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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Audio-magnetotelluric data log, and station
location map for Thermo Known Geothermal
Resource Area, Utah

By

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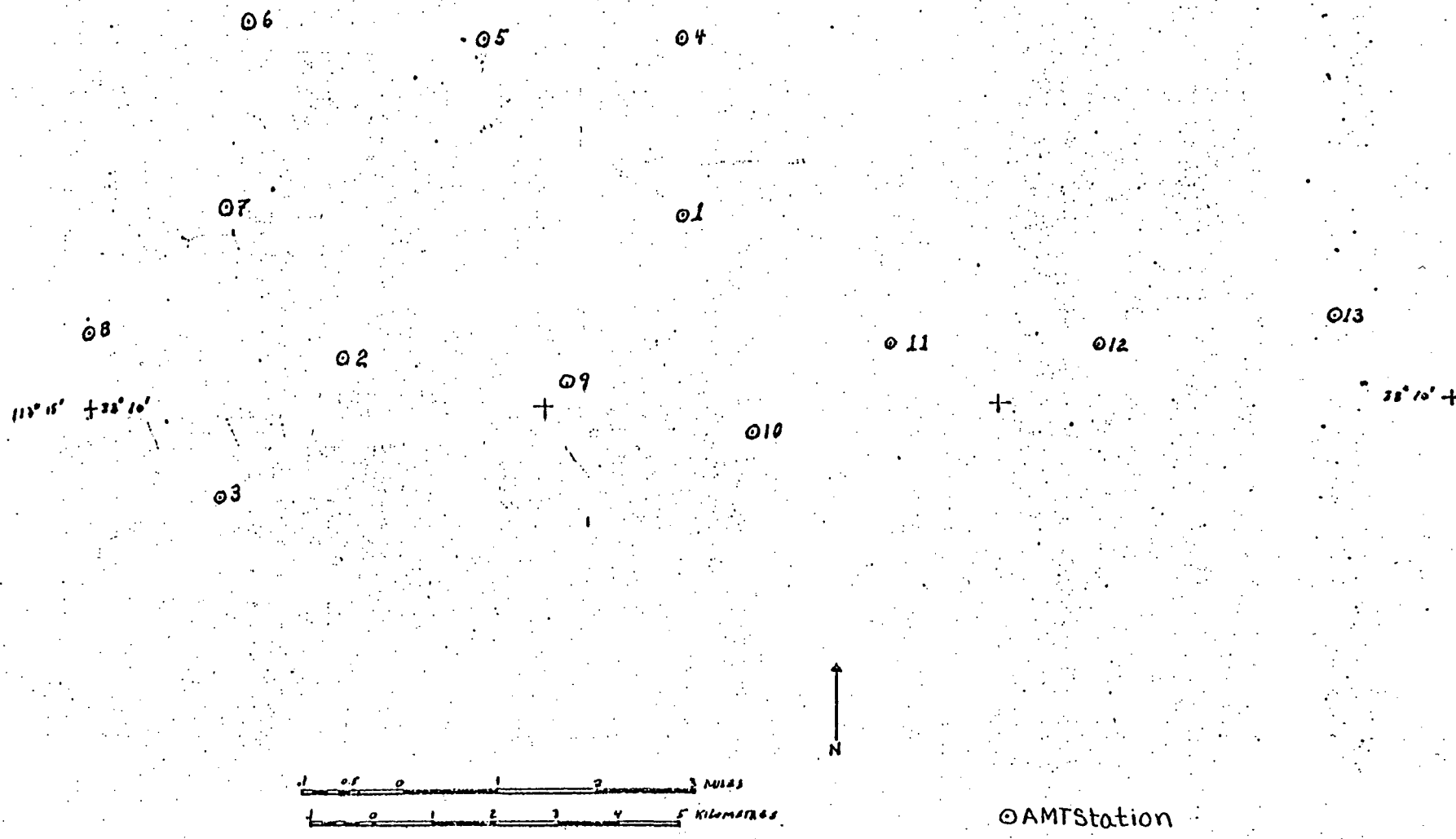
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This report is preliminary and has not been
edited or reviewed for conformity with U.S.
Geological Survey standards and nomenclature.

UNIVERSITY OF UTAH
RESEARCH INSTITUTE
EARTH SCIENCE LAB.

