-0.0110000		
								ERR/FT	-0.00000047				
			TOTAL				TOTAL				MTS [.02*SQRT(DIST)]=		0.042
			11693.000				11782.000	=	23475.000	FT			
									4.446	MILES			

6-11-18 SFWMD

FEREIS L8FEB2 & L8FEB3

MCKINNEY NAVD88

	+	HI	-	ELEV.
BM	6.735			21.745
	5.545			
	4.355			
	5.545	27.29		
TP 1			6.00	
	1.95		4.785	
	1.215		3.57	
	0.48		4.785	22.505
	1.215	23.72		
TP2			4.36	
	11.21		3.62	
☆	10.91		2.88	
	10.61		3.62	20.10
	10.91	31.01		
TP3			2.58	
	3.12		2.30	
	2.73		2.02	
	2.34		2.30	28.71
	2.73	31.44		
TP4			10.95	
	8.11		10.52	
	6.83		10.09	
	5.55		10.52	20.92
	6.83	27.75		

07PSO.33 458.67

J692 - S.S. ROD ENCASED IN PVC w/ LOGO CAP
STAMPED J692 2007

SET 60d NL

SET 60d NL

FND 2" ALUM DISK IN C. MON STAMPED L8 FEB2 2014
ELEV. 28.75

SET 60d NL

6-11-18 SFWMD

FEZELS L8FEB2 ; L8FEB3

McKINNEY DAUDER

\+ HI - ELEV

TP5			6.27	
	6.54		5.01	
	5.33		3.75	
	4.12		5.01	22.74
	5.33	28.07		
TP6			5.86	
	5.66		4.65	
	4.42		3.44	
	3.18		4.65	23.42
	4.42	27.84		
TP7			6.29	
	6.03		5.08	
	4.76		3.87	
	3.49		5.08	22.76
	4.76	27.52		
TP8			6.515	
	6.765		5.255	
	5.54		3.995	
	4.315		5.255	22.265
	5.54	27.805		
TP9			6.91	
	14.89		5.695	
	14.21		4.48	
	13.53		5.695	22.11
	14.21	36.32		

07050.33 458-68

SET 60d NL

SET 60d NL

SET 60d NL

SET 60d NL

SET 60d NL

6-11-18 SFWMD

FERELS LBFEB2 & LBFEB3

McKINNEY

	+	HI	-	NAVD88 ELEV
TP10			5.83	
	2.64		4.755	
	2.39		3.68	
	2.14		4.755	31.565
	2.39	33.955		
TP11			10.845	
	5.65		10.34	
	4.55		10.115	
	3.45		10.34	23.615
	.455	28.165		
TP12			6.44	
	6.655		5.335	
	5.440		4.23	
	4.225		5.335	22.83
	5.44	28.27		
TP13			6.06	
	7.01		4.855	
	5.785		3.65	
	4.456		4.855	23.415
	5.785	29.20		
TP14			6.47	
	5.425		5.24	
	4.535		4.01	
	3.645		5.24	23.96
	4.535	28.495		

070501.33 458-69

FND 2" ALUM DISK IN C. MON LBFEB3 2014

ELEV. = 31.592

SET NAIL

SET NAIL

SET NAIL

SET NAIL

6-11-18 SFWMD

FERELS LB FEB2 & LBTEB3

McKINNEY + HI - NAVD88 ELEV

BM		
	6.555	
	5.525	
	4.495	
	5.525	22.97

07050.33 458-70

FND 3" BRASS DISK IN FACE OF BRIDGE

MAI3 1992 ELEV. 22.96

6-13-18 SFWMD

04050.33 458-71

Fees

McKinney/

NAVD 88

	+	41	-	ELEV
BM	7.83			21.575
	~~6.665~~			
	5.50			
	6.665	28.24		

S.S. ROD INCASED IN PVC W/ LOGO CAP
K692 2007

TP1 6.085

6.05		4.92	
4.78		3.755	
3.51		4.92	23.32
4.78	28.10		

SET 60d NAIL

TP2 6.51

6.89		5.22	
5.63		3.93	
4.37		5.22	22.88
5.63	28.51		

SET 60d NAIL

TP3 6.04 6.14

4.84		4.88	
3.64		3.62	
4.84	28.47	4.88	23.63

SET 60d NAIL

TP4 7.09

7.06		5.875	
5.84		4.66	
4.62		5.875	22.595
5.84	28.435		

SET 60d NAIL

6-13-18 SFWMD

FERRELS

MCKINNEY / NAVD88

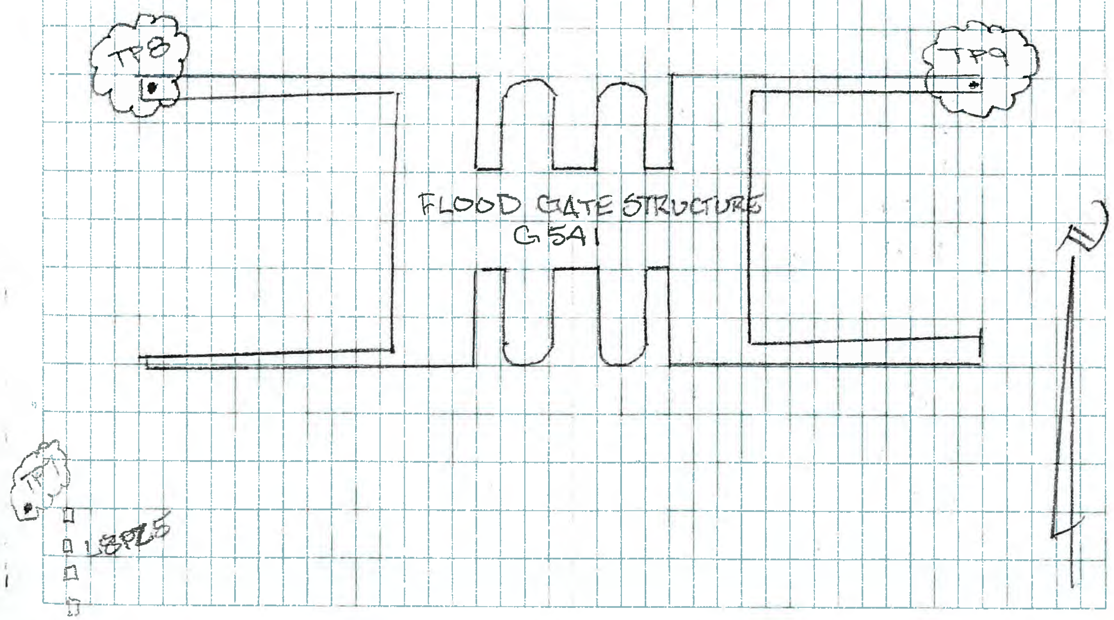
	+	HI	-	ELEV
TP5			6.46	
	6.75		5.24	
	5.525		4.02	
	4.30		5.24	23.195
	5.525	28.72		
TP6			6.36	
	4.98		5.135	
	3.74		3.91	
	2.50		5.135	23.585
	3.74	21.325		
TP7			6.88	
	6.41		5.64	
	5.78		4.40	
	5.15		5.64	21.685
	5.78	27.465		
TP8			6.73	
	7.92		6.08	
	7.43		5.43	
	6.94		6.08	21.385 SET MAG-DISK
	7.43	28.815		
TP9			7.77	
	4.48		7.23	
	3.75		6.69	
	3.02		7.23	21.585 SET MAG-DISK
	3.75	25.336		

07050.33 458-72

SET 60d NL

SET 60d NL

SET 5/8" RC [illegible]



6-14-18 SFWMD

FERRELS

MCKINNEY/ DANGE

	+	HI	-	ELEV
TP30			5.92	
	5.545		4.83	
	4.345		3.74	
	3.145		4.83	14.93
	4.345	19.275		
TP31			6.025	
	6.155		4.815	
	5.01		3.605	
	3.865		4.815	14.46
	5.01	19.47		
TP32			6.48	
	7.61		5.335	
	6.32		4.19	
	5.03		5.335	14.135
	6.32	20.455		
TP33			7.095	
	5.84		5.795	
	4.66		4.495	
	3.48		5.795	14.66
	4.66	19.32		
BM			3.60	
			3.13	
			2.66	
			3.13	16.19

07055.33 458-77

GUY ACHOR

SET 60d NL

SET 60d NL

SET 60d NL

[illegible] 2" ALUM DISK IN C MON

LBDR2 ELEV. = 16.20

7-18-18 SFWMD

FERELS

McKINNEY NAVD88

	+	HI	-	ELEV
TP40			6.22	
	6.49		4.93	
	5.22		3.64	
	3.95		4.93	17.031
	5.22	22.251		
TP41			6.535	
	6.67		5.25	
	5.445		3.965	
	4.22		5.25	17.001
	5.445	22.446		
TP42			6.39	
	6.10		5.17	
	4.845		3.95	
	3.59		5.17	17.276
	4.845	22.121		
TP43			6.39	
	6.72		5.155	
	5.48		3.92	
	4.24		5.155	16.966
	5.48	22.446		
TP44			6.155	
	7.09		4.925	
	5.825		3.695	
	4.56		4.925	17.521
	5.825	23.346		

07050.33 8-26-18

SET 60d NL

SET IRC

SET 60d NL

SET 60d NL

SET 60d NL

7-18-18
FERELS
McKINSEY

SFWMD

NAVD88

	+ HI	- ELEV	
TP45		7.155	
	6.42	5.89	
	5.15	4.625	
	3.88	5.89	17.486
	5.15	22.606	
TP46		5.965	
	6.335	4.695	
	5.07	3.425	
	3.805	4.695	17.911
	5.07	22.981	
TP47		6.36	
	6.73	5.10	
	5.51	3.84	
	4.29	5.10	17.881
	5.51	23.391	
TP48		6.11	
	6.455	4.89	
	5.245	3.67	
	4.035	4.89	18.501
	5.245	23.746	
TP49		6.95	
	7.18	5.75	
	6.02	4.55	
	4.86	5.75	17.996
	6.02	24.016	

070503.33

B26-29

SET 60d NL

SET IRC @ WELL SITE PMW-103

SET 60d NL

SET 60d NL

SET 60d NL

T-19-18
FERELS
MCKINNEY
LEAK

SFWMD

	+	HI	-	NAVD88 ELEV
TP50			5.985	
	6.00		4.84	
	5.18		3.695	
	4.36		4.84	19.176
	5.18	24.356		
TP51			5.46	
	6.82		4.64	
	5.625		3.82	
	4.43		4.64	19.716
	5.625	25.341		
TP52			2.89	
	5.86		1.725	
	4.885		0.56	
	3.91		1.725	23.616
	4.885	28.501		
BM			5.565	
			4.51	
			3.455	
			4.51	23.991

07050.33

B26-30

SET 60d NL

SET 60d NL

SET 60d NL

FND SS. ROD INCASED IN PVC W/ LOGO CAP
N 692 ELEV. 23.976

7-19-18 SFWMD

FERELS
McKINNEY
LEAK

	+	HI	-	NUD83 ELEV
BM	6.84			15.39
	5.62			
	4.40			
	5.62	21.01		
TP1			6.835	
	6.51		5.63	
	5.78		4.425	
	4.05		5.63	15.38
	5.78	20.160		
TP2			6.615	
	6.17		5.39	
	4.93		4.165	
	3.69		5.39	15.27
	4.93	20.20		
TP3			6.58	
	5.25		5.32	
	4.00		4.06	
	2.75		5.32	14.88
	4.00	18.88		
TPA			4.68	
	6.595		3.415	
	5.355		2.15	
	4.115		3.415	15.465
	5.355	20.82		

07050.33 826-31

FND SS, 20D INCASED IN PVC W/ LOGO CAP
J413

SET 60D NL

SET 60D NL

SET 60D NL

SET 60D NL

7-19-18 SFWMD

FERELS
MCKINNEY
LEAK

	+	HI	-	NAVD88 ELEV
TP5			7.29	
	6.98		6.06	
	6.13		4.83	
	5.28		6.06	14.76
	6.13	20.89		
TP6			5.43	
	6.48		4.59	
	5.23		3.75	
	3.98		4.59	16.30
	5.23	21.53		
TP7			6.79	
	6.14		5.54	
	4.95		4.29	
	3.76		5.54	15.99
	4.95	20.94		
TP8			6.02	
	6.53		4.84	
	5.32		3.66	
	4.11		4.84	16.10
	5.32	21.42		
TP9			6.48	
	6.535		5.275	
	5.34		4.07	
	4.145		5.275	16.145
	5.34	21.485		

07050.33 826.32

SET GOES NL

SET GOES NL

SET NL

SET NL

SET NL

7-19-18
FERELS
MCKINNEY
LEAK

SFWMD

	+	HI	-	NAVD88 ELEV
TP10			6.285	
	6.595		5.04	
	5.405		3.845	
	4.215		5.04	16.445
	5.405	21.85		
TP11			6.53	
	6.445		5.33	
	5.255		4.13	
	4.065		5.33	16.52
	5.255	21.775		
TP12			6.445	
	6.56		5.255	
	5.345		4.065	
	4.13		5.255	16.52
	5.345	21.866		
TP13			6.096	
	6.41		4.88	
	5.195		3.665	
	3.98		4.88	16.985
	5.195	22.18		
TP14			6.54	
	6.365		5.33	
	5.155		4.12	
	3.945		5.33	16.85
	5.155	22.005		

07050.33

8326-33

SET NL

SET NL

SET NL

SET NL

SET NL

7-19-18 SFWMD

FERELS

MCKINNEY

LEAK

NWD88

	+	HI	-	ELEV
TP15			6.235	
	6.36		5.025	
	5.12		3.815	
	3.88		5.025	16.98
	5.12	22.10		
TP16			6.42	
	6.59		5.18	
	5.395		3.94	
	4.20		5.18	16.92
	5.395	22.315		
TP17			6.295	
	6.41		5.105	
	5.225		3.915	
	4.04		5.105	17.21
	5.225	22.435		
TP18			6.86	
	7.18		5.68	
	5.88		4.50	
	4.58		5.68	16.755
	5.88	22.635		
TP19			6.645	
	6.40		5.33	
	5.38		4.015	
	4.36		5.33	17.305
	5.38	22.685		

070S0.33

824.34

SET NL

SET NL

SET NL

SET NL

SET NL

7-20-18
FERELS
MCKINNEY

SFWMD

	+	HI	-	NAVD88 ELEV
TP20			6.40	
	6.68		5.33	
	5.37		4.26	
	4.06		5.33	17.365
	5.37	22.725		
TP21			6.905	
	6.74		5.60	
	5.445		4.295	
	4.15		5.60	17.125
	5.445	22.57		
TP22			6.76	
	6.49		5.47	
	5.175		4.18	
	3.86		5.47	17.10
	5.175	22.275		
TP3			6.505	
	6.66		5.175	
	5.27		3.845	
	3.98		5.175	17.10
	5.27	22.37		
TP2A			6.80	
	6.36		5.52	
	5.06		4.24	
	3.76		5.52	16.85
	5.06	21.91		

07050.33

826-35

FND MAG-DISK (USGS SURVEY MARKER)
@ WELL SITE PB 685

SET NL

SET NL

SET NL

SET NL

7-20-18
FERELS
MCKINNEY

SFWMD

	+	HI	-	NAVD88 ELEV
TP25			6.44	
	6.64		5.15	
	5.32		3.86	
	4.00		5.15	16.76
	5.32	22.08		
TP26			6.45	
	6.645		5.14	
	5.365		3.83	
	4.085		5.14	16.94
	5.365	22.305		
TP27			5.96	
	6.40		5.70	
	5.13		4.44	
	3.86		5.70	16.605
	5.13	21.735		
TP28			6.48	
	6.64		5.22	
	5.33		3.96	
	4.02		5.22	16.515
	5.33	21.845		
TP29			6.47	
	6.265		5.16	
	4.975		3.85	
	3.685		5.16	16.685
	4.975	21.66		

C7050.33

B26-36

SET NL

SET NL

SET NL

SET NL

SET NL

7.20.18
FERELS
MCKINNEY

STWMD

	+	HI	-	NAVD88 ELEV
TP30				6.72
	6.605			5.43
	5.325			4.14
	4.045			5.43 16.23
	5.325	21.555		
TP31				7.10
	6.69			5.83
	5.41			4.56
	4.13			5.83 15.725
	5.41	21.135		
TP32				6.435
	6.62			5.155
	5.355			3.875
	4.09			5.155 15.98
	5.355	21.335		
TP33				7.17
	6.895			5.90
	5.65			4.63
	4.405			5.90 15.435
	5.65	21.085		
TP34				5.78
	5.92			4.575
	4.61			3.37
	3.30			4.575 16.51
	4.61	21.12		

07050.33

826-37

SET NL

SET NL

SET NL

SET 60d NL

SET 60d NL

7-20-18
FERELS
MCKINNEY

SFWMD

NAVD88

	+	HI	-	ELEV
TP35				6.395
	6.92			5.065
	5.63			3.735
	4.34			5.065 16.055
	5.63	21.685		
TP36				7.295
	6.96			5.975
	5.67			4.675
	4.38			5.975 15.71
	5.67	21.38		
TP37				5.92
	6.555			4.625
	5.275			3.33
	3.995			4.625 16.755
	5.275	22.03		
TP38				5.96
	5.55			4.675
	4.86			3.39
	4.17			4.675 17.355
	4.86	22.215		
TP39				5.26
	5.27			4.485
	5.18			3.71
	5.09			4.485 17.73
	5.18	22.91		

07050.33

826-38

SET 60d NL

SET 60d NL

SET 60d NL

SET 60d NL

SET 60d NL

7-20-18 SFWMD

FERELS

MCKINNEY

	+	HI	-	NAVD88 ELEV
BM				7.955
				7.865
				7.775
				7.865 15.045

07050.33 826-39

FDOT S.S. ROD INCASED IN PVC W/LOGO CAP
K413 ELEV. 15.036

7-30-18 SFWMD

FERELS PB685

MCKINNEY RTK FILE 07050333DF73018

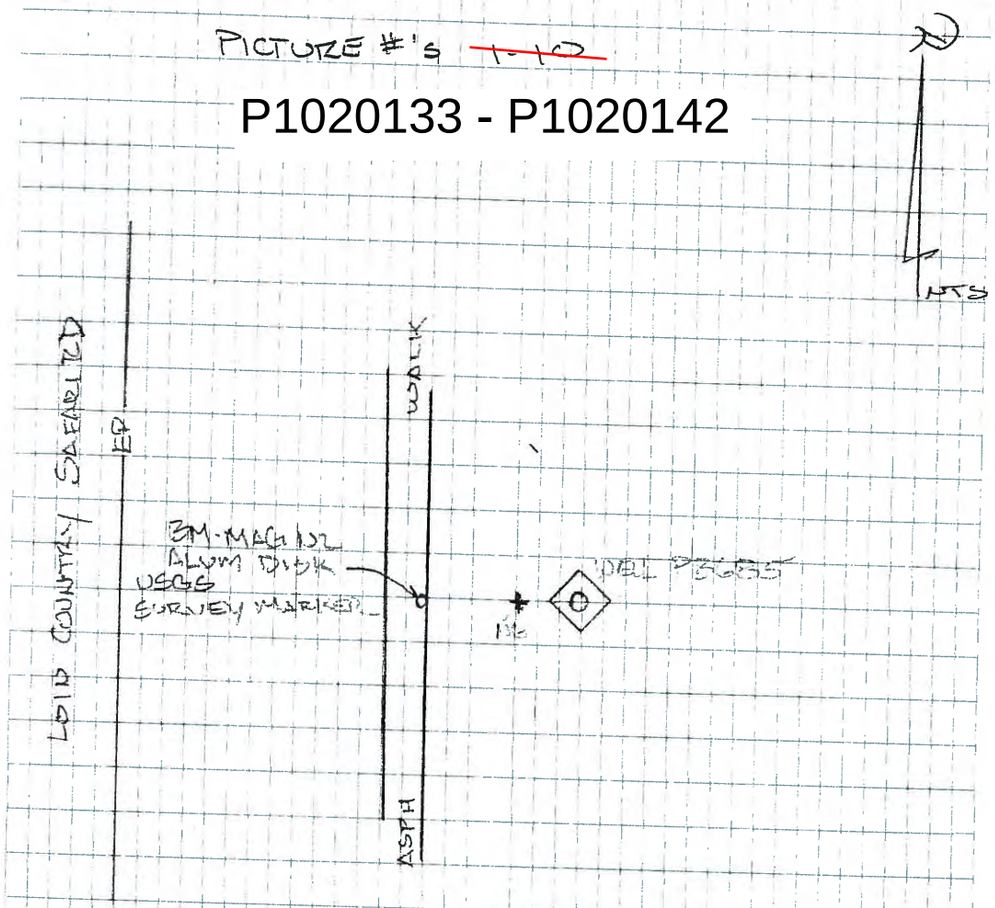
	+	HI	-	NAD88 ELEV	UNITS
BM	3.83			17.351	MAG NL. DISK USGS SURVEY MARKER
	3.77				
	3.71				
	3.77	21.12			
TP1			2.71		
	2.58		2.66		
	2.536		2.61		
	2.49		2.66	18.461	MARKER IN TOP WELL
	2.535	20.996			
TP2			5.195	15.801	NGS WELL
	5.32	21.121			
BM1			3.82		
			3.77		
			3.72		
			3.77	17.351	MAG NL. DISK USGS

