

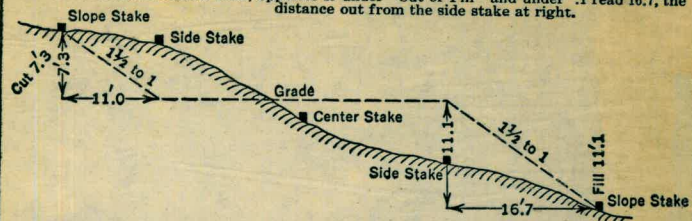
MISSION BAY

68

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes 1½ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



Cut or Fill	Distance out from Side or Shoulder Stake										Cut or Fill
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

KEUFFEL & ESSER CO., N. Y.

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Mission Bay # 68

MICROFILMED

JAN 7 1965

The paper in this book No. 373A
is made of 50% high grade rag stock
with a WATER RESISTING surface sizir g.

INDEX

Page		Date
1-15	X Sections of East 65036	April-1951 5-7-51

Portion of Tierra Fuego

16	Bench Levels For X-Sec's of E. Half Tierra W.D. 65036	11 Apr 1951
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17-60	Original X-Secs and Soundings E of Crown Pt W.D. 65036 Dredge & Fill DeAnza & Vicinity	April 1951
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4-5-51

①

STA 78+00 = 0+00

STA + HI - ELEV

STA + HI - ELEV

B.M. 6.82 17.66 10.84

CAUSEWAY

BM 500 15.84 10.84

P.I.X.

TBM 4.91 10.93

0+00 = 76+00 N W CURB B/L

E 0+41 4.92 10.92

Top. Curb

STA HI - ELEV

0+76 5.1 10.7

E 0+41 17.66 4.78 12.88

TOP E CURB

1-12 5.0 10.8

EDGE OF CURB

0+55 5.1 12.6

P.X.

1+14 5.3 10.5

0+57 8.2 9.5

1+66 4.9 10.9

0+63 11.7 6.0

2+04 4.6 11.2

2+27 4.3 11.5

STA 77+00 = 0+00

2+38 9.3 6.5

B.M. + HI - ELEV

B.M. 4.95 15.79 10.84

P.X.

E 1+40 9.5 6.3

E 1+32 6.5 9.3

1+20 5.4 10.4

1+17 4.6 11.2

0+81 5.0 10.8

0+41 5.04 10.75

EAST
TOP WEST
CURB

STA 79+00 = 0+00

STA 80+00 = 0+00

4-6-51

② 4.82

STA	+	H.I.	-	ELEV		STA	+	H.I.	-	ELEV	
TBM	5.17	16.10		10.93	EAST CURB STA 78+00	T.P.	4.82	16.09		11.27	
E3+32			9.6	6.5	PX	F0+41			4.90	11.19	Top. Curb.
3+29			3.9	7.2		0+71			4.5	11.6	EDGE
2+70			4.4	11.7		1+01			4.8	11.3	PX
2+07			5.3	10.8		1+06			5.2	10.9	
1+35			6.1	9.0		1+79			5.8	10.3	
1+08			4.9	11.2	EDGE OF DIRT	2+42			5.7	10.4	
0+70			4.9	11.2		3+10			5.8	10.3	
0+41			5.08	10.92	Top Curb	3+83			4.6	11.5	
T.P.			4.83	11.27		4+10			5.7	10.4	
						4+16			7.0	9.1	
						4+22			9.9	6.2	

4-5-51

③

STA 81+00 = 0+00

STA 88+00 = 0+00

STA	+	HI	-	ELEV
-----	---	----	---	------

STA	+	HI	-	ELEV
-----	---	----	---	------

TP	5.03	16.30		11.27
----	------	-------	--	-------

TP	5.18	16.45		11.27
----	------	-------	--	-------

E5+11			10.9	6.0
-------	--	--	------	-----

TBM			4.96	11.49
-----	--	--	------	-------

4+92			6.6	9.7
------	--	--	-----	-----

E0+41			5.00	11.45
-------	--	--	------	-------

4+15			6.5	9.8
------	--	--	-----	-----

0+71			4.9	11.5
------	--	--	-----	------

3+30			6.2	10.1
------	--	--	-----	------

0+90			5.6	10.8
------	--	--	-----	------

2+56			6.6	9.7
------	--	--	-----	-----

1+01			6.4	10.0
------	--	--	-----	------

1+83			6.6	9.7
------	--	--	-----	-----

1+69			7.4	9.0
------	--	--	-----	-----

1+10			6.2	10.1
------	--	--	-----	------

2+32			7.0	9.4
------	--	--	-----	-----

0+98			5.0	11.3
------	--	--	-----	------

3+06			7.0	9.4
------	--	--	-----	-----

0+73			4.8	11.5
------	--	--	-----	------

3+90			6.7	9.7
------	--	--	-----	-----

0+41			4.96	11.34
------	--	--	------	-------

4+55			6.0	10.4
------	--	--	-----	------

5+03			6.3	10.1
------	--	--	-----	------

5+30			10.3	6.1
------	--	--	------	-----

LP4621
E. CURB

Top. Curb.

PX

EDGE

EDGE

Top. Curb

STA 83+00 = 0+00

STA	+	H1	-	ELEV
TBM	4.90	16.39		11.49
E 4+55			9.8	6.6
4+31			5.1	11.3
3+75			5.3	11.1
2+94			6.4	10.0
2+12			6.7	9.6
1+41			7.0	8.4
1+02			6.4	10.0
0+94			5.5	10.9
0+62			4.7	11.7
0+41			4.88	11.51

LP
4621

PX

EDGE

Top Curve

4-5-51

(4)

STA 84+00 = 0+00

STA	+	H1	-	ELEV
TBM	4.96	16.45		11.49
TBM			4.93	11.52
E 0+41			4.91	11.54
0+71			5.1	11.3
0+91			5.6	10.8
1+03			6.6	9.8
1+70			7.1	9.3
2+60			6.0	10.4
3+30			6.3	10.1
3+63			5.5	10.9
3+69			4.3	12.1
3+82			8.4	8.0
3+91			10.2	6.2

EAST CURB
STA 84+00
Top. Curb.

PX

STA 85+00 = 0+00

STA	+	HI	-	ELEV
TBM	4.92	16.44		11.52
E4+22			10.0	6.4
3+85			4.7	11.7
3+62			6.8	9.6
3+10			7.9	8.5
2+50			7.1	9.3
2+12			4.5	9.9
1+65			6.9	9.5
1+23			6.7	9.7
1+05			6.0	10.4
0+70			5.0	11.4
0+41			4.98	11.46

EAST CURB
STA 89+00

PX

EDGE

Top. Curb

4-5-51

(3) 472

STA 86+00 = 0+00

STA	+	HI	-	ELEV
TBM	4.77	16.29		11.52
TBM			5.11	11.18
E0+41			4.92	11.37
0+73			4.8	11.5
1+09			5.6	10.7
1+69			6.8	9.5
2+17			6.9	9.4
2+86			7.9	8.4
3+57			8.9	7.4
4+41			7.3	9.0
5+00			7.0	9.3
5+20			6.9	9.4
5+60			11.0	5.3

EAST CURB
STA 84+00

LAMP POST

4627

Top. Curb

PX

EDGE

STA 87+00

W. Curb. T3/2

4-6-51

(6)

Sta 88+00

S	STA	+	H.I	-	ELEV
		4.83	16.01		11.18
E4+	E 6+42			11.2	4.8
3	6+03			6.8	8.2
3	5+82			8.6	7.4
	4+90			9.2	6.8
	3+97			9.2	6.8
	3+10			8.6	7.4
	2+23			6.5	9.5
	1+55			5.7	10.3
	1+12			4.6	11.4
	0+74			4.7	11.3
	0+41			4.85	11.16

LAMP P
4627

PV

EDGE

Top. Curb

Sta	+	H.I	-	Elev
	4.55	15.73		11.18
E11+40			9.5	6.2
E10+90			11.2	4.5
E7+90			11.5	4.2
E7+45			8.7	7.0
E7+25			5.5	10.2
E7+00			8.2	7.5
E6+08			9.0	6.7
E5+12			9.1	6.6
E4+22			8.2	7.5
E3+30			7.0	8.7
E2+34			7.0	8.7
E1+36			6.0	9.7
E1+14			6.0	9.7
E0+99			5.0	10.7
E0+41			4.69	10.04

Lamp. P.
4627

PX

Water

F

Edge of
Top. Sail

Top. Curb

Sta. 89+00					Sta. 90+00				
Sta	+	HI	-	Elev	Sta	+	HI	-	Elev
	4.81	15.99		11.18	T.B.M.	4.81	15.99		11.18
E 0+41			4.8	17.19	T. Curb	4.88	16.56	4.41	11.58
E 1+12			5.5	9.6	FX Top 50+41			4.82	11.74
E 2+13			6.8	8.3	E 1+00			5.1	11.5
E 3+10			8.2	6.9	E 1+03			5.8	10.8
E 4+08			8.1	7.0	E 2+07			6.8	9.8
E 5+00			9.1	6.0	E 3+00			6.6	10.0
E 5+90			9.6	5.5	E 3+92			6.9	9.6
E 6+85			10.2	4.9	E 4+83			7.2	9.4
E 7+82			8.8	6.3	E 5+13			7.6	9.0
E 8+44			8.4	6.7	E 6+42			9.2	7.4
E 9+05			11.7	3.4	E 6+35			10.3	10.3
E 10+00			11.8	3.3	E 7+30			11.2	5.4
E 10+25			9.4	5.7	E 8+15			10.8	5.8
E 10+40 535			6.2	5.9	E 9+10			10.2	6.4
E 10+70 585			9.8	5.3	E 10+00			9.8	6.8
E 11 70			9.5	5.6	E 10+90			9.4	7.2
					E 11+85			9.5	7.1
					E 12+75			9.6	7.0

Opp. Sta. 90+00
on E. Curb

Top. Curb

PX

Edge Top. S

4-6-51

⑧

Sta 91+00

Sta 92+00

Sta	+	H.I.	-	Elev	Opp. Sta	Sta	+	H.I.	-	Elev	Opp.
T		5.06	16.64		90+00	5.20		16.78		11.58	90+00
E4	6+5			11.7	PX	T.B.M.			4.71	12.07	Opp. 94+00
	600										Opp. 94+00
E	12+90			11.5		E 0+41			5.02	12.76	T. CURB
E	12+00			9.5		E 0+82			4.5	12.3	
E	11+15			9.7		E 1+05			5.3	11.5	EDGE Top SOIL
E	10+30			11.4		E 2+10			6.8	10.0	PX
E	9+40			12.0		E 2+68			7.5	9.3	
E	8+50			11.9		E 3+62			9.2	7.6	
E	7+65			11.6		E 4+60			9.4	7.4	
E	6+72			9.8		E 5+51			10.2	6.6	
E	5+80			9.3		E 6+50			11.5	5.3	
E	4+95			8.9		E 7+48			12.0	4.8	
E	4+02			8.3		E 8+50			12.2	4.6	
E	3+12			7.4		E 9+62			12.6	4.2	
E	2+11			5.6	Edge	E 10+95			12.0	4.8	
E	1+10			4.8	Top Soil						
E	1+02			4.87							
E	0+41			11.77	T. Curb						
T.P.					Opp. 90+00						

STA. 95+00

STA	+	HI	-	ELEV	
TBM	5.05	17.12		12.07	OPP. 94+00
E 8+70			12.9	4.2	P1
E 8+00			11.0	6.1	
E 7+99			10.4	6.7	
E 6+92			10.1	7.0	
E 5+52			10.0	7.1	
E 4+48			10.1	9.0	
E 3+50			8.6	8.5	
E 2+53			6.8	10.3	
E 1+74			7.5	9.6	
E 1+05			6.4	10.7	
E 1+02			5.6	11.5	EDGE TOP SOIL
E 0+69			5.0	12.1	
E 0+41			4.85	12.27	TOP CURB

4-6-51

(10)

STA. 96+00

STA.	+	HI	-	ELEV.	
TBM	5.01	17.08		12.07	OPP. STA 94+00
TBM				4.63	12.45 OPP. STA 97+00 TOP CURB
E 0+41				4.74	12.94
E 0+73				5.0	12.1
E 1+05				5.5	11.6 EDGE TOP SOIL
E 1+08				6.3	10.8 PX
E 2+00				7.2	9.9
E 2+65				7.4	9.7
E 3+32				7.0	10.1
E 3+90				7.5	9.6
E 4+43				13.3	3.8
E					
E					
E					
E					

4-6-51
STA 97+00

Sta 98+00

4-9-51 (11)

STA	+	HI	-	ELEV.	OPP. STA	Sta	+	HI	-	Elev	OPP.
TBM	4.82	17.27		12.45	97+00		5.82	18.27		12.45	97+00
E						E 0+41		5.05	13.22		Top. Curb
E 3+71			12.0	5.3	PX	E 0+63		5.2	13.1		PX
E 3+42			6.4	10.9		E 0+65		7.1	11.2		
E 2+57			7.5	9.8		E 0+71		6.9	11.4		
E 1+64			6.7	10.6		E 0+74		5.6	12.7		
E 1+07			5.0	12.3	EDGE TOP SOIL	E 1+20		6.1	12.2		Edge Top Soil
E 0+72			4.6	12.7		E 1+29		7.2	11.1		
E 0+41			4.82	12.42	TOP CURB	E 2+29		8.2	10.1		
E						E 3+23		8.3	10.0		
E						E 3+75		14.7	3.6		

