

UNITED STATES DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

A REGIONAL MAGNETOTELLURIC SURVEY  
OF THE CASCADE RANGE REGION,  
NORTHWESTERN UNITED STATES

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W. D. Stanley

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A Regional Magnetotelluric Survey  
of the Cascade Range Region, Northwestern United States

by

W. D. Stanley

As part of the U.S. Geological Survey's geothermal program, a long term study of the geothermal potential of the volcanic Cascade Range involving geological, geochemical, hydrologic, and geophysical disciplines has been initiated. As part of the geophysical effort magnetotelluric (MT) surveys will be combined with heat flow, seismic sounding, and geomagnetic depth sounding data to aid in understanding the structural and thermal properties of the Earth's crust in the Cascades region. The first step in the magnetotelluric study of the Cascades consisted of obtaining regional MT data from a commercial contractor. The station spacing of this data was very broad, in accordance with the main goal of the study to provide regional information and to supply a data base that would aid industry in conducting detailed exploration. The data obtained from the contractor consisted of 50 soundings along the five east-west profiles shown in figure 1. The soundings consisted of tensor resistivity measurements over a frequency range from 0.002 to 100 Hz.

The purpose of this report is to release the data and preliminary interpretations from this contract survey. Additional studies to complement the regional data base are in progress. The goal of these follow-up studies is not detailed investigation, except in two Known Geothermal Resource Areas (KGRA), but study of major features found in the initial regional study of this report. In addition to the MT work being done by the USGS, Lawrence Berkeley Labs (LBL) is conducting regional studies in the Mt. Hood area and in

the Klamath Basin designed to interface with the USGS studies. The work in the Mt. Hood area is an extension of the detailed MT study of Mt. Hood done by LBL (Goldstein and Mozley, 1978). LBL has incorporated MT data into a previous study of parts of the Klamath Basin (Stark and others, 1979). Los Alamos Scientific Labs (LASL) has designed an MT study to be done in the near future in the Brother's fault area of Oregon as part of their hot-dry rock (HDR) exploration program. Geomagnetic depth sounding studies are being done by Jim Towle, USGS, in Oregon, and by John Booker, U. of Washington, in Washington.

#### Data Release Contents

The contents of this report include all computer-plotted MT results provided by the contractor, site location details, tabulated points from smoothed data curves, model parameters for one- and two-dimensional models used for preliminary modelling of the MT data, and preliminary geoelectrical cross sections constructed from the MT data with guidelines for interpretation.

#### Data Quality

Most of the data provided by the contractor was of reasonably high quality. All of the data plots in Appendix 2 consist of points with phasor coherencies (Word and others, 1970) higher than 0.8. Numerous soundings were incomplete because of poor data in certain frequency bands, caused by cultural noise, highly three-dimensional geology at the site, or other undetermined reasons. Most of the sites from 6-1 to 6-8 provided poor data, as did sites 2-1 to 2-5. This may be at least partially attributed to very complex geology in the upper 5 km at these sites. Several sites were repeated on lines 3 and 4 because of problems encountered with buried high voltage lines, which proved to be a much worse noise source than above-ground lines and which are common

in the Cascades. The contractor lost the data for sounding 6-7 and was unable to repeat the sounding.

### Interpretation Procedure

The magnetotelluric method has been adequately described by Vozoff (1972) and Word and others (1970). A common procedure for interpretation of MT data is the construction of earth models from one-dimensional (that is, a layered earth model, having variations with depth only) MT inversion, normally done with the TE or E-parallel mode (Stanley and others, 1977; Word and others, 1970). Piecing together of these one-dimensional models may form a suitable basis for geologic interpretation if most of the curves are reasonably one-dimensional (1-D), but as Wannamaker (1978) has pointed out, for most sets of data one-dimensionality does not hold and pieced together 1-D models will not fit the actual field data when used as input to a 2-D (model varies with depth and one horizontal direction) modelling program. Because there are no completely suitable 2-D inversion programs, if one is being forced to model all the data with a 2-D model, large amounts of interpreter and computer time are required. There is, however, a more serious problem with interpretation of MT data which can be readily observed in the data of this report; namely, distortions of the sounding curves by near-surface inhomogeneities. Berdichevsky and Dmetriev (1976) have discussed the distortion of 1-D curves by 2-D structures and show that false conductive layers and other effects are caused by the 2-D structure when the data is interpreted using 1-D models. These effects are not a problem if the data is truly two-dimensional and a 2-D modelling program is used to interpret the data. Three-dimensional structure (model parameters vary in all three directions) can provide problems of interpretation more difficult, and if the geology is highly 3-D, meaningful interpretation may be impossible. One of the more troublesome 3-D effects is



caused by near-surface, discrete bodies which may be in some instances horizontal, but not infinite in extent. Berdichevsky and Dmitriev (1976) provided a model useful in studying the nature of the distortion caused by such bodies. Their discussion of the approximate solution of a tabular cross-section ellipsoid embedded in the top layer of a three-layer earth is useful to point out some of the 3-D distortions. They show that if the station is outside, but nearby the embedding in the surface layer, the two tensor resistivity curves will be split from each other, but parallel, with the maximum resistivity curve being above and close to the curve for layering without the embedding. This is true for either a lower or higher resistivity embedding. For a station over the embedding, the resistivity curves are independent of position for frequencies lower than induction frequencies in the embedding and the two curves will be shifted unidirectionally away from the curve for layering without the embedding. For a high resistivity embedding, the two curves will be pushed up and to the lower frequency side of the log plots, providing larger depths and higher resistivities than the true layering when 1-D inverted. For a lower resistivity embedding, the two curves will be pushed down and to the high frequency side of the plots, providing smaller depths and lower resistivities than the true layering when 1-D inverted. This unidirectional shifting or biasing of the resistivity curves caused by the sounding being made over the inhomogeneity is in contrast to the bidirectional splitting of sounding curves obtained to the side of the embedding.

Because of the aforementioned greater accuracy of the maximum resistivity curve in the case of an embedding with the sounding made outside the body, Russian MT researchers perform 1-D inversion on a data curve obtained by averaging the impedances from the two principal directions. Since the resistivities are the scaled squares of the impedances, the resistivity curve obtained from averaged impedances will be closer to the maximum measured curve than the minimum. This procedure can serve as a first-order correction for the effect of surface inhomogeneities that produce parallel splitting of the resistivity sounding curves. This procedure is preferable to using TE mode curves for 1-D interpretation since the splitting caused by near surface-effects is a DC effect on the electric field and does not influence the magnetic field, thus mode selection is meaningless in this regard.

Parallel splitting of the resistivity curves may be seen in the data composite of figure 3. Note that soundings 1-2 through 1-5, 2-5 through 2-13 and 3-6 to 3-8 show this effect in particular. Reference to the level of the curves defined by the 10 ohm-m base lines (horizontal lines through each profile of data) show that several sounding curve sets may be pushed unidirectionally due to measurement over a surface inhomogeneity. The most noticeable is sounding 2-9 which was obtained over conductive lake deposits in Summer Lake Valley, Oregon. Note that the entire curve set has been pushed down in relation to soundings on either side. Sounding 4-8 is similar in this respect and probably 1-6, 1-7, and 1-8 also.

In a first pass at interpretation, all of the soundings from which good data were obtained were inverted using a 1-D inversion program (Anderson, 1979). Curves which were clearly 2-D rather than 1-D (and distorted mainly by surface effects) were modelled with a 2-D transmission surface program (Madden, 1970). As mentioned above, when the assumed 1-D curves suffered from

parallel splitting, a resistivity curve based on averaged impedances for the principal directions was used to better approximate the true layering.

Once all of the appropriate curves had been inverted with the 1-D inversion program in the manner discussed above, geoelectrical cross sections were constructed as shown in figures 4-8 for the five data profiles. Note that no interpretation was done of soundings 6-1 to 6-8 and 2-1 to 2-3 because of poor data quality or 3-D effects in the data.

It was deemed likely that the highly irregular nature of the deepest interface on the cross sections, particularly on profiles no. 1 and 2 was due to inadequacy in treating the shifting of the sounding curves caused by surface inhomogeneities. Figure 9 shows a correlation plot of the depth to this lower crustal conductor on the horizontal axis versus the resistivity of the second layer. Only soundings which exhibited the parallel splitting indicative of surface inhomogeneities were used in the plot. Note that a regression line with a slope of 2 fits most of the data points quite well. It can be shown that models for a single sounding curve shape, but with a different static levels on the vertical axis, also have the same shape when plotted on a depth-resistivity plot. Moreover, the models can be tracked in log space along a line with a slope of 2, and this is the reason it can be stated that the regression plot of figure 9 indicates bias of the models from surface inhomogeneities. The most obvious solution to removing bias and irregularity of the models was to provide some constraints. It was decided to constrain the models to the resistivity of the second layer, which is the resistivity representing mostly older volcanics, which have been found to have reasonably consistent resistivities in other studies (Stanley and others, 1976; Stanley and others, 1977). An average value for this layer on profile 1 was used to shift the models for profile 1 to this constraint. The same

procedure was used for profile 2 with the value for the second layer resistivity taken from this profile. Because points for profiles 3 and 4 did not show the same strong correlations in figure 9 that those from profile 1 and 2 did, and because the irregularities were not as serious, the above constraint was not applied to profiles 3 and 4. The adjusted second and third interfaces are shown by the circled dots in figures 4 and 5 for profiles 1 and 2. The dashed lines are a third attempt to make the sections more realistic by hand fitting an interface to the dots. The same hand smoothing could have been done to the original interfaces, but serious differences would have occurred, as for example in the vicinity of 2-7 to 2-9, with the preferred interface being the one which was arrived at by constraining the second layer resistivity as outlined above.

#### Model Accuracy

Because of the extreme displacement of the sounding curves for site 2-9, the level of this curve was shifted to a linearly interpolated value halfway between the levels of 2-8 and 2-10 in the original inversions. To attempt to model the data otherwise would have been extremely misleading, and even using the approach above is highly unsuitable, but the only alternative to totally discarding the data. The model, therefore, for 2-9 should be considered highly inaccurate. For the rest of the profile sections which were approximated with 1-D models, it is felt that accuracy of the depth to lower interfaces has been improved somewhat by the corrections discussed above involving constraining the second layer resistivity. However, large errors are undoubtedly present in portrayed depths to these interfaces in figures 4-8. It is impossible to specify the error bars on the interface depths or layer resistivities. Statistics available from the generalized linear inversion program (Anderson, 1979) give some estimate of the resolving power

of a particular set of data, but this estimate assumes that the data are completely one-dimensional in character and have not suffered from displacement by near-surface inhomogeneities or other distortion. Thus, this information may not be used to specify error bars for the model parameters in this survey, or in most other MT surveys. One is left with an intuitive guess about the model accuracy, which is derived from the irregularity of the model interfaces and other indications of distortion. The estimated error for depths to the second and third interfaces (which are of most interest) is about 1.5 and 5 km, respectively. It is probably advisable in such a regional survey to use averaged parameters for large sections of the profile or for a complete profile, with a view toward detection of trends in parameter change. Certainly one should not place much stress on the significance of parameters at a single station.

The two-dimensional models computed for the data of this report were designed only to provide a reasonably accurate estimate of the types of structure causing 2-D effects in the sounding curves. The exact details of the curves were not modelled, but such parameters as depth and width extent of perturbing bodies were studied in a general manner.

## Significance of Models

The geoelectrical cross sections shown in figures 4-8 have coded resistivity ranges portrayed as follows:

solid black layer: 50-500 ohm-m surface layer

stippled layer: 2-50 ohm-m surface and intermediate layer

cross-hatched layer: 100-1000 ohm-m electrical basement (third layer)

The fourth layer, which occurs beneath the cross-hatched layer, is the pervasive lower crustal conductor (Stanley and others, 1977) and was given infinite thickness on all of the 1-D models, but given finite thickness on some of the 2-D models in order to estimate its thickness. Exact parameter values for all of the models used are given in Appendix 1.

Perhaps the most striking result seen in the models and also in the data display of figure 3 is the abrupt transition from mostly 1-D curves on the east to highly 2-D curves on the west at a boundary occurring near longitude 122° W.. This boundary is marked on figure 1 by the bold striped line. Note from figure 1 that the boundary follows the Bouguer gravity map trends and occurs about where the steep gravity gradients between longitude 122° and 123° flatten out. This generally corresponds to the transition from the High Cascades, consisting of linear chains of Holocene volcanoes, to the Western Cascades, which are made up of highly dissected Tertiary volcanic rocks. The transition is characterized by a change in the surface layer, consisting of andesites and basalts of Holocene age, to the much lower surface resistivities of the Tertiary volcanics in the Western Cascades. Also the two-dimensional structure indicated by the models suggests that the upper 5 km of material is highly jumbled up in the Western Cascades, as opposed to mostly horizontal layering of units in the High Cascades. In addition, there appears to be a shallowing of the crustal conductor near the boundary and also near the

Brother's fault zone on line 4 (4-6, 4-7, and 4-8).

Magnetic (Richard Couch, Oregon State U., written commun., 1979) and heat flow (Blackwell and others, 1978) anomalies also occur in the area of the MT boundary. The high heat flow and alinement of hot springs (shown on figure 1) can be conceivably attributed to thermal water being released to the surface along vertical zones of permeability in the highly jumbled up boundary between the Western Cascades and High Cascades. The heat flow anomaly mapped in Blackwell and others (1978) is quite abrupt, suggesting that this mechanism must be combined with much higher conductive heat flow, possibly evidenced by the apparent shallowing of the crustal conductor. This crustal conductor, which occurs over most of the Western United States and especially in regions of high geothermal flux (Stanley and others, 1977), is being extensively studied by many researchers in MT and geomagnetic sounding and a full discussion of its nature is beyond the scope of this data release. It should be pointed out, however, that it is not necessary to have partially molten deep crustal or mantle rocks to produce resistivities observed in the conductor. Laboratory measurements on rock samples by Olhoeft (1980) show that deep crustal resistivities of less than 10 ohm-m can be produced with 0.3 to 3 percent water present, independent of temperature, pressure, oxygen fugacity, and salinity. Temperatures need only be above about 400°C and the rocks must contain the stated minimum percentages of water. Curie isotherm depths computed from aeromagnetic data in the area of MT profiles 3 and 4 are about 11 km (Richard Couch, Oregon State U., oral commun., 1979), which is in reasonable agreement to depths to the lower crustal conductor in this area.

Electrical strike directions determined from the MT data are shown on figure 1. The MT strike directions generally follow the gravity trends, and along the boundary at about longitude 122° W., the conductive side of the

geology is indicated to be the eastern, or High Cascades, side. The curving of strike direction on line no. 1 about the Medicine Lake Highlands (a caldera feature centered 10 km south of site 1-3) may be related to the sharp embayment in the steep gravity gradient south of the area. Rotation data from sites 6-9 to 6-12 point back to the thick basalt and possibly sedimentary section in the center of the Columbia Plateau as indicated by the large gravity high centered at about latitude  $46.5^{\circ}$  N., longitude,  $119.5^{\circ}$  W.

The second layer on the MT model sections is conductive (2-50 ohm-m) and on profiles 1 to 4 represents mostly Tertiary volcanics, which are generally more conductive than younger volcanics because of much larger amounts of alteration. Conductive consolidated sediments such as shales and sandstone may be part of this electrical layer, and possibilities of this nature are currently being studied with the aid of available well log data. Because of having low resistivities (8-20 ohm-m), the second conductive layer on profile 6 (sites 6-10 to 6-13) has a higher probability of containing sediments at depth rather than strictly conductive basalts or other volcanics, but we have no evidence to substantiate this possibility. Note that the first and second interfaces on the model section for profile 6 were adjusted using a constrained second layer resistivity, because high correlation occurred between this resistivity and depths to the first and second interfaces shown. The adjusted interfaces are shown in the lower part of figure 8.

A long crustal seismic refraction profile has been completed by the National Center for Earthquake Research, USGS, along a north-south axis just east of the High Cascades, and a preliminary model which fits the data has been computed (Jack Healy, USGS., oral commun., 1979). This model is shown in the lower right part of figure 6. The first two seismic layers of 3.36 and 4.9 km/s correspond to the MT top two layers and the MT crustal conductor



(shown with a thickness of 7 km determined from preliminary modelling) appears to be contained in the lower crustal seismic layer. The Moho was found to be at about 40 km on the seismic profile and large attenuation of seismic energy in the lower crust was observed, suggesting that a very hot zone in the lower crust may be present.

#### Summary

The initial interpretation of the MT data described in this report indicates a distinct electrical boundary between the High Cascades and the Western Cascades and that the depth to the lower crustal conductor may be shallower near this boundary and under the High Cascades. The severe effect of three-dimensional distortions on the data has been pointed out and treated to a first approximation, but the errors in interpreted depths should still be considered to be quite large. The data should be interpreted in a general sense regarding individual site parameters. Further work is being done intermittently to investigate some aspects of the regional data base described here and to further evaluate the effect of three-dimensional distortions on all the data. Synthesis of MT data with other geophysical data will continue with cooperation from other scientists working in the Cascades.

### References Cited

- Anderson, W. L., 1979, Program IMSLPW, Marquardt inversion of plane-wave frequency soundings: U.S. Geological Survey Open-file Rept. 79-586.
- Berdichevsky, M. N. and Dmitriev, V. I., 1976, Basic Principles of interpretation of magnetotelluric sounding curves: in Geoelectric and Geothermal Studies, Akademiai Kiado, Budapest, p. 163-221.
- Blackwell, E. E., Hull, D. A., Bowen, P.G. and Stelle, J. L., 1978, Heat flow of Oregon: Oregon Dept. of Geology Special Paper 4, 42 p.
- Goldstein, N. E., and Mozley, Edward, 1978, A Telluric-Magnetotelluric survey at Mt. Hood, Oregon: Lawrence Berkeley Lab Rept. 7050.
- Madden, T. R., 1970, Computer program EMCDC, personal communication from K. Vozoff.
- Olhoeft, G. R., 1980, Electrical properties of granite with implications for the lower crust and upper mantle: submitted to Journal of Geophysical Research.
- Stanley, W. D., Jackson, D. B., and A. A. R. Zohdy, 1976, Deep electrical investigations in the Long Valley geothermal area, California: Journal of Geophysical Research, v. 81, no. 5, p. 810-820.
- Stanley, W. D., Boehl, J. E., Bostick, F. X., Jr., and H. W. Smith, 1977, Geothermal significance of magnetotelluric sounding in the Eastern Snake River Plain-Yellowstone region: Journal of Geophysical Research, v. 82, no. 17, p. 2501-2514.
- Stark, M., Goldstein, N., Wollenberg, H., Stisower, B., Hege, H., and Wilt, M., 1979, Geothermal exploration, assessment and interpretation, Klamath Basin, Oregon-Swan Lake and Klamath Hills area: Lawrence Berkeley Lab Rept. 8186.

- Wannamaker, Phillip, 1978, Magnetotelluric investigations at the Roosevelt Hot Springs KGRA and Mineral Mountains, Utah: University of Utah, Department of Geology and Geophysics Report, 78-1701, 54 p.
- Word, Darrell, R., Smith, H. W., and Bostick, F. X., Jr., 1970, An investigation of the magnetotelluric tensor impedance method: U. of Texas Electrical Engineering Department Report 82.
- Vozoff, K., 1972, The magnetotelluric method in the exploration of sedimentary Basins: Geophysics, v. 37, no. 1, p. 98-141.

## Figure Captions

Figure 1.--Station locations for regional MT survey. Locations for the MT soundings are shown by arrows pointing in the electrical strike directions. The direction of electrical "dip" or conductive side of the assumed two-dimensional structure is to the right of the arrow point. The U.S. Bouguer gravity map is used as a base. Values of the gravity contours are given in milligals. Hot springs occurring west of long 121° W. are denoted by HS. The bold striped line represents the approximate location of a major electrical boundary interpreted from the MT data. The Brothers fault zone is shown by the thick, solid line. Exact location of the sounding sites are given in the appendices.

Figure 2.--Generalized geologic map of the Cascade Range. The major volcanoes of the range are shown by the black dots.

Figure 3.--Composite data display of the MT amplitude curves. The sounding curves are all plotted with a baseline at 10 ohm-m (solid horizontal lines). The dashed line crossing the profiles represents the electrical boundary observed in the MT data and discussed in the text. Horizontal scale is not maintained in the plot and the curves are adjoined without regard to their actual horizontal position, but only in sequence.

Figure 4.--Goelectrical cross section for MT Profile no. 1. Resistivity values interpreted for the model layers is shown in the figure legend. The circled dots represent adjusted interfaces for interfaces between layer 2 and 3 and between layer 3 and 4. Procedures for adjusting the interfaces is described in the text.

Figure 5.--Goelectrical cross section for MT profile no. 2. Resistivity values interpreted for the model layers is shown in the figure legend. The circles dots represent adjusted interfaces between layer 2 and 3 and

between layer 3 and 4. Procedures for adjusting the interfaces is described in the text.

Figure 6.--Goelectrical cross section for MT Profile no. 3. A refraction seismic section taken from Healy (1979, oral commun.) is shown in the righthand part of the figure. Interpreted resistivities for the model layers are shown in the legend.

Figure 7.--Goelectrical cross section for MT profile no. 4 . Interpreted resistivities for the model layes are shown in the legend.

Figure 8.--Goelectrical cross section for MT profile no 6. The upper part of the figure shows an orginal interpretation, with layer resistivities depicted in the legend. The lower part of the figure shows adjusted interfaces between layer 1 and 2 (crosses) and between layer 2 and 3 (circled crosses).

Figure 9.--Plot of depth to the lower crustal conductor(abscissa) versus second layer resistivity (ordinate) on log-log scale. Data points were taken only from soundings which showed obvious effects of surface inhomogeneity.

# Appendix 1—Model Parameters

## One-dimensional models

<u>site</u>	<u>layer resistivity (ohm-m)</u>	<u>depth to bottom of layers (meters)</u>
1-2 573	578 2.53 220 .49	2106 7614 infinite
1-3	6120 7.1 216 7.4	290 1667 17505 infinite
1-4	371 21.3 256 10.4	415 2684 30887 infinite
1-5	187 15.7 304 16.6	397 2686 31544 infinite
1-6	73 6.4 81 3.1	317 2310 15441 infinite
1-7	8.5 4.8 21.9 2.8	49.4 1302 15021 infinite
1-8	146 4.5 21.8 8.1	87 849 11933 infinite
2-4	23 29 581 20	442 1598 18804 infinite
2-5	21 16 1471 21	15 1241 11073 infinite

2-6	244 39.8 1083 19.7	1171 7284 42110 infinite
2-7	199 29 9.1 48.6 14.4	269 814 2159 17301 infinite
2-8	720 7.5 63.9 .75	732 2442 19484 infinite
2-9	4.66 9.5 70.7 9.5	164 3662 16914 infinite
2-10	194 53 16.7 98 14.6	127 818 3322 32585 infinite
2-11	19.9 275 23.9 142 17.2	97 2298 5356 35411 infinite
2-12	14 67 20.4 252 32	91 637 3042 22434 infinite
2-13	83.4 54.8 18.3 114 26	354 687 1250 17982 infinite
3-2	8.6 3.2 21.1 151 9.5	285 518 1165 11824 infinite
3-4	300 13 102 20.5	1400 4923 15143 infinite

3-5	206 44 110 20	1490 3660 18227 infinite
3-6	5900 118 9.9 18 5.9	159 851 2109 16036 infinite
3-7	32 14 82 5.4	550 2382 15422 infinite
3-8	131 8.2 51 4.9	140 1950 14909 infinite
4-3	5.5 336 15.6	810 15972 infinite
4-4, 4-5	73.7 16.9 37.3 3.5	847 2722 15313 infinite
4-6	131 28 209 40	1080 2200 14497 infinite
4-7	95 9.4 156 45	803 1013 13980 infinite
4-8	89 4.1 30 11.3	91 642 11600 infinite
4-9	1200 24 5 24 2.8	70 192 1230 15700 infinite
6-10	6.3 65 8.3 52	22 2614 7106 infinite



6-11	95 114 14.3 119	65 3150 5828 infinite
6-12	394 156 47.6 428 972	431 1337 3296 7776 infinite
6-13	50 800 250	370 18200 infinite

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## Appendix 2--Data Plots

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MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 1- 1

196 1-1 RUN 2

DATE -  
RECORDED : 146/79  
PROCESSED : 06/09/79

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INVERSION OF ROTATED TENSOR

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COORDINATE ROTATION ANGLES -  
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3

- LEGEND AND NOTES -

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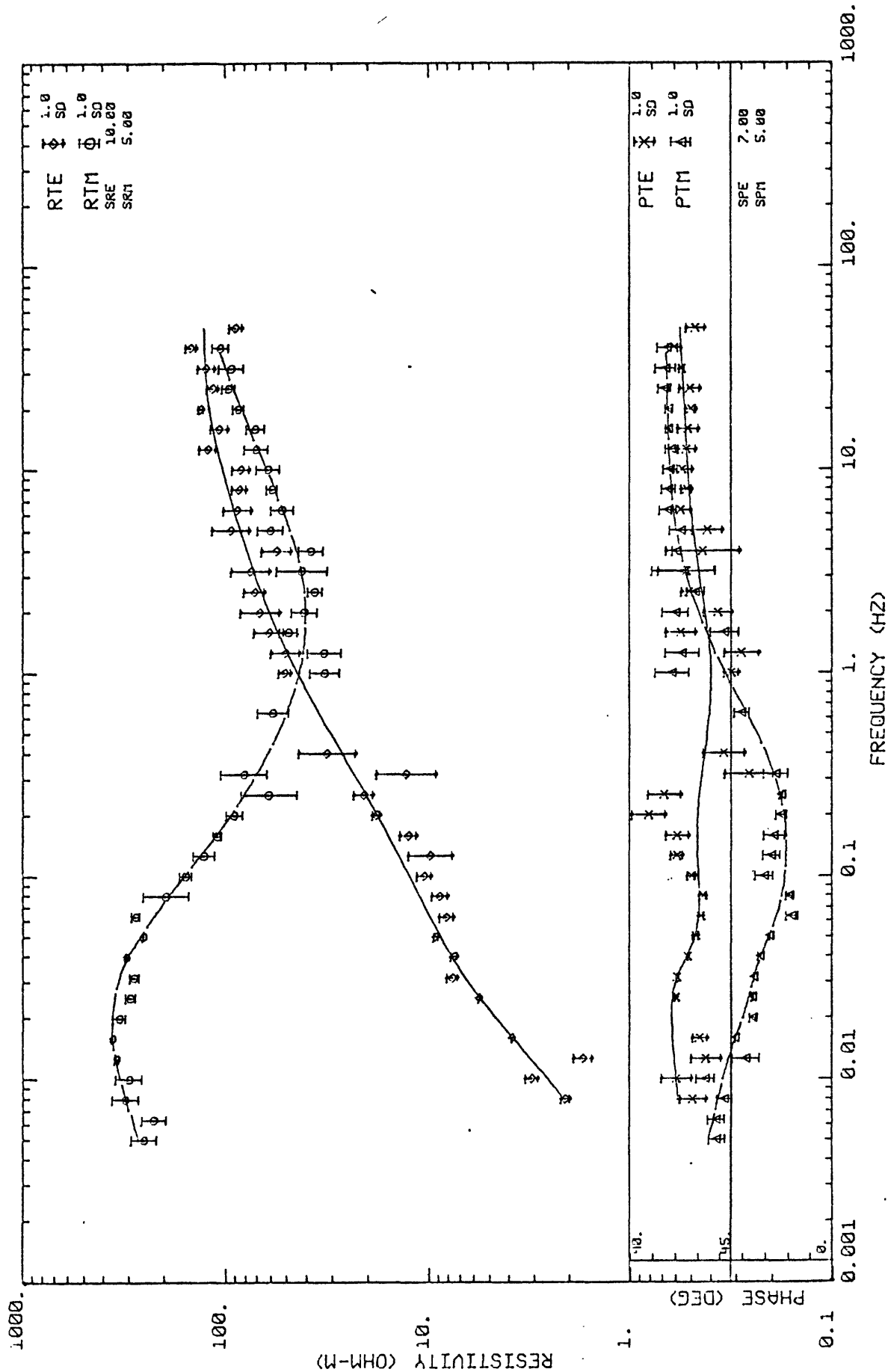
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ROTATED TENSOR IMPEDANCE

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06/09/79

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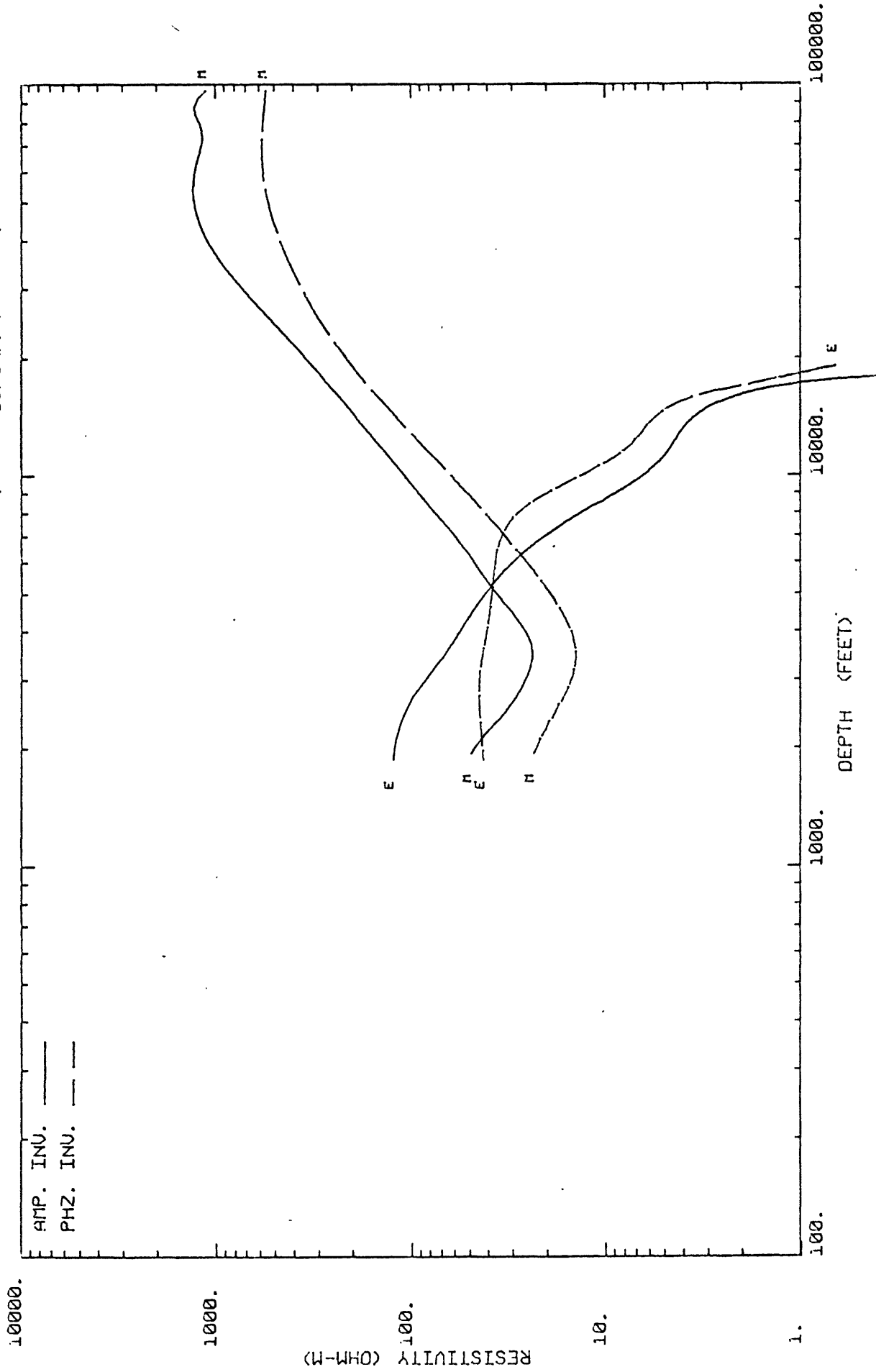


GEOTRONICS CORPORATION

INVERSION OF ROTATED TENSOR

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# GEOTRONICS CORPORATION

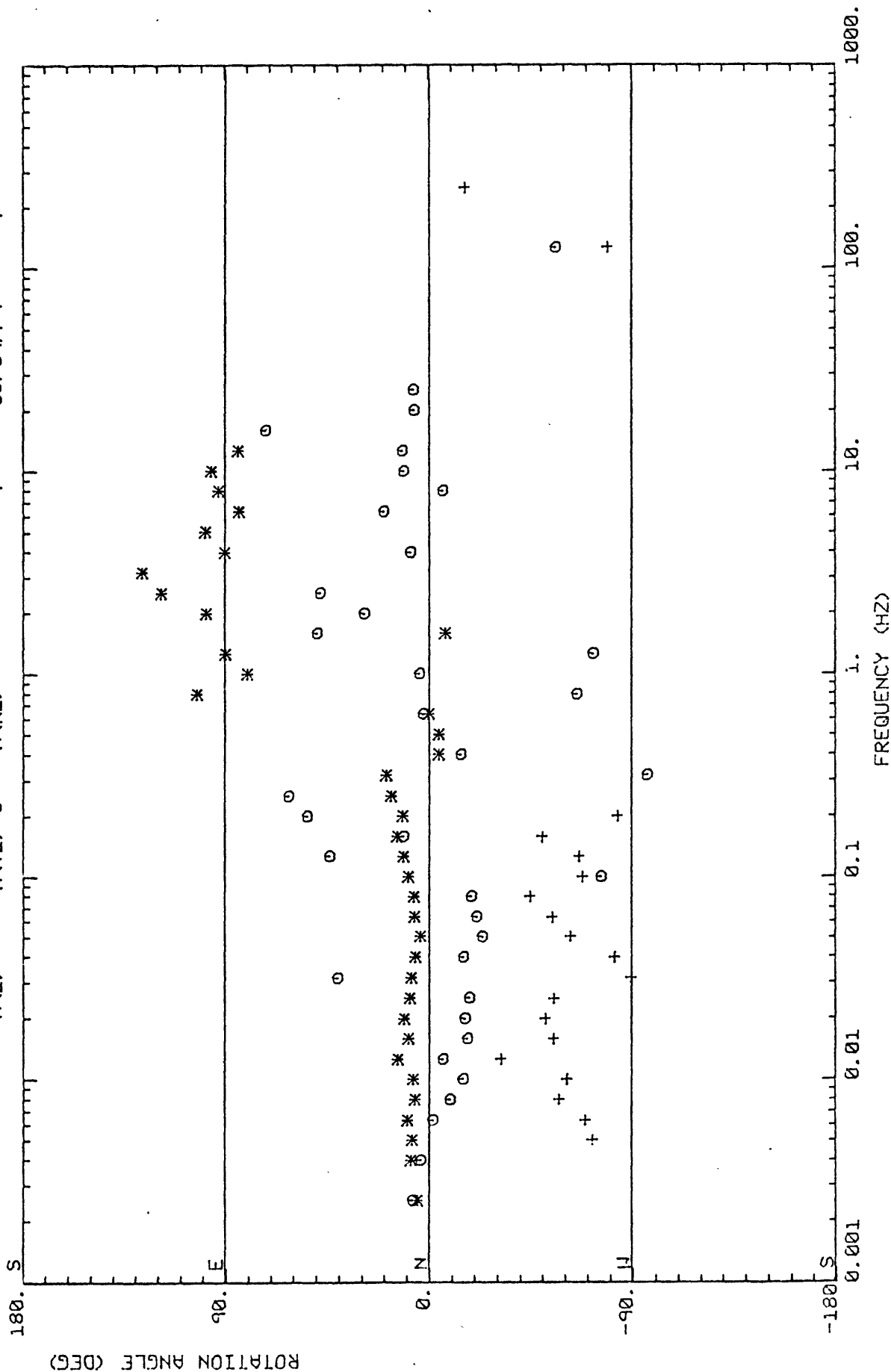
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MAGNETO TELLURIC  
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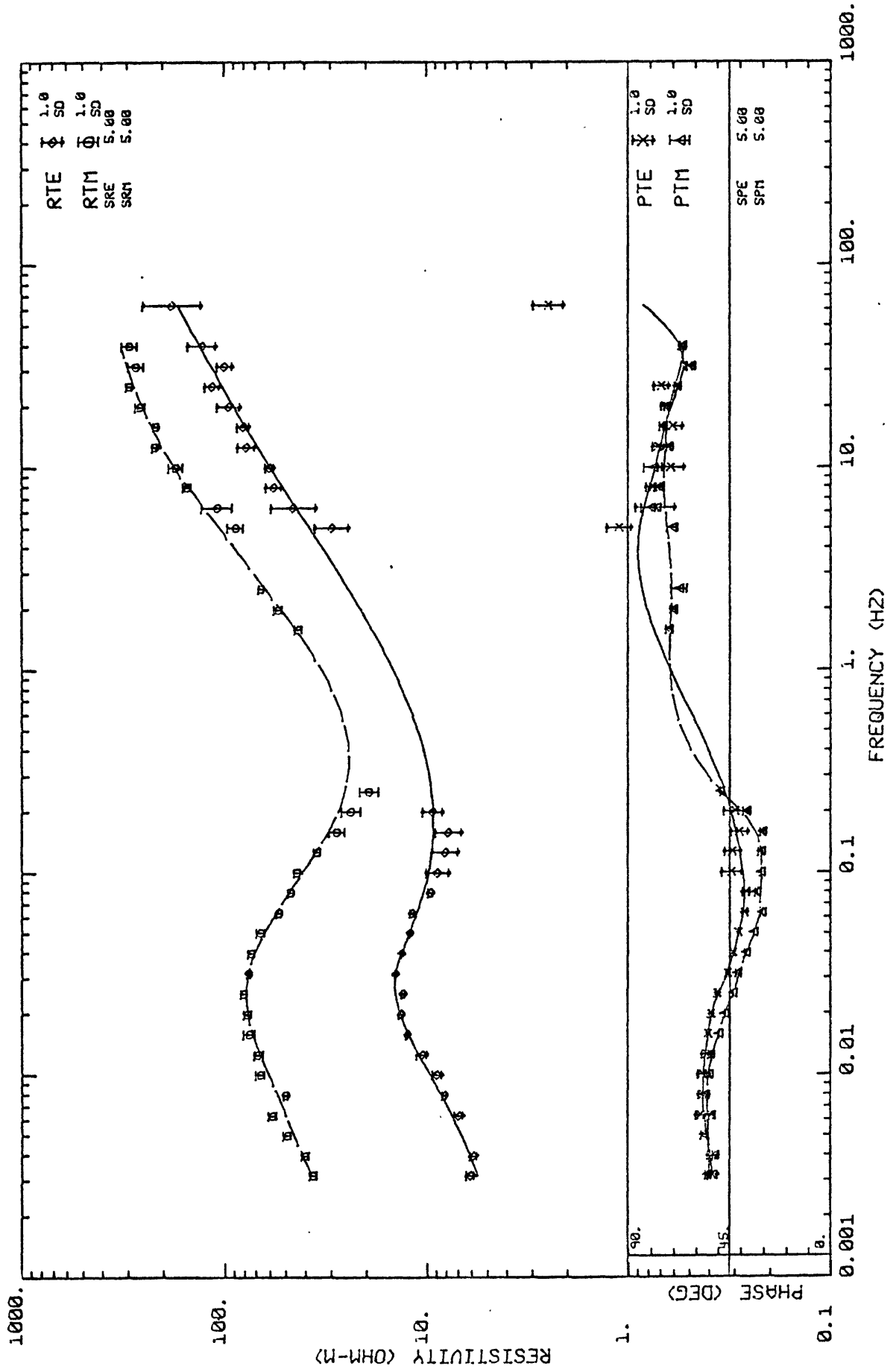
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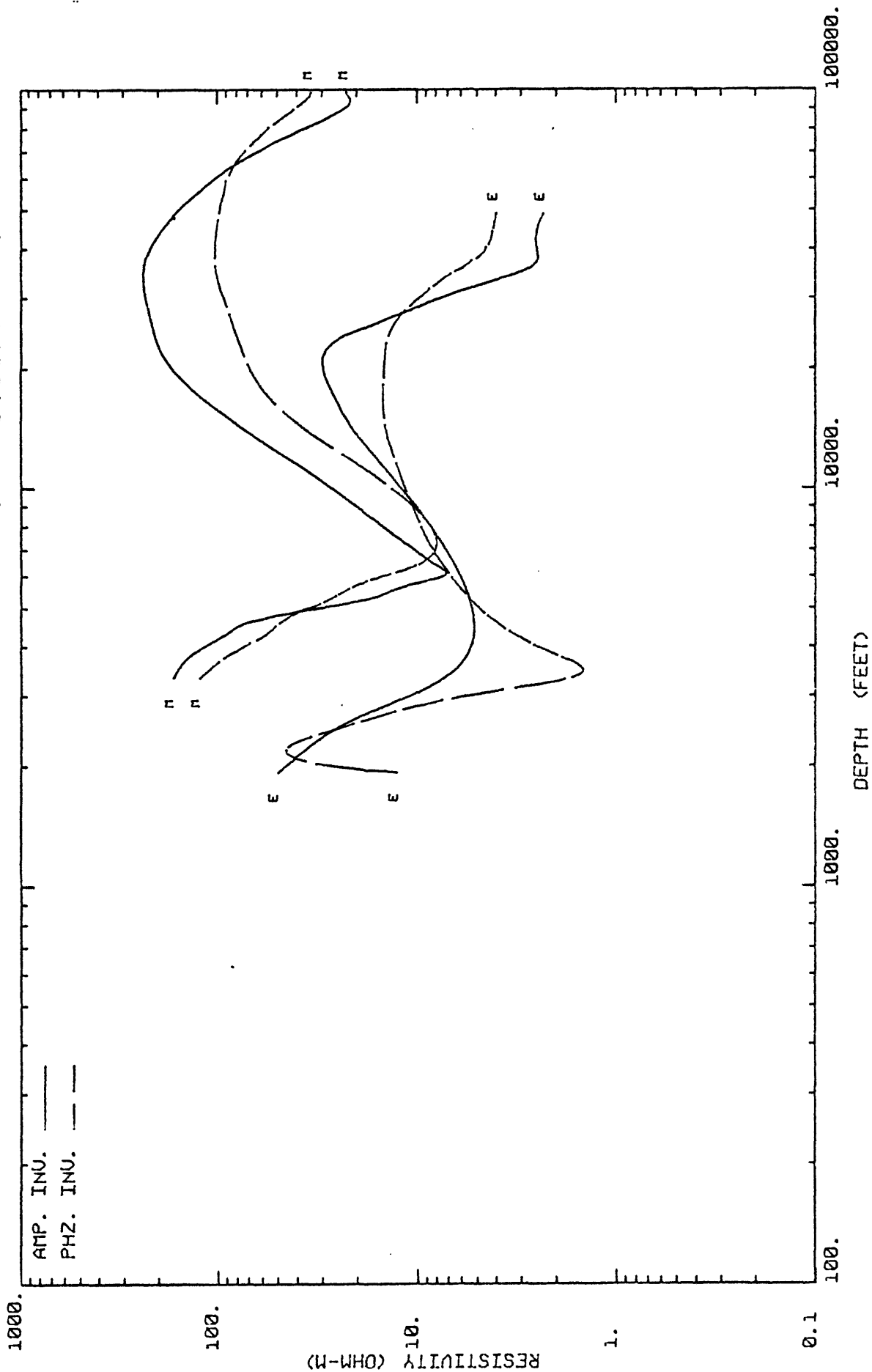


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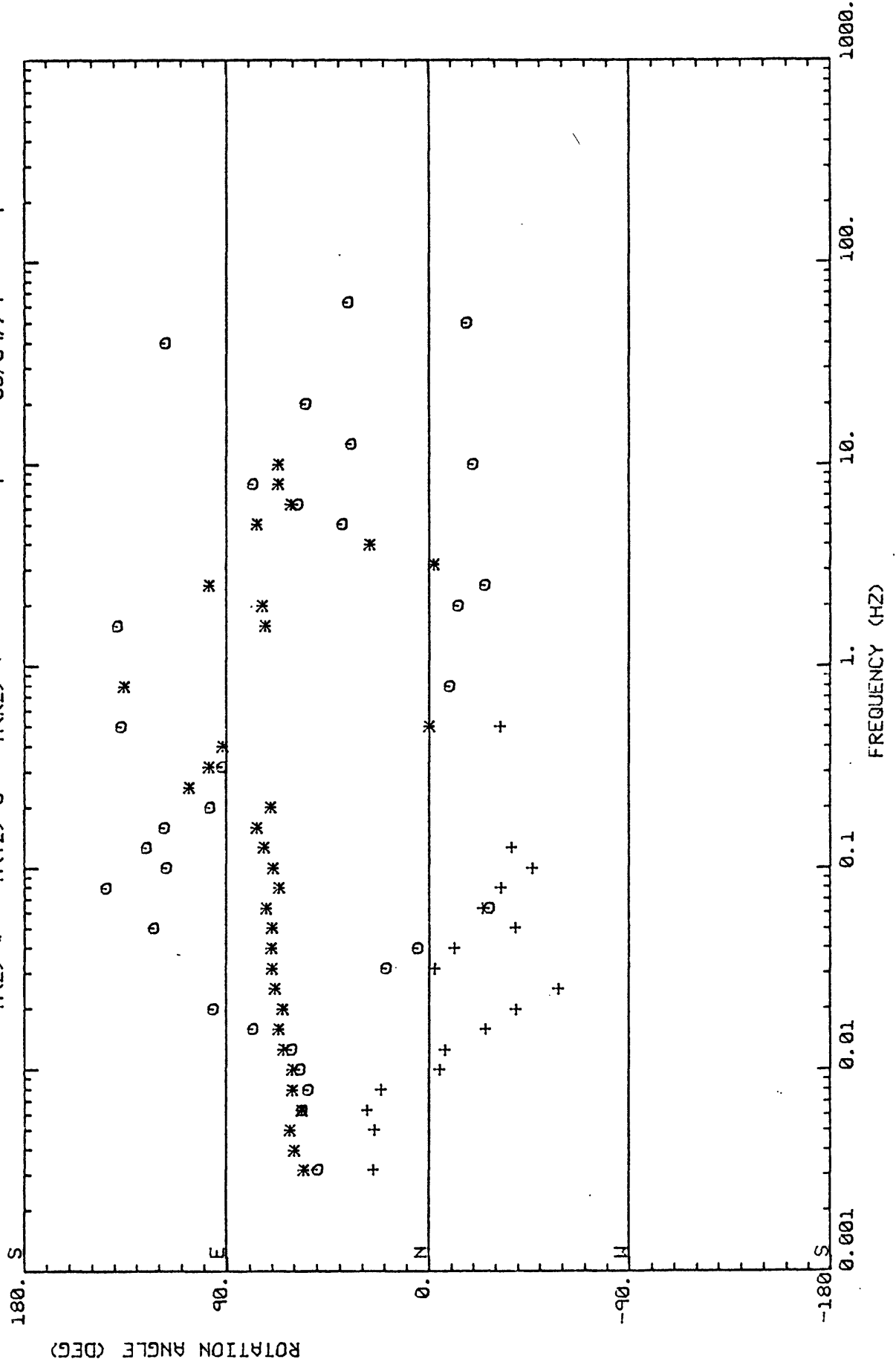


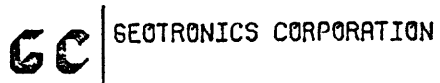
COORD ROTATION ANGLES - PRINCIPLE AXES

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- LEGEND AND NOTES -

X - AXIS AZIMUTH = 19.5°

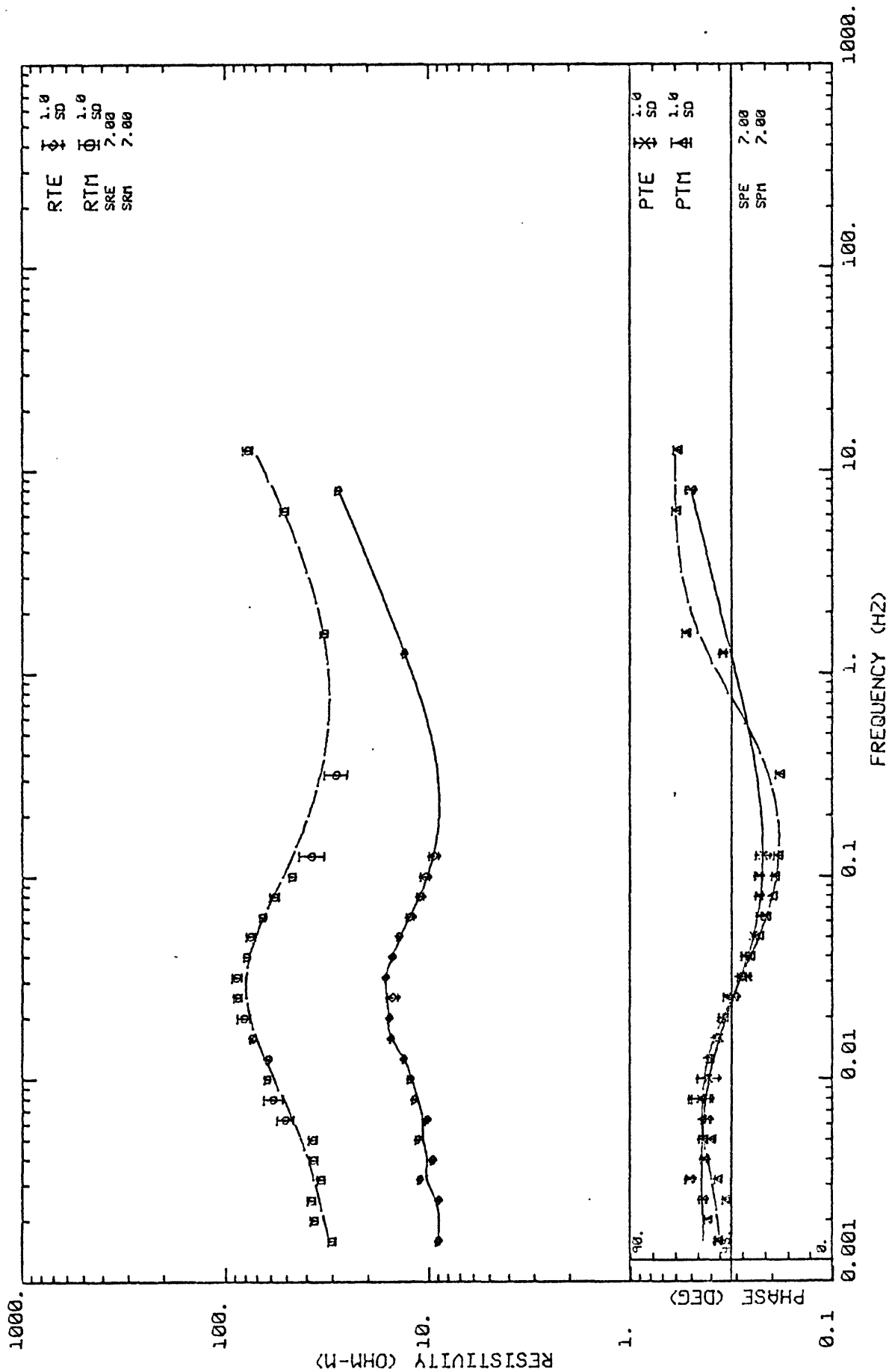
DATA PASS LEVELS : COH (Z) = 0.70  
COH (YZ) = 0.70  
COH (KZ) = 0.70

DATA SETS PROCESSED : RUN NO.  
10300

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

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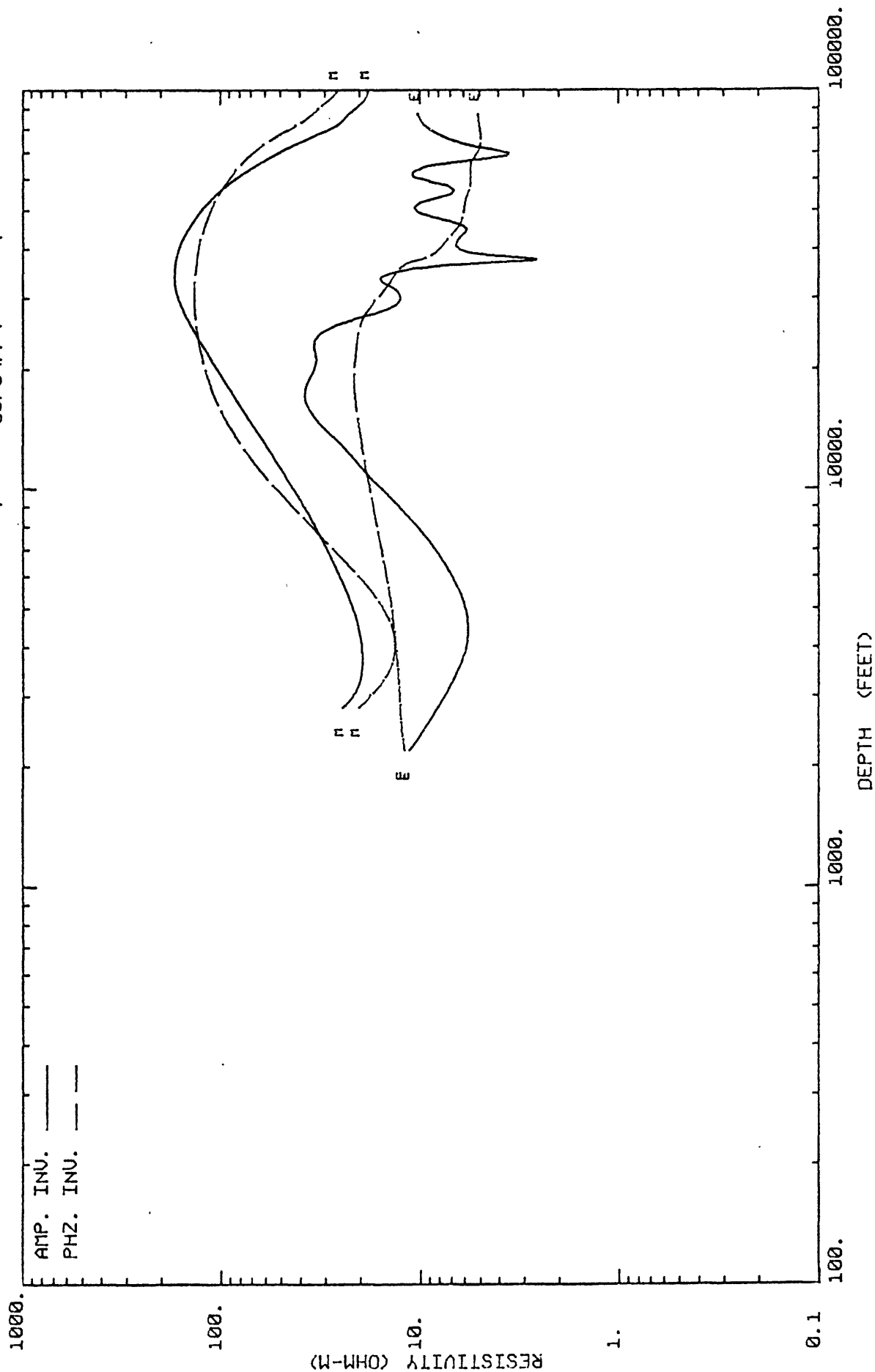
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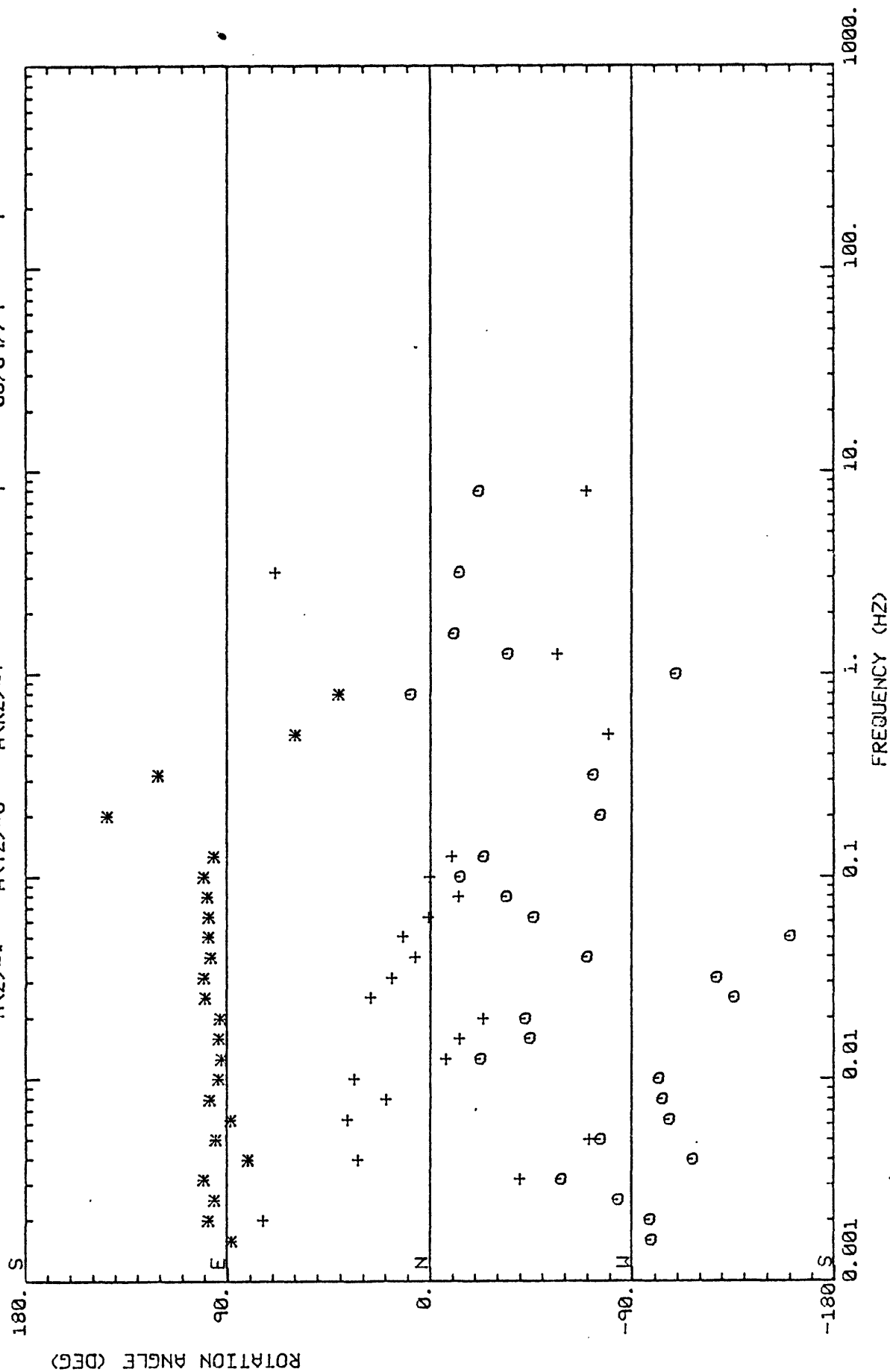


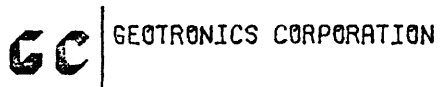
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MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
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- LEGEND AND NOTES -

X - AXIS AZIMUTH = 19.5°

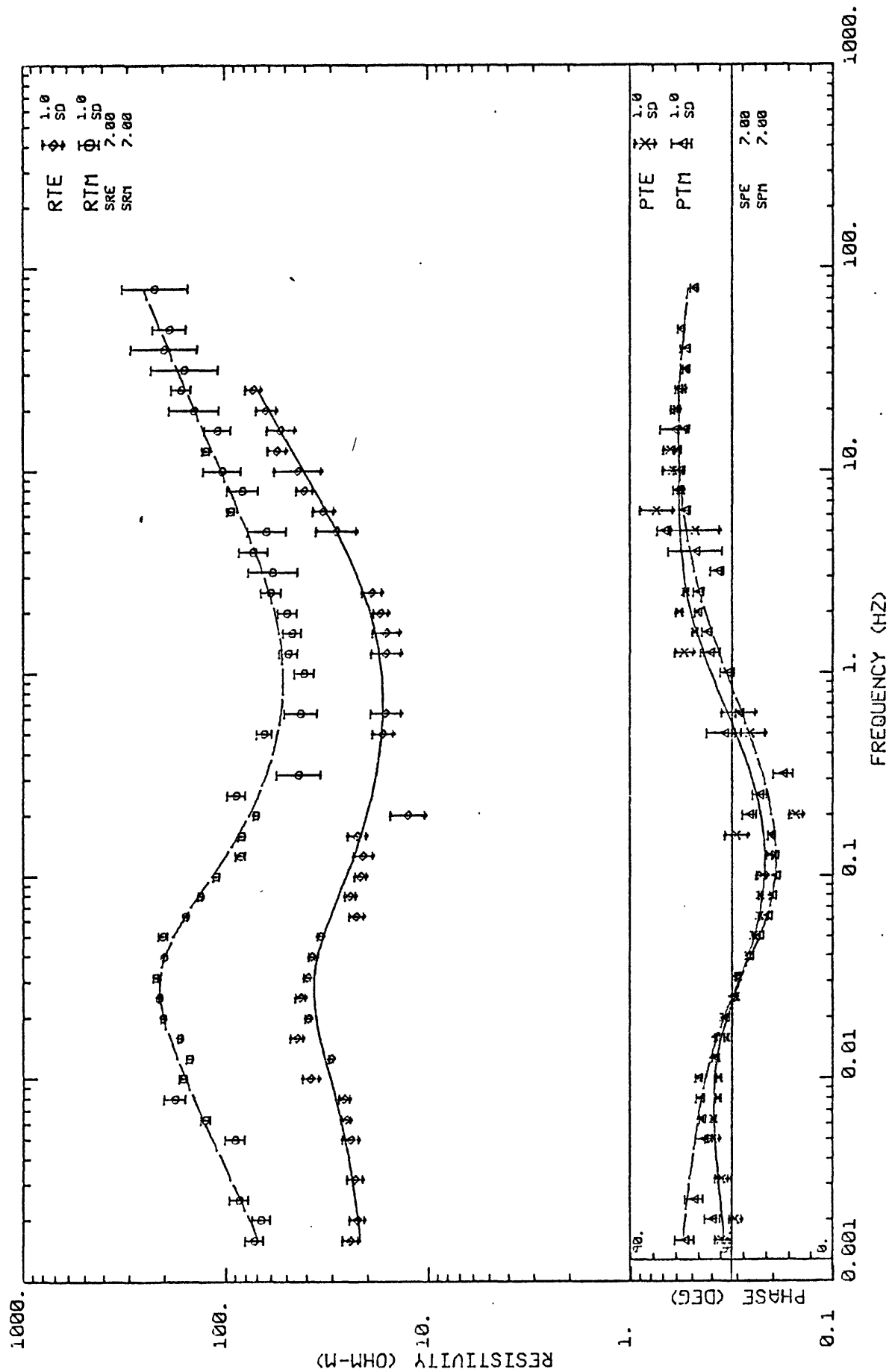
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COH (YZ) = 0.70  
COH (KZ) = 0.70

DATA SETS PROCESSED : RUN NO.  
10400

APPARENT RESISTIVITY AND PHASE  
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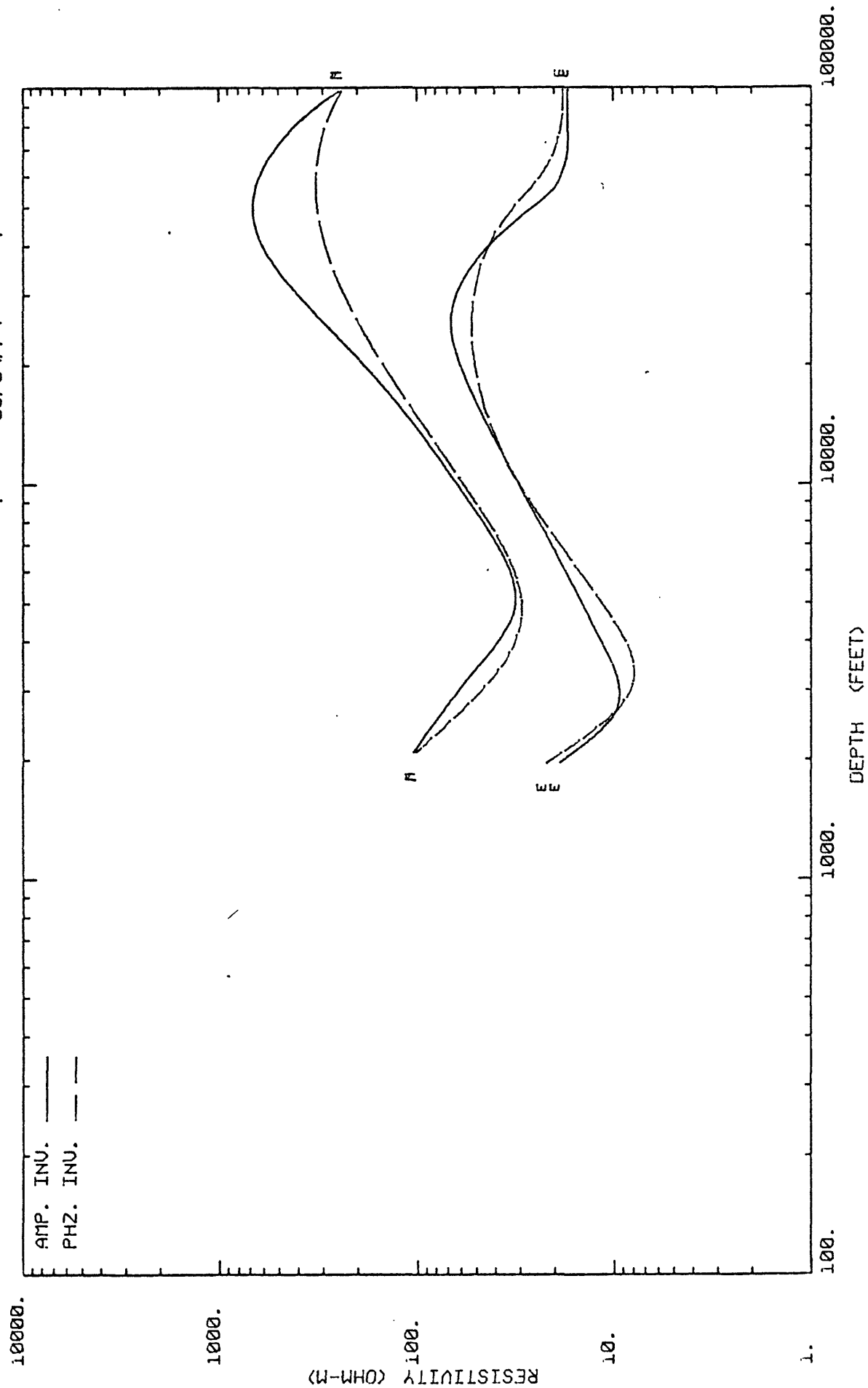


# GEOTRONICS CORPORATION

## INVERSION OF ROTATED TENSOR

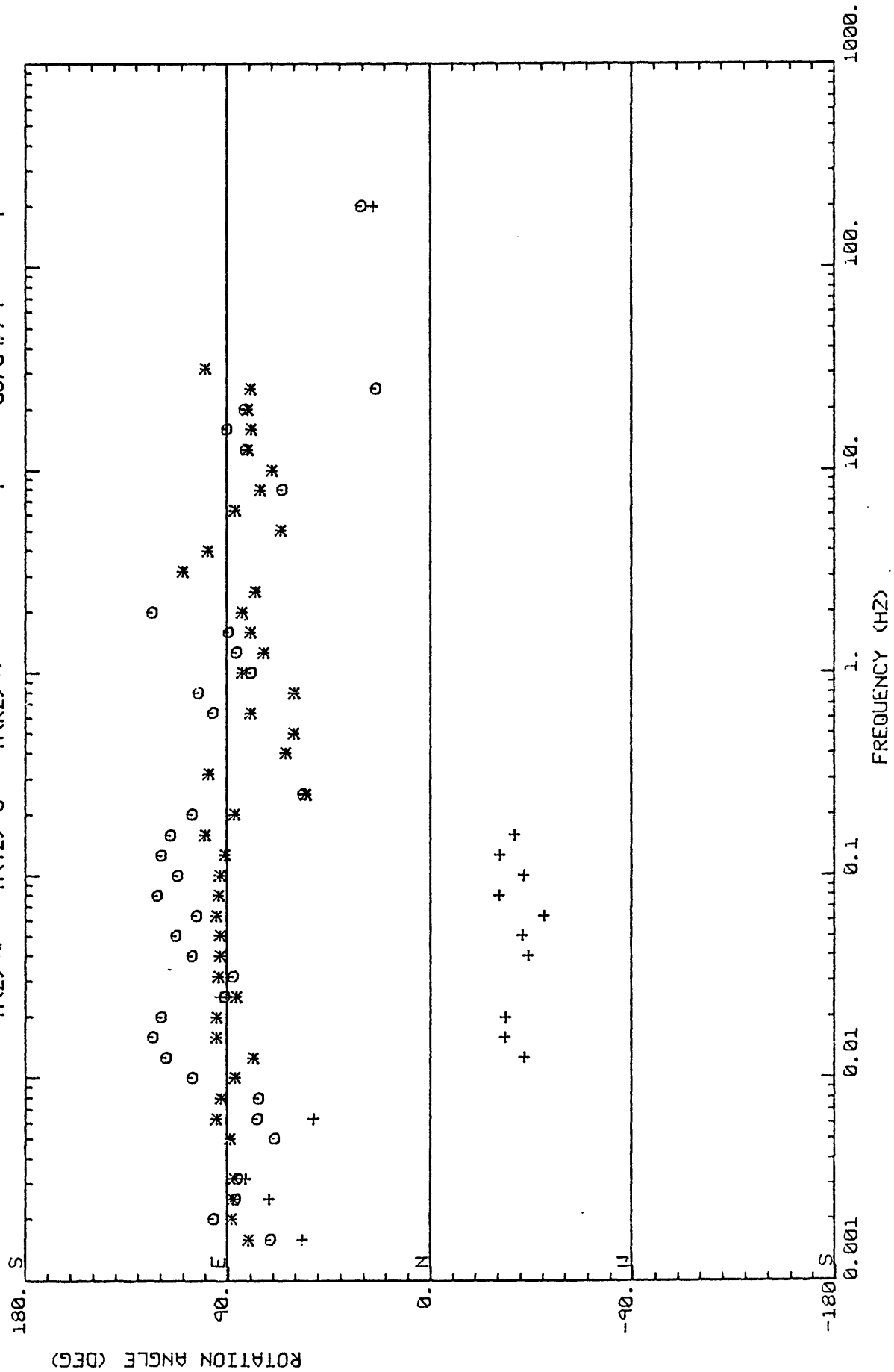
196 1-04  
06/09/79

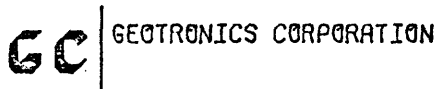
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COORD ROTATION ANGLES - PRINCIPLE AXES  
 A(Z)=\* A(YZ)=0 A(KZ)=+ PAGE 3  
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X - AXIS AZIMUTH = 19.5°

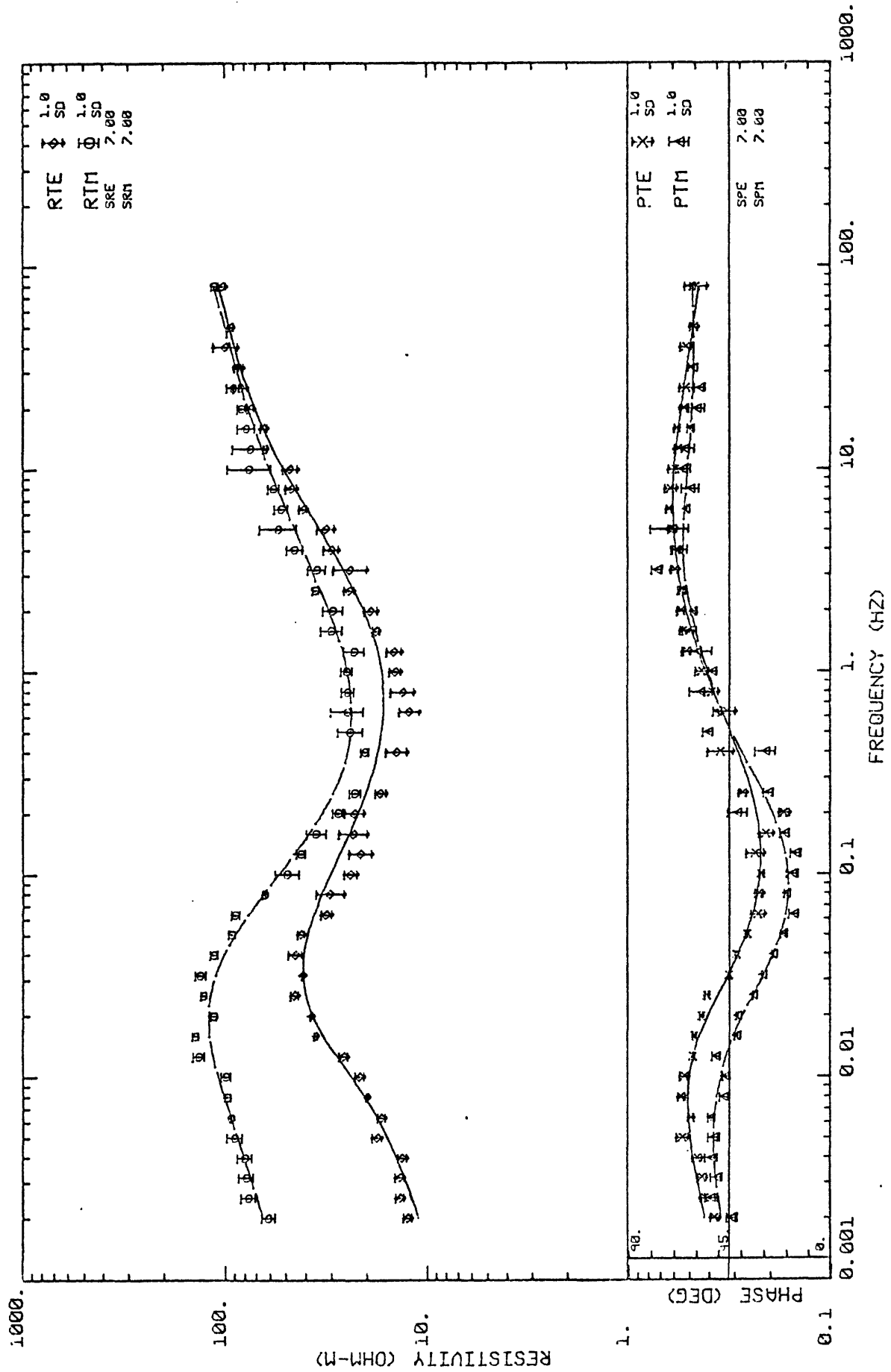
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COH (XZ) = 0.70

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APPARENT RESISTIVITY AND PHASE  
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196 1-05  
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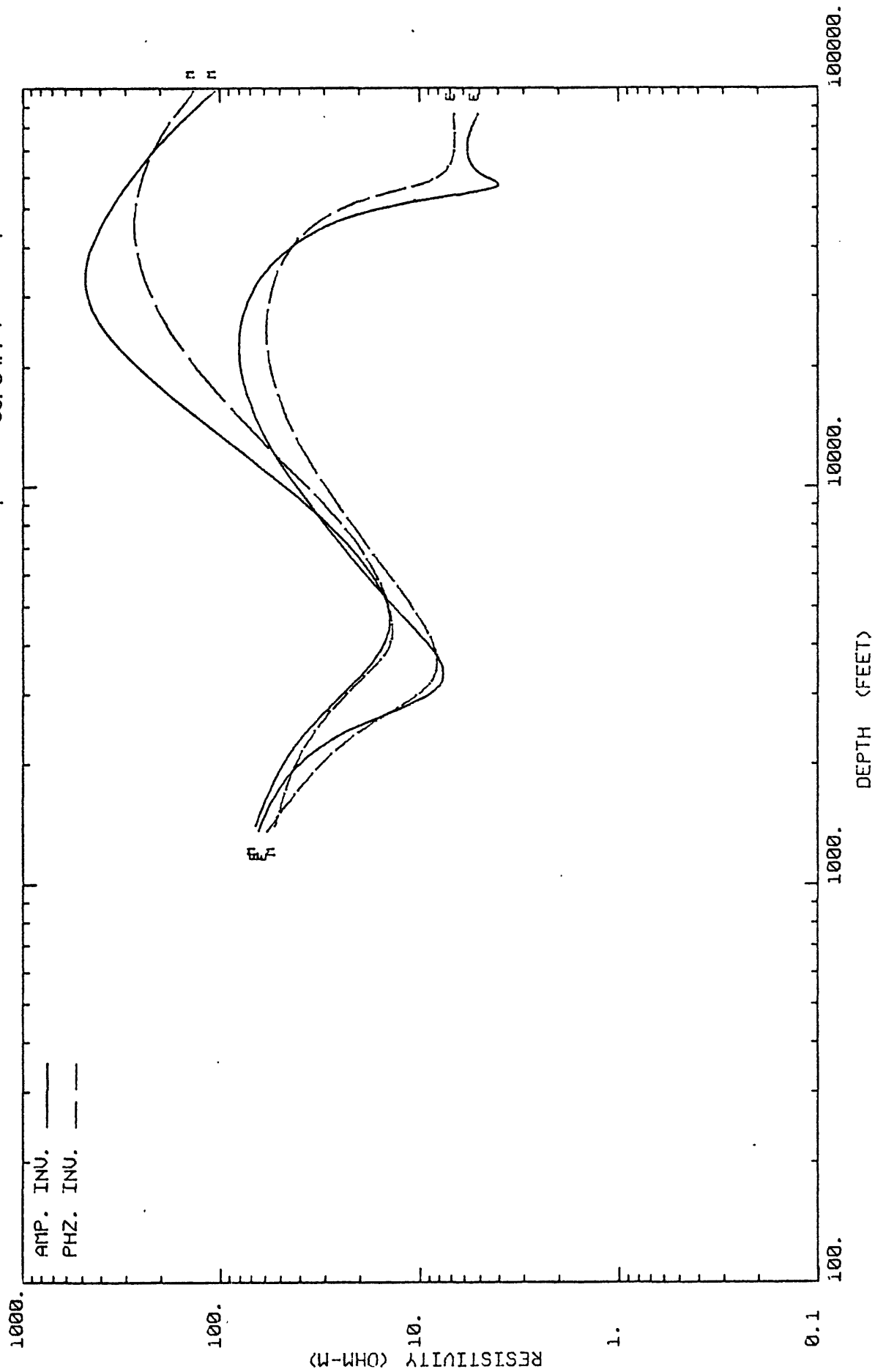
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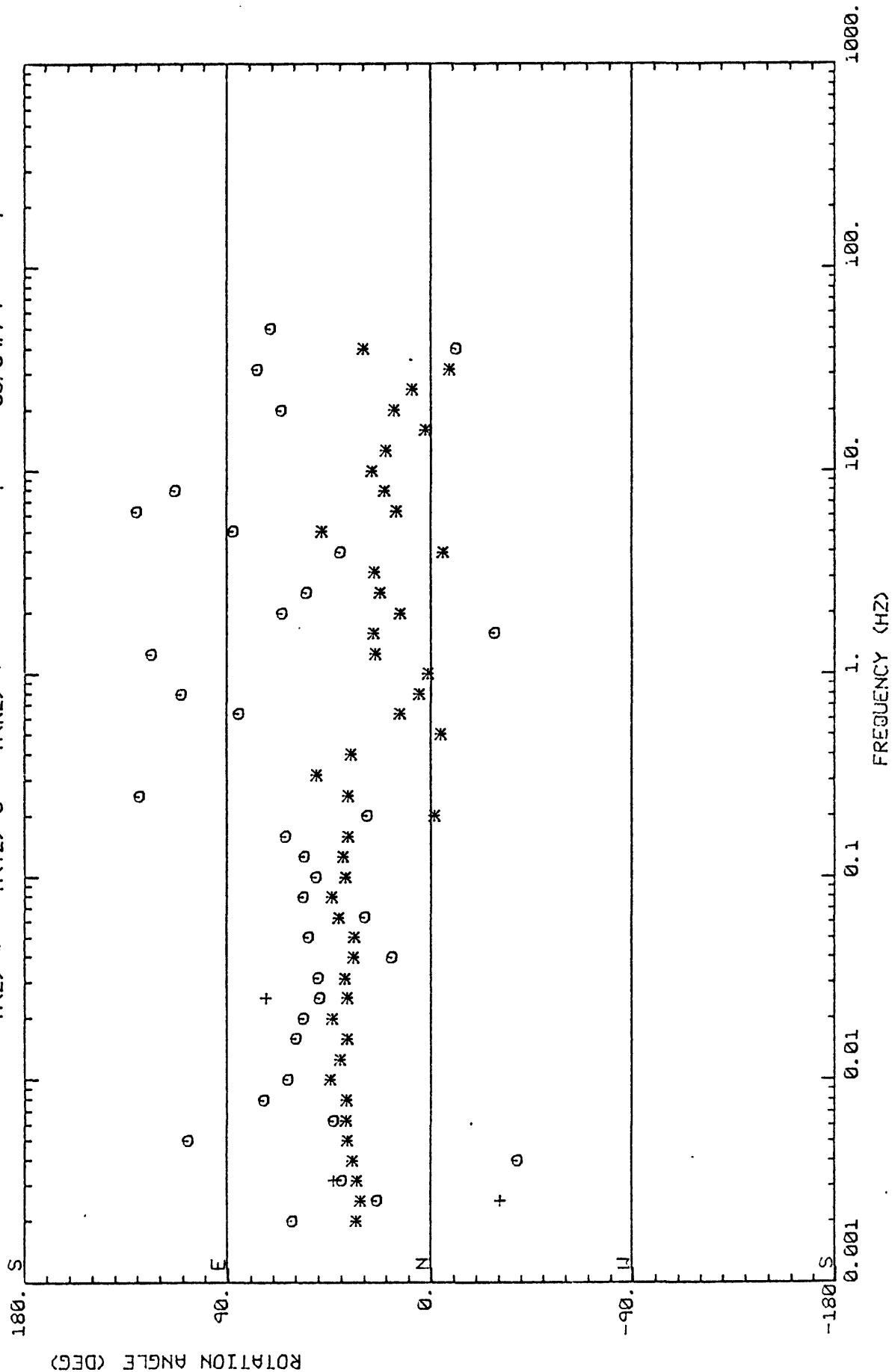
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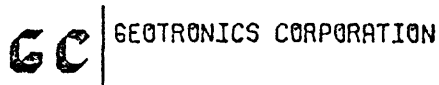
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COORD ROTATION ANGLES - PRINCIPLE AXES

A(Z)=\* A(YZ)=0 A(KZ)=+





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X - AXIS AZIMUTH = 19.5°

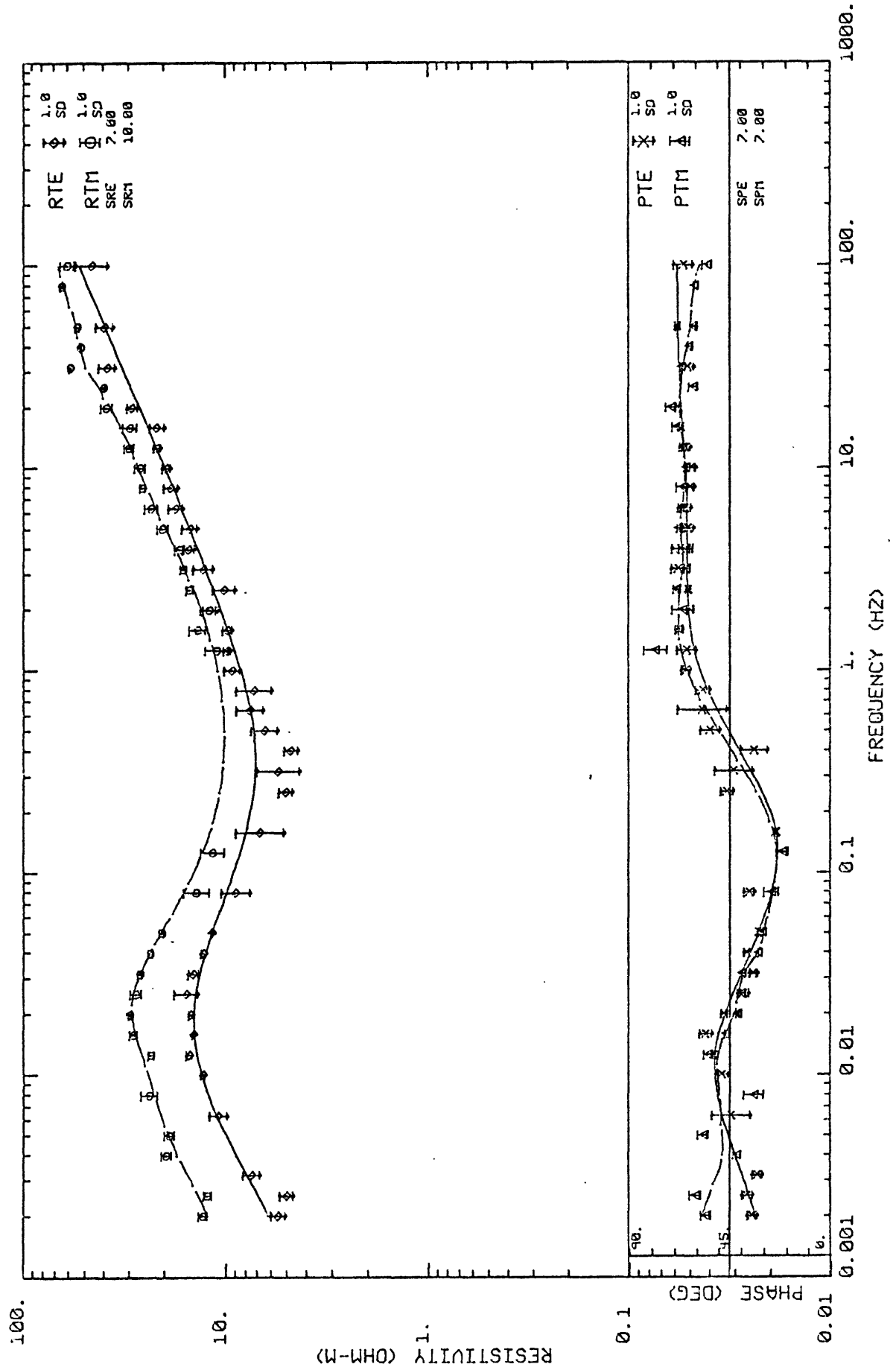
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COH (YZ) = 0.70  
COH (KZ) = 0.70

DATA SETS PROCESSED : RUN NO.  
100600

APPARENT RESISTIVITY AND PHASE  
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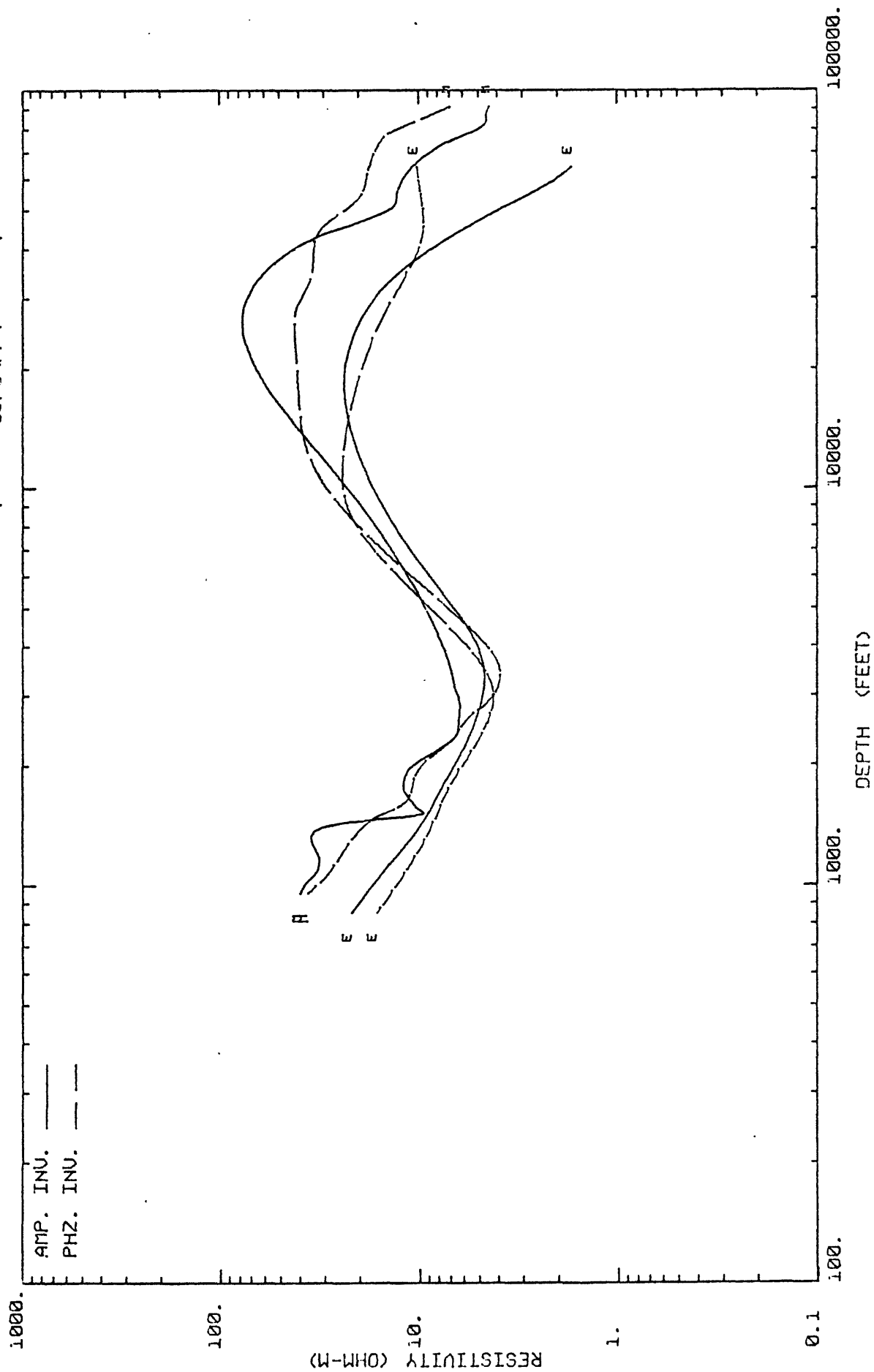


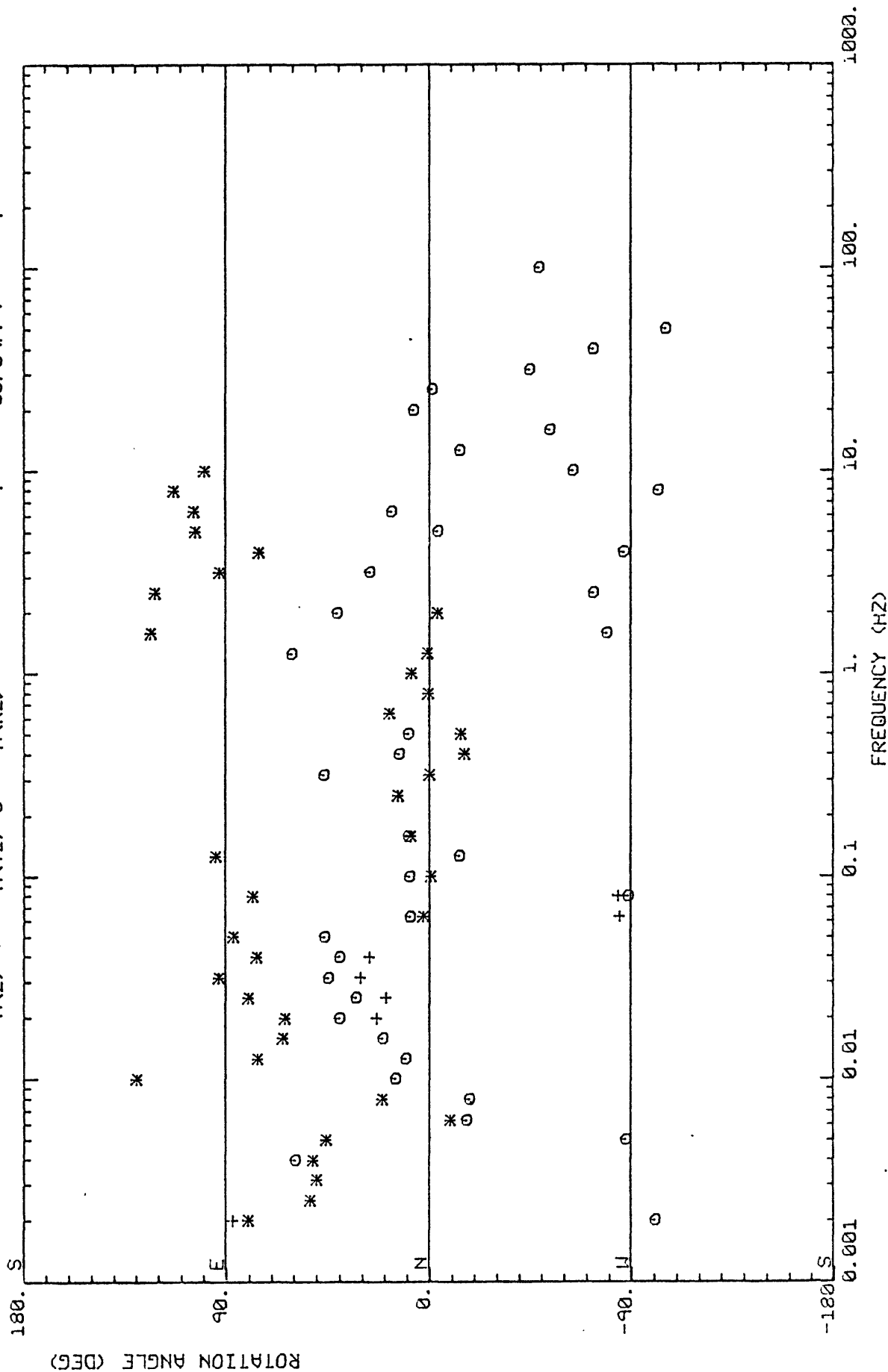
INVERSION OF ROTATED TENSOR

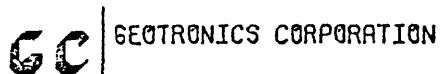
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- LEGEND AND NOTES -

X - AXIS AZIMUTH = 19.5°

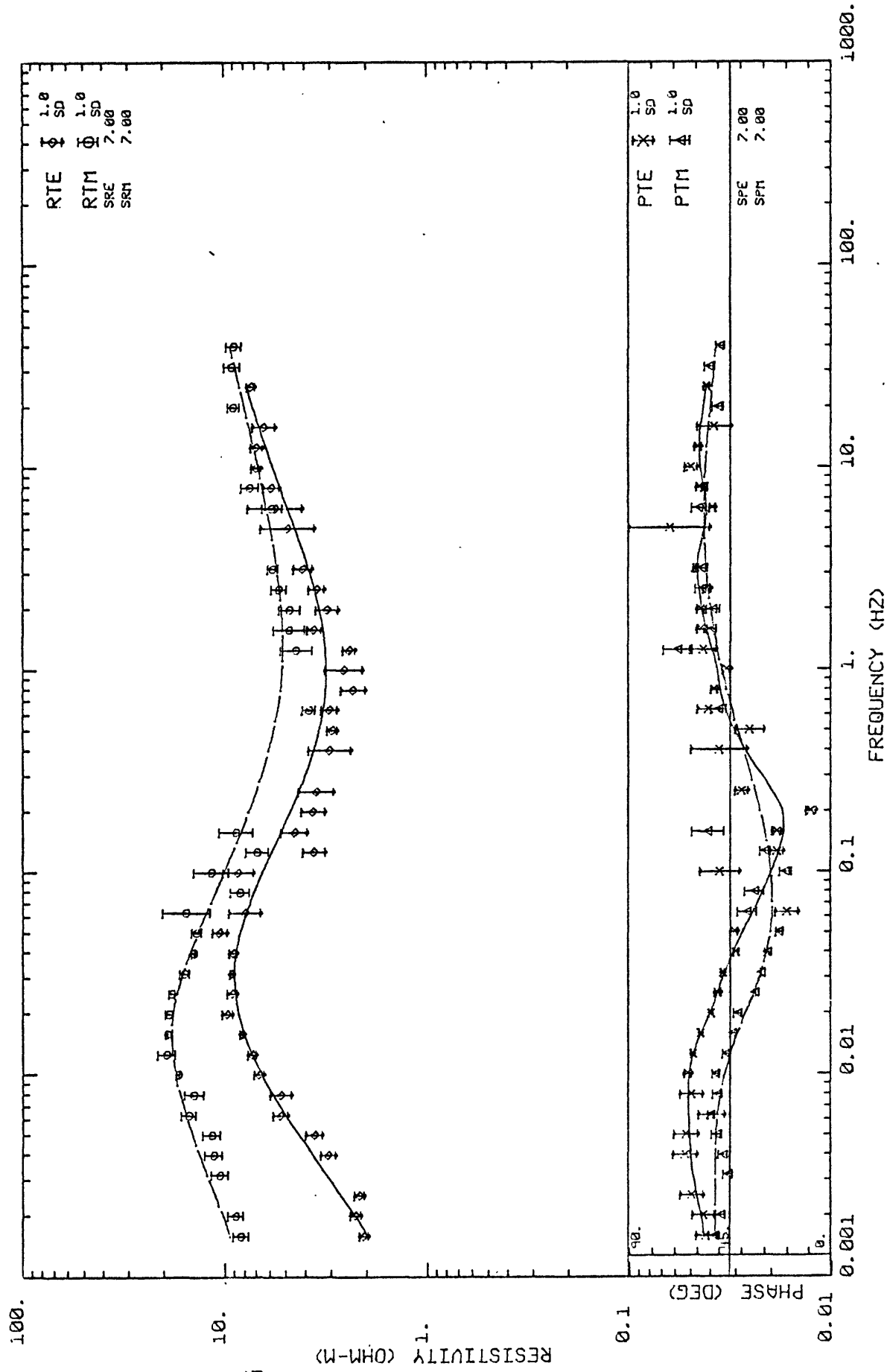
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COH (KZ) = 0.70

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100700

APPARENT RESISTIVITY AND PHASE  
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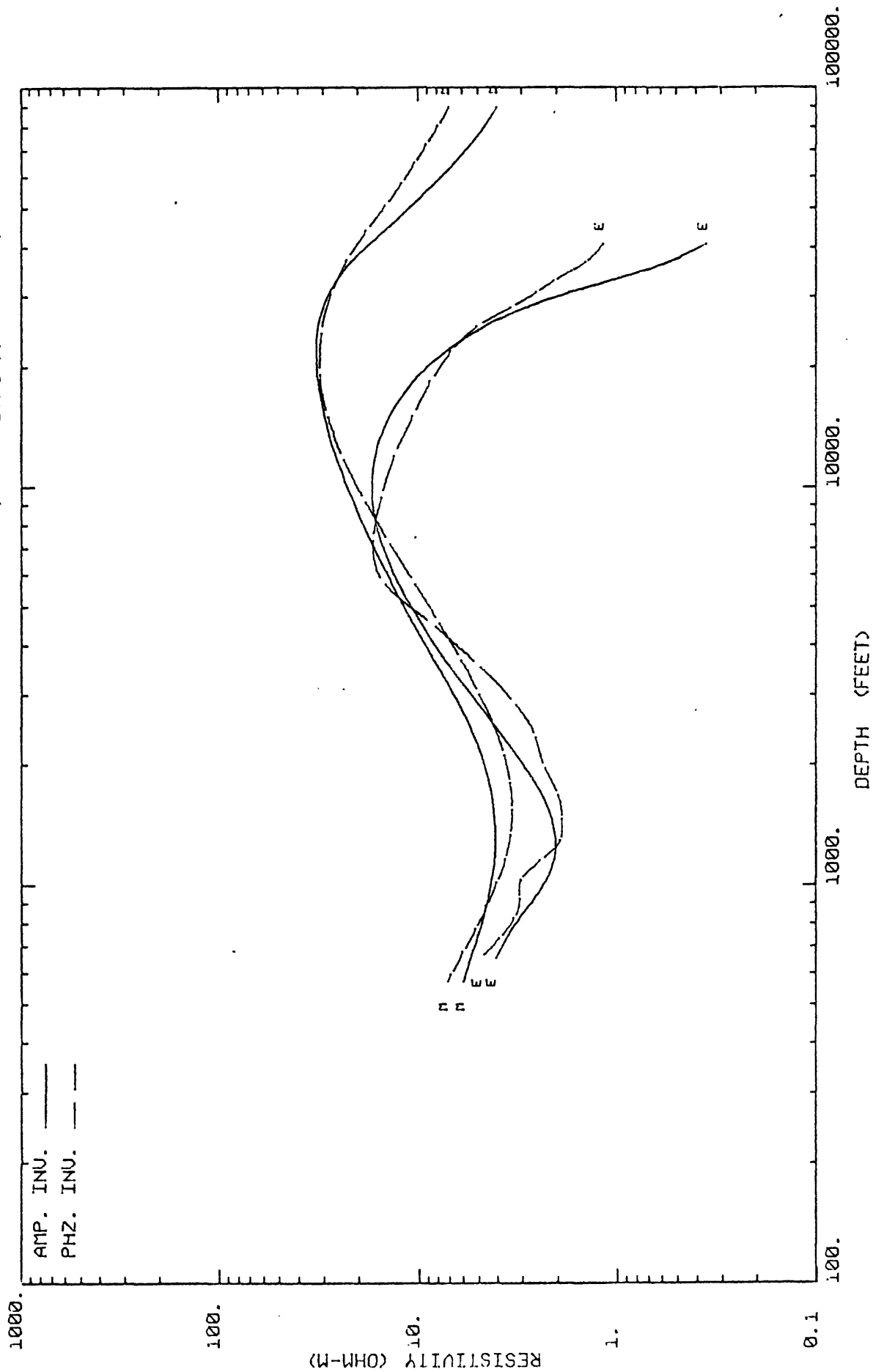
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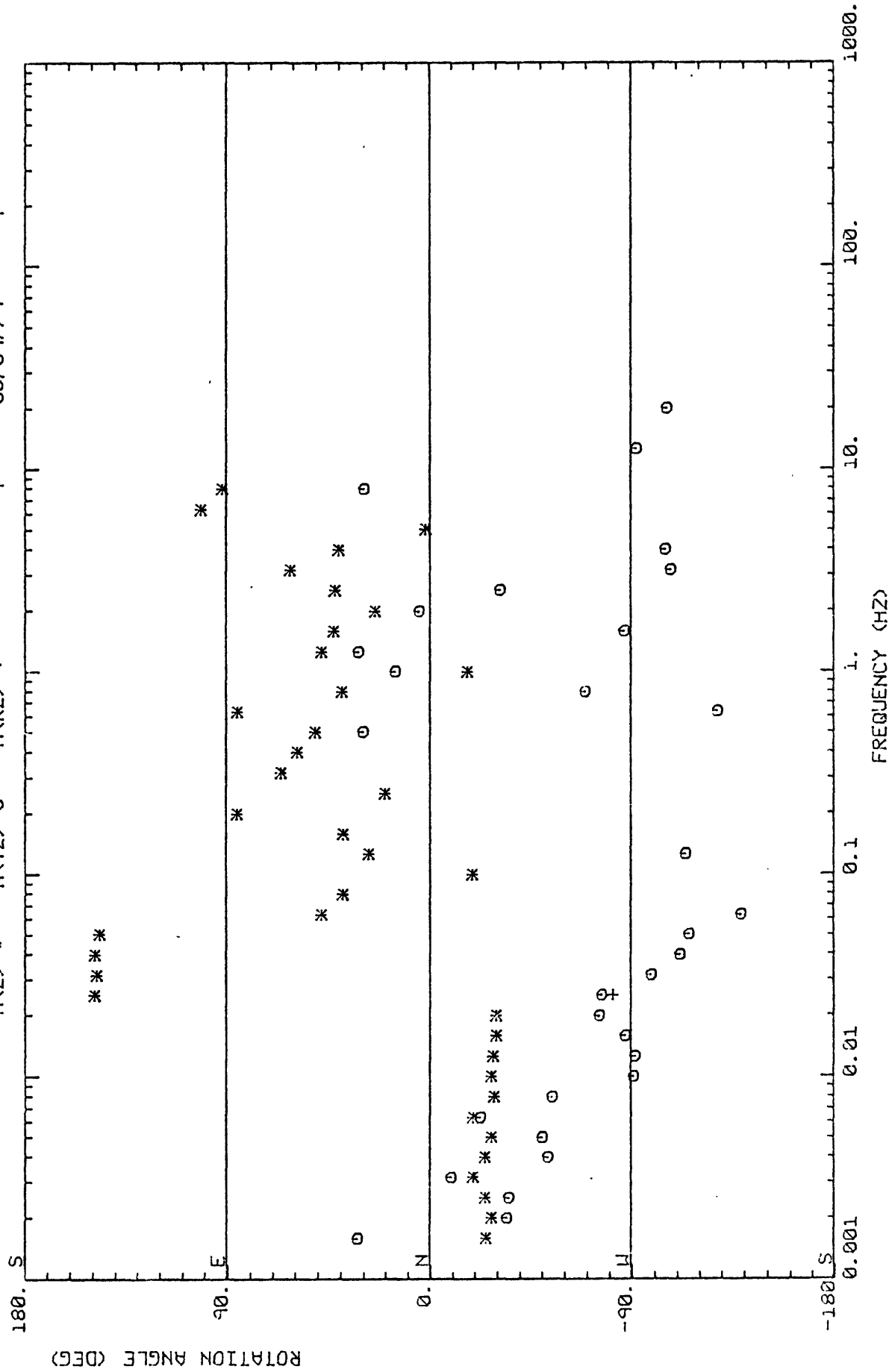
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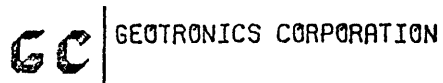
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COORD ROTATION ANGLES - PRINCIPLE AXES  
 A(Z)=\* A(YZ)=0 A(KZ)=+  
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X - AXIS AZIMUTH = 19.5°

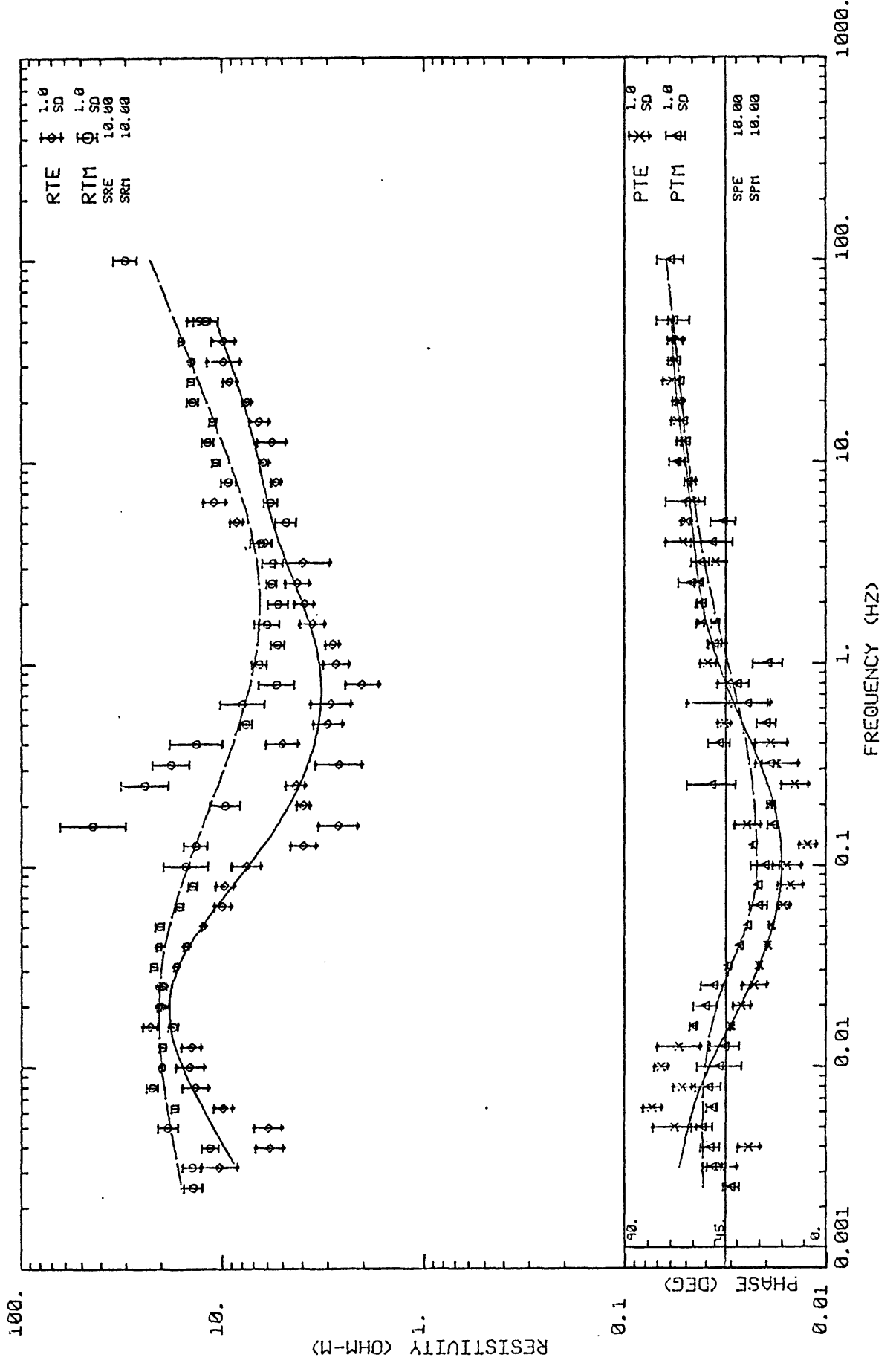
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COH (YZ) = 0.70  
COH (KZ) = 0.70

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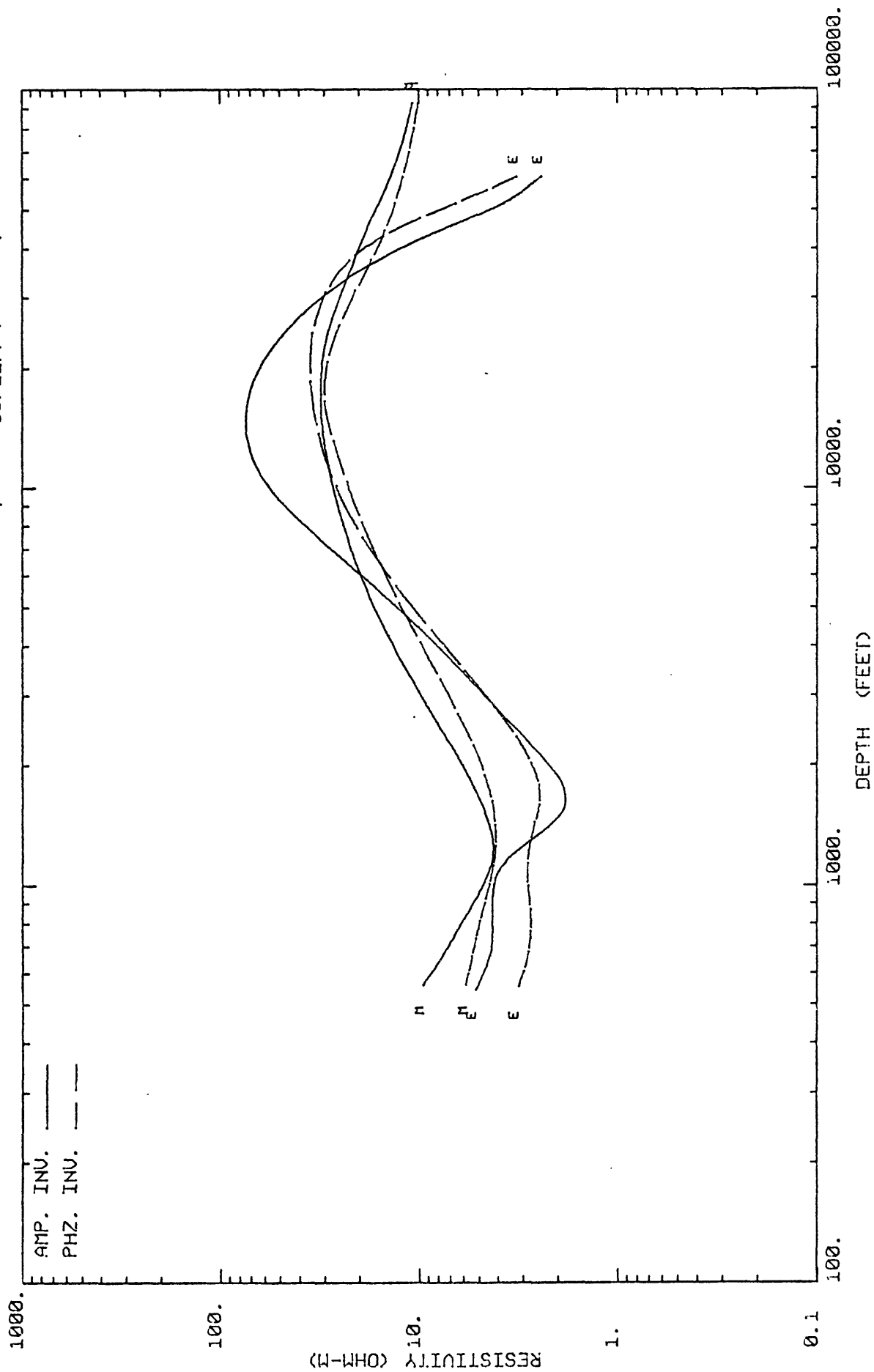
APPARENT RESISTIVITY AND PHASE  
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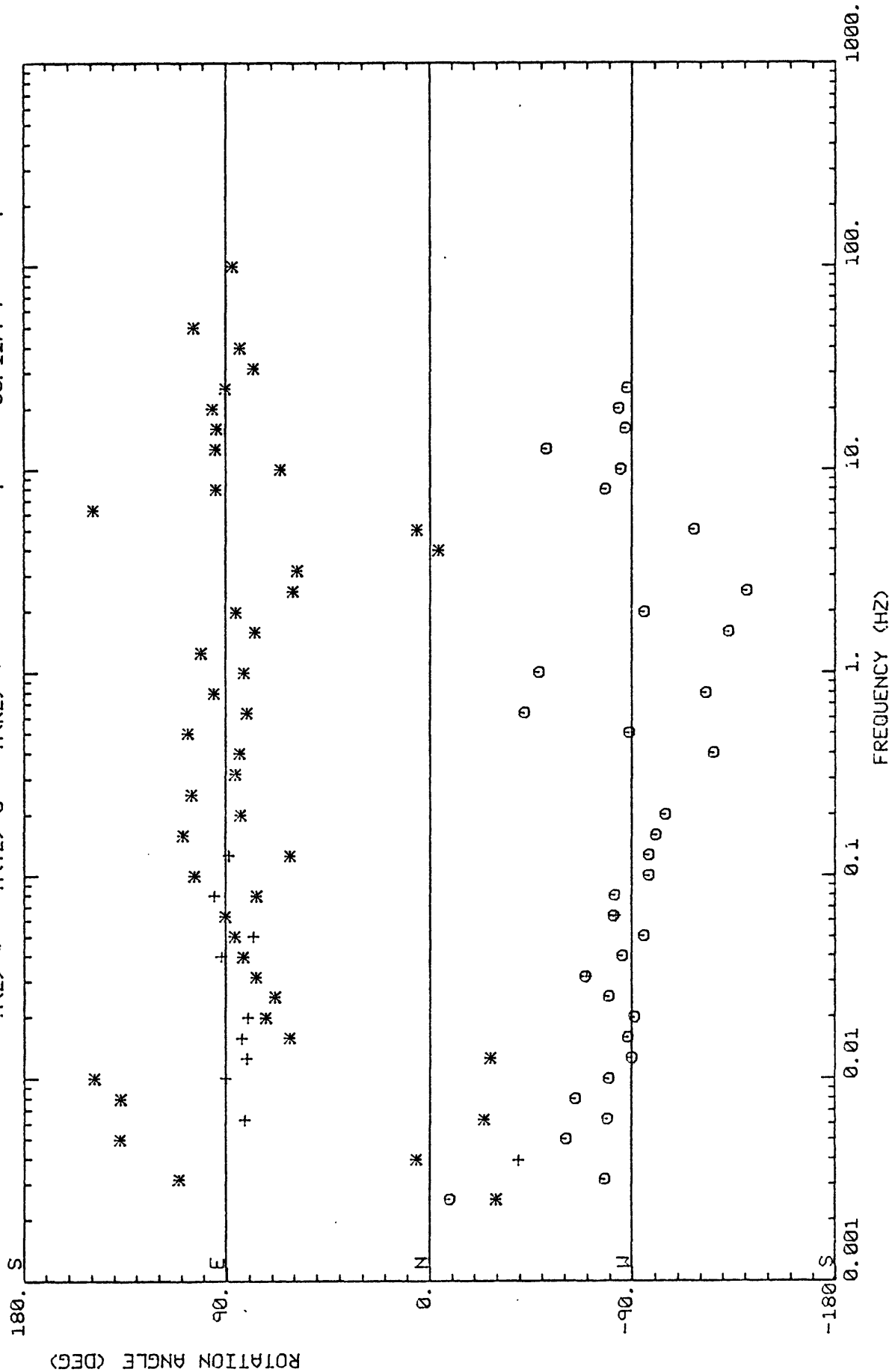


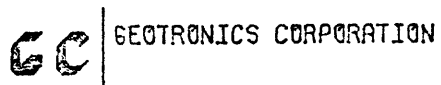
COORD ROTATION ANGLES - PRINCIPLE AXES

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A(Z)=\* A(YZ)=0 A(KZ)=+





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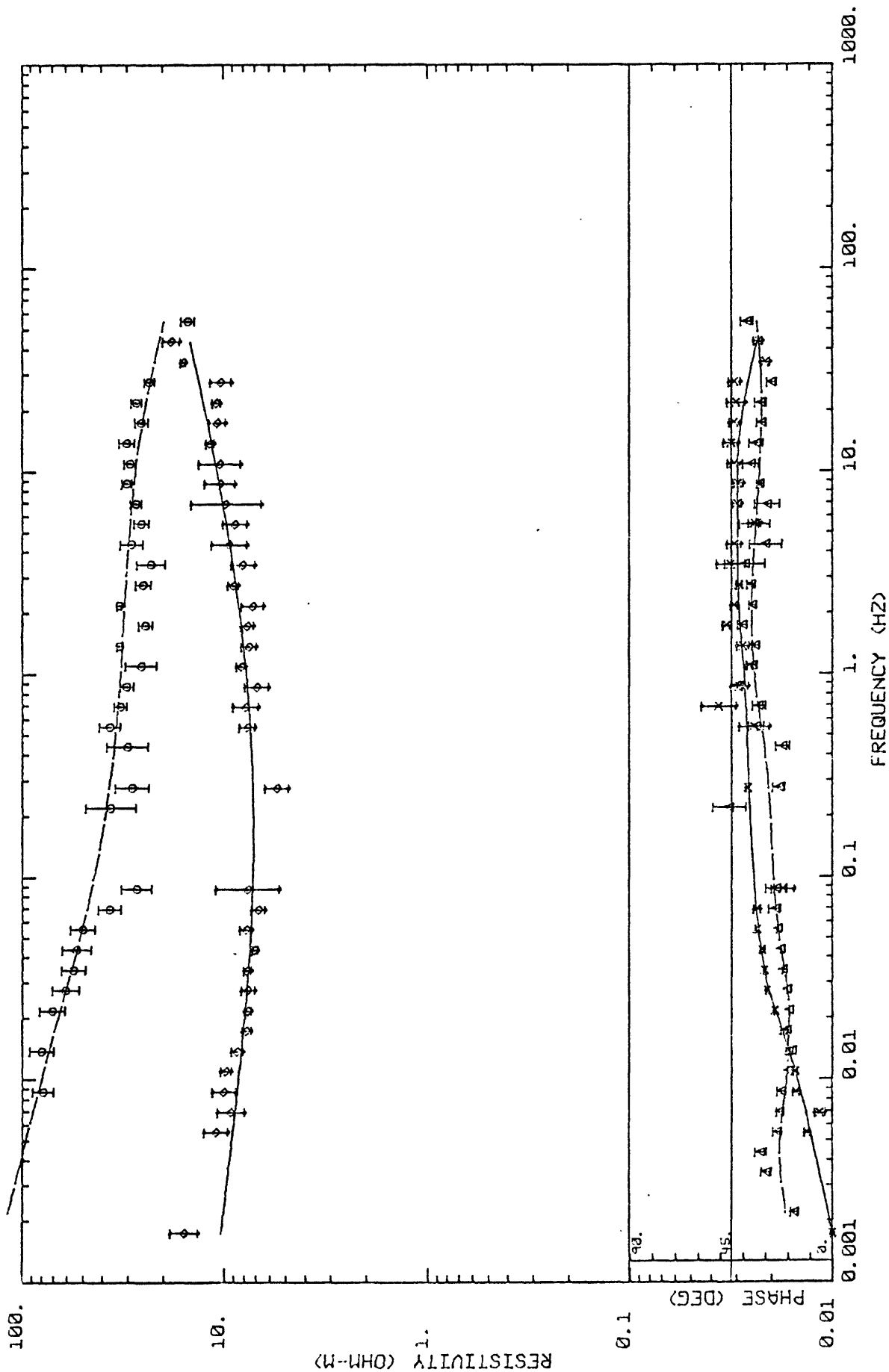
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COH (YZ) = 0.70

COH (KZ) = 0.70

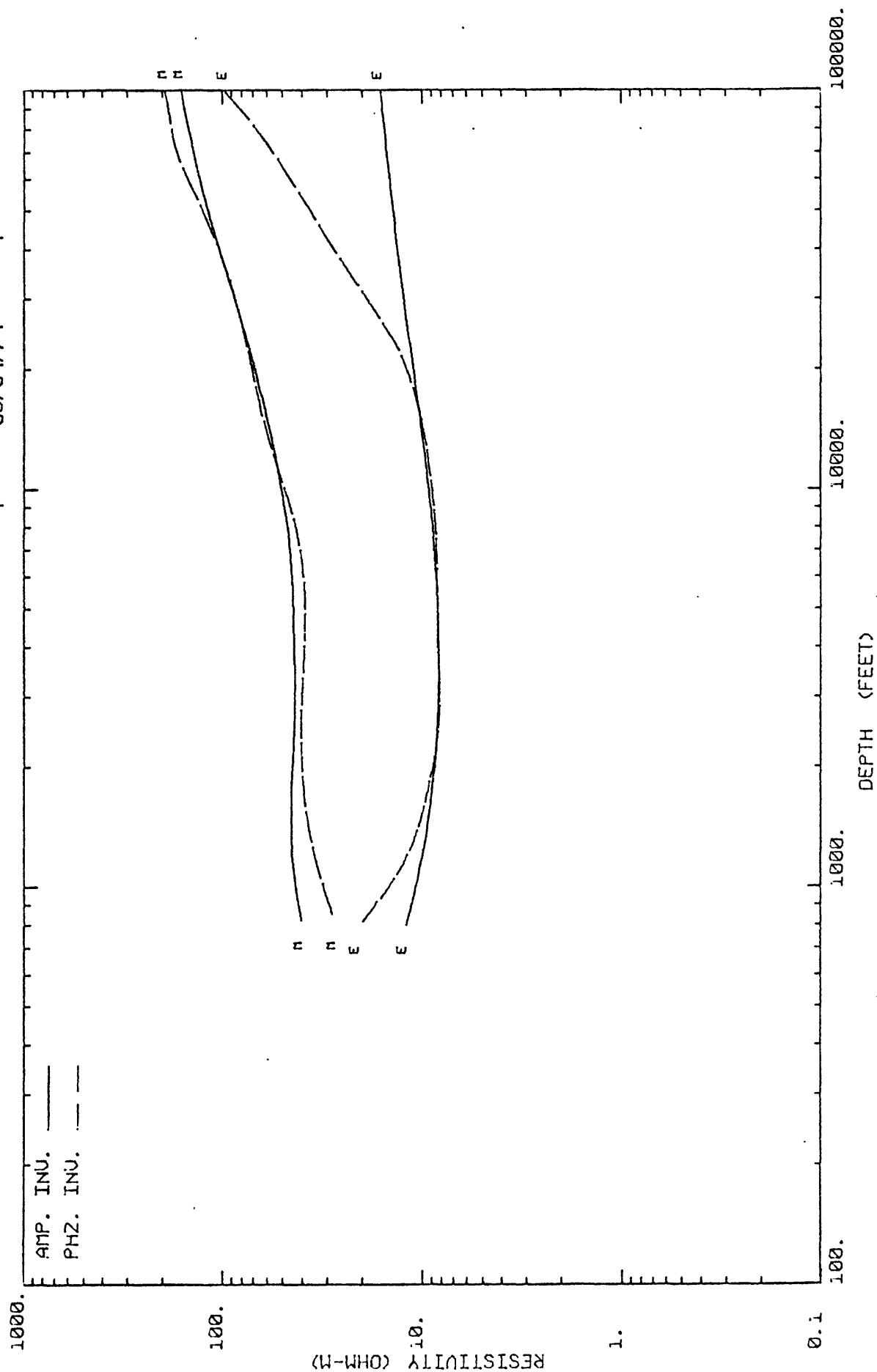
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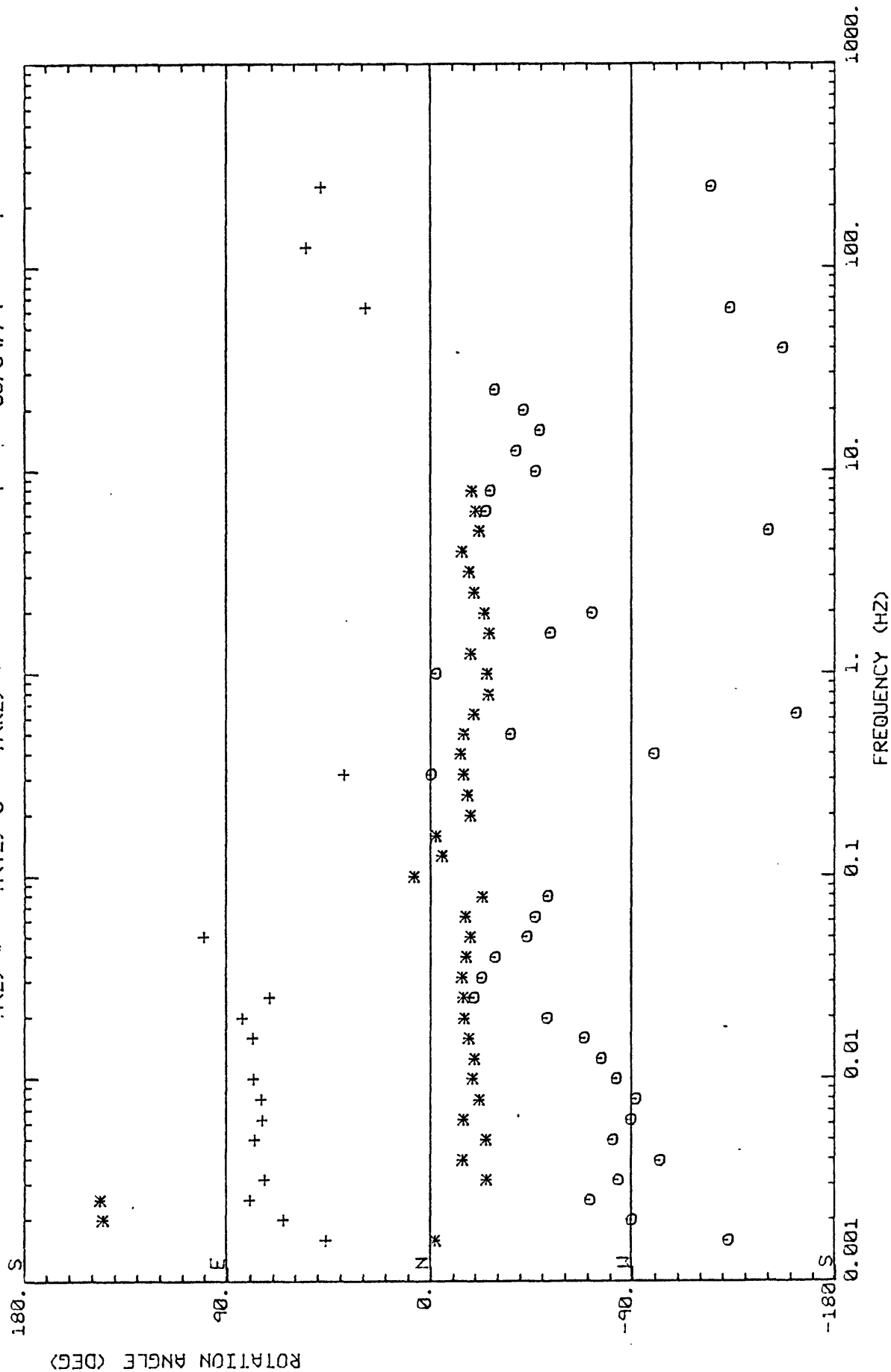


COORD ROTATION ANGLES - PRINCIPLE AXES

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A(Z)=\* A(YZ)=0 A(KZ)=+





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X - AXIS AZIMUTH = 19.0°

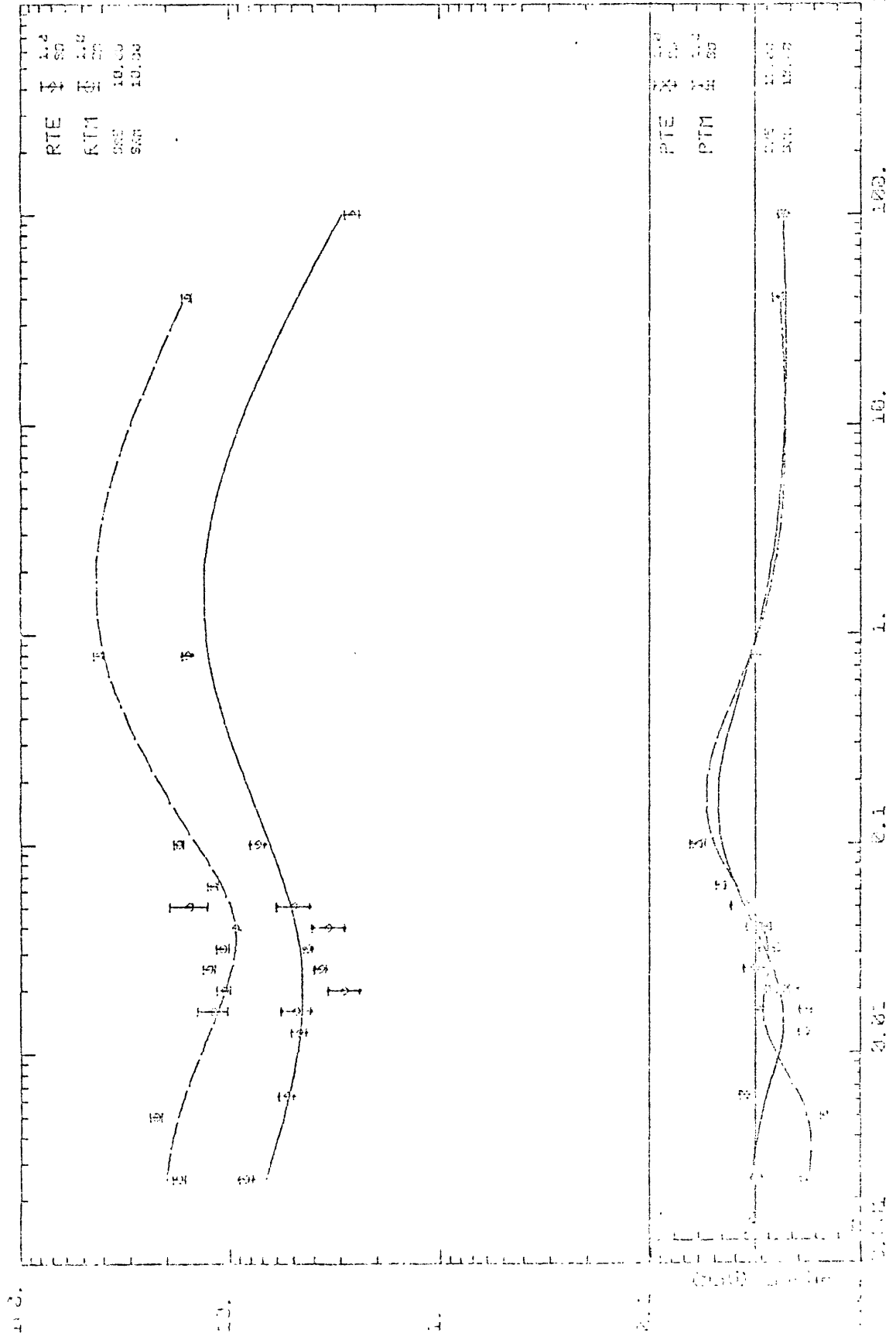
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COH (YZ) = 0.80  
COH (KZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
20200

APPARENT RESISTIVITY AND PHASE  
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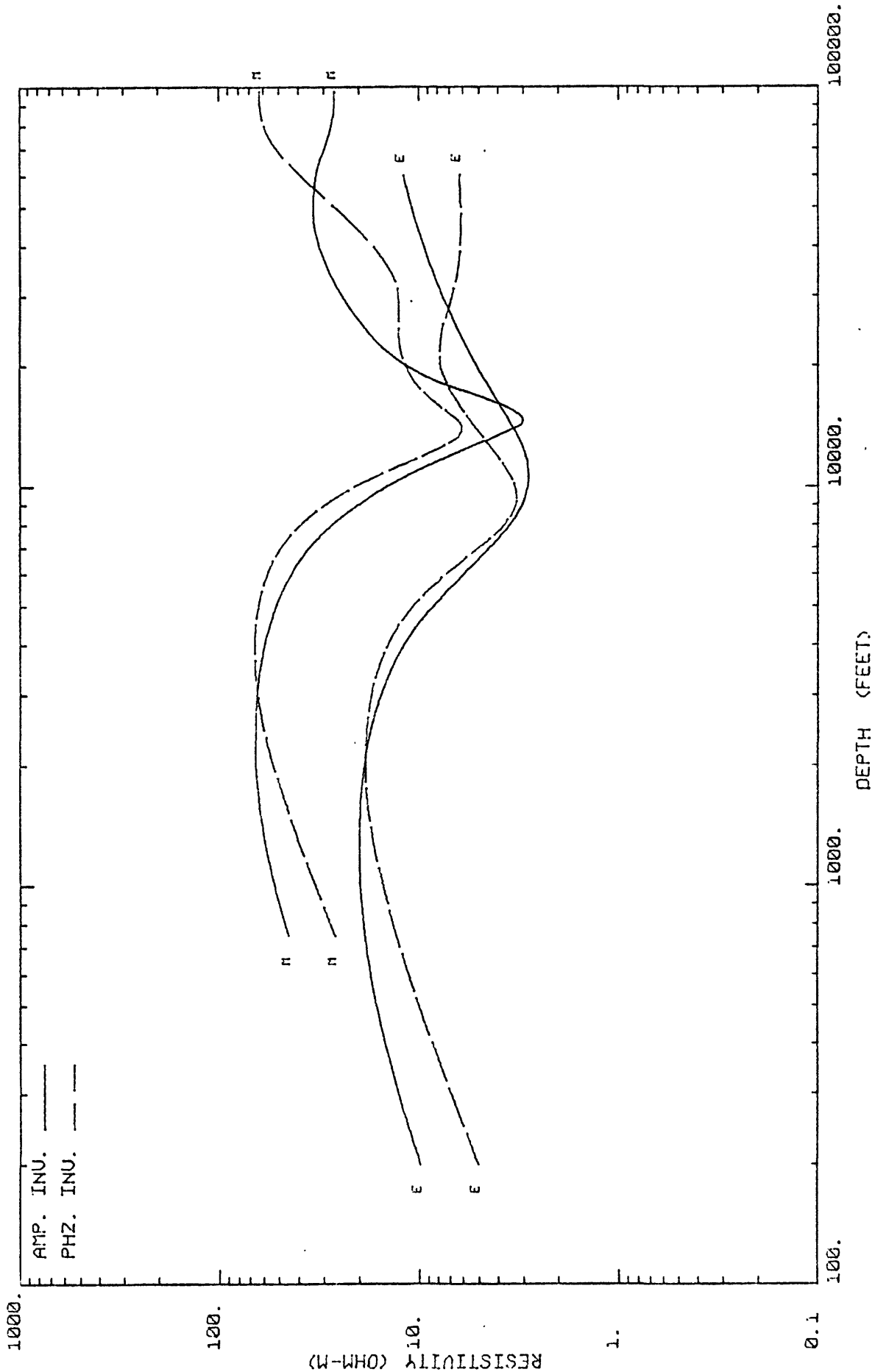


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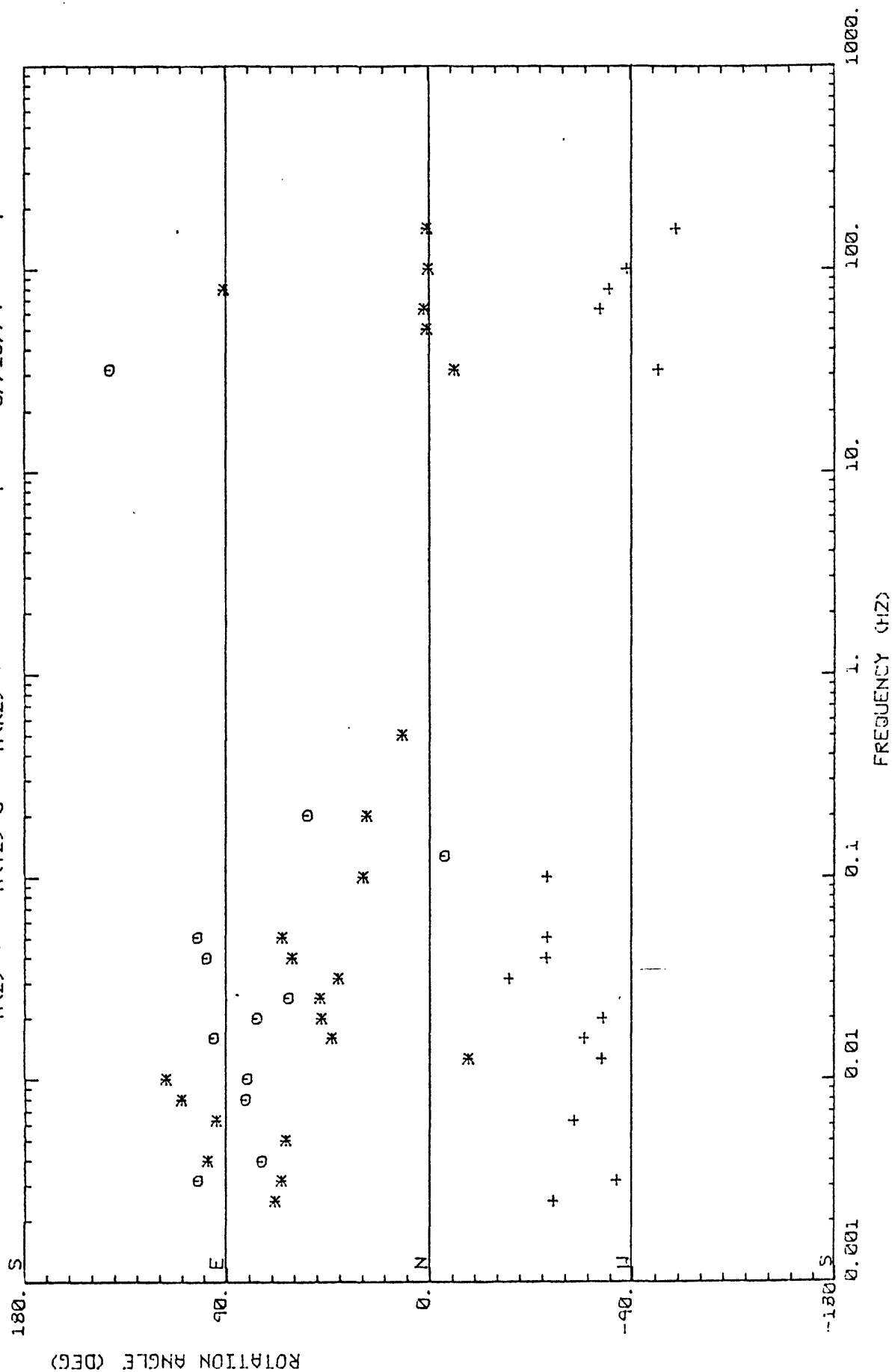
# GEOTRONICS CORPORATION

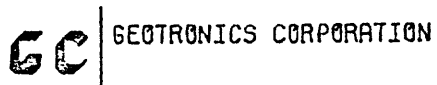
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COORD ROTATION ANGLES - PRINCIPLE AXES

A(Z) = \*    A(YZ) = 0    A(KZ) = +





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- LEGEND AND NOTES -

X - AXIS AZIMUTH = 19.0°

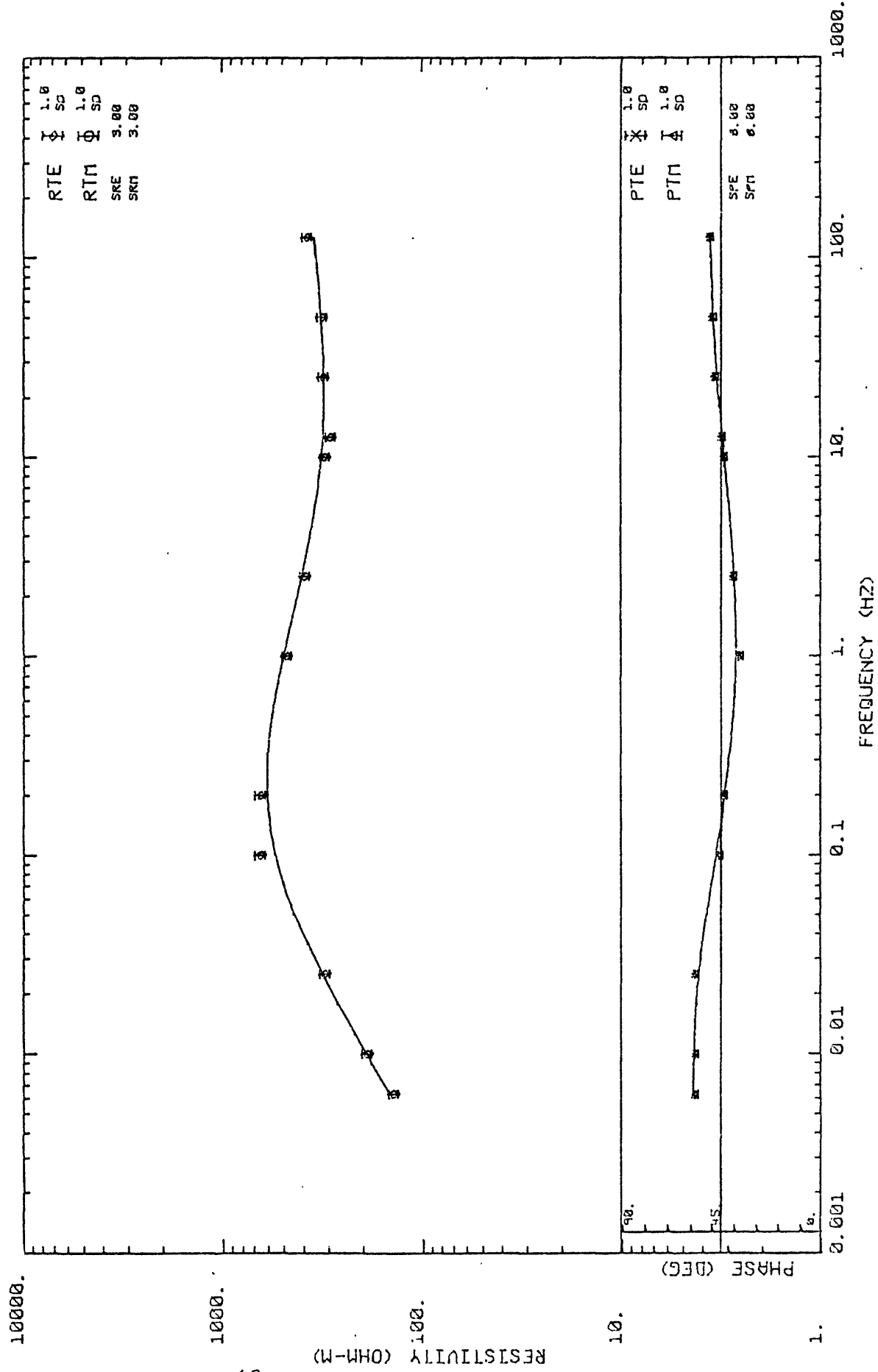
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COM (YZ) = 0.80  
COM (KZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
20300

APPARENT RESISTIVITY AND PHASE  
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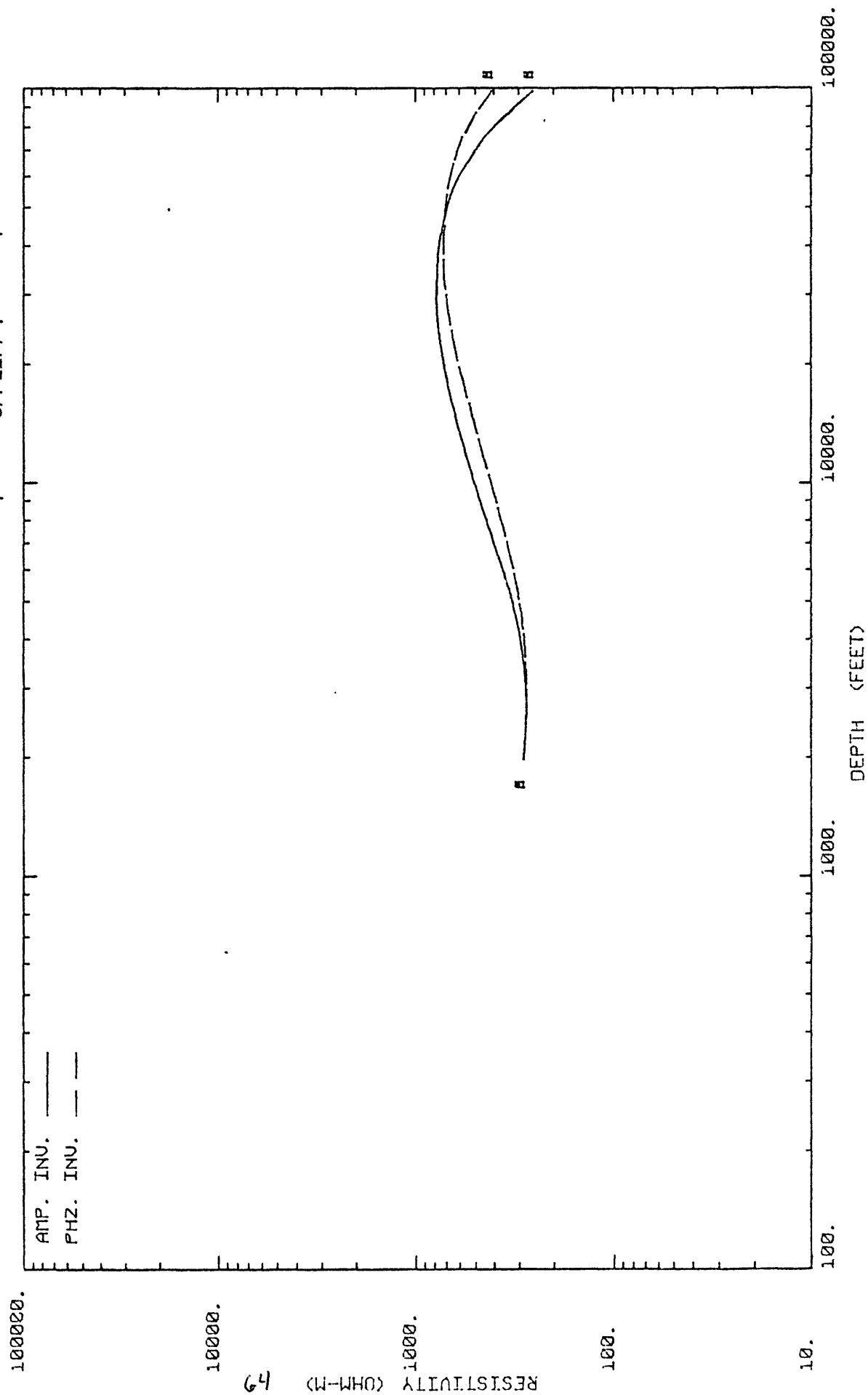


**G E O T R O N I C S   C O R P O R A T I O N**

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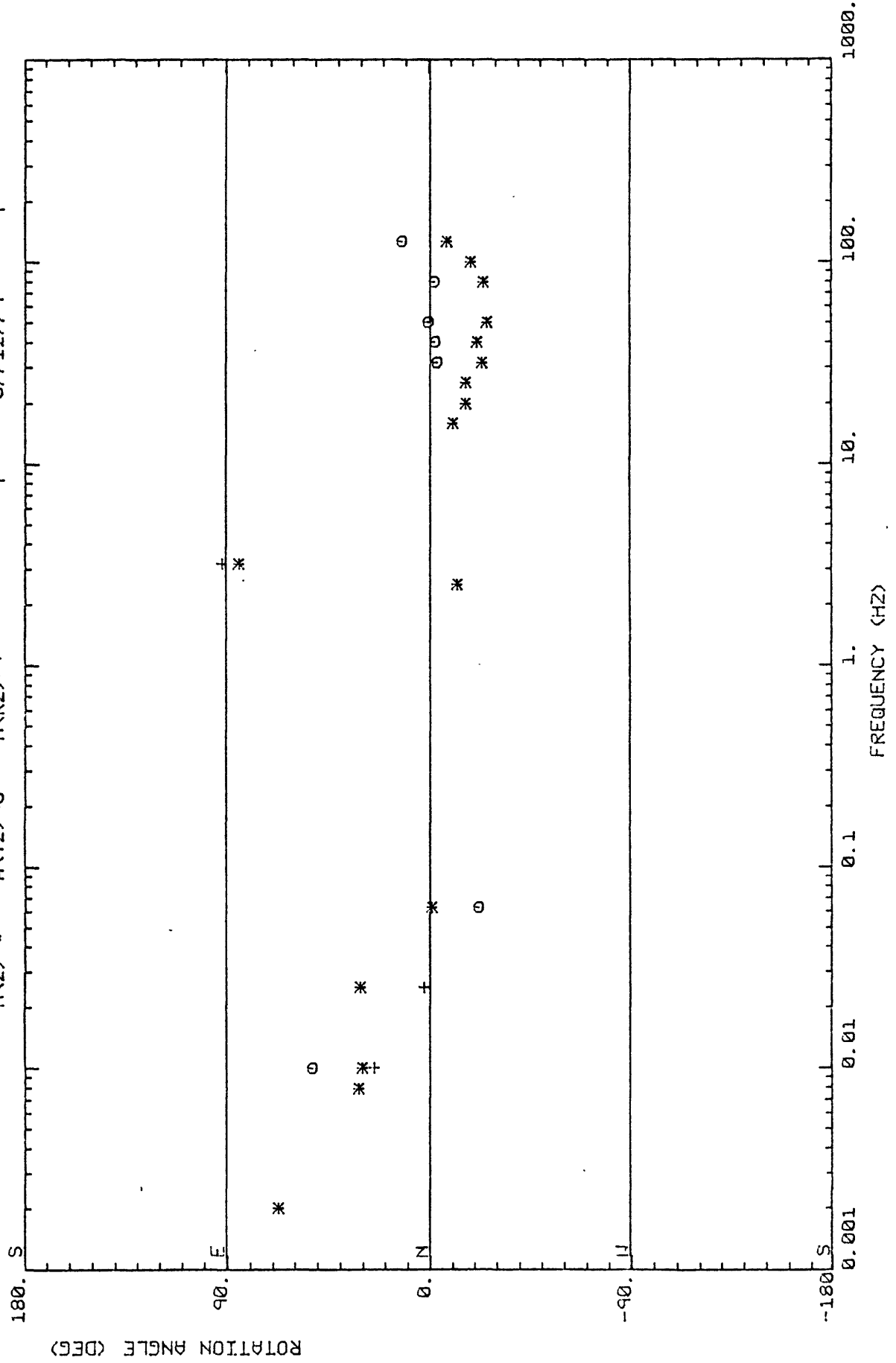


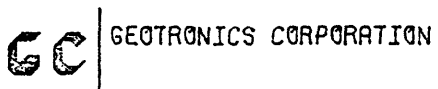
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COORD ROTATION ANGLES - PRINCIPLE AXES  
A(Z)=\* A(Y)=0 A(KZ)=+





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- LEGEND AND NOTES -

X - AXIS AZIMUTH = 19.0°

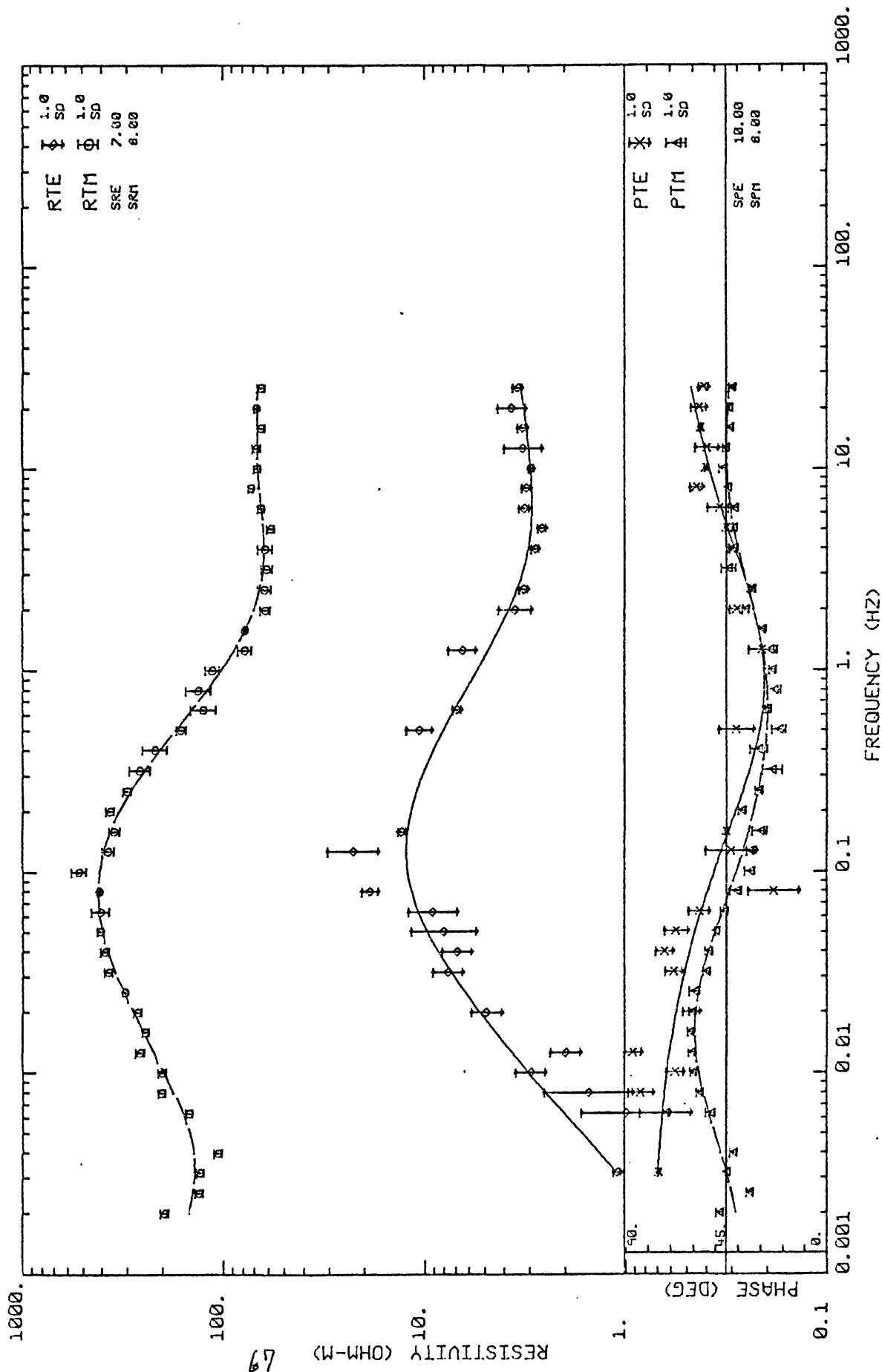
DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (KZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
20400

