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SENTURION SCIENCES, INC.

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June 2, 1975

MINERALS STAFF
JUN 04 1975

Mr. Bill Mero
Chevron Oil Company
Post Office Box 3495
San Francisco, California 94119

Dear Mr. Mero:

At long last we are transmitting, under separate cover, the report on the detailed groundnoise survey done for Chevron near Beowawe, Nevada. We apologize for the long delay in completing this task, but we believe you are aware of the difficulties that were encountered. Senturion feels that the area exhibits excellent potential for geothermal resources, and recommendations appropriate to that conclusion are included in the report.

After your evaluation and at your convenience, we will be glad to personally discuss with you our analysis, interpretation, and thoughts on Beowawe.

Again, we are sincerely sorry for the delay which became much too protracted because of our reliance on the principal analyst who had committed to the study effort. Please feel free to contact us should you have any questions.

Sincerely,
SENTURION SCIENCES, INC.

Bob G.

R. G. Graf

Keith Westhusing

Keith Westhusing

RGG:KW/rf

REPORT ON THE PASSIVE SEISMIC SURVEYS CONDUCTED TO ASSESS THE GEOTHERMAL POTENTIAL NEAR BEOWAWE, NEVADA

FOR

STANDARD OIL OF CALIFORNIA

BY

SENTURION SCIENCES, INCORPORATED

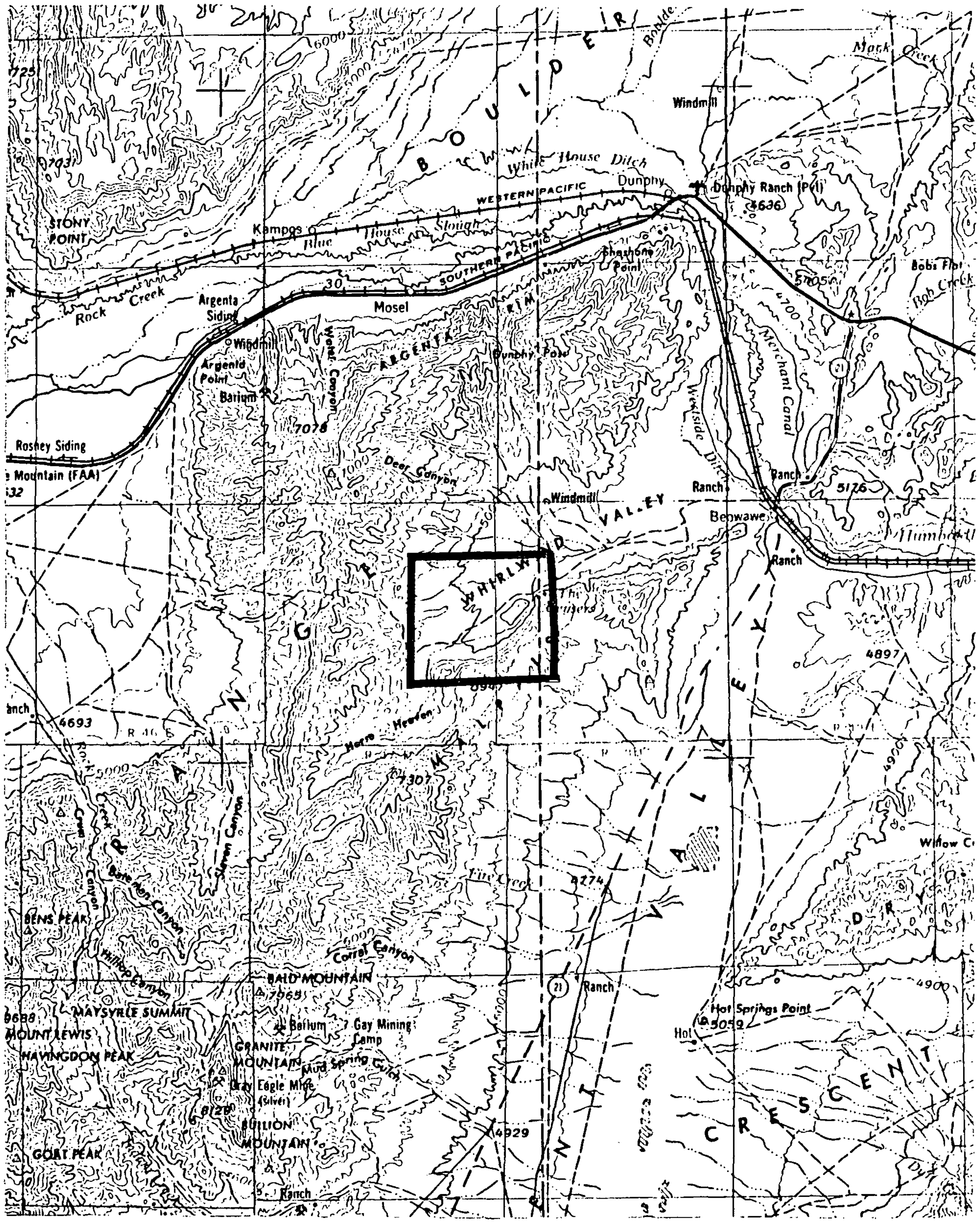
TULSA, OKLAHOMA

June 2, 1975

SEISMIC GROUNDNOISE SURVEY

LOCATION:	Lander Co., Nevada, sec. 13, 24, T. 31 N.; R. 47 E., sec. 18, 19, T. 31 N.; R. 48 E.
DATES:	October 29, 1974 through November 20, 1974.
CREW:	Senturion Sciences RF #5, and GN #1.
NO. OF STATIONS:	139 Data Stations, 19 Base Stations.
STATION DENSITY:	500 ft. spacing.
AREA COVERED:	Approximately 2 square miles.
GEOPHYSICISTS:	Bob Graf, Keith Westhusing*

* Preliminary maps of the Beowawe survey that were previously submitted to Standard Oil of California (Dec., 1974) were analyzed by John Bailey and did not contain corrections for the reference station. This report contains those corrections and data have been interpreted by the designated geophysicists.



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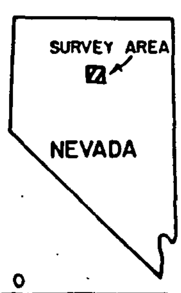

5 0 5 10 MILES

5 0 5 10 KILOMETERS

BEOWAWE, NEVADA

GROUNDNOISE SURVEY

CONTOUR INTERVAL: 200 FT.

SCALE: 1:250,000

FIGURE 1

BEOWAWE, NEVADA GROUNDNOISE SURVEY

INTRODUCTION

Purpose

This survey was an experimental effort to determine the resolution capabilities of a high-density seismic groundnoise survey. In addition to the location of specific areas of geothermal interest as exhibited by anomalous noise characteristics; the delineation of structural features such as faults and other stratigraphic discontinuities have been investigated.

Geology

The Beowawe geothermal prospect is located in the Shoshone Range of north central Nevada, approximately 25 miles southeast of the town of Battle Mountain. The area has typical Basin and Range topography with generally north-trending mountain ranges. The area surveyed is situated along the southeastern margin of the northeast trending Whirlwind Valley where it is in contact with Tertiary volcanic rocks broken by steeply dipping faults. The geysers of the Beowawe area are related to the active Malpais Fault (Oesterling, 1962), the prominent normal fault bordering the southeastern margin of the valley. Basalt and basaltic andesite make up the faulted mountains southeast of the survey area. Quaternary alluvium and alluvial fan material cover the valley floor and surround the prominent topographic high inlier of basaltic andesite situated along the southeastern margin of the area surveyed. Numerous northeast-southwest trending faults such as the Malpais are present and hydrothermal solution movement along these thermally-active normal faults has caused significant alteration of andesite with replacement by silica. A number of springs associated with valley floor marginal faults have shown surface temperatures to 205^{O}F and have caused extensive deposition of siliceous sinter (Garside, et al., 1972). Eleven wells were drilled in the area from 1959 through 1965, the deepest of which was 2,052 feet. The Chevron-ATR GINN. 1-13 well drilled near station 1 to a depth of 7,900 feet showed apparent penetration of volcanic rocks in the 800 to 2,100 feet depths. Outcrops of Plio-Pleistocene basalt to the northwest of the area surveyed gives indication of a basaltic layer overlying the andesite under valley fill. Lower Paleozoic sediments underlie the volcanic rocks of the valley floor and are considered potential reservoirs for geothermal fluids. These rocks, possibly the upper plate of the Roberts Mountain Thrust, are inferred from geologic mapping in adjacent areas and are probably, in part, limestones, which may be a productive geothermal reservoir similar to that at Larderello, Italy.

Data Acquisition

In the course of the 23 day survey, approximately 160 stations were occupied including a daily base station monitor (Station 1). See Table 1, Data Acquisition Calendar. Some stations were not used due to reasons discussed in the Data Processing Section. Senturion utilized a Radio-Frequency Telemetered System as well as a Cable System to increase the daily production rate. On November 6, 1974, the two systems recorded at the same stations. This information was processed to show compatibility and the data is summarized in Table 2. Power Spectral Density curves reflect system similarities (see following PSD's for spectral comparisons). It is felt that these results provide sufficient evidence to support the validity of two-system acquisition. Computer listings in Appendix 4 show additional calculations concerning the systems separately and in combination.

RESULTS

Data Analysis

In this survey three separate frequency bands were evaluated: 0.5 to 15.0 Hz.; 0.5 to 7.5 Hz.; and 0.5 to 3.5 Hz. The first two were derived from the same set of Power Spectral Density charts with a 0.5 frequency increment as shown in Appendix 2, while data on the 0.5 to 3.5 Hz. band was obtained from a PSD chart designed with a 0.25 Hz. frequency increment as indicated by Appendix 3.

It should be noted that varying numbers of data stations (and base stations) were useable on the three bands. This was due to the inconsistency of the high power levels on the 0.5 - 15.0 Hz. curves; and questionable data in the 0.75 - 1.50 Hz. range of the 0.5 - 7.5 Hz. curves used in the investigation of the 0.5 to 3.5 Hz. band. In the former case, the differential of the power values between 0.5 - 8.0 Hz. and the higher frequencies (10.5 - 15.0 Hz.) exceeded the scaling capability of the Signal Analyzer Integrator used in the power/frequency analysis. Consequently, some stations that were dropped in the 0.5 - 15.0 Hz. study proved to be acceptable for the 0.5 - 7.5 Hz. study. A similar situation occurred in the 0.75 - 1.50 Hz. range for the 0.5 - 3.5 Hz. analysis. PSD's not used are included for evaluation in the appendices. Comparative data and base station figures are shown below:

SPECTRUM	DATA STATIONS	BASE STATIONS
0.5 - 15.0 Hz.	125	12
0.5 - 7.5 Hz.	139	17
0.5 - 3.5 Hz.	110	19

Table 1. Data Acquisition Calendar

DATE	BASE	STATIONS RECORDED RF SYSTEM	CABLE SYSTEM
10 - 29	1	3	
10 - 30	1	2, 5, 6, 8	
10 - 31	1	9, 10, 11, 12	
11 - 1	1	13, 14, 15, 16, 17	
11 - 2	1	18, 19, 20, 21, 22	
11 - 3	1	23, 24, 25, 26, 27	
11 - 4	1	28, 29, 30, 32	
11 - 5	1	31, 33, 34, 35, 36	
11 - 6*	1	37, 38, 39, 40, 41	37, 38, 39, 40, 41
11 - 7	1	42, 43, 44, 45, 46	155, 156, 157, 158, 159, 160
11 - 8	1	47, 48, 49, 50, 51	
11 - 9	1	52, 53, 54, 55, 56	140, 150, 151, 152, 153, 154
11 - 10	1	57, 58, 59, 60, 61	144, 145, 146, 147, 148
11 - 11	1	62, 63, 64, 65, 66	138, 139, 140, 141, 142, 143
11 - 12	1		132, 133, 134, 135, 136, 137
11 - 13	1	67, 68, 69, 70, 71	126, 127, 128, 129, 130, 131
11 - 14	1	72, 73, 74, 75, 76	
11 - 15	1	77, 78, 79, 80, 81	119, 120, 122, 123, 124, 125
11 - 16	1	84, 85	114, 115, 116, 117, 118
11 - 17	1	82, 83, 86, 87, 88, 89	
11 - 18	1	90, 91, 92, 94	108, 109, 110, 111, 112, 113
11 - 19	1	95, 96, 97, 98, 99	103, 104, 105, 106, 107
11 - 20	1	100, 101, 102, 161	

* Compatibility Test

Table 2. Systems Comparison
(Done for November 6, 1974)

A. Individual Stations

SYSTEM/ STATION	INTEGRATED POWER	MEAN FREQUENCY
37 RF (RF Telemetered)	34.2	7.36
37 CA (Cable System)	37.0	7.13
38 RF	30.1	7.15
38 CA	34.1	7.36
39 RF	30.4	6.98
39 CA	30.4	7.33
40 RF	31.2	7.09
40 CA	30.8	7.21
41 RF	28.6	7.05
41 CA	28.4	7.10

B. Statistics of all Stations

	INTEGRATED POWER			MEAN FREQUENCY		
	COMBINED	RADIO	CABLE	COMBINED	RADIO	CABLE
AVERAGE	31.50	30.87	32.12	7.18	7.13	7.23
SIGMA	2.74	2.08	3.41	.14	.14	.12
PERCENT	8.70	6.72	10.61	1.89	2.02	1.64
+ SIGMA	34.24	32.95	35.53	7.31	7.27	7.35
- SIGMA	28.76	28.80	28.71	7.04	6.98	7.11

