1934

1-1934

53

#53

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1.

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be 30.6+(20—16)÷2 or 2 ft. added to 30.6 =32.6. For slopes of 1 on 1½ see inside of back cover.

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Eugene Shaub
Logan Utah
3-6-1934

1-1934

Indexed to end
by 1886-21-34

JUN 22 1934

E

E

1

3-6-1934

Sta	Elev Hub (1)	Elev Hub (2)	Sta	Elev. Hub (1)	Elev. Hub (2)
0	101.77	101.81	11	97.13	97.12
0+50	103.67	103.67	11+50	96.92	96.89
0+75	102.30	102.29	PT 11+75	96.88	96.84
1+50	101.36	101.34	12	97.96	97.92
2+00	102.76	102.74	12+50	98.76	97.71
2+50	101.82	101.81	13	99.34	99.31
3+00	100.57	100.56	13+50	99.28	99.25
3+46.9	99.55	99.56	13+75	98.86	99.82
3 96.9	99.64	99.63	14	98.18	98.17
3+49.6	99.70	99.71	14+50	96.91	96.93
3+51.5			15	95.61	95.59
Bm 4.50	100.82	100.82	15.50	94.36	94.36
5+02.1	99.33	99.27	PT 16	97.06	97.05
5+52	98.90	98.91	Bm 16	99.22	99.20
6.00	98.24	98.21	16+10	97.81	97.79
6+50	98.93	98.91	16+50	97.45	97.46
7	98.86	98.86	17	96.52	96.53
7+50	98.01	97.96	17+50	96.69	96.73
8+06	99.46	99.38	18	96.70	96.73
Bm 8+50	101.29	101.27	18+50	96.35	96.37
9	97.83	97.83	19	97.87	97.87
PC 9+34.5	97.89	97.89	PT 19+56	102.25	102.25
9+50	97.97	97.99	20	104.38	104.39
10	98.58	98.59	20+50	104.31	104.31
10+50	98.35	98.35	21	103.83	103.84
Bm 8	97.25	97.24			
	101.29	101.27			

Weston Idaho. H_2O supply line

Carried from Book

Study of Comparative Observations

Sta.	Elev hub (1)	Elev hub (2)	Sta.	(1)	(2)
21+50	101.55 (101.59)	101.54	31+00	95.12	95.15
22	98.42 (98.48)	98.43	31+50	94.18	94.19
22+50	95.05 (95.07)	95.04	32	94.59	94.62
23	F6'	86.55	PC 31 6.7	94.33	94.36
23+50	91.27 (91.27)	91.28	32+50	93.66	93.70
24	96.86	96.85	33	93.54	93.57
Bm	102.18	102.17	33+50	96.04	96.06
Bm Pipe C 25+26	100.66	100.67	Bm	96.56	96.58
Bm C	98.47	98.46	34	95.99	96.01
PC 24+76.6	100.02	100.00	34+50	95.58	95.59
24+50	100.14	100.13	34.88	95.53	95.56
25	99.81	99.77	35	95.61	95.65
25+50	98.99	98.98	35+50	94.61	94.66
26	95.77	95.76	36	95.10	95.14
26+50	90.94	90.93	36+50	95.66	95.70
27	95.08	95.06	37	94.96	94.96
27+50	97.80	97.79	37+50	94.54	94.56
28	98.27	98.26	Bm	96.56	96.58
28+08	98.39	98.39	38	94.30	94.36
28+50	98.44	98.43	38+50	93.97	94.00
29	98.16	98.17	39	93.66	93.69
29+50	97.65	97.66	39+50	93.25	93.30
30	97.01	97.04	40	92.94	92.96
30+50	96.27	96.30	40+50	92.62	92.64
			41	92.38	92.4

Coordinate Comp

Weston H.O. Work

Sta	True Dist Ft	Course	sin	cos	H	Lat S	Dep E	Dep West	Total Long	Total LAT
									0.00	0.00
N Aux Sch										
Sta 50	332.6	526°53'E	.4518	.89193		296.66	150.40		+150.40	-296.67
									45	-206
0	50.	S87°38'W	.99915	.04129		2.06		44.96	+105.40	-298.73
0									+105.40	-298.73
									451.12	+186.62
4+51.5	451.5	N87°38'E	.99915	.04129	18.64		451.12		+556.52	-280.09
									318.62	162.52
8+05.9	357.7	N62°58'E	.89074	.45451	162.52		318.62		+875.14	-117.57
PI 10+60	254.0	S74°02'E	.96142	.27508		69.87	244.20		+244.20	69.87
									1119.34	-187.44
16+10	557.5	S38°02'E	.61612	.78765		439.11	343.49		343.49	439.11
									+1462.83	-626.55
17+56	346.0	S5°48'W	.10106	.99488		34.97		34.97	-35	344.23
									+1427.83	-970.78
26+53.8	697.8	S53°12'E	.80073	.59902		418.00	558.75		558.75	418
									+1986.58	-1388.78
PI 33+28.8	698.5	N77°63'E	.97457	.22410	156.53		680.74		680.74	156.53
									+2667.32	1232.25
PI 65	3172.6	N89°53'E	1.0	.00204	6.47		3172.60		-3172.60	6.47
									+5839.92	-1225.78
68+93.8 Res	393.8	N86°08'E	.99772	.06743	26.55		393.90		+6233.8	-1199.23
										26.55
65									+5839.92	-1225.78
									-589	12
59+11	589.	S89°53'W							5250.92	-1226.98

15°
177.6

$$C = \frac{23 + \frac{1}{n} + \frac{.00155}{S}}{.5521 + \left[23 + \frac{.00155}{S}\right]\frac{n}{\sqrt{r}}}$$

$$v = C\sqrt{rS}$$

n for a ditch $= .022$

6
4 6 6
1.3 4

1 9
4.9
1.1

Survey and Study
Pumping Plant Spr. Creek
Irrigation Co. at Syphon
over Spr. Creek

B.S. F.S.

1.

a 1.66

2.82

0.73 12.03
0.80 11.19
3.19

7.91

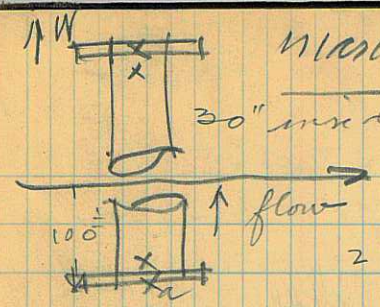
8.38

a 3.00

4.17

4.08

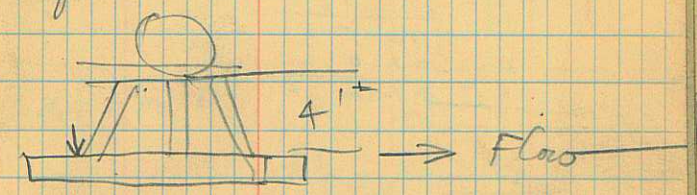
March 7 - 1934



234.6

2.82
1.66
1.16

on top con. wall
on top



on H.O of Spr. Creek

bottom drain pipe 100' above entrance to syphon

2.30 12.03
.73 11.19
.80 8.38
3.83 31.60
3.83
27.77
2

30 feet total dynamic head

30
7
210
15
1050
210
3150

62.5
30
1875.0

1875 ⟌ 440
1760 4.3
1150

7 × 62.5 × 30 = HP
1550 .80
8
440.0

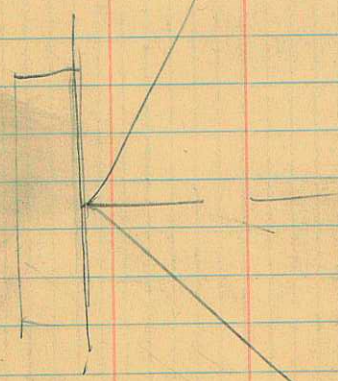
62.5
7
437.5
30
13125.0 ⟌ 440
1320 30 H.P.

Q 4.3 = HP 40 ⟌ 4.3

.28
80
22.40

.93
3
279

	RR	Stadia	Elev	H
PI				
	6.80	473'	99.62	
SW	6.90	260	99.52	
	6.60	109	99.82	
	6.42		100.00	106.42
	5.50		100.92	
	7.30 gr.	150 ±	99.12	
	6.90 gr.	330 ±	99.32	
	4.89		101.53	
℄	6.42		100.00	106.42
	7.00		99.42	



6.57 / 4.89 / 1.5 — 21 / 3 / 63 — 1.7 / 1.2 / 3.5 / 1.7 — 20

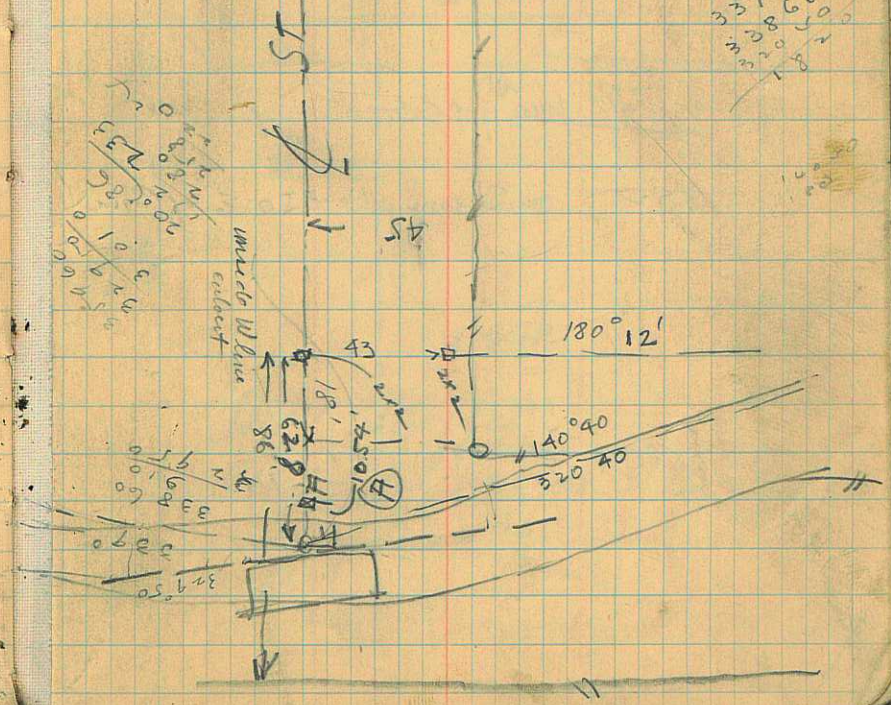
DMB wagon & gravel bridge

about .1' if flowing water
on H2O on ℄

(⊼ for levels 33 S of ℄ St.)

H2O on line will be on 57
about 150' up from Bridge

on Imb 10.54 west of Wm's house
on next H2O
℄ St. about 50' West



4.85

20 0 86
17 2 23.3
280
250
220

B 5.09 on lub-con with water
3.54 Hi H2O of canal
2.13 Top right down abut stream

2.26 thro Hi grade

3.72 on St con about 50' E of Canal

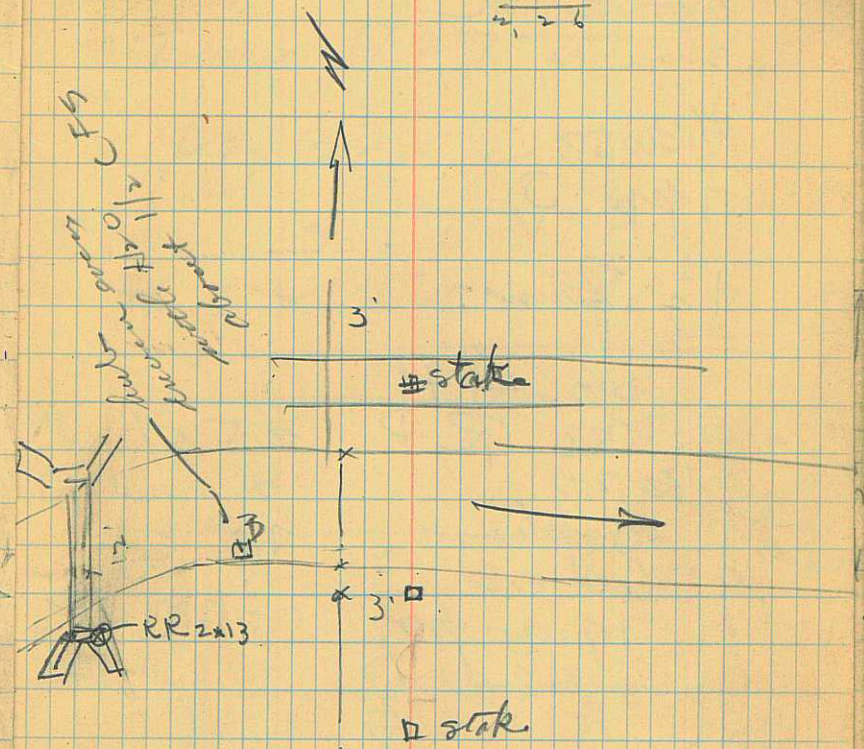
3.72
2.26
1.46

97
48

49
45
3.5

97
48.5
41.5
3.3

3.09
.83
2.26



D.W. Moffat
CWA Purchasing Agent
S. Cap.

Project
247 Quadrille Town

Data on Conquest Pump

Q. Pump

2700 GM Pump
32' head
680 RPM
size 12"

#3083
Type S

1¼ press.