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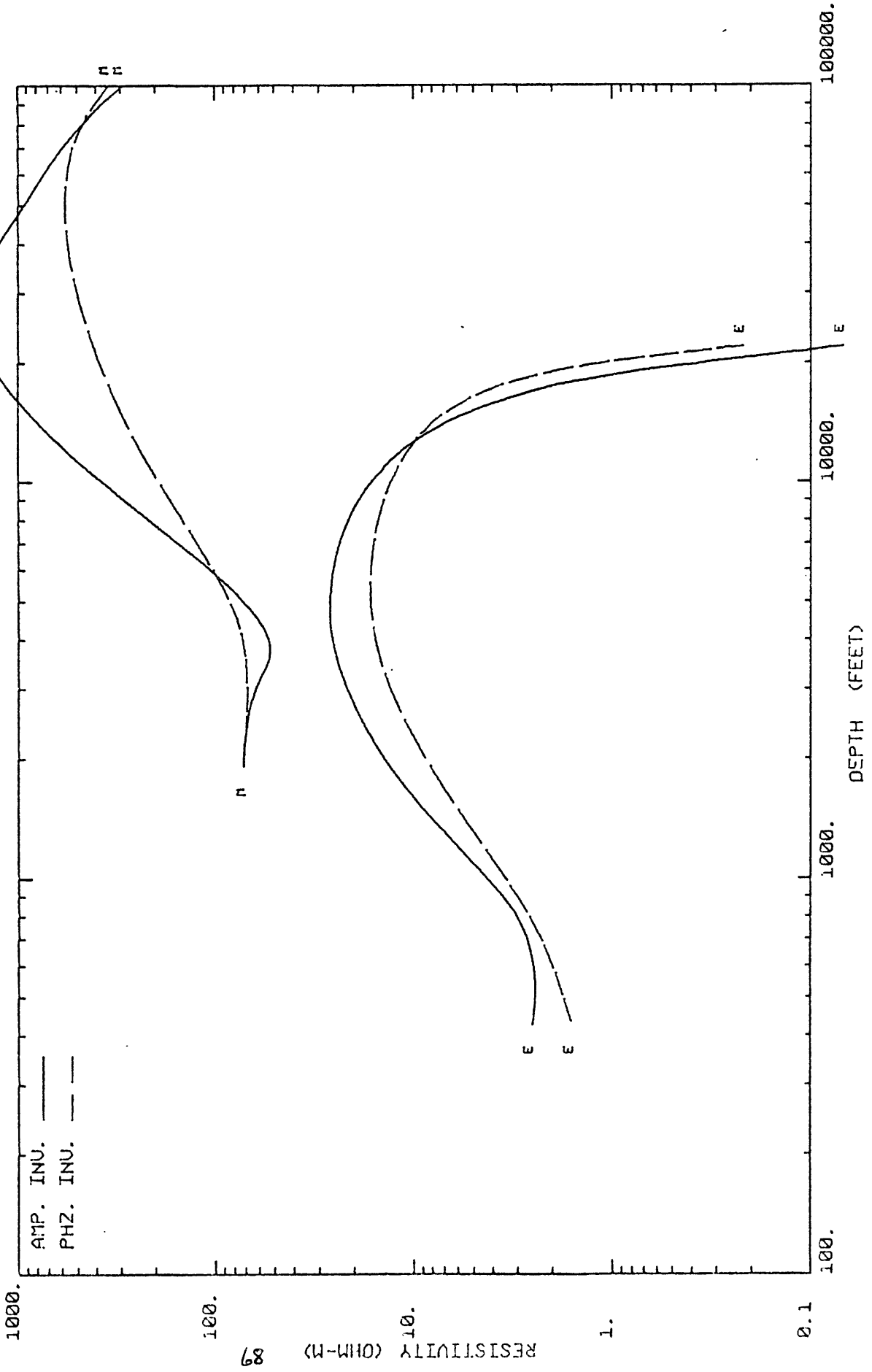


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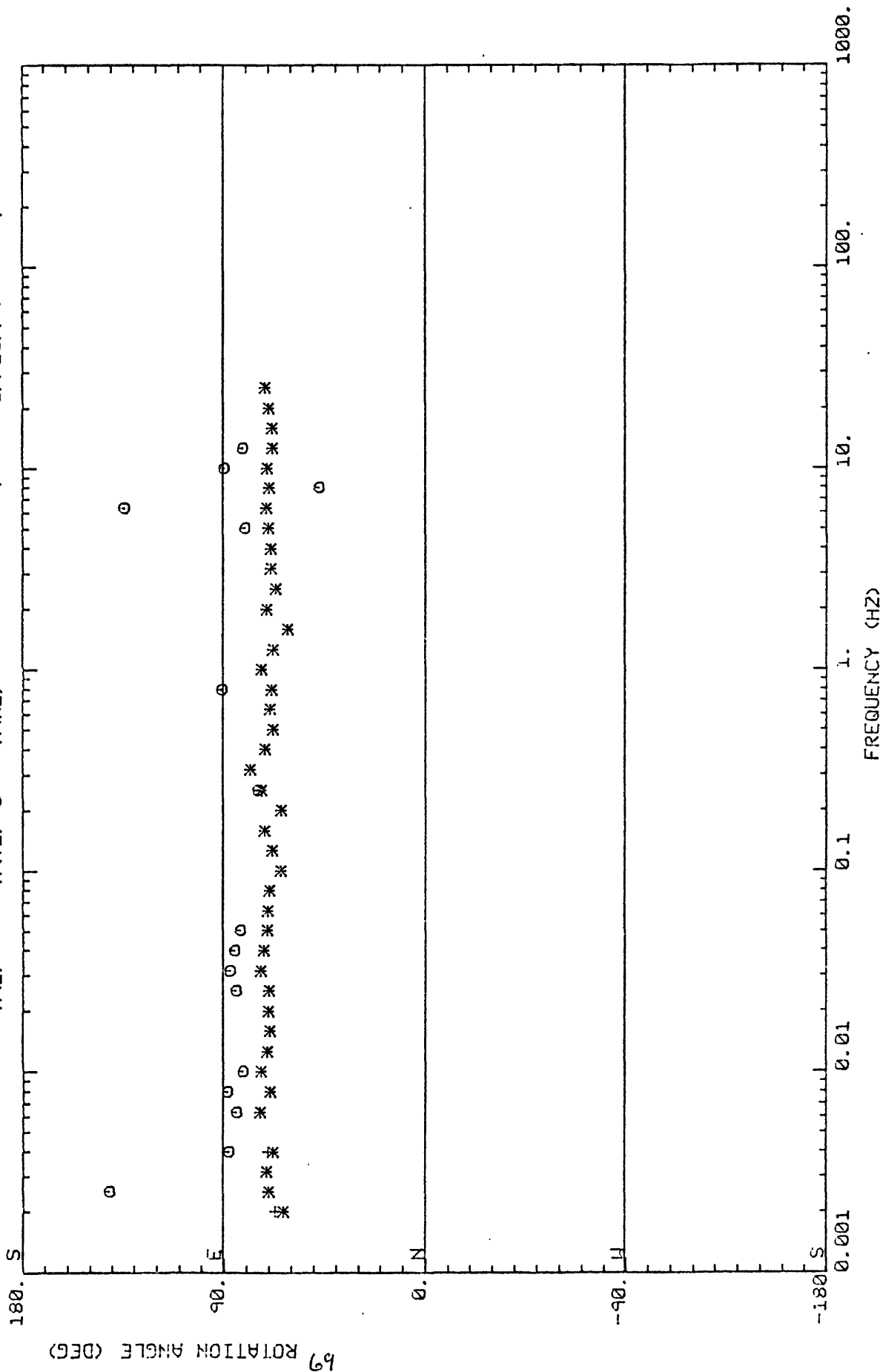


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COORD ROTATION ANGLES - PRINCIPLE AXES  
A(Z)=\* A(Y)=0 A(KZ)=+



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- LEGEND AND NOTES -

X - AXIS AZIMUTH = 20.0°

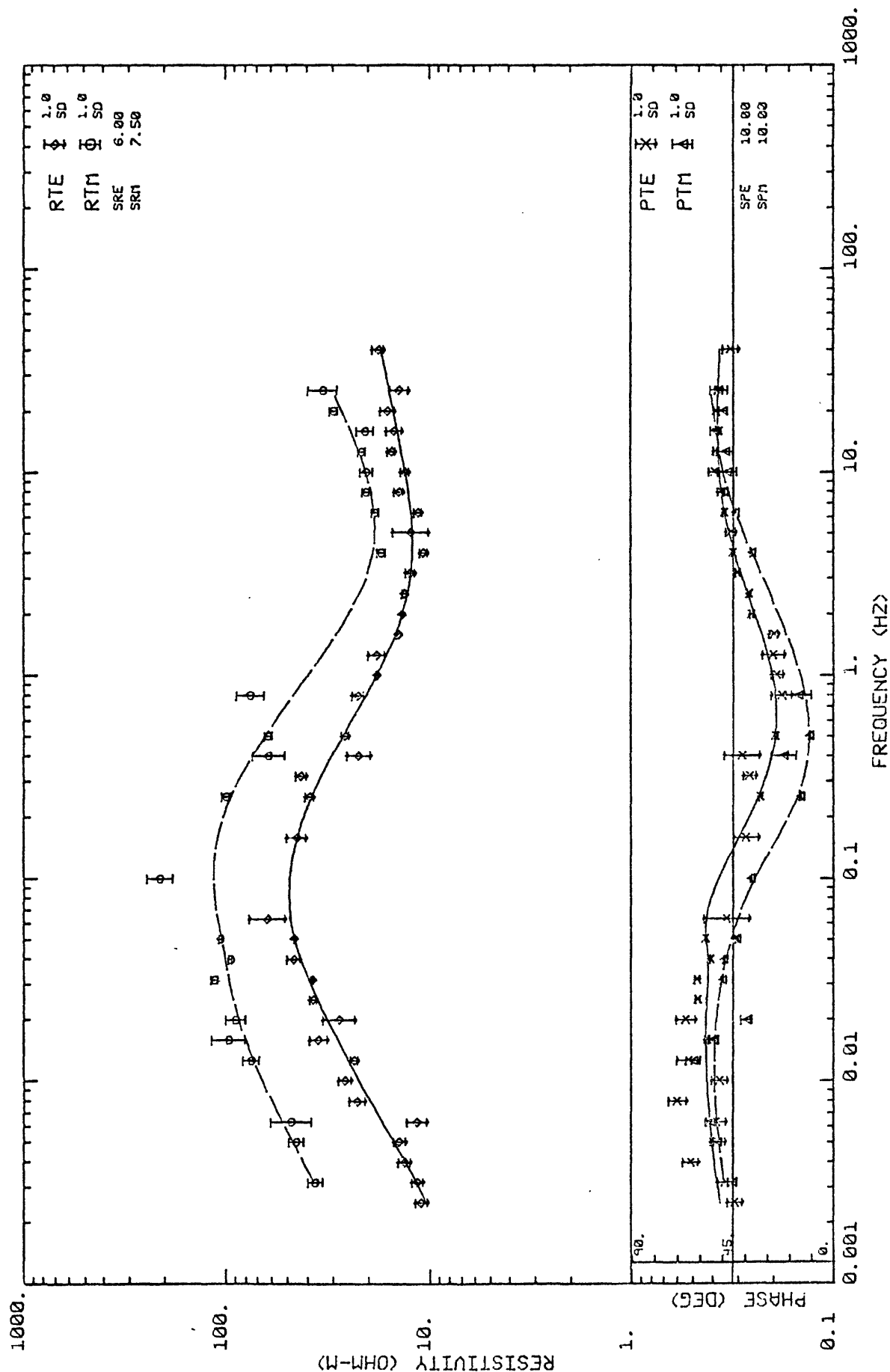
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COH (YZ) = 0.80  
COH (KZ) = 0.80

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APPARENT RESISTIVITY AND PHASE  
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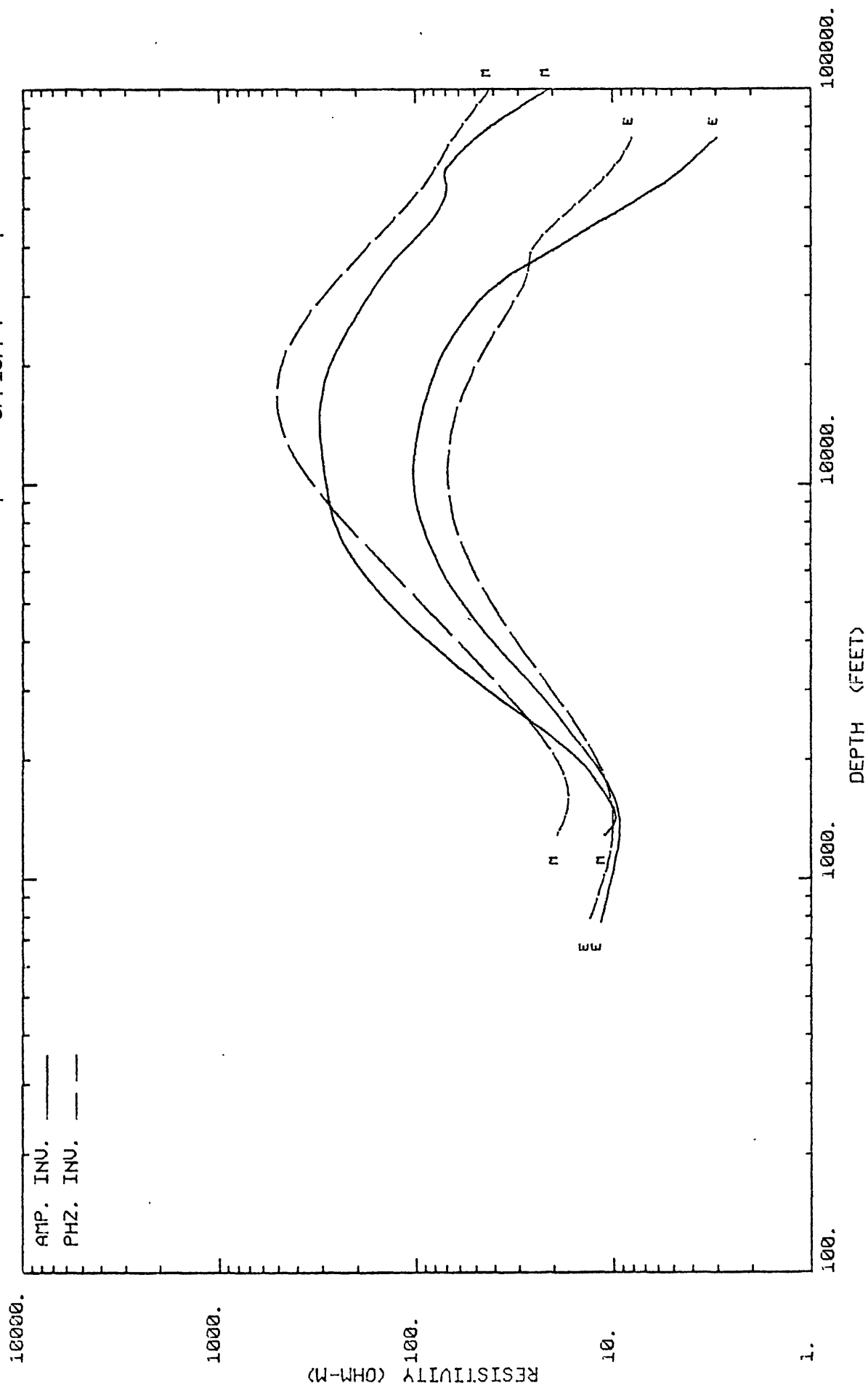
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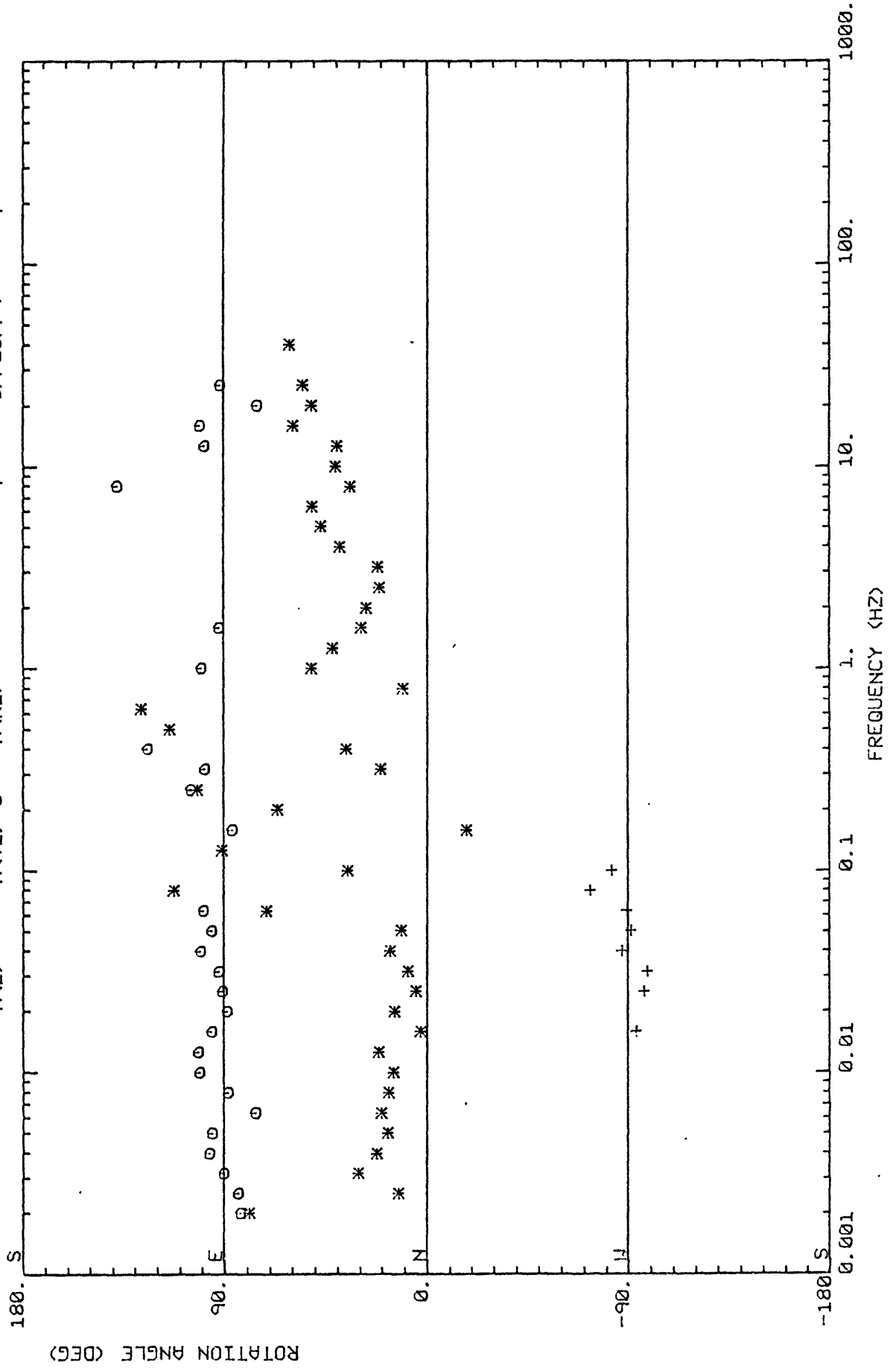


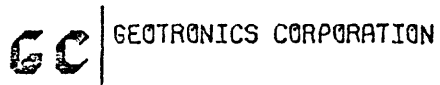
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- LEGEND AND NOTES -

X - AXIS AZIMUTH = 211.0

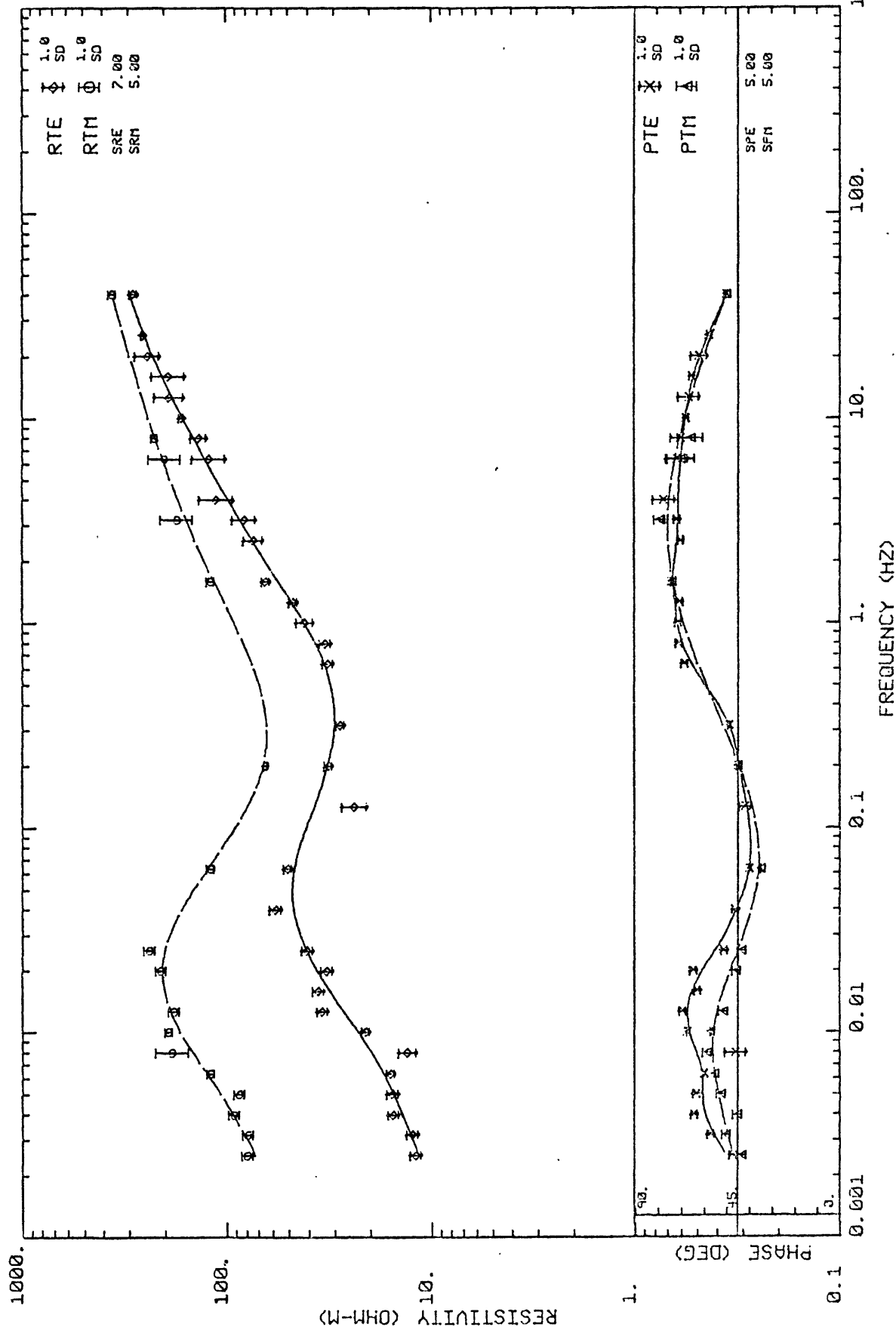
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COH (KZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
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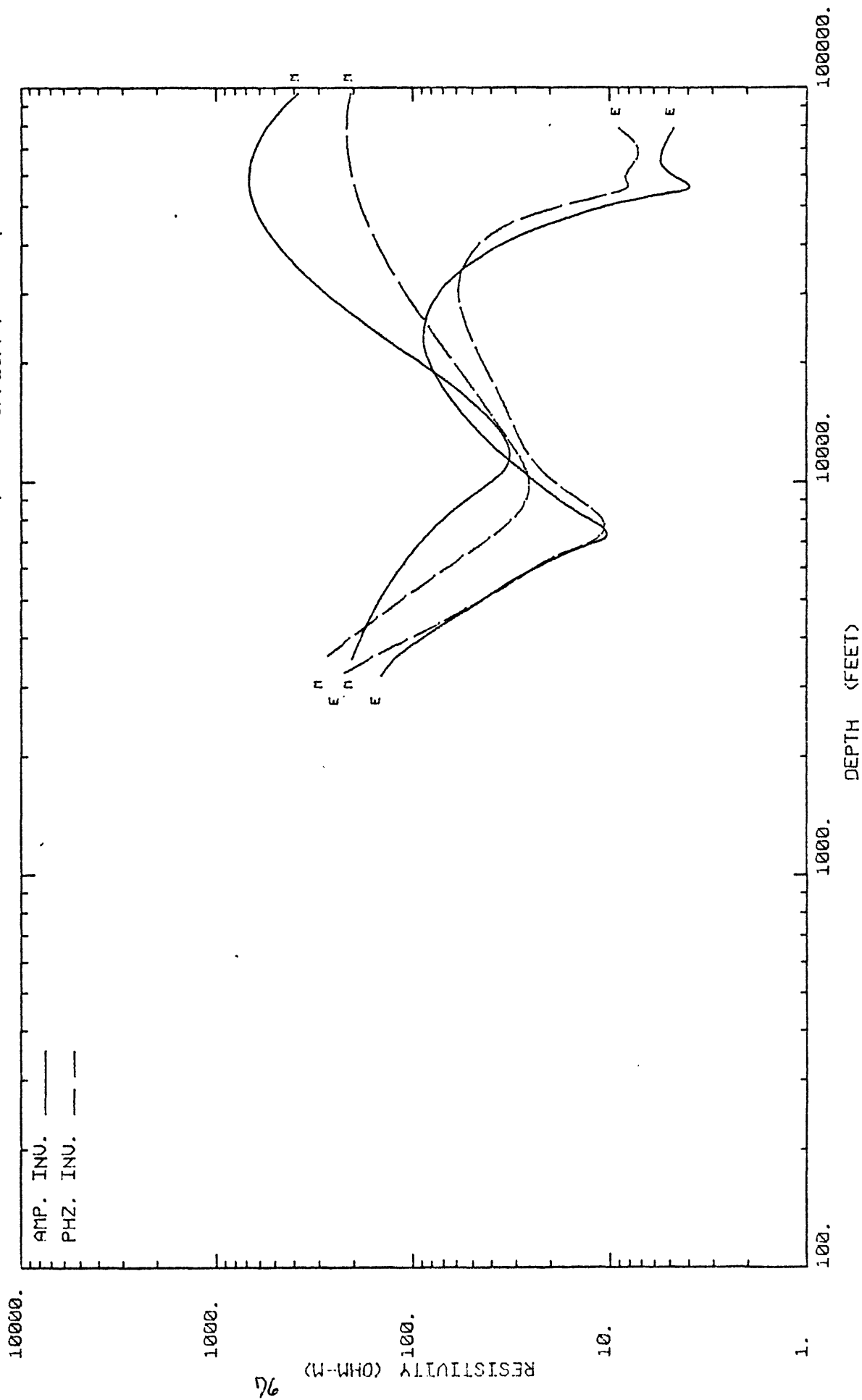
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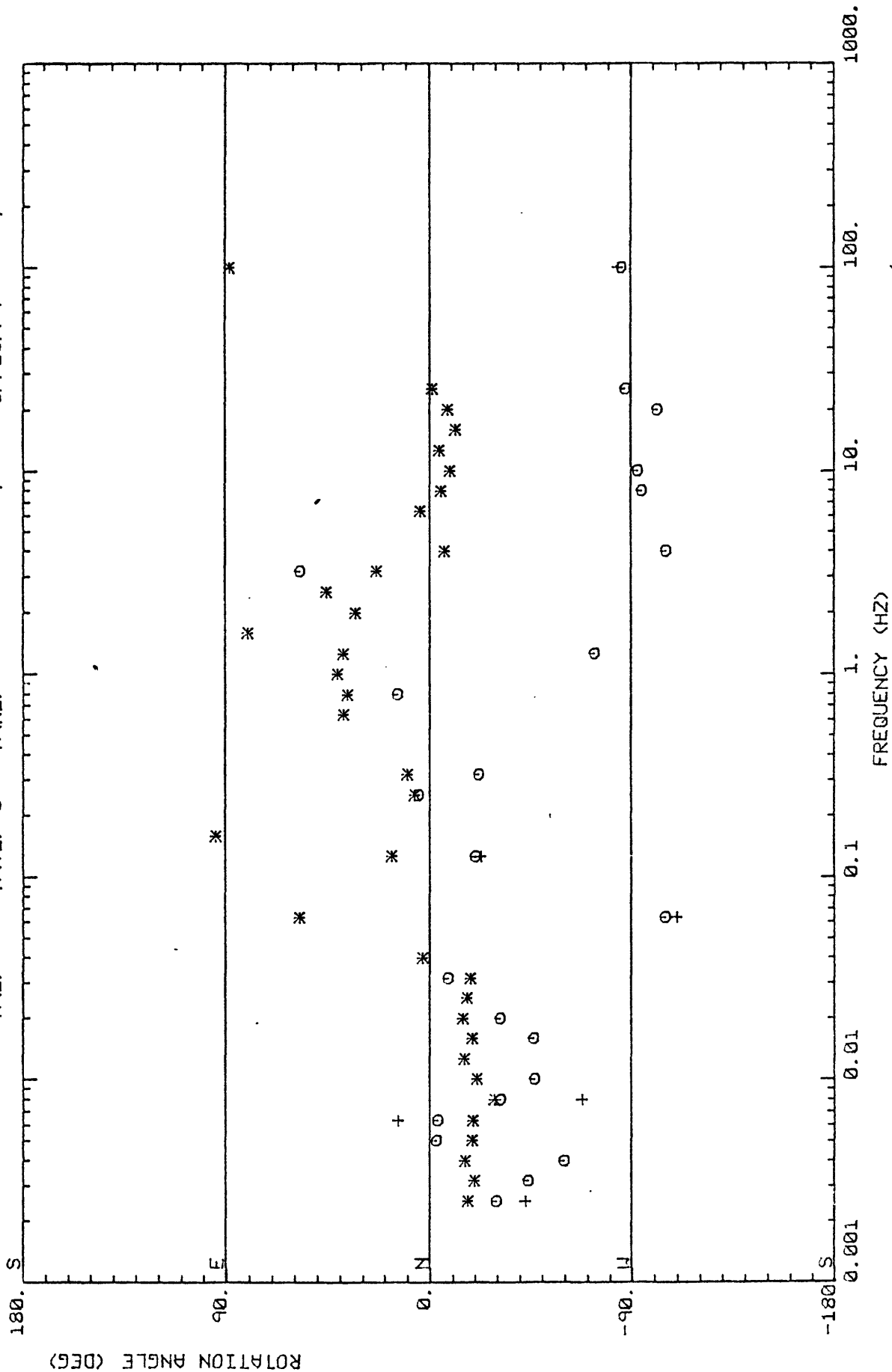






COORD ROTATION ANGLES - PRINCIPLE AXES

A(2) = \* A(YZ) = 0 A(KZ) = +



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MAGNETO TELLURIC  
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- LEGEND AND NOTES -

X - AXIS AZIMUTH = 19.0°

DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (KZ) = 0.80

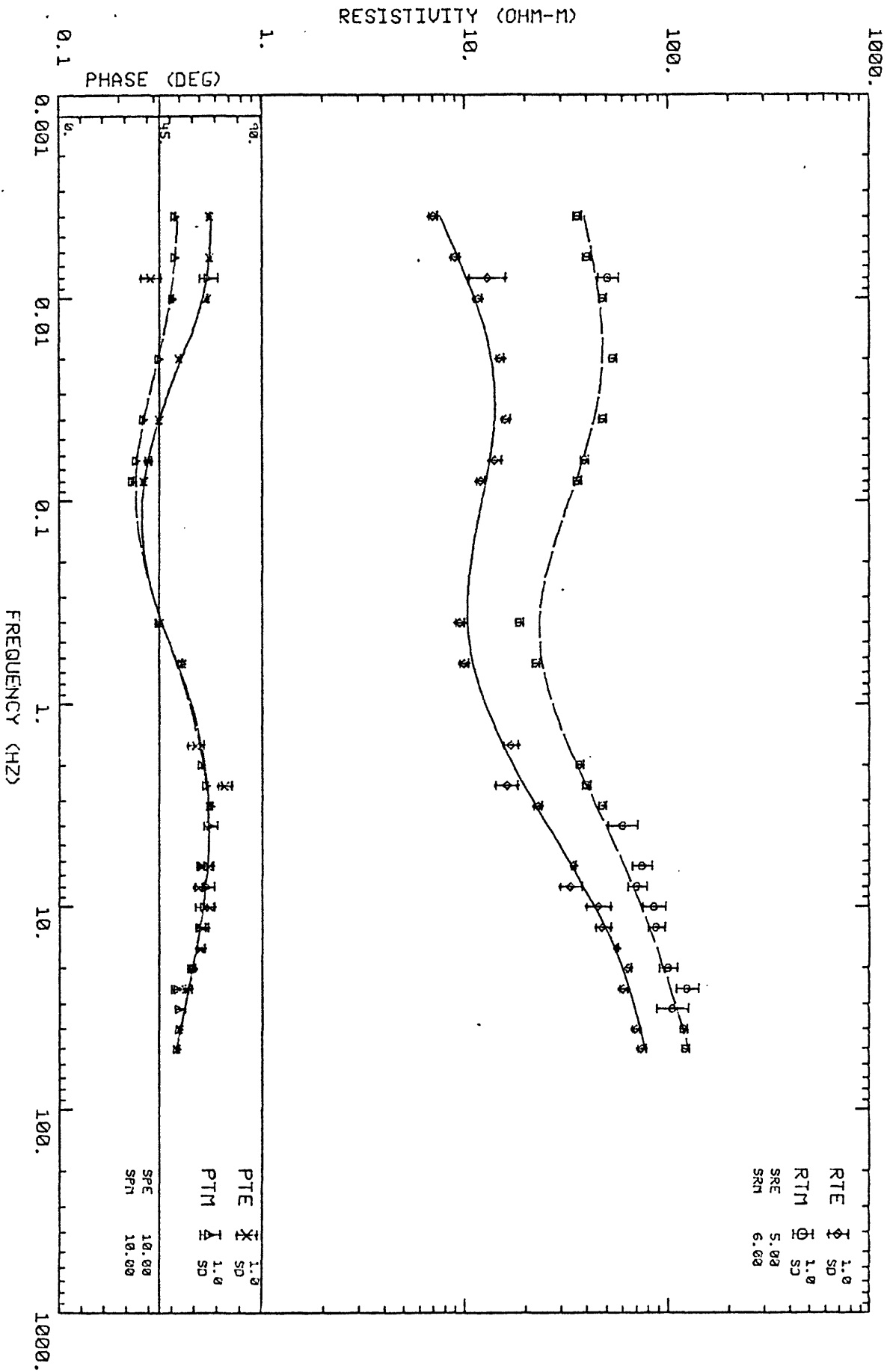
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20700

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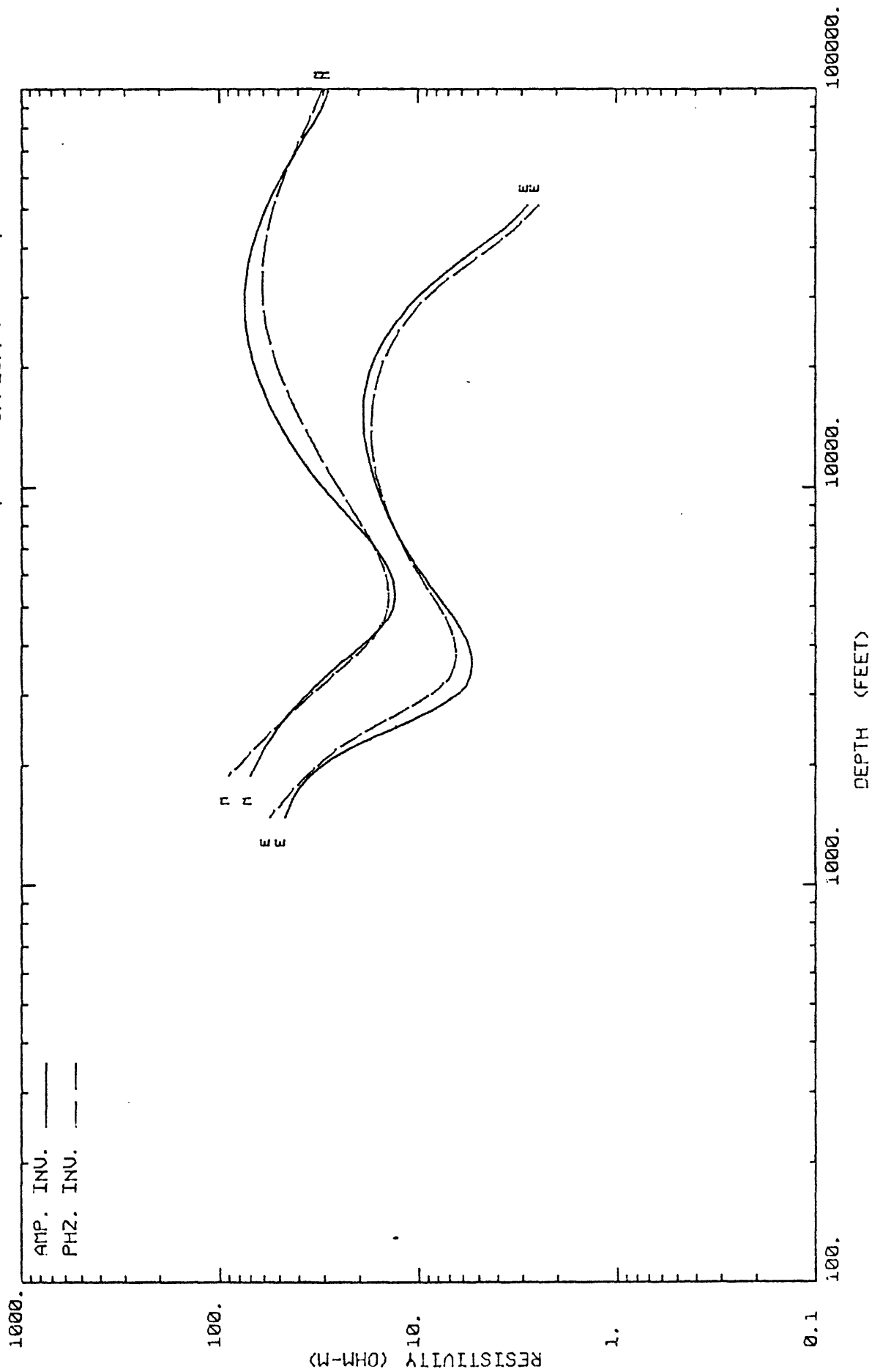
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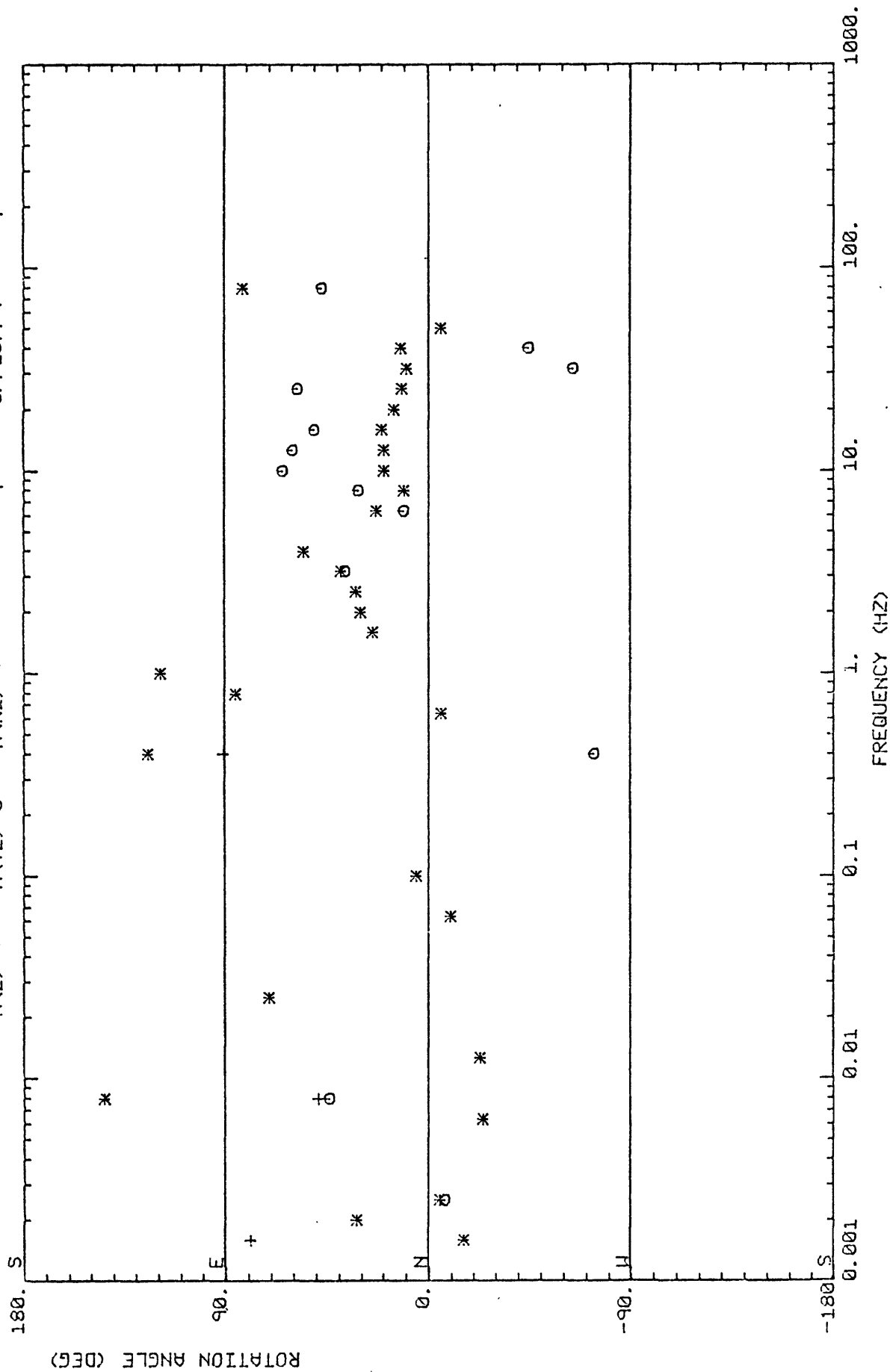
# GEOTRONICS CORPORATION

COORD ROTATION ANGLES - PRINCIPLE AXES

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A(Z) = \*    A(YZ) = 0    A(K2) = +





GEOTRONICS CORPORATION

MAGNETO TELLURIC  
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CODE : 196  
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COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

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- LEGEND AND NOTES -

X - AXIS AZIMUTH = 19.0°

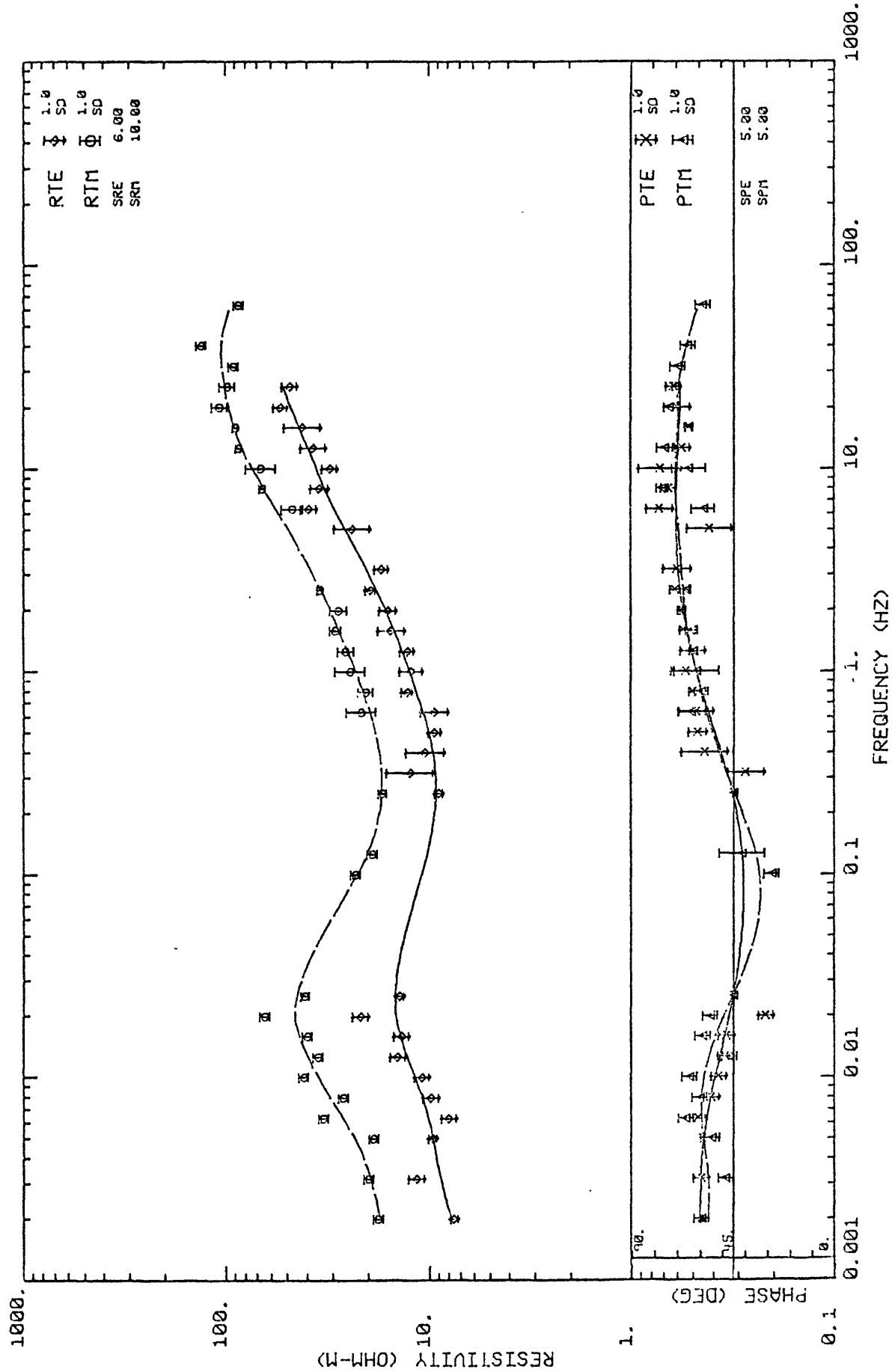
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20800

APPARENT RESISTIVITY AND PHASE  
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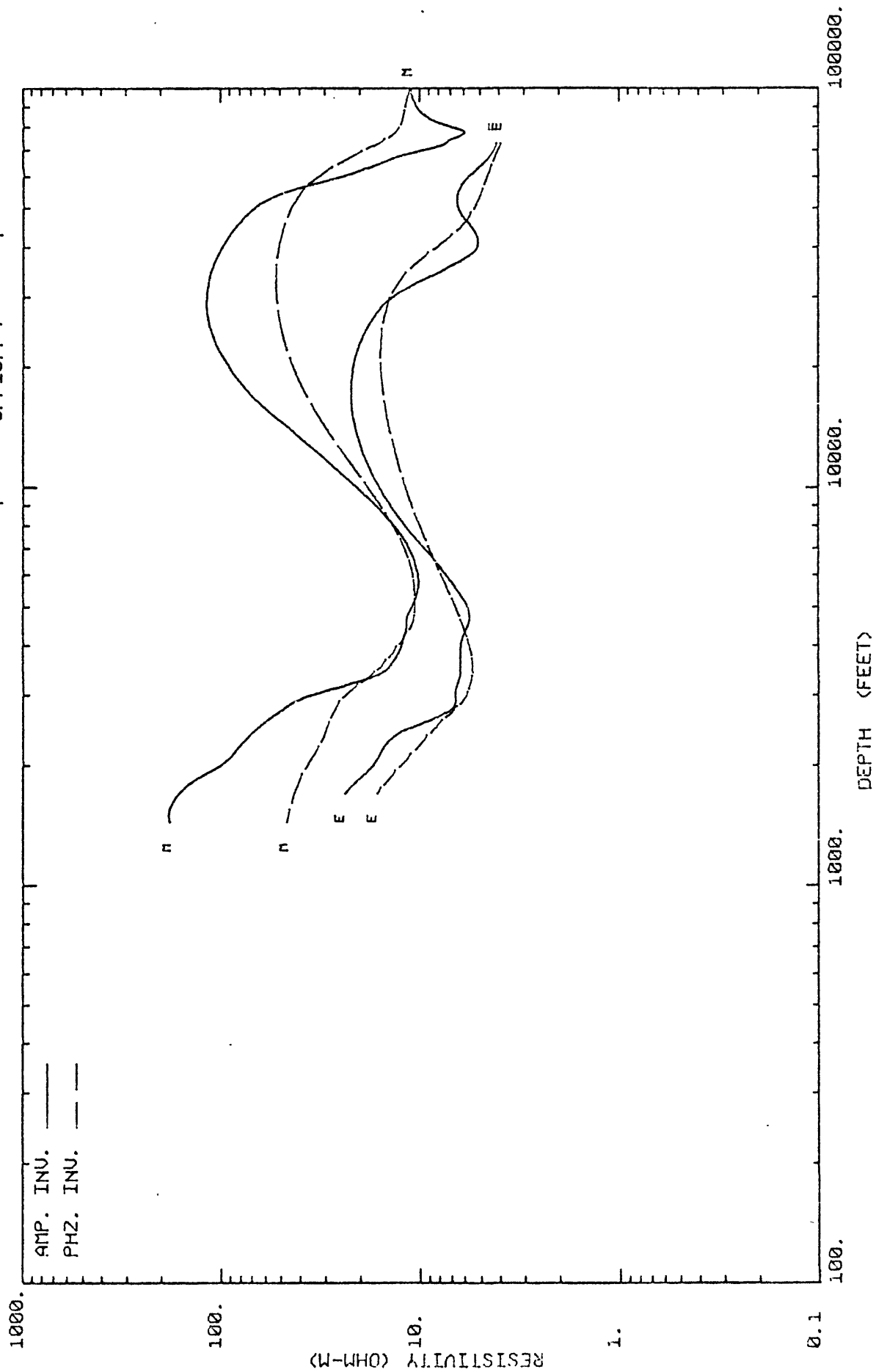


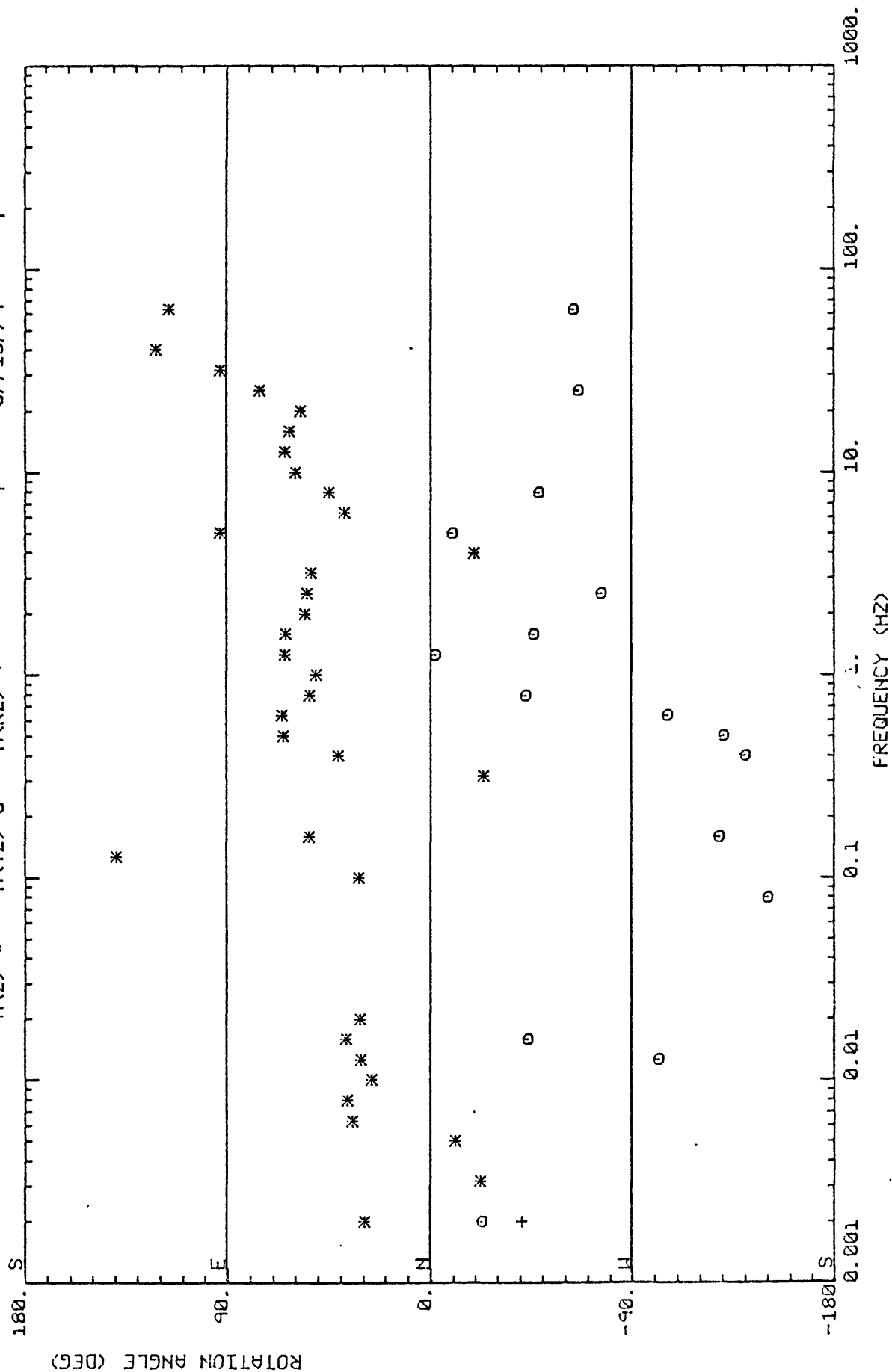


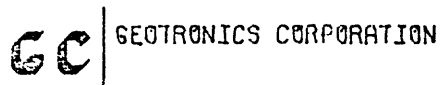
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CODE : 196  
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- LEGEND AND NOTES -

X - AXIS AZIMUTH = 19.0°

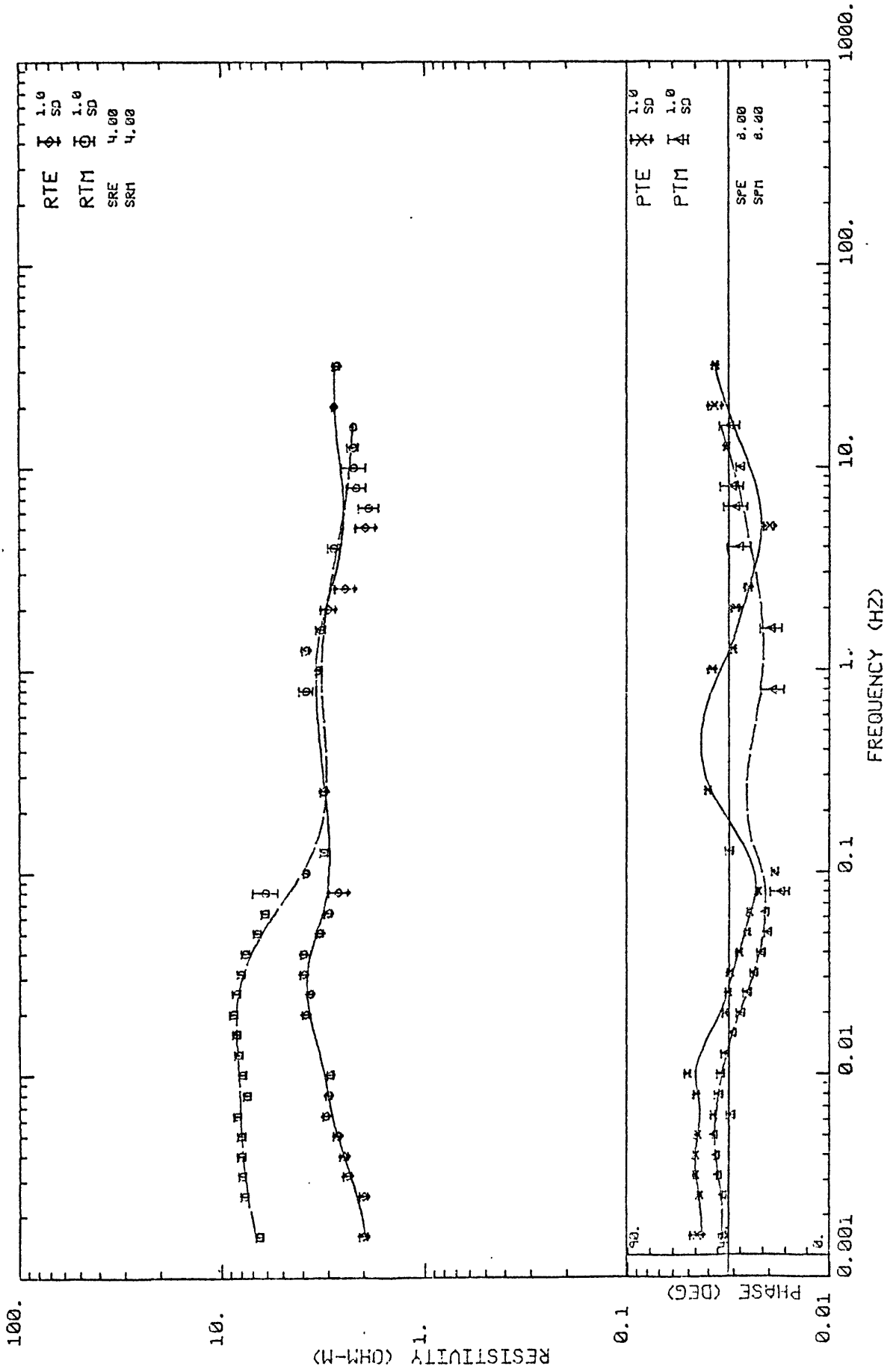
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COH (YZ) = 0.80  
COH (KZ) = 0.80

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20900

APPARENT RESISTIVITY AND PHASE  
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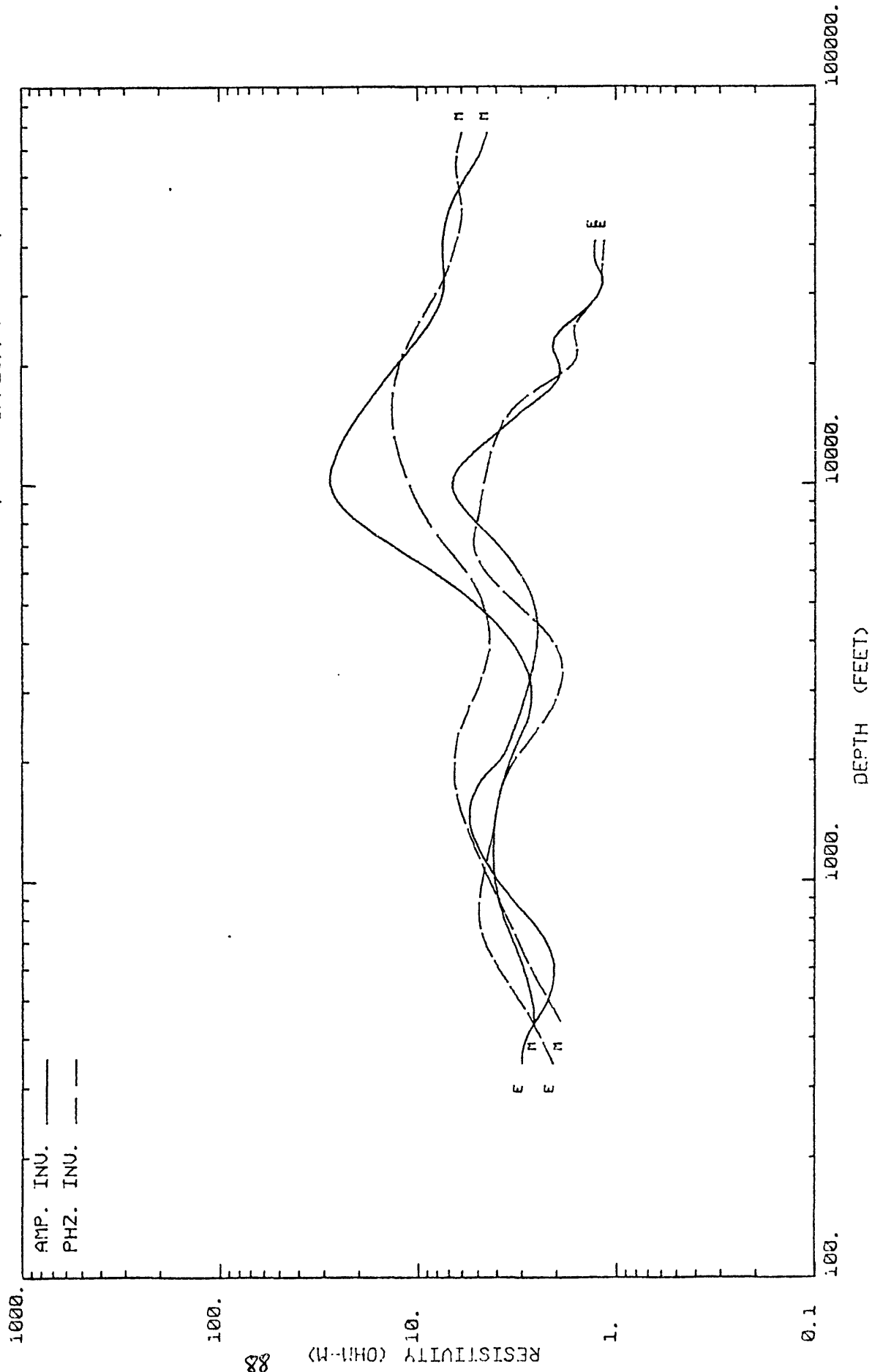


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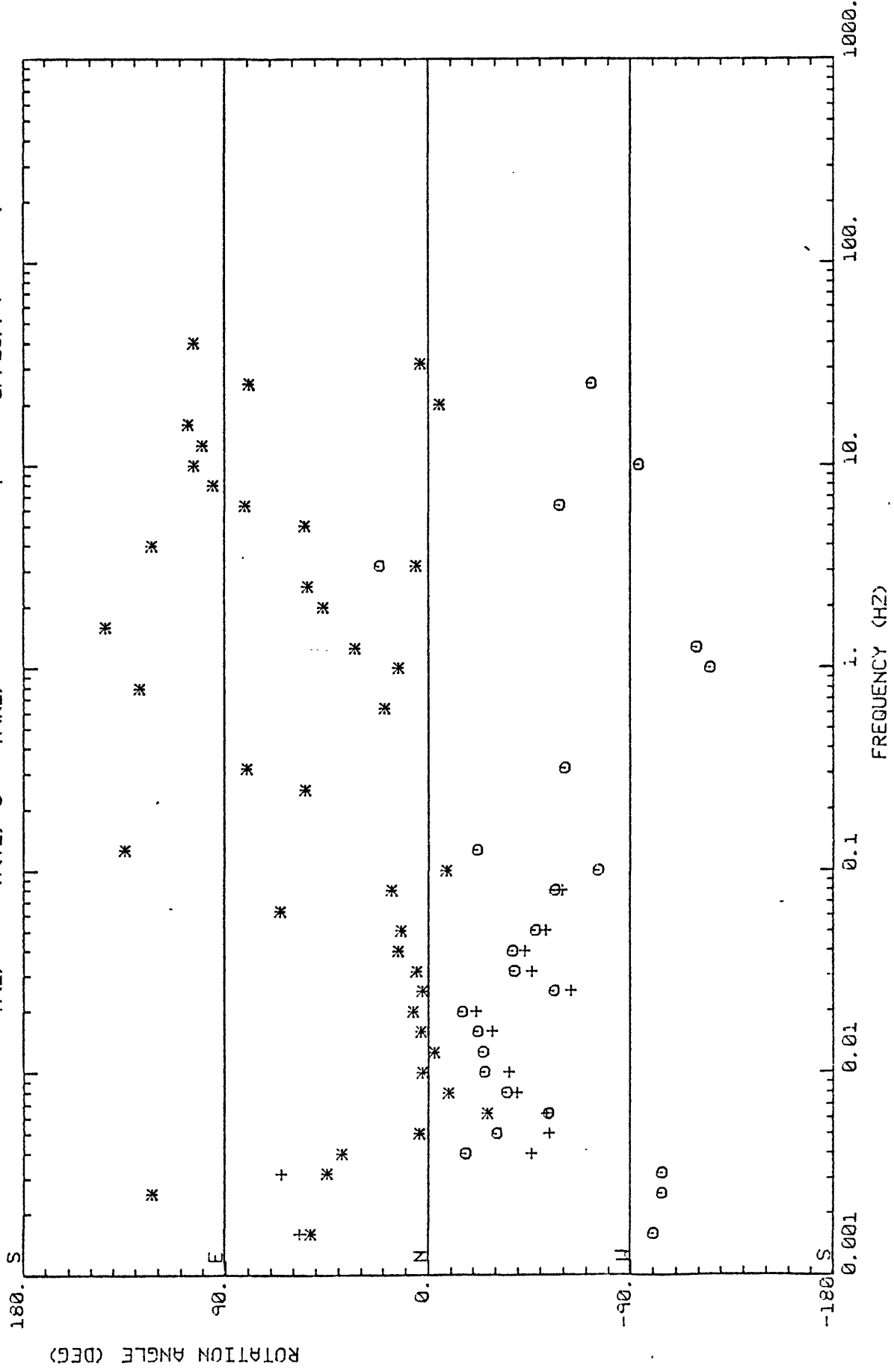
COORD ROTATION ANGLES - PRINCIPLE AXES

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A(Z)=\* A(YZ)=0 A(KZ)=+





GEOTRONICS CORPORATION

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- LEGEND AND NOTES -

X - AXIS AZIMUTH = 19.0°

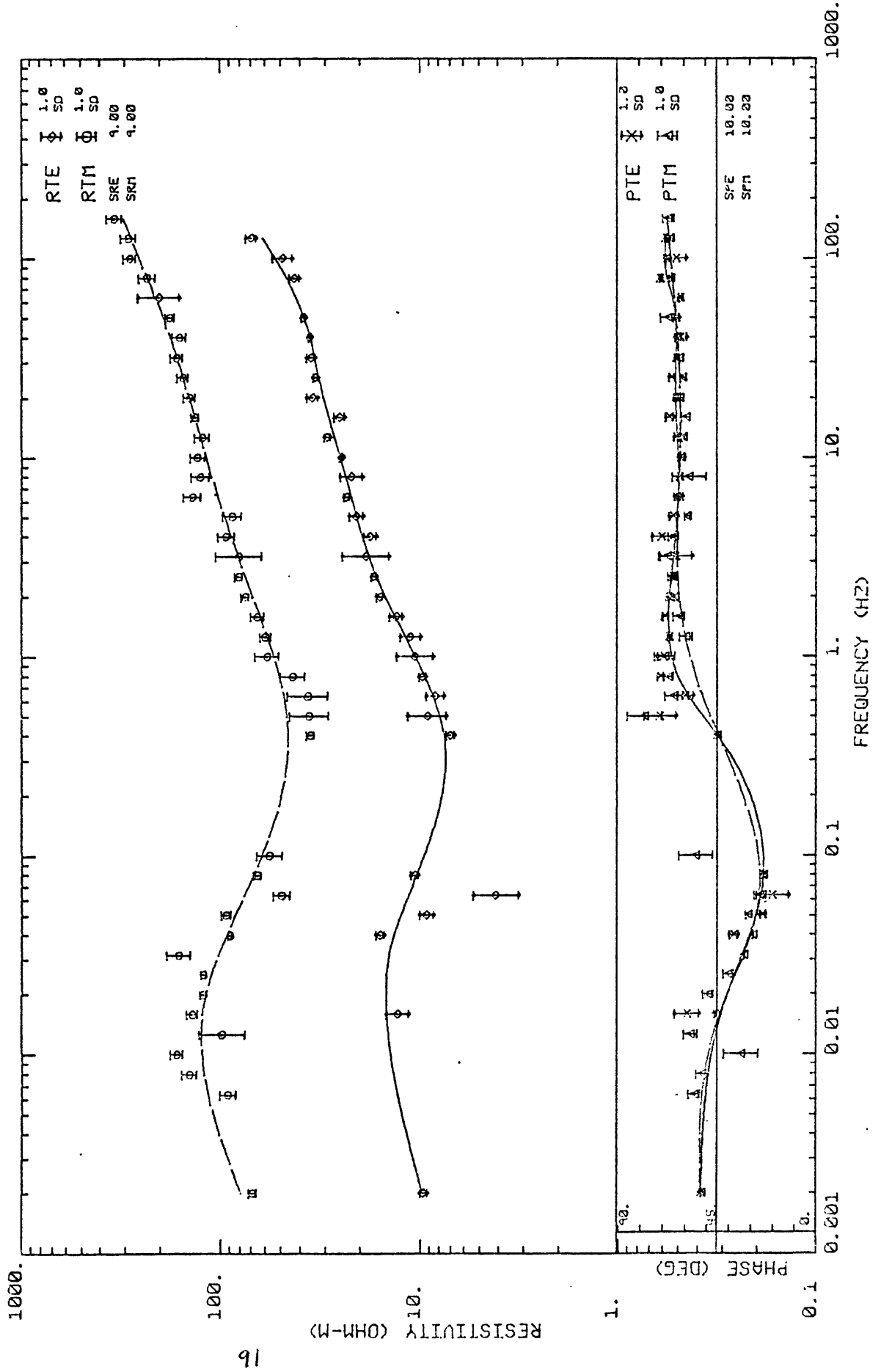
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COH (KZ) = 0.80

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APPARENT RESISTIVITY AND PHASE  
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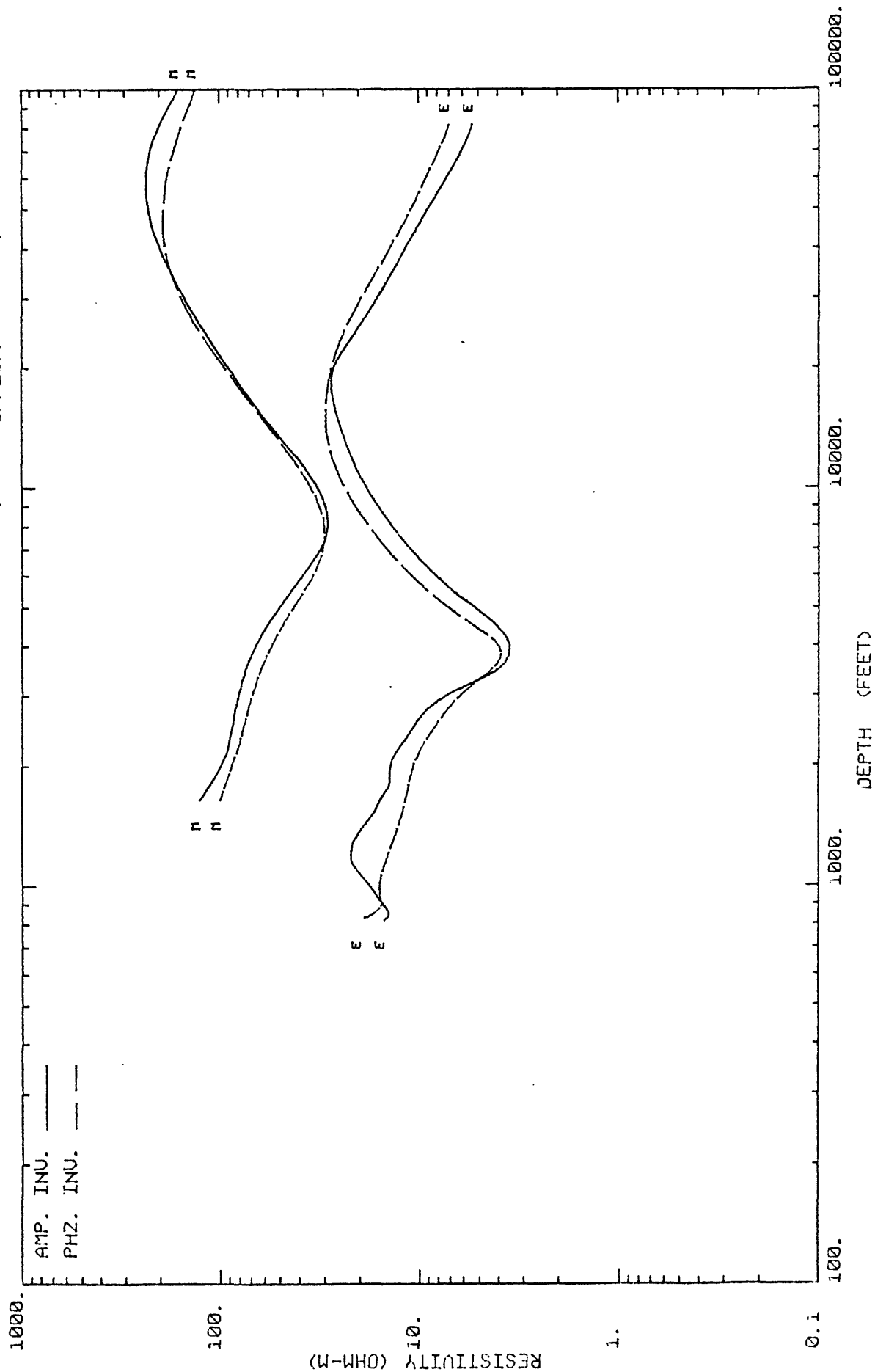


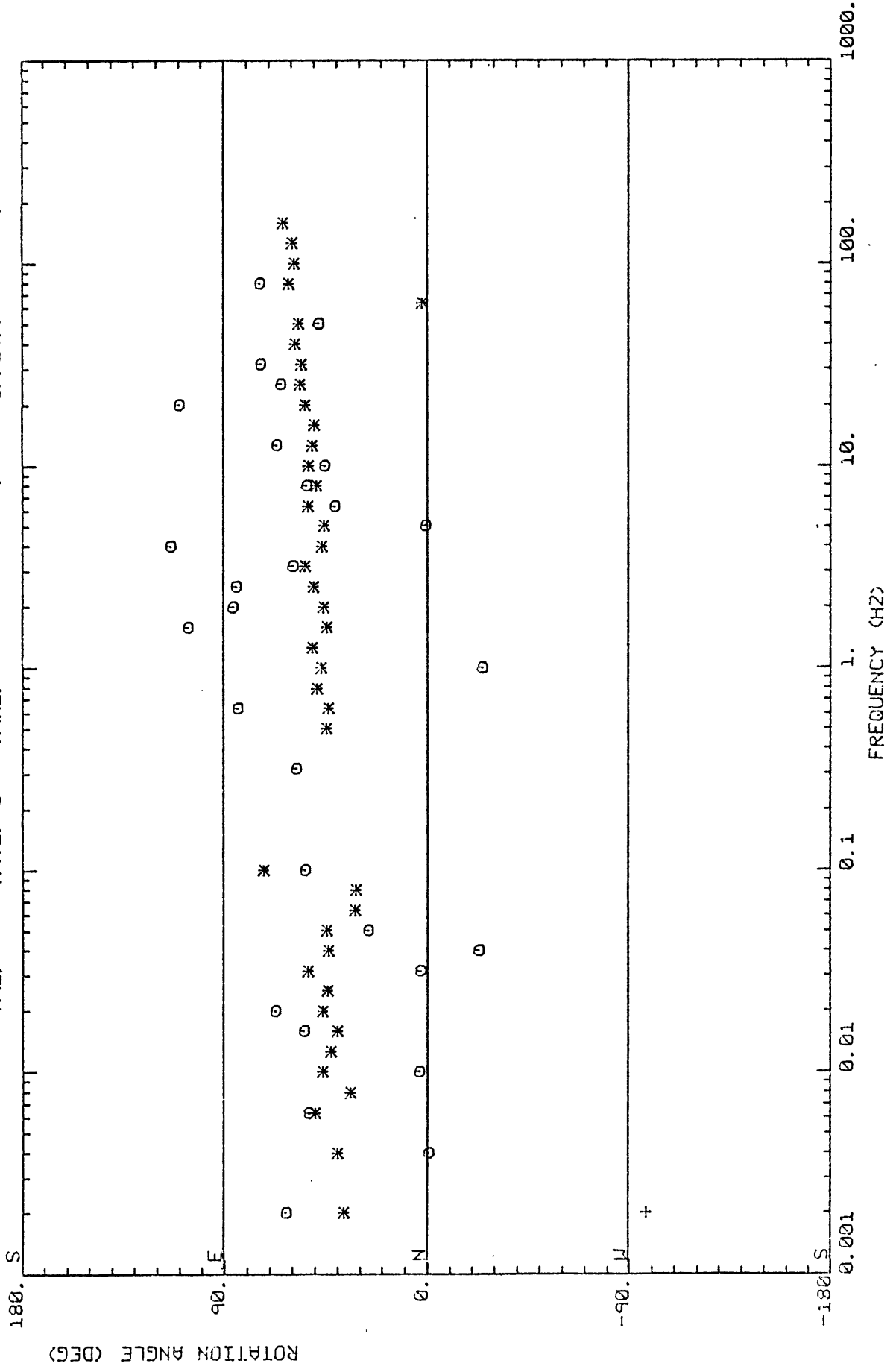


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- LEGEND AND NOTES -

X - AXIS AZIMUTH = 19.0°

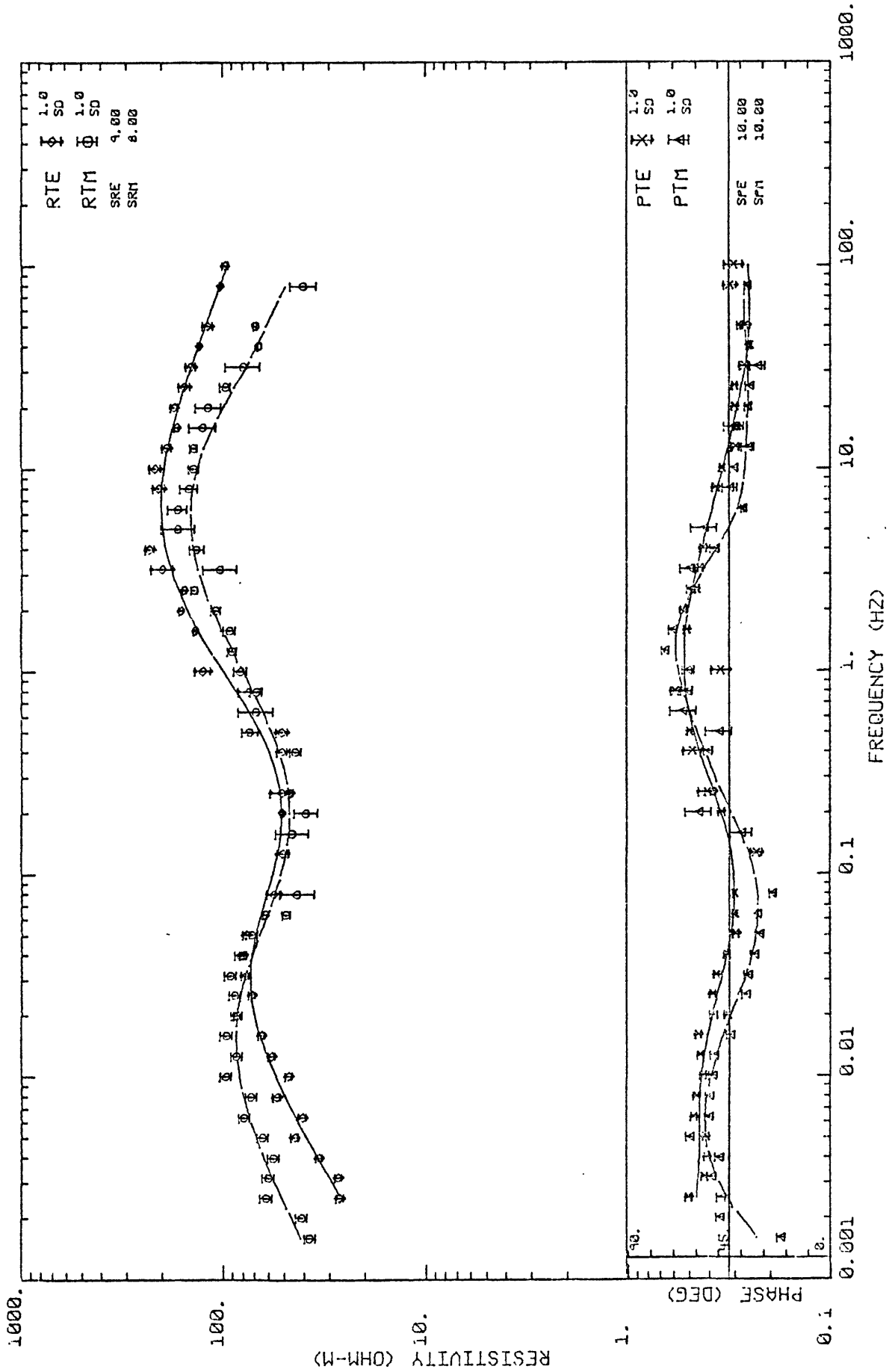
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COH (KZ) = 0.80

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APPARENT RESISTIVITY AND PHASE  
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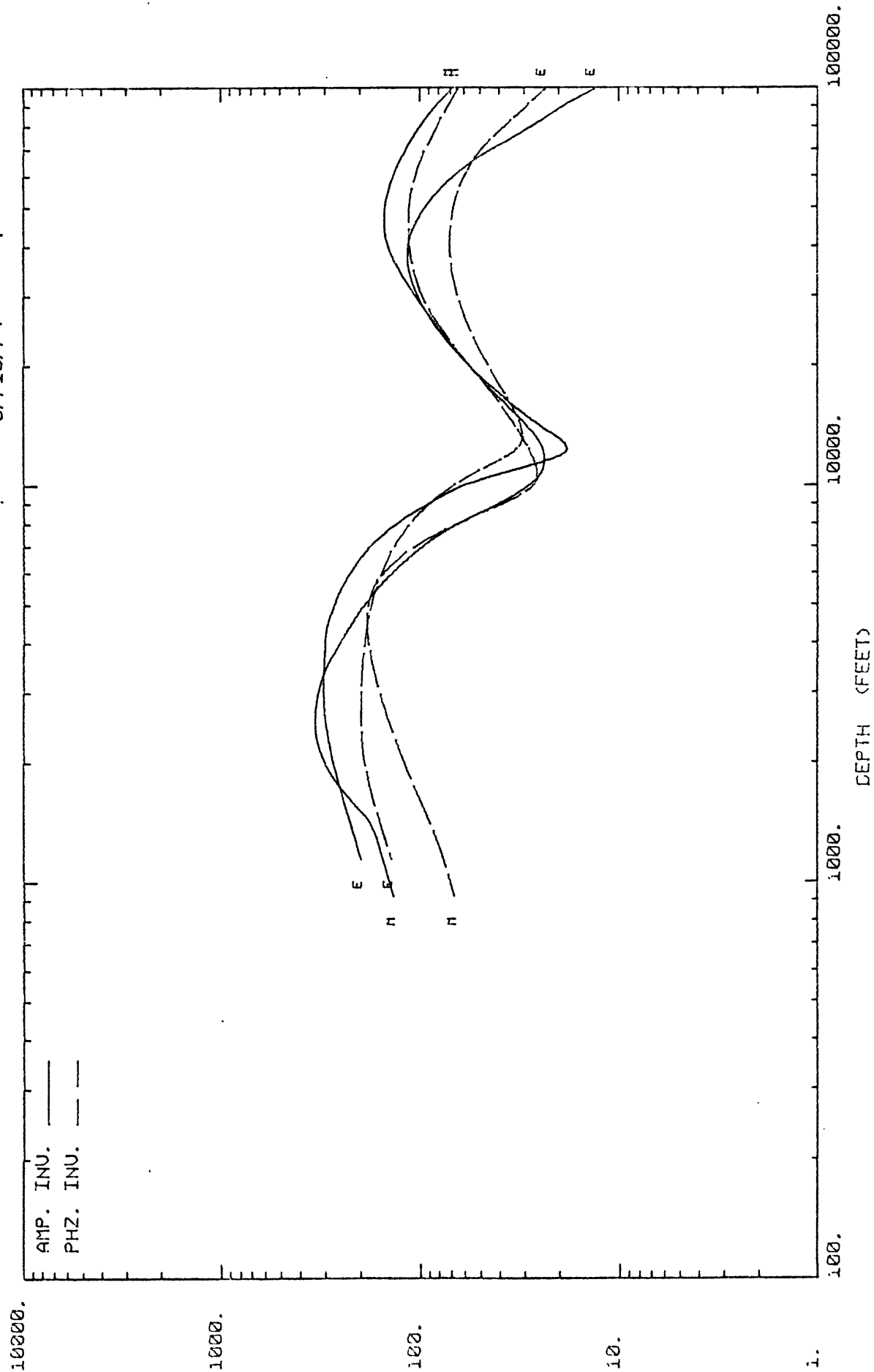


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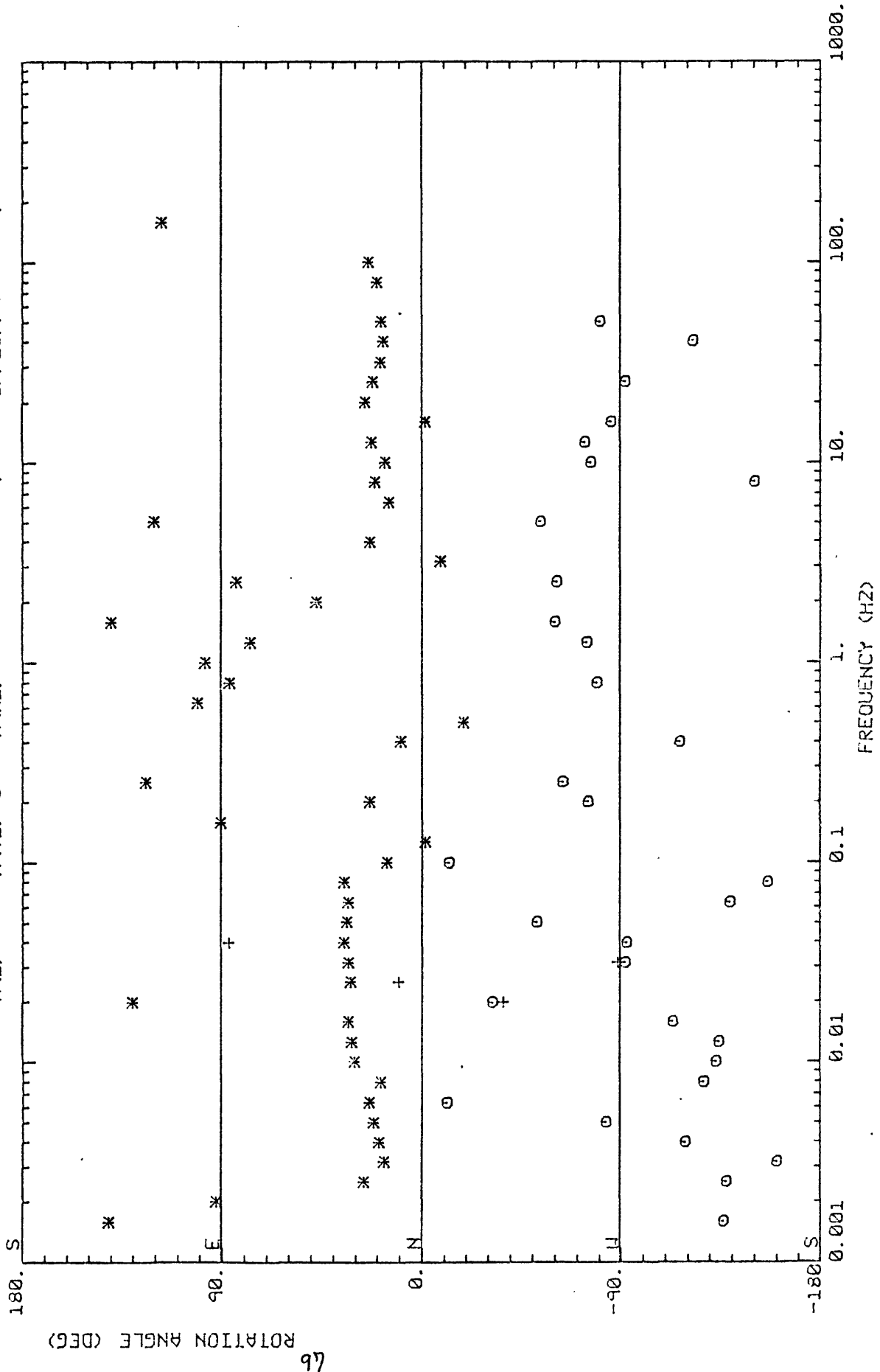
COORD ROTATION ANGLES - PRINCIPLE AXES

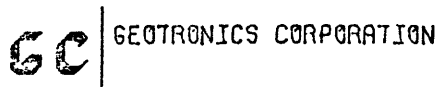
A(2)=\* A(Y2)=0 A(K2)=+

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-- LEGEND AND NOTES --

X - AXIS AZIMUTH = 19.0°

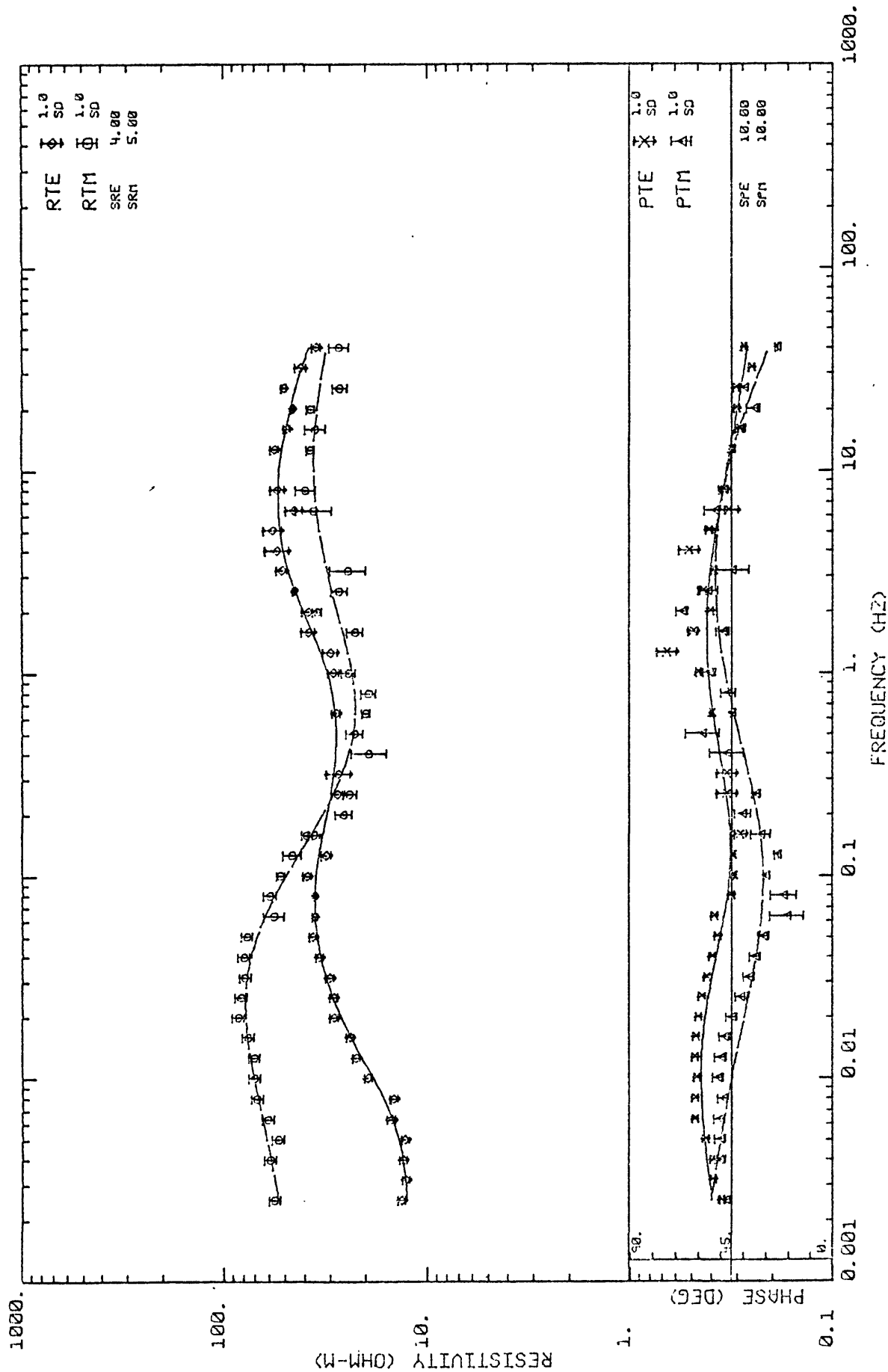
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COH (XZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
21200

APPARENT RESISTIVITY AND PHASE  
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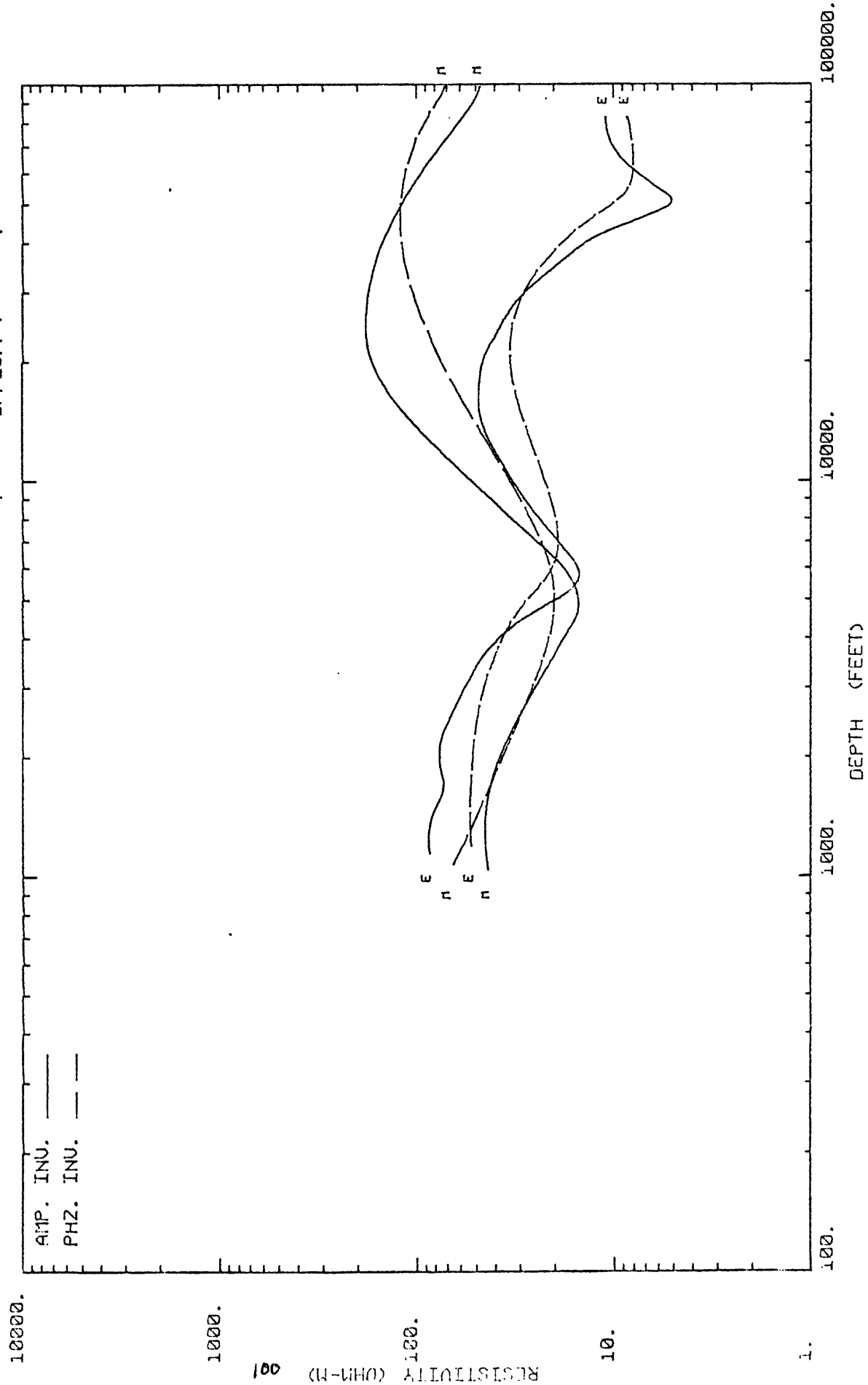


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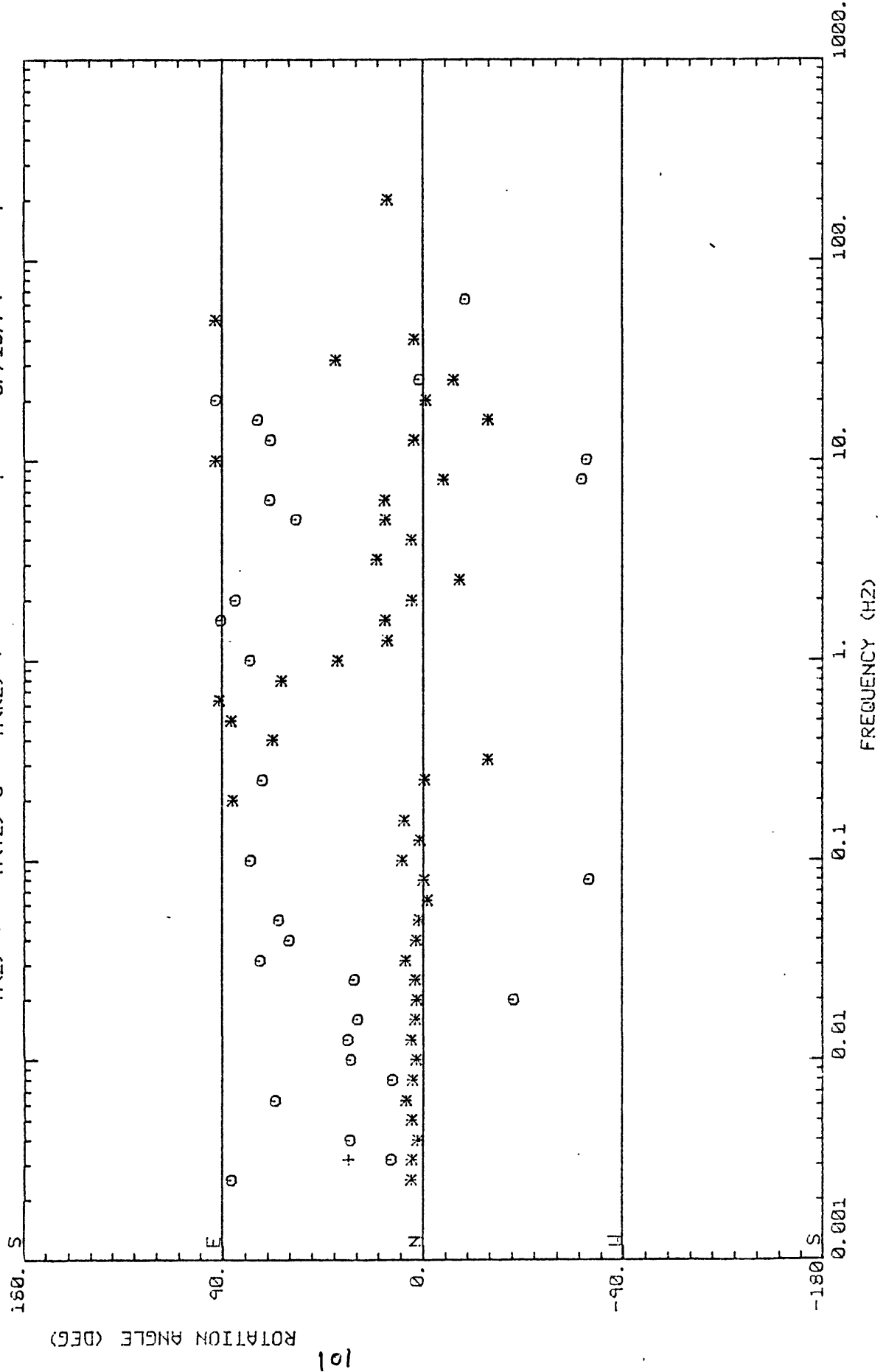
COORD ROTATION ANGLES - PRINCIPLE AXES

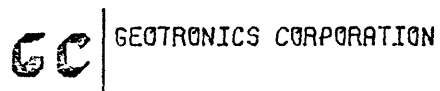
A(2)=\* A(Y2)=0 A(K2)=+

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3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 19.0°

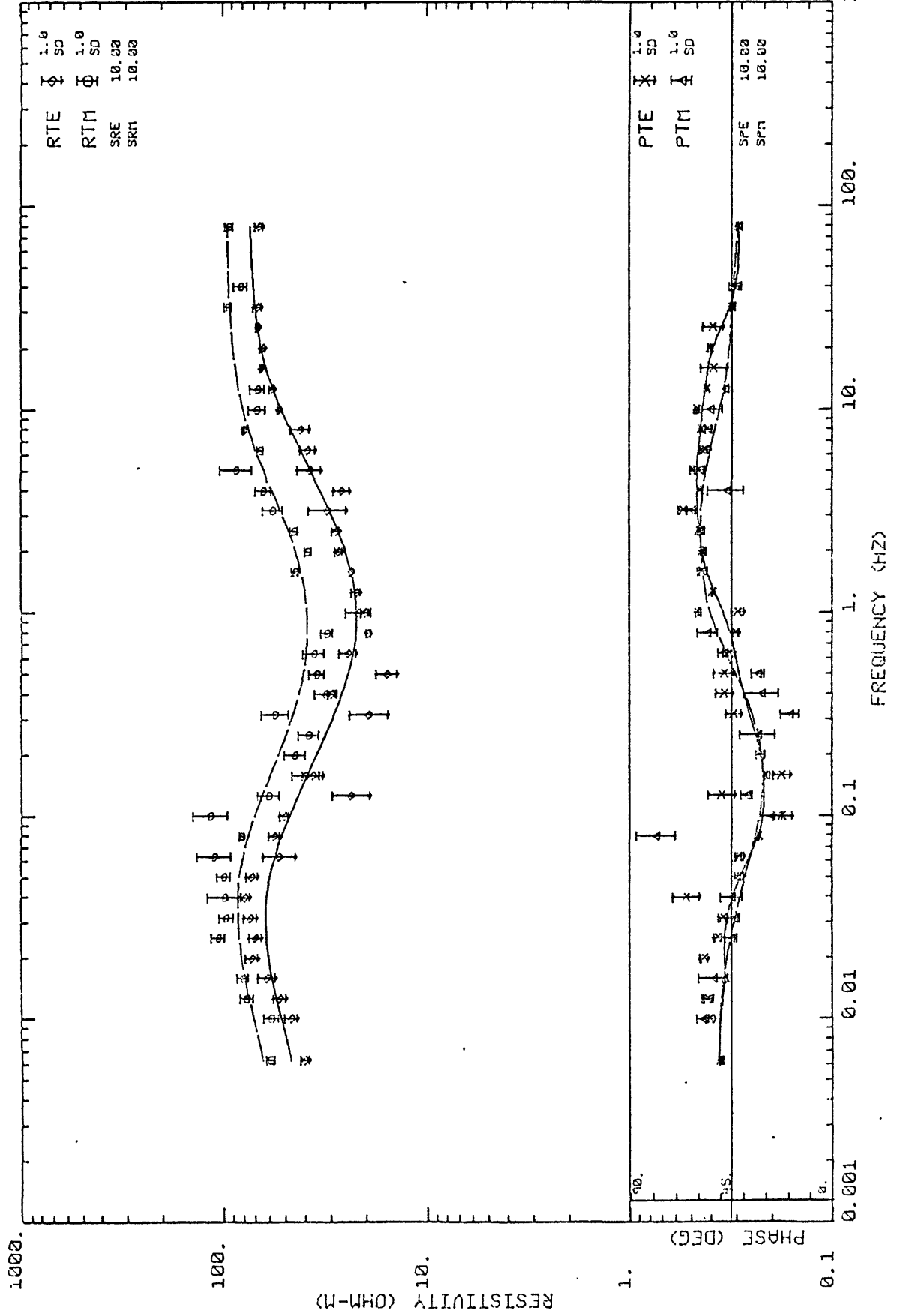
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APPARENT RESISTIVITY AND PHASE  
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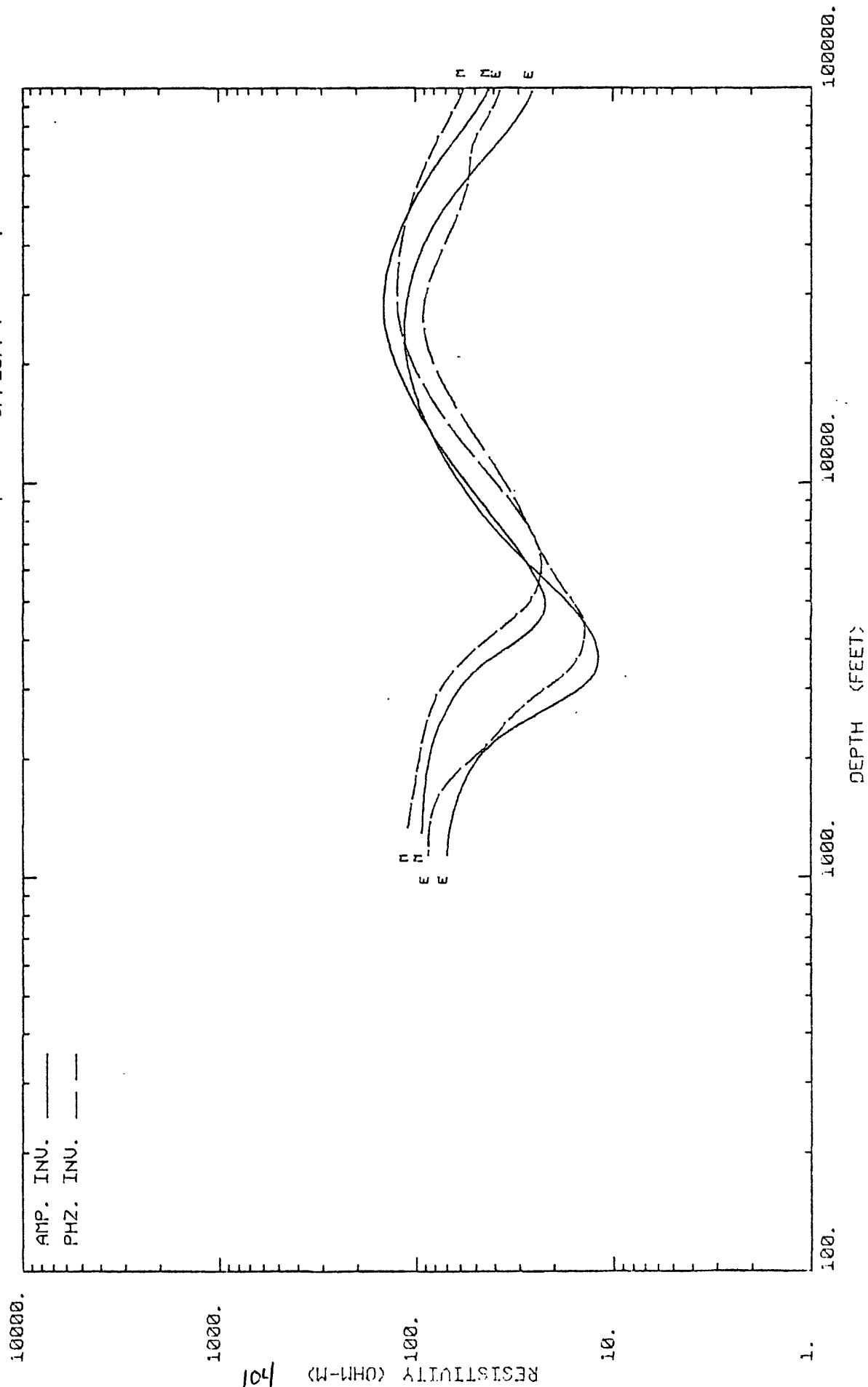


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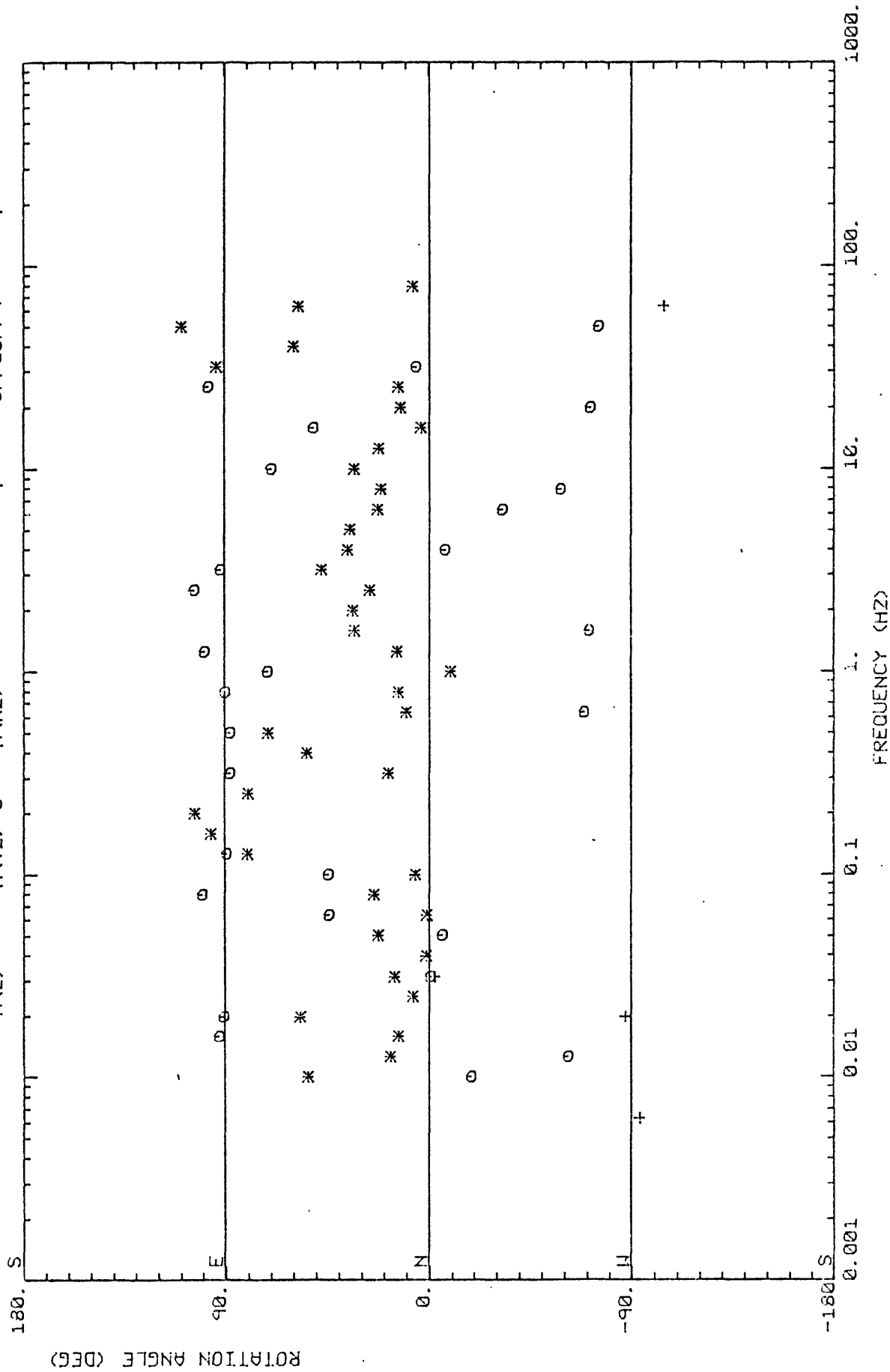
COORD ROTATION ANGLES - PRINCIPLE AXES

A(Z)=\* A(YZ)=0 A(KZ)=+

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MAGNETO TELLURIC  
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PRINCIPLE AXES

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- LEGEND AND NOTES -

X - AXIS AZIMUTH = 10.0°

DATA PASS LEVELS : COH (Z) = 0.80  
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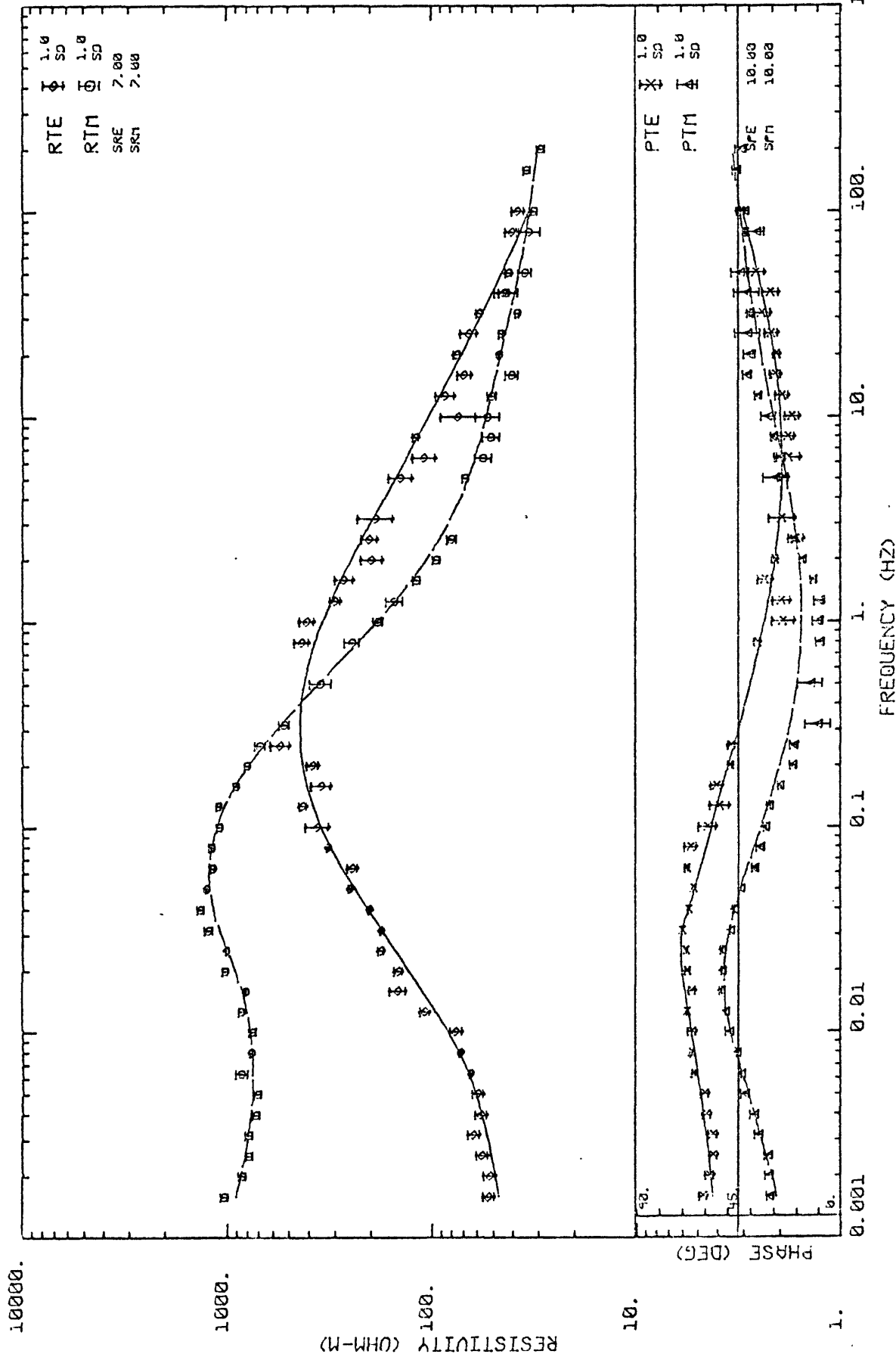
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## APPARENT RESISTIVITY AND PHASE ROTATED TENSOR IMPEDANCE

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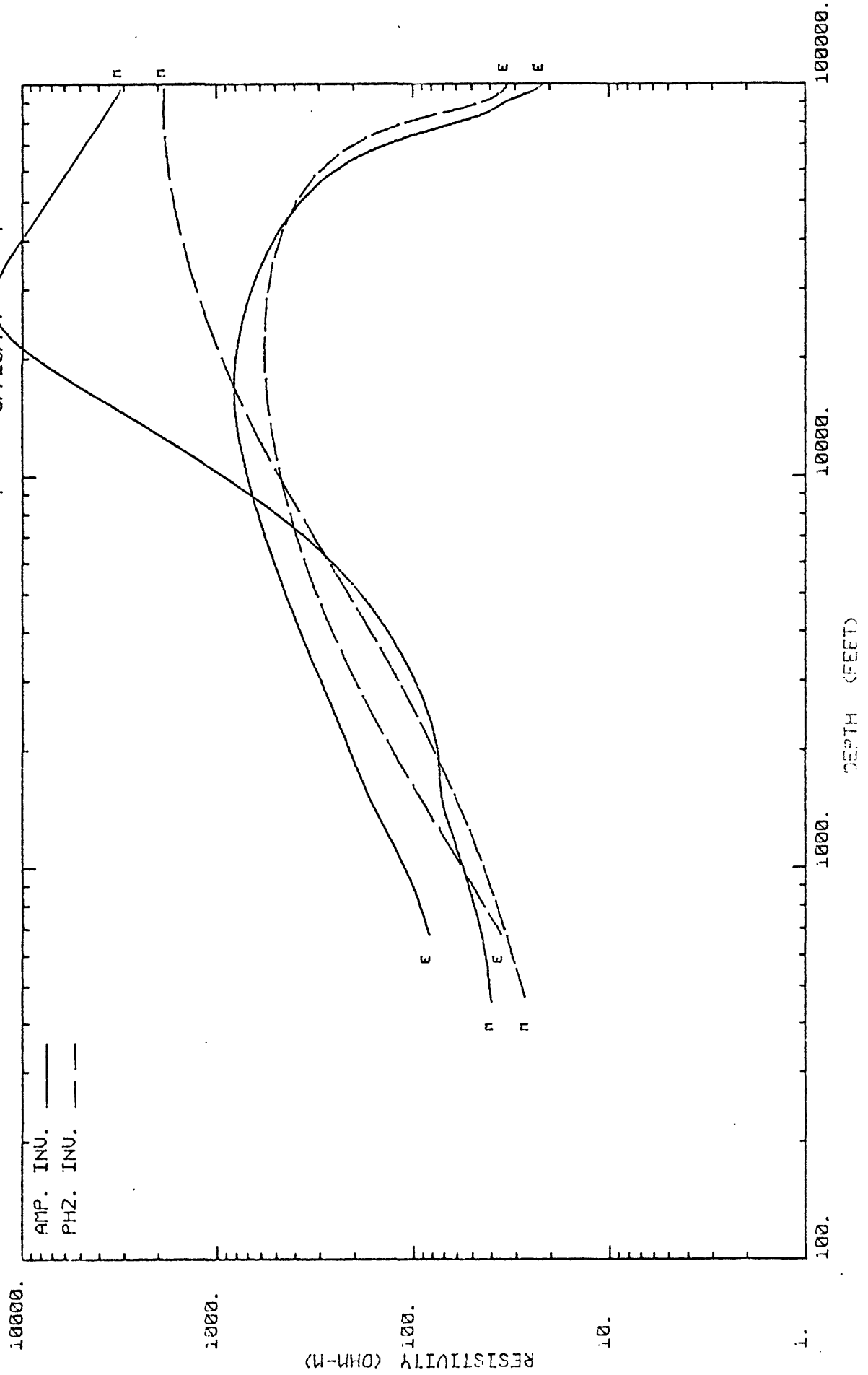
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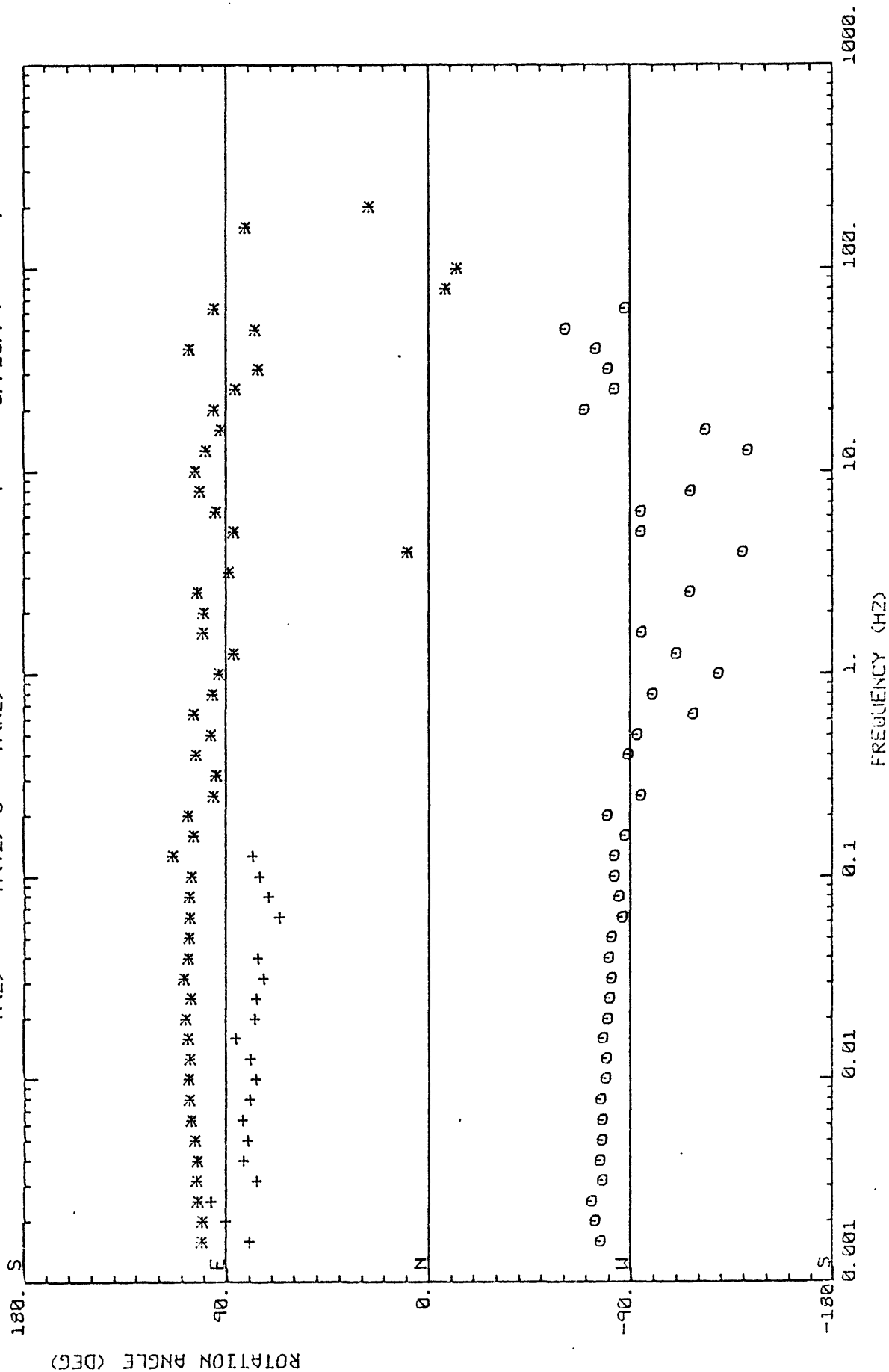
COORD ROTATION ANGLES - PRINCIPLE AXES

A(Z)=\* A(YZ)=0 A(KZ)=++

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COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

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-- LEGEND AND NOTES -

X - AXIS AZIMUTH = 20.0°

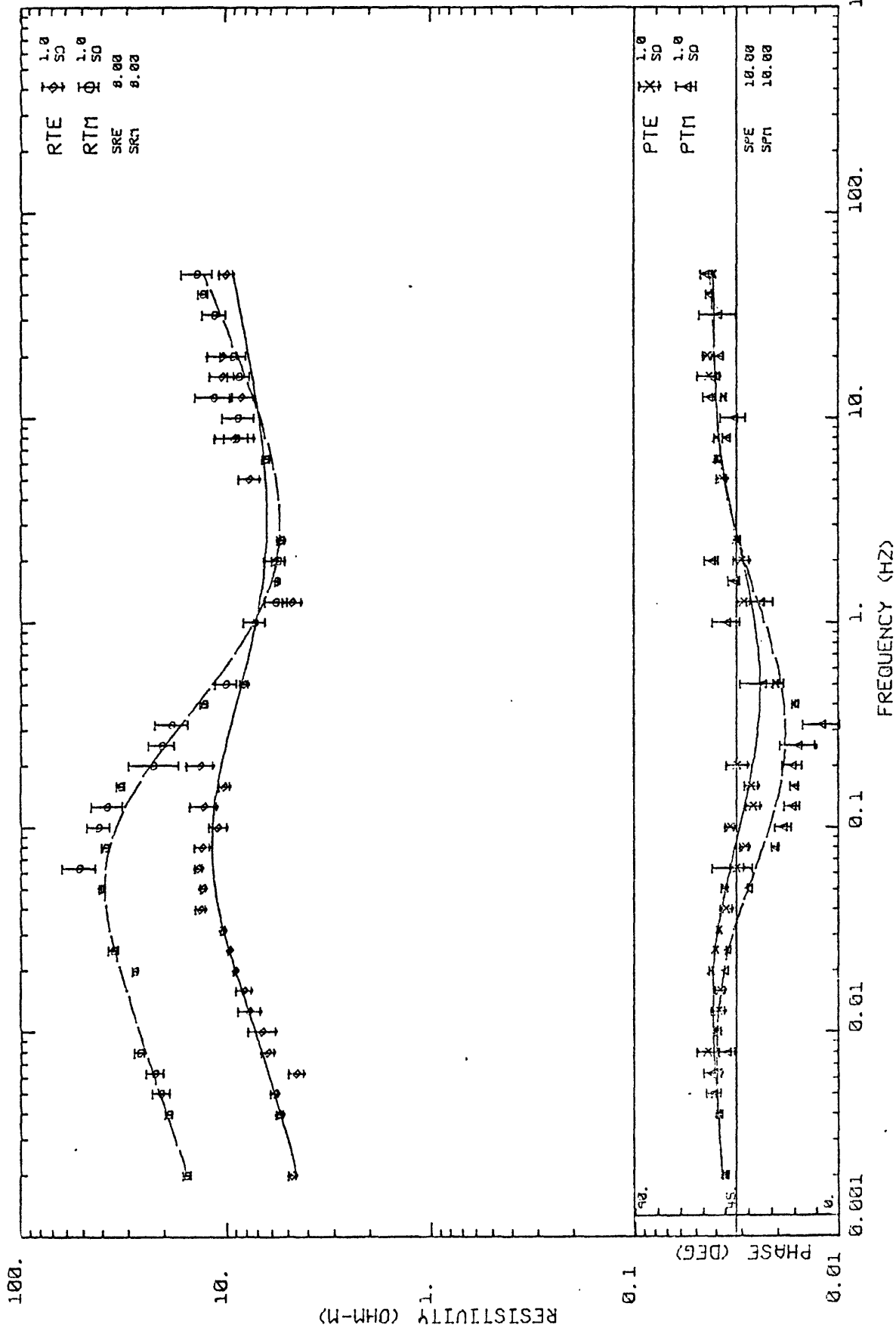
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                         COH (KZ) = 0.80

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APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

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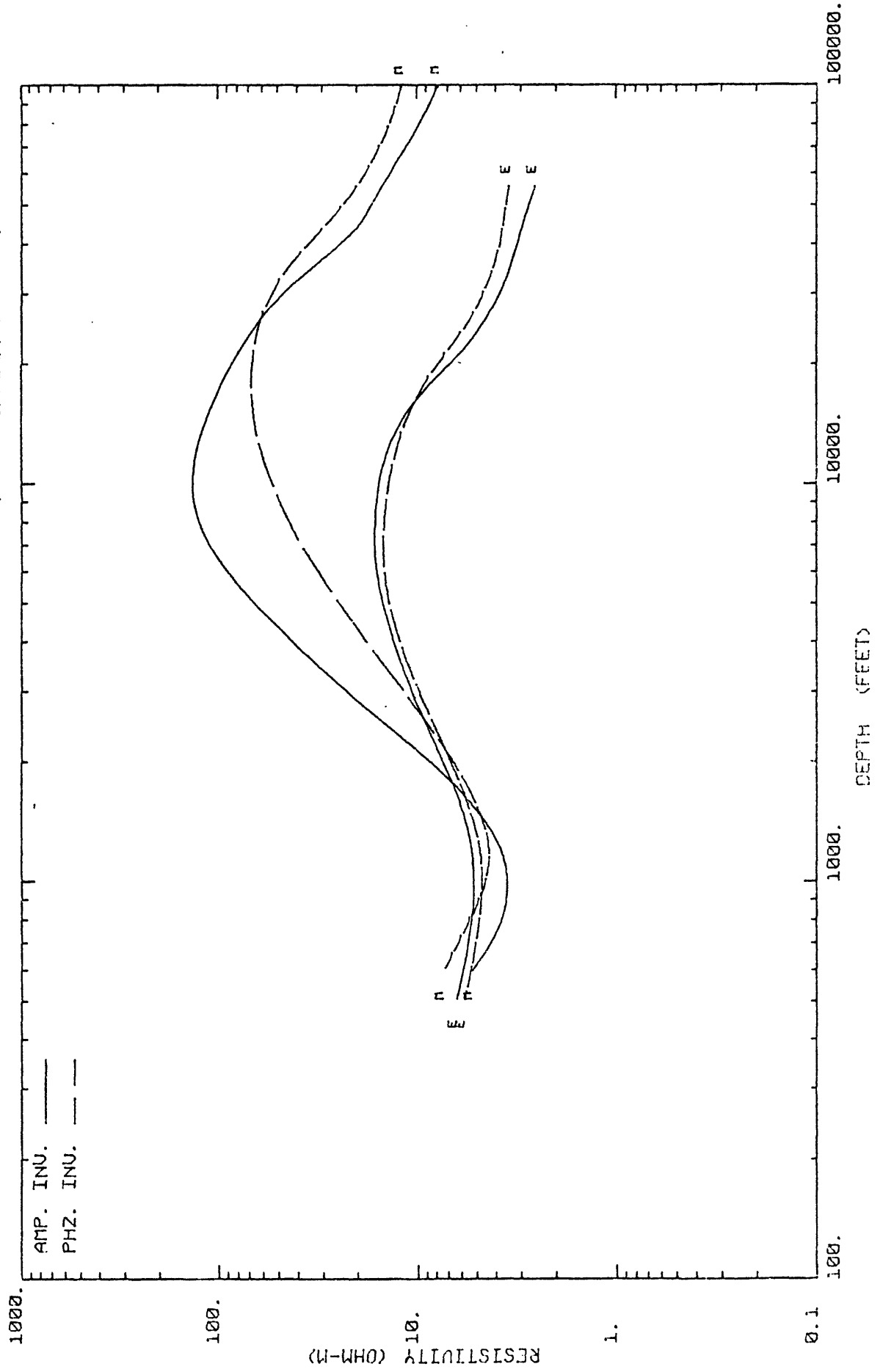
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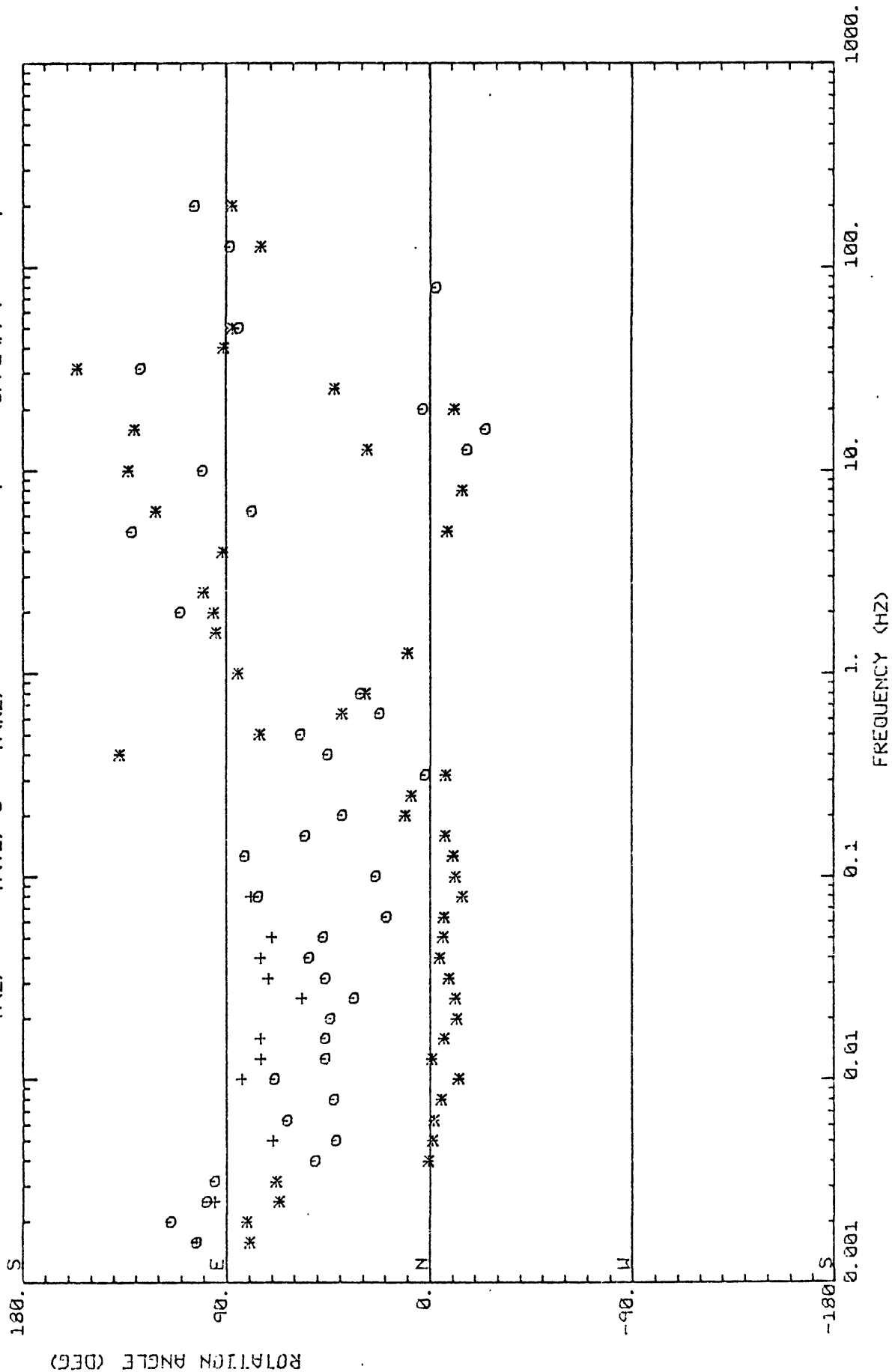


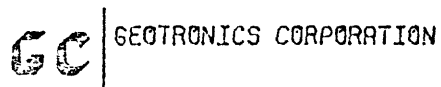
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PRINCIPLE AXES

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- LEGEND AND NOTES -

X - AXIS AZIMUTH = 20.0°

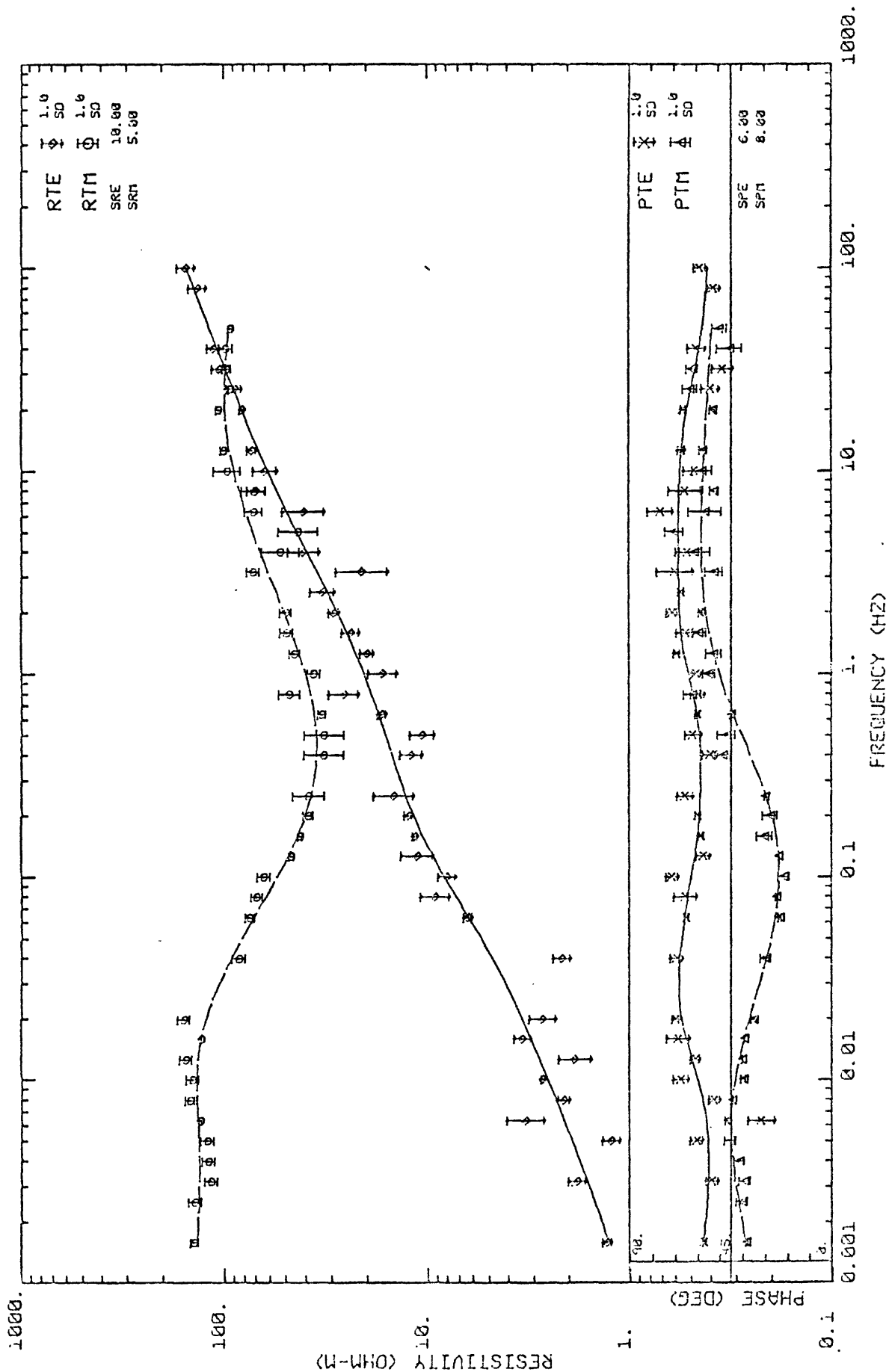
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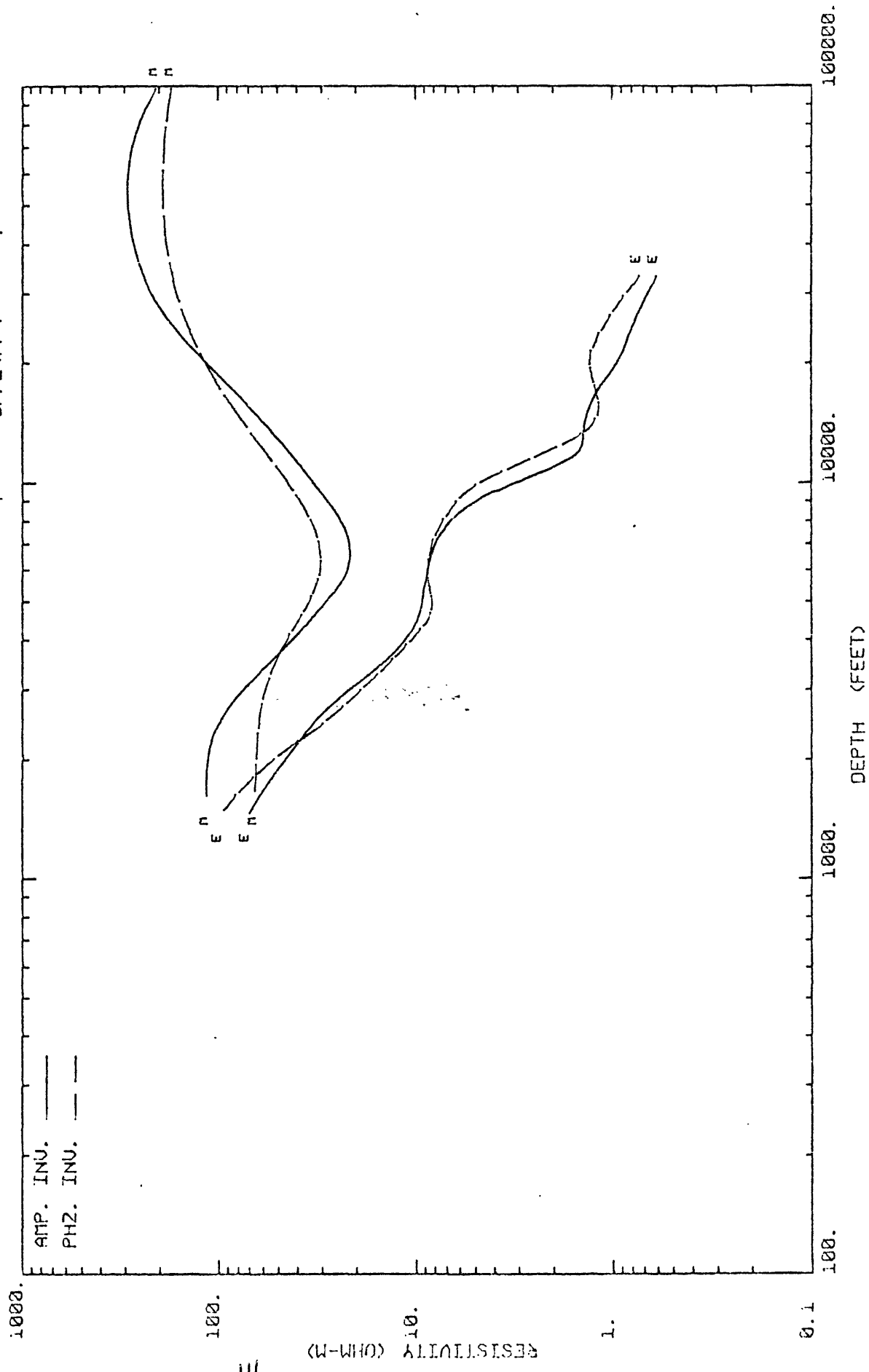




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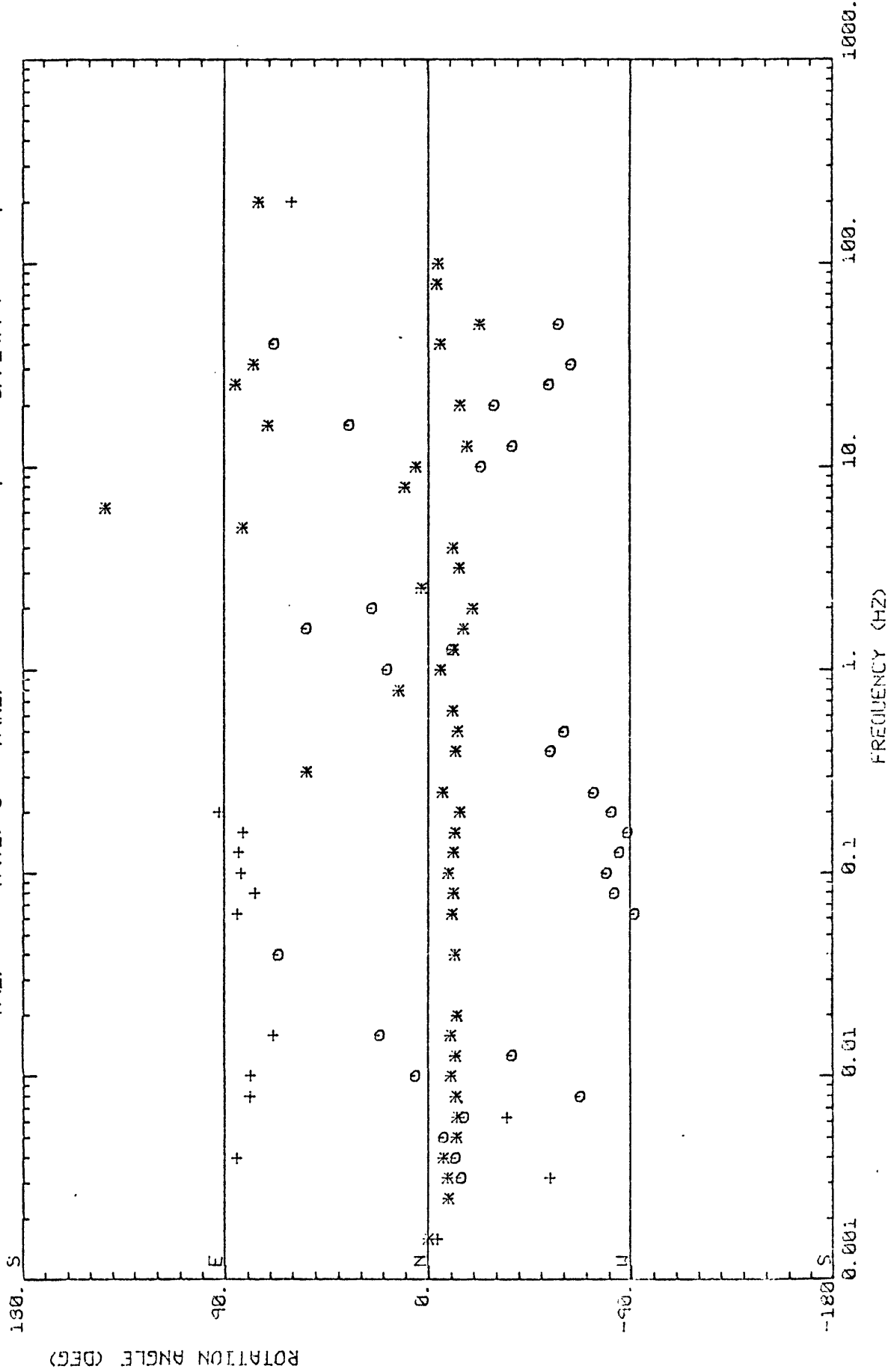
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COORD ROTATION ANGLES - PRINCIPLE AXES  
 $A(Z) = *$   $A(YZ) = 0$   $A(KZ) = +$

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COORDINATE ROTATION ANGLES -  
PRINCIPAL AXES (+ AZIMUTH)

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 20.0°

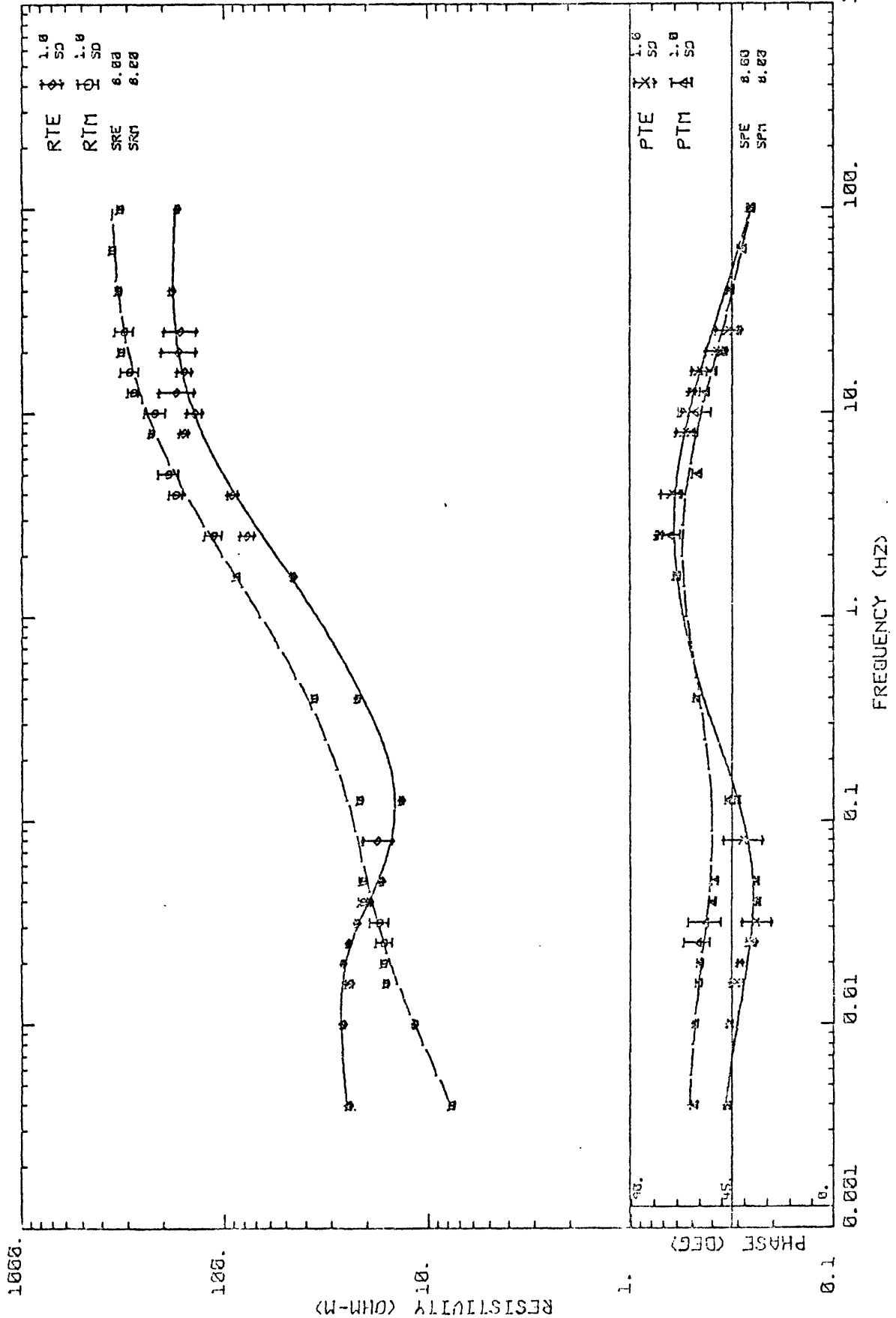
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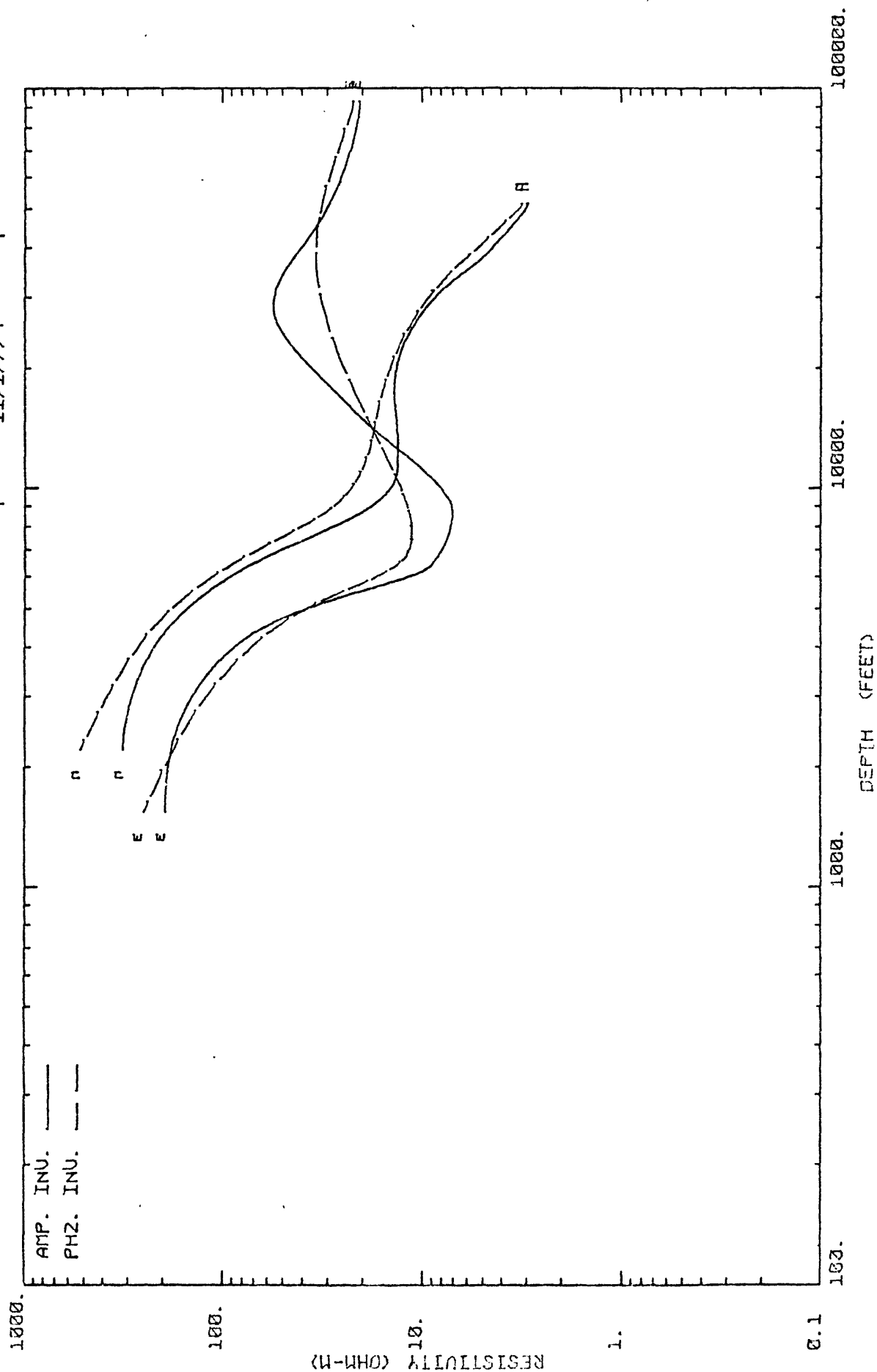
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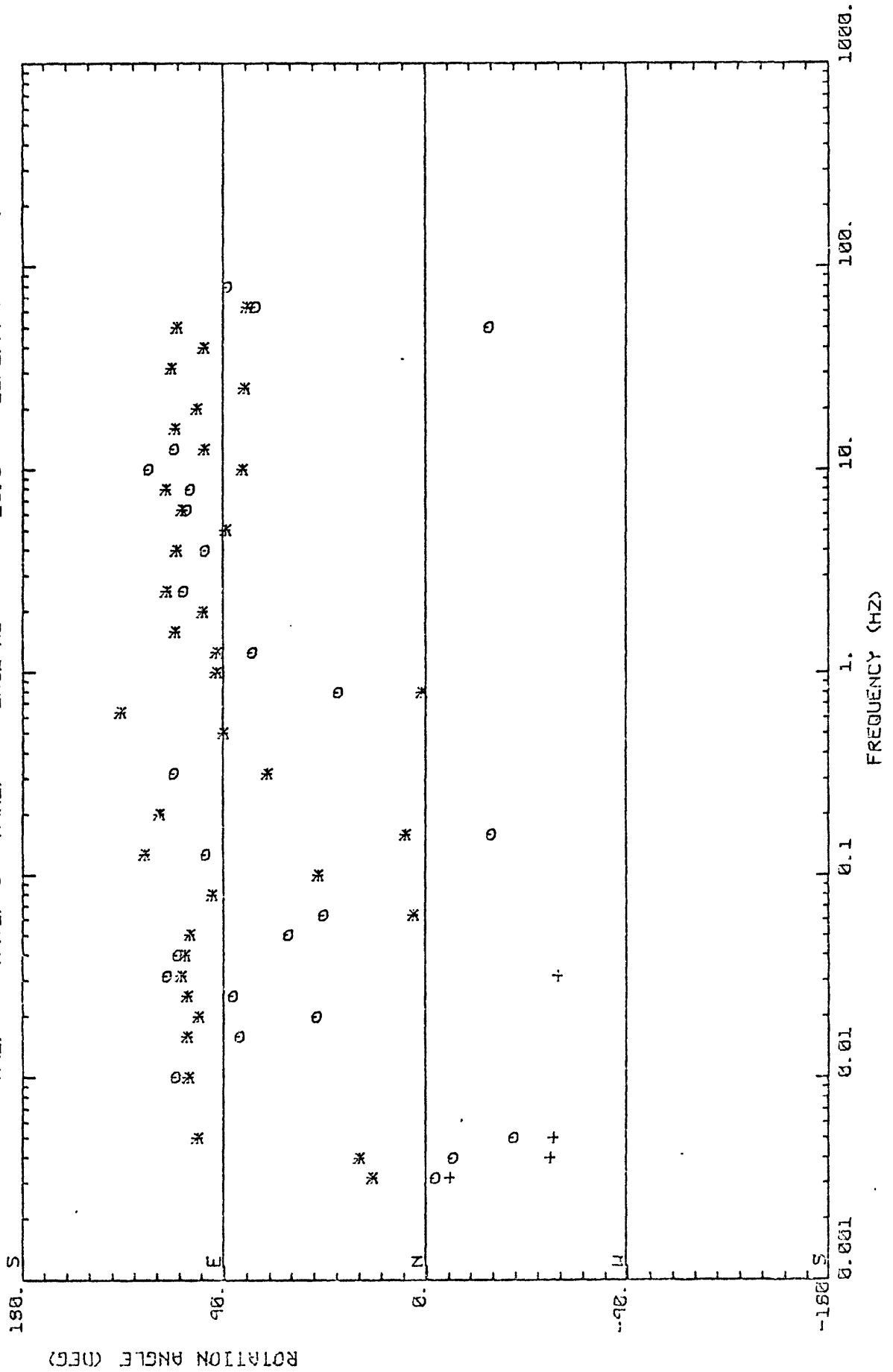
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- LEGEND AND NOTES -

