

325

1. FOND DU LAC
8. MAURICE ZAFFKE
9. FOND DU LAC
14. LIPPERT
15. FOND DU LAC
16. STEVE SCHMIDTKE
17. PAT MORAN
18. RANDY BRYANT
19. CAMP FISH
21. DON WILKERSON
22. CAMP FISH
23. MAPLE LANDFILL
25. GEORGE KIGHT
27. CAMP FISH 29 CAMP FISH
28. PAUL DOEBEL
30. RON STEVENS
31. DICK McFARLAND
33. USFS - SUGAR LAKE
36. PAUL DOEBEL
40. CAMP FISH
41. DAGEN (CHERYL HOFF)
42. ST. CLOUD CHILDREN'S HOME
43. USFS - SUGAR LAKE
45. JOHN DAGEN
46. USFS - SUGAR LAKE

56. CAMP FISH

60. USFS - SUGAR LAKE

61. CAMP FISH

63. DAN SMITH

64. CAMP FISH

66. - GIRL LAKE

67. HENRY GASPARD

68. RON SCHONING - OX YOKE LAKE

69. HENRY GASPARD

BIA

FOND DU LAC

T@ 2 BS 1

0-0-24	179-59-45	90-47-47	827.82	827.736
180-0-34			252.319	
180-0-9			1800.42	
3 0-0-17	179-59-43	90-7-32	548.770	1800.411

T@ 3 BS 2

0-01-21	90-46-41			
180-1-19				
90-48-02	90-46-47			
4 170-48-06				
179-47-41	179-46-20			
5 359-47-40	179-46-21			

T@ 4 BS 3

00-00-19	178-04-12	90-24-24	798.79	998.763
180-00-25			304.477	
178-00-31			2616.97	
6 358-4-45	178-04-20	90-03-20	1102.456	3616.958

T@ 6 BS 4

00-04-22	181-57-24			
180-04-27				
182-01-46				
7 2-01-46	181-57-19			

T@ 7 BS 6

00-02-27	90-0-39	89-44-46	656.11	656.105
180-2-31			179.985	
90-03-06	90-0-42	270-13-16	2652.40	2652.371
8 270-3-13			808.453	
269-18-55	269-16-26			
9 89-18-57	269-16-26			

T@ 9 BS 7

00-01-12	179-47-33	91-26-40	462.31	462.559
180-1-16			140.911	
179-48-45			640.90	
10 359-48-50	179-47-34	90-10-07	195.334	642.874

NW COR
21 49-17

2 PK

3 1/4

4

6

5

NE
500
PK

7 1/4

9

10
PK 220

11 1/4

1010 BS9
 00-00-23 180-0-50
 180-00-40
 1) 180-01-13 180-0-37
 00-01-17

1010 BS9
 00-00-38 179-49-22
 180-0-40
 179-50-00
 2) 179-50-7 179-49-27

1011 BS10
 00-00-48
 180-01-01 269-22-49 90-17-50 1548.97 1548.934
 269-23-37 2309.72
 3) 269-23-37 269-22-33 90-21-59 204.001 2309.66

1013 BS11
 00-00-29
 180-00-23
 179-50-39
 4) 179-50-33

1013 BS11
 00-01-55 179-59-17
 180-02-07
 180-01-12 179-59-15
 00-01-22

1014 BS13
 00-02-26 180-13-55 81-04-50 321.38 320.962
 80-02-47 97.957
 180-16-21 463.59
 5) 180-16-27 180-13-40 88-24-59 141.306 463.417

16 15 14 13 11
 1/4 13 11
 SEC of

014

T@ 15 BS 14

00-00-58
 180-01-13 180-0-44
 180-01-42
 16) 00-01-54 180-0-41

T@ 16 BS 15

0-1-40
 180-1-51 269-04-50 89-51-49 2150.26 2150.249
 269-6-30
 5 89-6-31 269-04-40 89-11-20 952.86 952.758
 290.430

T@ 5 BS 16

00-02-59
 180-02-03 181-12-08
 181-14-07
 3 01-14-13 181-12-10 90-26-29 1706.76 1706.706
 520.223

T@ 17 BS 11

89-26-48
 18 178-59-52 269-59-52 325.98 325.4764
 99.205

T@ 18 BS 17

19 90-29-33 131.07 131.0660
 39.951

T@ 19 BS 17

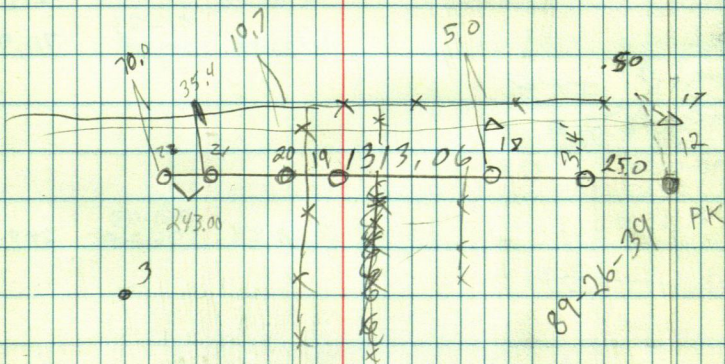
20 268-14-54 221.99 221.8893
 69.665
 21 268-47-00 391.171 391.6213
 119.394

T@ 21

22 243.00

3

PTS PT 22
 SPK IN 16" JP N 22.01
 NE COR CAN S80W 49.46
 8" POP S 80E 8.96



11
 SE COR
 SEC

102 BS 1

00-00-46	90-18-51	1845.81	1845.774
180-00-46		562.603	
180-00-46	92-25-22	787.58	786.869
3 00-00-46		280.052	
		566.85	
4	90-29-30	172.778	566.870

107 BS 3

6	90-06-55	1320.14	1320.135
		402.381	
3	91-36-32	1299.61	1299.093
		396.122	
10	91-33-08	712.23	711.953
		217.08	

107 BS 3

00-00-00

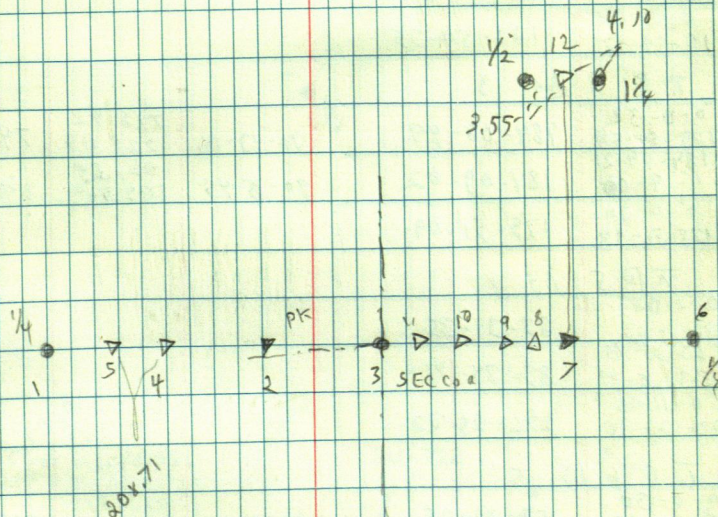
90-00-00

89-35-44

91-14-54 250.03 76.209 249.969

107 BS 3

7



A 2 AS 1				
0-0-02	180-32-30	89-52-10	3795.60	3795.579
179-59-34			1156.902	
180-32-32			1505.93	
5 0-32-17	180-32-43	90-29-30	459.006	1505.866
0-0-03				
179-27-27	179-27-24			

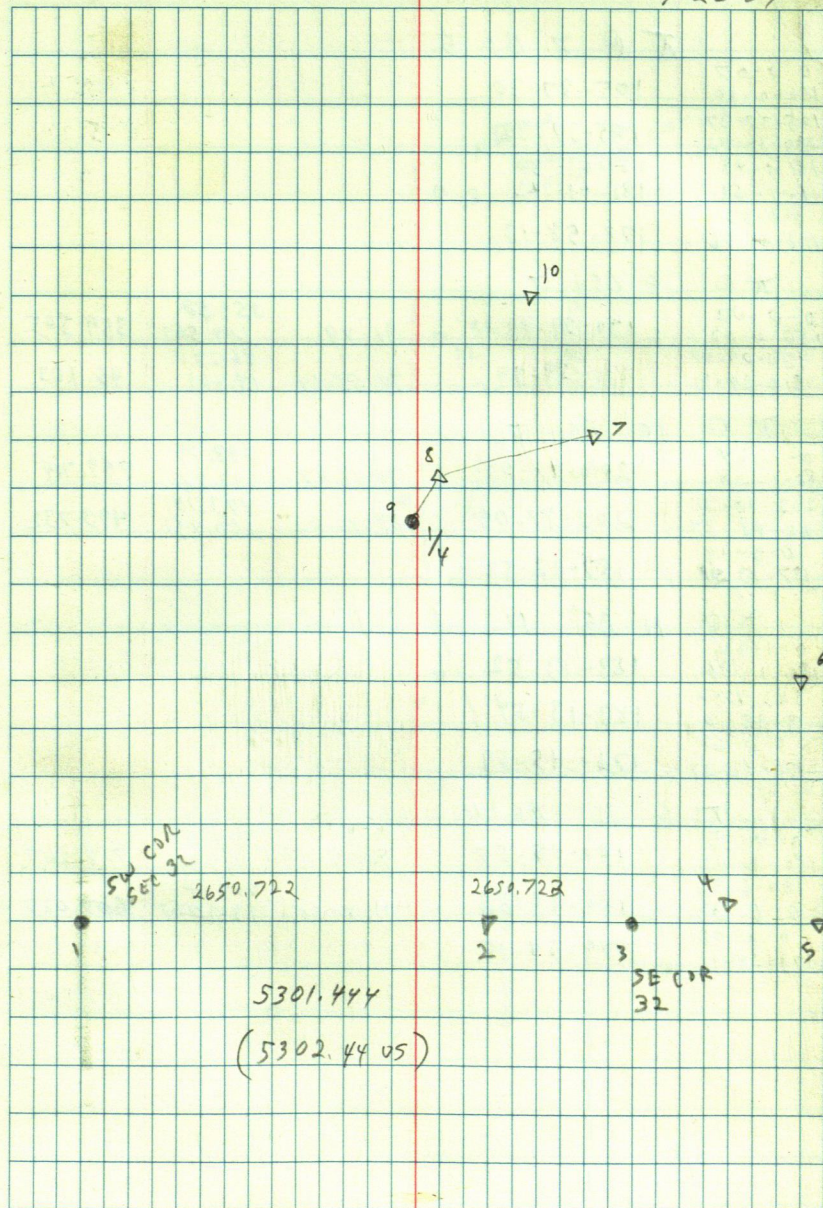
A 3 BS 2				
0-0-32	178-05-10			
180-0-20				
178-5-42	178-05-30			
358-5-50				
0-0-32				
180-0-24	178-05-28			
178-06				
358-06	178-05-32			
0-0-07				
181-54-42	181-54-35			

A 4 BS 3				
0-0-32	184-08-49	91-13-06	748.42	748.239
179-59-58			228.113	
184-09-21			621.55	
5 4-9-06	184-09-02	90-15-45	189.449	621.542
0-0-29				
175-51-38	175-51-09			

A 5 BS 4				
0-1-08	83-34-35			
180-1-03				
83-35-43	83-34-41			
6 269-35-44				
0-1-08				
276-26-30	276-25-22			

A 6 BS 5				
0-0-30	157-02-25	89-55-50	963.81	963.803
180-0-37			293.767	
157-2-55			2017.25	
7 357-2-55	157-02-22	90-7-50	614.86	2017.24
0-0-44				
202-58-22	202-57-38			

5
E. L. V. R. O.
D. FARNHAM
E. WATTSCHKE
9-26-89



π @ 7 BS 5

0-0-07
180-0-10 105-37-30
105-37-37 105-37-32
8 285-37-42
181-1-45 181-01-38
10 1-1-52 181-01-42
0-0-53
128-59-06 178-58-13

π @ 8 BS 7

0-0-03 130-29-44 91-49 359.52 359.305
180-0-02 109.562
130-29-47 46.27
9 310-29-41 130-29-39 94-54-24 14.105 46.103

π @ 10 BS 7

0-1-24 202-47-07 90-46-07 799.79 799.714
180-1-28 243.726
202-48-31 493.74
11 22-48-37 202-47-09 89-46-0 150.491 493.732
0-0-29
157-13-21 157-12-52

π @ 11 BS 10

0-1-04 183-13-52
180-1-06 183-13-54
183-13-0
12 3-15-0 176-45-59
0-0-28
176-46-27

π @ 12 BS 11

0-0-35 180-05-57 90-04-04 714.26 714.167
180-0-42 217.713
180-6-32 607.14
13 0-6-35 180-05-53 91-5-56 185.057 607.027
0-6-05
179-54-15 179-54-10

6

ME COR
BROKEN OFF BASE
PIPE IN COR.

AR SPH
12 1321.394

N 1/2 L
11 1/16

8
7
E 1/4

5

π 0 2 DS 1

90-10-42	1346.32 412.760	1346.31
70-2-12	1318.28 401.815	1318.279

180-00

0-0-26

180-0-34

56-13-56

236-14-01

0-0-14

303-46-46

56-13-20

56-13-27

303-46-32

π 0 4 DS 2

0-0-20

180-0-34

215-59-40

35-59-52

0-0-33

144-1-12

215-59-20

215-59-18

144-0-49

90-11-32

90-30-10

1640.99

500.17

784.57

239.139

1640.967

784.54

π 0 6 DS 4

0-0-48

180-0-51

173-54-41

357-54-45

173-53-53

173-53-54

89-46-20

269-41-33

704.72

214.744

501.95

153.001

704.704

501.95

π 0 7 DS 6

40-01-10

180-01-25

137-44-12

317-42-43

137-43-22

137-44-18

89-45-09

91-09-40

π 0 7 BS 6

00-01-16

180-01-24

137-53-05

317-52-54

137-51-49

137-51-30

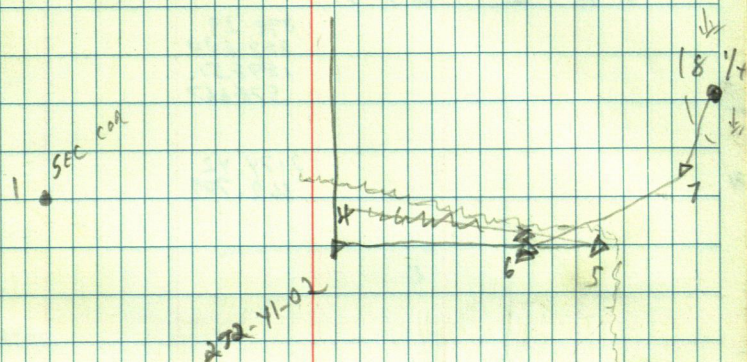
91-04-40

197.38

60.163

197.341

7



2

3

MAURICE ZAFKE

TE 2 051

898.29
223.800
1898.51
578.667

2174.42
662.709

8

3

4

2

371

4 May

1/4

PK

FOND DULAC

IC@2 BS 1
272-41-00

3) 275.15

IC@3 BS 2

4) 208.71

5) ~~89-28-04~~ 33'

6) 241.71

7) 33'

8) 241.71

9) 00-41-23 241.71

IC@4 BS 3

10) 89-28-04 33'

11) ~~241~~ 241.71

12) 33'

13) 241.71

14) 208.71

IC@14 BS * 2

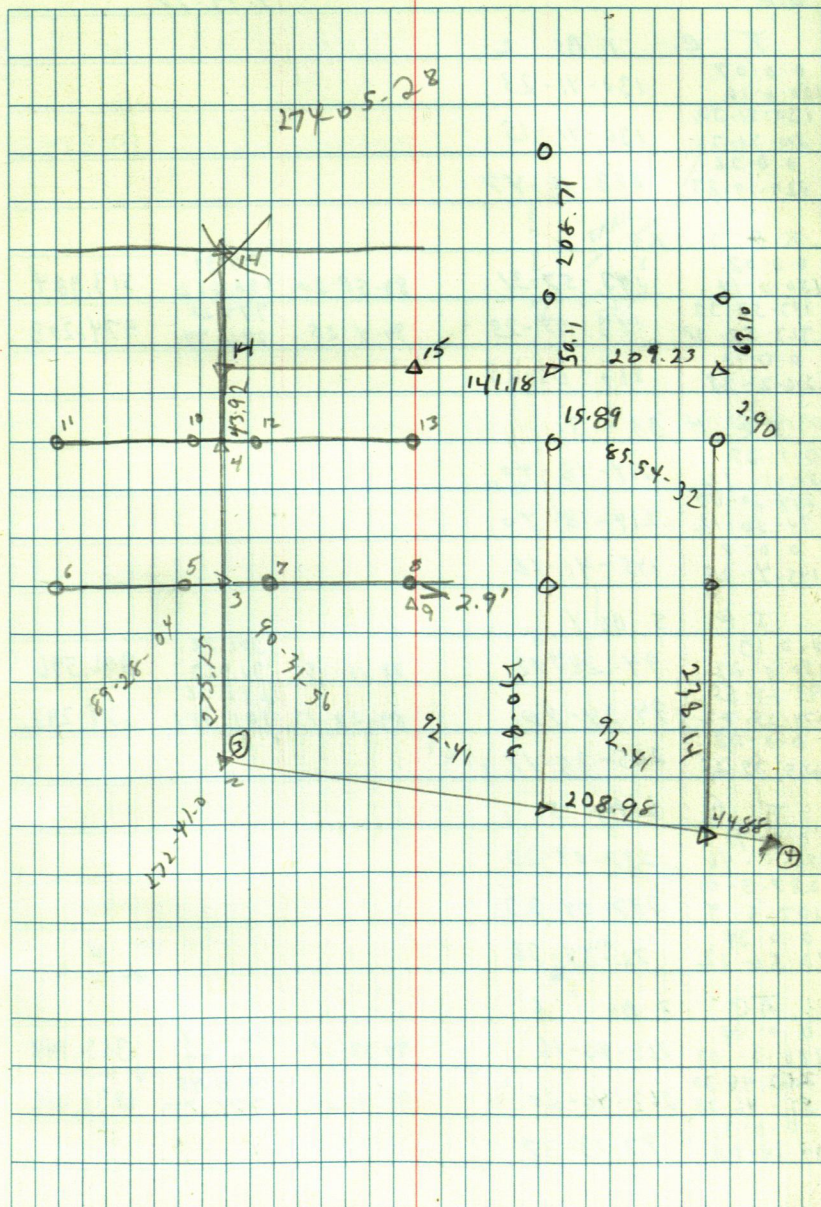
15) 274-05-28

IC@15 BS 14

14) 90-26-48 310.37 94.603 310.963

16)

9



BIA

4.49-17

π @ 1 BS 2
 0.0-07
 180-0-16 130-41-23
 130-41-30
 3 310-41-31 130-41-15
 0.0-36
 229-19-23 229-18-47

π @ 3 BS 1
 0.0-02
 180-0-14 143-57-31 89-58-20 513.99 513.984
 143-57-33 974.21
 4 323-57-37 143-57-23 90-4-25 296.741 974.208
 0.0-10
 216-2-38 216-02-28

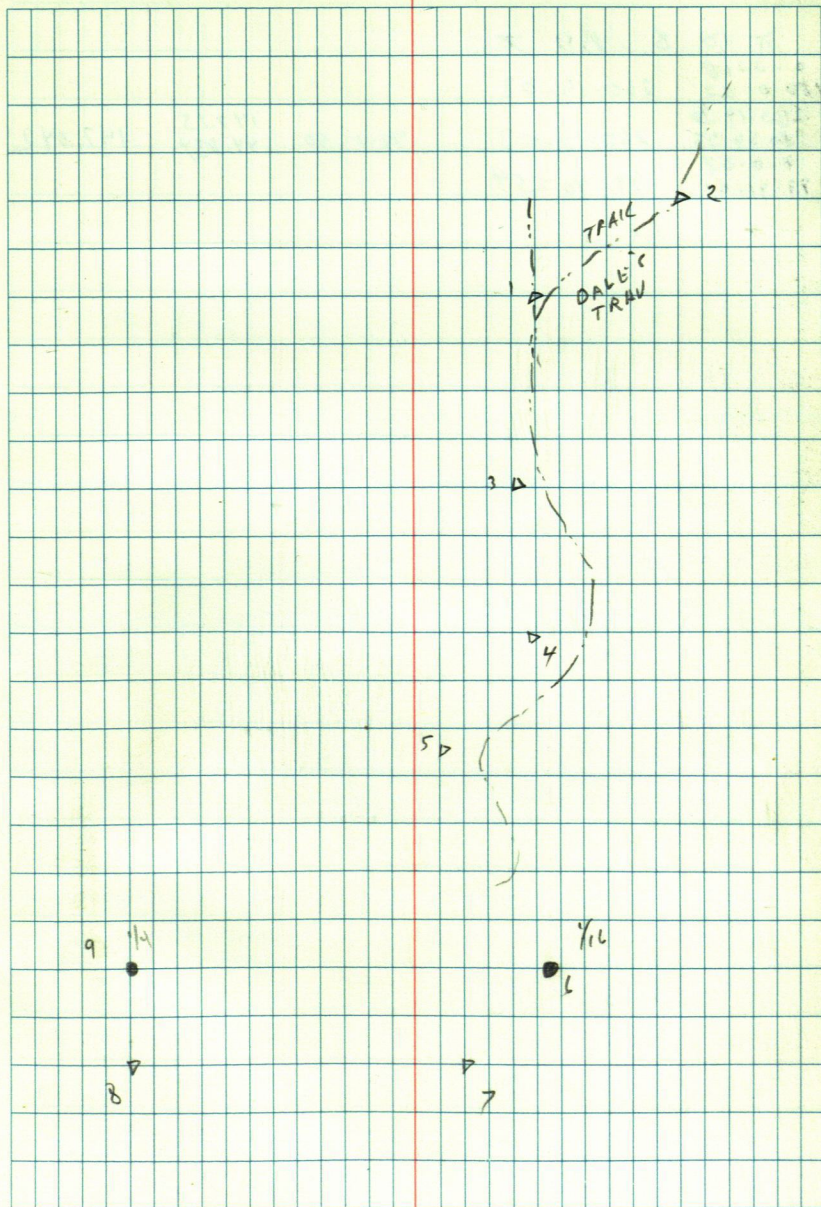
π @ 4 BS 3
 0-1-27
 180-1-32 214-18-40
 214-20-07
 5 34-20-12 214-18-40
 0.0-7
 145-4-25 145-41-18

