

UNITED STATES DEPARTMENT OF INTERIOR  
GEOLOGICAL SURVEY

Data Report for the 1979 Seismic-refraction  
Experiment in the Imperial Valley Region, California

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Open-File Report 88-255

This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature. Any use of trade names is for descriptive purposes only and does not imply endorsement by the USGS.

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## TABLE OF CONTENTS

	Page
Introduction.....	1
Instrumentation and Field Operations.....	1
Data Processing and Editing.....	1
Data Tapes.....	3
Acknowledgments.....	4
References.....	5

## FIGURES

	Page
<b>Figure</b>	
1. Locations of shotpoints and recorders for deployments 1-15, and 17.....	6
2. Locations of shotpoints and recorders for individual deployments:	
a. Deployment 1, shotpoint 1.....	7
b. Deployment 2, shotpoint 1.....	8
c. Deployment 3, shotpoints 1 and 5.....	9
d. Deployment 4, shotpoints 1, 5, and 6.....	10
e. Deployment 5, shotpoints 1, 5, 6, and 7.....	11
f. Deployment 6, shotpoints 1, 6, and 13.....	12
g. Deployment 7, shotpoints 1, 6, and 12.....	13
h. Deployment 8, shotpoints 6, 10, and 13.....	14
i. Deployment 9, shotpoints 5, 10, and 14.....	15
j. Deployment 10, shotpoints 1 and 14.....	16
k. Deployment 11, shotpoints 1, 2, 6, 7, and 10.	17
l. Deployment 12, shotpoints 1 and 10.....	18
m. Deployment 13, shotpoints 2, 10, and 14.....	19
n. Deployment 14, shotpoints 1, 2, and 10.....	20
o. Deployment 15, shotpoint 10.....	21
p. Deployment 16, aftershock of Imperial Valley earthquake of October 15, 1979.....	22
q. Deployment 17, shotpoint 1.....	23

## TABLES

	Page
<b>Table</b>	
1. List of shots detonated during the experiment....	24
2a. Recorder locations for deployments 1-15, and 17..	25
2b. Recorder locations for deployment 16.....	36
3. Arcs defining regions for each shotpoint in which first arrivals are recorded from sedimentary rocks, basement, and subbasement.....	37
4. Travel times of first arrivals for deployments 1-15, and 17.....	38
5. Secondary arrivals.....	81
6. SEGY tape sequence numbers.....	93
7. SEGY tape reel identification header. Part 1, the EBCDIC card image block.....	94
8. SEGY tape reel identification header. Part 2, the binary coded block.....	95
9. SEGY tape trace identification header written in binary code.....	96



## INTRODUCTION

In 1979, the U.S. Geological Survey conducted an extensive seismic refraction survey of the Imperial Valley region, California (Figure 1). Several authors have reported regional velocity models, comparisons with gravity and other data sets, and tectonic interpretations resulting from this survey; see Fuis and others (1982, 1984), McMechan and Mooney (1980), Kohler and Fuis (1986), and Fuis and Kohler (1984). The purpose of this report is to present the complete data set in the form of tables, figures, and a digital tape.

## INSTRUMENTATION AND FIELD OPERATIONS

During the experiment, a total of 42 shots were detonated at nine shotpoints (1, 2, 5, 6, 7, 10, 12, 13, 14, Table 1, Figure 1). In addition to the shots, an aftershock of the Imperial Valley earthquake of October 15, 1979 was recorded (Table 1, Figure 2p).

A total of 100 portable, one-component, analog seismic recorders were used in the experiment (these recorders and the playback system are described in Blank and others, 1979). The recorders were deployed 17 times, and one or more shots or earthquakes were recorded during each deployment period (Figure 2; Table 2). The first shot, shot 1 ("huddle test"), was detonated at the beginning of the experiment to test the recording and playback equipment. For this shot, all recorders were deployed within 100 m of the shotpoint. All shots except shot 1 were detonated between 12 and 5 AM to avoid noise from wind, highway traffic, and other noise sources. After each deployment, the recorders were retrieved, and analog cassette tapes from each recorder were digitized.

## DATA PROCESSING AND EDITING

For each shot, ten seconds of seismic signals from playback of the cassette data tapes were digitized at 200 samples/s. The digitizing start time is  $T = S - 2 \text{ s} + X/(6.0 \text{ km/s}) + C$ , where  $S$  is the shot time (Table 1),  $X$  is the shot-to-recorder distance in kilometers (Table 4), and  $C$  is the recorder clock drift in seconds. Clock drift is estimated assuming linear drift between the two points in time at which internal instrument clocks are checked against "master" clocks, usually before and after each deployment. Estimated drifts are commonly less than 50 ms. The earthquake data were also digitized for ten seconds, but the digitizing start time is  $T = E + C$ , where  $E$  is the estimated origin time.

For shot-to-station distances up to 80 km, distances and azimuths were calculated from the shotpoint and recorder

locations using the Richter approximation. The method used for distances greater than 80 km yields results differing by about 0.2 km from the Richter approximation results. The uncertainty in recorder field locations is commonly less than 0.05 km in the Central Imperial Valley, and less than 0.2 km in flanking regions where some roads did not appear on published maps.

Approximate ground velocity can be calculated using the number of digital "counts" of the digitized seismograms, recorder attenuation (tape header bytes 121-122, see below), and a formula in Berge and others (1986, Appendix B).

The data were processed and edited as follows:

- 1) Reduced-time ( $T-X/6.0$ ) record sections were plotted at various azimuths as a function of distance for each shot. For fan shots, record sections were plotted as a function of distance from a station at the end of the profile.
- 2) The digitized waveforms for each shot were plotted on a computer graphics terminal, and the first arrival times were picked interactively at each station (Table 4). Only time picks with an estimated error of less than 0.1 s were kept for further analysis.
- 3) Reduced-time ( $T-X/6.0$ ) contoured travel-time maps were plotted for each shotpoint.
- 4) In cases where a travel-time pick differed from the local travel-time curve by more than 0.05 to 0.10 s, its validity was checked. Errors found included:
  - a) Inconsistent picking of emergent first arrivals.
  - b) Shifting or distortion of seismograms (due to equipment malfunction or operator error).
  - c) Mislocation of stations.
  - d) Mislocation of shotpoints 12 and 13.
  - e) Introduction of extraneous signals, including one sonic boom (?) and one small earthquake.

Editing of the data was extremely tedious and took place intermittently over a five-year period. We estimate that ten to twenty percent of the data was affected by the errors described above. We estimate that nearly all the picks presented in tables 4 and 5 are accurate to 0.10 s and that the majority are accurate to less than 0.05 s.

In table 4, first-arrival picks are characterized according to whether the energy was inferred to have bottomed in sediment, "basement", or "subbasement" (Table 3; see also Kohler and Fuis, 1986). Table 5 lists secondary-arrival picks, most of which are believed to be reflections from subbasement, although some may be subbasement refractions or multiple reflections.

## DATA TAPES

Data for this experiment is stored on two digital tapes written at 1600 bpi. Tape 1 contains digitized waveform data written in SEGY standard format (Barry and others, 1975). The tape contains a total of 3481 seismic traces, the first 70 of which are test recordings. Tape sequence numbers listed by shot are listed in Table 6. Tape 2 contains tables 1-9 from this report, complete with titles, captions, and column headings written as one file in unlabeled ASCII format. The physical blocksize is 2640 bytes, and each logical record ("card image") is padded to 132 bytes (ie. the blocking factor is 20). A double end-of-file mark is written after the data file to signify the end of tape.

In order to accommodate refraction data, some changes and additions have been made to the binary reel identification header and tape trace header fields of tape 1. A list of header fields is provided in the card image portion of the reel identification header (Table 7). Only certain byte fields are used in the reel identification binary-coded block (Table 8). Some of the trace identification headers on the SEGY tape have a different definition than is specified in the SEGY standard (Table 9).

Tapes 1 and 2 can be obtained from the following source:

National Geophysical Data Center  
NOAA/EGCI  
325 Broadway  
Boulder, CO 80303  
Telephone: (303) 497-6123

#### ACKNOWLEDGMENTS

We estimate that data collection and analysis consumed more than 5 man-years of effort since early 1979. Most of this effort was expended by persons other than the authors, and without them this report could not have been written. We therefore wish to express our indebtedness to W.D. Mooney and J.H. Healy, who helped plan the experiment, to S.K. Gallanthine, L.R. Hoffman, Barry Keller, W.J. Lutter, J.N. Rolloff, and V.D. Sutton who deployed the instruments; to L.E. Leone, who helped digitize the data and keep the field computers and plotters running; to D.E. Taylor, who permitted the shotpoints; to Bruce Echols and S.S. Wegener, who managed the drilling and loading of shotholes; to R.D. Jones, Harry Tostado, and D.L. Styles, who drilled many of the shotholes; to P.T. German and Victor Lamanuzzi, who assisted with the surveying of instrument sites; to R.M. Kaderabek and Robert McClearn, who kept the instruments running; to K.B. Berg, N.C. Crossley, and Herbert Mills, who provided administrative assistance; and to A.W. Walter who reviewed this manuscript. In addition, several persons facilitated this survey in various ways. Landowners who permitted us to drill and shoot on their properties included R.E. Casey and Wendell Finley (shotpoint 8<sup>1</sup>), and John Elmore (shotpoint 10). Permission to drill and shoot on Government land was granted or expedited by Lt. Comdr. W.F. Ellis of the U.S. National Parachute Test Range (shotpoints 1, 12, 13, and 14), S.L. Johnson of the U.S. Bureau of Land Management (shotpoints 2, 3<sup>1</sup>, 5, 6, 7), and several employees of the U.S. Department of Interior, Fish and Wildlife Service (shotpoint 4<sup>1</sup>). Clifford Brown of the U.S. Department of Agriculture graciously allowed us to use a building at their Brawley, Calif., facility for our field headquarters. Sr. Chief C.W. Franklin of the U.S. National Parachute Test Facility kindly permitted us to store explosives at the facility. James Cantrell of the Southern Pacific Railroad Co. held up trains for one of our deployments. In addition, we express our appreciation to the many people, both public and private, of Imperial County who helped us in countless ways.

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<sup>1</sup> Shotpoints 3, 4, and 8 were not used in the experiment.

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Sharp, R.V., J.J. Lienkaemper, M.G. Bonilla, D.B. Burke, B.F. Fox, D.G. Herd, D.M. Miller, D.M. Morton, D.J. Ponti, M.J. Rymer, J.C. Tinsley, J.C. Yount, J.E. Kahle, E.W. Hart, and K.E. Sieh, 1982, Surface faulting in the central Imperial Valley: U.S. Geological Survey Professional Paper 1254, p. 119-1440.

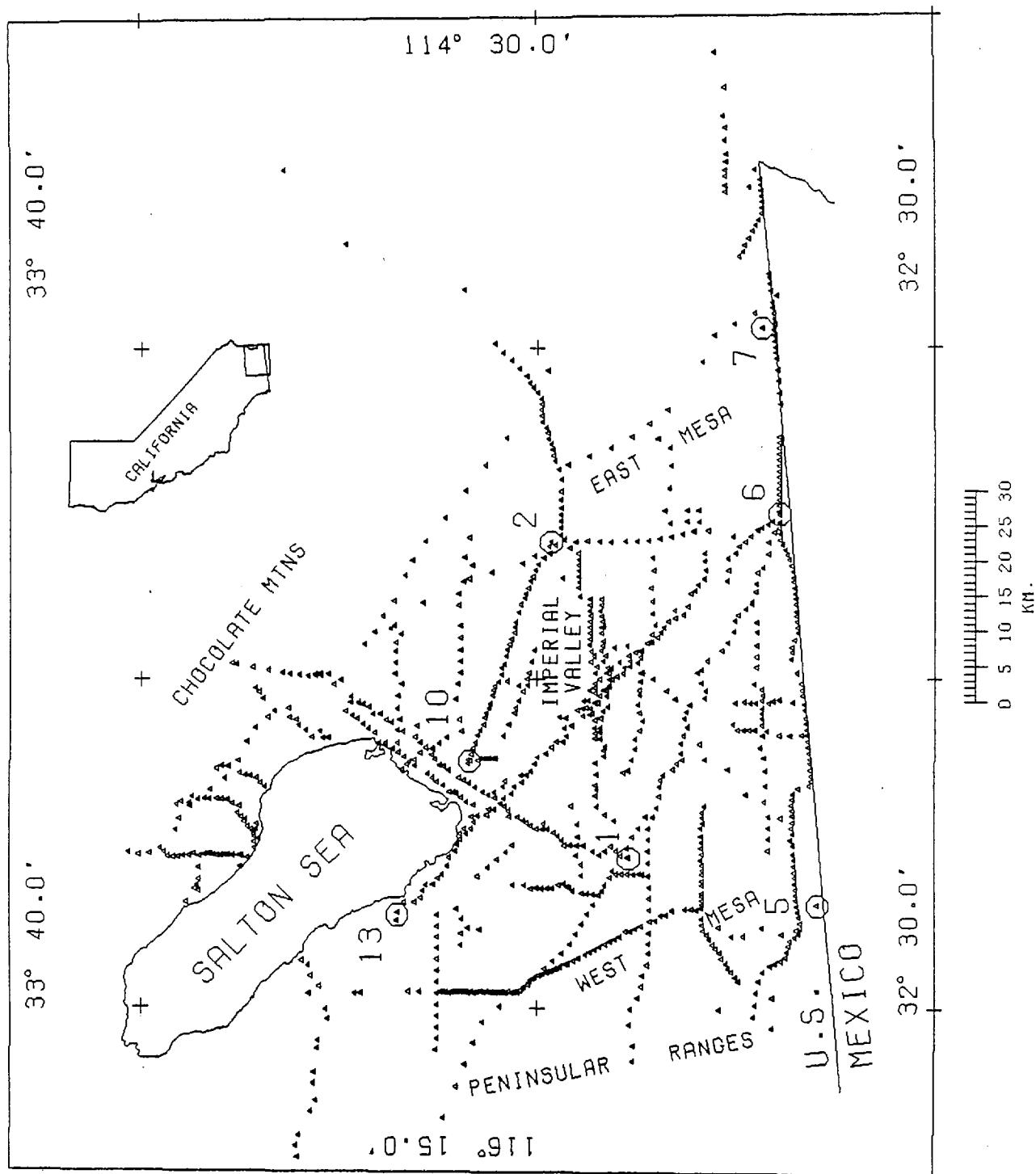


Figure 1. Locations of shotpoints (circles) and recorders (triangles) for the entire experiment except deployment 16. In the interest of clarity, recorder location numbers are omitted. Since shotpoints 12, 13, and 14 are separated by only 0.5-1.3 km, only shotpoint 13 is plotted. All shotpoint locations are listed in Table 1 and shown in Figure 2.

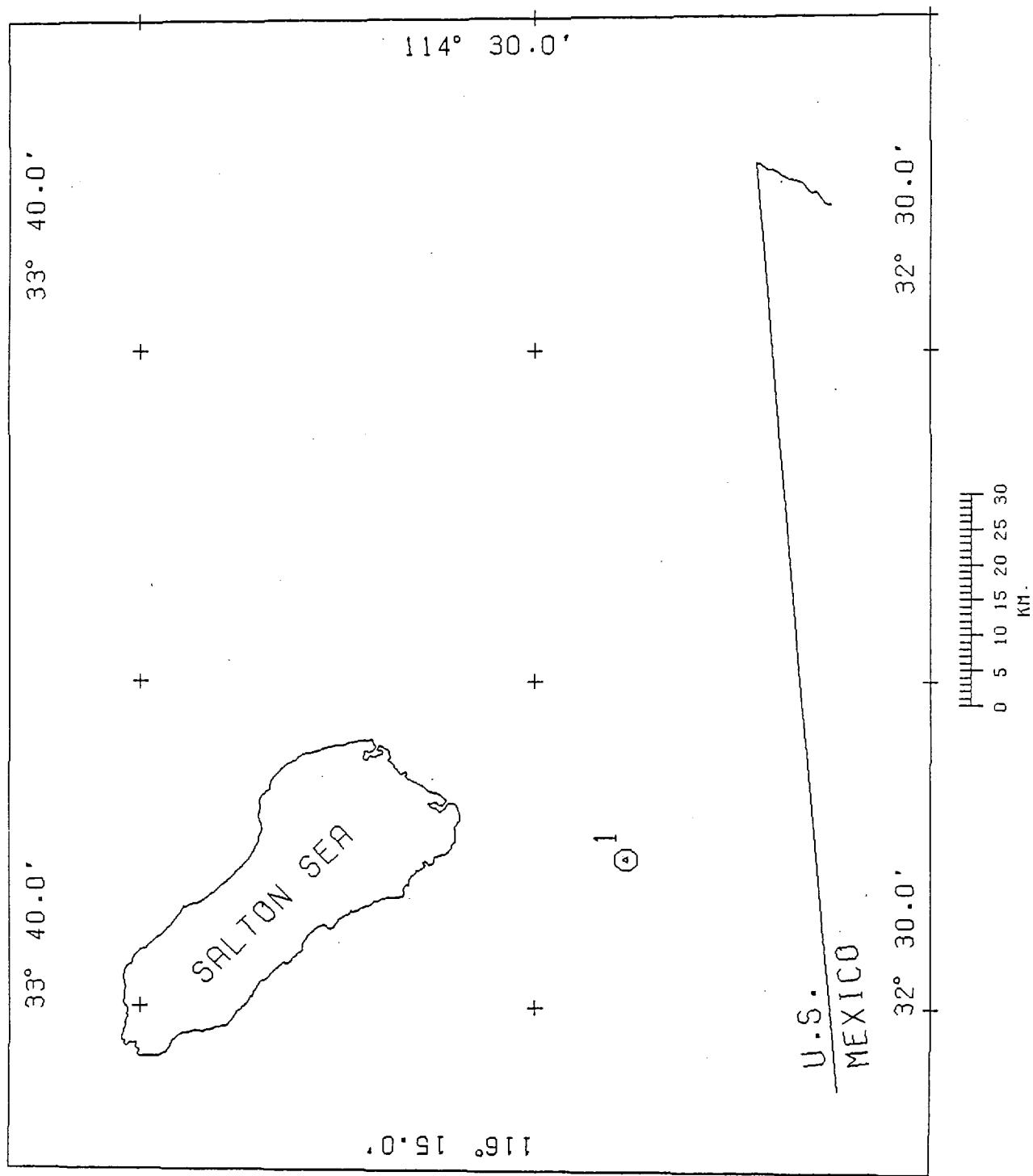


Figure 2a. Locations of shotpoint 1 (circle) and recorders (triangles) for deployment 1 ("huddle test"). All recorders were deployed within 100 m of shotpoint 1. In the interest of clarity, recorder location numbers are omitted.

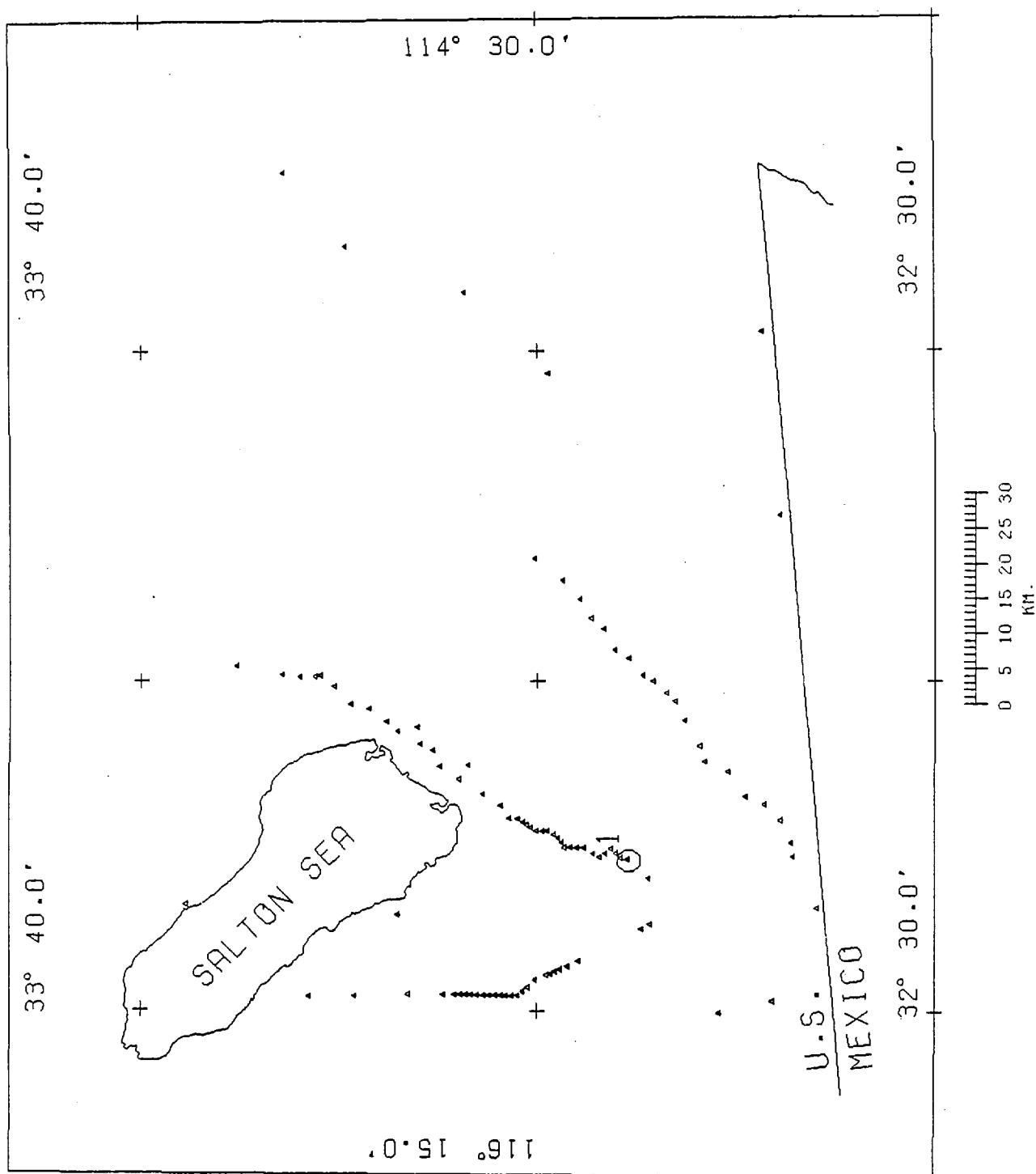


Figure 2b. Locations of shotpoint 1 (circle) and recorders (triangles) for deployment 2.

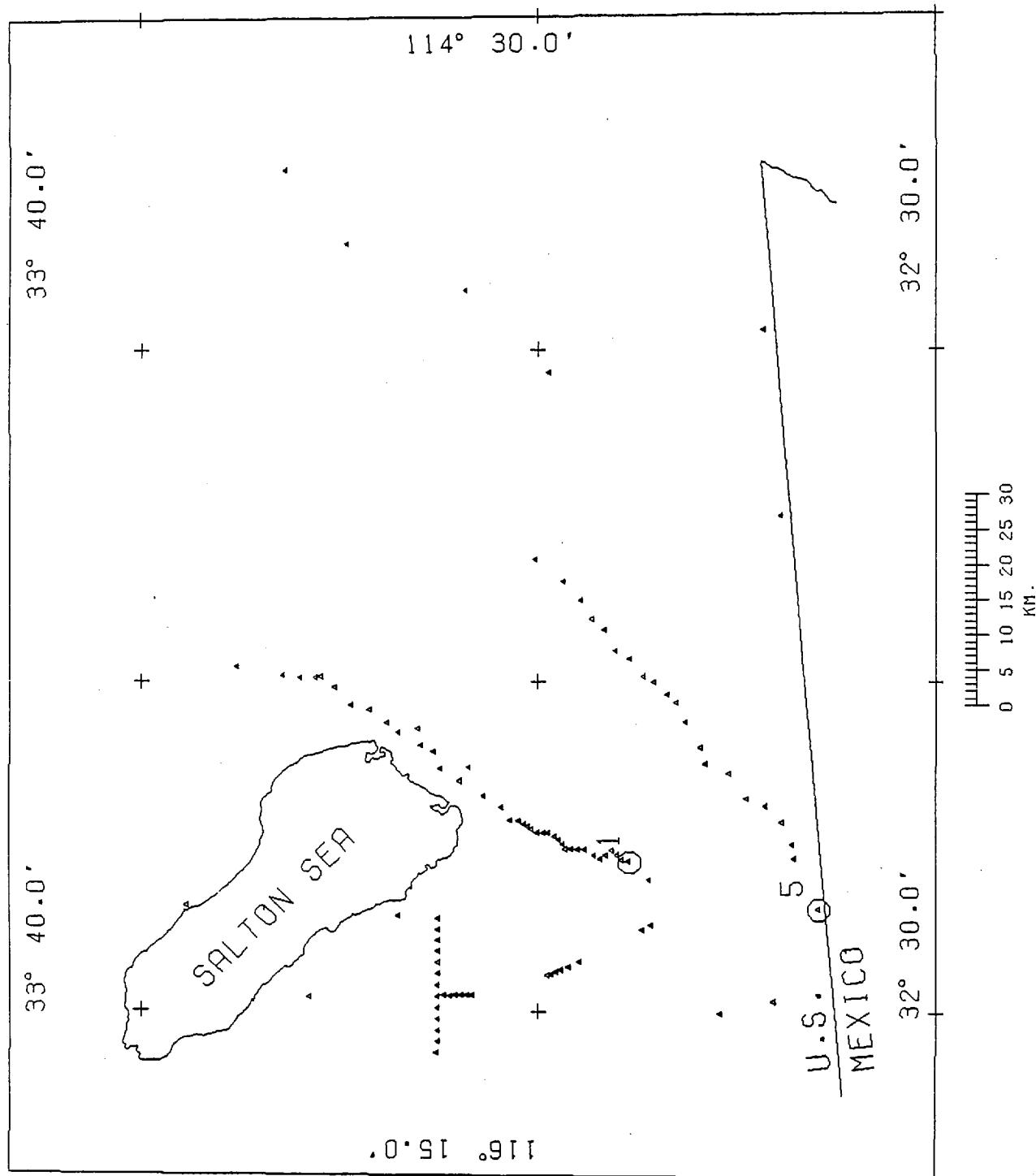


Figure 2c. Locations of shotpoints 1 and 5 (circles) and recorders (triangles) for deployment 3.

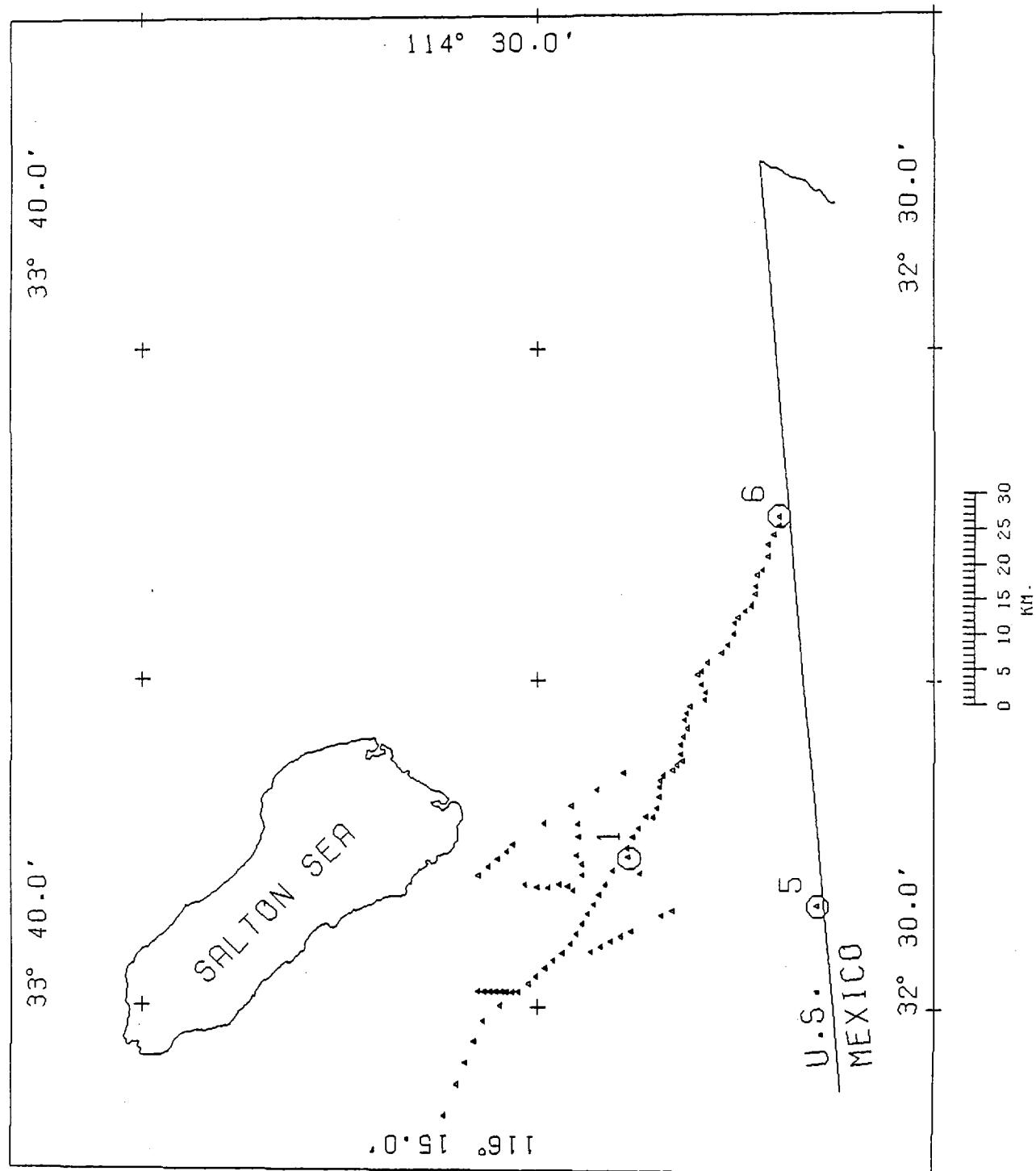


Figure 2d. Locations of shotpoints 1, 5, and 6 (circles) and recorders (triangles) for deployment 4.

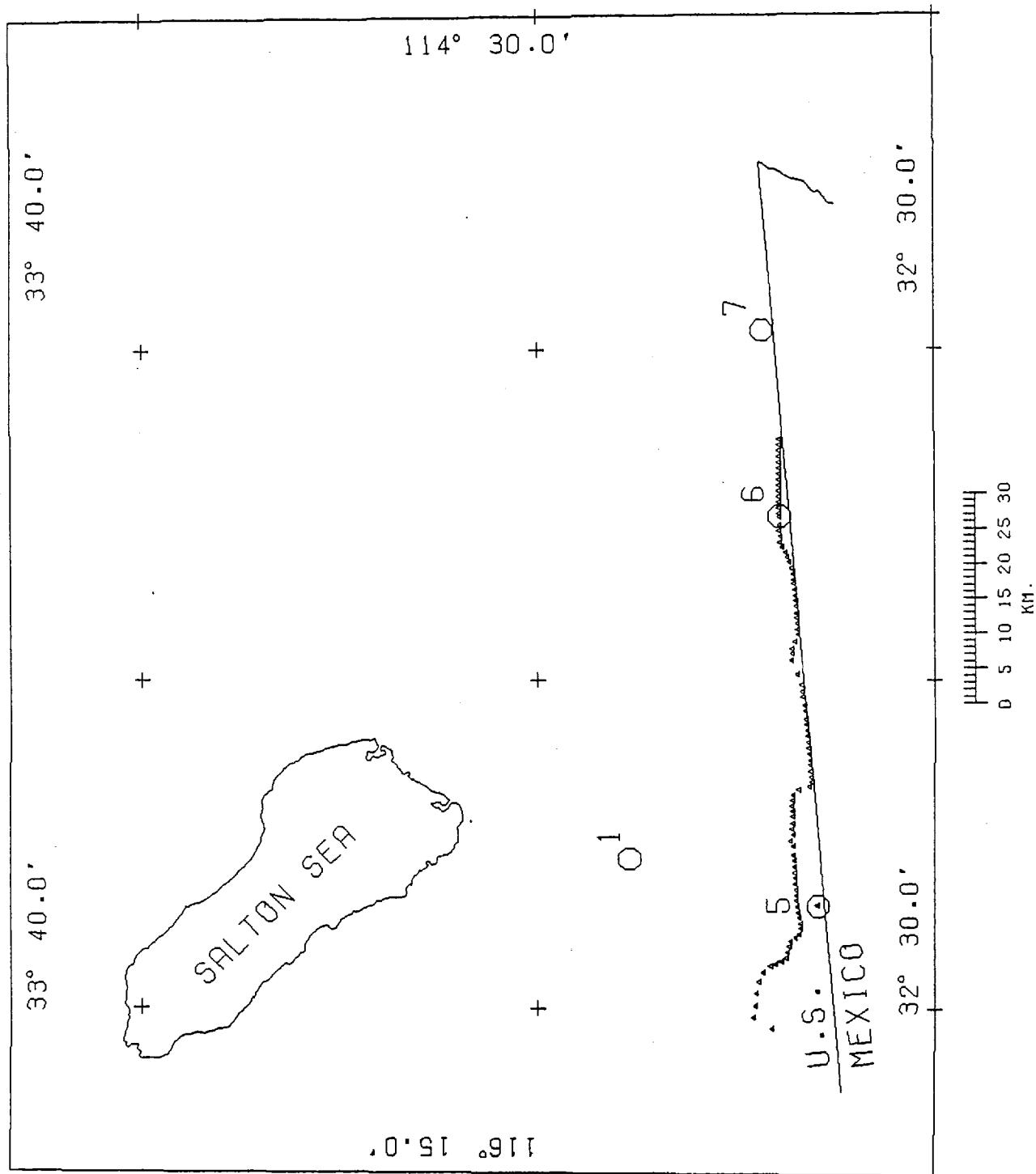


Figure 2e. Locations of shotpoints 1, 5, 6, and 7 (circles) and recorders (triangles) for deployment 5.

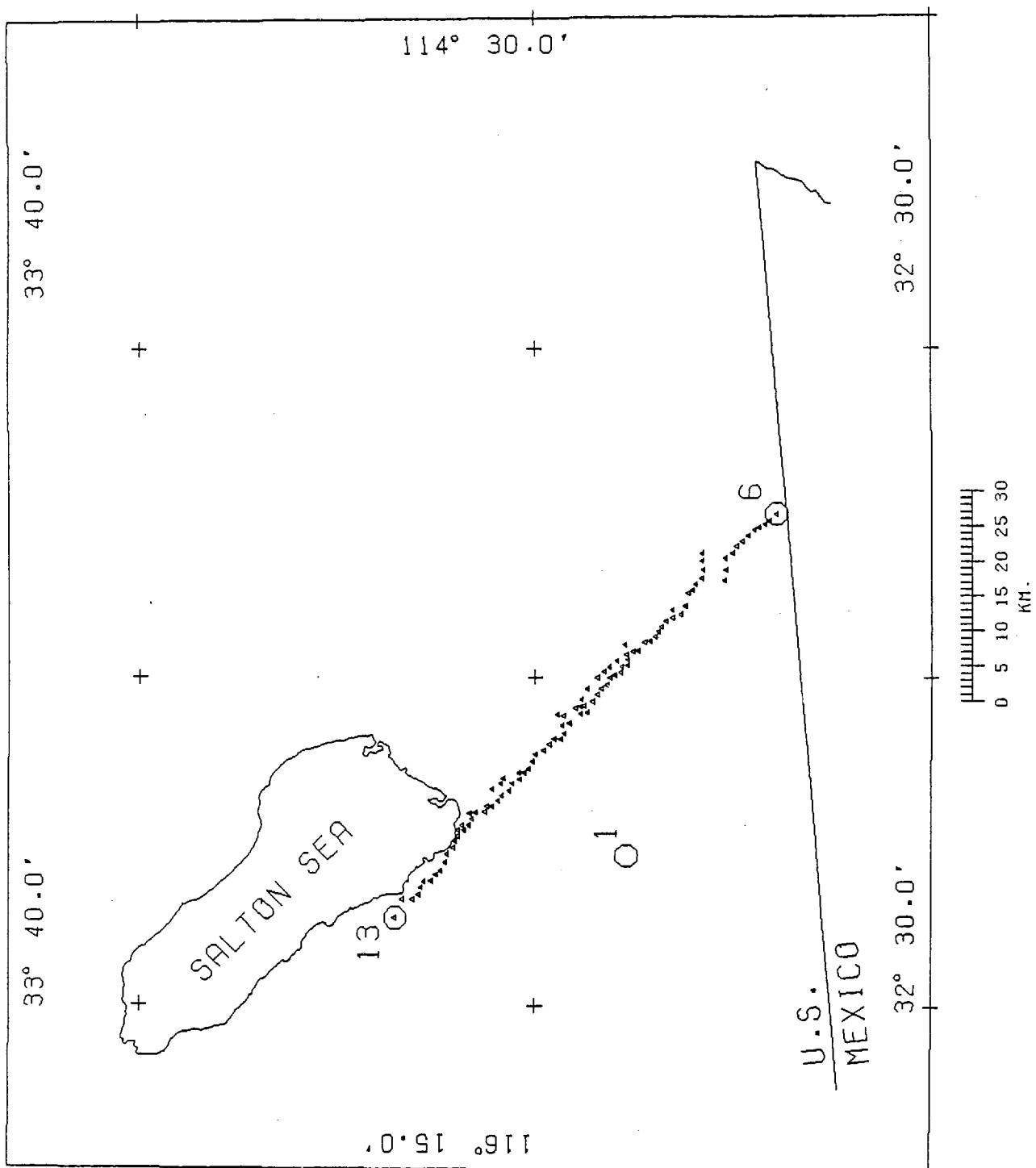


Figure 2f. Locations of shotpoints 1, 6, and 13 (circles) and recorders (triangles) for deployment 6.

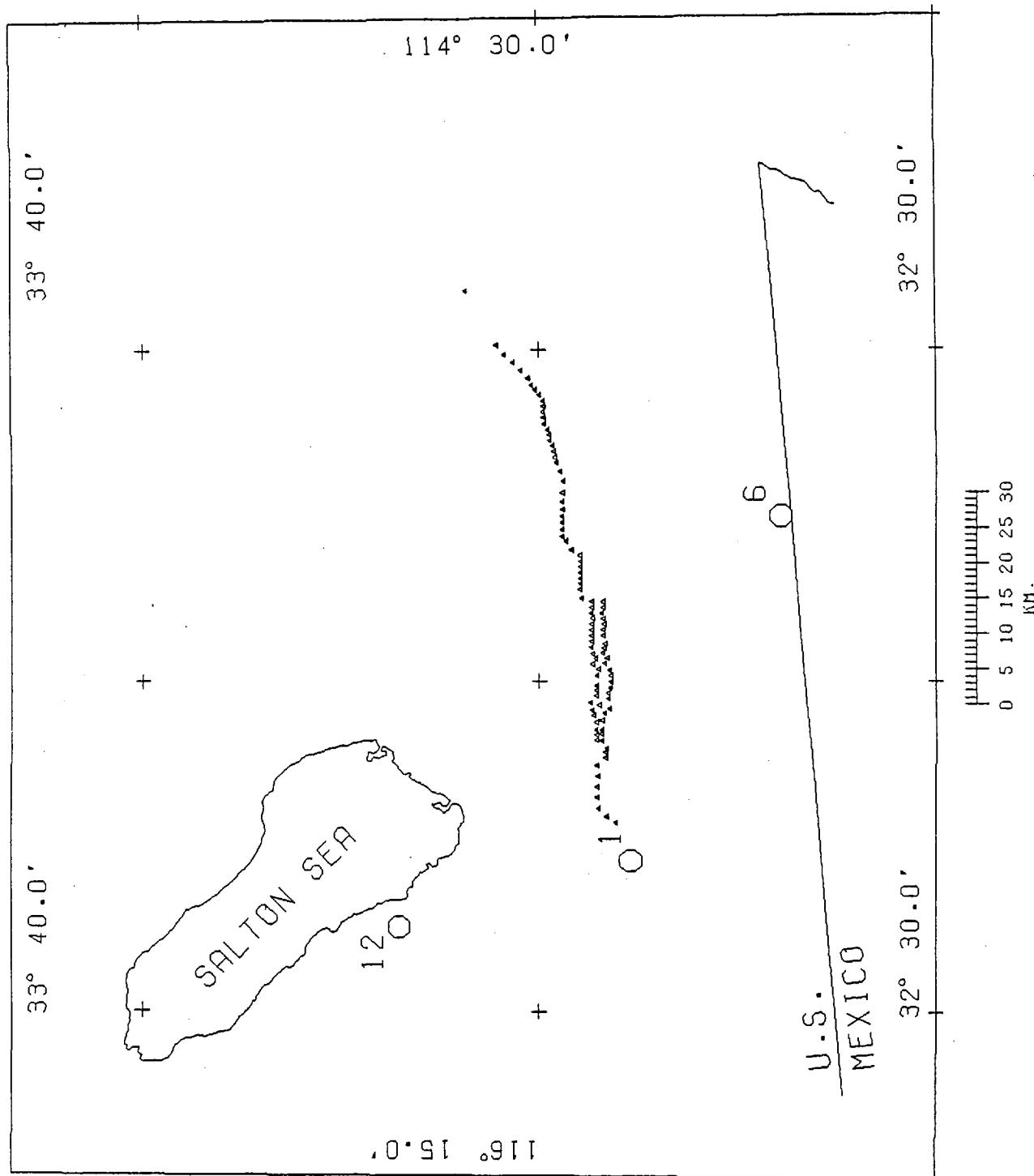


Figure 2g. Locations of shotpoints 1, 6, and 12 (circles) and recorders (triangles) for deployment 7.

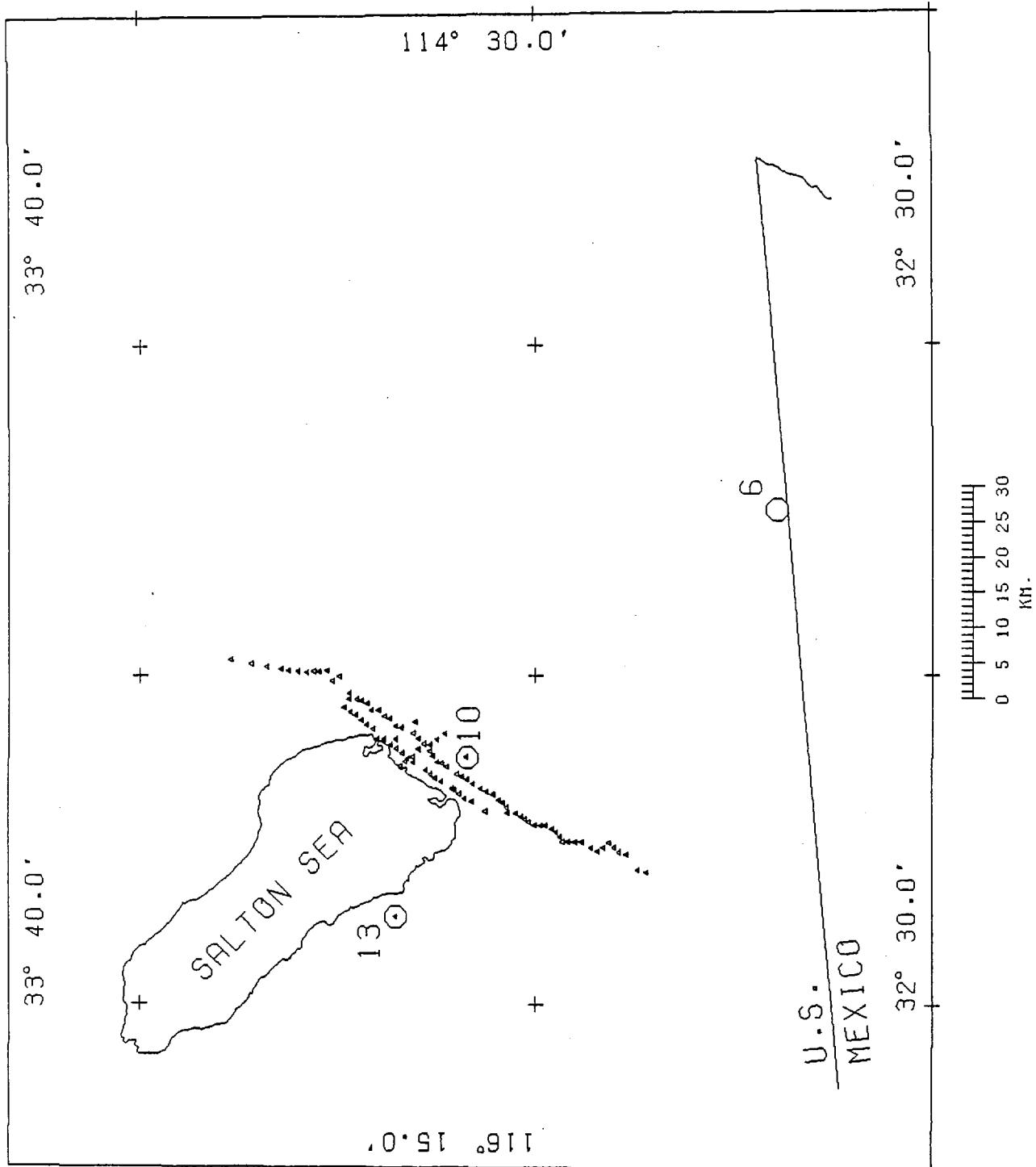


Figure 2h. Locations of shotpoints 6, 10, and 13 (circles) and recorders (triangles) for deployment 8.

