

1
9
6
9

Franklin Co.

La Fayette Co.

Liberty Co.

Madison Co.

Taylor Co.

Wakulla Co.

Gadsden Co.

K. Maxwell

B. Sanvic

1969

35

Keith Maxwell and Bobby Larvis

Florida Board of Conservation

Division of Geology

P.O. Drawer 631

Tallahassee, Fla.

32302

\$5.00

REWARD FOR THE
RETURN OF THIS
BOOK

224-7141



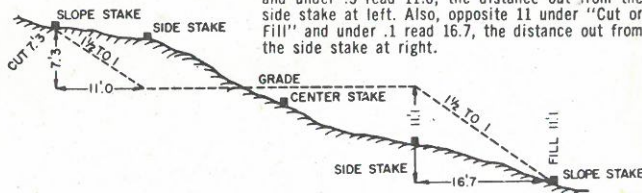
The paper in this book is made of 50% high grade rag stock with a WATER RESISTING surface sizing.

KEUFFEL & ESSER CO.

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes 1½ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



Cut or Fill	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Cut or Fill
	Distance out from Side or Shoulder Stake										
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

well #
(or sheet)

B.S.

I.H.

F.S.

Elev.

100.00

B.M.

TP,

5.38

105.38

3.74

102.64

top data to

SAMPLE

Name of county

Date

Rough location

Weather

who used what

3. M. description

drawing

W-4 ✓	B.S.	I.H.	F.S.	Elev.
B.M.				147.53
TP,	4.98	152.51	2.99	149.52

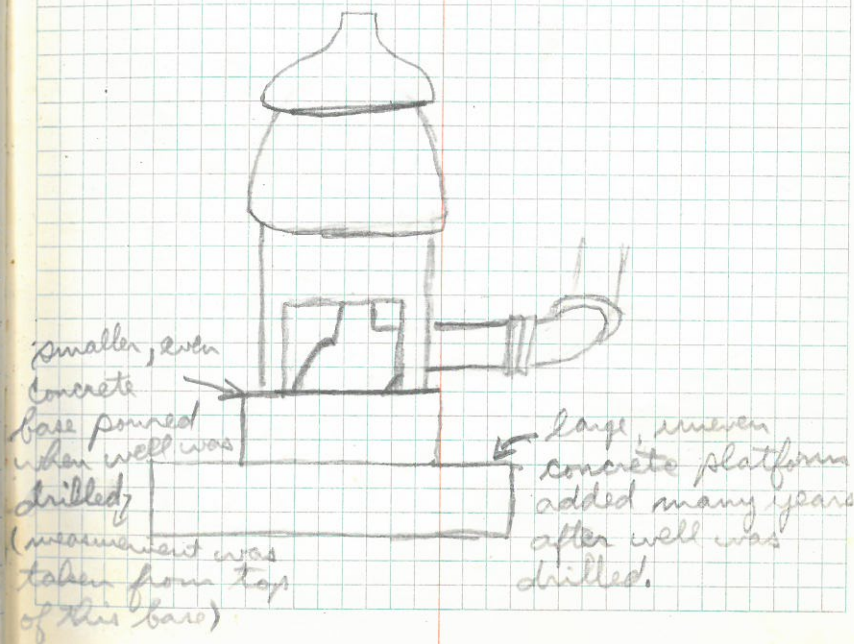
Since the well was on a hillside, the ground around the well was much too uneven for the measurement of a meaningful ground level.

Gadsden County June 20, 1969
City of Quincy Water Works
on highway 267, immediately
north of city limits

NW 1/4 SW 1/4, Sec. 6, T2N, R3W

Bright, sunny weather

Maxwell on level, Bobby on rod



W-3337

B.S.	I.H.	F.S.	Elev.
			231.16
			232

B.M.

TP ₁	4.30	236.30	6.10	230.20
-----------------	------	--------	------	--------

TP ₂	10.08	240.28	0.22	240.06
-----------------	-------	--------	------	--------

TP ₃	10.75	250.81	0.20	250.61
-----------------	-------	--------	------	--------

TP ₄	10.69	261.30	5.12	256.18
-----------------	-------	--------	------	--------

TP ₅	5.38	261.56	9.58	251.98
-----------------	------	--------	------	--------

TP ₆	3.34	255.32	4.20	251.12
-----------------	------	--------	------	--------

TP ₇	1.62	252.74	5.22	247.52
-----------------	------	--------	------	--------

				248.36
--	--	--	--	--------

Correction (for correct B.M. Elevation):

232.00
- 231.16
<u>.84</u>

Ladson County

June 20, 1969

B.M.: USC & HS

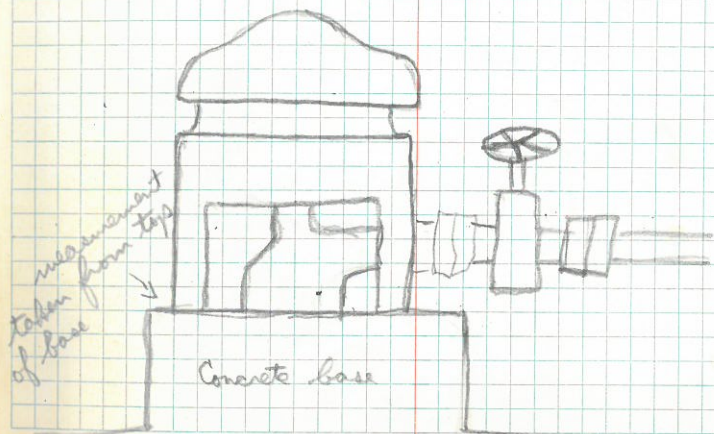
Q-154

1954

Bright, hot day

Mapwell - level

Sawis - Rod



W-3776 ✓

	B.S.	I.H.	F.S.	Elev.	
B.M.					256
TP ₁	7.12	263.12	5.88	257.24	
TP ₂	4.14	261.38	6.62	254.76	
TP ₃	3.34	258.10	6.80	251.30	
TP ₄	4.78	256.08	8.32	247.76	
TP ₅	0.97	248.73	10.38	238.35	
TP ₆	0.82	239.17	10.44	228.73	
TP ₇	0.67	229.40	11.02	218.38	
TP ₈	1.10	219.48	11.05	208.43	
TP ₉	0.88	209.31	11.06	198.25	
TP ₁₀	0.46	198.71	10.59	188.12	
TP ₁₁	10.10	198.22	0.38	197.84	
TP ₁₂	10.02	207.86	0.25	207.61	
TP ₁₃	11.18	218.79	0.20	218.59	
TP ₁₄	10.92	229.51	0.40	229.11	
TP ₁₅	11.08	240.19	0.26	239.93	
TP ₁₆	11.06	250.99	0.54	250.45	
TP ₁₇	9.00	279.45	3.90	255.55	
TP ₁₈	8.88	264.43	0.49	263.94	
TP ₁₉	6.99	270.93	3.34	267.59	
TP ₂₀	5.14	272.73	5.20	267.53	
TP ₂₁	3.78	271.31	5.64	265.67	
TP ₂₂	3.46	269.13	9.11	260.02	ground level
			9.43	259.70	top of road

Gadsden County June 23, 1969

B.M. USC & H.S.
Juniper
 1964
1938

Bright, Sunny day
Mapnell - level
Lavis - rod

The well was plugged & abandoned.
We found a 4' x 4' depression with
a thin layer of concrete a few
inches below the surface soil.

W-1786 ✓

B.S. I.H. F.S. Elev.

B.M.

291

TP ₁	7.54	298.54	4.44	294.10
TP ₂	2.48	296.58	8.72	287.86
TP ₃	6.74	294.60	6.54	288.06
TP ₄	4.54	292.60	9.01	283.59
TP ₅	1.76	285.35	3.17	282.18
			3.86	281.49

← ground level
 ← top of a
 4' X 4'
 depression

Gadsden County June 25, 1969

B.M.: 291

Sunny, hot day

Maxwell - level

Larvis - road

The site of the well was marked
 by a 4' X 4' depression containing
 a thin layer of
 either old concrete or rock under
 a few inches of soil.

W-545 ✓

B.S. I.H. F.S. Elev.

B.M.

162

TP₁ 6.14 168.14 6.86 161.28TP₂ 2.72 164.00 11.04 152.96TP₃ 1.78 154.74 9.06 145.68TP₄ 3.05 148.73 8.50 140.23TP₅ 1.38 141.61 10.76 130.85TP₆ 3.80 134.65 0.58 134.07TP₇ 10.90 144.97 0.62 144.35TP₈ 11.04 155.39 0.64 154.75TP₉ 10.46 165.21 0.65 164.56TP₁₀ 9.60 174.16 3.94 170.22TP₁₁ 5.57 175.74 5.20 170.59

6.36 169.43

← top of
concrete base
← top of
concrete
floor

Gadsden Co.

June 26, 1969

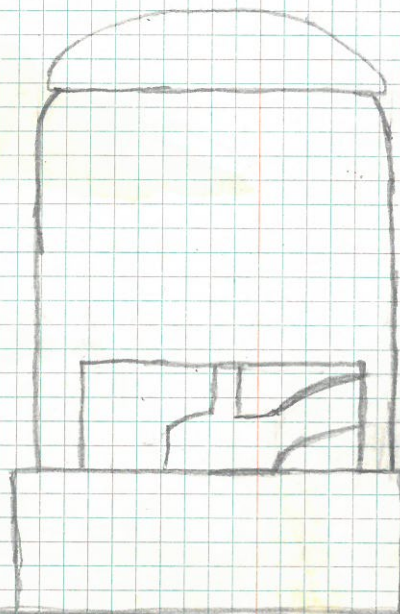
B.M.

USC + 48

FA 164

+ + +

1957



located in a
large, tin-roofed
shed beside
highway 29.

concrete
base
concrete
floor

W-3684 ✓

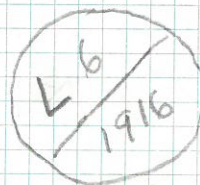
B.S.	I.H.	F.S.	Elev.	
				275.908
B.M.				
TP ₁	6.68	282.59	1.27	281.32
TP ₂	9.24	290.56	3.60	286.96
TP ₃	5.70	292.66	6.00	286.66 ← Ground
		5.20	287.46	← Casing

Gadsden Co.

June 26, 1967

B.M. UBC + 22.

