

Survey type: ZOVSP  
Company: Jamstec  
Well: C0009A  
Field: Kumanonada, Offshore Kii  
peninsula  
Country: JAPAN  
Run: 5  
Date: 24-Jul-2009

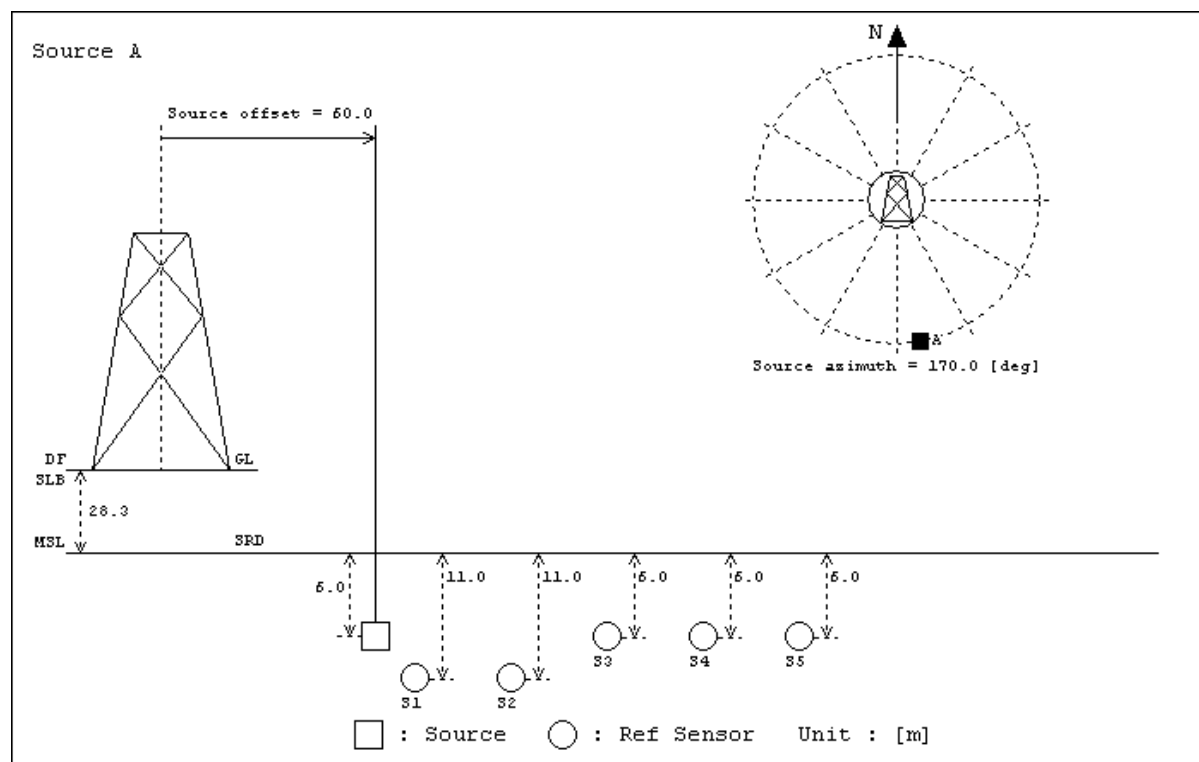
Recorded by: P.Thongpracharn / A. Mitchell