07050 33 826-40

RTK PT #'s 1-3

PICTURE #'s ~~1-10~~

P1020133 - P1020142



7-30-18 SFWMD

FERELS LBWF1

MCKINNEY/ RTK FILE 07050333DF73018 UNIT 2

NAVD 88

	+	HI	-	ELEV	
BM	4.96	22.03		17.07	2" ALUM DISK STAMPED LBWF1
TP 1			5.12	16.91	MARKER MARK ATOP WELL LBWF1U
	5.27	22.18			
TP2			5.01	17.17	NG @ LBWF1U
	4.90	22.07			
TP3			5.19	16.88	MARKER MARK ATOP WELL LBWF1M
	5.00	21.88			
TP4			4.72	17.16	NG @ LBWF1M
	4.96	22.12			
TP5			5.65	16.47	MARKER MARK ATOP WELL LBWF1L
	5.44	21.91			
TP6			5.25	16.66	NG @ LBWF1L
	5.46	22.12			
BM			5.05	17.07	LBWF1

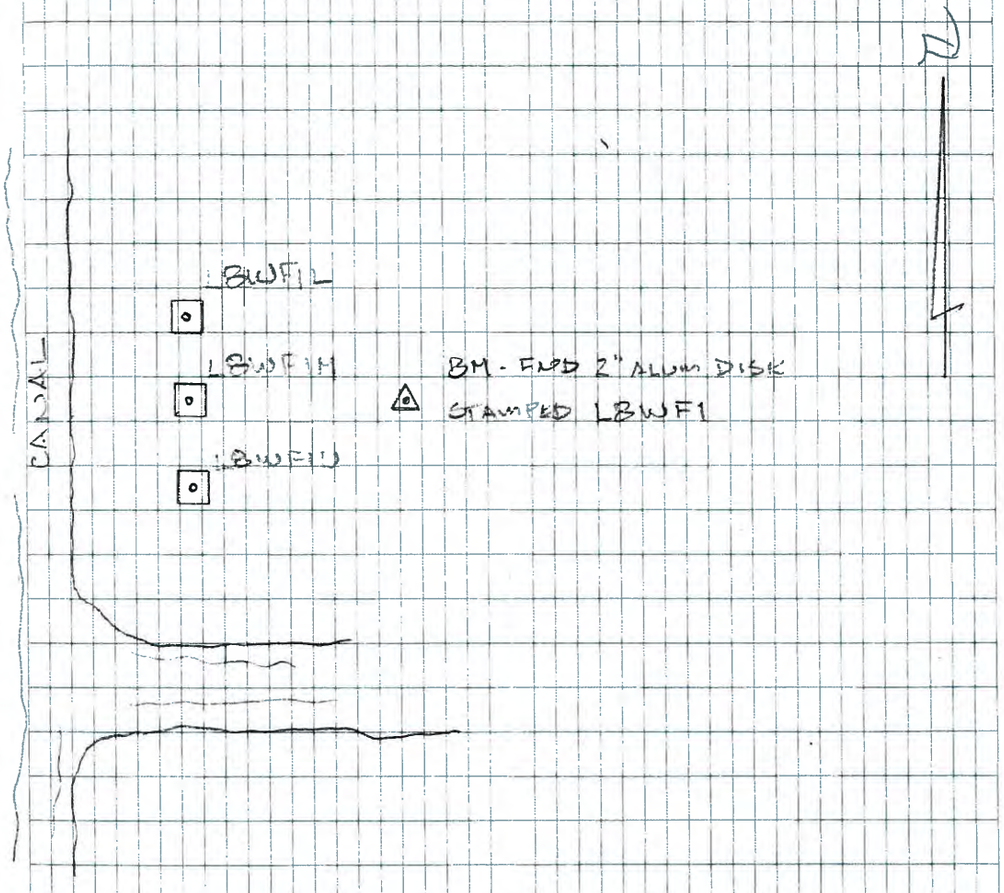
07050.33 B26-41

RTK PT #'s

4 - 10

PICTURE #'s ~~12-30~~

P1020144 - P1020162



7-30-18 SFWMD

FERELS LB FEB6

MCKINNEY RTK FILE 0705033DP73018

NAD88

	+	HI	-	ELEV	
BM	5.76	21.827		16.067	2" ALUM DISK IN CONC MON LB FEB6
TP1			5.97	15.857	MARKER MARK AT BP WELL LB FEB6W
	6.15	22.007			
			5.19	16.817	
TP2		21.827	~~6.19~~	15.817	NG@ LB FEB6W
	5.06	~~20.877~~			
				6.147	
TP3		21.987	5.73	~~5.147~~	MARKER MARK AT BP WELL LB FEB6E
	5.84	~~20.987~~			
				16.717	
TP4		21.827	5.27	~~15.777~~	NG@ LB FEB6E
	5.11	~~20.887~~			
BM			5.76	16.067	LB FEB6

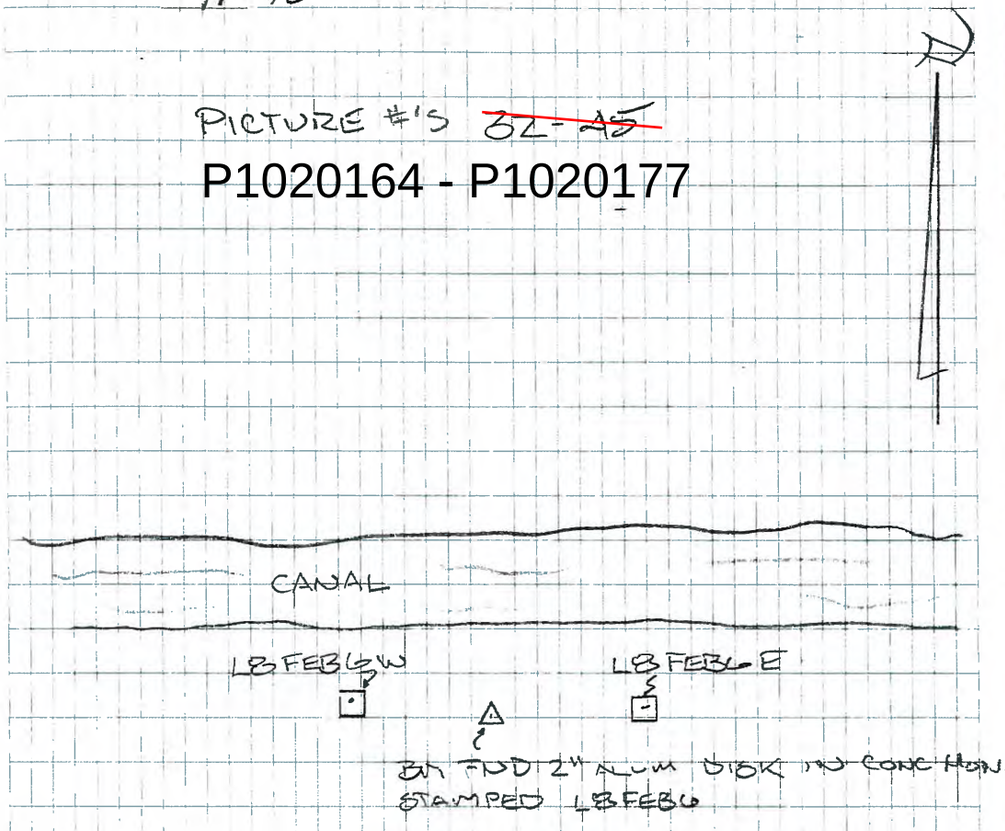
07050.33 826-42

RTK PT #'s

11-15

PICTURE #'S ~~82-85~~

P1020164 - P1020177



7-30-18 SFWMD

FERRIS LBFEB7

MCKINNEY RTK FILE 070503 3DF7301B

	+	HI	-	ELEV	
				NAVD88	
BM	5.83	22.087		16.257	FND 3" BRASS DISK IN CONC. W/ DIG PALM BCH CO TUNA
TP1			7.14	14.947	MARKER MARK ATOP WELL LBFEB7E
	6.93	21.877			
TP2			6.35	15.527	DG@ LBFEB7E
	6.51	22.037			
TP3			7.24	14.797	MARKER MARK ATOP WELL LBFEB7W
	7.08	21.877			
TP4			6.32	15.557	DG@ LBFEB7W
	6.49	22.047			
BM			5.79	16.257	TUNA

070503.33 826-43

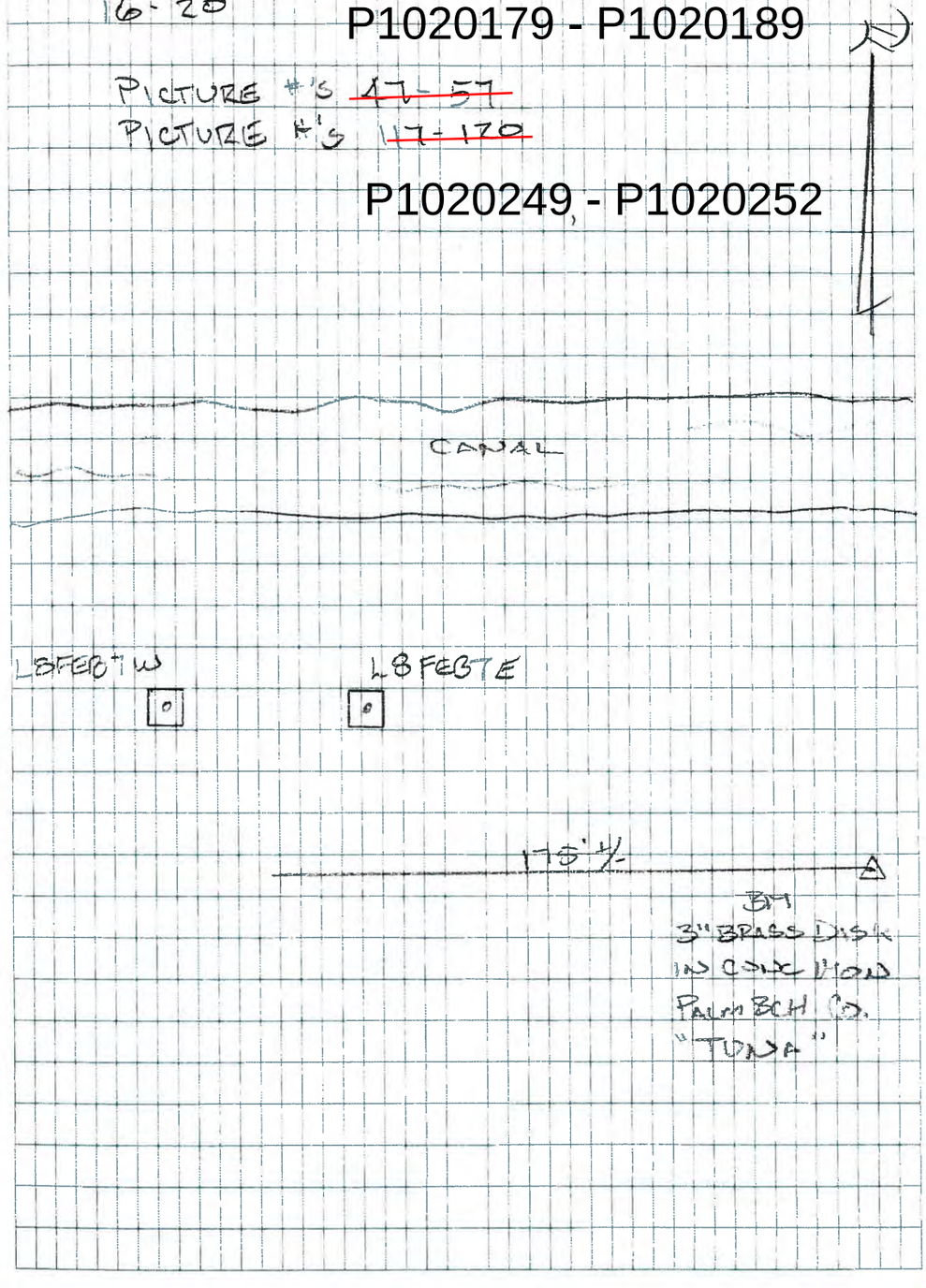
RTK PT #'s
16-20

P1020179 - P1020189

PICTURE #'s ~~47-57~~

PICTURE #'s ~~117-170~~

P1020249 - P1020252



7-30-18 SFWMD

FERELS L8DR1

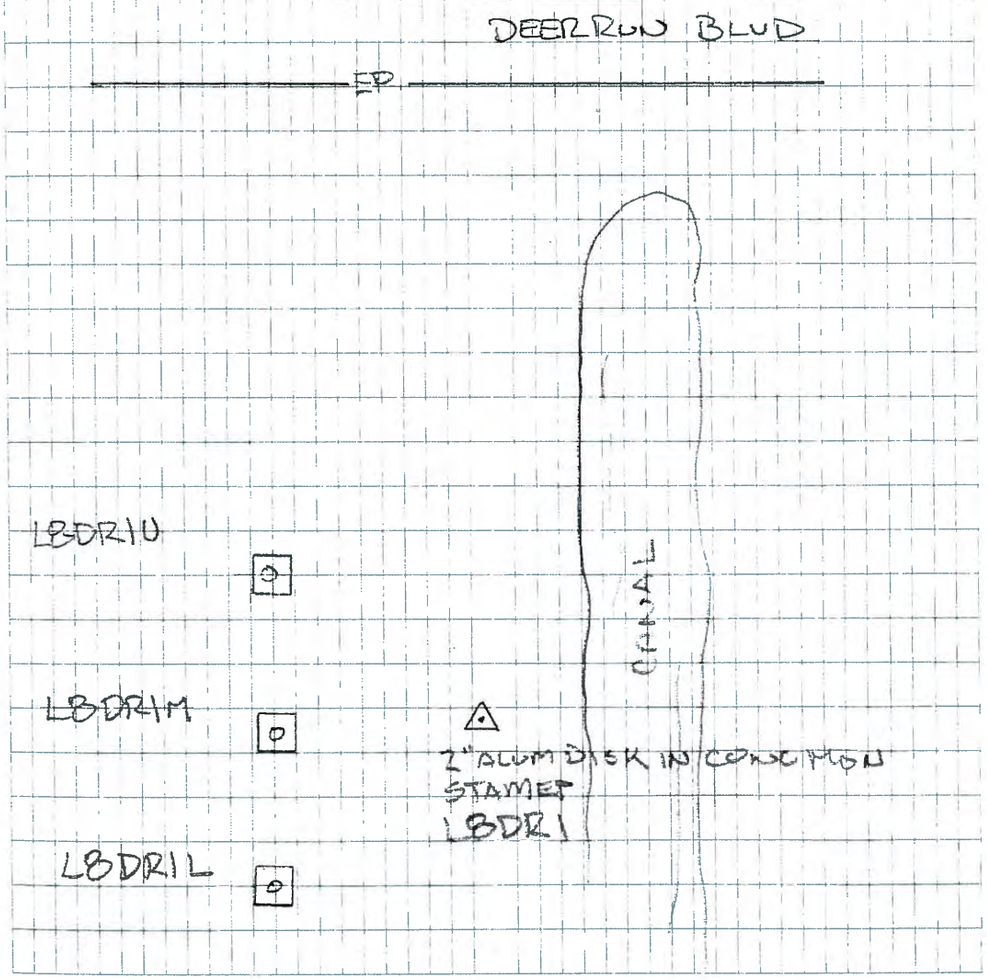
MCKINNEY RTK FILE 0705033DF73018 UNIT 12

	+	HI	−	NAD88 ELEV	
BM	4.83	19.625		14.795	FND 2" ALUM DISK IN CONC MON STAMP L8DR1
TP1			4.75	14.885	MARKER MARK ATOP WELL L8DR1L
	4.89	19.765			
TP2			4.79	14.975	NGE L8DR1L
	4.67	19.645			
TP3			4.95	14.695	MARKER MARK ATOP WELL L8DR1M
	5.12	19.815			
TP4			4.80	15.05	NGE L8DR1M
	4.60	19.685			
TP5			5.21	14.485	MARK ATOP WELL L8DR1U
	5.40	19.805			
TP6			5.00	14.805	NGE L8DR1U
	4.77	19.575			
BM			4.78	14.795	L8DR1

07050.33 826.44

RTK PT #'S
21-27

PICTURE #'S
~~59-77~~ P1020191 - P1020209



7-31-18 SFWMD

FEELS L8DR2

MCKINNEY RTK FILE 0705033DF73118 UNIT 12

	+	HI	-	NAVD88 ELEV	
BM	5.36	21.544		16.184	FND 2" ALUM DISK IN CONC MON STAMPED L8DR2
TP1			4.87	16.674	MARKER MARK ATOP WELL L8DR2U
	5.02	21.694			
TP2			4.64	17.054	NG @ L8DR2U
	4.72	21.774			
TP3			5.73	16.044	MARKER MARK ATOP WELL L8DR2M
	5.47	21.514			
TP4			5.05	16.464	NG @ L8DR2M
	5.17	21.634			
TP5			5.97	15.664	MARKER MARK ATOP WELL L8DR2L
	6.08	21.744			
TP6			5.55	16.194	NG @ L8DR2L
	5.40	21.594			
BM			5.41	16.184	L8DR2

07050.33 826-45

RTK PT #'s
28-34

PICTURE #'s
~~79-97~~ P1020211 - P1020229

7-31-18 SFWMD

FERELS PMW-1

McKINLEY RTK FILE 07050330F73118 UNIT 12

	+	HI	-	NAVD88 ELEV	
BM	5.36	16.344		10.984	3" BRASS DISK IN CONCRETE PALM BCH CO. GEODETIC 42
TP1			1.58	14.764	MARKER MARK AT EP WE LB PMW-1S
	1.45	16.214			
TP2			4.62	11.594	NG@ LB?PMW1S
	4.89	16.484			
TP3			2.04	14.444	MARKER MARK AT EP WELL LB PMW1D
	1.80	16.244			
TP4			4.51	11.734	
	4.62	16.354			
BM			5.37	10.984	PALM BCH CO GEODETIC 42

07050.33 826.46

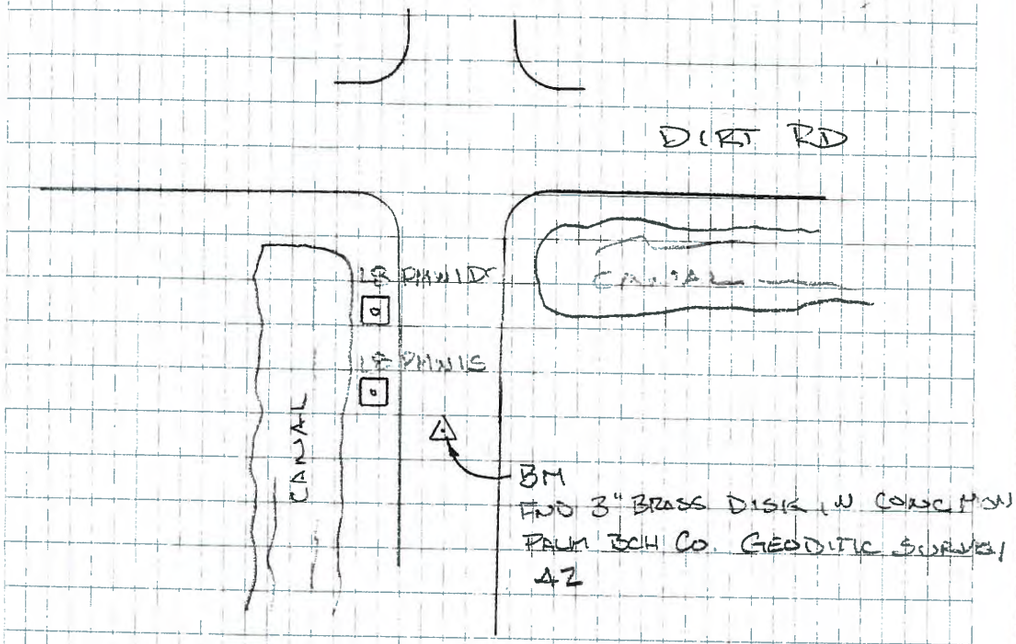
RTK PT #'s

35-39

PICTURE #'s

~~99-115~~

P1020231 - P1020247



8-6-18 CFWMD

FERELS L8 FEB3

McKINNEY RTK FILE 07050233LF 3-13 [illegible] 12

	+	HI	-	NAVD ELEV.	
BM	5.58	37.142		31.562	L8 FEB3
TP1			4.44	32.702	NG@ L8FEB3L
	4.31	37.012			
TP2			4.61	32.402	NG@ L8FEB3M
	4.82	37.222			
TP3			5.02	32.202	NG@ L8FEB3U
	5.12	37.322			
BM			5.76	31.562	L8 FEB3
	5.40	36.962			
TP4			0.90	36.062	MARKER MARK ATOP WELL L8FEB3U
	1.09	37.152			
TP5			1.09	36.062	MARKER MARK ATOP WELL L8FEB3M
	1.23	37.292			
TP6			0.95	36.342	MARKER MARK ATOP WELL L8 FEB3 L
	0.79	37.132			
BM			5.57	31.562	L8FEB3