113° 15' +
38° 15' +

113° 15' +
38° 15' +



THERMO, UTAH

AUDIO - MAGNETOTELLURIC
STATION LOCATION MAP

FIGURE 1

U.S. GEOLOGICAL SURVEY A.M.T. DATA LOG

pa = observed apparent resistivity in ohm-metres

N = number of observations

Er = standard error in ohm metres

- = no data

"NOTE" - Telluric line orientation indicated with station numbers.

| Sta. No. | FREQUENCY | | | | | | | | | | | | |
|----------|-----------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| | | 7.5 | 10 | 14 | 27 | 76 | 285 | 685 | 1.2K | 3.3K | 6.7K | 10.2K | 18.6K |
| 1NS | pa | 17.4 | 16.8 | 13.8 | 12.1 | 5.1 | 2.3 | - | - | - | 8.7 | 11.0 | 19.7 |
| | N | 7 | 7 | 7 | 11 | 7 | 10 | - | - | - | 9 | 1 | 1 |
| | Er | 2.7 | 1.9 | 1.1 | 1.0 | 1.3 | 0.3 | - | - | - | 0.4 | - | - |
| 1EW | pa | 18.0 | 17.6 | 14.7 | 10.9 | 15.1 | 7.1 | - | - | - | 2.7 | 4.7 | 2.5 |
| | N | 10 | 7 | 10 | 10 | 10 | 10 | - | - | - | 10 | 1 | 1 |
| | Er | 1.2 | 1.7 | 0.6 | 0.3 | 0.3 | 0.3 | - | - | - | 0.1 | - | - |
| 2NS | pa | 2.0 | 2.6 | 2.3 | 3.1 | 8.3 | 25.2 | - | - | - | 25.6 | 13.6 | 24.6 |
| | N | 9 | 7 | 8 | 10 | 4 | 5 | - | - | - | 3 | 1 | 1 |
| | Er | 0.2 | 0.1 | 0.3 | 0.2 | 1.4 | 1.2 | - | - | - | 0.6 | - | - |
| 2EW | pa | 2.1 | 3.1 | 2.6 | 1.9 | 3.6 | 6.9 | - | - | - | 4.0 | 18.5 | 5.8 |
| | N | 4 | 6 | 8 | 10 | 9 | 10 | - | - | - | 10 | 1 | 1 |
| | Er | 0.3 | 1.1 | 0.2 | 0.2 | 0.2 | 0.4 | - | - | - | 0.1 | - | - |
| 3NS | pa | 4.1 | - | 5.6 | 7.3 | 10.9 | 12.5 | - | - | - | 14.5 | 22.3 | 34.7 |
| | N | 10 | 3 | 10 | 10 | 10 | 10 | - | - | - | 4 | 1 | 1 |
| | Er | 0.5 | 0.3 | 0.7 | 0.7 | 0.6 | 0.6 | - | - | - | 0.8 | - | - |
| 3EW | pa | 4.4 | 3.2 | 3.3 | 4.7 | 10.9 | 17.6 | 23.3 | - | - | 1.6 | 7.9 | 1.4 |
| | N | 7 | 8 | 10 | 11 | 10 | 10 | 6 | - | - | 11 | 1 | 1 |
| | Er | 0.5 | 0.6 | 0.2 | 0.3 | 0.4 | 0.5 | 1.1 | - | - | 0.1 | - | - |
| 4NS | pa | 7.9 | 5.3 | 10.7 | 14.1 | 11.6 | 5.6 | - | - | - | 8.4 | 4.9 | 14.0 |
| | N | 5 | 5 | 3 | 8 | 6 | 10 | - | - | - | 10 | 1 | 1 |
| | Er | 2.1 | 1.7 | 2.5 | 1.3 | 1.0 | 0.5 | - | - | - | 0.6 | - | - |
| 4EW | pa | 14.1 | 10.3 | 9.2 | 14.4 | 13.5 | 11.8 | - | - | - | 1.1 | 2.7 | 24.8 |
| | N | 11 | 10 | 7 | 11 | 9 | 10 | - | - | - | 11 | 1 | 1 |
| | Er | 1.7 | 1.1 | 0.9 | 1.1 | 0.4 | 0.9 | - | - | - | 0.04 | - | - |