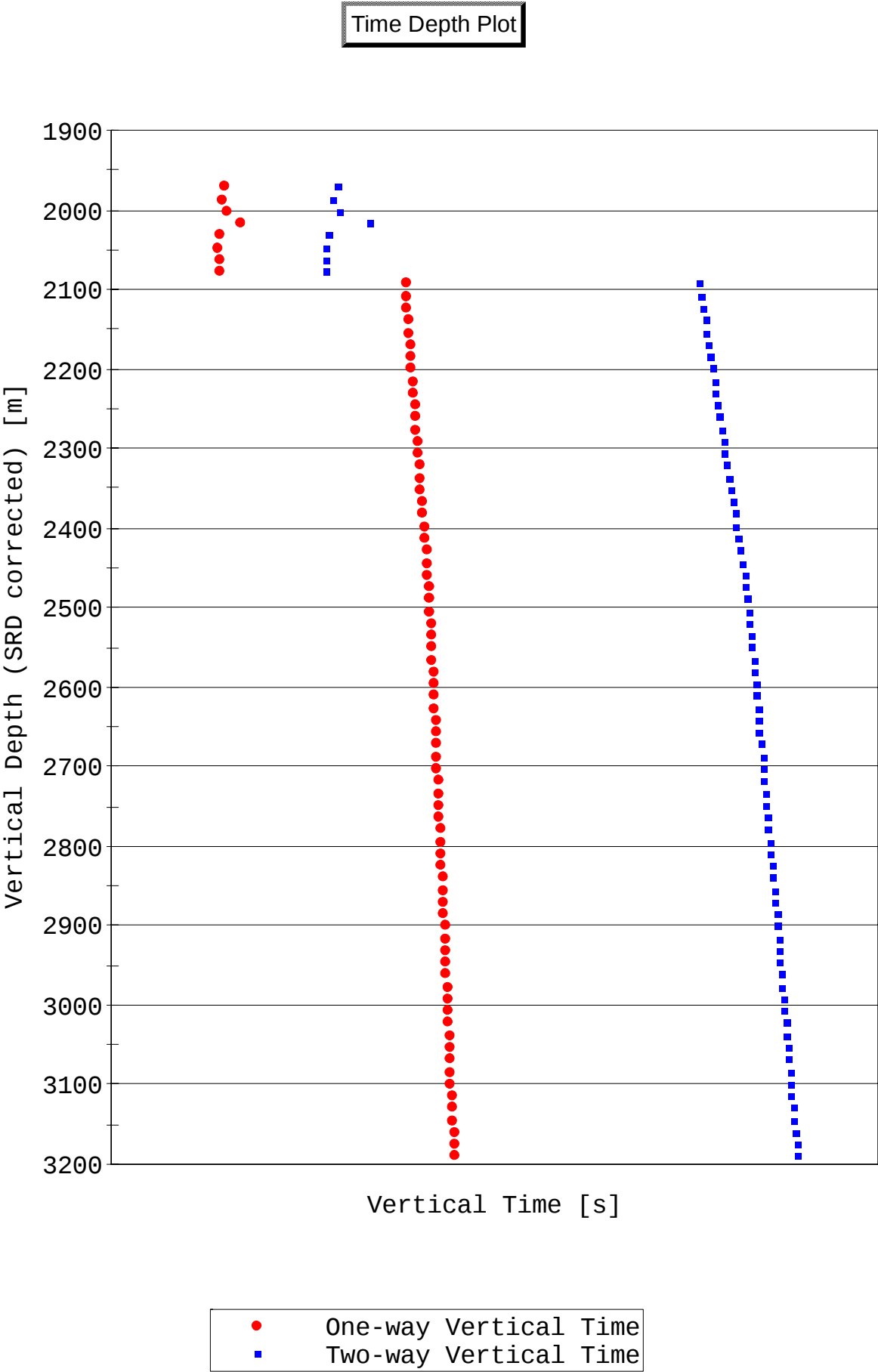
Witnessed by: Y. Sanada / S. Uraki

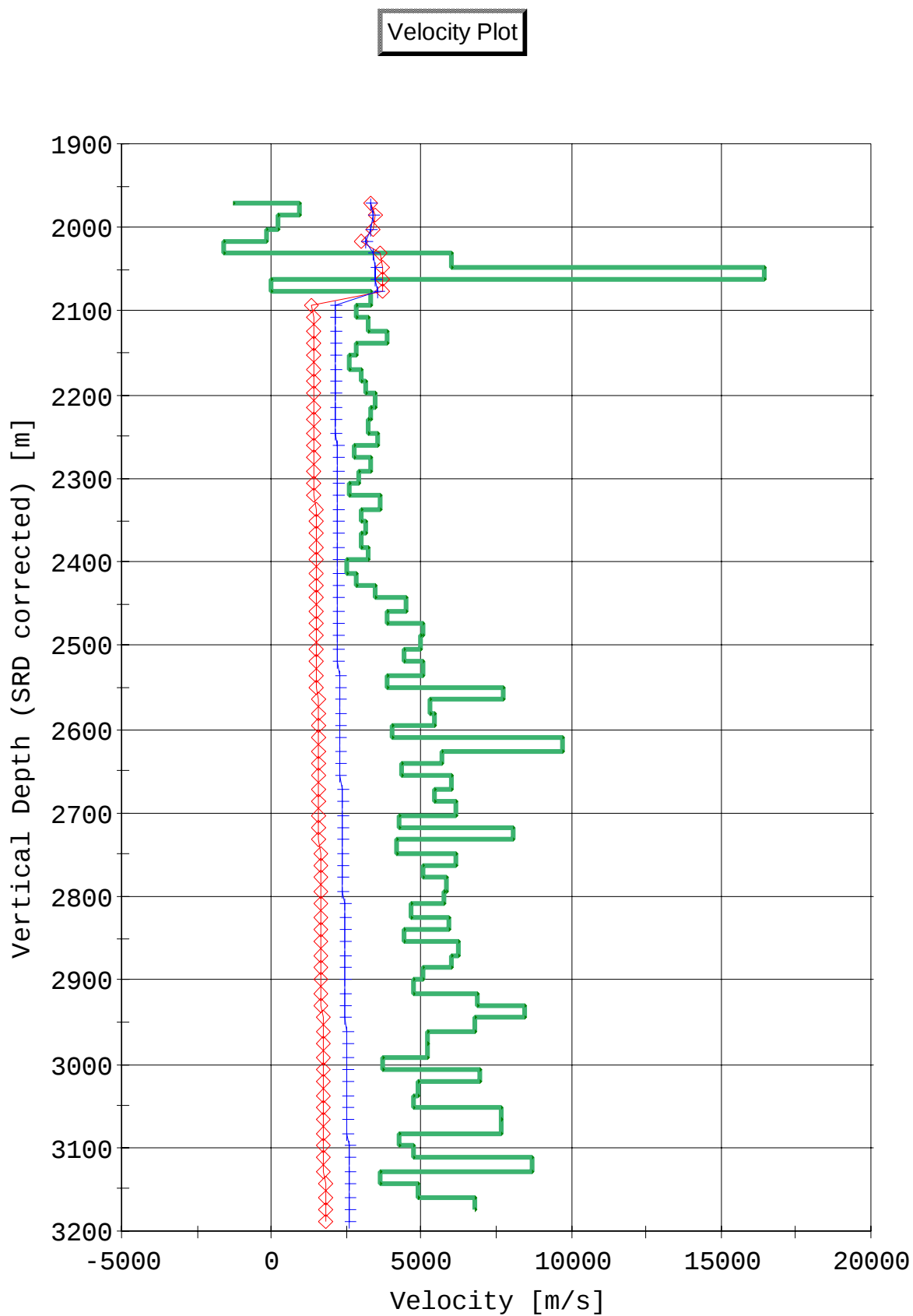
**General Information**

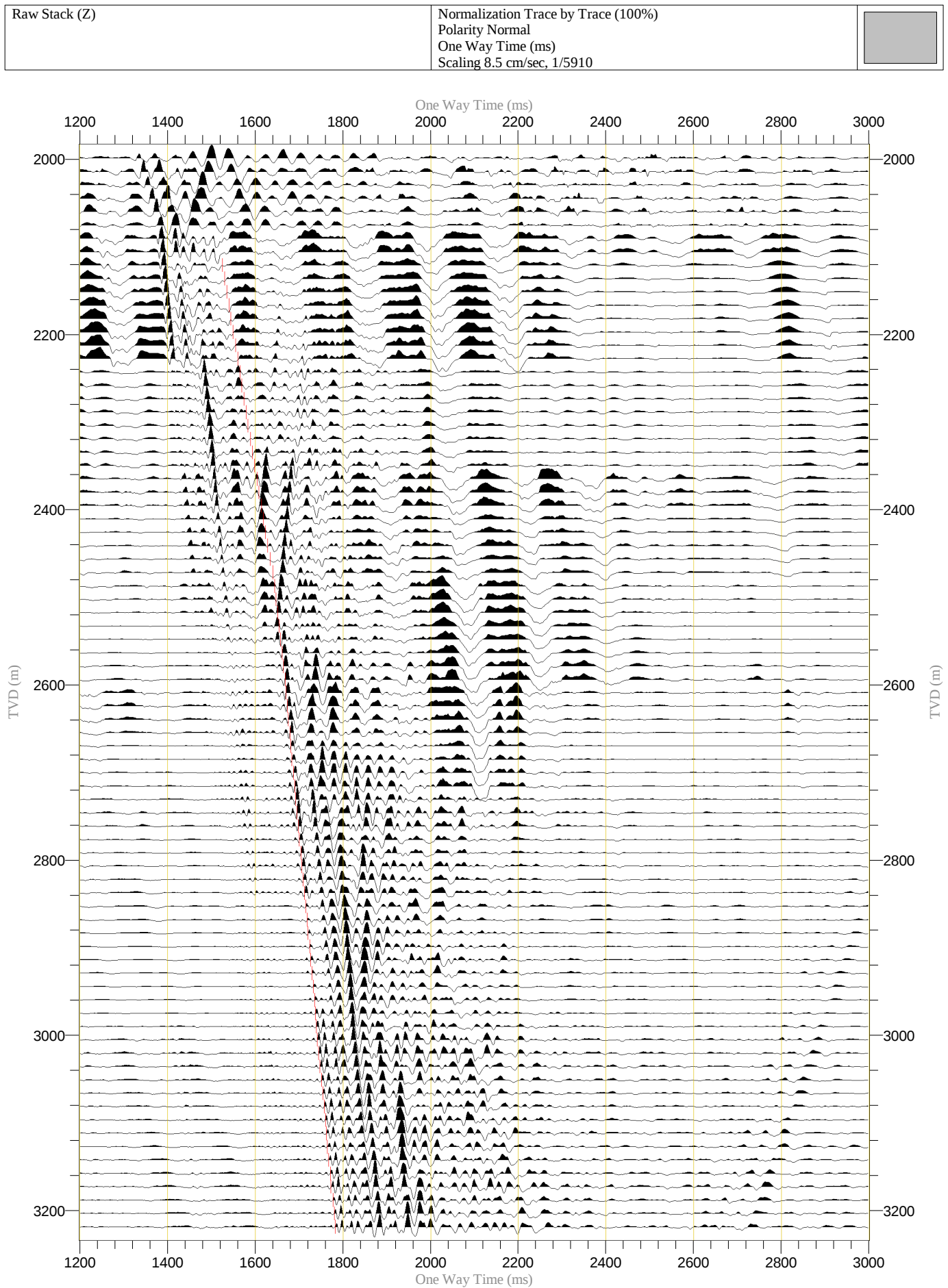
|                                                      |            |
|------------------------------------------------------|------------|
| <b>Survey Type</b>                                   | Offset VSP |
| <b>Surface Recording Length</b>                      | 1000.0 ms  |
| <b>Surface Sampling Rate</b>                         | 1.0 ms     |
| <b>Downhole Recording Length</b>                     | 20000.0 ms |
| <b>Downhole Sampling Rate</b>                        | 2.0 ms     |
| <b>Top of Survey</b>                                 | 1998.8 m   |
| <b>Bottom of Survey</b>                              | 3217.8 m   |
| <b>Number of Shots</b>                               | 94         |
| <b>Number of Downhole Traces</b>                     | 1504       |
| <b>Number of Downhole Traces used for Processing</b> | 720        |