X - AXIS AZIMUTH = 20.0°

DATA PASS LEVELS : COH (Z) = 0.80  
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COH (KZ) = 0.80

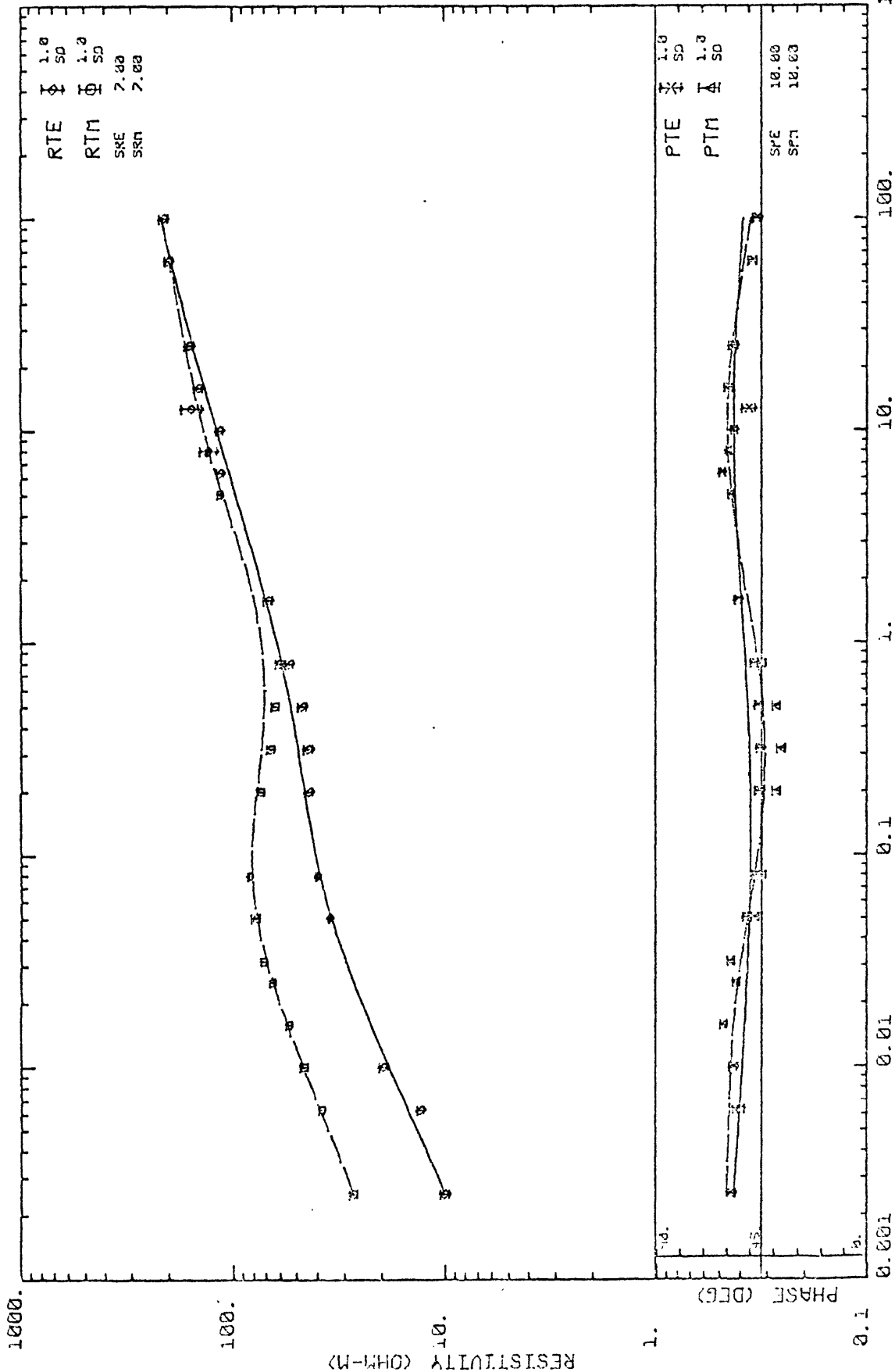
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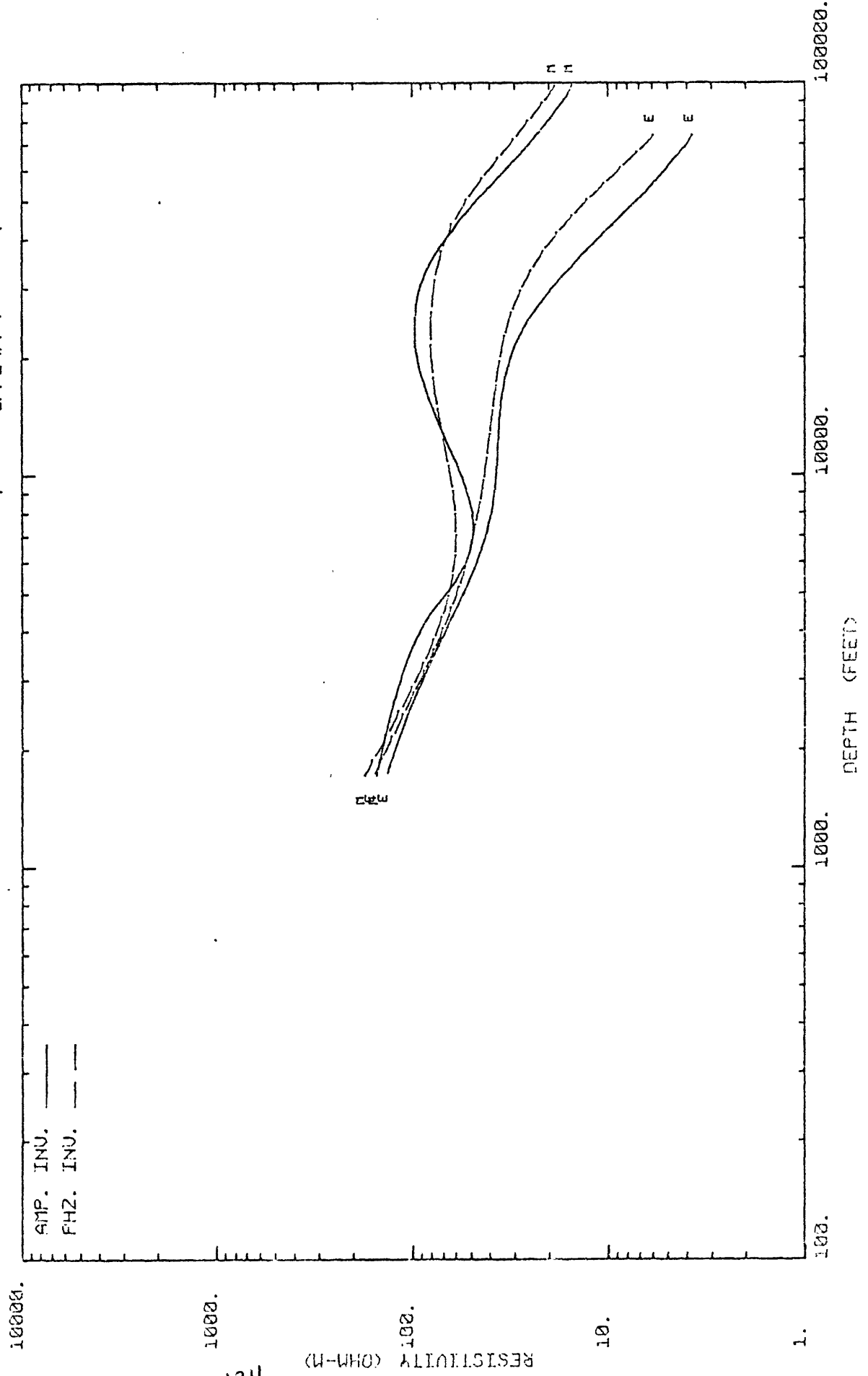


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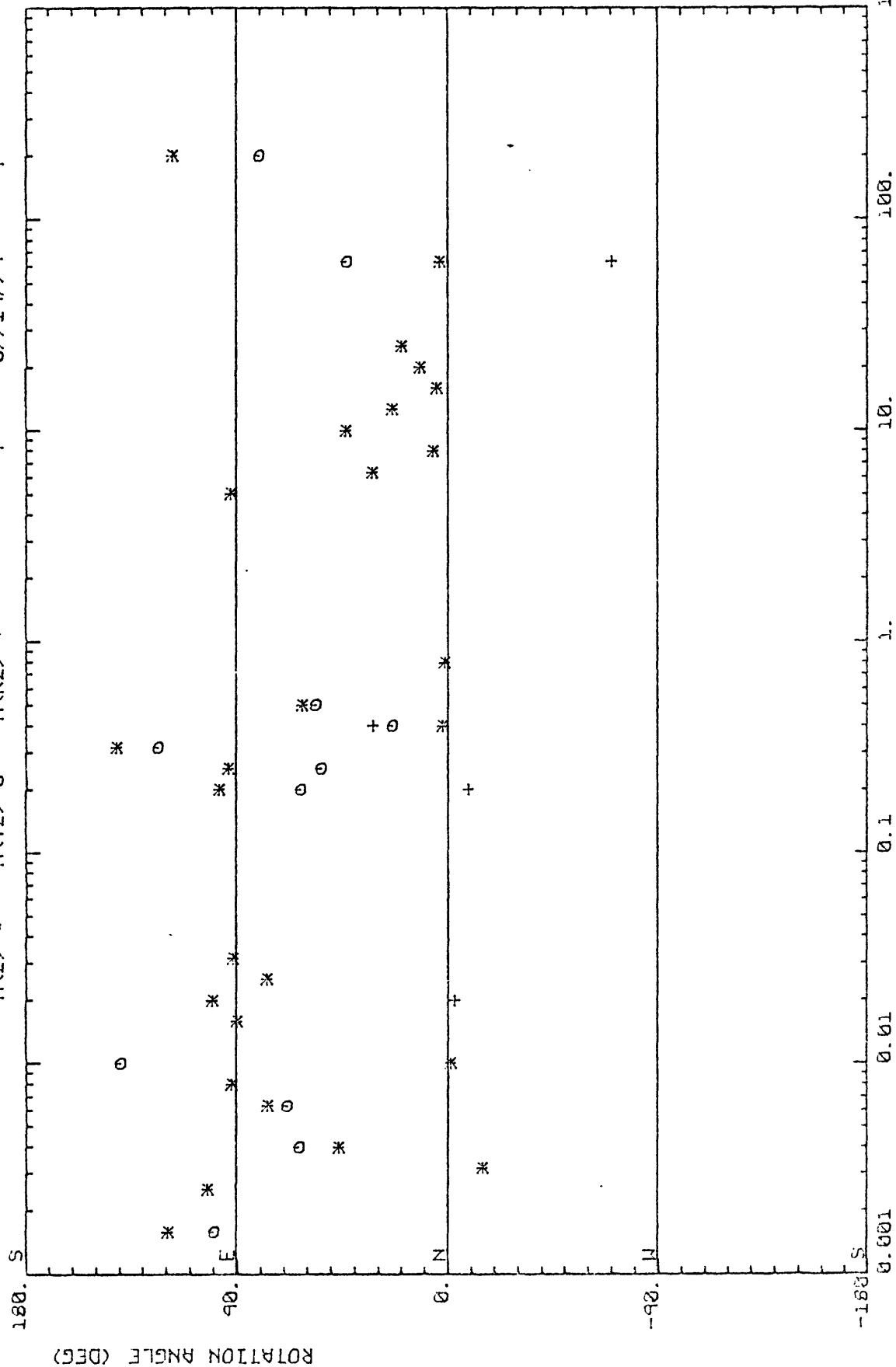
COORD ROTATION ANGLES - PRINCIPLE AXES

A(Z)=\* A(YZ)=0 A(KZ)=+

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3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 20.0°

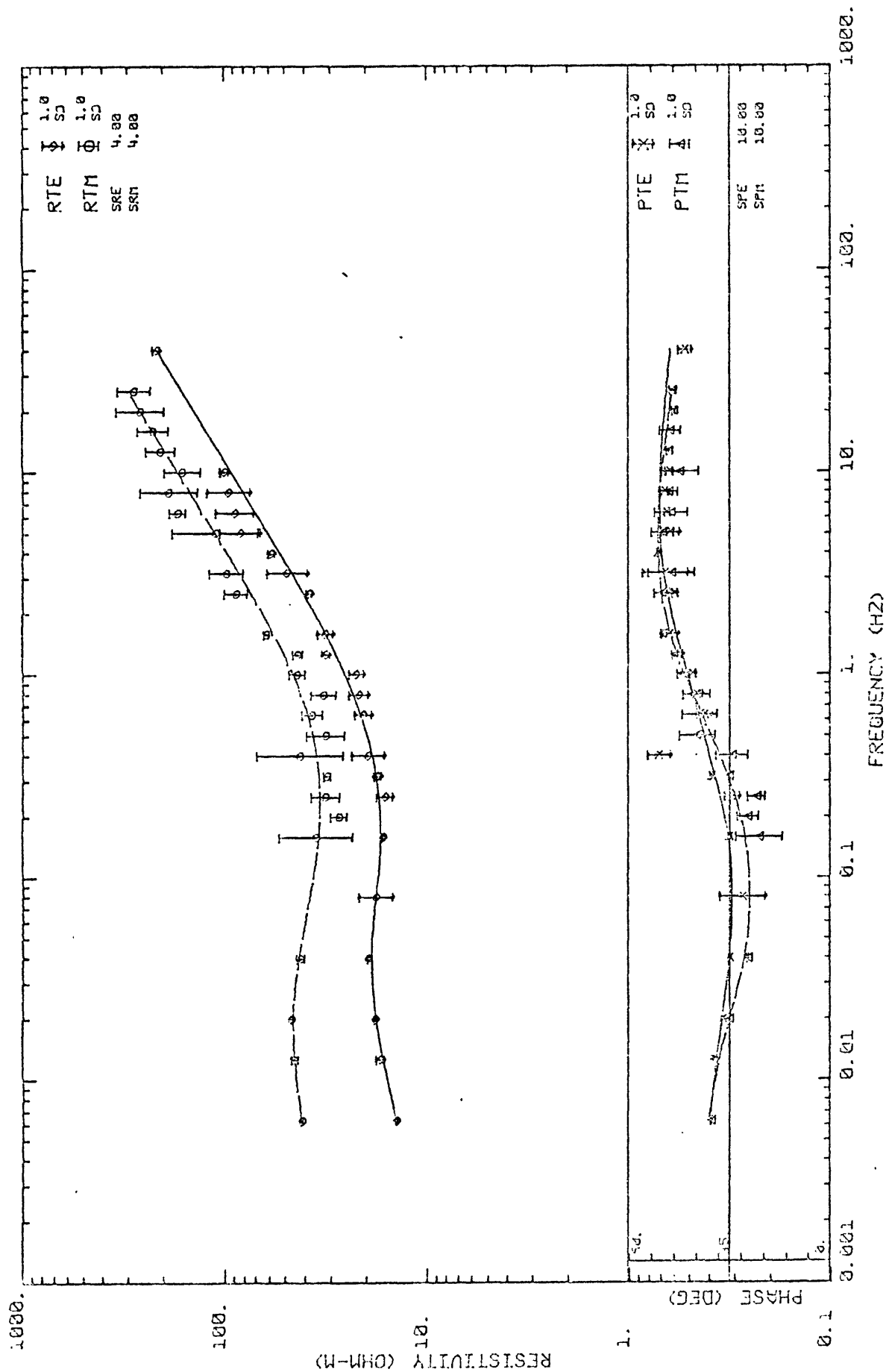
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COH (KZ) = 0.80

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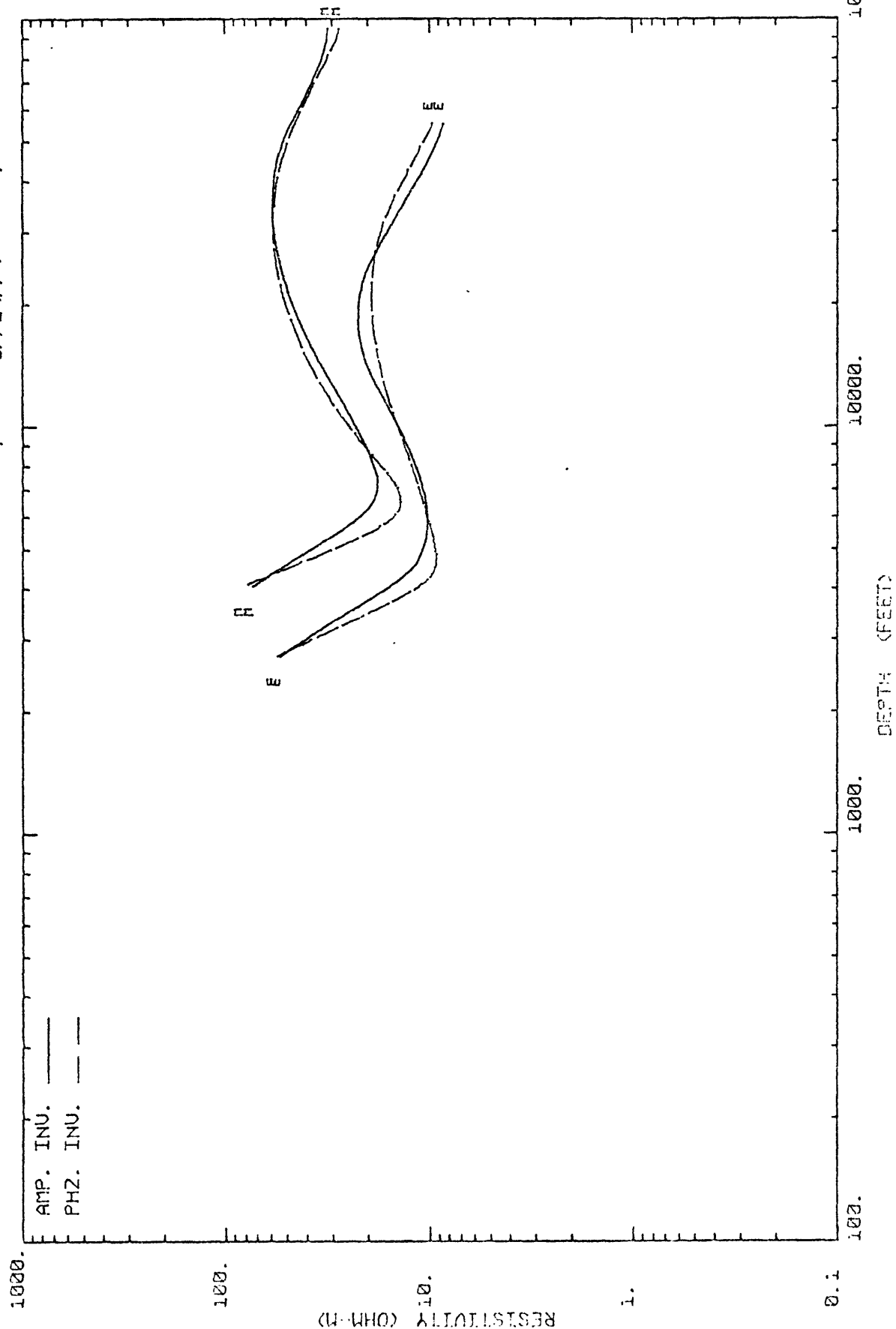
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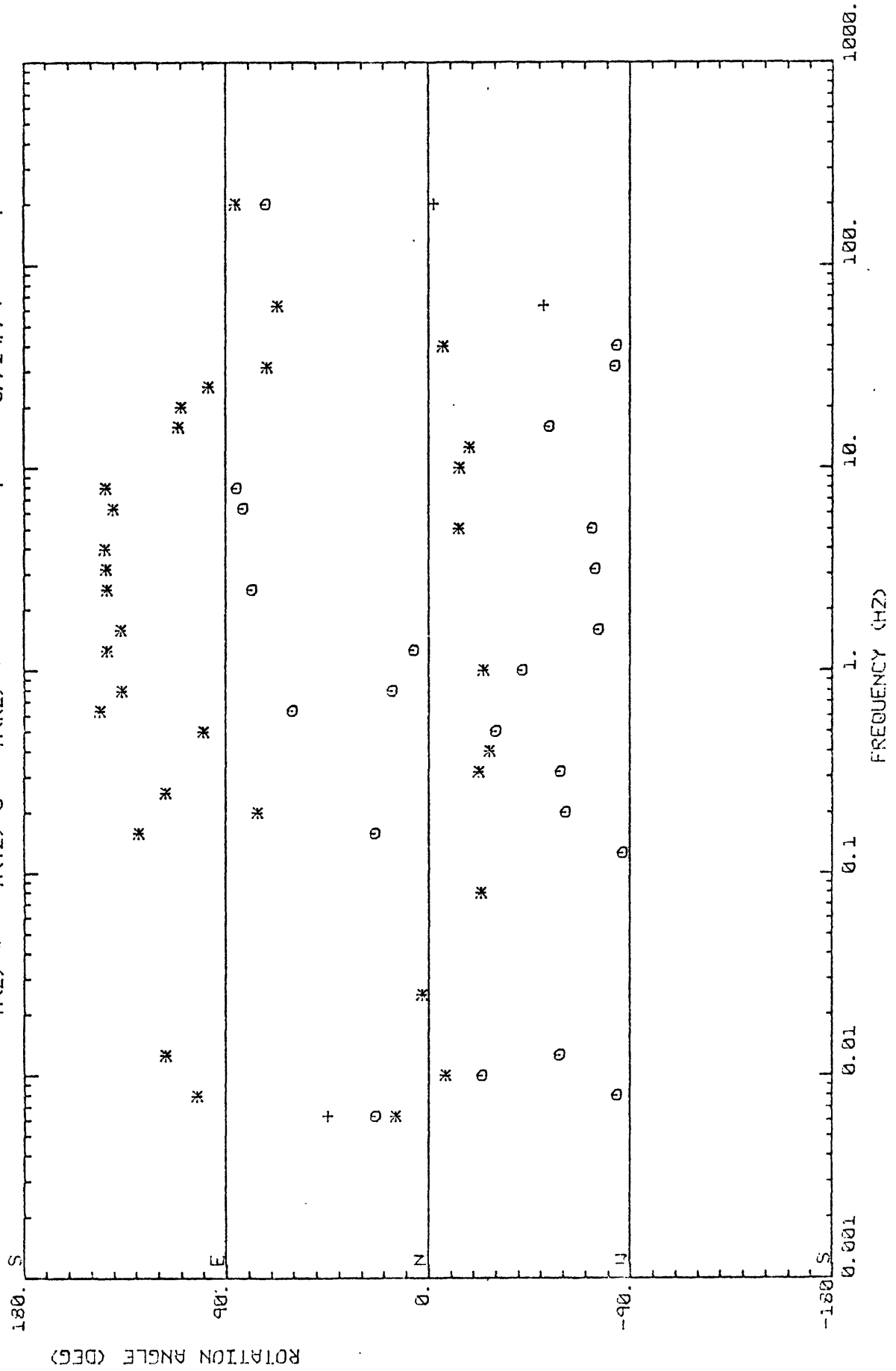
COORD ROTATION ANGLES - PRINCIPLE AXES

A(Z)=\* A(YZ)=0 A(KZ)=++

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COORDINATE ROTATION ANGLES -  
PRINCIPAL AXES (+ AZIMUTH)

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- LEGEND AND NOTES -

X - AXIS AZIMUTH = 20.0°

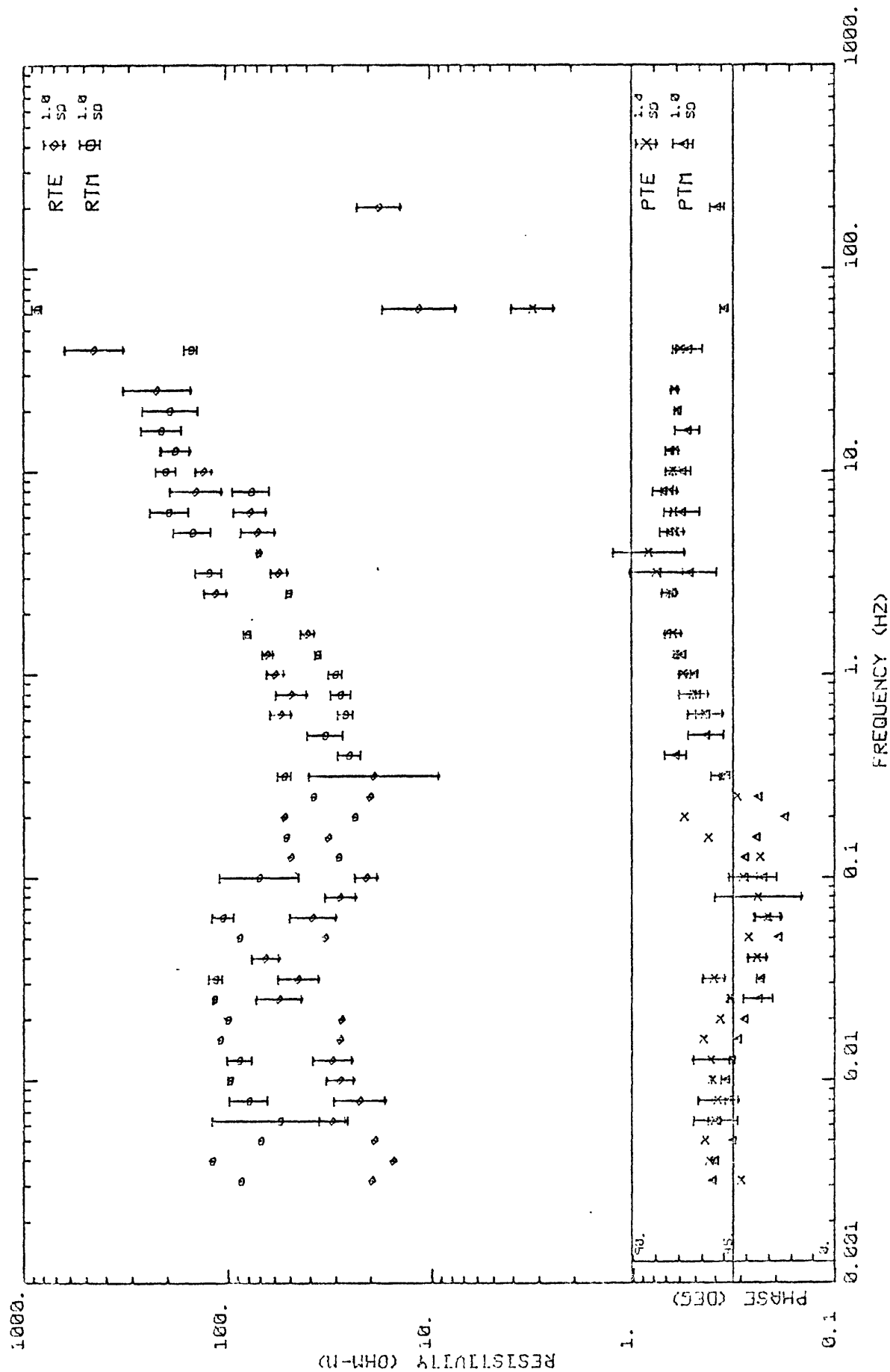
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COH (YZ) = 0.80  
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APPARENT RESISTIVITY AND PHASE  
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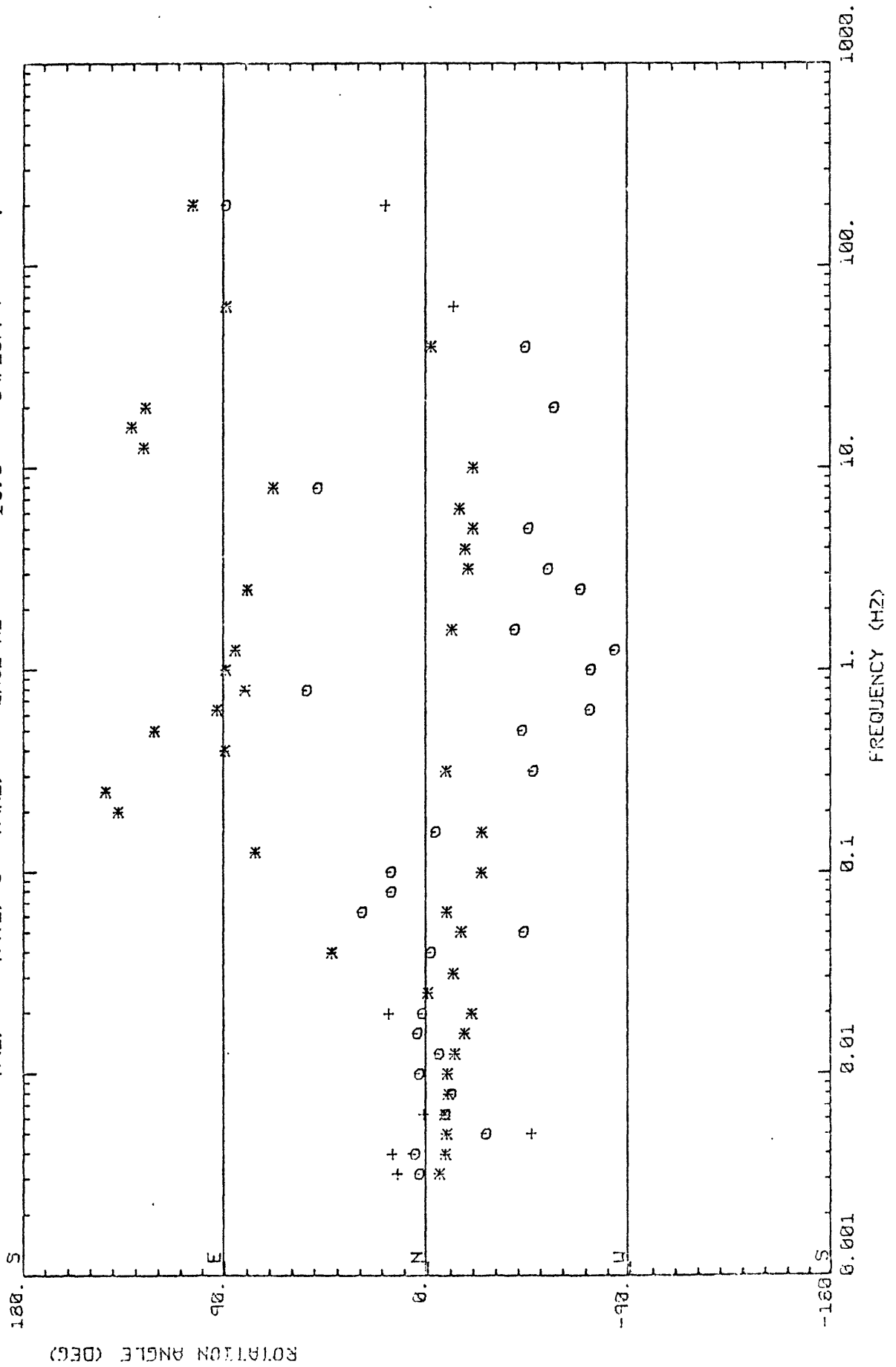
196 3-6 1  
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COORD ROTATION ANGLES - PRINCIPAL AXES  
 $A(Z) = *$   $A(YZ) = 0$   $A(KZ) = +$  INCL AZ 20 | 196 3-6 1 | PAGE 3  
 09/28/79





GEOTRONICS CORPORATION

MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 3- 6

196 3-6 MAGPLOT

DATE -  
RECORDED : 170/79  
PROCESSED : 06/26/79  
PLOTED : 09/28/79

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APPARENT RESISTIVITY AND PHASE -  
ROTATED TENSOR IMPEDANCE

1

PHASE INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPAL AXES (AZIMUTH ADDED)

3

- LEGEND AND NOTES -

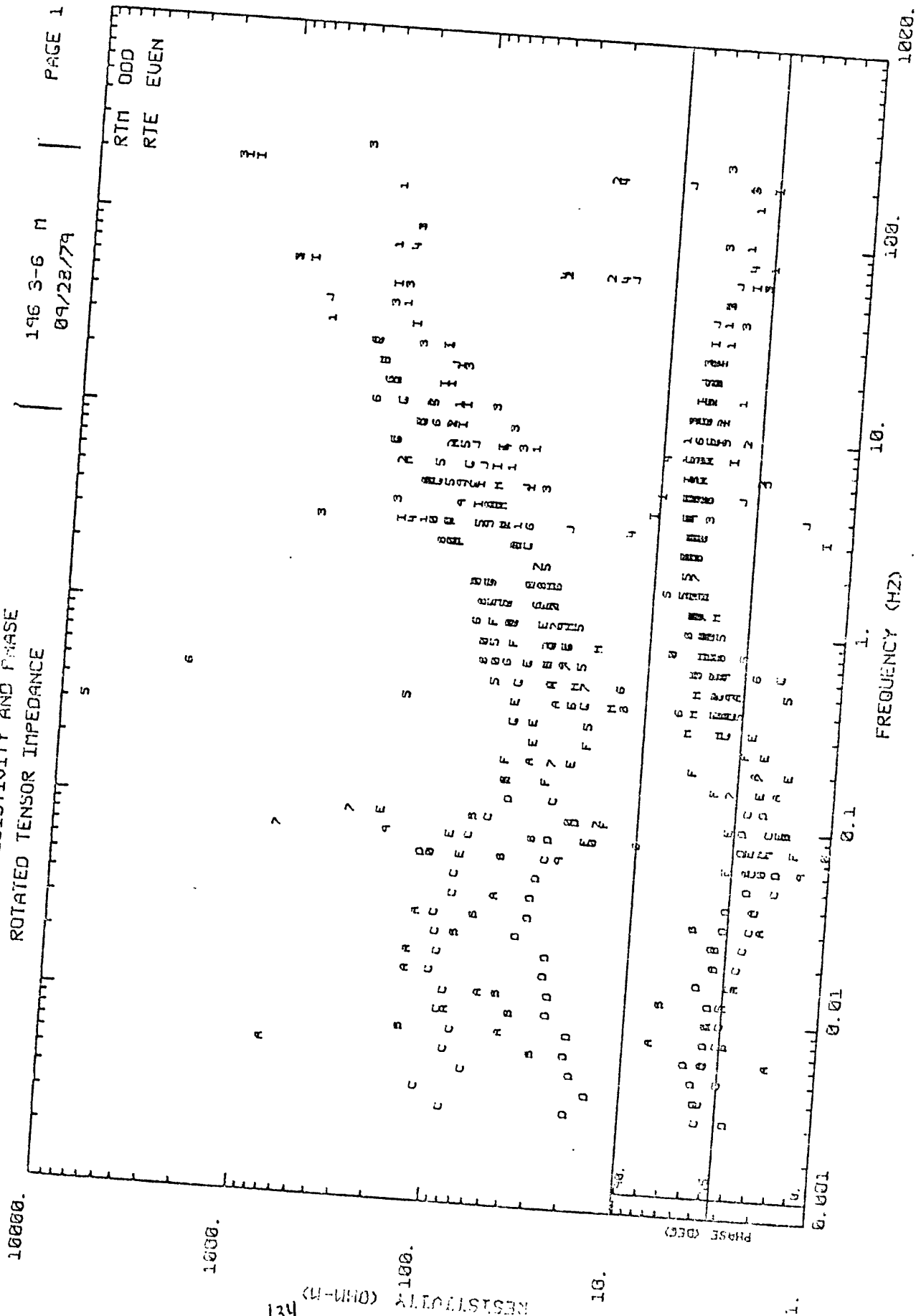
SITE PARAMETERS : E - LINES DX = 300.0M  
DY = 300.0M  
X - AXIS AZIMUTH = 20.0°

DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (KZ) = 0.80

DATA SETS PROCESSED	RUN NO.	BAND	SYMBOL
	601	6	I 2
	602	6	3 4
	603	5	5 6
	605	4	7 8
	606	4	9 0
	607	3	A B
	608	2	C D
	609	4	E F
	611	5	G H
	613	6	I J

# GEOTRONICS CORPORATION

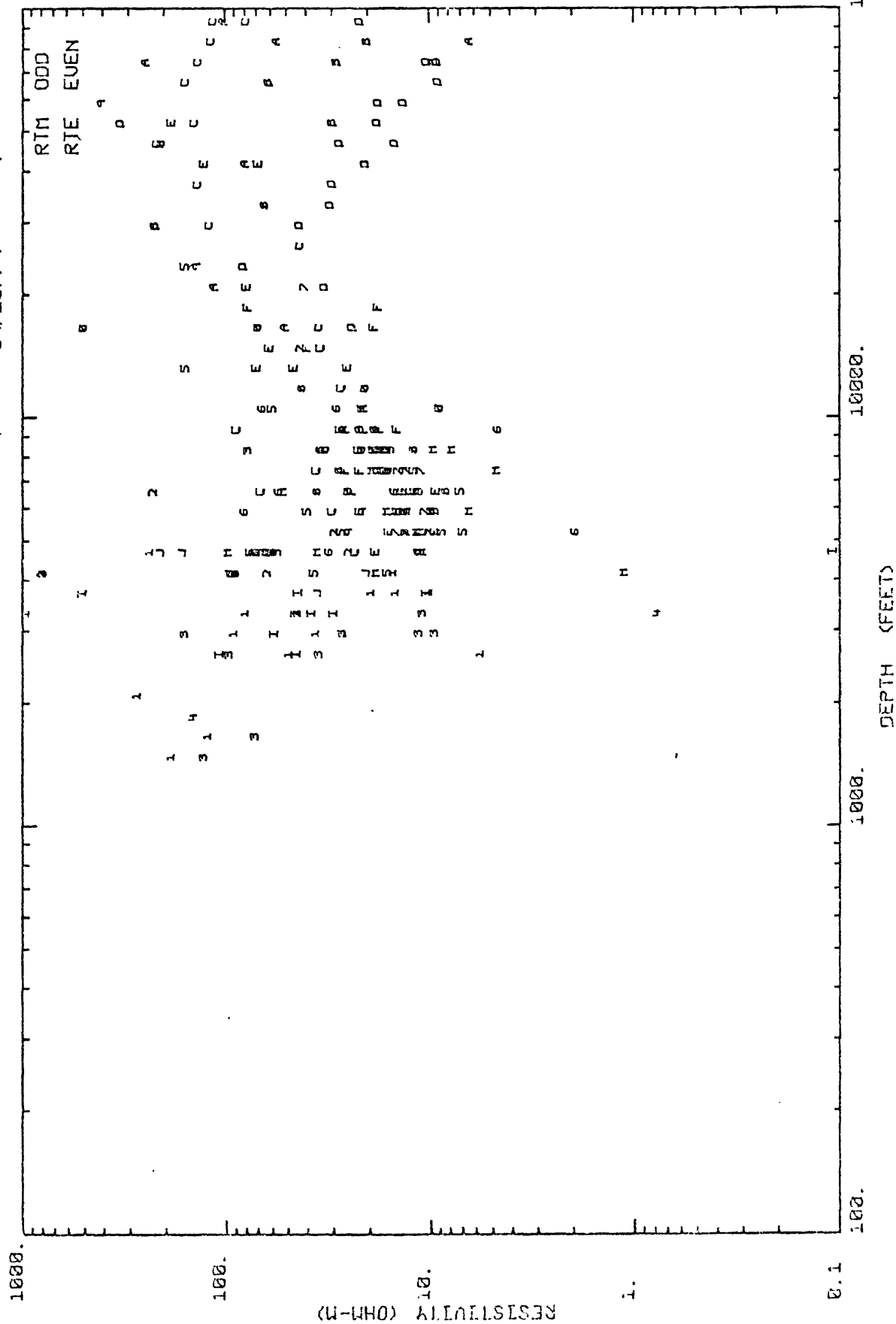
## APPARENT RESISTIVITY AND PHASE ROTATED TENSOR IMPEDANCE



PHASE INVERSION OF ROTATED TENSOR

196 3-6 M  
09/28/79

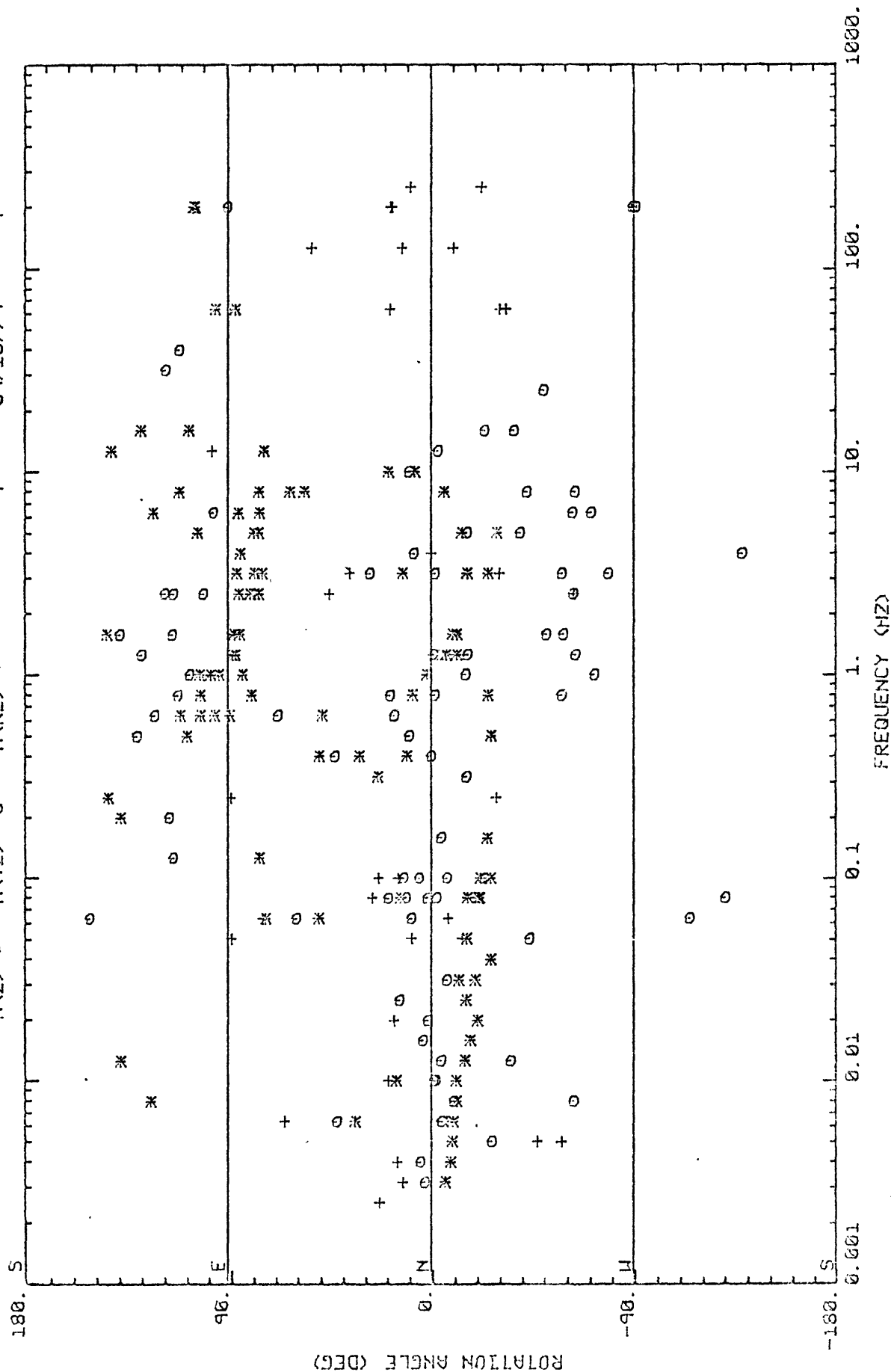
PAGE 2



COORD ROTATION ANGLES - PRINCIPLE AXES  
 $A(Z) = +$   $A(Y) = 0$   $A(X) = +$

196 3-6 M  
 09/28/74

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66 | GEOTRONICS CORPORATION

MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 3- 7

196 3-7

RUN 3

DATE -  
RECORDED : 166/79  
PROCESSED : 07/20/79

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ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 45.0°

DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (KZ) = 0.80

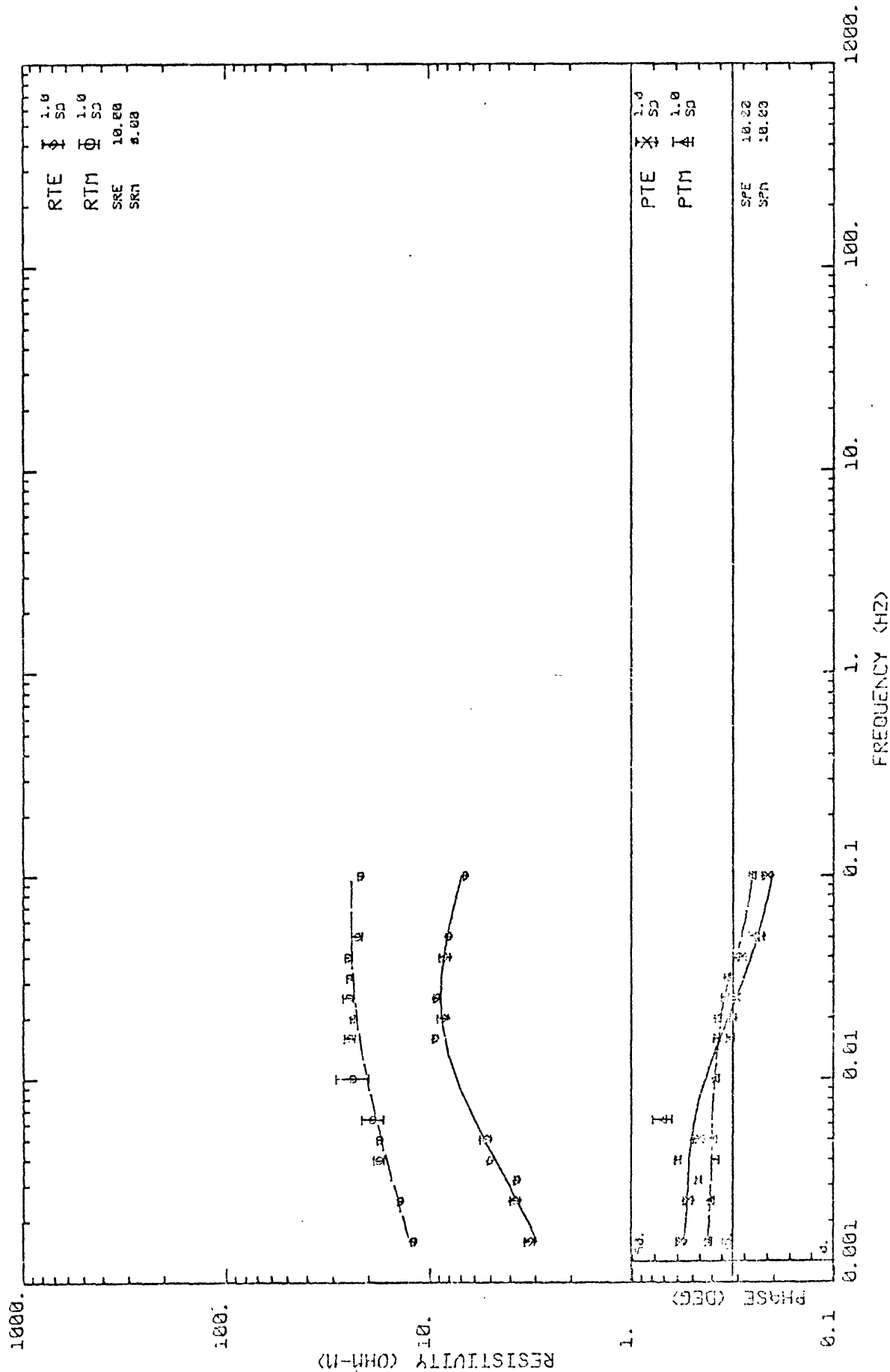
DATA SETS PROCESSED : RUN NO.  
30700

# GEOTRONICS CORPORATION

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

196 3-7  
07/20/79

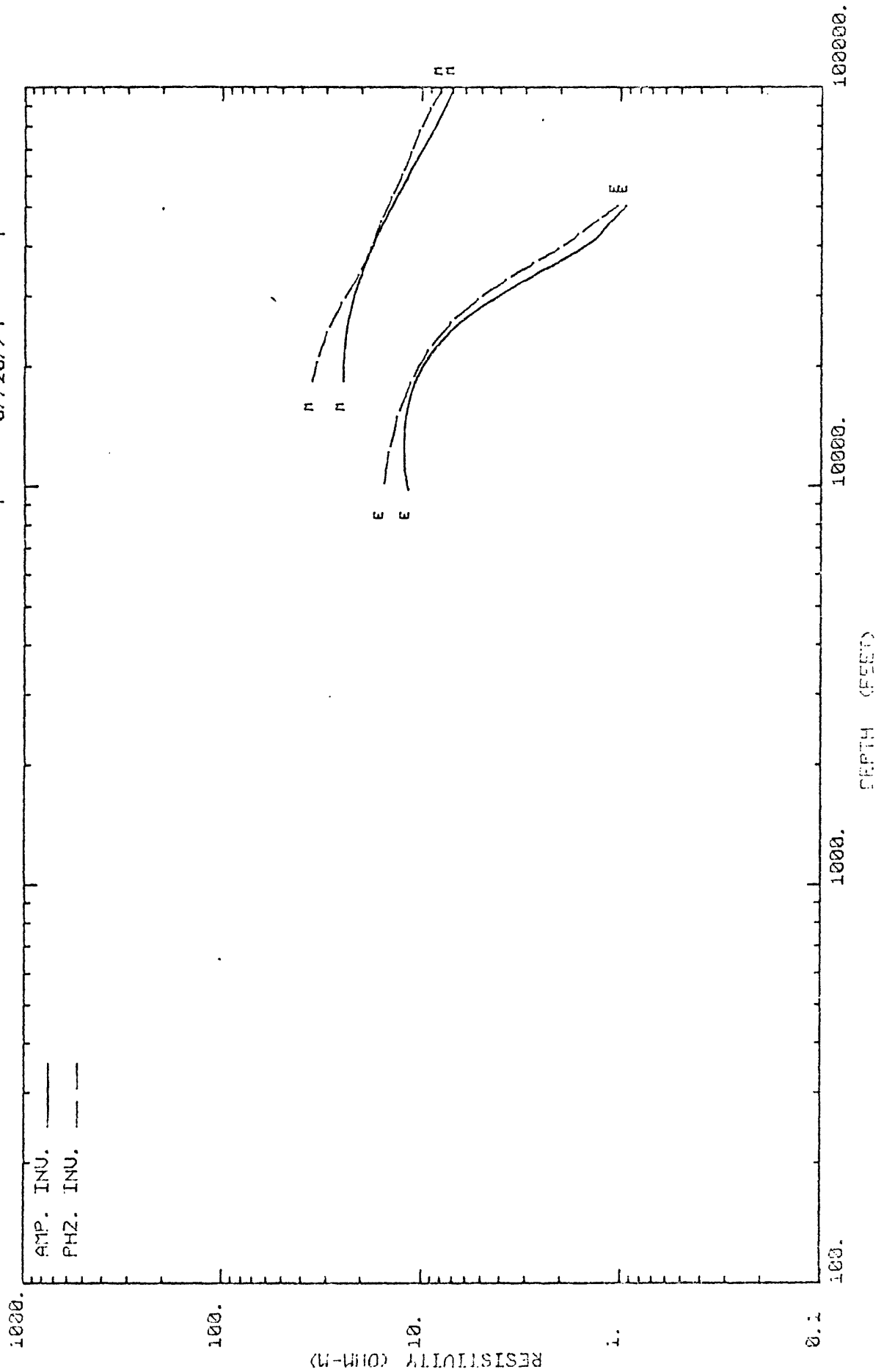
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INVERSION OF ROTATED TENSOR

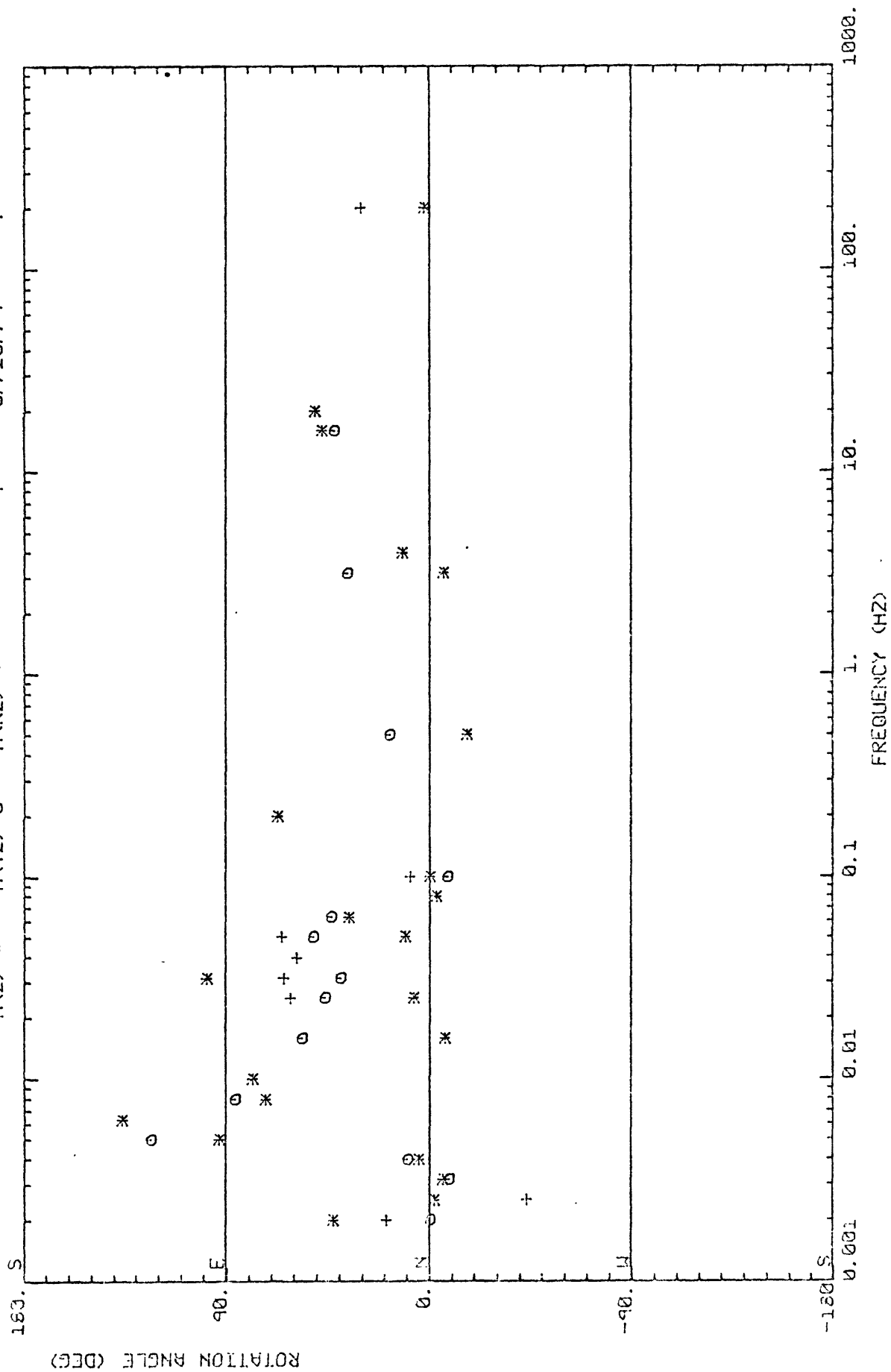
PAGE 2

196 3-7  
07/20/79





196 3-7  
07/20/79

$$A(Z) = * \quad A(YZ) = 0 \quad A(KZ) = +$$


66 | GEOTRONICS CORPORATION

MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE103- 7

196 3-7

RUN 2

DATE -  
RECORDED : 286/79  
PROCESSED : 11/17/79

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ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPAL AXES (+ AZIMUTH)

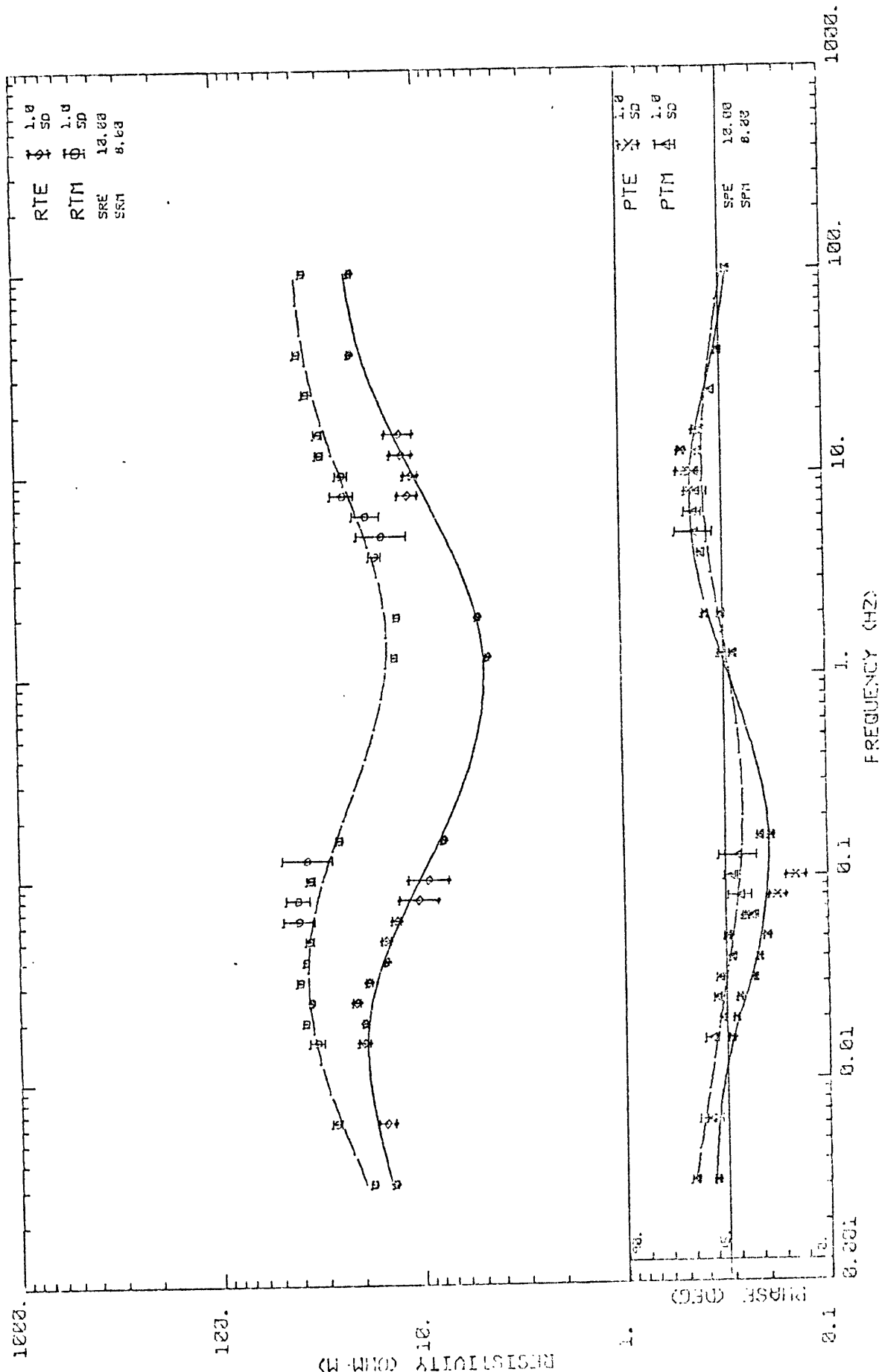
3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 44.0°

DATA PASS LEVELS : COH (Z) = 0.80  
COH (Y) = 0.80  
COH (K) = 0.80

DATA SETS PROCESSED : RUN NO.  
4424499198

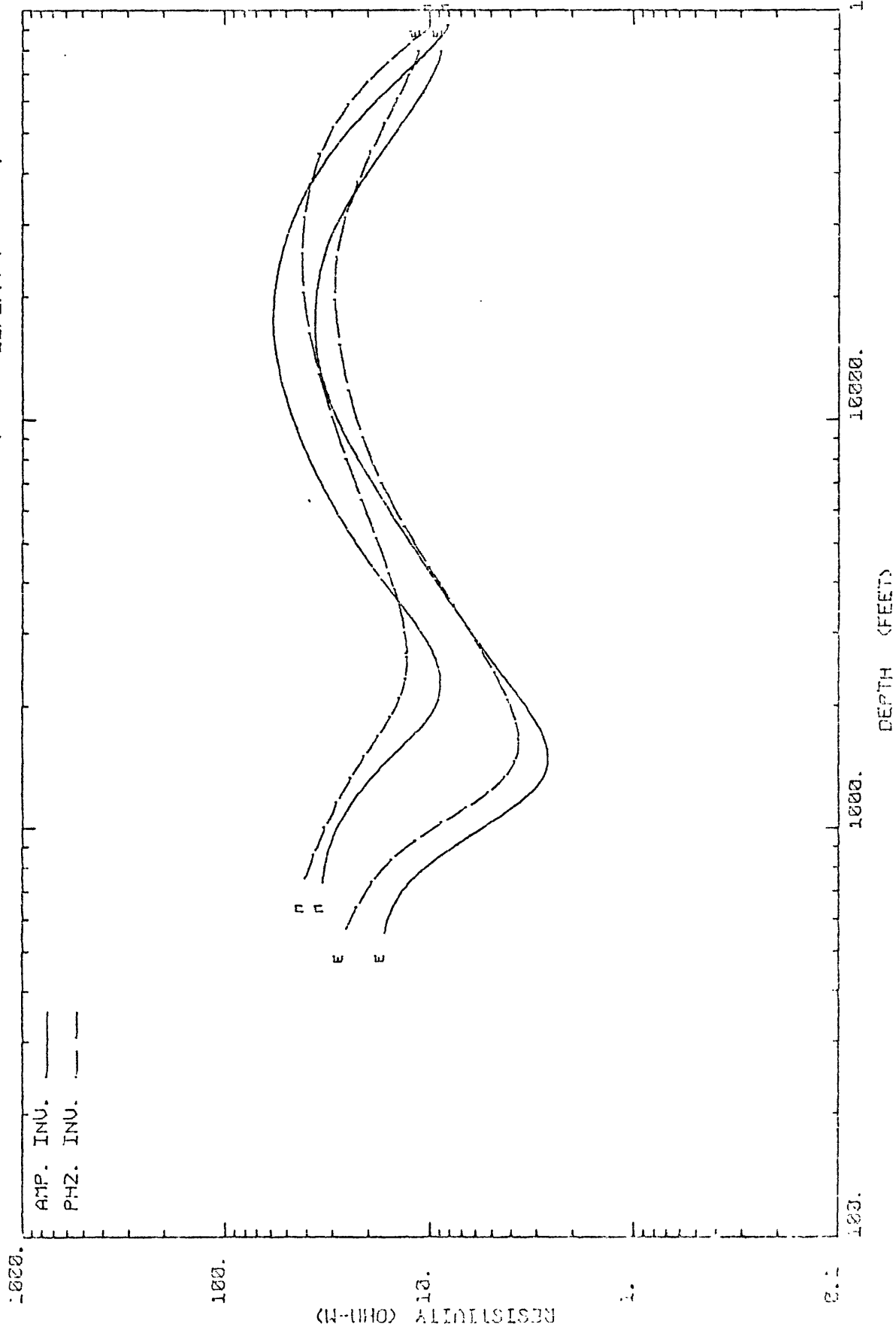


INVERSION OF ROTATED TENSOR

PAGE 2

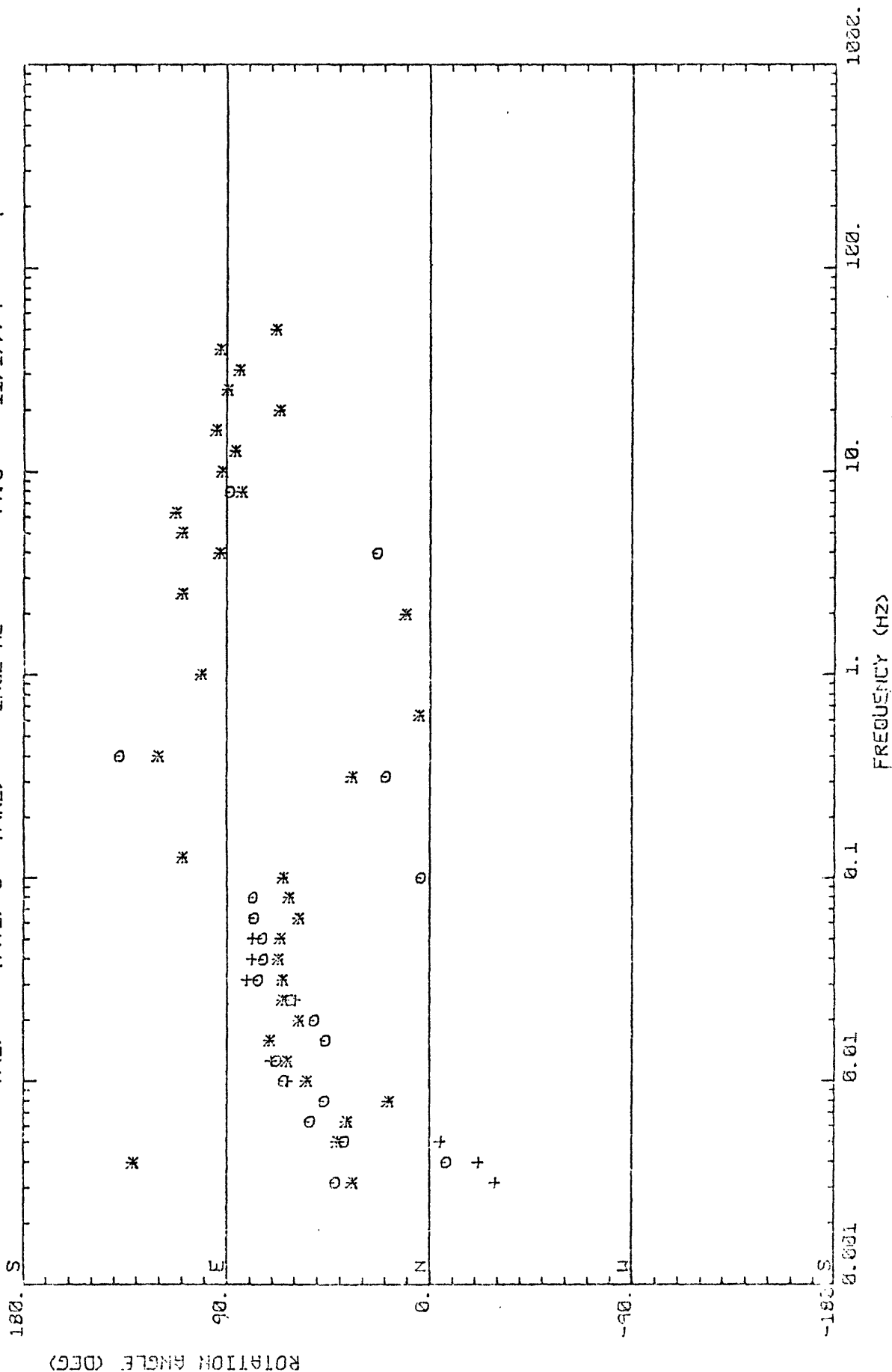
196 3-7

11/17/79



# GEOTRONICS CORPORATION

COORD ROTATION ANGLES - PRINCIPAL AXES  
 A(Z)=+ A(YZ)=0 A(KZ)=+ INCL AZ  
 440 196 3-7 11/17/79 PAGE 3





GEOTRONICS CORPORATION

MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 3- 8

196 3-8

RUN 3

DATE -  
RECORDED : 168/79  
PROCESSED : 07/24/79

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ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

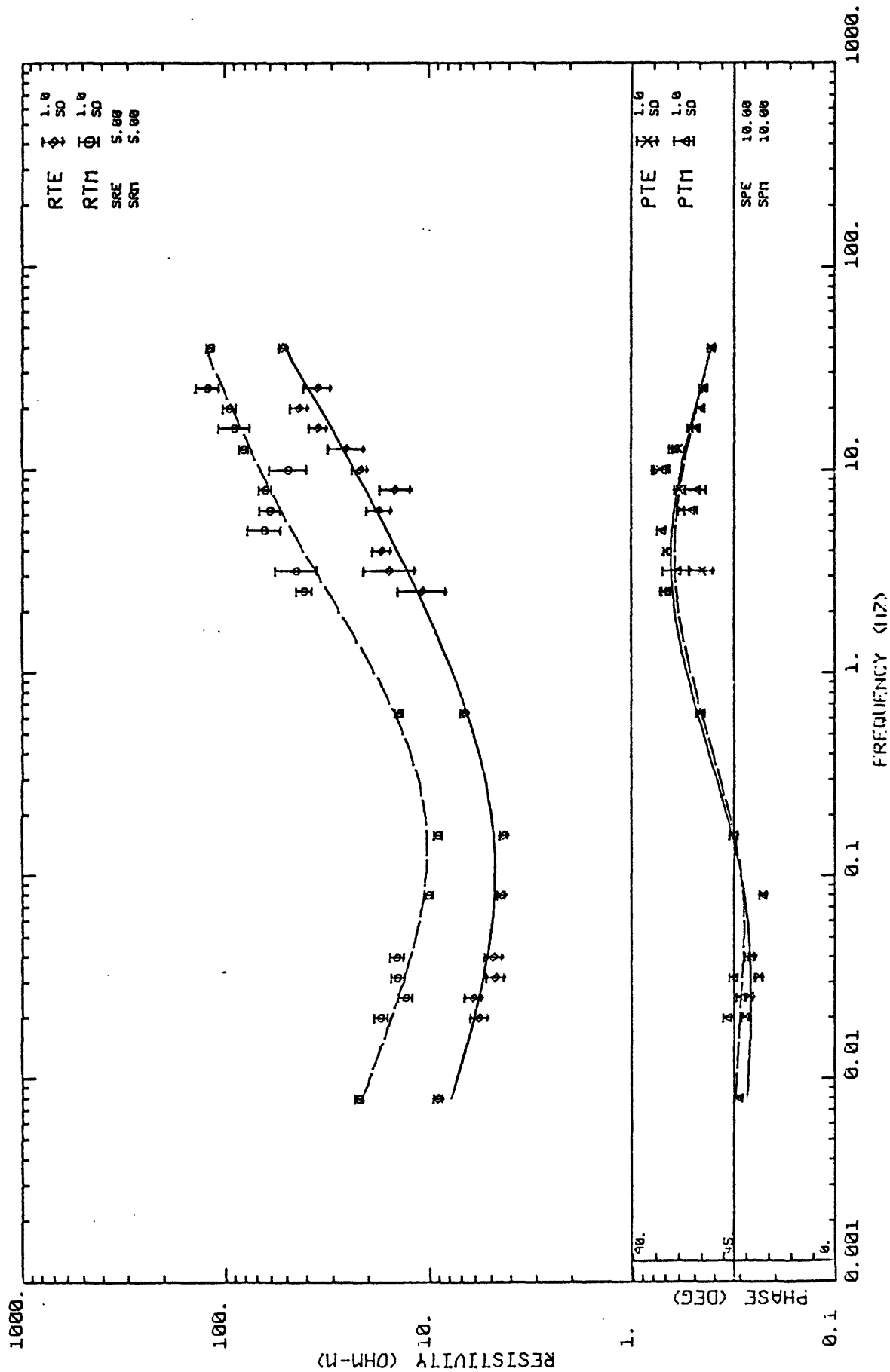
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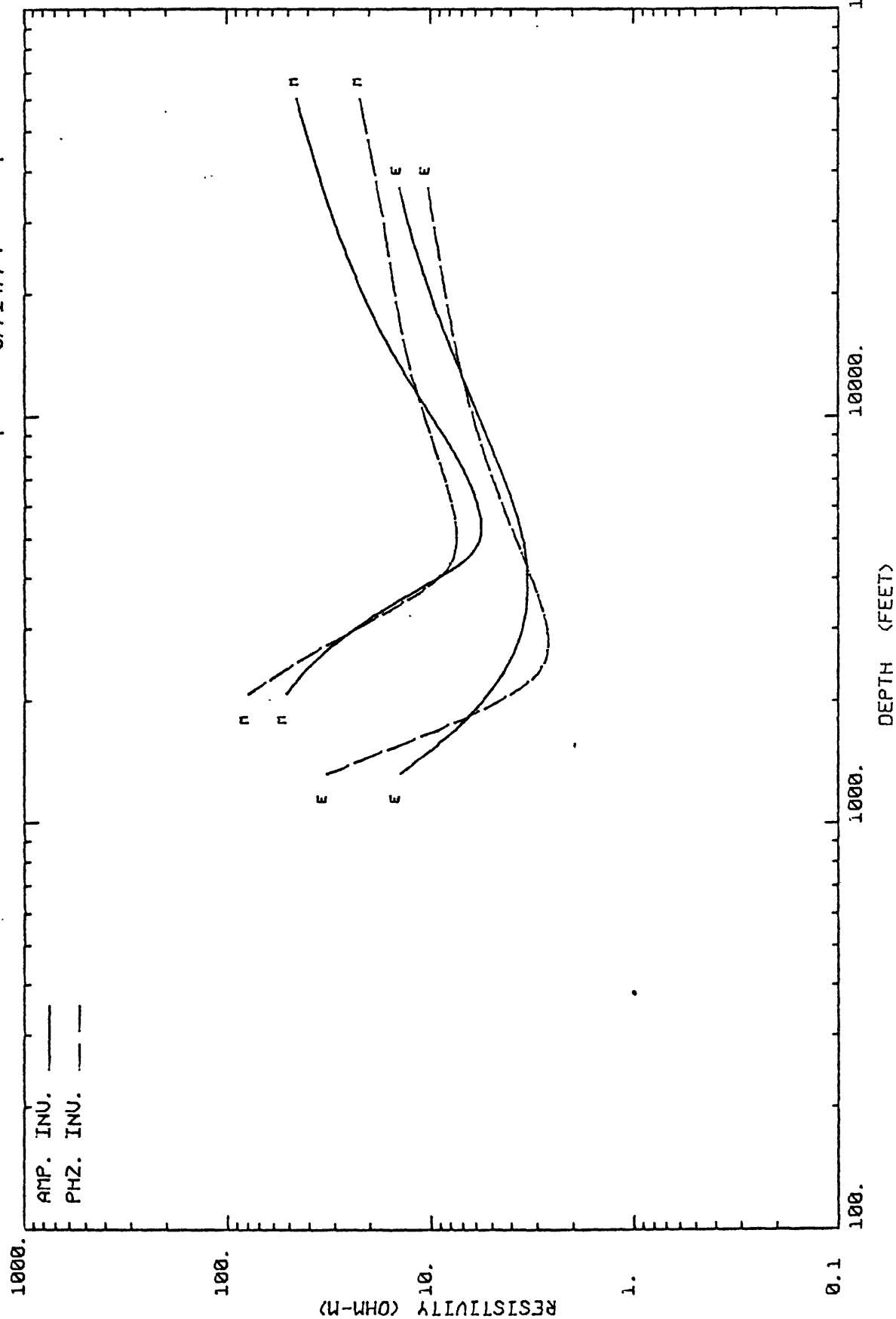
- LEGEND AND NOTES -

X - AXIS AZIMUTH = 20.0°

DATA PASS LEVELS : COH (Z) = 0.80  
COH (Y) = 0.80  
COH (X) = 0.80

DATA SETS PROCESSED : RUN NO.  
T985433598







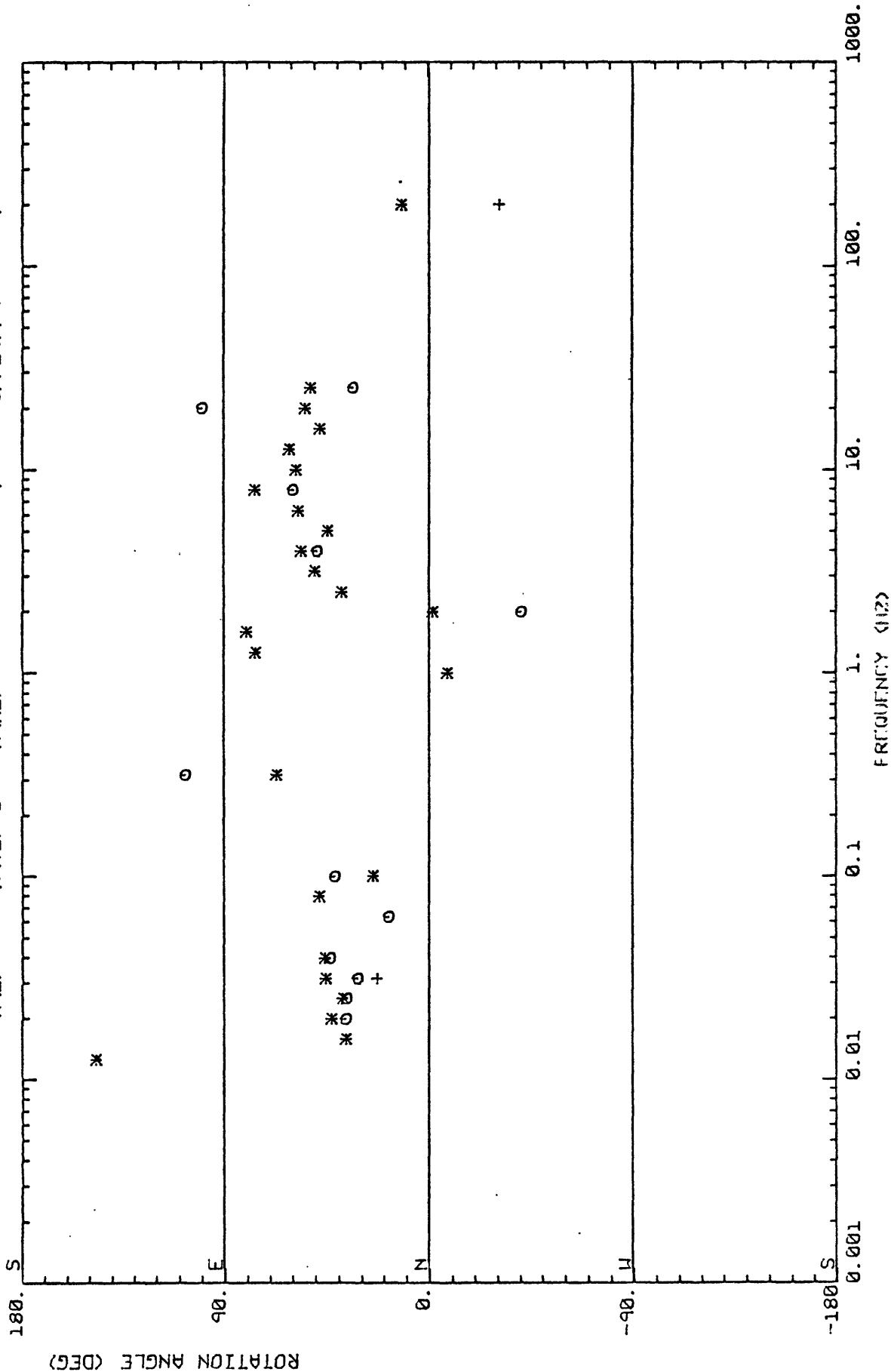
GEOTRONICS CORPORATION

PAGE 3

COORD ROTATION ANGLES - PRINCIPLE AXES

196 3-8  
07/24/79

A(Z)=\* A(YZ)=0 A(KZ)=+





GEOTRONICS CORPORATION

MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 3- 8

196 3-8 10 FILES WBA

DATE -  
RECORDED : 168/79  
PROCESSED : 09/28/79

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APPARENT RESISTIVITY AND PHASE -  
ROTATED TENSOR IMPEDANCE

1

COORDINATE ROTATION ANGLES -  
PRINCIPAL AXES (+ AZIMUTH)

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 20.0°

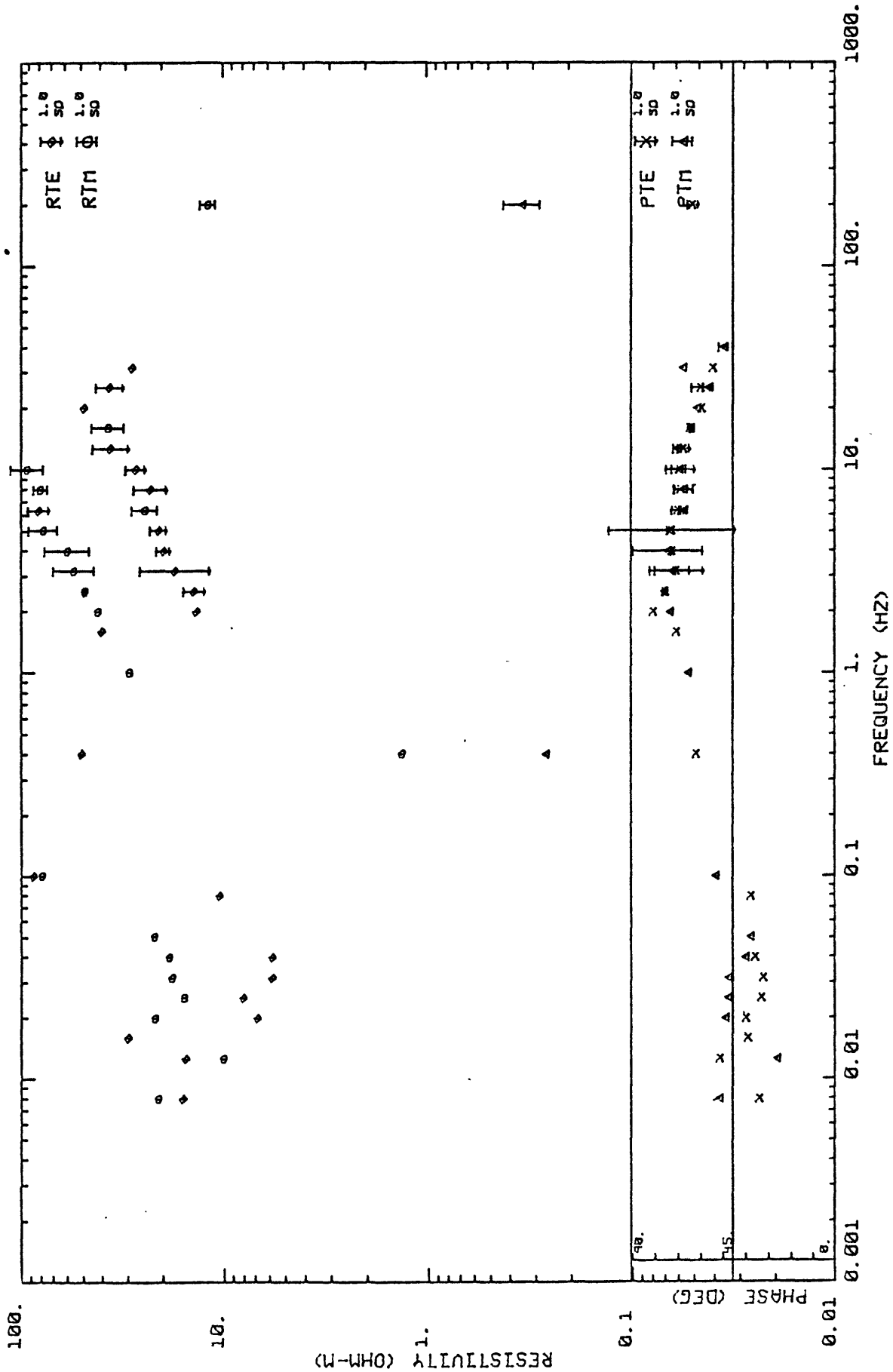
DATA PASS LEVELS : COH (Z) = 0.80  
COH (Y) = 0.80  
COH (X) = 0.80

DATA SETS PROCESSED : RUN NO.  
30800

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

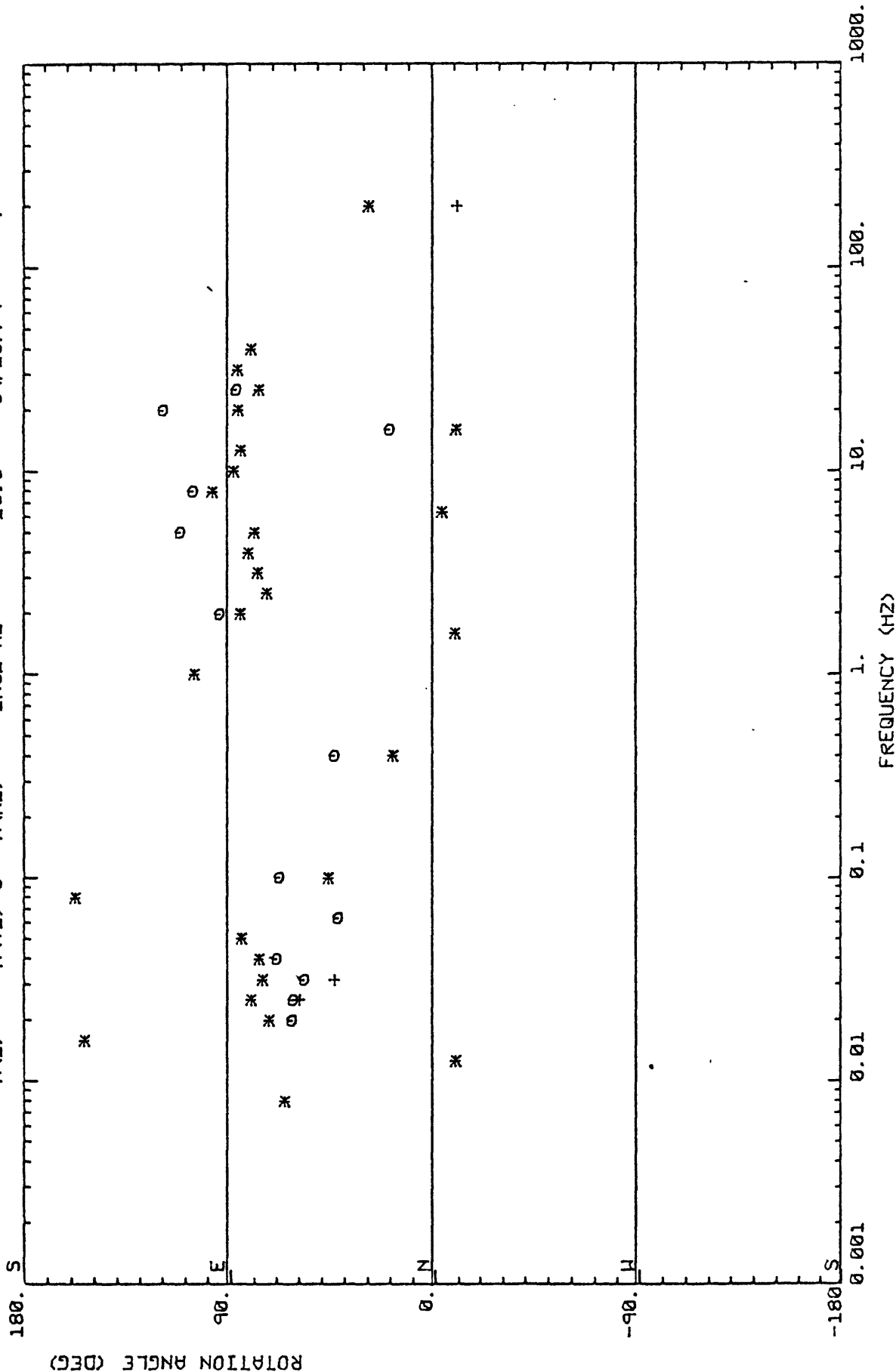
196 3-8 1  
09/28/79

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# GEOTRONICS CORPORATION

COORD ROTATION ANGLES - PRINCIPAL AXES  
 A(Z)=\* A(YZ)=0 A(KZ)=+ INCL AZ 20.0 196 3-8 1 PAGE 3  
 09/28/79



MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTSCODE : 196  
SITE 3- 8

196 3-8 MAGPLOT

DATE -  
RECORDED : 168/79  
PROCESSED : 06/26/79  
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PHASE INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPAL AXES (AZIMUTH ADDED)

3

## - LEGEND AND NOTES -

SITE PARAMETERS : E - LINES DX = 300.0M  
DY = 300.0M  
X - AXIS AZIMUTH = 20.0°DATA PASS LEVELS : COH (Z) = 0.80  
COH (Y2) = 0.80  
COH (X2) = 0.80

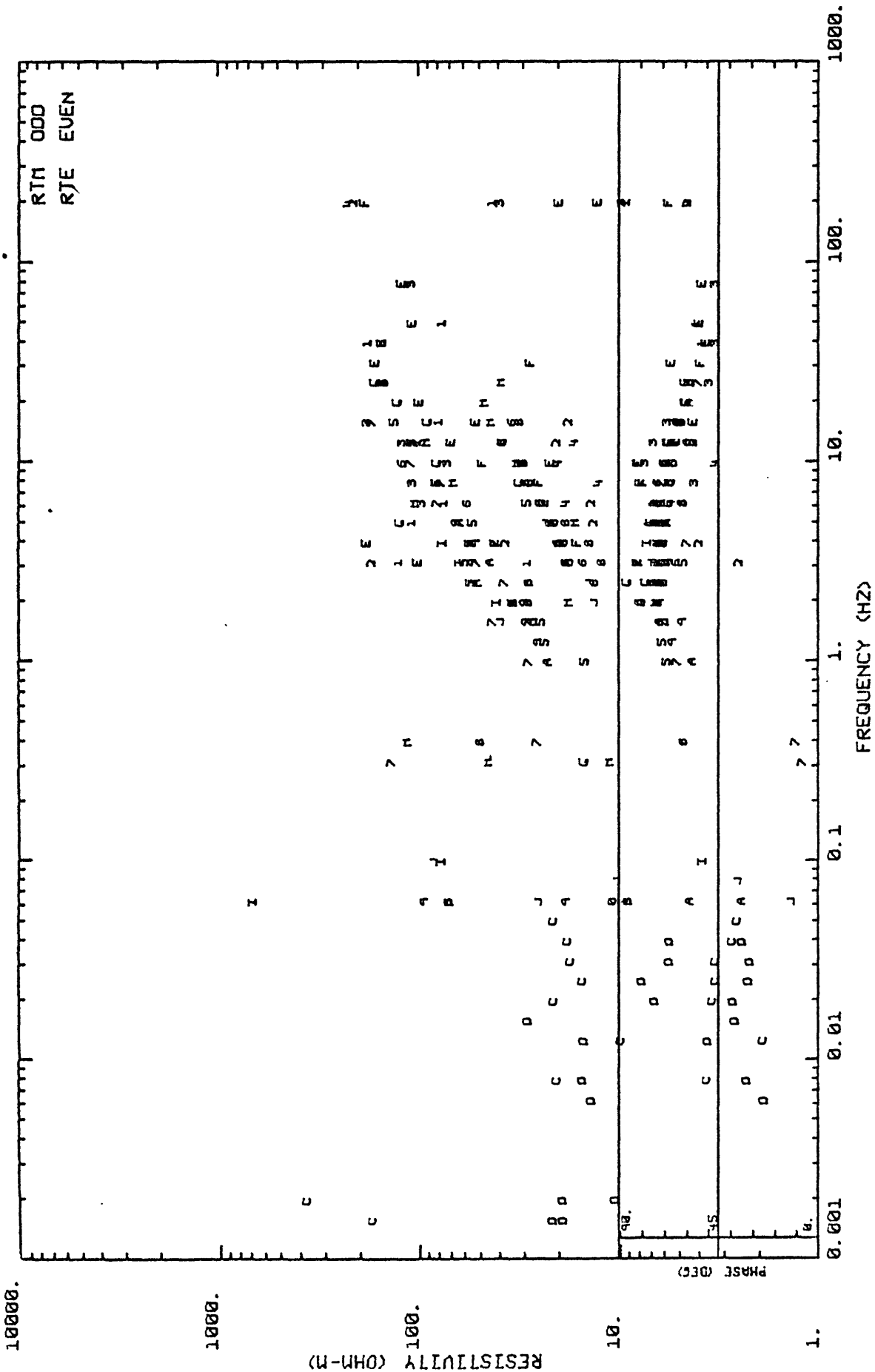
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	802	6	3	4
	803	5	5	6
	804	5	7	8
	805	4	9	0
	806	4	A	B
	807	2	C	D
	808	6	E	F
	811	5	G	H
	812	4	I	J

# GEOTRONICS CORPORATION

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

196 3-8 M  
09/28/79

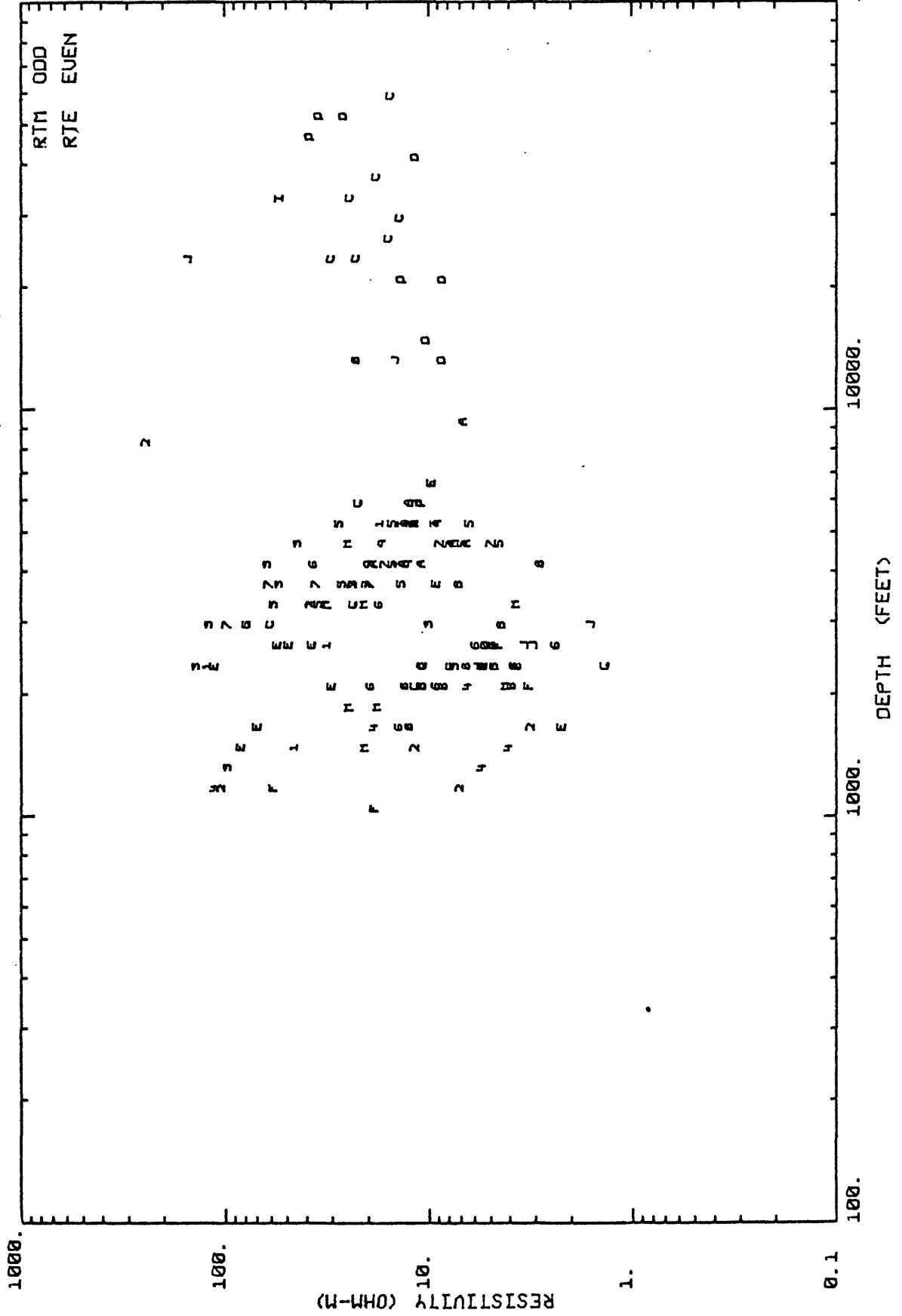
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PHASE INVERSION OF ROTATED TENSOR

196 3-8 M  
09/28/79

PAGE 2



# GEOTRONICS CORPORATION

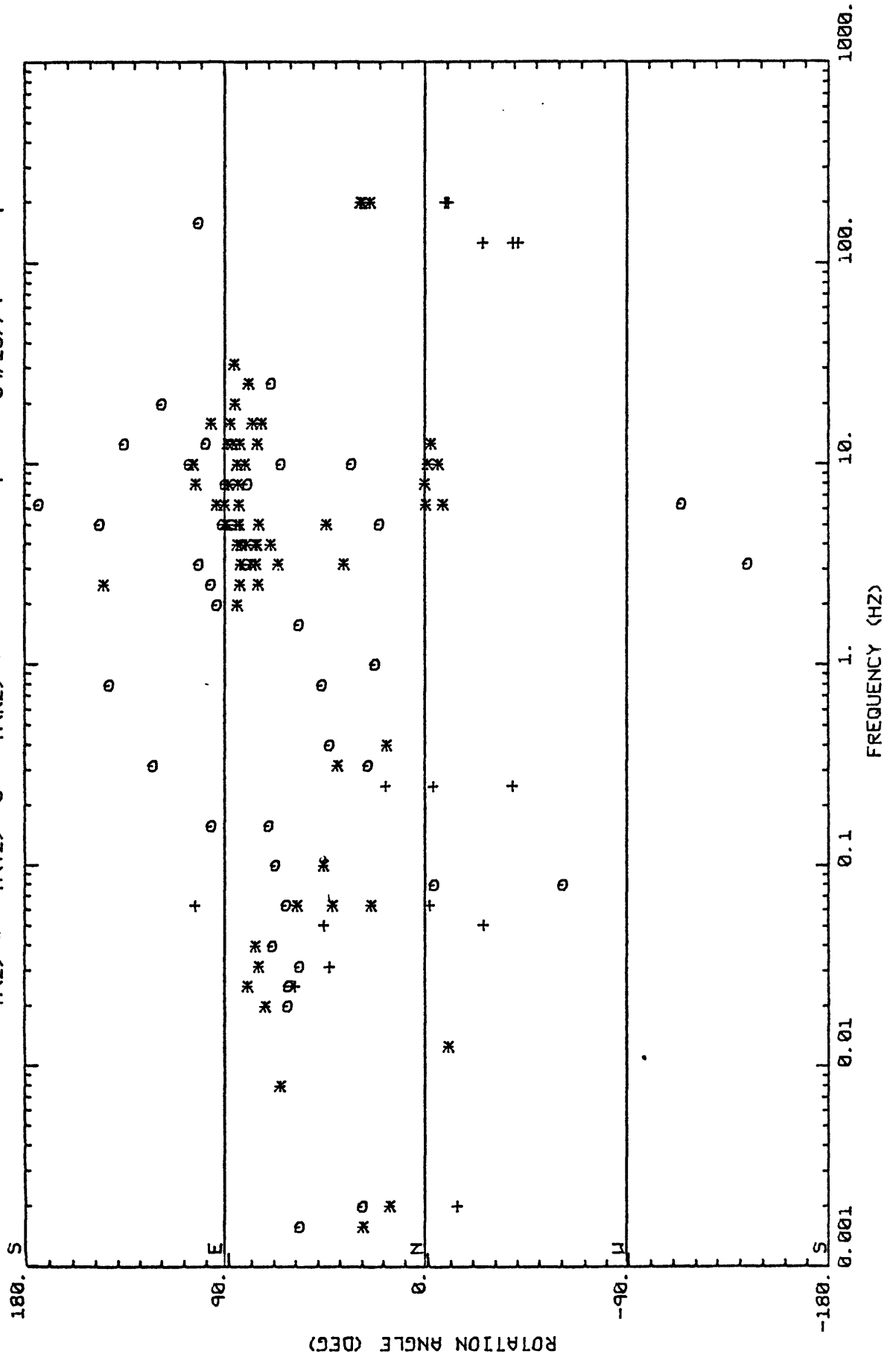
COORD ROTATION ANGLES - PRINCIPLE AXES

A(Z)=\* A(YZ)=0 A(KZ)=+

198 3-8 M

09/28/79

PAGE 3







MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 4- 1

196 4-1            RUN 1

DATE -  
RECORDED : 165/79  
PROCESSED : 07/18/79

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APPARENT RESISTIVITY AND PHASE -  
ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 338.0

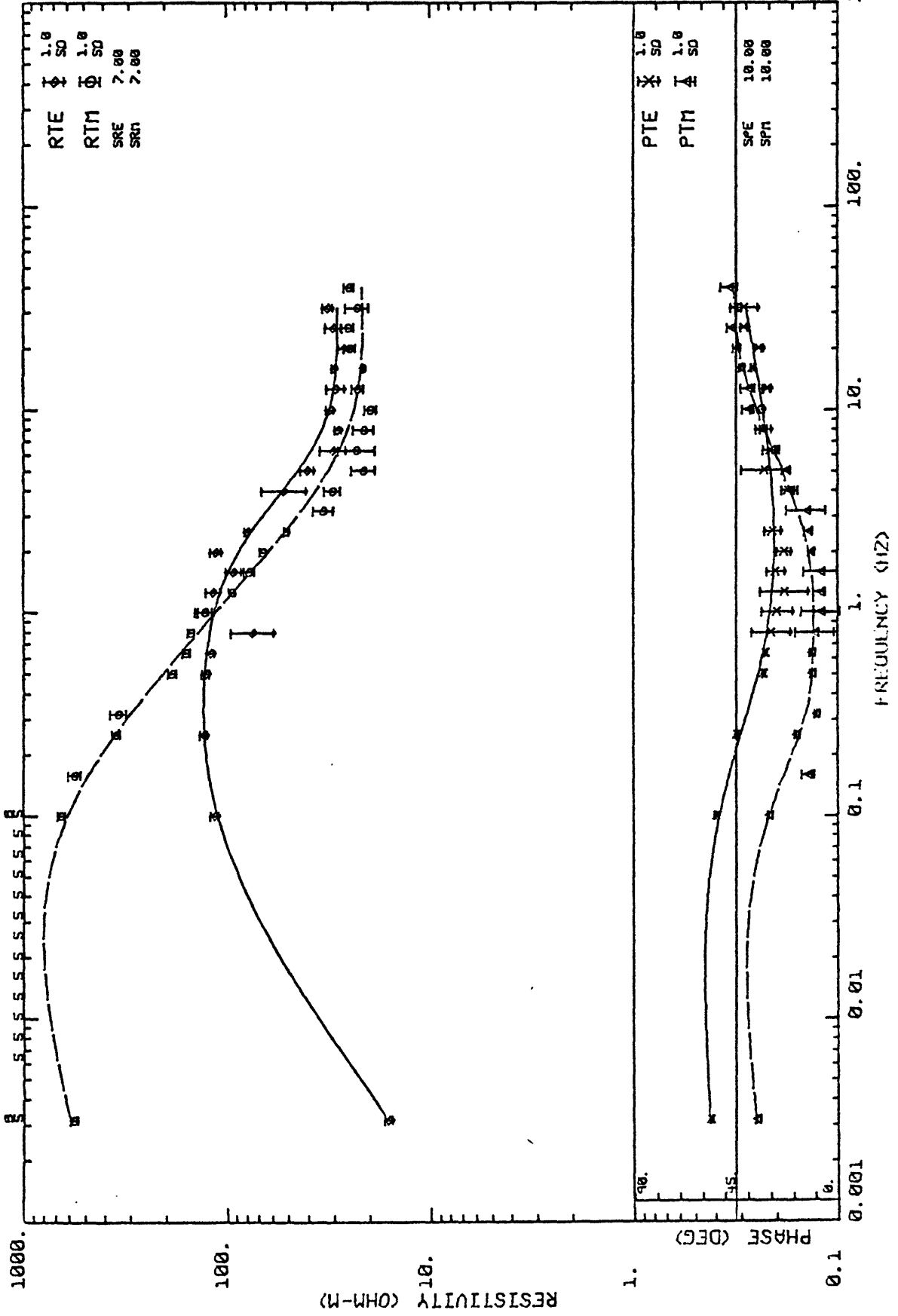
DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (XZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
40100

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

196 4-1  
07/18/79.

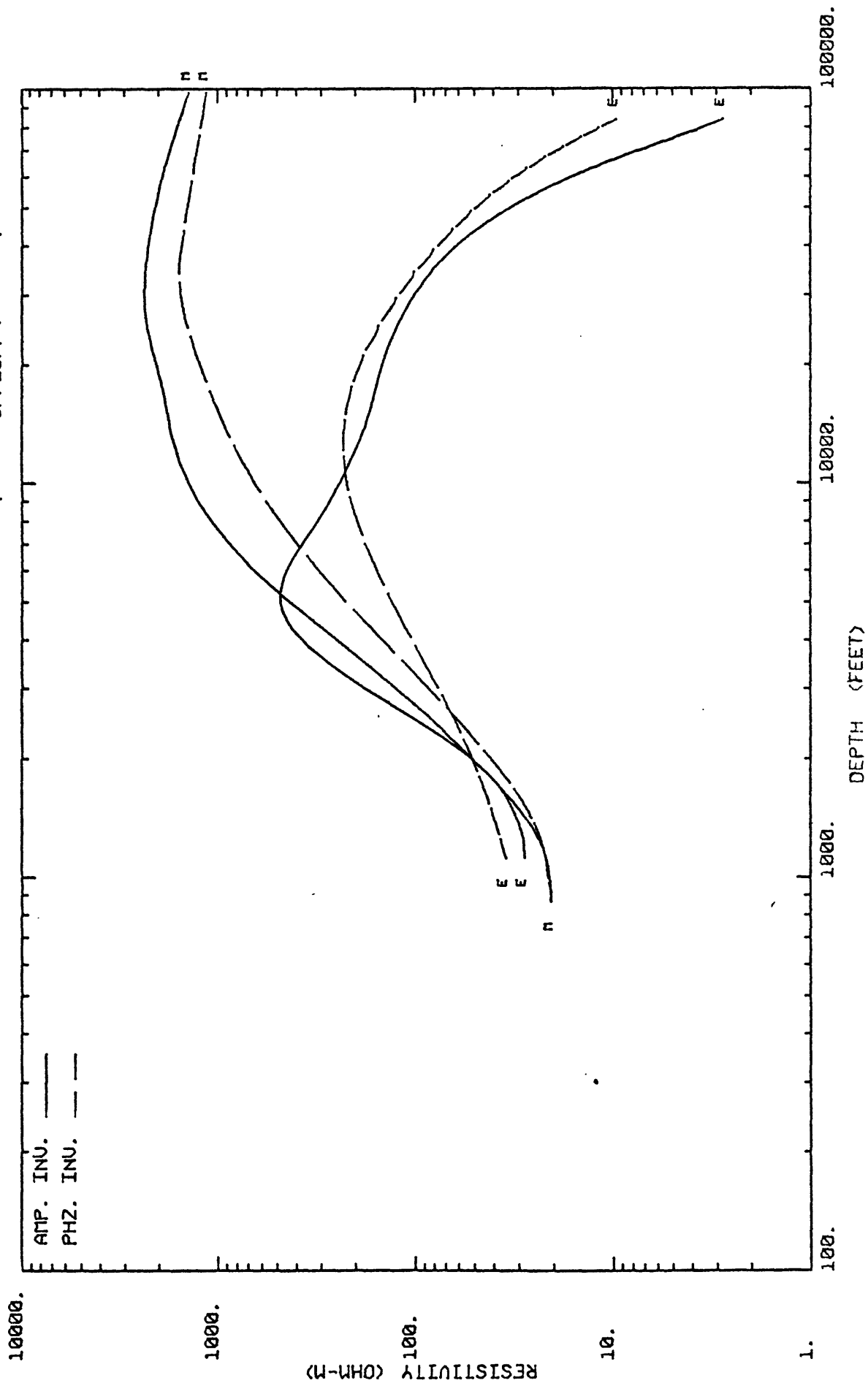
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INVERSION OF ROTATED TENSOR

196 4-1  
07/18/79

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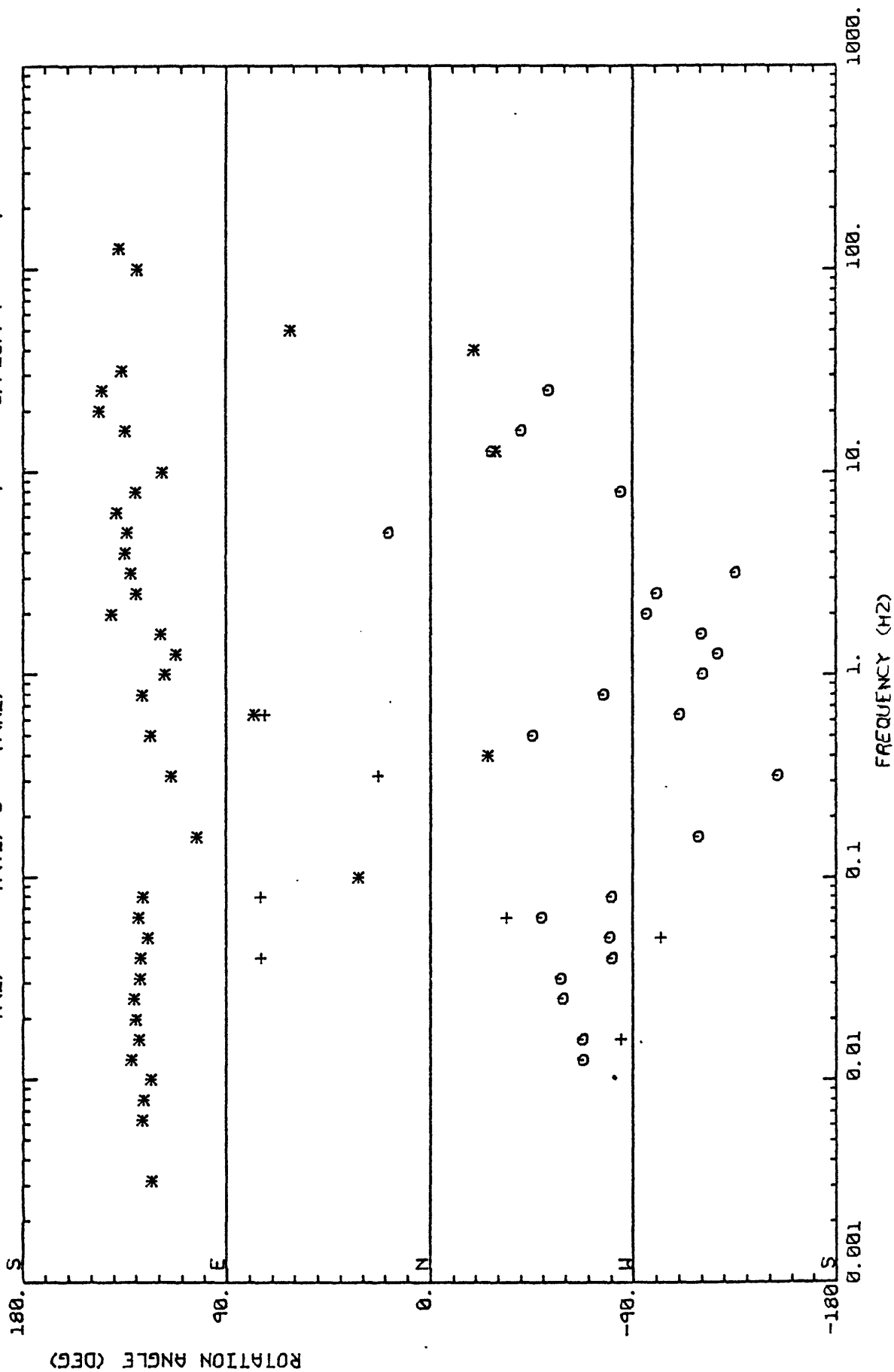
# GEOTRONICS CORPORATION

PAGE 3

196 4-1  
07/18/79

COORD ROTATION ANGLES - PRINCIPLE AXES

A(2)=\* A(Y2)=0 A(K2)=+



MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 4- 1

196 4-1 8 FILES WBA

DATE -  
RECORDED : 165/79  
PROCESSED : 09/28/79

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APPARENT RESISTIVITY AND PHASE -  
ROTATED TENSOR IMPEDANCE

1

COORDINATE ROTATION ANGLES -  
PRINCIPAL AXES (+ AZIMUTH)

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 338.0

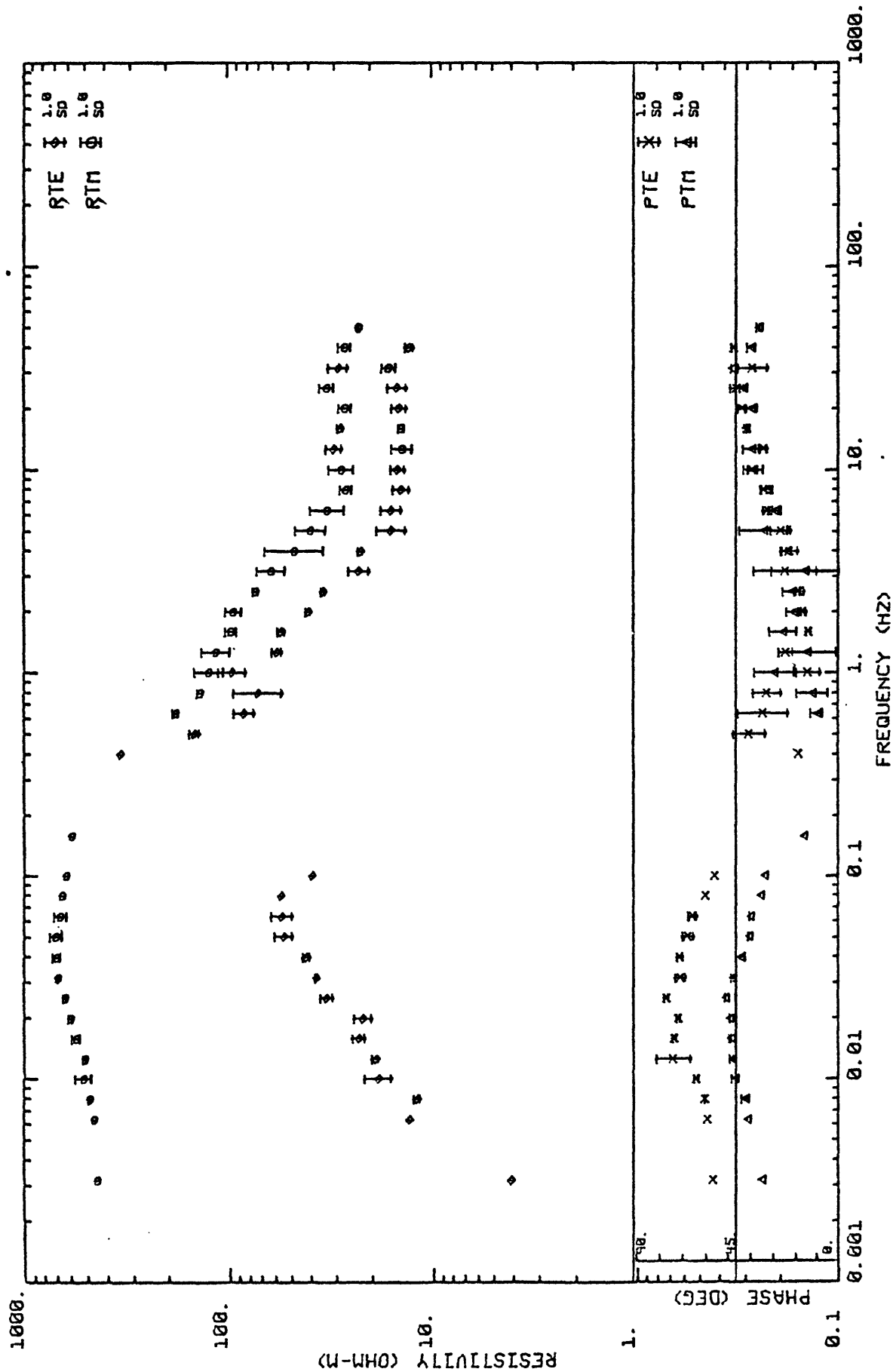
DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (KZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
40100

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

196 4-1 B  
09/28/79

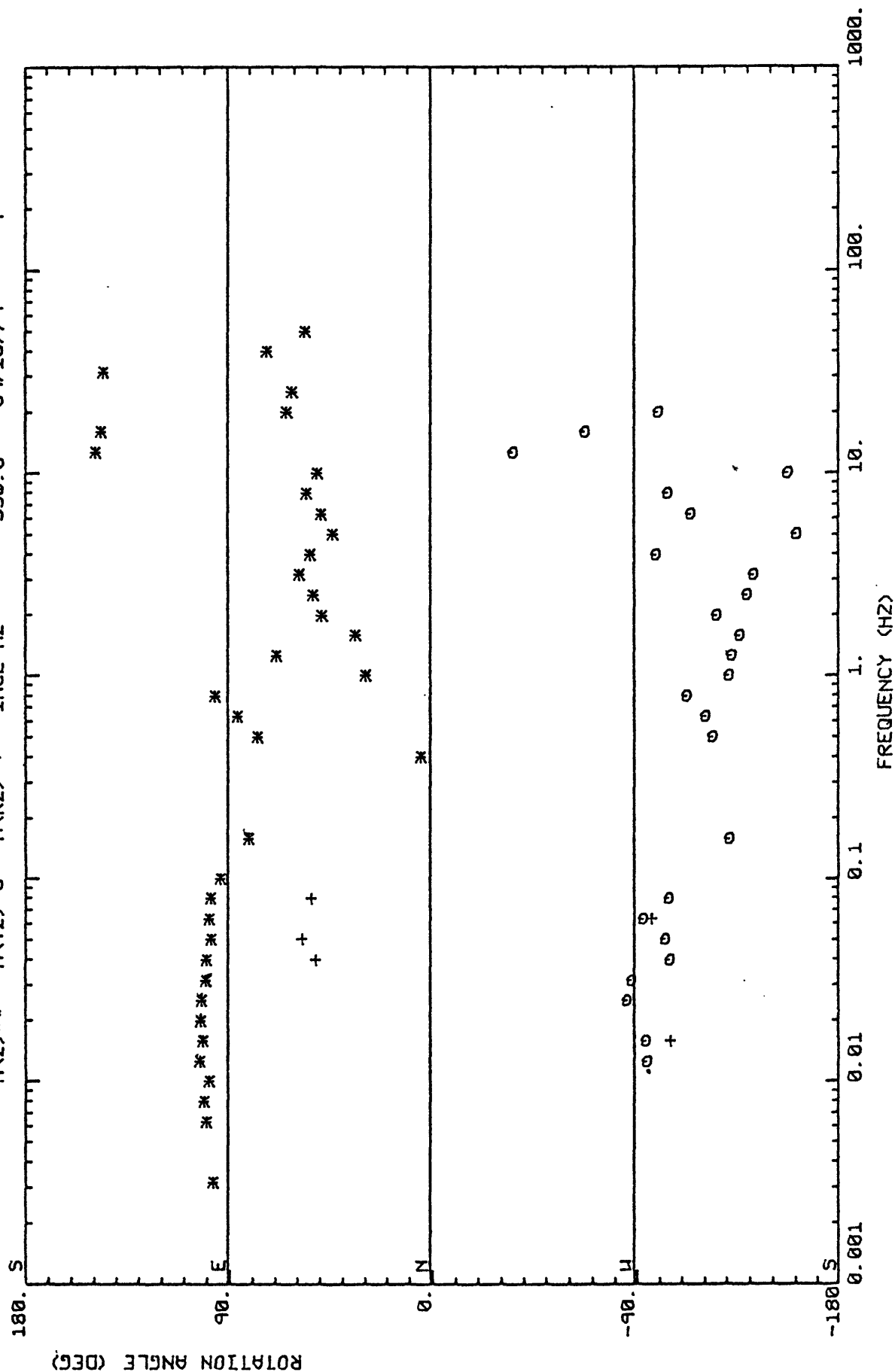
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- *NOTES* -

# GEOTRONICS CORPORATION

COORD ROTATION ANGLES - PRINCIPAL AXES  
 $A(Z) = *$   $A(YZ) = 0$   $A(KZ) = +$  INCL AZ 338.0 196 4-1 8 PAGE 3  
 09/28/79





MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 4- 1

196 4-1 MAGPLOT

DATE -  
RECORDED : 105/79  
PROCESSED : 06/23/79  
PLOTTED : 09/28/79

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ROTATED TENSOR IMPEDANCE

1

PHASE INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPAL AXES (AZIMUTH ADDED)

3

- LEGEND AND NOTES -

SITE PARAMETERS : E - LINES DX = 225.0M  
DY = 180.0M  
X - AXIS AZIMUTH = 338.0

DATA PASS LEVELS : COM (Z) = 0.80  
COM (Y) = 0.80  
COM (X) = 0.80

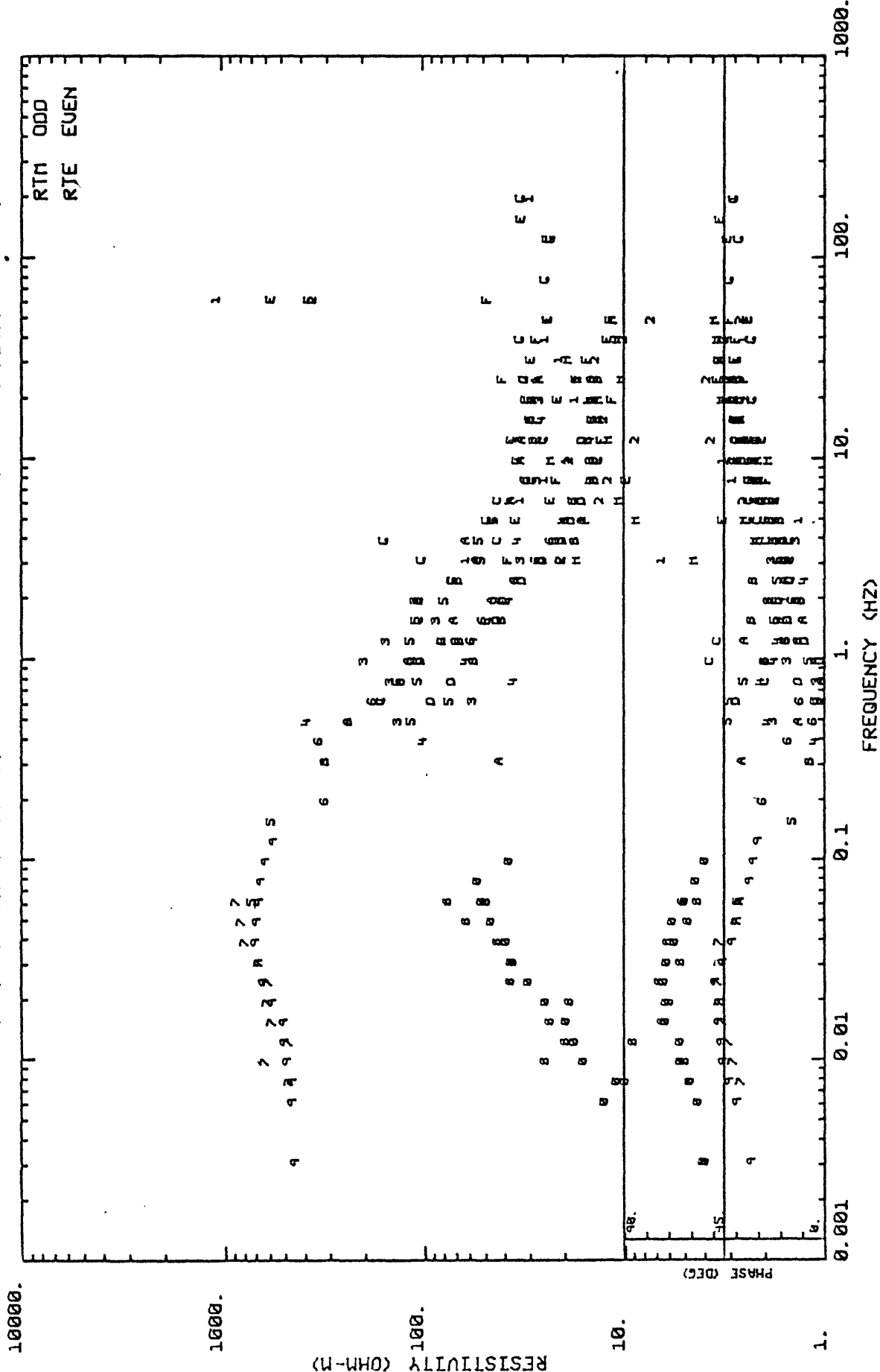
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	101	6	1 2
	103	5	3 4
	105	4	5 6
	107	3	7 8
	108	2	9 0
	111	5	A B
	112	5	C D
	113	6	E F
	114	6	G H

# GEOTRONICS CORPORATION

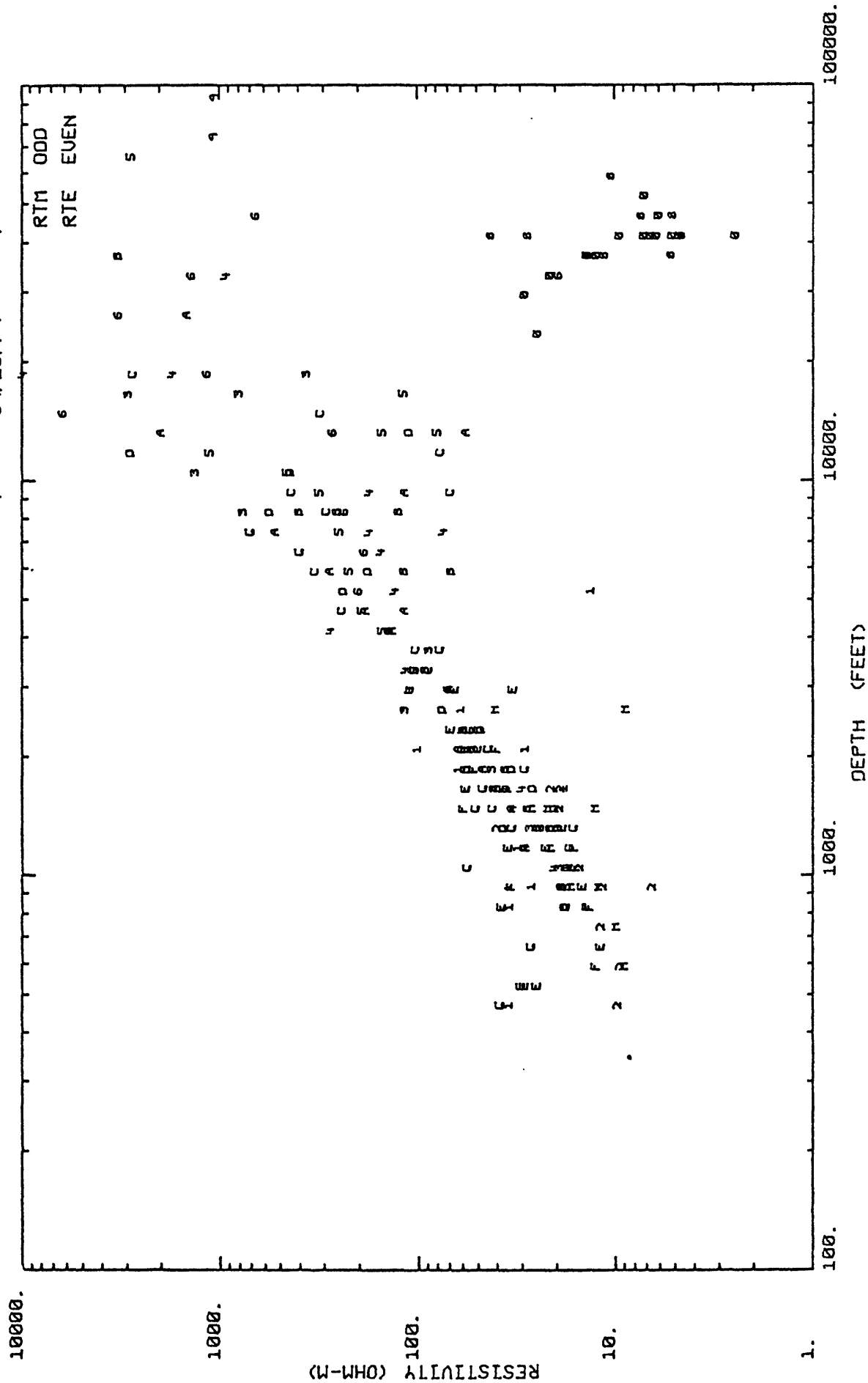
APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

196 4-1 N  
09/28/79

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09/28/79



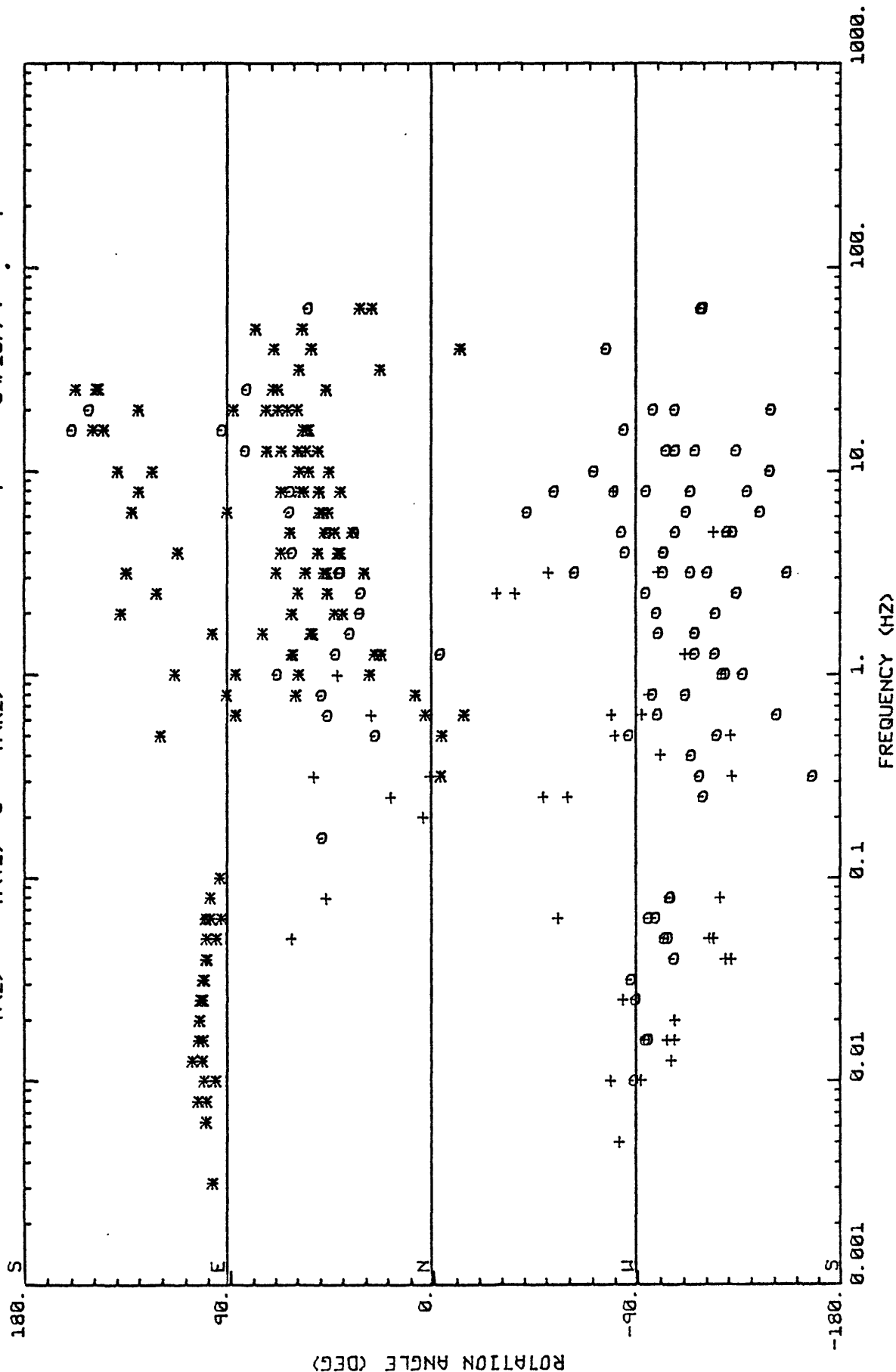
COORD ROTATION ANGLES - PRINCIPLE AXES

A(Z)=\* A(Y)=0 A(X)=\*

196 4-1 M

09/28/79

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MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 4- 2

196 4-2

RUN 2

DATE -  
RECORDED : 165/79  
PROCESSED : 07/20/79

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ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 355.0

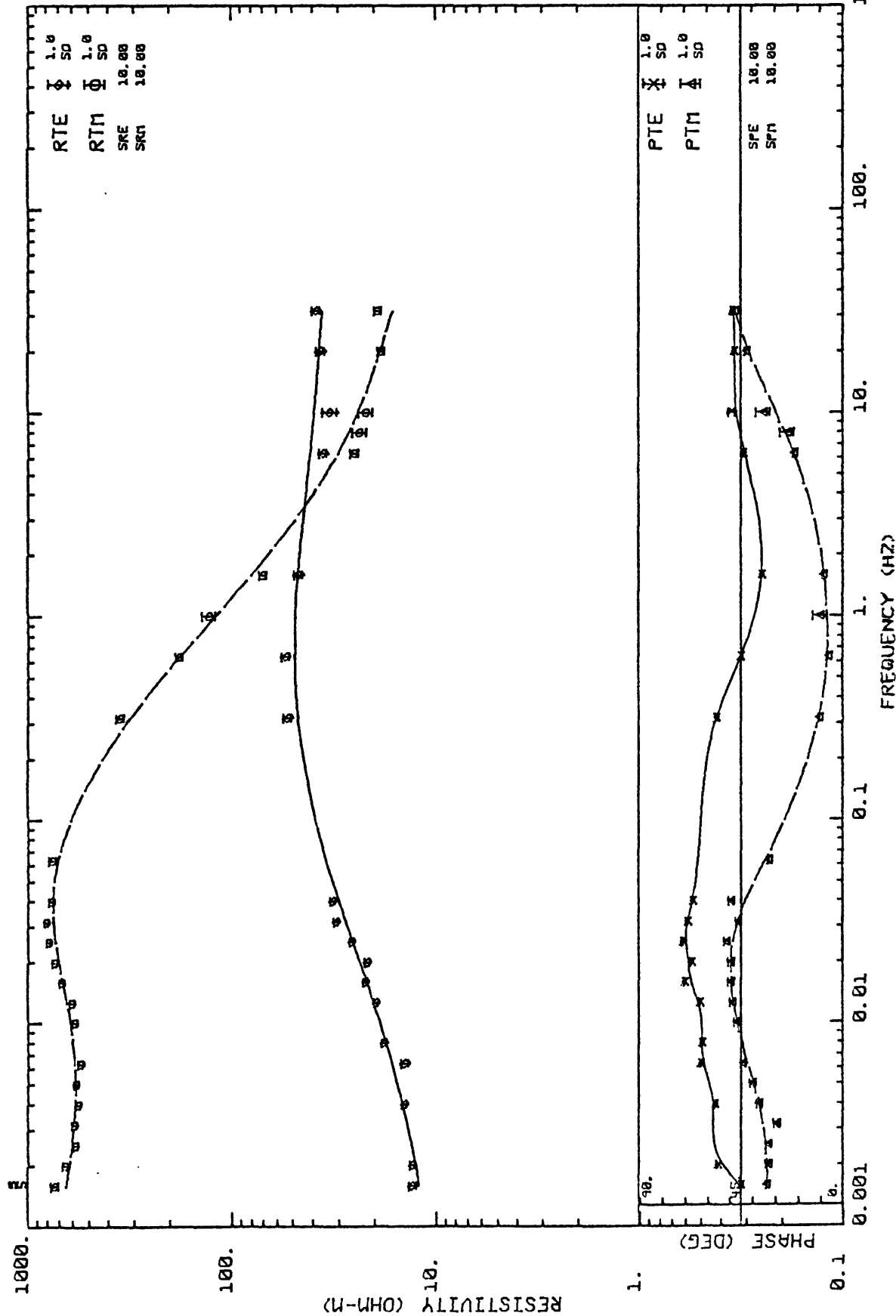
DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (XZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
40200

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

196 4-2  
07/20/79

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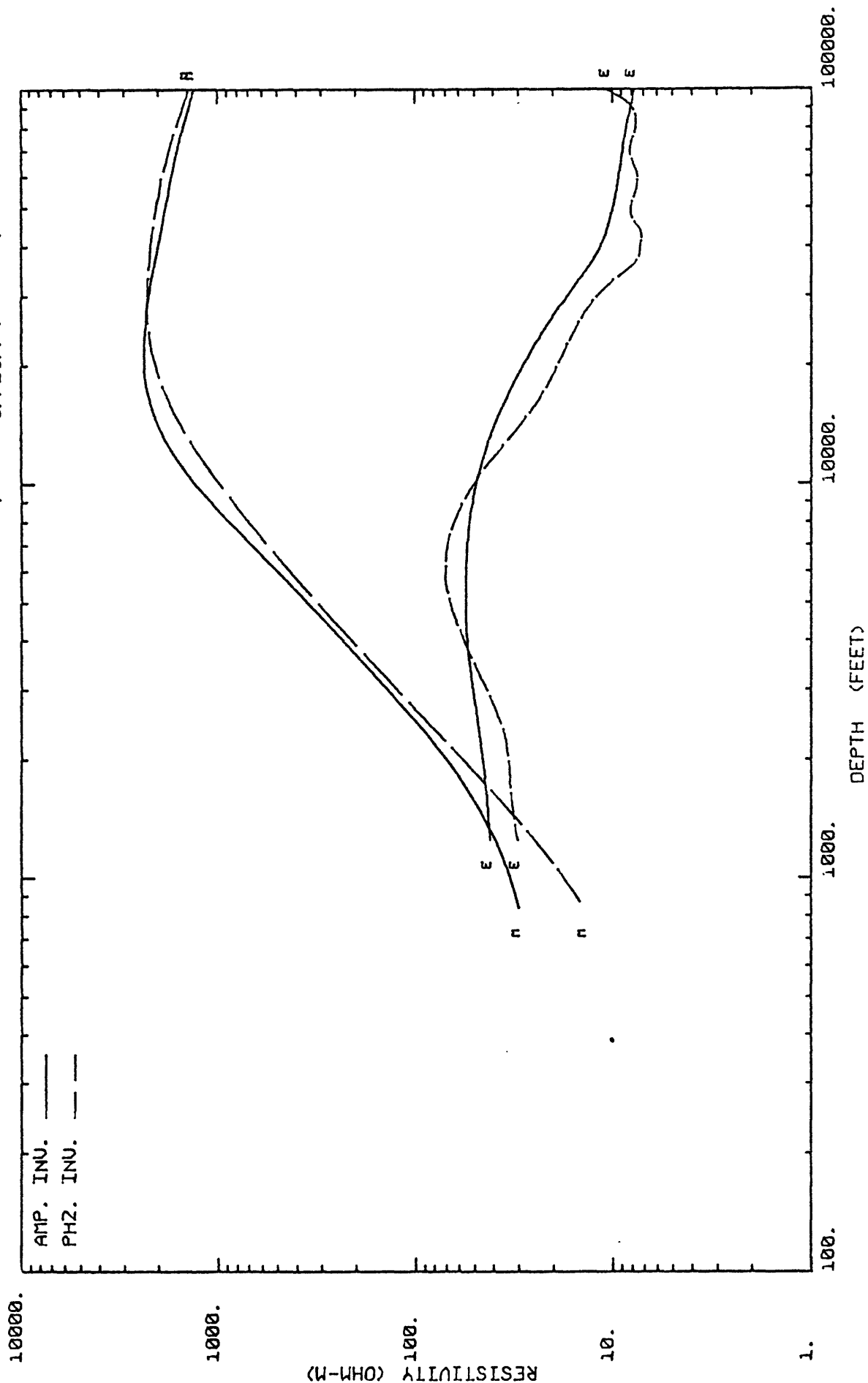


# GEOTRONICS CORPORATION

## INVERSION OF ROTATED TENSOR

196 4-2  
07/20/79

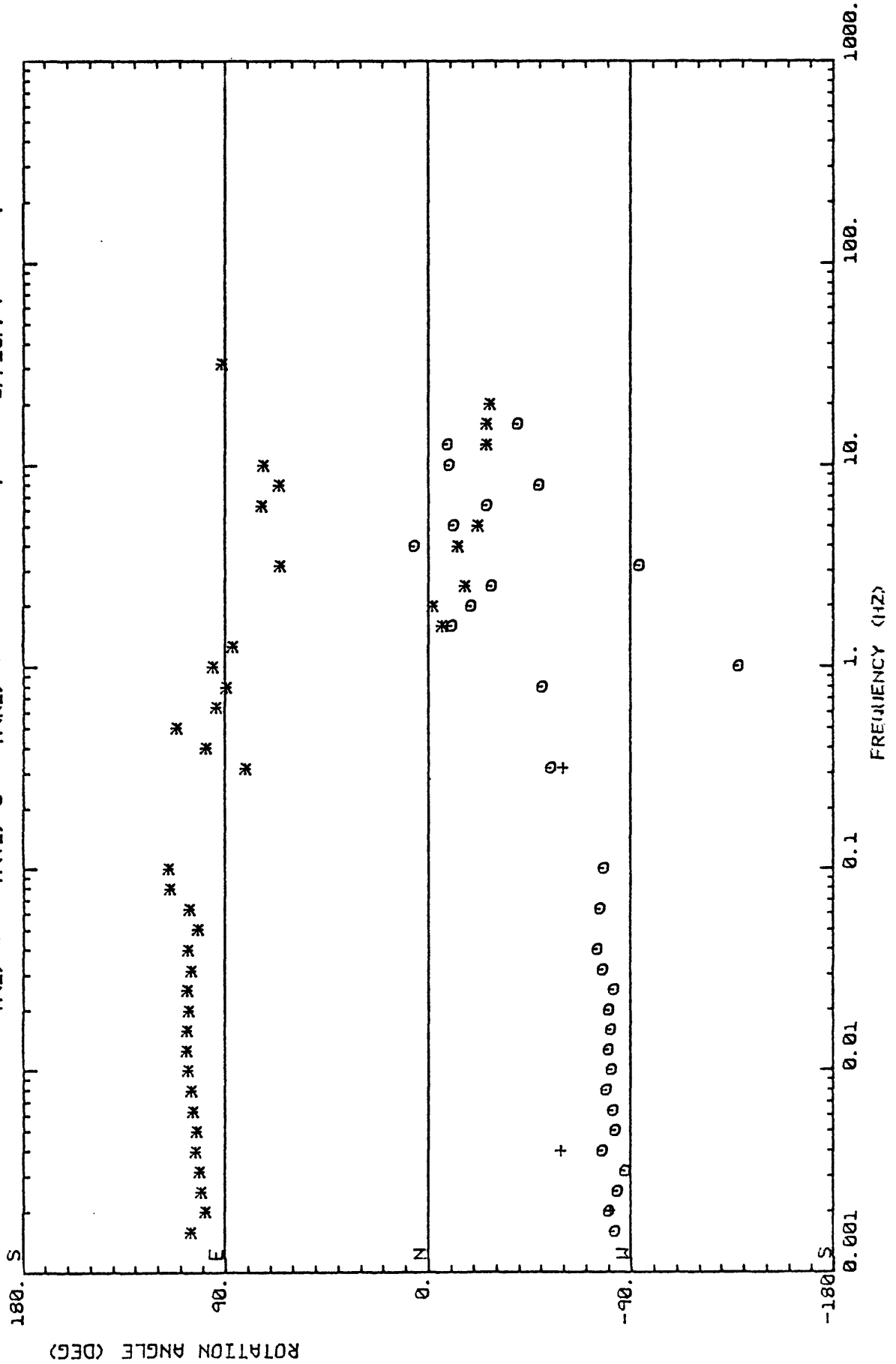
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# GEOTRONICS CORPORATION

COORD ROTATION ANGLES - PRINCIPLE AXES  
 A(Z)=\* A(YZ)=0 A(KZ)=+  
 196 4-2  
 07/20/79 .

