

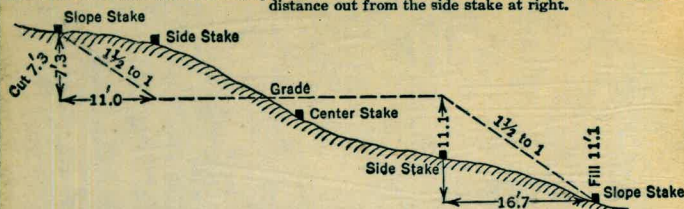
MISSION BAY

60

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes 1 1/2 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.

#60
MICROFILMED

JAN 7 1965

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

INDEX

Soundings Pro. #16

3-14-50

1-77 E. of Midway.

3-14-51

INDEX

PAGE	ORIGINAL	NORTH	DATE
① To ③	X-SECTIONS OF DREDGING AREA	73-77	8-29-50
	ORIGINAL		
③ To ⑧	X-SECTIONS OF PROJ-16	56-65	8-30-50
	ORIGINAL		
⑧ To ⑩	SOUNDINGS DREDGING AREA	77-102	8-31-50
	ORIGINAL		
⑩ To ⑩	X-SECTIONS FILL AREA PROJ-16	77-82	9-1-50
	ORIGINAL		
	Final Soundings of Dredged		2-20-51
29 To 77	Area Proj #16 East of Midway		3-12-51

X-SECTIONS OF DREDGING AREA

PROJ- No 16

N-74+00

0+00 = (N-74+00)
(W-140+00)

C. BARRAGAN 8-29-50
A. SHERWIN
H. BROWN
W. CARVER

PX

STATION	Dist	H.I.	FLEV	Water	H ₁	Elev
STA - N-73+00						
0+00 = (N-73+00) (W-140+00)				6.28	9.28 6.58	3.0
DIST +						
Waterkey	4.5	7.7	3.2			
W-103		3.3	4.4			3.7 5.6
W-120		3.1	4.6			3.7 5.6
W-145		3.3	4.4			3.8 5.5
W-150		3.7	4.0			3.8 5.5
0+00		4.4	3.3			3.7 5.6
E 0+47		3.1	4.6			4.0 5.3
E 100		2.4	5.3			4.7 4.6
E 153		3.2	4.5			4.7 4.6
E 210		2.3	5.4			4.5 4.8
E 263		2.2	5.5			4.9 4.4
E 318		2.1	5.6			
E 370		2.1	5.6			
E 430		2.0	5.7			
E						

H₂O SURFACE
E 02:45
P. 23

8-19-00

N-76+00

(2)

PX		Sta N. 75+00		DIST + H.I.		- ELEV PX	
Sta	H.I.	Elev		0+00 =	(N-76+00)	(W-137+00)	
0+00 =	{ W-139+00			Water	7.47	10.14	2.4
	{ N-75+00			W162			6.0 4.1
Water	6.56	2.06	2.5	Tide	W115		5.7 4.4
W10+62		5.3	3.8	W0+65			5.0 5.1
W0+30		4.8	4.3	W0+25			4.8 5.3
W0+00		4.7	4.4	0+00			4.8 5.3
E0+50		4.6	4.5	E0+55			4.8 5.3
E105		4.4	4.7	E110			4.8 5.3
E160		4.2	4.9	E160			4.8 5.3
E215		4.1	5.0	E215			4.9 5.2
E263		4.0	5.1	E270			4.9 5.2
E320		4.1	5.0	E320			4.8 5.3
				E375			4.7 5.4

~~DRX~~ + N-77+00 (E) 140+00
 H.I. - ELEV 137+80
 2+20

8-30-50

N-65+00

~~DRX~~

(3)

Water 5.55 7.75 2.2

0+00 = STA-N-65+00 ON EAST CURB B/L

0+00 = (N-77+00)
(N-137+80)

DIST + H.I. - ELEV

E 435 7.75 2.6 5.2

B.M 4.80 16.08 11.28

N 63+00
West curb
B/L

E 385 2.7 5.1

E 907 5.40 10.68

E 330 2.7 5.1

E 200 4.73 11.35

E 280 2.7 5.1

E 105 4.0 12.1

E 228 2.9 4.9

E 152 4.2 11.9

E 170 2.9 4.9

E 18 8.7 7.4

E 120 3.3 4.5

E 319 11.5 4.6

E 0+75 4.0 3.8

E 0+30 4.2 3.6

E 0+13 4.2 3.6

0+00 4.8 3.0

8-30-50

PX

64+00 N

0+00 = { 64+00 N
East curb B/L

Sta	+	H _i	-	Elev
B.M.	4.81	16.09		11.28
East gut			5.30	10.79
East curb 0+00			4.68	11.41
E 0+07			4.8	11.3
E 0+23			10.9	5.2
0+63			11.3	4.8
1+15			11.4	4.7
1+65			11.1	5.0
2+20			10.8	5.3
2+64			11.3	4.8
2+66			12.3	3.8
2+72			15.3	0.8

N 63+00
west curb

8-30-50

63+00 N

0+00 = { 63+00 N
East curb B/L

Sta	+	H _i	-	Elev
B.M.	4.91	16.19		11.28
East gut			5.55	10.64
East curb 0+00			4.86	11.33
0+05			4.4	11.8
0+10			5.1	11.1
0+21			10.8	5.4
0+28			11.1	5.1

N 63+00
west curb B/L

①

PX

P-30-50

PX

62+00 N

0+00 = { 62+00 N
East curb B/L

Sta	+	Hi	-	Elev
B.M.	4.65	15.93		11.28
E gnt			5.45	10.48
E curb 0+00.5			4.82	11.11
0+06			4.1	11.8
0+14			4.1	11.8
0+27			9.9	6.0
0+77			10.6	5.3
1+25			11.1	4.8
② 1+27			12.0	3.9
④ 1+29			11.2	4.7
1+80			11.0	4.9
2+26			11.0	4.9
③ 2+29			12.7	3.2
⑤ 2+31			14.0	1.9
⑧ 2+39			16.5 ^{2.5}	-0.6

P-30-50

PX

61+00 N

0+00 = { 61+00 N
East curb B/L

Sta	+	Hi	-	Elev
B.M.	4.50	15.78		11.28
2+48			14.8 ^{15.6}	1.0
2+35			13.0	2.8
2+33			11.3	4.5
1+86			10.9	4.9
1+40			10.8	5.0
0+87			10.8	5.0
0+28			10.7	5.1
0+12			4.2	11.6
East curb 0+00			4.75	11.03
East gnt			5.37	10.41

N 63+00
West curb
B/L

8-30-50

PX

60+00 N

0+00 = { 60+00 N
East curb B/L

Sta	+	H _i	-	Elev.
B.M.	4.55	15.67		11.12
E E/gut			5.21	10.46
E E/curb 0+00			4.56	11.11
0+13			4.5	11.2
0+26			10.5	5.2
0+80			10.5	5.2
1+33			10.5	5.2
1+82			10.5	5.2
2+50 ①			11.2	4.5
2+51 ②			12.7	3.0
2+55			13.4	2.3
2+67			15.1	0.6

8-30-50

⑥

59+00 N

0+00 = { 59+00 N
East curb B/L

Sta	+	H _i	-	Elev.
B.M.	4.46	15.58		11.12
2+23			14.3	1.3
2+03			13.4	2.2
2+07			10.6	5.0
1+55			10.3	5.3
1+04			10.5	5.1
0+55			10.9	4.7
0+24			10.0	5.6
0+13			5.3	10.3
0+8			4.4	11.2
E/curb 0+00			4.60	10.98
E/gut			5.25	10.33

8-30-50

58+00 N

0+00 = { 58+00N
East curb B/L

	Sta	+	H _i	-	Elev
B.M.	4.48		15.60		11.12
E/9WT			5.43		10.17
E/curb 0+00			4.72		10.88
0+11			4.6		11.0
0+21			9.9		5.7
0+70			10.5		5.1
1+14			10.6		5.0
1+36			10.9		4.7
1+40 ^(*)			13.0		2.6
1+50			15.8		-0.2
B.M.			4.65		10.95

8-30-50

57+00 N

0+00 = { 57+00N
East curb B/L

	Sta	+	H _i	-	Elev
B.M.	4.65		15.60		10.95
1+03			14.4		1.2
0+95			13.2		2.4
0+70			10.9		4.7
0+55			11.2		4.4
0+21			10.0		5.6
0+11			4.6		11.0
E/curb 0+00			4.75		10.85
E/9WT			5.45		10.15

60+00
west
B/L20' South
Lamp Post
458520' South
Lamp Post
4585

8-30-50

56+00 N

0+00 = $\left\{ \begin{array}{l} 56+00 \text{ N} \\ \text{East curb} \end{array} \right. \text{ B/c}$

Sta + Hi - Elev

E B.M. 4.75 15.70 10.95

20' 50"
40' 10"
45' 25"

E/gut

5.47 10.23

E/curb
0+00 }

4.80 10.90

0+10

4.3 11.4

0+21

10.0 5.7

0+47

11.1 4.6

0+68

11.5 4.2

0+69^①

13.0 2.7

+82

124.2
14.6 1.1

8-31-50

⑨

PX

STA - N-99+00

N-99+00

PX

0+00 = (N-99+00 / N-130+00) SOUND - East		DIST SOUND		DIST SOUND		DIST SOUND		DIST SOUND	
				3+60	120	6.9	5+50	15.0	9.9
	0+00	8.2	3.1	1+80	3.8	+1.3		15.1	10.0
	+10	8.0	2.9		3.8	+1.3	(5.1)	15.0	9.9
	(5.1)	7.2	2.1	2+00	3.8	+1.3		14.3	9.2
		6.6	1.5	(5.1)	4.0	+1.1	4+00	12.8	7.7
		5.7	0.6		3.9	+1.2		8.0	2.9
	50	4.8	+0.3		4.2	+0.9		7.0	1.9
		3.2	+1.9		4.2	+0.9		7.0	1.9
		2.7	+2.4	+50	4.0	+1.1		6.8	1.7
		2.0	+3.1		4.8	+0.3	150	6.5	1.4
		2.0	+3.1		4.0	+1.1		5.7	0.6
	1+00	1.9	+3.2		3.9	+1.2		5.3	0.2
		1.8	+3.3		3.8	+1.3		5.8	0.7
		1.8	+3.3	(1.35) 3+00	3.9	+1.2		5.5	0.4
		2.0	+3.1		4.2	+0.9	5+00	5.8	0.7
		2.8	+2.3		4.8	+0.3		5.9	0.8
	50	3.3	+1.8		5.7	0.6		6.3	1.2
		3.5	+1.6		7.2	2.1		6.9	1.8
	1+70	3.8	+1.3	+50	11.2	6.1	5+00	7.8	2.7

Px Sta. 99+00 N 8-31-50

Dist.	Sound		Dist.	Sound	
7+00	8.7	3.6	9+30	13.3	8.3
+50	10.0	4.9		12.7	7.7
(5.1)	10.7	5.6	+50	12.6	7.6
	11.3	6.2	(5.0)	12.0	7.0
	11.8	6.7		11.0	6.0
	11.9	6.8		9.9	4.9
8+00	12.0	6.9		9.3	4.3
	12.9	7.8	10+00	9.0	4.0
	13.3	8.2		8.4	3.4
	13.8	8.7		8.2	3.2
	14.0	8.9		7.9	2.9
+50	14.3	9.2		7.2	2.2
	14.4	9.3	+50	6.7	1.7
	14.5	9.4		5.8	0.8
	14.7	9.6		4.2	+0.8
	14.9	9.8		3.3	+1.7
9+00	15.0	9.9		2.9	+2.1
	15.0	9.9	14+00	2.3	+2.7
+20	14.6	9.5	+10	1.9	+3.1
			+20	1.5	+3.5

Sta. 99+00 N 8-31-50

(10)

Sound West					
Dist.	Sound	Dist.	Sound	Dist.	Sound
0+10	8.5	3.6	1+90	4.0	+0.9
1+05	8.0	3.1	2+00	4.0	+0.9
(4.9)	7.8	2.9	(4.9)	4.3	+0.6
	7.9	3.0		3.9	+1.0
+50	7.9	3.0		3.9	+1.0
	7.0	2.1		3.7	+1.2
	5.9	1.0	+50	4.7	+0.2
	5.0	0.1		4.9	0.0
	4.9	0.0		3.9	+1.0
1+00	4.7	+0.2		3.2	+1.7
	4.0	+0.9		3.2	+1.7
	4.5	+0.4	3+00	2.9	+2.0
	4.2	+0.7		2.8	+2.1
	4.0	+0.9		2.2	+2.7
+50	4.0	+0.9		2.0	+2.9
	3.8	+1.1		2.0	+2.9
	3.8	+1.1	+50	2.0	+2.9
+80	3.9	+1.0	1:50		

Sta. 100+00 N.

8-31-50

0+00 = $\left\{ \begin{array}{l} 100+00N \\ 130+00W \end{array} \right\}$

Sound East

Sta. 100+00N

8-31-50

Sound East

(11)

7X

Dist	Sound		Dist.	Sound		Dist.	Sound		Dist.	Sound	
			2+60	13.0	8.1	5+50	13.6			8.8	
0+00	4.4	+0.5	1+80	1.0	+3.9	(2+00)	11.7			6.9	
	3.8	+1.1		1.0	+3.9	(4.9)	13.4	8.5	(4.8)	7.0	2.2
	2.9	+2.0	2+00	1.0	+3.9		13.6	8.7		5.7	0.9
(1.9)	2.0	+2.9	(4.9)	1.1	+3.8	4+00	13.7	8.8		5.5	0.7
	1.7	+3.2		1.3	+3.6		13.5	8.6	6+00	5.9	1.1
+50	1.3	+3.6		1.4	+3.5		13.1	8.2		6.2	1.4
	1.3	+3.6		1.7	+3.2		13.7	8.8		5.9	1.1
	1.0	+3.9	+50	2.0	+2.9		14.2	9.3		6.2	1.4
	1.0	+3.9		2.3	+2.6	7+50	14.8	9.9		6.7	1.9
	1.0	+3.9		3.8	+1.1		14.7	9.8	+50	7.1	2.3
1+00	1.0	+3.9		5.2	0.3					6.7	1.9
	1.0	+3.9		8.6	3.7		14.0	9.1		5.5	0.7
	0.9	+4.0	3+00	9.9	5.0		13.9	9.0		4.8	0.0
	1.0	+3.9		11.4	6.5	5+00	13.7	8.8		4.6	+0.2
	1.0	+3.9		12.8	7.9		13.8	8.9	7+00	4.7	+0.1
+50	1.0	+3.9		13.0	8.1		14.0	9.1		4.8	0.0
	1.0	+3.9		13.3	8.4		14.0	9.1		5.1	0.3
+70	0.9	+4.0	+50	13.1	8.2	1+00	13.7	8.8	7+30	5.3	0.5

PX

Sta

100+00N

Sound East

8-31-50

Dist.