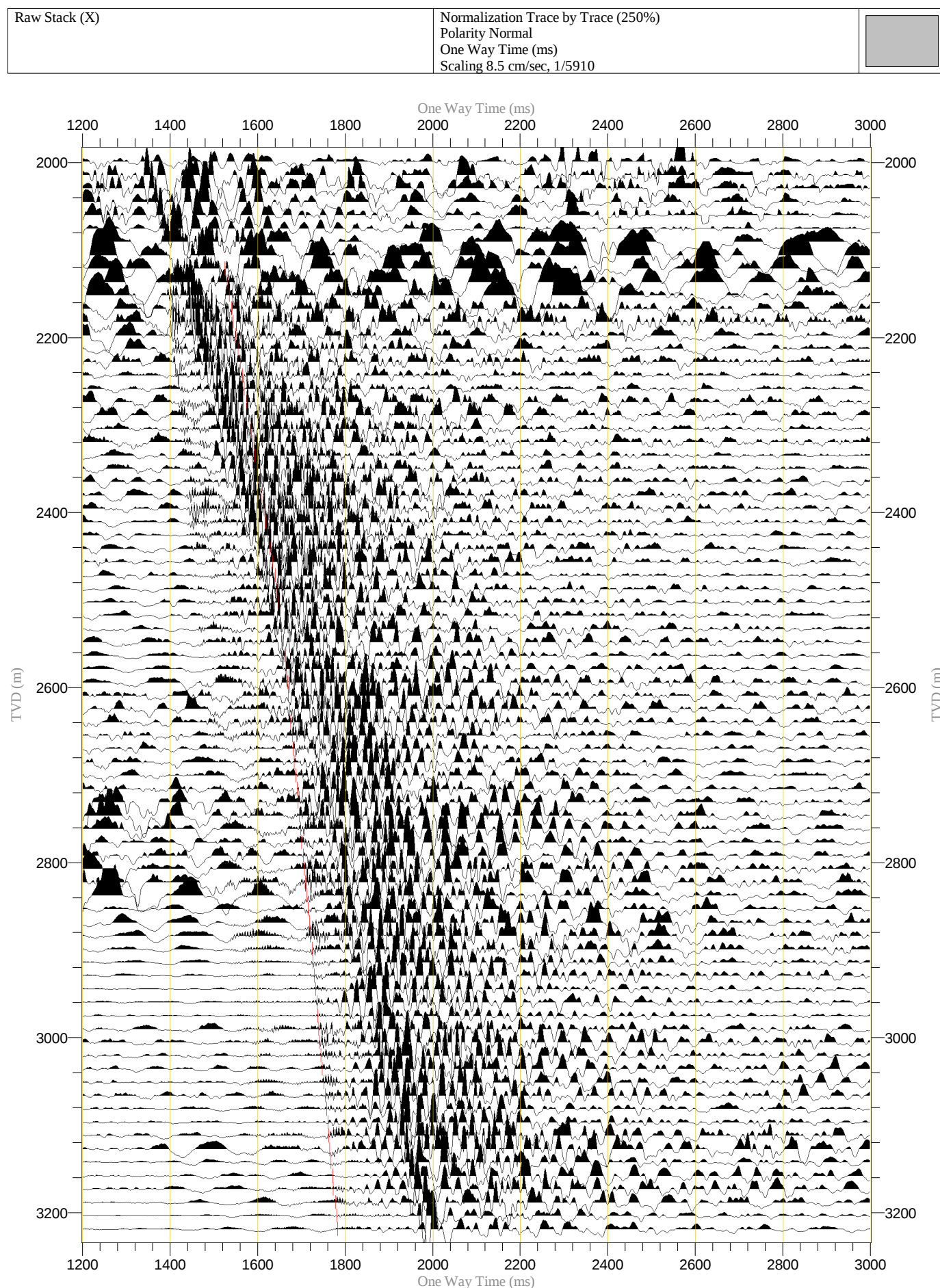
## Source Geometry Sketch

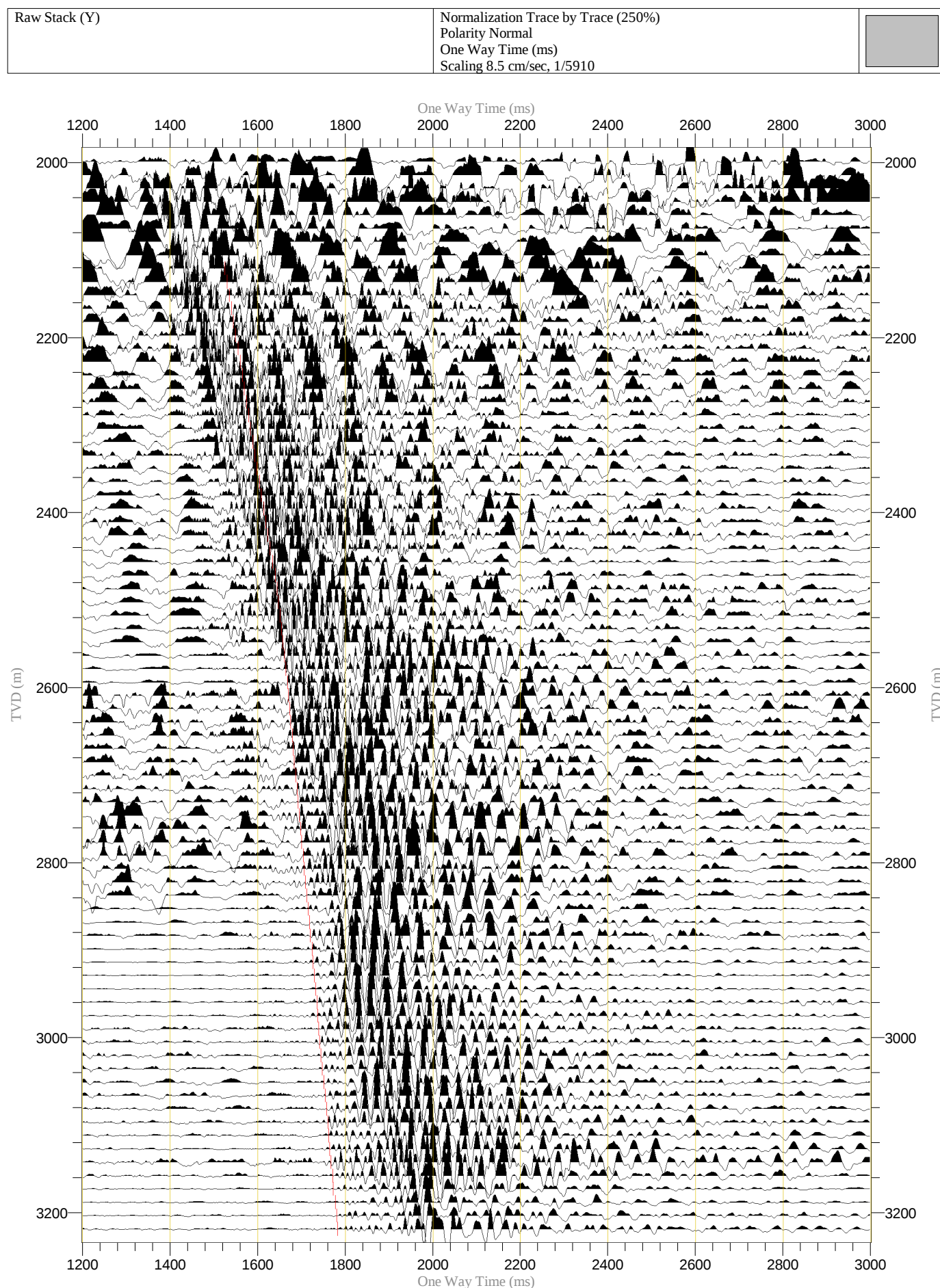