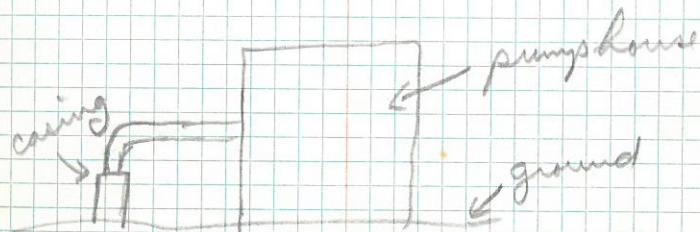
275.908



Sunny, hot weather

Mapwell - level

Lavis - rod



W-4407 ✓

B.S. I.H. F.S. Elev.

B.M.

227.82'

TP ₁	4.98	232.86	0.28	232.58
TP ₂	9.98	242.56	2.15	240.41
TP ₃	1.48	241.89	9.84	232.05
TP ₄	0.30	232.35	3.72	228.63
TP ₅	6.42	235.05	5.08	229.97
TP ₆	5.94	235.91	4.89	231.02
TP ₇	8.52	239.54	5.90	233.64
TP ₈	5.16	238.80	5.60	233.20
			4.24	234.56

← Ground
← Casing

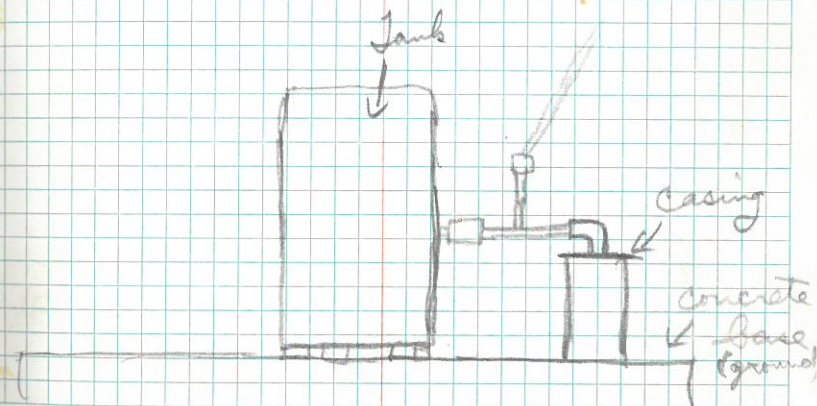
Madroen County June 30, 1969

B.M.: SRD #23

Nail in Cedar tree
very recently established

Sunny, hot weather
Maxwell - level
Sarris - rod

in a white well house



W-4240 ✓

B.S.

I.H.

F.S.

Elev.

B.M.

138.96

TP₁

2.48

141.44

9.12

132.32

TP₂

6.51

138.83

0.53

138.30

TP₃

10.70

149.00

0.54

148.46

TP₄

11.17

159.63

0.33

159.30

TP₅

10.75

170.05

5.00

165.05

← Casing

5.18

164.87

← Ground

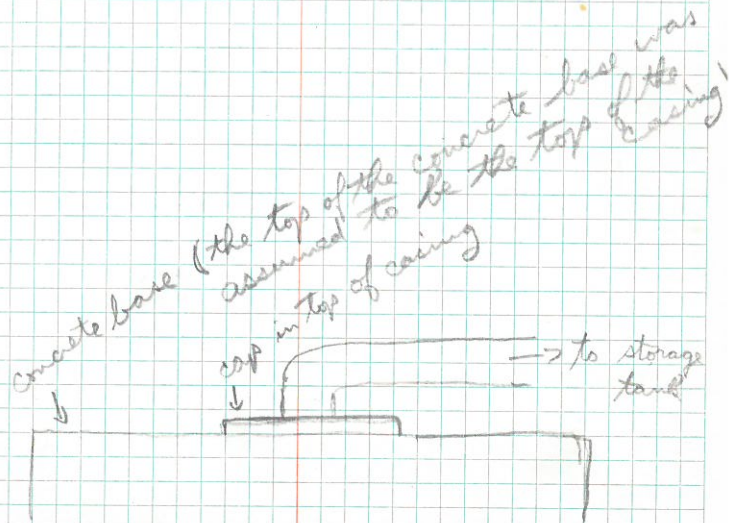
Deer Creek County, Georgia July 1, 1969

B.M. - U.S. Army Corps of Engineers

Sunny, warm weather

Maxwell - level

Larris - rod



W-4303 ✓

B.S. I.H. F.S. Elev.

B.M.

76.88

T.P.

9.42

86.30

1.00

85.30

T.P.₂

7.18

92.48

4.63

87.85

T.P.₃

9.08

96.93

1.26

95.67

T.P.₄

7.48

103.15

4.58

98.57

Ground

3.14

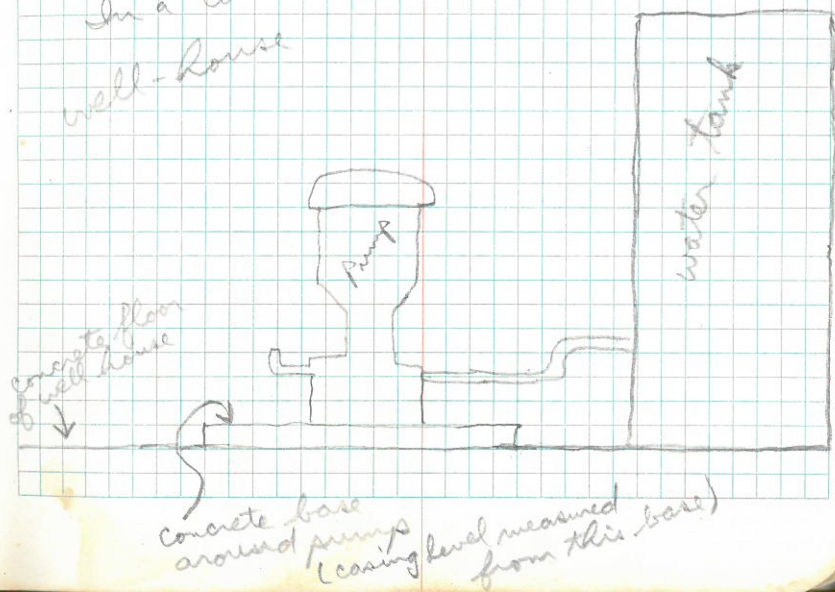
100.01

Casing

Acatur Co., Georgia July 1, 1969

B.M.: U.S. Corps of Engineers

Cloudy weather

Maxwell-level
Lavis - rodIn a concrete block
well-house

W-3577

B.S.

I.H.

F.S

Elev.

B.M.

282.00

TP₁ 1.32 283.32 10.82 272.50TP₂ 0.53 273.03 10.94 262.09TP₃ 2.12 264.21 7.74 256.47TP₄ 4.66 261.13 6.40 254.73TP₅ 6.50 261.23 3.32 257.91TP₆ 9.42 267.33 0.68 266.65TP₇ 8.48 275.13 0.48 274.65TP₈ 6.79 281.44 3.46 277.98TP₉ 6.88 284.86 5.96 278.90TP₁₀ 6.88 285.78 4.86 280.92TP₁₁ 2.26 283.18 5.32 277.86TP₁₂ 4.77 282.63 8.91 273.72TP₁₃ 1.34 275.06 5.10 269.96TP₁₄ 6.78 276.74 6.80 269.94TP₁₅ 0.97 270.91 10.71 260.20TP₁₆ 0.92 261.12 10.86 250.26TP₁₇ 1.44 251.70 10.70 241.00TP₁₈ 4.88 245.88 8.94 236.94

7.84 238.04

Concrete

Found

Gadsden County

July 2, 1969

B.M. : U.S. G.S.



282. feet

76 JWM 1951

Sunny, hot weather

Maxwell - level

Lewis - road

W-1990 ✓

B.S. I.H. F.S. Elev.

B.M. 245

TP₁ 5.96 250.96 9.26 241.70TP₂ 7.42 249.12 1.45 247.67TP₃ 6.45 254.12 5.80 248.32 ← Ground

5.20 248.92 ← Casing

Madison Co.

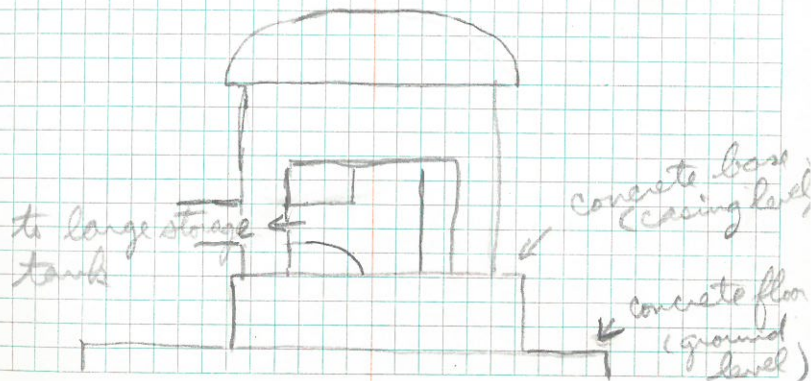
July 2, 1969

B.M. — we used a B.M. established at the experimental station. It's accuracy was only ± 1 foot.

Cloudy weather — immediately after a rainstorm.

Maxwell — level
Larvis — rod

In a small well-house.



W-7603 ✓

B.S. I.H. F.S. Elev.

B.M.

148.24'

TP₁ 8.14 156.38 4.96 151.42TP₂ 3.12 154.54 2.04 152.50TP₃ 6.84 159.34 5.54 153.80

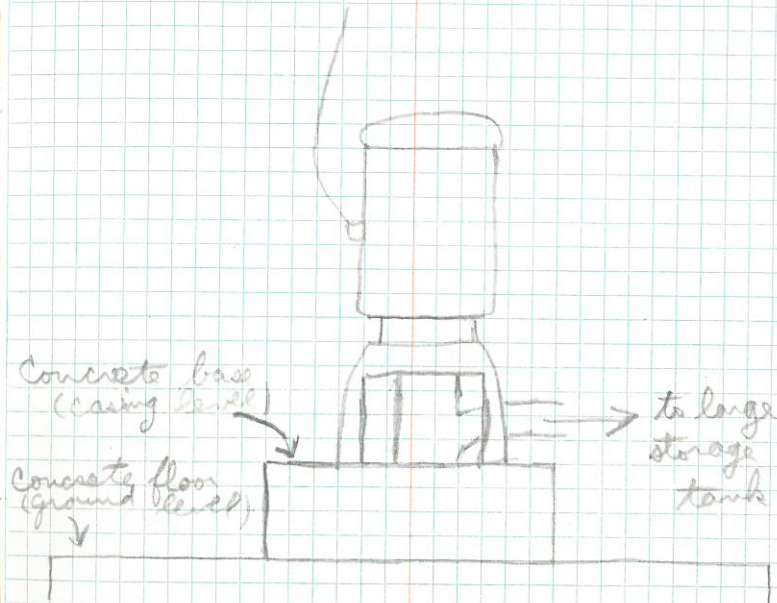
← Ground

4.46 154.88 ← casing

Madison Co. July 2, 1969

B.M. - SRD No. 29, recently established

Cloudy weather

Mapwell - level
Lavis - rod

W-4915 ✓

B.S. I.H. F.S. Elev.

