

## APPENDIX

This Appendix is composed of 225 seismograms and 9 navigation plots of the D/V *Fred H. Moore* during the oblique seismic experiment. The Appendix was prepared at Woods Hole Oceanographic Institution by Thomas Bolmer under the direction of Ralph A. Stephen.

The data are organized (1) by receiver depths and (2) by seismic sources (explosives or air gun). As a result, the data are divided into nine sets (Table 1). Each set is composed of a plot of the navigation and of seismograms.

Each line is plotted in a centrifugal manner, the *JOIDES Resolution* being at the center. Data for each circle are plotted in a clockwise order and in two parts: part 1 from true north to east and south (0-180°), and part 2 from south to west and north (180°-360°).

Each line or semicircular set of data is composed of three seismograms: the top one is the vertical channel (VERT), and the two others, the horizontal channels H1 and H2, the latter being at the bottom.

Each set of seismograms (composed of three channels) has a heading like the one below enclosed by the box. The information given in this boxed heading can be used as a key to the other headings, as follows:

LINE 6: Number of the line *in the set* (see Table 1).

SSE: Orientation of the line.

RO 4.0 ALPHA 4.0 ASC 0.10E-04: These plots are range weighted. RO and ALPHA values control the range weighting. The ASC value is used to correct the amplitude scaling of the shots to obtain a homogeneous set of data when using different seismic sources. The values of ASC used were 0.1E-04 for the explosive and 0.75E-04 for the air gun. When the range is greater

than RO, the amplitude scaling (ASC) of the signal is corrected as follows:

$$\text{Scale} = \text{ASC} \times (\text{Range}/\text{RO})^{\text{ALPHA}}$$

For a range value of 5.7 km and an ASC of 0.1E-04, for example, the following scale is used:

$$\text{Scale} = (0.1\text{E}-04) \times (5.7/4.0)^4.$$

RSC 1.500 TSC 1.000: These are the size factors used to make the plots. RSC is used for the range scale (in./km), and TSC is used for the time scale (in./s).

BP FILT 0 5 25 30 HZ: Band-pass filters, used as follows: 0-, 5-, 25-, and 30-Hz band-pass filters were used for the explosives, and 0-, 5-, 40-, and 50-Hz band-pass filters were used for the air gun.

SOBO 20: Refers to the experiment abbreviation SOBO (Son of Bermuda Oblique Seismic Experiment) and to the deployment number 20 for the experiments (see Table 2).

430M INTO BASEMENT: Depth, in meters, of the seismometer below the sediment/basement contact.

TOVEX: Refers to the source; can be Tovex (explosive) or air gun.

SHOTS 98 TO 111: Corresponds to the minimum and maximum shot (event) numbers plotted, but not all shots are plotted between these numbers, as in a circle, where 180° only is plotted on one plot.

LINE 6 SSE

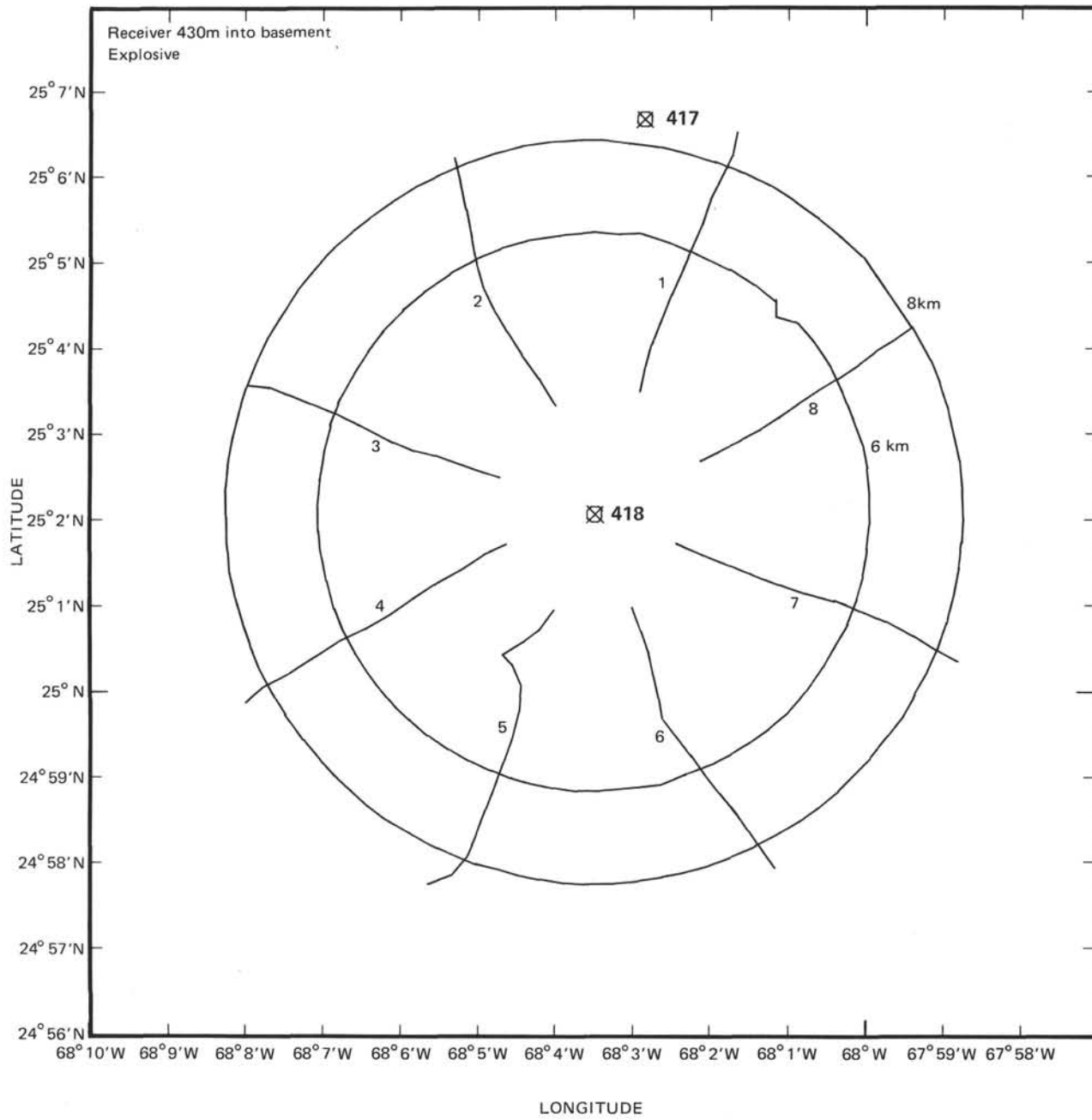
RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 25 30 HZ  
SOBO 20 430M INTO BASEMENT TOVEX  
SHOTS 98 TO 111

**Table 1. Summary of data in Appendix.**

Seismometer 430 m into basement (754 mbsf)		Seismometer 330 m into basement (654 mbsf)		Seismometer 230 m into basement (554 mbsf)		Seismometer 81 m into basement (405 mbsf)		Seismometer 41 m into basement (365 mbsf)	
Description	Line no.	Description	Line no.	Description	Line no.	Description	Line no.	Description	Line no.
(1) Explosive									
20° line	1	200° line	1	110° line	1	4-km circle		20° line	1
335° line	2	20° line	2	65° line	2	(0-180°)		200° line	2
290° line	3	335° line	3	20° line	3	4-km circle		6-km circle	
245° line	4	155° line	4	335° line	4	(180°-360°)		(10°-70°)	
200° line	5	110° line	6	290° line	5	6-km circle			
155° line	6	65° line	7	245° line	6	(0-180°)			
110° line	7	155° line	8	200° line	7	6-km circle			
65° line	8	2-km circle		155° line	8	(180°-360°)			
6-km circle		(0-180°)		6-km circle					
(0-180°)		2-km circle		(0-180°)					
6-km circle		(180°-360°)		6-km circle					
(180°-360°)		4-km circle		(180°-360°)					
8-km circle		(0-180°)		8-km circle					
(0-180°)		4-km circle		(0-180°)					
8-km circle		(180°-360°)		8-km circle					
(180°-360°)				(180°-360°)					
(2) Air gun									
20° line	10	6-km circle		245° line	9	20° line	1		
200° line	11	(0-180°)		65° line	10	200° line	2		
155° line	12	6-km circle		20° line	11	290° line	3		
335° line	13	(180°-360°)		200° line	12	110° line	4		
290° line	14	8-km circle		155° line	13				
110° line	15	(180°-360°)		335° line	14				
65° line	16			290° line	15				
245° line	17			110° line	16				
2-km circle				2-km circle					
(0-180°)				(0-180°)					
2-km circle				2-km circle					
(180°-360°)				(180°-360°)					
4-km circle				4-km circle					
(0-360°)				(0-180°)					
4-km circle				4-km circle					
(180°-360°)				(180°-360°)					

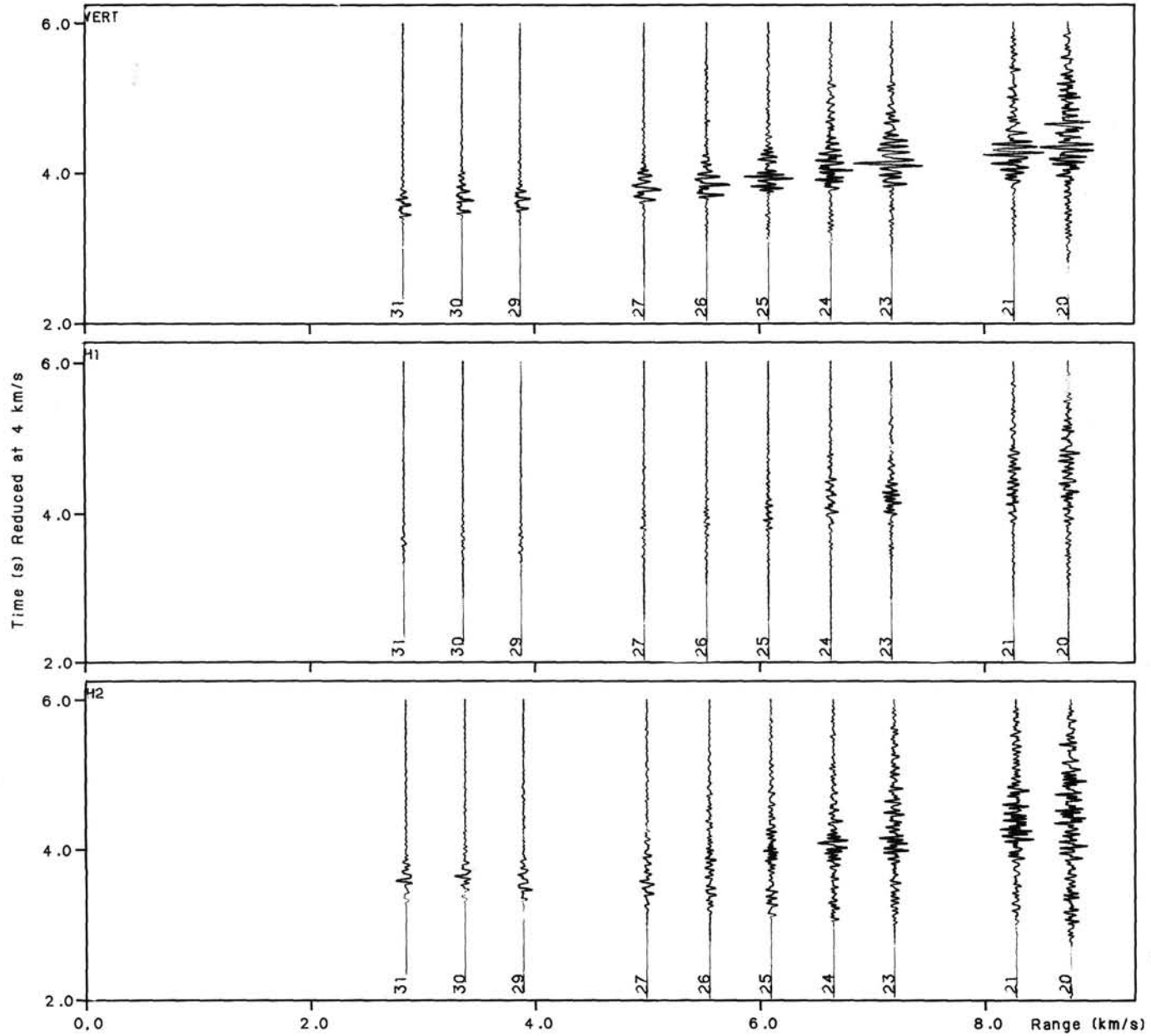
**Table 2. Deployment-number (SOBO-number) summary.**

Deployment number	Shot numbers	Source	Depth into basement (m)
20	0020-0303	Explosive	430
21	0304-0917	Air gun	430
22	0989-1295	Air gun	330
23	1297-1455	Explosive	330
24	1456-1944	Air gun	330
25	1945-2254	Explosive	230
26	2255-2916	Air gun	230
27	2925-3121	Air gun	81
28	3123-3240	Explosive	81
29	3244-3296	Explosive	41



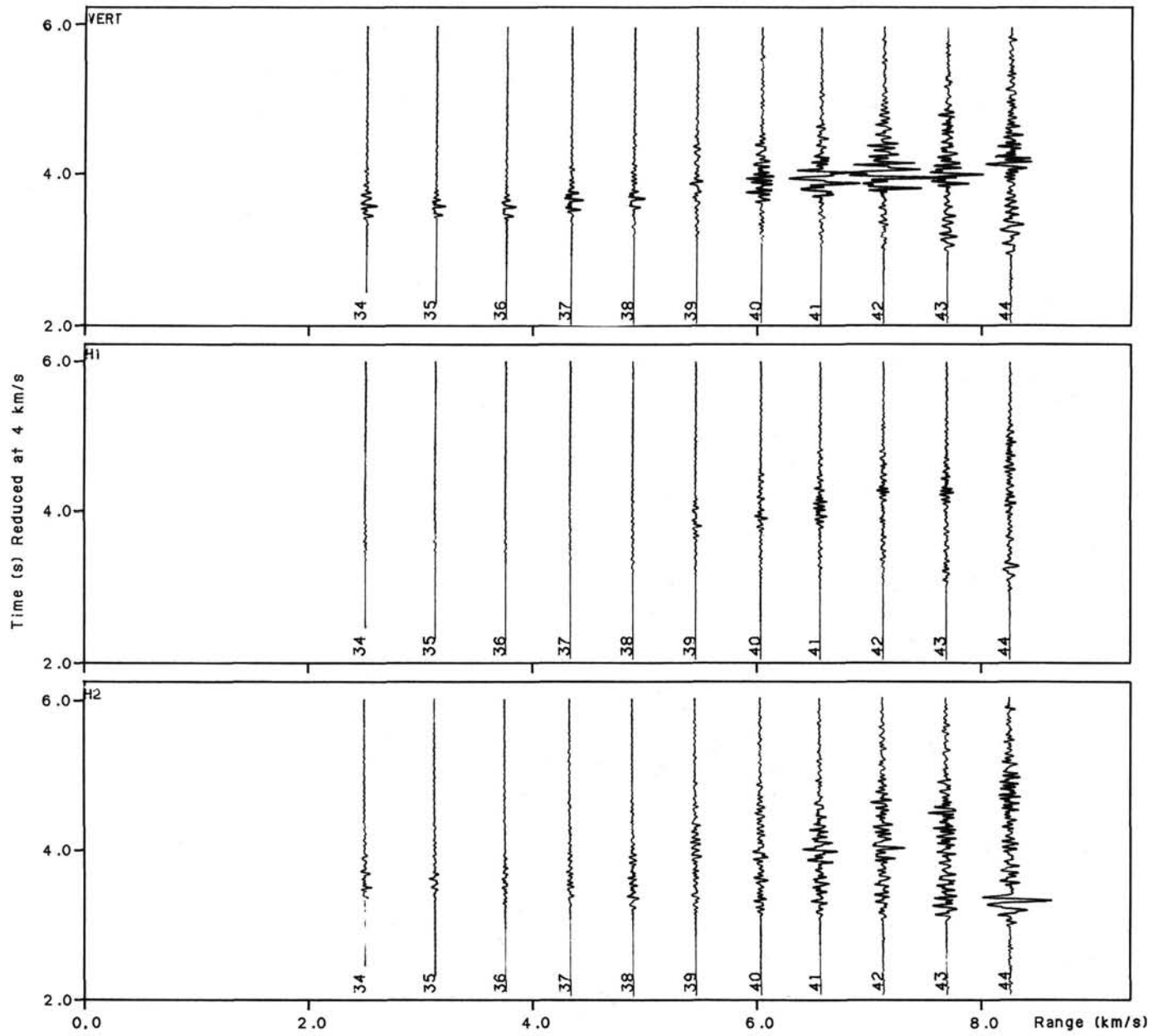
R0 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOB0 20 430M INTO BASEMENT TOVEX  
 SHOTS 20 TO 31

## LINE 1 NNE



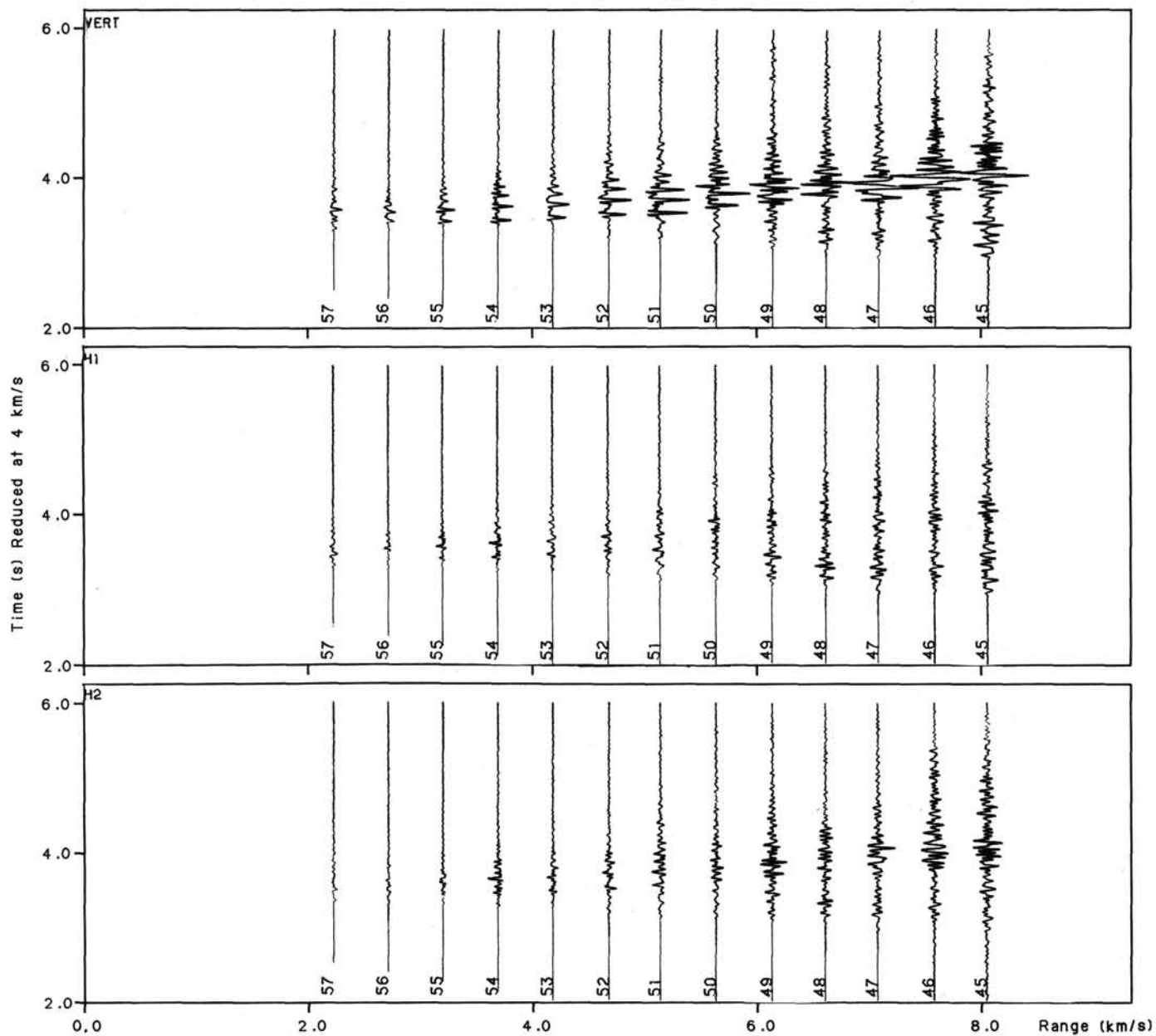
RJ 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 25 30  
SOBQ 20 430M INTO BASEMENT TOVEX  
SHOTS 34 TO 44

# LINE 2 NNW



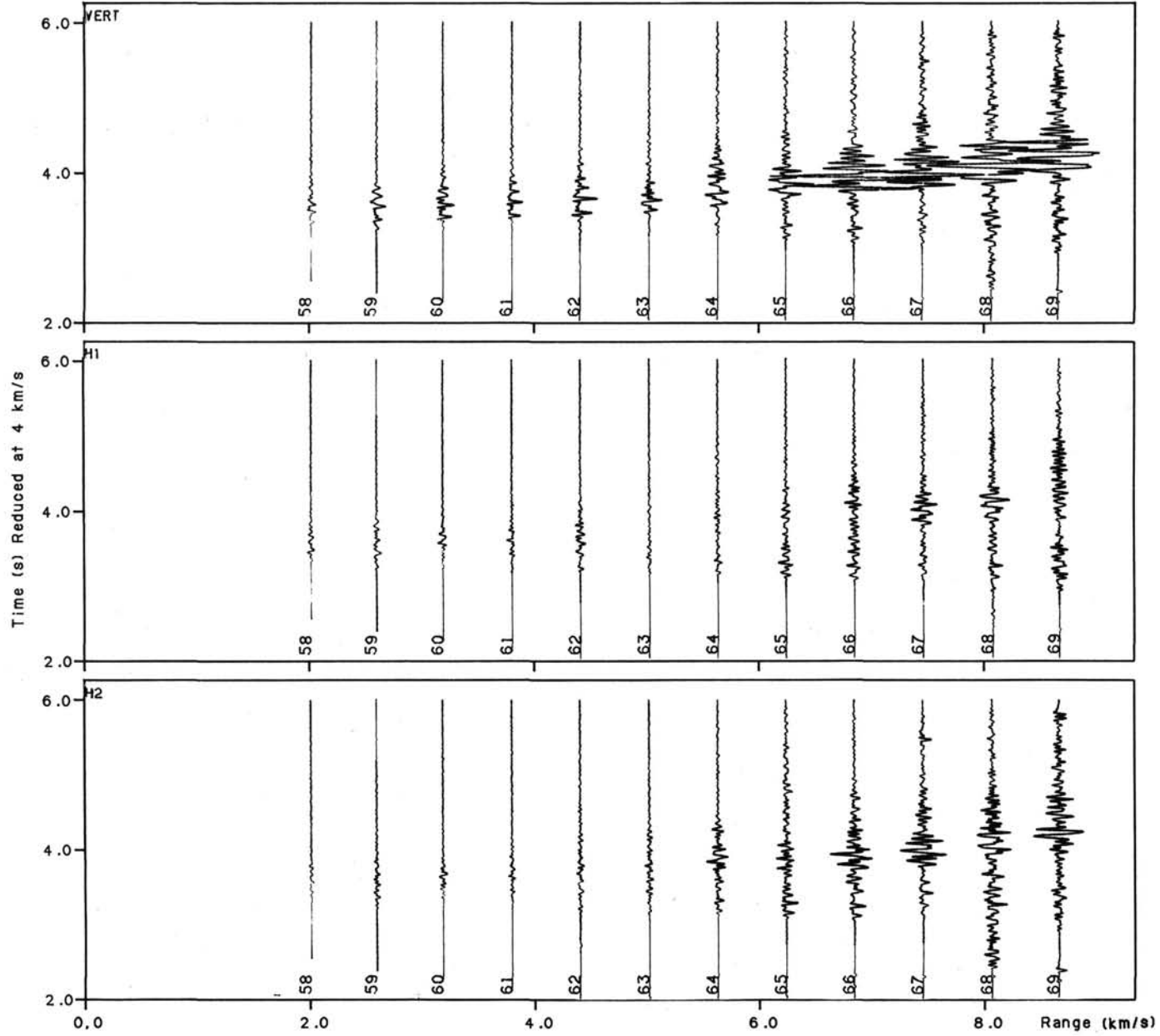
RD 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOBO 20 430M INTO BASEMENT TOVEX  
 SHOTS 45 TO 57

LINE 3 WNW



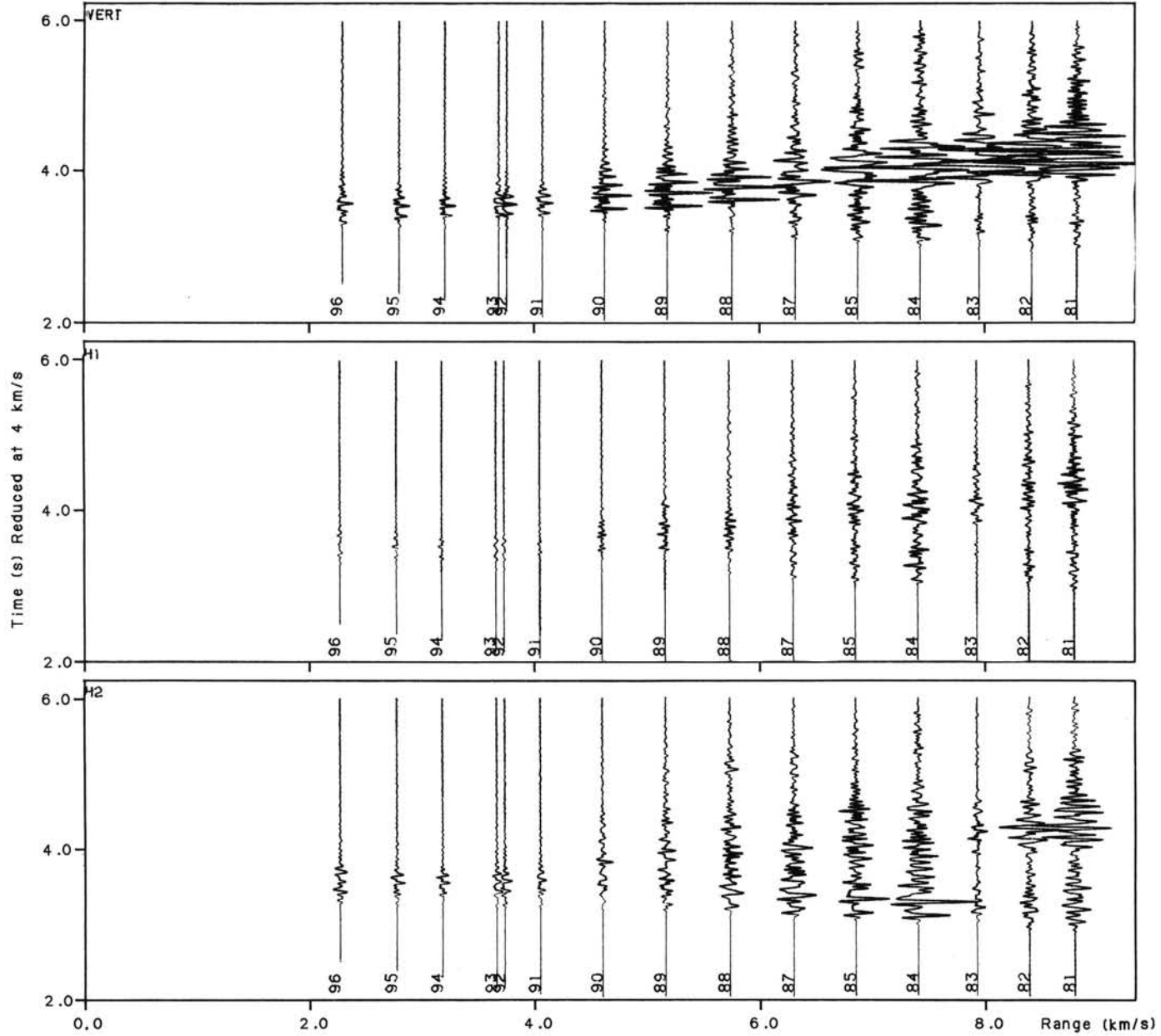
R0 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOBO 20. 430M INTO BASEMENT TOVEX  
 SHOTS 58 TO 69

LINE 4 WSW



RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 25 30 HZ  
SOBO 20 430M INTO BASEMENT TOVEX  
SHOTS 81 TO 96

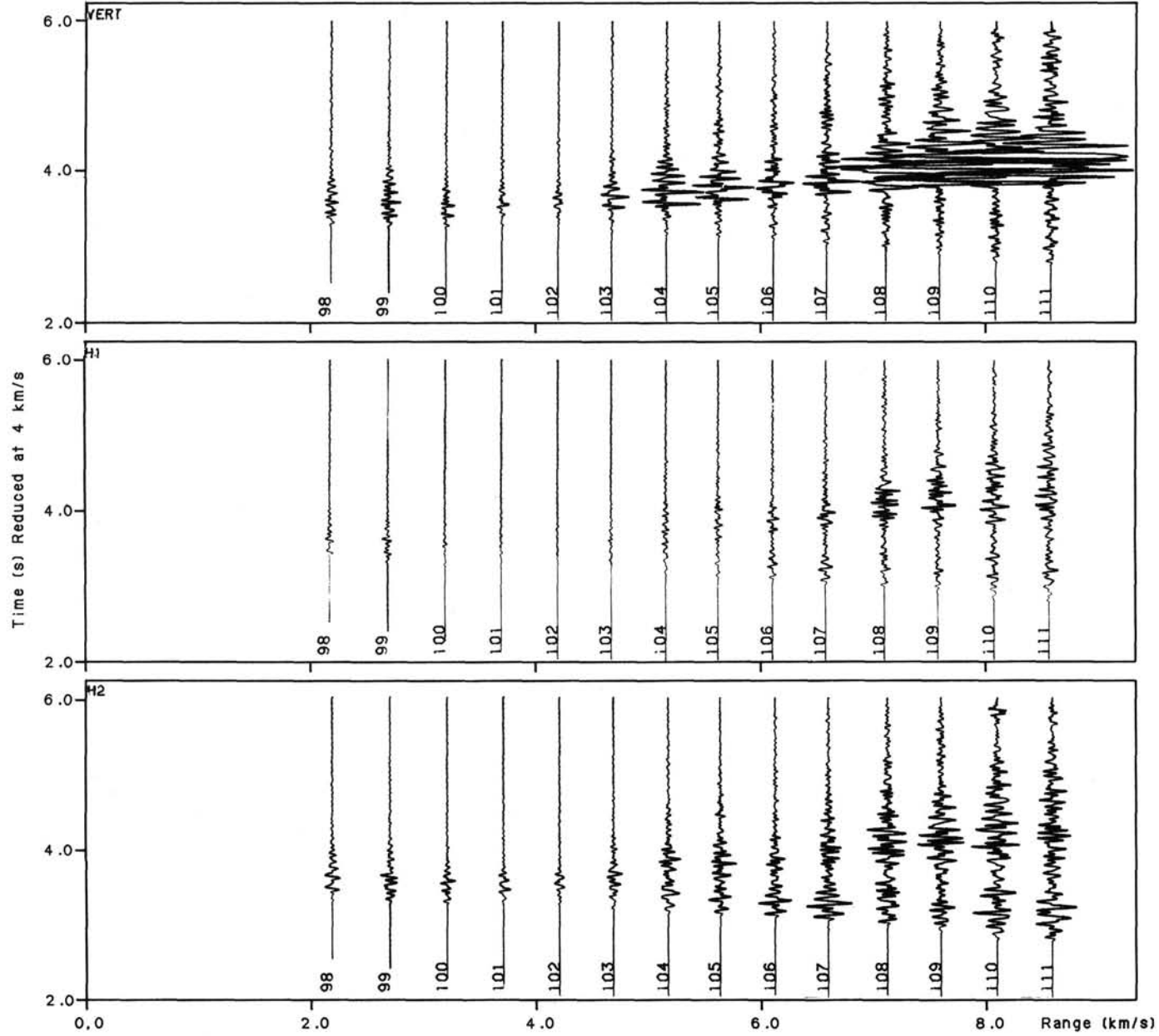
# LINE 5 SSW





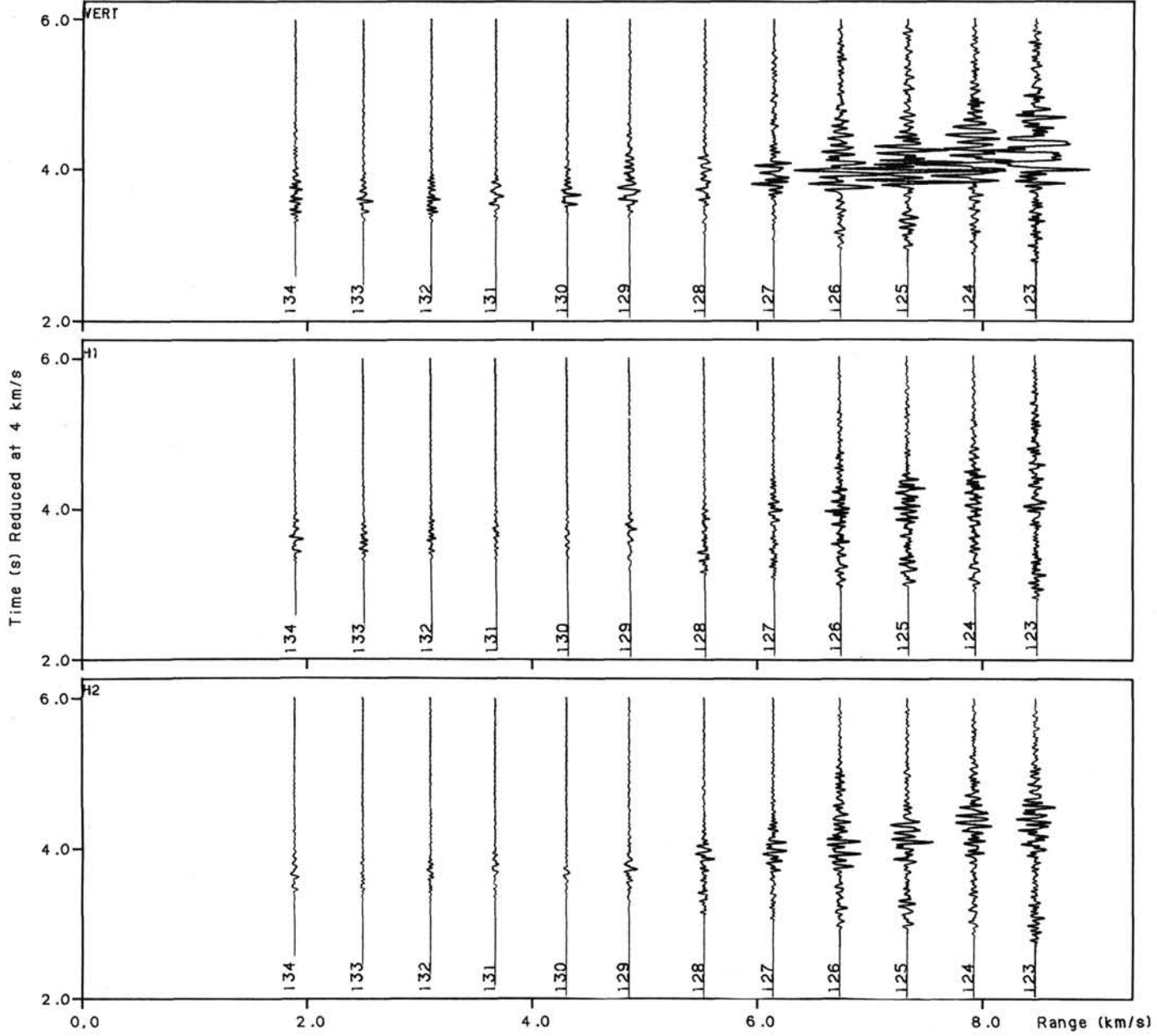
R0 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 25 30 HZ  
SOBO 20 430M INTO BASEMENT TOVEX  
SHOTS 98 TO 111

# LINE 6 SSE



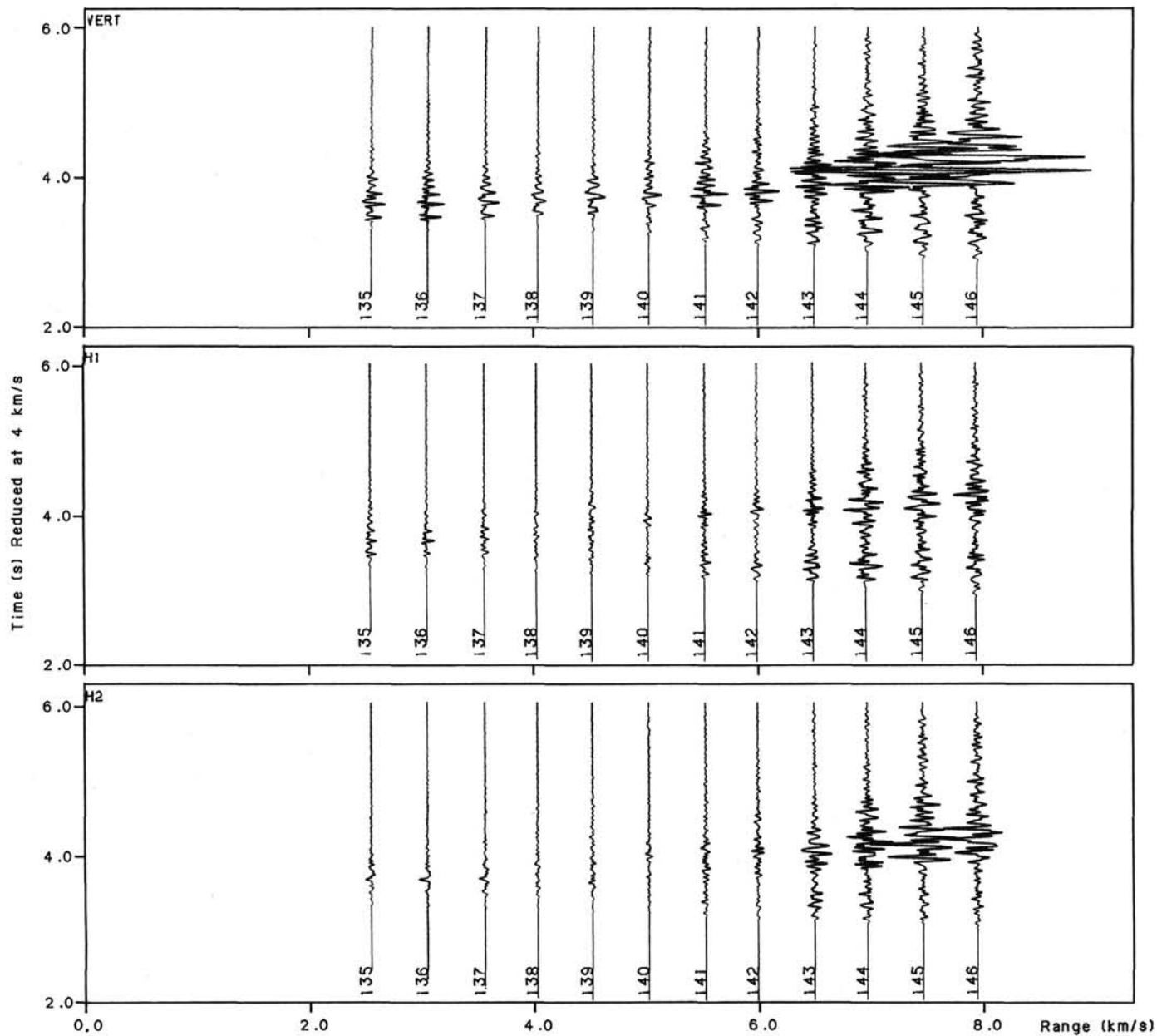
RD 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 25 30 HZ  
SOB0 20 430M INTO BASEMENT TOVEX  
SHOTS 123 TO 134 VERT CHAN