π @ 5 BS 4
 0.0-13
 180-0-22 94-24-42 88-18-45 301.72 301.596
 94-24-55 334.26
 6 274-25-02 94-24-40 89-28-15 101.881 334.242
 6-0-08
 265-35-25 265-35-17

π @ 6 BS 5
 0.0-41
 180-0-46 287-04-20
 287-5-01
 7 107-5-9 287-04-23
 0.0-34
 72-56-12 72-55-38

π @ 7 BS 6
 0.0-04
 180-0-08 262-46-16 90-37-17 362.77 362.148
 262-46-20 110.39
 8 82-46-28 262-46-20 91-6-20 1231.95 1231.716
 0.0-31
 97-14-08 97-13-37

10



01
 7 0 8 BS 7
 2-0-18
 180-0-22 260-19-02
 260-19-20
 9 80-19-25 260-19-03 92-13-50 147.15 147.042
 0-0-08 44.854
 99-41-02 99-40-54

FOND DU LAC

$\pi \in 2 \text{ Os } 1$

0-0-02
 180-0-07
 179-59.05
 3 359-59-10
 0-0-28
 180-1-28

91-38.22	2141.26 652.660	2140.381
92-4.50	493.84 150.515	493.50

$\pi @ 2 B5 1$

0-1-32

0-2-49

95-22-48	170.88	170.116
	52.078	

$\pi @ 2 \text{ BS } 1$

271-47.03

5183-33-58 271-46-59

$\pi @ 5$ BS 2

90-52-18	296.57 90.394 270.15	296.5335
91-37-58	82.343	270.0412

6)	91-37-58	82.343	270.0412
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न @	10
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88-02-07

87-51-40	512.26 156.138
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$\pi @ 4 \text{ B3 } 8$

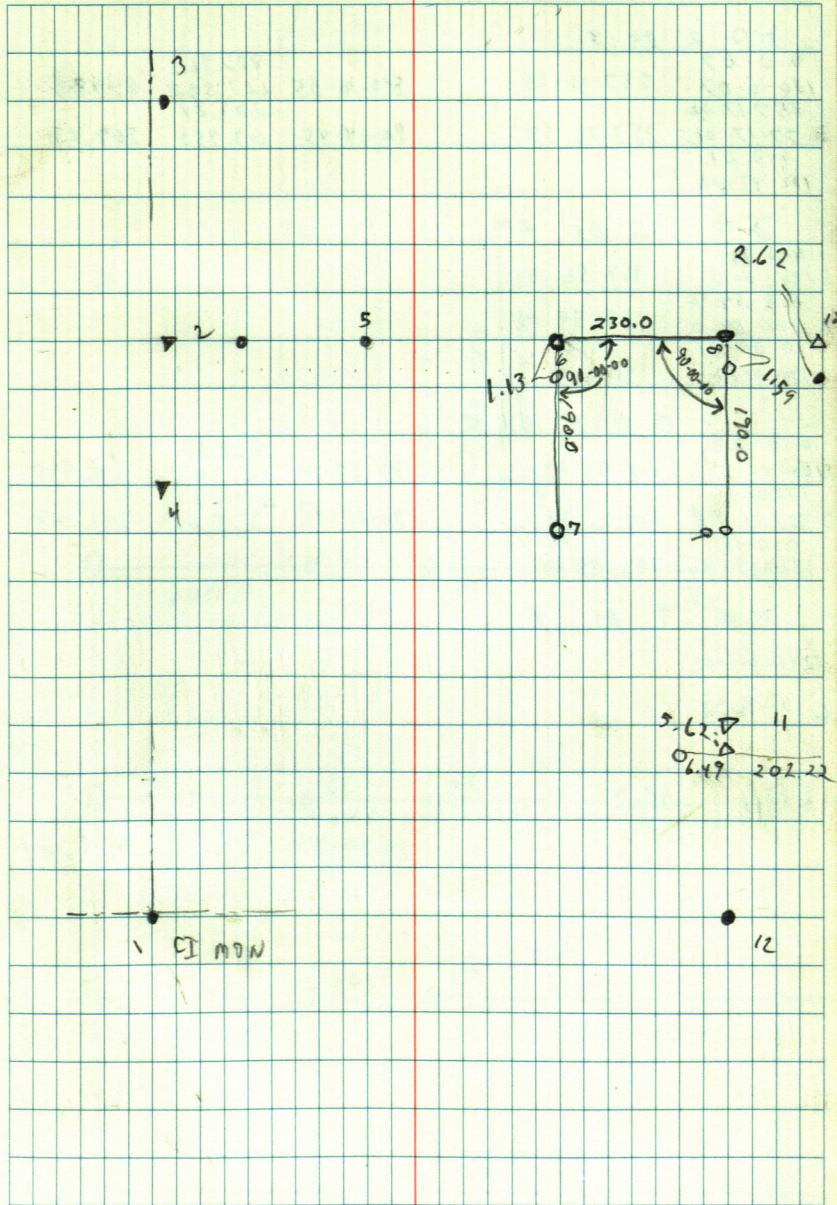
267-22-17	420.65 128.23
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11 33 9

180-09-42

93-20-15	214.69	
	65.441	214.33

12	93.2015	65.441	204.33
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28-50-17

70 2 BS 3

0.0-07

180-0-07 257-16-55

257-17-02

1 77-17-01 257-16-54

0-0-01

102-43-02

天	0	3	△	4
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6-0-01

180-0-0	168-59-09
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168-59-10

2 348.59.0 168-59-0

0-02-01

191-0-42 191-0-41

$\pi \odot 4 \text{ B3 } 5$

0-0-28

180.0-34 177.21-18

177-21-46

3 357-21-48 177-21-14

0-0-15

182-39-02 182-39-47

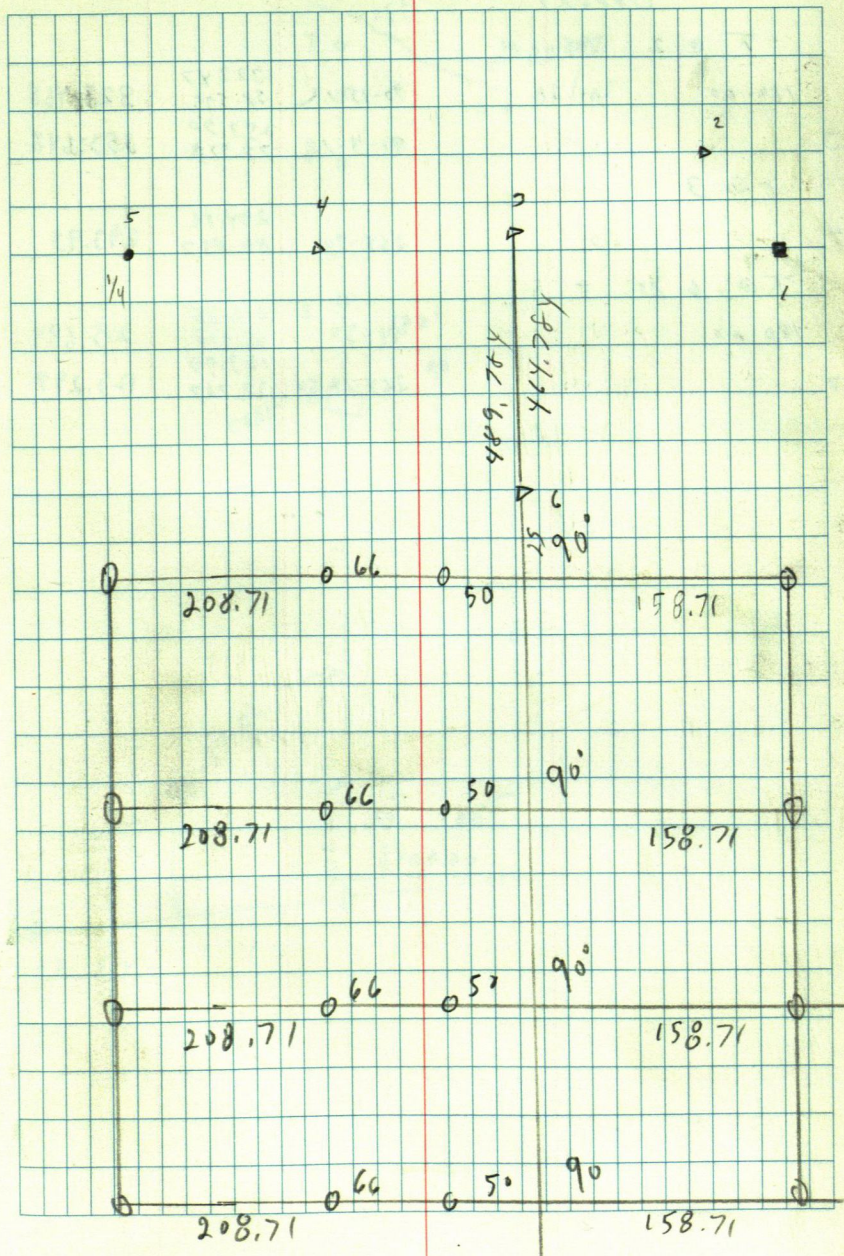
7 @ 3 BS 4

271-34-52

6 91-33-32

TE6 BS3

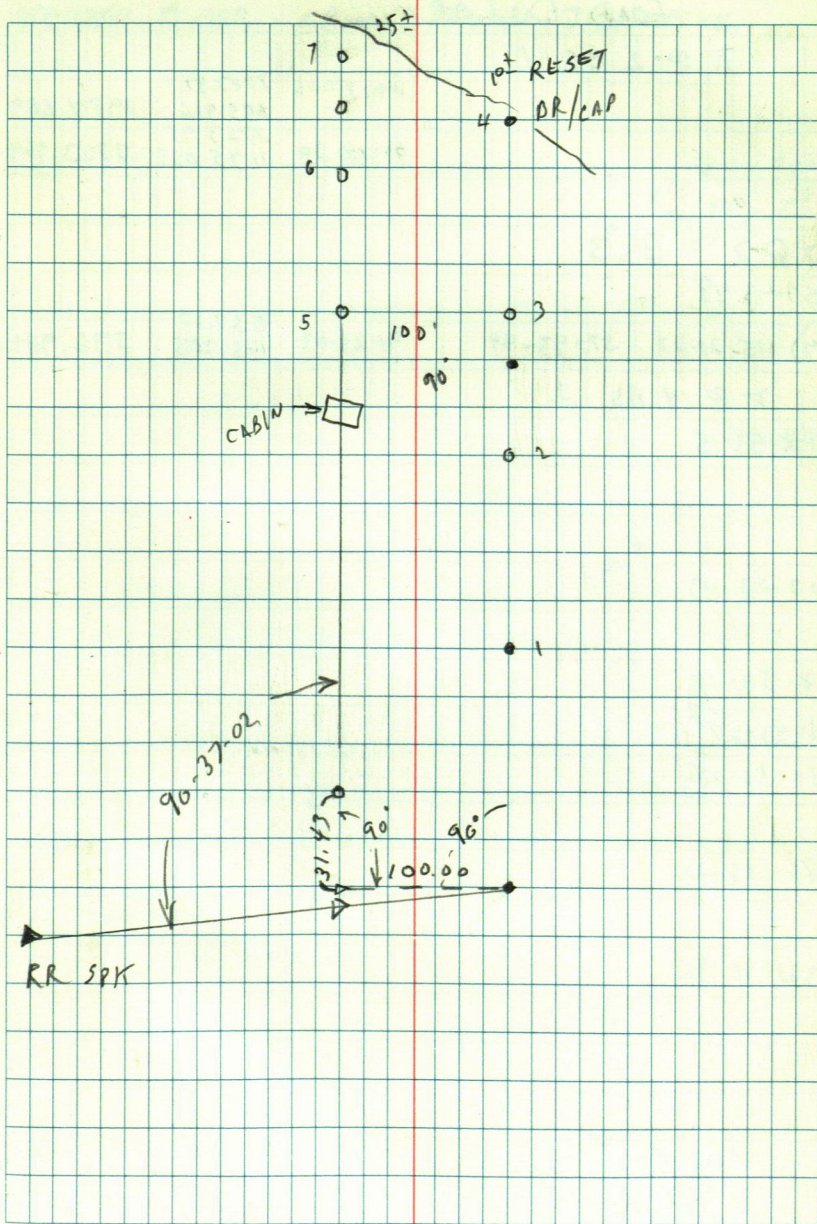
89-34-54	464.80 141.670	464.784
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LIPPERT

T @ 2 BS 1			
180-00	90-15-12	327.47 98.575	323.468
3	91-3-12	253.70 72.323	253.648
T @ 3			
4	265-34	294.82 89.857	293.93
T @ 6 BS 5			
180-00	94-30	216.35 65.915	215.684
7	264-19-50	123.90 37.767	123.297

14



FOND DU LAC

AP 2 BS 1

89-17-06	1987.91	
	605.916	1987.889
	3723.95	
90-14-30	1135.065	3723.909

X@2 BS3

57-43-49

4) 115-27-27	57-43-44	91-23-03	537.10	
			163.708	536.941

X@4 BS 2

148-53-15

5

103-03-07

148-53-15

144-43-27

240-56-08

286-46-20

332-36-32

15

OCTOBER 19, 1989 - E. CORD - D. FARNHAM - J. WATSON/ICE

N 1/4
3 1/4" PIN
OF
190
W 1/2

D 2

5711.798

175.00
A 4
0 5

3
5 1/4
2 1/2" CAPPED
PIPE

STEVEN SCHMIDTKE

π @ 2 BS 1

0-0-38				
181-0-35	222-19-24			
222-20-02			109.69	
3 42-19-50	222-19-15	94-58-30	33.433	109.275

π @ 2 BS 4

00-01-56	72-11-34			
180-02-02				
0 72-13-30			408.46	
252-13-29	72-11-27	93-53-12	124.496	407.514

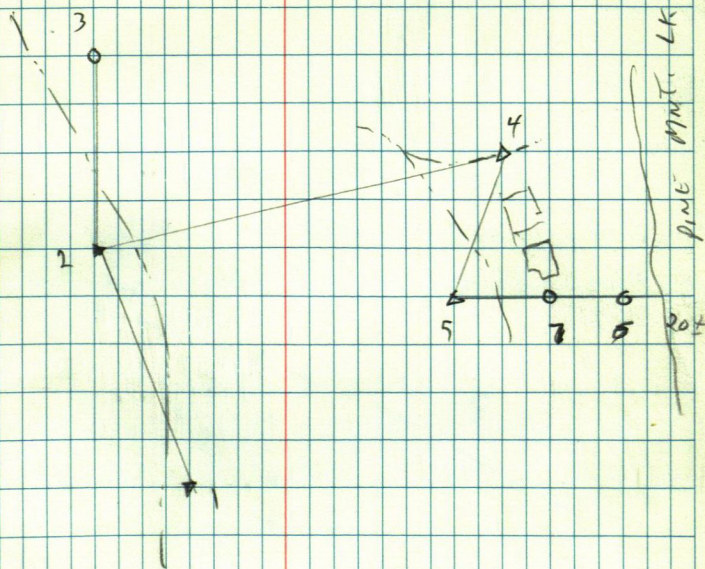
π @ 4 BS 2

00-01-19			
180-1-23	275-26-47		
275-28-06			
5 75-28-12	275-26-49		

π @ 5 BS 4

00-00-44			147.64	
180-0-49	69-10-15	88-54-17	44.992	147.583
69-10-56			108.81	
6 249-11-10	69-10-21	91-9-11	33.166	108.789
76-5-07	76-04-26			
7 356-5-33	76-04-44		45.03	

E. GORD
D. FARNUM 16



S 600 M 800 L-4

PAT MORAN

TP 305 1

00-00-25
180-00-35
252-28-05

70-01-18

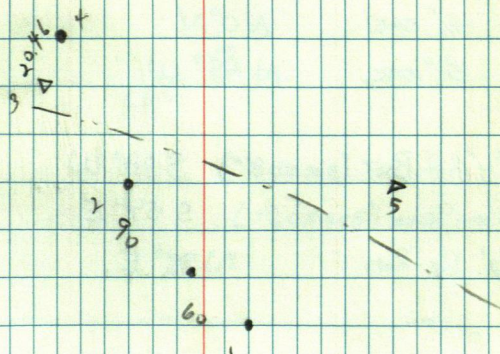
276.96
84.418

4
337-16-42
5 157-16-49

90-08-40

221.57
67.534

17



CORNER TIES

T. 137N-R. 29W SEC 33

#1	9" OAK	S 41° W	78.62
	7" OAK	S 27° W	77.18

#2	10" OAK	N 20° W	116.46
	6" OAK	N 76° W	33.61

#3

#4	18" OAK	N 0° N	47.77
	5" OAK	N 49° W	71.27

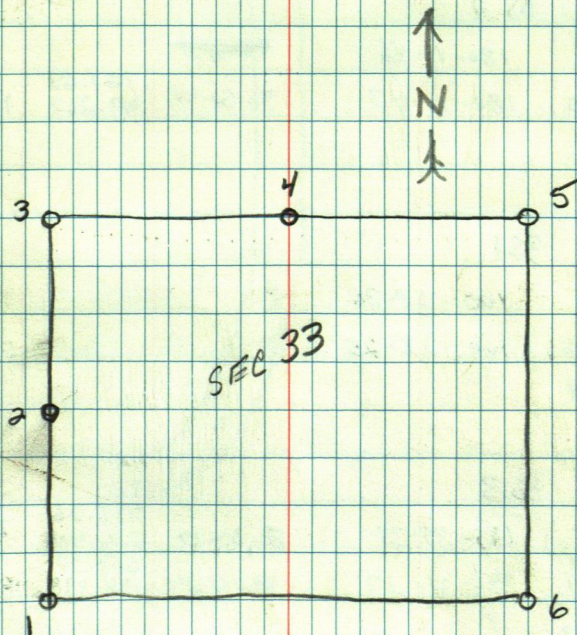
#5	3/4" R.H. BOLT (BURIED 8")	S 38° W	44.82
	RAILROAD SPIKE (BURIED 8")	S 54° E	57.37
	1/2" RE-ROD	N 38° E	73.42
			73.42

#6	R.R. SPIKE (BURIED 8")	N 18° W	50.3
	8" JACK PINE	N 17° E	86.2
	5" POPLAR	N 58° E	39.35

WARM - SUNNY - WINDY

OCTOBER 26, 1989 D. FAIRMAN

18



CAMP FISH

SEC 4 T. 41-N

T@3 BS 1

00-00-11			313.09	
180-00-19	179-58-13	91-40-02	95.432	312.96
179-58-24			158.89	
1) 359-58-25	179-58-08	80-31-24	46.296	149.816
00-00-31				
180-02-09				

T@4 BS 1

00-00-05				
180-00-12	180-11-46	94-8-31		
180-11-51			161.61	
2) 00-11-55	180-11-43	90-50-44	49.263	161.599
179-48-00				

T@3 BS 1

00-00-15				
180-00-20	100-28-36			
100-28-51				
5) 280-28-45	100-28-25			
259-31-14				

T@5 BS 3

00-00-19			736.26	
180-00-31	195-35-35	89-30-17	224.409	736.224
195-35-54			650.90	
6) 15-35-54	195-35-23	89-48-24	198.398	650.900
161-04-32	?			

T@6 BS 5

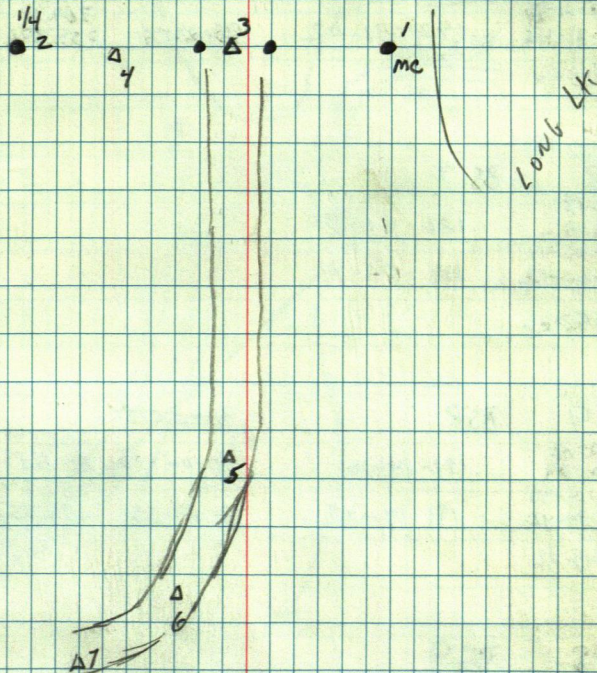
00-01-15				
180-01-16	196-59-19			
191-00-54				
7) 17-00-34	196-59-18			
163-00-46				

SUNNY - COOL

Oct 30, 1989

D FARNHAM - J. WATTSCHKE

19



CAMP FISH

SPEC 4 T. 141 N.

