56

TRANSIT

397

W104

TRAVERSE TABLE FOR TRANSIT BOOK.

From 1° to 90° for a distance of 100.

Degrees.	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		Degrees.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	
0			100.00	0.44	100.00	0.87	99.99	1.31	89
1	99.98	1.75	99.98	2.18	99.97	2.62	99.95	3.05	88
2	99.94	3.49	99.92	3.93	99.91	4.36	99.88	4.80	87
3	99.86	5.23	99.84	5.67	99.81	6.10	99.79	6.54	86
4	99.76	6.98	99.73	7.41	99.69	7.85	99.66	8.28	85
5	99.62	8.72	99.58	9.15	99.54	9.58	99.50	10.02	84
6	99.45	10.45	99.41	10.89	99.36	11.32	99.31	11.75	83
7	99.25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	82
8	99.03	13.92	98.97	14.35	98.90	14.78	98.84	15.21	81
9	98.77	15.64	98.70	16.07	98.63	16.50	98.56	16.93	80
10	98.48	17.36	98.40	17.79	98.33	18.22	98.25	18.65	79
11	98.16	19.08	98.08	19.51	97.99	19.94	97.90	20.36	78
12	97.81	20.79	97.72	21.22	97.63	21.64	97.53	22.07	77
13	97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	76
14	97.03	24.19	96.92	24.62	96.81	25.04	96.70	25.46	75
15	96.59	25.88	96.48	26.30	96.36	26.72	96.25	27.14	74
16	96.13	27.56	96.00	27.98	95.88	28.40	95.76	28.82	73
17	95.63	29.24	95.50	29.65	95.37	30.07	95.24	30.49	72
18	95.11	30.90	94.97	31.32	94.83	31.73	94.69	32.14	71
19	94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	70
20	93.97	34.20	93.82	34.61	93.67	35.02	93.51	35.43	69
21	93.36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	68
22	92.72	37.46	92.55	37.86	92.39	38.27	92.22	38.67	67
23	92.05	39.07	91.88	39.47	91.71	39.87	91.53	40.27	66
24	91.35	40.67	91.18	41.07	91.00	41.47	90.81	41.87	65
25	90.63	42.26	90.45	42.66	90.26	43.05	90.07	43.44	64
26	89.88	43.84	89.69	44.23	89.49	44.62	89.30	45.01	63
27	89.10	45.40	88.90	45.79	88.70	46.17	88.50	46.56	62
28	88.29	46.95	88.09	47.33	87.88	47.72	87.67	48.10	61
29	87.46	48.48	87.25	48.86	87.04	49.24	86.82	49.62	60
30	86.60	50.00	86.38	50.38	86.16	50.75	85.94	51.13	59
31	85.72	51.50	85.49	51.88	85.26	52.25	85.04	52.62	58
32	84.80	52.99	84.57	53.36	84.34	53.73	84.10	54.10	57
33	83.87	54.46	83.63	54.83	83.39	55.19	83.15	55.56	56
34	82.90	55.92	82.66	56.28	82.41	56.64	82.16	57.00	55
35	81.92	57.36	81.66	57.71	81.41	58.07	81.16	58.42	54
36	80.90	58.78	80.64	59.13	80.39	59.48	80.13	59.83	53
37	79.86	60.18	79.60	60.53	79.34	60.88	79.07	61.22	52
38	78.80	61.57	78.53	61.91	78.26	62.25	77.99	62.59	51
39	77.71	62.93	77.44	63.27	77.16	63.61	76.88	63.94	50
40	76.60	64.28	76.32	64.61	76.04	64.94	75.76	65.28	49
41	75.47	65.61	75.18	65.93	74.90	66.26	74.61	66.59	48
42	74.31	66.91	74.02	67.24	73.73	67.56	73.43	67.88	47
43	73.14	68.20	72.84	68.52	72.54	68.84	72.24	69.15	46
44	71.93	69.47	71.63	69.78	71.33	70.09	71.02	70.40	45
45	70.71	70.71							
Degrees.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Degrees
	DEGREES		¾ DEGREE.		½ DEGREE.		¼ DEGREE.		

