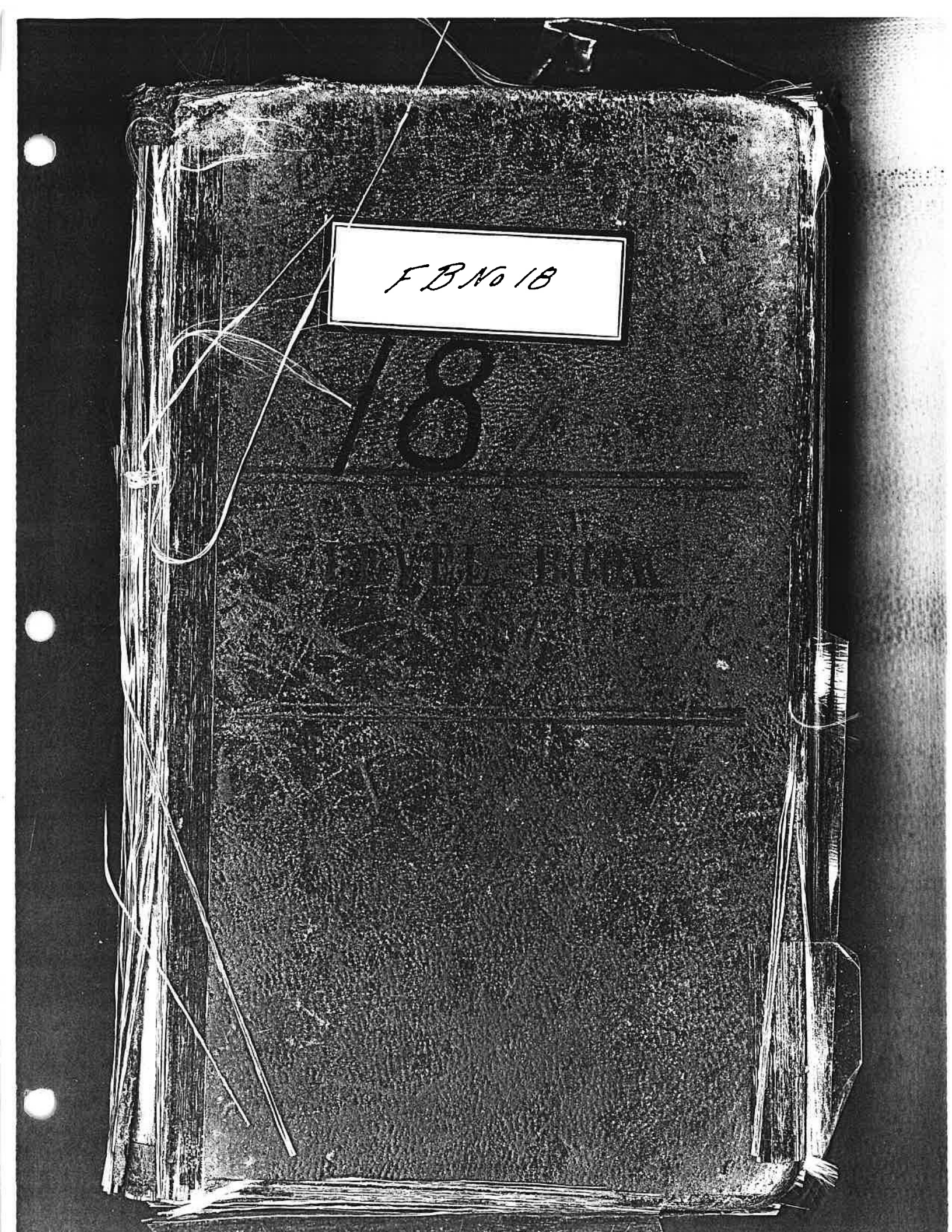
Field Book #18


FB No 18
18

Edge of water below falls

B. Right	Fore right	Les Chutes Rive
10.30	.60	
10.80	1.48	
6.59	2.67	
7.81	3.80	
8.00	1.06	
11.55	.23	
7.41	.68	opposite camp
10.57	.31	
12.02	1.17	I.p of ridge
.64	12.13	
.20	12.14	
1.42	6.80	Edge of water below falls
87.31	43.07	
43.07		
44.24		

B.S	F.S.	B.S.	F.S
4.84	10.65	.95	8.66
.96	11.95	60	8.65
.59	12.24	3.20	10.63
.22	11.17	4.75	27.74
6.61	46.01	58.58	69.15
	6.61	63.33	96.89
	39.40		63.33
			33.56
4.88	4.09		
5.18	3.99		
6.65	4.24		39.40
2.18	4.27		33.56
4.35	9.70		5.84
6.20	4.79		
8.32	3.64		
4.10	10.98		
10.82	10.90		
3.29	6.85		
2.61	5.70		
58.58	69.15		

B. S.	F. S	B. S	F. S.	
10.63	3.06	4.51	5.19	
7.08	3.58	3.24	10.88	
6.98	10.10	7.75	16.07	
3.93	5.72	10836	95.27	
4.75	2.60	11611	11134	
7.57	.35	11134		
9.24	2.25	4.77		
8.31	8.25	5.84		
7.26	2.96	10.61		
5.58	3.85			
5.15	5.32	10.60	3.04	
5.92	6.09	11.38	.33	
1.99	3.37	21.98	3.37	
6.60	1.10	3.37		
5.90	5.50	18.61	12.96	1.02
2.70	8.15	4.85		
1.22	13.00	23.46	8.00	1.62
1.69	5.44	8.29	5.95	83
5.86	4.58	3.34	26.91	345
108.36	95.27	4.85	345	
			23.46	

1¼ miles below falls South from river

0002

B. S	F. S.	
11.68	.88	
12.57	.24	
12.87	.36	
12.00	.44	
12.51	1.80	
12.62	1.31	top of high bank
5.40	5.18	
4.92	4.35	
5.89	2.25	
8.15	2.15	
4.25	3.30	
5.30	3.54	
5.53	3.90	See cor. in Reserve line
113.69	29.70	
29.70		
83.99		

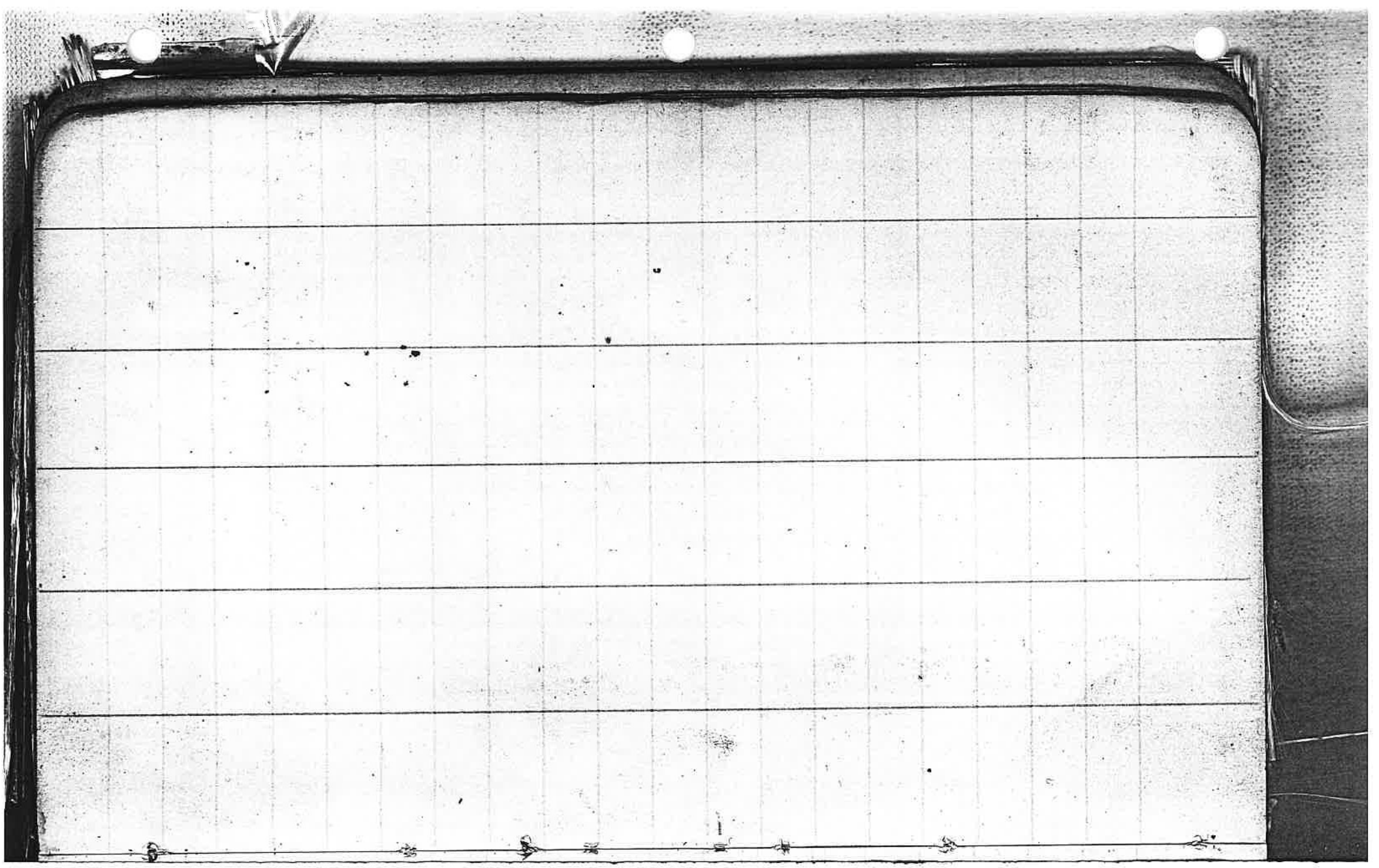
Sta 1.-03

B.S.	F.S	B.S.	F.S	
11.21	2.52	3.45	3.00	109.89
5.25	5.08	5.85	2.78	108.75
3.16	1.24	5.42	2.85	218.64
4.33	.23	6.49	6.10	216.77
5.51	.02	.31	11.40	+1.87
5.90	3.74	.84	11.60	
6.80	5.71	.85	.85	78.60
5.60	3.40	12.18	.21	138.17
5.65	3.65	12.65	2.71	216.77
8.02	1.26	10.55	3.33	
7.66	6.38	6.54	6.20	
3.64	5.82	9.00	2.30	
1.00	12.53	8.90	1.14	
6.00	.50	11.66	6.00	
8.32	4.79	7.26	9.02	
4.04	2.48	2.25	10.22	
6.42	5.90	1.02	11.52	
3.63	6.75	.39	13.00	
7.85	6.60	1.09	12.49	
		95	11.70	
109.89	78.60	1.10	9.75	
		108.75	98.17	