# LINE 7 ESE



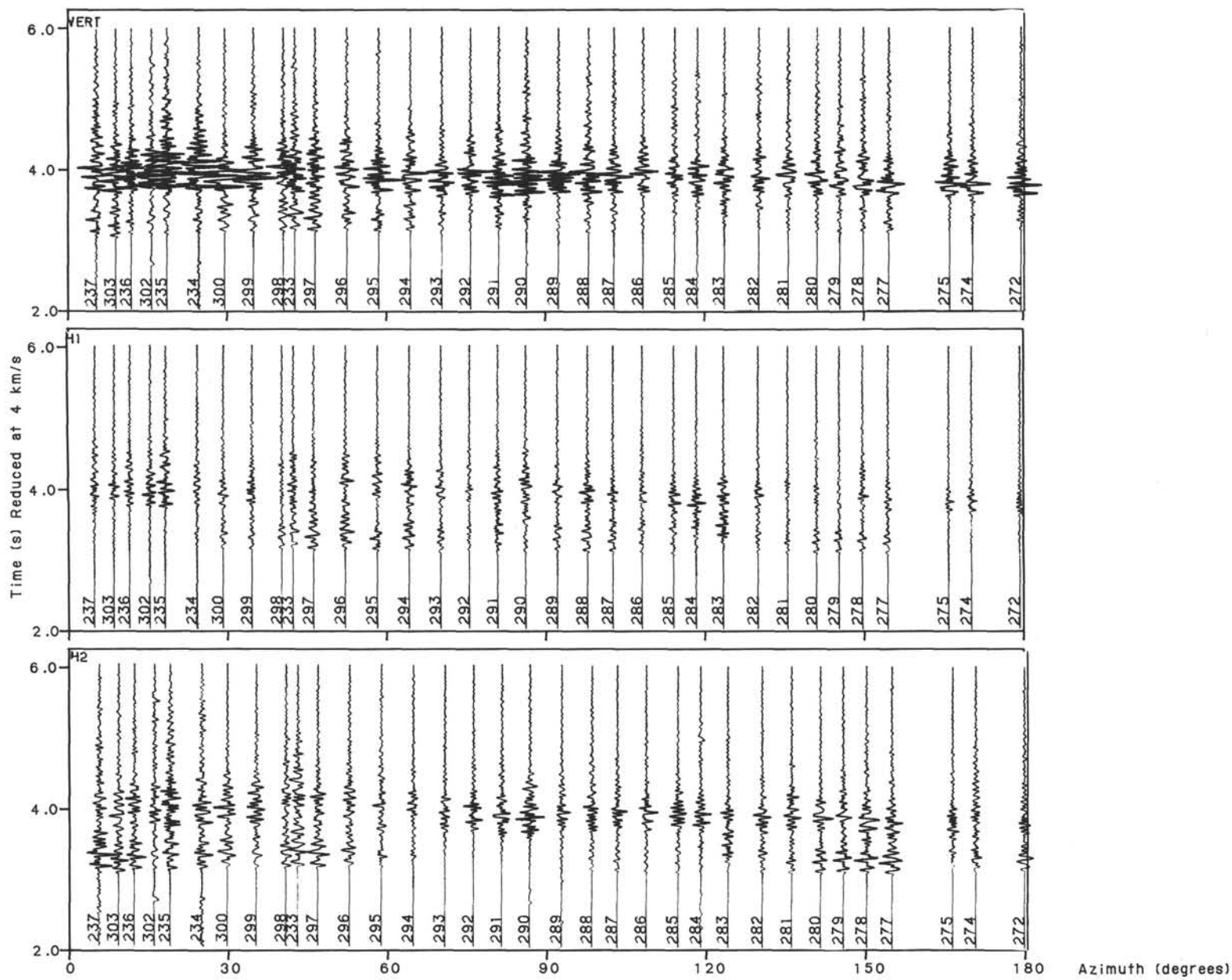
RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 25 30 HZ  
SOBO 20 430M INTO BASEMENT TOVEX  
SHOTS 135 TO 146

# LINE 8 ENE



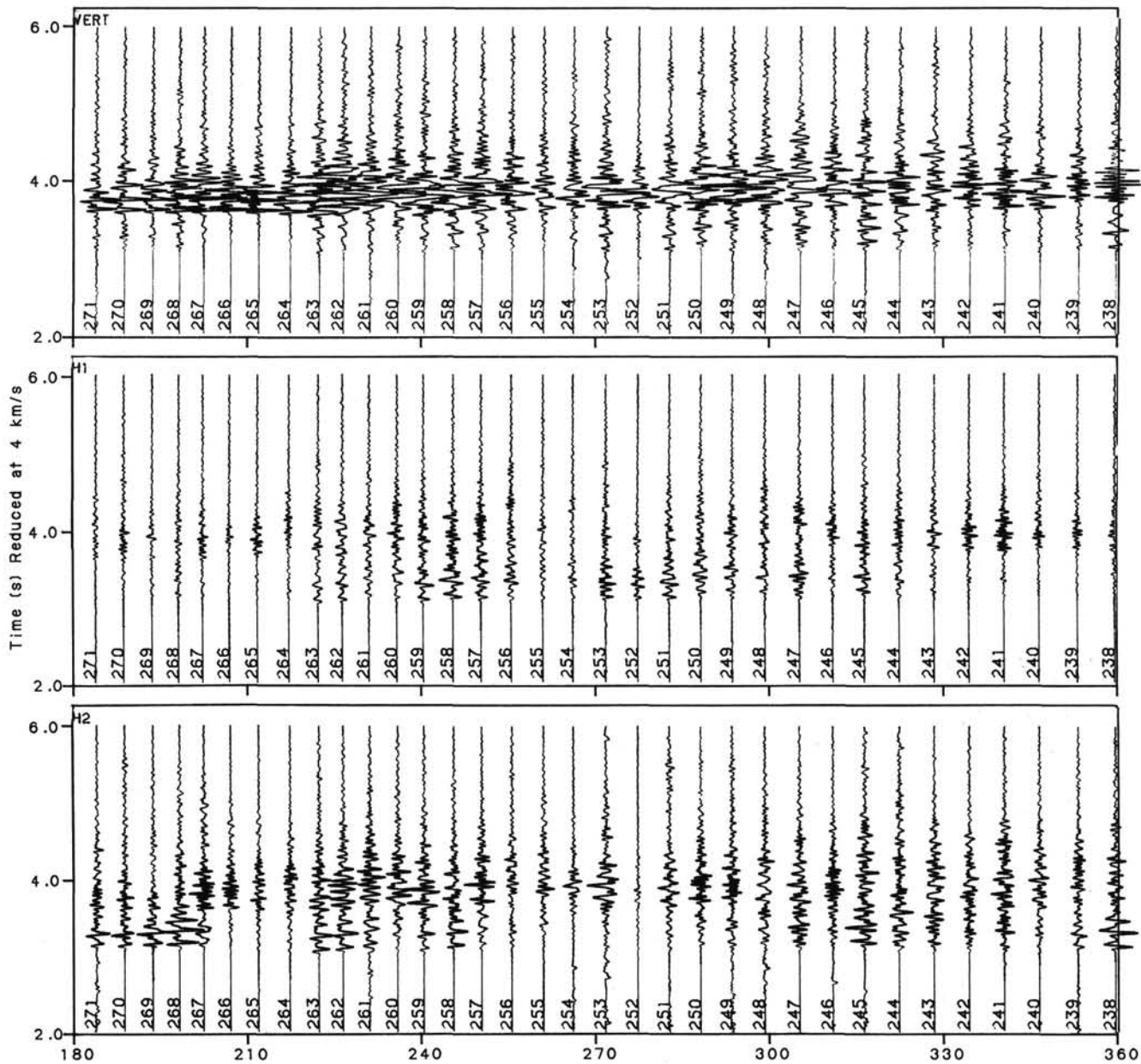
## 6 KM CIRCLE

RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOBO 20 430M INTO BASEMENT TOVEX  
 SHOTS 233 TO 303



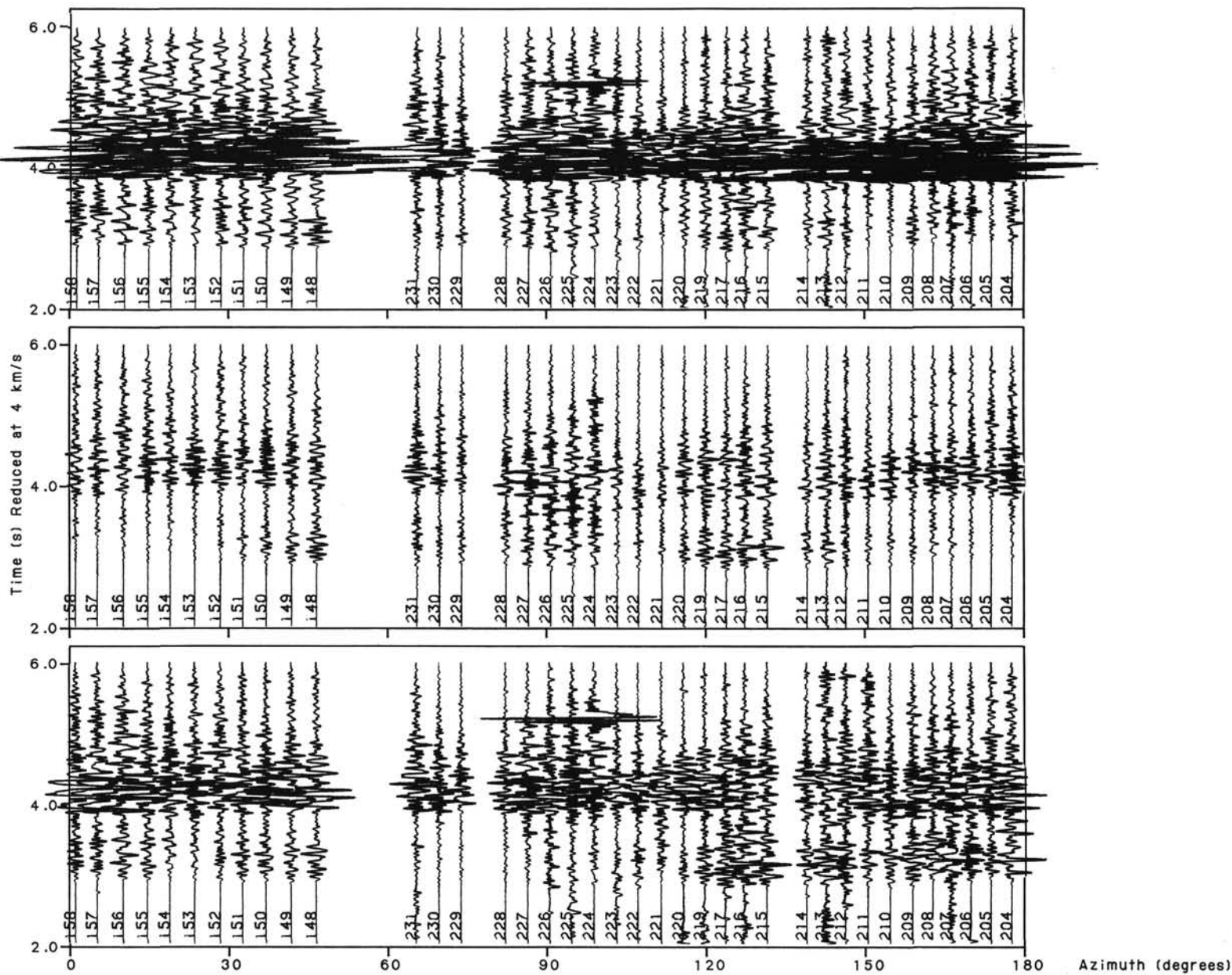
RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOBO 20 430M INTO BASEMENT TOVEX  
 SHOTS 238 TO 271

6 KM CIRCLE



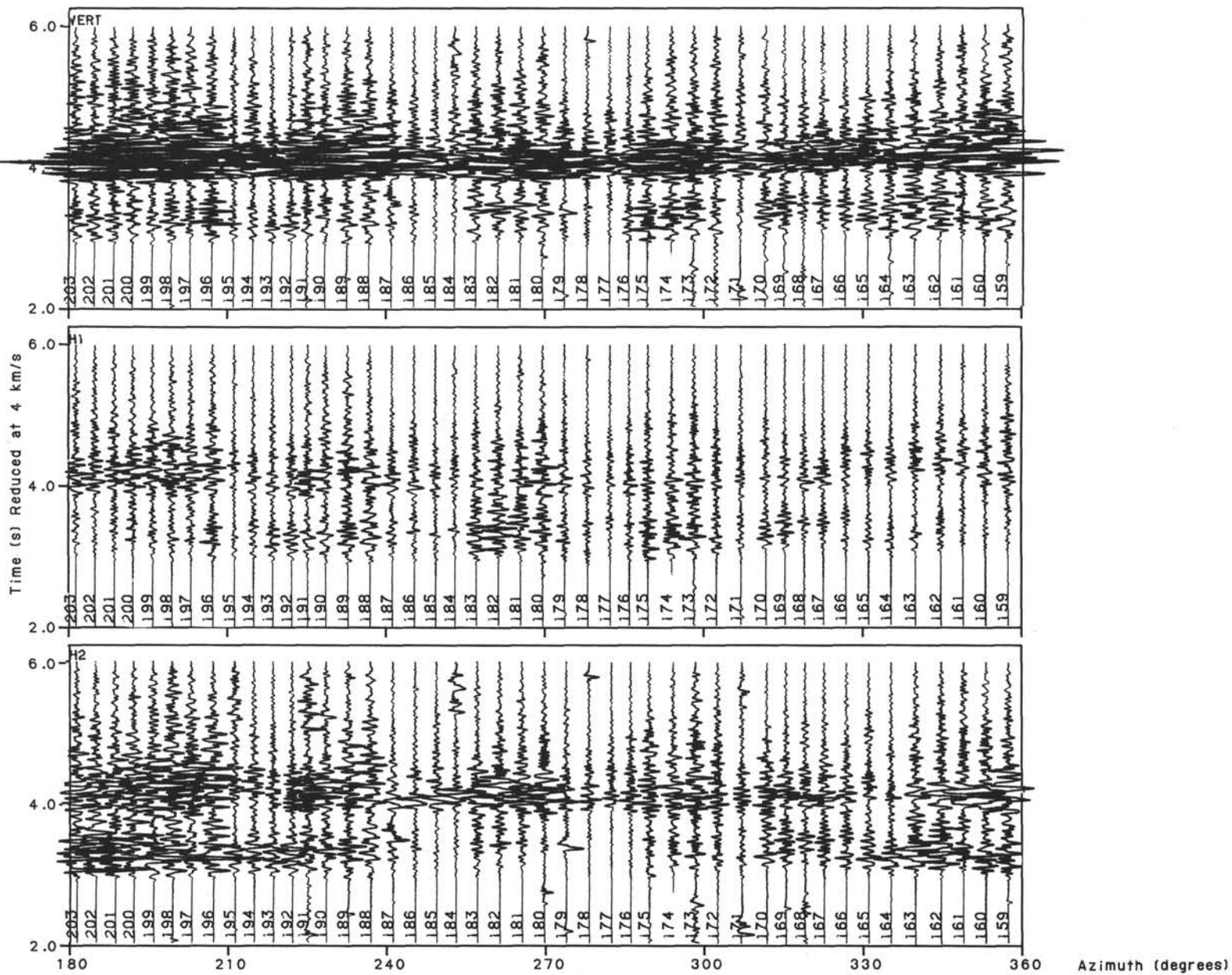
# 8 KM CIRCLE

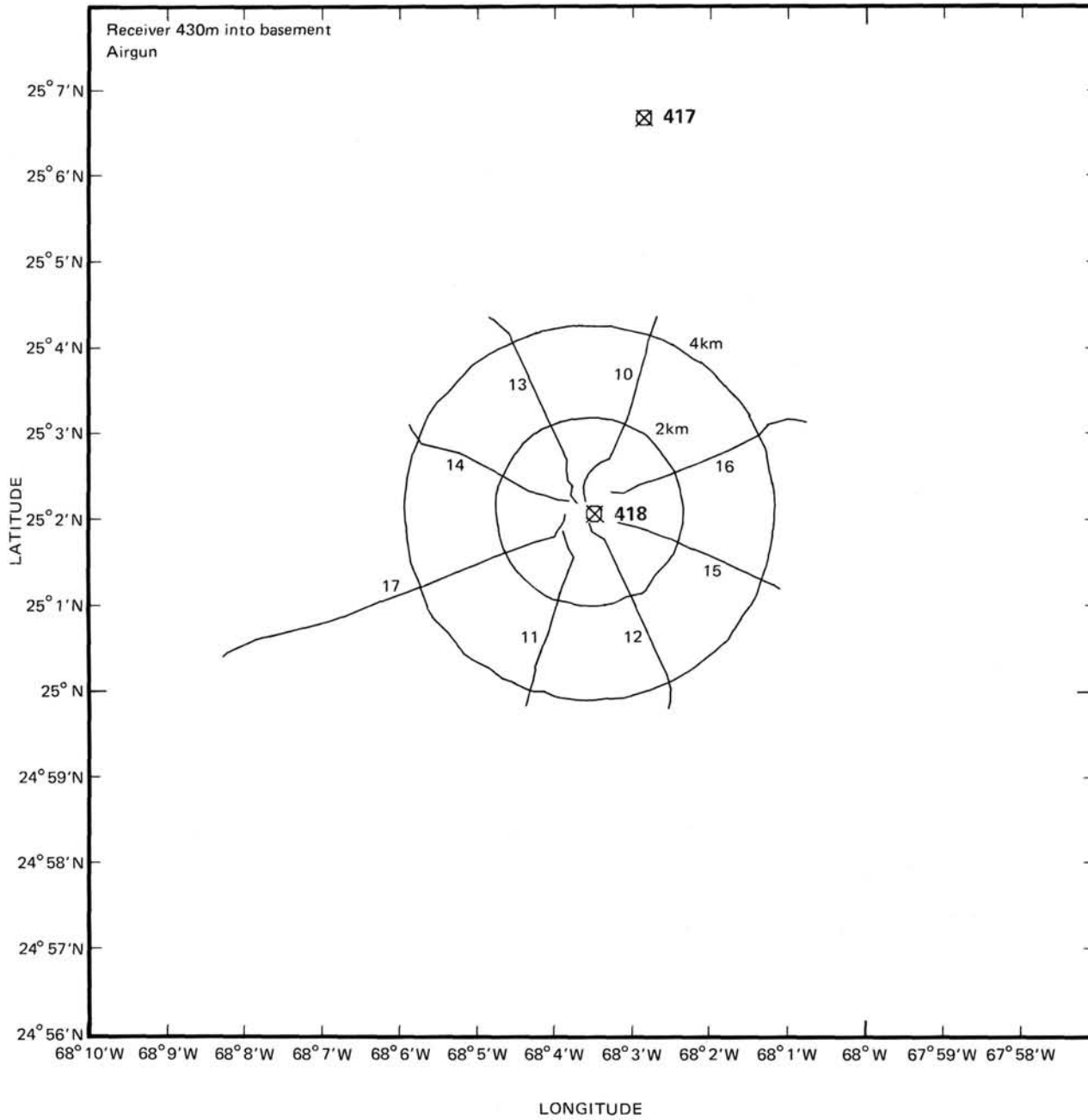
RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOBO 20 430M INTO BASEMENT TOVEX  
 SHOTS 146 TO 232



RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOBO 20 430M INTO BASEMENT TOVEX  
 SHOTS 159 TO 203

# 8 KM CIRCLE

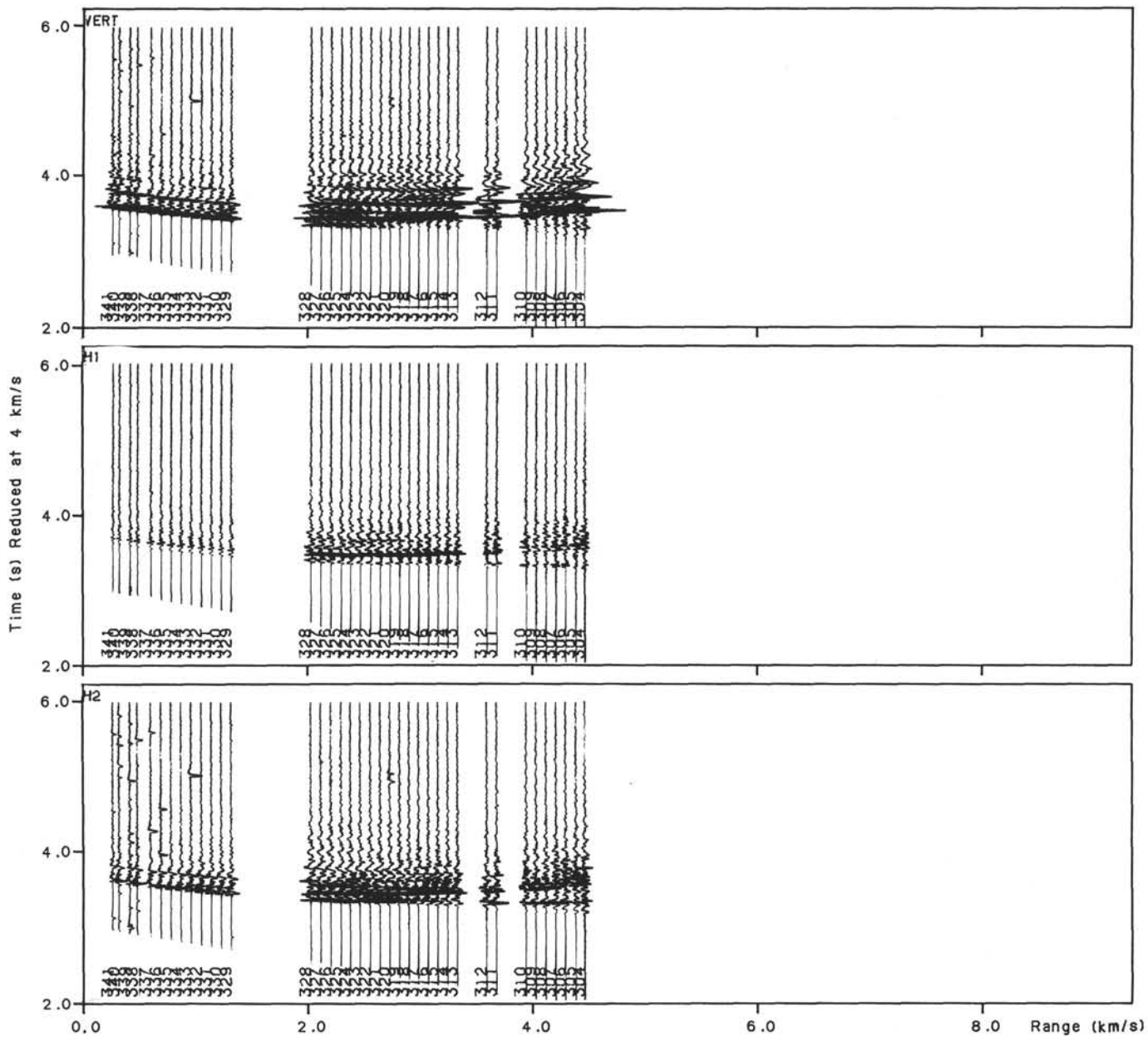






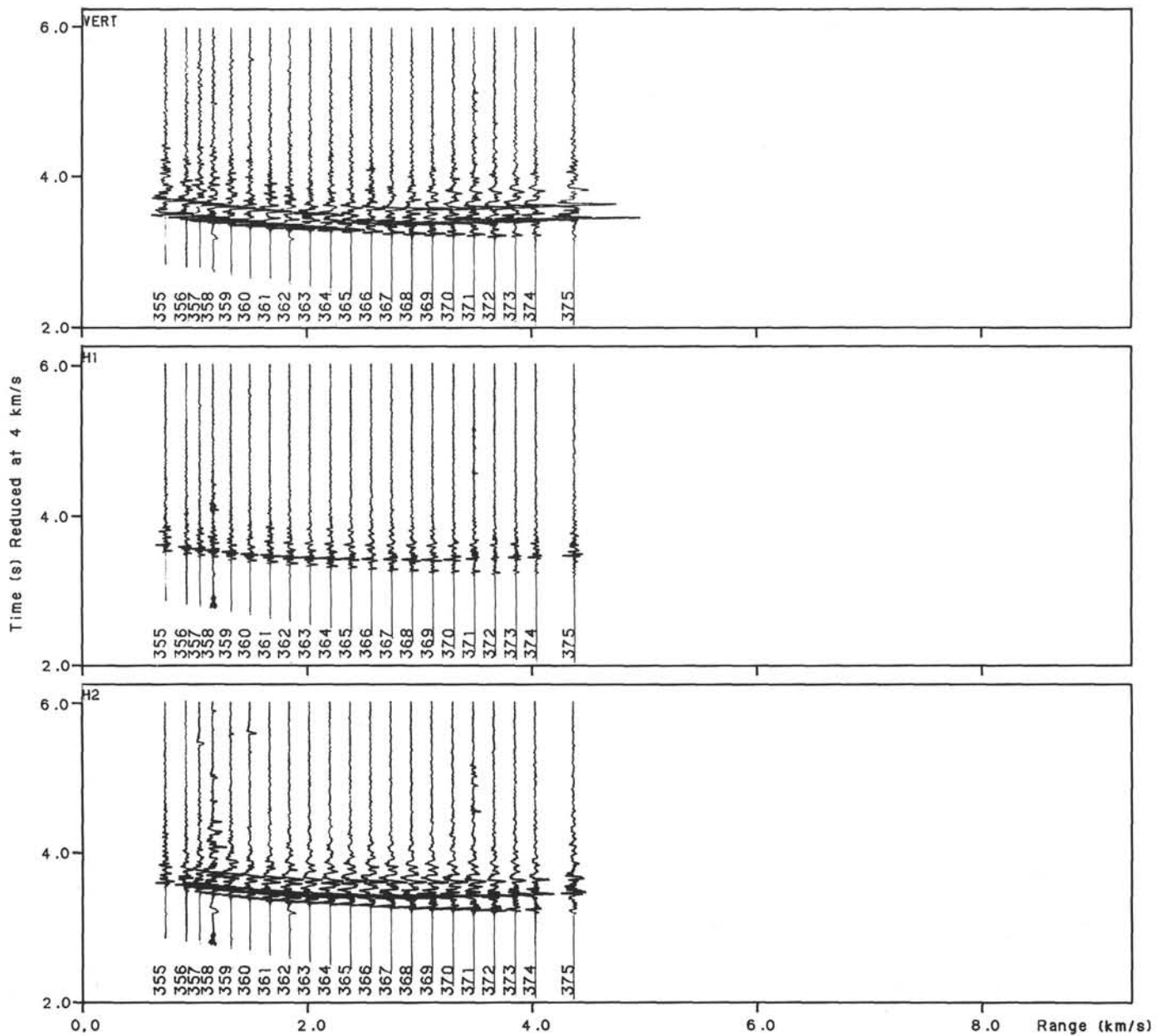
RD 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 40 50 HZ  
SOBO 21 430M INTO BASEMENT AIRGUN  
SHOTS 304 TO 341

# LINE 10 NNE



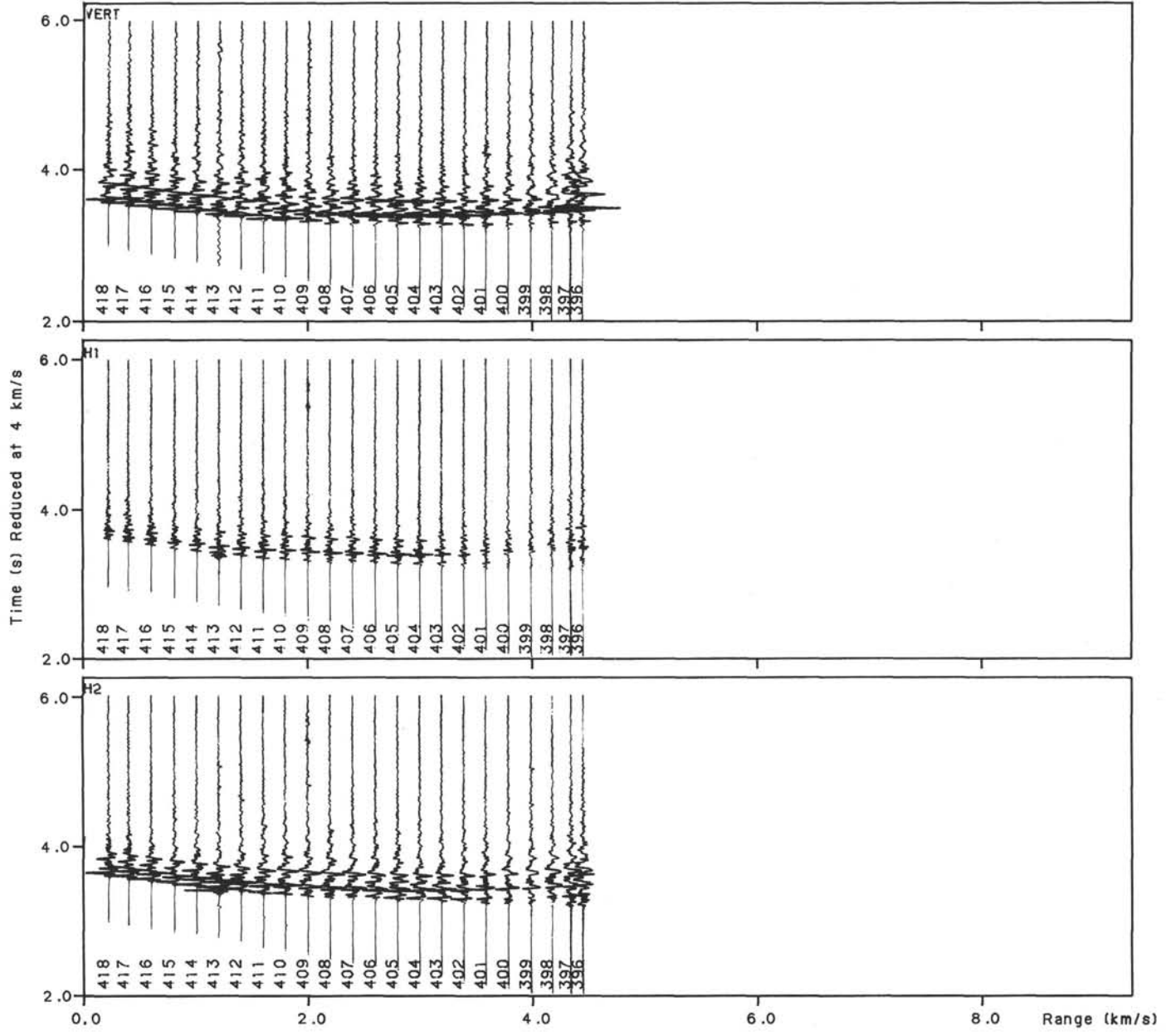
LINE 11 SSW

RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 21 430M INTO BASEMENT AIRGUN  
 SHOTS 355 TO 375



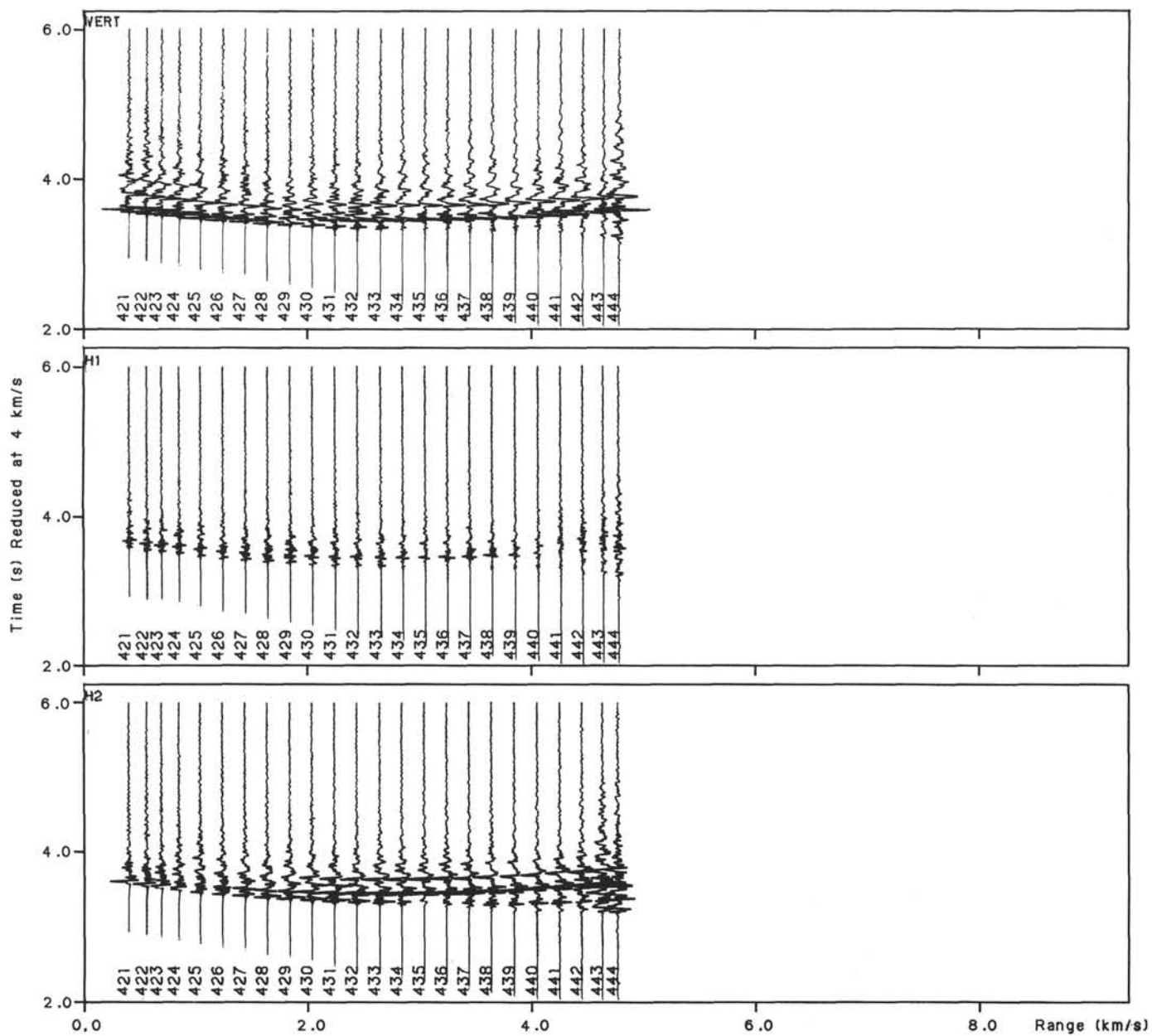
RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 21 430M INTO BASEMENT AIRGUN  
 SHOTS 396 TO 418

LINE 12 SSE



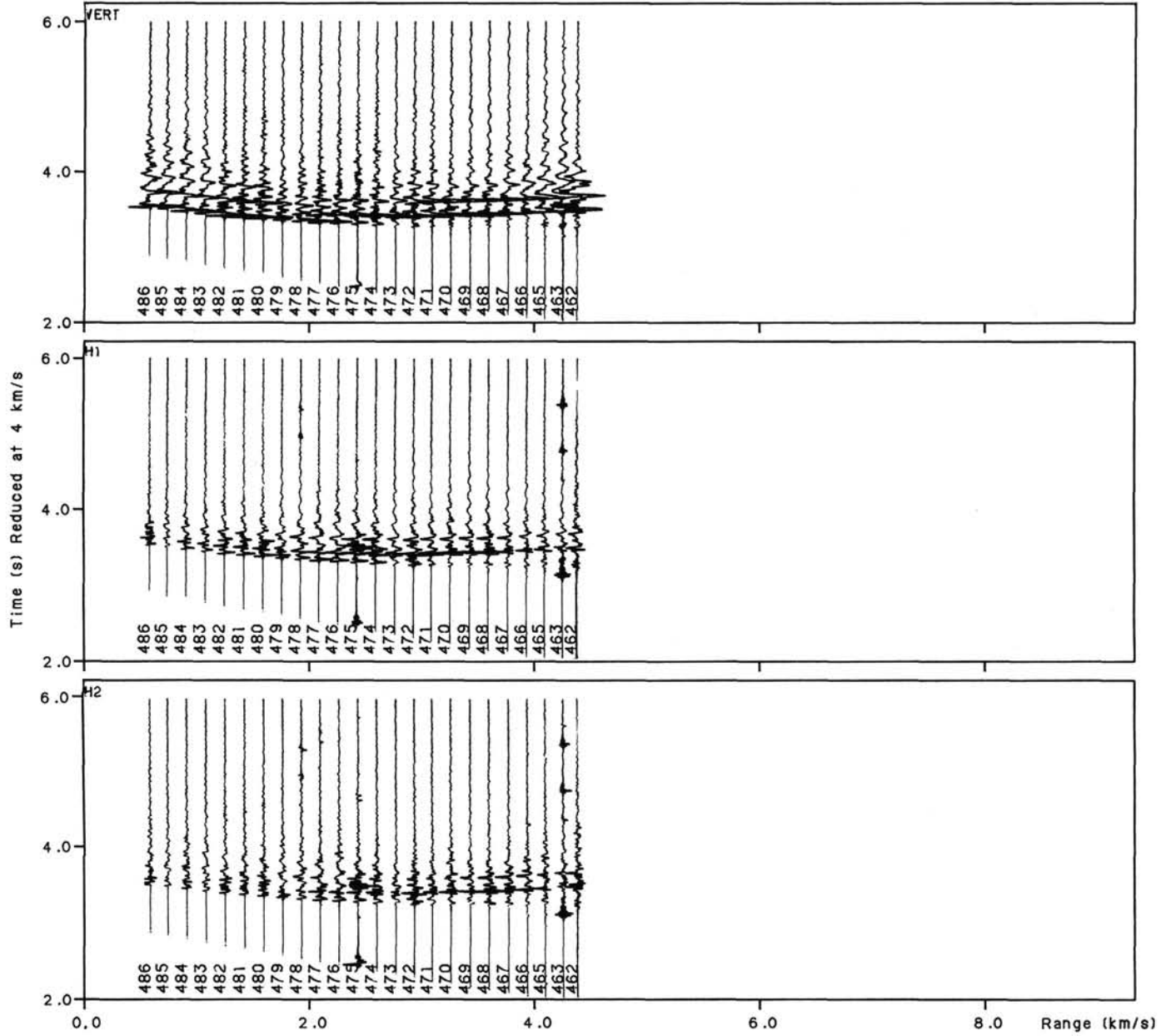
RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 21 430M INTO BASEMENT AIRGUN  
 SHOTS 421 TO 444

## LINE 13 NNW



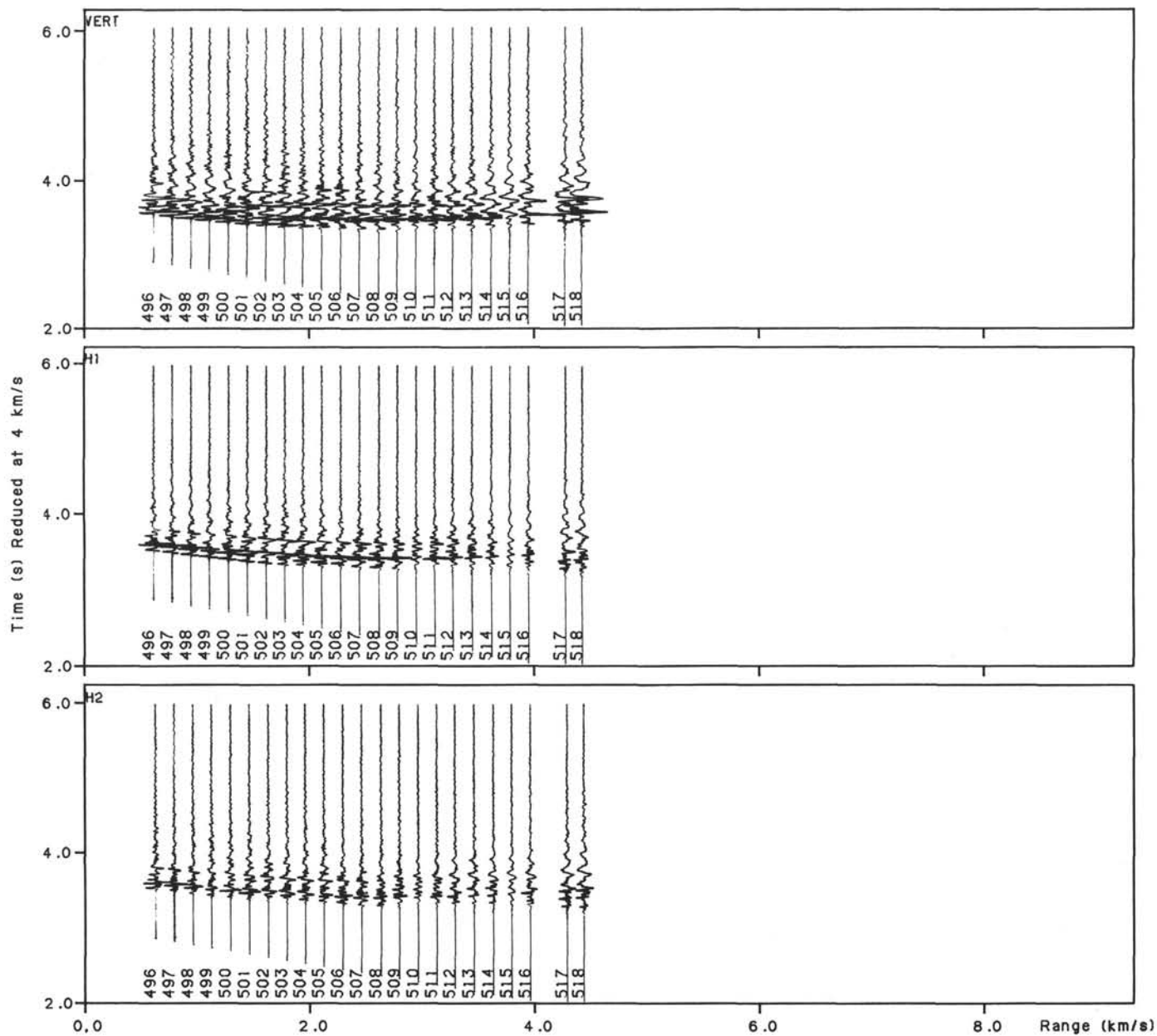
RQ 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 21 430M INTO BASEMENT AIRGUN  
 SHOTS 461 TO 486

