

W 159

9

FIELD BOOK

301A

CITY OF
SAN DIEGO, CALIFORNIA
ADDITIONAL WATER SUPPLY
MISSION GORGE RESERVOIR
400 FT. CONTOUR

12

KEUFFEL & ESSER CO.

DRAWING MATERIALS

AND

SURVEYING INSTRUMENTS.

NEW YORK.

CHICAGO. ST. LOUIS. SAN FRANCISCO. MONTREAL.

Tables for Excavations and Embankments.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.
FOR SINGLE TRACK EXCAVATION.

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

Calculated by Julien A. Hall, M. Am. Soc. C. E.

FOR KEITH'S RAILROAD CURVE TABLES SEE END OF BOOK.

12

CITY OF
SAN DIEGO, CALIFORNIA
ADDITIONAL WATER SUPPLY
MISSION GORGE RESERVOIR
400 FOOT CONTOUR

#159

MICROFILMED

JAN 8 1965

CITY OF SAN DIEGO.
Board of Water Commissioners
Room 320 McNeese Bldg.,
San Diego, California.

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400' Contour Mission Res.	3
Levels around Linda Lake	41
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MISSION GORGE RESERVOIR BASIN

Partial Survey of 400 Ft. Contour

	2.58	418.015		415.435
	3.19	415.02	6.185	411.830
	2.79	410.06	7.75	407.27
			1.48	408.58
	4.63	410.19	4.50	405.56
(BM) #1	3.50	403.50	10.19	400.00
2			3.50	"
3			3.50	"
4			3.50	"
5			3.50	"
6 T.P.	5.54	405.54	3.50	400.00
7			5.54	"
8			5.54	"
9			5.54	"
10			5.54	"
11			5.54	"
12 T.P.	2.84	402.84	5.54	400.00
13			2.84	"
14 T.P.	3.28	403.28	2.84	400.00
15			3.28	399.99
16			3.28	400.00
17			3.28	"
18 T.P.	4.12	404.12	3.28	400.00
19			4.12	"
20			"	"

Hayler, Level
Wueste, Rod

2-7-22 3

(By Spike in Pepper Tree)
Highway B.M. #3 NW Cor Broadway and Pared Highway

BM Top of 8d nail in top of rail. NE Cor of bridge

Just beyond W. end of Broadway and S. of Hawley's place

In road S of A Hawley's place

" " " " " "

At NW Cor of Barn

Head of Creek

At E+W Fence

At division line fence (Hawley's South fence)

At East R/W Fence S D + A Ry

☒ S D + A Ry Top of Tie

6 W of W Ret W Fence

		404.12			
21			4.12	400.00	✓
22				"	
23				"	
24				"	
25				"	
26				"	
T.P. 27	4.98	404.98	4.12	400.00	✓
28			4.98	"	
29				"	
T.P. 30	2.94	402.94	4.98	400.00	✓
31				"	
32				"	
T.P. 33	4.23	404.23	2.94	400.00	✓
34				"	
35				"	
36 B.M.			4.30	399.93	✓
T.P. 37	3.58	403.58	4.23	400.00	✓
38			3.58	"	
39				"	
T.P. 40	3.18	403.18	3.58	400.00	✓
41				"	
T.P. 42	2.85	402.85	3.18	400.00	✓
43				"	
T.P. 44	3.23	403.23	2.85	400.00	✓
45				"	

10' W of W.R. of W. fence

In drain at head

25' W of W. R. of W. fence

Head of drain

Head of drain

Head of drain

Head of drain at N+S fence

On rock near fence

At N+S fence

Head of drain

		403.23 ✓			
46 (No Sta 47)			3.23	400.00	✓
T.P. 48	5.29	405.29 ✓	3.23	400.00	✓
T.P. 49	4.55	404.55 ✓	5.29	400.00	✓
50			4.55	"	✓
51			"	"	✓
T.P. 52	2.57	402.57 ✓	4.55	400.00	✓
53			2.57	"	✓
54			"	"	✓
55	2.54	402.54 ✓	2.57	400.00	✓
56			2.54	"	✓
T.P. 57			2.54	400.00	✓

(See page 13 for continuation)
of Levels.

At angle in road (Thum Bros Blvd)

At division fence N.T.S.

Stadia Survey of 400' Contour.

Sta.	Az	Rod	Hor. Dist	Vert L	Elev
π @111A		(4.53)			360
B.S. on 110A	359°02'	2.99	300		
to 55 A	166°10'	7.03		+3°27'	400.00 ✓
π @55A		(4.47)		(Average 3°25'	419 401.9)
B.S. on 111A	346°10'	7.05		-3°23'	400.00
to 57	309°43'	5.15			400.00 ✓
	313°44'	5.48			390
to 56	301°17'	2.33			400 ✓
	316°00'	2.40			390
	47°54'	.50			"
to 54A	147°00'	3.42			400 ✓
π @54A		(4.45)			
B.S. on 55A	327°00'	3.42			
	95°51'	.50			390.0
to 53	202°28'	3.32			400.0 ✓
	187°32'	2.37			390.0
to 52	169°24'	4.85			400 ✓
	152°00'	2.83			390
to 51	148°57'	7.20			400 ✓
	136°32'	6.12			390
to 50	137°17'	7.25			400 ✓
	116°02'	7.10			390
to 49A	131°00'30"	8.55			
π @49A		(5.18)			
B.S. to 54	311°00'30"	8.55			

Haxler, Inst
Wueste, Rod

6

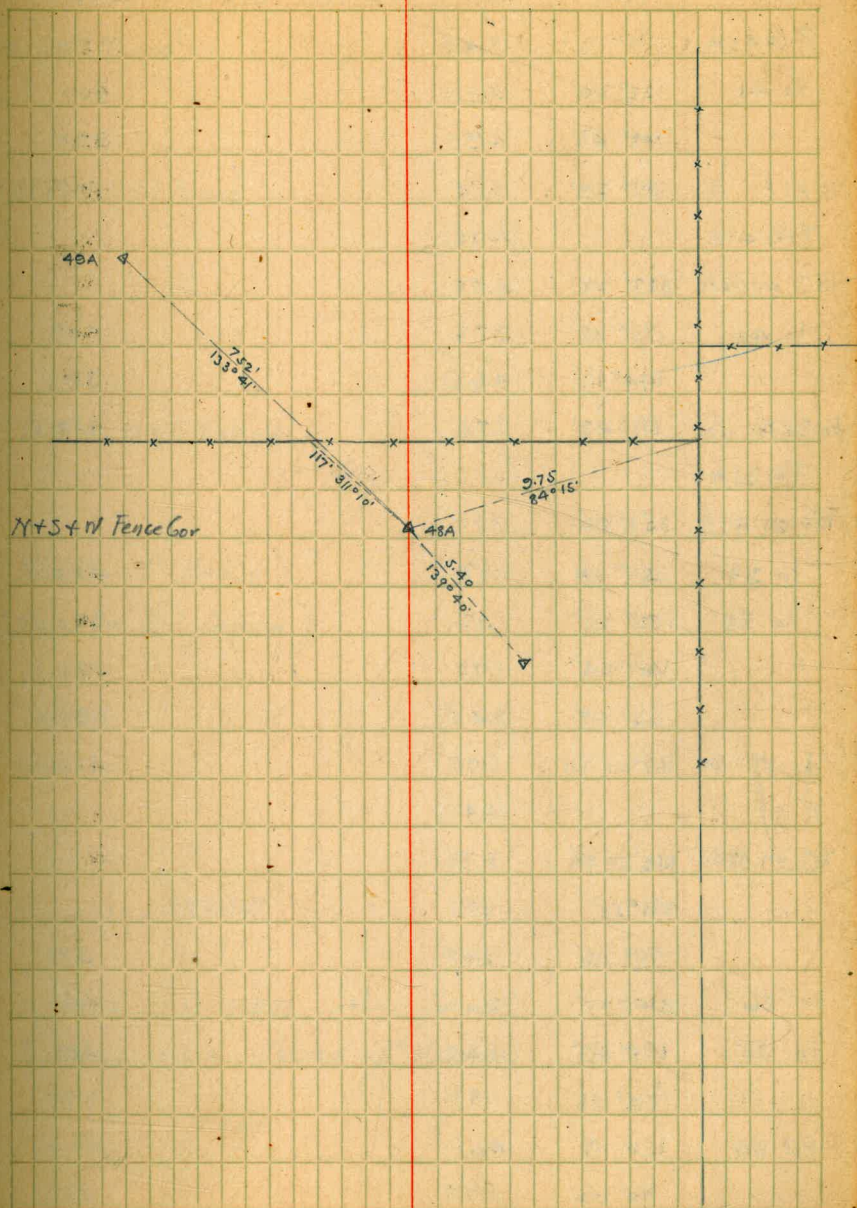
2-14-22

Sta. 111 A 360' Contour Survey See Book 2 p. 21

(At Division fence N + S)

(At Angle in road (Turn Bros Blind))

Sta	Az	Rod	Hor Dist	Vert Δ	Elev
T@49A Δ		(5.18)			
to 40	158° 28'	.63			400.00 ✓
	109° 04'	1.25			390.0
	30° 12'	2.42			"
to 48 Δ	134° 18' 30"	8.00			400.00 ✓
to 48A Δ	133° 41'	7.52			
T@48A		(4.27)			
B.S. to 49A	313° 41'	7.52			
E+W. Fence	311° 10'	1.17			400
	87° 00'	1.01			390
Fence Cor.	84° 15'	2.75		-2° 13'	
to 46	154° 33'	2.55			400 ✓
	117° 21'	3.25			390
to 45A Δ	139° 40'	5.30			400 ✓
T@45		(4.25)			
B.S. on 48A	319° 40'	5.30			
	72° 22'	1.78			390
to 44	150° 00'	2.07			400 ✓
	118° 42'	3.05			390
to 43	162° 55'	5.10			400 ✓
	143° 47'	5.65			390
to 42A Δ	156° 53'	7.85			400
T@42A		(4.53)			
B.S. on 45	336° 53'	7.85			
to 42	113° 05'	.90			400 ✓