30 HP
680 RP 25 to 0
220 2 hr
3 phase 40° C
60 cy
79 amps 55° C

$\frac{72}{85}$

2700 $\frac{450}{6}$ CFS

On Bunny knife switch

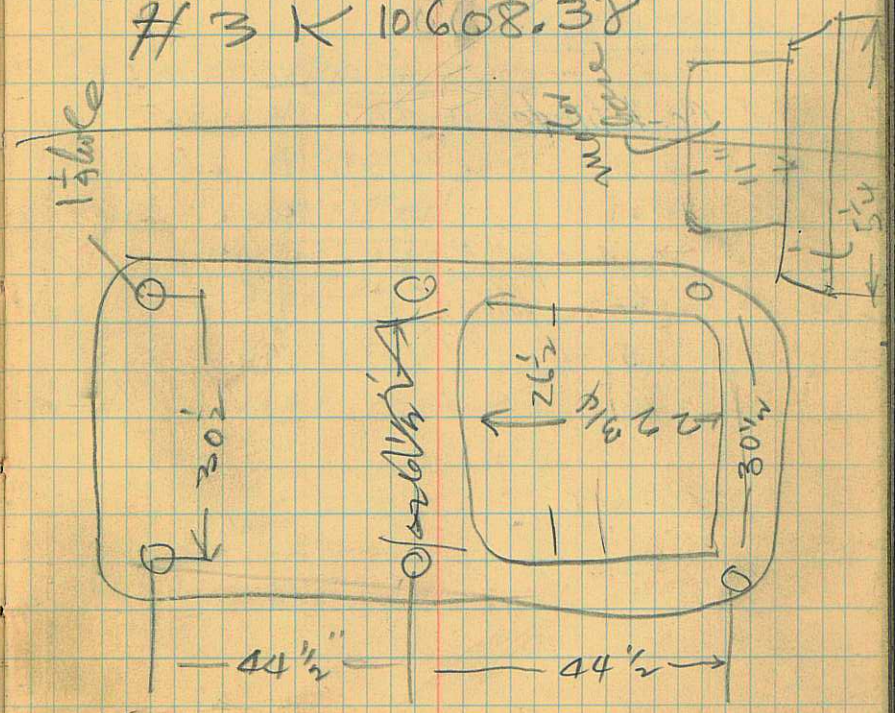
Starter

Type A27

PH3-~60

220 V 30 HP

#3K 10608.38



14

Survey for
L.H. Adams 3-10-1934

March-10- 1934

4° 15 41.8 = 4° 14 101.8
4 4 52
4 10 47.8

Co.-latitude 48° 16

δ = EW ℄ sec + 35 28

12 M 1 E = θ = 41.4
Co θ — 48° 16 —
8960

δ for 3-10-34
— 10 10:30
-4 10' 48" -4 10' 18"
30
+Ref 4 4 11

Fry Farm

On College Main Flag-Pole:
#1. 118° 40' 30"
#2. 118° 43'
#3. 118° 41'
#4. 118° 40' use

see over

clear

7	6°17'	6.64	7.00	11.35
6	198°27'	cur pat 2.28	4.00	5.50
5	235°34'	3.84	3.0	5.53
4	235°07'	6.23	1	5.1
3	225°30'	7.63	1.00	6.03
2	296°25'		3	+15°15' 11.12

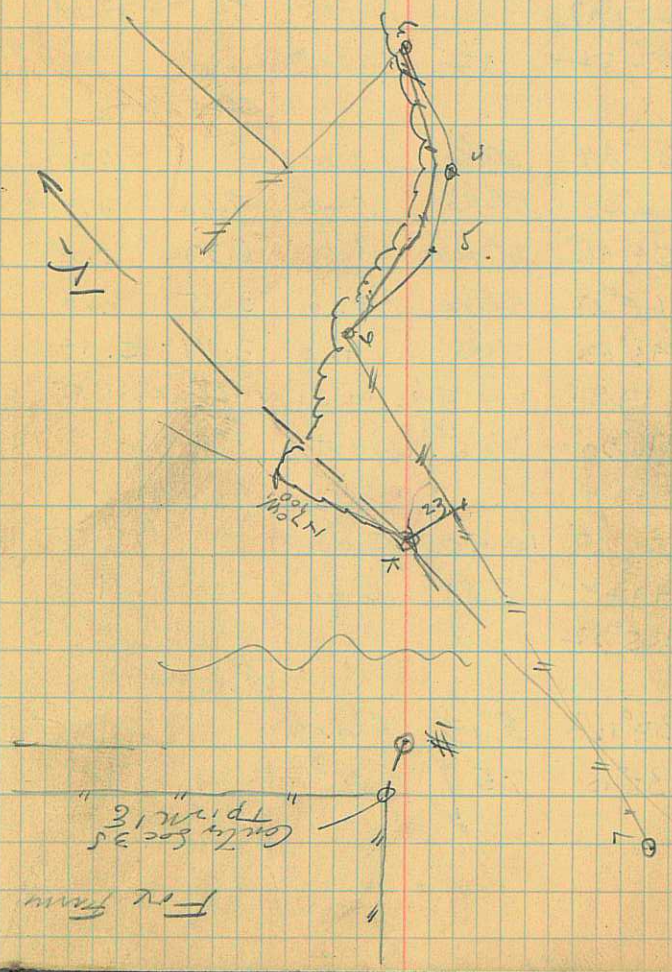
2

118°40 College spire True N

181°00 10' cur Fox farm

1

Fox Farm Survey
order of L. H. Wames —
mar 10 - 1934



23

17	328°28	ch			
9	270°56				
18	337°58				
	16°32	SW cor 12 E of SW			

Δ19

9	238°09				
Δ19	159°58'		2	73°25	11.05
	114°37	SW cor / 12 E of SW / 12 N 1 E sec 35 / black / burnt spot			

Δ18

Δ18	62°09	2.59 ch			
1	207°37				
16	356°52	18½'			

Δ17

				ch	
Δ17	62°09'	stake	5.00		11.28
16	60°38'	stake	5.00	9.60	11.32
15	54°46'	stake	1.0	6.37	5.2
14	64°38	stake	4.0	3.85	6.54
13	43°03'	stake	4.0	2.19	5.44
1	190°08	2 x 2 stake 10' 51°W of center sec 35			
12	76°30'	16½' 1.25 cor pat			

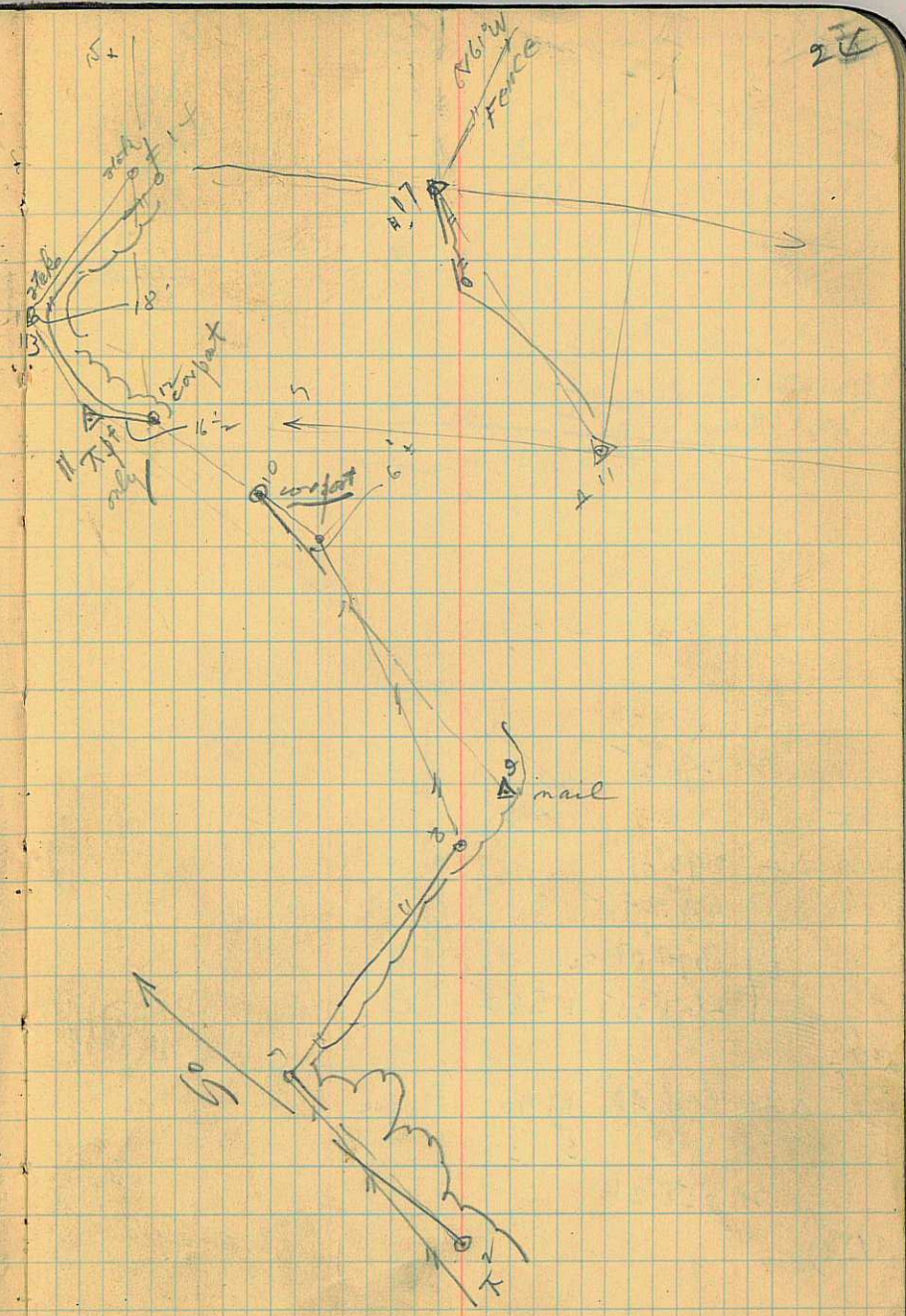
Δ11

Δ11	53°28'	10 40	5.00		11.85
10	47°22'	7.88	6.00		11.20
1	155°32'				

Δ9

Δ9	39°16'	8.13	6.00		11.35
8	35°10'	7.57	2		7.00

2



v 296°25'

1 π

Δ2 293°01'

Δ17 24°24'

Δ9 329°07'

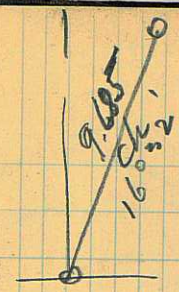
1 267°35' 1.582 ch

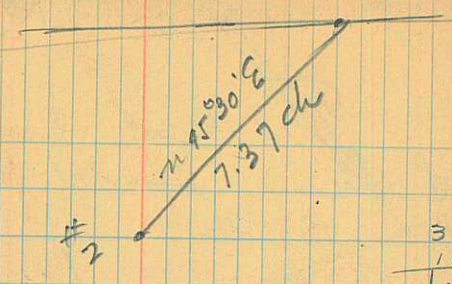
Δ20 F

Δ20 236°43' 19.90 Base

v 258°21

1 Δ9 Λ





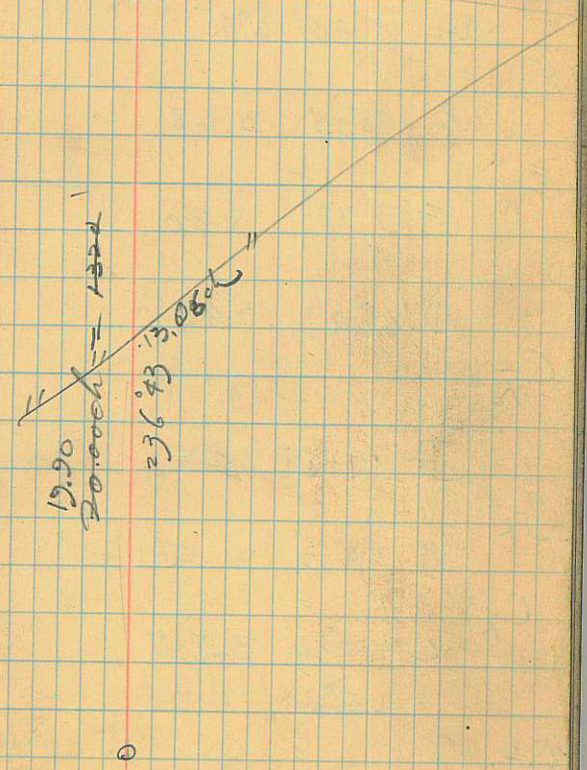
3.85
1.91
1.94

17

K line

1 @ 16 #2.925 #1.91

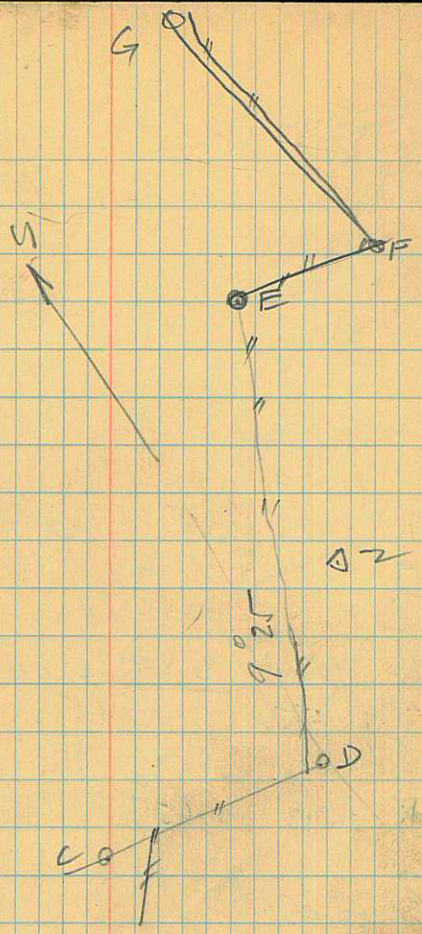
.045 go west .045'