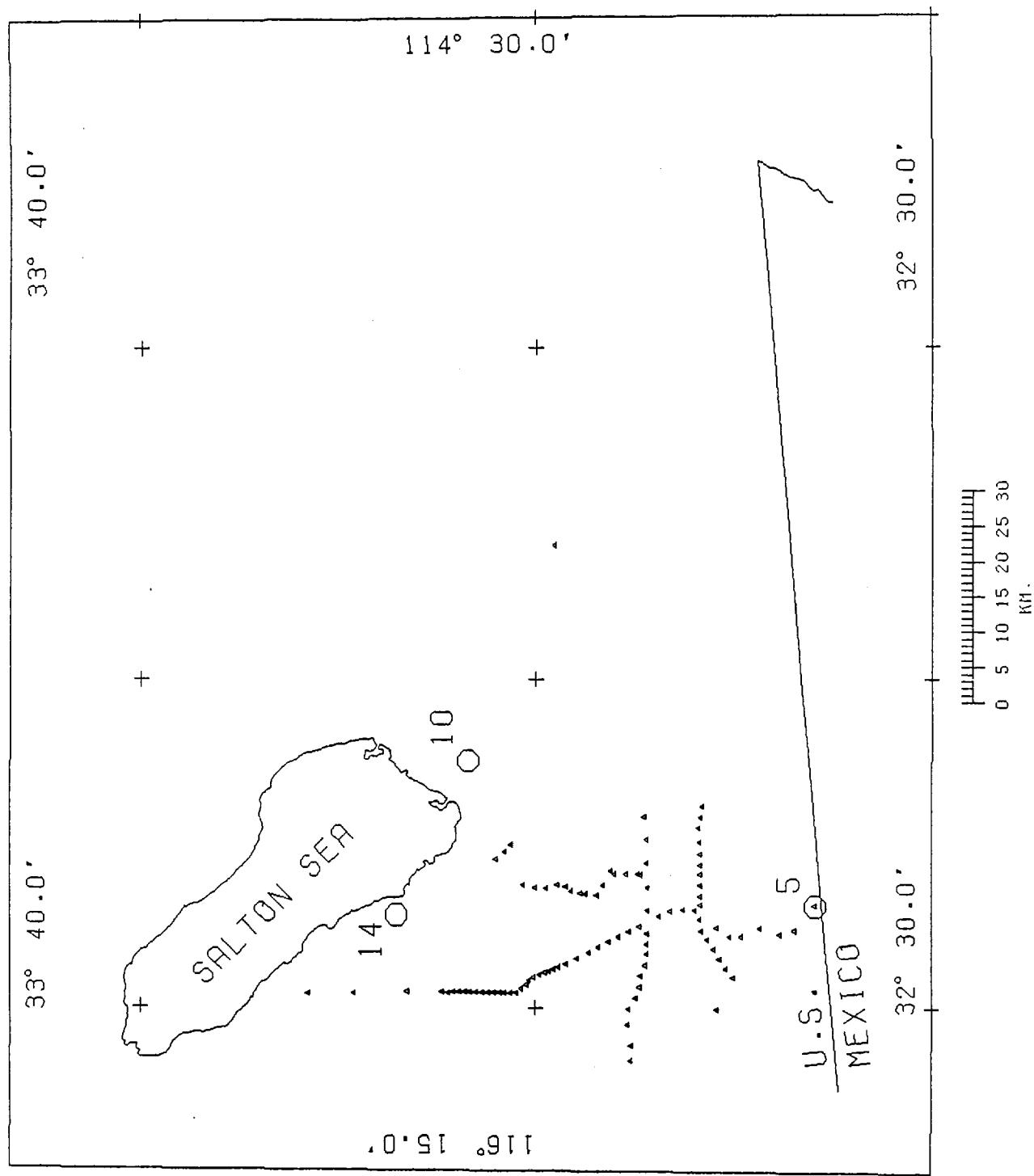


Figure 2i. Locations of shotpoints 5, 10, and 14 (circles) and recorders (triangles) for deployment 9.

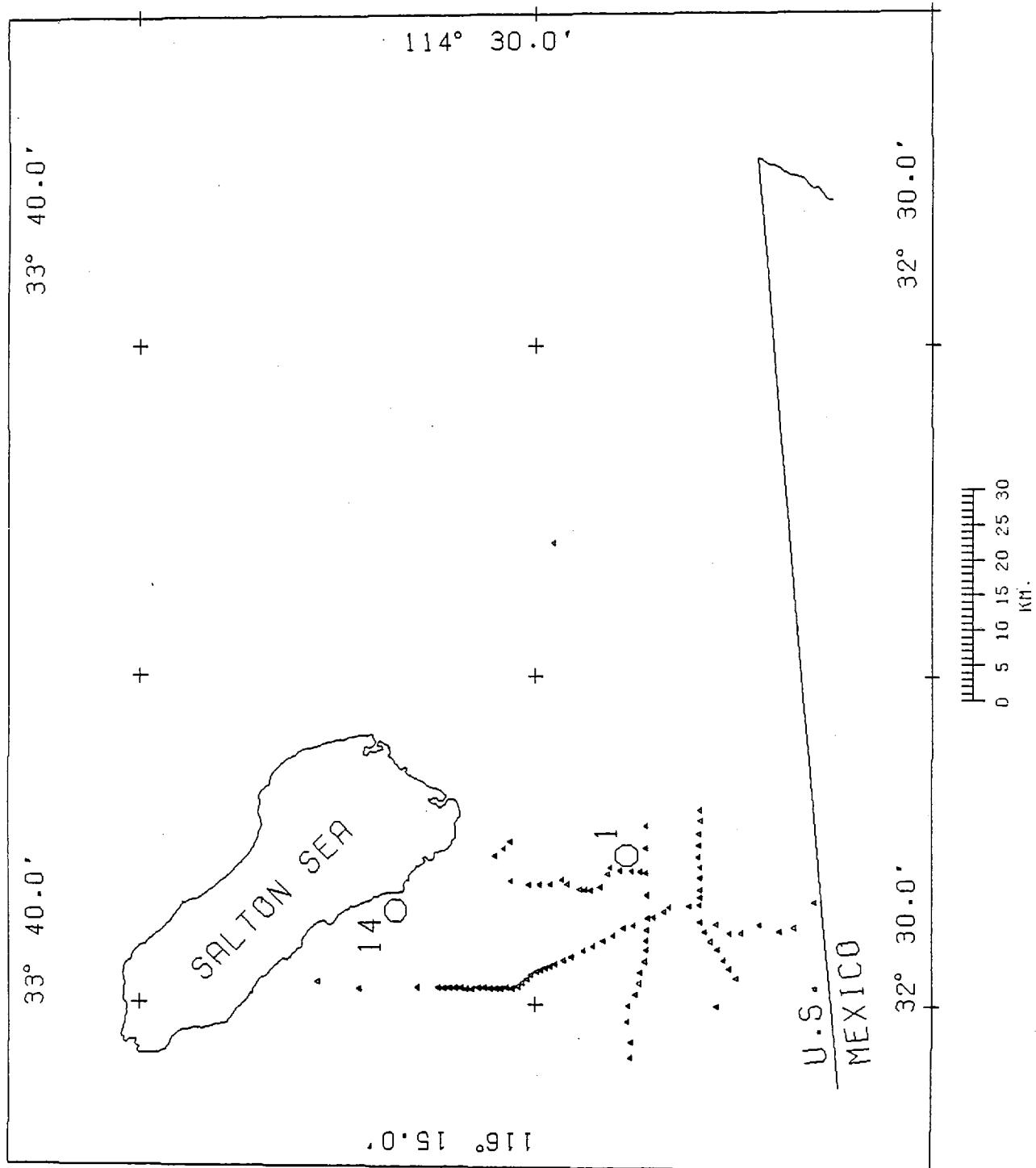


Figure 2j. Locations of shotpoints 1 and 14 (circles) and recorders (triangles) for deployment 10. The recorder locations are only slightly different (0.0 - 1.0 km) from their positions in deployment 9; shotpoint 14 was fired into both deployments 9 and 10 to provide denser coverage.

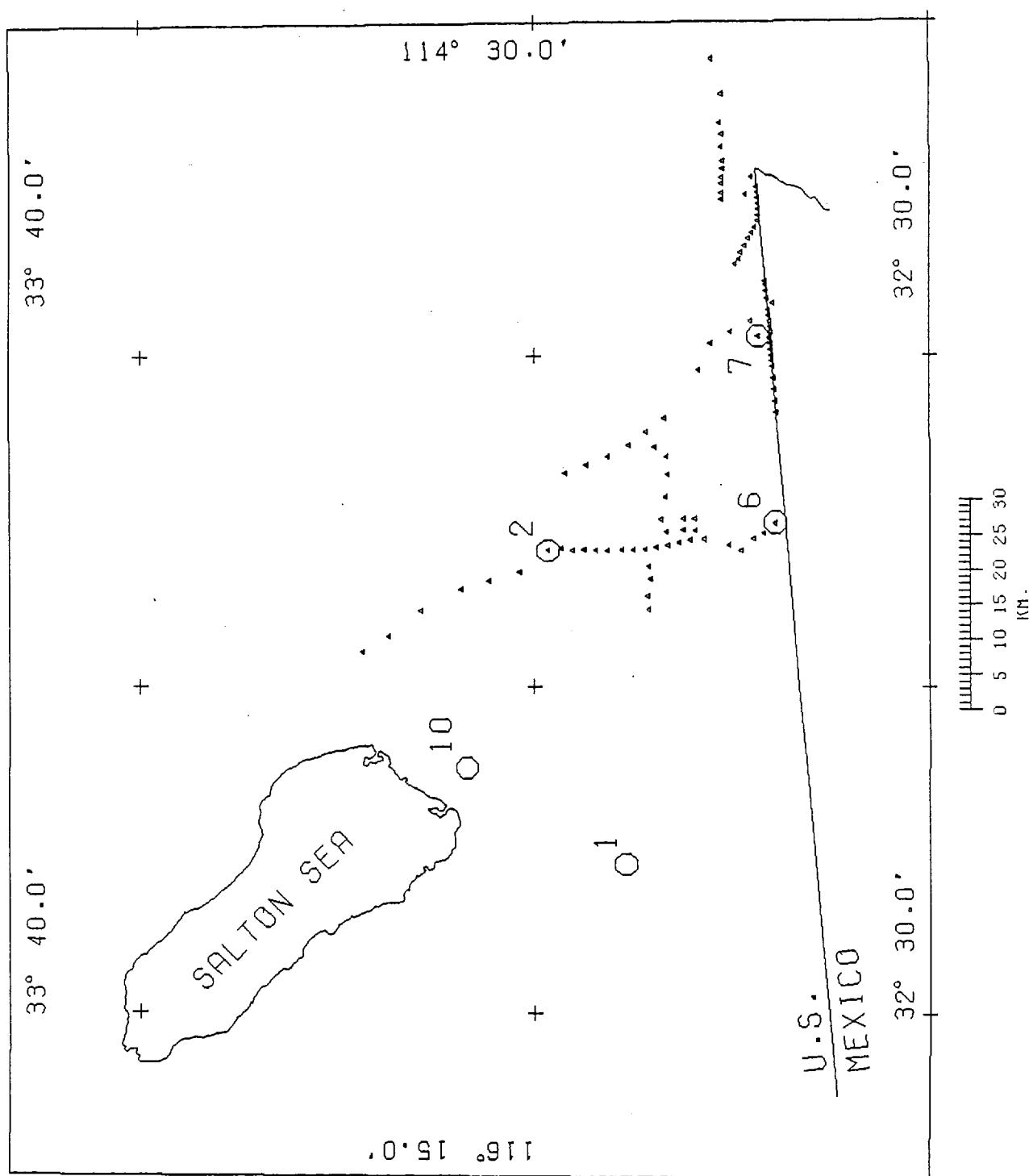


Figure 2k. Locations of shotpoints 1, 2, 6, 7, and 10 (circles) and recorders (triangles) for deployment 11.

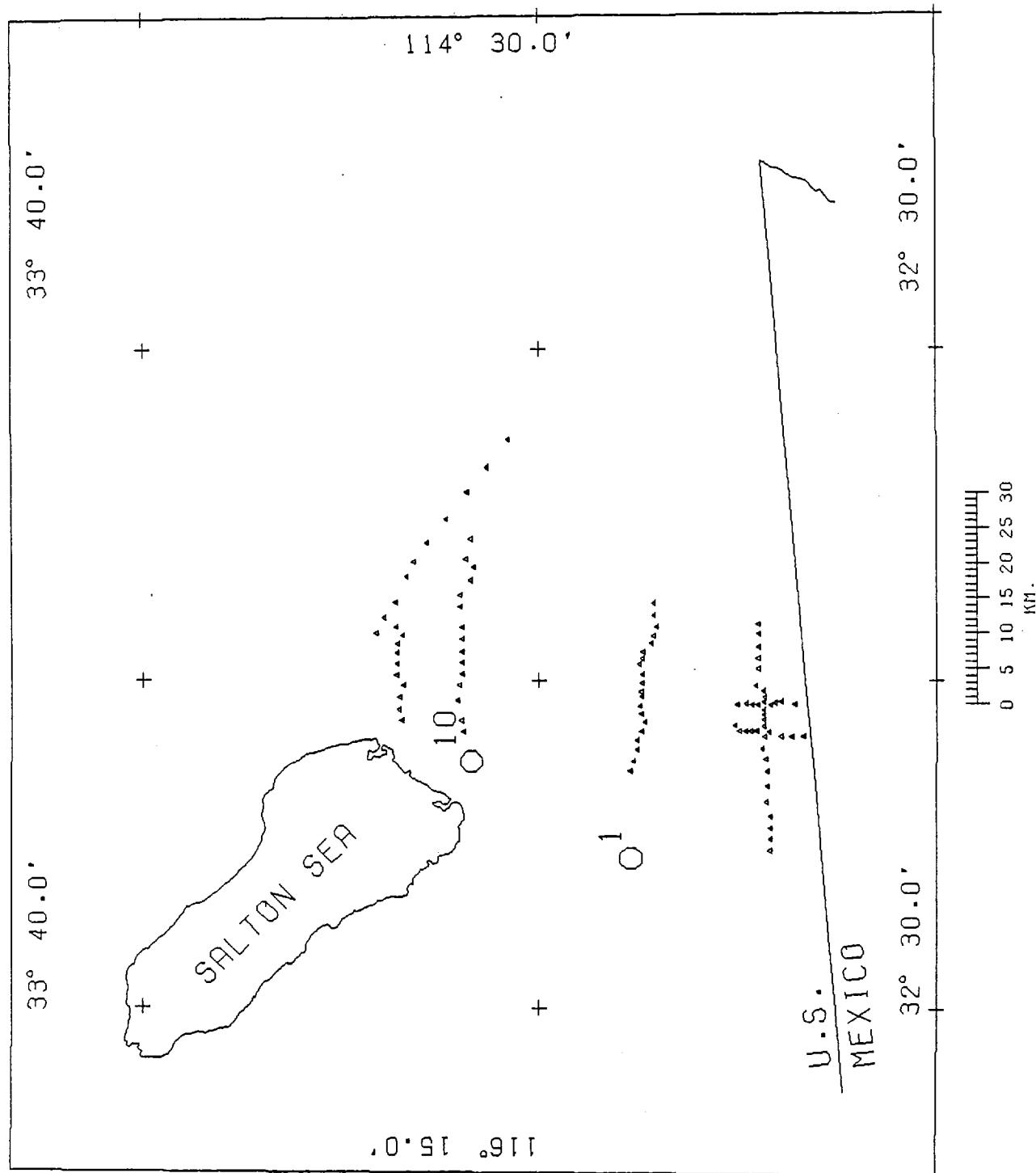


Figure 21. Locations of shotpoints 1 and 10 (circles) and recorders (triangles) for deployment 12.

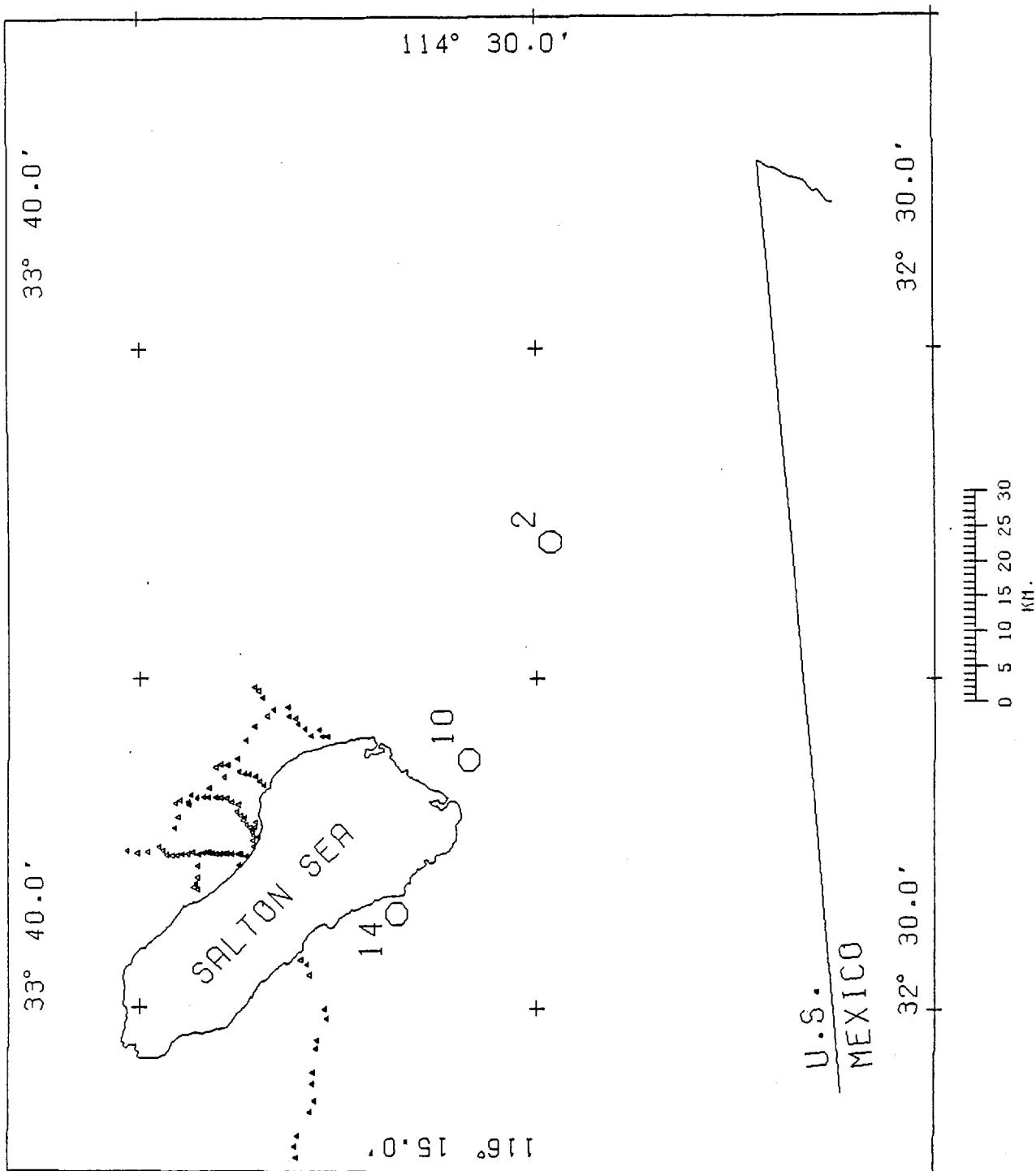


Figure 2m. Locations of shotpoints 2, 10, and 14 (circles) and recorders (triangles) for deployment 13.

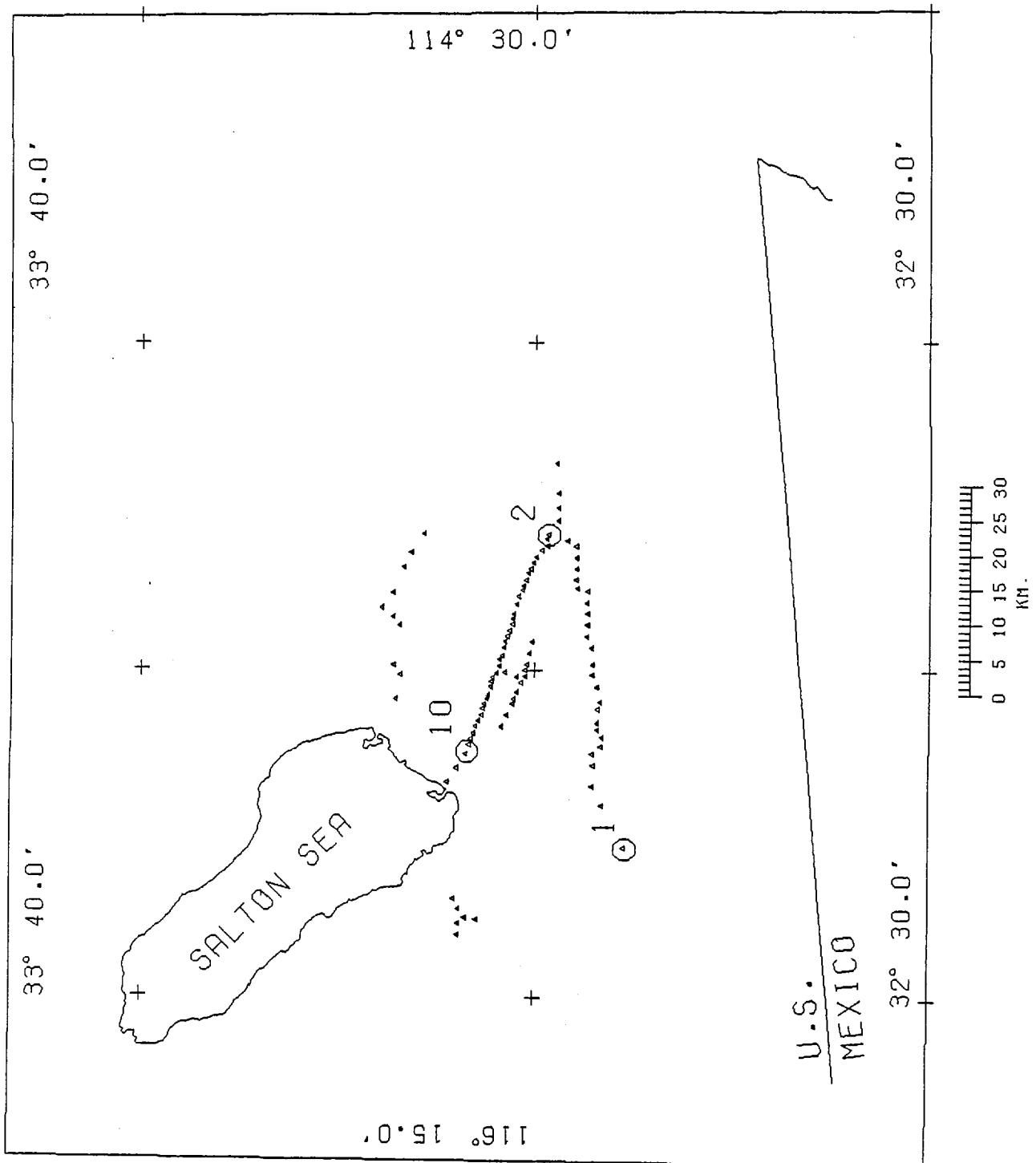


Figure 2n. Locations of shotpoints 1, 2, and 10 (circles) and recorders (triangles) for deployment 14.

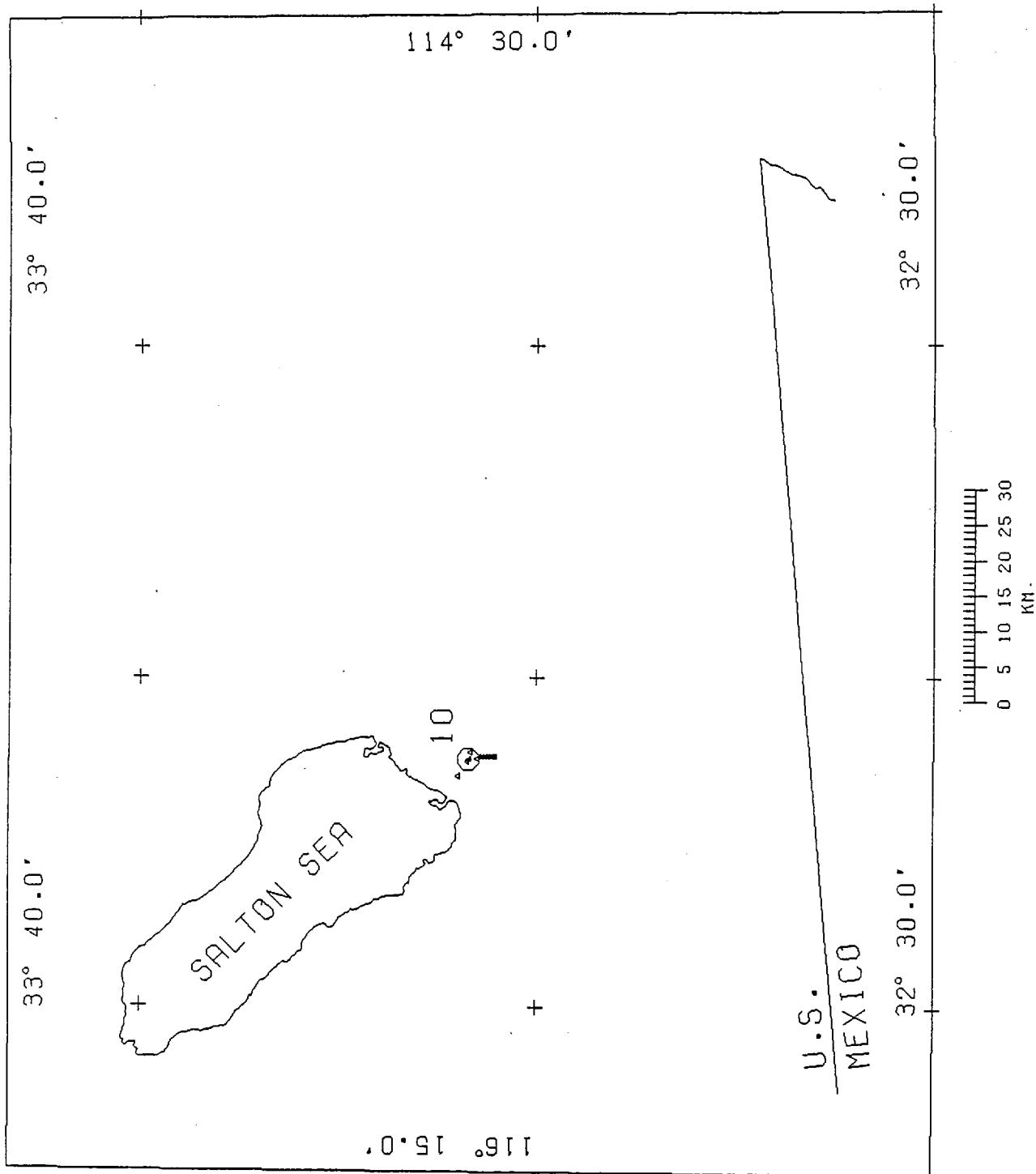


Figure 2o. Locations of shotpoint 10 (circle) and recorders (triangles) for deployment 15. Using data from this deployment, the near surface velocity structure at shotpoint 10 was determined. This information was used to establish an accurate time for the detonation of shot 38, shotpoint 10, deployment 14.

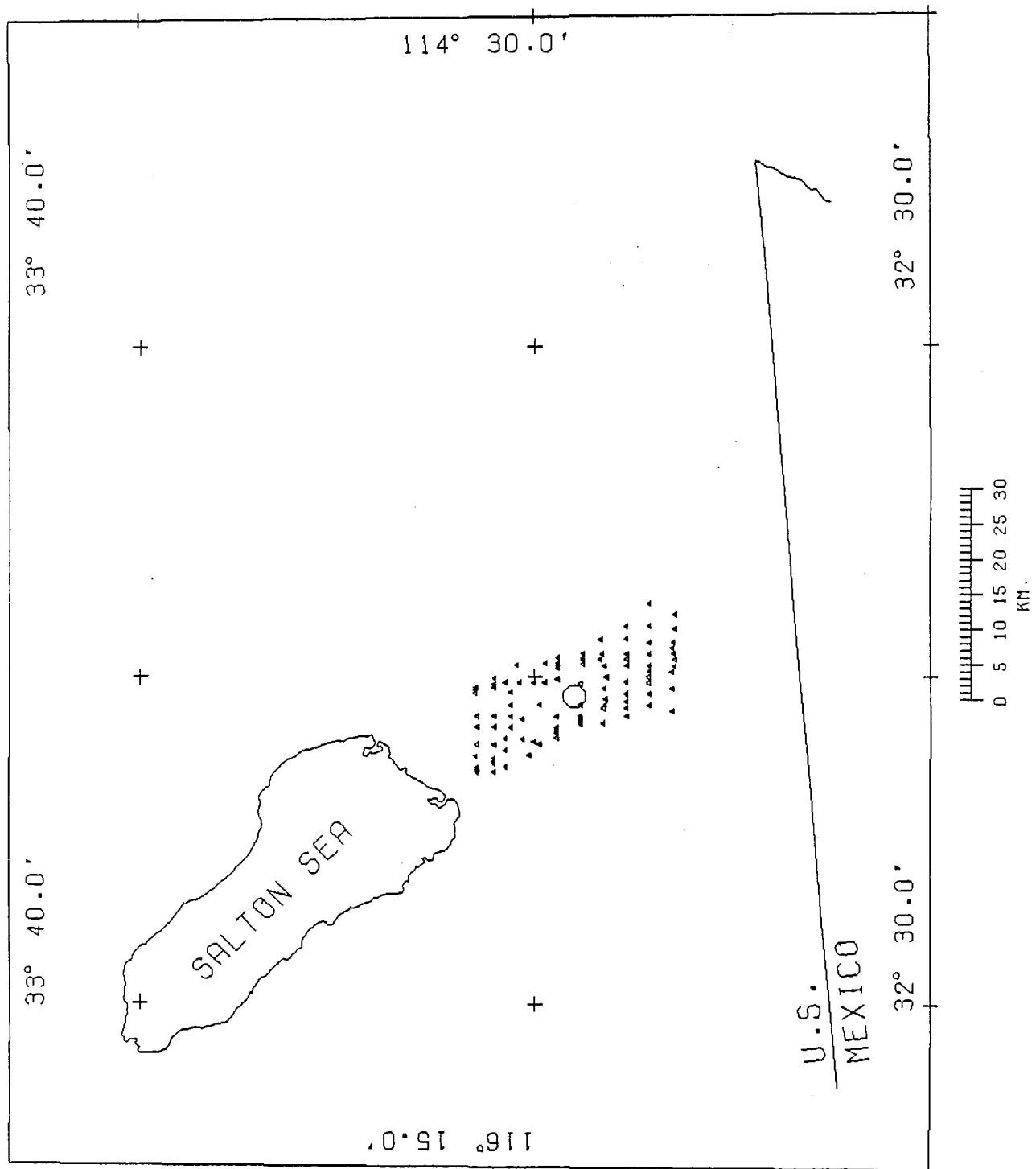


Figure 2p. Locations of recorders (triangles) for deployment 16. An aftershock of the Imperial Valley earthquake of October 15, 1979 (circle) was recorded. The approximate origin time is 1979:299:11:04:55, and the approximate location is 32° 57'N, 115° 32'W.

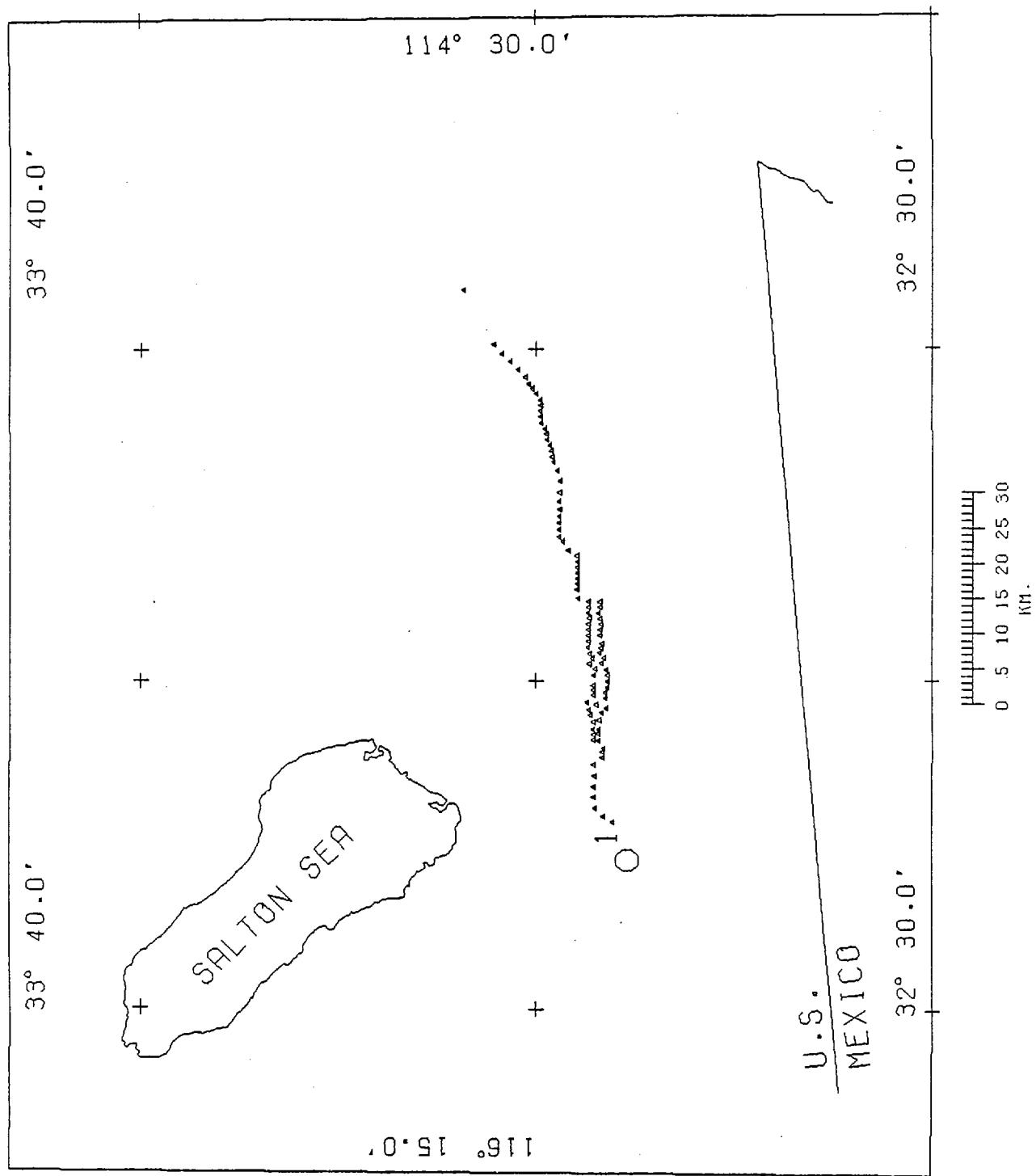


Figure 2q. Locations of shotpoint 1 (circle) and recorders (triangles) for deployment 17, laid out after the Imperial Valley earthquake of October 15, 1979. The recorders were deployed at sites which spanned the region of the fault rupture (see Sharp and others, 1982; Fuis and others, 1982) and coincided with the sites for deployment 7. Three shots were fired at shotpoint 1 to determine if travel times to any stations had changed following the earthquake.

TABLE 1  
LIST OF SHOTS AND EARTHQUAKE RECORDED DURING THE EXPERIMENT

Shotpoints 12, 13, and 14 (Table 1) are listed in Kohler and Fuis (1986) as shotpoint 13 holes 1, 2, and 3, respectively. The event listed as EQ is an aftershock of the Imperial Valley earthquake of October 15, 1979. The origin time and location are approximate.

Shot No.	Shot Pt.	Depl. No.	Shot Time (Date Jul.Day:Hr:Min:Sec)	Latitude (deg,min)	Longitude (deg,min)	Size (kg)
1	1	1	Jan 23, 1979 023:23:00:00.026	32 53.07	115 46.34	14
2	1	2	Jan 26, 1979 026:12:30:02.939	32 53.07	115 46.34	454
3	5	3	Feb 2, 1979 033:11:00:00.009	32 38.81	115 50.63	907
4	1	3	Feb 2, 1979 033:13:00:00.010	32 53.07	115 46.34	227
5	5	4	Feb 5, 1979 036:11:00:00.015	32 38.81	115 50.63	907
6	1	4	Feb 5, 1979 036:11:30:00.009	32 53.07	115 46.34	454
7	6	4	Feb 5, 1979 036:12:00:00.020	32 41.66	115 15.07	907
8	7	5	Feb 8, 1979 039:10:00:00.011	32 42.98	114 58.30	907
9	1	5	Feb 8, 1979 039:10:30:00.016	32 53.07	115 46.34	907
10	5	5	Feb 8, 1979 039:11:00:00.015	32 38.81	115 50.63	907
11	6	5	Feb 8, 1979 039:11:30:00.011	32 41.66	115 15.07	907
12	6	6	Feb 18, 1979 049:10:00:00.014	32 41.66	115 15.07	680
13	1	6	Feb 18, 1979 049:10:30:00.010	32 53.07	115 46.34	454
14	13	6	Feb 18, 1979 049:11:00:00.014	33 10.61	115 52.04	907
15	6	7	Feb 21, 1979 052:10:00:00.016	32 41.66	115 15.07	907
16	1	7	Feb 21, 1979 052:12:00:00.015	32 53.07	115 46.34	680
17	12	7	Feb 21, 1979 052:12:30:00.011	33 10.61	115 52.36	
18	13	8	Mar 6, 1979 065:10:00:00.011	33 10.61	115 52.04	907
19	6	8	Mar 6, 1979 065:10:30:00.006	32 41.66	115 15.07	
20	10	8	Mar 6, 1979 065:11:00:00.010	33 05.17	115 37.48	680
21	10	9	Mar 9, 1979 068:10:00:00.013	33 05.17	115 37.48	
22	5	9	Mar 9, 1979 068:11:00:00.013	32 38.81	115 50.63	181
23	14	9	Mar 9, 1979 068:11:30:00.013	33 10.59	115 51.54	
24	14	10	Mar 10, 1979 069:10:00:00.014	33 10.59	115 51.54	907
25	1	10	Mar 10, 1979 069:10:30:00.015	32 53.07	115 46.34	454
26	6	11	Mar 14, 1979 073:09:00:00.020	32 41.66	115 15.07	907
27	1	11	Mar 14, 1979 073:09:30:00.020	32 53.07	115 46.34	
28	7	11	Mar 14, 1979 073:10:30:00.020	32 42.98	114 58.30	907
29	10	11	Mar 14, 1979 073:11:00:00.021	33 05.17	115 37.48	
30	2	11	Mar 14, 1979 073:11:30:00.016	32 58.98	115 17.58	907
31	1	12	Mar 24, 1979 083:10:00:00.013	32 53.07	115 46.34	907
32	10	12	Mar 24, 1979 083:10:30:00.014	33 05.17	115 37.48	
33	14	13	Mar 27, 1979 086:10:00:00.008	33 10.59	115 51.54	
34	10	13	Mar 27, 1979 086:10:30:00.018	33 05.17	115 37.48	817
35	2	13	Mar 27, 1979 086:11:00:00.013	32 58.98	115 17.58	
36	2	14	Mar 31, 1979 090:10:30:00.010	32 58.98	115 17.58	
37	1	14	Mar 31, 1979 090:11:00:00.012	32 53.07	115 46.34	
38	10	14	Mar 31, 1979 090:11:30:03.818	33 05.17	115 37.48	
39	10	15	Apr 1, 1979 091:08:00:00.010	33 05.17	115 37.48	159
EQ		16	Oct 26, 1979 299:11:04:55.	32 57.	115 32.	
40	1	17	Nov 17, 1979 321:09:00:00.002	32 53.07	115 46.34	653
41	1	17	Nov 17, 1979 321:10:00:00.003	32 53.07	115 46.34	680
42	1	17	Nov 17, 1979 321:11:00:00.002	32 53.07	115 46.34	109

TABLE 2A  
SEISMIC RECORDER LOCATIONS FOR DEPLOYMENTS 1-15, AND 17

Loc	Latitude (deg,min)	Longitude (deg,min)	Loc	Latitude (deg,min)	Longitude (deg,min)
80*	33 26.139	115 40.709	134	33 02.342	115 58.620
81	33 07.649	116 03.819	135	33 01.872	115 58.635
82	33 07.558	116 02.785	136	33 01.402	115 58.590
83	33 07.558	116 01.767	137	33 01.061	115 58.220
84	33 07.558	116 00.741	138	33 00.668	115 57.873
85	33 07.565	115 59.707	139	33 00.126	115 57.165
86	33 07.565	115 58.673	141	33 02.793	115 41.372
87	33 07.565	115 57.647	142	33 04.117	115 40.338
88	33 07.565	115 56.605	143	33 05.941	115 39.005
89	33 07.565	115 55.571	144	33 07.399	115 37.868
90	33 07.565	115 54.544	145	33 07.929	115 36.343
91	33 07.565	115 53.519	146	33 08.887	115 35.774
92	33 07.578	115 52.569	147	33 09.084	115 34.242
93	33 07.571	115 51.535	148	33 10.615	115 34.597
101	33 19.157	114 43.647	149	33 11.439	115 33.720
102	33 14.503	114 50.364	150	33 12.760	115 32.562
103	33 05.477	114 54.618	151	33 14.144	115 32.125
104	32 59.168	115 02.069	152	33 15.397	115 30.507
105	33 00.205	115 18.840	153	33 16.822	115 29.615
106	32 58.062	115 20.818	154	33 18.023	115 29.636
107	32 56.757	115 22.508	155	33 19.334	115 29.424
108	32 55.907	115 24.281	156	33 22.783	115 28.634
109	32 54.963	115 25.275	157	33 05.248	115 37.742
110	32 54.109	115 27.170	158	33 16.420	115 29.529
111	32 53.067	115 27.915	159	33 26.565	115 50.369
112	32 52.000	115 29.498	160	33 10.583	115 51.290
113	32 51.218	115 30.046	161	32 59.280	115 56.720
114	32 50.179	115 31.119	162	32 46.217	116 00.138
115	32 49.515	115 31.866	163	32 42.193	115 59.016
116	32 48.827	115 33.607	164	32 38.841	115 50.560
117	32 47.699	115 35.901	165	32 41.673	115 14.900
118	32 47.311	115 37.345	166	32 42.961	114 58.257
119	32 45.562	115 38.266	167	32 40.680	115 45.922
120	32 44.234	115 40.503	168	32 40.825	115 44.656
121	33 17.290	115 58.737	169	32 41.593	115 42.648
122	33 13.805	115 58.694	170	32 42.799	115 41.172
123	33 09.726	115 58.550	171	32 51.430	115 52.095
124	33 07.095	115 58.538	172	32 52.110	115 52.520
125	33 06.222	115 58.555	173	32 56.850	115 55.468
126	33 05.783	115 58.543	174	32 57.641	115 55.969
127	33 05.360	115 58.550	175	32 58.212	115 56.195
128	33 04.927	115 58.543	176	32 58.603	115 56.392
129	33 04.495	115 58.554	177	32 58.943	115 56.590
130	33 04.006	115 58.627	178	32 53.630	115 46.080
131	33 03.568	115 58.618	179	32 51.570	115 47.920
132	33 03.140	115 58.613	180	32 53.174	115 46.246
133	33 02.702	115 58.613	181	33 02.093	115 42.543

\* Note: These numbers, which appear on the SEGY tape, were omitted from figures 1 and 2, for clarity.