Sta	Az.	Rod	Hor Dist	Vert X	Elev.
T@42A	95° 12'	3.40			390
to 41	122° 20'	3.18			400 ✓
	108° 45'	4.90			390
to 41A Δ	132° 29'	4.55			400
T@41A		(4.70)			
B.S. on 42A	312° 29'	4.55			
to 40	175° 35'	3.72			400 ✓
	144° 17'	4.65			390
to 38A Δ	178° 42'	7.75			400.6
T@38A		(5.05)			
B.S. on 41A	358° 42'	7.75			
to 39	285° 14'	1.52			400.0
to 38	32° 29'	.12			400.00
	40° 24'	1.90			390.0
	65° 43'	3.45			390.0
to 37 Δ	162° 50' 30"	5.78			400.00
T 37		(4.45)			
B.S. on 38A	342° 50' 30"	5.78			
	295° 53'	1.71		1° 57'	
	79° 06'	2.00			390
to 36	210° 10'	3.52			400 ✓
to 35	198° 43'	4.48			400 ✓
	154° 08'	1.93			390
to 34	150° 17'	4.65			400 ✓
	90° 02'	5.95			390

On N+S Fence

95' W of N+S Fence

72' W of N+S Fence

(Head of draw)

(At N+S fence)

Fence Cor N+S+E

On Rock B.M. 399.93 (Near fence)

At Fence N+S (Head of draw)

Sta	Az	Rod	Hor. Dist	Vert X	Elevation
$\pi@37$					
to 33 Δ	141° 08'	8.90			400.00
$\pi@33$		(4.27)			
BS on 37	321° 08'	8.90			
	39° 12'	2.35			390.0
	72° 55'	4.12			390.0
to 3 \checkmark	191° 59'	2.88			400.0
to 31	193° 54'	7.80			400
to 30A Δ	161° 15'	6.88			400
$\pi@30A$		(4.76)			
BS on 33	341° 15'	6.88			
	3° 53'	4.70			390
	22° 20'	2.62			390
to 30	323° 15'	0.15			400
	61° 20'	4.52			390
	81° 47'	5.20			390
to 29	156° 26'	5.60			400
	176° 41'	6.55			400
to 28	173° 39'	7.75			400
to 27 Δ	161° 33'	8.15			400
$\pi@27$		(4.15)			
BS on 30A	341° 33'	8.15			
to 26	171° 53'	2.85			400
to 25	208° 51'	4.70			400
to 24	177° 16'	4.52			400

(Head of draw)

West R. of W. Fence S.D.A. Ry.

(Head of draw)

2-16-22

(Head of draw)

Sta	Az.	Rod	Hor Dist	Vert &	Elev
T@27		(4.15)			
to 23	173°45'	5.62			400 ✓
to 22	186°13'	7.05			400 ✓
to 21	174°25'	7.30			400 ✓
to 20	175°03'	9.12			400 ✓
to 18A Δ	169°03'	7.82			
T@27					
to 19	123°24'	1.65			400 ✓
to 19A Δ	38°01'	2.95			398.96
T@19A		(3.32)			
B.S. on 27	218°01'	2.95			
☉ Track N	90°21'30"				
T@19A	90°23'	2.55			390.0
"	118°58'	3.50			390.0
"	148°32'	5.15			390.0
T@18A		(4.28)			
BS on 27	349°03'	7.82			
T@18A	357°54'	5.69			
"	356°20'	4.62			
"	354°16'	3.60			
"	350°37'	2.50			
"	342°47'	1.47			
"	308°04'	.55			
"	211°17'	.81			
"	193°03'	1.79			
"	185°02'30"	4.05			

40415
5.19
8.96

10

(25' W. of W. R. of W. fence)

(In draw at head.)

(10' W. of W. R/m fence)

(6' W. of W. R/m fence)

In ☉ of track SDARY (Top of Tie)

On tangent near N End of Curve

On tangent of SDARY ☉ North to Soutec

☉ of track On Curve

" " "

" " "

" " "

" " "

" " "

" " P.C. at S End

" " On Tangent

" " Intersection with E+W Fence
(Hanley's S. Line) " 11 "

Sta	Az.	Rod	Hor. Dist.	Vert x.	Elevation
π @18A					
to 18	308°13'	.21			400.0 ✓
	26°24'	4.45			390.0
	42°03'	3.28			390.0
	81°30'	5.40			390.0
	101°15'	5.96			390.0
	72°05'	5.42			390.0
	69°16'	4.36			390.0
	47°00'	4.32			390.0
	49°03'	5.40			390.0
to 17	103°14'	2.00			400.0 ✓
to 16	140°37'	4.91			400.0 ✓
to 15	122°10'	5.30			400.0 ✓
to 13A Δ	124°01'30"	6.85			400.0 ✓
π @13A		(4.50)			
B.S. on 18A	304°01'30"	6.85			
to 14	141°07'	0.13			400.0 ✓
to 13	125°17'	4.20			400.0
to 12	146°41'	7.00 ✓			400.0 ✓
to 11	159°10'	7.96 ✓			400.0 ✓
to 10	157°26'	9.50 ✓			400.0 ✓
to 9	150°34'	11.00 ✓			400.0 ✓
to 8	146°55'	13.40 ✓			400.0 ✓
to 7	142°59'	11.30 ✓			400.0 ✓
to 6	143°08'	9.90 ✓			400.0 ✓
to 5	131°50'	8.50			400.0 ✓
to 4	114°30'	9.15			400.0 ✓

4.95
99° 475 398.
750 796 670
1320 11
5.65
11.20

At E R. of W. Fence. $(SD + A. Ry) \frac{180}{24} = 7.5$
3.56 E

308
180
128
180
552 E

10.5' N of E+W Fence (Hanley's S Line)

On E+W Fence (At Division Line fence (Hanley's S fence))

(At E+W Fence)

(Head of Creek)

At NW Cor. of Barn

In Road (S. of A. Hanley's place)

Sta.	Az	Rod	Hor. Dist	Vert V	Elevation
π @13A					
to 3	106°44'	8.35			400.0 ✓
to 2	101°45'	6.62			400.0 ✓
to 1	91°06'	6.07			400.0 ✓
to 61 Δ	15°34'	3.87			400.0 ✓
π @61		(4.75)			
B.S. on 13A		3.85			
to 58	120°15'	5.30			400.0 ✓
to 59	122°03'	3.58			400.0 ✓
to 60	157°33'	1.15			400.0 ✓
to 62	359°06'	3.00			400.0 ✓
to 63	7°20'	4.54			400.0 ✓
to 64 Δ	66°01'	6.21			400.0 ✓
π @64		(4.75)			
B.S. on 61		6.21			
to 65	143°06'	2.91			400.0 ✓
to 66 Δ	121°52'30"	6.66			400.0 ✓
π @66		(4.78)			
B.S. on 64		6.66			
	175°49'	2.24			
to 67	71°47'	0.87			400.0 ✓
to 68	105°10'	4.71			400.0 ✓
to 69	110°09'	5.74			400.0 ✓
to 69A Δ	115°47'	5.95			
π @69A		(4.85)			
B.S. on 66		5.94			

See page 18 for continuation of line

In Road (S of A Hanleys place.)

(First beyond in etid of Rdw + S of Hanleys place 293)

Litz Transit 5223 2-24-22

N14-30E

Dedination 14°30'E

Waste-Mitte

(In Hanleys Barn yard)

(20' N.W. of N.W. Corner of Barn)

10' S of Stack of Raisin Trays.

N65°10'E

N65°15'E

S58°50'E

12.7' from N and S fence

(Hanley)

S59°10'E

(Note 66 & 67 apparently X N & S fence vineyard each side)

Fence Cor. bet. Ballantyna and Hanley Properties

(Ballantine)

S65°15'E

At edge of road near bridge

S65°20'E

Levels on 400 Contour from Hawley's ranch
North and East.

	1.09	401.09 ✓		400.00	
58			1.09	"	In Hawley's Barn Yard
59			"	"	
60			"	"	
61 T.P.	6.52	406.58 ✓	1.03	400.06 ✓	
62			6.58	400 ✓	
63			"	"	
64			"	"	
65 T.P.	4.28	404.20 ✓	6.66	399.92 ✓	
66			4.2	400	Hawley N+S Fence
67			4.2	400	Ballantyne
68			4.2	"	
69 T.P.	8.64	408.64 ✓	4.20	400.00 ✓	
70			8.64	"	
71			"	"	
69 1/2			"	"	
BM			.08	408.56 ✓	408.58
72			8.64	400.0 ✓	
73			"	"	
74 T.P.	6.97	406.97 ✓	8.64	400.00 ✓	
75			6.97	400.0	
76			"	"	
77			"	"	
78 T.P.	6.03	406.03 ✓	6.97	400.00 ✓	
79			6.03	400.	

Hawley, Level
Nuesfe. Rod

13

2-16-22

B.M. #1 See page 3
Just beyond W End of Bdwy + S. of A. Hawley's S. Line

26 NW of MW Gor Barn
S of Stack of Raisin Trays
Transit point

Vineyards each side of fence

Head of Wash

See page 3

In Hawley's vineyard

N+S
At fence between Hawley + Ballantyne

		406.03 ✓		
80			6.03	400
81			"	"
82			"	"
83			"	"
84			"	"
T.P.	4.41	403.07 ✓	7.37	398.66 ✓
85			3.07	400
86			"	"
87 T.P.			3.07	400.00 ✓
87 T.P.	3.71	403.71 ✓		400.00 ✓
88			3.71	400
89			"	"
90			"	"
91			"	"
92			"	"
93			"	"
94			"	"
95 T.P.	6.17	406.17 ✓	3.71	400.00 ✓
96			6.17	400
97			"	"
98			"	"
B.M.			3.205	402.965 (402.982) ✓
99			6.17	400 ✓
100			"	"

NW Cor of Vineyard surrounded by Eucalyptus row.