2:05

Sound

Dist

Sound

7+40

6.1

1.3

9+30

11.3

6.6

11+20

4.8

0.1

+50

7.2

2.4

11.3

6.6

7+0

3.7

+1.0

8.0

3.2

+50

11.3

6.6

(4.7)

2.9

+1.8

(4.8)

9.3

4.5

(4.7)

11.3

6.6

+50

7.2

+2.5

10.0

5.2

11.2

6.5

1-8

+2.9

10.9

6.1

11.1

6.4

+70

1.2

+3.5

8+00

10.9

6.1

11.0

6.3

Sta 100+00N

Sound West

11.2

6.4

10+00

11.0

6.3

Dist

Sound

Dist

Sound

11.5

6.7

11.0

6.3

0+10

4.9

0.2

1+20

6.4

2.7

11.7

6.9

10.8

6.1

(4.7)

5.5

0.8

(4.7)

5.7

1.0

11.8

7.0

10.1

5.4

6.3

1.6

5.3

0.6

+50

11.8

7.0

9.4

4.7

7.0

2.3

+50

5.2

0.5

12.0

7.2

+50

8.8

4.1

+50

7.1

2.4

5.1

0.4

12.2

7.4

8.5

3.8

7.2

2.5

5.3

0.6

12.3

7.5

8.0

3.3

7.9

3.2

5.3

0.6

12.3

7.5

7.8

3.1

7.7

3.0

4.9

0.2

9+00

12.0

7.2

7.8

3.1

7.9

3.2

7+00

5.0

0.3

11.9

7.1

11+00

6.6

1.9

1+00

7.2

3.5

5.2

0.5

+20

11.8

7.0

+10

6.2

1.5

+10

7.0

3.3

+20

5.0

0.3

(12)

8-31-50

PX Sta. 100+00N SOUND West

Dist.	Sound	
2+30	5.0	0.3
	5.0	0.3
+50	4.8	0.1
	4.7	0.0
(4.7)	4.6	+0.1
	4.0	+0.7
	3.9	+0.8
3+00	3.6	+1.1
	3.0	+1.7
	3.0	+1.7
	2.8	+1.9
	1.9	+2.8
+50	1.7	+3.0
	1.5	+3.2

2:25

(13)

Sta. 101+00N 8-31-50 PX

Dist.	Sound		Dist.	Sound	
0+00 =	5.0		0+00	1.0	+3.5
	5.0		1+80	6.6	2.1
	5.0		2:35	1.0	+3.5
	5.0			6.3	1.8
	5.0		(4.5)	1.0	+3.5
	5.0			2+00	5.5
	5.0			1.0	
	5.0			1.5	+3.0
	5.0			2.0	+2.5
	5.0		+50	2.8	+1.7
	5.0			4.9	0.4
	5.0			3.3	+1.2
	5.0			5.0	0.5
	5.0			4.2	+0.3
	5.0		+50	5.1	0.6
	5.0			4.8	-0.3
	5.0			4.9	0.4
	5.0			6.7	1.2
	5.0			4.8	0.3
	5.0		1+00	6.5	2.0
	5.0			5.0	0.5
	5.0			7.2	2.7
	5.0			4.3	+0.2
	5.0			8.2	3.7
	5.0		3+00	4.0	+0.5
	5.0			8.1	3.6
	5.0			4.0	+0.5
	5.0			8.5	4.0
	5.0			3.7	+0.8
	5.0		+50	8.4	3.9
	5.0			3.0	+1.5
	5.0			8.0	3.5
	5.0			2.7	+1.8
	5.0		+10	7.2	2.7
	5.0			2.7	+1.8

3:40

7X Sta 102+00N 8-31-50
 0+00 - { 102+00N }
 { 130+00W } Sound East

Dist	Sound		Dist	Sound
0+00	0.0	+3.8	1+80	5.5
	0.0	+3.8		6.3
	0.0	+3.8	2+00	7.2
	+0.1	+3.9	(3.8)	9.2
	+0.1	+3.9		12.5
+50	+0.1	+3.9		12.9
	+0.1	+3.9		13.0
	0.0	+3.8	+50	13.0
	0.0	+3.8		13.0
	0.1	+3.7		13.1
1+00	0.2	+3.6		13.1
	0.2	+3.6		13.1
	0.2	+3.6	3+00	13.1
	0.3	+3.3		13.1
	1.1	+2.7		13.2
3.35	+50 1.5	+2.3		13.0
	2.2	+1.6		13.0
1+0	3.2	+0.6	+50	12.8

15.8
 3.30

8-31-50 (14)
 Sta. 102+00N Sound East PX

Dist	Sound		Dist	Sound
3+60	12.8	9.1	5+50	1.5
	12.8	9.1		1.6
	(3.7) 12.7	9.0	(3.7) 1.5	+2.2
	12.7	9.0		1.3
	12.6	8.9		1.1
	12.5	8.8	6+00	1.2
	12.5	8.8		1.5
	12.5	8.8		1.7
	12.2	8.5		1.6
	+50 11.5	7.8		1.3
	11.5	7.8	+50	1.3
	10.0	6.3	(3.40)	1.3
	6.5	2.8		1.3
	5.0	1.3		1.7
	5+00 3.5	+0.2		1.5
	2.8	+0.9	7+00	1.5
	2.0	+1.7		1.5
	1.7	+2.0		1.5
	+40 1.5	+2.2	+30	1.5

8-31-50				8-31-50 (5)						
Sta 102+00 W		Sound East		Sta 102+00 W		Sound East				
Dist	Sound	Dist	Sound	Dist	Sound	Dist	Sound			
7+40	1.4	+2.3	9+30	9.0	5.4	11+20	8.8	5.3	13+10	3.9
+50	1.4	+2.3		9.0	5.4		8.5	5.0		4.0
(3.7)	2.7	+1.0	+50	9.0	5.4		8.0	4.5		4.5
	3.8	0.1	(3.6)	9.1	5.5	+50	7.8	4.3	(3.5)	4.3
	4.0	0.3		9.7	6.1	(3.5)	7.0	3.5	+50	4.5
	5.0	1.3		9.8	6.2		7.0	3.5		4.5
8+00	6.0	2.3		9.8	6.2		7.0	3.5		5.0
	7.2	3.5	10+00	9.9	6.3		7.0	3.5		5.0
	7.6	3.9		9.9	6.3	7+00	7.1	3.6		4.8
	7.5	3.8		10.0	6.4		6.8	3.3	14+00	4.5
	7.6	3.9		10.0	6.4		5.5	2.0		4.3
+50	7.6	3.9		9.9	6.3	8+45	5.1	1.6		4.5
	7.5	3.8	+50	9.9	6.3		4.8	1.3		4.1
				9.9	6.3	+50	4.3	0.8		3.9
	7.6	3.9		9.8	6.2		4.1	0.6	+50	3.0
	7.8	4.1		9.6	6.0		4.0	0.5		2.8
9+00	8.0	4.3		9.3	5.7		3.9	0.4		2.5
	8.2	4.5	11+00	9.1	5.5		3.9	0.4		3.0
										3.5
+20	8.6	4.9	+0	9.1	5.5	13+00	3.9	0.4	15+00	2.8

Px

9x sta 102+00 N 8-31-50

0+00 = $\left\{ \begin{matrix} 102+00N \\ 120+00W \end{matrix} \right\}$ Sound West

Dist Sound Dist Sound

0+00 0.4 +4.0 1+80 8.9 4.5

2:45 0.4 +4.0 9.0 4.6

(4.4) 0.4 +4.0 2+00 9.0 4.6

0.4 +4.0 (4.1) 8.0 3.6

0.4 +4.0 7.3 2.9

+50 0.4 +4.0 6.5 2.8

0.5 +3.9 5.8 4.0

0.6 +3.8 +50 5.0 0.6

1.0 +3.4 4.9 0.5

1.1 +3.3 5.0 0.5

1+00 1.3 +3.1 5.0 0.6

1.8 +2.6 4.8 0.4

2.6 +1.8 3+00 4.8 0.4

3.3 +1.1 4.7 0.3

4.2 +0.2 4.6 0.2

+50 6.3 1.9 2:50 4.0 +0.5

8.0 3.6 (4.1) 3.7 +0.7

+70 8.5 4.1 +50 2.2 +2.2

8-31-50

(10)

sta 102+00 N Sound West

Dist Sound Dist Sound

2+60 2.1 +2.3

2.1 +2.3

2.2 +2.2

2.1 +2.3

2.1 +2.3

sta 101+00 N Sound East Px

0+00 = $\left\{ \begin{matrix} 101+00N \\ 120+00W \end{matrix} \right\}$ Dist Sound

1+20 0.3 +3.9

0.3 +3.9 (4.2) 0.4 +3.8

0.3 +3.9 0.4 +3.8

0.3 +3.9 +60 0.3 +3.9

0.2 +4.0 0.3 +3.9

+50 0.2 +4.0 0.2 +4.0

0.2 +4.0 0.4 +3.8

0.1 +4.1 0.4 +3.8

0.2 +4.0 2+00 0.4 +3.8

0.2 +4.0 0.5 +3.7

+100 0.2 +4.0 0.6 +3.6

0.2 +4.0 +30 1.0 +3.2

8-31-50				8-31-50 (17)							
PX Sta 101+00 N		Sound East		Sta 101+00 W		Sound East					
Dist.	Sound	Dist.	Sound	Dist.	Sound	Dist.	Sound				
2+40	2.5	+1.5	4+30	12.9	8.9	2+20	2.0	+1.9	8+10	9.0	5.1
+50	4.5	-0.5		12.9	8.9		1.9	+2.0		9.3	5.4
3+10	9.0	5.0	+50	13.0	9.0	(3.9)	1.8	+2.1	(3.9)	9.4	5.5
(4.0)	10.8	6.8	(4.0)	12.9	8.9	+50	1.8	+2.1		9.9	6.0
	11.3	7.3		12.8	8.8		1.9	+2.0	50	10.0	6.1
	11.8	7.3		13.0	9.0		1.8	+2.1		10.3	6.4
3+00	12.0	8.0		12.9	8.9		1.8	+2.1		10.2	6.3
	12.0	8.0	5+00	12.0	8.0		1.8	+2.1		10.1	6.2
	12.2	8.2		9.0	5.0	+00	1.7	+2.2		10.0	6.1
	12.3	8.3		7.1	3.0		2.0	+1.9	9+00	10.0	6.1
	12.7	8.7		6.0	2.0		3.1	+0.8		10.0	6.1
+50	12.8	8.8		5.0	1.0		4.2	0.3		9.8	5.9
	13.0	9.0	+50	5.0	1.0		5.1	1.2		9.7	5.8
	12.8	8.8		4.0	0.0	+50	5.9	2.0		9.3	5.4
	11.9	7.9		2.9	+1.0		6.8	2.9	+50	9.0	5.1
	12.0	8.0		2.0	+2.0		7.0	3.1		9.0	5.1
4+00	13.0	9.0		2.0	+2.0		7.9	4.0		8.8	4.9
	13.1	9.1	6+00	2.0	+2.0					8.9	5.0
+20	13.0	9.0	-10	2.0	+2.0	+00	8.6	4.7	+10	9.0	5.1

8-31-50

PX Sta. 101+00 W - Sound East

Dist.	Sound	Dist.	Sound	
10+00	9.0	5.1	11+90	4.0 0.1
	9.1	5.2	12+00	3.3 +0.6
	9.2	5.3	(3.20)	2.7 +1.2
(3.9)	9.3	5.4	(3.9)	2.0 +1.9
	8.8	4.9		1.7 +2.2
+50	8.9	5.0		1.0 +2.0
	8.7	4.8	12+50	1.0 +2.2
	8.6	4.7		
	8.5	4.6		
	8.2	4.3		
11+00	8.1	4.2		
	8.1	4.2		
	8.0	4.1		
	7.6	3.7		
	7.5	3.6		
+50	7.2	3.3		
	6.5	2.6		
	6.0	2.1		
T80	5.5	1.6		

R

N-88+00

0+00 = { N-88+00
W-140+00 }

SEC. E. & W.

DIST + H.I. - ELEV

WATER 3.93 8.39 5.4

E 0+00 4.9 3.4

E 0+28 4.0 4.3

E 0+43 2.0 5.3

E 0+67 3.2 5.1

E 0+89 2.7 5.6

E 132 3.2 5.1

E 143 4.6 3.7

E 175 4.7 3.6

E 213 5.0 3.3

W-0+28 5.6 2.7

W-0+48 5.4 2.9

W-0+85 5.7 2.6

W-1+20 6.3 2.0

W-1+60 6.4 1.9

W-1+97 6.4 1.9

PK

N-88+00

8-

9-1-50

(19)

DIST + H.I. - ELEV

2+30 8.3 6.2 2.1

2+40 6.4 1.9

2+43 5.9 2.4

2+68 5.9 2.4

2+77 6.0 2.3

2+93 6.0 2.3

3+30 4.1 4.2

Px

89+00

0+60 = {N-89+00
W-140+00} Sec E. & W.

DIST	H.I.	ELEV
WATERED	6.13	11.33
W-2+33	6.2	5.1
W-2+11	7.2	4.1
W-1+72	8.1	3.2
W-1+33	7.9	3.4
W-1+18	7.3	4.0
W-1+05	6.3	5.0
W-0+86 ₉	3.6	7.7
W-0+77	1.5	9.8
W-0+48	5.4	5.9
W-0+00	5.1	6.2
E-0+92	5.2	6.1
E-0+91	5.3	6.0
E-1+55	5.9	5.4
E-1+89	5.7	5.6
E-2+05	4.3	7.0
E-2+23	6.3	5.0
E-2+50	7.7	3.6

Px

N-89+00

9-1-50 (20)

DIST	H.I.	ELEV
E-2+77	11.33	7.8
E-3+16	8.6	2.7

Px N-52+00

DIST	+	H.I.	-	ELEV
0+00	N-52+00 N-140+00			
T.P	3.83	9.95		6.12
E/ 0+00			4.8	5.1
E/ 0+63			4.8	5.1
E/ 1+30			4.9	5.0
E/ 1+33 ³			6.4	3.5
E/ 1+51			8.9	1.0
E 165			6.7	3.2
E 167			4.7	5.2
E 128			4.4	5.5
E 298			4.4	5.5
E 355			4.4	5.5
E 420			4.4	5.5
E 475			4.7	5.7
E 565			4.7	5.2
E 568 ³			5.1	4.8
E 572 ⁴			4.6	5.3
E 625			4.2	5.7

Px Sta N 52+00 9-1-50 (21)

DIST	+	H.I.	-	ELEV
E 690		9.95	4.4	5.5
E 760			4.1	5.8
E 825			4.0	5.9
E 935			3.7	6.2
E 1000			4.0	5.9
T.P	3.92	10.04		6.12
W-0143			5.0	5.0
W1044			5.0	5.0
W106			5.2	4.8
W109			5.8	4.2
W111			6.6	3.4
W121			5.7	4.3
W122			5.3	4.7
W168			5.4	4.6
W2+06			5.9	4.6
W2+62			5.9	4.6
W2+64			7.7	2.3
W				

15' W/53+00
2"x2"
2"x2".15" WEST OF N-53+00

PX

Sta 51400N

9-1-50 (N-51400)
0+00 (W-140+00)

PX

N-51400

9-1-50 (22)

Dist	+	H.I.	-	Elev.
TP	3.75	9.87		6.12
E10+08			3.6	6.3
E.E. 9+40			4.2	5.7
E. 8+80			3.7	6.2
E.E. 7+80			3.7	6.2
E.E. 7+20			4.4	5.5
E.E. 6+70			3.9	6.0
E. 6+53			4.5	5.4
E. 6+32			3.9	6.0
E. 5+85			3.8	6.1
E. 5+10			4.1	5.8
E. 4+32			4.3	5.6
E.E. 3+72			4.1	5.8
E. 3+22			4.3	5.6
E. 2+63			4.3	5.6
E. 2+27			4.5	5.4
E. 2+25 ²			7.3	2.6
E. 2+13			8.7	1.2

15' W
N-53+00

DIST	+	H.I.	-	ELEV
E. 2+07		9.87	8.6	1.3
E. 2+03 ⁴			5.0	4.9
E. 1+53			4.8	5.1
E. 1+10			4.7	5.2
E. 0+60			4.7	5.2
E. 0+30			4.8	5.1
E. 0+27 ³			5.6	4.3
1+25 ²			5.5	4.4
0+22 ³			4.9	5.0
0+00			4.9	5.0
W2+54 ⁶			9.2	0.7
W2+50			5.2	4.7
W2+30			4.7	5.2
W2+08			4.3	5.6
W2+02			7.3	2.6
W2+00			6.7	3.0
W1+92			5.3	4.6
W1+65			4.8	5.1
W1+05			4.8	5.1
W0+46			4.8	5.1

Px

50+00 N

9-1-50

0+00 = $\begin{cases} 50+00 N \\ 190+00 W \end{cases}$

Dist	+	H ₁	-	Elev
Dist	+	H ₁	-	Elev
Dist	3.75	9.87		6.12
0+00			4.7	5.2
E 0+47			4.7	5.2
E 1+08			4.6	5.3
E 130			4.5	5.4
E 132			5.7	4.8
E 135			4.5	5.4
E 186			4.6	5.3
E 189			7.5	2.4
E 200			8.9	1.0
E 211			6.8	3.1
E 214			5.0	4.9
E 260			4.7	5.2
E 323			4.4	5.5
E 415			4.3	5.6
E 495			4.2	5.7
E 570			3.8	6.1

Px

Sta 50+00 N

9-1-50

Dist	+	H-1	-	Elev
Dist	+	H-1	-	Elev
E 603		9.85	4.0	5.9
E 607			4.2	5.7
E 632			3.9	6.0
E 718			3.9	6.0
E 811			3.8	6.1
E 873			3.6	6.3
E 890			4.2	5.7
E 910			3.6	6.3
E 1000			3.6	6.3
W 0+67			4.8	5.1
1136			4.6	5.3
1160			5.4	4.5
1163			6.0	3.9
1170			6.2	3.7
1173			5.1	4.8
1175			4.4	5.5
2+18			4.8	5.1
2+44			5.0	4.9