July 7 -

B.S.	F.S.		
9.85	2.88	9.11	2.60
8.93	1.68	10.85	.44
10.49	.63	11.78	.15
6.00	3.70	12.92	66
4.25	4.63	44.66	3.85
39.52	13.52	3.85	
		40.81	
12.86	23		
12.35	45	5.30	
25.21	68		
1.07	13.08		
0.00	10.77		
1.90	9.20		
1.48	4.55		
3.76	5.15		
5.19	4.50		
4.84	3.52		
5.27	5.67		
23.51	56.44		
	23.51		
	32.93		

4000



Survey of Watch Line

23 and 24-21-9

Begin at point 510 feet 6024 South from ¼ Sec Cor bet Secs

N. 66½ E	1093	
S. 87 E	271	
N 67 E	303	
N 62 E	450	
N 81 E	400	
N 89 E.	350	
N 81¼ E	550	
S 74½ E.	350	
S 78¼ E	450	
S 36 E	300	
S 36½ E	1365	
S 58 E	300	
S 75 E.	527	
N 51 E	168	Cross Range line bet Tps. 9 and 10 550 ft South of gnar. Cor. bet
"	160	Secs. 19 and 24
N 48 E.	250	
N 54½ E	150	

N 85½ E.	650	
N 74½ E.	500	
S 73½ E.	275	
N 8½ E	350	
N 69½ E.	400	
N 74½ E.	630	
N 78 E.	600	
N 87 E.	250	
N 83½ E.	750	
N 75½ E.	177	Cross Sec. Lines Sec. 19 and 20
S. 85 E.	620	T 21-10, 778 ft. N. of grav. Cor.
N. 5 E.	250	
N. 69 E.	250	
N. 77 E.	600	
N 86 E.	375	
N 83 E.	350	
N 65 E.	200	
N 81 E.	500	
N 72 E.	300	

N 87 E.	175	
S 50½ E	200	
N 87½ E.	1890	cross Sec. line bet. 20 and 21
N 56 E.	650	T. 21 S., R 10 E. 1140 ft. S. of
N 55 E.	392	N.W. cor of Sec. 21
N 88 E.	200	
" ½	500	
N 60 E	190	
N 89 E	600	
N 55 E.	630	cross Sec. line bet. 16 and 21 240 ft. S. of quar. Cor.
N. 47¾ E.	3160	cross Sec. line bet. 15 and 16 400 ft. S. of quar. Cor.
N. 54° E.	4910	Cross line bet. 10 and 15 1140 ft. W. of S.E. cor of 10
N. 61½ E	1260	cross line bet 10 and 11 730 ft N of S.E. cor. of 10
N 40¼ E.	5780	Cross line bet. 2 and 11 1300 ft. E. of quar. cor.

N. 38 E. 1950 Cross line bet- 1 and 2 1500 ft-
N. of S.W. cor Sec. 1

N. 20 E. 3810 Cross Tp. line bet Secs 1 and 36
1200 ft. W of quar. cor.

N 10½° E. 5405 Cross line bet- 25 and 36
25 ft. W. of quar post-

N 18¼ E. 5620 Cross line bet- 24 and 25 1200 ft. W.
of S.E. cor of 24

N 4½ E. R10 Cross Range line bet- 10 and 11
1350 ft N. of S.W. cor. Sec. 19

N 27½ E. 4285 Cross line bet- 18 and 19 T 20 S R 11 E
600 ft. W of quar. cor.

N 7½ E. 5395 Cross line bet- 7 and 18 T 20 S. R 11 E
100 ft. E of quar cor.

N 8° W 200 ft- to river

Levels for Blakeley at Winchester

Aug 5-03

B.M. at water's edge at S end of dam site

	B.S.	F.S.	
0	11.45	.71	on B.M.
1	9.41	4.15	
	20.86	4.86	
	4.86		2.5 ft from water
	16.00		

	B.S.	F.S.	
0	5.42	1.40	on upper B.M.
	5.90	5.00	
	2.66	4.12	
	6.49	6.14	250 yds.
	9.39	3.53	
	6.89	6.52	350
	10 2 3	10 9 5	
	4.87	6.40	
	5.97	5.79	450
	10 5 4	12 1 2	
	4.34	4.90	
	4.73	5.14	
	6.89	2.46	550 Low Rock
	10 9 6	12 5 0	S 20 W.
	10.34	.34	100
	12.60	1.06	
	66.49	52.79	

B.S.	F.S.	
2294	140	
9.93	.96	
13.12	.60	
13.05	.33	300 ft/ds
5904	339	
10.03	.71	last 150 yds S39W
12.89	.38	
8.64	4.88	top of hill
66.66	7.86	back sight on B.P. N16E
86.49	52.79	House bears N82W
153.15	60 65	fence 150 yds W.
60.65		
92.50		

B.S.	F.S.	
2.39	8.40	S41W to fence
2.03	10.56	
1.17	9.70	
.88	12.00	
3.28	6.65	
.48	12.63	
1.62	12.22	
11.85	72.16	

B.S	F.S.
1.33	10.00
1.61	8.97
1.80	8.91
2.79	8.34
3.02	7.63
1.89	6.71
3.50	9.22
15.94	59.78
11.85	72.16
27.79	131.94
	27.79
	104.15

Winchester

Aug 6-03 On North side

B. S	F. S	
11.88	1.09	water level
10.29	5.08	45ft from water
B. S	F. S	
11.16	.23	70ft.
7.49	3.71	16ft B.M.
4.88	.14	220ft.
28 58	4.08	100
5.29	3.95	ft of hill
7.70	4.40	
12.99	8.35	
4.64		

Winchester Aug. 7 – 03

B.S.	F.S.	
8.78	2.59	
5.07	1.26	
Set B.M.		10' above creek

Bearing	distance	
S.37 E	93'	
S.39 E	101	
S.27½ E	94	
S 18 E.	95	
S 5 E.	85	
S 22 W	88	to creek bank
S 68 W.	52	" " "
S 88 W.	57	
N to sta		
12.53	90	
4.63	1.26	
	set B.M.	24' above creek

	Bearing	distance	Meander of area submerged
O.B.M	S 41 E.	105	by 30' lines
	S 56 E.	107	
	S 65½ E.	106	
	S 67 E	123	
	S 20 E	110	
	S 36 E	112	
	S 36½ E	100	
	S 47 E.	158	
	S 5 E	106	
	S 16½ E	108	
	S 4 E	104	– slope 3' in 200'
	S 46 W	115	
	S 37 W.	99	
	S 15 W.	143	+
	S 24 W.	96	
	S 61 W.	113	ditch c. S 20 E.
	S 72 W	140	Cross pipe line at 27+15
	Creek	156	Creek
	"	115	E. line of Co road

N 6° W along coast 8.10
North 300
N. 23 E. 310 ±
Beginning pt at pipe line Sta. 13

Level line from 24' B.M. along Road

	B.S.	F.S.	
33	1.03	12.94	32
			83
15	1.70	7.35	
	creek 4' deep		25
54	6.58	.16	
			138
74	7.93	4.06	
			134
100	5.58	5.20	
			70
63	3.04	7.42	
			128
127	7.88	4.55	
			105
88	6.70	1.28	
			50
99	6.73	3.42	
	45.67	46.48	

Length of dam at water edge 420 ft
" " " 16' above water 490 "

Profile of Billy Ck. Road

Distance	Vert. Angle	
61	− 3-50	fill 4 x 40 and cul.
275	+0 45'	
540	− 0 35'	
410	+0 11'	
355	− 0 46'	
375	− 0 18'	bridge 8'
158	+2-00	
365	− 0 45'	100 ft N of W. and E. Ave
250	− 0 35'	
385	+0 21'	
440	− 0 20	at 350 10' bridge
480	+2-48	
440	0-0	at 75 Cul.
530	+4-0	
220	+0-20'	
110	−2-16	
365	0 0	
2713		

3035

Dist	Vert. Angle	
122	−0-50'	
120	− 2-30'	
128	− 5-10'	
170	− 4-15'	
100	− 1-0	To Morningstars E. line
510	+0 20'	
520	+1-10	
190	+3-20	
94	− 1-20	
245	+3-20	at 275 bridge 6'
86	+3-45	
200	− 2-00	1st M post
180	− 3-00	
115	− 3-00	
270	− 0-49	
300	+0-35	at 200 cul.
400	+0-14'	
146	+1-24	
360	+0-41	
5520		

Distance	Vert. Angle	
	° ′	
380	+0-45	
455	+1° 40′	Cul.
135	+1°-10′	
385	+1°22′	
160	+4° 30′	
95	+4°-20′	
110	+1°-41	at 75 cul.
130	−1°55	
420	−2°38	cross Tp. line at 20 cul, at 320 cul
670	−0 20	cul
195	+0-5	2M
96	+3-50	cross Billy ck. bridge 36′ two 10′ approaches pins $5.00
205	+1-30	
105	−3-49	7′ above ck. Grade higher
200	+1-36	
152	+2-4	
220	+0-40	at 100 cross Billy ck. bridge 38′ two 10′ approaches pins $10.00
320	+2-00	
195	0-0	

Distance	Vert. Angle	
340	+0-38	at 275 cross Billy Ck. bridge 40′ two 12′ approaches pins $12.00
325	+1-32	
175	+0-21	cross Bear Ck. Bridge 24′ two 8′ approaches pins $5.00
155	−1-25	at 100 cross Billy Ck. Bridge 26′ two 6′ approaches Pins $5.00
200	+1-45	Bridge 4ft
200	−3-30	
130	+0-20	20 cul
165	+1°-27′	
120	0-0	100 cul
200	0 0	
230	+0-7′	
158	+0-36′	
107	+0-36′	
200	0-0	cross Billy Ck Pins $5.00 at 30 38′ bridge two 8′ approaches
380	+0-50	
325	+0-45	
215	+0-35	3M cul.
800	+0-15	at 100 cul
520	+0-45	at 150 cul

Blakeley

Levels from top of dam To reservoir site on hill June 23 - 04.

Distance	Vert. Angle ° '		
235	—1-8		
177	—1-33	cut	
140	+3-30		
120	—1-30	cut	25.77 above curb
255	+0-10		
440	—0-50	at 50 cut. at 350 cut	
195	+1-00		
90	—3-40		
260	+0-05		
145	+2-05		
360	+1-15	at 75 cut.	
250	—0 25	to Sur. cor	
dit	+0—		
"	+0—		
"	+0—		
"	+		
"	+0—		
E.			
N.	+		
0	0		

	Back sight	Fore sight		
on dam crest	12.85	.28		
	12.00	1.00		
	7.88	.24		
	12.32	.33		
	13.19	.30		7088
	12.64	.50	top of bench	2.65
	13.18	1.70		68.23
	6.77	5.46		
	10.30	5.90		
	7.28	.20		
	12.77	.26		
	13.40	.21		
	13.20	.31		
	13.35	.25		
	12.80	.29		
	13.35	.34		
	13.46	.18		
	200.68	17.75	200.68	
			17.75	
			182.93	

Blakely June 23-04

Town Surpin

S. 45° W. 522' to corner

S 32½ E. 536' to NW cor.