2-17-22

Head of draw W of paved road

At W End of Pipe under Paved Highway
Highway Corn. B.M. #5 Spike in Pepper Tree

		406.17 ✓		
101			6.17	400
102			"	"
103			"	"
104			"	"
105	T.P.	4.11	404.11 ✓	6.17 400.00 ✓
106			4.11	400
107			"	"
108			"	"
109			"	"
110			"	"
111			"	"
112	T.P.	5.97	405.97 ✓	4.11 400.00 ✓
113			5.97	400
114			"	"
115			"	"
116	T.P.	5.73	405.73 ✓	5.97 400.00 ✓
117			5.73	400
118			"	"
119			"	"
120	T.P.	2.53	402.53 ✓	5.73 400.00 ✓
121			2.53	400
122			"	"
123	T.P.	2.87	402.87 ✓	2.53 400.00 ✓
124			2.87	400
	T.P.	8.03	404.06 ✓	6.84 396.03 ✓

At West fence Paved Highway

10' W of W Edge Paved Highway

Top of Paved Highway (W. Edge) 100' ± N of E+W Fence
East of "

At Center S Side of House

		404.06 ✓		
125 T.P.	3.78	403.78 ✓	4.06	400.00 ✓
126 T.P.	2.05	402.05 ✓	3.78	400.00 ✓
127			2.05	400
T.P.	5.57	403.66 ✓	3.06	398.09 ✓
128			3.66	400
129			"	"
130 T.P.	3.90	403.88 ✓	3.68	399.98 ✓
131			3.88	400
132 T.P.	8.12	408.12 ✓	3.88	400.00 ✓
133			8.12	400
134 T.P.	4.48	404.48 ✓	8.12	400.00 ✓
135			4.48	400
136			"	"
137			"	"
138 T.P.	3.14	403.14 ✓	4.48	400.00 ✓
139			3.14	400
140			3.14	"
141 T.P.	6.75	406.75 ✓	3.14	400.00 ✓
142			6.75	400
143			"	"
144			6.40	400.38 ✓
T.P.	3.11	407.58 ✓	2.28	404.47 ✓
145			7.58	400
146 T.P.	4.42	404.42 ✓	7.58	400.00 ✓
147			4.42	400

In deciduous orchard

" " "

" " "

" " "

On W Edge Paved Highway

On E+W Fence Line

" " " "

Just NE of Quarry

On Rocky Point East of Santee

On Rock near 144

On Hill East of S Line of Standard Oil Co

Just S. of E+W fence

		404.42 ✓		
148			4.42	400
149 T.P.	3.32	403.29 ✓	4.45	399.97 ✓
150			3.29	400
151			"	"
152 ✓			"	"
153			"	"
154 T.P.	3.96	403.96 ✓	3.29	400.00 ✓
155			3.96	400
156 T.P.	0.17	400.18 ✓	3.95	400.01 ✓
T.P.	1.23	389.49 ✓	11.92	388.26 ✓
T.P.	2.30	378.97 ✓	12.82	376.67 ✓
B.M.			9.84	369.13 ✓
156 T.P.	621	406.22 ✓		400.01 ✓
157			622	400
158			622	400
159			622	400
160			622	400
T.P. 161	398	404.07 ✓	613	400.09 ✓
162			407	400
163			407	400
164			407	400
T.P. 165	480	404.86 ✓	401	400.06 ✓
166			486	400
167			486	400 ✓

See page 26 for cent. of levels

Head of draw
On Rock on Side Hill
On Point above Highway

County Highway B.M. #13 (369.155)

Wueste-Witte
3-1-22

In gully

Sta	Az	Rod	Hor-Dist	Vert v	Elev.
π @69A					
to 69 $\frac{1}{2}$	159°31'	1.27			400.0 ✓
to 70	142°48'	3.52			400.0 ✓
to 71	150°05'	1.25			400.0 ✓
	102°54'	0.68		+4°35'	
to 72	28°51'	1.01			400.0 ✓
to 73	348°15'	2.23			400.0 ✓
to 74	331°14'	3.00			400.0 ✓
to 75A Δ	331°33'	7.95			
π @75A		(4.75)			
B.S. on 69A		7.96			
to 75	243°59'	2.45			400.0 ✓
to 76	323°25'	3.35			400.0 ✓
to 77	331°56'	3.26			400.0 ✓
to 78	31°55'	4.16			400.0 ✓
to 79	244°5'	5.51			400.0 ✓
to 80	55°28'	5.93			400.0 ✓
to 81	30°07'	7.10			400.0 ✓
to 82	37°07'	9.65			400.0 ✓
to 83A Δ	57°49'30"	7.51			
π @83A		(4.75)			
B.S. on 75A		7.51			
to 83	26°29'	2.09			400.0 ✓
to 84	55°14'	4.03			400.0 ✓
to 84A Δ	64°03'	4.66			

Brought over from page 12

18

2-24-22

Wagstaff-Witt

In Creek (Head of Wash)

Fence Cor on fence running S from Sedge road

N of road

N29°30' W

N29°30' W

(in Hawley's Vineyard)

On N and S dividing fence bet Hawley and Salontyne

N56°20' E

N56°30' E

N62°40' E

Sta	Az	Rod	Hor Dist	Vert L	Elev.
π @ 84A		(4.75)			
BS. on 83A		4.66			
to 85	98°30'	3.21			400.0
to 86	347°35'	3.10			400.0
to 87A Δ	358°23'30"	4.30			
π @ 87A		(5.13)			
BS. on 84A		4.30			
to 87	272°09'	0.78			400.0
to 88	54°08'	2.00			400.0
to 89	86°30'	3.49			400.0
to 90	70°46'	3.74			400.0
to 91	84°46'	6.70			400.0
to 92	68°40'	6.30			400.0
to 93 Δ	55°16'30"	5.52			400.0
π @ 93A		(5.03)			
BS. on 87A		5.50			
to 94	37°04'	1.82			400.0
to 95	4°26'	4.06			400.0
to 96	60°22'	4.26			400.0
to 97	55°20'	5.35			400.0
to 98	59°05'	6.61			400.0
to 99	42°50'	4.98			400.0
to 100 Δ	31°42'	5.82			400.0
π @ 100A		(4.80)			
BS. on 93A		5.81			
to 101	88°40'	1.66			7000

N62°30'E

N3°15'W

N3°30'W

(N.W. Cor. of Vineyard Surrounded by Euc row)

(Head of draw W. of paved road)

N53°30'E

N53°50'E

(At W. end of Pipe under Paved Highway)

N30°15'E

N30°20'E

Sto	Az	Rod	Hor Dist	Vent V	Elev
π @ 100A					
to 102	5°20'	1.28			400.0
to 103	0°56'	3.11			400.0
to 104	14°24'	4.70			400.0
to 105A	8°41'	5.55			400.0
π @ 105A		(4.85)			
B.S. on 100A		5.55			
to 106	90°53'	1.26			400.0
to 107	322°50'	2.03			400.0
to 108	329°51'	3.05			400.0
to 109	33°40'	2.91			400.0
	20°20'	3.45			
to 110	19°53'	4.85			400.0
to 111A Δ	33°19'	4.28			
π @ 111A Δ		(4.85)			
B.S. on 105A		4.27			
to 111	62°00'	1.06			400.0
	183°33'	0.32			
to 112	67°11'	2.80			400.0
to 113	42°02'	4.96			400.0
	7°40'				
to 114A	45°24'	8.45			400.0
π @ 114A		(4.28)			
B.S. on 111A Δ		8.44			
	2°09'				
to 116	21°04'	4.46 ✓			400.0

N7°45'E

2-25-22 Westo

N8°10'E

Witto

on fence along W side Highway (at n. fence pared Highway)

(corner of n. edge of Pared Highway)

fence cor.

W edge pavement (Top of Pared Hwy. n. edge of E. n. fence ^{not n})

N32°40'E

(E of Pared Highway)

N33°00'E

fence cor.

E end gable of hsc on hill

N45°15'E

N44°50'E

gable of hsc on hill

Sta	Az.	Rod	Hor Dist	Vert ✓	Elev
π @ 114a					
to 117 Δ	4°43'	895			400.0
π @ 117a		(440)			
B.S. on 114A		894			
to 115	165°01'	750 ✓			400.0
	1°36'				
	220°37'	332			
	306°22'	278			
to 118	342°06'	3.01			400.0
to 119	335°17'	4.16			400.0
to 120 Δ	320°45'30"	5.71			400.0
π @ 120a		(473)			
B.S. on 117a		5.71			
	6°53'				
to 121	25°04'	161			400.0
to 122	353°31'	606			400.0
to 123 Δ	329°16'	861			400.0
π @ 123a		(445)			
B.S. on 120a		860			
	15°43'				
	294°04'	0.29			
to 124	309°52'	1.98			400.0
to 124A Δ	320°41'30"	3.31			
π @ 124Aa		?			
B.S. on 123a		330			
to 125 Δ	358°16'	4.78			400.0

N49°10'E

N3°45'E

gable of hse on hill

SE Cor Lot 1 Biki La Bonita Park Act (JE Hallinan)

NE Cor do. do. owner

N40-10W

N40-00W

gable of hse on hill

N31-25W 9.25' W of W edge pavement (18' wide)

N31-05W

gable of hse on hill

fence cor.

(At Center S. side of House)

N39-45W

N41-05W

N3-30W

Sta.	Az.	Rod	Hor. Dist	Vent L	Elev
π @125a		?			
BS. on 124Aa		478			
to 126A Δ	339°25'	5.05			
π @126Aa		?			
BS. on 125A		505.			
to 126	94°49'	0.30			4000
	32°32'				
to 127 Δ	346°55'30"	2.52			4000
π @127a		?			
BS. on 126Aa		2.52			
	37°03'30"				
to 130A Δ	359°37'30"	3.85			
π @130Aa					
BS. on 127a		385			
to 128	122°25'	2.53			4000
to 129	99°03'	2.37			4000
to 130	75°39'	0.39			4000
to 131 Δ	332°22'	2.88			4000
π @131a					
BS. on 130Aa		2.88			
to 132	345°45'	2.66			4000
	347°38'	4.10			
	347°50'	4.65			
to 133A Δ	347°19'	6.01			
π @133A					
BS. on 131		6.01			

N2-40W

N21-30W

N21-30W

Indeciduous orchard

gable of hse. on hill

N14-00W

N13°50'W

gable of hse on hill

N1-10W

N1-00W

(In deciduous orchard)

" " "

" " "

N28°15'W

N28°15'W

on E and W fence of Gordon property

N Line Gordon property (S line street)

S Line Fox property (N line street)

N13°25'W

N17°20'W

3-1-22

Wueste-Witte

Sta	Az	Rod	Hor. Dist	Vert v	Elev.
Δ @ 133A					
to 133	7°00'	1.79			✓ 400.0
to 135A	0°25'	7.91			✓
Δ @ 135A					✓
B.S. on 133A		7.91			✓
	96°35'				✓
	347°02'				✓
to 134	167°18'	2.95			✓ 400.0
	165°40'	2.96			✓
to 135	161°39'	2.42			✓ 400.0
	135°43'	0.43			✓
to 136	110°20'	0.91			✓ 400.0
to 137	18°22'	4.03			✓ 400.0
to 138	16°17'	5.26			✓ 400.0
to 139	4°44'	8.70			✓ 400.0
to 140 Δ	359°55'30"	10.63			✓ 400.0
Δ @ 140A					✓
B.S. on 135A		10.62			✓
	344°23'				✓
	127°13'				✓
to 141	12°10'	4.43			✓ 400.0
to 142	5°01'	7.45			✓ 400.0
to 144 A	0°06'30"	10.30			✓
Δ @ 144 A					✓
B.S. on 140		10.30			✓
to 143	160°25'	2.12			✓ 400.0