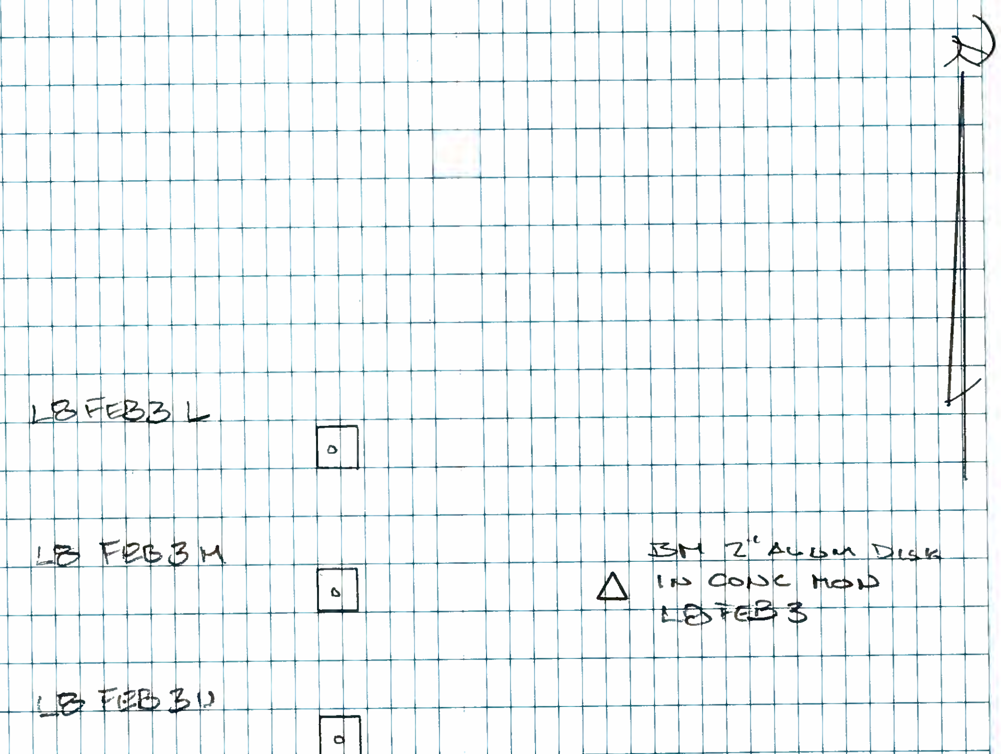
07050.33 836-47

RTK #'s
40-46

PICTURE #'s P1020389-P1020394

~~126-138~~ & ~~253-259~~

P1020262-P1020274



8-6-18 SFWMD

FERELS LBFEB2

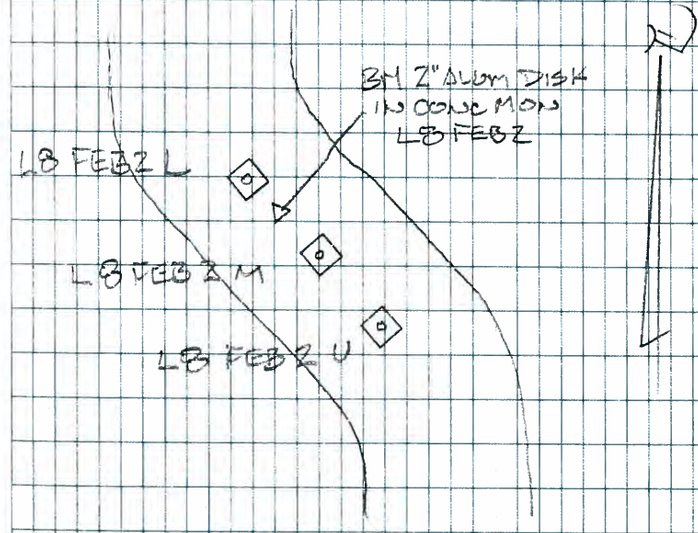
MCKINNEY RTK FILE 07050331F8618 UNIT 12

	+	HI	-	NAVD88 ELEV	
BM	6.24	34.949		28.709	LB FEB2
TP1			5.35	29.599	NGS LBFEB2 L
	5.20	34.799			
TP2			5.14	29.659	NGS LBFEB2 M
	5.26	34.919			
TP3			5.49	29.429	NGS LBFEB2 U
	5.33	34.759			
BM			6.05	28.709	LBFEB2
	5.80	34.509			
TP4			1.41	33.099	MARKER MARK STOP WELL LBFEB2 U
	1.42	34.519			
TP5			1.10	33.419	MARKER MARK STOP WELL LBFEB2 M
	0.95	34.369			
TP6			1.08	33.289	MARKER MARK STOP WELL LBFEB2 L
	1.19	34.479			
BM			5.78	28.699	

07050.33 8.16.18

RTK #'s
47 - 53

PICTURE #'s P1020396-P1020401
~~140 - 152~~ & ~~261 - 266~~
P1020276 - P1020288



8-6-18 SFWMD

FERES L8PZ5

MCKINNEY RTK FILE 07050333DF818 UNIT 12

NAVD88

	+	HI	-	ELEV	
BM	5.40	26.783		21.383	MAG-DISK LB16B6D SET IN CONC W/NGS WALL REF 458-72 (TP8)
TP1			2.57	24.213	MARKER MARK ATOP WELL L8PZ5D
	2.81	27.023			
TP2			6.16	20.863	NG@ L8PZ5D
	6.06	26.923			
TP3			2.81	24.113	MARKER MARK ATOP WELL L8PZ5C
	2.96	27.073			
TP4			6.20	20.873	NG@ L8PZ5C
	6.11	26.983			
TP5			2.95	24.033	MARKER MARK ATOP WELL L8PZ5B
	2.89	26.923			
TP6			6.13	20.793	NG@ L8PZ5B
	6.26	27.053			
TP7			3.06	23.993	MARKER MARK ATOP WELL L8PZ5A
	2.96	26.953			
TP8			6.15	20.803	NG@ L8PZ5B
	6.25	27.053			
BM			5.67	21.383	MAG-DISK LB16B6D REF. 458-72 (TP8)

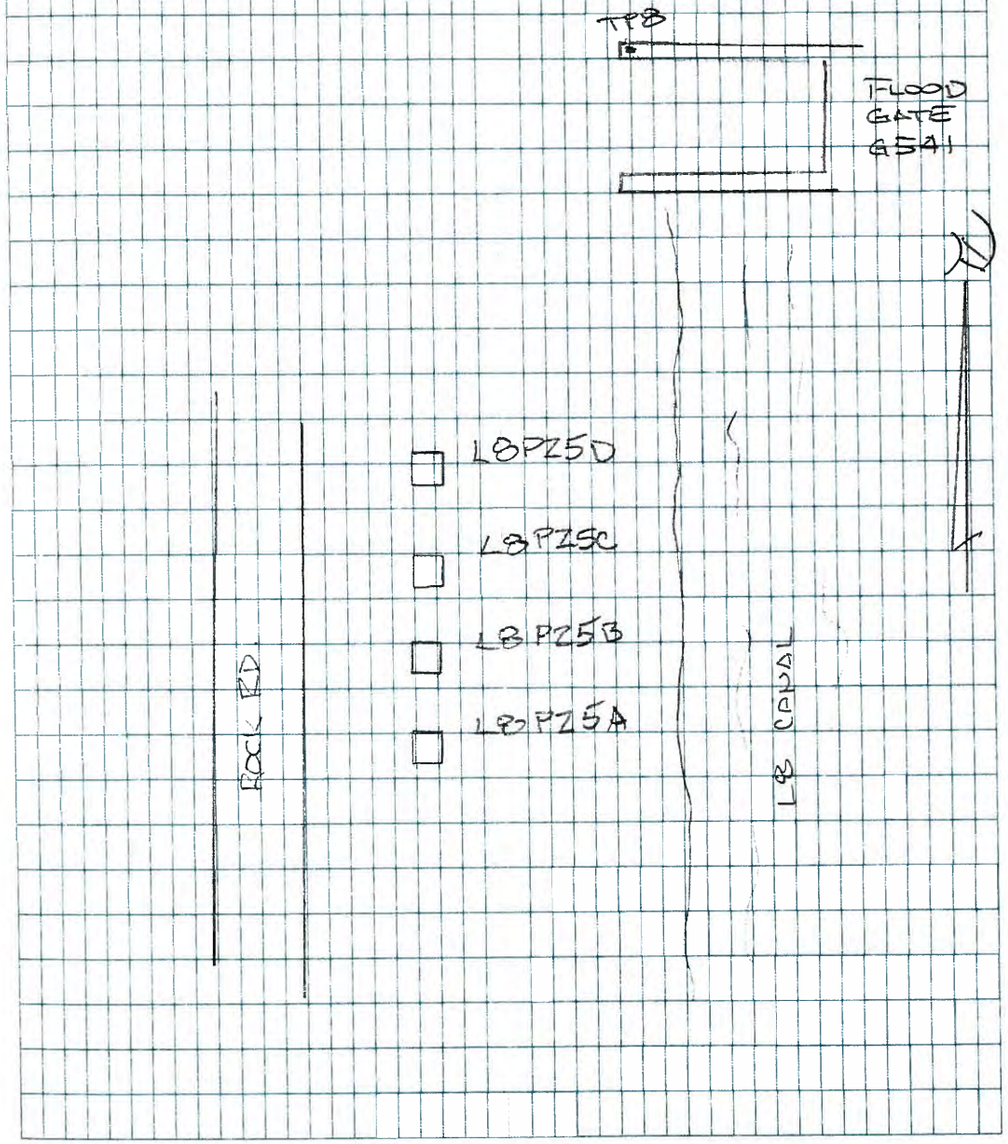
07050.33 B36-49

RTK #'s

54-62

PICTURE #'s

~~154-177~~ P1020290 - P1020313



8-6-18 SFWMD

FERELS L8 PZ8

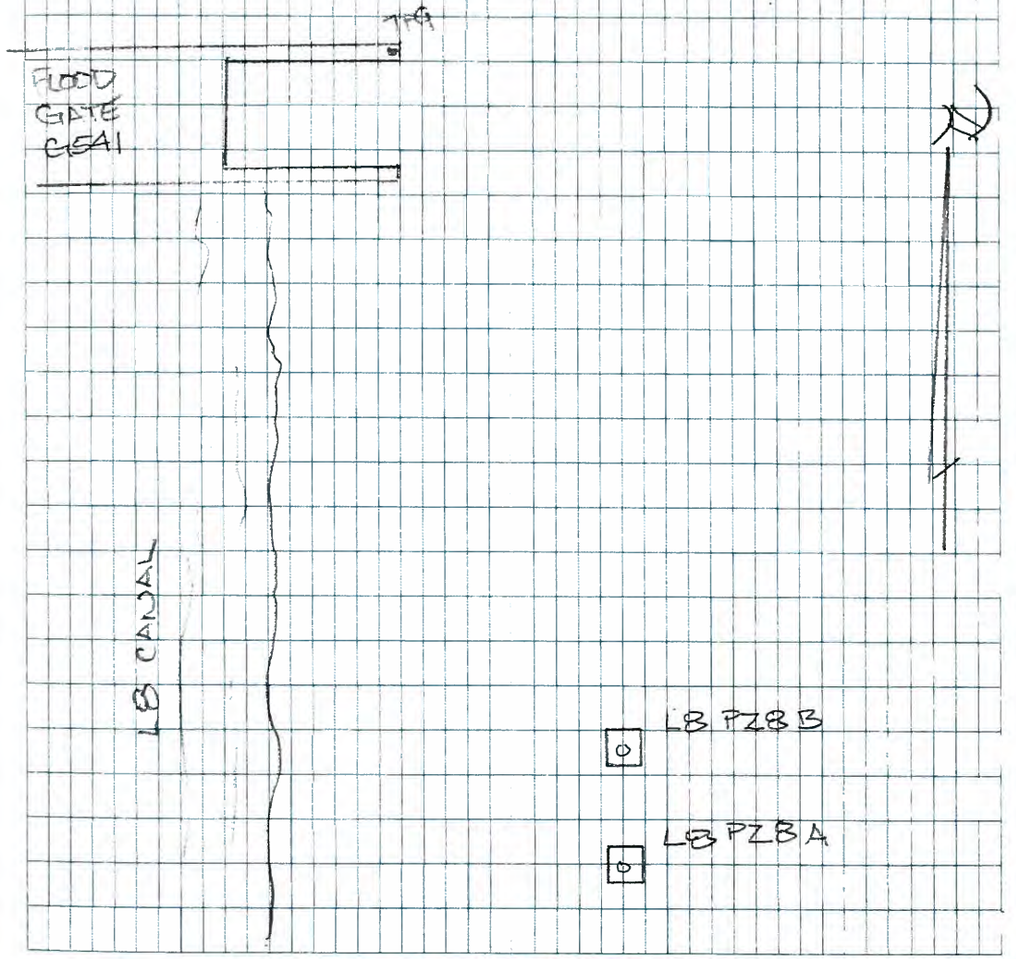
MCKINNEY RTK FILE 070533DF8618

	+	41	-	NAVD88 ELEV	
BM	7.79	29.373		21.583	MAG-DISK LB6860 SET IN CONC W/NW WALL REF 458.72 (TP9)
TP1			1.64	27.733	MARKER MARK NOD WELL L8PZ8B
	1.78	29.513			
TP2			5.10	24.413	NGE L8PZ8B
	5.21	29.623			
TP3			1.79	27.833	MARKER MARK AT SP WELL L8PZ8A
	1.70	29.533			
TP4			5.07	24.463	NGE L8PZ8A
	4.85	29.313			
BM			7.73	21.583	MAG-DISK (TP9)

07050.33 B36.50

RTK #'s
63-67

PICTURE #'s
~~179-192~~ P1020315 - P1020328



8.6.18 SFWMD

FEELS LB FEB1

McKINNEY RTK FILE 07050333DEB618 UNIT 12

	+	HI	-	NAVD88 ELEV	
BM	4.73	34.545		29.815	LB FEB1
TP1			4.20	30.345	NGS LB FEB1 U
	3.89	34.235			
TP2			3.74	30.495	NGS LB FEB1 M
	3.94	34.435			
TP3			3.81	30.625	NGS LB FEB1 L
	3.92	34.545			
BM			4.71	29.815	LB FEB1
	5.18	34.995			
TP4			0.93	34.065	MARKER MARK ATOP WELL LB FEB1 U
	0.85	34.915			
TP5			0.76	34.155	MARKER MARK ATOP WELL LB FEB1 M
	0.82	34.975			
TP6			0.70	34.275	MARKER MARK ATOP WELL LB FEB1 L
	0.48	34.755			
BM			4.94	29.815	LB FEB1

07050333 83%-5'

RTK #'s
68-74

PICTURE #'s P1020403 - P1020408
~~194-204~~ & ~~268-273~~
P1020330 - P1020342

LB FEB1 L

LB FEB1 M

LB FEB1 U

BM
2" ALUM DISK IN CONC MON
LB FEB1

8-6-18 SFWMD

FERELS L8 RES SITE 6

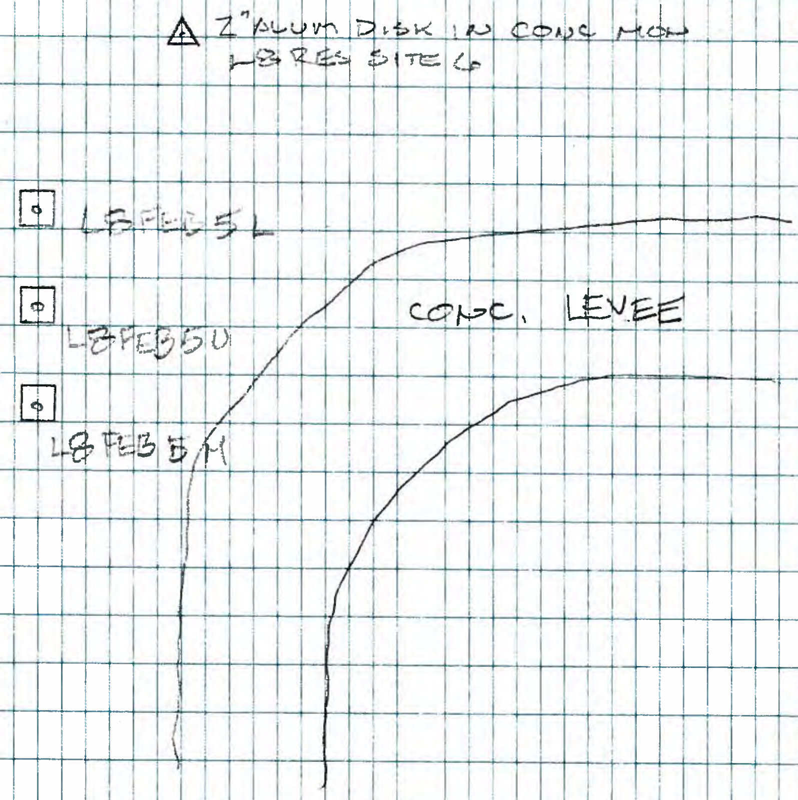
MCKINNEY RTK FILE 07050033DF8618 [illegible] 12

	+	HI	-	NAVD88 ELEV	
BM	4.16	19.904		15.744	2"ALUM DISK IN CONC MON. L8 RES SITE 6
TP1			4.33	15.574	NG@ L8FEB5L
	4.58	20.154			
TP2			4.88	15.274	NG@ L8FEB5U
	4.95	20.224			
TP3			5.08	15.144	NG@ L8 FEB5 M
	4.99	20.134			
BM			4.39	15.744	L8 RES SITE 6
	4.34	20.084			
TP4			0.77	19.314	MARKER MARK ATOP WELL L8FEB5 L
	0.88	20.194			
TP5			1.26	18.934	MARKER MARK ATOP WELL L8 FEB5 U
	1.13	20.064			
TP6			1.23	18.834	MARKER MARK ATOP WELL L8FEB5 M
	1.36	20.194			
BM			4.45	15.744	L8 RES SITE 6

07050.33 836.52

RTK #'s
75 - 81

PICTURE #'s P1020410 - P1020415
~~208 - 222 & 275 - 280~~
P1020344-P1020358



8-6-18 · SFWMD

~~FEBELS~~ LBFEB4

McKINNEY RTK FILE 07050331 8618 UNIT 2

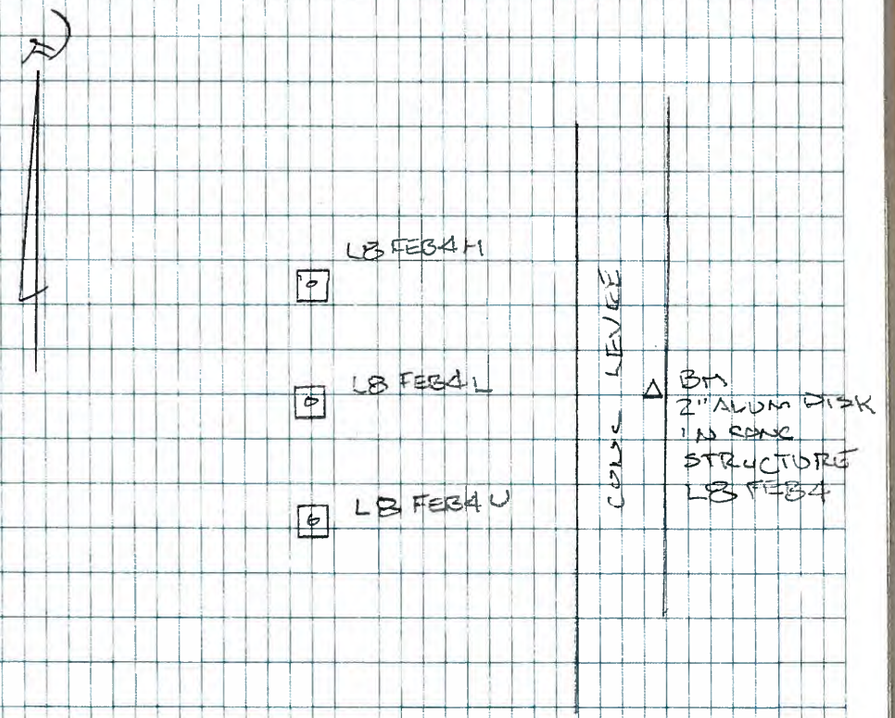
NAVD88

	+	HI	-	ELEV	
BM	2.35	20.397		18.047	LB FEB 4
TP1			5.06	15.337	NGS LBFEB4U
	5.15	20.487			
TP2			4.92	15.567	NGS LBFEB4L
	4.81	20.377			
TP3			5.01	15.367	NGS LBFEB4M
	5.10	20.467			
BM			2.42	18.047	LB FEB4
	2.24	20.287			
TP4			1.23	19.057	MARKER MARK ATOP WELL LBFEB4U
	1.34	20.397			
TP5			1.34	19.057	MARKER MARK ATOP WELL LBFEB4L
	1.23	20.287			
TP6			1.23	19.057	MARKER MARK ATOP WELL LBFEB4M
	1.34	20.397			
BM			2.35	18.047	LB FEB4

07050.33 886-53

RTK #'s
82-88

PICTURE #'s P1020417 - P1020422
~~224 230~~ ; ~~282 287~~
P1020360 - P1020372



6.15.18 SFWMD

FERELS

MCKINNEY

	+ HI	−	ELEV
BM	7.07		23.711
	5.90		
	4.73		
	5.90	29.611	
TP1		6.09	
	8.14	4.93	
	6.86	3.77	
	5.58	4.93	24.631
	6.86	3.541	
TP2		8.17	
	4.56	6.885	
	3.38	5.60	
	2.20	6.885	24.656
	3.38	28.036	
TP3		6.14	
	7.97	4.85	
	7.77	3.56	
	7.57	4.85	23.186
	7.77	30.956	
TP4		1.38	
	2.65	1.14	
	2.39	0.90	
	2.13	1.14	29.816
	2.39	32.206	

07050.33 836-01

FND S.S. ROD ENCASED IN PVC W/ LOGO CAP
M692 2007

SET LOG & NAIL

SET LOG & NAIL

SET LOG & NAIL

FND 2" ALUM DISK IN CMON
LB FEB1 ELEV. 29.821

6·15·18 SFWMD

FERELS

McKINNEY NAVD 88

	+	HI	-	ELEV
TP5			7.92	
	5.57		7.85	
	4.35		7.78	
	3.13		7.85	24.356
	4.35	28.706		
TP6			6.93	
	6.72		5.72	
	5.46		4.51	
	4.20		5.72	22.986
	5.46	28.446		
TP7			6.56	
	6.46		5.295	
	5.22		4.03	
	3.98		5.295	23.151
	5.22	28.371		
TP8			6.61	
	6.56		5.375	
	5.31		4.14	
	4.06		5.375	22.996
	5.31	28.306		
TP9			6.74	
	6.74		5.475	
	5.48		4.21	
	4.22		5.475	22.831
	5.48	28.311		