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4329

Crocker Quality

TRANSIT BOOK

No. 397

MANUFACTURED BY

H. S. CROCKER CO.

SAN FRANCISCO AND SACRAMENTO
CALIFORNIA

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Timber bordering Dulzura-Otay Creek	2
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April 9th, 1918

Office signs	Received from
Trestle nos	Swenson 4-9-18
P.C. Intake	Licenses 25.00
P.C. Crossing.	Permits 16.00
1 pc pipe	Stamped envelopes
2 rails	for cork.
telephone pole below swamp.	
operator rules	
T.C. cement.	
Ogburn	
Cipolette weirs.	
Flumes.	
Morena soldiers.	
Clatt wire pump for tunnel 6	
Salazar break	

Timber bordering Dulzura - Otay Creek Natural Flowage Channel

Harvey Dam - Cement Mill Junct. Wueste 4-18-18.

Sycamore	80
Willow	29
Elder	2

Kneeshaw
Shellane

Wash Water Waste Pipe Line 8-2-19

9+50	End		
8+69 E	P.O.T.		
3+40	15°45' L		
		N 20°45' E	
0+79 4	21°41' L		
		N 43° E	
0+00			Nail about 30' below sewer

Kneeshaw.
carrell
shillane

Wash Waste Ditch Line 8-2-19.

B M	1.85	509.82		507.97	cntr manhole cover outlet tunnel shaft.
0+00			6.25	503.57	End of Pipe Line
1+00			6.33	503.49	
2+00			6.41	503.41	
3+00			6.49	503.33	
T.P.	9.80	513.73	5.89	503.93	
4+00			10.48	503.25	
5+00			10.56	503.17	
6+00			10.64	503.09	
6+40			10.67	503.06	

Wash Water Waste Pipe Line 8-2-19

			Meeshaw spillane		
BM	3.02	510.99		507.97	ctr cover outlet tunnel shaft.
9+00			3.00	507.99	
8+50			2.30	508.69	
8+00			4.20	506.79	Road
7+69.8			6.00	504.99	Nedge road P.O.T.
7+50			6.80	504.19	
7+00			12.50	498.49	
T.P.	0.00	498.50	12.49	498.50	
6+50			5.10	493.40	
6+10			9.8	488.70	Bank above road

T.P.	0.00	485.62	12.88	485.62	
6+00			0.80	485.32	
5+90			3.70	481.92	ditch above road
5+50			9.30	476.32	Lower edge road
T.P.	0.11	472.73	13.00	472.62	
5+00			3.70	469.03	
T.P.	0.40	461.27	11.89	460.84	
4+50			5.30	455.97	
T.P.	0.58	449.29	12.56	448.71	
4+00			6.30	442.99	

T.P.	0.59	436.86	13.02	436.27
3+50			0.40	436.46
3+00			8.30	428.56
T.P.	1.85	426.13	12.58	424.28
2+50			3.50	422.63
2+00			6.90	420.23
T.P.	2.19	415.38	12.94	413.19
1+50			3.30	412.08
1+00			10.6	404.78
0+79± T.P.	0.17	403.99	11.56	403.82

0+60		403.99	1.70	402.29	edge bank
Top of Sewer	outlet pipe (10")		9.60	394.39	
T.P.	1.00	394.52	10.47	393.52	
0+35			7.50	387.02	
0+15			17.80	376.72	bottom of ditch
0+00			12.00	382.52	

Morena Settlment 4-11-19 cont.