N4°05'W
 14 ft W of N. & S. Fence Edge of road
 N0°30'W
 gable of hsc on hill
 Standpipe in river
 on N line Fox property
 NE Cor Fox and SE Cor Simpson-Pinnie properties
 Wedge pavement (Highway)
 Fence Cor.
 on fence line (E & W) ✓
 on E & W fence ✓
 N0°50'W (Just N.E. of Quarry).
 N0°45'W
 Standpipe in river
 gable of hsc on hill
 N0°30'W
 N2°30'W

Sta	Az.	Rod	Hor Dist	Vert	Elev.
Λ @ 144A	340°32'			✓	
to 144	304°30'	0.08		✓	400.0
to 145A	16°37'	2.14		✓	
Λ @ 145A				✓	
BS on 144A		2.13		✓	
to 145	152°55'	0.23		✓	400.0
	343°05'			✓?	
	318°00'			✓	
	5°50'			✓	
	342°45'	104		✓?	
to 146 Δ	78°47'	4.04		✓	400
Λ @ 146A		(487)		✓	
BS on 145A		4.03		✓	
	279°39'			✓	
	307°45'			✓	
	333°06'			✓	
	5°08'	0.78		x	390.0
to 147	83°48'	5.49		✓	400.0
	67°41'	5.25		x	390.0
to 148 Δ	67°11'	7.55		✓	400.0
Λ @ 148A		(4.75)		✓	
BS on 146		7.55		✓	
	284°53'	1.44		x	390.0
	340°53'	3.25		x	390.0
to 149 Δ	354°07'30"	1.55		✓	400.0

Standpipe in river					
(On Rocky Point East of Santee)					
N 14-00 E					
N 16-00 E					
(On hill East of S. Line of Standard Oil Co.)					
Standpipe in river					
SW cor Standard Oil Co's property					
SE cor do do					
Intersection of fences meeting diagonally S side highway					
N 78-00 E					
103' S of fence diagonally above (E+W)					
N 80-00 E					
SW cor Standard Oil Co's property					
SE cor do do					
Standpipe in river					
opp. 146					
opp. 147					
N 68-30 E					
N 66-30 E					
opp. 148					
opp. 149					
N 6°36' W					

Sta	Az	Red	Hor Dist	Vert. V	Elev.
π @ 149a		(4.75)		✓	
B.S. on 148		1.55		✓	
	39°20'	4.80		x	390.0
to 150 Δ	49°23'	3.98		✓	400.0
π @ 150		(4.85)		✓	
B.S. on 149		3.98		✓	
to 151	103°10'	2.65		✓	400.0
to 152	95°13'	3.71		✓	400.0
to 153	55°03'	2.89		✓	400.0
	55°03'	2.31		x	390.0
	19°14'30"			✓	
to 154	32°42'	4.96		✓	400.0
	28°09'	4.92		x	390.0
to 155A Δ	31°37'	5.93		✓	
π @ 155A Δ		(4.70)		✓	
B.S. on 150		5.93		✓	
	18°21'			✓	
to 155	103°25'	0.20		✓	400
	333°53'	0.32		x	390
to 156 Δ	85°56'30"	1.12		✓	
π @ 156		(4.95)		✓	
B.S. on 155A		1.12		✓	
	27°-00'	0.77		x	390
to 157	109°55'	3.81		✓	400
	98°25'	3.90		x	390
to 158	110°17'	6.25		✓	400

for continuation see page 31

N 6-45 W
opp 150
N 48°30' E

N 49°-5' E

(Head of draw)
(on rock on Side hill)

opp 153

W. Goble on Johnson hsc

(on point above highway)

N 31°05' E

Wueste-Witte 3-4-22

N 31-00 E

W. Goble Johnson hsc

opp 155A

N 85-30 E

N 85-30 E

opp 156

opp 157

Brought over from page 17

26

404.86 ✓

			486	400	
			486	400	
T.P.	170	288	402.91 ✓	483	400.03 ✓
			291	400	
			291	400	
			291	400	
			291	400	
T.P.		10.97	409.93 ✓	295	398.96 ✓
			993	400	
			993	400	
T.P.	178	1239	412.39 ✓	993	400.00 ✓
			1239	400	
T.P.	180	1186	411.82 ✓	1243	399.96 ✓
			1182	400	
T.P.	182	10.17	410.16 ✓	1183	399.99 ✓
			1016	400	
			1016	400	
			1016	400	
T.P.	186	438	404.42 ✓	1012	400.04 ✓
T.P.	187	452	404.52 ✓	442	400.00 ✓
			452	400	
T.P.	189	1063	410.63 ✓	452	400.00 ✓
			1063	400	
			1063	400	

Wueste-Wite 3-2-22.

on fence line: Dr. Leann's Mine

In wash

S of Dr. Leann's Hse.

		410.63 ✓		
T.P. 192	200	402.01 ✓	106.2	400.01 ✓
	273	393.65 ✓	11.09	390.92 ✓
			82.7	385.38 ✓
	1103	411.04 ✓		400.01
193			11.04	400.
194			11.04	400
T.P. 195	576	411.77 ✓	503	406.01 ✓
196			11.77	400
197			11.77	400
T.P. 198	660	406.60 ✓	11.77	400.00 ✓
199			15.60	391.0
200			6.60	400.
T.P. 201	1195	411.95 ✓	6.60	400.00 ✓
202			11.95	400
T.P. 203	820	408.19 ✓	11.96	399.99 ✓
204			8.19	400
T.P. 205	1133	411.33 ✓	8.19	400.00 ✓
206			11.33	400
207			11.33	400
T.P. 208	444	404.43 ✓	11.34	399.99 ✓
209			4.43	400
210			4.43	400
T.P. 210	5.98	406.03 ✓	4.38	400.05 ✓

In wash
 Edge quarry
 Bottom quarry footventside
 In quarry
 Edge quarry

on fence line Waste-Wife 3-3-22

W line Magnolia Ave

		406.03 [✓]		
	211		6.03	400
	212		6.03	400
	213		6.03	400
T.P.	214	6.74	406.33 [✓]	5.94
	215		6.33	400
	216		6.33	400
	217		6.33	400
	218		6.33	400
T.P.	219	7.79	407.85 [✓]	6.27
	220		7.85	400
	221		7.85	400
	222		7.85	400
	223		7.85	400
	224		7.85	400
T.P.		6.04	410.85 [✓]	3.04
	225		10.85	400
	226		10.85	400
T.P.	227	5.31	405.40 [✓]	10.76
	228		5.40	400
T.P.	229	4.01	404.93 [✓]	5.38
	230		4.03	400
	231		4.03	400
T.P.	232	2.94	402.93 [✓]	4.04
	233		2.93	400
	234		2.93	400

on E & W fence
 on N & S fence
 In yard S of Riverview School

In wash
 In wash

Along flume line
 In wash
 on fence line W side N & S Road
 do E side do
 In olive orchard
 do do
 do do

Near pump house

		40293		
235			293	400
236			293	400
T.P. 237	498	404.99	292	400.01 ✓
238			499	400
T.P. 239	2215	402325	488	400.11 ✓
			8185	394.14 ✓
T.P. 239	779	407.90		400.11 ✓
240			790	400
○	050	407.54	086	407.04 ✓
241			754	400
○	469	403.78	845	399.09 ✓
242			378	400
○	487	403.96	469	399.09 ✓
243			396	400
○	468	404.76	388	400.08 ✓
245			476	400
○	544	404.72	548	399.28 ✓
247			472	400
248			472	400
○	365	403.66	471	400.01 ✓
			329	400.37
○	413	404.14		400.01 ✓
250			414	400

In olive orchard (Shreve Ranch)

= B.M. 20 E / 394.176

(Near front entrance of Shreve Ranch)

On E fence line Shreve property

T.P. should not have been numbered

On E fence of school property

S edge pavement

= B.M. 21 E / 400.356

404.14

251			4.14	400
252			4.14	400
253	3.79	403.87	4.06	400.08 ✓
254			3.87	400
255			3.87	400
256	5.27	404.68	4.46	399.41 ✓
257			4.68	400
258			4.68	400
259			4.68	400 ✓
B.M.	5.51	402.55	7.64	397.04 ✓
261			2.55	400
261	5.52	405.53	2.54	400.01 ✓
261	4.77	405.57	4.73	400.80 ✓
260			5.57	400 ✓
260	4.73	405.53	4.77	400.80 ✓
260	9.48	409.49	5.52	400.01 ✓
262			9.49	400 ✓
263			9.49	400 ✓
263			9.97	399.52 ✓
264			9.49	400 ✓
265	5.77	405.79	9.47	400.02 ✓
266			5.79	400 ✓
267	6.47	406.53	5.73	400.06 ✓
268			6.53	400 ✓

For continuation see page 41

On fence S side Street

On fence (W&S) W side River Street
In street (River Street)

On fence line
E side River Street
= RR spike in phone pole at depot

W side Main Street 3-16-22
Wueste-Witte

on lot line of lots betw Lindo & Main Streets

E line Main street

= W.S. Lindo Lake 3-16-22

Outside edge Racetrack fill

South line Street

W side Street

On E & W fence

Sta	Az	Rod	Hor. Dist	Vert L	Elev.
π @ 156					
to 159	98°25'	7.02		✓	400
to 160	104°09'	7.40		✓	400
to 161 Δ	98°01'	7.40		✓	400
π @ 161 Δ		(4.80)		✓	
B.S. on 156		7.42		✓	
	350°06'	2.09		×	390
to 162	95°19'	1.46		✓	400
to 163	71°25'	5.19		✓	400
to 164	54°21'	8.00		✓	400
to 165 Δ	39°45'30"	9.10		✓	400
π @ 165 Δ		(4.95)		✓	
B.S. on 161		9.10		✓	
	8°30'			✓	
	194°25'	1.88		×	390
	289°46'	0.84		×	390
to 166	85°11'	0.88		✓	400
to 167	5°43'	0.37		✓	400
to 168	20°01'	2.26		✓	400
	341°51'			✓	
to 169 Δ	6°35'30"	4.73		✓	400
π @ 169 Δ		(4.85)		✓	
B.S. on 165		4.74		✓	
	195°26'	2.60		×	390
	278°57'	1.94		×	390
	314°43'			✓	

In wash (gully)

S82°20'E

S80°00'E

opp 161

N42°00'E

N39°50'E

gable on Johnson hse

In wash

In wash

In wash

top round hill (island above 400' cont)

N6°45'E

N6°10'E

opp 169

top round hill (island above 400' cont)

Sto	Az	Rod	HorDist	Vert ✓	Elev.
π@169					
to 170	18°17'	244		✓	400
to 171	21°04'	290		✓	400
	8°37'			✓	
to 171 A	11°40'	361		✓	
π@171A				✓	
BS on 169		360		✓	
to 172	165°07'	160		✓	400
to 173	143°37'	188		✓	400
to 174	126°32'	131		✓	400
to 175	31°52'	089		✓	400
	33°00'	018		×	390
	8°26'				
to 176A	17°17'	247		✓	
π@176A					
BS on 171A		248		✓	
to 176	210°02'	026		✓	400
	257°42'	049		×	390
	8°03'			×	
to 177A	22°42'	132		✓	400
π@177A		(4.77)		✓	
BS on 176A		132		✓	
	327°48'	033		×	390
	7°43'			×	
	1°55'			✓	
to 178A	49°23'30"	239		✓	400

gable on Johnson hsq

N11°30'E

N11°05'E

In quarry

In quarry

In wash

= floor of quarry

gable of Johnson hsq

N16°45'E

N16°40'E

gable on Johnson hsq

N22-00 E

N22-30 E

opp 177

gable on Johnson hsq

Dr. Learn NW fence Cor.