Px Sta 49+00N 8-1-50

0+00 = {^{N-49+00}
_{W-140+00} } SEC. EAST & WEST

Dist.	+ H.I.	- Elev	Elev
T.P.	3.45	9.57	6.12
West			
2+50		7.6	2.0
2+46		5.9	3.7
2+3.8		5.2	4.4
2+20		4.5	5.1
1+69		4.4	5.2
1+02		4.2	5.4
0+56		4.3	5.3
0+53 ³		4.6	5.0
0+48 ⁵		4.2	5.4
0+27		5.3	4.3
0+24 ³		5.5	4.1
0+20		5.4	4.2
0+14 ⁶		4.7	4.9
00		4.7	4.9
<u>EAST</u>			
E 1020		4.1	5.5

Px Sta N 49+00

9-1-50

(24)

Dist	+ H.I.	- Elev	Elev
2963	9.57	4.0	5.6
2870		4.0	5.6
2800		4.2	5.4
2735		3.6	6.0
2650		3.7	5.9
2563		3.9	5.7
2503		3.6	6.0
2470		4.7	4.9
2465		3.8	5.8
2365		4.2	5.4
2313		4.1	5.5
2240		4.5	5.1
2235		7.1	2.5
2231		4.7	4.9
216		4.1	5.5
207		4.1	5.5
208		6.5	3.1
193		8.5	1.1

P+

Sta N 49+00

N-50+00
W-127+00

Sta N 50+00

P+

DIST	+	H.I.	-	ELEV	DIST	+	H.I.	-	ELEV
E 188	4.3	9.57	7.7	2.5	T.P	2.93	9.57	6.64	T.T.P.
E 182			4.5	5.1	0+00			4.9	4.7
E 130			4.3	5.3	0+10			5.1	4.5
E 0+70			4.4	5.2	0+33			3.8	5.8
E 0+23			4.2	5.4	E 112			3.8	5.8
0+00			4.7	4.9	E 174			3.3	6.3

Sta - N-49+00

P+

N-49+00
0+00 = W-127+00

SEC. EAST & WEST

DIST	+	H.I.	-	ELEV	DIST	+	H.I.	-	ELEV
T.P	4.91	11.61		6.70	E 300			2.2	7.4
W-242			6.0	5.6	E 363			2.2	7.4
W-195			5.8	5.8	E 425			2.2	7.4
W-134			5.2	6.4	E 490			2.4	7.2
W-90			5.1	6.5	E 565			2.4	7.2
W-44			5.3	6.3	E 630			2.9	6.7
0+00			5.1	6.5	E 695			3.3	6.3
T.T.P.			4.97	6.64	E 760			3.7	5.9
					E 815			3.7	5.9
					W 0+06			5.5	4.1
					W 0+10			4.3	5.3
					W 0+22			3.4	6.2

NEAR
49+0011.61
4.97
6.64

Px

STATION 50+00

Dist	H.I.	Elev
W. 0+37	9.57	3.4 6.2
W. 0+75		3.2 6.4
W. 1+50		3.2 6.4
W. 2+35		3.0 6.6

9-1-50 (26)

C. BARRAGAN
A. SHERRY
H. BROWN
W. CARVER

Dist	H.I.	ELEV
0+00 = 50+00 - N	3.11	11.75
2+80		5.3 6.4
1+92		5.9 6.3
1+96		5.2 6.5
1+15		5.7 6.0
1+14		2.0 4.7
1+08		8.0 3.7
1+02		7.2 4.5
1+02		C.C 5.1
0+91		6.3 5.4
0+65		6.8 4.9
0+42		7.3 4.4
0+27		7.2 4.5
0+30		5.9 5.3
0+13		9.5 7.1
0+00		7.8 6.9
5840		5.9 5.8
5800		5.4 6.3
5745		5.7 6.0

9-1-52

(27)

P+

Sta 51+00

Dist	+	HI	-	Elev
E 737	⁸	11.75	6.2	5.5
E 731	⁶		5.9	5.8
E 665			5.1	6.6
E 600			5.0	6.7
F 580			5.7	6.0
F 553			4.3	5.4
E 483			5.3	6.4
E 420			4.9	6.8
E 358			5.0	6.7
E 295			5.1	6.6
E 243			5.5	6.2
E 204			4.7	7.0
E 153			4.7	7.0
E 0+90			4.8	6.9
F 0+50			5.7	6.0

Setup For Soundings

310'

28

Proj No 16

\angle 100° 12' 47" Right

Midway

Sta	Dist. from B/L
76+00	70' East
77+00	137' East
78+00	238' East
79+00	323' East
80+00	422' East
81+00	510' East
82+00	530' East
83+00	450' East
84+00	W 14,310
85+00	
86+00	
87+00	
88+00	W 13,770
89+00	W 13,770

SOUNDINGS OF DREDGED

2-20-51

(29)

CHANNEL AREA PROJ # 6461 PA

Sta. 77+00 - 0+00 = 137' EAST M.W.B./

DIST		SOUND		DIST		SOUND		DIST		SOUND		
3:10 (P)	0+2	0	+6.0	1+70	14.6	-8.6	(6.0)	14.3	-8.3	(6.0)	15.0	-9.0
10	(6.0)	2.0	+4.0	+80	14.7	-8.7		15.2	-9.2	+50	15.0	-9.0
20		4.5	+1.5	(6.0)	15.0	-9.0		15.1	-9.1		15.0	-9.0
31		5.3	+0.7	2+00	15.2	-9.2		15.0	-9.0		15.3	-9.3
40		8.0	-2.0		15.5	-9.5	4+00	15.0	-9.0		15.1	-9.1
50		8.0	-2.0		15.6	-9.6	(9.15)	15.0	-9.0		15.2	-9.2
60		10.4	-4.4		15.6	-9.6	(6.0)	15.0	-9.0	6+00	15.3	-9.3
70		10.8	-4.8		16.0	-10.0		15.1	-9.1		15.5	-9.5
80		11.2	-5.2	+50	16.0	-10.0		15.0	-9.0		15.7	-9.7
90					16.0	-10.0	+50	15.0	-9.0		16.0	-10.0
100		11.5	-5.5		15.5	-9.5		15.1	-9.1		16.5	-10.5
		12.5	-6.5		15.4	-9.4		15.2	-9.2	+50	16.6	-10.6
		16.4	-10.4	3+00	15.2	-9.2		15.0	-9.0		16.4	-10.4
		16.3	-10.3		15.4	-9.4		15.0	-9.0		16.1	-10.1
		15.0	-9.0		15.0	-9.0	5+00	15.1	-9.1		16.2	-10.2
+50		14.5	-8.5		14.6	-8.6		15.3	-9.3		16.0	-10.0
1+60		14.5	-8.5		14.5	-8.5	20	15.3	-9.3	7+00	15.0	-9.0

Proj #16
2-20-51
Final Sounding

P.X (30)

STA 78+00 - 0+00 = 238' EAST M.W. B/L

DIST	SOUND	DIST	SOUND	DIST	SOUND	DIST	SOUND	DIST	SOUND
7+10	15.0 -9.1	9+00	10.6 -4.7	0+00	0.0 +5.8	1+80	15.7 -10.0		
	15.4 -9.5	(5.9)	11.0 -5.1	+10	1.5 +4.3	(5.7)	15.7 -10.0		
(5.9)	15.8 -9.9		11.0 -5.1	(5.8)	3.4 +2.4	2+00	15.6 -9.9		
(9:20)	16.3 -10.4		10.4 -4.5		5.1 +0.7		15.5 -9.8		
+50 (9:25)	15.1 -9.2		8.5 -2.6		6.3 -0.5		15.5 -9.8		
(5.9)	15.5 -9.6	+50	6.4 -0.5	0+50	10.5 -4.7		15.5 -9.8		
	15.7 -9.8		4.8 +1.1	(9:35)	11.3 -5.5		15.4 -9.7		
	15.7 -9.8		3.8 +2.1	(5.8)	11.7 -5.9	+50	15.3 -9.6		
	15.9 -10.0		3.1 +2.8		12.0 -6.2		15.3 -9.6		
8+00	16.0 -10.1		3.1 +2.8		12.3 -6.5		15.1 -9.4		
	16.0 -10.1	10+00	3.0 +2.9		12.8 -7.0		14.9 -9.2		
	15.6 -9.7			1+00	13.4 -7.6		14.7 -9.0		
	15.5 -9.6				14.0 -8.2	3+00	14.7 -9.0		
	15.5 -9.6				14.5 -8.7		14.5 -8.8		
+50	15.5 -9.6				15.0 -9.2		14.0 -8.3		
	15.5 -9.6				+50 15.1 -9.3	(9:40)	13.9 -8.2		
	15.3 -9.4					(5.7)	13.9 -8.2		
	14.9 -9.0				15.2 -9.4		13.9 -8.2		
	13.0 -7.1			1+70	15.4 -9.5	3+50	14.0 -8.3		

DIST	SOUND		DIST	SOUND		DIST	SOUND		DIST	SOUND	
3+60	13.9	-8.2	5+50	16.3	-10.6	7+40	16.4	-10.7	9+30	10.6	-5.0
(5.7)	13.7	-8.0	(5.7)	16.1	-10.4	+50	16.5	-10.8	(5.6)	10.5	-4.9
	13.5	-7.8		15.5	-9.8	(5.7)	16.5	-10.8	+50	9.8	-4.2
	13.2	-7.5		15.1	-9.4		16.0	-10.3		9.2	-3.6
4+00	13.2	-7.5		14.7	-9.0		16.0	-10.3		7.8	-2.2
	14.1	-8.4	6+00	14.2	-8.5		15.7	-10.0	(5.6)	5.9	-0.3
	14.5	-8.8		14.3	-8.6	8+00	15.4	-9.7	(9.50)	5.0	+0.6
	14.5	-8.8		14.2	-8.5		15.1	-9.4	10+00	3.4	+2.2
	14.6	-8.9		14.2	-8.5		15.1	-9.4		2.8	+2.8
+50	14.9	-9.2		14.8	-9.1		15.2	-9.5		2.6	+3.0
	14.9	-9.2	+50	14.7	-9.0		15.1	-9.4			
	15.1	-9.4		14.7	-9.0	+50	15.1	-9.4			
	15.4	-9.7	(9.45)	15.0	-9.3		15.2	-9.5			
	16.0	-10.3	(5.7)	15.1	-9.4		15.4	-9.7			
5+00	16.4	-10.7		16.5	-10.8		15.5	-9.8			
	16.5	-10.8	7+00	16.1	-10.4		16.0	-10.3			
	16.4	-10.7		16.8	-11.1	9+00	16.0	-10.3			
	16.4	-10.7		16.5	-10.8		15.4	-9.7			
+40	16.5	-10.8	7+30	16.5	-10.8	+20	13.8	-8.1			

Proj #16
Final Sounding

2-20-51

PX

2-20-51

(32)

Sta

79+00 - 0+00 = 323' EAST MW B/L

DIST SOUND

DIST SOUND

DIST	SOUND		DIST	SOUND		DIST	SOUND		DIST	SOUND	
			3+60	13.4	-8.0	5+50	15.1	-9.7			
0+06	0.0	+5.5	(5.5)	16.4	-10.3	(5.4)	13.5	-8.1	(5.4)	14.8	-9.4
+10+20	0.5	+5.0	90	16.0	-10.5	(10.05)	13.5	-8.1		17.5	-9.1
(10:00)	3.4	+2.1	2+00	15.8	-10.3	(5.4)	13.8	-8.4		14.2	-8.8
(5.5)	4.8	+0.7		15.0	-9.5	1+00	13.8	-8.4		14.2	-8.8
+50	6.4	-0.9		14.5	-9.0		13.6	-8.2	6+00	14.0	-8.6
+60	2.1	-3.6		15.1	-9.6		14.0	-8.6		14.0	-8.6
	12.5	-7.0		15.0	-9.5		13.2	-8.5		13.9	-8.5
	13.1	-7.6	+50	14.8	-9.3		14.0	-8.6		14.0	-8.6
	15.0	-9.5		14.6	-9.1	+50	14.4	-9.0		13.9	-8.5
1+00	16.0	-10.5		14.4	-8.9		14.5	-9.1	+50	14.0	-8.6
	16.6	-11.1		14.0	-8.5		14.5	-9.1		14.0	-8.6
	16.7	-11.2		13.8	-8.3		15.2	-9.8		14.2	-8.8
	16.8	-11.3	3+00	13.8	-8.3		14.8	-9.4		14.0	-8.6
	16.8	-11.3		13.7	-8.2	5+00	14.8	-9.4		14.1	-8.7
+50	17.0	-11.5		13.5	-8.0		14.8	-9.4	7+00	14.5	-9.1
			(5.4)	13.4	-8.0		14.2	-9.5		14.5	-9.1
60	16.8	-11.3		13.4	-8.0		15.0	-9.6		14.5	-9.1
70	16.5	-11.0	+50	13.4	-8.0	+40	15.1	-9.7	7+30	15.0	-9.6

Proj #16
2-20-51
Sound East Final Sounding

P.X

(33)

Sta 80+00 - 0+00 = 422' E B/K

DIST	SOUND	DIST	SOUND	DIST	SOUND	DIST	SOUND
7+40	15.5 -10.1	9+30	16.9 -11.0	0+00	0.0 +5.2	1+80	15.5 -10.3
+50	16.5 -11.1	(5.3)	15.5 -10.2	+10	0.6 +4.6		15.0 -9.8
(10:10)	16.8 -11.4	+50	10.1 -4.8				
(5.4)	16.5 -11.1		10.0 -4.7	3.5	+1.7	2+00	14.8 -9.6
	16.4 -11.0		10.0 -4.7	5.2	+0.0		14.7 -9.5
	16.0 -10.6		8.5 -3.2	8.4	-3.2	(5.1)	13.4 -8.3
8+00	15.7 -10.3		7.0 -1.7	+50	11.5 -6.3		13.2 -8.1
	15.1 -9.7	10+00	4.7 +0.6		13.1 -7.9		13.2 -8.1
	14.5 -9.1		4.3 +1.0		14.4 -9.2	+50	13.0 -7.9
	14.9 -9.5		3.5 +1.8		15.0 -9.8		12.5 -7.4
	14.7 -9.3		4.0 +1.3		15.1 -9.9		11.5 -6.4
+50	14.4 -9.0		3.3 +2.0	14+00	15.4 -10.2		11.0 -5.9
	14.7 -9.3	+50	3.7 +1.6		15.5 -10.3		11.3 -6.2
	14.7 -9.3		2.4 +2.9	(5.2)	16.0 -10.8	3+00	13.2 -8.1
	14.8 -9.4	(10:15)		(10:25)	16.0 -10.8		13.5 -8.4
	15.5 -10.1	(5.3)			16.4 -11.2		14.5 -9.4
9+00	15.5 -10.1			+50	16.4 -11.2		14.4 -9.3
	15.5 -10.1				16.2 -11.0		14.4 -9.3
+20	15.8 -10.4			+70	16.0 -10.8	+50	14.3 -9.2

2-20-51

(34)

DIST	SOUND		DIST	SOUND		DIST	SOUND		DIST	SOUND	
3+60	14.2	-9.1	5+50	15.8	-10.7	7+40	14.5	-9.5	9+30	15.3	-10.3
	14.2	-9.1		15.0	-9.9	+50	14.8	-9.8		15.0	-10.0
	14.2	-9.1		14.5	-9.4		14.8	-9.8	+50	14.7	-9.7
	14.4	-9.3		14.6	-9.5		14.8	-9.8		14.5	-9.5
4+00	15.0	-9.9	(5.0)	14.6	-9.6		14.5	-9.5		14.4	-9.4
	14.7	-9.6	6+00	14.5	-9.5		14.1	-9.1		13.7	-8.7
(10:30)	14.5	-9.4		14.5	-9.5	8+00	14.0	-9.0		10.0	-5.0
(5.1)	14.5	-9.4		14.5	-9.5		14.0	-9.0	10+00	8.0	-3.0
	14.5	-9.4		14.4	-9.4	(5.0)	13.8	-8.8	(10:40)	8.7	-3.7
+50	14.4	-9.3		14.2	-9.2		13.8	-8.8	(5.0)	7.1	-2.1
	14.5	-9.4	+50	14.1	-9.1		14.0	-9.0		7.5	-2.5
	14.6	-9.5		13.7	-8.7	+50	14.0	-9.0		5.0	0.0
	14.6	-9.5		13.5	-8.5		14.0	-9.0	+50	4.5	+0.5
	15.5	-10.4		13.5	-8.5		14.0	-9.0		5.1	-0.1
5+00	15.7	-10.6		13.4	-8.4		14.1	-9.1		4.4	0.6
	16.0	-10.9	7+00	13.2	-8.2		14.5	-9.5		3.5	1.5
	16.0	-10.9	(10:35)	13.2	-8.2	9+00	14.5	-9.5		3.0	2.0
	16.0	-10.9	(5.0)	13.8	-8.8		14.7	-9.7	11+00	2.8	2.2
+40	15.8	-10.7	+30	14.0	-9.0	+20	15.5	-10.5	+10	2.4	2.6
									+20	2.0	3.0
									+30	2.0	3.0