B.m.

294

TP₁ 6.42 300.42 5.53 294.89TP₂ 4.76 299.65 6.42 293.23TP₃ 4.05 297.28 4.94 292.34

4.64 292.64

Ground

Casing

Yacholen Co. July 3, 1969

B.M. : U.S.G.S. Bench Mark

4 REL

ELEVATION

ABOVE $\triangle$ SEA

294 FEET

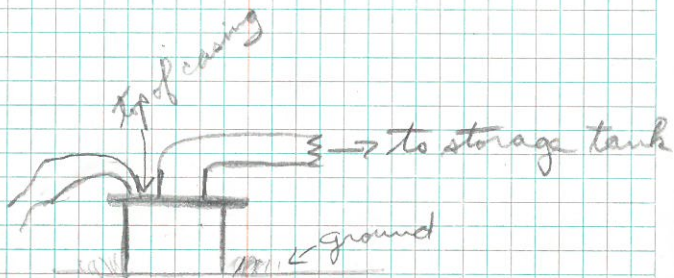
TT

1953

Sunny, hot weather

Marwell - level

Lavis - rod



W-8583 ✓

B.S.

I.H.

F.S.

Elev.

B.M.

245

TP₁ 6.59 251.59 4.48 247.11TP₂ 7.58 254.69 6.08 248.61TP₃ 4.94 253.55 4.88 248.67 Ground

3.90 249.65 Casing

Lachden Co.

July 3, 1969

B.M.:

1954

ELEVATION

ABOVE $\triangle$ SEA

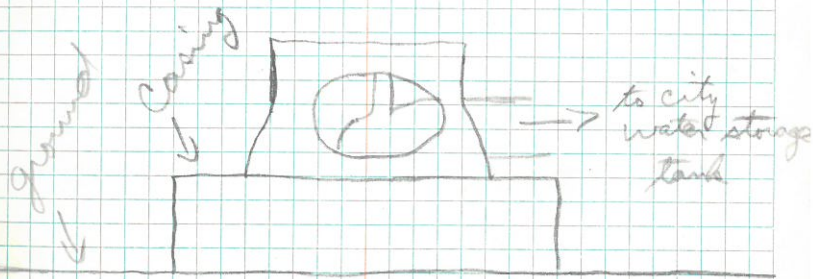
245 FEET

REL 7

Sunny weather

Maxwell - level

Larvis - rod



W-3199 ✓

B.S.

I.H.

F.S.

Elev.

B.M.

168

TP₁ 4.02 172.02 5.10 166.92TP₂ 5.24 172.16 5.24 166.92TP₃ 5.94 172.86 5.80 167.06 ~~Ground~~

4.65 168.21 ← casing

Liberty County

July 8, 1969

B.M.: U.S. GS. B.M.

TT45

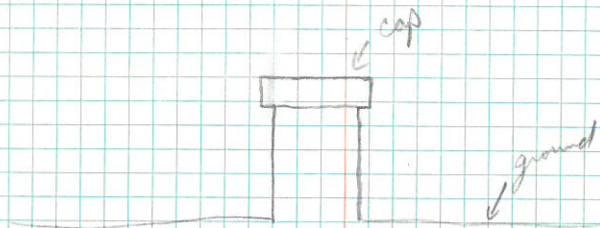
A

1942

Sunny, hot weather

Maxwell - level

Lavis - rod



W-5593
✓

	B.S.	I.H.	F.S.	Elev.	
B.M.					78.02
TP ₁	11.10	89.12	6.36	82.76	
TP ₂	5.32	88.08	6.27	81.81	
TP ₃	4.78	86.59	5.30	81.29	Ground
			5.26	81.33	Casing

Liberty Co.

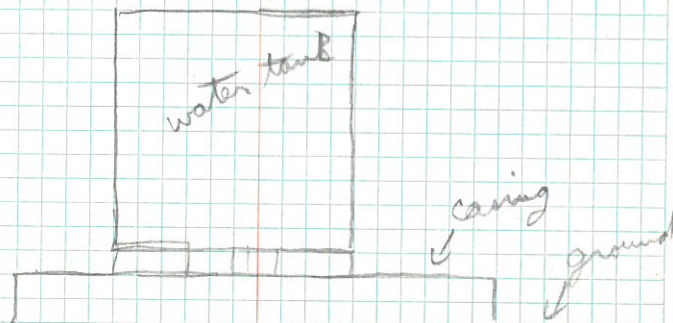
July 8, 1969

B.M.: TBM 9 L2A

Sunny, hot weather

Maxwell - level

Lavis - rod



W-6224
✓

B.S.

I.H.

F.S.

ELEV.

B.M.

22.84

TP₁ 2.04 24.88 7.22 17.66TP₂ 5.30 22.96 6.65 16.31TP₃ 5.40 21.71 3.76 17.95 *Ground*2.50 19.21 *Casing*

Liberty County

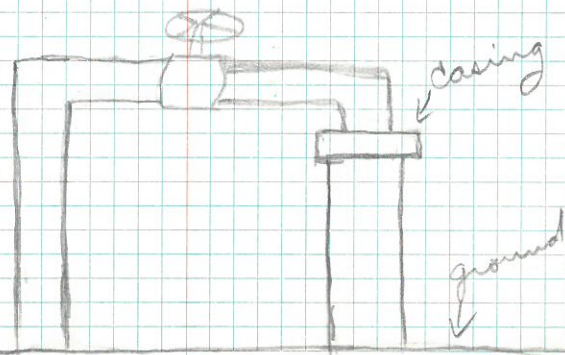
July 9, 1969

B.M.: TBM 1L12

Cloudy weather

Maxwell - level

Sarvis - rod



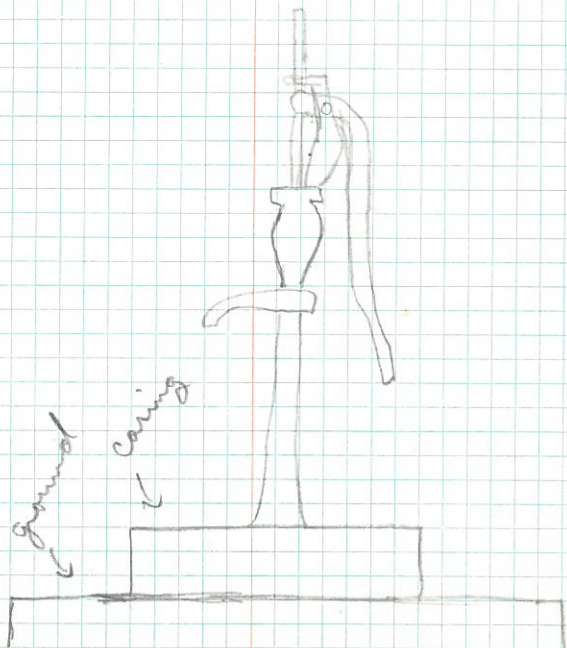
W-5535 ✓	B.S.	I.H.	F.S.	Elev.	
B.M.					62.26
TP ₁	6.24	68.50	4.98	63.52	
TP ₂	6.04	69.56	6.43	63.13	
TP ₃	4.57	67.70	6.26	61.44	showed
			5.47	62.23	Casing

Liberty County July 9, 1969

B.M. TBM 11 T L 1.

Cloudy, hot weather

Maxwell - level
Lavis - road



W-5686

B.S. I.H. F.S. ELEV.

B.M.

25

B.S.	I.H.	F.S.	ELEV.
TP ₁	3.56	28.56	5.26 23.30
TP ₂	5.06	28.36	5.72 22.64
TP ₃	5.65	28.29	5.20 23.09
TP ₄	4.96	28.05	5.20 22.85
TP ₅	5.74	28.59	5.64 22.95
			4.68 23.91

Ground

Casing

Liberty Co.

July 9, 1969

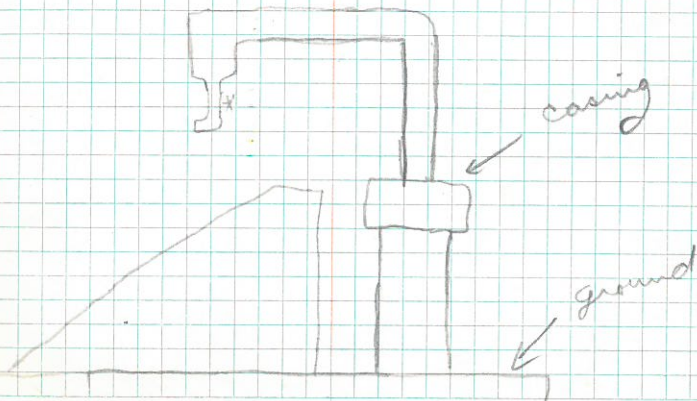
B.M.

25 ft.

Hot, sunny weather

Maxwell - level

Lewis - road



W-5538 ✓ B.S. I.H. F.S. ELEV.

B.M.

TP. 4.60 63.60 4.87 58.73
4.35 59.25

59

Ground

Casing

Liberty Co.