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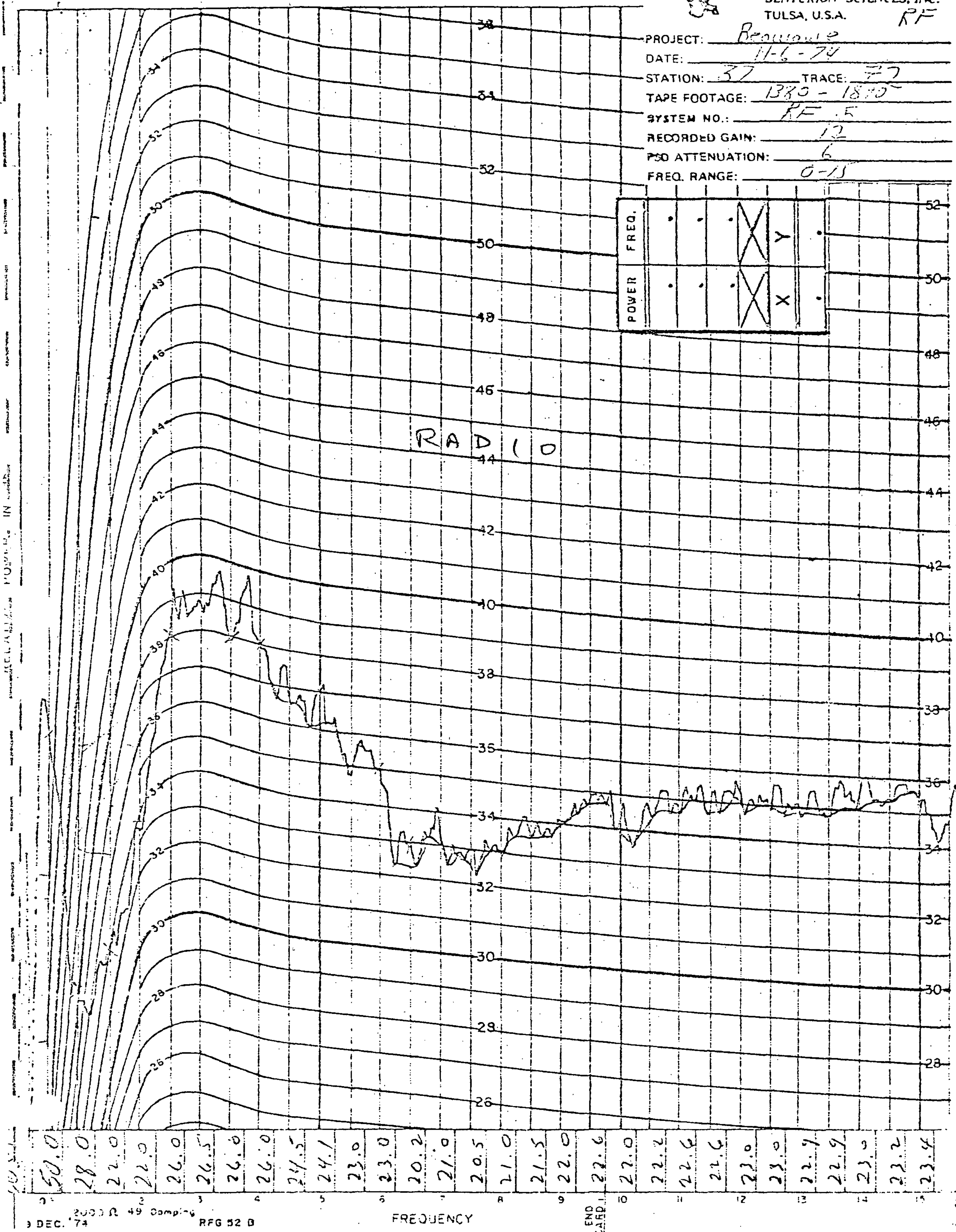
RF

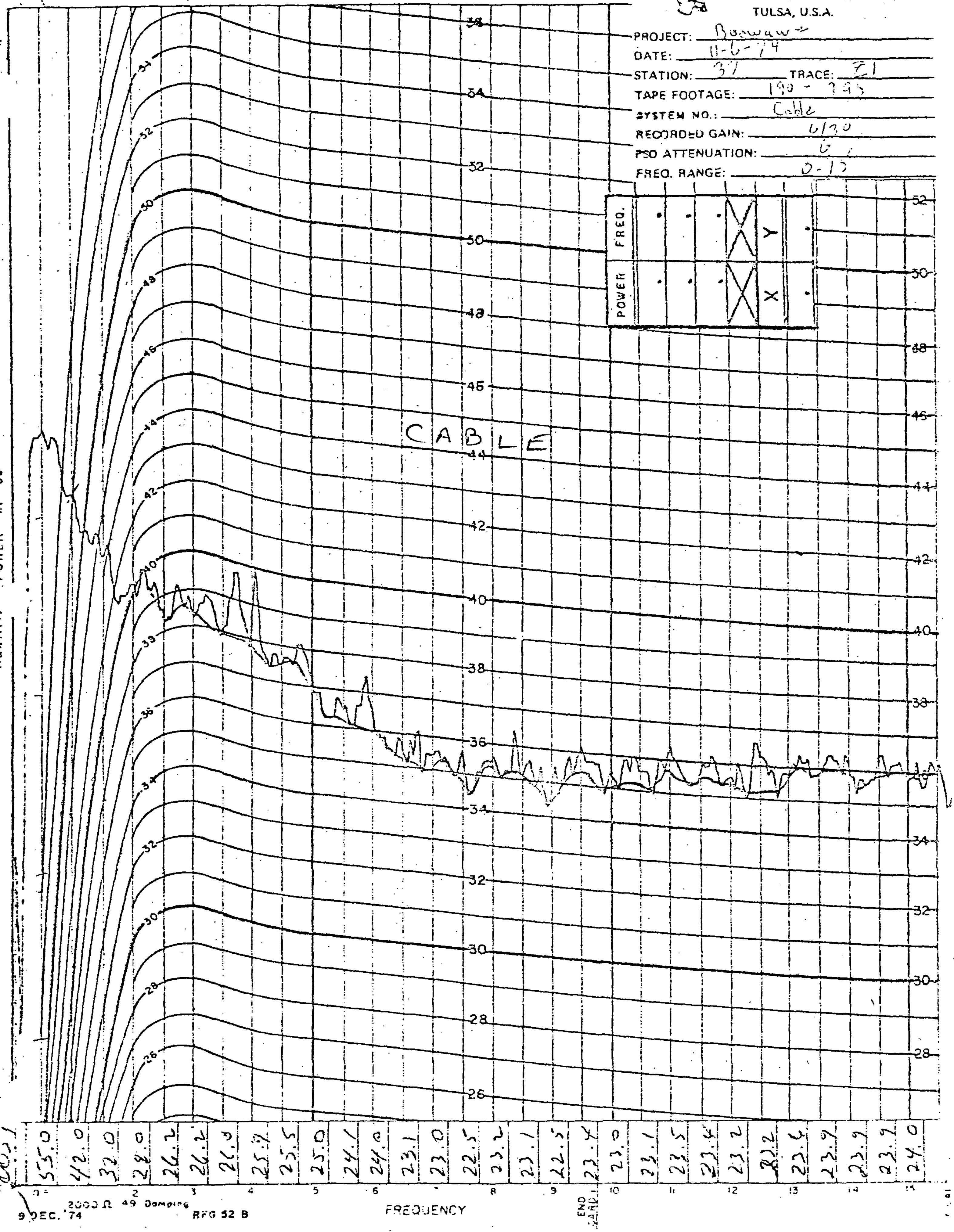
PROJECT: [illegible]
DATE: 11-6-74
STATION: 37 TRACE: #2
TAPE FOOTAGE: 1380 - 1870
SYSTEM NO.: RF 5
RECORDED GAIN: 12
PSD ATTENUATION: 6
FREQ. RANGE: 0-15



/ 12db high

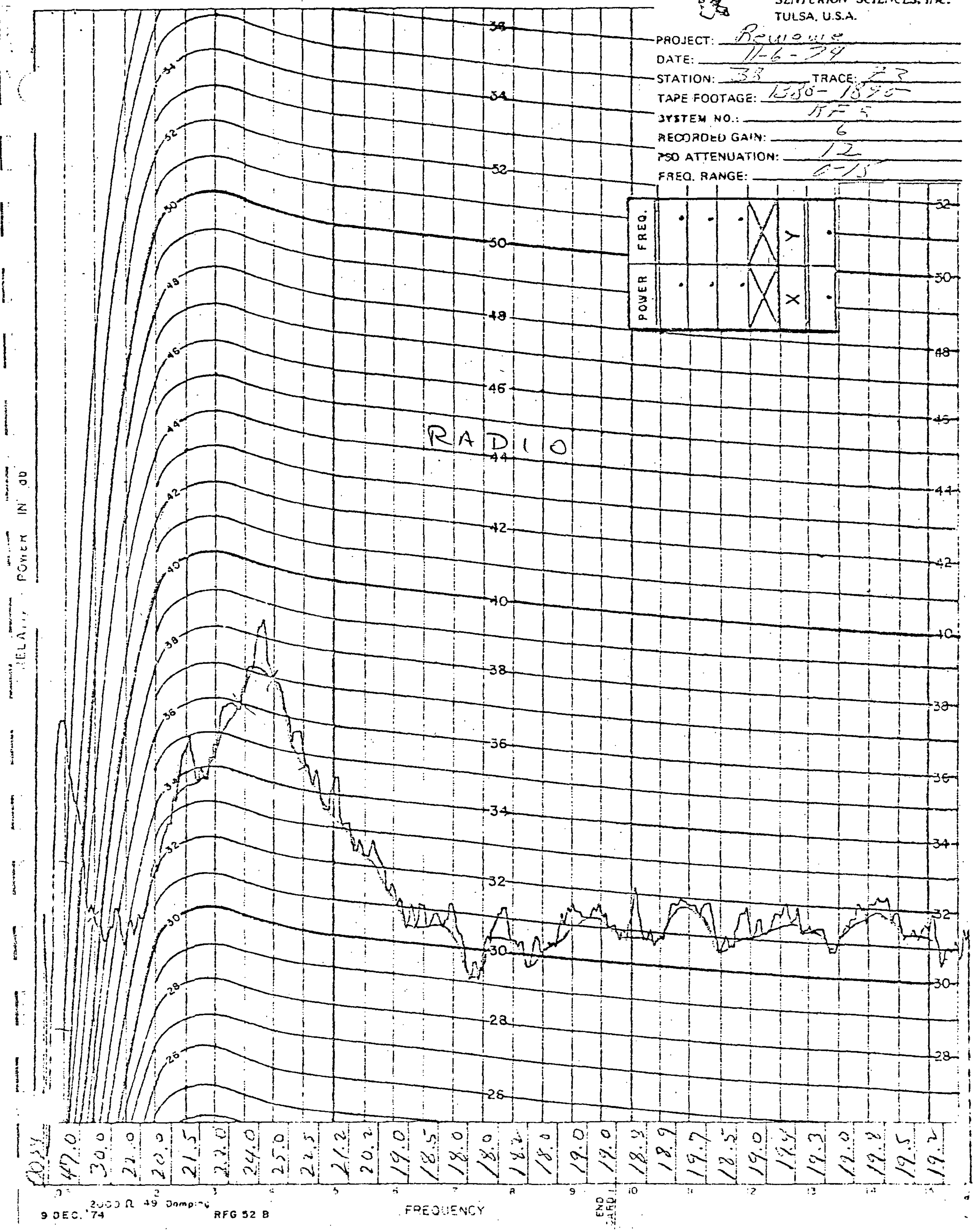
SENTURION SCIENCES, INC.
TULSA, U.S.A.

PROJECT: Boswaw-
DATE: 11-6-74
STATION: 37 TRACE: #1
TAPE FOOTAGE: 190 - 195
SYSTEM NO.: Cable
RECORDED GAIN: 6/30
PSO ATTENUATION: 0
FREQ. RANGE: 0-15



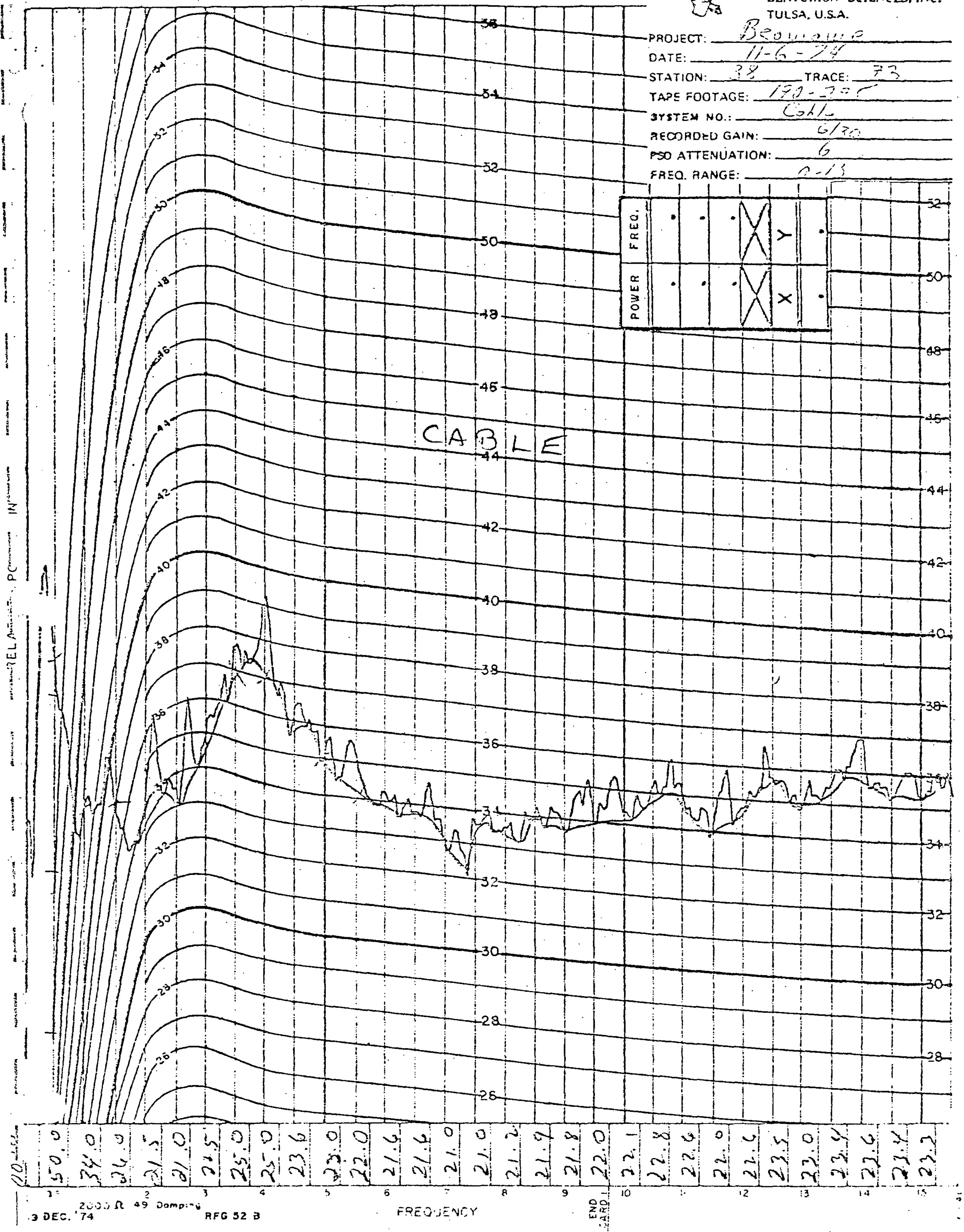
1250 1134

SENTURION SCIENCES, INC.
TULSA, U.S.A.