4-9-57 (12)

Sta^N 10+00 W 14320

Sta	F	H1	-	Elev	opp
	3.76	14.21		12.45	27+00
E T.P.	3.61	10.38	9.44	6.77	
T.P.	1.92	8.68	3.62	6.76	4x4

Sta^N 101+00 - W 14000

W 2+95	8.68	5.9	2.8	PX
W 2+00		4.8	3.9	
W 1+08		3.9	4.8	
W 0+32		3.8	4.9	
W 0+20		4.9	3.8	
0+00		5.0	3.7	
E 0+62		4.5	4.2	
E 1+10		6.0	2.7	

Sta	F	H1	-	Elev	4x4
	3.29	10.05		6.76	
W 0+81			8.1	1.9	PX
W 0+45			5.9	4.1	
0+00			5.2	4.8	
E 0+32			5.3	4.1	
E 0+76			7.8	2.2	

Sta^N 9+00 W 14320

T.P.	3.89	10.65		6.76	Adjacent to Sta 09+00 4x4
W 1+01			8.2	2.4	PX
W 0+30			5.4	5.2	
0+00			5.1	5.5	
E 0+12			5.2	5.4	
E 0+50			8.1	2.5	

4-9-57 (13)

Sta N 98+00 W 14320

Sta	+	HI	-	Elev	
	3.71	10.47		6.76	4x4
E 0+94			8.2	2.3	P
W 0+34			5.3	5.2	
V 0+00			5.1	5.4	
E 0+29			5.2	5.3	
E 0+73			8.0	2.5	
T.P	4.56	10.65	4.38	6.09	2x2 Hub

Sta N 97+00 W 14320

W 9+09		10.65	8.1	2.5	P
W 0+50			5.8	4.8	
0+00			5.2	5.4	
E 0+26			5.1	5.5	
E 0+69			8.0	2.6	

Sta N 96+00 W 14320

Sta	+	HI	-	Elev	
	4.06	10.15		6.09	2x2 Hub
W 1+98			7.0	3.1	P
W 1+53			6.4	3.7	
W 0+90			4.1	6.0	
W 0+20			4.1	6.0	
0+00			5.2	4.9	
E 0+28			6.9	3.2	
E 0+40			7.3	2.8	

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Sta 96+00 N.

0+00 = W 14,320

PX

	Sta	+	H.I.	-	Elev
E W	BM	3.50	10.26		6.76
			2.76		
			2.10		
W	0+00			5.3	5.0
V	E 0+75			7.5	2.8
E	W 2+62			7.2	3.1
E	W 4+50			7.1	3.2

4x4
Next to
Sta 99+00

Sta 101+00 N

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(14)

0+00 = W 14,000

PX

	Sta	+	H.I.	-	Elev.
	BM	2.10	8.86		6.76
	E 1+28			6.2	2.7
	E 3+30			6.1	2.8
	E 4+85			5.7	3.2
	E 5+00			5.8	3.1
	E 5+90			5.4	3.5
	E 6+60			6.8	2.1

4x4 Next to
99+00 N
14820 W

Sta 100+00

0+00 = W 14,000

	Sta	+	H.I.	-	Elev
	BM	1.00	7.76		6.76
	E 6+65			5.5	2.8
	E 6+50			4.3	3.5
	E 5+30			4.5	3.3
	E 3+90			4.7	3.1
	E 2+60			5.1	2.7
	E 1+60			5.4	2.4
	E 0+90			4.7	3.1

4x4 see
Sta 101+00

PX

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Sta 100+00 N. Cont

Sta	+	H.I.	-	Elev
		7.76		
E W	E 0+35		5.1	2.7
W	0+00		5.3	2.5
W	0+65		6.1	1.7
E	W 1+70		6.2	1.6
E	W 2+45		5.3	2.5

PA

BM Set For Easterly X-sec.

Sta	+	H.I.	-	Elev.
BM				6.76
		3.55	10.31	
BM			4.92	5.39

4x4 Sec
Page 142x6 on
old crib
like
Next to
Sta 101+00
and 100+00

Sta 102+00 N

(15)

Sta	+	H.I.	-	Elev.
BM				5.39

0+00

E

E

E

11 Apr 51 (16)

Levels for X-Secs N 88400 - W 14,000

Sta	+	H.I.	-	Elev.	
BM				11.18	Lamp Post #4627 E. Curb
	1.80	12.98			
TP			5.09	7.89	
	3.67	11.56			
TBM			3.35	8.21	South 4x4 of Two on old crib line shortest of the Two.
	4.66	12.87			
T.P.			7.79	5.08	N 88400 W 14,000

PY

Sta. 86+00 N.

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0+00 = W 14,000 Pr. 65036

Sta + H.I. - Elev

BM 3.05 8.13 5.08

N 88+00

W 140+00

0+00 5.1 3.0

W 1+00 4.4 3.7

TBM 3.98 4.15

W 14,100

N 86+00

W 1+95 4.2 3.9

W 2+90 4.1 4.0

W 3+90 4.3 3.8

W 4+80 5.0 3.1

Sta 85+00 N.

0+00 = W 14,100

Sta + H.I. - Elev

BM 5.10 9.25 4.15

W 14,100

N 86+00

W 3+20 6.2 3.1

W 2+20 5.3 4.0

W 1+15 5.1 4.2

W 0+55 5.0 4.3

0+00 5.2 4.1

PX

Sta. 87+00 N.

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(17)

0+00 = W 14,000

Sta + H.I. - Elev

BM 5.00 9.15 4.15

W 14,100

N 86+00

E 1+00 6.1 3.1

E 0+68 4.9 4.3

E 0+25 4.9 4.3

0+00 5.1 4.1

W 0+85 5.1 4.1

W 1+70 5.5 3.7

W 2+70 5.2 4.0

E 3+05 5.7 3.5

W 4+20 5.9 3.3

PX

STA 88+00 N.

0+00 = 140+00 W

	STA	+	H I	-	ELEV.
E	BM	4.65	9.73		5.08
W	W 3+30			4.4	5.3
V	W 2+45			6.2	3.5
L	W 1+40			6.5	3.2
A	W 0+65			5.9	3.8
T	0+00			5.2	4.5
	E 0+40			3.6	6.1
V	E 0+85			3.3	6.4
W	E 1+30			3.7	6.0
	E 1+36			4.7	5.0
E	E 1+80			5.3	4.4
E	E 2+15			5.7	4.0

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(18)

PX Sta 107+00 N

0+00 = W 14,000 Sound East

	Dist	Sound		Dist	Sound
	^{10:03} 0+00	9.7	-8.6	+70	1.5 -0.4
	(1.1)	9.8	-8.7	(1.1)	1.2 -0.1
		9.8	-8.7		1.3 -0.2
		9.7	-8.6	2+00	1.5 -0.4
		10.0	-8.9		2.1 -1.0
	+50	10.0	-8.9		2.4 -1.3
		9.8	-8.7		2.6 -1.5
		9.8	-8.7		3.5 -2.4
		9.1	-8.0	+50	4.4 -3.3
		8.2	-7.1		5.0 -3.9
	1+00	7.2	-6.1		5.1 -4.0
		6.0	-4.9		5.1 -4.0
		3.7	-2.6		5.4 -4.3
		2.4	-1.3	3+00	5.0 -3.9
		1.5	-0.4		4.8 -3.7
	+50	2.0	-0.9		4.5 -3.4
	+60	1.4	-0.3	+30	4.3 -3.2

STA 107+00 N.

0+00 = 140+00 W.

Dist	Sound	Dist	Sound
10:10 3+40	4.3 - 3.1	(1.2) 5+10	1.5 - 0.3
(1.2)	4.0 - 2.8	5+20	1.2 0.0
	3.2 - 2.0	10:18 5+30	1.0 +0.2
	2.8 - 1.6	SET STAKE 13470 W.	
	2.0 - 0.8	SOUND WEST	
	2.0 - 0.8	10:25 0+10	10.0 - 8.8
4+00	2.3 - 1.1	(1.2)	10.0 - 8.8
	2.8 - 1.6		10.0 - 8.8
	3.0 - 1.8		10.3 - 9.1
	3.2 - 2.0	0+50	10.2 - 9.0
			10.2 - 9.0
4+50	1.7 - 0.5		10.4 - 9.2
	2.0 - 0.8		10.3 - 9.1
	2.1 - 0.9		10.6 - 9.4
	2.4 - 1.2	1+00	10.5 - 9.3
	2.4 - 1.2		10.0 - 8.8
5+00	2.2 - 1.0	1+20	9.9 - 8.7

STA 107+00 N.

0+00 = 140+00 W. Sound West

DIST	SOUND	DIST	SOUND
1+30	9.8 - 8.6	3+00	7.8 - 6.6
(1.2)	9.5 - 8.3	(1.2)	7.5 - 6.3
	9.7 - 8.5		7.5 - 6.3
	9.9 - 8.7	10:30 6.9	- 5.7
	9.5 - 8.3		5.0 - 3.8
	9.2 - 8.0	3+50	5.0 - 3.8
	9.0 - 7.8		3.0 - 1.8
	9.0 - 7.8		0.5 + 0.7
	9.7 - 8.5		0.7 + 0.5
	9.1 - 8.2		0.5 + 0.7
	9.3 - 8.1	4+00	0.5 + 0.7
	9.2 - 8.0		0.7 + 0.5
	9.1 - 7.9		0.7 + 0.5
	8.2 - 7.0		0.8 + 0.4
	8.0 - 6.8		0.8
	8.0 - 6.8	4+50	0.8
	7.8 - 6.6	10:35 0.8	+ 0.4

(19)

STA. 107+00 N.

0+00 = 140+00 W. Sounding West

DIST	SOUND	DIST	SOUND
10:36 4+70	0.9 +0.4		
(1.3)	0.8 +0.5		
	1.0 +0.3		
5+00	1.0		
	1.0		
	1.0		
	1.0		
5+50	1.0 +0.3		
	0.9 +0.4		
	0.9		
	0.9 +0.4		
	0.5 +0.8		
10:43 6+00	0.4 +0.9		

SET STAKE 14600 W

See Pg 24

PX STA 108+00 N.

0+00 = 140+00 W

DIST	SOUND	DIST	SOUND
10:50 0+00	8.5 -7.2	1+70	9.2 -7.9
(1.3)	8.5 -7.2	(1.3)	9.7 -8.4
	8.8 -7.5		9.3 -8.0
	8.8 -7.5	2+00	9.1 -7.8
	9.2 -7.9		9.5 -8.2
0+50	9.2 -7.9		9.5 -8.2
	9.4 -8.1		9.8 -8.5
	9.5 -8.2		10.0 -8.7
	9.5 -8.2	2+50	10.2 -8.9
	9.5 -8.2		10.5 -9.2
1+00	9.6 -8.3		10.7 -9.4
	10.0 -8.7		9.0 -7.7
	10.0 -8.7		8.3 -7.0
	10.1 -8.8	3+00	7.0 -5.7
	9.8 -8.5		5.5 -4.2
1+50	9.6 -8.3		3.6 -2.3
	9.5 -8.2	3+30	2.0 -0.7

(20)

SOUND EAST

Px

STA 108+00 N

0+00 = 140+00 W. Sound West

DIST	SOUND		DIST	SOUND	
3+90	1.3	+0.1	0+70	8.8	-7.4
(1.4)	10:53 1.0	+0.4	(1.4)	9.1	-7.7
	1.0	+0.4		9.4	-8.0
	1.0	+0.4	1+00	9.0	-7.6
	0.7	+0.7		8.5	-7.1
	0.6	+0.8		7.9	-6.5
4+00	0.5	+0.9		7.4	-6.0
	0.3	+1.1		6.0	-4.6
	0.0	+1.4	1+50	5.7	-4.3
	10:00			5.7	-4.3
SET STAKE AT 13580 W.					
SOUND WEST				2.0	-0.6

0+10	9.0	-7.6		2.0	-0.6
(1.4)	9.5	-8.1		1.2	+0.2
	11.0	-9.6	2+00	1.5	-0.1
	10.4	-9.0		11:10 1.3	+0.1
0+50	11:05 9.7	-8.3		1.1	+0.3
	9.0	-7.6	2+30	1.0	+0.4

STA 108+00 N

(21)

0+00 = 140+00 W.