T@7 BS 6

00-00-46			553.71	
180-00-46	192-30-59	89-41-18	168.772	553.701
192-31-45			769.00	
8) 12-31-48	192-31-02	90-03-44	234.391	768.996
167-28-44				

T@8 BS 7

00-00-13				
180-00-11	186-06-30			
186-06-43				
9) 6-06-52	186-06-41			
173-53-16				

T@9 BS 8

00-00-25		90-02-10	605.41	
180-00-29	191-14-10	90-02-10	184.529	605.407
191-14-35			637.64	
10) 11-14-12	191-13-43	89-29-55	194.353	637.613
168-45-36				

T@8 BS 9

00-01-37				
180-01-44	216-04-55			
216-06-32				
11) 30-06-30	216-04-46			
216-04-48				

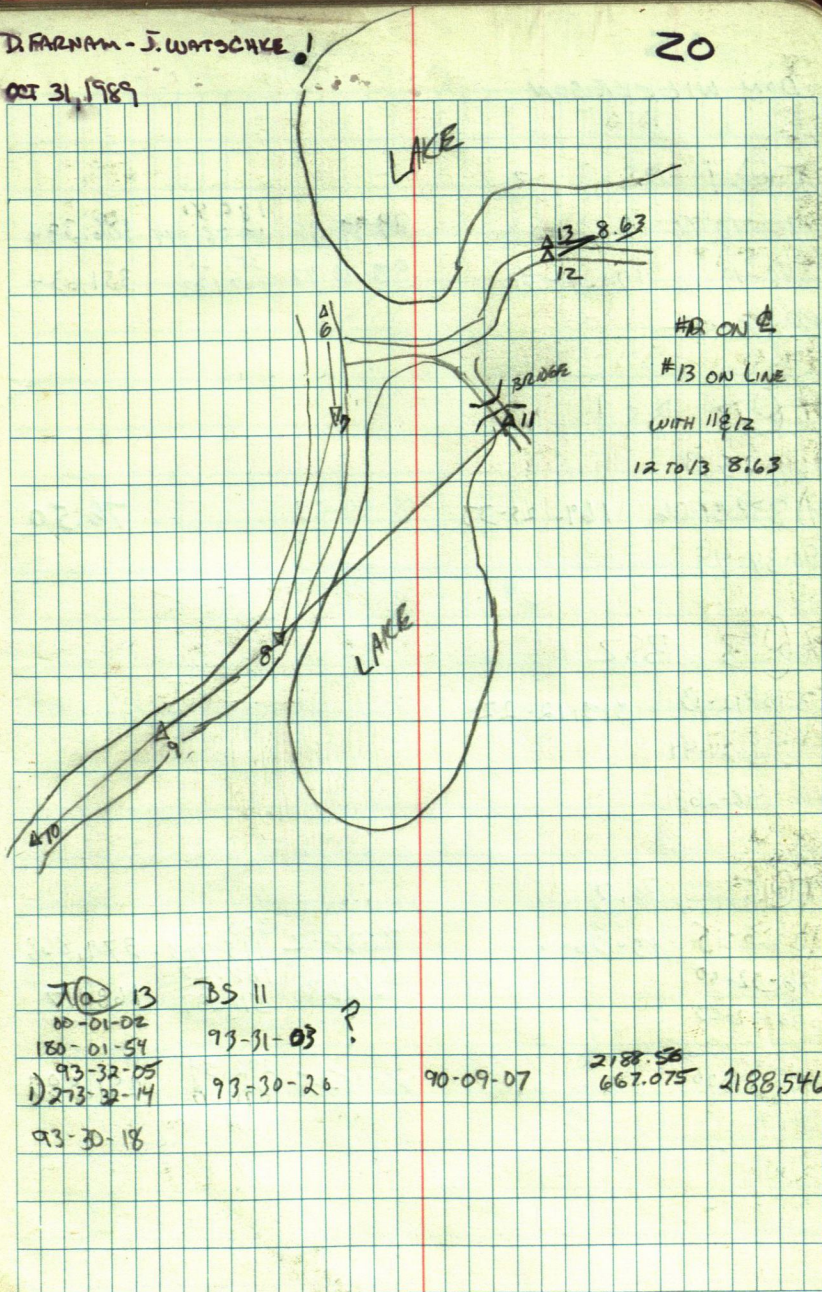
T@11 BS 8

00-00-30				
180-00-55	164-21-13	90-10-32	1087.09	
164-21-43			331.345	1087.08
12) 344-21-47	164-20-52	90-02-42	830.47	
			253.129	830.469
95-21-03				

D. FARNHAM - J. WATSCHE!

OCT 31, 1989

20



T@13 BS 11

00-01-02				
180-01-54	93-31-03 ?			
93-32-05				
12) 273-32-14	93-30-26	90-09-07	2188.58	2188.546
			667.075	
93-30-18				

DON WILKERSON

$\tau @ /$	BS	2
------------	----	---

170-10-00

88-39-31	186.40	186.394
	56.814	

340-19-22 170-9-51

90-30-47	351.65 107.183	351.634
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189-50-48

703	BS1
-----	-----

169-2553

4) 338-51-06	169-25-33	88-44-53	76.50
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198-34-49

103	BSZ
-----	-----

313-12-13 313-12-22

5-266-24-44

46-48-26

105	BS3
-----	-----

13-26-15 13-26-0

92.3542	380.26 115.903	379.868
---------	-------------------	---------

6) 26-52-80

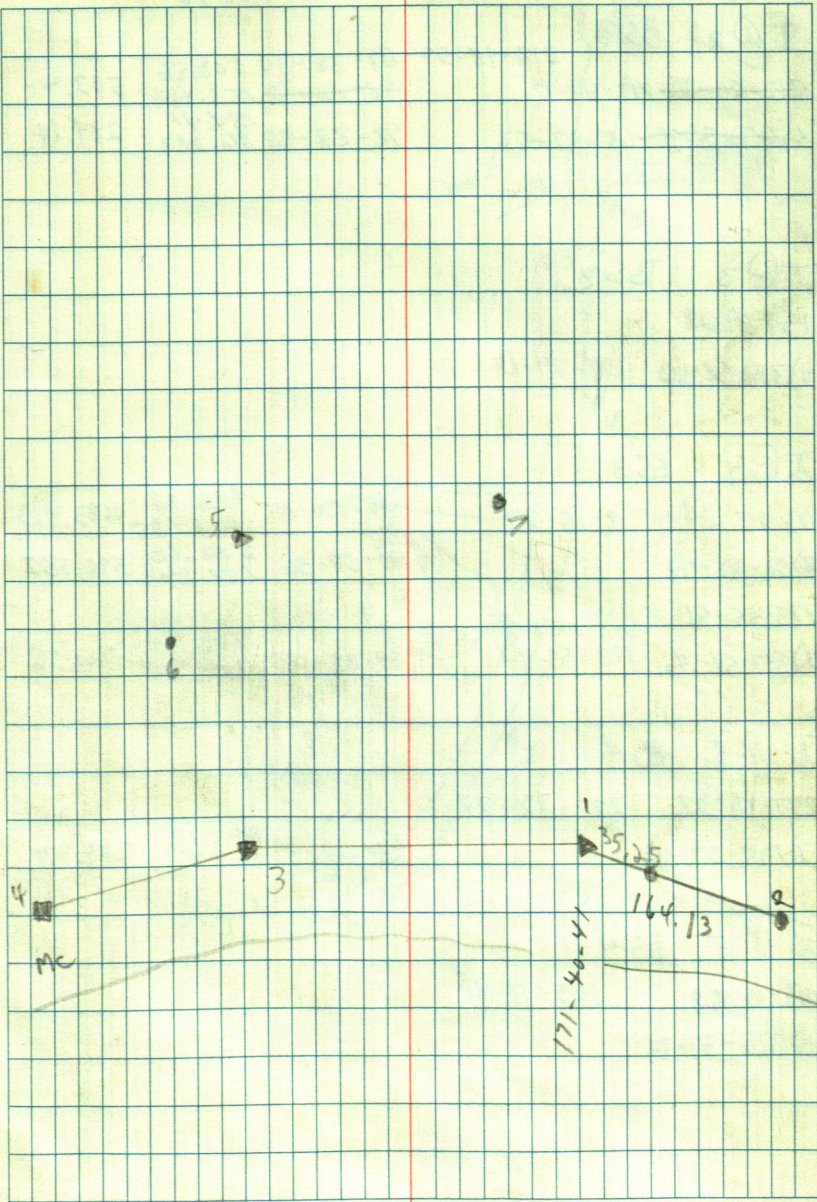
92-2630	168.27	
	51.289	168.117

233-07-03

7) 106-14-00

85-1545	292.59	291.583
	89.18	

21



CAMP FISH

SEC 4 T. 141 N

T@2 BS3

212-48-59	88-38-30	503.56	503,414
212-50-00	92-28-38	153.484	
1) 45-37-21	92-28-38	284.41	284,14
147-11-40	86.687		

T@3 BS2

159-29-28

4) 318-58-30 159-29-15

T@4 BS3

03-15-24	3-15-24	90-50-03	1683.68	1683,493
			513.185	

8) 06-30-48	90-39-36	596.60	596.557
		181.243	

173-55-51

5) 347-51-36	173-55-48	89-25-02	1606.85	1606.76
			489.268	

T@8 BS4

277-33-32 277-33-37

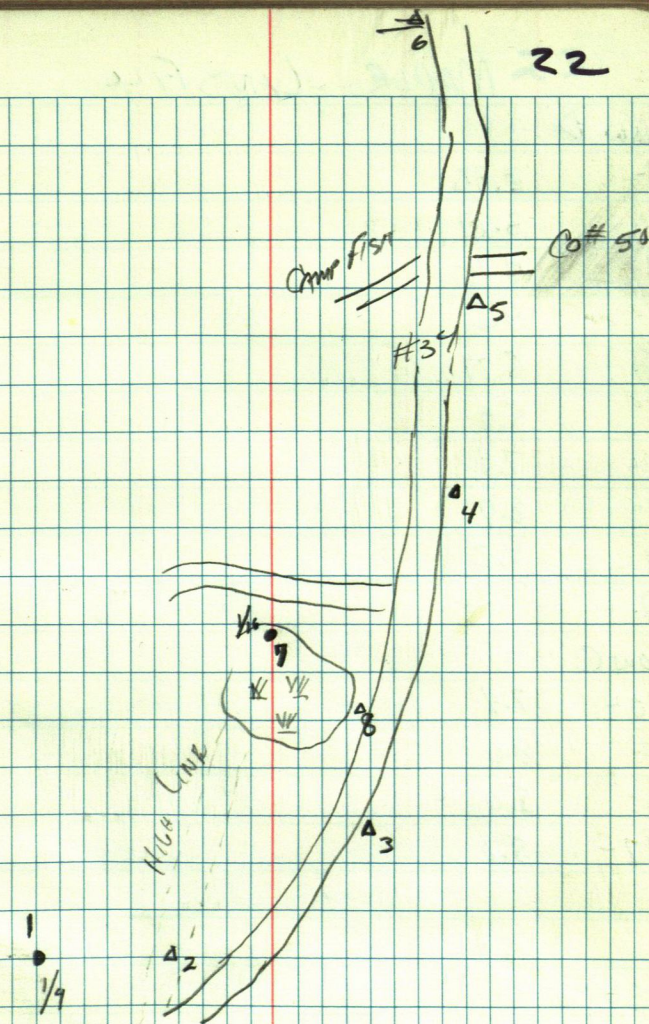
7) 195-07-13	92-08-39	284.57	284,371
		86.738	

T@5 BS4

163-18-58 167-18-45

6) 326-37-29

22



MAPLE LAND FILL

Row D

D1- 2.92

D2- 3.27

D3- 4.16

D4- 4.8

D5- 5.27

D6- 5.9

D7- 7.9

D8- 8.0

D9- 9.2

D10-

Row C

C10- 7.4

C9- 8.0

C8- 5.6

C7- 5.0

BK 325/

MAPLE LANDFILL CK ON DRAINAGE

Row E

E5 - 6.3

E6 - 6.8

E7 - 6.8

E8 - 7.8

Row F

F10 - 8.9

F9 - 8.3

BS

FS

BM # 8 5.71

1271.44 WELL # 8

1277.15

6.93

7.10

1270.05 GAGE POST
W. OF SOUTH
ROAD

1276.98

BM # 8

5.53

1271.45

BM # 3 3.82

1265.21 WELL # 5
SW COR

1269.03

8.32

8.39 1260.64

TOP
GAGE IN
SWAMP

1268.96

NOV 89

E. CURLO
J. WATSON
O. FARNHAM

24

BM # 3

3.75 1265.21

BS 39

FS

BM

6.49

6.88

1264.69

1257.81 TOP GAGE POST
IN CREEK

BM

2.84

1264.63

2.90 1261.79 TOP OF BOTTOM
SIGN POST MARK-
ING CULV. S. SIDE
HWY

BM

2.91

.39
6.43 1257.81 TOP
6.82 GAGE POST

BM

2.91

1261.79 SIGN POST

1264.70

TP

5.0

7.70 1257.00

1262.00

TP

7.59

5.02 1256.98

1264.57

BM

1.47

1.43 1263.14 WELL BY FARM
HOUSE

1264.61

TP

4.66

7.43 1257.18

1261.84

TP

7.64

4.82 1257.02

1264.66

BM

2.84 1261.82 SIGN POST

Geo. KICNT

TQ 3 BSI

8-14-37

2) 162-29-02 81-14-31

269-21-38

4 178-42-48 269-21-24

TQ 5 BS 3

C 267-24-22

TQ 7 BS 3

86-05-36

7) 172-10-45 86-05-23

267-56-38

8) 175-52-57 267-56-29

TQ 11 BS 1/4

188-36-52

12 17-13-36 188-36-48

TQ 9 BS 1/4

67-11-00

1 134-21-44 67-10-52

TQ 9 BS 1

215-14-27

10 70-28-39 215-14-20

TQ 1 BS 3

188-24-50

7 16-49-18 188-24-39

91-5-06

91-5-06

90-23-51

89-38-44

90-47-55

347.59

105.946

120.27

36.658

364.05

110.964

177.66

54.151

347.507

120.267

364.044

177.642

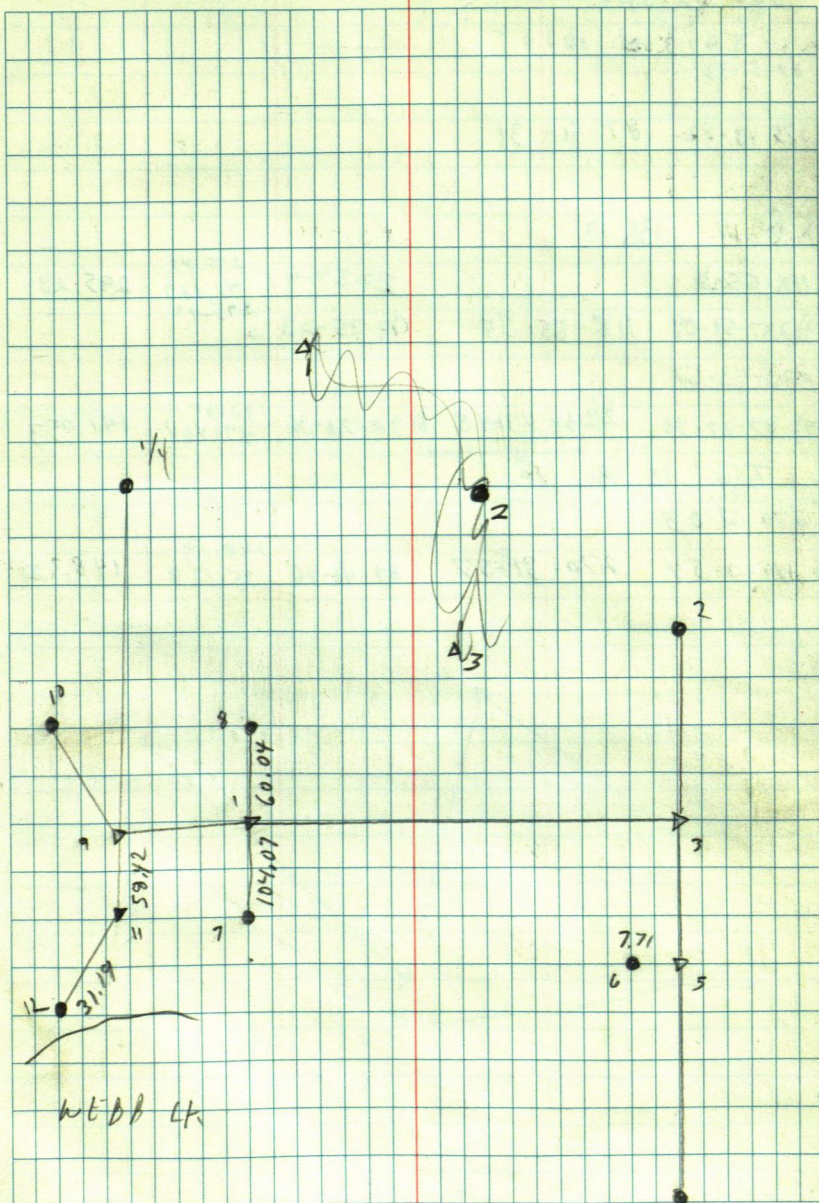
104.07

948.361

271.039

207.956

25



Geo. KIGHT

T @ 13 BS 10
87-51-33

15 175-43-02 87-51-31

T @ 10 BS 13

118-55-38 87-54-41 295.49 295.289
90.032

9) 237-51-09 118-55-35 93-25-23 295.41

223-43-57

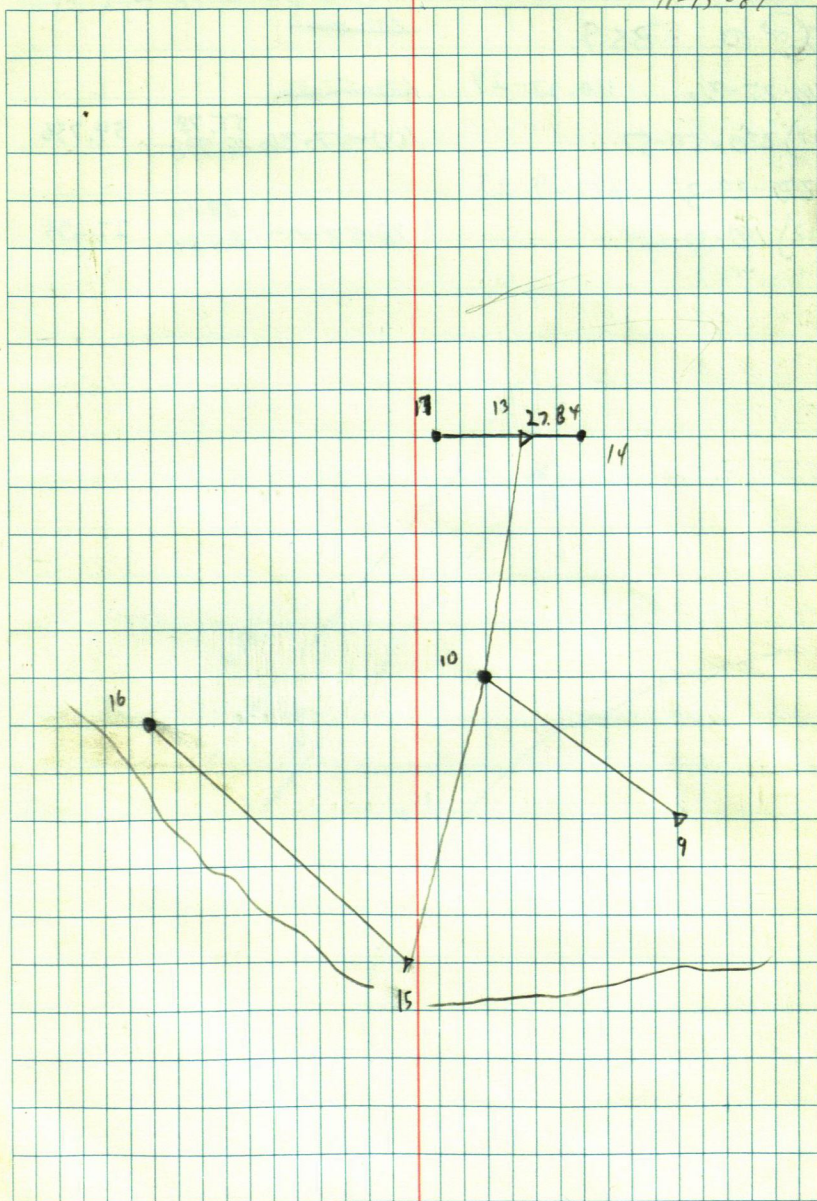
15) 87-27-36 223-43-48 98-26-36 142.60 141.053
43.464