07050.33 8336-02

SET 60d NAIL

SET 60d NAIL

SET I.R.C

SET 60d NAIL

SET 60d NAIL

6-18-18 SFWMD

FERELS

McKINNEY

	HI	ELEV
TP10		6.58
	6.62	5.345
	5.36	4.11
	4.10	5.345 22.966
	5.36 28.326	
TP11		6.54
	6.645	5.305
	5.415	4.05
	4.185	5.305 23.021
	5.415 28.436	
TP12		6.855
	4.86	5.63
	3.865	4.405
	2.87	5.63 22.806
	3.865 26.671	
TP13		12.005
	7.56	10.925
	6.31	9.845
	5.06	10.925 15.746
	6.31 22.056	
TP14		6.24
	3.49	4.98
	3.28	3.72
	3.07	4.98 17.076
	3.28 20.356	

07050.33 836.93

SET LOQ NL

SET LOQ NL

SET LOQ NL

FND 2" ALUM DISK IN CMON LB TEES SITE 6
ELEV. = 15.74

SET NL

6-18-18 SFWMD

FERELS

McKINNEY

	+	HI	-	NAVD88 ELEV
TP15			6.385	
	7.65		6.15	
	6.41		5.915	
	5.17		6.15	14.206
	6.41	20.616		
TP16			6.725	
	6.41		5.465	
	5.21		4.205	
	4.01		5.46	15.151
	5.21	20.361		
TP17			6.595	
	6.865		5.395	
	5.625		4.195	
	4.385		5.395	14.966
	5.625	20.591		
TP18			6.64	
	6.52		5.38	
	5.275		4.12	
	4.03		5.38	15.211
	5.275	20.486		
TP19			6.51	
	6.60		5.26	
	5.40		4.01	
	4.20		5.26	15.226
	5.40	20.626		

07-050.33 836-04

FND 5/8" IRC LB 7232 (LB SITE 6 IRC)
ELEV. 14.20

SET NAIL

SET NAIL

SET NAIL

6-18-18 SFWMD

FERELS

McKinney

	+	HI	-	NAVD88 (ft)
TP20			6.795	
	6.885		5.59	
	5.635		4.385	
	4.385		5.59	15.036
	5.635	20.671		
TP21			6.80	
	6.83		5.555	
	5.585		4.31	
	4.34		5.555	15.116
	5.585	20.701		
TP22			6.57	
	6.49		5.33	
	5.28		4.09	
	4.07		5.33	15.371
	5.28	20.651		
TP23			6.58	
	6.58		5.36	
	5.29		4.14	
	4.00		5.36	15.291
	5.29	20.581		
TP24			5.195	
	8.055		3.88	
	6.745		2.565	
	5.435		3.88	16.701
	6.745	23.446		

07050.33

8836.05

SET IDL

SET IDL

SET IDL

SET IDL

SET IDL

6-18-18 SFWMD

FERELS

McKINNEY

	+ HI	-	NAVD88 ELEV
TP25		6.73	
	5.91	5.395	
	4.685	4.06	
	3.46	5.395	18.051
	4.685	22.736	
TP26		6.595	
	7.25	5.375	
	6.02	4.155	
	4.79	5.375	17.361
	6.02	23.381	
TP27		6.905	
	6.91	5.665	
	5.66	4.425	
	4.41	5.665	17.716
	5.66	23.376	
TP28		7.63	
	7.59	6.38	
	6.33	5.13	
	5.07	6.38	16.996
	6.33	23.326	
TP29		7.13	
	7.16	5.86	
	5.89	4.59	
	4.62	5.86	17.416
	5.89	23.356	

07050.33 836-06

FND 2" ALUM DISK IN CONC STRUCTURE
LB FEB 6 ELEV. 18.053

SET N.L.

FND I.R.

SET NL

SET NL

6.20.18 SFWMD

FERRIS

MCKINNEY NAVD88

+ HI - ELEV

TP30 7.24

7.29 5.985

6.035 4.73

4.78 5.985 17.371

6.035 23.406

TP31 6.64

6.42 5.375

5.215 4.11

3.95 5.375 18.031

5.215 23.246

TP32 6.49

6.76 5.235

5.44 3.98

4.18 5.235 18.011

5.44 23.451

TP33 6.745

6.82 5.47

5.495 4.195

4.17 5.47 17.981

5.495 23.476

TP34 6.875

6.68 5.52

5.395 4.165

4.11 5.52 17.956

5.395 23.351

07050.33 836.07

SET NVL

SET NVL

SET NVL

SET NVL

SET NVL

6-20-18 SFWMD

FERRELS

McKINNEY NAVD88

\+ HI - ELEV

TP35		6.68	
	6.435	5.295	
	5.155	3.91	
	3.875	5.295	18.056
	5.155	23.211	

TP36		2.53	
	7.57	1.29	
	6.30	0.05	
	5.03	1.29	21.921
	6.30	28.221	

TP37		6.60	
	6.725	5.31	
	5.37	4.02	
	4.015	5.31	22.911
	5.37	28.281	

TP38		6.49	
	6.255	5.13	
	4.92	3.77	
	3.585	5.13	23.151
	4.92	28.071	

TP39		6.23	
	6.09	4.88	
	4.84	3.53	
	3.59	4.88	23.191
	4.84	28.031	

07050.33 8336-08

SET MAG. DISK

SET MAG. DISK

SET 60d NAIL

SET 60d NAIL

SET 60d NAIL

6·21·18 SFWMD

FERELS

McKinney

	+ 41 -	NAVD88 ELEV
TP40		6.26
	6.57	5.01
	5.32	3.76
	4.07	5.01 23.021
	5.32 28.341	
TP41		6.44
	6.26	5.18
	5.01	3.92
	3.76	5.18 23.161
	5.01 28.171	
TP42		6.34
	6.375	5.11
	5.20	3.88
	4.025	5.11 23.061
	5.20 28.261	
TP43		7.49
	3.32	6.31
	2.82	5.13
	2.32	10.31 21.951
	2.82 24.771	
TP44		7.04
	8.28	6.55
	7.20	6.06
	6.12	6.55 18.221
	7.20 25.421	

07050.33 B36-09

SET 60d NL

SET 60 d NL

SET 60 d NL

SET 60d NL

SET 60d NL

6-21-18 SFWMD

FERELS

McKINNEY NAD 83

	+	NI	-	ELEV
TP45				4.21
	4.84			3.145
	4.50			2.05
	4.16			3.145 22.276
	4.50	26.776		
TP46				4.45
	5.06			4.03
	4.68			3.61
	4.30			4.03 22.746
	4.68	27.426		
TP47				5.565
	7.70			5.19
	6.47			4.815
	5.24			5.19 22.736
	6.47	28.706		
TP48				6.69
	6.14			5.455
	4.89			4.22
	3.64			5.455 23.251
	4.89	28.141		
TP49				6.64
	7.215			5.37
	5.92			4.10
	4.625			5.37 22.771
	5.92	28.191		

07050.33 B36-10

SET 60 d NL

FND 3" BRASS DISK PVF 15 2007
ELEV. = 22.752

SET 60 d NL

SET 60d NL

SET 60d NL

6.21.18 SFWMD

FERELS

McKINSEY NAVD88

	+	HI	-	ELEV
TP50			7.06	
	6.73		5.77	
	5.45		4.48	
	4.17		5.77	22.92'
	5.45	28.37'		
TP51			6.675	
	6.59		5.395	
	5.315		4.115	
	4.04		5.395	22.976
	5.315	28.291		
TP52			6.60	
	6.37		5.32	
	5.05		4.04	
	3.73		5.32	22.97'
	5.05	28.02'		
TP53			6.81	
	4.26		5.50	
	2.91		4.19	
	1.56		5.50	22.52'
	2.91	25.43'		
BM			11.12	
			9.72	
			8.32	
			9.72	15.71'

07050.33 836-11

SET 60d NL

SET 60d NL

SET 60d NL

SET 60d NL

FND SS ROD INCASED IN PVC W/ LOGO CAP
-.69 2007 ELEV. = 15.702

6-22-18 SFWMD

FERRELS CONT. FROM FB 458 Pg. 77

MCILVAINEY HANDBS

	+	HI	-	ELEV
TP34	7.035			16.19
	5.595			
	4.155			
	5.595	21.785		
TP35				7.40
	6.655			5.955
	5.415			4.51
	4.175			5.955 15.83
	5.415	21.245		
TP36				6.02
	6.955			4.79
	5.695			3.56
	4.435			4.79 16.455
	5.695	22.15		
TP37				6.535
	5.82			5.26
	4.56			3.985
	3.30			5.26 16.89
	4.56	21.45		
TP38				6.88
	6.85			5.60
	5.11			4.32
	3.87			5.60 15.85
	5.11	20.96		

07050.33 836-12

FND 2" ALUM DISK IN C-MON. L8PR2

SET 60d NL

SET 60d NL

SET 60d NL

SET 60d NL

6-22-18 SEWMD

FERELS

McKinney +	41 -	NAVD88 ELEV.
TP39		6.11
6.00		4.865
4.965		3.62
3.93		4.365 16.095
4.965 21.06		
TP40		6.355
5.33		5.31
4.89		4.265
3.85		5.31 15.75
4.59 20.34		
TP41		5.71
6.695		4.93
5.405		4.15
4.115		4.93 15.41
5.405 20.815		
TP42		6.155
8.03		4.845
6.84		3.535
5.65		4.845 15.97
6.84 22.81		
TP43		5.83
4.995		4.64
3.81		3.45
2.625		4.64 15.17
3.81 21.98		

07050.33 836-13

SET 60d NL

SET 60d NL

SET 60d NL

SET 60d NL

SET 60d NL

6-25-13 SFWMD

FERELS

McKINNEY

OREFFE

	+	HI	-	ELEV
TP50		5.15		
	5.955	4.20		
	4.885	3.25		
	3.815	4.20	17.955	
	4.885	22.84		
TP51		5.24		
	4.755	4.165		
	3.54	3.09		
	2.325	4.166	18.675	
	3.54	22.25		
TP52		6.54		
	5.785	5.33		
	5.305	4.12		
	4.825	5.33	16.885	
	5.305	22.19		
TP53		5.61		
	6.13	5.11		
	4.95	4.61		
	3.77	5.11	17.08	
	4.95	22.03		
TP54		6.22		
	7.30	5.03		
	6.20	3.84		
	5.10	5.03	17.00	
	6.10	23.20		

07050.23

SET LOC & NL

SET NL

SET LOC NL

FND 2" ALUM DISK IN C MON
LB WF 1 ELEV. 17.082

SET LOC & NL

834-15

6.25.18 SFWMD

FERELS

McKINNEY

O'KEEFE

	+	HI	-	ELEV
TP60			6.37	
	6.44		5.21	
	5.225		4.05	
	4.01		5.21	18.005
	5.225	23.23		
TP61			6.166	
	6.03		5.45	
	4.845		4.24	
	3.666		5.45	17.78
	4.845	22.625		
TP62			6.36	
	6.54		5.17	
	5.345		3.98	
	4.16		5.17	17.455
	5.345	22.80		
TP63			6.57	
	6.83		5.39	
	5.31		4.21	
	4.09		5.39	17.41
	5.31	22.72		
TP64			8.40	
	6.29		7.19	
	5.05		5.98	
	3.81		7.19	15.53
	5.05	20.58		

07.050.33 836-17

SET NAIL

SET NAIL

SET NAIL

SET NAIL

SET 60 & NAIL

6-28-18 SFWMD

FERELS

McKINNEY

	+	HI	-	NAVD88 ELEV.
TP65				7.285
	7.415			5.97
	6.21			4.655
	5.005			5.97 14.61
	6.21	20.82		
TP66				6.82
	7.36			5.63
	6.16			4.44
	4.96			5.63 15.19
	6.16	21.35		
TP67				5.235
	9.80			4.18
	8.79			3.125
	7.78			4.18 17.17
	8.79	25.96		
TP68				4.06
	5.13			3.055
	4.01			2.05
	2.89			3.055 22.905
	4.01	26.915		
TP69				5.47
	6.285			4.35
	5.035			3.23
	3.785			4.35 22.565
	5.035	27.60		

07050.33

8-30-18

SET IRC

SET LOD NL

SET LOD NL

SET LOD NL

6.28.18 SFWMD

FERELS

McKINNEY

	+	HI	-	ELEV.
TP70				10.33
	4.275			9.07
	3.205			7.81
	2.135			9.07
	3.205	21.735		18.53
BM				7.16
				6.02
				4.88
				6.02
				15.715

07050.33 836-19

SET GOQNL

FND S.S. ROD W/CASED IN PVC W/ LOCKD CAP
1.692 ELEV. = 15.702

7-16-18 SFWMD

FERGS

McKINNEY

	+	HI	-	ELEV
BM	3.58			18.051
	3.21			
	2.84			
	3.21	21.26		
TP1			6.99	
	4.81		6.68	
	4.56		6.37	
	4.31		6.68	14.58
	4.56	19.14		
TP2			5.85	
	6.53		5.49	
	6.395		5.13	
	6.26		5.49	13.65
	6.395	20.046		
TP3			5.30	
	6.13		5.13	
	5.37		4.96	
	4.61		5.13	14.916
	5.37	20.286		
TP4			7.65	
	5.79		6.52	
	4.88		5.39	
	3.97		6.52	13.766
	4.88	18.646		

Φ7050.33 836-20

FND 2" ALUM DISK IN CONC STRUCTURE
LBFEB4 ELEV. 18.051 (REF TP25 pg. 06)

SET NL

SET NL

SET NL

SET NL

7.16.18 SFWMD

FERELS

McKinney

	+ HI	- NAVD88 ELEV
TP5		9.63
	6.33	8.695
	5.165	7.76
	4.00	8.695 9.951
	5.165 15.116	
TP6		6.94
	6.16	5.78
	4.855	4.62
	3.55	5.78 9.336
	4.855 14.191	
TP7		6.47
	6.24	5.145
	5.01	3.82
	3.78	5.145 9.046
	5.01 14.056	
TP8		6.74
	6.815	5.505
	5.075	4.27
	3.835	5.505 8.551
	5.075 13.626	
TP9		6.19
	7.25	4.965
	5.935	3.74
	4.62	4.965 8.661
	5.935 14.596	

J1050.33 836+21

SET 600 NL

SET 600 NL

SET 600 NL

SET 600 NL

SET 600 NL

7-16-18 SFWMD

FERELS

McKINLEY

	+	HI	-	NAVD88 ELEV
TP10			6.03	
	6.72		4.71	
	5.45		3.39	
	4.18		4.71	9.886
	5.45	15.336		
TP11			6.59	
	6.65		5.33	
	5.38		4.07	
	4.11		5.33	10.006
	5.38	15.386		
TP12			6.63	
	6.80		5.36	
	5.54		4.09	
	4.28		5.36	10.026
	5.54	15.566		
TP13			6.71	
	6.285		5.46	
	5.035		4.21	
	3.785		5.46	10.186
	5.035	15.141		
TP14			7.51	
	5.86		6.26	
	4.935		5.01	
	4.01		6.26	8.881
	4.935	13.816		

07050.33 B36-22

SET GOOD NL

SET GOOD NL

SET GOOD NL

SET GOOD NL

SET GOOD NL

7-16-18 SFWMD

FERELS

MCKINNEY NAUD88

\+ HI − ELEV

TP15		7.39	
	10.78	6.50	
	10.555	5.61	
	10.33	6.50	7.316
	10.555 17.871		
TP16		7.18	
	6.96	6.88	
	6.65	6.58	
	6.35	6.88	10.991
	6.65 17.641		
TP17		10.53	
	7.61	10.31	
	6.375	10.09	
	5.14	10.31	7.331
	6.375 13.706		
TP18		5.57	
	6.98	4.32	
	5.71	3.07	
	4.44	4.32	9.386
	5.71 15.096		
TP19		6.145	
	6.14	4.865	
	4.855	3.585	
	3.57	4.865	10.231
	4.855 15.086		

07050.33 836.23

SET 60d NL

FND BRASS DISK IN CMON (PALM BCH CO. (42) GEODITIC SURVEY)
@ WELL SITE PMW-1

SET 60d NL

SET 60d NL

SET 60d NL

7-17-18 SFWMD

FERELS

McKINNEY +	HI	-	NAVD88 ELEV
TP20		5.95	
5.77		4.67	
4.55		3.39	
3.33		4.67	10.416
4.55	14.96		
TP21		5.94	
5.805		4.73	
4.595		3.52	
3.385		4.73	10.336
4.595	14.83		
TP22		6.37	
5.45		5.17	
4.18		3.97	
2.91		5.17	9.661
4.18	13.84		
[illegible]		6.59	
6.14		5.33	
4.99		4.07	
3.84		5.33	8.511
4.99	13.501		
[illegible]		6.12	
6.67		4.97	
5.435		3.82	
4.20		4.97	8.531
5.435	13.966		

07050.33 8330-24

SET GOD NL

SET GOD NL

SET GOD NL

SET GOD NL

SET GOD NL

7-17-18 SFWMD

FERELS

McKINNEY

	+	41	-	NAVD 88 ELEV
TP25			6.49	
	6.42		5.26	
	5.10		4.03	
	3.78		5.26	8.706
	5.10	13.806		
TP26			5.48	
	6.53		4.17	
	5.32		2.86	
	4.11		4.17	9.636
	5.32	14.956		
TP27			5.72	
	8.12		4.51	
	6.87		3.30	
	5.62		4.51	10.446
	6.87	17.316		
TP28			6.39	
	7.10		5.15	
	5.85		3.91	
	4.60		5.15	12.166
	5.85	18.016		
TP29			6.375	
	6.35		5.125	
	5.115		3.875	
	3.88		5.125	12.891
	5.115	18.006		

07050.33 836.25

SET 60d NL

SET 60d NL

SET 60d NL

SET 60d NL

SET 60d NL

7-17-18 SFWMD

FEDELS

McKINDLEY NAVD88

	+ HI	- ELEV	
TP30		6.23	
	6.435	5.01	
	5.155	3.79	
	3.875	5.01	12.996
	5.155	18.151	
TP31		6.52	
	7.475	5.255	
	6.17	3.99	
	4.865	5.255	12.896
	6.17	19.066	
TP32		5.86	
	9.435	4.56	
	3.185	3.26	
	6.935	4.56	14.506
	3.185	22.691	
TP33		5.48	
	6.91	4.22	
	5.69	2.96	
	4.47	4.22	18.471
	5.69	24.161	
TP34		6.68	
	6.30	5.46	
	5.05	4.24	
	3.80	5.46	18.701
	5.05	23.751	

07050.83 B36-26

SET 60d NL

SET IRC

SET 60d NL

SET 60d NL

SET 60d NL

7-18-18 SFWMD

FERELS

MCKINLEY

	+	HI	-	NAVD88 ELEV
TP35			5.895	
	6.785		4.65	
	5.51		3.405	
	4.235		4.65	19.101
	5.51	24.611		
TP36			6.07	
	5.945		4.78	
	4.71		3.49	
	3.475		4.78	19.831
	4.71	24.541		
TP37			6.83	
	3.57		5.57	
	2.39		4.31	
	1.21		5.57	18.971
	2.39	21.361		
TP38			4.08	
	4.60		2.86	
	4.11		1.64	
	3.62		2.86	18.501
	4.11	22.611		
TP39			6.65	
	6.80		6.16	
	5.51		5.67	
	4.22		6.16	16.451
	5.51	21.961		

07050.33 836-27

SET GOD NL

SET GOD NL

SET IRC @ WELL SITE PMW 106
(YELLOW CAP)

SET IRC @ WELL SITE PMW 106
(BLUE CAP)

SET ½" IR

8-6-18 SFWMD

FERRELS PMW-103

MCKINLEY RTK FILE 07050330F8618 UNIT 12

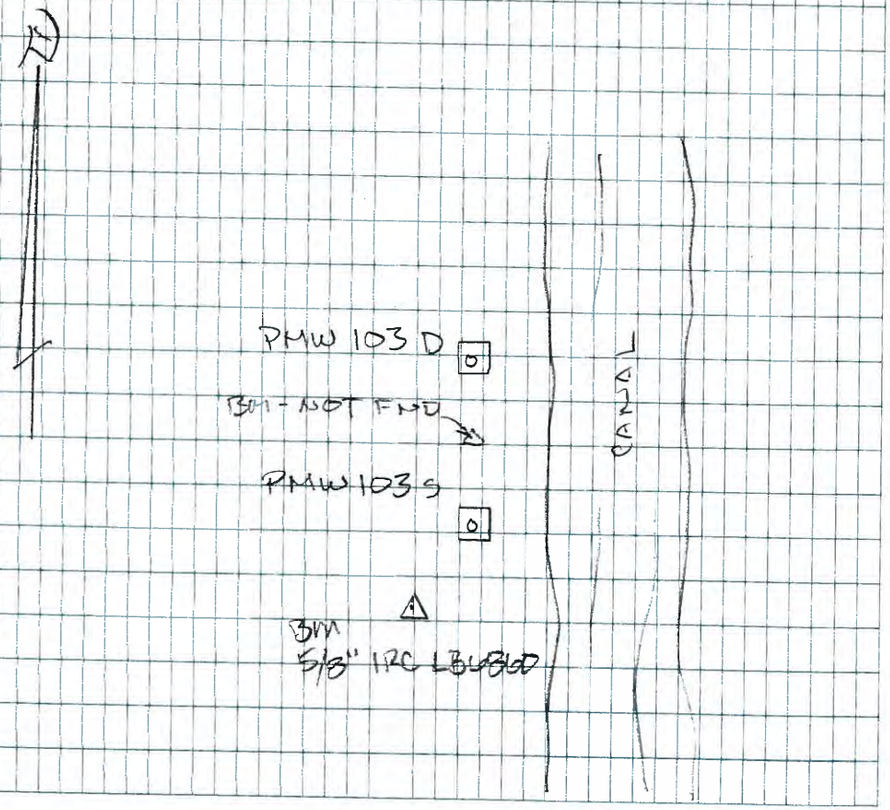
NAVD88

	+	HI	-	ELEV	
BM	4.72	22.617		17.897	5/8" IRC LB6860
TP1			1.85	20.767	MARKER MARK ATOP WELL PMW103S
	1.94	22.707			
TP2			4.34	18.367	NGS PMW103S
	4.24	22.607			
TP3			2.01	20.597	MARKER MARK ATOP WELL PMW103D
	2.13	22.727			
TP4			4.19	18.537	NGS PMW103D
	4.10	22.637			
BM			4.74	17.897	5/8" IRC LB6860