B.S.	F.S.
11.86	.58
12.34	.16
12.90	.26
11.70	.75
12.47	.64
13.02	.06
12.80	.15
12.47	.34
12.55	.21
12.42	.34
12.02	.15
11.89	.13
13.50	.27
13.50	.32
11.10	.01

12.48
.43
12.05
152.93
303.47
61.00
364.47

62.01
.91
61.10

C.E. Gaddis aug 25-04

B.S	F.S
11.82	.09
12.94	.71
11.81	.96
12.60	2.56
49.17	4.26
.426	
44.91	

Lines from top of divide in Co. road opposite Jos Hunts to Calafornia bridge

Difference 66.36'

Lower line of levels

12.95	.80
12.90	.38
13.10	.28
13.66	.29
12.93	1.46
65.48	3.21
3.21	
62.27	
6.00	
56.27	

1.15	13.25
.92	11.65
2.07	24.80
	2.07
	22.73

Calapooia Irr. Co.

Nov. 1, 1904

Ditch Survey, Grade .06' per 100'

Begin at a pl- 36" below top of timber on dam

50' Stations	Rod Reading	H. of I.	ELE.	Cut.	
0	11.40	111.40	100		
1	7.31		104.09	4.12	
2	4.63		106.77	6.83	
3	4.10		107.30	7.39	11.48
4	4.38		107.02	7.14	4.32
B.S	4.32	111.34			3.98
5	4.91		106.43	6.58	5.25
6	5.45		105.89	6.07	5.67
7	5.67		105.67	5.88	5.40
B.S	3.98	109.65			
8	3.13		106.52	6.76	
9	4.99		104.66	4.93	
10	5.40		104.25	4.55	
B.S	5.25	109.50			
11	5.39		104.11	4.72	
12	4.91		104.59	4.95	
13	5.15		104.35	4.74	

	R. Reading	H of I	ELE	Cut	
B.S.	3.42	107.77			
14	4.11		103.66	4.08	
15	4.61		103.16	3.61	under bridge
16	3.89		103.88	4.37	
B.S	4.61	108.49			
17	4.07		104.42	4.93	
18	4.59		103.90	4.44	
19	5.07		103.42	3.99	
20	5.15		103.34	3.94	
21	5.00		103.49	4.12	
22	4.28		103.21	3.87	
B.S.	5.22	109.43			
23	5.23		104.20	4.89	
24	5.24		104.19	4.91	
25	5.00		104.43	5.18	
26	5.19		104.24	5.02	
27	5.80		103.63	4.44	
B.S	4.57	108.20			
28	5.59		102.61	3.45	

	Rod Rdg.	H of I	E	
29	5.49	108.20	102.72	3.59
30	4.78		103.42	4.32
31	4.22		103.98	4.91
B.S.	4.20	108.18		
32	3.49		104.69	5.65
33	4.37		103.81	4.80
34	4.45		103.73	4.75
35	4.52		103.66	4.71
36	4.93		103.25	4.33
B.S.	4.16	107.41		
37	4.34		103.07	4.18
38	4.05		103.36	3.50
39	4.05		103.36	3.53
40	4.28		103.13	3.33
41	4.08		103.33	4.56
B.S.	4.05	107.38		
42	4.36		103.02	4.24
43	4.30		103.08	4.37
44	4.95		102.43	3.75

Sta.	Rd. Rdg.	H. of I.	ELE	cut
45	5.14	107.38	102.24	3.59
46	6.04		101.34	2.72
B.S.	4.33	105.67		
47	4.23		101.44	2.85
48	4.82		100.85	2.29
49	6.23		100.44	
50	6.42		100.25	
51	6.29			
B.S.	4.21		420 416 405 1241	423 423 408 1323 1241 82
52	5.61			
53	5.55			
54	5.48			
B.S. on 48	4.12	104.97		
49	4.50		100.47	1.94
50	4.71		100.26	1.76
51	4.96		100.01	1.34
B.S.	4.46	104.47		
52	4.41		100.06	1.62
53	4.62		99.85	1.44

Stat.	R.R.	H of I.	ELE	Cut
		1.71		
54	4.20	104.47	100.27	1.89
55	3.33		101.14	2.79
56	3.79		101.68	2.36
57	3.33		101.14	2.85
B.S	6.77	107.91		
58	6.24		101.67	3.41
59	6.27		101.64	
60	6.30		101.61	
61	6.33		101.58	
62	6.36		101.55	
63	6.39		101.52	
64	6.42		101.49	
65	6.45		101.46	
66	6.48		101.43	
67	6.51		101.40	
68	6.54		101.37	
69	6.57		101.34	3.41
B.S	5.76	107.10		
70	6.41		100.69	2.79

Stat	R.R.	H of I	ELE.	Cut.	
71	5.93	107.10	101.17	3.30	
72	5.81		101.29	3.45	
73	6.05		101.05	3.24	
B.S	5.63	106.68	~~98.49~~		Creek
74	8.19		98.49	.71	hollow
75	5.17		101.51	3.76	creek
76	9.09		95.59	Fill 2.13	hollow
77	5.03		101.65	3.96	
B.S	4.30	105.95			
78	4.33		101.62	3.96	
79	4.57		101.38	3.75	
80	5.41		100.54	2.94	
81	4.86		101.09	3.52	
82	4.60		101.35	3.81	
B.S.	4.57	105.92			
83	5.07		100.85	3.34	
84	5.48		100.44	2.96	
85	5.94		99.98	2.53	
86	5.58		100.34	2.92	

Stat	R.R.	H.I.	ELE.	Cut.	
86	5.58	105.92			
B.S	3.60	103.94			
261 87	4.72		99.22	3.03 ~~1.83~~	120
264 88	4.70		99.24	3.03 1.88	115
267 89	3.96		99.98	3.05 2.65	40
270 90	3.20		100.74	3.44	
93	B.M. on boulder on N. side of road 3.72 lower than				
121	B.M on 12" W.O. 75' N.W. 7.28 lower than				
178	B.M on 36" fir 50' West stump 2.48 lower				
149+30	Leave J. R. Sutherlin land				
190	Cross Foster Creek Fill 2.09				
		H.I	E		
m 198 B.S	6.67	103.44			
199	6.00				
200	5.32				
201	4.41				
202	3.50				
203	3.19				
204	2.95				
205	3.90				
B.S	1.85				

272+42 Leave Fosters land. enter Lodges

316 Run To Calapooia

m 316 B.S	F.S.
1.25	7.00
1.10	7.00
2.21	7.00
2.38	7.00
1.26	7.00
1.86	7.00
2.37	7.00
1.83	6.78
14.26	55.78
	14.26
	41.52

100
66
6600
40
240000
62½
48
144
12
15000 | 454
132 | 08
186 | 3632
165
150
132

B.S.	F.S.			
3.5.	F. S.			
3.60	5.48			
2.12	6.45	10t. Sante Fe Ry. 2.79E.		
3.25	6.12			
2.14	7.03			
1.87	7.00			
1.09	7.01			
1.66	7.04			
1.30	7.00			
.83	7.00			
1.69	7.00			
1.18	7.00			
1.69	7.00			
1.48	7.00			
.52	7.00			
1.04	7.01			
.40	7.00			
1.11	7.01			
.80	7.00			
.85	7.01			
28.62	130.16			

B.S.	F.S.
.95	7.02
1.53	7.01
3.04	5.23
5.52	19.26
28.62	130.16
34 14	149.42
	34 14
	115.28

115.
6000
690000
6 2½
138
414
34
33 | 43120 | 1306
33 .50
101 1024.8
99
220
198

Feb 24 - 05 Calapooia

Bg at end of 3rd mile Stat. 316

	B.S.	F.S.			
	0.91	13.02	4549		
	0.64	12.71	340		
	0.83	12.88			
Bottom	1.02	6.88			
	2.97	5.12	325 ft below		
	4.39	7.36			
	3.41	5.72			
	2.54	6.63			
	3.27	5.57		8351	
	5.34	0.36		3574	
	6.90	0.20		47.77	
	3.52	7.06	Top of ridge 100' S. of Stam		
	0.69	12.04			
	3.57	9.13			
	4.02	5.66			
	2.76	4.95			
	46.78	115.29			
		46.78			
		68.51			

B.S.	F.S.		
2.70	5.90		
1.50	7.62		
3.89	6.06		
3.85	5.15		
4.45	5.38		
2.15	4.85		
4.66	6.99		
4.51	7.15		
3.24	7.69		
4.10	6.69		
4.01	5.66		
2.71	4.66		
2.64	6.06	Road	400' S. of Tillamook
4.16	5.99		
4.75	5.38		
3.65	4.25		
4.11	5.59		
4.80	6.28		
65.84	107.35		
	65.84		
	41.47		

B.S	F.S.	
5.58	0.66	Opposite Trenches
6.24	6.44	
2.71	0.70	
1.25	8.35	Enter Sutherlin Land
3.55	4.60	
6.36	8.92	
5.77	6.17	
6.50	9.85	
2.42	6.33	
5.77	4.60	
3.28	0.89	
4.47	4.99	
5.78	3.31	
3.71	5.28	
5.45	5.19	
8.29	1.75	
7.00	2.03	
7.15	4.59	
91.28	84.65	

9

B.S.	F.S.	
9.62	6.28	
8.31	2.05	
3.41	0.74	
2.79	1.94	
8.12	8.57	Top of stone under N.E. cor. of farm
1.10	12.54	
0.38	11.44	
0.98	12.72	4437 − 2533 = 41.84
0.47	7.67	On U.S.B.M. on N. Whitmore Gap
34.78	63.95	
91.28	84.65	
65.88	107.85	
46.78	115.29	
238.72	371.24	
	238.72	
	132.52	
	45.00	Drop for power
	87.52	
	41.84	Drop from reservoir
	45.68	for 6/4 mules grade
	109.00	
	41.84	
	150.84	fall from Dam to Oakland

538. 41.84
41.14
579.14

Pitzer St. March 1st. 1905

Rear of		H.I.	Ele	cut	Fill
0	13.30	80.19	66.89		16.00
1	5.32		74.87		7.80
B.S	13.20	88.07			
2	5.10		82.97	0.00	
B.S.	13.07	95.97			
3	5.22		90.75	2.10	
B.S	13.40	104.15			
4	6.01		98.14	3.70	
B.S	12.49	110.63			
5	6.21		104.42	4.30	
6	2.85		107.74	4.70	
7	0.87		109.76	4.40	
8	0.65		109.98	2.20	
B.S.	8.10	118.08			
9	7.60		110.48	0.85	
N. side 1st St					
10	5.15		112.93	0.90	
11	4.97		113.11	0.10	
12	4.63		113.45	0.15	

Follow		H.I.	Ele	cut	Fill
13	9.34	118.08	108.74		4.85
14	3.78		114.30		1.00
B.S.	12.07	126.37			
15	6.82		119.55		0.50
16	3.21		123.15		0.60
B.S.	4.52	131.68			
17	4.56		127.12		0.50
28 ft. Timbers & Nature					
18	2.26		129.42		0.00