N49°15'E

1165
485
680
320
1050
805

Sta	Az	Rod	HorDist	Vert	✓	Elev
π @178 _A		(4.55)				
BS on 177		2.39				
	342°14'	0.29			x	390
	321°07'				✓	
	6°02'				✓	
to 179 _A	57°46'	1.23			✓	
π @179 _A					✓	
BS on 178		1.24			✓	
	297°36'				✓	
to 179	60°41'	0.77			✓	400
	40°49'	0.88			x	390
	5°00'				x	
to 181	61°09'	6.75			✓	400
π @181 _A		(4.45)			✓	
BS on 179 _A		6.75			✓	
	358°33'				x	
to 180	224°43'	2.61			✓	400
	233°26'	2.75			x	390
	331°22'	0.40			x	390
to 186	55°55'30"	9.68			✓	400
π @186 _A					✓	
BS on 181		9.70			✓	
to 182	232°53'	6.75			✓	400
to 183	222°33'	5.16			✓	400
to 184	174°42'	4.10			✓	400
to 185	171°19'	2.73			✓	400

N48°50'E

opp 178

Dr Learn NW fence Cor.

gable on Johnson hse

N57°20'E

N57°30'E

Dr Learn fence Cor.

opp 179

gable on Johnson hse

N60°45'E

N60°45'E

Gable on Johnson hse

Johnson's W line fence ✓

opp 180

opp 181

N55°30'E (Saf Dr Learn's house)

N55-00 E

Wueste-Witt 3-7-22

In wash ✓

Sta.	Az	Rod	Hor Dist	Vert. L	Elev.
π @ 186					
to 187	342°43'	270		✓	400
to 187A _Δ	350°42'30"	354		✓	
π @ 187A				✓	
B.S. on 186		352		✓	
to 188	3°19'	252		✓	400
	348°03'			✓	
to 189A _Δ	2°22'	452		✓	
π @ 189A _Δ				✓	
B.S. on 187A		452		✓	
to 189	72°14'	013		✓	400
	346°20'			x	
to 190 _Δ	28°11'	264		✓	400
π @ 190 _Δ				✓	
B.S. on 189A		264		✓	
	343°30'			✓	
to 191	66°44'	170		✓	400
to 192 _Δ	51°11'30"	260		✓	400
π @ 192 _Δ				✓	
B.S. on 190 _Δ		260		✓	
to 193A _Δ	63°07'30"	086		+ 5°40' ✓	
π @ 193A _Δ				✓	
B.S. on 192 _Δ		084	✓	Level ✓	
	338°06'			x	
to 194A _Δ	70°04'30"	137		✓	

N10-20W

N10-30W

gable on Johnson hsc

N1°15'E

N1°45'E

gable on Johnson hsc

N27-30E

N27°30'E

gable on Johnson hsc

N50-30E

N50-30E

N62-20E

N62-30E

gable on Johnson hsc

N69°30'E

Sta	Az	Rod	Hor Dist	Vert V	Elev
π @ 194A				✓	
B.S. on 193A		138		✓	
to 193	252°41'	130		✓	400
to 194	351°51'	0.08		✓	400
to 195	83°37'	1.91		✓	400
	335°51'			x	
to 200A	80°41'	5.75		✓	
π @ 200A				✓	
B.S. on 194A		5.75		✓	
to 196	229°35'	2.82		✓	400
	240°28'	2.43		✓	
to 197	233°33'	2.04		✓	400
to 198	221°55'	2.27		✓	400
to 199	207°30'	1.72		✓	400
to 200	69°51'	0.22		✓	400
	327°08'30"			✓	
	355°1'			x	
to 201	87°40'	1.30		✓	400
to 201A	74°55'30"	1.03		✓	
π @ 201A				✓	
B.S. on 200A		1.03		✓	
to 202	123°50'30"	1.88		✓	400
π @ 202				✓	
B.S. on 201A		1.88		✓	
to 204	146°15'	2.09		✓	400
to 208A	127°20'	8.25		✓	

N70-30E

gobble on Johnson house

N81-00E

N80°30'E

In wash.

on fence line (probably Dr. Leorn's E line)

In wash. (edge of Quarry)

In quarry (Bottom of "foot Vert Side")

In quarry ✓

gobble of Johnson house

River view wall

N74-55E

N74-55E

S56°00'E

S56-00E

S52°30'E

Sta	Az	Rod	HorDist	Vert V	Elev
π @208A					
B.S. on 202		825			
to 203	305°55'	751		✓	400
to 204	301°11'	635		✓	400
to 205	291°40'	466		✓	400
to 206	279°46'	480		✓	400
to 207	259°50'	375		✓	400
to 208	222°27'	389		✓	400
to 209	151°32'	348		✓	400
to 210	130°41'	475		✓	400
to 211	95°40'	595		✓	400
to 212	90°23'	761		✓	400
to 213 Δ	87°38'	1130		✓	400
π @213 Δ				✓	
B.S. on 208A		1130		✓	
	333°42'			✓	
to 214	105°42'	241		✓	400
to 215	68°35'	465		✓	400
to 216 Δ	70°02'	700		✓	400
π @216 Δ				✓	
B.S. on 213a		700		✓	
	262°26'	246		✓	
to 217	184°28'	337		✓	400
to 218	166°18'	514		✓	400
to 219	153°57'	570		✓	400
to 220	153°52'	725		✓	400

S52°10'E

on E & W fence line ✓

in wash

W line Magnolia Ave ✓

on E & W fence line ✓

on N & S fence line ✓

N88-00E (In Vineyard S. of Riverview School)

N87-10E

Riverview well

N69°30'E

N69°30'E

fence cor (fences running E & N) E side Riverview Ave

in wash ✓

Sto	Az	Rod	Hor Dist	Vert V	Elev
π @216a					
to 221	147°13'	881		✓	400
to 222	121°32'	520		✓	400
to 223	97°59'	4.65		✓	400
to 224	92°13'	6.75		✓	400
to 224 A	103°34'	7.14		✓	
π @224A				✓	
BS. on 216a		7.14		✓	
	309°25'			✓	
to 225	71°30'	2.33		✓	400
to 226 A	122°08'	7.39		✓	
π @226A				✓	
BS. on 224A		7.39		✓	
to 226	274°34'	3.36		✓	400
to 227	215°36'	3.56		✓	400
to 228	168°49'	2.32		✓	400
to 229	154°09'	2.39		✓	400
to 230	149°49'	3.60		✓	400
to 231	124°08'	5.00		✓	400
to 232	81°21'	5.48		✓	400
to 233	68°21'	6.12		✓	400
to 234	76°05'	8.00		✓	400
to 235	60°06'	8.35		✓	400
to 237	33°17'	11.95		✓	400
π @237				✓	
BS. on 226A		11.10		✓	

In wash ✓

S76-50E

S76-45E

Riverview well

S58°15'E

S58°10'E

(Along fence line)

(in wash)

W side "County Road" (N+S. - on fence line)

E side do do

In olive grove ✓

do do ✓

do do ✓

N60°W well

(Pump House)

N33-00E

(in Olive Orchard Shreve Ranch)

N32-45E

Wueste-White 3-8-22

Very windy

Sto	Az	Red	Hor Dist	Vert V	Elev
π @237a					
to 236	153°13'	190		✓	400
to 238A Δ	356°24'30"	291		✓	
π @238A Δ				✓	
BS on 237a		291		✓	
to 238	124°37'	141		✓	400
to 239	358°46'	204		✓	400
to 239A Δ	38°54'	206		+4°54' ✓	
π @239A Δ				✓	
BS on 238A Δ		205		✓	
to 240	333°55'	163		-6°55' ✓	400
	284°24'			✓	
	62°22'			✓	
to 241A Δ	91°02'30"	386		✓	
π @241A Δ				✓	
BS on 239A		387		✓	
to 241	310°54'	190		✓	400
to 242	12°10'	150		-7°53' ✓	400
to 243	44°31'	380		✓	400
to 244A Δ	65°42'	333		✓	
π @244A Δ				✓	
BS on 241A		332		✓	
to 244	32°15'	126		-10°10' ✓	400
to 245A Δ	70°25'30"	142		-7°00' ✓	
π @245A Δ				✓	
BS on 244A		145		✓	

N4-05W

N4°05'W

N38°30'E

N38°30'E

(Near front Entrance Thiere Ranch)

Riverview well

Lakeside church

589°10'E

589°15'E

N65-20E

N65°30'E

N70°10'E

N70-00E

Sta	Az	Rad	Hor Dist	Vert	Elev
π @ 245A					
to 245	356°58'	0.39		✓	400
	351°40'	1.40	✓	✓	
to 246A	90°38'	3.26	✓	✓	
π @ 246A				✓	
B.S. on 245A		3.26		✓	
	267°46'	2.59		✓	
to 247	165°56'	1.38	✓	✓	400
to 248	167°11'	4.72		✓	400
To Lower Otay to commission Res.					
π @ 246A					
B.S. on 245A		3.26			
to 249	41°23'	3.72		✓	400
to 250	58°08'	7.60		✓	400
to 251A	32°28'	7.92		✓	400
π @ 251A				✓	
B.S. on 246A		7.92		✓	
	271°08'			✓	
to 252	344°23'	1.31		✓	400
	16°29'	1.80		✓	
to 253	341°37'	2.37		✓	400
to 253A	340°42'	2.50		✓	
π @ 253A				✓	
B.S. on 251A		2.49		✓	
to 254	44°41'	1.82		✓	400
	84°27'			✓	

on Shrove property E fence line (vs street line)
Shrove NE Cor (also S line highway)

S89°45'E

S89°30'E

E street line

on N 85 fence (probably E line of a street)
(on E fence of School Property)

Mueste - Villa 3-16-22

S89°30'E

Sedge pavement

N32°10'E

N 32°05'E

River view wall?