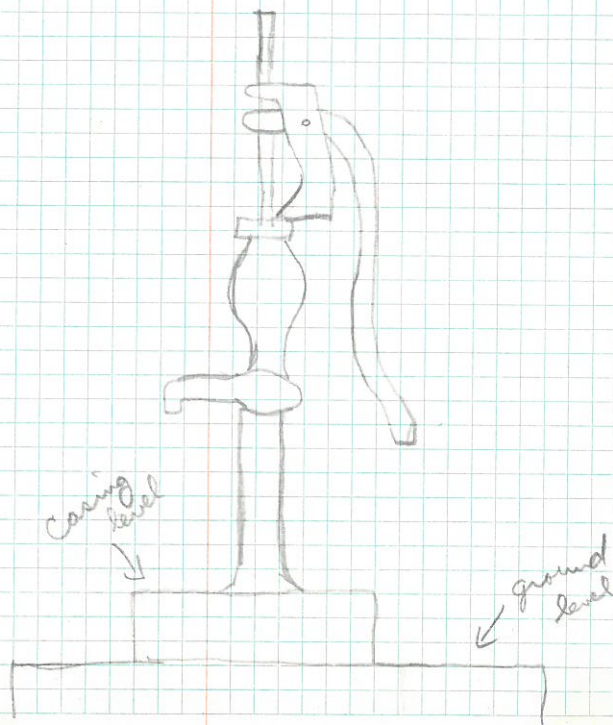
July 9, 1969

B.M.

Hot, cloudy day

Maxwell - level

Lewis - rod



W-5687 ✓

B.S.

I.H.

F.S.

Elev.

B.M.

38.18

TP₁ 5.00 43.18 5.94 37.24TP₂ 5.02 42.26 5.74 36.52TP₃ 6.18 42.70 5.70 37.00TP₄ 5.30 42.30 7.20 35.10TP₅ 5.98 41.08 7.20 33.88TP₆ 5.78 39.66 7.60 32.06TP₇ 7.78 39.84 7.22 32.62TP₈ 6.18 38.80 4.34 34.46

3.89 34.91

← Ground

← Coring

Liberty Co.

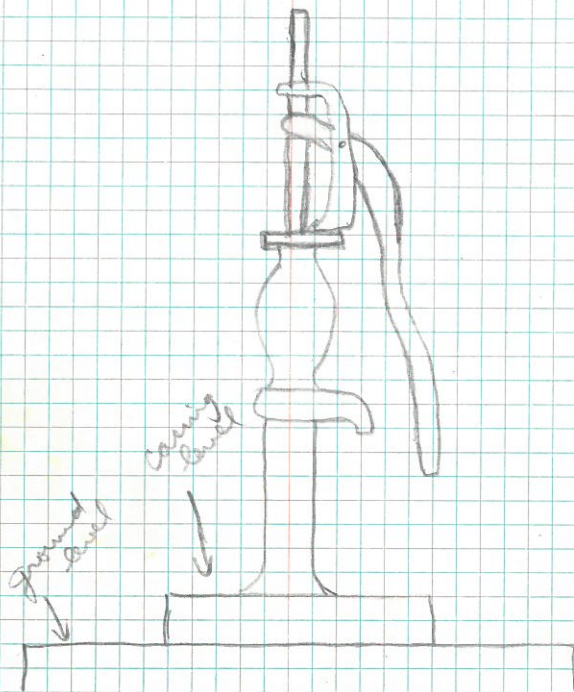
July 10, 1969

B.M. : TBM 8L 16A

Sunny, hot weather

Maxwell - level

Sarris - rod



W-6198 ✓

B.S.

I.H.

F.S.

Elev.

B.M.

25

TP₁ 8.80 33.80 3.26 30.54TP₂ 10.96 41.50 0.13 41.37TP₃ 10.50 51.87 2.36 49.51TP₄ 4.37 53.88 5.88 48.00TP₅ 4.22 52.22 8.12 44.10TP₆ 4.28 48.38 8.00 40.38TP₇ 2.40 42.78 5.08 37.70TP₈ 1.06 38.76 10.22 28.54TP₉ 5.00 33.54 7.50 26.04TP₁₀ 3.14 29.18 7.26 21.92TP₁₁ 5.17 27.09 5.20 21.89 ← Ground

4.08 23.01 ← Casing

Liberty Co.

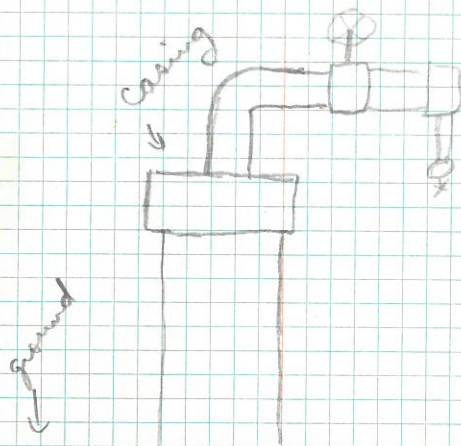
July 10, 1969

B.M. : 25 feet

Sunny, hot weather

Mannell - level

Larvis - red



W-5997 ✓

B.S. I.H. F.S. Elev.

B.M.

37

TP ₁	8.07	45.07	7.53	37.54	
TP ₂	0.58	38.12	10.52	27.60	
TP ₃	2.46	30.06	9.00	21.06	
TP ₄	4.54	25.60	5.70	19.90	
TP ₅	5.78	25.68	5.48	20.20	
TP ₆	6.00	26.20	4.55	21.65	
TP ₇	5.90	27.55	5.67	21.88	
TP ₈	3.72	25.60	7.46	18.14	
TP ₉	7.62	25.76	4.91	20.85	Ground
TP ₁₀	6.18	27.03	6.80	20.23	Casing
			6.08	20.95	

Liberty Co.

July 16, 1969

B.M.: U.S. N.S. B.M.

TT 23 W.D.

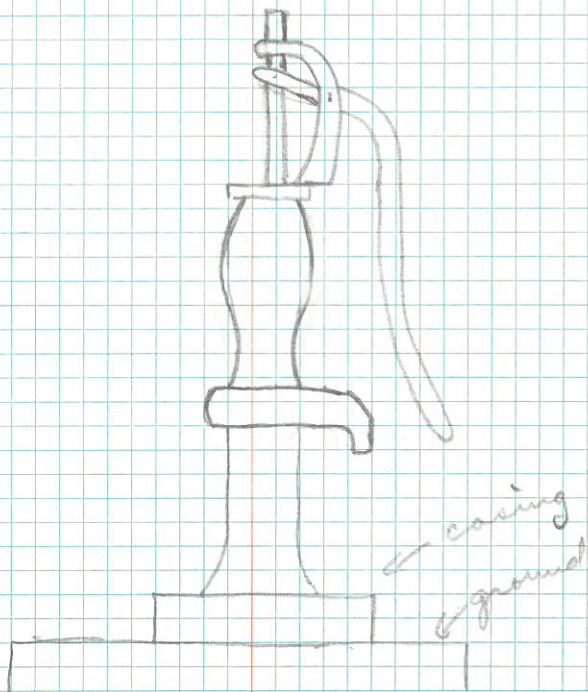
1942

37'

Cloudy, damp weather

Mapwell-level

Savis-rod



W5585

B.S. I.H. F.S. Elev.

B.M.

35

TP ₁	8.12	43.12	3.94	39.18
TP ₂	3.87	43.05	10.67	32.38
TP ₃	7.92	40.30	3.67	36.63
TP ₄	2.64	39.27	4.12	35.15
TP ₅	7.32	42.47	10.39	32.08
TP ₆	5.48	37.56	10.82	26.74
TP ₇	1.02	27.76	5.94	21.82
			5.76	22.00

Ground
Casing

Wakulla Co.

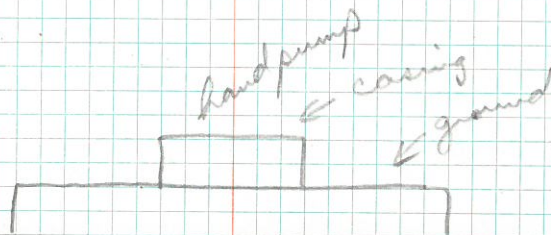
July 17, 1969

B.M. : 21.2 21.2 B.M.

35 feet

24 M 1943

Sunny, hot weather

Mapwell - level
Larvis - rod

W-5817, B.S. F.S. I.H. ELEV.

B.M.

TP,

4.82

68.82

5.34

63.48

4.06

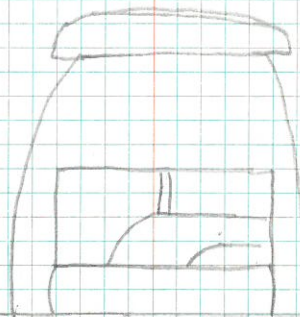
64.76

64
Ground
Casing

Wakulla Co.

July 17, 1969

B.M.: U.S. Forestry Service



to water tower

W-8181 B.S. F.S. I.H. Elev.

B.M.

TA 2.16

2.10

TL 7.24

6.88

3.90

← Ground
← Casing

for ground elev., add 0.42' to B.M. elev.
" casing " , " 3.40' to B.M. elev.

Wakulla Co.

July 17, 1969

B.M.: U.S.C. + G.S. B.M.

J 288

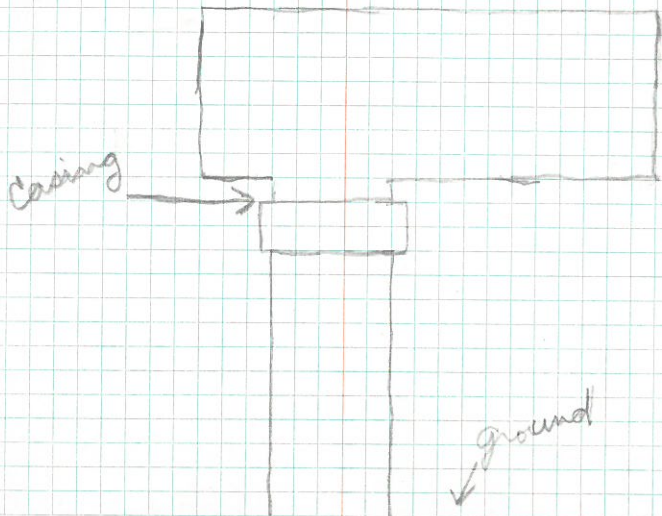
+

1967

Cloudy, warm weather

Maxwell - level

Lewis - rod



W-6352

	B.S.	I.H.	F.S.	Elev.	
B.M.					27772
TP ₁	3.20	30.97	6.26	24.71	
TP ₂	2.15	26.86	3.46	23.40	← Ground
			2.57	24.29	← Casing

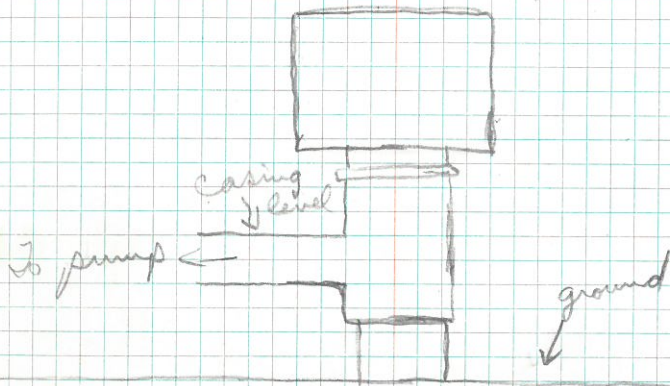
Wakulla Co.