Calapooia July 2-05
finishing levels

B.S on East end of Flume

		HyI	Elev	Cut	Fill
	3.29	HyI	151.65	Cut	Fill
199	6.24		148.72		
200	4.96	154.96	150.		0.90
201	4.43		150.53		0.34
202	4.45		150.51		0.33
203	3.58		151.38	0.37	
204	3.68		151.28	0.50	
B.S	5.00	156.28			
205	5.01		151.27	0.52	
206	5.38		150.90	0.18	
207	5.40		150.88	0.19	
208	0.81		155.97	5.31	
B.S	1.52	157.49			
209	2.00		155.49	4.86	
210	4.51		152.98	2.38	
211	6.77		150.72	0.15	
212	6.62		150.87 about on grade		
213	6.75		150.74	0.23	

		HyI	Elev	Cut	Fill
214	5.71	157.49	151.78	1.30	
215	5.30		152.19	1.74	
B.S	2.90	155.09			
216	4.17		150.92	0.50	
217	4.44		150.65	0.26	
218	4.79		150.30		0.06
219	4.96		150.13		0.20
220	4.51		150.58	0.28	
221	4.83		150.26		0.01
222	3.04		152.05	1.81	
223	2.52		152.57	2.36	
B.S.	6.51	159.08			
224	5.69		153.39	3.21	
225	4.96		154.12	3.87	
226	5.88		153.20	3.08	
227	6.18		152.90	2.91	
228	4.55		154.23	4.17 on original Hub 229	
229	5.53		153.53	3.50	

Calapooia ditch July 1-05
(trouble change)

		Hyd	Elev	cut	
B.S	9.91	163.46			
230	7.39		156.05	6.05	
231	5.45		158.01	8.04	
232	4.77		158.69	8.75	
B.S	2.52	161.21			
233	3.82		157.39	7.48	
234	4.68		156.53	6.65	
235	7.38		153.83	3.98	
236	9.30		151.91	2.09	Identical with 238
237	7.94		153.27	3.48	
add 239	8.17		153.04	3.31	

U.S.B.M. 454 January 11-06

Ben McMullen Sept. 21-05

Levels for water supply

B.S	F.S
0.79	12.08
4.74	7.93
6.84	0.72
11.80	0.62
7.32	0.48
11.80	0.64
12.92	0.33
12.83	0.30
5.25	4.87
74.29	27.97
27.97	
46.32	

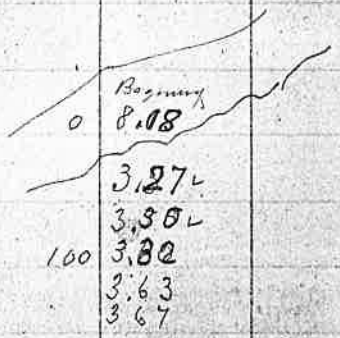
B.S.	F.S
4.86	12.33
0.00	11.84
2.11	
6.97	24.17
	06.97
	17.20

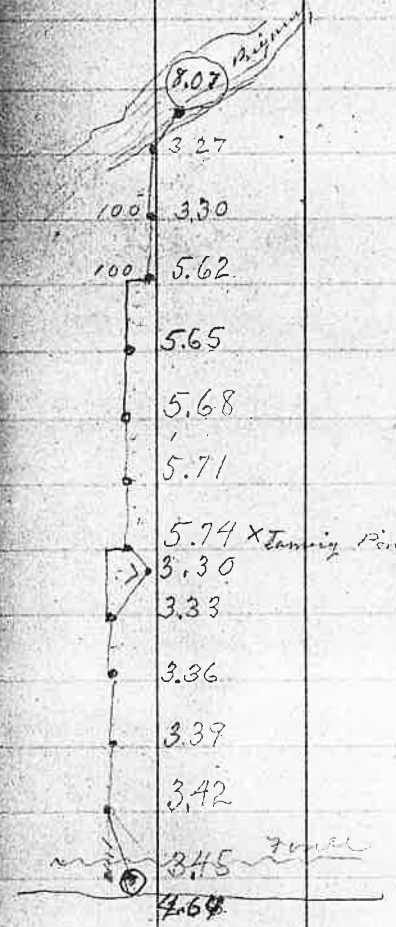
For C Gaddis to determine fall of rapids in river below town of Rocking

Begin at water edge opposite dairy barn

B.S.	F.S.

8 18
7.90





3
4

8200

Sterling Jan. 21 -04

Big at end of ditch. 3 ft above bottom

B.S.	F.S.	
1.74	.30	
0.00	4.70	
0.94	6.07	
3.41	6.73	
0.35	6.79	
0.74	12.97	
1.07	12.21	
0.22	12.86	
0.46	12.24	
0.79	1242	
0.02	12.72	
0.05	12.69	
0.20	9.35	
1.97	7.33	bottom of Sterling ck
11.52	0.70	
12.72	0.80	
36.20	130.88	

B.S.	F.S.
12.65	0.36
11.90	2.65
8.91	0.42
13.08	0.27
13.23	0.10
13.39	0.65
7.50	0.26
12.69	0.72
12.15	0.01
11.55	1.30
4.22	9.65
8.90	0.29
13.11	4.76
4.93	8.57
3.95	.69
152.16	30 70
36.20	130 88
188.36	161.58
161.58	
26.78	

B.S	F.S.	
14.25	0.41	
11.32	0.11	
11.25	0.81	
13.10	2.64	
12.96	0.03	Level of ditch on distant pt
12.03	0.20	
11.60	0.96	
12.70	0.10	
10.05	0.05	
7.00	1.36	
10.60	1.27	
7.21	5.76	
5.67	3.26	
6.95	4.56	
146.69	21.52	
21.52		
125.17		

B.S.	F.S.	
5.40	5.71	
12.98	2.44	
12.80	0.79	
13.23	0.30	
12.72	0.50	
10.93	0.97	
11.41	0.20	
11.11	0.36	
10.44	0.86	
13.25	0.51	Level at upper end of pkg #2 / Fence at upper end of pkg #1
12.24	0.80	
10.75	0.34	
11.33	2.68	
7.80	1.39	
8.13	1.27	
9.99	0.50	
11.05	0.83	
10.54	0.71	
195.60	21.16	

B.S.	F.S.		
10.69	0.31		
8.85	0.77		
9.30	1.23		
9.90	1.57		
9.67	1.37		
8.79	2.12		
7.85	1.67		
8.19	1.70		
7.77	2.19		
8.19	2.46		
7.78	1.59		
9.80	1.93		
9.49	0.91		
10.19	2.19		
126.46	21.95	278.95	
195.60	21.16	123.17	
322.06	43.11	26.78	
43.11			
278.95		430.90	

Flow of Sterling ditch
1500' in 8 minutes
depth of water 20"
average width 4 ft.

$4 \times 1\frac{2}{3} = 6\frac{2}{3}$ area of cross section.

480 / 1500 \ 3.1
1440
60

Sterling Jan. 31 05

Bg at lower end of ditch

B.S	F.S.
9.69	5.85.
7.02	5.31
5.90	5.03
5.11	4.22
5.17	4.54
5.67	4.51
4.84	4.24
5.71	4.69
5.30	4.38
5.06	4.31
4.76	4.45
5.67	5.38
5.46	4.79
6.60	5.57
4.95	4.18
86.91	71.45

B.S	F.S.
5.05	3.70
5.73	5.66
5.45	4.55
5.20	5.36
6.57	5.49
6.56	4.10
4.35	5.42
5.83	4.45
5.66	4.78
6.07	5.24
5.54	5.05
5.43	4.95
5.81	6.75
6.98	4.07
5.14	4.78
5.55	3.44
4.60	5.38
6.53	4.051
102.05	87.68

14
86

B.S.	F.S.	
5.22	5.18	
5.87	4.92	
5.55	4.81	
4.52	3.41	
5.00	5.46	
6.01	5.64	
6.14	8.54	Bottom of flume
38.31	37.96	across D— ck. at
86.91	71.45	upper end of bridge
102.05	87.68	
227.27	197.09	
197.09		
30.18		

Begin at head of Wolf Gulch

North Var. 19°			3250' summit
"			2.50
"			2.50
"			250
"			250
	10.70	0.74	250
	12.24	0.79	
	11.83	0.10	250
	11.35	0.00	
	11.10	0.13	
	11.10	0.70	
	11.19	0.09	
	12.30	0.01	
	12.35	0.85	
	11.04	0.97	
	11.33	0.40	
	11.75	0.43	
	8.85	0.30	
	147.13	5.51	
	12.16	0.65	
	10.31	0.96	
	169.60	7.12	

~~IX LH VII HH~~ II 5566

N 26 W 185

N 30 W 260

Feb. 2 - 05

(Var 19°)

Begin at head of Bear Gulch

N. 29° W. Vert. Angle 20°

at 4000' summit

Bottom of Flume	B. S	F S		
	10.84	1.15	13.21	0.30
	11.61	0.11	11.92	1.10
	3.05	0.23	12.31	0.10
	13.13	0.91	13.40	0.16
	10.93	0.52	8.13	0.82
	11.12	0.50	11.35	0.31
	11.93	0.85	10.86	0.60
	11.74	0.66	81 18	3.39
	9.44	0.07	126 34	7.04
	10.31	0.90	207.52	1643
	10.74	0.40		
	11.50	0.74		
	126.34	7.04		

IIII IIII IIII IIII IIII 190'

250
34
200
50
150

N. 29W. 7190

N. 89W. 230'

N. 29W. 135'

N. 66 E. 210

N. 80 W. 150

Feby 7th 1905

Survey for sewer for A.C. Maretzo

Stat.	Rod Reading	H. of I.	Ele.	cut	upper cut
0	9.73	109.73	100	0	
1	8.88		100.85	1'-6"	
1-4 2	8.53		101.20	2'-7"	
2 3	3.74		100.99	3' 0"	7.90 Elevation
2-8 4	8.96		100.77	3'15"	
3-4 5	7.60		102.13	5'6"	
4 B.S	3.22	105.35			
4+ 6	3.64		101.71	5'9"	
4+8 7	4.57		100.78	5'5"	
5+4 8	4.89		100.46	5'10"	
6+0 9	6.50		98.85	7' 10	
6+8 10	5.93		99.52	6' 2"	
7+4 11	6.05		99.30	6.7	
25ft stat & 12	13.40		91.95	0 0	

Feb. 9-05

Change in ditch at Fosters orchard

	m	H.I	Ele	cut
B.S.	200	7.17	107.17	100	3.44
a		6.78		100.39	3.83
b		6.34		100.83	4.30
c		5.25		101.92	5.42
d		5.42		101.75	5.28
B.S		4.92	106.67		
E		5.66		101.01	4.57
	206	6.83		99.84	3.41