T @ 15 BS 10

270-32-05

16 181-3-54 270-31-57 89-46-06 148.19 148.188
45.168

F. EVER
J. WATSON
D. FARNUM
26
11-15-87



Camp Fish

Low 10 BS 9

110-27-36 110-27-29

11) 220-54-57

220-29-31 270-29-23

12) 180-58-45

SEC 4 T 141 N

~~100-57-36~~

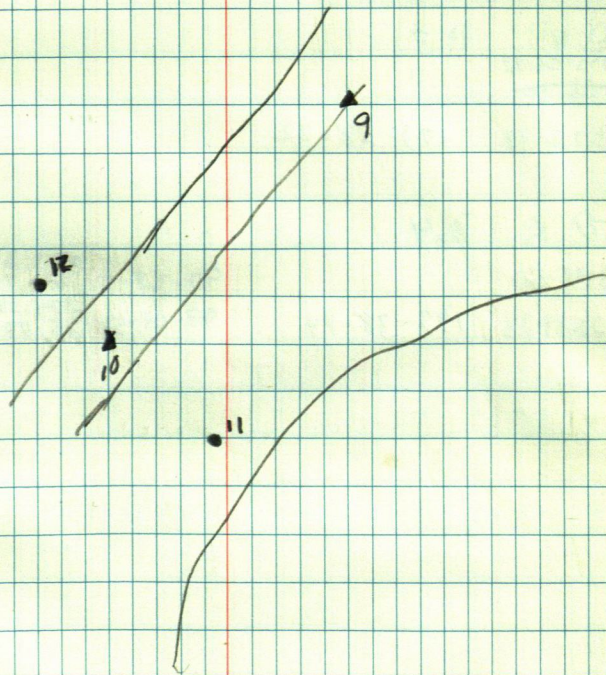
~~100-57-36~~

100-57-36 ^{55.78} 54.756
_{16.998}

78-53-15 ^{28.16} 27.633
_{8.584}

7/15/89 - D. FARMER - J. WATSKIE

27



PAUL DOEBEL

TQ 2 BS 1

182-35-28

3) 05-10-39 182-35-20

TQ 3 BS 2

146-00-00

4) 292-00-00 146-00

89-23-58	551.34 168.048	551.307
91-50-10	285.47 87.011	285.322

TQ 4 BS 3

~~173-58-22~~
~~173-58-30~~

5) 347-56-39 173-58-22

TQ 5 BS 4

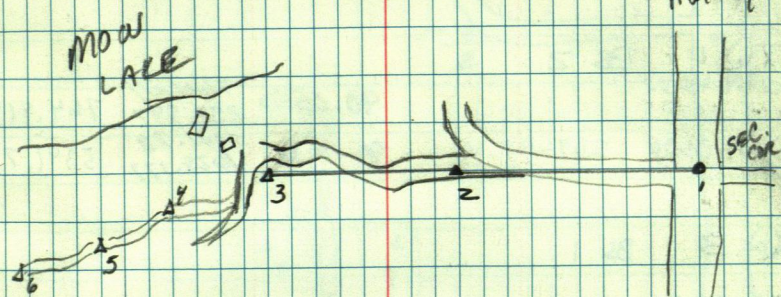
193-38-50

6) 27-17-28 193-38-44

90-32-18	343.67 104.748	343.649
93-03-51	279.06 85.039	278.599

NOV 20, 1989 D. FARRAN - J. WATSON

28



PAUL DORTCH

TQ 1 BS 2

269-45-52

90-05-03

764.41

232.997

764.413

3) 171-31-24 269-45-44

90-11-36

5341.78

1628.177

5341.73

TQ 3 BS 1

271-12-50

1) 182-25-37 271-12-49

TQ 4 BS 3

267-54-24

89-50-18

2333.11

711.134

2333.094

5) 175-48-44 267-54-22

89-49-50

1181.82

360.219

1181.81

TQ 5 BS 4

219-58-21

6) 79-56-54 219-58-27

TQ 6 BS 5

139-51-57

90-17-43

469.63

143.142

469.62

7) 271-43-43 139-51-52

89-45-51

805.93

245.647

805.919

TQ 7 BS 6

~~168-05-21~~
168-05-10

8) ~~221-10-15~~
336-10-12 168-05-06

90-25-18

268.91

81.965

268.904

208-51-15 208-51-09

9) 57-42-18

90-15-33

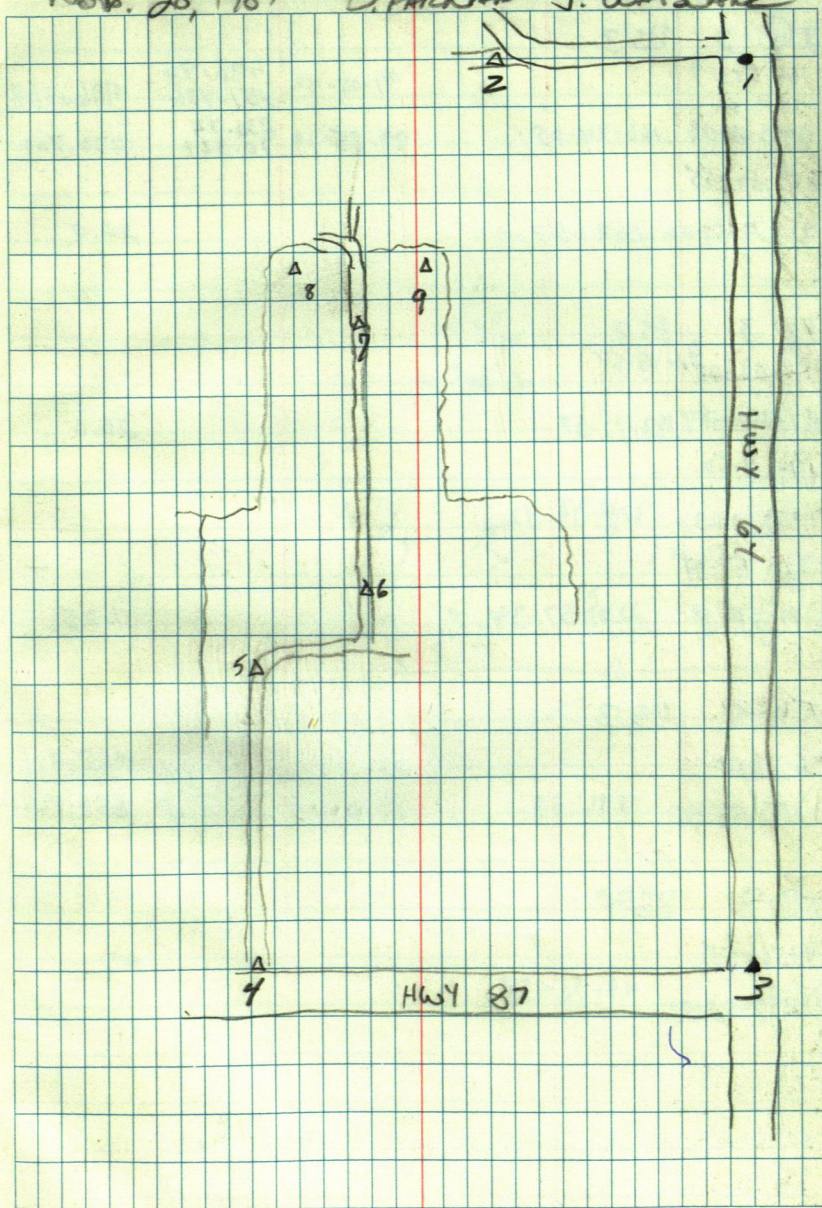
284.23

86.632

284.224

29

Nov. 20, 1989 - D. FARRAR - J. WATSCHE



RON STEVENS

IC 2 BS3

166-34-19	91-06-52	496.96 151.476	496.1868
1) 333-08-09 166-34-05	89-35-19	230.72 70.321	230.709
269-56-55			
4) 179-54-02 269-57-01			20.0

IC 3 BS2

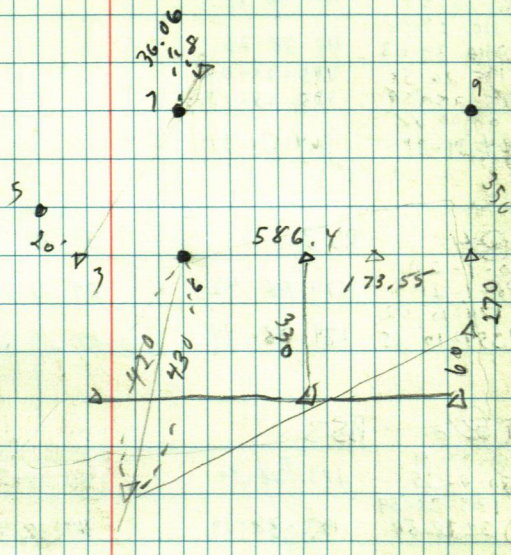
9) 09-03 91-08-57	91-08-59		
5) 182-16-34 182-17-57			20.0
179-19-50			
7) 358-39-23 179-19-42			
220-57-39			
6) 81-55-18 220-57-39			71.25

IC 8 BS3

246-58-00	89-37-45	408.42 124.487	408.411
9) 133-55-58 246-58	89-48-45	658.87 200.824	658.864

IC 8 BS9

119-56-53			
7) 239-53-37 119-56-54			



DICK Mc FARLAND

20-133-29

TQ 2 BS 3

1116.15

00-00-35 00-01-2637
180-1-53

90-00-03

340.205

1116.15

269-16-34 269-14-57
89-16-46 269-14-53

90-58-29

465.78
140.97

465.71

TQ 3 BS 2

00-00-54
180-00-37

110-38-14

110-39-08

110-38-26

290-39-03

195-25-04

195-26-58

195-25-13

115-25-50

0-0-0

164-34-21

164-34-31

TQ 4 BS 3

0-1-20
180-1-21

174-08-42

174-10-02

174-08-44

354-10-05

89-21-14

852.07

852.004

89-21-14

259.706

88-39-36

577.95
176.163

577.796

TQ 6 BS 3

00-00-04
180-0-35

183-38-40

183-38-59

183-38-19

30-38-54

90-04-58

563.73

563.725

89-38-22

171.824
470.79
145.407

470.481

TQ 7 BS 6

00-01-15

165-37-19^{OK}

180-00-49

165-38-34

335-38-24

155-37-35

TQ 8 BS 7

00-00-04

226-12-54

180-0-25

226-12-55

226-13-03

46-13-20

282-24-56

282-24-49

102-25-07

282-24-42

88-33-50

386.34

386.238

89-6-12

117.769

484.32

147.620

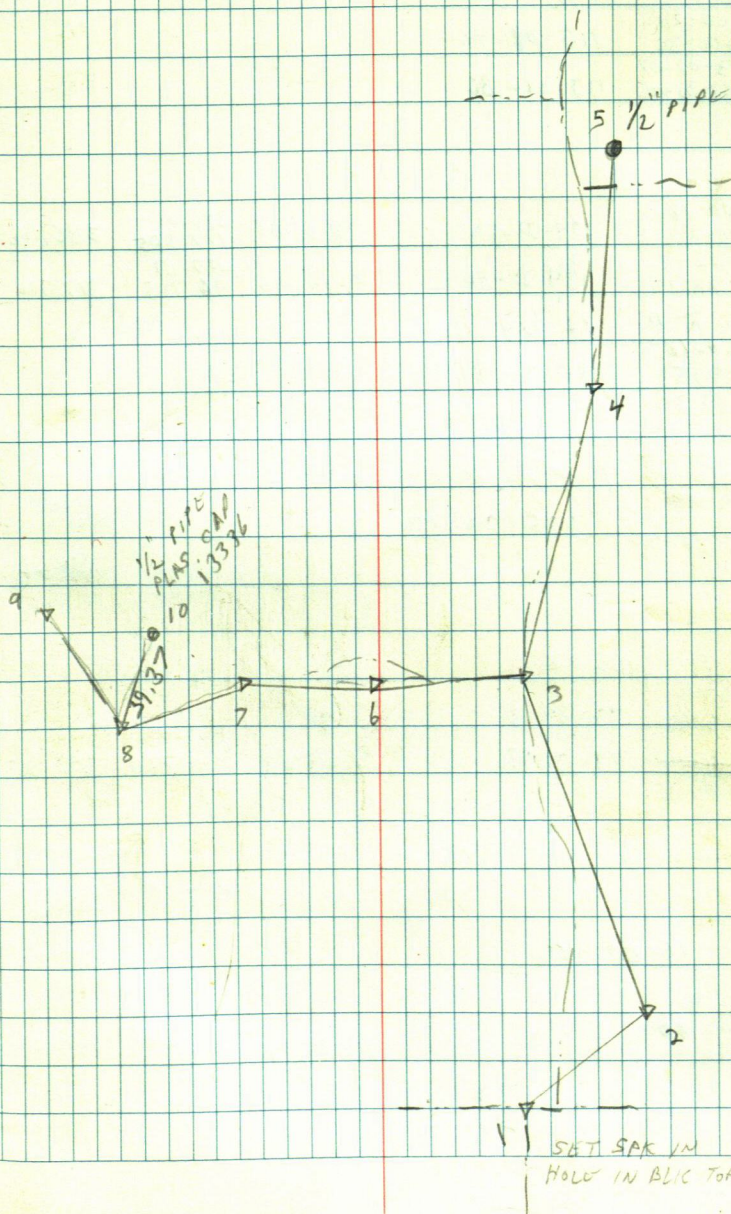
484.257

39.37

-5° IN AN CLR

31

B. CURRO
J. WATTSCHKE
D. FARNUM
11-29-89



DICK Mc FARLAND

IC 9 BS 8
 00-00-21
 180-00-30 113-01-46
 113-02-07
 11) 293-02-06 113-01-36

IC 11 BS 9
 00-00-18
 180-00-20 134-21-59 90-03-03 386.61 386.56
 134-22-17
 12) 314-22-14 134-21-54 90-06-45 317.31 317.306
 96.715

IC 12 BS 11
 0-0-12
 179-59-15 180-03-18
 180-03-32

13
 IC 9 BS 8
 00-00-23 255-36-17
 14 255-36-40 169.66

IC 11 BS 12
 00-00-12
 180-00-41 73-39-13
 15) 00-00-12 73-38-43 92-00-04 587.73 587.367
 73-39-25
 253-39-24

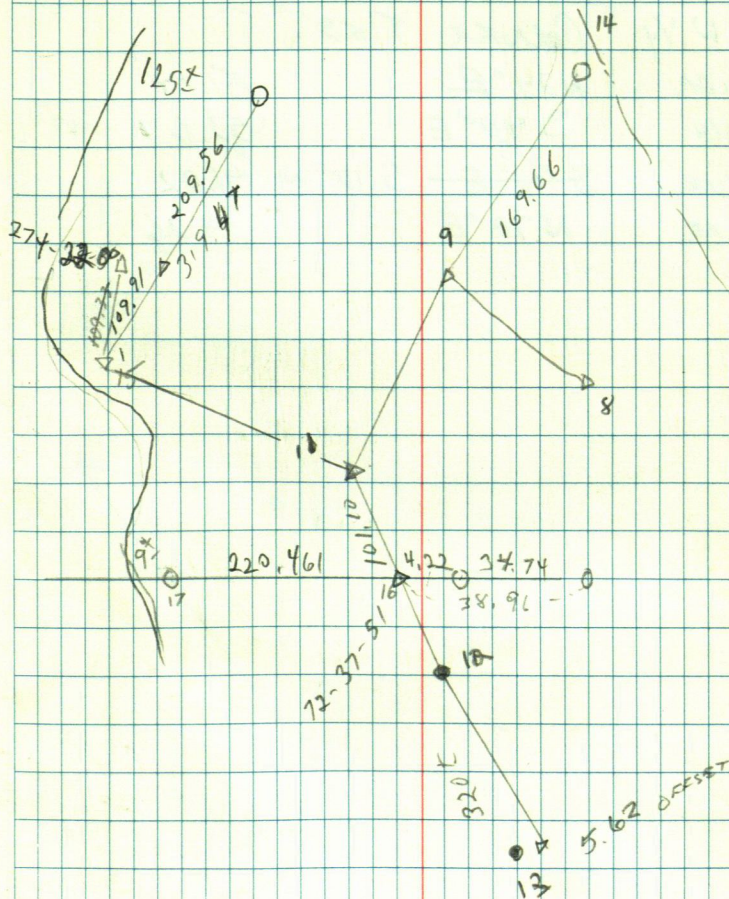
IC 16 BS 17
 96-44-04 221.79 220.461
 67.665

IC 15 BS 11
 0-0-0
 180-0-41
 274-22-50
 294-22-02 84-14.19 110.47 109.91

35° windy CLR

32

E. GORD
 S. WATTSCHKE
 D. FARNUM
 11-30-89



USFS

SUGAR LK

X @ 16 BS 17

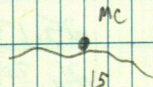
290-51-06	290-51-02	87-59-27	289.38 88.204	289.202
18) 221-42-04		89-54-03	329.40 100.403	329.401

W 1/4 CORNER TIES

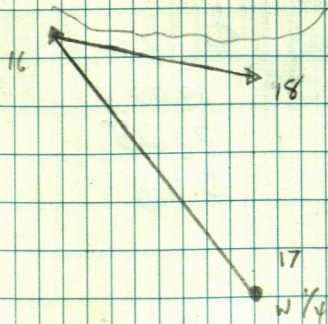
8" POPLAR	N 24° E	51.14	
4" BIRCH	S 40° E	53.67	1964
12" POPLAR	S 40° E S 12° W	41.02	
4" POPLAR	N 70° E	29.26	

COLD WIND
0'E. CURRO
J. WATSCNKE
1-12-89

33



LK VERMILION



SUGAR LAKE

CORNER TIES

S.W. CORNER SEC. 28

4" MAPLE	N 73° E	15.67
5" BIRCH	S 35° W	25.13
5" MAPLE	N 77° W	26.35

OLD BT'S

16" POPLAR	S 32° E	17.50
20" POPLAR	S 70° W	49.15
6" MAPLE	N 31° W	35.04
18" POPLAR	N 19° E	13.37

CORNER TIES

S.W. 1/4 CORNER SEC. 28

8" WHITE OAK	West E 90°	19.03
9" Bass wood	N. 22° W	23.25
8" Birch	S. 13° W	8.43

Old BT'S

10" Bass wood	N. 56° E	6.4
9" white oak	S 32° W	26.58

34

Dec. 7, 1989 D. FARNHAM - J. WATSCHE

SUGAR LAKE CORNER TIES

SMC

~~NW CORNER SEC 28~~

7" ASH N10°E 52.29

5" ASH N20°E 84.31

5" ASH N59°E 54.43

OLD BT

24' PINE (DAND) N22°E 96.58

(SEC 20-21 MC)