LINE 14 WNW



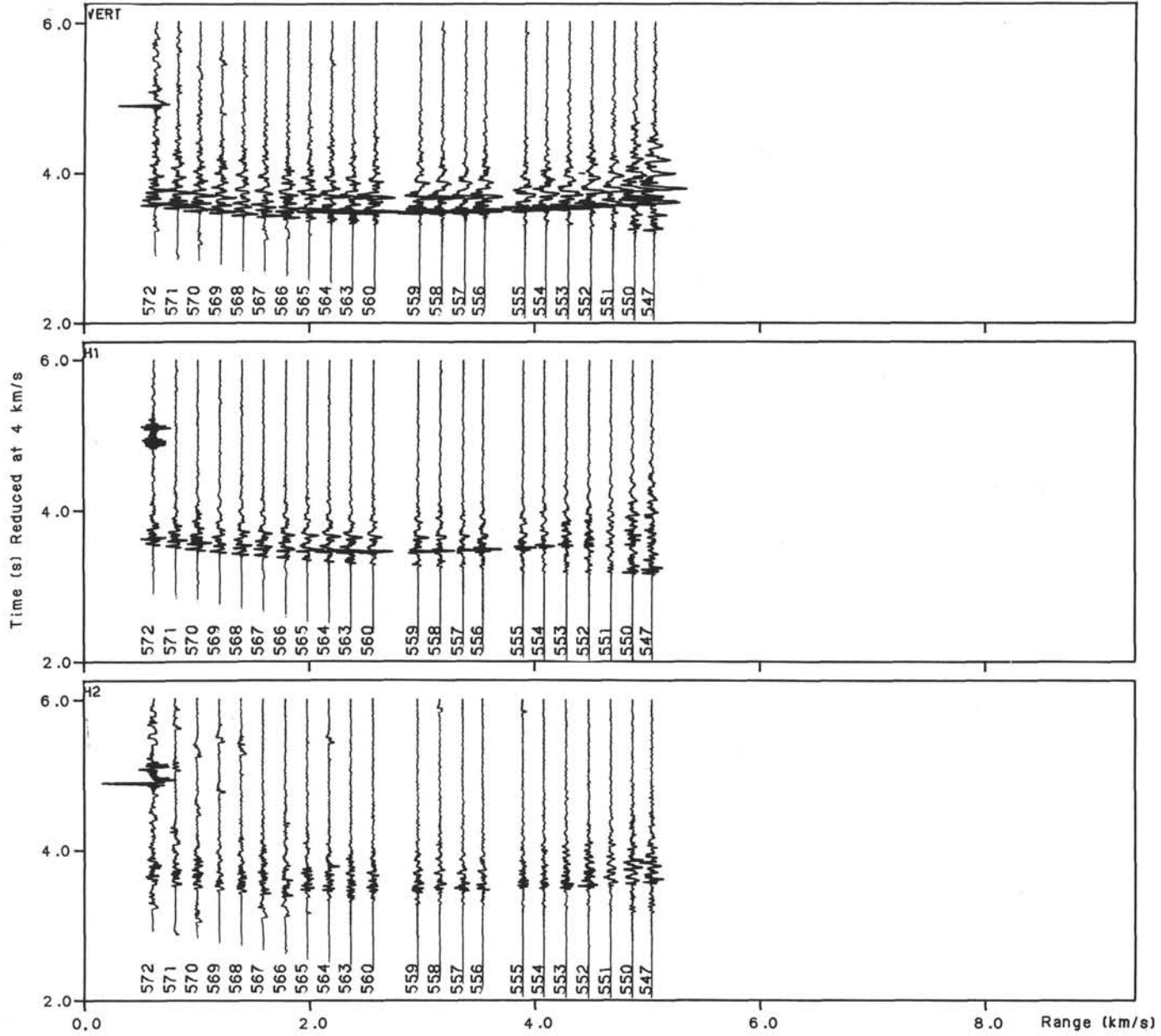
R0 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 21 430M INTO BASEMENT AIRGUN  
 SHOTS 496 TO 518

# LINE 15 ESE



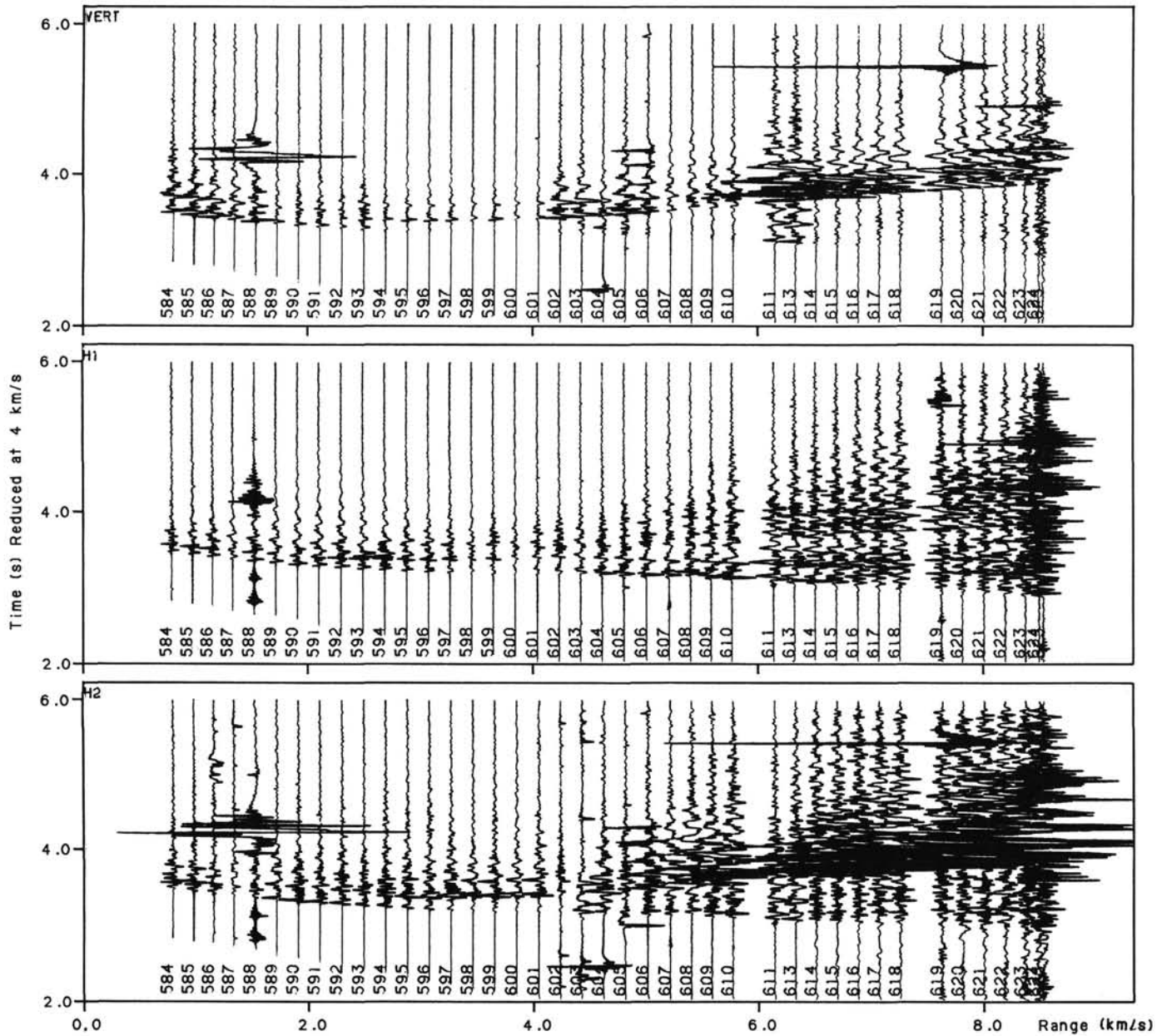
RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 21 430M INTO BASEMENT AIRGUN  
 SHOTS 547 TO 572

LINE 16 ENE



LINE 17 WSW

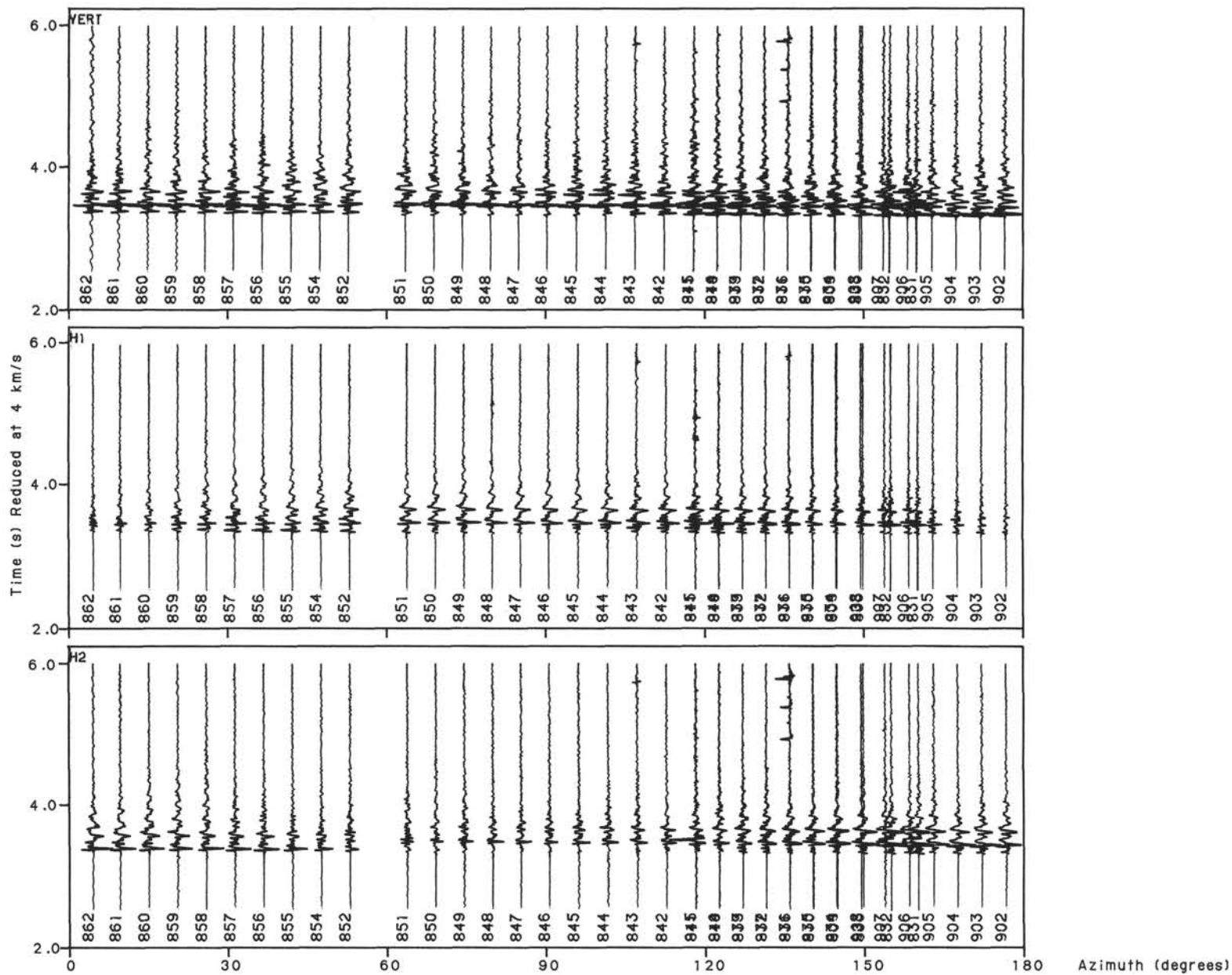
RQ 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 21 430M INTO BASEMENT AIRGUN  
 SHOTS 584 TO 625





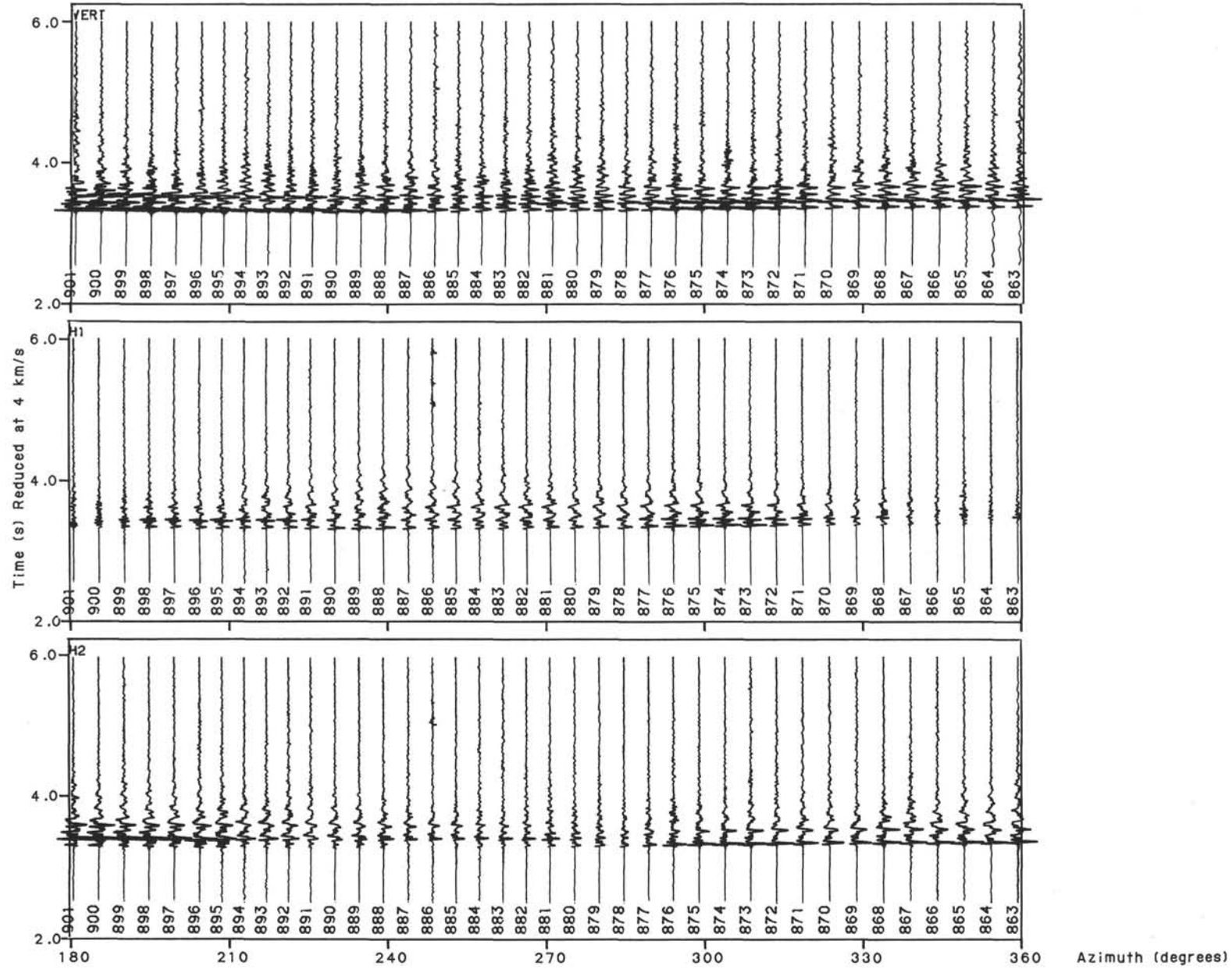
RD 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOB0 21 430M INTO BASEMENT AIRGUN  
 SHOTS 831 TO 915

# 2 KM CIRCLE



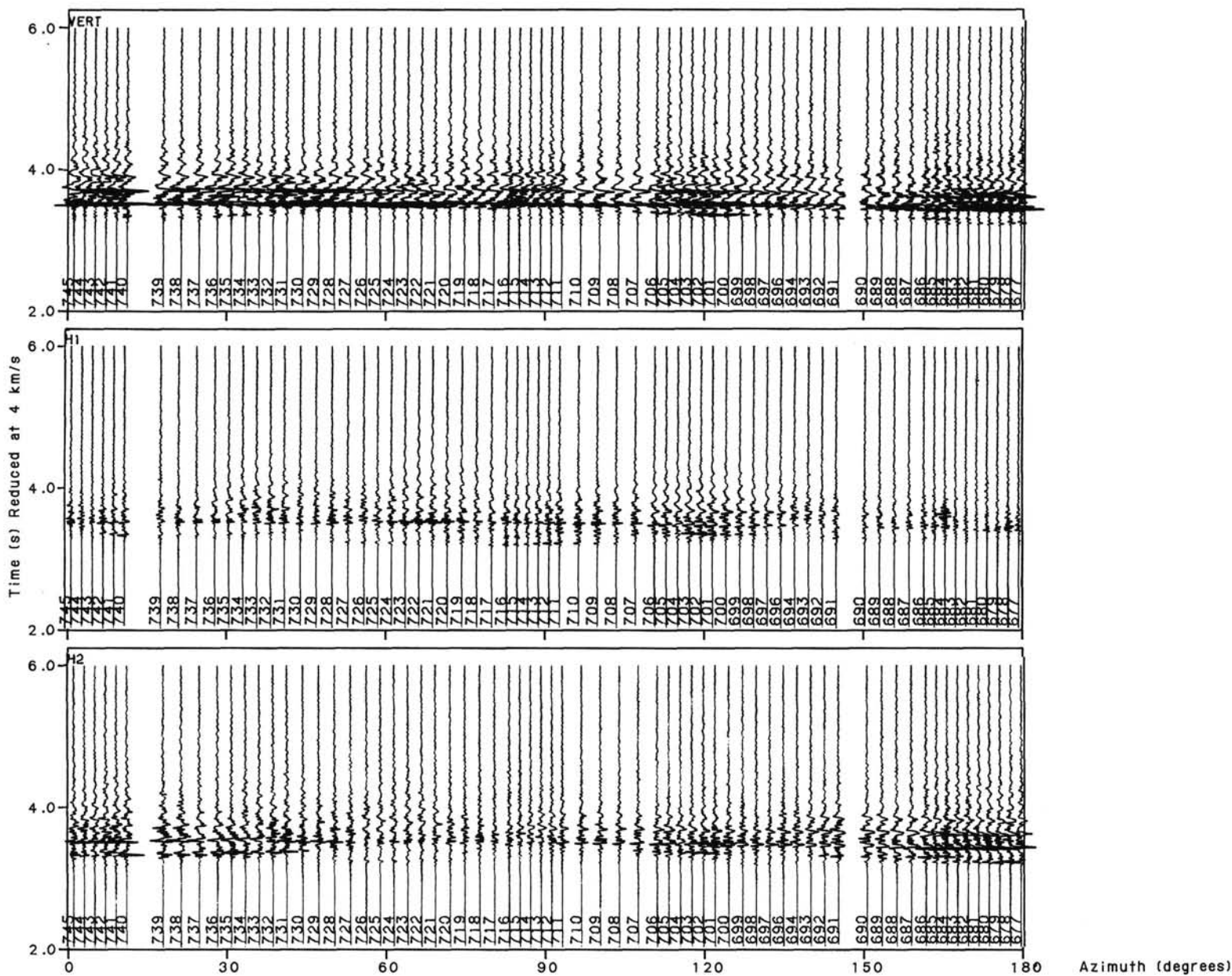
## 2 KM CIRCLE

RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 40. 50 HZ  
 SOBO 21 430M INTO BASEMENT AIRGUN  
 SHOTS 863 TO 901



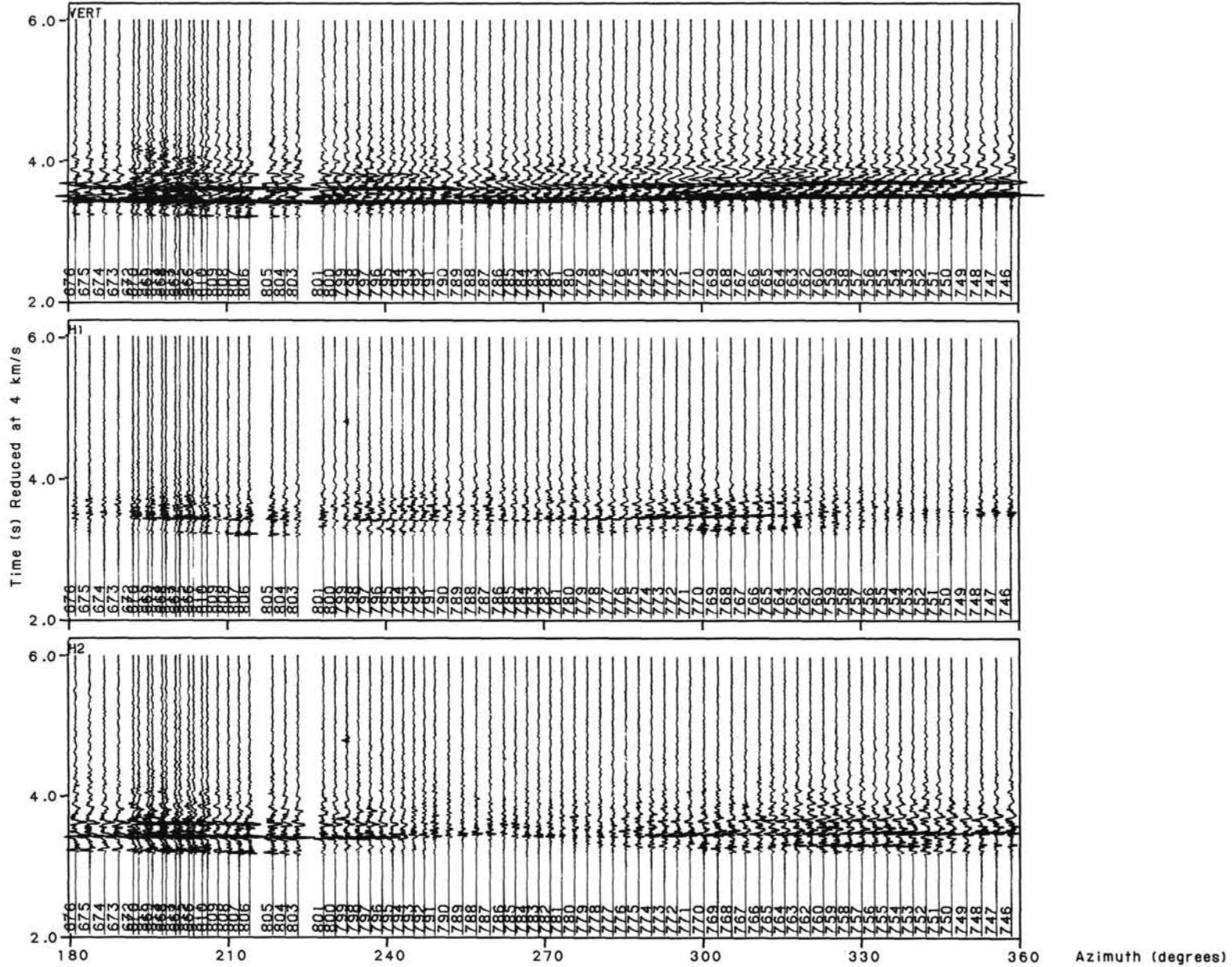
RJ 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 21 430M INTO BASEMENT AIRGUN  
 SHOTS 677 TO 745

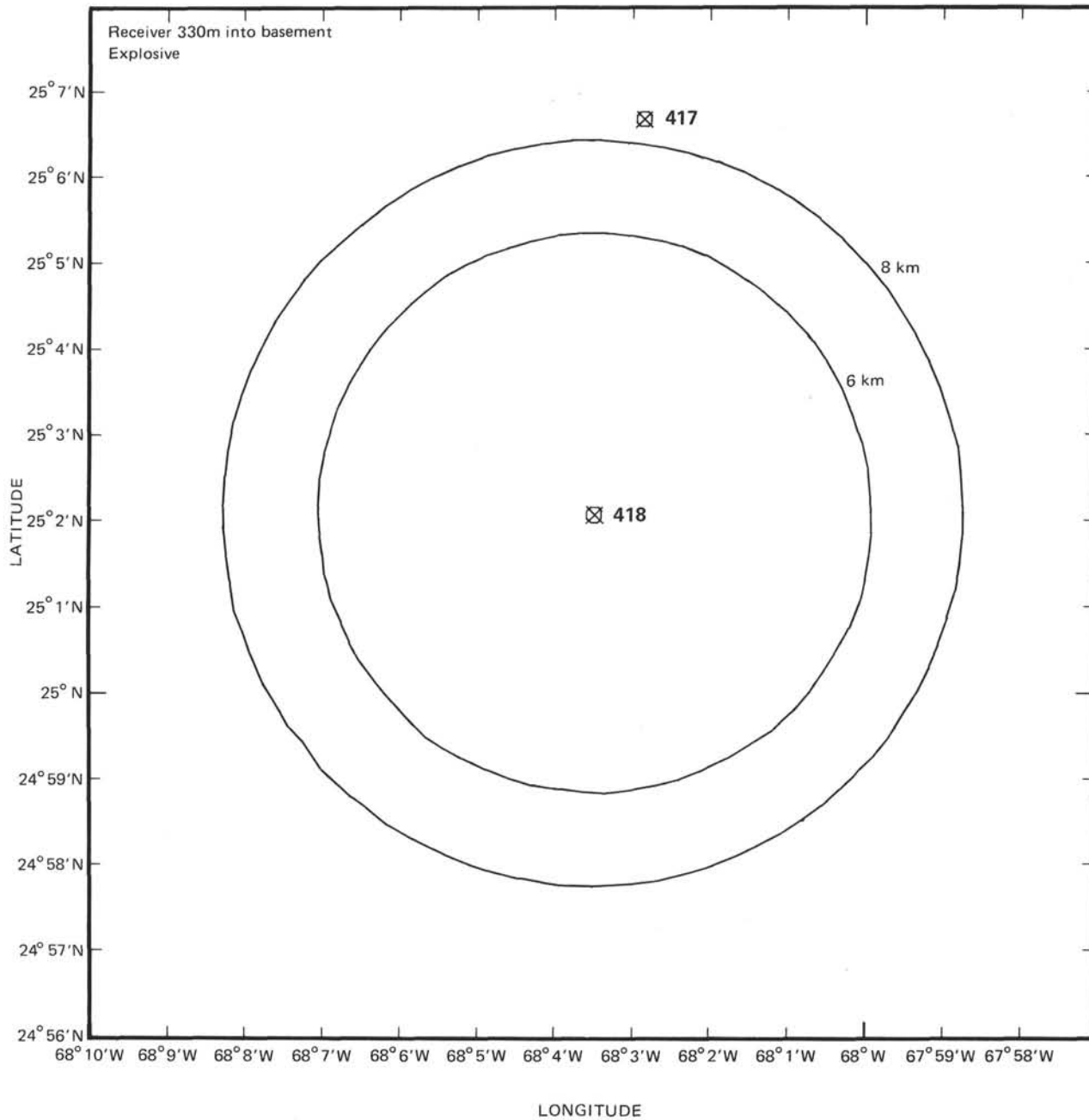
4 KM CIRCLE



RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 0.075 TSC 1.000  
BP FILT 0 5 40 50 HZ  
SOBO 21 430M INTO BASEMENT AIRGUN  
SHOTS 666 TO 815

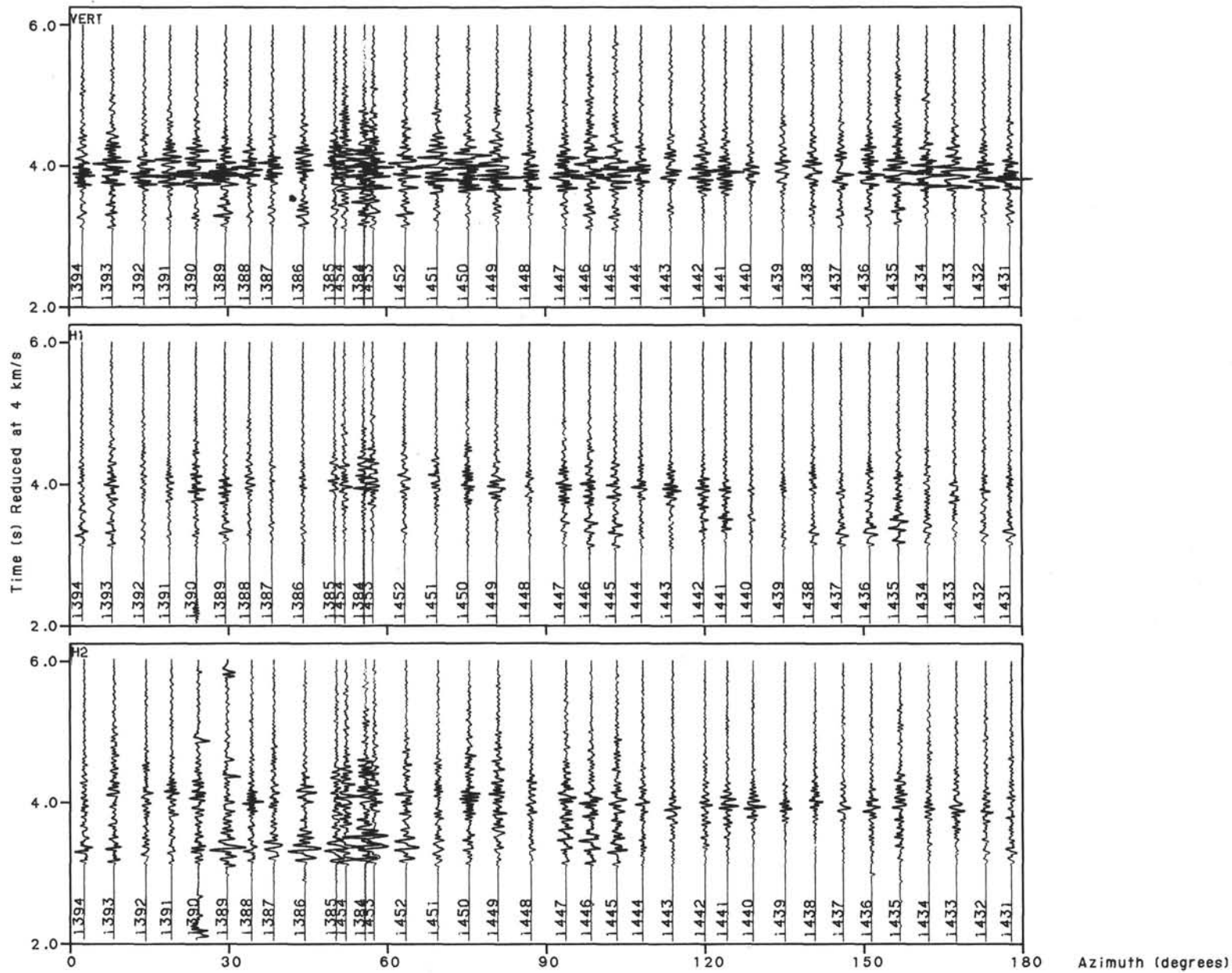
# 4 KM CIRCLE





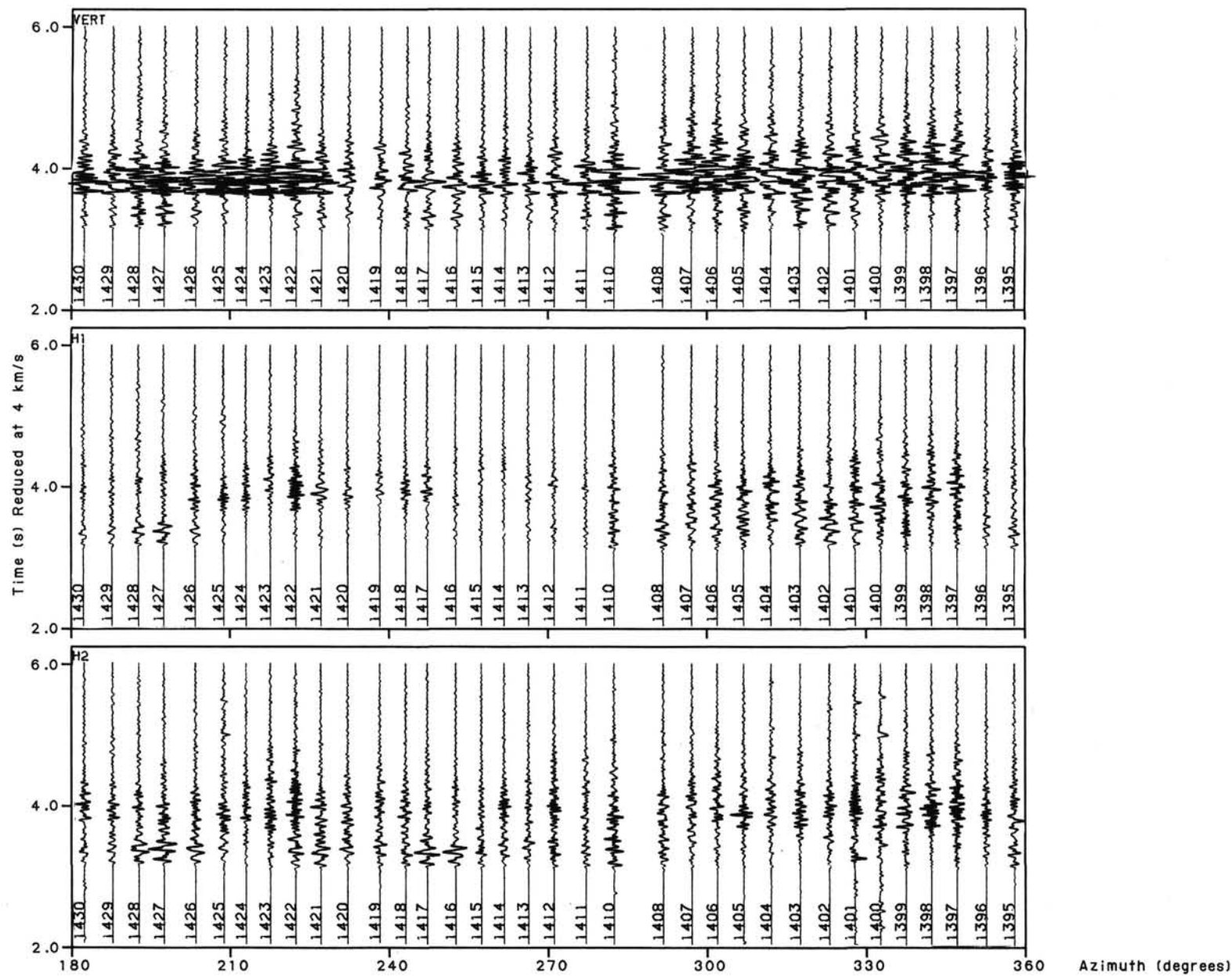
## 6 KM CIRCLE

R0 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOBO 23 330M INTO BASEMENT TOVEX  
 SHOTS 1384 TO 1454



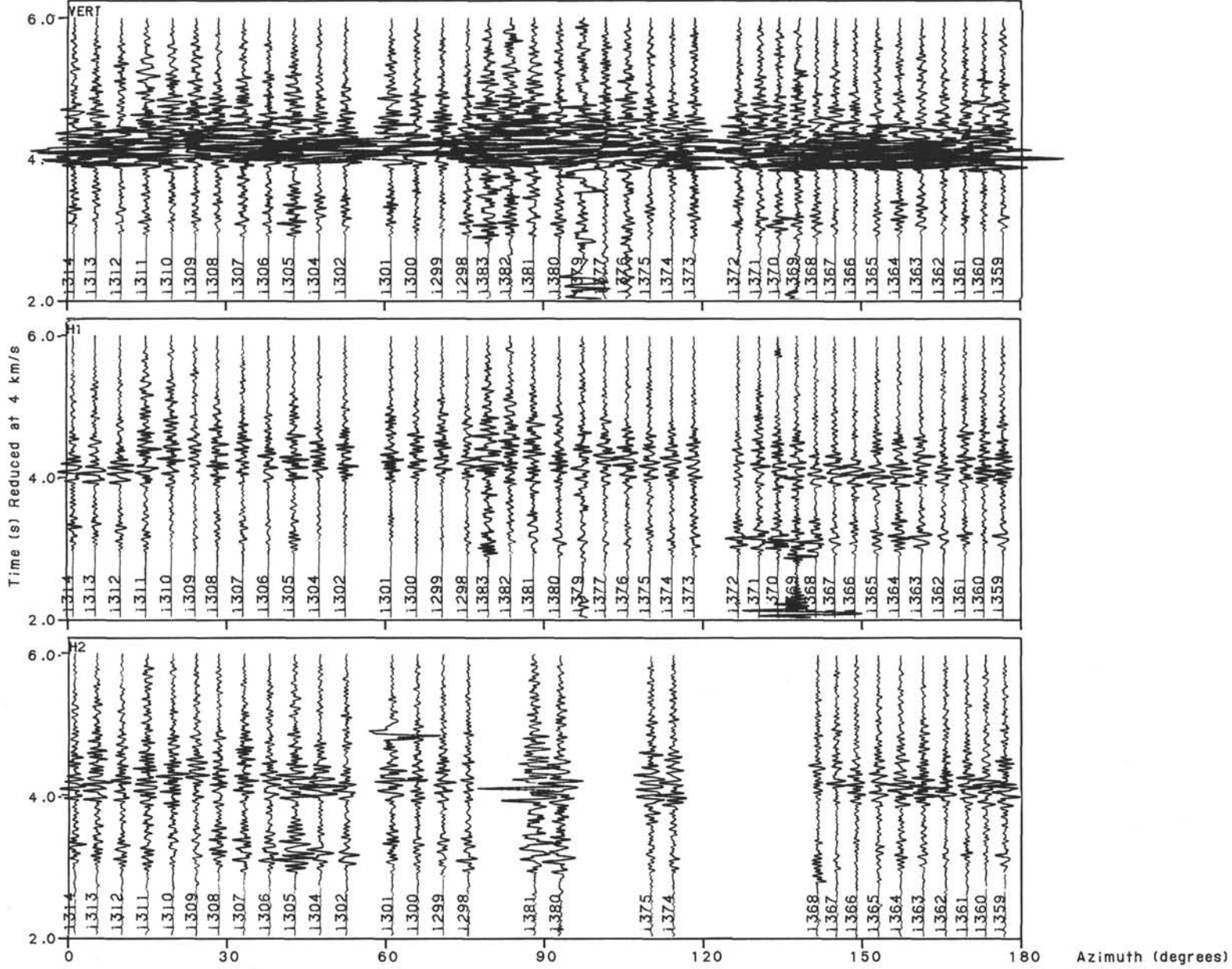
## 6 KM CIRCLE

RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOBO 23 330M INTO BASEMENT TOVEX  
 SHOTS 1395 TO 1430