DIST	SOUND		DIST	SOUND	
2+40	0.8	+0.6			
(1.4)	0.7	+0.7			
	11:15				
SET STAKE AT 14250 W					
			0+00 = 13335 W.		
			11:48		
			1+35	5.4	+2.6
			2:0		
			0+33	5.2	+2.8
			6:0		
			1+00	5.2	+2.8
			0+50	5.3	+2.7
			1+15	5.6	+2.4
			11:54		
			1+15	5.4	+2.6

Px Sta 107+00 N

0+00 = 13348 W

DIST	SOUND		DIST	SOUND	
			7:7		
			1+22		
			E 1+58	5.3	+2.4
			2:6		
			0+90	5.5	+2.2
			2:06		
			0+00	5.1	+2.6
			E 0+58	5.3	+2.4

13335

13220

2+45

WATER

STA 108+00 N

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0+00 = ~~13220~~ W.

SOUND EAST

PX STA 108+00 N

(22)

0+00 = ~~13120~~ W

DIST	SOUND	DIST	SOUND	DIST	SOUND	STA 107+00 N
(2:15)						
0+10	0.5 +2.2	1+80	11.5 -8.8	3+50	11.8 -9.1	0+00 = 13190
(2.7)	1.8 +0.9	(2.7)	11.4 -8.7	(2.7)	11.7 -9.0	DIST SOUND
	3.2 -0.5	2+00	11.5 -8.8		11.8 -9.1	(2:30)
	5.1 -2.4		11.4 -8.7		11.9 -9.2	(2.8)
0+50	8.0 -5.3		11.4 -8.7		11.3 -8.6	4.0 -1.2
	9.4 -6.7		11.1 -8.4	4+00	10.8 -8.1	5.4 -2.6
	10.6 -7.9		11.0 -8.3		9.0 -6.3	0+50 6.0 -3.2
	11.5 -8.8	2+50	(2:20) 11.0 -8.3		5.0 -2.3	6.7 -3.9
	11.5 -8.8		10.8 -8.1		2.1 +0.6	8.0 -5.2
1+00	11.2 -8.5		11.3 -8.6		1.3 +1.4	8.8 -6.0
	10.5 -7.8		11.1 -8.4	4+50	0.7 +2.0	8.8 -6.0
	9.7 -7.0		11.4 -8.7	4+60	0.0 +2.7	1+00 9.2 -6.4
	9.0 -6.3	3+00	11.6 -8.9			8.8 -6.0
	8.0 -5.3		12.0 -9.3			9.0 -6.2
1+50	7.1 -4.4		11.7 -9.0			8.2 -5.4
	6.5 -3.8		11.8 -9.1			7.7 -4.9
	9.8 -7.1		11.8 -9.1			1+50 7.1 -4.3

0+00 = 13190 W.

STA 107+00 N.

DIST	SOUND		DIST	SOUND	
1+60	6.8	-4.0	3+40	11.0	-8.2
(2.8)	6.4	-3.6	(2.8)	11.5	-8.7
	6.0	-3.2		11.8	-9.0
	9.0	-6.2		11.5	-8.7
2+00	11.1	-8.3	(2:40)	11.4	-8.6
	11.4	-8.6		11.4	-8.6
	11.5	-8.7	4+00	11.1	-8.3
	11.8	-9.0		11.0	-8.2
	11.5	-8.3		10.5	-7.7
2+50	11.0	-8.2	(2:45)	9.5	-6.7
	10.7	-7.9		2.9	+0.7
(2:35)	10.7	-7.9	4+50	1.4	+1.4
	10.8	-8.0		1.0	+1.8
	11.0	-8.2	(2:55)	0.5	+2.3
3+00	12.1	-9.3			
	12.0	-9.2			
	12.0	-9.2			
	12.0	-9.2			

PX

STA 108+00 N.

(23)

0+00 = 14250 W.

SOUND WEST

DIST	SOUND		DIST	SOUND	
0+10	1.8	+1.1	1+80	2.0	+0.9
(2.9)	1.8	+1.1	(2.9)	2.0	+0.9
	1.7	+1.2	2+00	2.0	+0.9
	1.7	+1.2		2.2	+0.7
0+50	1.6	+1.3		2.3	+0.6
	1.6			2.4	+0.5
	1.6		(3:05)	2.3	+0.6
	1.6		2+50	2.0	+0.9
	1.6			1.7	+1.2
1+00	1.6			1.7	+1.2
	1.6	+1.3		1.6	+1.3
	1.8	+1.1		1.5	+1.4
	2.0	+0.9	3+00	1.7	+1.2
	2.0	+0.9		1.8	+1.1
1+50	2.1	+0.8		2.0	+0.9
	2.0	+0.9		2.1	+0.8
	2.0	+0.9	3+40	2.0	+0.9

STA 108+00 N

0+00 = 19250 W.

DIST	SOUND	
3+50	1.9	+1.1
(3.0)	1.8	+1.2
	1.9	+1.1
	(3:10)	
	1.7	+1.3
	1.6	+1.4
4+00	1.5	+1.5
	1.5	+1.5
	1.5	+1.5
	1.4	+1.6
	1.5	+1.5
4+50	1.2	+1.8
	1.2	+1.8
	1.1	+1.9
	1.2	+1.8
	1.1	+1.9
5+00	1.1	+1.9
	1.1	+1.9

STA 107+00 N

PX

STA 107+00 N

(24)

SOUND WEST 0+00 = 19600

SOUND WEST

DIST	SOUND		DIST	SOUND	
5+20	1.1	+1.9	0+10	(3:29)	1.8
(3.0)	1.0	+2.0	(3.0)	1.8	+1.2
(3:15)	0.9	+2.1		1.7	+1.3
	1.0	+2.0		1.7	+1.3
5+50	0.9	+2.1	0+50	1.7	+1.3
	0.8	+2.2		1.6	+1.4
	0.8	+2.2		1.6	+1.4
	(3:18)			1.7	+1.3
5+90	0.0	+3.0		1.6	+1.4
				1.7	+1.3
			1+00	1.7	+1.3
				1.6	+1.4
				1.6	+1.4
				1.4	+1.6
			1+50	1.5	+1.5
				1.4	+1.6
			1+70	1.4	+1.6

PX

4-13-51

STA - 135+00 N

0+00 = 14039 W. SOUND EAST

DIST	SOUND		DIST	SOUND	
0+00	1.0	+0.1	1+70	14.5	-13.4
(1.1)	11.0	-9.9	(1.1)	14.5	-13.4
	11.1	-10.0		14.6	-13.5
	15.2	-14.1	2+00	14.5	-13.4
	16.1	-15.0		14.3	-13.2
0+50	16.4	-15.3		14.0	-12.9
	16.4	-15.3		14.0	-12.9
	15.8	-14.7		14.0	-12.9
	15.5	-14.4	2+50	14.0	-12.9
	15.7	-14.6		14.0	-12.9
1+00	15.5	-14.4		14.0	-12.9
	15.1	-14.0		14.0	-12.9
	15.1	-14.0		14.0	-12.9
	15.0	-13.9	3+00	14.0	-12.9
	14.8	-13.7		13.8	-12.7
1+50	14.8	-13.7		13.3	-12.2
	14.5	-13.4	3+30	13.2	-12.1

STA - 135+00 N.

(25)

0+00 = 14039 W. SOUND EAST

DIST	SOUND		DIST	SOUND	
0+00	13.0	-11.9	5+10	14.2	-13.1
(1.1)	13.0	-11.9	(1.1)	14.5	-13.4
	13.0	-11.9		14.5	-13.4
	13.1	-12.0		14.6	-13.5
	13.2	-12.1	5+50	14.5	-13.4
	13.2	-12.1		13.0	-11.9
	13.2	-12.1		9.3	-8.2
	13.2	-12.1		9.3	-8.2
	13.3	-12.2		9.2	-8.1
	13.2	-12.1	6+00	9.2	-8.1
	13.0	-11.9		9.0	-7.9
	13.1	-12.0		9.0	-7.9
	14.0	-12.9		9.0	-7.9
	14.3	-13.2		9.0	-7.9
	13.5	-12.4	6+50	8.8	-7.7
	13.7	-12.6		8.8	-7.7
	13.8	-12.7	6+70	8.7	-7.6

STA 135+00 N.

0+00 = 14034 W SOUND EAST

DIST	SOUND		DIST	SOUND	
6+80	^{10:30} 8.7	7.6	8+50	15.0	13.9
(1.1)	8.8	7.7	(1.1)	14.8	13.7
7+00	8.6	7.5		14.5	13.4
	8.6	7.5		13.7	12.6
	8.5	7.4		13.7	12.6
	8.5	7.4	9+00	13.5	12.4
	11.0	9.9		13.5	12.4
7+50	15.0	13.9		13.3	12.2
	16.0	14.9		13.3	
	16.0	14.9		13.3	
	16.0	14.9	9+50	13.3	12.2
	15.2	14.1		13.5	12.4
8+00	14.8	13.7		13.8	12.7
	15.0	13.9		13.5	12.4
	15.0	13.9		13.5	12.4
	15.1	14.0	10+00	13.7	12.6
	15.0	13.9		13.8	12.7

STA 135+00 N

(26)

0+00 = 14034 W. SOUND EAST

DIST	SOUND		DIST	SOUND	
10+20	14.2	13.1	+90	12.4	11.2
(1.1)	14.8	13.7	12+00	12.3	11.1
	15.0	13.9	(1.2)	12.3	11.1
10+50	15.0	13.9		12.4	11.2
	15.0	13.9	^{10:35} 12.4	11.2	
	15.2	14.1		12.4	11.2
	15.0	13.9		14.0	12.8
	15.0	13.9	12+50	16.1	14.9
	14.1	13.0		16.0	14.8
	11+00	12.7	11.6	16.0	
	12.5	11.4		16.0	
	12.5			16.0	14.8
	12.5		13+00	14.8	13.6
	12.5	11.4		14.6	13.6
11+50	12.6	11.5		14.4	13.2
	13.0	11.9		14.4	13.2
	12.8	11.7		14.4	13.2
	12.60	11.5	13+50	14.2	13.0

CONT.

STA 135+00 N.

0+00 = 14034 W. SOUND EAST

DIST	SOUND	DIST	SOUND	DIST	SOUND
13+60	14.2	13.0	15+30	2.0	0.8
(1.2)	14.5	13.3	(1.2)	1.8	0.6
	14.6	13.4	15+50	2.1	0.9
	14.5	13.3		2.3	1.1
14+00	14.5	13.3		2.5	1.3
	14.7	13.5		2.6	1.4
	14.7	13.5		2.5	1.3
	14.7	13.5	16+00	2.6	1.4
	14.6	13.4		2.6	1.4
14+50	14.5	13.3		2.6	1.4
	14.0	12.8		2.7	1.5
	13.1	11.9		2.7	
	12.0	10.8	16+50	2.7	
	6.5	5.3		2.7	1.5
15+00	2.1	0.9		2.5	1.3
	2.0	0.8		2.7	1.5
	1.5	0.3	16+90	2.5	1.3

CONT.

(27)

STA 135+00 N.

0+00 = 14034 W. SOUND EAST

DIST	SOUND	DIST	SOUND	DIST	SOUND
17+00	2.7	1.5	18+70	2.0	0.8
(1.2)	3.0	1.8	(1.2)	1.7	0.5
	10:40 3.0	1.8		1.6	0.4
	2.8	1.6	19+00	1.5	0.3
	2.8	1.6		1.6	0.4
	17+50	2.7	1.5	2.3	1.1
	2.8	1.6		2.4	1.2
	2.7	1.5		3.2	2.0
	2.7		19+50	10:45 3.5	2.3
	2.7				
	18+00	2.7	1.5		
	2.5	1.3			
	1.8	0.6			
	1.8	0.6			
	1.8	0.6			
	18+50	1.6	0.4		
	1.5	0.3			

PX

9-13-51

STA - 136+00 N.

0+00 = 14.060 W Sound East

DIST	SOUND	DIST	SOUND
0+00	0.9 +0.4	1+70	16.0 14.7
(1.3)	1.0 +0.3	(1.3)	15.8 14.5
	1.0 +0.3		15.6 14.3
	2.5 1.2	2+00	15.3 14.0
(11:30)	9.1 7.8		15.1 13.8
0+50	14.8 13.5		15.0 13.7
	17.5 16.2		14.8 13.5
	17.5 16.2		14.6 13.3
	17.0 15.7	2+50	14.6 13.3
	17.0 15.7		14.4 13.1
1+00	16.6 15.3		14.4 13.1
	16.5 15.2		14.1 12.8
	16.4 15.1		14.2 12.9
	16.1 14.8	3+00	14.7 13.4
	16.1 {		15.0 13.7
1+50	16.1 }		15.0 13.7
	16.1 14.8	3+30	15.0 13.7

9-13-51

CONT.

(28)

STA - 136+00 N.