35

DEC 7, 1989. D. FARHAM - J. WATSHKE

PAUL DORBEL

IE2 BS1

187-17-23

3) 14-34-38

187-17-19

93-35-44

513.20

156.419

512.18

172-42-58

IE3 BS2

138-45-46

4) 27-31-05

138-45-33

90-04-10

747.34

227.791

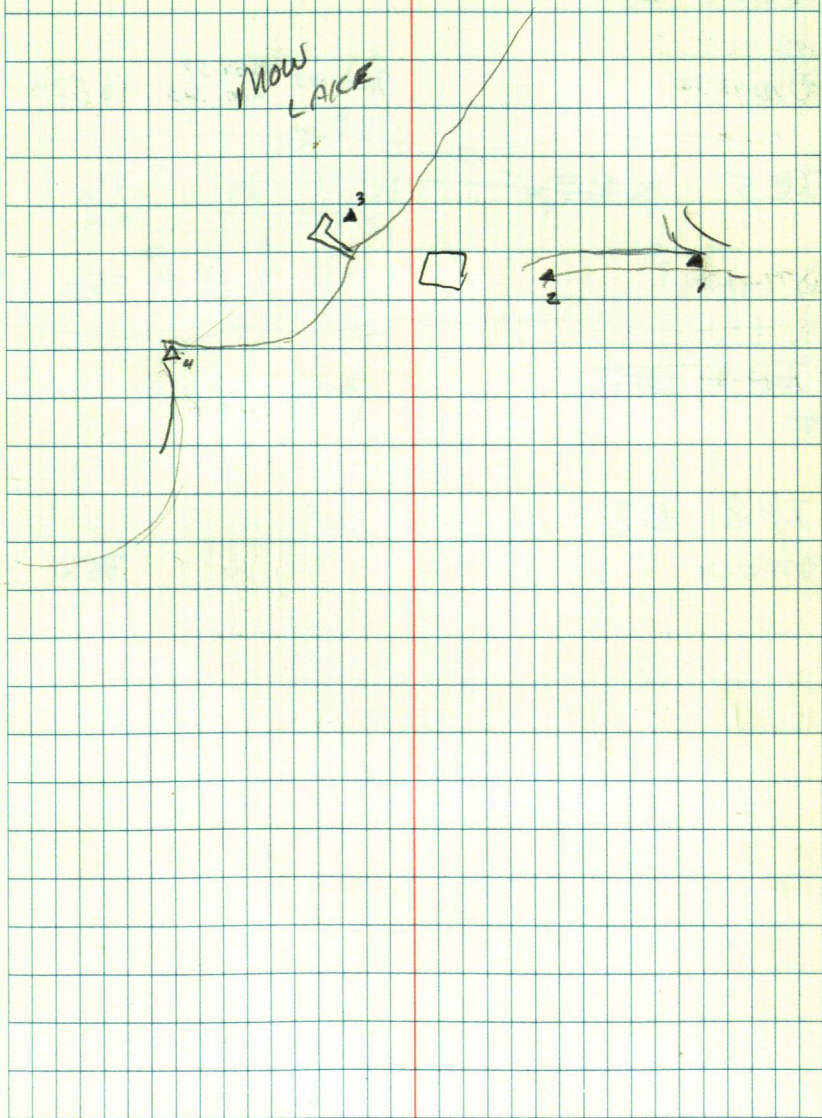
747.339

221-14-50

36

Dec 8, 1989

D. FARHAM - J. WATSCHE



PAUL DOEBEL

IC3 BS1

4) 102-43-32

90.24-03 658.54
200.723 658.5210

IC5 BS3

6) 77-17-28

35.0

~~IC3 BS2~~

T

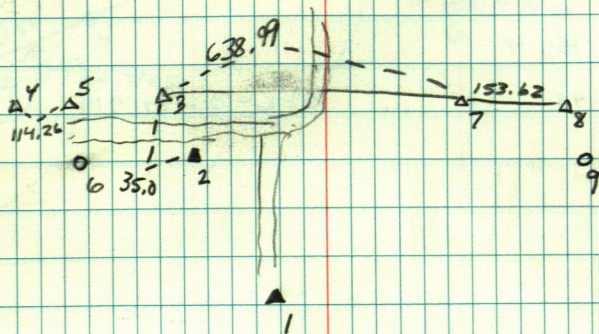
IC8 BS7

9) 77-17-28

35.0

37

DEC 8, 1989 D'ARNAUD - J. WATSKIE



PAUL DOEBEL

1@2 BS1

6) 131-25-24

31.07

2@5 BS4

7) 120-53-43

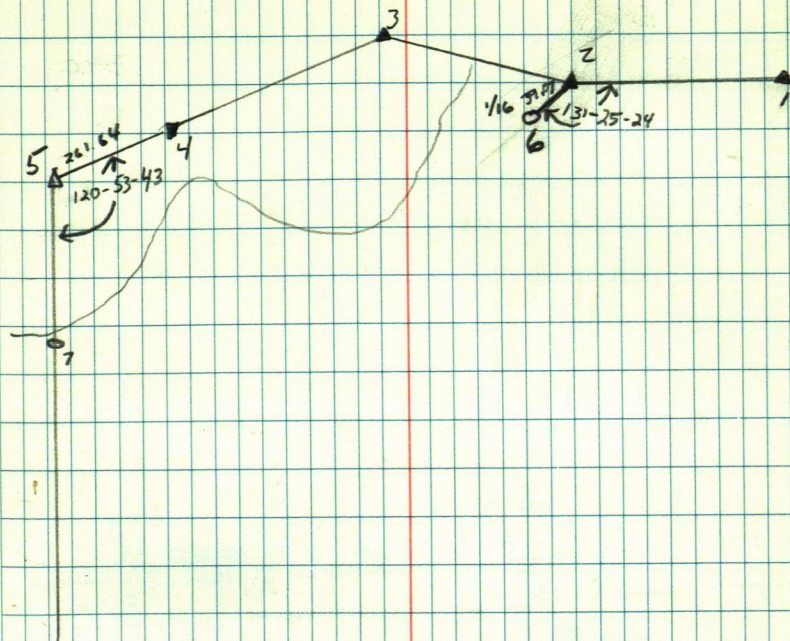
89-46-13

255.63

77.914

38

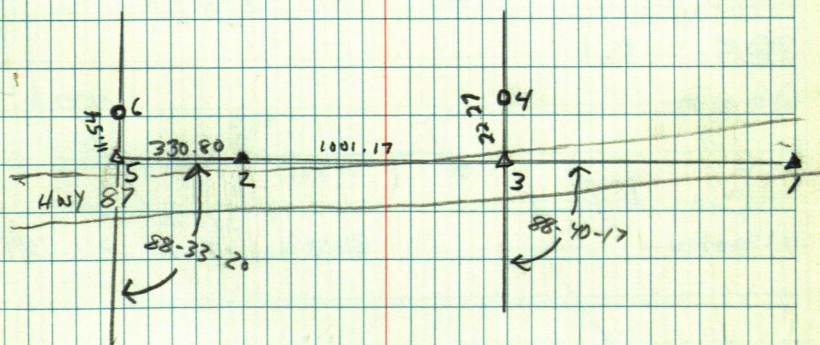
Dec 11, 1989 D. FARNHAM - J. WATSCHEE



PAUL DOEBEL

39

DEC 11, 1989 D. FARNHAM - J. WATSON KE



Camp Fish

1001

BS 3

00-00-49			318.90	
180-00-53	105-35-46	91-30-57	97.199	318.784
185-36-35			277.68	
2) 285-36-41	105-35-48	89-37-51	84.637	277.677
00-00-12				
254-24-25	254-24-17			

1003

BS 4

00-00-27				
180-00-13	314-29-35			
314-30-02				
1) 134-29-57	314-29-49			
00-00-32				
45-30-43	45-30-11			

1005

BS 1

6) 90-00-00			400.0	
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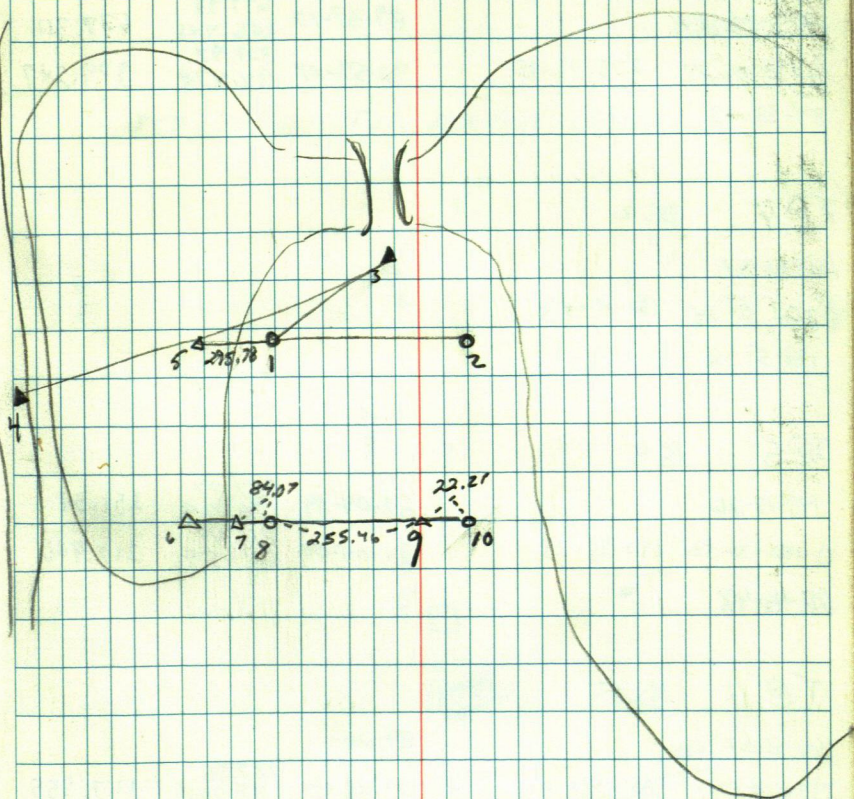
1006

BS 5

7) 90-00-00				
	81-53-16	213.85	65.181	211.7084

JAN 9, 1990 D. FARAHAN - J. WATSCHEKE

40



DAGEN

(CHERYL HOFF)

T@2 BS1

275-02-27		89-39-17	677.33 206.448	677.311
4) 190-04-29	275-02-15	92-59-07	309.97 94.478	309.547
84-58-13				

T@4 BS2

161-00-33				
5) 322-01-24	161-0-42			
198-59-18				

T@5 BS4

140-15-26		87-04-39	251.87 76.769	251.54
6) 380-30-50	140-15-25	94-05-09	211.49 64.459	210.946
29-44-48				

T@6 BS5

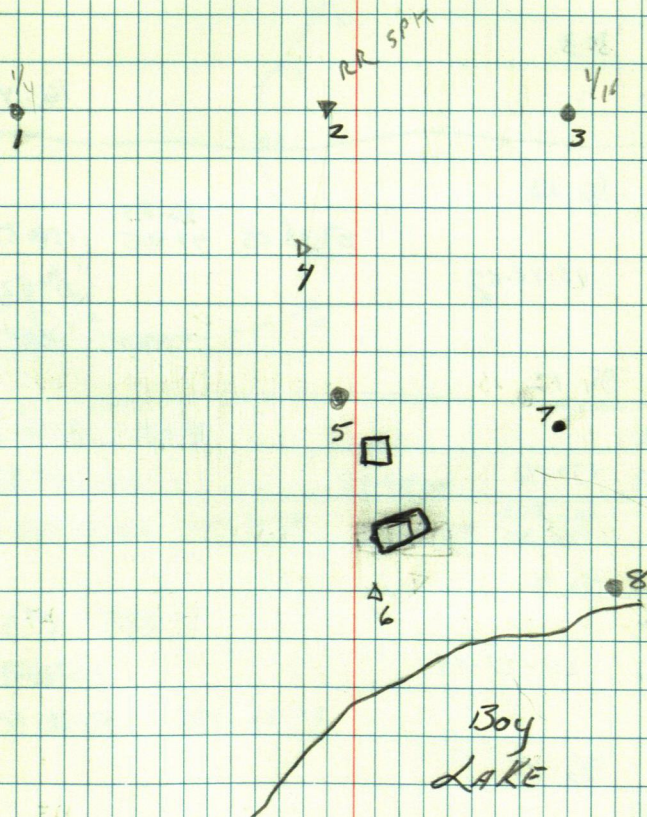
65-55-51		89-28		
7) 131-52-02	65-56-01	89-28-47	127.56 38.881	127.555
294-04-16				
148-59-00				
8) 297-58-22	148-59-11	94-54-56	125.58 38.280	125.123
211-01-52				

-20°

41

DEC 12, 1989 D. FARNHAM - J. WATTSCHICK

SEE SURVEY FOR WALTER LIPPERT



ST CLOUD CHILDRENS HM

T@3 BS1

~~103-43-06~~

90-34-03

~~4) 207-22-36~~

103-42-11

4) 207-24-18

103-42-09

T@6 BS3

7) 103-42-11

16.45

T@12 BS13

~~98-48-18~~

89-33-25

156.84

47.805

156.834

1) 197-36-07

98-48-09

59.92

T@11 BS12

230-42-12

1) 19-23-59

230-42

60.01

T@10 BS11

221-27-46

1) 82-55-27

221-27-44

71.58

T@9 BS10

158-43-27

8) 317-27-16

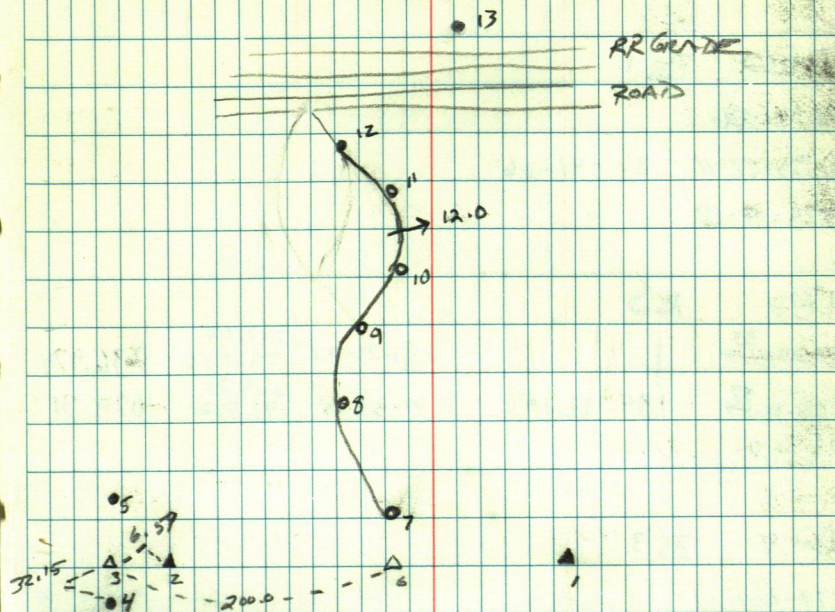
158-43-38

58.45

DEC 12, 1989

D. FARNHAM - J. QUATSKIE

42



T@8 BS9

160-22-09

~~97-45-0~~

7) 320-43-52

160-21-56

97-45-03

219.22

66.819

217.217

T@7 BS8

209-48-04

6) 59-36-09

209-48-05

USFS

IC2 BS1

86-41-06

3) 173-22-11 86-41-06

273-19-18

IC3 BS2

184-24-³³~~47~~

91-31-03

237.06

72.258

236.979

4) 008-48-³⁷~~54~~

184-24-19

89-53-15

629.31

191.816

629.31

175-36-00

IC4 BS3

179-46-21

5) 359-32-14 179-46-07

180-14-10

IC5 BS4

179-03-45

88-15-40

553.17

162.606

552.913

6) 358-07-26 179-03-43

94-32-06

215.08

65.551

214-397

180-56-06

IC6 BS5

183-33-03

7) 001-09-39 183-52-50

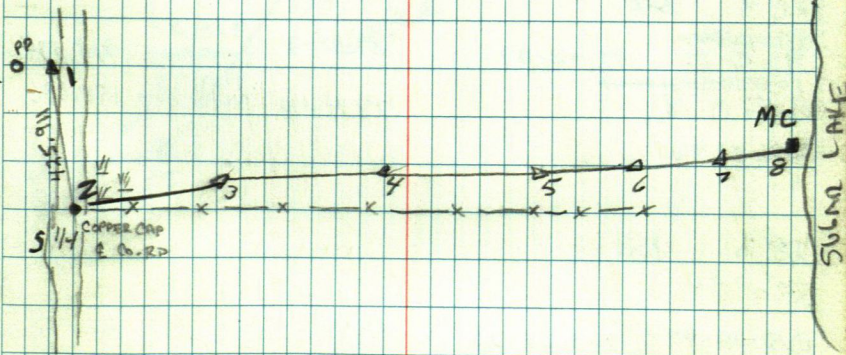
176-27-30

DEC 14, 1989

D. FARNUM - J. WATSCHE

-20° - LT. SNOW

43



SEE BK 323/28

USFS

Tc 7 BS 6

181-21-48	79-51-51	205.98 62.787	202.771
8) 002-43-28	181-21-44	107-15-26	146.99 44.801
178-38-48			140.37

Tc 8 BS 7

00-00-48			
180-00-27	123-20-13		
123-21-01			
9) 303-19-21	123-18-54		
00-00-23			
236-39-45	236-39-22		

Tc 9 BS 8

00-00-25			
93-02-27	99-02-09	89-30-12	918.57
93-02-27			279.982
10) 186-04-18			161.73
	78-46-18		249.297
266-57-46			158.636

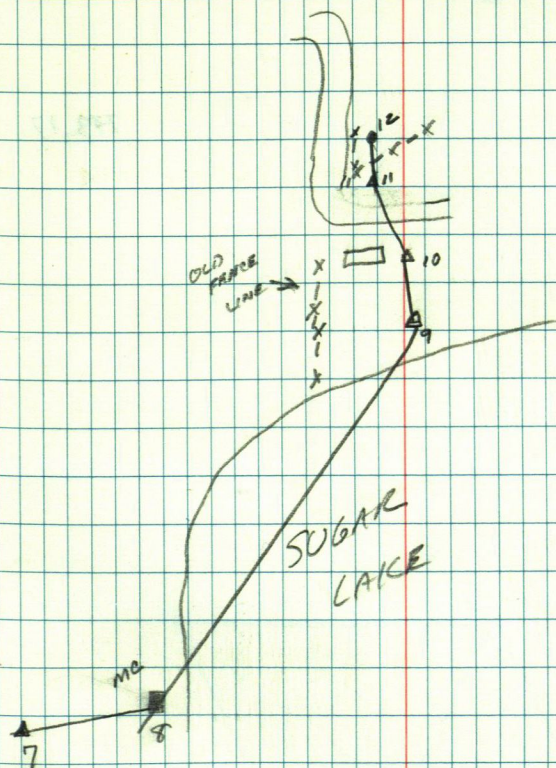
Tc 10 BS 9

205-00-34			
11) 50-00-44	205-00-22		
154-50-38			

Tc 11 BS 10

117-52-34		95-00-33	130.78 29.863	130.282
12) 235-44-46	117-52-23	97-05-08	91.87 28.006	91.174
242-07-57				

44



BOY LAKE

IC3 BS2

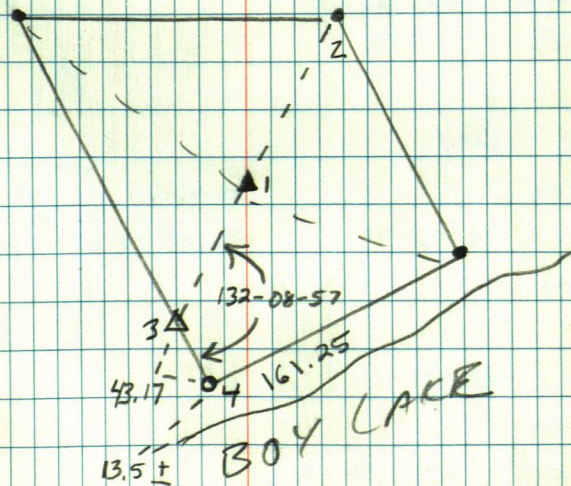
4) 132-08-57

43.17

-10°

45

DEC 15th 1989 D. FARNHAM - J. WATSCHE



USFS - SUGAR LAKE

102 BS1

213-43-48

3) 67-27-34 213-43-47 88-38-27 774.36
236.023 774.136

146-16-12

103 BS2

224-16-36

4) 88-32-49 224-16-25 90-57-30 620.34
189.088 620.264

135-44-09

104 BS3

266-25-33

5) 172-50-38 266-25-14

93-34-53

105 BS4

147-51-43

85-43-12 470.04
143.269 468.728

6) 295-43-19 147-51-40

92-25-27 733.53
223.581 732.872

212-08-48

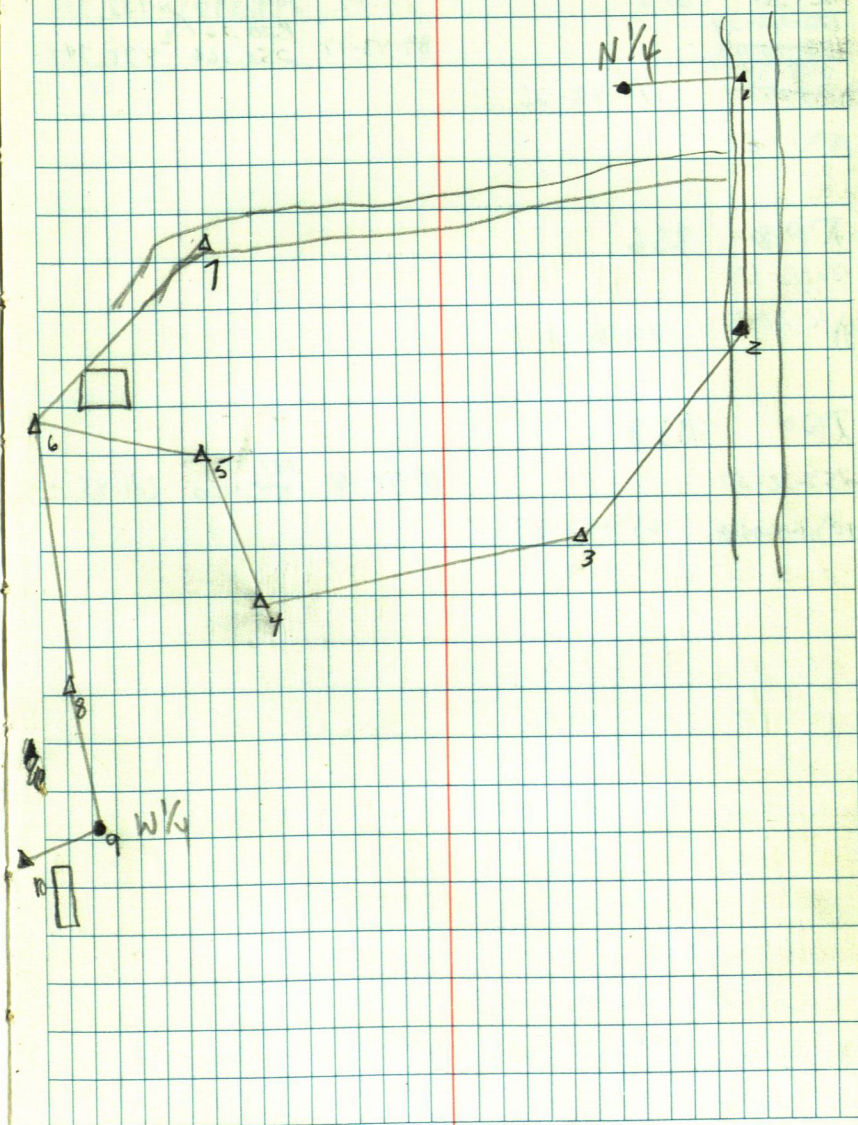
106 BS5

276-07-47

7) 112-15-33 276-07-47

83-52-24

46



USFS

SUOMI LAIKA

I@6

BS 7

89-42

982.26

299.397

982.259

172-42-28

89-43-17

820.76

250.166

820.744

172-43-08

345-24-51

345-25-24

172-42-26

187-17-51

I@8

BS 6

186-16-18

9) 12-32-20

186-16-10

I@9

BS 8

254-32-37

89-44-18

181.95

55.460

181.95

10) 149-05-06

254-32-33

US FS

SUGAR LAKE

IQ 2 BS 1

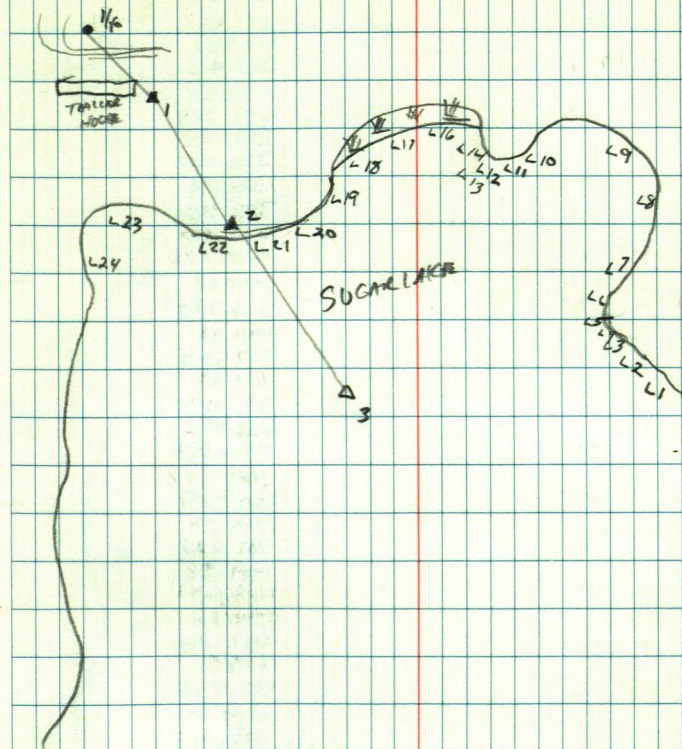
00-00-05
180-00-08 210-19-35
210-19-40
3) 30-19-46 210-19-38