Table 2A, continued

Loc	Latitude (deg,min)	Longitude (deg,min)	Loc	Latitude (deg,min)	Longitude (deg,min)
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182	33 01.445	115 42.582	236	32 47.235	115 31.124
183	33 01.037	115 42.869	237	32 47.302	115 31.768
184	33 00.788	115 43.117	238	32 48.442	115 32.368
185	33 00.505	115 43.382	239	32 48.673	115 32.994
186	33 00.066	115 43.672	240	32 48.827	115 33.607
187	32 59.563	115 43.657	241	32 48.613	115 34.353
188	32 59.202	115 43.641	242	32 48.887	115 35.124
189	32 58.722	115 43.997	243	32 49.108	115 35.847
190	32 58.421	115 44.324	244	32 49.104	115 36.703
191	32 58.096	115 44.693	245	32 49.001	115 37.377
192	32 57.925	115 45.148	246	32 49.409	115 37.733
193	32 57.468	115 45.134	247	32 49.725	115 38.250
194	32 56.961	115 45.167	248	32 50.442	115 38.752
195	32 55.768	115 45.673	249	32 50.667	115 39.220
196	32 56.478	115 45.170	250	32 50.744	115 39.785
197	32 55.276	115 46.031	251	32 50.762	115 40.722
198	32 54.828	115 45.670	252	32 50.945	115 41.763
199	32 54.422	115 45.247	253	32 51.218	115 42.571
200	32 53.997	115 45.661	254	32 51.768	115 42.560
201	32 52.253	115 47.718	255	32 52.325	115 43.595
202	32 53.082	115 46.330	256	32 52.804	115 44.420
207	32 55.957	115 54.888	257	32 53.202	115 45.392
208	32 55.195	115 54.422	258	32 54.274	115 47.446
209	32 54.433	115 53.940	259	32 54.887	115 48.743
210	32 53.678	115 53.473	260	32 55.323	115 49.675
211	32 52.893	115 52.983	261	32 55.732	115 50.553
212	32 50.600	115 51.560	262	32 56.172	115 51.435
213	32 49.780	115 51.122	263	32 56.608	115 52.327
214	33 00.470	115 57.447	264	32 57.057	115 53.262
215	33 06.622	115 58.638	265	32 57.485	115 54.168
216	32 41.674	115 15.900	266	32 58.099	115 55.026
217	32 42.063	115 16.720	267	32 58.789	115 55.711
218	32 42.519	115 17.640	268	32 59.419	115 56.389
219	32 42.514	115 18.700	269	33 00.126	115 57.166
220	32 42.903	115 19.920	270	33 00.669	115 57.873
221	32 43.326	115 20.380	271	33 01.402	115 58.590
222	32 43.411	115 21.380	272	33 02.795	115 59.886
223	32 43.444	115 22.100	273	33 04.116	116 01.300
224	32 43.715	115 23.000	274	33 04.783	116 03.195
225	32 43.749	115 23.220	275	33 05.461	116 05.148
226	32 44.222	115 23.660	276	33 06.085	116 07.148
227	32 44.763	115 24.240	277	33 07.057	116 10.000
228	32 45.026	115 24.739	280	32 56.948	115 43.216
229	32 45.091	115 25.722	281	32 56.893	115 44.379
230	32 45.546	115 26.747	282	32 57.046	115 46.068
231	32 46.013	115 27.454	283	32 56.625	115 46.881
232	32 47.097	115 28.360	284	32 56.633	115 47.858
233	32 47.500	115 29.183	285	32 58.363	115 48.744
234	32 47.831	115 29.468	286	32 57.682	115 48.925
235	32 47.547	115 30.394	287	32 57.272	115 49.310

Table 2A, continued

Loc	Latitude (deg,min)	Longitude (deg,min)	Loc	Latitude (deg,min)	Longitude (deg,min)
288	32 59.194	115 49.040	339	32 41.675	115 08.629
289	33 00.030	115 49.033	340	32 41.675	115 08.106
290	33 00.948	115 48.752	341	32 40.669	115 40.443
291	32 53.475	115 38.556	342	32 40.721	115 40.964
292	32 55.482	115 40.079	343	32 40.779	115 41.494
293	32 57.419	115 41.583	344	32 40.727	115 41.962
294	32 59.491	115 43.167	345	32 40.727	115 42.431
295	33 01.873	115 45.143	346	32 40.701	115 43.037
296	33 02.359	115 45.773	347	32 40.772	115 43.559
297	33 03.069	115 46.468	348	32 40.682	115 44.096
298	33 03.748	115 47.153	349	32 40.876	115 44.665
299	33 04.520	115 47.975	350	32 40.682	115 45.115
301	32 40.762	115 28.191	351	32 40.688	115 45.959
302	32 40.722	115 27.573	352	32 40.604	115 46.440
303	32 40.756	115 27.151	353	32 40.610	115 47.009
304	32 40.540	115 26.491	354	32 40.546	115 47.584
305	32 40.255	115 25.803	355	32 40.519	115 48.037
306	32 40.295	115 25.399	356	32 40.493	115 48.590
307	32 40.338	115 24.840	357	32 40.455	115 49.140
308	32 40.371	115 24.335	358	32 40.448	115 49.632
309	32 40.399	115 23.934	359	32 40.416	115 50.123
310	32 40.435	115 23.241	360	32 40.370	115 50.660
311	32 40.463	115 22.739	362	32 40.263	115 51.195
312	32 40.501	115 22.248	363	32 40.192	115 51.687
313	32 40.544	115 21.738	364	32 40.084	115 52.231
314	32 40.600	115 21.193	365	32 40.104	115 52.674
315	32 40.608	115 20.851	366	32 40.208	115 53.165
316	32 40.627	115 20.279	367	32 40.497	115 53.507
317	32 40.740	115 19.781	368	32 40.845	115 53.852
318	32 40.940	115 19.202	369	32 40.971	115 54.316
319	32 41.065	115 18.767	370	32 41.072	115 54.819
320	32 41.227	115 18.322	371	32 41.185	115 55.350
321	32 41.435	115 17.864	372	32 41.552	115 55.665
322	32 41.617	115 17.396	373	32 41.935	115 55.891
323	32 41.584	115 16.866	374	32 42.338	115 56.094
324	32 41.681	115 16.359	375	32 42.880	115 56.652
325	32 41.675	115 15.829	376	32 43.211	115 57.539
326	32 41.675	115 15.100	377	32 43.409	115 58.563
327	32 41.681	115 14.816	378	32 43.474	115 59.720
328	32 41.681	115 14.309	379	32 43.584	116 00.737
329	32 41.675	115 13.787	380	32 42.208	116 01.770
330	32 41.675	115 13.280	381	32 40.273	115 39.984
331	32 41.681	115 12.766	382	32 39.442	115 39.688
332	32 41.675	115 12.251	383	32 39.254	115 39.268
333	32 41.675	115 11.746	384	32 39.289	115 38.833
334	32 41.675	115 11.216	385	32 39.331	115 38.304
335	32 41.675	115 10.709	386	32 39.361	115 37.739
336	32 41.675	115 10.180	387	32 39.392	115 37.293
337	32 41.675	115 09.665	388	32 39.442	115 36.700
338	32 41.681	115 09.120	389	32 39.474	115 36.160

Table 2A, continued

Loc	Latitude (deg,min)	Longitude (deg,min)	Loc	Latitude (deg,min)	Longitude (deg,min)
390	32 39.517	115 35.643	441	33 04.493	115 42.476
391	32 39.558	115 35.071	442	33 03.792	115 42.400
392	32 39.613	115 34.541	443	33 03.668	115 41.906
393	32 39.643	115 34.057	444	33 03.234	115 41.898
394	32 39.686	115 33.538	445	33 02.805	115 41.369
395	32 39.748	115 32.804	446	33 02.507	115 40.879
396	32 39.783	115 32.316	447	33 03.262	115 40.324
397	32 39.937	115 31.536	448	33 02.604	115 39.823
398	32 39.985	115 31.037	449	33 02.403	115 39.321
399	32 40.014	115 30.427	450	33 01.948	115 40.454
400	32 40.344	115 29.470	451	33 01.702	115 39.807
401	32 58.027	115 35.690	452	33 01.156	115 39.414
402	32 57.786	115 35.185	453	33 01.206	115 38.798
403	32 57.930	115 34.427	454	33 00.799	115 38.799
404	32 58.304	115 33.447	455	33 00.481	115 38.420
405	32 57.812	115 33.578	456	33 00.182	115 37.747
406	32 57.370	115 34.232	457	32 59.954	115 37.092
407	32 56.928	115 32.828	458	32 59.338	115 36.760
408	32 56.520	115 32.651	459	32 58.922	115 36.190
409	32 56.513	115 33.339	460	32 58.533	115 35.690
410	32 56.020	115 33.225	461	33 10.649	115 52.044
411	32 56.474	115 31.989	462	33 10.065	115 50.346
412	32 56.266	115 32.592	463	33 09.282	115 50.347
413	32 55.617	115 32.189	464	33 08.844	115 49.950
414	32 56.013	115 31.052	465	33 08.635	115 49.286
415	32 55.238	115 31.570	466	33 08.418	115 48.750
416	32 54.956	115 31.047	467	33 07.877	115 48.711
417	32 54.528	115 30.693	468	33 07.533	115 48.118
418	32 54.314	115 30.031	469	33 07.181	115 47.739
419	32 55.234	115 30.015	470	33 06.831	115 46.999
420	32 54.728	115 29.479	471	33 06.665	115 46.242
421	32 48.578	115 23.438	472	33 06.201	115 45.664
422	32 48.370	115 22.246	473	33 06.042	115 45.097
423	32 48.052	115 21.969	474	33 05.805	115 44.588
424	32 47.818	115 21.462	475	33 05.857	115 44.090
425	32 47.338	115 20.940	476	33 05.383	115 44.071
426	32 47.234	115 20.140	477	33 05.529	115 43.616
427	32 47.286	115 19.323	478	33 04.987	115 43.616
428	32 47.299	115 18.609	479	33 04.786	115 43.026
429	32 45.610	115 21.114	480	33 04.987	115 42.532
430	32 45.513	115 20.169	481	32 54.331	115 29.053
431	32 45.558	115 19.086	482	32 53.915	115 29.769
432	32 44.987	115 18.633	483	32 53.461	115 29.500
433	32 44.688	115 17.999	484	32 53.389	115 29.007
434	32 44.253	115 17.600	485	32 52.954	115 28.846
435	32 43.805	115 17.077	486	32 52.948	115 28.384
436	32 43.338	115 16.517	487	32 53.753	115 28.492
437	32 42.987	115 16.279	488	32 53.071	115 27.923
438	32 42.552	115 15.979	489	32 53.149	115 26.999
439	32 42.221	115 15.722	490	32 52.526	115 27.615

Table 2A, continued

Loc	Latitude (deg, min)	Longitude (deg, min)	Loc	Latitude (deg, min)	Longitude (deg, min)
491	32 52.124	115 27.522	541	32 55.143	115 27.446
492	32 51.662	115 26.784	542	32 55.863	115 27.500
493	32 51.279	115 26.638	543	32 55.013	115 26.999
494	32 50.844	115 26.269	544	32 56.032	115 26.907
495	32 50.597	115 25.769	545	32 56.000	115 26.399
496	32 50.370	115 25.354	546	32 55.987	115 25.877
497	32 50.039	115 24.846	547	32 55.987	115 25.346
498	32 49.545	115 24.515	548	32 55.987	115 24.846
499	32 49.571	115 23.801	549	32 55.905	115 24.292
500	32 48.915	115 24.200	550	32 56.013	115 23.830
501	32 56.078	115 31.961	551	32 55.974	115 23.311
502	32 55.409	115 32.192	552	32 55.993	115 22.775
503	32 54.974	115 32.923	553	32 55.097	115 22.806
504	32 54.688	115 31.570	554	32 55.097	115 23.291
505	32 54.688	115 31.070	555	32 55.091	115 24.346
506	32 54.539	115 30.608	556	32 55.020	115 24.849
507	32 55.617	115 30.446	557	32 55.097	115 25.349
508	32 55.617	115 30.831	558	32 55.104	115 25.877
509	32 55.617	115 31.309	559	32 54.967	115 26.614
510	32 54.513	115 30.054	560	32 55.227	115 23.825
511	32 54.565	115 30.038	561	32 55.616	115 37.683
512	32 55.584	115 29.492	562	32 55.519	115 38.722
513	32 54.520	115 29.492	563	32 55.593	115 39.685
514	32 54.636	115 29.007	564	32 55.593	115 40.644
515	32 55.487	115 28.907	565	32 55.477	115 41.645
516	32 55.929	115 28.453	566	32 54.860	115 42.373
517	32 55.656	115 27.929	567	32 54.155	115 42.896
518	32 54.818	115 27.907	568	32 54.954	115 37.000
519	32 55.000	115 28.392	569	32 54.932	115 36.469
520	32 54.630	115 32.523	570	32 54.852	115 36.114
521	32 56.766	115 22.500	571	32 55.186	115 35.415
522	32 56.856	115 21.702	572	32 55.617	115 35.387
523	32 56.844	115 21.191	573	32 55.601	115 34.904
524	32 56.824	115 20.679	574	32 55.186	115 34.801
525	32 56.831	115 20.177	575	32 55.204	115 34.411
526	32 56.820	115 19.675	576	32 55.636	115 34.438
527	32 56.825	115 19.168	577	32 55.607	115 33.749
528	32 56.856	115 18.634	578	32 55.162	115 33.584
529	32 57.534	115 18.138	579	32 55.838	115 33.122
530	32 57.942	115 17.338	580	32 55.929	115 32.656
531	32 58.208	115 16.907	581	32 58.759	115 09.769
532	32 58.208	115 16.279	582	32 58.838	115 09.229
533	32 58.214	115 15.644	583	32 58.942	115 08.690
534	32 58.212	115 15.092	584	32 59.149	115 08.228
535	32 58.195	115 14.476	585	32 59.201	115 07.704
536	32 58.212	115 13.729	586	32 59.305	115 07.223
537	32 58.195	115 12.985	587	32 59.590	115 06.699
538	32 58.123	115 11.922	588	32 59.643	115 06.128
539	32 58.351	115 10.998	589	32 59.681	115 05.589
540	32 58.636	115 10.219	590	32 59.643	115 05.096

Table 2A, continued

Loc	Latitude (deg, min)	Longitude (deg, min)	Loc	Latitude (deg, min)	Longitude (deg, min)
591	32 59.655	115 04.603	652	33 05.149	115 39.506
592	32 59.941	115 04.049	653	33 05.578	115 39.260
593	33 00.237	115 03.596	655	33 06.142	115 40.416
594	33 00.541	115 03.194	656	33 05.799	115 40.794
595	33 00.811	115 02.572	657	33 05.370	115 41.218
596	33 01.352	115 01.870	658	33 04.825	115 41.496
597	33 01.927	115 01.106	661	33 14.519	115 32.897
598	33 02.570	115 00.403	662	33 14.058	115 33.287
599	33 03.195	114 59.599	663	33 13.638	115 33.597
600	33 05.477	114 54.618	664	33 12.767	115 32.559
601	33 05.228	115 37.346	665	33 13.208	115 32.297
602	33 06.870	115 35.301	666	33 13.550	115 32.133
603	33 07.448	115 35.803	667	33 14.157	115 32.128
604	33 08.422	115 36.219	668	33 14.110	115 31.582
605	33 07.948	115 36.281	669	33 14.897	115 30.072
606	33 07.994	115 36.860	670	33 15.388	115 30.495
607	33 07.766	115 37.299	671	33 15.810	115 29.550
608	33 07.429	115 37.870	672	33 16.392	115 29.645
609	33 07.110	115 38.001	673	33 16.790	115 29.613
610	33 06.734	115 38.349	674	33 17.332	115 29.718
611	33 06.345	115 40.308	675	33 18.000	115 29.627
612	33 07.143	115 39.675	676	33 18.757	115 29.565
613	33 07.630	115 39.375	677	33 19.292	115 29.428
614	33 07.948	115 39.013	678	33 20.370	115 29.183
615	33 08.325	115 38.650	679	33 21.553	115 28.920
617	33 09.273	115 37.909	680	33 23.097	115 28.557
618	33 09.909	115 37.816	701	32 47.357	115 41.608
619	33 10.250	115 38.260	702	32 47.500	115 42.599
620	33 09.720	115 37.520	703	32 47.643	115 43.576
625	33 08.864	115 36.690	704	32 45.237	115 53.439
626	33 09.234	115 35.277	705	32 46.251	115 52.598
627	33 10.604	115 35.794	706	32 50.600	115 51.560
628	33 10.149	115 34.753	707	32 49.780	115 51.122
629	33 11.039	115 33.942	708	32 48.783	115 50.981
630	33 11.877	115 33.147	709	32 47.886	115 51.041
631	33 12.435	115 33.162	710	32 52.747	116 04.823
632	33 09.292	115 37.369	711	32 52.708	116 03.408
633	33 10.130	115 37.052	712	32 52.961	116 01.523
634	33 10.571	115 36.659	713	32 52.922	116 00.099
635	33 10.948	115 36.311	714	32 52.357	115 59.092
636	33 11.468	115 35.793	715	32 52.085	115 58.053
637	33 11.974	115 35.765	716	32 51.993	115 57.045
638	33 12.325	115 34.876	717	32 51.663	115 56.053
639	33 12.799	115 34.491	718	32 51.558	115 55.000
640	33 13.201	115 34.089	719	32 51.565	115 54.108
645	33 02.169	115 42.045	720	32 51.533	115 53.153
646	33 02.494	115 41.629	741	32 51.584	115 46.731
648	33 03.234	115 40.866	742	32 51.507	115 48.962
649	33 03.695	115 40.580	743	32 51.474	115 51.046
651	33 04.734	115 39.907	756	32 59.682	115 56.930

Table 2A, continued

Loc	Latitude (deg,min)	Longitude (deg,min)	Loc	Latitude (deg,min)	Longitude (deg,min)
758	32 58.572	115 17.854	845	32 53.279	115 52.993
761	32 44.969	115 57.177	846	32 54.058	115 53.716
762	32 45.539	115 56.332	847	32 54.812	115 54.199
763	32 45.994	115 55.472	848	32 55.565	115 54.669
764	32 46.462	115 54.569	849	32 56.318	115 55.123
765	32 46.923	115 53.714	850	32 57.215	115 55.693
766	32 47.431	115 52.920	851	32 57.792	115 55.985
767	32 47.514	115 51.830	852	32 58.422	115 56.309
768	32 47.498	115 50.526	853	32 58.838	115 56.514
769	32 47.511	115 49.754	854	32 59.156	115 56.668
770	32 47.493	115 48.783	855	32 59.513	115 56.837
771	32 47.506	115 47.747	856	32 59.864	115 57.022
772	32 47.498	115 46.929	857	33 00.279	115 57.315
773	32 47.524	115 45.954	859	32 52.007	115 47.807
774	32 47.549	115 44.855	862	32 44.766	115 57.527
781	32 51.779	115 42.561	863	32 45.270	115 56.684
782	32 51.584	115 44.615	864	32 45.680	115 55.890
784	32 53.123	115 47.731	865	32 46.158	115 54.948
785	32 53.993	115 47.731	866	32 46.663	115 54.212
789	32 56.195	115 49.554	867	32 47.129	115 53.301
790	32 56.597	115 49.500	868	32 47.484	115 52.417
801	32 47.487	115 42.146	869	32 47.529	115 50.860
802	32 47.474	115 43.114	870	32 47.506	115 50.160
803	32 47.610	115 44.360	871	32 47.494	115 49.499
806	32 50.964	115 51.983	872	32 47.512	115 48.374
807	32 50.203	115 51.522	873	32 47.486	115 47.378
808	32 49.814	115 51.062	874	32 47.610	115 46.454
809	32 48.309	115 50.981	875	32 47.581	115 45.375
821	33 00.578	115 57.708	876	32 44.382	115 53.410
822	33 00.896	115 58.047	877	32 42.970	115 52.635
823	33 01.227	115 58.386	878	32 41.478	115 53.257
824	33 01.688	115 58.609	879	32 40.395	115 52.868
825	33 02.097	115 58.510	881	32 51.597	115 43.607
826	33 02.565	115 58.618	882	32 51.610	115 45.661
827	33 02.935	115 58.605	883	32 52.682	115 47.761
828	33 03.357	115 58.605	884	32 53.565	115 47.731
829	33 03.799	115 58.520	885	32 54.468	115 48.076
830	33 04.234	115 58.535	887	32 55.058	115 49.284
831	33 04.727	115 58.658	888	32 55.753	115 49.600
832	33 05.156	115 58.651	891	32 59.642	115 49.068
833	33 05.571	115 58.550	892	33 00.480	115 49.107
834	33 06.000	115 58.550	893	33 01.831	115 48.752
835	33 06.435	115 58.558	894	32 58.824	115 49.053
836	33 06.864	115 58.580	895	32 57.954	115 48.595
837	33 07.318	115 58.550	896	32 57.533	115 49.037
838	33 08.883	115 58.542	901	32 57.649	115 10.578
839	33 13.312	115 58.687	902	32 56.039	115 09.830
840	33 16.483	115 58.072	903	32 54.403	115 09.045
842	32 51.487	115 49.985	904	32 52.838	115 08.069
844	32 52.526	115 52.754	905	32 51.500	115 06.885

Table 2A, continued

Loc	Latitude (deg,min)	Longitude (deg,min)	Loc	Latitude (deg,min)	Longitude (deg,min)
906	32 50.113	115 05.638	959	33 11.137	115 25.386
909	32 47.481	115 01.314	960	33 13.097	115 26.861
910	32 46.545	114 58.924	961	32 42.012	114 59.480
911	32 45.058	114 57.869	962	32 42.012	114 58.964
912	32 43.500	114 56.900	963	32 42.085	114 58.461
914	32 41.617	115 05.177	964	32 42.034	114 57.933
915	32 41.689	115 04.145	965	32 42.052	114 57.457
916	32 41.760	115 03.083	966	32 42.085	114 56.928
917	32 41.825	115 02.085	967	32 42.146	114 56.409
918	32 41.897	115 01.028	968	32 42.181	114 55.898
919	32 41.942	115 00.527	969	32 41.870	114 55.273
920	32 41.961	115 00.023	970	32 42.301	114 54.841
921	32 42.971	114 47.787	971	32 42.373	114 54.180
922	32 42.907	114 47.297	972	32 42.409	114 53.619
923	32 42.927	114 46.743	973	32 42.452	114 53.275
924	32 42.960	114 46.233	974	32 44.656	114 51.690
925	32 42.999	114 45.745	975	32 44.365	114 51.222
926	32 43.033	114 45.241	976	32 44.265	114 50.687
927	32 43.065	114 44.733	977	32 43.966	114 50.080
928	32 43.444	114 43.845	978	32 43.669	114 49.397
929	32 43.905	114 45.404	979	32 43.425	114 48.866
930	32 45.696	114 45.864	980	32 43.182	114 48.381
931	32 45.710	114 45.300	981	32 42.974	114 58.303
932	32 45.671	114 44.422	982	32 42.552	115 15.979
933	32 45.674	114 43.906	983	32 43.318	115 16.517
934	32 45.599	114 43.134	984	32 44.260	115 17.600
935	32 45.585	114 42.418	985	32 45.182	115 17.070
936	32 45.695	114 41.163	986	32 47.045	115 16.570
937	32 45.664	114 40.038	987	32 48.143	115 16.619
938	32 45.831	114 39.004	988	32 48.993	115 16.856
939	32 45.708	114 36.426	989	32 49.816	115 17.103
940	32 46.457	114 33.302	990	32 47.788	115 14.716
941	32 51.266	115 19.023	991	32 48.649	115 14.708
942	32 51.149	115 20.192	992	32 48.645	115 15.732
943	32 51.360	115 21.751	993	32 47.732	115 15.750
944	32 51.273	115 22.982	994	32 49.926	115 15.882
945	32 50.701	115 17.292	995	32 50.355	115 14.747
946	32 51.555	115 17.443	996	32 50.022	115 12.708
947	32 52.435	115 17.469	997	32 49.857	115 10.692
948	32 53.299	115 17.500	998	32 49.943	115 09.072
949	32 54.416	115 17.569	999	32 50.841	115 08.238
950	32 55.286	115 17.531	1001	32 42.968	115 33.590
951	32 56.195	115 17.477	1002	32 42.968	115 33.083
952	32 57.078	115 17.577	1003	32 42.968	115 32.661
953	32 57.935	115 17.346	1004	32 42.968	115 31.947
954	32 58.961	115 17.531	1005	32 42.896	115 31.497
955	33 01.117	115 19.522	1006	32 42.974	115 30.948
956	33 03.461	115 20.339	1007	32 43.578	115 30.441
957	33 05.578	115 21.119	1008	32 43.370	115 28.959
958	33 08.668	115 23.102	1009	32 43.390	115 28.014

Table 2A, continued

Loc	Latitude (deg,min)	Longitude (deg,min)	Loc	Latitude (deg,min)	Longitude (deg,min)
1010	32 43.383	115 27.000	1066	33 10.766	115 28.494
1011	32 43.338	115 25.764	1067	33 10.740	115 27.486
1012	32 43.375	115 24.923	1068	33 10.722	115 26.693
1013	32 40.682	115 32.147	1069	33 10.330	115 25.910
1014	32 41.650	115 31.878	1070	33 10.810	115 25.120
1015	32 42.130	115 32.016	1071	33 12.332	115 25.754
1016	32 42.474	115 32.177	1072	33 11.697	115 24.290
1017	32 43.409	115 32.185	1073	33 10.878	115 22.922
1018	32 43.851	115 32.177	1074	33 10.033	115 20.586
1019	32 44.279	115 32.085	1075	33 09.457	115 19.212
1020	32 45.000	115 32.193	1076	33 08.486	115 17.480
1021	33 05.720	115 34.730	1077	33 07.001	115 15.352
1022	33 05.857	115 33.704	1078	33 05.436	115 12.913
1024	33 06.181	115 31.844	1079	33 03.932	115 10.624
1026	33 06.019	115 30.432	1080	33 02.325	115 08.132
1027	33 05.805	115 29.443	1081	32 42.799	115 41.172
1028	33 05.798	115 28.410	1082	32 42.747	115 39.723
1029	33 05.792	115 27.392	1083	32 42.759	115 38.367
1030	33 05.792	115 26.250	1084	32 42.866	115 37.174
1031	33 05.798	115 25.201	1085	32 43.101	115 36.200
1033	33 05.965	115 23.297	1086	32 42.919	115 35.151
1034	33 05.965	115 22.261	1087	32 42.981	115 34.163
1035	33 05.143	115 20.891	1088	32 45.162	115 34.109
1037	33 04.939	115 19.715	1089	32 44.844	115 34.619
1038	33 05.510	115 18.942	1090	32 44.350	115 34.617
1040	33 05.162	115 17.153	1091	32 43.961	115 34.617
1042	32 51.266	115 24.069	1092	32 42.530	115 42.496
1043	32 51.046	115 25.115	1093	32 42.513	115 43.553
1044	32 51.286	115 26.007	1094	32 42.513	115 44.547
1045	32 51.478	115 26.654	1095	32 42.523	115 45.599
1046	32 52.110	115 27.449	1096	32 43.519	115 34.613
1047	32 52.149	115 28.023	1097	32 42.616	115 34.698
1048	32 52.373	115 28.538	1098	32 41.696	115 35.108
1049	32 52.149	115 29.454	1099	32 40.863	115 35.120
1050	32 52.159	115 30.261	1100	32 40.010	115 35.095
1051	32 52.227	115 31.054	1101	33 20.372	115 33.469
1052	32 52.217	115 31.477	1102	33 21.346	115 34.396
1053	32 52.370	115 32.351	1103	33 22.001	115 35.693
1054	32 52.234	115 33.092	1104	33 22.637	115 37.426
1055	32 51.973	115 33.818	1105	33 23.650	115 39.079
1056	32 52.244	115 34.682	1106	33 24.773	115 40.085
1057	32 52.584	115 35.477	1107	33 26.318	115 41.591
1058	32 52.578	115 36.315	1108	33 27.098	115 42.727
1059	32 52.855	115 37.354	1109	33 27.370	115 43.748
1060	32 53.092	115 38.362	1110	33 29.361	115 45.899
1061	33 10.429	115 33.691	1111	33 30.175	115 46.023
1062	33 10.616	115 32.663	1112	33 30.955	115 45.775
1063	33 10.579	115 31.562	1113	33 28.539	115 45.411
1064	33 10.282	115 30.449	1114	33 28.234	115 45.762
1065	33 10.786	115 29.554	1115	33 27.962	115 46.180

Table 2A, continued

Loc	Latitude (deg, min)	Longitude (deg, min)	Loc	Latitude (deg, min)	Longitude (deg, min)
1116	33 27.520	115 46.267	1166	33 23.023	115 46.055
1117	33 27.169	115 46.233	1167	33 23.439	115 46.038
1118	33 26.754	115 46.107	1168	33 23.644	115 46.025
1119	33 26.337	115 46.087	1169	33 23.920	115 46.068
1120	33 26.016	115 45.926	1170	33 24.249	115 46.098
1121	33 21.343	115 30.842	1171	33 24.519	115 46.008
1122	33 21.059	115 31.201	1172	33 24.740	115 45.964
1123	33 20.758	115 31.788	1173	33 24.920	115 45.935
1124	33 19.909	115 32.880	1174	33 25.176	115 45.964
1125	33 18.844	115 32.646	1175	33 25.556	115 46.123
1126	33 18.773	115 33.487	1176	33 25.608	115 49.335
1127	33 18.266	115 33.688	1177	33 25.730	115 48.785
1128	33 21.252	115 43.187	1178	33 25.617	115 48.263
1129	33 21.095	115 44.523	1179	33 25.617	115 47.201
1130	33 21.274	115 43.650	1180	33 25.904	115 49.133
1131	33 22.090	115 42.778	1181	33 27.311	115 41.488
1132	33 20.615	115 39.824	1182	33 26.958	115 41.216
1133	33 20.950	115 39.455	1183	33 26.357	115 41.362
1134	33 21.265	115 39.047	1184	33 25.692	115 40.989
1135	33 21.746	115 38.827	1185	33 25.166	115 40.890
1136	33 22.108	115 38.767	1186	33 24.801	115 40.924
1137	33 22.529	115 38.572	1187	33 24.267	115 40.936
1138	33 23.402	115 37.994	1188	33 23.893	115 40.961
1139	33 23.869	115 37.938	1189	33 23.448	115 41.026
1140	33 24.279	115 38.198	1190	33 23.068	115 41.381
1141	33 18.143	116 13.706	1191	33 22.554	115 41.602
1142	33 18.260	116 12.659	1192	33 22.678	115 42.209
1143	33 18.058	116 11.680	1193	33 22.425	115 42.601
1144	33 17.124	116 09.479	1194	33 22.201	115 43.007
1145	33 16.767	116 08.505	1195	33 21.934	115 43.437
1146	33 16.915	116 06.902	1196	33 21.685	115 43.683
1147	33 16.863	116 05.912	1197	33 21.551	115 43.894
1148	33 16.629	116 03.717	1198	33 21.454	115 44.133
1149	33 16.584	116 03.006	1199	33 21.418	115 44.381
1150	33 15.844	116 01.028	1200	33 21.464	115 44.852
1151	33 15.987	116 00.147	1201	33 03.844	115 33.109
1152	33 17.149	115 57.121	1202	33 03.630	115 32.616
1153	33 17.325	115 56.144	1203	33 03.578	115 32.281
1154	33 17.812	115 55.730	1204	33 03.361	115 31.521
1155	33 18.077	115 34.195	1205	33 03.309	115 31.055
1156	33 17.570	115 34.630	1206	33 03.210	115 30.681
1157	33 17.089	115 35.270	1207	33 02.918	115 30.260
1158	33 16.471	115 34.698	1208	33 02.682	115 29.642
1159	33 16.234	115 35.322	1209	33 02.688	115 29.003
1160	33 15.828	115 35.302	1210	33 02.461	115 28.671
1161	33 21.416	115 45.379	1211	33 02.318	115 27.931
1162	33 21.969	115 46.302	1212	33 02.249	115 27.361
1163	33 22.367	115 46.104	1213	33 02.065	115 26.906
1164	33 22.526	115 47.083	1214	33 01.935	115 26.405
1165	33 22.569	115 46.082	1215	33 01.708	115 25.841

Table 2A, continued

Loc	Latitude (deg,min)	Longitude (deg,min)	Loc	Latitude (deg,min)	Longitude (deg,min)
1216	33 01.675	115 25.316	1263	33 04.669	115 35.781
1217	33 01.591	115 24.869	1264	33 04.518	115 35.123
1219	33 01.383	115 23.967	1265	33 04.301	115 34.636
1220	33 01.234	115 23.235	1266	33 04.057	115 34.149
1221	33 06.100	115 50.961	1267	33 03.978	115 33.542
1222	33 05.685	115 51.875	1268	33 06.658	115 40.294
1223	33 05.715	115 53.237	1281	33 00.938	115 22.659
1224	33 05.787	115 54.273	1282	33 00.851	115 22.251
1225	33 05.213	115 52.687	1283	33 00.669	115 21.754
1226	33 04.343	115 52.881	1284	33 00.500	115 21.102
1227	33 02.523	115 35.165	1285	33 00.295	115 20.731
1228	33 02.127	115 34.151	1286	33 00.145	115 20.147
1229	33 01.708	115 33.113	1287	32 59.890	115 19.623
1230	33 01.575	115 32.648	1288	32 59.507	115 19.029
1231	33 01.368	115 31.994	1289	32 59.063	115 18.605
1232	33 01.023	115 31.156	1290	32 59.087	115 17.966
1233	33 00.696	115 30.584	1301	33 05.065	115 37.454
1234	33 01.381	115 30.602	1302	33 04.481	115 37.441
1235	33 02.240	115 30.197	1303	33 04.279	115 37.245
1236	33 00.763	115 30.016	1304	33 04.052	115 37.245
1237	33 00.606	115 29.473	1305	33 03.835	115 37.245
1238	33 00.410	115 28.429	1306	33 03.620	115 37.245
1239	33 00.195	115 27.395	1307	33 03.390	115 37.245
1261	33 04.994	115 36.833	1308	33 03.169	115 37.245
1262	33 04.842	115 36.311			

TABLE 2B  
SEISMIC RECORDER LOCATIONS FOR DEPLOYMENT 16

Loc	Latitude (deg,min)	Longitude (deg,min)	Loc	Latitude (deg,min)	Longitude (deg,min)
1	33 03.101	115 38.772	52	32 56.299	115 28.445
2	33 03.117	115 38.020	53	32 56.318	115 28.260
3	33 03.101	115 37.785	54	32 56.305	115 27.875
4	33 03.117	115 37.495	55	32 56.500	115 30.623
5	33 03.097	115 36.228	56	32 56.507	115 32.568
6	33 03.093	115 34.632	57	32 56.513	115 33.624
7	33 03.104	115 33.610	58	32 56.507	115 33.874
8	33 03.104	115 31.018	59	32 56.513	115 34.078
9	33 03.106	115 30.717	60	32 56.507	115 34.309
10	33 03.047	115 30.134	61	32 52.982	115 33.610
11	33 04.471	115 31.018	62	32 53.026	115 32.876
12	33 04.503	115 31.211	63	32 53.004	115 32.245
13	33 04.506	115 31.519	64	32 52.996	115 31.571
14	33 04.403	115 33.633	65	32 53.025	115 30.443
15	33 04.409	115 34.605	66	32 52.991	115 28.943
16	33 04.416	115 36.212	67	32 52.991	115 28.375
17	33 04.493	115 37.283	68	32 52.991	115 27.924
18	33 04.422	115 38.359	69	32 53.014	115 26.504
19	33 04.403	115 38.559	70	32 53.023	115 25.404
20	33 04.429	115 38.764	71	32 54.967	115 26.613
21	33 02.243	115 38.292	72	32 54.840	115 27.907
22	33 02.223	115 36.709	73	32 54.998	115 28.379
23	33 02.240	115 35.674	74	32 54.677	115 28.997
24	33 01.785	115 34.636	75	32 54.531	115 30.035
25	33 01.798	115 33.638	76	32 54.689	115 31.071
26	33 01.802	115 32.605	77	32 54.568	115 32.054
27	33 01.807	115 31.449	78	32 54.607	115 32.551
28	33 02.210	115 30.524	79	32 54.750	115 32.882
29	33 01.162	115 30.524	80	32 54.762	115 34.267
30	33 00.069	115 30.533	81	32 49.513	115 33.127
31	33 01.368	115 28.932	82	32 49.545	115 31.068
32	32 59.166	115 28.752	83	32 49.543	115 29.539
33	32 59.195	115 30.539	84	32 49.364	115 28.992
34	32 59.620	115 32.565	85	32 49.331	115 28.380
35	32 59.621	115 36.184	86	32 49.389	115 27.867
36	33 00.454	115 37.187	87	32 49.506	115 27.361
37	33 00.915	115 35.720	88	32 49.416	115 26.831
38	33 00.935	115 33.878	89	32 49.305	115 25.623
39	33 00.071	115 35.975	90	32 49.325	115 24.315
41	32 58.312	115 35.593	91	32 51.272	115 32.594
42	32 58.315	115 35.177	92	32 51.266	115 31.534
43	32 58.315	115 34.946	93	32 51.285	115 30.531
44	32 58.318	115 34.661	94	32 51.281	115 30.018
45	32 58.325	115 33.640	95	32 51.259	115 29.484
46	32 58.253	115 30.219	96	32 51.259	115 28.946
47	32 58.227	115 29.222	97	32 51.253	115 27.887
48	32 58.221	115 28.991	98	32 51.271	115 26.854
49	32 58.227	115 28.683	99	32 51.258	115 25.338
50	32 58.227	115 28.236	100	32 51.263	115 23.291
51	32 56.325	115 28.807	102	34 05.507	116 02.113

TABLE 3  
ARCS DEFINING REGIONS FOR EACH SHOTPOINT IN WHICH FIRST ARRIVALS  
ARE RECORDED FROM SEDIMENTARY ROCKS, BASEMENT, AND SUBBASEMENT

For each shotpoint, first arrivals corresponding to energy inferred to have bottomed in sedimentary rocks are inside the arc segments indicated below for "Sedimentary rocks". Those corresponding to energy inferred to have bottomed in the "subbasement" (mafic intrusive rocks -- see Fuis and others, 1984) are outside the arc segments indicated below for "Subbasement". Arrivals from "basement" (meta-sedimentary, plutonic, and metamorphic rocks -- see Fuis and others, 1984) are between the arc segments listed below.

	SEDIMENTARY ROCKS			SUBBASEMENT		
Shot Point	Min azimuth (deg)	Max azimuth (deg)	Max dist (km)	Min azimuth (deg)	Max azimuth (deg)	Min dist (km)
1	0.0	7.0	5.88	0.0	74.5	45.68
	7.0	18.0	6.84	74.5	81.5	44.68
	18.0	33.0	9.44	81.5	102.5	43.16
	33.0	85.0	16.68	102.5	114.5	48.40
	85.0	152.0	10.32	114.5	360.0	50.24
	152.0	262.0	8.60			
	262.0	360.0	5.88			
2	0.0	265.0	12.72	0.0	180.0	48.80
	265.0	288.0	16.24	180.0	310.0	70.00
	288.0	316.5	22.20	310.0	360.0	68.90
	316.5	360.0	16.20			
5	0.0	270.0	3.60	0.0	38.0	65.60
	270.0	360.0	6.12	38.0	69.0	55.20
				69.0	360.0	65.60
6	0.0	34.0	14.80	0.0	17.0	45.00
	34.0	180.0	16.00	17.0	284.0	54.80
	180.0	328.0	18.00	284.0	296.0	50.40
	328.0	360.0	20.00	296.0	310.0	47.80
				310.0	360.0	45.00
7	0.0	233.0	10.40	0.0	360.0	48.00
	233.0	293.0	14.30			
	293.0	360.0	11.90			
10	0.0	38.0	7.20	0.0	116.0	47.60
	38.0	195.0	18.00	116.0	151.0	43.60
	195.0	234.0	15.00	151.0	286.0	56.00
	234.0	349.0	12.70	286.0	320.0	43.60
	349.0	360.0	7.20	320.0	360.0	47.60
12-14	0.0	139.0	16.32	0.0	105.0	57.04
	139.0	360.0	12.76	105.0	129.0	53.12
				129.0	360.0	57.04

TABLE 4  
TRAVEL TIMES OF FIRST ARRIVALS FOR DEPLOYMENTS 1-15, 17

Definitions of table entries:

- Loc - Station location number.
- Unit - Recorder identification number. Listed only for shot 1.
- Dist - Distance in kilometers between the shotpoint and station.
- Azim - Azimuth from the shotpoint to the station.
- Db - Recorder attenuation setting in decibels. Gain of station at zero db is approximately 92 db peaked at about 20 hz (see Blank and others, 1979). If Db is not entered in the table, there is no digital trace available.
- Tr - Reduced travel time of the first arrival in seconds. Times are reduced by a velocity of 6 km/s.
- P - Type of layer in which the first arrival is inferred to have bottomed: Q = sediments; B = basement; S = subbasement.
- Wt - Arrival weight or uncertainty number. A value of 0 indicates an excellent arrival. Values of 1, 2, and 3, 4 are increasingly uncertain. Estimated uncertainties for each weight are:  
0,  $\leq 0.02$ s; 1,  $\leq 0.05$ s; 2,  $\leq 0.10$ s; 3,  $\leq 0.20$ s; 4,  $\leq 0.50$ s.
- Tape Grade - Tape grade code indicating any malfunction of the seismograph or data playback equipment.
 