	2.91	160.13		
2			2.905	157.225
	2.875	160.10		
B M			4.89	155.205

19			2.85	157.32
	2.895	160.215		
20			3.005	157.21
	2.98	160.19		
18			2.92	157.27
	2.85	160.12		
16			2.945	157.175
	2.775	159.95		
14			2.865	157.085
	2.80	159.885		
12			2.765	157.12
	3.00	160.12		
10			2.935	157.165
	2.90	160.065		
8			2.90	157.165
	2.90	160.065		
6			2.92	157.145
	2.975	160.12		
4			2.90	157.22

Morena Settlment 4-17-19
Wueste-Kneeshaw-Swenson Clear No Wind

B.M.	5.01	160.21		155.20
1			2.985	157.225
	2.90	160.12		
3			2.86	157.26
	2.81	160.07		
5			2.88	157.19
	2.735	159.93		
7			2.66	157.27
	2.70	159.97		
9			2.76	157.21
	2.56	159.77		
11			2.625	157.145
	2.91	160.055		
13			2.94	157.115
	2.795	159.91		
15			2.65	157.26
	2.78	160.04		
17			2.875	157.165
	3.005	160.17		

Morena Recession 4-11-19

Wueste-Kneeshaw-Swenson

gage 136.42' Clear No Wind.

	Normal	Mean	Reverse	Feet
R.P. 1	$12\frac{3}{16}$	$12\frac{5}{32}$	$12\frac{2}{16}$	1.0130
2	13	$12\frac{31}{32}$	$12\frac{15}{16}$	1.0807
3	$13\frac{10}{16}$	$13\frac{21}{32}$	$13\frac{8}{16}$	1.1380
4	$14\frac{8}{16}$	$14\frac{17}{32}$	$14\frac{9}{16}$	1.2109
5	$16\frac{3}{16}$	$16\frac{7}{32}$	$16\frac{4}{16}$	1.3516
6	$17\frac{8}{16}$	$17\frac{10}{16}$	$17\frac{12}{16}$	1.4655
7	$18\frac{3}{16}$	$18\frac{5}{16}$	$18\frac{7}{16}$	1.5260
8	$18\frac{10}{16}$	$18\frac{11}{16}$	$18\frac{12}{16}$	1.5573
9	$18\frac{7}{16}$	$18\frac{15}{32}$	$18\frac{8}{16}$	1.5391
10	$19\frac{14}{16}$	$19\frac{15}{16}$	20	1.6615
11	20	$20\frac{1}{8}$	$20\frac{4}{16}$	1.6771
12	$19\frac{12}{16}$	$19\frac{13}{16}$	$19\frac{14}{16}$	1.6510
13	$19\frac{6}{16}$	$19\frac{7}{16}$	$19\frac{8}{16}$	1.6198
14	$19\frac{5}{16}$	$19\frac{11}{32}$	$19\frac{6}{16}$	1.6120
15	$17\frac{4}{16}$	$17\frac{5}{16}$	$17\frac{6}{16}$	1.4427
16	$15\frac{8}{16}$	$15\frac{9}{16}$	$15\frac{10}{16}$	1.2969
17	$13\frac{8}{16}$	$13\frac{17}{32}$	$13\frac{9}{16}$	1.1276
18	$12\frac{3}{16}$	$12\frac{7}{32}$	$12\frac{11}{16}$	1.0182