# 8KM CIRCLE

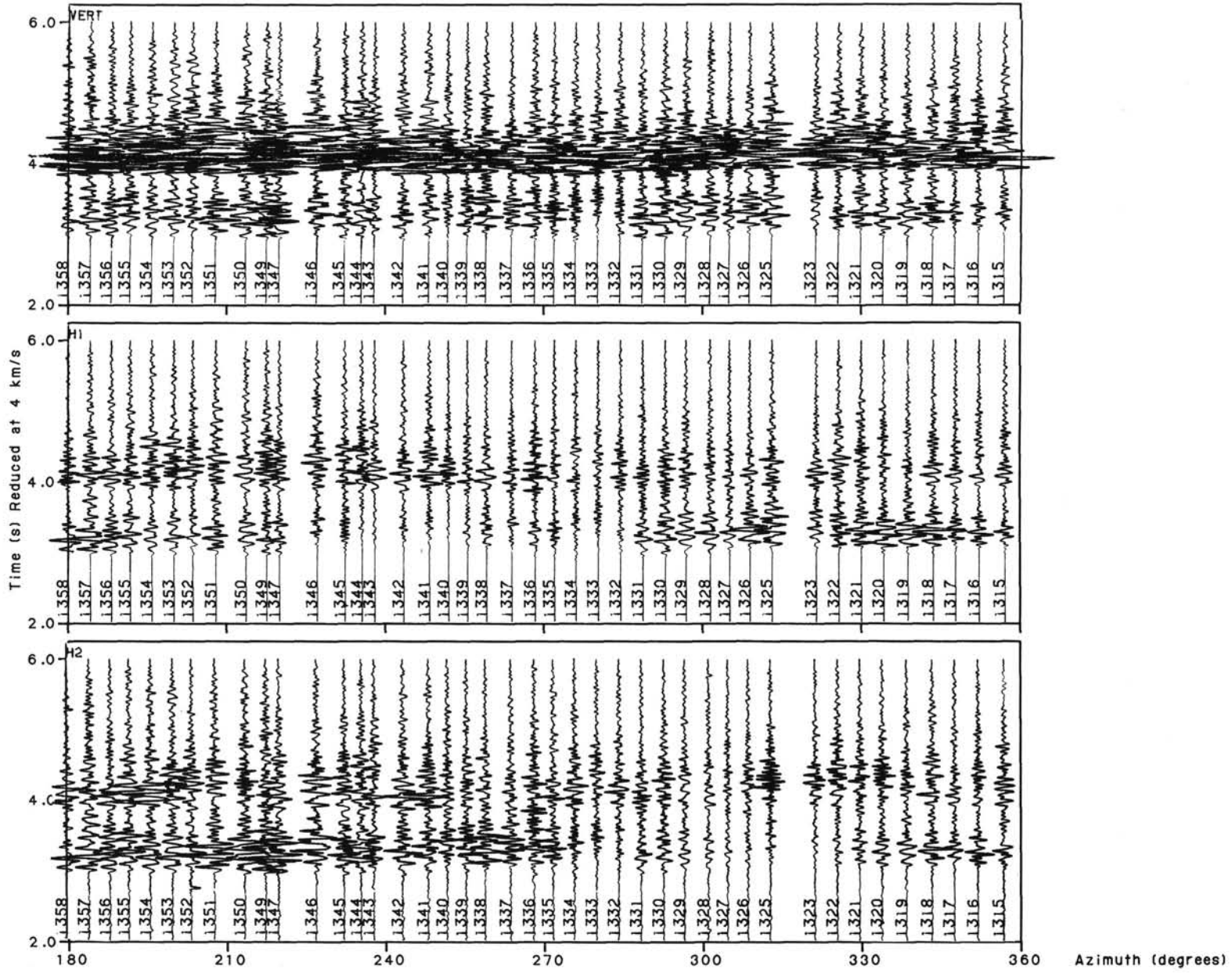
RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOB0 23 330M INTO BASEMENT TOVEX  
 SHOTS 1298 TO 1383

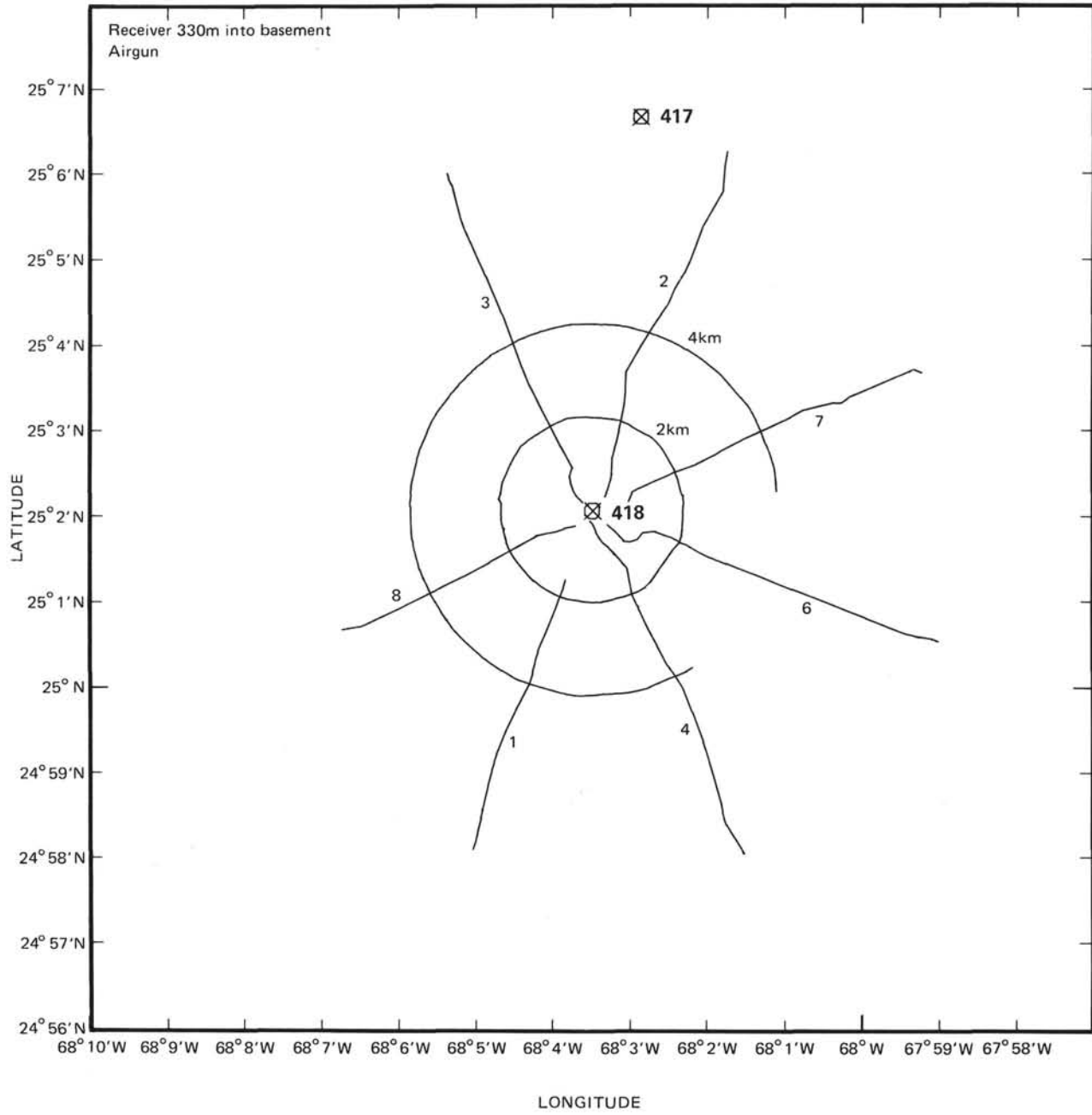




RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 25 30  
 SOBO 23 330M INTO BASEMENT TOVEX  
 SHOTS 1315 TO 1358

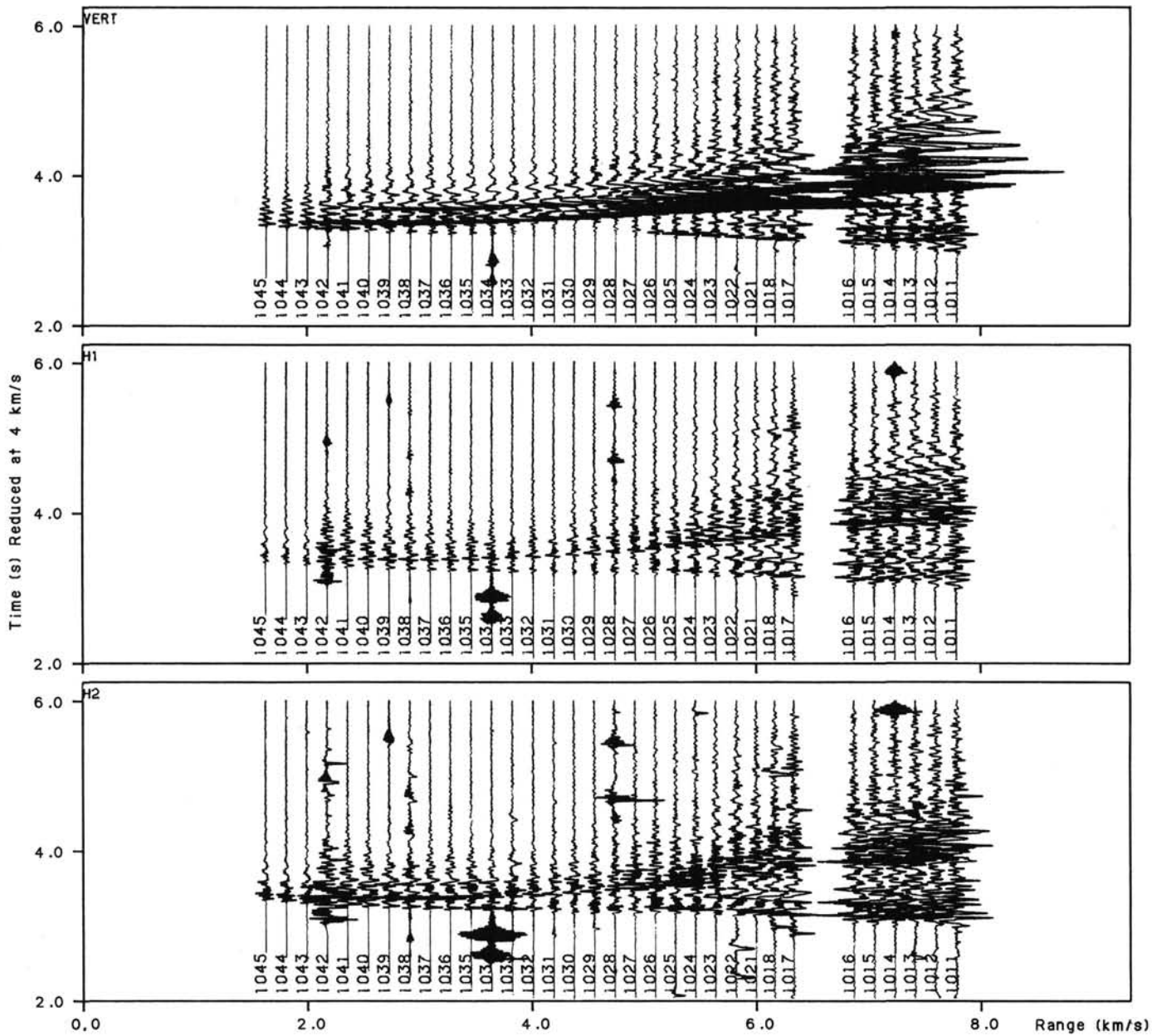
8KM CIRCLE





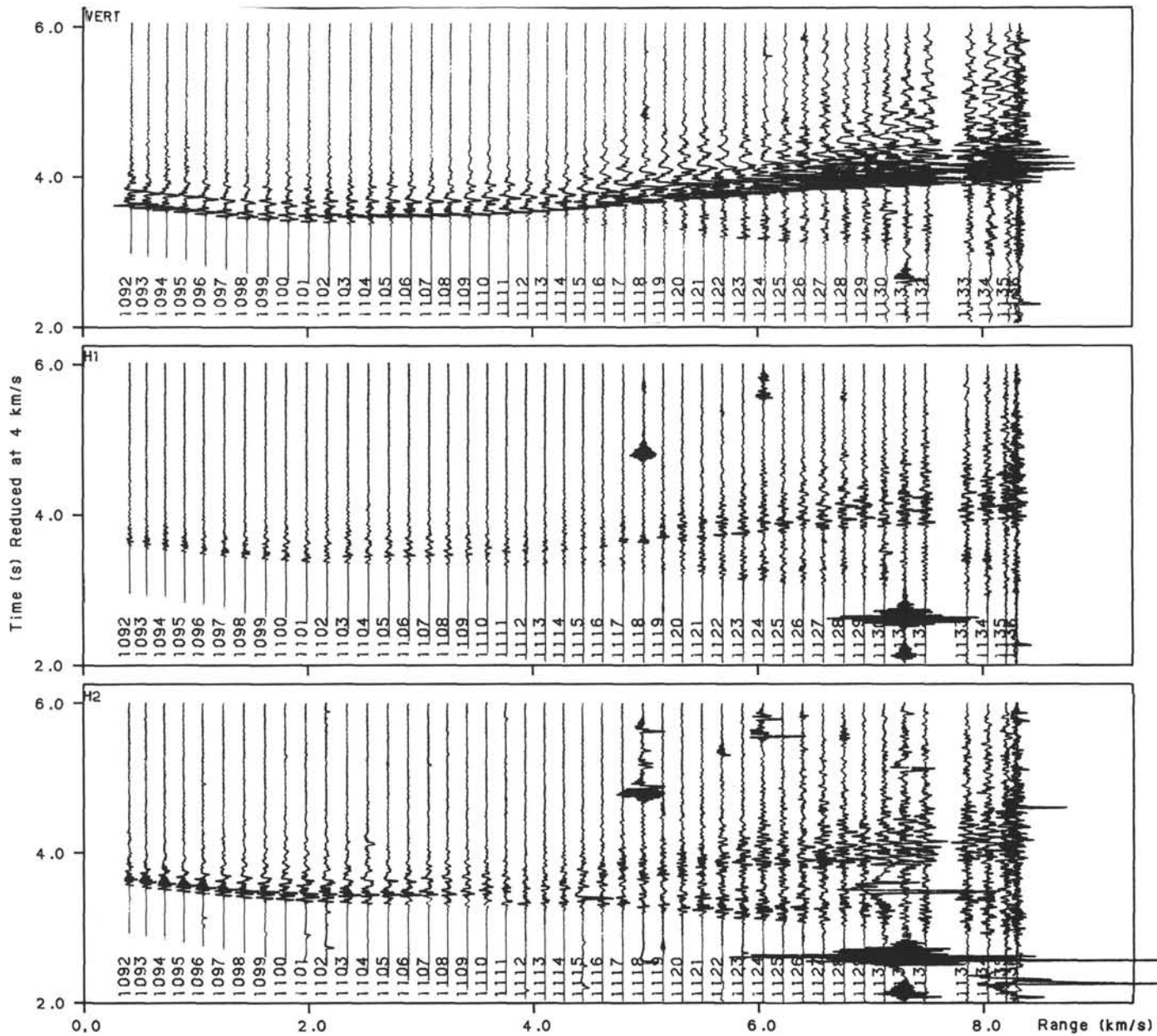
R0 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 22 330M INTO BASEMENT AIRGUN  
 SHOTS 1010 TO 1046

LINE 1 SSW



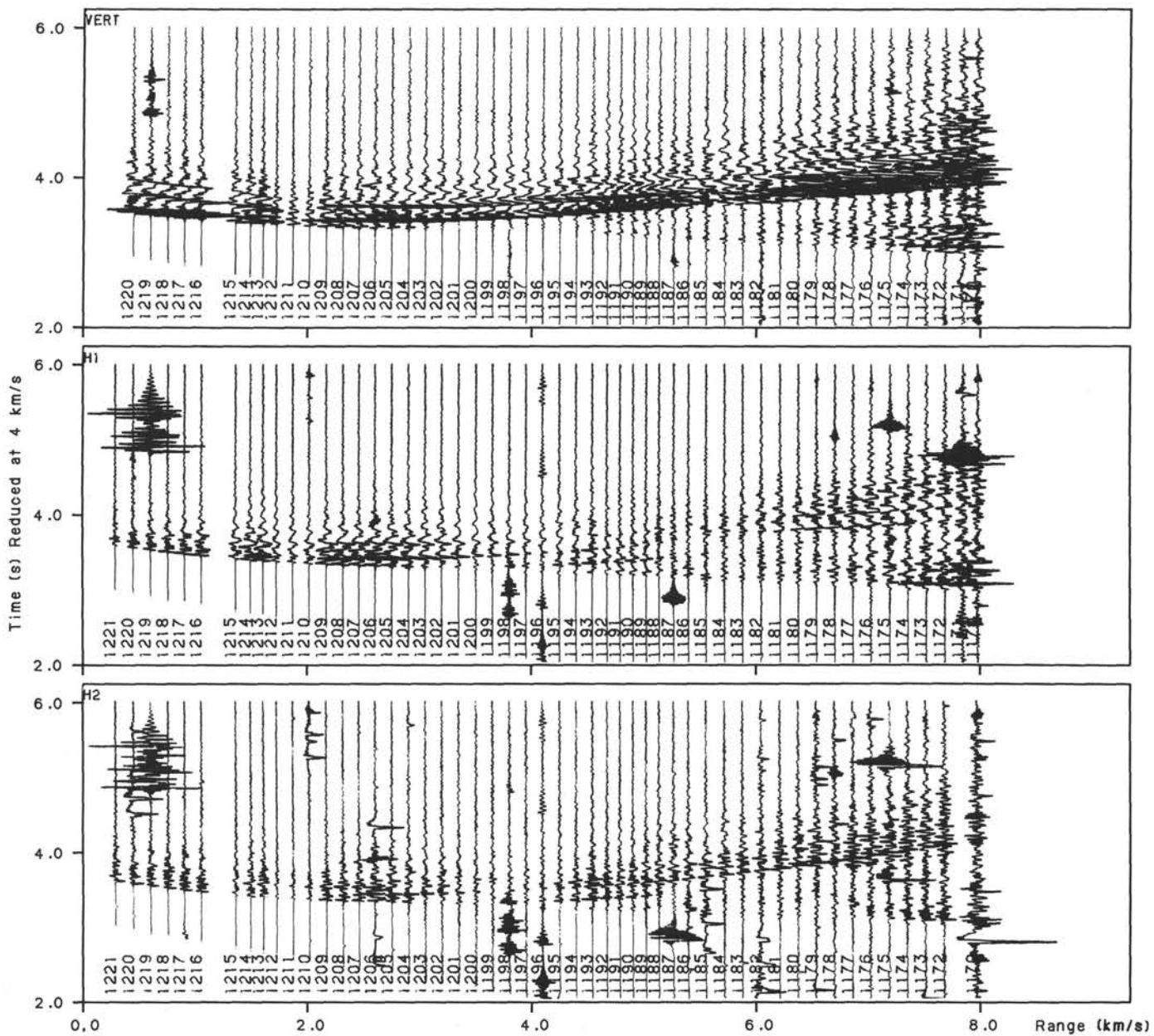
RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 40 50 HZ  
SOBO 22 330M INTO BASEMENT AIRGUN  
SHOTS 1092 TO 1137

# LINE 2 NNE



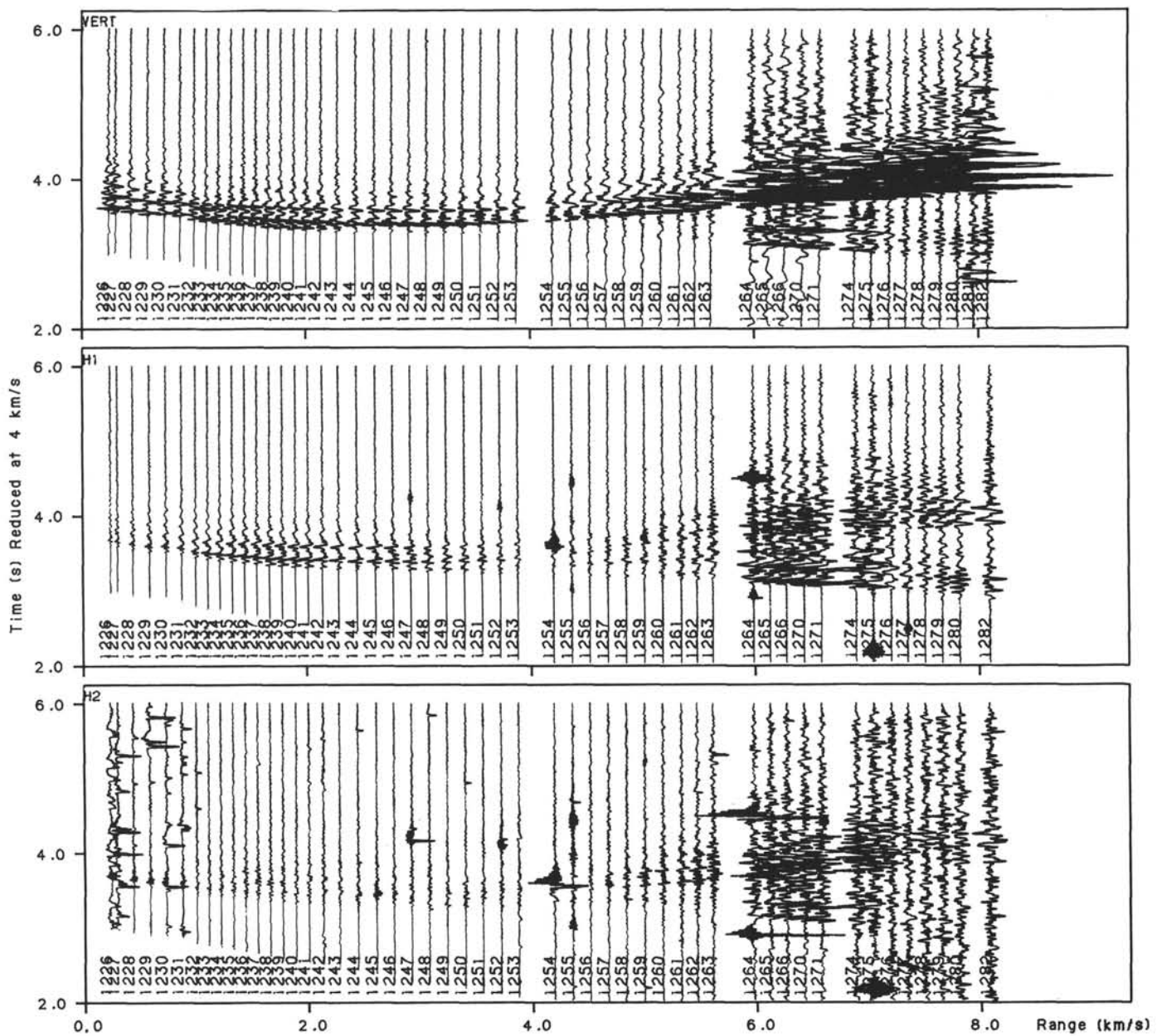
RQ 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 22 330M INTO BASEMENT AIRGUN  
 SHOTS 1170 TO 1220

LINE 3 NNW



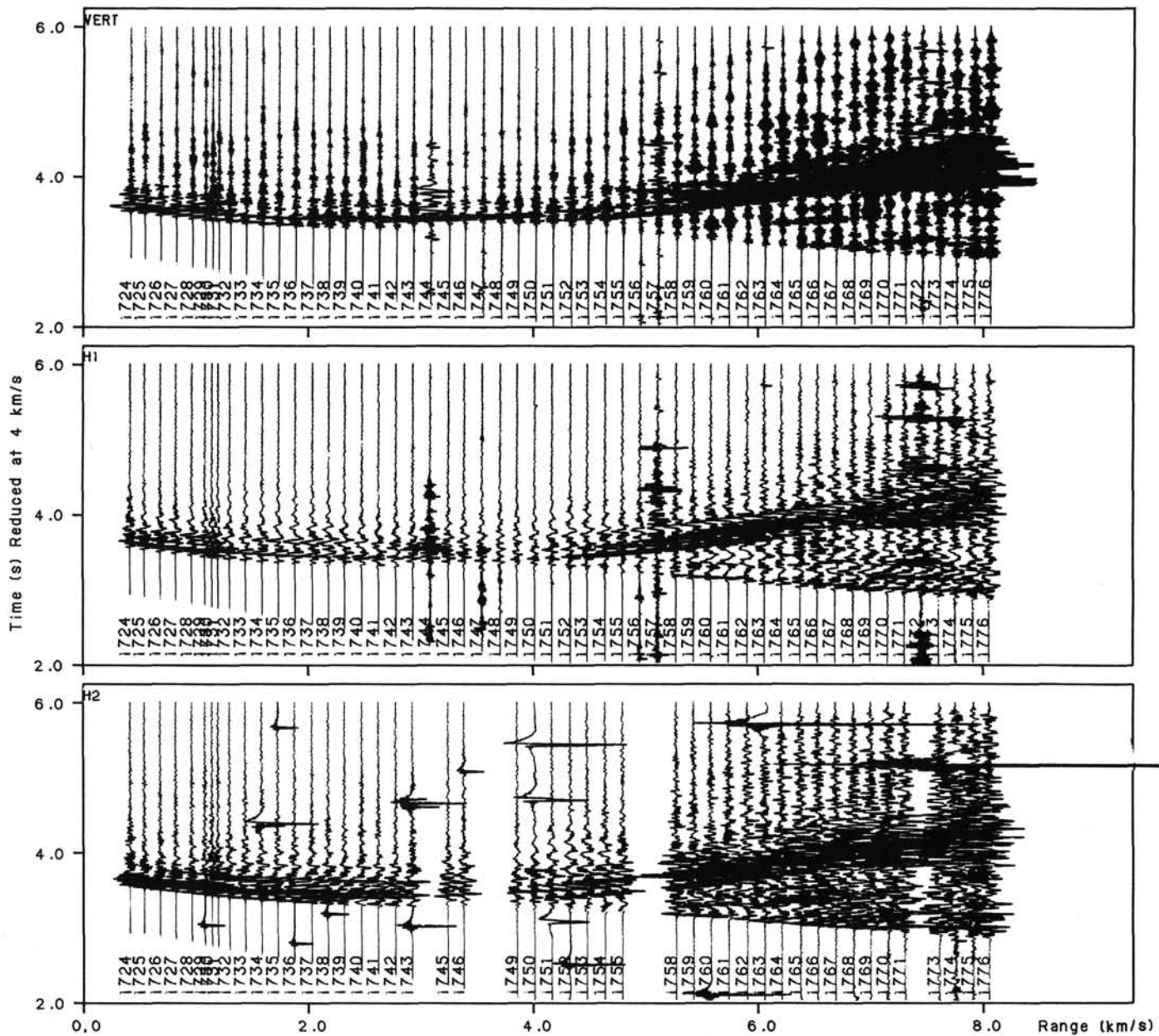
# LINE 4 SSE

RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 22 330M INTO BASEMENT AIRGUN  
 SHOTS 1226 TO 1282



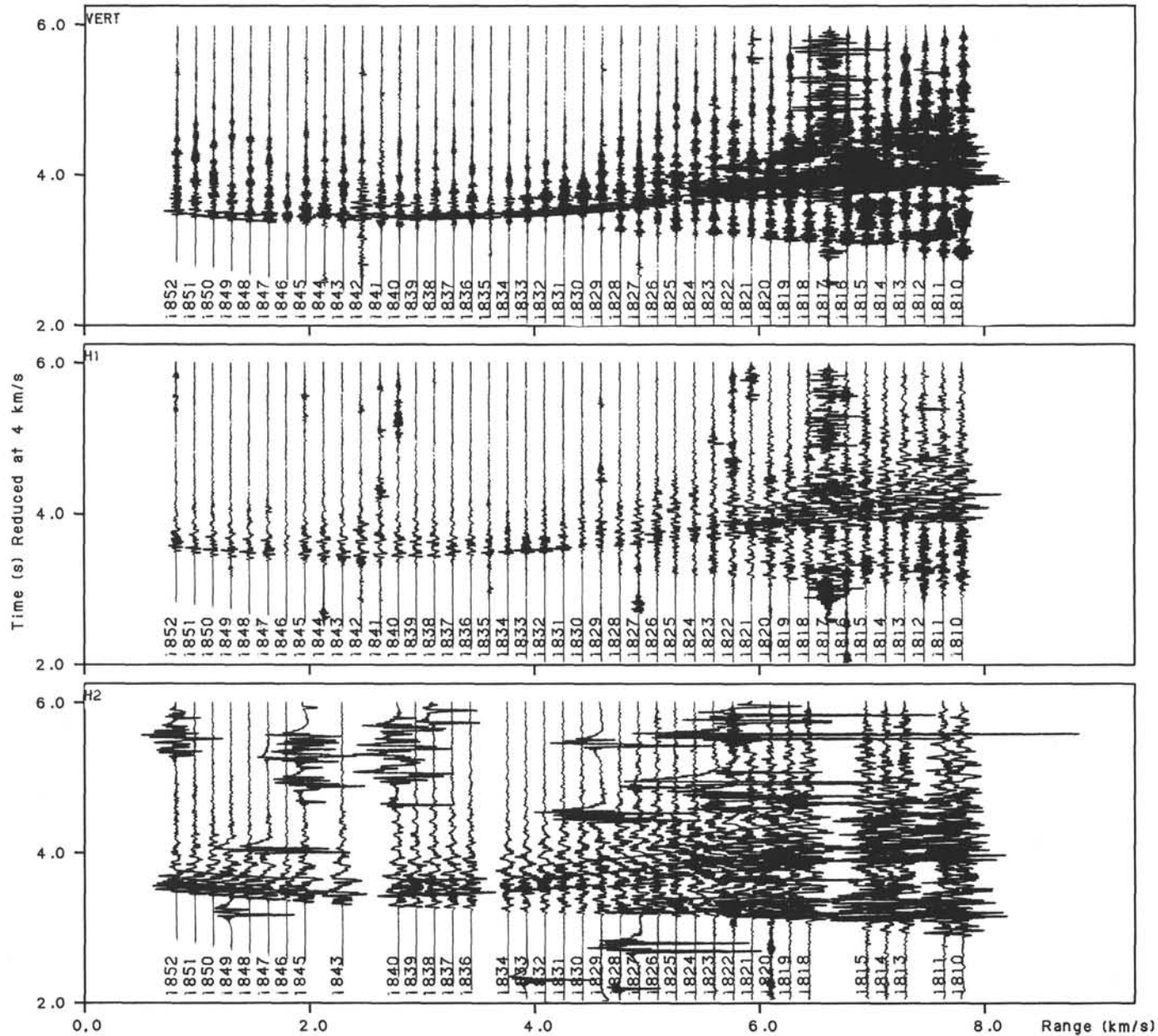
R0.4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 24 330M INTO BASEMENT AIRGUN  
 SHOTS 1724 TO 1776

LINE 6 ESE



# LINE 7 ENE

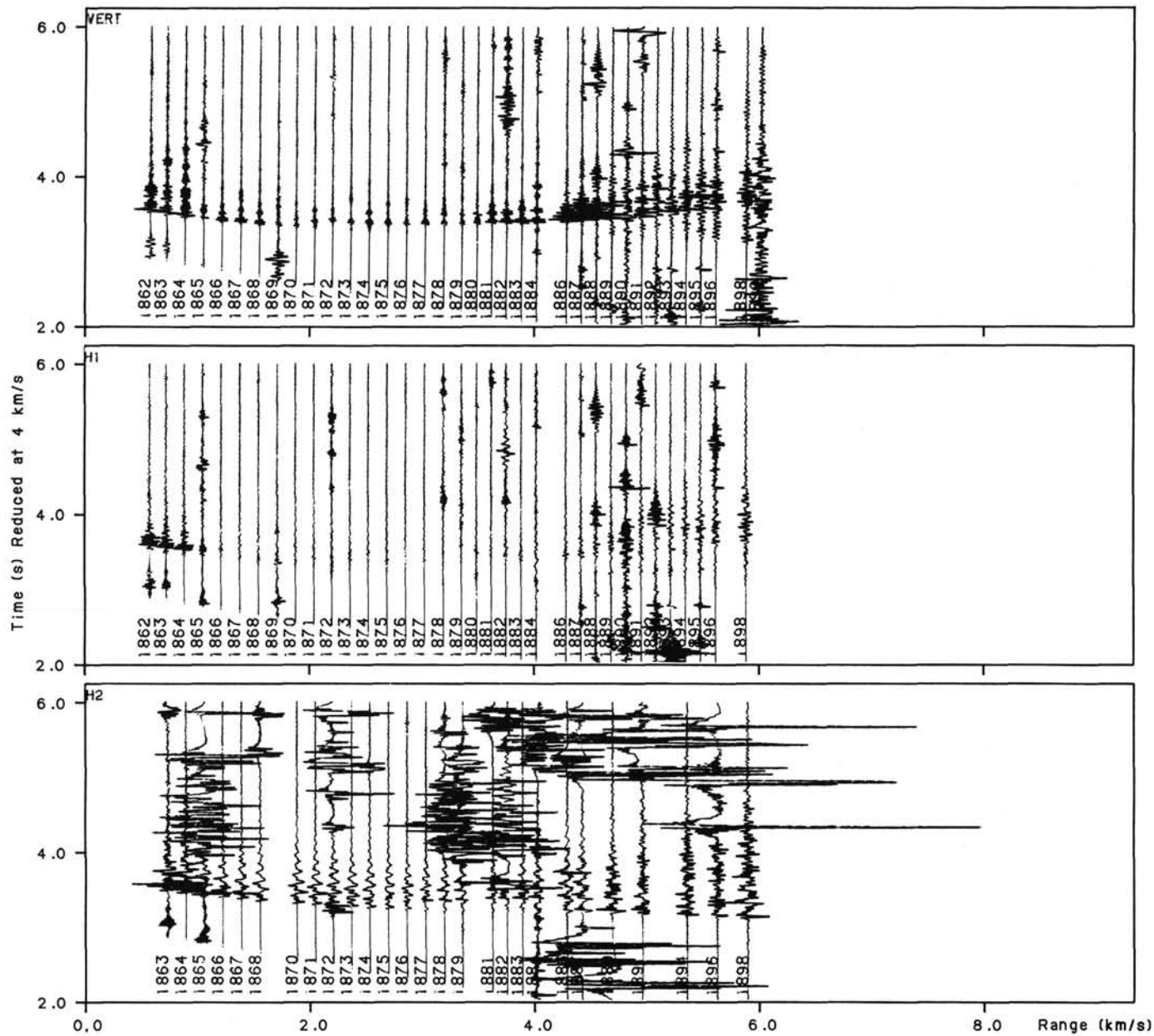
R0 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOB0 24 330M INTO BASEMENT AIRGUN  
 SHOTS 1810 TO 1852





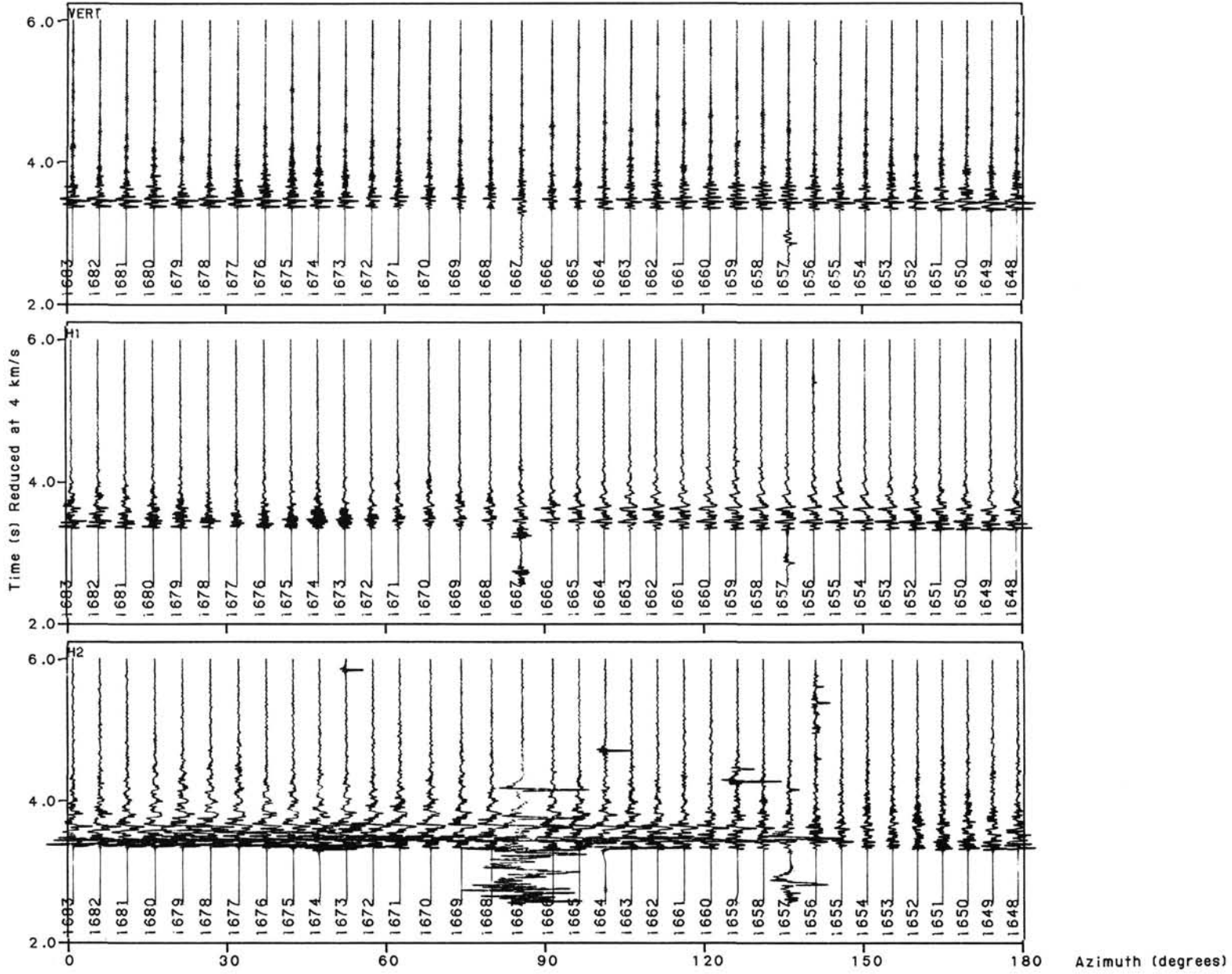
RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 24 330M INTO BASEMENT AIRGUN  
 SHOTS 1862 TO 1899

LINE 8 WSW



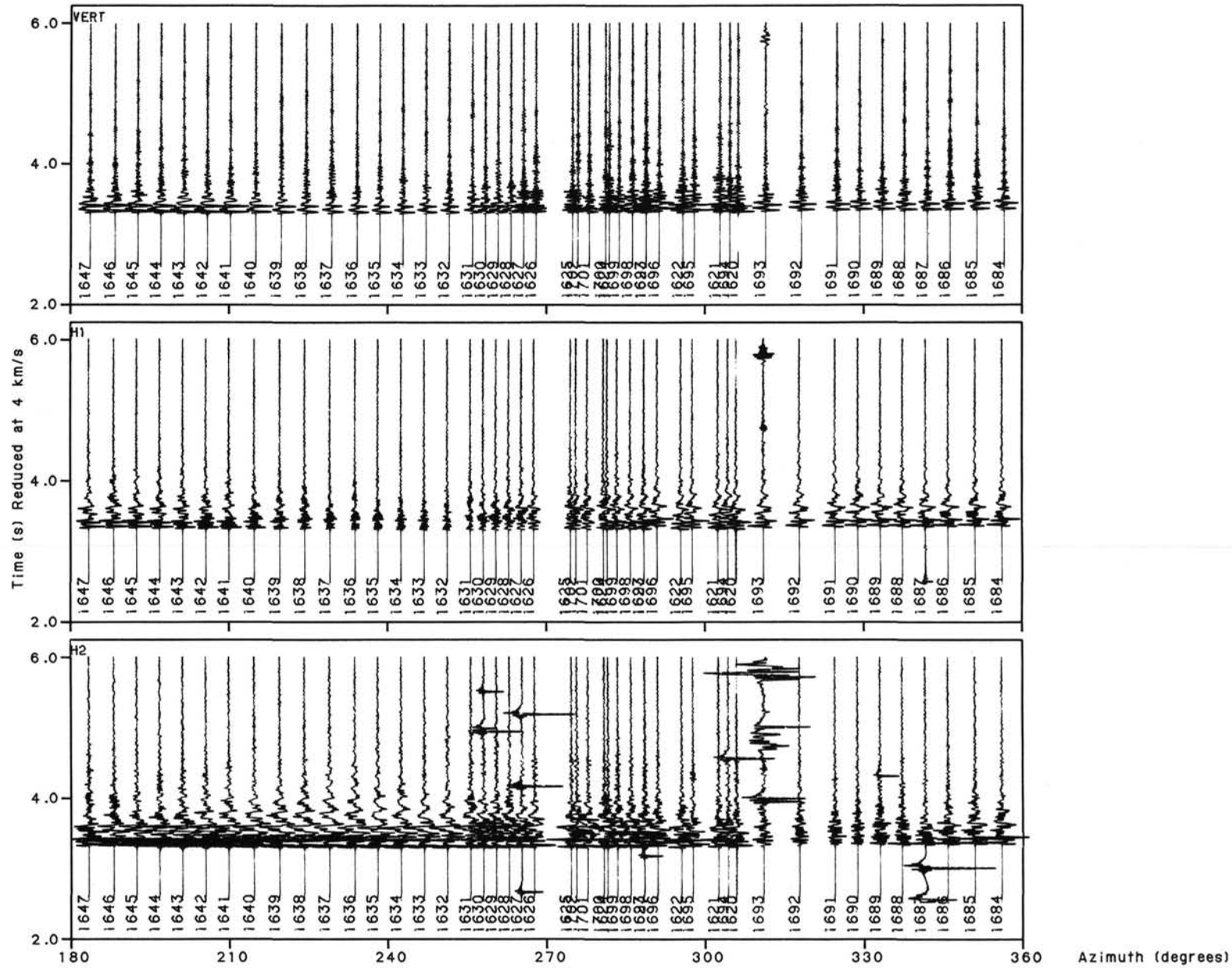
# 2 KM CIRCLE

RD 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 24 330M INTO BASEMENT AIRGUN  
 SHOTS 1648 TO 1683