3 - 14 - 193X

Traverse Survey of Sam Smart Ranch

	78°30'		
G			
	G 50°09'30"	8.414	
	50°09'30"	6.57	to herd dugway
	Δ9 89°40'	0.745	
F			
	F 94°14'	3.68	
E			
	E 9°25°	8.80	
D			
	D 89°47	2.43	
C			
	A 191°09	1.85	cor post
B			
	B 239°22'	2.358	
C			
	C 235°34'	3.835	
	~~225°30~~	~~7.37ch~~	
Δ2			



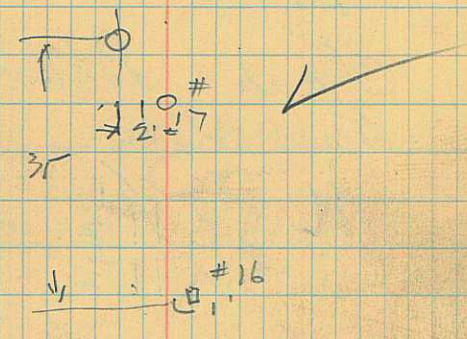
Set 39°16 BS to #9

19 ⊼
19
17 -
16 72°02' 3.297 + .045 comp west.
17 76°55'
K ⊼
K 40°18' 2.657
J ⊼
K 60°45'
J 88°32 1.99
I
I 41°08 2.465
Δ 11 26°07' 0.29
H ⊼
H 78°30' 2.53
G ⊼

1.91
35
2.26

3.85
2.26
1.59

3.85
1.91
1.94
35
1.59



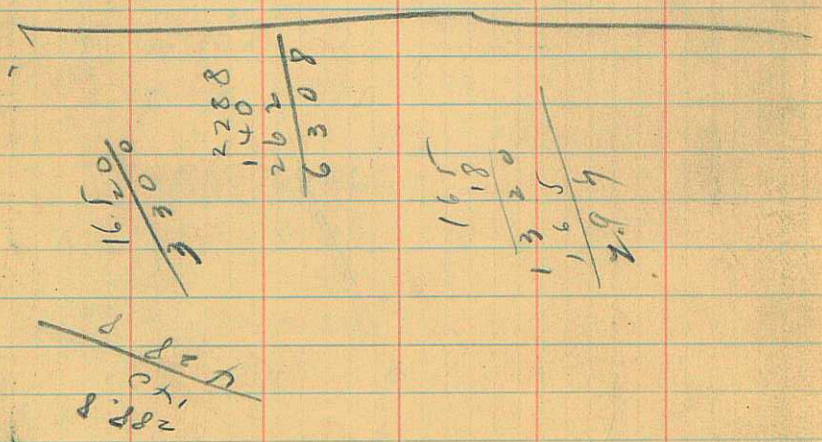
21

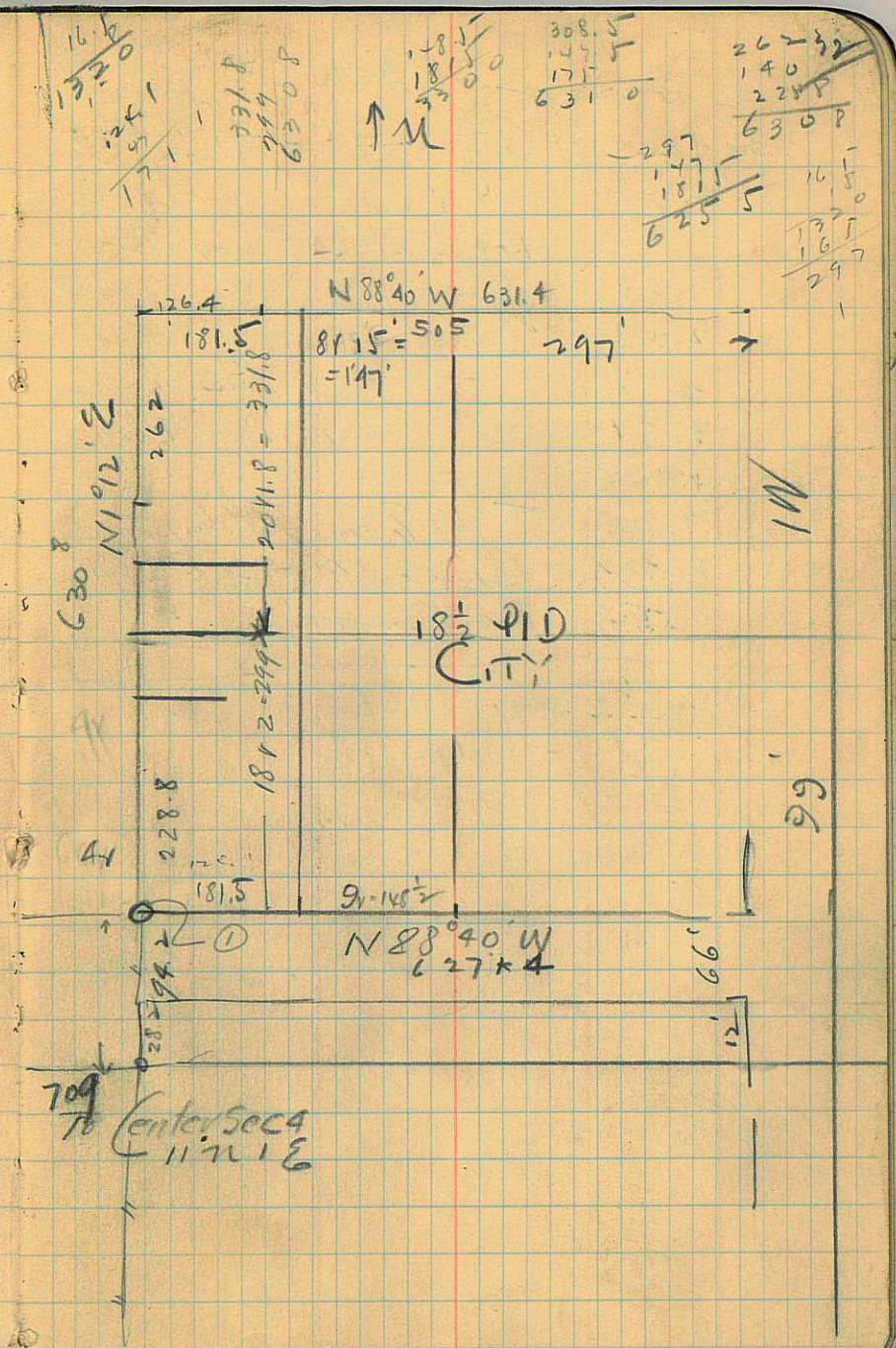
~~Leo~~
Marie O. Berntson
So pace

Beg. 2 r W of pt 18,
r N of SW cor 18 2
E 1.85 ch ; S 0.9 ch.
W 1.85 c ; N 0.9

Clark Blanchard
same beg.

N 3 r 11 1/2. E 2.65 ch
S 3 r 11 1/2 W 2.65 ch





Survey of Bek 18½ Pl D

Logan City — 3-17-1934

Beg 1' west at SE cor 18½

W	1.28	fence
"	2.01	fence
	2.76	" E. line L. Johnson
	3.56	E line Calder
	4.168	
mean 7.639	7.645	to old E line Thatcher pasture
	8.433	fence N + S E line Mapes
	9.554	to 2x2 stake

9.506
.048
65
288
288
3.16 8

4.168
3.16
.688
36 48
32 48
40.1 28

S = 1° 39 76
5 26
1 24 50
50
40

59.29
5.5
29645
29645
326.095
326.09 | 60
26 | 5

actual S per
10:30 am = -1°25'40"

Lat 41° 43 27
26
41 43 01

Colat = 48.17 = Co.
89 60 -

126° 46'
126 52 undepmdable
too late

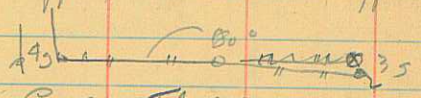
6274 | 66
594 | 9.506
3330
4008
3960

9.554
9.506
.048

9.566 2x + 2.3 another 2x2

9.546 flag 181°12 of 2x2 on S

8.65 approx. W line Griffen

7.78± 

7.645 E line Thatcher pasture post

5.19 E line Harry Campbell

2.708 E line Lundahl's

W

Beg 1' W of NE cor B.18½

9.614 S side 3 So

5.09 fence E & W

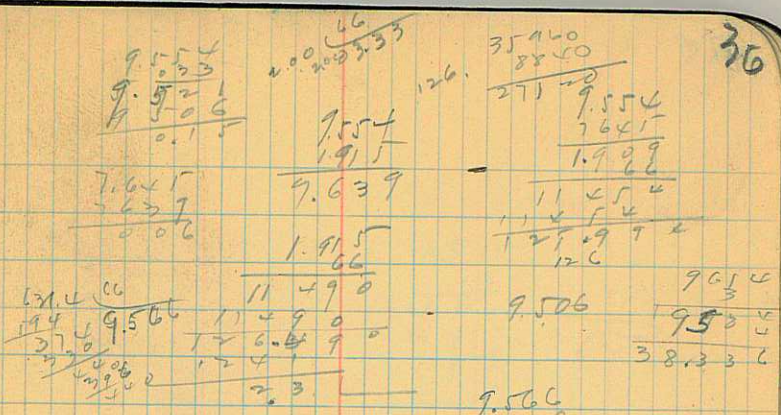
B 4.53 2x2 stake

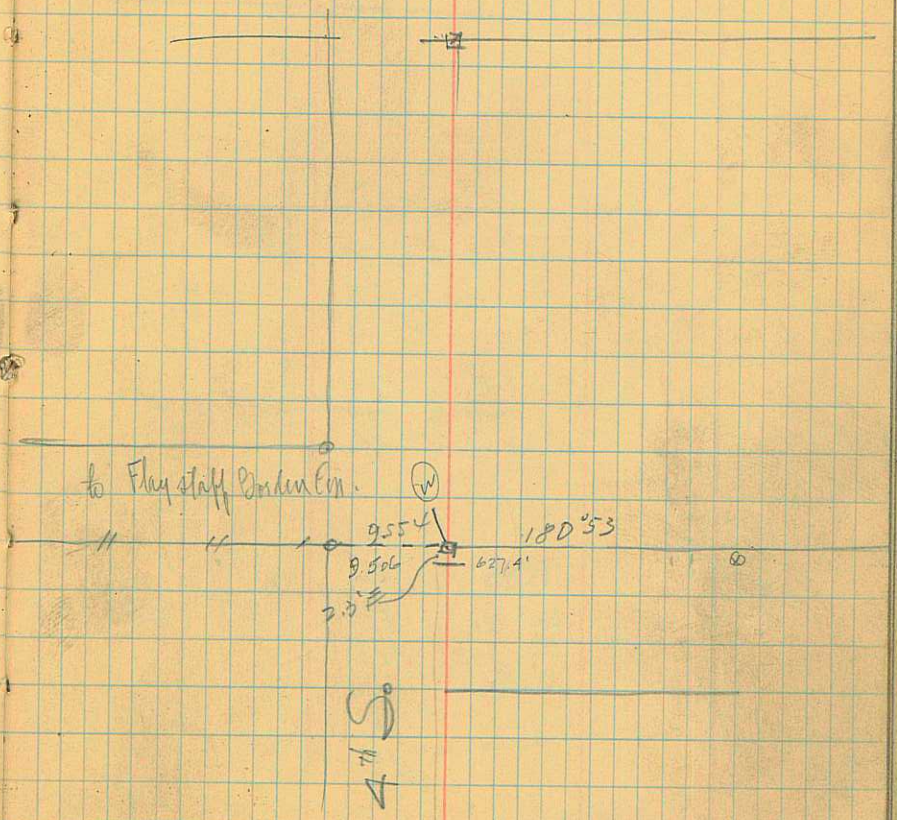
181°12' .03 fence N line 45

126°46'

2x

{ 2x2 stake
9.554 chi W ± of SE



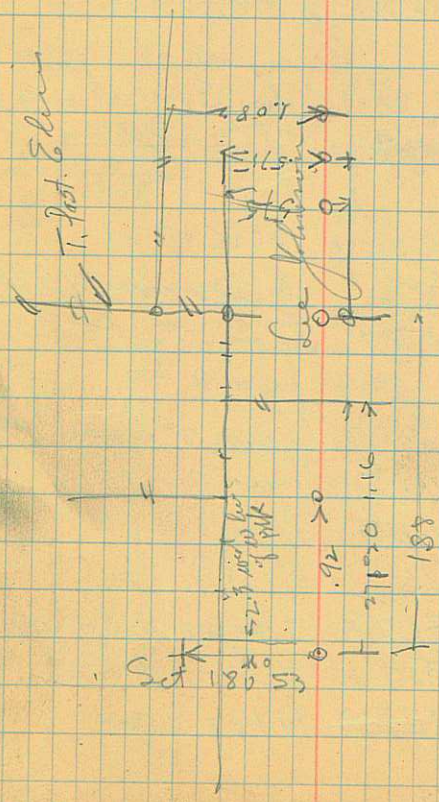


"	1.88	fin
"	1.16	
27°20	0.92	

B.