0 - Good playback	14 - Off frequency, tape speed off
1 - Tape did not run	15 - Calibration problems
2 - Tape ran but no signal	16 - Recorder stopped during record
3 - Skipped record time	17 - Bad time code
4 - Fast forward; no signal	18 - Tape speed way off; belt slipped
5 - Rewound and erased	19 - Turned on too early
6 - Weak multiplexed signal; cannot read time code; low record level	20 - In for repair; not deployed
7 - Continuous calibration	21 - Geophone disconnected or shorted
8 - Noise, sinusoidal	22 - Wrong unit number
9 - Noise, spike	23 - Wrong gain settings
10 - Noise, WWVB cross feed	24 - Late start
11 - Noise, periodic ticks	25 - Bad geophone test
12 - Noise, random	26 - One or more channels missing
13 - Bad clock	27 - Bad WWVB radio signal
	28 - Unit damaged / vandalized
	29 - Tape damaged / vandalized

Table 4, continued

SHOT NUMBER 1 SHOT POINT 1 DEPLOYMENT 1 SHOT TIME 1979:023:23:00:00.026 ("Huddle Test")

Dist					Tape					Dist					Tape				
Loc	Unit	(km)	Db	Grade	Loc	Unit	(km)	Db	Grade	Loc	Unit	(km)	Db	Grade	Loc	Unit	(km)	Db	Grade
---	---	---	--	-----	---	---	---	--	-----	---	---	---	--	-----	---	---	---	--	-----
1	3	0.00	42	0	1	77	0.00	42	0	1	78	0.00	6	0	1	79	0.00	1	
1	10	0.00	42	0	1	80	0.00	42	0	1	82	0.00	26	0/6	1	83	0.00	42	0
1	12	0.00	42	0	1	85	0.00	42	0	1	87	0.00	1		1	88	0.00	42	0
1	14	0.00	42	0	1	89	0.00	42	0	1	90	0.00	18	0	1	92	0.00	1	
1	15	0.00	18	0	1	93	0.00	42	0/6	1	94	0.00	42	0	1	96	0.00	42	0/6
1	17	0.00	6	0	1	97	0.00	42	0	1	98	0.00	16		1	99	0.00	42	0
1	18	0.00	1		1	100	0.00	42	0	1	101	0.00	1		1	103	0.00	42	0
1	19	0.00	42	0	1	104	0.00	6	0	1	105	0.00	6	0	1	106	0.00	42	0
1	22	0.00	1		1	107	0.00	42	0	1	108	0.00	42	7	1	109	0.00	42	0
1	23	0.00	42	0	1	110	0.00	42	0	1	112	0.00	1		1	113	0.00	42	0
1	24	0.00	42	0	1	115	0.00	42	0	1	116	0.00	42	0	1	117	0.00	42	0
1	25	0.00	42	0	1	118	0.00	42	0	1	119	0.00	42	0	1	120	0.00	1	
1	26	0.00	6	0	1	121	0.00	42	0	1	122	0.00	42	0	1	123	0.00	42	9/12/15
1	28	0.00	42	0	1	124	0.00	42	0	1	125	0.00	0/17		1	126	0.00	42	0
1	30	0.00	42	0	1	128	0.00	42	0	1	129	0.00	42	0	1	130	0.00	42	0
1	31	0.00	42	0	1	131	0.00	42	0	1	132	0.00	42	0/8	1	133	0.00	42	0
1	32	0.00	42	0	1	134	0.00	42	0	1	135	0.00	42	0	1	136	0.00	42	0
1	33	0.00	6/12/15		1	137	0.00	42	0	1	138	0.00	42	0	1	139	0.00	42	0/11
1	34	0.00	42	0	1	140	0.00	42	0	1	141	0.00	42	0	1	142	0.00	42	0
1	35	0.00	1		1	143	0.00	42	0	1	144	0.00	42	0	1	145	0.00	42	0/12/15
1	36	0.00	42	0	1	146	0.00	42	0										
1	38	0.00	42	0															
1	39	0.00	42	0															
1	40	0.00	1																
1	43	0.00	1																
1	44	0.00	42	0															
1	45	0.00	0/13/17																
1	48	0.00	42	0															
1	49	0.00	6	0															
1	51	0.00	42	0															
1	52	0.00	42	0															
1	53	0.00	42	0															
1	55	0.00	42	0															
1	56	0.00	42	0															
1	58	0.00	1																
1	60	0.00	42	0															
1	62	0.00	16																
1	63	0.00	6	0															
1	64	0.00	42	0															
1	65	0.00	1																
1	66	0.00	42	0															
1	67	0.00	1																
1	69	0.00	42	0															
1	70	0.00	42	0/6															
1	71	0.00	42	0															
1	72	0.00	42	0															
1	73	0.00	42	0															
1	74	0.00	1																
1	75	0.00	1																
1	76	0.00	1																

Table 4, continued

SHOT NUMBER 2 SHOT POINT 1 DEPLOYMENT 2 SHOT TIME 1979:026:12:30:02.939

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade
101	108.67	63.7	6		0/17/22			152	48.07	30.8	6		0		
102	95.58	65.5	6	1.375	S	2	0	153	51.04	30.7			6/14/17		
103	83.62	74.1	6	1.268	S	2	0	154	52.94	29.4	6	1.433	S	1	15
104	69.92	80.7	6	1.269	S	2	0	155	55.22	28.5	6	1.383	S	1	0/30
105	44.84	72.9	24	2.233	B	2	0	156	61.44	26.6	6	1.525	S	1	0
106	40.84	76.9	24			0		157	26.19	30.8	6		0		
107	37.78	79.6	24			0		158	50.47	31.2			21		
108	34.79	81.3	24	2.454	B	1	0	159	62.23	354.2			12		
109	33.03	83.9	24	2.540	B	1	0	160	33.27	346.6			17		
110	29.96	86.3	24			0		161	19.84	305.4	42	1.210	B	1	0
111	28.74	90.0	24	2.210	B	3	0/6	162	24.98	239.5	24	1.333	B	1	0
112	26.34	94.3	42	2.447	B	1	0	163	28.21	224.5	24	1.253	B	1	0
113	25.65	97.7	24	2.310	B	1	0	164	27.11	194.1	24	1.311	B	1	0
114	24.34	102.7	24	2.217	B	2	0	165	53.42	113.2	24		0		
115	23.52	106.2	42	2.260	B	2	0	166	77.35	104.0	24		0		
116	21.36	111.5	42	2.046	B	2	0	167	22.91	178.4	24	2.011	B	3	0
117	19.08	121.4				9/12/17		168	22.78	173.4	24	1.304	B	0	0
118	17.62	127.2				25		169	21.98	164.8	42	1.362	B	1	0
119	18.74	137.8	42			0		170	20.63	157.0	42	1.704	B	1	0
120	18.70	150.8	42	1.754	B	1	0	171	9.48	251.3	42	1.167	B	2	0
121	48.75	336.7	24			0/11		172	9.80	259.6	42	1.197	B	1	0
122	42.88	333.4	24	1.646	B	2	0	173	15.85	296.1		4			
123	36.18	328.3	24	1.476	B	1	0	174	17.22	299.4	24	1.183	B	1	0
124	32.14	323.8				6/14		175	18.06	301.7	42	1.211	B	1	0/6
125	30.87	321.9				2		176	18.71	303.1	42	1.211	B	1	0
126	30.22	321.0				1		177	19.32	304.2	42	1.196	B	1	0
127	29.63	320.1	24	1.911	B	1	0	178	1.11	21.4	42	0.432	Q	0	0
128	29.01	319.1	24	1.897	B	1	0	179	3.71	221.6	42	1.125	Q	0	0
129	28.42	318.0	42	1.925	B	1	0	180	0.24	37.3		12			
130	27.84	316.6	24	1.932	B	1	0	181	17.70	19.5		1			
131	27.25	315.4	24	1.910	B	1	0	182	16.55	20.7	42	2.111	B	3	0
132	26.69	314.2	24	1.889	B	1	0	183	15.69	20.2		20			
133	26.13	312.9	24	1.896	B	1	0/11	184	15.12	19.4	42	1.997	B	2	0
134	25.69	311.8	24	1.924	B	1	0/12	185	14.50	18.5	42	1.924	B	2	0
135	25.13	310.3	42			0/12		186	13.58	17.8	42	1.804	B	2	0
136	24.53	308.9	24	1.561	B	1	0	187	12.71	19.2		0/27			
137	23.68	308.6	24	1.440	B	2	0	188	12.09	20.4	42	1.768	B	1	0/6/9
138	22.81	308.0	24	1.396	B	1	0	189	11.07	19.3	42	1.674	B	1	0
139	21.32	307.7				1		190	10.38	17.6	42	1.589	B	1	0
141	19.57	23.3	42	2.231	B	2	0	191	9.64	15.5	42	1.574	B	1	0
142	22.46	24.6	42	2.204	B	2	0	192	9.16	11.7	42	1.525	B	1	0
143	26.39	25.7	24	2.011	B	2	0/15	193	8.34	13.0	42	1.554	B	1	0
144	29.59	26.5				9/14		194	7.42	14.3	42	1.596	B	1	0
145	31.57	29.6	6			0		195	5.09	11.8		6/9/27			
146	33.55	29.4	24	2.153	B	1	0/17	196	6.56	16.2	42	1.568	Q	0	0
147	35.09	32.5	24	2.168	B	3	0	197	4.11	6.7	42	1.153	Q	0	0
148	37.23	29.4				21		198	3.41	17.8	42	0.997	Q	0	0
149	39.23	30.1	24	1.782	B	1	0	199	3.02	34.3		1			
150	42.24	30.5				9/25		200	2.01	31.7	6	0.719	Q	0	0
151	44.80	29.6	24			0									

Table 4, continued

SHOT NUMBER 3 SHOT POINT 5 DEPLOYMENT 3 SHOT TIME 1979:033:11:00:00.009

Loc	Dist (km)	Azim (deg)	Tr (sec)	Tape	Loc	Dist (km)	Azim (deg)	Tr (sec)	Tape
				P Wt Grade					P Wt Grade
81	57.13	338.9	24	1.598 B 1 0	152	74.54	24.9		3
82	56.41	340.4	42	1.810 B 1 0	153	77.51	25.0	6	0/6
83	55.90	341.9	24	1.803 B 1 0	154	79.51	24.3		20
84	55.42	343.5	24	1.818 B 1 0	155	82.01	23.8		20
85	55.00	345.1		1	156	88.36	22.9		20
86	54.60	346.7	24	1.697 B 1 0	157	52.84	22.4	24	1.781 B 2 0/6
87	54.26	348.4	24	1.667 B 1 0	158	76.90	25.3		1
88	53.95	350.1	24	1.654 B 1 0/12	159	88.49	0.3		20
89	53.70	351.8	42	1.668 B 1 0	160	58.73	359.0	24	1.740 B 1 0
90	53.49	353.4		1	161	39.00	345.9	42	1.126 B 0 0
91	53.33	355.2	42	1.626 B 1 0	162	20.20	312.6	42	1.373 B 2 0/8
92	53.25	356.7	42	1.625 B 1 0	163	14.52	295.5	42	1.125 B 0 0
93	53.17	358.5	24		164	0.12	64.6	42	0.104 Q 0 0/30
101	128.18	54.5	6	0	165	56.11	84.6		3
102	114.71	54.9	24	0	166	82.05	84.6	24	0
103	100.21	60.6	6	0.382 S 1 0	167	8.13	64.9	42	0.982 B 0 0
104	84.52	63.6	6	0.531 S 2 0	168	10.05	68.3	42	1.047 B 0 0
105	63.44	51.4	24	1.447 S 1 0	169	13.50	67.6	42	1.138 B 0 0
106	58.58	52.6	24	1.710 S 2 0	170	16.52	63.5	42	1.361 B 0 0
107	55.02	52.9	24		171	23.43	354.4	42	1.111 B 1 0/9
108	51.87	52.5		1	172	24.75	353.2	42	1.147 B 0 0
109	49.58	53.0	24	2.097 B 2 0	173	34.18	347.2	24	1.196 B 0 0
110	46.27	52.3	42	0	174	35.78	346.5		0/21
111	44.19	53.4	24	0	175	36.89	346.4		6
112	41.03	53.6	24	2.022 B 2 0	176	37.67	346.2	42	1.125 B 0 0
113	39.49	54.5	24	0	177	38.35	346.0	42	1.082 B 1 0
114	37.02	55.4	42	0	178	28.29	14.5	24	1.354 B 0 0
115	35.36	56.0	24	1.876 B 1 0	179	23.96	10.2	42	1.332 B 0 0
116	32.40	55.2	24	1.910 B 1 0	180	27.41	14.5	24	1.319 B 1 0
117	28.27	54.5		17	181	44.84	16.3	42	0
118	26.03	52.9	24	1.811 B 1 0	182	43.68	16.7	42	2.003 B 3 0
119	23.00	57.2		1	183	42.83	16.4	24	1.875 B 1 0
120	18.73	57.7		1	184	42.28	16.1	42	1.881 B 1 0
121	72.23	349.9	24	1.626 S 1 0/12	185	41.66	15.8	42	1.904 B 1 0
124	53.71	346.7	24	1.710 B 1 0	186	40.76	15.5	24	1.710 B 1 0
125	52.15	346.3	24	1.752 B 1 0/11	187	39.87	15.8	24	1.675 B 2 0
126	51.35	346.1	24	1.762 B 1 0	188	39.23	16.1	24	1.654 B 1 0
127	50.60	345.9	24	1.789 B 1 0	189	38.23	15.7	24	1.617 B 1 0
128	49.82	345.7		13/27	190	37.55	15.2	24	1.512 B 1 0
141	46.62	18.1	24	1.900 B 2 0	191	36.83	14.6	24	1.546 B 1 0/27
142	49.45	18.9	24	1.775 B 2 0	192	36.35	13.6		12
143	53.32	19.9	24	1.782 B 2 0/15	193	35.53	14.0	24	1.496 B 1 0
144	56.46	20.6	24	1.811 B 1 0	194	34.61	14.3	42	1.511 B 1 0
145	58.25	22.5	24	0	195	32.28	13.9		3
146	60.22	22.6		20	196	33.74	14.6	42	1.569 B 1 0
147	61.51	24.5	24	0	197	31.26	13.3	24	1.397 B 1 0
148	63.87	23.0	24	1.733 B 1 0	198	30.60	14.7		2
149	65.81	23.6	6	0	199	30.05	16.2		25
150	68.78	24.2		21	200	29.12	15.5	24	1.389 B 0 0
151	71.39	23.8		3	215	52.89	346.3	24	1.761 B 1 13/17

Table 4, continued

SHOT NUMBER 4 SHOT POINT 1 DEPLOYMENT 3 SHOT TIME 1979:033:13:00:00.010

Loc	Dist	Azim	Tr	Tape	Loc	Dist	Azim	Tr	Tape
	(km)	(deg)	Db	(sec)	P	Wt	Grade		
...	...	...	...	...	...	...	...	...	...
81	38.30	314.7	42	0	152	48.07	30.8	6	0
82	37.06	316.3	24	2.067 B 2	0	153	51.04	30.7	6
83	35.98	318.1	6	2.003 B 2	0	154	52.94	29.4	20
84	34.93	320.1	6	1.953 B 2	0	155	55.22	28.5	20
85	33.93	322.2		1	156	61.44	26.6		20
86	32.97	324.4	6	0	157	26.19	30.8	6	0/6
87	32.06	326.7	6	0	158	50.47	31.2		1
88	31.20	329.2	6	0/30	159	62.23	354.2		20
89	30.40	331.8	6	1.804 B 2	0	160	33.27	346.6	24
90	29.68	334.5		1	161	19.84	305.4	24	0
91	29.03	337.3	6	1.918 B 2	0	162	24.98	239.5	6
92	28.52	340.1	6	0	163	28.21	224.5	6	0
93	28.00	343.2		17	164	27.11	194.1	6	0/9/30
101	108.67	63.7	6	0	165	53.42	113.2	24	0
102	95.58	65.5	6	0	166	77.35	104.0	42	0
103	83.62	74.1	6	0	167	22.91	178.4	6	1.247 B 1
104	69.92	80.7		25	168	22.78	173.4	6	1.304 B 1
105	44.84	72.9	6	0/17	169	21.98	164.8		17
106	40.84	76.9	24	0	170	20.63	157.0		17
107	37.78	79.6	24	0	171	9.48	251.3	24	0/9
108	34.79	81.3		1	172	9.80	259.6	24	0
109	33.03	83.9	24	0	173	15.85	296.1	24	0
110	29.96	86.3	24	0	174	17.22	299.4	24	0/30
111	28.74	90.0	24	0/30	175	18.06	301.7		1
112	26.34	94.3	24	0	176	18.71	303.1	24	0
113	25.65	97.7	24	0	177	19.32	304.2	6	0
114	24.34	102.7	6	0	178	1.11	21.4	42	0.444 Q 0
115	23.52	106.2	24	0	179	3.71	221.6	42	1.132 Q 0
116	21.36	111.5	24	0	180	0.24	37.3	42	0.125 Q 0
117	19.08	121.4		17/25	181	17.70	19.5	24	0
118	17.62	127.2	42	0	182	16.55	20.7	24	2.083 B 3
119	18.74	137.8		1	183	15.69	20.2	24	2.110 B 3
120	18.70	150.8		1	184	15.12	19.4	24	2.054 B 2
121	48.75	336.7	24	0	185	14.50	18.5		0
124	32.14	323.8	6	0	186	13.58	17.8	24	0
125	30.87	321.9	6	0/9/11	187	12.71	19.2	24	0/17
126	30.22	321.0	6	0/10	188	12.09	20.4	24	1.781 B 2
127	29.63	320.1	6	1.953 B 2	0	189	11.07	19.3	24
128	29.01	319.1		9/12/27	190	10.38	17.6	24	1.635 B 2
141	19.57	23.3	24	0	191	9.64	15.5	24	1.609 B 2
142	22.46	24.6	24	0	192	9.16	11.7	24	0
143	26.39	25.7		15	193	8.34	13.0	42	0
144	29.59	26.5		12	194	7.42	14.3	42	1.609 B 2
145	31.57	29.6		12	195	5.09	11.8		1
146	33.55	29.4		20	196	6.56	16.2	42	1.592 Q 0
147	35.09	32.5	24	0	197	4.11	6.7	42	1.184 Q 0
148	37.23	29.4	6	0	198	3.41	17.8		2
149	39.23	30.1	6	25	199	3.02	34.3		25
150	42.24	30.5		25	200	2.01	31.7		21
151	44.80	29.6	24	0	215	31.53	322.6	24	0

Table 4, continued

SHOT NUMBER 5 SHOT POINT 5 DEPLOYMENT 4 SHOT TIME 1979:036:11:00:00.015

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt Grade
129	49.05	345.4	6	0	249	28.24	39.1		12
130	48.21	345.0	6	0/12/30	250	27.81	37.5	24	0
131	47.42	344.8		25	251	26.97	35.0	24	0
132	46.66	344.5	6	0	252	26.36	31.7	24	14
133	45.88	344.2	24	0	253	26.16	28.8	24	0
134	45.24	344.0	6	0	254	27.06	27.8		3
135	44.41	343.7	6	0	255	27.28	23.7	24	0
164	0.12	64.6	42	0.004 Q 0 0	256	27.62	20.6	6	0
180	27.41	14.5	24	0	257	27.82	17.1	6	1.310 B 2 0
201	25.25	10.4	24	1.369 B 1 0	258	29.01	9.9	6	1.381 B 2 0
207	32.38	348.2	24	1.188 B 2 0	259	29.85	5.7	6	1.312 B 2 0
208	30.85	348.9	6	1.139 B 2 0	260	30.55	2.8	6	0
209	29.33	349.9	6	1.254 B 2 0	261	31.27	0.2		2
210	27.83	350.8	6	1.240 B 2 0	262	32.11	357.8		6
211	26.28	352.0	6	1.168 B 2 0	263	33.00	355.4	6	1.360 B 2 0
212	21.83	356.2	24	1.161 B 2 0	264	33.97	353.1	24	1.320 B 2 0
213	20.29	357.8	24	1.131 B 2 0	265	34.95	350.9	6	0/8
216	54.55	84.4	6	0	266	36.30	349.1	6	1.275 B 2 0
217	53.35	83.5		12	267	37.76	347.9	24	1.269 B 2 0
218	52.02	82.4	24	0	268	39.13	346.7		3/19
219	50.38	82.2		21/25	269	40.69	345.5	6	1.153 B 2 0/12
220	48.60	81.1		12/17	270	41.95	344.4	24	1.396 B 3 0
221	48.01	80.0	24	0	271	43.56	343.4	24	0
222	46.50	79.5	6	0	272	46.62	342.0		17
223	45.41	79.1	24	0	273	49.64	340.4		1
224	44.13	78.2	24	0	274	51.85	337.8	6	1.496 B 3 0
225	43.81	78.0	42	0/23	275	54.21	335.3	0	1.539 B 2 0/23/25
226	43.32	76.7	24	2.047 B 2 0	276	56.61	332.9	24	0
227	42.69	75.1	24	2.046 B 2 0	277	60.31	329.9	6	0
228	42.06	74.2	24	0	280	35.46	19.1	24	0
229	40.62	73.4	24	0	281	34.81	16.3	24	0
230	39.34	71.6	24	0	282	34.45	11.9	6	0
231	38.59	69.8	24	0	283	33.44	10.1	6	0
232	38.02	66.3	24	0	284	33.22	7.5	6	0.903 B 2 0
233	37.16	64.4	24	0	285	36.25	4.7		25
234	37.03	63.2	24	0	286	34.98	4.4	6	0
235	35.50	63.0	24	0	287	34.18	3.5	6	1.163 B 2 0/27
236	34.22	62.9	24	0	288	37.75	3.8	6	0/9/17
237	33.39	62.0	24	0	289	39.29	3.6	6	0
238	33.63	58.0	24	0	290	41.02	4.1	6	0
239	33.04	56.5		17	291	33.01	34.8		25
240	32.40	55.2	24	0	292	34.94	28.1	6	0
241	31.22	54.5	24	0	293	37.18	22.3	24	0
242	30.55	52.5	24	0	294	39.95	17.0	24	0
243	29.92	50.5	24	0	295	43.47	11.4		2
244	28.90	48.8		12	296	44.17	9.9	24	0
245	27.99	47.7	24	0	297	45.30	8.2	6	25
246	28.10	45.8	24	0	298	46.41	6.7	24	0
247	27.94	43.8		12/15	299	47.70	5.0	24	0
248	28.39	40.8	42	0	326	55.80	84.6	6	0

Table 4, continued

SHOT NUMBER 6 SHOT POINT 1 DEPLOYMENT 4 SHOT TIME 1979:036:11:30:00.009

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt	Grade
...	...	...	...	...	...	...	...	...	...	...	...
129	28.42	318.0	42	1.940	B 0 0	249	11.96	111.8	42	1.871	B 1 0
130	27.84	316.6	24	1.975	B 1 0/12	250	11.09	112.8	42	1.897	B 0 0
131	27.25	315.4		25		251	9.75	116.0	42	1.803	Q 0 0
132	26.69	314.2	24	1.896	B 1 0	252	8.15	118.8	42	1.732	Q 0 14/15
133	26.13	312.9	24	1.939	B 1 0	253	6.80	120.2	42	1.555	Q 0 0
134	25.69	311.8	24	1.967	B 1 0	254	6.37	112.2			3/19
135	25.13	310.3	42	1.805	B 1 0	255	4.50	107.8	42	1.310	Q 0 0
164	27.11	194.1	24	1.269	B 2 0	256	3.04	99.3	42	0.967	Q 0 0
180	0.24	37.3	42	0.125	Q 0 0	257	1.50	80.7	42	0.618	Q 0 0
201	2.63	234.9	42	0.918	Q 0 0	258	2.81	322.2	42	0.926	Q 0 0
207	14.36	291.8	24	1.110	B 1 0	259	5.03	311.9	42	1.311	Q 0 0
208	13.20	287.3	42	1.303	B 1 0	260	6.66	308.7	42	1.283	B 0 0
209	12.12	282.0	42	1.310	B 0 0	261	8.21	306.8			2
210	11.18	275.8	42	1.297	B 0 0	262	9.80	305.8			6
211	10.37	268.2	42	1.310	B 1 0	263	11.40	305.0	42	1.360	B 2 0
212	9.34	240.7	42	1.275	B 1 0	264	13.07	304.3	42	1.453	B 0 0
213	9.62	230.8	42	1.312	B 1 0/15	265	14.68	303.8	42	1.211	B 2 0/8
216	51.98	113.9	6		0	266	16.42	304.5	42	1.332	B 1 0
217	50.52	113.7	24		0	267	18.03	305.9	42	1.411	B 2 0
218	48.87	113.5	6	2.410	S 2 0	268	19.57	306.8			3/19
219	47.36	114.3			21	269	21.32	307.7	24	1.283	B 2 0/12
220	45.32	114.5	6		13/17/30	270	22.81	308.0	24		0
221	44.35	114.0	24	2.296	B 3 0	271	24.53	308.9	24	1.596	B 1 0
222	42.86	114.6	24		0	272	27.72	310.4	42	2.018	B 1 0/11
223	41.81	115.2	24	2.197	B 2 0	273	30.99	311.2			1
224	40.33	115.4	6		0	274	34.03	309.5	24	1.782	B 1 0
225	39.99	115.5	42	2.150	B 2 0/25	275	37.19	308.0	0	1.654	B 1 0/21/23
226	39.00	114.8	24	2.132	B 1 0	276	40.36	306.6	24	1.511	B 1 0
227	37.76	114.0	24	2.239	B 3 0	277	45.02	305.1	24	1.596	B 1 0
228	36.85	113.8	24	2.282	B 3 0	280	8.66	34.2	42	1.848	Q 0 0
229	35.40	114.6	24	2.100	B 2 0	281	7.70	23.4	42	1.718	Q 0 0
230	33.59	114.5	24	2.040	B 3 0	282	7.36	3.3	42	1.361	B 0 0
231	32.23	113.9	24		0	283	6.62	352.7	42	1.097	B 0 0
232	30.15	111.5	42		0	284	7.00	340.2	42	1.003	B 0 0
233	28.68	111.0	24		0	285	10.48	339.0			25
234	28.05	110.2	24		0	286	9.43	334.7	42	1.035	B 1 0
235	26.90	112.3	24		0	287	9.04	329.2	42	1.074	B 0 0
236	26.08	114.4	42		0	288	12.08	339.6	42	1.503	8 5 0
237	25.11	115.1	24		0	289	13.53	341.9	24	1.339	B 1 0
238	23.42	111.4	42		0	290	15.04	345.5	24	1.481	B 1 0
239	22.35	111.3			17	291	12.16	86.5			25
240	21.36	111.5	42		0	292	10.73	65.5	42	2.034	Q 0 0/25
241	20.44	113.8	42		0	293	10.94	42.7	42	1.999	Q 0 0
242	19.13	113.8	42		0	294	12.86	22.6	42	1.849	B 1 0
243	17.94	114.1	42		0	295	16.38	6.5			2
244	16.73	116.0	42	1.875	B 2 0	296	17.19	2.9	42		0/30
245	15.88	118.3	42	1.874	B 2 0	297	18.48	359.4		1.982	B 1 25
246	15.04	116.7			17	298	19.78	356.3	42	2.038	B 1 0
247	14.05	116.1	42		0	299	21.32	353.1	42	1.996	B 2 0
248	12.80	112.3	42	1.892	B 1 0	326	53.13	113.4	24		0

Table 4, continued

SHOT NUMBER 7 SHOT POINT 6 DEPLOYMENT 4 SHOT TIME 1979:036:12:00:00.020

Loc	Dist (km)	Azim (deg)	Tr (sec)	Tape	Loc	Dist (km)	Azim (deg)	Tr (sec)	Tape
				P Wt Grade					P Wt Grade
129	79.88	301.9	24	1.868 S 2 0	249	41.22	293.8	24	2.768 S 3 0
130	79.50	301.3	24	1.926 S 2 0/9/11	250	42.09	293.5	24	2.725 B 2 0
132	78.67	300.3	6	1.911 S 2 0/25	251	43.45	292.8	24	2.703 B 3 0
132	78.67	300.3	24	1.911 S 2 0	252	45.08	292.4	24	2.560 B 2 15
133	78.27	299.8	24	1.953 S 2 0	253	46.44	292.4	24	2.510 B 2 0
134	77.95	299.4	24	1.975 S 2 0	254	46.81	293.5	42	0
135	77.55	298.8	24	1.932 S 2 0	255	48.71	293.9	24	2.470 B 2 0
164	55.73	264.6	42	2.047 S 1 0	256	50.24	294.2	24	2.400 B 1 0
180	53.12	293.6	24	2.161 S 1 0	257	51.92	294.3	24	0
201	54.61	291.0	24	2.138 S 1 0	258	55.66	294.8	24	2.110 S 1 0
207	67.53	293.0	24	1.597 S 1 0	259	57.97	294.9	24	1.968 S 1 0
208	66.33	292.2	24	1.696 S 1 0	260	59.63	295.1	24	1.968 S 1 0
209	65.11	291.3	24	1.810 S 1 0	261	61.19	295.1		13/17
210	63.94	290.3	24	1.867 S 1 0	262	62.78	295.3		6
211	62.73	289.3	24	1.804 S 1 0	263	64.38	295.4	24	1.946 S 1 0
212	59.33	286.2	24	1.985 S 1 0	264	66.05	295.5	42	1.925 S 1 0
213	58.27	284.9	24	1.989 S 1 0/15	265	67.67	295.6	24	1.616 S 2 0
216	1.30	270.9	6	0.732 Q 0 0	266	69.36	296.0	24	1.717 S 1 0
217	2.68	286.0	42	0.947 Q 0 0	267	70.88	296.5	24	1.783 S 2 0
218	4.32	291.5	42	1.389 Q 0 0	268	72.35	297.0		19
219	5.89	285.5	42	1.796 Q 0 0	269	74.02	297.5	24	1.946 S 3 0
220	7.92	286.8	42	2.139 Q 0 0	270	75.46	297.7	24	1.688 S 2 0
221	8.85	290.3	42	2.282 Q 0 0	271	77.08	298.3	24	1.819 S 2 0
222	10.38	288.1	42	2.453 Q 1 0/9	272	80.00	299.2	24	2.075 S 2 0/11
223	11.47	286.7	42	2.525 Q 0 0	273	83.11	299.9		1
224	12.96	287.0	42	2.632 Q 0 0	274	86.28	299.7	24	1.561 S 2 0
225	13.31	286.8	42	2.611 Q 0 0/25	275	89.54	299.4	0	1.183 S 2 0/23/25
226	14.23	289.4	42	2.675 Q 0 0	276	92.82	299.1	24	0.899 S 2 0
227	15.43	291.8	42	2.718 Q 0 0	277	97.56	298.7	24	0.761 S 2 0
228	16.34	292.4	42	2.739 Q 0 0	280	52.23	302.7	42	2.796 S 1 0
229	17.81	290.8	42	2.590 Q 0 0	281	53.71	301.6	24	2.747 S 1 0
230	19.61	291.5	42	2.660 B 0 0	282	56.12	300.4	42	2.739 S 1 0
231	20.95	292.6	42	2.689 B 1 0	283	56.83	299.1	24	1.997 S 1 0
232	23.06	295.8	42	2.655 B 1 0	284	58.18	298.4	6	1.710 S 1 0
233	24.54	296.1	42	2.604 B 1 0	285	60.95	300.4		25
234	25.22	296.9	42	2.618 B 1 0	286	60.57	299.3	24	2.035 S 2 0
235	26.29	294.4	42	2.639 B 1 0	287	60.73	298.4		10/27
236	27.11	292.3	42	2.676 B 1 0	288	62.13	301.4		9/17
237	28.09	291.8	42	2.732 B 1 0	289	62.93	302.6	24	2.262 S 2 0
238	29.78	294.9	42	0	290	63.50	304.1	24	1.996 S 3 0
239	30.85	294.8		6	291	42.68	300.8		25
240	31.84	294.6		12	292	46.65	303.2	42	2.861 B 2 0
241	32.74	293.1	42	0	293	50.60	305.1	42	2.868 S 1 0
242	34.05	293.1	42	0	294	54.84	306.9	42	2.769 S 1 0
243	35.25	293.0	42	2.768 B 2 0	295	59.97	308.5		2
244	36.48	292.1	42	2.818 B 2 0	296	61.30	308.6	24	2.638 S 2 0
245	37.39	291.3	42	0	297	62.96	308.9	6	2.554 S 2 0/25
246	38.18	292.0	24	2.769 B 3 0	298	64.58	309.2	24	2.654 S 2 0
247	39.15	292.4	24	2.832 B 3 0	299	66.47	309.5	24	2.240 S 3 0
248	40.39	293.7		10	326	0.05	295.9	42	0

Table 4, continued

SHOT NUMBER 8 SHOT POINT 7 DEPLOYMENT 5 SHOT TIME 1979:039:10:00:00.011

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt	Grade
...	...	...	...	...	...	...	...	...	...	...	...
164	81.87	264.6	.6	0		350	73.29	266.7	6	0	
301	46.89	265.0	24	0		351	74.60	266.7	6	0	
302	45.94	264.8		12		352	75.36	266.7		21	
303	45.27	264.8	24	0		353	76.25	266.7	6	0/30	
304	44.29	264.1	24	0		354	77.15	266.7	6	0	
305	43.27	263.3	24	0		355	77.86	266.6		1	
306	42.64	263.3	24	0		356	78.73	266.6		1	
307	41.76	263.3	24	0		357	79.59	266.6	6	0/30	
308	40.97	263.2	.6	0/25		358	80.19	266.7	6	0	
309	40.34	263.2	24	0		359	80.95	266.6	6	0	
310	39.26	263.1	42	0		360	81.80	266.6	6	0	
311	38.47	263.0	24	0		362	82.64	266.5	6	0	
312	37.70	263.0	.6	0		363	83.42	266.5	6	0	
313	36.90	263.0	24	0		364	84.28	266.4		25	
314	36.04	263.0	24	2.618 B 2	0	365	84.96	266.4	24	0	
315	35.51	262.9		0/21		366	85.72	266.6	6	0/30	
316	34.62	262.8	24	2.661 B 3	0	367	86.21	267.0	6	0	
317	33.82	263.0	24	2.532 B 3	0	368	86.72	267.4		6	
318	32.88	263.4	.6	2.570 B 2	0	369	87.43	267.6	6	0	
319	32.18	263.7		12		370	88.20	267.7	6	0	
320	31.45	264.1		1		371	89.02	267.9	6	0	
321	30.70	264.7	24	2.639 B 2	0	372	89.49	268.3	6	0	
322	29.94	265.2	24			373	89.82	268.8	6	0	
323	29.12	264.9	24	0		374	90.12	269.2	6	0	
324	28.32	265.1		3		375	90.98	269.9	6	0	
325	27.49	265.0	24	2.668 B 2	0	376	92.36	270.3	24	0	
326	26.36	264.7	36	2.670 B 1	0	377	93.96	270.5	6	0	
327	25.92	264.7	24	2.659 B 1	0	378	95.76	270.5	6	0	
328	25.13	264.5	24	2.668 B 1	0	379	97.35	270.7	6	0/15	
329	24.32	264.3		3		380	98.97	269.2		1	
330	23.53	264.1		1		381	65.34	265.6		12/13	
331	22.73	263.9		3		382	65.02	264.2	24	0	
332	21.93	263.7	24	2.582 B 1	0	383	64.40	263.9		1	
333	21.15	263.4	24	2.531 B 1	0	384	63.72	263.8	6	0	
334	20.32	263.2		1		385	62.89	263.8	6	0	
335	19.54	262.9	24	2.474 B 1	0	386	62.00	263.8	6	0	
336	18.72	262.6	.6	2.446 B 1	0	387	61.30	263.8		1	
337	17.92	262.2	24	2.453 B 1	0	388	60.37	263.8	6	0	
338	17.07	261.9	24	2.447 B 1	0	389	59.53	263.7	6	0/30	
339	16.32	261.5	24	2.396 B 1	0/12	390	58.71	263.7	24	0	
340	15.51	261.0	24	2.339 B 1	12/15	391	57.82	263.7	6	0	
341	66.00	266.3	.6	0		392	56.98	263.7	24	0	
342	66.80	266.4		1		393	56.22	263.7	6	0/25	
343	67.62	266.5	.6	0/30		394	55.41	263.7	6	0	
344	68.36	266.5	.6	0		395	54.26	263.7	6	0/25	
345	69.09	266.5	.6	0		396	53.49	263.7	24	0	
346	70.04	266.5		1		397	52.25	263.8	24	0	
347	70.85	266.7	.6	0		398	51.46	263.8	24	0	
348	71.69	266.6	.6	0/15		399	50.51	263.8	24	0	
349	72.56	266.9	.6	0		400	48.95	264.3	24	0	

Table 4, continued

SHOT NUMBER 9 SHOT POINT 1 DEPLOYMENT 5 SHOT TIME 1979:039:10:30:00.016

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt
164	27.11	194.1	24	0	350	22.98	175.2	24	1.282 B 0 0
301	36.34	128.8		15	351	22.89	178.5	24	1.275 B 0 0
302	37.14	127.9		15	352	23.04	180.4	42	1.282 B 0 0
303	37.63	127.2	24	0	353	23.05	182.6		17/18
304	38.69	126.8	24	2.161 B 2 0	354	23.23	184.8	42	1.282 B 0 0
305	39.87	126.4		6	355	23.35	186.5		1
306	40.33	125.8	24	2.104 B 1 0	356	23.51	188.6		1
307	41.00	125.0	24	2.111 B 2 0	357	23.72	190.6		13
308	41.61	124.3		25	358	23.89	192.4	24	1.232 B 1 0
309	42.10	123.8	24	0	359	24.12	194.2		10
310	42.97	122.9	24	0	360	24.42	196.0		3
311	43.60	122.3	24	0	362	24.86	197.8	24	1.232 B 1 0
312	44.21	121.7	24	2.155 B 2 0	363	25.22	199.3	42	1.369 B 1 0
313	44.85	121.1	24	2.204 B 2 0	364	25.70	201.0	24	1.454 B 1 0
314	45.53	120.4	24	0	365	25.93	202.4	24	1.510 B 1 0
315	45.98	120.1	24	2.119 B 2 0/13/17	366	26.05	204.1	42	1.539 B 1 0
316	46.74	119.5	24	0	367	25.79	205.7	24	1.526 B 1 0
317	47.32	118.8	24	2.246 B 2 0	368	25.46	207.4		6
318	47.94	117.9	24	2.275 B 2 0	369	25.60	209.1	42	1.503 B 1 0
319	48.43	117.3	6	0	370	25.83	210.8	42	1.467 B 1 0
320	48.92	116.6		1	371	26.08	212.6	42	1.425 B 0 0
321	49.39	115.8	24	0/12	372	25.79	214.4	42	1.411 B 0 0
322	49.90	115.1	24	0	373	25.41	215.9	24	1.397 B 0 0
323	50.68	114.8	24	2.289 S 3 0	374	25.01	217.5	24	1.368 B 0 0
324	51.32	114.2		3	375	24.78	220.5	24	1.360 B 1 0
325	52.08	113.9	24	2.312 S 3 0	376	25.25	223.8	24	1.361 B 1 0
326	53.13	113.4	6	2.268 S 2 0	377	26.13	226.9	24	1.361 B 1 0
327	53.53	113.2	24	2.254 S 2 0	378	27.40	229.7	24	1.339 B 1 0
328	54.26	112.8	24	2.211 S 2 0	379	28.50	232.0	24	1.361 B 2 0
329	55.02	112.5	24	2.210 S 2 0	380	31.36	230.2		1
330	55.75	112.2		1	381	25.65	157.2		12/13
331	56.49	111.9		1	382	27.25	157.6	24	1.388 B 1 0
332	57.24	111.6		3	383	27.82	156.6		1
333	57.97	111.3	6	0	384	28.04	155.3	24	1.497 B 2 0
334	58.74	111.0		1	385	28.32	153.7		2
335	59.48	110.7	24	2.233 S 3 0	386	28.68	152.1	24	1.450 B 1 0
336	60.26	110.5	24	0	387	28.96	150.8		1
337	61.01	110.2	24	0	388	29.34	149.1	24	1.561 B 2 0
338	61.81	109.9	24	0	389	29.74	147.7	6	1.652 B 2 0
339	62.53	109.7		0/12	390	30.11	146.3	42	1.797 B 1 0
340	63.30	109.4	24	12/15	391	30.55	144.8	24	1.810 B 1 0
341	24.70	158.1	24	1.482 B 0 0	392	30.95	143.5	24	1.840 B 2 0
342	24.32	159.8		1	393	31.37	142.3		25
343	23.94	161.6	24	1.469 B 2 0	394	31.81	141.1	24	1.874 B 2 0
344	23.82	163.3	24	0	395	32.45	139.4	6	0/25
345	23.62	165.0	24	1.174 B 0 0	396	32.90	138.3	24	2.012 B 2 0
346	23.44	167.3		1	397	33.52	136.4	42	0/12
347	23.14	169.2	42	1.318 B 0 0	398	34.00	135.3	42	2.103 B 1 0
348	23.16	171.3	24	1.319 B 0 0	399	34.64	134.2	24	2.103 B 2 0
349	22.69	173.4	24	1.324 B 0 0	400	35.32	131.8	42	2.181 B 2 0

Table 4, continued

SHOT NUMBER 10 SHOT POINT 5 DEPLOYMENT 5 SHOT TIME 1979:039:11:00:00.015

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt Grade
164	0.12	64.6		17	350	9.29	68.2	42	1.039 B 0 0
301	35.27	84.1	24	2.100 B 2 0	351	8.08	64.6	42	1.004 B 0 0
302	36.22	84.4		12	352	7.34	63.2	42	0.968 B 1 0
303	36.88	84.4	24	0	353	6.57	59.6		17/18
304	37.88	85.2	24	0	354	5.74	56.1	42	0.932 B 0 0
305	38.91	86.1		6	355	5.14	52.1		1
306	39.55	86.0	24	0	356	4.45	45.8		1
307	40.42	86.0	24	0	357	3.83	37.5	42	0.896 B 0 0
308	41.21	86.0		25	358	3.40	27.3	42	0.911 Q 0 0/6
309	41.84	86.0	24	0	359	3.07	15.0	42	0.824 Q 0 0
310	42.93	86.0	42	0	360	2.88	359.1	42	0.825 Q 0 0
311	43.72	86.0	24	0/12	362	2.82	341.8	42	0.782 Q 0 0
312	44.49	86.0		12	363	3.04	327.1	42	0.824 Q 0 0
313	45.29	85.9	24	0	364	3.43	313.2	42	0.868 Q 1 0
314	46.14	85.9	24	2.019 B 3 0	365	3.99	306.8	42	0.970 Q 2 0
315	46.68	85.9	24	1.989 B 2 0/17/30	366	4.73	303.1	42	1.318 Q 2 0
316	47.57	86.0	6	1.990 B 3 0	367	5.47	304.7	42	1.497 Q 1 0
317	48.37	85.8	6	1.960 B 2 0/12	368	6.28	306.7		6
318	49.29	85.4	6	1.961 B 3 0	369	7.01	304.7	42	1.524 B 2 0
319	49.99	85.2		12	370	7.77	302.5	42	1.416 B 1 0
320	50.71	85.0		1	371	8.58	300.7	42	1.353 Q 1 0
321	51.46	84.6		9/11	372	9.36	302.8	42	1.365 B 1 0
322	52.22	84.3	24	0	373	10.05	305.1	42	1.425 B 1 0
323	53.03	84.5	24	0	374	10.74	307.3	42	1.404 B 1 0
324	53.84	84.3		3	375	12.05	308.6	24	1.429 B 1 0
325	54.66	84.4	6	0	376	13.52	307.0	24	1.395 B 1 0
326	55.80	84.6	36	0	377	15.03	304.4	24	1.352 B 2 0
327	56.24	84.6	6	0	378	16.61	301.2	24	1.306 B 2 0
328	57.03	84.7	6	0	379	18.09	299.2	24	1.305 B 2 0
329	57.84	84.8	24	0	380	18.51	289.8		1
330	58.63	84.8		1	381	16.86	80.8		12/13
331	59.43	84.9		1	382	17.15	86.1	24	1.182 B 1 0
332	60.23	85.0	24	2.101 B 2 0	383	17.79	87.4		1
333	61.02	85.0	6	0	384	18.47	87.3	24	0
334	61.85	85.1		1	385	19.30	87.2		2
335	62.63	85.2	24	0	386	20.18	87.1	24	1.212 B 1 0
336	63.46	85.2	24	0	387	20.88	87.1		1
337	64.26	85.3		12	388	21.81	86.9	6	1.254 B 2 0
338	65.11	85.3	24	0	389	22.66	86.9	6	1.318 B 2 0/17/30
339	65.88	85.4		12	390	23.47	86.8	24	1.468 B 1 0
340	66.69	85.5	24		391	24.37	86.8	24	1.596 B 2 0
341	16.29	77.8	24	1.161 B 1 0	392	25.20	86.6	24	1.597 B 2 0
342	15.52	76.9		1	393	25.96	86.6		25
343	14.74	75.7	42	1.132 B 0 0	394	26.78	86.5	6	1.667 B 2 0
344	14.01	75.4	24	1.053 B 1 0	395	27.93	86.5	6	0/25
345	13.30	74.6	24	0.982 B 0 0	396	28.69	86.4	24	1.832 B 2 0
346	12.37	73.6		1	397	29.93	86.0	24	0
347	11.63	71.9	24	1.090 B 0 0/12	398	30.71	86.0	24	0
348	10.78	71.3	24	1.083 B 0 0/15	399	31.67	86.0	24	0
349	10.08	67.8	24	1.046 B 0 0/9	400	33.21	85.1	24	0

Table 4, continued

SHOT NUMBER 11 SHOT POINT 6 DEPLOYMENT 5 SHOT TIME 1979:039:11:30:00.011

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade
164	55.73	264.6	6		0			350	47.00	267.8	24	1.997	B	0	0
301	20.58	265.4	42	2.774	B	0	0	351	48.32	267.9	24	2.011	B	0	0
302	19.62	264.9	42	2.675	B	0	0	352	49.08	267.7	42	2.039	B	0	0
303	18.96	264.9	42	2.675	B	0	0	353	49.96	267.8					17/18
304	17.97	263.4	42	2.647	Q	0	0	354	50.87	267.7	24	1.953	B	0	0
305	16.98	261.2	42	2.580	Q	0	0	355	51.58	267.7					1
306	16.34	261.1	42	2.540	Q	0	0	356	52.44	267.6					1
307	15.47	260.9	42	2.532	Q	0	0	357	53.30	267.6	24	1.976	B	0	0/12
308	14.68	260.6				25		358	54.07	267.6	24	1.975	B	0	0
309	14.05	260.4	42	2.482	Q	0	0	359	54.84	267.6	24	2.040	S	0	0
310	12.97	259.9	42	2.368	Q	0	0	360	55.68	267.5					3
311	12.19	259.5	42	2.375	Q	0	0	362	56.53	267.4	24	1.932	S	0	0
312	11.42	259.2	42	2.312	Q	0	0	363	57.30	267.3	24	2.033	S	1	0
313	10.63	258.8	42	2.303	Q	0	0	364	58.16	267.1	24	2.155	S	1	0
314	9.77	258.4	42	2.261	Q	0	0	365	58.85	267.2	24	2.140	S	1	0
315	9.24	257.8	42	2.220	Q	0	0/13/17	366	59.61	267.4	24	2.111	S	1	0
316	8.37	256.8	42	2.117	Q	0	0	367	60.12	267.9	24	2.089	S	1	0
317	7.56	257.0	42	2.003	Q	0	0	368	60.64	268.6					6
318	6.60	258.3	42	1.860	Q	0	0	369	61.36	268.8	42	2.074	S	1	0
319	5.89	259.2	6	1.717	Q	0	0	370	62.14	269.0	24	2.025	S	1	0
320	5.15	261.0				1		371	62.97	269.2	42	1.917	S	1	0
321	4.39	264.5	42	1.439	Q	0	0	372	63.45	269.8	42	1.882	S	1	0
322	3.64	268.7	42	1.238	Q	0	0	373	63.80	270.5	24	1.883	S	1	0
323	2.81	267.1	42	0.947	Q	0	0	374	64.13	271.1	24	1.832	S	1	0
324	2.02	271.0				3		375	65.02	272.0	24	1.846	S	2	0
325	1.19	271.1	42	0.489	Q	0	0/30	376	66.43	272.5	42	1.839	S	2	0
326	0.05	295.9	54	0.004	Q	0	0	377	68.04	272.7	42				0
327	0.40	84.9	42	0.210	Q	0	0	378	69.85	272.7	24	1.782	S	1	0
328	1.19	88.3	42	0.539	Q	0	0	379	71.45	272.8	24	1.783	S	1	0
329	2.00	89.3	42	0.826	Q	0	0	380	72.99	270.8					1
330	2.80	89.5				1		381	39.03	266.2					12/13
331	3.60	89.4				1		382	38.70	263.9	42	2.197	B	0	0
332	4.40	89.7	42	1.512	Q	0	0	383	38.09	263.3					1
333	5.19	89.7	42			0		384	37.41	263.3	42	2.239	B	1	0
334	6.02	89.8				1		385	36.58	263.2					2
335	6.81	89.8	42	2.097	Q	0	0	386	35.69	263.2					12
336	7.64	89.8	42	2.219	Q	0	0	387	34.99	263.1					1
337	8.45	89.8	42	2.346	Q	0	0	388	34.06	263.1	24	2.290	B	1	0
338	9.30	89.8	42	2.410	Q	0	0	389	33.22	263.0	42	2.510	B	0	0
339	10.07	89.9	42	2.503	Q	0	0/12/15	390	32.41	263.0	42	2.531	B	1	0
340	10.88	89.9	42	2.554	Q	0	0	391	31.51	262.9	42	2.553	B	0	0/30
341	39.70	267.3	24	2.382	B	1	0	392	30.67	262.9	42	2.568	B	1	0
342	40.51	267.5				1		393	29.92	262.8					25
343	41.34	267.7	42			0		394	29.10	262.8	42	2.797	B	0	0
344	42.07	267.6	42	2.118	B	1	0	395	27.95	262.7					25
345	42.80	267.7	42	2.047	B	0	0	396	27.18	262.7	42	2.718	B	0	0
346	43.75	267.7				1		397	25.94	262.9	42	2.739	B	0	0
347	44.56	267.9	24	2.046	B	0	0/9/12	398	25.15	262.9	42	2.782	B	0	0
348	45.41	267.7	24	2.068	B	0	0/15	399	24.20	262.8	42	2.690	B	0	0
349	46.28	268.2	6	2.076	B	0	0/6/9	400	22.64	263.8	42	2.740	B	0	0/30