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MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 4- 3

196 4-3

RUN 2

DATE -  
RECORDED : 164/79  
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ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 32.0°

DATA PASS LEVELS : COH (ZI) = 0.80  
COH (YZ) = 0.80  
COH (KZ) = 0.80

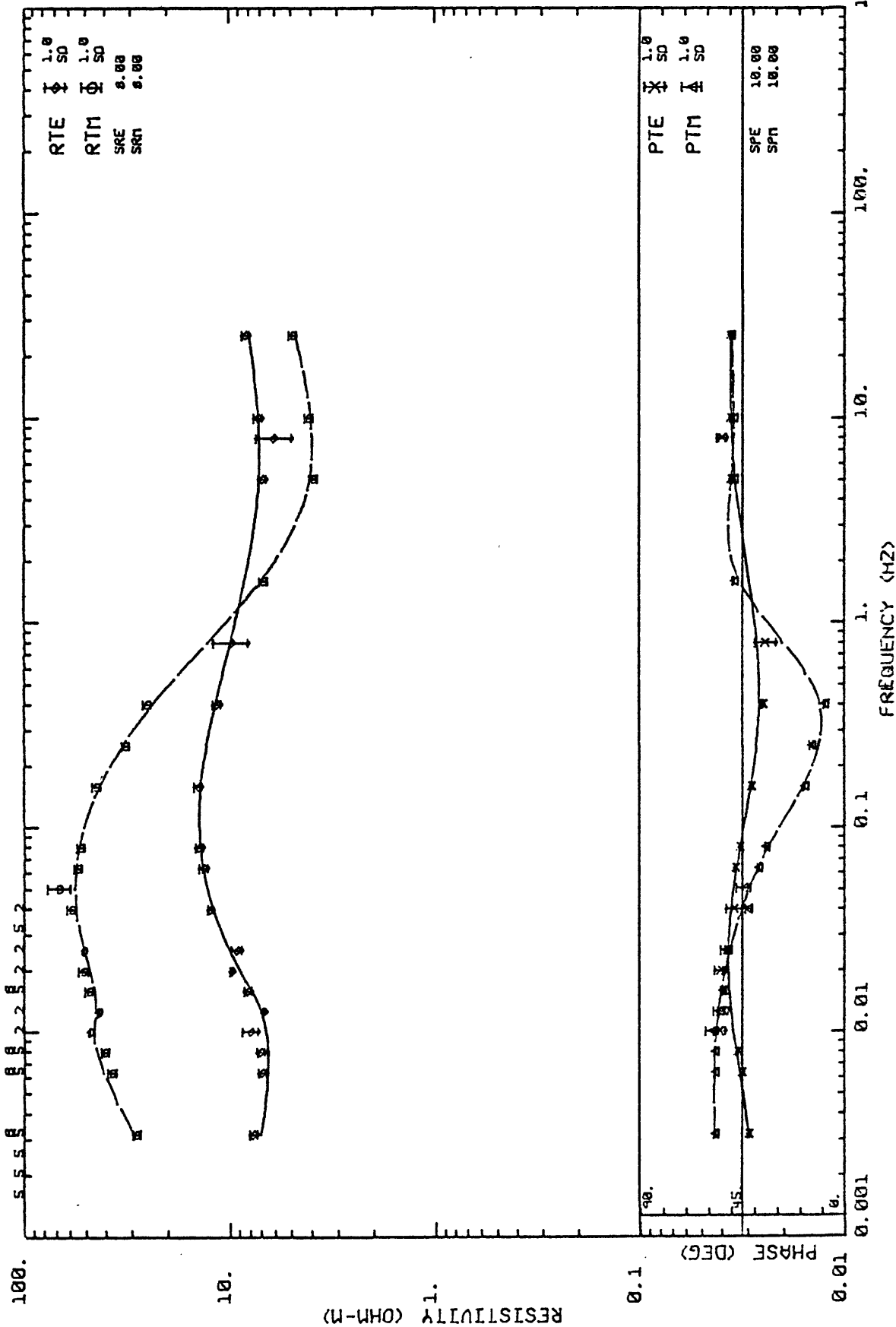
DATA SETS PROCESSED : RUN NO.  
40300

# GEOTRONICS CORPORATION

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

196 4-3  
07/18/79

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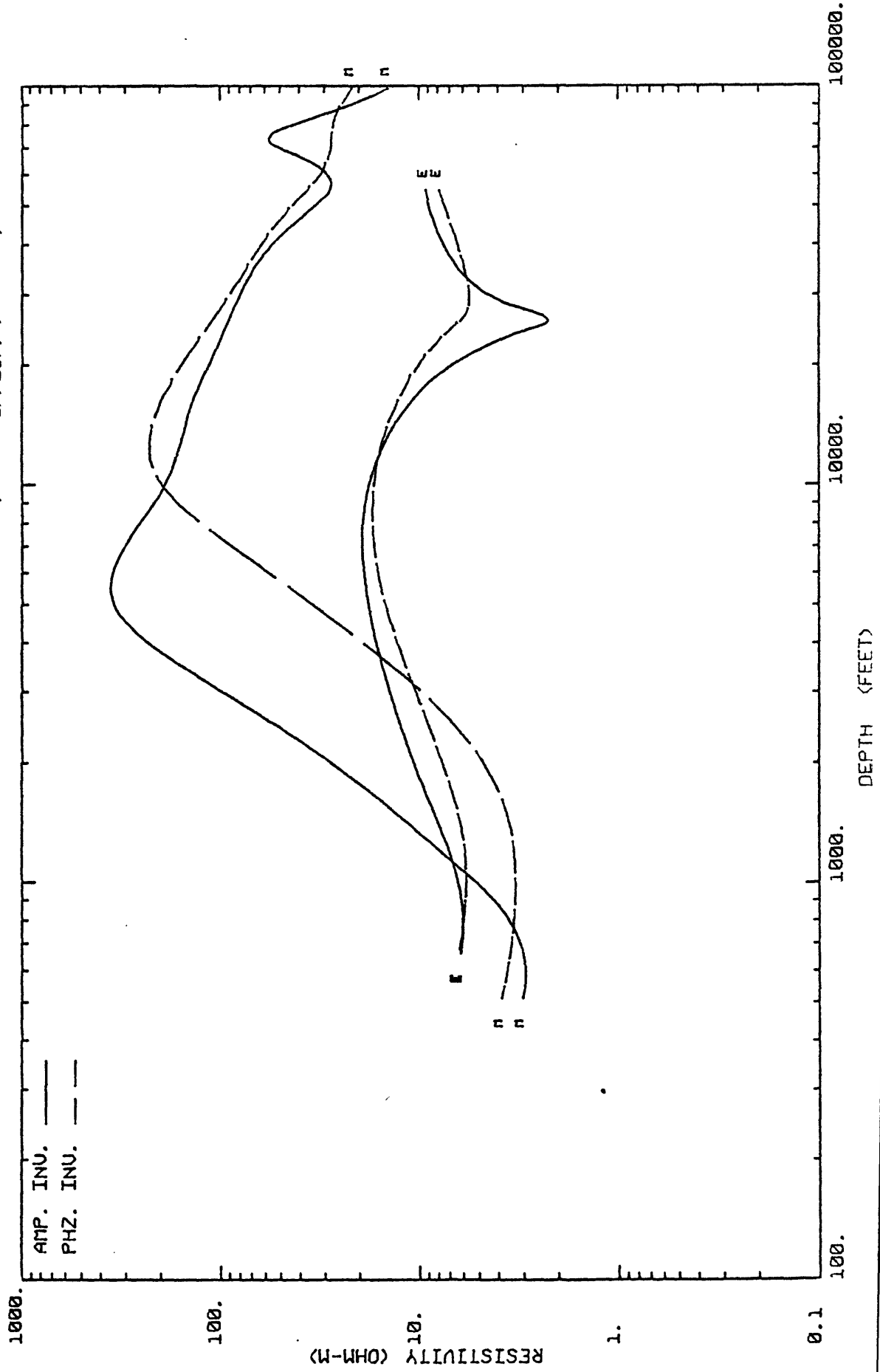


# GEOTRONICS CORPORATION

## INVERSION OF ROTATED TENSOR

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07/18/79



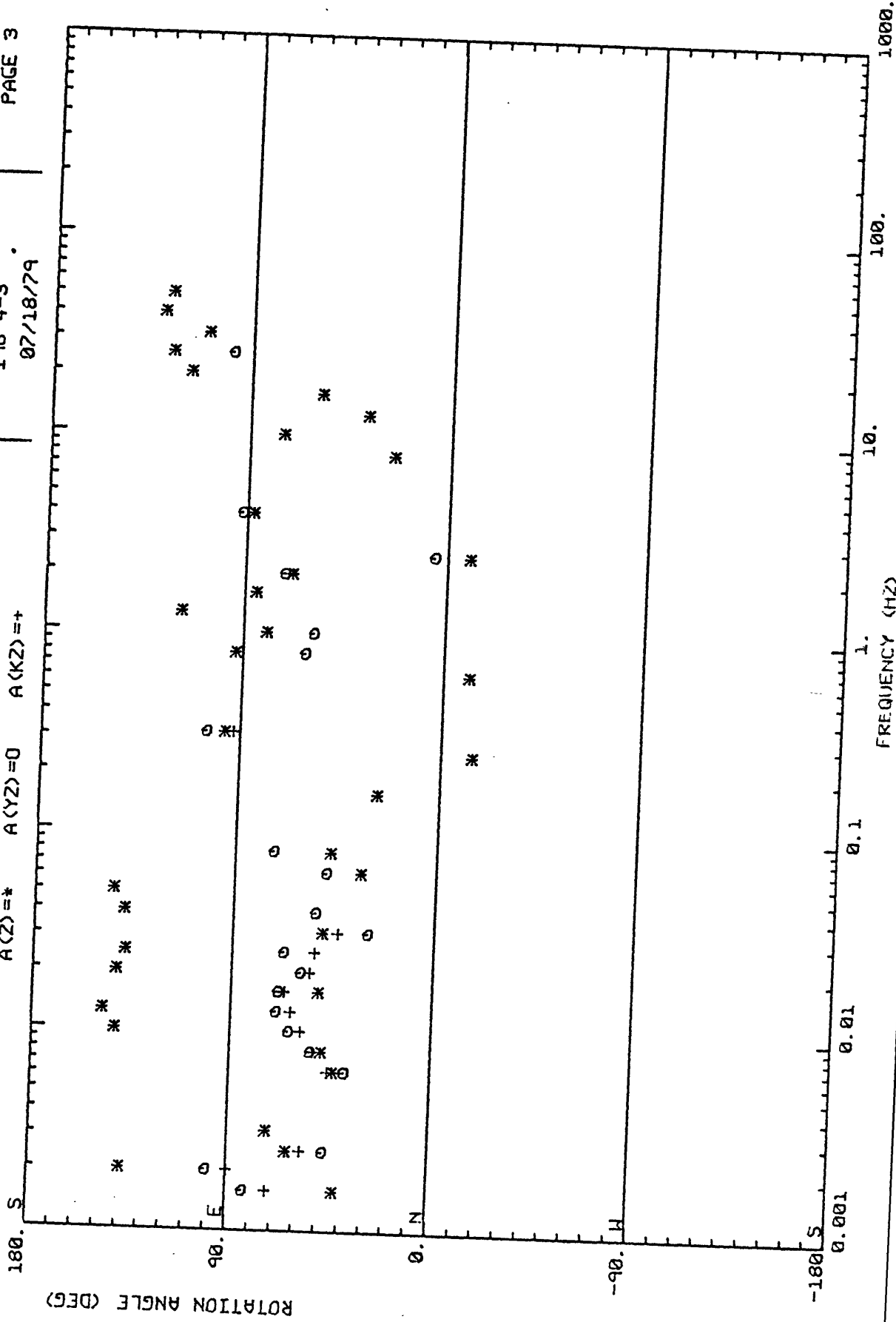
# GEOTRONICS CORPORATION

COORD ROTATION ANGLES - PRINCIPLE AXES

196 4-3  
07/18/79

A(Z)=\* A(YZ)=0 A(KZ)=+

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GEOTRONICS CORPORATION

MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 4- 3

196 4-3 9 FILES WBA

DATE -  
RECORDED : 164/79  
PROCESSED : 09/28/79

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APPARENT RESISTIVITY AND PHASE -  
ROTATED TENSOR IMPEDANCE

1

COORDINATE ROTATION ANGLES -  
PRINCIPAL AXES (+ AZIMUTH)

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 32.0°

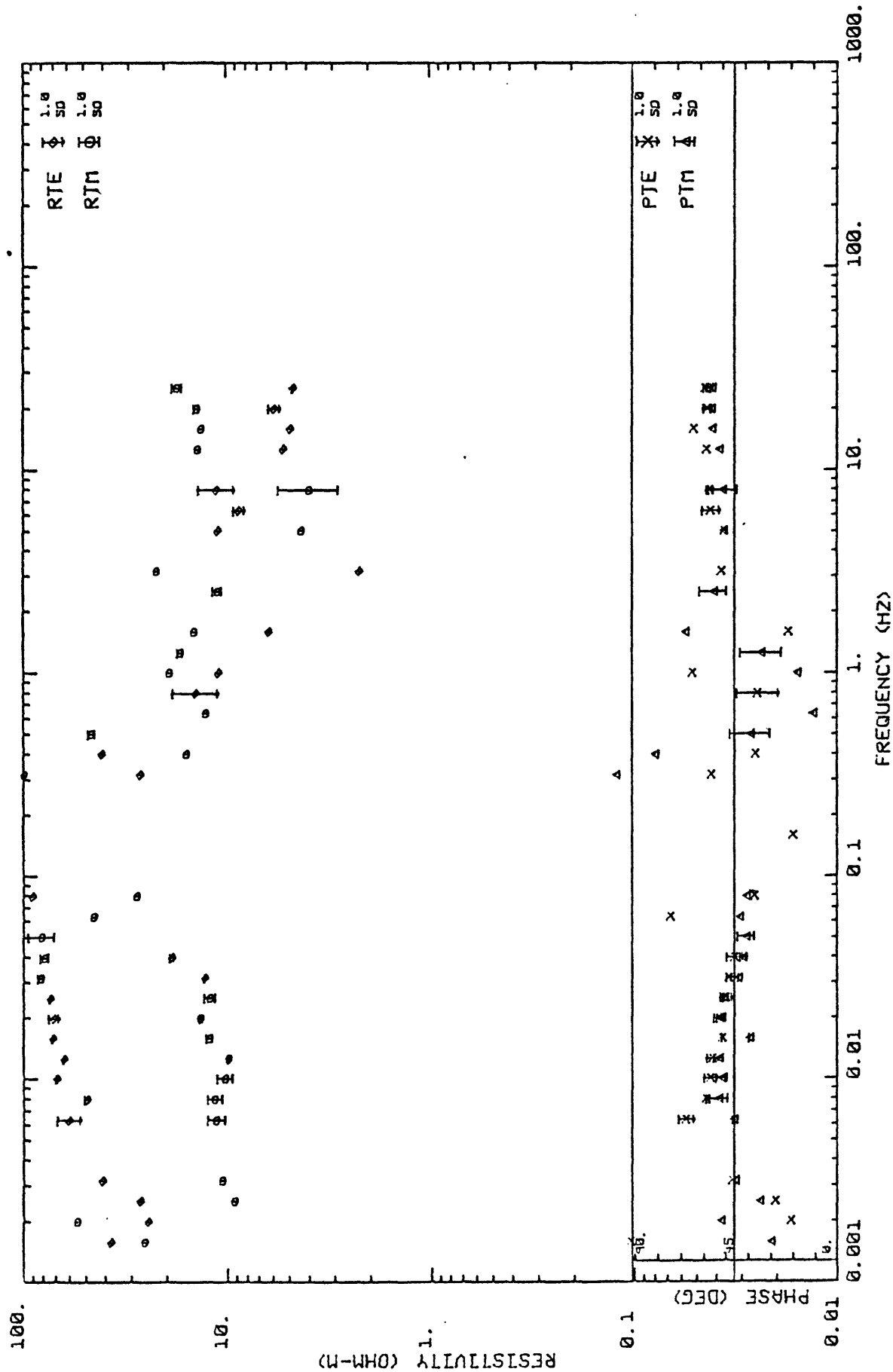
DATA PASS LEVELS : COH (Z) = 0.80  
COH (Y) = 0.80  
COH (X) = 0.80

DATA SETS PROCESSED : RUN NO.  
40300

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

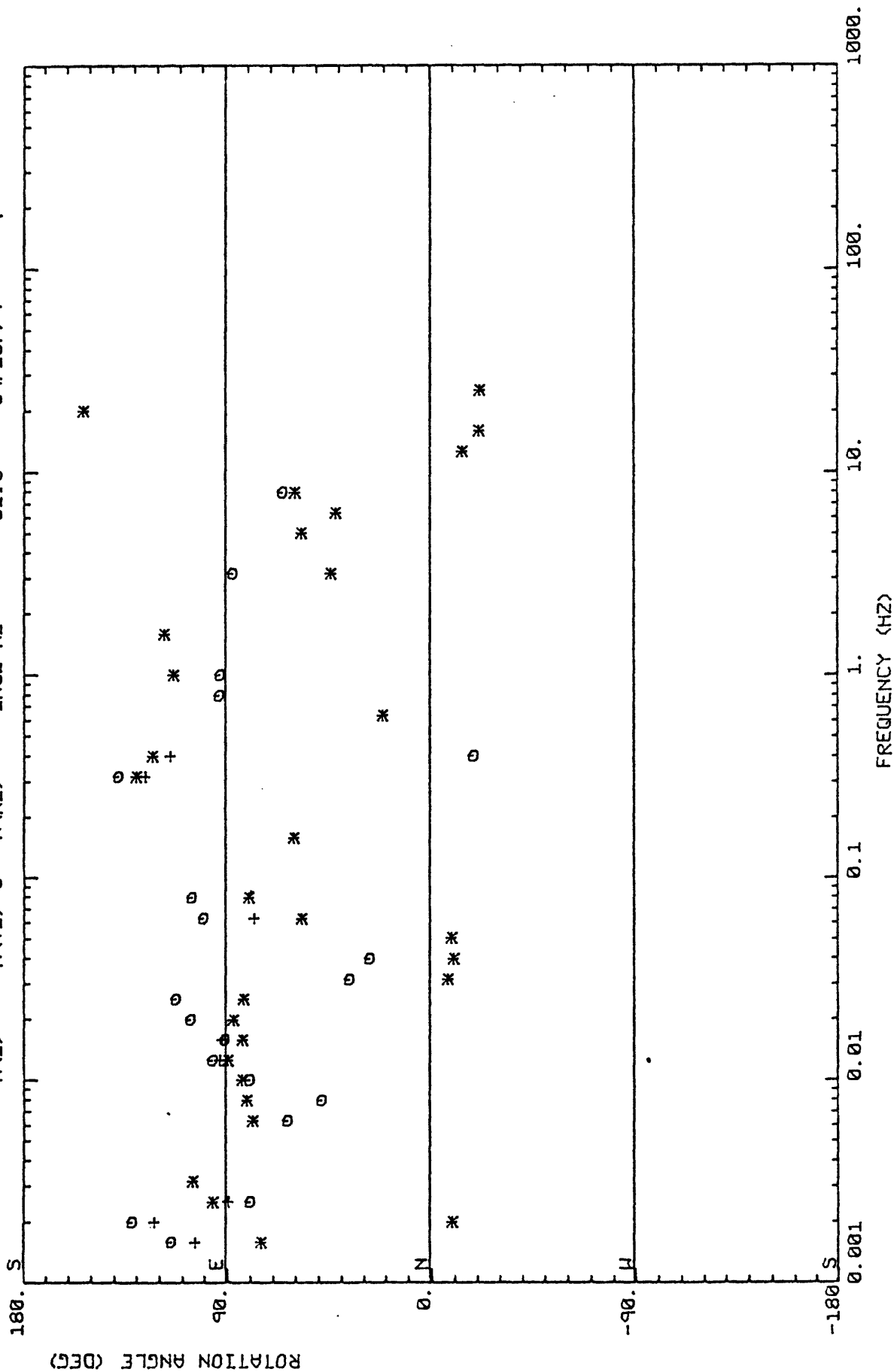
196 4-3  
09/28/79

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# GEOTRONICS CORPORATION

COORD ROTATION ANGLES - PRINCIPAL AXES  
 A(Z)=\* A(YZ)=0 A(KZ)=+ INCL AZ 32.0  
 196 4-3 09/28/79  
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MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 4- 3

196 4-3 MAGPLOT

DATE -  
RECORDED : 164/79  
PROCESSED : 06/23/79  
PLOTTED : 09/28/79

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COORDINATE ROTATION ANGLES - PRINCIPAL AXES (AZIMUTH ADDED)	3

- LEGEND AND NOTES -

SITE PARAMETERS : E - LINES DX = 300.0M  
DY = 300.0M  
X - AXIS AZIMUTH = 32.0°

DATA PASS LEVELS : COM (Z1) = 0.80  
COM (Y2) = 0.80  
COM (X2) = 0.80

DATA SETS PROCESSED	RUN NO.	BAND	SYMBOL	
	301	6	I	2
	302	6	3	4
	303	5	5	6
	304	5	7	8
	305	4	9	0
	306	4	A	B
	307	3	C	D
	308	2	E	F
	310	4	G	H
	311	5	I	J
	313	6	K	L

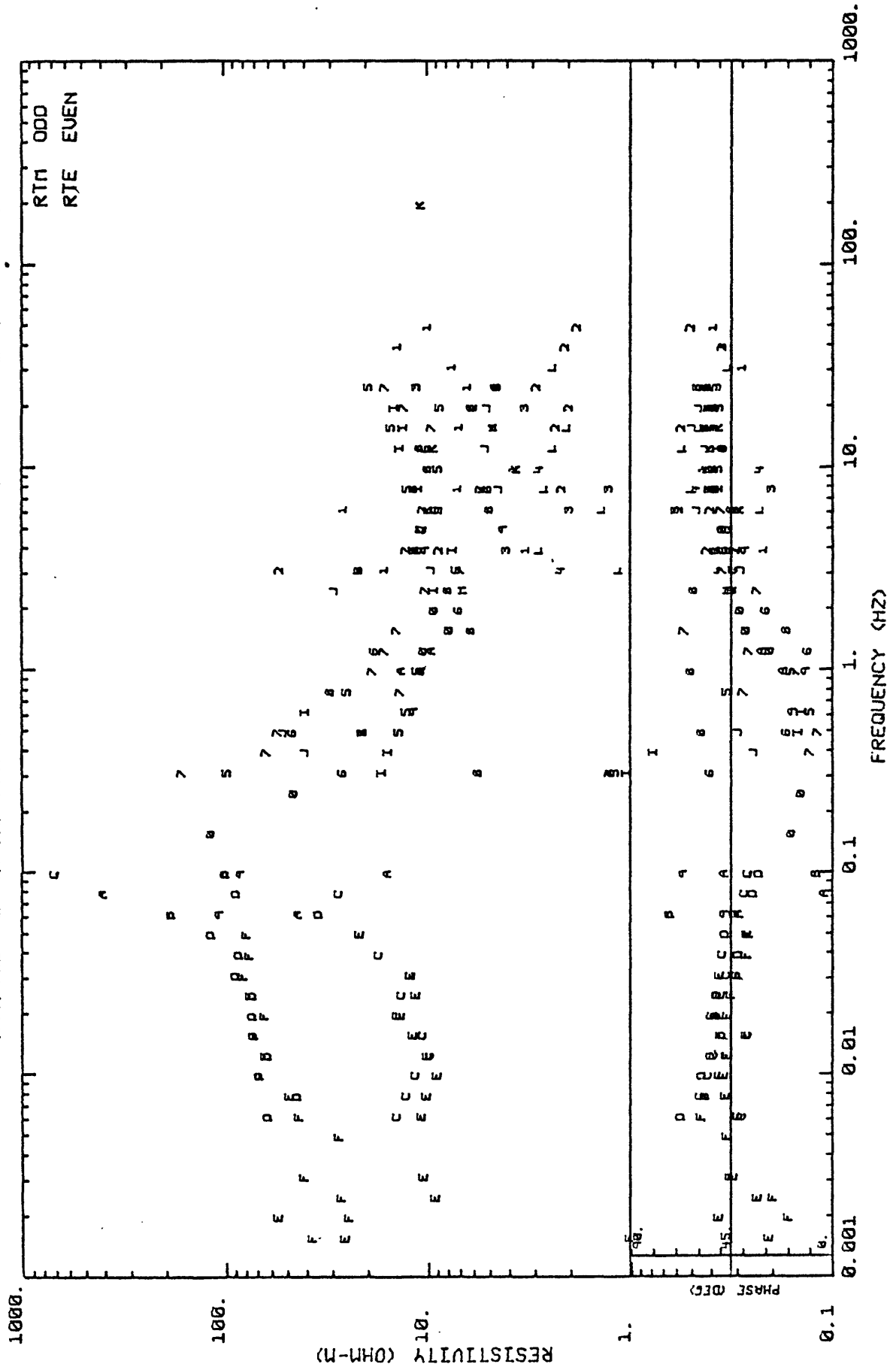


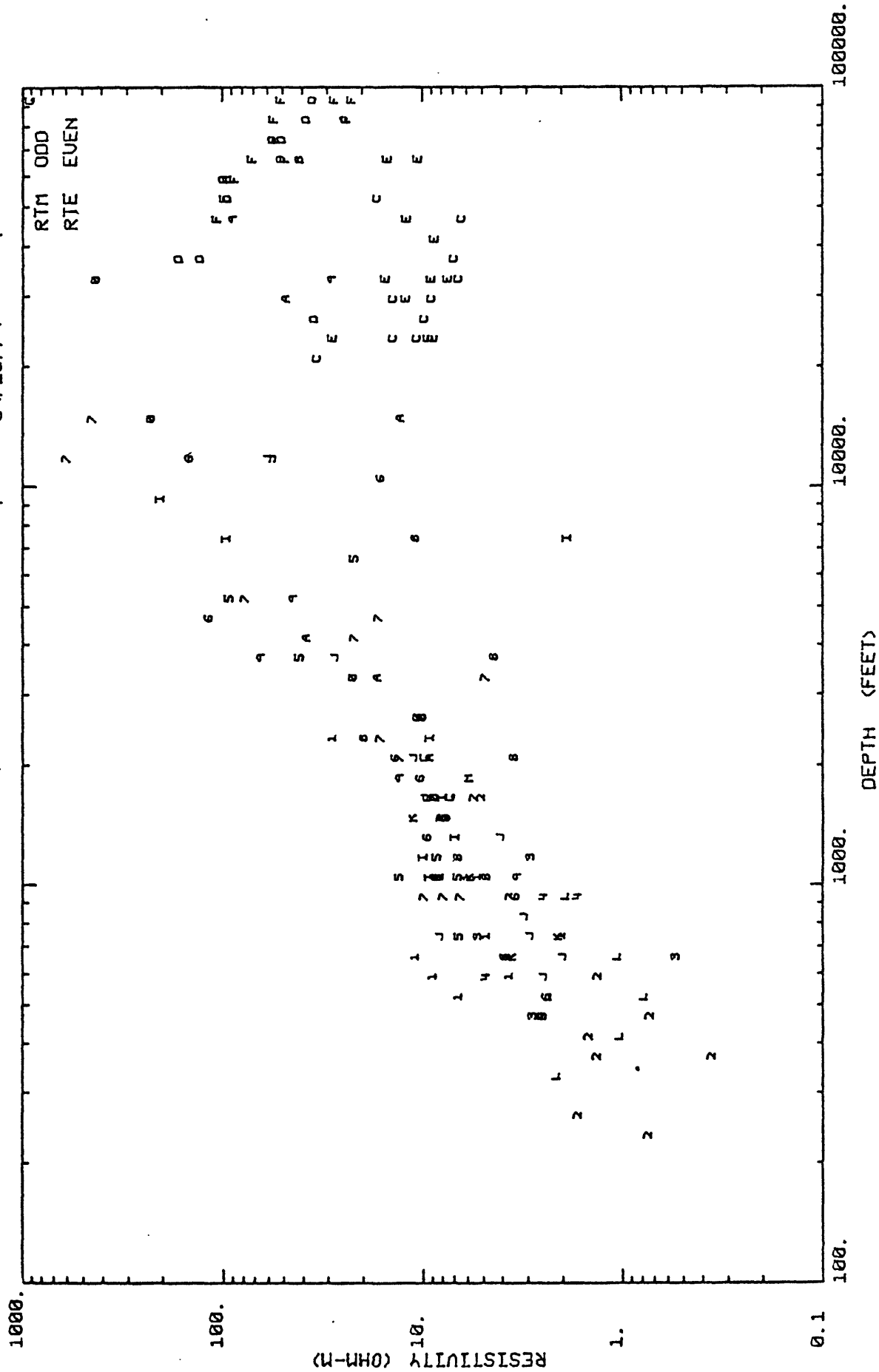
# GEOTRONICS CORPORATION

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

198 4-3 M  
09/28/79

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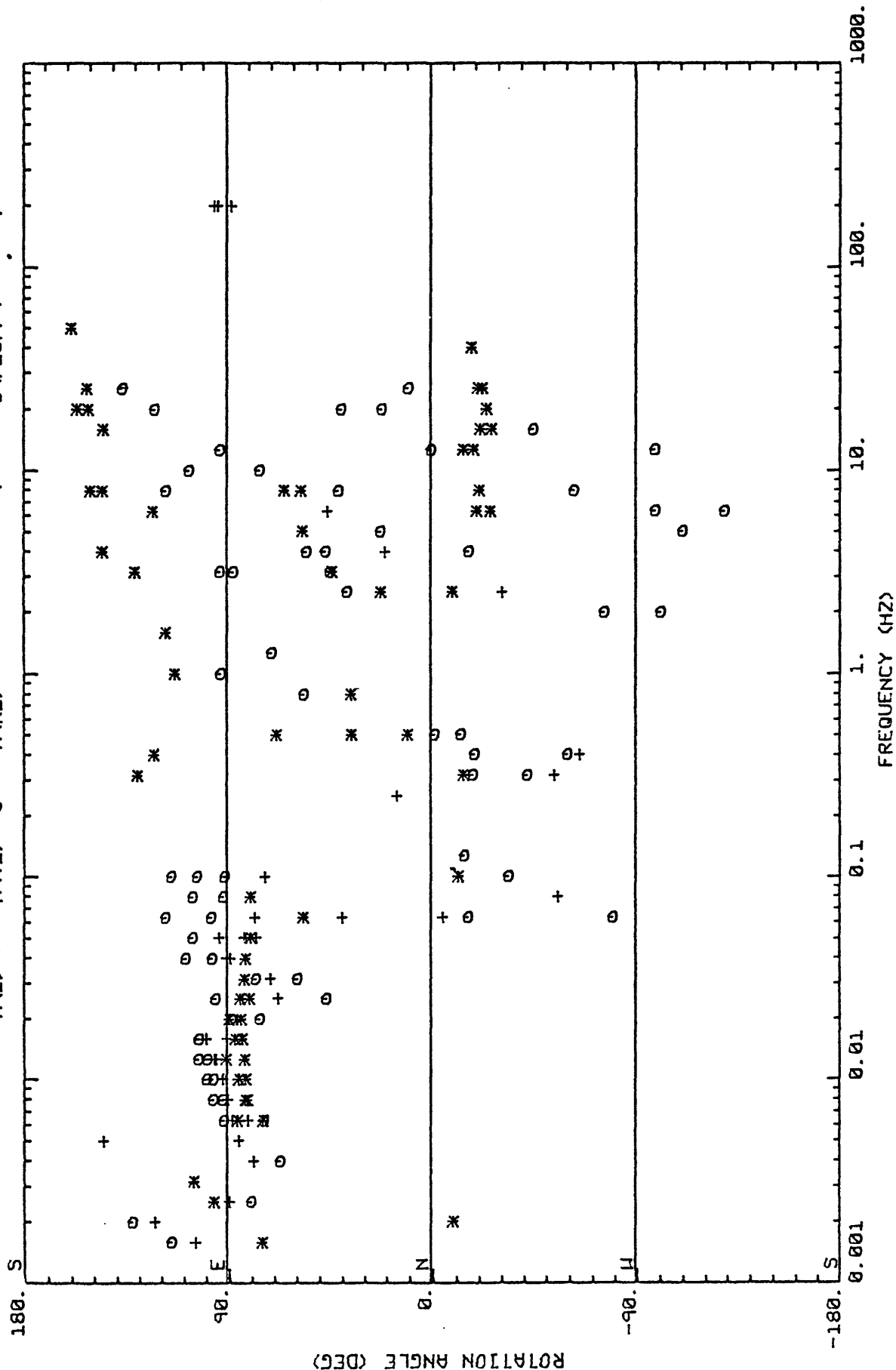
COORD ROTATION ANGLES - PRINCIPLE AXES

A(2)=\* A(Y25)=0 A(K25)=+

196 4-3 N

09/28/79

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MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 4- 4

196 4-4R

RUN 1

DATE -  
RECORDED : 170/79  
PROCESSED : 07/19/79

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APPARENT RESISTIVITY AND PHASE -  
ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

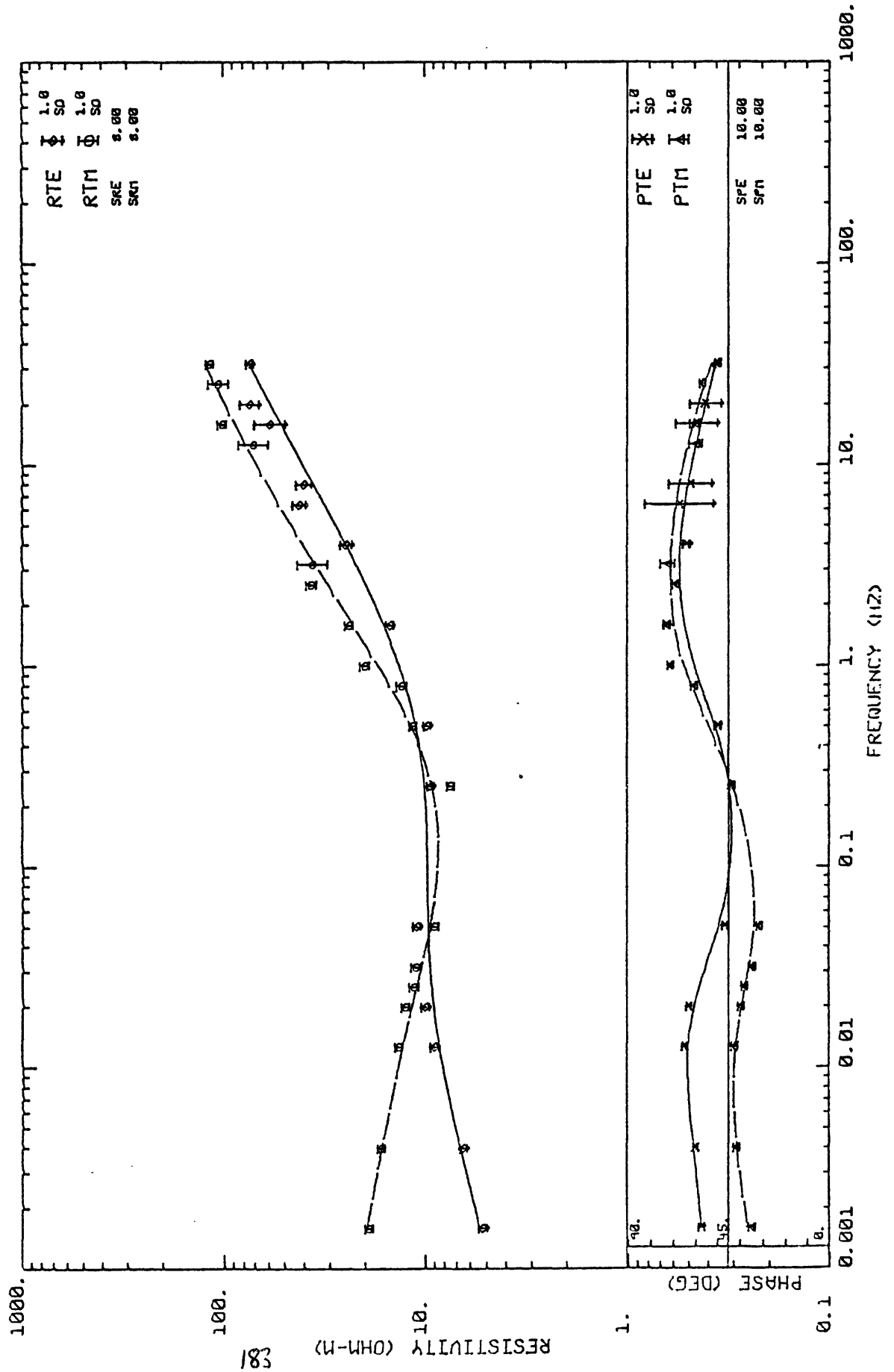
3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 20.0°

DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (KZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
40400

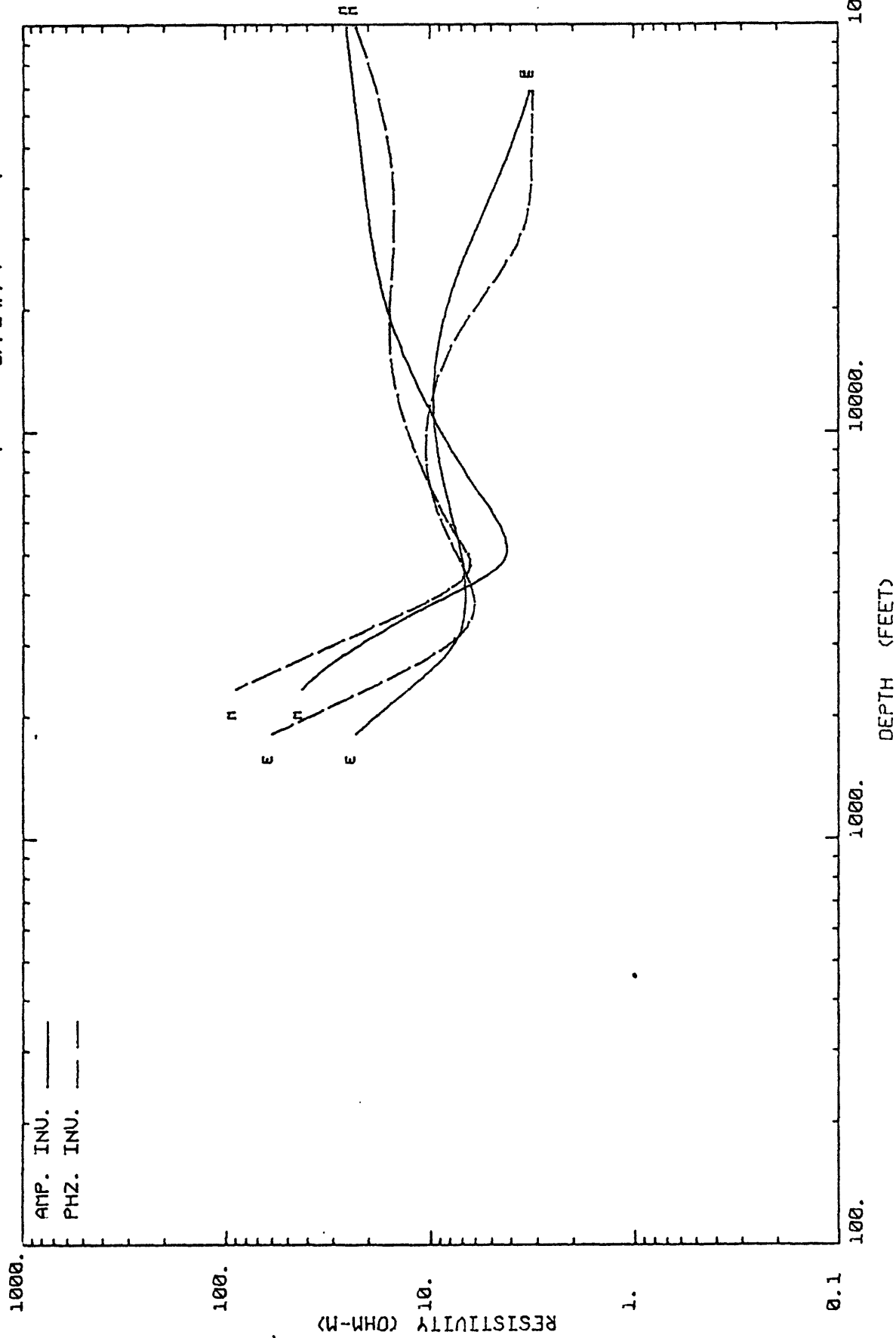


# GEOTRONICS CORPORATION

## INVERSION OF ROTATED TENSOR

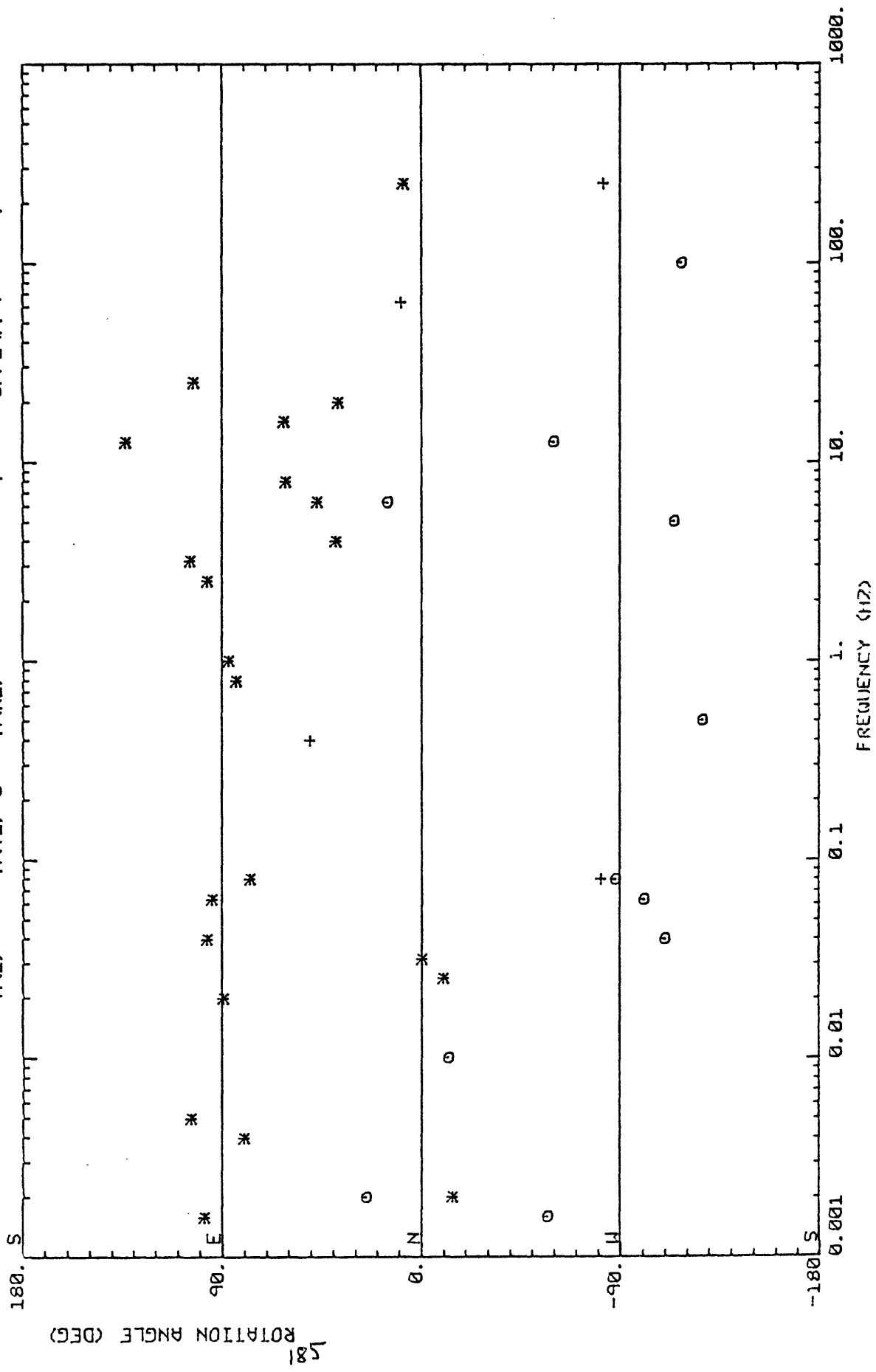
196 4-4R  
07/19/79

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# GEOTRONICS CORPORATION

COORD ROTATION ANGLES - PRINCIPLE AXES  
 A(Z)=\* A(YZ)=0 A(KZ)=+  
 196 4-4R  
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MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 4- 4

196 4-4R 10 FILES WBA

DATE -  
RECORDED : 164/79  
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ROTATED TENSOR IMPEDANCE

1

COORDINATE ROTATION ANGLES -  
PRINCIPAL AXES (+ AZIMUTH)

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 20.0°

DATA PASS LEVELS : COH (Z) = 0.80  
COH (Y) = 0.80  
COH (X) = 0.80

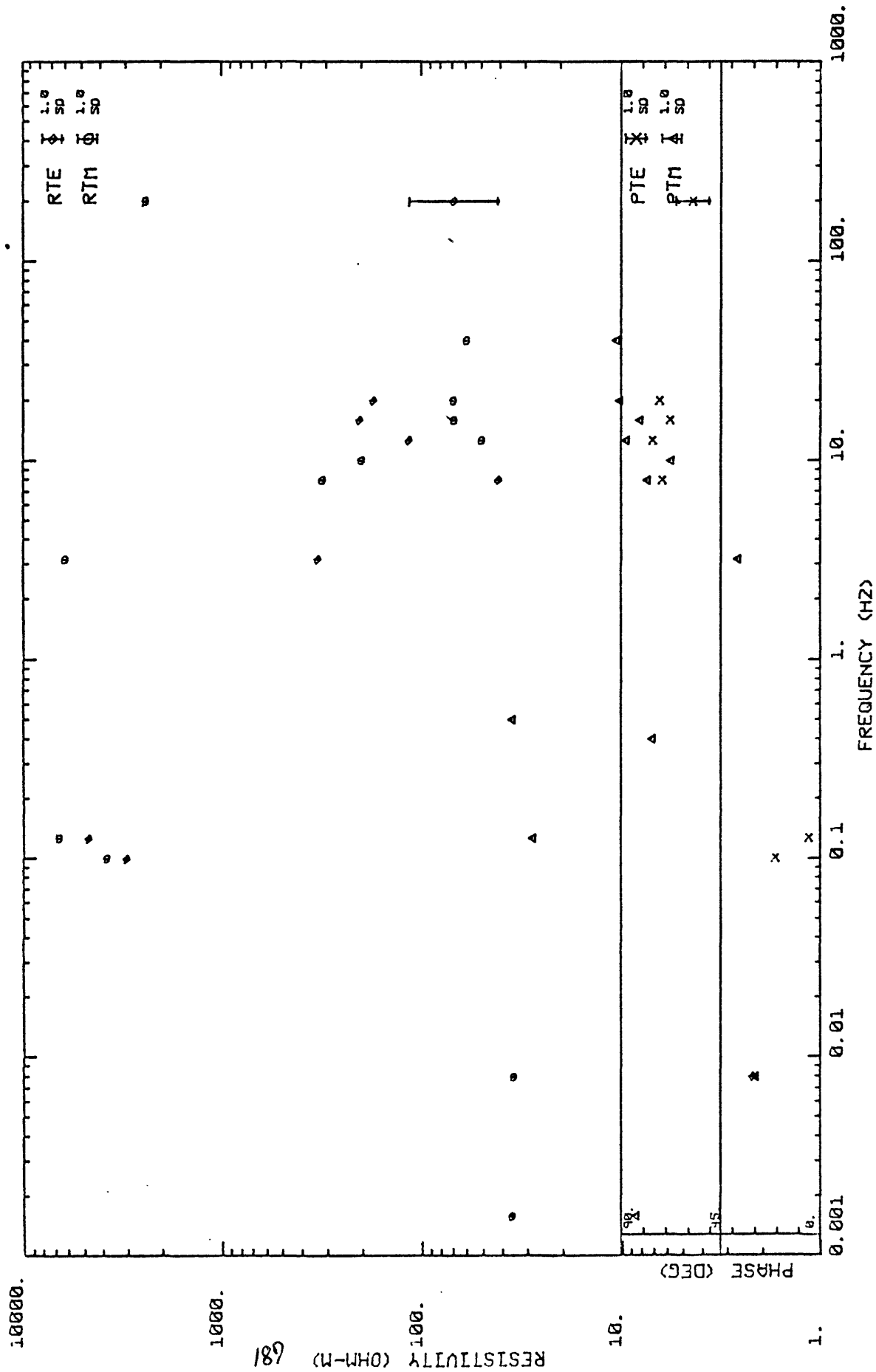
DATA SETS PROCESSED : RUN NO.  
40400



APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

196 4-4R  
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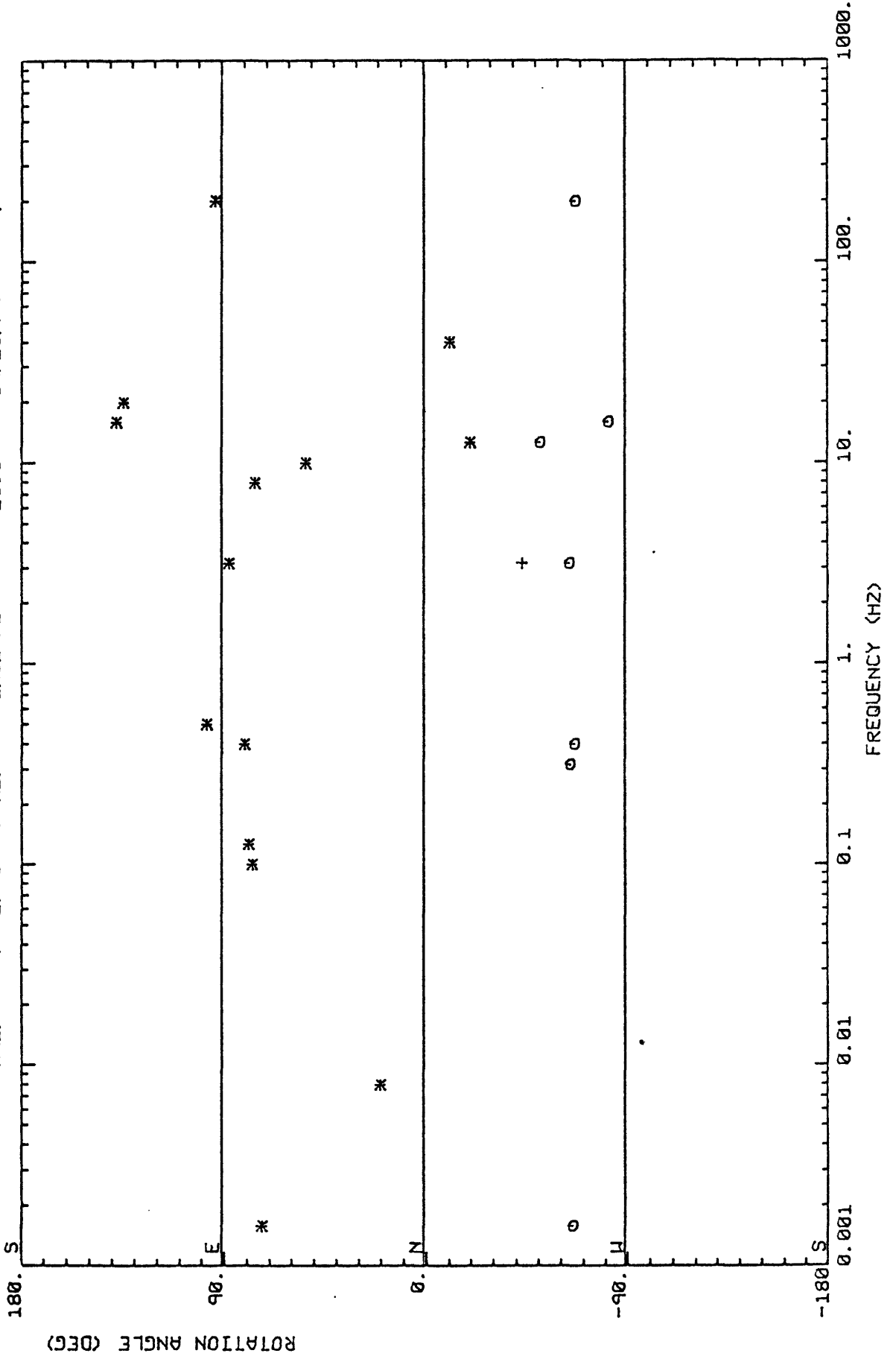
GEOTRONICS CORPORATION

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196 4-4R  
09/28/79

COORD ROTATION ANGLES - PRINCIPAL AXES  
A(Z)=\* A(Y2)=0 A(K2)=+ INCL AZ

20.0



MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 4- 4

196 4-4R MAGPLOT

DATE -  
RECORDED : 164/79  
PROCESSED : 06/25/79  
PLOTTED : 09/28/79

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ROTATED TENSOR IMPEDANCE

1

PHASE INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPAL AXES (AZIMUTH ADDED)

3

- LEGEND AND NOTES -

SITE PARAMETERS : E - LINES DX = 300.0M  
DY = 280.0M  
X - AXIS AZIMUTH = 20.0°

DATA PASS LEVELS : COM (Z) = 0.80  
COM (Y) = 0.80  
COM (X) = 0.80

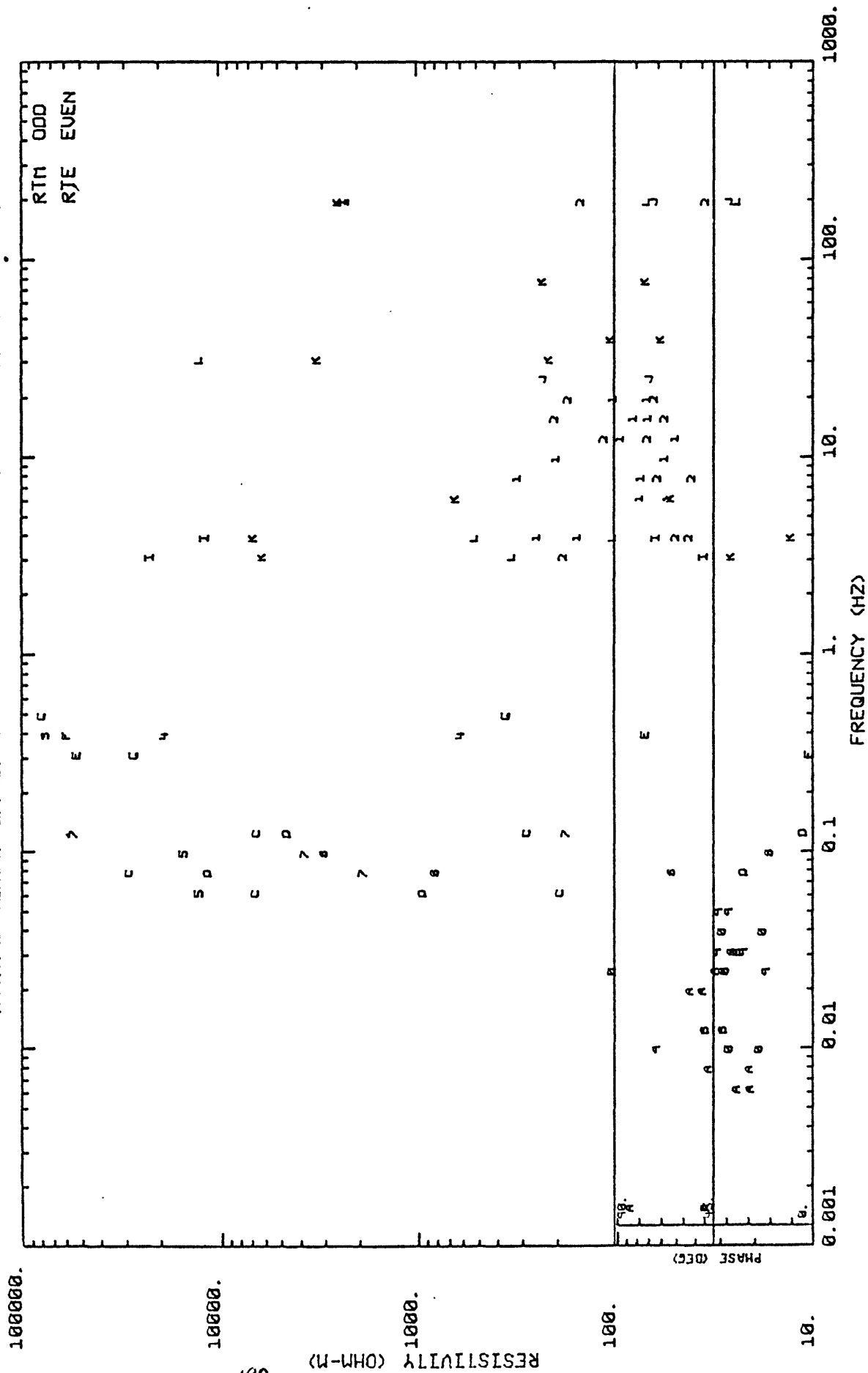
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	403	5	3	4
	405	4	5	6
	406	4	7	8
	407	3	9	0
	408	2	A	B
	410	4	C	D
	411	5	E	F
	412	5	G	H
	413	6	I	J
	414	6	K	L

# GEOTRONICS CORPORATION

## APPARENT RESISTIVITY AND PHASE ROTATED TENSOR IMPEDANCE

196 4-4R M  
09/28/79

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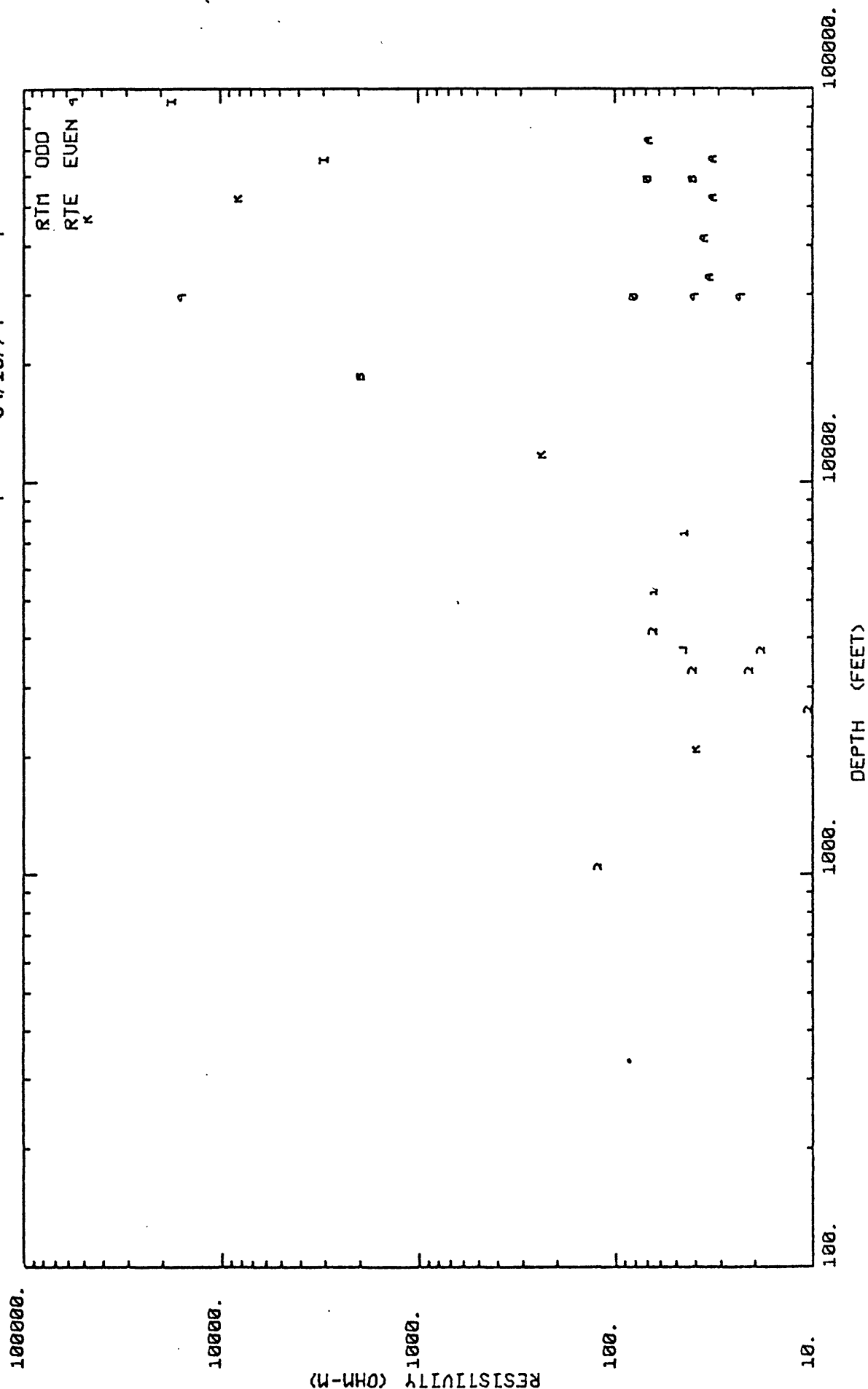


# GEOTRONICS CORPORATION

PHASE INVERSION OF ROTATED TENSOR

196 4-4R M  
09/28/79

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# GEOTRONICS CORPORATION

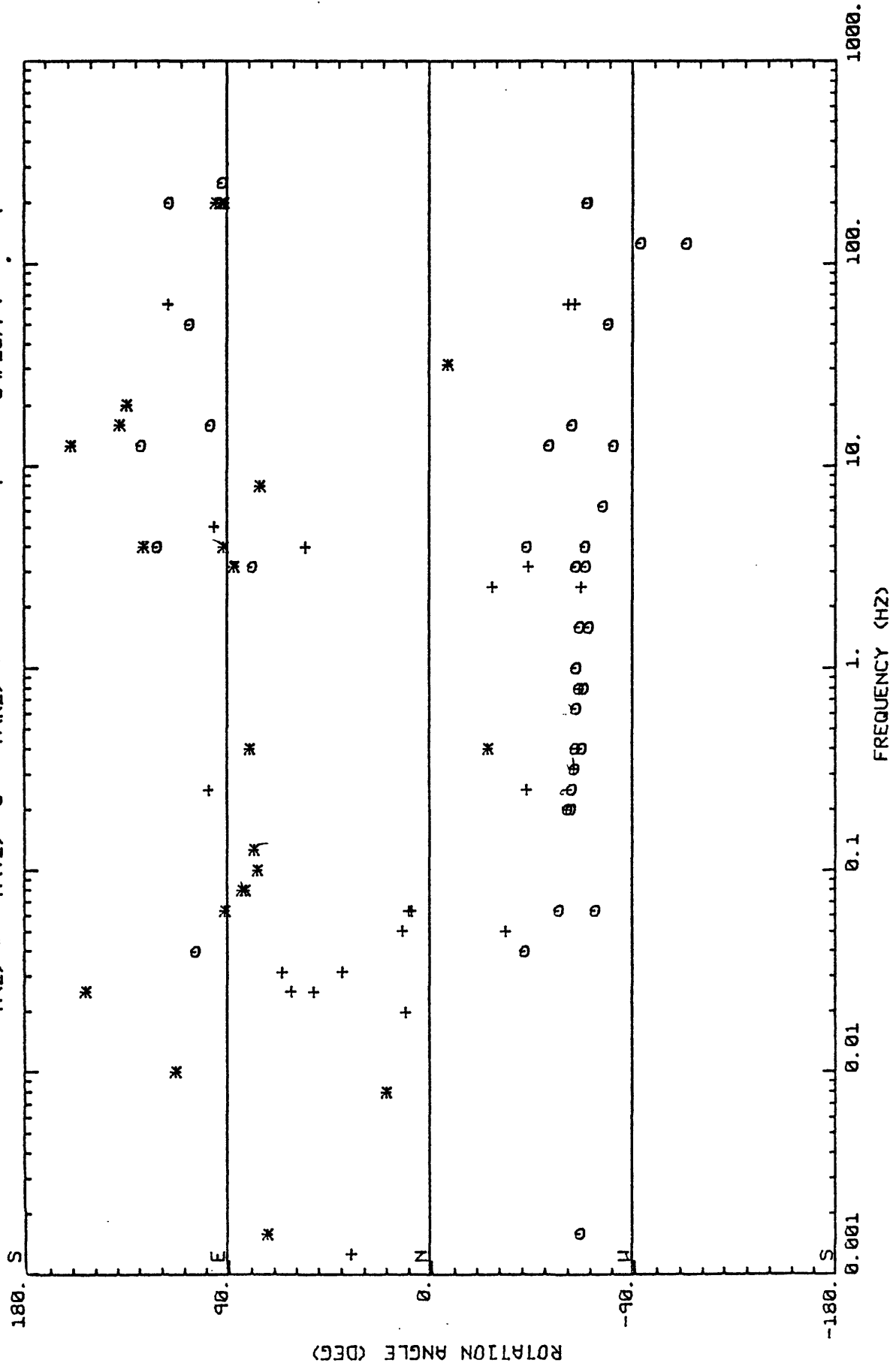
COORD ROTATION ANGLES - PRINCIPLE AXES

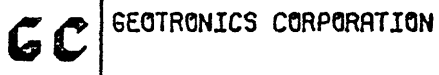
A(Z) = + A(YZ) = 0 A(KZ) = +

196 4-4R M

09/28/79

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MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 4- 5

196 4-5R RUN 5

DATE -  
RECORDED : 170/79  
PROCESSED : 07/24/79

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ROTATED TENSOR IMPEDANCE  
INVERSION OF ROTATED TENSOR  
COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

1  
2  
3

- LEGEND AND NOTES -

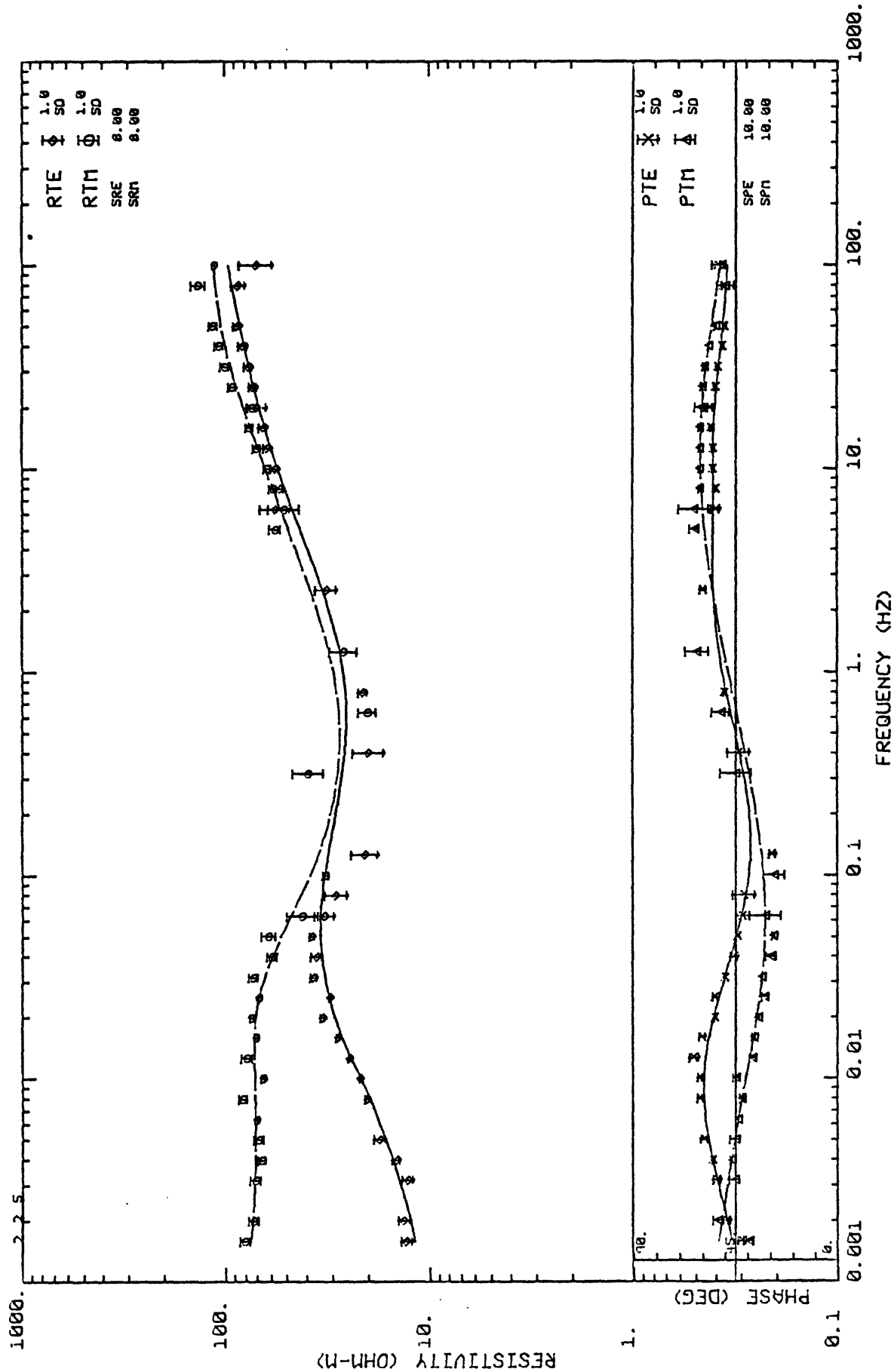
X - AXIS AZIMUTH = 20.0°  
DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (XZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
U175487999

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

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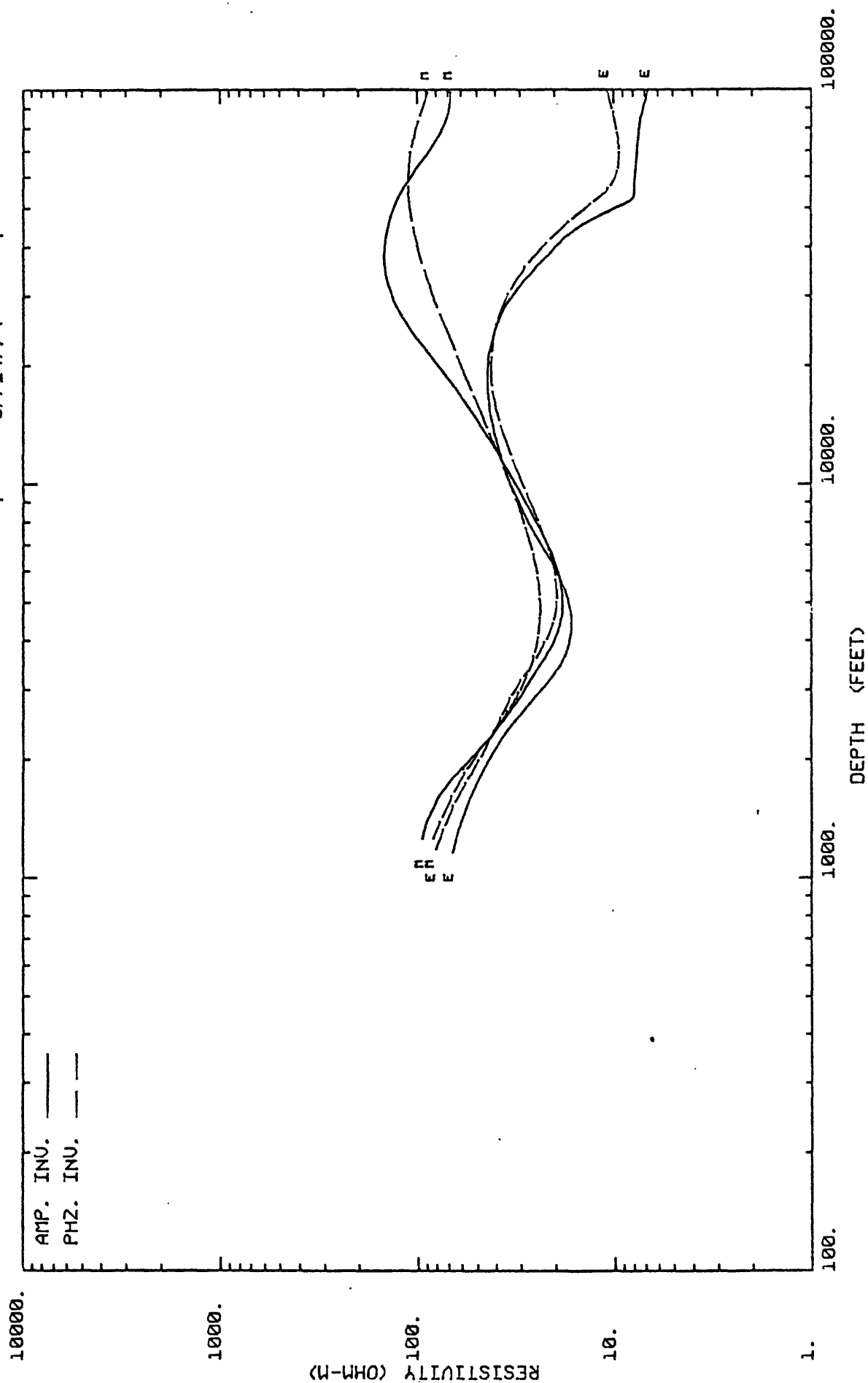
# GEOTRONICS CORPORATION

## INVERSION OF ROTATED TENSOR

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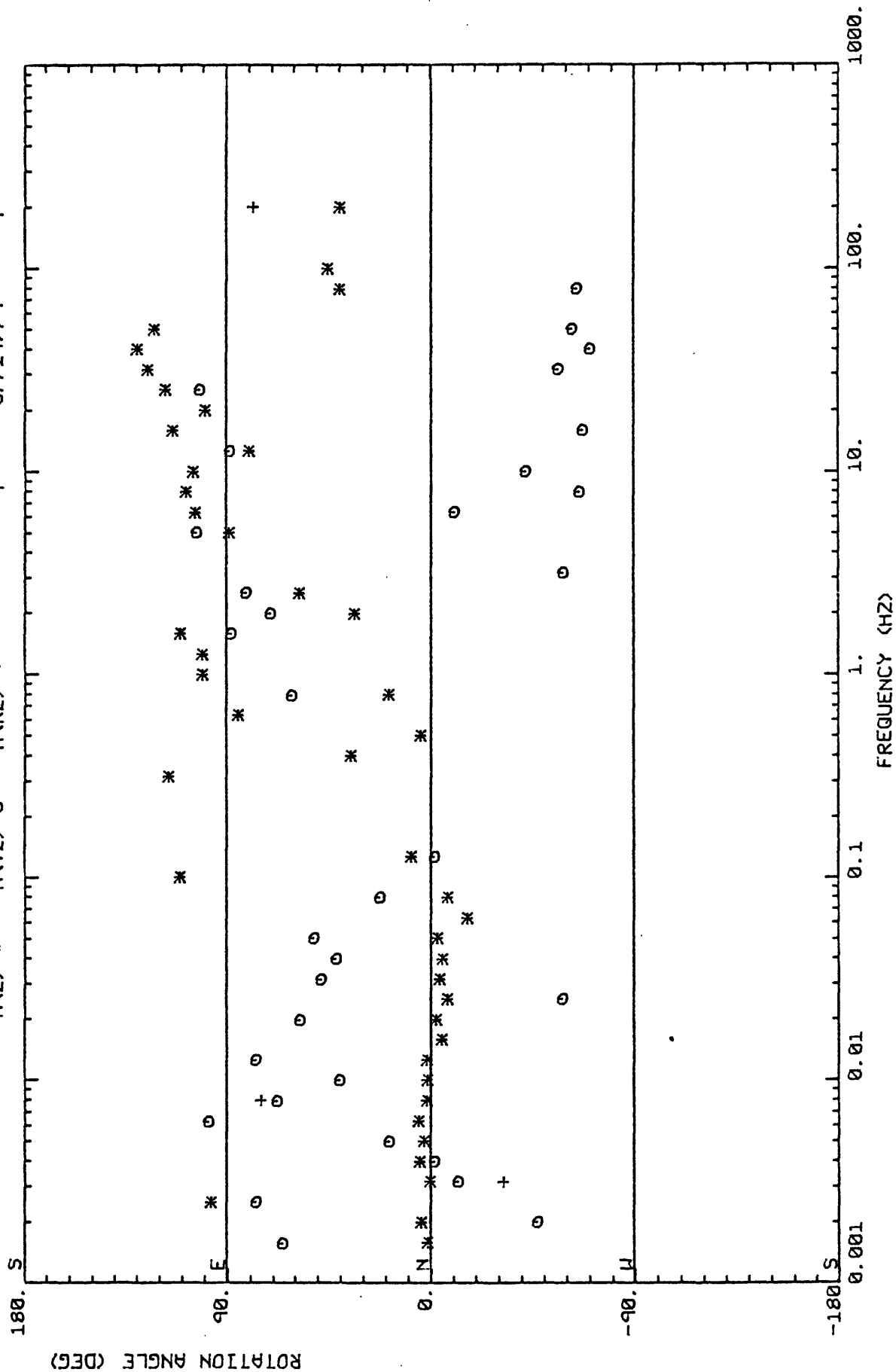


COORD ROTATION ANGLES - PRINCIPLE AXES

A(2) = \*    A(Y2) = 0    A(K2) = +

196 4-SR  
07/24/79

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MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 4- 6

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RUN. 1

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RECORDED : 163/79  
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ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 340.0

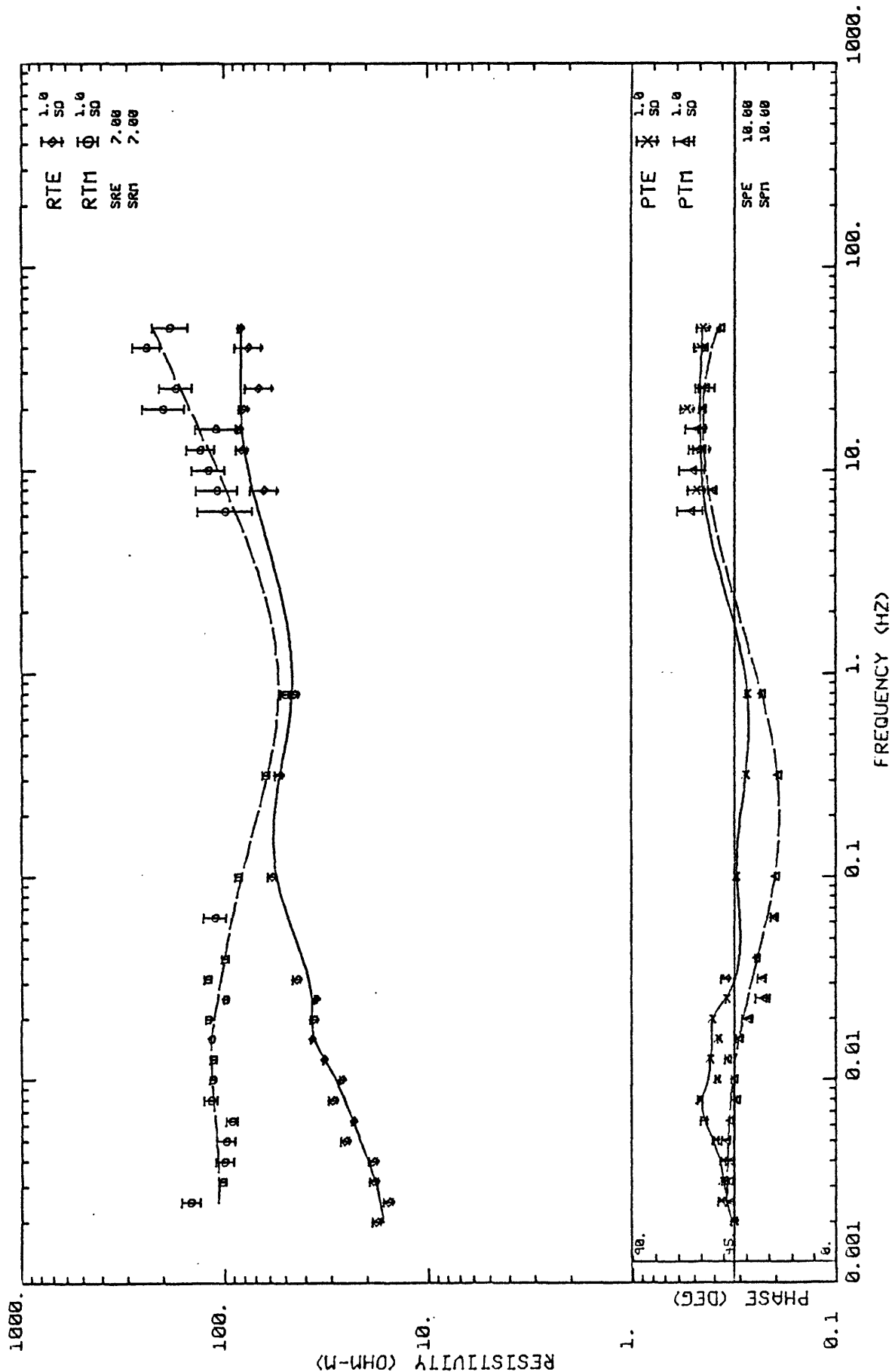
DATA PASS LEVELS : COM (Z) = 0.80  
COM (YZ) = 0.80  
COM (KZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
B672217600

APPARENT RESISTIVITY AND PHASE  
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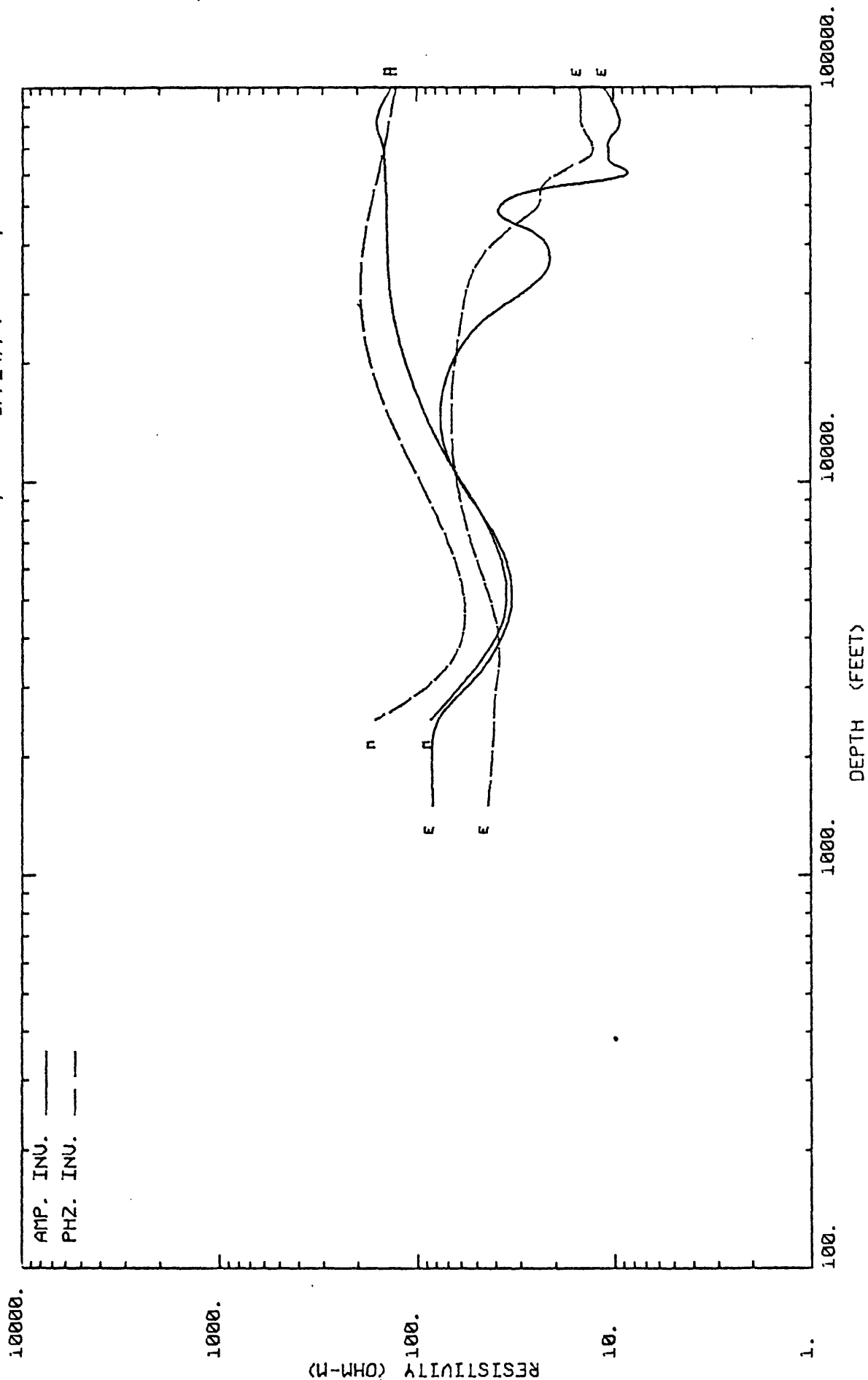
# GEOTRONICS CORPORATION

## INVERSION OF ROTATED TENSOR

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# GEOTRONICS CORPORATION

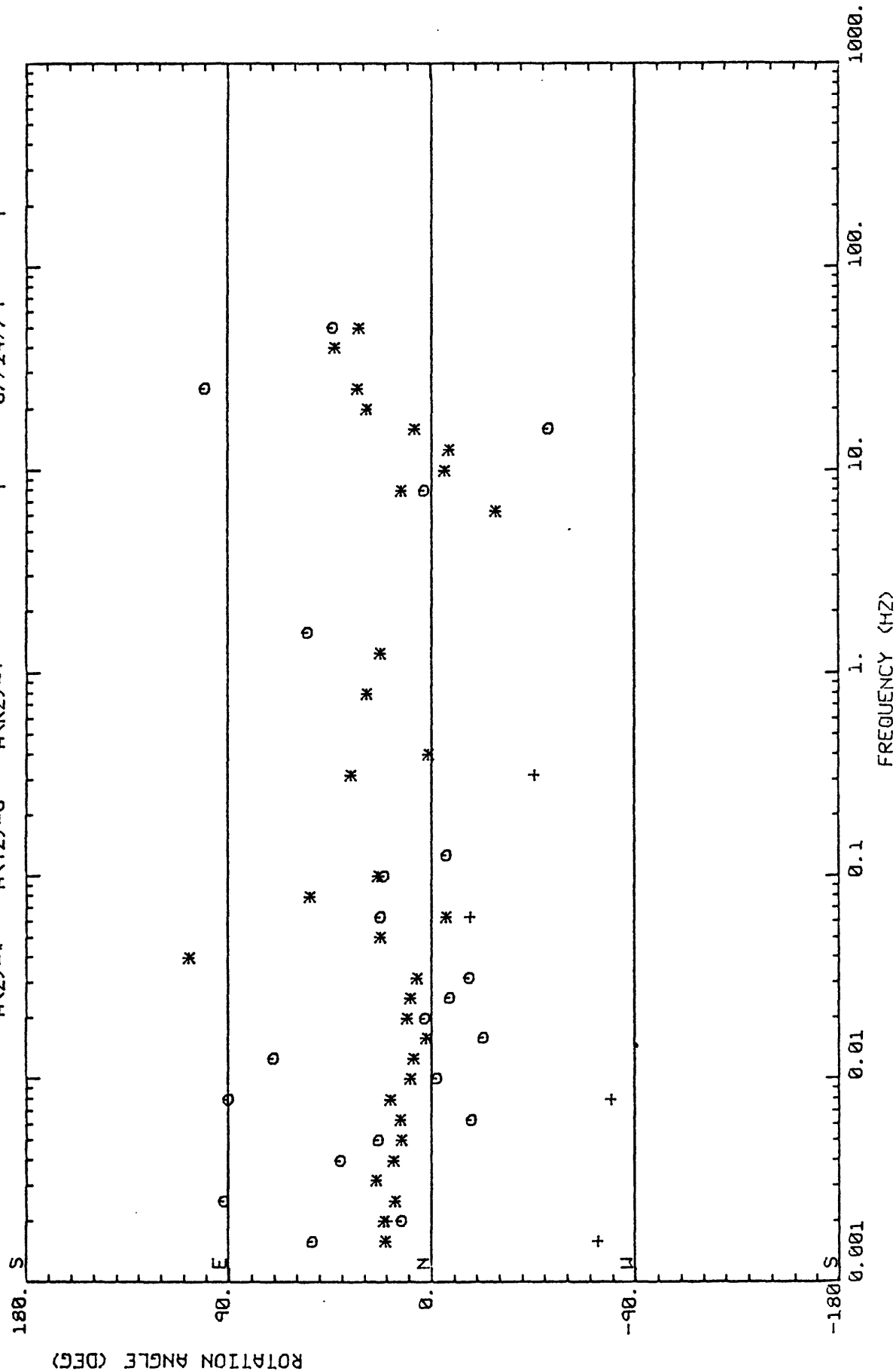
COORD ROTATION ANGLES - PRINCIPLE AXES

A(Z) = \*    A(YZ) = 0    A(KZ) = +

196 4-6

07/24/79

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MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 4- 7

196 4-7      RUN 5

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ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 328.0

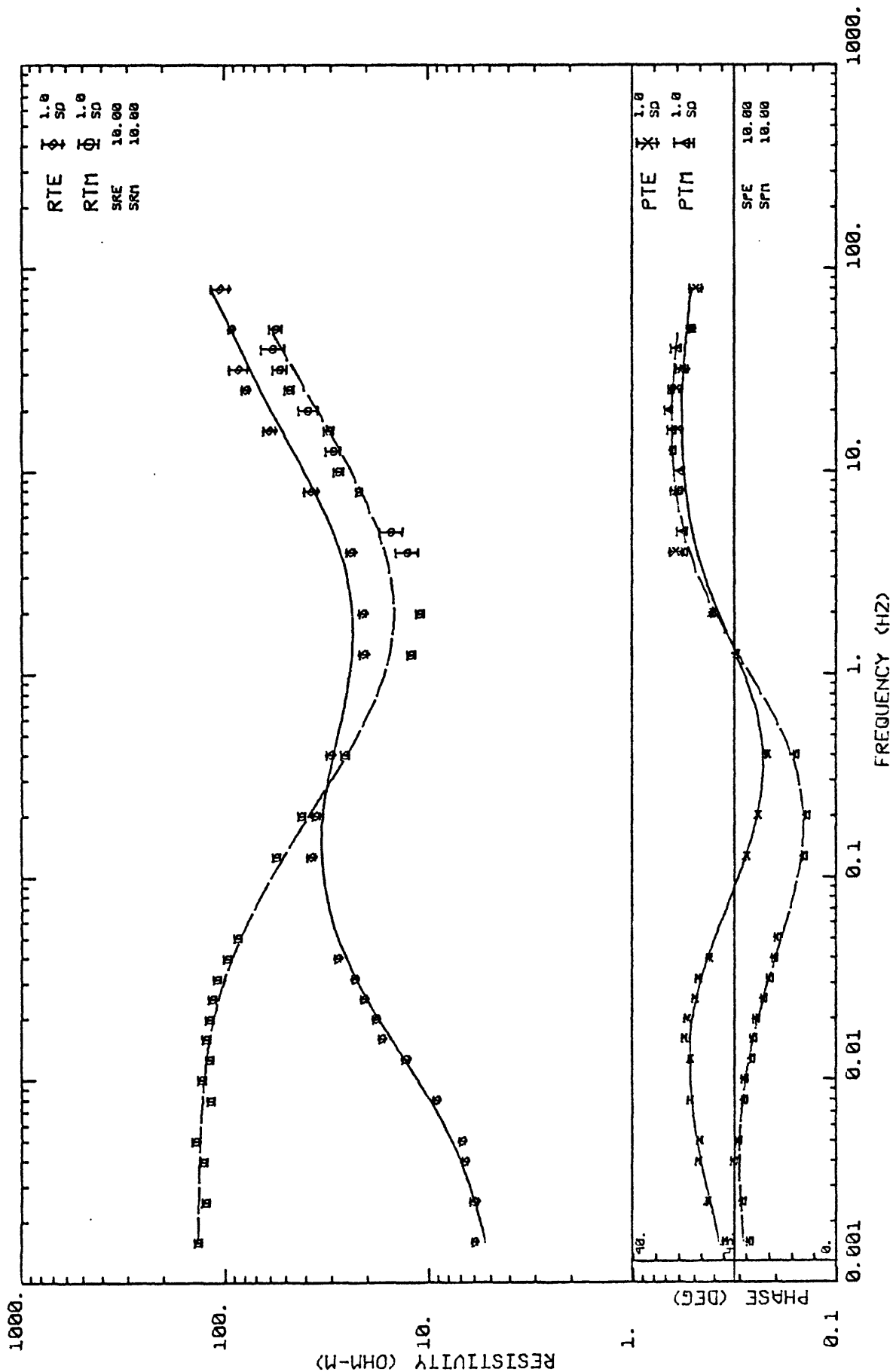
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COH (YZ) = 0.80  
COH (KZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
40700

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

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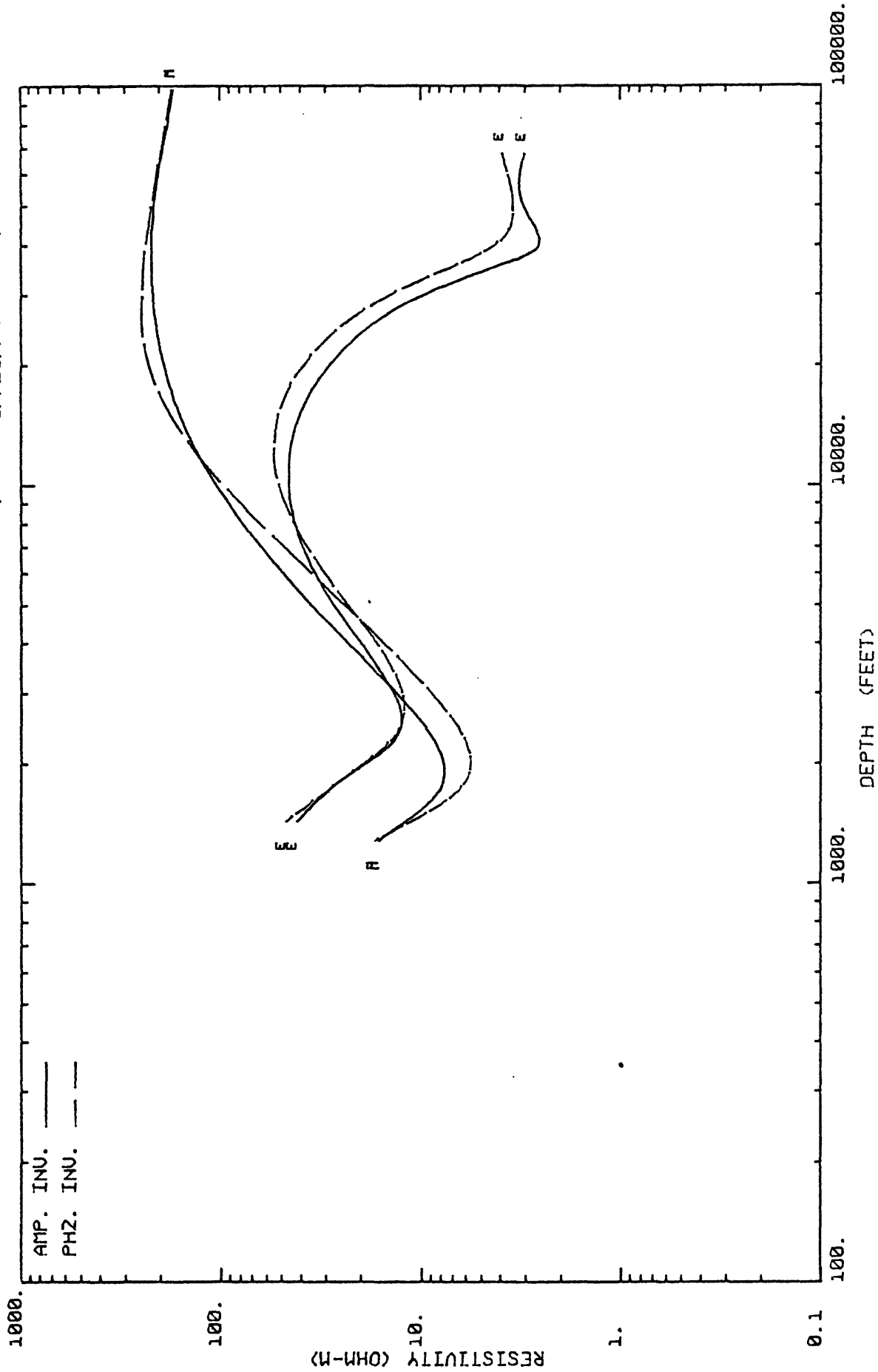


# GEOTRONICS CORPORATION

INVERSION OF ROTATED TENSOR

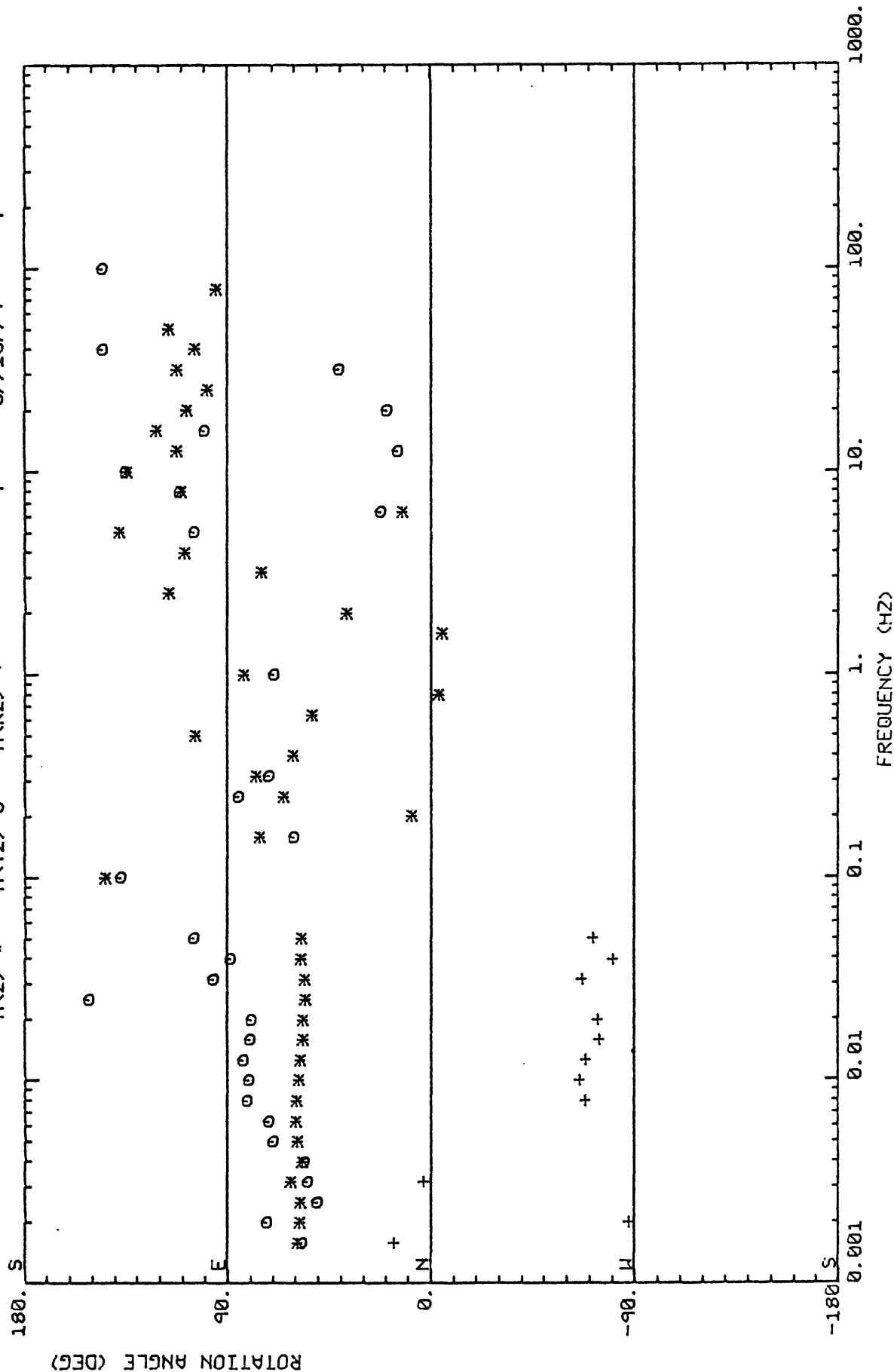
196 4-7  
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# GEOTRONICS CORPORATION

COORD ROTATION ANGLES - PRINCIPLE AXES  
 A(Z)=\* A(YZ)=0 A(KZ)=+ PAGE 3  
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MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 4- 8

196 4-8 . RUN 1

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ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

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COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 15.0°

DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (KZ) = 0.80

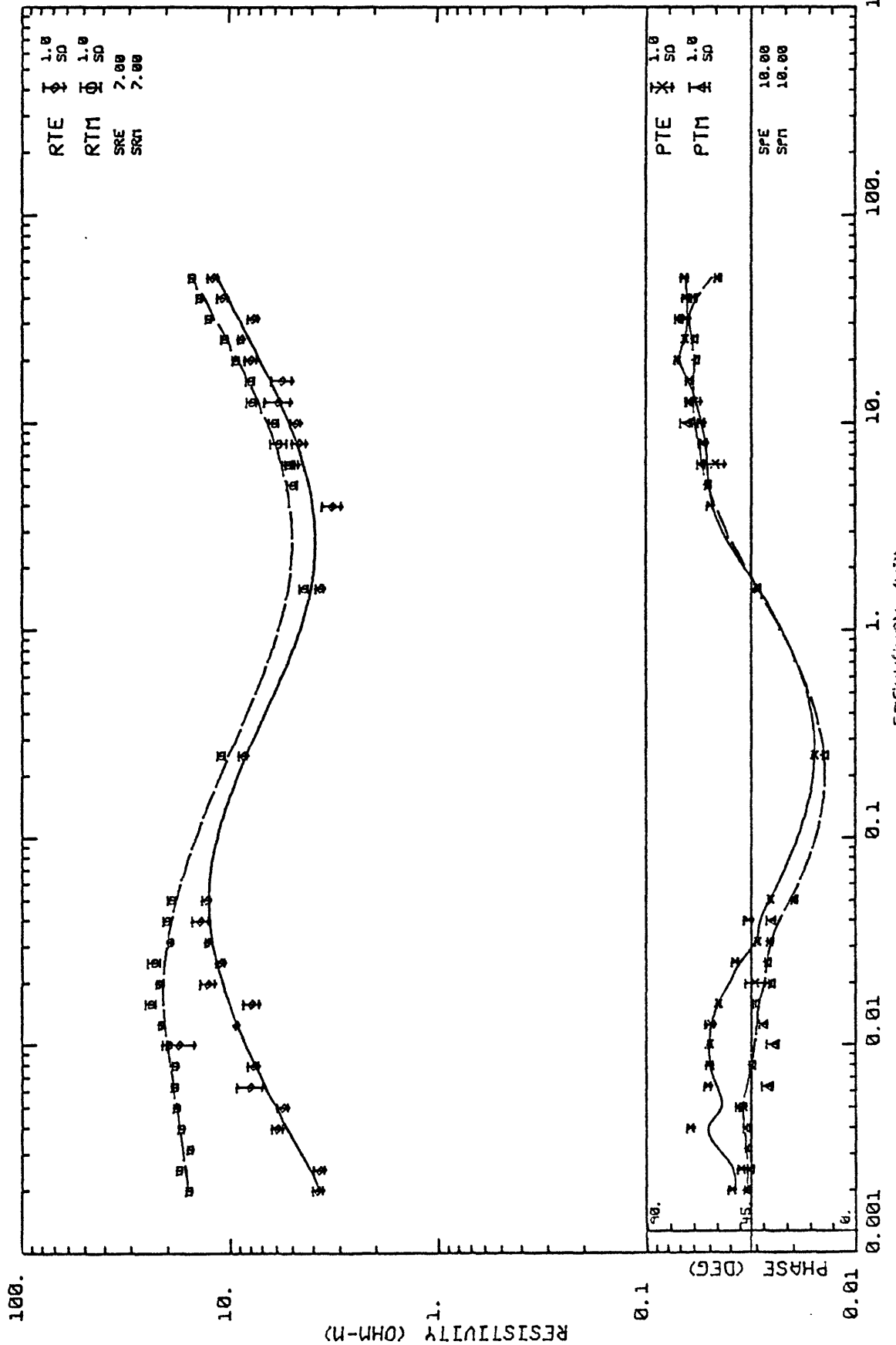
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40800

# GEOTRONICS CORPORATION

## APPARENT RESISTIVITY AND PHASE ROTATED TENSOR IMPEDANCE

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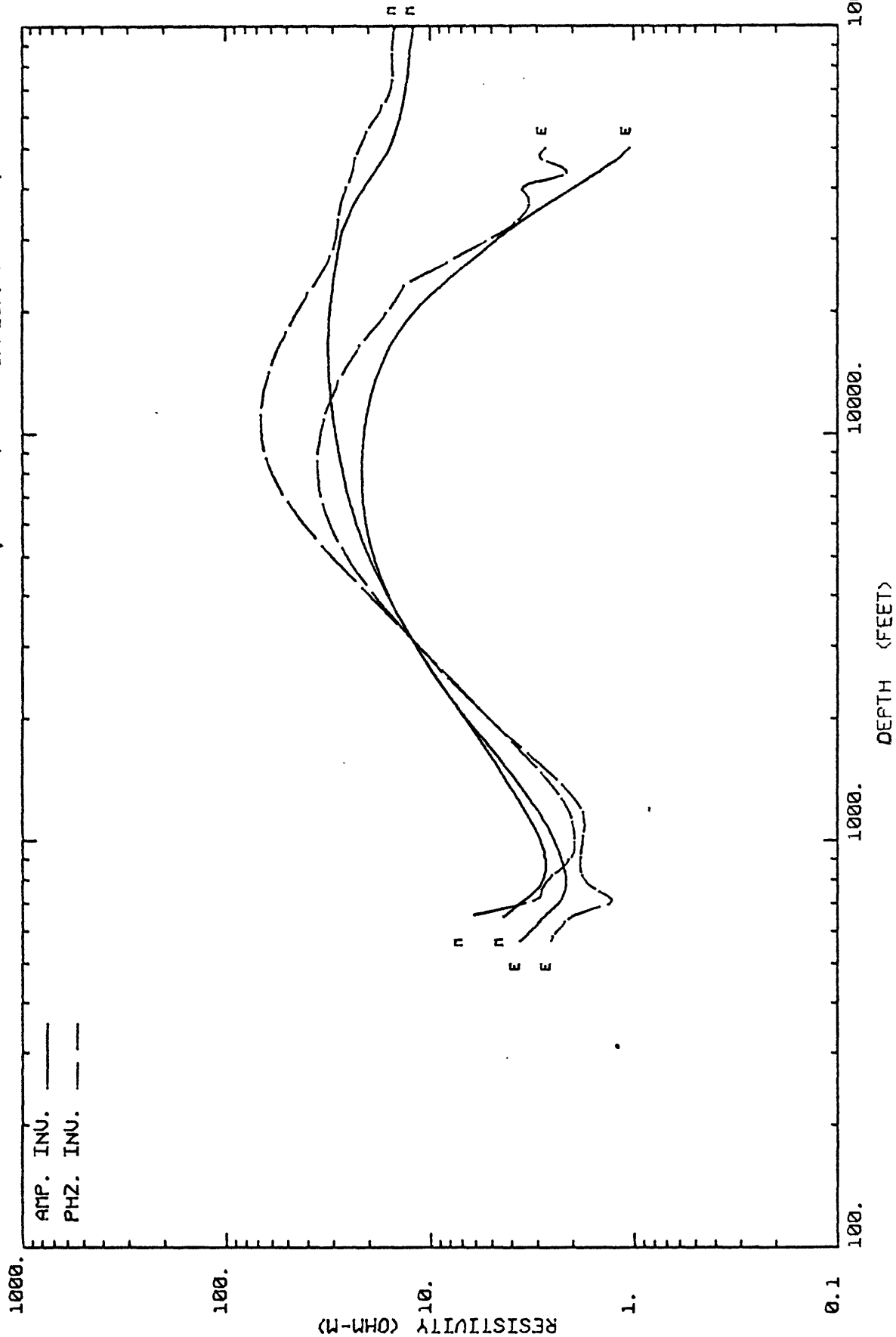


# GEOTRONICS CORPORATION

INVERSION OF ROTATED TENSOR

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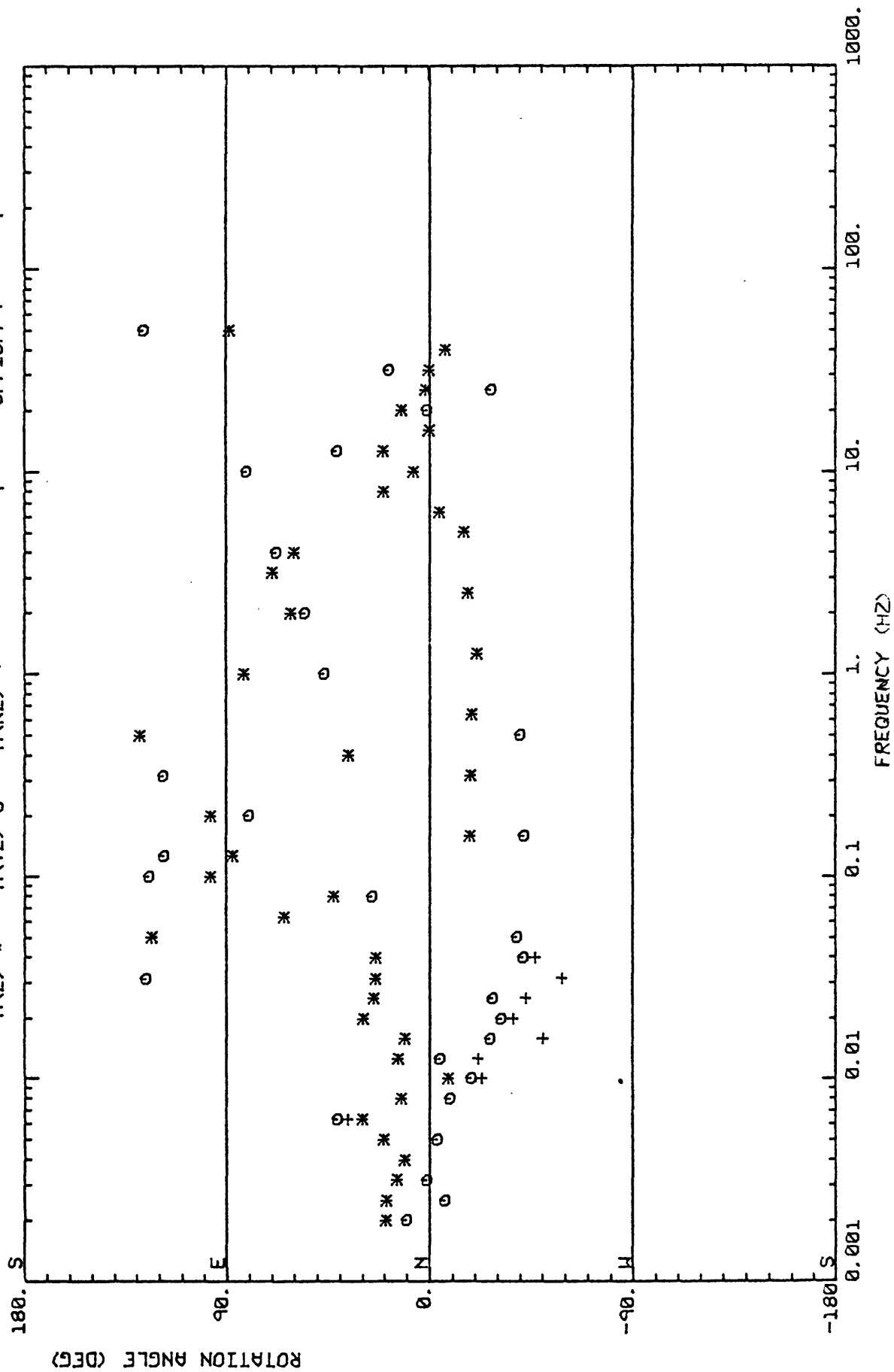
# GEOTRONICS CORPORATION

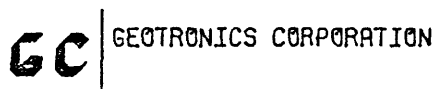
COORD ROTATION ANGLES - PRINCIPLE AXES

A(Z)=\* A(YZ)=0 A(KZ)=+

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MAGNETO TELLURIC  
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SITE 4- 9

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COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 19.0°

DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (KZ) = 0.80

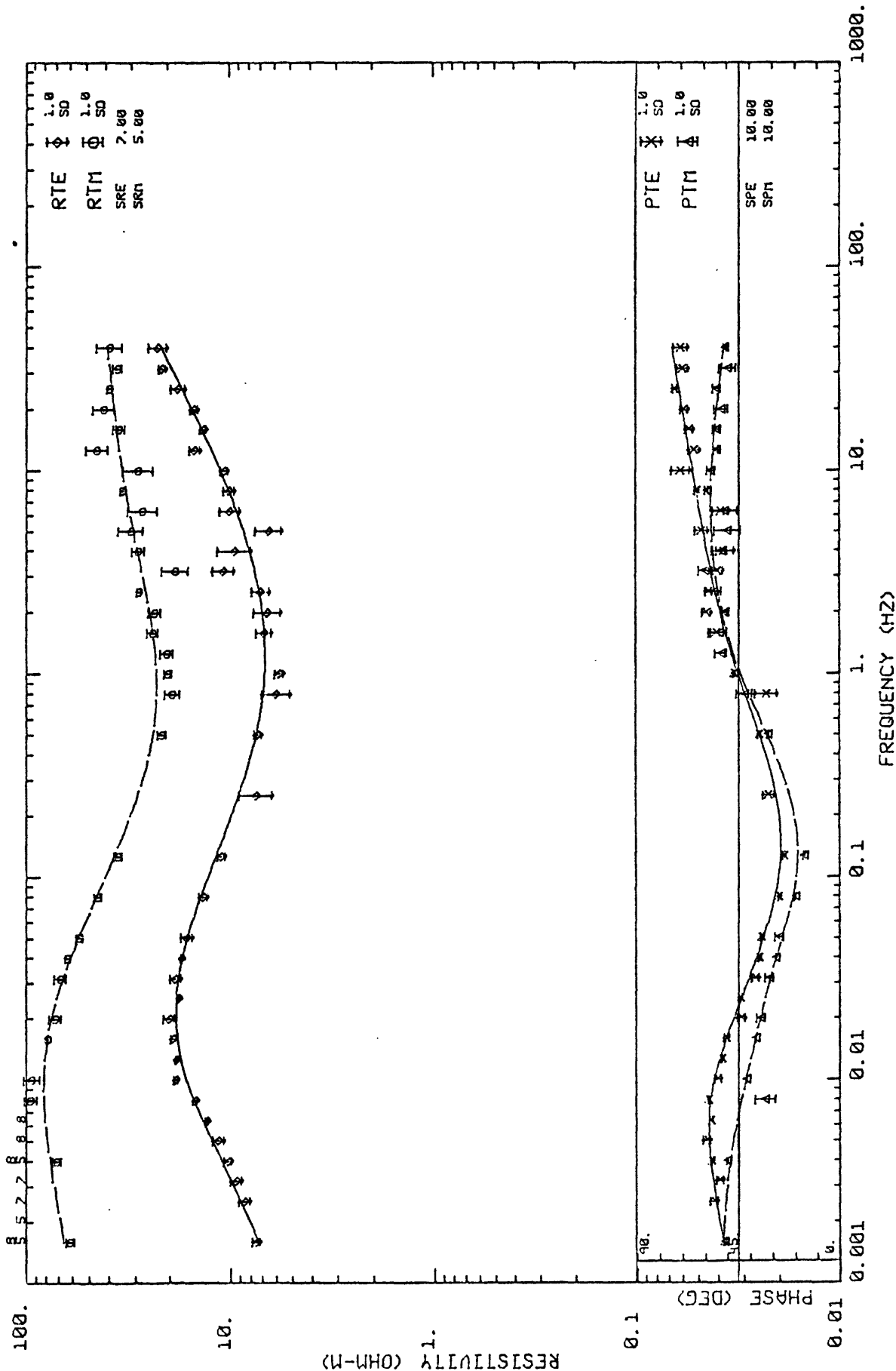
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APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

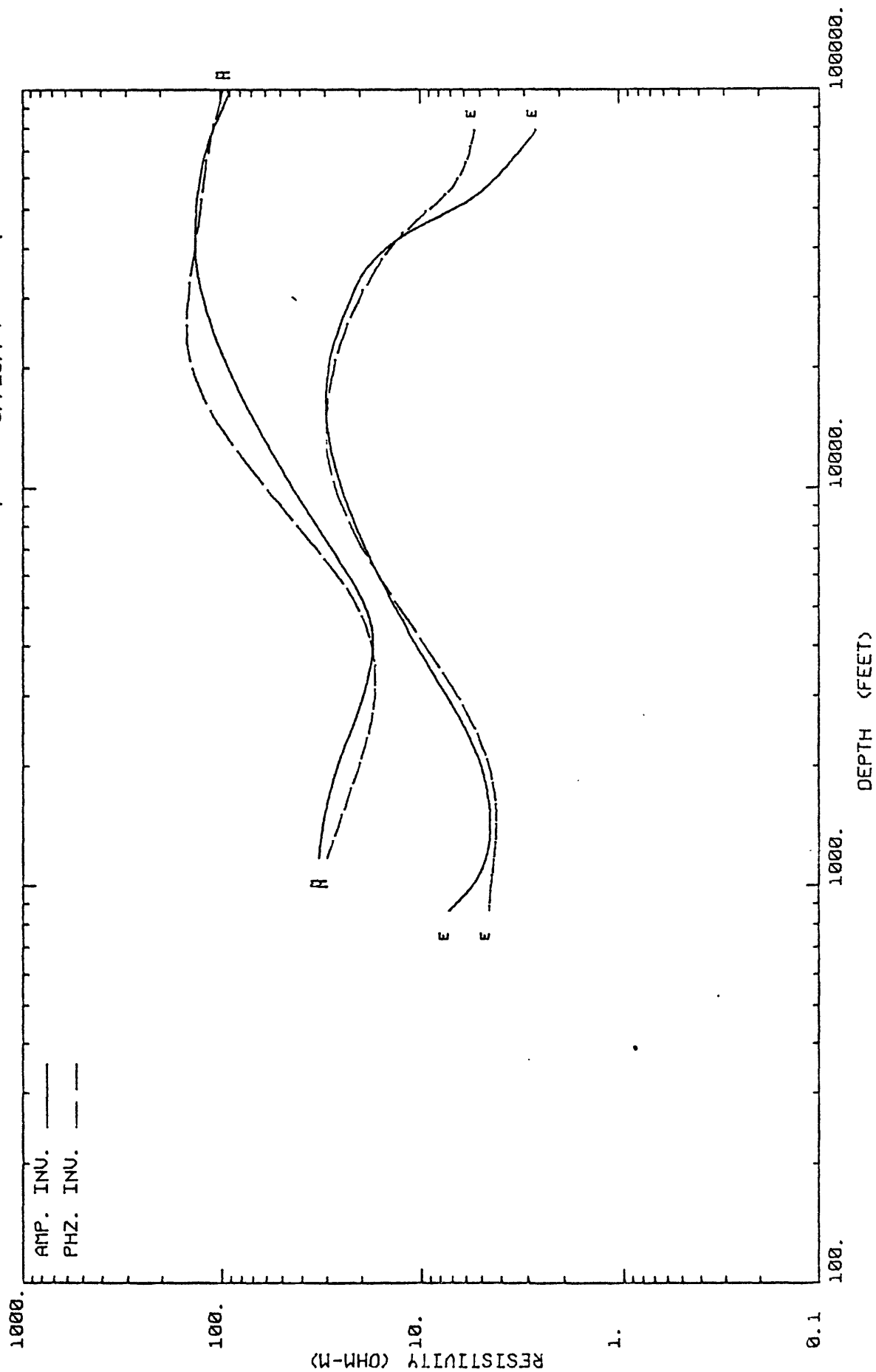
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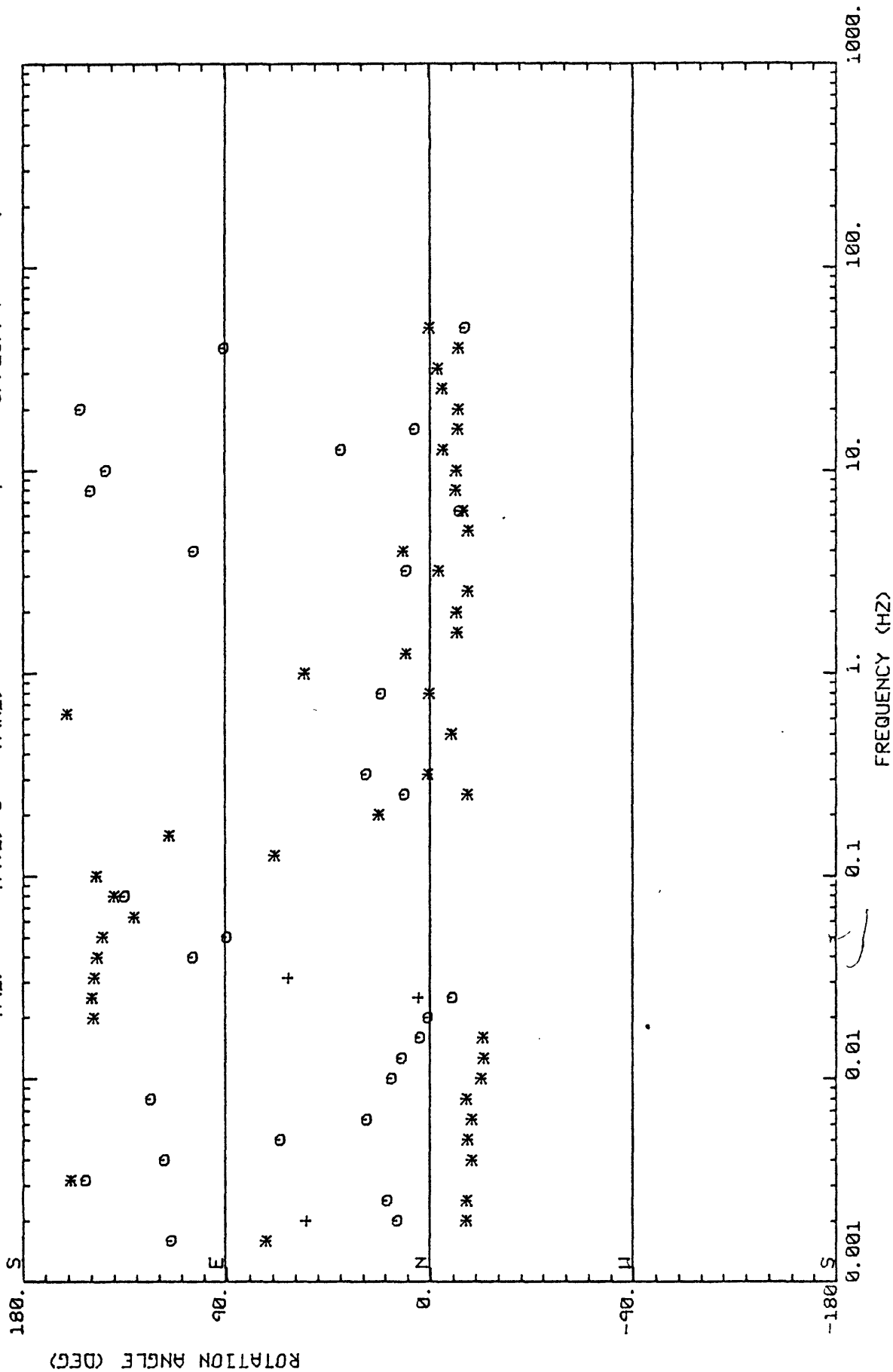
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COORD ROTATION ANGLES - PRINCIPLE AXES

A(Z)=\* A(YZ)=0 A(KZ)=+





MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 6- 1

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INVERSION OF ROTATED TENSOR

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COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 22.0°

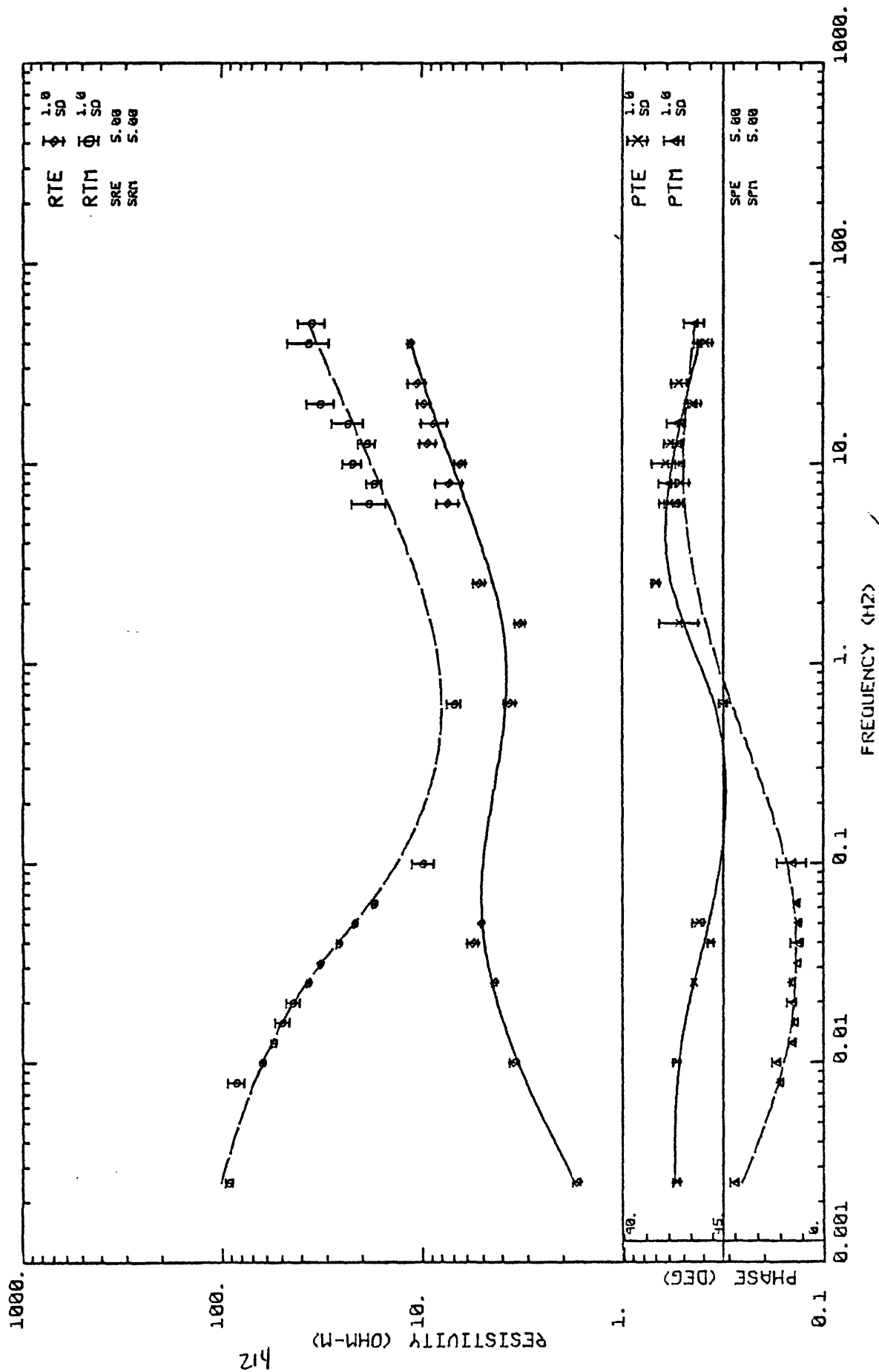
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COH (YZ) = 0.80  
COH (KZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
60100

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

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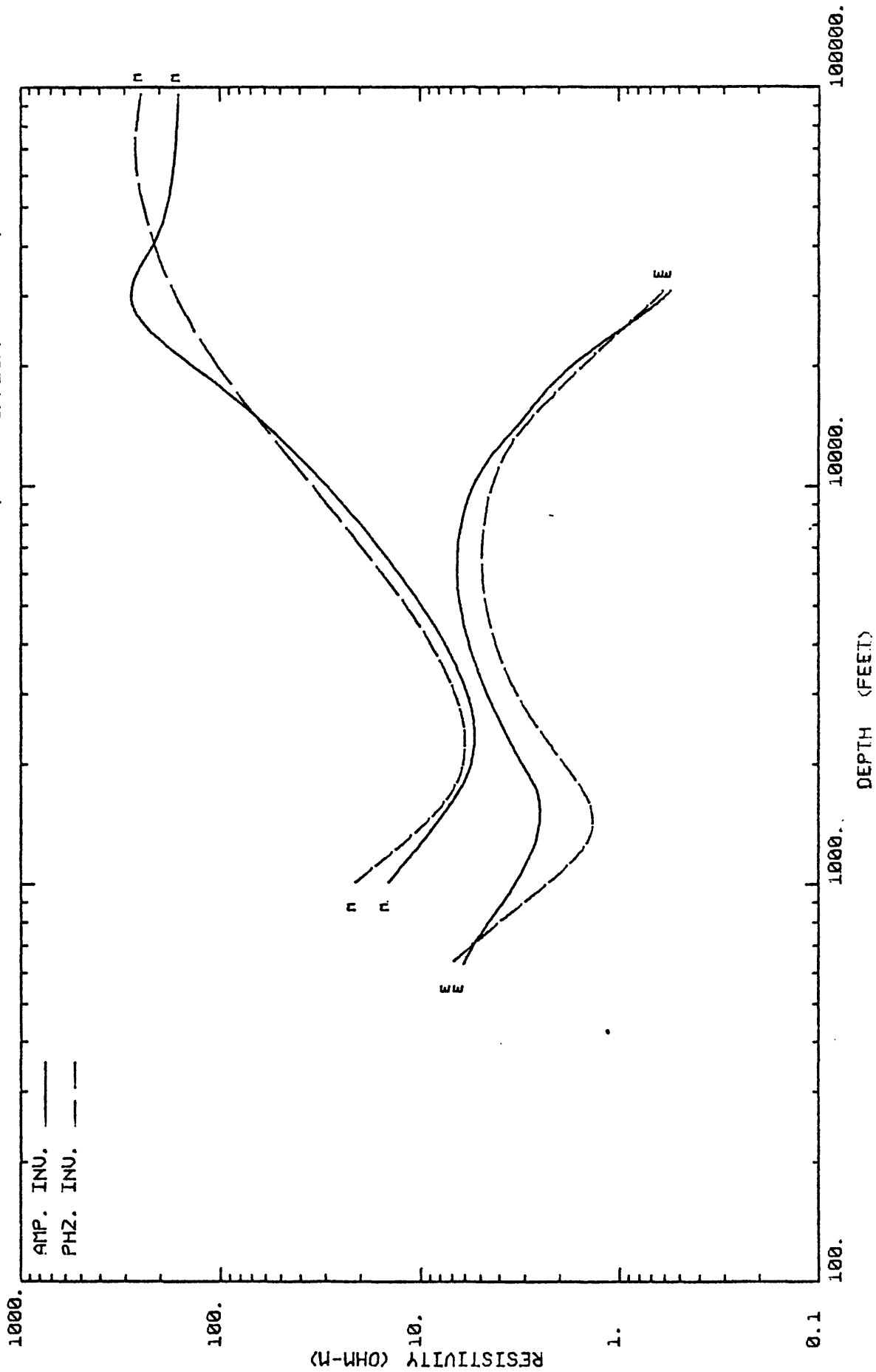


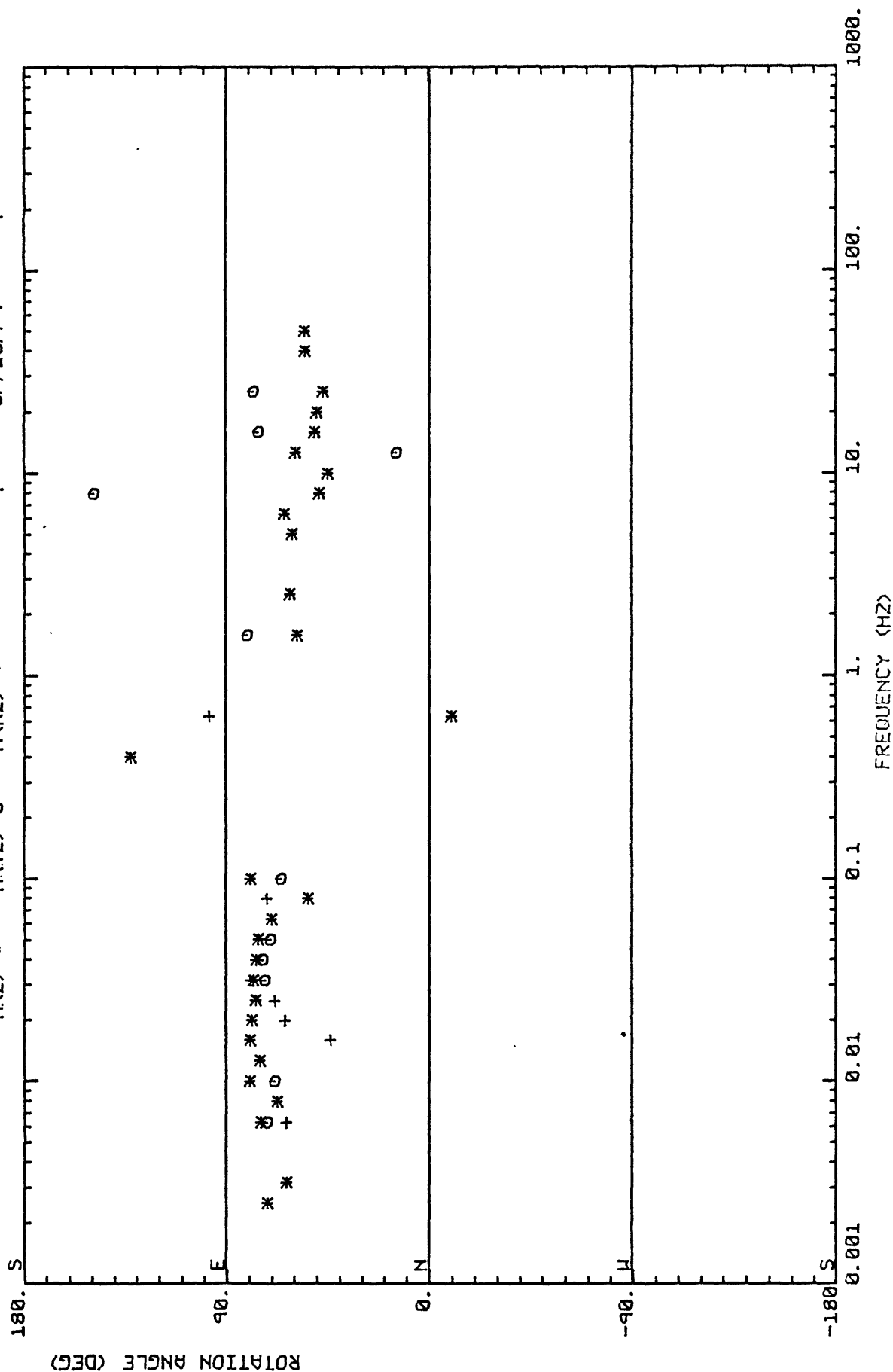
# GEOTRONICS CORPORATION

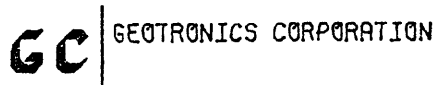
## INVERSION OF ROTATED TENSOR

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GEOTRONICS CORPORATION

MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
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INVERSION OF ROTATED TENSOR

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COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

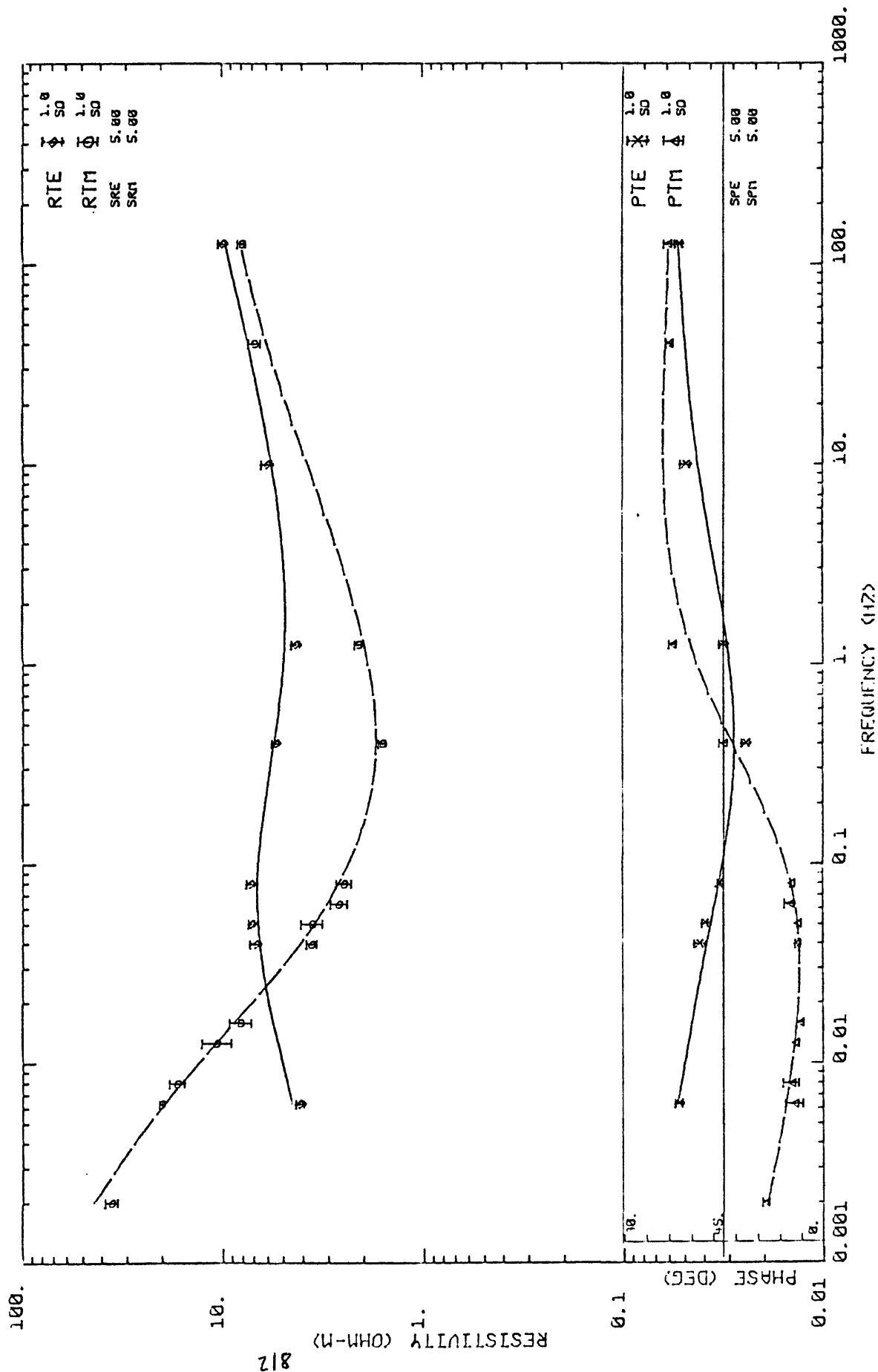
3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 22.0°

DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (KZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
60200



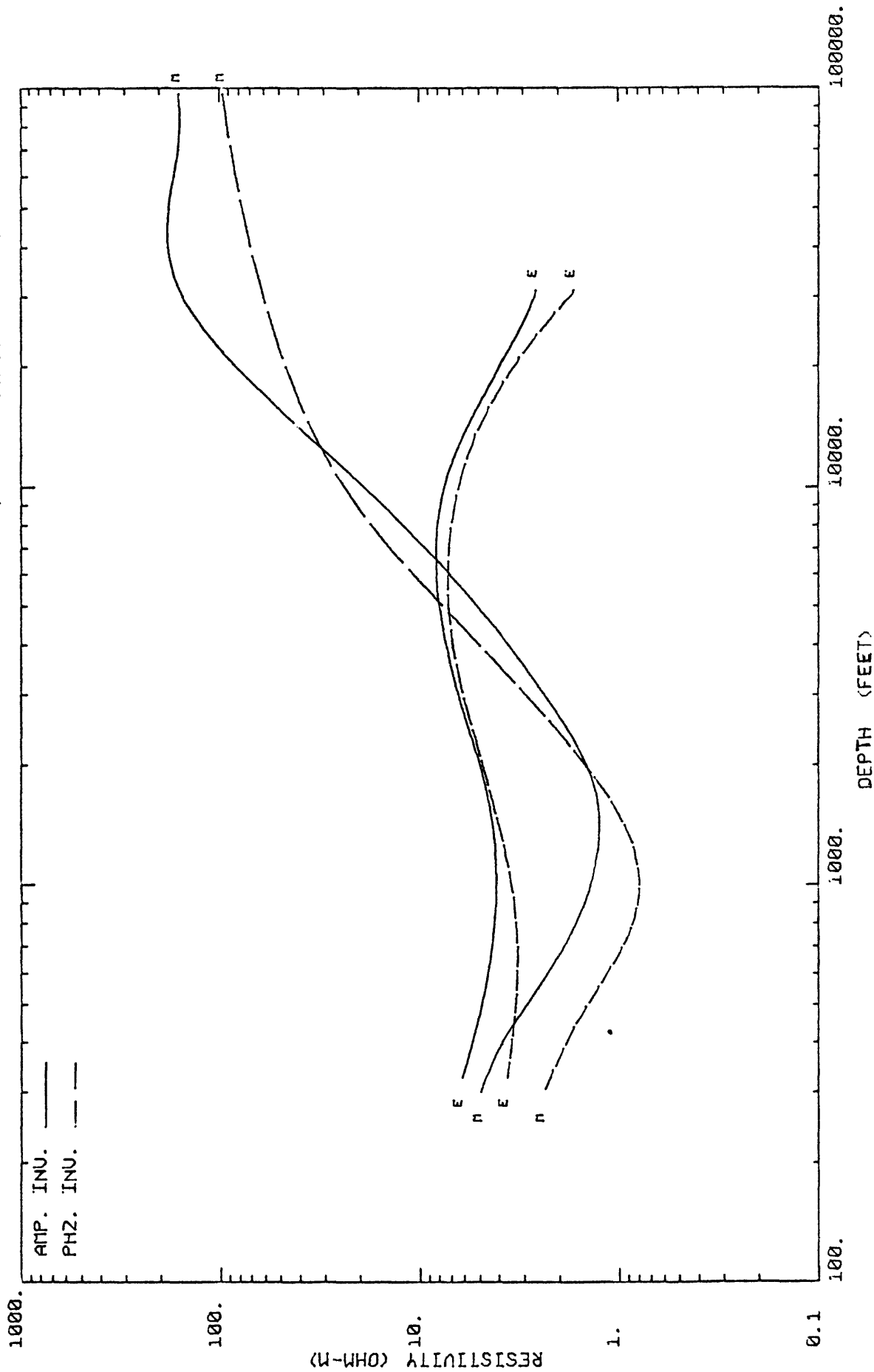


# GEOTRONICS CORPORATION

## INVERSION OF ROTATED TENSOR

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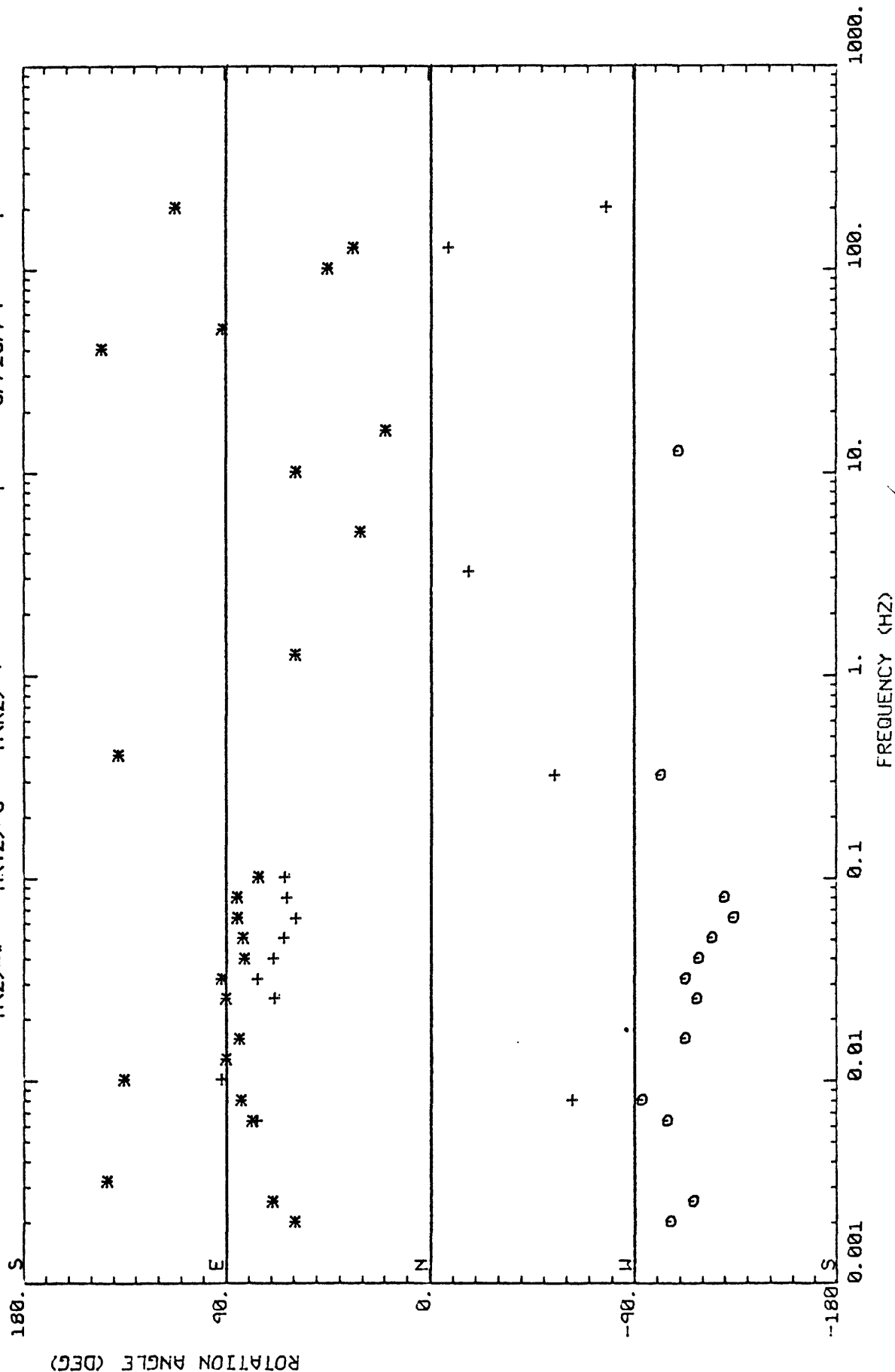
# GEOTRONICS CORPORATION.

