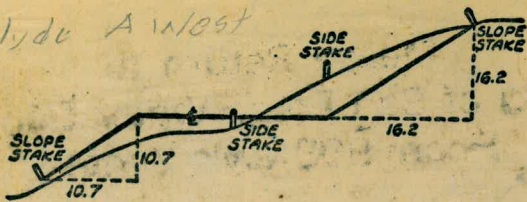


W 938

Clyde A West



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING
SLOPE 1 TO 1. ROADWAY OF ANY WIDTH

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0
1	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	1
2	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80	2.90	2
3	3.00	3.10	3.20	3.30	3.40	3.50	3.60	3.70	3.80	3.90	3
4	4.00	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	4
5	5.00	5.10	5.20	5.30	5.40	5.50	5.60	5.70	5.80	5.90	5
6	6.00	6.10	6.20	6.30	6.40	6.50	6.60	6.70	6.80	6.90	6
7	7.00	7.10	7.20	7.30	7.40	7.50	7.60	7.70	7.80	7.90	7
8	8.00	8.10	8.20	8.30	8.40	8.50	8.60	8.70	8.80	8.90	8
9	9.00	9.10	9.20	9.30	9.40	9.50	9.60	9.70	9.80	9.90	9
10	10.00	10.10	10.20	10.30	10.40	10.50	10.60	10.70	10.80	10.90	10
11	11.00	11.10	11.20	11.30	11.40	11.50	11.60	11.70	11.80	11.90	11
12	12.00	12.10	12.20	12.30	12.40	12.50	12.60	12.70	12.80	12.90	12
13	13.00	13.10	13.20	13.30	13.40	13.50	13.60	13.70	13.80	13.90	13
14	14.00	14.10	14.20	14.30	14.40	14.50	14.60	14.70	14.80	14.90	14
15	15.00	15.10	15.20	15.30	15.40	15.50	15.60	15.70	15.80	15.90	15
16	16.00	16.10	16.20	16.30	16.40	16.50	16.60	16.70	16.80	16.90	16
17	17.00	17.10	17.20	17.30	17.40	17.50	17.60	17.70	17.80	17.90	17
18	18.00	18.10	18.20	18.30	18.40	18.50	18.60	18.70	18.80	18.90	18
19	19.00	19.10	19.20	19.30	19.40	19.50	19.60	19.70	19.80	19.90	19
20	20.00	20.10	20.20	20.30	20.40	20.50	20.60	20.70	20.80	20.90	20
21	21.00	21.10	21.20	21.30	21.40	21.50	21.60	21.70	21.80	21.90	21
22	22.00	22.10	22.20	22.30	22.40	22.50	22.60	22.70	22.80	22.90	22
23	23.00	23.10	23.20	23.30	23.40	23.50	23.60	23.70	23.80	23.90	23
24	24.00	24.10	24.20	24.30	24.40	24.50	24.60	24.70	24.80	24.90	24
25	25.00	25.10	25.20	25.30	25.40	25.50	25.60	25.70	25.80	25.90	25
26	26.00	26.10	26.20	26.30	26.40	26.50	26.60	26.70	26.80	26.90	26
27	27.00	27.10	27.20	27.30	27.40	27.50	27.60	27.70	27.80	27.90	27
28	28.00	28.10	28.20	28.30	28.40	28.50	28.60	28.70	28.80	28.90	28
29	29.00	29.10	29.20	29.30	29.40	29.50	29.60	29.70	29.80	29.90	29
30	30.00	30.10	30.20	30.30	30.40	30.50	30.60	30.70	30.80	30.90	30
31	31.00	31.10	31.20	31.30	31.40	31.50	31.60	31.70	31.80	31.90	31
32	32.00	32.10	32.20	32.30	32.40	32.50	32.60	32.70	32.80	32.90	32
33	33.00	33.10	33.20	33.30	33.40	33.50	33.60	33.70	33.80	33.90	33
34	34.00	34.10	34.20	34.30	34.40	34.50	34.60	34.70	34.80	34.90	34
35	35.00	35.10	35.20	35.30	35.40	35.50	35.60	35.70	35.80	35.90	35
36	36.00	36.10	36.20	36.30	36.40	36.50	36.60	36.70	36.80	36.90	36
37	37.00	37.10	37.20	37.30	37.40	37.50	37.60	37.70	37.80	37.90	37
38	38.00	38.10	38.20	38.30	38.40	38.50	38.60	38.70	38.80	38.90	38
39	39.00	39.10	39.20	39.30	39.40	39.50	39.60	39.70	39.80	39.90	39
40	40.00	40.10	40.20	40.30	40.40	40.50	40.60	40.70	40.80	40.90	40
41	41.00	41.10	41.20	41.30	41.40	41.50	41.60	41.70	41.80	41.90	41
42	42.00	42.10	42.20	42.30	42.40	42.50	42.60	42.70	42.80	42.90	42
43	43.00	43.10	43.20	43.30	43.40	43.50	43.60	43.70	43.80	43.90	43
44	44.00	44.10	44.20	44.30	44.40	44.50	44.60	44.70	44.80	44.90	44
45	45.00	45.10	45.20	45.30	45.40	45.50	45.60	45.70	45.80	45.90	45
46	46.00	46.10	46.20	46.30	46.40	46.50	46.60	46.70	46.80	46.90	46
47	47.00	47.10	47.20	47.30	47.40	47.50	47.60	47.70	47.80	47.90	47
48	48.00	48.10	48.20	48.30	48.40	48.50	48.60	48.70	48.80	48.90	48
49	49.00	49.10	49.20	49.30	49.40	49.50	49.60	49.70	49.80	49.90	49
50	50.00	50.10	50.20	50.30	50.40	50.50	50.60	50.70	50.80	50.90	50

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance from side stake to slope stake. If ground is not level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.

Please Return to
City of San Diego Water Dept.
Room 903 Civic Center

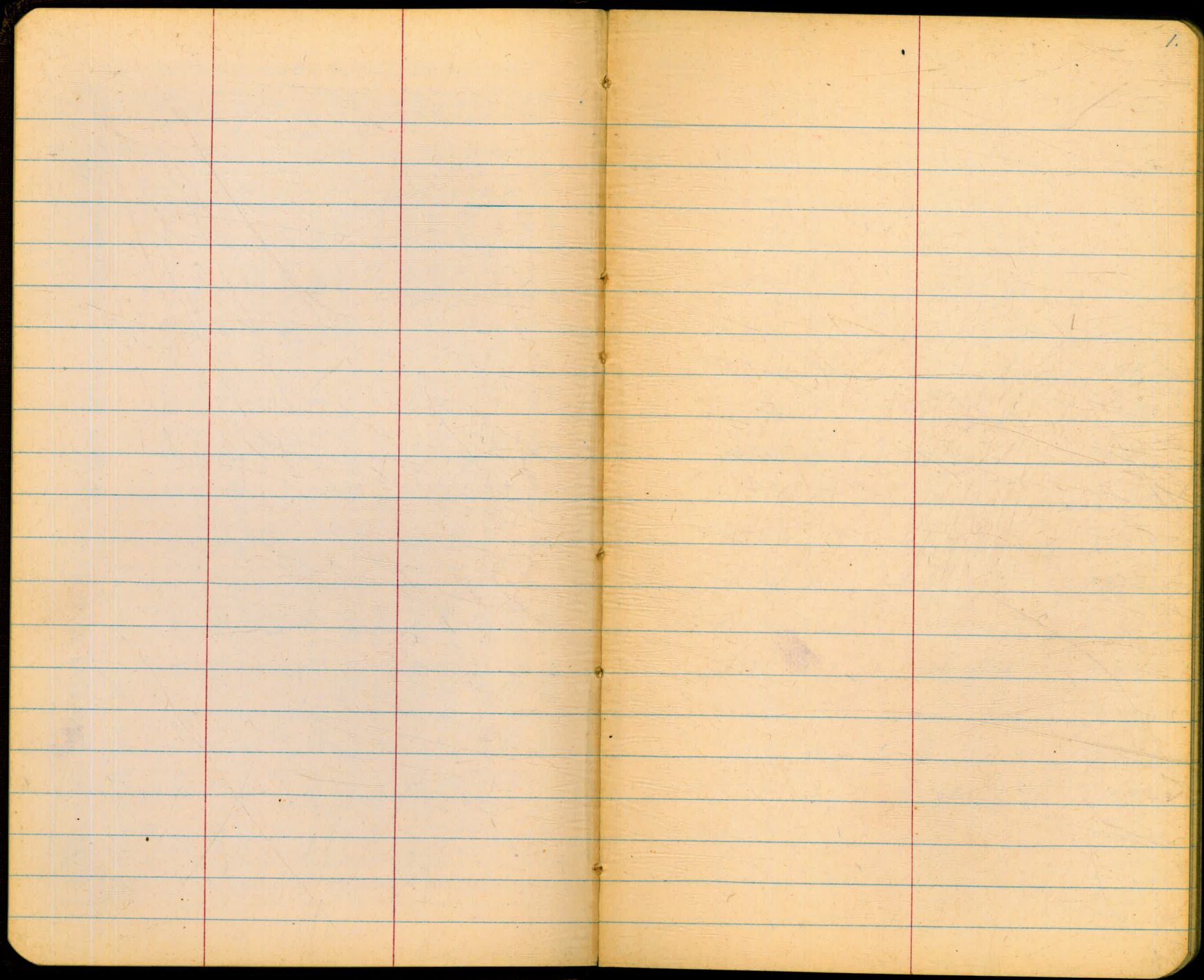
32450 (15)

9.33

Level KE - 106346 (28099 CITY)
Transit Berger 29611 (32142 CITY)

40+90
41+50

84.93
1.43



2nd Murray Pipeline
Top of Pipe As Layed

OCT. 10 1956
KEMP.
SMITH.
O'BRIEN.

2

11) 1.45 403.34 401.89

Set TBM 0.65 392.66 11.33 392.01

11) 0.96 381.46 12.16 380.50

Set TBM 0.87 379.64 2.69 378.77 = 378.75

2+2836 pipe joint 3.46 376.18

2+3561 " " 7.09 372.55

2+4261 10.89 368.75

2+4561 11.70 367.94

2+5781 11.76 367.88

2+6034 11.22 368.42

2+6774 7.99 371.65

2+7299 4.69 374.95

11) 2+8234 11.84 390.11 1.37 378.27

2+8974 8.46 381.65

2+9724 5.56 384.55

11) 3+0459 12.20 399.77 2.54 387.57

3+1204 9.16 390.61

3+1944 6.03 393.74

3+2694 3.40 396.37

(25) 3+2806 FB 935-9

Rock 115' RT 2+75

Rock 35' RT. 2+42

FB 935-33

Average of several
measured pipes
Dia. = 4.97

Bottom of pipe 363.00

" " 363.00

10/10/56

9D 399.77
3+3263 708 406.09 0.76 399.01

3+2228 4.54 401.55

3+4998 2.25 403.84

3+5768 0.34 405.75

OK JP 8.17 415.41 12.72 393.37 = 393.35 (25) 2+00 EB 935-9
71 207.24 (25) 3+4329

OK 3+5768 780 9.70 405.71

3+6552 781 7.84 407.57

3+7333 780 5.97 409.44

3+8113 790 4.19 411.22

3+8903 12.47 2.42 412.99

9D 15.83 12.47 427.66 0.22 415.19

4+0486 12.09 415.57

4+2068 15.82 9.78 417.88

4+3643 15.75 7.25 420.41

4+5226 15.83 4.79

4+6809 15.83 1.05

9D 7.96 2.57 435.20 0.03 427.63

4+7605 6.28

4+9195 15.90 5.81

5+0795 5.76

5+0940 Air Valve 5.75

10/11/56

403.87

10/11/56

4

5+1595	435.20	5.76		
5+2400		6.38		
5+3998		8.24		
5+5590		10.20		
5+7177	2.01 425.17	12.04	423.16	
5+8769		3.93		
6+0363		5.76		
6+1952		7.63		
6+3544		9.54		
6+5133		11.45		
4D	3.83 416.26	12.54	412.63	
6+6702		3.83		
6+8307		4.93		
6+9902		5.95		
7+1502		6.94		
7+2302		7.42		
CK TAM		10.35	406.11 = 406.12	

✓

2ND MURRAY PIPELINE
TOP OF PIPE AS LAYED

10/16/56
SHOREY
KEMP
SMITH
O'BRIEN

5

TBM	5.56	411.68		406.12
7+23 ⁰²			2.65	409.03
7+30 ¹³			3.45	
7+61 ⁸⁹			7.04	
7+93 ⁵⁹			10.88	
8+00 ⁶⁶				
8+05 ¹⁹			11.32	
8+08 ⁶⁷			11.34	
8+40 ¹⁵	TP 13.19	419.76	5.11	406.57
8+71 ³⁵			6.70	
	TP 13.15	429.41	3.50	416.26
9+02 ⁶⁶			10.00	
9+49 ⁵⁰	TP 13.04	442.35	0.10	429.31
9+81 ²²			8.52	
9+97 ⁰⁹			6.25	
TP	11.63	446.46	7.52	434.83 = 439.86
10+28 ³⁹			5.18	
TP	12.37	453.67	5.16	441.30
10+59 ⁸⁴			7.13	
10+75 ⁷⁴			5.45	
10+93 ⁶⁴			3.35	450.92
TP	12.59	466.09	0.11	453.56
	7.90	461.46	12.53	453.56
11+09 ⁴¹			9.46	
11+23 ²⁴			8.03	
TP	12.53		7.70	453.56

9+50 (25) HUB F.B. 935
11

{ 10+82⁹³ BK. =
10+85 AH

7.19
8.61
15.5

✓

CONT'D

466.09

10/19/56
SHREY
KEMP
O'BRIEN

6

11+75 ⁸¹

8.85 457.24

6.39
73.81
82.20

12+28 ⁵¹

6.59

12+69 ⁴⁶

5.16

13+13 ⁴¹

3.74

TP 11.61

474.02 3.68 462.41

13+65 ⁴⁵

10.41

14+13 ⁶⁰

9.95

14+70 ⁴⁵

Top ACCESS M.H. 9.25

ACCESS M.H.