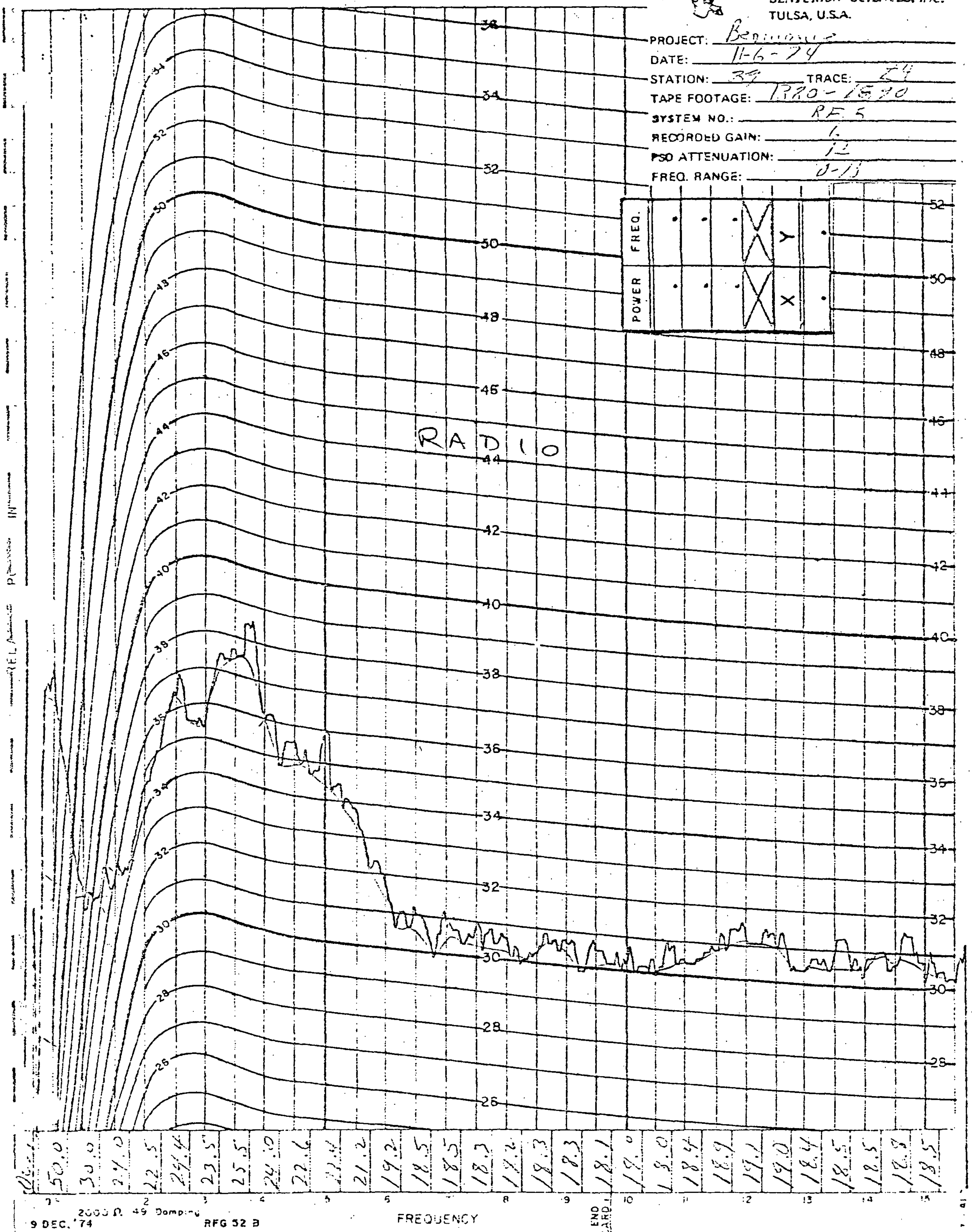
SENTURION SCIENCES, INC.
TULSA, U.S.A.

PROJECT: Browame
DATE: 11-6-74
STATION: 38 TRACE: 73
TAPE FOOTAGE: 190-275
SYSTEM NO.: Cable
RECORDED GAIN: 6/30
PSD ATTENUATION: 6
FREQ. RANGE: 0-13



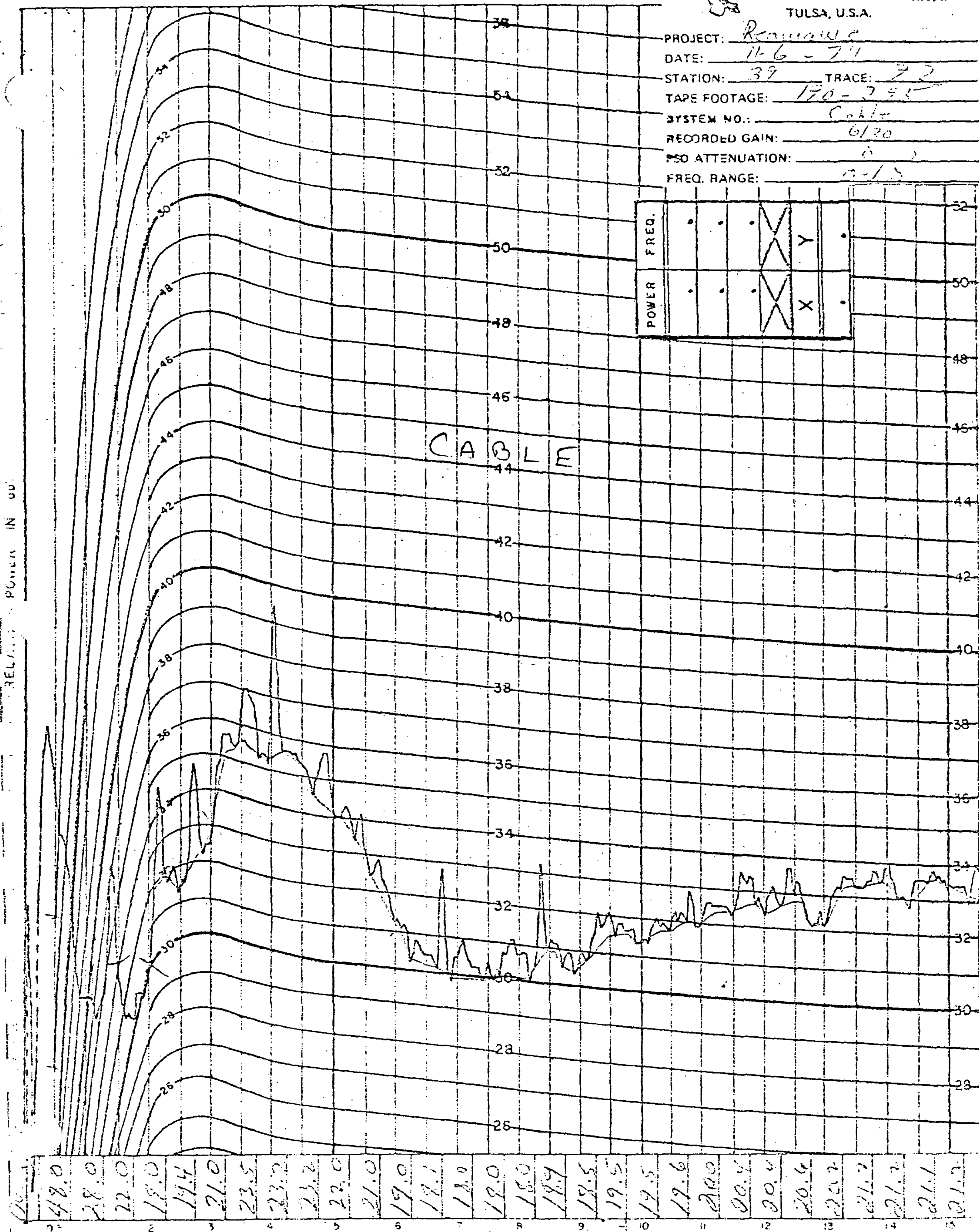
SENTURION SCIENCES, INC.
TULSA, U.S.A.

PROJECT: [illegible]
DATE: 11-6-74
STATION: 39 TRACE: 24
TAPE FOOTAGE: 1380-1590
SYSTEM NO.: RE 5
RECORDED GAIN: 1
PSO ATTENUATION: 12
FREQ. RANGE: 0-13



SENTURION SCIENCES, INC.
TULSA, U.S.A.

PROJECT:
DATE: 11-6-74
STATION: 39 TRACE: 72
TAPE FOOTAGE: 170-295
SYSTEM NO.: Cable
RECORDED GAIN: 6/20
PSD ATTENUATION:
FREQ. RANGE:

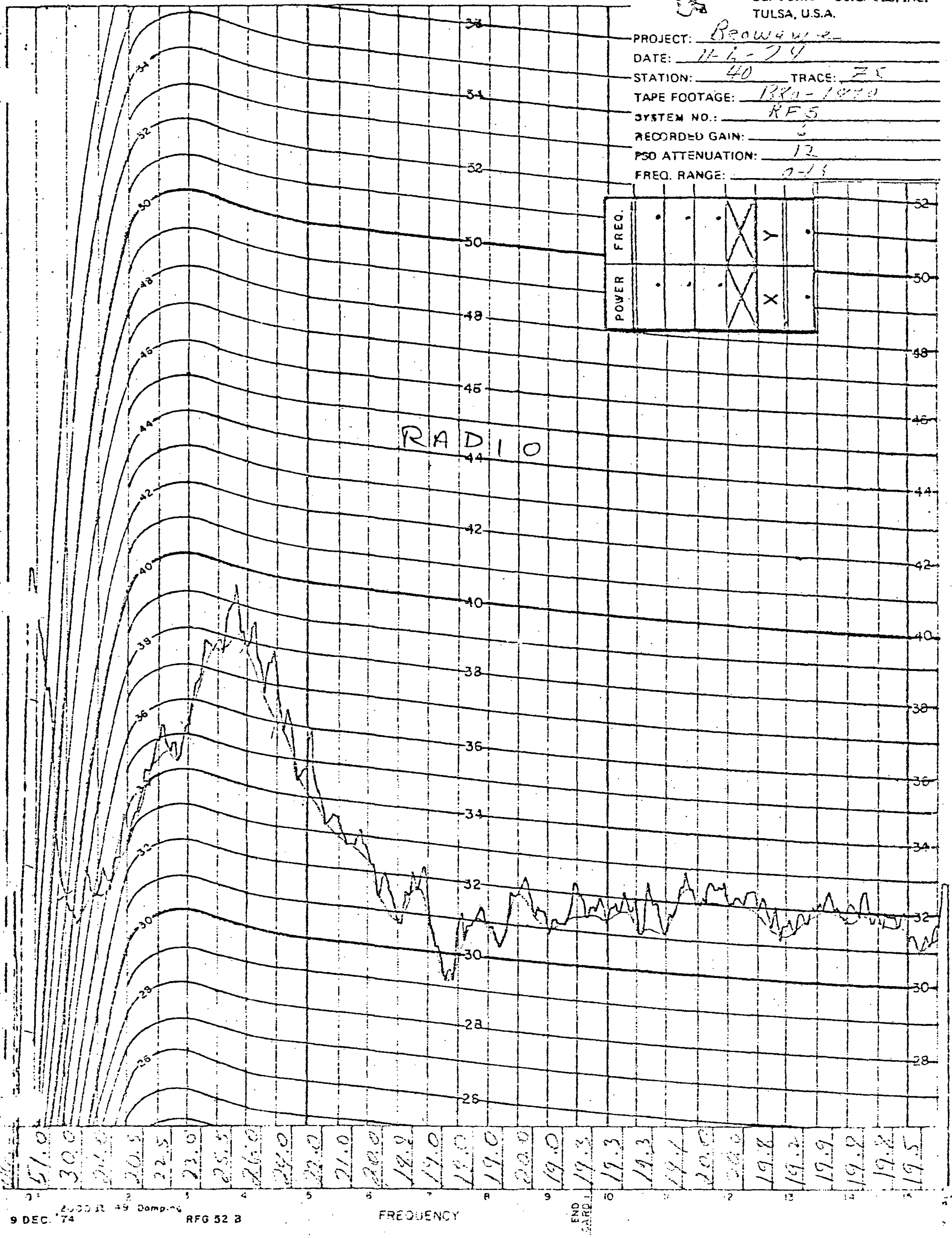


9 DEC. '74 2000 Ω 49 Damping RFG 52 B

12 db High

SENTURION SCIENCES, INC.
TULSA, U.S.A.