IQ 3 BS 2

Station	Time	Altitude	Distance	Coordinates
00-00-22			89-44-33	1233.28
L1	96-12-16	120		375.903
L2	91-37-14	121		2193.87
L3	89-32-24	122		668.690
L4	89-03-16	23		2225.08
L5	85-39-07	27		678.205
L6	83-02-40	25		2269.52
L7	80-08-40	26		691.749
L8	71-26-51	27		2438.29
L9	65-37-40	28		743.197
L10	60-22-40	29		2447.34
L11	58-28-07	130		745.952
L12	56-29-21	31		2576.07
L13	52-23-50	32		785.188
L14	46-35-49	33		2633.49
L15	42-36-47	34		802.688
L16	34-02-18	35		2518.77
L17	31-28-42	36		767.789
L18	18-31-47	37		2356.66
L19	13-03-51	38		718.306
L20	09-24-37	39		1907.28

48

DEC 27, 1989 > FARNHAM - J. WATSCHE



USFS - SUGAR LAKE

00-00-16		1165.15	
L21 05-26-29	140	255.139	
		1219.26	
L22 358-30-25	41	371.632	
		1263.83	
L23 340-34-21	42	285.216	
		1170.55	
L24 337-24-00	43	256.785	
		1090.75	
L25 330-37-20	44	332.462	
00-00-35		1081.82	
L26 324-25-18	45	329.738	
		1061.27	
L27 317-36-45	46	323.476	
		1040.07	
L28 313-30-20	47	316.993	
		1041.88	
L29 289-38-44	48	317.565	
		1112.29	
L30 280-13-27	49	339.032	
00-00-44		1156.59	
L31 273-28-20	150	350.686	
		1184.33	
L32 271-26-28	51	360.985	
		1344.57	
L33 267-39-30	52	409.827	
		1409.58	
L34 264-39-54	53	429.641	
		1501.33	
L35 262-39-13	54	457.608	
00-00-29		1648.71	
L36 260-09-55	55	502.552	
		1894.39	
L37 255-09-49	56	577.413	
		2017.83	
L38 254-05-41	57	615.034	
		2169.80	
L39 252-06-35	158	661.353	

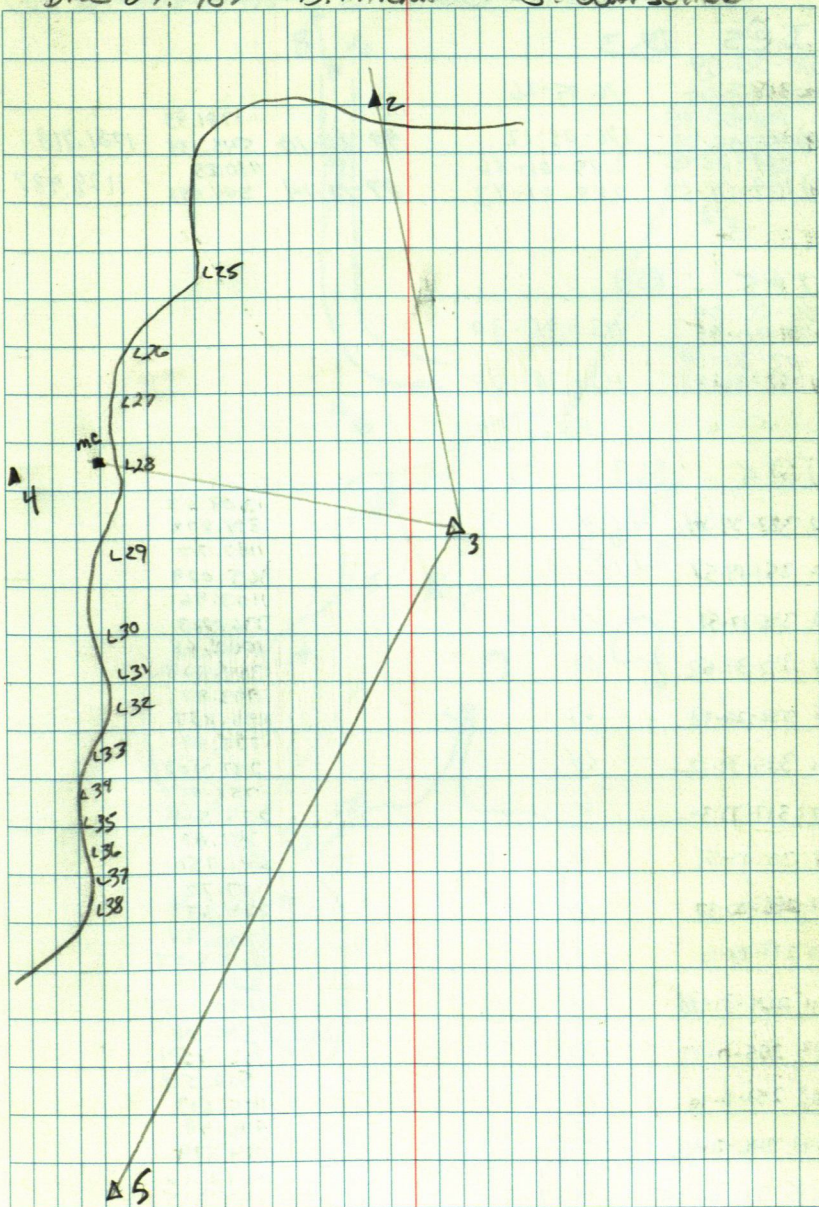
103

BS2

00-00-52			
180-00-56	237-29-55		
237-30-47		3462.46	
67-30-43	247-29-47	1055.359	3462.458
313-31-02		1057.79	
133-31-01	313-30-70	89-30-47	1057.742
	313-30-05		

DEC 27, 1988 D. FARNHAM - J. WATSCHEK

49



109 BS 5

USFS - SUGAR LAKE

Lk	375-33-31	74	1530.88
L17	339-17-12	75	766.608
L18	324-05-59	76	1419.49
L19	318-14-17	77	432.661
L20	292-20-11	78	1114.62
L21	283-09-26	79	339.738
L22	272-32-44	80	1157.11
L23	258-26-29	81	352.687
L24	243-30-13	82	1188.06
L25	204-24-51	83	362.115
L26	188-28-55	84	1176.78
L27	176-03-15	85	358.684
L28	168-27-47	86	1048.08
L29	163-26-16	87	319.454
L30	154-35-48	88	1029.90
L31	150-30-11	89	313.917
L32	136-26-13	90	867.92
L33	123-32-33	91	264.543
L34	100-28-57	92	574.59
L35	80-32-36	93	175.134
L36	62-39-38	94	577.71
L37	55-21-43	95	176.089
L38	44-28-54	96	567.00
L39	32-20-29	97	172.823
L40			525.62

51

JAN 2, 1789 - D. FARRAR - J. WATSON

This image shows a full page of graph paper. It features a uniform grid of small squares formed by thin blue lines. A single, solid red vertical line runs down the center of the page, acting as a margin. The paper has a light cream or off-white color, showing some minor texture and slight discoloration typical of aged paper. There are no markings, text, or drawings on the grid itself.

USFS - SUGAR LAKE

IC6 BS5

00-00-22	
180-00-18	206-16-50
206-17-12	
206-17-13	206-16-55

IC7 BS6

00-00-15			1275.79	
180-00-28	176-07-19	93-30-02	388.860	1273.403
176-07-34			414.16	
176-07-48	176-07-20	92-15-56	126.234	413.831

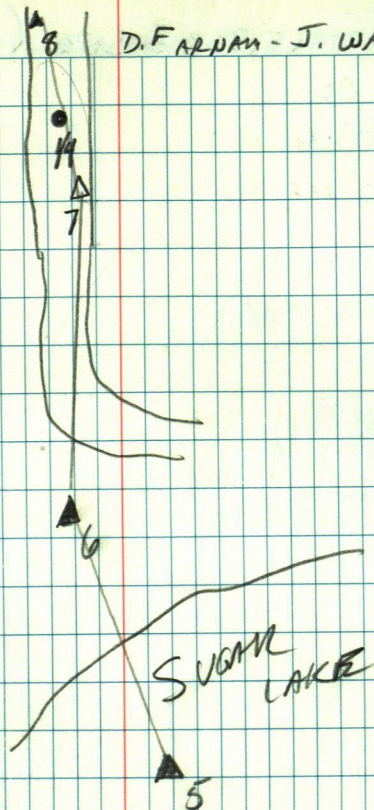
IC14 BS7

00-00-20	
180-00-16	179-13-21
179-13-41	
179-13-35	179-13-19

52

JAN 2, 1989

D. FARHAM - J. WATSCHE



USFS - SUGAR LAKE (SEE PAGE 50 - THIS BOOK)

TQ5 BS3

176-05-29

352-11-01

5) ~~207-02-40~~ 289-02-03

6) ~~218-04-35~~ 218-04-04

TQ5 BS9

~~42-56-42~~ 112-56-42

6) ~~225-52-24~~ 225-53-24

53

JAN 11, 1990 D. FARNHAM - J. WATSON

USFS - SUGAR LAKE

T@ 1/16 BS PT 1				
00-00-19	53-23-45	85-02-16	332.52	331.277
180-00-23			101.355	
53-24-04			243.52	
PT 2) 233-23-56	53-23-33	85-38-26	74.223	242.811
	135-12-44			
135-13-03			91.62	
1) 315-13-08	135-12-47	83-46-15	27.926	91.084
00-00-04				
224-47-56	224-47-52			

T@ 1 BS 3				
00-00-28	116-09-22			
180-00-20				
116-09-50				
1/16) 276-09-47	116-09-27			
00-00-21				
243-31-00	247-30-39 ?			

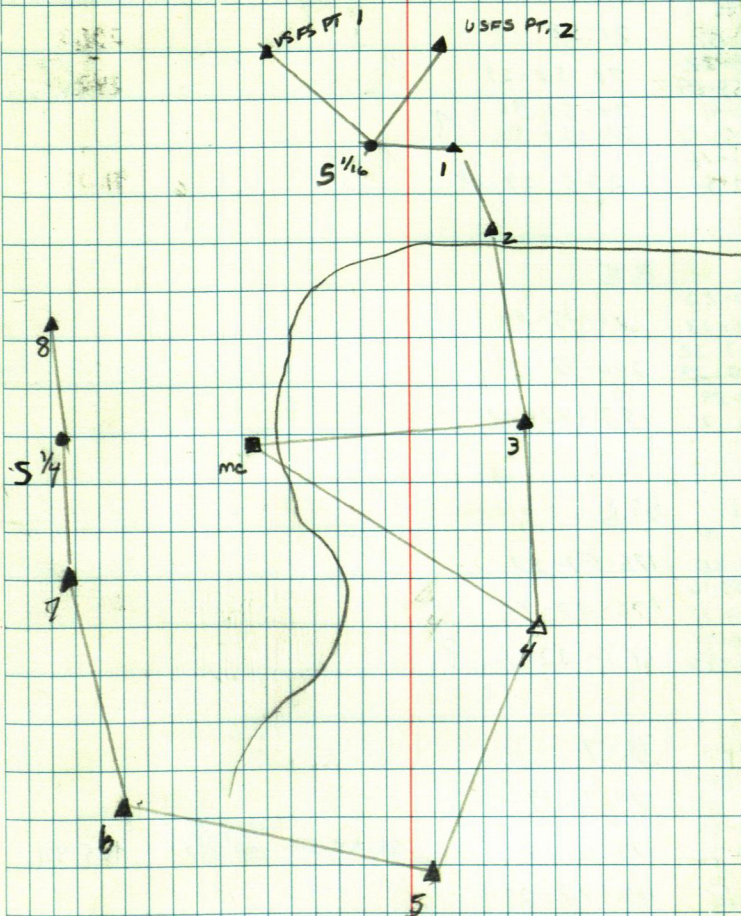
T@ 3 BS mc				
00-00-13	42-58-50	89-34-29	1057.77	1057.736
180-00-21			322.408	
42-59-03			1503.47	
1) 222-59-02	42-58-41	88-11-42	458.259	1502.719
46-30-10	46-29-57		1233.30	
2) 226-30-05	46-29-44	89-50-04	375.908	1233.286
00-00-18				
313-30-35	313-30-17			

T@ mc BS 3				
00-00-09	48-22-53			
183-00-05				
48-23-02				
4) 228-23-01	48-22-56			
00-00-09				
311-37-11	311-37-02			

T@ 4 BS mc				
00-00-31	249-48-49	89-37-53	1242.39	1242.36
180-00-13			378.681	
5) 249-49-20	249-49-11	90-02-16	2526.12	
69-49-24	110-11-04		769.964	2526.12
00-00-12				
110-11-16				

54

JAN. 12, 1990 D. FARNAM - J. WATSCHE



IO5 BSL

00-00-05

180-00-00

70-58-17

70-58-22

70-58-29

Pr: 3 4) 250-58-29

74-50-41

74-50-36

4) 250-50-51

74-50-51 ?

00-00-16

1) 285-09-34

285-09-18

IO6 BS5

00-00-23

180-00-13

206-17-09

206-17-32

7) 26-17-27

206-17-16

00-00-29

1/16 153-43-17

153-42-48

IO7 BS6

00-00-19

180-00-25

176-07-57

176-08-16

14) 356-08-11

176-07-46

00-00-41

1) 183-32-53

183-32-12 ?

IO 1/4 BS7

00-00-18

180-00-09

179-11-19

179-11-37

8) 359-11-26

179-11-17

00-00-06

80-48-35

180-48-29

88-55-50

425.98

129.837

425.901

CAMP FISH

1015 BS 16

00-00-16
E16) 48-57-59 48-57-43 96-19-29 78.00 23.726 77.528

1016 BS 15

00-00-38
180-00-29 163-05-46
163-06-24
17343-06-19 163-05-50
00-00-28
196-54-46

#1

102 BS 1

00-00-09
180-00-10 174-26-43
179-26-52
3) 359-26-56 179-26-46
00-00-20
180-33-35 180-33-35

103 BS 2

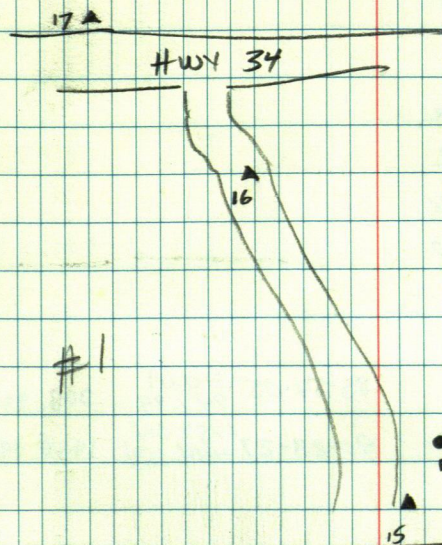
00-00-10
179-59-58 182-29-46 87-52-53 570.60 173.920 570.209
182-29-56
4) 02-29-45 182-29-47 99-47-41 155.71 47.460 153.439
00-00-39
177-30-44 177-30-05

104 BS 3

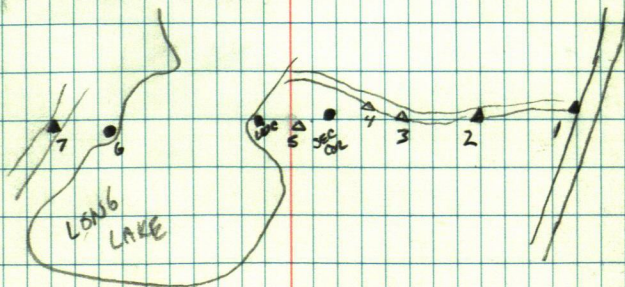
00-00-06
180-00-01 175-45-05
175-45-11
Spc (00) 355-45-06 175-45-05
00-00-21
184-15-12 184-14-51

JAN 19, 1990 D. FARHAM J. WATSON

56



#2



Camp Fish

10 Sec. Car

Bs 4

00-00-15

180-00-05

123-17-00

5) 303-16-55

00-00-01

236-43-05

123-16-45

123-16-50

206-43-04

82-57-22

106-24-57

215.08

65.556

91.30

27.8929

217.455

87.678

105

Bs Sec. Corner

00-00-25

180-00-30

255-35-07

we) 75-34-58

00-00-14

104-25-36

255-34-32

255-34-28

104-25-17

10 we

Bs 5

00-00-31

180-00-29

165-37-35

6) 345-37-32

165-37-04

165-37-03

83-54-05

90-23-27

310.69

94.699

1457.04

444.104

208.931

1450.997

Camp Fish

106 BS MC

00-00-21
180-00-16 99-46-33
99-46-54 99-46-34
2279-46-50
00-00-17
260-03-42 260-03-25

107 BS 6

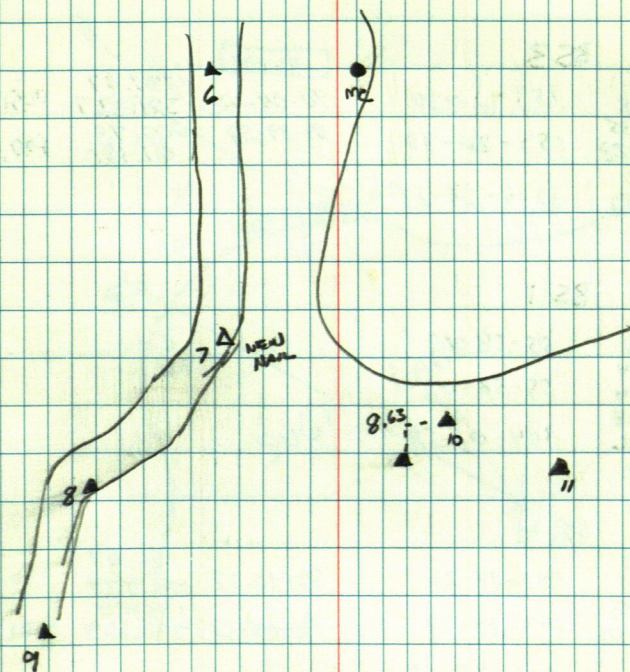
00-00-20
180-00-18 197-35-46 89-30-33 742.67 742.608
197-36-06 226.356
8) 17-35-53 197-35-35 89-50-30 647.39 647.389
00-00-22
162-24-43 162-24-21

108 BS 7

00-00-40
180-00-24 196-01-57
196-02-37
9) 16-02-34 196-02-10
00-00-24
163-58-13 163-57-49

JAN 23, 1990 D. FARNHAM - J. WATSON

59



USFS - SUGAR LAKE

103 BS2

00-00-15	
180-00-12	346-45-32
346-45-47	
1) 166-45-42	346-45-30
00-00-25	
13-14-58	13-14-33

101 BS3

00-00-05			1251.07	
179-59-58	153-20-30	90-04-42	381.327	1251.064
153-20-35		89-39-58	200.73	
4) 333-20-28	153-20-30		61.180	200.722
00-00-20				
206-39-49	206-39-29			

104 BS1

00-00-02	
180-00-06	55-58-12
55-58-14	
5) 235-58-14	55-58-08
06-00-18	
304-02-16	304-01-58

105 BS4

10-00-13			160.59	
180-00-01	143-14-26	89-40-07	48.949	160.589
143-14-39			1301.41	
3) 323-14-40	143-14-39	90-05-13	396.669	1301.401
00-00-12				
216-45-37	216-45-25			

103 BS5

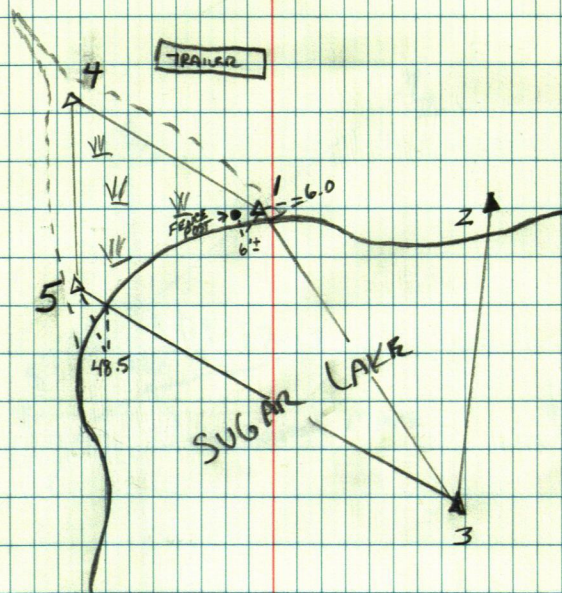
00-00-10	
180-00-01	20-41-17
20-41-27	
2) 200-41-15	20-41-14
00-00-18	
339-19-04	339-18-46