Probably in E 8 W street (on fence 2 side street)

Lot Cor on N side street Park 250' W of Lindo Street

N19°30'W

N19°25'W

Lakeside Church

Sta	Az	Rod	Hor Dist	Vert \checkmark	Elev.
π @253A Δ					
to 255	29°39'	335		\checkmark	400
to 259A Δ	17°36'	851		\checkmark	
π @259A Δ				\checkmark	
B.S. on 253A Δ		850		\checkmark	
to 256	175°12'	222		\checkmark	400
to 257	171°27'	163		\checkmark	400
to 258	296°21'	056		\checkmark	400
to 259	29°29'	061		\checkmark	400
to 260A Δ	43°10'	240		\checkmark	
π @260A Δ				\checkmark	
B.S. on 259A Δ		240		\checkmark	
to 260	170°40'	142		\checkmark	400
	257°12'	151		\checkmark	
	83°07'	152		\checkmark	
to L-1-A Δ	122°19 $\frac{1}{2}$ '	700		\checkmark	
π @L-1-A Δ				\checkmark	
B.S. on 260A Δ		700		\checkmark	
L-1	170°42'	037		\checkmark	400
L-2	176°20'	455		\checkmark	400
to L-3A Δ	164°29 $\frac{1}{2}$ '	663		\checkmark	
π @L-3-A Δ				\checkmark	
B.S. on L-1-A Δ		666		\checkmark	
L-3	2°55'	188		\checkmark	400
L-4	163°39'	263		\checkmark	400
L-5	93°02'	223		\checkmark	400

Cont. on page 44

125 192
25730 700

N17°30'E

In Lindo Street

N16°00'E

W line Lindo Street (on N + S fence W side River Street)

(In River Street)

on E $\&$ W line S side triangular lot adjacent RR R of W.

on E line Lindo Street (River Street)

N41°30'E

Wueste-Wille 3-21-22.

N43°20'E In sidewalk practically on Nly ext lot line.

on lot line betw. Lindo $\&$ Main Sts.

NW Cor. Bk (Lindo opp RR Sta)

NE Cor. Bk (Main (paved street) $\&$ RR Sta)

S57°30'E •

S57°30'E

S15°10'E

S15°00'E

Brought over from page 30

41

		406.53 ✓		
269			653	400
○ 270	559	405.65	647	400.06 ✓
○ 271	621	406.49 ✓	537	400.28 ✓
○ 272			645	400.04 ✓

Levels around Lindo Lake (SE 1/4)

	9.07	409.08 ✓		400.01
			937	399.71 ✓
L-1			908	400 ✓
○ L-2	629	406.30	907	400.01 ✓
L-3			630	400
L-4			630	400
L-5			630	400
○ L-6	881	408.88	628	400.02 ✓
L-7			883	400
L-8			883	400
L-9			883	400
L-10			883	400
L-11			883	400
L-12			883	400
L-13			883	400
L-14			883	400
L-15			883	400
L-16			883	400
○ L-17	9.00	409.05	878	400.05 ✓

Thorn cactus Ranch

Bank of River

Wuesto-Witte 3-17-22

Sta 261 W side Main St.

N.S. Lindo Lake 3-17-22

		409.05			
L-18			905	400	
L-19			905	400	
o L-20	848	408.53	900	400.05	✓
L-21			853	400	
o L-22	779	407.80	852	400.01	✓
L-23			780	400	
L-24			780	400	
o	5.39	411.10	209	405.71	✓
L-25			1110	400	
L-26			1110	400	
L-27			1110	400	
L-28			1110	400	
o L-29	463	404.66	1107	400.03	✓
L-30			466	400	
o L-31	732	407.34	464	400.02	✓
L-32			734	400	
L-33			734	400	
L-34			734	400	
L-35			734	400	
L-36			734	400	
o L-37	585	405.92	727	400.07	✓
L-38			592	400	
L-39			592	400	
L-40			592	400	
o L-41	465	404.62	595	399.97	✓

407 257 595 42
463 185 465

Along eucalyptus Grove
do. do.

404.62

L-42			462	400
L-43			462	400
L-44			462	400
o L-45	5.65	405.67	460	400.02 ✓
L-46			567	400
L-47			567	400
			559	400.08 ✓

Levels Around Lindo Lake (NEly)

	808	408.09		400.01
L-48			809	400
L-49			809	400
o	443	407.05	547	402.62 ✓
L-50			705	400
L-51			705	400
L-51A			705	400
L-52			705	400
L-53			705	400 ✓
o	486	406.62	529	401.76 ✓
L-54			662	400
L-55			662	400
o L-37 (see page 42)			659	400.03 (400.07) ✓

460

43

on N 85 fence line
 on N side street
 = Sta 267 TP EL. 400.06 See page 30

Muestra Witte 3-17-22

Sta. 261 W side Main St.
 (NEly from L-1 (Defining banked roadway on)
 lower side Lindo Lake.)

on lakeside of roadway
 on lake side of roadway
 outer edge banked roadway (8' of fence line
 on lake side banked roadway [of street]
 outer side roadway [(Laund)]

lake side roadway 9' NW from Sta L-39
 outer edge roadway 17' NW from Sta L-40
 Note: Outlet to Lindo Lake marked by
 stations L-39, L-40, L-54, L-55. Parallel to L-39, L-40

Sta	Az	Rad	Hor Dist	Vert	Elev
Brot over from page 40.					
π @L-3-A _a					
to L-6-A _a	138°11'	408		✓	
π @L-6-A _a					
BS on L-3A _a		408			
to L-6	16°26'	107		✓	400
to L-7	121°11'	134		✓	400
to L-8	183°12'	217		✓	400
to L-9	153°44'	310		✓	400
to L-10	146°00'	490		✓	400
to L-11	100°10'	318		✓	400
to L-13	49°59'	336		✓	400
to L-14	30°56'	390		✓	400
to L-15	79°30'	516		✓	400
to L-16	66°46'	479		✓	400
to L-16A _a	73°25'	470		✓	
π @L-16A _a					
BS on L-6A _a		470			
to L-12	189°56'	161		✓	400
to L-17	106°00'	186		✓	400
to L-18	73°24'	242		✓	400
to L-18A _a	76°28'	267		✓	
π @L-18A _a					
BS on L-16A _a		267			
to L-19	99°04'	125		✓	400
to L-19A _a	97°29'	093		✓	

S41°20'E

S41°10'E

N74-00E

N74-30E

N77°30'E

N77°30'E

S81°30'E

Sta	Az	Rod	Hor Dist	Vert L	Elev
π@L-19A _Δ					
BS on L-18A _Δ		093			
to L-20A _Δ	124°33'	240		✓	
π@L-20A _Δ					
BS on L-19A _Δ		241			
to L-20	7°30'	015		✓	400
to L-21	168°43'	170		✓	400
to L-22	124°57'	329		✓	400
to L-24A _Δ	115°13'	456		✓	
π@L-24A _Δ					
BS on L-20A _Δ		457			
to L-23	223°30'	124		✓	400
to L-24	308°17'	012		✓	400
to L-25A _Δ	111°35'	352		✓	
π@L-25A _Δ					
BS on L-24A _Δ		350			
to L-25	89°56'	054		✓	400
to L-26	135°34'	159		✓	400
to L-27	91°07'	420		✓	400
to L-28A _Δ	99°40'	600		✓	
π@L-28A _Δ					
BS on L-25A _Δ		600			
	176°33'	108		✓	
to L-28	71°51'	140		✓	400
to L-29	6°09'	522		✓	400
to L-30A _Δ	349°31'	694		✓	

581-30E

554°20'E₁

554-15E

563-30E

563-30E

567°15'E

567-00E

578°50'E

579°-00'E

Junction of fences running S 80° E (S side Monte road)
 [(NE Cor Ross property)]

19°-00'W

Sta	Az	Rod	Hor Dist	Vert	Elev
π @L-30A					
BS on L-28A		694			
to L-30	255°16'	211		✓	400
to L-31A	287°45½'	885		✓	
π @L-31A					
BS on L-30A		880			
to L-31	98°15'	060		✓	400
	265°23'			x	
to L-32	281°02'	272		✓	400
to L-33A	297°00'	613		✓	
π @L-33A					
BS on L-31A		615			
to L-33	261°34'	060		✓	400
to L-34	342°22'	245		✓	400
to L-35	65°38'	145		✓	400
to L-36	58°40'	280		✓	400
to L-37	43°13'	471		✓	400
π @L-37A					
BS on L-33A		470			
to L-38	71°46'	173		✓	400
to L-39	33°32'	150		✓	400
to L-54	29°27'	151		✓	400
to L-55	34°11'	220		✓	400
to L-40	38°39'	221		✓	400
to L-41	70°51'	566		✓	400
to L-42	56°05'	920		✓	400

6' E of N 85 fence

N 90°00' W

(Along Euclid plus Drive)

N 70°45' W

N 71°00' W

Lakeside Church?