Table 4, continued

SHOT NUMBER 12 SHOT POINT 6 DEPLOYMENT 6 SHOT TIME 1979:049:10:00:00.014

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt	Grade
326	0.05	295.9	42	-0.009 Q 0	0/12	451	53.49	313.8	6	2.818 S 3	0
401	44.16	313.2	24		0	452	52.35	313.5	24	2.897 S 2	0
402	43.29	313.5			11/15	453	51.72	314.3	24	2.890 S 2	0
403	42.62	314.9	24	2.911 B 2	0	454	51.20	313.7			6
404	42.05	317.0	24	2.933 B 2	0	455	50.37	313.7			21
405	41.54	315.9			6/14	456	49.23	314.1	24	2.846 S 2	0
406	41.68	314.1	24	2.925 B 2	0	457	48.21	314.5	24	2.846 S 2	0
407	39.55	315.5	24	2.846 B 2	0	458	47.04	314.0			2
408	38.82	315.0	42	2.889 B 2	0	459	45.87	314.1	24	2.910 S 2	0
409	39.58	313.9	24	2.803 B 3	0	460	44.81	314.1	24	2.896 B 2	0
410	38.82	313.1	24	2.890 B 2	0	461	78.69	312.9	6	1.811 S 3	0
411	38.04	316.0	42	2.896 B 1	0	462	76.03	313.7	6	1.974 S 2	0
412	38.43	314.6	24	2.810 B 3	0	463	75.04	312.9	24	1.967 S 2	0
413	37.14	314.0	24	2.939 B 2	0	464	74.03	312.7	24	1.997 S 2	0
414	36.41	316.8	24	2.940 B 2	0	465	73.01	313.1	24	2.204 S 2	0
415	35.96	314.2			13/17/22	466	72.13	313.3	24	2.282 S 2	0
416	35.01	314.6	42	2.839 B 2	0	467	71.41	312.7	24	2.345 S 2	0
417	34.06	314.3	42	2.775 B 3	0	468	70.30	312.9	24	2.324 S 2	0
418	33.05	315.0	42	2.761 B 2	0	469	69.42	312.8	24	2.490 S 3	0
419	34.26	317.1	42	2.782 B 2	0	470	68.14	313.1	24	2.560 S 3	0
420	33.00	317.0			1	471	67.07	313.6	24	2.504 S 3	0
421	18.28	314.4	42	2.718 B 0	0	472	65.83	313.6	24	2.424 S 3	0
422	16.71	317.9	42	2.697 Q 0	0	473	64.99	313.9	24	2.431 S 3	0
423	15.99	317.6			1	474	64.11	314.1	24	2.439 S 3	10
424	15.14	318.7	42	2.632 Q 0	0	475	63.62	314.7	6	2.440 S 3	0
425	13.93	318.8	42	2.554 Q 0	0	476	62.99	314.1	6	2.439 S 3	0
426	12.99	322.4			1	477	62.67	314.7	6	2.482 S 3	0
427	12.34	327.4	42	2.496 Q 0	0	478	61.97	314.1	24	2.497 S 3	0
428	11.79	332.0	42	2.526 Q 0	0	479	61.05	314.4	24	2.519 S 2	0
429	11.93	307.7	42		0	480	60.77	315.2	24	2.504 S 2	0
430	10.68	311.8	42	2.440 Q 0	0	481	32.01	317.0	42	2.768 B 2	0
431	9.55	318.9	42	2.339 Q 0	0	482	32.24	314.6	42	2.761 B 2	0
432	8.29	317.8			3	483	31.35	314.1			6/14
433	7.23	320.7	42	2.025 Q 0	0	484	30.71	314.9			1
434	6.21	320.5	42	1.854 Q 0	0	485	29.97	314.1	42	2.768 B 1	0
435	5.05	321.6	42	1.589 Q 0	0	486	29.45	315.1			12/13
436	3.83	323.9	42	1.305 Q 0	0	487	30.63	316.8	42	2.754 B 2	0
437	3.09	322.3	42	1.104 Q 0	0/12	488	29.11	316.4	42	2.775 B 1	0
438	2.17	319.1	42	0.804 Q 0	0	489	28.24	318.7			1
439	1.45	315.3	42		6	490	28.05	315.7			1
441	60.06	314.6	24	2.533 S 2	0	491	27.42	314.8	42	2.747 B 1	0
442	59.08	313.8			21/25	492	26.00	315.3	42	2.747 B 1	0
443	58.37	314.2	24	2.582 S 2	0	493	25.34	314.5	42	2.747 B 1	0
444	57.80	313.6	24	2.497 S 3	0	494	24.37	314.1			2
445	56.66	313.6	24	2.589 S 2	0	495	23.49	314.7	42	2.733 B 1	0
446	55.72	313.7	24	2.654 S 3	0	496	22.74	315.1	42	2.732 B 0	0
447	56.09	315.4	24	2.596 S 3	0	497	21.74	315.4	42	2.755 B 0	0
448	54.67	315.1	24	2.697 S 3	0	498	20.73	314.6	42	2.776 B 0	0
449	53.86	315.4	24	2.746 S 3	0	499	19.99	317.0			25
450	54.53	313.4	24	2.726 S 2	0/15	500	19.57	313.2	42	2.747 B 0	0

Table 4, continued

SHOT NUMBER 13 SHOT POINT 1 DEPLOYMENT 6 SHOT TIME 1979:049:10:30:00.010

Loc	Dist (km)	Azim (deg)	Tr Db (sec)	Tape P Wt Grade	Loc	Dist (km)	Azim (deg)	Tr Db (sec)	Tape P Wt Grade
326	53.13	113.4	24	2.203 S 2 0	451	18.93	32.5	42	2.224 B 1 0/17
401	18.96	61.1	42	2.376 B 0 0	452	18.44	35.8	42	2.225 B 0 0
402	19.45	63.4	42	2.382 B 0 0	453	19.09	38.0	42	2.267 B 0 0
403	20.63	64.2	42	2.361 B 0 0	454	18.50	39.4		6
404	22.31	64.3	42	2.375 B 0 0	455	18.44	42.0		6/15/21
405	21.74	66.2	42	2.390 B 0 0	456	18.77	45.5	42	2.339 B 0 0
406	20.48	67.2	42	2.390 B 0 0	457	19.23	48.6	42	2.396 B 0 0
407	22.24	71.3	42	2.403 B 0 0	458	18.90	52.2		2
408	22.28	73.4	42	2.417 B 0 0	459	19.17	55.6	42	2.374 B 0 0
409	21.25	72.6	42	2.367 B 1 0	460	19.43	58.7	42	2.375 B 0 0
410	21.16	75.1	42	2.397 B 0 0	461	33.68	344.7	42	1.933 B 0 0
411	23.24	74.3	42	2.376 B 0 0	462	32.03	348.8	42	1.968 B 0 0
412	22.23	74.6	42	2.390 B 0 0	463	30.61	348.2	42	1.967 B 0 0
413	22.56	78.0	42	2.390 B 1 0	464	29.69	349.1	24	1.926 B 1 0
414	24.45	77.1	42	2.396 B 0 0	465	29.13	350.9	42	2.004 B 0 0
415	23.38	80.1		13/17/22	466	28.62	352.5	24	2.067 B 0 0
416	24.10	81.7	42	2.461 B 0 0	467	27.61	352.3	24	2.054 B 0 0
417	24.55	83.7		13/17/22	468	26.87	354.1	42	2.047 B 0 0
418	25.54	84.8	42	2.503 B 0 0	469	26.17	355.2	42	2.039 B 1 0
419	25.77	81.1	6	2.453 B 0 0	470	25.45	357.7	42	2.047 B 1 0
420	26.47	83.4		1	471	25.13	0.3	42	2.082 B 1 0
421	36.69	103.1	42	0	472	24.29	2.5	42	2.083 B 1 0
422	38.58	103.0	42	2.426 B 3 0	473	24.05	4.6	42	2.097 B 0 0/6
423	39.14	103.7		1	474	23.70	6.6	42	2.110 B 0 10
424	40.01	104.0	42	2.419 B 2 0	475	23.89	8.4	42	2.139 B 1 0
425	41.03	105.0	42	2.389 B 1 0	476	23.03	8.8	42	2.140 B 0 0
426	42.28	104.8		1	477	23.42	10.4	42	2.139 B 0 0
427	43.49	104.2	24	2.490 B 3 0	478	22.43	10.9	42	2.125 B 0 0
428	44.57	103.8	24	2.404 B 1 0	479	22.26	13.4	42	2.125 B 0 0/15
429	41.71	109.3	42	2.368 B 2 0	480	22.81	15.1	42	2.139 B 0 0
430	43.17	108.9	42	2.332 B 2 0	481	27.06	85.1	42	2.489 B 0 0
431	44.74	108.1	24	2.283 B 1 0	482	25.89	86.5	42	2.518 B 0 0
432	45.75	109.1		3	483	26.27	88.4	42	2.547 B 0 0
433	46.87	109.3	24	2.303 B 1 0	484	27.04	88.7		1
434	47.73	110.0	24	2.318 B 2 0	485	27.29	90.4	42	2.496 B 0 0
435	48.78	110.5	24	2.275 S 3 0	486	28.01	90.5		12/13
436	49.91	111.1	24	2.275 S 2 0	487	27.86	87.4	42	2.447 B 0 0
437	50.49	111.7	24	2.247 S 2 0/12	488	28.72	90.0	6	2.440 B 0 0
438	51.23	112.3	24	2.204 S 2 0	489	30.16	89.7		1
439	51.84	112.8		6	490	29.22	92.0		1
441	21.95	15.9	42	2.148 B 0 0	491	29.40	93.4	42	2.440 B 1 0
442	20.75	17.2		25	492	30.61	94.9	42	2.440 B 2 0
443	20.77	19.4	42	2.146 B 0 0	493	30.91	96.1	42	2.425 B 2 0
444	20.02	20.2	42	2.167 B 1 0	494	31.58	97.5		2
445	19.59	23.3	42	2.189 B 1 0	495	32.41	98.1	42	2.383 B 1 0
446	19.41	26.0	42	2.146 B 1 0	496	33.12	98.7	42	2.432 B 1 0
447	21.04	26.5	42	2.182 B 1 0	497	34.00	99.5	42	2.467 B 2 0
448	20.34	30.0	42	2.189 B 1 0	498	34.67	100.8	42	2.496 B 3 0
449	20.42	32.4	42	2.198 B 0 0	499	35.75	100.4		25
450	18.80	29.2	42	2.182 B 1 0	500	35.39	102.5		3

Table 4, continued

SHOT NUMBER 14 SHOT POINT 13 DEPLOYMENT 6 SHOT TIME 1979:049:11:00:00.014

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
326	78.59	132.9	6		0			451	25.17	130.9	42	2.338	B	0	0/17
401	34.48	132.4	24	2.450	B	1	0	452	26.30	131.6	42	2.372	B	0	0
402	35.36	132.1	24	2.451	B	1	0	453	26.96	130.1	24	2.339	B	1	0
403	36.07	130.5	24	2.430	B	3	0	454	27.45	131.3					0/6
404	36.81	128.2	24	2.440	B	3	0	455	28.28	131.5					9/17
405	37.22	129.5	24	2.440	B	3	0	456	29.44	130.9	24	2.458	B	0	0
406	36.98	131.4	24	2.437	B	3	0	457	30.48	130.2	24	2.503	B	1	0/6
407	39.17	130.2	24	2.481	B	3	0	458	31.62	131.2					2
408	39.87	130.8	24	2.573	B	2	0	459	32.79	131.2	24	2.488	B	1	0
409	39.07	131.8	24	2.508	B	2	0	460	33.85	131.3	24	2.466	B	1	0
410	39.82	132.6	24	2.480	B	2	0	461	0.07	359.4	42	0.053	Q	0	0
411	40.71	129.9	24	2.560	B	1	0	462	2.83	110.9	42	0.944	Q	0	0
412	40.25	131.2	24	2.594	B	1	0	463	3.60	132.9	42	1.138	Q	0	0
413	41.51	131.9	24	2.537	B	1	0	464	4.61	135.1	42	1.328	Q	0	0
414	42.38	129.5	24	2.524	B	1	0	465	5.63	130.4	42	1.533	Q	0	0
415	42.70	131.7				13/17/22		466	6.53	128.3	42	1.677	Q	0	0
416	43.65	131.5	24	2.602	B	1	0	467	7.24	134.3	42	1.742	Q	0	0
417	44.59	131.8	24	2.587	B	1	13/17/22	468	8.34	133.0	42	1.844	Q	0	0
418	45.63	131.3	24	2.644	B	2	0	469	9.22	133.4	42	1.921	Q	0	0
419	44.54	129.7	6	2.524	B	2	0	470	10.50	131.7	42	2.024	Q	0	0
420	45.78	129.9				1		471	11.60	128.9	42	2.126	Q	0	0
421	60.37	132.4	42			12/15/25		472	12.84	129.4	42	2.189	Q	0	0
422	62.00	131.5	24			0		473	13.71	128.0	42	2.212	Q	0	0/6
423	62.72	131.7				1		474	14.61	127.4	42	2.233	Q	0	10
424	63.60	131.5	24	2.265	S	3	0	475	15.17	125.4	42	2.250	Q	0	0
425	64.79	131.6	24	2.388	S	2	0	476	15.72	127.9	42	2.269	Q	0	0
426	65.86	131.0				1		477	16.13	125.6	42	2.285	Q	0	0
427	66.76	130.2	24	2.431	S	3	0	478	16.73	128.4	42	2.283	B	0	0
428	67.60	129.6	24			0		479	17.68	127.5	42	2.298	B	0	0
429	66.77	133.8	24			0		480	18.08	125.1	42	2.307	B	0	0
430	67.96	133.0	24			0		481	46.76	130.1	24	2.674	B	2	0
431	69.15	132.0	24			0		482	46.42	131.7	24	2.665	B	2	0
432	70.38	132.3				3		483	47.30	132.1	24	2.687	B	2	0
433	71.48	132.1	24			0		484	47.95	131.6					1
434	72.49	132.2	6	2.057	S	2	0	485	48.68	132.1	6	2.679	B	3	0
435	73.65	132.3	24			0		486	49.22	131.5					12/13
436	74.88	132.3	24			0		487	48.12	130.4	6	2.681	B	3	0
437	75.59	132.5	24			0/12		488	49.61	130.8	6				0/6/30
438	76.48	132.7	6			0		489	50.62	129.6					1
439	77.19	132.8				6		490	50.64	131.3					1
441	18.69	127.2	42			0		491	51.24	131.8	24				0
442	19.59	130.0				25		492	52.67	131.7	24				0
443	20.33	129.1	42	2.290	B	1	0	493	53.31	132.1	24				0
444	20.86	130.8	42	2.303	B	2	0	494	54.28	132.3					2
445	22.00	131.0	42	2.315	B	0	0	495	55.16	132.1	24	2.544	B	2	0
446	22.94	130.8	42	2.316	B	0	0	496	55.92	132.0	24	2.544	B	2	0
447	22.73	126.7	42	2.342	B	1	0	497	56.92	131.9	24				0
448	24.09	127.9	42	2.312	B	1	0	498	57.92	132.2	42				0
449	24.94	127.5	42	2.297	B	0	0	499	58.71	131.5	6				0/25
450	24.11	131.6	42	2.316	B	1	0	500	59.07	132.8					3

Table 4, continued

SHOT NUMBER 15 SHOT POINT 6 DEPLOYMENT 7 SHOT TIME 1979:052:10:00:00.016

Loc	Dist	Azim	Tr	Tape	Loc	Dist	Azim	Tr	Tape
	(km)	(deg)	(sec)	P Wt Grade		(km)	(deg)	(sec)	P Wt Grade
501	37.48	315.3	24	2.940 B 1 0/25	551	29.41	334.1	42	2.797 B 2 0/15
502	36.88	313.6	42	2.924 B 3 0	552	29.09	335.6	42	2.611 B 1 0/30
503	37.18	311.4	42	2.938 B 3 0	553	27.61	334.1	42	2.725 B 1 0
504	35.26	313.1	42	2.867 B 2 0	554	27.95	332.7	42	2.826 B 1 0
505	34.69	313.9	42	2.839 B 2 0	555	28.74	329.7	42	2.867 B 1 0
506	33.98	314.5	42	2.804 B 2 0	556	29.03	328.3	42	2.875 B 1 0
507	35.23	317.1	42	2.761 B 2 0	557	29.57	327.1	42	2.875 B 1 0
508	35.64	316.4	42	2.840 B 2 0	558	30.03	325.8	42	2.897 B 0 0
509	36.16	315.5	42	2.854 B 2 0	559	30.49	323.8	42	2.882 B 1 0
510	33.34	315.4	42	2.810 B 2 0	560	28.56	331.4		20
511	33.39	315.6	42	0	561	43.72	306.2	42	2.945 B 3 0
512	34.19	318.8	42	2.854 B 2 0	562	44.93	304.7	24	2.890 B 1 0
513	32.74	316.5	42	2.745 B 2 0	563	46.25	303.8	42	2.833 B 2 0
514	32.38	317.8	42	2.782 B 2 0	564	47.50	302.8	24	2.832 B 3 0
515	33.46	319.8	42	2.853 B 2 0	565	48.71	301.6	42	2.790 S 2 0
516	33.64	321.6	42	2.903 B 1 0	566	49.11	299.8	42	2.817 S 1 0
517	32.74	322.2	42	2.853 B 1 0	567	49.20	298.0	42	2.724 S 2 0
518	31.51	320.5		6/14	568	42.14	305.7	42	2.946 B 3 0
519	32.25	319.8	42	2.840 B 2 0	569	41.44	306.3	42	2.946 B 3 0
520	36.29	311.3	42	2.932 B 2 0	570	40.91	306.6	42	2.868 B 3 0
521	30.23	337.4	42	2.575 B 1 0	571	40.42	308.2	42	2.881 B 3 0
522	29.93	339.8	42	2.540 B 1 0/10	572	40.88	309.1	24	2.911 B 3 0
523	29.64	341.2	42	2.533 B 1 0	573	40.28	309.8	42	0
524	29.36	342.6	42	2.504 B 1 0	574	39.67	309.1	42	2.953 B 3 0
525	29.15	344.1	42	2.504 B 0 0	575	39.22	309.7	42	2.960 B 3 0
526	28.92	345.6	42	2.483 B 1 0	576	39.76	310.5		15
527	28.75	347.1		3	577	38.92	311.5		15
528	28.63	348.8	42	2.510 B 0 0	578	38.18	310.8		15
529	29.72	350.7	42	2.497 B 0 0	579	38.48	312.9	42	2.903 B 3 0
530	30.30	353.3	42	2.496 B 0 0	580	38.06	313.8	42	2.912 B 3 0
531	30.71	354.6	42	2.555 B 0 0	581	32.66	14.7		1
532	30.64	356.5	42	2.510 B 0 0	582	33.03	16.0	42	2.232 B 0 0
533	30.61	358.3	42	2.510 B 0 0	583	33.45	17.3	42	2.190 B 0 0
534	30.59	359.9	42	0	584	34.04	18.3	42	2.189 B 0 0
535	30.57	1.7	42	2.525 B 0 0	585	34.39	19.5	42	2.168 B 0 0
536	30.66	3.9	42	2.496 B 0 0	586	34.83	20.6		4
537	30.73	6.1	42	2.417 B 0 0	587	35.62	21.5		2
538	30.82	9.2	42	2.317 B 0 0	588	36.04	22.8	42	1.896 B 0 0
539	31.49	11.6		2	589	36.44	23.9	24	1.790 B 0 0
540	32.27	13.6		10	590	36.70	25.1	24	1.781 B 0 0
541	31.53	322.2	42	2.853 B 1 0	591	37.05	26.2	24	1.761 B 0 0
542	32.64	323.5	42	0	592	37.91	27.0	24	1.754 B 0 0
543	30.91	323.0	42	2.868 B 2 0	593	38.72	27.5	6	1.696 B 0 0
544	32.35	325.2		16	594	39.51	28.0	24	1.653 B 0 0
545	31.86	326.3	42	2.868 B 1 0	595	40.41	28.8		6/17
546	31.39	327.5	42	2.875 B 1 0	596	41.82	29.5	6	0/25
547	30.96	328.8	42	2.846 B 1 0	597	43.33	30.2	24	1.596 B 0 0
548	30.56	330.0	42	2.775 B 1 0	598	44.91	30.6	24	1.596 B 1 0
549	30.00	331.3	42	2.811 B 1 0	599	46.54	31.2	6	1.554 B 0 0
550	29.84	332.7		25	600	54.36	35.9	24	1.532 B 0 0

Table 4, continued

SHOT NUMBER 16 SHOT POINT 1 DEPLOYMENT 7 SHOT TIME 1979:052:12:00:00.015

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade
501	23.10	76.1	42	2.385	B	1	0	551	36.31	81.5	24				0
502	22.48	78.9	42	2.397	B	1	0	552	37.14	81.6	24				0
503	21.22	80.5					13/17	553	36.89	84.2	42				0
504	23.23	82.6	42	2.430	B	1	0	554	36.14	84.0	42				0
505	24.00	82.8	42	2.460	B	1	0	555	34.50	83.8	42				0
506	24.68	83.7	42	2.484	B	1	0	556	33.71	83.9	42				0
507	25.23	79.2	42	2.454	B	1	0	557	32.95	83.5	42				0
508	24.64	79.0	42	2.436	B	1	0	558	32.13	83.3	42				0
509	23.91	78.6	42	2.442	B	1	0	559	30.96	83.5	42	2.500	B	2	0
510	25.54	84.0	42	2.499	B	1	0	560	35.33	83.5					20
511	25.57	83.8	42				0	561	14.30	70.8	42	2.214	Q	1	0
512	26.68	80.0	42	2.482	B	1	0	562	12.71	69.1	42	2.129	Q	0	0
513	26.41	84.2	42	2.477	B	1	0	563	11.38	65.8	42	2.048	Q	0	0
514	27.18	83.9	42	2.501	B	1	0	564	10.03	62.3	42	1.934	Q	0	0
515	27.55	80.7	42	2.442	B	1	0	565	8.57	58.7	42	1.808	Q	1	0
516	28.39	79.3	42	2.476	B	1	0	566	7.02	61.9	42	1.579	Q	0	0
517	29.10	80.5	42	2.501	B	1	0	567	5.73	69.5	42	1.329	Q	0	0
518	28.93	83.6					6/14	568	14.98	76.6	42	2.253	Q	1	0
519	28.21	82.7	42	2.478	B	1	0	569	15.77	77.4	42	2.289	Q	1	0
520	21.74	82.4	42	2.386	B	0	0	570	16.28	78.3	42	2.329	Q	1	0
521	37.79	79.6	24				0	571	17.48	77.1	42	2.369	B	1	0
522	39.05	79.7	24				0/10	572	17.72	74.6	42	2.351	B	1	0
523	39.82	79.9	24				0	573	18.44	75.3	42	2.397	B	1	0
524	40.60	80.2	24	2.363	B	2	0	574	18.41	77.7	42	2.375	B	1	0
525	41.38	80.3	24	2.339	B	2	0	575	19.01	78.0	42	2.375	B	1	0
526	42.15	80.5	42	2.317	B	2	0	576	19.16	75.7	42	2.402	B	1	0
527	42.93	80.7	24	2.288	B	2	0	577	20.18	76.6	42	2.398	B	1	0
528	43.76	80.8	24	2.254	B	3	0	578	20.26	79.0	42	2.392	B	1	0
529	44.73	79.4	24	2.261	S	3	0	579	21.23	76.1	42	2.410	B	1	0
530	46.10	78.7	24	2.237	S	2	0	580	21.98	76.1	42	2.392	B	1	0
531	46.85	78.3	24	2.250	S	2	0	581	57.97	79.5					1
532	47.81	78.5	24	2.261	S	2	0	582	58.82	79.6	24	1.809	S	1	0
533	48.79	78.8	24	2.191	S	2	0	583	59.68	79.5	24	1.780	S	2	0
534	49.63	79.0	24	2.174	S	2	0	584	60.46	79.3	42	1.820	S	2	0
535	50.57	79.2	24	2.163	S	1	0	585	61.28	79.3	24	1.752	S	1	0
536	51.72	79.4	24	2.134	S	1	0	586	62.05	79.3					4
537	52.85	79.7	24	2.118	S	1	0	587	62.95	79.0					2
538	54.46	80.1	24	1.991	S	1	0	588	63.84	79.0	24	1.540	S	1	0
539	55.95	80.0					2	589	64.68	79.1	24	1.455	S	1	0
540	57.24	79.6	24	1.890	S	1	0	590	65.42	79.3	24	1.398	S	1	0
541	29.71	82.6	42	2.488	B	2	0	591	66.18	79.4	24	1.335	S	1	0
542	29.83	80.0	42	2.471	B	3	0/17	592	67.13	79.1	24	1.369	S	1	0
543	30.37	83.2	42	2.489	B	2	0	593	67.92	78.8	6	1.329	S	1	0
544	30.79	79.8	42	2.488	B	3	0	594	68.65	78.4	24	1.282	S	1	0
545	31.56	80.1	24				0	595	69.70	78.2					6
546	32.36	80.4	42				0	596	70.97	77.5					25
547	33.17	80.6	24				0	597	72.37	76.9	24	1.265	S	1	0
548	33.94	80.9	42				0	598	73.70	76.2	24	1.484	S	3	0
549	34.78	81.3	42				0	599	75.20	75.6	24	1.214	S	2	0
550	35.52	81.2					25	600	83.62	74.1	6				0

Table 4, continued

SHOT NUMBER 17 SHOT POINT 12 DEPLOYMENT 7 SHOT TIME 1979:052:12:30:00.011

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt	Grade
501	41.59	130.2	24		0	551	52.70	120.9	24		0
502	42.13	131.8	24	2.579	B 2 0	552	53.39	120.4	24		0
503	41.84	133.7			13	553	54.21	121.9	24	2.227	S 1 0
504	43.75	132.3	24	2.606	B 2 0	554	53.57	122.4	24		0
505	44.33	131.6	24	2.613	B 2 0	555	52.20	123.3	24		0
506	45.05	131.3	24		0	556	51.62	123.9	24		0
507	43.95	129.1	42		0	557	50.90	124.3	24		0
508	43.49	129.6	42		0	558	50.21	124.8	24	2.544	B 3 0
509	42.92	130.2	24	2.620	B 3 0	559	49.42	125.8	24		0
510	45.73	130.6	24	2.641	B 2 0	560	52.74	122.6			20
511	45.69	130.5	24		0	561	35.92	140.5	24		0
512	45.15	128.0	24	2.682	B 2 0	562	35.06	142.7	24	2.447	B 3 0
513	46.39	129.9	24	2.641	B 2 0	563	34.06	144.6	42	2.448	B 2 0
514	46.84	129.1	24		0	564	33.21	146.7	42	2.402	B 2 0
515	45.98	127.4	24	2.754	B 3 0	565	32.57	149.2	24	2.419	B 2 0
516	46.06	126.1	24		0	566	33.00	151.9	24	2.452	B 2 0
517	47.02	126.0	24		0	567	33.80	154.1	24	2.311	B 2 0
518	47.97	127.5	24		0/6	568	37.54	140.4	24	2.608	B 3 0
519	47.17	127.7	6		0	569	38.10	139.5	24	2.566	B 2 0
520	42.74	133.7	42	2.551	B 1 0	570	38.58	139.0	42	2.557	B 2 0
521	53.06	118.8	24	2.010	B 3 0	571	38.84	137.2	42	2.592	B 3 0
522	54.07	118.0	24		0	572	38.29	136.4	24		0
523	54.78	117.7	24		0	573	38.84	135.6	24	2.553	B 2 0
524	55.51	117.3	24		0	574	39.50	136.2	24	2.533	B 2 0
525	56.20	116.9	24	2.030	S 3 0	575	39.90	135.5			6/17
526	56.90	116.6	24	2.046	S 2 0	576	39.30	134.8	42		0
527	57.61	116.3	6	2.043	S 2 0	577	40.10	133.7	42	2.617	B 2 0
528	58.33	115.8	24		0	578	40.86	134.3	24		0
529	58.49	114.4	24	2.058	S 3 0	579	40.53	132.4	24	2.557	B 2 0
530	59.32	113.2	24	2.036	S 2 0	580	40.95	131.5	42		0
531	59.75	112.6	24	2.071	S 3 0	581	69.81	108.3			1
532	60.65	112.2	24	2.136	S 3 0	582	70.56	108.0	24	1.854	S 2 0
533	61.57	111.8			17	583	71.30	107.6	24	1.740	S 2 0
534	62.36	111.6			17	584	71.87	107.1	24	1.690	S 2 0
535	63.27	111.3	24	2.034	S 2 0	585	72.62	106.9	24	1.661	S 3 0
536	64.34	110.9	24	1.992	S 2 0	586	73.28	106.6			4
537	65.44	110.5	24	1.919	S 2 0	587	73.92	106.0			2
538	67.03	110.1	24	1.984	S 2 0	588	74.74	105.7	24	1.489	S 2 0
539	68.24	109.4			2	589	75.53	105.5	24	1.368	S 2 0
540	69.22	108.6	24	1.811	S 2 0	590	76.29	105.4	24	1.332	S 2 0
541	48.18	126.4	24		0	591	77.02	105.2	24	1.261	S 1 0/15
542	47.34	125.2	24		0/17	592	77.72	104.7	24	1.253	S 1 0
543	48.89	126.1	24		0	593	78.26	104.2	6	1.177	S 1 0
544	47.92	124.2	24		0	594	78.73	103.7	6	1.167	S 1 0
545	48.61	123.8	24		0	595	79.56	103.2			6
546	49.30	123.2			12	596	80.24	102.3			25
547	49.99	122.7	24	2.498	B 2 0	597	81.18	101.4	6	1.087	S 2 0
548	50.65	122.3	24	2.469	B 3 0	598	82.02	100.4	42	1.108	S 2 0
549	51.46	121.9	24	2.355	B 2 0	599	83.04	99.5	6	1.144	S 2 0
550	51.97	121.3			25	600	90.11	96.0	6	1.116	S 2 0

Table 4, continued

SHOT NUMBER 18 SHOT POINT 13 DEPLOYMENT 8 SHOT TIME 1979:065:10:00:00.011

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt Grade
13	0.00	180.0	42	0.010 Q 0 0	619	21.44	91.8	42	2.004 B 1 0
141	22.01	131.0	42	2.345 B 0 0	620	22.64	94.2	42	2.083 B 0 0
142	21.81	123.4	42	2.295 B 0 0/30	625	24.09	97.7	42	2.128 B 0 0
143	22.04	113.1	42	2.294 B 0 0	626	26.19	95.6	42	2.178 B 0 0
146	25.49	97.2	42	2.193 B 0 0	627	25.26	90.0	42	2.014 B 0 0
147	27.82	95.8	42	2.135 B 2 0	628	26.89	91.8	42	2.079 B 0 0
148	27.12	90.0	42	2.021 B 0 0	629	28.15	88.4	42	1.971 B 1 0
149	28.52	86.9	42	1.897 B 1 0	630	29.46	85.4		1
178	32.73	163.5	42	1.920 B 0 0	631	29.54	83.4		25
179	35.77	169.7	24	1.955 B 0 0	632	22.95	96.1	42	2.034 B 0 0/25
181	21.60	136.8	42	2.374 B 0 0	633	23.32	92.2	42	2.036 B 0 0
182	22.44	139.0	42	2.401 B 0 0	634	23.92	90.2	42	2.028 B 0 0
183	22.73	141.1	42	2.393 B 0 0	635	24.46	88.5		1
184	22.86	142.6	42	2.411 B 0 0	636	25.31	86.4	42	1.971 B 0 0
185	23.03	144.2	42	2.439 B 0 0	637	25.43	84.3	42	1.978 B 0 0/11
186	23.44	146.2	42	2.464 B 0 0	638	26.87	83.2	42	1.935 B 1 0
187	24.23	147.4	42	2.421 B 1 0	639	27.58	81.6	42	1.906 B 2 0
188	24.81	148.2	42	2.426 B 0 0	640	28.31	80.3		1
189	25.29	150.3	42	2.395 B 0 0	645	22.03	135.1	42	2.341 B 0 0
190	25.53	151.9	42	2.344 B 0 0	646	22.08	132.8	42	2.350 B 1 0
191	25.81	153.7	42	2.304 B 1 0	648	22.10	128.1		2
192	25.79	155.4	42	2.238 B 1 0	649	21.94	125.6	42	2.320 B 0 0
194	27.41	157.0	42	2.093 B 0 0	651	21.78	119.9	42	2.339 B 0 0
195	29.17	160.1	42	1.975 B 0 0	652	21.96	117.4		24
196	28.23	157.7	42	2.042 B 1 0	653	21.95	115.1	42	2.279 B 0 0
197	29.85	161.7	6	1.844 B 0 0	655	19.88	114.5		1
198	30.81	161.2	42	1.981 B 1 0	656	19.63	116.9	42	2.283 B 0 0
199	31.74	160.5	24	2.017 B 0 0	657	19.42	119.9	42	2.311 B 0 0
200	32.27	162.1		25	658	19.58	123.1	42	2.309 B 0 0
201	34.59	168.8	42	1.999 B 0 0	661	30.62	76.3	24	1.990 B 3 0
202	33.60	164.6	42	1.876 B 0 0	662	29.84	77.7	24	1.898 B 2 0
442	19.59	130.0	24	2.317 B 0 0/25	663	29.21	79.0	42	1.877 B 2 0
601	24.93	113.5		1	664	30.54	82.5	42	2.007 B 1 0
602	26.94	104.9	42	2.411 B 0 0	665	31.06	81.1	24	1.992 B 0 0
603	25.92	103.0	42	2.363 B 0 0	666	31.42	80.0	24	1.962 B 1 0
604	24.93	99.3	42	2.207 B 0 0	667	31.64	78.0	24	2.033 B 3 0
605	25.00	101.4	42	2.269 B 0 0	668	32.45	78.5	24	1.963 B 2 0
606	24.10	101.6		13	669	35.05	76.9	24	1.976 B 3 0
607	23.52	102.9	42	2.241 B 0 0	670	34.63	75.2	24	
608	22.81	104.9	42	2.304 B 0 0	671	36.25	74.6	42	1.918 B 2 0
609	22.77	106.5	24	2.269 B 0 0	672	36.40	72.9	24	1.897 B 1 0
610	22.47	108.6	42	2.289 B 0 0	673	36.67	71.9	24	1.803 B 1 0
611	19.88	113.4	42	2.272 B 0 0	674	36.84	70.3	24	1.724 B 1 0
612	20.27	108.4	42	2.240 B 0 0	675	37.41	68.6	24	1.686 B 2 0
613	20.46	105.6	42	2.196 B 0 0	676	38.03	66.7	24	1.693 B 1 0
614	20.85	103.6	42	2.148 B 0 0	677	38.62	65.4	42	1.663 B 1 0
615	21.25	101.5	42	2.077 B 0 0	678	39.82	63.1	24	1.634 B 0 0
617	22.11	96.4	42	2.007 B 0 0	679	41.21	60.6	24	1.569 B 0 0
618	22.16	93.4		13/17	680	43.16	57.7	42	1.594 B 1 0

Table 4, continued

SHOT NUMBER 19 SHOT POINT 6 DEPLOYMENT 8 SHOT TIME 1979:065:10:30:00.006

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade
13	78.64	312.9	24		0			619	64.02	325.6	24	2.062	S	3	0
141	56.65	313.6	24		0			620	62.56	326.0	24	2.322	S	3	0
142	57.23	316.5	24		0			625	60.53	326.2	24	2.197	S	2	0
143	58.37	320.2	24		0			626	59.91	328.3	24	2.161	S	2	0
146	59.78	327.3	24	2.131	S	2	0	627	62.49	328.9	24				0
147	58.84	329.5	24		0/17			628	60.94	329.8	24				0
148	61.56	330.4	24		0/17			629	61.75	331.6	24				0
149	62.24	332.2	24	1.861	S	2	0	630	62.55	333.2					1
178	53.23	294.6	6	2.224	S	1	0	631	63.48	333.6					25
179	54.47	289.6	6	2.118	S	1	0	632	61.78	325.8	24				0/25
181	57.12	311.4	6	2.782	S	3	0	633	62.79	326.9	24				0
182	56.38	310.4	24	2.761	S	3	0	634	63.15	327.8	24	1.760	S	2	0
183	56.24	309.5	24	2.783	S	3	0	635	63.45	328.5					1
184	56.25	308.9	24	2.854	S	3	0	636	63.86	329.6	24	1.691	S	3	0
185	56.25	308.3	24	2.700	S	3	0	637	64.65	330.1	24	1.675	S	3	0/11
186	56.11	307.3	24	2.704	S	2	0	638	64.54	331.4	24	1.631	S	2	0
187	55.54	306.6	24	2.788	S	1	0	639	65.02	332.3	24	1.690	S	2	0
188	55.12	306.0	24	2.818	S	2	0	640	65.40	333.0					1/5
189	55.06	304.9	24	2.789	S	2	0	645	56.63	312.0	24				0
190	55.17	304.2	24	2.760	S	3	0	646	56.56	312.9	24				0
191	55.32	303.3	24	2.709	S	2	0	648	56.64	314.7					2
192	55.74	302.6	24	2.650	S	2	0	649	56.93	315.7	24				0
194	54.83	301.0	24	3.018	S	3	0	651	57.61	317.7	24	2.590	S	3	0
195	54.42	298.6	24	2.482	S	2	0	652	57.77	318.7	6				0
196	54.38	300.2	24	2.720	S	2	0	653	58.11	319.5	24	2.532	S	2	0
197	54.49	297.5	6	2.360	S	1	0	655	60.08	318.9					1
198	53.61	297.0	24	2.382	S	1	0	656	60.00	318.0	24	2.296	S	3	0
199	52.68	296.6	24	2.447	S	1	0	657	59.86	317.1	24				0
200	52.92	295.5				25		658	59.43	316.1	24				0
201	54.61	291.0	24	2.138	S	1	0	661	66.78	335.4	24				0
202	53.18	293.4	6	2.110	S	1	0	662	66.27	334.6	6				0
442	59.08	313.8	24		0			663	65.78	334.0	24	1.718	S	1	0
601	55.71	321.4			1			664	63.62	334.6	24	1.381	S	3	0
602	56.27	325.9	24	2.353	S	2	0	665	64.19	335.3	24	1.831	S	3	0
603	57.59	325.9	42	2.370	S	1	0	666	64.66	335.7	24				0
604	59.44	326.3	24	2.304	S	2	0	667	65.68	336.1	24				0
605	58.77	325.8	24		0			668	65.26	336.8	24				0
606	59.35	325.1	6		0/30			669	65.73	339.2	24	2.229	S	3	0
607	59.41	324.3	24	2.269	S	1	0	670	66.81	338.9	24	2.030	S	3	0
608	59.43	323.3	24	2.332	S	1	0	671	67.03	340.3	24	2.079	S	3	0
609	59.08	322.8	24	2.368	S	1	0	672	68.09	340.5	24	1.980	S	2	0
610	58.86	321.9	24	2.404	S	1	0	673	68.77	340.8	24	1.959	S	2	0
611	60.25	319.2	24	2.439	S	2	0	674	69.77	340.9	24	1.830	S	2	0
612	60.75	320.8	24	2.396	S	3	0	675	70.89	341.3	24	1.920	S	3	0
613	61.15	321.7	24		0			676	72.18	341.8	24				0/15
614	61.27	322.5	24	2.303	S	2	0	677	73.06	342.2	24	1.649	S	2	0
615	61.48	323.3	24	2.161	S	2	0	678	74.85	342.9	24	1.579	S	2	0
617	62.23	325.1	24		0			679	76.82	343.7	6				0
618	63.11	325.8			6/17			680	79.41	344.7	6				0

Table 4, continued

SHOT NUMBER 20 SHOT POINT 10 DEPLOYMENT 8 SHOT TIME 1979:065:11:00:00.010

Loc	Dist	Azim	Tr	Tape	Loc	Dist	Azim	Tr	Tape
	(km)	(deg)	(sec)	P Wt Grade		(km)	(deg)	(sec)	P Wt Grade
...	...	...	...	...	...	...	...	...	...
13	24.78	294.0	42	2.394 B 0 0	619	9.47	352.7	42	1.701 B 0 0
141	7.48	234.1	42	1.852 Q 0 0	620	8.42	359.6	42	1.801 B 0 0
142	4.85	246.4	42	1.545 Q 0 0	625	6.95	10.2	42	1.803 Q 0 0
143	2.77	301.2	42	1.074 Q 0 0	626	8.26	24.5	42	1.918 B 0 0
146	7.37	21.1	42	1.876 B 0 0	627	10.39	14.6	42	1.796 B 0 0/12
147	8.82	34.8	42	1.997 B 0 0/9/17	628	10.14	24.7	42	1.933 B 0 0
148	11.03	24.0	42	1.903 B 0 0	629	12.17	26.9	42	1.868 B 0 0
149	12.99	26.8	42	1.839 B 0 0	630	14.12	28.5		1
178	25.18	212.1	42	2.153 B 2 0	631	15.02	26.6		25
179	29.93	212.9	24	2.126 B 0 0	632	7.63	1.3	42	1.710 B 0 0/25
181	9.71	234.2	42	2.061 Q 0 0	633	9.20	4.2	42	1.718 B 0 0
182	10.50	229.1	42	2.111 Q 0 0	634	10.07	7.3	42	1.740 B 0 0
183	11.34	227.7	42	2.189 Q 0 0	635	10.84	9.7		1
184	11.93	227.3	42	2.226 Q 0 0	636	11.94	12.7	42	1.775 B 0 0
185	12.59	226.8	42	2.261 Q 0 0	637	12.86	12.0	42	1.755 B 1 0/11
186	13.48	225.6	42	2.317 Q 0 0	638	13.84	17.0	42	1.774 B 0 0
187	14.13	222.9	42	2.361 Q 0 0	639	14.86	18.3	42	1.753 B 0 0
188	14.61	221.0	42	2.389 Q 0 0	640	15.76	19.6		1/5
189	15.64	220.4	42	2.418 B 0 0	645	9.01	232.0	42	1.995 Q 1 0
190	16.40	220.5	42	2.389 B 0 0	646	8.13	232.6	42	1.846 Q 1 0
191	17.23	220.7	42	2.367 B 0 0	648	6.36	235.8		2
192	17.93	221.7	42	2.419 B 0 0	649	5.53	240.6	42	1.654 Q 0 0
194	19.32	218.3	42	2.339 B 0 0	651	3.86	258.0	42	1.389 Q 0 0
195	21.55	216.3	42	2.368 B 1 0	652	3.15	269.4	24	0
196	20.03	216.7	42	2.332 B 2 0	653	2.87	285.4	42	1.103 Q 0 0
197	22.61	216.1		2	655	4.91	291.6		1
198	22.97	213.7	42	2.426 B 1 0	656	5.28	282.8	42	1.675 Q 0 0
199	23.25	211.3	42	2.418 B 0 0	657	5.82	273.7	42	1.761 Q 0 0
200	24.26	211.7		25	658	6.28	264.2	42	0
201	28.70	213.7	24	2.155 B 0 0	661	18.70	22.4	42	1.796 B 0 0
202	26.25	211.7	42	2.153 B 1 0	662	17.68	21.7	42	1.811 B 0 0
442	8.06	251.6	42	1.983 Q 0 0	663	16.79	21.1	42	1.825 B 0 0
601	0.24	62.0		1	664	16.00	28.6	42	1.882 B 0 0
602	4.63	47.1	42	1.553 Q 0 0	665	16.91	28.5	42	1.868 B 1 0
603	4.96	31.8	42	1.825 Q 0 0	666	17.59	28.2	42	1.846 B 0 0
604	6.33	18.1	42	1.804 Q 0 0	667	18.59	26.6	42	1.818 B 1 0
605	5.47	20.0	42	1.653 Q 0 0	668	18.91	29.0	42	1.874 B 2 0
606	5.32	10.5	42	1.613 Q 0 0	669	21.36	32.6	42	2.039 B 1 0
607	4.81	3.4	42	1.540 Q 0 0	670	21.80	29.9	42	1.982 B 1 0
608	4.23	351.8	42	1.246 Q 0 0	671	23.22	32.1	42	1.989 B 0 0
609	3.68	347.4		10/12	672	24.06	30.4	42	1.918 B 0 0
610	3.20	335.1	42	1.146 Q 0 0	673	24.72	29.7	24	1.883 B 0 0
611	4.91	296.4	42	1.682 Q 0 0	674	25.52	28.2	24	1.768 B 0 0
612	5.00	317.0	42	1.604 Q 0 0	675	26.68	27.2	24	1.710 B 0 0
613	5.42	327.1	42	1.676 Q 0 0	676	27.97	26.1	42	1.704 B 0 0
614	5.67	335.2	42	1.710 Q 0 0	677	28.95	25.6	24	1.669 B 0 0
615	6.11	342.7	42	1.747 Q 0 0	678	30.92	24.7	24	1.668 B 0 0
617	7.62	355.0	42	1.689 B 0 0	679	33.08	23.7	24	1.562 B 0 0
618	8.78	356.6		6/17	680	35.93	22.7	24	1.630 B 0 0