14+77 ⁷⁰

9.65

14+96 ⁵³ 5.0.

15+44 ⁸⁰ TP 6.08

469.42 10.68 463.34

15+89 ⁸¹

7.50

16+37 ⁸⁸

10.03

16+69 ⁷²

11.73

CK. TP 2.24

463.77 7.92 461.50 = 461.53

(15) HUB F.L. STA ¹⁶⁺⁴⁸ 17+03 ¹⁴ AH. = (F.B. 935-12) ⁰³ BK

10/26/56

17+01 ⁰²

7.78 455.99

17+03 ⁰³ BK

16+48 ¹⁴ AH

16+94 ⁹⁶

10.37 453.60

pipe already backfilled & water settled but following joints uncovered & elev. secured.

✓

2ND MURRAY PIPELINE
Top of pipe as layed.

10/26/56

7.

463.77

17+26 ²⁹ 27.96		12.05	451.72
17+30 ⁹	309	458.11	8.75 455.02
17+74 ²⁶ 48.87		7.58	450.53
18+22 ⁶³ 32.12		8.62	449.49
18+54 ⁷⁵ 32.0		9.30	448.81
18+86 ⁷⁵ 26.90		9.81	448.30
19+33 ⁶⁹ 45.25	24" RCP Storm Drain	8.39	449.72
19+35 ⁰³ 31.75		10.99	447.12
19+67 ⁰¹		11.52	446.59
19+98 ⁹²		12.02	446.09
20+08 ⁶⁵	6" B.O. covered up uncovered		
20+30 ⁹⁵		12.05	446.06
20+69 ⁹³ 25.25		11.74	446.37
20+92 ⁹³		11.35	446.76
21 set	5.00	452.43	5.68 452.43
21+24 ⁹⁵ 32.06		10.15	447.28
21+57 ⁰¹ 32.08		9.73	447.16
21+89 ⁰⁷ 21.58		9.33	448.10
22+20 ⁶⁷ 32.50		8.82	448.61

(2 1/2" between pipes) (19+30⁰³ orig.)

20 + 34.31 W. side
8' AC

35.62
67.93

(Not a joint)

Nor. West cor driveway 16' LT 21+25+
10/29/56

✓

2nd MURRAY PIPELINE
Top of pipe as layed.

10/29/56

8.

457.43

22+53¹⁹ 8.26 449.17

^{25.56}
23+01⁷⁵ 7.59 449.84

IP ^{5.59} 460.24 2.78 454.65

23+17⁷⁵ ^{25.25} 23+86 9.42 450.82

^{31.51}
23+97⁸¹ 9.36 450.88

24+00⁷¹ 6" A.C. MAIN XING.

^{53.65}
24+51⁴⁶ 8.81 451.43

24+74⁸¹ ACCESS M. H. 8.81 451.43

^{26.60}
24+78⁰⁶ 9.32 450.92

^{29.55}
25+57²⁹ 10.18 450.06

^{48.20}
26+06¹⁴ 10.95 449.29

^{15.94}
26+22⁰⁸ 11.31 448.93

IP 0.80 453.34 7.70 452.54

^{48.12}
26+70²⁰ 5.64

^{32.00}
27+02²⁰ 6.48

^{32.11}
27+34³¹ 7.75

^{32.05}
27+66³⁶ 8.75

^{16.00}
27+82³⁶ 9.81

^{47.20} IP 4.00 444.47 12.87 440.47

28+30²⁶ 5.35

NE COR. DRIVEWAY

TOP FLANGE

✓

41.75	441.47		
28 + 78 ⁰¹ 48.05		7.84	
29 + 26 ⁰⁶ 48.07		10.25	
29 + 74 ¹³		12.70	
TOP 47.86 8.63	439.95	13.15	431.32
30 + 21 ⁹²		9.93	430.02
30 + 70 ⁰²		11.32	428.63
30 + 75 ⁵⁰	6" B.O.		
31 + 17 ⁷⁴		8.97	
31 + 49 ⁶⁴		7.01	432.94
CK.		5.05	434.90 = 435.17
CK.		2.73	437.22 = 437.20
CK P	2.40	439.60	437.20
31.60			
31 + 81 ²⁴ 16.60		4.51	435.09
31 + 97 ⁸⁴ 32.08		3.63	435.97
32 + 29 ⁹² 28.01		3.17	436.43
32 + 77 ⁹³		2.37	437.23
41	12.16	449.39	2.97 437.23
48.00			
33 + 26 ¹³ 26.25		11.66	437.73
33 + 52 ³⁸ 5.90	TOP 8" AC WOT	7.64	441.75
33 + 58 ²⁸		11.07	438.32

31 + 29⁶⁴
30 + 75⁵⁰
74.14

(13) 30 + 50 F.B. 935-31
(13) 29 + 50 F.B. 935-31
" " " "

439.60
6.66
432.94
OK 31 + 49
OK

10/30/56
Beatty
O'Brien.

16.05	449.39		
33+72 ³³		10.38	
34+06 ³⁷		8.46	
34+54 ²⁷		4.77	
CK 9.81	456.10	3.16	446.23 - 446.29
CK 9.81		2.27	445.12 - 445.18
34+86 ²²		9.65	
35+18 ²²		7.92	
35+34 ²²		7.17	
35+51	ACCESS M.H.	6.32	
35+82 ³⁷		6.74	
36+08 ⁴⁷	TOP 6" A.C. MAIN	5.66	
36+14 ³⁷		7.45	
36+46 ³⁹		7.93	
36+94 ⁴⁹		9.93	
37+42 ⁴⁴		12.44	
37+74 ⁴⁴		2.38	453.72 - 453.71
37+74 ⁴⁴	5.85	451.60	445.73 - 445.59
37+74 ⁴⁴		450.42	8.34 442.10
38+06 ⁵³		10.17	440.27
38+38 ⁶⁴		11.69	438.75
38+61 ⁰⁴	(8" A.C. WAT)	8.59	441.85

(15) 30+00 FB 935 pg 31
 (15) 32+50 FB 935 pg 31

Top Access M.H.

(15) 35+48³⁷ FB 935-32
 LT (5) 39+00 FB 985-33

11/2/56
Beatty
O'Brien

445.75	
1.61	
447.36	447.36
12.37	9.45
434.99	437.91 - 437.90

✓

2nd MURRAY P.L.
Top of PIPE AS LAYED

11/2/56
BEATTY
O'Brien

11.

32.17		450.44			
451.60					
P 38+70 ⁸¹ 10.46		448.90	13.16	437.28	
		447.74		438.44	
39+02 ⁶³			11.00	436.74	
39+34 ⁶⁶ 11.71				436.00	
39+66 ⁶⁷ 12.32				435.42	
39+98 ⁸³ 12.84				434.90	
P 40+30 ⁸⁰ 12.25		447.78	13.37	435.53	434.37
		446.62			
40+62 ⁶² 12.73				433.89	
40+64 ⁰⁹ 6" outlet on top of pipe					
40+94 ⁶² 12.68				433.94	
41+26 ⁶⁴ 12.70				433.92	
41+58 ²⁹ 10.33				436.29	
41+74 ²⁴ 9.02				437.58	
42+05 ⁶¹ 4.09				442.53	
ID 42+37 ²⁹ 12.87		459.04	1.61	446.17	445.01
		457.88			
42+69 ²⁰ 7.65				450.23	
43+01 ¹¹ 4.97				452.91	
43+33 ¹⁴ 2.77				455.11	
P 43+65 ¹⁵ 10.67		468.65	1.06	457.98	456.82
		467.49			
43+97 ⁰⁹ 8.82				458.67	
				444.76	
				445.22	

Access M.H. 39+24 ²³

447.26	
09	
447.27 ID	
17.40	
458.67 de	
05	
458.62 P	
10.48	
469.10 de	
9.27	
✓ 459.83	
469.10 de	
2.89	
466.21 P	
6.27	
472.58 de	
2.88	
469.70	OK BH 469.67

= (plan 40+62)

458.67
9.67
468.50

✓ (20) RT. LL+00

11/2/50

12.

467.29

P

6.03

472.50

1.02

466.47

CK BM

3.96

468.54 = 468.48

Rim AVA 46+

✓

2ND MURRAY PIPELINE
TOP OF PIPE AS LAYED

BM	13.01	125.16	112.15
TP	0.625	113.27	12.51 112.65
117+55	⁶⁹		8.13
117+31	^{23.23} ₇₆		6.48
117+24	^{7.09} ₆₇		5.63
117+07	^{15.06} ₆₁ TP 11.79	125.03	0.03 113.24
116+79	^{23.77} ₈₄ TP 12.50	136.75	0.78 124.25
116+64	^{14.34} ₈₈		7.07
116+63	GAS MAIN XING	1.70	
116+49	^{15.14} ₇₂		2.07
116+41	^{7.901} ₈₂ TP 12.59	149.23	0.11 136.64
116+11	^{30.79} ₀₃ TP 12.91	160.61	1.53 147.70
115+80	^{15.55} ₁₂		9.36
115+64	^{15.46} ₅₇		6.21
115+49	⁷² ₁₁ TP 13.15	170.90	2.86 157.75
115+17			6.33
TP	13.02	183.54	0.38 170.52
114+86	⁴⁸		12.10
114+55	²⁵		5.26
114+39	⁵³ TP 12.88	194.24	2.18 181.36

11/19/56
SHREY
KEMP
SMITH
PALLSON

11749.19
13.85
55.69

13

BP IN CONC. CHAMBER ALVARADO PUMP HOUSE

TOP DRAIN HEADWALL

END SPEC. FITTING VPI

TOP 16" GAS MAIN

2ND MURRAY PIPELINE

TOP OF PIPE AS LAYED

194.24

114+23	⁷⁹		9.84	
113+92	²⁹		4.14	
		TP 13.10	207.33	0.01 194.23
113+60	⁹²		11.25	
113+29	⁴³		5.35	
113+13	⁶¹		2.30	
		TP 13.09	219.95	0.47 206.86
112+82	⁰³		9.85	
112+50	³¹		5.24	
112+34	⁴⁶		3.48	
112+18	⁴⁵		1.38	
		TP 13.31	233.02	0.24 219.71
111+86	⁹⁰		9.91	
111+55	²⁸		4.86	
111+23	⁴⁹	TP 12.93	245.69	0.26 232.76
110+91	⁸⁷		7.90	
110+76	⁰⁴		5.8	
		TP 13.03	256.94	1.78 243.91
110+44	²³		11.73	
110+12	⁸⁴		6.73	
109+81	³⁹		1.43	
		TP 12.73	269.34	0.33 256.61
109+50	⁰²		8.03	
109+18	⁴⁸		2.31	

11/19/56
SHOREY
KEMP
SMITH
PAULSON

14.

