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UNIVERSITY OF UTAH RESEARCH INSTITUTE

**UURI**

EARTH SCIENCE LABORATORY  
420 CHIPETA WAY, SUITE 120  
SALT LAKE CITY, UTAH 84108  
TELEPHONE 801-581-5283

April 11, 1980

Mr. Vic C. Dunn, Geologist  
Bureau of Land Management  
Winnemucca District Office  
705 East 4th Street  
Winnemucca, Nevada 89445

Dear Mr. Dunn:

Enclosed is a fully executed copy of the "Notice of Intent to Conduct Geothermal Resource Exploration Operations".

We do appreciate the assistance and consideration you have given to us. Your ability to expedite this notice has allowed us to conduct our research in a very timely manner.

Sincerely yours,



W. L. Forsberg  
Associate Director/  
Administration

✓ WLF:gm

Enclosures

cc: JCW, Inc.  
H. R. Ross  
W. O. Ursenbach  
S. H. Ward  
P. M. Wright

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Notice Number

**NOTICE OF INTENT TO CONDUCT GEOTHERMAL RESOURCE  
EXPLORATION OPERATIONS**

<b>Applicant(s)</b>  University of Utah Research Institute	<b>Address (include zip code)</b> 420 Chipeta Way, Suite 100 Salt Lake City, Utah 84108
<b>Operator</b>  Earth Science Laboratory Division	<b>Address (include zip code)</b> 420 Chipeta Way, Suite 120 Salt Lake City, Utah 84108
<b>Contractor(s)</b>  JCW, Inc.	<b>Address (include zip code)</b> 1973 West North Temple Salt Lake City, Utah 84116

hereby apply for authorization to conduct exploration operations pursuant to the provisions of 43 CFR 3209 now or hereafter in force across and upon the following-described lands (give description of lands by township, attach map or maps showing lands to be entered or affected)

See Attachment No. 1

**Type of operations to be conducted (give brief description)**  
 Research for geothermal resources (see Attachment No. 2)

Exploration operations will be conducted during the period (date) from March 31, 1980 to March 30, 1981

Attached  \$ Surety bond  Rider to Nationwide bond  Rider to Statewide bond  Bond to be furnished

Upon completion of exploration operations the undersigned agrees to notify the Authorized Officer that authorized exploration operations have been completed in conformance with the general and special terms and stipulations of the notice.

The undersigned hereby agrees (1) that he will not enter upon the described land until he has been informed in writing whether there are special stipulations applicable to his Notice of Intent, as to either time or method of operation or otherwise, and, if there are such stipulations, what those stipulations are, (2) that he will comply with those special stipulations, if any; and (3) that he will not enter upon the described lands until his entry has been approved by the Authorized Officer.

The undersigned agrees to be bound by the terms and conditions of this notice to conduct exploration operations when approved by the Authorized Officer.

The undersigned agrees that the filing of this Notice under the regulations (43 CFR Subpart 3209) does not vest or confer any preference right to a geothermal resources lease.

The undersigned agrees further that all exploration operations shall be conducted pursuant to the following terms and conditions:

1. Exploration operations shall be conducted in compliance with all Federal, State, and local laws, ordinances, or regulations which are applicable to the area of operations including, but not limited to, those pertaining to fire, sanitation, conservation, water pollution, fish, and game. All operations hereunder shall be conducted in a prudent manner.
2. Due care shall be exercised in protecting the described lands from damage. All necessary precautions shall be taken to avoid any damage other than normal wear and tear to improvements on the land including, but not limited to, gates, bridges, roads, culverts, cattle guards, fences, dams, dikes, vegetative cover, improvements, stock watering, and other facilities.
3. All drill holes shall be capped when not in use and appropriate procedures shall be taken to protect against

- hazards in order to protect the lives, safety, or property of other persons or of wildlife and livestock.
4. All vehicles shall be operated at a reasonable rate of speed and, in the operation of vehicles, due care shall be taken to safeguard livestock and wildlife in the vicinity of operations. Existing roads and trails shall be used wherever possible. If new roads and trails are to be constructed, the Authorized Officer must be consulted prior to construction as to location and specifications. Reclamation and/or reseeding of new roads and trails shall be made as requested by the Authorized Officer.
  5. Upon expiration, conclusion, or abandonment of operations conducted pursuant to this Notice, all equipment shall be removed from the land, and the land shall be restored as nearly as practicable to its original condition by such measures as the Authorized Officer may specify. All geophysical holes shall be safely plugged. The Authorized Officer shall be furnished a Notice of Completion of Geothermal Resource Exploration Operations (Form 3200-3) immediately upon cessation of all such operations and shall be further informed of the completion of reclamation work as soon as possible.
  6. Location and depth of water sands encountered shall be disclosed to the Authorized Officer.