July 18, 1969

B.M.: Lopschopy McIntyre North Base
Triangulation

funny, hot weather
 Maxwell - level
 Larvis - rod

In a well house, behind the
 Elementary school is gymnasium



W-8464 ✓

B.S.

I.H.

F.S.

Elev.

B.M.

27.77

	B.S.	I.H.	F.S.	Elev.
TP ₁	5.38	33.15	7.44	25.71
TP ₂	4.12	29.83	4.88	24.95
TP ₃	5.82	30.77	5.86	24.91
TP ₄	4.86	29.77	4.56	25.21
			3.46	26.31

← Ground
Casing

Wakulla Co.

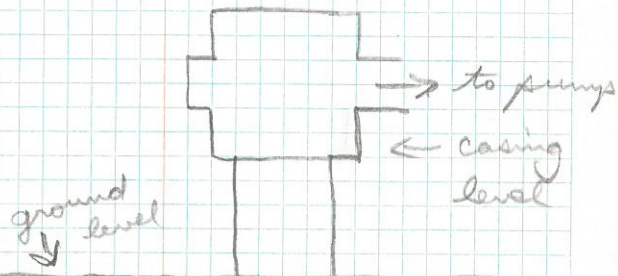
July 18, 1969

B.M. 27.772

Sunny, hot weather

Mapwell - level

Jarvis - rod



W-8172

B.S. I.H. F.S. Elev

6.00

B.M.

3.32

TP₁ 5.06

8.04

TP₂ 6.04

3.46

TP₃ 4.28

5.14

TP₄ 5.02

5.30

TP₅ 6.16

6.30

TP₆ 7.58

3.24

TP₇ 3.90

7.13

TP₈ 4.35

4.06

3.26

Ground
CasingVOID

Wakulla Co.

July 18, 1969

B.M. : U.S.C.G.S. Triangulation

Station

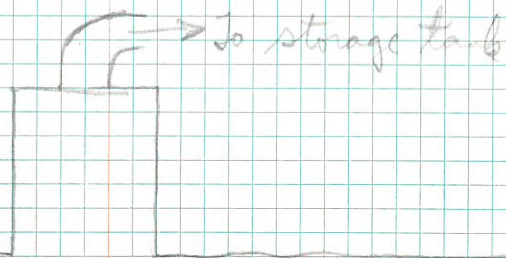
THOMS 1935



nearby: USC+GS Reference Mark

THOMS - 1935
R.M. 1
→

330



W-8463 ✓

B.S.

I.H.

F.S.

Elev.

B.M.

8.00

T.P.

3.86

11.86

5.58

6.28

TP₂

5.86

12.14

5.32

6.82

TP₃

4.97

11.79

5.07

6.72

TP₄

8.38

15.10

2.12

12.98

Ground

1.86

13.24

Casing

Wakulla Co.

July 22, 1969

B.M. : U.S.C. + N.S. B.M.

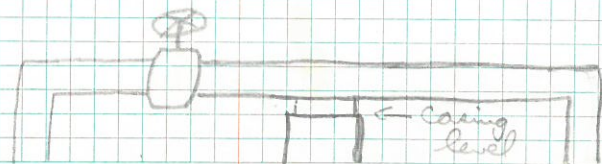
N282

1966

Sunny, cool weather

Mapwell - level

Larvis - rod



W-7633 ✓

B.S.

I.H.

F.S.

Elev.

B.M.

12

TP₁

5.89

17.89

3.95

13.94

TP₂

4.17

18.11

5.14

12.97

Round

4.83

13.28

Wakulla Co.

July 22, 1969

B.M.: Topo map elev. at
intersection

Sunny, hot weather

Mayfield - level

Law's - rod

Concrete floor of
small well down

open casing



W-6886 ✓

B.M.

B.S. I.H. F.S. Elev.

12

TP ₁	5.06	17.06	5.95	11.11
TP ₂	4.23	15.34	5.30	10.04
TP ₃	4.78	14.82	4.22	10.60
TP ₄	5.12	15.72	6.10	9.62
TP ₅	4.63	14.25	5.30	8.95
TP ₆	5.10	14.05	5.26	8.79
TP ₇	5.70	14.49	5.00	9.49

Ground

Wakulla Co.

July 22, 1969

B.M. : Topo map elev. at an
intersection - 12'

Sunny, hot weather

Martell - level

Lewis - red

W-7741

B.S. I.H. F.S. Elev.

B.M.

8'

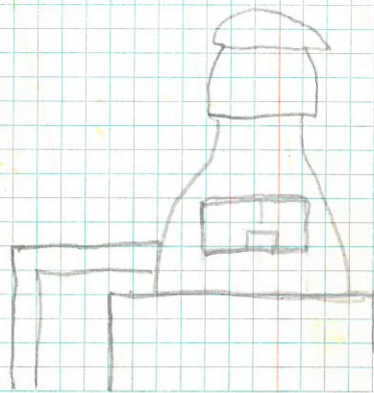
TP₁ 7.08' 15.08' 5.04' 10.04'TP₂ 8.50' 18.54' 6.10' 12.44'TP₃ 7.73 20.17' 6.20' 13.97'TP₄ 5.11' 19.08' 5.01' 14.07' ground
3.64 15.44' ailing

Wapulla Co.

July 22, 1969

B.M. :

Sunny, hot weather
 Larvis - level
 Maxwell - red.



W-7166 ✓	B.S.	I.H.	F.S.	Elev.	
B.M.	9				11.00
TP ₁	5.67	16.67	3.99	12.68	
TP ₂	4.38	17.06	3.10	13.96	
TP ₃	4.47	18.43	5.28	13.15	
TP ₄	2.98	16.13	6.12	10.01	
TP ₅	5.06	15.07	5.16	9.91	
TP ₆	5.37	15.28	5.80	9.48	
TP ₇	5.86	15.34	5.38	9.96	
TP ₈	3.76	13.72	5.22	8.50	
TP ₉	4.69	13.19	5.18	8.01	
TP ₁₀	5.86	13.87	5.18	8.69	
TP ₁₁	5.30	13.99	5.59	8.40	
TP ₁₂	5.48	13.88	5.72	8.16	Ground
			4.90	8.98	Casing

Wakulla Co.

July 23, 1969

B.M.: U.S. G.S. B.M.

TTSTA

11'

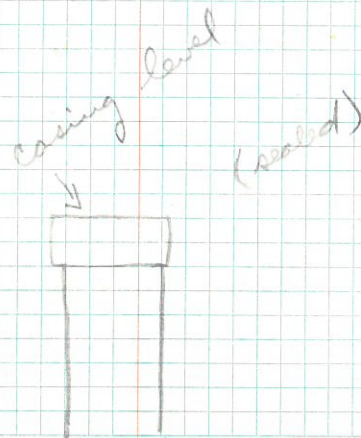
NO 14 TN

1938

Sunny, hot weather

Maxwell - level

Lewis - rod



W-3519 ✓

B.S.

I.H.

F.S.

Elev.

B.M.

15

T.P.

9.14

24.14

5.90

18.24

T.P.₂

6.60

24.84

4.49

20.35

Ground

2.94

21.90

Casing

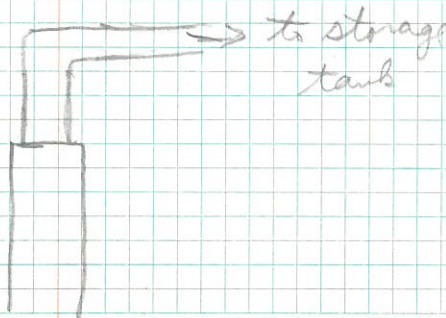
Wakulla Co. July 23, 1969

B.M. : Intersection - 15'

Rainy, cool weather

Mapwell - level

Lawis - rod



W-8477

BS

IH

F.S.

Elev.

BM

TP₁ 3.98' 12.98' 4.91' 8.07'TP₂ 4.71' 12.78' 4.54' 8.24'TP₃ 5.24' 13.48' 5.84' 7.64'TP₄ 5.44' 13.08' 4.50' 8.58'TP₅ 3.19' 11.77' 5.06' 6.71' ← ground

Walulla Co. July 23, 1969

B.M. 9' U.S.G.S. (1911) (1943)

Rainy weather

Maxwell-Rodman

James Levee

No evidence of
casing.

W-3543

BS IH FS Elev.

27.772

BM

TP₁ 7.30' 35.07' 6.00' 29.07'TP₂ 4.76' 33.83' 5.78' 28.05'TP₃ 6.00' 34.05' 5.94' 28.11'TP₄ 4.66' 32.77' 5.42' 27.35'TP₅ 5.42' 32.77' 5.90' 26.87'

4.24' 28.53'

← ground
← casing

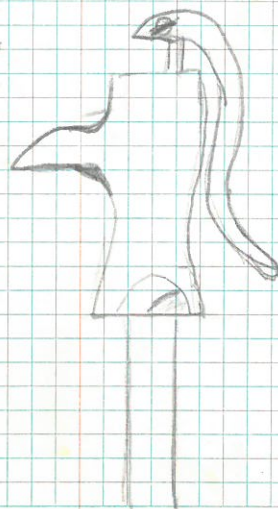
Wadulla Co.

July 23, 1969

BM: Top of choppy McIntyre North
Base TranslocationCloudy, hot weather
(humid)

Maxwell - Rodman

Lewis - Leavelle

This well
is not in
use.

W-5707 ✓

B.S.

I.H.

F.S.

Elev.

B.M.

11.81

B.M.	B.S.	I.H.	F.S.	Elev.
TP ₁	5.52	17.33	2.50	14.83
TP ₂	5.42	20.25	4.98	15.27
TP ₃	7.88	23.15	6.40	16.75
TP ₄	5.28	22.03	4.42	17.61
TP ₅	4.27	21.88	5.50	16.38
TP ₆	4.78	21.16	7.28	13.88
TP ₇	6.68	20.56	2.74	17.82
TP ₈	2.42	20.24	4.82	15.42
			4.60	15.64

Franklin Co.