2 ND MURRAY PIPELINE
Top of Pipe AS LAYED

11/19/56
SHOREY
KEMP
SMITH
PAULSON

15

269.34

TP	13.12	282.30	0.16	269.18
108+87 ⁰¹			9.63	
108+71 ³⁰			6.72	
108+39 ³¹			3.59	
108+27 ¹² ✓	ACCESS M.H. (Top)	1.70		
108+23 ⁴² ✓			1.96	
108+07 ⁴⁰	TP 13.32	295.00	0.62	281.68
107+75 ³⁸			11.44	
107+59 ⁴⁷			10.34	
107+27 ⁴⁷			8.21	
106+95 ⁵²			6.51	
106+79 ⁵⁴			5.69	
106+31 ⁵⁶			3.18	
105+99 ⁶¹			1.44	
105+67 ⁶⁵ ✓	TP 12.98	307.47	0.51	294.49
105+35 ⁶⁸			12.09	
105+03 ⁷⁸			10.44	
104+87 ⁸⁸			8.77	
104+72 ¹⁶			7.73	
			5.95	

✓

2. ND PIPELINE
 Top of PIPE AS LAYED

307.47

11/19/56
 SHOREY
 KEMP
 SMITH
 PALLSON

16

104+40 ³⁹		2.45	305.02	
TP	12.80	320.09	0.18	307.29
TP	13.26	332.85	0.50	319.59
TP	13.25	345.34	0.76	332.09
TP	7.07	352.24	0.17	345.17
CK.		6.56	345.68	= 345.49
TP	10.87	318.16		307.29
104+08 ⁵⁹			9.72	
	41.47			
103+61 ¹²			3.81	
	41.42 TP 13.20	331.24	0.12	318.04
103+13 ⁷⁰			7.67	
	31.58			
102+82 ¹²			4.82	
	31.56 TP 12.73	343.63	0.34	330.90
102+50 ⁵⁶			12.29	
	31.54			
102+19 ⁰²			7.38	
	31.64			
101+87 ³⁸			2.52	
	31.58 TP 12.92	356.49	0.06	343.57
101+55 ⁸⁰			10.43	
	31.58			
101+24 ²²			5.36	
	31.50 TP			
100+92 ¹²	13.31	369.53	0.27	356.22
100+76 ⁹²			10.78	
100+45 ⁴¹			5.45	
100+13 ⁷⁰	TP 13.26	381.58	1.21	368.32
99+81 ²⁹			9.23	

Top 2" PIPE ON GAS MAIN APPROX. 105+00 50 FT

(B) 102+00 (F.B. 935-19)

SEE ABOVE

2ND MURRAY PIPELINE
TOP OF PIPE AS LAYED

381.58

99+65	⁴⁴		7.21	
99+33	²¹		3.03	
		97 TP 12.90	393.47	1.01 380.57
99+01				10.83
98+86	⁰⁷			8.86
98+54	¹⁹			5.69
98+38	³²			3.95
97+90	⁴¹	TP 12.77	405.66	0.58 392.89
97+42	⁵⁸			9.57
97+37	⁶⁰	Top ACCESS M.H.		9.09
96+78	⁵⁵			9.69
96+14	⁵⁴			9.51
95+50	⁵¹	TP 12.00	408.35	9.31 396.35
94+86	⁵⁵			12.08
94+38	⁵⁵			11.77
93+90	⁵⁷			11.64
93+26	⁶⁵			10.45
92+62	⁷⁷			8.41
91+98	⁸⁵			6.35
91+34	⁸⁴	TP 11.40	415.37	4.38 403.97

11/20/56
SHOREY
KEMP
SMITH

17.

✓

2ND MURRAY PIPELINE
TOP PIPE AS LAYED

11/20/56
SHOREY
KEMP
SMITH

18

415.37

90+54 ²⁴			8.87	
90+38 ⁸⁹			8.64	
90+12 ¹⁰	Top Access M.H.		8.23	
90+06 ⁸⁰			8.82	
89+58 ⁸³			9.57	
CK. TBM	2.43	413.61	4.03	411.34 = 411.18
89+10 ⁸³			8.76	
88+62 ⁸³			10.44	
88+46 ⁶⁸			11.13	
87+82 ⁸³	TP 5.37	405.82	13.16	400.45
87+34 ⁸¹			10.74	
86+87 ⁰⁶	TP 6.65	399.31	13.16	392.66
86+07 ⁰⁶			7.04	
85+91 ⁴			10.33	
85+59 ¹¹			10.73	
85+27 ¹¹			10.89	
84+79 ⁰⁷			11.36	
84+63 ¹²			11.83	
84+46 ⁹⁷	TP 3.02	389.23	12.41	386.21
			13.10	
			2.35	

✓

S. RIM AVA M.H. (SEE P.B. 935-17)

2ND MURRAY PIPELINE

Top of Pipe as Layed.

389.23

84+30	²⁷			3.65	
83+67	²⁸			8.74	
83+57	³³			9.88	
83+35	⁵⁰			10.50	
83+19	⁴⁷			11.40	
83+03	⁵⁰			12.02	
82+89	⁶⁰	6" B.O.			
82+71	⁷⁴			11.93	
82+24	²⁴			8.02	
82+08	²¹			6.76	
81+76	³¹			4.16	
81+60	³⁵			2.83	
81+44	³³	TP 7.89	395.21	1.91	387.32
80+96	⁸¹			8.94	
80+90	⁴¹	ACCESS M.H.		8.48	
80+80	⁹⁰			9.00	
80+16	⁷⁰			12.02	
79+36	⁹⁶	TP 3.87	386.15	12.93	382.28
78+40	⁹⁶	TP 2.73	375.91	12.97	373.18

(CONT'D Pg. 21)

11/26/56

SHOREY
KEMP
SMITH

19

TOP FLANGE

✓

ELEV. & STA. OF STORM DRAIN &
GAS MAIN CROSSING

TP 4.6 436.63 432.03
 31+97⁰⁴ Top 30" Storm Drain 7.0 429.6
 TP 4.80 440.22 435.42
 33+75 Top 16" H.P. Gas Main 7.3 432.9

SPIKE SET AT 31+97⁰⁴

PIPE CROSSES 30" R.C.P. STORM DRAIN

34+00 & HUB

8 T.B.M. 0.13 112.78 112.65

TOP HEADWALL DRAIN INLET E. SIDE WARING RD.

8 117+71³⁰ 8.65 104.13

8 117+55³⁵ 7.61 105.17

8 117+39³⁸ 6.47 106.31

8 117+31⁵⁰ 5.98 106.80

8 117+24⁵⁰ 5.15 107.63
 TP 0.08 112.70

8 117+09⁵⁵ 0.89 113.59 0.41 113.18

8 CK TBM 0.92 112.67 = 112.65 SAME AS ABOVE

✓

2ND MURRAY PIPELINE
 Top of PIPE AS LAYED
 CONT'D FROM Pg. 19

11/27/56
 SHOREY
 KEMP
 SMITH

21.

375.91

77+77²⁶

7.95

77+29³⁷

12.00

77+13⁶⁷

12.60

77+03³⁴ 6" B.O.

76+97⁸⁷

12.40

76+34⁴⁴

7.00

75+70⁷³ TP 12.54 388.19 0.26 375.65

75+07⁰⁹

5.90

74+75²⁴

2.68

73+95¹⁹ TP 12.38 400.11 0.46 387.73

73+31¹⁴

11.05

72+83⁰⁹

10.67

72+67²⁹

10.00

72+19⁸¹

5.15

71+72⁰³ TP 12.78 412.57 0.38 399.73

71+24²³

8.03

70+76²⁸

3.78

70+28²⁸ TP 13.01 425.10 0.42 412.09

69+48⁵³

7.93

✓

2ND MURRAY PIPELINE

Top of Pipe As Layed

425.10

68 + 68 ⁴⁷			5.81	
68 + 26 ⁰⁷	Access M.H.		5.24	
67 + 88 ⁴⁵			5.60	
67 + 24 ⁵¹	TP 2.64	429.35	5.39	419.71
66 + 44 ⁴⁵			9.77	
65 + 64 ⁴⁰			9.50	
65 + 32 ⁴⁰			9.22	
64 + 68 ⁵⁸			6.41	
64 + 36 ⁶¹			5.05	
63 + 72 ⁶⁶			2.58	
	TP 12.71	441.51	0.55	428.80
63 + 08 ⁷³			12.10	
62 + 44 ⁸⁴			9.46	
CK. TBM	7.00	446.98	1.49	440.02 = 439.98
62 + 13 ²⁴			13.60	
61 + 81 ⁵⁹			12.60	
61 + 49 ⁹⁴			11.82	
61 + 40 ²⁷ A.H.	} EQ. B.C.			
61 + 37 ³² B.K.			11.62	
60 + 97 ⁵⁷			10.55	
60 + 33 ⁴⁵			10.55	

11/27/56

SHOREY

KEMP

SMITH

22

Top FLANGE

7.68

386.65

Top GAS VALVE CHAMB. (F.B. 935)



2ND MURRAY PIPELINE

TOP OF PIPE AS LAYED

12/4/56
SHOREY
KEMP
SMITH

89

446.98

57+69 ⁴⁸			10.35	
59+05 ⁴⁵			10.35	
58+41 ⁴¹			10.19	
57+88 ²¹	TOP ACCESS M.H.	9.70		
57+77 ³²	FP 11.98	449.26	9.70	437.28
			12.47	436.79
57+13 ³²			12.36	436.90
56+65 ⁶⁹			9.18	440.08
56+17 ⁶⁷	EQ. 56+12 ⁴¹ AH.		6.24	443.02
56+04 ⁸²	56+15 ¹⁸ BK		5.29	
55+98 ²⁶	P.I.		5.30	
55+95 ⁸⁹			4.81	
55+31 ²¹	FP 13.05	458.00	4.31	444.95
54+68 ⁰⁶			5.40	
54+04 ¹⁸	FP 11.89	468.57	1.32	456.68
53+40 ¹⁸			8.71	
52+76 ¹¹			7.92	
52+12 ¹¹			7.37	
51+48 ⁰⁹			6.65	
50+84 ⁰¹			6.10	

✓

2ND MURRAY PIPELINE

TOP PIPE AS LAYED

468.57

50+19 ⁹⁶			5.53		
49+56 ⁰²			4.91		
48+92 ⁰⁴	TP 9.08	473.35	4.30	464.27	
48+28 ¹⁴			8.46		
48+17 ⁰⁴	TOP ACCESS M.H.		7.86		
47+64 ⁰⁹			8.40		
47+00 ⁰⁹			8.34		
46+36 ⁰⁹			8.49		
45+88 ²⁵			8.63		
45+24 ¹¹			10.51		
44+60 ²⁶	TP 10.47	471.46	12.36	460.99	
44+12 ²⁵			11.90		
44+04 ²⁰			12.40		
CR. TBM			2.99	468.47 - 468.47	TOP PLUG IN AVA M.H. 46+30 25' RT.

12/4/56

SHOREY
KEMP
SMITH

24

2ND MURRAY PIPELINE
Top of Pipe As Layed

TP	2.19	395.54	393.35	
2+00 TP	11.56	407.01	0.09	395.45
TP	11.90	417.63	1.28	405.73
1+55 ⁶⁶ TP	11.56	429.19	4.13	413.50
1+48 ⁵³			0.00	417.63
			12.02	417.17
1+41 ⁴³ TP	11.89	440.19	8.72	420.47
TP			0.89	428.30
1+04 ⁵⁸ TP	12.47	451.81	4.12	436.07
TP			0.85	439.34
0+89 ⁸⁴			10.10	444.71
0+74 ⁷⁴			4.71	447.10
0+67 ¹⁶			2.39	449.42
0+59 ⁷² CK.			0.52	451.29
			3.13	448.68
0+55 ACCESS M.H.				

12/10/56

SHUREY
KEMP
SMITH

356.16

25

(25) HUB 2+00 F.B. 935-61

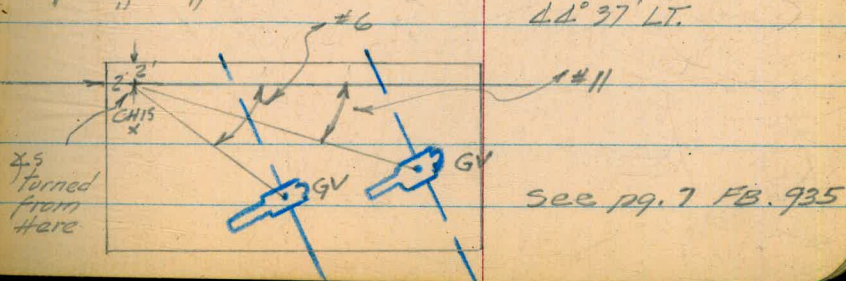
SPIKE @ 0+59⁷² MK'D C₂^e = 448.65

2nd MURRAY P.L.
Location & Elev. CONNECTIONS
AT ALVARADO PUMP PLANT.

3/14/57
Beatty
SMITH.

26

BM	0.33	112.48	0.45	112.15 112.03 = 112.13	PIP in Val Chamber Chris X NW Cor Val Chamber	Def. &
1.	58.65	Pipe Jt.	6.59	105.89	Top pipe	24°45' RT.
2.	50.08	4 3/8" val	7.06	105.42	Top of val (horiz)	21°30' RT.
3.	43.11	Cross	7.26	105.22	Top pipe (not on ridge)	17°56' RT.
4.	52.35	Pipe Jt.	6.96	105.52	" "	12°57' RT.
5.	30.94	Bend	8.18	104.30	" "	28°44' RT.
6.	19.85	4 3/8" val	8.30	104.18	Top of val. (horiz)	15°49' RT.
7.	13.14	TEE	8.53	103.95	Top pipe	13°11' LT.
8.	8.30	Pipe Joint	8.70	103.78	" "	30°31' LT.
9.	25.97	Inten El Cap.	7.10	105.38	" "	23°22' LT.
10.	29.40	X RT.	7.45	105.03	" "	10°11' LT.
11.	34.03	4 3/8" VAL.	7.08	105.40	Top of val (horiz)	4°25' RT.
12.	27.90	PIPE Bend	5.69	106.79	Top of pipe	37°16' LT.
13.	19.10	Both of Bend	12.29	100.19	" " "	26°07' LT.
14.	34.25	Pipe Jt.	6.70	105.78	" " "	17°28' LT.
15.	13.70	Pipe Jt.	7.69	104.79	" " "	44°37' LT.