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| Sta. No. | FREQUENCY | | | | | | | | | | | | |
|----------|-----------|------|-------|-------|------|-------|-------|------|------|------|------|-------|-------|
| | | 7.5 | 10 | 14 | 27 | 76 | 285 | 685 | 1.2K | 3.3K | 6.7K | 10.2K | 18.6K |
| 5NS | pa | - | - | 40.1 | 39.1 | 46.2 | - | - | - | - | 21.5 | 11.5 | 49.7 |
| | N | 3 | 7 | 8 | 10 | 8 | 10 | - | - | - | 10 | 1 | 1 |
| | Er | 0.5 | 0.3 | 3.0 | 4.4 | 8.1 | 0.1 | - | - | - | 1.2 | - | - |
| 5EW | pa | 92.5 | 100.2 | 102.7 | 92.7 | 77.8 | 56.3 | - | - | - | 10.9 | 12.4 | 118.7 |
| | N | 4 | 4 | 11 | 10 | 7 | 10 | - | - | - | 10 | 1 | 1 |
| | Er | 23.1 | 16.9 | 8.2 | 5.4 | 5.1 | 2.9 | - | - | - | 0.8 | - | - |
| 6NS | pa | 26.6 | 58.0 | - | 83.8 | 117.3 | 101.6 | - | - | - | 23.4 | 4.7 | 110.0 |
| | N | 3 | 2 | - | 10 | 7 | 6 | - | - | - | 7 | 1 | 1 |
| | Er | 8.9 | 14.6 | - | 9.6 | 6.0 | 6.0 | - | - | - | 1.1 | - | - |
| 6EW | pa | 71.0 | 96.2 | 84.5 | 57.1 | 52.8 | 75.1 | - | - | - | 7.8 | 17.7 | 28.6 |
| | N | 10 | 7 | 9 | 10 | 6 | 10 | - | - | - | 10 | 1 | 1 |
| | Er | 8.9 | 12.2 | 8.2 | 6.4 | 3.2 | 1.6 | - | - | - | 0.3 | - | - |
| 7NS | pa | 27.1 | 45.2 | 45.2 | 29.1 | 72.0 | 90.1 | - | - | - | 40.5 | 36.7 | 30.5 |
| | N | 9 | 5 | 9 | 8 | 7 | 9 | - | - | - | 10 | 1 | 1 |
| | Er | 5.8 | 7.1 | 5.5 | 5.1 | 14.6 | 12.8 | - | - | - | 2.4 | - | - |
| 7EW | pa | 42.8 | 38.0 | 42.8 | 23.2 | 75.8 | 79.6 | 88.3 | - | - | 11.7 | 8.2 | 4.5 |
| | N | 8 | 10 | 13 | 11 | 12 | 11 | 4 | - | - | 12 | 1 | 1 |
| | Er | 5.7 | 2.4 | 3.7 | 2.8 | 10.8 | 6.9 | 14.5 | - | - | 0.6 | - | - |
| 8NS | pa | 19.9 | 12.1 | 19.6 | 22.1 | 30.4 | 27.3 | - | - | - | 5.2 | 2.5 | 15.6 |
| | N | 7 | 6 | 8 | 10 | 9 | 10 | - | - | - | 7 | 1 | 1 |
| | Er | 3.1 | 1.6 | 1.9 | 1.6 | 2.2 | 1.4 | - | - | - | 0.2 | - | - |
| 8EW | pa | 26.3 | 22.7 | 21.6 | 25.4 | 30.3 | 32.9 | 18.6 | - | - | 2.3 | 2.4 | 4.0 |
| | N | 10 | 10 | 10 | 10 | 9 | 10 | 4 | - | - | 9 | 1 | 1 |
| | Er | 1.7 | 3.3 | 1.8 | 1.7 | 1.6 | 1.3 | 1.5 | - | - | .08 | - | - |