N 61°40' W

N 62°00' W

N 44°00' E

Note: Outlet to Lindo Lake Marked by Sta L-39, L-40, L-54
L-55 Parallel to L-39 & L-40

N 44°20' E

Wocsta-Witte 3-23-22

Note: Outlet to Lindo Lake bet L-39 & 40 and L-54 & 55
(Lakeside roadway 9' N.W. from Sta L-39)
(Outer edge roadway 17' N.W. from Sta 40)

Sta	Az	Rod	Hor. Dist	Vert. L	Elev
π @L-37a					
to L-43	38°26'	10.11		✓	400
to L-44	17°31'	9.70		✓	400
to L-45	2°20'	9.40		✓	400
to L-46	359°29'	9.10		✓	400
to L-47	335°10'	5.75		✓	400
to L-47 A	309°46'	7.22		✓	✓
π @L-47A				✓	
B.S. on L-37a		7.22		✓	
to L-52	128°29'	2.92		✓	400
to L-53	118°15'	2.66		✓	400
to L-51A	223°10'	1.00		✓	400
to L-51	230°58'	3.00		✓	400
✓	46°30'	0.06		✓	✓
✓	227°09'			✓	✓
to 267	341°29'	3.73		✓	400
to 268	327°41'	5.55		✓	400
to 269A	349°13½'	9.80		✓	✓
See page 48					
to 266A	251°52½'	6.25		✓	
π @-266A				✓	
B.S. on L-47A		6.22		✓	
to L-50	108°00'	1.35		✓	400
to 266	341°50'	0.32		✓	400
to L-49	208°23'	1.65		✓	400
to L-48	324°10'	3.97		✓	400

on N & S fence ✓

on N side street ✓

N49°-00'W

6' SW from Cor Lot

N49-45W

(on lake side banked roadway)

(Outer Side roadway)

(Outer edge banked roadway 8' S of fence S line
(of Laurel St))

(on lakeside of roadway)

SW Cor Lot 46 El Cajon Valley Co's Lands

Lakeside Gravel

W side Street

on E & W fence ✓

N10°15'W

572°30'W

571°-00'W

(on lakeside of roadway)

S side street

(or 6' from L-1 (Defining banked roadway on
Lower Side Lindo Lake))

Sta	Az	Rad	Hor Dist	Vert V	Elev
π@266A					
to L-48A	225°01'	640		✓	✓
π@L-48A					
BS on 266A		636			
to 265	30°02'	323		✓	400
to 264	24°50'	112		✓	400
to L-1A	175°28'	070			✓
to 263	217°03'	097		✓	400
to 262	260°31'	330		✓	400
to 261	259°35'	371		✓	400
	207°01'				✓

Continuation of Traverse from page 47

π@269A					✓
BS on L-47A	<small>Reversed 349°13½'</small>	978			✓
	87°34'	019		✓	✓
to 269	248°20'	023		✓	400
to 270	352°39'	310		✓	400
to 270A	352°39'	629		✓	✓
π@270A				✓	✓
BS on 269A		629		✓	✓
to 271	257°16'	350		✓	400
to 273A	315°44'	430		✓	✓
π@273A					✓
BS on 270A		429			✓
to 273	340°43'	045			400
to 274	312°45'	109			400

S45-10W

S45-30W

(Outside edge race track fill)
(closure)

(Mr. L. Lindo Lake 399.52 ^{3/6/22})

E side Main St ✓

W side Main St ✓

" " " 399.71 ^{3/7/22}

Lakeside Church

Wueste-Witte 3-24-22

At side of road leading into Thum Ranch

N10-10W

fence Cor (running E 8 S)

(Thums Cactus Ranch.)

N6°45'W

N7-10W

N44-00W

N43°30'W

Left bank 1st channel (W.S.)

Right bank 1st channel (W.S.)

Levels from N End Lakeside Bridge

7.15	409.94	402.785
		994 400
1237	41236	995 399.99 ✓
		1236 400
891	408.96	1231 400.05 ✓
		896 400
559	405.95	860 400.36 ✓
		595 400
473	404.56	612 399.83 ✓
		456 400
553	405.33	476 399.80 ✓
		533 400
469	404.78	524 400.09 ✓
		478 400
1074	410.63	489 399.89 ✓
		1063 400
598	405.95	1066 399.97 ✓
		595 400
7.83	407.78	600 399.95 ✓
		778 400 ✓
545	405.19	804 399.74 ✓
554	405.51 ✓	522 399.97 ✓
678	406.84 ✓	545 400.06 ✓
422	406.51	455 402.29 ✓
		642 400.09 ✓

to Thom Ranch Waste-Witta 3-23-22
= BM24 near N end Lakeside Bridge

~~402.79~~
~~279~~

~~73 52~~
~~76 31~~
~~279~~

Waste-Witta 3-24-22

400.04 (See page 41)

Sta	Az	Red	Hor Dist	Vert	Elev
Brought over from page 48					
π @273A Δ					
to 274A Δ	315°25'	157		✓	✓
π @274A Δ					✓
B.S. on 273A Δ		155			✓
to 275A Δ	212°49½'	257		✓	✓
π @275A Δ					✓
B.S. on 274A Δ		257			✓
to 272	151°40'	233		✓	400
to 276	204°17'	415		✓	400
to 277	305°56'	315		✓	400
to 278A Δ	227°02'	660		✓	✓
π @278A Δ	327°02'			✓	✓
B.S. on 275A Δ		658		✓	✓
to 278	202°48'	119		✓	400
to 279 Δ	298°17'	137		✓	400
π @279 Δ				✓	✓
B.S. on 278A Δ		136		✓	✓
to 280	326°33'	228		✓	400
to 281A Δ	353°24½'	390		✓	✓
π @281A Δ				✓	✓
B.S. on 279 Δ		388		✓	✓
to 281	292°30'	033		✓	400
to 282	313°21'	267		✓	400
to 282A Δ	312°54'	275		✓	✓
π @282A Δ					✓
B.S. on 281A		275			✓

N44-00'W

N44-00'W

S33°30'W

S33°20'W

Lt. bank 1st channel ^(river) (275 is 101 feet normally across channel on right bank) from 272

} Along lower end of rice field

N32°30'W ?

N32°30'W

N61°00'W

N61°00'W

N5°50'W

N5°50'W

Left bank middle channel (W.S.)

Rt bank middle channel (W.S.)

N46°10'W

N46°00'W

Wuesta-Wife 3-25-22.

Sta	Az	Rod	Hor Dist	Vert ✓	Elev.
π@282A _Δ					✓
to 283A _Δ	220°49'	3.77		✓	✓
π@283A _Δ					✓
BS on 282A _Δ		3.77			✓
to 283	204°36'	0.34		✓	400
to 284	201°01'	4.21		✓	400
to 285	269°27'	1.08		✓	400
to 285A _Δ	344°41½'	2.09		✓	✓
π@285A _Δ					✓
BS on 283A _Δ		2.09			✓
to 286	277°35'	1.35		✓	400
to 287	10°36'	3.16		✓	400
to 288	20°07'	6.35		✓	400
to 288A _Δ	24°40½'	8.05		✓	✓
π@288A _Δ					✓
BS on 285A _Δ		8.05			✓
to 289	321°04'	2.23		✓	400
to 291A _Δ	336°05'	5.84		✓	✓
π@291A _Δ					✓
BS on 288A _Δ		5.84			✓
to 290	155°55'	2.48		✓	400
to 291	168°46'	2.27		✓	400
to 292A _Δ	221°05½'	5.76		✓	✓
π@292A _Δ					✓
BS on 291A _Δ		5.76			✓
to 292	44°25'	0.80		✓	400

S42-00W

S41°50'W

Rt bank middle channel

N 14-30 W

N 14-15 W

Near left bank of 3rd channel

do

do

do

do

N 25-40 E

Near concrete cellar

N 25-40 E

N 22-45 W

N 23-00 W

Left bank 3rd channel WS (probably San Vicente Cr)

Rt bank

do

do

do

S42-00 W

4.2' South from S edge pavement

S42-30 W

Sta.	Az	Rod	Hor. Dist	Vert. \checkmark	Elev
π @292A				\checkmark	
+o 294A	191°18'	6.55		\checkmark	\checkmark
π @294A				\checkmark	\checkmark
BS on 292A		6.55		\checkmark	\checkmark
+o 293	17°11'	3.39		\checkmark	400
+o 294	40°07'	0.39		\checkmark	400
+o 295A	213°38'	3.88		\checkmark	\checkmark
π @295A				\checkmark	\checkmark
BS on 294A		3.88		\checkmark	\checkmark
+o 295	44°16'	2.05		\checkmark	400
+o 296	218°19'	2.09		\checkmark	400
+o 297	203°33'	3.85		\checkmark	400
+o 298	195°47'	6.26		\checkmark	400
+o 298A	195°21'	7.10		\checkmark	\checkmark
π @298A				\checkmark	\checkmark
BS on 295A		7.08		\checkmark	\checkmark
+o 299	195°04'	2.58		\checkmark	400
+o 299A	204°24½'	3.75		\checkmark	\checkmark
π @299A				\checkmark	\checkmark
BS on 298A		3.73		\checkmark	\checkmark
	63°52'	0.82		\checkmark	\checkmark
	125°32'	2.85		\checkmark	\checkmark
+o 300	58°26'	0.49		\checkmark	400
+o 301	239°17'	2.28		\checkmark	400
+o 301A	236°46'	2.81		\checkmark	\checkmark

For continuation see page A, Bk 14

S 12°40' W	
4.4 feet S of sedge pavement	
S 13°00' W	
River bank	
River bank	
S 35°10' W	
2.5 feet S of sedge pavement	
S 34°30' W	
S 16°10' W	
2.4 feet S of sedge pavement	
S 16°15' W	
S 25°15' W	Near BM 24 N end Lakeside Bridge
	Wueste-Witte-Williams
S 24-30 W	3-28-22.
Ctr N end Lakeside Bridge	
Ctr Line	do. do.
Outside edge road near bridge	
Inside edge road	(? edge road in gutter)
Outside edge road	S 57-00 W

Levels - Lakeside Bridge towards

sta 300	207	404.86	486	402.785
301			486	400
302	933	408.56	563	399.23
303			856	400
304	723	407.34	845	400.11
305			734	400
306			734	400
307			734	400
308	899	408.96	737	399.97
309			896	400
310			896	400
311			896	400
312	330	403.30	896	400.00
313			330	400
314			330	400
315	458	404.61	327	400.03
316			461	400
317			461	400
318			461	400
319	774	407.78	457	400.04
320			778	400
321			778	400
322	551	405.51	778	400.00
	48.75 ✓		46.03 ✓	

Lakeside Farms

Wueste-Witte 53
3-25-22.

= BM 24 Near N End Lakeside Bridge

N edge road in gutter

2.79

272

551

N edge road in gutter

Alongside Pump-hse

Near barn under construction on Larsen
prop

Near palm trees

Wueste-Witte - Williams
3-27-22

In wash back of farm bldgs.

In yard in front of hse (Bennett Property)

In wash

In barley field

do. do.

do. do.

do. do.

do. do.

do. do.