TOP OF PIPE ELEV. / 1ST MURRAY
P.L. AS LAYED

SHOREY
KEMP
O'BRIEN
SMITH

WARM
15 APR 57

27

B.M.	2.19	441.74	439.55
40+94	9.49	432.25	
41+18 E	9.33	432.41	
41+50	10.16	431.58	
42+06	10.16	431.58	
42+44 E	9.54	432.20	
42+54	10.31	431.43	
42+70	9.42	432.32	
43+02	6.17	435.57	
43+18	4.89	436.85	
43+34	4.23	437.51	
T.P.	6.27	446.81	1.20 440.54
43+66	9.35	437.46	
43+98	9.50	437.31	
44+46	9.65	437.16	
CK BM	1.63	445.19 = 445.18	

(15) HUB 40+94 1ST MURRAY P.L.

18" ACCESS M.H.

4" B.O.

(15) 32+50 2ND MURRAY P.L. (F.B. 935-31)

TOP OF PIPE ELEV. 1ST MURRAY
PIPELINE AS LAYED -
STA. 48+74 TO 52+52²⁵

4/30/57
SHORRY
KEMP
O'BRIEN

29

TBM	3.56	447.88	444.32
48+74 ¹⁶		10.72	437.16
49+37 ²⁰		12.46	435.42
49+69 ²⁰		12.77	435.11
50+01 ²⁰		13.40	434.48
50+28 ³⁰ TOP OF FLANGE	13.10		434.78
50+33 ²⁰		13.93	433.95
CK. TBM	3.56		444.32 = 444.32

(3) STR. 50+50 1ST MURRAY (P. 16)
F.B. 935

49+34²⁰ B.C.

18" OUTLET TO PUMP HOUSE

MONTGOMERY PIPELINE
Elevation Top of PIPE
As Layed

JAN. 20 1958
BEATTY
SMITH.

31.

BM.	1.52	72.07	70.55	NAIL IN P. Pole #279.720
61+12 ³ 61+11¹⁰			2.83	69.24
61+43±			3.82	68.25
61+75±			4.65	67.42
62+06±			5.24	66.83
62+38±			5.24	66.83
62+70±			5.44	66.63
63+02±			6.54	65.53
63+34±			7.51	64.56
63+65±			8.43	63.64
63+95 ³ 63+94²⁰			10.47 10.32	61.60 61.75
64+11±			11.47	60.60
64+27±			12.53	59.54
TP	6.58	65.69	12.96	59.11
64+42±			7.08	58.61
64+58±			8.23	57.46
64+72±			9.16	56.53
64+90±			9.37	56.32
65+06±			9.51	56.18

RED. TB

NOTE: Elev. is taken here --- or here
STA. of pipe joint



Pipe joint is 1³ ahead 61+11¹⁰ (10)

Pipe joint 0⁸
ahead 63+94³ (10)



MONTGOMERY PIPELINE
Elevation Top of pipe
As Layed.

1/24/58

32.

65.69

65+22± 9.42 56.27

65+38± 9.73 55.96

65+54⁸⁰ (at joint) 9.98 55.71

① 0.39 64.99 1.09 64.60

68+73⁵⁰ 9.42 55.57

68+89± 8.32 56.67

69+05± 6.70 58.29

69+21⁵± 5.48 59.51

CK BM 8.18 72.78 0.39 64.60 = 64.59

CK BM 2.22 70.56 = 70.55

~~RED. 48~~

48 ahead Sta 65+50. (10)

85 ahead Sta 68+65 (10)

W. End of last pipe layed 1/24/58

1 1/2" Capped pipe - Navy Prop. Line

nail in P. Pole #279760

MONTGOMERY PIPE LINE
TOP OF PIPE AS LAYED

Used Self Reading Rod

70.11

52+92 ¹⁶	65.4
53+23 ⁶⁶	65.6
+55 ¹⁶	65.9
+86 ⁶⁶	66.3
54+18 ¹⁶	66.6
+49 ⁶⁶	66.6
+81 ¹⁶	66.2
55+12 ⁶⁶	66.4
+44 ¹⁶	66.3
+75 ⁶⁶	66.3
56+07 ¹⁶	66.3
+38 ⁶⁶	66.4
+70 ¹⁶	66.4
57+01 ⁶⁶	66.4
+33 ¹⁶	66.4
+66 ⁶⁶	66.7
+96 ¹⁶	67.0
58+27 ⁶⁶	67.03

72.73 72.70

1/28/58

West
Williams
O'Brien
Courtney

96.66
1.9
88.46

TBM 53+86⁶⁶

53+88.46 pipe joint

53+86.46 Sta of Joint

37

72.70

58+59 ¹⁶	66.90
+90 ⁶⁶	66.88
59+22 ¹⁶	67.40
+53 ⁶⁶	67.89
+85 ¹⁶	68.70
60+16 ⁶⁶	69.58
+48 ¹³	70.03
+79 ⁶³	69.92

72.70 72.70

TOP OF PIPE MONTGOMERY Cont

3.30 73.41 70.11

3.53 69.88 = 69.76

46+78 ²¹	9.34 64.07
+94 ¹⁴	9.14 64.27
47+25 ⁶³	9.40 64.01
+57 ¹³	9.11 64.30
+88 ⁶³	9.19
48+19 ⁹⁶	10.41
+57 ³⁹	12.26

TBM on Section 114

West
Williams
O'Brien
Courtnay

7/30/58

TBM 58+86¹⁴ (10) CornerLancet Riverdale
spike in PP P79889 SW Cor Sherdon

73.41

48+82 ⁸⁵	14.11	
49+14 ³¹	12.90	
+45 ⁸¹	11.63	
+77 ²⁸	10.02	
50+08 ⁷⁶	9.34	
+40 ²¹	9.21	
+71 ⁶⁶	9.32	
51+03 ¹⁶	9.00	
52+60 ⁶⁶	8.18	
+92 ¹⁶	8.12	65.29

0.68 72.73 = 72.70 FROM SEWER M.I.

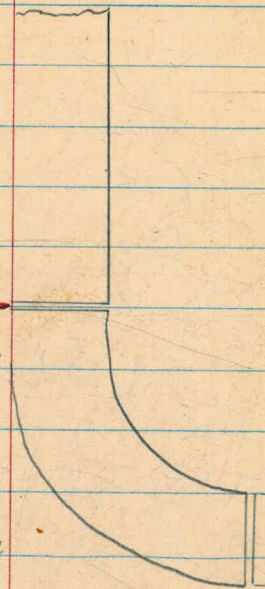
4.63 74.51 69.88

See page 34

4.97 74.56 4.92 69.59

46+58 ³⁷	10.38	64.18
46+26 ⁸⁷	10.02	64.54
45+95 ³⁷	9.64	
45+63 ⁸⁷	9.54	
+32 ³⁷	9.35	
+00 ⁸⁷	9.11	
44+69 ³⁷	8.81	
	1.18	73.38 = 73.44

NAIL IN Power-pole See FB 945 P 28



CHECK ON JACKED ENCASEMENT
MURPHY CANYON ROAD

2.63 160.43

157.86 (5)

1306 147.37

Bolt Casings
165+04

1304 147.39

Bolt Casings
164+35.2

MURPHY

Canyon Rd

- 2.62 157.81 = 157.82

(5)

West
Williams
O'Brien
County

36

11/30/58

P 24

Spike FB 945

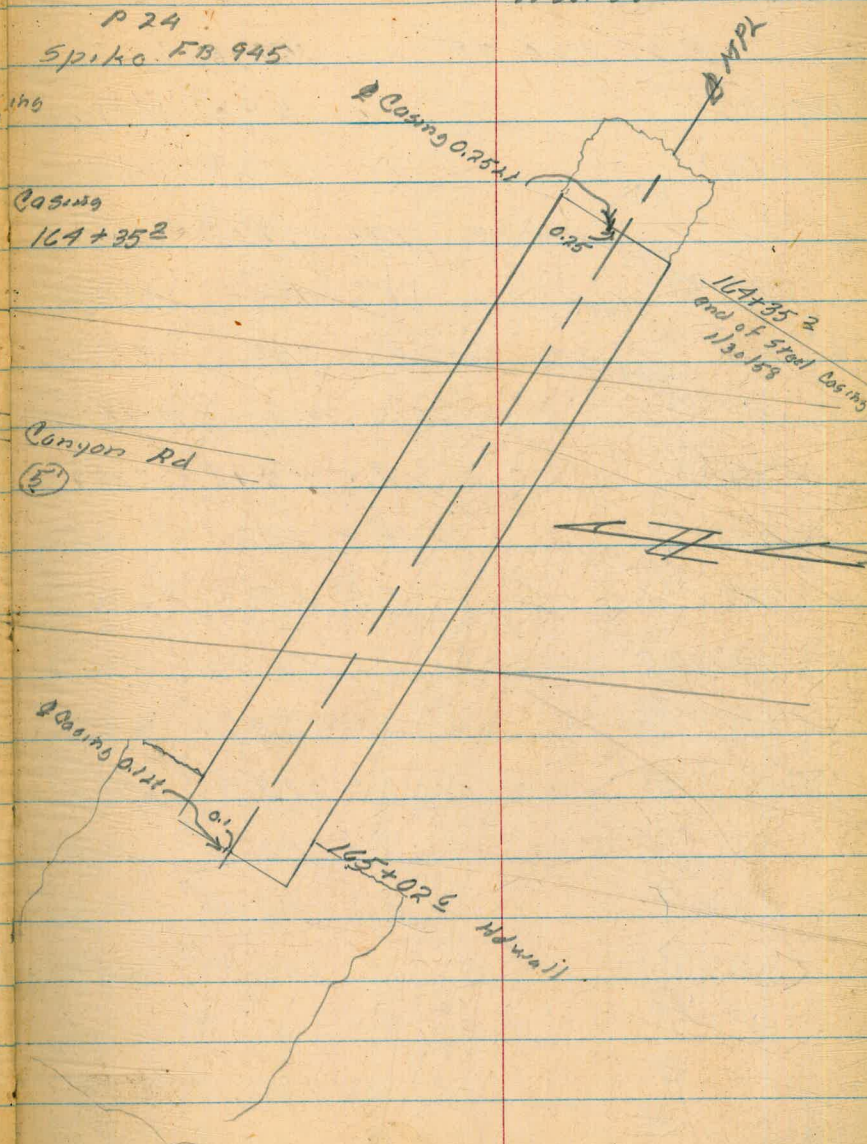
2 Casings 0.75 x 1

164+35.2
end of steel casing
1/30/58

2 Casings 0.75 x 1

165+02.6

hd wall



MONTGOMERY Pipe Line

2.67	160.99		157.82	
165+22 ⁴⁷		1.1	159.4	147.00
+54 ²²		7.6	152.9	140.3
+69 ⁷⁹ 0.61	148.30	12.80	147.69	136.9
+85 ⁴⁸ 0.64		5.2	143.1	133.2
166+32 ¹² 0.69	136.02	12.97	136.2 135.33	121.8
+47 ⁷²		3.0	133.0	118.4
+63 ⁵²		4.1	131.3 131.9	115.9
+79 ⁴⁹		5.3	130.7	114.7
+95 ⁴⁷		6.5	129.5 129.0	114.2 113.4
167+27 ⁴⁷		6.9	129.2	113.4
+59 ⁴⁷		6.9	129.1	112.7
168+07 ⁴⁶		7.1	128.9	111.5
+23 ⁴⁷		7.2	128.8	111.2
✓ +39 ⁵¹		6.7	129.3	111.0
✓ +55 ⁵⁴		7.6	128.4	111.0
✓ +71 ⁵⁴		7.2	128.8	111.0
✓ +87 ⁵⁶		6.0	130.0	111.1
✓ 169+03 ⁶⁰		7.1	128.9	111.4