	Flume	acres H of I.	Foster Ele	cut	fill
B.S. 179	1.65	101.65	100	3.41	
50 1	4.07		97.58	1.03	
50 2	4.45		97.20	0.69	
16 3	4.39		97.26	0.78	
4	5.99		95.66		0.79
B.S.	0.84	96.50			
5	3.77		92.73		3.72
6	7.04		89.46		6.96
7	7.44		89.06		7.33
8	7.81		88.69		7.67
9	9.09		87.41		8.92
10	8.50		88.00		8.30
11	8.75		87.75		8.52
12	6.86		89.64		6.60
13	4.32		92.18		4.03
B.S.	8.62	100.80			0
14	4.84		95.96		0.22
15	3.60		97.20	1.02	
16	3.38		97.42	1.33	
50 17	1.40		99.40	3.50	
3200					

Feb 10 — 05 — Change

Begin at Station 17

	R.R.	H of I	Elevation	cut
B.S. 17	3.52	107.94	104.42	4.93
54 18	4.16		103.78	4.32
57 19	4.66		103.28	3.85
60 20	4.92		103.02	3.61
63 21	4.98		102.96	3.59
66 22	4.89		103.05	3.71
B.S.	3.46	106.51		
69 23	3.22		103.29	3.98
72 24	3.64		102.87	3.59
75 25	3.87		102.64	3.39
78 26	4.39		102.12	2.90
81 27	5.20		101.31	2.12
84 28	5.35		101.16	2.00
87 29	5.50		101.01	1.88
B.S.	5.29	106.30		
90 30	5.17		101.13	2.03
93 31	4.73		101.57	2.50
96 32	4.80		101.50	2.46

		R.R.	H.I.	Ele.	cut	
99	33	4.19	106.30	102.11	3.10	
	B.S	5.30	107.41			
102	34	4.14		103.27	4.29	
105	35	5.60		102.81	3.86	
108	36	3.87		103.54	4.62	
	B.S	5.34	108.88			
111	37	5.04		103.84	4.95	
114	38	5.02		103.86	5.00	
117	39	4.94		103.94	5.11	
120	40	5.15		103.73	4.93	
	B.S.	3.79	107.50			
123	41	4.18		103.32	4.55	
126	42	4.77		102.73	3.99	
129	43	5.03		102.47	3.76	
132	44	4.65		102.85	4.17	
	B.S	4.80	107.65			
135	45	4.23		103.22	4.57	BM - 0.75 higher - on
138	46	4.82		102.83	4.21	fence in road
141	47	5.10		102.45	3.86	
144	48	6.35		101.30	2.74	

Change 2

		Bs at Sta. 69	H.I.	Ele.	cut	
207	B.S. on 69	5.52	106.86	101.34	3.41	
210	70	4.91		101.95	4.05	
213	71	4.37		101.49	4.62	
216	72	3.91		102.95	5.11	
219	73	3.64		103.22	5.41	
222	74	3.03		103.83	6.05	
225	75	1.60		105.26	7.51	
	B.S.	3.02	108.28			
228	76	4.12		104.16	6.44	Creek
231	77	4.26		104.02	6.33	
234	78	7.31		100.97	3.31	
	B.S.	5.83	106.80			
237	79	3.02		103.78	6.15	
240	80	3.47		103.33	5.73	
243	81	4.48		102.32	4.75	
246	81a	5.03		101.77	4.23	
248	81b	5.65		101.15	3.64	
246	81c	4.96		101.84	4.35	
246	82	5.54		101.26	3.81	

Feby 16 - 05 Oak St Sewer

manhole		H.I.	Ele.	Cut
0 4 dup	7-4	107.4	100.00	3-8"
1 34	6-9		100-5	3-6
2	6-8		100-6	3-1
3	5-8		101-6	3-3
4	5-2		102-2	3-3
5	4-7		102-9	3-00
6	4-1		103-3	2-10
7	3-3		104-1	2-11
B.S	10-	114-1		
8	9-4		104-9	2-11
9	8-5		105-8	3-0
10	7-6		106-7	3-2
11	5-7		108-6	3-8
12	4-8		109-5	3-2
13	3-5		110-8	3-0
14	2-		112-1	3-1
15	0-4		113-9	3-5
B.S.	9-10	123-7		
16	8-0		115-7	3-8

		H.I.	Ele.	Cut
17	5-6	123-7	118-1	3-3
18	3-4		120-3	2-8
19	0-1		123-6	3-00
B.S	10-	134-6		
20	7-5		127-1	3-5
21	3-7		130-11	4-6
22	0-0		134-6	5.5"
B.S (120')	5-11	140-5		
23	2-9		137-8	6-00"

Total length 579

23
23
115
461
575
20
555
19
564'

34
222
68
220
30
566

Calaveras

Finishing Levels Apl 14 05

Top of dam	BS	HI	Ele.	cut
0	5.12	105.12	100	3.00
1	3.62		101.50	4.53
2	2.31		102.81	5.87
3	4.38		100.74	3.83
B.S.	3.86	104.60		
4	6.28		98.32	1.44
5	6.05		98.55	1.70
6	5.56		99.04	2.52
7	3.86		100.74	3.95
8	2.31		102.29	5.53
B.S.	1.65	103.94		
9	4.60		99.34	2.61
10	6.14		97.80	1.10
11	5.78		98.16	1.49
12	5.80		98.14	1.50
13	5.95		97.99	1.38
14	6.10		97.84	1.26
under Fill 15	7.19		96.75	0.20
16	7.36		96.58	0.06

			1.63	
				cut
B.S.	5.25	101.83		—
17	5.16		96.67	0.15
18	4.90		96.93	0.47
19	4.90		96.93	0.50
20	4.55		97.28	0.88
21	4.45		97.38	1.01
22	4.02		97.81	1.47
23	3.81		98.02	1.71
24	4.45		97.38	1.10
B.S.	2.82	100.20		
25	3.79		96.41	0.16
26	4.10		96.10	0.12
27	4.74		95.46	0.73 F
28	4.77		95.43	0.73 F
29	4.19		96.01	0.12 F.
30	3.91		96.29	0.19 cut.
31	3.90		96.30	0.28 "
32	4.03		96.17	0.13 "

		RR	Hgt	Elev.	Cut	Fill
	B.S	4.86	101.03			
99	33	4.95		96.08	0.07	
102	34	4.76		96.27	0.29	
105	35	4.76		96.27	0.32	
109	Road 36	0.91		100.12	4.20	
111	37	3.55		97.48	1.69	
	B.S	4.37	101.85			
114	38	4.54		97.31	1.46	
117	39	4.55		97.30	1.48	
120	40	4.49		97.36	1.57	
123	41	5.00		96 95	1.10	
126	42	5.65		96 20	0.50	
129	43	6.12		95.73	0.08	
	B.S	4.92	100.55			
132	44	4.20		96.35	0.67	Fill
135	45	4.89		95.66		0.09
138	46	4.59		95.96	0.34	
141	47	4.69		95.86	0.27	
144	48	5.32		95.23		0.33

147	49	5.66	100.55	94.89	Cut	Fill 0.64
150	50	5.66		94.89		0.61
153	51	5.22		95.33		0.24
156	52	5.15		95.40		0.04
	B.S.	4.99	100.39			
159	53	4.77		95.62	0.21	
162	54	5.01		95.38	0.00	
165	55	5.04		95 35	0.00	
168	56	5.78		94 61		0.71
171	57	5.71		94.68		0.61
	B.S.	4.25	98.93			
174	58	4.02		94.91		0.35
177	59	3.78		95.15		0.08
180	60	3100		95.93	0.73	
	B. S.	4.69	100.62			
183	61	4.10		96.52	1.35	
186	62	5.61		95.01		0.15
189	63	4.90		95.72	0.61	
192	64	3.58		97.04	1.98	
195	65	4.15		96.47	1.42	

	RR.	Hgt	Elv	Cut
BS,	6.32	102.79		
66 195	5.55		97.24	2.22
67 201	4.74		98.05	3.06
68 204	4.65		98.14	3.18

Eulaporia Apl 15 – 05

no 178	finish	H of I	Grade Ele	cut	Fill
BS	5.73	100.33	94.60	3.46	
177	0.42		99.91	8.75	
176	4.02		96.31	5.12	
175	4.68		95.65	4.43	
174	4.80		95.53	4.28	
173	5.53		94.80	3.52	
BS	5.97	100.77			
172	5.60		95.17	3.86	
171	5.49		95.28	3.94	
170	6.34		94.43	3.06	
169	4.72		96.05	4.65	
168	5.77		95.00	3.57	
167	6.77		94.00	2.54	
166	7.58		93.19	1.70	
BS	4.40	97.59			
165	4.73		92.86	1.34	
164	4.53		93.06	1.51	
163	4.76		92.89	1.33	
162	2.30		95.29	3.70	

	R.R.	H of I	Ele	cut	fill
161	2.50	97.59	95.09	347	
B.S.	5.03	100.12			
160	5.45		94.67	3.02	
159	5.96		94.16	2.48	
158	6.18		93.94	2.23	
157	7.32		92.80	1.06	
156	7.06		93.06	1.29	
B.S.	5.02	98.08			
155	5.47		92.61	0.81	
154	7.29		90.79		1.04
153	5.82		92.16	0.30	
152	5.27		92.81	0.92	
151	3.52		94.56	2.64	
150	3.95		94.13	2.18	
149	4.13		93.95	1.97	
148	4.90		93.18	1.17	
BS	5.15	98.33			
147	4.79		93.54	1.50	
146	4.66		93.67	1.60	

		# qpt	Ele	cut	fill
145	5.40	98.33	92.93	0.83	
144	5.24		93.09	0.96	
143	5.15		93.18	1.02	
142	5.45		92.89	0.69	
BS	5.65	98.53			
141	5.08		93.45	1.23	
140	4.99		93.54	1.29	
139	5.22		93.31	1.03	
138	4.83		93.70	1.39	
137	3.32		95.21	2.87	
136	3.46		95.07	2.70	
BS	1.95	97.02			
135	4.35		92.67	0.27	
134	4.53		92.49	0.06	
133	4.93		92.19		0.27
132	5.20		91.82		0.67
BS	5.79	97.61			
131	5.55		92.06		0.46
130	5.05		92.56	0.01	

		# qpt	Ele	cut	fill
36 129	5.07	97.61	92.54	0.00	
36 128	2.27		95.34	2.77	
33 127	2.19		95.42	2.82	
30 126	1.30		96.31	3.68	
27 125	0.28		97.33	4.67	
24 124	1.40		96.21	3.52	
BS	3.04	99.25			
not seen 21 123	—			1.00	
18 122	5.80		93.45	0.70	
15 121	4.97		94.28	1.50	
12 120	5.52		93.73	0.92	
9 119	5.52		93.93	1.09	
8 118	4.96		94.29	1.42	
BA	3.15	97.44			
3 117	4.03		93.41	0.51	
2 116	4.95		92.49		0.46

Main St Rodding Apl. 24-05

Rod Readings

Stat. manhole	East	Center 4.55	West	cut
0	4.03	4.48	5.46	
1	2.84	3.36	6.06	
2	2.90	2.85	4.97	
3	3.74	3.52	5.05	
4	4.61	4.08	5.70	
5	4.90	4.64	6.03	
6	5.55	4.84	6.19	
7	5.67	5.23	7.18	
B.S.		1.36		
8	1.55	2.51	3.66	
9	3.61	3.20	5.00	
10	4.87	4.50	6.01	
11	5.83	5.33	6.74	
12	7.54	6.62	8.24	
13	8.98	7.87	8.76	.20
14	10.06	8.79	10.62	.20
15	8.76	9.09	10.03	
B.S.		2.60		
16	3.47	4.11	3.98	

manhole
S. line of side walk on N. side of Cass St.