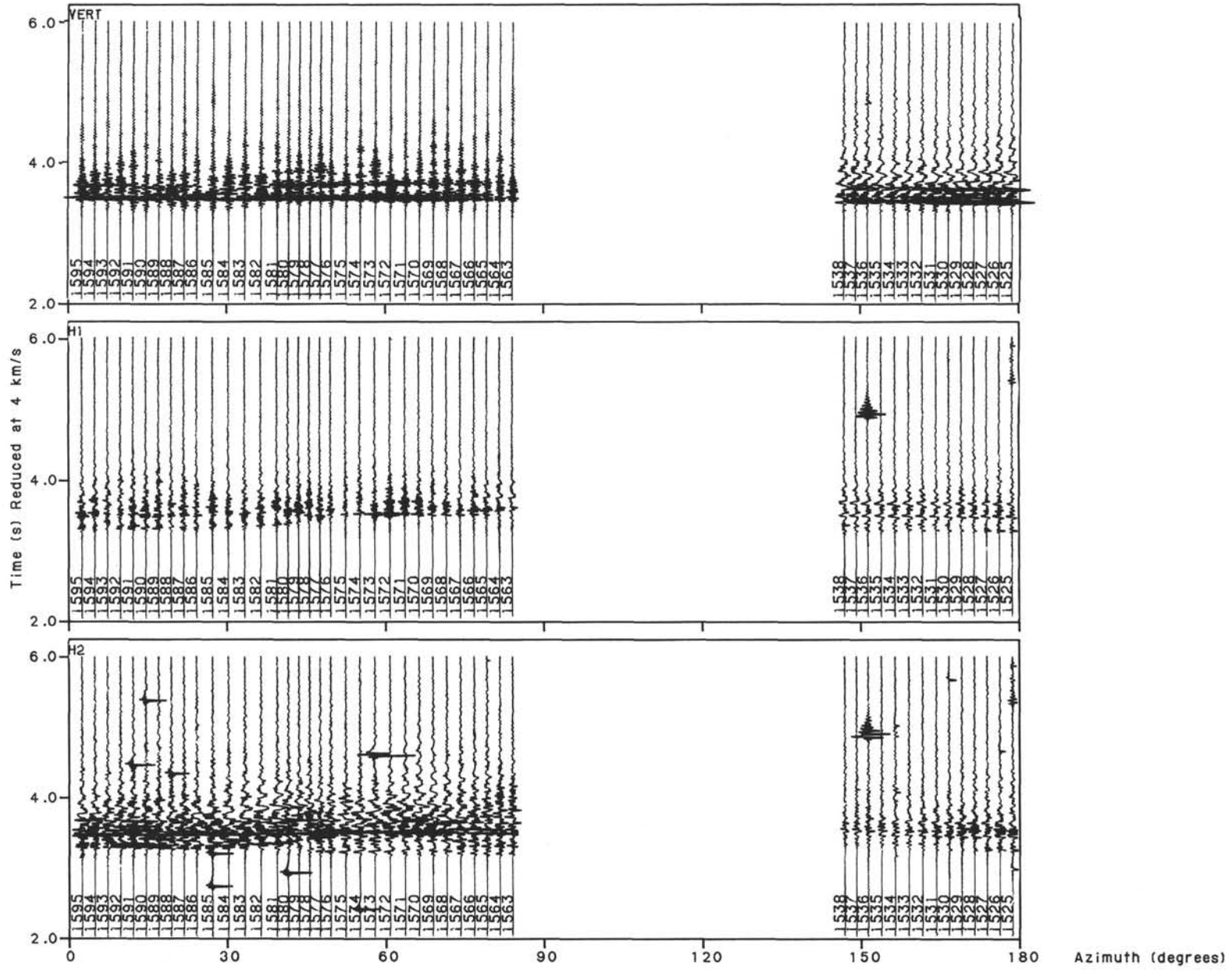
## 2 KM CIRCLE

RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 24 330M INTO BASEMENT AIRGUN  
 SHOTS 1620 TO 1702



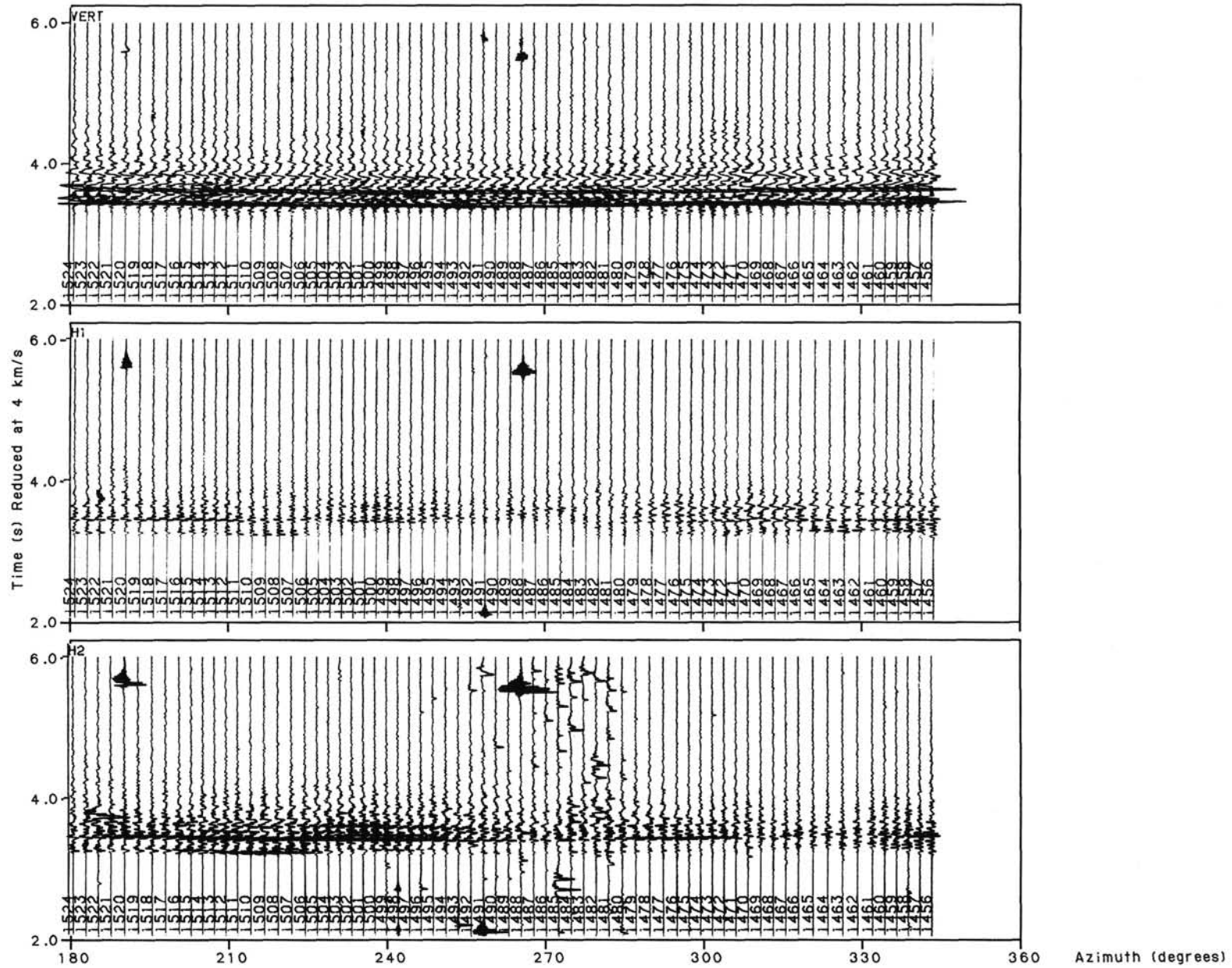
R0 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 24 330M INTO BASEMENT AIRGUN  
 SHOTS 1525 TO 1595

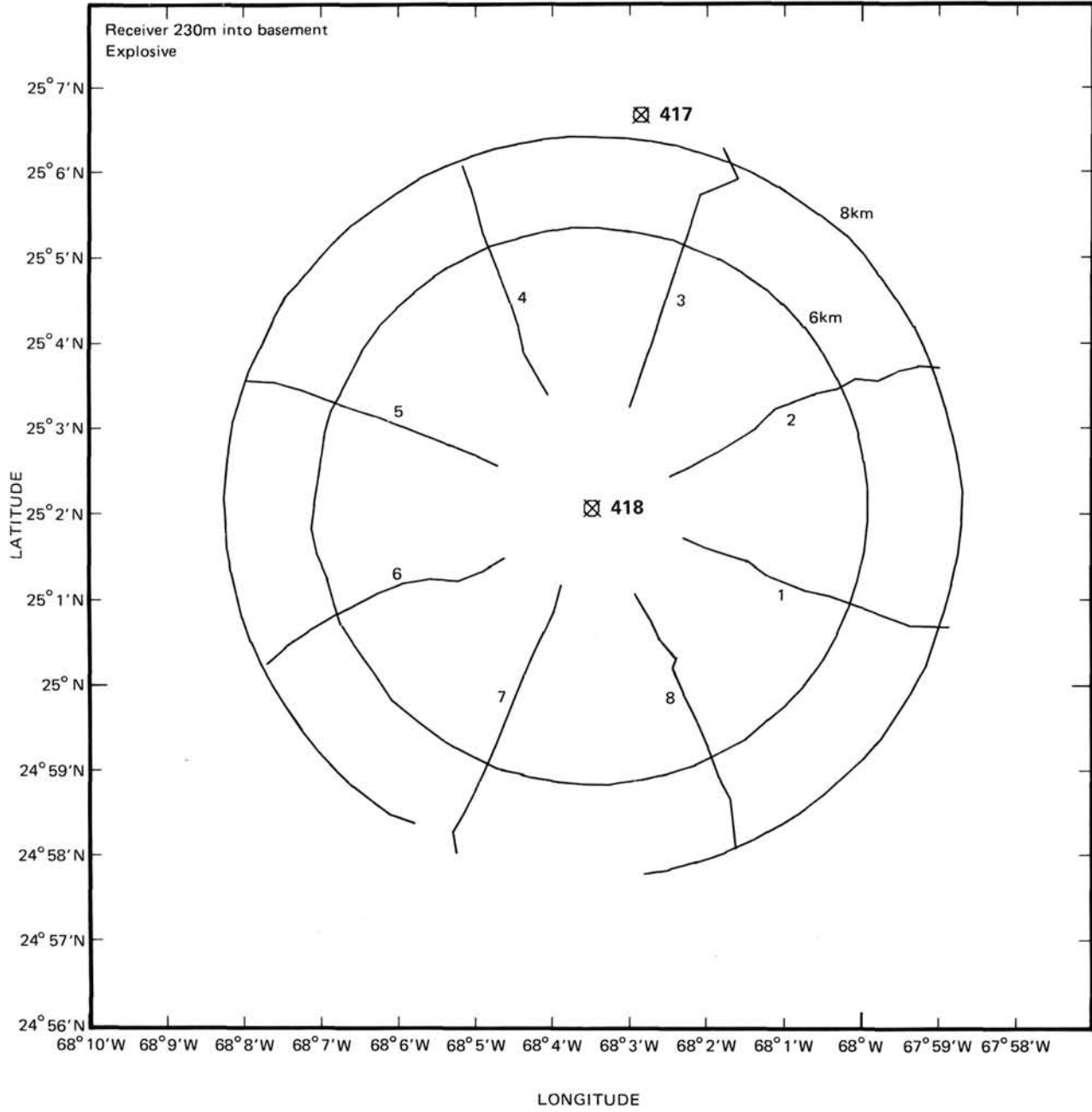
4KM CIRCLE



RD 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 24 330M INTO BASEMENT AIRGUN  
 SHOTS 1456 TO 1524

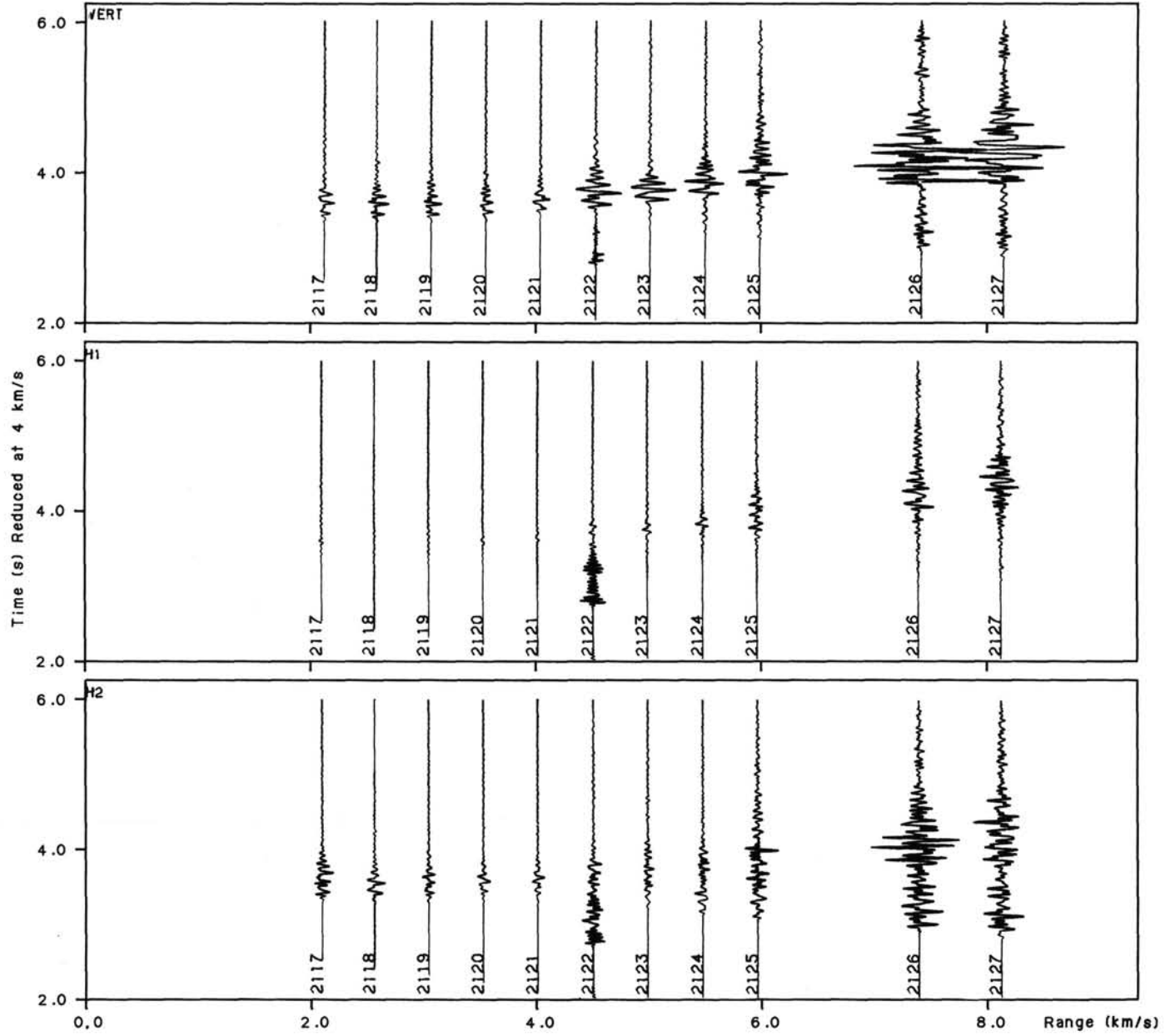
4KM CIRCLE





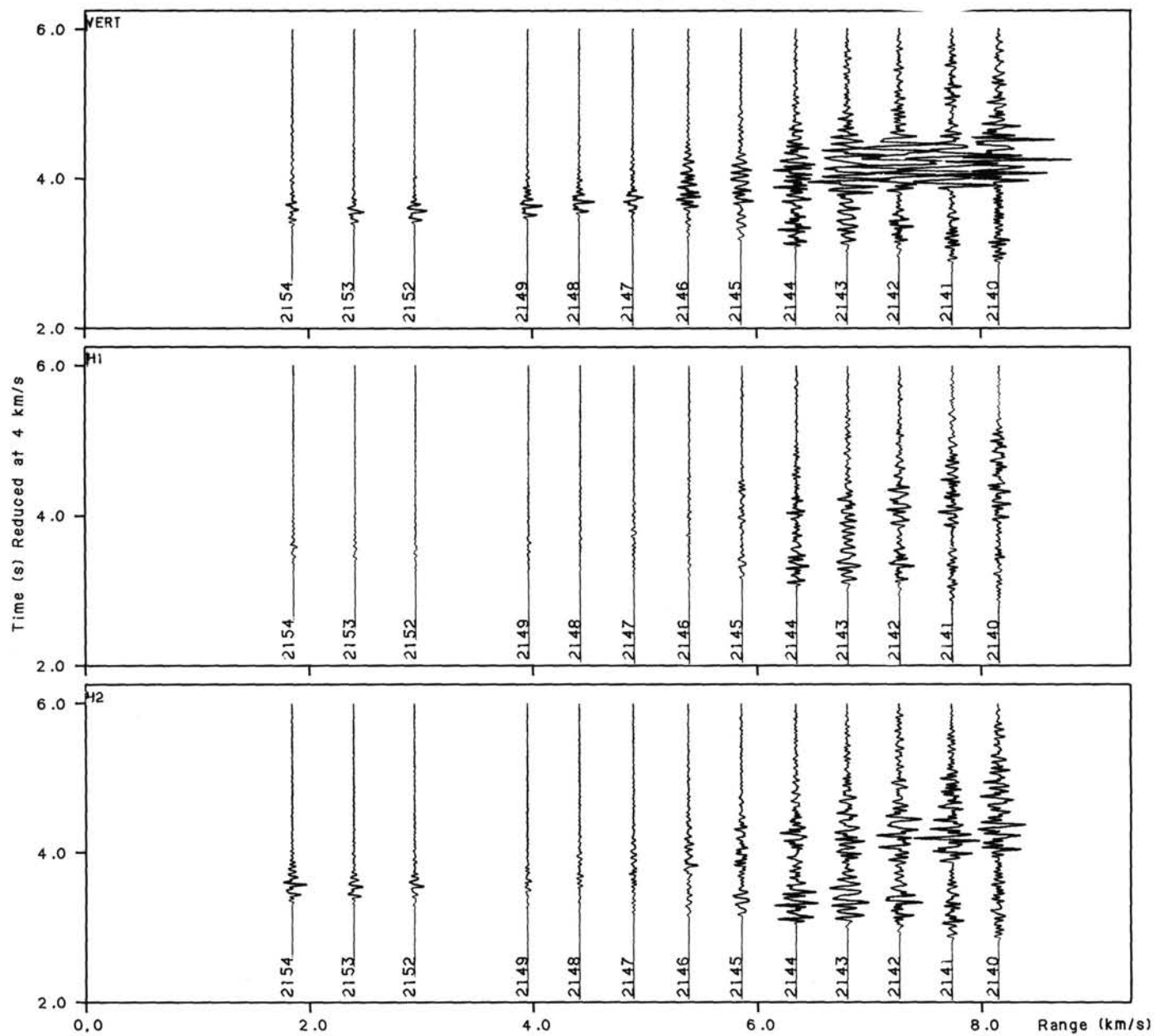
RD 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 25 30 HZ  
SOBO 25 230M INTO BASEMENT TOVEX  
SHOTS 2117 TO 2127

# LINE 1 ESE



## LINE 2 ENE

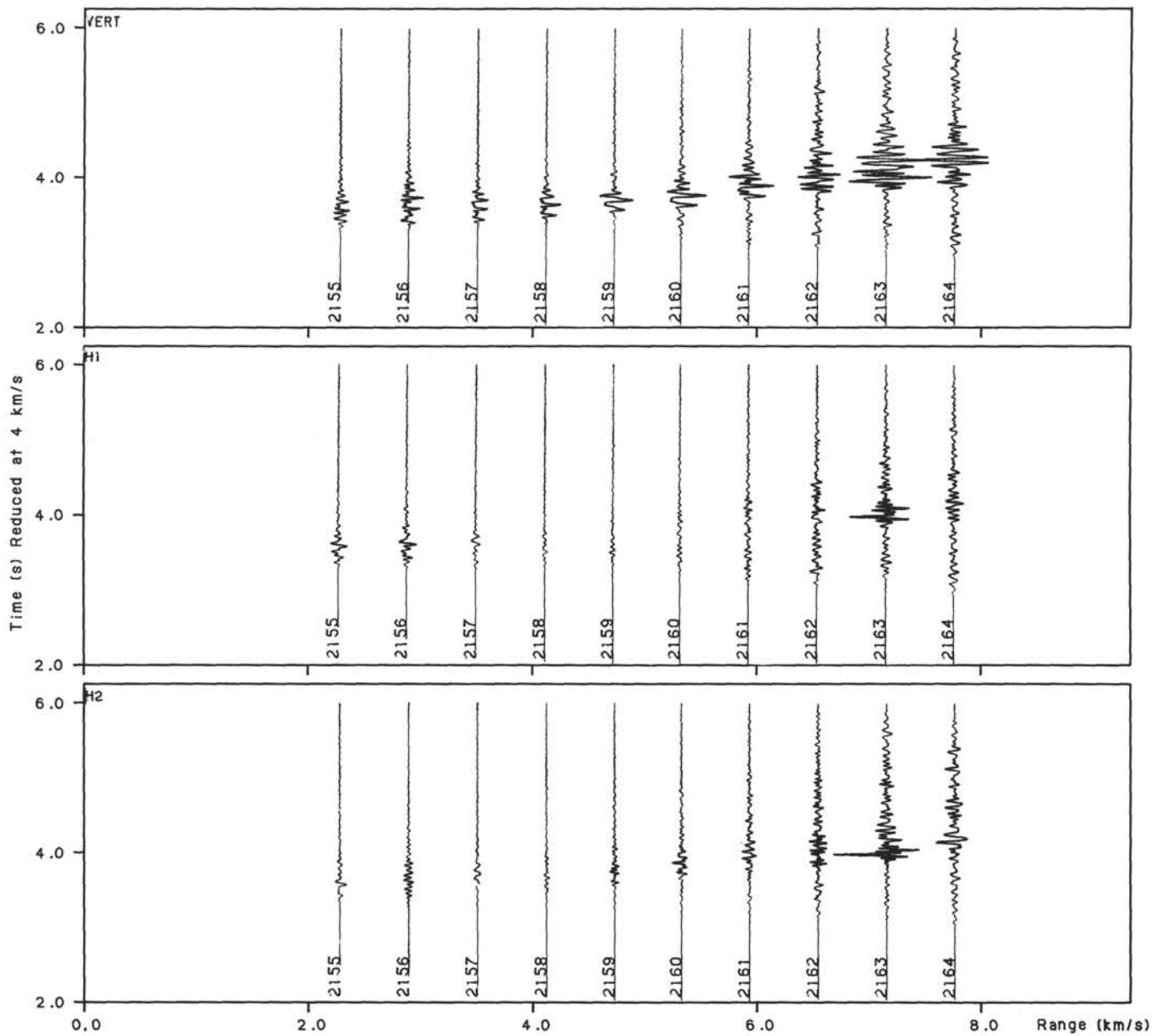
RO 4.0 ALPHA 4.0 ASC 0.10E-04.RSC 1.500 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOB0 25 230M INTO BASEMENT TOVEX  
 SHOTS 2140 TO 2154





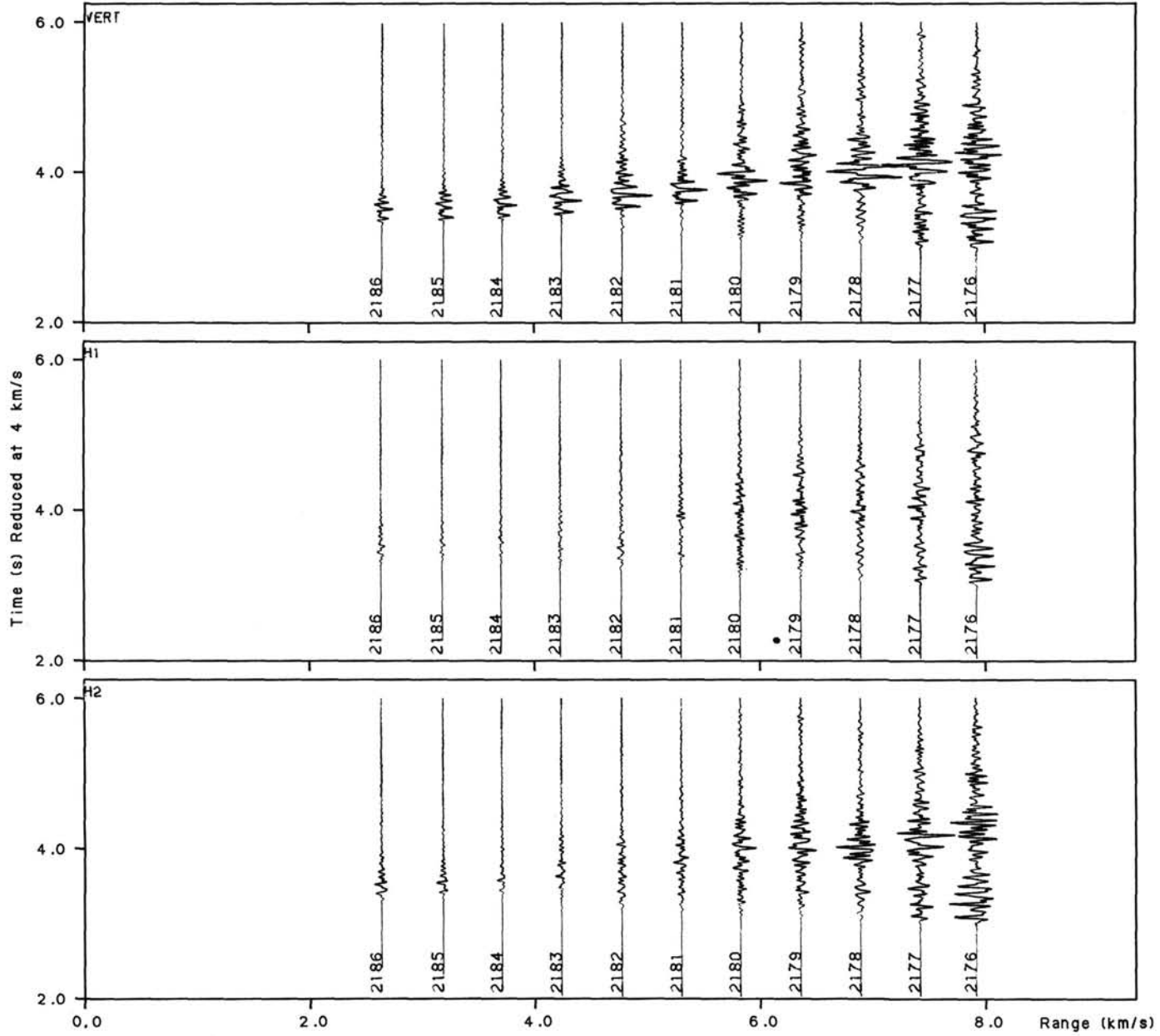
RD 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 25 30 HZ  
SOBO 25 230M INTO BASEMENT TOVEX  
SHOTS 2155 TO 2164

# LINE 3 NNE



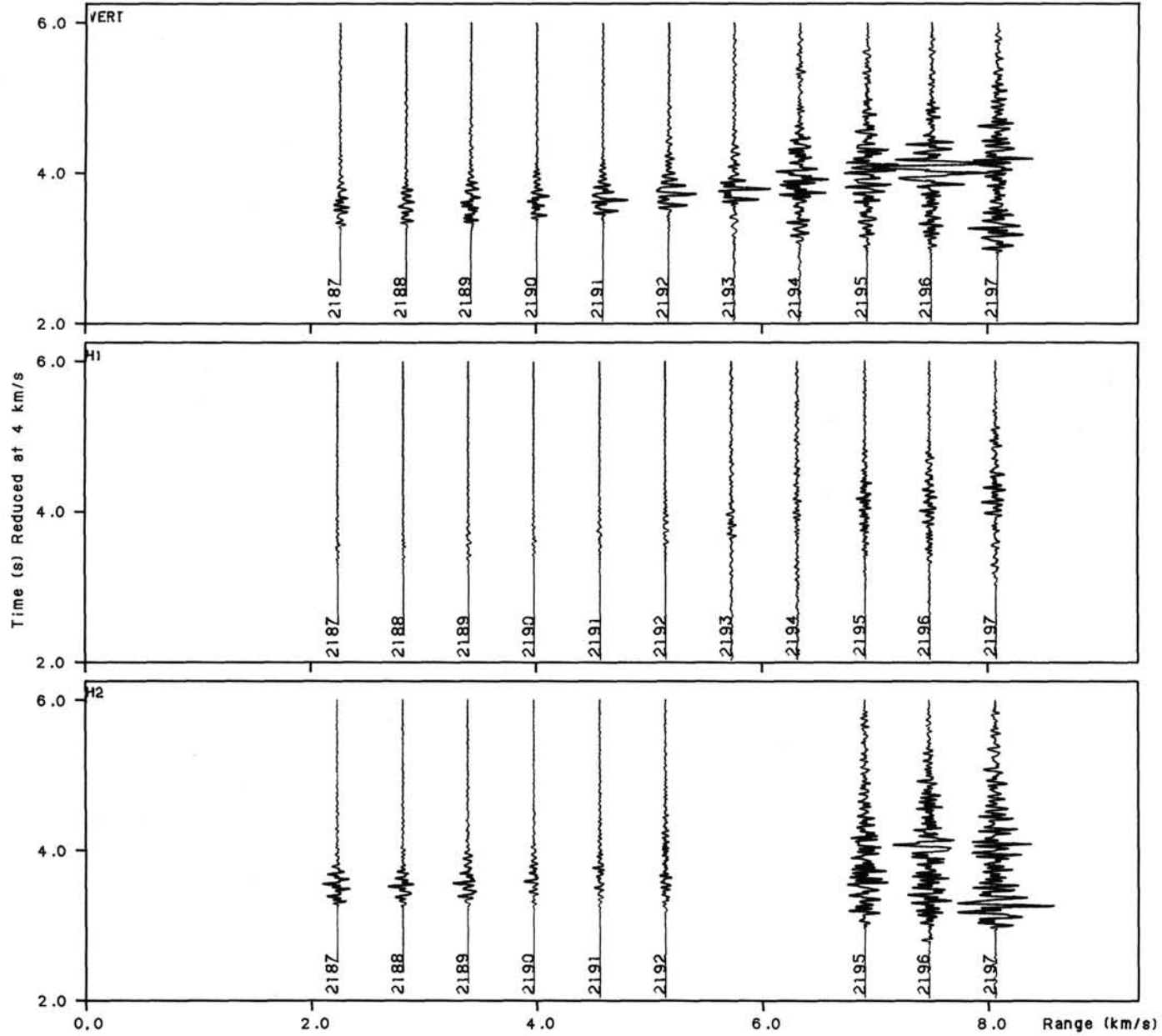
# LINE 4 NNW

RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 25 30 HZ  
SOBO 25 230M INTO BASEMENT TOVEX  
SHOTS 2176 TO 2186



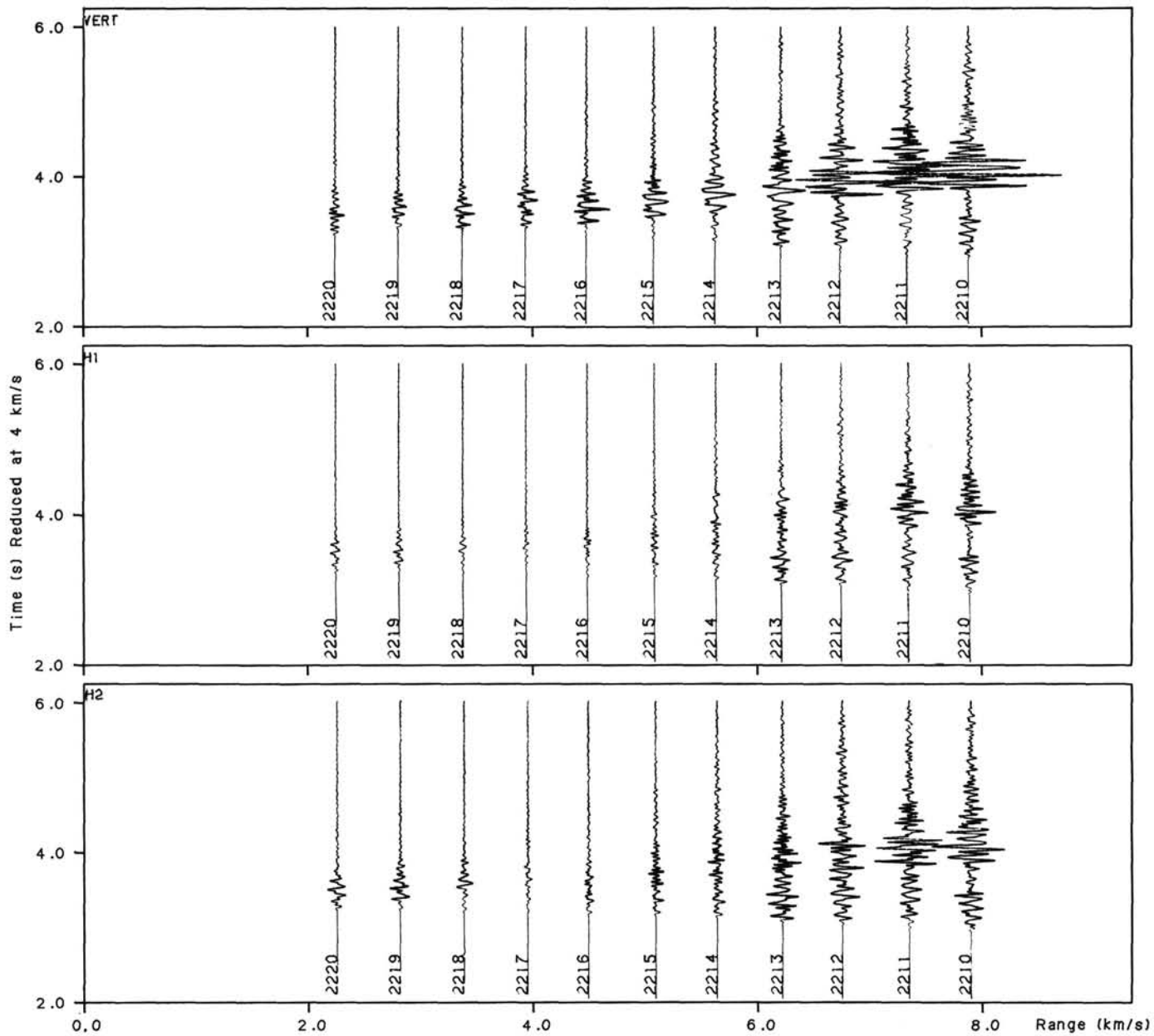
RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 25 30 HZ  
SOBO 25 230M INTO BASEMENT TOVEX  
SHOTS 2187 TO 2197

# LINE 5 WNW



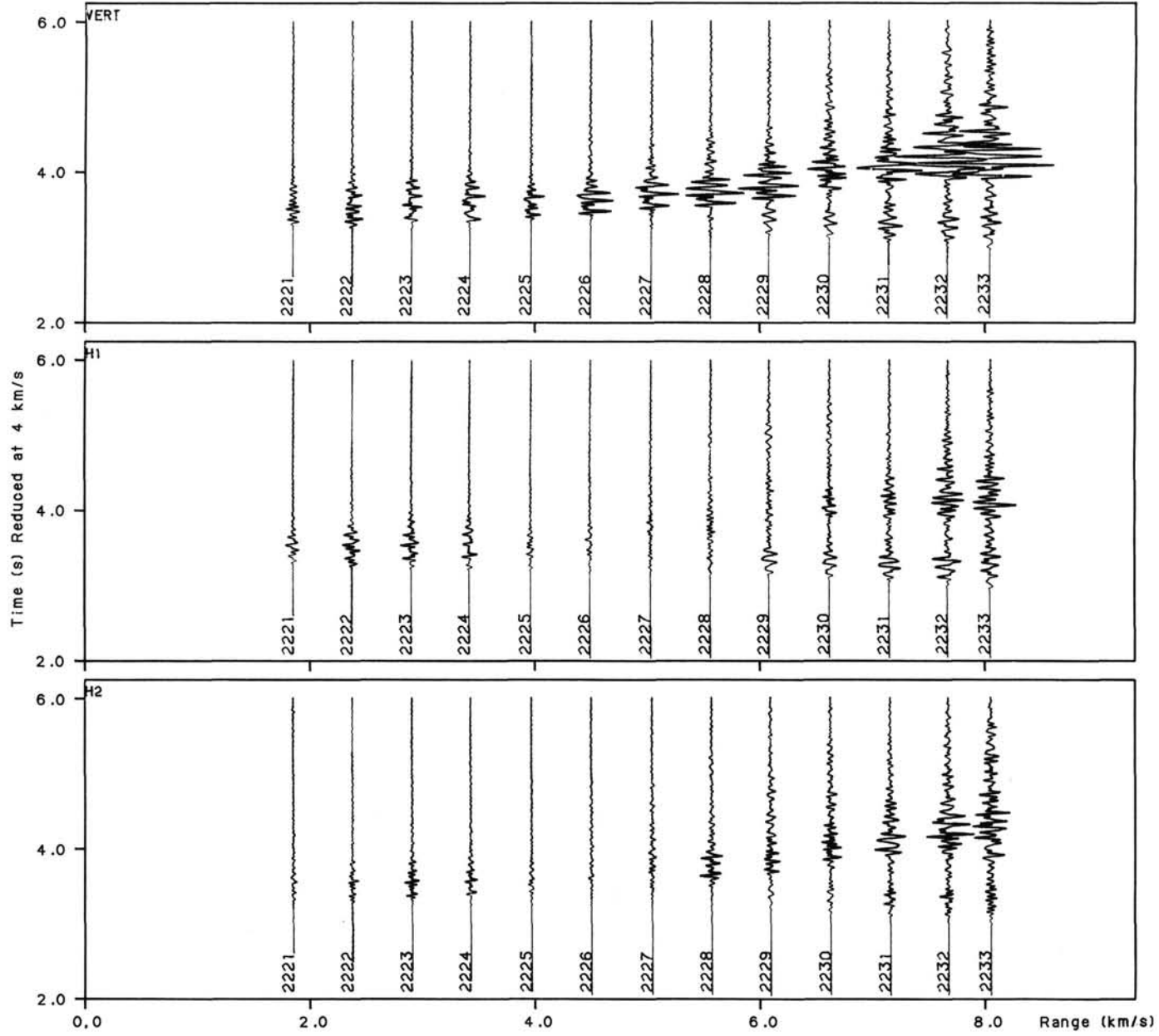
# LINE 6 WSW

RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 25 30 HZ  
SOBO 25 230M INTO BASEMENT TOVEX  
SHOTS 2210 TO 2220