0+00 = 14.060

DIST	SOUND	DIST.	SOUND
3+40	15.0 13.7	5+10	13.4 12.1
3+50	15.0 13.7	(1.3)	13.6 12.3
(1.3)	14.8 13.5		13.4 12.1
	14.8 13.5		13.5 12.2
	15.4 14.1	5+50	13.5 12.2
	16.0 14.7		13.7 12.4
4+00	16.0 14.7		14.1 12.8
	15.5 14.2		14.4 13.1
	15.1 13.8		14.6 13.3
	14.0 12.7	6+00	14.6 13.3
	13.0 11.7		14.6 13.3
4+50	13.2 11.9		15.0 13.7
	13.4 12.1		13.8 12.5
	13.8 12.5		10.0 8.7
	14.0 12.7	6+50	9.5 8.2
	14.0 12.7		9.5 8.2
5+00	13.4 12.1	6+70	9.7 8.4

7-13-51 CONT.
STA - 136700N,

0+00 = 14060 W

DIST	SOUND		DIST	SOUND	
6+80	9.8	8.4	8+50	16.5	15.1
(1.4)	11.0	9.6	(1.4)	15.8	14.4
7+00	13.0	11.6		15.1	13.7
	14.4	13.0		15.0	13.6
	14.9	13.5		14.8	13.4
	15.2	13.8	9+00	14.8	13.4
	15.5	14.1		14.6	13.2
7+50	15.2	13.8		14.5	13.1
	15.0	13.6		14.2	12.8
	15.0	13.6		14.2	12.8
	15.3	13.9	9+50	14.3	12.9
	15.3	13.9		14.2	12.8
8+00	15.3	13.9		14.1	12.7
	15.5	14.1		14.1	
	16.2	14.8		14.1	
	17.3	15.9	10+00	14.1	
8+40	17.0	15.6		14.1	12.7

7-13-51 CONT. (29)
STA - 136700N,

0+00 = 14060 W.

DIST	SOUND		DIST	SOUND	
10+20	14.1	12.7	11+90	13.9	12.5
(1.4)	14.3	12.9	12+00	13.9	12.5
	14.6	13.2	(1.4)	13.9	12.5
10+50	14.6	13.2		13.7	12.3
	14.7	13.3		13.7	12.3
	14.8	13.4		13.5	12.1
	14.5	13.1	12+50	14.0	12.6
	14.1	12.7		14.2	12.8
11+00	14.1			14.4	13.0
	14.1			14.5	13.1
	14.1	12.7		14.5	13.1
	13.8	12.4	13+00	14.5	13.1
	13.5	12.1		14.2	12.8
11+50	13.5	12.1		14.5	13.1
	13.8	12.4		14.0	12.6
	13.8	12.4		14.2	12.8
11+80	13.7	12.3	13+50	14.0	12.6

9-13-51 CONT.
STA - 136+00 N.

0+00 = 14060 W.

DIST	SOUND	DIST	SOUND
13+60	13.8 12.4	15+30	12.4 11.0
(1.4)	14.0 12.6	(1.4)	12.5 11.1
	(11.95) 14.0 12.6	15+50	12.5 11.1
	13.7 12.3		12.7 11.3
14+00	13.5 12.1		12.5 11.1
	13.2 11.8		13.0 11.6
	13.2 11.8		13.0 11.6
	13.2 11.8	16+00	13.0 11.6
	13.1 11.7		12.8 11.4
14+50	13.4 12.0		13.0 11.6
	13.8 12.4		13.1 11.7
	14.0 12.6		13.2 11.8
	14.0 12.6	16+50	13.4 12.0
	13.0 11.6		13.5 12.1
15+00	13.0 11.6		13.3 11.9
	13.1 11.7		13.3 11.9
	12.4 11.0	16+90	13.3 11.9

9-13-51 CONT. (30)
STA - 136+00 N.

0+00 = 14060 W.

DIST	SOUND	DIST	SOUND
17+00	13.3 11.9	18+70	
(1.4)	13.3 11.9		
	12.1 10.7		
	13.2 11.8	19+00	
	13.4 12.0		
	13.4 12.0	17+50	13.4 12.0
	13.4 12.0		
	13.5 12.1		
	13.7 12.3	19+50	
	14.0 12.6		
	14.0		
	14.0		
	14.0 12.6		
	13.7 12.3		
	(11.50) 13.5 12.1		
		18+50	

4-13-51

PX

Sta. 89+00 N.

0+00 = W 14,000

Sta	+	H.I.	-	Elev.
B.M.	6.59	11.67		5.08
0+00			5.2	6.5
E. 0+65			5.4	6.3
E 1+42			5.8	5.7
E 1+80			5.8	5.7
E 2+02			4.5	7.2
E 2+30			7.1	4.6

P

Sta 90+00

0+00 = W 1400

B.M.		11.82	6.74	5.08
E. 4+05			8.9	2.9
E. 3+35			7.0	4.8
E. 2+50			5.6	6.2
E 1+90			6.3	5.5
E 1+25			5.2	6.6
E 0+52			5.3	6.5
0+00				

4-16-51

PX

STA - 105+00 N.

(31)

0+00 = 140+00 W.

SOUND WEST

DIST	SOUND	DIST	SOUND
0+00	1.2 +1.2	1470	0.9 +1.5
(9:13)	1.3 +1.1	(2.4)	1.0 +1.4
(24)	1.3 +1.1		1.1 +1.3
	1.1 +1.3	2+00	1.4 +1.0
	1.1	(9:21)	4.3 -1.9
0+50	1.1		4.4 -2.0
	1.1		6.5 -4.1
	1.1		9.0 -6.6
	1.1 +1.3	2+50	10.3 -7.9
	0.9 +1.5		11.0 -8.6
1+00	0.9 +1.5		11.1 -8.7
	1.0 +1.4		11.3 -8.9
	0.9 +1.5		11.3 -8.9
	0.9 +1.5	3+00	11.3 -8.9
	0.9 +1.5		11.1 -8.7
1+50	1.0 +1.4		11.0 -8.6
	0.9 +1.5	3+30	11.1 -8.7

STA. 105+00 N.

CONT.

0+00 = 140+00

SOUND WEST

DIST	SOUND	DIST	SOUND
3+40	11.2 -8.9	5+10	9.7 7.4
3+50	11.1 8.8	(2.3)	9.8 7.5
(2.3)	11.0 8.7		10.0 7.7
	10.9 8.6		10.0 7.7
	10.7 8.4	5+50	9.8 7.5
	11.0 8.7		10.1 7.8
4+00	11.0 8.7		10.0 7.7
	10.4 8.1		10.0
(9.25)	10.8 8.5		10.0
	10.7 8.4	5+00	10.0 7.7
	10.5 8.2		10.1 7.8
4+50	10.3 8.0		10.3 8.0
	10.1 7.8		10.3 8.0
	10.0 7.7		10.3 8.0
	9.5 7.2	5+50	10.3 8.0
	9.7 7.4		10.1 7.8
5+00	9.7 7.4	5+70	9.7 7.4

STA- 105+00 N.

4-1631 (32)

0+00 = 140+00 W.

SOUND WEST

DIST	SOUND	DIST	SOUND
5+80	9.2 7.0	7+50	1.1 +1.1
(9.30)	9.0 6.8	(2.2)	1.0 +1.2
(2.2)	8.0 5.8	(9.33)	1.0 +1.2
6+00	5.1 2.9		0.7 +1.5
	3.1 0.9	7+90	0.0 +2.2
	2.4 0.2		
	2.0 +0.2		
	6+50	1.8 +0.4	
		1.8 +0.4	
		1.6 +0.6	
		1.3 +0.9	
		1.3 +0.9	
		7+00	1.2 +1.0
		1.3 +0.9	
		1.3 +0.9	
		1.3 +0.9	
		7+40	1.2 +1.0

9-16-57
STA-106400 N.

0+00 = 140+00 W, SOUND WEST

DIST	SOUND		DIST	SOUND
0+00	0.6	+1.4	1+70	10.8
(9:40)	1.5	+0.5	(2.0)	11.0
(2.0)	5.2	3.2		11.0
	6.3	4.3	2+00	11.0
	7.5	5.5		11.0
0+50	8.0	6.0		11.1
	9.6	7.6		11.0
	10.0	8.0		10.8
	10.2	8.2	2+50	11.0
	10.2	8.2		11.0
1+00	10.0	8.0	(9:45)	10.8
	10.3	8.3		10.5
	10.5	8.5		10.3
	10.6	8.6	3+00	10.2
	10.8	8.8		10.1
1+50	10.7	8.7		9.5
	10.5	8.5	3+30	9.4

9-16-57
STA-106400 N.

CONT.

(33)

0+00 = 140+00 W, SOUND WEST

DIST	SOUND		DIST	SOUND
3+40	9.4	7.4	5+10	4.0
3+50	9.2	7.2	(2.0)	2.5
(2.0)	9.2	7.2		2.0
	9.2	7.2		2.3
	9.1	7.1	5+50	2.3
	9.1	7.1		2.2
4+00	9.1	7.1		2.2
	9.0	7.0		2.2
	9.0			2.3
	9.0		6+00	2.3
	9.0			2.1
4+50	9.0			2.0
	9.0			2.0
	9.0	7.0		1.7
	9.0	7.0	6+50	1.7
	8.1	6.1	(9:50)	1.5
5+00	6.4	4.4	6+70	1.5

4-16-51

PX

STA 106+00 N

0+00 = 140+00 W

SOUND WEST

DIST	SOUND	
6+80	1.4	+0.4
(1.9)	1.4	+0.4
7+00	1.4	+0.4
	1.3	+0.6
	0.9	+1.0
	0.5	+1.4
	0.5	+1.4
7+50	0.4	+1.5
	0.4	+1.5
	0.3	+1.6
	0.3	+1.6
	0.2	+1.7
8+00	0.2	+1.7
	0.1	+1.8
(9:55)	0.0	+1.9

PX

STA-109+00 N,

4-16-51

(34)

0+00 = 140+00 W.

SOUND EAST

DIST	SOUND		DIST	SOUND	
0+00	5.6	3.8	1+70	9.0	7.2
(10:13)	5.8	4.0	(1.8)	8.8	7.0
(1.8)	8.0	6.2		8.7	6.9
	9.0	7.2	2+00	8.7	6.9
	9.4	7.6		9.0	7.2
0+50	9.5	7.7		9.2	7.4
	9.5	7.7		9.1	7.3
	9.5	7.7		8.8	7.0
	9.7	7.9	2+50	8.7	6.9
	9.9	8.0		9.0	7.2
1+00	10.0	8.2		9.3	7.5
	10.3	8.5		9.8	8.0
	9.5	7.7		10.0	8.2
	9.7	7.9	3+00	10.0	8.2
	9.8	8.0		10.2	8.4
1+50	9.7	7.9		10.3	8.5
	9.5	7.7	3+30	10.4	8.6

4-16-51

CONT

PX

STA-109+00 N.

0+00 = 140+00 W.

SOUND EAST

0+00 = 190+00 W.

SOUND WEST.

4-16-51

(35)

STA-109+00 N

DIST	SOUND		DIST	SOUND		DIST	SOUND		DIST	SOUND		SET LATH
3+40	10.5	8.8	5+10	1.0	+0.7	4+10	5.3	3.7	(15) ^(10:25)	1+80	0.7	19180
(1.7)	11.0	9.3	(1.7)	0.5	+1.2	(10:20)	5.2	3.6	0+00 = 14320 W.	E 1+40		
	11.0	9.3		0.2	+1.5	(1.6)	5.0	3.4	E 1+15	5.2	+1.1	
	11.4	9.7	(10:12)	0.0	+1.7		4.4	2.8	(1.7)	E 0+80	4.9	(10:32) +1.4 WATER LEVEL
	11.5	9.8	5+50		SET ST 13450	4+50	4.0	2.4	(6.3)	E 0+40	4.7	+1.6
	11.6	9.9					3.4	1.8	0+00	4.9	+1.4	
4+00	11.7	10.0					3.0	1.4	W 0+45	5.2	+1.1	
	12.5	10.8					2.5	0.9	W 1+05	5.1	+1.2	
	13.3	11.6					2.4	0.8	W 1+40	5.6	+0.7	
	13.2	11.5				1+00	2.1	0.5	W 1+90	4.8	+1.5	
	13.1	11.4					2.0	0.4	W 2+15	5.5	+0.8	
4+50	12.7	11.0					1.6	0.0	W 2+90	5.0	(10:40) +1.3	
(10:08)	11.2	9.5					1.2	+0.4	W 4+00	4.5	+1.8	
	10.1	8.4					1.1	+0.5	W 4+80	4.6	+1.7	
	8.0	6.3				1+50	1.1	+0.5	W 5+30	3.7	+2.6	
	4.5	2.8					0.9	+0.7	W 5+65	1.4	+4.9	
5+00	2.0	0.3				1+70	1.0	+0.6				

PX

4-16-51

STA - 109+00 N.

0+00 = 13308 W

W 7+13	5.2	+2.8
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W 0+50	5.1	+2.9
--------	-----	------

0+00	5.0	+3.0
------	-----	------

E 0+45	5.2	+2.8
--------	-----	------

E 0+80	5.2	+2.8
--------	-----	------

E 0+88	6.2	+1.8
--------	-----	------

E 0+90	6.9	+1.1
--------	-----	------

0+00 = 13220 W.

DIST	SOUND	SOUND EAST
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0+10	0.3	+0.7
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(1.0)	2.4	1.4
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	6.8	5.8
--	-----	-----

	9.2	8.2
--	-----	-----

0+50	11.1	10.1
------	------	------

	12.3	11.3
--	------	------

	12.6	11.6
--	------	------

	12.4	11.4
--	------	------

0+90	11.0	10.0
------	------	------

STA 109+00 N.