COORD ROTATION ANGLES - PRINCIPLE AXES

$A(Z) = *$   $A(YZ) = 0$   $A(KZ) = +$

196 6-2  
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GC | GEOTRONICS CORPORATION

MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

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196 6-2 8 FILES WBA

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PROCESSED : 09/28/79

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ROTATED TENSOR IMPEDANCE

1

COORDINATE ROTATION ANGLES -  
PRINCIPAL AXES (+ AZIMUTH)

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 22.0°

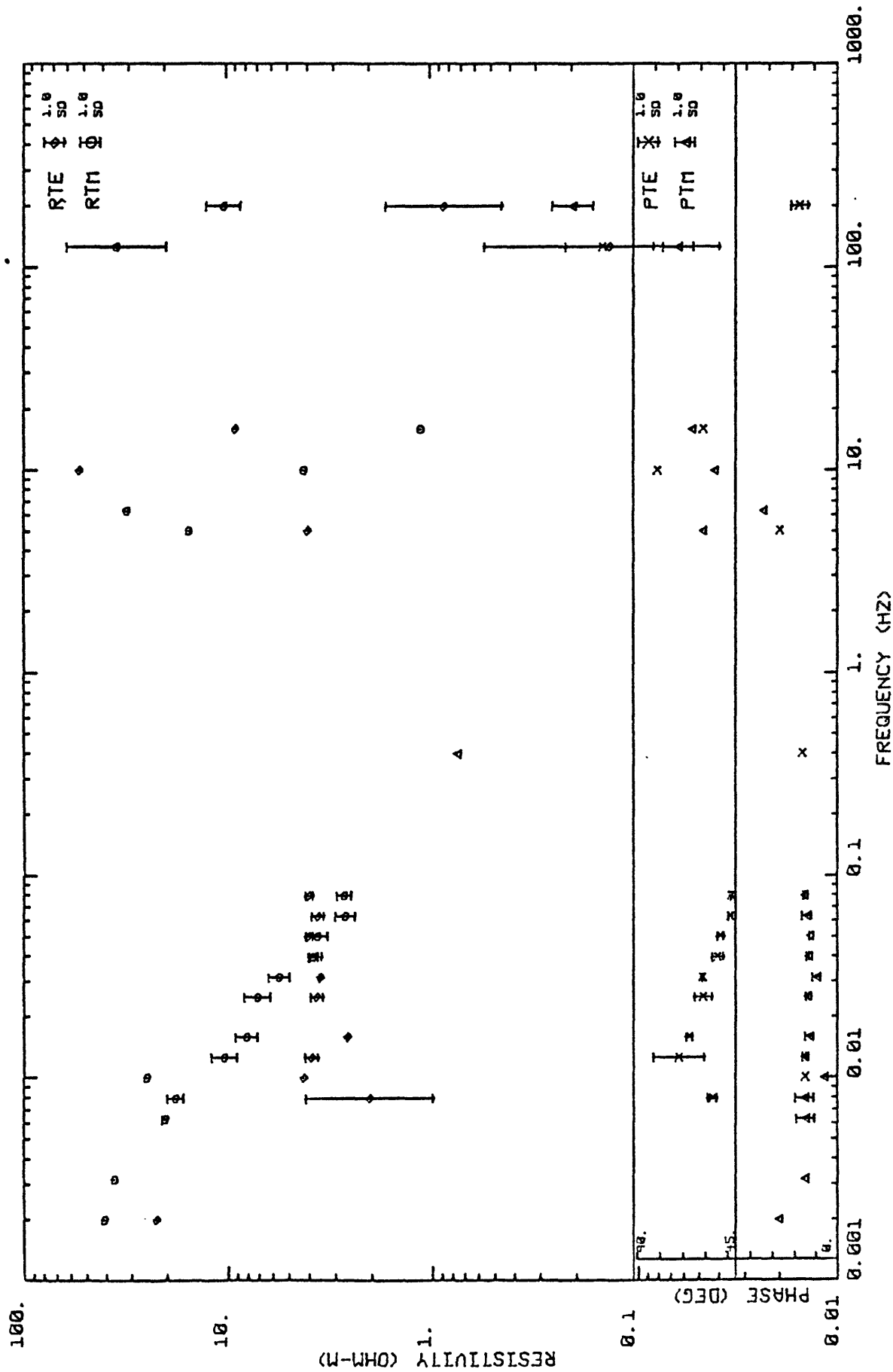
DATA PASS LEVELS : COM (Z) = 0.80  
COM (YZ) = 0.80  
COM (KZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
60200

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

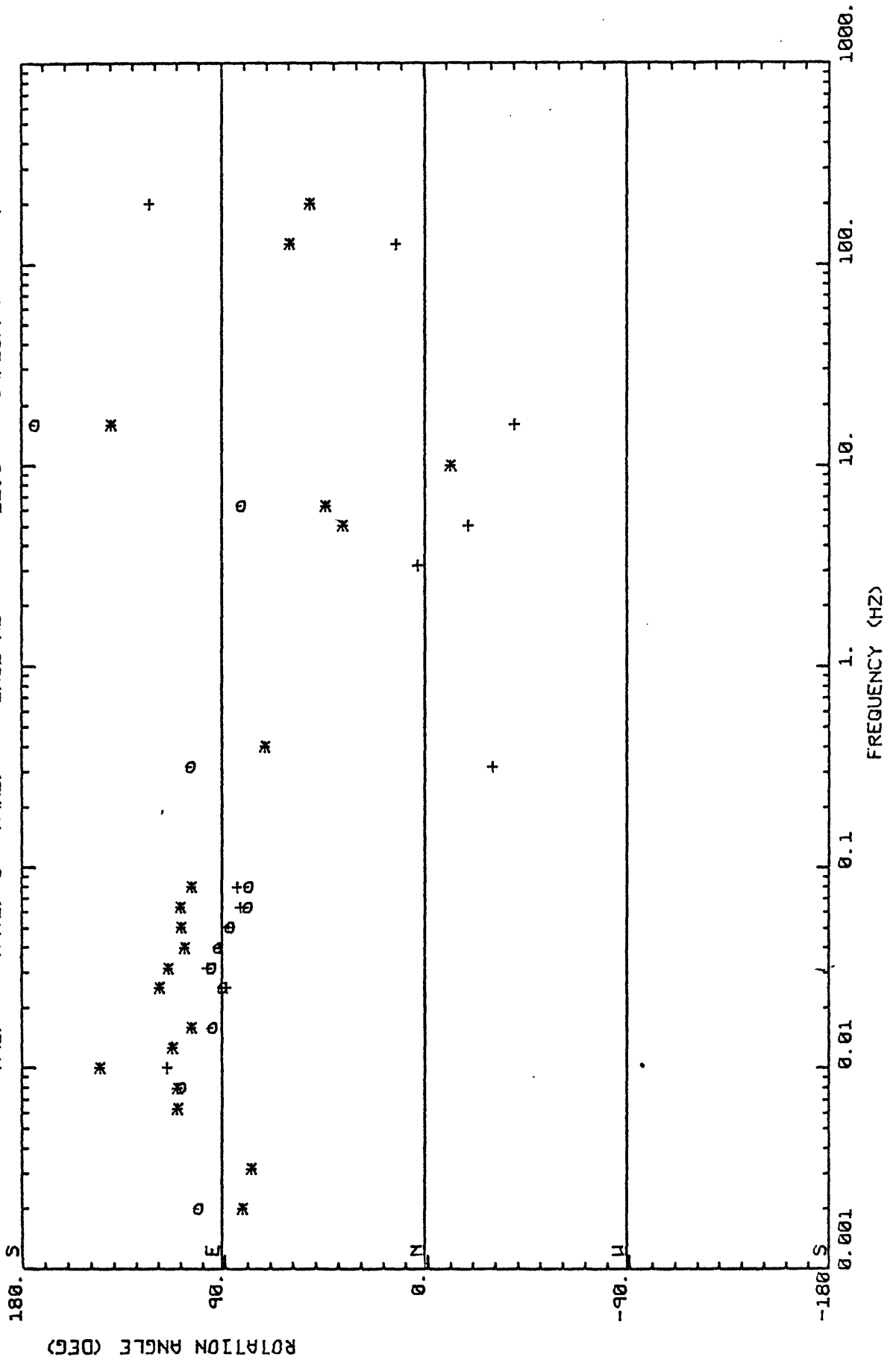
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GEOTRONICS CORPORATION

COORD ROTATION ANGLES - PRINCIPAL AXES  
 $A\langle 2 \rangle = *$   $A\langle YZ \rangle = 0$   $A\langle KZ \rangle = +$  INCL  $AZ$  22 | 0 196 6-2 | PAGE 3  
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MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTSCODE : 196  
SITE 6- 2

196 6-2 MAGPLOT

DATE -  
RECORDED : 173/79  
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PHASE INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPAL AXES (AZIMUTH ADDED)

3

## - LEGEND AND NOTES -

SITE PARAMETERS : E - LINES DX = 226.0M  
DY = 190.0M  
X - AXIS AZIMUTH = 22.0°DATA PASS LEVELS : COM (Z) = 0.80  
COM (Y) = 0.80  
COM (X) = 0.80

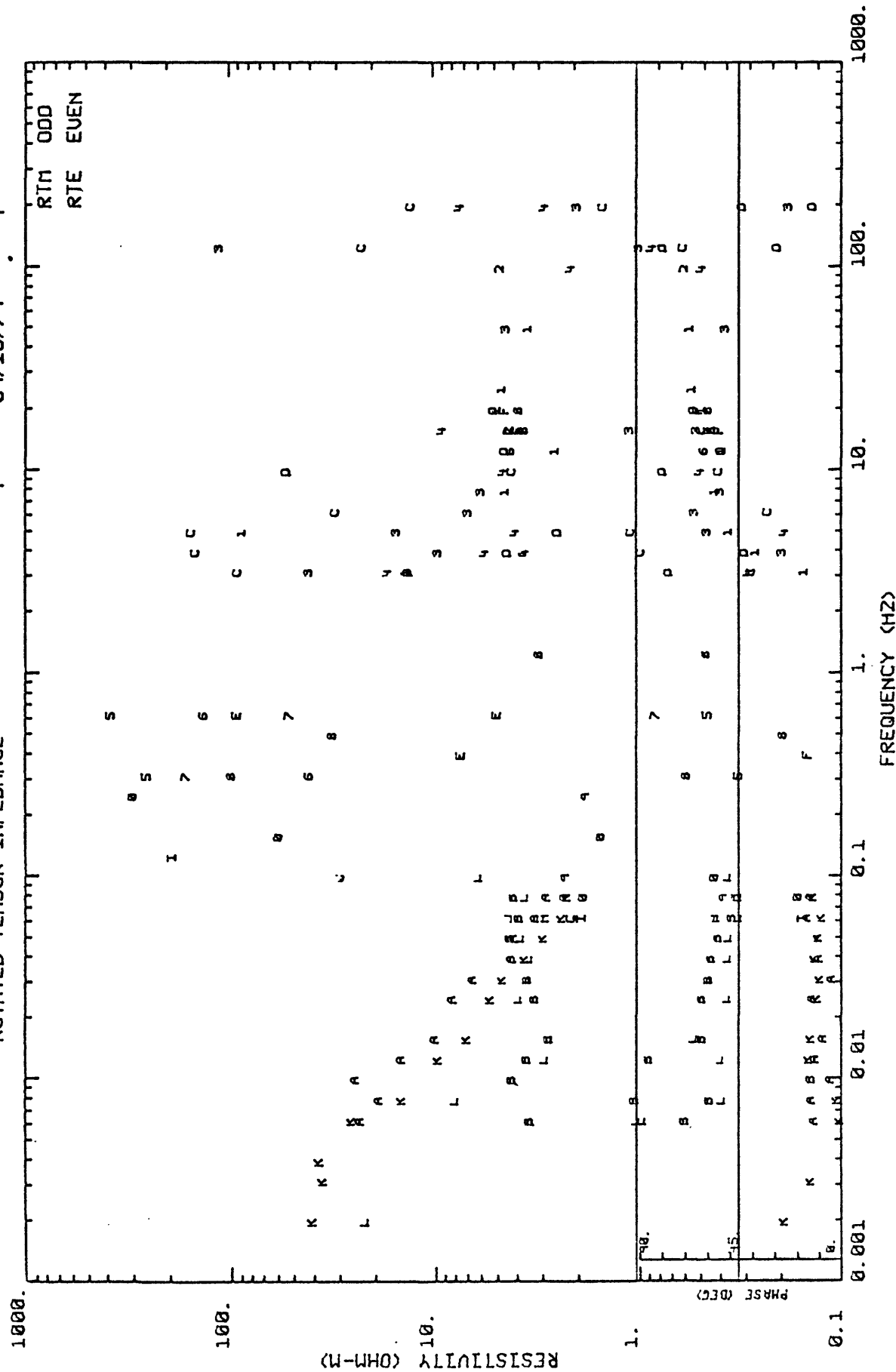
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	202	6	3	4
	203	5	5	6
	204	5	7	8
	206	4	9	0
	207	3	A	B
	208	6	C	D
	210	5	E	F
	212	4	G	H
	213	4	I	J
	214	2	K	L

# GEOTRONICS CORPORATION

## APPARENT RESISTIVITY AND PHASE ROTATED TENSOR IMPEDANCE

196 6-2 M  
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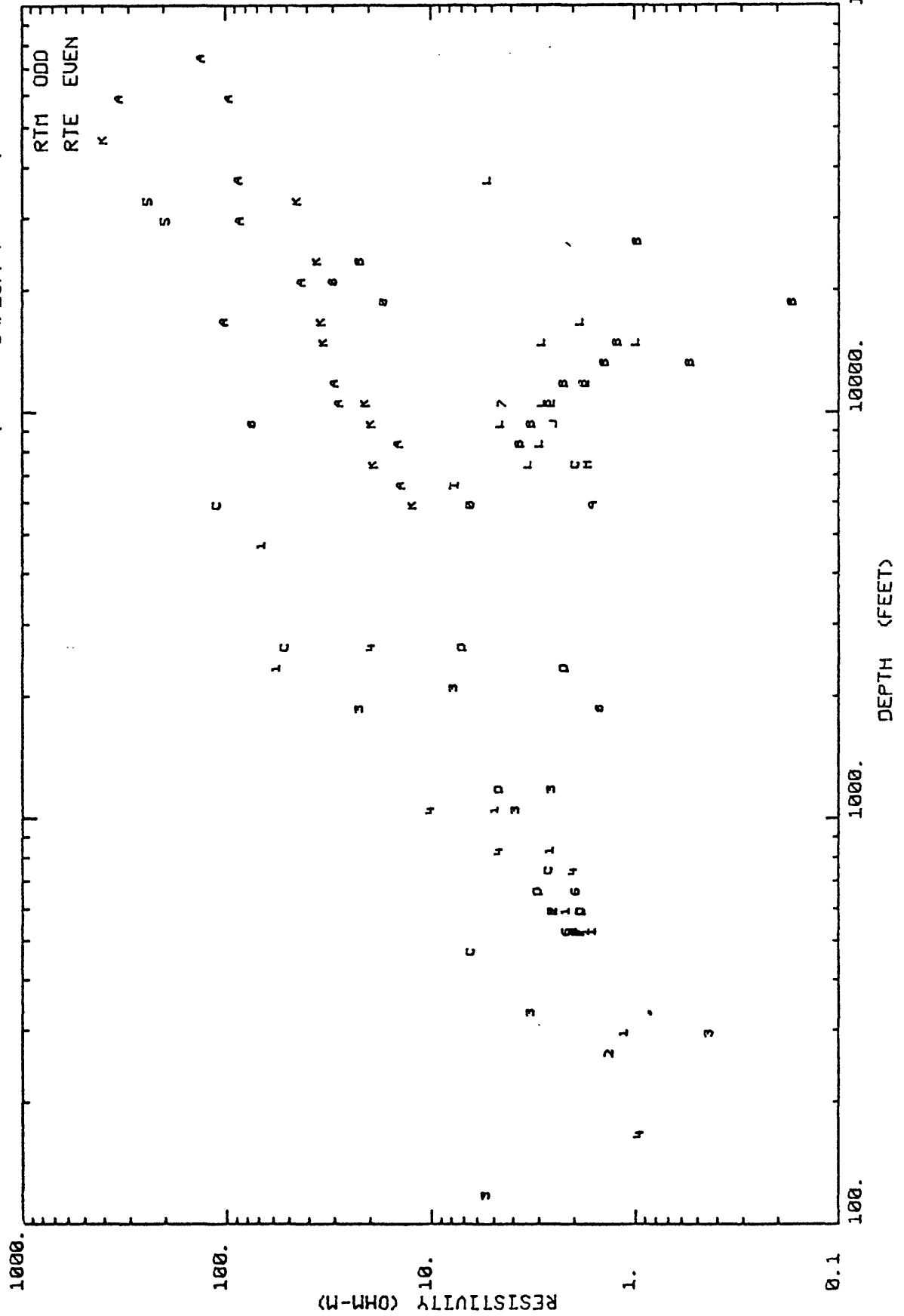


PHASE INVERSION OF ROTATED TENSOR

196 6-2 M

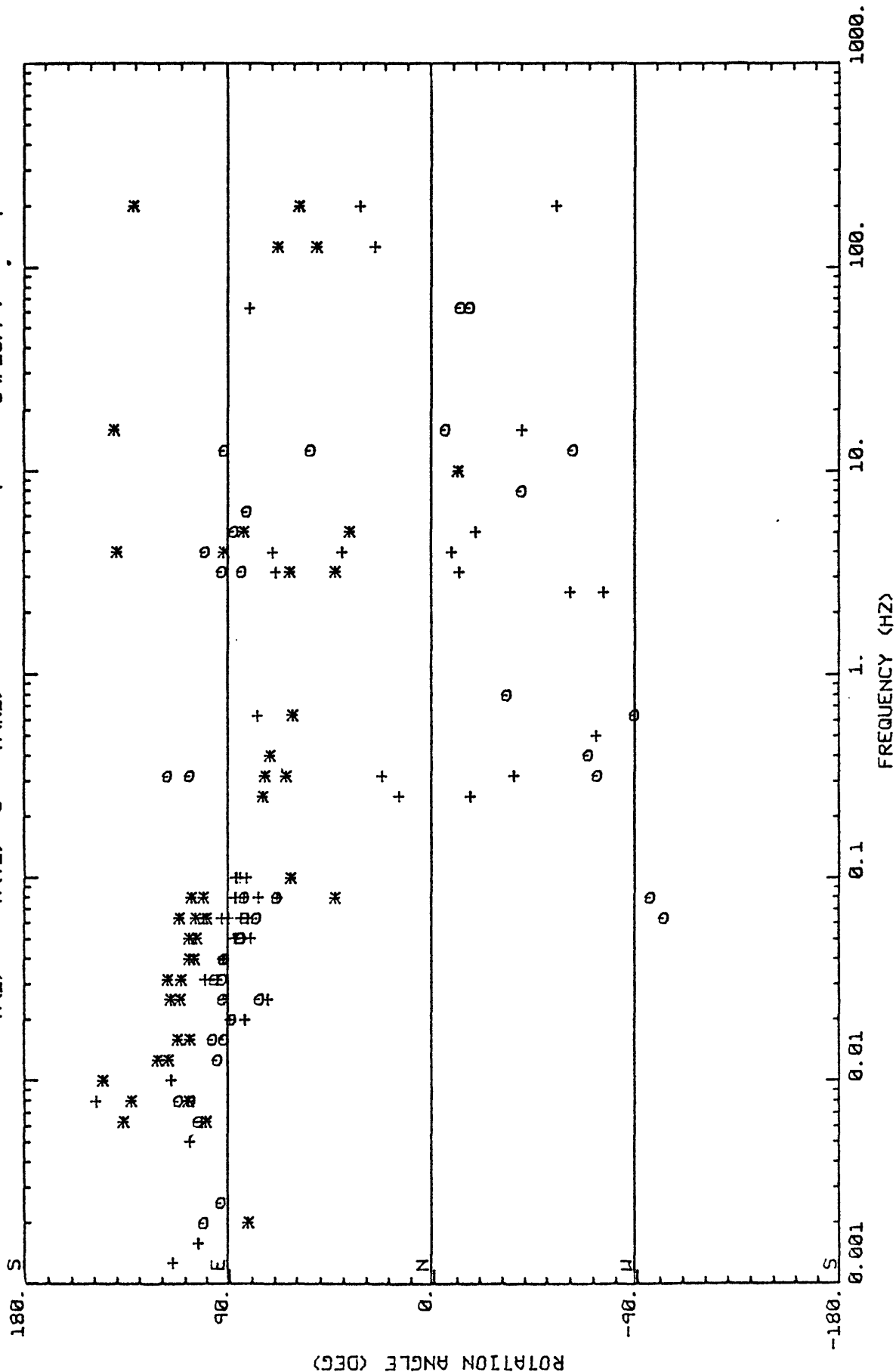
09/28/79

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COORD ROTATION ANGLES - PRINCIPLE AXES  
 $A(\hat{Z}) = *$   $A(\hat{Y}) = 0$   $A(\hat{X}) = +$  | 196 6-2 M | PAGE 3  
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**GC** | GEOTRONICS CORPORATION

MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 6- 3

196 6-3                      RUN 1

DATE -  
RECORDED : 1/75/79  
PROCESSED : 07/25/79

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ROTATED TENSOR IMPEDANCE

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INVERSION OF ROTATED TENSOR

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COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 22.0°

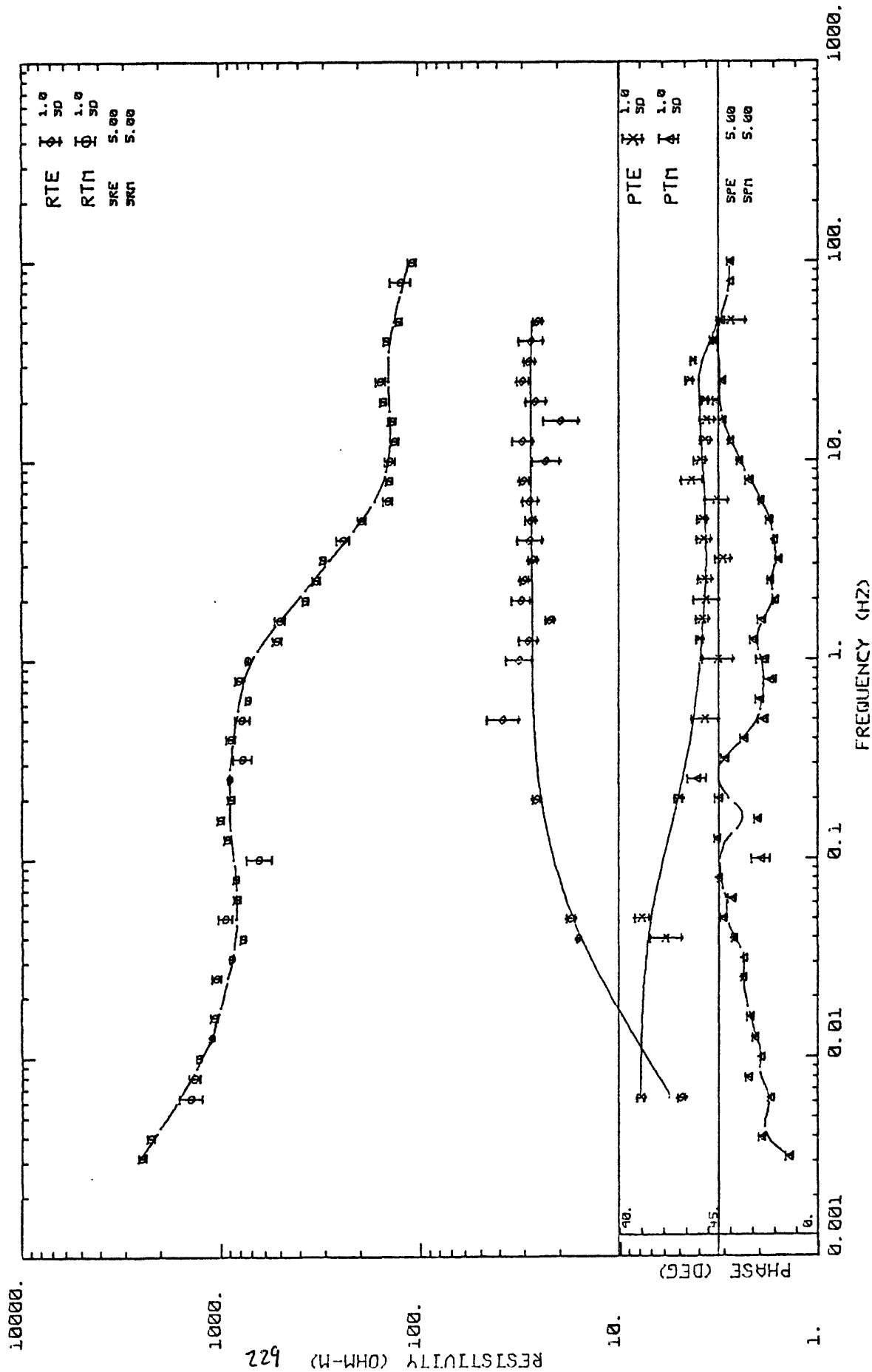
DATA PASS LEVELS : COH (Z) = 0.80  
COH (Y) = 0.80  
COH (X) = 0.80

DATA SETS PROCESSED : RUN NO.  
E527948800

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

196 6-3  
07/25/79

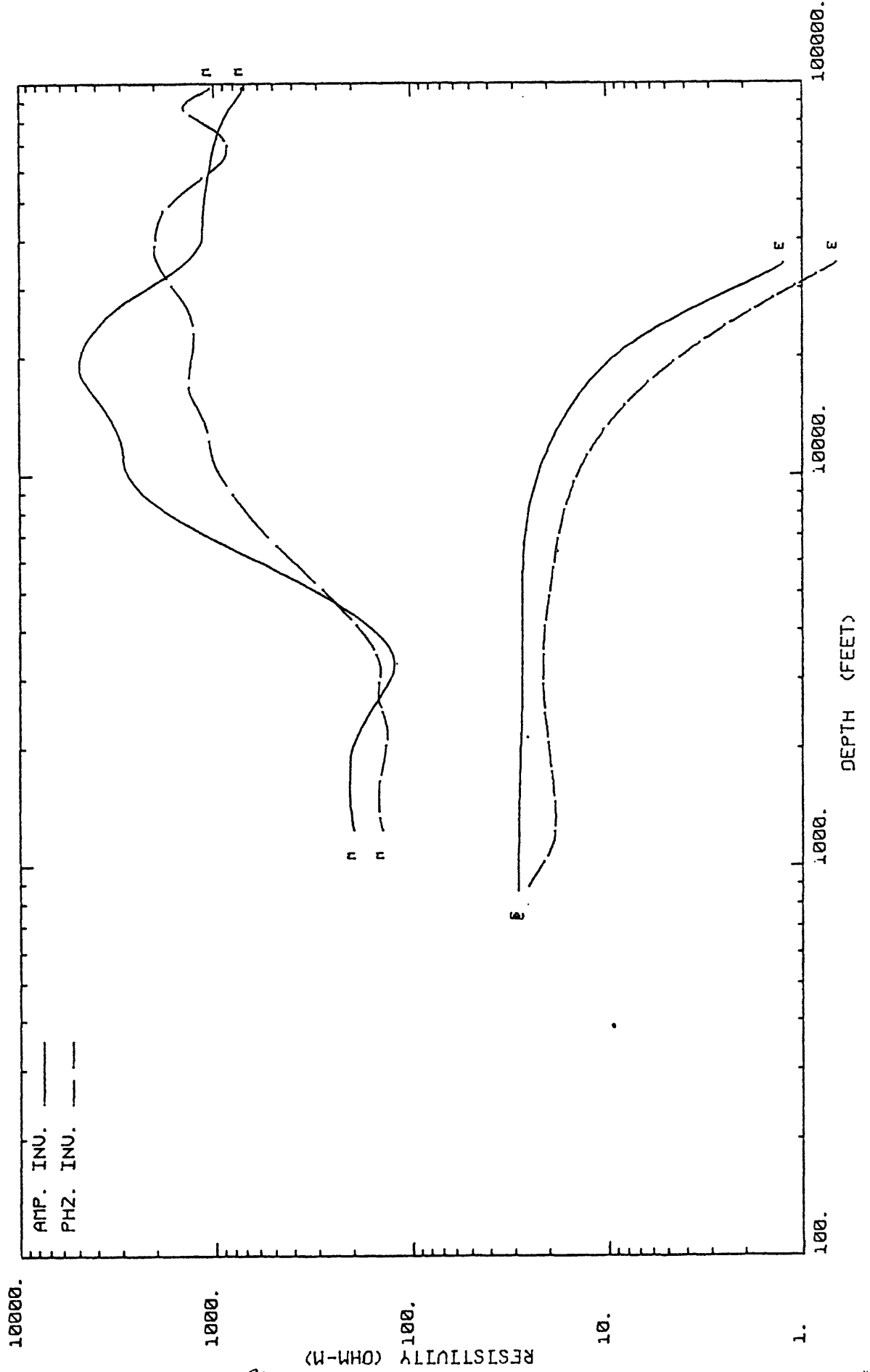
PAGE 1

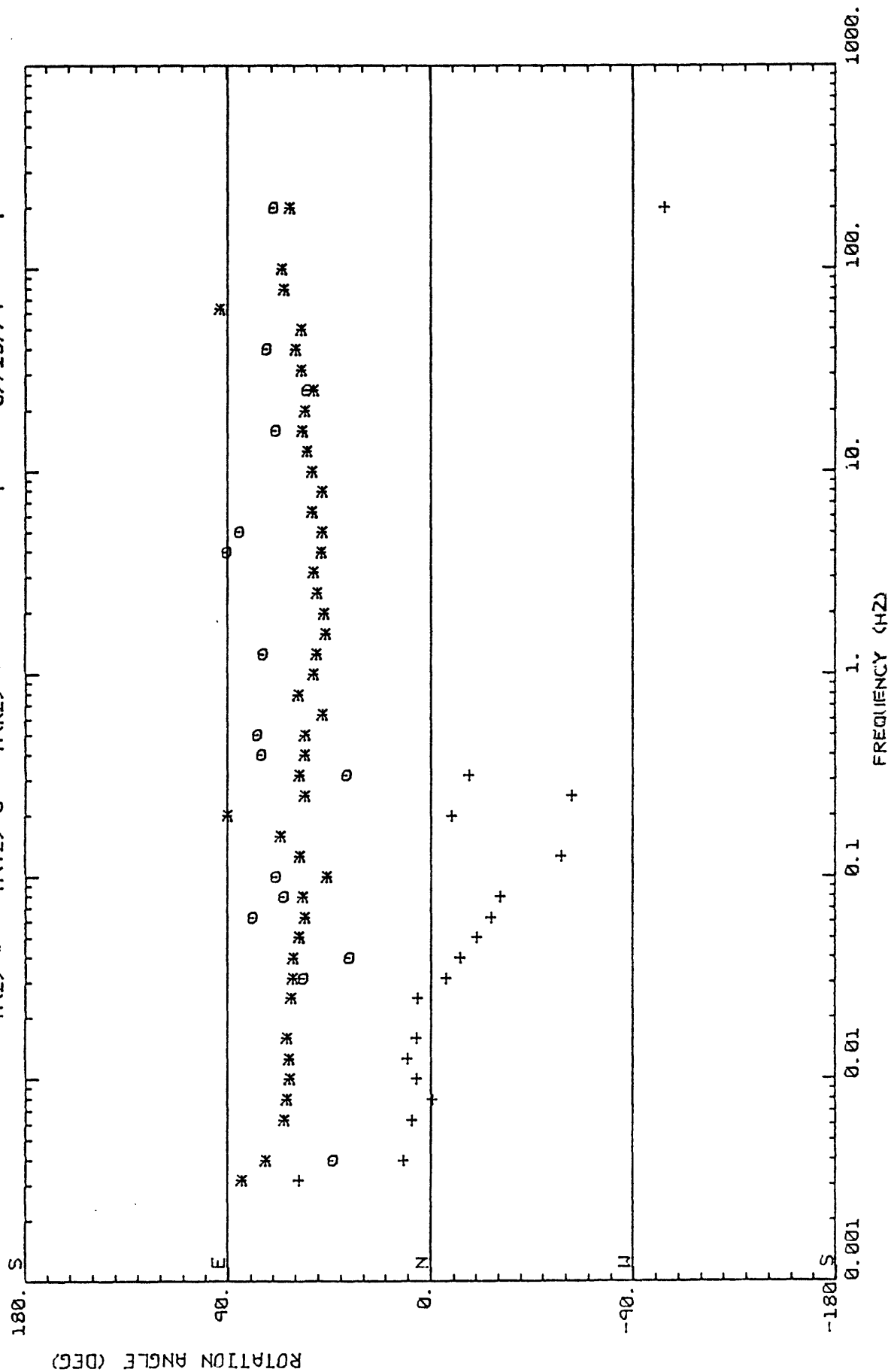


INVERSION OF ROTATED TENSOR

196 6-3  
07/25/79

PAGE 2







GEOTRONICS CORPORATION

MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 6- 4

196 6-4

RUN 2

DATE -  
RECORDED : 175/79  
PROCESSED : 07/24/79

- TABLE OF CONTENTS -

PAGE NO.

APPARENT RESISTIVITY AND PHASE -  
ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 20.0°

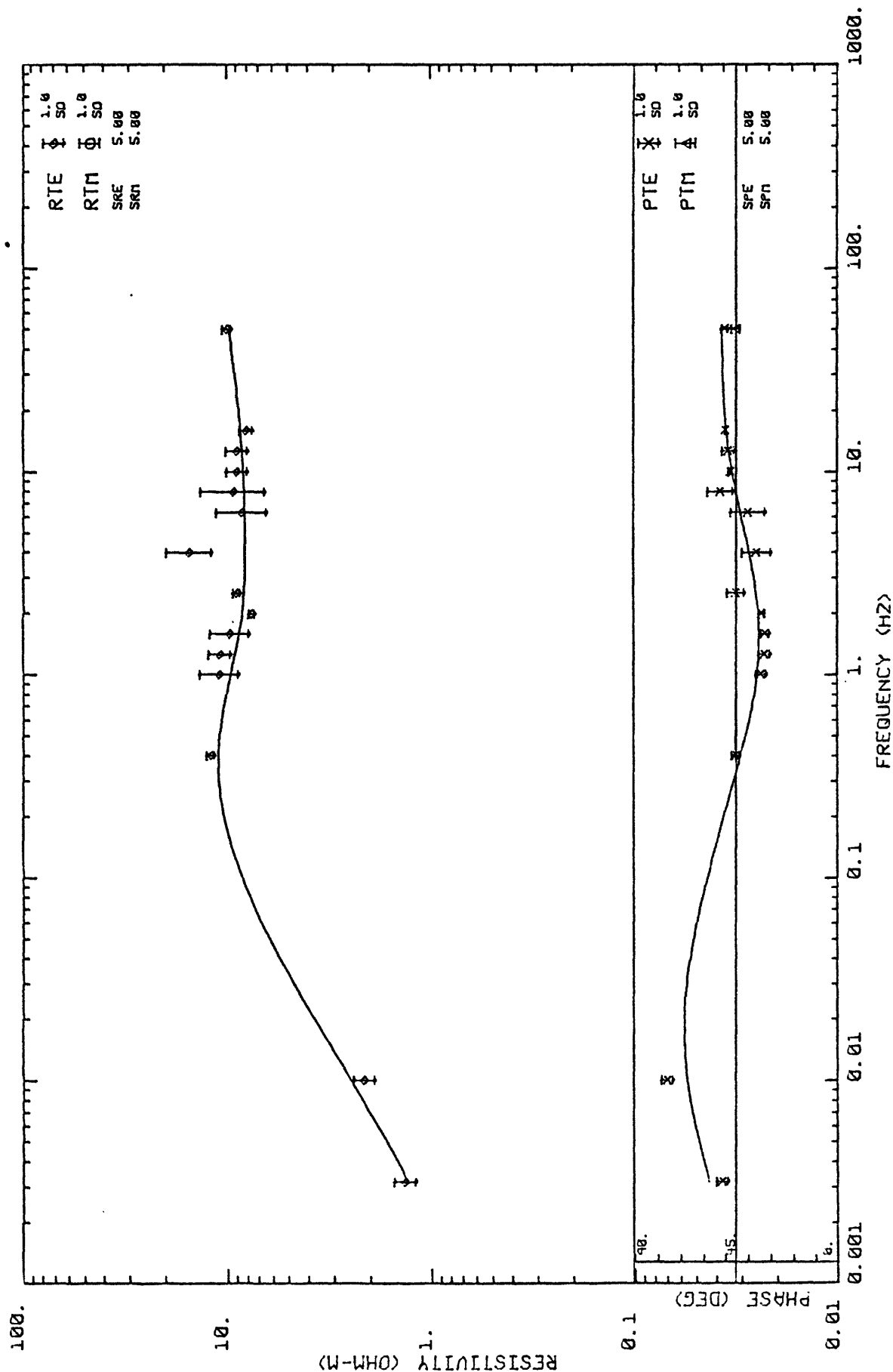
DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (KZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
: 024678399

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

196 6-4  
07/24/79

PAGE 1

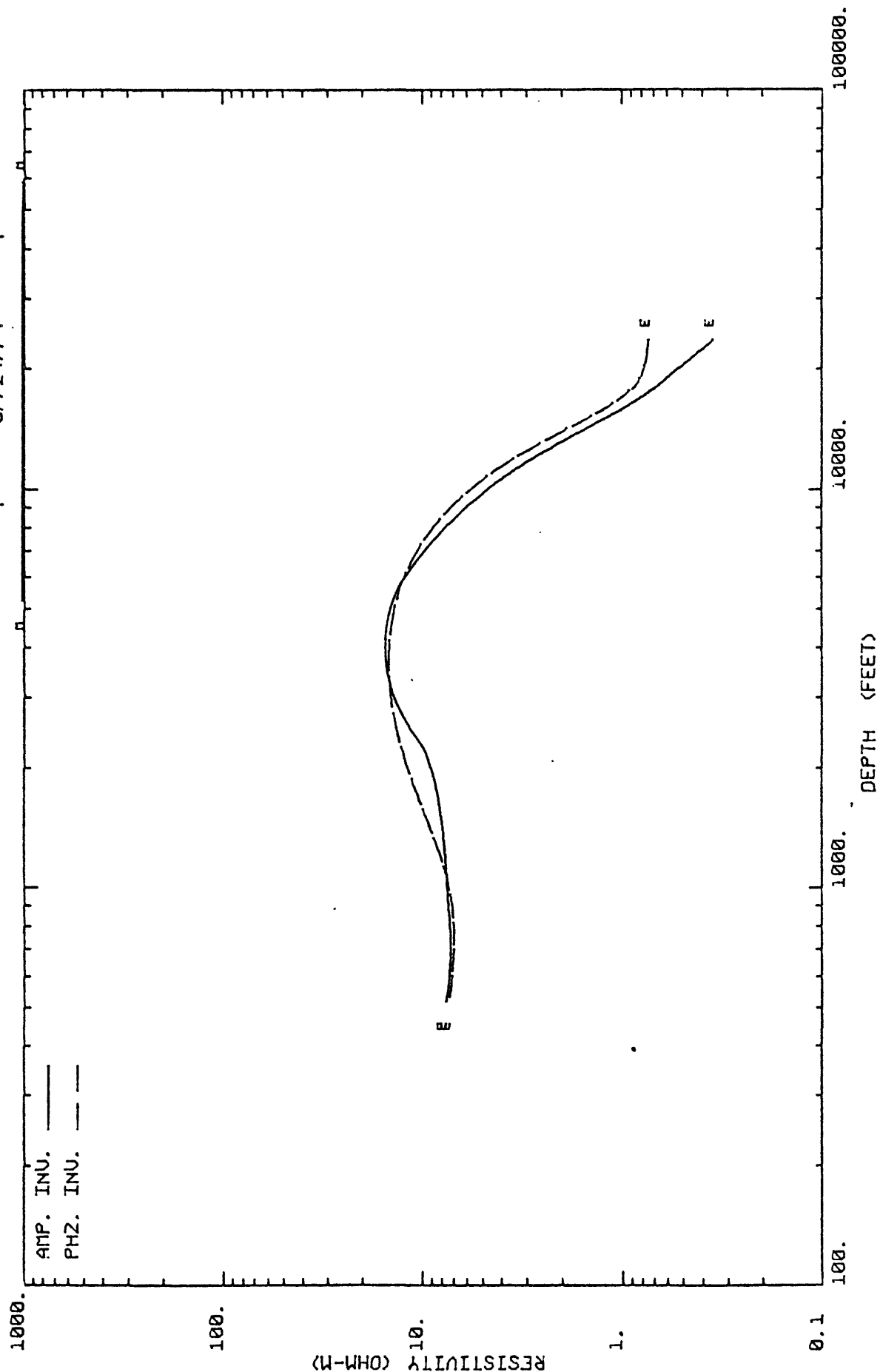


GEOTRONICS CORPORATION

INVERSION OF ROTATED TENSOR

196 6-4  
07/24/79

PAGE 2



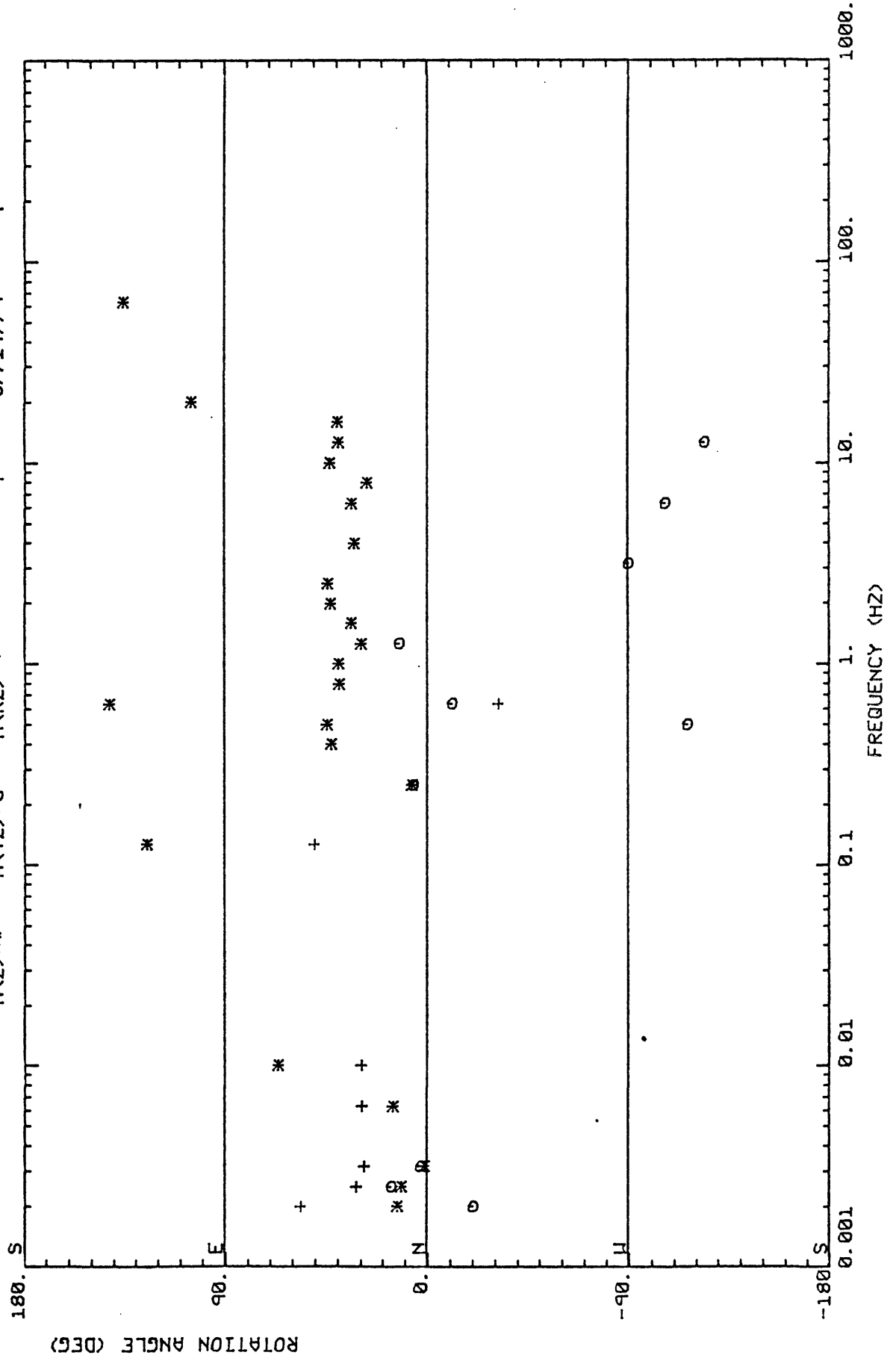


# GEOTRONICS CORPORATION

COORD ROTATION ANGLES - PRINCIPLE AXES  
 $A(Z) = *$   $A(YZ) = 0$   $A(KZ) = ++$

196 6-4  
 07/24/79

PAGE 3





GEOTRONICS CORPORATION

MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 6- 5

196 6-5

RUN 1

DATE -  
RECORDED : 176/79  
PROCESSED : 07/20/79

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APPARENT RESISTIVITY AND PHASE -  
ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 22.0°

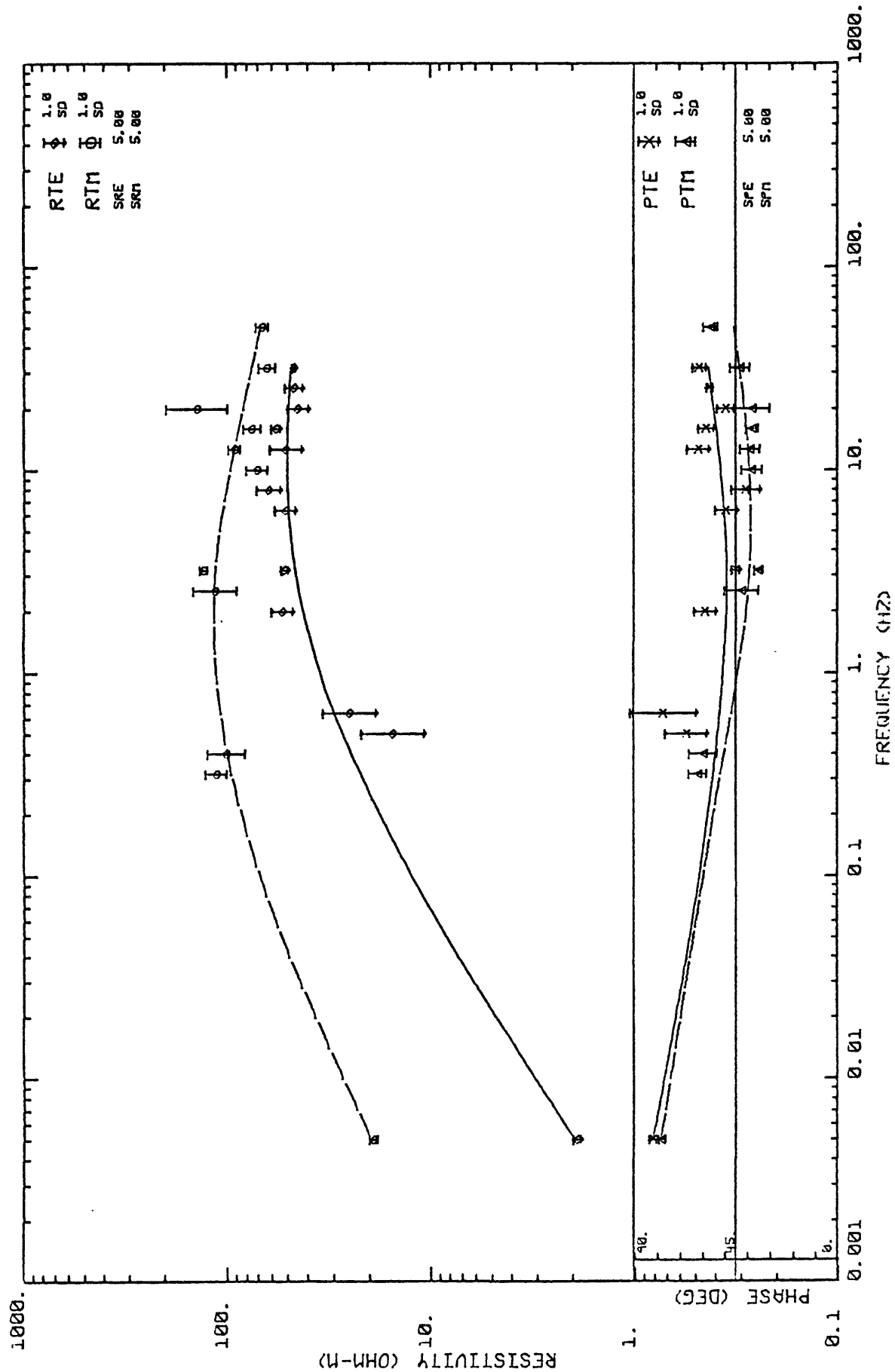
DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (KZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
60500

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

196 6-5  
07/20/79

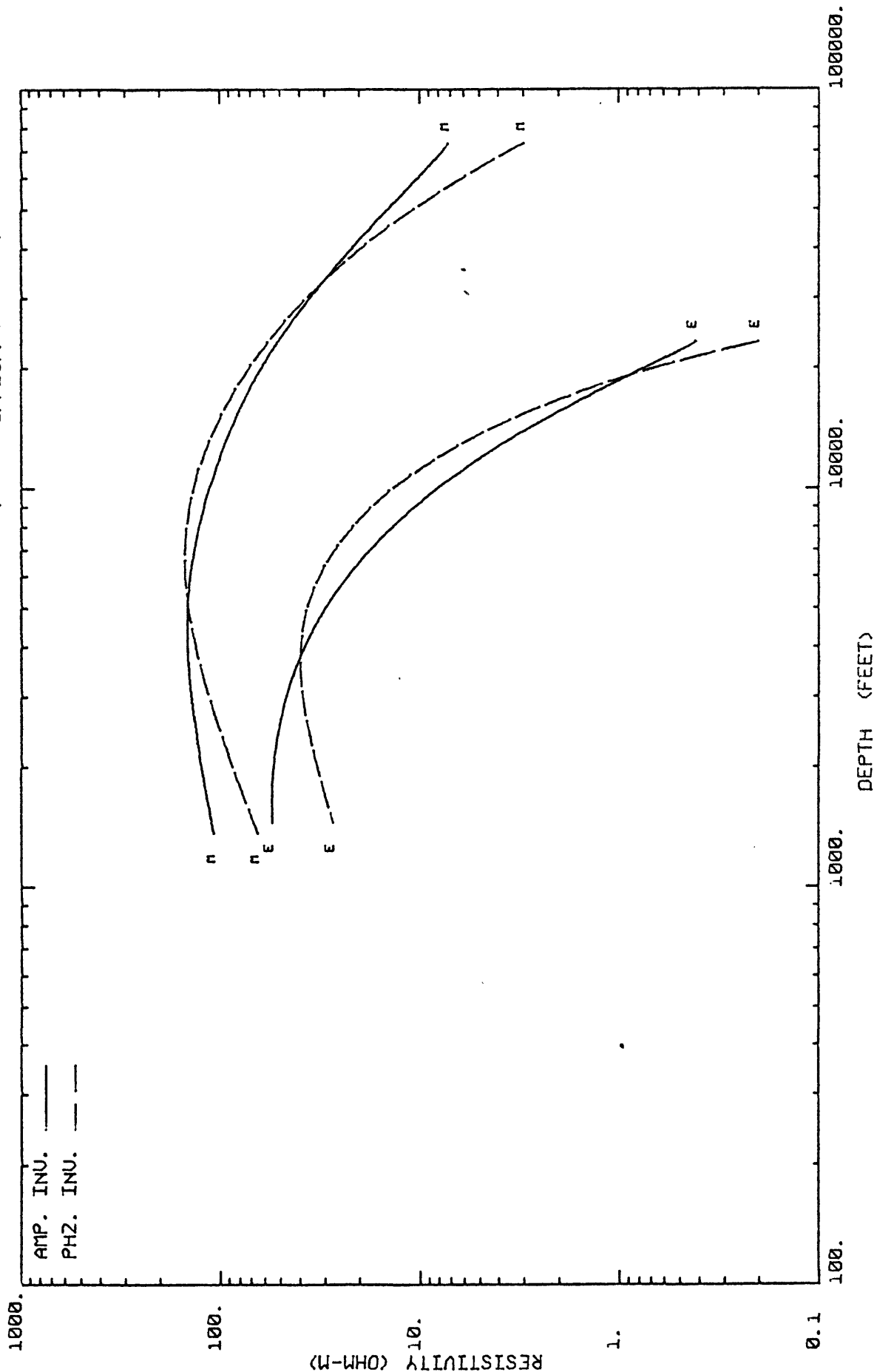
PAGE 1



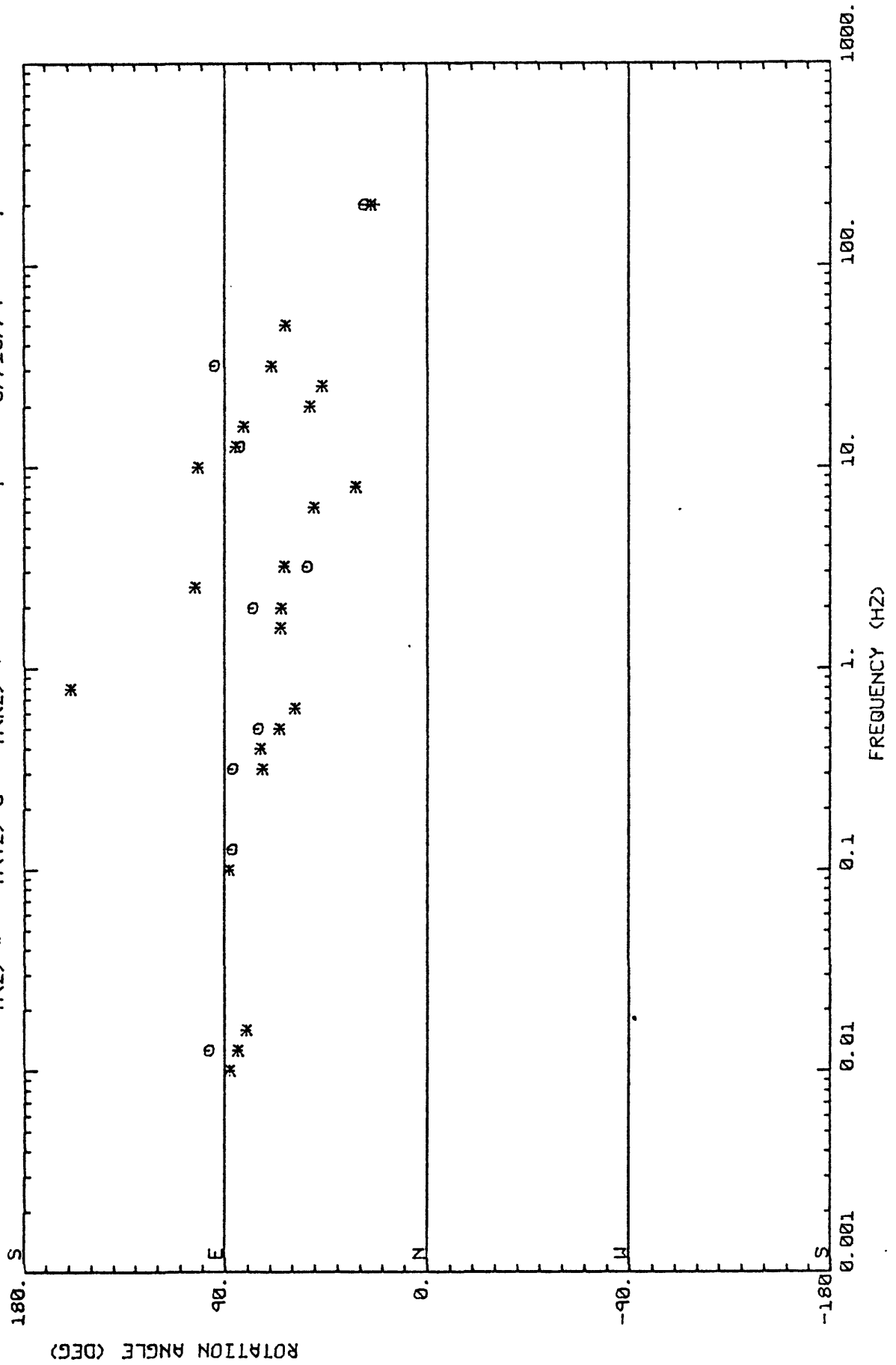
INVERSION OF ROTATED TENSOR

196 6-5  
07/20/79

PAGE 2



COORD ROTATION ANGLES - PRINCIPLE AXES

$$A(Z) = * \quad A(YZ) = 0 \quad A(KZ) = +$$


MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 6- 5

196 6-5 9 FILES WBA

DATE -  
RECORDED : 176/79  
PROCESSED : 09/28/79

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PAGE NO.

APPARENT RESISTIVITY AND PHASE -  
ROTATED TENSOR IMPEDANCE

1

COORDINATE ROTATION ANGLES -  
PRINCIPAL AXES (+ AZIMUTH)

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 22.0°

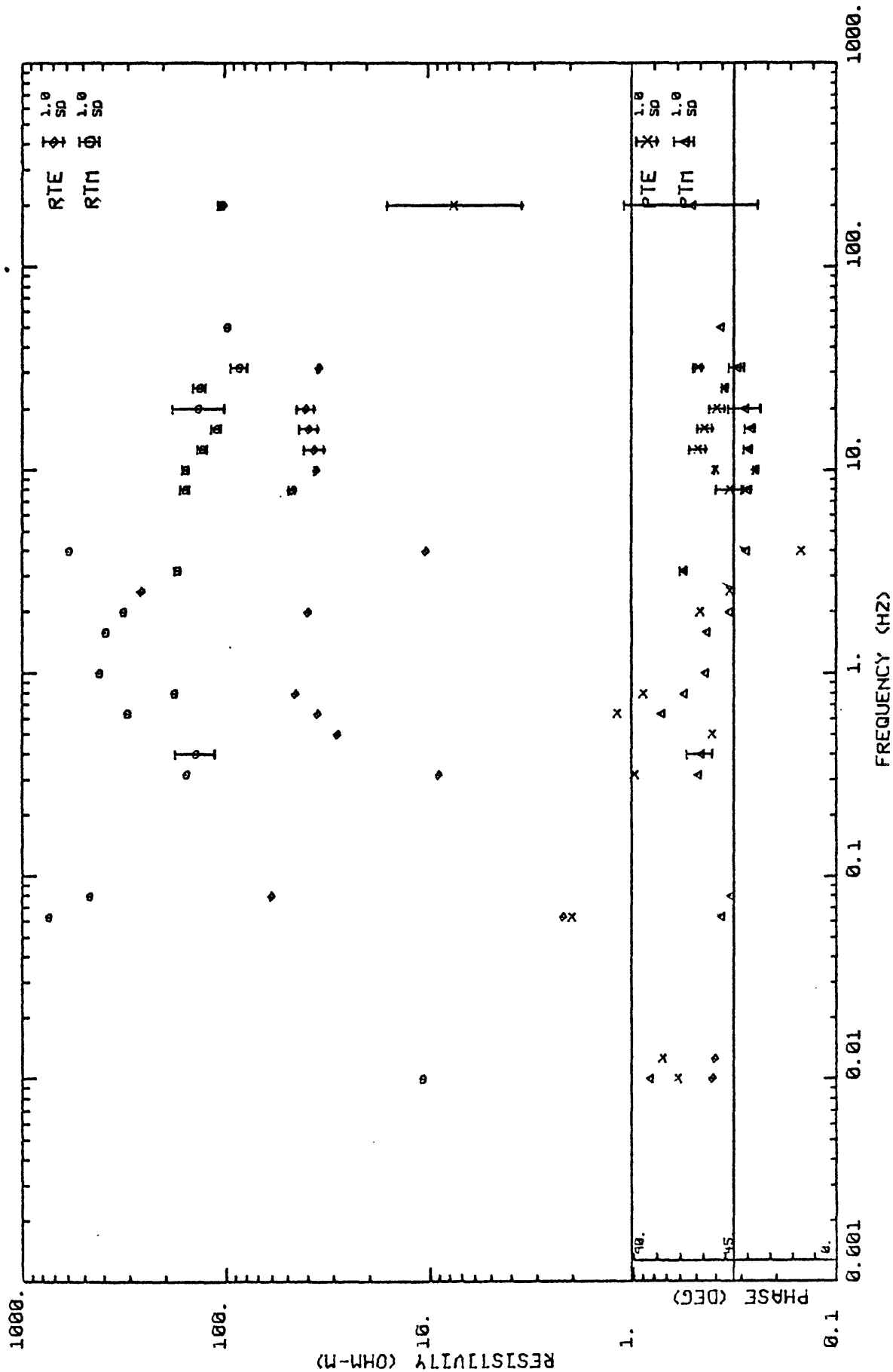
DATA PASS LEVELS : COM (Z) = 0.80  
COM (YZ) = 0.80  
COM (XZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
60500

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

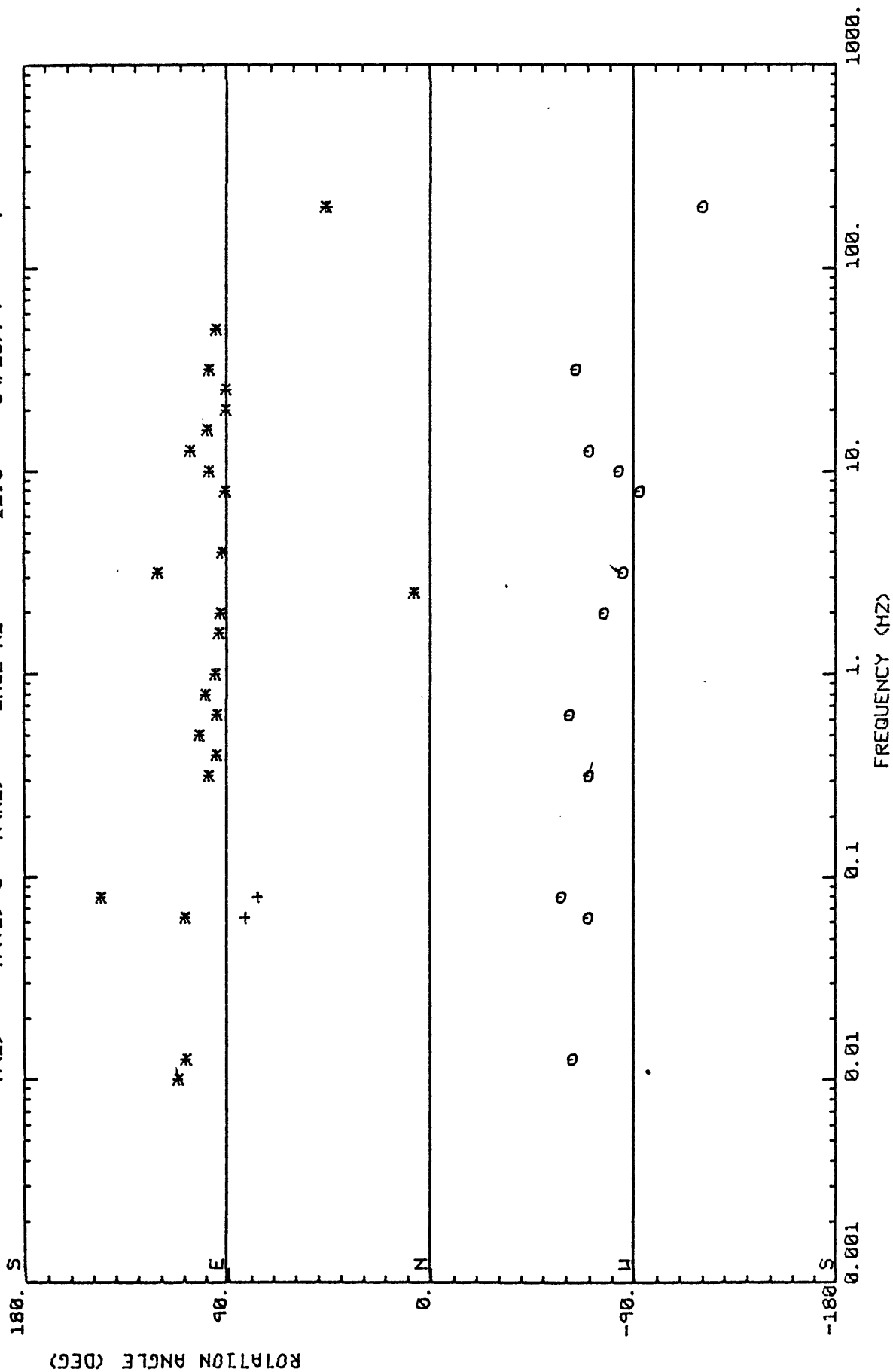
196 6-5  
09/28/79

PAGE 1



# GEOTRONICS CORPORATION

COORD ROTATION ANGLES - PRINCIPAL AXES  
 $A(\hat{Z}) = *$   $A(\hat{Y}) = 0$   $A(\hat{X}) = *$  INCL AZ 22.0 198 6-5  
 09/28/79 PAGE 3





MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 6- 5

196 6-5 MAGPLOT

DATE -  
RECORDED : 176/79  
PROCESSED : 07/10/79  
PLOTTED : 09/28/79

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APPARENT RESISTIVITY AND PHASE -  
ROTATED TENSOR IMPEDANCE

1

PHASE INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPAL AXES (AZIMUTH ADDED)

3

- LEGEND AND NOTES -

SITE PARAMETERS : E - LINES DX = 245.0M  
DY = 290.0M  
X - AXIS AZIMUTH = 22.0°

DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (KZ) = 0.80

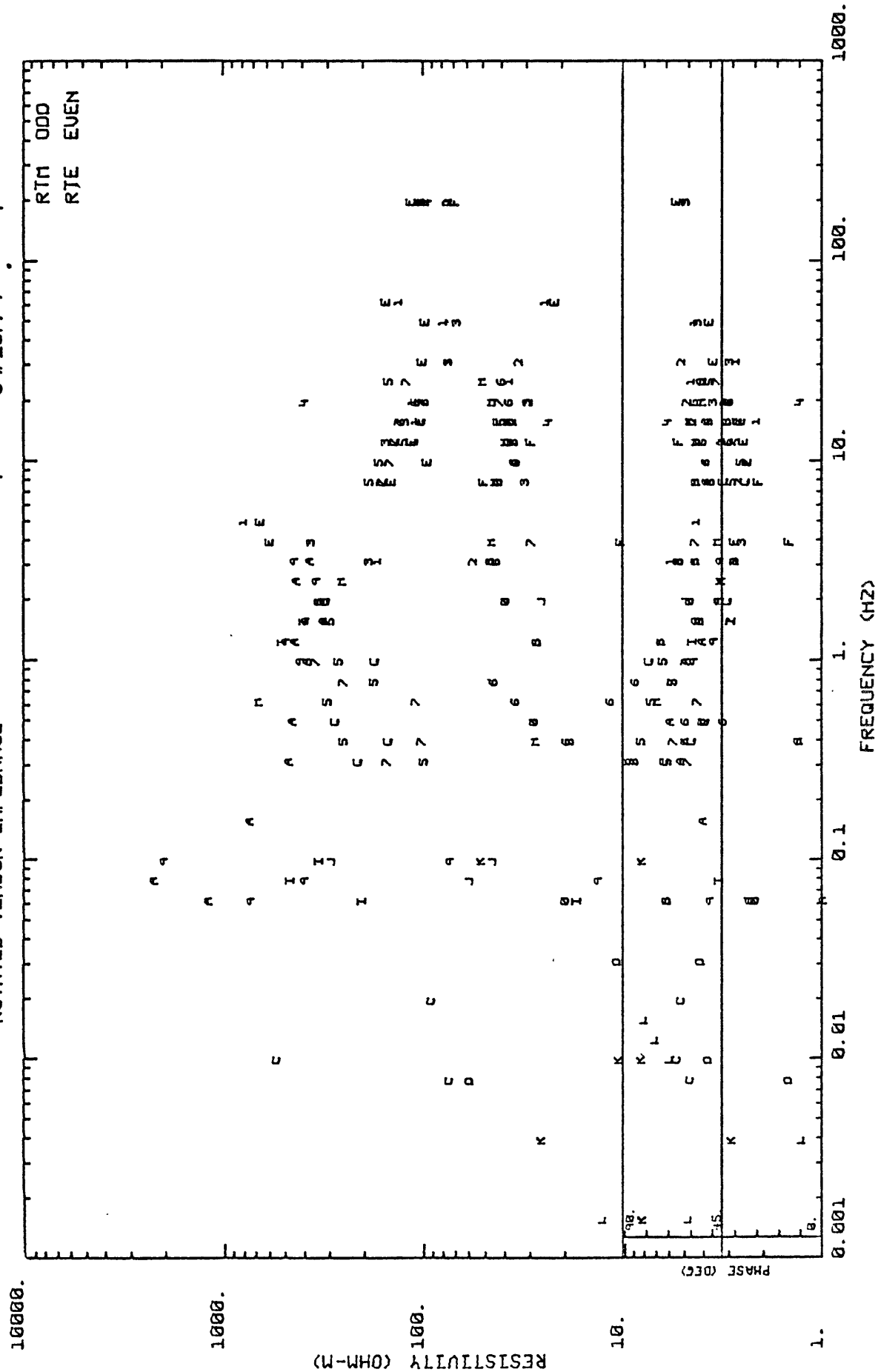
DATA SETS PROCESSED	RUN NO.	BAND	SYMBOL	
	501	6	I	2
	502	6	3	4
	503	5	5	6
	504	5	7	8
	505	4	9	0
	506	4	A	B
	507	3	C	D
	508	6	E	F
	510	5	G	H
	512	4	I	J
	514	2	K	L

# GEOTRONICS CORPORATION

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

196 6-5 M  
09/28/79

PAGE 1





**GC** | GEOTRONICS CORPORATION

MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 6- 6

196 6-6

RUN 1

DATE -  
RECORDED : 178/79  
PROCESSED : 07/20/79

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PAGE NO.

APPARENT RESISTIVITY AND PHASE -  
ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 22.0°

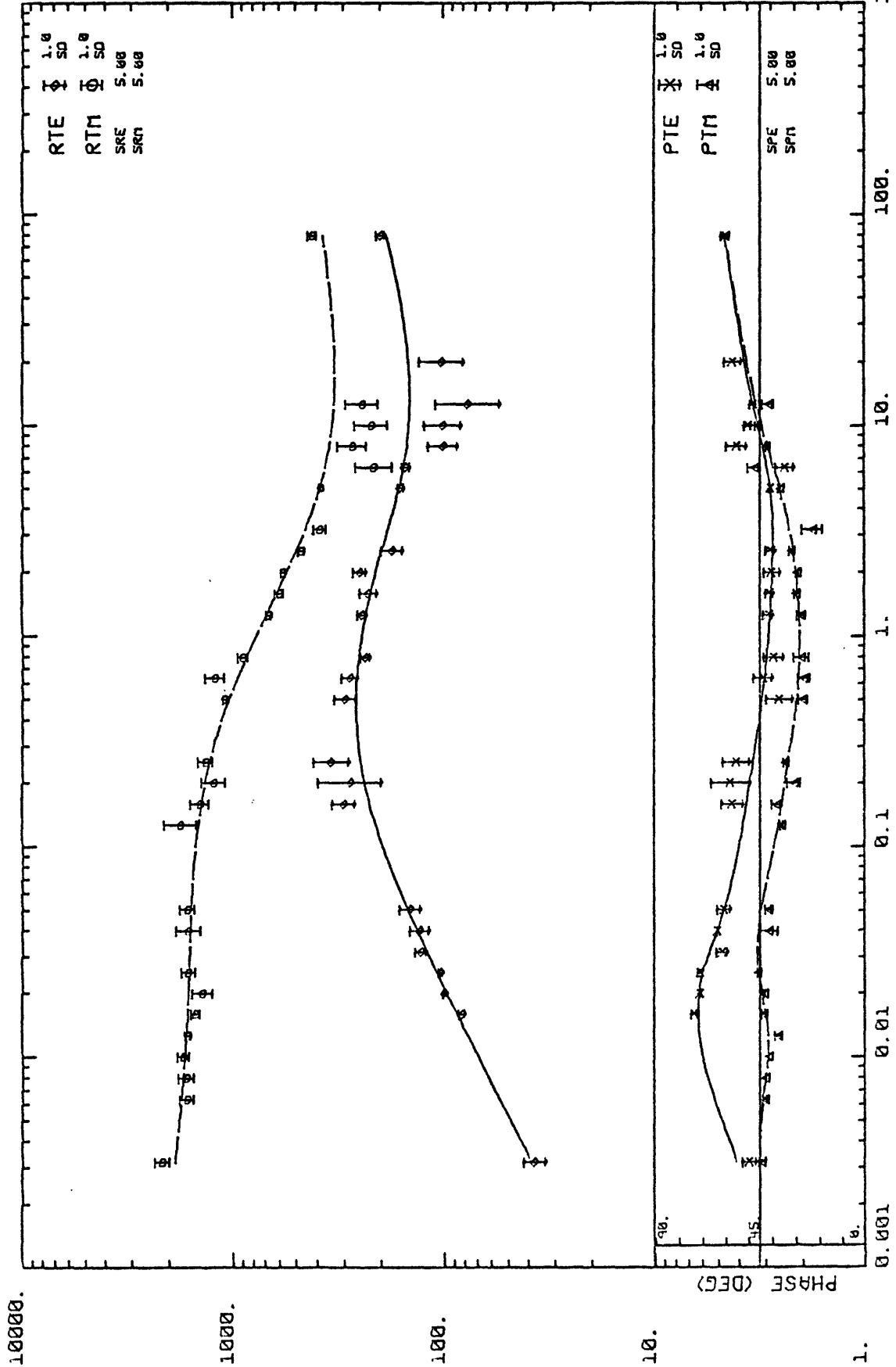
DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (KZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
60600

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

196 6-6  
07/20/79

PAGE 1

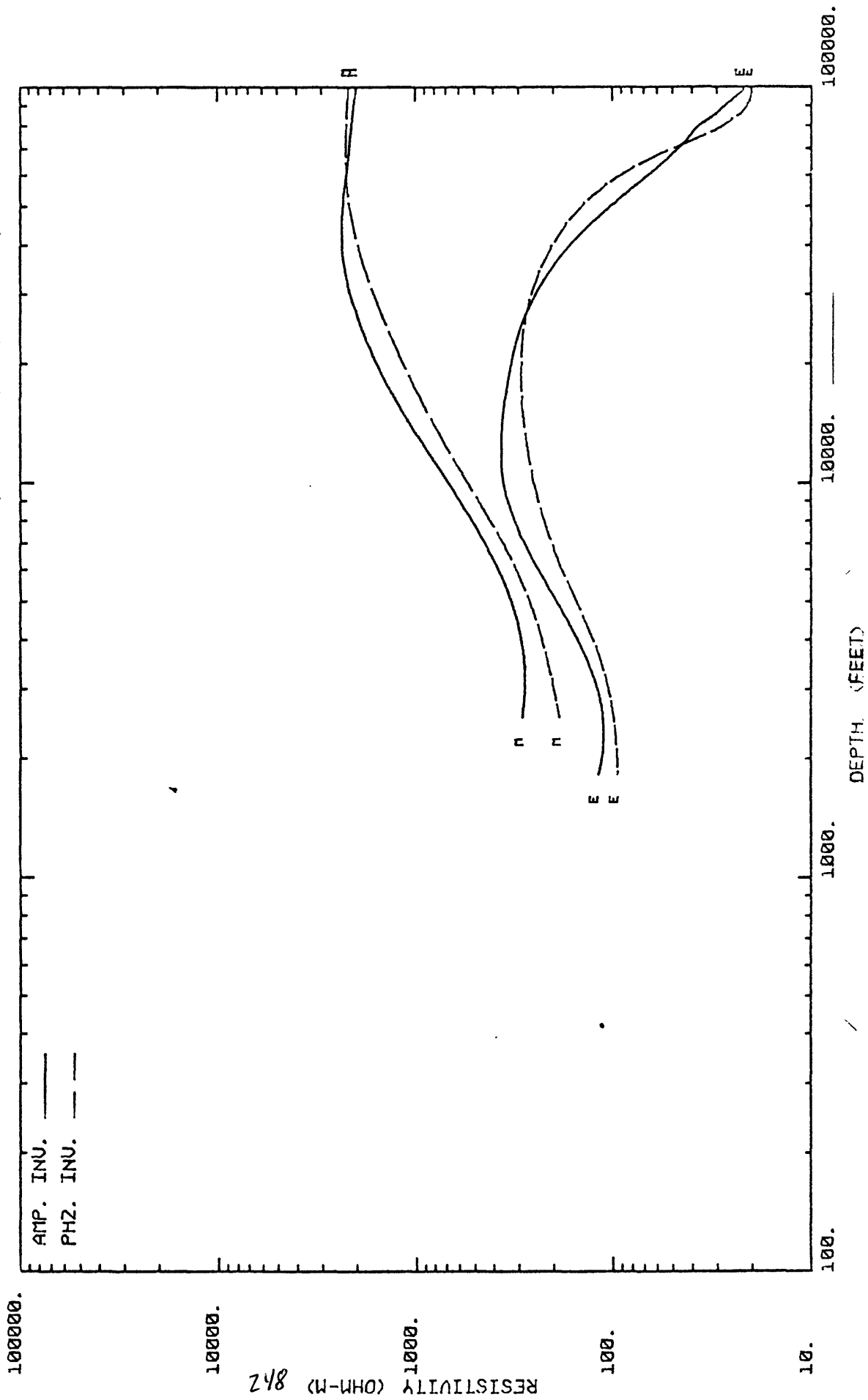


# GEOTRONICS CORPORATION

## INVERSION OF ROTATED TENSOR

PAGE 2

196 6-6  
07/20/79



# GEOTRONICS CORPORATION

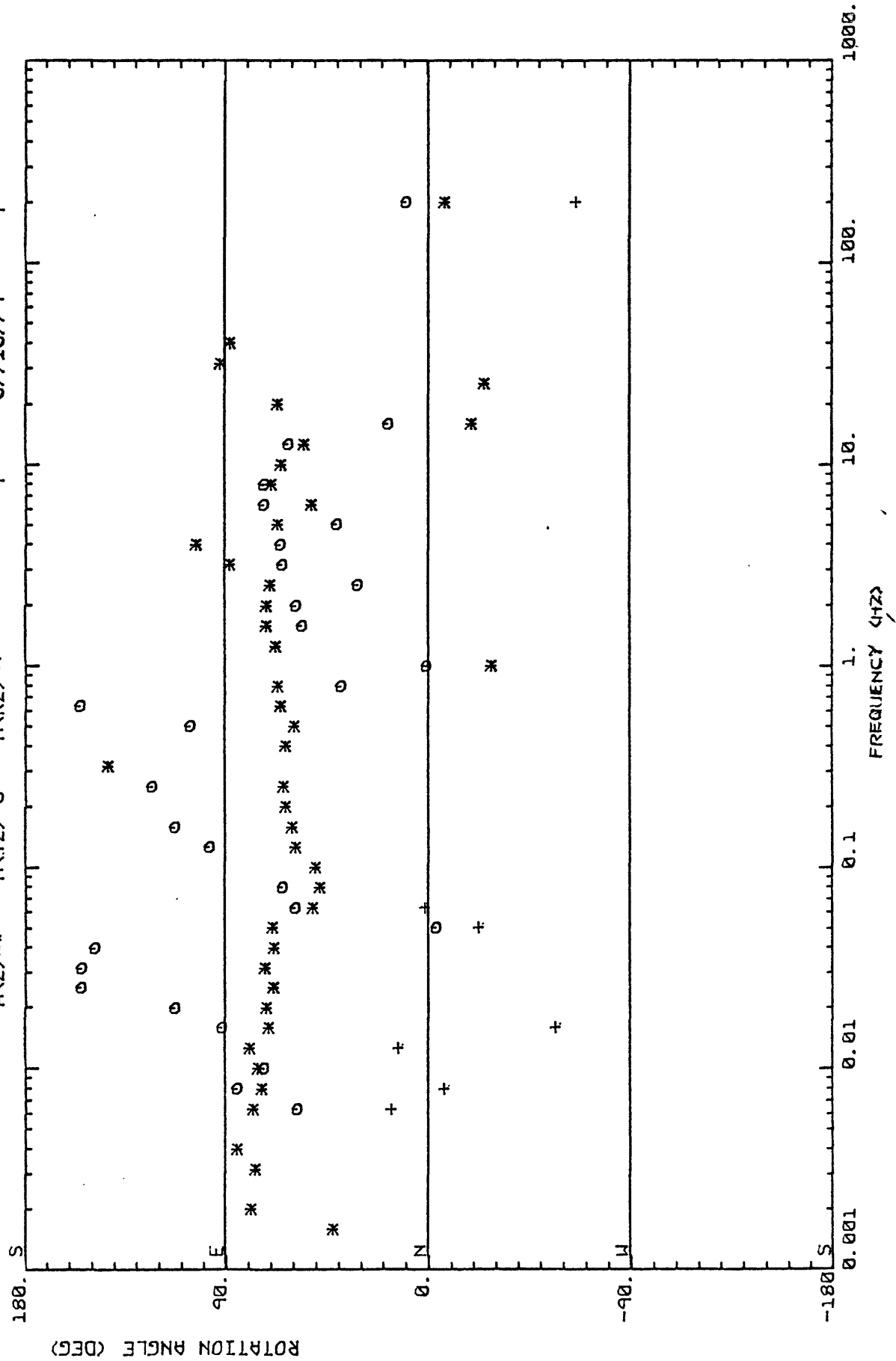
COORD ROTATION ANGLES - PRINCIPLE AXES

A(Z)=\* A(Y2)=0 A(KZ)=+

196 6-6

07/20/79

PAGE 3





GEOTRONICS CORPORATION

MAGNETOTELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 6- 8

196 6-8 RUN 2

DATE -  
RECORDED : 179/79  
PROCESSED : 07/21/79

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APPARENT RESISTIVITY AND PHASE -  
ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 173.0

DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (XZ) = 0.80

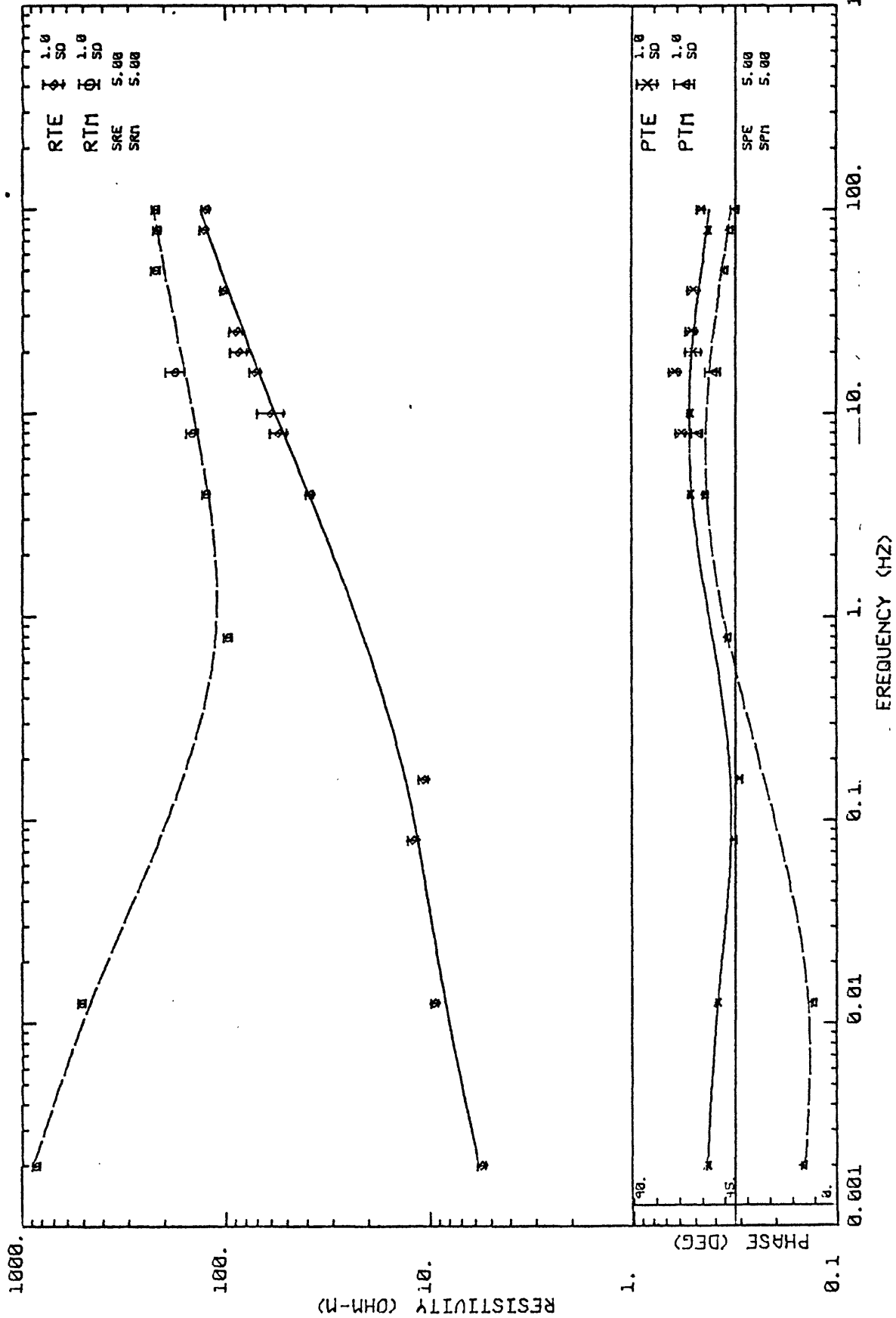
DATA SETS PROCESSED : RUN NO.  
60800



APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

196 6-8  
07/21/79

PAGE 1

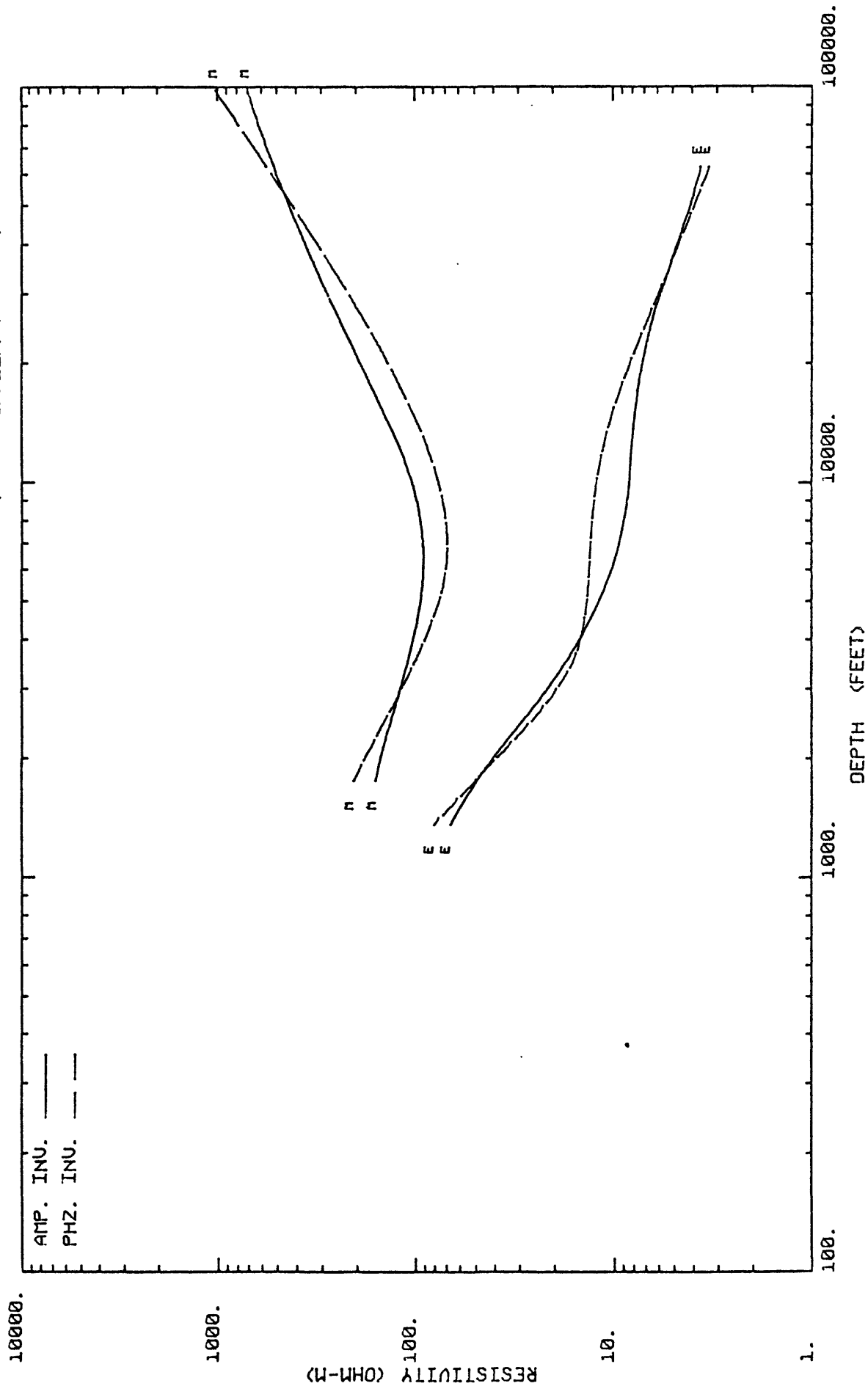


# GEOTRONICS CORPORATION

## INVERSION OF ROTATED TENSOR

PAGE 2

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07/21/79



GEOTRONICS CORPORATION

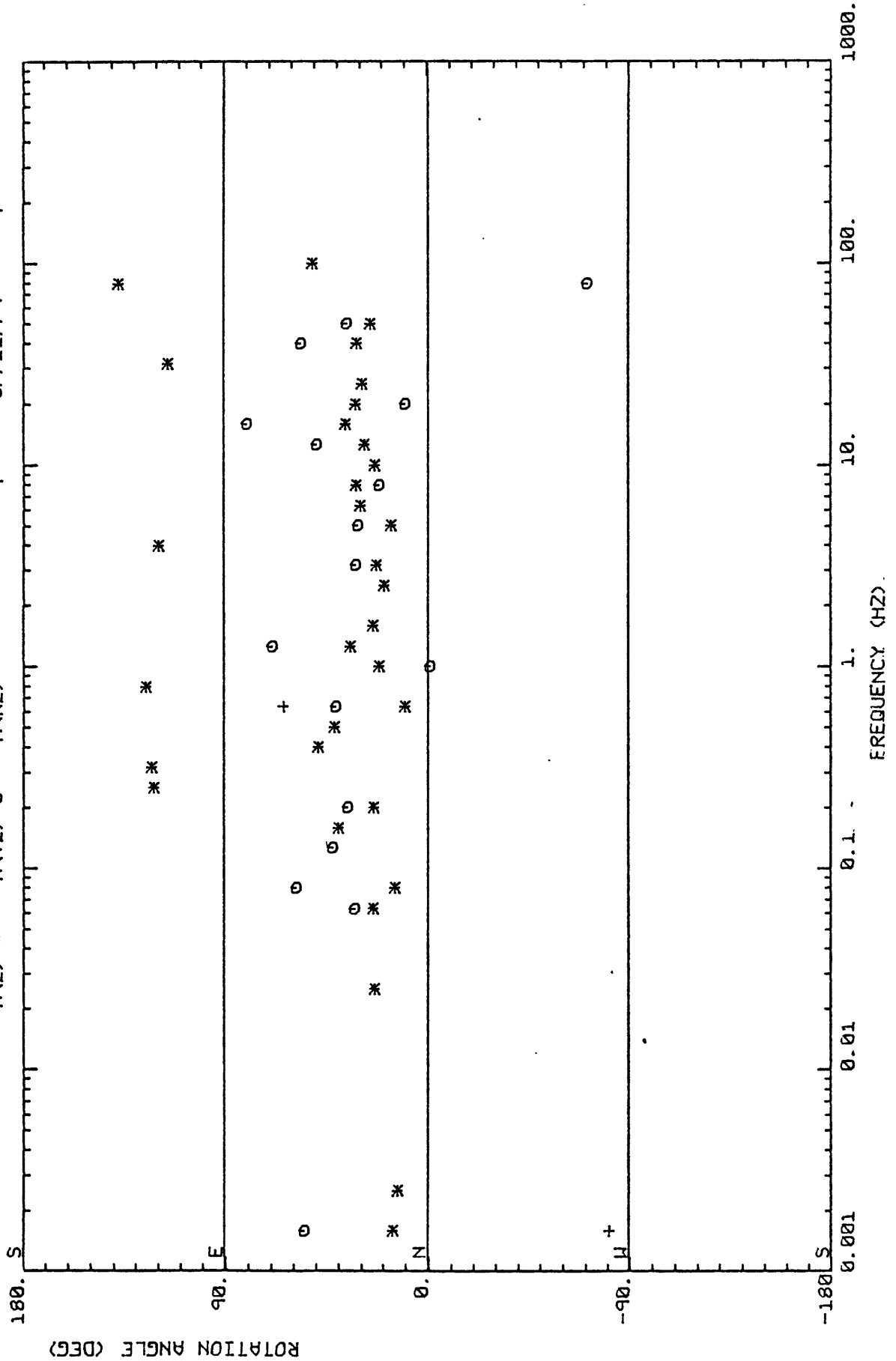
COORD ROTATION ANGLES - PRINCIPLE AXES

A(Z)=\* A(Y)=0 A(X)=+

196 6-8

07/21/79

PAGE 3





GEOTRONICS CORPORATION

MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 6- 9

196 6-9

RUN 1

DATE -  
RECORDED : 179/79  
PROCESSED : 07/21/79

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APPARENT RESISTIVITY AND PHASE -  
ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X. - AXIS AZIMUTH = 111.0

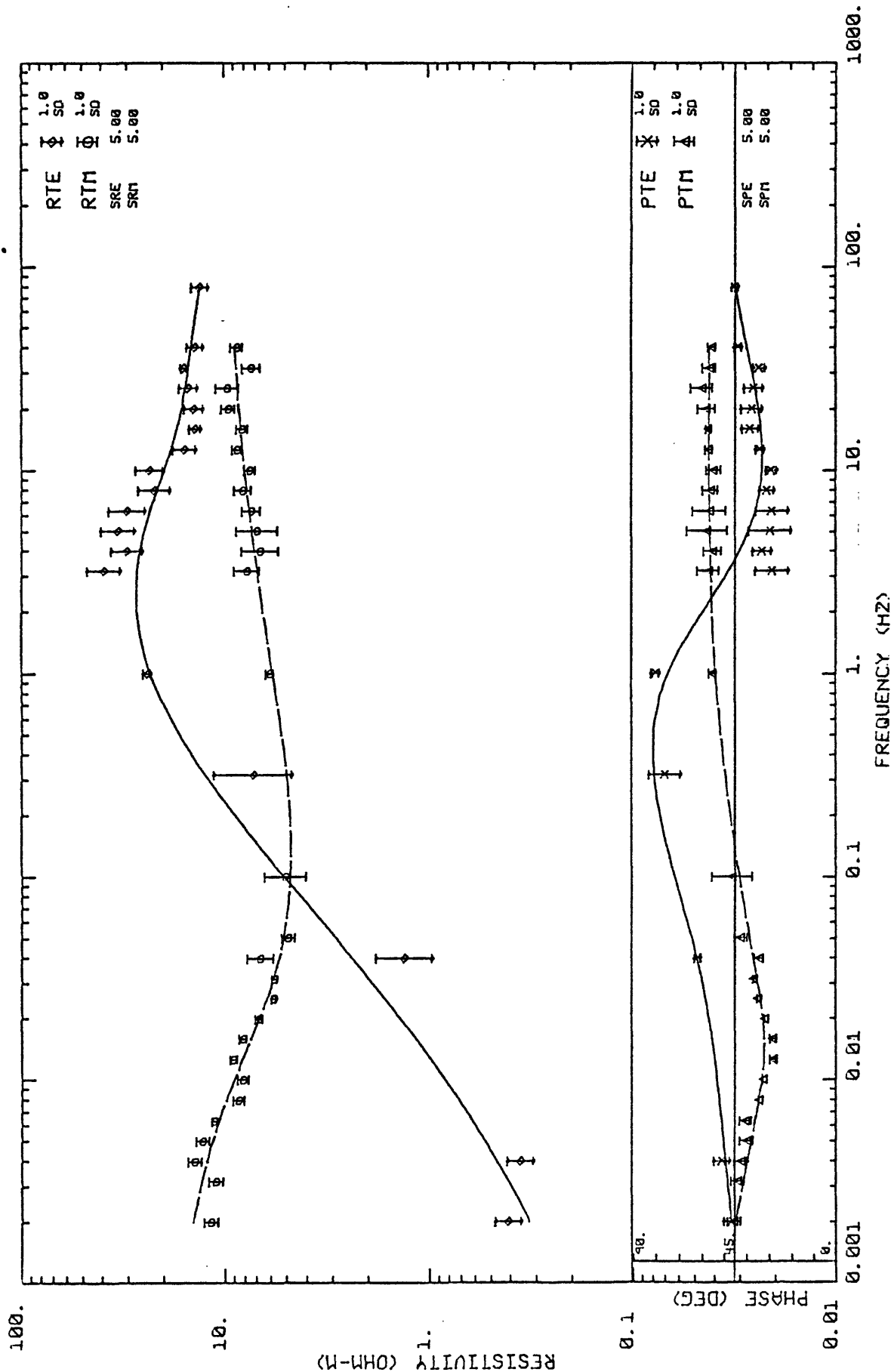
DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (KZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
60900

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR: IMPEDANCE

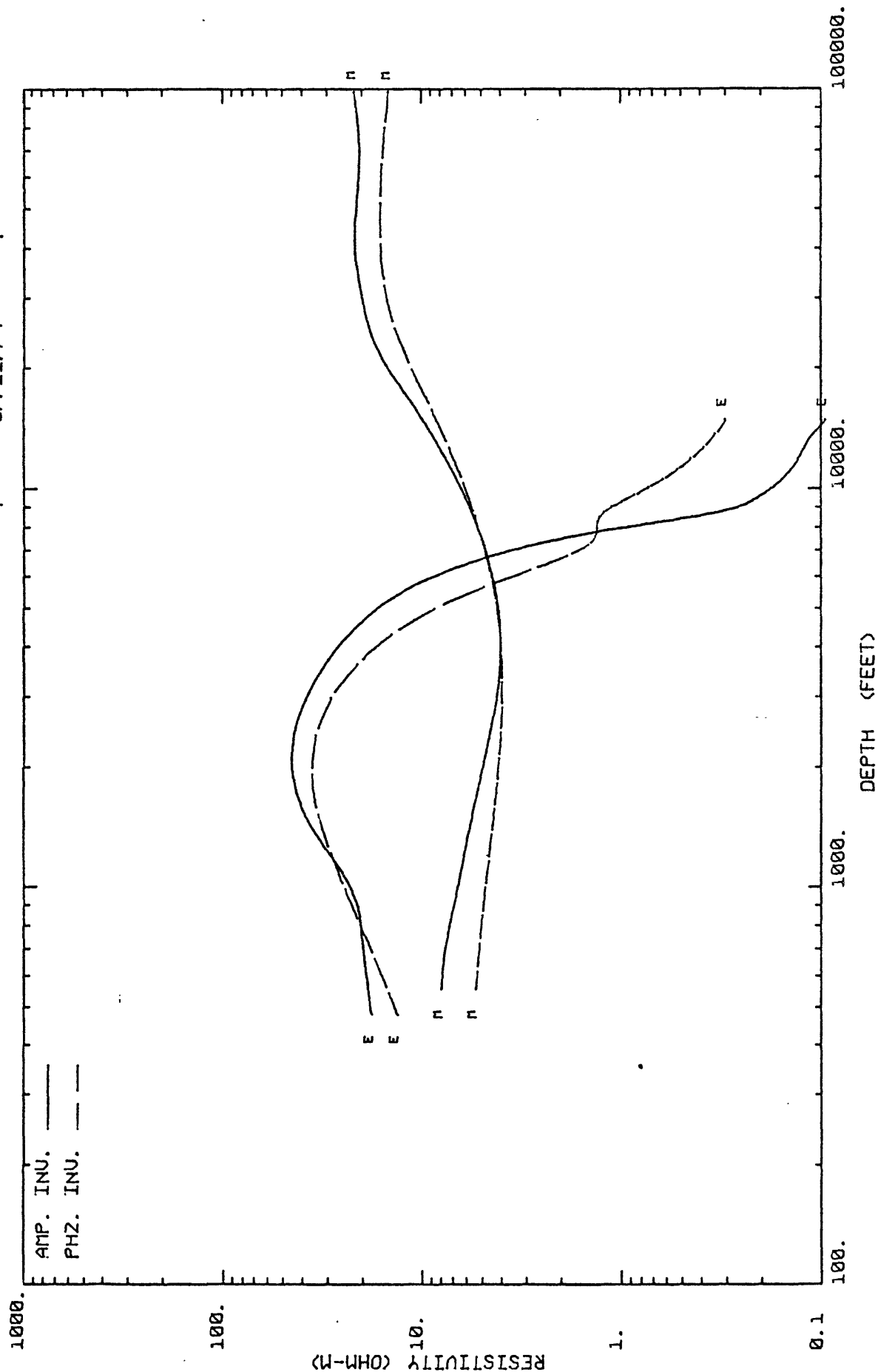
196 6-9  
07/21/79

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INVERSION OF ROTATED TENSOR

196 6-9  
07/21/79

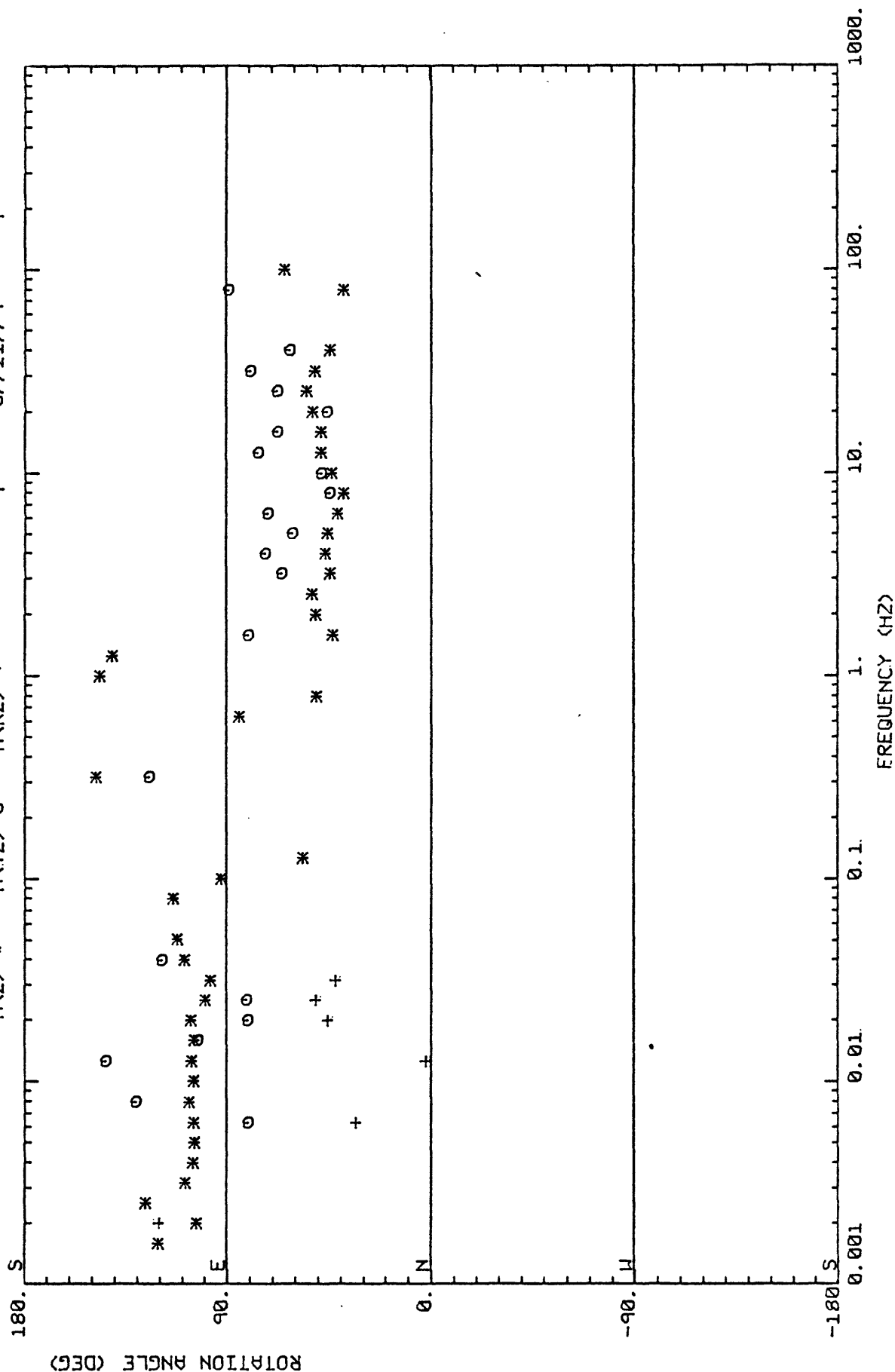


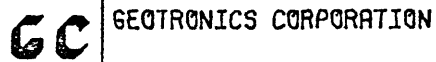
# GEOTRONICS CORPORATION

COORD ROTATION ANGLES - PRINCIPLE AXES  
 $A(Z) = *$   $A(YZ) = 0$   $A(KZ) = +$

196 6-4  
 07/21/79

PAGE 3





MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 6-10

196 6-10

RUN 2

DATE -  
RECORDED : 180/79  
PROCESSED : 07/20/79

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APPARENT RESISTIVITY AND PHASE -  
ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 20.0°

DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (XZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
61000

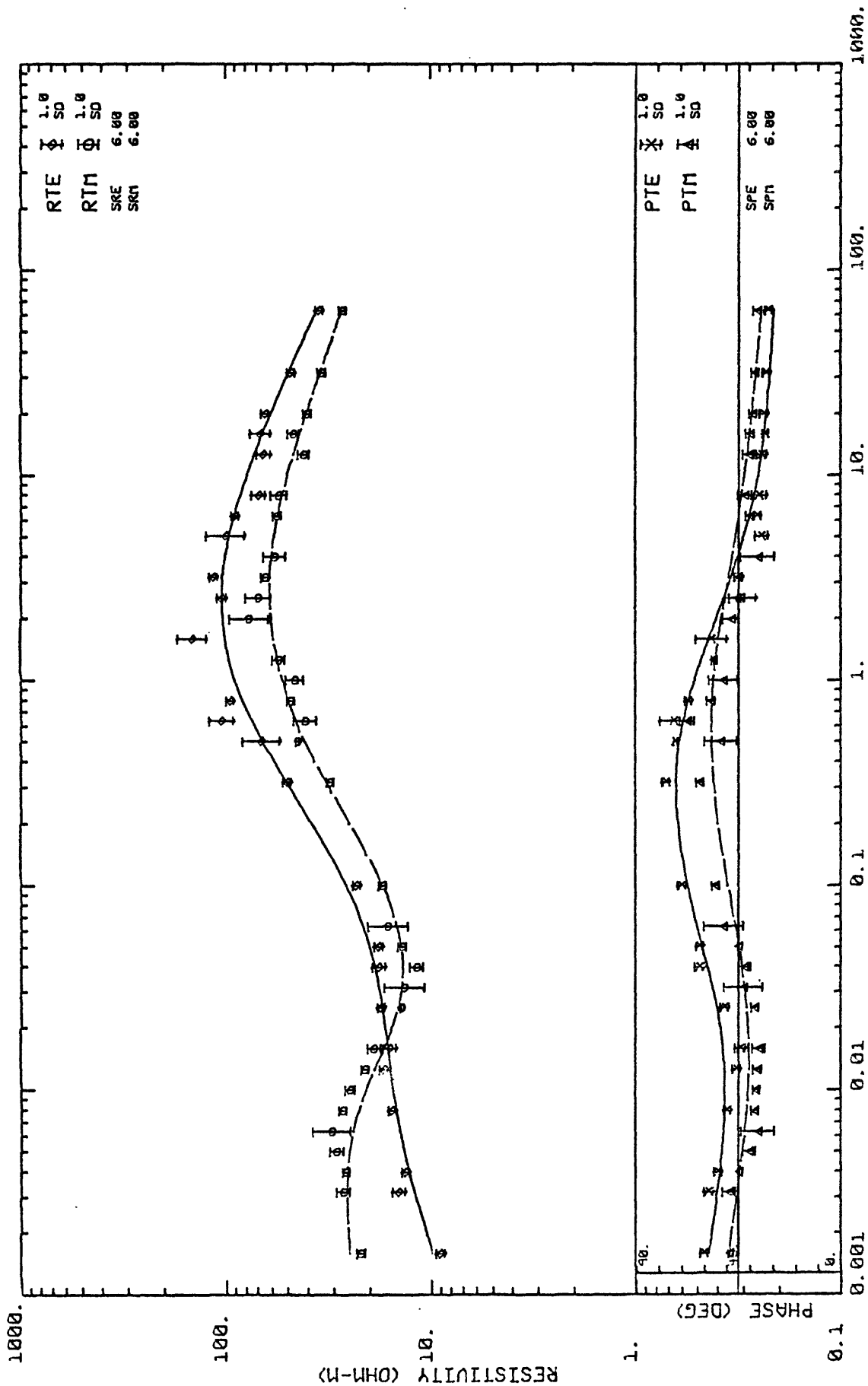


# GEOTRONICS CORPORATION

## APPARENT RESISTIVITY AND PHASE ROTATED TENSOR IMPEDANCE

196 6-10  
07/20/79

PAGE 1

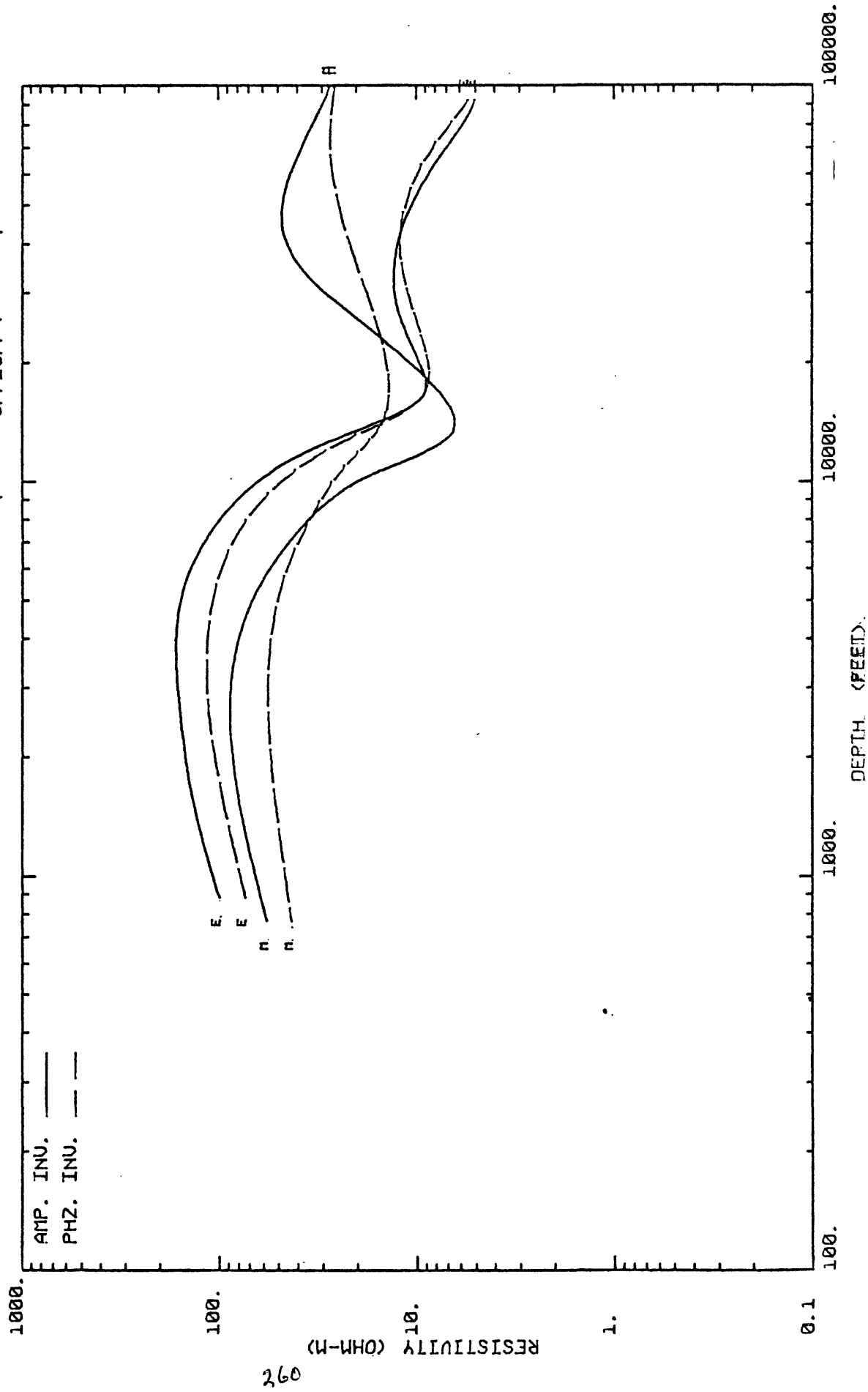


# GEOTRONICS CORPORATION

## INVERSION OF ROTATED TENSOR

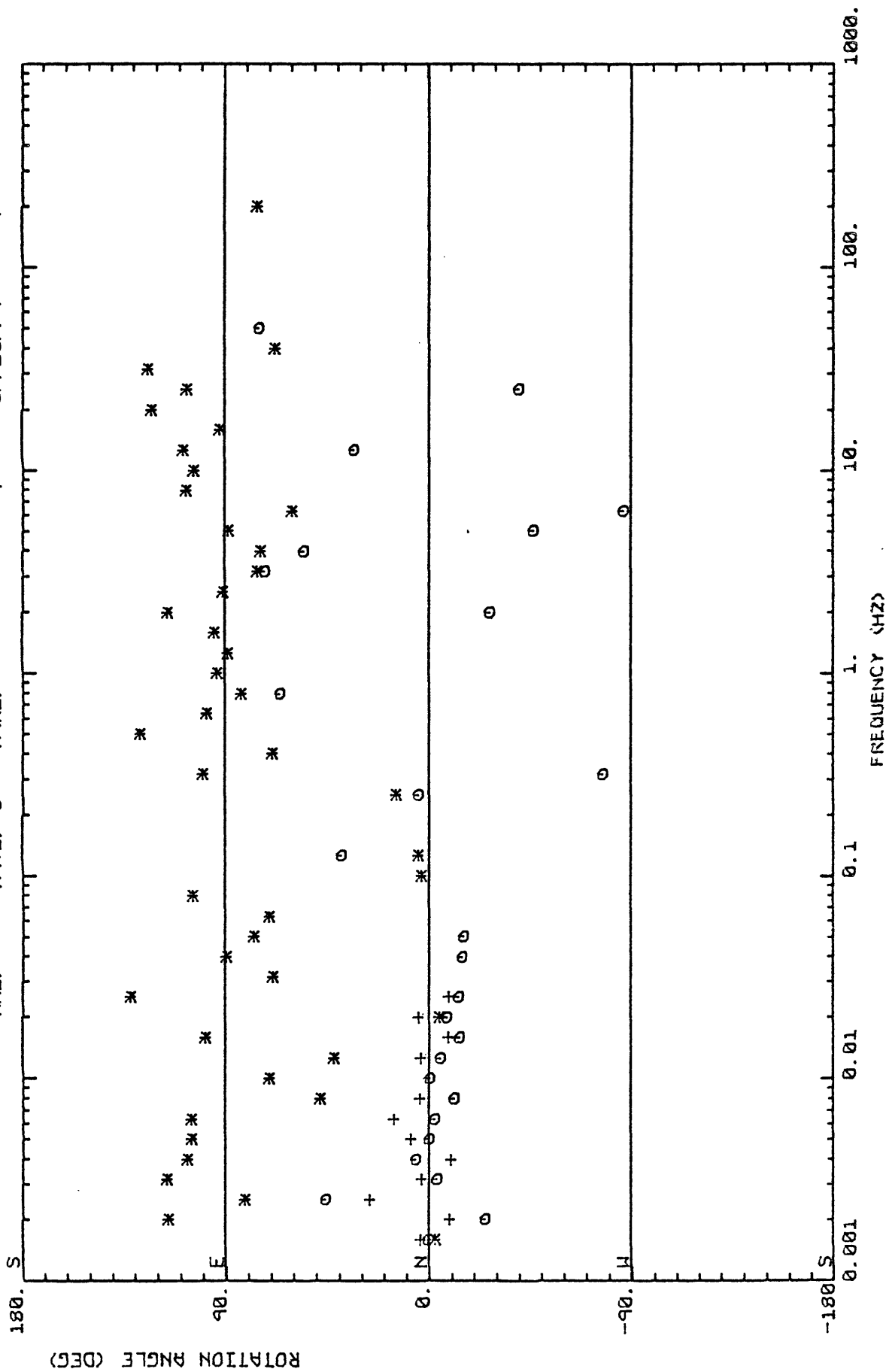
PAGE 2

196 6-10  
07/20/79



# GEOTRONICS CORPORATION

COORD ROTATION ANGLES - PRINCIPLE AXES  
 A(Z)=\* A(Y)=0 A(KZ)=+  
 196 6-10  
 07/20/79  
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MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 6-11

196 6-11 RUN 2

DATE -  
RECORDED : 180/79  
PROCESSED : 07/20/79

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APPARENT RESISTIVITY AND PHASE -  
ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 21.0°

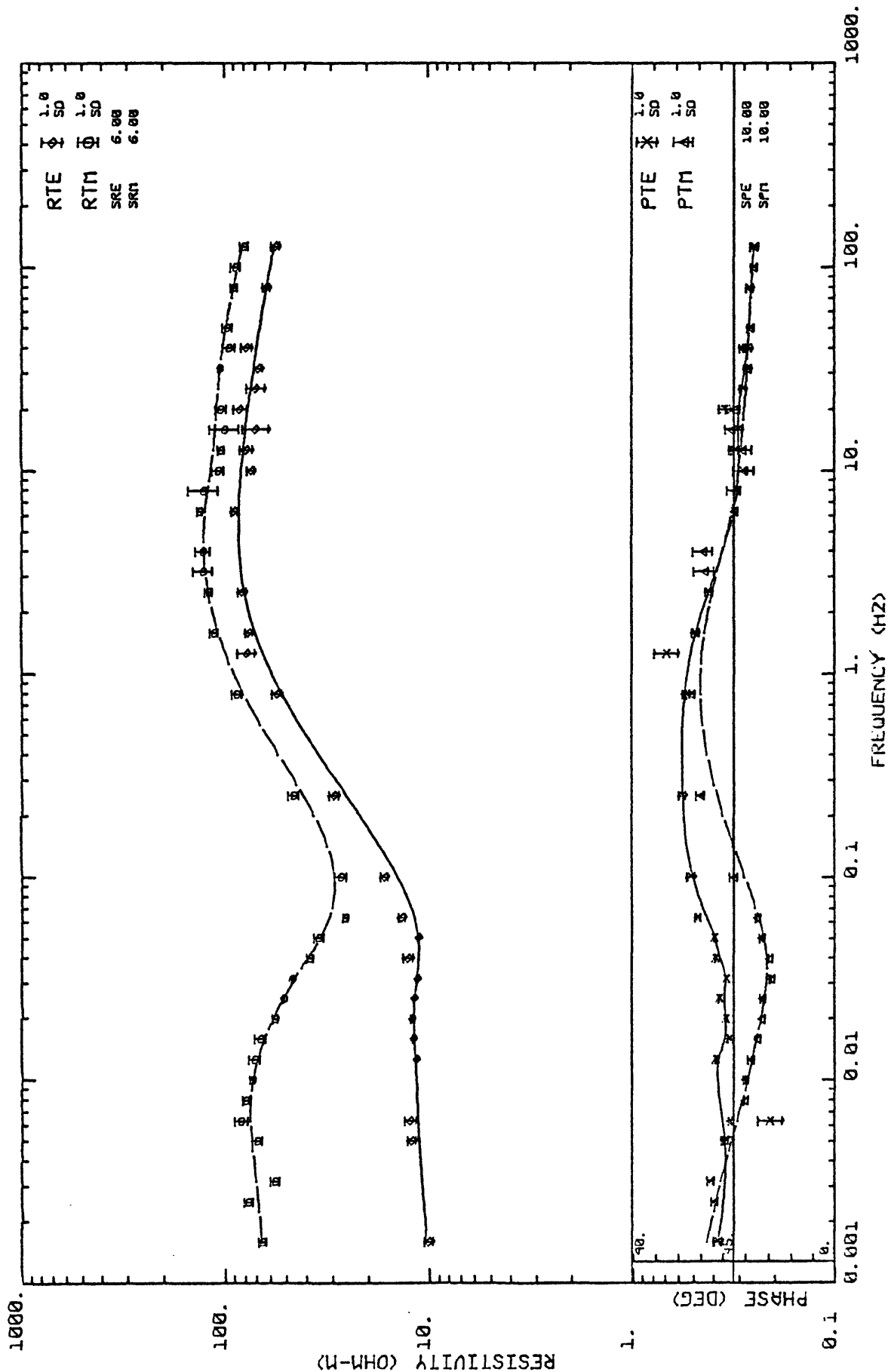
DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (XZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
61100

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

196 6-11  
07/20/79

PAGE 1

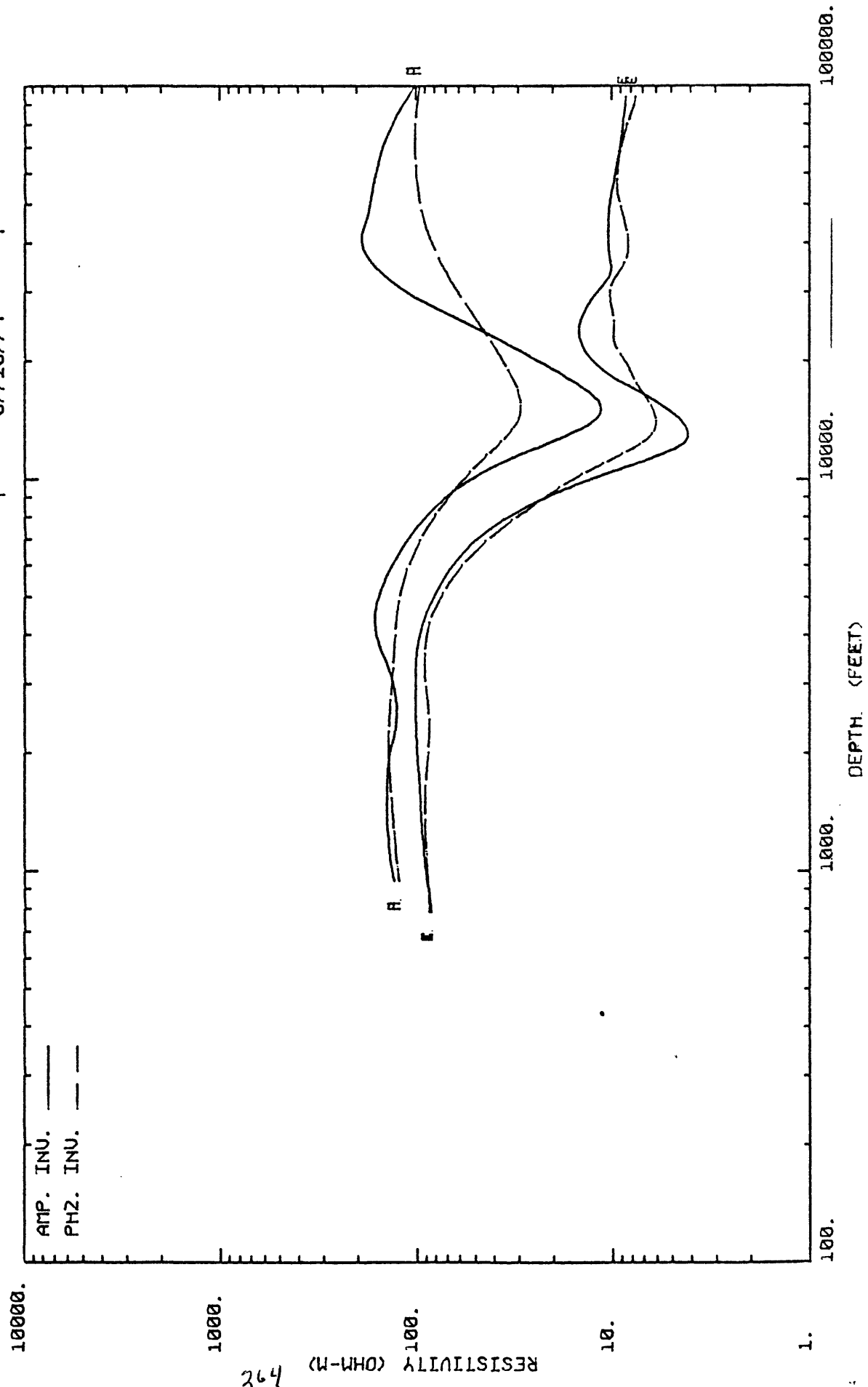


# GEOTRONICS CORPORATION

INVERSION OF ROTATED TENSOR

196 6-11  
07/20/79

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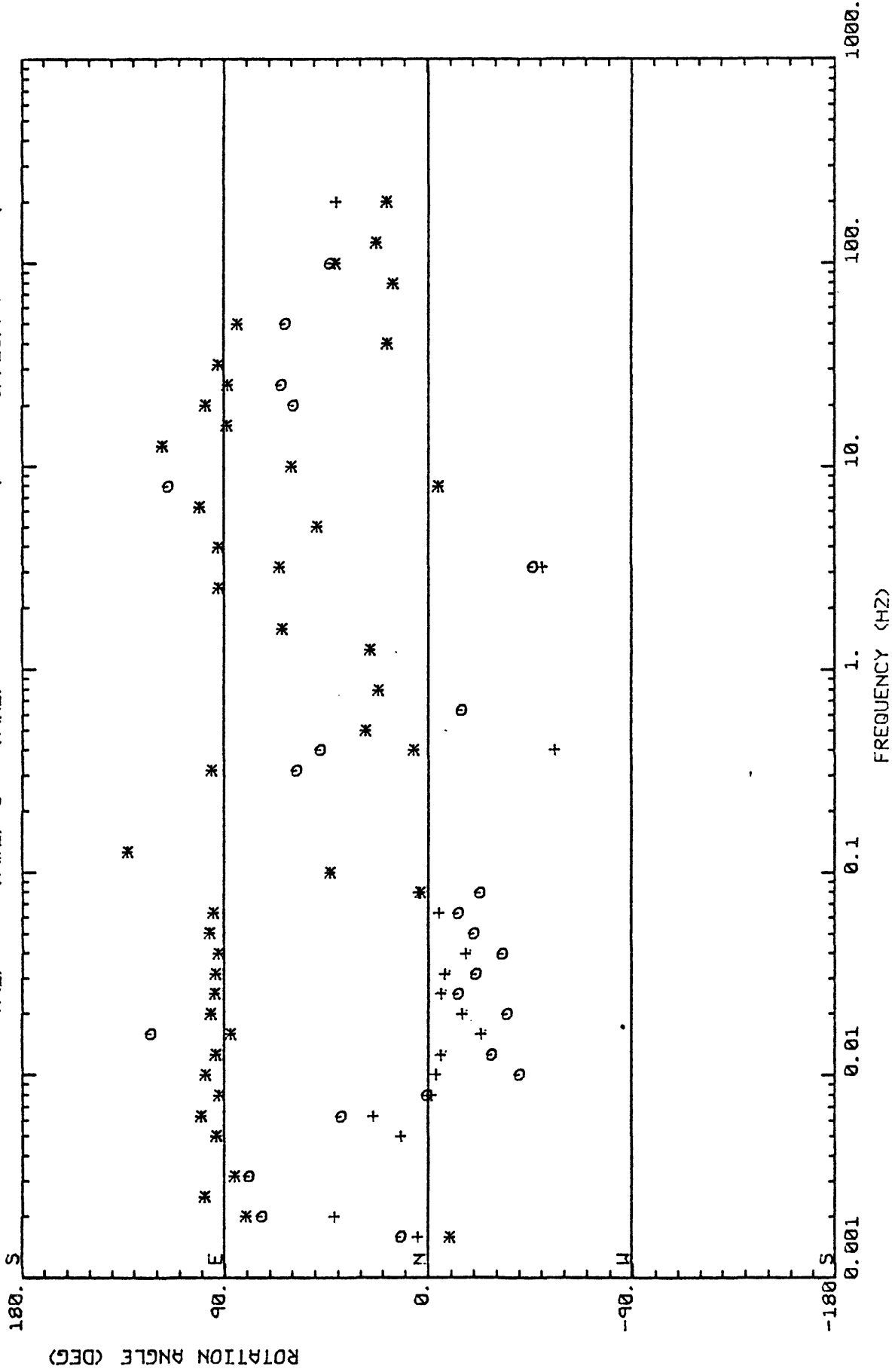
# GEOTRONICS CORPORATION

PAGE 3

196 6-11  
07/20/79

COORD ROTATION ANGLES - PRINCIPLE AXES

A (Z) = \*    A (YZ) = 0    A (KZ) = +





MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 6-12

196 6-12 RUN 1

DATE -  
RECORDED : 181/79  
PROCESSED : 07/21/79

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APPARENT RESISTIVITY AND PHASE -  
ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 20.0°

DATA PASS LEVELS : COH (Z) = 0.80  
COH (YZ) = 0.80  
COH (KZ) = 0.80

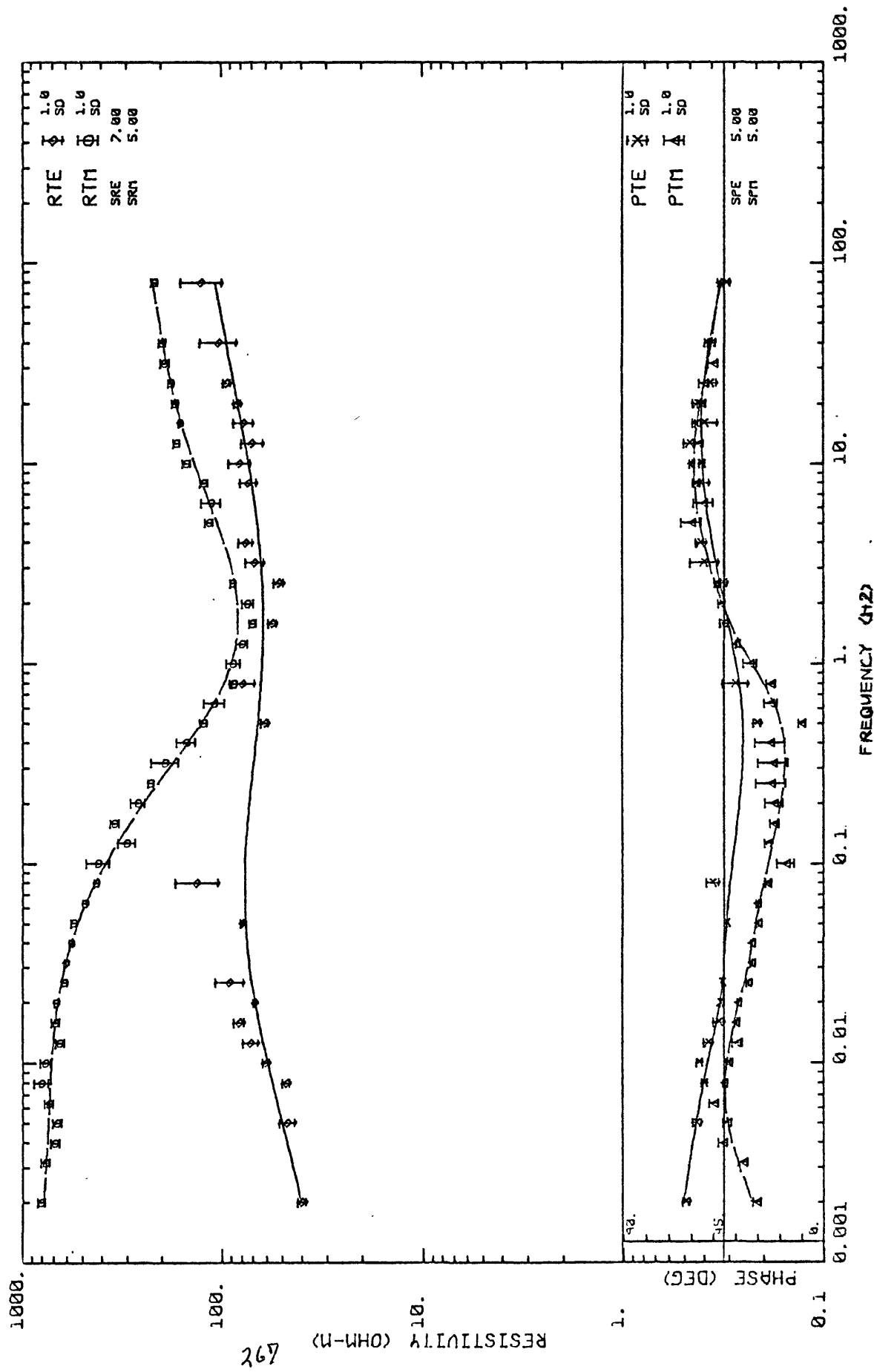
DATA SETS PROCESSED : RUN NO.  
61200



APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

196 6-12  
07/21/79

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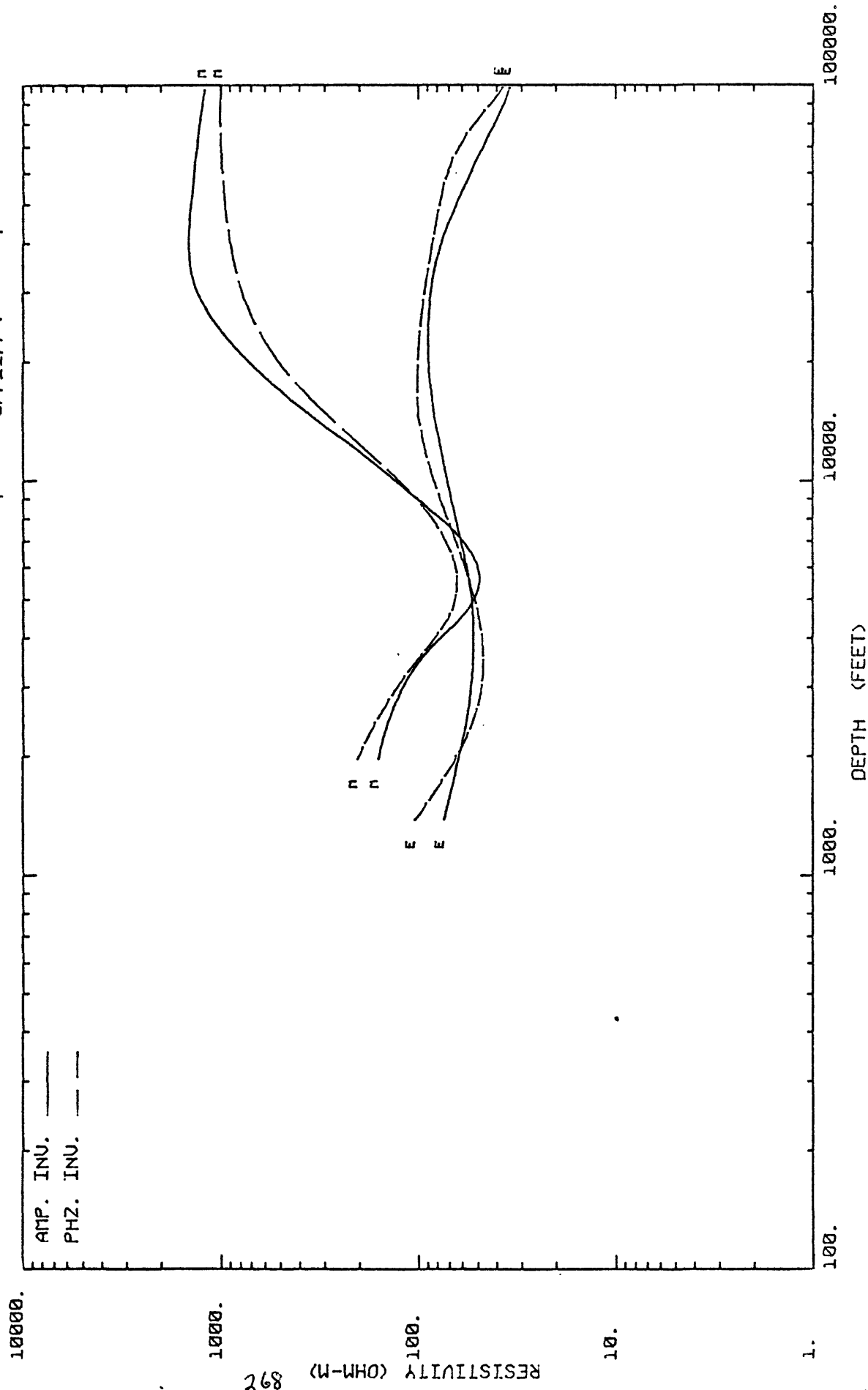


# GEOTRONICS CORPORATION

## INVERSION OF ROTATED TENSOR

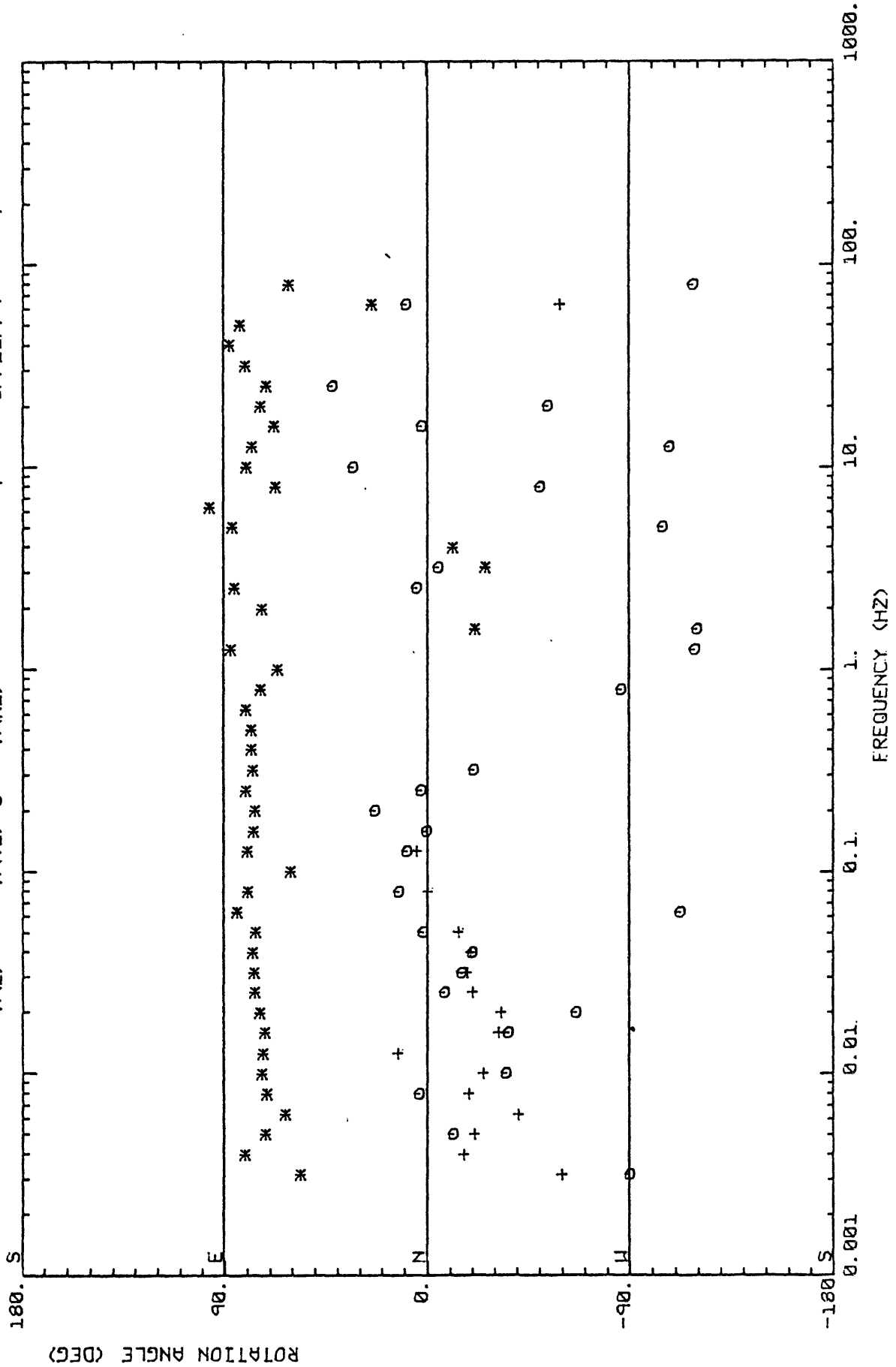
196 6-12  
07/21/79

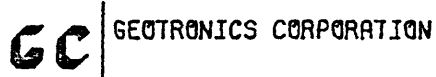
PAGE 2



A(Z)=\* A(YZ)=0 A(KZ)=+

07/21/79





MAGNETO TELLURIC  
TENSOR ANALYSIS RESULTS

CODE : 196  
SITE 6-13

196 6-13            RUN 1

DATE -  
RECORDED : 181/79  
PROCESSED : 07/25/79

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APPARENT RESISTIVITY AND PHASE -  
ROTATED TENSOR IMPEDANCE

1

INVERSION OF ROTATED TENSOR

2

COORDINATE ROTATION ANGLES -  
PRINCIPLE AXES

3

- LEGEND AND NOTES -

X - AXIS AZIMUTH = 20.0°

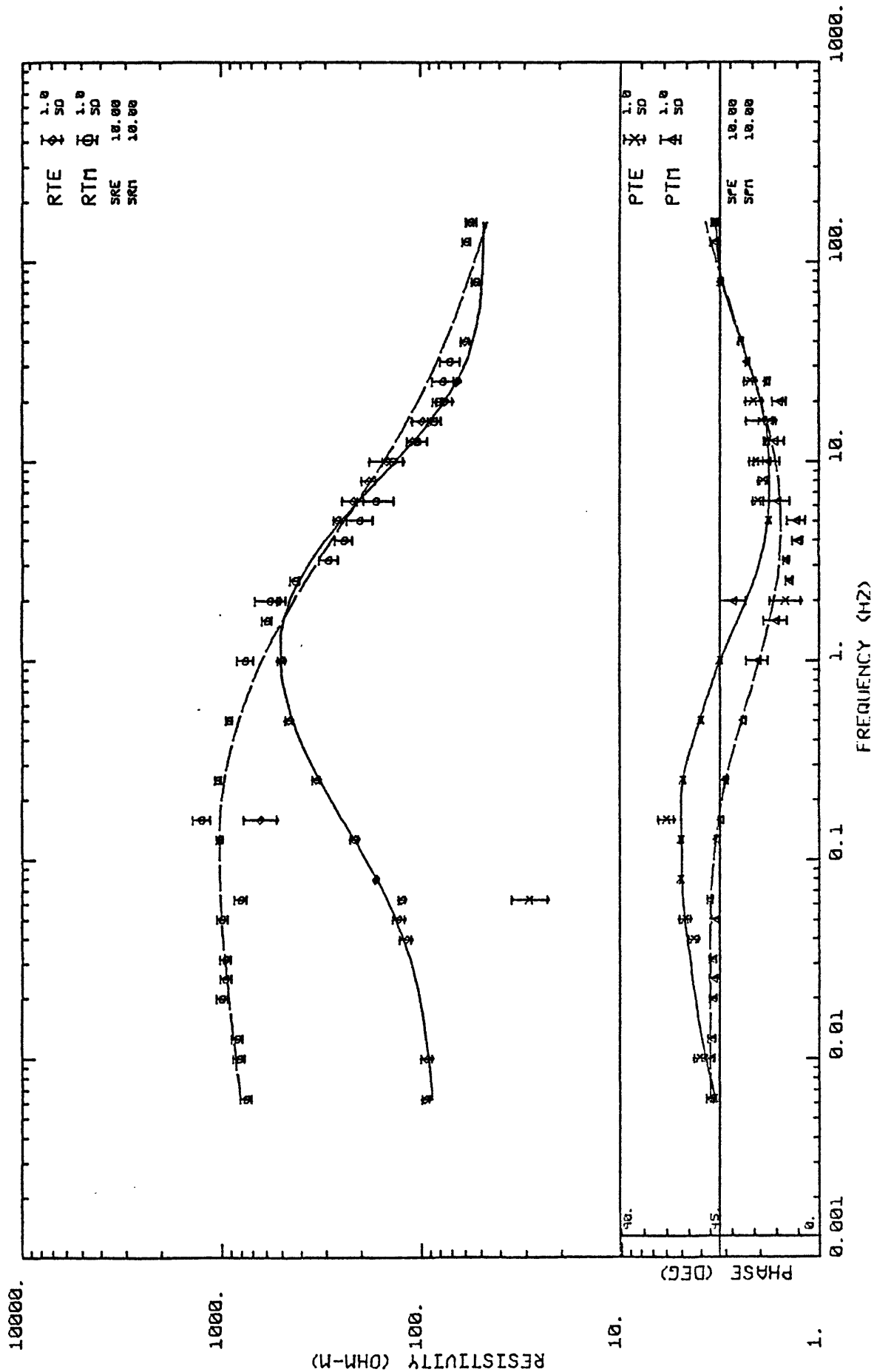
DATA PASS LEVELS :    COH (Z) = 0.80  
                         COH (YZ) = 0.80  
                         COH (KZ) = 0.80

DATA SETS PROCESSED : RUN NO.  
                         L495244799

APPARENT RESISTIVITY AND PHASE  
ROTATED TENSOR IMPEDANCE

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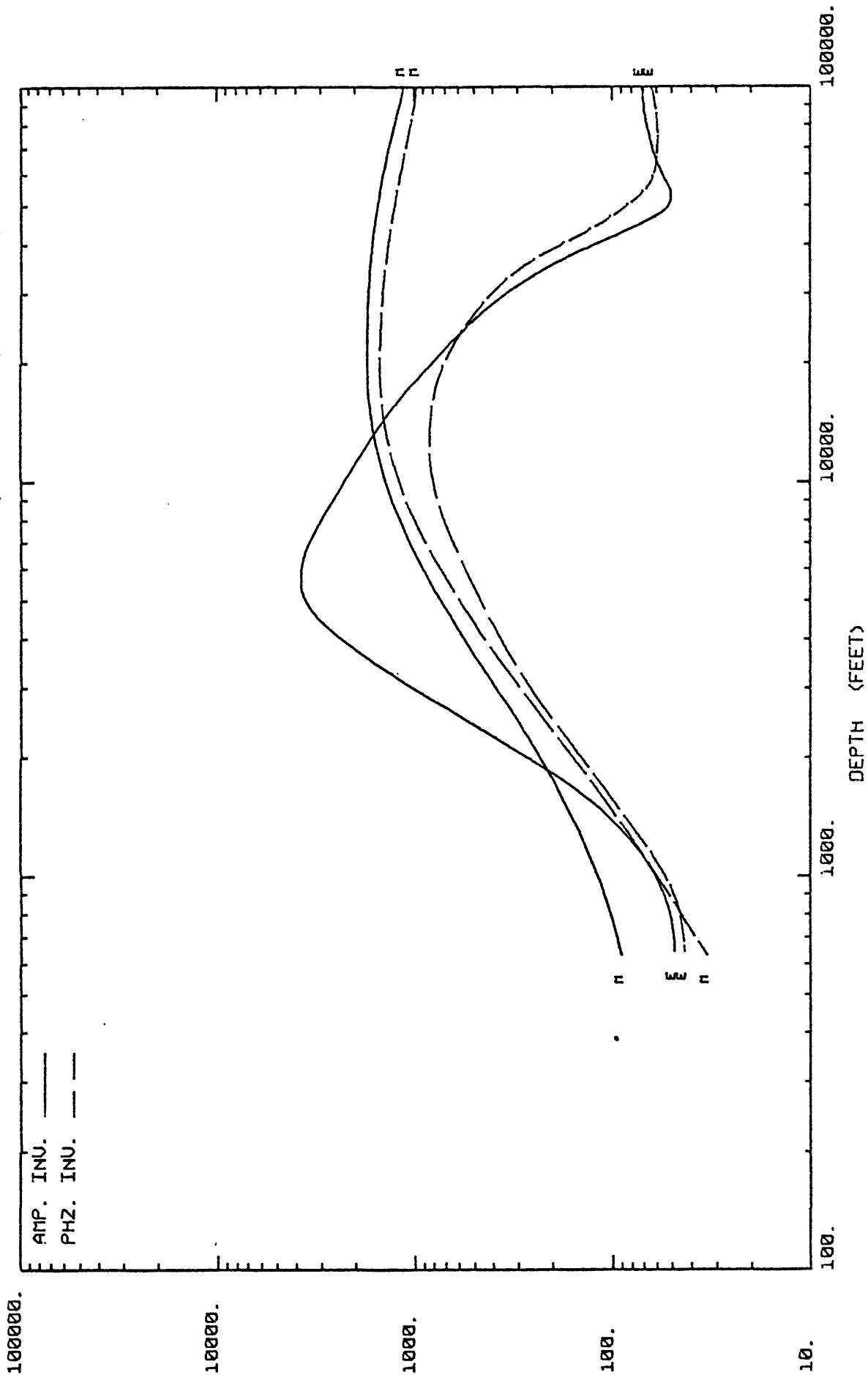
# GEOTRONICS CORPORATION

## INVERSION OF ROTATED TENSOR

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07/25/79



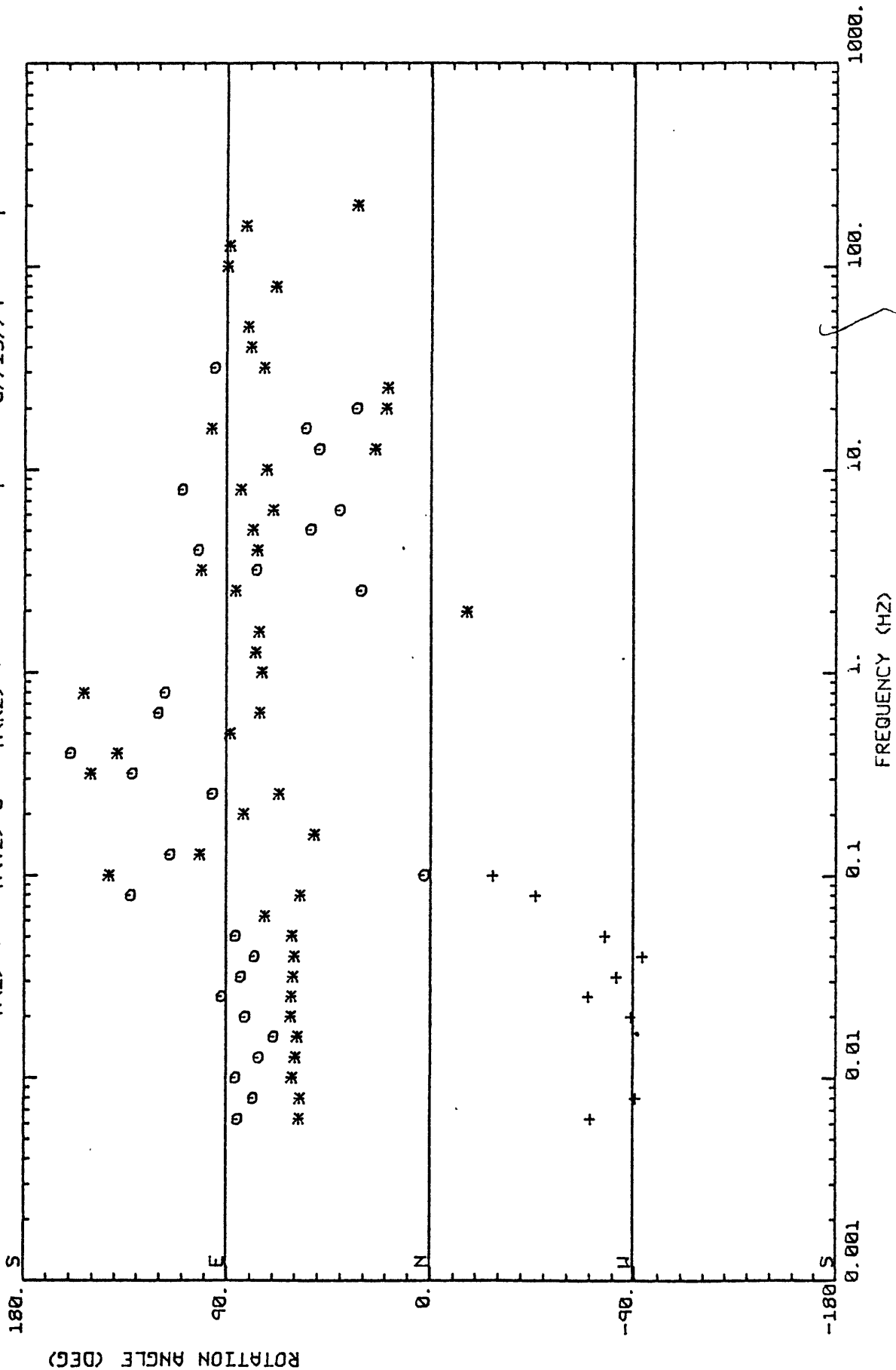
COORD ROTATION ANGLES - PRINCIPLE AXES

A(Z) = \* A(YZ) = 0 A(KZ) = +

196 6-13

07/25/79

PAGE 3



Appendix 3--Tabulated data from  
smoothed sounding curves



TE MODE

✓

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	7.9433E-03	2.1171E+00	68	5	1.0000E-02	69	9	1.2589E-02	70	13	3.8447E+00	71
17	1.9953E-02	4.6835E+00	71	21	2.5119E-02	71	25	3.1623E-02	68	29	7.7205E+00	64
33	5.0119E-02	8.8134E+00	61	37	6.3096E-02	59	41	7.9433E-02	59	45	1.2555E+01	59
49	1.2589E-01	1.4139E+01	60	53	1.5849E-01	60	57	1.9953E-01	59	61	2.0667E+01	59
65	3.1623E-01	2.3588E+01	58	69	3.9811E-01	56	73	5.0119E-01	55	77	3.4971E+01	54
81	7.9433E-01	3.9625E+01	54	85	1.0000E-01	53	89	1.2589E-01	54	93	5.5452E+01	55
97	1.9953E-00	6.1155E+01	56	101	2.5119E+00	58	105	3.1623E+00	59	109	7.9070E+01	60
113	5.0119E+00	8.5295E+01	61	117	6.3096E+00	62	121	7.9433E+00	63	125	1.0443E+02	64
129	1.2589E+01	1.1064E+02	64	133	1.5849E+01	65	137	1.9953E+01	65	141	1.2415E+02	66
145	3.1623E+01	1.2627E+02	67	149	3.9811E+01	67	153	5.0119E+01	67			

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	5.0119E-03	2.6574E+02	54	5	6.3096E-03	52	9	7.9433E-03	50	13	3.2839E+02	48
17	1.2589E-02	3.4627E+02	45	21	1.5849E-02	43	25	1.9953E-02	39	29	3.4662E+02	37
33	3.1623E-02	3.2799E+02	34	37	3.9811E-02	31	41	5.0119E-02	28	45	2.2246E+02	25
49	7.9433E-02	1.8862E+02	22	53	1.0000E-01	21	57	1.2589E-01	20	61	1.1118E+02	20
65	1.9953E-01	9.4148E+01	21	69	2.5119E-01	23	73	3.1623E-01	26	77	6.1596E+01	29
81	5.0119E-01	5.4975E+01	34	85	6.3096E-01	38	89	7.9433E-01	43	93	4.3073E+01	47
97	1.2589E-00	4.1271E+01	52	101	1.5849E+00	56	105	1.9953E+00	59	109	4.0750E+01	62
113	3.1623E+00	4.2289E+01	65	117	3.9811E+00	67	121	5.0119E+00	69	125	5.2257E+01	70
129	7.9433E+00	5.7121E+01	71	133	1.0000E+01	72	137	1.2589E+01	72	141	7.5842E+01	73
145	1.9953E+01	8.3450E+01	73	149	2.5119E+01	73	153	3.1623E+01	73	157	1.0938E+02	74

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	3.1623E-03	5.5458E+00	52	5	3.9811E-03	6.1016E+00	53	9	5.0119E-03	6.7494E+00	55	13
17	7.9433E-03	8.5041E+00	56	21	1.0000E-02	9.6896E+00	56	25	1.2589E-02	1.1044E+01	55	29
33	1.9953E-02	1.3612E+01	53	37	2.5119E-02	1.4355E+01	49	41	3.1623E-02	1.4337E+01	46	45
49	5.0119E-02	1.2223E+01	40	53	6.3096E-02	1.1222E+01	39	57	7.9433E-02	1.0400E+01	38	61
65	1.2589E-01	9.4352E+00	40	69	1.5849E-01	9.2649E+00	42	73	1.9953E-01	9.2813E+00	44	77
81	3.1623E-01	9.8421E+00	50	85	3.9811E-01	1.0392E+01	54	89	5.0119E-01	1.1138E+01	59	93
97	7.9433E-01	1.3317E+01	67	101	1.0000E-00	1.4818E+01	71	105	1.2589E-00	1.6653E+01	75	109
113	1.9953E-00	2.1560E+01	82	117	2.5119E-00	2.4775E+01	84	121	3.1623E-00	2.8610E+01	85	125
129	5.0119E-00	3.8521E+01	85	133	6.3096E-00	4.4794E+01	83	137	7.9433E-00	5.2035E+01	80	141
145	1.2589E-01	6.9519E+01	75	149	1.5849E-01	7.9804E+01	73	153	1.9953E-01	9.1184E+01	70	157
161	3.1623E-01	1.1781E+02	65	165	3.9811E-01	1.3367E+02	67	169	5.0119E-01	1.5169E+02	74	173

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	3.1623E-03	3.6885E+01	53	5	3.9811E-03	4.0976E+01	53	9	5.0119E-03	4.5357E+01	54	13
17	7.9433E-03	5.4547E+01	54	21	1.0000E-02	6.0525E+01	54	25	1.2589E-02	6.6977E+01	52	29
33	1.9953E-02	7.6825E+01	47	37	2.5119E-02	7.8076E+01	43	41	3.1623E-02	7.5959E+01	40	45
49	5.0119E-02	6.3477E+01	34	53	6.3096E-02	5.5408E+01	31	57	7.9433E-02	4.7820E+01	31	61
65	1.2589E-01	3.5297E+01	31	69	1.5849E-01	3.0699E+01	33	73	1.9953E-01	2.7404E+01	40	77
81	3.1623E-01	2.4397E+01	56	85	3.9811E-01	2.4393E+01	62	89	5.0119E-01	2.5251E+01	66	93
97	7.9433E-01	2.9626E+01	70	101	1.0000E-00	3.3357E+01	71	105	1.2589E-00	3.6370E+01	71	109
113	1.9953E-00	5.3351E+01	71	117	2.5119E-00	6.3651E+01	70	121	3.1623E-00	7.5802E+01	71	125
129	5.0119E-00	1.0728E+02	73	133	6.3096E-00	1.2783E+02	73	137	7.9433E-00	1.5172E+02	74	141
145	1.2589E-01	2.0449E+02	73	149	1.5849E-01	2.2950E+02	73	153	1.9953E-01	2.5453E+02	71	157
161	3.1623E-01	3.0200E+02	66	165	3.9811E-01	3.2506E+02	65					

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.5849E-03	8.5028E+00	51	1.9953E-03	8.8803E+00	52	2.5119E-03	9.2999E+00	53	3.1623E-03	9.7911E+00	54
17	3.9811E-03	1.0383E+01	55	5.0119E-03	1.1101E+01	55	6.3096E-03	1.1942E+01	55	7.9433E-03	1.2883E+01	54
33	1.0000E-02	1.3864E+01	53	3.1623E-02	1.4791E+01	52	4.1	1.5849E-02	1.5521E+01	50	45	47
49	2.5119E-02	1.5922E+01	44	53	3.1623E-02	1.5545E+01	41	57	3.9811E-02	1.4815E+01	38	61
65	6.3096E-02	1.2701E+01	33	69	7.9433E-02	1.1639E+01	31	73	1.0000E-01	1.0710E+01	30	77
81	1.5849E-01	9.3505E+00	29	85	1.9953E-01	8.9327E+00	29	89	2.5119E-01	8.6951E+00	30	93
97	3.9811E-01	8.7525E+00	33	101	5.0119E-01	9.0609E+00	36	105	6.3096E-01	9.5654E+00	38	109
113	1.0000E-00	1.1219E+01	44	117	1.2589E+01	1.2417E+01	48	121	1.5849E+00	1.3908E+01	51	125
129	2.5119E+00	1.7952E+01	56	133	3.1623E+00	2.0609E+01	58	137	3.9811E+00	2.3766E+01	60	141
145	6.3096E+00	3.1799E+01	63	149	7.9433E+00	3.6775E+01	64	153	1.0000E+01	4.2496E+01	64	157
161	1.5849E+01	5.6646E+01	65	165	1.9953E+01	6.5363E+01	65	169	2.5119E+01	7.5409E+01	65	65

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.5849E-03	3.1617E+01	51	5	1.9953E-03	3.4180E+01	54	9	2.5119E-03	3.6982E+01	55	13
17	3.9811E-03	4.3771E+01	57	21	5.0119E-03	4.7989E+01	57	25	6.3096E-03	5.2828E+01	57	29
33	1.0000E-02	6.4036E+01	56	37	1.2589E-02	6.9771E+01	54	41	1.5849E-02	7.4792E+01	51	45
49	2.5119E-02	7.9886E+01	41	53	3.1623E-02	7.9127E+01	38	57	3.9811E-02	7.5933E+01	35	61
65	6.3096E-02	6.3424E+01	30	69	7.9433E-02	5.5646E+01	27	73	1.0000E-01	4.7991E+01	25	77
81	1.5849E-01	3.5017E+01	22	85	1.9953E-01	3.0123E+01	21	89	2.5119E-01	2.6307E+01	22	93
97	3.9811E-01	2.1335E+01	26	101	5.0119E-01	1.9935E+01	30	105	6.3096E-01	1.9094E+01	33	109
113	1.0000E+00	1.8754E+01	41	117	1.2589E+00	1.9174E+01	45	121	1.5849E+00	1.9976E+01	49	125
129	2.5119E+00	2.2798E+01	55	133	3.1623E+00	2.4897E+01	58	137	3.9811E+00	2.7510E+01	60	141
145	6.3096E+00	3.4437E+01	63	149	7.9433E+00	3.8830E+01	64	153	1.0000E+01	4.3932E+01	64	157
161	1.5849E+01	5.6662E+01	65	165	1.9953E+01	6.4505E+01	65	169	2.5119E+01	7.3483E+01	65	65

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	1.5849E-03	2.1423E+01	48	5	1.9953E-03	2.2120E+01	49	9	2.5119E-03	2.2867E+01	50	13	3.1623E-03	2.3697E+01	51
17	3.9811E-03	2.4647E+01	51	21	5.0119E-03	2.5757E+01	52	25	6.3096E-03	2.7068E+01	52	29	7.9433E-03	2.8609E+01	52
33	1.0000E-02	3.0365E+01	52	37	1.2589E-02	3.2270E+01	51	41	1.5849E-02	3.4200E+01	49	45	1.9953E-02	3.5750E+01	46
49	2.5119E-02	3.6506E+01	43	53	3.1623E-02	3.6235E+01	40	57	3.9811E-02	3.4917E+01	37	61	5.0119E-02	3.2781E+01	35
65	6.3096E-02	3.0233E+01	32	69	7.9433E-02	2.7662E+01	31	73	1.0000E-01	2.5300E+01	30	77	1.2589E-01	2.3246E+01	30
81	1.5849E-01	2.1507E+01	31	85	1.9953E-01	2.0067E+01	32	89	2.5119E-01	1.8909E+01	34	93	3.1623E+01	1.8011E+01	37
97	3.9811E-01	1.7354E+01	40	101	5.0119E-01	1.6927E+01	43	105	6.3096E-01	1.6725E+01	47	109	7.9433E+01	1.6752E+01	51
113	1.0000E+00	1.7018E+01	54	117	1.2589E+00	1.7546E+01	58	121	1.5849E+00	1.8368E+01	61	125	1.9953E+00	1.9533E+01	63
129	2.5119E+00	2.1091E+01	65	133	3.1623E+00	2.3093E+01	66	137	3.9811E+00	2.5587E+01	67	141	5.0119E+00	2.8629E+01	68
145	6.3096E+00	3.2276E+01	68	149	7.9433E+00	3.6585E+01	68	153	1.0000E+01	4.1612E+01	69	157	1.2589E+01	4.7426E+01	68
161	1.5849E+01	5.4103E+01	68	165	1.9953E+01	6.1754E+01	68	169	2.5119E+01	7.0503E+01	68				

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	1.5849E-03	6.8302E+01	66	5	1.9953E-03	7.6000E+01	65	9	2.5119E-03	8.4577E+01	64	13	3.1623E-03	9.4107E+01	63
17	3.9811E-03	1.0466E+02	62	21	5.0119E-03	1.1630E+02	61	25	6.3096E-03	1.2906E+02	59	29	7.9433E-03	1.4284E+02	58
33	1.0000E-02	1.5742E+02	56	37	1.2589E-02	1.7252E+02	54	41	1.5849E-02	1.8772E+02	51	45	1.9953E-02	2.0135E+02	48
49	2.5119E-02	2.0936E+02	44	53	3.1623E-02	2.0775E+02	40	57	3.9811E-02	1.9660E+02	36	61	5.0119E-02	1.7847E+02	32
65	6.3096E-02	1.5701E+02	29	69	7.9433E-02	1.3551E+02	27	73	1.0000E-01	1.1609E+02	25	77	1.2589E-01	9.9678E+01	25
81	1.5849E-01	8.6462E+01	26	85	1.9953E-01	7.6163E+01	27	89	2.5119E-01	6.8336E+01	29	93	3.1623E-01	6.2437E+01	31
97	3.9811E-01	5.8073E+01	34	101	5.0119E-01	5.4967E+01	37	105	6.3096E-01	5.2933E+01	41	109	7.9433E-01	5.1881E+01	44
113	1.0000E+00	5.1771E+01	47	117	1.2589E+00	5.2602E+01	51	121	1.5849E+00	5.4388E+01	54	125	1.9953E+00	5.7158E+01	57
129	2.5119E+00	6.0950E+01	59	133	3.1623E+00	6.5790E+01	62	137	3.9811E+00	7.1707E+01	64	141	5.0119E+00	7.8711E+01	65
145	6.3096E+00	8.6788E+01	67	149	7.9433E+00	9.5885E+01	68	153	1.0000E+01	1.0602E+02	68	157	1.2589E+01	1.1720E+02	69
161	1.5849E+01	1.2940E+02	69	165	1.9953E+01	1.4274E+02	68	169	2.5119E+01	1.5733E+02	68	173	3.1623E+01	1.7328E+02	67
177	3.9811E+01	1.9074E+02	67	181	5.0119E+01	2.0990E+02	66	185	6.3096E+01	2.3095E+02	65	189	7.9433E+01	2.5411E+02	64

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.9953E-03	1.0926E+01	55	2.5119E-03	1.1893E+01	57	3.1623E-03	1.2976E+01	59	3.9811E-03	1.4249E+01	61
17	5.0119E-03	1.5818E+01	62	6.3096E-03	1.7823E+01	63	7.9433E-03	2.0476E+01	63	1.0000E-02	2.3999E+01	62
33	1.2589E-02	2.8292E+01	61	1.5849E-02	3.2917E+01	58	1.9953E-02	3.7069E+01	54	2.5119E-02	3.9878E+01	49
49	3.1623E-02	4.1014E+01	45	3.9811E-02	4.0562E+01	41	5.0119E-02	3.8813E+01	37	6.3096E-02	3.6183E+01	34
65	7.9433E-02	3.3120E+01	32	1.0000E-01	2.9978E+01	31	1.2589E-01	2.7004E+01	31	1.5849E-01	2.4333E+01	31
81	1.9953E-01	2.2033E+01	33	2.5119E-01	2.0134E+01	35	3.1623E-01	1.8645E+01	38	3.9811E-01	1.7547E+01	41
97	5.0119E-01	1.6824E+01	45	1.0000E-01	1.6467E+01	48	7.9433E-01	1.6483E+01	52	1.0000E+00	1.6891E+01	56
113	1.2589E+00	1.7728E+01	59	1.5849E+00	1.9038E+01	62	1.9953E+00	2.0874E+01	64	2.5119E+00	2.3288E+01	66
129	3.1623E+00	2.6329E+01	68	3.9811E+00	3.0049E+01	69	5.0119E+00	3.4486E+01	70	6.3096E+00	3.9641E+01	70
145	7.9433E+00	4.5450E+01	70	1.0000E+01	5.1786E+01	69	1.2589E+01	5.8430E+01	68	1.5849E+01	6.5095E+01	67
161	1.9953E+01	7.1645E+01	66	2.5119E+01	7.7994E+01	65	3.1623E+01	8.4124E+01	63	3.9811E+01	9.0091E+01	62
177	5.0119E+01	9.6019E+01	61	6.3096E+01	1.0208E+02	59	7.9433E+01	1.0839E+02	58			

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.9953E-03	6.4322E+01	48	2.5119E-03	6.9391E+01	49	3.1623E-03	7.4830E+01	50	3.9811E-03	8.0675E+01	51
17	5.0119E-03	8.6997E+01	52	6.3096E-03	9.3882E+01	51	7.9433E-03	1.0133E+02	50	1.0000E-02	1.0880E+02	48
33	1.2589E-02	1.1528E+02	46	1.5849E-02	1.1949E+02	43	1.9953E-02	1.2031E+02	39	2.5119E-02	1.1736E+02	34
49	3.1623E-02	1.1056E+02	29	3.9811E-02	1.0060E+02	25	5.0119E-02	8.8681E+01	22	6.3096E-02	7.6192E+01	20
65	7.9433E-02	6.4300E+01	19	1.0000E-01	5.3832E+01	19	1.2589E-01	4.5132E+01	20	1.5849E-01	3.8224E+01	22
81	1.9953E-01	3.2952E+01	26	2.5119E-01	2.9108E+01	30	3.1623E-01	2.6457E+01	35	3.9811E-01	2.4780E+01	40
97	5.0119E-01	2.3921E+01	44	1.0000E-01	2.3739E+01	48	7.9433E-01	2.4139E+01	52	1.0000E+00	2.5072E+01	55
113	1.2589E+00	2.6518E+01	57	1.5849E+00	2.8476E+01	60	1.9953E+00	3.0940E+01	62	2.5119E+00	3.3898E+01	64
129	3.1623E+00	3.7326E+01	65	3.9811E+00	4.1216E+01	65	5.0119E+00	4.5540E+01	65	6.3096E+00	5.0261E+01	64
145	7.9433E+00	5.5325E+01	64	1.0000E+01	6.0667E+01	63	1.2589E+01	6.6216E+01	62	1.5849E+01	7.1893E+01	62
161	1.9953E+01	7.7614E+01	61	2.5119E+01	8.3329E+01	61	3.1623E+01	8.9088E+01	60	3.9811E+01	9.5016E+01	60
177	5.0119E+01	1.0118E+02	61	6.3096E+01	1.0762E+02	61	7.9433E+01	1.1442E+02	61			