7
2
1.80
84.0 (27
3

1. 150
3
450 (27
27
1.8 (15



Mar 26 - 1934

Survey of property in Blk 18½
Pl of City

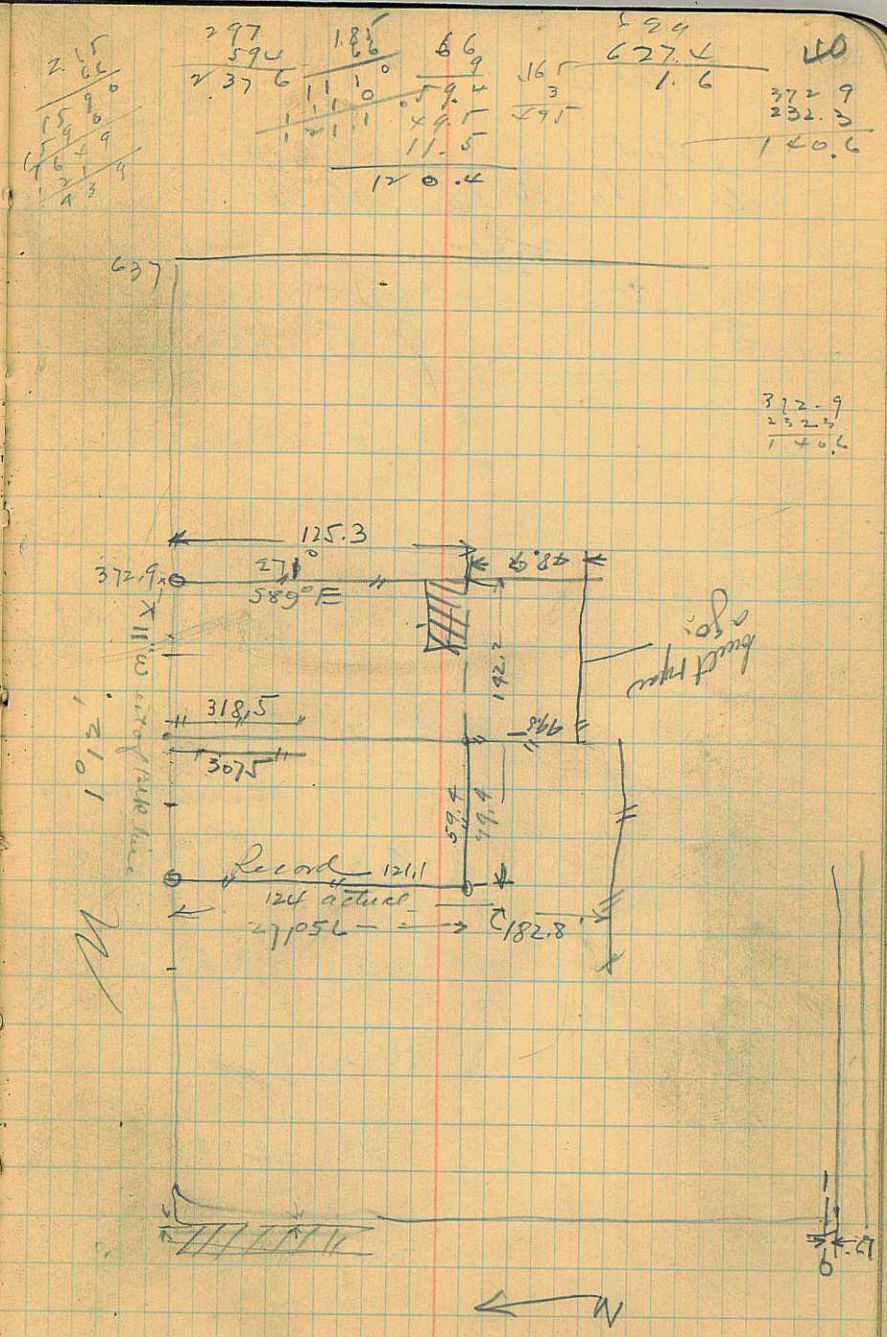
St. 1W 455 near Sec cor
18½ D is 96' between fences

N 637.0 to NW cor

= See line sketch part
N 372.9 from E & W N side Bent.
N 232.30 fence E

Beg at SW cor Blk 18½

W	629	to SW cor Blk 18½ D
W	511.7	fence N —
W	449.3	fence N —
W	301.7	fence N Enid lane
W	235	fence N
W	167.60	fence N
E	0.67	W edge pavement
	307.5	S. FENCE OF ROADWAY
	318.00	N. " " " "
	125.3	N LOT LINE



VI

Apr 10-1931

Study of drn. Notes to Otto Meier's place

~~Grade~~ nn

①	5.78			105.78
So 96 ⑤		6.75	99.03	
So 32 ③ ④		4.10	101.68	
n 60		7.60	98.18	
		8		
T.				
n 242 ⑤ ⑥		8.40	97.38	
		7.70	98.08	
n 330 340		10.7	95.08	
	10.52 hub		95.26	97.00
n 460 ⑥		9.3	96.48	
620 7		11.1	94.68	
690 ⑧		10.3	95.48	
800 ⑨		5.90	99.88	
900 ⑩		7.75	98.03	

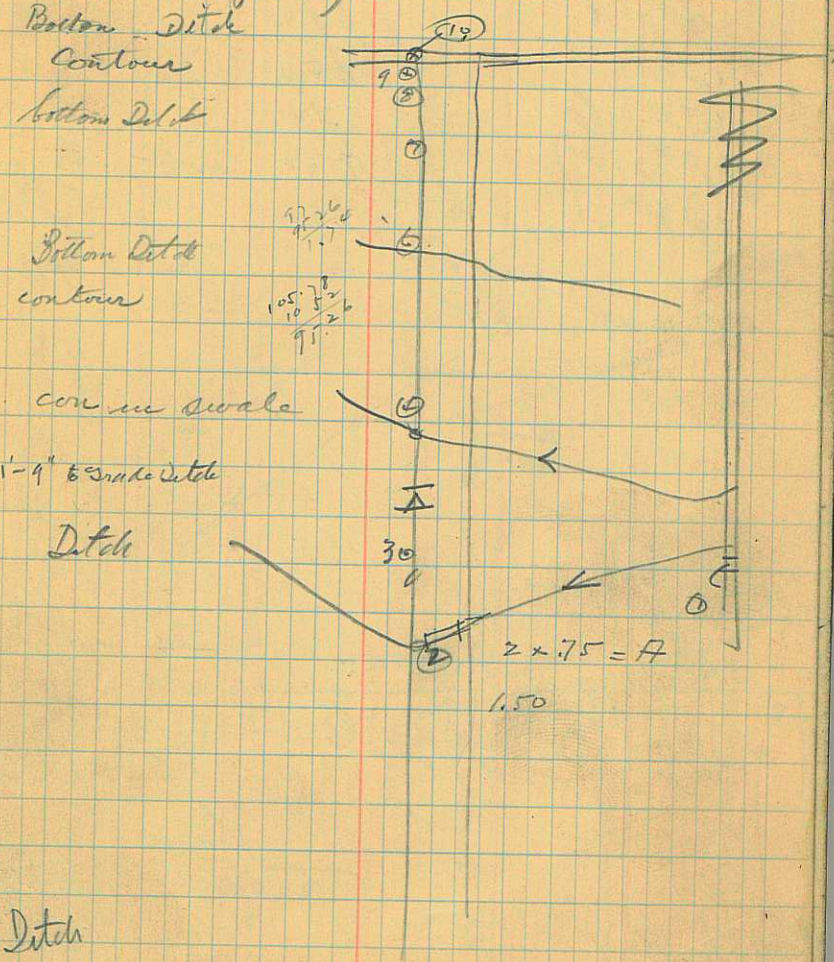
97.26
9.5
1.7
105.78
10.52
95.26

Logan Golf Course

VI

3
39
7 3
21 9 .220

Grade of old flume in Potter Ditch

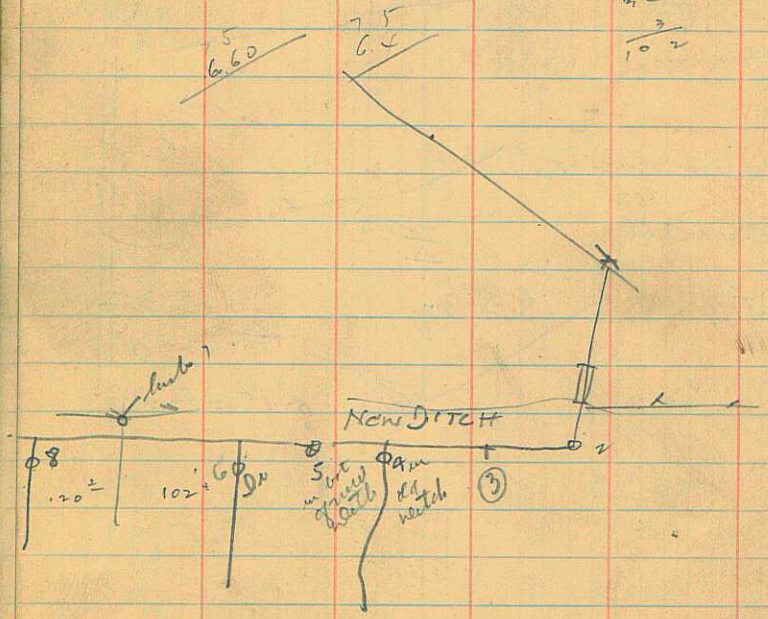


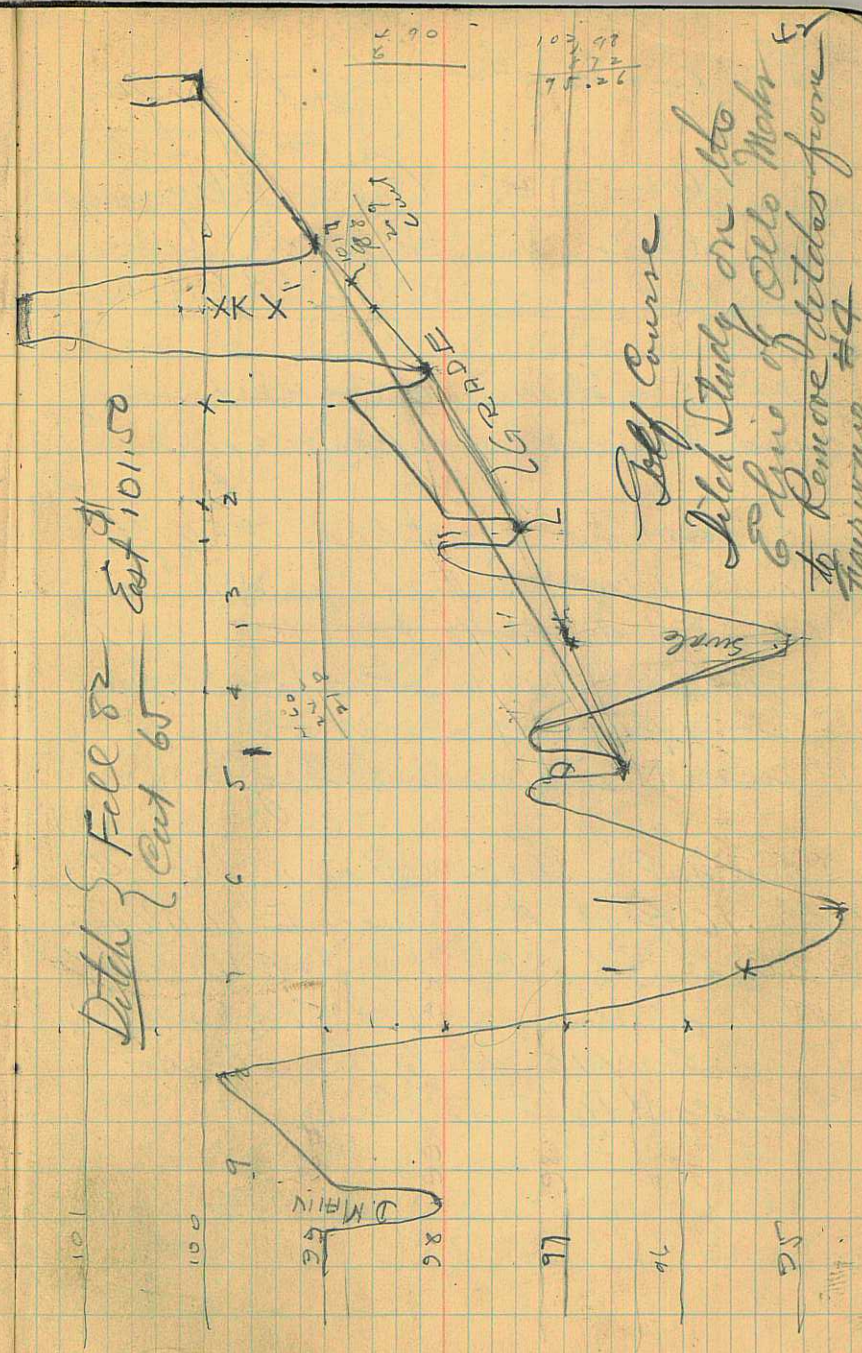
#3

Checks

May 9-1937

①	3.98	in Rita flume	100.00	103.98
②		4.90		
3	1/2 on gate	5.32		
④		6.00		
⑤		7.50		
⑥ Weir		6.72		
7		8.72	on hub in ile fa	
8		7.70		





64-395 April 20-1934

64-272 Cache Valley General
64-271 Hospital Survey
on 1E bet C & N

64-395 - Florence N Oshaw and Nora N. Lambroce grantors

comm. at point 6 rds 3-7/8 ft
(1) S and 10 rds E of the NW
cor. lot 4. Blk 16, Plat A Logan
City Sur; thence E. 5 rd, thence
S 2-3/4 rds thence W 5 rds;
thence N 2 3/4 rods to beg.

comm. 8' N of NW cor of lot 4
Blk 16 Plat A thence E 169½ ft.
(2) thence S 6 rds 11 7/8 ft; thence
W 1 rd; thence N 5 rds 12 3/8 ft;
thence W 15 3 ft to the street;
thence N 16 ft to beg.