(Continued on reverse)

7. Operator shall contact the Authorized Officer, prior to actual entry upon the land in order to be appraised of practices which shall be followed or avoided in the conduct of exploration operations pursuant to the terms of this Notice and applicable regulations. Operator will conduct no operations on the land unless the attached bond is in good standing.
8. Due care shall be exercised to avoid scarring or removal of ground vegetative cover.
9. All operations shall be conducted in such a manner to avoid (a) blockage of any drainage systems; (b) changing the character, or causing the pollution or siltation of rivers, streams, lakes, ponds, waterholes, seeps, and marshes; and (c) damaging fish and wildlife resources or habitat. Cuts or fills causing any of the above-mentioned problems will be repaired immediately in accordance with specifications of the Authorized Officer.
10. Vegetation shall not be disturbed within 300 feet of waters designated by the Authorized Officer, except at approved stream crossings.
11. Surface damage which induces soil movement and/or water pollution shall be subject to corrective action as required by the Authorized Officer.
12. Trails and campsites shall be kept clean. All garbage and foreign debris shall be eliminated as required by the Authorized Officer.
13. Operator shall protect all survey monuments, witness corners, reference monuments, and bearing trees against destruction, obliteration, or damage. He shall, at his expense reestablish damaged, destroyed, or obliterated monuments and corners, using a licensed surveyor, in accordance with Federal survey procedures. A record of the reestablishment shall be submitted to the Authorized Officer.
14. Operator shall make every reasonable effort to prevent, control, or suppress any fires started by the operator, and

to report, as soon as possible, to the Authorized Officer location and size of fires, and assistance needed to suppress such fires. Operator shall inform the Authorized Officer as soon as possible of all fires, regardless of location, noted, or suppressed by independent action.

15. No work shall be done within one-half mile of a developed recreation site without specific written authority from the Authorized Officer. Any travel within one-half mile of a recreation site shall be over existing roads or trails.
16. Use of explosives within one-half mile of designated waters is prohibited unless approved, in writing, by the Authorized Officer.
17. If operations conducted under the provisions of this Notice causes any damage to the surface of the national resource lands, such as, but not limited to, soil erosion, pollution of water, injury or destruction of live-stock or wildlife, or littering, operator shall, within 48 hours, file with the Authorized Officer a map showing exact location of such damage and a written report containing operator's plans for correcting or minimizing damage, if possible.
18. Violation of, or failure to comply with any of these terms and conditions shall result in immediate shutdown of field operations until deficiency is corrected. Failure to correct deficiency within the time period allowed by the Authorized Officer shall result in forfeiture of bond.
19. The Bureau of Land Management reserves the right to close any area to operators in periods of fire danger or when irreparable damage to natural resources is imminent.
20. Contractor shall be liable for assuring compliance with all terms and conditions of this Notice and all actions of his designated operator, agents, and employees.
21. Where continuation of the operation will result in irreparable damage to the land and other natural resources this Notice will be immediately cancelled by the Authorized Officer.

22. Special Stipulations:

*W. Partridge*  
 (Signature of Applicant)

(Date)

*W. L. Forsley*  
 (Signature of Operator)

3-26-80  
 (Date)

We hereby agree to the special stipulations added and made a part of this Notice to conduct exploration operations.

*Wayne O. DeMear*  
 (Signature of Holder of Notice)

4/10/80  
 (Date)

*W. L. Forsley*  
 (Signature of Operator)

4/10/80  
 (Date)

I hereby approve this Notice to conduct exploration operations.

*Robert Russell*  
 (Signature of Authorized Officer)

Acting District Mgr  
 (Title)

4/4/80  
 (Date)