(36)

0+00 = 13220 W.

SOUND EAST

DIST	SOUND	DIST.	SOUND
1+00	9.5	8.5	2+70 9.3 8.3

(1.0)	7.0	6.0	(1.0) 9.3 8.3
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4.5	3.5	9.3 8.3
-----	-----	---------

4.8	3.8	3+00 9.7 8.7
-----	-----	--------------

3.0	2.0	10.5 9.5
-----	-----	----------

1+50 9.1	8.1	9.1 8.1
----------	-----	---------

9.3	8.3	9.5 8.5
-----	-----	---------

9.3	8.3	9.2 8.2
-----	-----	---------

9.4	8.4	3+50 9.2 8.2
-----	-----	--------------

9.1	8.1	9.0 8.0
-----	-----	---------

2+00 9.0	8.0	8.5 7.5
----------	-----	---------

8.5	7.5	5.0 4.0
-----	-----	---------

8.5	7.5	1.0 0.0
-----	-----	---------

8.5	7.5	(11:15) 4+00 0.0 +1.0
-----	-----	-----------------------

8.6	7.6	
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2+50 9.0	8.0	
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8.8	7.8	
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PA

4-17-51
STA-103+00 N.

0+00 = 140+00 W.

DIST	SOUND		DIST.	SOUND	
0+00	1.9	+1.2	1+70	2.0	+1.7
(3.1)	1.7	+1.4	(9:07)	2.0	+
	1.5	+1.6	(3.7)	2.0	+
	1.6	+1.5	2+00	2.0	+
	1.8	+1.3		2.0	+
0+50	1.7	+1.4		2.0	+
	1.6	+1.5		2.0	+
	1.6	+1.5		2.0	+
	1.6	+1.5	2+50	2.0	+1.7
	1.5	+1.6		2.1	+1.6
1+00	1.5	+1.6		2.1	+1.6
	1.6	+1.5		2.1	+1.6
	1.5	+1.6		2.3	+1.4
	1.5	+1.6	3+00	2.3	+1.4
	1.5	+1.6		2.0	+1.7
1+50	1.3	+1.8		1.9	+1.8
	1.3	SET LATH 1.8	3+30	1.8	+1.9

4-18-51
STA-103+00 N.

(37)

0+00 = 140+00 W

DIST	SOUND		DIST	SOUND	
3+40	1.6	+2.1	5+10	1.8	+1.9
(3.7)	1.9	+1.8	(3.7)	2.0	+1.7
	2.0	+1.7		1.9	+1.8
	1.6	+2.1		2.1	+1.6
	1.8	+1.9	5+50	2.1	+1.6
	2.1	+1.6		2.1	+1.6
4+00	2.1	+1.6		2.0	+1.7
	2.1	+1.6		2.2	+1.5
	1.9	+1.8	(9:10)	2.2	+1.5
	1.9	+1.8	6+00	2.4	+1.3
	1.7	+2.0		2.4	+
4+50	1.8	+1.9		2.4	+
	1.7	+2.0		2.4	+1.3
	1.7	+2.0		2.9	+0.8
	2.2	+1.5	6+50	3.5	+0.2
	1.8	+1.9		4.0	0.3
5+00	1.8	+1.9	6+70	4.0	0.3

PX

STA

4-18-51

103+00 N

(38)

0+00 = 140+00 W

SOUND EAST

DIST	SOUND		DIST	SOUND	
6+80	4.1	0.4	8+50	2.2	+1.5
(3.7)	4.1	0.4	(3.7)	1.5	+2.2
7+00	4.1	0.4		1.1	+2.6
	5.0	1.3		0.9	+2.8
	5.6	1.9		0.5	+3.2
	6.3	2.6	(9:15)	0.2	SET +3.5 STAKE
	6.5	2.8			
7+50	6.8	3.1			
	7.0	3.3			
	7.3	3.6			
	8.0	4.3			
	8.2	4.5			
8+00	7.8	4.1			
	6.8	3.1			
	5.0	1.3			
	4.1	0.4			
8+40	3.0	+0.7			

4-17-51

(39)

PK STA-103+00 N

0+00 = 140+00 W.

SOUND WEST

DIST	SOUND		DIST	SOUND	
0+10	1.9	+1.1	1+80	1.3	+1.7
(9:23)	1.9	+1.1	(3.0)	1.3	+1.7
(3.0)	2.0	+1.0	2+00	1.5	+1.5
	2.0	+1.0		1.5	+1.5
0+50	2.3	+0.7		1.8	+1.2
	2.4	+0.6		1.8	+1.2
	2.4	+0.6		1.6	+1.4
	2.3	+0.7	2+50	1.5	+1.5
	2.2	+0.8		1.5	+1.5
1+00	2.0	+1.0		1.4	+1.6
	2.0	+1.0		1.5	+1.5
	1.8	+1.2		1.5	+1.5
	1.7	+1.3	3+00	1.5	+1.5
	1.7	+1.3		1.4	+1.6
1+50	1.5	+1.5		1.4	+1.6
	1.7	+1.3		1.3	+1.7
1+70	1.5	+1.5	3+40	1.3	+1.7

PX

4-17-51 cont
STA - 103+00 N.

0+00 = 140+00 W. SOUND WEST

DIST	SOUND		DIST	SOUND	
3+50	1.5	+1.5	5+20	1.8	+1.1
(3.0)	1.4	+1.6	(2.9)	1.5	+1.4
	1.5	+1.5		1.5	+1.4
	1.5	+1.5	5+50	1.5	+1.4
	1.6	+1.4	(9:30)	2.0	+0.9
4+00	1.6	+1.4	5+70	2.5	SET STAKE 0.4
	1.6	+1.4			
	1.6	+ }			
	1.6	+ }	6+00		
	1.6	+ }			
4+50	1.6	+1.4			
	1.7	+1.3			
	1.6	+1.4			
	1.6	+1.4	6+50		
	1.6	+1.4			
5+00	2.0	+1.0			

PX

4-17-50
STA - 104+00 N.

0+00 = 140+00 W. SOUND WEST

DIST	SOUND		DIST	SOUND	
(9:40) 0+00	1.5	+1.3	1+70	1.2	+1.6
(2.8)	1.5	+1.3	(2.8)	1.1	+1.7
	1.6	+1.2		1.1	+1.7
	1.7	+1.1	2+00	1.0	+1.8
	1.8	+1.0		1.1	+1.7
0+50	1.8	+ }		1.3	+1.5
	1.8	+ }		1.2	+1.6
	1.8	+1.0		1.1	+1.7
	1.7	+1.1	2+50	1.2	+1.6
	1.5	+1.3		1.3	+1.5
1+00	1.3	+1.5		1.3	+1.5
	1.4	+1.4		1.3	+1.5
	1.3	+1.5		1.1	+1.7
	1.3	+1.5	3+00	1.2	+1.6
	1.3	+1.5		1.5	+1.3
1+50	1.4	+1.4		1.5	+1.3
	1.4	+1.4	3+30	1.4	+1.4

(40)

4-17-51 Cont
 STA - 104+00 N.

0+00 = 140+00 W. SOUND WEST

DIST	SOUND	DIST	SOUND
(9:45) 3+40	1.4 + 1.3	5+10	11.1 8.6
(2.7)	1.7 + 1.0	(2.5)	11.1 8.6
	1.6 + 1.1		10.9 8.4
	1.8 + 0.9		10.8 8.3
	1.9 + 0.8	5+50	10.7 8.2
	2.0 + 0.7		10.7 8.2
(9:48) 4+00	3.3		10.6 8.1
(2.5)	3.3 0.8		10.5 8.0
	7.0 4.5		10.7 8.2
(10:00)	8.8 6.3	6+00	10.7 8.2
	9.5 7.0		10.7 8.2
4+50	10.4 7.9		10.7 8.2
	11.0 8.5		10.4 7.9
			10.4 7.9
	11.0 8.5	6+50	10.5 8.0
	11.0 8.5		10.5 8.0
5+00	11.0 8.5	6+70	10.5 8.0

4-17-51 Cont (41)
 STA - 104+00 N.

0+00 = 140+00 W. SOUND WEST

DIST	SOUND	DIST	SOUND
6+80	11.0 8.5	8+50	10.2 7.7
(2.5)	11.0 8.5	(2.5)	10.0 7.5
7+00	10.7 8.2		9.2 6.7
	10.5 8.0		8.1 5.6
	10.5 8.0		6.8 4.3
	10.7 8.2	9+00	5.0 2.5
	10.7		3.0 0.5
7+50	10.7		2.5 0.0
	10.7 8.2		2.3 + 0.2
	10.8 8.3		2.4 + 0.1
	11.0 8.5	9+50	2.4 + 0.1
	11.0		2.4 + 0.1
8+00	11.0		2.3 + 0.2
	11.0 8.5		2.4 + 0.1
	10.8 8.3		2.4 + 0.1
	10.8 8.3	10+00	2.5 0.0
8+40	10.4 7.9		2.5 0.0

4-17-51
STA - 104+00 N

0+00 = 140+00 W.

SOUND WEST

DIST	SOUND		DIST	SOUND	
10+20	2.5	0.1	11+90	1.8	+0.6
(2.4)	2.4	0.0	12+00	1.9	+0.5
	2.5	0.1	(2.4)	1.9	+0.5
10+50	2.5	0.1		1.9	+0.5
	2.3	+0.1		1.3	+1.1
	2.4	0.0	(10:09)	1.2	+1.2
	2.4	0.0	12+50		
(10:05)	2.2	+0.2			
11+00	2.2	+0.2			
	2.1	+0.3			
	2.0	+0.4			
	2.0	+0.4			
	1.9	+0.5			
11+50	1.8	+0.6			
	1.8	+			
	1.8	+			
11+80	1.8	+0.6			

PA

4-17-51
STA - 103+00 N

(42)

0+00 = 14570 W.

SOUND WEST

DIST	SOUND		DIST	SOUND	
0+00			1+70	10.7	8.4
(10:16)	2.1	+0.2	(2.3)	10.2	7.9
(2.3)	3.6	1.3		10.5	8.2
	5.4	3.1	2+00	10.8	8.5
	7.0	4.7		10.6	8.3
0+50	8.5	6.2		11.3	9.0
	9.3	7.0		11.3	9.0
	10.0	7.7		11.1	8.8
	10.2	7.9	2+50	11.3	9.0
	10.2	7.9		11.1	8.8
1+00	10.1	7.8		11.1	8.8
	10.4	8.1		11.2	8.9
	10.1	7.8		11.4	9.1
	10.1	7.8	3+00	11.4	9.1
	10.5	8.2		11.4	9.1
1+50	11.0	8.7		11.3	9.0
	11.0	8.7	3+30	11.3	9.0

4-17-51 Cont
 STA-103+00 N

0+00 = 14570 W.

SOUND WEST

DIST	SOUND	DIST	SOUND
3+90	11.3	5+10	7.4
(2.3)	11.2	(2.2)	3.5
	11.1	(10:20)	3.0
	11.1		3.0
	11.2	5+50	2.8
	11.3		2.8
4+00	11.3		2.7
	11.2		2.7
	11.0		2.6
	11.0	6+00	2.3
	11.0		2.3
4+50	11.0		2.3
	11.0		2.0
	10.8		2.0
	10.5	6+50	2.1
	9.8		2.1
5+00	9.8		2.0

4-17-51 Cont (43)
 STA-103+00 N.

0+00 = 14570 W

SOUND WEST

DIST	SOUND	DIST	SOUND
6+80	2.0	8+50	2.0
(2.2)	2.0	(2.2)	2.0
7+00	1.8		2.3
	1.7		2.3
	1.8	(10:27)	2.3
	1.8	9+00	2.1
	2.0		
7+50	2.5		
	2.7		
	3.0		
	2.8		
(10:25)	2.8		
8+00	2.6		
	2.4		
	2.2		
	2.2		
	1.9		

PX

STA - 102+00 N

4-17-51

0+00 = 14570 W. SOUND WEST

DIST	SOUND		DIST	SOUND	
(10:47) 0+00	2.0	0.2	1+70	2.7	0.9
(1.8)	1.7	+0.1	(1.8)	2.8	1.0
	1.4	+0.4		3.5	1.7
	1.5	+0.3	2+00	4.6	2.8
	1.5	+0.3		6.5	4.7
0+50	1.8	0.0		8.0	6.2
	2.0	0.2		9.8	8.0
	2.0			11.0	9.2
	2.0		2+50	11.4	9.6
	2.0	0.2		11.4	
1+00	2.1	0.3		11.4	
	2.0	0.2		11.4	9.6
(10:50)	1.9	0.1		11.2	9.4
	2.1	0.3	3+00	11.2	9.4
	2.8	1.0		11.1	9.3
1+50	3.0	1.2		11.1	9.3
	2.3	0.5	3+30	11.0	9.2

STA - 102+00 N

4-17-51

(99)

0+00 = 14570 W. SOUND WEST

DIST	SOUND		DIST	SOUND	
3+40	11.0	9.3	5+10	10.1	8.4
(10:52) (1.7)	11.0		(1.7)	9.7	8.0
	11.0			10.1	8.4
	11.0			10.1	8.4
	11.0		5+50	10.5	8.8
	11.0	9.3		10.5	8.8
4+00	10.8	9.1		10.4	8.7
	10.5	8.8		10.5	8.8
	10.3	8.6		10.3	8.6
	10.5	8.8	6+00	10.3	8.6
	10.7	9.0		11.0	9.3
4+50	10.7	9.0		11.2	9.5
	10.7	9.0		11.4	9.7
	10.8	9.1		11.4	9.7
	10.8	9.1	6+50	11.3	9.6
	10.8	9.1		11.1	9.4
5+00	10.6	8.9	6+70	11.8	10.1

RX

4-17-51
STA - 102+00 N.