19	$10\frac{15}{16}$	$10\frac{15}{16}$	$10\frac{15}{16}$	.9115
20	10	10	10	.8333

Settlement and Recession — Morena Dam 4-22-18

Wueste, Swenson Corp. White

			8-29-17							8-29-17	
B.M.	4.98	160.18			155.20			160.22			
R.P. 2			2.95	(24)	157.23	18 ~~2.88~~	2.88	160.17	2.93	(29)	157.29
	2.82	160.05				20			2.95	(21½)	157.22
4			2.82	(24)	157.23	19	3.11½	160.33½	3.00½	(33)	157.33
	2.79	160.02				17	2.87½	160.20½	3.03	18	157.17½
6			2.86	(18)	157.16	15	2.78½	159.96	2.68	28½	157.28
	2.90½	160.06½				13	2.67	159.95	2.81	14	157.14
8			2.88	20½	157.18½	11	2.96	160.10	2.92½	17½	157.17½
	2.90½	160.09				9	2.81½	159.99	2.75	24	157.24
10			2.90	20½	157.19	7	2.94½	160.18½	2.89½	29	157.29
	2.99	160.18				5	2.90½	160.19½	2.98½	20	157.21
12			3.03	16½	157.15	3	2.95½	160.16½	2.89	26½	157.27½
	2.82½	159.97½				1	2.96½	160.24	3.00½	22½	157.23½
14			2.86	12½	157.11½	BM	3.27	160.50½	5.29		155.21½
	2.83	159.94½					35.14		40.14½		
16			2.74½	20½	157.20		28.06½		23.04½		
	3.02	160.22					63.20½		63.19		
	28.06½		23.04½								

Moreno Settlement and Recession cont.

Distances from Reference Line to R.P.s

R.P.	Normal		Reverse		Feet
1	12 1/4"	12 3/16	12 1/4	1/16	1.0208
2	13	12 31/32	13	3/32	1.0833
3	13 3/4	13 9/16	13 3/4	3/16	1.1458
4	14 10/16	14 7/16	14 10/16	3/16	1.2188
5	16 6/16	16 1/16	16 6/16	5/16	1.3646
6	17 13/16	17 9/16	17 13/16	1/16	1.4844
7	18 1/2	18 1/4	18 1/2	1/4	1.5417
8	18 10/16	18 5/16	18 10/16	5/16	1.5521
9	18 1/2 5/16	18 7/32	18 1/2	9/32	1.5417
10	19 15/16	19 7/16	19 15/16	8/16	1.6615
11	20 1/2 3/4	19 7/8	20 1/2	3/8	1.6875
12	19 3/4	19 7/16	19 3/4	5/16	1.6455
13	19 1/2 5	19 3/8	19 1/2	3/8	1.6250
14	19 5/16	19 1/16	19 5/16	1/16	1.6094
15	17 6/16	17 3/16	17 6/16	9/16	1.4479
16	15 9/16 10/16	15 5/16	15 9/16	1/16	1.2969
17	13 1/16	13 1/2	13 1/16	3/16	1.1254
18	12 7/16	12	12 7/16	7/16	1.0365
19	11 1/8	11	11 1/8	1/8	.9271
20	10 1/16	9 13/16	10 1/16	1/16	.8385

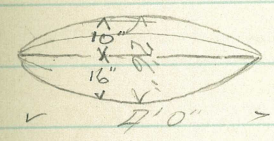
June 28, 1918

Cromwell
Woeste

Levels for Connection between 24" WS Pipe and Shaft on Outlet Tunnel

Sta 2+28	1.43	509.03		507.60
2+00			4.56	504.47
⊙			7.40	501.63
	0.05	501.68		
1+50			4.10	496.58
1+00 = ⊙			9.22	492.46
	0.94	493.40		
0+50 = ⊙			8.06	485.34
	1.07	486.41		
0+00			9.22	477.19
	3.49			