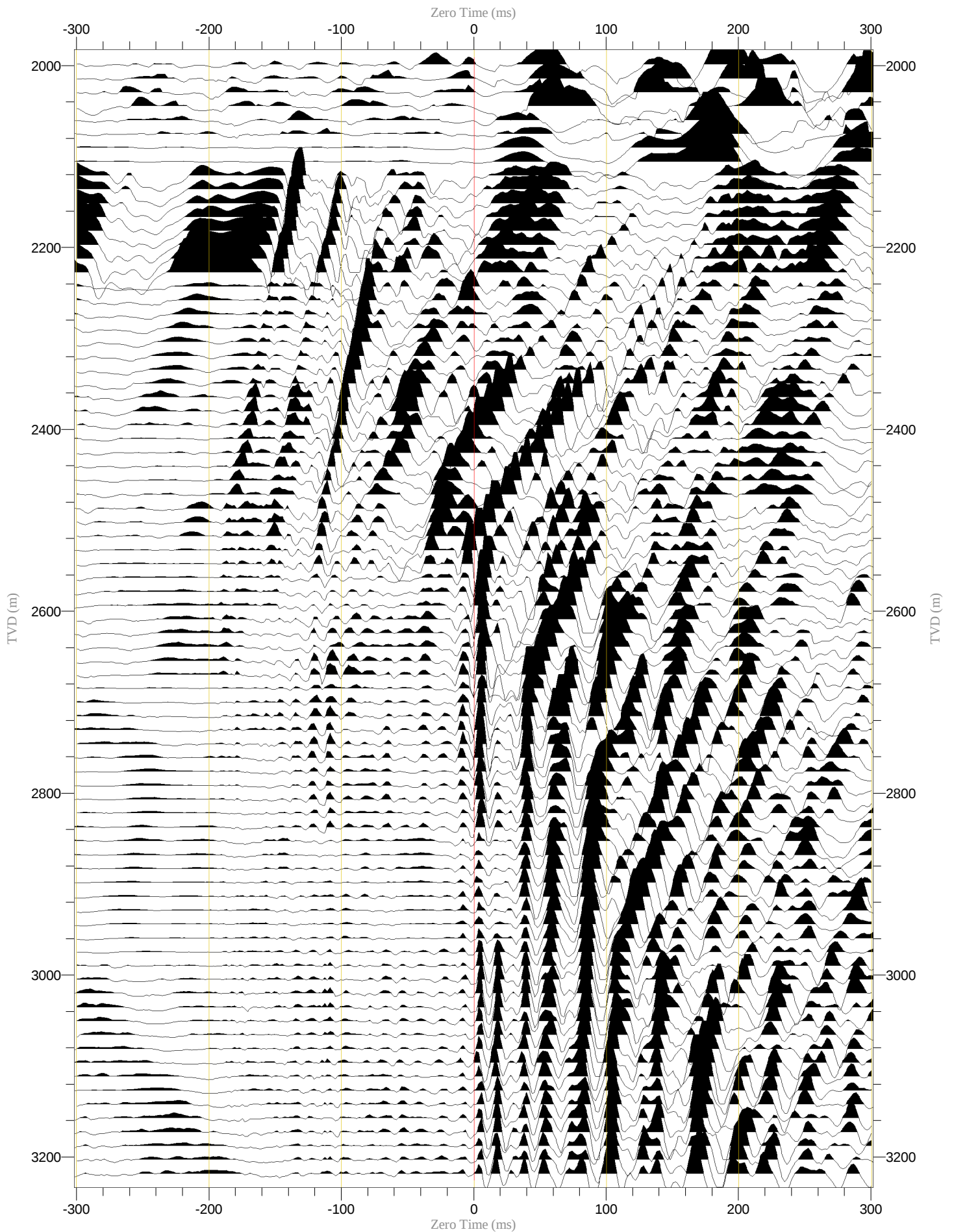
Raw Stack (Z) (Magnified)