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE		
1	1.9953E-03	6.0627E+00	33	5	2.5119E-03	36	9	3.1623E-03	7.8389E+00	39	13	3.9811E-03	8.8746E+00	43
17	5.0119E-03	9.9750E+00	46	21	6.3096E-03	48	25	7.9433E-03	1.2167E+01	50	29	1.0000E-02	1.3113E+01	51
33	1.2589E-02	1.3837E+01	51	37	1.5849E-02	49	41	1.9953E-02	1.4259E+01	47	45	2.5119E-02	1.3928E+01	49
49	3.1623E-02	1.3316E+01	39	53	3.9811E-02	35	57	5.0119E-02	1.1623E+01	32	61	6.3096E-02	1.0731E+01	29
65	7.9433E-02	9.8889E+00	26	69	1.0000E-01	24	73	1.2589E-01	8.4750E+00	23	77	1.5849E-01	7.9372E+00	24
81	1.9953E-01	7.5260E+00	27	85	2.5119E-01	31	89	3.1623E-01	7.1157E+00	36	93	3.9811E-01	7.1238E+00	41
97	5.0119E-01	7.2743E+00	46	101	6.3096E-01	51	105	7.9433E-01	7.9647E+00	55	109	1.0000E-01	8.4865E+00	58
113	1.2589E-01	9.1134E+00	61	117	1.5849E+00	63	121	1.9953E+00	1.0665E+01	63	125	2.5119E+00	1.1599E+01	64
129	3.1623E+00	1.2649E+01	64	133	3.9811E+00	64	137	5.0119E+00	1.5125E+01	64	141	6.3096E+00	1.6572E+01	64
145	7.9433E+00	1.8184E+01	64	149	1.0000E+01	65	153	1.2589E+01	2.2014E+01	65	157	1.5849E+01	2.4296E+01	66
161	1.9953E+01	2.6849E+01	67	165	2.5119E+01	67	169	3.1623E+01	3.2780E+01	68	173	3.9811E+01	3.6173E+01	68
177	5.0119E+01	3.9883E+01	68	181	6.3096E+01	68	185	7.9433E+01	4.8404E+01	68	189	1.0000E+02	5.3303E+01	68

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE		
1	1.9953E-03	1.2203E+01	57	5	2.5119E-03	54	9	3.1623E-03	1.5344E+01	50	13	3.9811E-03	1.7218E+01	48
17	5.0119E-03	1.9017E+01	48	21	6.3096E-03	48	25	7.9433E-03	2.0722E+01	49	29	1.0000E-02	2.4042E+01	50
33	1.2589E-02	2.5878E+01	50	37	1.5849E-02	47	41	1.9953E-02	2.7856E+01	43	45	2.5119E-02	2.8268E+01	41
49	3.1623E-02	2.6167E+01	38	53	3.9811E-02	32	57	5.0119E-02	2.0626E+01	29	61	6.3096E-02	1.8111E+01	27
65	7.9433E-02	1.5985E+01	25	69	1.0000E-01	24	73	1.2589E-01	1.4269E+01	24	77	1.5849E-01	1.1914E+01	26
81	1.9953E-01	1.1171E+01	29	85	2.5119E-01	33	89	3.1623E-01	1.0650E+01	39	93	3.9811E-01	1.0149E+01	44
97	5.0119E-01	1.0135E+01	50	101	6.3096E-01	56	105	7.9433E-01	1.0266E+01	61	109	1.0000E+00	1.0971E+01	64
113	1.2589E+00	1.1561E+01	67	117	1.5849E+00	68	121	1.9953E+00	1.2328E+01	68	125	2.5119E+00	1.4512E+01	67
129	3.1623E+00	1.5990E+01	66	133	3.9811E+00	66	137	5.0119E+00	1.7766E+01	67	141	6.3096E+00	2.2228E+01	66
145	7.9433E+00	2.4665E+01	65	149	1.0000E+01	65	153	1.2589E+01	2.7114E+01	66	157	1.5849E+01	3.3106E+01	67
161	1.9953E+01	3.7369E+01	67	165	2.5119E+01	67	169	3.1623E+01	4.2915E+01	66	173	3.9811E+01	5.2298E+01	64
177	5.0119E+01	5.5104E+01	62	181	6.3096E+01	61	185	7.9433E+01	5.8840E+01	60	189	1.0000E+02	6.7054E+01	58

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	1.5849E-03	1.9333E+00	56	1.9953E-03	2.2670E+00	58	2.5119E-03	2.6605E+00	60	3.1623E-03	3.1256E+00	61
17	3.9811E-03	3.6699E+00	62	5.0119E-03	4.2971E+00	63	6.3096E-03	5.0015E+00	64	7.9433E-03	5.7645E+00	65
33	1.0000E-02	6.5533E+00	63	1.2589E-02	7.3191E+00	61	1.5849E-02	7.9999E+00	57	1.9953E-02	8.5260E+00	53
49	2.5119E-02	8.8399E+00	50	3.1623E-02	8.9074E+00	47	3.9811E-02	8.7238E+00	43	5.0119E-02	8.3264E+00	39
65	6.3096E-02	7.7743E+00	34	7.9433E-02	7.1349E+00	30	1.0000E-01	6.4685E+00	26	1.2589E-01	5.8225E+00	23
81	1.5849E-01	5.2301E+00	21	1.9953E-01	4.7083E+00	22	2.5119E-01	4.2639E+00	27	3.1623E-01	3.8971E+00	33
97	3.9811E-01	3.6057E+00	38	5.0119E-01	3.3871E+00	43	6.3096E-01	3.2384E+00	47	7.9433E-01	3.1544E+00	49
113	1.0000E-00	3.1312E+00	51	1.2589E+00	3.1663E+00	53	1.5849E+00	3.2586E+00	56	1.9953E+00	3.4051E+00	57
129	2.5119E+00	3.6042E+00	59	3.1623E+00	3.8552E+00	59	3.9811E+00	4.1564E+00	58	5.0119E+00	4.5056E+00	56
145	6.3096E+00	4.8989E+00	55	7.9433E+00	5.3300E+00	57	1.0000E+01	5.7896E+00	58	1.2589E+01	6.2684E+00	58
161	1.5849E+01	6.7654E+00	58	1.9953E+01	7.2863E+00	57	2.5119E+01	7.8391E+00	55			

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	1.5849E-03	9.2942E+00	51	1.9953E-03	1.0182E+01	51	2.5119E-03	1.1147E+01	51	3.1623E-03	1.2182E+01	51
17	3.9811E-03	1.3274E+01	51	5.0119E-03	1.4397E+01	51	6.3096E-03	1.5505E+01	50	7.9433E-03	1.6534E+01	49
33	1.0000E-02	1.7399E+01	47	1.2589E-02	1.7994E+01	44	1.5849E-02	1.8172E+01	41	1.9953E-02	1.7831E+01	38
49	2.5119E-02	1.7043E+01	34	3.1623E-02	1.5949E+01	31	3.9811E-02	1.4707E+01	28	5.0119E-02	1.3441E+01	27
65	6.3096E-02	1.2214E+01	26	7.9433E-02	1.1063E+01	26	1.0000E-01	1.0014E+01	27	1.2589E-01	9.0772E+00	28
81	1.5849E-01	8.2544E+00	30	1.9953E-01	7.5419E+00	32	2.5119E-01	6.9338E+00	34	3.1623E-01	6.4238E+00	36
97	3.9811E-01	6.0059E+00	39	5.0119E-01	5.6751E+00	41	6.3096E-01	5.4275E+00	44	7.9433E-01	5.2594E+00	46
113	1.0000E-00	5.1613E+00	48	1.2589E+00	5.1250E+00	50	1.5849E+00	5.1446E+00	52	1.9953E+00	5.2152E+00	54
129	2.5119E+00	5.3330E+00	55	3.1623E+00	5.4939E+00	55	3.9811E+00	5.6944E+00	56	5.0119E+00	5.9328E+00	56
145	6.3096E+00	6.2073E+00	56	7.9433E+00	6.5159E+00	56	1.0000E+01	6.8555E+00	56	1.2589E+01	7.2240E+00	55
161	1.5849E+01	7.6190E+00	54	1.9953E+01	8.0374E+00	53	2.5119E+01	8.4761E+00	52	3.1623E+01	8.9359E+00	52
177	3.9811E+01	9.4188E+00	51									

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	3.1623E-03	8.5137E+00	65	3.9811E-03	9.6798E+00	63	5.0119E-03	1.1007E+01	61	6.3096E-03	1.2491E+01	59
17	7.9433E-03	1.4080E+01	56	1.0000E-02	1.5650E+01	52	1.2589E-02	1.7021E+01	47	1.5849E-02	1.7961E+01	42
33	1.9953E-02	1.8224E+01	38	2.5119E-02	1.7677E+01	33	3.1623E-02	1.6378E+01	29	3.9811E-02	1.4571E+01	26
49	5.0119E-02	1.2575E+01	23	6.3096E-02	1.0654E+01	21	7.9433E-02	8.9387E+00	20	1.0000E-01	7.4820E+00	20
65	1.2589E-01	6.2971E+00	20	1.5849E-01	5.3695E+00	21	1.9953E-01	4.6645E+00	23	2.5119E-01	4.1420E+00	26
81	3.1623E-01	3.7621E+00	30	3.9811E-01	3.4961E+00	33	5.0119E-01	3.3244E+00	37	6.3096E-01	3.2373E+00	41
97	7.9433E-01	3.2303E+00	45	1.0000E+00	3.3036E+00	48	1.2589E+00	3.4587E+00	51	1.5849E+00	3.6964E+00	53
113	1.9953E+00	4.0098E+00	55	1.2589E+00	4.3865E+00	57	1.623E+00	4.8064E+00	58	1.9811E+00	5.2384E+00	59
129	5.0119E+00	5.6419E+00	60	6.3096E+00	5.9905E+00	61	7.9433E+00	6.3007E+00	62	1.0000E+01	6.6197E+00	63
145	1.2589E+01	6.9830E+00	64	1.5849E+01	7.4111E+00	65	1.9953E+01	7.9194E+00	66	2.5119E+01	8.5155E+00	67
161	3.1623E+01	9.1941E+00	68	3.9811E+01	9.9515E+00	69	5.0119E+01	1.0785E+01	69			

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	2.5119E-03	1.5731E+01	54	3.1623E-03	1.6427E+01	55	3.9811E-03	1.7148E+01	55	5.0119E-03	1.7882E+01	55
17	6.3096E-03	1.8603E+01	55	7.9433E-03	1.9273E+01	54	1.0000E-02	1.9835E+01	54	1.2589E-02	2.0240E+01	52
33	1.5849E-02	2.0466E+01	51	1.9953E-02	2.0495E+01	48	2.5119E-02	2.0295E+01	45	3.1623E-02	1.9839E+01	42
49	3.9811E-02	1.9123E+01	38	5.0119E-02	1.8180E+01	35	6.3096E-02	1.7083E+01	31	7.9433E-02	1.5912E+01	31
65	1.0000E-01	1.4731E+01	31	1.2589E-01	1.3577E+01	31	1.5849E-01	1.2475E+01	31	1.9953E-01	1.1445E+01	32
81	2.5119E-01	1.0500E+01	33	3.1623E-01	9.6496E+00	34	3.9811E-01	8.8981E+00	35	5.0119E-01	8.2503E+00	37
97	6.3096E-01	7.7080E+00	39	7.9433E-01	7.2697E+00	41	1.0000E+00	6.9336E+00	44	1.2589E+00	6.6982E+00	46
113	1.5849E+00	6.5630E+00	48	1.9953E+00	6.5265E+00	50	2.5119E+00	6.5897E+00	52	3.1623E+00	6.7556E+00	54
129	3.9811E+00	7.0262E+00	56	5.0119E+00	7.4051E+00	57	6.3096E+00	7.8975E+00	59	7.9433E+00	8.5052E+00	60
145	1.0000E+01	9.2220E+00	61	1.2589E+01	1.0039E+01	62	1.5849E+01	1.0954E+01	63	1.9953E+01	1.1968E+01	64
161	2.5119E+01	1.3083E+01	65	3.1623E+01	1.4312E+01	66	3.9811E+01	1.5677E+01	67	5.0119E+01	1.7189E+01	68
177	6.3096E+01	1.8867E+01	69	7.9433E+01	2.0722E+01	70	1.0000E+02	2.2767E+01	71			



TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.5849E-03	1.3515E+01	8	1.9953E-03	1.3116E+01	10	2.5119E-03	1.2729E+01	12	3.1623E-03	1.2357E+01	14
17	3.9811E-03	1.1998E+01	16	5.0119E-03	1.1655E+01	18	6.3096E-03	1.1327E+01	21	7.9433E-03	1.1015E+01	23
33	1.0000E-02	1.0719E+01	26	1.2589E-02	1.0442E+01	29	4.1	1.5849E-02	1.0185E+01	32	4.5	35
49	2.5119E-02	9.7410E+00	37	3.1623E-02	9.5564E+00	39	57	3.9811E-02	9.3979E+00	41	61	42
65	6.3096E-02	9.1609E+00	43	69	7.9433E-02	9.0813E+00	44	73	1.0000E-01	9.0271E+00	45	45
81	1.5849E-01	8.9938E+00	46	85	1.9953E-01	9.0147E+00	46	89	2.5119E-01	9.0611E+00	47	47
97	3.9811E-01	9.2316E+00	47	101	5.0119E-01	9.3566E+00	48	105	6.3096E-01	9.5086E+00	48	49
113	1.0000E-01	9.8984E+00	49	117	1.2589E-01	1.0139E+01	50	121	1.5849E-01	1.0412E+01	50	51
129	2.5119E-01	1.1064E+01	51	133	3.1623E-01	1.1447E+01	51	137	3.9811E-01	1.1871E+01	51	51
145	6.3096E-01	1.2847E+01	51	149	7.9433E-01	1.3405E+01	51	153	1.0000E-01	1.4012E+01	50	50
161	1.5849E-01	1.5382E+01	49	165	1.9953E-01	1.6150E+01	48	169	2.5119E-01	1.6975E+01	46	45
177	3.9811E-01	1.8781E+01	43									

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.9953E-03	1.4311E+02	33	5	2.5119E-03	1.3568E+02	33	9	3.1623E-03	1.2859E+02	33	33
17	5.0119E-03	1.1525E+02	32	21	6.3096E-03	1.0894E+02	31	25	7.9433E-03	1.0282E+02	30	29
33	1.2589E-02	9.1214E+01	28	37	1.5849E-02	8.5773E+01	28	41	1.9953E-02	8.0614E+01	28	29
49	3.1623E-02	7.1275E+01	30	53	3.9811E-02	6.7143E+01	32	57	5.0119E-02	6.3385E+01	33	34
65	7.9433E-02	5.6997E+01	35	69	1.0000E-01	5.4339E+01	36	73	1.2589E-01	5.1997E+01	36	37
81	1.9953E-01	4.8127E+01	37	85	2.5119E-01	4.6546E+01	38	89	3.1623E-01	4.5169E+01	39	40
97	5.0119E-01	4.2934E+01	41	101	6.3096E-01	4.2031E+01	42	105	7.9433E-01	4.1246E+01	43	40
113	1.2589E-01	3.9940E+01	45	117	1.5849E-01	3.9358E+01	45	121	1.9953E-01	3.8789E+01	45	44
129	3.1623E-01	3.7603E+01	44	133	3.9811E+00	3.6987E+01	43	137	5.0119E+00	3.6347E+01	43	44
145	7.9433E-01	3.4931E+01	42	149	1.0000E+01	3.4108E+01	41	153	1.2589E+01	3.3192E+01	41	42
161	1.9953E-01	3.1114E+01	40	165	2.5119E-01	2.9986E+01	41	169	3.1623E+01	2.8835E+01	41	40
177	5.0119E-01	2.6568E+01	43									42

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	2.5119E-03	6.6154E+00	46	5	3.1623E-03	6.2021E+00	45	9	3.9811E-03	5.8238E+00	43	13	5.0119E-03	5.4859E+00	42
17	6.3096E-03	5.1921E+00	40	21	7.9433E-03	4.9453E+00	37	25	1.0000E-02	4.7488E+00	34	29	1.2589E-02	4.6057E+00	33
33	1.5849E-02	4.5200E+00	33	37	1.9953E-02	4.4975E+00	35	41	2.5119E-02	4.5460E+00	38	45	3.1623E-02	4.6738E+00	42
49	3.9811E-02	4.8852E+00	46	53	5.0119E-02	5.1806E+00	50	57	6.3096E-02	5.5588E+00	54	61	7.9433E-02	6.0183E+00	57
65	1.0000E-01	6.5558E+00	60	69	1.2589E-01	7.1657E+00	61	73	1.5849E-01	7.8423E+00	61	77	1.9953E-01	8.5760E+00	60
81	2.5119E-01	9.3519E+00	59	85	3.1623E-01	1.0148E+01	57	89	3.9811E-01	1.0937E+01	54	93	5.0119E-01	1.1682E+01	52
97	6.3096E-01	1.2341E+01	49	101	7.9433E-01	1.2869E+01	46	105	1.0000E+00	1.3224E+01	44	109	1.2589E+00	1.3385E+01	42
113	1.5849E+00	1.3385E+01	40	117	1.9953E+00	1.3204E+01	38	121	2.5119E+00	1.2865E+01	37	125	3.1623E+00	1.2395E+01	36
129	3.9811E+00	1.1812E+01	34	133	5.0119E+00	1.1145E+01	34	137	6.3096E+00	1.0417E+01	33	141	7.9433E+00	9.6537E+00	32
145	1.0000E+01	8.8758E+00	32	149	1.2589E+01	8.1022E+00	32	153	1.5849E+01	7.3484E+00	31	157	1.9953E+01	6.6265E+00	31
161	2.5119E+01	5.9457E+00	31	165	3.1623E+01	5.3118E+00	32	169	3.9811E+01	4.7285E+00	32	173	5.0119E+01	4.1972E+00	32
177	6.3096E+01	3.7176E+00	32	181	7.9433E+01	3.2881E+00	32	185	1.0000E+02	2.9061E+00	33				

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	2.5119E-03	1.9910E+01	21	5	3.1623E-03	1.9231E+01	21	9	3.9811E-03	1.8458E+01	21	13	5.0119E+03	1.7490E+01	23
17	6.3096E-03	1.6292E+01	27	21	7.9433E-03	1.4972E+01	32	25	1.0000E-02	1.3651E+01	37	29	1.2589E+02	1.2419E+01	41
33	1.5849E-02	1.1337E+01	42	37	1.9953E-02	1.0444E+01	40	41	2.5119E-02	9.7702E+00	39	45	3.1623E+02	9.3635E+00	40
49	3.9811E-02	9.3680E+00	43	53	5.0119E-02	9.9513E+00	48	57	6.3096E-02	1.1071E+01	54	61	7.9433E+02	1.2655E+01	59
65	1.0000E-01	1.4639E+01	63	69	1.2589E-01	1.6933E+01	65	73	1.5849E-01	1.9508E+01	66	77	1.9953E+01	2.2344E+01	65
81	2.5119E-01	2.5396E+01	63	85	3.1623E-01	2.8591E+01	61	89	3.9811E-01	3.1824E+01	57	93	5.0119E+01	3.4957E+01	54
97	6.3096E-01	3.7826E+01	50	101	7.9433E-01	4.0243E+01	47	105	1.0000E+00	4.2041E+01	44	109	1.2589E+00	4.3151E+01	41
113	1.5849E+00	4.3565E+01	39	117	1.9953E+00	4.3308E+01	37	121	2.5119E+00	4.2440E+01	35	125	3.1623E+00	4.1043E+01	34
129	3.9811E+00	3.9214E+01	33	133	5.0119E+00	3.7055E+01	32	137	6.3096E+00	3.4669E+01	32	141	7.9433E+00	3.2153E+01	32
145	1.0000E+01	2.9589E+01	32	149	1.2589E+01	2.7051E+01	32	153	1.5849E+01	2.4594E+01	32	157	1.9953E+01	2.2262E+01	33
161	2.5119E+01	2.0085E+01	33	165	3.1623E+01	1.8080E+01	34	159	3.9811E+01	1.6258E+01	34				

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	6.3096E-03	1.4849E+02	57	7.9433E-03	1.6984E+02	57	1.0000E-02	1.9411E+02	57	1.2589E-02	2.2147E+02	56
17	1.5849E-02	2.5201E+02	56	1.9953E-02	2.8566E+02	55	2.5119E-02	3.2222E+02	55	3.1623E-02	3.6123E+02	54
33	3.9811E-02	4.0191E+02	52	5.0119E-02	4.4301E+02	51	6.3096E-02	4.8301E+02	50	7.9433E-02	5.2005E+02	48
49	1.0000E-01	5.5204E+02	47	1.2589E-01	5.7702E+02	45	1.5849E-01	5.9402E+02	44	1.9953E-01	6.0267E+02	43
65	2.5119E-01	6.0304E+02	42	3.1623E-01	5.9602E+02	41	3.9811E-01	5.8281E+02	40	5.0119E-01	5.6475E+02	39
81	6.3096E-01	5.4324E+02	38	7.9433E-01	5.1954E+02	38	1.0000E-00	4.9485E+02	38	1.2589E+00	4.7014E+02	38
97	1.5849E+00	4.4611E+02	38	1.9953E+00	4.2332E+02	38	2.5119E+00	4.0219E+02	39	3.1623E+00	3.8304E+02	40
113	3.9811E+00	3.6599E+02	40	5.0119E+00	3.5113E+02	41	6.3096E+00	3.3853E+02	42	7.9433E+00	3.2824E+02	43
129	1.0000E+01	3.2035E+02	44	1.2589E+01	3.1491E+02	45	1.5849E+01	3.1190E+02	45	1.9953E+01	3.1104E+02	46
145	2.5119E+01	3.1210E+02	47	3.1623E+01	3.1484E+02	47	3.9811E+01	3.1910E+02	48	5.0119E+01	3.2473E+02	48
161	6.3096E+01	3.3157E+02	49	7.9433E+01	3.3942E+02	49	1.0000E+02	3.4805E+02	49	1.2589E+02	3.5720E+02	50

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	6.3096E-03	1.4849E+02	57	7.9433E-03	1.6984E+02	57	1.0000E-02	1.9411E+02	57	1.2589E-02	2.2147E+02	56
17	1.5849E-02	2.5201E+02	56	1.9953E-02	2.8566E+02	55	2.5119E-02	3.2222E+02	55	3.1623E-02	3.6123E+02	54
33	3.9811E-02	4.0191E+02	52	5.0119E-02	4.4301E+02	51	6.3096E-02	4.8301E+02	50	7.9433E-02	5.2005E+02	48
49	1.0000E-01	5.5204E+02	47	1.2589E-01	5.7702E+02	45	1.5849E-01	5.9402E+02	44	1.9953E-01	6.0267E+02	43
65	2.5119E-01	6.0304E+02	42	3.1623E-01	5.9602E+02	41	3.9811E-01	5.8281E+02	40	5.0119E-01	5.6475E+02	39
81	6.3096E-01	5.4324E+02	38	7.9433E-01	5.1954E+02	38	1.0000E-00	4.9485E+02	38	1.2589E+00	4.7014E+02	38
97	1.5849E+00	4.4611E+02	38	1.9953E+00	4.2332E+02	38	2.5119E+00	4.0219E+02	39	3.1623E+00	3.8304E+02	40
113	3.9811E+00	3.6599E+02	40	5.0119E+00	3.5113E+02	41	6.3096E+00	3.3853E+02	42	7.9433E+00	3.2824E+02	43
129	1.0000E+01	3.2035E+02	44	1.2589E+01	3.1491E+02	45	1.5849E+01	3.1190E+02	45	1.9953E+01	3.1104E+02	46
145	2.5119E+01	3.1210E+02	47	3.1623E+01	3.1484E+02	47	3.9811E+01	3.1910E+02	48	5.0119E+01	3.2473E+02	48
161	6.3096E+01	3.3157E+02	49	7.9433E+01	3.3942E+02	49	1.0000E+02	3.4805E+02	49	1.2589E+02	3.5720E+02	50

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	3.1623E-03	1.1149E+00	75	5	3.9811E-03	1.3662E+00	74	9	5.0119E-03	1.6732E+00	73	13
17	7.9433E-03	2.5002E+00	72	21	1.0000E-02	3.0465E+00	71	25	1.2589E-02	3.6998E+00	70	29
33	1.9953E-02	5.3687E+00	67	37	2.5119E-02	6.3802E+00	65	41	3.1623E-02	7.4842E+00	63	45
49	5.0119E-02	9.7821E+00	58	53	6.3096E-02	1.0826E+01	56	57	7.9433E-02	1.1667E+01	53	61
65	1.2589E-01	1.2389E+01	47	69	1.5849E-01	1.2214E+01	44	73	1.9953E-01	1.1714E+01	40	77
81	3.1623E-01	1.0053E+01	34	85	3.9811E-01	9.0637E+00	32	89	5.0119E-01	8.0648E+00	29	93
97	7.9433E-01	6.2382E+00	28	101	1.0000E+00	5.4685E+00	28	105	1.2589E+00	4.8069E+00	29	109
113	1.9953E-01	3.8056E+00	32	117	2.5119E+00	3.4589E+00	35	121	3.1623E+00	3.2064E+00	38	125
129	5.0119E+00	2.9428E+00	44	133	6.3096E+00	2.9098E+00	47	137	7.9433E+00	2.9203E+00	50	141
145	1.2589E+01	3.0264E+00	55	149	1.5849E+01	3.1092E+00	57	153	1.9953E+01	3.2029E+00	59	157

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.9953E-03	1.4764E+02	40	5	2.5119E-03	1.4139E+02	42	9	3.1623E-03	1.3798E+02	45	13
17	5.0119E-03	1.4639E+02	50	21	6.3096E-03	1.5934E+02	53	25	7.9433E-03	1.7762E+02	55	29
33	1.2589E-02	2.2485E+02	58	37	1.5849E-02	2.5192E+02	59	41	1.9953E-02	2.8129E+02	58	45
49	3.1623E-02	3.4515E+02	55	53	3.9811E-02	3.7456E+02	52	57	5.0119E-02	3.9772E+02	49	61
65	7.9433E-02	4.1605E+02	43	69	1.0000E-01	4.0914E+02	40	73	1.2589E-01	3.9097E+02	37	77
81	1.9953E-01	3.2781E+02	32	85	2.5119E-01	2.8740E+02	30	89	3.1623E-01	2.4584E+02	29	93
97	5.0119E-01	1.7243E+02	26	101	6.3096E-01	1.4382E+02	26	105	7.9433E-01	1.2069E+02	26	109
113	1.2589E+00	8.8225E+01	28	117	1.5849E+00	7.7784E+01	30	121	1.9953E+00	7.0493E+01	33	125
129	3.1623E+00	6.3481E+01	37	133	3.9811E+00	6.2746E+01	39	137	5.0119E+00	6.3296E+01	41	141
145	7.9433E+00	6.6237E+01	44	149	1.0000E+01	6.7233E+01	44	153	1.2589E+01	6.7652E+01	44	157
161	1.9953E+01	9.7427E+01	44	165	2.5119E+01	9.6997E+01	43					

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE		
1	2.5119E-03	1.0364E+01	50	5	3.1623E-03	1.1767E+01	52	9	3.9811E-03	1.3369E+01	53	13	5.0119E-03	1.5207E+01
17	6.3096E-03	1.7320E+01	55	21	7.9433E-03	1.9735E+01	56	25	1.0000E-02	2.2450E+01	56	29	1.2589E-02	2.5462E+01
33	1.5849E-02	2.8774E+01	57	37	1.9953E-02	3.2326E+01	57	41	2.5119E-02	3.6029E+01	56	45	3.1623E-02	3.9763E+01
49	3.9811E-02	4.3361E+01	56	53	5.0119E-02	4.6384E+01	57	57	6.3096E-02	4.8358E+01	56	61	7.9433E-02	4.9126E+01
65	1.0000E-01	4.8703E+01	51	69	1.2589E-01	4.7196E+01	47	73	1.5849E-01	4.4777E+01	42	77	1.9953E-01	4.1659E+01
81	2.5119E-01	3.8070E+01	33	85	3.1623E-01	3.4233E+01	30	89	3.9811E-01	3.0377E+01	27	93	5.0119E-01	2.6739E+01
97	6.3096E-01	2.3465E+01	25	101	7.9433E-01	2.0618E+01	26	105	1.0000E+00	1.8219E+01	27	109	1.2589E+00	1.6272E+01
113	1.5849E+00	1.4762E+01	32	117	1.9953E+00	1.3661E+01	35	121	2.5119E+00	1.2903E+01	38	125	3.1623E+00	1.2423E+01
129	3.9811E+00	1.2193E+01	44	133	5.0119E+00	1.2199E+01	47	137	6.3096E+00	1.2411E+01	48	141	7.9433E+00	1.2792E+01
145	1.0000E+01	1.3295E+01	51	149	1.2589E+01	1.3880E+01	51	153	1.5849E+01	1.4513E+01	52	157	1.9953E+01	1.5184E+01
161	2.5119E+01	1.5893E+01	51	165	3.1623E+01	1.6648E+01	51	169	3.9811E+01	1.7442E+01	50			

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	3.1623E-03	3.7063E+01	48	5	3.9811E-03	4.1832E+01	50	9	5.0119E-03	4.7187E+01	51	13	6.3096E-03	5.3147E+01	52
17	7.9433E-03	5.9653E+01	52	21	1.0000E-02	6.6553E+01	53	25	1.2589E-02	7.3605E+01	53	29	1.5849E-02	8.0490E+01	52
33	1.9953E-02	8.6864E+01	52	37	2.5119E-02	9.2446E+01	51	41	3.1623E-02	9.7019E+01	49	45	3.9811E-02	1.0085E+02	48
49	5.0119E-02	1.0542E+02	45	53	6.3096E-02	1.1000E+02	42	57	7.9433E-02	1.1357E+02	39	61	1.0000E-01	1.1517E+02	35
65	1.2589E-01	1.1399E+02	30	69	1.5849E-01	1.0996E+02	25	73	1.9953E-01	1.0337E+02	20	77	2.5119E-01	9.4674E+01	16
81	3.1623E-01	8.4564E+01	13	85	3.9811E-01	7.4081E+01	11	89	5.0119E-01	6.4065E+01	11	93	6.3096E-01	5.4958E+01	11
97	7.9433E-01	4.6851E+01	13	101	1.0000E+00	3.9767E+01	15	105	1.2589E+00	3.3796E+01	18	109	1.5849E+00	2.8940E+01	21
113	1.9953E+00	2.5132E+01	25	117	2.5119E+00	2.2276E+01	29	121	3.1623E+00	2.0280E+01	33	125	3.9811E+00	1.9088E+01	37
129	5.0119E+00	1.8652E+01	40	133	6.3096E+00	1.8848E+01	44	137	7.9433E+00	1.5566E+01	47	141	1.0000E+01	2.0728E+01	49
145	1.2589E+01	2.2368E+01	51	149	1.5849E+01	2.4549E+01	52	153	1.9953E+01	2.7237E+01	53	157	2.5119E+01	3.0301E+01	54

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	2.5119E-03	1.1436E+01	50	3.1623E-03	1.2577E+01	55	3.9811E-03	1.3867E+01	59	5.0119E-03	1.5377E+01	60
17	6.3096E-03	1.7274E+01	60	7.9433E-03	1.9801E+01	63	1.0000E-02	2.3147E+01	66	1.2589E-02	2.7287E+01	67
33	1.5849E-02	3.1872E+01	64	3.7953E-02	3.6558E+01	60	2.5119E-02	4.1061E+01	55	3.1623E-02	4.4880E+01	49
49	3.9811E-02	4.7379E+01	45	5.0119E-02	4.8034E+01	42	6.3096E-02	4.6877E+01	40	7.9433E-02	4.4289E+01	39
65	1.0000E-01	4.0974E+01	40	1.2589E-01	3.7598E+01	41	1.5849E-01	3.4627E+01	41	1.9953E-01	3.2279E+01	44
81	2.5119E-01	3.0680E+01	46	3.1623E-01	2.9934E+01	49	3.9811E-01	3.0141E+01	54	5.0119E-01	3.1335E+01	60
97	6.3096E-01	3.3612E+01	65	1.01	7.9433E-01	69	1.05	4.2177E+01	71	1.2589E+00	4.8723E+01	73
113	1.5849E+00	5.6680E+01	73	1.9953E+00	6.5711E+01	72	2.5119E+00	7.5807E+01	71	3.1623E+00	8.7096E+01	71
129	3.9811E+00	9.9698E+01	71	5.0119E+00	1.1370E+02	70	6.3096E+00	1.2923E+02	70	7.9433E+00	1.4646E+02	69
145	1.0000E+01	1.6547E+02	68	1.2589E+01	1.8612E+02	66	1.5849E+01	2.0807E+02	64	1.9953E+01	2.3085E+02	61
161	2.5119E+01	2.5376E+02	57	3.1623E+01	2.7629E+02	54	3.9811E+01	2.9924E+02	50			

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	2.5119E-03	7.2344E+01	46	3.1623E-03	8.1877E+01	49	3.9811E-03	9.3344E+01	51	5.0119E-03	1.0775E+02	53
17	6.3096E-03	1.2607E+02	55	7.9433E-03	1.4769E+02	55	1.0000E-02	1.6984E+02	55	1.2589E-02	1.8856E+02	54
33	1.5849E-02	2.0117E+02	51	3.7953E-02	2.0542E+02	48	2.5119E-02	1.9993E+02	44	3.1623E-02	1.8537E+02	41
49	3.9811E-02	1.6535E+02	39	5.0119E-02	1.4368E+02	36	6.3096E-02	1.2315E+02	35	7.9433E-02	1.0534E+02	35
65	1.0000E-01	9.0768E+01	37	1.2589E-01	7.9465E+01	39	1.5849E-01	7.1297E+01	41	1.9953E-01	6.6125E+01	44
81	2.5119E-01	6.3796E+01	48	3.1623E-01	6.3845E+01	51	3.9811E-01	6.5937E+01	55	5.0119E-01	6.9915E+01	59
97	6.3096E-01	7.5721E+01	62	1.01	8.3336E+01	66	1.05	9.2724E+01	69	1.2589E+00	1.0377E+02	71
113	1.5849E+00	1.1620E+02	73	1.9953E+00	1.2964E+02	75	2.5119E+00	1.4392E+02	75	3.1623E+00	1.5894E+02	75
129	3.9811E+00	1.7455E+02	75	5.0119E+00	1.9070E+02	74	6.3096E+00	2.0739E+02	72	7.9433E+00	2.2460E+02	70
145	1.0000E+01	2.4232E+02	68	1.2589E+01	2.6056E+02	65	1.5849E+01	2.7941E+02	62	1.9953E+01	2.9895E+02	59
161	2.5119E+01	3.1933E+02	56	3.1623E+01	3.4073E+02	53	3.9811E+01	3.6336E+02	50			

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	3.9811E-03	7.6148E+00	67	5.0119E-03	8.4552E+00	67	6.3096E-03	9.3655E+00	66	7.9433E-03	1.0321E+01	65
17	1.0000E-02	1.1280E+01	64	1.2589E-02	1.2186E+01	61	1.5849E-02	1.2983E+01	58	1.9953E-02	1.3611E+01	54
33	2.5119E-02	1.4015E+01	51	3.1623E-02	1.4178E+01	47	3.9811E-02	1.4097E+01	44	5.0119E-02	1.3795E+01	42
49	6.3096E-02	1.3333E+01	40	7.9433E-02	1.2783E+01	38	1.0000E-01	1.2215E+01	37	1.2589E-01	1.1673E+01	37
65	1.5849E-01	1.1193E+01	38	1.9953E-01	1.0802E+01	39	2.5119E-01	1.0527E+01	41	3.1623E-01	1.0392E+01	43
81	3.9811E-01	1.0425E+01	46	5.0119E-01	1.0659E+01	49	6.3096E-01	1.1115E+01	53	7.9433E-01	1.1824E+01	56
97	1.0000E+00	1.2805E+01	59	1.2589E+00	1.4080E+01	61	1.5849E+00	1.5682E+01	63	1.9953E+00	1.7647E+01	65
113	2.5119E+00	2.0024E+01	66	3.1623E+00	2.2864E+01	66	3.9811E+00	2.6211E+01	67	5.0119E+00	3.0084E+01	66
129	6.3096E+00	3.4485E+01	66	7.9433E+00	3.9383E+01	65	1.0000E+01	4.4688E+01	64	1.2589E+01	5.0230E+01	63
145	1.5849E+01	5.5751E+01	61	1.9953E+01	6.0950E+01	59	2.5119E+01	6.5738E+01	57	3.1623E+01	7.0268E+01	56
161	3.9811E+01	7.4728E+01	54	5.0119E+01	7.9317E+01	52						

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	3.9811E-03	3.8936E+01	52	5.0119E-03	4.0838E+01	52	6.3096E-03	4.2754E+01	51	7.9433E-03	4.4582E+01	50
17	1.0000E-02	4.6161E+01	49	1.2589E-02	4.7325E+01	48	1.5849E-02	4.7936E+01	46	1.9953E-02	4.7878E+01	44
33	2.5119E-02	4.7082E+01	42	3.1623E-02	4.5601E+01	40	3.9811E-02	4.3538E+01	38	5.0119E-02	4.1028E+01	36
49	6.3096E-02	3.8266E+01	35	7.9433E-02	3.5439E+01	34	1.0000E-01	3.2708E+01	34	1.2589E-01	3.0201E+01	35
65	1.5849E-01	2.8012E+01	36	1.9953E-01	2.6201E+01	38	2.5119E-01	2.4814E+01	40	3.1623E-01	2.3890E+01	43
81	3.9811E-01	2.3474E+01	46	5.0119E-01	2.3614E+01	49	6.3096E-01	2.4306E+01	52	7.9433E-01	2.5553E+01	55
97	1.0000E+00	2.7356E+01	58	1.2589E+00	2.9725E+01	60	1.5849E+00	3.2675E+01	62	1.9953E+00	3.6215E+01	64
113	2.5119E+00	4.0342E+01	65	3.1623E+00	4.5035E+01	66	3.9811E+00	5.0244E+01	66	5.0119E+00	5.5930E+01	66
129	6.3096E+00	6.2043E+01	66	7.9433E+00	6.8515E+01	65	1.0000E+01	7.5283E+01	64	1.2589E+01	8.2288E+01	62
145	1.5849E+01	8.9487E+01	61	1.9953E+01	9.6864E+01	59	2.5119E+01	1.0442E+02	58	3.1623E+01	1.1219E+02	56
161	3.9811E+01	1.2026E+02	54	5.0119E+01	1.2877E+02	52						

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE		
1	1.9953E-03	7.7294E+00	59	5	2.5119E-03	59	9	3.1623E-03	8.7873E+00	59	13	3.9811E-03	9.2033E+00	58
17	5.0119E-03	9.6008E+00	58	21	6.3096E-03	56	25	7.9433E-03	1.0852E+01	55	29	1.0000E-02	1.1836E+01	53
33	1.2589E-02	1.2941E+01	50	37	1.5849E-02	48	41	1.9953E-02	1.4576E+01	46	45	2.5119E-02	1.4690E+01	45
49	3.1623E-02	1.4423E+01	43	53	3.9811E-02	42	57	5.0119E-02	1.3194E+01	41	61	6.3096E-02	1.2413E+01	40
65	7.9433E-02	1.1627E+01	40	69	1.0000E-01	40	73	1.2589E-01	1.0259E+01	41	77	1.5849E-01	9.7598E+00	42
81	1.9953E-01	9.4238E+00	43	85	2.5119E-01	45	89	3.1623E-01	9.3537E+00	48	93	3.9811E-01	9.6279E+00	50
97	5.0119E-01	1.0105E+01	53	101	6.3096E-01	56	105	7.9433E-01	1.1646E+01	59	109	1.0000E+00	1.2588E+01	61
113	1.2589E+00	1.3666E+01	64	117	1.5849E+00	66	121	1.9953E+00	1.6522E+01	67	125	2.5119E+00	1.8377E+01	68
129	3.1623E+00	2.0580E+01	69	133	3.9811E+00	70	137	5.0119E+00	2.6435E+01	70	141	6.3096E+00	2.9796E+01	70
145	7.9433E+00	3.3080E+01	70	149	1.0000E+01	70	153	1.2589E+01	4.0050E+01	69	157	1.5849E+01	4.4090E+01	69
161	1.9953E+01	4.8391E+01	68	165	2.5119E+01	68								

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE		
1	1.9953E-03	1.7302E+01	55	5	2.5119E-03	55	9	3.1623E-03	1.9429E+01	56	13	3.9811E-03	2.1000E+01	57
17	5.0119E-03	2.3369E+01	58	21	6.3096E-03	59	25	7.9433E-03	3.0934E+01	59	29	1.0000E-02	3.5491E+01	58
33	1.2589E-02	3.9838E+01	55	37	1.5849E-02	52	41	1.9953E-02	4.5951E+01	49	45	2.5119E-02	4.4903E+01	45
49	3.1623E-02	4.1908E+01	41	53	3.9811E-02	37	57	5.0119E-02	3.3666E+01	35	61	6.3096E-02	2.9507E+01	33
65	7.9433E-02	2.5786E+01	33	69	1.0000E-01	33	73	1.2589E-01	2.0263E+01	35	77	1.5849E-01	1.8609E+01	38
81	1.9953E-01	1.7601E+01	41	85	2.5119E-01	44	89	3.1623E-01	1.7163E+01	48	93	3.9811E-01	1.7615E+01	51
97	5.0119E-01	1.8454E+01	54	101	6.3096E-01	57	105	7.9433E-01	2.1195E+01	59	109	1.0000E+00	2.3117E+01	61
113	1.2589E+00	2.5382E+01	63	117	1.5849E+00	65	121	1.9953E+00	3.0958E+01	66	125	2.5119E+00	3.4546E+01	67
129	3.1623E+00	3.8849E+01	68	133	3.9811E+00	68	137	5.0119E+00	5.0105E+01	69	141	6.3096E+00	5.7388E+01	70
145	7.9433E+00	6.5905E+01	70	149	1.0000E+01	70	153	1.2589E+01	8.3920E+01	70	157	1.5849E+01	9.1276E+01	69
161	1.9953E+01	9.7424E+01	69	165	2.5119E+01	69	169	3.1623E+01	1.0493E+02	67	173	3.9811E+01	1.0562E+02	65
177	5.0119E+01	1.0168E+02	63	181	6.3096E+01	60								



TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	1.5849E-03	1.9422E+00	56	5	1.9953E-03	2.0422E+00	57	9	2.5119E-03	2.1664E+00	58	13	3.1623E-03	2.3296E+00	59
17	3.9811E-03	2.5150E+00	59	21	5.0119E-03	2.7039E+00	58	25	6.3096E-03	2.8724E+00	57	29	7.9433E-03	3.0049E+00	58
33	1.0000E-02	3.1443E+00	59	37	1.2589E-02	3.3318E+00	57	41	1.5849E-02	3.5410E+00	53	45	1.9953E-02	3.7184E+00	48
49	2.5119E-02	3.8120E+00	45	53	3.1623E-02	3.8034E+00	43	57	3.9811E-02	3.6609E+00	40	61	5.0119E-02	3.4208E+00	37
65	6.3096E-02	3.1948E+00	35	69	7.9433E-02	3.0431E+00	33	73	1.0000E-01	2.9673E+00	34	77	1.2589E-01	2.9510E+00	37
81	1.5849E-01	2.9787E+00	42	85	1.9953E-01	3.0370E+00	48	89	2.5119E-01	3.1125E+00	53	93	3.1623E-01	3.1928E+00	56
97	3.9811E-01	3.2706E+00	57	101	5.0119E-01	3.3397E+00	56	105	6.3096E-01	3.3935E+00	55	109	7.9433E-01	3.4253E+00	52
113	1.0000E+00	3.4283E+00	48	117	1.2589E+00	3.3837E+00	44	121	1.5849E+00	3.2472E+00	41	125	1.9953E+00	3.0553E+00	38
129	2.5119E+00	2.8600E+00	35	133	3.1623E+00	2.6954E+00	33	137	3.9811E+00	2.5750E+00	31	141	5.0119E+00	2.5074E+00	30
145	6.3096E+00	2.4975E+00	31	149	7.9433E+00	2.5321E+00	33	153	1.0000E+01	2.5950E+00	36	157	1.2589E+01	2.6698E+00	39
161	1.5849E+01	2.7382E+00	43	165	1.9953E+01	2.7802E+00	46	169	2.5119E+01	2.7825E+00	49	173	3.1623E+01	2.7612E+00	51

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	1.5849E-03	6.7968E+00	47	5	1.9953E-03	7.1250E+00	47	9	2.5119E-03	7.4345E+00	48	13	3.1623E-03	7.6902E+00	49
17	3.9811E-03	7.8767E+00	51	21	5.0119E-03	8.0018E+00	51	25	6.3096E-03	8.0876E+00	50	29	7.9433E-03	8.1652E+00	49
33	1.0000E-02	8.2720E+00	47	37	1.2589E-02	8.3947E+00	45	41	1.5849E-02	8.4778E+00	43	45	1.9953E-02	8.4462E+00	40
49	2.5119E-02	8.2276E+00	36	53	3.1623E-02	7.7882E+00	33	57	3.9811E-02	7.1408E+00	31	61	5.0119E-02	6.3434E+00	29
65	6.3096E-02	5.4924E+00	28	69	7.9433E-02	4.6924E+00	28	73	1.0000E-01	4.0391E+00	30	77	1.2589E-01	3.5794E+00	33
81	1.5849E-01	3.2911E+00	36	85	1.9953E-01	3.1267E+00	37	89	2.5119E-01	3.0499E+00	37	93	3.1623E-01	3.0355E+00	36
97	3.9811E-01	3.0630E+00	35	101	5.0119E-01	3.1140E+00	33	105	6.3096E-01	3.1696E+00	32	109	7.9433E-01	3.2095E+00	30
113	1.0000E+00	3.2165E+00	29	117	1.2589E+00	3.1880E+00	29	121	1.5849E+00	3.1263E+00	29	125	1.9953E+00	3.0354E+00	30
129	2.5119E+00	2.9247E+00	32	133	3.1623E+00	2.8037E+00	33	137	3.9811E+00	2.6809E+00	35	141	5.0119E+00	2.5646E+00	37
145	6.3096E+00	2.4638E+00	39	149	7.9433E+00	2.3855E+00	41	153	1.0000E+01	2.3278E+00	43	157	1.2589E+01	2.2852E+00	46
161	1.5849E+01	2.2506E+00	48												

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE		
1	1.9953E-03	9.6375E+00	52	5	1.0286E+01	51	9	3.1623E-03	1.0964E+01	51	13	3.9811E-03	1.1655E+01	51
17	5.0119E-03	1.2341E+01	50	21	1.2999E+01	49	25	7.9433E-03	1.3600E+01	48	29	1.0000E-02	1.4117E+01	47
33	1.2589E-02	1.4518E+01	45	37	1.5849E-02	43	41	1.9953E-02	1.4848E+01	40	45	2.5119E-02	1.4683E+01	37
49	3.1623E-02	1.4228E+01	33	53	1.3454E+01	30	57	5.0119E-02	1.2416E+01	27	61	6.3096E-02	1.1356E+01	25
65	7.9433E-02	1.0381E+01	24	69	9.5091E+00	24	73	1.2589E-01	8.7652E+00	25	77	1.5849E-01	8.1685E+00	27
81	1.9953E-01	7.7328E+00	30	85	7.4712E+00	34	89	3.1623E-01	7.4023E+00	39	93	3.9811E-01	7.5562E+00	45
97	5.0119E-01	7.9679E+00	52	101	8.6314E+00	58	105	7.9433E-01	9.5364E+00	63	109	1.0000E+00	1.0668E+01	66
113	1.2589E+00	1.2013E+01	67	117	1.3537E+01	67	121	1.9953E+00	1.5151E+01	66	125	2.5119E+00	1.6719E+01	65
129	3.1623E+00	1.8184E+01	64	133	3.9811E+00	63	137	5.0119E+00	2.1011E+01	63	141	6.3096E+00	2.2430E+01	62
145	7.9433E+00	2.3835E+01	62	149	2.5372E+01	62	153	1.2589E+01	2.7148E+01	63	157	1.5849E+01	2.8975E+01	63
161	1.9953E+01	3.0823E+01	63	165	3.2544E+01	63	169	3.1623E+01	3.4170E+01	63	173	3.9811E+01	3.6067E+01	63
177	5.0119E+01	3.8766E+01	63	181	4.2527E+01	65	185	7.9433E+01	4.7479E+01	68	189	1.0000E+02	5.3964E+01	68
193	1.2589E+02	6.2007E+01	68											

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE		
1	1.9953E-03	7.8949E+01	52	5	8.6090E+01	52	9	3.1623E+03	9.3615E+01	52	13	3.9811E+03	1.0123E+02	52
17	5.0119E-03	1.0854E+02	52	21	1.1508E+02	51	25	7.9433E+03	1.2029E+02	50	29	1.0000E+02	1.2350E+02	48
33	1.2589E-02	1.2417E+02	46	37	1.2214E+02	43	41	1.9953E+02	1.1746E+02	40	45	2.5119E+02	1.1050E+02	36
49	3.1623E-02	1.0191E+02	32	53	9.2698E+01	29	57	5.0119E+02	8.3725E+01	27	61	6.3096E+02	7.5446E+01	25
65	7.9433E-02	6.8158E+01	25	69	6.1959E+01	26	73	1.2589E+01	5.6827E+01	28	77	1.5849E+01	5.2713E+01	30
81	1.9953E-01	4.9569E+01	33	85	4.7365E+01	37	89	3.1623E+01	4.6098E+01	40	93	3.9811E+01	4.5806E+01	44
97	5.0119E-01	4.6536E+01	48	101	4.8239E+01	52	105	7.9433E+01	5.0857E+01	55	109	1.0000E+00	5.4346E+01	57
113	1.2589E+00	5.8648E+01	59	117	6.3687E+01	61	121	1.9953E+00	6.9352E+01	62	125	2.5119E+00	7.5493E+01	63
129	3.1623E+00	8.2020E+01	63	133	8.8864E+01	63	137	5.0119E+00	9.5985E+01	62	141	6.3096E+00	1.0335E+02	62
145	7.9433E+00	1.1088E+02	61	149	1.1860E+02	61	153	1.2589E+01	1.2663E+02	61	157	1.5849E+01	1.3516E+02	61
161	1.9953E+01	1.4445E+02	61	165	1.5477E+02	61	169	3.1623E+01	1.6642E+02	62	173	3.9811E+01	1.7975E+02	63
177	5.0119E+01	1.9518E+02	63	181	2.1303E+02	64	185	7.9433E+01	2.3347E+02	65	189	1.0000E+02	2.5652E+02	66
193	1.2589E+02	2.8221E+02	67	197	3.1062E+02	67								

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	2.5119E-03	2.6224E+01	59	5	3.1623E-03	2.9987E+01	58	7	3.9811E-03	3.4286E+01	58	13	5.0119E-03	3.9063E+01	57
17	6.3096E-03	4.4177E+01	57	21	7.9433E-03	4.9570E+01	57	25	1.0000E-02	5.5117E+01	57	29	1.2589E-02	6.0727E+01	56
33	1.5849E-02	6.6011E+01	54	37	1.9953E-02	7.0284E+01	52	41	2.5119E-02	7.2814E+01	50	45	3.1623E-02	7.3341E+01	48
49	3.9811E-02	7.1878E+01	46	53	5.0119E-02	6.8769E+01	44	57	6.3096E-02	6.4734E+01	43	61	7.9433E-02	6.0629E+01	42
65	1.0000E-01	5.6987E+01	43	69	1.2589E-01	5.4135E+01	44	73	1.5849E-01	5.2323E+01	46	77	1.9953E-01	5.1757E+01	49
81	2.5119E-01	5.2647E+01	52	85	3.1623E-01	5.5132E+01	55	89	3.9811E-01	5.9445E+01	58	93	5.0119E-01	6.5958E+01	61
97	6.3096E-01	7.5000E+01	63	101	7.9433E-01	8.6668E+01	64	105	1.0000E+00	1.0082E+02	65	109	1.2589E+00	1.1696E+02	65
113	1.5849E+00	1.3418E+02	64	117	1.9953E+00	1.5118E+02	63	121	2.5119E+00	1.6684E+02	61	125	3.1623E+00	1.8076E+02	59
129	3.9811E+00	1.9180E+02	57	133	5.0119E+00	1.9878E+02	54	137	6.3096E+00	2.0140E+02	52	141	7.9433E+00	1.9985E+02	50
145	1.0000E+01	1.9460E+02	47	149	1.2589E+01	1.8641E+02	45	153	1.5849E+01	1.7640E+02	43	157	1.9953E+01	1.6553E+02	41
161	2.5119E+01	1.5413E+02	39	165	3.1623E+01	1.4265E+02	37	169	3.9811E+01	1.3153E+02	36	173	5.0119E+01	1.2107E+02	36
177	6.3096E+01	1.1142E+02	36	181	7.9433E+01	1.0262E+02	36	185	1.0000E+02	9.4632E+01	36				

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	1.5849E-03	4.1464E+01	32	5	1.9953E-03	4.6355E+01	40	9	2.5119E-03	5.1622E+01	46	13	3.1623E-03	5.7302E+01	51
17	3.9811E-03	6.3054E+01	54	21	5.0119E-03	6.8840E+01	55	25	6.3096E-03	7.4414E+01	55	29	7.9433E-03	7.9383E+01	54
33	1.0000E-02	8.3313E+01	52	37	1.2589E-02	8.5715E+01	50	41	1.5849E-02	8.6293E+01	47	45	1.9953E-02	8.4938E+01	44
49	2.5119E-02	8.1803E+01	40	53	3.1623E-02	7.7208E+01	37	57	3.9811E-02	7.1637E+01	34	61	5.0119E-02	6.5749E+01	33
65	6.3096E-02	6.0228E+01	32	69	7.9433E-02	5.5585E+01	32	73	1.0000E-01	5.1939E+01	34	77	1.2589E-01	4.9297E+01	36
81	1.5849E-01	4.7681E+01	40	85	1.9953E-01	4.7146E+01	44	89	2.5119E-01	4.7797E+01	49	93	3.1623E-01	4.9758E+01	52
97	3.9811E-01	5.3075E+01	56	101	5.0119E-01	5.7799E+01	59	105	6.3096E-01	6.3901E+01	63	109	7.9433E-01	7.1391E+01	66
113	1.0000E+00	8.0256E+01	68	117	1.2589E+00	9.0356E+01	68	121	1.5849E+00	1.0141E+02	67	125	1.9953E+00	1.1288E+02	65
129	2.5119E+00	1.2385E+02	61	133	3.1623E+00	1.3311E+02	56	137	3.9811E+00	1.3989E+02	50	141	5.0119E+00	1.4361E+02	45
145	6.3096E+00	1.4378E+02	41	149	7.9433E+00	1.4025E+02	39	153	1.0000E+01	1.3326E+02	37	157	1.2589E+01	1.2337E+02	37
161	1.5849E+01	1.1152E+02	36	165	1.9953E+01	9.9046E+01	36	169	2.5119E+01	8.7066E+01	36	173	3.1623E+01	7.6399E+01	36
177	3.9811E+01	6.7611E+01	37	181	5.0119E+01	6.0676E+01	38	185	6.3096E+01	5.4565E+01	38	189	7.9433E+01	4.9033E+01	38

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	2.5119E-03	1.2497E+01	53	3.1623E-03	1.2724E+01	54	3.9811E-03	1.3086E+01	56	5.0119E-03	1.3731E+01	57
17	6.3096E-03	1.4810E+01	57	7.9433E-03	1.6415E+01	58	1.0000E-02	1.8610E+01	58	1.2589E-02	2.1225E+01	58
33	1.5849E-02	2.4052E+01	57	1.9953E-02	2.6799E+01	56	2.5119E-02	2.9319E+01	55	3.1623E-02	3.1582E+01	53
49	3.9811E-02	3.3533E+01	51	5.0119E-02	3.4963E+01	50	6.3096E-02	3.5693E+01	48	7.9433E-02	3.5784E+01	47
65	1.0000E-01	3.5287E+01	46	1.2589E-01	3.4205E+01	45	1.5849E-01	3.2823E+01	45	1.9953E-01	3.1313E+01	46
81	2.5119E-01	2.9922E+01	47	3.1623E-01	2.8864E+01	49	3.9811E-01	2.8231E+01	50	5.0119E-01	2.8073E+01	52
97	6.3096E-01	2.8458E+01	53	1.017943E-01	2.9473E+01	54	1.0000E+00	3.1199E+01	55	1.2589E+00	3.3724E+01	56
113	1.5849E+00	3.7013E+01	56	1.9953E+00	4.0831E+01	55	2.5119E+00	4.4812E+01	55	3.1623E+00	4.8394E+01	54
129	3.9811E+00	5.1160E+01	53	5.0119E+00	5.2967E+01	52	6.3096E+00	5.3846E+01	50	7.9433E+00	5.3939E+01	48
145	1.0000E+01	5.3223E+01	47	1.2589E+01	5.1663E+01	45	1.5849E+01	4.9400E+01	43	1.9953E+01	4.6952E+01	42
161	2.5119E+01	4.4501E+01	40	3.1623E+01	4.1396E+01	39	3.9811E+01	3.8003E+01	37			

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	2.5119E-03	5.3720E+01	53	3.1623E-03	5.6067E+01	52	3.9811E-03	5.8581E+01	50	5.0119E-03	6.1345E+01	49
17	6.3096E-03	6.4428E+01	48	7.9433E-03	6.7744E+01	46	1.0000E-02	7.1075E+01	44	1.2589E-02	7.4154E+01	43
33	1.5849E-02	7.6650E+01	41	1.9953E-02	7.8139E+01	39	2.5119E-02	7.8203E+01	37	3.1623E-02	7.6606E+01	35
49	3.9811E-02	7.3327E+01	34	5.0119E-02	6.8537E+01	32	6.3096E-02	6.2631E+01	31	7.9433E-02	5.6148E+01	31
65	1.0000E-01	4.9554E+01	31	1.2589E-01	4.3256E+01	31	1.5849E-01	3.7618E+01	32	1.9953E-01	3.2871E+01	34
81	2.5119E-01	2.9118E+01	35	3.1623E-01	2.6316E+01	37	3.9811E-01	2.4349E+01	40	5.0119E-01	2.3126E+01	42
97	6.3096E-01	2.2598E+01	44	1.017943E-01	2.2735E+01	46	1.0000E+00	2.3450E+01	48	1.2589E+00	2.4619E+01	49
113	1.5849E+00	2.6120E+01	50	1.9953E+00	2.7801E+01	51	2.5119E+00	2.9474E+01	52	3.1623E+00	3.1082E+01	52
129	3.9811E+00	3.2593E+01	51	5.0119E+00	3.3912E+01	51	6.3096E+00	3.4990E+01	49	7.9433E+00	3.5743E+01	48
145	1.0000E+01	3.6104E+01	46	1.2589E+01	3.6044E+01	44	1.5849E+01	3.5566E+01	41	1.9953E+01	3.4741E+01	38
161	2.5119E+01	3.3676E+01	35	3.1623E+01	3.2523E+01	31	3.9811E+01	3.1377E+01	28			

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	6.3096E-03	4.6494E+01	50	7.9433E-03	4.9723E+01	50	9	1.0000E-02	5.3038E+01	49	13	1.2589E-02	5.6270E+01	48	
17	1.5849E-02	5.9175E+01	47	21	1.9953E-02	6.1450E+01	48	25	2.5119E-02	6.2791E+01	48	29	3.1623E-02	6.2974E+01	46
33	3.9811E-02	6.1888E+01	44	37	5.0119E-02	5.9575E+01	40	41	6.3096E-02	5.6252E+01	36	45	7.9433E-02	5.2235E+01	33
49	1.0000E-01	4.7847E+01	31	53	1.2589E-01	4.3391E+01	30	57	1.5849E-01	3.9127E+01	31	61	1.9953E-01	3.5221E+01	32
65	2.5119E-01	3.1772E+01	35	69	3.1623E-01	2.8831E+01	37	73	3.9811E-01	2.6416E+01	40	77	5.0119E-01	2.4533E+01	42
81	6.3096E-01	2.3214E+01	44	85	7.9433E-01	2.2487E+01	46	89	1.0000E-00	2.2383E+01	49	93	1.2589E-00	2.2888E+01	53
97	1.5849E+00	2.3981E+01	56	101	1.9953E+00	2.5655E+01	58	105	2.5119E+00	2.7907E+01	59	109	3.1623E+00	3.0753E+01	60
113	3.9811E+00	3.4216E+01	60	117	5.0119E+00	3.8296E+01	60	121	6.3096E+00	4.2934E+01	59	125	7.9433E+00	4.7992E+01	58
129	1.0000E+01	5.3218E+01	57	133	1.2589E+01	5.8248E+01	56	137	1.5849E+01	6.2696E+01	55	141	1.9953E+01	6.6234E+01	53
145	2.5119E+01	6.8930E+01	49	149	3.1623E+01	7.0965E+01	45	153	3.9811E+01	7.2479E+01	43	157	5.0119E+01	7.3591E+01	42
161	6.3096E+01	7.4427E+01	41	165	7.9433E+01	7.5125E+01	41								

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	6.3096E-03	6.3797E+01	50	5	7.9433E-03	6.7797E+01	9	1.0000E-02	7.1921E+01	49	13	1.2589E-02	7.6006E+01	49	
17	1.5849E-02	7.9790E+01	48	21	1.9953E-02	8.2951E+01	46	25	2.5119E-02	8.5154E+01	45	29	3.1623E-02	8.6087E+01	43
33	3.9811E-02	8.5578E+01	41	37	5.0119E-02	8.3595E+01	38	41	6.3096E-02	8.0224E+01	36	45	7.9433E-02	7.5689E+01	34
49	1.0000E-01	7.0329E+01	32	53	1.2589E-01	6.4640E+01	31	57	1.5849E-01	5.9084E+01	31	61	1.9953E-01	5.3988E+01	31
65	2.5119E-01	4.9542E+01	33	69	3.1623E-01	4.5838E+01	36	73	3.5811E-01	4.2906E+01	40	77	5.0119E-01	4.0767E+01	44
81	6.3096E-01	3.9426E+01	48	85	7.9433E-01	3.8887E+01	51	89	1.0000E-00	3.9169E+01	55	93	1.2589E-00	4.0272E+01	57
97	1.5849E+00	4.2197E+01	58	101	1.9953E+00	4.4986E+01	58	105	2.5119E+00	4.8729E+01	58	109	3.1623E+00	5.3405E+01	58
113	3.9811E+00	5.8863E+01	57	117	5.0119E+00	6.4852E+01	56	121	6.3096E+00	7.1019E+01	54	125	7.9433E+00	7.6869E+01	52
129	1.0000E+01	8.1830E+01	50	133	1.2589E+01	8.5859E+01	48	137	1.5849E+01	8.9073E+01	46	141	1.9953E+01	9.1551E+01	45
145	2.5119E+01	9.3387E+01	45	149	3.1623E+01	9.4706E+01	44	153	3.9811E+01	9.5651E+01	44	157	5.0119E+01	9.6365E+01	43
161	6.3096E+01	9.6935E+01	42	165	7.9433E+01	9.7433E+01	42								

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	1.5849E-03	4.6962E+01	56	1.9953E-03	4.9067E+01	57	2.5119E-03	5.1347E+01	58	3.1623E-03	5.3938E+01	59
17	3.9811E-03	5.7073E+01	60	5.0119E-03	6.1129E+01	62	6.3096E-03	6.6614E+01	63	7.9433E-03	7.4155E+01	65
33	1.0000E-02	8.4289E+01	66	1.2589E-02	9.7288E+01	67	1.5849E-02	1.1323E+02	69	1.9953E-02	1.3214E+02	70
49	2.5119E-02	1.5405E+02	71	3.1623E-02	1.7925E+02	69	3.9811E-02	2.0876E+02	67	5.0119E-02	2.4282E+02	64
65	6.3096E-02	2.7992E+02	61	7.9433E-02	3.1804E+02	59	1.0000E-01	3.5434E+02	56	1.2589E-01	3.8632E+02	54
81	1.5849E-01	4.1191E+02	51	1.9953E-01	4.3010E+02	49	2.5119E-01	4.4026E+02	46	3.1623E-01	4.4185E+02	44
97	3.9811E-01	4.3505E+02	42	5.0119E-01	4.2058E+02	39	6.3096E-01	3.9953E+02	37	7.9433E-01	3.7324E+02	35
113	1.0000E-00	3.4324E+02	33	1.2589E-00	3.1138E+02	32	1.5849E-00	2.7952E+02	30	1.9953E-00	2.4900E+02	29
129	2.5119E+00	2.2067E+02	28	3.1623E+00	1.9484E+02	27	3.9811E+00	1.7170E+02	26	5.0119E+00	1.5108E+02	26
145	6.3096E+00	1.3290E+02	26	7.9433E+00	1.1695E+02	26	1.0000E+01	1.0300E+02	26	1.2589E+01	9.0867E+01	27
161	1.5849E+01	8.0339E+01	28	1.9953E+01	7.1195E+01	30	2.5119E+01	6.3204E+01	31	3.1623E+01	5.6234E+01	33
177	3.9811E+01	5.0200E+01	35	5.0119E+01	4.5048E+01	37	6.3096E+01	4.0653E+01	39	7.9433E+01	3.6826E+01	41
193	1.0000E+02	3.3413E+01	43									

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	1.5849E-03	9.0402E+02	28	1.9953E-03	8.5756E+02	31	2.5119E-03	8.1693E+02	33	3.1623E-03	7.8447E+02	36
17	3.9811E-03	7.6150E+02	38	5.0119E-03	7.4896E+02	41	6.3096E-03	7.4700E+02	44	7.9433E-03	7.5530E+02	46
33	1.0000E-02	7.7486E+02	49	1.2589E-02	8.0809E+02	50	1.5849E-02	8.5868E+02	51	1.9953E-02	9.3082E+02	51
49	2.5119E-02	1.0166E+03	50	3.1623E-02	1.1048E+03	48	3.9811E-02	1.1794E+03	46	5.0119E-02	1.2237E+03	44
65	6.3096E-02	1.2281E+03	41	7.9433E-02	1.1944E+03	38	1.0000E-01	1.1277E+03	35	1.2589E-01	1.0321E+03	32
81	1.5849E-01	9.1528E+02	29	1.9953E-01	7.8900E+02	26	2.5119E-01	6.6394E+02	24	3.1623E-01	5.4799E+02	22
97	3.9811E-01	4.4596E+02	20	5.0119E-01	3.5959E+02	19	6.3096E-01	2.8864E+02	18	7.9433E-01	2.3173E+02	17
113	1.0000E+00	1.8697E+02	17	1.2589E+00	1.5236E+02	17	1.5849E+00	1.2602E+02	18	1.9953E+00	1.0628E+02	18
129	2.5119E+00	9.1641E+01	20	3.1623E+00	8.0748E+01	21	3.9811E+00	7.2504E+01	22	5.0119E+00	6.6120E+01	24
145	6.3096E+00	6.1060E+01	26	7.9433E+00	5.6955E+01	28	1.0000E+01	5.3662E+01	30	1.2589E+01	5.0832E+01	32
161	1.5849E+01	4.8310E+01	34	1.9953E+01	4.5915E+01	35	2.5119E+01	4.3485E+01	37	3.1623E+01	4.1114E+01	38
177	3.9811E+01	3.9009E+01	40	5.0119E+01	3.7184E+01	41	6.3096E+01	3.5613E+01	42	7.9433E+01	3.4256E+01	43
193	1.0000E+02	3.3076E+01	44	1.2589E+02	3.2034E+01	45	1.5849E+02	3.1061E+01	47	1.9953E+02	3.0105E+01	48

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.9953E-03	4.5266E+00	51	2.5119E-03	4.8260E+00	51	3.1623E-03	5.1484E+00	52	3.9811E-03	5.4991E+00	53
17	5.0119E-03	5.8866E+00	54	6.3096E-03	6.3125E+00	54	7.9433E-03	6.7898E+00	55	1.0000E-02	7.3182E+00	55
33	1.2589E-02	7.8948E+00	55	3.9811E-02	8.5137E+00	55	5.0119E-02	9.1657E+00	55	2.5119E-02	9.8349E+00	54
49	3.1623E-02	1.0488E+01	53	3.9811E-02	1.1071E+01	51	5.0119E-02	1.1521E+01	49	6.3096E-02	1.1786E+01	47
65	7.9433E-02	1.1848E+01	45	1.0000E-01	1.1725E+01	43	1.2589E-01	1.1449E+01	41	1.5849E-01	1.1049E+01	39
81	1.9953E-01	1.0569E+01	37	2.5119E-01	1.0035E+01	36	3.1623E-01	9.4876E+00	35	3.9811E-01	8.9412E+00	34
97	5.0119E-01	8.4203E+00	34	6.3096E-01	7.9407E+00	35	7.9433E-01	7.5129E+00	36	1.0000E-01	7.1440E+00	37
113	1.2589E+00	6.8401E+00	39	1.5849E+00	6.6051E+00	41	1.9953E+00	6.4399E+00	43	2.5119E+00	6.3453E+00	45
129	3.1623E+00	6.3211E+00	47	3.9811E+00	6.3603E+00	49	5.0119E+00	6.4555E+00	50	6.3096E+00	6.6009E+00	52
145	7.9433E+00	6.7922E+00	53	1.0000E+01	7.0243E+00	54	1.2589E+01	7.2920E+00	54	1.5849E+01	7.5898E+00	54
161	1.9953E+01	7.9131E+00	55	2.5119E+01	8.2594E+00	55	3.1623E+01	8.6278E+00	55	3.9811E+01	9.0176E+00	55
177	5.0119E+01	9.4275E+00	55									

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.9953E-03	1.5499E+01	51	2.5119E-03	1.6766E+01	51	3.1623E-03	1.8137E+01	52	3.9811E-03	1.9620E+01	53
17	5.0119E-03	2.1223E+01	53	6.3096E-03	2.2944E+01	53	7.9433E-03	2.4775E+01	53	1.0000E-02	2.6705E+01	53
33	1.2589E-02	2.8728E+01	52	3.9811E-02	3.0839E+01	51	5.0119E-02	3.3030E+01	50	2.5119E-02	3.5252E+01	48
49	3.1623E-02	3.7257E+01	46	3.9811E-02	3.8704E+01	43	5.0119E-02	3.9230E+01	39	6.3096E-02	3.8564E+01	36
65	7.9433E-02	3.6155E+01	33	1.0000E-01	3.4016E+01	30	1.2589E-01	3.0636E+01	27	1.5849E-01	2.6924E+01	25
81	1.9953E-01	2.3170E+01	24	2.5119E-01	1.9635E+01	23	3.1623E-01	1.6489E+01	23	3.9811E-01	1.3796E+01	24
97	5.0119E-01	1.1579E+01	25	6.3096E-01	9.7979E+00	28	7.9433E-01	8.3976E+00	30	1.0000E+00	7.3247E+00	33
113	1.2589E+00	6.5323E+00	36	1.5849E+00	5.9841E+00	39	1.9953E+00	5.6490E+00	42	2.5119E+00	5.4853E+00	44
129	3.1623E+00	5.4618E+00	47	3.9811E+00	5.5581E+00	49	5.0119E+00	5.7612E+00	51	6.3096E+00	6.0623E+00	52
145	7.9433E+00	6.4551E+00	53	1.0000E+01	6.9376E+00	54	1.2589E+01	7.5115E+00	54	1.5849E+01	8.1799E+00	54
161	1.9953E+01	8.9474E+00	55	2.5119E+01	9.8190E+00	55	3.1623E+01	1.0799E+01	56	3.9811E+01	1.1889E+01	56
177	5.0119E+01	1.3093E+01	57									

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	1.5849E-03	1.2765E+00	56	1.9953E-03	1.3846E+00	56	2.5119E-03	1.5028E+00	55	3.1623E-03	1.6331E+00	54
17	3.9811E-03	1.7782E+00	54	5.0119E-03	1.9425E+00	55	6.3096E-03	2.1309E+00	56	7.9433E-03	2.3442E+00	57
33	1.0000E-02	2.5822E+00	60	3.1623E-02	2.8431E+00	62	4.1	3.1342E+00	65	4.5	3.4600E+00	67
49	2.5119E-02	3.8535E+00	68	5.0119E-02	4.3151E+00	68	5.0119E-02	4.8144E+00	67	5.0119E-02	5.5582E+00	66
65	6.3096E-02	6.3761E+00	65	7.9433E-02	7.3257E+00	64	1.0000E-01	8.3908E+00	62	1.2589E-01	9.5397E+00	61
81	1.5849E-01	1.0719E+01	59	1.9953E-01	1.1866E+01	59	2.5119E-01	1.2963E+01	58	3.1623E-01	1.4033E+01	58
97	3.9811E-01	1.5121E+01	58	5.0119E-01	1.6287E+01	59	6.3096E-01	1.7597E+01	60	7.9433E-01	1.9106E+01	62
113	1.0000E-00	2.0863E+01	64	1.2589E-00	2.2930E+01	66	1.5849E-00	2.5375E+01	67	1.9953E-00	2.8241E+01	68
129	2.5119E-00	3.1561E+01	68	3.1623E+00	3.5367E+01	68	3.9811E+00	3.9094E+01	68	5.0119E+00	4.4554E+01	68
145	6.3096E-00	4.9939E+01	68	7.9433E+00	5.5812E+01	68	1.0000E+01	6.2106E+01	67	1.2589E+01	6.8790E+01	67
161	1.5849E+01	7.5860E+01	66	1.9953E+01	8.3417E+01	64	2.5119E+01	9.1599E+01	63	3.1623E+01	1.0046E+02	61
177	3.9811E+01	1.1001E+02	59	5.0119E+01	1.2028E+02	58	6.3096E+01	1.3137E+02	56	7.9433E+01	1.4340E+02	56
193	1.0000E+02	1.5651E+02	55									

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	1.5849E-03	1.3484E+02	38	1.9953E-03	1.3371E+02	40	2.5119E-03	1.3278E+02	41	3.1623E-03	1.3227E+02	43
17	3.9811E-03	1.3239E+02	44	5.0119E-03	1.3319E+02	44	6.3096E-03	1.3448E+02	44	7.9433E-03	1.3580E+02	44
33	1.0000E-02	1.3607E+02	42	1.2589E-02	1.3436E+02	41	1.5849E-02	1.3001E+02	39	1.9953E-02	1.2292E+02	36
49	2.5119E-02	1.1357E+02	34	3.1623E-02	1.0293E+02	31	3.9811E-02	9.1930E+01	29	5.0119E-02	8.1255E+01	27
65	6.3096E-02	7.1353E+01	25	7.9433E-02	6.2449E+01	24	1.0000E-01	5.4741E+01	23	1.2589E-01	4.8384E+01	24
81	1.5849E-01	4.3469E+01	25	1.9953E-01	3.9895E+01	27	2.5119E-01	3.7446E+01	30	3.1623E-01	3.5937E+01	33
97	3.9811E-01	3.5253E+01	36	5.0119E-01	3.5337E+01	40	6.3096E-01	3.6177E+01	44	7.9433E-01	3.7793E+01	47
113	1.0000E-00	4.0118E+01	50	1.2589E-00	4.3165E+01	52	1.5849E-00	4.6875E+01	54	1.9953E-00	5.1201E+01	56
129	2.5119E-00	5.6093E+01	57	3.1623E+00	6.1447E+01	58	3.9811E+00	6.7124E+01	58	5.0119E+00	7.3037E+01	58
145	6.3096E-00	7.9069E+01	58	7.9433E+00	8.5001E+01	57	1.0000E+01	9.0487E+01	57	1.2589E+01	9.5064E+01	56
161	1.5849E+01	9.8281E+01	56	1.9953E+01	9.9920E+01	55	2.5119E+01	1.0000E+02	55	3.1623E+01	9.9033E+01	54
177	3.9811E+01	9.7448E+01	54									



WBA,EDIT.SMOOTH. INVERSION  
DATA SET FOR 196 3-4 R RUN 3  
ID: 196 3-4R ELEV= 4480.0 FT. PROCESSED ON 80/05/23. 1 15.12.43.

RESISTIVITY VS. FREQUENCY OF RTE FOR 196 3-4R				( EDITED INPUT DATA )			
	FREQUENCY	RHO(TE)	PHASE(TE)		FREQUENCY	RHO(TE)	PHASE(TE)
1.	3.981E-03	2.450E+01	47.0	12.	1.585E+00	4.600E+01	70.0
2.	1.000E-02	2.605E+01	46.0	13.	2.512E+00	7.723E+01	77.2
3.	1.585E-02	2.423E+01	43.1	14.	3.901E+00	9.119E+01	71.9
4.	1.995E-02	2.599E+01	41.5	15.	7.943E+00	1.571E+02	65.8
5.	2.512E-02	2.464E+01	36.5	16.	1.000E+01	1.397E+02	65.9
6.	3.162E-02	2.219E+01	34.2	17.	1.259E+01	1.712E+02	62.8
7.	3.981E-02	1.922E+01	33.6	18.	1.585E+01	1.576E+02	59.6
8.	5.012E-02	1.684E+01	34.4	19.	1.995E+01	1.674E+02	52.1
9.	7.943E-02	1.764E+01	40.4	20.	2.512E+01	1.644E+02	46.6
10.	1.259E-01	1.340E+01	43.0	21.	3.981E+01	1.800E+02	46.0
11.	3.981E-01	2.200E+01	61.0	22.	1.000E+02	1.700E+02	37.0

WBA,EDIT.SMOOTH. INVERSION  
DATA SET FOR 196 3-4 R RUN 3  
ID: 196 3-4R ELEV= 4480.0 FT. PROCESSED ON 80/05/23. 1 15.12.43.

RESISTIVITY VS. FREQUENCY OF RTM FOR 196 3-4R				( EDITED INPUT DATA )			
	FREQUENCY	RHO(TM)	PHASE(TM)		FREQUENCY	RHO(TM)	PHASE(TM)
1.	3.981E-03	7.600E+00	62.0	13.	3.981E+00	1.724E+02	69.1
2.	1.000E-02	1.160E+01	61.8	14.	5.012E+00	1.886E+02	60.6
3.	1.585E-02	1.604E+01	60.3	15.	7.943E+00	2.273E+02	63.2
4.	1.995E-02	1.641E+01	59.6	16.	1.000E+01	2.192E+02	61.7
5.	2.512E-02	1.639E+01	60.6	17.	1.259E+01	2.797E+02	57.0
6.	3.162E-02	1.732E+01	57.3	18.	1.585E+01	2.932E+02	54.1
7.	3.981E-02	2.076E+01	53.9	19.	1.995E+01	3.206E+02	50.2
8.	5.012E-02	2.076E+01	52.9	20.	2.512E+01	3.086E+02	43.9
9.	1.259E-01	2.150E+01	47.0	21.	3.981E+01	3.300E+02	46.0
10.	3.981E-01	3.600E+01	61.0	22.	6.310E+01	3.542E+02	40.7
11.	1.585E+00	8.700E+01	70.0	23.	1.000E+02	3.250E+02	37.0
12.	2.512E+00	1.128E+02	72.9				

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	2.5119E-03	1.0003E+01	56	3.1623E-03	1.1103E+01	55	3.9811E-03	1.2324E+01	55	5.0119E-03	1.3680E+01	54
17	6.3096E-03	1.5185E+01	54	7.9433E-03	1.6852E+01	53	1.0000E-02	1.6683E+01	53	1.2589E-02	2.0671E+01	52
33	1.5849E-02	2.2805E+01	52	1.9953E-02	2.5066E+01	51	2.5119E-02	2.7428E+01	51	3.1623E-02	2.9855E+01	50
49	3.9811E-02	3.2299E+01	50	5.0119E-02	3.4704E+01	50	6.3096E-02	3.7006E+01	50	7.9433E-02	3.9156E+01	49
65	1.0000E-01	4.1122E+01	49	1.2589E-01	4.2929E+01	49	1.5849E-01	4.4626E+01	49	1.9953E-01	4.6281E+01	49
81	2.5119E-01	4.7965E+01	50	3.1623E-01	4.9757E+01	50	3.9811E-01	5.1735E+01	50	5.0119E-01	5.3967E+01	51
97	6.3096E-01	5.6518E+01	51	7.9433E-01	5.9437E+01	52	1.0000E+00	6.2766E+01	52	1.2589E+00	6.6534E+01	53
113	1.5849E+00	7.0764E+01	54	1.9953E+00	7.5478E+01	54	2.5119E+00	8.0687E+01	55	3.1623E+00	8.6390E+01	55
129	3.9811E+00	9.2580E+01	56	5.0119E+00	9.9236E+01	56	6.3096E+00	1.0633E+02	57	7.9433E+00	1.1381E+02	57
145	1.0000E+01	1.2167E+02	57	1.2589E+01	1.2992E+02	57	1.5849E+01	1.3852E+02	56	1.9953E+01	1.4746E+02	56
161	2.5119E+01	1.5674E+02	56	3.1623E+01	1.6636E+02	55	3.9811E+01	1.7636E+02	55	5.0119E+01	1.8676E+02	54
177	6.3096E+01	1.9766E+02	53	7.9433E+01	2.0906E+02	53	1.0000E+02	2.2106E+02	52			

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	2.5119E-03	2.7134E+01	59	3.1623E-03	2.9758E+01	59	3.9811E-03	3.2634E+01	59	5.0119E-03	3.5783E+01	58
17	6.3096E-03	3.9230E+01	58	7.9433E-03	4.2994E+01	58	1.0000E-02	4.7068E+01	58	1.2589E-02	5.1427E+01	57
33	1.5849E-02	5.6017E+01	56	1.9953E-02	6.0754E+01	56	2.5119E-02	6.5492E+01	54	3.1623E-02	7.0033E+01	53
49	3.9811E-02	7.4135E+01	52	5.0119E-02	7.7555E+01	50	6.3096E-02	8.0046E+01	49	7.9433E-02	8.1382E+01	47
65	1.0000E-01	8.1448E+01	46	1.2589E-01	8.0482E+01	45	1.5849E-01	7.8829E+01	44	1.9953E-01	7.6831E+01	43
81	2.5119E-01	7.4803E+01	43	3.1623E-01	7.3010E+01	43	3.9811E-01	7.1676E+01	44	5.0119E-01	7.0961E+01	44
97	6.3096E-01	7.1001E+01	45	7.9433E-01	7.1894E+01	46	1.0000E+00	7.3730E+01	48	1.2589E+00	7.6542E+01	49
113	1.5849E+00	8.0371E+01	51	1.9953E+00	8.5257E+01	52	2.5119E+00	9.1156E+01	54	3.1623E+00	9.7973E+01	55
129	3.9811E+00	1.0557E+02	57	5.0119E+00	1.1375E+02	58	6.3096E+00	1.2223E+02	58	7.9433E+00	1.3068E+02	59
145	1.0000E+01	1.3878E+02	59	1.2589E+01	1.4652E+02	59	1.5849E+01	1.5400E+02	58	1.9953E+01	1.6136E+02	58
161	2.5119E+01	1.6869E+02	57	3.1623E+01	1.7609E+02	56	3.9811E+01	1.8360E+02	54	5.0119E+01	1.9124E+02	53
177	6.3096E+01	1.9904E+02	52	7.9433E+01	2.0705E+02	50	1.0000E+02	2.1533E+02	49			

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	6.3096E-03	1.4145E+01	53	7.9433E-03	1.4961E+01	52	1.0000E-02	1.5792E+01	51	1.2589E-02	1.6604E+01	50
17	1.5849E-02	1.7353E+01	49	1.9953E-02	1.7998E+01	48	2.5119E-02	1.8492E+01	47	3.1623E-02	1.8790E+01	46
33	3.9811E-02	1.8850E+01	45	5.0119E-02	1.8659E+01	44	6.3096E-02	1.8294E+01	44	7.9433E-02	1.7853E+01	43
49	1.0000E-01	1.7426E+01	44	1.2589E-01	1.7098E+01	45	1.5849E-01	1.6944E+01	46	1.9953E-01	1.7031E+01	47
65	2.5119E-01	1.7370E+01	49	3.1623E+01	1.7973E+01	52	3.9811E+01	1.8857E+01	54	5.0119E+01	2.0045E+01	57
81	6.3096E-01	2.1571E+01	59	7.9433E+01	2.3483E+01	62	1.0000E+00	2.5835E+01	64	1.2589E+00	2.8692E+01	67
97	1.5849E+00	3.2123E+01	69	1.9953E+00	3.6230E+01	71	2.5119E+00	4.1139E+01	73	3.1623E+00	4.6991E+01	75
113	3.9811E+00	5.3898E+01	76	5.0119E+00	6.1958E+01	76	6.3096E+00	7.1308E+01	76	7.9433E+00	8.2107E+01	76
129	1.0000E+01	9.4524E+01	75	1.2589E+01	1.0875E+02	75	1.5849E+01	1.2504E+02	74	1.9953E+01	1.4369E+02	73
145	2.5119E+01	1.6507E+02	73	3.1623E+01	1.8958E+02	72	3.9811E+01	2.1770E+02	71			

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	6.3096E-03	4.1378E+01	54	7.9433E-03	4.2704E+01	52	1.0000E-02	4.3942E+01	51	1.2589E-02	4.4947E+01	49
17	1.5849E-02	4.5561E+01	47	1.9953E-02	4.5650E+01	44	2.5119E-02	4.5105E+01	42	3.1623E-02	4.4043E+01	40
33	3.9811E-02	4.2632E+01	38	5.0119E-02	4.1029E+01	37	6.3096E-02	3.9368E+01	36	7.9433E-02	3.7766E+01	36
49	1.0000E-01	3.6319E+01	36	1.2589E-01	3.5111E+01	37	1.5849E-01	3.4215E+01	38	1.9953E-01	3.3700E+01	40
65	2.5119E-01	3.3636E+01	43	3.1623E+01	3.4082E+01	46	3.9811E+01	3.5103E+01	49	5.0119E+01	3.6747E+01	53
81	6.3096E-01	3.9084E+01	57	7.9433E+01	4.2216E+01	61	1.0000E+00	4.6272E+01	65	1.2589E+00	5.1406E+01	69
97	1.5849E+00	5.7772E+01	72	1.9953E+00	6.5470E+01	74	2.5119E+00	7.4657E+01	75	3.1623E+00	8.5519E+01	76
113	3.9811E+00	9.8265E+01	77	5.0119E+00	1.1312E+02	77	6.3096E+00	1.3030E+02	76	7.9433E+00	1.5004E+02	76
129	1.0000E+01	1.7267E+02	75	1.2589E+01	1.9864E+02	74	1.5849E+01	2.2844E+02	72	1.9953E+01	2.6265E+02	71
145	2.5119E+01	3.0196E+02	70									

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	1.5849E-03	2.9640E+00	66	5	1.9953E-03	3.3332E+00	65	9	2.5119E-03	3.7632E+00	65	13	3.1623E-03	4.2499E+00	64
17	3.9811E-03	4.8080E+00	64	21	5.0119E-03	5.4268E+00	63	25	6.3096E-03	6.0855E+00	61	29	7.9433E-03	6.7659E+00	59
33	1.0000E-02	7.4206E+00	57	37	1.2589E-02	8.0041E+00	54	41	1.5849E-02	8.4604E+00	50	45	1.9953E-02	8.7398E+00	47
49	2.5119E-02	8.8310E+00	43	53	3.1623E-02	8.7451E+00	40	57	3.9811E-02	8.5171E+00	37	61	5.0119E-02	8.1897E+00	34
65	6.3096E-02	7.8033E+00	31	69	7.9433E-02	7.3905E+00	29	73	1.0000E-01	6.9786E+00	27				

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	1.5849E-03	1.2536E+01	55	5	1.9953E-03	1.3429E+01	55	9	2.5119E-03	1.4378E+01	54	13	3.1623E-03	1.5375E+01	54
17	3.9811E-03	1.6409E+01	54	21	5.0119E-03	1.7460E+01	52	25	6.3096E-03	1.8512E+01	54	29	7.9433E-03	1.9542E+01	53
33	1.0000E-02	2.0530E+01	53	37	1.2589E-02	2.1452E+01	52	41	1.5849E-02	2.2281E+01	51	45	1.9953E-02	2.2992E+01	50
49	2.5119E-02	2.3566E+01	48	53	3.1623E-02	2.3995E+01	46	57	3.9811E-02	2.4278E+01	43	61	5.0119E-02	2.4432E+01	41
65	6.3096E-02	2.4487E+01	39	69	7.9433E-02	2.4476E+01	37	73	1.0000E-01	2.4433E+01	36				

< GEOTRONICS CORP. AUSTIN, TEXAS >  
 PROCESSED ON 80/05/23, 13.10.08.

WBA-EDIT.SMOOTH. INVERSION  
 DATA SET FOR 196 3-7 R  
 ID: 196 3-7R ELEV= 4600.0 FT.

( EDITED INPUT DATA )			
RESISTIVITY	VS. FREQUENCY OF RTE FOR 196 3-7R	PHASE (TE)	PHASE (TE)
1.	FREQUENCY	RHO (TE)	FREQUENCY
2.	3.162E-03	1.400E+01	1.000E-01
3.	6.310E-03	1.532E+01	1.585E-01
4.	1.585E-02	1.966E+01	1.259E+00
5.	1.995E-02	1.950E+01	7.943E+00
6.	2.512E-02	2.135E+01	1.000E+01
7.	3.162E-02	1.851E+01	1.259E+01
8.	3.981E-02	1.509E+01	1.585E+01
9.	5.012E-02	1.514E+01	3.981E+01
10.	6.310E-02	1.340E+01	1.000E+02
	7.943E-02	1.035E+01	
		50.0	
		52.7	
		43.1	
		41.0	
		39.3	
		32.7	
		30.4	
		27.1	
		36.5	
		22.5	

< GEOTRONICS CORP. AUSTIN, TEXAS >  
 PROCESSED ON 80/05/23, 13.10.08.

WBA-EDIT.SMOOTH. INVERSION  
 DATA SET FOR 196 3-7 R  
 ID: 196 3-7R ELEV= 4600.0 FT.

( EDITED INPUT DATA )			
RESISTIVITY	VS. FREQUENCY OF RTE FOR 196 3-7R	PHASE (TM)	PHASE (TM)
1.	FREQUENCY	RHO (TM)	FREQUENCY
2.	3.162E-03	1.800E+01	1.259E+00
3.	6.310E-03	2.704E+01	1.995E+00
4.	1.585E-02	3.352E+01	3.981E+00
5.	1.995E-02	3.800E+01	5.012E+00
6.	2.512E-02	3.579E+01	6.310E+00
7.	3.162E-02	4.034E+01	7.943E+00
8.	3.981E-02	3.766E+01	1.000E+01
9.	5.012E-02	3.604E+01	1.259E+01
10.	6.310E-02	4.067E+01	1.585E+01
11.	7.943E-02	4.099E+01	2.512E+01
12.	1.000E-01	3.537E+01	3.981E+01
13.	1.259E-01	3.676E+01	1.000E+02
	1.585E-01	2.550E+01	
		60.0	
		52.4	
		51.8	
		47.0	
		49.2	
		47.8	
		42.5	
		44.5	
		33.8	
		38.9	
		42.6	
		39.7	
		30.0	

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	7.9433E-03	7.7320E+00	38	5	1.0000E-02	7.2297E+00	38	9	1.2589E-02	6.7680E+00	37	13	1.5849E-02	6.3506E+00	37
17	1.9953E-02	5.9798E+00	37	21	2.5119E-02	5.6570E+00	37	25	3.1623E-02	5.3826E+00	37	29	3.9811E-02	5.1570E+00	37
33	5.0119E-02	4.9801E+00	38	37	6.3096E-02	4.8516E+00	39	41	7.9433E-02	4.7722E+00	40	45	1.0000E-01	4.7431E+00	42
49	1.2589E-01	4.7650E+00	44	53	1.5849E-01	4.8397E+00	46	57	1.9953E-01	4.9702E+00	48	61	2.5119E-01	5.1580E+00	51
65	3.1623E-01	5.4059E+00	53	69	3.9811E-01	5.7178E+00	56	73	5.0119E-01	6.0991E+00	59	77	6.3096E-01	6.5568E+00	61
81	7.9433E-01	7.0994E+00	64	85	1.0000E+00	7.7379E+00	66	89	1.2589E+00	8.4855E+00	68	93	1.5849E+00	9.3573E+00	70
97	1.9953E+00	1.0371E+01	71	101	2.5119E+00	1.1548E+01	72	105	3.1623E+00	1.2910E+01	73	109	3.9811E+00	1.4483E+01	73
113	5.0119E+00	1.6299E+01	72	117	6.3096E+00	1.8394E+01	71	121	7.9433E+00	2.0812E+01	70	125	1.0000E+01	2.3602E+01	68
129	1.2589E+01	2.6816E+01	66	133	1.5849E+01	3.0506E+01	64	137	1.9953E+01	3.4726E+01	62	141	2.5119E+01	3.9543E+01	59
145	3.1623E+01	4.5036E+01	57	149	3.9811E+01	5.1297E+01	55								

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	7.9433E-03	2.1179E+01	43	5	1.0000E-02	1.9479E+01	43	9	1.2589E-02	1.7928E+01	43	13	1.5849E-02	1.6523E+01	42
17	1.9953E-02	1.5261E+01	42	21	2.5119E-02	1.4137E+01	41	25	3.1623E-02	1.3150E+01	41	29	3.9811E-02	1.2297E+01	40
33	5.0119E-02	1.1579E+01	40	37	6.3096E-02	1.1001E+01	40	41	7.9433E-02	1.0572E+01	41	45	1.0000E-01	1.0300E+01	41
49	1.2589E-01	1.0189E+01	43	53	1.5849E-01	1.0249E+01	45	57	1.9953E-01	1.0491E+01	47	61	2.5119E-01	1.0922E+01	49
65	3.1623E-01	1.1554E+01	51	69	3.9811E-01	1.2406E+01	54	73	5.0119E-01	1.3507E+01	57	77	6.3096E-01	1.4896E+01	59
81	7.9433E-01	1.6620E+01	62	85	1.0000E+00	1.8723E+01	64	89	1.2589E+00	2.1250E+01	66	93	1.5849E+00	2.4247E+01	68
97	1.9953E+00	2.7752E+01	69	101	2.5119E+00	3.1795E+01	70	105	3.1623E+00	3.6389E+01	71	109	3.9811E+00	4.1555E+01	71
113	5.0119E+00	4.7308E+01	71	117	6.3096E+00	5.3650E+01	70	121	7.9433E+00	6.0573E+01	69	125	1.0000E+01	6.8074E+01	67
129	1.2589E+01	7.6150E+01	65	133	1.5849E+01	8.4790E+01	63	137	1.9953E+01	9.4024E+01	61	141	2.5119E+01	1.0392E+02	59
145	3.1623E+01	1.1458E+02	57	149	3.9811E+01	1.2617E+02	55								

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	PHASE		
1	3.1623E-03	1.6205E+01	56	5	3.9811E-03	1.9070E+01	56	9	5.0119E-03	2.2421E+01	57	13	6.3096E-03	2.6313E+01	57
17	7.9433E-03	3.0798E+01	58	21	1.0000E-02	3.5918E+01	58	25	1.2589E-02	4.1701E+01	58	29	1.5849E-02	4.8156E+01	58
33	1.9953E-02	5.5260E+01	58	37	2.5119E-02	6.2959E+01	58	41	3.1623E-02	7.1153E+01	58	45	3.9811E-02	7.9694E+01	57
49	5.0119E-02	8.8382E+01	56	53	6.3096E-02	9.6567E+01	55	57	7.9433E-02	1.0515E+02	54	61	1.0000E-01	1.1260E+02	52
65	1.2589E-01	1.1899E+02	50	69	1.5849E-01	1.2413E+02	48	73	1.9953E-01	1.2792E+02	45	77	2.5119E-01	1.3028E+02	43
81	3.1623E-01	1.3122E+02	40	85	3.9811E-01	1.3076E+02	37	89	5.0119E-01	1.2898E+02	35	93	6.3096E-01	1.2595E+02	33
97	7.9433E-01	1.2165E+02	31	101	1.0000E+00	1.1577E+02	30	105	1.2589E+00	1.0804E+02	29	109	1.5849E+00	9.8459E+01	28
113	1.9953E+00	8.7405E+01	28	117	2.5119E+00	7.5429E+01	28	121	3.1623E+00	6.3673E+01	28	125	3.9811E+00	5.3276E+01	29
129	5.0119E+00	4.4833E+01	30	133	6.3096E+00	3.8480E+01	31	137	7.9433E+00	3.4084E+01	32	141	1.0000E+01	3.1375E+01	33
145	1.2589E+01	2.9845E+01	35	149	1.5849E+01	2.9065E+01	36	153	1.9953E+01	2.8725E+01	37	157	2.5119E+01	2.8679E+01	39
161	3.1623E+01	2.8778E+01	40												

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	3.1623E-03	5.8623E+02	36	5	3.9811E-03	6.1706E+02	36	9	5.0119E-03	6.4865E+02	37	13	6.3096E-03	6.8005E+02	38
17	7.9433E-03	7.1015E+02	39	21	1.0000E-02	7.3767E+02	39	25	1.2589E-02	7.6120E+02	40	29	1.5849E-02	7.7927E+02	40
33	1.9953E-02	7.9041E+02	40	37	2.5119E-02	7.9327E+02	40	41	3.1623E-02	7.8671E+02	39	45	3.9811E-02	7.6996E+02	38
49	5.0119E-02	7.4267E+02	37	53	6.3096E-02	7.0506E+02	35	57	7.9433E-02	6.5794E+02	33	61	1.0000E-01	6.0270E+02	30
65	1.2589E-01	5.4144E+02	27	69	1.5849E-01	4.7723E+02	23	73	1.9953E-01	4.1318E+02	20	77	2.5119E-01	3.5223E+02	17
81	3.1623E-01	2.9646E+02	14	85	3.9811E-01	2.4703E+02	12	89	5.0119E-01	2.0447E+02	11	93	6.3096E-01	1.6862E+02	11
97	7.9433E-01	1.3865E+02	11	101	1.0000E+00	1.1363E+02	10	105	1.2589E+00	9.2921E+01	11	109	1.5849E+00	7.6007E+01	12
113	1.9953E+00	6.2367E+01	13	117	2.5119E+00	5.1518E+01	15	121	3.1623E+00	4.3062E+01	18	125	3.9811E+00	3.6592E+01	21
129	5.0119E+00	3.1720E+01	25	133	6.3096E+00	2.8112E+01	29	137	7.9433E+00	2.5496E+01	32	141	1.0000E+01	2.3674E+01	36
145	1.2589E+01	2.2492E+01	39	149	1.5849E+01	2.1813E+01	42	153	1.9953E+01	2.1519E+01	43	157	2.5119E+01	2.1465E+01	44
161	3.1623E+01	2.1540E+01	45	165	3.9811E+01	2.1674E+01	46								

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	1.5849E-03	1.1999E+01	45	5	1.9953E-03	1.2617E+01	53	9	2.5119E-03	1.3274E+01	57	13
17	3.9811E-03	1.4769E+01	57	21	5.0119E-03	1.5648E+01	59	25	6.3096E-03	1.6643E+01	62	29
33	1.0000E-02	1.9056E+01	63	37	1.2589E-02	2.0505E+01	64	41	1.5849E-02	2.2136E+01	67	45
49	2.5119E-02	2.5960E+01	69	53	3.1623E-02	2.8107E+01	68	57	3.9811E-02	3.0335E+01	66	61
65	6.3096E-02	3.4857E+01	64	69	7.9433E-02	3.7085E+01	63	73	1.0000E-01	3.9241E+01	62	77
81	1.5849E-01	4.3173E+01	61	85	1.9953E-01	4.4862E+01	60	89	2.5119E-01	4.6308E+01	58	93
97	3.9811E-01	4.8314E+01	52	101	5.0119E-01	4.8231E+01	48	105	6.3096E-01	4.9025E+01	45	109
113	1.0000E+00	4.8522E+01	39	117	1.2589E+00	4.7907E+01	37	121	1.5849E+00	4.7111E+01	36	125
129	2.5119E+00	4.5160E+01	36	133	3.1623E+00	4.4091E+01	38	137	3.9811E+00	4.3011E+01	39	141
145	6.3096E+00	4.0959E+01	44	149	7.9433E+00	4.0041E+01	46	153	1.0000E+01	3.9200E+01	47	157
161	1.5849E+01	3.7752E+01	48	165	1.9953E+01	3.7107E+01	48	169	2.5119E+01	3.6501E+01	48	173

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	1.5849E-03	6.3870E+02	33	5	1.9953E-03	6.1909E+02	33	9	2.5119E-03	6.0147E+02	34	13
17	3.9811E-03	5.7970E+02	37	21	5.0119E-03	5.7812E+02	40	25	6.3096E-03	5.8387E+02	42	29
33	1.0000E-02	6.1843E+02	47	37	1.2589E-02	6.4599E+02	48	41	1.5849E-02	6.7779E+02	49	45
49	2.5119E-02	7.3476E+02	48	53	3.1623E-02	7.4888E+02	46	57	3.9811E-02	7.4830E+02	43	61
65	6.3096E-02	7.0210E+02	34	69	7.9433E-02	6.5944E+02	29	73	1.0000E-01	6.0738E+02	25	77
81	1.5849E-01	4.8799E+02	18	85	1.9953E-01	4.2658E+02	15	89	2.5119E-01	3.6725E+02	13	93
97	3.9811E-01	2.6119E+02	9	101	5.0119E-01	2.1658E+02	7	105	6.3096E-01	1.7823E+02	7	109
113	1.0000E+00	1.1927E+02	7	117	1.2589E+00	9.7557E+01	7	121	1.5849E+00	8.0126E+01	8	125
129	2.5119E+00	5.5295E+01	11	133	3.1623E+00	4.6598E+01	13	137	3.9811E+00	3.9716E+01	16	141
145	6.3096E+00	3.0004E+01	22	149	7.9433E+00	2.6653E+01	26	153	1.0000E+01	2.4006E+01	30	157
161	1.5849E+01	2.0140E+01	38	165	1.9953E+01	1.8672E+01	42	169	2.5119E+01	1.7397E+01	45	173



7E MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	3.1623E-03	6.9246E+00	41	5	3.9811E-03	6.7112E+00	43	9	5.0119E-03	6.5388E+00	44	13	6.3086E-03	6.4386E+00	46
17	7.9433E-03	6.4456E+00	47	21	1.0000E-02	6.6217E+00	49	25	1.2589E-02	7.0760E+00	50	29	1.5849E-02	7.9203E+00	50
33	1.9953E-02	9.0243E+00	51	37	2.5119E-02	1.0154E+01	51	41	3.1623E-02	1.1225E+01	50	45	3.9811E-02	1.2184E+01	49
49	5.0119E-02	1.2973E+01	48	53	6.3096E-02	1.3565E+01	47	57	7.9433E-02	1.3949E+01	45	61	1.0000E-01	1.4120E+01	44
65	1.2589E-01	1.4085E+01	42	69	1.5849E-01	1.3858E+01	41	73	1.9953E-01	1.5467E+01	40	77	2.5119E-01	1.2955E+01	38
81	3.1623E-01	1.2365E+01	38	85	3.9811E-01	1.1739E+01	37	89	5.0119E-01	1.1110E+01	37	93	6.3086E-01	1.0497E+01	38
97	7.9433E-01	9.9135E+00	38	101	1.0000E+00	9.3705E+00	39	105	1.2589E+00	8.8756E+00	41	109	1.5849E+00	8.4345E+00	42
113	1.9953E+00	8.0517E+00	43	117	2.5119E+00	7.7305E+00	45	121	3.1623E+00	7.4739E+00	46	125	3.9811E+00	7.2853E+00	47
129	5.0119E+00	7.1686E+00	48	133	6.3096E+00	7.1266E+00	49	137	7.9433E+00	7.1538E+00	49	141	1.0000E+01	7.2336E+00	50
145	1.2589E+01	7.3875E+00	50	149	1.5849E+01	7.5756E+00	50	153	1.9953E+01	7.7966E+00	50	157	2.5119E+01	8.0388E+00	50

7M MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	3.1623E-03	2.9249E+01	57	5	3.9811E-03	3.3006E+01	57	9	5.0119E-03	3.6985E+01	57	13	6.3096E-03	4.0865E+01	57
17	7.9433E-03	4.4095E+01	56	21	1.0000E-02	4.5412E+01	56	25	1.2589E-02	4.4461E+01	55	29	1.5849E-02	4.5276E+01	54
33	1.9953E-02	4.7801E+01	52	37	2.5119E-02	5.0900E+01	50	41	3.1623E-02	5.3634E+01	47	45	3.9811E-02	5.5462E+01	45
49	5.0119E-02	5.6014E+01	41	53	6.3096E-02	5.5256E+01	38	57	7.9433E-02	5.3401E+01	33	61	1.0000E-01	5.0614E+01	28
65	1.2589E-01	4.6991E+01	23	69	1.5849E-01	4.2661E+01	18	73	1.9953E-01	3.7844E+01	14	77	2.5119E-01	3.2903E+01	11
81	3.1623E-01	2.8122E+01	10	85	3.9811E-01	2.3606E+01	11	89	5.0119E-01	1.9451E+01	15	93	6.3096E-01	1.5825E+01	20
97	7.9433E-01	1.2804E+01	27	101	1.0000E+00	1.0377E+01	34	105	1.2589E+00	8.4870E+00	41	109	1.5849E+00	7.0549E+00	46
113	1.9953E+00	5.9982E+00	49	117	2.5119E+00	5.2283E+00	51	121	3.1623E+00	4.6784E+00	51	125	3.9811E+00	4.3033E+00	50
129	5.0119E+00	4.0744E+00	49	133	6.3096E+00	3.9717E+00	49	137	7.9433E+00	3.9679E+00	49	141	1.0000E+01	4.0397E+00	48
145	1.2589E+01	4.1692E+00	49	149	1.5849E+01	4.3458E+00	49	153	1.9953E+01	4.5598E+00	49	157	2.5119E+01	4.8003E+00	49

FE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.5849E-03	5.4070E+00	57	1.9953E-03	5.7258E+00	58	2.5119E-03	6.0611E+00	59	3.1623E-03	6.4112E+00	60
17	3.9811E-03	6.7740E+00	61	5.0119E-03	7.1463E+00	62	6.3096E-03	7.5219E+00	63	7.9433E-03	7.8935E+00	63
33	1.0000E-02	8.2521E+00	63	1.2589E-02	8.5878E+00	63	1.5849E-02	8.8905E+00	62	1.9953E-02	9.1521E+00	60
49	2.5119E-02	9.3667E+00	57	3.1623E-02	9.5345E+00	55	3.9811E-02	9.6578E+00	52	5.0119E-02	9.7399E+00	49
65	6.3096E-02	9.7868E+00	47	7.9433E-02	9.8127E+00	45	1.0000E-01	9.8339E+00	44	1.2589E-01	9.8670E+00	43
81	1.5849E-01	9.9289E+00	43	1.9953E-01	1.0037E+01	44	2.5119E-01	1.0210E+01	45	3.1623E-01	1.0467E+01	47
97	3.9811E-01	1.0826E+01	49	5.0119E-01	1.1307E+01	52	6.3096E-01	1.1934E+01	55	7.9433E-01	1.2723E+01	58
113	1.0000E-01	1.3697E+01	61	1.2589E-01	1.4882E+01	63	1.5849E-01	1.6313E+01	65	1.9953E-01	1.8028E+01	66
129	2.5119E-01	2.0064E+01	67	3.1623E-01	2.2459E+01	67	3.9811E-01	2.5253E+01	66	5.0119E-01	2.8487E+01	65
145	6.3096E-01	3.2195E+01	64	7.9433E-01	3.6412E+01	63	1.0000E-01	4.1186E+01	61	1.2589E-01	4.6584E+01	59
161	1.5849E-01	5.2678E+01	57	1.9953E-01	5.9545E+01	55	2.5119E-01	6.7277E+01	52	3.1623E-01	7.5993E+01	50

FM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.5849E-03	1.9356E+01	36	1.9953E-03	1.8576E+01	37	2.5119E-03	1.7822E+01	39	3.1623E-03	1.7089E+01	40
17	3.9811E-03	1.6372E+01	41	5.0119E-03	1.5666E+01	42	6.3096E-03	1.4970E+01	42	7.9433E-03	1.4284E+01	42
33	1.0000E-02	1.3606E+01	42	1.2589E-02	1.2936E+01	41	1.5849E-02	1.2275E+01	40	1.9953E-02	1.1630E+01	39
49	2.5119E-02	1.1010E+01	37	3.1623E-02	1.0431E+01	36	3.9811E-02	9.9081E+00	34	5.0119E-02	9.4602E+00	33
65	6.3096E-02	9.1012E+00	33	7.9433E-02	8.8369E+00	34	1.0000E-01	8.6810E+00	35	1.2589E-01	8.6371E+00	36
81	1.5849E-01	8.7209E+00	38	1.9953E-01	8.9518E+00	41	2.5119E-01	9.3579E+00	44	3.1623E-01	9.9740E+00	47
97	3.9811E-01	1.0826E+01	50	5.0119E-01	1.1946E+01	54	6.3096E-01	1.3376E+01	58	7.9433E-01	1.5162E+01	62
113	1.0000E-01	1.7353E+01	65	1.2589E-01	1.9988E+01	68	1.5849E-01	2.3106E+01	69	1.9953E-01	2.6743E+01	70
129	2.5119E-01	3.0931E+01	71	3.1623E-01	3.5693E+01	71	3.9811E-01	4.1074E+01	70	5.0119E-01	4.7130E+01	69
145	6.3096E-01	5.3915E+01	68	7.9433E-01	6.1481E+01	67	1.0000E-01	6.9875E+01	65	1.2589E-01	7.9140E+01	63
161	1.5849E-01	8.9308E+01	60	1.9953E-01	1.0042E+02	58	2.5119E-01	1.1262E+02	55	3.1623E-01	1.2616E+02	52

FILE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	1.5849E-03	1.1717E+01	43	5	1.9953E-03	1.2440E+01	47	9	2.5119E-03	1.3230E+01	50	13	3.1623E-03	1.4125E+01	53
17	3.9811E-03	1.5176E+01	55	21	5.0119E-03	1.6424E+01	57	25	6.3096E-03	1.7908E+01	59	29	7.9433E-03	1.9684E+01	60
33	1.0000E-02	2.1835E+01	61	37	1.2589E-02	2.4378E+01	60	41	1.5849E-02	2.6892E+01	58	45	1.9953E-02	2.9105E+01	54
49	2.5119E-02	3.0937E+01	52	53	3.1623E-02	3.2471E+01	49	57	3.9811E-02	3.3547E+01	46	61	5.0119E-02	3.4029E+01	43
65	6.3096E-02	3.3880E+01	40	69	7.9433E-02	3.3221E+01	36	73	1.0000E-01	3.2217E+01	32	77	1.2589E-01	3.1018E+01	29
81	1.5849E-01	2.9753E+01	28	85	1.9953E-01	2.8519E+01	30	89	2.5119E-01	2.7393E+01	33	93	3.1623E-01	2.6438E+01	36
97	3.9811E-01	2.5712E+01	40	101	5.0119E-01	2.5267E+01	43	105	6.3096E-01	2.5147E+01	47	109	7.9433E-01	2.5410E+01	50
113	1.0000E+00	2.6108E+01	52	117	1.2589E+00	2.7239E+01	55	121	1.5849E+00	2.8797E+01	57	125	1.9953E+00	3.0783E+01	58
129	2.5119E+00	3.3200E+01	59	133	3.1623E+00	3.6050E+01	58	137	3.9811E+00	3.9321E+01	57	141	5.0119E+00	4.2985E+01	55
145	6.3096E+00	4.6989E+01	54	149	7.9433E+00	5.1245E+01	54	153	1.0000E+01	5.5642E+01	54	157	1.2589E+01	6.0083E+01	55
161	1.5849E+01	6.4495E+01	55	165	1.9953E+01	6.8837E+01	55	169	2.5119E+01	7.3089E+01	54	173	3.1623E+01	7.7244E+01	52
177	3.9811E+01	8.1303E+01	51	181	5.0119E+01	8.5272E+01	50	185	6.3096E+01	8.9183E+01	49	189	7.9433E+01	9.3113E+01	50
193	1.0000E+02	9.7154E+01	51												

FILE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	1.5849E-03	7.4048E+01	41	5	1.9953E-03	7.3008E+01	49	9	2.5119E-03	7.2077E+01	50	13	3.1623E-03	7.1337E+01	48
17	3.9811E-03	7.0868E+01	46	21	5.0119E-03	7.0726E+01	45	25	6.3096E-03	7.0872E+01	43	29	7.9433E-03	7.1208E+01	42
33	1.0000E-02	7.1604E+01	42	37	1.2589E-02	7.1976E+01	39	41	1.5849E-02	7.1852E+01	36	45	1.9953E-02	7.0701E+01	34
49	2.5119E-02	6.8053E+01	33	53	3.1623E-02	6.3879E+01	33	57	3.9811E-02	5.8662E+01	30	61	5.0119E-02	5.3033E+01	28
65	6.3096E-02	4.7524E+01	27	69	7.9433E-02	4.2542E+01	27	73	1.0000E-01	3.8337E+01	28	77	1.2589E-01	3.5004E+01	30
81	1.5849E-01	3.2417E+01	33	85	1.9953E-01	3.0445E+01	36	89	2.5119E-01	2.8990E+01	40	93	3.1623E-01	2.7980E+01	43
97	3.9811E-01	2.7372E+01	46	101	5.0119E-01	2.7149E+01	49	105	6.3096E-01	2.7313E+01	52	109	7.9433E-01	2.7875E+01	55
113	1.0000E+00	2.8836E+01	58	117	1.2589E+00	3.0198E+01	60	121	1.5849E+00	3.1976E+01	59	125	1.9953E+00	3.4185E+01	58
129	2.5119E+00	3.6844E+01	56	133	3.1623E+00	3.9973E+01	54	137	3.9811E+00	4.3588E+01	53	141	5.0119E+00	4.7702E+01	53
145	6.3096E+00	5.2312E+01	56	149	7.9433E+00	5.7403E+01	60	153	1.0000E+01	6.2944E+01	61	157	1.2589E+01	6.8891E+01	60
161	1.5849E+01	7.5158E+01	60	165	1.9953E+01	8.1647E+01	60	169	2.5119E+01	8.8210E+01	60	173	3.1623E+01	9.4510E+01	58
177	3.9811E+01	1.0019E+02	56	181	5.0119E+01	1.0501E+02	54	185	6.3096E+01	1.0891E+02	51	189	7.9433E+01	1.1209E+02	50
193	1.0000E+02	1.1484E+02	50												

1C MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	1.9953E-03	1.6442E+01	46	5	2.5119E-03	1.7235E+01	48	9	3.1623E+03	1.8344E+01	50	13	3.9811E-03	1.9816E+01	51
17	5.0119E-03	2.1586E+01	54	21	6.3096E-03	2.3478E+01	58	25	7.9433E+03	2.5739E+01	59	29	1.0000E-02	2.8586E+01	56
33	1.2589E-02	3.2510E+01	55	37	1.5849E-02	3.6185E+01	54	41	1.9953E+02	3.7081E+01	54	45	2.5119E-02	3.7145E+01	48
49	3.1623E-02	3.8413E+01	44	53	3.9811E-02	4.1595E+01	42	57	5.0119E-02	4.5028E+01	42	61	6.3096E-02	4.6785E+01	42
65	7.9433E-02	5.2407E+01	43	69	1.0000E-01	5.5303E+01	43	73	1.2589E-01	5.6928E+01	43	77	1.5849E-01	5.7279E+01	43
81	1.9953E-01	5.6576E+01	42	85	2.5119E-01	5.5101E+01	41	89	3.1623E+01	5.3140E+01	40	93	3.9811E-01	5.0966E+01	39
97	5.0119E-01	4.8958E+01	38	101	6.3096E-01	4.7345E+01	38	105	7.9433E-01	4.6400E+01	39	109	1.0000E+00	4.6307E+01	40
113	1.2589E+00	4.7011E+01	42	117	1.5849E+00	4.8427E+01	44	121	1.9953E+00	5.0491E+01	46	125	2.5119E+00	5.3148E+01	49
129	3.1623E+00	5.6339E+01	51	133	3.9811E+00	5.9993E+01	54	137	5.0119E+00	6.4013E+01	56	141	6.3096E+00	6.8266E+01	57
145	7.9433E+00	7.2583E+01	59	149	1.0000E+01	7.6702E+01	59	153	1.2589E+01	8.0124E+01	60	157	1.5849E+01	8.2281E+01	60
161	1.9953E+01	8.3002E+01	60	165	2.5119E+01	8.3060E+01	60	169	3.1623E+01	8.3011E+01	59	173	3.9811E+01	8.3005E+01	59
177	5.0119E+01	8.3084E+01	59												

1C MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	2.5119E-03	1.0585E+02	47	5	3.1623E-03	1.0649E+02	47	9	3.9811E-03	1.0746E+02	47	13	5.0119E-03	1.0891E+02	47
17	6.3096E-03	1.1088E+02	47	21	7.9433E-03	1.1321E+02	46	25	1.0000E-02	1.1528E+02	45	29	1.2589E-02	1.1636E+02	44
33	1.5849E-02	1.1556E+02	42	37	1.9953E-02	1.1227E+02	40	41	2.5119E-02	1.0777E+02	39	45	3.1623E-02	1.0374E+02	36
49	3.9811E-02	9.9029E+01	34	53	5.0119E-02	9.5729E+01	32	57	6.3096E-02	9.1452E+01	30	61	7.9433E-02	8.6969E+01	28
65	1.0000E-01	8.2312E+01	27	69	1.2589E-01	7.7594E+01	26	73	1.5849E-01	7.2949E+01	25	77	1.9953E-01	6.8657E+01	25
81	2.5119E-01	6.4719E+01	25	85	3.1623E-01	6.1269E+01	26	89	3.9811E-01	5.8382E+01	27	93	5.0119E-01	5.6146E+01	29
97	6.3096E-01	5.4648E+01	31	101	7.9433E-01	5.3984E+01	33	105	1.0000E+00	5.4237E+01	35	109	1.2589E+00	5.5379E+01	38
113	1.5849E+00	5.7383E+01	40	117	1.9953E+00	6.0253E+01	43	121	2.5119E+00	6.4017E+01	46	125	3.1623E+00	6.8723E+01	48
129	3.9811E+00	7.4436E+01	51	133	5.0119E+00	8.1225E+01	53	137	6.3096E+00	8.9167E+01	55	141	7.9433E+00	9.8332E+01	56
145	1.0000E+01	1.0879E+02	57	149	1.2589E+01	1.2063E+02	58	153	1.5849E+01	1.3393E+02	59	157	1.9953E+01	1.4882E+02	58
161	2.5119E+01	1.6538E+02	58	165	3.1623E+01	1.8373E+02	56	169	3.9811E+01	2.0403E+02	54	173	5.0119E+01	2.2647E+02	52

CE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.5849E-03	5.2939E+00	51	1.9953E-03	5.6390E+00	54	2.5119E-03	6.0274E+00	56	3.1623E-03	6.4932E+00	58
17	3.9811E-03	7.0750E+00	60	5.0119E-03	7.8237E+00	62	6.3096E-03	8.7919E+00	64	7.9433E-03	1.0020E+01	66
33	1.0000E-02	1.1547E+01	65	1.2589E-02	1.3395E+01	65	1.5849E-02	1.5519E+01	66	1.9953E-02	1.7898E+01	63
49	2.5119E-02	2.0454E+01	62	3.1623E-02	2.3095E+01	59	3.9811E-02	2.5092E+01	56	5.0119E-02	2.8092E+01	53
65	6.3096E-02	3.0174E+01	50	7.9433E-02	3.1836E+01	46	1.0000E-01	3.2990E+01	43	1.2589E-01	3.3573E+01	40
81	1.5849E-01	3.3562E+01	37	1.9953E-01	3.3015E+01	35	2.5119E-01	3.2029E+01	33	3.1623E-01	3.0747E+01	32
97	3.9811E-01	2.9307E+01	32	5.0119E-01	2.7839E+01	33	6.3096E-01	2.6459E+01	35	7.9433E-01	2.5264E+01	38
113	1.0000E-00	2.4335E+01	41	1.2589E-00	2.3743E+01	45	1.5849E-00	2.3550E+01	49	1.9953E-00	2.3794E+01	52
29	2.5119E-00	2.4510E+01	56	3.1623E+00	2.5747E+01	59	3.9811E+00	2.7535E+01	62	5.0119E+00	2.9950E+01	64
145	6.3096E+00	3.3044E+01	65	7.9433E+00	3.6863E+01	67	1.0000E+01	4.1457E+01	68	1.2589E+01	4.6861E+01	68
161	1.5849E+01	5.3080E+01	68	1.9953E+01	6.0094E+01	68	2.5119E+01	6.7827E+01	68	3.1623E+01	7.6250E+01	67
177	3.9811E+01	8.5414E+01	66	5.0119E+01	9.5465E+01	65	6.3096E+01	1.0659E+02	65	7.9433E+01	1.1897E+02	64

CE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.5849E-03	1.3558E+02	41	1.9953E-03	1.3504E+02	41	2.5119E-03	1.3449E+02	42	3.1623E-03	1.3392E+02	42
17	3.9811E-03	1.3323E+02	42	5.0119E-03	1.3228E+02	42	6.3096E-03	1.3092E+02	42	7.9433E-03	1.2905E+02	41
33	1.0000E-02	1.2656E+02	40	1.2589E-02	1.2327E+02	38	1.5849E-02	1.1905E+02	36	1.9953E-02	1.1378E+02	34
49	2.5119E-02	1.0740E+02	32	3.1623E-02	1.0017E+02	29	3.9811E-02	9.2139E+01	27	5.0119E-02	8.3670E+01	24
65	6.3096E-02	7.5095E+01	21	7.9433E-02	6.6711E+01	19	1.0000E-01	5.8746E+01	17	1.2589E-01	5.1359E+01	15
81	1.5849E-01	4.4049E+01	14	1.9953E-01	3.8685E+01	15	2.5119E-01	3.3485E+01	15	3.1623E-01	2.9046E+01	17
97	3.9811E-01	2.5328E+01	20	5.0119E-01	2.2274E+01	24	6.3096E-01	1.9819E+01	28	7.9433E-01	1.7901E+01	33
113	1.0000E+00	1.8467E+01	39	1.2589E+00	1.5478E+01	44	1.5849E+00	1.4290E+01	49	1.9953E+00	1.4729E+01	54
129	2.5119E+00	1.4930E+01	58	3.1623E+00	1.5496E+01	62	3.9811E+00	1.6828E+01	65	5.0119E+00	1.7742E+01	67
145	6.3096E+00	1.9468E+01	69	7.9433E+00	2.1636E+01	71	1.0000E+01	2.4283E+01	72	1.2589E+01	2.7446E+01	72
161	1.5849E+01	3.1176E+01	72	1.9953E+01	3.5529E+01	72	2.5119E+01	4.0511E+01	72	3.1623E+01	4.6288E+01	71
177	3.9811E+01	5.2816E+01	70	5.0119E+01	6.0249E+01	69						

TM MODL

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.9953E-03	3.6743E+00	51	2.5119E-03	4.1751E+00	53	3.1623E-03	4.7450E+00	60	3.9811E-03	5.3836E+00	63
17	5.0119E-03	6.0659E+00	57	6.3096E-03	6.8505E+00	60	7.9433E-03	7.6653E+00	62	1.0000E-02	8.5126E+00	63
33	1.2589E-02	9.3732E+00	62	1.5349E-02	1.0234E+01	59	1.9953E-02	1.1061E+01	54	2.5119E-02	1.1790E+01	49
49	3.1623E-02	1.2355E+01	43	3.9811E-02	1.2680E+01	41	5.0119E-02	1.2734E+01	37	6.3096E-02	1.2541E+01	32
65	7.9433E-02	1.2121E+01	28	1.0000E-01	1.1525E+01	25	1.2589E-01	1.0800E+01	22	1.5849E-01	9.9964E+00	19
81	1.9953E-01	9.1560E+00	18	2.5119E-01	8.3155E+00	18	3.1623E-01	7.5051E+00	18	3.9811E-01	6.7528E+00	19
113	5.0119E-01	6.0780E+00	21	6.3096E-01	5.4911E+00	24	7.9433E-01	4.9965E+00	28	1.0000E-00	4.5948E+00	32
129	1.2589E-00	4.2647E+00	37	1.5349E-00	4.0655E+00	43	1.9953E-00	3.9362E+00	48	2.5119E-00	3.8875E+00	54
145	3.1623E-00	3.9180E+00	59	3.9811E-00	4.0235E+00	62	5.0119E-00	4.2071E+00	63	6.3096E-00	4.4721E+00	64
161	7.9433E-00	4.6207E+00	65	1.0000E-01	5.2667E+00	68	1.2589E-01	5.8249E+00	69	1.5849E-01	6.5030E+00	73
177	5.0119E-01	1.1773E+01	73	2.5119E-01	8.2197E+00	73	3.1623E-01	9.2529E+00	72	3.9811E-01	1.0433E+01	73

TM MODL

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.9953E-03	1.5814E+01	46	2.5119E-03	1.6333E+01	46	3.1623E-03	1.6873E+01	47	3.9811E-03	1.7459E+01	48
17	5.0119E-03	1.8090E+01	48	6.3096E-03	1.8753E+01	46	7.9433E-03	1.9427E+01	45	1.0000E-02	2.0081E+01	43
33	1.2589E-02	2.0632E+01	42	1.5349E-02	2.0941E+01	41	1.9953E-02	2.0920E+01	39	2.5119E-02	2.0546E+01	38
49	3.1623E-02	1.7899E+01	36	3.9811E-02	1.9070E+01	32	5.0119E-02	1.8090E+01	28	6.3096E-02	1.6991E+01	23
65	7.9433E-02	1.5012E+01	20	1.0000E-01	1.4613E+01	17	1.2589E-01	1.3410E+01	15	1.5849E-01	1.2239E+01	13
81	1.9953E-01	1.1122E+01	13	2.5119E-01	1.0074E+01	14	3.1623E-01	9.1087E+00	15	3.9811E-01	8.2390E+00	17
97	5.0119E-01	7.4736E+00	20	6.3096E-01	6.8154E+00	24	7.9433E-01	6.2637E+00	28	1.0000E-00	5.8159E+00	33
113	1.2589E-00	5.4691E+00	38	1.5349E-00	5.2214E+00	43	1.9953E-00	5.0714E+00	48	2.5119E-00	5.0126E+00	52
129	3.1623E-00	5.0414E+00	57	3.9811E+00	5.1506E+00	61	5.0119E+00	5.3694E+00	64	6.3096E+00	5.6851E+00	66
145	7.9433E-00	6.1160E+00	68	1.0000E-01	6.6745E+00	69	1.2589E-01	7.3871E+00	70	1.5849E-01	8.2573E+00	69
161	1.9953E-01	9.3057E+00	69	2.5119E-01	1.0545E+01	70	3.1623E-01	1.1943E+01	72	3.9811E-01	1.3624E+01	68
177	5.0119E-01	1.5485E+01	61									

[illegible]

11 NOV 1964

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.5849E-03	6.4626E+01	51	1.9953E-03	6.7469E+01	51	2.5119E-03	7.0345E+01	50
17	3.9811E-02	7.5826E+01	48	5.0119E-03	7.9177E+01	47	6.3096E-03	7.9987E+01	45
33	1.6600E-02	8.1057E+01	41	3.12589E-02	7.9953E+01	39	4.15449E-02	7.7671E+01	37
69	2.5119E-02	7.0011E+01	33	3.1623E-02	6.5156E+01	30	5.739811E-02	5.9969E+01	28
69	8.3006E-02	4.9577E+01	23	7.9433E-02	4.4789E+01	21	1.0000E-01	4.0444E+01	19
81	1.5849E-01	3.3271E+01	19	1.9953E-01	3.0442E+01	20	2.5119E-01	2.8093E+01	22
97	3.9811E-01	2.4711E+01	29	5.0119E-01	2.3642E+01	32	6.3096E-01	2.2971E+01	35
113	1.6600E-01	2.2747E+01	44	1.2589E-01	2.3162E+01	47	1.5849E-01	2.3880E+01	50
129	2.5119E+00	2.5971E+01	54	3.1623E+00	2.7199E+01	55	3.9811E+00	2.8499E+01	56
145	6.3096E+00	3.1200E+01	57	7.9433E+00	3.2521E+01	57	1.0000E+01	3.3762E+01	57
161	1.5849E+01	3.5987E+01	55	1.9953E+01	3.6986E+01	54	2.5119E+01	3.7931E+01	53
177	3.9811E+01	3.9773E+01	51						

TE. NO. 14.

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	2.5119E-03	1.7519E+00	66	5	3.1623E-03	1.9729E+00	66	9	3.9811E-03	2.2185E+00	66	13	5.0119E-03	2.4871E+00	66
17	6.3096E-03	2.7755E+00	66	21	7.9433E-03	3.0786E+00	55	25	1.0000E-02	3.3869E+00	64	29	1.2589E-02	3.6978E+00	63
33	1.5849E-02	3.9986E+00	62	37	1.9953E-02	4.2857E+00	60	41	2.5119E-02	4.5532E+00	58	45	3.1623E-02	4.7926E+00	55
49	3.9811E-02	4.9821E+00	53	53	5.0119E-02	5.0986E+00	51	57	6.3096E-02	5.1348E+00	49	61	7.9433E-02	5.0994E+00	47
65	1.0000E-01	5.0063E+00	46	69	1.2589E-01	4.8709E+00	45	73	1.5849E-01	4.7046E+00	44	77	1.9953E-01	4.5336E+00	43
81	2.5119E-01	4.3586E+00	44	85	3.1623E-01	4.1952E+00	44	89	3.9811E-01	4.0521E+00	45	93	5.0119E-01	3.9377E+00	47
97	6.3096E-01	3.8598E+00	49	101	7.9433E-01	3.8245E+00	52	105	1.0000E+00	3.8330E+00	56	109	1.2589E+00	3.9067E+00	59
113	1.5849E+00	4.0599E+00	63	117	1.9953E+00	4.2461E+00	50	121	2.5119E+00	4.5147E+00	68	125	3.1623E+00	4.6483E+00	70
129	3.9811E+00	5.2322E+00	71	133	5.0119E+00	5.6697E+00	71	137	6.3096E+00	6.1583E+00	70	141	7.9433E+00	6.6946E+00	69
145	1.0000E+01	7.2798E+00	67	149	1.2589E+01	7.9149E+00	66	153	1.5849E+01	8.5881E+00	64	157	1.9953E+01	9.2919E+00	62
161	2.5119E+01	1.9028E+01	60	165	3.1623E+01	1.9782E+01	57	169	3.9811E+01	1.1539E+01	53				

TM. MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	2.5119E-03	1.0111E+02	36	5	3.1623E-03	9.4354E+01	32	9	3.9811E-03	8.7887E+01	29	13	5.0119E-03	8.1562E+01	26
17	6.3096E-03	7.5277E+01	23	21	7.9433E-03	6.8966E+01	20	25	1.0000E-02	6.2615E+01	17	29	1.2589E-02	5.6270E+01	15
33	1.5849E-02	4.9988E+01	14	37	1.9953E-02	4.3810E+01	13	41	2.5119E-02	3.7808E+01	12	45	3.1623E-02	3.2044E+01	12
49	3.9811E-02	2.6655E+01	12	53	5.0119E-02	2.2033E+01	12	57	6.3096E-02	1.8362E+01	13	61	7.9433E-02	1.5560E+01	15
65	1.0000E-01	1.3447E+01	17	69	1.2589E-01	1.1842E+01	19	73	1.5849E-01	1.0628E+01	22	77	1.9953E-01	9.7153E+00	25
81	2.5119E-01	9.0432E+00	28	85	3.1623E-01	8.5673E+00	32	89	3.9811E-01	8.2373E+00	35	93	5.0119E-01	8.0932E+00	38
97	6.3096E-01	9.0633E+00	42	101	7.9433E-01	8.1615E+00	45	105	1.0000E+00	8.3426E+00	48	109	1.2589E+00	8.7250E+00	50
113	1.5849E+00	9.1911E+00	53	117	1.9953E+00	9.7460E+00	55	121	2.5119E+00	1.0517E+01	57	125	3.1623E+00	1.1395E+01	59
129	3.9811E+00	1.2428E+01	60	133	5.0119E+00	1.3630E+01	61	137	6.3096E+00	1.5008E+01	62	141	7.9433E+00	1.6572E+01	63
145	1.0000E+01	1.8331E+01	63	149	1.2589E+01	2.0296E+01	62	153	1.5849E+01	2.2986E+01	62	157	1.9953E+01	2.4918E+01	61
161	2.5119E+01	2.7611E+01	60	165	3.1623E+01	3.0590E+01	59	169	3.9811E+01	3.3887E+01	58	173	5.0119E+01	3.7536E+01	57



FM MOUF

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	6.3096E-03	4.4670E+00	65	7.9433E-03	4.7475E+00	63	1.0000E-02	5.0396E+00	62	1.2589E-02	5.3367E+00	60
17	1.5849E-02	5.6309E+00	59	1.9953E-02	5.9126E+00	57	2.5119E-02	6.1711E+00	55	3.1623E-02	6.3944E+00	54
33	3.9811E-02	6.5699E+00	52	5.0119E-02	6.6857E+00	50	6.3096E-02	6.7336E+00	48	7.9433E-02	6.7144E+00	47
49	1.0000E-01	6.6337E+00	45	1.2589E-01	6.5030E+00	44	1.5849E-01	6.3354E+00	42	1.9953E-01	6.1437E+00	41
65	2.5119E-01	5.9397E+00	40	3.1623E-01	5.7344E+00	40	3.9811E-01	5.5370E+00	40	5.0119E-01	5.3555E+00	40
81	6.3096E-01	5.1954E+00	40	7.9433E-01	5.0614E+00	41	1.0000E+00	4.9582E+00	42	1.2589E+00	4.8897E+00	43
97	1.5849E+00	4.6592E+00	45	1.9953E+00	4.8647E+00	46	2.5119E+00	4.9035E+00	48	3.1623E+00	4.9736E+00	49
113	3.9811E+00	5.0734E+00	51	5.0119E+00	5.2016E+00	52	6.3096E+00	5.3573E+00	54	7.9433E+00	5.5396E+00	55
129	1.0000E+01	5.7475E+00	57	1.2589E+01	5.9804E+00	58	1.5849E+01	6.2387E+00	59	1.9953E+01	6.5232E+00	60
145	2.5119E+01	6.8347E+00	61	3.1623E+01	7.1738E+00	62	3.9811E+01	7.5415E+00	62	5.0119E+01	7.9381E+00	63
161	6.3096E+01	8.3622E+00	64	7.9433E+01	8.8136E+00	64	1.0000E+02	9.3052E+00	65	1.2589E+02	9.8197E+00	65

FM MOUF

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	1.9953E-03	4.3409E+01	24	5	2.5119E-03	3.7243E+01	23	9	3.1623E-03	3.1878E+01	21	13	3.9811E-03	2.7159E+01	19
17	5.0119E-03	2.2976E+01	18	21	6.3096E-03	1.9256E+01	16	25	7.9433E-03	1.5965E+01	15	29	1.0000E-02	1.3124E+01	14
33	1.2589E-02	1.0733E+01	12	37	1.5849E-02	8.7635E+00	12	41	1.9953E-02	7.1679E+00	11	45	2.5119E-02	5.8923E+00	10
49	3.1623E-02	4.9813E+00	10	53	3.9811E-02	4.0946E+00	11	57	5.0119E-02	3.4823E+00	12	61	6.3096E-02	3.0086E+00	13
65	7.9433E-02	2.6432E+00	15	69	1.0000E-01	2.3624E+00	17	73	1.2589E-01	2.1480E+00	21	77	1.5849E-01	1.9866E+00	24
81	1.9953E-01	1.8087E+00	20	85	2.5119E-01	1.7476E+00	32	89	3.1623E-01	1.7385E+00	37	93	3.9811E-01	1.7197E+00	41
97	5.0119E-01	1.7289E+00	45	101	6.3096E-01	1.7625E+00	50	105	7.9433E-01	1.8196E+00	53	109	1.0000E+00	1.8979E+00	57
113	1.2589E+00	1.9960E+00	60	117	1.5849E+00	2.1125E+00	63	121	1.9953E+00	2.2481E+00	65	125	2.5119E+00	2.4039E+00	67
129	3.1623E+00	2.5810E+00	68	133	3.9811E+00	2.7805E+00	70	137	5.0119E+00	3.0036E+00	71	141	6.3096E+00	3.2512E+00	71
145	7.9433E+00	3.5238E+00	72	149	1.0000E+01	3.8218E+00	72	153	1.2589E+01	4.1447E+00	72	157	1.5849E+01	4.4916E+00	72
161	1.9953E+01	4.8605E+00	72	165	2.5119E+01	5.2487E+00	71	169	3.1623E+01	5.6519E+00	71	173	3.9811E+01	6.0649E+00	71
177	5.0119E+01	6.4825E+00	70	181	6.3096E+01	6.9057E+00	70	185	7.9433E+01	7.3381E+00	70	189	1.0000E+02	7.7844E+00	70
193	1.2589E+02	8.2511E+00	69												

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	6.3096E+03	5.5238E+00	80	5	7.9433E+03	6.3859E+00	30	9	1.0000E+02	7.3726E+00	79	13	1.2589E+02	8.4885E+00	79
17	1.5849E+02	9.7329E+00	79	21	1.9953E+02	1.1099E+01	78	25	2.5119E+02	1.2554E+01	78	29	3.1623E+02	1.1118E+01	77
43	3.9411E+02	1.5700E+01	76	37	5.0119E+02	1.7246E+01	75	41	6.3096E+02	1.6823E+01	73	45	7.9433E+02	2.0290E+01	71
49	1.0000E+01	2.1058E+01	69	53	1.2589E+01	2.2903E+01	67	57	1.5849E+01	2.4005E+01	65	61	1.9953E+01	2.4949E+01	63
65	2.5119E+01	3.5724E+01	61	69	3.1623E+01	2.6334E+01	59	73	3.9411E+01	2.6791E+01	57	77	5.0119E+01	2.7110E+01	56
81	6.3096E+01	2.7310E+01	55	85	7.9433E+01	2.7419E+01	54	89	1.0000E+00	2.7465E+01	53	93	1.2589E+00	2.7480E+01	52
97	1.5849E+00	2.7749E+01	51	101	1.9953E+00	2.7546E+01	51	105	2.5119E+00	2.7611E+01	50	109	3.1623E+00	2.7679E+01	50
113	3.9411E+00	2.7749E+01	50	117	5.0119E+00	2.7707E+01	51	121	6.3096E+00	2.7836E+01	51	125	7.9433E+00	2.7849E+01	52
129	1.0000E+01	2.7632E+01	52	133	1.2589E+01	2.7777E+01	53	137	1.5849E+01	2.7715E+01	53	141	1.9953E+01	2.7619E+01	54
145	2.5119E+01	2.7499E+01	53	147	3.1623E+01	2.7354E+01	51	153	3.9411E+01	2.7189E+01	48	157	5.0119E+01	2.7015E+01	44

TI MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	3.1623E+03	2.4576E+03	14	5	3.9811E+03	2.1175E+03	23	9	5.0119E+03	1.8251E+03	23	13	6.3096E+03	1.5807E+03	22
17	7.9433E+03	1.3929E+03	26	21	1.0000E+02	1.2241E+03	26	25	1.2539E+02	1.1053E+03	28	29	1.5849E+02	1.0202E+03	31
33	1.5953E+02	9.5743E+02	33	37	2.5119E+02	9.0471E+02	34	41	3.1623E+02	8.6285E+02	34	45	3.9811E+02	8.3044E+02	38
49	5.0119E+02	8.1638E+02	41	53	6.3096E+02	8.2213E+02	42	57	7.9433E+02	8.3740E+02	45	61	1.0000E+01	8.0202E+02	44
65	1.2589E+04	8.6414E+02	61	69	1.5849E+01	8.9969E+02	34	73	1.9953E+01	9.0127E+02	40	77	2.5119E+01	8.9194E+02	45
81	3.1623E+01	8.7473E+02	42	85	3.9811E+01	8.5136E+02	34	89	5.0119E+01	8.2214E+02	27	93	6.3096E+01	7.8871E+02	25
97	7.9433E+01	7.4790E+02	24	101	1.0000E+00	6.8309E+02	26	105	1.2589E+00	5.9104E+02	27	109	1.5849E+00	4.9460E+02	24
113	1.2589E+00	4.0466E+02	20	117	2.5119E+00	3.3940E+02	21	121	3.1623E+00	2.8051E+02	19	125	3.9811E+00	2.3194E+02	20
129	5.0119E+00	1.9377E+02	22	133	6.3096E+00	1.6657E+02	26	137	7.9433E+00	1.4972E+02	31	141	1.0000E+01	1.4111E+02	35
145	1.2589E+01	1.3826E+02	40	149	1.5849E+01	1.3910E+02	43	153	1.9953E+01	1.4436E+02	44	157	2.5119E+01	1.4262E+02	44
161	3.1623E+01	1.4155E+02	45	165	3.9811E+01	1.3787E+02	46	169	5.0119E+01	1.3130E+02	44	173	6.3096E+01	1.2497E+02	41
177	7.9433E+01	1.1774E+02	40	181	1.0000E+02	1.1058E+02	39								

1E MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	3.1623E-03	1.2680E+00	57	3.9811E-03	1.4578E+00	59	5.0119E-03	1.6733E+00	61	6.3095E-03	1.7092E+00	64
17	7.9433E-03	2.1805E+00	65	1.0000E-02	2.4951E+00	67	1.2589E-02	2.8896E+00	69	1.5849E-02	3.4793E+00	68
43	1.5953E-02	3.1574E+00	68	2.5119E-02	4.2969E+00	71	3.1623E-02	4.8964E+00	74	3.9811E-02	5.5524E+00	65
49	5.0119E-02	6.2572E+00	63	6.3096E-02	6.9921E+00	61	7.9433E-02	7.7569E+00	59	1.0000E-01	8.5095E+00	57
65	1.2589E-01	9.2265E+00	55	1.5849E-01	9.8739E+00	52	1.9953E-01	1.0415E+01	50	2.5119E-01	1.0914E+01	47
81	3.1623E-01	1.1036E+01	45	3.9811E-01	1.1056E+01	43	5.0119E-01	1.0469E+01	40	6.3096E-01	1.0523E+01	38
97	7.9433E-01	1.0080E+01	37	1.0000E+00	9.6007E+00	35	1.2589E+00	9.1327E+00	34	1.5849E+00	8.7247E+00	34
113	1.9953E+00	6.4471E+00	35	2.5119E+00	8.2660E+00	36	3.1623E+00	8.1864E+00	38	3.9811E+00	8.1585E+00	39
129	5.0119E+00	8.1676E+00	41	6.3096E+00	8.2078E+00	43	7.9433E+00	8.2761E+00	45	1.0000E+01	8.3701E+00	47
145	1.2589E+01	8.4695E+00	47	1.5849E+01	8.6397E+00	49	1.9953E+01	8.8284E+00	50	2.5119E+01	9.0528E+00	51
161	3.1623E+01	9.3075E+00	51	3.9811E+01	9.5862E+00	51	5.0119E+01	9.8918E+00	51			

1E MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	3.9811E-01	1.0000E+03	45	5.0119E-01	1.0000E+03	45	6.3096E-01	1.0000E+03	45	7.9433E-01	1.0000E+03	45
17	1.0000E+00	1.0000E+03	45	1.2589E+00	1.0000E+03	45	1.5849E+00	1.0000E+03	45	1.9953E+00	1.0000E+03	45
33	2.5119E+00	1.0000E+03	45	3.1623E+00	1.0000E+03	45	3.9811E+00	1.0000E+03	45	5.0119E+00	1.0000E+03	45
49	6.3096E+00	1.0000E+03	45	7.9433E+00	1.0000E+03	45	1.0000E+01	1.0000E+03	45	1.2589E+01	1.0000E+03	45
65	1.5849E+01	1.0000E+03	45	1.9953E+01	1.0000E+03	45	2.5119E+01	1.0000E+03	45	3.1623E+01	1.0000E+03	45
81	3.9811E+01	1.0000E+03	45	5.0119E+01	1.0000E+03	45						

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	5.0119E-03	1.9880E+00	81	5	6.3096E-03	2.3109E+00	80	9	7.9433E-03	2.6856E+00	78	13	1.0000E-02	3.1191E+00	76
17	1.2589E-02	3.6196E+00	75	21	1.5849E-02	4.1955E+00	73	25	1.9953E-02	4.8559E+00	71	29	2.5119E-02	5.6106E+00	70
33	3.1623E-02	6.4695E+00	68	37	3.9811E-02	7.4427E+00	67	41	5.0119E-02	8.5399E+00	65	45	6.3096E-02	9.7707E+00	64
49	7.9433E-02	1.1143E+01	62	53	1.0000E-01	1.2665E+01	61	57	1.2539E-01	1.4340E+01	60	61	1.5849E-01	1.6171E+01	58
65	1.9953E-01	1.8157E+01	57	69	2.5119E-01	2.0293E+01	56	73	3.1623E-01	2.2569E+01	55	77	3.9811E-01	2.4969E+01	54
81	5.0119E-01	2.7474E+01	53	85	6.3096E-01	3.0056E+01	52	89	7.9433E-01	3.2678E+01	51	93	1.0000E+00	3.5298E+01	50
97	1.2589E+00	3.7869E+01	50	101	1.5849E+00	4.0331E+01	49	105	1.9953E+00	4.2626E+01	49	109	2.5119E+00	4.4693E+01	49
113	3.1623E+00	4.6479E+01	49	117	3.9811E+00	4.7939E+01	49	121	5.0119E+00	4.9062E+01	49	125	6.3096E+00	4.9850E+01	50
129	7.9433E+00	5.0313E+01	51	133	1.0000E+01	5.0473E+01	52	137	1.2589E+01	5.0364E+01	53	141	1.5849E+01	5.0023E+01	54
145	1.9953E+01	4.9497E+01	55	149	2.5119E+01	4.8854E+01	56	153	3.1623E+01	4.8161E+01	57				

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	5.0119E-03	1.9742E+01	78	5	6.3096E-03	2.1966E+01	76	9	7.9433E-03	2.4432E+01	75	13	1.0000E-02	2.7155E+01	73
17	1.2589E-02	3.0151E+01	72	21	1.5849E-02	3.3432E+01	71	25	1.9953E-02	3.7004E+01	69	29	2.5119E-02	4.0874E+01	68
33	3.1623E-02	4.5039E+01	66	37	3.9811E-02	4.9490E+01	65	41	5.0119E-02	5.4212E+01	63	45	6.3096E-02	5.9180E+01	62
49	7.9433E-02	6.4356E+01	61	53	1.0000E-01	6.9694E+01	59	57	1.2589E-01	7.5136E+01	58	61	1.5849E-01	8.0611E+01	56
65	1.9953E-01	8.6036E+01	55	69	2.5119E-01	9.1318E+01	53	73	3.1623E-01	9.6355E+01	51	77	3.9811E-01	1.0104E+02	50
81	5.0119E-01	1.0528E+02	48	85	6.3096E-01	1.0898E+02	47	89	7.9433E-01	1.1206E+02	45	93	1.0000E+00	1.1445E+02	44
97	1.2589E+00	1.1607E+02	42	101	1.5849E+00	1.1688E+02	41	105	1.9953E+00	1.1684E+02	40	109	2.5119E+00	1.1594E+02	39
113	3.1623E+00	1.1418E+02	38	117	3.9811E+00	1.1160E+02	38	121	5.0119E+00	1.0836E+02	38	125	6.3096E+00	1.0461E+02	38
129	7.9433E+00	1.0053E+02	38	133	1.0000E+01	9.6252E+01	39	137	1.2589E+01	9.1914E+01	39	141	1.5849E+01	8.7599E+01	40
145	1.9953E+01	8.3373E+01	41	149	2.5119E+01	7.9273E+01	42	153	3.1623E+01	7.5333E+01	43	157	3.9811E+01	7.1576E+01	45
161	5.0119E+01	6.8001E+01	46												

E MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	3.1623E-03	3.8560E+01	54	3.9811E-03	4.3460E+01	58	5.0119E-03	4.8972E+01	61	6.3096E-03	5.5156E+01	64
17	7.9433E-03	6.2078E+01	67	1.0000E-02	6.9802E+01	69	1.2589E-02	7.8398E+01	71	1.5849E-02	8.7925E+01	71
33	1.9953E-02	9.8371E+01	71	2.5119E-02	1.0957E+02	69	3.1623E-02	1.2200E+02	66	3.9811E-02	1.3570E+02	63
49	5.0119E-02	1.5057E+02	60	6.3096E-02	1.6639E+02	57	7.9433E-02	1.8281E+02	55	1.0000E-01	1.9933E+02	53
65	1.2589E-01	2.1528E+02	52	1.5849E-01	2.2989E+02	50	1.9953E-01	2.4234E+02	49	2.5119E-01	2.5206E+02	47
81	3.1623E-01	2.5633E+02	46	3.9811E-01	2.6190E+02	45	5.0119E-01	2.6186E+02	43	6.3096E-01	2.5867E+02	42
97	7.9433E-01	2.5277E+02	41	1.0000E+00	2.4722E+02	41	1.2589E+00	2.3478E+02	40	1.5849E+00	2.2321E+02	40
13	1.9953E+00	2.1052E+02	39	1.2589E+00	1.9736E+02	39	1.6233E+00	1.8465E+02	39	1.9953E+00	1.7312E+02	39
29	5.0119E+00	1.6329E+02	40	6.3096E+00	1.5549E+02	42	7.9433E+00	1.4991E+02	44	1.0000E+01	1.4651E+02	46
45	1.2589E+01	1.4517E+02	48	1.5849E+01	1.4574E+02	50	1.9953E+01	1.4806E+02	52	2.5119E+01	1.5203E+02	53
61	3.1623E+01	1.5749E+02	55	3.9811E+01	1.6432E+02	56	5.0119E+01	1.7236E+02	57	6.3096E+01	1.8144E+02	59
77	7.9433E+01	1.9134E+02	60									

M MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	3.1623E-03	1.8550E+03	45	3.9811E-03	1.8123E+03	44	5.0119E-03	1.7718E+03	44	6.3096E-03	1.7343E+03	43
17	7.9433E-03	1.7006E+03	42	1.0000E-02	1.6713E+03	41	1.2589E-02	1.6465E+03	41	1.5849E-02	1.6268E+03	42
33	1.9953E-02	1.6119E+03	44	2.5119E-02	1.6005E+03	45	3.1623E-02	1.5904E+03	46	3.9811E-02	1.5790E+03	45
49	5.0119E-02	1.5663E+03	44	6.3096E-02	1.5485E+03	42	7.9433E-02	1.5249E+03	40	1.0000E-01	1.4942E+03	38
65	1.2589E-01	1.4553E+03	37	1.5849E-01	1.4076E+03	35	1.9953E-01	1.3507E+03	34	2.5119E-01	1.2843E+03	33
81	3.1623E-01	1.2106E+03	31	3.9811E-01	1.1289E+03	30	5.0119E-01	1.0411E+03	29	6.3096E-01	9.4929E+02	28
97	7.9433E-01	8.5748E+02	28	1.0000E+00	7.6954E+02	28	1.2589E+00	6.8844E+02	28	1.5849E+00	6.1590E+02	29
13	1.9953E+00	5.5243E+02	29	1.2589E+00	4.9798E+02	31	1.6233E+00	4.5262E+02	32	1.9953E+00	4.1587E+02	34
29	5.0119E+00	3.8886E+02	37	6.3096E+00	3.6480E+02	39	7.9433E+00	3.4873E+02	42	1.0000E+01	3.3779E+02	44
45	1.2589E+01	3.3128E+02	47	1.5849E+01	3.2857E+02	49	1.9953E+01	3.2912E+02	50	2.5119E+01	3.3248E+02	52
61	3.1623E+01	3.3826E+02	54	3.9811E+01	3.4609E+02	56	5.0119E+01	3.5561E+02	57	6.3096E+01	3.6642E+02	59
77	7.9433E+01	3.7810E+02	60									

E MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	1.9953E-03	5.7067E+00	57	2.5119E-03	6.0081E+00	56	3.1623E-03	6.3235E+00	56	3.9811E-03	6.6516E+00	55			
17	5.0119E-03	6.9905E+00	55	21	6.3086E-03	7.3381E+00	54	25	7.9433E-03	7.6916E+00	54	29	8.0480E+00	53	
33	1.2589E-02	8.4035E+00	52	37	1.5849E-02	8.7555E+00	51	41	1.9953E-02	9.1062E+00	50	45	2.5119E-02	9.4600E+00	50
49	3.1623E-02	9.8221E+00	49	53	3.9811E-02	1.0195E+01	48	57	5.0119E-02	1.0596E+01	47	61	6.3096E-02	1.1023E+01	47
65	7.9433E-02	1.1488E+01	46	69	1.0000E-01	1.2003E+01	46	73	1.2589E-01	1.2581E+01	46	77	1.5849E-01	1.3241E+01	47
81	1.9953E-01	1.4001E+01	48	85	2.5119E-01	1.4872E+01	48	89	3.1623E-01	1.5865E+01	49	93	3.9811E-01	1.6993E+01	51
97	5.0119E-01	1.8269E+01	52	101	6.3086E-01	1.9709E+01	54	105	7.9433E-01	2.1330E+01	55	109	1.0000E+00	2.3152E+01	57
113	1.2589E+00	2.5195E+01	58	117	1.5849E+00	2.7482E+01	60	121	1.9953E+00	3.0038E+01	61	125	2.5119E+00	3.2891E+01	62
129	3.1623E+00	3.6068E+01	63	133	3.9811E+00	3.9601E+01	64	137	5.0119E+00	4.3518E+01	65	141	6.3096E+00	4.7844E+01	63
145	7.9433E+00	5.2596E+01	65	149	1.0000E+01	5.7787E+01	65	153	1.2589E+01	6.3427E+01	65	157	1.5849E+01	6.9520E+01	64
161	1.9953E+01	7.6061E+01	64	165	2.5119E+01	8.3044E+01	63	169	3.1623E+01	9.0473E+01	62	173	3.9811E+01	9.8360E+01	61
177	5.0119E+01	1.0673E+02	60	181	6.3086E+01	1.1563E+02	58	185	7.9433E+01	1.2514E+02	57	189	1.0000E+02	1.3534E+02	56

M MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	1.9953E-03	8.7010E+02	13	5	2.5119E-03	8.0689E+02	13	9	3.1623E-03	7.4791E+02	12	13	3.9811E-03	6.9258E+02	12
17	5.0119E-03	6.4043E+02	12	21	6.3096E-03	5.9109E+02	12	25	7.9433E-03	5.4426E+02	12	29	1.0000E-02	4.9971E+02	12
33	1.2589E-02	4.5729E+02	12	37	1.5849E-02	4.1698E+02	13	41	1.9953E-02	3.7911E+02	14	45	2.5119E-02	3.4396E+02	16
49	3.1623E-02	3.1170E+02	17	53	3.9811E-02	2.8236E+02	19	57	5.0119E-02	2.5592E+02	21	61	6.3096E-02	2.3228E+02	23
65	7.9433E-02	2.1129E+02	25	69	1.0000E-01	1.9280E+02	27	73	1.2589E-01	1.7662E+02	30	77	1.5849E-01	1.6259E+02	32
81	1.9953E-01	1.5053E+02	35	85	2.5119E-01	1.4027E+02	37	89	3.1623E-01	1.3169E+02	39	93	3.9811E-01	1.2467E+02	42
97	5.0119E-01	1.1910E+02	44	101	6.3096E-01	1.1492E+02	46	105	7.9433E-01	1.1210E+02	48	109	1.0000E+00	1.1061E+02	50
113	1.2589E+00	1.1031E+02	52	117	1.5849E+00	1.1106E+02	53	121	1.9953E+00	1.1277E+02	55	125	2.5119E+00	1.1535E+02	56
129	3.1623E+00	1.1874E+02	57	133	3.9811E+00	1.2286E+02	57	137	5.0119E+00	1.2766E+02	58	141	6.3096E+00	1.3308E+02	58
145	7.9433E+00	1.3507E+02	58	149	1.0000E+01	1.4556E+02	57	153	1.2589E+01	1.5250E+02	57	157	1.5849E+01	1.5985E+02	56
161	1.9953E+01	1.6754E+02	55	165	2.5119E+01	1.7555E+02	54	169	3.1623E+01	1.8379E+02	53	173	3.9811E+01	1.9223E+02	52
177	5.0119E+01	2.0080E+02	50	181	6.3096E+01	2.0945E+02	49	185	7.9433E+01	2.1824E+02	48	189	1.0000E+02	2.2730E+02	47

MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	1.9953E-03	3.2037E-01	46	5	2.5119E-03	3.6289E-01	47	9	3.1623E-03	4.1200E-01	48	13
17	5.0119E-03	5.3950E-01	50	21	6.3096E-03	6.2348E-01	51	25	7.9433E-03	7.2507E-01	52	29
33	1.2569E-02	9.9804E-01	54	37	1.5849E-02	1.1805E+00	55	41	1.9953E-02	1.4033E+00	56	45
49	3.1623E-02	2.0106E+00	60	53	3.9811E-02	2.4215E+00	62	57	5.0119E-02	2.9268E+00	64	61
55	7.9433E-02	4.2366E+00	69	69	1.0000E-01	5.2024E+00	72	73	1.2589E-01	6.2834E+00	74	77
71	1.9953E-01	9.0405E+00	78	85	2.5119E-01	1.0735E+01	79	89	3.1623E-01	1.2639E+01	80	93
87	5.0119E-01	1.6944E+01	81	101	6.3096E-01	1.9214E+01	79	105	7.9433E-01	2.1427E+01	77	109
13	1.2589E+00	2.5137E+01	70	117	1.5849E+00	2.6389E+01	64	121	1.9953E+00	2.7132E+01	59	125
29	3.1623E+00	2.6952E+01	47	133	3.9811E+00	2.6054E+01	43	137	5.0119E+00	2.4734E+01	39	141
45	7.9433E+00	2.1432E+01	34	149	1.0000E+01	1.9782E+01	33	153	1.2589E+01	1.8315E+01	33	157
51	1.9953E+01	1.6280E+01	35	165	2.5119E+01	1.5657E+01	36	169	3.1623E+01	1.5148E+01	38	173
77	5.0119E+01	1.4177E+01	42	181	6.3096E+01	1.3711E+01	43	185	7.9433E+01	1.3261E+01	45	

MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	1.9953E-03	1.4246E-01	44	5	2.5119E-03	1.3560E-01	42	9	3.1623E-03	1.2880E-01	40	13
17	5.0119E-03	1.1439E-01	37	21	6.3096E-03	1.0639E-01	35	25	7.9433E-03	9.7986E-02	34	29
33	1.2569E-02	8.1619E-02	32	37	1.5849E-02	7.4117E-02	32	41	1.9953E-02	6.7383E-02	32	45
49	3.1623E-02	5.7281E-02	35	53	3.9811E-02	5.3893E-02	37	57	5.0119E-02	5.1357E-02	38	61
55	7.9433E-02	4.8322E-02	41	69	1.0000E-01	4.7620E-02	43	73	1.2589E-01	4.7365E-02	44	77
71	1.9953E-01	4.7994E-02	47	85	2.5119E-01	4.8803E-02	48	89	3.1623E-01	4.9898E-02	49	93
87	5.0119E-01	5.2833E-02	51	101	6.3096E-01	5.4610E-02	52	105	7.9433E-01	5.6545E-02	53	109
13	1.2589E+00	6.0726E-02	54	117	1.5849E+00	6.2907E-02	54	121	1.9953E+00	6.5127E-02	55	125
29	3.1623E+00	6.9605E-02	56	133	3.9811E+00	7.1823E-02	56	137	5.0119E+00	7.4015E-02	56	141
45	7.9433E+00	7.6282E-02	56	149	1.0000E+01	8.0318E-02	56	153	1.2589E+01	8.2256E-02	56	157
61	1.9953E+01	8.5619E-02	56	165	2.5119E+01	8.7009E-02	56	169	3.1623E+01	8.8268E-02	56	173

3 MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.5849E-03	9.8100E+00	57	1.9953E-03	1.0554E+01	56	2.5119E-03	1.1329E+01	55	3.1623E-03	1.2110E+01	54
17	3.9811E-03	1.2866E+01	53	5.0119E-03	1.3578E+01	52	6.3096E-03	1.4236E+01	51	7.9433E-03	1.4836E+01	50
33	1.0000E-02	1.5376E+01	50	1.2549E-02	1.5867E+01	51	1.5849E-02	1.6333E+01	52	1.9953E-02	1.6817E+01	53
49	2.5119E-02	1.7373E+01	55	3.1623E-02	1.8060E+01	57	3.9811E-02	1.8950E+01	59	5.0119E-02	2.0131E+01	61
65	6.3096E-02	2.1700E+01	63	7.9433E-02	2.3742E+01	65	1.0000E-01	2.6361E+01	68	1.2589E-01	2.9680E+01	69
81	1.5849E-01	3.3786E+01	71	1.9953E-01	3.8747E+01	72	2.5119E-01	4.4611E+01	72	3.1623E-01	5.1380E+01	72
97	3.9811E-01	5.8982E+01	72	5.0119E-01	6.7707E+01	71	6.3096E-01	7.5694E+01	69	7.9433E-01	8.3924E+01	67
113	1.0000E+00	9.1330E+01	64	1.2549E+00	9.7490E+01	61	1.5849E+00	1.0202E+02	58	1.9953E+00	1.0469E+02	54
129	2.5119E+00	1.0536E+02	51	3.1623E+00	1.0405E+02	48	3.9811E+00	1.0092E+02	45	5.0119E+00	9.6364E+01	42
145	6.3096E+00	9.0854E+01	40	7.9433E+00	8.4819E+01	38	1.0000E+01	7.8601E+01	36	1.2589E+01	7.2388E+01	35
161	1.5849E+01	6.8306E+01	34	1.9953E+01	6.0415E+01	33	2.5119E+01	5.4774E+01	32	3.1623E+01	4.9475E+01	31
177	3.9811E+01	4.4583E+01	31	5.0119E+01	4.0115E+01	30	6.3096E+01	3.6068E+01	29			

4 MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	1.5849E-03	2.4911E+01	48	1.9953E-03	2.5305E+01	47	2.5119E-03	2.5601E+01	46	3.1623E-03	2.5694E+01	45
17	3.9811E-03	2.5481E+01	44	5.0119E-03	2.4881E+01	43	6.3096E-03	2.3859E+01	42	7.9433E-03	2.2438E+01	41
33	1.0000E-02	2.0701E+01	40	1.2549E-02	1.9826E+01	40	1.5849E-02	1.7031E+01	40	1.9953E-02	1.5512E+01	40
49	2.5119E-02	1.4222E+01	41	3.1623E-02	1.3842E+01	42	3.9811E-02	1.3728E+01	43	5.0119E-02	1.4045E+01	45
65	6.3096E-02	1.4774E+01	46	7.9433E-02	1.5919E+01	48	1.0000E-01	1.7502E+01	50	1.2589E-01	1.9556E+01	51
81	1.5849E-01	2.2112E+01	53	1.9953E-01	2.5192E+01	54	2.5119E-01	2.8790E+01	55	3.1623E-01	3.2859E+01	56
97	3.9811E-01	3.7280E+01	56	5.0119E-01	4.1702E+01	57	6.3096E-01	4.6070E+01	57	7.9433E-01	4.9986E+01	56
113	1.0000E+00	5.3477E+01	56	1.2549E+00	5.6455E+01	55	1.5849E+00	5.8799E+01	53	1.9953E+00	6.0385E+01	52
129	2.5119E+00	6.1115E+01	50	3.1623E+00	6.0433E+01	49	3.9811E+00	5.9898E+01	47	5.0119E+00	5.8110E+01	46
145	6.3096E+00	5.5735E+01	45	7.9433E+00	5.2936E+01	43	1.0000E+01	4.9374E+01	42	1.2589E+01	4.6703E+01	41
161	1.5849E+01	4.3343E+01	40	1.9953E+01	4.0444E+01	39	2.5119E+01	3.7462E+01	38	3.1623E+01	3.4637E+01	37
177	3.9811E+01	3.1994E+01	36	5.0119E+01	2.9532E+01	36	6.3096E+01	2.7253E+01	35			



TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	1.5849E-03	1.0219E+01	51	1.9953E-03	1.0432E+01	50	2.5119E-03	1.0644E+01	49	3.1623E-03	1.0855E+01	48
17	3.9811E-03	1.1030E+01	48	5.0119E-03	1.1189E+01	48	6.3096E-03	1.1318E+01	50	7.9433E-03	1.1432E+01	51
33	1.0000E-02	1.1558E+01	52	1.2589E-02	1.1729E+01	51	1.5849E-02	1.1920E+01	48	1.9553E-02	1.1932E+01	48
49	2.5119E-02	1.1723E+01	52	3.1623E-02	1.1815E+01	48	3.9811E-02	1.1920E+01	51	5.0119E-02	1.1326E+01	54
65	6.3096E-02	1.1923E+01	57	7.9433E-02	1.2938E+01	61	1.0000E-01	1.4540E+01	63	1.2589E-01	1.6544E+01	65
81	1.5849E-01	1.9115E+01	66	1.9953E-01	2.2833E+01	67	2.5119E-01	2.5982E+01	68	3.1623E-01	3.0334E+01	68
97	3.9811E-01	3.5301E+01	68	5.0119E-01	4.0631E+01	105	6.3096E-01	4.6895E+01	67	7.9433E-01	5.3274E+01	66
113	1.0000E+00	5.9754E+01	65	1.2589E+00	6.6049E+01	121	1.5849E+00	8.5414E+01	49	1.9953E+00	8.6087E+01	47
129	2.5119E+00	8.0775E+01	55	3.1623E+00	8.3656E+01	52	3.9811E+00	8.5414E+01	49	5.0119E+00	8.6087E+01	47
145	6.3096E+00	8.5761E+01	45	7.9433E+00	8.4530E+01	43	1.0000E+01	8.2832E+01	43	1.2589E+01	8.0960E+01	43
161	1.5849E+01	7.8891E+01	43	1.9953E+01	7.6747E+01	42	2.5119E+01	7.4409E+01	41	3.1623E+01	7.2050E+01	40
177	3.9811E+01	6.9845E+01	39	5.0119E+01	6.7152E+01	38	6.3096E+01	6.4602E+01	37	7.9433E+01	6.2044E+01	37
193	1.0000E+02	5.9521E+01	36	1.2589E+02	5.7063E+01	36						

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.
1	1.5849E-03	6.5506E+01	56	1.9953E-03	6.7086E+01	54	2.5119E-03	6.8602E+01	52	3.1623E-03	7.0250E+01	50
17	3.9811E-03	7.2028E+01	48	5.0119E-03	7.3671E+01	45	6.3096E-03	7.4670E+01	43	7.9433E-03	7.4373E+01	40
33	1.0000E-02	7.2355E+01	38	1.2589E-02	6.8636E+01	36	1.5849E-02	6.3560E+01	34	1.9553E-02	5.7639E+01	33
49	2.5119E-02	5.1392E+01	31	3.1623E-02	4.5033E+01	30	3.9811E-02	3.9005E+01	30	5.0119E-02	3.3992E+01	32
65	6.3096E-02	3.0616E+01	34	7.9433E-02	2.9082E+01	37	1.0000E-01	2.9100E+01	40	1.2589E-01	3.0457E+01	43
81	1.5849E-01	3.3051E+01	47	1.9953E-01	3.6843E+01	50	2.5119E-01	4.1802E+01	53	3.1623E-01	4.7868E+01	55
97	3.9811E-01	5.5033E+01	57	5.0119E-01	6.3243E+01	58	6.3096E-01	7.2324E+01	59	7.9433E-01	8.1942E+01	59
113	1.0000E+00	9.1620E+01	59	1.2589E+00	1.0090E+02	59	1.5849E+00	1.0923E+02	57	1.9953E+00	1.1632E+02	56
129	2.5119E+00	1.2175E+02	54	3.1623E+00	1.2543E+02	52	3.9811E+00	1.2724E+02	50	5.0119E+00	1.2713E+02	47
145	6.3096E+00	1.2517E+02	45	7.9433E+00	1.2166E+02	44	1.0000E+01	1.1763E+02	42	1.2589E+01	1.1410E+02	41
161	1.5849E+01	1.1159E+02	41	1.9953E+01	1.0977E+02	40	2.5119E+01	1.0810E+02	39	3.1623E+01	1.0591E+02	39
177	3.9811E+01	1.0275E+02	38	5.0119E+01	9.8953E+01	38	6.3096E+01	9.4818E+01	37	7.9433E+01	9.0518E+01	37
193	1.0000E+02	8.6185E+01	36	1.2589E+02	8.1922E+01	36						

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE		
1	1.9953E-03	4.0337E+01	62	5	2.5119E-03	61	9	3.1623E-03	4.5200E+01	60	13	3.9811E-03	4.7838E+01	58
17	5.0119E-03	5.0620E+01	57	21	6.3096E-03	55	25	7.9433E-03	5.6618E+01	54	29	1.0000E-02	5.9305E+01	52
33	1.2589E-02	6.3023E+01	50	37	1.5849E-02	48	41	1.9953E-02	6.9087E+01	46	45	2.5119E-02	7.1742E+01	45
49	3.1623E-02	7.4014E+01	44	53	3.9811E-02	44	57	5.0119E-02	7.6969E+01	43	61	6.3096E-02	7.7477E+01	43
65	7.9433E-02	7.7359E+01	42	69	1.0000E-01	41	73	1.2589E-01	7.5619E+01	40	77	1.5849E-01	7.4211E+01	38
81	1.9953E-01	7.2590E+01	37	85	2.5119E-01	37	89	3.1623E-01	6.9113E+01	36	93	3.9811E-01	6.7440E+01	36
97	5.0119E-01	6.5910E+01	36	101	6.3096E-01	37	105	7.9433E-01	6.3549E+01	38	109	1.0000E+00	6.2767E+01	39
113	1.2589E+00	6.2308E+01	41	117	1.5849E+00	43	121	1.9953E+00	6.2476E+01	45	125	2.5119E+00	6.3167E+01	47
129	3.1623E+00	6.4263E+01	49	133	3.9811E+00	50	137	5.0119E+00	6.7531E+01	52	141	6.3096E+00	6.9652E+01	53
145	7.9433E+00	7.2083E+01	54	149	1.0000E+01	55	153	1.2589E+01	7.7828E+01	55	157	1.5849E+01	8.1126E+01	55
161	1.9953E+01	8.4688E+01	54	165	2.5119E+01	54	169	3.1623E+01	9.2495E+01	53	173	3.9811E+01	9.6702E+01	51
177	5.0119E+01	1.0111E+02	50	181	6.3096E+01	48	185	7.9433E+01	1.1057E+02	46				

TM MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE			
1	1.9953E-03	7.7566E+02	32	5	2.5119E-03	35	9	3.1623E-03	7.5189E+02	38	13	3.9811E-03	7.4169E+02	41	
17	5.0119E-03	7.3322E+02	43	21	6.3096E-03	44	25	7.9433E-03	7.1816E+02	44	29	1.0000E-02	7.0832E+02	43	
33	1.2589E-02	6.9538E+02	42	37	1.5849E-02	40	41	1.9953E-02	6.7885E+02	38	45	2.5119E-02	6.3163E+02	35	
49	3.1623E-02	6.0039E+02	33	53	3.9811E-02	32	57	5.0119E-02	5.2273E+02	30	61	6.3096E-02	4.7706E+02	28	
65	7.9433E-02	4.2888E+02	26	69	1.0000E-01	24	73	1.2589E-01	3.3258E+02	22	77	1.5849E-01	2.8723E+02	20	
81	1.9953E-01	2.4511E+02	19	85	2.5119E-01	18	89	3.1623E-01	1.7462E+02	17	93	3.9811E-01	1.4745E+02	17	
97	5.0119E-01	1.2578E+02	19	101	6.3096E-01	23	105	7.9433E-01	9.7230E+01	27	109	1.0000E+00	8.9279E+01	33	
113	1.2589E+00	8.4662E+01	38	117	1.5849E+00	42	121	1.9953E+00	8.3713E+01	46	125	2.5119E+00	8.6787E+01	49	
129	3.1623E+00	9.1837E+01	52	133	3.9811E+00	9.8660E+01	54	137	5.0119E+00	1.0704E+02	56	141	6.3096E+00	1.1670E+02	57
145	7.9433E+00	1.2740E+02	58	149	1.0000E+01	1.3875E+02	58	153	1.2589E+01	1.5016E+02	58	157	1.5849E+01	1.6109E+02	57
161	1.9953E+01	1.7136E+02	55	165	2.5119E+01	1.8103E+02	53	169	3.1623E+01	1.9021E+02	52	173	3.9811E+01	1.9899E+02	50
177	5.0119E+01	2.0751E+02	49	181	6.3096E+01	2.1592E+02	48	185	7.9433E+01	2.2444E+02	46				

TE MODE

NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	6.3096E-03	8.7247E+01	47	7.9433E-03	8.9526E+01	49	1.0000E-02	9.2015E+01	51	1.2589E-02	9.4888E+01	53
17	1.5849E-02	9.8349E+01	55	1.9953E-02	1.0263E+02	56	2.5119E-02	1.0803E+02	58	3.1623E-02	1.1490E+02	59
33	3.9811E-02	1.2369E+02	60	5.0119E-02	1.3500E+02	61	6.3096E-02	1.4960E+02	62	7.9433E-02	1.6828E+02	62
49	1.0000E-01	1.9140E+02	63	1.2589E-01	2.1910E+02	63	1.5849E-01	2.5133E+02	63	1.9953E-01	2.8756E+02	62
65	2.5119E-01	3.2691E+02	61	3.1623E-01	3.6792E+02	59	3.9811E-01	4.0855E+02	57	5.0119E-01	4.4617E+02	54
81	6.3096E-01	4.7765E+02	51	7.9433E-01	4.9934E+02	48	1.0000E-00	5.1024E+02	44	1.2589E-00	5.0643E+02	40
97	1.5849E+00	4.8736E+02	36	1.9953E+00	4.5336E+02	33	2.5119E+00	4.0701E+02	29	3.1623E+00	3.5407E+02	26
113	3.9811E+00	3.0014E+02	24	5.0119E+00	2.4933E+02	23	6.3096E+00	2.0405E+02	22	7.9433E+00	1.6562E+02	22
129	1.0000E+01	1.3422E+02	23	1.2589E+01	1.0937E+02	23	1.5849E+01	9.0290E+01	25	1.9953E+01	7.6034E+01	27
145	2.5119E+01	6.5992E+01	30	3.1623E+01	5.9226E+01	32	3.9811E+01	5.4784E+01	36	5.0119E+01	5.1912E+01	39
161	6.3096E+01	5.0139E+01	42	7.9433E+01	4.9129E+01	44	1.0000E+02	4.8621E+01	46	1.2589E+02	4.8430E+01	47
177	1.5849E+02	4.8396E+01	47									

TM MODE

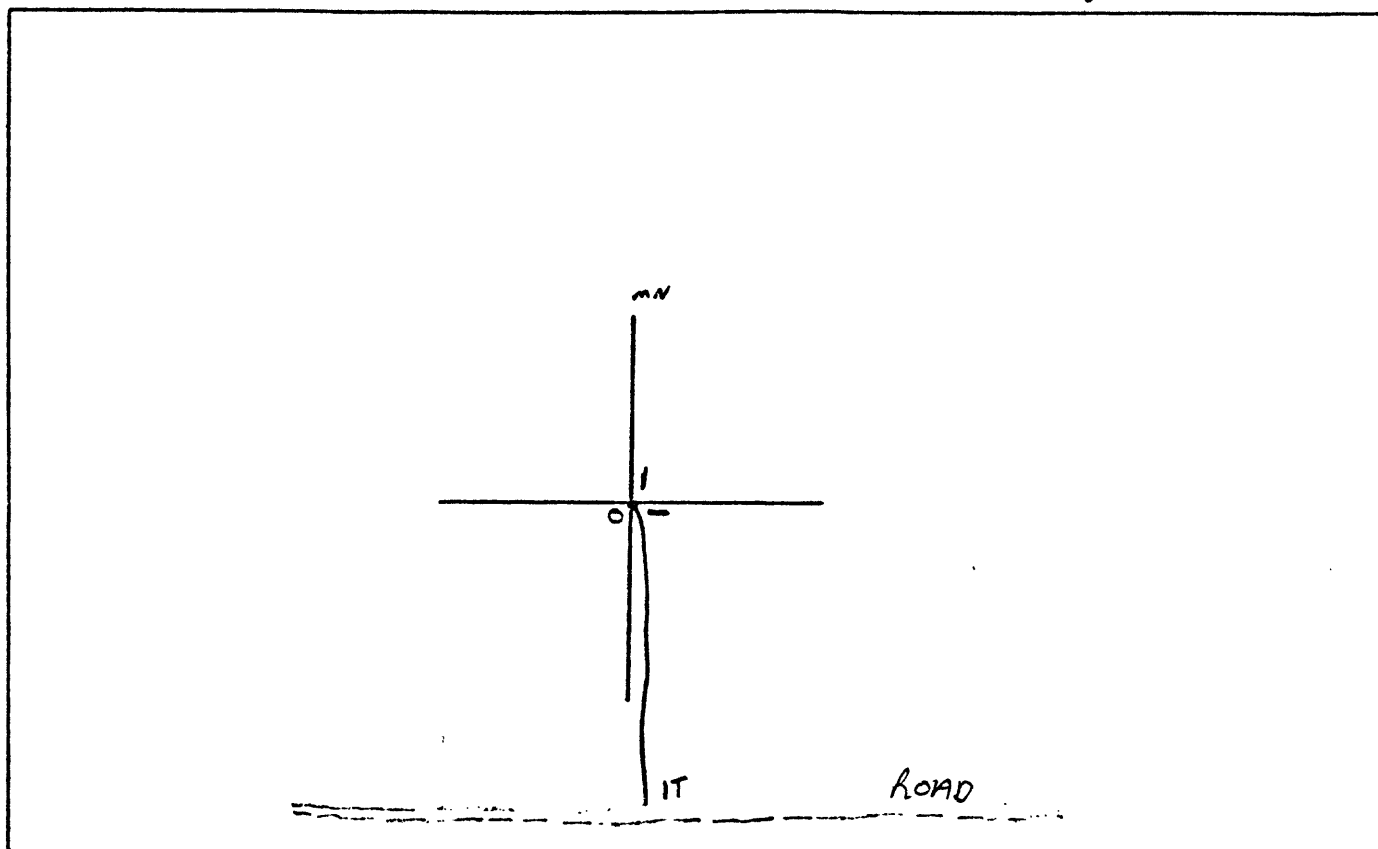
NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE NO.	FREQ	ROA	PHASE
1	6.3096E-03	8.0653E+02	49	7.9433E-03	8.3991E+02	49	1.0000E-02	8.5581E+02	49	1.2589E-02	8.8101E+02	49
17	1.5849E-02	9.0611E+02	49	1.9953E-02	9.3054E+02	49	2.5119E-02	9.5368E+02	49	3.1623E-02	9.7501E+02	49
33	3.9811E-02	9.9397E+02	49	5.0119E-02	1.0100E+03	49	6.3096E-02	1.0244E+03	48	7.9433E-02	1.0305E+03	48
49	1.0000E-01	1.0330E+03	47	1.2589E-01	1.0287E+03	46	1.5849E-01	1.0162E+03	45	1.9953E-01	9.9482E+02	43
65	2.5119E-01	9.6401E+02	42	3.1623E-01	9.2389E+02	39	3.9811E-01	8.7526E+02	37	5.0119E-01	8.1933E+02	34
81	6.3096E-01	7.5766E+02	32	7.9433E-01	6.9231E+02	29	1.0000E-00	6.2539E+02	27	1.2589E+00	5.5878E+02	24
97	1.5849E+00	4.9416E+02	22	1.9953E+00	4.3293E+02	20	2.5119E+00	3.7029E+02	19	3.1623E+00	3.2505E+02	18
113	3.9811E+00	2.7969E+02	17	5.0119E+00	2.4025E+02	17	6.3096E+00	2.0643E+02	18	7.9433E+00	1.7774E+02	18
129	1.0000E+01	1.5365E+02	20	1.2589E+01	1.3358E+02	22	1.5849E+01	1.1698E+02	24	1.9953E+01	1.0333E+02	26
145	2.5119E+01	9.2112E+01	29	3.1623E+01	8.2521E+01	32	3.9811E+01	7.5055E+01	35	5.0119E+01	6.8490E+01	38
161	6.3096E+01	6.2872E+01	41	7.9433E+01	5.8004E+01	44	1.0000E+02	5.3723E+01	47	1.2589E+02	4.9872E+01	49
177	1.5849E+02	4.6335E+01	52									

Appendix 4--MT site location details

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

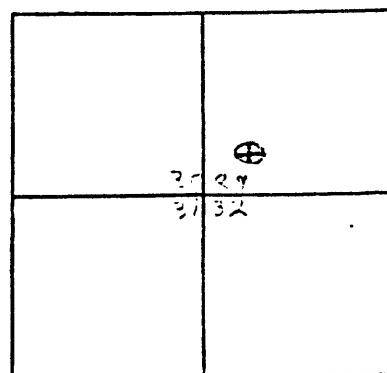
SURVEY AREA: 196  
SITE NUMBER: 1-1  
DATE: 5-24-79

LAT:            °            '            "  
LONG:            °            '            "  
QUADRANGLE NAME: THE WHALE BECK  
LOCATION: T 43 N R 3 W S 29  
COORDINATES: → 1300' ↑ 600'  
ELEVATION: ≈ 4470'  
SURVEYOR: Jimmitan



SITE DETAIL

H SENSORS:                      E LINE LENGTH:  
H<sub>x</sub> 1096                      E<sub>x</sub> 300'  
H<sub>y</sub> 1062                      E<sub>y</sub> 300'  
H<sub>z</sub> 6009  
X-AXIS DEVIATION 0° Deg.  
MAGNETIC DECLINATION 19.5° Deg.  
COMMENTS: CONSIDERABLE VEGETATION.  
LIGHT SANDY SOIL.



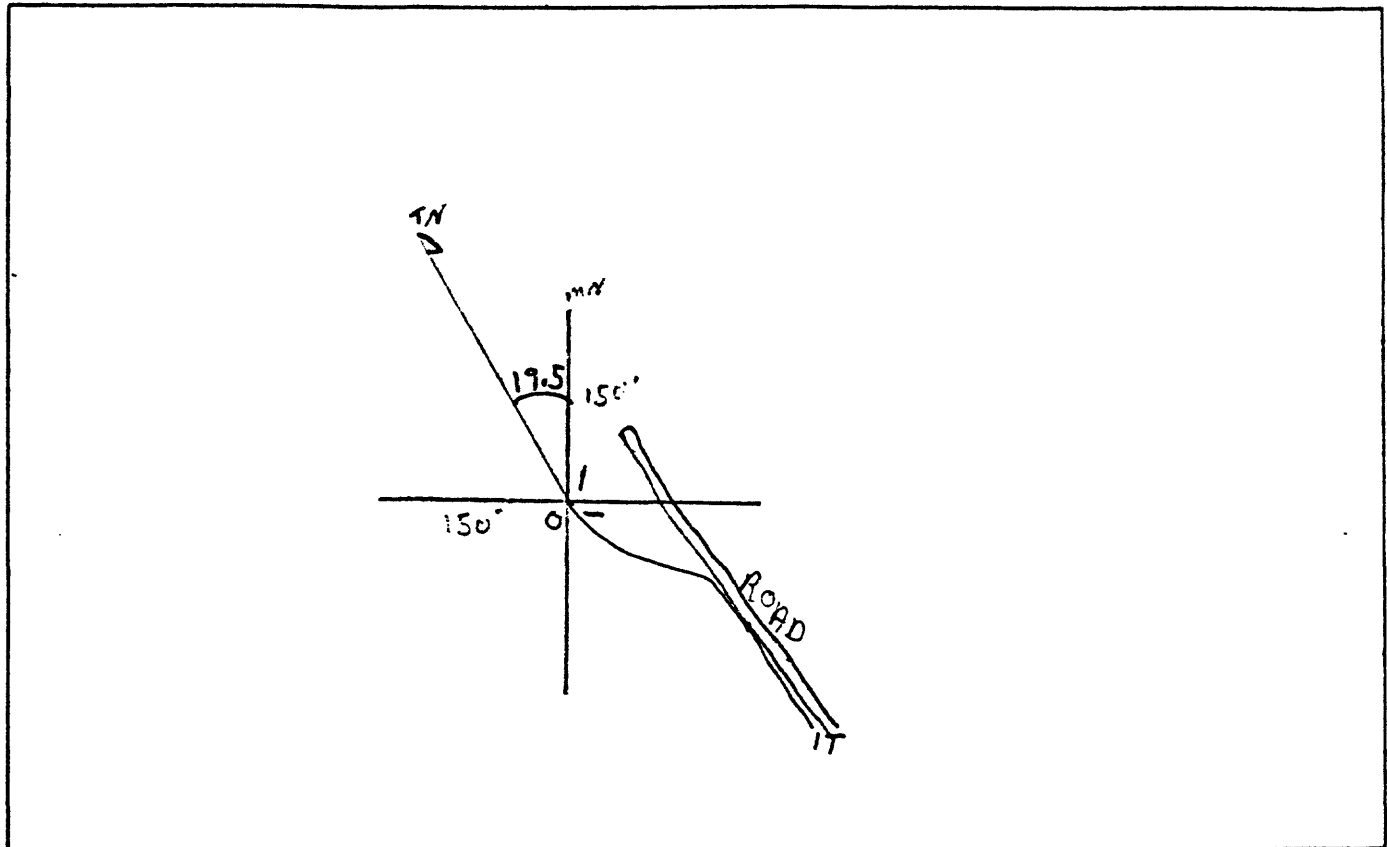
FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

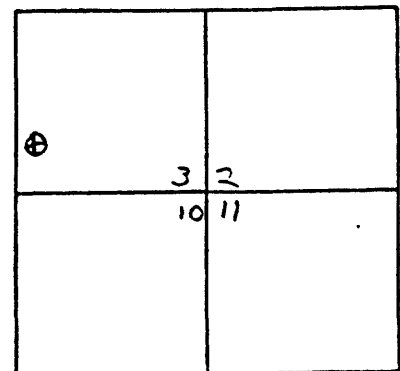
LAT: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
 LONG: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
 QUADRANGLE NAME: BRAY  
 LOCATION: T 43N R 1E S 3  
 COORDINATES: → 400' ↑ 300'  
 ELEVATION: ≈ 5040'  
 SURVEYOR: \_\_\_\_\_

SURVEY AREA: 196  
 SITE NUMBER: 1-2  
 DATE: 5-24-79



SITE DETAIL

H SENSORS: E LINE LENGTH:  
 H<sub>x</sub> 1061 E<sub>x</sub> 300'  
 H<sub>y</sub> 1077 E<sub>y</sub> 300'  
 H<sub>z</sub> 6017  
 X-AXIS DEVIATION 0° Deg.  
 MAGNETIC DECLINATION 19.5 Deg.  
 COMMENTS: SOIL LIGHT SANDY AND ROCKY.  
VERY BRUSHY



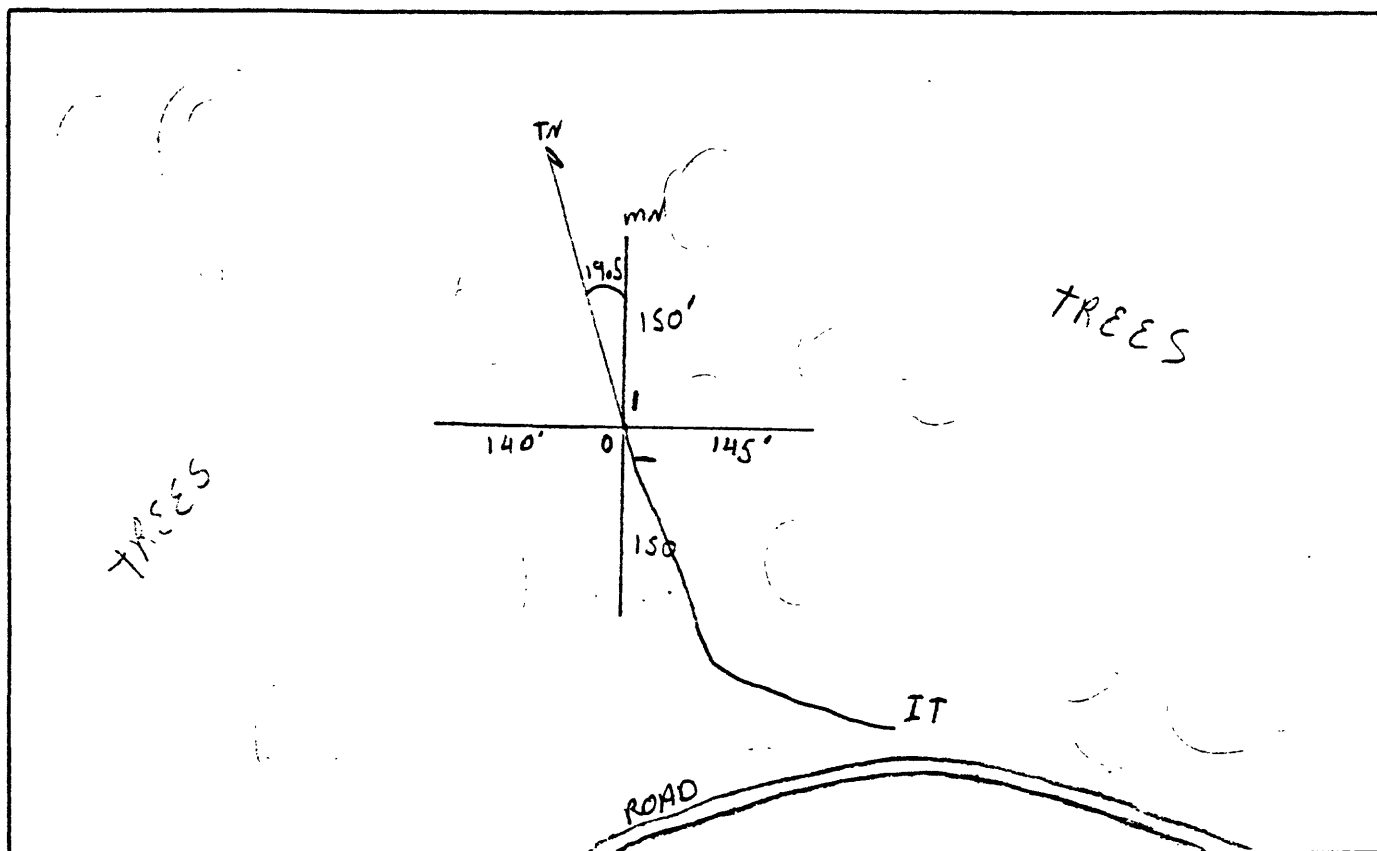
FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

LAT: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
LONG: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
QUADRANGLE NAME: Medicine Lake  
LOCATION: T 44N R 3E S 23  
COORDINATES: → 500' ↑ 2700'  
ELEVATION: ≈ 6640'  
SURVEYOR: Jimmy Easton

SURVEY AREA: 196  
SITE NUMBER: 1-3  
DATE: 5-22-79



SITE DETAIL

H SENSORS: | E LINE LENGTH:  
H<sub>x</sub> 1065 | E<sub>x</sub> 300'  
H<sub>y</sub> 1064 | E<sub>y</sub> 285'  
H<sub>z</sub> 6008 |  
X-AXIS DEVIATION 0 Deg.  
MAGNETIC DECLINATION 19.5° Deg.  
COMMENTS: COIL CENTER APPROX.  
5 FT. SOUTH OF ELECTRODE CENTER.  
VERY ROCKY, VERY LIGHT SANDY SOIL.  
TREES ALL AROUND

FOURHILL HILL	⊕
22	23
27	28

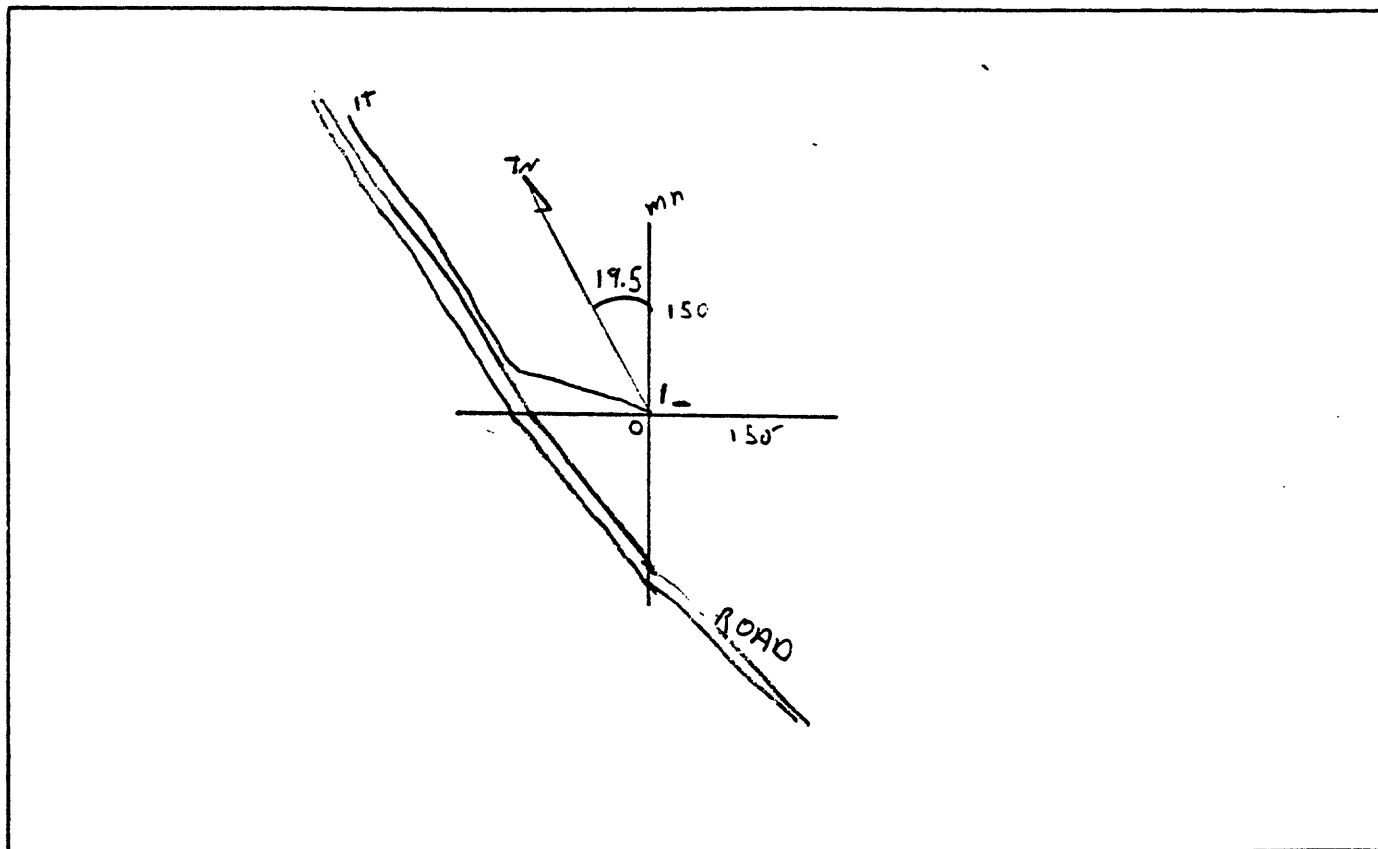
FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

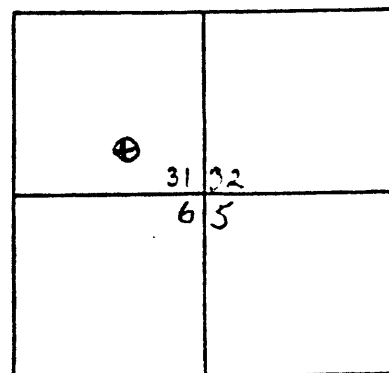
LAT:           °           '           "  
LONG:           °           '           "  
QUADRANGLE NAME: TIMBER mtn.  
LOCATION: T44N R4E S31  
COORDINATES: → 3000' ↑ 1300  
ELEVATION: ≈ 4340'  
SURVEYOR: Jimmy Stetson

SURVEY AREA: 196  
SITE NUMBER: 1-4  
DATE: 5-23-79



SITE DETAIL

H SENSORS:                      E LINE LENGTH:  
H<sub>x</sub> 1096                      E<sub>x</sub> 300'  
H<sub>y</sub> 1062                      E<sub>y</sub> 300'  
H<sub>z</sub> 6009  
X-AXIS DEVIATION 0° Deg.  
MAGNETIC DECLINATION 19.5 Deg.  
COMMENTS: SOIL GRAVELY, CENTER BLACK  
UNDERNEATH. SCARCE VEGETATION.  
2 ELECTRODES PLANTED IN EACH  
POSITION.



FOUR SECTION PLOT

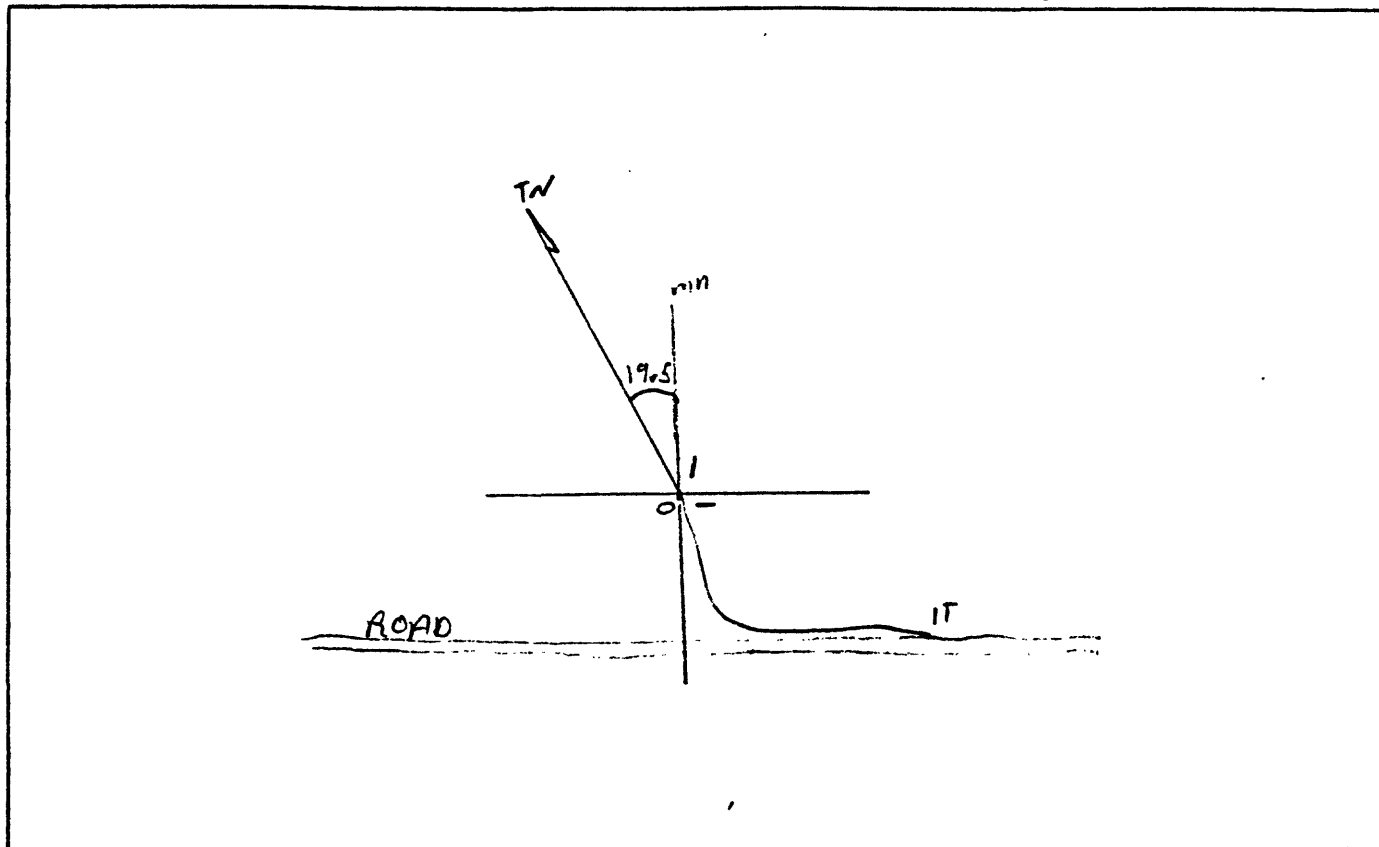
15 Minute Detail  
(Mark Adjacent Section No. s)



SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: 196  
 SITE NUMBER: 1-5  
 DATE: 5-23-79

LAT: 0 0 00  
 LONG: 0 0 00  
 QUADRANGLE NAME: HICKAMORE  
 LOCATION: T 43N R 6E S12  
 COORDINATES: ← 1300' ↑ 1200'  
 ELEVATION: ≈ ~~4435~~ 4435'  
 SURVEYOR: Jimmy Sutton



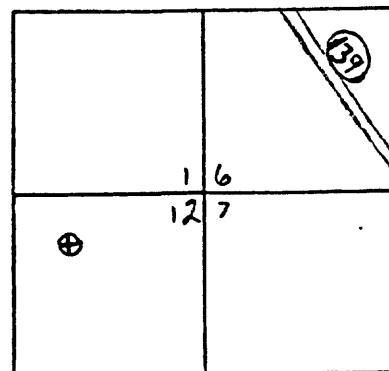
#### SITE DETAIL

H SENSORS:	E LINE LENGTH:
H <sub>x</sub> <u>1065</u>	E <sub>x</sub> <u>300'</u>
H <sub>y</sub> <u>1064</u>	E <sub>y</sub> <u>300'</u>
H <sub>z</sub> <u>6009</u>	

X-AXIS DEVIATION 0 Deg.

MAGNETIC DECLINATION 19.5° Deg.

COMMENTS: VERY LITTLE SOIL, LIGHT  
AND SANDY. CONSIDERABLE AMOUNT  
OF VEGETATION.



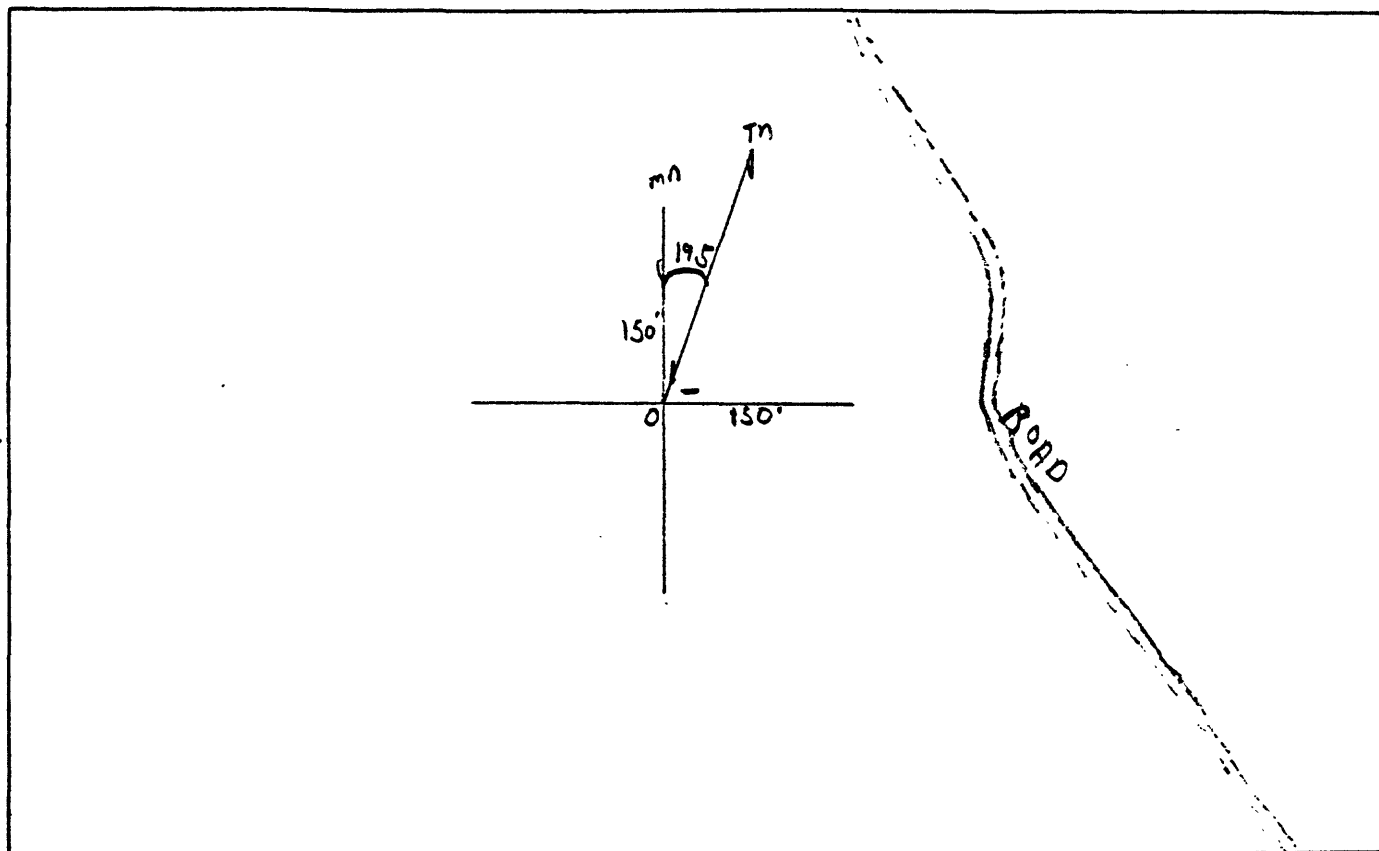
#### FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: 196  
 SITE NUMBER: 1-6  
 DATE: 1979-05-21

LAT: 0 1 "  
 LONG: 0 1 "  
 QUADRANGLE NAME: HACKAMORE  
 LOCATION: T 42 N R 8 E S 2  
 COORDINATES: FROM SE → 0.25 0.5  
 ELEVATION: ~ 4990  
 SURVEYOR: R. SANDNER



SITE DETAIL

H SENSORS: E LINE LENGTH:  
 H<sub>x</sub> 1-68 E<sub>x</sub> 300'  
 H<sub>y</sub> 1064 E<sub>y</sub> 300'  
 H<sub>z</sub> 6008  
 X-AXIS DEVIATION 8 Deg.  
 MAGNETIC DECLINATION 19.5 Deg.  
 COMMENTS: SOIL IS DIRT WITH LAVA ROCKS  
VEGETATION, PINE TREES, GRASS

3	2 ⊕
1/2	11

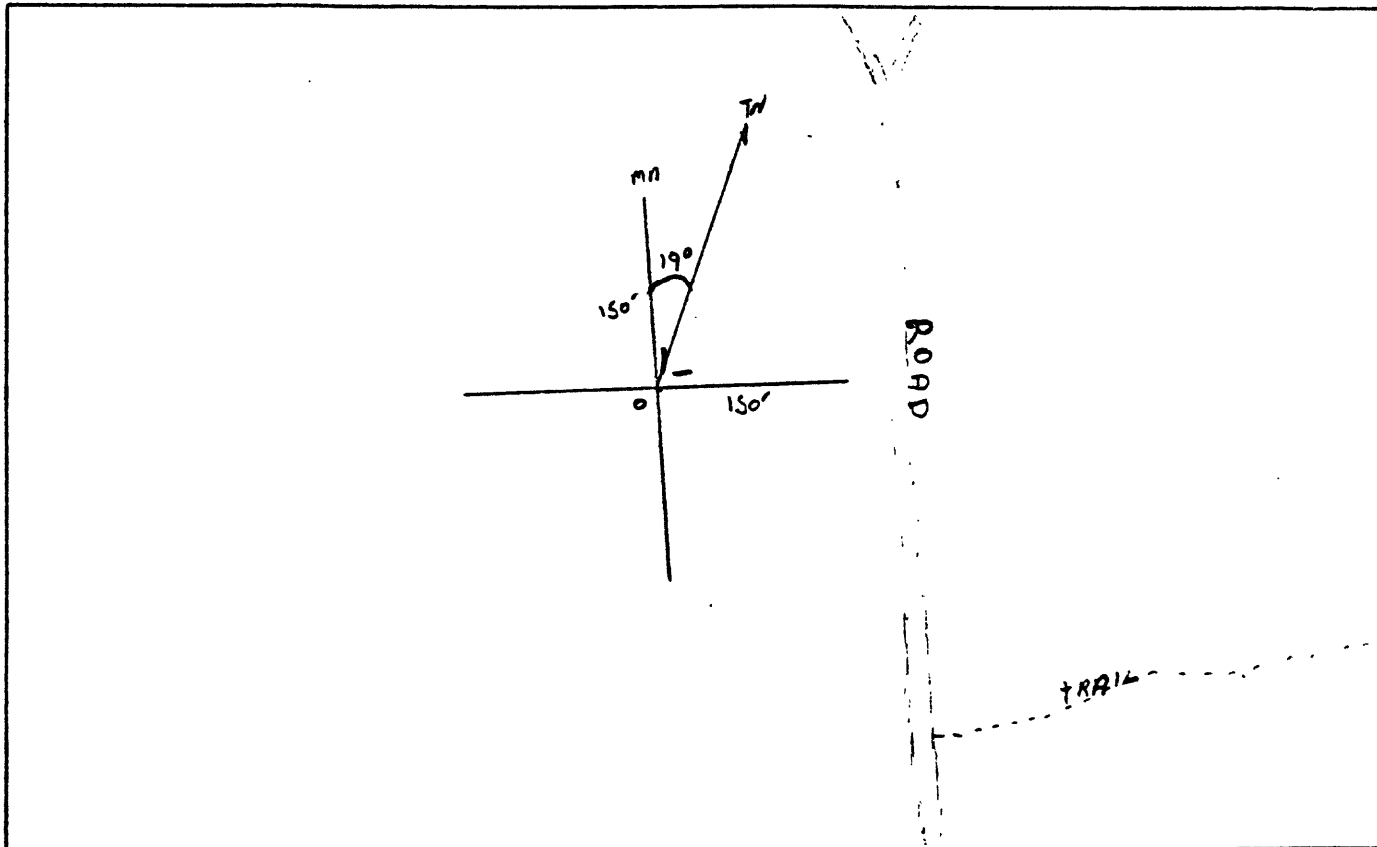
FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: 196  
 SITE NUMBER: 1-7  
 DATE: 1979-05-21

LAT:            °            '            "  
 LONG:            °            '            "  
 QUADRANGLE NAME: BIG SAGE RESERV.  
 LOCATION: T 43N R 12E S 1  
 COORDINATES: From  
SW → 0.45 0.3  
 ELEVATION: ~4900  
 SURVEYOR: R. SANDNER



SITE DETAIL

H SENSORS:                      E LINE LENGTH:  
 H<sub>x</sub> 1061                      E<sub>x</sub> 300'  
 H<sub>y</sub> 1077                      E<sub>y</sub> 300'  
 H<sub>z</sub> 6007

X-AXIS DEVIATION 8 Deg.

MAGNETIC DECLINATION 19 Deg.

COMMENTS: SOIL IS DIRT WITH MANY  
LAVAROCKS

VEGETATION IS SAGEBRUSH, TREES

2	1
11	12

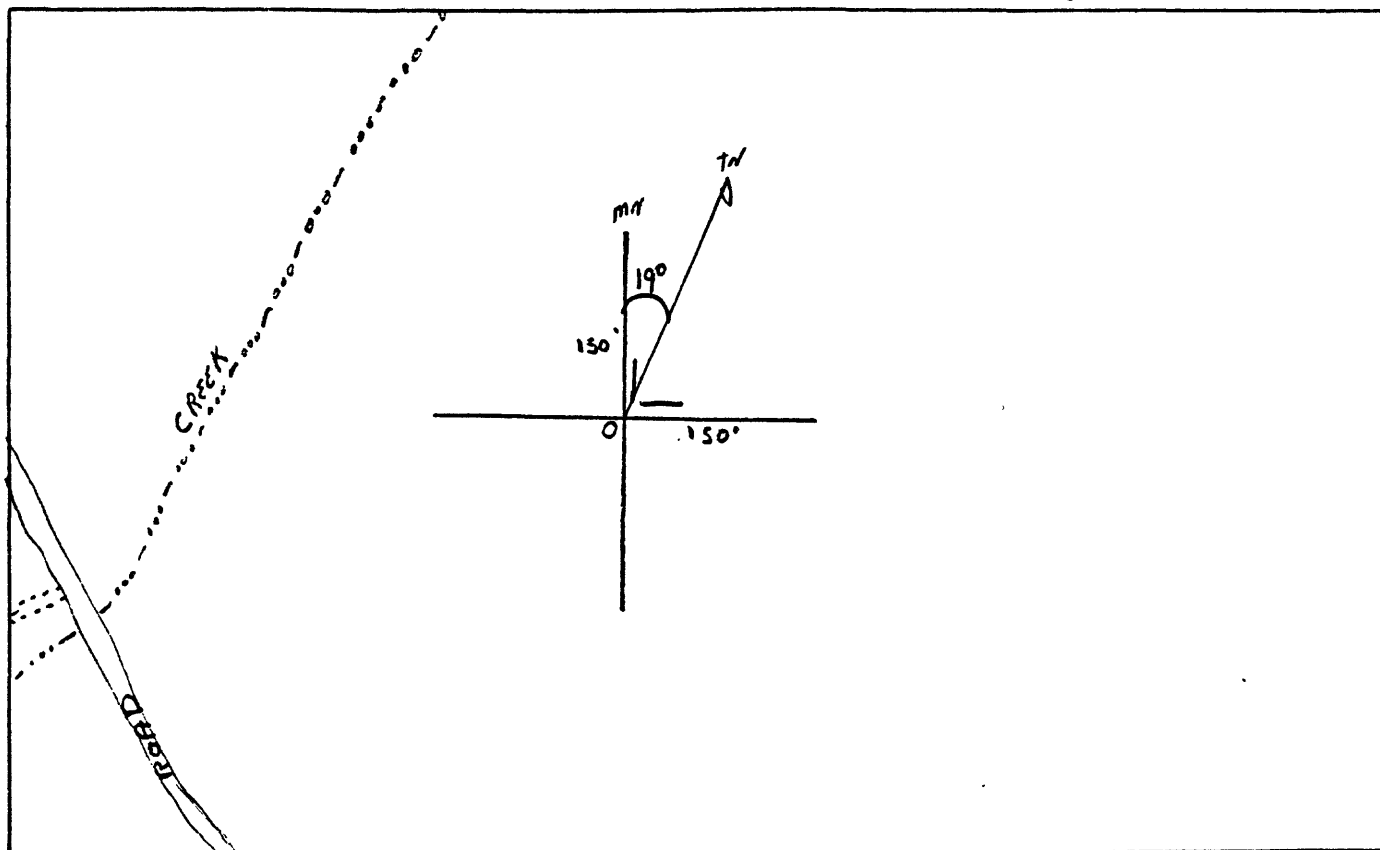
FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196  
SITE NUMBER: 1-8  
DATE: 5-20-79

LAT:            °            '            "  
LONG:            °            '            "  
QUADRANGLE NAME: CEADARVILLE  
LOCATION: T 43N R 17E S 27  
COORDINATES: → 2300 ↑ 2400  
ELEVATION: ≈ 4615  
SURVEYOR: Jimmy L. L. L.



#### SITE DETAIL

H SENSORS:                      E LINE LENGTH:  
H<sub>x</sub> 1096                      E<sub>x</sub> 300'  
H<sub>y</sub> 1062                      E<sub>y</sub> 300'  
H<sub>z</sub> 6009  
X-AXIS DEVIATION 0 Deg.  
MAGNETIC DECLINATION 19° Deg.  
COMMENTS: BRUSHY, LIGHT SANDY SOIL

29	27
33	34

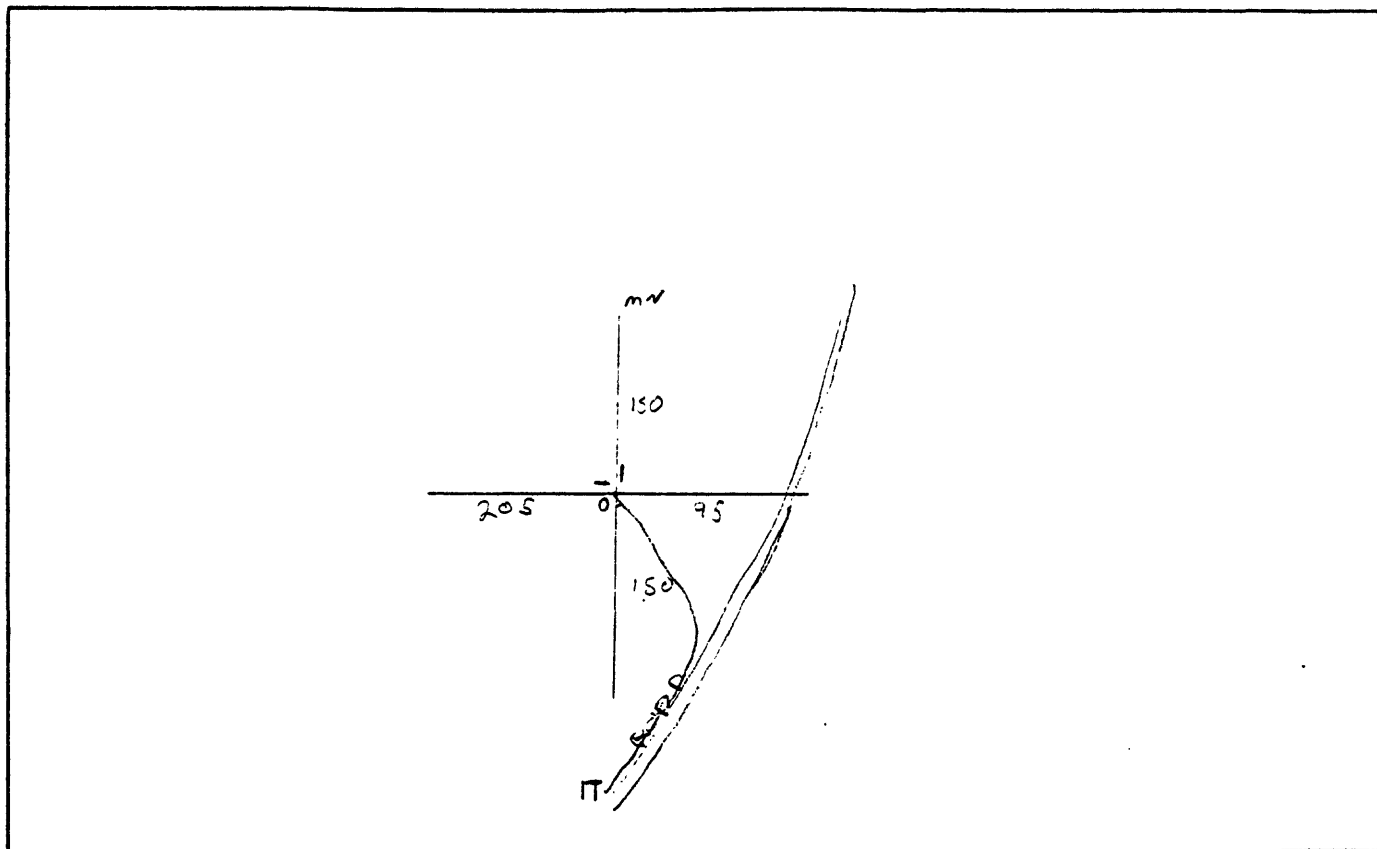
#### FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

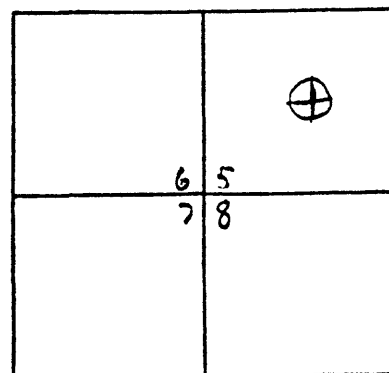
SURVEY AREA: 196  
SITE NUMBER: 2-1  
DATE: 5-26-79

LAT: 0 ' "  
LONG: 0 ' "  
QUADRANGLE NAME: Lan 61015  
LOCATION: T 325 R 134S 5  
COORDINATES: → 3200' ↓ 4100'  
ELEVATION: ≈ 1280  
SURVEYOR: Jimmy Eaton



SITE DETAIL

H SENSORS: | E LINE LENGTH:  
H<sub>x</sub> 1061 | E<sub>x</sub> 300'  
H<sub>y</sub> 1077 | E<sub>y</sub> 300'  
H<sub>z</sub> 6007  
X-AXIS DEVIATION 0° Deg.  
MAGNETIC DECLINATION 25° Deg.  
COMMENTS: GRASSY SOIL, BLUE CLAY  
FEW ROCKS



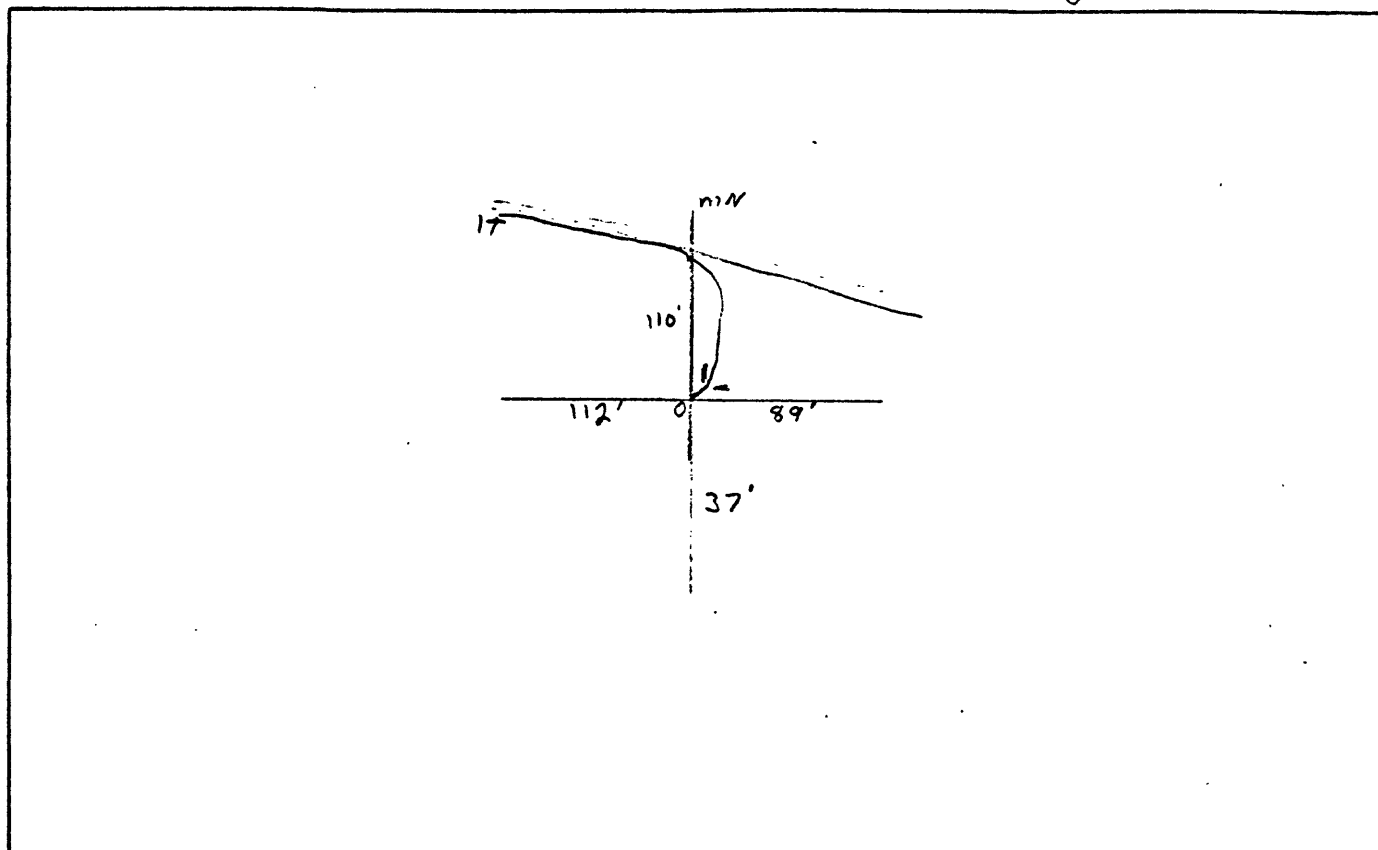
FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: 196  
 SITE NUMBER: 2-2  
 DATE: 5-27-79

LAT: 0 0 0  
 LONG: 0 0 0  
 QUADRANGLE NAME: cone mtn.  
 LOCATION: T 315 R 10W S 16  
 COORDINATES: → 1100' ↓ 2000'  
 ELEVATION: ≈ 3120'  
 SURVEYOR: William J. J. J.  
6



# SITE DETAIL

H SENSORS: E LINE LENGTH:  
 H<sub>x</sub> 1065 E<sub>x</sub> 147'  
 H<sub>y</sub> 1064 E<sub>y</sub> 201'  
 H<sub>z</sub> 6008  
 X-AXIS DEVIATION 12.5° to WEST Deg.  
 MAGNETIC DECLINATION 20° Deg.  
 COMMENTS: LIGHT SANDY SILT, SLIGHTLY  
ROCKY

7 9	
17 16	⊕

## FOUR SECTION PLOT

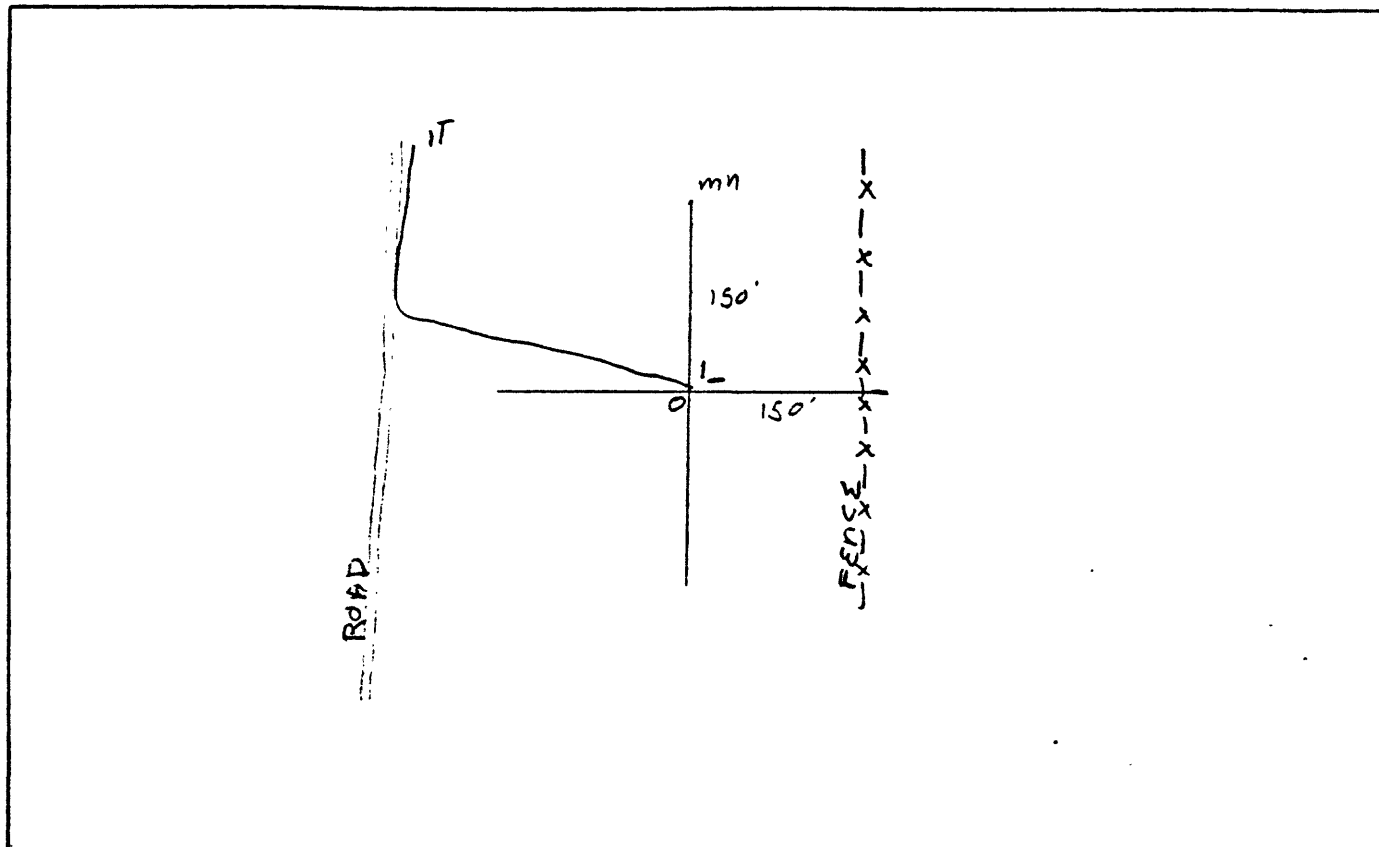
15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196  
SITE NUMBER: 2-3  
DATE: 5-27-79

LAT: 0 0 00  
LONG: 0 0 00

QUADRANGLE NAME: CANYONVILLE  
LOCATION: T 32 S R 5 W S 15 16  
COORDINATES: → 100' ↓ 1800'  
ELEVATION: ≈ 2840' 1800' T  
SURVEYOR: Jimmy Statten



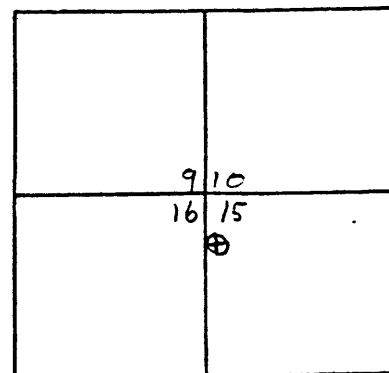
#### SITE DETAIL

H SENSORS: E LINE LENGTH:  
H<sub>x</sub> 1096 E<sub>x</sub> 300'  
H<sub>y</sub> 1062 E<sub>y</sub> 300'  
H<sub>z</sub> 6009

X-AXIS DEVIATION 0° Deg.

MAGNETIC DECLINATION 20° Deg.

COMMENTS: LIGHT LOAN, SLOPE  
PASTURE, SLIGHTLY ROCKY.



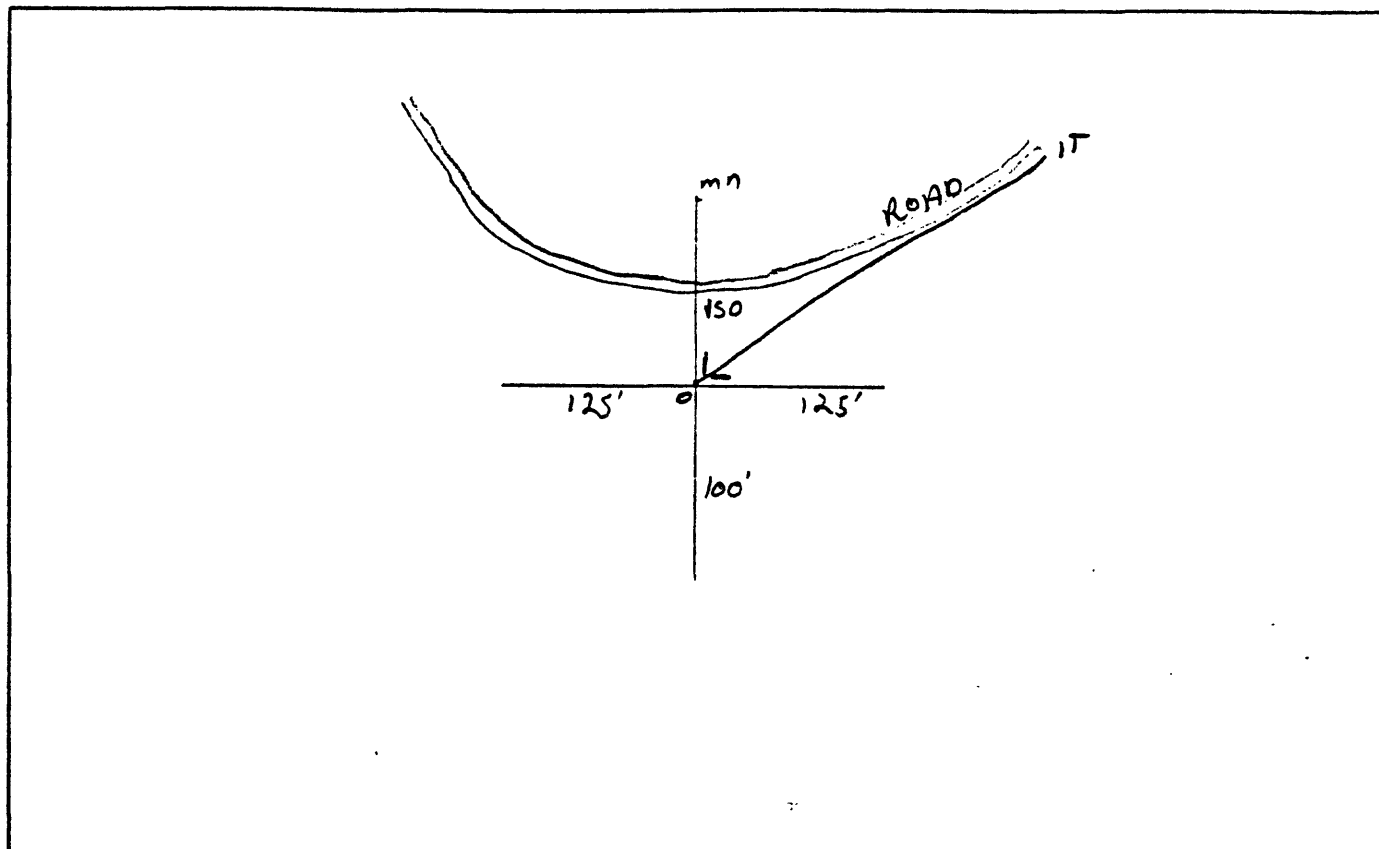
#### FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No.s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

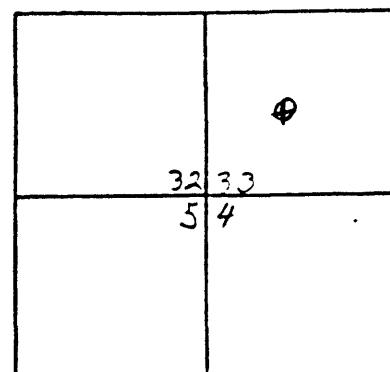
LAT: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
LONG: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
QUADRANGLE NAME: HILLER  
LOCATION: T 31 S R 2 W S 33  
COORDINATES: -2800' 2400'  
ELEVATION: ≈ 2250'  
SURVEYOR: Jimmy Statten

SURVEY AREA: 196  
SITE NUMBER: 2-4  
DATE: 5-28-74



SITE DETAIL

H SENSORS: E LINE LENGTH:  
H<sub>x</sub> 1061 E<sub>x</sub> 250'  
H<sub>y</sub> 1077 E<sub>y</sub> 250'  
H<sub>z</sub> 6007  
X-AXIS DEVIATION 0° Deg.  
MAGNETIC DECLINATION 20° Deg.  
COMMENTS: SLIGHTLY MARSHY,  
CONSIDERABLE VEGETATION.



FOUR SECTION PLOT

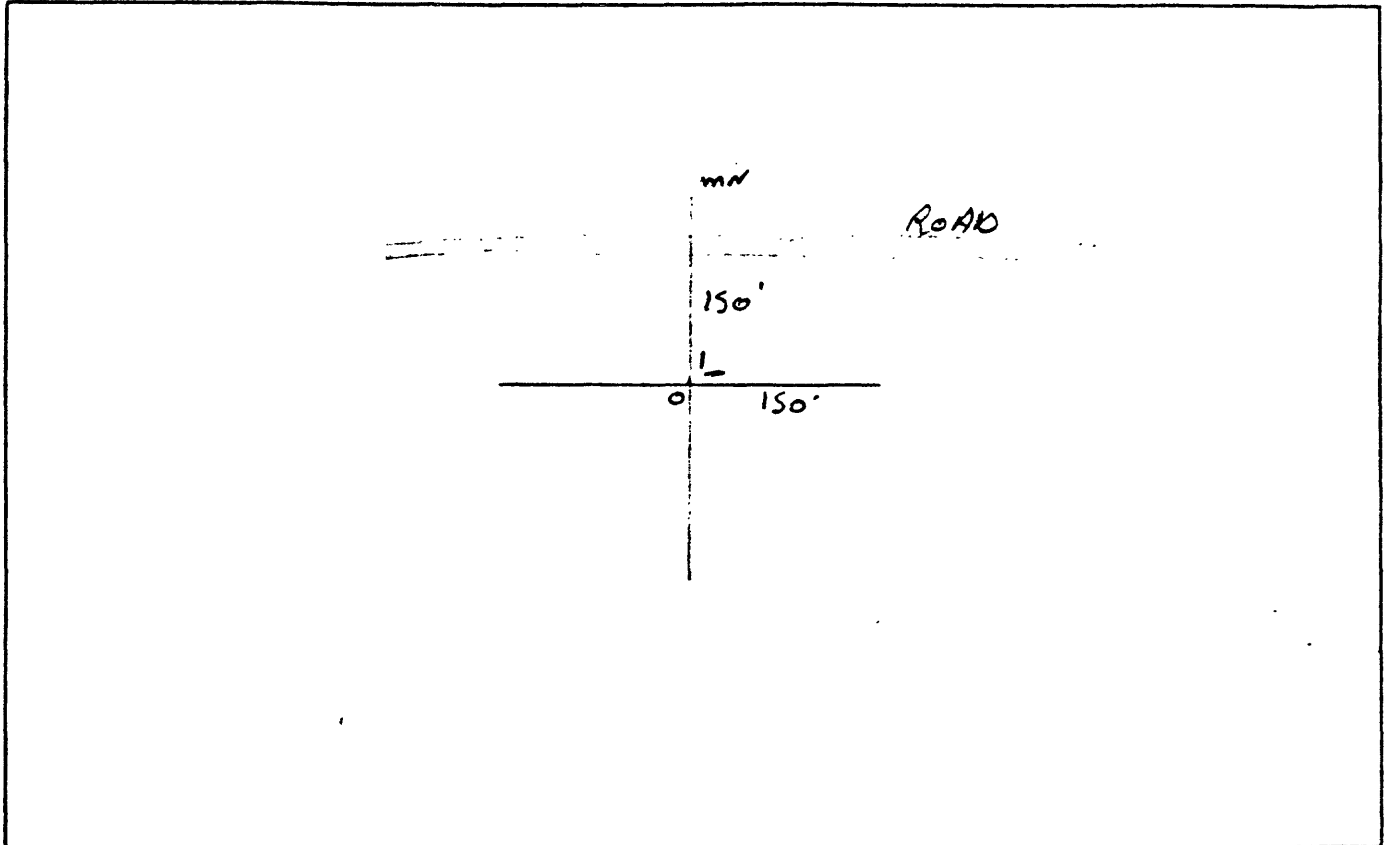
15 Minute Detail  
(Mark Adjacent Section No. s)



SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196  
SITE NUMBER: 2-5  
DATE: 5-28-79

LAT: 0 1 "  
LONG: 0 1 "  
QUADRANGLE NAME: PRESPECT  
LOCATION: T 30S R 4E S 19  
COORDINATES: → 1000' ↑ 2800'  
ELEVATION: ≈ 3680' 3720' 74  
SURVEYOR: Livingston



SITE DETAIL

H SENSORS: | E LINE LENGTH:  
H<sub>x</sub> 1065 | E<sub>x</sub> 300'  
H<sub>y</sub> 1064 | E<sub>y</sub> 300'  
H<sub>z</sub> 6008 |  
X-AXIS DEVIATION 0° Deg.  
MAGNETIC DECLINATION 20° Deg.  
COMMENTS: CLEARED FOREST, LIGHT  
SANDY SOIL.

	⊕
24	19
25	30

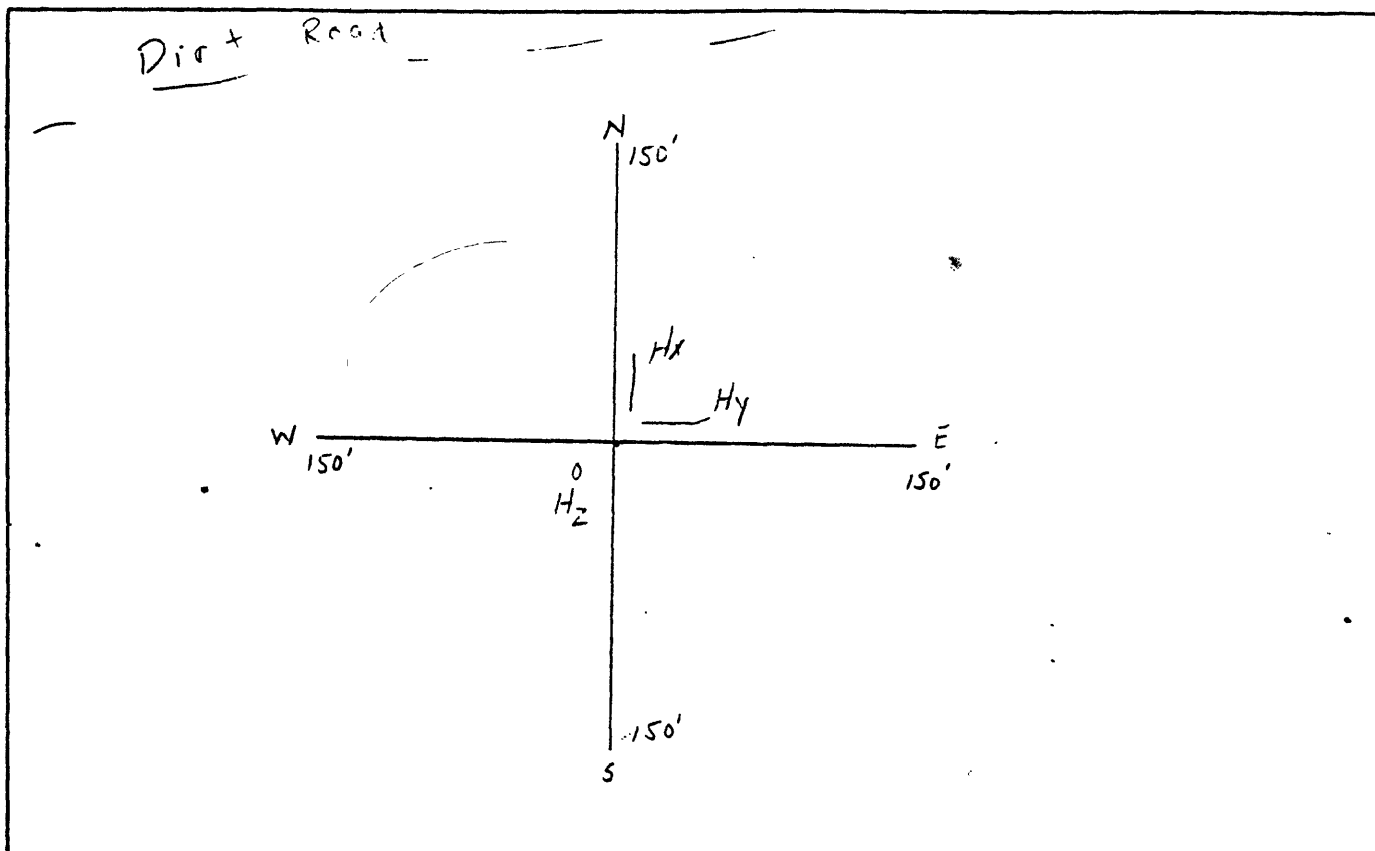
FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No.s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: 196  
 SITE NUMBER: 2-5 R  
 DATE: July 3, 1979

LAT: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
 LONG: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
 QUADRANGLE NAME: Prospect, Or  
 LOCATION: T 30S R 4E S 19  
 COORDINATES: From SW corner  
1.6 → .2  
 ELEVATION: 3500 ft  
 SURVEYOR: Michael SNOW



SITE DETAIL

H SENSORS: | E LINE LENGTH:  
 H<sub>x</sub> 1065 | E<sub>x</sub> 300'  
 H<sub>y</sub> 1064 | E<sub>y</sub> 300'  
 H<sub>z</sub> 6008

X-AXIS DEVIATION \_\_\_\_\_ Deg.

MAGNETIC DECLINATION \_\_\_\_\_ Deg.

COMMENTS: soil: sandy-loam  
veg: bushes + pines

19	20
0	
30	29

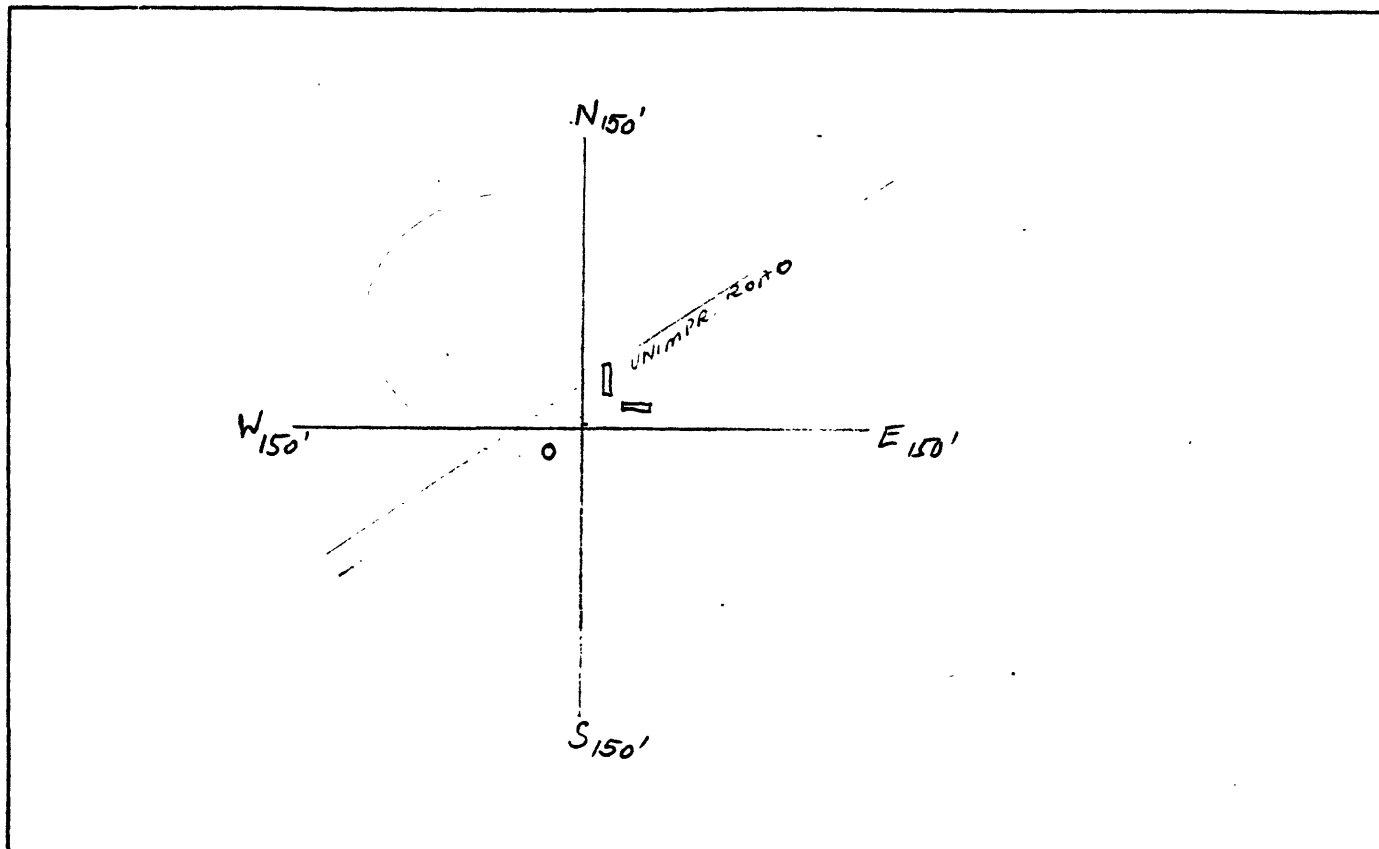
FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

LAT: 0 0 00"  
 LONG: 0 0 00"  
 QUADRANGLE NAME: WINEMA NATL FOREST  
 LOCATION: T 30S R 7E S 31  
 COORDINATES: 200' FEL 400' FN  
 ELEVATION: 5125'  
 SURVEYOR: J. STATION

SURVEY AREA: 196  
 SITE NUMBER: 2-6  
 DATE: 1979-05-31



# SITE DETAIL

H SENSORS: E LINE LENGTH:  
 H<sub>x</sub> 1096 E<sub>x</sub> 300'  
 H<sub>y</sub> 1062 E<sub>y</sub> 300'  
 H<sub>z</sub> 6009  
 X-AXIS DEVIATION 0 Deg.  
 MAGNETIC DECLINATION 19 NS Deg.  
 COMMENTS: LOCATED IN PINE FOREST  
LIGHT SOIL, SLIGHTLY ROCKY

30	29
31	32

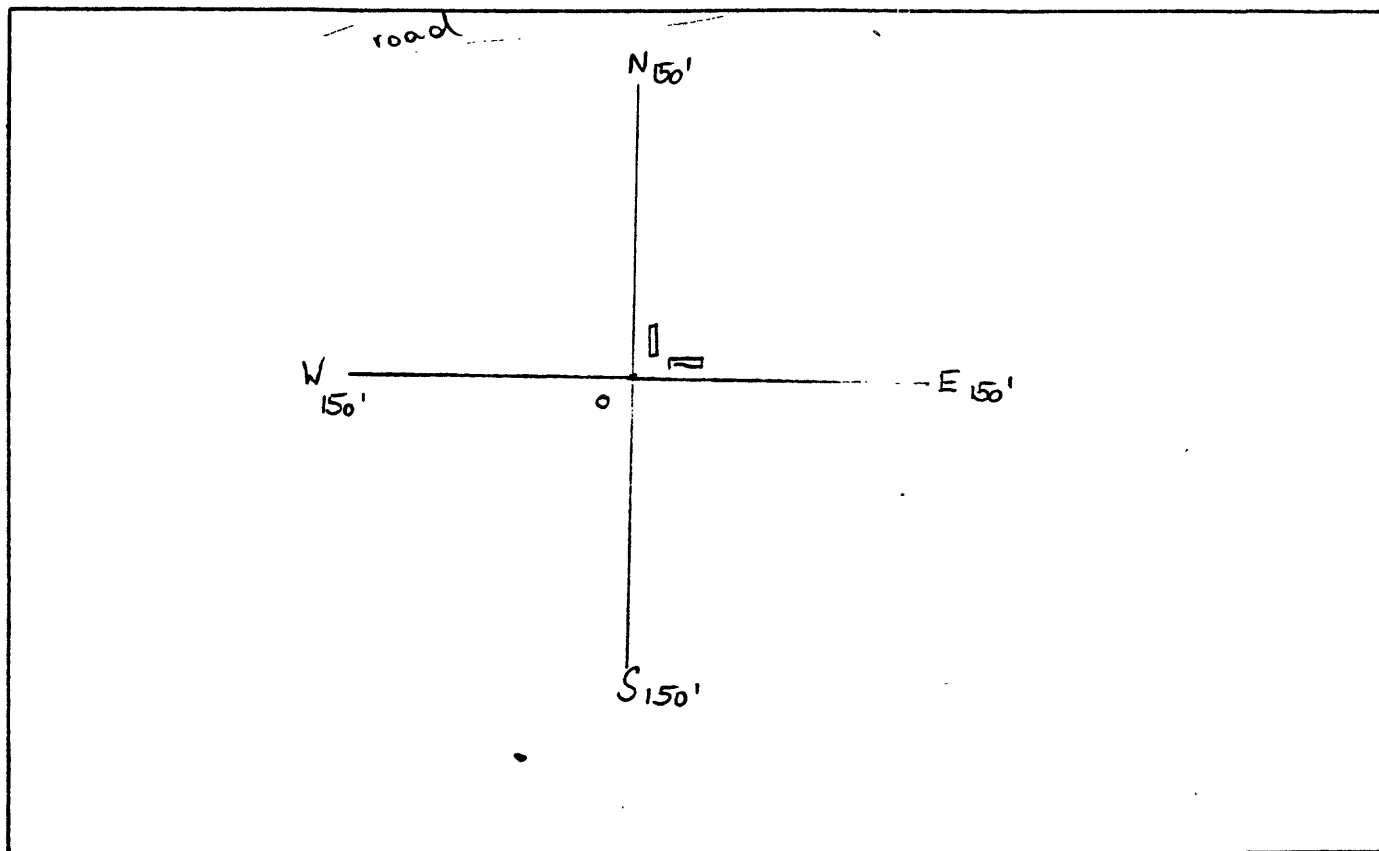
# FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

LAT: 0 1 "  
 LONG: 0 1 "  
 QUADRANGLE NAME: WINEMA NATL FOREST  
 LOCATION: T 31 S R 11.5 S 19  
 COORDINATES: 2500' FLW 100' FLW  
 ELEVATION: 4100'  
 SURVEYOR: J. STATION

SURVEY AREA: 196  
 SITE NUMBER: 2-7  
 DATE: 1979-06-01



SITE DETAIL

H SENSORS:      E LINE LENGTH:  
 H<sub>x</sub> 1096      E<sub>x</sub> 300'  
 H<sub>y</sub> 1062      E<sub>y</sub> 300'  
 H<sub>z</sub> 6009  
 X-AXIS DEVIATION 0 Deg.  
 MAGNETIC DECLINATION 19° Deg.  
 COMMENTS: sandy & grass

18	17
⊕	
19	20

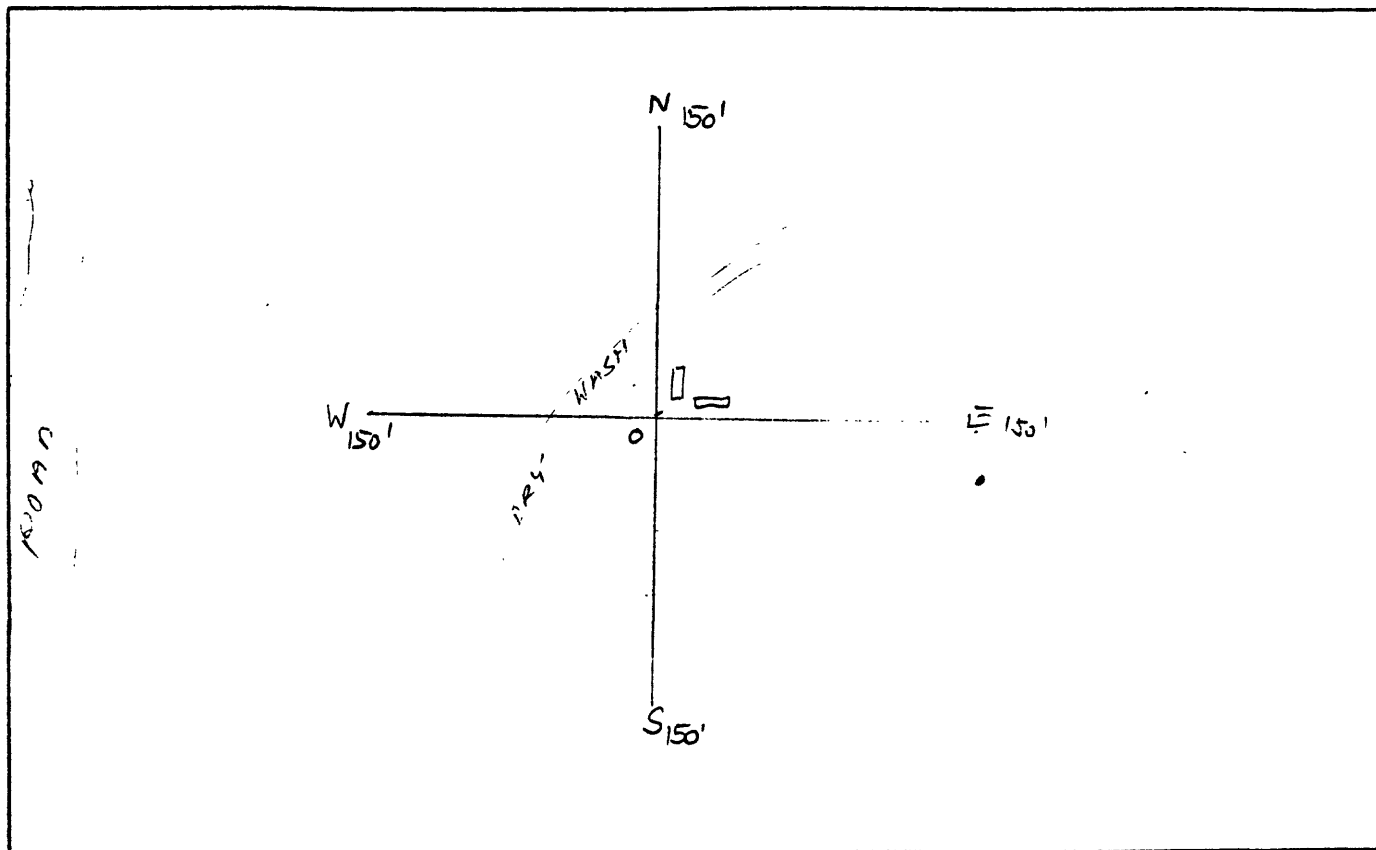
FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196  
SITE NUMBER: 2-8  
DATE: 1979-06-02

*100' 150'*  
LAT: 0  
LONG: 0  
QUADRANGLE NAME: WINEMA NAT'L FOREST  
LOCATION: T 30 S R 13 E S 14  
COORDINATES: \_\_\_\_\_  
ELEVATION: 5380'  
SURVEYOR: J. STATION 5200'



#### SITE DETAIL

H SENSORS:      E LINE LENGTH:  
H<sub>x</sub> 1096      E<sub>x</sub> 300'  
H<sub>y</sub> 1062      E<sub>y</sub> 300'  
H<sub>z</sub> 6009  
X-AXIS DEVIATION ✓ Deg.  
MAGNETIC DECLINATION 2.0' Deg.  
COMMENTS: LOCATED IN CLEARING  
GOOD DIRT, NO ROCKS

⊕ 14	13
23	24

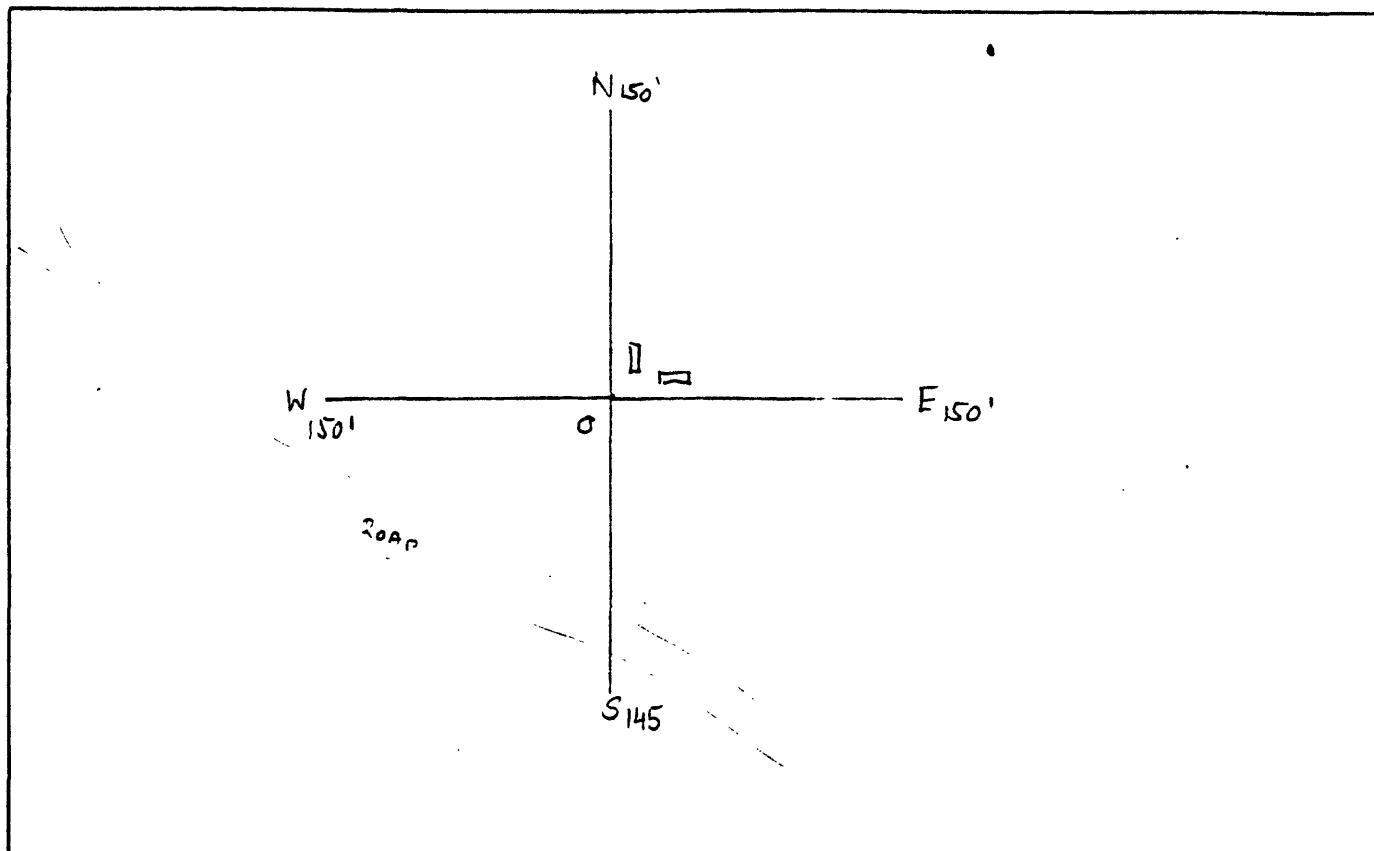
#### FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No.s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196  
SITE NUMBER: 2-9  
DATE: 1979-06-03

LAT: 0 0 00"  
LONG: 0 0 00"  
QUADRANGLE NAME: SUMMER LAKE  
LOCATION: T 29S R 17E S 15  
COORDINATES: <sup>From</sup> NE 0.5 0.05  
ELEVATION: 4950' ±  
SURVEYOR: R. SANDNER



H SENSORS: E LINE LENGTH:  
H<sub>x</sub> 1065 E<sub>x</sub> 295'  
H<sub>y</sub> 1064 E<sub>y</sub> 300'  
H<sub>z</sub> 6008  
X-AXIS DEVIATION 0 Deg.  
MAGNETIC DECLINATION 17° 14' Deg.  
COMMENTS: LOCATED CLOSE TO  
ALKAL. LAKE, SANDY, SAGEBRUSH

⊕ 15	14
22	23

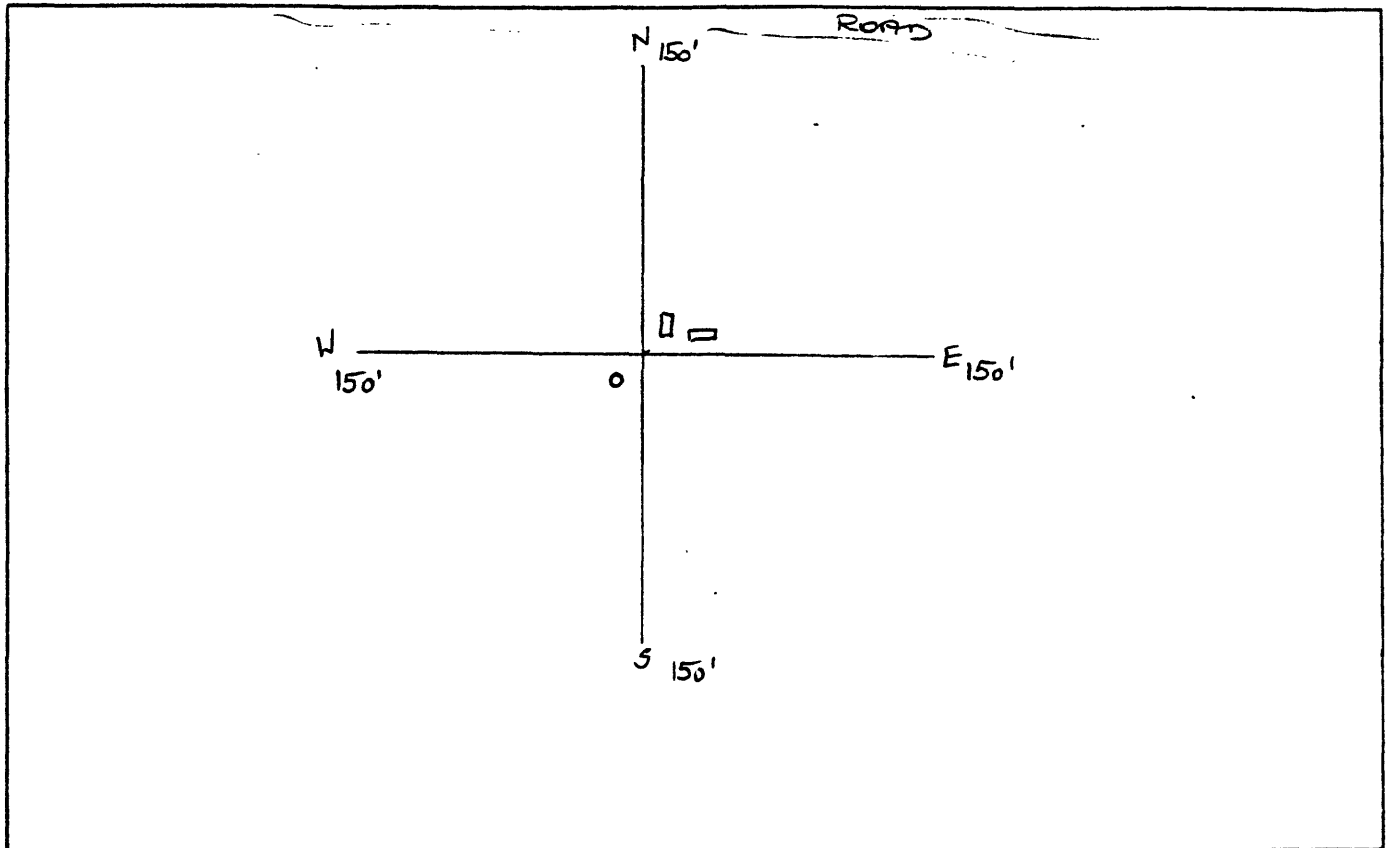
FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196  
SITE NUMBER: 2-10  
DATE: 1979-06-04

LAT: 0 1 "  
LONG: 0 1 "  
QUADRANGLE NAME: LAKE ARBERT  
LOCATION: T 306 R 22E S 12  
COORDINATES: FROM  
NC ← 0.5 ↓ 0.1  
ELEVATION: 4.300' 12  
SURVEYOR: R SANDNER



SITE DETAIL

H SENSORS:

H<sub>x</sub> 1061  
H<sub>y</sub> 1077  
H<sub>z</sub> 6007

E LINE LENGTH:

E<sub>x</sub> 300'  
E<sub>y</sub> 300'

X-AXIS DEVIATION 5 Deg.

MAGNETIC DECLINATION 17° 16' Deg.

COMMENTS: SOIL IS DIRT & ROCKY  
SAGEBRUSH & SNAKES

⊕ 12	7
13	18

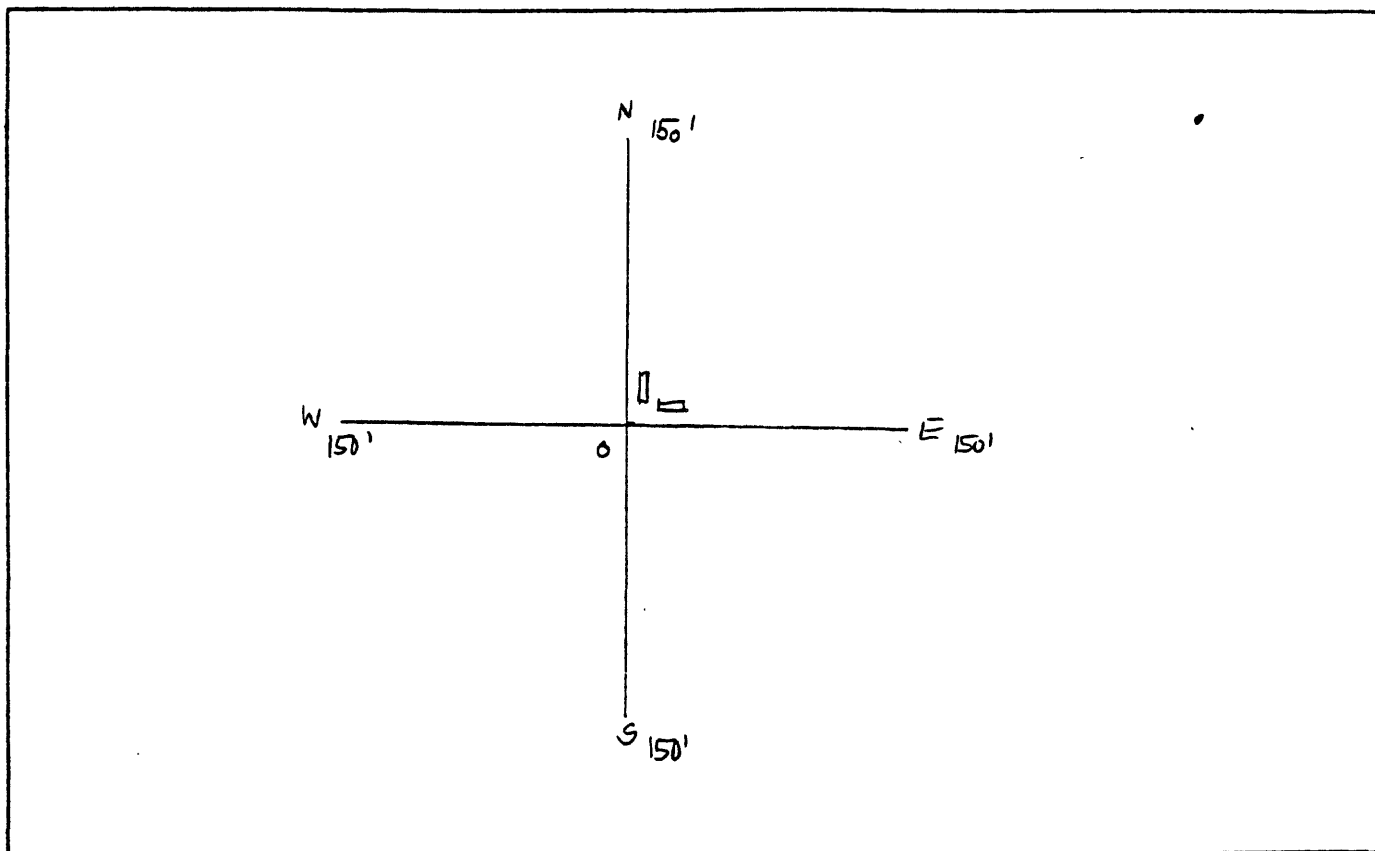
FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196  
SITE NUMBER: 2-11  
DATE: 1979-06

LAT:            °            '            "  
LONG:            °            '            "  
QUADRANGLE NAME: WALLS LAKE  
LOCATION: T 29 S R 27 E S 12  
COORDINATES: From  
SE ← 0.2 ↑ 0.03  
ELEVATION: 4750' A.S.L.  
SURVEYOR: R SANDNER



SITE DETAIL

H SENSORS:                      E LINE LENGTH:  
H<sub>x</sub> 1061                      E<sub>x</sub> 300'  
H<sub>y</sub> 1077                      E<sub>y</sub> 300'  
H<sub>z</sub> 6007

X-AXIS DEVIATION 8 Deg.

MAGNETIC DECLINATION 19.5° Deg.

COMMENTS: SITE LOCATED ON HILL  
DIRT & ROCKS, SAGEBRUSH

12 ⊕	7
13	18

FOUR SECTION PLOT

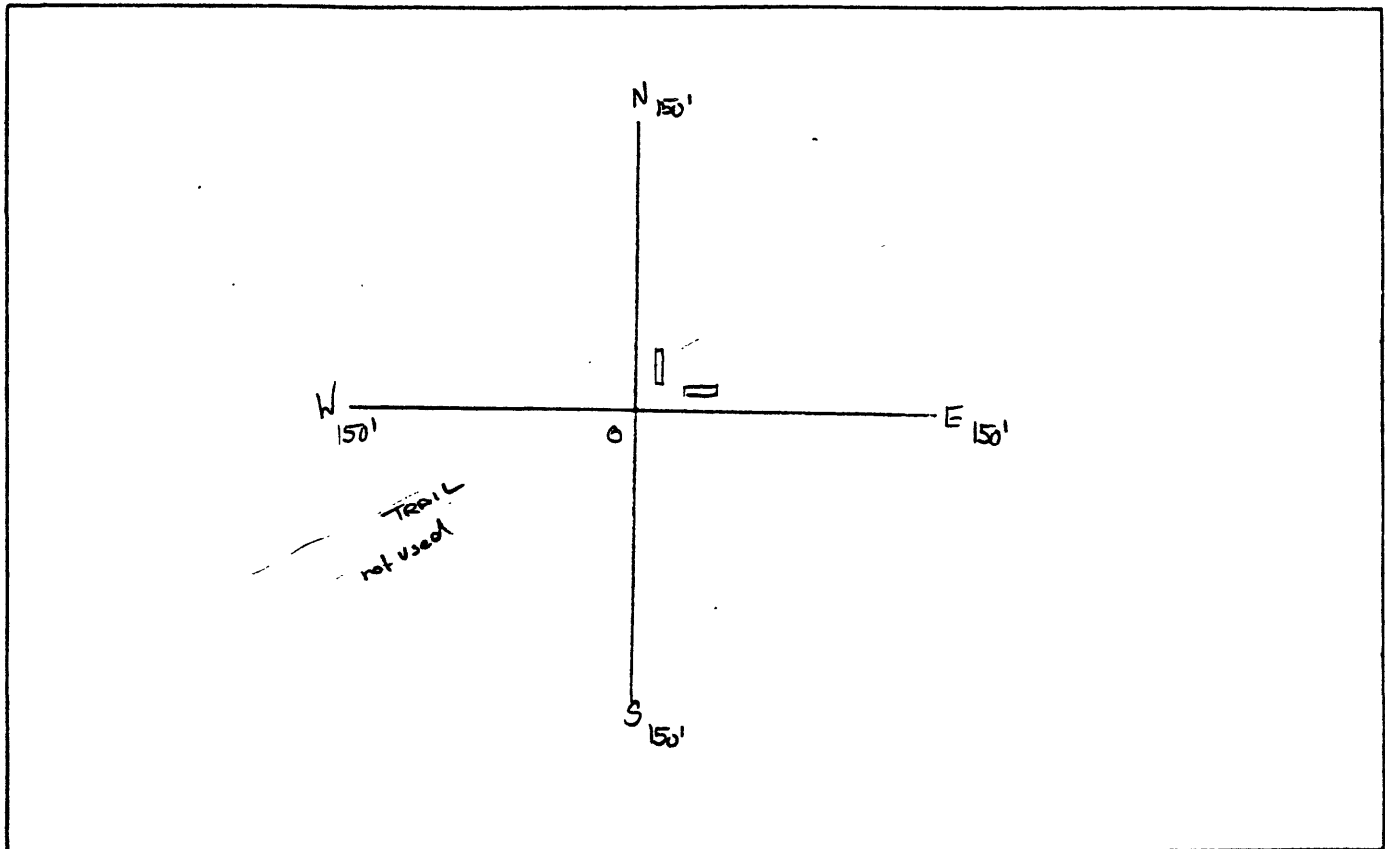
15 Minute Detail  
(Mark Adjacent Section No. s)



SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196  
SITE NUMBER: 2-12  
DATE: 1979-06-05

LAT: 0 1 "  
LONG: 0 1 "  
QUADRANGLE NAME: BACA LAKE  
LOCATION: T 30S R 31E S 23  
COORDINATES: FROM NW → 0.25 ↓ 0.25  
ELEVATION: 1200' RE  
SURVEYOR: R. SANDNER



SITE DETAIL

H SENSORS: E LINE LENGTH:  
H<sub>x</sub> 1096 E<sub>x</sub> 300'  
H<sub>y</sub> 1062 E<sub>y</sub> 300'  
H<sub>z</sub> 6009

X-AXIS DEVIATION ✓ Deg.

MAGNETIC DECLINATION 19.5° Deg.

COMMENTS: LOCATED IN FIELD,

VERY ROCKY, SAGEBRUSH & WEEDS

⊕ 23	24
26	25

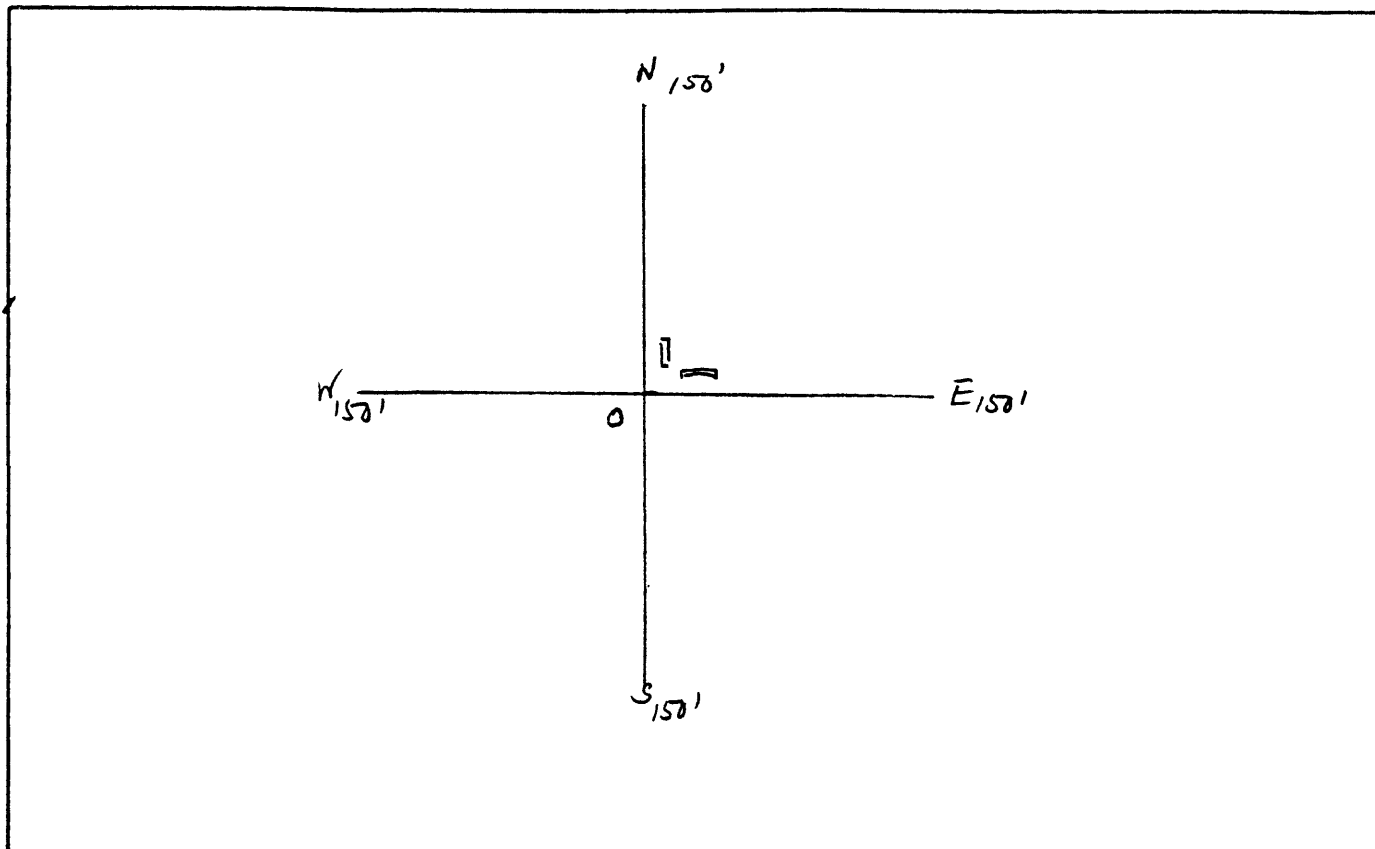
FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

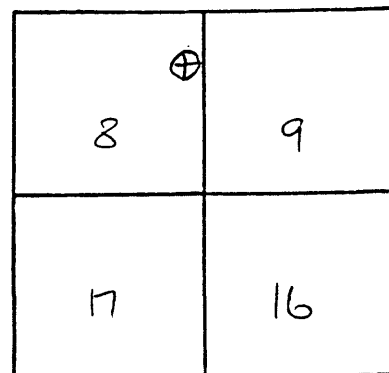
SURVEY AREA: 196  
SITE NUMBER: 2-13  
DATE: 1979-06-05

LAT: 0 0 00"  
LONG: 0 0 00"  
QUADRANGLE NAME: ALBERSON  
LOCATION: T 29 S R 35 E S 8  
COORDINATES: FROM  
NE 0.25 0.05  
ELEVATION: -400 100  
SURVEYOR: R SANONER



SITE DETAIL

H SENSORS: | E LINE LENGTH:  
H<sub>x</sub> 1065 | E<sub>x</sub> 300'  
H<sub>y</sub> 1064 | E<sub>y</sub> 300'  
H<sub>z</sub> 6008 |  
X-AXIS DEVIATION 8 Deg.  
MAGNETIC DECLINATION 19.5 Deg.  
COMMENTS: LOCATED AT EDGE OF  
MTN. SOIL IS DIRT & ROCKS  
VEG. SAGEBRUSH



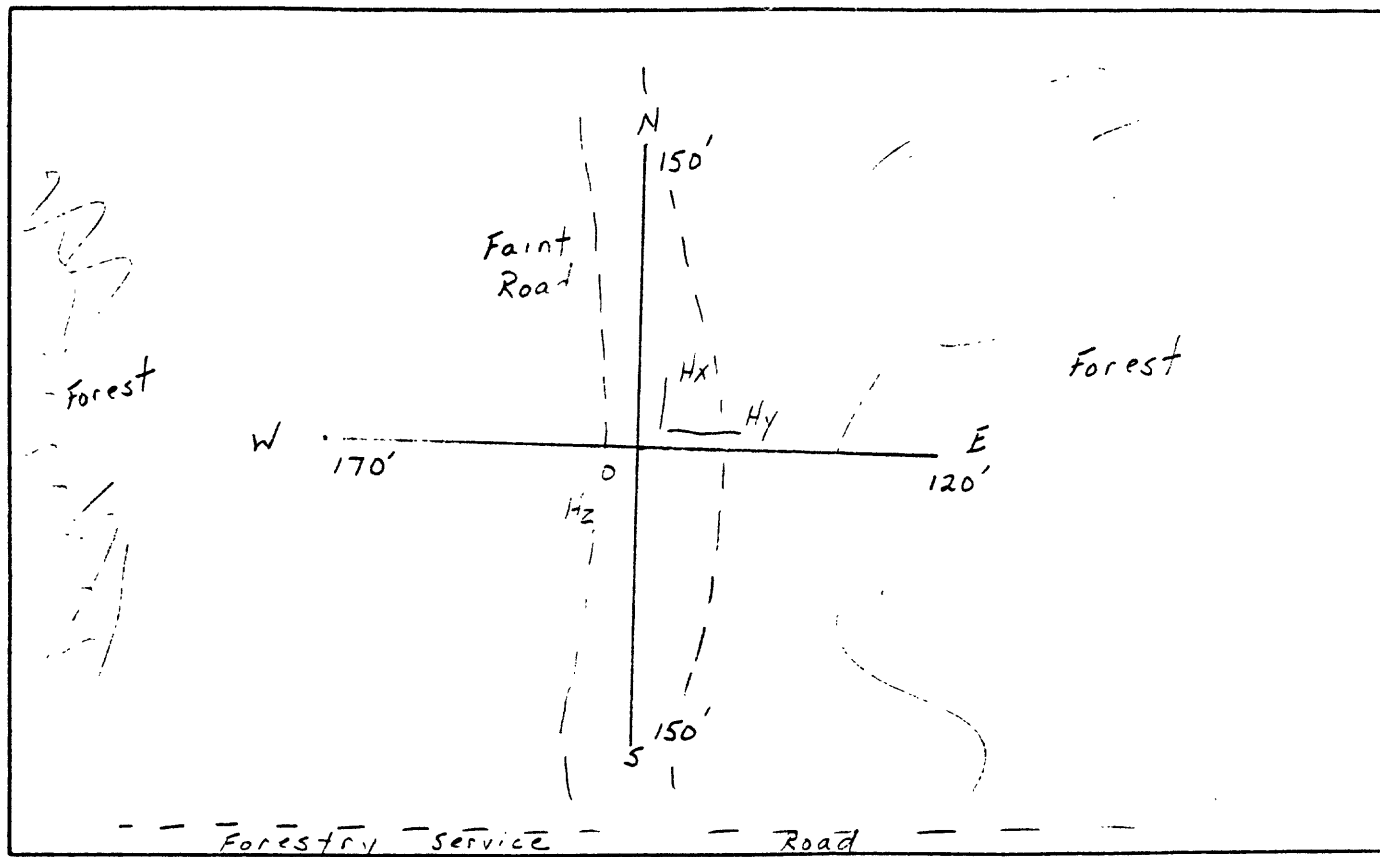
FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196  
SITE NUMBER: 3-1  
DATE: July 1, 1979

LAT: 0 0 00  
LONG: 0 0 00  
QUADRANGLE NAME: Sardine Butte, Oreg.  
LOCATION: T 20S R 4E S 19  
COORDINATES: From SW corner  
1.4 → 1.2  
ELEVATION: 2350 ft 2.0  
SURVEYOR: Robert Sardier



SITE DETAIL

H SENSORS:      E LINE LENGTH:  
H<sub>x</sub> 1061      E<sub>x</sub> 300'  
H<sub>y</sub> 1077      E<sub>y</sub> 290'  
H<sub>z</sub> 6007  
X-AXIS DEVIATION 10° W Deg.  
MAGNETIC DECLINATION \_\_\_\_\_ Deg.  
COMMENTS: soil: good dirt  
veg: ferns with fir trees  
Note: E wire lengths;  
deviated 10' W

19 ⊙	20
30	29

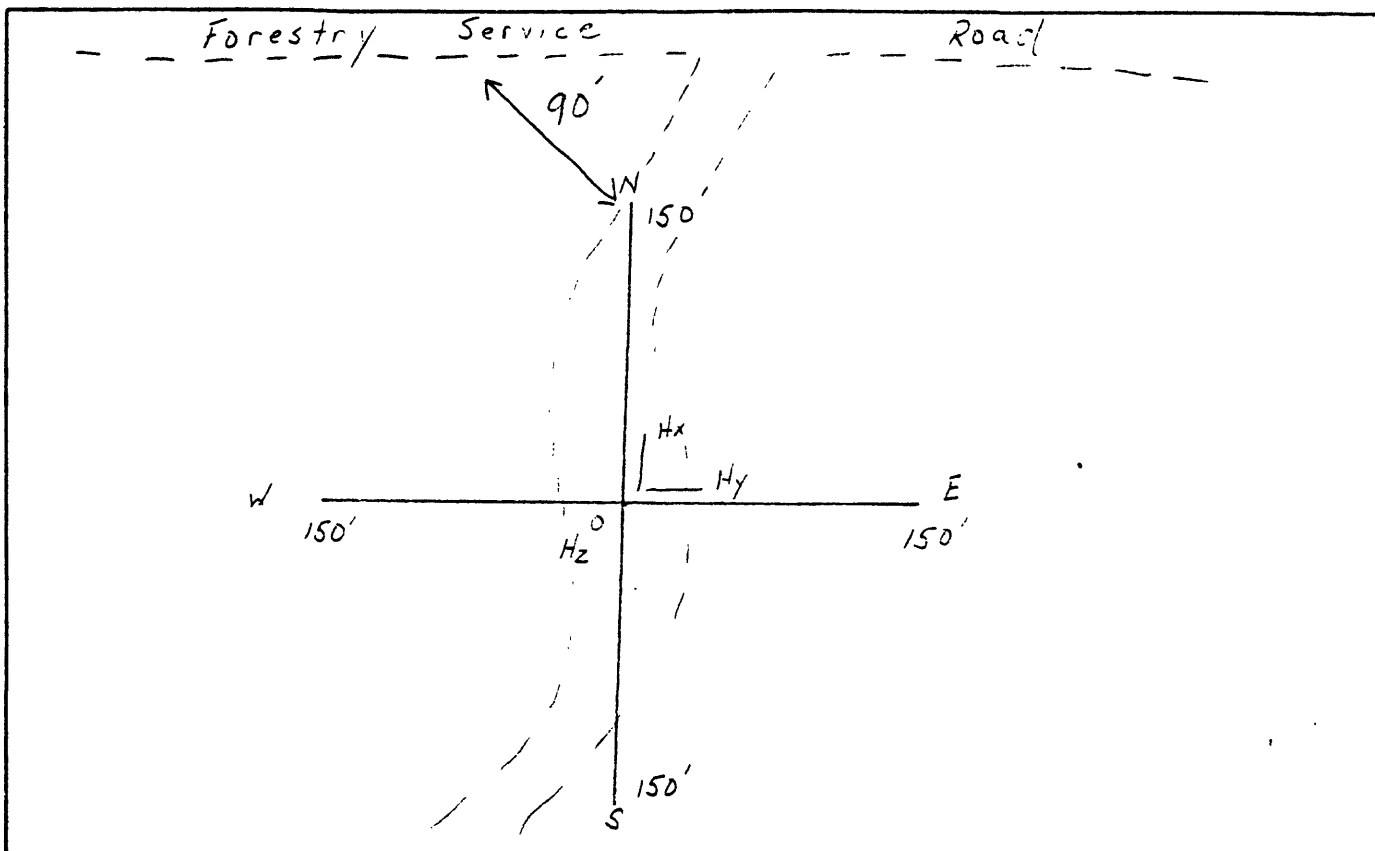
FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: 17/2  
 SITE NUMBER: 3-2  
 DATE: June 27, 1979

LAT: \_\_\_\_\_  
 LONG: \_\_\_\_\_  
 QUADRANGLE NAME: \_\_\_\_\_  
 LOCATION: T 2/S R 4/E S 8/25  
 COORDINATES: N. 27° → .2  
 ELEVATION: -2050 ft  
 SURVEYOR: Michael S.



SITE DETAIL

H SENSORS: E LINE LENGTH:  
 H<sub>x</sub> 1065 E<sub>x</sub> 300  
 H<sub>y</sub> 1064 E<sub>y</sub> 300  
 H<sub>z</sub> 600

X-AXIS DEVIATION \_\_\_\_\_ Deg.

MAGNETIC DECLINATION \_\_\_\_\_ Deg.

COMMENTS: soil: dirt + grass; 5  
electrode in holes

veg: 6' tall grass in some areas

Note - computed on fair ground

3626	8125
35	36

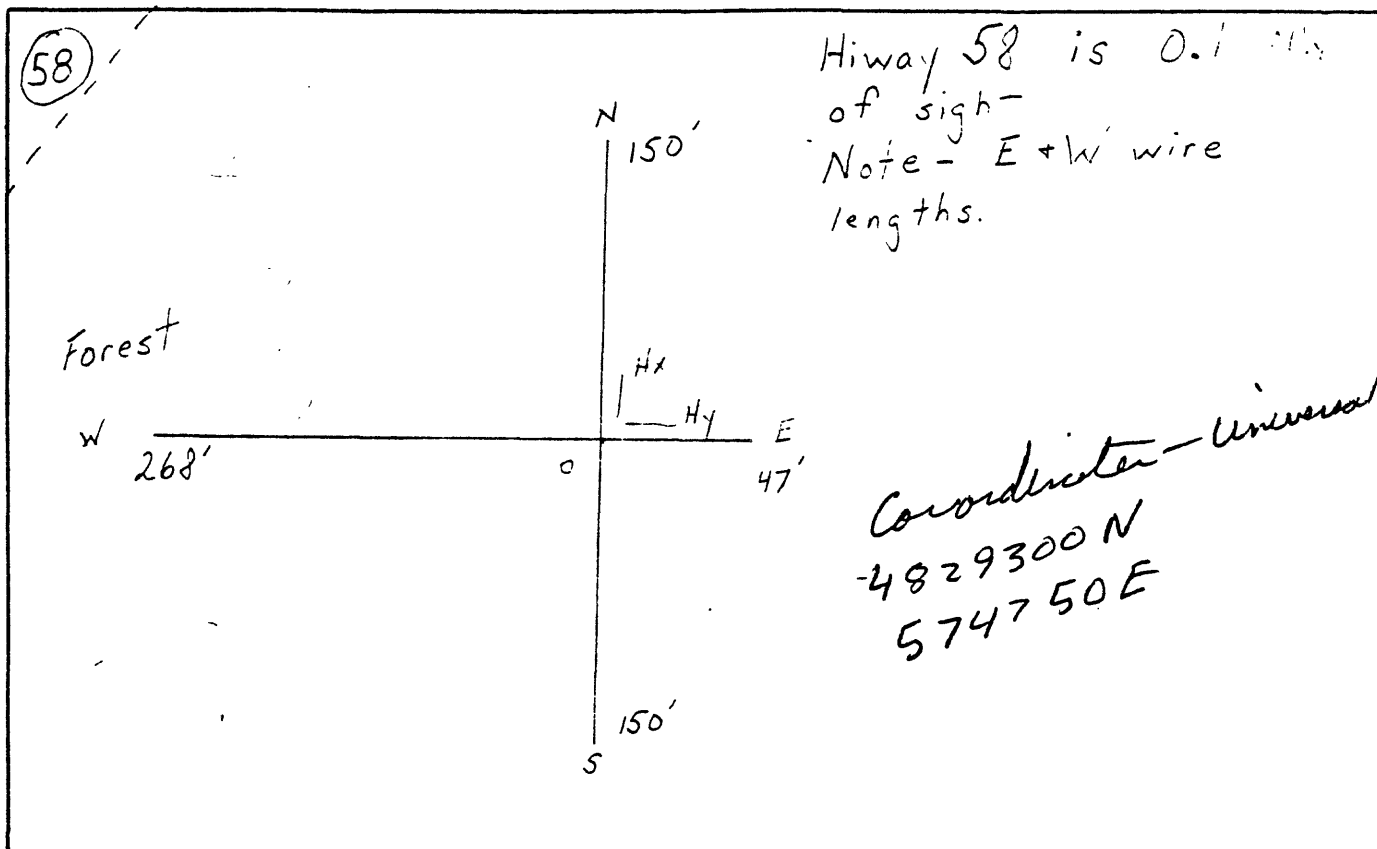
FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

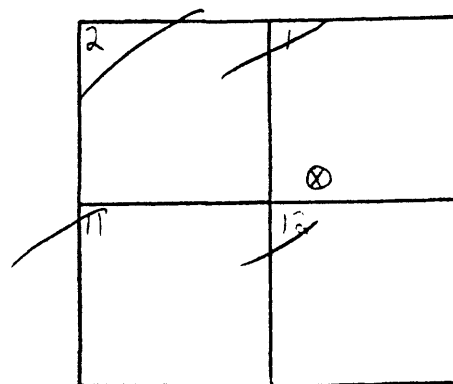
SURVEY AREA: 196  
SITE NUMBER: 3-3  
DATE: June 20, 1979

LAT: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
LONG: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
QUADRANGLE NAME: Wald Lake, Ore  
LOCATION: T4829300N R574750E +  
COORDINATES: From SW corner  
1.1 2.2  
ELEVATION: 4400 ft  
SURVEYOR: Michael



#### SITE DETAIL

H SENSORS: E LINE LENGTH:  
H<sub>x</sub> 1061 E<sub>x</sub> 300'  
H<sub>y</sub> 1277 E<sub>y</sub> 315'  
H<sub>z</sub> 6007  
X-AXIS DEVIATION 0° Deg.  
MAGNETIC DECLINATION 20° Deg.  
COMMENTS: Soil: good black dirt;  
W electrodes - decayed with  
dirt  
veg: grass or similar; tall grass  
around W electrodes



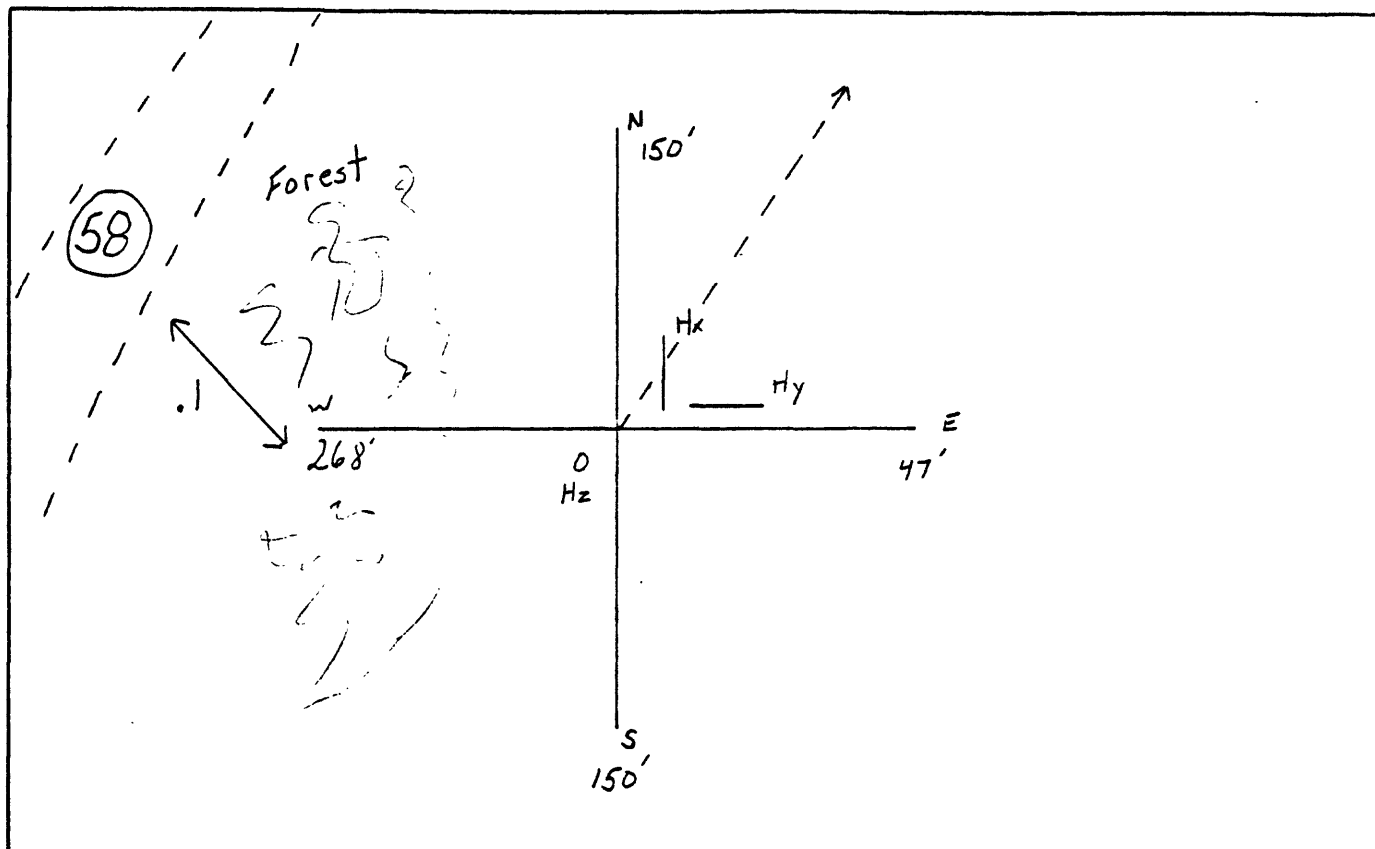
#### FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No.s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196  
SITE NUMBER: 3-3  
DATE: June 20, 1979

LAT: 0 0 00"  
LONG: 0 0 00"  
QUADRANGLE NAME: Walds Lake, Occ.  
LOCATION: T574750 E R 4829300 NS willamette  
FOREST  
COORDINATES: 7225 R 5 1/2 E 9360  
ELEVATION: 4400 ft. 0.14.16  
SURVEYOR: Michael / Soren



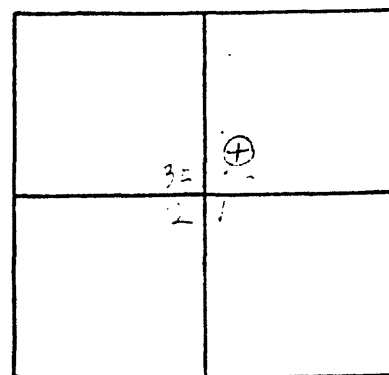
#### SITE DETAIL

H SENSORS: E LINE LENGTH:  
H<sub>x</sub> 1061 E<sub>x</sub> 300'  
H<sub>y</sub> 1077 E<sub>y</sub> 315'  
H<sub>z</sub> 6007

X-AXIS DEVIATION 0° Deg.

MAGNETIC DECLINATION 20° Deg.

COMMENTS: Soil - good black dirt;  
W electrode - decayed bark + dirt  
veg. - grass on sight center; tall  
cypress trees around W trade.  
Note: E + W wire length



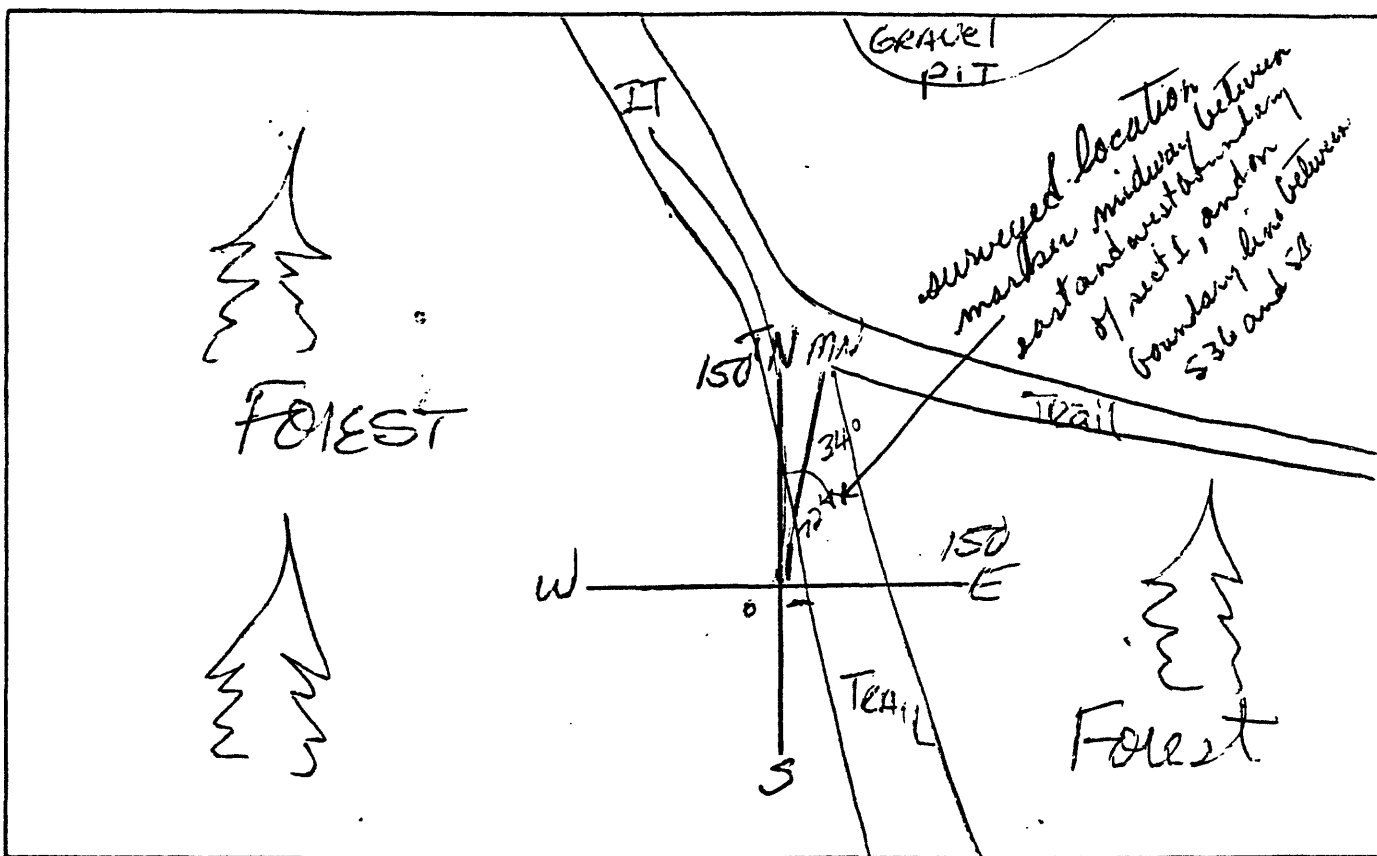
#### FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

196  
 SURVEY AREA: Bend, Oregon  
 SITE NUMBER: remake 3-4 R  
 DATE: 10-5-79

LAT: \_\_\_\_\_  
 LONG: \_\_\_\_\_  
 QUADRANGLE NAME: Davidson, Oregon  
 LOCATION: T 225 R 7E S 1  
 COORDINATES: 2640 FE 1 70 FE 1  
 ELEVATION: 4480  
 SURVEYOR: Kevin E. Wilson



# SITE DETAIL

3 Band  
 H SENSORS:

H<sub>x</sub> 1091  
 H<sub>y</sub> 1093  
 H<sub>z</sub> 607.2

E LINE LENGTH:

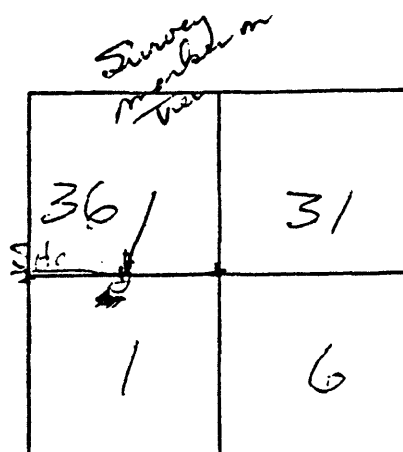
E<sub>x</sub> 300'  
 E<sub>y</sub> 308'

X-AXIS DEVIATION \_\_\_\_\_ Deg.

MAGNETIC DECLINATION 20 Deg.

COMMENTS: trucked in dark  
brown soil w/ rock.  
Double parallel tracks  
sal ted

4 Be electrodes planted per electrode  
location



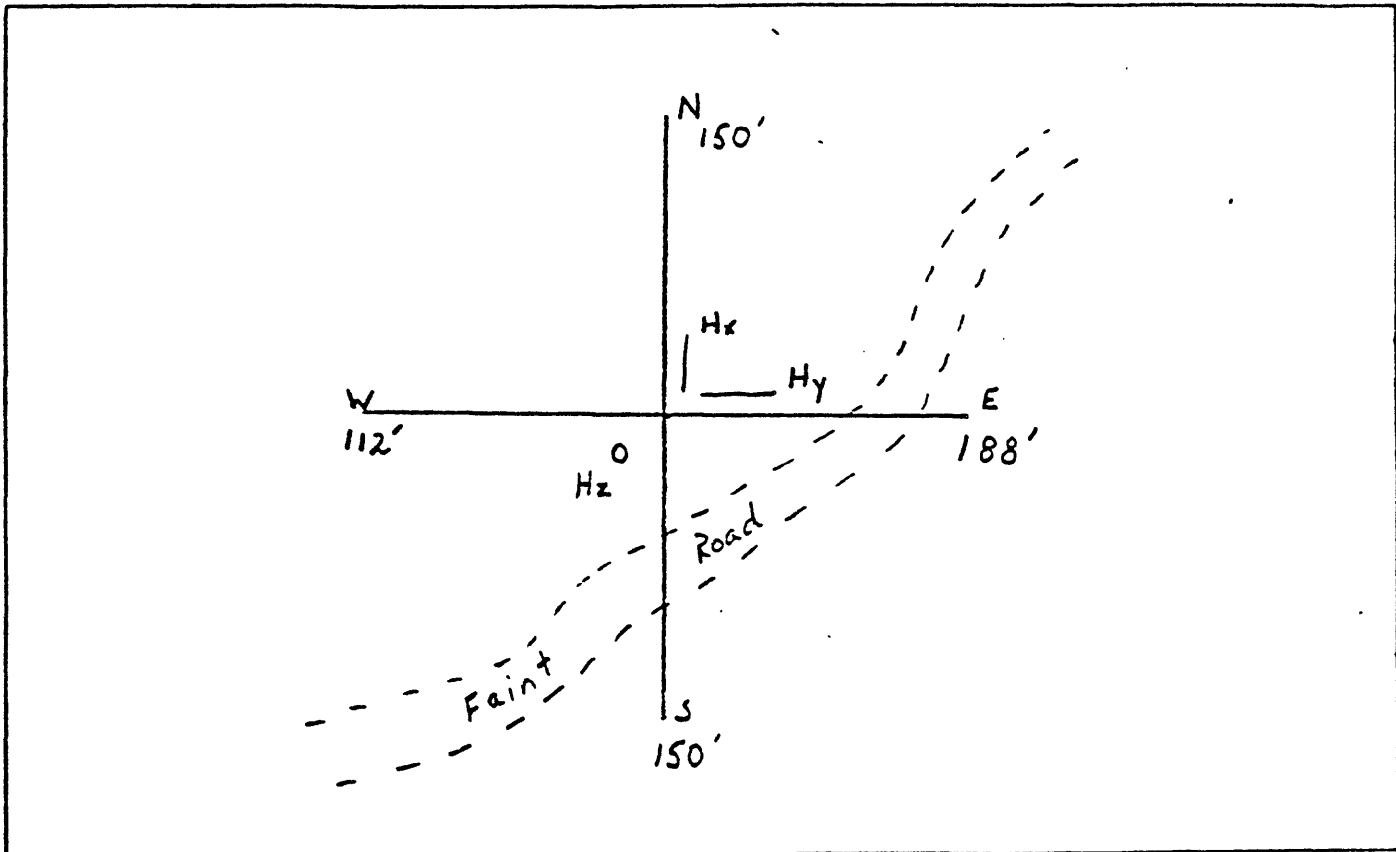
# FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: 196  
 SITE NUMBER: 3-5  
 DATE: June 18, 1979

LAT:            °            '            "  
 LONG:            °            '            "  
 QUADRANGLE NAME: La Pine, Oregon  
 LOCATION: T 21s R 10E S 31  
 COORDINATES:            <sup>1100' FSL</sup>  
 ELEVATION: 4240 <sup>76</sup>  
 SURVEYOR: Michael Snow



SITE DETAIL

H SENSORS:                      E LINE LENGTH:  
 H<sub>x</sub> 1096                      E<sub>x</sub> 300'  
 H<sub>y</sub> 1062                      E<sub>y</sub> 300'  
 H<sub>z</sub> 6009  
 X-AXIS DEVIATION 0° Deg.  
 MAGNETIC DECLINATION 20° Deg.  
 COMMENTS: soil-sand with decayed  
leaves + wood  
veg-shrubs + pine trees all over.  
Notice E + W wire lengths.