33.90
3.49
30.41



Morena Bldg 3-11-21

Warehouse 16 x 67 9' to plate

14 bundles shingles

① Barracks 16 x 40 paper roof 7½' to plate

Kitchen 16 x 30 shingle roof 7½' to plate

10 windows in barracks

8 " " Kitchen

Staples. Wire

2 mi wire

500 1½" fence staples

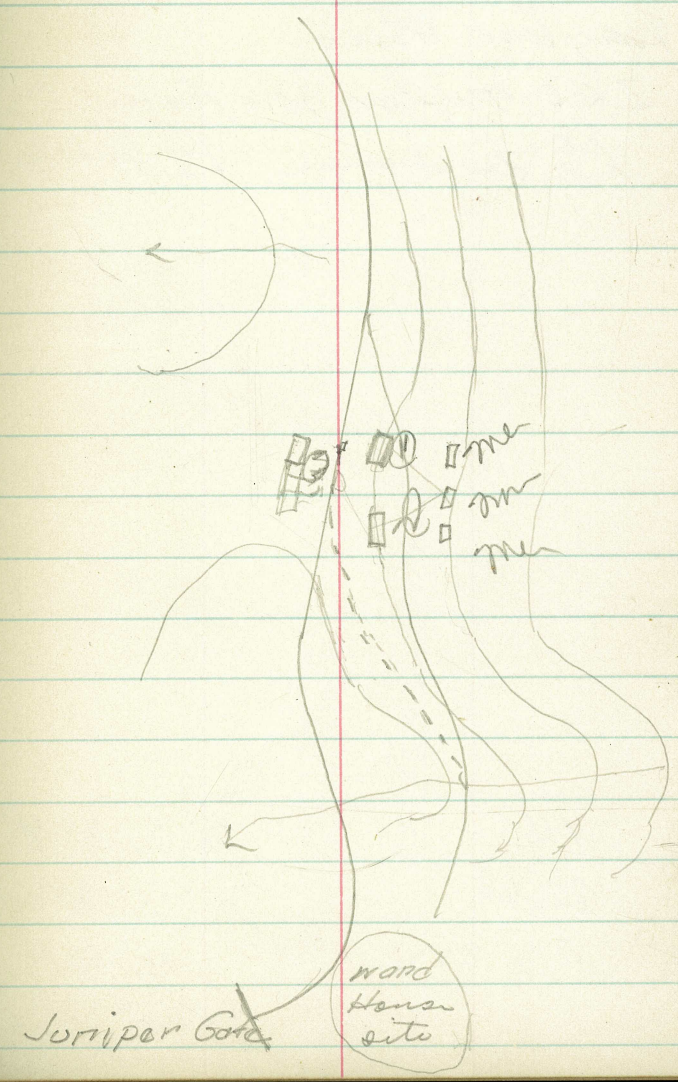
500 1" fence staples

N.E. of S.E. Sec 23 T17S R4E } Palmer

W ½ of S.E. ¼ of Sec 23 do

SW tax

Operate all gates + report.



Search for R of W monuments - Deer zona creek. March 29th 1921

Wrest Lautenbach allen

Platt Iron Works Co
Dayton Ohio
2 x 3 Triplex Displacem r Pump
1 1/4 discharge 1 1/2" Intake

180
11.042
69.68

115.		69°18'	S 51 30 E	
246.66		34°47'	N 59°12' E	
	1°15'		N 24°25'	N 23 E
			N 25°40' E	

Search for R. of W. Monuments

East from east	line of Minnewawa	
231.8		33°00'
706.63	✓	10°00'
99.7	9°40'	
500.0	29°00'	
375.0		58°00'
535.0	66°45'	
370.0	8°15' ✓	
215.0		50°30'
809.5	47°20'	
175.5		74°00'
650.0	~~[illegible]~~	~~[illegible]~~ 8°00
310.0	25°45'	
295.0	✓	13°00'
245.0	48°30' ✓	
320.0	48°30' ✓	
286.4		79°50
1141.34	47°10'	
	~~169°55'~~	~~100°50'~~