H. K. Merrill and wife grantors

64-272 — (3)
Beg. 6 rds 3 7/8 ft S of the NW
cor of lot 4 Blk 16; thence
E 10 rds; thence S. 2 3/4 rds;
thence W 1 rd; thence S 2 rd;
thence W 9 rds; thence N 4 3/4
rds to beg

64-271
I. E. Nelson and wife grantors

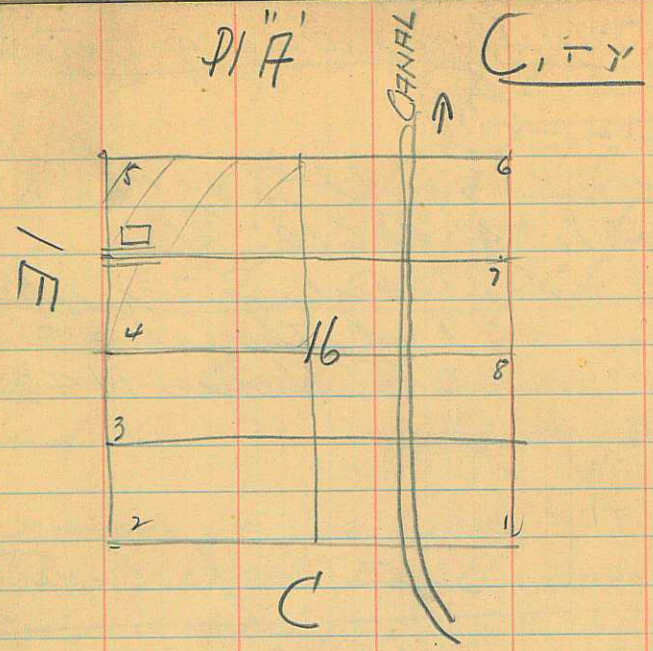
(4) Beg. 3 rds 8 ft S of NW cor of
Lot 4 Blk 16 Plat "A"; thence
E 15 rds; thence S 2 3/4 rds;
thence W 15 rds to the street;
thence N 2 3/4 rds to beg

Also subject to rights of way over
following:

com. 8 ft N of NW cor Lot 4
Blk 16 Plat "A" Thence E 169.5 ft;
thence S 6 rds 11 7/8 ft; thence W
153 ft to street; thence N. 16
ft to beg.

PIA

CITY



$$\begin{array}{r} 165 \\ 9 \\ \hline 485 \end{array}$$

2(15.21
7.6

601.5
599.9
500
453.25
445.6 To East. mid cor lot 4
438
388
300
264.0
200.2
150.5
1+20
0

16.5
9
148.5
5940

445.62
57.8
387.82

76
150.
15.25

153.5
145.5

295.12
16.5
49.8
8
57.8

453.25
438.
2(891.75
445.62
150.50
2(295.12
147.56
150.5
298.06

Dar
601.5
600±
Probable pro. Line
Joint
Preston
old pos
Driveway
oldpost Cotterwood
old post
5
stake 200.2
oldpost
Fenway
oldpost
0
1.5
1.5

4-21-34 Cache Valley Emerge Hospital

229
57
172

(3) 267°41 153.0
19'
1'

~~(3)~~ ~~153~~

(2) 267°41' 100.

~~(2) 267°41 100.0~~
267°41 on Random eastward
115°37
76°08'

lot 9
NW cor

13.8 · 11.4 · 14 · 3.2
69 · 57 · 16
229 · 9.5 · 8.4
229 · 8.4

Garage
Eaves projection

229
15
244.5

76.8
62 97.5
244.5
11.5
8.5
6.5
16.5
8.25
11.55
12.375

13.8 → Brace defined point

269.60
267.41
2.19

13.8
6.23
7.47

11.4' Fence

Extreme N edge Cache V. Bank smoke stack to Tab spire

57

5-5 8.25
5- 8
3 12-3
8

8-3

Sta

270°

6 r

0 90.04 +298.06

6 0 123.75 7½ rds =

(5) r

(5) 0° 57.5' = 3r 8

LOT 4
NW Cor r

57.5

10
23.75
33.75

W 260°
298.06
57.5
90.0

165
7.5
8.25
1.5
3.75

165
7.5
8.25
1.5
3.75

1.6.5
19.5
8
57.5

16.5
1.8.5

52

90.04
57.50

0°
0

114.6
To Sta 6

270°
9 r

Sta
265.37

2.38
180°
3.3

2.3

270° right line

7½ rds = 123.75'

garage

SW cor.

NW cor of Wm Sup

2x2

57.5
3r 8

2x2 walktack

15.25
ac

270°

standup
1.50

P.O. Pt. Sec 3 - 11 N 1 W

S.E. ¼ Sec 3

Commercial Bank $23.47
Granite Fork

Fox Farm
$21.81

H.M. Gellman
24.85
mall

12
60
720
38
38
340

38
79

1.63
.75
815
1141
1.225

$\frac{12}{38} = \frac{x}{60}$

2

14000 | 300
40

7.5
3
11

147.56
33.715
11481

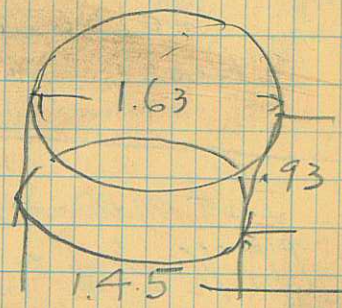
April 25 - 1934

Water Meas at Odlum & Hatch Water Flow line at Barber Bridge
Tube sma ___ x ___ x ___
gal capacity =

Time to fill sec.

1 44
2 38
3 45
4 32
5 27
6 43

6 | 229
38 1/6 " = mean



1.63 20 gal per min

r^2

1.75
.93
525
157
1.625

1.63
1.47
1 | 308
1.54
1.54
616
770
154
2.3716

2.37
.785
1185
1896
1659
1.7569

18
18
144
18
3240
7.1
16200
22680
24300.0 | 20
12150 | 1440
11520 | 8
6300
7760
26
96
192
2016
360

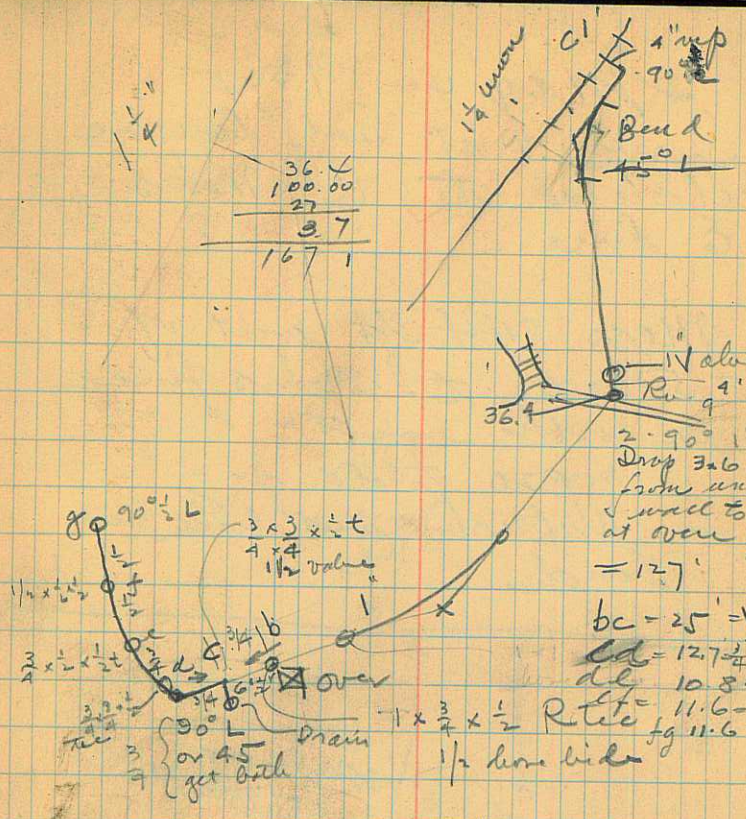
20 36mm to fill
Res.

List Materials for Oven Grounds

piping / make-up. 2-1¼ nip into 1¼ x 1¼ x 1 tee
hook / 2 unions, one 1¼ coup.

		#	
one	1 x 4 nip		
one	1" 90° ell		
167'	1" pipe	4	1/2 caps
30'	3/4	1	- 3/4 x 3/4 x 1/2 tee
4 -	90° 1" ells	1	3/4 x 1/2 x 1/2 tee
1	1 x 3/4 x 1/2 tee	1	1/2 x 1/2 x 1/2 tee
1	1/2" 90° ell	1	1/2 90° ell
1	hose bib		
1	1" value		
1	1 x 3" nip		
1	3/4 x 3/4 x 1/2 tee		
1	1/2 value		
1	3/4" value		
1	stand 3/4 nip.		
1	90° 3/4 ell		
1	3/4" nip elondart		

36.4
100.00
27
3.7
167 1



4 - 1/2 x 1' nipples 4 1/2" caps

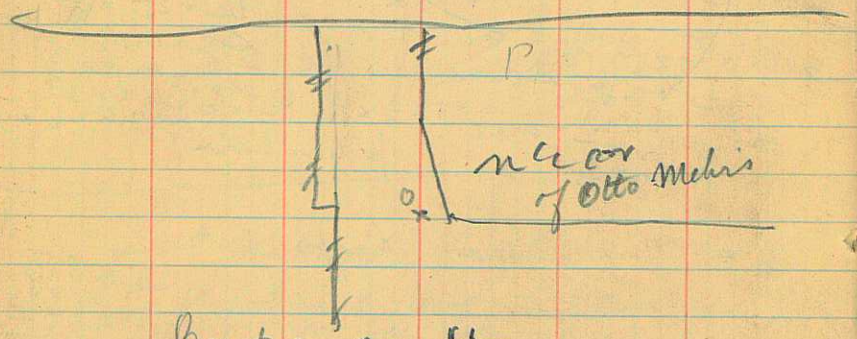
25
12.7
10.8
48.5
23
255

38

23' of 3/4 on hand
get extra couplings.

May 4 - 1935
Survey at Golf Course
relative to Otto Mehrs
E line -

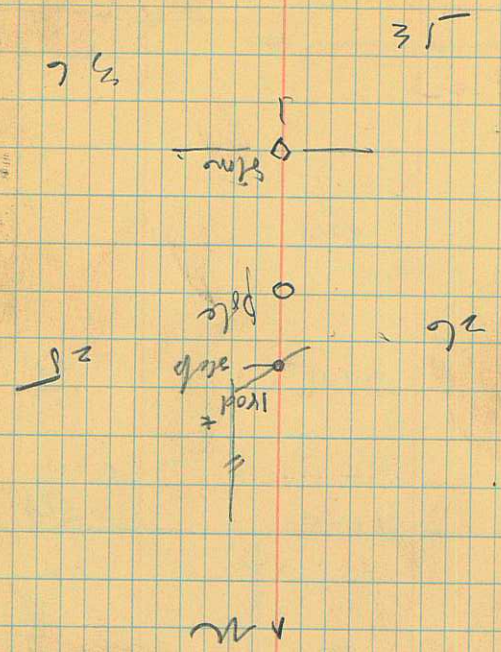
Meas 844 ft west of
-500; 0. to Mehrs fence
on the west -
820 to old peg
in Wutrich's west line on
bench

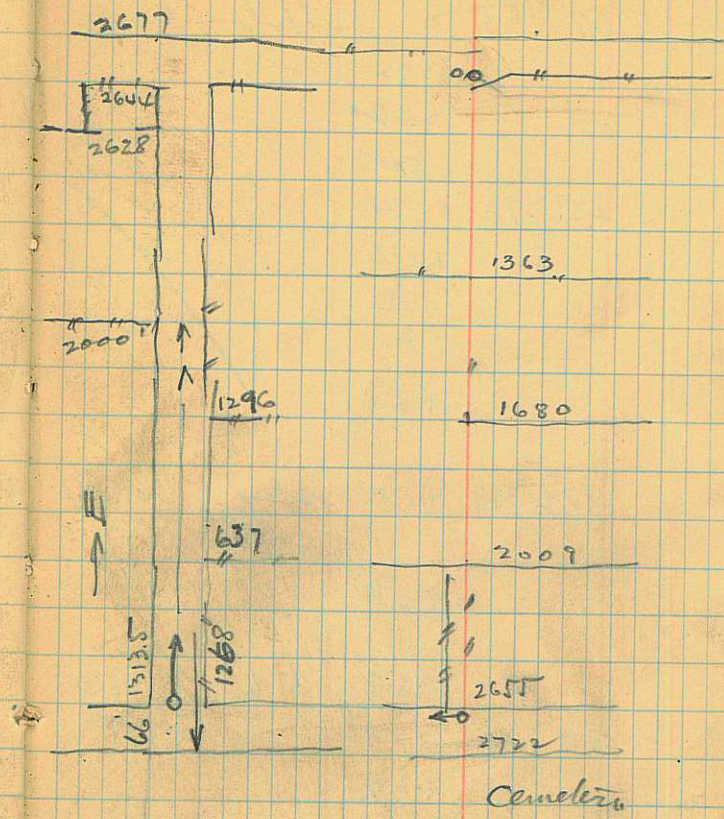


Beg at 0 go ~~660~~
West
660 no point
1363 fence well
1680 Cross fence go
2009 Cross N + S fences
2655 E side St.
2722 W " "

1326
660
1980

800




2677
2644
2628
2000
1296
637
1363
1680
2009
2655
2722
Cemeter.