S. side of Cass St.
manhole 1.73

~~Bo~~
Bellows; middle of Lot

Concrete gutter opp. Hamm
" " " "
opposite Wollenbergs
manhole 9.15 Oak St

walk at E. end of Bank building

Jackson St apk 2405

Stat	East	Center	West
	5.21		
0	~~6.97~~	~~7.50~~	~~9.24~~
1	6.97	7.14	8.10
2	6.26	6.76	7.45
3	5.51	5.81	6.59
4	4.64	4.74	5.73
5	5.35	5.69	7.37
6	6.54	6.53	7.51
7	6.50	7.11	7.74

S. side of Cass St

Stat	East	Center	West
17	5.51	4.46	4.82
18	6.01	5.10	5.06
19	6.52	5.73	4.94
20	7.27	6.30	6.70
21	8.54	7.19	7.76
22	9.18	7.24	8.63
23	8.93	m 8.09 / 1.45 he	8.99
24	16.42	8.93	9.30
25	10.26	9.90	10.51
B.B.		1.26	
26	3.87	3.23	3.74
27	5.81	4.52	5.48
28	6.95	6.49	7.57
29	8.02	8.23	8.76
30	9.98	8.68	10.05

S. side of Douglas St

Jackson St. May 6-05

Fm	Cane	Is Hgt.	Mosher Elev.	cut	fill
0	3.48	103.48	100	0.40	
1	4.40		99.08		0.50
2	5.74		97.74		2.20
3	5.08		98.40		1.86
4	5.53		97.95		2.65
5	3.87		99.61		4.58
6	0.38		103.10		4.65
B.S.	10.30	113.40			
7	5.63		107.77		3.52
8	1.59		111.81		1.50

on North line of Cane St.

in front of Autenreths

30 ft. Stat on N. side of Mosher

Main St. May 6.05

Fm.	Lane	To	Mosher	cut	fill
	(12.45)		120.05		
0	12.50	132.50	120.	0.00	
1	12.90		119.60	0.00	
2	12.90		119.60		0.40
3	11.62		120.88	0.43	
4	10.10		122.40		0.25
5	7.68		124.88		0.96
6	2.44		130.06	1.06	
B.S.	9.72	139.78			
7	4.68		135.10	2.80	
8	3.64		136.14	2.68	
	(3.91) M.H.		(135.87) M.H.		

22' 7"

8 ft South of North line of Lane St. on cross walk

22' 7" Station on N. side of Main

Right of way across Fosters.
C. V. Co.
Aug. 15 — 05 (Var. 20¼)
Beg at a pt on E. line of Cl. #
from which the S.E. cor of Sec. 8-25-4
bears S. 56° W 695 lks
thence

1	S. 72½W	9.05	
2	S. 46½W	3.50	
3	S. 44½W	5.45	
4	S. 23¼W	4.25	
5	S. 82 W	6.10	at 3.50 cross F. Cl. R
6	N 75 W	4.95	
7	N 28½W	3.15	
8	N 66¼W	5.44	
9	S. 42 W	3.88	
10	N. 62½W	2.38	
11	N 33½W	3.60	
12	S. 80 W	3.15	
13	N 59½W	7.80	
14	N 35 W	3.70	
15	N 43 W	2.90	
16	N 53 W	2.38	
17	N 26½W	2.90	
18	N 46½W	3.70	
19	N 39¾W	2.95	

Cala. R. Co

Aug 16 — 05

B.S.	F.S.
1.79	11.04
0.92	11.88
0.37	12.98
2.99	9.30
6.07	4520
	607
	39.13

		R.R	Hy.l	Ele.	Cut
	0	5.27	105.27	100.00	5.00
9	1	4.40		100.87	5.96
18	2	4.67		100.60	5.78
27	3	3.94		101.33	6.60
36	4	4.81		100.46	5.82
45	5	4.49		100.78	6.23
53	6	4.45		100.82	6.35
62	7	4.57		100.68	6.30
71	8	4.92		100.35	6.06
80	9	5.20		100.07	5.87
88	10	5.67		99.60	5.48
	B.B.	3.96	103.56		
97	11	3.95		99.61	5.38
106	12	4.22		99.34	5.40
115	13	4.50		99.06	5.21
124	14	4.52		99.04	5.28
132	15	5.12		98.44	4.76
141	16	5.07		98.49	4.90
150	17	5.08		98.48	4.98

		RR	Hyd.	Ele	cut
159	18	5.72	103.56	97.84	4.43
168	19	5.47		98.09	4.77
176	20	5.41		98.16	4.92
	B.S.	5.91	104.06		
185	21	5.86		98.20	5.05
194	22	5.70		98.36	5.30
203	23	4.80		99.26	6.29
212	24	4.48		99.58	6.70
220	25	4.70		99.36	6.56
229	26	4.67		99.39	6.68
238	27	4.90		99.16	6.54
247	28	5.53		98.53	6.00
256	29	6.02		98.04	5.60
264	30	6.68		97.38	5.02
273	31	6.19		97.87	5.60
282	32	6.51		97.55	5.47
291	33	6.74		97.32	5.23
300	34	6.80		97.26	5.26
	B.S.	4.78	102.04		

		RR	Hyd	Ele	cut
308	35	4.63	102.04	97.41	5.49
317	36	4.82		97.22	5.39
326	37	4.89		97.15	5.41
335	38	4.95		97.09	5.44
344	39	5.10		96.94	5.38
352	40	5.16		96.94	5.46
361	41	5.39		96.65	3.26
	B.S.	5.23	101.88		
370	42	5.16		96.72	5.42
379	43	4.85		97.03	5.82
388	44	4.96		96.92	5.80
396	45	4.85		97.03	5.99
405	46	5.01		96.87	5.92
414	47	4.75		97.13	6.27
423	48	5.09		96.79	6.02
432	49	5.46		96.42	5.74
440	50	5.42		96.46	5.96
	B.S.	4.49	100.95		

		RR.	HTO	Ele	
449	51	4.43	100.95	96.52	6.01
458	52	4.35		96.60	6.18
467	53	4.52		96.43	6.10
476	54	4.62		96.33	6.09
484	55	4.81		96.14	5.98
493	56	4.55		96.40	6.33
502	57	5.38		95.57	5.59
511	58	5.36		95.59	5.70
520	59	5.40		95.55	5.75
B.S.		3.61	99.16		
529	60	3.82		95.34	5.62
537	61	3.90		95.26	5.63
546	62	4.02		95.14	5.60
555	63	4.45		94.71	5.26
564	64	4.53		94.63	5.27
572	65	4.55		94.61	5.33
581	66	4.77		94.39	5.20
590	67	5.07		94.09	4.99
599	68	5.27		93.89	4.88

		R.R.	H.I.	Ele	
608	69	5.50	99.16	93.66	4.74
616	70	5.65		93.51	4.67
625	71	5.80		93.36	4.61
B.S.		3.61	96.97	93.36	
634	72	3.85		93.12	4.46
643	73	4.04		92.93	4.36
652	74	4.25		92.72	4.24
660	75	4.54		92.43	4.03
669	76	4.65		92.32	4.01
678	77	4.94		92.03	3.81
687	78	5.05		91.92	3.79
696	79	5.16		91.81	3.77
704	80	5.31		91.66	3.70
713	81	6.08		90.89	3.02
722	82	6.18		90.79	3.01

Winchester Ore. Sept 1st 1906.

Levels to ascertain acreage covered by water from Water + Light Co's Dam after raising present dam 4.5 ft.

Station.	B.S.	H.I	F.S	Ele.	
00	8.32	503.82		495.5	Crest of dam at present
1			3.82	500	Crib re-
2			3.82	500	paired.
3			3.82	500.	Width 66 ft.
4			3.82	500.	" 70"
0	4.98	503.84	4.96	498.86	
5			3.84	500.	" 62"
6			3.84	500.	" 115"
0	3.91	504.91	2.84	501	
7			4.91	500.	" 120"
8			4.91	500.	" 130
9			4.91	500	" 118
10			4.91	500.	" 150
11			4.91	500.	" 184

Sta. 1004	B.S	H.I	F.S.	Elev.	width.
0	5.38	508.09	2.20	502.71	
12			8.09	500.	160 ft
13			8.09	500.	150
14			8.09	500	108.
15			8.09	500	80
0	6.53	504.67	9.94	498.15	
16			4.67	500.	165
17			4.67	500.	180
18			4.67	500	185
19			4.67	500	240
0	5.78	503.93	6.52	498.15	
20			3.93	500.	252
21			3.93	500	255
22			3.93	500	273
23			3.93	500	300
24			3.93	500.	294
25			3.93	500	300
0	2.05	500.98	5.00	498.93	
	Run same width to				
39	which is				330

April 13th 07

These levels were run from the Crest of the N. end of the W. & L. Co's dam at Winchester as it appears at present, and points were located opposite the above stations to fix width as above noted. These stations were 100 ft apart. Passed under B & C. R.R Co's Bridge at Station 11. Above levels were taken going down stream

H. C. Brown.

Sept 24 – 09

Levels for C.A. Brand

B.S	B.S	F.S.	
	11.12	0.79	
	8.31	0.38	
	7.96	1.50	27 39 / 2.67 / 24.72
10.71	10.70	0.42	10.25 / 25.60
	12.31	0.52	
	12.31	0.70	
	11.75	0.65	
	10.81	0.61	
	5.35	1.19	
	7.95	3.95	98 47 / 10.71 / 87.76
	5.20	0.50	3.35 / 91.11
	3.95	5.30	
	5.20	0.50	
	9.15	5.80	
	5.80		
	3.35		

water level N. U. River at upper end of pier

100 ft – N. of Barn

35 ft Contour above mean on 6 ft. Broad place

Beg at NE. cor m mean thence

West	600	
S. 38° W	600	
" " "	270	
S 48½° W	325	
S 38¾° W.	600	
S 46° W.	390	Barn bears S 50° W. 500'
N 84¼ W.	525.	mond N 19½° E 100 ft to 40' contour
N 39½ W	360	
N 5½ E	225	
N 52½ W	210	
N 43 W.	180	
N 31 W.	295	to creek about 400 ft of Road
N 73 W	370	
S 1° W	520	
S 53¾ W	505	
S 64½ W	650	to W. Rly.