April 7 1921 Wrestle groot

Lodge	Lauterbach		
N 79°05' E	N 24 30 E	67 50 42 40 E	S 63 35 W 32 20 25 45
N 46°05' E	99 21 99 42 198 63 215 00 16 37	N 25 10 E 32 20 7° 10'	83 30 88 15 171 45 180 8 15
N 36°05' E			
N 45°45' E		N 25 10 6 35 18°35'	
N 74°45' E	99 41 99 86 99 45 298 72 370 71 28	36 30 63 40 100 10 180 79 50	
N 16°45' E			
N 83°30' E		88 15 41 15 129 30 180 50 30	
S 88°15' E		63 40 67 50 131 30 180 48 30	74 45 N 45 45 29
N 41°15' E	99 40 96 22 99 45 99 15 99 58 493 80 535 41 30		
N 88°35 E			
N 14°35' E			
N 6°35' E		67 50 19 20 48 30	32 20 19 20 13 00
N 32°20' E			
N 19°20' E		N 74 45 E 16 05 58 14 35 6 35 8	32 20 6 35 25 45
N 67°50' E			
S 63°40' E		83 40 69 05 14 35	
N 36°30' E			
N 83°40' E			

99.42 100
99.37 150
99.83 100
298.62
3N
76.38

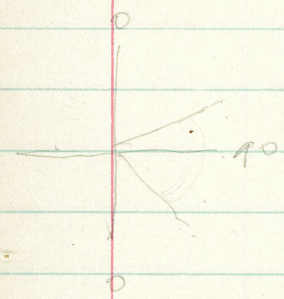
N 26° E
16 45
19.20°

N 16° 45' E
46 05
29 20

96
67
29

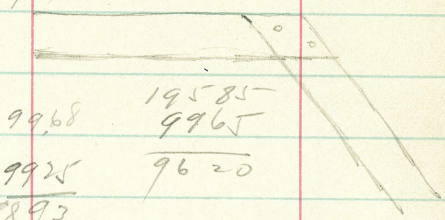
3632 51°00'
342.13 34°00'
1958.5 45°00'

N 17° 05' E
N. 68° 05' E
N 34° 05' E


0
90
0

99.62

89.14



99.68

99.25

19893

231.8

32.87

19585

9965

9620

N 88 15 W

S 88 15 E

N 01 15 E

12930

180

50°30'

180

33

147

73½

180

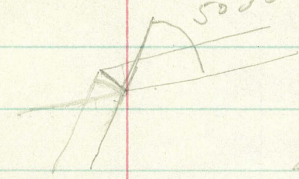
5030

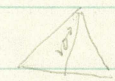
12930

64.45

180

30





50

30

2500

1 : .5 : x

1

.25

8 | 0.75 (.087)

64

16 | 1100

$x^2 = .087$

$10000 + x^2$

$x^2 + .25 = 1$

$x^2 = 0.75$

$x = .087$

100

100

10000

2500

112 1.2500

1

21 | 25

21

222 | 400

2.0000 (141

1

24 | 100

96

281 | 400

$x^2 = \frac{x^2}{2} + 10000$

$x^2 - \frac{x^2}{2} = 10000$

$2x^2 - x^2 = 20000$

$x^2 = 20000$

99.10
99.63
198.73
272
~~73.29~~

100
99.21
99.46
99.40
99.36
99.68
99.62
97.85
99.52
99.58
99.42
1093.10
1141.34
48.24