West
Williams X
O'Brien
Courtney

37

1/31/58

164+95⁽⁵⁾

C12⁴

C12⁶

C10⁸

Turn on Binney

C10¹ - 9¹

C13⁵ 14.1 Turn on Binney

C14⁶

C16⁰ 15.4

7948
1352
60090

C16⁰

C15³

C15⁸

C15

129.1

C16⁴

C17⁴

C17⁶

C18³

C17⁴

C17⁸

C18⁹

C17⁵

(22) ←

35
19
16

12

136.02

169 + 19 ⁶³

6.8

129.4 111.8

129.2 111.8

130.3 112.5

+ 35 ⁶⁷

4.7

131.3 112.5

130.8

+ 51 ⁵³

4.5

131.5 114.5

+ 67 ²²

13.26

148.16

1.12

134.90 112.7

OK + 82 ⁵⁸

8.2

140.0 122.2

OK + 97 ⁵⁴

2.4

145.8 127.9

TP 1329

161.29

0.16

148.00

OK 70 + 11 ⁹⁷

9.5

151.8 134.9

OK + 26 ²⁵

3.5

157.8 142.2

TP 1293

174.18

0.04

161.25

OK 170 + 40 ²⁹

10.5

163.7 149.8

OK + 54 ³⁹

4.7

169.5 157.1

13.06

187.18

0.06

174.12

192.1 170.7

+ 82 ⁹³

5.2

182.0 170.7

13.04

199.43

0.79

186.39

171 + 10 ¹³

4.4

195.00 184.8

TP 1299

212.40

0.02

199.41

+ 36 ⁹⁴

4.1

208.3 200.7

13.13

225.36

0.17

212.23

38

C 17 ^{6.4}

129.4

- 0.1

C 17

129.3

112.5

C 18 ⁸ 178 178

158

C 17 ⁰

C 17 ²

Turn on

C 17 ⁸

C 17 ⁹

C 16 ²

C 15 ⁶

C 13 ²

C 12 ⁴

C 11 ³ C 11 ¹

C 10 ³

C 7 ⁶

11/31/58

171+64 ⁶⁰	225.36	1.7	223.7	215.8	C 7 ⁹
----------------------	--------	-----	-------	-------	------------------

12.86	238.14	0.08	225.28	-	
-------	--------	------	--------	---	--

13.07	250.72	0.49	237.65		
-------	--------	------	--------	--	--

+92 ³⁹	12.05	238.3	238.6	230.6	C 8 C 7 ⁷
-------------------	-------	-------	-------	-------	---------------------------------

12.90	263.35	0.27	250.45	-	
-------	--------	------	--------	---	--

172+20 ³⁰	10.4	253.0	244.8		C 8 ²
----------------------	------	-------	-------	--	------------------

12.84	275.91	0.28	263.07		
-------	--------	------	--------	--	--

+48 ⁶⁰	9.3	266.6	258.8		C 7 ⁸
-------------------	-----	-------	-------	--	------------------

4.89	271.02	=	271.03		(25) RP H+T 172+15 ⁸⁹
------	--------	---	--------	--	----------------------------------

13.35	288.87	0.39	275.52		
-------	--------	------	--------	--	--

+76 ⁷⁵	9.2	279.7	273.0		C 6 ²
-------------------	-----	-------	-------	--	------------------

12.98	301.76	0.09	288.78		
-------	--------	------	--------	--	--

173+05 ³⁰	8.1	293.7	286.1		C 7 ⁶
----------------------	-----	-------	-------	--	------------------

13.18	314.82	0.12	301.64		
-------	--------	------	--------	--	--

+34 ⁰⁰	6.9	307.9	299.2		C 8 ⁷
-------------------	-----	-------	-------	--	------------------

13.08	327.85	0.05	314.77		
-------	--------	------	--------	--	--

+62 ⁴⁰	8.4	319.5	312.3		C 7 ²
-------------------	-----	-------	-------	--	------------------

12.81	340.65	0.01	327.89		
-------	--------	------	--------	--	--

+91 ⁴⁷	10.0	330.7	324.2		C 6 ⁵
-------------------	------	-------	-------	--	------------------

340.65

1/31/58

13.15 353.26 0.54 340.11

174 + 20⁸²

12.4 340.9 335.3

C 5⁶+ 50⁵⁰

1.9 351.4 345.2

C 6³

13.17 365.59 0.84 352.42

+ 79²⁰

2.4 363.2 357.2

C 6⁰

12.46 377.19 0.86 364.73

175 + 09⁰⁰

2.4 374.8 368.7

C 6¹

12.96 390.09 0.06 377.13

+ 38⁰⁰

4.6 385.5 379.7

C 5⁸

12.22 402.16 0.15 389.94

+ 67⁴⁰

4.9 397.3 390.1

C 7³

12.71 414.67 0.20 401.96

+ 97⁵³

8.0 406.7 399.9

C 6⁸ 6²176 + 17⁶⁰

3.6 411.1 405.3

C 5⁸

12.21 423.28 3.60 411.07

1.96 421.32 =

CITY Eng
HAT FB 940 P 21174 + 50⁵⁰

CHECK TOP OF PIPE
MONTGOMERY Pipe Line

Used Self Reading Rod

	73.44
42+72 ^{1A}	67.10
+40 ^{6A}	67.31
+09 ^{1A}	67.46
41+77 ^{6A}	67.54
+46 ^{1A}	67.73
+14 ^{6A}	67.62
40+83 ^{1A}	67.71
+51 ^{6A}	67.77
+20 ^{1A}	67.99
39+88 ^{6A}	67.79
+57 ^{1A}	67.75
+25 ^{6A}	67.60
38+94 ^{1A}	67.25
+62 ^{6A}	67.55
+31 ¹⁶	67.54
37+99 ⁶⁷	66.66
+69 ¹⁹	65.76
+36 ⁶⁹	65.73
+05 ¹²	65.65

West
Williams
O'Brien
Courtney

2-3-58

TBM Nail in PP

See FB 940 P 46

Plan Sta 41+77 ^{6A} = pipe joint

$$36 + 73 \text{ } ^{69}$$

$$65.65$$

$$36 + 42 \text{ } ^{19}$$

$$65.62$$

$$+ 10 \text{ } ^{69}$$

$$65.25$$

$$35 + 79 \text{ } ^{19}$$

$$64.82$$

$$+ 47 \text{ } ^{69}$$

$$64.61$$

$$35 + 16 \text{ } ^{19}$$

$$73.44 = 73.44$$

check TOP OF 10" SEWER
ON TRAIL ST

0.94 85.87 94.93

12.35 73.52

12.93 72.94

TP 2.15 86.28 1.74 84.13

9.62 76.66

10.35 75.93

0.91 80.86 6.33 79.95

30+40²⁶ 8.95 71.91

271⁷³ 10.14 70.72

31+03.20 10.97 69.89

6.94 87.41 0.39 80.47

2.48 84.93 =

West
Kemp
O'Brien
Courtney

42

2/18/58

TBM on Cone Block wall of Sewers Sta

Top 10" Sewer East

" " " West

Top 12" AC WATER MAIN Ely

Top " " " " Wly

Top of 36" RCP As laid 2/18/58

84.93

Check Top of Pipe
Montgomery Pipeline

71
59
12

West
Camp
O'Brien
Country
Elev

2/17/58 43

Sta.	+	H.I.	-	
	2.94	77.87		74.93
	3.90	76.46	5.21	72.66
	4.04	71.76	8.74	67.72
69+2136			12.29	59.47
69+3736			12.15	59.61
69+5336			12.32	59.34
69+6936			12.21	59.55
69+8536			12.30	59.46
70+0136			12.42	59.34
Check to Bench	0.77		0.38	71.38
T.P.	3.92	75.30		
			2.62	72.68
	5.28	77.96		
CK Back to Original Bench			3.00	74.96 = 74.93
	3.92	75.30	71.38	T.B.11
	3.90	69.22	9.98	65.32
70+33			9.95	59.27
+49			9.95	59.27
+65			9.86	59.36
+81			9.82	59.42

(cont) Page 46

Top of Pipe As Layed

Beatty
O'Brien

Feb. 21 1958

TBM 0.71 85.64 84.93

IP 3.05 81.19 7.50 78.14

30+^{40.58}~~40.26~~ 10.6530+09 W end special 10.32
30+02 8 PT40.58
30+~~40.26~~

29+95 S. end special 9.71

29+95 Top 8" Sewer 7.80

IP 12.79 85.96 ~~10.09~~ 73.17
77.107.97 top 12 CMP
17
7.80

29+85 Top 12" AC Wat 9.80

29+63⁵⁶ 12.86

ck TBM 1.03 84.93

Top of Layed Feb 24

1.43 86.36 84.93

27+27⁵⁹ 9.84 76.52 -35 73.1+59⁰⁸ 9.16 77.26 -35 73.7+90⁵⁸ 9.15 77.21 -35 73.728+22⁰⁸ 9.27 77.09 -35 73.6+53⁵⁸ 9.30 77.06 -35 73.628+85⁰⁸ 9.04 77.32 -35 73.829+00⁶¹ 9.75 76.61 35 73.1+32⁰⁹ 11.86 74.50 35 71.0

1.43 84.93 = 84.93

TOP OF PIPE AS LAYED

West
Kemp
O'Brien

45

Feb 29, 58

165	86.58		84.93
3.64	84.74	5.48	91.10
26+96 ¹⁵		8.88	
20+64 ⁶⁸			Under Road Hill
26+33 ²³		9.02	75.72
26+01 ⁷³		8.98	75.76
25+70 ²³		8.77	75.97
25+39 ⁰¹		11.13	73.61
25+07 ^{6.73}	77.93	13.04	71.70
25+07 ⁶⁸		7.57	70.36
21+76 ³⁵		10.73	67.20
(29+57 ⁵⁹ AH = 29+62 ⁷³ BK)		12.49	65.44
29+50 ⁰⁸		12.82	65.11
TAM	8.92	82.03	4.82 73.11 ✓
	5.23	86.32	0.94 81.09
		1.38	84.94 = 84.94
	4.65	77.74	73.74
29+18 ⁵⁸		12.53	65.23
28+87 ⁰⁸		12.53	65.23
+55 ⁵⁸		11.93	65.83
+24 ⁰⁹		11.22	66.54
27+92 ⁵⁸		10.70	67.06

6.15
4.56
10.71

TR 28+87⁰⁸ (60) Non

6.38
6.15
10.53

NI
→ 27.70

ETC

27+61¹²
27+29⁶⁷

-10.71 67.05

- 10.32 67.44

- 9.65 81.73.11

Top of Pipe As Layed
(Cont From page 43)

69.22

West
Kemp
O'Brien

46

3/2/58

70+96		9.86	59.36	3.8	55.6
71+12		9.78	59.44	3.7	55.6
+28		9.82	59.40		55.6
+44		9.78	59.44		55.6
+61 ^{2A}		9.77	59.45		55.7
+77 ^{2A}		9.87	59.35		55.6
+83		9.77	59.45		55.7
72+09		9.92	59.30		55.5
+25		10.02	59.20	3.8	55.7
+41	9.75	68.84	10.13	59.09	
+57		9.73	59.11		55.3
+73		9.55	59.29	3.8	55.5
+89		9.53	59.31		55.5
73+05		9.53	59.31		55.5
+21		9.71	59.13		55.3
+36		9.55	59.29		55.5
+52 ^{6A}		9.32	59.52		55.7
+68 ⁶²		8.98	59.86		56.1
+94		7.71	61.13		
74+00	12.15	74.68	6.31	67.53	-3.9
			3.34	71.34 = 71.38	58.6
					TOT

MONTGOMERY P.L.
Top of Pipe as Layed.

MAR. 18 1958
BEATTY
KEHLER

47

TBM. 0.57 421.83 421.26

2" x 2" City Engr. disc

176+2392 13.40 408.43

Top pipe at back of Flange

176+3589 13.14 408.69

& PT. Top of pipe

176+4376 13.02 408.81

Top pipe at joint

176+7526 13.42 408.41

9P 2.47 415.24 9.06 412.77

(10) 177+3826

IP_{rock} 4.08 407.15 12.17 403.07

PIPE Covered

181+1601 13.13 392.02

IP_{rock} 12.70 418.87 0.98 406.17

PIPE Covered

183+93 A.V. 7.72 411.15

Top of pipe @ 2" Hole for AV.

183+9867 7.77 411.10

PIPE Covered

IP_{rock} 3.40 418.64 3.63 415.24

188+712 9.72 408.94

189+022 9.92 408.72

Red. 1413

MONTGOMERY PL
Top of pipe

3/18/58

48

418.64

189+342		10.17	408.47
189+657		10.35	408.29
189+972		10.75	407.89
TP rock	4.15	415.04	7.75 410.89
191+2315		10.30	404.74
191+5467		10.29	404.75
193+12±		4.21	410.83
193+135±		2.80	412.24
193+75±		1.18	413.86
9P	13.04	426.90	1.18 413.86
194+065±		11.58	415.32
194+38±		10.16	416.74
194+675±		8.62	418.28
194+695±		8.47	418.43
194+831±		7.94	418.96
194+990±		8.50	418.40
195+305±		9.22	417.68
195+62±		9.54	417.36
195+935±		10.31	416.59

} PIPE COVERED.

} PIPE COVERED.