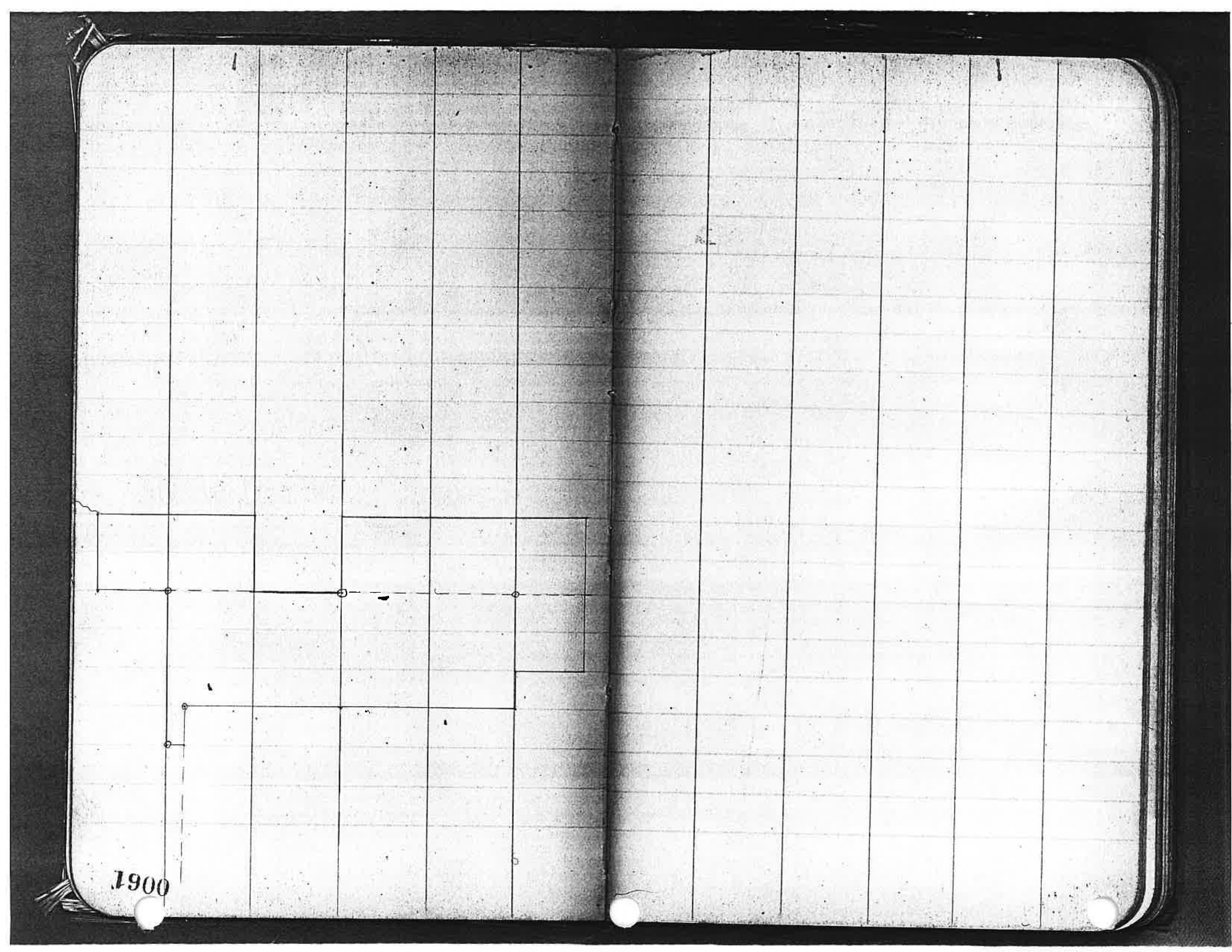
South along W. Rly. at 1500' grave extending easterly to old barn at 2700' River

Mc. Williams Sept 27-09

Beg. in cent of road of Smiths.	16.50	S. of NE. cor place	Thence along road ft Radial
S 82 E.	400.		
S 75¼ E	132		
S 49¾ E	276		
S 67¾ E	350		
S 18 E	474	from E and W ½ of Section	330' W to ck.
S 35 E.	275		
S 33 E.	350		
S 21½ E.	443		
S 43 E.	203		
S 10¼ E	173		
S 23 E	277	150' W. to ck.	
S 43½ E	144	320' ⊥ to ck.	
S 66 E.	333		
S 77¾ E.	506		
N 83½ E.	240	350 ⊥ to ck	
S 79¼ E.	273		

S 65 E	229	
S 58 E.	338	300' L to ck
S 62 E -	444	375 " " "
S 62 3/4 E.	295	fence bears S. 850' to ck
S 62 E.	573	
S 57 1/2 E.	319	
S 69 E.	295	
S 73 E.	176	to E. line fence
N	1725	to NE. cor
S.	600	to ck.

Bearing of E line N 1° E


1900

Kent place Oct. 4 - 09

Beg. at 1/4 cor. bet. 29 and 32 - 28 - 6

thence S.	1.50 clis.	to east of road
N. 73 1/2 W.	3.45	along " " "
N 77 W.	1.95	" " " "
N 58 W	4.25	" " " " to bridge

Also beg at pt. 2 clis. W. of 1/4 cor. bet. 29-32

ran E. 11.00 clis. to E. bank of ck

set post from which a maple 9" dia E. 11 lks

thence North 2 3/4 E 187 to bridge

Beg. at a stone 1/4 cor, offset 30 lks W. thence

N. at 17.50 south, Channel of ave

at 40.15 intersect 52 lks. W. of iron pin

said to be center of ave

Offset 22 lks E. of iron pin ran North

E 1/4 cor of Sec. 29 from which a W.O.

28 bears S. 65 E 1.31

30 S 67 W about 3.50

thence

1963
3.74
23.40

23.40

West - at 39.67 intersect -

2 1/2 lks. S. of iron pin. continue West

from pt. 2 1/2 lks S of pin. at 3.12 intersect

fence said to be W. line of Page cl.

at 19.63 iron offset 1.50 N.

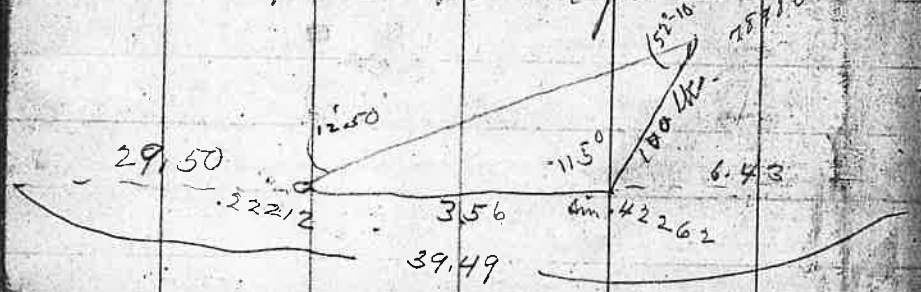
Offset on line bears S. 64 1/4 W. (Distance across 3.11 clis.

Start at offset on line at 17.00 clis

intersect at 1/4 cor. bet 29 and 30

Rent Place
-Oct. 18-09

Run E. from N.W. cor. of Sec. 29
at 29.50 left tank of curve



39.49
39.98
79.47

115.
52.10
167.10

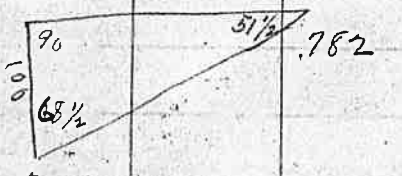
180.00
167.10
12.50

79.46
39.73
39 49
.24

100 : X :: 22212 | 78980 | 3.56
66636
123440
111066
123800

29.50
3.56
6.43
39.49

75.
2.50
2.50
79.50



.782
.622

90.
38½
51½

100 : X :: .782 : .622

2.538

32.05
2.12
29.94

For J. B. Nichols
Cert. 20-09

Beg. at NW cor. of Cl. 50 J. 28-7
Raw E. 32.05 chs. for ½ line N. and S.
through cl. at 29.94 rock cor. with
C S witness for division line. Took
Course

Set S.W. cor. of Lot 2 Sec. —
1.62 chs. S. of SE. cor Cl. 50

Run E. on N. line of Cl. 50. Line
at 40.50 ¼ cor. bears N. 3.05
Sec. line at 76.47 chs. intersect
2.12 chs. N. of sec cor.

Run S. 8.12 E along sec. line from ¼ cor.
at 18.10 mark ash 36" ~~witness~~ ~~tree~~ thence S. 40 lks to
D. L. C. line set stake.

48.19
28.28
76.47

3.05
2.12
5.17

3.05
40
3.46
2
17.25
30.5
86.25
517.5

20.50
3.05
10250
6150
62.525.0

18.10
305
9050
5430
633.50

21
6
12 | 126
10.½

36.
66
216
216
23.76.

24

23.75
10.5
11875
2375
249.375

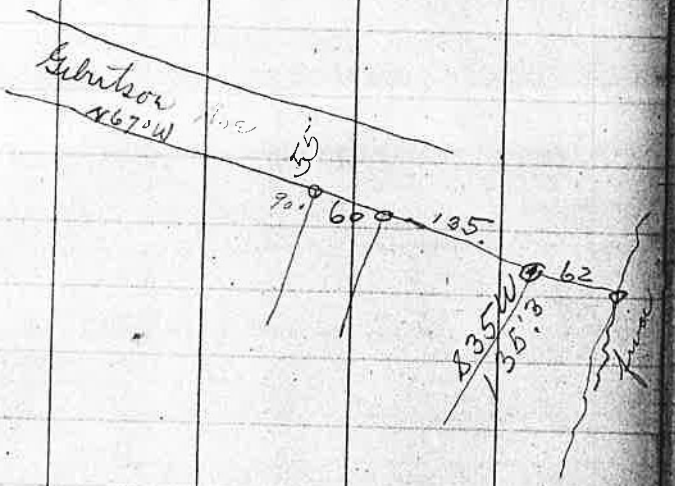
21
8
12 | 168 | 14.
12
48

9050
5430
3520.50
2.76
625
9.01

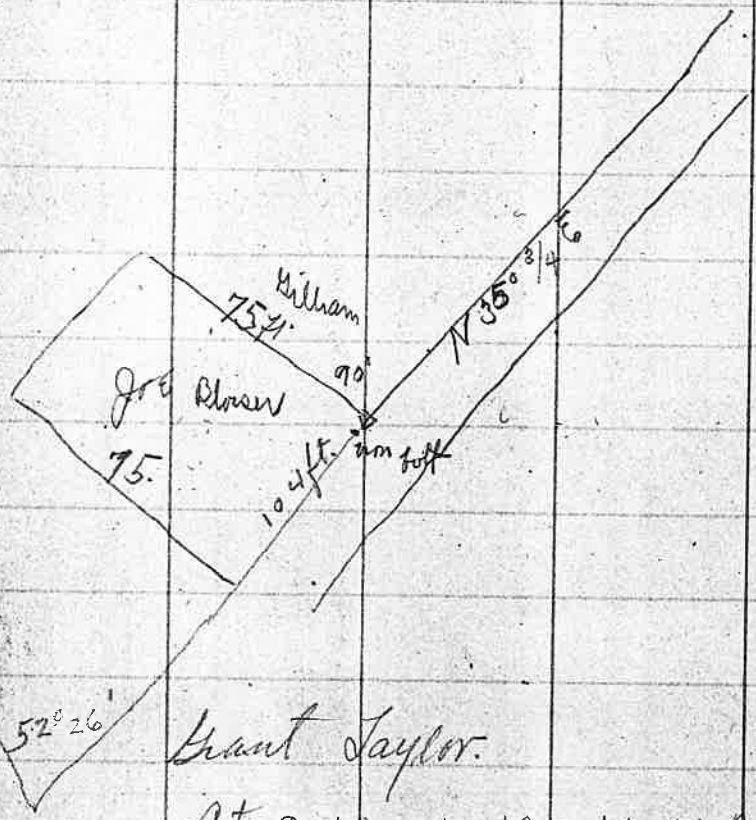
23.75
14
9500
2375
332.50

8.½

1725
18.10
17250
3800
725
31225.0


Gibraltar
N67°W
53
90.
60
195.
62
S35W
135.3

Winchester Nov. 4 — 09.