Proj #16

2-20-51

S. East

Final Sounding

P.X

2-20-51

(35)

STA 81+00 - 0+00 = 510' E B/C			DIST			SOUND			DIST			SOUND		
DIST	SOUND		DIST	SOUND										
						3+60	10.1	-5.4	5+50	14.0	-9.3			
0+06	0.0	+4.8	1+80	14.6	-9.8		10.0	-5.3		14.1	-9.4			
+10	0.1	+4.7		14.4	-9.6		10.0	-5.3		15.0	-10.3			
(10.50)	4.0	+0.8	2+00	14.4	-9.6		13.6	-8.9		14.7	-10.0			
(4.8)	6.8	-2.0		14.0	-9.2	4+00	14.2	-9.5		14.7	-10.0			
	10.4	-5.6		13.4	-8.6		14.2	-9.5	6+00	15.3	-10.6			
+50	12.1	-7.3		13.1	-8.3		14.1	-9.4		15.0	-10.3			
	13.6	-8.8		13.0	-8.2		14.0	-9.3	(4.6)	14.5	-9.9			
	14.2	-9.4	+50	13.0	-8.2		14.0	-9.3		13.5	-8.9			
	15.2	-10.4	(4.7)	12.8	-8.0	+50	14.0	-9.3		13.0	-8.4			
	15.5	-10.7		12.5	-7.8		14.0	-9.3	+50	12.7	-8.1			
1+00	15.6	-10.2		12.0	-7.3		14.1	-9.4		12.7	-8.1			
	15.3	-10.5		11.0	-6.3		14.0	-9.3		12.5	-7.9			
	15.6	-10.2	3+00	11.0	-6.3		14.0	-9.3		12.5	-7.9			
	15.5	-10.7		10.4	-5.7	5+00	14.0	-9.3		12.4	-7.8			
	14.1	-9.3		10.3	-5.6		14.3	-9.6	7+00	13.1	-8.7			
+50	14.3	-9.5		10.5	-5.8	(10.50)	14.4	-9.7		14.2	-9.6			
	15.0	-10.2		10.4	-5.7	(4.7)	14.2	-9.5		13.9	-9.3			
	15.0	-10.2	+50	10.3	-5.6	+40	14.0	-9.3	7+30	13.5	-8.9			

81+00 Con'd S. East

2-20-51

(36)

DIST	SOUND	DIST	SOUND	DIST	SOUND
7+40	13.6 -9.0	9+30	13.0 -8.4	11+30	2.5 +2.0
+50	13.6 -9.0		13.2 -8.6		2.8 +1.7
	13.7 -9.1	+50	13.6 -9.0	+50	2.6 +1.9
	13.5 -8.9	(4.5)	14.0 -9.5		2.1 +2.4
(4.6)	13.5 -8.9		14.0 -9.5		2.4 +2.1
(11:00)	13.5 -8.9		14.0 -9.5	(11:07)	3.1 +1.4
8+00	13.5 -8.9		14.3 -9.8	(4.5)	
	13.5 -8.9	10+00	14.4 -9.9		
	13.5 -8.9		14.9 -10.4		
	13.5 -8.9		14.8 -10.3		
	13.5 -8.9		12.8 -8.3		
+50	13.6 -9.0		7.0 -2.5		
	13.4 -8.8	+50	6.7 -2.2		
	13.4 -8.8		6.8 -2.3		
	13.2 -8.6		6.1 -1.6		
	13.0 -8.4		5.0 -0.5		
9+00	13.0 -8.4		2.8 +1.7		
	13.0 -8.4	11+00	2.0 +2.5		
	13.2 -8.6	+10	1.5 +3.0		
		+20	1.5 +3.0		

Final Sounding
Proj No 16

2-20-51

PX

2-20-51

(37)

STA 82 +00 - 0+00 = 530' E of B/L			DIST SOUND			DIST SOUND			DIST SOUND		
						3+70	11.0	-6.7	5+60	13.0	-8.7
DIST	SOUND		DIST	SOUND		(4.3)	10.3	-6.0	(4.3)	8.0	-
0+11	0.0	+4.3	1+90	14.3	-10.0		10.3	-6.0		12.9	-8.6
+20	1.5	+2.8	2+00	14.8	-10.5		10.3	-6.0		12.9	-8.6
	2.6	+1.7	(4.3)	15.3	-11.0	4+00	10.3	-6.0		12.7	-8.6
	3.1	+1.2		15.1	-10.8		10.0	-5.7	6+00	12.7	-8.4
+50	3.5	+0.8		14.8	-10.5		10.0	-5.7		12.7	-8.4
	4.0	+0.3		15.0	-10.7	(4.3)	9.8	-5.5		12.7	-8.4
(11.20)	4.5	-0.2	+50	15.0	-10.7		9.3	-5.0		12.7	-8.4
(4.3)	4.5	-0.2		15.3	-11.0	+50	9.1	-4.8		12.8	-8.5
	7.2	-2.9		15.4	-11.1		9.1	-4.8	+50	12.8	-8.5
1+00	8.0	-3.7		15.3	-11.0		9.2	-4.9		12.8	-8.5
	8.1	-3.8		14.4	-10.1		9.4	-5.1		12.7	-8.4
	9.8	-5.5	3+00	13.2	-8.9		11.4	-7.1		12.6	-8.3
	10.8	-6.5		13.0	-8.7	5+00	10.0	-5.7		12.5	-8.2
	11.0	-6.7		12.8	-8.5		9.5	-5.2	7+00	12.6	-8.3
+50	12.0	-7.7		12.2	-7.9		9.5	-5.2		13.0	-8.7
	12.5	-8.2		11.5	-7.2		11.2	-6.9		12.7	-8.4
	13.1	-8.8	+50	11.5	-7.2		13.3	-9.0		13.1	-8.8
	13.5	-9.2		11.0	-6.7	+50	13.3	-9.0	+40	12.7	-8.4

82+00 Cont'd S. East.

2-20-51

(38)

DIST	SOUND	DIST	SOUND	DIST	SOUND
7+50	12.7 -8.5	9+10	13.0 -8.8	11+30	12.0 -8.0
(11:27)	13.0 -8.8	+50	13.2 -9.0	(11:39)	11.2 -7.2
(4.2)	13.0 -8.8	(4.2)	13.3 -9.1	+50	9.7 -5.7
	12.8 -8.6		13.3 -9.1	(4.0)	7.0 -3.0
	12.8 -8.6		13.5 -9.3		3.2 +0.8
8+00	13.1 -8.9		13.2 -9.0		1.8 +2.2
	13.5 -9.3	10+00	13.2 -9.0	+90	1.5 +2.5
	14.0 -9.8		13.2 -9.0		
	14.5 -10.3		13.1 -8.9		
	14.1 -9.9		13.4 -9.2		
+50	14.0 -9.8		13.2 -9.0		
	14.0 -9.8	+50	13.4 -9.2		
	14.0 -9.8		13.7 -9.5		
	13.2 -9.0		13.2 -9.0		
	13.1 -8.9		13.4 -9.2		
9+00	13.1 -8.9		13.2 -9.0		
	13.1 -8.9	11+00	13.1 -8.9		
	13.0 -8.8		12.9 -8.7		
+30	13.2 -9.0		12.0 -7.8		

PX

Proj #16

2-21-51
Final Sounding

2-21-51

(39)

STA 76+00 - 0+00 = 70' E of B/L

DIST SOUND

DIST SOUND

DIST	SOUND	DIST	SOUND	DIST	SOUND	DIST	SOUND				
				(6.3)	15.5	9.2	5+50	16.0	9.7		
0+00	3.0	+3.2	1+80	16.4	10.2			(6.3)	16.0	9.7	
(6.2)	5.0	+1.2	(6.2)	16.0	9.8				16.1	9.8	
	12.8	-6.6	2+00	15.6	9.4				16.1	9.8	
(8.33)	15.1	8.9		14.7	8.5	4+00	15.7	9.4		16.0	9.7
				14.8	8.6				6+00	16.2	9.9
+50	17.0	10.8		15.0	8.8					16.3	10.0
	17.0	10.8		15.2	9.0					16.3	10.0
	17.1	10.9	+50	15.3	9.1					16.4	10.1
	17.0	10.8		15.2	9.0	+50	16.2	9.9		16.4	10.1
	17.0	10.8		15.4	9.2				+50	17.1	11.1
1+00	16.8	10.6	(6.3)	15.4	9.1					17.1	10.9
	16.7	10.5		15.4	9.1					17.2	11.3
	16.8	10.6	3+00	15.3	9.0					17.2	10.9
	17.0	10.8		15.9	9.1	5+00	16.0	9.7		16.8	10.5
	17.3	11.1	(9.55)	16.2	9.9				7+00	16.5	10.2
+50	17.1	10.9		16.2	9.9					16.0	9.7
	17.0	10.8		16.2	9.9					15.5	9.2
	17.0	10.8	+50	15.8	9.5				+30	15.3	9.0

83+00 Cont'd S. East

2-21-51

(41)

DIST	SOUND		DIST	SOUND		DIST	SOUND		DIST	SOUND	
10+60	16.4	10.1	12+50	16.3	10.0	14+50	3.2	+3.1			
(6.3)	16.3	10.0	12+60	16.0	9.7	(6.3)	3.1	+3.2			
	16.2	9.9	(6.3)	15.8	9.5	(9.26)	3.0	+3.3			
	16.0	9.7		15.5	9.2						
11+00	16.0	9.7		15.7	9.4						
	15.8	9.5	13+00	15.0	8.7						
	15.8	9.5		16.0	9.7						
	15.9	9.6		15.5	9.2						
	15.9	9.6		15.5	9.2						
+50	16.1	9.8		15.0	8.7						
	16.1	9.8	+50	14.0	7.9						
(10.23)	16.3	10.0		9.8	3.5						
	16.3	10.0		4.4	+1.9						
	16.3	10.0		4.4	+1.9						
12+00	14.5	10.2		4.2	+2.1						
	16.4	10.1	14+00	3.8	+2.5						
	16.1	9.8		4.0	+2.3						
	16.2	9.9		3.7	+2.6						
				3.7	+2.6						
+40	16.5	10.2		3.3	+3.0						

Proj #16

2-21-51

Final Sounding

P.X

STA 84+00 - 0+00 = 14,310W

2-21-51

(42)

DIST		SOUND		DIST		SOUND		DIST		SOUND	
						6+60	12.0	5.8	8+50	15.6	9.4
3+00	15.8	9.6	4+80	11.4	5.2	(6.2)	12.9	6.7	(6.2)	15.7	9.5
(9.40)	15.7	9.5	(6.2)	11.3	5.1		15.2	9.0		16.0	9.8
(6.2)	15.3	9.1	5+00	11.3	5.1		15.7	9.5		16.0	9.8
	14.4	8.2		11.1	5.9	7+00	15.8	9.6		16.0	9.8
	15.1	8.9		10.8	4.6		15.8	9.6	9+00	16.1	9.9
+50	15.4	9.2		11.2	5.0		15.8	9.6		16.2	10.0
	15.4	9.2		11.5	5.3		15.6	9.4		16.4	10.2
	14.4	8.2	+50	11.5	5.3		15.5	9.3		16.5	10.3
	13.8	7.6		11.0	4.8	+50	15.5	9.3		16.5	10.3
	13.4	7.2		11.4	5.2		15.5	9.3	+50	16.5	10.3
4+00	13.5	7.3		11.5	5.3		15.5	9.3		16.3	10.1
	13.2	7.0		11.0	4.8		15.5	9.3		16.0	9.8
	13.0	6.8	6+00	11.0	4.8		15.5	9.3		16.0	9.8
	12.7	6.6		11.3	5.1	8+00	15.5	9.3		16.2	10.0
	12.5	6.3		11.1	4.9	(9.45)	15.5	9.3	10+00	16.4	10.2
+50	12.2	6.0		11.4	5.2		15.4	9.2		16.4	10.2
	11.4	5.2		11.6	5.4		15.4	9.2		16.5	10.3
+70	12.0	5.8	+50	11.8	5.6	+90	15.5	9.3	+30	16.5	10.3

2-21-51

Proj #16

2-21-51 (43)

Final Sounding P.X.

STA 85+00 - 0+00 = 19,100 W

DIST	SOUND		DIST	SOUND		DIST	SOUND		DIST	SOUND		DIST	SOUND
10+40	16.3	10.1	12+30	14.0	7.8								
+50	15.9	9.7	(6.2)	10.2	4.0	5+00	10.9	4.9	6+80	15.2	9.3		
(6.2)	15.9	9.7	+50	7.0	0.8	(6.05)	11.0	5.0	(6.0)	15.3	9.3		
	15.8	9.6		7.0	0.8	(6.0)	11.0	5.0	7+00	15.3	9.3		
	15.6	9.4		6.7	0.5		10.7	4.7		15.5	9.5		
	15.3	9.1		6.5	0.3		11.0	5.0		15.4	9.4		
11+00	15.3	9.1		6.6	0.4	+50	11.0	5.0		15.3	9.3		
	15.3	9.1	13+00	6.8	0.6		11.2	5.2		15.3	9.3		
	15.1	8.9	(9.50)				11.5	5.5	+50	15.7	9.7		
	15.1	8.9					11.6	5.6		15.5	9.5		
	15.2	9.0					11.6	5.6		15.7	9.7		
+50	15.6	9.4				6+00	12.3	6.3		15.6	9.6		
	15.5	9.3					15.1	9.1		15.6	9.6		
	15.4	9.2					15.4	9.4	8+00	15.7	9.7		
	15.1	8.9					15.0	9.0		15.5	9.5		
	14.9	8.7					15.0	9.0		15.7	9.7		
12+00	15.0	8.8				+50	15.1	9.1		15.7	9.7		
	15.1	8.8					15.3	9.3		15.7	9.7		
+50	15.1	8.8					15.2	9.2	+50	15.7	9.7		

2-21-51

Proj #16

2-21-51

(44)

Sound East Final Sounding

P.X

STA 96+00 - 0+00 = 14,000 W

DIST	SOUND		DIST	SOUND		DIST	SOUND		DIST	SOUND	
8+60	16.0	10.1	10+50	14.1	8.2						
(5.9)	16.3	10.4	(5.9)	14.0	8.1	6+00	12.0	6.2	7+80	15.0	9.2
	16.2	10.3		14.8	8.9	(10:25)	12.0	6.2	(5.8)	14.7	8.9
	16.0	10.1		15.3	9.4	(5.8)	12.0	6.2	8+00	15.1	9.3
9+00	16.1	10.2		15.3	9.4		12.0	6.2		15.1	9.3
	16.5	10.6	11+00	15.0	9.1		13.1	7.3		15.2	9.4
(10:10)	16.3	10.4		14.4	8.5	+50	15.1	9.3		15.3	9.5
	16.0	10.1		13.1	7.2		15.1	9.3		15.3	9.5
	16.2	10.3		8.8	2.9		15.1	9.3	+50	15.3	9.5
+50	16.5	10.6		5.7	+0.2		15.0	9.2		15.4	9.6
	16.0	10.1	+50	4.5	+1.4		15.1	9.3		15.3	9.5
	15.3	9.4									
	15.1	9.2	(10:14)			7+00	15.2	9.4		14.9	9.1
	14.8	8.9					15.4	9.6		15.1	9.3
	14.8	8.9					15.4	9.6	9+00	15.2	9.4
10+00	15.0	9.1					15.2	9.4		15.4	9.6
	14.9	9.0	12+00				15.1	9.3		15.5	9.7
	14.4	8.5				+50	15.1	9.3		15.5	9.7
	14.2	8.3					15.1	9.3		15.5	9.7
	14.4	8.6					15.1	9.3	+50	15.5	9.7

2-21-51

Proj #16

2-21-51

(45)

Final Sounding P.X.