0+00 = 14570 W. SOUND WEST

DIST	SOUND	DIST	SOUND
6+80	12.2	10.5	8+50
(1.7)	11.5	9.8	
7+00	10.0	8.3	
	5.5	3.8	
	4.0	2.3	
	4.3	2.6	9+00
	4.5	2.8	
7+50	5.0	3.3	
	4.8	3.1	
	5.1	3.4	
	4.7	3.0	
	4.0	2.3	
8+00	2.9	1.2	
	2.8	1.1	
	4.0	2.3	
(11:00)	2.0	0.3	
8+40			

PX

4-17-51
STA - 101+00 N.

0+00 = 14570 W. SOUND WEST

DIST	SOUND	DIST	SOUND
(11:21) 0+00	3.6	2.2	1+70
(1.4)	4.0	2.6	(1.4)
	4.1	2.7	
	4.4	3.0	2+00
	4.4	3.0	
0+50	4.0	2.6	
	4.2	2.8	(11:25)
	4.7	3.3	
	4.9	3.5	2+50
	4.9	3.5	
1+00	4.9	3.5	
	4.8	3.4	
	4.7	3.3	
	4.5	3.1	3+00
	4.5	3.1	
1+50	4.2	2.8	
	4.1	2.7	3+30

PA

4-17-51
STA-101+00 N Cont

0+00 = 14570 W SOUND WEST

	DIST	SOUND	DIST	SOUND
6	3+40	1.8	5+10	11.0
	(1.4)	2.0	(1.3)	10.7
		2.5		10.7
		3.1		11.0
	4.1	2.7	5+50	11.0
		5.0		11.2
7+00	7.0	5.6		11.2
	8.7	7.3		11.0
	10.0	8.6		11.0
	10.6	9.2	6+00	10.7
	10.8	9.4	(11:30)	11.2
7+50	10.7	9.3		11.5
	10.7	9.3		12.3
	10.7	9.3		12.5
	10.6	9.2	6+50	12.3
	11.0	9.6		12.0
5+00	11.5	10.1		12.0

4-17-51
STA-101+00 N Cont (40)

0+00 = 14570 W. SOUND WEST

	DIST	SOUND	DIST	SOUND
6+00	12.2	10.9	8+50	11.6
(1.3)	12.4	11.1	(1.3)	11.2
7+00	12.2	10.9		11.5
	11.8	10.5		11.4
	12.5	11.2	(11:35)	11.5
	13.2	11.9	9+00	11.2
	14.7	13.4		
7+50	15.0	13.7		
	14.4	13.1		
	12.7	11.4		
	12.0	10.7		
	12.0	10.7		
8+00	12.7	11.4		
	13.0	11.7		
	12.7	11.4		
	12.0	10.7		
8+40	11.6	10.3		

17 Apr 1951

P+

Sta 99+00 N

0+00 = W 14,320

Sta	+	H.I.	-	Elev.
BM	3.84	10.60		6.76
W 1+10			8.8	1.8
W 0+90			7.6	3.0
W 0+60			6.3	4.3
W 0+28			5.3	5.3
0+00			5.2	5.4
E 0+11			5.1	5.5
E 0+55			8.5	2.1

4x4 New
To 99+00
14320WStake at
14430

4-18-51

(47)

STA - 109+00 N

0+00 = 140+00 W.

SOUND EAST

DIST	SOUND	DIST	SOUND
0+00	2.5 + 1.0	1+70	2.2 + 1.3
0+50	2.5 +	2+00	2.2 + 1.3
	2.5 + 1.0		2.2 + 1.3
	2.4 + 1.1		2.1 + 1.4
	2.5 + 1.0		2.2 + 1.3
	2.4 + 1.1		2.1 + 1.4
	2.4 + 1.1		2.1 +
	2.3 + 1.2	2+50	2.1 +
	2.3 + 1.2		2.1 +
1+00	2.2 + 1.3		2.1 +
	2.2 + 1.3		2.1 +
	2.3 + 1.2		2.1 +
	2.2 + 1.3	3+00	2.1 +
	2.3 + 1.2		2.1 +
1+50	2.3 + 1.2		2.1 +
	2.2 + 1.3	3+30	2.1 + 1.4

Pt

4-18-51
STA-109+00 N

Cont

0+00 = 140+00 W. SOUND EAST

DIST	SOUND	DIST	SOUND
3+40	2.1 +1.4	5+10	2.9 +1.0
(3.5)	2.2 +1.3	(9:28)	2.4
	2.2 +	(3.4)	2.4
	2.2 +		2.4
	2.2 +1.3	5+50	2.4
	2.4 +1.1		2.4
4+00	2.4 +1.1		2.4
	2.1 +1.4		2.4 +1.0
	2.1 +1.4		2.1 +1.3
	2.1 +1.4	6+00	2.9 +0.5
	2.2 +1.3		4.4 1.0
4+50	2.3 +1.2		5.1 1.7
	2.3 +1.2		5.5 2.1
	2.4 +1.1		6.1 2.7
	2.4 +	6+50	6.3 2.9
	2.4 +		6.3 2.9
5+00	2.4 +1.1	6+70	6.3 2.9

4-18-51

Cont 48

STA-109+00 N.

0+00 = 140+00 W. SOUND EAST

DIST	SOUND	DIST	SOUND
6+80	6.3 2.9	8+50	1.2 +2.1
(3.4)	6.3 2.9	(3.3)	1.0 +2.3
7+00	6.1 2.7		0.8 +2.5
	5.8 2.4		0.8 +2.5
	5.6 2.2		0.7 +2.6
	5.8 2.4	(9:34)	0.6 SET 2.7 STAKE
	5.8 2.4		
7+50	5.8 2.4		
	6.0 2.6		
	6.0 2.6		
	5.7 2.3		
	3.7 0.3		
8+10	2.8 +0.6		
	2.8 +0.6		
	3.0 +0.4		
	2.7 +0.7		
8+40	2.1 +1.3		

PX

7-18-57
STA-105+00 N

0+00 = 140+00 W

SOUND EAST

	DIST	SOUND		DIST	SOUND
	(9:42)	2.1 +1.1		1+70	2.0 +1.1
	0+00	2.1 +1.1		(9:45)	2.0 +1.1
	(3.2)	2.2 +1.0		(9:50)	1.9 +1.2
		2.3 +0.9		(3.1)	1.9 +1.2
		2.4 +0.8		2+00	1.8 +1.3
0+50		2.1 +1.1			1.9 +1.2
		2.3 +0.9			1.9 +1.2
		2.3 +			2.0 +1.1
		2.3 +		2+50	2.0 +1.1
		2.3 +0.9			1.9 +1.2
1+00		2.1 +1.1			1.9 +
		2.1 +1.1			1.9 +
		2.1 +1.1			1.9 +
		2.0 +1.2		3+00	1.9 +1.2
		2.0 +			2.0 +1.1
1+50		2.0 +			2.0 +1.1
		2.0 +1.2		3+30	2.0 +1.1

7-18-57

STA-105+00 N

(49)

0+00 = 140+00 W

SOUND EAST

	DIST	SOUND		DIST	SOUND
	3+40	2.0 +1.1		5+10	3.5 0.4
	(3.1)	2.0 +1.1		(3.1)	4.8 1.7
		2.0 +1.1			5.5 2.4
		2.1 +1.0			6.0 2.9
		2.1 +		5+50	6.5 3.4
		2.1 +			6.3 3.2
	4+00	2.1 +1.0			6.2 3.1
		2.3 +0.8			6.1 3.0
		2.5 +0.6			5.8 2.7
		2.4 +0.7		6+00	5.7 2.6
		2.2 +0.9			5.5 2.4
	4+50	2.2 +0.9			5.3 2.2
		2.2 +0.9			5.0 1.9
		2.3 +0.8			5.0 1.9
		2.4 +0.7		6+50	4.7 1.6
		2.5 +0.6			4.6 1.5
	5+00	3.0 +0.1		6+70	4.5 1.4

PK

4-18-57
STA - 105+00 N

0+00 = 140+00 W.

SOUND EAST

DIST	SOUND	DIST	SOUND
6+80	4.7	1.6	8+50
(3.1)	4.7	1.6	
7+00	4.5	1.4	
	4.2	1.1	
(9:55)	4.1	1.0	
	3.5	0.4	9+00
	2.8	+0.3	
7+50	3.0	+0.1	
	3.0	+0.1	
	2.9	+0.2	
	2.5	+0.6	9+50
	2.0	+1.1	
8+00	1.5	+1.6	
	1.2	+1.9	
(9:58)	1.5	SET 1.6 STAKE	
			10+00
8+40			

PK

4-18-57
STA - 106+00 N

(30)

0+00 = 140+00 W

SOUND EAST

DIST	SOUND	DIST	SOUND
(10:05)	1.5	+1.5	1+70
0+00	1.5	+1.5	1.7
(3.0)	1.6	+1.4	(3.0)
	1.6	+1.4	1.7
	1.6	+1.4	1.7
	1.6	+1.4	2+00
	1.7	+1.3	1.7
	1.7	+1.3	1.8
0+50	1.7	+1.3	1.8
	1.7	+1.3	1.8
	1.8	+1.2	1.8
	1.7	+1.3	2+50
	1.7	+1.3	1.8
1+00	1.7	+1.3	1.8
	1.8	+1.2	1.8
	1.8	+1.2	1.8
	1.9	+1.1	3+00
	1.8	+1.2	1.8
	1.8	+1.2	2.0
1+50	1.8	+1.2	2.0
	1.8	+1.2	3+30
			2.2

PX

4-18-51

CONT

STA-106+00 N

0+00 = 190+00 W

SOUND EAST

DIST	SOUND		DIST	SOUND	
3+40	2.8	+0.2	5+10	5.0	2.1
(3.0)	3.6	0.6	(2.9)	5.0	2.1
	4.4	1.4		4.8	1.9
	4.7	1.7		4.4	1.5
	5.3	2.3	5+50	4.3	1.4
	6.0	3.0		4.3	1.4
4+00	6.0	3.0		4.3	1.4
	6.0	3.0		4.4	1.5
	6.3	3.3		4.5	1.6
(10:10)	6.4	3.4	6+00	4.5	1.6
	6.1	3.1		4.6	1.7
4+30	6.1	3.1		4.4	1.5
	5.9	2.9		3.2	0.3
	5.8	2.8		2.4	+0.5
	5.6	2.6	6+50	1.8	+1.1
	5.1	2.1		1.5	+1.4
5+00	5.1	2.1	(10:14)	6+70	1.0

PX

4-18-51

(51)

STA-99+00 N

0+00 = 14430 W

SOUND WEST

DIST	SOUND		DIST	SOUND	
(10:25) 0+10	1.5	+1.2	1+80	2.0	+0.7
(2.7)	1.8	+0.9	(2.7)	2.0	+0.7
	2.0	+0.7	2+00	2.5	+0.2
	2.0	+0.7		2.1	+0.6
1+50	2.3	+0.4		2.1	+0.6
	2.4	+0.3		2.0	+0.7
	2.4	+0.3		2.2	+0.5
	2.4	+0.3	2+50	2.0	+0.7
	2.3	+0.4		1.8	+0.9
1+00	2.3	+0.4		1.7	+1.0
	2.3	+0.4		1.4	+1.3
	2.2	+0.5		1.4	+1.3
	2.1	+0.6	3+00	1.4	+1.3
	2.1	+		1.5	+1.2
1+50	2.1	+	(10:30)	1.4	+1.3
	2.1	+0.6		1.4	+1.3
1+70	2.0	+0.7	3+40	1.5	+1.2

PET 1.9
STAKE

PX

4-18-51
STA - 99+00 N.

0+00 = 14430 W.

SOUND WEST

DIST	SOUND		DIST	SOUND	
3+50	1.5	+1.1	^(10:34) 5+20	1.0	+1.6
<u>(2.6)</u>	1.4	+1.2			
	1.4	+1.2			
	1.5	+1.1			
	1.4	+1.2			
4+00	1.4	+1.2			
	1.4	+1.2			
	1.2	+1.4			
	1.1	+1.5			
	1.1	+1.5			
4+50	1.2	+1.4			
	1.1	+1.5			
	1.0	+1.6			
	1.0	+			
	1.0	+			
5+00	1.0	+			
	1.0	+1.6			

PX

4-18-51
STA - 100+00 N.