36	31
1	6

FOUR SECTION PLOT

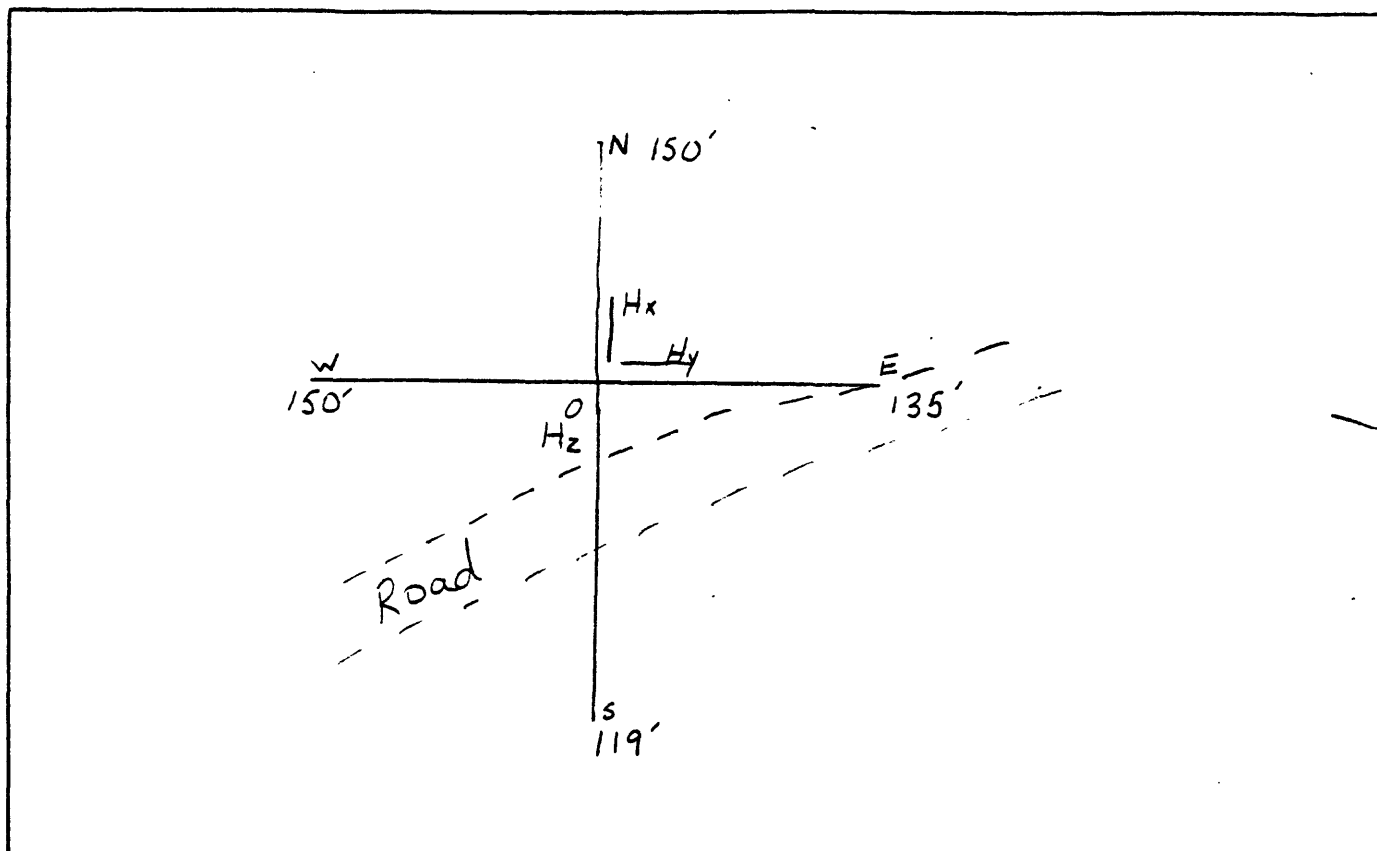
15 Minute Detail  
 (Mark Adjacent Section No. s)



SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: 196  
 SITE NUMBER: 3-6  
 DATE: 1979-06-16

LAT: \_\_\_\_\_  
 LONG: \_\_\_\_\_  
 QUADRANGLE NAME: Newberry Crater, U  
 LOCATION: T 21 S R 11 E S 35  
 COORDINATES: <sup>SW corner</sup> T.5N → .5E  
 ELEVATION: ≈ 2400' T.G.  
 SURVEYOR: R. S. Loe



# SITE DETAIL

H SENSORS:                      E LINE LENGTH:  
 H<sub>x</sub> 1061                      E<sub>x</sub> 264' 269'  
 H<sub>y</sub> 1077                      E<sub>y</sub> 285'  
 H<sub>z</sub> 6007

X-AXIS DEVIATION \_\_\_\_\_ Deg.  
 MAGNETIC DECLINATION 20° 1' Deg.

COMMENTS: located in clearing,  
soil - gravel  
veg - frees, bushes, and grass

27	26
34	35 ⊗

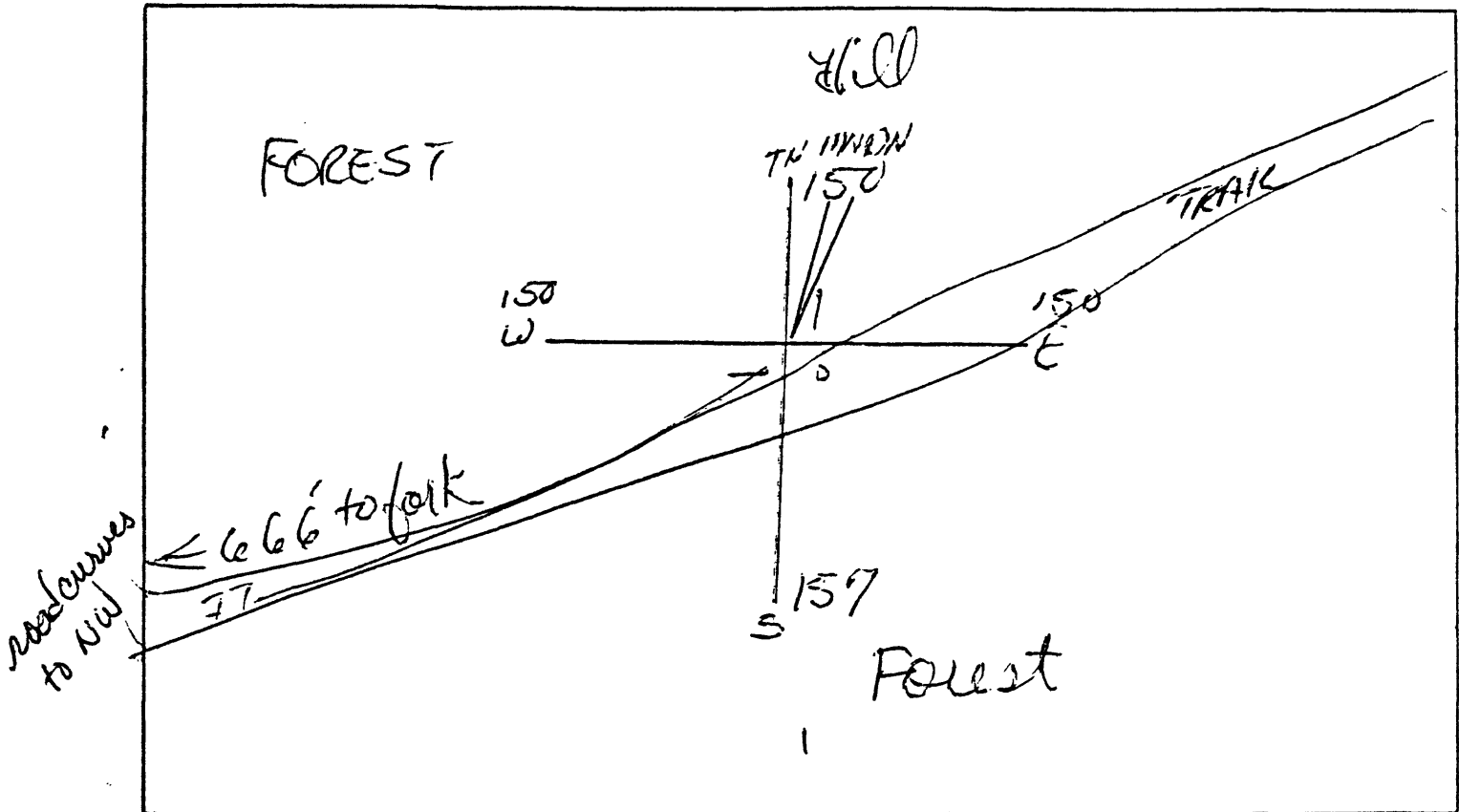
# FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: Band Oregon  
 SITE NUMBER: 3-7R  
 DATE: 10 Oct '79

LAT: 0 1 "  
 LONG: 0 1 "  
 NO TOPIC AVAILABLE  
 QUADRANGLE NAME:   
 LOCATION: T 21S R 13E S 31  
 FWL 1200 900 FSK  
 COORDINATES: 666 to fork  
 ELEVATION:   
 SURVEYOR: Kevin D. Barrow



#### SITE DETAIL

BAND 1  
 H SENSORS:  
 H<sub>x</sub> 1174  
 H<sub>y</sub> 1115  
 H<sub>z</sub> 6077  
 E LINE LENGTH:  
 E<sub>x</sub> 307  
 E<sub>y</sub> 300

X-AXIS DEVIATION 24E Deg.

MAGNETIC DECLINATION 20 Deg.

COMMENTS: tracked in light  
brown soil.

four cadmiums per "E" line

1979 Forest map (Newberry Natl)

36	TRAIL 31 +
1	6

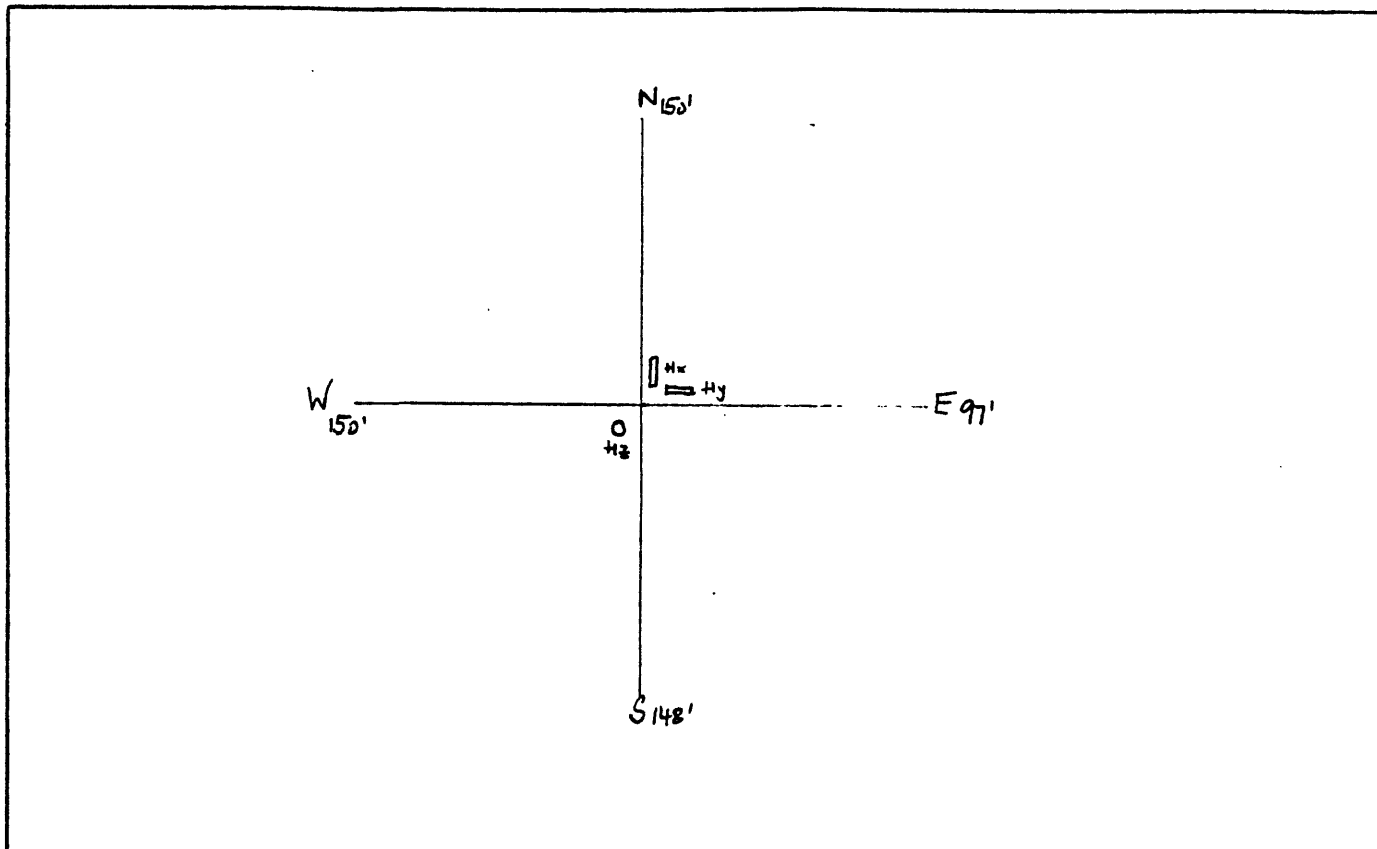
#### FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: 196  
 SITE NUMBER: 3-8  
 DATE: 1979-06-15

LAT: 0 1 "  
 LONG: 0 1 "  
 QUADRANGLE NAME: NEWBERRY CRATER  
 LOCATION: T 21S R 13E S 5 14  
 COORDINATES: From NE  
↓ 0.5 ← 0.5  
 ELEVATION:             
 SURVEYOR: R. SANDNER



#### SITE DETAIL

H SENSORS:                      E LINE LENGTH:  
 H<sub>x</sub> 1065                      E<sub>x</sub> 298'  
 H<sub>y</sub> 1064                      E<sub>y</sub> 247'  
 H<sub>z</sub> 6008

X-AXIS DEVIATION            Deg.

MAGNETIC DECLINATION 25° 45' Deg.

COMMENTS: SITE LOCATED IN FOREST-  
CLEARING, SOIL IS GRAVEL, ELECTRODES  
PLANNED IN GOOD DIRT

6	5
7	8

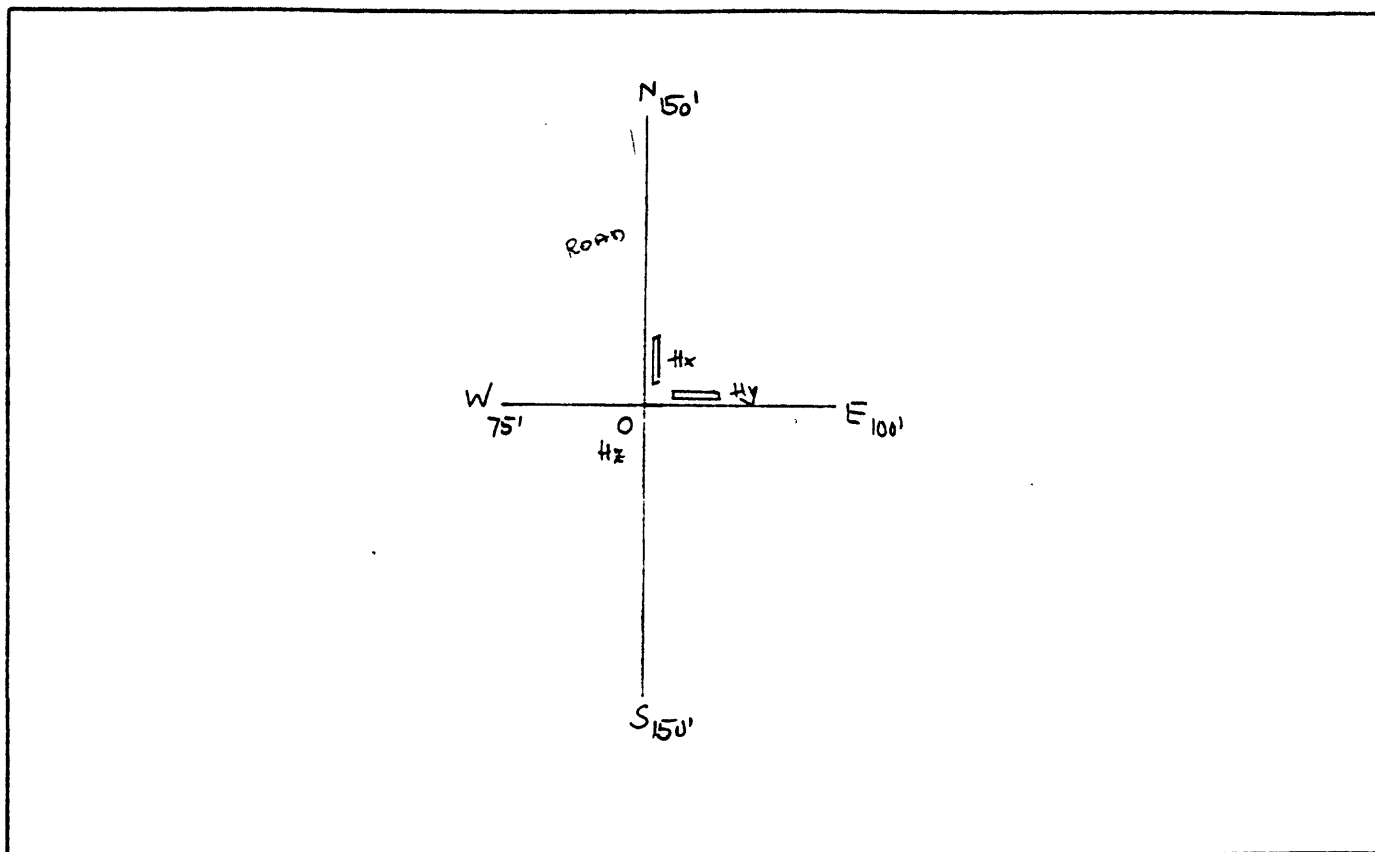
#### FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196  
SITE NUMBER: 4-1  
DATE: 1979-06-13

LAT: 0 0 00  
LONG: 0 0 00  
QUADRANGLE NAME: CASCADIA  
LOCATION: T 13S R 3E S 27  
COORDINATES: From SE  
1.0, 45 + 0.25  
ELEVATION: ~ 1500 1340  
SURVEYOR: R. SANDNER



SITE DETAIL

H SENSORS: E LINE LENGTH:  
H<sub>x</sub> 1096 E<sub>x</sub> 300'  
H<sub>y</sub> 1062 E<sub>y</sub> 175'  
H<sub>z</sub> 6009

X-AXIS DEVIATION — Deg.

MAGNETIC DECLINATION 20 Deg.

COMMENTS: LOCATED ON OLD NF ROAD

SOIL IS RED GRAVEL AT CENTER, GOOD

DIST AT ELECTRODES

VEG: THICK FOREST

27 ⊕	26
34	35

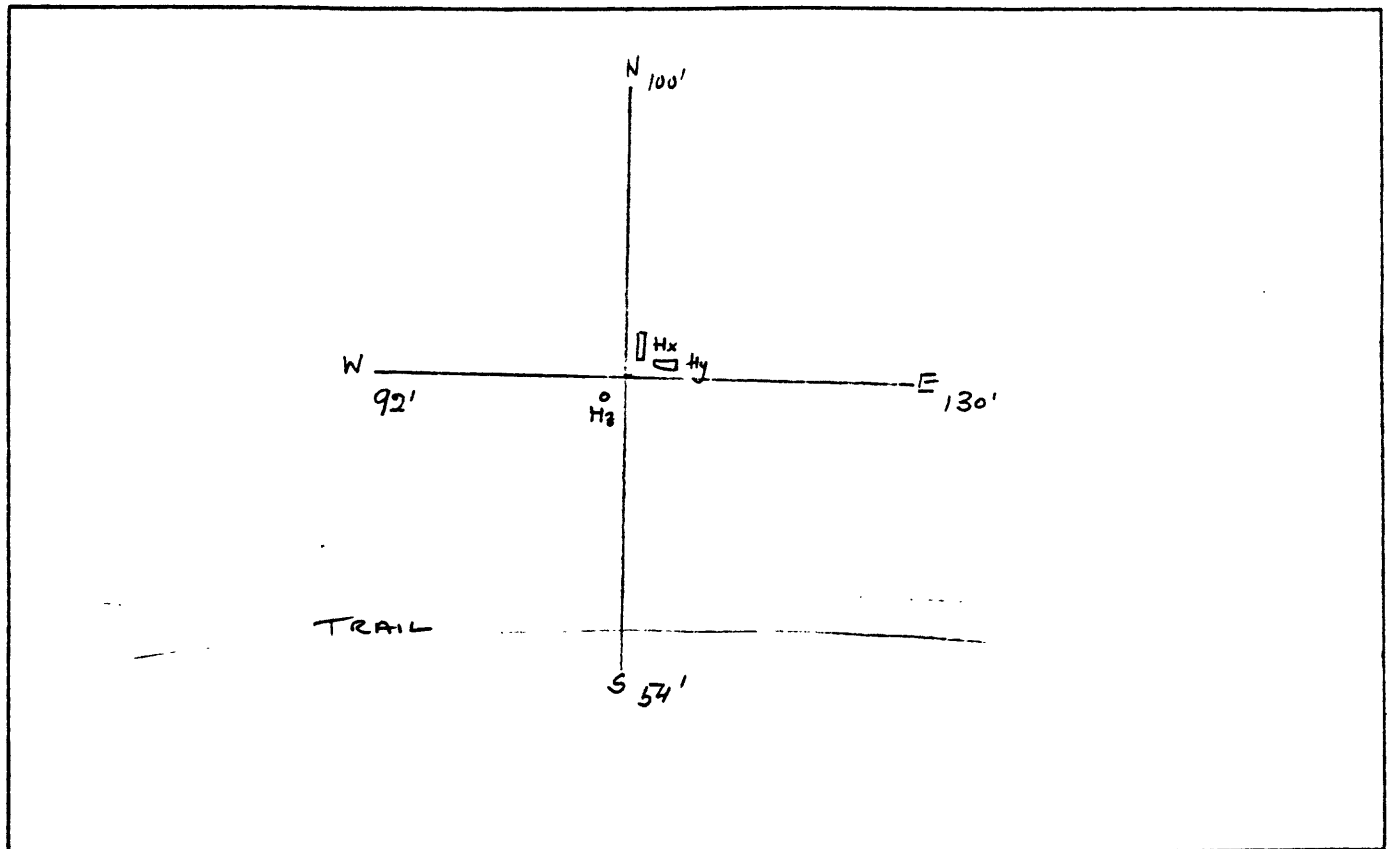
FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196  
SITE NUMBER: 4-2  
DATE: 1979-06-13

LAT: 0 1 "  
LONG: 0 1 "  
QUADRANGLE NAME: WILLAMETTE N.F.  
LOCATION: T 13S R 5E T. S 32  
COORDINATES: From SE  
↑ 0.05 ← 0.05  
ELEVATION: 2200' RE  
SURVEYOR: R SANDNER



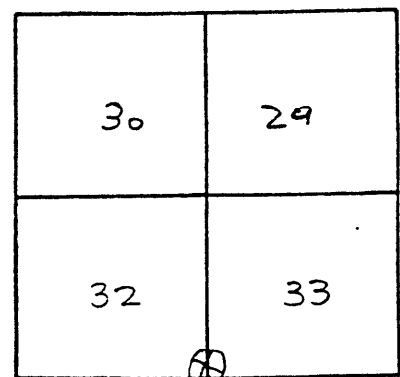
SITE DETAIL

H SENSORS:	E LINE LENGTH:
H <sub>x</sub> <u>1061</u>	E <sub>x</sub> <u>154'</u>
H <sub>y</sub> <u>1077</u>	E <sub>y</sub> <u>222'</u>
H <sub>z</sub> <u>6007</u>	

X-AXIS DEVIATION 25°W Deg.

MAGNETIC DECLINATION 2^ Deg.

COMMENTS: LOCATED IN FOREST  
GOOD DIRT & ROCKS



FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No.s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

LAT: \_\_\_\_\_ 0 \_\_\_\_\_ 1 \_\_\_\_\_ "

LONG: \_\_\_\_\_ 0 \_\_\_\_\_ 1 \_\_\_\_\_ "

QUADRANGLE NAME: ECHO MOUNTAIN

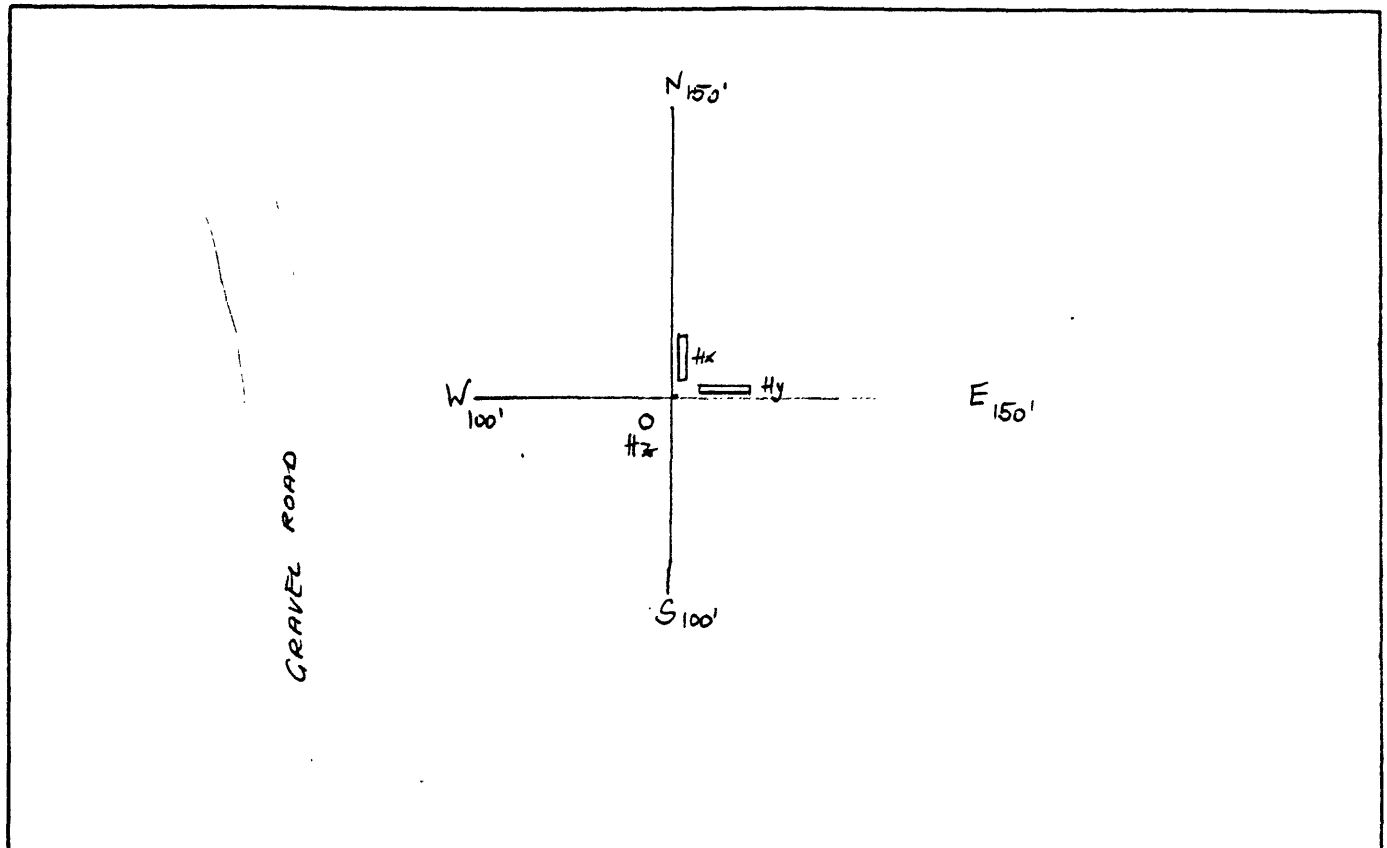
LOCATION: T 1 S R 5 E S 8

COORDINATES: From SW  
0.35" x 0.3

ELEVATION: ≈ 3660

SURVEYOR: R. SANDNER

SURVEY AREA: 196  
SITE NUMBER: 4-3  
DATE: 1979-06-12



SITE DETAIL

H SENSORS: | E LINE LENGTH:  
H<sub>x</sub> 1096 | E<sub>x</sub> 250'  
H<sub>y</sub> 1062 | E<sub>y</sub> 250'  
H<sub>z</sub> 6009

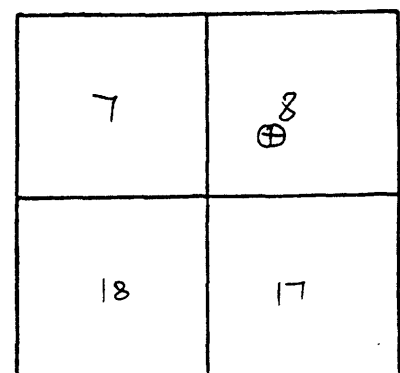
X-AXIS DEVIATION 12° E Deg.

MAGNETIC DECLINATION 20 Deg.

COMMENTS: LOCATED IN WOOD CUT

CLEARING, YOUNG PINES REGROWING

DIRT LIKE IN SWAMP AREAS



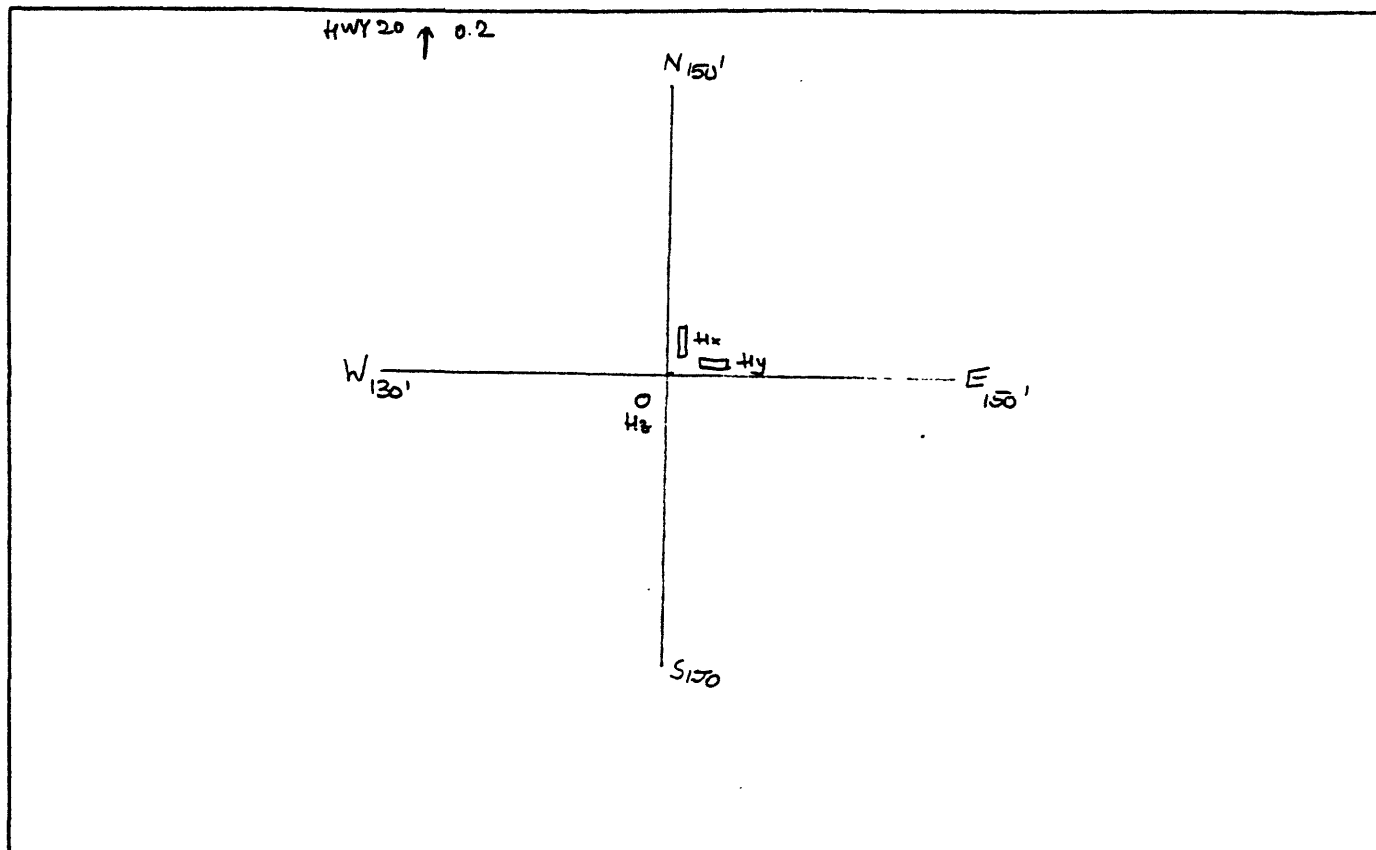
FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: 196  
 SITE NUMBER: 4-4  
 DATE: 1979-06-12

LAT: 0 1 "  
 LONG: 0 1 "  
 QUADRANGLE NAME: VILLAMETTE N.P.  
 LOCATION: T 13S R 8E S 25  
 COORDINATES: FROM NW  
→ 0.15 ↓ 0.2  
 ELEVATION: 3700' RE  
 SURVEYOR: R. SANDNER



SITE DETAIL

H SENSORS:	E LINE LENGTH:
H <sub>x</sub> <u>1065</u>	E <sub>x</sub> <u>300'</u>
H <sub>y</sub> <u>1064</u>	E <sub>y</sub> <u>280'</u>
H <sub>z</sub> <u>6008</u>	

X-AXIS DEVIATION \_\_\_\_\_ Deg.

MAGNETIC DECLINATION \_\_\_\_\_ Deg.

COMMENTS: LOCATED IN CLEARING

LOTS OF DEADWOOD, YOUNG PINES, GRASS

23	24
26	⊕ 25

FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

**SURVEYOR'S LOG**  
**GEOTRONICS CORPORATION**

10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196

SITE NUMBER: 4-4R

DATE: June 19, 1979

LAT: 0 0 0

LONG: 0 0 0

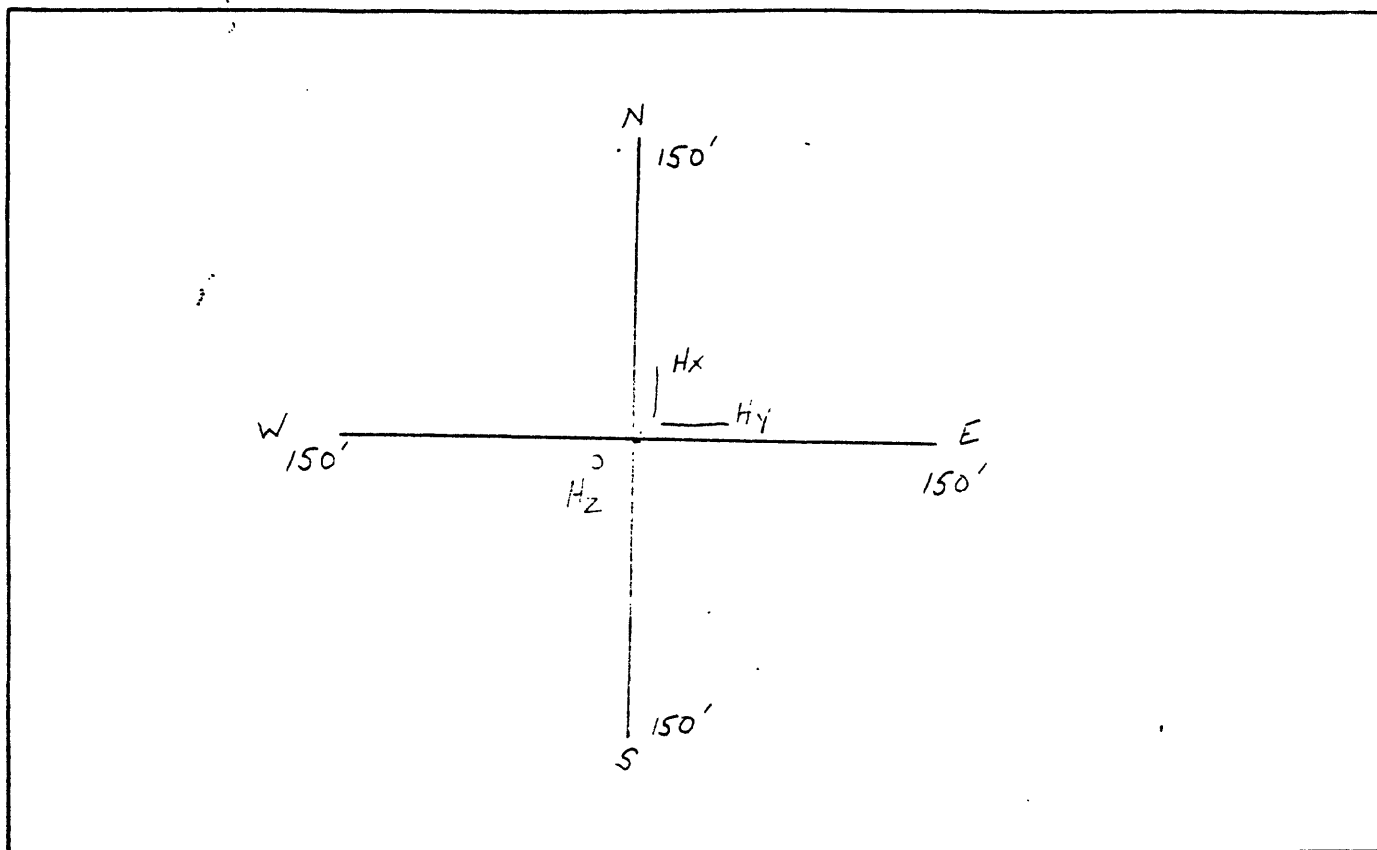
QUADRANGLE NAME: Deer's Nat'l For

LOCATION: T 13S R. 8E S 25

COORDINATES: 1.4 → .75

ELEVATION: Not on Map

SURVEYOR: Michael S.



SITE DETAIL

**H SENSORS:**

H<sub>x</sub> 1096

H<sub>y</sub> 1062

H<sub>z</sub> 6009

**E LINE LENGTH:**

E<sub>x</sub> 300'

E<sub>y</sub> 300'

X-AXIS DEVIATION \_\_\_\_\_ Deg.

MAGNETIC DECLINATION \_\_\_\_\_ Deg.

COMMENTS: soil: black soil  
maybe crushed to a  
veg: none

<del>1025</del>	<del>1130</del>
7536	7431

FOUR SECTION PLOT

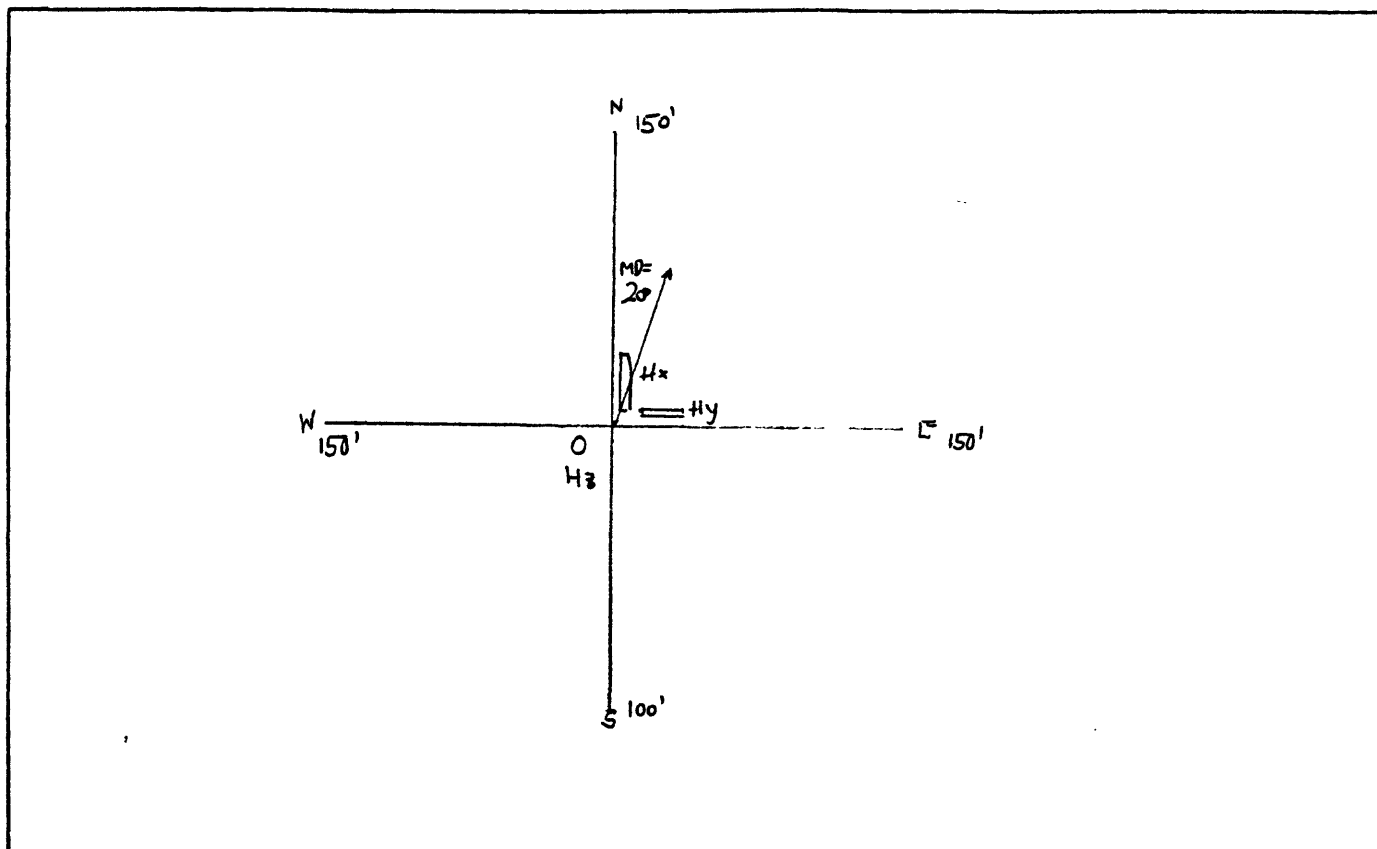
15 Minute Detail  
(Mark Adjacent Section No. s)



SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: 196  
 SITE NUMBER: 4-5  
 DATE: 1979-06-09

LAT: 0 1 "  
 LONG: 0 1 "  
 QUADRANGLE NAME: SISTERS  
 LOCATION: T 13 S 9 R 8 E 16 S 18  
 COORDINATES: FROM SE  
← 0.2 ↑ 0.2  
 ELEVATION: ~ 3200  
 SURVEYOR: R SANDNER



# SITE DETAIL

H SENSORS: E LINE LENGTH:  
 H<sub>x</sub> 1061 E<sub>x</sub> 250'  
 H<sub>y</sub> 1077 E<sub>y</sub> 300'  
 H<sub>z</sub> 6007  
 X-AXIS DEVIATION 2°W Deg.  
 MAGNETIC DECLINATION 20 Deg.  
 COMMENTS: LOCATED IN FOREST  
CLEARING. GOOD DIRT & SOME ROCKS

18 ⊕	17
19	20

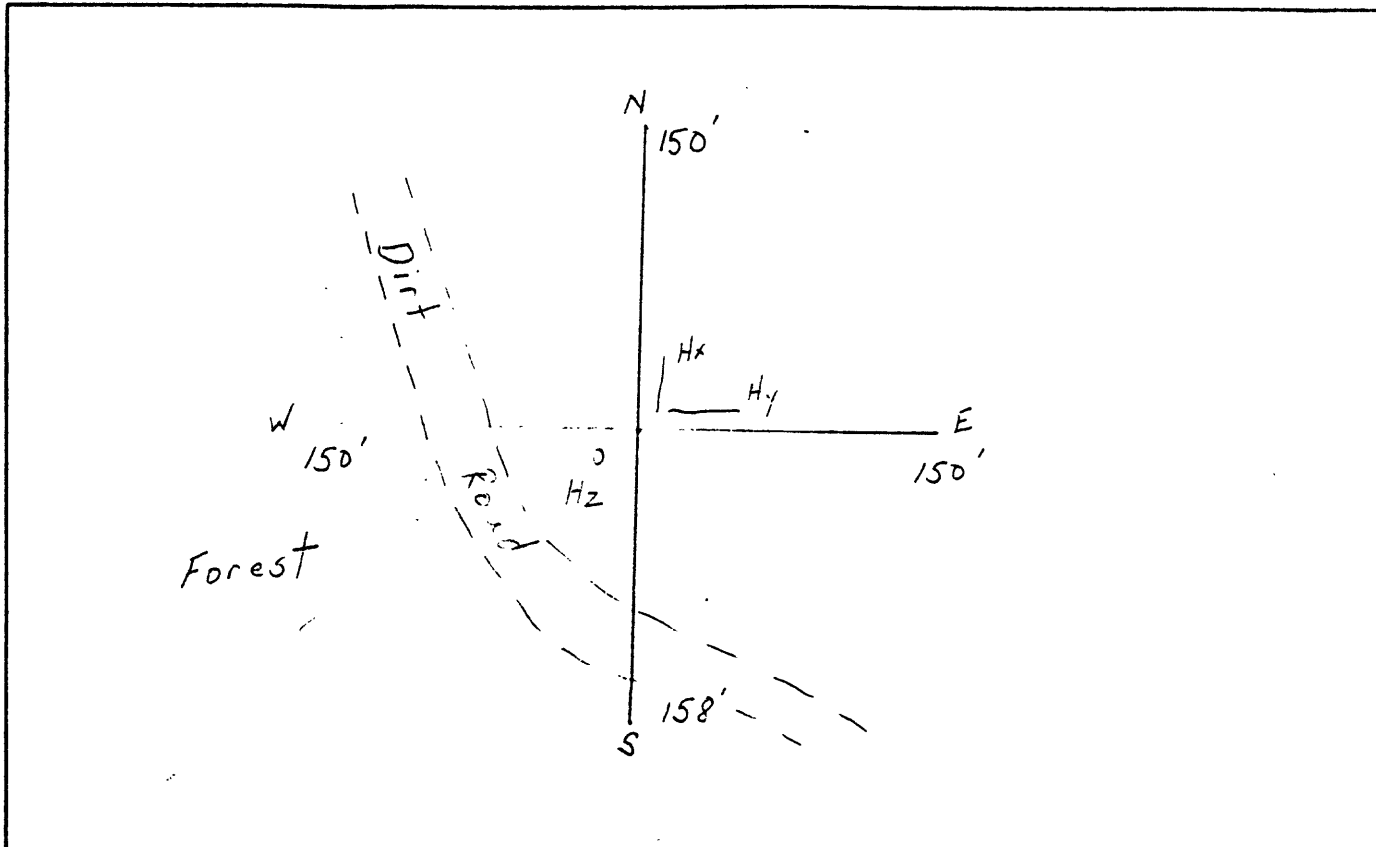
# FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 19 1/2  
SITE NUMBER: 4-5R  
DATE: June 19, 1979

LAT:            °            '            "  
LONG:            °            '            "  
QUADRANGLE NAME: Sisters, Tex  
LOCATION: T 13S R 8E S 13  
COORDINATES: From SW corner  
7.55 → .98  
ELEVATION: ~~3110~~ 3210  
SURVEYOR: Michael S. X



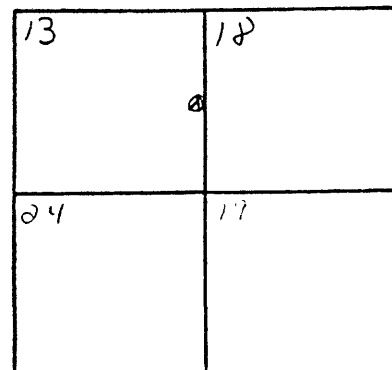
SITE DETAIL

H SENSORS:      E LINE LENGTH:  
H<sub>x</sub> 1065      E<sub>x</sub> 308'  
H<sub>y</sub> 1064      E<sub>y</sub> 300'  
H<sub>z</sub> 6008

X-AXIS DEVIATION 0° Deg.

MAGNETIC DECLINATION 20° Deg.

COMMENTS: soil: small pebbles  
with decaying cars  
veg: bushes with Pinetrees  
Note: S E wire length; W  
electrode in forest

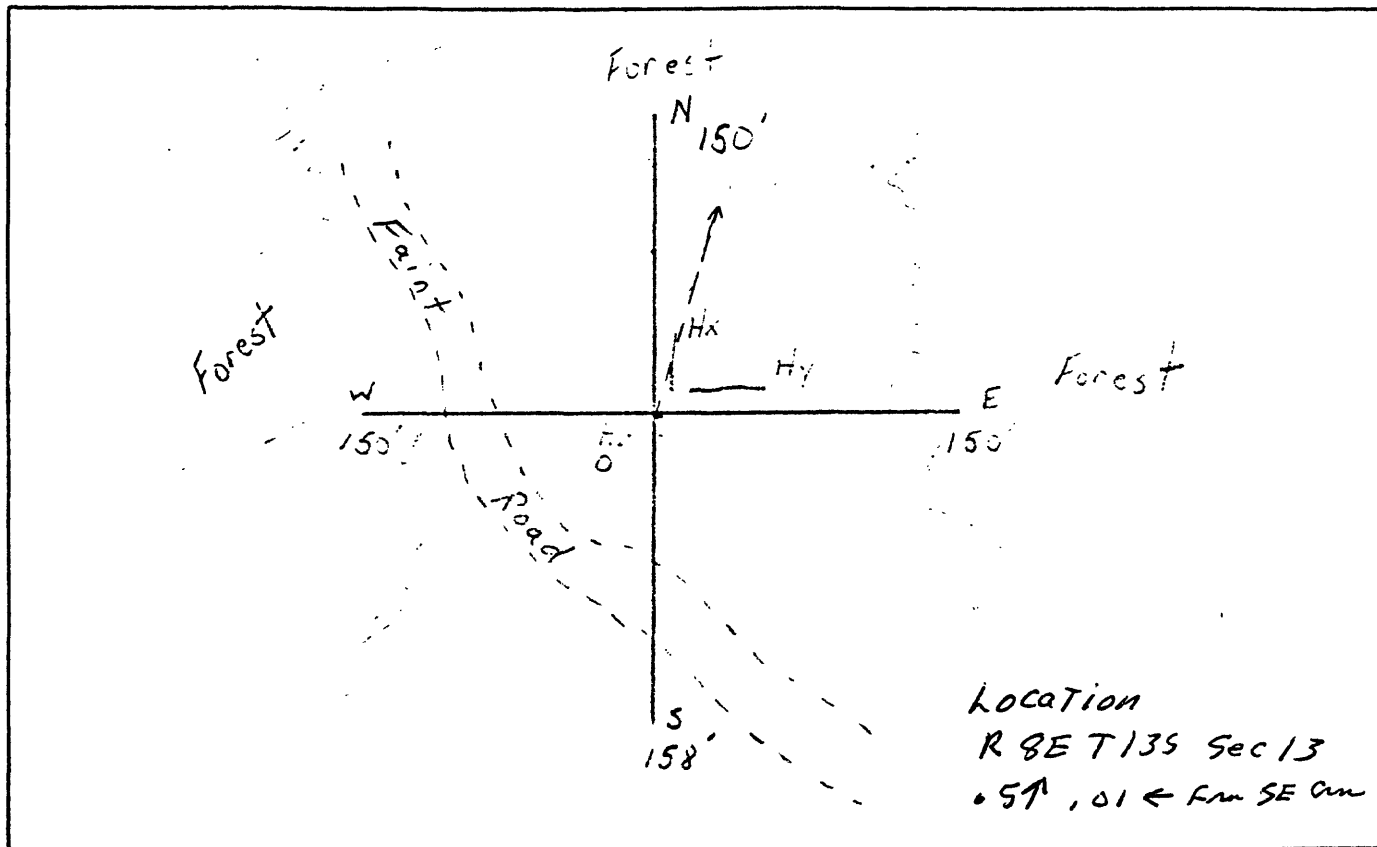


FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEY AREA: 196  
SITE NUMBER: 4-5R  
DATE: June 19 1971

LAT: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ " \_\_\_\_\_  
LONG: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ " \_\_\_\_\_  
QUADRANGLE NAME: S. Oregon  
LOCATION: T-15  
COORDINATES: → 8 ↑ 3  
ELEVATION: 3200 ft.  
SURVEYOR: Michael S.



H SENSORS: | E LINE LENGTH:

H<sub>x</sub> 1065 | E<sub>x</sub> 300'

H<sub>y</sub> 1064 | E<sub>y</sub> 300'

H<sub>z</sub> 6008 |

X-AXIS DEVIATION 0° Deg.

MAGNETIC DECLINATION 20° Deg.

COMMENTS: Soil: small pebbles  
with decomposed rock  
veg.: bushes with Pine trees  
Note: South E wide length

13	18
24	19

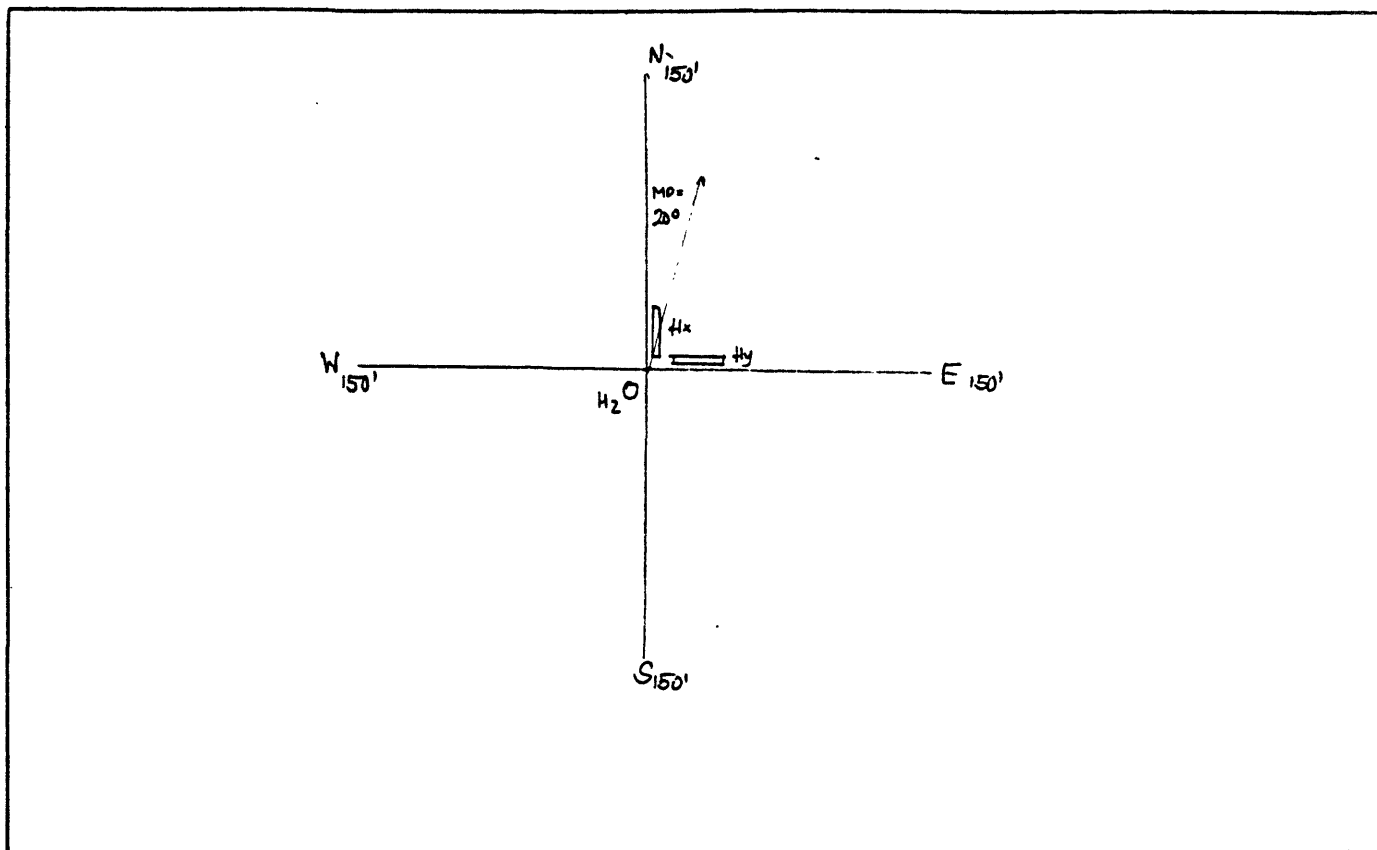
FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

LAT: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
 LONG: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
 QUADRANGLE NAME: SISTERS, ORE.  
 LOCATION: T 15S R 10E S 23  
 COORDINATES: FROM NW  
→ 0.35 ← 0.1  
 ELEVATION: ≈ 3400  
 SURVEYOR: R. SANDNER

SURVEY AREA: 196  
 SITE NUMBER: 4-6  
 DATE: 1979-06-09



# SITE DETAIL

H SENSORS:                      E LINE LENGTH:  
 H<sub>x</sub> 1096                      E<sub>x</sub> 300'  
 H<sub>y</sub> 1062                      E<sub>y</sub> 300'  
 H<sub>z</sub> 6009

X-AXIS DEVIATION 40° W Deg.

MAGNETIC DECLINATION 20 Deg.

COMMENTS: LOCATED IN FOREST

SOIL IS DIRT, VEGET TREES

HWY 0.2 NE OF SITE

15	14
22	⊕ 23

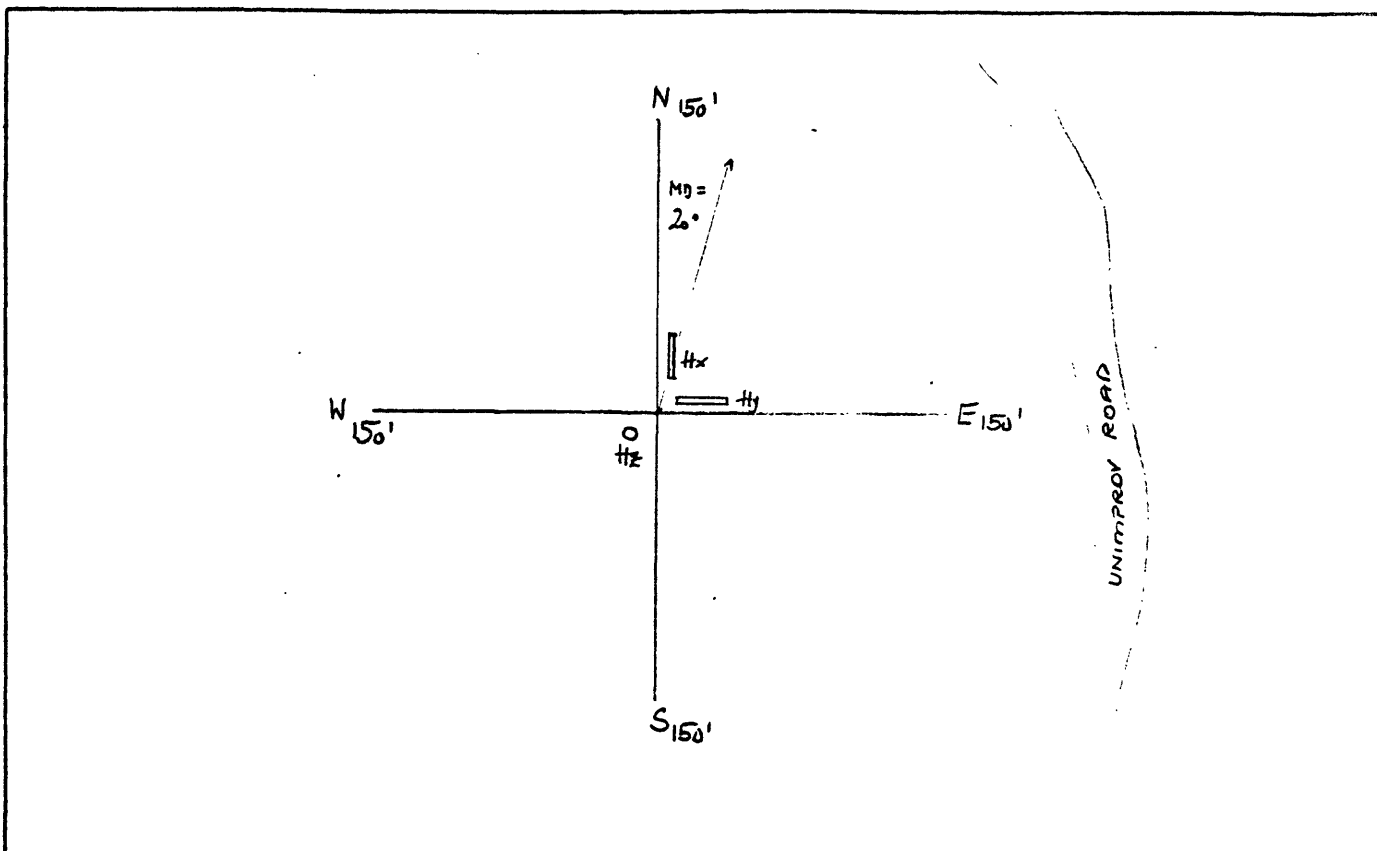
# FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196  
SITE NUMBER: 4-7  
DATE: 1979-06-09

LAT: 0 1 "  
LONG: 0 1 "  
QUADRANGLE NAME: CLINE FALLS  
LOCATION: T 14S R 12E S 10  
COORDINATES: FROM SE  
← 0.15 ↑ 0.6  
ELEVATION: ≈ 2670  
SURVEYOR: R. SANDNER



#### SITE DETAIL

H SENSORS:      E LINE LENGTH:  
H<sub>x</sub> 1065      E<sub>x</sub> 300'  
H<sub>y</sub> 1064      E<sub>y</sub> 300'  
H<sub>z</sub> 6008  
X-AXIS DEVIATION 52° W Deg.  
MAGNETIC DECLINATION 20 Deg.  
COMMENTS: LOCATED IN LAVA BED,  
FILLED WITH SAND & LAVA ROCKS  
VEGETATION: SOME TREES & BUSHES  
\_\_\_\_\_  
\_\_\_\_\_

10 ⊕	11
15	14

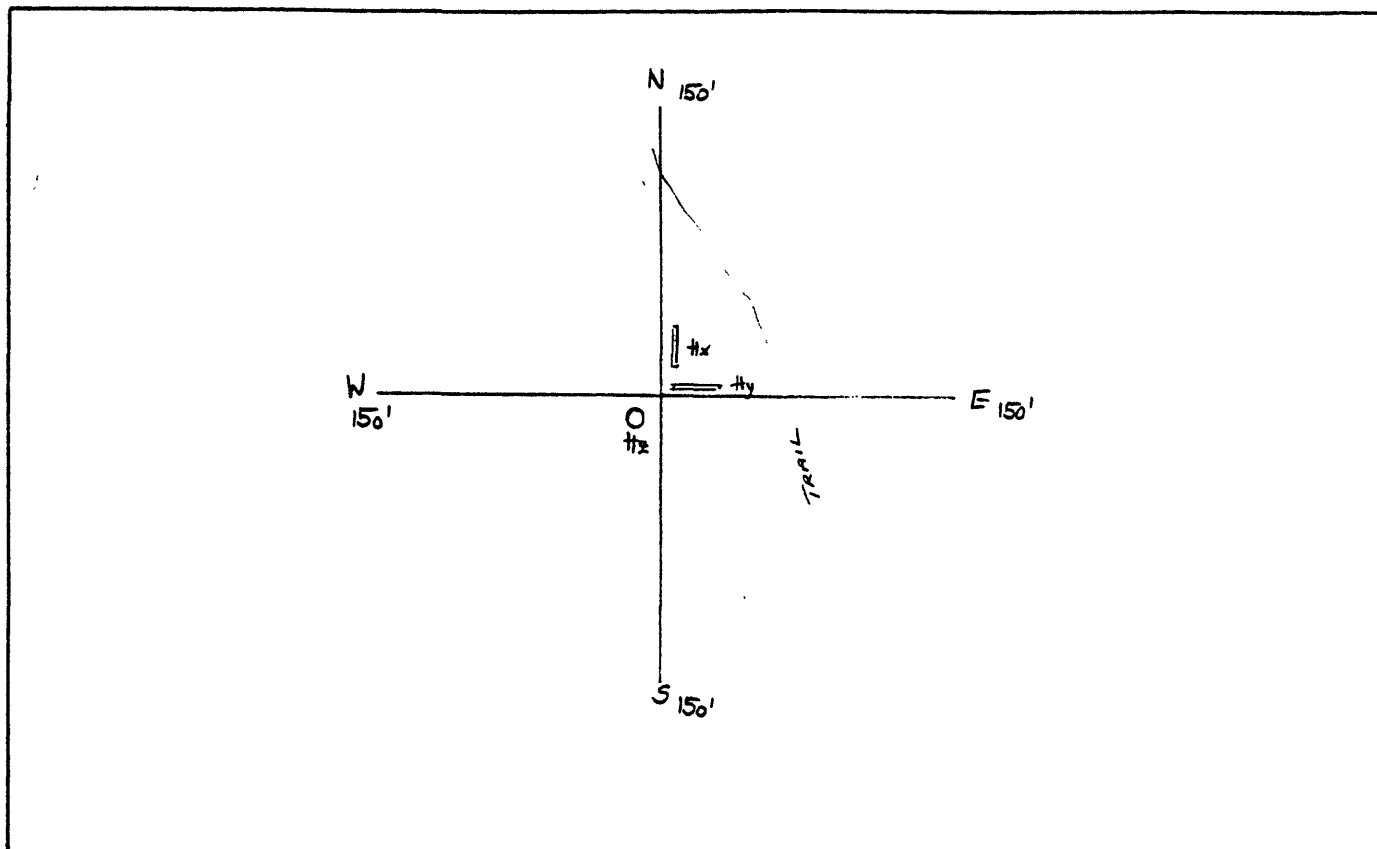
#### FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: 196  
 SITE NUMBER: 4-8  
 DATE: 1979-06-08

LAT: 0 0 00"  
 LONG: 0 0 00"  
~~NATL FOREST MAP~~  
 QUADRANGLE NAME: OCHOCO NATL FOREST  
 LOCATION: T 15S R 16E S 34  
 COORDINATES: FROM NW  
↓ 0.5 → 0.5  
 ELEVATION: 4000 RL  
 SURVEYOR: R SANDNER



#### SITE DETAIL

H SENSORS: E LINE LENGTH:  
 H<sub>x</sub> 1061 E<sub>x</sub> \_\_\_\_\_  
 H<sub>y</sub> 1077 E<sub>y</sub> \_\_\_\_\_  
 H<sub>z</sub> 6007

X-AXIS DEVIATION 4° W Deg.

MAGNETIC DECLINATION 20° TS Deg.

COMMENTS: LOCATED IN JUNIPER FOR.

SOIL IS DIRT & ROCKS

#WY 03 E OF SITE

27	26
34 ⊕	35

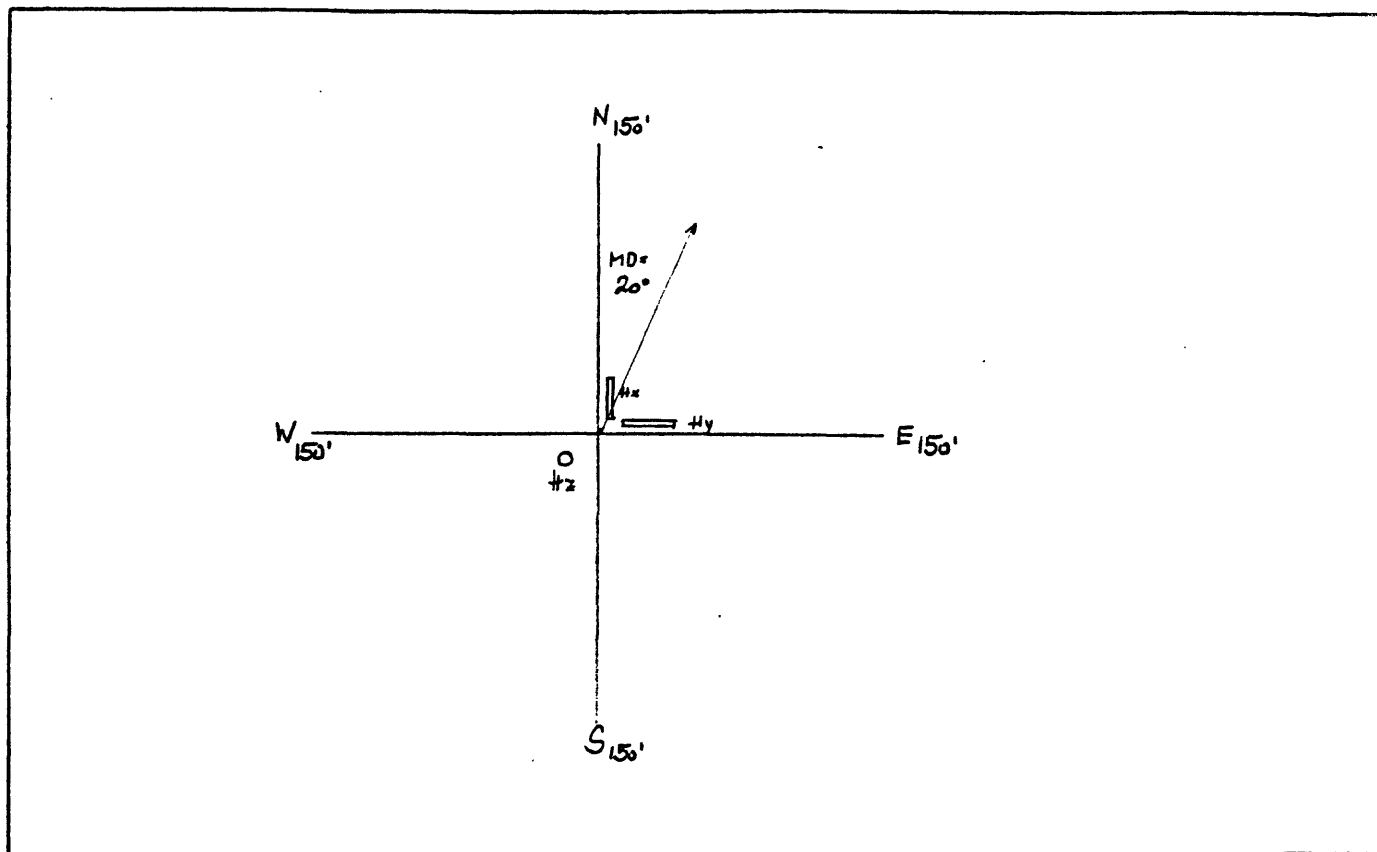
#### FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: 196  
 SITE NUMBER: 4-9  
 DATE: 1979-06-08

LAT: 0 1 "  
 LONG: 0 1 "  
 QUADRANGLE NAME: WILLIAMS PRAIRIE  
 LOCATION: T 14 S R 21 E S 28  
 COORDINATES: FROM NW  
→ 0.25 ↓ 0.4  
 ELEVATION: ≈ 4600  
 SURVEYOR: R. SANDNER



SITE DETAIL

H SENSORS: E LINE LENGTH:  
 H<sub>x</sub> 1096 E<sub>x</sub> 300'  
 H<sub>y</sub> 1062 E<sub>y</sub> 300'  
 H<sub>z</sub> 6009

X-AXIS DEVIATION 0 Deg.

MAGNETIC DECLINATION 20 Deg.

COMMENTS: LOCATED IN CLEARING

SOIL IS DIRT & MANY ROCKS

VEGETATION: THIN GRASS & BUSHES

⊕ 28	27
33	34

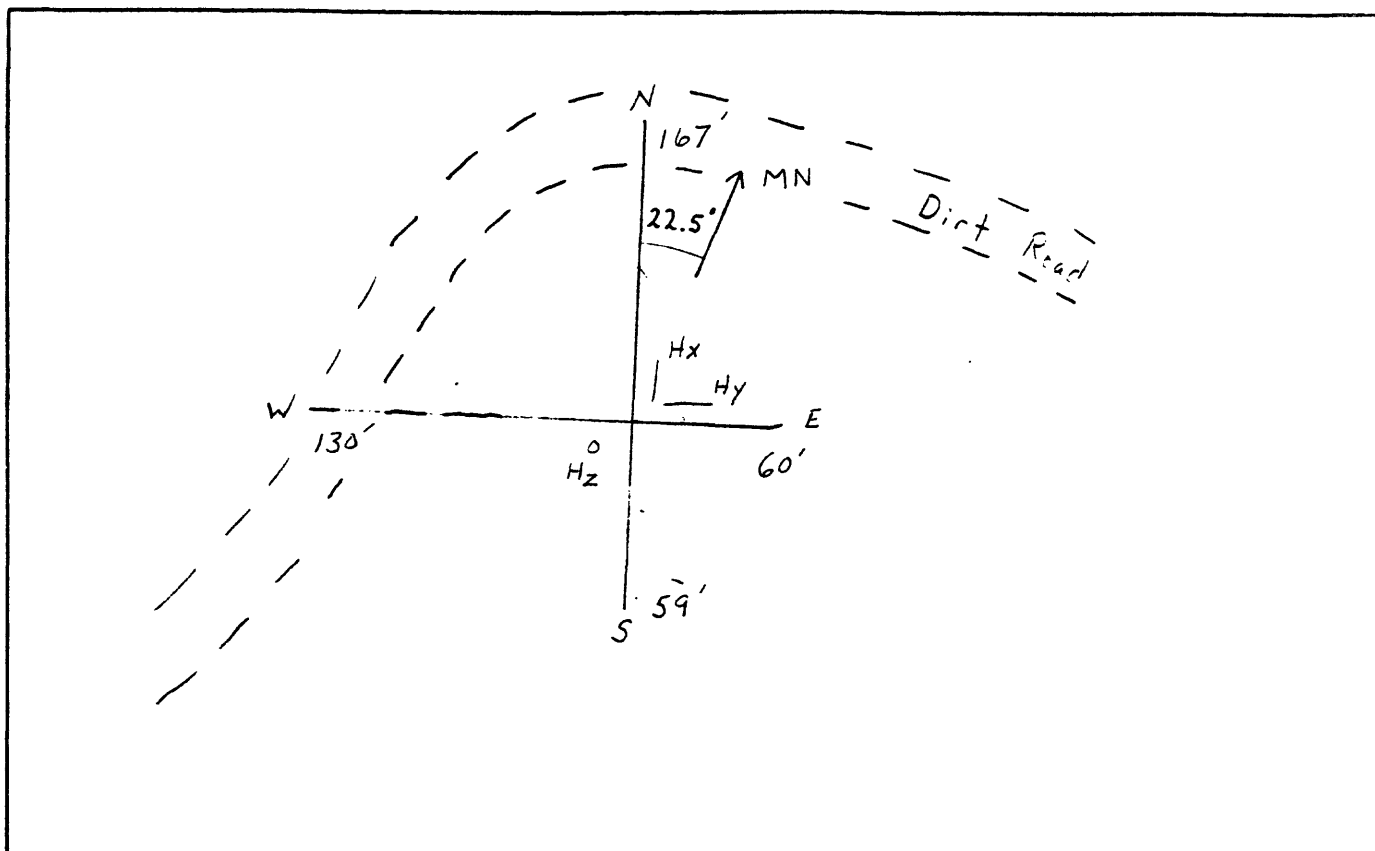
FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: 196  
 SITE NUMBER: 6-1  
 DATE: June 23, 1979

LAT: 0 0 00  
 LONG: 0 0 00  
 QUADRANGLE NAME: Pe Ell, Wash.  
 LOCATION: T13N R6W S12  
 COORDINATES: From SW corner  
1.6 → .3  
 ELEVATION: 72.5 ft.  
 SURVEYOR: Michael S.



# SITE DETAIL

H SENSORS: E LINE LENGTH:  
 H<sub>x</sub> 1061 E<sub>x</sub> 226  
 H<sub>y</sub> 1771 E<sub>y</sub> 183 190  
 H<sub>z</sub> 6007

X-AXIS DEVIATION \_\_\_\_\_ Deg.  
 MAGNETIC DECLINATION \_\_\_\_\_ Deg.

COMMENTS: soil: dirt with some  
Veg: grass with bushes and trees  
Note: E wire length

2	1
11	12 ⊗

## FOUR SECTION PLOT

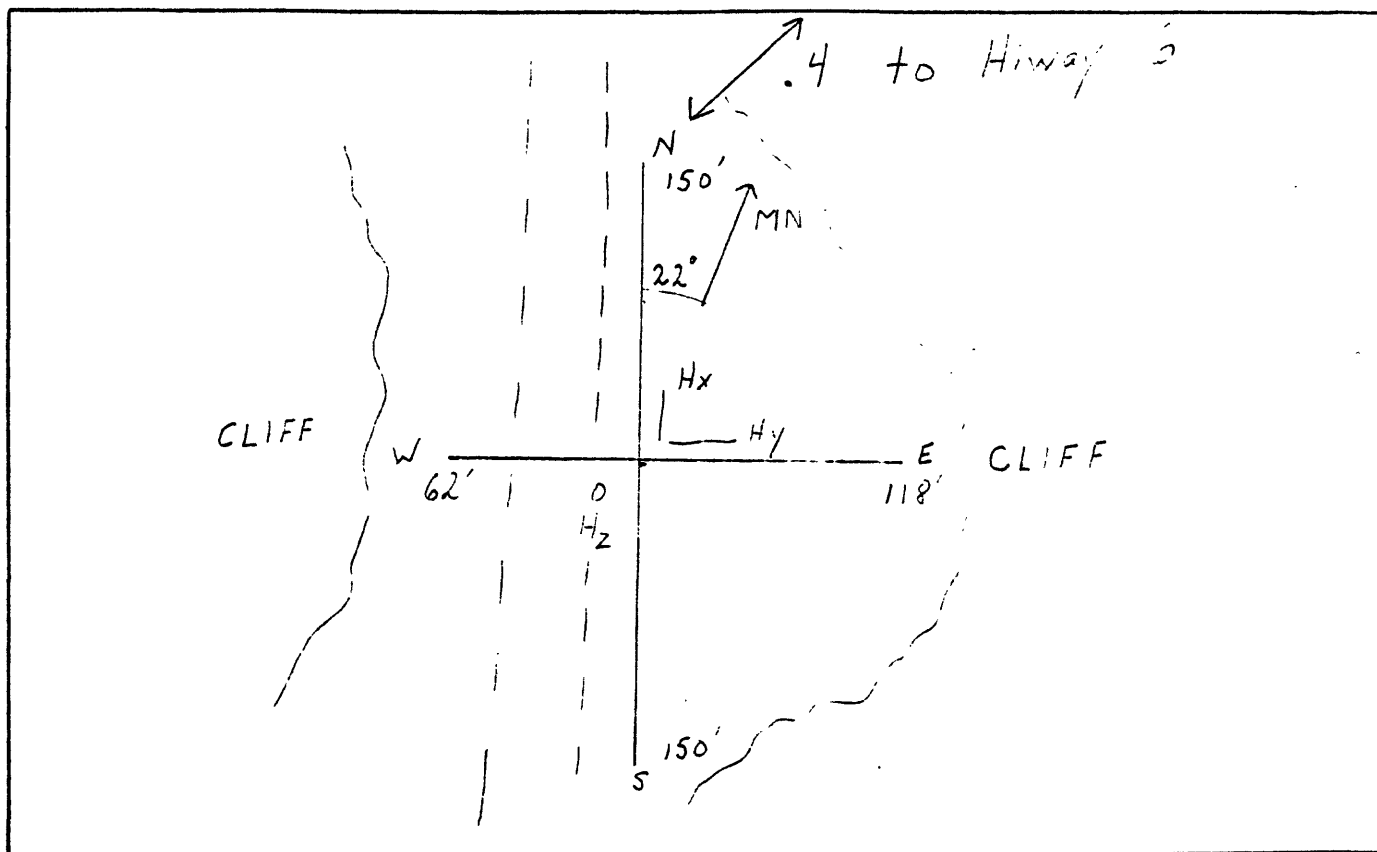
15 Minute Detail  
 (Mark Adjacent Section No.s)



SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

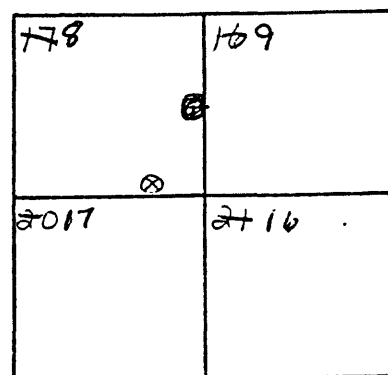
SURVEY AREA: 196  
 SITE NUMBER: 6-2  
 DATE: June 23, 1979

LAT: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "  
 LONG: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "  
 QUADRANGLE NAME: Adco, Wash  
 LOCATION: T13N R4W S77E  
 COORDINATES: From SW corner 7.01 → 8.41.07  
 ELEVATION: 425 ft.  
 SURVEYOR: M. J. ...



# SITE DETAIL

H SENSORS: E LINE LENGTH:  
 H<sub>x</sub> 1065 E<sub>x</sub> 300'  
 H<sub>y</sub> 1064 E<sub>y</sub> 180'  
 H<sub>z</sub> 600'  
 X-AXIS DEVIATION 6° W Deg.  
 MAGNETIC DECLINATION 22° Deg.  
 COMMENTS: soil: rock: impervious  
dry: for ...  
Veg: some ... by S+W ...  
with trees ...  
Note: ...



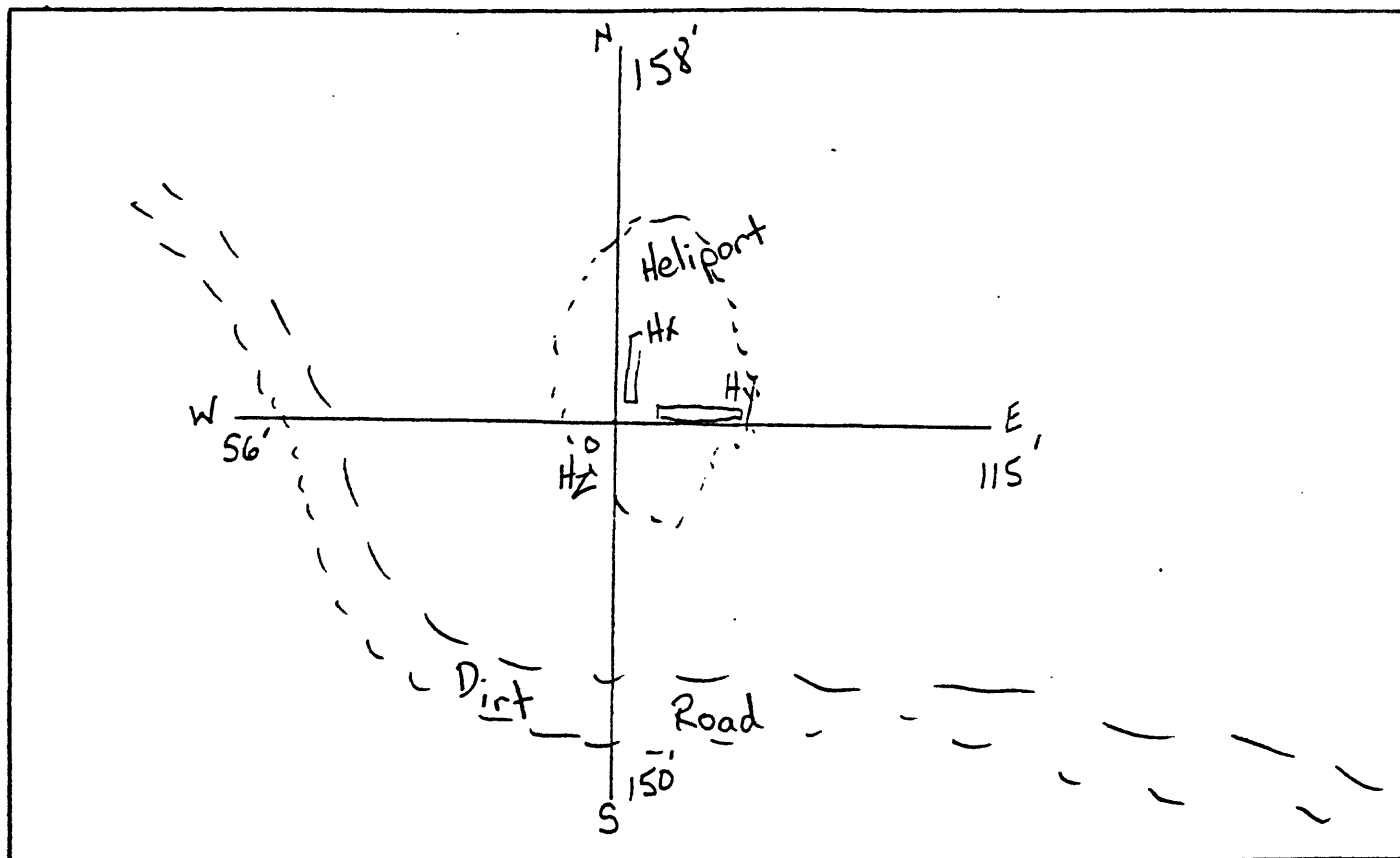
# FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

LAT: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
LONG: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
QUADRANGLE NAME: ELK ROCK  
LOCATION: T 11 N R 3 E S 17  
COORDINATES: 2300' FEL 650' FSL  
ELEVATION: 1752  
SURVEYOR: Michael Snow

SURVEY AREA: Oregon  
SITE NUMBER: 6-3  
DATE: 6-23-79



SITE DETAIL

H SENSORS:	E LINE LENGTH:
H <sub>x</sub> <u>1096</u>	E <sub>x</sub> <u>308 ft.</u>
H <sub>y</sub> <u>1062</u>	E <sub>y</sub> <u>171 ft.</u>
H <sub>z</sub> <u>6009</u>	

X-AXIS DEVIATION \_\_\_\_\_ Deg.

MAGNETIC DECLINATION \_\_\_\_\_ Deg.

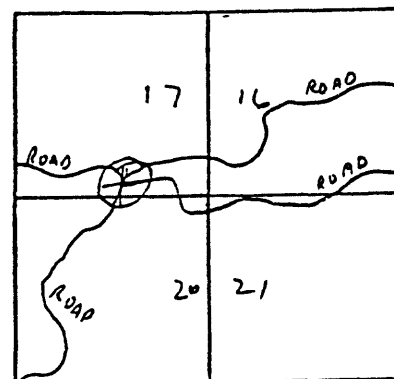
COMMENTS: soil: dirt with rocks

veg: grass with bushes

Note - E wire lengths:

N-158' S-150' E-115' W-56'

site on helipad



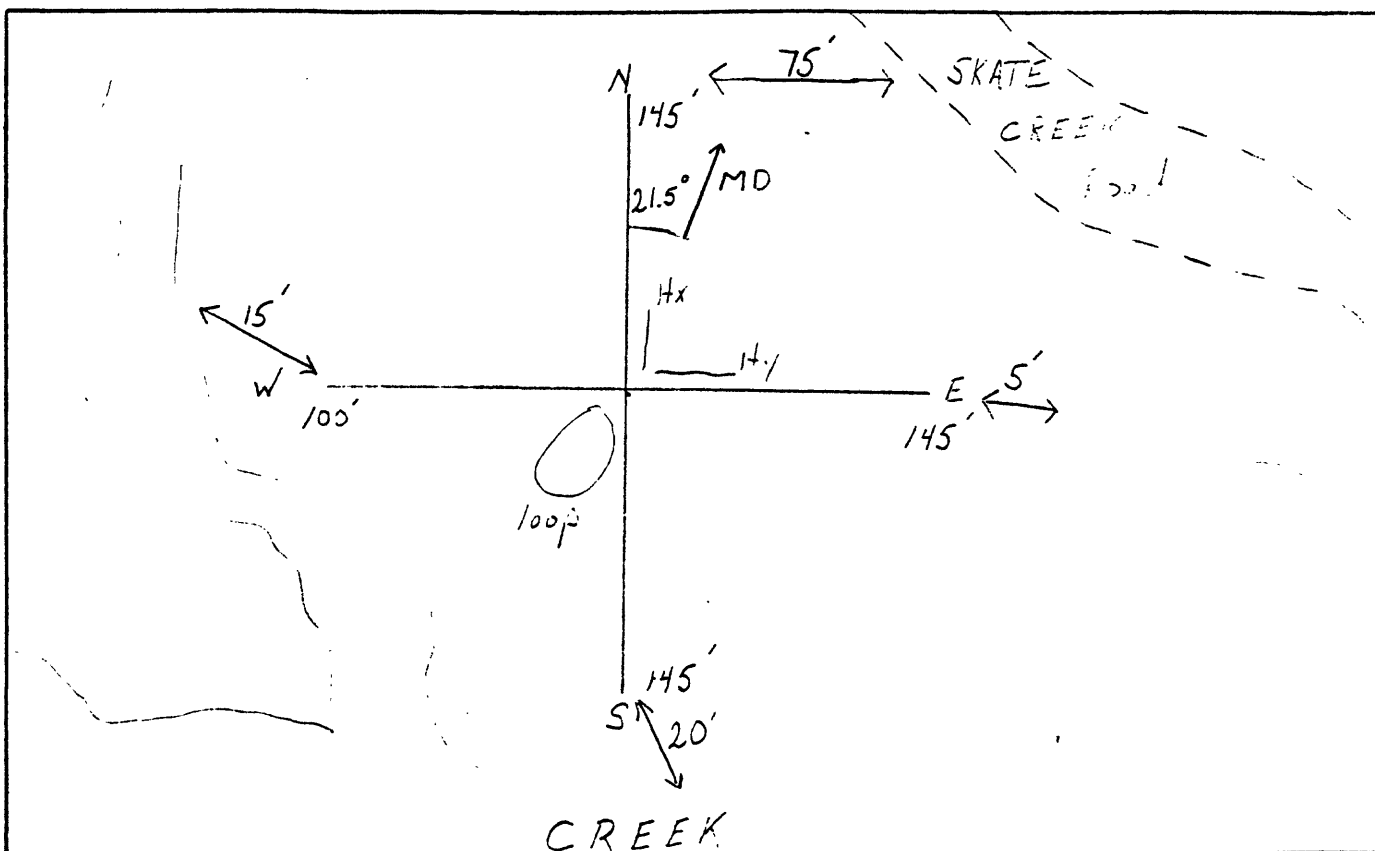
FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No.s)



SURVEY AREA: 196  
SITE NUMBER: 6-5  
DATE: June 25, 1979

QUADRANGLE NAME: Packwood Wash.  
LOCATION: T 13 N R 9 E S 8 5  
COORDINATES: From SW corner  
↑.4 → .15  
ELEVATION: 1650 ft.  
SURVEYOR: Michael Snow



H SENSORS: E LINE LENGTH:

H<sub>x</sub> 1065 E<sub>x</sub> 290'

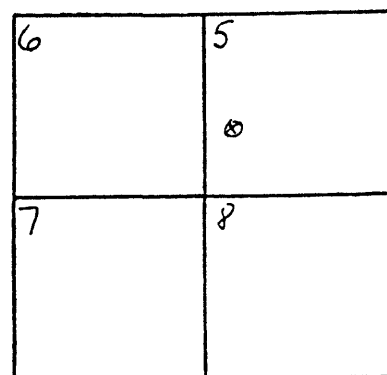
H<sub>y</sub> 1064 E<sub>y</sub> 245'

H<sub>z</sub> 106

X-AXIS DEVIATION 0° Deg.

MAGNETIC DECLINATION 21.5 Deg.

COMMENTS: soil: rock impeded dig  
for electronics  
veg: none  
Note: used vertical air loop  
and I wire for ; moved 1.1 NE  
of original location

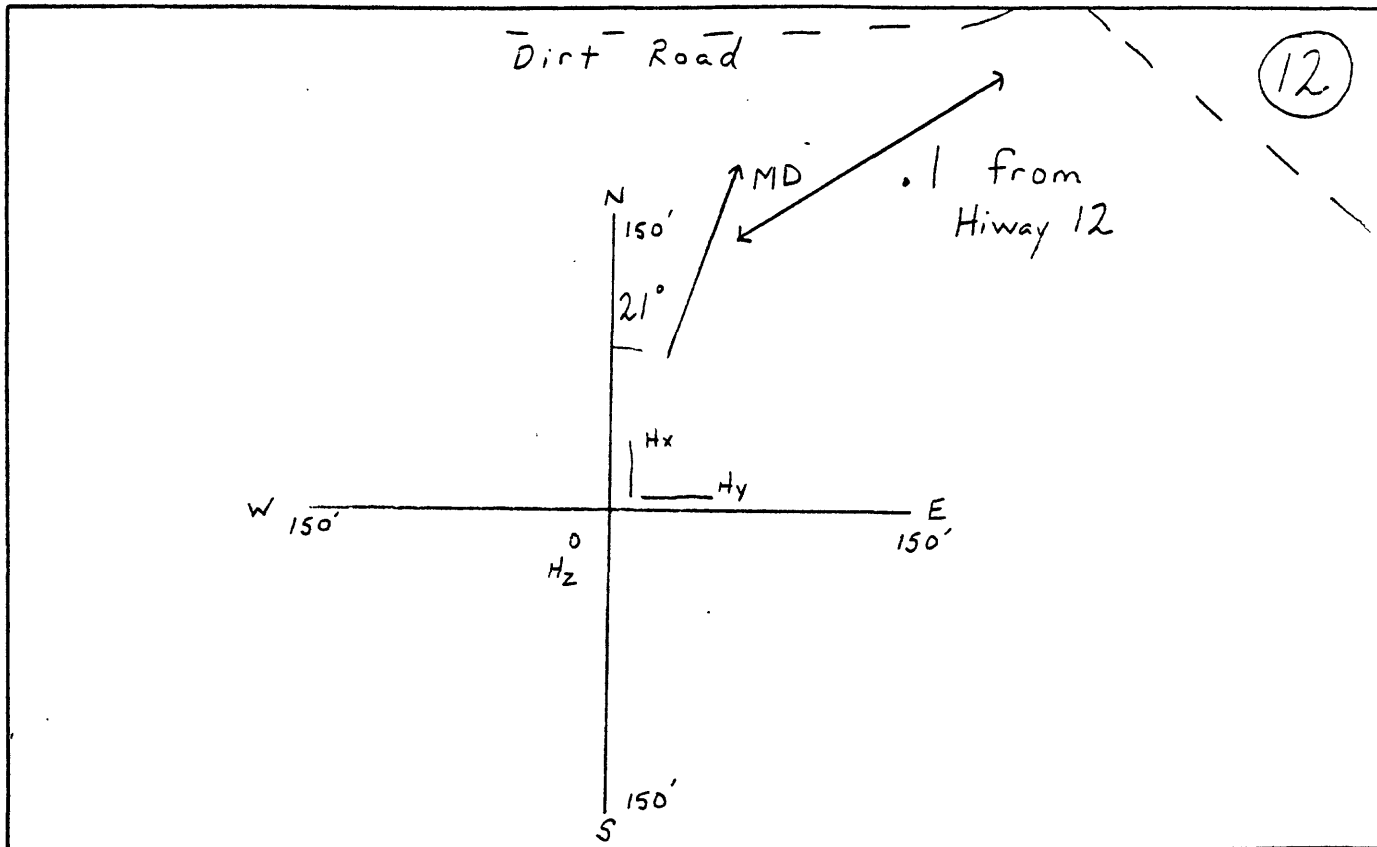


15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196  
SITE NUMBER: 6-6  
DATE: June 27, 1979

LAT: \_\_\_\_\_  
LONG: \_\_\_\_\_  
QUADRANGLE NAME: White Pk., Wash.  
was not sectioned on Field Map  
LOCATION: T 13N R 12E S 2  
From SW corner  
COORDINATES: ↑.01 →.15  
ELEVATION: ≈ 3350 ft  
SURVEYOR: Michael Snow



SITE DETAIL

H SENSORS: | E LINE LENGTH:  
H<sub>x</sub> 1065 | E<sub>x</sub> 300'  
H<sub>y</sub> 1064 | E<sub>y</sub> 300'  
H<sub>z</sub> 6008

X-AXIS DEVIATION 0° Deg.

MAGNETIC DECLINATION 21° Deg.

COMMENTS: soil: dirt with decayed  
leaves and bark

veg: ferns, grass & trees

Note: .1 from Hiway 12

3	2
10	11

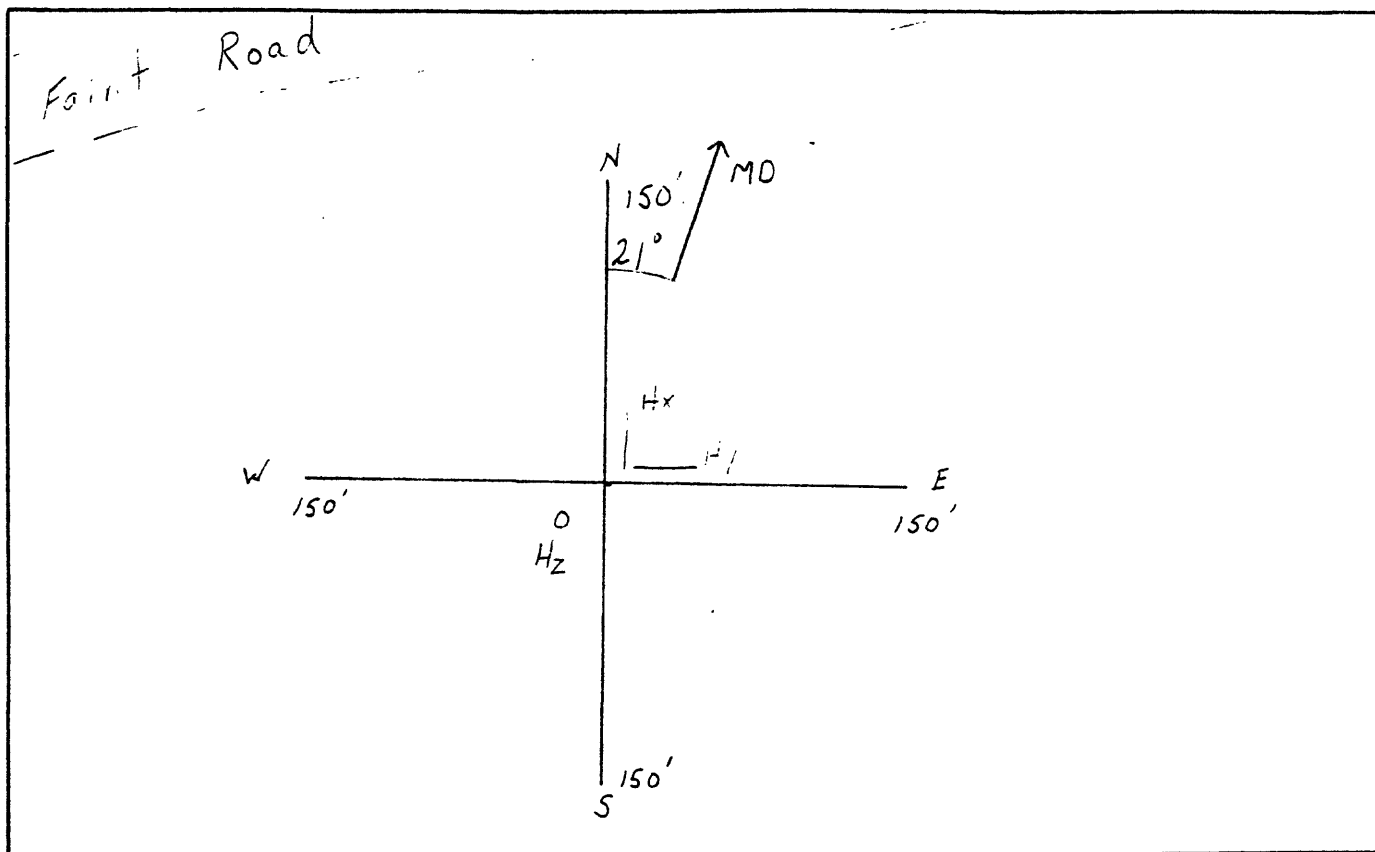
FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No.s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: 196  
 SITE NUMBER: 6-8  
 DATE: June 28, 1977

LAT: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "  
 LONG: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "  
 QUADRANGLE NAME: Tieton, Wash  
 LOCATION: T 13N R 16E S 2  
 COORDINATES: From SW corner 1.25 → .29  
 ELEVATION: 2500 ft.  
 SURVEYOR: Michael Snow



#### SITE DETAIL

H SENSORS:      E LINE LENGTH:  
 H<sub>x</sub> 1065      E<sub>x</sub> 300'  
 H<sub>y</sub> 1064      E<sub>y</sub> 300'  
 H<sub>z</sub> 6008

X-AXIS DEVIATION 0° Deg.

MAGNETIC DECLINATION 21° Deg.

COMMENTS: Soil: calc. in grass;  
dirt; E trade in grassy lot; N 8° W in  
rock

veg: grass on E trade + center; rest rock  
Note: 2.1 SW of original location

35	36
⊗	1
2	

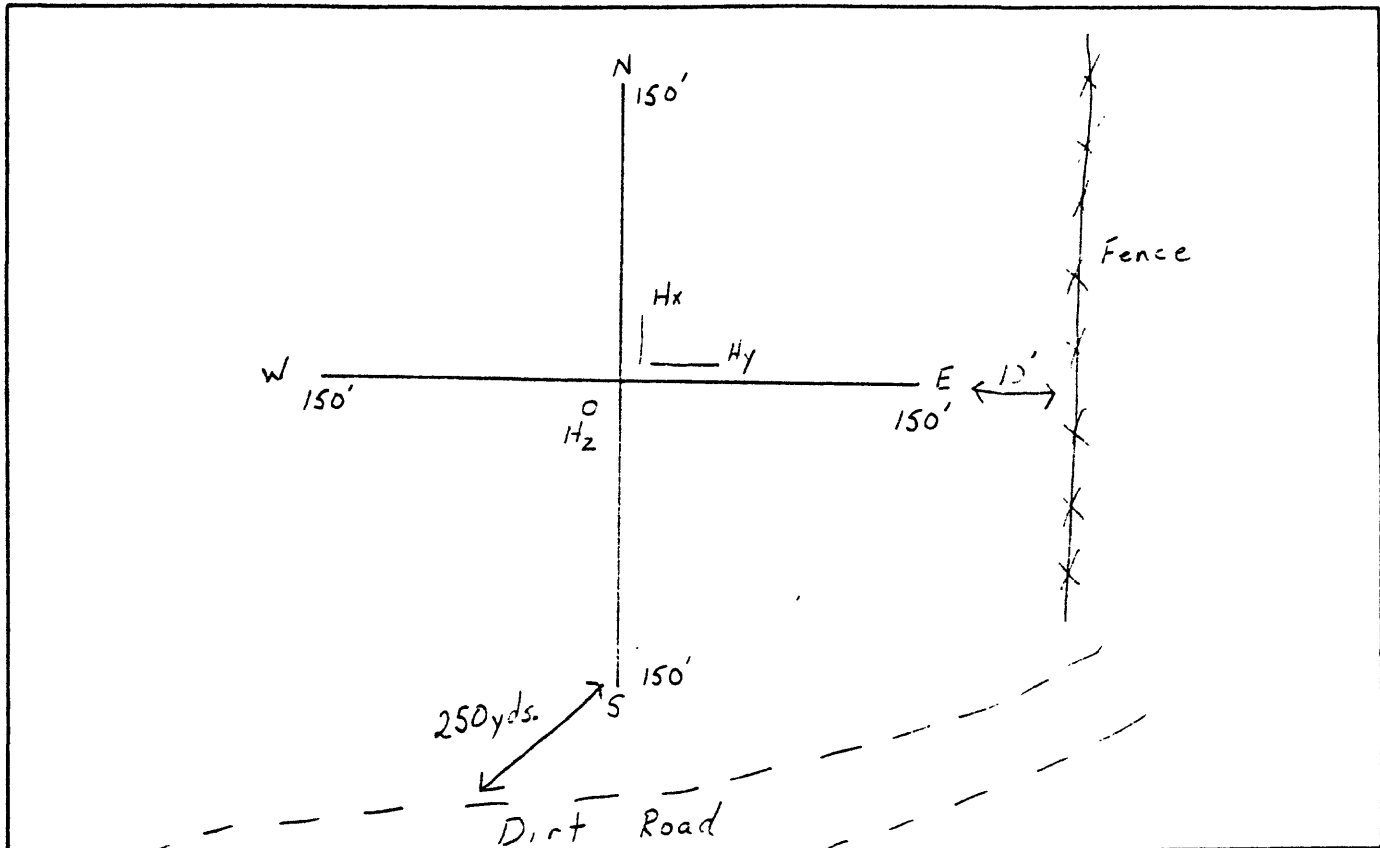
#### FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No. s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: 196  
 SITE NUMBER: 6-9  
 DATE: June 28, 1979

LAT:            °            '            "  
 LONG:            °            '            "  
 QUADRANGLE NAME: E. Kittitas, Wash  
 LOCATION: T 17N R 20E S 30  
 COORDINATES: From SW corner ↑.8 →.99  
 ELEVATION: 1725ft  
 SURVEYOR: Michael S.



SITE DETAIL

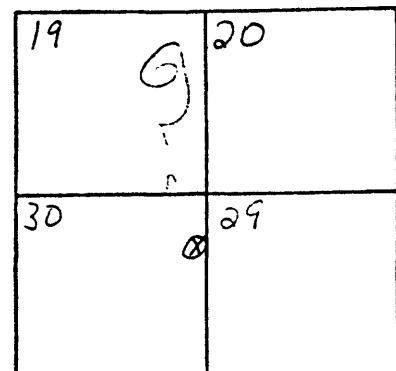
H SENSORS:                      E LINE LENGTH:  
 H<sub>x</sub> 1061                      E<sub>x</sub> 300'  
 H<sub>y</sub> 1077                      E<sub>y</sub> 300'  
 H<sub>z</sub> 6007

X-AXIS DEVIATION 0° Deg.

MAGNETIC DECLINATION 20° Deg.

COMMENTS: soil: plowed field; but  
veg: small trees.

Note: mound 16.2 NW of original;  
located in corn field



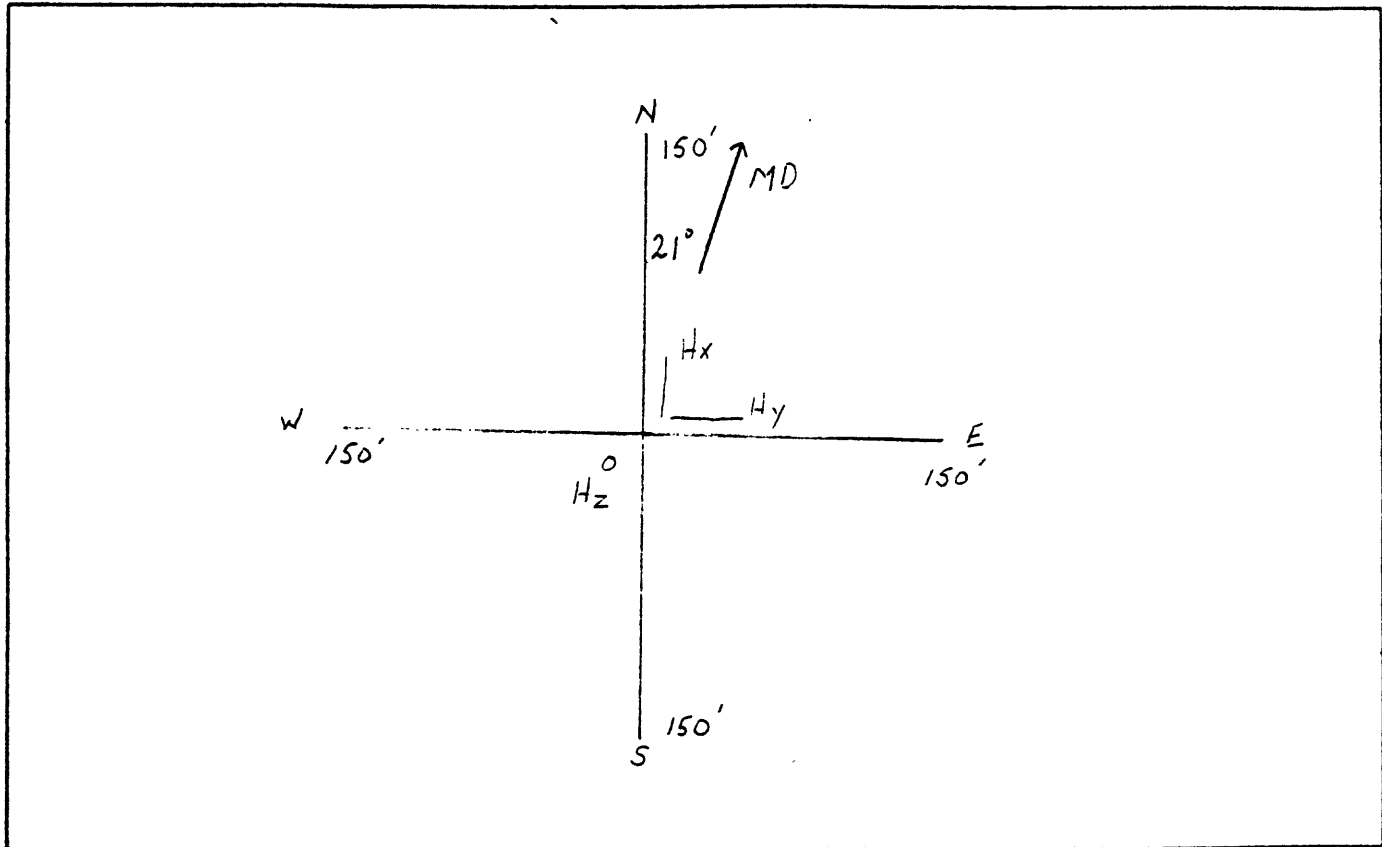
FOUR SECTION PLOT

15 Minute Detail  
 (Mark Adjacent Section No.s)

SURVEYOR'S LOG  
 GEOTRONICS CORPORATION  
 10317 McKalla  
 AUSTIN, TEXAS 78758  
 PHONE: 512-837-7564  
 CABLE: GEOTRON

SURVEY AREA: 196  
 SITE NUMBER: 6-10  
 DATE: June 28, 1979

LAT:            °            '            "  
 LONG:            °            '            "  
 QUADRANGLE NAME: Smyrna, Wash  
 LOCATION: T 15N R 25E S 26  
 COORDINATES: From SW corner  
↑.98 → .5  
 ELEVATION: 975 ft  
 SURVEYOR: Michael S.



SITE DETAIL

H SENSORS:                      E LINE LENGTH:  
 H<sub>x</sub> 1096                      E<sub>x</sub> 300'  
 H<sub>y</sub> 1062                      E<sub>y</sub> 300'  
 H<sub>z</sub> 6009  
 X-AXIS DEVIATION 0° Deg.  
 MAGNETIC DECLINATION 21° Deg.  
 COMMENTS: soil: sandy loam  
veg: grass  
Note: .3 E of original location

22	23
	24
27	26

FOUR SECTION PLOT

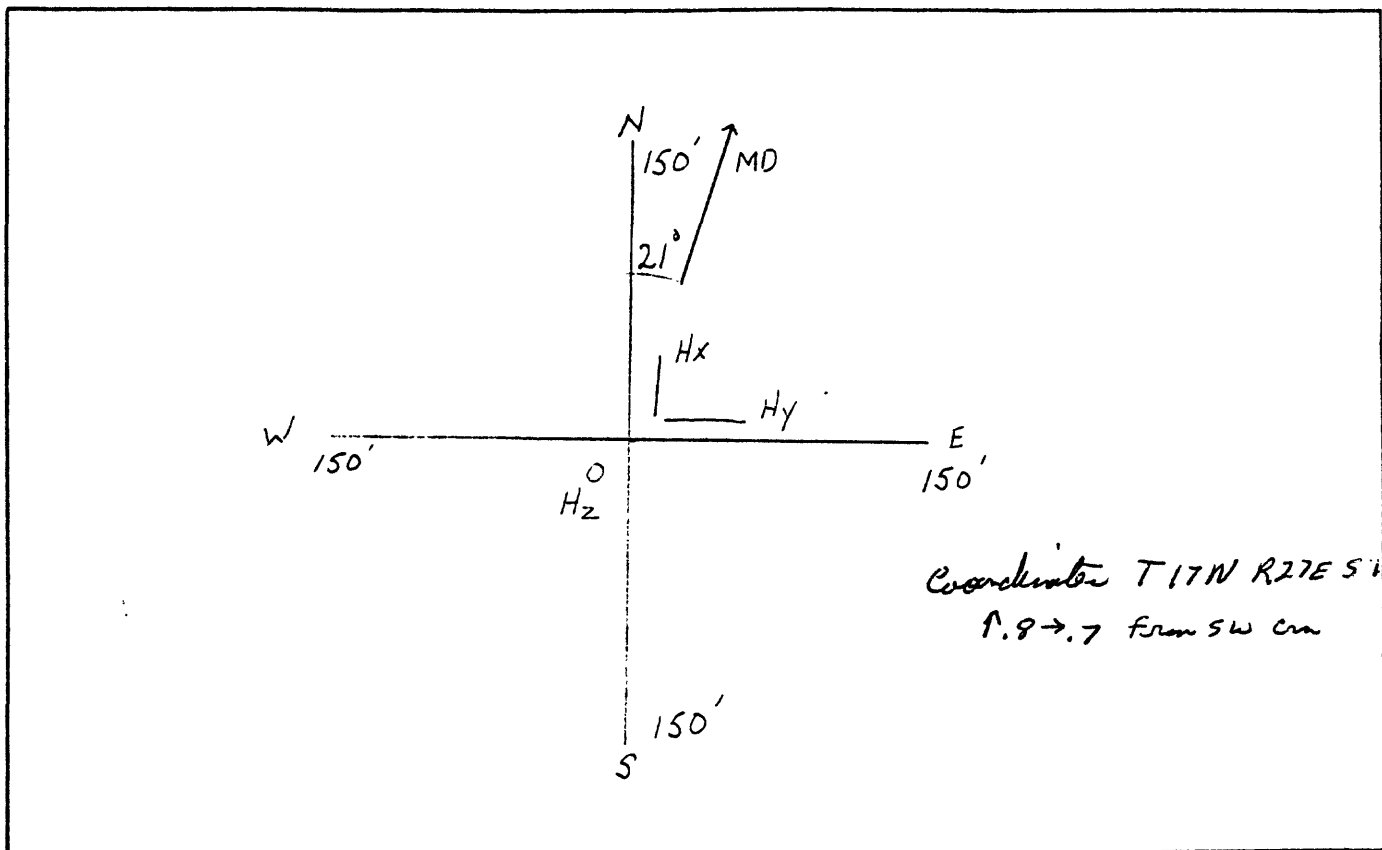
15 Minute Detail  
 (Mark Adjacent Section No. s)



SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196  
SITE NUMBER: 6-11  
DATE: June 29, 1979

LAT: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
LONG: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
QUADRANGLE NAME: Coccy W. Wash.  
LOCATION: T17N R27E S14  
COORDINATES: From \_\_\_\_\_  
ELEVATION: 1130 ft  
SURVEYOR: Michael Snow



Coordinates T17N R27E S14  
1.8 → .7 from SW corner

#### SITE DETAIL

##### H SENSORS:

H<sub>x</sub> 1061  
H<sub>y</sub> 1077  
H<sub>z</sub> 6007

##### E LINE LENGTH:

E<sub>x</sub> 300'  
E<sub>y</sub> 300'

X-AXIS DEVIATION \_\_\_\_\_ ° Deg.

MAGNETIC DECLINATION 24° Deg.

COMMENTS: soil: sandy loam  
veg: sagebrush

15	14
22	23

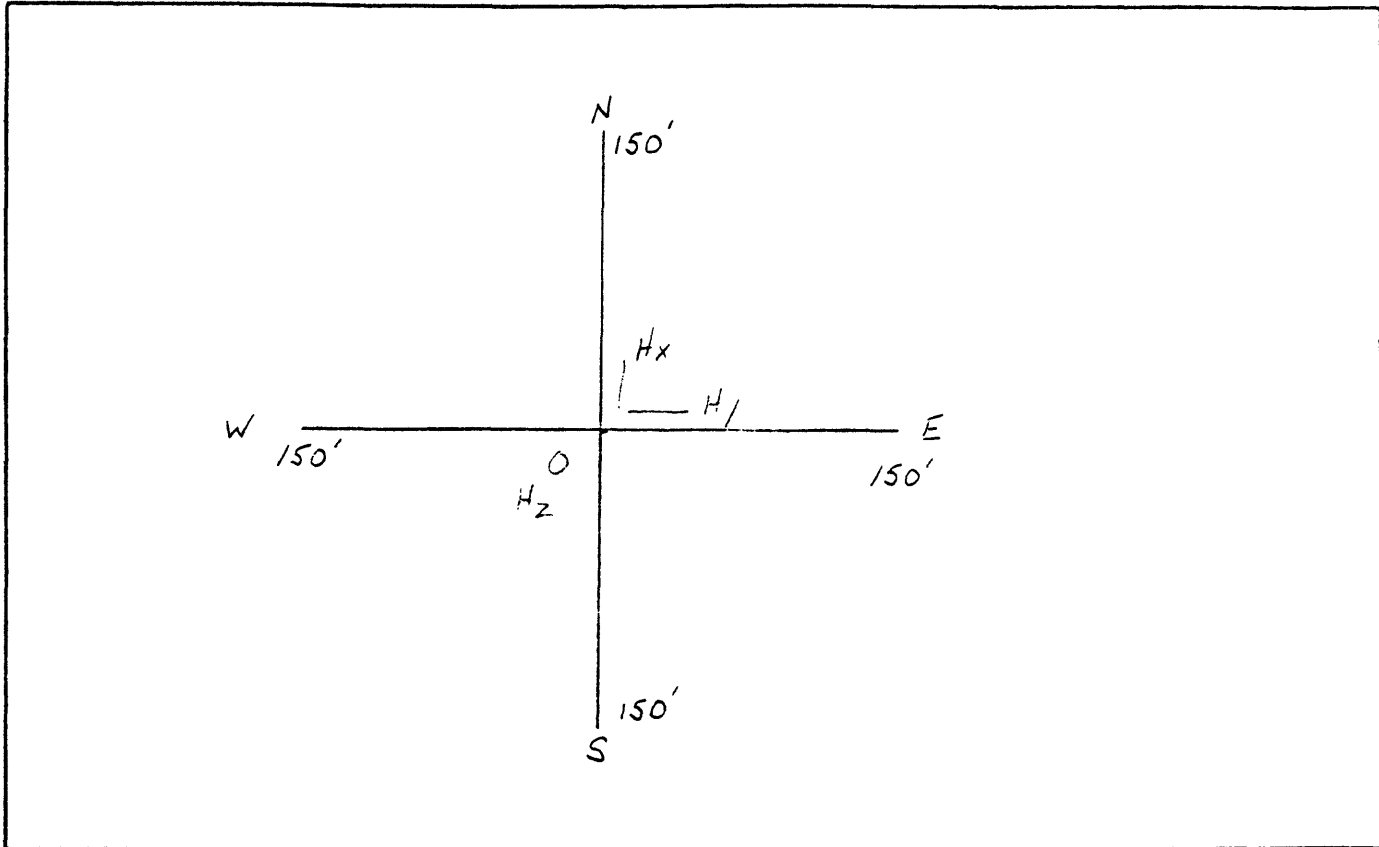
#### FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196  
SITE NUMBER: 6-12  
DATE: June 27, 1979

LAT: 0 0 0  
LONG: 0 0 0  
QUADRANGLE NAME: Reiman SW Wash  
LOCATION: T 18N R 33E S 9  
COORDINATES: From SW corner  
↑.15 →.45  
ELEVATION: 1770 ft.  
SURVEYOR: Michael Snow



SITE DETAIL

H SENSORS: E LINE LENGTH:  
H<sub>x</sub> 1096 E<sub>x</sub> 300'  
H<sub>y</sub> 1062 E<sub>y</sub> 300'  
H<sub>z</sub> 6009

X-AXIS DEVIATION 0° Deg.

MAGNETIC DECLINATION 21° Deg.

COMMENTS: soil: sandy loam  
plowed field  
Veg: none

9	10
16	15

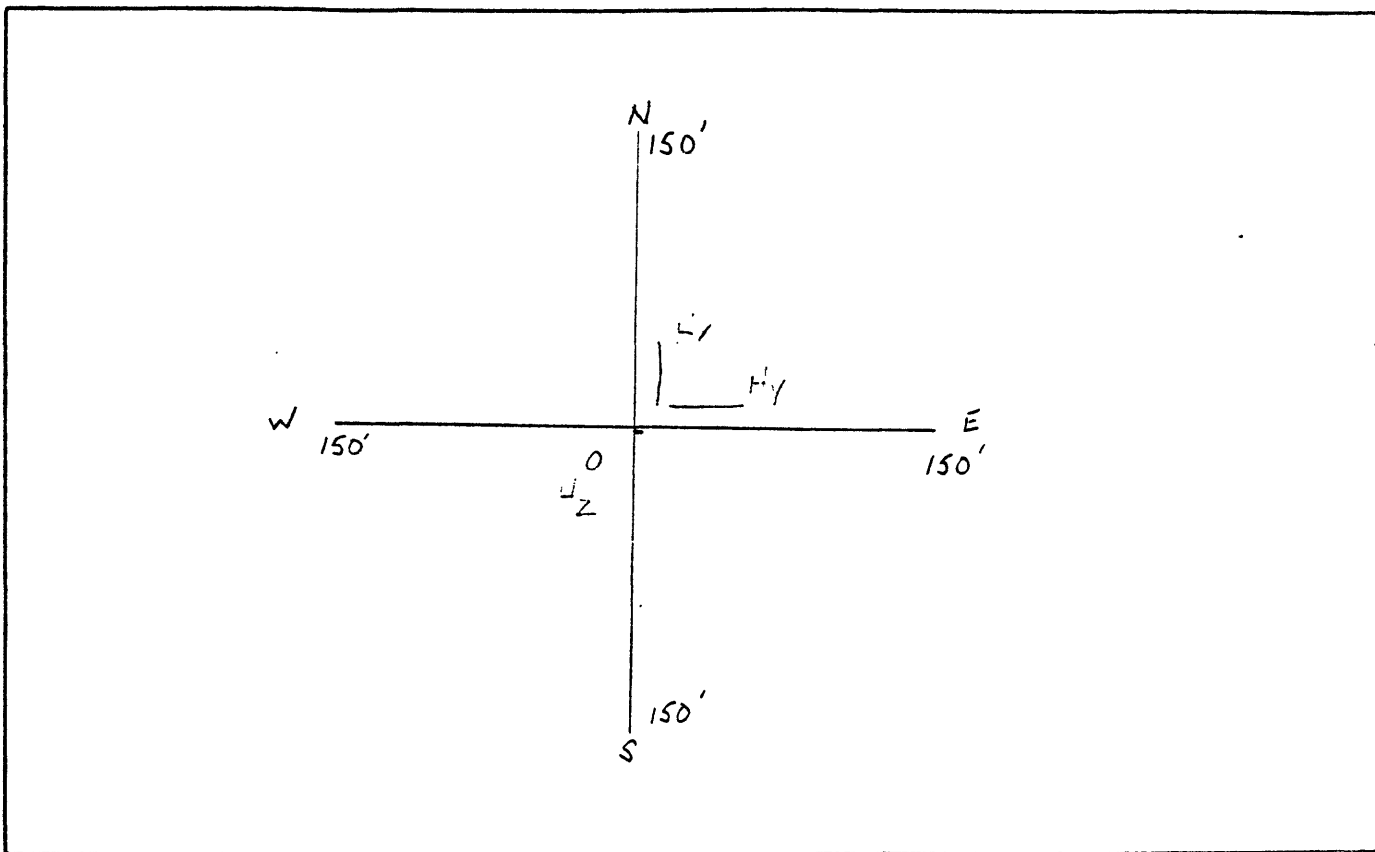
FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

SURVEYOR'S LOG  
GEOTRONICS CORPORATION  
10317 McKalla  
AUSTIN, TEXAS 78758  
PHONE: 512-837-7564  
CABLE: GEOTRON

SURVEY AREA: 196  
SITE NUMBER: 6-13  
DATE: June 29, 1979

LAT: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
LONG: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ ''  
QUADRANGLE NAME: Lords Valley, Tex  
LOCATION: T 23N R 36E S 2  
COORDINATES: From 1911 corner  
7.98 → 7.65  
ELEVATION: 2200 ft.  
SURVEYOR: Marion Smith



SITE DETAIL

H SENSORS:

H<sub>x</sub> 1065  
H<sub>y</sub> 1064  
H<sub>z</sub> 6008

E LINE LENGTH:

E<sub>x</sub> 300  
E<sub>y</sub> 300

X-AXIS DEVIATION \_\_\_\_\_ Deg.

MAGNETIC DECLINATION \_\_\_\_\_ Deg.

COMMENTS: soil: plow & 1'  
veg: none

35	36
2	1

FOUR SECTION PLOT

15 Minute Detail  
(Mark Adjacent Section No. s)

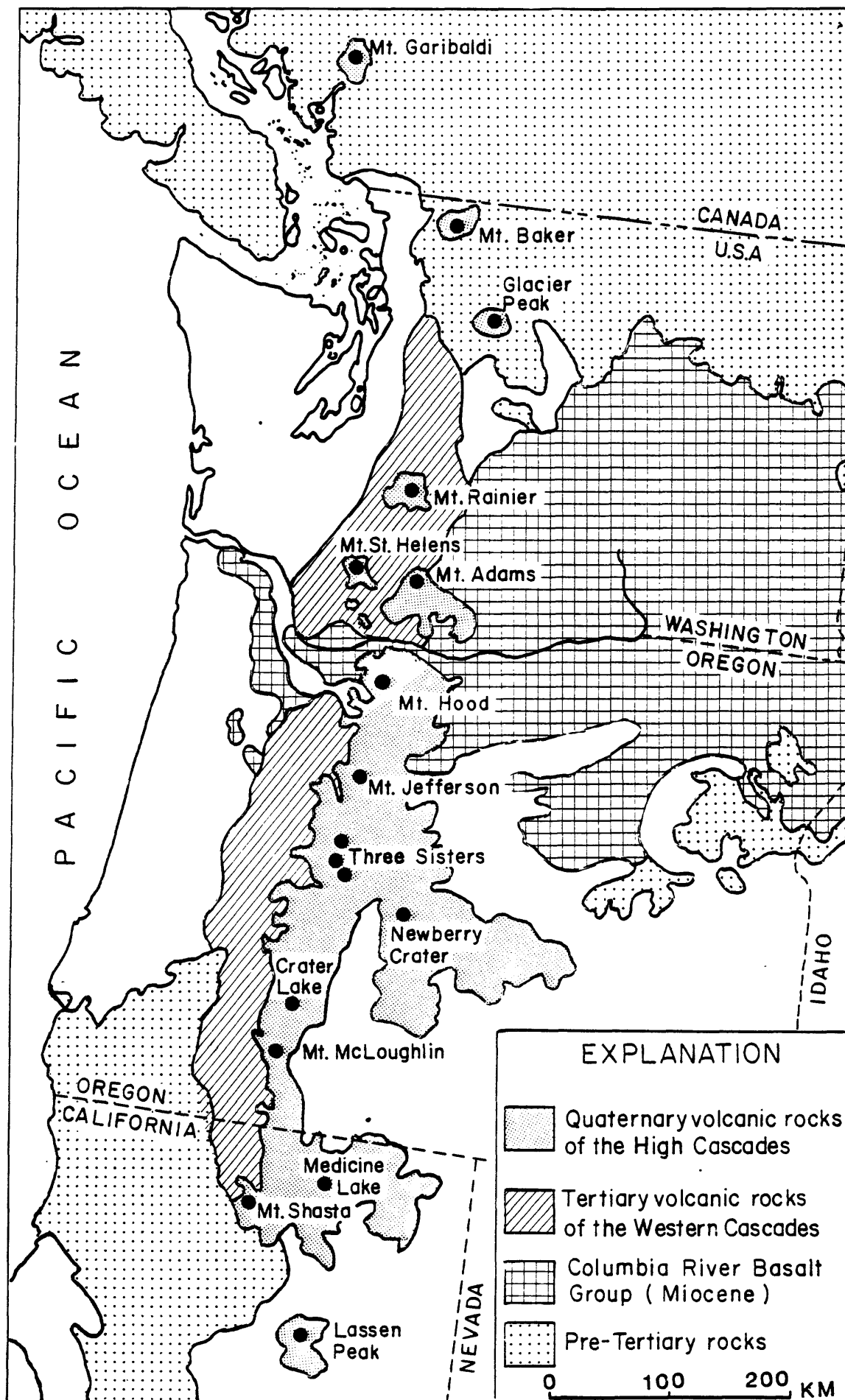


Figure 2

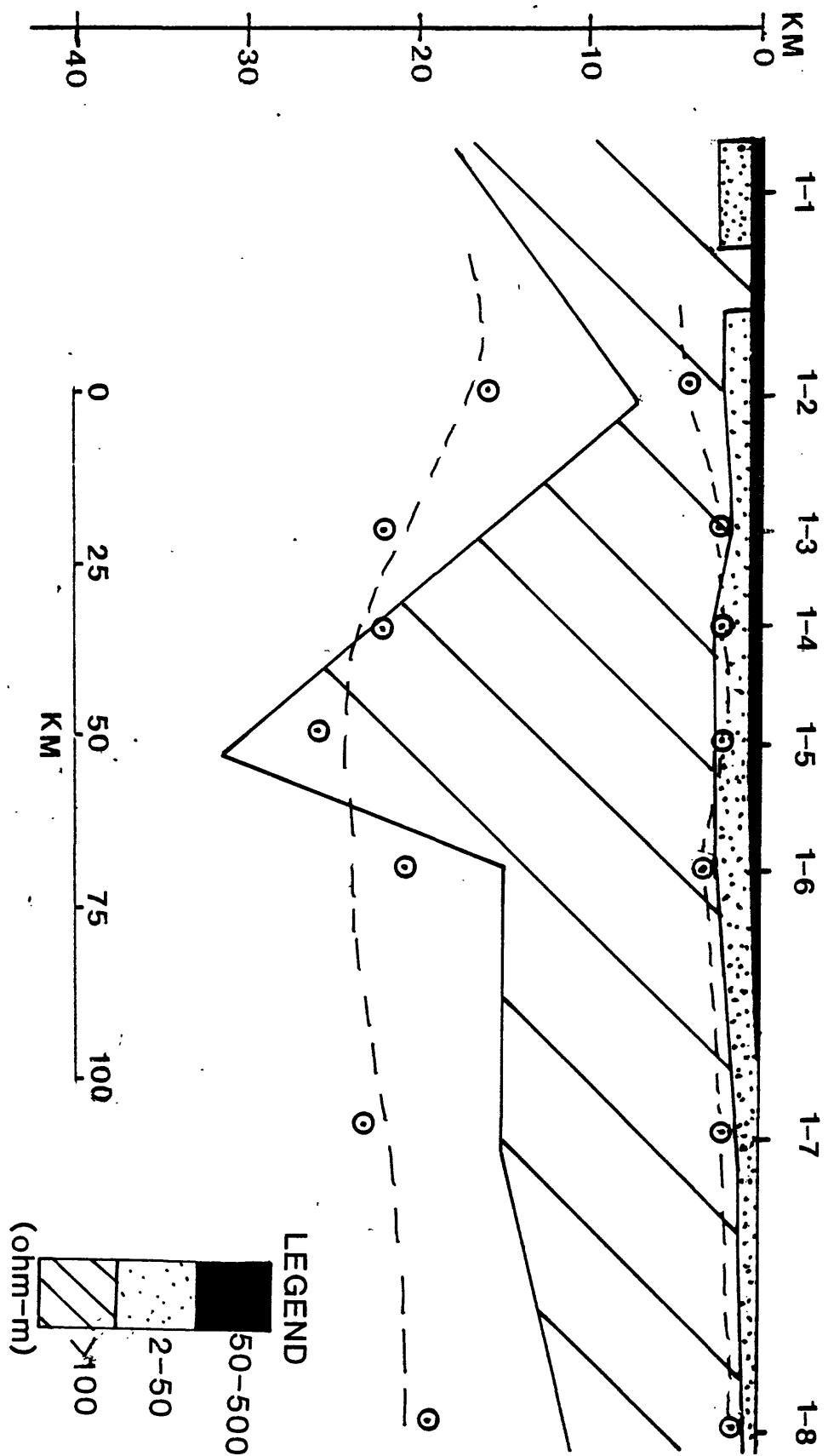


FIG. 4

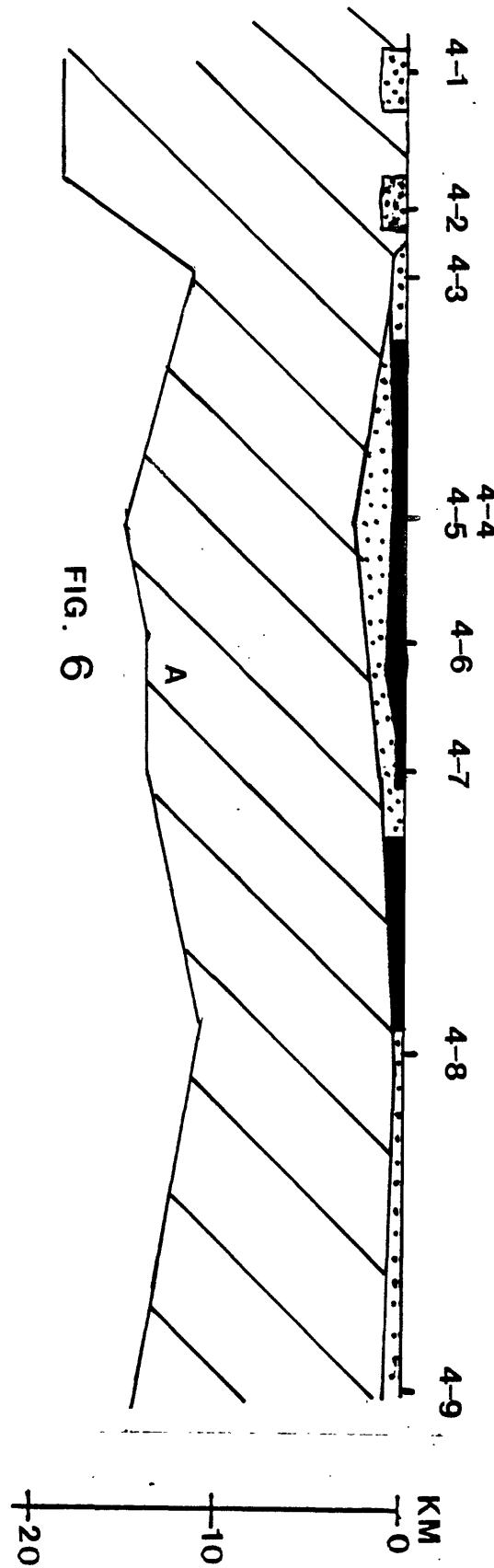


FIG. 6

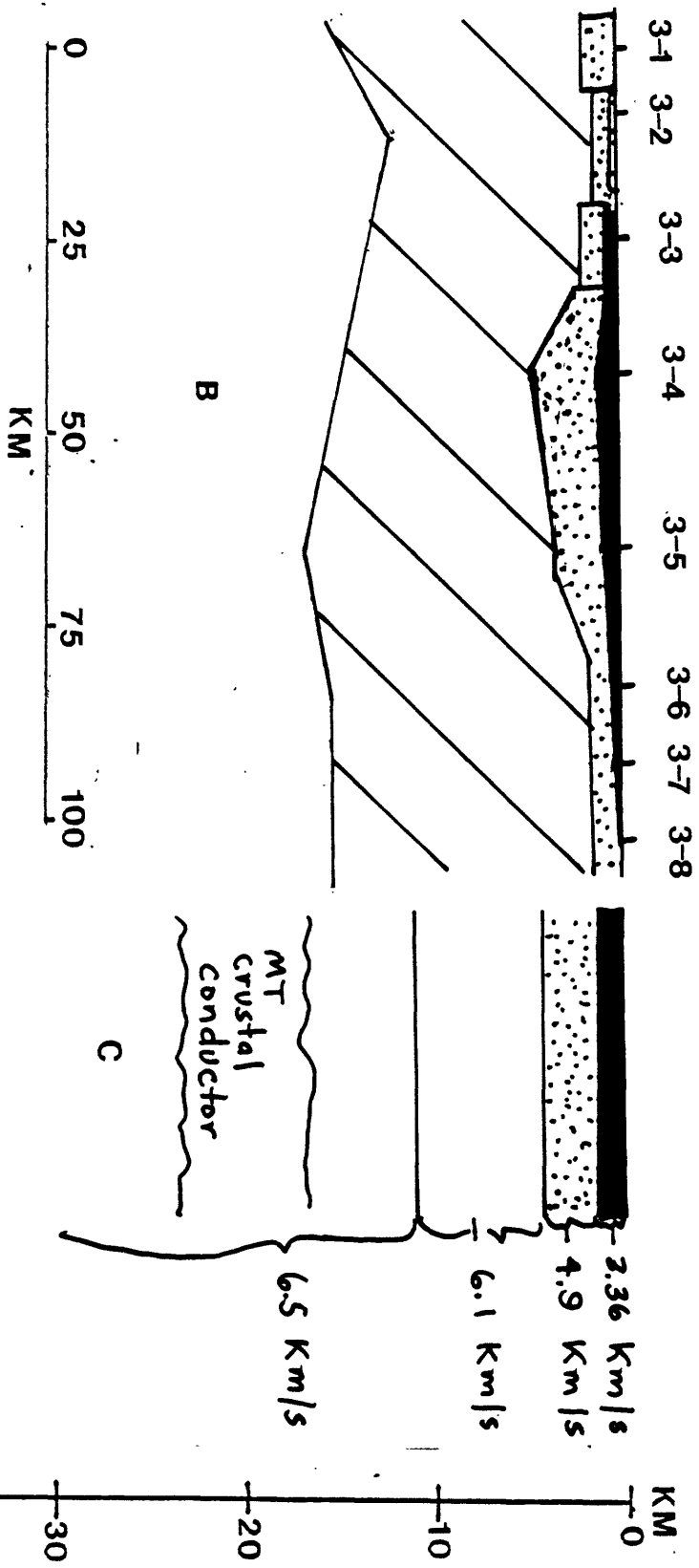


FIG. 7

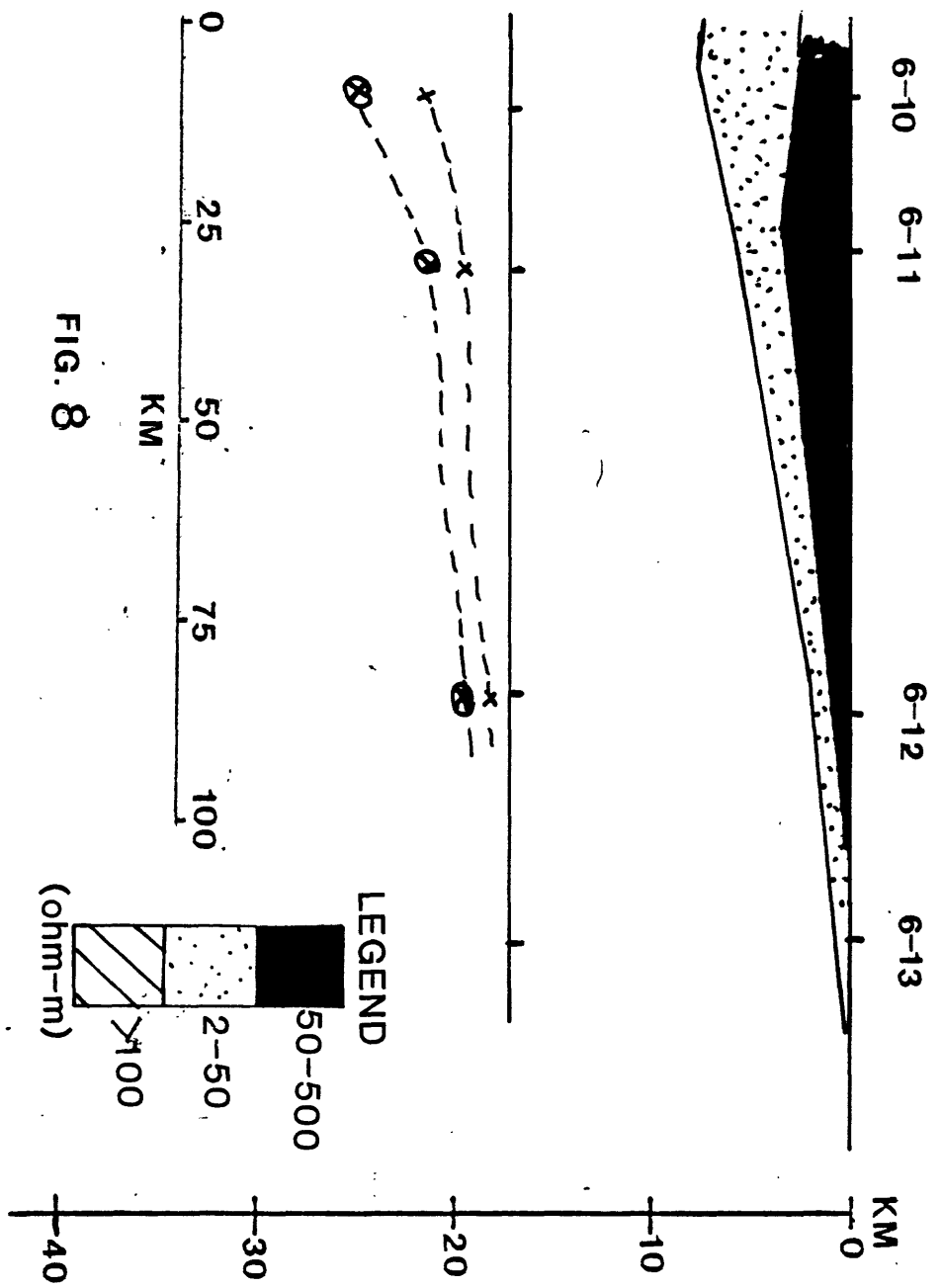


FIG. 8

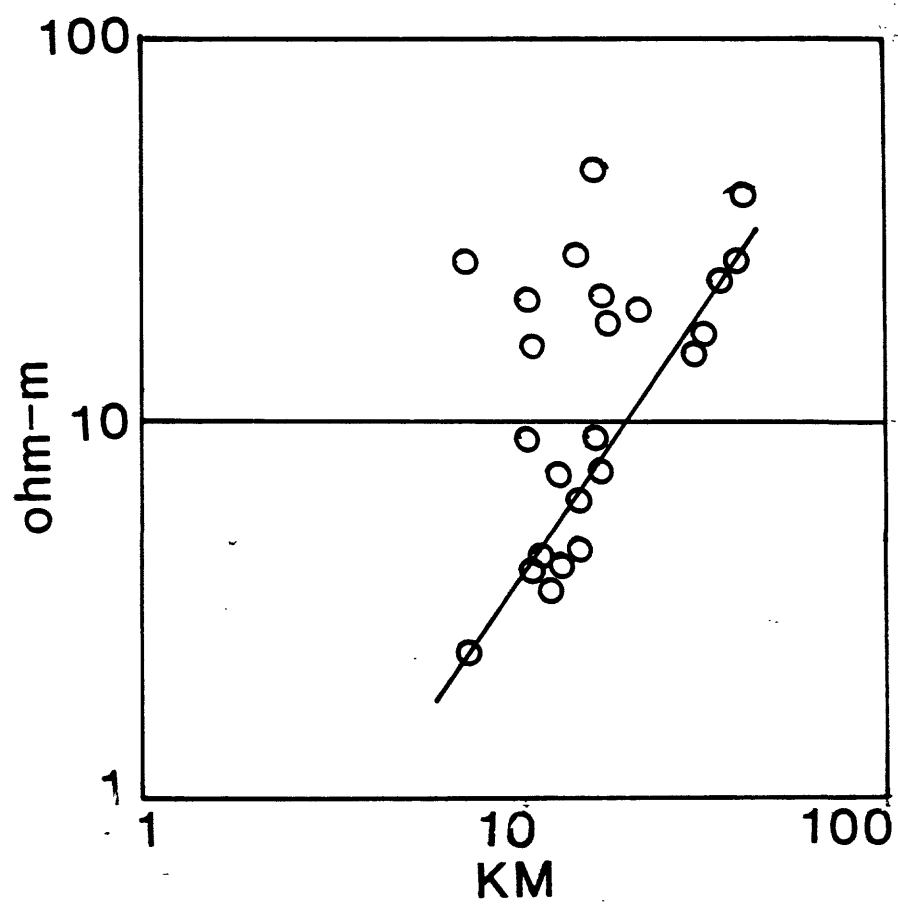
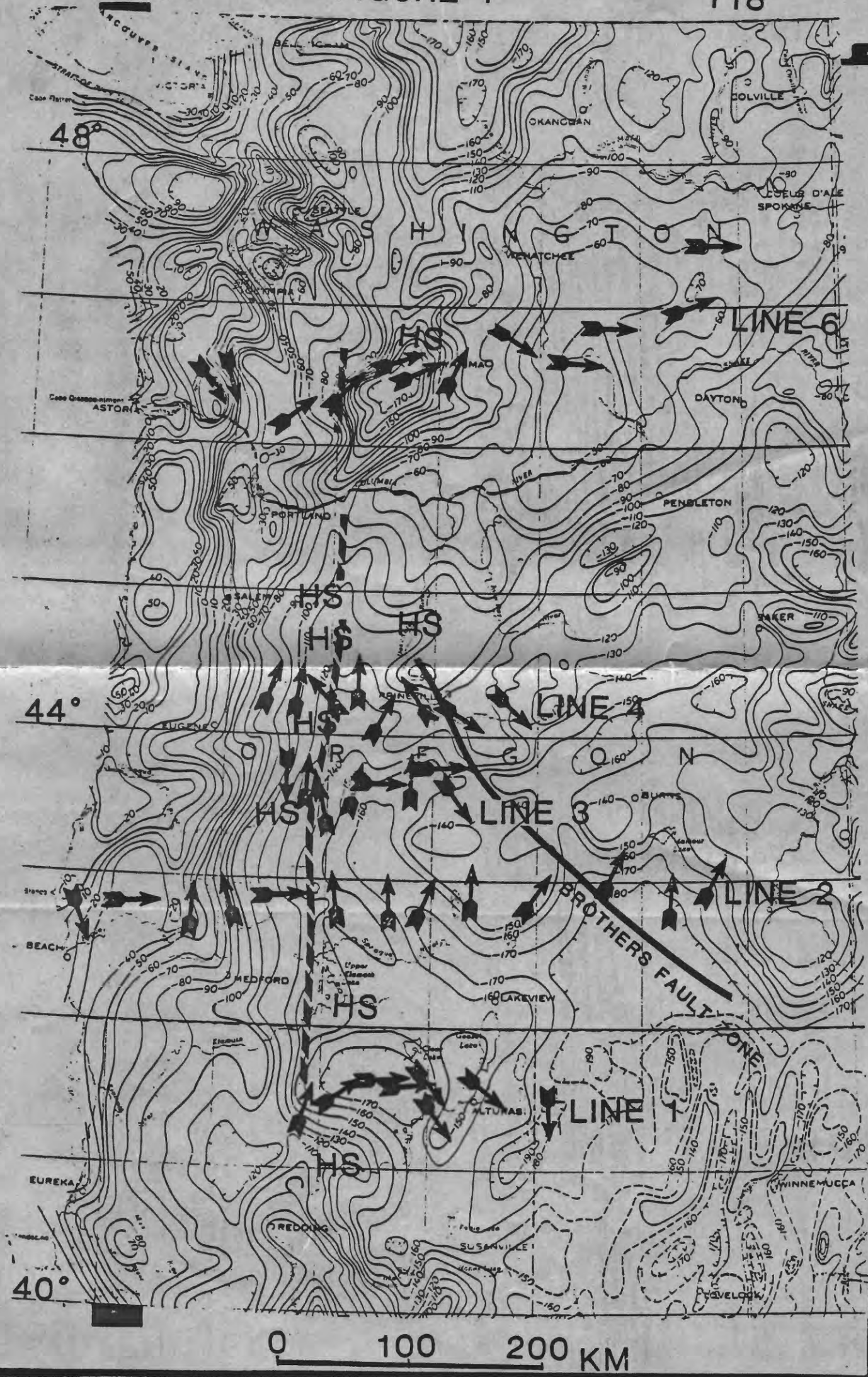


FIGURE 9



124°





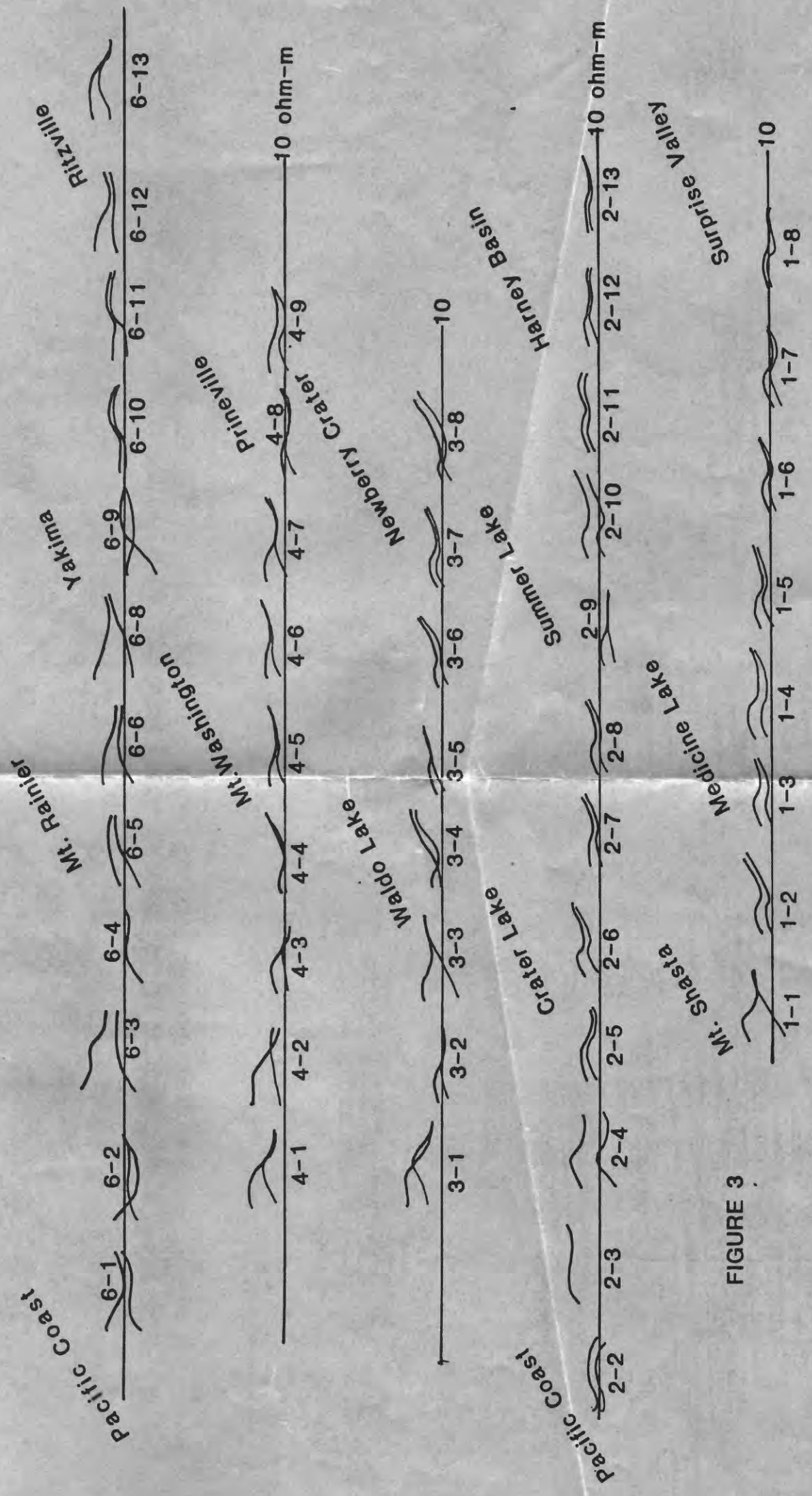


FIGURE 3

82-126

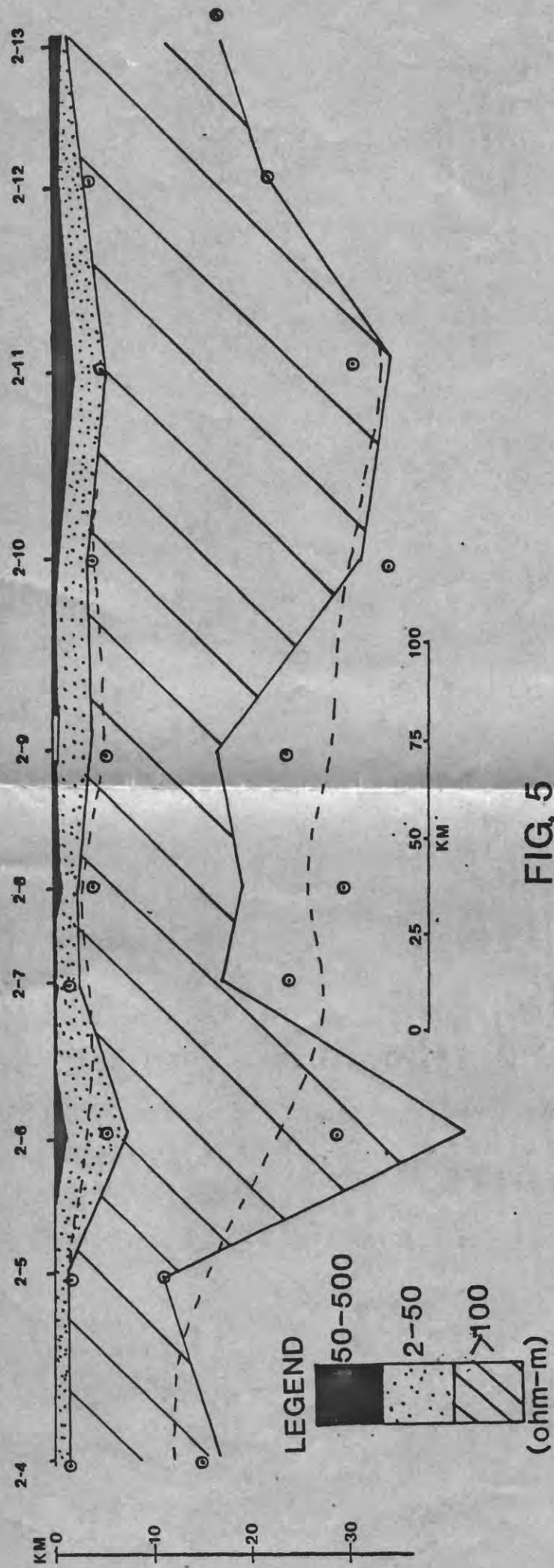


FIG. 5