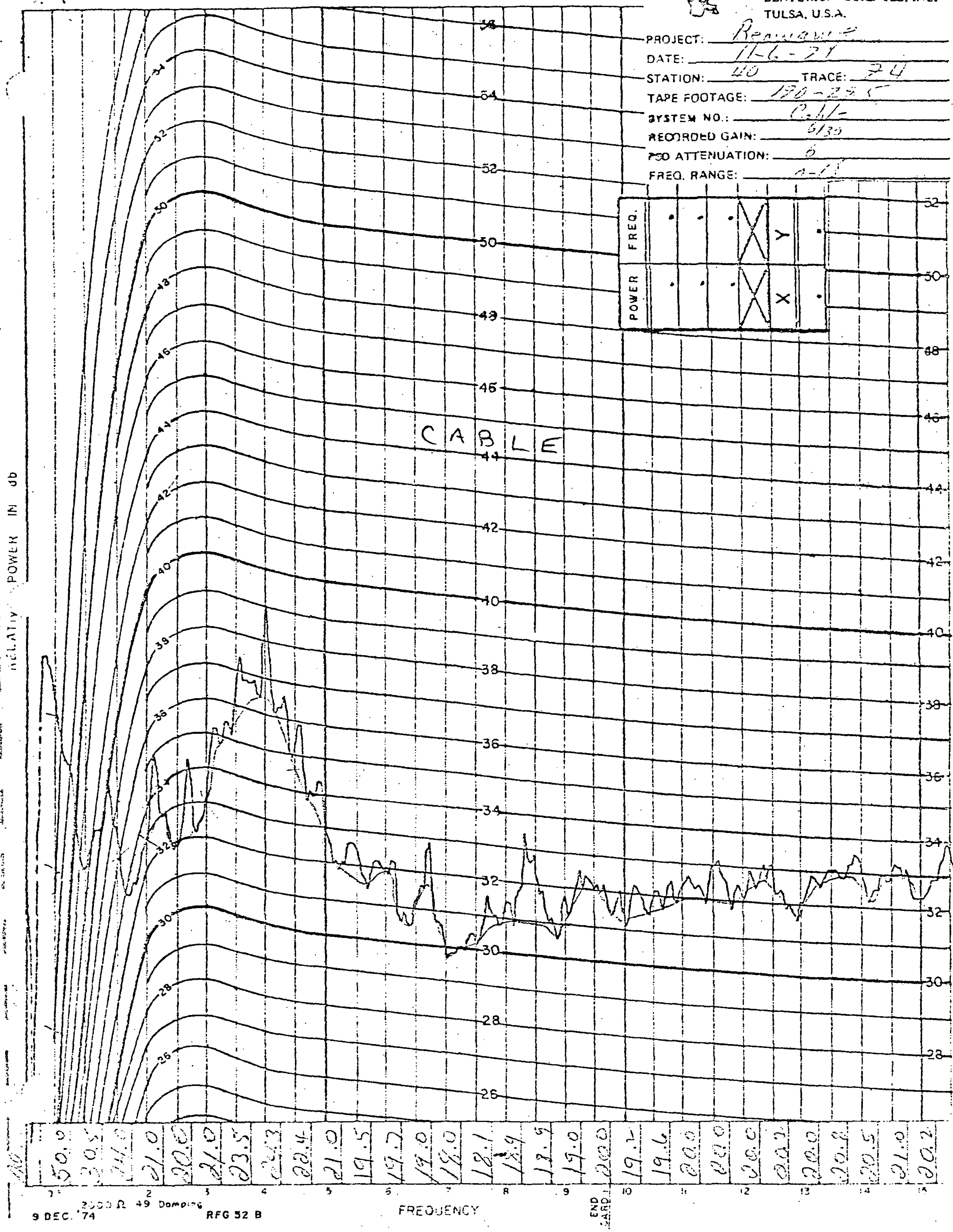
PROJECT: Beowawe
DATE: 11-6-74
STATION: 40 TRACE: Z
TAPE FOOTAGE:
SYSTEM NO.: RF5
RECORDED GAIN:
PSD ATTENUATION: 12
FREQ. RANGE:



12 db high

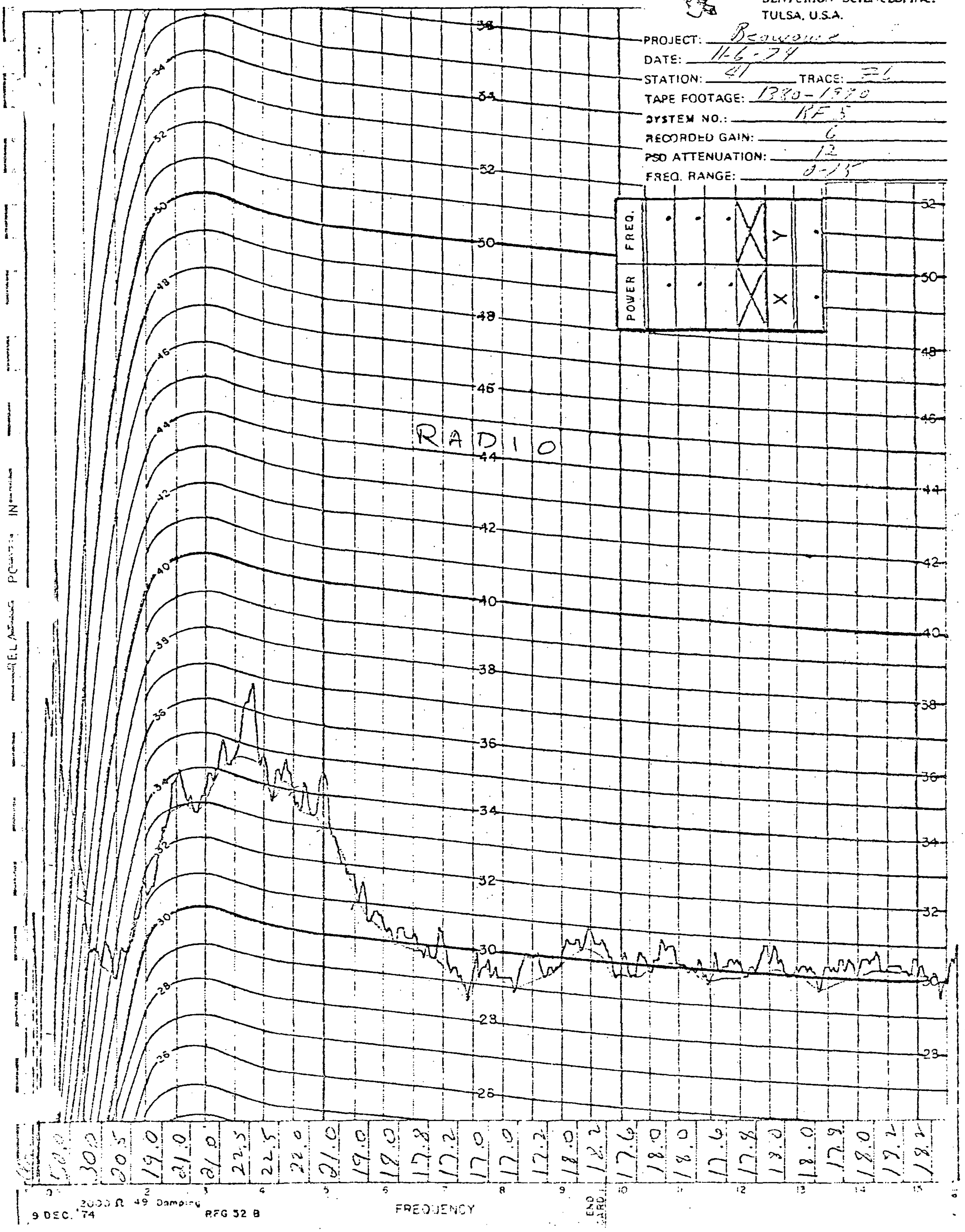
SENTURION SCIENCES, INC.
TULSA, U.S.A.

PROJECT: Renaware
DATE: 11-6-79
STATION: 40 TRACE: 7U
TAPE FOOTAGE: 190-235
SYSTEM NO.: C.W.-
RECORDED GAIN: 6/35
750 ATTENUATION: 6
FREQ. RANGE: 1-15



SENTURION SCIENCES, INC.
TULSA, U.S.A.

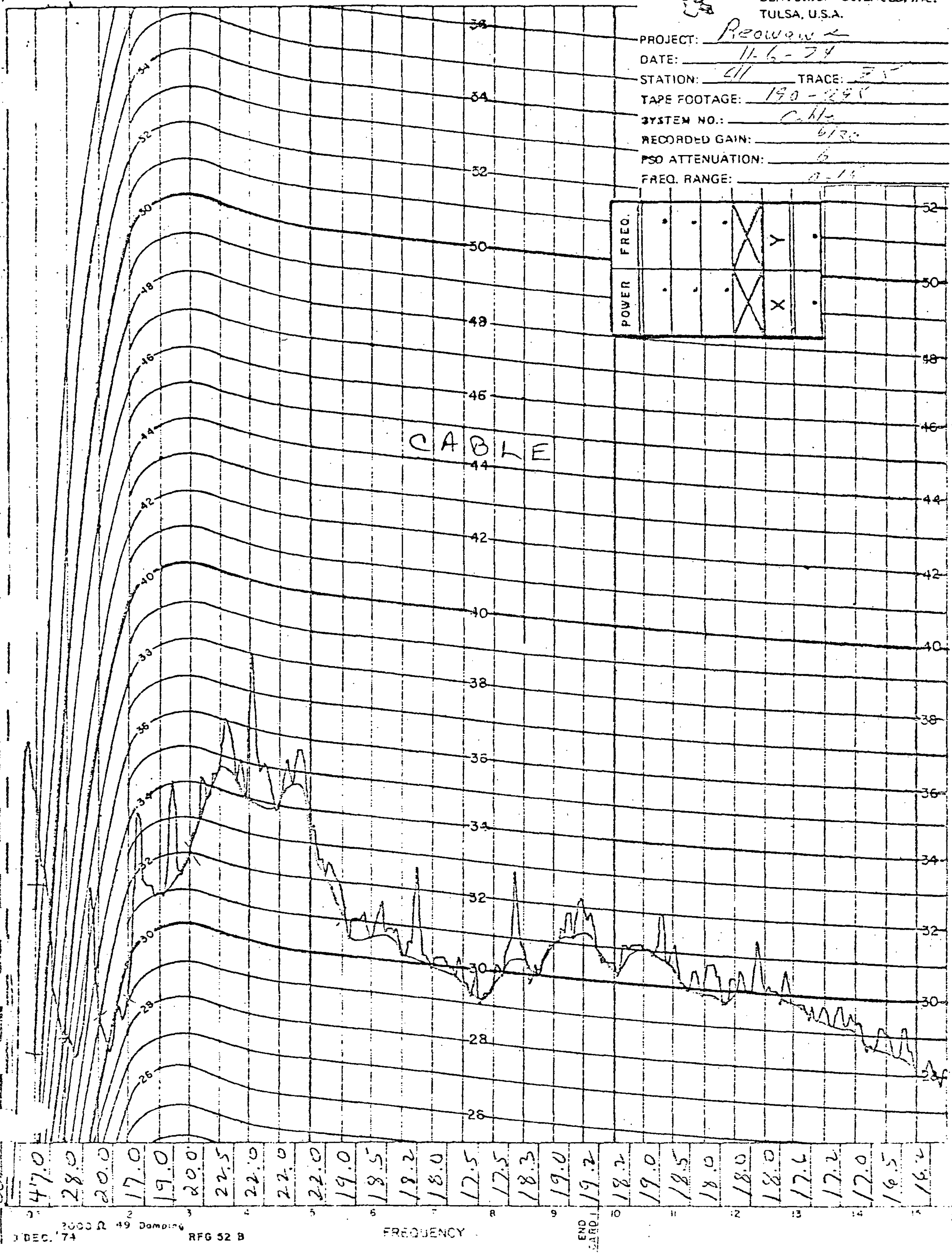
PROJECT: Beaumont
DATE: 11-6-74
STATION: 41 TRACE: 21
TAPE FOOTAGE: 1380-1970
SYSTEM NO.: RF 5
RECORDED GAIN: 6
PSD ATTENUATION: 12
FREQ. RANGE: 0-15



1220 ngn

SENTURION SCIENCES, INC.
TULSA, U.S.A.

PROJECT: Reowan 2
DATE: 11-6-74
STATION: 41 TRACE: 3
TAPE FOOTAGE: 190 - 295
SYSTEM NO.: Cable
RECORDED GAIN: 6/30
PSO ATTENUATION: 6
FREQ. RANGE: 0-15



Data Processing

This portion of the report pertains to the three bands analyzed. In the following discussion the suffix A, B, or C will designate 0.5 - 15.0 Hz., 0.5 - 7.5 Hz., 0.5 - 3.5 Hz., respectively.

After the acceptable PSD functions were selected, the information was keypunched for subsequent input to the various data reduction applications. The processing sequence follows:

1. Calculation of integrated power, mean frequency, ratio, and statistics of the base stations.

2. Calculation of the above on uncorrected stations.

3. Evaluation and selection of the control base station. This was the base station exhibiting average power characteristics during the survey. See Tables 3A, 3B, and 3C.

4. Sort of the data stations to provide proper correction sequence and factors. In the instance where no base station was available, the particular data for that day was treated as an average day.

5. Recalculation of integrated power, mean frequency, ratio, and statistics on corrected data.

6. Computer derivation of surfaces for the above parameters.

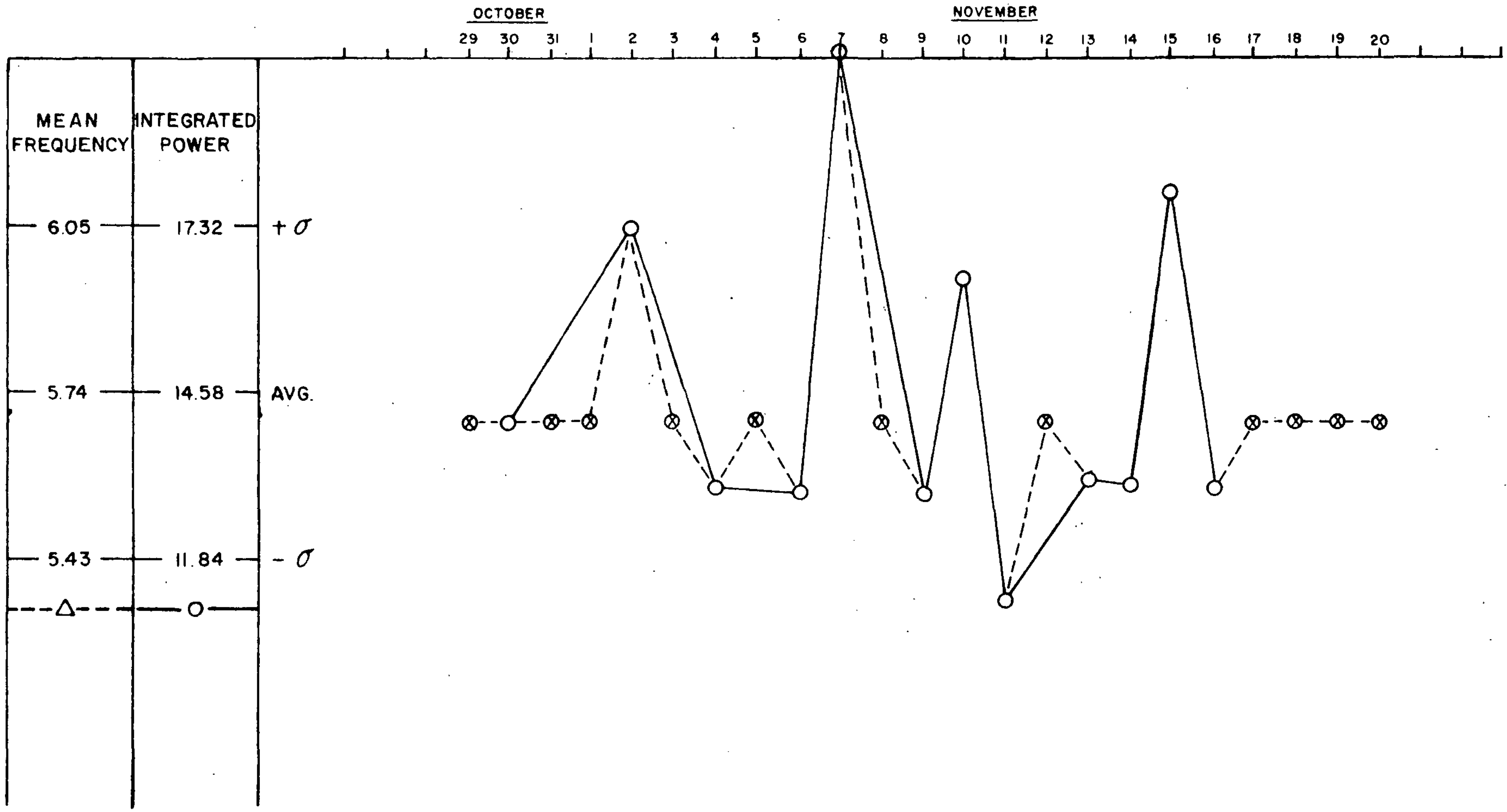
7. Contouring of the surfaces.