Normalization Trace by Trace (250%)

Polarity Normal

Zero Time (ms)

Scaling 27.0 cm/sec, 1/5400



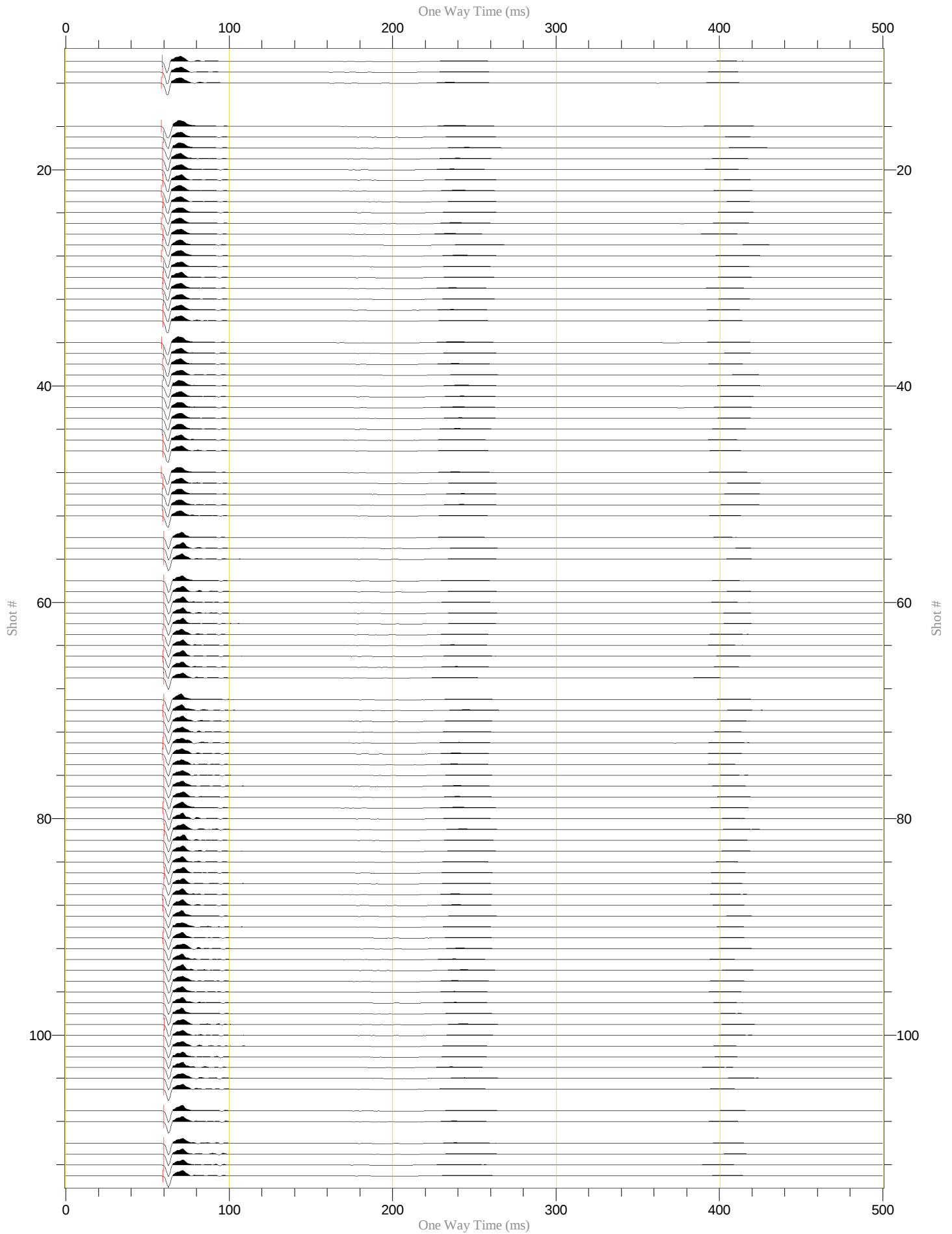
Source Sensor Signature

Normalization Trace by Trace (100%)