STA 87+00 - 0+00 = 14,000 W

DIST	SOUND	DIST	SOUND	DIST	SOUND	DIST	SOUND	DIST	SOUND		
8 9+60	15.5	9.8	11+50	7.8	2.1	7+00	11.5	6.0	8+80	14.8	9.4
(5.7)	15.5	9.8	(5.7)	7.9	2.2	(5.5)	11.5	6.0	(5.4)	15.0	9.6
	15.6	9.9		6.5	0.8		11.7	6.2		15.0	9.6
	16.6	10.9		5.0	+0.7		11.7	6.2		15.1	9.7
3 10+00	16.7	11.0		4.7	+1.0		12.0	6.5		15.1	9.7
	16.2	10.5	12+00	4.7	+1.0		12.0	6.5		15.3	9.9
(10)	16.1	10.4		4.7	+1.0	+50	12.0	6.5		15.3	9.9
	16.0	10.3		4.6	+1.1		12.1	6.6	+50	15.2	9.8
	16.2	10.5		4.2	+1.5		14.8	9.3		15.0	9.6
+50	16.2	10.5		4.0	+1.7		14.9	9.4		15.0	9.6
	15.9	10.2	+50	3.8	+1.9		14.8	9.3		15.1	9.7
	15.9	10.2		3.5	+2.2	8+00	14.8	9.3		15.2	9.8
	15.8	10.1		3.3	+2.4		14.8	9.3		15.2	9.8
	15.7	10.0	(10:30)				14.8	9.3	10+00	15.3	9.9
1 11+00	15.4	9.7				(10:40)	14.8	9.3		15.2	9.8
	15.3	9.6					14.8	9.3		15.3	9.9
(10:30)	14.0	8.3				+50	14.8	9.3		15.4	10.0
	9.8	4.1					14.8	9.3	(10:50)	15.1	9.7
	7.3	1.6					14.6	9.1	+50	15.3	9.9

2-21-51

Proj #16

2-21-51

(46)

Sound East Final Sounding

STA 88+00 - 0+00 = 13,770 W

PX

DIST	SOUND	DIST	SOUND	DIST	SOUND	DIST	SOUND	DIST	SOUND		
10+60	16.0	10.6	12+50	14.1	8.8	7+00	11.1	6.0	8+80	14.5	9.4
(5.4)	16.2	10.8	(5.3)	12.7	7.4	(11.08)	11.1	6.0	(5.1)	14.6	9.5
	16.4	11.0		12.0	6.7	(5.1)	13.0	7.9	9+00	14.6	9.5
	17.0	11.6		11.1	5.8					14.6	9.5
11+00	17.0	11.6		10.0	4.7		14.5	9.4		14.6	9.5
	17.1	11.7	13+00	8.0	2.7		14.4	9.3		14.7	9.6
	17.0	11.6		7.3	2.0	+50	14.2	9.1		14.7	9.6
	16.8	11.4		6.6	1.3		14.1	9.0		14.7	9.6
	16.8	11.4		5.1	+0.2		14.2	9.1	+50	14.8	9.7
+50	17.0	11.6		5.0	+0.2		14.1	9.0		14.3	9.2
	17.2	11.8	+50	4.9	+0.4		14.0	8.9		13.0	7.9
	17.1	11.7		4.3	+1.0	8+00	14.0	8.9		13.9	8.8
	16.8	11.4		3.8	+1.5		14.1	9.0		14.3	9.2
	16.7	11.3	(10.59)	3.3	+2.0		14.3	9.2	10+00	15.0	9.9
12+00	16.3	10.9					14.5	9.4		15.5	10.4
	16.3	10.9					14.4	9.3		15.8	10.7
	16.3	10.9				+50	14.4	9.3	(11.12)	16.5	11.4
	16.2	10.8					14.5	9.4		17.2	12.1
	15.7	10.3					14.5	9.4	+50	18.2	13.1

2-21-51

DIST	SOUND		DIST	SOUND	
11+60	21.4	16.8	13+50		
(4.6)	21.7	17.1			
	21.8	17.2			
	22.0	17.4			
12+00	21.8	17.2			
	21.5	16.9			
(11:35)	20.5	15.9			
	19.7	15.1			
	18.4	13.8			
+50	17.4	13.8			
	16.2	13.6			
	16.0	13.4			
-	13.2	8.6			
	12.1	7.5			
13+00	11.0	6.4			
	9.0	4.4			
	4.7	0.1			
(11:36)	3.3	+1.3			
	3.0	+1.6			

PX

3-5-51

Sound East

(48)

STA 88+00 - 0+00 = 13,770 W

DIST	SOUND		DIST	SOUND	
0+00	2.4	+3.1	1+80	12.8	-7.3
	3.2	+2.3		12.4	-6.9
	4.0	+1.5	2+00	12.3	-6.8
(3:10)	4.9	+0.6		12.1	-6.6
(5.5)	5.4	+0.1		12.2	-6.7
+50	7.5	-2.0	(5.5)	12.4	-6.9
	8.5	-3.0	(9:15)	12.4	-6.9
	8.9	-3.4	+50	12.0	-6.5
	10.3	-4.8		11.8	-6.3
	11.2	-5.6		11.5	-6.0
1+00	12.5	-7.0		11.5	-6.0
	12.8	-7.3		11.4	-5.9
	12.8	-7.3	3+00	11.3	-5.8
	12.9	-7.4		11.0	-5.5
	13.1	-7.6		10.5	-5.0
+50	13.2	-7.7		10.5	-5.0
	13.2	-7.7		10.3	-4.8
	13.1	-7.6	+50	10.5	-5.0

PX

3-5-51

DIST	SOUND		DIST	SOUND	
3+60	9.8	-4.4	5+50	9.4	-4.0
	9.4	-4.0		9.4	-4.0
	9.6	-4.2		9.0	-3.6
	9.3	-3.9		9.0	-3.6
4+00	9.7	-4.3		9.1	-3.7
	9.7	-4.3	6+00	9.2	-3.8
(5.4)	9.6	-4.2		9.1	-3.7
	9.4	-4.0		9.3	-3.9
	9.2	-3.8		10.3	-4.9
+50	9.0	-3.6		10.2	-4.8
	9.0	-3.6	+50	10.0	-4.6
	9.0	-3.6		10.0	-4.6
	9.2	-3.8	(9.20)	10.5	-5.1
	9.1	-3.7	(5.4)	11.1	-5.7
5+00	9.0	-3.6		11.3	-5.9
	8.5	-3.1	7+00	11.3	-5.9
	9.0	-3.6		11.3	-5.9
	9.0	-3.6		14.2	-8.8
	8.5	-3.1		14.5	-9.1

PX

3-5-51

(49)

DIST	SOUND		DIST	SOUND	
	14.5	-9.1		15.0	-9.7
7+50	14.5	-9.1		14.9	-9.6
	14.5	-9.1	9+50	15.0	-9.7
	14.4	-9.0		14.5	-9.2
	14.4	-9.0		13.5	-8.2
	14.3	-8.9		13.5	-8.2
8+00	14.3	-8.9	(5.3)	14.3	-9.0
	14.4	-9.0	10+00	14.7	-9.4
(5.4)	14.5	-9.1		15.4	-10.1
	14.5	-9.1		15.6	-10.3
	14.5	-9.1		16.1	-10.8
+50	14.5	-9.1		16.4	-11.1
	14.5	-9.1	+50	17.2	-11.9
	14.5	-9.1		18.6	-13.3
	14.6	-9.2		19.3	-13.0
	14.7	-9.3		19.7	-14.4
9+00	14.7	-9.3		20.1	-14.8
	14.8	-9.4	11+00	20.8	-15.5
	14.9	-9.5		21.0	-15.7

PX

3-5-51

DIST	SOUND		DIST	SOUND	
11+20	21.0	-15.7	13+10	2.9	+2.4
(9:25)	20.5	-15.2		2.5	+2.8
(5.3)	19.8	-14.5		2.1	+3.2
+50	18.3	-13.0	(9:29)	2.0	+3.3
	17.0	-11.7			
	16.2	-10.9			
	15.5	-10.2			
	14.8	-9.5			
12+00	14.0	-8.7			
	13.0	-7.7			
	10.5	-5.2			
	6.7	-1.4			
	4.9	+0.4			
+50	4.4	+0.9			
(5.2)	3.5	+1.8			
	3.2	+2.1			
	3.1	+2.2			
	3.1	+2.2			
13+00	3.0	+2.3			

PX

3-5-51
Sound East

(50)

STA 82+00 - 0+00 = 13, 770					
DIST	SOUND	DIST	SOUND		
0+00	0.4	+4.6	1+80	8.1	-3.2
	0.7	+4.3		9.2	4.3
(9:40)	1.3	+3.7	2+00	9.8	4.9
(5.0)	1.5	+3.5	(4.9)	10.7	5.8
	1.6	+3.4		10.8	5.9
+50	1.7	+3.3		10.5	5.6
	1.7	3.3		10.5	5.6
	1.8	3.2	+50	10.4	5.5
	2.1	2.9		10.3	5.4
	2.4	2.6		10.3	5.4
+50	2.8	2.2		10.1	5.2
	3.2	1.8		10.4	5.5
	3.4	1.6	3+00	10.4	5.5
	4.2	0.8		10.2	5.3
	5.1	-0.1		10.0	5.1
+50	6.0	1.0		9.9	5.0
	6.7	1.7		9.8	4.9
	7.5	2.3	+50	9.7	4.8

PX

3-5-51
89+00 Cont'd

DIST	SOUND	DIST	SOUND
3+60	9.8 -4.9	5+50	7.4 -2.6
(9:45)	9.7 4.8		7.7 2.9
(4.9)	9.5 4.6		7.5 2.7
	9.5 4.6	(9:50)	7.4 2.6
1+00	9.3 4.4	(4.8)	7.5 2.7
	9.1 4.2	6+00	7.3 2.5
	9.0 4.1		7.2 2.4
	8.8 3.9		7.4 2.6
	8.5 3.6		7.1 2.3
+50	8.8 3.9		6.9 2.1
	8.7 3.8	+50	7.0 2.2
	8.5 3.6		6.9 2.1
	8.4 3.5		7.4 2.6
	9.0 4.1		7.3 2.5
5+00	8.5 3.6		7.5 2.7
(4.8)	7.5 2.6	7+00	7.4 2.6
	7.0 2.1		7.1 2.3
	7.0 2.1	(4.7)	7.2 2.4
	7.6 2.7		7.4 2.6

PX

3-5-51
89+00 Cont'd

(51)

DIST	SOUND	DIST	SOUND
	7.9 3.2	(4.6)	14.4 - 9.8
7+50	7.7 3.2		14.5 9.9
	7.9 3.2	9+50	14.2 9.6
	7.6 2.9		14.0 9.4
	7.4 2.7		13.7 9.1
	7.6 2.9		13.8 9.2
9+00	8.3 3.6		13.6 9.0
(9:55)	8.0 3.3	10+00	13.6 9.0
(4.7)	8.0 3.3		13.7 9.1
	8.5 3.8		13.7 9.1
	10.2 7.5.5	(10:00)	13.8 9.2
+50	12.0 7.3	(4.6)	14.1 9.5
	12.5 7.8	+50	14.3 9.7
	13.1 8.4		14.3 9.7
	13.5 8.8		14.3 9.7
	13.6 8.9		14.4 9.8
9+00	13.8 9.1		14.2 9.6
	14.0 9.3	11+00	14.1 9.5
	14.0 9.3		14.5 9.9

PX

89+00 3-5-51 contd.

DIST	SOUND		DIST	SOUND	
11+20	16.0	11.5	13+10	7.0	2.6
(4.5)	17.4	12.9	(4.4)	4.5	-0.1
	18.0	13.5		3.5	+0.9
+50	20.1	15.6		3.0	+1.4
	21.0	15.5	+50	2.7	+1.7
	21.1	15.6		2.5	+1.9
	21.2	16.7		2.5	+1.9
	21.4	16.9		2.5	+1.9
12+00	21.4	16.9		2.4	2.0
	21.1	16.6	14+00	2.2	2.2
(10:05)	20.8	16.3	(10:08)	1.7	2.7
(4.5)	20.0	15.5	(4.4)		
	18.8	14.3			
+50	17.0	12.6			
	14.2	9.7	+50		
	11.8	7.3			
	10.5	6.0			
		-			
13+00	9.5	5.0			

PX

3-5-51

(52)

STA 91+00 - 0+00 = 13,000W

Sound East

DIST	SOUND		DIST	SOUND	
0+00	4.4	-0.3	1+00	4.8	-0.8
	4.5	0.4		4.7	0.7
(2.25)	4.5	0.4	2+00	5.0	1.0
(4.1)	4.5	0.4		5.0	1.0
	4.4	0.3		5.4	1.4
+50	4.3	0.2		5.4	1.4
	4.3	0.2		5.4	1.4
	4.3	0.2	+50	5.1	1.1
	4.4	0.3		5.3	1.3
	4.5	0.4	(4.0)	5.4	1.4
1+00	4.4	0.3		9.2	5.2
	4.5	0.4		11.8	7.8
	4.6	0.5	3+00	12.7	8.7
	4.6	0.5		12.8	8.8
	4.6	0.5		13.1	9.1
+50	4.6	0.5		13.2	9.2
	4.5	0.4		13.0	9.0
	4.7	0.6	+50	13.0	9.0

PX

3-5-51
91+00 Contd

DIST	SOUND	DIST	SOUND
3+60	13.0	9.0	5+50 20.5 16.6
	13.1	9.1	20.2 16.3
	13.2	9.2	20.2 16.3
3+90	13.2	9.2	17.7 16.6
4+00	13.2	9.2	18.5 13.6
	13.4	9.4	6+00 18.1 13.2
	13.5	9.5	(3.7) 17.5 12.6
	13.5	9.5	16.3 11.4
	14.2	10.2	15.1 10.2
+50	15.2	11.2	13.8 8.9
	16.8	12.8	+50 12.6 7.7
	16.7	12.7	10.4 5.5
(10:30)	19.6	15.6	8.3 3.4
(4.0)	19.6	15.6	5.1 0.2
5+00	19.9	15.9	3.7 +0.2
	20.5	16.5	7+00 3.0 +0.9
	20.8	16.8	2.1 +1.8
	21.0	17.0	1.6 +2.3
	20.8	16.8	(10:34) 1.2 +2.7

PX

3-5-51 (53)
Sound East

STA 92+00 - 0+00 = 13,000 W

DIST	SOUND	DIST	SOUND
0+00	3.3 +0.4	1+80	2.1 +1.6
	3.2 +0.5		2.1 }
(10:43)	3.1 +0.6	2+00	2.1 +1.6
(3.7)	3.4 +0.3		2.2 +1.5
	3.1 +0.6	(3.7)	2.3 +1.4
+50	2.8 +0.9		2.3 +1.4
	2.8 +0.9		2.4 +1.3
	2.9 +0.8	+50	2.4 }
	2.8 +0.9		2.4 }
	2.6 +1.1		2.4 }
1+00	2.6 +1.1		2.4 }
	2.5 +1.2		2.4 }
	2.4 +1.3	3+00	2.4 }
	2.3 +1.4		2.4 +1.3
	2.1 +1.6		2.5 +1.2
+50	2.1 }		2.5 }
	2.1 }		2.5 }
	2.1 +1.6	+50	2.5 +1.2

PX

3-5-51

92+00 contd.