Attachment No. 1

Geographic Area

T27N, R31E, Sec. 1,2,3,10,11,12,13,14,15

T27N, R32E, Sec. 1 through 24

T27N, R33E, Sec. 5,6,8,9,16,17,18

T28N, R31E, Sec. 1,2,3,10,11,12,13,14,15,22,23,24,25,26,27,34,35,36

T28N, R32E, Sec. 1 through 36

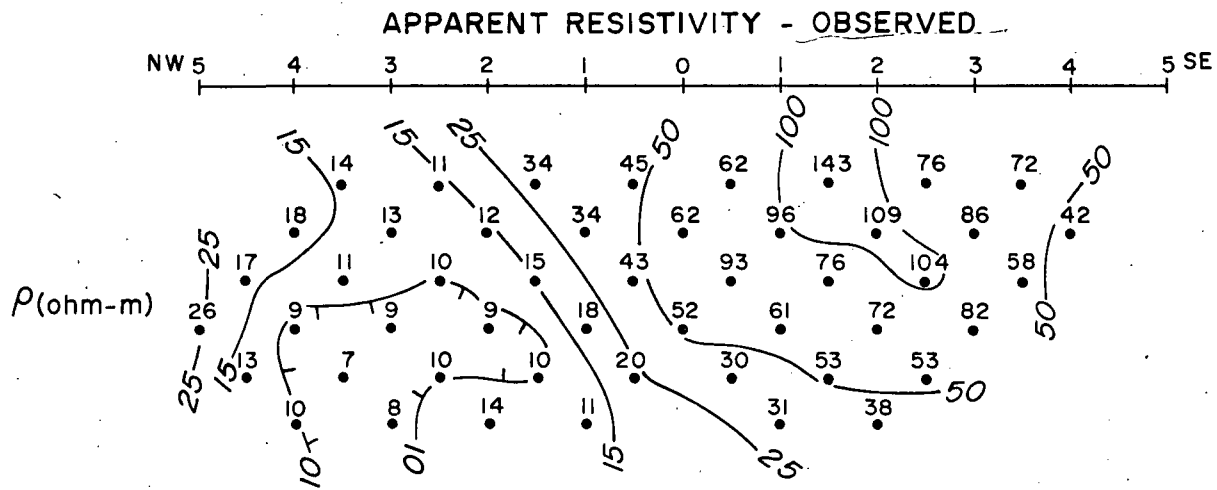
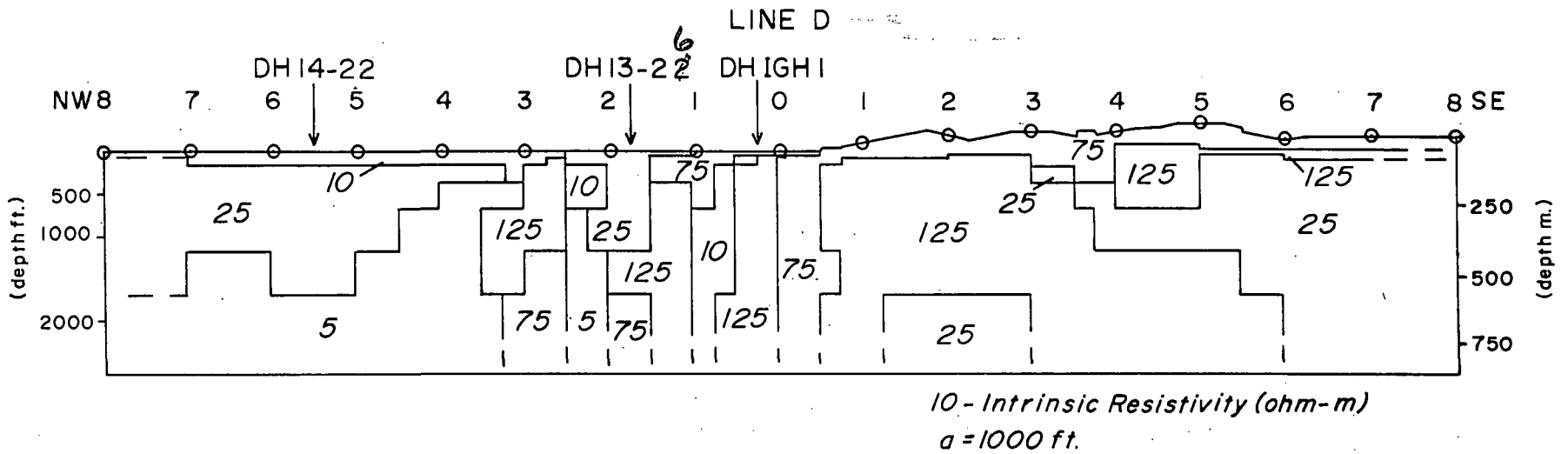
T28N, R33E, Sec. 4,5,6,7,8,9,16,17,18,19,20,21,28,29,30,31,32,33