8. Cross section development and plot.

Computer listings for procedures 1, 2, and 5 are included in Appendix 4. Table 4 contains a statistical summary from these listings.

BEOWAWE BASE STATION I

0.5 - 15.0 Hz



—O APPARENT TREND

- - -⊗ CORRECTION TREND USING 10-30-74 STATION

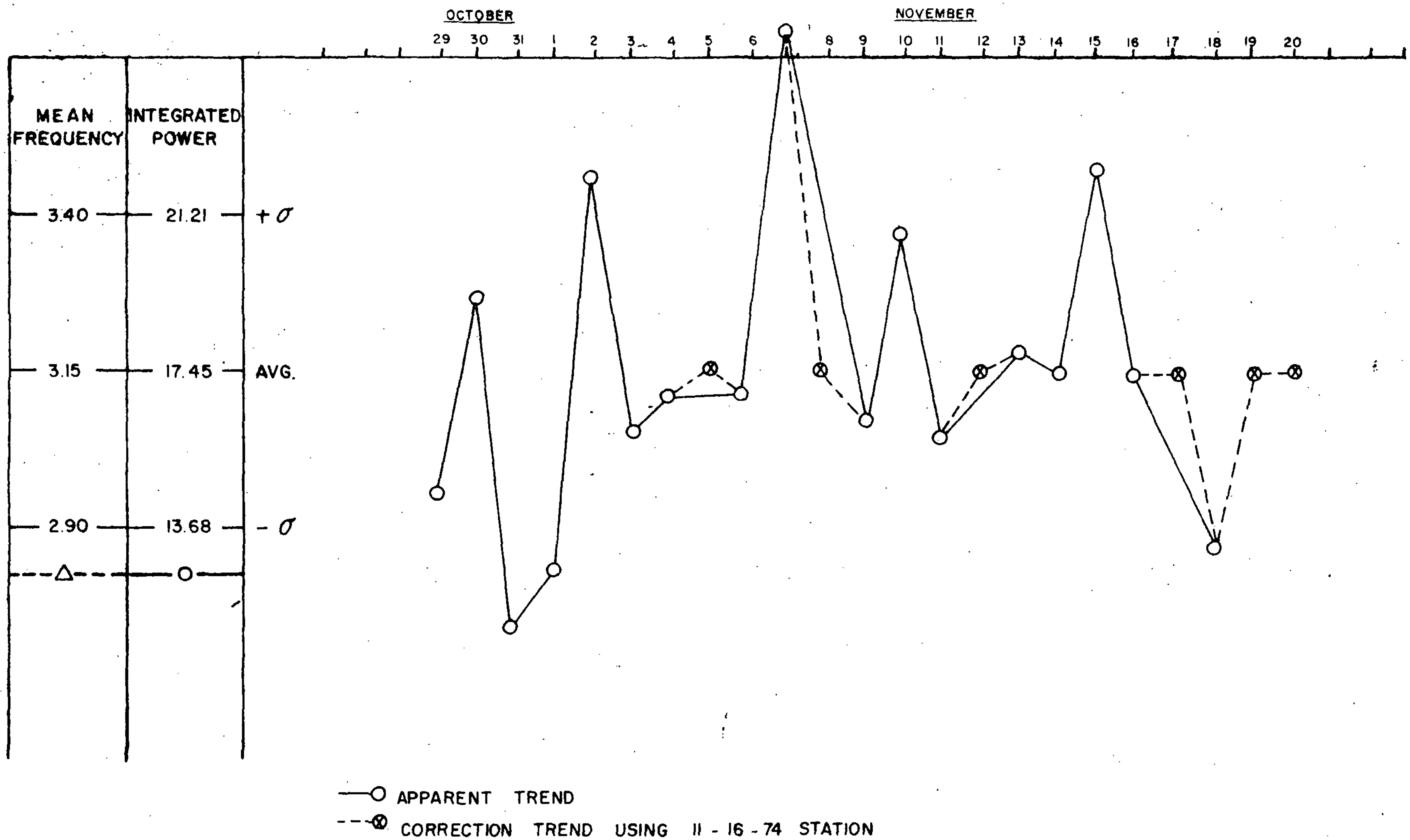
STD. DEV.	AVERAGE + 1 STD. DEV.	
2.74	INT. POWER	17.32
.31	MEAN FREQ.	6.05
	PRED. POWER	
	F. P. P.	

TABLE 3A

SENTURION SCIENCES, INC.

BEOWAWE BASE STATION I

0.5 - 7.5 Hz



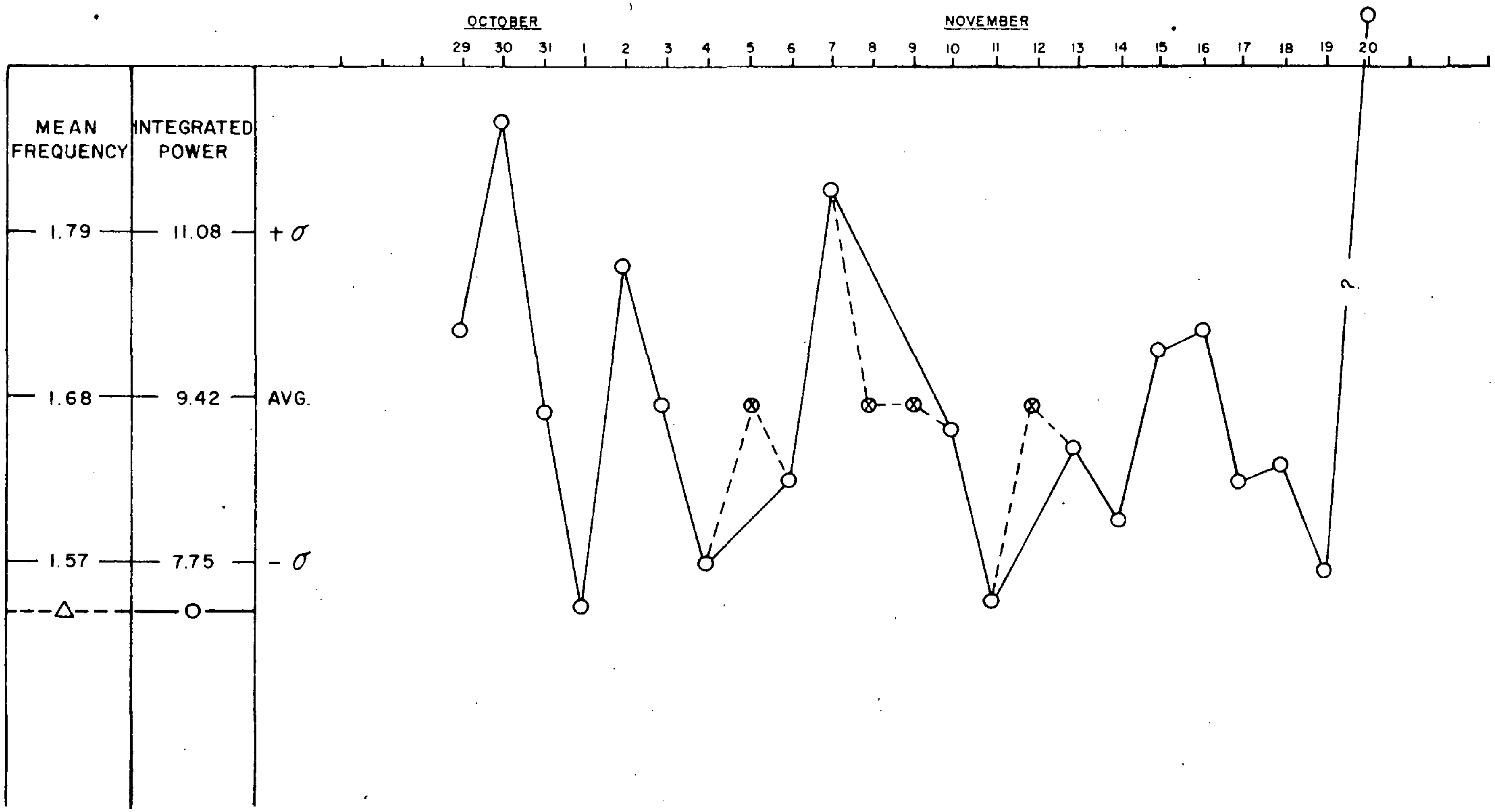
STD. DEV.	AVERAGE + 1 STD. DEV.	
3.77	INT. POWER	21.21
.25	MEAN FREQ.	3.40
	PRED. POWER	
	F. P. P.	

TABLE 3B

SENTURION SCIENCES, INC.

BEOWAWE BASE STATION I

0.5 - 3.5 Hz



—○ APPARENT CORRECTION TREND

- - ⊗ CORRECTION TREND USING 11 - 03 -74 BASE STATION

STD. DEV.	AVERAGE + 1 STD. DEV.	
1.66	INT. POWER	11.08
.31	MEAN FREQ.	1.79
	PRED. POWER	
	E.P.P.	

TABLE 3C

SENTURION SCIENCES, INC.

Table 4. Statistical Data

	A 0.5 - 15 Hz. INTEGRATED POWER	A 0.5 - 15 Hz. MEAN FREQUENCY	B 0.5 - 7.5 Hz. INTEGRATED POWER	B 0.5 - 7.5 Hz. MEAN FREQUENCY	C 0.5 - 3.5 Hz. INTEGRATED POWER	C 0.5 - 3.5 Hz. MEAN FREQUENCY
AVERAGE	14.54	5.96	17.20	3.08	9.58	1.68
STD. DEV.	4.23	.96	4.28	.39	1.67	.14
PER CENT	29.09	16.19	24.89	12.79	17.46	8.51
+ SIGMA	18.77	6.92	21.48	3.47	11.25	1.83
- SIGMA	10.31	4.99	12.92	2.69	7.91	1.54
MIN. @ STA.	5.39 @ 109	3.26 @ 123	6.18 @ 125	1.12 @ 125	4.52 @ 100	1.14 @ 100
MAX. @ STA.	24.16 @ 147	8.17 @ 147	25.29 @ 94	3.83 @ 50	14.31 @ 75	1.96 @ 76
NO. OF STATIONS	125		139		110	

STRUCTURAL INTERPRETATION

Introduction

An objective of the high-station density survey (station separations of approximately 500 feet) was to discern acoustical impedance mismatches caused by the juxtaposition of layered media of contrasting velocities and densities created by the extensive faulting known to exist in the area from surface exposures. Such acoustical impedance contrasts are indicated on cross sectional displays of Integrated Power and Mean Frequency by crossings of these computed values (Appendix 1). Crossover points can be caused by both faulting and flow fronts and are not readily distinguished from the computed data. Basalt underlying the valley floor outcrops approximately 1 1/3 mile northwest of the survey area indicating a southeastward dip to the volcanic basement surface. Individual flow units of basalt are not known nor are they distinguishable with groundnoise data. Accordingly, while flow front contacts are capable of causing acoustical impedance mismatches when in contact with less dense, lower velocity alluvial fill, they are not distinguishable from fault discontinuities and are not, therefore, mapped. All discontinuities reflected by crossovers of mean frequency and integrated power are indicated on plan maps as faults and joined in lineaments according to the general structural trends indicated by the topography and geology of the surveyed area.

Major lineaments occur in northeast-southwest trends such as the South and North Malpais Horst faults and in the northwest-southeast trending cross-faults that bound the topographic high located along the southeast corner of the surveyed area. These faults extend out into the Whirlwind Valley and apparently have possible bifurcations and numerous associated short-length segments of varying directions. Displacement direction or sense of faults is interpreted from the relation of mean frequency to integrated power. Where the mean frequency value is greater than integrated power an upthrown side is indicated; where the integrated power value exceeds mean frequency, a downthrown relationship is indicated. Measured fault displacements were not obtained from the interpreted data because accurate depth control was not established. Well log data from Chevron-ATR-GINN 1-13 well located near station #1 was examined as a depth control reference; however, the well velocity log showed considerable velocity variation for the large number of layers penetrated and the integrated power and mean frequency values computed from the power spectral density curves gave no indication of resolving the many layer parameter changes that occurred with depth. Senturion is currently in the process of combining telluric measurements with groundnoise measurements to provide more accurate determination of the depth function. Extreme northwest ends of cross sections G, M, F, and E for the 0.5 to 15 Hz and 0.5 to 7.5 Hz shown mean frequency values greater than integrated power values and with MF values having upward slopes which may be indicative of thinning of the alluvial layer toward the northwest where the known outcrops of basalt occurs. Alluvial thickness appears to be less than 1,000 feet within the valley and thinning of fill material is indicated toward the northwest.

Frequency Band Fault Mapping

Fault maps were prepared from integrated power and mean frequency computations in the frequency band .5 to 15 Hz., .5 to 15 Hz., and .5 to 3.5 Hz. Fault locations are indicated on the fault maps as double lines implying the limits of resolution of the method. Since station separation is approximately 500 feet fault location accuracies can be no less than that value. Accordingly, actual fault locations may occur anywhere between the two stations whose measured values were used in computing the integrated power - mean frequency values.