DIST	SOUND		DIST	SOUND	
3+60	6.3	-2.7	5+50	17.4	13.8
(3.6)	10.7	7.1	(10:50)	18.1	14.5
	12.5	8.9	(3.6)	18.5	14.9
	12.9	9.3		19.0	15.4
4+00	13.0	9.4		19.5	15.9
	13.2	9.6	6+00	19.8	16.2
	13.2	9.6		19.6	16.0
	13.3	9.7		19.5	15.9
	13.2	9.6		19.5	15.9
+50	13.8	10.2		19.4	15.8
	13.7	10.1	+50	18.5	15.9
	14.0	10.4	(3.5)	17.0	13.5
	14.3	10.7		15.4	11.9
	14.5	10.9		14.7	11.2
5+00	14.8	11.2		13.8	10.3
	15.0	11.4	7+00	12.6	9.1
	15.5	11.9		11.4	7.9
	15.7	12.1		10.4	7.9
				9.5	5.0
				9.4	0.9
			+50	2.8	+0.7
	16.0	12.4	(10:55)	1.5	+2.0

3-5-51

(51)

PX Sound East

STA	93+00 - 0+00 = 13,000 W		DIST	SOUND	DIST	SOUND
0+00	4.0	-0.6	1+80	2.0	+2.3	
(11:00)	4.2	0.8	(3.3)	1.8	+1.5	
(3.4)	4.3	0.9	2+00	1.8	+1.5	
	4.3	0.9		1.8		
	4.2	0.8		1.8		
-50	3.7	-0.3		1.8		
	3.0	+0.4		1.8		
	2.7	0.7	+50	1.8		
	2.5	0.9		1.8		
	2.4	1.0		1.8	+1.5	
+00	2.4	1.0		1.7	+1.6	
	2.3	1.1		1.7	+1.6	
	2.3	1.1	3+00	1.6	+1.7	
	2.1	1.3		1.7	+1.6	
	2.3	1.1		1.6	+1.7	
+50	2.4	1.0		1.5	+1.8	
	2.4	1.0	(11:05)	1.5	+1.8	
	2.3	1.1	(3.3)	1.5	+1.8	
			+50	1.5	+1.8	

PX

3-5-51

93+00 Cont'd

DIST	SOUND		DIST	SOUND	
3+60	1.5	+1.7	5+50	13.6	104
	1.5	}	(3.2)	13.7	10.5
	1.5	+1.7		14.0	10.8
	4.2	-1.0		14.2	11.0
4+00	8.8	5.6		15.1	11.9
	12.1	8.9	6+00	16.4	13.2
	12.1	8.9		17.0	13.8
	11.9	8.7		17.5	14.3
	12.1	8.9		18.3	15.1
+50	12.2	9.0		18.4	15.2
	12.2	9.0	+50	18.0	14.8
	12.5	9.3		18.1	14.9
	12.5	9.3		18.3	15.1
	12.9	9.7		18.1	14.9
5+00	13.0	9.8		18.1	14.9
	12.9	9.7	7+00	18.0	14.8
	12.9	9.7		17.7	14.5
	13.1	9.8		16.8	13.6
	13.5	10.3		16.2	13.0

PX

3-5-51

93+00 Cont'd.

(55)

DIST	SOUND		DIST	SOUND	
7+40	15.2	12.0			
+50	13.5	10.3			
(11.10)	11.8	8.6			
(3.2)	9.8	6.6			
	7.0	3.8			
	3.4	0.2			
4+00	2.4	+0.8			
	1.8	+1.4			
	1.5	+1.7			

PX

3-5-51

STA 90+00

SOUND EAST

STA 90-00 - 0+00 = 13,000 W

DIST	SOUND		DIST	SOUND	
0+00			1+80	4.8	2.0
				5.0	2.2
			2+00	6.2	3.4
				10.4	7.6
				11.7	8.9
+50	4.7	-1.8		12.0	9.2
	4.6	1.7		12.0	9.2
(11:25)	4.6	1.7	+50	11.8	9.0
(2.9)	4.6	1.7	(2.8)	11.8	9.0
	4.8	1.9		12.0	9.2
1+00	4.9	2.0		11.9	9.1
	4.8	1.9		11.9	9.1
	4.7	1.8	3+00	12.1	9.3
	4.9	2.0		12.4	9.6
	4.9	2.0		12.3	9.5
+50	4.7	1.8		12.4	9.6
	4.6	1.7		12.1	9.3
	4.6	1.7	+50	12.0	9.2

PX

3-5-51

(56)

DIST	SOUND		DIST	SOUND	
3+60	11.8		9.0	5+50	16.7
	12.2				16.6
(11:30)	12.5		9.7	(11:35)	13.8
(2.8)	12.5		9.7	(2.8)	12.0
4+00	13.0		10.2		10.7
	13.7		10.9	6+00	9.2
	15.0		12.2		6.0
	16.7		13.9		2.8
	18.0		15.2		0.0
+50	19.6		16.8		
	20.2		17.4	+50	
	21.4		18.6		
	21.5		18.7		
	21.8		19.0		
	21.0		18.2		
	20.6		17.8	7+00	
	19.4		16.6		
	18.0		15.2		
	17.6		14.3		

P.X.

3-6-51

SOUND EAST

STA 94+00 - 0+00 = 13000 W

DIST	SOUND		DIST	SOUND	
1+00	6.0	+0.2	2+00	4.7	+1.5
(8:50)	5.7	+0.5		4.6	+1.6
	5.8	+0.4	3+00	4.4	+1.9
	5.4	+0.8		4.4	+1.8
	5.3	+0.9		4.4	+1.6
+50	5.2	+1.0		4.3	+1.9
(6.2)	5.0	+1.2	(6.2)	4.3	+1.9
	4.7	+1.5	+50	4.4	+1.8
	4.7	+1.5		4.5	+1.7
	4.6	+1.6		4.5	+1.7
2+00	4.5	+1.7		4.5	+1.7
	4.7	+1.5		4.5	+1.7
	4.7	+1.5	4+00	4.5	+1.7
	4.4	+1.8		4.5	+1.7
	4.5	+1.7		5.2	+1.0
+50	4.5	+1.7		9.3	-3.1
	4.5	+1.7		14.0	-7.8
	4.7	+1.5	+50	15.2	-9.0

3-6-51

(57)

P.Y.

DIST	SOUND		DIST	SOUND	
4+60	15.2	9.0	6+50	20.7	14.5
	(8:55)	15.5		20.8	14.6
	15.4	9.2		21.2	15.0
	15.5	9.3		21.4	15.2
+50	15.5	9.3		21.4	15.2
	16.0	9.8	7+00	21.6	15.4
	16.2	10.0		22.0	15.8
(6.2)	15.8	9.6	(6.2)	22.1	15.9
	16.2	10.0		22.0	15.8
+50	16.4	10.2	(9:00)	21.5	15.3
	16.5	10.3	+50	20.4	14.2
	17.0	10.8		18.6	13.4
	17.1	10.9	(6.2)	17.8	11.6
	16.0	9.8		17.0	10.8
	16.4	10.2		15.8	9.6
6+00	16.4	10.2	8+00	14.3	8.1
	17.4	11.2		13.2	7.0
	18.3	12.1		11.0	4.8
	19.5	13.3		6.3	0.1
	20.2	14.0		5.3	+0.9
			+50	4.6	+1.6
				3.4	+2.8

PX 3-6-51
SOUND EAST

STA	95+00 - 0100 = 13000 W				
DIST	SOUND		DIST	SOUND	
1+50	5.2	+0.8	3+30	4.1	+1.9
(9:10)	5.1	+0.9		4.0	+2.0
	4.8	+1.2	+50	4.0	+2.0
	4.6	+1.4		4.0	+2.0
(6:0)	4.5	+1.5		4.1	+1.9
2+00	4.1	+1.9		4.3	+1.7
	4.2	+1.8	(6:0)	4.2	+1.8
	4.8	+1.2	4+00	4.4	+1.6
	5.0	+1.0		4.5	+1.5
	5.3	+0.7		8.4	-2.4
+50	5.1	+0.9		12.0	6.0
	4.8	+1.2		14.0	8.0
	4.2	+1.8	+50	14.5	8.5
	4.2	+1.8		14.6	8.6
	4.1			14.9	8.9
3+00	4.1			14.7	8.7
	4.1	+1.8		14.8	8.8
	4.0	+2.0	5+00	15.5	9.5

PX 3-6-51

(58)

DIST	SOUND		DIST	SOUND	
5+10	15.3	9.3	7+00	20.5	14.5
	15.3	9.3		20.8	14.8
(9:15)	15.4	9.4		20.8	14.8
	15.4	9.4		20.8	14.8
+50	14.7	8.7		20.6	14.6
	15.0	9.0	+50	20.3	14.3
	14.9	8.9		20.0	14.0
(6:0)	15.0	9.0		19.6	13.6
	14.8	8.8	(6:0)	19.2	13.2
6+00	14.8	8.8		18.5	12.5
	14.9	8.9	8+00	17.9	11.9
	14.6	8.6		17.9	11.9
	15.1	9.1		17.1	11.1
	15.5	9.5	(9:20)	16.3	10.3
+50	16.1	10.1		15.4	9.4
	18.3	12.3	+50	14.0	8.0
	19.5	13.5		11.5	5.5
	20.4	14.4		7.5	1.5
	20.4	14.4		5.3	+0.7
			2+00	4.5	+1.5
				3.7	+2.3
				3.0	+3.0

PX

3-6-51
SOUND EAST

STA 96+00 - 0+00 = 13000 W

DIST	SOUND		DIST	SOUND	
3+00	3.7	+2.1	4+80	14.4	8.6
	3.7	+2.1		14.5	8.7
(9:30)	3.8	+2.0	5+00	14.5	8.7
	3.8	+2.0		14.4	8.6
	3.8	+2.0		14.2	8.4
+50	3.8	+2.0		14.0	8.2
	4.0	+1.8		14.0	8.2
(5.8)	3.9	+1.9	+50	14.2	8.4
	3.8	+2.0	(5.8)	14.1	8.3
	3.8	+2.0		14.1	8.3
4+00	6.2	0.4		14.2	8.4
	9.4	3.6		14.2	8.4
	11.7	5.9	6+00	14.4	8.6
	14.0	8.2		14.1	8.3
	13.8	8.0	(9:35)	14.4	8.6
+50	13.7	7.9		14.3	8.5
	14.0	8.2		14.0	8.2
	14.4	8.4	+50	14.0	8.2

PX

3-6-51

(59)

DIST SOUND

DIST SOUND

DIST	SOUND		DIST	SOUND	
6+60	14.5	8.7	8+50	16.5	10.8
	17.0	11.2	(5.7)	16.0	10.3
	18.3	12.5		14.2	8.5
	18.4	12.6		13.4	7.7
7+00	18.0	12.2		12.0	6.3
	17.3	11.5	9+00	11.3	5.6
	17.7	11.9		9.0	3.3
	17.7	11.9	(5.7)	5.4	+0.3
	18.2	12.4		4.5	+1.2
+50	18.4	12.6	(9:40)	4.0	+1.7
	18.6	12.8	+50	3.0	+2.7
	18.7	12.9			
(5.8)	19.0	13.2			
	19.3	13.5			
8+00	18.9	13.1			
	18.4	12.6			
	17.8	12.0			
	17.1	11.3			
	16.7	10.9			

PX

3-6-51
SOUND EAST

STA	DIST	SOUND	DIST	SOUND
97+00	-0+00	=	13000 W	
3+00	3.2	+2.4	4+80	14.0 8.4
(5.6)	3.2	+2.4		14.3 8.7
	3.4	+2.2	5+00	14.3 8.7
	3.6	+2.0		14.3 8.7
(9.47)	3.6	+2.0		14.5 8.9
+50	3.8	+1.8		14.5 8.9
	3.8	+1.8	(5.6)	14.2 8.6
(5.6)	3.7	+1.9	+50	14.4 8.8
	4.2	+1.4	(9:50)	14.1 8.5
	8.5	2.9		14.1 8.5
4+00	12.5	6.9		14.1 8.5
	15.2	9.6		14.2 8.6
	15.3	9.7	6+00	14.3 8.7
	15.4	9.8		14.4 8.8
	15.4	9.8		14.4 8.8
+50	15.7	10.1		14.4 8.8
	15.7	10.1		14.0 8.4
	14.9	9.3	+50	13.4 7.8

PX

3-6-51

(60)

DIST	SOUND	DIST	SOUND
6+60	13.6 8.0	8+50	16.5 11.0
	13.1 7.5	(5.5)	16.4 10.9
	11.0 5.4		15.9 10.4
	11.4 5.8		15.0 9.5
7+20	12.6 7.0		13.7 8.2
	13.2 7.6	9+00	13.0 7.5
	14.0 8.4	(5.5)	12.2 6.7
(5.6)	14.8 9.2		11.8 6.1
	15.1 9.5		11.4 5.9
+50	15.8 10.2		10.2 4.7
	16.1 10.5	+50	8.8 3.3
	16.5 10.9		5.7 0.2
	16.4 10.8	(9:55)	4.2 +1.3
	16.5 10.9		3.5 +2.0
8+00	16.3 10.7		3.0 +2.5
	16.0 10.4	10+00	2.5 +3.0
	16.0 10.4		
	16.2 10.6		
	16.5 10.9		

PX

3-6-51
SOUND EAST

STA	98+00 - 0+00 = 138000 W				
DIST	SOUND		DIST	SOUND	
3+00	3.8	+1.5	4+80	14.1	8.8
(5.3)	3.6	+1.7		14.2	8.9
	3.5	+1.8	5+00	14.1	8.8
	3.2	+2.1		13.8	8.5
(10:05)	3.3	+2.0		13.8	8.5
+50	7.5	2.2		14.0	8.7
	12.4	7.1		14.2	8.9
(5.3)	14.2	8.9	+50	14.3	9.0
	14.7	9.4	(5.3)	14.5	9.2
	15.1	9.8		14.5	9.2
4+00	15.0	9.7		14.5	9.2
	15.0	9.7		13.7	8.9
	14.8	9.5	6+00	13.1	7.8
	15.0	9.7		13.1	7.8
	15.1	9.8		12.8	7.5
+50	15.0	9.7		12.0	6.7
	14.7	9.4		8.3	3.0
	14.2	8.9	+50	7.0	1.5

PX

3-6-51

(67)

DIST	SOUND		DIST	SOUND	
6+60	6.5	1.3	8+50	15.2	10.0
(5.2)	6.5	1.3		14.8	9.6
	6.5	1.3		14.6	9.4
	7.0	1.8		14.5	9.3
7+00	7.7	2.5		14.5	9.3
	9.4	4.2	9+00	14.3	9.1
	10.8	5.6		14.0	8.8
(5.2)	11.8	6.6	(5.2)	13.4	8.2
	12.7	7.5		13.0	7.8
+50	13.5	8.3		12.8	7.6
	13.5	8.3	+50	11.9	6.7
	14.0	8.8		10.8	5.6
(10:10)	14.1	8.9		10.2	5.0
	14.4	9.2	(10:13)	9.5	4.3
8+00	15.0	9.8		9.0	3.8
	15.1	9.9	10+00	8.0	2.8
	15.1	9.9		6.2	1.0
	15.2	10.0		4.7	+0.5
	15.2	10.0		3.8	+1.4
				3.1	+2.1
			+50	2.5	+2.7
				2.0	+3.2
				2.8	+2.4

PX

3-6-51
SOUND EAST

STA 99+00 - 0+00 = 13,000 W

DIST	SOUND	DIST	SOUND
2+00	3.4 +1.3	3+80	15.3 10.6
(10:38)	3.5 +1.2		14.0 9.3
(4.7)	3.5 +1.2	4+00	14.0 9.3
	3.6 +1.1		13.7 9.0
	3.7 +1.0		13.5 8.8
+50	3.7 +1.0		13.5 8.8
(4.7)	3.5 +1.2	(4.7)	13.4 8.7
	3.6 +1.1	+50	13.4 8.7
	3.5 +1.2		13.4 8.7
	3.5 +1.2		13.4 8.7
3+00	3.6 +1.1		13.4 8.7
	4.0 +0.7		14.0 9.3
	4.3 +0.4	5+00	14.4 9.7
	5.5 0.8		14.5 9.8
	7.0 2.3		14.4 9.7
+50	10.8 6.1		14.4 9.7
	13.1 8.4		14.3 9.6
	15.4 10.7	+50	14.3 9.6

PX

3-6-51

(62)

DIST	SOUND	DIST	SOUND
5+60	14.5 9.9	7+50	9.7 5.1
(4.6)	13.8 9.2		10.3 5.7
	12.5 7.9		10.7 6.1
	9.8 5.2		11.5 6.9
+50	7.1 2.5		11.4 6.8
	6.6 2.0	8+00	11.6 7.0
(4.6)	6.5 1.9	(4.6)	12.3 7.7
	6.5 1.9		13.0 8.4
	5.8 1.2		13.4 8.8
	5.1 0.5		13.5 8.9
	5.1 0.5	+50	13.8 9.2
	5.1 0.5		13.8 9.2
	5.1 0.5		14.0 9.4
	5.1 0.5		14.0 9.4
	5.1 0.5		14.4 9.8
	5.1 0.5	9+00	14.5 9.9
	5.1 0.5		14.3 9.7
	5.1 0.5		13.6 9.0
	5.1 0.5		12.8 8.2
(10:45)	5.1 0.5	+50	12.2 7.6
	5.4 0.8		12.0 7.4
7+00	6.4 1.8		11.5 6.9
	6.8 2.2		10.1 5.5
	7.4 2.8		9.3 4.7
	8.3 3.7		8.8 4.2
		10+00	8.4 3.8
			8.0 3.4
			8.0 3.4
		(10:50)	7.9 2.8
			6.1 1.5
		+50	5.3 0.7
			4.5 +0.1
			3.8 +0.8