07050.33 836-54

RTK #'s
89-93

PICTURE #'s
~~238-251~~ P1020374 - P1020387



8-7-18 SFWMD

FERRIS PMW 106

MCKINLEY RTK FILE 07050331 8/18 UNIT 12

NAVD88

	+	HI	-	ELEV	
BM	2.11	21.069		18.959	5/8" IRC LB6860
TP1			3.56	17.509	MARKER MARK ATOP WELL PMW1065
	4.06	21.569			
TP2			6.18	15.389	NGC PMW1065
	6.27	21.659			
TP3			3.83	17.829	MARKER MARK ATOP WELL PMW106D
	3.75	21.579			
TP4			5.83	15.749	NGC PMW106D
	5.92	21.669			
BM			2.71	18.959	5/8" IRC LB6860

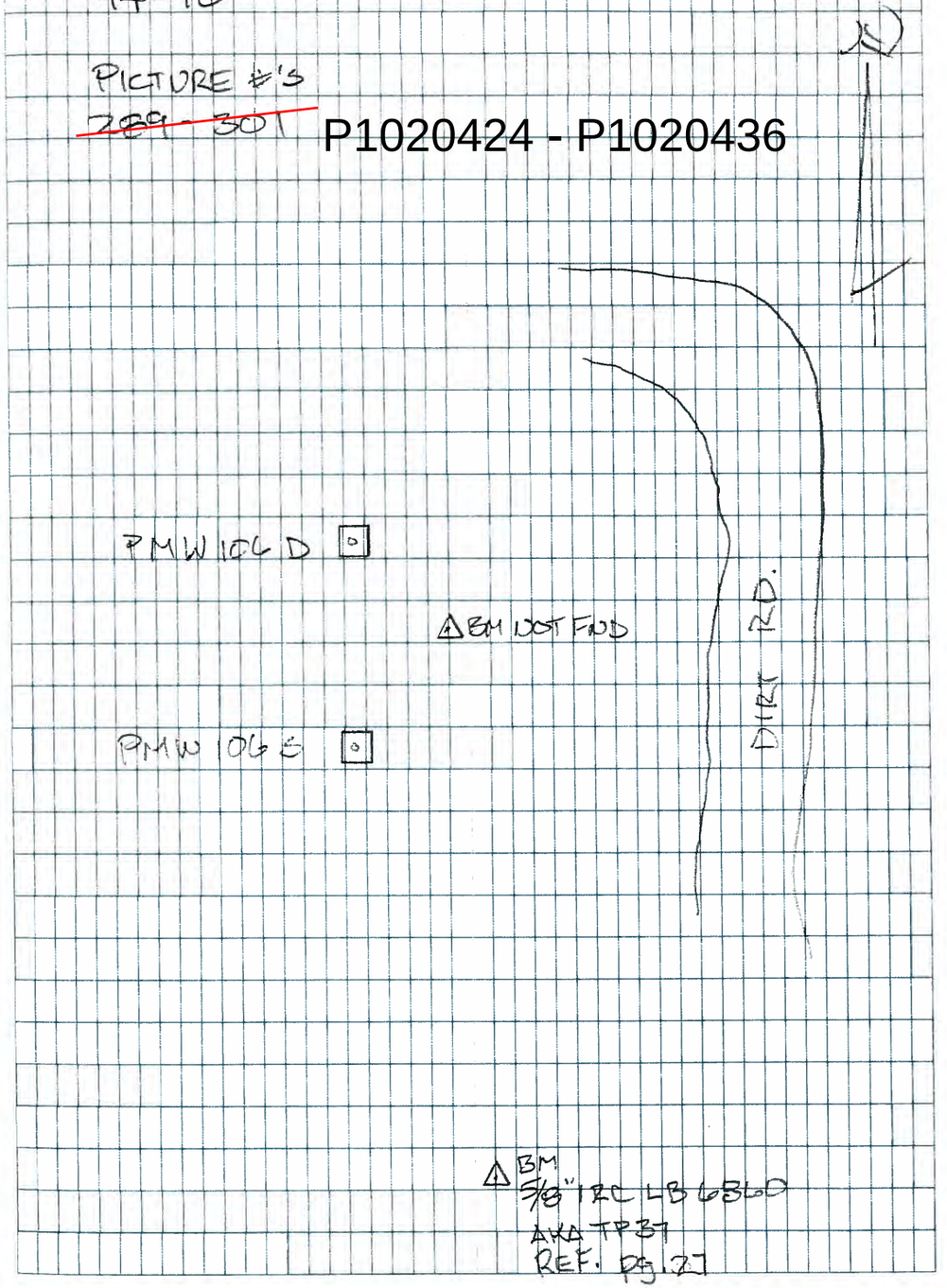
07050.33 836-55

RTK 5's

94-98

PICTURE #'s

~~289 - 301~~ P1020424 - P1020436



The NGS Data Sheet

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

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PROGRAM = datasheet95, VERSION = 8.12.5
1        National Geodetic Survey,   Retrieval Date = AUGUST 15, 2018
 AD8198 ***********************************************************************
 AD8198  DESIGNATION -  J 413
 AD8198  PID         -  AD8198
 AD8198  STATE/COUNTY-  FL/PALM BEACH
 AD8198  COUNTRY     -  US
 AD8198  USGS QUAD   -  LOXAHATCHEE (1984)
 AD8198
 AD8198                        *CURRENT SURVEY CONTROL
 AD8198  ______________________________________________________________________
 AD8198* NAD 83(2011) POSITION- 26 41 02.71032(N) 080 18 53.34767(W)   ADJUSTED
 AD8198* NAD 83(2011) ELLIP HT-   -21.016 (meters)        (06/27/12)   ADJUSTED
 AD8198* NAD 83(2011) EPOCH   -  2010.00
 AD8198* NAVD 88 ORTHO HEIGHT -     4.691 (meters)       15.39  (feet) ADJUSTED
 AD8198  ______________________________________________________________________
 AD8198  GEOID HEIGHT    -        -25.683 (meters)                     GEOID12B
 AD8198  NAD 83(2011) X  -    959,385.928 (meters)                     COMP
 AD8198  NAD 83(2011) Y  - -5,621,392.641 (meters)                     COMP
 AD8198  NAD 83(2011) Z  -  2,846,974.071 (meters)                     COMP
 AD8198  LAPLACE CORR    -         -2.02  (seconds)                    DEFLEC12B
 AD8198  DYNAMIC HEIGHT  -          4.683 (meters)       15.36  (feet) COMP
 AD8198  MODELED GRAVITY -    979,111.5   (mgal)                       NAVD 88
 AD8198
 AD8198  VERT ORDER      -  FIRST     CLASS II
 AD8198
 AD8198  Network accuracy estimates per FGDC Geospatial Positioning Accuracy
 AD8198  Standards:
 AD8198         FGDC (95% conf, cm)     Standard deviation (cm)     CorrNE
 AD8198            Horiz  Ellip           SD_N   SD_E   SD_h      (unitless)
 AD8198  ------------------------------------------------------------------
 AD8198  NETWORK    1.71   2.53           0.71   0.69   1.29     -0.06933359
 AD8198  ------------------------------------------------------------------
 AD8198  Click here for local accuracies and other accuracy information.
 AD8198
 AD8198
 AD8198.The horizontal coordinates were established by GPS observations
 AD8198.and adjusted by the National Geodetic Survey in June 2012.
 AD8198
 AD8198.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
 AD8198.been affixed to the stable North American tectonic plate. See
 AD8198.NA2011 for more information.
 AD8198
 AD8198.The horizontal coordinates are valid at the epoch date displayed above
 AD8198.which is a decimal equivalence of Year/Month/Day.
 AD8198
 AD8198.The orthometric height was determined by differential leveling and
 AD8198.adjusted by the NATIONAL GEODETIC SURVEY
 AD8198.in September 1992.
 AD8198
 AD8198.Significant digits in the geoid height do not necessarily reflect accuracy.
 AD8198.GEOID12B height accuracy estimate available here.
 AD8198
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AD8198.Photographs are available for this station.
AD8198
AD8198.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AD8198
AD8198.The Laplace correction was computed from DEFLEC12B derived deflections.
AD8198
AD8198.The ellipsoidal height was determined by GPS observations
AD8198.and is referenced to NAD 83.
AD8198
AD8198.The dynamic height is computed by dividing the NAVD 88
AD8198.geopotential number by the normal gravity value computed on the
AD8198.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD8198.degrees latitude (g = 980.6199 gals.).
AD8198
AD8198.The modeled gravity was interpolated from observed gravity values.
AD8198
AD8198. The following values were computed from the NAD 83(2011) position.
AD8198

		North	East	Units	Scale Factor	Converg.
AD8198;SPC FL E	-	260,585.648	268,193.560	MT	0.99999857	+0 18 27.7
AD8198;SPC FL E	-	854,938.08	879,898.37	sFT	0.99999857	+0 18 27.7
AD8198;UTM 17	-	2,951,628.719	568,170.292	MT	0.99965737	+0 18 27.7

AD8198

		Elev Factor	x	Scale Factor	=	Combined Factor
AD8198!SPC FL E	-	1.00000330	x	0.99999857	=	1.00000187
AD8198!UTM 17	-	1.00000330	x	0.99965737	=	0.99966067

AD8198
AD8198_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK6817051628(NAD 83)
AD8198
AD8198 SUPERSEDED SURVEY CONTROL
AD8198

AD8198 NAD 83(2007)-	26 41 02.71048(N)	080 18 53.34826(W)		AD(2002.00)	0
AD8198 ELLIP H (02/10/07)	-21.000 (m)			GP(2002.00)	
AD8198 NAD 83(1999)-	26 41 02.71075(N)	080 18 53.34845(W)		AD( )	1
AD8198 ELLIP H (12/12/02)	-21.023 (m)			GP( )	3 1
AD8198 NAVD 88	4.69 (m)	15.4	(f)	LEVELING	3
AD8198 NGVD 29 (09/01/92)	5.143 (m)	16.87	(f)	ADJUSTED	1 2

AD8198
AD8198.Superseded values are not recommended for survey control.
AD8198
AD8198.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD8198.See file dsdata.pdf to determine how the superseded data were derived.
AD8198
AD8198_MARKER: F = FLANGE-ENCASED ROD
AD8198_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AD8198_STAMPING: J 413 1992
AD8198_MARK LOGO: NGS
AD8198_PROJECTION: FLUSH
AD8198_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AD8198_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AD8198_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD8198+SATELLITE: SATELLITE OBSERVATIONS - August 11, 2016
AD8198_ROD/PIPE-DEPTH: 7.4 meters
AD8198

AD8198 HISTORY	- Date	Condition	Report By	
AD8198 HISTORY	- 1992	MONUMENTED	NGS	
AD8198 HISTORY	- 20010926	GOOD	MOREKL	
AD8198 HISTORY	- 20020421	GOOD	MAPTEC	
AD8198 HISTORY	- 20021204	GOOD	USPSQD	
AD8198 HISTORY	- 20040114	GOOD	USPSQD	
AD8198 HISTORY	- 20040204	GOOD	FLDEP	
AD8198 HISTORY	- 20050202	GOOD	USPSQD	

AD8198 HISTORY   - 20070722 GOOD   FLDEP
AD8198 HISTORY   - 20070905 GOOD   WEIDEN
AD8198 HISTORY   - 20160811 GOOD   USPSQD
AD8198
AD8198   STATION DESCRIPTION
AD8198
AD8198'DESCRIBED BY NATIONAL GEODETIC SURVEY 1992
AD8198'24.4 KM (15.15 MI) WESTERLY ALONG U.S. HIGHWAY 98 FROM THE JUNCTION
AD8198'OF INTERSTATE HIGHWAY 95 IN WEST PALM BEACH, ON THE EXTENDED CENTER
AD8198'OF A CANAL LEADING NORTH, 21.6 M (70.9 FT) NORTH OF THE CENTERLINE OF
AD8198'THE WESTBOUND LANES OF THE HIGHWAY, 0.9 M (3.0 FT) BELOW THE LEVEL OF
AD8198'THE HIGHWAY, 0.6 M (2.0 FT) EAST OF A CHAIN-LINK FENCE CORNER, 0.4 M
AD8198'(1.3 FT) SOUTH OF A WITNESS POST AND FENCE.
AD8198
AD8198   STATION RECOVERY (2001)
AD8198
AD8198'RECOVERY NOTE BY MORGAN AND EKLUND INC 2001 (MAB)
AD8198'RECOVERED AS DESCRIBED
AD8198
AD8198   STATION RECOVERY (2002)
AD8198
AD8198'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CP)
AD8198'RECOVERED AS DESCRIBED
AD8198'
AD8198'STATION RECOVERY (2002)
AD8198'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CP)
AD8198'RECOVERED AS DESCRIBED.
AD8198
AD8198   STATION RECOVERY (2002)
AD8198
AD8198'RECOVERY NOTE BY US POWER SQUADRON 2002 (AAS)
AD8198'RECOVERED IN GOOD CONDITION.
AD8198
AD8198   STATION RECOVERY (2004)
AD8198
AD8198'RECOVERY NOTE BY US POWER SQUADRON 2004 (AAS)
AD8198'RECOVERED IN GOOD CONDITION.
AD8198
AD8198   STATION RECOVERY (2004)
AD8198
AD8198'RECOVERY NOTE BY FL DEPT OF ENV PRO 2004 (JLM)
AD8198'THE MARK IS ABOUT 24.0 MI EAST OF BELLE GLADE, 15.0 MI WEST OF WEST
AD8198'PALM BEACH, 3.0 MI WEST OF LOXAHATCHEE, IN SECTION 35, TOWNSHIP 43
AD8198'SOUTH, RANGE 40 EAST.
AD8198'
AD8198'TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY 98, STATE ROAD
AD8198'80, (SOUTHERN BOULEVARD) AND U.S. HIGHWAY 441, STATE ROAD 7 ON THE
AD8198'SOUTHWEST SIDE OF WEST PALM BEACH, GO WEST ON U.S. HIGHWAY 441, 98,
AD8198'STATE ROAD 80 (SOUTHERN BOULEVARD) FOR 6.9 MI TO THE MARK ON THE
AD8198'RIGHT, ON THE EXTENDED CENTER OF A CANAL LEADING NORTH, A STAINLESS
AD8198'STEEL ROD DRIVEN INTO THE GROUND WITH A NGS LOGO CAP FLUSH WITH THE
AD8198'GROUND AND ABOUT 3.0 FT BELOW THE LEVEL OF THE WESTBOUND LANES OF THE
AD8198'U.S. HIGHWAY 441, 98, THE DATUM POINT IS RECESSED 0.2 FT BELOW THE
AD8198'LEVEL OF THE NGS LOGO CAP.
AD8198'
AD8198'LOCATED 156.7 FT EAST OF A POWER POLE, 99.0 FT WEST OF POWER POLE
AD8198'NUMBER 87, 70.9 FT NORTH OF THE CENTERLINE OF THE WESTBOUND LANES OF
AD8198'THE HIGHWAY, 29.0 FT SOUTHEAST OF A 20-INCH PALM TREE, 2.0 FT
AD8198'SOUTHEAST OF A METAL POST AND 1.3 FT SOUTH OF A CARSONITE WITNESS
AD8198'POST.
AD8198'
AD8198'NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH NGS LOGO CAP.

AD8198'
AD8198'NOTE A MAGNET WAS PLACED INSIDE OF THE NGS LOGO CAP.
AD8198
AD8198   STATION RECOVERY (2005)
AD8198
AD8198'RECOVERY NOTE BY US POWER SQUADRON 2005 (AAS)
AD8198'RECOVERED IN GOOD CONDITION.
AD8198
AD8198   STATION RECOVERY (2007)
AD8198
AD8198'RECOVERY NOTE BY FL DEPT OF ENV PRO 2007 (BPJ)
AD8198'RECOVERED AS DESCRIBED.
AD8198
AD8198   STATION RECOVERY (2007)
AD8198
AD8198'RECOVERY NOTE BY WEIDENER SURVEYING AND MAPPING 2007 (JF)
AD8198'RECOVERED IN GOOD CONDITION.
AD8198
AD8198   STATION RECOVERY (2016)
AD8198
AD8198'RECOVERY NOTE BY US POWER SQUADRON 2016 (PB)
AD8198'RECOVERED IN GOOD CONDITION.

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

The NGS Data Sheet

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

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PROGRAM = datasheet95, VERSION = 8.12.5
1        National Geodetic Survey,   Retrieval Date = AUGUST 15, 2018
 DL7815 ***********************************************************************
 DL7815  DESIGNATION -  J 692
 DL7815  PID         -  DL7815
 DL7815  STATE/COUNTY-  FL/PALM BEACH
 DL7815  COUNTRY     -  US
 DL7815  USGS QUAD   -  LOXAHATCHEE (1984)
 DL7815
 DL7815                        *CURRENT SURVEY CONTROL
 DL7815  ______________________________________________________________________
 DL7815* NAD 83(1986) POSITION- 26 41 58.7    (N) 080 21 51.0    (W)   HD_HELD2
 DL7815* NAVD 88 ORTHO HEIGHT -     6.628 (meters)       21.75  (feet) ADJUSTED
 DL7815  ______________________________________________________________________
 DL7815  GEOID HEIGHT    -        -25.630 (meters)                     GEOID12B
 DL7815  DYNAMIC HEIGHT  -          6.618 (meters)       21.71  (feet) COMP
 DL7815  MODELED GRAVITY -    979,110.1   (mgal)                       NAVD 88
 DL7815
 DL7815  VERT ORDER      -  FIRST     CLASS II
 DL7815
 DL7815.The horizontal coordinates were established by autonomous hand held GPS
 DL7815.observations and have an estimated accuracy of +/- 10 meters.
 DL7815.
 DL7815.The orthometric height was determined by differential leveling and
 DL7815.adjusted by the NATIONAL GEODETIC SURVEY
 DL7815.in June 2010.
 DL7815
 DL7815.Significant digits in the geoid height do not necessarily reflect accuracy.
 DL7815.GEOID12B height accuracy estimate available here.
 DL7815
 DL7815.Photographs are available for this station.
 DL7815
 DL7815.The dynamic height is computed by dividing the NAVD 88
 DL7815.geopotential number by the normal gravity value computed on the
 DL7815.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 DL7815.degrees latitude (g = 980.6199 gals.).
 DL7815
 DL7815.The modeled gravity was interpolated from observed gravity values.
 DL7815
 DL7815;                    North         East     Units  Estimated Accuracy
 DL7815;SPC FL E     -   262,283.      263,273.      MT  (+/- 10 meters HH2 GPS)
 DL7815
 DL7815_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK6325153325(NAD 83)
 DL7815
 DL7815                           SUPERSEDED SURVEY CONTROL
 DL7815
 DL7815.No superseded survey control is available for this station.
 DL7815
 DL7815_MARKER: F = FLANGE-ENCASED ROD
 DL7815_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
 DL7815_STAMPING: J 692 2007
 DL7815_MARK LOGO: NGS
 DL7815_PROJECTION: FLUSH
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DL7815_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
DL7815_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
DL7815_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
DL7815+SATELLITE: SATELLITE OBSERVATIONS - June 09, 2007
DL7815_ROD/PIPE-DEPTH: 5.5 meters
DL7815
DL7815 HISTORY   - Date   Condition   Report By
DL7815 HISTORY   - 20070609 MONUMENTED   FLDEP
DL7815
DL7815   STATION DESCRIPTION
DL7815
DL7815'DESCRIBED BY FL DEPT OF ENV PRO 2007
DL7815'THE MARK IS ABOUT 18.0 MI (29.0 KM) WEST OF WEST PALM BEACH, IN
DL7815'SECTION 29, TOWNSHIP 43 SOUTH, RANGE 40 EAST.
DL7815'
DL7815'TO REACH THE MARK FROM THE INTERSECTION OF STATE ROAD 7, STATE ROAD 80
DL7815'AND U.S. HIGHWAY 98 AND U.S. HIGHWAY 441 ON THE SOUTHWEST SIDE OF WEST
DL7815'PALM BEACH, GO WEST ON STATE ROAD 80 AND U.S. HIGHWAYS 98, 441
DL7815'(SOUTHERN BOULEVARD) FOR 10.1 MI (16.3 KM) TO THE WEST SIDE OF THE L-8
DL7815'CANAL BRIDGE AND A LEVEE ROAD ON THE RIGHT. TURN RIGHT ON L-8 LEVEE
DL7815'ROAD AND GO NORTH FOR 1.0 MI (1.6 KM) TO THE MARK ON THE RIGHT, A
DL7815'STAINLESS STEEL ROD DRIVEN TO REFUSAL AT A DEPTH OF 18.0 FT (5.5 M)
DL7815'WITH AN NATIONAL GEODETIC SURVEY LOGO CAP FLUSH WITH THE GROUND AND
DL7815'ABOUT 1.0 FT (0.3 M) BELOW THE LEVEL OF L-8 LEVEE ROAD, THE DATUM
DL7815'POINT IS RECESSED 0.2 FT (0.1 M) BELOW THE LEVEL OF THE NATIONAL
DL7815'GEODETIC SURVEY LOGO CAP.
DL7815'
DL7815'LOCATED 15.0 FT (4.6 M) EAST OF THE APPROXIMATE CENTERLINE OF L-8
DL7815'LEVEE ROAD, 2.0 FT (0.6 M) EAST OF THE EAST EDGE OF THE L-8 LEVEE ROAD
DL7815'AND 1.7 FT (0.5 M) WEST OF A CARSONITE WITNESS POST.
DL7815'
DL7815'NOTE A MAGNET WAS PLACED INSIDE OF THE NATIONAL GEODETIC SURVEY LOGO
DL7815'CAP.
DL7815'
DL7815'NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH (13 CM)
DL7815'NATIONAL GEODETIC SURVEY LOGO CAP.