5-7-1934 Logan Fry Farm
Notch Sawed

58

	BS	FS		Stake	Cut
7+50			2.32		
7+00			2.42		
6.50			2.52		
6+50	2.56	.98	0.94		
6+00			1.04		
5+50			1.14		
5+00			1.24		
4+50	13.24	7.19	7.19	1.34	0-0'
4+00			7.29		
3+50			7.39	5.6	C1'-9½"
(TP.1)	6.18	6.32	7.49		C1.35
			1.63		
3+00			1.73		
2+50			1.83		
Stur			1.90		
(3) S23°E	30°		1.90		
(2) S61°W	180	3.42			

7.4
5.7
1.7

8.5
7.3

1.63
1.3
1.31

58

6.19
1.31
7.49
7.39
.6
1.79

N
S61°W

BS FS cm

④ 4.3

③ 5.40

② 5.00

① 4.00

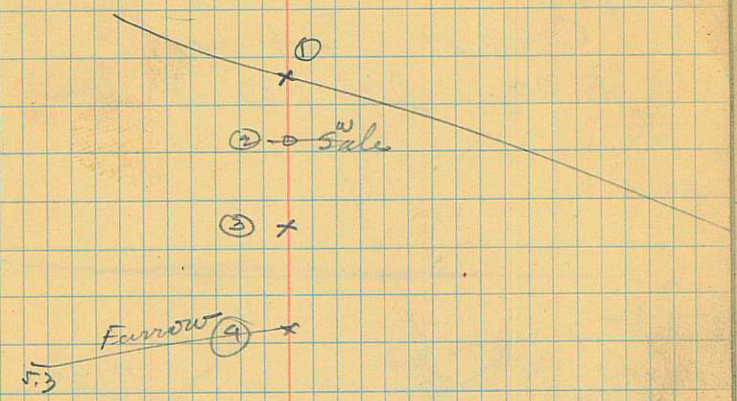
8 +00

7 +50

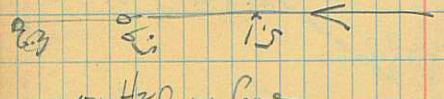
2.22 1.2

2.32

5.5
4.15
1.35



↑ 8.6



on H2O in Cove

End

Survey for The Richmond Irri. Co. Extension of L. N. Canal from Carson Dam

Sta	Az	Dist	BS	FS	Grade RR	Cut or F
6				4.9	5.90	6'1"
5+46					5.40	
5+00	326°46			3.90	5.80	1'-11"
4+50	326°46	146'	4.32		5.75	
4+50						
4+50	196°14'	118.5		4.92	6.35	6'1"-7"
4+00	214°48	10.0		4.8	6.30	6'1"-6"
	4°53'					
3+50	246°40	50'		4.70	6.25	6'1"-7"
3	9°50			4.4	6.20	6'1"-10"
2	9°50			4.1	6.10	4'-0"
1	9°50			3.7	6.00	2'-4
0	9°50'		5.90		5.90	
3+16						

5-18-1927

6.35
1.30

6.35

6.25
1.3
4.95

6.00
2.7
2.3

1.96
1.80

5.80
3.9
1-9

6.3
1.3
5.0

6.35
5.16
1-19

6.35
4.92
1.43

5.90
1.43
7.33
7.6
47
2-9

4.32
1.43
5.75

1.43

196°

3+50

3+16

4+50 TP.

40

100.98 high out

out 3'

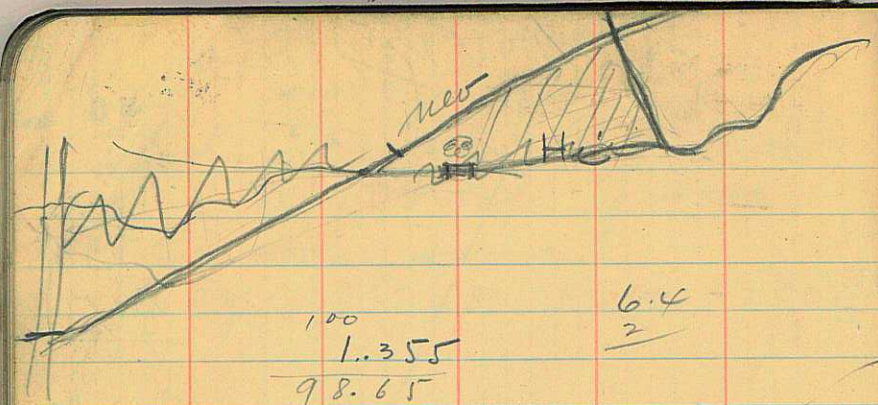
out 3-6

out 3'-10

bottom 2' culvert

offset E3'

50



100
1.355
98.65

6.4
2

4.33
.43
5.76

5.90
4.8
1-1

4.8

5.90
4.9

7.7 correcon.
5.9
1.8

7.70
4.9
2.8

7.9
5.9
1.8

5.65

1.2

1.10
2
3.00

100.52
1.73
106.25

106.25
.99
9.25

7.21
5.24

100.52
4.26
104.78

104.78
98.6
6.18
1.5
4.68

100
4.3
97.7

105.15
97.7
9.45
1.6
5.85

11
100
1.4
98.6

6.2
5.3

7.4
5.2
2.2

6.2
4.6
1.6

2857 | 50
357 | 57

530 | 50
300 | 106 = L

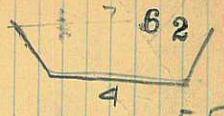
50
11

672
72

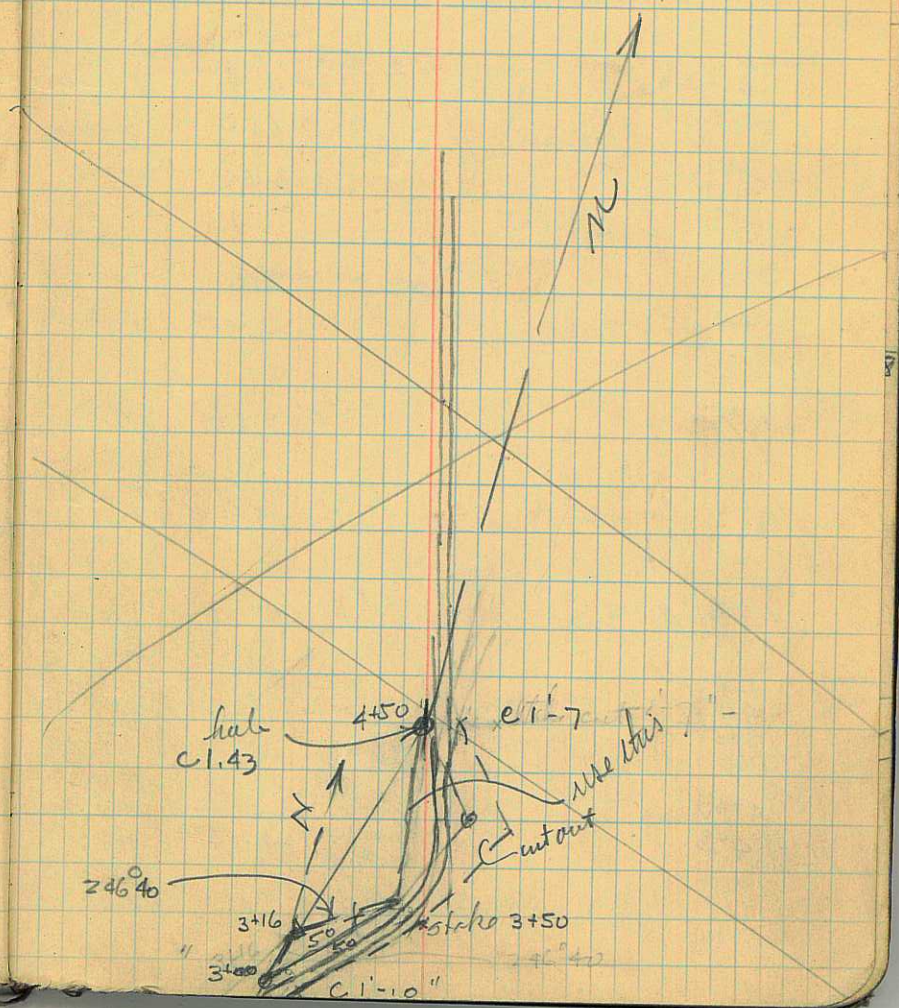
341.30
214.30
127.00
63.30
214.30

100.9
98.1
100.0

100.1
98.9



5.5
1.5
27.5
5.1
8.25
17 CF



Pt	Sta	Ay	Dist	BS	FS		RR grd.
	12					3.6	5.98
	11+00	161°30				5.55	5.88
	PT 10+60	161°30		4.26			
	10+00	161°30				5.2	7.25
	BM#2 9			5.73	6.00	4.9	7.42
	8+00					6.50	7.32
	BM#1					3.49	
	7+25	fence E+W					
	7+13					8.9	
	7+00					4.45	7.22
	6+00					4.52	7.12
	5+00					4.62	7.02
	PT 4+80					4.78	7.00
	PT 4+56					4.84	6.98
	old 4+50			5.54			
	PC 4+31					5.96	6.95
	4+00					6.45	6.92

5.98
3.6

Elev. grd. in bottom	HI	Cut or F	
		C 2'-5"	
98.9		C 5"	out 3'
100.52	104.78		
99 grd.		C 2'	out 3'-6
100.52 Hat	106.25	C 2'-6"	FS on hub opp. Pt 9 out 4'
103.03		C 10" 3rd post E of Hitchcock Canal	Hitchcock Dated out 3
97.6		on Cow	7+13
		C 2'-9"	out 4'-3
		C 2'-8"	out 4'-2
		C 2'-5"	out 4'-1"
		C 2'-3"	out 3'-9
		C 2'-1"	4+56 P! out 3-8
100.98	106.52	C 1' PC 4+31	C 58° L out 3
99.60		6"	3' off