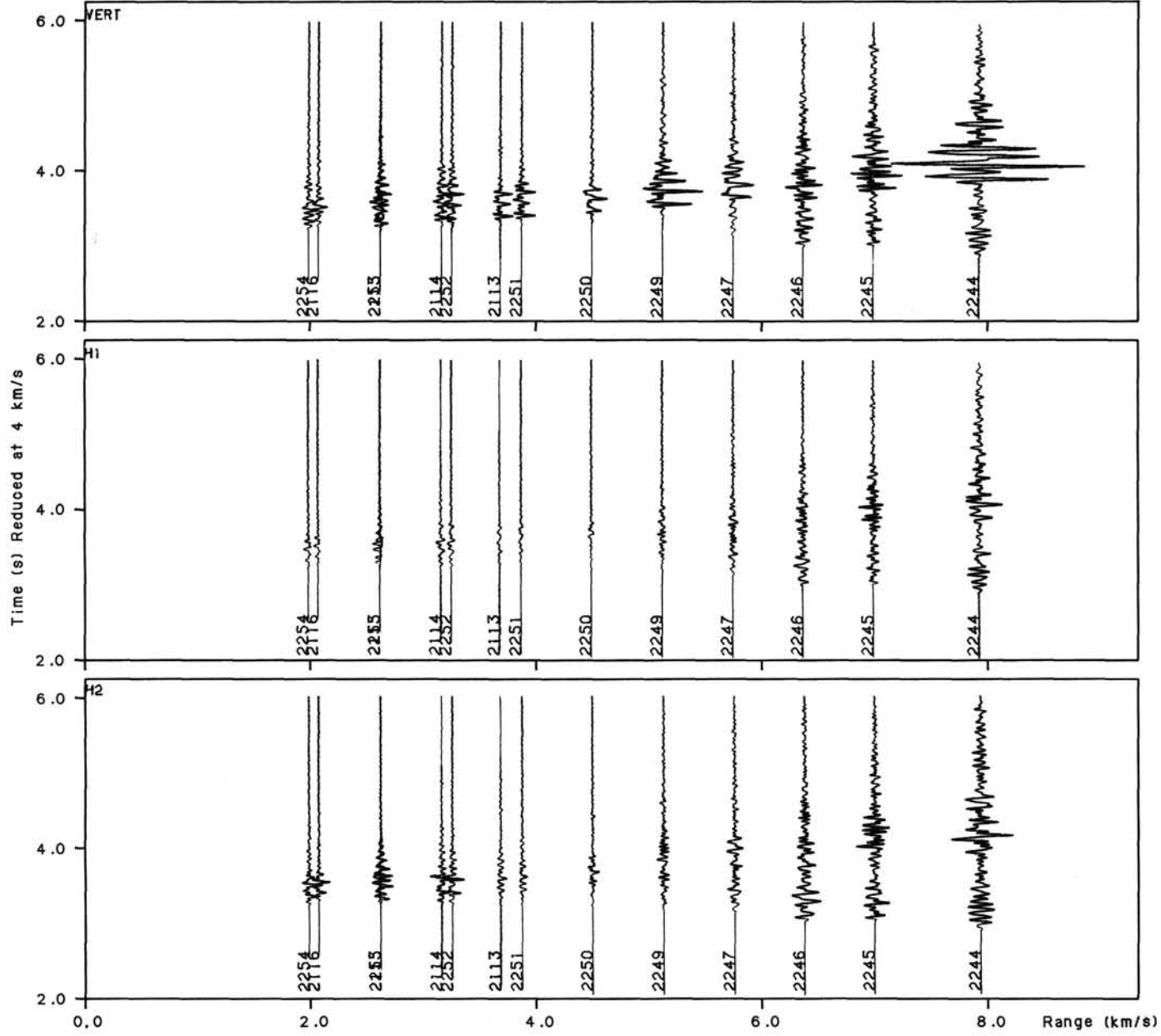
RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 25 30 HZ  
SOB0 25 230M INTO BASEMENT TOVEX  
SHOTS 2221 TO 2233

# LINE 7 SSW



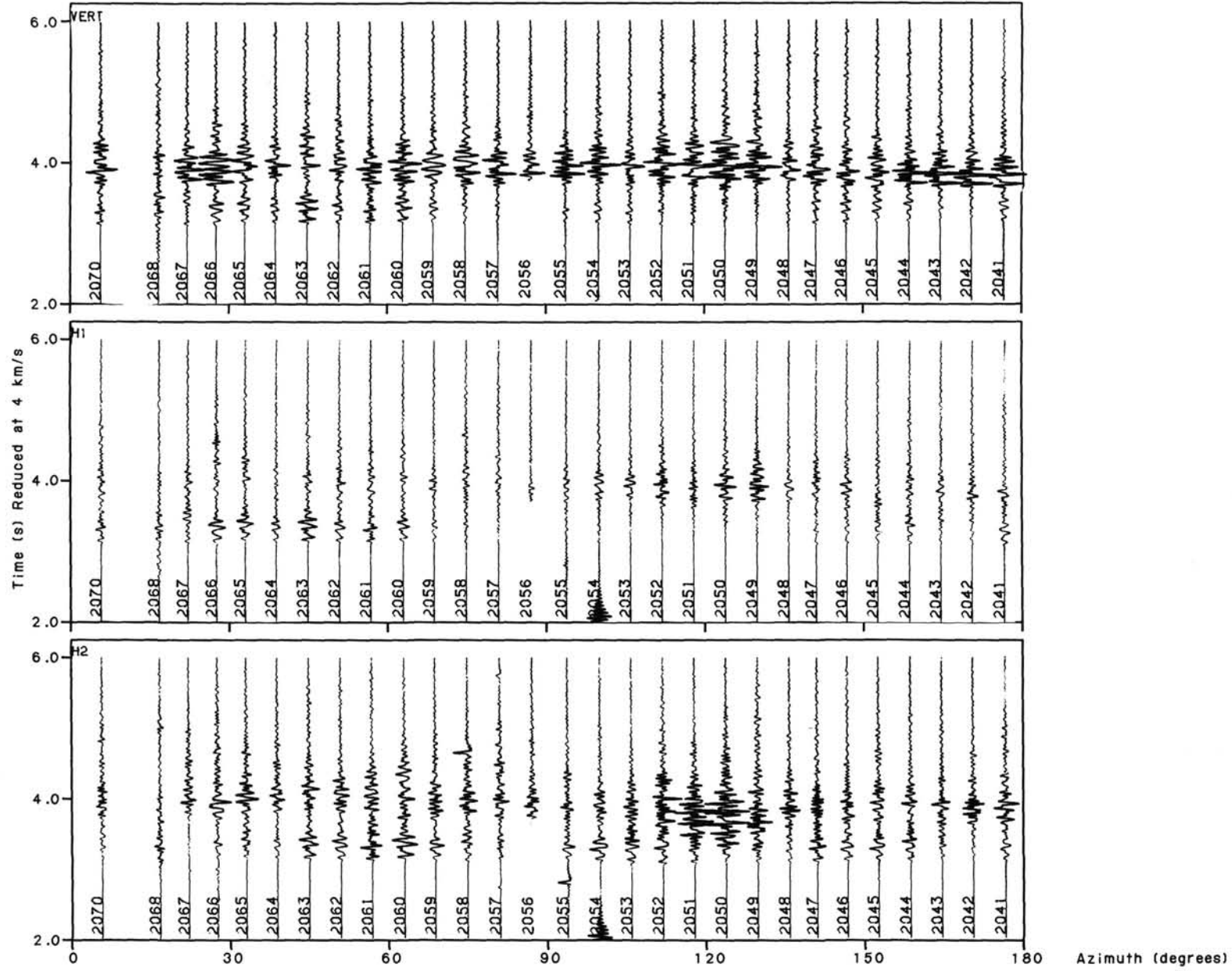
RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 25 30 HZ  
SOBO 25 230M INTO BASEMENT TOVEX  
SHOTS 2113 TO 2254

# LINE 8 SSE



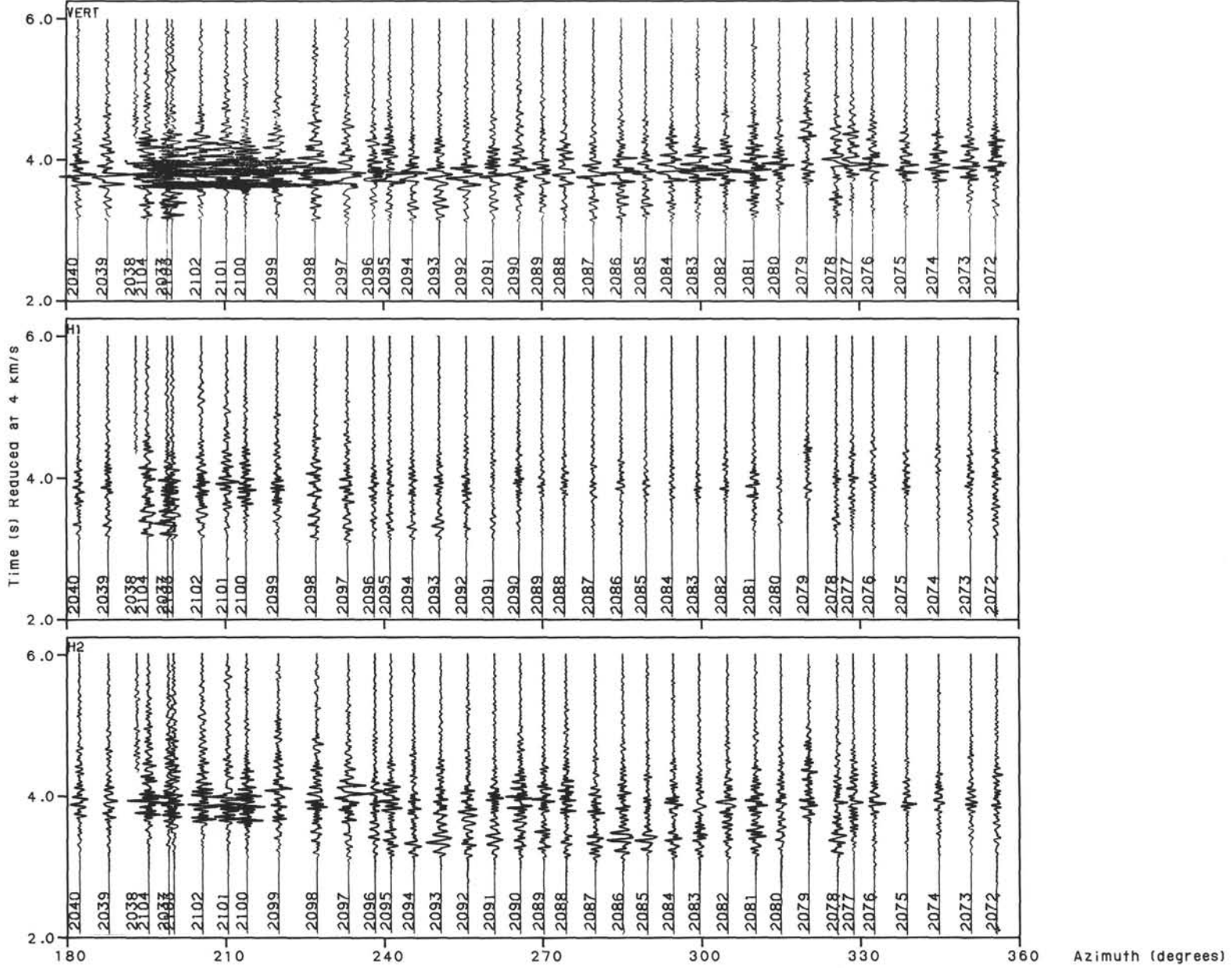
RD 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOBO 25 230M INTO BASEMENT TOVEX  
 SHOTS 2041 TO 2070

6KM CIRCLE



# 6KM CIRCLE

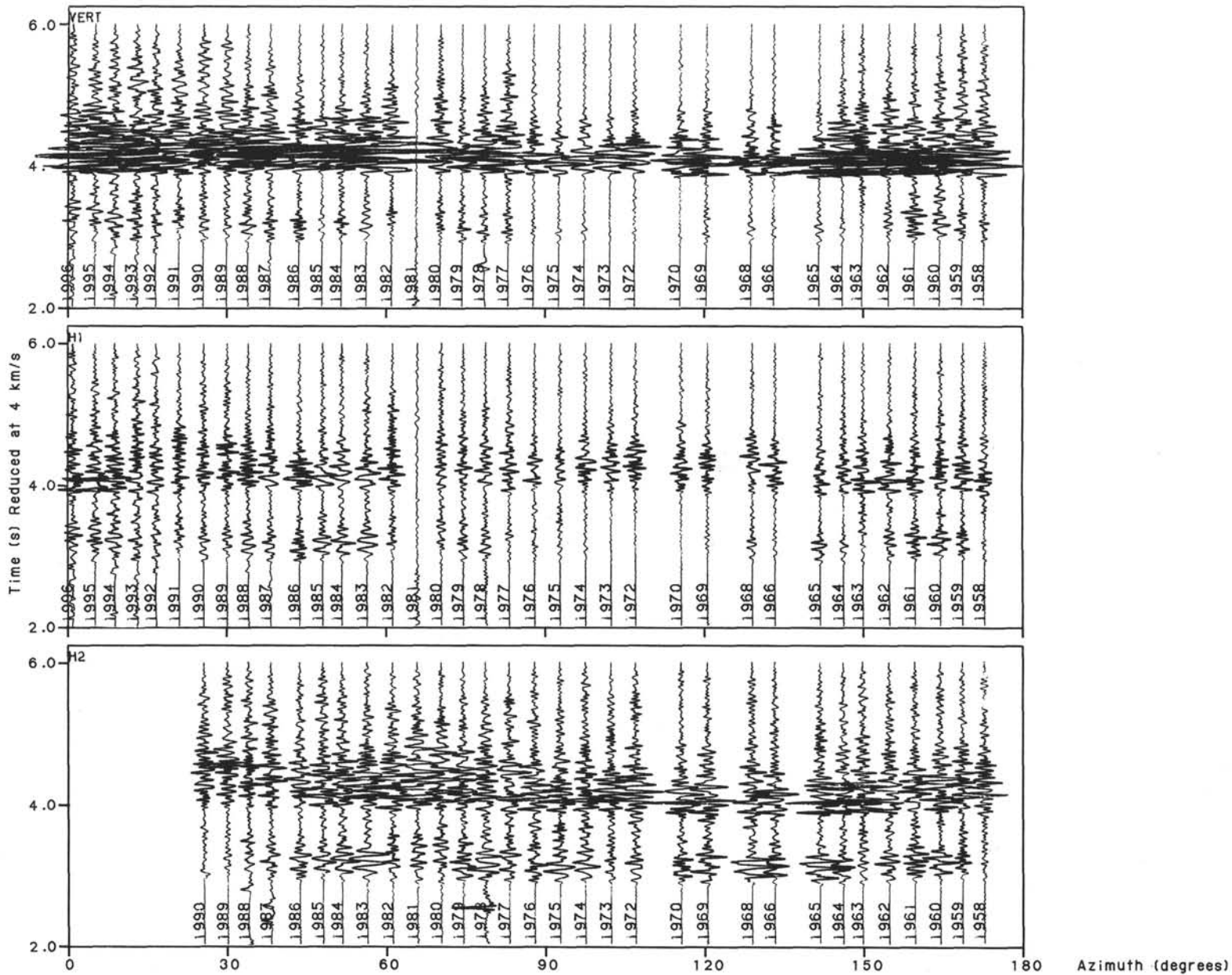
RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOBO 25 230M INTO BASEMENT TOVEX  
 SHOTS 2037 TO 2104





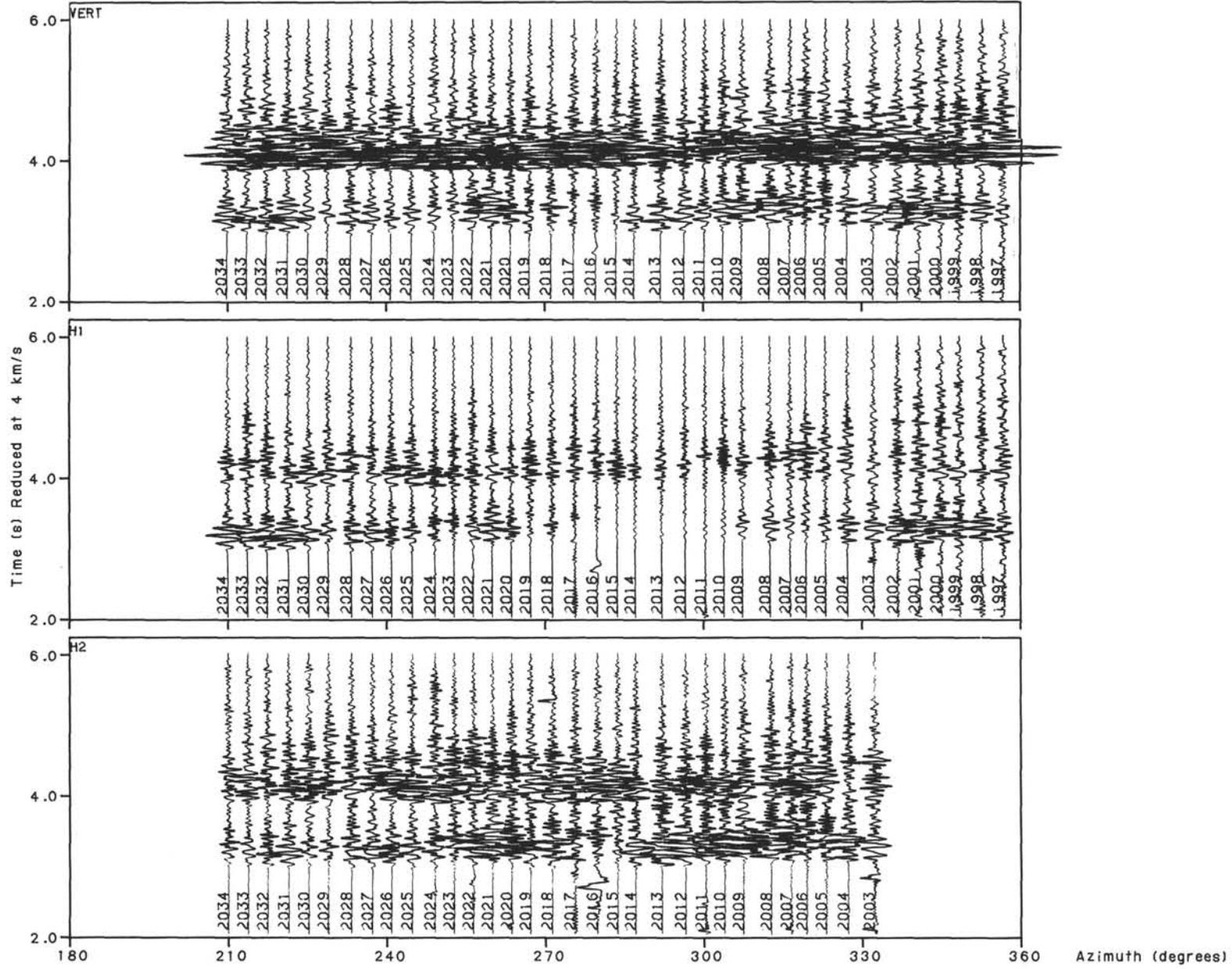
RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOBO 25 230M INTO BASEMENT TOVEX  
 SHOTS 1958 TO 1996

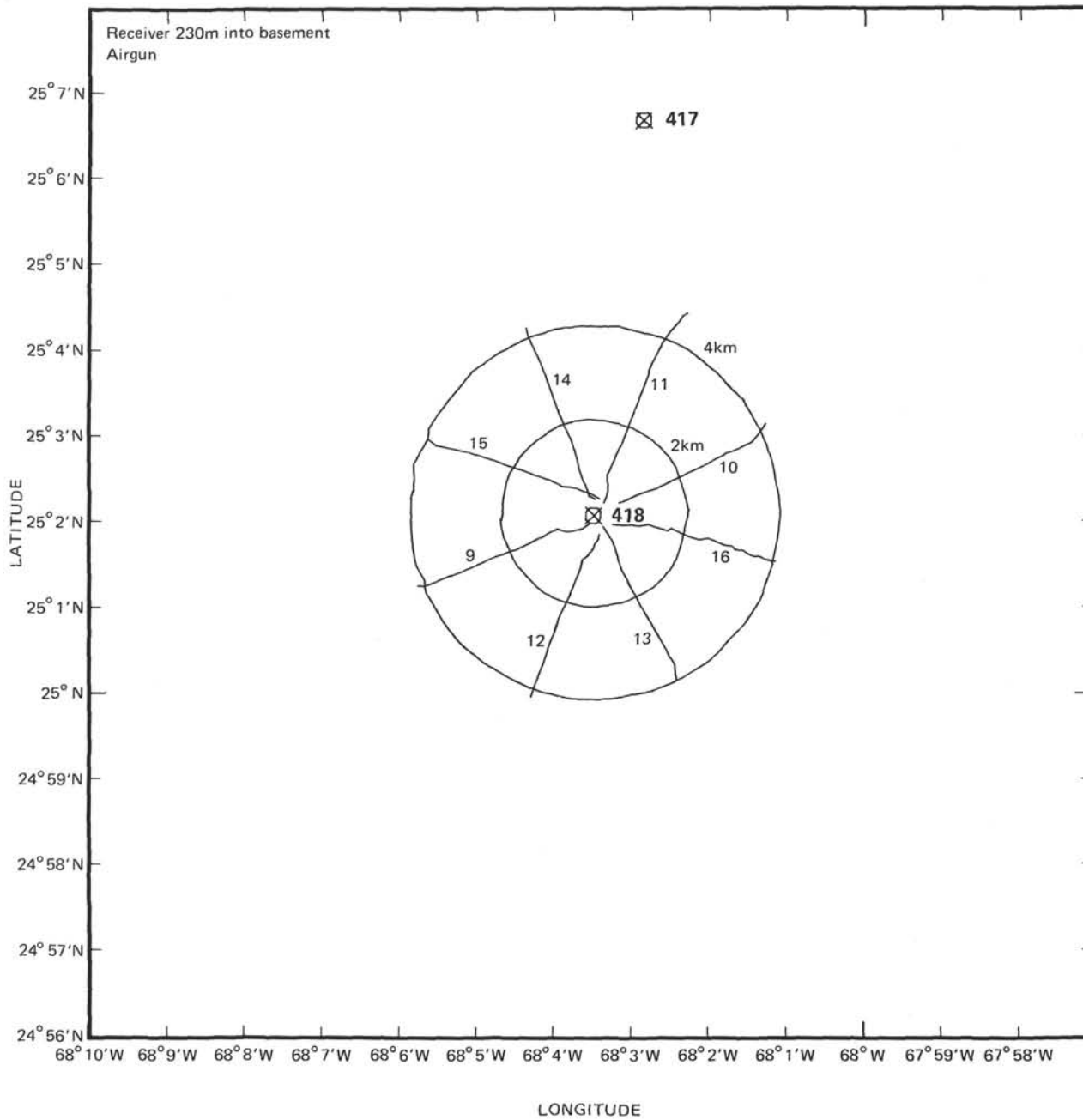
8 KM CIRCLE



RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 0.075 TSC 1.000  
BP FILT 0 5 25 30 HZ  
SOBO 25 230M INTO BASEMENT TOVEX  
SHOTS 1997 TO 2034

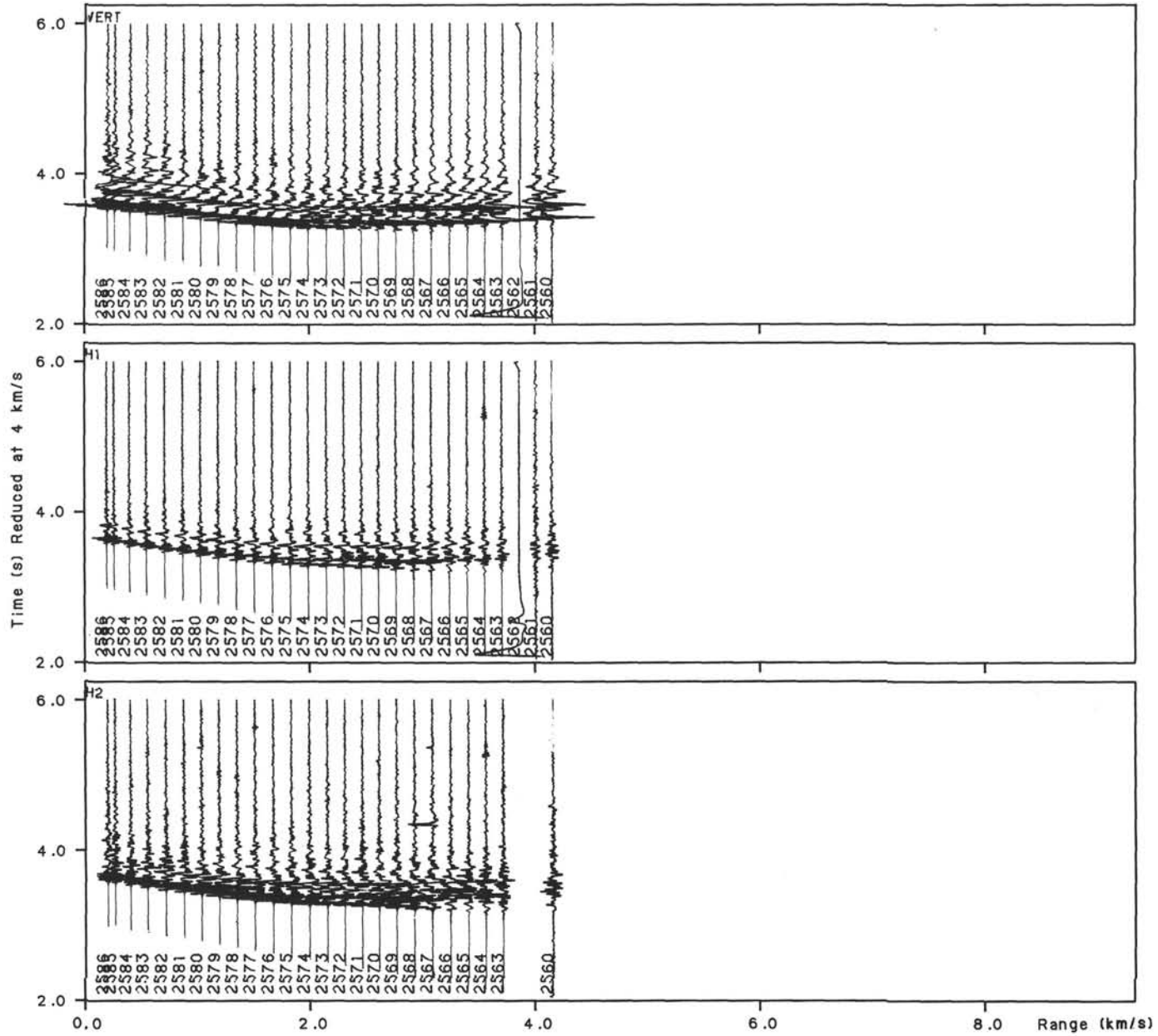
# 8 KM CIRCLE





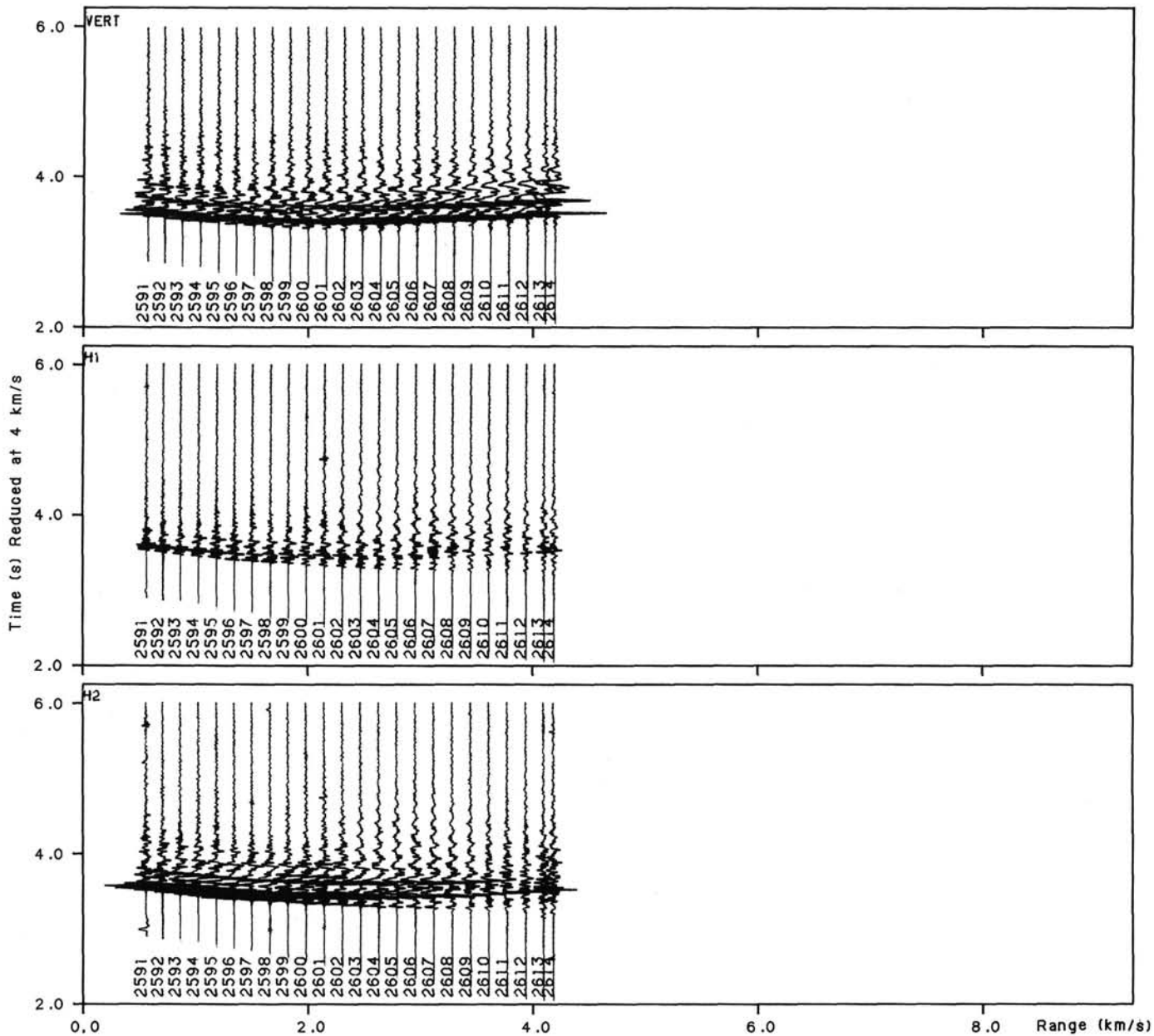
RJ 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 26 230M INTO BASEMENT AIRGUN  
 SHOTS 2560 TO 2586

LINE 9 WSW



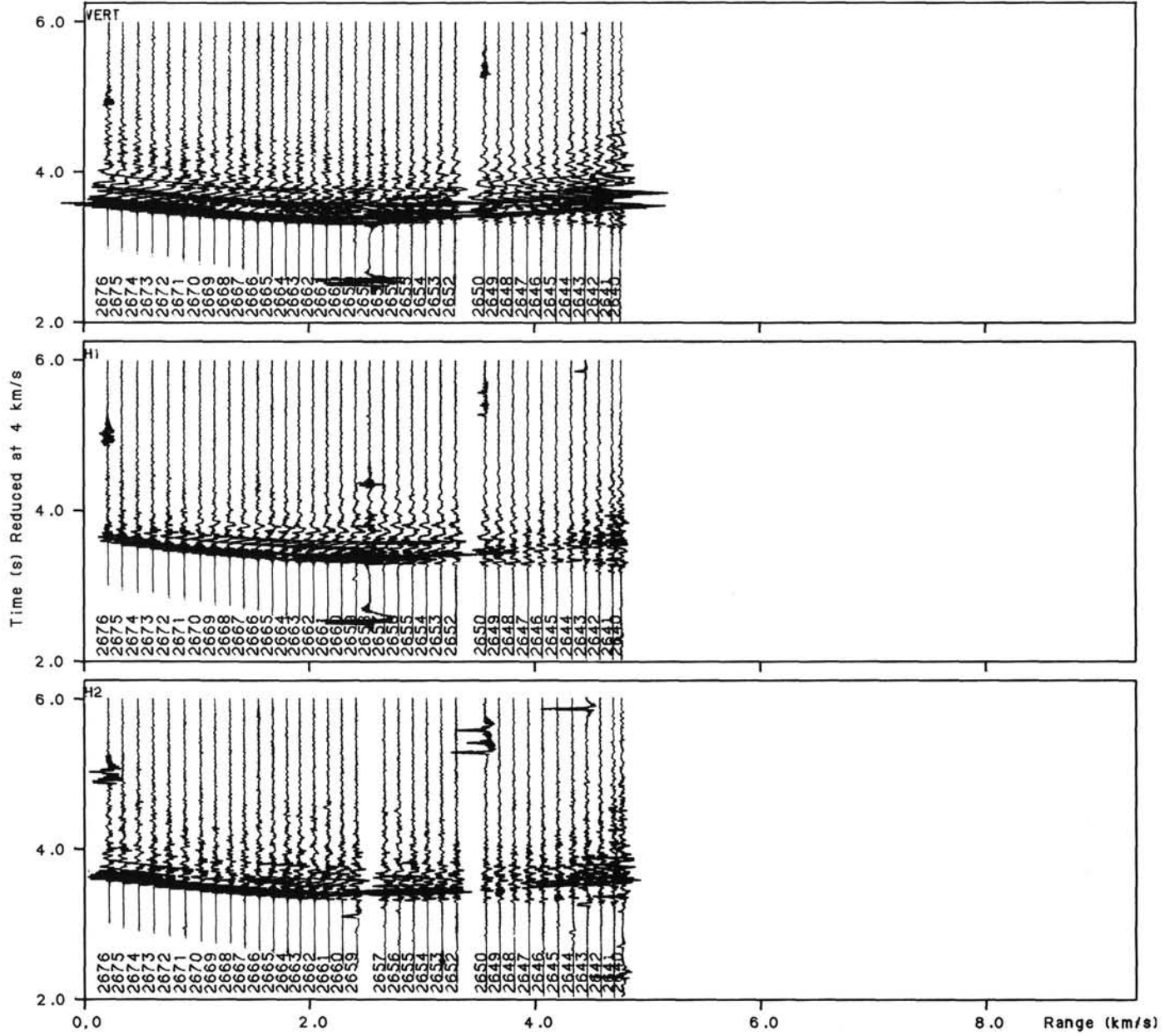
RD 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 26 230M INTO BASEMENT AIRGUN  
 SHOTS 2591 TO 2614

LINE 10 ENE



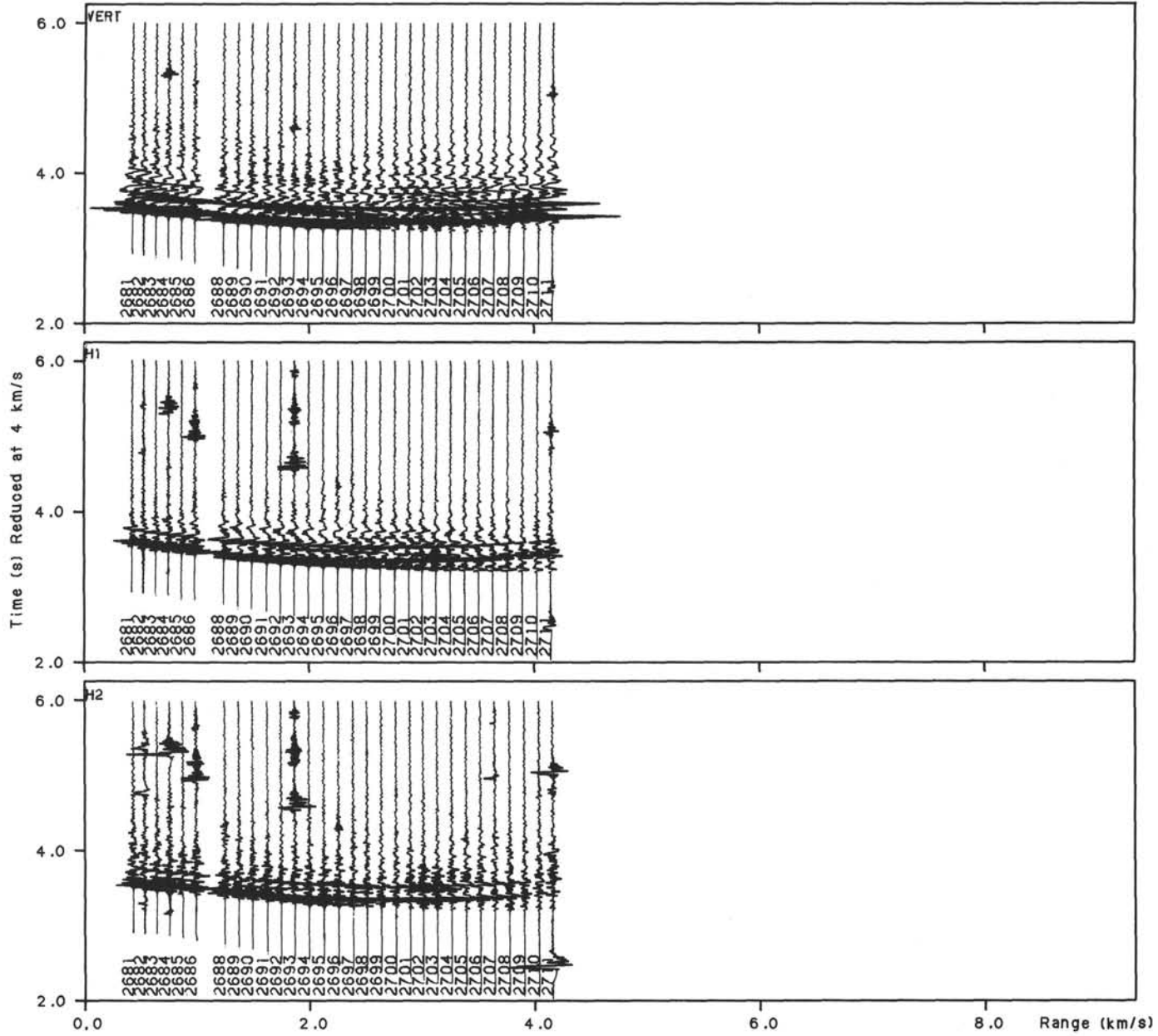
RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 40 50  
SOB0 26 230M INTO BASEMENT AIRGUN  
SHOTS 2640 TO 2676

LINE 11 NNE



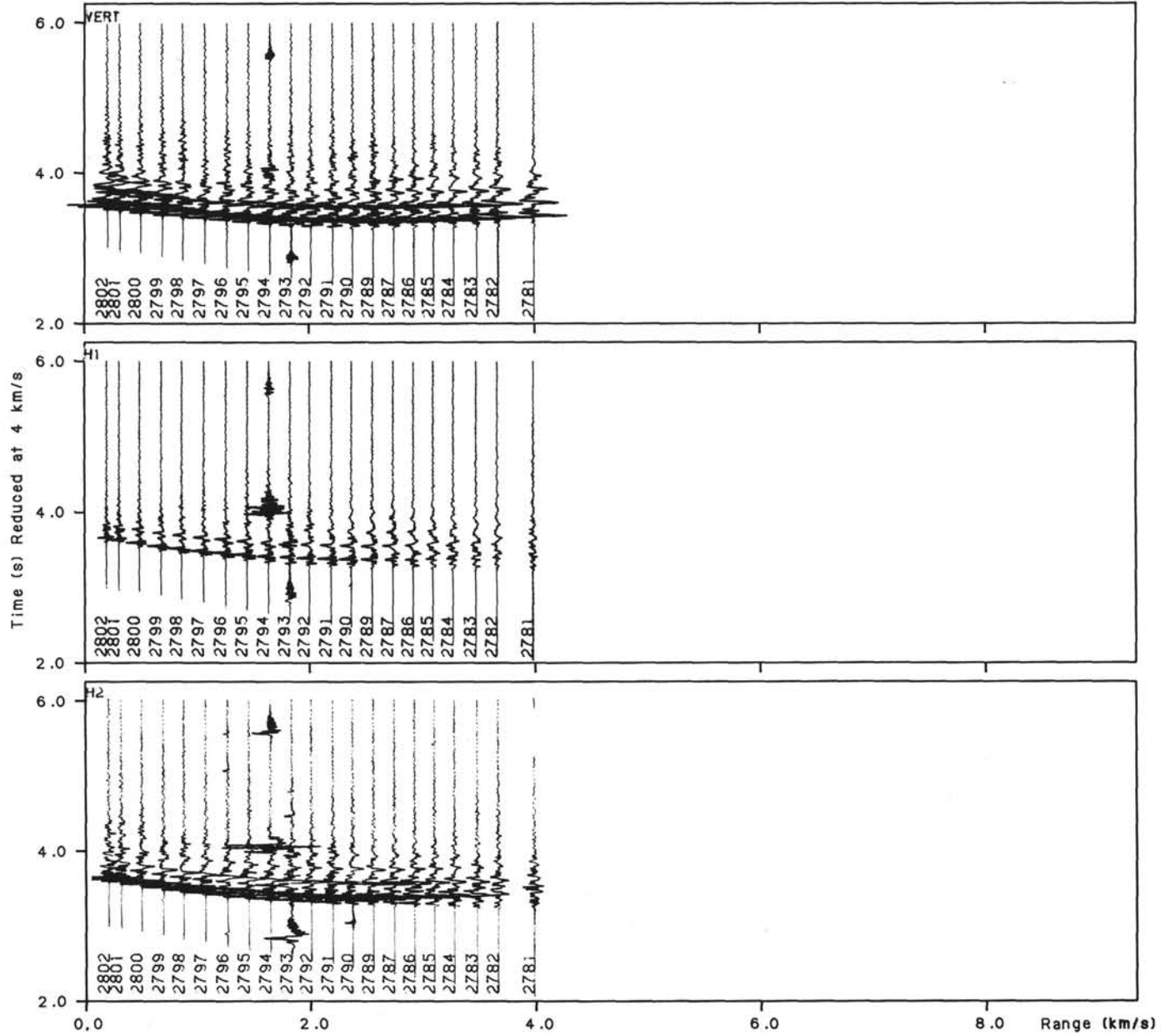
RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 26 230M INTO BASEMENT AIRGUN  
 SHOTS 2681 TO 2711