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

The NGS Data Sheet

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

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PROGRAM = datasheet95, VERSION = 8.12.5
1        National Geodetic Survey,   Retrieval Date = AUGUST 15, 2018
 AD8199 ***********************************************************************
 AD8199  DESIGNATION -  K 413
 AD8199  PID         -  AD8199
 AD8199  STATE/COUNTY-  FL/PALM BEACH
 AD8199  COUNTRY     -  US
 AD8199  USGS QUAD   -  LOXAHATCHEE (1984)
 AD8199
 AD8199                        *CURRENT SURVEY CONTROL
 AD8199  ______________________________________________________________________
 AD8199* NAD 83(2011) POSITION- 26 41 04.28189(N) 080 19 51.83135(W)   ADJUSTED
 AD8199* NAD 83(2011) ELLIP HT-   -21.066 (meters)        (06/27/12)   ADJUSTED
 AD8199* NAD 83(2011) EPOCH    -  2010.00
 AD8199* NAVD 88 ORTHO HEIGHT -     4.583 (meters)       15.04  (feet) ADJUSTED
 AD8199  ______________________________________________________________________
 AD8199  GEOID HEIGHT    -        -25.654 (meters)                     GEOID12B
 AD8199  NAD 83(2011) X  -    957,788.362 (meters)                     COMP
 AD8199  NAD 83(2011) Y  - -5,621,642.980 (meters)                     COMP
 AD8199  NAD 83(2011) Z  -  2,847,017.265 (meters)                     COMP
 AD8199  LAPLACE CORR    -         -1.99  (seconds)                    DEFLEC12B
 AD8199  DYNAMIC HEIGHT  -          4.576 (meters)       15.01  (feet) COMP
 AD8199  MODELED GRAVITY -    979,110.8   (mgal)                       NAVD 88
 AD8199
 AD8199  VERT ORDER      -  FIRST     CLASS II
 AD8199
 AD8199  Network accuracy estimates per FGDC Geospatial Positioning Accuracy
 AD8199  Standards:
 AD8199         FGDC (95% conf, cm)     Standard deviation (cm)     CorrNE
 AD8199            Horiz  Ellip           SD_N   SD_E   SD_h      (unitless)
 AD8199  ------------------------------------------------------------------
 AD8199  NETWORK    0.64   1.08           0.26   0.26   0.55     -0.02805078
 AD8199  ------------------------------------------------------------------
 AD8199  Click here for local accuracies and other accuracy information.
 AD8199
 AD8199
 AD8199.The horizontal coordinates were established by GPS observations
 AD8199.and adjusted by the National Geodetic Survey in June 2012.
 AD8199
 AD8199.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
 AD8199.been affixed to the stable North American tectonic plate. See
 AD8199.NA2011 for more information.
 AD8199
 AD8199.The horizontal coordinates are valid at the epoch date displayed above
 AD8199.which is a decimal equivalence of Year/Month/Day.
 AD8199
 AD8199.The orthometric height was determined by differential leveling and
 AD8199.adjusted by the NATIONAL GEODETIC SURVEY
 AD8199.in September 1992.
 AD8199
 AD8199.Significant digits in the geoid height do not necessarily reflect accuracy.
 AD8199.GEOID12B height accuracy estimate available here.
 AD8199
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AD8199.Photographs are available for this station.
AD8199
AD8199.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AD8199
AD8199.The Laplace correction was computed from DEFLEC12B derived deflections.
AD8199
AD8199.The ellipsoidal height was determined by GPS observations
AD8199.and is referenced to NAD 83.
AD8199
AD8199.The dynamic height is computed by dividing the NAVD 88
AD8199.geopotential number by the normal gravity value computed on the
AD8199.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD8199.degrees latitude (g = 980.6199 gals.).
AD8199
AD8199.The modeled gravity was interpolated from observed gravity values.
AD8199
AD8199. The following values were computed from the NAD 83(2011) position.
AD8199
AD8199;   North   East   Units Scale Factor Converg.
AD8199;SPC FL E   -   260,625.435   266,576.410   MT 0.99999588   +0 18 01.5
AD8199;SPC FL E   -   855,068.61   874,592.77   sFT 0.99999588   +0 18 01.5
AD8199;UTM 17   - 2,951,668.492   566,553.694   MT 0.99965468   +0 18 01.5
AD8199
AD8199!   - Elev Factor x Scale Factor =   Combined Factor
AD8199!SPC FL E   -   1.00000331 x   0.99999588 =   0.99999919
AD8199!UTM 17   -   1.00000331 x   0.99965468 =   0.99965799
AD8199
AD8199_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK6655351668(NAD 83)
AD8199
AD8199   SUPERSEDED SURVEY CONTROL
AD8199
AD8199 NAD 83(2007)- 26 41 04.28205(N)   080 19 51.83193(W) AD(2002.00) 0
AD8199 ELLIP H (02/10/07) -21.049 (m)   GP(2002.00)
AD8199 NAD 83(1999)- 26 41 04.28231(N)   080 19 51.83212(W) AD(   ) A
AD8199 ELLIP H (12/09/02) -21.072 (m)   GP(   ) 4 1
AD8199 NAVD 88   4.58   (m)   15.0   (f) LEVELING   3
AD8199 NGVD 29 (09/01/92)   5.035 (m)   16.52   (f) ADJUSTED   1 2
AD8199
AD8199.Superseded values are not recommended for survey control.
AD8199
AD8199.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD8199.See file dsdata.pdf to determine how the superseded data were derived.
AD8199
AD8199_MARKER: F = FLANGE-ENCASED ROD
AD8199_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AD8199_STAMPING: K 413 1992
AD8199_MARK LOGO: NGS
AD8199_PROJECTION: RECESSED 5 CENTIMETERS
AD8199_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AD8199_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AD8199_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD8199+SATELLITE: SATELLITE OBSERVATIONS - August 11, 2016
AD8199_ROD/PIPE-DEPTH: 5.7 meters
AD8199
AD8199 HISTORY   - Date   Condition   Report By
AD8199 HISTORY   - 1992   MONUMENTED   NGS
AD8199 HISTORY   - 19950328 GOOD   SFLWMD
AD8199 HISTORY   - 20010926 GOOD   MOREKL
AD8199 HISTORY   - 20020226 GOOD   MAPTEC
AD8199 HISTORY   - 20020517 GOOD   MAPTEC
AD8199 HISTORY   - 20021204 GOOD   USPSQD
AD8199 HISTORY   - 20021207 GOOD   FLDEP

AD8199 HISTORY   - 20040114 GOOD   USPSQD
AD8199 HISTORY   - 20040204 GOOD   FLDEP
AD8199 HISTORY   - 20050202 GOOD   USPSQD
AD8199 HISTORY   - 20070722 GOOD   FLDEP
AD8199 HISTORY   - 20071101 GOOD   GCT
AD8199 HISTORY   - 20160811 GOOD   USPSQD
AD8199
AD8199   STATION DESCRIPTION
AD8199
AD8199'DESCRIBED BY NATIONAL GEODETIC SURVEY 1992
AD8199'26.0 KM (16.15 MI) WESTERLY ALONG U.S. HIGHWAY 98 FROM THE JUNCTION
AD8199'OF INTERSTATE HIGHWAY 95 IN WEST PALM BEACH, 21.2 M (69.6 FT) NORTH
AD8199'OF THE CENTERLINE OF THE WESTBOUND LANES OF THE HIGHWAY, 1.5 M (4.9
AD8199'FT) WEST OF UTILITY POLE NUMBER 66320659802 WITH 2 GUY CABLES, 0.9 M
AD8199'(3.0 FT) BELOW THE LEVEL OF THE HIGHWAY, AND 0.4 M (1.3 FT) SOUTH OF
AD8199'A WITNESS POST. NOTE--ACCESS TO THE DATUM POINT IS THROUGH A 5-INCH
AD8199'LOGO CAP.
AD8199
AD8199   STATION RECOVERY (1995)
AD8199
AD8199'RECOVERY NOTE BY S FL WATER MGMT DIST 1995 (PLH)
AD8199'RECOVERED AS DESCRIBED.
AD8199
AD8199   STATION RECOVERY (2001)
AD8199
AD8199'RECOVERY NOTE BY MORGAN AND EKLUND INC 2001 (MAB)
AD8199'RECOVERED AS DESCRIBED
AD8199
AD8199   STATION RECOVERY (2002)
AD8199
AD8199'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (RLT)
AD8199'RECOVERED AS DESCRIBED
AD8199
AD8199   STATION RECOVERY (2002)
AD8199
AD8199'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AD8199'STATION RECOVERY (2002)
AD8199'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
AD8199'RECOVERED AS DESCRIBED.
AD8199
AD8199   STATION RECOVERY (2002)
AD8199
AD8199'RECOVERY NOTE BY US POWER SQUADRON 2002 (AAS)
AD8199'RECOVERED IN GOOD CONDITION.
AD8199
AD8199   STATION RECOVERY (2002)
AD8199
AD8199'RECOVERY NOTE BY FL DEPT OF ENV PRO 2002 (BPJ)
AD8199'THE MARK IS ABOUT 16.5 MI WEST-SOUTHWEST OF WEST PALM BEACH, IN
AD8199'SECTION 35, TOWNSHIP 43
AD8199'SOUTH, RANGE 40 EAST.
AD8199'
AD8199'TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY 441, U.S.
AD8199'HIGHWAY 98 AND STATE
AD8199'ROAD 7, ABOUT 8.8 MI WEST OF WEST PALM BEACH, GO WEST ON U.S. HIGHWAY
AD8199'441 AND U.S.
AD8199'HIGHWAY 98 FOR 3.5 MI TO THE INTERSECTION OF BIG BLUE TRACE ON THE
AD8199'LEFT AND F ROAD ON THE
AD8199'RIGHT, CONTINUE WEST ON U.S. HIGHWAY 441 AND U.S. HIGHWAY 98 FOR 4.45
AD8199'MI TO THE MARK ON
AD8199'THE RIGHT, A STAINLESS STEEL ROD DRIVEN TO REFUSAL AT A DEPTH OF 18.7
AD8199'FT WITH AN NGS LOGO

AD8199'CAP FLUSH WITH THE GROUND AND ABOUT 4.0 FT BELOW THE LEVEL OF U.S.
AD8199'HIGHWAY 441 AND U.S.
AD8199'HIGHWAY 98, THE DATUM POINT IS RECESSED 0.2 FT BELOW THE LEVEL OF THE
AD8199'NGS LOGO CAP.
AD8199'
AD8199'LOCATED 69.6 FT NORTH OF THE APPROXIMATE CENTERLINE OF U.S. HIGHWAY
AD8199'441 AND U.S. HIGHWAY
AD8199'98, 4.9 FT WEST OF POWER POLE NUMBER 66320-59802, 4.9 FT WEST OF A
AD8199'METAL WITNESS POST AND
AD8199'1.3 FT SOUTH-SOUTHWEST OF A CARSONITE WITNESS POST.
AD8199'
AD8199'NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH NGS LOGO CAP.
AD8199
AD8199 STATION RECOVERY (2004)
AD8199
AD8199'RECOVERY NOTE BY US POWER SQUADRON 2004 (AAS)
AD8199'RECOVERED IN GOOD CONDITION.
AD8199
AD8199 STATION RECOVERY (2004)
AD8199
AD8199'RECOVERY NOTE BY FL DEPT OF ENV PRO 2004 (JLM)
AD8199'RECOVERED IN GOOD CONDITION.
AD8199
AD8199 STATION RECOVERY (2005)
AD8199
AD8199'RECOVERY NOTE BY US POWER SQUADRON 2005 (AAS)
AD8199'RECOVERED IN GOOD CONDITION.
AD8199
AD8199 STATION RECOVERY (2007)
AD8199
AD8199'RECOVERY NOTE BY FL DEPT OF ENV PRO 2007 (BPJ)
AD8199'RECOVERED AS DESCRIBED.
AD8199
AD8199 STATION RECOVERY (2007)
AD8199
AD8199'RECOVERY NOTE BY GUSTIN, COTHERN, AND TUCKER, I 2007 (HWW)
AD8199'RECOVERED IN GOOD CONDITION.
AD8199
AD8199 STATION RECOVERY (2016)
AD8199
AD8199'RECOVERY NOTE BY US POWER SQUADRON 2016 (PB)
AD8199'RECOVERED IN GOOD CONDITION.

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

The NGS Data Sheet

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

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PROGRAM = datasheet95, VERSION = 8.12.5
1        National Geodetic Survey,   Retrieval Date = AUGUST 15, 2018
 DL7816 ***********************************************************************
 DL7816  DESIGNATION -  K 692
 DL7816  PID         -  DL7816
 DL7816  STATE/COUNTY-  FL/PALM BEACH
 DL7816  COUNTRY     -  US
 DL7816  USGS QUAD   -  LOXAHATCHEE (1984)
 DL7816
 DL7816                        *CURRENT SURVEY CONTROL
 DL7816  ______________________________________________________________________
 DL7816* NAD 83(1986) POSITION- 26 42 50.7    (N) 080 21 49.9    (W)   HD_HELD2
 DL7816* NAVD 88 ORTHO HEIGHT -     6.576 (meters)       21.57  (feet) ADJUSTED
 DL7816  ______________________________________________________________________
 DL7816  GEOID HEIGHT    -        -25.670 (meters)                     GEOID12B
 DL7816  DYNAMIC HEIGHT  -          6.566 (meters)       21.54  (feet) COMP
 DL7816  MODELED GRAVITY -    979,110.2   (mgal)                       NAVD 88
 DL7816
 DL7816  VERT ORDER      -  FIRST     CLASS II
 DL7816
 DL7816.The horizontal coordinates were established by autonomous hand held GPS
 DL7816.observations and have an estimated accuracy of +/- 10 meters.
 DL7816.
 DL7816.The orthometric height was determined by differential leveling and
 DL7816.adjusted by the NATIONAL GEODETIC SURVEY
 DL7816.in June 2010.
 DL7816
 DL7816.Significant digits in the geoid height do not necessarily reflect accuracy.
 DL7816.GEOID12B height accuracy estimate available here.
 DL7816
 DL7816.Photographs are available for this station.
 DL7816
 DL7816.The dynamic height is computed by dividing the NAVD 88
 DL7816.geopotential number by the normal gravity value computed on the
 DL7816.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 DL7816.degrees latitude (g = 980.6199 gals.).
 DL7816
 DL7816.The modeled gravity was interpolated from observed gravity values.
 DL7816
 DL7816;                    North         East    Units  Estimated Accuracy
 DL7816;SPC FL E     -   263,884.      263,296.      MT  (+/- 10 meters HH2 GPS)
 DL7816
 DL7816_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK6327454925(NAD 83)
 DL7816
 DL7816                           SUPERSEDED SURVEY CONTROL
 DL7816
 DL7816.No superseded survey control is available for this station.
 DL7816
 DL7816_MARKER: F = FLANGE-ENCASED ROD
 DL7816_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
 DL7816_STAMPING: K 692 2007
 DL7816_MARK LOGO: NGS
 DL7816_PROJECTION: FLUSH
```

DL7816_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
DL7816_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
DL7816_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
DL7816+SATELLITE: SATELLITE OBSERVATIONS - June 09, 2007
DL7816_ROD/PIPE-DEPTH: 7.3 meters
DL7816
DL7816 HISTORY   - Date   Condition   Report By
DL7816 HISTORY   - 20070609 MONUMENTED   FLDEP
DL7816
DL7816   STATION DESCRIPTION
DL7816
DL7816'DESCRIBED BY FL DEPT OF ENV PRO 2007
DL7816'THE MARK IS ABOUT 18.0 MI (29.0 KM) WEST OF WEST PALM BEACH, IN
DL7816'SECTION 20, TOWNSHIP 43 SOUTH, RANGE 40 EAST.
DL7816'
DL7816'TO REACH THE MARK FROM THE INTERSECTION OF STATE ROAD 7, STATE ROAD 80
DL7816'AND U.S. HIGHWAY 98 AND U.S. HIGHWAY 441 ON THE SOUTHWEST SIDE OF WEST
DL7816'PALM BEACH, GO WEST ON STATE ROAD 80 AND U.S. HIGHWAYS 98, 441
DL7816'(SOUTHERN BOULEVARD) FOR 10.1 MI (16.3 KM) TO THE WEST SIDE OF THE L-8
DL7816'CANAL BRIDGE AND A LEVEE ROAD ON THE RIGHT. TURN RIGHT ON L-8 LEVEE
DL7816'ROAD AND GO NORTH FOR 2.0 MI (3.2 KM) TO THE MARK ON THE RIGHT, A
DL7816'STAINLESS STEEL ROD DRIVEN TO REFUSAL AT A DEPTH OF 24.0 FT (7.3 M)
DL7816'WITH AN NATIONAL GEODETIC SURVEY LOGO CAP FLUSH WITH THE GROUND AND
DL7816'ABOUT 0.5 FT (0.2 M) BELOW THE LEVEL OF L-8 LEVEE ROAD, THE DATUM
DL7816'POINT IS RECESSED 0.3 FT (0.1 M) BELOW THE LEVEL OF THE NATIONAL
DL7816'GEODETIC SURVEY LOGO CAP.
DL7816'
DL7816'LOCATED 20.5 FT (6.2 M) EAST OF THE APPROXIMATE CENTERLINE OF L-8
DL7816'LEVEE ROAD, 2.5 FT (0.8 M) EAST OF THE EAST EDGE OF THE L-8 LEVEE ROAD
DL7816'AND 1.0 FT (0.3 M) WEST OF A CARSONITE WITNESS POST.
DL7816'
DL7816'NOTE A MAGNET WAS PLACED INSIDE OF THE NATIONAL GEODETIC SURVEY LOGO
DL7816'CAP.
DL7816'
DL7816'NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH (13 CM)
DL7816'NATIONAL GEODETIC SURVEY LOGO CAP.

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

The NGS Data Sheet

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

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PROGRAM = datasheet95, VERSION = 8.12.5
1        National Geodetic Survey,   Retrieval Date = AUGUST 15, 2018
 DL7817 ***********************************************************************
 DL7817  DESIGNATION -  L 692
 DL7817  PID         -  DL7817
 DL7817  STATE/COUNTY-  FL/PALM BEACH
 DL7817  COUNTRY     -  US
 DL7817  USGS QUAD   -  LOXAHATCHEE (1984)
 DL7817
 DL7817                         *CURRENT SURVEY CONTROL
 DL7817  ______________________________________________________________________
 DL7817* NAD 83(1986) POSITION- 26 43 39.6    (N) 080 21 48.2    (W)   HD_HELD2
 DL7817* NAVD 88 ORTHO HEIGHT -     4.786 (meters)       15.70  (feet) ADJUSTED
 DL7817  ______________________________________________________________________
 DL7817  GEOID HEIGHT    -        -25.711 (meters)                     GEOID12B
 DL7817  DYNAMIC HEIGHT  -          4.779 (meters)       15.68  (feet) COMP
 DL7817  MODELED GRAVITY -    979,110.3   (mgal)                       NAVD 88
 DL7817
 DL7817  VERT ORDER      -  FIRST     CLASS II
 DL7817
 DL7817.The horizontal coordinates were established by autonomous hand held GPS
 DL7817.observations and have an estimated accuracy of +/- 10 meters.
 DL7817.
 DL7817.The orthometric height was determined by differential leveling and
 DL7817.adjusted by the NATIONAL GEODETIC SURVEY
 DL7817.in June 2010.
 DL7817
 DL7817.Significant digits in the geoid height do not necessarily reflect accuracy.
 DL7817.GEOID12B height accuracy estimate available here.
 DL7817
 DL7817.Photographs are available for this station.
 DL7817
 DL7817.The dynamic height is computed by dividing the NAVD 88
 DL7817.geopotential number by the normal gravity value computed on the
 DL7817.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 DL7817.degrees latitude (g = 980.6199 gals.).
 DL7817
 DL7817.The modeled gravity was interpolated from observed gravity values.
 DL7817
 DL7817;                    North         East    Units  Estimated Accuracy
 DL7817;SPC FL E     -   265,389.      263,335.      MT  (+/- 10 meters HH2 GPS)
 DL7817
 DL7817_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK6331356430(NAD 83)
 DL7817
 DL7817                           SUPERSEDED SURVEY CONTROL
 DL7817
 DL7817.No superseded survey control is available for this station.
 DL7817
 DL7817_MARKER: F = FLANGE-ENCASED ROD
 DL7817_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
 DL7817_STAMPING: L 692 2007
 DL7817_MARK LOGO: NGS
 DL7817_PROJECTION: FLUSH
```

DL7817_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
DL7817_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
DL7817_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
DL7817+SATELLITE: SATELLITE OBSERVATIONS - June 09, 2007
DL7817_ROD/PIPE-DEPTH: 3.0 meters
DL7817
DL7817 HISTORY   - Date   Condition   Report By
DL7817 HISTORY   - 20070609 MONUMENTED   FLDEP
DL7817
DL7817   STATION DESCRIPTION
DL7817
DL7817'DESCRIBED BY FL DEPT OF ENV PRO 2007
DL7817'THE MARK IS ABOUT 18.0 MI (29.0 KM) WEST OF WEST PALM BEACH, IN
DL7817'SECTION 17, TOWNSHIP 43 SOUTH, RANGE 40 EAST.
DL7817'
DL7817'TO REACH THE MARK FROM THE INTERSECTION OF STATE ROAD 7, STATE ROAD 80
DL7817'AND U.S. HIGHWAY 98 AND U.S. HIGHWAY 441 ON THE SOUTHWEST SIDE OF WEST
DL7817'PALM BEACH, GO WEST ON STATE ROAD 80 AND U.S. HIGHWAYS 98, 441
DL7817'(SOUTHERN BOULEVARD) FOR 10.1 MI (16.3 KM) TO THE WEST SIDE OF THE L-8
DL7817'CANAL BRIDGE AND A LEVEE ROAD ON THE RIGHT. TURN RIGHT ON L-8 LEVEE
DL7817'ROAD AND GO NORTH FOR 2.9 MI (4.7 KM) TO THE MARK ON THE RIGHT, A
DL7817'STAINLESS STEEL ROD DRIVEN TO REFUSAL AT A DEPTH OF 10.0 FT (3.0 M)
DL7817'WITH AN NATIONAL GEODETIC SURVEY LOGO CAP FLUSH WITH THE GROUND AND
DL7817'ABOUT 5.0 FT (1.5 M) BELOW THE LEVEL OF L-8 LEVEE ROAD, THE DATUM
DL7817'POINT IS RECESSED 0.2 FT (0.1 M) BELOW THE LEVEL OF THE NATIONAL
DL7817'GEODETIC SURVEY LOGO CAP.
DL7817'
DL7817'LOCATED 83.0 FT (25.3 M) EAST OF THE APPROXIMATE CENTERLINE OF L-8
DL7817'LEVEE ROAD, 4.6 FT (1.4 M) SOUTH OF A CHAIN LINK FENCE CORNER POST,
DL7817'1.3 FT (0.4 M) WEST OF A CHAIN LINK FENCE AND 1.0 FT (0.3 M) WEST OF A
DL7817'CARSONITE WITNESS POST.
DL7817'
DL7817'NOTE A MAGNET WAS PLACED INSIDE OF THE NATIONAL GEODETIC SURVEY LOGO
DL7817'CAP.
DL7817'
DL7817'NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH (13 CM)
DL7817'NATIONAL GEODETIC SURVEY LOGO CAP.