July 24, 1969

B.M.: U.S. Army Corps of Engineers

Reset 1966

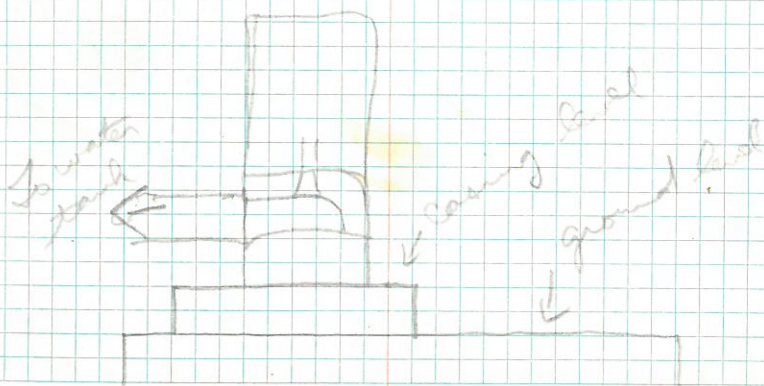
A4-1

11.81

Raining, cool weather

Mapwell - level

Larvis - road



W-5523 ✓

	B.S.	I.H.	F.S.	Elev.	
B.M.					10.71
TP ₁	6.20	16.91	5.24	11.67	
TP ₂	5.42	17.09	4.06	13.03	
TP ₃	5.06	18.09	5.70	12.39	
TP ₄	4.42	16.81	4.96	11.85	
TP ₅	5.78	17.63	2.72	14.91	
TP ₆	5.02	19.93	6.52	13.41	
TP ₇	3.69	17.10	4.42	12.68	← Ground
			3.76	13.34	← Casing

Franklin Co.

July 24, 1969

B.M.

10.709

U.S.C. & G.S.

G-45

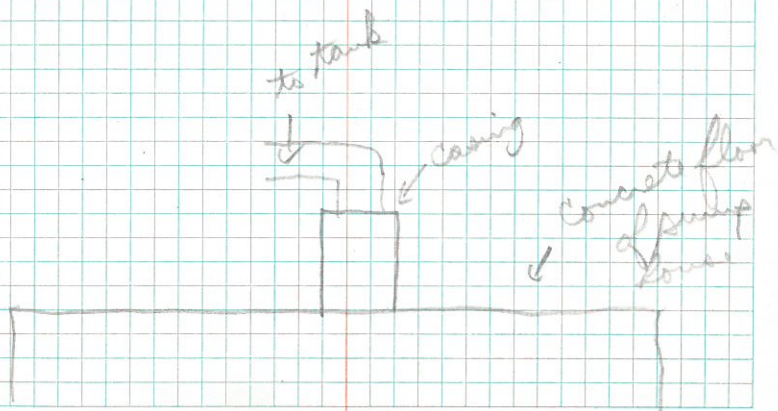
B.M.

1934

Cloudy, Hot Weather

Manwell - level

Lewis - rod



W-6858 ✓

B.S.

I.H.

F.S.

Elev

61

B.M.

B.M.	B.S.	I.H.	F.S.	Elev
TA ₁	3.72	64.72	7.90	56.82
TP ₁	1.64	58.46	9.04	49.42
TP ₂	4.44	53.86	2.94	50.92
TP ₃	6.14	57.06	5.83	51.23
TP ₄	8.54	59.77	3.78	55.99
TP ₅	4.64	60.63	6.44	54.19
TP ₆	6.13	60.32	5.48	54.84
TP ₇	5.86	60.70	5.22	55.48
TP ₈	5.75	61.23	3.67	57.56
TP ₉	5.52	63.08	4.70	58.38
TP ₁₀	4.40	62.78	5.18	57.60
TP ₁₁			4.08	58.70

Ground
Casing

Lafayette County

July 28, 1969

B.M.: USGS B.M.

61 feet

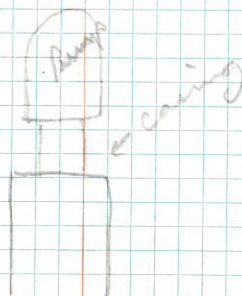
TT 37 RED

1951

Rainy, cool weather

Maxwell - level

Lewis - red



W-8390 ✓

B.S. I.H. F.S. Elev.

B.M.

92

TP ₁	0.38	92.38	9.54	82.84	
TP ₂	11.14	93.98	0.81	93.17	
TP ₃	4.73	97.90	10.22	87.68	
TP ₄	1.69	89.37	8.14	81.23	
TP ₅	0.47	81.70	11.00	70.70	
TP ₆	0.88	71.58	5.14	66.44	
TP ₇	7.42	73.86	5.22	68.64	
TP ₈	4.93	73.57	8.02	65.55	Thinned
			7.12	66.45	Casing

Madison County

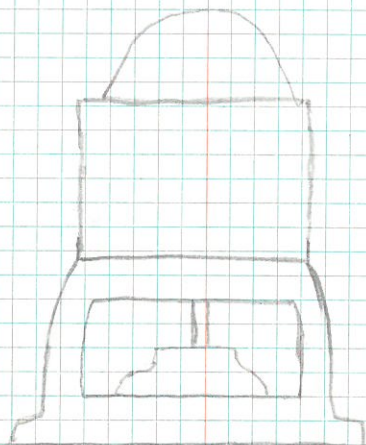
July 28, 1969

B.M. intersection on topo map

Mapwell - level

Laws - red

Cool, cloudy weather


 ✓ casing
level

W-8350

BS I.H. F.S. Elev.

B.M.

T.P. 6.56' 5.60'

T.P. 5.48' 5.37'

T.P. 5.03' 5.32'

5.10'

ground
casing

for ground elev, add 0.78 to B.M. elev.
 " casing " , add 1.00 " " "

Walulla Co.

July 30, 1969

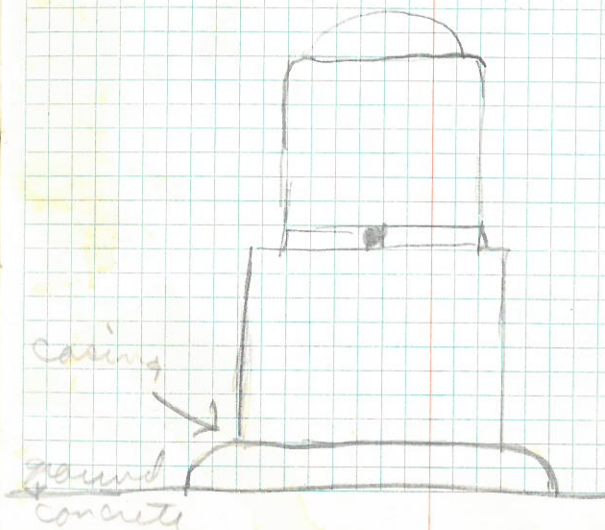
B.M.

Intersection of H. Rd
 363 + U.S. 98

U.S.C. + H.S. C.M.

D-283

1966



W-8563

	B.S.	I.H.	F.S.	elv.
B.M.				
TP ₁	6.56		5.60	
TP ₂	5.48		5.37	
TP ₃	5.03		5.32	
TP ₄	4.14		4.92	← ground
			4.70	← casing

The ground elev. is the same as the B.M. elev.
 " casing " is 0.22' higher than " "

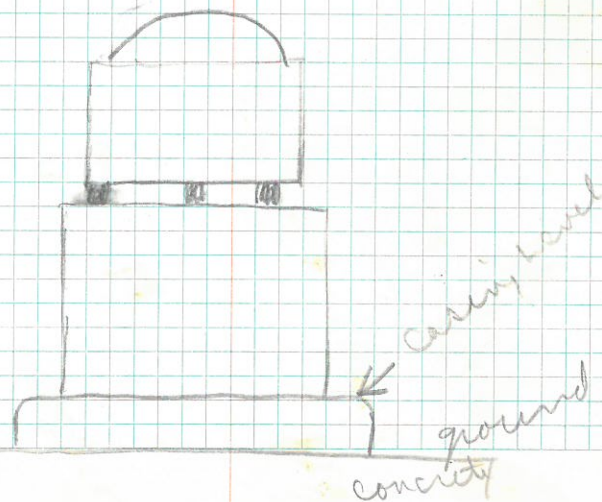
Wakulla Co. July 30, 1969

B.M. Intersection of St. Rd. 363
 + U.S. 98

M.S.C. + G.S. B.M.

D-283

1966



W-5953

B.S.

I.H.

F.S.

Elev.

B.M.

11.59

TP₁

7.12

18.71

5.62

13.09

TP₂

2.82

15.91

5.52

10.39

Ground

4.58

11.33

Casing

To get ground elev. add 1.20' to B.M. elev.
 " " casing " " add 2.14' " " "

Wakulla Co.

July 30, 1969

B.M.:

U.S.C. & H.S. B.M.

U-282

+

1966

Cloudy, cool weather
 Maxwell - level
 Laris - rod

W-4971

B.S.

I.H.

F.S.

Elev.

B.M.

11.59

TP₁

7.12

18.71

5.62

13.09

TP₂

2.82

15.91

7.62

8.29

Ground

To get ground elev., subtract 3.30' from B.M. elev.

Wabullo Co. July 30, 1969

B.M. : USC + 25 B.M.

$$\begin{array}{r} 11-282 \\ + \\ \hline \end{array}$$

1966

Cloudy, cool

Maxwell - level

Savis - rod

Capped & moved

W-4970

B.S.

I.V.

F.S.

Elev.

B.M.

11.59

TP₁ 7.12 18.71' 5.62 13.09TP₂ 2.82 15.91 7.62 8.29TP₃ 6.32 14.61' 5.54 9.07

4.38 10.23

Ground
Casing

To get ground elev., subtract 2.52' from B.M. elev.
 " " casing " " " "

1.36

Wapulla Co

July 30, 1969

B.M.: U.S.C. + U.S. R.M.

$$\begin{array}{r} U-282 \\ \hline 1966 \end{array} = 11.59'$$

Cool, cloudy weather
 Maxwell - level
 Lewis - road

W-5979

B.S. I.H. F.S. Elevation

11.5

B.M.