LINE 12 SSW



RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 40 50 HZ  
SOBO 26 230M INTO BASEMENT AIRGUN  
SHOTS 2781 TO 2802

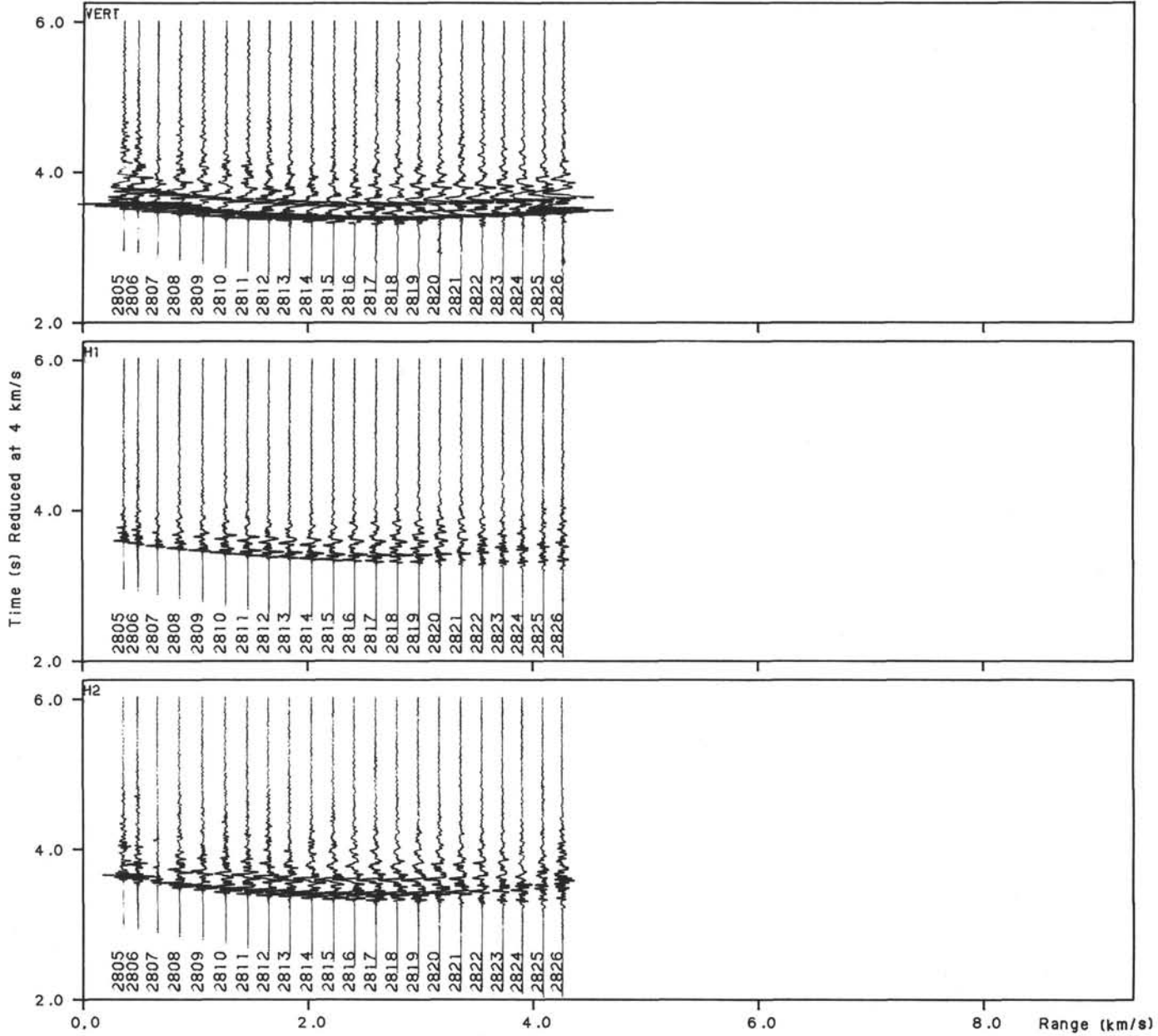
# LINE 13 SSE





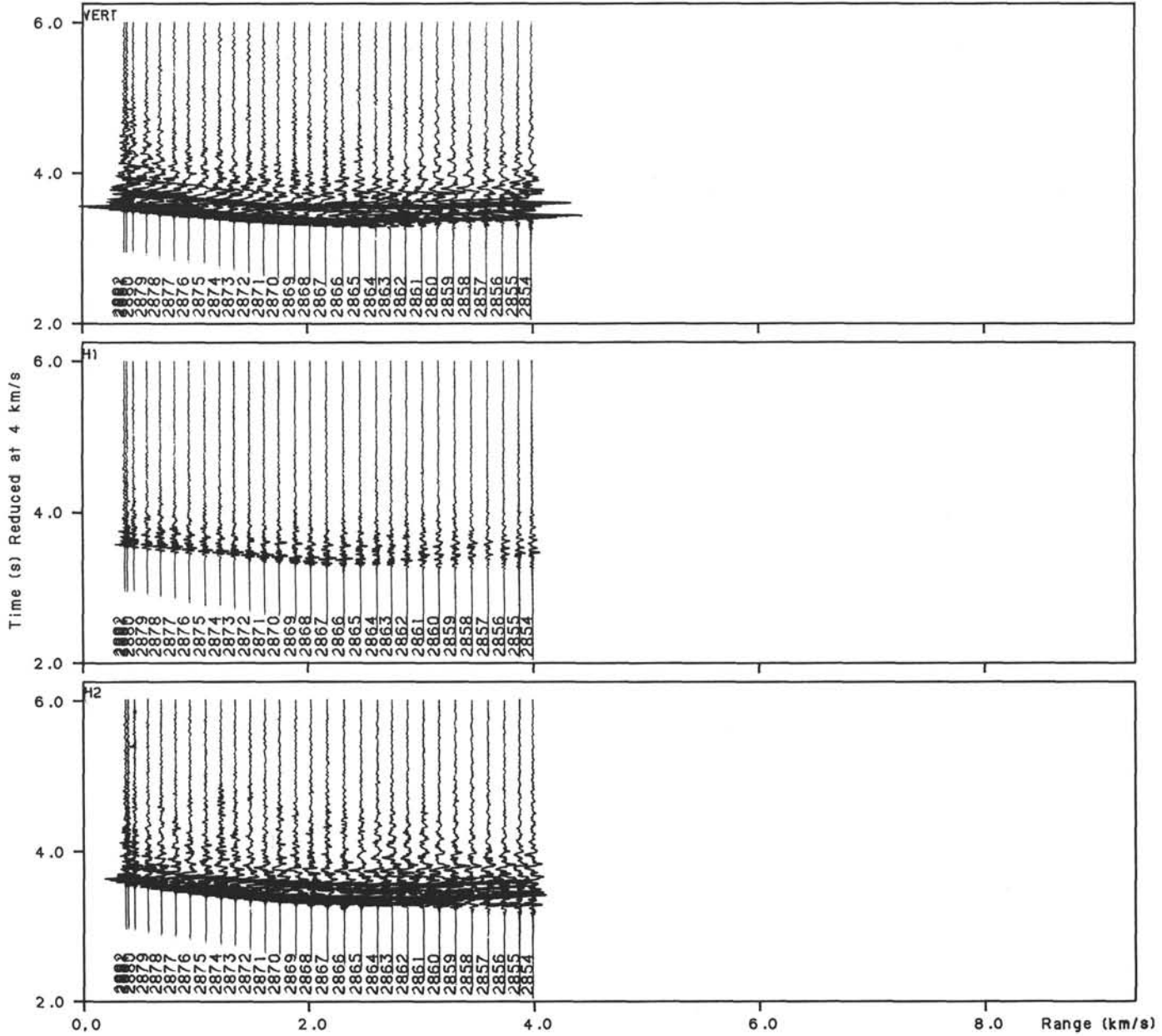
AN-86  
 RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 26 230M INTO BASEMENT AIRGUN  
 SHOTS 2805 TO 2826

LINE 14 NNW



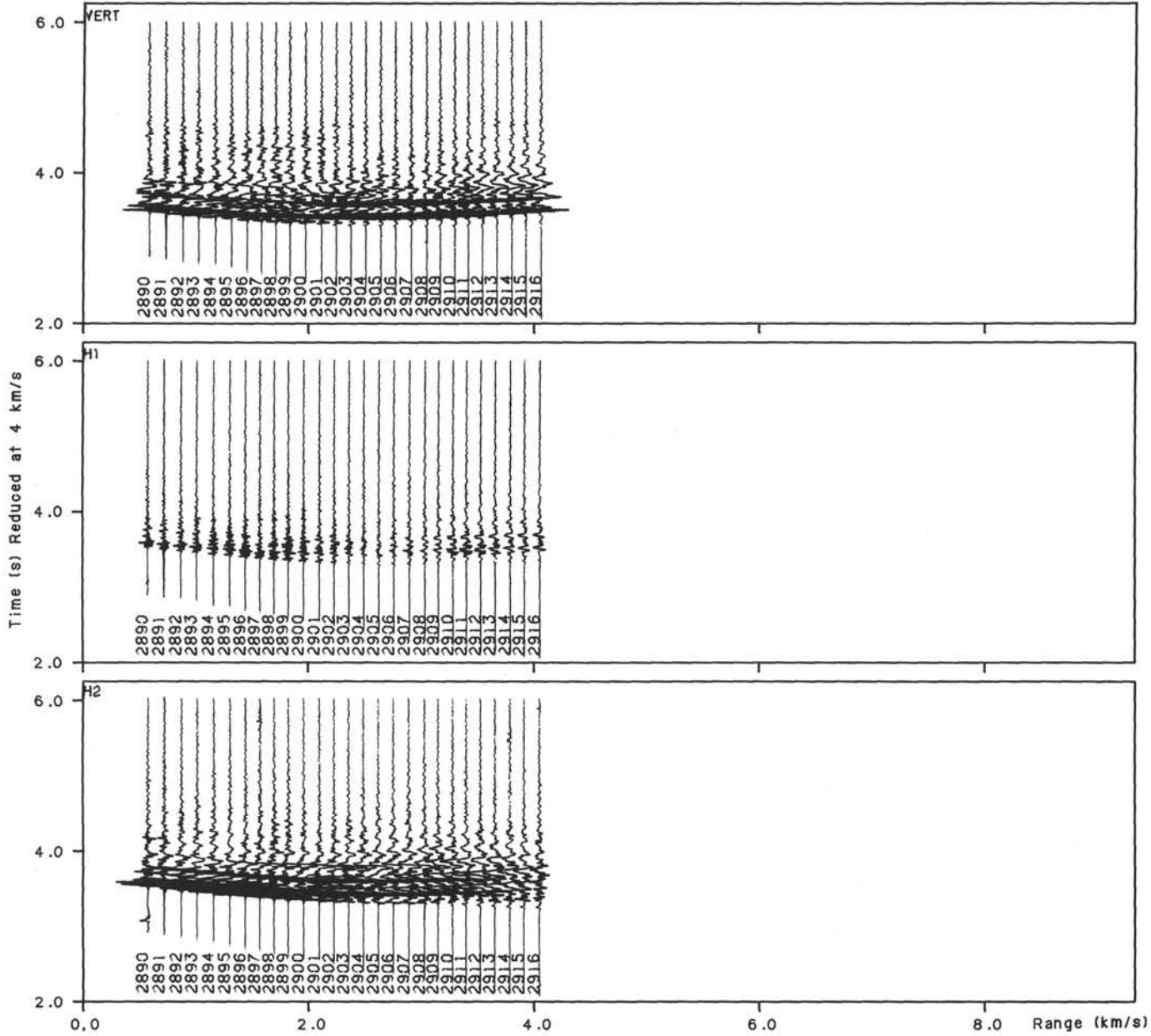
RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 26 230M INTO BASEMENT AIRGUN  
 SHOTS 2854 TO 2882

# LINE 15 WNW



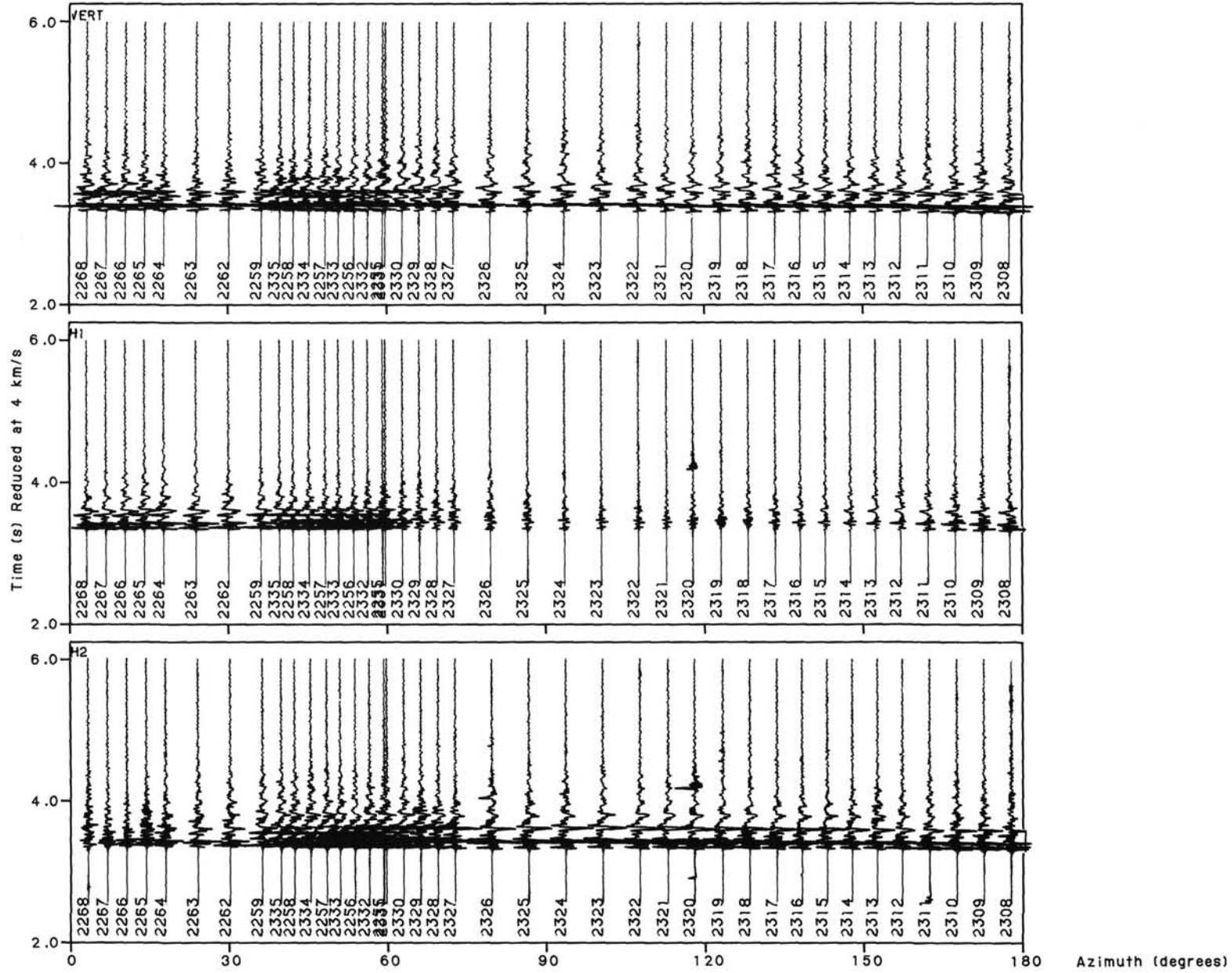
R0 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 26 230M INTO BASEMENT AIRGUN  
 SHOTS 2890 TO 2916

LINE 16 ESE



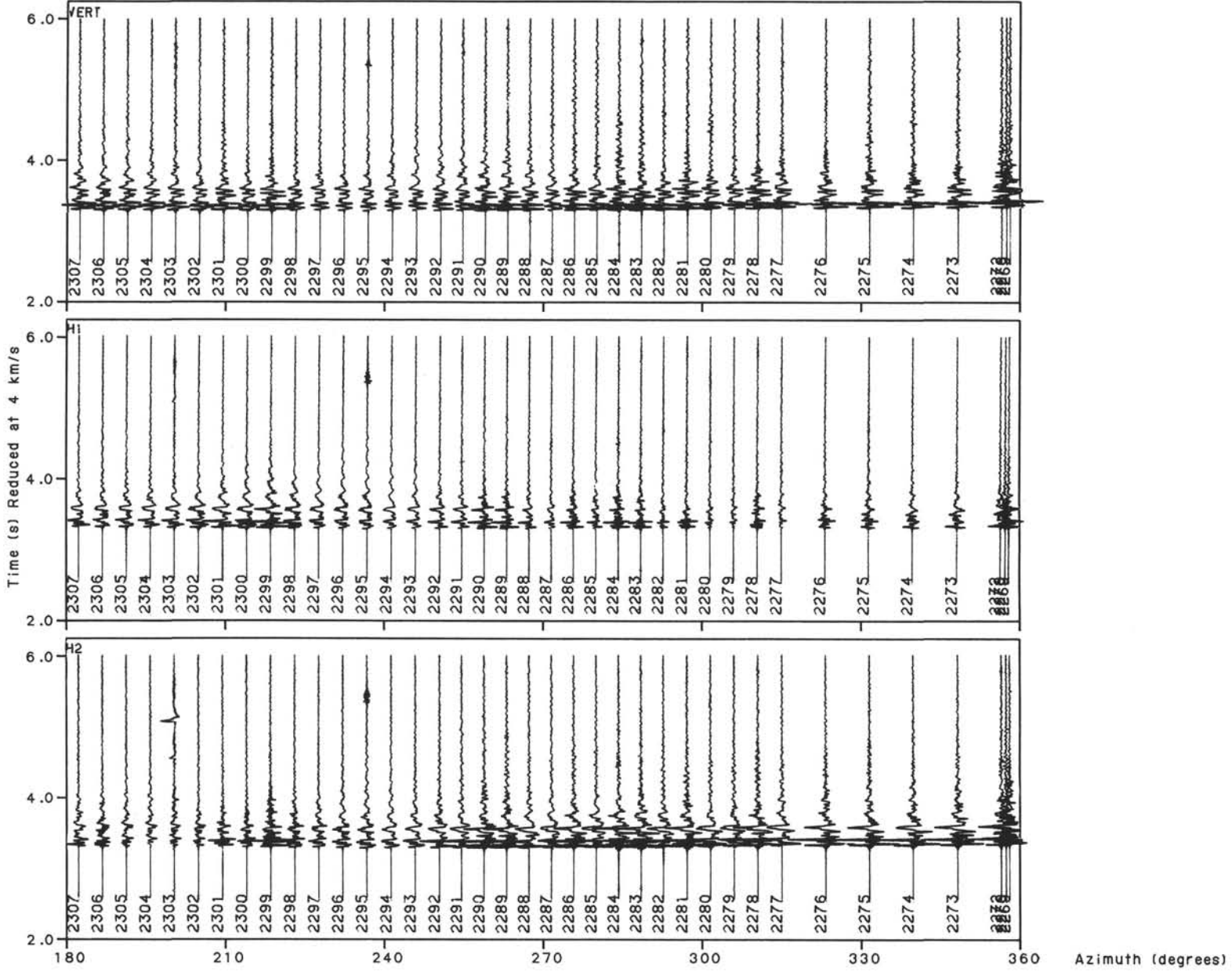
# 2 KM CIRCLE

RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 26 230M INTO BASEMENT AIRGUN  
 SHOTS 2255 TO 2335

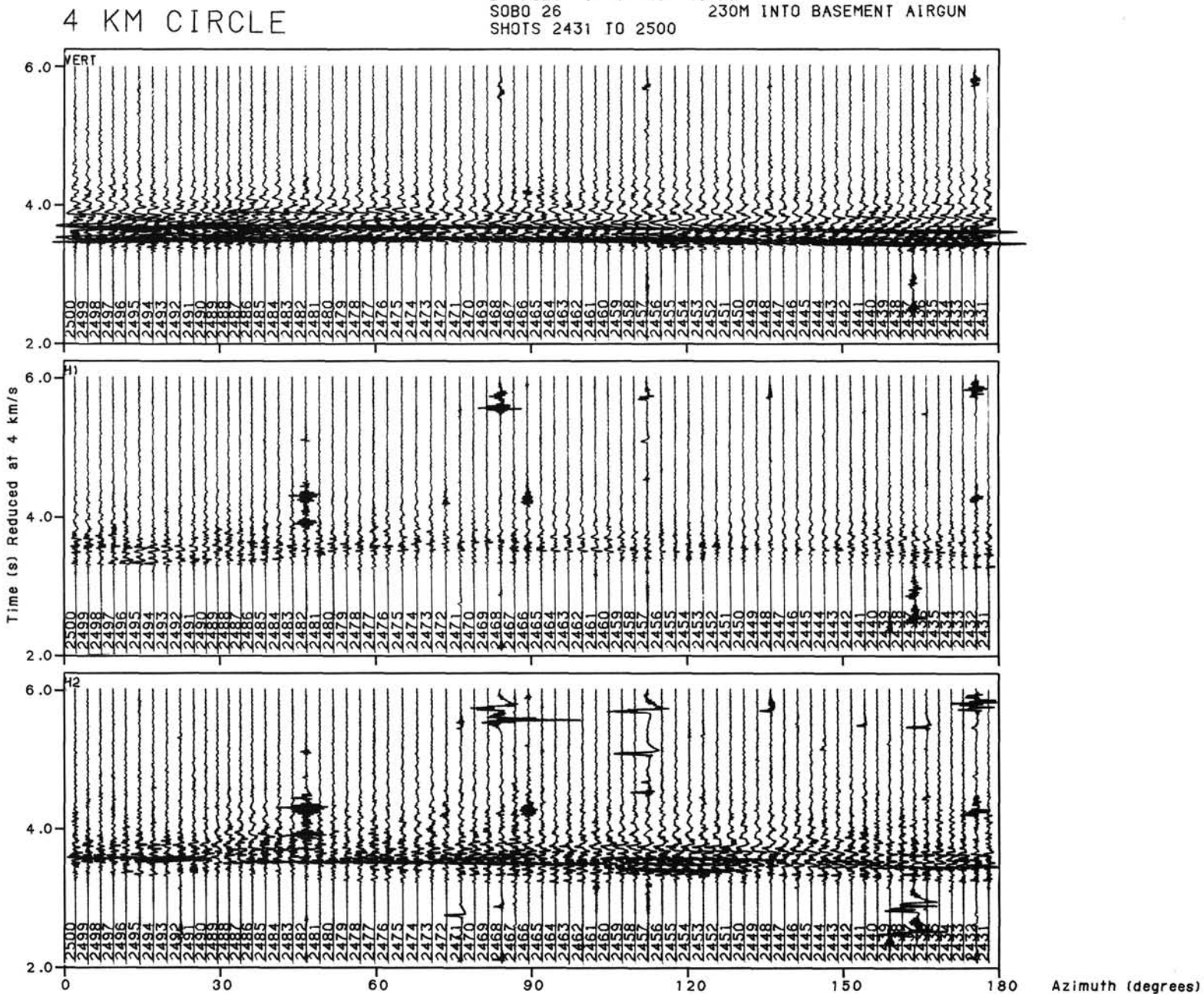


RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 26 230M INTO BASEMENT AIRGUN  
 SHOTS 2269 TO 2307

2 KM CIRCLE

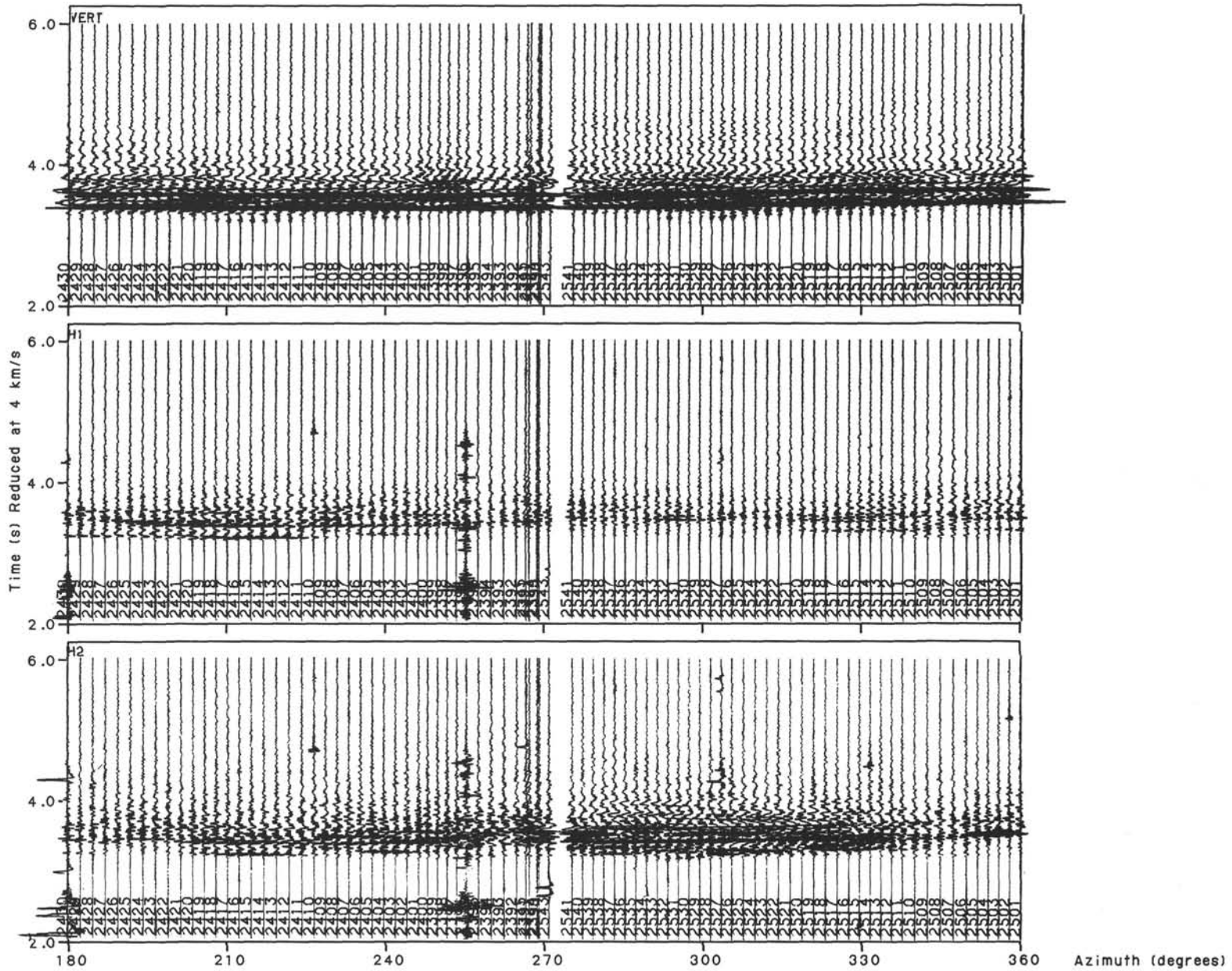


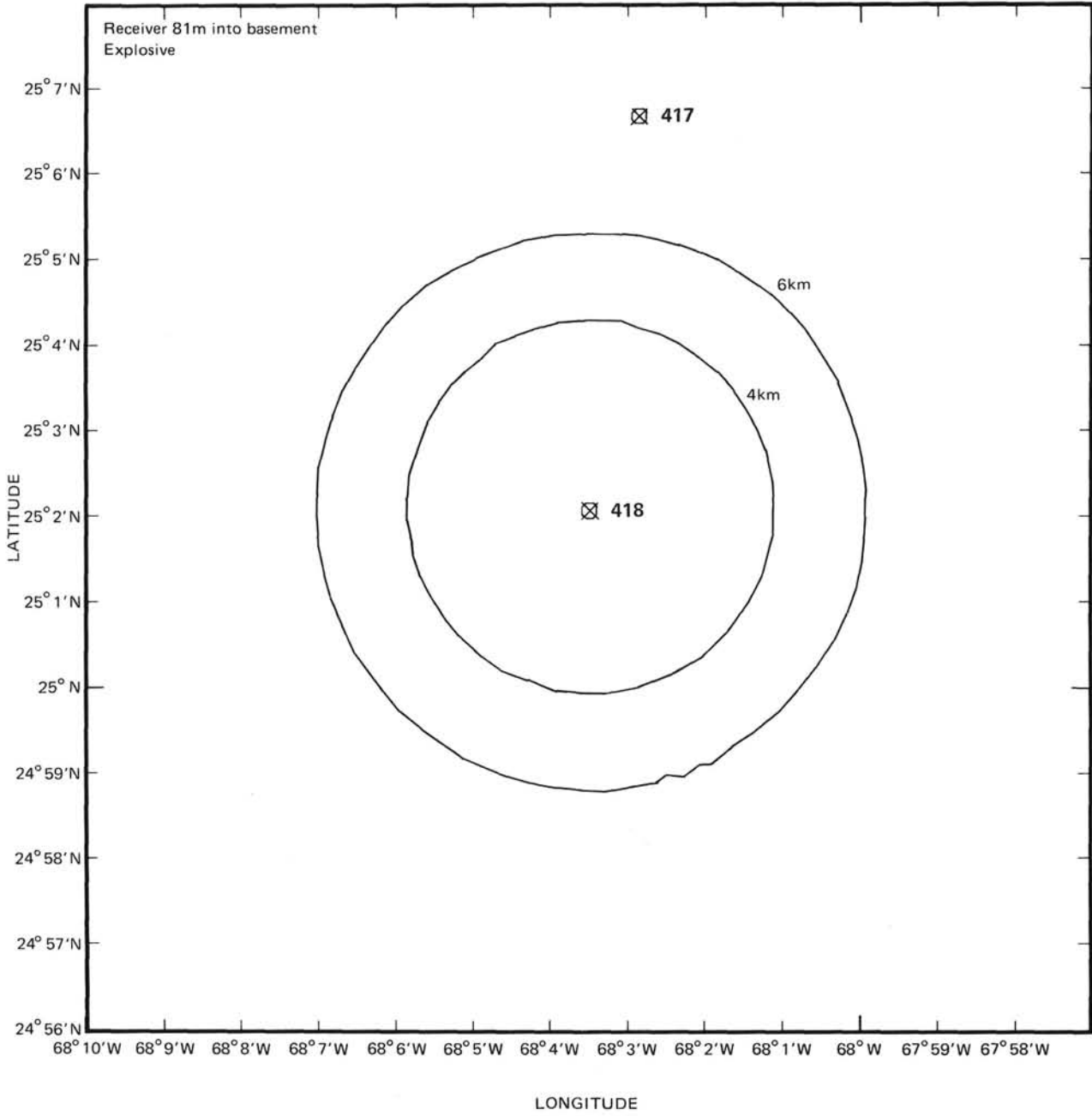
RD 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 26 230M INTO BASEMENT AIRGUN  
 SHOTS 2431 TO 2500



RD 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 0.075 TSC 1.000  
BP FILT 0 5 40 50 HZ  
SOBO 26 230M INTO BASEMENT AIRGUN  
SHOTS 2390 TO 2545

# 4 KM CIRCLE

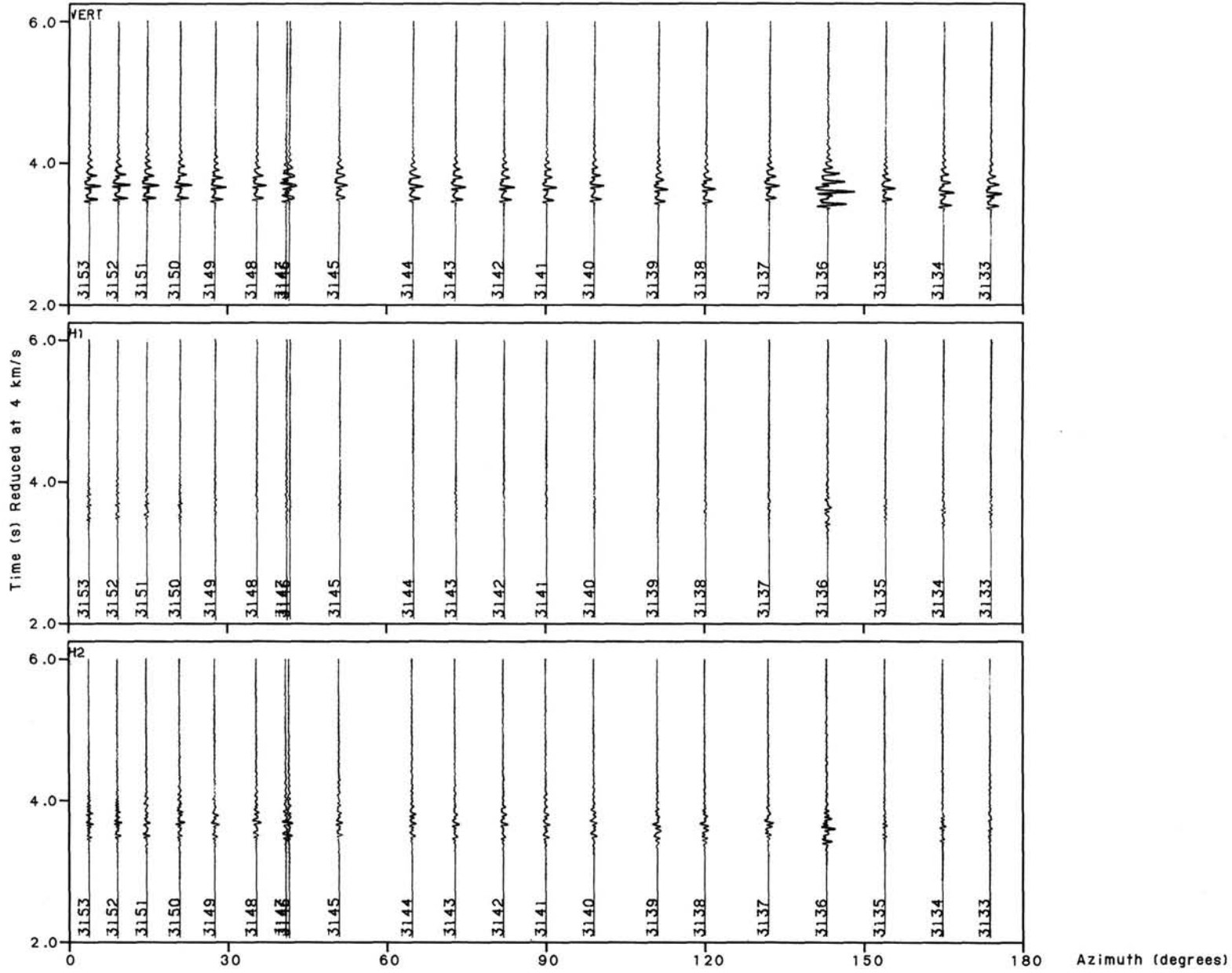






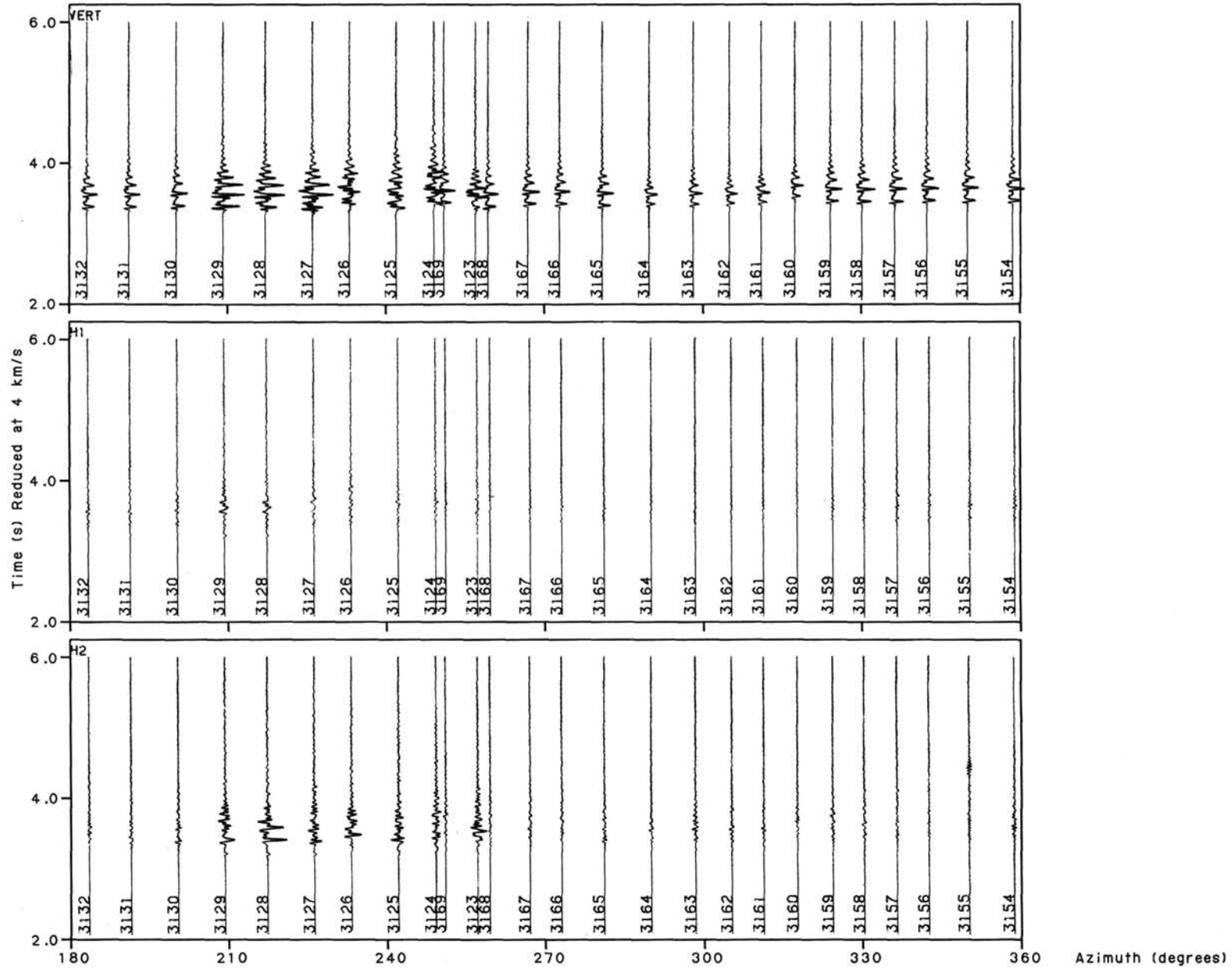
RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOBO 28 81M INTO BASEMENT TOVEX  
 SHOTS 3133 TO 3153