27° CLOUDY

JAN 24th, 1990 D. FARNHAM - J. WATSON KE

60

NOTE: TRAVERSE FOLLOWS END OF SWAMP - FOOT OF HILL ON ALL SIDES



Camp Fish

103 BS2

4) ¹²²⁻⁰⁷⁻⁰⁶
~~119-57-17~~

5) 119-57-17

6) 119-57-17

90-00-00 639.33
194.868

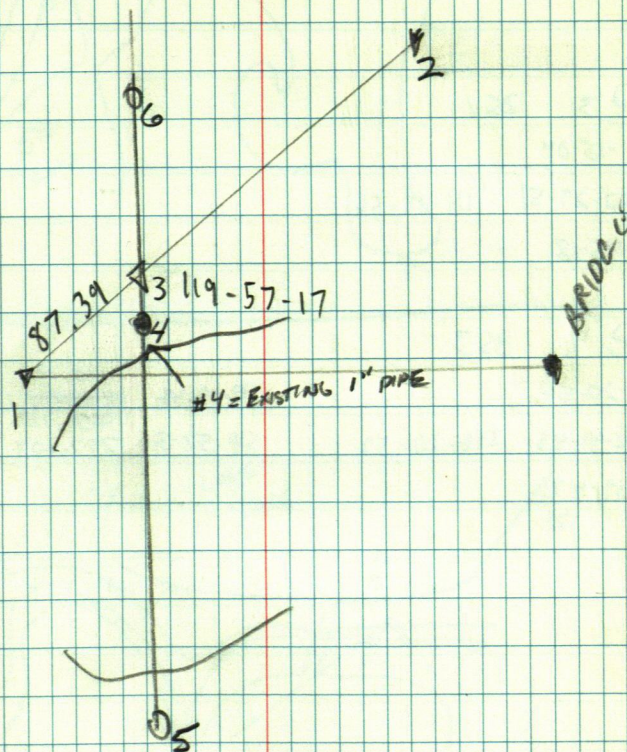
15.31

639.328

46.11

JAN 26th, 1990 D. FARNAM - J. WATTSCHKE

61



CAMP FISH

102 BS1

248-09-43

3) 136-19-09 248-09-35 90-01-53 2014.24 613.939 2014.229

111-50-34

103 BS1

111-15-04

4) 222-29-51 111-14-56

248-45-18

104 BS3

246-20-50

89-19-46

410.19 410.159

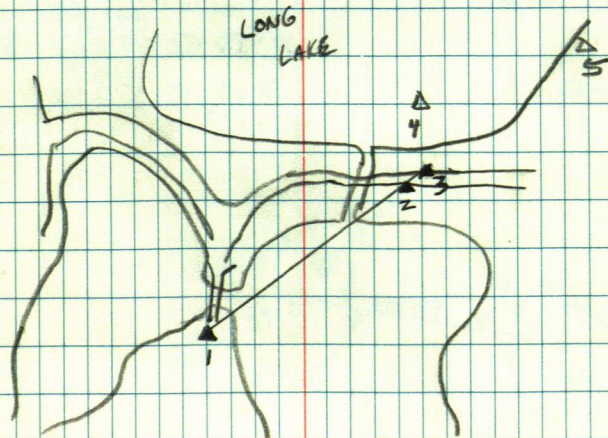
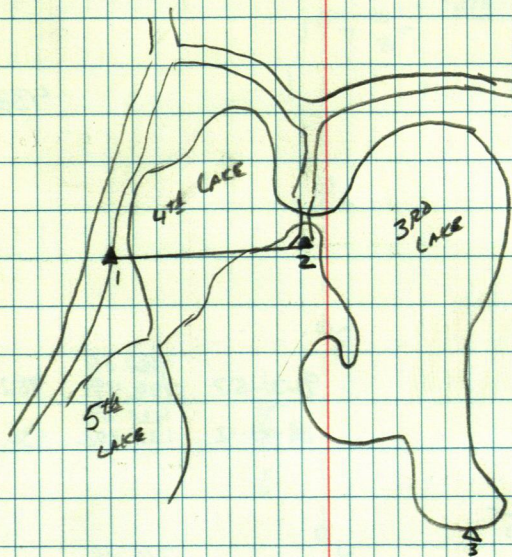
~~1250.25~~ 125.025

5) 132-41-43 246-20-52 89-52-30 909.15 277.109 909.144

113-39-47

62

JAN 26, 1990 D. FARNHAM - J. WATSCHE



DAN SMITH

DE2	BS1
-----	-----

3) 289-14-33

438.89

DE3 BS2

$$4) 250.4727$$

Q4 BS3

3) 180°

90-31-57	982.60 299,499	982.5574
88-49-12	432.09 131,702	431.9981

NO 6 BS 5

5) $\rightarrow 180^\circ$

94-34-023	270.46	
	82.435	269.5979

107 BS6

6)

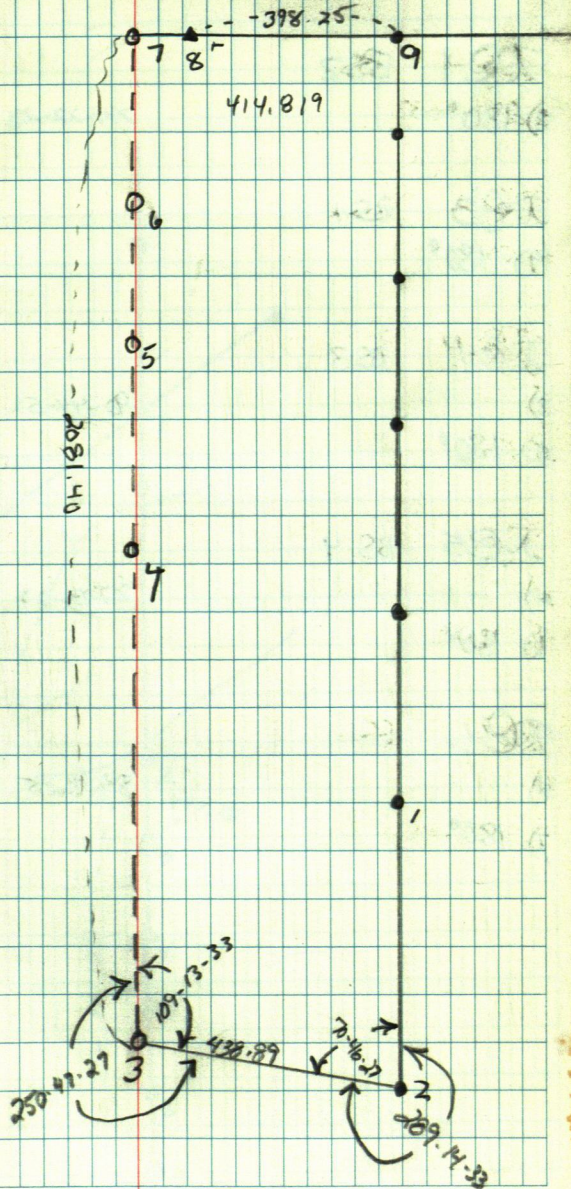
8) 269-26-22

91-28-52	391.29 119.264	391.1556
89-19-33	16.57 5.048	

-10° 20-25 mph WIND
(BRISK) 63
m-J. WATSON

JAN 30, 1990 D. FARNAM - J. WATSON

63



Camp Fish

TQ | BS2

3) 180°

	839.56	
274-22-28	255.897	837.1091

T03 BS1

4) 180°

124 BS3

3)

	356.87	
90-44-52	108,774	356,8381

5) 180°

RES BS 4

4)

87-06-27	255.90	
	77.999	255.5740

6) 180°

Page 6

5)

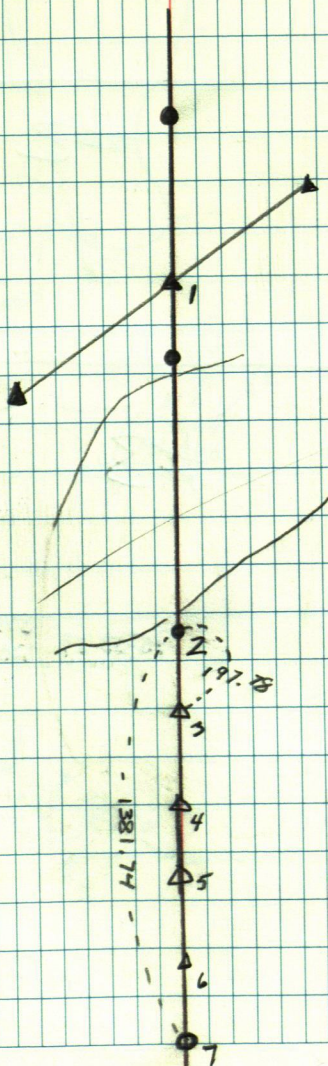
84-41-25	392.90	
	119-756	391.2125

7) 180°

180.34

FEB 2, 1990 D. FARNAM - J. WATSCHE

64



CAMP FISH

IO3 BS1

#1

4) 284-51-55

64.12

IO2 BS3

#2

4) 96-55-14

171.97

5) 96-46-32

IO2 BS1

#3

4) 142-56-40

55.90

IO2 BS3

5) 358-48-22

95-50-39 394.37
120.207

CLEAR 40° WKT T-1

FEB 12, 1990 D. FARNHAM - J. WATSON

65

#1

EXISTING
2" PIPE

140.75

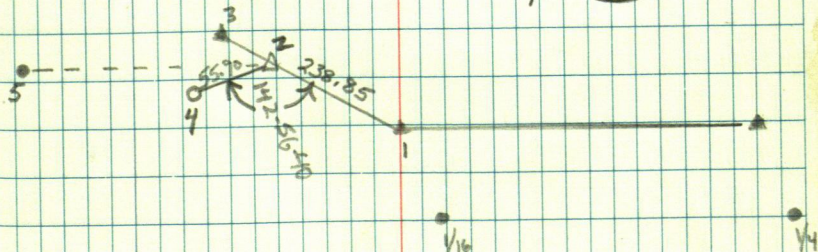
LONG
CABLE

267.10

195.64

#2

#3



GIRL LAKE

NO 2 BS1

3) 247-05-26

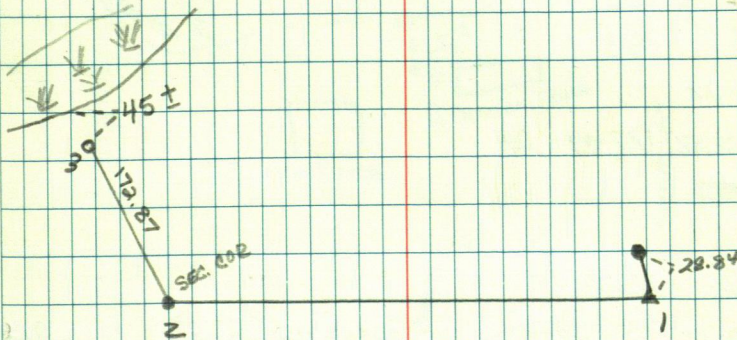
172.87

WILD T-1 -10° CLEAR-WINDY

FEB. 13, 1990 D. FARHAM-J. WATSCHE

66

GIRL LAKE



NOTE : #3 SET AT TOP OF BANK. SLOPES SHARPLY
TO WATER FROM PIPE. 1 1/4" I.P.

93-50-44 V

HENRY

135.105M
443.26

GASPARD

103

BS2

181-59-03

94-24-10

394.93

120.375

393.763

103-58-15 181-59-08

93-03-21

219.12

66.788

218.808

18-00-56

104

BS3

177-04-28

5) 391-08-48 177-04-24

182-55-45

105

BS4

180-40-14

82-37-06

263.15

80.207

260.966

6) 1-20-03 180-40-02

93-56-45

435.66

132.789

434.625

179-20-24

106

BS5

182-50-54

7) 05-41-21 182-50-41

88-38-42

311.03

94.799

310.937

177-09-36

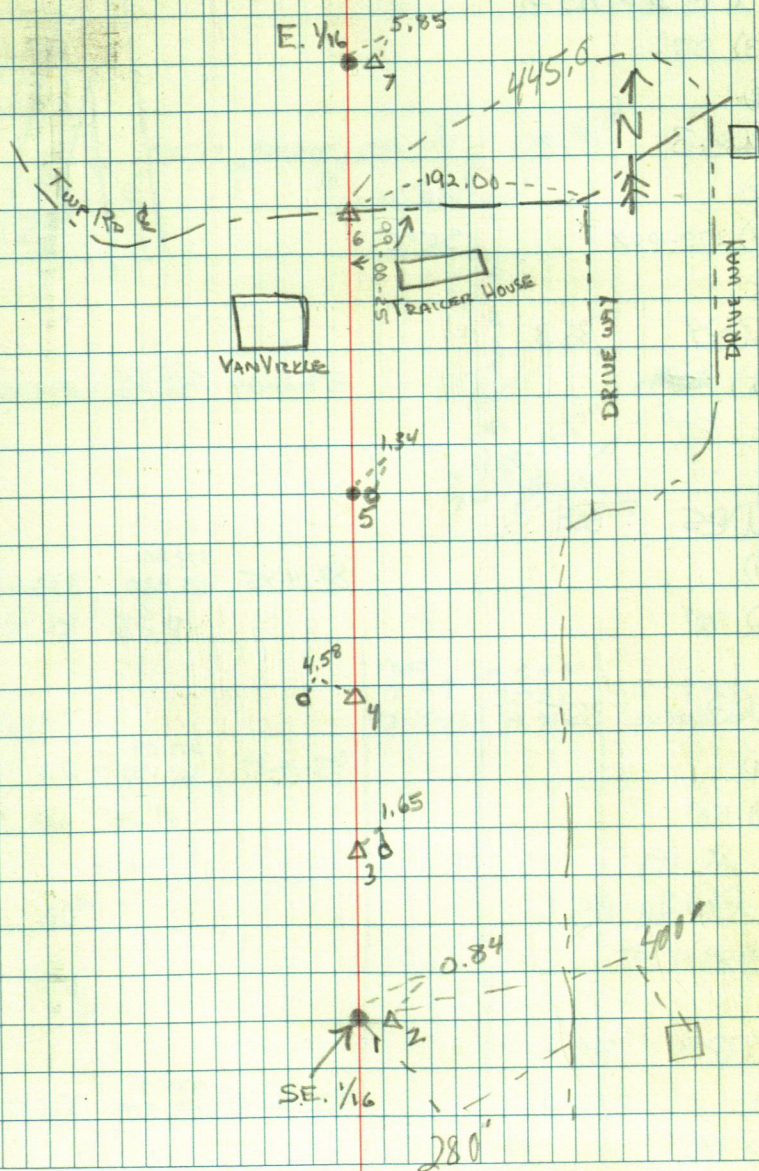
WILD T-1

-20° CLEAR - CALM

67

FEB 14, 1990

D. FARNAM - J. WATSCHE



RON SCHONING OX YOKO LAKE

IC 2 BS 1

3) 180°

389.028

IC 3 BS 2

2)

S86°W

4) 270-10-28

S5°E

IC 4 BS 3

3) ~~180°~~

89-10-04

295.92
90.196

295.8868

5) 180°

IC 5 BS 4

1)

89-14-45

373.80
113.930

373.7590

6) 180°

IC 6 BS 5

5)

93-14-39

217.09
66.170

216.7427

7) 180°

128.32

IC 7 BS 6

9) 89-44-37

IC 9 BS 7

7)

92-06-40

338.94
103.309

338.7086

10) 180°

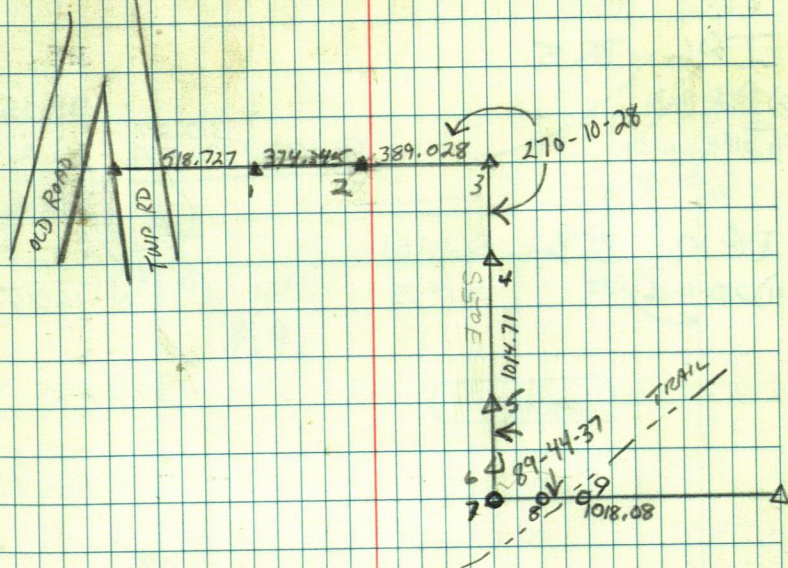
WILD T-1

-5° CALM-OVERCAST

68

FEB 15, 1980

D. FARNAM - J. WATSCHE



IC 10 BS 9

9)

11) 180°

VERT.

↑ ↑ ↑

92-15-13

↑ ↑ ↑ ↑

327.82

99.919

↑ ↑ ↑ ↑

327.5641

IC 11 BS 10

10)

12) 180°

191.76

160.05

HENRY GASPARD

IC6 BS5

8) 352-11-31

33.35

9) 257-26-31

89-43-09 310.27

310.263

IC10 BS6

S68°W

11) 283-11-36

S11°E

1684

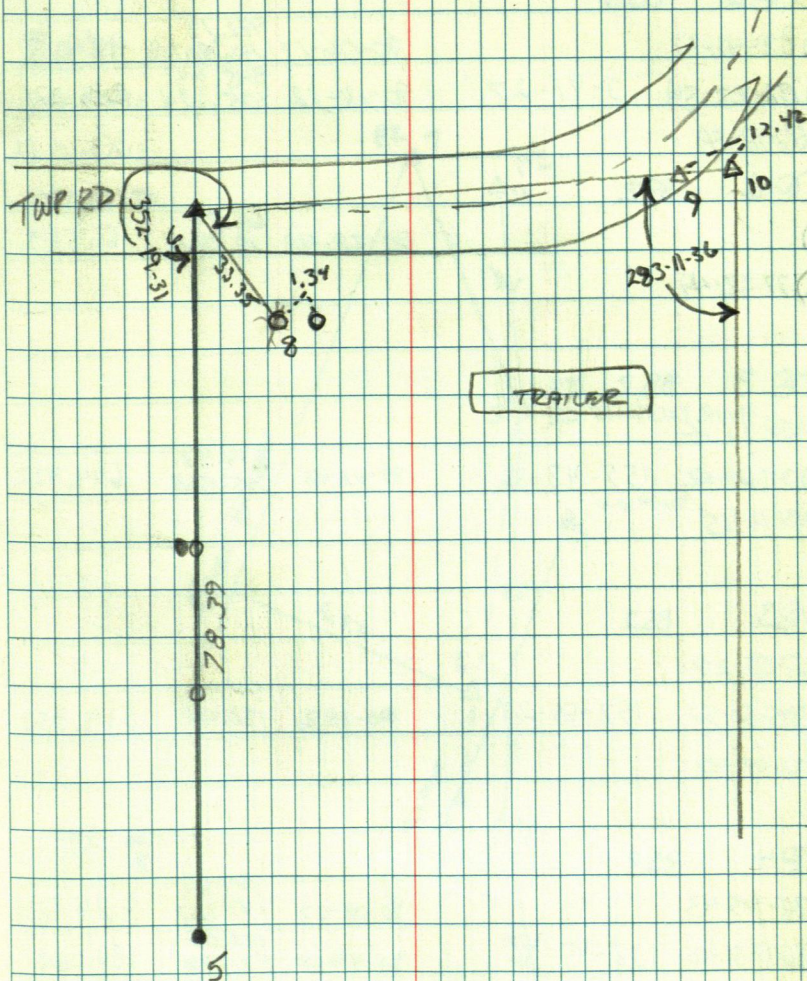
WILD T-1

OVERCAST - 38°

FEB 21, 1990

D. FARNHAM - J. WATSCHE

69



GLENDENNING

102 BS3

3) 03-41-37		90-06-17	482.17 146.967	482.17
1) 07-22-54	3-41-27	90-18-12	345.23 105.224	345.22
356-18-39				

106 BS2

2)		90-28-48	61.55 18.761	61.549
4) 77-32-49				

103 BS2

155-43-52				
7) 311-27-12	155-43-36	89-43-48	674.43 205.568	674.422
284-16-45				

103 BS2

157-55-27				
4) 315-50-57	157-55-29	90-18-30	519.96 158.488	519.957
202-04-48				

104 BS3

138-45-43		90-08-03	484.68 147.727	484.671
5) 277-31-12	138-45-36	90-44-00	180.08 54.888	180.064
221-14-52				