0.5 to 15 Hz. Band Fault Delineations

Figure 3A shows faults mapped from IP/MF data in the frequency band .5 to 15 Hz. As previously mentioned major fault lineations were selected on the geologic-topographic reasonableness of structures and with consideration of the sense of fault displacement as indicated by the integrated power-mean frequency values measured on cross sections. The North and South Malpais Horst faults define the upthrown blocks along the southeast border of the area surveyed. The Southwest Cross Fault splits the horst block with the upthrown eastern portion forming the prominent topographic high of basaltic andesite. This cross fault extends out into Whirlwind Valley where it may have two or possibly three branches. The region of intersection of the North Malpais Horst Fault (NMHF) and the Southwest Cross Fault (SWCF) is not adequately resolved which may result from severe scattering and attenuation of seismic energy. The region along NMHF between stations 118 and 119 (Profile MM') has a reversal of fault displacement. This area is also an anomalous area, hence, power and frequency values may be affected to the extent that structural interpretation is obviated. The Northwest Cross Fault (NWCF) bounds the horst block on the northeast and extends northwestward into Whirlwind Valley.

Areas of geothermal interest are around stations 114, 116, and 117 where the major fault NMHF intersects the anomalous area shown in Figure 3A, and associated with the extension of the major fault, SMHF, at stations 74, 76, and 85 where an intersection of the fault occurs with the anomalies mapped for each of the three frequency bands.

0.5 to 7.5 Hz. Band Fault Delineations

The four major faults delineated by the 0.5 to 15 Hz. band are again delineated on the map shown in Figure 3B. The intersection of the Southwest Cross Fault (SWCF) and the North Malpais Horst Fault (NMHF) remains unresolved and the possible branching of SWCF is more complicated with a graben structure indicated between the two branches north of NWHF. The Northeast Cross Fault is again defined as is the short fault to the northeast. The displacement sense change occurs again between stations 118 and 119 where a geothermal anomaly exists.

More numerous short-length faults occur over the surveyed area. If it can be considered that this lower frequency band samples deeper structure, the implication is that deeper layers of andesitic material may be more extensively fractured than the overlying basaltic material; however, the acoustical impedance differences between basalt and andesite are not considered to be substantially different and therefore differences in quantity and direction of faulting probably not discernible.

Geothermal areas of interest are near station 5 where the fault zone intersects an anomalous area (Figure 2) and stations 85, 75, 74, and 73 where the major South Malpais Horst Fault intersects the four station anomaly.

0.5 to 3.5 Hz. Band Fault Delineations

Three of the major faults are demarked from computations of data in the 0.5 to 3.5 Hz. band (Figure 3C). The Northeast Cross Fault is not defined owing to nonlinearities in narrowband data for stations in the northeast section of the area surveyed. Accordingly, these stations were deleted from the data base. Inversion of displacement sense along portions of the South Malpais Horst Fault is not easily explained. If the longer wavelength waves of this low-frequency band sample deeper layers, more complicated relative movements may occur along the fault zone. Variation in directions of short segment faults also occur compared to directions indicated for similar faults shown on the two previous fault delineation maps. No ready explanation other than the previous statement can be made at this time. It is believed that this narrow, low frequency band is the one most likely to be composed of surface waves and, therefore, contain less contribution of energy from body waves. Accordingly, the band has the potential for sampling deeper structure, and, therefore, capable of sensing more accurately the direction of displacements of faults at greater depths. This hypothesis has not been adequately verified and is, at this time, only supposition.

Geothermal areas of interest in the extreme southwest corner of the area surveyed. Stations 65, 76, 75, and 99 are associated with the probable intersection of the South Malpais Horst Fault and warrant further study by other geophysical methods. The 0.5 to 3.5 Hz. anomaly around stations 83 and 89 may be related to extensions of the numerous faults detected in that area and also warrants further examination. verb?

ANOMALOUS AREAS

The Anomalous Areas Composite, Figure 2, indicates three major areas of interest.

1. Northern Anomaly - located in the center of sec. 18, T. 31 N., R. 48 E, (Stations 105, 106, 128, 114, 116, and 117), is situated due west of the hot spring and The Geysers and north of the topographic high in the southeastern quarter of sec. 18. Parameters of coinci-

dence at mean +1 standard deviation include 0.5 - 15.0 Hz IP and MF, 0.5 - 7.5 Hz. IP. and 0.5 - 3.5 Hz IP. The proximity to the surface geothermal manifestations are favorable indications of a local heat/energy source at depth. The anomalous zone can also be related to the North Malpais Horst Fault and the Northeast Cross Fault that are delineated by groundnoise.

2. Western Anomaly - on the western border of the survey, sec. 13, T. 31 N., R. 47 E. (stations 5 and 51). This anomaly has expression on the low-lying relatively flat expanse of alluvium in the center of Whirlwind Valley. Characteristics exceeding mean +1 standard deviation are 0.5 - 15.0 Hz IP, 0.5 - 7.5 Hz IP and MF. The lower frequency spectra possibly reflect a thicker alluvial accumulation in this area which filters the higher frequencies. The anomaly may be associated with an east-west trending cross fault bounding the topographic high on the south.

3. The Southern Anomaly - found in the southeast quarter of sec. 24, T. 31 N., R. 47 E., (stations 83, 88, and 89 and stations 74, 75, 76, 85, and 99). Anomalous groundnoise conditions encompass most of the southern tip of the survey. All parameters (0.5 - 15.0 Hz IP and MF, 0.5 - 7.5 Hz IP and MF, and 0.5 - 3.5 Hz IP and MF) are indicated anomalous at Stations 76 and 89, with 74, 75, and 88 anomalous through five of the parameters. This high coincidence establishes the very interesting possibility of a separate geothermal reservoir untapped by prior drilling if the surface manifestations to the northeast are associated with the source underlying the Northern Anomaly. Again, association with the apparent northeast-southwest trending South Malpais Horst Fault is indicated adding credence to the possibility of a potential productive geothermal source.

COMMENTS - RECOMMENDATIONS

1. The survey exhibits "edge anomalies"; however, examination of specific station values confirms the fact that anomalous conditions are indeed present. Furthermore, the validity of such anomalies is reinforced by the detected presence of fault systems with linear trend relations to surface geothermal manifestations and high temperature measurements resulting from drilling.

2. The Southern Anomaly, with its high coincidence of anomalous parameters, is a primary area of interest. Additional work is recommended. Heat flow test holes and a resistivity survey would give further indications of the geothermal potential in this specific locale.

3. The GINN 1-13 well location and Station 1 are situated north of a 0.5 - 3.5 Hz integrated power high near the intersection of two fault systems (SWCF and NMHF) but not in an indicated anomalous area.

4. Isolated single-station anomalies are evident on the various anomaly maps some of which correlate with fault structures determined from acoustic impedance differences.

5. All station data has been saved for additional processing if required.

BEOWAWE

THE FOLLOWING ARE PERCENTAGE DEVIA

STATISTICS AND DEVIATIONS

0.5 - 15.0 Hz

	INTEGRATED		MEAN		PREDOMINANT				
STA.	POWER	PCDEV.	FREQ.	PCDEV.	POWER	PCDEV.	FREQ.	PCDEV.	POWER
0001	12.8	-11.9	5.42	-9.2	-0.0	0.0	-0.00	0.0	.423
0002	14.5	-.2	5.02	-15.8 10-30	-0.0	0.0	-0.00	0.0	.346
0005	19.1	31.5	6.37	6.8	-0.0	0.0	-0.00	0.0	.333
0006	15.4	6.1	5.65	-5.2	-0.0	0.0	-0.00	0.0	.366
0008	12.4	-14.8	5.14	-13.7	-0.0	0.0	-0.00	0.0	.415
0003	12.9	-11.5	4.98	-16.5	-0.0	0.0	-0.00	0.0	.387
0009	10.5	-27.8	5.75	-3.5	-0.0	0.0	-0.00	0.0	.548
0013	11.0	-24.1	5.26	-11.8	-0.0	0.0	-0.00	0.0	.476
0014	9.5	-34.8	4.44	-25.6	-0.0	0.0	-0.00	0.0	.468
0015	11.1	-23.8	5.35	-10.2	-0.0	0.0	-0.00	0.0	.483
0023	17.8	22.6	6.28	5.3	-0.0	0.0	-0.00	0.0	.352
0024	17.8	22.4	6.35	6.4	-0.0	0.0	-0.00	0.0	.357
0025	12.4	-14.7	4.64	-22.2	-0.0	0.0	-0.00	0.0	.374
0027	12.0	-17.4	4.91	-17.7	-0.0	0.0	-0.00	0.0	.409
0031	15.9	9.0	6.21	4.1	0.0	0.0	0.00	0.0	.392
0033	13.2	-9.4	5.68	-4.8	0.0	0.0	0.00	0.0	.431
0034	17.4	19.9	6.22	4.2	0.0	0.0	0.00	0.0	.357
0035	9.3	-36.0	5.97	.2	0.0	0.0	0.00	0.0	.641
0036	16.9	16.5	6.55	9.8	0.0	0.0	0.00	0.0	.386
0047	14.8	1.5	5.85	-1.9	0.0	0.0	0.00	0.0	.396
0048	15.5	6.7	5.95	-.2	0.0	0.0	0.00	0.0	.384
0049	11.9	-18.1	5.51	-7.6	0.0	0.0	0.00	0.0	.463
0050	20.3	39.8	6.91	15.8	0.0	0.0	0.00	0.0	.340
0051	17.5	20.6	6.30	5.6	0.0	0.0	0.00	0.0	.359
0133	9.3	-35.4	6.87	15.2	-0.0	0.0	-0.00	0.0	.743
0134	12.4	-15.0	6.82	14.4	-0.0	0.0	-0.00	0.0	.552
0135	11.6	-20.0	7.23	21.3	-0.0	0.0	-0.00	0.0	.622
0136	13.7	-5.5	6.13	2.8	-0.0	0.0	-0.00	0.0	.446
0082	14.8	1.7	5.66	-5.1	-0.0	0.0	-0.00	0.0	.382
0083	15.4	6.0	5.39	-9.6	-0.0	0.0	-0.00	0.0	.350
0087	16.6	14.4	5.98	.2	-0.0	0.0	-0.00	0.0	.359
0088	24.1	65.7	7.65	28.3	-0.0	0.0	-0.00	0.0	.318
0089	20.7	42.7	6.92	16.0	-0.0	0.0	-0.00	0.0	.333
0090	13.3	-8.8	5.05	-15.3	-0.0	0.0	-0.00	0.0	.381
0092	14.2	-2.6	5.25	-12.0	-0.0	0.0	-0.00	0.0	.370
0094	18.1	24.8	6.29	5.5	-0.0	0.0	-0.00	0.0	.347
0108	11.7	-19.8	6.51	9.2	-0.0	0.0	-0.00	0.0	.558
0109	5.3	-63.5	3.85	-35.4	-0.0	0.0	-0.00	0.0	.726
0110	12.8	-11.7	7.02	17.7	-0.0	0.0	-0.00	0.0	.547
0111	15.4	6.1	6.69	12.2	-0.0	0.0	-0.00	0.0	.434
0112	12.5	-14.0	6.82	14.4	-0.0	0.0	-0.00	0.0	.545
0113	18.3	25.8	6.50	8.9	-0.0	0.0	-0.00	0.0	.355
0095	11.7	-19.3	5.45	-8.6	-0.0	0.0	-0.00	0.0	.464
0096	14.1	-3.1	6.49	8.9	-0.0	0.0	-0.00	0.0	.461
0097	11.5	-21.2	5.10	-14.5	-0.0	0.0	-0.00	0.0	.445
0099	18.1	24.7	6.73	12.9	-0.0	0.0	-0.00	0.0	.371
0103	13.9	-4.2	7.57	27.0	-0.0	0.0	-0.00	0.0	.543
0104	17.6	20.9	7.60	27.5	-0.0	0.0	-0.00	0.0	.432
0105	20.7	42.1	7.27	22.0	-0.0	0.0	-0.00	0.0	.352
0106	22.7	55.8	6.89	15.5	-0.0	0.0	-0.00	0.0	.304
0107	18.0	23.9	6.46	8.4	-0.0	0.0	-0.00	0.0	.359
0100	10.3	-29.2	5.56	-6.7	-0.0	0.0	-0.00	0.0	.540
0101	13.9	-4.7	5.14	-13.8	-0.0	0.0	-0.00	0.0	.371
0102	15.8	8.9	5.63	-5.5	-0.0	0.0	-0.00	0.0	.356
0161	20.3	39.7	6.57	10.2	-0.0	0.0	-0.00	0.0	.324