		405.51		
323			551	400
324			551	400
325	12.78	410.50	779	397.72
326			10.50	400
327	323	403.27	1046	400.04
328			327	400
329			327	400
330	4.28	404.25	330	399.97
331			4.25	400
332	6.18	406.52	4.21	400.04
333			6.52	400
334	6.18	406.14	6.56	399.96
335			6.14	400
336			6.14	400
337			6.14	400
338			6.14	400
339	11.49	411.47	6.16	399.98
340			11.47	400
341	4.87	404.92	11.42	400.05
342			4.92	400
343	7.20	407.24	4.88	400.04
344	7.09	407.16	7.17	400.07
345			7.16	400
346	12.59	412.32	7.43	399.73
	76.19 ✓		69.38 ✓	

Near base on Gibson property
Mark on Gibson barn

In wash

In Palm Ave

On BR Brown property

do do

NEly line A.W. Johnson property

In A.W. Johnson front yard

In wash

do.

do.

In A.W. Johnson apricot orchard

In backyard of Baker property

Near transmission line pole of SD Cons G & E Co

In orchard

On N 25 fence bet Pundie & Johnson props.

		412.32		
347			1232	400
348	7.13	407.08	1237	399.95
349			708	400
350	5.50	405.49	709	399.99
351			549	400
352			549	400
353	6.14	406.14	549	400.00
354			614	400
355	3.55	403.53	616	399.98
356			353	400
357	3.80	403.86	347	400.06
358			386	400
359	3.97	404.00	383	400.03
360			400	400
361	12.40	412.40	400	400.00
362			1240	400.
363	6.99	407.00	1239	400.01
364			700	400
365	6.47	406.46	701	399.99
366			646	400
367			643	400.03
	55.95 ✓		68.24 ✓	

Amongst J. Johnson Jr bldgs.

In calf - pred

6824
5595
1229

For continuation see Book No. 14
Page 2.

16'9" dia of 24" gate hub plane to dia 16" relief line.

6'6" vertically dia of 24" influent line to dia gauge operating floor.

7'3" dia to dia 24" influent & effluent lines.

6'10" dia 24" influent to dia 40" line.

Data on 16" pump at P.O. 3-14-22

- ✓ Pulley 26" dia x 30" face.
- 16" dia pointing vertically (upward).
- 16" suction 90° elbow can be rotated to point in vertical plane to any angle.
- ✓ 42" dia pump to dia gully.
- ✓ Repair Jackson Iron Works, San Francisco, Calif.
- ✓ 40" bellows of base to dia shaft.
- ✓ base 7'4" x 4'2"
- ✓ face suction elbow to dia shaft 20"
- ✓ dia pump to dia suction elbow (dist between vertical planes) 28"
- ✓ flanges 24" dia, 16-1" holes, on 21 1/4" dia circle.

measurements at Filter Plant 3-14-22

dia 24" gate on wye branch to dia

36" blow off valve 44'5"

4'10" dia 24" gate to dia 30" C.I. line at wye

5'5" dia plane of hub of 24" gate to dia 30" C.I. line at wye

43'8" dia of hub plane on wye branch to dia 36" blow off gate.

all lines about 30" betw floor of open cut and dia of pipes.

concrete walls of approach trench 1/2 to 1 slope 6'9" high. Top inner edge 8'8" out from dia of pipe.

Brought over from Page 58

	510	497.14		492.04
			5.14	492.00
o	787	499.93	5.08	492.06
			7.93	492.00
o	530	500.86	4.37	495.56
			8.86	492.00
o	485	501.10	4.61	496.25
			9.10	492.00
o	485	496.93	9.02	492.08
			4.93	492.00
o	682	499.03	4.72	492.21
			7.03	492.00
o	587	500.57	4.33	494.70
o	306	499.98	3.65	496.92
Alum. base bill			7.98	492.00
o	733	499.44	7.87	492.11
			7.44	492.00
o	1157	500.66	10.35	489.09
			8.66	492.00
o	218	492.06	10.78	489.88
o	241	483.04	11.43	480.63
			10.50	472.54

Wueste-Carson
3-13-22

Wueste-White 3-14-22

= W.S. 3-14-22 room

Levels for Road Relocation
Upper otax - Lower otax

1st Bend	12.22	484.28		472.06
	11.79	494.36	1.71	482.57
	7.95	498.77	3.54	490.82
			6.77	492.00
2nd Bend	11.73	483.79		472.06
	11.18	492.68	2.29	481.50
	7.13	498.97	0.84	491.84
			6.97	492.00
3rd Bend		498.97		
	6.99	504.05	1.91	497.06
			12.05	492.00
o	10.57	502.68	11.94	492.11
o	6.21	498.21	10.68	492.00
			6.21	492.00
o	11.73	503.77	6.17	492.04
			11.77	492.00
o	12.16	504.21	11.72	492.05
			12.21	492.00
4th Bend	11.62	483.68		472.06
o	12.10	493.57	2.21	481.47
o	8.65	500.74	1.48	492.09
			8.74	492.00
o			8.70	492.04

see page 57.

Wueste-Carson 58
3-12-22.

= Gauge 124.86 plus Datum 347.2

Relocation 450ft 24" W.S. Line near L.O.

Upper Otay - Lower Otay Pipeline

Wueste-Williams

Sta	+	HI	-	El.	Grade
W.S.	12.68	483.66		470.98	
0+00			6.58	477.08	477.08
+20			3.67	479.99	477.82
o 1+40	888	489.50	3.04	480.62	478.57
+60			5.58	483.92	479.31
+80			5.58	483.92	480.06
o 1+00	1.00	488.40	2.10	487.40	480.80
o	3.46	481.34	10.52	477.88	
+33			7.95	473.39	482.03
+65			7.70	473.64	483.22
o	12.08	492.40	1.02	480.32	
2+13			0.40	492.00	485.01
Δ 2+33			3.15	489.25	485.75
o 2+62	1.03	482.08	11.35	481.05	484.47
2+82	12.75	490.98	3.85	478.23	483.58
3+13			0.33	490.65	482.21
+33			2.62	488.36	481.82
+53			2.67	488.31	480.44
+73			4.55	486.43	479.55
o	2.33	481.43	11.88	479.10	
4+33			4.53	476.90	476.90

Cut	Fill
=	Grade 123.78 + Datum 347.2
✓	✓
+2.17	*
+2.05	
+4.61	
+3.86	
+6.60	
-8.64	
-9.58	
+6.99	
+3.50	
-3.42	
-5.35	
+8.44	
+7.04	
+7.87	
+6.88	
✓	✓

Plus 3.72%

Minus 4.43%

Relocation 450ft. 24" W.S. Line near L.O.

Upper Otoy-Lower Otoy Pipe-line

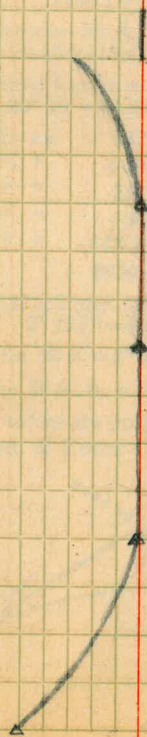
Sta Dist Def. V Tot Def.

4	+33		
	+73	60	
	+53	20	14°00'L
	+33	20	9°20'L
Δ 3	+13	20	4°40'L
	+82	31	
	+62	20	
Δ	+33	29	90°00'R
2	+13	20	
	+65	48	
	+33	32	
Δ 14	00	33	
	+80	20	14°30'L
	+60	20	11°36'L
	+40	20	8°42'L
	+20	20	5°48'L
Δ 0	+00	20	2°54'L

60

Wueste-Williams

3-9-22



KEITH'S RAILROAD CURVE TABLES.

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HOW TO USE KEITH'S TABLES.

EXAMPLE.

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

Ext. in Tab. IV opposite $23^{\circ} 20' = 120.87$
 $120.87 \div 12 = 10.07$. Say a 10° Curve.

Tan. in Tab. IV opp. $23^{\circ} 20' = 1183.1$
 $1183.1 \div 10 = 118.31$.

Tab. V correction for A. $23^{\circ} 20'$ for a 10° Cur. = 0.16
 $118.31 + 0.16 = 118.47 =$ corrected Tangent.

(If corrected Ext. is required find in same way)

Ang. $23^{\circ} 20' = 23.33^{\circ} \div 10 = 2.3333 =$ L. C.

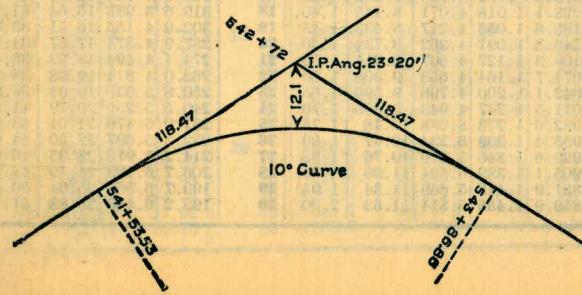
$2^{\circ} 19\frac{1}{2}' =$ def. for sta.	542	I. P. = sta.	542+72
$4^{\circ} 49\frac{1}{2}' =$ " " "	+50	Tan. =	1.18.47
$7^{\circ} 19\frac{1}{2}' =$ " " "	543	B. C. = sta.	541+53.53
$9^{\circ} 49\frac{1}{2}' =$ " " "	+50	L. C. =	2.33.33
$11^{\circ} 40' =$ " " "	543+	E. C. = Sta.	543+86.86
	86.86		

$100 - 53.53 = 46.47 \times 3' (\text{def. for 1 ft. of } 10^{\circ} \text{ Cur.}) = 139.41' =$
 $2^{\circ} 19\frac{1}{2}'' =$ def. for sta. 542.

Def. for 50 ft. = $2^{\circ} 30'$ for a 10° Curve.

Def. for 36.86 ft. = $1^{\circ} 50\frac{1}{2}'$ for a 10° Curve.

(These tables are published in Field Books of
KEUFFEL & ESSER CO., New York, N. Y.)



Hallman Jr 91
 Lot 1 Blk 1 Bonita Park add 133

0.81 N end ditch 27
 14.97 W.S. 42
 79 8.61 bot pipe L.O. end 380
 7.87 bot pipe U.O. end 760

12.37 W.S. 167.58
 1.88 456
 T.P. 10.49 400.56 250.18
 404.916

2.71 493.36 490.65
 16.46 476.90

0.737 0.04425
 60 26.5500 476.90
 44.220 442 481.32
 147 800
 482.79 500
 147 460
 484.26 1000

P.O. +4 4857.50 + 2.01 4880
 P.O. +5 525 + 7.88 488.37
 P.O. +6 693 + 5.12 488.13
 P.O. +8 688

476.90
 2.65
 479.55
 0.88
 480.43
 88
 481.31
 88
 482.19

0.04425
 443.5
 13.275
 13.7175
 482.19
 137
 183.56
 88
 184.44

130 125.33 907

34
 16
 40

3A Δ

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES 1 1/2 TO 1.

FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.