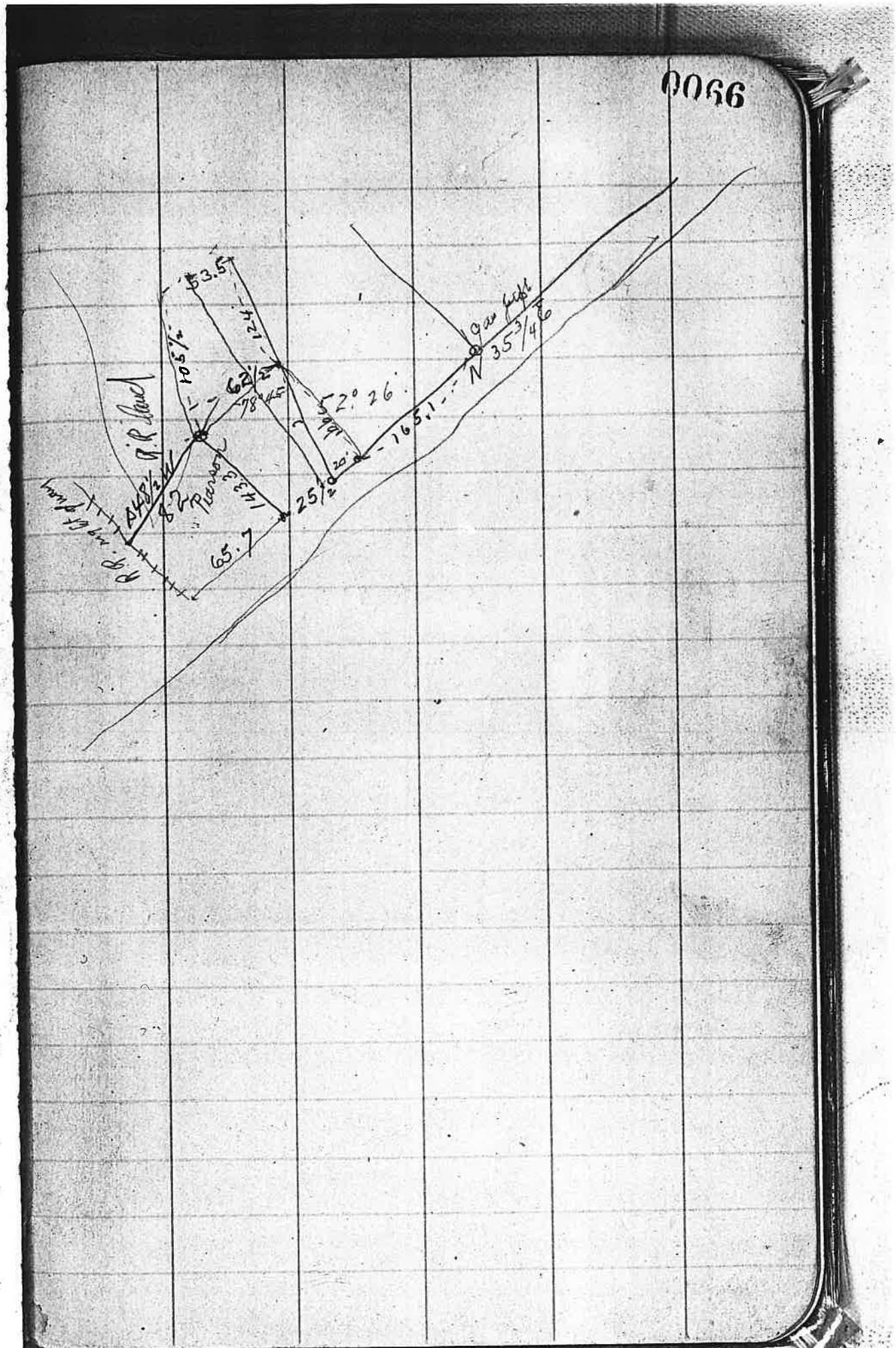


Grant Taylor.

Lots 9-10-11-12-13 of Blk 40

Joe Blosser 9-10-11 of B. 27

& A Gillham 6-7-8 of B 30


53.5
105½
127
60
78°
12° 26'
165.1
N 35 3/4 E
25½
82 Planes
65.7
R.R. mid track

		5.71 2.95 H of I 7.76	Ele.	5.77 2.40 8.17	
	R.R.				
0	2.95	102.95	100.00		N.W. cor. of Cass and Rose on walk
	4.90		98.05		6' W and 3' N. of above
	5.06		97.89	89.06	at 58' pt on walk
	6.53		96.42		5' N of 58' pt
	5.71		97.24		at S.W. cor. on walk
	6.88		96.07		5' N. of S.W. cor.
	8.17		94.78		at N.W. cor.
	7.79		95.16		35' E. of N.W. cor.
T.P.	2.95				
1	3.81	103.81			
	6.75		97.06		at N.E. cor. on ground

86

0068

48" Sewer

	R. R	H. I	Elev.	
0+00	10.38	110.38	100.0	
0+25	6.33		104.05	100.30
0+50	6.16		104.22	100.71
0+75	5.86		104.52	101.12
0+97	4.91		105.47	101.52
1+22	5.31		105.07	102.08
1+47	4.99		105.39	102.45
1+72	5.08		105.30	102.86
1+80	5.16		105.22	103.00

cut to bottom of man hole

3.75	3'-9"
3.51	3'-6"
3.40	3'-5"
3.95	4'.0"
3.04	3'-½"
2.94	2'-11½"
2.44	2'-5½"
2.22	2'-2¾"

Field Book No. 18

Pages 69A - 74 Blank

Field notes of T. 28 S. R 7 W

Cor. of secs 26-27-34-35

B.O. 45 N. 85 E. 335
" " 12 S. 82 E. 325

5.00
65.12
45.66
115.78
1.60
114.18

1/4 cor. bet. 26 and 35

B.O. 20 S 30 W. 60
" " 18 N 60 W. 81

1/4 cor. bet. 26 and 27

W.O. 24 N 35 E. 105
Maple 8 S 55 W. 82

Cor of Secs 22-23-26-27

W.O 18 S 23 E. 95
B. " 18 S 44 W 160
" " 10 N 33 W 102-93
" " 30 N 65 E 104

1/4 cor. bet. 23 and 26

W.O 6 S 60 E 30
" " 13 N 65 W 18

1/4 cor. bet 22 and 23

B.O 20 S 77 E. 80
" 24 S 85 W 185

Cor. of secs 14-15-22-23

B.O 10 S 43 E. 50
" " 8 S 25 W. 38
W. " 20 N 63 W 200
W " 6 N 27 E 331

1/4 cor bet 27 and 34

30 12 N 75 W 20
" " 20 S 41 W 67

1/4 cor. bet 27 and 28

W.O. 24 S 37 E. 525
ash 15 N 14 W 153

Cor. of secs. 21-22-27-28

W.O 36 N 68 W 245
B.O 28 S 46 E. 207
" " 12 N 70 E 138

1/4 cor. bet. 22-27

W.O. 20 N 3° W 160
" " 4 S. 5 E. 1.50

1/4 cor. bet 21-22

found 10 S 30 E 57
B.O 6 N 68 W 50

Station work

Bg at	75	3 ft dug
	74	2 " "
	73	1½ " "
	72	2 " "
	71	
	69	
	68	

Expense Account - Sterling Army

car fare	7.90
Hotel	2.00
Livery	4.25
Board	6.00
Livery	2.50
assistance	17.50
Hotel	3.00
car fare	7.90
assistance	10.00
	61.05
8 days work	40.00
First trip Expense	10.00
3 days work	15.00
	126.05

Hotel 2.00
" 3.00
Car fare 1.60
Phone 6.40
4.85 + 85

Flume 7 X 3½ ft

Colo. R. Co. 102.2 6078

45	514	H ft I	ELE	
m 45				
B.S.	5.08	107.32		
139 46	5.08		102.24	3.62
141 47	5.30		102.02	3.43
143 48	6.06		101.26	2.70
B.S.	4.45	105.71		
147 49	4.72		100.99	2.46
150 50	4.90		100.81	2.31
153 51	4.75		100.96	2.49
156 52	4.40		101.31	2.87
159 53	4.57		101.14	2.73
B.S.	5.25	106.39		
162 54	5.48		100.91	2.53
165 55	5.22		101.17	2.82
168 56	4.96		101.43	3.11
171 57	5.26		101.13	2.84
174 58	4.70		101.69	3.42

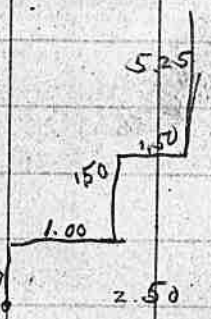
Kense prism for 10°00".

Hecad. 44°' = 909 Thirtieths

2 Adjustment on Telescope

Divide the difference of reading on stakes by distance between stakes and multiply by distance from instrument to further stake

Thus: If difference of reading is 2 feet;
distance between stakes 200 feet;
distance of instrument beyond 10 ft;
Then $\frac{2}{200} \times 210 = 2.1$ amt of correction



137
1.50
525
8.12
10.00
75
18.87

1.13

217.8
400
871 200

2 | 43560
87120

10 × 3 = 30.

105.27
97.18
8.09

120
30
60 | 3600
60
50
300

6 1/2 = 12

12
12
60 | 1440 | 24
120
240 | 1200
240

9 | 60000
6444

27
16
162
27
43 2

850
562
288

353.28
76104
277.24

850
7.60 — 183 pt
5.62 — 181

364.47
277.24
87.23

Bearing of N. line of
O. Sutherlin et. S89°W.

Pt. of diversion
N. E. cr (pg. pt) thence
S. 28°15'E. 22.39
South 2.75
25 64
S. 26½°E. 24.60

231 | 1728
7000

60
60
3600
24
1440
720
8640