99.60
100
199.60
286.4
86.8

+50

99.70
99.65
37.45
236.80
320
83.20
99.41
16.21 excess

90'
99.60
99.40
289.00
310
21.00

99.38
99.50
198.88
295
96.15

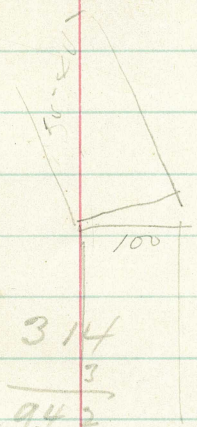
8630
2045
1545
7.52
.05
52

180
1545
19545

101
99 | 100
99
100

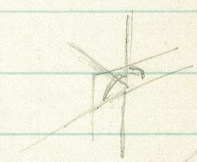
180
9752
8208

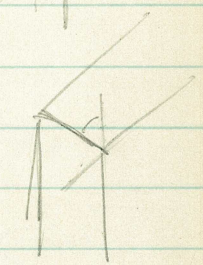
5507 W
58340 W
7833



180
7950
10010
50 05

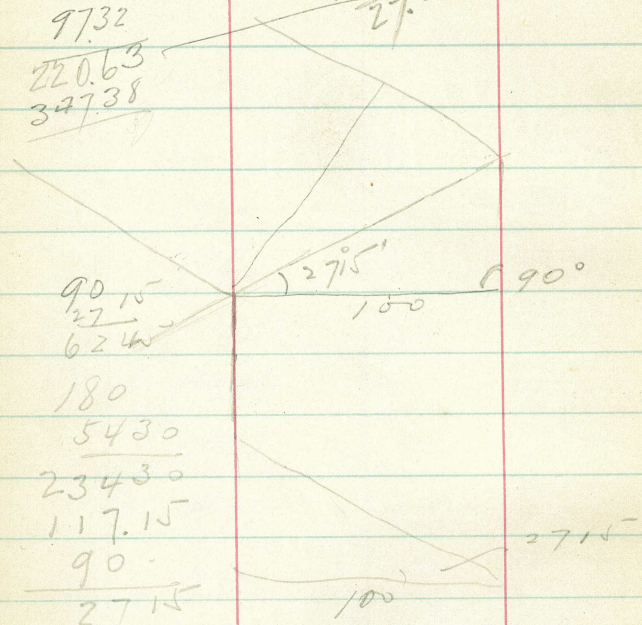
314
3
942
3
28.26
60
1700) 1695.60





14
25.46
83.85
97.32
220.63
347.38

22063
99.65
32028
347.38
27.10



90 15
27
62 45

180
5430
23430
117.15
90
27 15

x = 100 / 1123 200 2715

.89) 100
89
110
89
210
178
320

N 1144 W
N 7816 E
9000

101.59
114.49
550.00
538.08
157.75
109.52
197.72
258.03
495.82
2523.00
464.99
2058.01
197.72
109.52
157.75
464.99

163

S 5919 E
S 2041 W
8000

S 2041 W
6126
4045

S 6126 W
N 1144 W
73°10'
180
106°50'

157.75
109.52
197.72
464.99

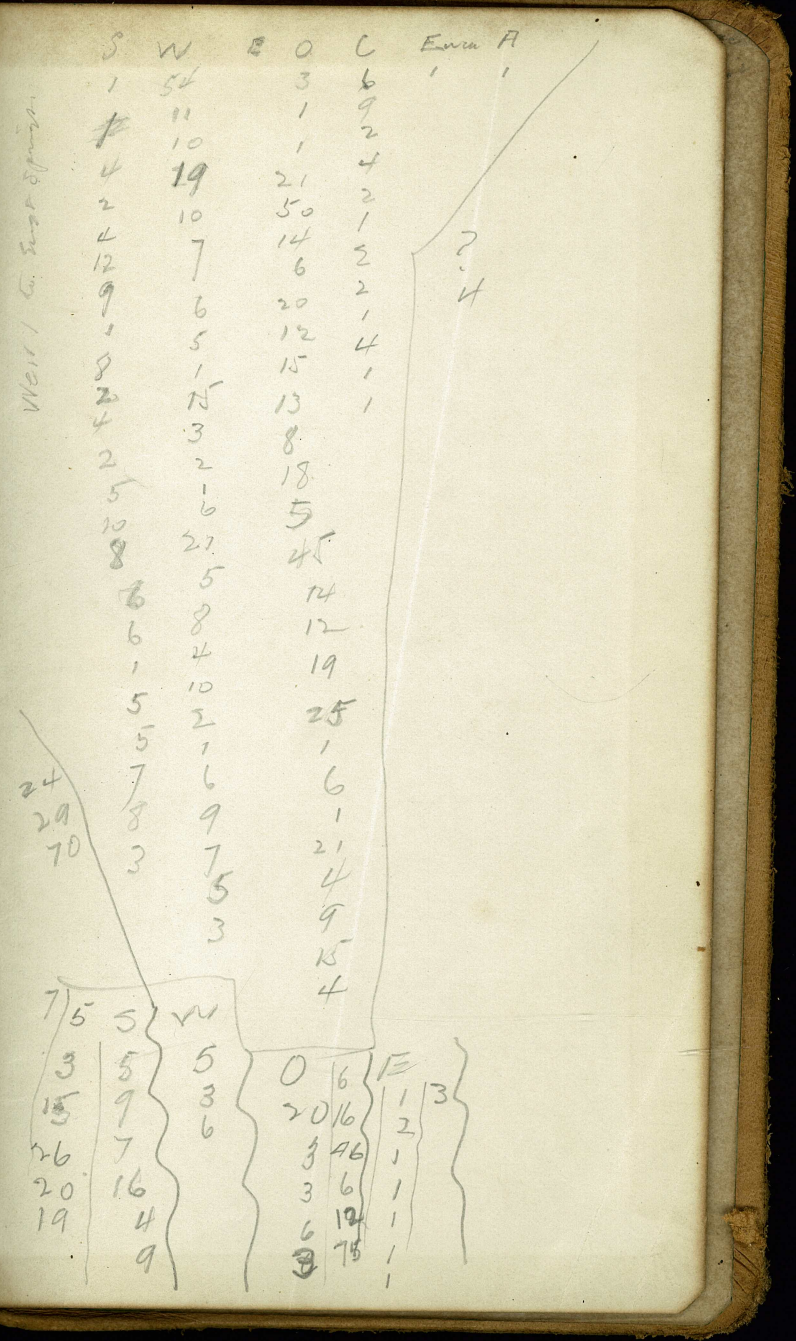
~~175 75~~
75
~~2500 50~~
2058 01
2308.01