## Attachment No. 2

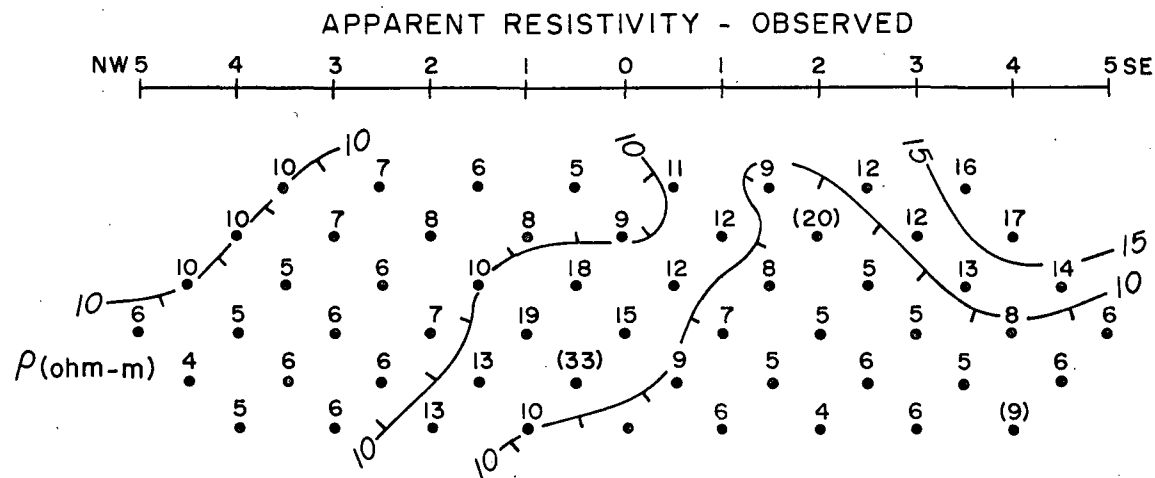
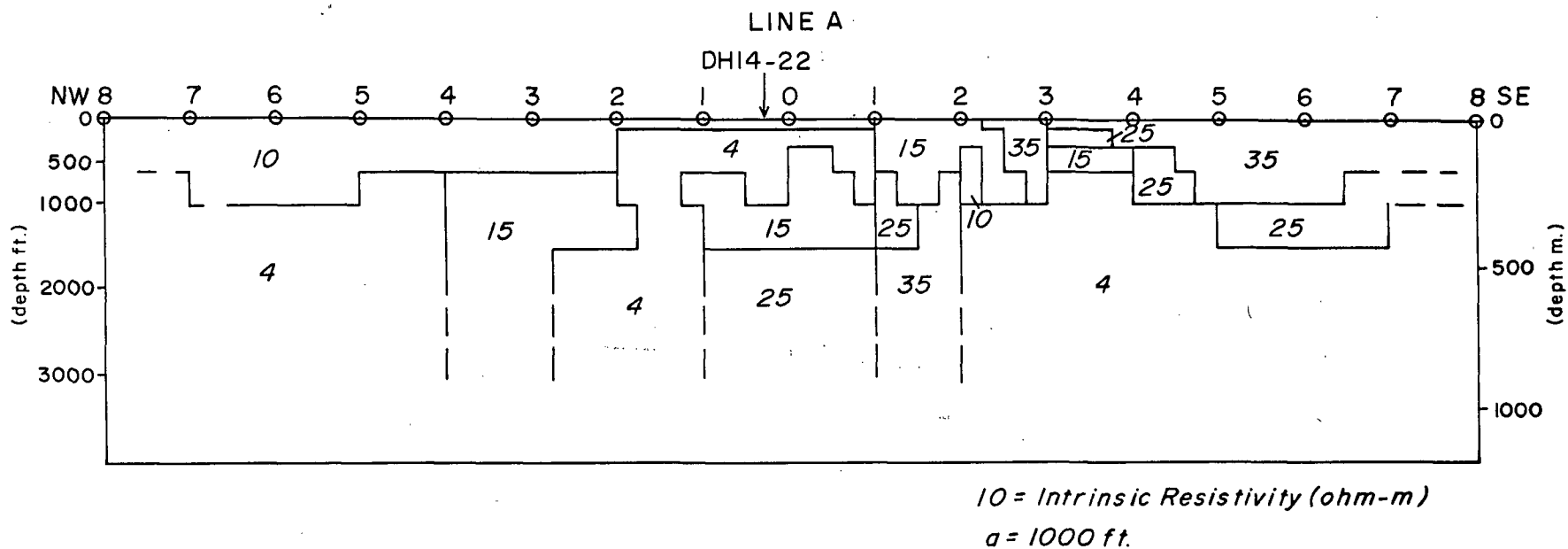
### Survey Requirement

The research will be a dipole-dipole resistivity survey requiring the use of electrical wire along the ground and connected to stakes along the survey lines. The wire will be deployed by slow-moving four wheel drive vehicles. Wire and stakes will be retrieved at the conclusion of the current and potential measurements. The following stipulations will be followed during the survey:

- 1) Restrict vehicular activity to existing roads or trails whenever survey requirements permit.
- 2) Allow free and unrestricted access on the roads for other traffic.
- 3) Report to the BLM office all archaeological sites and refrain from pilfering such sites.
- 4) Remove all survey materials, litter and waste from sites.
- 5) All reasonable effort will be given to protect the environment.



**FIGURE 2 INTERPRETED RESISTIVITY SECTION AND OBSERVED APPARENT RESISTIVITY  
LINE D - COLADO GEOTHERMAL AREA  
PERSHING COUNTY, NEVADA  
Scale 1:24,000**



**FIGURE 3 INTERPRETED RESISTIVITY SECTION AND OBSERVED APPARENT RESISTIVITY**  
**LINE A - COLADO GEOTHERMAL AREA**  
**PERSHING COUNTY, NEVADA**  
Scale 1:24,000