Table 4, continued

SHOT NUMBER 21 SHOT POINT 10 DEPLOYMENT 9 SHOT TIME 1979:068:10:00:00.013

Loc	Dist	Azim	Tr	Tape	Loc	Dist	Azim	Tr	Tape
	(km)	(deg)	(sec)	P Wt Grade		(km)	(deg)	(sec)	P Wt Grade
121	39.92	304.2	42	2.068 B 1 0	702	33.61	193.7	6	2.454 B 0 0
122	36.64	295.8	42	2.061 B 0 0	703	33.75	196.3	24	2.340 B 1 0
123	33.83	284.4	24	1.940 B 0 0	704	44.45	214.0	24	1.712 B 1 0
124	32.95	276.2	42	2.339 B 0 0	705	42.16	214.0	24	1.796 B 1 0
125	32.84	273.4	24	2.369 B 0 0	706	34.73	219.2	24	1.861 B 1 0
126	32.79	272.0	42	2.403 B 0 0	707	35.50	216.8	24	1.939 B 0 0
127	32.78	270.6	42	2.390 B 0 0/25	708	36.87	214.8	24	1.797 B 2 0
128	32.78	269.2	24	2.403 B 0 0	709	38.30	213.5	42	0
129	32.81	267.8	42	2.440 B 0 0	710	48.38	241.7	24	1.790 B 1 0
130	32.97	266.3	42	2.440 B 0 0	711	46.49	240.3	24	1.732 B 1 0
131	33.03	264.9		25	712	43.72	238.9		3
132	33.10	263.5		3	713	41.88	237.3	24	1.589 B 1 0
133	33.20	262.1	42	2.361 B 2 0	714	41.16	234.9	24	1.682 B 1 0
134	33.31	261.0		3	715	40.15	233.0	24	1.624 B 0 0
135	33.48	259.5	24	2.340 B 1 0	716	39.01	231.4		25
136	33.58	258.0	24	2.275 B 1 0	717	38.21	229.2	42	1.721 B 2 0
137	33.16	256.8	42	2.310 B 1 0/23	718	37.12	227.3		13/17
138	32.81	255.3		1	719	36.10	225.9	24	1.796 B 0 0
139	32.03	253.1	24	2.060 B 2 17	720	35.09	224.1	24	1.675 B 0 0
161	31.87	250.0	24	1.788 B 1 17	741	28.94	209.9	24	2.083 B 0 0
162	49.74	225.2	24	1.453 B 3 0	742	30.94	215.3	42	2.125 B 1 0
164	52.76	202.7	6	1.818 B 1 0	743	32.97	219.9	24	1.868 B 0 0
164	52.76	202.7		20	756	31.93	251.5	24	1.846 B 1 17
172	33.63	224.2	24	1.768 B 0 0	758	32.90	111.7		17
173	31.95	241.2	24	1.811 B 0 0	761	48.34	219.4	24	1.467 B 3 0
174	31.97	244.2		25	762	46.69	219.0	24	1.724 B 1 0
175	31.85	246.2	24	1.810 B 1 0	763	45.19	218.4	24	1.710 B 1 0
176	31.84	247.6	24	1.847 B 0 0	764	43.64	217.6	24	1.647 B 1 0
177	31.90	248.9	24	1.824 B 1 0	765	42.16	216.9	24	1.717 B 1 0
201	28.70	213.7	42	2.126 B 0 0	766	40.66	216.3	24	1.825 B 1 0
207	32.01	237.9	24	1.675 B 0 0	767	39.55	214.4	24	1.840 B 1 0
208	32.18	235.1	24	1.740 B 0 0	768	38.47	211.9	24	0
209	32.41	232.3	24	1.889 B 0 0	769	37.82	210.4	42	1.948 B 1 0
210	32.73	229.6	24	1.882 B 0 0	770	37.11	208.3	24	2.047 B 1 0
211	33.13	226.8	24	1.775 B 0 0	771	36.35	206.1	24	2.097 B 0 0
214	32.27	254.4	42	2.275 B 1 0	772	35.82	204.3	24	2.082 B 0 0
215	33.02	274.7	42	2.362 B 0 0	773	35.18	202.0	24	2.125 B 1 0
258	25.42	217.6	42	2.089 B 0 0	774	34.53	199.4		1
259	25.86	222.7		5	781	25.98	197.7	42	2.532 B 2 0
260	26.30	226.2	42	2.075 B 0 0	782	27.45	203.9	42	2.240 B 2 0
285	21.58	234.4	42	2.053 B 0 0	784	27.39	215.6	42	2.125 B 0 0
286	22.56	232.2	42	1.817 B 0 0	785	26.10	217.7	42	2.054 B 0 0
287	23.50	231.6		13/17	789	25.07	228.6	42	2.089 B 0 0
288	21.11	238.5	42	2.204 B 0 0	790	24.52	229.8	24	1.903 B 0 0
289	20.33	242.2	42	2.369 B 0 0/15	859	29.16	213.5		20
290	19.20	246.0	42	2.482 B 0 0	876	45.74	212.9	24	1.747 B 1 0
295	13.39	243.0	42	2.317 B 0 0	877	47.34	209.9	24	1.511 B 3 0
296	13.91	248.1	42	2.354 B 0 0	878	50.22	209.3	24	1.996 B 0 0
297	14.51	254.5	42	2.369 B 0 0	879	51.69	207.7	24	2.025 B 0 0
701	33.54	191.1	42	2.532 B 0 0					

Table 4, continued

SHOT NUMBER 22 SHOT POINT 5 DEPLOYMENT 9 SHOT TIME 1979:068:11:00:00.013

Loc	Dist	Azim	Tr	Tape	Loc	Dist	Azim	Tr	Tape
	(km)	(deg)	Db	(sec)	P	Wt	Grade		
121	72.23	349.9		0	702	20.38	38.0	6	0
122	65.89	349.0		6	703	19.69	34.0	6	0
123	58.46	347.8		0	704	12.66	339.7	6	1.160 B 2 0
124	53.71	346.7		0	705	14.09	347.4	6	0
125	52.15	346.3		0	706	21.83	356.2		0
126	51.35	346.1		0/25	707	20.29	357.8	6	0
127	50.60	345.9		0	708	18.43	358.3	6	0
128	49.82	345.7		0/15	709	16.78	357.8		0
129	49.05	345.4		0	710	33.98	319.3		0
130	48.21	345.0		0	711	32.52	322.2		0
131	47.42	344.8		25	712	31.20	327.0		3
132	46.66	344.5		0	713	29.98	330.4		0
133	45.88	344.2		0	714	28.31	332.2		0
134	45.24	344.0		0	715	27.13	334.7		0
135	44.41	343.7		0/17	716	26.34	337.6		0
136	43.56	343.4		0	717	25.22	340.4		0
137	42.79	343.9		0/23	718	24.53	343.8		0/13/17
138	41.95	344.4		1	719	24.19	347.0		1.210 B 2 0
139	40.69	345.5		0	720	23.84	350.5		0
161	39.00	345.9		0	741	24.38	14.5		0
162	20.20	312.6	6	1.496 B 3	0	742	23.61	6.3	1.346 B 2 0
164	0.12	64.6		0	743	23.41	358.4		1.382 B 3 0
164	0.12	64.6		20	756	39.81	345.7		0
172	24.75	353.2		0	758	62.86	54.5		0
173	34.18	347.2		0	761	15.30	318.0	6	1.340 B 2 0
174	35.78	346.5		25	762	15.30	324.4	24	1.281 B 1 0
175	36.89	346.4	1.161 B 2	0	763	15.28	330.3	6	1.424 B 2 0
176	37.67	346.2		0	764	15.42	336.5	6	1.332 B 3 0
177	38.35	346.0	1.089 B 3	0	765	15.74	342.2	6	1.255 B 2 0
201	25.25	10.4		0	766	16.32	347.3	6	0
207	32.38	348.2	1.174 B 3	0	767	16.19	353.4	24	0
208	30.85	348.9	1.218 B 3	0	768	16.05	0.6	24	0
209	29.33	349.9	1.290 B 2	0	769	16.13	4.9	24	0
210	27.83	350.8		0	770	16.30	10.2	24	0
211	26.28	352.0		0/11	771	16.69	15.7		0
214	41.42	345.1		0	772	17.06	19.8	6	0
215	52.89	346.3		0	773	17.68	24.4	6	0
258	29.01	9.9		0	774	18.50	29.2		1
259	29.85	5.7	3		781	27.08	27.7		0
260	30.55	2.8	0		782	25.41	21.7		0
285	36.25	4.7	0		784	26.83	9.7		0
286	34.98	4.4	0		785	28.42	9.2		0
287	34.18	3.5	0		789	32.17	3.0		0
288	37.75	3.8	0/15		790	32.92	3.1		0
289	39.29	3.6	0		859	24.78	10.2		1
290	41.02	4.1	0		876	11.17	337.1	6	1.254 B 2 0
295	43.47	11.4	0		877	8.30	337.8	24	1.075 B 3 0
296	44.17	9.9	0		878	6.41	320.2	42	0
297	45.30	8.2	0		879	4.56	309.9	42	1.125 Q 1 0
701	21.17	41.8	6	0					

Table 4, continued

SHOT NUMBER 23 SHOT POINT 14 DEPLOYMENT 9 SHOT TIME 1979:068:11:30:00.013

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade
121	16.68	317.9	42	1.761	B	1	0	702	44.90	161.9	6				0
122	12.61	298.1	42	1.617	Q	0	0/25	703	44.20	163.7	24	2.074	B	0	0
123	11.02	261.6	42	1.488	Q	0	0	704	46.96	183.6	24	1.553	B	0	0
124	12.66	239.3	42	1.896	Q	1	0	705	45.02	182.1	24	1.611	B	1	0
125	13.58	233.5					10/12	706	36.95	180.0	24	1.786	B	0	0
126	14.06	230.8	42	2.032	B	0	0/25/30	707	38.47	179.0	24	1.818	B	1	0
127	14.57	228.4	42	2.047	B	0	0	708	40.32	178.8	24	1.697	B	1	0
128	15.11	226.1	42	2.061	B	0	0/15	709	41.98	178.9	24				0
129	15.69	224.1	42	2.031	B	0	0	710	38.93	212.1	42	1.740	B	1	0
130	16.42	222.2	42	2.018	B	2	0	711	37.87	209.2	24	1.603	B	1	0
131	17.02	220.3					25	712	36.11	205.5					3
132	17.63	218.6	42	2.047	B	1	0	713	35.28	202.2	24	1.496	B	0	0
133	18.27	217.0	42	2.082	B	0	0	714	35.70	199.2	24	1.582	B	0	0
134	18.81	215.8	42	2.140	B	0	0	715	35.68	196.5	24	1.539	B	0	0
135	19.54	214.4	42	2.153	B	0	0	716	35.43	194.0	24	1.589	B	0	0
136	20.22	212.9	42	2.111	B	1	0	717	35.69	191.4	24	1.653	B	1	0
137	20.45	210.5	42	2.090	B	1	0/23	718	35.59	188.7					13/17
138	20.82	208.2					1	719	35.40	186.5	24	1.710	B	0	0
139	21.23	204.3	42	1.990	B	1	0	720	35.32	184.1	24	1.581	B	0	0
161	22.41	201.1	42	1.682	B	1	0	741	35.92	168.0	24	1.889	B	0	0
162	47.00	196.6	24	1.647	B	0	0	742	35.50	173.5	24	1.933	B	1	0
164	58.71	178.5	6	1.739	S	1	0	743	35.35	178.8	24	1.745	B	0	0
164	58.71	178.5					20	756	21.84	202.6	42	1.782	B	2	0
172	34.20	182.6	24	1.617	B	1	0	758	56.94	113.0	24	2.082	S	2	0
173	26.13	193.5	6	1.667	B	1	0	761	48.17	190.5	24	1.589	B	1	0
174	24.91	196.1					25	762	46.91	189.2	24	1.625	B	0	0
175	24.00	197.6	42	1.668	B	0	0	763	45.88	187.7	24	1.638	B	0	0
176	23.41	198.8	42	1.632	B	1	0	764	44.85	186.0	24	1.575	B	0	0
177	22.92	200.1	42	1.647	B	1	0	765	43.88	184.4	24	1.632	B	0	0
201	34.42	170.0	42	1.995	B	0	0	766	42.86	182.9	24				0
207	27.55	190.9	24	1.567	B	1	0	767	42.66	180.6	24				0
208	28.81	189.0	24	1.582	B	0	0	768	42.71	177.9	24				0
209	30.10	187.1	24	1.653	B	1	0	769	42.75	176.3	24	1.820	B	2	0
210	31.41	185.5	24	1.732	B	0	0	770	42.91	174.3	24	1.882	B	1	0
211	32.79	183.9	24	1.704	B	0	0/8	771	43.08	172.1					13
214	20.85	206.2	42	2.010	B	1	0	772	43.29	170.4	24	1.846	B	1	0
215	13.26	236.4	42	1.917	B	0	0	773	43.52	168.5	24	1.846	B	2	0
258	30.83	168.1	24	1.904	B	0	0	774	43.85	166.3					1
259	29.35	171.5	24	1.875	B	0	0	781	37.48	158.1	24	2.200	B	3	0
260	28.37	174.1	24	1.847	B	1	0	782	36.75	162.9	24	1.825	B	2	0
285	23.02	169.1	42	1.767	B	1	0	784	32.83	169.6	24	1.932	B	0	0
286	24.21	170.3	24	1.560	B	1	0	785	31.25	169.1	24	1.889	B	0	0
287	24.86	172.0	24	1.504	B	0	0	789	26.79	173.4	24	1.818	B	1	0
288	21.42	169.5	42	1.926	B	1	0/15	790	26.06	173.0	24	1.669	B	2	0
289	19.91	168.7	42	2.254	B	1	0	859	34.84	170.4					20
290	18.35	166.3	42	2.196	B	0	0	876	48.53	183.4	24	1.562	B	1	0
295	18.94	148.3	42	2.389	B	0	0	877	51.08	181.9	24	1.569	B	0	0
296	17.67	149.5	42	2.346	B	0	0	878	53.88	182.8	24	1.882	B	0	0
297	15.99	150.4	42	2.296	B	0	0	879	55.85	182.1	24				0
701	45.65	160.2	24				0								

Table 4, continued

SHOT NUMBER 24 SHOT POINT 14 DEPLOYMENT 10 SHOT TIME 1979:069:10:00:00.014

Loc	Dist	Azim	Tr	Tape	Loc	Dist	Azim	Tr	Tape
	(km)	(deg)	(sec)	P Wt Grade		(km)	(deg)	(sec)	P Wt Grade
...	...	...	...	...	...	...	...	...	...
162	47.00	196.6	24	1.647 B 0 0	839	12.19	294.3		1
164	58.71	178.5	6	1.796 S 1 0	840	14.88	317.0	42	1.619 B 1 0
164	58.71	178.5		20	842	35.40	176.1	24	1.810 B 0 0
171	35.43	181.4	24	1.646 B 0 0	844	33.45	183.2	42	1.639 B 0 0
179	35.61	170.9	24	1.961 B 0 0	845	32.08	184.0	42	1.775 B 1 0
258	30.83	168.1	24	1.918 B 0 0	846	30.75	186.3	24	1.732 B 0 0
295	18.94	148.3	42	2.389 B 0 0	847	29.46	188.1	24	1.575 B 0 0
296	17.67	149.5	42	2.353 B 0 0	848	28.20	189.9	24	1.482 B 0 0
297	15.99	150.4	42	2.289 B 0 0	849	26.97	191.9	42	1.696 B 1 0
704	46.96	183.6	24	1.532 B 1 0	850	25.56	194.7	42	1.632 B 0 0
705	45.02	182.1	24	1.575 B 1 0	851	24.65	196.3		25
710	38.93	212.1	42	1.676 B 1 0	852	23.69	198.3	42	1.654 B 1 0
711	37.87	209.2	24	1.618 B 1 0	853	23.06	199.6	42	1.640 B 1 0
712	36.11	205.5		3	854	22.59	200.7	42	1.697 B 1 0
713	35.28	202.2	24	1.504 B 0 0	855	22.08	201.9	42	1.731 B 1 0
714	35.70	199.2	24	1.596 B 0 0	856	21.59	203.3		13
715	35.68	196.5	24	1.546 B 0 0	857	21.07	205.2	42	2.011 B 1 0
716	35.43	194.0	24	1.582 B 0 0	859	34.84	170.4	42	2.011 B 0 0
717	35.69	191.4	24	1.628 B 0 0	862	48.64	191.1	24	1.617 B 1 0
718	35.59	188.7		13/17	863	47.49	189.7		12
719	35.40	186.5	24	1.681 B 1 0	864	46.54	188.4	24	1.711 B 0 0
720	35.32	184.1	24	1.581 B 0 0	865	45.47	186.7	24	1.626 B 0 0
758	56.94	113.0	42		866	44.42	185.4	24	1.633 B 0 0
789	26.79	173.4	24	1.839 B 0 0	867	43.45	183.6	24	1.640 B 1 0
790	26.06	173.0	24	1.683 B 1 0	868	42.73	181.8	24	1.704 B 2 0
801	45.14	161.1	42		869	42.64	178.6	42	
802	44.70	162.9	6	2.150 B 3 0	870	42.73	177.1	24	
803	43.93	165.2	24	1.988 B 0 0	871	42.81	175.7	24	1.875 B 0 0
806	36.29	181.1		25	872	42.94	173.4		13
807	37.69	180.0	42	1.782 B 0 0	873	43.20	171.4	24	1.889 B 1 0
808	38.41	178.9	24	1.875 B 0 0	874	43.21	169.4	24	1.875 B 1 0
809	41.20	178.8	24	1.767 B 1 0	875	43.60	167.3		1
821	20.85	207.4	42	2.061 B 0 0	876	48.53	183.4	24	1.597 B 0 0
822	20.58	209.5	42	2.083 B 0 0	877	51.08	181.9	24	1.554 B 0 0
823	20.32	211.6	42	2.075 B 1 0	878	53.88	182.8	24	1.889 B 1 0
824	19.79	213.8	42	2.069 B 1 0	879	55.85	182.1	24	1.878 B 0 0
825	19.08	214.6	42	2.147 B 1 0	881	37.22	160.6	24	
826	18.48	216.6		3	882	36.26	165.4	24	1.890 B 0 0
827	17.92	217.8	42	2.082 B 1 0	883	33.62	169.9	42	1.997 B 0 0
828	17.31	219.4	42	2.054 B 1 0	884	32.03	169.3	24	1.910 B 0 0
829	16.60	220.8	24	1.982 B 1 0	885	30.29	169.7	24	1.875 B 0 0
830	16.02	222.8	42	2.024 B 1 0	887	28.93	173.0		1
831	15.50	225.6	42	2.053 B 1 0	888	27.59	173.7	42	1.976 B 0 0
832	14.94	227.7	42	2.068 B 0 0	891	20.60	169.2	42	1.954 B 2 0/15
833	14.32	229.6	42	2.017 B 0 0	892	19.07	168.5	42	2.154 B 0 0
834	13.82	232.1	42	2.032 B 0 0	893	16.77	165.0	42	2.131 B 1 0
835	13.35	234.9	42	1.989 B 0 0	894	22.09	169.9	42	1.811 B 2 0
836	12.94	237.8	42	1.931 B 0 0	895	23.80	168.9	42	1.804 B 0 0
837	12.47	241.0	42	1.896 Q 0 0	896	24.45	170.8	24	1.532 B 0 0
838	11.34	253.8	42	1.681 Q 0 0					

Table 4, continued

SHOT NUMBER 25 SHOT POINT 1 DEPLOYMENT 10 SHOT TIME 1979:069:10:30:00.015

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt	Grade
...	...	...	...	...	...	...	...	...	...	...	...
162	24.98	239.5	24	1.333 B 0	0	839	42.06	332.8			1
164	27.11	194.1	6	1.304 B 1	0	840	46.97	337.1	42	2.422 B 3	0
164	27.11	194.1			20	842	6.39	242.8	42	1.340 Q 0	0
171	9.48	251.3	42	1.138 B 0	0	844	10.05	264.3	42	1.119 B 0	0
179	3.71	221.6	42	1.132 Q 1	0	845	10.38	272.1	42	1.304 B 0	0
258	2.81	322.2	42	0.948 Q 0	0	846	11.65	279.0	42	1.295 B 0	0
295	16.38	6.5	42	1.932 B 0	0	847	12.67	284.7	42	1.225 B 0	0/30
296	17.19	2.9	42	1.939 B 0	0	848	13.78	289.5	42	1.089 B 0	0
297	18.48	359.4	42	1.990 B 0	0	849	14.95	293.7	42	1.211 B 0	0
704	18.23	217.4	42	1.168 B 1	0	850	16.47	297.7	42		0
705	15.94	217.8	42	1.247 B 0	0	851	17.39	300.1			25
710	28.83	268.8	42	1.383 B 1	0	852	18.42	302.5	42	1.232 B 0	0
711	26.63	268.6	42	1.404 B 1	0	853	19.11	303.9	42	1.218 B 2	0
712	23.68	269.5			3	854	19.64	304.9	42	1.218 B 1	0
713	21.46	269.3	42	1.175 B 1	0	855	20.24	306.0	42	1.189 B 1	0
714	19.93	266.2	24	1.139 B 1	0	856	20.85	307.0			12
715	18.36	264.3	24	1.068 B 2	0	857	21.68	307.9	42	1.297 B 2	0
716	16.81	263.2	42	1.168 B 0	0	859	3.02	229.3	42	1.061 Q 0	0
717	15.37	260.3	42	1.368 B 1	0	862	23.25	228.7	42	1.217 B 1	0
718	13.79	258.3			13/17	863	21.64	228.2	24	1.190 B 1	0
719	12.43	257.1	42	1.247 B 0	0	864	20.22	227.5	42	1.303 B 0	0
720	11.00	255.0	42		0	865	18.54	226.4	42	1.218 B 0	0
758	45.55	77.1	24	2.254 S 1	0	866	17.06	226.1	42	1.197 B 0	0
789	7.65	319.1	42	1.381 B 0	0	867	15.45	224.7	42	1.217 B 0	0
790	8.17	322.9	42	1.403 B 1	0	868	14.02	222.6	42	1.232 B 2	0
801	12.22	147.6	42	1.710 B 0	0	869	12.43	214.6	42		0
802	11.50	154.0	6	1.582 B 0	0	870	11.89	210.1	42	1.253 B 0	0
803	10.55	163.0	42	1.440 B 0	0	871	11.42	205.6	42	1.326 B 1	0
806	9.63	246.1	42	1.346 B 1	0	872	10.75	197.2			6
807	9.67	236.8	42	1.267 B 1	0	873	10.45	188.9	42	1.303 B 0	0
808	9.51	230.7	42	1.318 B 0	0	874	10.09	181.0	42	1.282 B 0	0
809	11.40	219.4	42	1.217 B 1	0	875	10.26	171.6			1
821	22.50	308.1	24	1.340 B 0	0	876	19.48	214.5	42	1.218 B 1	0
822	23.28	308.4	24	1.447 B 1	0	877	21.10	207.8	42	1.145 B 1	0
823	24.08	308.8	42	1.561 B 1	0/23	878	23.99	206.8	24	1.519 B 0	0
824	24.89	309.8	42	1.682 B 2	0	879	25.55	203.5	42	1.532 B 1	0
825	25.26	311.3	42	1.896 B 1	0	881	5.06	122.6	42	1.375 Q 0	0
826	25.96	312.5	42	1.853 B 1	0	882	2.90	158.6	42	0.961 Q 0	0
827	26.41	313.7	42	1.882 B 1	0	883	2.33	252.1	42	0.832 Q 0	0
828	26.96	314.9	42	1.882 B 1	0	884	2.35	292.9	42	0.854 Q 0	0
829	27.45	316.3	24	1.896 B 1	0/25	885	3.74	313.7	42	1.168 Q 0	0
830	28.05	317.4	42	1.939 B 0	0	887	5.88	308.7			1
831	28.85	318.3	24	1.897 B 0	0	888	7.10	314.3	42	1.304 B 0	0
832	29.44	319.4	42	1.918 B 0	0	891	12.87	340.7	42	1.339 B 0	0/15
833	29.93	320.5	24	1.875 B 0	0	892	14.36	342.5	42	1.397 B 0	0
834	30.54	321.5	24	1.861 B 1	0/25	893	16.62	346.9	42	1.604 B 0	0
835	31.18	322.4	42	1.861 B 0	0	894	11.45	338.3	42	1.232 B 0	0
836	31.84	323.2	42	1.838 B 1	0	895	9.69	338.7	42	1.160 B 0	0
837	32.48	324.2	24	1.840 B 0	0	896	9.26	333.0	42	0.961 B 0	0
838	34.86	327.0	42	1.711 B 1	0						

Table 4, continued

SHOT NUMBER 26 SHOT POINT 6 DEPLOYMENT 11 SHOT TIME 1979:073:09:00:00.020

Loc	Dist	Azim	Tr	Tape	Loc	Dist	Azim	Tr	Tape						
	(km)	(deg)	Db	(sec)	P	Wt	Grade		(km)	(deg)	Db	(sec)	P	Wt	Grade
326	0.05	295.9	42	0.054	Q	0	0	952	28.76	352.2	42	2.532	B	0	0
901	30.37	13.3	24	2.292	B	2	0	953	30.29	353.3	42	2.510	B	0	0
902	27.80	17.1			3			954	32.20	353.1				1	
903	25.36	21.8			3			955	36.62	349.1	24	2.377	B	2	0
904	23.37	27.9	42	2.492	B	1	0	956	41.12	348.5	24			0	
905	22.22	35.1			3			957	45.20	348.0	24			0	
906	21.47	43.3			3			958	51.46	345.9	24			0	
909	24.03	63.4			3			959	56.80	343.6	24			0	
910	26.79	70.3	42		0			960	60.94	342.4	24	2.546	S	2	0
911	27.60	76.9	42	2.639	B	1	0	961	24.37	88.5				16	
912	28.59	83.2	42	2.647	B	1	0	962	25.18	88.5				16	
914	15.46	90.3	42	2.561	Q	2	0	963	25.97	88.3				16	
915	17.07	89.8	6	2.483	B	0	0	964	26.79	88.5				16	
916	18.73	89.4	42	2.447	B	0	0	965	27.54	88.5				16	
917	20.30	89.2	42	2.532	B	0	0	966	28.36	88.4				16	
918	21.95	88.9	42	2.568	B	1	0	967	29.18	88.2	42	2.646	B	1	0/6/30
919	22.73	88.7	24	2.547	B	0	0	968	29.98	88.2	42	2.646	B	1	0
920	23.52	88.7	42	2.504	B	2	0	969	30.94	89.3	42	2.654	B	1	0
921	42.70	86.8	24	2.204	B	1	0	970	31.63	87.9				16	
922	43.46	87.0				16		971	32.67	87.7	42	2.568	B	1	0
923	44.33	87.0	24	2.125	B	0	0	972	33.55	87.6	42	2.554	B	0	0
924	45.13	87.0				16		973	34.09	87.5	42	2.475	B	1	0
925	45.89	86.9				16		974	36.95	81.4	24	2.168	B	2	0
926	46.68	86.9	24	1.875	B	1	0	975	37.60	82.4	24	2.138	B	1	0
927	47.48	86.9				16		976	38.40	82.8				16	
928	48.90	86.1				16		977	39.28	83.8				16	
929	46.54	84.9	6	1.767	B	1	0	978	40.29	84.7				16	
930	46.23	80.7				3		979	41.08	85.5				16	
931	47.11	80.9	24	1.896	B	1	0	980	41.80	86.1				16	
932	48.45	81.2	24	1.925	B	0	0	981	26.31	84.7	42	2.675	B	2	0/30
933	49.25	81.3	24	1.925	B	1	0	982	2.17	319.1	42	0.825	Q	0	0
934	50.42	81.7				16		983	3.81	323.5	42	1.303	Q	0	0
935	51.53	81.9	24	1.810	B	2	0	984	6.22	320.5	42	1.882	Q	0	0
936	53.49	82.0	24	1.754	B	2	0	985	7.22	334.3	42	2.032	Q	0	0
937	55.23	82.3				16		986	10.22	346.7	42	2.197	Q	0	0
938	56.87	82.2				16		987	12.22	348.6	42	2.319	Q	0	12
939	60.84	82.9				16		988	13.83	348.4	42	2.447	Q	0	0
940	65.85	82.3	42	1.782	S	2	0	989	15.40	348.1	42	2.568	Q	0	0
941	18.79	340.8	42	2.725	Q	0	0	990	11.34	2.8	42	2.210	Q	0	0
942	19.27	335.5	42	2.754	Q	0	0	991	12.93	2.5				1	
943	20.74	329.8	42	2.803	B	0	0	992	12.95	355.4	42	2.332	Q	0	0
944	21.64	325.2	42	2.831	B	0	0	993	11.27	354.6	42	2.211	Q	0	0
945	17.06	348.3	42	2.619	Q	0	0	994	15.33	355.2	42	2.546	Q	0	0
946	18.66	348.5	42	2.639	Q	1	0/30	995	16.07	1.8	42	2.562	B	0	0
947	20.26	349.3	42	2.604	B	2	0/6/18	996	15.88	13.4	42	2.547	B	0	0/30
948	21.84	350.0	42	2.596	B	0	0	997	16.62	24.3	42	2.596	B	0	0
949	23.89	350.6	42	2.575	B	0	0	998	17.94	31.5	42	2.647	B	0	0
950	25.47	351.3	42	2.532	B	1	0	999	20.04	32.2	42	2.639	B	0	0
951	27.12	352.0	42	2.561	B	1	0								

Table 4, continued

SHOT NUMBER 27 SHOT POINT 1 DEPLOYMENT 11 SHOT TIME 1979:073:09:30:00.020

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
326	53.13	113.4	24	2.166	S	2	0	952	45.45	80.6	24	2.154	S	2	0
901	56.39	81.4	24	1.876	S	1	0	953	46.09	78.7	24	2.145	S	1	0
902	57.19	84.5	24	1.917	S	1	0	954	46.21	76.4					1
903	58.21	87.6	24	1.982	S	1	0	955	44.36	70.4	24	2.254	B	2	0
904	59.69	90.4	24	1.875	S	1	0	956	44.83	64.6	24	2.290	B	3	0
905	61.61	92.7	24	1.841	S	2	0	957	45.59	59.5	24	2.403	B	3	0
906	63.73	94.9	24	1.820	S	2	0	958	46.27	51.5	24				0
909	71.02	98.4	24	1.649	S	3	0	959	46.69	44.3	24	2.110	S	3	0
910	74.97	99.3	24				0	960	47.85	39.3	24	1.997	S	2	0
911	77.09	101.1	24	1.520	S	3	0	961	75.96	105.6					12
912	79.18	102.9	24				0	962	76.74	105.4					12
914	67.66	108.2	24				0	963	77.46	105.2	24				0
915	69.16	107.7					12	964	78.28	105.1	24				0
916	70.70	107.2	24	2.082	S	2	0	965	78.99	104.9	24				0
917	72.15	106.7	24				0	966	79.77	104.7	24				0
918	73.70	106.3	24				0	967	80.37	104.5	24				0/9
919	74.42	106.0					12	968	81.13	104.3	24				0
920	75.17	105.9	42				0	969	82.22	104.6	24				0
921	93.11	101.5	24	0.732	S	2	0	970	82.67	103.9	24	1.518	S	2	0
922	93.88	101.5	24	0.668	S	2	0/25	971	83.64	103.6	24	1.446	S	2	0
923	94.72	101.4	24	0.646	S	2	0	972	84.47	103.5	24	1.397	S	2	0
924	95.49	101.3	6	0.503	S	2	0	973	84.97	103.3	24	1.361	S	2	0
925	96.22	101.1	24				0	974	86.53	100.3	24	1.075	S	2	0
926	96.97	101.0	24	0.297	S	2	0	975	87.35	100.6	24	1.004	S	2	0
927	97.74	100.9	6	0.268	S	2	0/25	976	88.20	100.6	24	1.011	S	2	0/15
928	98.97	100.3	6	0.246	S	2	0	977	89.24	100.8	24	0.968	S	2	0
929	96.42	100.1	6				0/15	978	90.39	101.1	24	0.861	S	2	0
930	95.17	98.2					3	979	91.29	101.2	24	0.811	S	2	0/30
931	96.03	98.1	6	0.439	S	2	0	980	92.12	101.4	24	0.776	S	2	0
932	97.40	98.1	24	0.275	S	2	0	981	77.28	104.0	24				0
933	98.19	98.0	24				0	982	51.23	112.3	24	2.290	S	2	0
934	99.40	98.0	6				0	983	49.92	111.2	24	2.251	S	2	0
935	100.51	97.9	6				0	984	47.73	110.0	24	2.217	B	2	0
936	102.42	97.6	24				0	985	47.96	107.7	24	2.282	B	2	0
937	104.16	97.5	24				0	986	47.77	103.5	24				0
938	105.72	97.3	24				0	987	47.26	101.1	24	2.532	S	3	12
939	109.73	97.1	6				0	988	46.62	99.3	42	2.488	S	2	0
940	114.39	96.1					3	989	46.01	97.5	42	2.539	S	3	0
941	42.74	94.5	42	2.576	B	1	0	990	50.30	101.2	24	2.240	S	3	0
942	40.94	95.0	42	2.576	B	2	0	991	50.03	99.4					1
943	38.49	94.7	42	2.532	B	1	0	992	48.45	99.7	24	2.375	S	2	0
944	36.59	95.2	42	2.496	B	2	0	993	48.74	101.7	42	2.362	S	2	0
945	45.53	95.5	42	2.503	S	2	0	994	47.87	97.0	42	2.347	S	2	0
946	45.16	93.6	24	2.413	S	2	3	995	49.54	95.8	42	2.325	S	3	0
947	45.05	91.5	42	2.332	S	1	0/6	996	52.77	96.1	24	2.125	S	2	0
948	44.98	89.5	42	2.268	S	1	0/6	997	55.93	96.1	42	2.089	S	2	0
949	44.94	86.8	24	2.303	S	1	0	998	58.43	95.7	24	1.961	S	2	0
950	45.11	84.8	42	2.325	S	1	0	999	59.58	94.0	24	1.889	S	1	0
951	45.37	82.7	24	2.268	S	2	0								

Table 4, continued

SHOT NUMBER 28 SHOT POINT 7 DEPLOYMENT 11 SHOT TIME 1979:073:10:30:00.020

Loc	Dist	Azim	Tr	Tape	Loc	Dist	Azim	Tr	Tape
	(km)	(deg)	Db	(sec)	P	Wt	Grade		
326	26.36	264.7	42	2.688	B	1	0	952	39.79
901	33.19	324.8	24	2.010	B	1	0	953	40.58
902	30.10	323.3	24	2.096	B	1	0	954	42.10
903	26.96	321.5	24	2.146	B	2	0	955	47.11
904	23.75	320.1	24	0				956	51.12
905	20.67	319.6	24	2.204	B	2	0	957	54.86
906	17.46	319.0	24	2.203	B	1	0	958	61.22
909	9.55	330.5	42	1.903	Q	0	0	959	67.00
910	6.65	351.6		1				960	71.26
911	3.89	10.0	42	1.205	Q	0	0	961	2.57
912	2.39	66.5	42	0.890	Q	0	0	962	2.07
914	11.03	256.8	42	2.140	Q	0	0	963	1.68
915	9.44	255.3	6	2.046	Q	0	0	964	1.85
916	7.80	253.2	42	1.983	Q	1	0	965	2.17
917	6.29	250.1	42	1.846	Q	0	0	966	2.72
918	4.71	244.8	42	1.415	Q	1	0	967	3.34
919	3.97	241.0	42	1.482	Q	0	0	968	4.04
920	3.28	234.9	42	1.104	Q	0	0	969	5.16
921	16.43	90.1	24	1.812	B	0	0	970	5.55
922	17.20	90.5	24	1.810	B	0	0/25	971	6.54
923	18.06	90.3	24	1.762	B	0	0	972	7.40
924	18.86	90.1	24	1.704	B	0	0	973	7.92
925	19.62	89.9	24	1.647	B	0	0	974	10.78
926	20.41	89.7	24	1.539	B	2	0	975	11.35
927	21.21	89.6	24	1.524	B	1	0/25	976	12.13
928	22.61	87.8	6	1.620	B	3	0	977	12.98
929	20.23	85.2	6	1.495	B	2	0	978	13.97
930	20.07	75.5		3				979	14.77
931	20.93	76.1	24	1.618	B	2	0	980	15.51
932	22.25	77.1	24	1.620	B	2	0	981	0.02
933	23.03	77.5	24	1.619	B	2	0/6	982	27.63
934	24.19	78.5	24	1.674	B	3	0/6	983	28.46
935	25.28	79.0	6	1.703	B	3	0	984	30.24
936	27.24	79.4	24	1.711	B	3	0	985	29.60
937	28.96	80.2	24	0				986	29.50
938	30.60	80.1	24	0				987	30.15
939	34.55	81.6	6	1.617	B	3	0	988	31.03
940	39.58	80.7	24	1.703	B	2	0	989	31.96
941	35.79	295.3	24	0				990	27.13
942	37.36	293.8	24	0				991	27.68
943	39.75	292.9	24	0				992	29.16
944	41.47	291.7	24	0				993	28.63
945	32.90	295.7	24	0				994	30.30
946	33.82	297.9	24	0/30				995	29.07
947	34.65	300.3	24	0/6/30				996	25.98
948	35.52	302.5	24	0				997	23.14
949	36.75	305.1		12				998	21.17
950	37.65	307.2	24	0				999	21.25
951	38.62	309.2	6	0					

Table 4, continued

SHOT NUMBER 29 SHOT POINT 10 DEPLOYMENT 11 SHOT TIME 1979:073:11:00:00.021

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt Grade
326	55.71	141.2	24	0	952	34.42	115.7	42	2.424 B 1 0
901	44.14	108.3	24	2.196 B 0 0	953	34.09	113.1	24	2.445 B 0 0
902	46.25	111.4	24	2.197 B 1 0	954	33.12	110.3		1
903	48.56	114.2	42	2.239 S 2 0	955	28.94	105.0	42	2.412 B 1 0/6
904	51.18	116.4	24	2.182 S 0 0	956	26.87	96.7	42	2.389 B 1 0
905	53.95	117.9	24	2.111 S 1 0	957	25.47	88.3	42	2.361 B 1 0
906	56.89	119.3	24	2.082 S 1 0	958	23.29	73.9	42	2.303 B 1 0
909	65.17	120.1	24	1.910 S 2 0	959	21.81	59.6	42	2.190 B 1 0
910	69.26	119.8		12	960	22.08	48.4	42	2.154 B 1 0
911	72.08	121.0	24	1.760 S 2 0	961	73.10	125.8		25
912	74.89	122.3	24	1.819 S 3 0	962	73.76	125.5		25
914	66.58	130.8	24	2.146 S 3 0	963	74.32	125.0	42	0
915	67.72	129.8	24	0	964	75.05	124.7	42	0
916	68.92	128.9	24	0	965	75.64	124.4	42	0
917	70.06	128.0	24	2.231 S 3 0	966	76.29	124.0	24	0
918	71.29	127.1	24	0	967	76.90	123.6	24	0
919	71.86	126.7		25	968	77.53	123.2	24	0
920	72.47	126.3	24	0	969	78.66	123.2	24	1.660 S 3 0
921	87.58	117.9	6	1.334 S 2 0	970	78.79	122.4	24	1.660 S 3 0
922	88.31	117.7	6	1.295 S 2 0/25	971	79.59	122.0	24	1.637 S 2 0
923	89.06	117.5	6	1.249 S 2 0	972	80.23	121.6	24	1.596 S 3 0
924	89.73	117.2	6	1.164 S 2 0	973	80.65	121.3	24	1.552 S 2 0
925	90.38	116.9	24	1.096 S 2 0	974	80.74	118.0	24	1.411 S 2 0
926	91.05	116.7	6	1.039 S 2 0	975	81.64	118.1	24	1.363 S 2 0
927	91.73	116.4	6	1.020 S 2 0/25	976	82.46	117.9	24	1.412 S 2 0/15
928	92.65	115.6	6	0.935 S 2 0	977	83.56	117.9	24	1.391 S 2 0
929	90.10	115.8	6	0/12	978	84.76	117.9	24	1.391 S 2 0
930	88.03	114.1		3	979	85.70	117.9	24	1.415 S 2 0/9
931	88.82	113.8	24	0	980	86.58	118.0	24	1.346 S 2 0
932	90.10	113.5	24	0	981	73.59	123.9		12
933	90.83	113.3	6	0	982	53.59	141.3	24	0
934	91.99	113.1	6	0/17	983	51.96	141.0	24	0
935	93.02	112.9	24	0.883 S 3 0	984	49.54	141.3	24	0
936	94.75	112.3	24	0	985	48.76	139.3	24	2.495 S 2 0
937	96.39	111.9	24	0	986	46.74	135.8	42	0
938	97.77	111.4	24	0	987	45.25	134.1	24	12
939	101.59	110.7	24	0	988	43.90	132.9	24	0
940	105.68	109.1	24	0	989	42.59	131.8	24	0
941	38.57	131.8	24	0	990	47.86	132.1	24	0
942	37.38	133.9	24	2.446 B 3 0	991	46.82	130.7		1
943	35.38	136.2	24	2.540 B 2 0	992	45.63	132.0	24	0
944	34.20	138.7	24	2.590 B 2 0	993	46.75	133.6		2
945	41.29	130.4	24	0	994	43.89	129.9	24	2.261 S 3 0
946	40.10	128.9	24	13	995	44.77	127.7	42	2.340 S 2 0
947	39.06	127.0	24	0/6	996	47.69	125.9	42	2.161 S 2 0
948	38.08	125.2	24	2.400 B 2 0	997	50.43	124.1	24	2.233 S 2 0
949	36.84	122.6	24	2.380 B 2 0	998	52.46	122.4	24	2.168 S 2 0
950	36.05	120.4	42	2.382 B 2 0	999	52.70	120.2	42	2.183 S 2 0
951	35.29	118.0	42	2.433 B 1 0					

Table 4, continued

SHOT NUMBER 30 SHOT POINT 2 DEPLOYMENT 11 SHOT TIME 1979:073:11:30:00.016

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade
326	32.22	173.1	42	2.489	B	0	0	952	3.52	179.9	42	1.238	Q	0	0/8
901	11.18	102.7	42	1.869	Q	0	0	953	1.97	169.3	42	0.746	Q	0	0
902	13.24	114.2	42	1.968	B	0	0	954	0.09	115.3					1
903	15.76	122.5	42	2.104	B	0	0	955	4.97	322.5	42	1.498	Q	0	0/8
904	18.67	127.4	42	2.197	B	0	0	956	9.33	332.6	42	1.875	Q	0	0/8
905	21.66	129.7	42	2.168	B	0	0	957	13.38	335.7	42	2.047	Q	1	0/8
906	24.81	131.4	42	2.239	B	0	0	958	19.86	334.4	42	2.047	B	1	0
909	33.10	130.0	42	2.267	B	0	0	959	25.54	331.6	42	2.082	B	1	0/8
910	37.08	128.3	42				0	960	29.82	331.0					6/8
911	40.09	129.9	42	2.088	B	1	0	961	42.21	138.0					25
912	43.12	131.6	42	2.254	B	2	0	962	42.75	137.2					25
914	37.48	148.9	42	2.163	B	1	0	963	43.19	136.3	42				0
915	38.22	146.7				12		964	43.83	135.6	42				0
916	39.05	144.6	42	2.268	B	1	0	965	44.33	134.9	42				0
917	39.87	142.7	42	2.119	B	2	0	966	44.87	134.1	42				0
918	40.79	140.7	24	2.111	B	2	0	967	45.38	133.3	42				0
919	41.23	139.8	6	2.067	B	2	0	968	45.92	132.5	42	2.254	B	2	0
920	41.71	138.9	42				0	969	47.03	132.3	24	2.168	B	1	0
921	55.10	122.5	24	1.683	S	1	0	970	47.00	131.0	24	2.168	B	1	0
922	55.81	122.2	24	1.654	S	1	0/25	971	47.70	130.1	42	2.047	B	2	0
923	56.53	121.7	24	1.617	S	1	0	972	48.33	129.3	24				0
924	57.17	121.2	24	1.576	S	0	0	973	48.70	128.9	24	1.974	B	2	0
925	57.79	120.7	24	1.482	S	1	0	974	48.29	123.2	24				0
926	58.43	120.3	24	1.405	S	1	0	975	49.20	123.3	24	1.739	S	1	0
927	59.09	119.9	24	1.376	S	1	0/25/30	976	50.00	123.0	24	1.761	S	1	15
928	59.96	118.6	24	1.303	S	1	0	977	51.09	122.9	24	1.790	S	1	0
929	57.41	119.0	24	1.397	S	1	0	978	52.29	122.8	24	1.789	S	1	0
930	55.23	116.4				3		979	53.23	122.7	24	1.761	S	1	0/9
931	56.01	116.0	24	1.446	S	2	0	980	54.11	122.7	24	1.726	S	1	0
932	57.27	115.4	24	1.468	S	1	0	981	42.19	134.5	42				0
933	58.00	115.1	24	1.517	S	1	0	982	30.47	175.3	42	2.475	B	0	0
934	59.15	114.7	24	1.447	S	2	17	983	29.00	176.7	42	2.425	B	0	0
935	60.18	114.3	24	1.424	S	2	0	984	27.21	180.1	42	2.389	B	0	0
936	61.88	113.4	24	1.426	S	1	0	985	25.52	178.2	42	2.289	B	0	0
937	63.52	112.8	24	1.425	S	1	0	986	22.12	175.9	42	2.260	B	0	0
938	64.89	112.0	24	1.354	S	1	0	987	20.09	175.7	42	2.282	B	1	0
939	68.72	110.9	24	1.311	S	2	0	988	18.49	176.5	42	2.290	B	0	0
940	72.84	108.5	24	1.389	S	2	0	989	16.95	177.5	42	2.254	B	0	0
941	14.43	189.0	42	2.197	B	0	0	990	21.16	167.8	42	2.275	B	0	0
942	15.04	195.7	42	2.224	B	1	0/8	991	19.61	166.8					1
943	15.51	204.8	42	2.276	B	0	0/8	992	19.32	171.4	42	2.296	B	0	0
944	16.55	210.6	42	2.318	B	0	0/8	993	20.99	172.2					2
945	15.31	178.3	42	2.139	B	1	0/8	994	16.94	171.0	42	2.276	B	0	0
946	13.73	179.1	42	2.192	B	0	0/8/30	995	16.54	164.5	42	2.254	B	0	0
947	12.10	179.2	42				0/8	996	18.22	155.4	42	2.281	B	0	0
948	10.50	179.3	42	2.111	Q	0	0/8	997	19.99	147.5	42	2.375	B	0	0
949	8.44	179.9	42	1.988	Q	0	0/8	998	21.33	141.5	42	2.318	B	0	0
950	6.83	179.4	42	1.847	Q	0	0/8	999	20.94	135.9	42	2.282	B	0	0
951	5.15	178.2	42	1.604	Q	0	0/8								