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

The NGS Data Sheet

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

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PROGRAM = datasheet95, VERSION = 8.12.5
1        National Geodetic Survey,   Retrieval Date = AUGUST 15, 2018
 AD8201 ***********************************************************************
 AD8201  DESIGNATION -  M 413
 AD8201  PID         -  AD8201
 AD8201  STATE/COUNTY-  FL/PALM BEACH
 AD8201  COUNTRY     -  US
 AD8201  USGS QUAD   -  LOXAHATCHEE (1984)
 AD8201
 AD8201                        *CURRENT SURVEY CONTROL
 AD8201  ______________________________________________________________________
 AD8201* NAD 83(1986) POSITION- 26 41 06.0    (N) 080 21 52.0    (W)   HD_HELD2
 AD8201* NAVD 88 ORTHO HEIGHT -     7.001 (meters)       22.97  (feet) ADJUSTED
 AD8201  ______________________________________________________________________
 AD8201  GEOID HEIGHT    -        -25.592 (meters)                    GEOID12B
 AD8201  DYNAMIC HEIGHT  -          6.990 (meters)       22.93  (feet) COMP
 AD8201  MODELED GRAVITY -    979,109.8   (mgal)                       NAVD 88
 AD8201
 AD8201  VERT ORDER      -  FIRST     CLASS II
 AD8201
 AD8201.The horizontal coordinates were established by autonomous hand held GPS
 AD8201.observations and have an estimated accuracy of +/- 10 meters.
 AD8201.
 AD8201.The orthometric height was determined by differential leveling and
 AD8201.adjusted by the NATIONAL GEODETIC SURVEY
 AD8201.in June 2010.
 AD8201
 AD8201.Significant digits in the geoid height do not necessarily reflect accuracy.
 AD8201.GEOID12B height accuracy estimate available here.
 AD8201
 AD8201.Photographs are available for this station.
 AD8201
 AD8201.The dynamic height is computed by dividing the NAVD 88
 AD8201.geopotential number by the normal gravity value computed on the
 AD8201.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AD8201.degrees latitude (g = 980.6199 gals.).
 AD8201
 AD8201.The modeled gravity was interpolated from observed gravity values.
 AD8201
 AD8201;                    North         East     Units  Estimated Accuracy
 AD8201;SPC FL E     -   260,661.      263,254.      MT  (+/- 10 meters HH2 GPS)
 AD8201
 AD8201_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK6323251704(NAD 83)
 AD8201
 AD8201                           SUPERSEDED SURVEY CONTROL
 AD8201
 AD8201  NAVD 88 (09/04/92)    7.005  (m)           22.98   (f) SUPERSEDED  1 2
 AD8201  NGVD 29 (09/01/92)    7.455  (m)           24.46   (f) ADJUSTED    1 2
 AD8201
 AD8201.Superseded values are not recommended for survey control.
 AD8201
 AD8201.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AD8201.See file dsdata.pdf to determine how the superseded data were derived.
```

AD8201
AD8201_MARKER: DV = VERTICAL CONTROL DISK
AD8201_SETTING: 38 = SET IN THE ABUTMENT OR PIER OF A LARGE BRIDGE
AD8201_SP_SET: BRIDGE ABUTMENT
AD8201_STAMPING: M 413 1992
AD8201_MARK LOGO: NGS
AD8201_MAGNETIC: N = NO MAGNETIC MATERIAL
AD8201_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AD8201_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD8201+SATELLITE: SATELLITE OBSERVATIONS - July 22, 2007
AD8201

AD8201	HISTORY	- Date	Condition	Report By
AD8201	HISTORY	- 1992	MONUMENTED	NGS
AD8201	HISTORY	- 19950323	GOOD	SFLWMD
AD8201	HISTORY	- 20000205	GOOD	FLDEP
AD8201	HISTORY	- 20021204	GOOD	USPSQD
AD8201	HISTORY	- 20040114	GOOD	USPSQD
AD8201	HISTORY	- 20040204	GOOD	FLDEP
AD8201	HISTORY	- 20050202	GOOD	USPSQD
AD8201	HISTORY	- 20070722	GOOD	FLDEP

AD8201
AD8201 STATION DESCRIPTION
AD8201
AD8201'DESCRIBED BY NATIONAL GEODETIC SURVEY 1992
AD8201'29.3 KM (18.20 MI) WESTERLY ALONG U.S. HIGHWAY 98 FROM THE JUNCTION
AD8201'OF INTERSTATE HIGHWAY 95 IN WEST PALM BEACH, SET VERTICALLY IN THE
AD8201'NORTH FACE OF THE WEST CONCRETE ABUTMENT OF WESTBOUND BRIDGE NUMBER
AD8201'930407 SPANNING A CANAL AND LEVEE NUMBER 8, 7.2 M (23.6 FT) NORTH OF
AD8201'THE CENTERLINE OF THE WESTBOUND LANES OF THE HIGHWAY, 1.7 M (5.6 FT)
AD8201'EAST OF THE WEST END OF THE ABUTMENT, AND 0.1 M (0.3 FT) BELOW THE
AD8201'LEVEL OF THE HIGHWAY.
AD8201
AD8201 STATION RECOVERY (1995)
AD8201
AD8201'RECOVERY NOTE BY S FL WATER MGMT DIST 1995 (PLH)
AD8201'THE MARK IS ABOUT 18.0 MI (29.0 KM) WEST OF WEST PALM BEACH IN SECTION
AD8201'32, TOWNSHIP 43 SOUTH, RANGE 40 EAST. TO REACH THE MARK FROM THE
AD8201'INTERSECTION OF STATE ROAD 80 (SOUTHERN BOULEVARD), STATE ROAD 7, U.S.
AD8201'HIGHWAY 441 AND U.S. HIGHWAY 98 ON THE SOUTHWEST SIDE OF WEST PALM
AD8201'BEACH, GO WEST ON U.S. HIGHWAY 441, 98 AND STATE ROAD 80 FOR 2.8 MI
AD8201'(4.5 KM) TO THE JUNCTION OF FOREST HILL BOULEVARD ON THE LEFT,
AD8201'CONTINUE WEST ON U.S. HIGHWAY 441, 98 AND STATE ROAD 80 FOR 3.95 MI
AD8201'(6.36 KM) TO THE JUNCTION OF SEMINOLE PRATT WHITNEY ROAD ON THE RIGHT,
AD8201'CONTINUE WEST ON U.S. HIGHWAY 441, 98 AND STATE ROAD 80 FOR 3.4 MI
AD8201'(5.5 KM) TO BRIDGE NUMBER 930407 SPANNING A CANAL (LEVEE NUMBER 8) AND
AD8201'THE MARK ON THE RIGHT, SET VERTICALLY IN THE NORTH FACE OF THE WEST
AD8201'CONCRETE ABUTMENT OF THE WESTBOUND LANES. LOCATED 75.7 FT (23.1 M)
AD8201'SOUTHEAST OF AND ACROSS THE LEVEE FROM A WOOD POWER POLE, 23.0 FT (7.0
AD8201'M) NORTH OF THE CENTERLINE OF THE WESTBOUND LANE OF STATE ROAD 7, U.S.
AD8201'HIGHWAY 441, 98 AND STATE ROAD 80 AND 5.0 FT (1.5 M) EAST OF THE
AD8201'NORTHWEST CONCRETE ABUTMENT ON THE WEST END OF THE BRIDGE.
AD8201
AD8201 STATION RECOVERY (2000)
AD8201
AD8201'RECOVERY NOTE BY FL DEPT OF ENV PRO 2000 (JLM)
AD8201'THE MARK IS ABOUT 21.0 MI (33.8 KM) EAST OF BELLE GLADE, 18.0 MI (29.0
AD8201'KM) WEST OF PALM BEACH, IN SECTION 32, TOWNSHIP 43 SOUTH, RANGE 40
AD8201'EAST. TO REACH THE MARK FROM THE INTERSECTION OF STATE ROAD 80,
AD8201'(SOUTHERN BOULEVARD) STATE ROAD 7, U.S. HIGHWAY 441 AND U.S. HIGHWAY
AD8201'98 ON THE SOUTHWEST SIDE OF WEST PALM BEACH, GO WEST ON U.S. HIGHWAY
AD8201'441, 98 AND STATE ROAD 80 (SOUTHERN BOULEVARD) FOR 10.1 MI (16.3 KM)
AD8201'TO THE WEST END OF BRIDGE NUMBER 930407 SPANNING A CANAL (LEVEE NUMBER

AD8201'8) AND THE MARK ON THE RIGHT, SET VERTICALLY IN THE NORTH FACE OF THE
AD8201'WEST CONCRETE BRIDGE ABUTMENT OF THE WESTBOUND LANES AND 0.3 FT (9.1
AD8201'CM) BELOW THE LEVEL OF THE HIGHWAY. LOCATED 23.0 FT (7.0 M) NORTH OF
AD8201'THE CENTERLINE OF THE WESTBOUND LANES OF THE HIGHWAY AND 5.0 FT (1.5
AD8201'M) EAST OF THE NORTHWEST CONCRETE BRIDGE ABUTMENT.
AD8201
AD8201 STATION RECOVERY (2002)
AD8201
AD8201'RECOVERY NOTE BY US POWER SQUADRON 2002 (AAS)
AD8201'RECOVERED IN GOOD CONDITION.
AD8201
AD8201 STATION RECOVERY (2004)
AD8201
AD8201'RECOVERY NOTE BY US POWER SQUADRON 2004 (AAS)
AD8201'RECOVERED IN GOOD CONDITION.
AD8201
AD8201 STATION RECOVERY (2004)
AD8201
AD8201'RECOVERY NOTE BY FL DEPT OF ENV PRO 2004 (JLM)
AD8201'RECOVERED IN GOOD CONDITION, RECOVERED FOR TIE MARK.
AD8201
AD8201 STATION RECOVERY (2005)
AD8201
AD8201'RECOVERY NOTE BY US POWER SQUADRON 2005 (AAS)
AD8201'RECOVERED IN GOOD CONDITION.
AD8201
AD8201 STATION RECOVERY (2007)
AD8201
AD8201'RECOVERY NOTE BY FL DEPT OF ENV PRO 2007 (BPJ)
AD8201'RECOVERED AS DESCRIBED.

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

The NGS Data Sheet

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

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PROGRAM = datasheet95, VERSION = 8.12.5
1        National Geodetic Survey,   Retrieval Date = AUGUST 15, 2018
 DL7818 ***********************************************************************
 DL7818  DESIGNATION -  M 692
 DL7818  PID         -  DL7818
 DL7818  STATE/COUNTY-  FL/PALM BEACH
 DL7818  COUNTRY     -  US
 DL7818  USGS QUAD   -  LOXAHATCHEE (1984)
 DL7818
 DL7818                         *CURRENT SURVEY CONTROL
 DL7818  ______________________________________________________________________
 DL7818* NAD 83(1986) POSITION- 26 44 32.4    (N) 080 21 52.5    (W)   HD_HELD2
 DL7818* NAVD 88 ORTHO HEIGHT -     7.227 (meters)       23.71  (feet) ADJUSTED
 DL7818  ______________________________________________________________________
 DL7818  GEOID HEIGHT    -        -25.754 (meters)                     GEOID12B
 DL7818  DYNAMIC HEIGHT  -          7.216 (meters)       23.67  (feet) COMP
 DL7818  MODELED GRAVITY -    979,110.2   (mgal)                       NAVD 88
 DL7818
 DL7818  VERT ORDER      -  FIRST     CLASS II
 DL7818
 DL7818.The horizontal coordinates were established by autonomous hand held GPS
 DL7818.observations and have an estimated accuracy of +/- 10 meters.
 DL7818.
 DL7818.The orthometric height was determined by differential leveling and
 DL7818.adjusted by the NATIONAL GEODETIC SURVEY
 DL7818.in June 2010.
 DL7818
 DL7818.Significant digits in the geoid height do not necessarily reflect accuracy.
 DL7818.GEOID12B height accuracy estimate available here.
 DL7818
 DL7818.Photographs are available for this station.
 DL7818
 DL7818.The dynamic height is computed by dividing the NAVD 88
 DL7818.geopotential number by the normal gravity value computed on the
 DL7818.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 DL7818.degrees latitude (g = 980.6199 gals.).
 DL7818
 DL7818.The modeled gravity was interpolated from observed gravity values.
 DL7818
 DL7818;                    North         East    Units  Estimated Accuracy
 DL7818;SPC FL E     -   267,014.      263,208.      MT  (+/- 10 meters HH2 GPS)
 DL7818
 DL7818_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK6318658054(NAD 83)
 DL7818
 DL7818                           SUPERSEDED SURVEY CONTROL
 DL7818
 DL7818.No superseded survey control is available for this station.
 DL7818
 DL7818_MARKER: F = FLANGE-ENCASED ROD
 DL7818_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
 DL7818_STAMPING: M 692 2007
 DL7818_MARK LOGO: NGS
 DL7818_PROJECTION: FLUSH
```

DL7818_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
DL7818_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
DL7818_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
DL7818+SATELLITE: SATELLITE OBSERVATIONS - June 09, 2007
DL7818_ROD/PIPE-DEPTH: 8.4 meters
DL7818
DL7818 HISTORY   - Date   Condition   Report By
DL7818 HISTORY   - 20070609 MONUMENTED   FLDEP
DL7818
DL7818   STATION DESCRIPTION
DL7818
DL7818'DESCRIBED BY FL DEPT OF ENV PRO 2007
DL7818'THE MARK IS ABOUT 18.1 MI (29.1 KM) WEST OF WEST PALM BEACH, IN
DL7818'SECTION 8, TOWNSHIP 43 SOUTH, RANGE 40 EAST.
DL7818'
DL7818'TO REACH THE MARK FROM THE INTERSECTION OF STATE ROAD 7, STATE ROAD 80
DL7818'AND U.S. HIGHWAY 98 AND U.S. HIGHWAY 441 ON THE SOUTHWEST SIDE OF WEST
DL7818'PALM BEACH, GO WEST ON STATE ROAD 80 AND U.S. HIGHWAYS 98, 441
DL7818'(SOUTHERN BOULEVARD) FOR 10.1 MI (16.3 KM) TO THE WEST SIDE OF THE L-8
DL7818'CANAL BRIDGE AND A LEVEE ROAD ON THE RIGHT. TURN RIGHT ON L-8 LEVEE
DL7818'ROAD AND GO NORTH FOR 3.8 MI (6.1 KM) TO A 45-DEGREE LEFT HAND TURN.
DL7818'TURN LEFT AND CONTINUE NORTHWEST ON L-8 LEVEE ROAD FOR 0.15 MI (0.2
DL7818'KM) TO THE MARK ON THE RIGHT, A STAINLESS STEEL ROD DRIVEN TO REFUSAL
DL7818'AT A DEPTH OF 27.7 FT (8.4 M) WITH AN NATIONAL GEODETIC SURVEY LOGO
DL7818'CAP FLUSH WITH THE GROUND AND ABOUT 0.5 FT (0.2 M) BELOW THE LEVEL OF
DL7818'L-8 LEVEE ROAD, THE DATUM POINT IS RECESSED 0.1 FT (0.0 M) BELOW THE
DL7818'LEVEL OF THE NATIONAL GEODETIC SURVEY LOGO CAP.
DL7818'
DL7818'LOCATED 12.0 FT (3.7 M) NORTHEAST OF THE APPROXIMATE CENTERLINE OF L-8
DL7818'LEVEE ROAD, 4.0 FT (1.2 M) NORTHEAST OF THE NORTHEAST EDGE OF THE L-8
DL7818'LEVEE ROAD AND 1.1 FT (0.3 M) SOUTHWEST OF A CARSONITE WITNESS POST.
DL7818'
DL7818'NOTE A MAGNET WAS PLACED INSIDE OF THE NATIONAL GEODETIC SURVEY LOGO
DL7818'CAP.
DL7818'
DL7818'NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH (13 CM)
DL7818'NATIONAL GEODETIC SURVEY LOGO CAP.