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|----------|----|-----------|------|------|------|-------|-------|-------|------|------|-------|-------|-------|
| | | 7.5 | 10 | 14 | 27 | 76 | 285 | 685 | 1.2K | 3.3K | 6.7K | 10.2K | 18.6K |
| 9NS | pa | 23.3 | 47.6 | 42.8 | 48.1 | - | 10.3 | - | - | - | 47.4 | 40.6 | 14.1 |
| | N | 5 | 9 | 10 | 10 | - | 8 | - | - | - | 6 | 1 | 1 |
| | Er | 4.5 | 4.6 | 3.8 | 6.0 | - | 2.3 | - | - | - | 2.7 | - | - |
| 9EW | pa | 22.9 | 29.9 | 35.5 | 40.7 | 56.0 | 66.3 | - | - | - | 11.7 | 16.5 | 5.2 |
| | N | 9 | 10 | 11 | 10 | 11 | 10 | - | - | - | 10 | 1 | 1 |
| | Er | 1.9 | 2.6 | 2.1 | 2.3 | 3.3 | 5.9 | - | - | - | 0.5 | - | - |
| 10NS | pa | 10.7 | 15.3 | 17.3 | 18.4 | 27.2 | 40.6 | - | - | - | 15.2 | 4.8 | 106 |
| | N | 5 | 4 | 7 | 10 | 9 | 10 | - | - | - | 10 | 1 | 1 |
| | Er | 1.2 | 1.9 | 3.9 | 1.5 | 1.6 | 4.1 | - | - | - | 1.1 | - | - |
| 10EW | pa | 22.5 | 29.2 | 27.6 | 25.4 | 39.1 | 56.4 | 58.8 | - | - | 11.8 | 9.5 | 26.1 |
| | N | 10 | 9 | 9 | 10 | 10 | 10 | 8 | - | - | 10 | 1 | 1 |
| | Er | 1.5 | 2.2 | 1.2 | 1.4 | 2.6 | 1.6 | 6.1 | - | - | 0.2 | - | - |
| 11NS | pa | 29.1 | 30.9 | 31.6 | 42.1 | 81.6 | 14.9 | - | - | - | 73.8 | 62.7 | 85.2 |
| | N | 4 | 3 | 10 | 9 | 8 | 8 | - | - | - | 7 | 1 | 1 |
| | Er | 2.6 | 4.9 | 4.7 | 3.8 | 10.3 | 2.7 | - | - | - | 3.7 | - | - |
| 11EW | pa | 42.1 | 36.6 | 45.4 | 48.5 | 62.9 | 70.2 | - | - | - | 24.6 | 50.7 | 10.2 |
| | N | 7 | 10 | 10 | 10 | 10 | 11 | - | - | - | 10 | 1 | 1 |
| | Er | 4.8 | 4.0 | 4.4 | 5.4 | 6.5 | 3.2 | - | - | - | 2.9 | - | - |
| 12NS | pa | 60.5 | 60.8 | 61.7 | 55.8 | 159.8 | 182.2 | - | - | - | 105.0 | 62.0 | - |
| | N | 3 | 4 | 4 | 5 | 6 | 10 | - | - | - | 10 | 1 | - |
| | Er | 11.3 | 10.5 | 8.7 | 10.6 | 17.2 | 19.8 | - | - | - | 6.1 | - | - |
| 12EW | pa | 53.5 | 59.5 | 55.7 | 58.6 | 91.6 | 135.9 | 181.0 | - | - | 32.3 | 13.5 | 79.4 |
| | N | 10 | 8 | 5 | 7 | 7 | 10 | 8 | - | - | 10 | 1 | 1 |
| | Er | 6.8 | 10.2 | 7.1 | 7.3 | 11.5 | 17.7 | 24.1 | - | - | 1.8 | - | - |

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| Sta. No. | | FREQUENCY | | | | | | | | | | | |
|----------|----|-----------|------|------|-------|------|-------|-----|------|------|-------|-------|-------|
| | | 7.5 | 10 | 14 | 27 | 76 | 285 | 685 | 1.2K | 3.3K | 6.7K | 10.2K | 18.6K |
| 13NS | pa | 36.2 | 87.3 | 71.5 | 131.5 | 67.3 | 36.8 | - | - | - | 102.8 | 18.9 | 163.9 |
| | N | 2 | 4 | 7 | 3 | 8 | 6 | - | - | - | 5 | 1 | 1 |
| | Er | 4.4 | 26.4 | 14.8 | 14.6 | 11.4 | 9.5 | - | - | - | 12.2 | - | - |
| 13SW | pa | 49.1 | 38.5 | 42.7 | 42.7 | 90.2 | 101.3 | - | - | - | 51.8 | 26.4 | 123.1 |
| | N | 10 | 10 | 6 | 8 | 7 | 10 | - | - | - | 10 | 1 | 1 |
| | Er | 3.7 | 3.2 | 2.3 | 4.9 | 15.1 | 25.8 | - | - | - | 1.7 | - | - |
| | pa | | | | | | | | | | | | |
| | N | | | | | | | | | | | | |
| | Er | | | | | | | | | | | | |
| | pa | | | | | | | | | | | | |
| | N | | | | | | | | | | | | |
| | Er | | | | | | | | | | | | |
| | pa | | | | | | | | | | | | |
| | N | | | | | | | | | | | | |
| | Er | | | | | | | | | | | | |
| | pa | | | | | | | | | | | | |
| | N | | | | | | | | | | | | |
| | Er | | | | | | | | | | | | |
| | pa | | | | | | | | | | | | |
| | N | | | | | | | | | | | | |
| | Er | | | | | | | | | | | | |