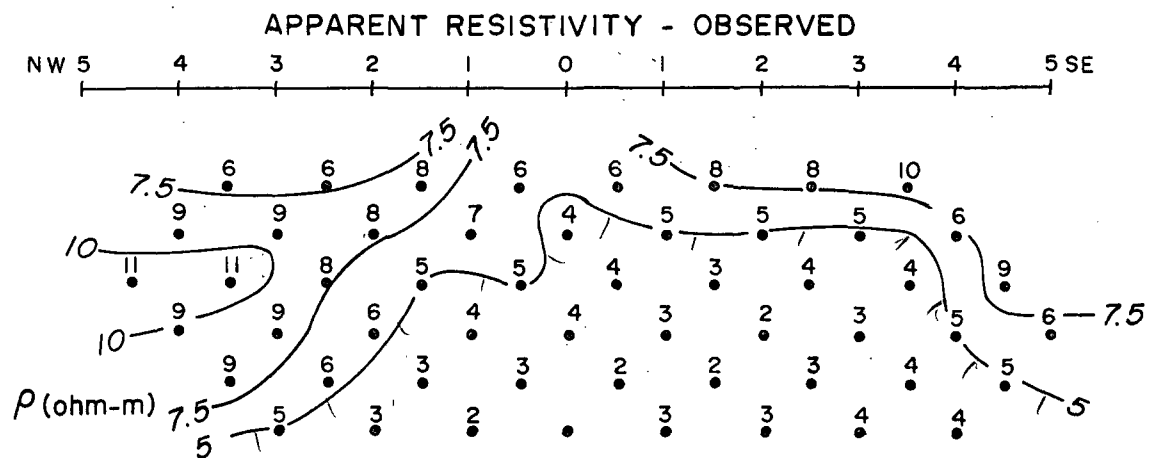
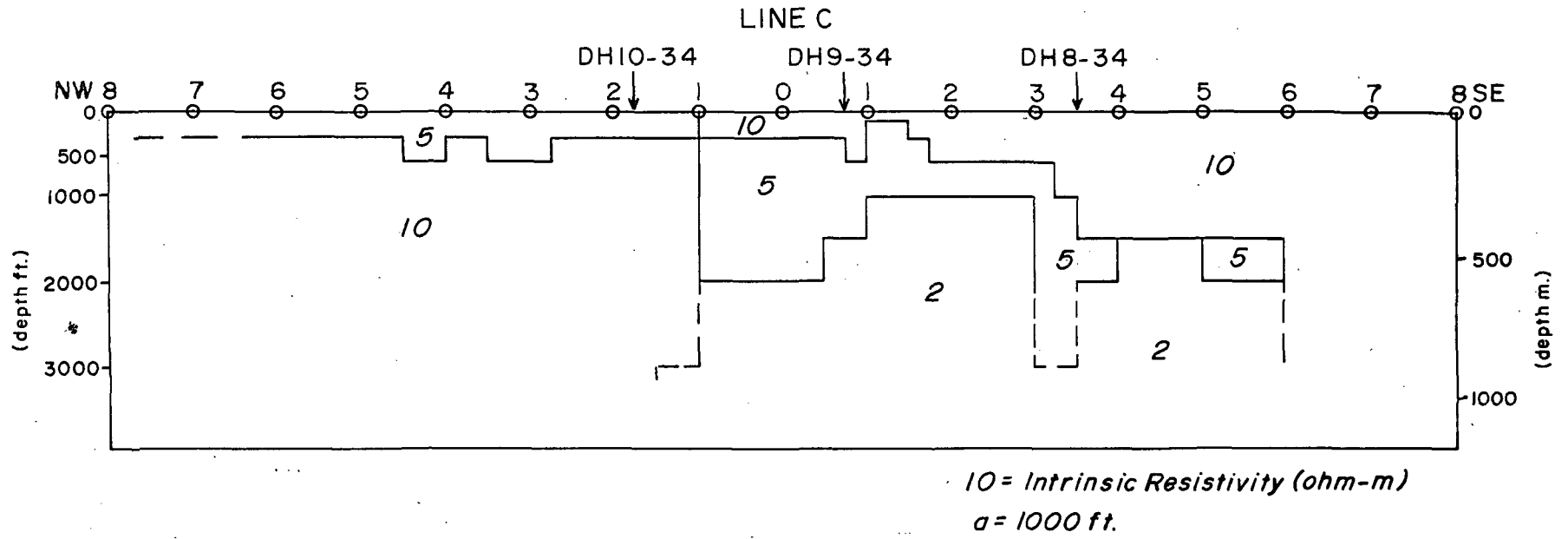


FIGURE 4 INTERPRETED RESISTIVITY SECTION AND OBSERVED APPARENT RESISTIVITY  
LINE C - COLADO GEOTHERMAL AREA  
PERSHING COUNTY, NEVADA  
Scale 1:24,000