Corrected joint sta. pipe 2' short of
plan sta.
top pipe
top Access MH

rec. WAB

MONTGOMERY P.L

3/18/58

49

Top of pipe

226.90

196+25° ±		10.80	416.10	
196+56° ±		11.30	415.60	
196+88° ±		11.86	415.04	
197+19° ±	6.39	420.80	12.49	414.41
197+51		7.04	413.76	
197+82° ±		7.47	413.33	
198+14		7.85	412.95	
198+45° ±		8.13	412.67	
198+77		8.58	412.22	
199+08° ±		8.97	411.83	
199+39° ±		9.55	411.25	
199+70° ±		9.80	411.00	
200+02		9.86	410.94	
200+33° ±		9.63	411.17	
200+65° ±	High	9.15	411.65	
200+96° ±	High	9.39	411.41	
201+28° ±		9.54	411.26	
201+59° ±		9.76	411.04	
201+91		9.80	411.00	

An occasional (10) on station
or +50 only
not many found.

Red W48

MONTGOMERY P.L.

Top of pipe

3/18/58

50

	420.80			
202+22.5±		10.24	410.56	
P 593	420.14	6.59	414.21 = 414.2	(10) 202+00
202+54.3±		9.58	410.56	3/19/58 Denny Kehler
202+85.8±		9.77	410.37	
203+17.3±		9.93	410.21	
203+48.8		9.71	410.43	
204+75±		10.09	410.05	
205+06.5±		10.31	409.83	12" 5.0 205+00± LT
205+38±		10.39	409.75	
205+69.5±		10.61	409.53	
206+01±		10.86	409.28	
206+32.5±		10.88	409.26	
206+64.0±		10.96	409.18	
207+27.0±		9.85	410.29	B.O. to RT 206+7?
207+58.5±		8.96	411.18	
207+90±		7.15	412.99	
P 208+21.5±	13.18	428.25	5.07	415.07
208+54.0±		11.17	417.08	

No station @ stakes in from here on.

31.5
126.0

REC. W49

MONTGOMERY P.L.

3/18/58

51

Top of pipe

428.25

208+85 [±]		9.68	418.57
209+17 [±]		9.13	419.12
		8.21	420.04
209+20 [±]		8.84	419.41
209+48 [±]		8.71	419.54
209+80 [±]		8.91	419.34
210+11 [±]		9.31	418.94
210+43 [±]		10.40	417.85
210+58 [±]		11.49	416.76
IP	1.94	417.67	12.52 415.73
210+90 [±]		4.90	412.77
IP	0.95	406.79	11.83 405.84
211+20 [±]			
211+35 [±]		5.67	401.12
211+55 [±]		9.81	396.98
211+87 [±]		9.80	396.99
212+19 [±]		7.27	399.52
212+50 [±]		3.22	403.57
IP	12.23	417.92	1.10 405.69
212+81 [±]		10.75	407.17
IP	12.16	429.63	0.45 417.47
IP	5.96	434.07	1.52 428.11
CL TBM		5.13	428.94 - 428.96

Top of Access MH Av.
Top of pipe

} Short pipe

} STD PIPE

} STD PIPE

} Short pipe

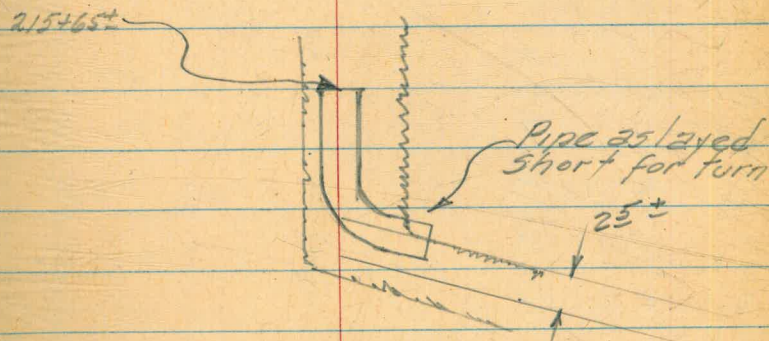
} Short pipe

13.0 212+62[±] RT} Not according
to plansCE Mon 215[±] to RT

3/18/58

52

TBM	2.57	431.53		428.96
④	1.73	420.31	12.95	418.58
212+81 [±]			13.12	407.17
213+13 [±]			10.21	410.10
213+44 [±]			7.39	412.92
213+76 [±]			4.57	415.74
214+07 [±]			2.82	417.49
④ 214+39 [±]	11.99	431.02	1.28	419.03
214+70 [±]			10.50	420.52
215+02 [±]			9.21	421.81
215+33 [±]			7.92	423.10
215+65 [±]			7.21	423.81
OK TBM			2.05	428.97 = 428.96



Montgomery Pipe Line
Top of pipe as Layed

West
Williams
O'Brien

53

26 March 58
See FB 990
p 55

Top of Cone Man 25' Rt 233+47.22 X

8.62	437.60	428.98
1.63	427.82	11.41 426.19
3.46	424.61	6.67 421.15
242+05 ⁷⁰		9.33 415.28
+37 ²⁰		9.38 415.23
+68 ⁷⁰		9.16 415.45
243+00 ²⁰		9.22 415.39
+31 ⁷⁰		9.21 415.40
+63 ²⁰		9.38 415.23
+94 ²⁰		9.35 415.26
244+26 ²⁰		9.30 415.31
+57 ⁷⁰		9.37 415.24
+89 ²⁰		9.30 415.31
All 237+01 ^{6A}		
BK 745+20 ⁷⁰ =		9.19 415.42
237+33 ^{1A}		9.40 415.21
+64 ^{6A}		9.33 415.28
2462 96 ^{1A}		9.35 415.26
238+27 ^{6A}		9.38 415.23
+59 ^{1A}	9.19 424.96	9.34 415.27

Top of pipe joint ok for sta

Turn on Pipe

26 March 58

429.46

238+90 ^{6A}	9.05	415.41
239+22 ^{1A}	8.98	415.48
+53 ^{6A}	8.90	415.56
+85 ^{1A}	9.00	415.46
240+16 ^{6A}	8.88	415.58
+48 ^{1A}	8.90	415.54
+79 ^{6A}	8.89	415.57
241+11 ^{1A}	8.70	415.74
+42 ^{6A}	8.66	415.80
+74 ^{1A}	8.61	415.85
242+05 ^{6A}	8.58	415.88
	3.10	421.34
+37 ^{1A}	8.52	415.99
+68 ^{6A}	8.18	416.28
243+00 ^{1A}	7.80	416.66
+31 ^{6A}	7.58	416.88
+63 ^{1A}	7.31	417.15
+94 ^{6A}	7.01	417.45
244+26 ^{1A}	6.66	417.80
+57 ^{6A} 9.64	427.52 6.58	417.88

side shot
 Fern on city end man

-3⁶ 419.28

Top of Pipe

55

422.52

26 March 58

244+89 ¹⁶	9.62	417.90
245+20 ⁶⁶	9.72	417.80
152 ¹⁶	9.82	417.70
183 ⁶⁶	9.99	417.53
246+15 ¹⁶	10.14	417.38
146 ⁶⁶	10.32	417.20
178 ¹⁶	10.46	417.06
247+09 ⁶⁶	10.61	416.91
141 ¹⁶	10.7	416.82
172 ⁶⁶	10.97	416.55
248+04 ¹⁶	11.04	416.48
135 ⁶⁶	11.06	416.46
167 ¹⁶	11.28	416.24
198 ⁶⁶	11.34	416.18
249+30 ¹⁶	11.68	415.84
161 ⁶⁶	11.74	415.78
193 ¹⁶	11.79	415.73
250+24 ⁶⁶	11.84	415.68
156 ¹⁶	11.93	415.59

427.52

250+87 ⁶⁶	8.91	424.22	12.21	415.31
251+19 ¹⁶			8.90	415.32
+50 ⁶⁶			9.19	415.03
+82 ¹⁶			9.31	414.91
252+13 ⁶⁶			9.36	414.86
+45 ¹⁶			9.41	414.81
+76 ⁶⁶			9.54	414.68
253+88 ¹⁶			9.62	414.60
+39 ⁶⁶			9.88	414.34
4.42	425.13	3.51	420.71	=
4.42	419.94	9.61	415.52	
		8.19	411.75	= 411.72
253+7.01	418.73		411.72	
253+71 ¹⁶		4.59	covered	
254+02.66		4.59	414.14	
255+26 ⁶⁶		5.28	413.45	
256+54 ⁶⁶		5.82	412.91	
257+49 ¹⁶		4.22	412.51	

Turn on pipe

420.64

(10)

offset

Emergency

253+50

500 FB940

P 62

500

FB940

P 33

City,

Cory

Man 25' RL

266+38⁸³

418.73

257+80⁶⁶

6.40 412.33

258+12¹⁶

6.50 412.23

+43⁶⁵

6.59 412.14

+75¹¹

7.04 411.69

259+06⁶⁰

7.81 410.92

+38¹⁶

8.31 410.42

+69⁶⁰

8.82 409.91

Covered

260+64¹⁶

9.31 409.42

+95⁶⁶

Covered

261+58⁶⁶

9.52 409.21

262+21⁶⁶

9.49 409.24

+53¹⁶

9.76 408.97

+84⁶⁶

9.76 408.97

263+16¹⁶

9.61 409.12

+47⁶³

10.03 408.70

+79¹³

10.70 408.03

264+10⁶³

11.11 407.62

	418.73		
264 + 42 ¹³		11.50	407.23
+ 62 ⁹⁰	8.29	11.68	407.05
+ 93 ⁹⁰		8.78	406.56
265 + 25 ¹⁰		9.29	406.05
+ 56 ⁹⁰		9.49	405.85
2.86	410.26	7.94	407.40
		9.60	400.66 =
2.94	414.51		411.57
265 + 88 ⁴⁰		8.78	405.73
266 + 19 ⁹⁰		8.80	405.71
+ 51 ¹⁰		8.80	405.71
+ 82 ⁹⁰		8.99	405.52
267 + 14 ⁴⁰		8.89	405.62
+ 45 ⁹⁰		8.85	405.66
+ 77 ⁴⁰		8.85	405.66
268 + 08 ⁹⁰		8.85	405.66
+ 40 ⁴⁰		9.04	405.47
+ 71 ⁹⁰		9.06	405.45

Tarn on pipe

400.42
West
Williams
O'BrienConc Man 25' pt 270 + 60²³ FB 939

P46

30 March 58

Conc Man FB 939 P44

414.51

269+03 ⁹⁰	8.97	405.54
+34 ⁹⁰	9.08	405.43
+66 ⁴⁰	9.16	405.35
270+60 ⁹⁰	9.76	404.75

271+55⁴⁰ 6.82 411.00 10.33 404.18

272+49⁹⁰ 7.60 403.40

273+12⁹⁰ 7.91 403.09 3.6

399.5

10.53 400.47 = 400.42 Conc Man 25' RI 270+60²³

400.42

400.42

APRIL 22 1958 BEATTY-HENKE

TBM 2.11 377.71 375.60

50' RP RI 150+23¹⁹

P 12.36 390.01 0.06 377.65

(10) RT 146+30²⁷

145+36²⁷ (offset str.) 6.86 383.15

(10) RT C 74

145+36²⁷ Top pipe 10.76 379.25

145+02⁸± " " 9.96 380.05

142+73³± " " 9.31 380.70

141+41⁸± " " 9.17 380.84

144+10²± " " 8.99 381.02

Red. 13

MONTGOMERY P.L.
Top of PIPE AS LAYED

4/22/58

60.

390.01

143+78 [±]		8.56	381.45
143+47 [±]		8.08	381.93
143+158 [±]		7.72	382.29
142+82 [±]		7.24	382.77
① 142+528 [±]	1321	396.50	6.72 383.29
142+213 [±]		12.67	383.83
141+89 ⁸		12.08	384.42
141+583 [±]		10.41	386.09
141+268 [±]		9.02	387.48
140+953 [±]		7.55	388.95
140+64 [±]		5.96	390.54
140+325 [±]		5.19	391.31
140+01 [±]		✓ 5.05	391.45
139+751 [±]	EQVA	✓ 5.22	391.28
① 139+44 [±]	13.36	404.63	5.23 391.27
139+128 [±]		13.35	391.28
138+813 [±]		13.25	391.38
138+497 [±]		13.27	391.36
138+18 [±]		13.13	391.50

RED. TB

MONTGOMERY PL
Top of pipe 85 LAYED

4/22/58

61

404.63

137+86 [±]		13.31	391.32
137+55 ³⁺		13.32	391.29
137+238 ⁺		13.37	391.26
136+92 ³⁺		13.25	391.38
136+60 ^{8±}		13.26	391.37
136+29 ²		13.28	391.35
136+04 ^{8±}	} 7952 401.55	12.66	391.99
135+97 ^{8±}		12.60	392.03
135+46 ^{6±}	} EQUA	10.21	391.34
135+15 ^{2±}		10.25	391.30
134+83 ^{7±}		10.01	391.52
134+52 ²		9.71	391.84
134+20 ^{3±}		9.51	392.02
133+89 ²		8.45	393.10
133+57 ^{6±}		6.81	394.74
133+26 ^{1±}		5.21	396.34
132+94 ^{6±}	9.71 408.07	3.19	397.47
132+63 ^{5±}		3.19	398.36
132+32 ^{0±}		9.70	398.37
		9.69	398.38

Top of access M.H. @ AV.