4 KM CIRCLE



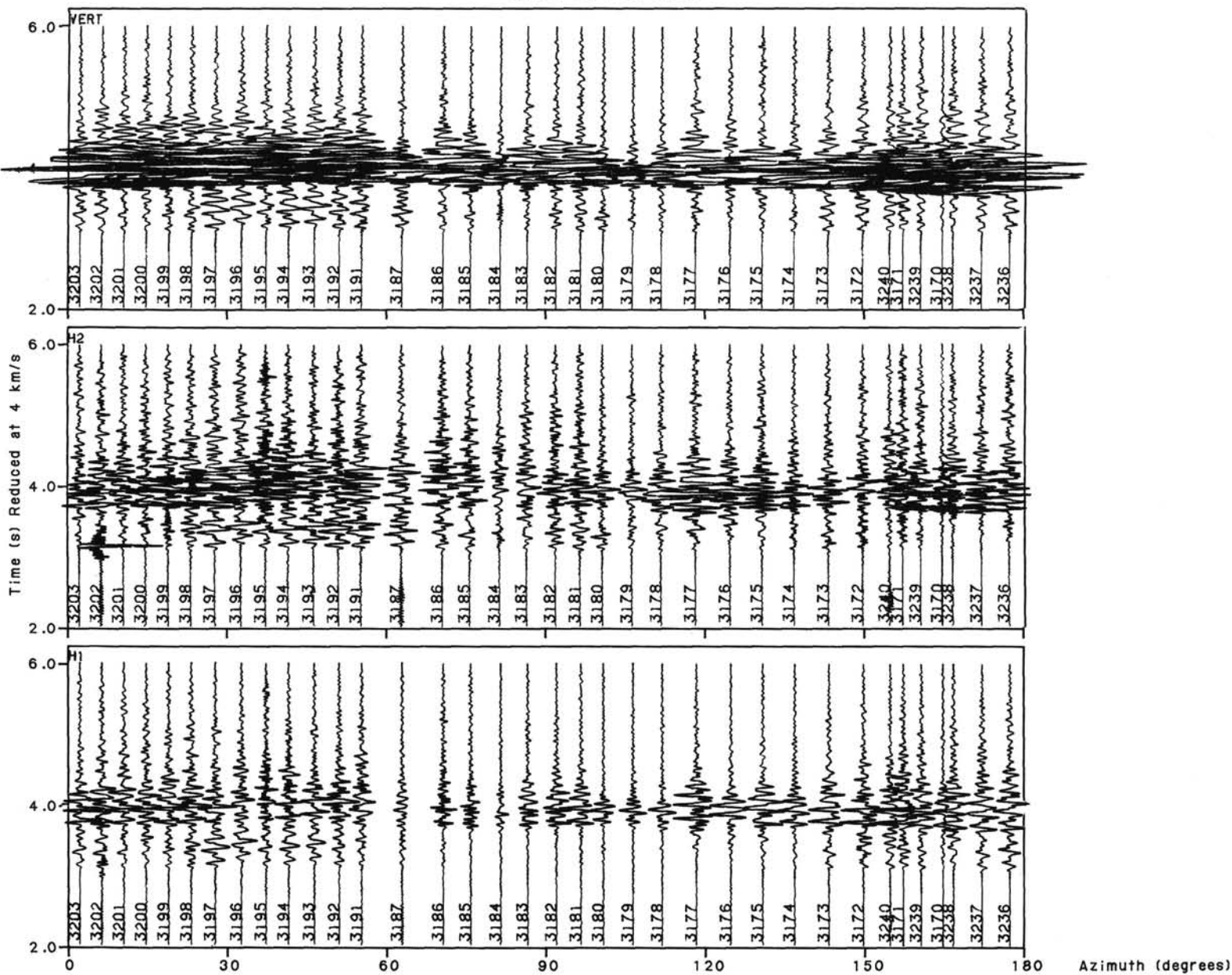
## 4 KM CIRCLE

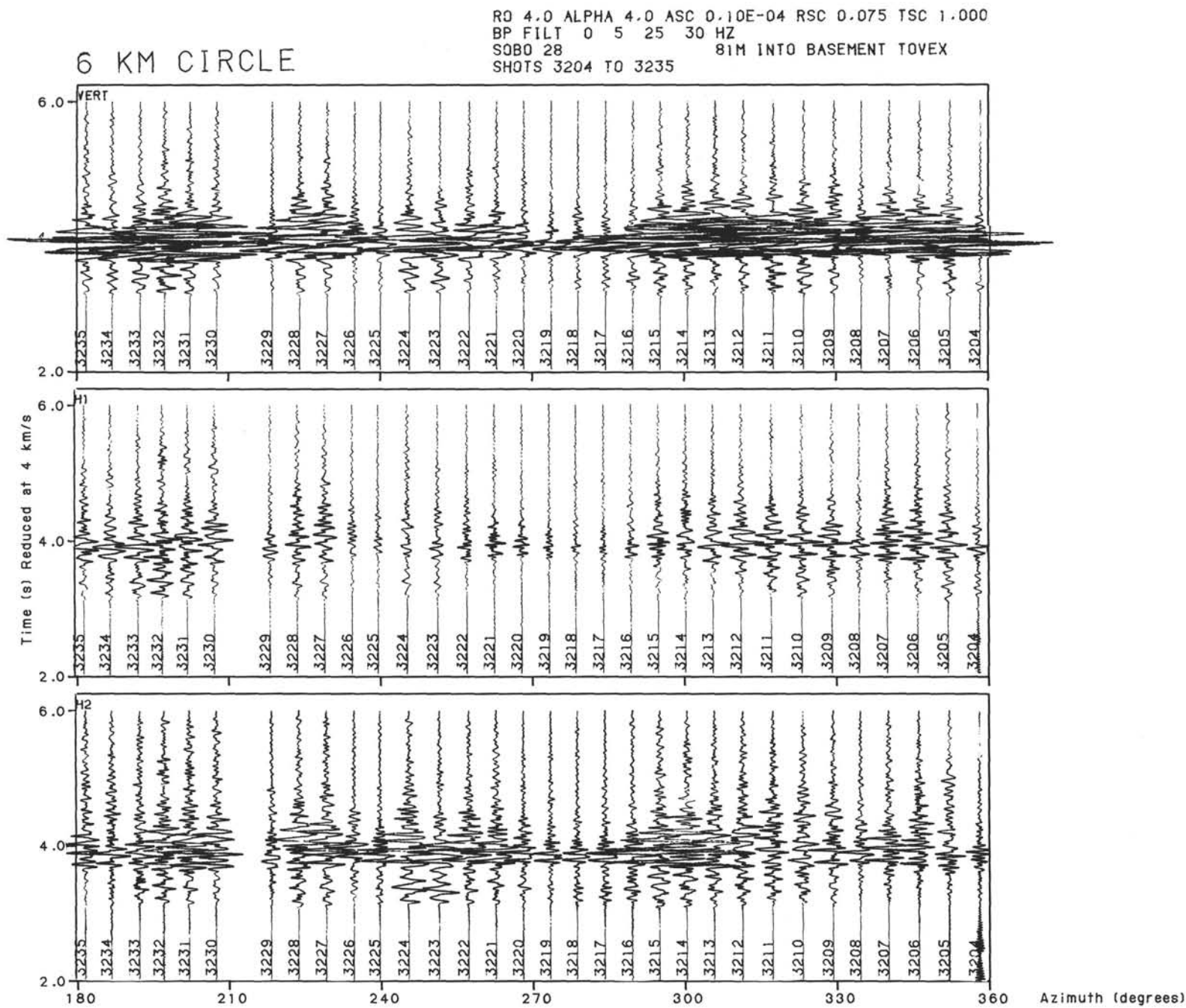
RO 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOBO 28. 81M INTO BASEMENT TOVEX  
 SHOTS 3123 TO 3169

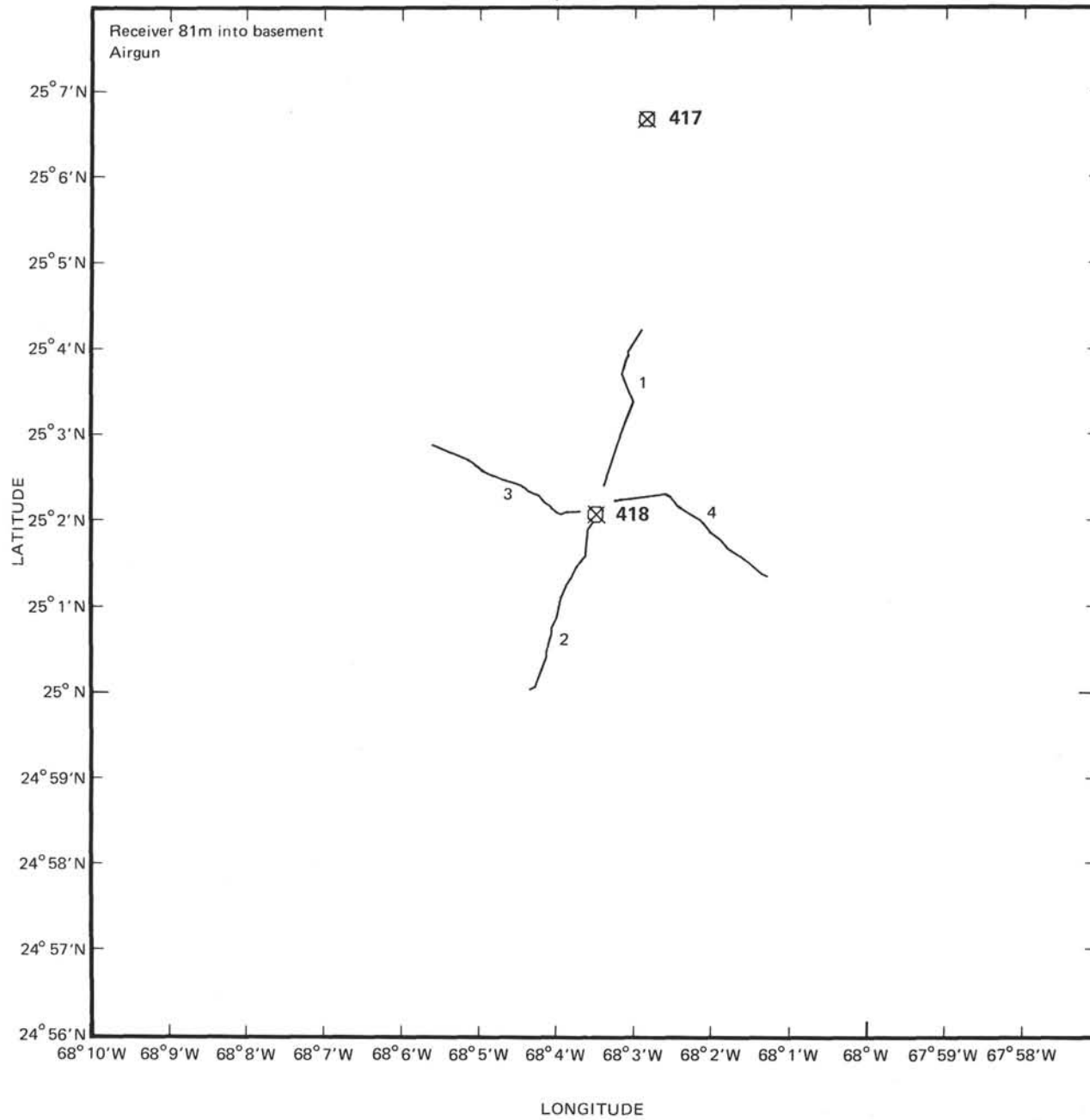


# 6 KM CIRCLE

R0 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOBO 28 81M INTO BASEMENT TOVEX  
 SHOTS 3170 TO 3240

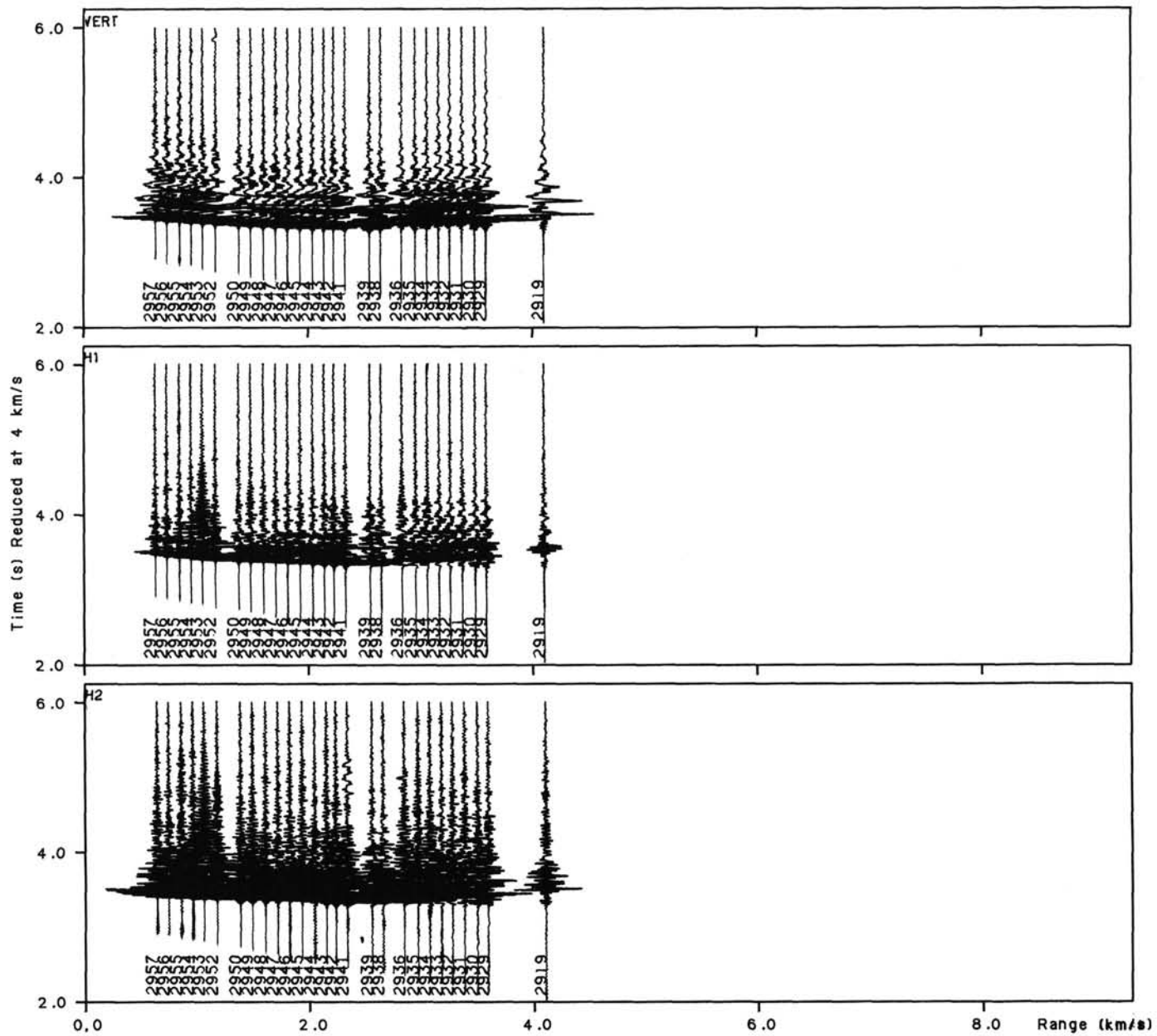






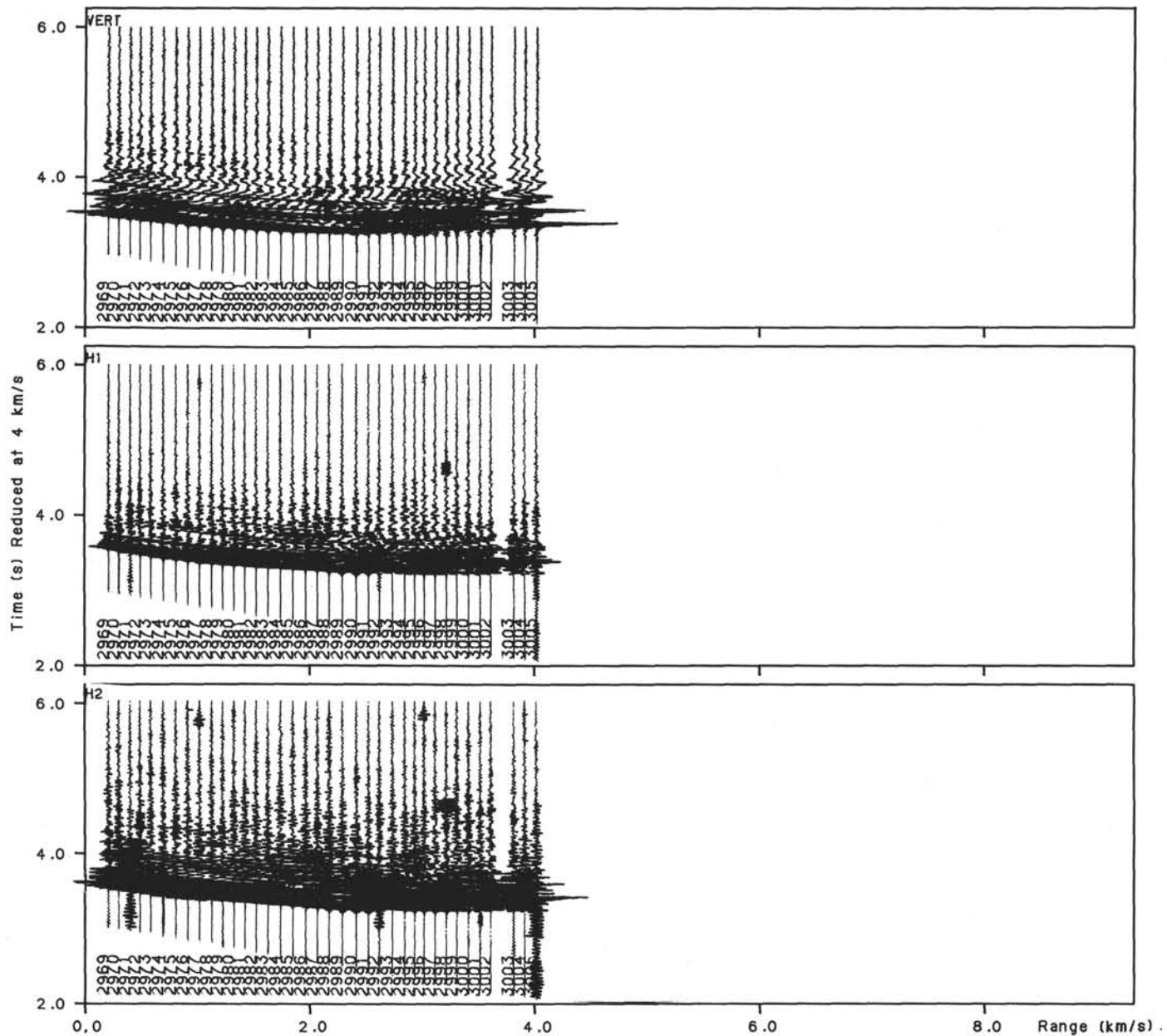
RD 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 27 81M INTO BASEMENT AIRGUN  
 SHOTS 2919 TO 2957

# LINE 1 NNE



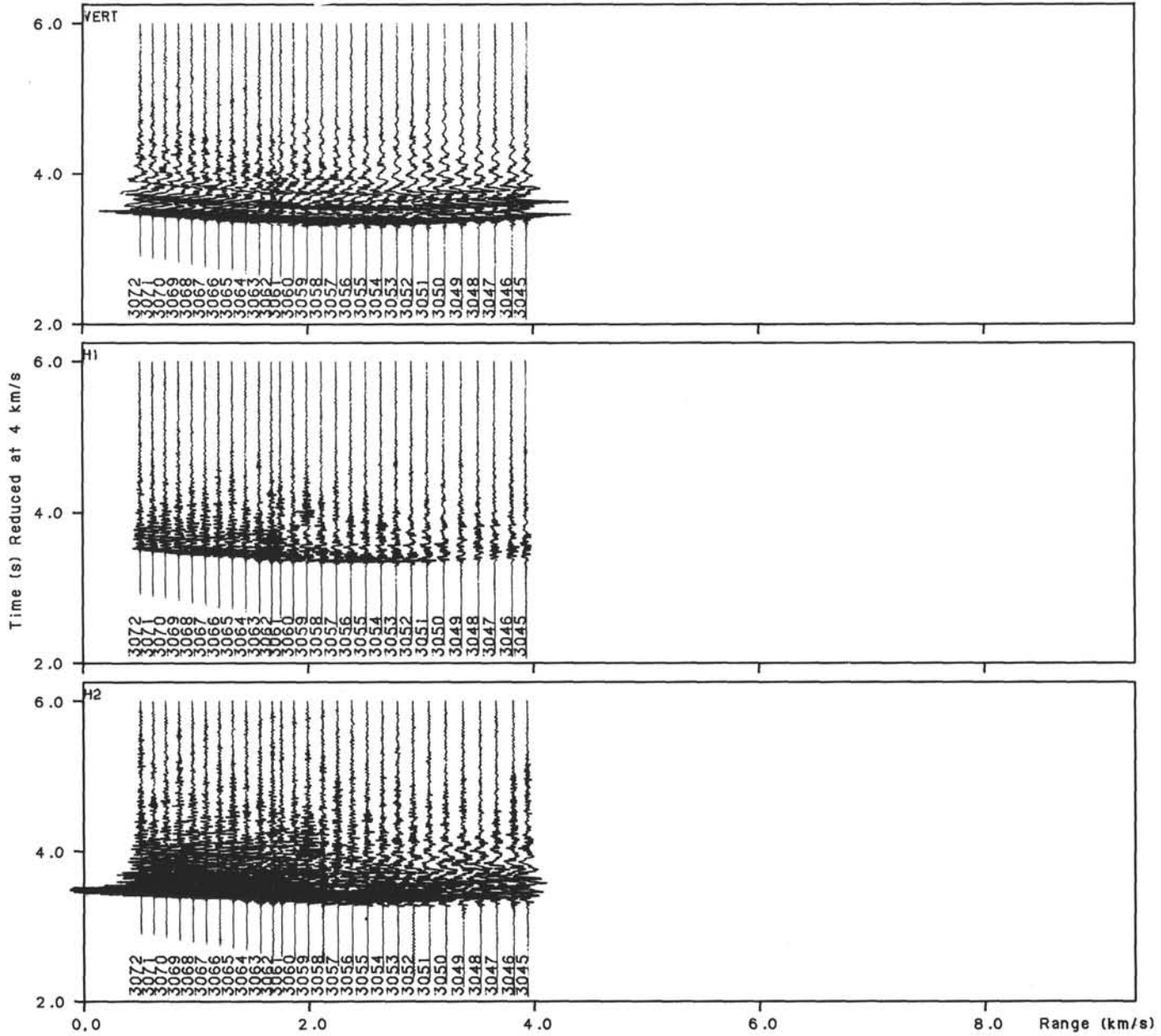
RO 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
BP FILT 0 5 40 50 HZ  
SOBO 27 81M INTO BASEMENT AIRGUN  
SHOTS 2969 TO 3005

# LINE 2 SSW



RD 4.0 ALPHA. 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 27 81M INTO BASEMENT AIRGUN  
 SHOTS 3045 TO 3072

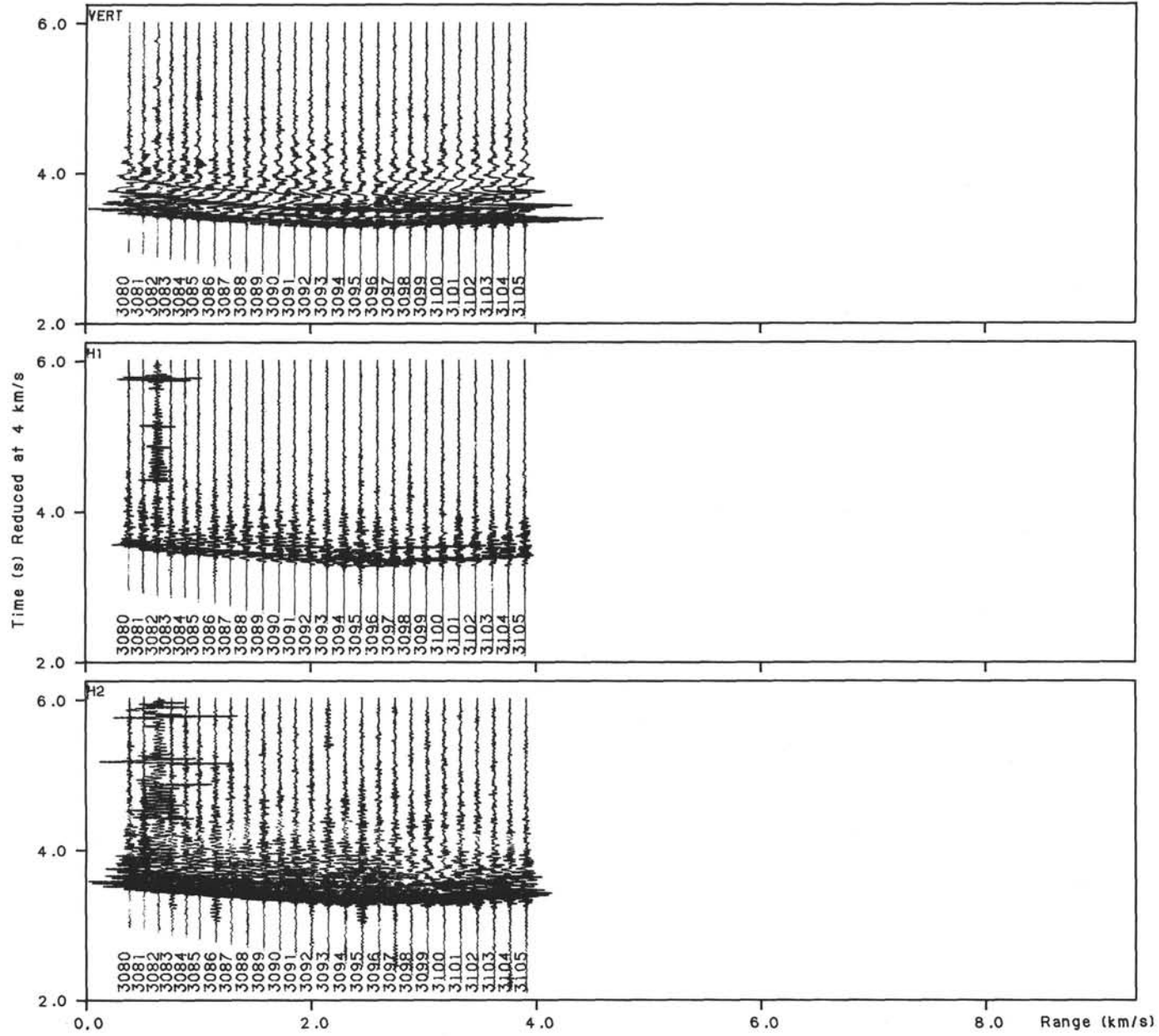
### LINE 3 ESE

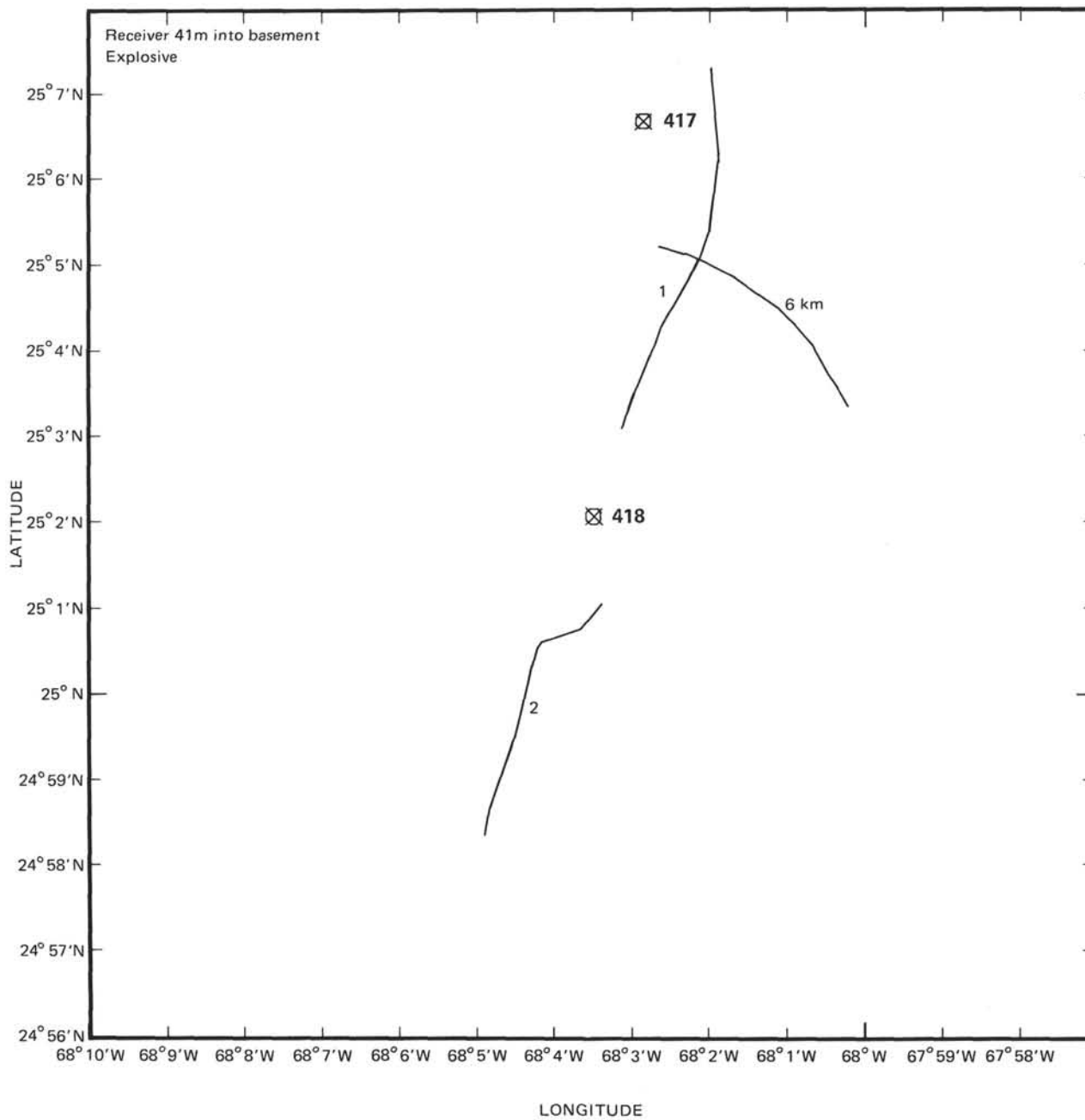




RD 4.0 ALPHA 4.0 ASC 0.75E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 40 50 HZ  
 SOBO 27 81M INTO BASEMENT AIRGUN  
 SHOTS 3080 TO 3107

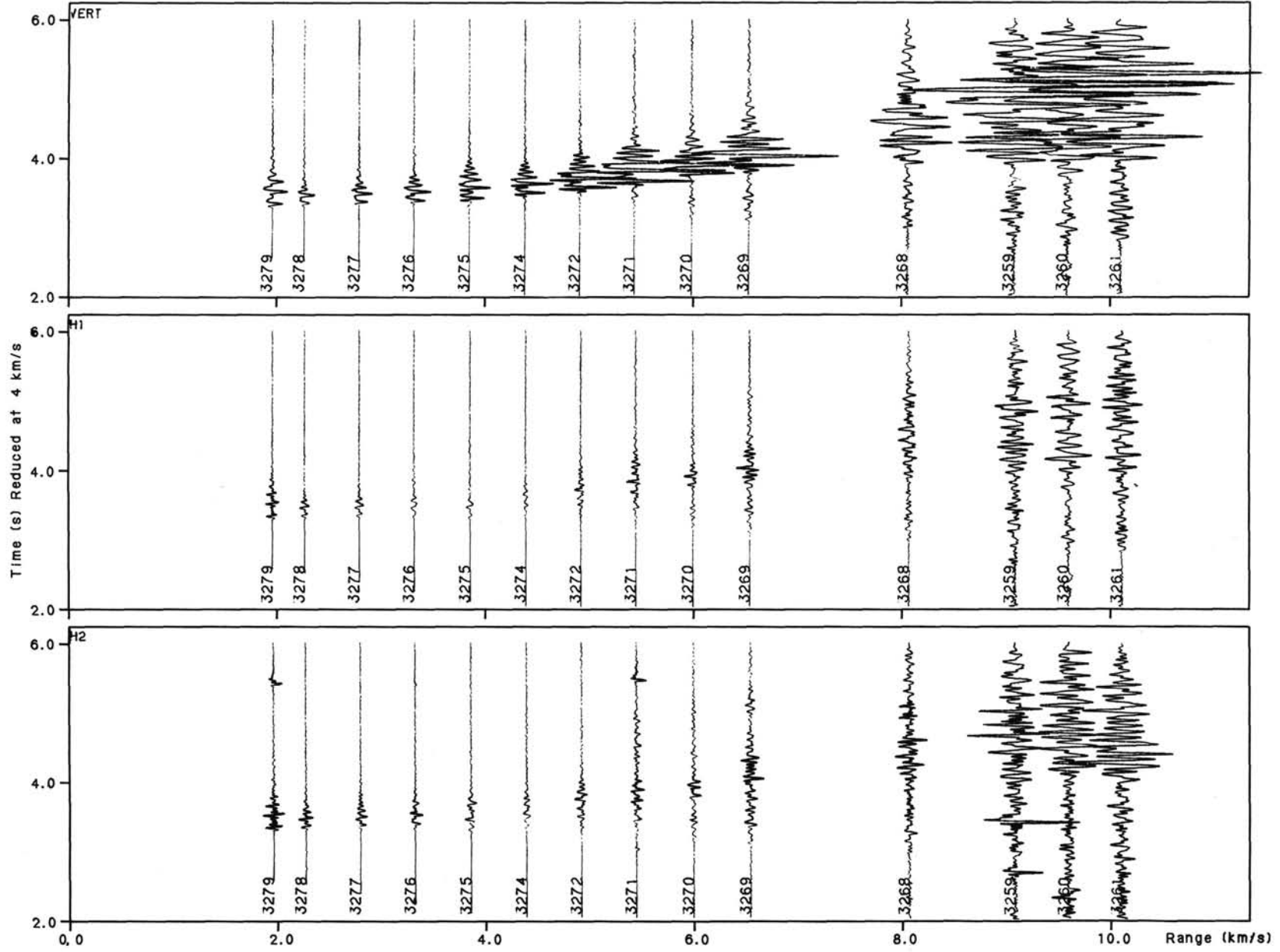
LINE 4 WNW





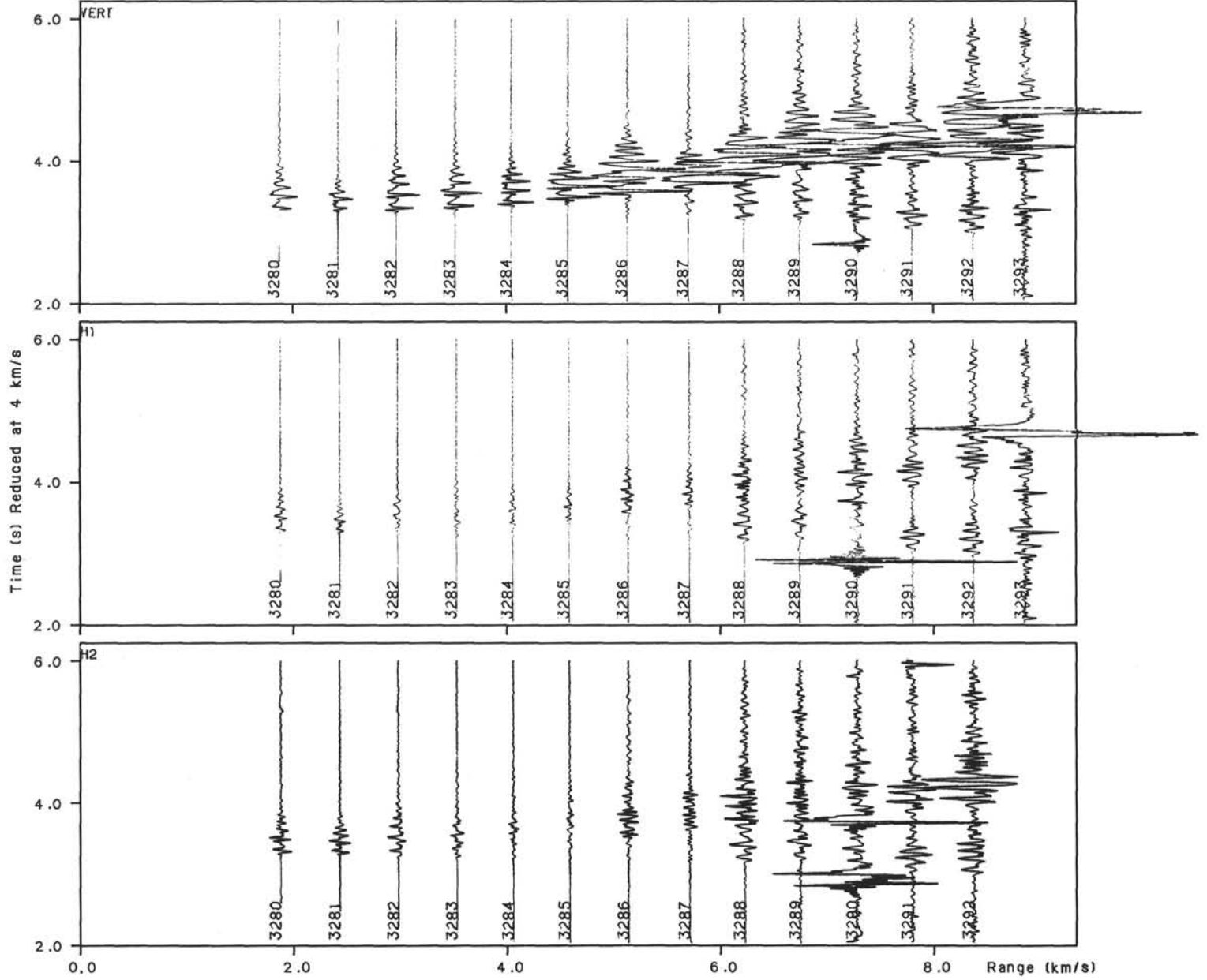
R0 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOBO 29 41M INTO BASEMENT TOVEX  
 SHOTS 3259 TO 3279

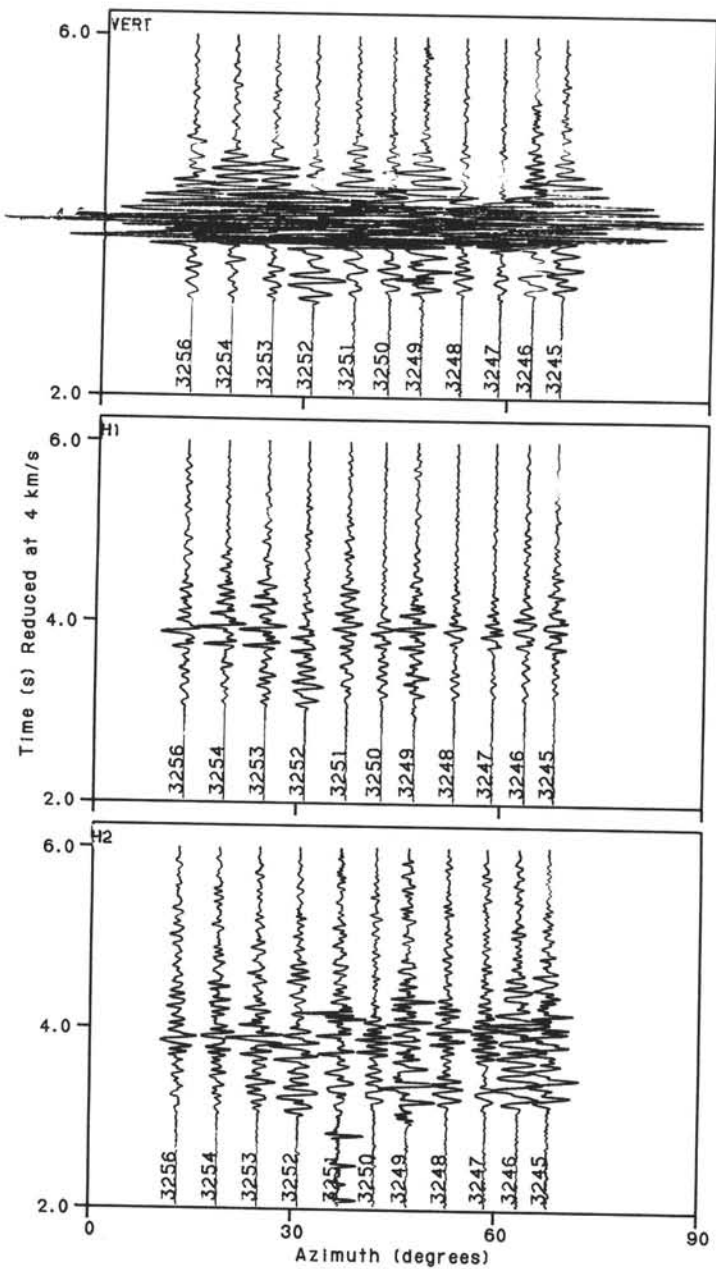
LINE 1 NNE



RD 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 1.500 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOB0 29 41M INTO BASEMENT TOVEX  
 SHOTS 3280 TO 3293

# LINE 2 SSW





## 6 KM ARC

RD 4.0 ALPHA 4.0 ASC 0.10E-04 RSC 0.075 TSC 1.000  
 BP FILT 0 5 25 30 HZ  
 SOBO 29 41M INTO BASEMENT TOVEX  
 SHOTS 3245 TO 3256