Polarity Normal

One Way Time (ms)

Scaling 33.24 cm/sec, 4.55/cm



**Observer's Note (1/2)**

| Well depth<br>[m] | Time     | Shot Type | Shot# | Stack# | Source | Remarks |
|-------------------|----------|-----------|-------|--------|--------|---------|
| 3217.8            | 06:54:10 | NOTO      | 1     |        | A      |         |
| 3217.8            | 06:54:33 | NOTO      | 2     |        | A      |         |
| 3217.8            | 06:54:56 | NOTO      | 3     |        | A      |         |
| 3217.8            | 06:55:19 | NOTO      | 4     |        | A      |         |
| 3217.8            | 06:55:42 | NOTO      | 5     |        | A      |         |
| 3217.8            | 06:56:06 | NOTO      | 6     |        | A      |         |
| 3217.8            | 06:56:29 | NOTO      | 7     |        | A      |         |
| 3217.8            | 06:56:52 | NOTO      | 8     |        | A      |         |
| 3217.8            | 06:57:20 | NOTO      | 9     |        | A      |         |
| 3217.8            | 06:57:54 | SHOT      | 10    | 1      | A      |         |
| 3217.8            | 06:58:17 | SHOT      | 11    | 1      | A      |         |
| 3217.8            | 06:58:42 | SHOT      | 12    | 1      | A      |         |
| 3217.8            | 07:02:12 | SHAK      | 13    |        |        |         |
| 3217.8            | 07:03:17 | BKGD      | 14    |        |        |         |
| 3217.8            | 07:04:23 | BKGD      | 15    |        |        |         |
| 3217.8            | 07:11:52 | SHOT      | 16    | 2      | A      |         |
| 3217.8            | 07:12:33 | SHOT      | 17    | 2      | A      |         |
| 3217.8            | 07:16:15 | SHOT      | 18    | 3      | A      |         |
| 3217.8            | 07:16:38 | SHOT      | 19    | 3      | A      |         |
| 3217.8            | 07:17:01 | SHOT      | 20    | 3      | A      |         |
| 3217.8            | 07:17:24 | SHOT      | 21    | 3      | A      |         |
| 3217.8            | 07:17:47 | SHOT      | 22    | 3      | A      |         |
| 3217.8            | 07:18:11 | SHOT      | 23    | 3      | A      |         |
| 3217.8            | 07:18:34 | SHOT      | 24    | 3      | A      |         |
| 3217.8            | 07:18:57 | SHOT      | 25    | 3      | A      |         |
| 3217.8            | 07:19:20 | SHOT      | 26    | 3      | A      |         |
| 3202.9            | 07:31:53 | SHOT      | 27    | 4      | A      |         |
| 3202.9            | 07:32:16 | SHOT      | 28    | 4      | A      |         |
| 3202.9            | 07:32:39 | SHOT      | 29    | 4      | A      |         |
| 3202.9            | 07:33:03 | SHOT      | 30    | 4      | A      |         |
| 3202.9            | 07:33:26 | SHOT      | 31    | 4      | A      |         |
| 3202.9            | 07:33:49 | SHOT      | 32    | 4      | A      |         |
| 3202.9            | 07:34:12 | SHOT      | 33    | 4      | A      |         |
| 3202.9            | 07:34:35 | SHOT      | 34    | 4      | A      |         |
| 3081.0            | 07:49:51 | SHOT      | 36    | 5      | A      |         |
| 3081.0            | 07:50:14 | SHOT      | 37    | 5      | A      |         |
| 3081.0            | 07:50:37 | SHOT      | 38    | 5      | A      |         |
| 3081.0            | 07:51:00 | SHOT      | 39    | 5      | A      |         |
| 3081.0            | 07:51:31 | SHOT      | 40    | 5      | A      |         |
| 3081.0            | 07:51:54 | SHOT      | 41    | 5      | A      |         |
| 3081.0            | 07:52:17 | SHOT      | 42    | 5      | A      |         |
| 3081.0            | 07:52:40 | SHOT      | 43    | 5      | A      |         |
| 3081.0            | 07:53:03 | SHOT      | 44    | 5      | A      |         |
| 3081.0            | 07:53:26 | SHOT      | 45    | 5      | A      |         |
| 3081.0            | 07:53:49 | SHOT      | 46    | 5      | A      |         |
| 2958.9            | 08:07:19 | SHOT      | 48    | 6      | A      |         |
| 2958.9            | 08:07:42 | SHOT      | 49    | 6      | A      |         |
| 2958.9            | 08:08:05 | SHOT      | 50    | 6      | A      |         |
| 2958.9            | 08:08:28 | SHOT      | 51    | 6      | A      |         |
| 2958.9            | 08:08:51 | SHOT      | 52    | 6      | A      |         |
| 2958.9            | 08:09:45 | SHOT      | 54    | 6      | A      |         |
| 2958.9            | 08:10:09 | SHOT      | 55    | 6      | A      |         |
| 2958.9            | 08:10:32 | SHOT      | 56    | 6      | A      |         |
| 2837.0            | 08:24:25 | SHAK      | 57    |        |        |         |
| 2837.0            | 08:25:03 | SHOT      | 58    | 7      | A      |         |
| 2837.0            | 08:25:26 | SHOT      | 59    | 7      | A      |         |
| 2837.0            | 08:25:50 | SHOT      | 60    | 7      | A      |         |
| 2837.0            | 08:26:13 | SHOT      | 61    | 7      | A      |         |
| 2837.0            | 08:26:36 | SHOT      | 62    | 7      | A      |         |