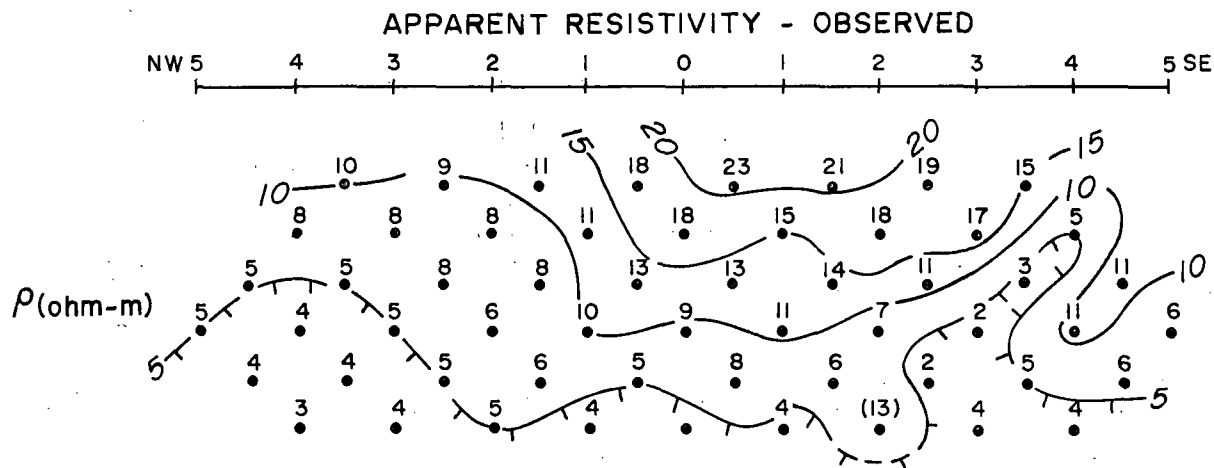
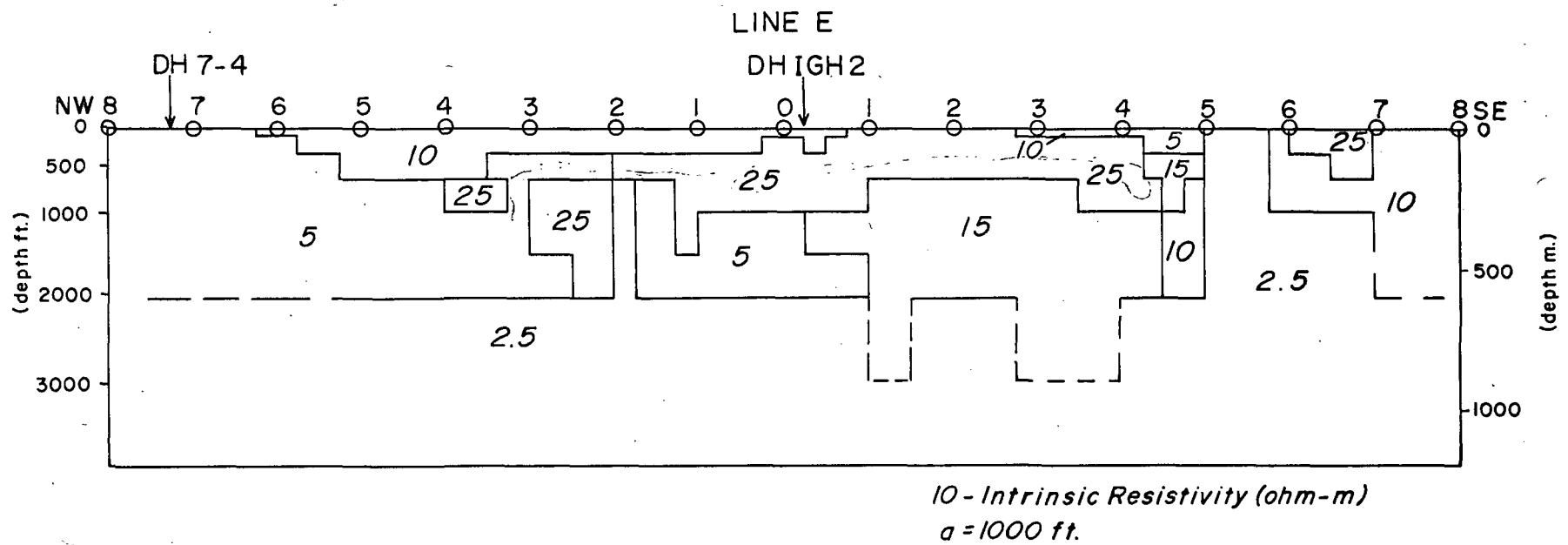