Table 4, continued

SHOT NUMBER 31 SHOT POINT 1 DEPLOYMENT 12 SHOT TIME 1979:083:10:00:00.013

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade
944	36.59	95.2	42	2.596	B	1	0	1054	20.72	94.3	42	2.268	B	0	0
1001	27.29	133.2	42	1.861	B	0	0	1055	19.64	95.9	42	2.282	B	0	0
1002	27.87	132.1	42	1.976	B	0	0	1056	18.25	94.8	42	2.267	B	0	0
1003	28.37	131.2	42	1.961	B	0	0	1057	16.97	93.0	42	2.268	B	0	0
1004	29.22	129.7	42	2.010	B	1	0	1058	15.66	93.3					2
1005	29.84	129.1	42	1.940	B	1	0	1059	14.02	91.6					13
1006	30.42	127.8	24	1.997	B	1	0	1060	12.44	89.8	42	2.097	B	0	0
1007	30.39	125.3	42	1.983	B	1	0	1061	37.65	31.5	42	1.946	B	1	0
1008	32.52	123.5	42	2.039	B	0	0	1062	38.80	33.3					4
1009	33.74	122.0	42	2.076	B	1	0	1063	39.71	35.4	42	2.011	B	1	0
1010	35.10	120.7	42	2.125	B	0	0	1064	40.30	37.9	42	2.068	B	1	0
1011	36.81	119.2	24	1.969	B	1	0	1065	41.90	38.6					4
1012	37.93	118.2				1		1066	42.92	40.3	42	2.089	B	1	0
1013	31.87	135.9	42	2.024	B	0	0	1067	43.91	42.0	42	2.076	B	1	0
1014	30.91	133.1	42	1.975	B	1	0	1068	44.73	43.2	42	2.046	B	1	0
1015	30.15	132.1	42	1.953	B	1	0	1069	45.05	44.9					4
1016	29.54	131.5	42	1.918	B	0	0	1070	46.55	45.2					4
1017	28.41	128.9	42	1.989	B	1	0	1071	47.90	42.0	24	1.921	S	1	0
1018	27.91	127.6				2		1072	48.62	44.9					3
1019	27.55	126.1	42	2.104	B	0	0	1073	49.12	47.9					4
1020	26.65	124.0	42	2.153	B	0	0	1074	50.90	52.0					4
1021	29.56	37.7	42	2.203	B	1	0	1075	51.98	54.4					4
1022	30.76	39.8	42	2.281	B	1	0	1076	53.22	57.6	24	1.796	S	1	15
1024	33.12	43.0	42	2.268	B	1	0	1077	54.71	61.9	24	1.653	S	1	0
1026	34.45	46.0	42	2.368	B	1	0	1078	56.87	66.3	42	1.697	S	0	0
1027	35.31	48.2	42	2.325	B	1	0	1079	59.16	70.2	24	1.625	S	0	0
1028	36.52	49.9	42	2.367	B	1	0	1080	61.95	74.0	24	1.560	S	1	0
1029	37.74	51.5	42	2.303	B	1	0	1081	20.63	157.0	42	1.675	B	0	0
1030	39.14	53.1	42	2.233	B	1	0	1082	21.70	151.6	42	1.796	B	0	0
1031	40.47	54.5	24	2.168	B	1	0	1083	22.76	146.9	42	1.954	B	0	0
1033	43.09	56.4	42			0		1084	23.67	142.8	42	1.883	B	0	0
1034	44.44	57.6	24			0		1085	24.29	139.3	42	2.018	B	3	0
1035	45.49	60.6	42			0		1086	25.63	137.0	42	1.868	B	1	0
1037	46.92	62.1	42	2.147	S	1	0	1087	26.63	134.4	42	1.922	B	1	0
1038	48.48	61.7	42	2.154	S	1	0	1088	24.04	127.4	42	2.189	B	0	0
1040	50.67	63.8	24	1.939	S	1	0	1089	23.79	129.7	42	2.160	B	1	0
1042	34.90	95.5	42	2.396	B	1	0	1090	24.38	131.4	42	2.105	B	0	0
1043	33.32	96.4				25		1091	24.87	132.6	42	2.060	B	0	0
1044	31.89	95.9	42	2.453	B	1	0	1092	20.38	162.9	42	1.533	B	0	0
1045	30.85	95.5	42	2.403	B	1	0	1093	19.99	167.4	42	1.461	B	0	0
1046	29.52	93.4	42	2.446	B	1	0	1094	19.71	171.8	42	1.368	B	0	0
1047	28.62	93.4	42	2.475	B	0	0	1095	19.53	176.6	42	1.332	B	0	0
1048	27.80	92.7	42	2.446	B	0	0	1096	25.43	134.0	42	1.997	B	1	0
1049	26.39	93.7	42	2.476	B	0	0	1097	26.53	136.8	42	1.931	B	0	0
1050	25.14	93.8	42	2.389	B	0	0	1098	27.38	140.2	42	1.861	B	0	0
1051	23.89	93.7	42	2.282	B	1	0	1099	28.56	142.2	24	1.704	B	0	0
1052	23.24	93.9				26		1100	29.85	144.0	42	1.732	B	0	0
1053	21.86	93.4	42	2.268	B	0	0								

Table 4, continued

SHOT NUMBER 32 SHOT POINT 10 DEPLOYMENT 12 SHOT TIME 1979:083:10:30:00.014

Loc	Dist	Azim	Tr	Tape	Loc	Dist	Azim	Tr	Tape						
	(km)	(deg)	Db	(sec)	P	Wt	Grade		(km)	(deg)	Db	(sec)	P	Wt	Grade
944	34.20	138.7	42	2.540	B	1	0	1054	24.86	164.0	42	2.462	B	0	0
1001	41.48	171.6	42	2.560	B	1	0	1055	25.05	166.8	42	2.496	B	0	0
1002	41.60	170.5	42	2.555	B	2	0	1056	24.28	169.6	42	2.539	B	0	0
1003	41.71	169.6	42	2.497	B	2	0	1057	23.46	172.3	42	2.554	B	0	0
1004	41.93	168.1	42	2.520	B	2	0	1058	23.34	175.5				2	
1005	42.21	167.2	42	2.453	B	2	0	1059	22.76	179.5	42	2.553	B	0	0/30
1006	42.26	166.0	42	2.497	B	2	0/30	1060	22.36	183.5	42	2.539	B	1	0
1007	41.39	164.6	42	2.382	B	2	0	1061	11.38	31.2	42	1.952	B	0	0
1008	42.42	161.7	42	2.454	B	1	0	1062	12.56	36.7				4	
1009	42.87	159.9	42	2.425	B	2	0	1063	13.60	42.6	42	2.024	Q	0	0
1010	43.45	157.9	42	2.497	B	2	0	1064	14.46	49.2	42	2.146	Q	0	0
1011	44.29	155.6	42	2.482	B	2	0	1065	16.12	49.9				4	
1012	44.79	154.1				1		1066	17.39	53.5	42	2.219	Q	0	0
1013	46.01	169.6	42	2.697	B	0	0	1067	18.65	56.5	42	2.240	B	0	0
1014	44.34	168.6	42	2.539	B	1	0	1068	19.67	58.5	42	2.340	B	0	0
1015	43.42	168.7	42	2.675	B	3	0	1069	20.37	62.1				4	
1016	42.75	168.8	42	2.468	B	2	0	1070	21.88	61.5				4	
1017	41.05	168.4	42	2.518	B	2	0	1071	22.54	54.0	42	2.075	B	1	0
1018	40.26	168.1				2		1072	23.80	59.5	42	2.133	B	0	0/24/30
1019	39.51	167.7	42	2.511	B	2	0	1073	24.99	65.0				4	
1020	38.17	167.5	42	2.561	B	2	0	1074	27.78	71.1				4	
1021	4.40	76.5	42	1.476	Q	0	0	1075	29.51	74.4				4	
1022	6.02	77.7	42	1.868	Q	0	0	1076	31.72	78.8	24	1.938	B	0	15
1024	8.97	77.9	42	2.118	Q	0	0	1077	34.60	84.4	24	1.732	B	0	0
1026	11.08	81.8	42	2.282	Q	0	0	1078	38.24	89.3	42	1.839	B	0	0
1027	12.57	84.6	42	2.296	Q	0	0	1079	41.86	93.1	42	1.875	B	1	0/9
1028	14.17	85.3	42	2.367	Q	0	0	1080	45.99	96.6	42	1.917	B	0	0
1029	15.74	85.8	42	2.412	Q	0	0	1081	41.74	187.9	42	2.389	B	0	0
1030	17.52	86.2	42	2.410	Q	1	0	1082	41.58	184.8	42	2.469	B	1	0
1031	19.15	86.5	42	2.410	B	0	0	1083	41.44	181.9	42	2.589	B	0	0/6
1033	22.12	86.2	42	2.368	B	0	0	1084	41.22	179.3	42	2.511	B	1	0
1034	23.73	86.4	42	2.339	B	0	0	1085	40.83	177.2	42	2.611	B	2	0/15
1035	25.82	90.1	42	2.350	B	1	0	1086	41.28	174.9	42	2.748	B	1	0
1037	27.65	90.9	42	2.340	B	0	0	1087	41.33	172.8	42	2.690	B	1	0
1038	28.86	88.7	42	2.339	B	1	0	1088	37.35	171.9	42	2.573	B	1	0
1040	31.64	90.0	24	2.032	B	0	0	1089	37.83	173.2	42	2.655	B	1	0
1042	33.12	140.9	42			0		1090	38.73	173.4	42	2.670	B	1	0
1043	32.44	143.6				25		1091	39.45	173.5	42	2.725	B	1	0
1044	31.27	145.1	42	2.489	B	3	0	1092	42.56	190.6	42	2.240	B	0	0
1045	30.41	146.3	42	2.554	B	1	0	1093	42.93	192.7	42	2.110	B	0	0
1046	28.75	147.1	42	2.582	B	1	0	1094	43.29	194.7	24	2.019	B	0	0
1047	28.21	148.5	42	2.583	B	1	0	1095	43.72	196.8	42	1.961	B	0	0
1048	27.45	149.5	42	2.589	B	2	0	1096	40.26	173.6	42	2.710	B	2	0
1049	27.12	152.5	42	2.696	B	2	0	1097	41.91	174.1	42			0	
1050	26.54	154.9	42	2.733	B	0	0	1098	43.54	175.1	42	2.589	B	1	0
1051	25.93	157.3	42	2.539	B	1	0	1099	45.07	175.3	42	2.400	B	1	0
1052	25.70	158.6				26		1100	46.64	175.4	42	2.361	B	2	0
1053	24.97	161.3	42	2.445	B	1	0								

Table 4, continued

SHOT NUMBER 33 SHOT POINT 14 DEPLOYMENT 13 SHOT TIME 1979:086:10:00:00.008

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt	Grade
1101	33.38	57.2	6	1.790	B 2 0	1151	16.68	306.7	42	1.540	B 1 0
1102	33.22	53.3	6	1.661	B 2 0	1152	14.90	324.4	42	1.626	B 0 0
1103	32.41	49.4	24	1.596	B 1 0	1153	14.35	330.1	42	1.675	B 1 0
1104	31.24	44.5	24	1.575	B 2 0	1154	14.85	334.0	42		6
1105	30.93	38.7	24	1.640	B 2 0	1155	30.29	62.8	6		0
1106	31.67	34.2			18	1156	29.26	63.8			25
1107	32.92	28.0	6		0	1157	27.98	64.6	24	1.990	B 1 0
1108	33.43	24.1	24	1.754	B 1 0	1158	28.33	67.4	24		0
1109	33.29	21.3	24	1.883	B 2 0	1159	27.27	67.5	24		0
1110	35.78	14.2	24	1.854	B 2 0	1160	27.02	69.0			6/12
1111	37.20	13.3	24		0	1161	22.18	25.6			25
1112	38.69	13.4	6	1.739	B 2 0	1162	22.55	21.1			3
1113	34.51	16.0	24	1.960	B 3 0	1163	23.35	21.2	42		0
1114	33.82	15.4	24	1.896	B 2 0	1164	23.12	17.4	42		0
1115	33.17	14.5	24	1.996	B 2 0	1165	23.70	20.9	42		0
1116	32.34	14.7	24	1.997	B 2 0	1166	24.50	20.3	24	2.062	B 3 0
1117	31.73	15.0	24	2.011	B 2 0	1167	25.24	19.8	24	2.052	B 2 0
1118	31.04	15.8			2	1168	25.60	19.5	24	2.103	B 3 0
1119	30.31	16.2	24	1.974	B 3 0	1169	26.06	19.0	24	2.111	B 2 0
1120	29.81	17.0	24	1.976	B 2 0	1170	26.62	18.5	24	2.117	B 2 0
1121	37.79	58.3	6	1.550	B 2 0	1171	27.14	18.4	24	2.089	B 2 0
1122	37.04	58.5	6	1.525	B 1 0	1172	27.55	18.3			6/12
1123	35.97	58.5	6		0	1173	27.88	18.2	24	2.038	B 1 0
1124	33.71	59.3	6	1.683	B 2 0	1174	28.31	17.8	24	2.004	B 2 0
1125	33.07	62.5	6		0	1175	28.91	16.9			1
1126	31.86	61.7	24	1.910	B 2 0	1176	27.97	7.0			6/12
1127	31.15	62.9	6		0	1177	28.31	8.7	24	2.196	B 1 0
1128	23.59	33.4	42		0	1178	28.23	10.4	24	2.147	B 1 0
1129	22.26	29.3	42		24	1179	28.58	13.6	24	1.996	B 1 0
1130	23.24	31.8	42		0	1180	28.55	7.5	24	2.125	B 2 0
1131	25.23	32.6	24		0	1181	34.62	26.8	6	1.617	B 0 0
1132	25.97	44.5			1	1182	34.23	27.9	6	1.647	B 1 0
1133	26.81	44.4	24	2.104	B 2 0	1183	33.15	28.5	6	1.617	B 2 0
1134	27.67	44.5	24	2.024	B 2 0	1184	32.36	30.4	24		0
1135	28.54	43.8	24		0	1185	31.61	31.5	24		0
1136	29.09	43.0	24	1.926	B 2 0	1186	31.01	32.1	24		0
1137	29.87	42.4	24		0	1187	30.16	33.1	24	1.840	B 1 0
1138	31.67	41.6	6	1.582	B 1 0	1188	29.57	33.7	6	2.017	B 1 0
1139	32.38	40.7	6	1.531	B 1 0	1189	28.83	34.5	24	1.975	B 1 0
1140	32.70	39.3	6	1.496	B 1 0	1190	27.94	34.4	24	1.989	B 0 0
1141	37.15	292.1	24	1.975	B 1 0	1191	26.96	34.9	24		0
1142	35.74	293.4	24	1.974	B 1 0	1192	26.63	33.0	24	2.025	B 2 0
1143	34.19	293.8	6	2.019	B 3 0	1193	25.90	32.4	24	1.997	B 1 0
1144	30.37	293.4	6		0	1194	25.22	31.7	24	1.982	B 3 0
1145	28.72	293.4	6	1.625	B 1 0	1195	24.45	31.0	24		0
1146	26.57	296.1	6	1.555	B 2 0	1196	23.86	30.8	42		0
1147	25.16	297.4	24	1.504	B 2 0	1197	23.48	30.4	24		0
1148	21.96	300.5	24	1.376	B 1 0	1198	23.14	29.8	24	1.974	B 2 0
1149	20.98	301.9	24	1.431	B 2 0	1199	22.89	29.1	42	2.032	B 2 0
1150	17.65	303.4	24	1.482	B 1 0/30	1200	22.62	27.3	24	2.054	B 2 0

Table 4, continued

SHOT NUMBER 34 SHOT POINT 10 DEPLOYMENT 13 SHOT TIME 1979:086:10:30:00.018

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt Grade
...	...	...	...	...	...	...	...	...	...
80	39.09	352.6	24	1.503 B 1 0/25	1150	41.58	298.3	42	1.854 B 0 0
1101	28.79	12.5	42	1.668 B 0 0	1151	40.51	299.6	42	1.925 B 0 0
1102	30.29	9.1	42	1.639 B 1 0	1152	37.71	306.0	42	1.940 B 0 0
1103	31.24	5.1	42	1.611 B 2 0	1153	36.69	307.8	42	1.997 B 0 0
1104	32.29	0.2	42	1.647 B 1 0/30	1154	36.75	309.5	42	0/6/14
1105	34.26	355.9	42	1.696 B 1 0	1155	24.40	12.1	42	1.918 B 1 0
1106	36.47	353.6	24	1.568 B 1 0	1156	23.35	10.9	42	1.939 B 0 0
1107	39.62	350.7	24	1.567 B 1 0	1157	22.31	8.9	42	1.739 B 0 0
1108	41.35	348.6	24	1.689 B 1 0	1158	21.34	11.7	42	1.846 B 0 0
1109	42.18	346.7	42	1.839 B 0 0	1159	20.73	9.3	42	1.840 B 0 0
1110	46.59	343.7	42	1.768 B 0 0	1160	20.00	9.8		6/12
1111	48.09	344.0	42	1.725 S 0 0	1161	32.44	337.8		25
1112	49.38	344.9	24	1.560 S 0 0	1162	33.95	336.2	42	0
1113	44.92	344.1	42	1.796 B 0 0	1163	34.50	337.2	42	2.147 B 2 0
1114	44.53	343.2	42	1.818 B 0 0	1164	35.38	335.1	42	2.068 B 3 0
1115	44.25	342.2	24	1.867 B 0 0	1165	34.83	337.4	42	2.111 B 2 0
1116	43.51	341.7	24	1.896 B 0 0	1166	35.59	338.0	42	2.025 B 1 0
1117	42.88	341.5	24	1.889 B 1 0	1167	36.30	338.5	42	2.024 B 1 0
1118	42.09	341.4		2	1168	36.64	338.8	42	2.018 B 1 0
1119	41.35	341.1	42	1.968 B 1 0	1169	37.14	339.0	42	2.111 B 0 0
1120	40.71	341.2	42	1.939 B 0 0	1170	37.73	339.2	42	2.082 B 1 0
1121	31.63	19.0	42	1.582 B 0 0	1171	38.14	339.7	42	2.054 B 0 0
1122	30.96	18.4	42	1.553 B 1 0	1172	38.50	340.0		12
1123	30.15	17.1	42	1.567 B 0 0	1173	38.80	340.2	42	1.982 B 1 0
1124	28.17	14.7	42	1.633 B 0 0	1174	39.26	340.4	42	1.940 B 0 0
1125	26.38	16.6	42	1.738 B 0 0	1175	40.01	340.4		1
1126	25.91	13.9	42	1.803 B 0 0	1176	42.03	334.0		6/12
1127	24.92	13.7	42	1.876 B 0 0	1177	41.87	335.2	24	1.968 B 3 0
1128	31.03	343.4	42	2.010 B 1 0	1178	41.34	336.1	24	1.940 B 1 0
1129	31.41	339.6	42	2.011 B 3 0	1179	40.70	338.2	24	1.883 B 0 0
1130	31.28	342.2	42	1.975 B 2 0	1180	42.39	334.7	24	1.996 B 2 0
1131	32.35	345.3	42	2.081 B 1 0	1181	41.40	351.4	24	1.533 B 1 0
1132	28.79	352.7		1	1182	40.70	351.8	24	1.525 B 1 0
1133	29.33	354.0	42	2.083 B 1 0	1184	38.33	351.8	24	1.511 B 1 0
1134	29.86	355.3	42	2.131 B 0 0	1185	37.35	351.9	24	1.674 B 2 0/15
1135	30.72	356.1	42	2.074 B 1 0	1186	36.69	351.6	24	1.739 B 2 0
1136	31.38	356.4	42	1.918 B 1 0	1187	35.71	351.4	42	1.832 B 1 0
1137	32.14	357.0	24	1.782 B 1 0	1188	35.03	351.1	6	1.862 B 1 0/30
1138	33.72	358.7	42	1.667 B 0 0	1189	34.24	350.7	42	1.982 B 2 0
1139	34.58	358.8	24	1.618 B 0 0	1190	33.64	349.6	42	2.025 B 1 0
1140	35.35	358.2	24	1.553 B 0 0	1191	32.77	348.7	42	2.089 B 1 0
1141	61.19	293.1	42	2.197 S 1 0	1192	33.19	347.2	42	2.082 B 0 0
1142	59.79	293.9	42	1.899 S 2 0	1193	32.88	346.0	42	2.067 B 1 0
1143	58.25	294.1	42	1.903 S 1 0	1194	32.64	344.8	42	2.060 B 1 0
1144	54.42	294.0	42	1.882 S 1 0	1195	32.35	343.4	42	2.017 B 1 0
1145	52.77	294.0	42	1.932 S 0 0	1196	32.02	342.5	42	1.953 B 1 0
1146	50.62	295.4	42	1.818 S 0 0	1197	31.88	341.8	42	1.990 B 1 0
1147	49.19	296.1	42	1.798 S 0 0	1198	31.83	341.1	42	1.989 B 1 0
1148	45.95	297.5	42	1.726 S 0 0	1199	31.89	340.4	42	2.011 B 3 0
1149	44.94	298.0	24	1.717 S 0 0	1200	32.23	339.2	42	2.017 B 2 0

Table 4, continued

SHOT NUMBER 35 SHOT POINT 2 DEPLOYMENT 13 SHOT TIME 1979:086:11:00:00.013

Loc	Dist	Azim	Tr	Tape	Loc	Dist	Azim	Tr	Tape						
	(km)	(deg)	Db	(sec)	P	Wt	Grade								
80	61.74	324.4	24	1.525	B	1	0/30	1150	74.42	294.8	24	1.368	S	2	0
1101	46.62	328.0	42	1.704	B	1	0	1151	73.29	295.4	24	1.411	S	1	0/8
1102	48.91	327.7	6	1.739	B	1	0	1152	70.07	298.6	24				0
1103	51.02	326.5	42	1.640	B	1	0	1153	68.90	299.5	24	1.589	B	2	0
1104	53.51	324.8	42	1.647	B	1	0	1154	68.78	300.4	24				6
1105	56.53	323.8	42	1.596	B	1	0	1155	43.74	323.8	42	2.011	B	1	0
1106	59.13	323.7				18		1156	43.40	322.3	42	2.040	B	1	0
1107	62.81	323.6	42	1.740	B	1	0	1157	43.33	320.6	42	2.053	B	1	0
1108	65.02	323.1	42	1.768	B	1	0	1158	41.88	320.5	42	2.161	B	1	0
1109	66.38	322.2	42	1.790	B	1	0	1159	42.17	319.1	42	2.104	B	2	0/30
1110	71.34	321.9	24	1.581	S	2	0	1160	41.59	318.5					6/12
1111	72.64	322.5	24	1.518	S	2	0	1161	59.89	313.8					25
1112	73.56	323.5	24	1.460	S	1	0	1162	61.64	313.6					3
1113	69.67	321.6	42	1.682	S	2	0	1163	61.92	314.3	42				0
1114	69.58	321.0	24	1.660	S	2	0	1164	63.22	313.5	42				0
1115	69.60	320.3	24	1.696	S	2	0	1165	62.16	314.5	42	1.975	B	2	0
1116	69.06	319.8	24	1.754	S	1	0	1166	62.72	315.1	24	1.918	B	2	0
1117	68.53	319.5	24	1.739	B	1	0	1167	63.25	315.6	24	1.896	B	2	0
1118	67.82	319.2				2		1168	63.51	315.9	42	1.867	B	3	0
1119	67.22	318.8	42	1.890	B	2	0	1169	63.92	316.2	42	1.911	B	2	0
1120	66.61	318.6	42	1.840	B	1	0	1170	64.39	316.5	42	1.953	B	3	0
1121	46.19	333.5	24	1.640	B	0	0	1171	64.65	316.9	42	1.876	B	2	0
1122	45.98	332.6	42	1.653	B	0	0	1172	64.91	317.2	42	1.903	B	3	0
1123	45.92	331.2	42	1.667	B	0	0	1173	65.12	317.4	42	1.904	B	2	0
1124	45.41	328.4	42	1.754	B	1	0	1174	65.50	317.7	42	1.817	B	2	0
1125	43.55	327.5	42	1.769	B	1	0	1175	66.18	317.9					1
1126	44.16	325.9	42	1.847	B	1	0	1176	69.70	314.9					6/12
1127	43.57	324.9	42	1.917	B	1	0	1177	69.25	315.6	24	1.640	B	3	0
1128	57.27	316.0	42	2.224	B	3	0	1178	68.54	315.9	24	1.639	B	2	0
1129	58.53	314.3	42			25		1179	67.40	316.9	42	1.668	S	2	0
1130	57.80	315.5	42	2.282	B	3	0	1180	69.86	315.4	24	1.776	S	3	0
1131	57.96	317.5	42	2.289	B	2	0	1181	64.20	324.6	42	1.547	B	2	0
1132	52.87	319.1				1		1182	63.43	324.6	24	1.510	B	2	0
1133	52.97	320.1	42	2.103	B	1	0	1184	61.33	323.6	42	1.496	B	2	0
1134	53.01	321.0	42	2.090	B	1	0	1185	60.46	323.2	42	1.531	B	2	0
1135	53.49	321.9	42	2.090	B	1	0	1186	59.95	322.8	24	1.589	B	1	0
1136	53.96	322.4	42	1.990	B	1	0	1187	59.18	322.2	42	1.747	B	2	0
1137	54.40	323.1	24	1.803	B	1	0	1188	58.66	321.7	6	1.889	B	3	0
1138	55.18	324.9	42	1.660	B	1	0	1189	58.08	321.1	42	2.000	B	2	0
1139	55.83	325.5	42	1.597	B	1	0	1190	57.89	320.3	42	2.061	B	1	0
1140	56.69	325.6	24	1.568	B	1	0	1191	57.38	319.4	42	2.126	B	1	0
1141	94.05	292.1	24	0.996	S	2	0	1192	58.17	318.8	42	2.183	B	2	0
1142	92.63	292.6	24	0.997	S	2	0	1193	58.23	318.1	42	2.200	B	2	0
1143	91.09	292.7	24	1.039	S	2	0	1194	58.35	317.4	42				0
1144	87.27	292.6	24	1.090	S	2	0	1195	58.44	316.5	42	2.301	B	2	0
1145	85.63	292.5	24	1.131	S	2	0	1196	58.38	316.0	24				0
1146	83.44	293.4	24	1.190	S	2	0	1197	58.43	315.6	42				0
1147	82.00	293.7	24	1.153	S	2	0	1198	58.56	315.2	24				0
1148	78.82	294.4	24	1.140	S	2	0	1199	58.79	314.9	42				0
1149	77.78	294.7	24	1.140	S	2	0/8	1200	59.37	314.4	42				0

Table 4, continued

SHOT NUMBER 36 SHOT POINT 2 DEPLOYMENT 14 SHOT TIME 1979:090:10:30:00.010

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade
2	0.00	180.0	42	0.111	Q	0	0	1208	19.99	290.0	42	2.425	Q	0	0
143	35.75	291.1			3			1209	19.06	291.1	42	2.318	Q	0	0
157	33.46	290.3	42	2.418	B	1	0	1210	18.43	290.4	42	2.361	Q	0	0
180	45.95	256.5			25			1211	17.26	290.9	42	2.332	Q	0	0
415	22.87	252.4	42	2.425	B	0	0	1212	16.39	291.6	42	2.281	Q	1	0
503	25.03	252.8	42	2.311	B	1	0	1213	15.60	291.4	42				0
507	20.99	252.8	42		0			1214	14.79	291.7	42	2.225	Q	0	0
512	19.60	251.3	42	2.317	B	0	0	1215	13.82	291.4	42	2.197	Q	0	0
517	17.26	249.1	42	2.282	B	0	0	1216	13.04	292.5	42	2.153	Q	0	0
521	8.69	241.9	42	1.854	Q	0	0	1217	12.34	293.0	42	2.064	Q	0	0
522	7.53	238.6	42	1.782	Q	0	0	1219	10.89	294.1	42	1.940	Q	0	0
524	6.26	230.5	6		0			1220	9.74	295.3	42	1.854	Q	0	0
526	5.16	219.3	42	1.703	Q	0	0	1221	53.61	284.2	24	2.132	B	2	0
528	4.26	202.7	42	1.439	Q	0	0	1222	54.81	283.1	24	2.140	B	2	0
529	2.81	198.0	42	1.040	Q	0	0	1223	56.89	282.6	24	1.954	B	2	0
532	2.48	125.2	42		0			1224	58.50	282.4	42	1.953	B	2	0
534	4.13	110.1	42	1.461	Q	0	0/9	1225	55.86	281.9	24	1.954	B	2	0
536	6.17	103.3	42		0			1226	55.85	280.2	42	1.933	B	2	0
539	10.32	96.5			1			1227	28.16	283.4	42	2.418	B	0	0
544	15.52	249.4	42	2.254	B	0	0	1228	26.46	282.7	42	2.389	B	2	0
546	14.06	246.8	42	2.177	B	0	0/6/30	1229	24.71	281.8					3
548	12.60	244.0	42	2.133	Q	0	0	1230	23.95	281.6	42	2.282	B	0	0
550	11.18	240.6	42	2.068	Q	0	0	1231	22.88	281.1	42	2.247	B	0	0
552	9.80	235.7	42	1.982	Q	0	0	1232	21.48	280.1	42	2.296	B	1	0
561	31.94	258.8	42	2.475	B	1	0	1233	20.50	278.9	42	2.268	B	0	0
562	33.56	259.0	42	2.440	B	0	0	1234	20.76	282.3	42	2.375	B	0	0
564	36.48	260.1	42	2.461	B	1	0	1235	20.55	287.0	42	2.411	B	0	0
566	39.38	258.8	42	2.461	B	1	0	1236	19.65	279.7	42	2.275	B	0	0
568	31.17	256.2	42	2.482	B	0	0	1237	18.77	279.2	42	2.289	B	0	0
570	29.88	255.2	42	2.474	B	0	0	1238	17.10	278.9	42	2.283	B	0	0
571	28.67	255.8	42	2.325	B	1	0	1239	15.45	278.4	42	2.197	Q	0	0
574	27.74	255.4	42	2.411	B	0	0	1261	31.97	290.3	42	2.440	B	1	0
578	25.92	254.2	42	2.382	B	0	0	1262	31.11	290.4	42	2.468	B	0	0
1062	31.83	312.5	42	2.233	B	2	0	1263	30.23	290.4	42	2.475	B	0	0
1064	28.94	316.2	42	2.320	B	0	0/17/30	1264	29.17	290.5	42	2.568	B	3	0
1065	28.69	319.5	42	2.282	B	0	0	1265	28.32	290.3	42	2.482	B	0	0
1069	24.66	328.3	42	2.182	B	0	0	1266	27.45	290.0	42	2.483	B	0	0
1070	24.82	331.8			1			1267	26.52	290.4	42	2.481	B	0	0
1072	25.72	336.0	42	2.017	B	1	0	1268	38.10	291.9	42	2.425	B	1	0
1073	23.51	339.3	42	1.797	B	0	0	1281	8.70	294.6	42	1.782	Q	0	0
1074	20.96	347.1	42	1.768	B	0	0	1282	8.05	295.4	6				25
1075	19.53	352.5	42	1.568	B	0	0	1283	7.21	295.6	42	1.654	Q	1	0
1076	17.57	0.5	42	1.675	B	0	0	1284	6.16	297.1	42	1.797	Q	0	0
1201	25.80	290.4	42	2.410	B	1	0	1285	5.48	296.3	42	1.518	Q	0	0
1202	24.94	290.2	6	2.446	B	0	0	1286	4.54	298.3	42	1.404	Q	0	0
1203	24.42	290.4	42	2.468	B	0	0	1287	3.60	297.8	42	1.203	Q	0	0
1204	23.17	290.5			1			1288	2.46	293.3	42	0.982	Q	0	0/15
1205	22.46	290.9	42	2.454	B	0	0	1289	1.60	275.4	42	0.568	Q	0	0
1206	21.85	291.0			21			1290	0.63	288.2	42	0.197	Q	0	0
1207	21.04	290.2	42	2.440	Q	0	0								

Table 4, continued

SHOT NUMBER 37 SHOT POINT 1 DEPLOYMENT 14 SHOT TIME 1979:090:11:00:00.012

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt	Grade
...	...	...	...	...	...	...	...	...	...	...	...
2	46.14	76.3	42	2.197	S 1 0	1208	31.51	55.7	42	2.374	B 2 0
143	26.39	25.7	42	2.061	B 2 0	1209	32.34	56.7	42	2.439	B 3 0
157	26.19	30.8	42	2.111	B 2 0	1210	32.55	57.8	42	2.382	B 2 0
180	0.24	37.3	42	0.254	Q 0 24	1211	33.39	59.2	42	2.397	B 1 0
415	23.38	80.1	42	2.417	B 1 0	1212	34.10	60.2	42	2.389	B 2 0
503	21.22	80.5	42	2.388	B 1 0	1213	34.55	61.2			12
507	25.23	79.2	42	2.467	B 0 0	1214	35.12	62.2	42	2.361	B 2 0
512	26.68	80.0	42	2.453	B 0 0	1215	35.71	63.4	42	2.354	B 1 0
517	29.10	80.5	42	2.497	B 1 0	1216	36.42	64.1	42	2.361	B 2 0
521	37.79	79.6	42	2.411	B 2 0	1217	36.98	64.8	42	2.376	B 1 0
522	39.05	79.7	24	2.403	B 2 0	1219	38.10	66.2	24	2.318	B 1 0
524	40.60	80.2	24	2.361	B 1 0/17	1220	39.04	67.3	42	2.253	B 1 0
526	42.15	80.5	42	2.196	B 2 0	1221	25.14	343.4	42	1.710	B 0 0
528	43.76	80.8	24	2.254	B 2 0	1222	24.86	339.7	42	1.711	B 1 0
529	44.73	79.4	24	2.226	S 1 0	1223	25.72	335.3	42	1.597	B 1 0
532	47.81	78.5	42	2.226	S 1 0	1224	26.56	332.3	42	1.681	B 0 0
534	49.63	79.0	42	2.060	S 3 0/9	1225	24.52	336.2	42	1.575	B 1 0
536	51.72	79.4	42	2.139	S 1 0	1226	23.19	333.9	42	1.569	B 1 0
539	55.95	80.0			1	1227	24.67	44.9	42	2.289	B 1 0
544	30.79	79.8	42	2.450	B 2 0	1228	25.32	48.6	42	2.246	B 0 0
546	32.36	80.4			6/9/11	1229	26.07	52.2			3
548	33.94	80.9	42	2.490	B 1 0	1230	26.50	53.6	42	2.218	B 2 0
550	35.52	81.2	42	2.489	B 2 0	1231	27.11	55.5	42	2.090	B 1 0
552	37.14	81.6	42	2.403	B 1 0	1232	27.86	58.2	42	2.139	B 1 0
561	14.30	70.8	42	2.225	Q 1 0	1233	28.31	60.1	42	2.197	B 1 0
562	12.71	69.1	42	2.133	Q 0 0	1234	28.94	57.9	42	2.197	B 1 0
564	10.03	62.3	42	1.911	Q 0 0	1235	30.33	56.0	42	2.268	B 1 0
566	7.02	61.9	42	1.546	Q 0 0	1236	29.15	60.8	42	2.239	B 1 0
568	14.98	76.6	42	2.238	Q 0 0	1237	29.75	62.1	42	2.311	B 1 0
570	16.28	78.3	42	2.304	Q 0 0	1238	31.04	64.1	42	2.389	B 0 0
571	17.48	77.1	42	2.375	B 0 0	1239	32.33	66.0	42	2.426	B 1 0
574	18.41	77.7	42	2.333	B 1 0	1261	26.55	33.9	42	2.147	B 2 0
578	20.26	79.0	42	2.368	B 1 0	1262	26.79	35.7	42	2.282	B 1 0
1062	38.80	33.3	42	1.938	B 1 0	1263	27.02	37.5	42	2.247	B 1 0
1064	40.30	37.9	42	2.054	B 2 0	1264	27.44	39.6	42	2.319	B 2 0
1065	41.90	38.6	42	2.068	B 2 0	1265	27.63	41.3	42	2.297	B 1 0
1069	45.05	44.9	24	2.090	B 1 0	1266	27.81	43.1	42	2.317	B 1 0
1070	46.55	45.2			1	1267	28.36	44.7	42	2.338	B 1 0
1072	48.62	44.9	24	1.983	S 1 0	1268	26.82	20.6	42		0/9
1073	49.12	47.9	24	1.918	S 1 0	1281	39.67	68.5	24	2.217	B 1 0
1074	50.90	52.0	24	1.798	S 1 0	1282	40.20	69.0			25
1075	51.98	54.4	24		0/25	1283	40.81	69.9			25
1076	53.22	57.6	42		0	1284	41.66	70.8	24	2.340	B 2 0
1201	28.66	46.0	42	2.339	B 1 0	1285	42.09	71.5	42	2.203	B 2 0
1202	28.95	47.6	42	2.268	B 1 0	1286	42.87	72.2	42	2.253	B 2 0
1203	29.28	48.4	42	2.310	B 1 0	1287	43.51	73.2			1
1204	29.92	50.5			1	1288	44.20	74.4	42	2.218	B 1 0
1205	30.42	51.5	42	2.282	B 1 0	1289	44.63	75.6	24	2.218	B 1 0
1206	30.77	52.5			17	1290	45.61	75.9	42	2.245	S 1 0
1207	30.97	54.0	42	2.282	B 1 0						

Table 4, continued

SHOT NUMBER 38 SHOT POINT 10 DEPLOYMENT 14 SHOT TIME 1979:090:11:30:13.818

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt Grade
...	...	...	...	...	...	...	...	...	...
2	33.03	110.3	42	0	1208	13.04	110.6	42	2.418 Q 0 0
143	2.77	301.2		3	1209	13.97	109.1	42	2.547 Q 0 0
157	0.43	290.7	42	0.189 Q 0 0	1210	14.60	110.0	42	2.504 Q 0 0
180	26.03	211.6		25	1211	15.77	109.5	42	2.504 Q 0 0
415	20.53	153.3	42	2.597 B 0 0	1212	16.65	108.9	42	2.540 Q 0 0
503	20.13	159.3	42	2.490 B 1 0	1213	17.43	109.2	42	2.583 Q 0 0 /30
507	20.78	148.2	42	2.618 B 0 0	1214	18.25	109.1	42	2.589 B 0 0
512	21.65	144.9	42	2.632 B 0 0	1215	19.22	109.4	42	2.553 B 1 0
517	23.03	139.8	42	2.568 B 1 0	1216	20.01	108.8	42	2.591 B 1 0
521	28.03	123.6	42	2.496 B 1 0	1217	20.72	108.6	42	2.625 B 0 0
522	28.98	122.0	42	2.440 B 1 0	1219	22.17	108.4	42	2.561 B 0 0
524	30.37	120.5	24	2.382 B 1 0	1220	23.34	108.1	42	2.539 B 0 0
526	31.73	119.1	42	2.383 B 0 0	1221	21.04	274.7	42	2.439 B 0 0
528	33.13	117.6	24	2.360 B 1 0	1222	22.41	272.5	42	2.347 B 1 0
529	33.26	115.1	42	2.412 B 1 0	1223	24.53	272.4	42	2.305 B 0 0
532	35.43	111.3	42	2.476 B 0 0	1224	26.15	272.5	42	2.340 B 0 0
534	37.16	110.2	24	2.439 B 0 0 /30	1225	23.66	270.2	42	2.275 B 1 0
536	39.16	109.2	42	2.431 B 1 0	1226	24.01	266.4	42	2.253 B 0 0
539	43.12	107.0		1	1227	6.07	143.5	42	1.911 Q 0 0
544	23.59	135.7	42	2.558 B 1 0	1228	7.64	137.3	42	2.055 Q 0 0
546	24.79	133.2		6	1229	9.33	133.2		3
548	25.98	130.8	42	2.597 B 0 0	1230	10.03	131.4	42	2.183 Q 0 0
550	27.17	128.5	42	2.597 B 0 0	1231	11.06	129.4	42	2.175 Q 0 0
552	28.50	126.5	42	2.525 B 1 0	1232	12.48	127.9	42	2.181 Q 0 0
561	17.65	181.0	42	2.468 Q 0 0	1233	13.55	127.6	42	2.247 Q 0 0
562	17.94	186.2	42	2.474 Q 0 0	1234	12.79	123.2	42	2.275 Q 0 0
564	18.37	195.6	42	2.474 B 0 0	1235	12.56	115.5	42	2.340 Q 0 0
566	20.52	201.8	42	2.546 B 0 0	1236	14.19	125.0	42	2.325 Q 0 0
568	18.89	177.7	42	2.518 B 0 0	1237	15.05	124.1	42	2.397 Q 0 0
570	19.18	173.6	42	2.497 B 0 0	1238	16.61	121.9	42	2.511 Q 0 0
571	18.73	170.1	42	2.481 B 0 0	1239	18.20	120.3	42	2.575 B 0 0
574	18.91	167.2	42	2.425 B 1 0	1261	1.06	107.5	42	0.446 Q 0 0
578	19.46	161.8		3	1262	1.92	108.2	42	0.725 Q 0 0
1062	12.56	36.7	42	1.953 B 0 0	1263	2.80	109.1	42	1.011 Q 0 0
1064	14.46	49.2	42	2.154 Q 0 0	1264	3.86	108.1	42	1.383 Q 0 0
1065	16.12	49.9	42	2.190 Q 0 0	1265	4.71	109.8	42	1.618 Q 0 0
1069	20.37	62.1	42	2.290 B 0 0	1266	5.58	111.6	42	1.846 Q 0 0
1070	21.88	61.5		1	1267	6.52	109.7	42	1.995 Q 0 0
1072	23.80	59.5	42	2.154 B 2 0	1268	5.17	302.2	42	1.682 Q 0 0
1073	24.99	65.0	42	0	1281	24.36	108.7	42	2.504 B 0 0
1074	27.78	71.1		12	1282	25.02	108.6		25
1075	29.51	74.4	24	0/19	1283	25.86	108.8	42	2.460 B 0 0
1076	31.72	78.8	24	1.953 B 1 0	1284	26.92	108.7	42	2.432 B 1 0 /30
1201	7.23	109.7	42	2.083 Q 0 0	1285	27.59	109.0	42	2.436 B 0 0
1202	8.09	110.6	6	2.104 Q 0 0	1286	28.54	109.0	42	2.432 B 1 0
1203	8.61	109.9	42	2.154 Q 0 0	1287	29.47	109.3		1
1204	9.86	109.8		1	1288	30.58	110.0	42	2.417 B 1 0
1205	10.58	108.9	42	2.253 Q 0 0	1289	31.48	111.0	42	2.447 B 0 0
1206	11.19	108.9		21	1290	32.40	110.3	42	2.468 B 0 0
1207	11.99	110.3	42	2.353 Q 0 0					