Misc. Notes.

BM Ctr top manhole cover on L.O. Outlet Tunnel Shaft 507.97

Annual sedimentation of Sweetwater Reservoir 0.5%

Morena gage-glass 7/16" x 24"



8774 1644928

S W E

63 1 3

12 21 1

4 1 1

1

90

tobc

water mote

S	W	E	O
4	2	4	1
	2	11	1
	2	2	1
	2	4	1
	14	3	1
	6	2	1
	6	2	2
	10	1	2
	11	3	2
	9	9	3
	2	1	3
	13		
	12		
	7		
	13		
	1		
	11		
	11		
	6		
	14		
	2		
	2		
	1		
	16		

	S	W	E	O
	14	20	2	7
	6	7	3	3
	16		1	1
	2	13	5	1
	21	23	9	5
	20		7	3
	6	6	6	4
		4	2	1
		5	1	2
		18	15	1
		9	3	1
		8	4	
		10		
		13		
		9		
		3		
		2		
		8		
		3		
		2		
		2		
		20		
		11		

Changed with Ridge

Ridge to Summit

Ridge to Summit

	S	W	E	O	W	E	Ch	Mags	Ft
4	30	9	33	2	2	12		2	
10	15	6	12	4	6				
9	7	5	7	5	2				
	2	8	14	3	4				
10	12	7	9	1	1				
13	21			1					
1	9	14	33	2			5280		
14	8	10	34	1			2640		
7	8	4	4	2			130		
3	16	2	1	2			4		
9	19	7	3	2			520		
4	2	16	8	1					
5	12	17	2	2			2640		
4	15		3	1			4		
3	7		3	2			10560		
	6		7	3					
	1		7	2					
	6		30	2			45000		
	1		20						
	4		12						
	10		40						
	8		30				N 25 09 40 E		
	1		25				30		
	9		23				N 25 39 40 E		
	4		17						
	4		10				23357		29.75
	2		4				1309		9.08
	5		17				24666		98.75
	12		16				13758		137.58
	3		9				10908		
	4		8						
	9		5						
	17		7						
	12		7						
	11		14						