3-6-51
SOUND EAST

STA 100+00 - 0+00 = 13000 W

DIST	SOUND	DIST	SOUND
2+00		3+80	12.5 8.5
			12.8 8.8
		4+00	13.0 9.0
			12.8 8.8
11:15	0.9 +3.1		12.5 8.5
+50	1.2 +2.8		12.5 8.5
(4.0)	2.0 +2.0	(4.0)	13.1 9.1
	2.7 +1.3	+50	13.4 9.4
	4.7 0.7		13.5 9.5
	7.6 3.6		13.4 9.4
3+00	9.5 5.5		13.3 9.3
	11.3 7.3		13.1 9.1
	12.0 8.0	5+00	12.8 8.8
	12.0 8.0		13.0 9.0
	12.4 8.4		13.0 9.0
+50	12.4 8.4		12.9 8.9
	12.4 8.4		12.9 8.9
	12.4 8.4	+50	12.5 8.5

3-6-51

(63)

DIST	SOUND	DIST	SOUND
5+60	10.0 6.1	7+50	6.4 2.5
	6.4 2.5		7.4 3.5
	4.8 0.9		8.0 4.1
	4.5 0.6		8.7 4.8
6+00	4.7 0.8		9.2 5.3
	4.6 0.7	8+00	10.1 6.2
	4.5 0.6		10.3 6.4
	(3.9) 4.6 0.7	(3.9)	10.5 6.6
	5.7 1.8		10.5 6.6
+50	6.0 2.1		10.7 6.8
	4.8 0.9	+50	10.9 7.0
	4.0 0.1		11.0 7.1
	3.8 +0.1		11.3 7.4
	3.5 +0.4		11.2 7.3
7+00	3.7 +0.2		11.0 7.1
	3.8 +0.1	9+00	10.8 6.9
11:20	4.2 0.3		10.8 6.9
	4.7 0.8		10.5 6.6
	5.5 1.6		10.2 6.3

3-6-54
STA 100+00 CONT'D

DIST SOUND		DIST SOU	
9+40	10.2	6.4	11+30 3.8 0.0
+50	10.2	6.4	3.0 +0.8
	10.2	6.4	+50 2.5 +1.3
	10.1	6.3	
(38)	10.0	6.2	
	10.0	6.2	
10+00	10.0	6.2	
	10.0	6.2	
	10.0	6.2	
	9.7	5.9	
	9.4	5.6	
+50	8.8	5.0	
	8.4	4.6	
	8.0	4.2	
	7.5	3.7	
	7.3	3.5	
11+00	6.3	3.5	
	5.5	1.7	
	4.6	0.8	

3-9-51
SOUND WEST

(64)

STA 75+00 - 0+00 = 14000 W

DIST SOUND		DIST SOUND	
0+00	4.1 +0.9	1+80	14.3 9.3
(347)	6.0 -1.0		14.5 9.5
(47)	6.4 1.4	2+00	14.8 9.8
(50)	6.4 1.4		14.9 9.9
	8.0 3.0		14.9 9.9
+50	8.5 3.5		14.7 9.7
	8.7 3.7		15.1 10.1
	8.8 3.8	+50	15.4 10.4
	10.3 5.3		15.9 10.9
	12.6 7.6		16.0 11.0
1+00	13.5 8.5		15.8 11.8
	13.7 8.7		16.3 11.3
	14.0 9.0	3+00	15.7 10.7
	14.0 9.0		14.5 9.5
	14.1 9.1		14.0 9.0
+50	14.2 9.2		13.5 8.5
(50)	14.4 9.4		13.5 8.5
(47)	14.3 9.3	+50	13.8 8.8

STA 75+00 3-9-51

PX

SOUND WEST

DIST	SOUND		DIST	SOUND	
3+60	14.0	8.9	5+50	15.7	10.6
(5.1)	14.0	8.9		16.2	11.1
	14.2	9.1		16.4	11.3
	14.4	9.3		16.4	11.3
4+00	14.1	9.0		16.4	11.3
	13.6	8.5	6+00	16.5	11.4
	13.5	8.4		16.7	11.6
	13.4	8.3		16.6	11.5
	13.4	8.3		16.4	11.3
+50	13.5	8.4		16.0	10.9
	14.0	8.9	+50	16.0	10.9
	13.8	8.7		15.5	10.4
	14.1	9.0		15.7	10.6
	14.1	9.0		15.7	10.6
5+00	14.1	9.0		15.7	10.6
(9.55)	14.2	9.1	7+00	15.9	10.8
(4.9)	14.4	9.3		16.0	10.9
(5.1)	14.3	9.2		16.0	10.9
	14.2	9.8		16.1	11.0

STA 75+00 3-9-51

(65)

PX

SOUND WEST

DIST	SOUND		DIST	SOUND	
7+40	16.1	11.0	9+30	5.5	0.4
+50	16.1	11.0		4.0	+1.1
	16.1	11.0	+50	3.4	+1.7
	16.0	10.9		3.4	+1.7
	15.8	10.7	(5.1)	3.2	+1.9
	16.0	10.9	(4.8)	2.8	+2.3
8+00	16.4	11.3	(10:03)	2.0	+3.0
	16.8	11.7	10+00	1.5	+3.6
BR.	17.0	11.9	<u>SOUND EAST</u>		
(10:00)	17.7	12.6	0+00		
(5.1)	17.5	12.4	(10:08)	3.4	+1.7
+50	17.1	12.0	(4.8)	3.0	+2.1
	17.0	11.9	(5.1)	2.5	+2.6
	15.5	10.4			
	13.0	7.9	+50		
	10.5	5.4			
9+00	8.0	2.9			
	6.5	1.4			
	5.5	0.4			

3-9-51

SOUND WEST

STA. 74+00 - 0+00 = 19,000 W

DIST	SOUND	DIST	SOUND
0+00		1+80	15.0 9.8
			15.0 9.8
		2+00	14.7 9.5
(10.13)	2.0 +3.2		14.8 9.6
(5.2)	2.5 +2.7	(5.2)	15.0 9.8
+50	3.2 +2.0		15.5 10.3
	4.0 +1.2		15.5 10.3
	4.8 +0.4	+50	15.6 10.4
	5.1 +0.1		15.4 10.2
	5.2 0.0		15.4 10.2
1+00	5.3 0.1		15.3 10.1
	5.9 0.7		15.1 9.9
	7.0 1.8	3+00	15.0 9.8
	8.6 3.4		15.0 9.8
	9.5 4.3		14.9 9.7
+50	10.8 5.6		14.8 9.6
	11.1 5.9		14.6 9.4
	12.8 7.6	+50	14.6 9.4

STA 74+00
SOUND WEST

3-9-51

(66)

DIST	SOUND	DIST	SOUND
3+60	15.0 9.8	5+50	15.0 9.8
	15.0 9.8		14.8 9.6
	15.5 10.3		14.8 9.6
	16.0 10.8	(5.2)	14.9 9.7
4+00	16.5 11.3		15.1 9.9
	16.3 11.1	6+00	16.1 10.9
	16.0 10.8		18.0 12.8
	15.9 10.7		17.5 12.3
	15.5 10.3		17.2 12.0
+50	14.4 9.2		17.4 12.2
	14.4 9.2	+50	17.0 11.8
	14.4 9.2		17.0 11.8
	14.4 9.2		16.5 11.3
	15.0 9.8		16.1 10.9
5+00	14.8 9.6		16.0 10.8
	14.7 9.5	7+00	16.0 10.8
	14.7 9.5		16.0 10.8
	14.7 9.5		16.4 11.2
	15.0 9.8		16.6 11.4

STA 74+00 3-9-51

SOUND WEST

DIST	SOUND	DIST	SOUND
7+40	17.3	12.1	9+30 12.0 6.8
+50	17.7	12.5	12.8 7.6
	18.3	13.1	+50 12.8 7.6
(5.2)	18.8	13.6	(10:35)
(10:30)	19.1	13.9	(5.2)
	19.1	13.9	
8+00	18.8	13.6	
BR.	18.0	12.8	10+00
	18.5	13.2	
	18.7	13.5	
	19.2	14.0	
+50	18.0	12.8	
	15.8		
	17.8	10.6	
	14.7	9.5	
	15.0	9.8	
	14.7	9.5	
9+00	14.0	8.8	
	13.2	8.0	
	12.4	7.2	

3-12-51

(67)

SOUND EAST

STA 62+00 0+00 = 350' E CAUSEWAY B/L

DIST	SOUND	DIST	SOUND
0+02	0.0	+1.9	1+80 14.5 12.6
+10	2.6	-0.7	15.2 13.3
(3:05)	7.2	-5.3	2+00 15.4 13.5
	9.0	7.1	15.2 13.3
	10.1	8.2	(1.9) 14.5 12.6
+50	10.4	8.5	13.4 11.5
(1.9)	10.5	8.6	11.5 9.6
	11.1	9.2	+50 11.4 9.5
	11.5	9.6	11.2 9.3
	11.5	9.6	(9:10) 11.1 9.2
+50	12.0	10.1	11.1 9.2
	12.4	10.5	11.2 9.3
	12.7	10.8	3+00 11.4 9.5
	12.9	11.0	11.4 9.5
	13.0	11.1	11.7 9.8
	13.0	11.1	11.3 9.4
+50	13.5	11.6	11.3 9.4
	14.0	12.1	+50 11.5 9.6
	14.4	12.5	11.5 9.6
			11.5 9.6
			11.3 9.4
			10.8 8.9
			+400 9.7 7.8
			+10 5.0 3.1
			+20 2.5 0.6
			+38 0.0 1.3

2x

SOUND EAST

STA 61+00 - 0+00 = 290 E OF B/L

3-12-51

CAUTION

OF B/L

DIST	SOUND		DIST	SOUND	
0+05	0.0	+2.0	2+20	13.3	11.3
+10	2.6	-0.6		12.8	10.8
(9:20)	4.5	2.5	(2.0)	13.0	11.0
	5.3	3.3	+50	12.8	10.8
	7.8	5.8		12.4	10.4
+50	8.4	6.4		12.4	10.4
	11.1	9.1		12.5	10.5
(2.0)	11.2	9.2	(9:25)	12.7	10.7
	11.4	9.4	3+00	13.0	11.0
	11.3	9.3		13.0	11.0
1+00	11.5	9.5		13.2	11.2
	11.7	9.7		13.2	11.2
	11.7	9.7		13.1	11.1
	12.0	10.0	+50	13.0	11.0
	12.1	10.1		13.0	11.0
+50	12.1	10.1		13.2	11.2
	12.3	10.3		13.2	11.2
	12.5	10.5	4+00	12.8	10.8
	13.0	11.0	+10	16.0	4.0
	13.2	11.2	+20	4.1	2.1
2+00	13.4	11.4	+30	4.0	2.0
	13.7	11.7	+35	0.0	+2.0

SOUND EAST

STA 60+00 - 0+00 = 290 E OF CURB B/L

3-12-51

(68)

DIST	SOUND		DIST	SOUND	
0+01	0.0	+2.1	2+20	13.7	11.6
+10	3.5	-1.4		12.8	10.7
	6.5	4.4		13.5	11.4
	7.4	5.3	+50	13.7	11.6
	8.4	6.3		13.3	11.2
+50	10.2	8.1	(2.1)	13.5	11.4
	11.0	8.9		14.2	12.1
(2.1)	11.2	9.1		14.1	12.0
	11.2	9.1	3+00	14.1	12.0
	11.5	9.4		14.0	11.9
	11.5	9.4		13.3	11.2
	11.8	9.7		13.2	11.1
	11.7	9.6	+50	11.2	9.1
	11.6	9.5		11.4	9.3
	11.8	9.7		11.3	9.2
	11.8	9.7		11.4	9.3
	11.8	9.7		11.8	9.7
	11.8	9.7		12.5	10.4
	11.8	9.7	4+00	10.7	8.6
	11.8	9.7		6.6	4.5
+50	11.8	9.7		5.7	3.6
	11.8	9.7		5.0	2.9
	11.8	9.7	(10:40)	5.0	2.9
	12.1	10.0		1.5	+0.6
	12.5	10.4	+40	0.0	+2.1
2+00	12.6	10.5	+42	0.0	+2.1
	13.5	11.4			

RX SOUND EAST 3-12-51
 STA 55+00 - 0+00 = 180 E of ECURR B/K

DIST	SOUND		DIST	SOUND	
0+05	0.0	+2.1	2+20	13.4	11.3
+10	2.0	+0.1		13.3	11.2
(9:44)	5.8	-3.7		13.2	11.1
	6.4	4.3	+50	13.1	11.0
	7.4	5.3		13.4	11.3
+50	9.6	7.5		14.2	12.1
	10.0	7.9	(2.1)	14.0	11.9
(2.1)	10.0	7.9		14.0	11.9
	10.4	8.3	3+00	13.7	11.6
	11.0	8.9		13.7	11.6
				13.8	11.7
				13.5	11.3
1+00	11.5	9.4		13.0	10.9
	11.6	9.5	+50	13.0	10.8
				13.0	10.8
	11.6	9.5	(2.2)	13.2	11.0
	12.0	9.9		13.5	11.3
	13.0	10.9		13.2	11.0
+50	12.8	10.7	4+00	13.7	11.5
	12.5	10.4		5.5	3.3
	12.8	10.7			
	13.0	10.9	(9:47)	5.0	2.8
	13.1	11.0			
2+00	13.2	11.1	+30	2.5	0.3
	13.4	11.3	+35	0.0	+2.8

SOUND EAST 3-12-51 (69)
 STA 58+00 - 0+00 = 130 E of ECURR B/K

DIST	SOUND		DIST	SOUND	
0+05	0.0	+2.3	1+20	14.8	12.5
+10	3.5	-1.2	2+00	14.8	12.5
	6.0	3.7		14.1	11.8
	7.0	4.7		14.4	12.1
				15.4	13.1
				15.5	13.2
(9:55)	8.0	5.7	+50	15.5	13.2
+50	12.5	10.2		15.3	13.0
				15.0	12.7
	13.0	10.7	3+00	15.0	12.7
				14.8	12.5
	13.3	11.0	(2.3)	14.1	11.8
(2.3)	13.4	11.1		13.7	11.4
				13.3	11.0
	12.5	10.2	+50	13.0	10.7
				12.8	10.5
1+00	12.1	9.8		12.6	10.3
	12.8	10.5		12.2	9.9
	13.1	10.8			
	14.0	11.7	4+00	12.0	9.7
	14.0	11.7		11.5	9.2
+50	14.2	11.9	(10:00)	11.2	8.9
	14.5	12.2		14.0	11.7
	14.5	12.2		14.0	11.7
				9.0	6.7
				5.0	2.7
				14.5	12.2
				14.5	12.2
+50	14.6	12.3			

PX

3-12-51

SOUND EAST

STA 57+00 - 0+00 = 270 E of E CURB R/L

DIST	SOUND	DIST	SOUND
0+10	0.0	+2.4	1+90
(10:05)	1.0	+1.4	2+00
	2.5	-0.1	(10:08)
	5.4	3.0	(2.4)
+50	6.0	3.6	+30
	6.1	3.7	
(2.4)	6.1	3.7	+50
	9.0	6.6	
	8.3	5.9	
1+00	9.0	6.6	
	9.6	7.2	
	9.8	7.4	
	10.5	8.1	
	11.2	8.8	
+50	13.0	10.6	
	12.8	10.4	
	12.8	10.4	
	12.6	10.2	

(70)

SOUND EAST

STA 63+00 - 0+00 = 510 E of CURB R/L

PX

DIST	SOUND	DIST	SOUND
0+02	0.0	+2.5	1+90
+10	3.0	-0.5	2+00
(10:25)	6.4	-3.9	
	10.5	8.0	
	11.0	8.5	
+50	11.5	9.0	
	11.8	9.3	+50
(2.5)	12.1	9.6	
	12.4	9.9	(2.6)
	12.6	10.1	
1+00	12.8	10.3	
	13.1	10.6	3+00
	13.3	10.8	
	13.3	10.8	
	13.4	10.9	+50
+50	13.7	11.2	
	14.0	11.5	
	14.4	11.9	(10:30)
+80	14.6	12.1	4+00
			+05