0107	18.0	23.9	6.46	8.4		-0.0	0.0	-0.00	0.0	.359
0100	10.3	-29.2	5.56	-6.7		-0.0	0.0	-0.00	0.0	.540
0101	13.9	-4.7	5.14	-13.8		-0.0	0.0	-0.00	0.0	.371
0102	15.8	8.9	5.63	-5.5		-0.0	0.0	-0.00	0.0	.356
0161	20.3	39.7	6.57	10.2		-0.0	0.0	-0.00	0.0	.324
0018	15.8	8.5	5.64	-5.5		-0.0	0.0	-0.00	0.0	.357
0019	17.5	20.5	5.99	.5	11-2	-0.0	0.0	-0.00	0.0	.342
0020	14.6	.8	5.38	-9.8		-0.0	0.0	-0.00	0.0	.367
0021	11.8	-19.0	4.55	-23.8		-0.0	0.0	-0.00	0.0	.386
0022	13.0	-10.3	5.19	-13.0		-0.0	0.0	-0.00	0.0	.398
0028	14.3	-1.6	5.21	-12.6		0.0	0.0	0.00	0.0	.364
0030	13.8	-5.1	4.76	-20.2	11-4	0.0	0.0	0.00	0.0	.345
0032	11.8	-18.8	4.87	-18.4		0.0	0.0	0.00	0.0	.412
0037	19.1	31.4	7.05	18.2		0.0	0.0	0.00	0.0	.369
0038	18.4	26.4	7.05	18.2	11-6	0.0	0.0	0.00	0.0	.383
0039	15.6	7.6	6.30	5.6		0.0	0.0	0.00	0.0	.402
0040	14.5	-.6	6.39	7.2		0.0	0.0	0.00	0.0	.442
0041	17.1	17.7	6.88	15.5		0.0	0.0	0.00	0.0	.402
0042	13.3	-8.4	5.77	-3.2		0.0	0.0	0.00	0.0	.434
0043	13.2	-9.5	5.56	-6.7	11-7	0.0	0.0	0.00	0.0	.423
0044	14.2	-2.4	5.34	-10.4		0.0	0.0	0.00	0.0	.376
0045	12.7	-12.5	5.05	-15.4		0.0	0.0	0.00	0.0	.397
0046	13.6	-6.5	5.25	-12.0		0.0	0.0	0.00	0.0	.386
0156	6.7	-53.6	4.88	-18.2		-0.0	0.0	-0.00	0.0	.723
0158	10.4	-28.1	5.61	-6.0		-0.0	0.0	-0.00	0.0	.537
0160	6.1	-57.8	4.84	-18.9		-0.0	0.0	-0.00	0.0	.788
0053	15.5	6.3	5.49	-8.0		0.0	0.0	0.00	0.0	.355
0054	12.7	-12.8	5.14	-13.8	11-9	0.0	0.0	0.00	0.0	.405
0154	13.2	-8.9	5.30	-11.1		-0.0	0.0	-0.00	0.0	.400
0057	9.5	-34.9	5.45	-8.7		0.0	0.0	0.00	0.0	.575
0058	12.6	-13.2	5.31	-10.9	11-10	0.0	0.0	0.00	0.0	.421
0060	10.6	-27.2	4.54	-23.9		0.0	0.0	0.00	0.0	.429
0061	13.6	-6.2	5.95	-.2		0.0	0.0	0.00	0.0	.437
0144	8.0	-45.2	4.87	-18.3		-0.0	0.0	-0.00	0.0	.611
0147	24.2	66.2	8.17	37.0		-0.0	0.0	-0.00	0.0	.338
0148	7.0	-51.8	3.69	-38.2		-0.0	0.0	-0.00	0.0	.526
0065	15.0	3.2	6.27	5.1		0.0	0.0	0.00	0.0	.417
0066	12.7	-12.8	6.03	1.1	11-11	0.0	0.0	0.00	0.0	.476
0138	9.3	-36.1	4.35	-27.0		-0.0	0.0	-0.00	0.0	.468
0139	12.0	-17.2	6.36	6.6		-0.0	0.0	-0.00	0.0	.528
0140	14.9	2.5	6.61	10.8		-0.0	0.0	-0.00	0.0	.443
0141	10.8	-25.9	5.73	-3.9		-0.0	0.0	-0.00	0.0	.532
0142	12.5	-13.9	5.98	.3		-0.0	0.0	-0.00	0.0	.478
0067	13.9	-4.3	5.77	-3.2		-0.0	0.0	-0.00	0.0	.415
0068	11.5	-20.7	5.68	-4.8	11-13	-0.0	0.0	-0.00	0.0	.492
0069	17.8	22.5	6.05	1.5		-0.0	0.0	-0.00	0.0	.340
0071	16.2	11.2	5.95	-.2		-0.0	0.0	-0.00	0.0	.368
0126	11.6	-20.3	6.90	15.8		-0.0	0.0	-0.00	0.0	.596
0127	13.3	-8.8	7.32	22.8		-0.0	0.0	-0.00	0.0	.552
0128	19.3	32.5	7.69	29.0		-0.0	0.0	-0.00	0.0	.399
0129	17.8	22.5	7.07	18.6		-0.0	0.0	-0.00	0.0	.397
0130	12.9	-11.0	7.01	17.5		-0.0	0.0	-0.00	0.0	.541
0131	7.5	-48.1	4.01	-32.7		-0.0	0.0	-0.00	0.0	.532
0072	15.4	5.7	5.23	-12.3		-0.0	0.0	-0.00	0.0	.340
0073	15.6	7.2	5.36	-10.1	11-14	-0.0	0.0	-0.00	0.0	.344
0074	23.3	60.5	7.11	19.2		-0.0	0.0	-0.00	0.0	.305
0075	21.6	48.5	6.55	9.9		-0.0	0.0	-0.00	0.0	.303
0076	23.9	64.1	7.03	18.0		-0.0	0.0	-0.00	0.0	.295
0077	14.0	-3.9	5.89	-1.2		-0.0	0.0	-0.00	0.0	.422
0078	12.9	-11.2	6.03	1.2	11-15	-0.0	0.0	-0.00	0.0	.467
0079	13.5	-7.1	5.38	-9.7		-0.0	0.0	-0.00	0.0	.399
0080	14.6	.7	5.93	-.5		-0.0	0.0	-0.00	0.0	.405
0081	14.5	-.0	5.49	-7.9		-0.0	0.0	-0.00	0.0	.377
0119	15.0	3.2	7.81	31.0		-0.0	0.0	-0.00	0.0	.521

[illegible]	7.5	-48.1	4.01	-32.7		-0.0	0.0	-0.00	0.0	.53
0072	15.4	5.7	5.23	-12.3		-0.0	0.0	-0.00	0.0	.34
0073	15.6	7.2	5.36	-10.1	11-14	-0.0	0.0	-0.00	0.0	.34
0074	23.3	60.5	7.11	19.2		-0.0	0.0	-0.00	0.0	.30
0075	21.6	48.5	6.55	9.9		-0.0	0.0	-0.00	0.0	.30
0076	23.9	64.1	7.03	18.0		-0.0	0.0	-0.00	0.0	.29
0077	14.0	-3.9	5.89	-1.2		-0.0	0.0	-0.00	0.0	.42
0078	12.9	-11.2	6.03	1.2	11-15	-0.0	0.0	-0.00	0.0	.46
0079	13.5	-7.1	5.38	-9.7		-0.0	0.0	-0.00	0.0	.39
0080	14.6	.7	5.93	-.5		-0.0	0.0	-0.00	0.0	.40
0081	14.5	-.0	5.49	-7.9		-0.0	0.0	-0.00	0.0	.37
0119	15.0	3.2	7.81	31.0		-0.0	0.0	-0.00	0.0	.52
0120	7.5	-48.4	6.37	6.9		-0.0	0.0	-0.00	0.0	.84
0122	7.4	-49.0	4.79	-19.7		-0.0	0.0	-0.00	0.0	.64
0123	5.3	-63.3	3.26	-45.4		-0.0	0.0	-0.00	0.0	.60
0124	7.3	-49.6	4.86	-18.5		-0.0	0.0	-0.00	0.0	.66
0084	20.2	38.8	6.30	5.7		-0.0	0.0	-0.00	0.0	.31
0085	20.6	41.8	6.22	4.3	11-16	-0.0	0.0	-0.00	0.0	.30
0114	23.1	58.7	8.11	36.0		-0.0	0.0	-0.00	0.0	.35
0115	18.2	25.0	7.52	26.2		-0.0	0.0	-0.00	0.0	.41
0116	22.9	57.5	7.81	31.0		-0.0	0.0	-0.00	0.0	.34
0117	23.9	64.5	7.29	22.3		-0.0	0.0	-0.00	0.0	.30
0118	22.3	53.5	6.92	16.0		-0.0	0.0	-0.00	0.0	.31

NO. OF STATIONS 125 0

	INTEGRATED POWER	MEAN FREQUENCY	PREDOMINANT POWER	PREDOMINANT FREQUENCY	POWE
AVERAGE	14.54	5.96	0.000	0.000	.
SIGMA	4.23	.96	0.000	0.000	.
PER CENT	29.08	16.13	0.000	0.000	24.
+ SIGMA	18.77	6.92	0.000	0.000	.
- SIGMA	10.31	5.00	0.000	0.000	.
MIN/STA	5.31/0109	3.26/0123	*0.00/0001	*0.00/0001	.29/
MAX/STA	24.16/0147	8.17/0147	0.00/0001	0.00/0001	.85/

BEOWAWE THE FOLLOWING ARE PERCENTAGE DEV

STATISTICS AND DEVIATIONS

0.5 - 7.5 Hz.

	INTEGRATED		MEAN			PREDOMINANT				
STA.	POWER	PCDEV.	FREQ.	PCDEV.	Notes	POWER	PCDEV.	FREQ.	PCDEV.	POW
0001	17.4	1.0	3.17	2.8		-0.0	0.0	-0.00	0.0	.1
0084	23.4	36.4	3.39	10.1	11-16	-0.0	0.0	-0.00	0.0	.1
0085	24.6	43.2	3.47	12.8		-0.0	0.0	-0.00	0.0	.1
0114	17.4	1.3	3.34	8.4		-0.0	0.0	-0.00	0.0	.1
0115	15.5	-10.1	3.16	2.6		-0.0	0.0	-0.00	0.0	.2
0116	19.2	11.9	3.46	12.4		-0.0	0.0	-0.00	0.0	.1
0117	22.7	32.2	3.40	10.4		-0.0	0.0	-0.00	0.0	.1
0118	22.7	31.8	3.28	6.6		-0.0	0.0	-0.00	0.0	.1
0031	19.1	11.3	3.05	-.9		0.0	0.0	0.00	0.0	.1
0033	17.4	1.4	3.03	-1.6		0.0	0.0	0.00	0.0	.1
0034	21.2	23.5	3.19	3.7		0.0	0.0	0.00	0.0	.1
0035	11.6	-32.8	2.97	-3.5		0.0	0.0	0.00	0.0	.2
0036	19.6	13.8	3.26	5.8		0.0	0.0	0.00	0.0	.1
0047	19.5	13.6	3.47	12.8		0.0	0.0	0.00	0.0	.1
0048	20.1	16.6	3.53	14.6		0.0	0.0	0.00	0.0	.1
0049	15.7	-8.4	2.90	-5.7		0.0	0.0	0.00	0.0	.1
0050	21.0	22.3	3.83	24.3		0.0	0.0	0.00	0.0	.1
0051	21.9	27.5	3.60	17.0		0.0	0.0	0.00	0.0	.1
0133	9.0	-47.4	2.60	-15.6		-0.0	0.0	-0.00	0.0	.2
0134	12.7	-26.3	2.79	-9.3		-0.0	0.0	-0.00	0.0	.2
0135	11.1	-35.6	2.89	-6.0		-0.0	0.0	-0.00	0.0	.2
0136	16.3	-5.4	2.96	-3.9		-0.0	0.0	-0.00	0.0	.1
0082	19.3	12.4	3.17	3.0		-0.0	0.0	-0.00	0.0	.1
0083	21.4	24.7	3.36	9.0		-0.0	0.0	-0.00	0.0	.1
0086	18.6	8.1	2.98	-3.4		-0.0	0.0	-0.00	0.0	.1
0087	21.1	22.5	3.31	7.4		-0.0	0.0	-0.00	0.0	.1
0088	22.6	31.5	3.54	14.9		-0.0	0.0	-0.00	0.0	.1
0089	22.5	30.9	3.48	12.9		-0.0	0.0	-0.00	0.0	.1
0095	15.7	-8.5	3.12	1.2		-0.0	0.0	-0.00	0.0	.1
0096	16.0	-7.0	3.27	6.2		-0.0	0.0	-0.00	0.0	.2
0097	16.1	-6.3	2.94	-4.6		-0.0	0.0	-0.00	0.0	.1
0098	13.4	-22.1	2.74	-10.9		-0.0	0.0	-0.00	0.0	.2
0099	20.5	19.0	3.43	11.2		-0.0	0.0	-0.00	0.0	.1
0100	13.6	-21.2	3.14	2.1		-0.0	0.0	-0.00	0.0	.2
0101	19.8	15.3	3.17	2.9		-0.0	0.0	-0.00	0.0	.1
0102	20.8	21.2	3.18	3.3		-0.0	0.0	-0.00	0.0	.1
0161	23.1	34.3	3.45	12.1		-0.0	0.0	-0.00	0.0	.1
0103	12.5	-27.4	3.10	.6		-0.0	0.0	-0.00	0.0	.2
0104	15.9	-7.5	3.05	-.8		-0.0	0.0	-0.00	0.0	.1
0105	20.0	16.3	3.14	1.9		-0.0	0.0	-0.00	0.0	.15
0106	24.3	41.4	3.28	6.6		-0.0	0.0	-0.00	0.0	.13
0107	20.8	20.9	3.08	-.1		-0.0	0.0	-0.00	0.0	.14
0003	22.2	29.3	3.44	11.7	10-29	-0.0	0.0	-0.00	0.0	.15
0002	20.2	17.6	3.38	9.8		-0.0	0.0	-0.00	0.0	.16
0005	21.6	25.6	3.53	14.6	10-30	-0.0	0.0	-0.00	0.0	.16
0006	18.7	8.9	3.34	8.6		-0.0	0.0	-0.00	0.0	.17
0008	16.2	-5.6	3.29	6.8		-0.0	0.0	-0.00	0.0	.20
0009	19.3	12.4	3.23	5.0		-0.0	0.0	-0.00	0.0	.16
0010	20.7	20.4	3.28	6.4	10-31	-0.0	0.0	-0.00	0.0	.15
0011	19.6	14.0	3.16	2.5		-0.0	0.0	-0.00	0.0	.16
0013	19.9	15.7	3.16	2.6		-0.0	0.0	-0.00	0.0	.15
0014	19.2	11.5	3.12	1.5	11-1	-0.0	0.0	-0.00	0.0	.16
0015	19.9	15.6	3.16	2.6		-0.0	0.0	-0.00	0.0	.15
0016	16.0	-6.7	2.85	-7.6		-0.0	0.0	-0.00	0.0	.17
0018	19.3	12.2	3.17	3.0		-0.0	0.0	-0.00	0.0	.16
0019	20.3	18.3	3.25	5.5	11-2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