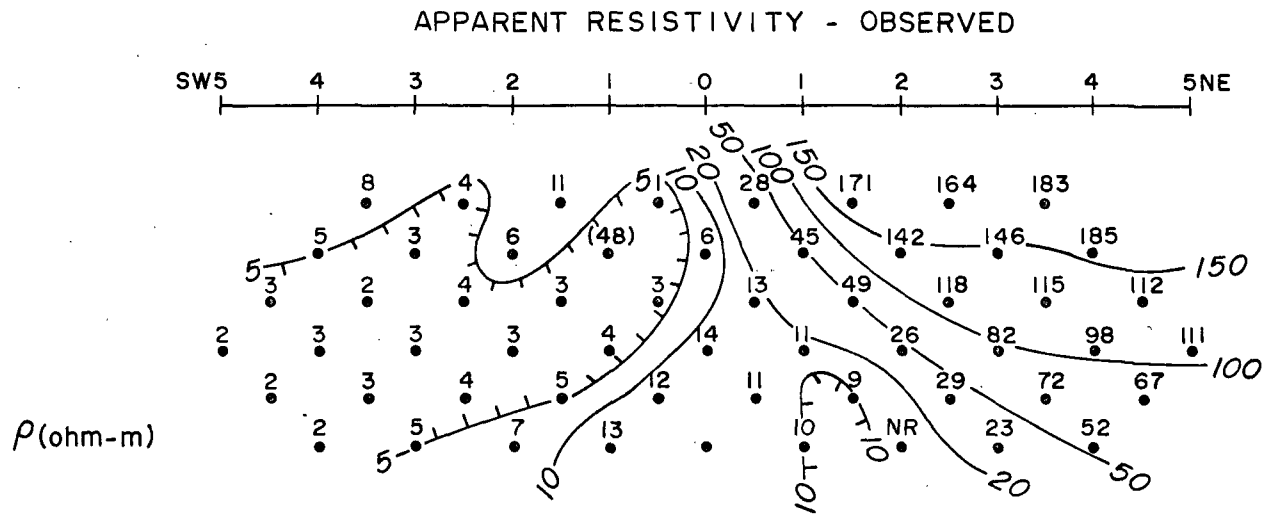
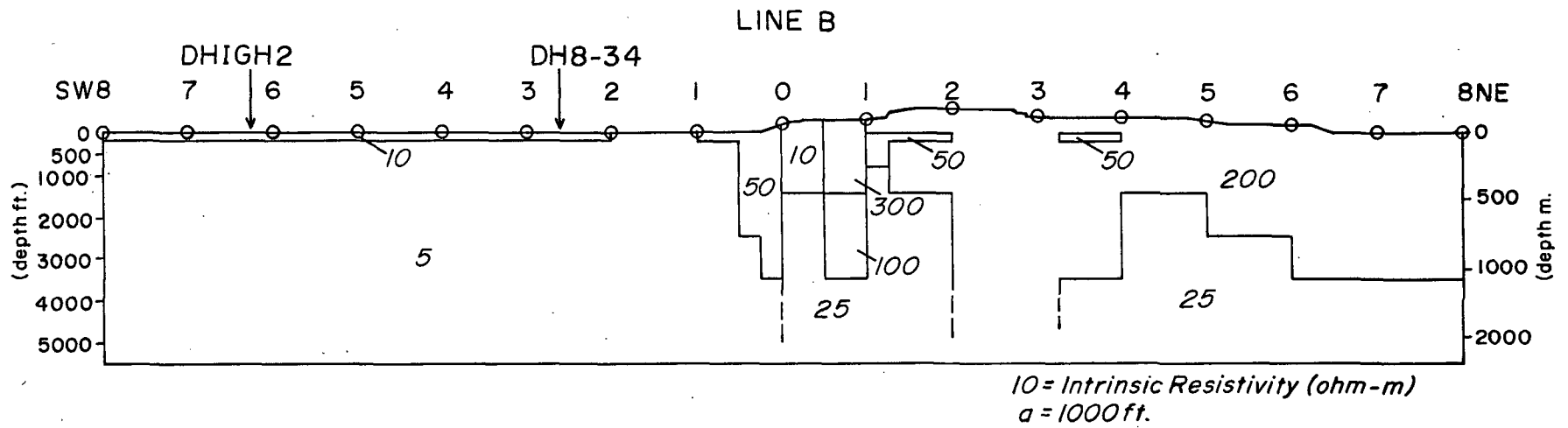