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

The NGS Data Sheet

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

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PROGRAM = datasheet95, VERSION = 8.12.5
1        National Geodetic Survey,   Retrieval Date = AUGUST 15, 2018
 DL7819 ***********************************************************************
 DL7819  DESIGNATION -  N 692
 DL7819  PID         -  DL7819
 DL7819  STATE/COUNTY-  FL/PALM BEACH
 DL7819  COUNTRY     -  US
 DL7819  USGS QUAD   -  WEST OF DELTA (1984)
 DL7819
 DL7819                        *CURRENT SURVEY CONTROL
 DL7819  ______________________________________________________________________
 DL7819* NAD 83(1986) POSITION- 26 45 10.6    (N) 080 22 25.4    (W)   HD_HELD2
 DL7819* NAVD 88 ORTHO HEIGHT -     7.308 (meters)       23.98  (feet) ADJUSTED
 DL7819  ______________________________________________________________________
 DL7819  GEOID HEIGHT    -        -25.770 (meters)                     GEOID12B
 DL7819  DYNAMIC HEIGHT  -          7.297 (meters)       23.94  (feet) COMP
 DL7819  MODELED GRAVITY -    979,109.9   (mgal)                       NAVD 88
 DL7819
 DL7819  VERT ORDER      -  FIRST     CLASS II
 DL7819
 DL7819.The horizontal coordinates were established by autonomous hand held GPS
 DL7819.observations and have an estimated accuracy of +/- 10 meters.
 DL7819.
 DL7819.The orthometric height was determined by differential leveling and
 DL7819.adjusted by the NATIONAL GEODETIC SURVEY
 DL7819.in June 2010.
 DL7819
 DL7819.Significant digits in the geoid height do not necessarily reflect accuracy.
 DL7819.GEOID12B height accuracy estimate available here.
 DL7819
 DL7819.Photographs are available for this station.
 DL7819
 DL7819.The dynamic height is computed by dividing the NAVD 88
 DL7819.geopotential number by the normal gravity value computed on the
 DL7819.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 DL7819.degrees latitude (g = 980.6199 gals.).
 DL7819
 DL7819.The modeled gravity was interpolated from observed gravity values.
 DL7819
 DL7819;                    North         East    Units  Estimated Accuracy
 DL7819;SPC FL E     -   268,185.      262,293.      MT  (+/- 10 meters HH2 GPS)
 DL7819
 DL7819_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK6227259225(NAD 83)
 DL7819
 DL7819                           SUPERSEDED SURVEY CONTROL
 DL7819
 DL7819.No superseded survey control is available for this station.
 DL7819
 DL7819_MARKER: F = FLANGE-ENCASED ROD
 DL7819_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
 DL7819_STAMPING: N 692 2007
 DL7819_MARK LOGO: NGS
 DL7819_PROJECTION: FLUSH
```

DL7819_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
DL7819_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
DL7819_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR
DL7819+SATELLITE: SATELLITE OBSERVATIONS - March 28, 2017
DL7819_ROD/PIPE-DEPTH: 4.9 meters
DL7819
DL7819 HISTORY   - Date   Condition   Report By
DL7819 HISTORY   - 20070607 MONUMENTED   FLDEP
DL7819 HISTORY   - 20120317 GOOD   INDIV
DL7819 HISTORY   - 20170328 GOOD   WANTGP
DL7819
DL7819   STATION DESCRIPTION
DL7819
DL7819'DESCRIBED BY FL DEPT OF ENV PRO 2007
DL7819'THE MARK IS ABOUT 18.7 MI (30.1 KM) WEST OF WEST PALM BEACH, IN
DL7819'SECTION 8, TOWNSHIP 43 SOUTH, RANGE 40 EAST.
DL7819'
DL7819'TO REACH THE MARK FROM THE INTERSECTION OF STATE ROAD 7, STATE ROAD 80
DL7819'AND U.S. HIGHWAY 98 AND U.S. HIGHWAY 441 ON THE SOUTHWEST SIDE OF WEST
DL7819'PALM BEACH, GO WEST ON STATE ROAD 80 AND U.S. HIGHWAYS 98, 441
DL7819'(SOUTHERN BOULEVARD) FOR 10.1 MI (16.3 KM) TO THE WEST SIDE OF THE L-8
DL7819'CANAL BRIDGE AND A LEVEE ROAD ON THE RIGHT. TURN RIGHT ON L-8 LEVEE
DL7819'ROAD AND GO NORTH FOR 3.8 MI (6.1 KM) TO A 45-DEGREE LEFT HAND TURN.
DL7819'TURN LEFT AND CONTINUE NORTHWEST ON L-8 LEVEE ROAD FOR 1.05 MI (1.7
DL7819'KM) TO THE JUNCTION OF A TRAIL NEAR A TURNOUT ON THE LEFT AND THE MARK
DL7819'ON THE LEFT, A STAINLESS STEEL ROD DRIVEN TO REFUSAL AT A DEPTH OF
DL7819'16.0 FT (4.9 M) WITH AN NATIONAL GEODETIC SURVEY LOGO CAP FLUSH WITH
DL7819'THE GROUND AND LEVEL WITH L-8 LEVEE ROAD, THE DATUM POINT IS RECESSED
DL7819'0.1 FT (0.0 M) BELOW THE LEVEL OF THE NATIONAL GEODETIC SURVEY LOGO
DL7819'CAP.
DL7819'
DL7819'LOCATED 72.8 FT (22.2 M) NORTHEAST OF A CHAIN LINK FENCE, 25.0 FT (7.6
DL7819'M) SOUTHWEST OF THE APPROXIMATE CENTERLINE OF L-8 LEVEE ROAD, 16.0 FT
DL7819'(4.9 M) SOUTHWEST OF THE SOUTHWEST EDGE OF THE L-8 LEVEE ROAD AND 4.0
DL7819'FT (1.2 M) NORTHEAST OF A CARSONITE WITNESS POST.
DL7819'
DL7819'NOTE A MAGNET WAS PLACED INSIDE OF THE NATIONAL GEODETIC SURVEY LOGO
DL7819'CAP.
DL7819'
DL7819'NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH (13 CM)
DL7819'NATIONAL GEODETIC SURVEY LOGO CAP.
DL7819
DL7819   STATION RECOVERY (2012)
DL7819
DL7819'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2012 (MR)
DL7819'RECOVERED IN GOOD CONDITION.
DL7819
DL7819   STATION RECOVERY (2017)
DL7819
DL7819'RECOVERY NOTE BY WANTMAN GROUP INC 2017 (MS)
DL7819'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:10

The NGS Data Sheet

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

```
PROGRAM = datasheet95, VERSION = 8.12.5
1        National Geodetic Survey,   Retrieval Date = AUGUST 15, 2018
 AD8621 ***********************************************************************
 AD8621  DESIGNATION -  TUNA
 AD8621  PID         -  AD8621
 AD8621  STATE/COUNTY-  FL/PALM BEACH
 AD8621  COUNTRY     -  US
 AD8621  USGS QUAD   -  LOXAHATCHEE (1984)
 AD8621
 AD8621                        *CURRENT SURVEY CONTROL
 AD8621  ______________________________________________________________________
 AD8621* NAD 83(2011) POSITION- 26 43 26.95376(N) 080 21 14.04340(W)   ADJUSTED
 AD8621* NAD 83(2011) ELLIP HT-   -20.775 (meters)        (06/27/12)   ADJUSTED
 AD8621* NAD 83(2011) EPOCH    -  2010.00
 AD8621* NAVD 88 ORTHO HEIGHT -     5.0   (meters)       16.    (feet) VERTCON
 AD8621  ______________________________________________________________________
 AD8621  GEOID HEIGHT    -        -25.719 (meters)                    GEOID12B
 AD8621  NAD 83(2011) X  -    955,217.034 (meters)                    COMP
 AD8621  NAD 83(2011) Y  - -5,620,079.154 (meters)                    COMP
 AD8621  NAD 83(2011) Z  -  2,850,940.098 (meters)                    COMP
 AD8621  LAPLACE CORR    -         -2.00  (seconds)                   DEFLEC12B
 AD8621
 AD8621  Network accuracy estimates per FGDC Geospatial Positioning Accuracy
 AD8621  Standards:
 AD8621         FGDC (95% conf, cm)     Standard deviation (cm)     CorrNE
 AD8621            Horiz  Ellip           SD_N   SD_E   SD_h      (unitless)
 AD8621  ------------------------------------------------------------------
 AD8621  NETWORK    1.63   3.08           0.69   0.64   1.57      0.09522007
 AD8621  ------------------------------------------------------------------
 AD8621  Click here for local accuracies and other accuracy information.
 AD8621
 AD8621
 AD8621.The horizontal coordinates were established by GPS observations
 AD8621.and adjusted by the National Geodetic Survey in June 2012.
 AD8621
 AD8621.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
 AD8621.been affixed to the stable North American tectonic plate. See
 AD8621.NA2011 for more information.
 AD8621
 AD8621.The horizontal coordinates are valid at the epoch date displayed above
 AD8621.which is a decimal equivalence of Year/Month/Day.
 AD8621
 AD8621.The NAVD 88 height was computed by applying the VERTCON shift value to
 AD8621.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
 AD8621
 AD8621.Significant digits in the geoid height do not necessarily reflect accuracy.
 AD8621.GEOID12B height accuracy estimate available here.
 AD8621
 AD8621.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AD8621
 AD8621.The Laplace correction was computed from DEFLEC12B derived deflections.
 AD8621
 AD8621.The ellipsoidal height was determined by GPS observations
```

```
AD8621.and is referenced to NAD 83.
AD8621
AD8621. The following values were computed from the NAD 83(2011) position.
AD8621
AD8621;                    North         East     Units Scale Factor Converg.
AD8621;SPC FL E     -   265,004.709   264,281.258   MT  0.99999217   +0 17 26.0
AD8621;SPC FL E     -   869,436.28    867,062.76   sFT  0.99999217   +0 17 26.0
AD8621;UTM  17      - 2,956,046.272   564,259.326   MT  0.99965098   +0 17 26.0
AD8621
AD8621!             -  Elev Factor  x  Scale Factor =   Combined Factor
AD8621!SPC FL E     -   1.00000326  x   0.99999217  =   0.99999543
AD8621!UTM  17      -   1.00000326  x   0.99965098  =   0.99965424
AD8621
AD8621_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK6425956046(NAD 83)
AD8621
AD8621                           SUPERSEDED SURVEY CONTROL
AD8621
AD8621  NAD 83(2007)-  26 43 26.95387(N)    080 21 14.04403(W) AD(2002.00) 0
AD8621  ELLIP H (02/10/07)  -20.751  (m)                       GP(2002.00)
AD8621  NAD 83(1999)-  26 43 26.95371(N)    080 21 14.04463(W) AD(       ) 1
AD8621  ELLIP H (07/06/01)  -20.727  (m)                       GP(       ) 4 2
AD8621  NAD 83(1990)-  26 43 26.95265(N)    080 21 14.04379(W) AD(       ) 1
AD8621  ELLIP H (08/13/93)  -20.726  (m)                       GP(       ) 4 1
AD8621  NAD 83(1990)-  26 43 26.95288(N)    080 21 14.04264(W) AD(       ) 1
AD8621  ELLIP H (03/31/93)  -20.736  (m)                       GP(       ) 4 1
AD8621  NGVD 29 (03/31/93)    5.4    (m)  GEOID90 model used   GPS OBS
AD8621
AD8621.Superseded values are not recommended for survey control.
AD8621
AD8621.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD8621.See file dsdata.pdf to determine how the superseded data were derived.
AD8621
AD8621_MARKER: DD = SURVEY DISK
AD8621_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AD8621_STAMPING: TUNA
AD8621_MARK LOGO: FL-099
AD8621_MAGNETIC: R = STEEL ROD IMBEDDED IN MONUMENT
AD8621_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AD8621+STABILITY: SURFACE MOTION
AD8621_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD8621+SATELLITE: SATELLITE OBSERVATIONS - August 10, 1991
AD8621
AD8621  HISTORY     - Date     Condition        Report By
AD8621  HISTORY     - UNK      MONUMENTED       FL-099
AD8621  HISTORY     - 19910810 GOOD             ADRGS
AD8621  HISTORY     - 20021111 MARK NOT FOUND   USPSQD
AD8621  HISTORY     - 20040114 MARK NOT FOUND   USPSQD
AD8621  HISTORY     - 20050202 MARK NOT FOUND   USPSQD
AD8621
AD8621                           STATION DESCRIPTION
AD8621
AD8621'DESCRIBED BY ADR GEODETIC SERVICES 1991
AD8621'TO REACH THE STATION FROM THE INTERSECTION OF SOUTHERN BOULEVARD
AD8621'(STATE ROUTE 80, US ROUTE 98, US ROUTE 441 TO THE WEST) AND STATE
AD8621'ROUTE 7 (US ROUTE 441 TO THE SOUTH),GO WEST ON SOUTHERN BOULEVARD FOR
AD8621'7.5 MI (12.07 KM) TO LION COUNTRY SAFARI ROAD. TURN RIGHT AND GO
AD8621'NORTH ON LION COUNTRY SAFARI ROAD FOR 1.7 MI (2.74 KM) TO DOE DRIVE.
AD8621'TURN LEFT AND GO WEST ON DOE DRIVE FOR 0.5 MI (0.80 KM) , BEAR RIGHT
AD8621'AND CONTINUE NORTHWEST ON DOE DRIVE FOR 0.35 MI (0.56 KM) , BEAR
AD8621'RIGHT AND CONTINUE NORTH ON DOE DRIVE FOR 0.35 MI (0.56 KM) TO DEER
AD8621'RUN BOULEVARD. TURN LEFT AND GO WEST ON DEER RUN BOULEVARD FOR 1.3 MI
AD8621'(2.09 KM) TO DEER RUN TRAIL. TURN RIGHT AND GO 0.5 MI (0.80 KM) NORTH
```

AD8621'ON DEER RUN TRAIL TO THE END OF THE ROAD AND THE STATION 30 FEET
AD8621'SOUTH OF THE SOUTH EDGE OF A CANAL.
AD8621'THE STATION IS NORTHEAST 38.21 FT (11.65 M) FROM A PK AND WASHER IN
AD8621'THE NORTH FACE OF A 6 INCH CYPRESS TREE, NORTHWEST 68.21 FT
AD8621'(20.79 M) FROM A NAIL AND TIN TAB IN A CYPRESS TREE, AND NORTH 36.21
AD8621'FT (11.04 M) FROM A NAIL AND TIN TAB 3 FEET UP THE EAST SIDE OF A 20
AD8621'INCH CYPRESS TREE. THE STATION IS 1.8 FT (0.55 M) NORTH OF A PALM
AD8621'BEACH COUNTY SURVEY WITNESS SIGN AND POST.
AD8621
AD8621 STATION RECOVERY (2002)
AD8621
AD8621'RECOVERY NOTE BY US POWER SQUADRON 2002 (AAS)
AD8621'MARK NOT FOUND.
AD8621
AD8621 STATION RECOVERY (2004)
AD8621
AD8621'RECOVERY NOTE BY US POWER SQUADRON 2004 (AAS)
AD8621'MARK NOT FOUND.
AD8621
AD8621 STATION RECOVERY (2005)
AD8621
AD8621'RECOVERY NOTE BY US POWER SQUADRON 2005 (AAS)
AD8621'MARK NOT FOUND.

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

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

SCADA RTU Station Name: **L8FEB7E**	DB Hydro Site Name: **L8FEB7**	Agency: **SFWMD**	Date of Field Work: **7/30/18**
Party Chief: **D FEREL**	Field Book: **826**	Page(s) **43**	Prepared by: **KEITH**

SITE SPECIFIC DATA

Site Benchmark: **TUNA**	Benchmark Elevation (NAVD88) **16.26'**	Corpscon 6.0.1 Conversion Factor (*NAVD88 to NGVD29*) **+1.46'**
Reference Elevation(s) (*NAVD88*): **14.95'**	Existing Brass Tag Elevation (Datum): **N/A**	Calibration Port Elevation(s) (*NAVD88*): **N/A**
Ground Elevation (NAVD88): **15.53'**	Pad Elevation (NAVD88): **N/A**	

GEOGRAPHIC DATA

Section **16**	Township **43** South		Range **40** East
Well or Benchmark	Latitude: **26°43'27.09"**	Longitude: **80°21'15.94"**	Source: RTK GPS Observations
	State Plane Coordinates	Northing (Y) =**869449.15**	Easting (X) =**866890.31**

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

Overall Site (Looking Northerly)

Not to scale (esri product)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Overall
Looking Westerly (not to scale)

Looking Northerly Oblique 3.00’ (not to scale)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

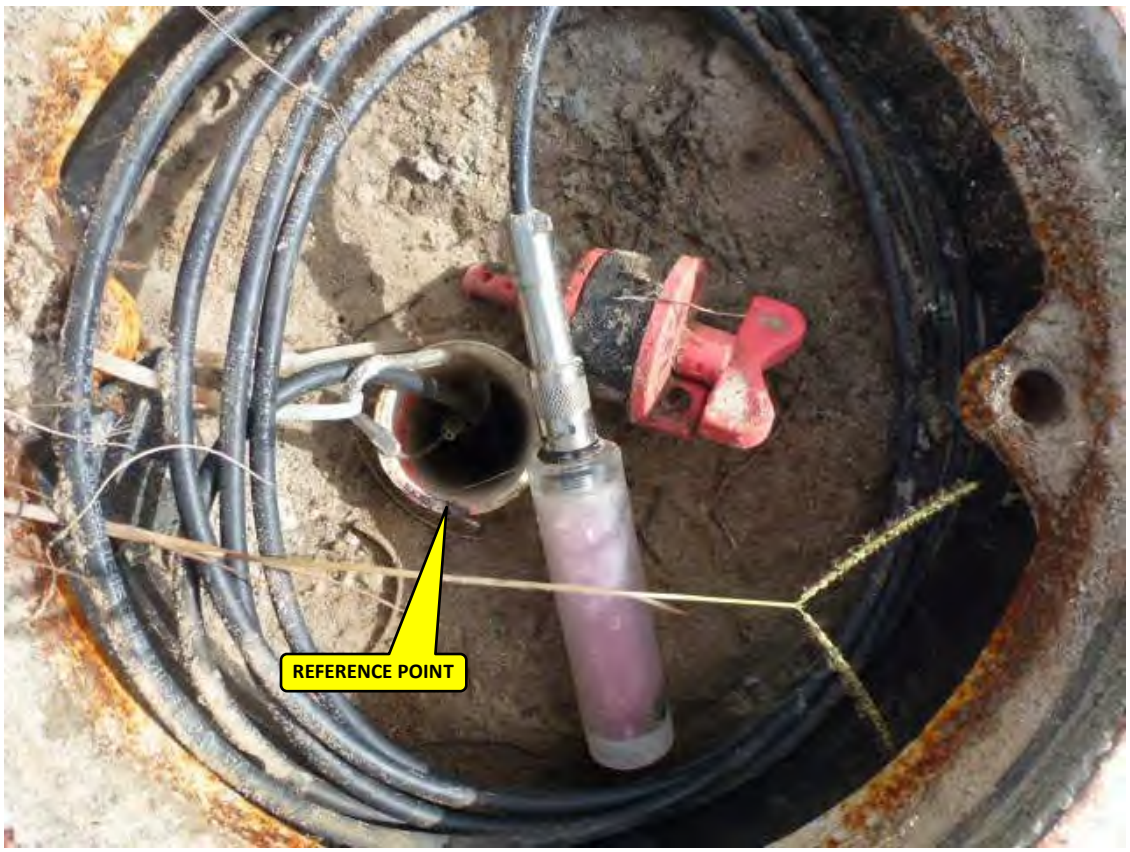
Looking Northerly Oblique 10.00’ (not to scale)

Well Head Top View (not to scale)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Well Head Top View (not to scale)



Benchmark Oblique 10.00’ (not to scale)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Benchmark Oblique 3.00' (not to scale)

Benchmark Top View (not to scale)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

SCADA RTU Station Name: **L8FEB7W**	DB Hydro Site Name: **L8FEB7**	Agency: **SFWMD**	Date of Field Work: **7/30/18**
Party Chief: **D FEREL**	Field Book: **826**	Page(s) **43**	Prepared by: **KEITH**

SITE SPECIFIC DATA

Site Benchmark: **TUNA**	Benchmark Elevation (NAVD88) **16.26'**	Corpscon 6.0.1 Conversion Factor (*NAVD88 to NGVD29*) **+1.46'**
Reference Elevation(s) (*NAVD88*): **14.80'**	Existing Brass Tag Elevation (Datum): **N/A**	Calibration Port Elevation(s) (*NAVD88*): **N/A**
Ground Elevation (NAVD88): **15.56'**	Pad Elevation (NAVD88): **N/A**	

GEOGRAPHIC DATA

Section **16**	Township **43** South		Range **40** East
Well or Benchmark	Latitude: **26°43'27.09"**	Longitude: **80°21'16.12"**	Source: RTK GPS Observations
	State Plane Coordinates	Northing (Y) =**869449.40**	Easting (X) =**866874.66**

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

Overall Site (Looking Northerly)

Not to scale (esri product)

Overall
Looking Easterly (not to scale)

Looking Northerly Oblique 10.00’ (not to scale)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Looking Northerly Oblique 3.00’ (not to scale)

Well Head Top View (not to scale)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Well Head Top View (not to scale)

Benchmark Oblique 10.00’ (not to scale)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Benchmark Oblique 3.00’ (not to scale)

Benchmark Top View (not to scale)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

DESIGNATION: **TUNA**		PROJECT: **L-8 Reservoir**	
ESTABLISHED BY: **SOUTH FLORIDA WATER MANAGEMENT DISTRICT** RECOVERED BY: **KEITH**		SURVEYOR: **Lee Powers** DATE: **7/30/18**	
GEOGRAPHIC POSITION			
SECTION **16**	TOWNSHIP **43** SOUTH	RANGE **40** EAST	
COUNTY: **PALM BEACH**	NAME OF QUADRANGLE: **LOXAHATCHEE (1984)** GEOGRAPHIC INDEX OF QUAD: **N/A**		
HORIZONTAL DATUM: 1927 (**1983**) 2011 Other *(circle one)* ZONE (E) or W			
VERTICAL DATUM: MSL 1929 (**1988**) 2022 Other *(circle one)*			
VERTICAL ACCURACY: 1 2 (3)			
STATE PLANE COORDINATE	(N) Y=**869436.84**	(E) X=**867062.47**	NAVD 88 EL. **16.26'** NGVD 29 EL. **17.72'**
CORPSCON 6.0.1 CONVERSION FACTOR (NAVD88 TO NGVD29): +1.46' (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.) ACTUAL NGS or (ngvd29.txt file) OPUS Ortho Height			
LATITUDE:**26°43'26.96" (N)**	LONGITUDE:**80°21'14.05" (W)** **(Source)** RTK GPS Observations		
RECOVERY DATA			
Stamping:			
To Reach: FROM THE INTERSECTION OF THE TURNPIKE ENTRANCE NORTH BOUND AND STATE ROAD 80 (SOUTHERN BLVD) IN WEST PALM BEACH PROCEED WEST ON STATE ROAD 80 12.35 MILES TO THE EAST SIDE OF L8 CANAL. TURN RIGHT AND PROCEED +/- 125 FEET NORTH ALONG THE EAST SIDE OF THE L8 CANAL TO LOCKED METAL GATE. PASS THROUGH GATE AND CONTINUE NORTH 2.65 MILES. TURN RIGHT EAST AND PROCEED DOWN THE LEVEE +/- 150 FEET TO A LOCKED DOUBLE CHAIN LINK FENCE GATE. PASS THROUGH GATE TURN RIGHT SOUTH +/- 75 FEET TURN LEFT EAST AND PROCEED 0.45 MILE ALONG THE SOUTH SIDE OF AN EAST WEST DITCH TO WELL SITE L8 FEB 7 (TWO WELLS FLUSH WITH GROUND) AND THE STATION LOCATION IS 175 FEET EAST OF THE WELL SITE. THE STATION IS LOCATED 27 FEET NORTH OF A PALM BEACH COUNTY METAL WITNESS POST NAILED TO A CYPRESS TREE. AND 175 EAST OF WELL SITE L8 FEB 7. THE STATION IS A PALM BEACH COUNTY GEODETIC SURVEY BRASS DISK FOUND IN CONCRETE. STAMPED TUNA			
NOTABLE LAND MARKS: **N/A**			
NGS SOURCE BENCHMARK: **L8 DIVIDE**			
FIELD BOOK **826** PAGE **43**			
PICTURES