11.59

TP₁ 7.12 18.71' 5.62 13.09TP₂ 2.82 15.91' 7.62 8.29TP₃ 6.32 14.61' 5.36 9.25TP₄ 5.52 14.77' 5.38 9.39 ← ground
4.08 10.69 ← casingTo get ground elev., subtract 2.20 from B.M. elev.
" " casing " " 0.90 " " "

Wabulla Co.

July 30, 1969

B.M. : U.S. + G.S. B.M.

U-282

11.59

+

1966

Cool, cloudy weather
Mapwell - level
Lavis - rod

W-1999

B.S.

I.V.

F.S.

Elev.

11.59

B.M.

11.59

TP₁ 7.12 18.71' 5.62 13.09'TP₂ 2.82 15.91' 7.62 8.29'TP₃ 6.32 14.61' 5.36 9.25'TP₄ 5.52 14.77' 5.33 9.44'TP₅ 5.66 15.10' 5.62 9.48'TP₆ 5.75 15.23' 5.66 9.57'

.34

6.00

← Correction
for ground
levelTo get ground elev., subtract 2.36 from B.M. elev.

Wabulla Co.

July 30, 1969

B.M. : U.L.C. + S.S. 11.59

U-282

1966

11.59

Cool, cloudy weather
Thames - level
Larins - red

W-5980

B.S. I.H. F.S. Elev.

B.M.

11.59

TP₁ 6.97 18.56' 5.50 13.06'TP₂ 4.39 17.45' 5.46 11.99TP₃ 4.48 16.47 5.06 11.41'

4.28 12.19'

Ground
Casing

capped

To get ground elev., subtract 0.18 from B.M. elev.
 casing, add 0.60 to " "

Wabulla Co.

July 31, 1969

B.M.: USCY HS B.M. 4-282-11.59
1966

Sunny, hot weather

Mapwell - level

Sawis - rod

W-6003

B.S. I.H. F.S. Elev.

B.M.

11.59

TP₁ 6.97 18.56 5.50 13.06TP₂ 4.39 17.45 5.46 11.99TP₃ 4.48 16.47 4.24 12.23TP₄ 4.52 16.75 5.62 11.13TP₅ 5.78 16.91 4.98 11.93

Ground

3.28 13.63

Easing

To get ground elev., add 0.34' to B.M. elev.
 " casing " add 2.14' " " "

Wakulla Co. July 31, 1969

B.M. - U.S. C + S. B.M.

U282

1966

Sunny, hot weather

Mapwell - level

Lavis - road

W-7391

B.S.

I.H.

F.S.

Elev.

11.59

B.M.

TP₁ 6.97 18.56 5.50 13.06TP₂ 4.39 17.45 5.46 11.99TP₃ 4.48 16.47 4.24 12.23'TP₄ 4.52 16.75 5.62 11.13'TP₅ 5.78 16.91 4.55 12.36'TP₆ 5.08 17.44' 6.60 10.84'TP₇ 4.37 15.21' 5.62 9.59TP₈ 6.48 15.97 4.74 11.23 ground
$$\begin{array}{r} 1.82 \\ 2.94 \end{array}$$
 casing

To get ground elev., subtract 0.26' from B.M. elev.
 " " casing " , add 1.54' to " "

Wakulla Co.

July 31, 1969

B.M.: USC + S.B.M.

U 282

1966

Sunny, hot weather

Mapwell - level

Sawin - rod

W-8172 ✓

B.M.

R.S.

I.H.

F.S.

Elev.

15.00

TP₁

7.20 22.20 5.06 17.14

TP₂

4.96 22.10 5.34 16.76

TP₃

5.61 22.37 5.32 17.05

TP₄

5.16 22.21 5.12 17.09

TP₅

2.86 19.95 9.14 10.81

TP₆

4.81 15.62 2.30 13.32

TP₇

4.02 17.34 4.22 13.12

TP₈

2.26 15.38 2.26 13.12

TP₉

4.18 17.30 8.64 8.66

TP₁₀

4.98 13.64 5.08 8.56

TP₁₁

9.86 18.42 3.84 14.58

TP₁₂

4.36 18.94 7.40 11.54

6.86

12.08

Ground
Casing

Wakulla Co.

July 31, 1969

B.M. ... 21 SC & GS

McIntyre A
1933

Sunny, hot weather

Maxwell - level

Lavis - road

#1

W-8173 ✓

B.M.

B.S.	I.H.	F.S.	Elev
TP ₁	7.20	22.20	5.06 17.14
TP ₂	4.96	22.10	5.34 16.76
TP ₃	5.61	22.37	5.32 17.05
TP ₄	5.16	22.21	5.12 17.09
TP ₅	2.86	19.95	9.14 10.81
TP ₆	4.81	15.62	2.30 13.32
TP ₇	4.02	17.34	4.22 13.12
TP ₈	2.26	15.38	2.26 13.12
TP ₉	4.18	17.30	8.64 8.66
TP ₁₀	4.98	13.64	5.08 8.56
TP ₁₁	9.86	18.42	3.84 14.58
TP ₁₂	3.06	17.64	7.06 10.58
TP ₁₃	5.82	16.40	6.06 10.34
TP ₁₄	5.62	15.96	5.34 10.62
TP ₁₅	6.20	16.82	5.22 11.60

4.36 12.46

Ground
Casing

Wadulla Co. July 31, 1969

B.M.

U.S. & S.

McIntyre A

Sunny, hot weather

Maxwell - level

Lavis - road

W 8174 ✓

	B.S.	I.H.	F.S.	Elev.	
B.M.					15.00
TP ₁	7.20	22.20	5.06	17.14	
TP ₂	4.96	22.10	5.34	16.76	
TP ₃	5.61	22.37	5.32	17.05	
TP ₄	5.16	22.21	5.12	17.09	
TP ₅	2.86	19.95	9.14	10.81	
TP ₆	4.81	15.62	2.30	13.32	
TP ₇	4.02	17.34	4.22	13.12	
TP ₈	2.26	15.38	2.26	13.12	
TP ₉	4.18	17.30	8.64	8.66	
TP ₁₀	4.98	13.64	5.08	8.58	
TP ₁₁	9.86	18.42	3.84	14.58	
TP ₁₂	3.06	17.64	7.06	10.58	
TP ₁₃	5.82	16.40	6.06	10.34	
TP ₁₄	5.62	15.96	5.34	10.62	
TP ₁₅	6.20	16.82	5.22	11.60	
TP ₁₆	5.68	17.28	6.26	11.02	

Wakulla Co.

July 31, 1969

B.M. UCC 422.

The Intype A
1933Sunny, hot weather
Mapwell - level
Lawn - road

#3

W-8189 ✓

B.S.	I.H.	F.S.	Elev.	
B.M.				15.00
TP ₁	7.20	22.20	5.06	17.14
TP ₂	4.96	22.10	5.34	16.76
TP ₃	5.61	22.37	5.32	17.05
TP ₄	5.16	22.21	5.12	17.09
TP ₅	2.86	19.95	9.14	10.81
TP ₆	4.81	15.62	2.30	13.32
TP ₇	4.02	17.34	4.22	13.12
TP ₈	2.26	15.38	2.26	13.12
TP ₉	4.18	17.30	8.64	8.66
TP ₁₀	4.98	13.64	5.08	8.56
TP ₁₁	9.86	18.42	3.84	14.58
TP ₁₂	3.06	17.64	7.06	10.58
TP ₁₃	5.82	16.40	6.06	10.34
TP ₁₄	5.62	15.96	5.34	10.62
TP ₁₅	5.84	16.46	4.98	11.48
TP ₁₆	6.00	17.48	5.34	12.14
			4.52	12.96

Ground
Casing

Wadulla Co.

July 31, 1969

B.M. 218C + 818

McIntyre A
1933Sunny, hot weather
Mapwell - level
Laws - rod

W-8479
✓

B.S. I.H. F.S. Elev.

B.M.

27.77

TP₁

7.24

35.01

8.26

26.75

TP₂

5.34

32.09

5.68

26.41

Ground

5.20

26.89

Casing

Wabulla Co.

August 1, 1969

B.M.

Lopchappy McIntyre North

Base Triangulation

Hot, cloudy weather

Maxwell - level

Laws - rod

W-8466 ✓

B.S. I.H. F.S. Elev.

B.M.

43'

T.P. 6.27' 49.27' 5.49' 43.78'

T.P. 4.24' 48.02' 9.17' 38.85' ground

8.02 40.00' casing

Wadulla Co

Aug. 1, 1969

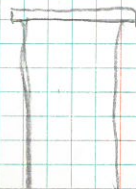
B.M.

Tully #1, 1935

U.S.C. G.S.

Level-Sarvis

Rod - Maxwell



w-5356 ✓

B.S.

I.H.

F.S.

Elev.

B.M.

T.P.

5.69'

49.69'

5.15'

44.54'

ground

5.31'

44.38'

casing

44'

Taylor Co.

Aug. 5, 1969

B.M.

Intersection of st.

Rd.

359A + U.S. 19 + 27

W-8106 B.S. I.H. F.S. Elev.

B.M.

TP₁ 7.06 3.76

TP₂ 6.42 3.68

TP₃ 6.54 3.88

TP₄ 3.46 8.72

TP₅ 1.84 3.96

TP₆ 9.52 3.04

TP₇ 6.71 4.56

3.46

Ground
Casing

For ground elev., add 9.95 to B.M. elev.
" casing elev., add 11.05 " " "

Wakulla Co.

Aug. 6, 1969

B.M. : U.S. Dept. of Interior
Geological Survey

7CRH

1969

W-8022 ✓

B.S. I.H. F.S. Elev.

B.M.

30'

TP₁ 4.94 34.94' 7.69 27.25'TP₂ 4.04' 31.29' 3.24' 28.05' ground
2.60 28.69 casing

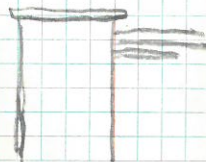
Walla Walla Co.

Aug. 6, 1969

B.M.

Intersection of H. Rd

369 + 368



W-7156 ✓

B.S. I.H. F.S. Elev.

B.M.

14'

TP₁ 2.54 16.54' 6.62' 9.92TP₂ 5.32' 15.24' 4.88' 10.36 ground
3.90' 11.34 casing

Wadulla Co.

Aug. 6, 1969

B.M.

On bridge where U.S.
98 meets the Ochlockonee
bridge.

W-7417 ✓

B.S.