REV. 18

MONTGOMERY P.L.
 Top of Pipe as Layed

4/22/58

62

	408.07			
132+00.5 ±		9.64	398.43	
131+69.0 ±		✓ 9.84	398.23	
131+37.5 ±		✓ 9.92	398.15	
131+06 ±		✓ 9.85	398.22	
130+74.5 ±		✓ 9.90	398.17	
130+43 ±		9.69	398.38	
130+12.0 ±		9.68	398.39	
129+81 ±		9.60	398.47	
129+59.5 ±		9.31	398.76	
129+18 ±		9.14	398.93	
128+86.5 ±		8.73	399.34	
128+55 ±		8.41	399.66	
128+23.5 ±		8.40	399.67	
127+92.0 ±		8.12	399.95	
127+60.3 ±	} "	8.01	400.00	
127+49.2 ±		7.88	400.19	
127+28.70 ±		7.73	400.34	
RP	3.60	d10.23	1.44	406.63
CK TBM		3.12	407.11 = 407.17	

Top pipe / at Air Valve
 (actual STATION)

(100) RP PI. 133+78.31

RED. #

MONTGOMERY P.L.
Top of pipe 25 Layed

April 24 1958
BOSTY
HENKE

63

TBM	3.07	410.24	407.17	100' RPP1	133+78 ³¹
IP	9.67	410.08	9.83	400.41	
127+28 ²	ck Top pipe		9.79	400.29 = 400.32	previous page
126+97 ² ±	" "		9.80	400.28	
126+65 ² ±			10.12	399.96	
126+34 ² ±			10.06	400.02	
126+02 ² ±			10.12	399.96	
125+71 ² ±			10.05	400.03	
125+39 ²			10.06	400.02	
125+08 ² ±			10.51	399.57	
124+76 ² ±			10.85	399.23	
124+45 ² ±			10.77	399.31	
124+13 ² ±			11.01	399.07	
123+82 ² ±			11.24	398.84	
CK TBM			3.72	406.36 =	406.37 (50) RPPOT. 123+90 ³⁸
123+50 ² ±			11.18	398.90	
123+19 ² ±			11.29	398.79	
122+87 ² ±			11.50	398.58	
122+56 ² ±			11.33	398.75	

RED. 49

MONTGOMERY P.L.
Top of pipe as Layed

4/22/58

64

		410.08		
① 122+24.2±	9.25	407.97	11.36	398.72
121+93.2±			9.32	398.65
121+61.7±			9.26	398.71
121+30.2±			9.42	398.55
120+98.2±			9.53	398.42
120+67.2±	} 78 Top Access M.H.		9.51	398.26
120+59.4±		8.90	399.07	
120+35.2±	} 6'		9.50	398.47
• 120+29.2±			9.60	398.37
119+98.2±			9.27	398.70
119+66.2±		✓	9.43	398.54
119+35.2±		✓	9.24	398.73
119+03.3±		✓	9.48	398.49
118+72.2±			9.36	398.61
118+40.2±			9.38	398.59
118+09.2±			9.18	398.79
117+77.2±			9.03	398.94
117+46.2±			9.12	398.85
① 117+14.2±	6.82	405.35	9.41	398.53

RED 19

4/24/58.

65

MONTGOMERY P.L.
Top of pipe as Layed

	405.35		
116+812±		7.21	398.14
116+097±		✓ 7.44	397.91
116+182±		7.35	398.00
115+862±		7.49	397.86
115+552±		8.02	397.33
115+232±		8.12	397.23
114+922±		✓ 7.93	397.02
114+602±		✓ 7.92	397.03
114+292±		8.10	397.21
113+972±		8.09	397.26
113+660±		8.28	397.07
113+345±		8.69	396.66
113+03±		8.91	396.44
112+715±	6.58 402.93	9.00	396.35
112+40±		6.78	396.15
112+085±		7.12	395.81
111+77±		7.14	395.79
111+455±		7.40	395.53
111+140±		7.55	395.38

RED.#

MONTGOMERY P.L.
Top of pipe as LAYED

4/24/58

66

402.93

110+825+		7.75	395.18
110+510+		8.18	394.75
110+195+		8.22	394.71
109+891+		8.83	394.10
109+572+		9.13	393.80
109+264+		9.57	393.26
108+950+		9.70	393.19
108+636+		10.08	392.85
108+323+		10.43	392.50
108+018+		10.69	392.24
107+705+	1060 402.90	10.63	392.30
CK TBM		2.21	400.69 = 400.66
107+391+		10.49	392.41
107+072+		10.65	392.25
106+763+		10.80	392.10
106+450+		10.82	392.08
106+132+		11.00	391.90
105+823+		10.94	391.96
105+615+	+60	10.30	392.60
105+495	105 } Top Access MH		

Red. +B

(100) R.P.P.I. 109+

actual station

MONTGOMERY PL.
 Top of pipe 25 LAYED

4/24/58

67

105+19 $\frac{1}{2}$	402.90	10.93	391.97
105+18 $\frac{1}{2}$ ±		10.73	392.17
104+86 $\frac{1}{2}$ ±		10.69	392.21
104+55 $\frac{1}{2}$ ±		✓ 10.84	392.06
104+23 $\frac{1}{2}$ ±		✓ 10.58	392.32
103+92 ±		✓ 10.82	392.08
① 103+60 $\frac{1}{2}$ ± 8.26	400.51	10.65	392.25
103+29 $\frac{1}{2}$ ±		7.90	392.61
102+97 $\frac{1}{2}$ ±		7.75	392.76
102+66 $\frac{1}{2}$ ±		7.81	392.70
102+34 $\frac{1}{2}$ ±		7.79	392.72
102+03 $\frac{1}{2}$ ±		✓ 7.94	392.57
101+71 $\frac{1}{2}$ ±		✓ 7.83	392.68
101+40 $\frac{1}{2}$ ±		7.29	393.22
101+08 $\frac{1}{2}$ ±		7.13	393.38
100+77 $\frac{1}{2}$ ±		6.70	393.81
100+05 $\frac{1}{2}$ ±		6.42	394.09
100+14 $\frac{1}{2}$ ±		✓ 6.22	394.29
99+82 $\frac{1}{2}$ ±		6.40	394.11

RED. 13

MONTGOMERY P.L.
Top of pipe 25 LAYED

4/24/58

68

400.51

99+51 ^{0±}		6.61	393.90
99+43 ^{7±}	Top pipe @ AV.	6.50	394.01
99+19 ^{5±}		6.32	394.19
98+88 [±]		6.45	394.06
98+56 ^{5±}		6.42	394.09
98+25 ^{0±}		6.38	394.13
97+93 ^{5±}		6.56	393.95
97+62 [±]	7.43 401.46	6.48	394.03
97+30 ^{5±}		7.66	393.80
96+99 [±]		7.58	393.88
96+67 ^{5±}		8.16	393.30
96+36 [±]		8.22	393.24
96+04 ^{5±}		8.19	393.27
95+73 [±]		8.44	393.02
95+41 ^{5±}		8.57	392.89
95+10 [±]		8.93	392.53
94+78 ^{5±}		9.20	392.26
94+47 [±]		9.10	392.32
94+15 ^{5±}		9.35	392.11

REQ. 43

MONTGOMERY P.L.
Top of pipe as LAYED

4/24/58
BEATTY
HENKE

401.46

93+84 ±		10.21	391.25
93+52.5 ±		11.12	390.34
93+21 ±		12.17	389.29
92+89.5 ±		12.90	388.56
92+58 ±		13.40	388.06
92+26.5 ±	12.19	100.17	13.48 387.98
91+95 ±		12.71	387.46
91+63.5 ±		12.86	387.31
91+12.91 Top access MH		12.33	387.84
91+00.91 91+12.2 End of pipe as LAYED		13.03	387.14
CK BM		3.11	397.06 Red. #8

actual station

" "

on City Engr's Conc. Mon

4/25/58

West
Williams
O'Brien
Henke

Elev.

Cont from pg 46.

BM,	+	H.I.	-
T.B.M.	3.49	78.42	
74+79.42		10.72	
75+10.93		9.96	
75+42.43		9.72	
75+60 Top access M.H		9.07	
75+73.93		9.81	

74.93 see pg. 43

67.70 Notes Pipe Joint 6' Ahead of Station

68.46

68.70

69.35

68.61

Montgomery P.L.
Top of Pipe as Layed

West 4/25/58
Williams
O'Brien
Henke
Elev

70

	+	78.42	-		
76+05 ⁴³			9.85	68.57	Top 12" Corrugated Sewer Crossing 836 Elev 70.06
76+36 ⁹³			9.79	68.63	
76+68 ⁴³			9.63	68.79	
76+99 ⁹³			9.34	69.08	
77+31 ⁴³			9.30	69.12	
77+62 ⁹³			8.99	69.43	
77+94 ⁴³			8.87	69.55	
78+25 ⁹³			8.62	69.80	
78+57 ⁴³			8.21	70.21	
78+88 ⁹³			8.00	70.42	
79+20 ⁴³			7.95	70.47	
79+51 ⁹³			7.42	71.00	
Check TBM			3.49	74.93 = 74.93 TBM NAIL in Euc Trce	
TBM	+	HI	-	Same Party as above	
TP	3.65	78.58	7.16	Elev 74.93 NAIL IN EUC. TREE	
TBM	9.82	81.24		71.42	
79+83 ⁴³			-9.82	71.42	
80+14 ⁹³			8.77	72.47	
80+46 ⁴⁰			7.16	74.08	cont next Page

Montgomery P.L.
Top of Pipe as Layed

West 4/25/58
Williams
O'Brien
Henke
Elev.

STA.	+	M.L.	-	Elev.
		81.24		
80+77			5.66	75.58
81+09			4.22	77.02
81+40			2.86	78.38
81+72			1.13	80.11
TP	5.70	85.38	1.56	79.68
82+03			2.11	83.27
82+34				
T.P.				
81+72	5.67	88.43	2.62	82.76
82+34			1.37	87.06
T.P.	3.03	78.59	12.87	75.56
CHECK T.B.M.			3.61	74.98 = 74.93 ORIGINAL B.M.

TURN ON GINNEY

5/9/58 BEATTY HENKE

11	9.92	83.03	73.11
25+72			
25+72	Top pipe at Jt.	6.59	76.44
25+41		2.60	80.43
TP	12.36	95.10	0.29 82.72
25+07		11.47	83.63
24+76		8.28	86.82

⑩ 27+87⁰⁸ (pg. 45.)

5/9/58
 BEATTY
 HENKE

72

95.10

24+45'±		4.40	90.70
24+139 ±		2.76	92.34
24+129 ±	AV.	2.76	92.34
23+82±		3.66	91.44
23+51'±		5.34	89.76
23+19±		7.30	87.80
22+88±		8.99	86.11
①	7.12	93.49	8.73 86.37
22+00±	PIPE Covered up. B.O.		10.93 82.56
21+98±		10.90	82.59
21+66±	actual sta	10.73	82.76
21+35±		10.42	83.07
21+03±		10.92	83.17
20+72±		9.96	83.53
20+40±		9.65	83.84
20+09±		7.15	86.34
19+77±		3.40	90.09
19+46±		0.46	93.03
①	7.34	100.83	0.00 93.49

5/9/58
BEATTY
HENKE

73

	100.83			
19+150 ±		5.82	95.01	
18+835 ±		5.12	95.71	
18+765 ±	M.H. & AV	5.16	95.67	
	Top M.H	4.52	96.31	
18+520 ±		5.47	95.36	
18+205 ±		6.58	94.25	
17+890 ±		8.92	91.91	
17+575 ±		12.32	88.51	
IP	0.63	88.57	12.89	87.94
17+262 ±		3.96	84.61	
16+943 ±		9.71	78.86	
IP	4.00	79.40	13.17	75.40
16+644	Actual Sta	5.28	74.12	
				12.0
				6.6
				5.4
16+332		7.32	72.08	
16+045	B.O. #	11.98	67.02	
	in creek 30' LT	6.6	72.8	
16+02 ±		8.78	70.62	
15+715 ±		9.31	70.09	
15+40 ±		9.13	70.29	
15+085 ±		9.12	70.28	
14+770 ±		9.04	70.36	
14+455 ±		8.80	70.60	
14+140 ±		8.00	71.40	
13+825 ±		7.06	72.34	
OK @ IP	7.78	82.92	4.24	-75.16 = 75.2

12.0
6.6
5.4

70.08
9.32

7.06

(10) 14+7456 FB 740-79

May 13 1958
 BEATTY
 HENKE

74

12+25³
~~12+2264~~ 82.94 8.04 74.90

11+938± 3.91 79.03

P 12.61 94.63 0.92 82.02

11+62²± 10.38 84.25

11+31⁰± 5.40 89.23

10+995± 2.14 92.49

P 12.69 106.38 0.94 93.69

10+682± 10.56 95.82

10+373± 7.02 99.36

10+063± 3.60 102.78

9+757 }
 9+7196 } 4.1 100.34 9+752 Actual Station

P 3.20 108.29 1.29 105.09
 H 1.62 106.67 =

(10) 10+00

T.B.M. 8.77 115.44 106.67

10+03.26 12.65

9+71.96 8.91

9+41.01 4.36

T.P. 4.40 118.69 1.15 114.29

9+10.72 3.91

MAY 16, 1958 (10) AT STA. 10+00

WEST

WILLIAMS

O'BRIEN X

HENKE †

MONTGOMERY P.L.
TOP OF PIPE AS LAYED

WEST
WILLIAMS
O'BRIEN &
HENKE

75
FAIR
5/16/58

STA.	+	HI	-	EL.
		118.69		
8+00 ⁺	-		3.26	
8+90			3.08	
8+81.72			4.15	
8+69.49			5.93	
8+51.10			11.81	
T.P.	6.69	113.39	11.99	106.70
8+37			11.47	101.92
8+21.10			11.89	101.50
8+05			12.19	101.20
7+89.77			3.69	109.70
T.P.	12.49	122.19	3.69	109.70
7+80			6.09	116.10
7+60.63			2.88	119.31
T.P.	13.26	132.68	2.77	119.42
CHECK			1.16	131.52 = 131.6
7+29.66			9.76	122.92
CHECK			8.51	124.17 = 124.2

A.V.