107 BS3

15-37-28	15-37-20			
31-14-40		90-14-46	1240.80 378.196	1240.783
344-22-53				

WILD T-1

CLEAR 70

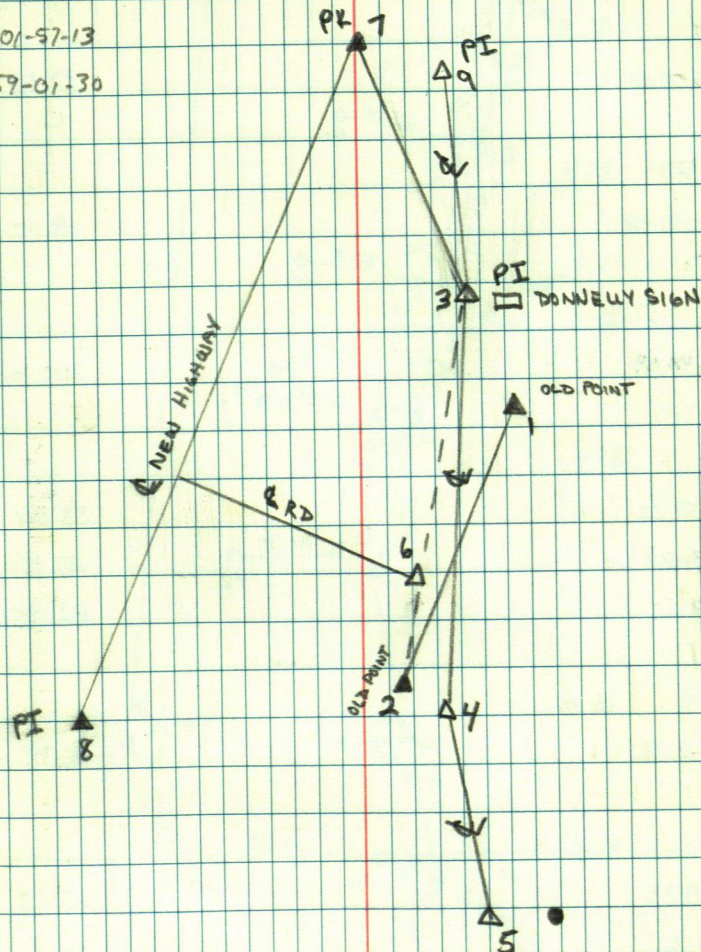
FEB 27, 1990

D. FARWAM - J. WATSCHE

70

103 BS4

- 4) 90-58-32
- 2) 01-57-13
- 359-01-30



GUENDENNING

205 BS4

30. 18

204 BS 5

17.32

PE 127 354

48.45

१०४ BS 7

115.48

De 11 BS 4

33.64

25.51

82.75

TE 125 BS 11

18.78

TE12 BS 4

25.23

101.81

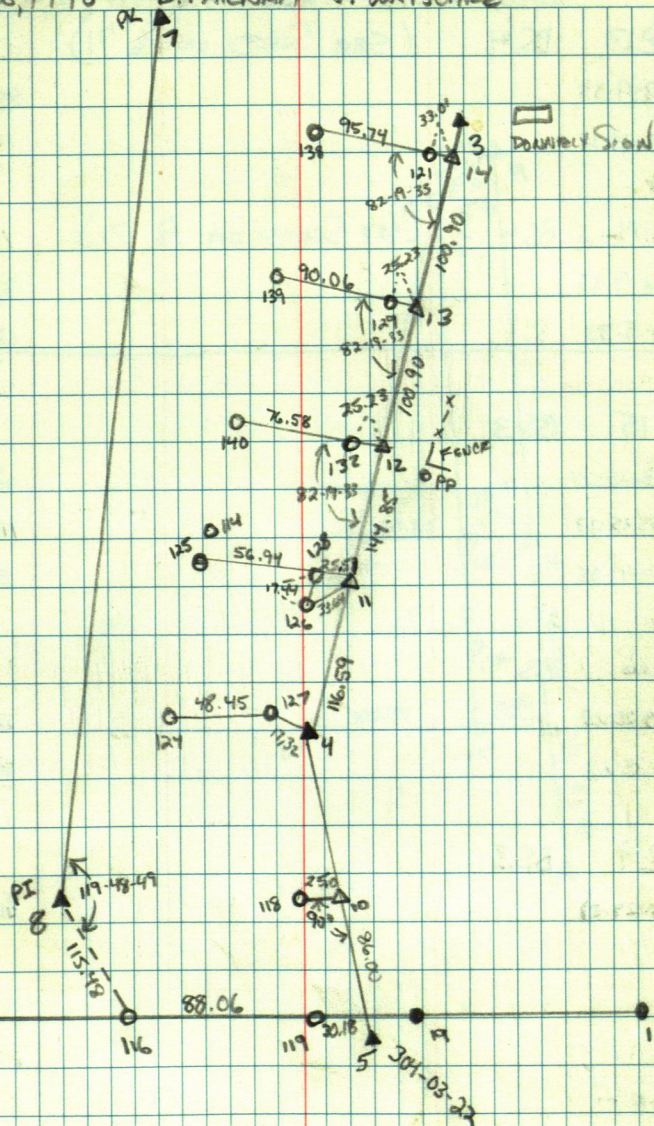
WHD T-1

CLEAR-150-Calm

FEB 28, 1990

D. FARNAM - J. WATSCHE

71



1013 BS4 (SEE SKETCH ON P. 71)

(29) 82-19-33

25.23

139) 82-19-33

115.29

DE 14 BS4

(SEE SKETCH ON P. 71)

33.01

38) 82-19-33

128.75

TE 15 BS 3

26.88

137) 103-25-27

112.82

130) 150-47.55

51.24

T@16 BS3

25.70

136) 103-25-27

88.95

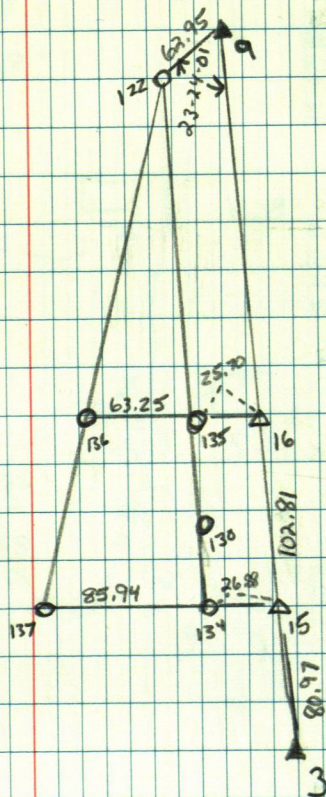
Te 9 BS3

62.95

WILD T-1 CLEAR - 30° - WINDY

MARCH 1, 1990 D. FARNAM - J. WATSCHKE

72



DAVE SCHROEDER - SONY LAKE

20.4 853

00-00-38
168-21-34
120-00-38
5) 348-21-24
00-00-29
191-39-53

91-00-53	319.79 97,472
86-05-02	152.82 46,579

$\pi @ 5$ BS4

00-00-15
195-47-42
180-00-26
6) 15-47-34
180-00-26
164-12-18

TEL BS 7

00-00-21
202-15-17
180-00-11
5) 22-15-14
00-00-56
157-45-59

87-31-16	295.58 90.095
87-57-5D	180.89 55.135

$\pi @ 7$ BSL

00-00-07
183-38-10
8) 180-00-12
03-38-04
~~00-00-09~~
176-21-04

ΠΕ8 BS 7

00-00-08
180-06-01
237-27-24
9) 57-27-13
00-00-13
122-36-35

88-24-25 292.95
89.291
92-41-12 242.79
74.003

WILD T-2

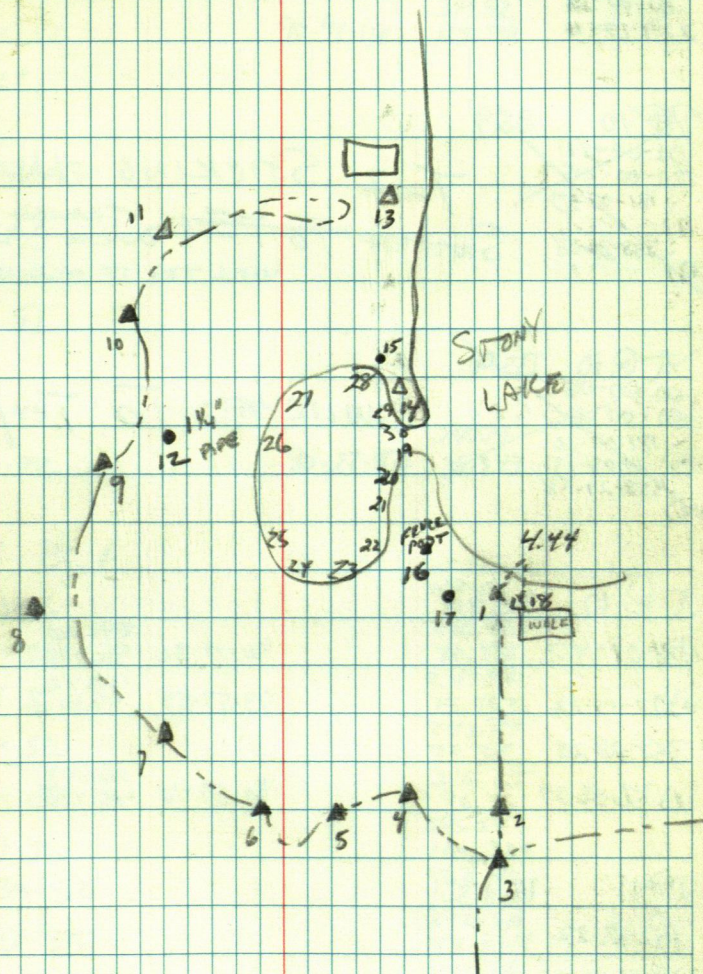
30° - Clear - Windy

MARCH 22, 1990

D. FARNHAM - J. WATSCHE

73

412.38



TC9 BS10

00-00-42
180-00-29
130-47-55
8) 310-47-33
00-00-16
229-13-16

TC10 BS9

00-00-11
180-00-25
181-08-50

11) 358-26-51
12) ~~358-26-51~~
T-2 STICKING. HAD TO
THAWED OUT T-2
SWITCHED TO T-1 DURING LUNCH HOUR
WILL TRY IT AGAIN.

TC10 BS9

00-00-08
180-00-25
181-07-10
11) 1-08-13
12) 358-27-28

SWITCHED TO T-1

TC10 BS9

181-07-42
11) 02-15-22
358-28-23
12) 356-56-27
90-11-36 296.20
90-278
93-59-59 163.42
49.812
90-59-10 160.07
48.790

TC11 BS13

142-01-22
10) 284-02-21
217-59-00

74

TC13 BS11

20-23-03 88-12-06 328.71
100.196
14) 160-45-48 377.92
90-41-18 115.798
99-37-27

TC14 BS13

147-42-27
1) 295-24-46
212-17-51

165-13-49

16) 330-27-42 90-27-50 247.19
75.343

TC14 BS1

19) 31-03-36 122.08
37.208
20) 37-12-54 230.96
70.398
21) 52-15-36 247.58
75.462
22) 66-09-52 253.84
77.386
23) 81-28-15 316.15
96.361
24) 111-51-36 345.54
105.323
25) 130-39-52 468.40
142.768
26) 139-12-35 392.60
119.664
27) 177-23-31 212.72
83.147
28) 189-05-11 209.94
63.983

29) 77-22-24

64.02
19.523

30) 30-40-58

110.64
33.721

$\pi @ 14$ BS 13

15) 353-32-11

93-28-05 72.11
21.985

$\pi @ 18$ BS 14

228-28-58

90-11-39 384.73
117.265
664.42
88-12-31 202.518

3) 96-57-25

131-31-46

$\pi @ 18$ BS 3

17) 106-53-06

42.38

$\pi @ 3$ BS 8

312-07-30

4) 264-15-03

47-52-57

Timothy Twp

TC 1 BS24

00-00-08		662.02
180-00-15	88-52-17	201.787
168-14-41		646.05
2) 248-14-53	89-43-05	196.915
00-00-17		
91-45-37		

TC 2 BS1

00-00-07		
180-00-02		
173-59-23		
353-59-21		
00-00-24		
186-01-06		

TC 3 BS4

00-00-06		1062.72
179-59-48	92-20-36	323.919
141-14-57		304.95
2) 321-14-40	91-02-55	92.947
00-00-03		
218-44-52		

TC 4 BS5

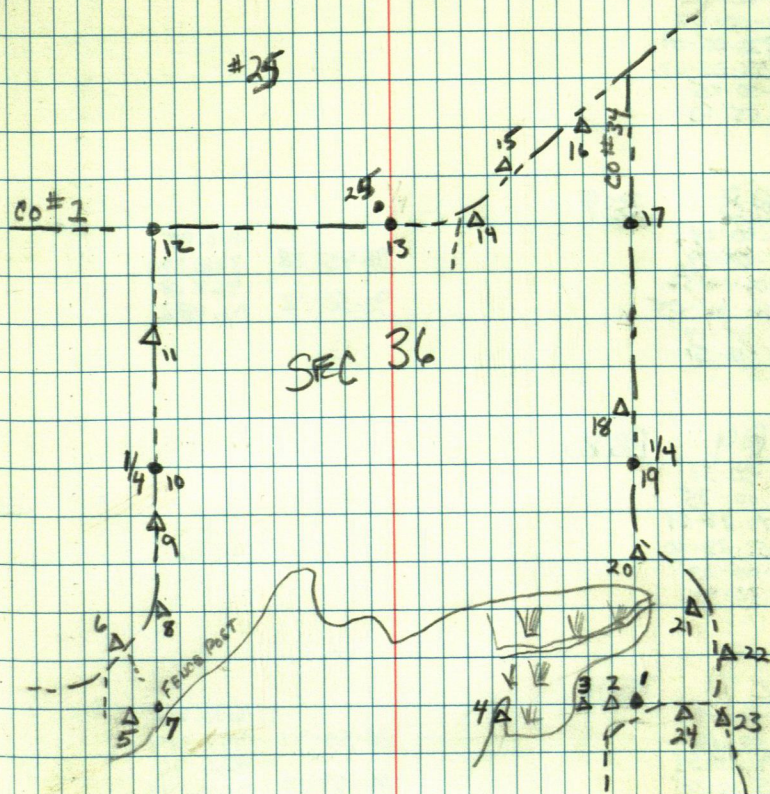
00-00-17		
180-00-22		
204-32-15		
3) 24-32-25		
00-00-31		
155-28-34		

TC 5 BS4

00-00-08		3453.70
180-00-23	90-23-51	1052.690
242-21-39		306.41
6) 62-21-49	89-33-45	93.392
312-27-50		75.95
7) 132-27-47	112-06-21	23.149
00-00-01		
117-38-36		

20° - CLEAR - WINDY
APRIL 2, 1990 D. FARNAM - J. WATSON

76



77
 206 BS5

00-00-12
 180-00-07
 238-05-09
 8) 58-05-07
 00-00-25
 121-55-13

208 BS9

00-00-24
 180-00-39
 206-41-56
 6) 46-42-05
 00-00-14
 153-18-51

89-45-28 1110.85
 338.590
 464.18
 92-58-12 141.482

209 BS8

00-00-31
 180-00-35
 179-28-09
 10) 359-28-10
 00-00-23
 180-32-45

210 BS11

00-00-19
 180-00-28
 179-24-53
 9) 359-24-55
 00-00-08
 180-35-41

88-50-41 11638.26
 499.344
 866.96
 88-59-19 264.253

211 BS10

00-00-41
 180-00-45
 179-35-25
 12) 359-35-25
 00-00-11
 180-25-40

TC 12 BS 13

00-00-18
180-00-24
90-21-44
11) 210-22-00
00-00-00
269-38-32

90-08-43 2764.42
842.599
960.93
90-26-21 292.891

TC 13 BS 12

00-00-13
179-59-16
64-09-04
25) 244-08-55 (114-9-31)
174-19-34
14) 354-19-19
00-00-17
125-40-09

13.89

TC 14 BS 13

00-00-15
180-00-03
148-05-26
15) 328-05-14
00-00-01
211-54-36

90-01-16 550.57
167.817
620.29
90-08-37 189.064

TC 15 BS 16

00-00-21
180-00-15
183-05-28
14) 03-05-35
180-00-24
176-55-16

TC 16 BS 17

00-00-11
180-00-24
76-23-22
15) 258-23-37
00-00-36
261-37-26

89-10-27 1452.94
1472.857
1325.32
88-53-50 703.957

78

TC 17 BS 16

00-00-28
180-00-36
208-09-03
18) 28-08-58
00-00-32
151-51-33

TC 18 BS 17

00-00-20
180-00-30
178-38-29
19) 328-33-35
00-00-15
181-27-04
89-28-50 2080.86
634.244
92-16-28 496.89
151.454

TC 19 BS 20

00-00-37
180-00-35
183-08-26
18) 03-08-24
00-00-18
176-52-31

TC 20 BS 19

00-00-20
180-00-28
154-50-19
21) 334-50-29
00-00-23
205-10-24
89-12-40 1145.85
349.256
89-54-93 514.38
156.782

TC 21 BS 22

00-00-14
180-00-21
194-30-24
20) 14-30-17
00-00-23
165-30-05

85
 1022 BS21

00-00-32

180-00-25

23) 225-15-02

45-14-58

00-00-25

134-46-58

90-39-10

88-37-00

732.17

223.168

553.92

168.836

1023 BS22

00-00-22

180-00-23

265-04-42

24) 85-04-44

00-00-04

94-55-37

1024 BS23

00-00-22

180-00-21

185-22-42

1) 85-22-47

00-00-11

174-37-46

91-20-58

91-14-50

538.47

164.126

661.98

201.773

CURVE TABLES

HOW TO USE CURVE TABLES

547
362
237

Table I. contains Tangents and Externals to a 1° curve. Tan. and Ext. to any other radius may be found nearly enough, by dividing the Tan. or Ext. opposite the given Central Angle by the given degree of curve.

To find Deg. of Curve, having the Central Angle and Tangent: Divide Tan. opposite the given Central Angle by the given Tangent.

To find Deg. of Curve, having the Central Angle and External: Divide Ext. opposite the given Central Angle by the given External.

To find Nat. Tan. and Nat. Ex. Sec. for any angle by Table I.: Tan. or Ext. of twice the given angle divided by the radius of a 1° curve will be the Nat. Tan. or Nat. Ex. Sec.

EXAMPLE

Wanted a Curve with an Ext. of about 12 ft. Angle of Intersection or I. P. = 23° 20' to the R. at Station 542 + 72.

Ext. in Tab. I opposite 23° 20' = 120.87
120.87 ÷ 12 = 10.07. Say a 10° Curve.

Tan. in Tab. I opp. 23° 20' = 1183.1
1183.1 ÷ 10 = 118.31.

Correction for A. 23° 20' for a 10° Cur. = 0.16
118.31 + 0.16 = 118.47 = corrected Tangent.

(If corrected Ext. is required find in same way)
Ang. 23° 20' = 23.33° ÷ 10 = 2.3333 = L. C.

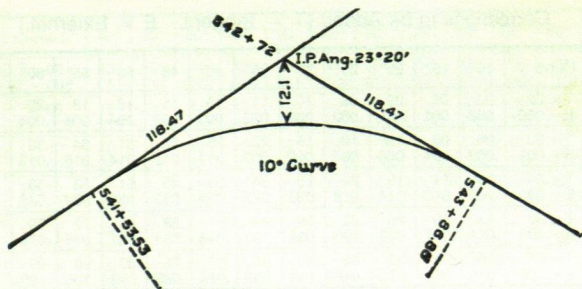
2° 19½' = def. for sta.	542	I. P. = sta.	542 + 72
4° 49½' = " " "	+ 50	Tan. =	118.47
7° 19½' = " " "	543	B. C. = sta.	541 + 53.53
9° 49½' = " " "	+ 50	L. C. =	2.33.33
11° 40' = " " "	543 +	E. C. = Sta.	543 + 86.86
	86.86		

100 - 53.53 = 46.47 × 3' (def. for 1 ft. of 10° Cur.) = 139.41' =

2° 19½' = def. for sta. 542.

Def. for 50 ft. = 2° 30' for a 10° Curve.

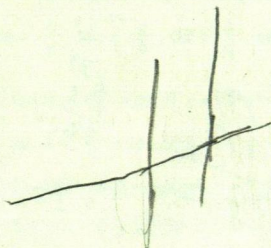
Def. for 36.86 ft. = 1° 50½' for a 10° Curve.



206.84-78
 103.42-11
 103.42-67

4.8

102-43-32
 77-17-28
 179-60-60



\$ 112.00
 70.00
 50.00
 40.00
 272.00

179 60 60
 102-43-32
 77-17-28

1002-50

831.5

255.772

830.1445

508.4253

255.772

272.757

255.77

77.959

217.80

217.80

435.60

208.70

644.30

277.67

32.51

255.46

242.94

22.21

74.048

417.4200

415.4957

626.13

324.71

241.71

167.00

74.71

1.74

199

149

50.3

90.0927

89.28.04

199

160

39.35

41.23

81.54.39

222.49

67.85

242.91

217.80

25.11

91.33.00

43750

133,351

437,34

91.33.06

226.440

236.713

712.23

217,080

711.95

88-26-01

176-51-25

88-25-48

176-51-25

425

360

65

92.00-20

295.97

90.210

110.47

84.14.19

00-66-00

274.22-58

180.00.41

94.22-02

638.99

794.764

270-03-17

295.76

220.28

91.05-10

289.064

948.36

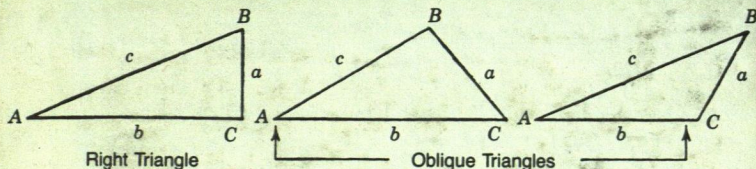
58.42

810.1921

1201.4046

18.3354

TRIGONOMETRIC FORMULÆ



Solution of Right Triangles

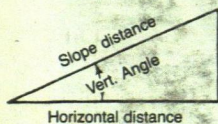
For Angle A. $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{b}$, $\operatorname{cosec} = \frac{c}{a}$

Given a, b	Required 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	$\sin A = \frac{a}{c} = \cos B$, $b = \sqrt{(c+a)(c-a)} = c \sqrt{1 - \frac{a^2}{c^2}}$ B.C.Y 360 264
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 A, B, a	Required 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	$\text{area} = \frac{b c \sin A}{2}$
A, B, C, a	Area	$\text{area} = \frac{a^2 \sin B \sin C}{2 \sin A}$

REDUCTION TO HORIZONTAL



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.

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.