6.92
.05
6.98

6.98
.02
2

6.98
.02
2

7.02
.4
2.52

7.02
.4
2

7.02
.4
2

7.12
.4
2.7

7.12
.4
2.7

7.00
.4
2.22

7.02
.4
2.62

7.12
.4
2.60

105.90 63
4.92
100.98
15.52
106.52

106.52
6
100.52
.53
106.25

106.52
99.6
6.9

6.95
5.96

10.78
9.9
5.98

283 158
23 2
5.10
476 4
.60

189.50
101.30
28.20

446 30
4

1446 76
125 58
196

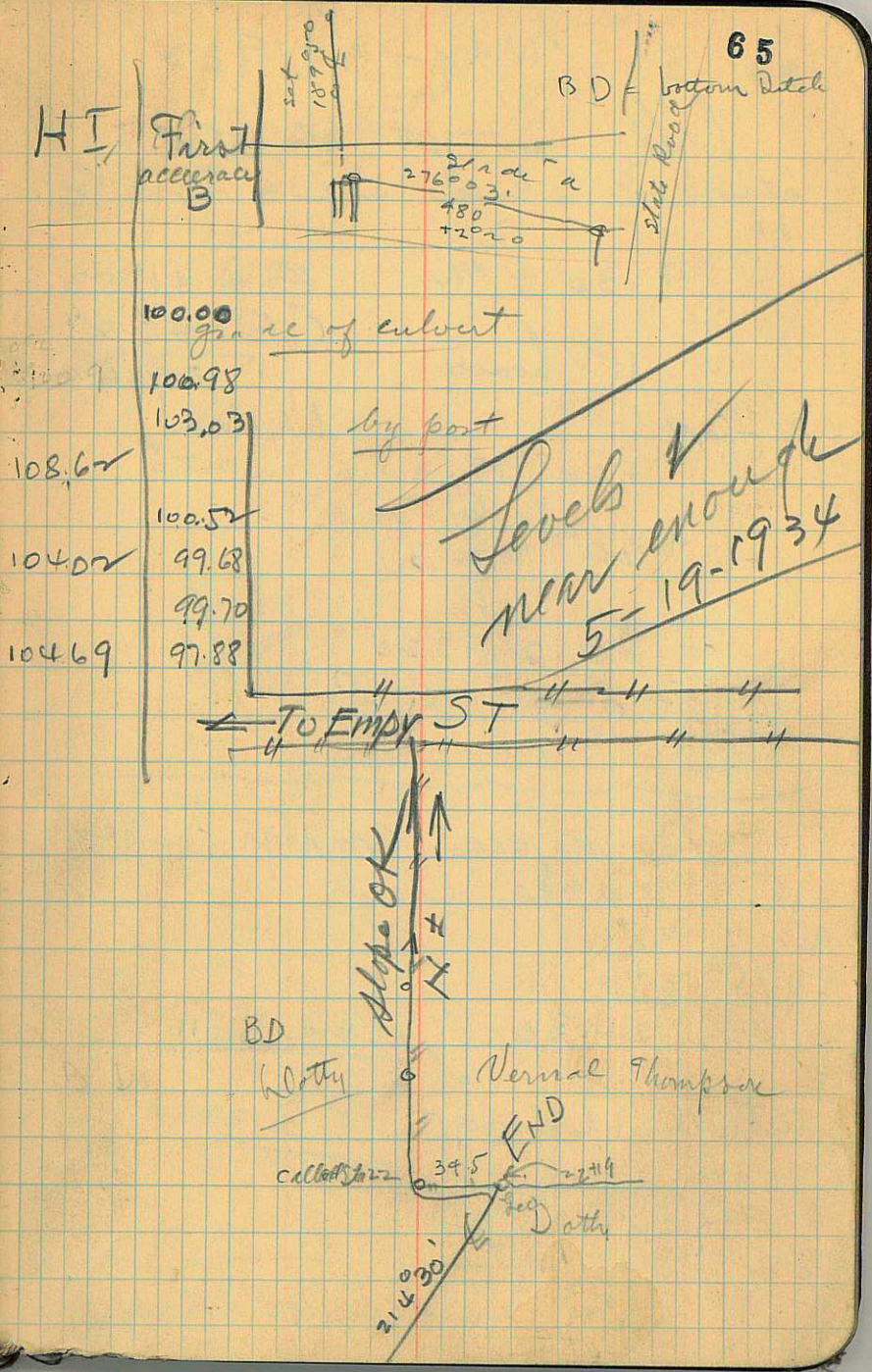
180 58
.74 3

Sta	Az	Dist	BS	FS	IM	Grd RR	Elev. grd or Hub	HI
	(con. over)							
22+19	fence E&W							
22					5.90	7.38 ✓		
21					5.90	7.28		
20					5.50	7.18	98.00	
19					5.12 ✓	7.08	98.1	
Pmt								
off 18			5.48	5.45			99.70	105.18
18					4.75	6.95		
17					4.80	6.85		
16					4.82 ✓	6.75		
15					5.03	6.65		
PT 14+10					4.53	6.56	98.59	
13+55	on ℄ curve E 11'				4.18	6.50	98.65 gr	
13+60								
Pm #3			5.47	5.10			99.68	105.15 ✓
PC 13					4. ✓	6.08		
12 ✓								

C1'-6"
C1'-5"
C1'-8½
C2'-00"
C2'-2½
2'-½"
2'-1"
C1'-8"
C2'
C1'9"
C1'-10½

Vernal Thompson
Geo Dotty
out 3' Mendenhall
Garden
Well 8' 13+60 12'-8"
Δ=53°
E=11'
PC 50° R out 3'
out 3
out 3
Dotty out 3-8
out 3-6
out 3-7"
out 3
142 0z flume out 3'-6" mendenhall
Sect 26 30
out 3'

	BS	FS	im	Elev	HI	
Sta 0		8.67		99.95		100.00
TP 4+57			7.69	100.93		100.98
BM #1			5.67	102.95		103.03
	7.72	3.12		100.90	108.62	
BM #2			3.57	100.45		100.52
BM #3	4.43	5.10		99.59	104.02	99.68
BM #4			5.02	99.69		99.70
BM #5	6.81	check levels back		97.88	104.69	97.88
28+54						
28			4.8			
27			4.35			
26			4.1			
25			3.9			
24			3.2			
23			2.00			
23	0.04	10.10				
BM #5 on hub against post on post			7.30	97.88		



May 22 - 1933

Obs. on pt Sta 4+56
approx on S line Sec 3 Tp 13 R 6

4:30 P M

11½ hours

$\Theta = 41°53$
$\cos\Theta = .48\ 07$
8960

hub sighting
0.50

for 5 PM

+20 18.3
6
+20° 2 4 3
1
+20 25.20"
20°, 25' = δ

N top edge Amalga Sugar
smoke stack

Set on P I 4+56

52°11'
52°10
52 11 30

Use 52°11

actual 160°39' to P I 13+60

270°06 to fence A
270°04 to pole

4+56 283°53' to pole A and 283°56 to cor post
213°39 along forward T to pole

13+60 A

41 53 53
.50
41 53

12
6

5

1+20
727
695
11
5.30

160 90
160 39
51
214 30
1
-213 90
51
213 39

a = 200
105
895
8.01
21

297°25
Bure

297°30
to post

21+89½

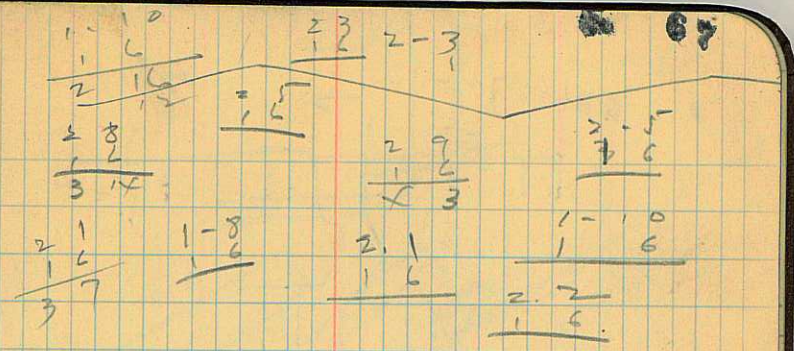
270°04

4+56

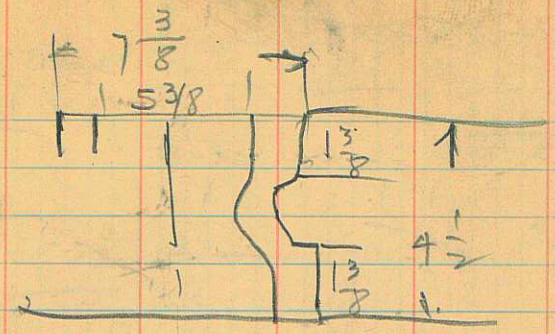
Pole
A
Sta
13+60

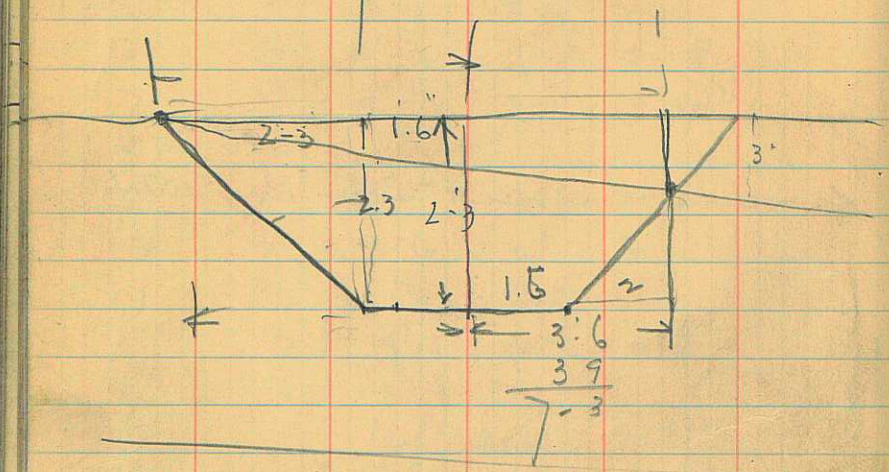
set 160°39 BS to 4+56

Sta	Out of	new out	Cut old	Cut new
	3'			
1	3	3'-10"	2'-4	2-4
2	3	3-6	2'	2'
3	3	3-4	1'-10"	1'-10"
4	3	3	6"	6"
4+31	3	3	1'	1'
PT 4+56	3	3	2'½"	2'½
PT 4+80	3	3-9"	2'-3"	2-3
5+00	3	4'-1"	2'-5	2'-5
6	3	4'-2"	2-8	2-8
7	3	4'-3	2-9	2'-10"
8				
9	3	3'-7	2-6	2-1"
10	3	3-6	2'	2'
11	3	3	5"	5"
12	3	4'-1	2'-5	2-6"
13	3	3'-4		
13+55		left	same	out
14+10	3	3'-6	2	2
15	3	3"	1'-8	1'-8
16	3	3'-7	2-1	2-1
17	3	3-6	2'½"	2'½"
18	3	3'-8	2'2½	2'-2½"
19	3	3'-6	2'	2'
20	3	3	1-8½	1'-8½
21	3	3	1-5	1-5
22	3	3	1-6	1-6