71
 STA 64+00 - 0+00 = 440 E of CURB B/L

DIST	SOUND	DIST	SOUND
0+03	0.0 +2.7	1+90	15.7 13.0
+10	2.0 +0.7	2+00	14.8 12.1
10:35	6.1 -3.4		13.0 10.3
	10.4 -7.7		12.5 9.8
	12.0 9.3	2.7	12.8 10.1
+50	12.0 9.3		12.8 10.1
	12.0 9.3	+50	12.5 9.8
2.7	12.5 9.8		12.5 9.8
	12.8 10.1		11.5 8.8
			11.3 8.6
			11.8 9.1
		3+00	12.0 9.3
	13.1 10.4		12.4 9.7
			12.3 9.6
1+00	13.3 10.6		11.5 8.8
			12.4 9.7
	13.2 10.5	+50	29.8 7.1
	13.3 10.6		7.5 4.8
	13.5 10.8		6.0 3.3
	14.0 11.3		6.0 3.3
+50	14.5 11.8		5.3 2.6
	15.0 12.3	4+00	5.0 2.3
	15.5 12.8		4.0 1.3
	15.5 12.8	0.40	

71
 STA 65+00 - 0+00 = 440 E of CURB B/L

DIST	SOUND	DIST	SOUND
0+15	0.0 +2.7	2+00	14.7 12.0
+20	2.4 +0.3		13.0 10.3
10:45	8.0 -5.3		11.5 8.8
	10.5 7.8		11.8 9.1
+50	11.0 8.3		12.0 9.3
	11.0 8.3	+50	11.7 9.0
	11.3 8.6		11.8 9.1
2.7	11.5 8.8		12.0 9.3
			12.0 9.3
	11.6 8.9	3+00	12.2 9.5
			12.3 9.6
			12.3 9.6
	11.8 9.1	1+00	12.2 9.5
			12.2 9.5
	12.2 9.5	+50	13.2 10.5
	12.0 9.3	2.7	13.2 10.5
	12.0 9.3		12.5 9.8
	12.0 9.3		11.7 9.0
+50	12.0 9.3	4+00	5.0 2.3
	12.5 9.8	4+00	2.0 +0.7
	13.4 10.7	+14	0.0 +2.7
	12.8 10.1	10:50	
	14.5 11.8		

PX SOUND EAST 3-12-51
 STA 66+00 - 0+00 = 410 E of ECURR B/L

DIST	SOUND		DIST	SOUND	
0+10	0.0	+2.7	2+00	13.8	11.0
+20	2.5	+0.2		14.0	11.2
(10.55)	5.4	-2.7		13.0	10.2
	9.1	-6.4		12.5	9.7
+50	11.0	-8.3		12.0	9.2
	11.8	-9.1	+50	11.6	8.8
	12.0	-9.3		11.1	8.3
(2.7)	12.0	-9.3		11.1	8.3
	12.1	9.4		11.3	8.5
				11.5	8.7
1+00	12.8	10.1	3+00	11.7	8.9
	13.2	10.5	(2.8)	11.8	9.0
	13.2	10.5		11.8	9.0
	13.2	10.5		11.7	8.9
	13.2	10.5	+50	11.6	8.8
	13.2	10.5		11.0	8.2
	13.2	10.5		10.6	7.8
	13.2	10.5		10.5	7.7
+50	13.5	10.8		10.5	7.7
	13.4	10.7	4+00	10.0	7.2
	13.4	10.7		8.5	5.7
	13.4	10.7	(11.00)	2.0	+0.8
	13.5	10.8	+27	0.0	+2.8

SOUND EAST 3-12-51 (72)
 STA 67+00 - 0+00 = 350 E of ECURR B/L

DIST	SOUND		DIST	SOUND	
0+09	0.0	+2.8	2+00	13.5	10.7
+20	2.5	+0.3		13.4	10.6
(11.05)	4.0	-1.2		13.5	10.7
	9.3	-6.5	(2.8)	13.5	10.7
+50	11.2	8.4		13.8	11.0
	11.5	8.7	+50	14.1	11.3
	12.0	9.2		14.0	11.2
(2.8)	12.0	9.2		12.0	9.2
	12.0	9.2		11.3	8.5
	12.0	9.2	3+00	11.3	8.5
	12.0	9.2		11.0	8.2
1+00	12.0	9.2		11.5	8.7
	11.8	9.0		11.8	9.0
	11.8	9.0		12.0	9.2
	12.0	9.2		12.4	9.6
	11.8	9.0	+50	12.8	10.0
	12.0	9.2	(11.10)	12.8	10.0
	11.8	9.0		12.6	9.8
	11.7	8.9		12.5	9.7
	11.7	8.9	4+00	12.2	9.4
+50	11.4	8.6		12.2	9.4
	11.5	8.7		12.4	9.6
	11.5	8.7		12.4	9.6
	11.8	9.0	+50	12.4	9.6
	11.6	8.8		10.0	7.2
				7.0	4.2
				4.5	1.7
			+78	0.0	+2.8

P1

SOUND EAST 3-12-51
STA 68+00 - 0+00 = 140 E of ECURB

DIST	SOUND		DIST	SOUND	
0+17	0.0	+2.9	2+00	12.9	10.0
+20	1.0	+1.9		13.0	10.1
	2.4	+0.5		13.0	
(11:18)	4.4	-1.5		13.0	
+50	6.0	-3.1		13.0	10.1
	7.1	4.2	+50	12.8	9.9
	9.0	6.1		12.8	9.9
(2.9)	9.8	6.9	(2.9)	12.7	9.8
	10.3	7.4		13.1	10.2
1+00	12.5	9.6		13.4	10.5
	12.5	9.6	3+00	13.6	10.7
	12.5	9.6		13.4	10.5
	12.5	9.6		13.4	10.5
	12.5	9.6		13.3	10.4
+50	12.5	9.6		13.0	10.1
	12.6	9.7	+50	12.8	9.9
	12.6	9.7		13.1	10.2
	12.7	9.7		13.1	10.2
	12.8	9.9		13.3	10.4

SOUND EAST
STA 68+00

(7.3)
Rx

DIST	SOUND		DIST	SOUND	
3+50	13.7	10.8	5+80	12.4	9.5
4+00	14.0	11.1		12.4	9.5
	13.5	10.6	6+00	11.7	8.8
	13.0	10.1		7.7	4.8
	12.4	9.5	(2.9)	11.3	8.4
	12.4	9.5		11.0	8.1
+50	12.2	9.3	(11:25)	9.5	6.6
(2.9)	12.1	9.2	+50	2.0	+0.9
	12.1	9.2		0.0	+2.9
	11.0	8.1			
	11.0	8.1			
5+00	11.2	8.3			
	11.0	8.1			
	11.4	8.5			
	11.7	8.8			
	12.0	9.1			
+50	12.0	9.1			
	12.0	9.1			
	12.1	9.2			

3-12-51

STA 69+00

3-12-51

(74)

SOUND WEST

PX

PX

STA 69+00 - 0+00 = 14000 W

DIST SOUND

DIST SOUND

SOUND EAST

DIST SOUND

DIST SOUND

3+20

13.0 -9.9

5+10

12.0 -9.0

0+00

8.0 -4.9

1+90

12.8 -9.7

13.0 -9.9

12.2 -9.2

(3.1)

4.8 -1.7

+50

12.4 -9.3

13.1 -10.0

(3.0)

12.8 -9.8

(1:25)

2.5 +0.6

(3.1)

12.4 -9.3

+50

13.1 -10.0

13.1 -10.1

0+35

0.0 +3.1

12.2 -9.1

13.1 -10.0

+50

13.2 -10.2

SOUND WEST

12.0 -8.9

(3.1)

12.7 -9.6

(1:35)

13.5 -10.5

0+10

10.3 -7.2

11.6 -8.5

12.4 -9.3

13.7 -10.7

(3.1)

11.0 -7.9

2+00

11.5 -8.4

12.4 -9.3

13.2 -10.2

(1:25)

12.0 -8.9

11.4 -8.3

+50

12.4 -9.3

13.2 -10.2

12.5 -9.4

11.5 -8.4

12.1 -9.0

6+00

13.4 -10.4

+50

12.4 -9.3

11.5 -8.4

11.8 -8.7

13.7 -10.7

12.4 -9.3

11.8 -8.7

11.8 -8.7

14.1 -11.1

12.0 -8.9

+50

12.1 -9.0

11.7 -8.6

13.3 -10.3

12.3 -9.2

12.4 -9.3

+50

11.7 -8.6

13.1 -10.1

12.3 -9.2

(1:30)

12.5 -9.4

11.7 -8.6

+50

14.2 -11.2

1+00

12.4 -9.3

13.1 -10.0

11.7 -8.6

14.1 -11.1

12.5 -9.4

12.7 -9.6

11.7 -8.6

14.0 -11.0

12.8 -9.7

3+00

12.7 -9.6

12.0 -8.9

13.3 -10.3

13.0 -9.9

12.7 -9.6

5+00

12.5 -9.4

6+90

13.5 -10.5

7x STA 69+00 3-12-51
SOUND WEST

DIST	SOUND	DIST	SOUND
7+00	13.4 -10.4	8+90	12.3 -9.3
(3.0)	13.4 -10.4	9+00	12.4 -9.4
	11.0 -8.0		12.5 -9.5
	9.0 -6.0	(1.43)	
	10.2 -7.2		
+50	11.0 -8.0		
	10.5 -7.5	+50	
	10.5 -7.5		
	11.0 -8.0		
(1.40)	11.1 -8.1		
8+00	10.7 -7.7		
	11.0 -8.0		
	10.9 -7.9		
	10.8 -7.8		
	11.0 -8.0		
+50	11.0 -8.0		
	11.4 -8.4		
	11.8 -8.8		
	12.2 -9.2		

3-12-51 (75)
7x SOUND WEST

STA 70+00 - 0+00 19050 W

DIST	SOUND	DIST	SOUND
0+05	0.0 +2.9	1+80	12.0 -9.1
(1.53) 1.0	+1.9		12.0 -9.1
(2.9) 4.3	-1.4	2+00	12.0 -9.1
	7.6 -4.7	(2.9)	12.0 -9.1
	9.4 -6.5		11.8 -8.9
+50	10.5 -7.6		11.7 -8.8
	10.5 -7.6		11.8 -8.9
	10.8 -7.9	+50	11.8 -8.9
	11.0 -8.1		11.8 -8.9
	11.5 -8.6		12.2 -9.3
1+00	11.5 -8.6		12.1 -9.2
	11.2 -8.3		12.4 -9.5
	11.4 -8.5	3+00	12.7 -9.8
	11.4 -8.5		12.7 -9.8
(1.55)	11.5 -8.6		12.5 -9.6
+50	11.5 -8.6		12.4 -9.5
	12.0 -9.1		12.5 -9.6
	12.0 -9.1	+50	12.4 -9.5

3-12-51
 STA 70+00 SOUND WEST

DIST	SOUND		DIST	SOUND	
3+60	12.4	-9.5	5+50	15.3	-12.4
	12.2	-9.3	(2.9)	16.0	-13.1
(2.9)	12.1	-9.2		16.3	-13.4
	12.2	-9.3		16.0	-13.1
4+00	12.4	-9.5		15.2	-12.3
	12.5	-9.6	6+00	14.5	-11.6
	13.0	-10.1		14.5	-11.6
(2:00)	13.0	-10.1		14.4	-11.5
	12.7	-9.8		13.3	-10.4
+50	12.7	-9.8		12.5	-9.6
	12.6	-9.7	+50	12.5	-9.6
	12.6	-9.7		12.5	-9.6
	12.6	-9.7		12.7	-9.8
	12.5	-9.6	BR.	13.5	-10.6
5+00	12.4	-9.5		13.2	-10.3
	12.0	-9.1	7+00	14.4	-11.5
	11.8	-8.9		15.4	-12.5
	11.5	-8.6	(2:05)	15.0	-12.1
	11.8	-8.9		13.4	-10.5

3-12-51
 STA 70+00 SOUND WEST

DIST	SOUND		DIST	SOUND	
7+40	12.2	-9.4			
+50	12.0	-9.2			
	12.3	-9.5			
(2.8)	12.0	-9.2			
	11.7	-8.9			
	11.7	-8.9			
8+00	11.5	-8.7			
	11.8	-9.0			
	12.4	-9.6			
	12.0	-9.2			
(2:08)	11.5	-8.7			
+50	11.3	-8.5			

(76)
 XX

PX

3-12-51

SOUND WEST

STA 71+00 - 0+00 = 14120 W

DIST	SOUND		DIST	SOUND	
0+09	0.0	+2.7	1+90	12.2	-9.5
+20	3.5	-0.8	2+00	12.2	-9.5
(2:14)	5.0	-2.3		12.1	-9.4
	8.4	-5.7		13.2	-10.5
+50	10.3	-7.6	(2.7)	13.5	-10.8
(2.7)	11.5	-8.8		13.4	-10.7
	11.5	-8.8	+50	12.9	-10.2
	12.2	-9.5		12.6	-9.9
	11.7	-9.0		12.5	-9.8
1+00	12.0	-9.3		12.4	-9.7
	12.0	-9.3		12.5	-9.8
	12.0	-9.3	3+00	13.2	-10.5
	12.1	-9.4		13.2	-10.5
	12.1	-9.4		13.4	-10.7
+50	12.2	-9.5		13.2	-10.5
	12.0	-9.3		13.1	-10.4
	12.1	-9.4	+50	13.2	-10.5
	12.2	-9.5		12.8	-10.1

STA 71+00

SOUND WEST

3-12-51

(77)

DIST	SOUND		DIST	SOUND	
3+70	13.2	-10.5	5+60	12.1	-9.4
(2:20)	13.7	-11.0		12.0	-9.3
(2.7)	13.5	-10.8	(2.7)	12.0	-9.3
4+00	13.3	-10.6		12.0	-9.3
	13.3	-10.6	6+00	11.8	-9.1
	13.3	-10.6		12.5	-9.8
	13.0	-10.3		12.8	-10.1
	13.0	-10.3		12.0	-9.3
+50	12.9	-10.2		10.5	-7.8
	12.8	-10.1	+50	11.0	-8.3
	12.9	-10.2		11.0	-8.3
	11.8	-9.1		11.5	-8.8
	11.8	-9.1		11.4	-8.7
5+00	11.7	-9.0		12.0	-9.3
	12.0	-9.3	7+00	12.1	-9.4
	11.9	-9.2		12.0	-9.3
	12.0	-9.3		12.0	-9.3
	12.0	-9.3		12.4	-9.7
+50	12.0	-9.3		12.0	-9.3

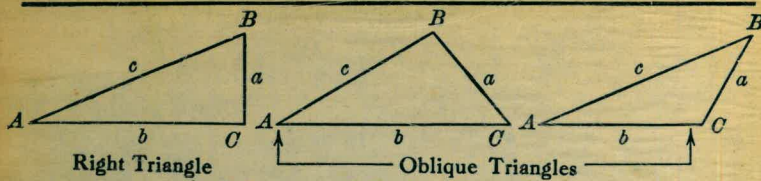
FX

3-12-51

STA 71+00 SOUND WEST

DIST	SOUND		DIST	SOUND	
7+50	9.0	-6.4	9+40	10.5	-7.9
(2:25)	8.1	-5.5	+50	10.7	-8.1
	8.5	-5.9	(2:6)	10.7	-8.1
(2:6)	8.5	-5.9		10.5	-7.9
	9.0	-6.4		10.4	-7.8
8+00	9.1	-6.5	(2:30)	10.7	-8.1
	9.4	-6.8	10+00	11.0	-8.4
	9.5	-6.9			
	9.5	-6.9			
	9.4	-6.8			
+50	9.4	-6.8			
	9.4	-6.8			
	9.2	-6.6			
	9.1	-6.5			
	9.1	-6.5			
9+00	9.1	-6.5			
	9.1	-6.5			
	9.5	-6.9			
	10.0	-7.4			

TRIGONOMETRIC FORMULÆ



Right Triangle Oblique Triangles

Solution of Right Triangles

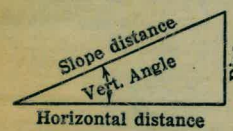
For Angle A. $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{b}$, $\text{cosec} = \frac{c}{a}$

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 = $5^\circ 10'$. 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. $\text{Cosine } 5^\circ 10' = .9959$. $1 - .9959 = .0041$. $319.4 \times .0041 = 1.31$. $319.4 - 1.31 = 318.09$ 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.