Table 4, continued

SHOT NUMBER 39 SHOT POINT 10 DEPLOYMENT 15 SHOT TIME 1979:091:08:00:00.010

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	0.00	180.0	42	0.005	Q	0	0	1303	1.68	167.3	42	0.704	Q	0	0	
143	2.77	301.2	42	1.084	Q	0	0/9/17	1304	2.09	169.8	42	0.850	Q	0	0	
157	0.43	290.7	42	0.193	Q	0	0	1305	2.49	171.5	42	0.999	Q	0	0	
1261	1.06	107.5	42	0.463	Q	0	0	1306	2.88	172.6	42	1.115	Q	0	0	
1301	0.19	166.3	42	0.095	Q	0	0	1307	3.30	173.6	42	1.236	Q	0	0	
1302	1.27	177.1	42	0.519	Q	0	0	1308	3.71	174.3					2	

Table 4, continued

SHOT NUMBER 40 SHOT POINT 1 DEPLOYMENT 17 SHOT TIME 1979:321:09:00:00.002

Loc	Dist (km)	Azim (deg)	Tr (sec)	P	Wt	Tape	Loc	Dist (km)	Azim (deg)	Tr (sec)	P	Wt	Tape
501	23.10	76.1	42	2.385	B	1	551	36.31	81.5	24			0
502	22.48	78.9				1	552	37.14	81.6				12
503	21.22	80.5				12	553	36.89	84.2	24	2.529	B	3
504	23.23	82.6	42	2.436	B	1	554	36.14	84.0	42			0
505	24.00	82.8				1	555	34.50	83.8	24	2.540	B	2
506	24.68	83.7	42	2.489	B	0	556	33.71	83.9	6	2.551	B	3
507	25.23	79.2				1	557	32.95	83.5	24	2.522	B	2
508	24.64	79.0	42	2.453	B	1	558	32.13	83.3	24	2.528	B	2
509	23.91	78.6				1	559	30.96	83.5	42			0
510	25.54	84.0	42	2.493	B	1	560	35.33	83.5				1
511	25.57	83.8	42	2.511	B	1	561	14.30	70.8	42	2.248	Q	1
512	26.68	80.0	42	2.471	B	1	562	12.71	69.1	42	2.181	Q	0
513	26.41	84.2	42	2.488	B	1	563	11.38	65.8	42	2.054	Q	0
514	27.18	83.9	24	2.506	B	0	564	10.03	62.3	42	1.934	Q	0
515	27.55	80.7	42	2.459	B	1	565	8.57	58.7	42	1.837	Q	0
516	28.39	79.3	42	2.505	B	1	566	7.02	61.9	6	1.614	Q	0
517	29.10	80.5	42	2.518	B	1	567	5.73	69.5	42	1.335	Q	0
518	28.93	83.6	42	2.505	B	1	568	14.98	76.6				2
519	28.21	82.7				1	569	15.77	77.4	42	2.301	Q	1
520	21.74	82.4	42	2.409	B	1	570	16.28	78.3				1
521	37.79	79.6	24			0	571	17.48	77.1	42	2.351	B	1
522	39.05	79.7	24	2.568	B	2	572	17.72	74.6	42	2.351	B	1
523	39.82	79.9	24	2.403	B	2	573	18.44	75.3	42	2.380	B	1
524	40.60	80.2	24	2.352	B	2	574	18.41	77.7	42	2.358	B	1
525	41.38	80.3	24	2.328	B	2	575	19.01	78.0	42	2.387	B	1
526	42.15	80.5	24			0	576	19.16	75.7	42	2.402	B	1
527	42.93	80.7				25	577	20.18	76.6	42	2.398	B	2
528	43.76	80.8				15	578	20.26	79.0	42	2.415	B	2
529	44.73	79.4				20	579	21.23	76.1	42	2.410	B	1
530	46.10	78.7	24	2.272	S	2	580	21.98	76.1	42	2.392	B	1
531	46.85	78.3	24	2.233	S	2	581	57.97	79.5				20
532	47.81	78.5	24	2.261	S	1	582	58.82	79.6				1
533	48.79	78.8	24	2.282	S	1	583	59.68	79.5	24	1.791	S	2
534	49.63	79.0	24	2.157	S	1	584	60.46	79.3	24	1.842	S	2
535	50.57	79.2				1	585	61.28	79.3	24	1.815	S	2
536	51.72	79.4	24	2.157	S	1	586	62.05	79.3				20
537	52.85	79.7	24			0	587	62.95	79.0				20
538	54.46	80.1	24	2.008	S	2	588	63.84	79.0	24	1.529	S	2
539	55.95	80.0				20	589	64.68	79.1	24	1.477	S	2
540	57.24	79.6				3	590	65.42	79.3	24	1.438	S	2
541	29.71	82.6	42	2.511	B	1	591	66.18	79.4	24	1.392	S	2
542	29.83	80.0				12	592	67.13	79.1	24	1.392	S	2
543	30.37	83.2				13	593	67.92	78.8	6	1.346	S	2
544	30.79	79.8	42			0	594	68.65	78.4	6	1.299	S	2
545	31.56	80.1	24			0	595	69.70	78.2				20
546	32.36	80.4	24	2.500	B	2	596	70.97	77.5	6	1.261	S	2
547	33.17	80.6	24			0	597	72.37	76.9	24	1.379	S	3
548	33.94	80.9	24			0	598	73.70	76.2				25
549	34.78	81.3	42	2.533	B	2	599	75.20	75.6				17/18
550	35.52	81.2	24			0	600	83.62	74.1	6	1.243	S	2

Table 4, continued

SHOT NUMBER 41 SHOT POINT 1 DEPLOYMENT 17 SHOT TIME 1979:321:10:00:00.003

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec) P Wt Grade
501	23.10	76.1	42	2.510 B 1 0	551	36.31	81.5	24	0
502	22.48	78.9		1	552	37.14	81.6	6	0
503	21.22	80.5		6/17	553	36.89	84.2	42	2.489 B 2 0
504	23.23	82.6		6/17	554	36.14	84.0	42	2.496 B 2 0
505	24.00	82.8		1	555	34.50	83.8	42	2.525 B 1 0
506	24.68	83.7	42	2.497 B 1 0	556	33.71	83.9	6	0
507	25.23	79.2		1	557	32.95	83.5	42	2.553 B 1 0
508	24.64	79.0	42	2.445 B 1 0	558	32.13	83.3	42	2.518 B 2 0
509	23.91	78.6		1	559	30.96	83.5	42	2.475 B 2 0
510	25.54	84.0	42	2.510 B 0 0	560	35.33	83.5		1
511	25.57	83.8	42	2.525 B 1 0	561	14.30	70.8	42	2.225 Q 0 0
512	26.68	80.0	42	2.482 B 1 0	562	12.71	69.1	42	2.161 Q 0 0
513	26.41	84.2	42	2.496 B 1 0	563	11.38	65.8	42	2.046 Q 0 0
514	27.18	83.9	42	2.511 B 1 0	564	10.03	62.3	42	1.932 Q 0 0
515	27.55	80.7	24	2.460 B 1 0	565	8.57	58.7	42	1.825 Q 0 0
516	28.39	79.3	42	2.503 B 1 0/30	566	7.02	61.9	6	1.617 Q 0 0
517	29.10	80.5	42	2.504 B 1 0	567	5.73	69.5	42	1.340 Q 0 0
518	28.93	83.6	42	2.481 B 1 0	568	14.98	76.6		17
519	28.21	82.7		1	569	15.77	77.4	42	2.312 Q 2 0
520	21.74	82.4	42	2.418 B 2 0	570	16.28	78.3		1
521	37.79	79.6	24	2.483 B 2 0	571	17.48	77.1	42	0
522	39.05	79.7	24	2.453 B 1 0	572	17.72	74.6	42	2.396 B 0 0
523	39.82	79.9	42	2.397 B 1 0	573	18.44	75.3	42	2.417 B 0 0
524	40.60	80.2	24	2.368 B 1 0	574	18.41	77.7	42	0/30
525	41.38	80.3	42	2.303 B 1 0	575	19.01	78.0	42	2.412 B 1 0
526	42.15	80.5	42	2.310 B 1 0	576	19.16	75.7	42	2.417 B 1 0
527	42.93	80.7		12	577	20.18	76.6	42	2.419 B 1 0
528	43.76	80.8		12	578	20.26	79.0	42	2.418 B 1 0
529	44.73	79.4		20	579	21.23	76.1	42	2.419 B 1 0
530	46.10	78.7	24	2.232 S 1 0	580	21.98	76.1	42	2.404 B 1 0
531	46.85	78.3	24	2.255 S 1 0	581	57.97	79.5		20
532	47.81	78.5	24	2.283 S 1 0	582	58.82	79.6		1
533	48.79	78.8	24	2.174 S 1 0	583	59.68	79.5	24	1.818 S 2 0
534	49.63	79.0	24	2.132 S 1 0	584	60.46	79.3	42	1.880 S 3 0
535	50.57	79.2		1	585	61.28	79.3	42	1.732 S 2 0
536	51.72	79.4	42	2.146 S 1 0	586	62.05	79.3		20
537	52.85	79.7	24	2.111 S 1 0	587	62.95	79.0		20
538	54.46	80.1	24	2.003 S 1 0	588	63.84	79.0	24	1.554 S 1 0
539	55.95	80.0		20	589	64.68	79.1	24	1.461 S 1 0
540	57.24	79.6		2	590	65.42	79.3	24	1.397 S 1 0
541	29.71	82.6		15/21	591	66.18	79.4	24	1.360 S 1 0
542	29.83	80.0		10/21	592	67.13	79.1	24	1.361 S 1 0
543	30.37	83.2	42	2.475 B 1 0	593	67.92	78.8	24	1.320 S 1 0
544	30.79	79.8	42	2.468 B 2 0	594	68.65	78.4	24	1.274 S 1 0
545	31.56	80.1	42	2.468 B 2 0	595	69.70	78.2		20
546	32.36	80.4	42	2.539 B 2 0	596	70.97	77.5	24	1.191 S 1 0
547	33.17	80.6	24	2.483 B 2 0	597	72.37	76.9	24	1.267 S 1 0
548	33.94	80.9	42	2.533 B 2 0	598	73.70	76.2	24	1.261 S 1 0/30
549	34.78	81.3	42	2.510 B 1 0	599	75.20	75.6		17/18
550	35.52	81.2	42	2.517 B 2 0	600	83.62	74.1	24	0

Table 4, continued

SHOT NUMBER 42 SHOT POINT 1 DEPLOYMENT 17 SHOT TIME 1979:321:11:00:00.002

Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade	Loc	Dist (km)	Azim (deg)	Tr Db	Tape (sec)	P	Wt	Grade
501	23.10	76.1	42	2.425	B	1	0	551	36.31	81.5	24				0
502	22.48	78.9				1		552	37.14	81.6	24				0/12
503	21.22	80.5				6/17		553	36.89	84.2	24				0
504	23.23	82.6				6/17		554	36.14	84.0	24				0
505	24.00	82.8				1		555	34.50	83.8	24				0
506	24.68	83.7	24	2.529	B	1	0	556	33.71	83.9					12
507	25.23	79.2				1		557	32.95	83.5	24				0
508	24.64	79.0	42	2.493	B	1	0/15/30	558	32.13	83.3	24				0
509	23.91	78.6				1		559	30.96	83.5	24				0
510	25.54	84.0	42	2.522	B	1	0	560	35.33	83.5					1
511	25.57	83.8	42	2.551	B	2	0	561	14.30	70.8	42	2.243	Q	2	0
512	26.68	80.0	42	2.540	B	1	0	562	12.71	69.1	6	2.198	Q	1	0
513	26.41	84.2	24	2.534	B	0	0	563	11.38	65.8	42	2.128	Q	0	0
514	27.18	83.9	24	2.529	B	1	0	564	10.03	62.3	42	2.100	Q	1	0
515	27.55	80.7	6	2.574	B	1	0	565	8.57	58.7	42	1.888	Q	0	0
516	28.39	79.3	24	2.579	B	2	0/15/30	566	7.02	61.9	6	1.682	Q	1	0
517	29.10	80.5	24			0		567	5.73	69.5	42	1.426	Q	0	0
518	28.93	83.6	24			0		568	14.98	76.6					2
519	28.21	82.7				1		569	15.77	77.4	42	2.284	Q	2	0
520	21.74	82.4	42	2.432	B	1	0	570	16.28	78.3					1
521	37.79	79.6	24			0		571	17.48	77.1	42	2.529	B	2	0
522	39.05	79.7				25		572	17.72	74.6	42	2.431	B	2	0
523	39.82	79.9	24			0		573	18.44	75.3	42	2.448	B	1	0
524	40.60	80.2				12		574	18.41	77.7					3
525	41.38	80.3	24			0		575	19.01	78.0					3
526	42.15	80.5	24			0		576	19.16	75.7	42	2.437	B	1	0
527	42.93	80.7				9		577	20.18	76.6	42	2.438	B	2	0
528	43.76	80.8				15		578	20.26	79.0	42				0
529	44.73	79.4				20		579	21.23	76.1	42	2.433	B	2	0
530	46.10	78.7				12		580	21.98	76.1	42	2.432	B	1	0
531	46.85	78.3	24	2.393	S	2	0	581	57.97	79.5					20
532	47.81	78.5	24	2.284	S	2	0	582	58.82	79.6					1
533	48.79	78.8				12		583	59.68	79.5	24	1.969	S	3	0/6/24
534	49.63	79.0	24	2.300	S	3	0	584	60.46	79.3	24				0
535	50.57	79.2				1		585	61.28	79.3	24	1.843	S	3	0
536	51.72	79.4	24	2.179	S	2	0	586	62.05	79.3					20
537	52.85	79.7	24			0		587	62.95	79.0					20
538	54.46	80.1	24			0		588	63.84	79.0	24	1.586	S	2	0
539	55.95	80.0				20		589	64.68	79.1	6	1.517	S	2	0
540	57.24	79.6				2		590	65.42	79.3	6	1.495	S	2	0
541	59.71	82.6	24			0		591	66.18	79.4	6				0
542	59.83	80.0				15		592	67.13	79.1	6				0
543	30.37	83.2	6			0		593	67.92	78.8	6				0
544	30.79	79.8	24			0		594	68.65	78.4	6				0
545	31.56	80.1	24			0		595	69.70	78.2					20
546	32.36	80.4	24			0		596	70.97	77.5	6	1.295	S	1	0
547	33.17	80.6	24			0		597	72.37	76.9	24	1.339	S	2	0
548	33.94	80.9	24			0		598	73.70	76.2	6	1.352	S	2	0
549	34.78	81.3	24			0		599	75.20	75.6					3
550	35.52	81.2	24			0		600	83.62	74.1	6	1.071	S	3	0

TABLE 5  
SECONDARY ARRIVALS

Table entry definitions are the same as for table 4, except that Tr is the travel time of secondary arrivals. Most of these are inferred to be reflections from the top of the subbasement, although in some cases more than one such reflection appears to be present. We have attempted to eliminate or down-weight (weight of 4) secondary arrivals that appear to be multiples.

SHOT 2 SHOT POINT 1

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
109	2	2.956	33.03	83.9	113	1	3.049	25.65	97.7
111	0	3.002	28.74	90.0	143	2	2.701	26.39	25.7
112	1	3.141	26.34	94.3	146	1	2.689	33.55	29.4

SHOT 3 SHOT POINT 5

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
81	2	2.492	57.13	338.9	115	3	2.968	35.36	56.0
83	2	2.330	55.90	341.9	116	3	2.782	32.40	55.2
84	2	2.411	55.42	343.5	121	2	2.098	72.23	349.9
87	2	2.365	54.26	348.4	125	1	2.504	52.15	346.3
88	1	2.469	53.95	350.1	126	1	2.504	51.35	346.1
89	2	2.515	53.70	351.8	127	1	2.527	50.60	345.9
91	1	2.515	53.33	355.2	141	3	2.318	46.62	18.1
92	1	2.550	53.25	356.7	142	3	2.318	49.45	18.9
93	2	2.550	53.17	358.5	143	1	2.214	53.32	19.9
112	2	2.597	41.03	53.6					

SHOT 7 SHOT POINT 6

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
129	3	2.411	79.88	301.9	252	3	2.910	45.08	292.4
130	3	2.469	79.50	301.3	265	3	2.492	67.67	295.6
131	3	2.446	79.08	300.8	266	2	2.540	69.36	296.0
133	3	2.504	78.27	299.8	272	2	2.411	80.00	299.2
134	2	2.620	77.95	299.4	280	2	2.944	52.23	302.7
135	2	2.712	77.55	298.8	281	2	2.910	53.71	301.6
210	3	2.539	63.94	290.3	282	2	3.141	56.12	300.4
211	3	2.643	62.73	289.3	293	1	3.118	50.60	305.1
247	3	3.130	39.15	292.4	297	2	3.037	62.96	308.9
249	3	3.130	41.22	293.8	299	3	2.736	66.47	309.5
250	3	3.130	42.09	293.5					

Table 5, continued

## SHOT 8 SHOT POINT 7

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
---	--	-----	-----	-----	---	--	-----	-----	-----
304	2	3.188	44.29	264.1	306	3	3.315	42.64	263.3
305	3	3.234	43.28	263.3	307	4	3.315	41.76	263.3

## SHOT 9 SHOT POINT 1

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
---	--	-----	-----	-----	---	--	-----	-----	-----
315	1	2.770	45.99	120.1	319	2	2.550	48.43	117.3
318	3	2.539	47.94	117.9					

## SHOT 11 SHOT POINT 6

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
---	--	-----	-----	-----	---	--	-----	-----	-----
364	2	2.724	58.16	267.1	374	4	2.063	64.13	271.1
364	4	2.515	58.16	267.1	375	1	2.446	65.02	272.0
365	4	2.399	58.85	267.2	375	4	2.179	65.02	272.0
366	4	2.353	59.61	267.4	376	1	2.376	66.43	272.5
367	3	2.631	60.12	267.9	376	4	2.156	66.43	272.5
367	4	2.353	60.12	267.9	377	2	2.388	68.04	272.7
369	2	2.504	61.36	268.8	377	4	2.156	68.04	272.7
369	4	2.249	61.36	268.8	378	2	2.226	69.85	272.7
370	4	2.156	62.14	269.0	378	4	1.947	69.85	272.7
371	4	2.086	62.97	269.2	379	2	2.226	71.45	272.8
372	4	2.098	63.45	269.8	379	4	1.982	71.45	272.8
373	4	2.098	63.80	270.5					

Table 5, continued

## SHOT 12 SHOT POINT 6

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
407	3	3.176	39.55	315.5	452	3	3.002	52.35	313.5
410	3	3.246	38.82	313.1	462	2	2.492	76.03	313.7
411	2	3.234	38.04	316.0	465	2	2.423	73.01	313.1
412	3	3.199	38.43	314.6	466	1	2.446	72.13	313.3
414	3	3.107	36.41	316.8	467	2	2.504	71.41	312.7
418	1	3.234	33.05	315.0	469	2	2.678	69.42	312.8
441	3	2.759	60.06	314.6	470	2	2.666	68.14	313.1
443	3	2.817	58.37	314.2	471	1	2.631	67.07	313.6
444	3	2.724	57.80	313.6	480	3	2.724	60.77	315.2
445	2	2.805	56.66	313.6	481	0	3.165	32.01	317.0
447	3	2.828	56.08	315.4	482	0	3.211	32.24	314.6
449	3	3.037	53.86	315.4	487	0	3.188	30.64	316.8
450	2	2.944	54.53	313.4					

## SHOT 13 SHOT POINT 1

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
424	3	2.724	40.01	104.0	492	0	2.991	30.61	94.9
483	2	3.199	26.27	88.4	493	1	2.968	30.91	96.1
485	2	3.049	27.29	90.4	495	1	2.944	32.41	98.1
487	2	3.037	27.86	87.4	496	1	2.956	33.12	98.7
491	1	3.026	29.40	93.4	497	2	2.944	34.00	99.5

## SHOT 14 SHOT POINT 13

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
407	3	3.478	39.17	130.2	414	4	3.269	42.38	129.5
409	3	3.327	39.07	131.8	416	2	3.327	43.65	131.5
410	2	3.408	39.82	132.6	417	2	3.257	44.59	131.8
412	2	3.408	40.24	131.2	481	4	3.257	46.76	130.1
413	2	3.327	41.51	131.9					

Table 5, continued

## SHOT 15 SHOT POINT 6

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
502	2	3.130	36.88	313.5	528	3	2.678	28.63	348.8
504	2	3.130	35.26	313.1	529	3	2.654	29.72	350.7
505	1	3.130	34.69	313.9	541	2	2.991	31.53	322.2
507	2	3.118	35.23	317.1	542	3	3.049	32.64	323.5
508	2	3.199	35.65	316.4	543	2	2.991	30.92	323.0
509	1	3.257	36.16	315.5	547	3	3.002	30.96	328.8
510	1	3.083	33.34	315.4	548	3	3.002	30.56	330.0
512	0	3.037	34.19	318.8	549	3	3.002	30.00	331.3
513	1	3.118	32.74	316.5	559	2	2.968	30.49	323.8
514	2	3.095	32.38	317.8	561	2	3.118	43.72	306.2
515	0	3.072	33.46	319.8	562	2	3.060	44.93	304.7
516	3	3.083	33.64	321.6	563	1	3.014	46.25	303.8
517	3	3.083	32.74	322.2	564	1	3.002	47.50	302.8
519	2	3.072	32.25	319.8	565	1	2.991	48.71	301.6
520	1	3.153	36.29	311.3	566	1	3.060	49.11	299.8
522	2	2.678	29.93	339.8	567	1	2.991	49.20	298.0
523	2	2.678	29.64	341.2	571	2	3.107	40.42	308.2
524	3	2.689	29.36	342.6	573	4	3.188	40.28	309.8
525	3	2.666	29.15	344.1	574	2	3.107	39.67	309.1
526	3	2.643	28.92	345.6	575	2	3.211	39.22	309.7

Table 5, continued

## SHOT 17 SHOT POINT 12

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
---	--	---	-----	-----	---	--	-----	-----	-----
501	2	3.211	41.59	130.2	559	4	2.933	49.42	125.8
505	3	2.840	44.33	131.6	561	3	2.818	35.92	140.5
506	3	2.863	45.05	131.3	562	3	2.736	35.06	142.7
508	3	3.269	43.49	129.6	563	3	2.828	34.06	144.6
512	2	3.049	45.15	128.0	565	2	3.072	32.57	149.2
515	3	3.141	45.98	127.4	566	1	3.246	33.01	151.9
520	1	2.678	42.74	133.7	568	1	2.789	37.54	140.4
522	3	2.678	54.07	118.0	569	1	2.811	38.10	139.5
523	3	2.539	54.78	117.7	570	1	2.811	38.58	139.0
524	3	2.539	55.51	117.3	572	2	2.789	38.29	136.4
525	4	2.365	56.20	116.9	573	1	2.775	38.83	135.6
526	3	2.457	56.90	116.6	574	1	2.747	39.50	136.2
527	3	2.446	57.61	116.3	579	3	3.350	40.53	132.4
528	2	2.481	58.33	115.8	580	1	3.304	40.96	131.5
529	3	2.457	58.49	114.4	583	2	2.110	71.30	107.6
530	3	2.388	59.32	113.2	584	2	2.098	71.87	107.1
536	3	2.318	64.34	110.9	585	1	1.959	72.62	106.9
543	1	3.037	48.89	126.1	588	0	1.820	74.74	105.7
544	3	2.944	47.92	124.2	589	1	1.739	75.53	105.5
545	2	2.968	48.61	123.8	590	1	1.692	76.29	105.4
547	2	2.968	49.99	122.7	591	0	1.657	77.03	105.2
548	1	2.968	50.65	122.3	592	1	1.657	77.72	104.7
549	2	2.828	51.46	121.9	594	0	1.553	78.73	103.7
553	3	2.515	54.21	121.9	598	2	1.356	82.02	100.4
558	4	2.933	50.21	124.8					

Table 5, continued

## SHOT 19 SHOT POINT 6

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
---	--	---	-----	-----	---	--	-----	-----	-----
143	3	2.910	58.37	320.2	625	2	2.539	60.53	326.2
146	2	2.689	59.78	327.3	627	2	2.365	62.49	328.9
146	3	2.701	59.78	327.3	628	2	2.515	60.94	329.8
149	1	2.318	62.24	332.2	632	3	2.457	61.78	325.8
149	1	2.318	62.24	332.2	634	1	2.318	63.15	327.8
181	3	3.350	57.12	311.4	636	1	2.260	63.86	329.6
189	3	3.014	55.06	304.9	637	1	2.168	64.65	330.1
190	3	2.991	55.17	304.2	638	1	2.179	64.54	331.4
191	2	3.083	55.31	303.3	639	1	2.179	65.02	332.3
192	2	3.107	55.74	302.6	651	2	2.956	57.61	317.7
194	1	3.327	54.83	301.0	653	2	2.840	58.11	319.5
195	1	2.921	54.42	298.6	656	2	2.643	59.99	318.0
196	2	3.118	54.38	300.2	657	3	2.736	59.86	317.1
604	3	2.782	59.44	326.3	665	2	2.434	64.19	335.3
605	3	2.782	58.77	325.8	667	2	2.504	65.68	336.1
606	3	2.817	59.35	325.1	669	2	2.828	65.72	339.2
607	1	2.828	59.41	324.3	670	2	2.736	66.81	338.9
608	1	2.805	59.43	323.3	671	3	2.817	67.03	340.3
609	1	2.817	59.08	322.8	672	1	2.770	68.09	340.5
610	1	2.805	58.87	321.9	673	2	2.666	68.77	340.8
611	2	2.712	60.25	319.2	674	1	2.539	69.77	340.9
612	2	2.654	60.75	320.8	675	2	2.492	70.89	341.3
613	3	2.631	61.15	321.7	676	1	2.423	72.18	341.8
614	1	2.678	61.27	322.5	677	1	2.504	73.06	342.2
615	1	2.643	61.48	323.3	679	2	2.295	76.82	343.7
617	2	2.330	62.23	325.1	680	3	2.330	79.41	344.7
619	3	2.260	64.02	325.6					

Table 5, continued

## SHOT 21 SHOT POINT 10

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
122	2	2.388	36.64	295.8	711	1	2.318	46.49	240.3
127	2	2.828	32.78	270.6	713	2	2.399	41.87	237.3
128	3	2.747	32.78	269.2	714	2	2.504	41.16	234.9
129	3	2.759	32.81	267.8	715	1	2.701	40.15	233.0
130	3	2.794	32.97	266.3	717	0	2.910	38.21	229.2
133	1	2.921	33.20	262.1	741	4	2.446	28.94	209.9
135	0	2.840	33.48	259.5	742	3	2.260	30.94	215.3
136	1	2.840	33.58	258.0	743	3	2.005	32.97	219.9
139	1	2.852	32.03	253.1	761	4	2.701	48.34	219.4
162	2	2.376	49.74	225.2	772	3	2.504	35.82	204.3
162	4	2.701	49.74	225.2	773	3	2.550	35.18	202.0
173	4	3.281	31.95	241.2	782	3	2.550	27.45	203.9
176	2	2.689	31.84	247.6	784	4	2.527	27.39	215.6
177	2	2.654	31.90	248.9	876	4	2.562	45.74	212.9
207	4	3.130	32.01	237.9	878	1	2.353	50.22	209.3
214	2	2.794	32.27	254.4	878	4	2.689	50.22	209.3
704	3	2.689	44.45	214.0	879	1	2.353	51.69	207.7
710	1	2.307	48.38	241.7	879	4	2.840	51.69	207.7

## SHOT 23 SHOT POINT 14

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
704	4	2.492	46.96	183.6	770	3	2.654	42.91	174.3
708	4	2.886	40.32	178.8	772	2	2.469	43.28	170.4
709	4	2.759	41.97	178.9	773	2	2.457	43.52	168.5
767	4	2.469	42.66	180.6	876	4	2.620	48.53	183.4

## SHOT 24 SHOT POINT 14

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
717	4	2.597	35.69	191.4	873	2	2.481	43.20	171.4
842	4	3.049	35.40	176.1	874	2	2.434	43.21	169.4
871	2	2.585	42.81	175.7					

## SHOT 25 SHOT POINT 1

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
877	1	1.356	21.10	207.8

Table 5, continued

## SHOT 26 SHOT POINT 6

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
---	--	-----	-----	-----
959	3	2.910	56.80	343.6

## SHOT 27 SHOT POINT 1

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
---	--	-----	-----	-----	---	--	-----	-----	-----
943	1	2.794	38.49	94.7	989	3	2.724	46.01	97.5
953	3	2.504	46.08	78.7	994	3	2.539	47.87	97.0
985	3	2.620	47.96	107.7	998	3	2.156	58.43	95.7
988	3	2.724	46.62	99.3	999	3	2.168	59.58	94.0

## SHOT 28 SHOT POINT 7

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
---	--	-----	-----	-----	---	--	-----	-----	-----
902	3	2.249	30.10	323.3	904	3	3.211	23.75	320.1
903	1	2.457	26.96	321.5	995	3	3.083	29.07	298.0

## SHOT 29 SHOT POINT 10

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
---	--	-----	-----	-----	---	--	-----	-----	-----
902	3	2.944	46.25	111.4	951	3	2.527	35.29	118.0
903	0	2.991	48.56	114.2	971	2	1.901	79.59	122.0
904	0	2.863	51.18	116.4	972	2	1.994	80.23	121.6
905	0	2.736	53.95	117.9	973	3	1.994	80.64	121.3
906	0	2.666	56.89	119.3	974	2	2.075	80.75	118.0
909	2	2.341	65.17	120.1	975	2	2.005	81.64	118.1
909	4	2.597	65.17	120.1	976	2	2.040	82.46	117.9
911	3	2.086	72.08	121.0	977	3	2.005	83.56	117.9
911	4	2.457	72.08	121.0	978	3	1.982	84.76	117.9
912	4	2.295	74.89	122.3	979	3	1.947	85.70	117.9
914	3	2.330	66.58	130.8	980	3	1.831	86.58	118.0
920	2	2.202	72.47	126.3	982	2	2.921	53.59	141.3
943	2	2.759	35.38	136.2	983	3	2.991	51.96	141.0
944	1	2.759	34.21	138.7	985	2	3.014	48.76	139.3
948	1	2.550	38.08	125.2	997	1	3.002	50.44	124.1
949	1	2.620	36.84	122.6	998	1	2.875	52.46	122.4
950	3	2.585	36.04	120.4	999	0	2.840	52.70	120.2

Table 5, continued

## SHOT 30 SHOT POINT 2

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
---	--	-----	-----	-----	---	--	-----	-----	-----
968	2	2.527	45.92	132.5	971	1	2.318	47.70	130.1
969	1	2.446	47.03	132.3	972	3	2.341	48.33	129.3
970	2	2.376	47.00	131.0	973	3	2.341	48.70	128.9

## SHOT 31 SHOT POINT 1

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
---	--	-----	-----	-----	---	--	-----	-----	-----
944	2	2.852	36.59	95.2	1044	0	2.968	31.89	95.9
1022	1	2.666	30.76	39.8	1045	0	2.968	30.85	95.5
1024	2	2.539	33.12	43.0	1046	1	3.026	29.52	93.4
1026	2	2.562	34.45	46.0	1047	2	3.049	28.62	93.4
1028	2	2.539	36.52	49.9	1048	1	3.072	27.80	92.7
1037	3	2.423	46.92	62.1	1049	2	3.141	26.39	93.7
1038	2	2.527	48.48	61.7	1050	2	3.153	25.14	93.8
1040	3	2.168	50.67	63.8	1087	1	2.300	26.63	134.4
1042	3	2.759	34.90	95.5					

## SHOT 32 SHOT POINT 10

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
---	--	-----	-----	-----	---	--	-----	-----	-----
1001	2	2.770	41.48	171.6	1045	2	2.794	30.41	146.3
1002	2	2.770	41.60	170.5	1046	4	2.933	28.75	147.1
1003	2	2.747	41.71	169.6	1078	2	2.040	38.24	89.3
1004	2	2.747	41.93	168.1	1079	2	2.063	41.86	93.1
1005	2	2.747	42.21	167.2	1080	3	2.110	45.99	96.6
1006	2	2.770	42.26	166.0	1083	2	2.875	41.44	181.9
1007	2	2.770	41.38	164.6	1084	2	2.817	41.22	179.3
1008	2	2.910	42.42	161.7	1085	3	3.014	40.83	177.2
1009	2	3.037	42.87	159.9	1086	0	2.968	41.28	174.9
1010	0	3.118	43.45	157.9	1087	2	2.828	41.33	172.8
1011	3	3.118	44.29	155.6	1088	0	3.083	37.35	171.9
1014	3	2.747	44.34	168.6	1090	1	3.072	38.73	173.4
1015	3	2.759	43.42	168.7	1091	0	3.049	39.45	173.5
1016	3	2.747	42.75	168.8	1096	0	2.968	40.26	173.6
1017	2	2.875	41.05	168.4	1097	1	2.910	41.91	174.1
1019	1	2.933	39.51	167.7	1098	2	2.782	43.54	175.1
1020	3	3.060	38.17	167.5	1099	2	2.608	45.07	175.3
1042	4	2.886	33.12	140.9	1100	2	2.539	46.64	175.4
1044	2	2.794	31.27	145.1					

Table 5, continued

## SHOT 33 SHOT POINT 14

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
---	--	-----	-----	-----	---	--	-----	-----	-----
1109	1	2.295	33.29	21.3	1138	2	1.843	31.67	41.6
1110	2	2.168	35.78	14.2	1139	2	1.878	32.38	40.7
1110	1	2.179	35.78	14.2	1140	1	1.843	32.70	39.3
1111	3	2.098	37.20	13.3	1188	1	2.249	29.57	33.7
1113	2	2.260	34.51	16.0	1189	1	2.283	28.83	34.5
1114	1	2.283	33.82	15.4	1190	2	2.318	27.94	34.4
1115	1	2.318	33.17	14.5	1193	3	2.318	25.90	32.4
1116	1	2.411	32.34	14.7	1196	2	2.504	23.86	30.8
1117	2	2.446	31.73	15.0					

## SHOT 34 SHOT POINT 10

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
---	--	-----	-----	-----	---	--	-----	-----	-----
80	4	2.817	39.09	352.6	1142	2	2.446	59.79	293.9
80	3	1.785	39.09	352.6	1143	2	2.423	58.25	294.1
1101	3	1.808	28.79	12.5	1144	4	2.492	54.42	294.0
1102	3	1.854	30.29	9.1	1150	3	2.075	41.58	298.3
1113	4	2.736	44.92	344.1	1151	3	2.144	40.51	299.6
1114	4	2.782	44.53	343.2	1152	3	2.156	37.71	306.0
1115	4	2.840	44.25	342.2	1155	2	2.133	24.41	12.1
1116	4	2.898	43.51	341.7	1169	4	3.257	37.14	339.0
1117	4	2.875	42.88	341.5	1170	4	3.257	37.73	339.2
1119	4	2.921	41.35	341.1	1171	4	3.199	38.14	339.7
1120	4	2.968	40.71	341.2	1174	4	3.014	39.26	340.4
1121	3	1.739	31.63	19.0	1182	4	2.689	40.69	351.8
1122	3	1.773	30.95	18.4	1184	4	2.968	38.33	351.8
1124	3	1.773	28.17	14.7	1185	4	2.944	37.35	351.9
1126	0	2.411	25.91	13.9	1190	4	3.118	33.64	349.6
1127	2	2.226	24.92	13.7					

Table 5, continued

## SHOT 35 SHOT POINT 2

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
80	1	1.692	61.74	324.4	1149	3	1.286	77.78	294.7
1101	0	2.098	46.62	328.0	1150	3	1.518	74.42	294.8
1103	0	1.936	51.02	326.5	1151	3	1.646	73.29	295.4
1104	1	1.878	53.51	324.8	1155	0	2.307	43.74	323.8
1105	1	1.843	56.53	323.8	1156	1	2.330	43.40	322.3
1107	1	1.785	62.81	323.6	1157	1	2.318	43.33	320.6
1108	1	1.831	65.02	323.1	1158	0	2.423	41.88	320.5
1109	1	1.866	66.38	322.2	1159	2	2.388	42.17	319.1
1110	2	1.947	71.33	321.9	1163	3	2.341	61.92	314.3
1111	2	1.947	72.64	322.5	1165	0	2.307	62.16	314.5
1112	3	1.808	73.56	323.5	1166	0	2.249	62.72	315.1
1113	2	1.982	69.67	321.6	1167	1	2.341	63.25	315.6
1120	2	2.179	66.61	318.6	1168	3	2.434	63.51	315.9
1123	3	2.028	45.92	331.2	1169	1	2.353	63.92	316.2
1124	0	2.098	45.41	328.4	1170	1	2.388	64.39	316.5
1125	1	2.179	43.55	327.5	1171	2	2.388	64.65	316.9
1126	2	2.202	44.16	325.9	1173	1	2.283	65.12	317.4
1127	1	2.260	43.57	324.9	1174	1	2.214	65.50	317.7
1134	2	2.237	53.01	321.0	1182	1	1.727	63.43	324.6
1135	2	2.168	53.49	321.9	1184	1	1.715	61.33	323.6
1137	2	1.936	54.40	323.1	1185	1	1.762	60.46	323.2
1138	1	1.878	55.18	324.9	1186	1	1.843	59.95	322.8
1139	1	1.820	55.83	325.5	1187	1	1.947	59.18	322.2
1140	1	1.773	56.69	325.6	1189	1	2.144	58.08	321.1
1141	1	1.634	94.05	292.1	1190	1	2.283	57.89	320.3
1142	2	1.588	92.63	292.6	1191	1	2.365	57.38	319.4
1145	3	1.368	85.63	292.5	1192	1	2.411	58.17	318.8
1146	3	1.298	83.44	293.4	1193	1	2.446	58.23	318.1
1147	3	1.368	82.00	293.7	1195	1	2.515	58.44	316.5
1148	3	1.286	78.82	294.4					

## SHOT 36 SHOT POINT 2

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
1222	1	2.481	54.81	283.1	1225	2	2.376	55.86	281.9
1223	0	2.341	56.89	282.6	1226	2	2.376	55.85	280.2
1224	1	2.341	58.50	282.4					

Table 5, continued

## SHOT 38 SHOT POINT 10

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
---	--	-----	-----	-----	---	--	-----	-----	-----
1221	2	2.898	21.04	274.7	1226	2	2.747	24.01	266.4
1225	2	2.724	23.66	270.2					

## SHOT 41 SHOT POINT 1

Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)	Loc	Wt	Tr (sec)	Dist (km)	Azim (deg)
---	--	-----	-----	-----	---	--	-----	-----	-----
515	2	3.188	27.55	80.7	553	3	2.968	36.89	84.2
516	3	3.141	28.39	79.3	554	2	2.910	36.14	84.0
517	3	3.095	29.10	80.5	557	1	3.002	32.95	83.5
521	3	2.747	37.79	79.6	558	1	3.014	32.13	83.3
550	3	2.991	35.52	81.2	559	2	3.002	30.96	83.5
551	3	3.002	36.31	81.5					

TABLE 6  
SEGY TAPE SEQUENCE NUMBERS

Shot Number	Number of traces	Tape Record Numbers	Shot Number	Number of traces	Tape Record Numbers
1	70	3- 72	23	88	1782-1869
2	79	73- 151	24	86	1870-1955
3	77	152- 228	25	90	1956-2045
4	73	229- 301	26	67	2046-2112
5	82	302- 383	27	88	2113-2200
6	87	384- 470	28	91	2201-2291
7	87	471- 557	29	88	2292-2379
8	80	558- 637	30	87	2380-2466
9	75	638- 712	31	80	2467-2546
10	74	713- 786	32	82	2547-2628
11	77	787- 863	33	90	2629-2718
12	81	864- 944	34	93	2719-2811
13	81	945-1025	35	92	2812-2903
14	82	1026-1107	36	92	2904-2995
15	86	1108-1193	37	90	2996-3085
16	88	1194-1281	38	87	3086-3172
17	86	1282-1367	39	11	3173-3183
18	87	1368-1454	EQ	83	3184-3266
19	89	1455-1543	40	75	3267-3341
20	85	1544-1628	41	72	3342-3413
21	85	1629-1713	42	70	3414-3483
22	68	1714-1781			

TABLE 7  
SEGY TAPE REEL IDENTIFICATION HEADER.  
PART 1, THE EBCDIC CARD IMAGE BLOCK

C 1	REEL IDENTIFICATION HEADER BYTES:	
C 2	3217 -3218	SAMPLING INTERVAL (MICROSECS).
C 3	3221 -3222	NUMBER OF SAMPLES PER TRACE.
C 4	3225 -3226	DATA SAMPLE FORMAT CODE.
C 5	3255 -3256	MEASUREMENT SYSTEM (1 = METERS; 2 = FEET)
C 6		
C 7		
C 8	TRACE IDENTIFICATION HEADER BYTES :	
C 9	1 - 4	TRACE SEQUENCE NUMBER WITHIN REEL.
C10	5 - 8	TRACE SEQUENCE NUMBER WITHIN REEL.
C11	9 - 12	STATION LOCATION NUMBER.
C12	29 - 30	TRACE ID CODE (1 = SEISMIC DATA).
C13	37 - 40	SHOTPOINT-RECEIVER DISTANCE (M).
C14	41 - 44	STATION ELEVATION (M).
C15	45 - 48	SHOTPOINT ELEVATION (M).
C16	49 - 52	SOURCE DEPTH (M).
C17	69 - 70	SCALAR TO BE APPLIED TO ALL ELEVATIONS.
C18	71 - 72	SCALAR TO BE APPLIED TO ALL COORDINATES.
C19	73 - 76	SHOTPOINT COORDINATE - X.
C20	77 - 80	SHOTPOINT COORDINATE - Y.
C21	81 - 84	RECEIVER COORDINATE - X.
C22	85 - 88	RECEIVER COORDINATE - Y.
C23	89 - 90	COORDINATE UNITS (1 = METERS; 2 = SECONDS OF ARC).
C24	115 - 116	NUMBER OF SAMPLES IN THIS TRACE.
C25	117 - 118	SAMPLE INTERVAL IN MICROSECONDS FOR THIS TRACE.
C26	121 - 122	INSTRUMENT ATTENUATION IN DB.
C27	157 - 158	SHOT TIME - YEAR.
C28	159 - 160	SHOT TIME - DAY OF YEAR.
C29	161 - 162	SHOT TIME - HOUR OF DAY (24 HOUR CLOCK).
C30	163 - 164	SHOT TIME - MINUTE OF HOUR.
C31	165 - 166	SHOT TIME - SECOND OF MINUTE.
C32	167 - 168	TIME BASIS CODE (2 = GMT).
C33	181 - 182	SHOT TIME - MILLISECONDS.
C34	183 - 184	SHOTPOINT LOCATION NUMBER.
C35	185 - 186	RECORDING INSTRUMENT UNIT NUMBER.
C36	191 - 192	DISTANCE WEIGHTING EXPONENT (HUNDREDTHS).
C37	193 - 194	SHOT SEQUENCE NUMBER (SHOT NUMBER).
C38	195 - 196	SHOT SIZE (KG).
C39	197 - 200	SHOTPOINT - STATION AZIMUTH (SEC OF ARC).
C40	201 - 204	TIME OF FIRST POINT MINUS SHOT TIME (MSEC)

TABLE 8  
SEGY TAPE REEL IDENTIFICATION HEADER.  
PART 2, THE BINARY CODED BLOCK

Byte Numbers	Value	Description
3217 -3218	5000	Sampling interval is 5 milliseconds.
3221 -3222	2001	Maximum number of samples per data trace is 2001.
3225 -3226	1	Data sample format code is floating point (4 bytes).
3255 -3256	1	Measurement system is meters.

TABLE 9  
SEGY TAPE TRACE IDENTIFICATION HEADER WRITTEN IN BINARY CODE

Byte Numbers	Value	Description
1 - 4	-1-N	Trace sequence number range from 1 to the number of traces on the tape.
5 - 8	1-N	Same as bytes 1 - 4.
9 - 12	varies	Station location number.
29 - 30	1	Trace is seismic data.
37 - 40	varies	Shotpoint-to-recorder distance.
41 - 44	varies	Surface elevation at recorder.
45 - 48	varies	Surface elevation at shotpoint.
49 - 52	varies	Source depth below surface.
69 - 70	1	Scalar to be applied to all elevations.
71 - 72	-100	Scalar to be applied to all coordinates.
73 - 76	varies	Shotpoint coordinate - X in seconds of arc.
77 - 80	varies	Shotpoint coordinate - Y in seconds of arc.
81 - 84	varies	Recorder coordinate - X in seconds of arc.
85 - 88	varies	Recorder coordinate - Y in seconds of arc.
89 - 90	2	Coordinate units are seconds of arc.
115 - 116	2001	Traces length is 2001 samples.
117 - 118	5000	Sample interval is 5000 microseconds.
121 - 122	varies	Recorder attenuation.
157 - 158	varies	Shot detonation time - Year.
159 - 160	varies	Shot detonation time - Day of year.
161 - 162	varies	Shot detonation time - Hour of day (24 hour clock).
163 - 164	varies	Shot detonation time - Minute of hour.
165 - 166	varies	Shot detonation time - Second of minute.
167 - 168	2	Time basis code is GMT.
181 - 182	varies	Shot detonation time - Milliseconds.
183 - 184	varies	Shotpoint location number.
185 - 186	varies	Recorder unit number.
193 - 194	varies	Shot sequence number (shot number).
195 - 196	varies	Weight of explosives detonated (kg).
197 - 200	varies	Shotpoint-to-station azimuth (seconds of arc).
201 - 204	varies	Digital trace delay time (milliseconds).