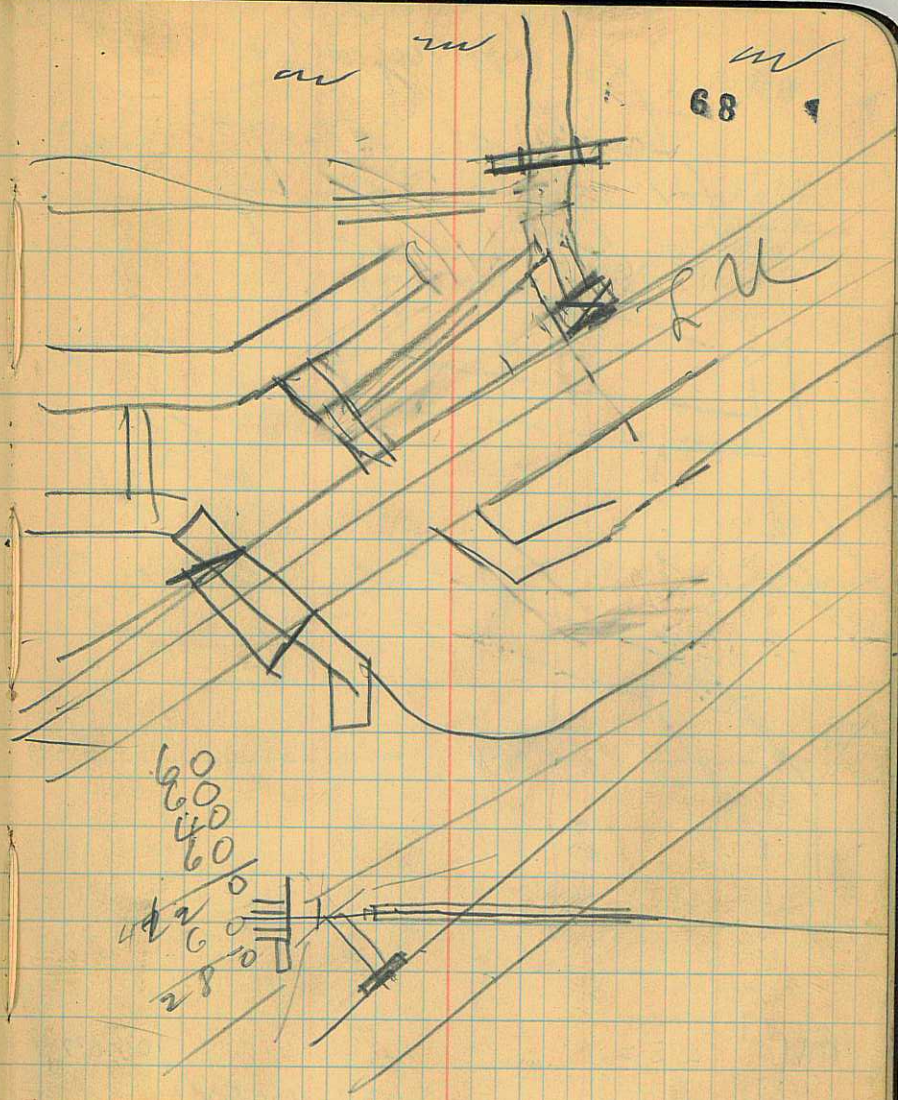


drove limb in next nice like watch


7 3/8
5 3/8
1 3/8
4 1/2
1 3/8

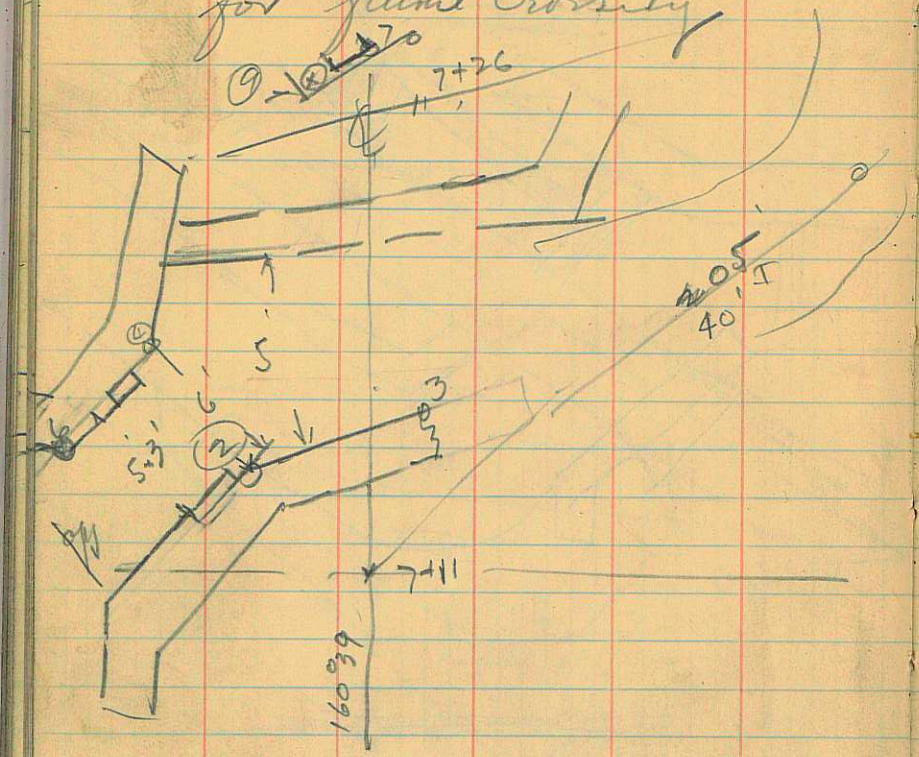

2.3
1.6
2.3
2.3
1.6
2
3
3.6
3 9
7.3

6.20
6.45


68
60
60
40
60
0
42
60
28.0

May 26-1937

Levels at Sta 7+ for flume Crossing



BM #1 2.52 103.03

(2) 5.03 100.52
6.27

7+

3	165°	2.7'
(4)	95°	3.6
4	93°44	9.5
(5)	102°10'	11.8
6	64°30'	10.5
(7)	20	20.4

100.52
99.28
1.24

Grade

103.03
99.28
3.75

105.55
99.28
6.27

103.03
2.52
105.55
5.03
100.52

100.52
99.28

160.39
96
256.39

(8) 127°30 30' to Wall flexpave

9.9.38 Grade 2'-11" on wall

note { approx 14" below top of wall to grade mark

new setup Elev

9	5.80			99.70
BM #1			2.49	103.03

on concrete wall of gate

103.03
2.49
101.52
99.28
6.24

100 ft
99.26

103
10.52
.58
99.72
.36

6-1-1934

Check levels
Melville West Field
at Rating flume
from curve Shut Bl Elev.

100.00

(a) 102.69

100.00

Levels at
June 1-1934 8.51

5.822
8.475
8.515

6-1-1934

Hyrum Elevation

100.00
100.00

(b) 104.285

Levels (a) 105.215
June 1-1934

a 1.588
(b) 2.515
6.81
6.793
6.778
6.788
nL w. 35.9

6.780

108.51
5.822
102.688

102.788
102.69
.098

on Blacksmith Fork River

mean on top 8×8 no angle iron

On top iron drift pin in upstream
right wing wall
zero of hook
on zero of hook

8.475
8.515
8.504
3 | 25.494
8.498
mean 8.50

By (a)
left side on 8×8 centre
Center line on nl
R side on centre

June 5 - 1928

on L iron bolted to top 8×8
zero of hook gag
on 16d nail in stilt wall
in cross 2×4
on 1/2" bolt thru 2×6 on top So. wall

106.803
2.515
104.288

105.215
1.588
106.803
6.81
100.993

106.803
6.780
100.023

Zero of hook
top L iron R side
L side on L iron
Center

6-1-1934

Providence Canal
Blacksmithfork

Elev HI

100.00
100.00
102.09

104.115

June 1-1934
BM Ilw

5.378
3.345

7.458

7.440
7.480
7.465
3 | 22.385
7.461

Notes of June 14 1934
BM.

3.075

7.185
2.898
5.103

Curve of June 5-1928 72

On Blacksmith Fork

on L iron on 8x8 timber control
zero of hook
on web of vertical built up
I beam in waste-way
on screw with brass washer
in 2 x 4 that holds gage staff
in the well

104.115
3.345
107.460

screw with brass washer

on zero hook

7.458
3.345
4.113

on L iron control R side
on " " L side

on screw with brass washer
zero hook
zero of scale
on I built up section

7.185
3.075
4.110

22 x = 27

22 x + 22 = 27

5/22

50 | 22
41 | 2.3
60
66
46
59

63
· 63
189
378
3969

63
· 4
· 252

· 5

3.33
3.15
1665
999
11.655
5.80

× 23.25 обл
⊙ 22.26 мелк

22.26
22.26
1.99
22.

Внутренне

Верхне

мелкие

26.9
22.26
22.26
1.28.6
3
23.95
22.1
1.

66.9
22.9
22.9

26.9
22.1
3.1

June 8, 1934

Richmond Sir Co. Logan W.

Final grade Extension

Sta	BS	FS	HI	Grade	Elev.
0	6.38			6.36	
BM(H)		3.32			
1			4.80 c	6.46	
2			5.10 c	6.56	
2+90			6.90 x	6.65	
3				6.66	
4			6.50 c	6.76	
5				6.86	
6	7.44	7.01		6.96	99.35 hub
6					99.40 g
7+4				7.49 g	99.30 g
7+07			7.50	5	99.29 g
7+07			5.0 r		
			8.1 control		
			8.1 control		
7+50				7.54	
8+50			6.1 c	7.64	
9			6.2 c	7.69	
10			6.30 c	7.79	
11	6.20	7.90		7.89	98.89 hub
11			7.00 c		
12			4.3 c	6.29 g	98.80 gr
13			4.9 c	6.39	
13+30				6.43	
13+45				6.44	

100.52

HI

106.36

correct a

103.03 + 3.32 = 106.36

106.38 − 103.32 = 103.06

6.46 − 4.9 = 1.56

106.79 − 98.1 = 7.50

6.5 − 5.1 = 1.4

6.46 − 4.8 = 1.66

106.36 − 7.01 = 99.35

99.35 + 7.44 = 106.79

106.79 − 98.89 = 7.90

x error piece on work crossing

100.71 − 1.2 = 99.29

106.79 − 7.69 = 99.10

106.79 − 99.30 = 7.49

106.79

TP on hub

100.12 − 1.2 = 98.8

105.09 − 98.89 = 6.20

Top new one well to 5 leaving control

" " " " 105.09

106.79 − 7.51 = 99.28

106.79 − 8.1 = 98.69

Sta	BS	FS	HI	Grade	
13+45			5.1 c	6.44	
14			5.02 c	6.49	98.60
BM 3			5.43		99.66
14+17				6.51	
14+17			4.65 c on Bridge		
14+17		6.51	6.51		98.58
			7.12		
			4.65		
14+17			11.50		
14+17	6.94				
BM 3			5.89 c		
1430		~~6.~~	6.00		
15			5.80 c	7.02	98.50
16			5.90 c	7.12	
17			5.90 c	7.22	
18			6.00 c	7.32	
19			6.03 c	7.42	
19+22				7.44 *	
20			6.70 c	7.52	
21			7.00 c	7.62	
BM			7.66 *		97.86

6.50
97.88

105.09
6.49
98.60

105.09
7.43
99.66

105.52
98.52
4.0

105.09
6.51
98.58
6.94
105.52

105.52
7.89
99.63

105.52
7.62
7.90
7.9

105.52
7.66
97.86

control works grade

on grade of bolt up He Creek D
on H2O at
on grade of L.N at this pt.

105.52

west side

c con. on west side

up stream end culvert
on west side

6-9-34

Levels at
Hyram Kleemeier
Blackamath Fork
Wert O to pt of hook
4.89

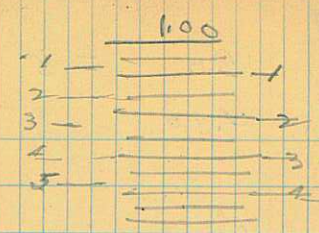
6.694

2.400
1.274
1.804

6-9-34

Pm a

4.905	102.69	107.595
7.590	100.00	
3.22		
	7.5	
7.560		
7.546		
7.576		



.207
.16
.547
2

on hook staff at zero
on nail in + 2 x 4
on S. bolt in 2 x 4
on zero scale

Placed 3" angle iron
on wood corbel

102.69
4.91
107.59

O hook
on zero of gauge
& on 3" angle
L side on 3" angle
R side

	BS	FS			HI
BM +3	4.80			99.66 99.68 99.67 mean	104.47
			5.89	98.58	
13+90			5.92		
13+80			4.92		
13+30			4.97		
13+00		6.00	5.00		
12+50			5.05		
12			5.10		
11+50			5.15		
11			5.20		
10+50			5.25		
14+50			4.92		
15			4.97		
15+50			5.02		
	1.43	gr.		103.03	104.46
7+07		5.19	~~5.19~~		
7+19					
7+50		5.26	4.26		
8+00			4.31		
8+50			4.36		
9+00			4.41		
9+50		5.46	4.46	5.00	
10		5.51	4.51	4.30	
10+50		5.56	4.56	5.00	

C

grade

side stake

C1'

103.03
1.43
104.46

104.46
5.19
99.27

104.46

1044

on Cont. floor

C1

C6"

C1-2

99.67
4.8
104.47

104.47
98.58
5.89
104.47

100.42
98.58
1.84
1420
30

35/275

O-H. January

	Carl	Chas	Heber	team	Burrel	O. Johnson	Vern Bergeron	X
	1	1	1	1				
	1	1	1	1				
Sat	1	1	1	1				
Sun	1	1	1	1	1	1		
mon	1	1	1	1	0	1		
Tues	1	1	1	1	0	0	1	
Weds	1	1	0	1	0	0	0	
Thur	1	1	0	1	0	0	0	
Fri	1	1	0	1	0	0	0	
Sat	1	1	0	∅	0	0	1	
Sun	1	1	1	1	1	0	1	
mon	1	1	0	1	0	0	1	1
Tue	12	12 x	7.	12 x	2	2	4	1

Anderson	36	60 with	24.00		6	6	12	3
check	60							
Heber	24							
Berg	12							
Bu	12							
X	13							
	147							

Wire Anderson O-H
14 3/4 smooth

1.15 pd. Heber

Trenton Water Supply
Study 6-12-1934

Barometric Data

Place	Read.	Temp	Time
Town	4467		10:00 am
Anderson	4860		
	4845		
	4635		
	4565		

4515
4635
4565
70°

House

Wells at old Sanborn farm
temp of well 52°
Rock well
at anderson yard } 6 mile time

Rock Well water 964 deep
Temp 70°

June 12 - 1934

Trenton Water Supply

Water in drain about 1000' N E of Anderson house
flow estimated at 6 or 7 gal per min
temper. = 65°F

2 wells at Anderson
By house temp 52°
on about 12' lower 52°
no sample taken
} same test.

6-12-1934

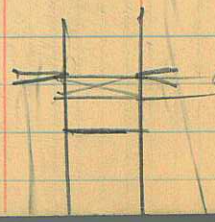
Crater Well or old rock well

June 11 - 1921

10.125
10.115
10.015

10.17

chalkmark



chalk mark on well

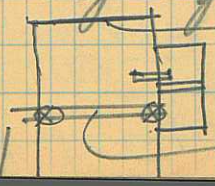
10.115
10.015
.100

10.115
10.015
10.100

~40
12

E side top concrete
W " " "
on H-O above control

Set Hook gage at zero.
and set Hydrograph at 0
also.



1 x 10 same one at 1933 see sector

concrete control
no wood on

80 ft

Study gage & flow
June 14 1934 at Hymn
Equalizing Reservoir.

Notes of July 17 1933 Elev.±

6.14 Top H2O Equal Res.
3.075 on slab 104.00±
BM 8.11 BM tube
9.635 on concrete Cont. E side
9.625 " " " W side
9.65 / 8.1 / 1.55 — 3.330 on finish nail in 1×8 upright
9.65 on pt of hook scale 0

June 14 - 1934 observations

BM 7.690 98.955
2.660
5.645 106.645
Q 6.1 C.F.S
9.235
2.92
9.21
9.215

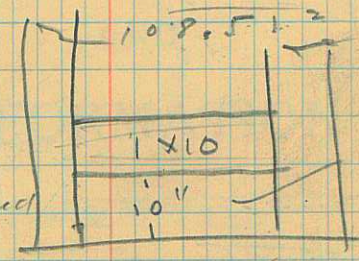
June 15 1934 approx Elev. of H2O in pond = 101.5
High wind blowing
Zero of scale approx -0.16 from finish nail in 1×8 upright

9.65
3.333
6.32
2.92
9.21

7.69
1.55
9.23

101.00
5.645
106.645
7.69
98.955

102.69
5.822
108.512

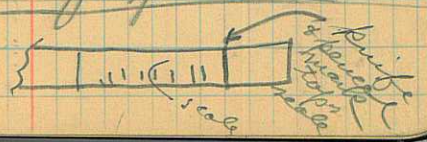


on bristwall supposed to be elev. 101.

old notes

on hook when scale reads zero
on finish nail in upright 1×8
on control W side
" " E "

Before check was made
Tag read 6 C.F.S control
board out of place



80 ft

Study gage & flow
June 14 - 1934 at Hyrum
Equalizing Reservoir.

Notes of July 17 1933 Elev.±

6.14 Top Hro Equal Res.
3.075 on slab 104.00±
Bm 8.11 Bm hub
9.635 on concrete Cont. E side
7.625 " " " W side
3.330 on brush nail on

9.65
8.11
1.54

$v = K\sqrt{2gh}$

.60
8
4.80

4.50 2.12
4
41 50
1 41
420 900

2.12
48
1696
8 x 8
10.18
.52
2036
5090
5.29

3.5
.15
175
35
5.25

9.65
3.33
6.32
2.92
9.24

7.69
1.54
9.23

PROVED TABLES
AND
NFORMATION