0105	20.0	16.3	3.14	1.9		-0.0	0.0	-0.00	0.0	.15
0106	24.3	41.4	3.28	6.6		-0.0	0.0	-0.00	0.0	.13
0107	20.8	20.9	3.09	-.1		-0.0	0.0	-0.00	0.0	.14
0003	22.2	29.3	3.44	11.7	10-29	-0.0	0.0	-0.00	0.0	.15
0002	20.2	17.6	3.38	9.8		-0.0	0.0	-0.00	0.0	.17
0005	21.6	25.6	3.53	14.6	10-30	-0.0	0.0	-0.00	0.0	.16
0006	18.7	8.9	3.34	3.6		-0.0	0.0	-0.00	0.0	.17
0008	16.2	-5.6	3.29	6.8		-0.0	0.0	-0.00	0.0	.20
0009	19.3	12.4	3.23	5.0		-0.0	0.0	-0.00	0.0	.16
0010	20.7	20.4	3.28	6.4	10-31	-0.0	0.0	-0.00	0.0	.15
0011	19.6	14.0	3.16	2.5		-0.0	0.0	-0.00	0.0	.16
0013	19.9	15.7	3.16	2.6		-0.0	0.0	-0.00	0.0	.15
0014	19.2	11.5	3.12	1.5	11-1	-0.0	0.0	-0.00	0.0	.16
0015	19.9	15.6	3.16	2.6		-0.0	0.0	-0.00	0.0	.15
0016	16.0	-6.7	2.85	-7.6		-0.0	0.0	-0.00	0.0	.17
0018	19.3	12.2	3.17	3.0		-0.0	0.0	-0.00	0.0	.16
0019	20.3	18.3	3.25	5.5	11-2	-0.0	0.0	-0.00	0.0	.16
0020	18.3	6.5	2.95	-4.1		-0.0	0.0	-0.00	0.0	.16
0021	16.5	-4.0	2.73	-11.4		-0.0	0.0	-0.00	0.0	.18
0022	16.9	-1.9	2.97	-3.4		-0.0	0.0	-0.00	0.0	.17
0023	23.6	37.0	3.46	12.4		-0.0	0.0	-0.00	0.0	.14
0024	22.3	29.7	3.41	10.8	11-3	-0.0	0.0	-0.00	0.0	.15
0025	20.0	16.3	3.06	-.6		-0.0	0.0	-0.00	0.0	.15
0026	18.1	5.3	2.89	-6.1		-0.0	0.0	-0.00	0.0	.16
0027	18.8	9.2	3.19	3.7		-0.0	0.0	-0.00	0.0	.17
0028	18.5	7.8	2.89	-6.1		0.0	0.0	0.00	0.0	.15
0030	18.6	8.0	2.77	-9.9	11-4	0.0	0.0	0.00	0.0	.14
0032	15.7	-8.9	2.70	-12.2		0.0	0.0	0.00	0.0	.17
0037	18.2	6.0	3.08	-.1		0.0	0.0	0.00	0.0	.16
0038	17.6	2.6	3.15	2.3	11-6	0.0	0.0	0.00	0.0	.17
0039	17.2	-.2	2.83	-8.1		0.0	0.0	0.00	0.0	.16
0040	15.2	-11.8	2.74	-10.9		0.0	0.0	0.00	0.0	.18
0041	16.8	-2.5	3.08	-.1		0.0	0.0	0.00	0.0	.18
0156	8.2	-52.1	2.30	-25.2		-0.0	0.0	-0.00	0.0	.27
0158	12.5	-27.2	2.75	-10.8	11-7	-0.0	0.0	-0.00	0.0	.22
0160	7.1	-53.9	2.18	-29.1		-0.0	0.0	-0.00	0.0	.30
0042	15.9	-7.8	3.03	-1.6		0.0	0.0	0.00	0.0	.19
0043	16.6	-3.2	3.10	.8		0.0	0.0	0.00	0.0	.18
0044	18.6	8.3	3.19	3.5		0.0	0.0	0.00	0.0	.17
0045	17.4	1.4	3.14	1.9		0.0	0.0	0.00	0.0	.18
0046	18.3	6.7	3.18	3.3		0.0	0.0	0.00	0.0	.17
0053	20.2	17.5	3.37	9.6		0.0	0.0	0.00	0.0	.16
0054	16.3	-5.4	2.99	-2.9	11-9	0.0	0.0	0.00	0.0	.18
0055	14.9	-13.6	3.07	-.5		0.0	0.0	0.00	0.0	.20
0154	16.8	-2.4	3.42	10.9		-0.0	0.0	-0.00	0.0	.20
0144	10.4	-39.6	2.62	-14.8		-0.0	0.0	-0.00	0.0	.25
0147	18.9	10.2	3.59	16.6	11-10	-0.0	0.0	-0.00	0.0	.19
0148	9.9	-42.3	1.85	-40.0		-0.0	0.0	-0.00	0.0	.18
0057	11.1	-35.5	2.57	-16.5		0.0	0.0	0.00	0.0	.23
0058	15.8	-8.3	3.13	1.6		0.0	0.0	0.00	0.0	.19
0059	12.3	-28.7	2.28	-26.1		0.0	0.0	0.00	0.0	.18
0060	14.7	-14.6	2.63	-14.7		0.0	0.0	0.00	0.0	.17
0061	15.6	-9.0	2.86	-7.0		0.0	0.0	0.00	0.0	.18
0138	12.7	-26.0	2.60	-15.7	11-11	-0.0	0.0	-0.00	0.0	.20
0139	12.9	-24.9	3.19	3.7		-0.0	0.0	-0.00	0.0	.24
0140	15.1	-11.9	3.06	-.6		-0.0	0.0	-0.00	0.0	.20
0141	12.0	-30.1	2.78	-9.7		-0.0	0.0	-0.00	0.0	.23
0142	13.6	-20.8	2.97	-3.6		-0.0	0.0	-0.00	0.0	.21
0062	14.4	-16.5	2.95	-4.2		0.0	0.0	0.00	0.0	.20
0063	16.4	-4.7	3.17	3.0		0.0	0.0	0.00	0.0	.19
0064	17.6	2.6	3.20	4.0		0.0	0.0	0.00	0.0	.18
0065	16.3	-5.0	3.40	10.4		0.0	0.0	0.00	0.0	.20
0066	13.6	-20.7	2.99	-2.9		0.0	0.0	0.00	0.0	.21
0126	10.9	-36.6	2.96	-3.9	11-13	-0.0	0.0	-0.00	0.0	.27

0127	11.3	-34.1	3.04	-1.1		-0.0	0.0	-0.00	0.0	.2
0128	16.1	-6.5	3.22	4.4		-0.0	0.0	-0.00	0.0	.2
0129	16.8	-2.5	3.19	3.7		-0.0	0.0	-0.00	0.0	.1
0130	11.6	-32.7	2.90	-5.9		-0.0	0.0	-0.00	0.0	.2
0131	10.4	-39.3	2.27	-26.2		-0.0	0.0	-0.00	0.0	.2
0067	16.7	-2.8	3.49	13.3		-0.0	0.0	-0.00	0.0	.2
0068	13.5	-21.7	3.04	-1.3		-0.0	0.0	-0.00	0.0	.2
0069	20.9	21.7	3.51	14.1		-0.0	0.0	-0.00	0.0	.1
0070	13.0	-24.2	2.68	-12.8		-0.0	0.0	-0.00	0.0	.2
0071	19.4	13.1	3.28	6.4		-0.0	0.0	-0.00	0.0	.1
0072	20.3	18.1	3.23	4.9		-0.0	0.0	-0.00	0.0	.1
0073	21.0	21.9	3.44	11.6	11-14	-0.0	0.0	-0.00	0.0	.1
0074	23.9	38.8	3.58	16.3		-0.0	0.0	-0.00	0.0	.1
0075	24.2	40.6	3.50	13.5		-0.0	0.0	-0.00	0.0	.1
0076	24.7	43.4	3.67	19.1		-0.0	0.0	-0.00	0.0	.1
0119	11.5	-32.9	3.29	7.0		-0.0	0.0	-0.00	0.0	.2
0120	7.0	-59.1	2.51	-18.5	11-15	-0.0	0.0	-0.00	0.0	.3
0122	9.6	-44.0	2.49	-19.0		-0.0	0.0	-0.00	0.0	.2
0123	7.1	-58.5	1.21	-60.8		-0.0	0.0	-0.00	0.0	.1
0124	9.4	-45.0	2.66	-13.7		-0.0	0.0	-0.00	0.0	.2
0125	6.2	-64.1	1.12	-63.5		-0.0	0.0	-0.00	0.0	.1
0077	15.9	-7.5	3.03	-1.7		-0.0	0.0	-0.00	0.0	.1
0078	14.0	-18.7	3.08	.1		-0.0	0.0	-0.00	0.0	.2
0079	16.8	-2.4	3.26	5.7		-0.0	0.0	-0.00	0.0	.1
0080	16.3	-5.4	3.06	-.5		-0.0	0.0	-0.00	0.0	.1
0081	18.2	5.9	3.11	.9		-0.0	0.0	-0.00	0.0	.1
0108	17.1	-.8	3.14	2.0		-0.0	0.0	-0.00	0.0	.1
0109	12.6	-26.4	2.85	-7.4	11-18	-0.0	0.0	-0.00	0.0	.2
0110	17.3	.8	3.33	8.1		-0.0	0.0	-0.00	0.0	.1
0111	20.9	21.7	3.31	7.4		-0.0	0.0	-0.00	0.0	.1
0112	17.2	.2	3.28	6.4		-0.0	0.0	-0.00	0.0	.1
0113	25.0	45.4	3.27	6.1		-0.0	0.0	-0.00	0.0	.1
0090	23.3	35.6	3.36	9.1		-0.0	0.0	-0.00	0.0	.1
0091	21.4	24.3	3.28	6.4		-0.0	0.0	-0.00	0.0	.1
0092	24.2	40.5	3.49	13.2		-0.0	0.0	-0.00	0.0	.1
0094	25.3	47.1	3.42	10.9		-0.0	0.0	-0.00	0.0	.1

NO. OF STATIONS 139 0

	INTEGRATED POWER	MEAN FREQUENCY	PREDOMINANT POWER	PREDOMINANT FREQUENCY	PO
AVERAGE	17.20	3.08	0.000	0.000	
SIGMA	4.28	.39	0.000	0.000	
PER CENT	24.89	12.79	0.000	0.000	20
+ SIGMA	21.48	3.47	0.000	0.000	
- SIGMA	12.92	2.69	0.000	0.000	
MIN/STA	6.18/0125	1.12/0125	*0.00/0001	*0.00/0001	.1
MAX/STA	25.29/0094	3.83/0050	0.00/0001	0.00/0001	.3

BEOWAWE
STATISTICS AND DEVIATIONS
0.5 - 3.5 Hz

SPAN IS 3.00 HER

110 STATIONS

	RANGE OF FREQUENCY¢	.50 / 3.50		0.00 / 0.00		0.00 / 0.00		0.00 / 0.00		0.00 / 0.00		
		**********		**********		**********		**********		**********		**
	STATION	POW.	FRQ.	POW.	FRQ.	POW.	FRQ.	POW.	FRQ.	POW.	FRQ.	P(
	0023	11.91	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
11-03	0024	11.56	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0025	11.60	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0026	11.18	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0027	10.37	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0031	10.73	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0033	8.98	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0034	11.14	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0035	6.64	1.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0036	9.41	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0047	7.90	1.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0048	8.44	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0049	7.98	1.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0050	8.27	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0051	8.34	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0052	9.14	1.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0054	7.93	1.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0055	6.84	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
10-29	0003	10.23	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0001	9.34	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
10-30	0002	9.56	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0005	9.92	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0006	9.20	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0008	7.81	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0009	9.91	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
10-31	0010	10.75	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0011	10.24	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0012	9.11	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0013	11.79	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
11-1	0014	11.09	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0015	10.25	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0016	9.46	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0017	10.62	1.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0018	10.27	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
11-2	0019	11.02	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0020	11.15	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0021	10.24	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0022	9.94	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0028	10.65	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
11-4	0030	11.21	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0032	9.14	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0037	9.41	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
11-6	0038	9.16	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0039	9.75	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0040	8.63	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0041	8.81	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0042	9.63	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
11-7	0043	10.17	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0044	10.82	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0045	10.08	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0046	10.12	1.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0156	5.59	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.

	0038	9.18	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0039	9.75	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0040	8.63	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0041	8.81	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0042	9.63	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-7	0043	10.17	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0044	10.82	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0045	10.08	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0046	10.12	1.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0156	5.59	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0158	6.16	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0057	7.34	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-10	0058	9.21	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0059	8.87	1.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0060	10.05	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0061	9.11	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0145	6.71	1.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0147	8.16	1.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0148	7.42	1.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0062	9.22	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-11	0063	9.72	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0064	10.07	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0065	8.66	1.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0066	8.56	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0067	7.09	1.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-13	0068	7.46	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0069	11.36	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0070	8.46	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0071	9.78	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0131	7.67	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0072	11.78	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-14	0073	10.04	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0074	11.81	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0075	14.31	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0076	11.88	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0077	8.58	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-15	0078	8.21	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0079	9.25	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0080	9.76	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0081	10.53	1.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0119	10.01	1.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0122	4.96	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0125	6.39	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0084	10.77	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-16	0085	11.51	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0116	7.36	1.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0082	11.09	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-17	0083	11.68	1.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0086	11.02	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0087	10.93	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0088	11.53	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0089	12.23	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0090	10.73	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-18	0091	9.77	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0092	9.82	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0093	8.33	1.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0094	8.01	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0113	11.28	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0095	8.22	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11-19	0096	9.44	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0097	9.95	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0098	9.80	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0099	12.47	1.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0107	12.28	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	0070	8.46	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0071	9.78	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0131	7.67	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0072	11.78	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
11-14	0073	10.04	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0074	11.81	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0075	14.31	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0076	11.88	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0077	8.58	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
11-15	0078	8.21	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0079	9.25	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0080	9.76	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0081	10.53	1.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0119	10.01	1.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0122	4.96	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0125	6.39	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0084	10.77	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
11-16	0085	11.51	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0116	7.36	1.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0082	11.09	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
11-17	0083	11.68	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0086	11.02	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0087	10.93	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0088	11.53	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0089	12.23	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0090	10.73	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
11-18	0091	9.77	1.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0092	9.82	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
	0093	8.33	1.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0094	8.01	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0113	11.28	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0095	8.22	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
11-19	0096	9.44	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0097	9.95	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0098	9.80	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0099	12.47	1.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0107	12.28	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0100	4.52	1.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
11-20	0101	9.26	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0102	9.49	1.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
	0161	10.41	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.

RANGE OF	.50		0.00		0.00		0.00		0.00		
FREQUENCY¢	3.50		0.00		0.00		0.00		0.00		
	**********		**********		**********		**********		**********		**
AVERAGE	9.58	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
SIGMA	1.67	.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
PER CENT	17.46	8.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
+ SIGMA	11.25	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
- SIGMA	7.91	1.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
MINIMUM	4.52	1.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
STATION	0100	0100									
MAXIMUM	14.31	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.
STATION	0075	0076									

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LIST OF FIGURES AND APPENDICES

SUFFIX A 0.5 - 15.0 Hz.
SUFFIX B 0.5 - 7.5 Hz.
SUFFIX C 0.5 - 3.5 Hz.