⑩ 7+29.66 F.B. 940 - PAGE 77

CENTER DITCH

⑩ 7+60.63 F.B. 940 - 77

Montgomery Pipeline
Top of pipe As Layed

West
Williams
O'Brien

76

City, BM # 25 Sec FB 940 P 2

2.05	107.14	105.09		
2+29 ⁵⁵		7.97	99.17	-3.4
	12.97	119.78	0.33	106.81
2+60 ⁶²		10.70	109.08	-3.6
2+91 ³²		3.65	116.13	-3.6
	12.97	132.23	0.42	119.36
3+22 ¹⁰		9.57	122.66	-3.6
	11.98	142.27	1.94	130.29
3+52 ⁹⁸		13.24	129.03	-3.6
3+83 ⁹⁸		7.78	134.49	-3.6
4+15 ¹⁵	12.44	150.87	3.84	138.43
4+46 ⁴²		9.40		
4+79.22 BK		6.51	144.36	-3.6
4+77.70 All				
5+10 ⁵³		5.13	145.64	-3.6
5+12.06		4.54	146.33	-3.6
5+73 ⁵⁵		5.29	145.58	-3.6
6+05.02		7.09	143.78	-3.6
6+36 ²⁰		10.80	140.07	-3.6
2.56	140.42	13.01	137.86	

95.6

105.4

112.5

119.1

125.4

130.9

134.8

140.8

142.0

142.7

142.0

140.2

136.5

140.42

6+67 ⁴³	4.47	135.95	-3.6	132.4
--------------------	------	--------	------	-------

6+98 ⁶⁶	9.22	131.20	-3.6	127.6
--------------------	------	--------	------	-------

4.28	131.52	1318	127.24	
------	--------	------	--------	--

7+29 ⁶⁶	5.62	125.90	-3.6	122.3
--------------------	------	--------	------	-------

7+60 ⁶³	11.68	119.84	-3.6	116.2
--------------------	-------	--------	------	-------

Shot on page 75
This joint was moved after being

7.23	124.29 = 124.2			
------	----------------	--	--	--

① Quincy EB 940 p. 77 7+60⁶³

+ 0.11	131.63 = 131.6			
--------	----------------	--	--	--

① Quincy " " " 7+29⁶⁶

9+10⁷² = plan sta

+ 3.4

9+14.12 = pipe joint

7+60⁶³ = plan sta

+ 2.70

7+63.33 = pipe joint

2+91³² = plan sta

+ 2.75

2+94.07 = pipe joint

Top of Pipe as Layed

West
Henke

74
17 June 58

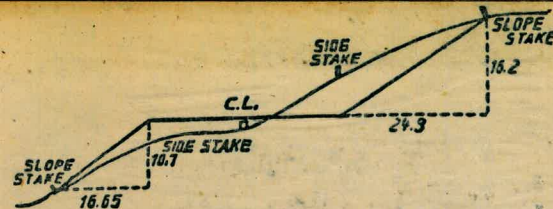
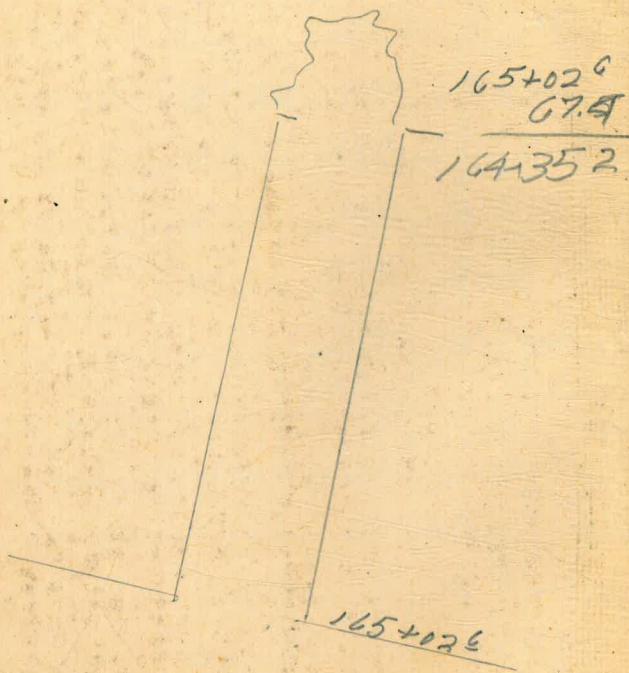
129	159.11		157.82	(5) 164+95
165+22 ⁹²		915	149.96 - 3.7	144.3
165+38		12.10	147.01	143.3
165+54 ⁷²	162	145.33	15.90	143.71
165+69 ⁸⁹			5.33	140.00
165+95 ⁴⁹			8.85	136.48
166+01			12.5	132.8
166+16 ⁴	3.64	132.79	16.18	129.15
166+32 ¹⁹			7.64	125.15
166+47 ⁷³			11.16	121.63
166+53 ⁵²			13.23	119.56
166+79 ⁴⁸			14.19	118.60
166+95 ⁴²			14.81	118.00
167+11 ⁴²			15.56	117.23
167+27 ⁴²			15.87	116.92
167+43			16.22	116.57
167+59 ⁴²	2.37	118.81	16.35	116.44
			2.88	115.93
167+75 ⁵			3.11	115.70
+915			3.37	115.44
168+07 ⁴⁶			3.59	115.22

118.81

165	168+2342		3.74	115.07	-3.7	111.4
165	168+3951		3.78	115.03		111.3
165	168+5554		4.08	114.73		111.0
165	168+7154		4.19	114.62		110.9
165	168+8756		3.95	114.86		111.2
165	169+0360		3.80	115.01		111.3
166	169+1963		3.04	115.75		112.1
166	14.67	131.75	1.73	117.08		
166	13.67	143.03	2.39	129.36		
166	16.32	157.51	1.94	141.19		
166	9.48	163.64	3.35	154.16		
166			5.84	157.80 =		157.82
166						
167						
16						
16						
167						
167						
16						

Please Return to
 City of San Diego Water Dept.
 Rdom 903 Civic Center

20
12.4
 7.6
 164+95
165+026



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.
 SLOPE 1 1/2 TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.00	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	0
1	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	1
2	3.00	3.15	3.30	3.45	3.60	3.75	3.90	4.05	4.20	4.35	2
3	4.50	4.65	4.80	4.95	5.10	5.25	5.40	5.55	5.70	5.85	3
4	6.00	6.15	6.30	6.45	6.60	6.75	6.90	7.05	7.20	7.35	4
5	7.50	7.65	7.80	7.95	8.10	8.25	8.40	8.55	8.70	8.85	5
6	9.00	9.15	9.30	9.45	9.60	9.75	9.90	10.05	10.20	10.35	6
7	10.50	10.65	10.80	10.95	11.10	11.25	11.40	11.55	11.70	11.85	7
8	12.00	12.15	12.30	12.45	12.60	12.75	12.90	13.05	13.20	13.35	8
9	13.50	13.65	13.80	13.95	14.10	14.25	14.40	14.55	14.70	14.85	9
10	15.00	15.15	15.30	15.45	15.60	15.75	15.90	16.05	16.20	16.35	10
11	16.50	16.65	16.80	16.95	17.10	17.25	17.40	17.55	17.70	17.85	11
12	18.00	18.15	18.30	18.45	18.60	18.75	18.90	19.05	19.20	19.35	12
13	19.50	19.65	19.80	19.95	20.10	20.25	20.40	20.55	20.70	20.85	13
14	21.00	21.15	21.30	21.45	21.60	21.75	21.90	22.05	22.20	22.35	14
15	22.50	22.65	22.80	22.95	23.10	23.25	23.40	23.55	23.70	23.85	15
16	24.00	24.15	24.30	24.45	24.60	24.75	24.90	25.05	25.20	25.35	16
17	25.50	25.65	25.80	25.95	26.10	26.25	26.40	26.55	26.70	26.85	17
18	27.00	27.15	27.30	27.45	27.60	27.75	27.90	28.05	28.20	28.35	18
19	28.50	28.65	28.80	28.95	29.10	29.25	29.40	29.55	29.70	29.85	19
20	30.00	30.15	30.30	30.45	30.60	30.75	30.90	31.05	31.20	31.35	20
21	31.50	31.65	31.80	31.95	32.10	32.25	32.40	32.55	32.70	32.85	21
22	33.00	33.15	33.30	33.45	33.60	33.75	33.90	34.05	34.20	34.35	22
23	34.50	34.65	34.80	34.95	35.10	35.25	35.40	35.55	35.70	35.85	23
24	36.00	36.15	36.30	36.45	36.60	36.75	36.90	37.05	37.20	37.35	24
25	37.50	37.65	37.80	37.95	38.10	38.25	38.40	38.55	38.70	38.85	25
26	39.00	39.15	39.30	39.45	39.60	39.75	39.90	40.05	40.20	40.35	26
27	40.50	40.65	40.80	40.95	41.10	41.25	41.40	41.55	41.70	41.85	27
28	42.00	42.15	42.30	42.45	42.60	42.75	42.90	43.05	43.20	43.35	28
29	43.50	43.65	43.80	43.95	44.10	44.25	44.40	44.55	44.70	44.85	29
30	45.00	45.15	45.30	45.45	45.60	45.75	45.90	46.05	46.20	46.35	30
31	46.50	46.65	46.80	46.95	47.10	47.25	47.40	47.55	47.70	47.85	31
32	48.00	48.15	48.30	48.45	48.60	48.75	48.90	49.05	49.20	49.35	32
33	49.50	49.65	49.80	49.95	50.10	50.25	50.40	50.55	50.70	50.85	33
34	51.00	51.15	51.30	51.45	51.60	51.75	51.90	52.05	52.20	52.35	34
35	52.50	52.65	52.80	52.95	53.10	53.25	53.40	53.55	53.70	53.85	35
36	54.00	54.15	54.30	54.45	54.60	54.75	54.90	55.05	55.20	55.35	36
37	55.50	55.65	55.80	55.95	56.10	56.25	56.40	56.55	56.70	56.85	37
38	57.00	57.15	57.30	57.45	57.60	57.75	57.90	58.05	58.20	58.35	38
39	58.50	58.65	58.80	58.95	59.10	59.25	59.40	59.55	59.70	59.85	39
40	60.00	60.15	60.30	60.45	60.60	60.75	60.90	61.05	61.20	61.35	40
41	61.50	61.65	61.80	61.95	62.10	62.25	62.40	62.55	62.70	62.85	41
42	63.00	63.15	63.30	63.45	63.60	63.75	63.90	64.05	64.20	64.35	42
43	64.50	64.65	64.80	64.95	65.10	65.25	65.40	65.55	65.70	65.85	43
44	66.00	66.15	66.30	66.45	66.60	66.75	66.90	67.05	67.20	67.35	44
45	67.50	67.65	67.80	67.95	68.10	68.25	68.40	68.55	68.70	68.85	45
46	69.00	69.15	69.30	69.45	69.60	69.75	69.90	70.05	70.20	70.35	46
47	70.50	70.65	70.80	70.95	71.10	71.25	71.40	71.55	71.70	71.85	47
48	72.00	72.15	72.30	72.45	72.60	72.75	72.90	73.05	73.20	73.35	48
49	73.50	73.65	73.80	73.95	74.10	74.25	74.40	74.55	74.70	74.85	49
50	75.00	75.15	75.30	75.45	75.60	75.75	75.90	76.05	76.20	76.35	50

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