(52)

0+00 = 14400 W.

SOUND WEST

DIST	SOUND		DIST	SOUND	
0+10			1+80	3.1	0.7
^(10:40)	3.0	0.6	<u>(2.4)</u>	3.1	0.7
<u>(2.4)</u>	3.4	1.0	2+00	3.0	0.6
	4.0	1.6		2.4	0.0
0+50	4.5	2.1		2.5	0.1
	4.5	2.1		2.4	0.0
	4.6	2.2		2.4	
	5.0	2.6	2+50	2.4	
	5.0	2.6		2.4	
1+00	5.1	2.7		2.4	0.0
	5.1	2.7		2.3	+0.1
	5.0	2.6		2.3	+0.1
	5.0	2.6	3+00	2.5	0.1
	4.4	2.0		2.4	0.0
1+50	4.0	1.6		2.5	0.1
	4.0	1.6	^(10:45)	2.5	0.1
	3.2	0.8	3+40	2.5	0.1

PX

4-18-51

STA - 100+00 N

0+00 = 14400 W

SOUND WEST

DIST	SOUND		DIST	SOUND	
3+50	2.3	+0.1	5+20	1.4	+1.0
(2.4)	2.0	+0.4	(2.4)	1.3	+1.1
	2.0	+0.4		1.5	+0.8
	1.9	+0.5	5+50	1.5	+0.9
	1.9	+0.5		1.4	+1.0
4+00	1.9	+0.5		1.5	+0.9
	1.8	+0.6		1.5	+0.9
	1.4	+1.0		1.5	+0.9
	1.4	+1.0	6+00	1.6	+0.8
	1.2	+1.2		1.7	+0.7
4+50	1.0	+1.4		1.8	+0.6
	1.5	+0.9		1.8	+0.6
	2.0	+0.4		1.7	+0.7
	1.5	+0.9	6+50	1.4	+1.0
	1.4	+1.0		1.4	+1.0
5+00	2.0	+0.4		1.6	+0.8
	1.6	+0.8	6+80	2.0	+0.4

PX

4-18-51

STA - 100+00 N

(53)

0+00 = 14400 W

SOUND WEST

DIST	SOUND		DIST	SOUND	
(2.3)	2.5	0.2	8+60	12.7	10.4
	4.0	1.7	(2.3)	13.2	10.9
(10:50)	8.0	5.7		14.0	11.7
	7.5	5.2		15.3	13.0
	9.0	6.7	9+00	14.7	12.4
	10.3	8.0		13.8	11.5
				13.1	10.8
	12.0	9.7		13.3	11.0
	12.0	9.7		13.3	11.0
	12.0	9.7	9+50	13.5	11.2
	11.7	9.4		13.5	11.2
	11.6	9.3	8+00	13.5	11.2
	11.5	9.2		13.2	10.9
	11.5	9.2	(10:55)	12.8	10.5
	11.6	9.3	10+00	12.5	10.2
	11.4	9.1			15400 W.
	11.4	9.1	8+50		

PX

4-18-51
STA-101+00 N

0+00 = 14320 W

SOUND WEST

DIST	SOUND		DIST	SOUND	
(11:05) 0+00	0.5	+1.6	1+70	2.5	-0.4
(2.1)			(2.1)	2.5	0.4
				3.0	0.9
			2+00	3.0	0.9
				3.5	1.4
0+50	1.4	+0.7		4.0	1.9
	1.7	+0.4		4.4	2.3
	2.4	-0.3	(11:09) 2+40	4.6	2.5
	2.0	+0.1			
	1.4	+0.7			
1+00	1.4	+0.7			
	1.4	+0.7			
	1.3	+0.8			
	1.4	+0.7			
	1.5	+0.6			
1+50	2.0	+0.1			
	2.4	-0.3			

PY

4-20-51
STA-102+00 N

0+00 = 140+00 W

SOUND WEST

DIST	SOUND		DIST	SOUND	
(3:58) 0+00	2.5	+1.9	1+70	2.7	+1.7
(4.4)	2.5	+1.9	(4.4)	2.6	+1.8
				2.7	+1.7
				2.8	+1.6
			2+00	2.6	+1.8
				3.1	+1.3
				3.1	+1.3
				3.1	+1.3
				3.3	+1.1
				3.5	+0.9
			2+50	3.3	
				3.8	+0.6
				3.3	+1.1
			1+00	3.9	+0.5
				4.0	+0.4
				3.5	+0.9
				3.1	+1.3
			3+00	2.7	
				3.0	+1.4
				2.7	+1.7
				2.9	+1.5
			1+50	2.5	+1.9
				2.5	+1.9
			1+60	2.8	+1.6
			3+30	2.5	+1.9

(54)

PX

4-20-51

STA-102+00 N

0+00 = 140+00 W.

SOUND WEST

DIST	SOUND	DIST	SOUND
3+40	2.4 +2.0	5+10	3.3 +1.0
+50	2.4	10+25	3.4 +0.9
<u>4.4</u>	2.4	<u>4.3</u>	3.5 +0.8
	2.4		3.5 +0.8
	2.4	5+50	4.0 +0.3
	2.4		4.0 +0.3
4+00	2.4	5+70	4.5 -0.2
	2.4		
	2.4 +2.0		
	2.5 +1.9		
	2.5 +1.9		
4+50	2.8 +1.6		
	2.8 +1.6		
	3.0 +1.4		
	3.1 +1.3		
	3.0 +1.4		
5+00	3.2 +1.2		

PX

4-20-51

STA-102+00 N

(55)

1400 = 140+00 W

SOUND EAST

DIST	SOUND	DIST	SOUND
0+10	2.5 +1.7	1480	2.1 +2.1
10+20	2.8 +1.4		2.1
<u>4.2</u>	2.8 +1.4	2+00	2.1
	2.5 +1.7		2.1
1+50	2.2 +2.0	<u>4.2</u>	2.1
	2.2 +2.0		2.1
	2.3 +1.9		2.1
	2.4 +1.8	2+50	2.1 +2.1
	2.2 +2.0		2.0 +2.2
1+10	2.3 +1.9		2.1 +2.1
	2.4 +1.8		2.3 +1.9
	2.2 +2.0		2.1 +2.1
	2.2 +2.0	3+00	1.9 +2.3
	2.1 +2.1		1.9
1+50	2.3 +1.9		1.9 +2.3
	2.2 +2.0		1.8 +2.4
1+70	2.2 +2.0	3+40	2.2 +2.0

PX

1-20-51
STA - 102+00 N

0+00 = 140+00 W, SOUND EAST

DIST	SOUND		DIST	SOUND
3+50	1.8	+2.4	5+20	1.7
(10:10)	2.0	+2.2	(4.2)	1.7
(4.2)	1.8	+2.4		1.7
	1.7	+2.5	5+50	1.8
	1.8	+2.4		1.8
4+00	1.7	+2.5		1.8
	1.6	+2.6		1.7
	1.8	+2.4		1.8
	1.7	+2.5	6+00	1.8
	1.8	+2.4		1.9
4+50	1.9	+2.3		1.9
	1.9	+2.3		2.0
	1.7	+2.5		2.0
	2.3	+1.9	6+50	2.0
	2.1	+2.1		2.4
5+00	1.8	+2.4		3.5
+10	1.7	+2.5	6+80	4.0

PX

1-20-51
STA - 102+00 N

0+00 = 140+00 W, SOUND EAST

DIST	SOUND		DIST	SOUND
6+90	4.1	+0.1	8+60	5.1
	4.4	-0.2	(10:15)	2.7
(4.2)	4.5	-0.3	8+80	3.0
	4.8	-0.6		
	4.8			
	4.8	-0.6		
	5.2	-1.0		
	4.9	0.7		
	5.2	1.0		
	6.3	2.1		
	7.3	3.1		
	8.0	3.8		
	8.1	3.9		
	8.5	4.3		
	8.5	4.3		
	8.0	3.8		
	7.0	2.8		

(56)

PX

4-20-51
STA-99+00 N

0700 = 14320 W

SOUND EAST

DIST	SOUND		DIST	SOUND	
0730	1.1	+2.9	2700	4.0	0.0
(10:28)	1.5	+2.5		4.2	-0.2
0750	2.0	+2.0	(4.0)	4.3	-0.3
(4.0)	2.5	+1.5		4.1	-0.1
	3.0	+1.0	(10:30)	4.1	
	3.1	+0.9	2750	4.1	
	3.5	+0.5		4.1	
1700	3.0	+1.0		4.1	-0.1
	3.8	+0.2		4.2	-0.2
	3.5	+0.5		4.3	-0.3
	3.5	+0.5	3700	4.3	-0.3
	3.5	+0.5		4.2	-0.2
1750	3.4	+0.6		3.8	+0.2
	3.2	+0.8		3.6	+0.4
	3.2	+0.8		3.5	+0.5
	3.3	+0.7	3750	3.5	+0.5
1790	3.5	+0.5	760	3.6	+0.4

PX

4-20-51
STA-99+00 N

(57)

0700 = 14320 W

SOUND EAST

DIST	SOUND		DIST	SOUND	
3770	3.5	+0.4	5740	2.3	+1.7
	3.3	+0.7	+50	2.1	+1.9
(4.0)	3.4	+0.6		2.1	+1.9
4700	3.2	+0.8	(4.0)	2.0	+2.0
	3.0	+1.0		2.0	
	3.0	+1.0		2.0	+2.0
	2.8	+1.2	6700	2.1	+1.9
	2.9	+1.1		2.0	+2.0
1750	3.0	+1.0		2.0	
	3.0	+1.0		2.0	
	2.8	+1.2		2.0	
	2.7	+1.3	6750	2.0	
	2.7	+1.3		2.0	
5700	2.5	+1.5		2.0	
	2.5	+1.5		2.0	
	2.4	+1.6		2.0	
+30	2.2	+1.8	7700	2.0	+2.0

PX

1-20-51
STA-99+00 N.

0+00 = 14320 W. SOUND EAST

DIST	SOUND		DIST	SOUND	
7+10	2.0	+1.9	8+80	1.6	+2.3
	2.0		(3.9)	1.5	+2.1
(3.9)	2.0		9+00		
	2.0				
7+50	2.0				
	2.0	+1.9			
	2.1	+1.8			
	2.1				
	2.1				
8+00	2.1	+1.8			
	2.0	+1.9			
	1.9	+2.0			
	1.8	+2.1			
	1.8	+2.1			
(10:35)					
8+50	1.7	+2.2			
	1.7				
+70	1.7	+2.2			

PX

1-20-51
STA-98+00 N

0+00 = 14260 W SOUND EAST

DIST	SOUND		DIST	SOUND	
0+10	1.5	+2.2	1+80	2.3	+1.4
(10:45)	1.8	+1.9		2.4	+1.3
(3.7)	2.0	+1.7	2+00	2.5	+1.2
	2.0	+1.7		2.4	+1.3
1+50	2.2	+1.5	(3.7)	2.4	+1.3
	2.1	+1.6		2.6	+1.1
	2.0	+1.7		2.7	+1.0
	1.8	+1.9	2+50	2.7	+1.0
	1.7	+2.0		2.8	+0.9
1+00	2.1	+1.6		3.1	+0.6
	1.8	+1.9		3.8	-0.1
	2.0	+1.7		4.1	-0.4
	2.0		3+00	4.4	-0.7
	2.0			4.4	-0.7
1+50	2.0			4.1	0.4
	2.0			4.1	
+70	2.0	+1.7	3+40	4.1	0.4

(58)

PX

4-20-51

STA - 98400 N

0+00 = 14260 W

SOUND EAST

DIST	SOUND	DIST	SOUND	DIST	SOUND
3+50	4.1	0.4	5+20	4.2	0.5
	4.4	0.7		4.3	0.6
(3.7)	4.5	0.8	(3.7)	4.3	0.6
	4.4	0.7	5+50	4.1	0.4
	4.0	0.3		3.7	0.6
4+00	3.8	0.1		3.6	+0.1
	3.8	0.1		3.6	
	3.9	0.2		3.6	+0.1
	4.0	0.3	6+00	3.5	+0.2
	4.4	0.7		3.5	
4+50	4.5	0.8		3.5	
	4.7	1.0		3.5	+0.2
	4.7	1.0		3.4	+0.3
	4.5	0.8	6+50	3.5	+0.2
	4.4	0.7		3.5	+0.2
5+00	4.3	0.6		3.4	+0.3
4+10	4.3	0.6	6+80	3.2	+0.5

PX

4-20-51

STA - 98400 N.