**Observer's Note (2/2)**

| Well depth<br>[m] | Time     | Shot Type | Shot# | Stack# | Source | Remarks |
|-------------------|----------|-----------|-------|--------|--------|---------|
| 2837.0            | 08:26:59 | SHOT      | 63    | 7      | A      |         |

|        |          |      |     |    |   |  |
|--------|----------|------|-----|----|---|--|
| 2837.0 | 08:27:22 | SHOT | 64  | 7  | A |  |
| 2837.0 | 08:27:45 | SHOT | 65  | 7  | A |  |
| 2837.0 | 08:28:08 | SHOT | 66  | 7  | A |  |
| 2837.0 | 08:28:31 | SHOT | 67  | 7  | A |  |
| 2715.4 | 08:56:05 | SHOT | 69  | 8  | A |  |
| 2715.4 | 08:56:28 | SHOT | 70  | 8  | A |  |
| 2715.4 | 08:56:51 | SHOT | 71  | 8  | A |  |
| 2715.4 | 08:57:14 | SHOT | 72  | 8  | A |  |
| 2715.4 | 08:57:37 | SHOT | 73  | 8  | A |  |
| 2715.4 | 08:58:00 | SHOT | 74  | 8  | A |  |
| 2715.4 | 08:58:23 | SHOT | 75  | 8  | A |  |
| 2715.4 | 08:58:46 | SHOT | 76  | 8  | A |  |
| 2715.4 | 08:59:09 | SHOT | 77  | 8  | A |  |
| 2715.4 | 08:59:32 | SHOT | 78  | 8  | A |  |
| 2593.2 | 09:16:58 | SHOT | 79  | 9  | A |  |
| 2593.2 | 09:17:21 | SHOT | 80  | 9  | A |  |
| 2593.2 | 09:17:44 | SHOT | 81  | 9  | A |  |
| 2593.2 | 09:18:07 | SHOT | 82  | 9  | A |  |
| 2593.2 | 09:18:30 | SHOT | 83  | 9  | A |  |
| 2593.2 | 09:18:53 | SHOT | 84  | 9  | A |  |
| 2593.2 | 09:19:16 | SHOT | 85  | 9  | A |  |
| 2593.2 | 09:19:39 | SHOT | 86  | 9  | A |  |
| 2593.2 | 09:20:02 | SHOT | 87  | 9  | A |  |
| 2593.2 | 09:20:25 | SHOT | 88  | 9  | A |  |
| 2471.4 | 09:33:48 | SHOT | 89  | 10 | A |  |
| 2471.4 | 09:34:11 | SHOT | 90  | 10 | A |  |
| 2471.4 | 09:34:34 | SHOT | 91  | 10 | A |  |
| 2471.4 | 09:34:57 | SHOT | 92  | 10 | A |  |
| 2471.4 | 09:35:20 | SHOT | 93  | 10 | A |  |
| 2471.4 | 09:35:43 | SHOT | 94  | 10 | A |  |
| 2471.4 | 09:36:06 | SHOT | 95  | 10 | A |  |
| 2471.4 | 09:36:29 | SHOT | 96  | 10 | A |  |
| 2471.4 | 09:36:52 | SHOT | 97  | 10 | A |  |
| 2349.4 | 09:51:11 | SHOT | 98  | 11 | A |  |
| 2349.4 | 09:51:34 | SHOT | 99  | 11 | A |  |
| 2349.4 | 09:51:57 | SHOT | 100 | 11 | A |  |
| 2349.4 | 09:52:20 | SHOT | 101 | 11 | A |  |
| 2349.4 | 09:52:43 | SHOT | 102 | 11 | A |  |
| 2349.4 | 09:53:06 | SHOT | 103 | 11 | A |  |
| 2349.4 | 09:53:29 | SHOT | 104 | 11 | A |  |
| 2349.4 | 09:53:52 | SHOT | 105 | 11 | A |  |
| 2227.4 | 10:08:31 | SHOT | 107 | 12 | A |  |
| 2227.4 | 10:08:54 | SHOT | 108 | 12 | A |  |
| 2227.4 | 10:09:40 | SHOT | 110 | 12 | A |  |
| 2227.4 | 10:10:04 | SHOT | 111 | 12 | A |  |
| 2227.4 | 10:10:27 | SHOT | 112 | 12 | A |  |
| 2227.4 | 10:10:50 | SHOT | 113 | 12 | A |  |