I.H.

F.S.

Elev.

14'

B.M.

TP₁

2.54'

16.54'

6.62'

9.72'

TP₂

5.32'

15.24'

4.98

10.26'

ground

4.34

10.90

casing

Wadulla Co

Aug. 6, 1969

B.M.

//

W-3554 ✓

B.S. I.H. F.S. Elev.

9

B.M.	B.S.	I.H.	F.S.	Elev.
TP ₁	4.66	13.66	5.74	7.92
TP ₂	5.04	12.96	5.20	7.76
TP ₃	5.20	12.96	5.14	7.82
TP ₄	5.06	12.88	5.08	7.80
TP ₅	5.18	12.98	4.92	8.06
TP ₆	5.04	13.10	5.16	7.94
TP ₇	5.46	13.40	3.86	9.54
TP ₈	3.70	13.24	5.89	7.35
			4.29	8.95

Ground
Casing

Wadulla Co.

Aug. 6, 1969

B.M.: U.S.G.S

19M

1943

W-446
✓

B.S.

I.H.

F.S.

Elev

8

B.M.

TP₁

6.00

14.00

6.50

7.50

TP₂

4.10

11.60

5.26

6.34

Ground

Wabulla Co.

Aug. 7, 1969

B.M.: Topo map spot elevation

Sunny, hot weather

Mapwell - level

Larvis - road

Casing has been pulled

W-8467 ✓ B.S. I.H. F.S. Elev. 8.00
 B.M.
 T.A. 5.30 13.30 1.69 11.61

Wakulla Co.

Aug. 7, 1969

B.M.: N-282 VSC + RS
 1966

Sunny, hot weather

Mapwell - level

Springs - road

Casing pulled

W-8462 ✓

BS. I.H. F.S. Elev.

8'

Bm.

TP. 5.30 13.30 0.78 12.52

0.07 13.23

Wakulla Co.

Aug. 7, 1969

B.M. :

N 282 U 80 + 85

1965

Sunny, hot weather

Maxwell - level

Larwin - rod

W-8461 ✓

B.S. I.H. F.S. Elev.

B.M.

15'

TP ₁	3.46'	18.46'	7.28'	11.18'	
TP ₂	6.41'	17.59'	1.62'	16.97'	
TP ₃	4.58'	21.55'	7.30'	14.25'	
TP ₄	2.95'	17.20'	3.28'	13.92'	ground
			2.08'	15.12'	casing

Self tower

Wakulla Co. Aug. 7, 1969

B.M. - Intersection on topo maps

15'

Sunny, hot weather

Lewis - level

Maxwell - rod

W-4028

B.S. I.H. F.S. Elev.

B.M.

T.P. 9.24' 0.33'

T.P. 11.10' 3.84'

T.P. 5.66' 4.20'

T.P. 6.47' 6.96'

5.54'

← ground
← casing

For ground elev., add 17.14 to B.M. elev.
 " casing " " 18.56 " " "

Franklin Co. Aug. 8, 1969

B.M.

U.S.C. + G.S.

A 298 ——— 1967

Sunny, hot weather
 Lewis - level
 Maxwell - rod

W-5786 ✓

B.S. I.H. F.S. Elev.

12

B.M.

T.P. 7.70 19.70 4.11 15.59

T.P. 5.20 20.79 7.44 13.35 Ground

6.94 13.85 Casing

Franklin Co.

Aug. 8, 1969

B.M.: Elev. of intersection on topo
sheet

Sunny, hot weather

W-228 ✓	B.S.	I.H.	F.S.	Elev.	
B.M.					13.35
TP ₁	6.26	19.61	5.42	14.19	
TP ₂	5.36	19.55	6.12	13.43	Ground

Franklin Co.

Aug. 8, 1969

B.M. : The ground around
well # W-5786

Sunny, hot weather

Maxwell - level

Sawis - rod

All signs of well have been
obliterated.

W-6661 ✓

B.S. I.H. F.S. Elev

16.58

B.M.

TP₁ 2.98' 19.56 9.87' 9.69TP₂ 2.60' 12.29 5.54' 6.75TP₃ 5.44' 12.19 5.46' 6.73TP₄ 4.30' 11.03 5.35' 5.68TP₅ 8.98' 14.66 7.12' 7.54TP₆ 2.56' 10.10 4.95' 5.15TP₇ 6.08' 11.23 7.24' 3.99TP₈ 5.80 9.79 5.46' 4.33 ground
4.36 5.43 casing

Franklin Co.

Aug. 8, 1969

B.M.: Florida SPD.

disk in south end of
bridge to St. George Island
(the Bryant Gady Patton Bridge)

16.58'

Sunny, hot weather
Lavis - Level
Maxwell - Rod

W-6139 ✓

B.S.

I.H.

F.S.

Elev.

3'

B.M.

TP₁ 7.65' 10.65' 9.43' 1.22'TP₂ 5.10' 6.32' 5.43' .89'TP₃ 4.30' 5.19' 5.18' .01' ground
2.90' 2.29' casing

Franklin Co.

Aug. 11, 1969

B.M. on the corner of
Apalachicola Railroad
+ 5th St.

Weather - cloudy + hot

Level - Larvis

Rod - Maxwell

W-6223 ✓

B.S. I.H. F.S. Elev.

28

B.M.

TP₁ 5.24 33.24 5.32 27.92TP₂ 6.06 33.98 6.26 27.72TP₃ 2.77 30.49 9.30 21.19TP₄ 0.94 22.13 4.96 17.17TP₅ 3.90 21.07 6.84 14.23TP₆ 8.12 22.35 2.84 19.51TP₇ 2.12 21.63 8.00 13.63TP₈ 6.20 19.83 4.92 14.91TP₉ 3.88 18.79 4.58 14.21TP₁₀ 5.29 19.50 5.82 13.68

Ground

4.92 14.58 Casing

Franklin Co.

Aug. 11, 1969

B.M.: An intersection on topo
map.

Sunny, hot weather

Maxwell - level

Larvis - rod

W-82a ✓

B.S.

I.H.

F.S.

Elev.

28

B.M.

TP₁ 5.24 33.24 5.32 27.92TP₂ 6.06 33.98 6.26 27.72TP₃ 3.42 31.14 7.30 23.84TP₄ 2.40 26.24 8.00 18.24TP₅ 5.34 23.58 4.14 19.44TP₆ 6.06 25.50 5.42 20.08TP₇ 4.46 24.54 5.56 18.98TP₈ 4.07 23.05 5.43 17.62 ground

4.36 18.69 casing

Franklin Co.

Aug. 11, 1969

B.M. An intersection on topo
map.

21W - 3492

42212.9 Rod.

2135 House

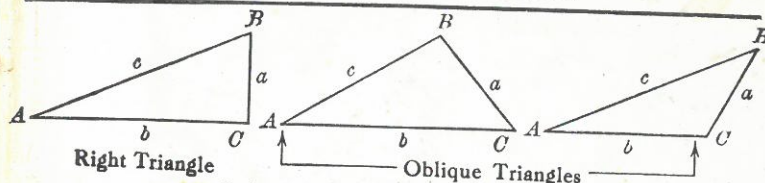
213.85 Off.

214.03

144 Steps

A. V. Summer
Jewel Tower

TRIGONOMETRIC FORMULÆ



Solution of Right Triangles

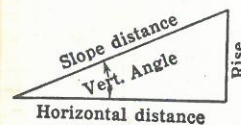
For Angle A. $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{b}$, $\csc = \frac{c}{a}$

Given	Required	
a, b	A, B, c	$\tan A = \frac{a}{b} = \cot B, c = \sqrt{a^2 + b^2} = a \sqrt{1 + \frac{b^2}{a^2}}$
a, c	A, B, b	$\sin A = \frac{a}{c} = \cos B, b = \sqrt{(c+a)(c-a)} = c \sqrt{1 - \frac{a^2}{c^2}}$
A, a	B, b, c	$B = 90^\circ - A, b = a \cot A, c = \frac{a}{\sin A}$
A, b	B, a, c	$B = 90^\circ - A, a = b \tan A, c = \frac{b}{\cos A}$
A, c	B, a, b	$B = 90^\circ - A, a = c \sin A, b = c \cos A$

Solution of Oblique Triangles

Given	Required	
A, B, a	b, c, C	$b = \frac{a \sin B}{\sin A}, C = 180^\circ - (A + B), c = \frac{a \sin C}{\sin A}$
A, a, b	B, c, C	$\sin B = \frac{b \sin A}{a}, C = 180^\circ - (A + B), c = \frac{a \sin C}{\sin A}$
a, b, C	A, B, c	$A + B = 180^\circ - C, \tan \frac{1}{2}(A - B) = \frac{(a - b) \tan \frac{1}{2}(A + B)}{a + b}$ $c = \frac{a \sin C}{\sin A}$
a, b, c	A, B, C	$s = \frac{a + b + c}{2}, \sin \frac{1}{2}A = \sqrt{\frac{(s - b)(s - c)}{bc}},$ $\sin \frac{1}{2}B = \sqrt{\frac{(s - a)(s - c)}{ac}}, C = 180^\circ - (A + B)$
a, b, c	Area	$s = \frac{a + b + c}{2}, \text{area} = \sqrt{s(s - a)(s - b)(s - c)}$
A, b, c	Area	$\text{area} = \frac{bc \sin A}{2}$
A, B, C, a	Area	$\text{area} = \frac{a^2 \sin B \sin C}{2 \sin A}$

REDUCTION TO HORIZONTAL



When the rise is known, the horizontal distance is approximately:—the slope distance less the square of the rise divided by twice the slope distance. Thus: rise=14 ft., slope distance=302.6 ft. Horizontal distance=302.6 - $\frac{14 \times 14}{2 \times 302.6}$ = 302.6 - 0.32 = 302.28 ft.

Horizontal distance = Slope distance multiplied by the cosine of the vertical angle. Thus: slope distance = 319.4 ft. Vert. angle = $5^\circ 10'$. From Table, Page IX. $\cos 5^\circ 10' = .9959$. Horizontal distance = $319.4 \times .9959 = 318.09$ ft.
Horizontal distance also = Slope distance minus slope distance times (1 - cosine of vertical angle). With the same figures as in the preceding example, the following result is obtained. $\cos 5^\circ 10' = .9959$. $1 - .9959 = .0041$. $319.4 \times .0041 = 1.31$. $319.4 - 1.31 = 318.09$ ft.