(59)

0+00 = 14260 W

SOUND EAST

DIST	SOUND	DIST	SOUND	DIST	SOUND
6+90	3.2	+0.5	8+60	3.2	+0.5
7+00	3.2	+0.5		3.2	
	3.3	+0.4		3.2	+0.5
(3.7)	3.3		(3.7)	3.0	+0.7
	3.3	+0.4	9+00	2.5	+1.2
	3.2	+0.5		2.0	+1.7
7+50	3.4	+0.3		1.8	+1.9
	3.4			1.7	+2.0
	3.4	+0.3		1.8	+1.9
	3.3	+0.4	9+50	1.8	+1.9
	3.3	+0.4	(10.50)	1.9	+1.8
8+00	2.5	+1.2		2.0	+1.7
	3.2	+0.5		2.0	+1.7
	3.3	+0.4		2.0	
	3.3	+0.4	10+00	2.0	+1.7
	3.3			2.2	+1.5
8+50	3.3	+0.4	10+20	2.4	+1.3

PX

4-20-51

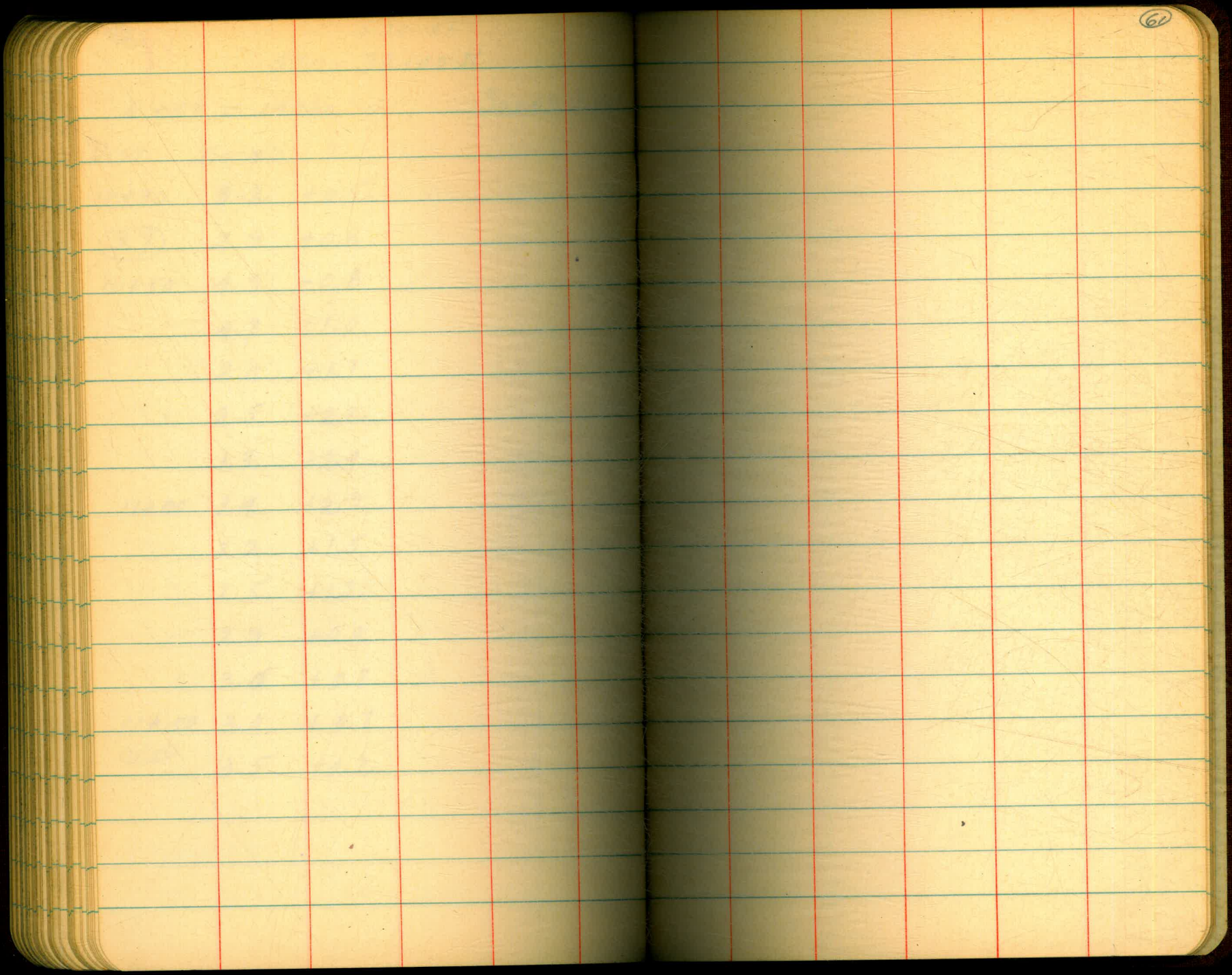
STA-98+00 N

(60)

0+00 = 14260 W

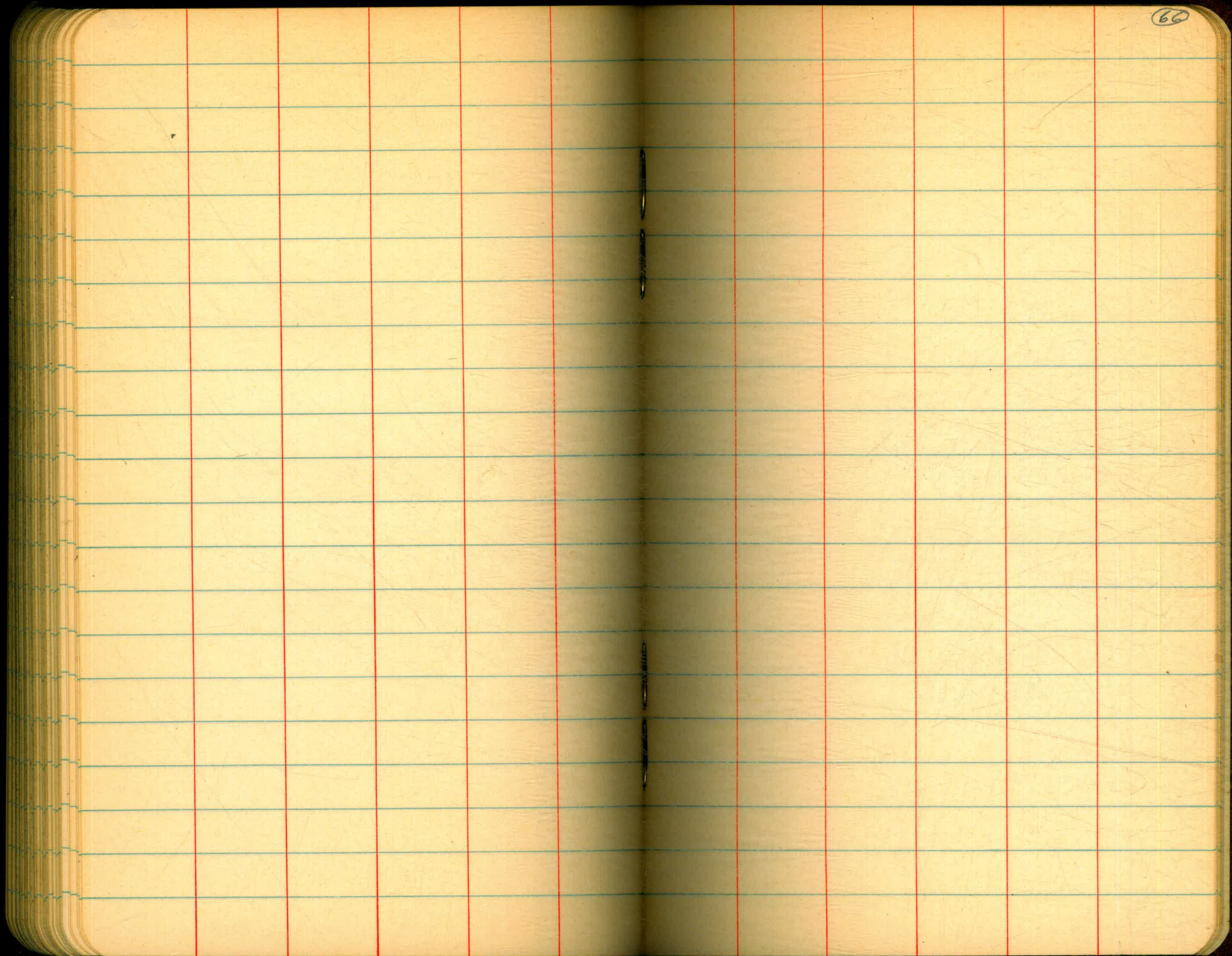
SOUND EAST

DIST	SOUND	
10+30	3.2	+0.5
(3.7)	2.9	+0.8
10+50	4.5	-0.8
	4.7	-1.0
	2.0	+1.7
	2.5	+2.2
	1.3	+2.1
11+00	1.4	+2.3
	2.2	+1.5
	2.5	+1.2
	2.9	+0.8
	3.0	+0.7
11+50	3.0	+0.7
(10.53)	3.5	+0.2



The image shows an open notebook with two facing pages. The pages are cream-colored and feature light blue horizontal ruling. Vertical red lines create margins on both pages. The right page has the number '63' written in the top right corner. The notebook is bound on the left side, and the pages are otherwise blank.

The image shows an open notebook with two facing pages. Both pages are cream-colored and feature horizontal green lines for writing. Each page has two vertical red lines that create a central column and two side margins. The pages are otherwise blank, with no handwriting or printed text. The number '69' is handwritten in the top right corner of the right page. The notebook's binding is visible on the left side, and the dark cover is seen at the edges.



(67)

68

69

72

73

74

75

76

(77)

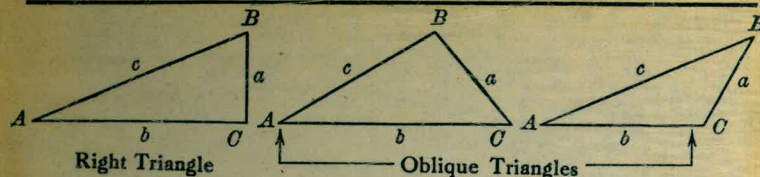
EAST CURB INLET 10.34
CAUSEWAY 10.34

BEARING W CURB B/L N10° 12' 47" W

15.73
4.70

10.93

TRIGONOMETRIC FORMULÆ



Solution of Right Triangles

For Angle A. $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{b}$, $\text{cosec} = \frac{c}{a}$

Given	Required	Formulas
a, b	A, B, c	$\tan A = \frac{a}{b} = \cot B$, $c = \sqrt{a^2 + b^2} = a \sqrt{1 + \frac{b^2}{a^2}}$
a, c	A, B, b	$\sin A = \frac{a}{c} = \cos B$, $b = \sqrt{(c+a)(c-a)} = c \sqrt{1 - \frac{a^2}{c^2}}$
A, a	B, b, c	$B = 90^\circ - A$, $b = a \cot A$, $c = \frac{a}{\sin A}$
A, b	B, a, c	$B = 90^\circ - A$, $a = b \tan A$, $c = \frac{b}{\cos A}$
A, c	B, a, b	$B = 90^\circ - A$, $a = c \sin A$, $b = c \cos A$

Solution of Oblique Triangles

Given	Required	Formulas
A, B, a	b, c, C	$b = \frac{a \sin B}{\sin A}$, $C = 180^\circ - (A + B)$, $c = \frac{a \sin C}{\sin A}$
A, a, b	B, c, C	$\sin B = \frac{b \sin A}{a}$, $C = 180^\circ - (A + B)$, $c = \frac{a \sin C}{\sin A}$
a, b, C	A, B, c	$A + B = 180^\circ - C$, $\tan \frac{1}{2}(A - B) = \frac{(a - b) \tan \frac{1}{2}(A + B)}{a + b}$ $c = \frac{a \sin C}{\sin A}$
a, b, c	A, B, C	$s = \frac{a + b + c}{2}$, $\sin \frac{1}{2}A = \sqrt{\frac{(s - b)(s - c)}{bc}}$ $\sin \frac{1}{2}B = \sqrt{\frac{(s - a)(s - c)}{ac}}$, $C = 180^\circ - (A + B)$
a, b, c	Area	$s = \frac{a + b + c}{2}$, $\text{area} = \sqrt{s(s - a)(s - b)(s - c)}$
A, b, c	Area	$\text{area} = \frac{bc \sin A}{2}$
A, B, C, a	Area	$\text{area} = \frac{a^2 \sin B \sin C}{2 \sin A}$

REDUCTION TO HORIZONTAL



Horizontal distance = Slope distance multiplied by the cosine of the vertical angle. Thus: slope distance = 319.4 ft. Vert. angle = 5° 10'. From Table, Page IX. $\cos 5^\circ 10' = .9959$. Horizontal distance = $319.4 \times .9959 = 318.09$ ft. Horizontal distance also = Slope distance minus slope distance times (1 - cosine of vertical angle) With the same figures as in the preceding example, the following result is obtained. $\cos 5^\circ 10' = .9959$. $1 - .9959 = .0041$. $319.4 \times .0041 = 1.31$. $319.4 - 1.31 = 318.09$ ft. When the rise is known, the horizontal distance is approximately:—the slope distance less the square of the rise divided by twice the slope distance. Thus: rise = 14 ft., slope distance = 302.6 ft. Horizontal distance = $302.6 - \frac{14 \times 14}{2 \times 302.6} = 302.6 - 0.32 = 302.28$ ft.