FIGURE 5 INTERPRETED RESISTIVITY SECTION AND OBSERVED APPARENT RESISTIVITY  
LINE E - COLADO GEOTHERMAL AREA  
PERSHING COUNTY, NEVADA  
Scale 1:24,000



**FIGURE 6 INTERPRETED RESISTIVITY SECTION AND OBSERVED APPARENT RESISTIVITY  
LINE B - COLADO GEOTHERMAL AREA  
PERSHING COUNTY, NEVADA  
Scale 1:24,000**

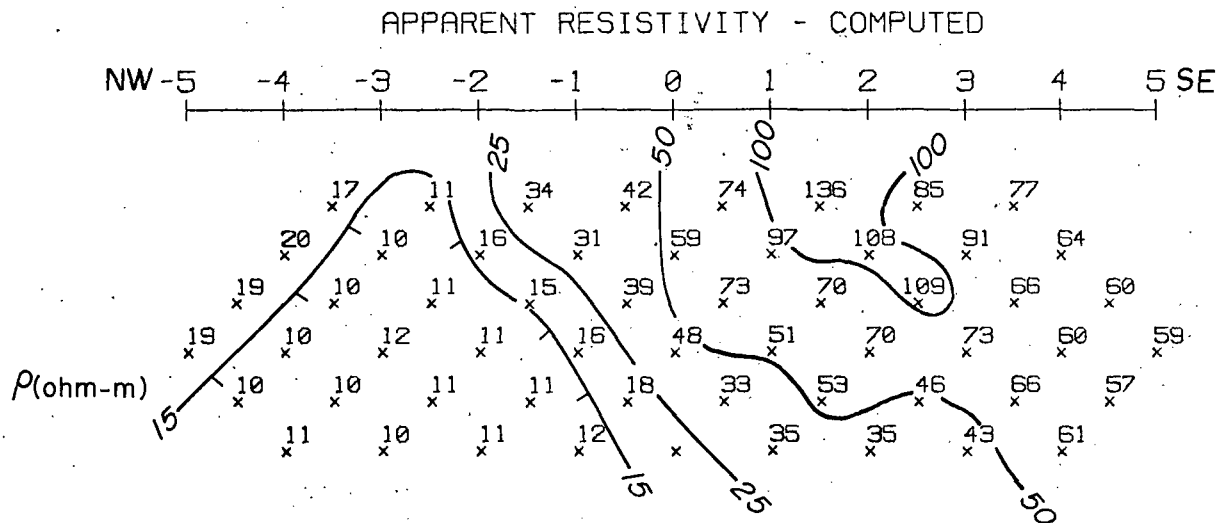
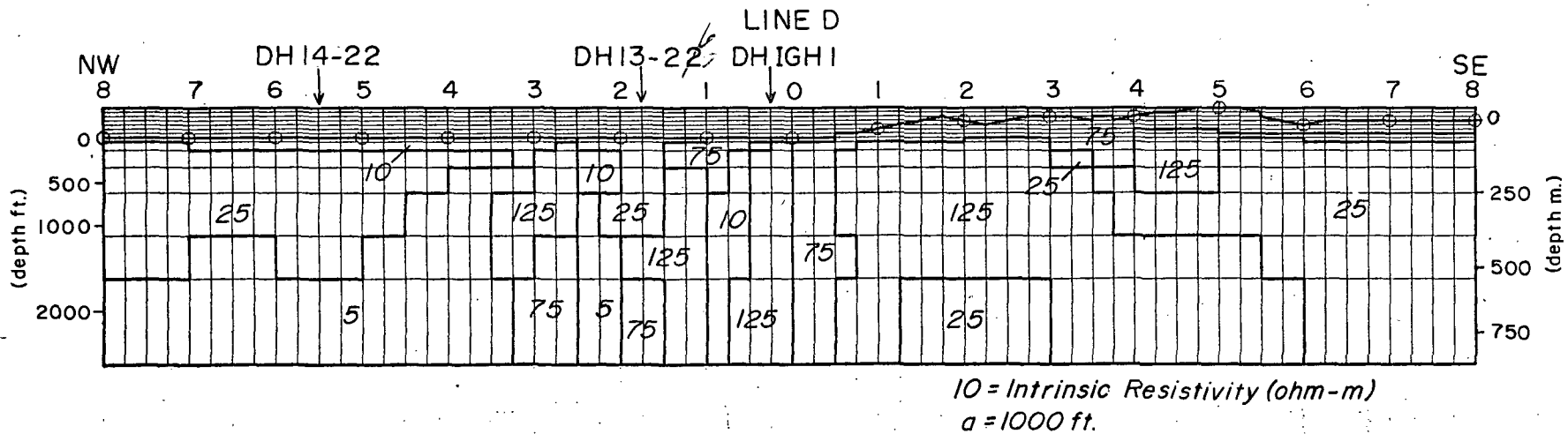


FIGURE A2 INTERPRETED RESISTIVITY SECTION AND COMPUTED APPARENT RESISTIVITY  
LINE D - COLADO GEOTHERMAL AREA  
PERSHING COUNTY, NEVADA  
Scale 1:24,000

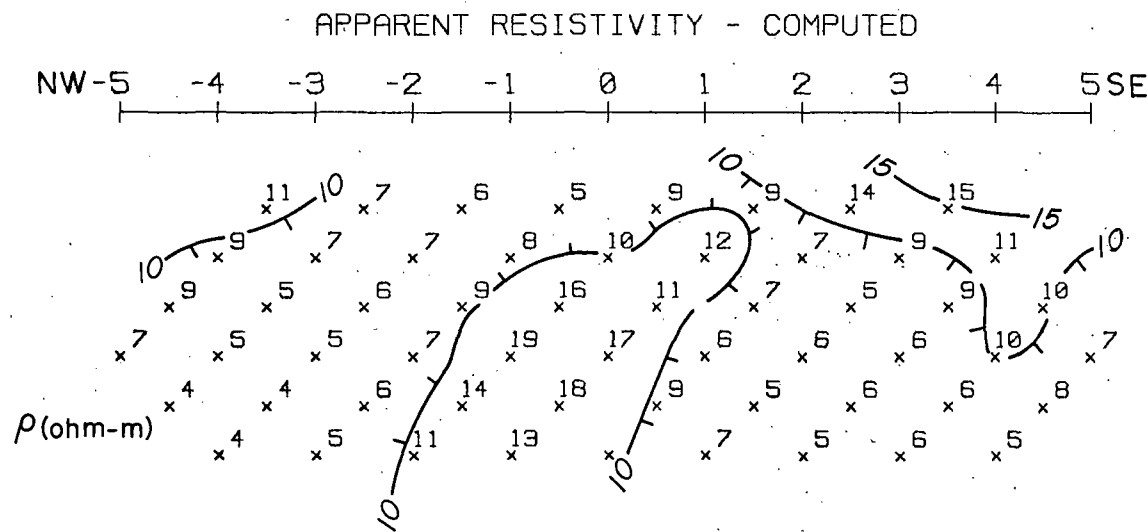
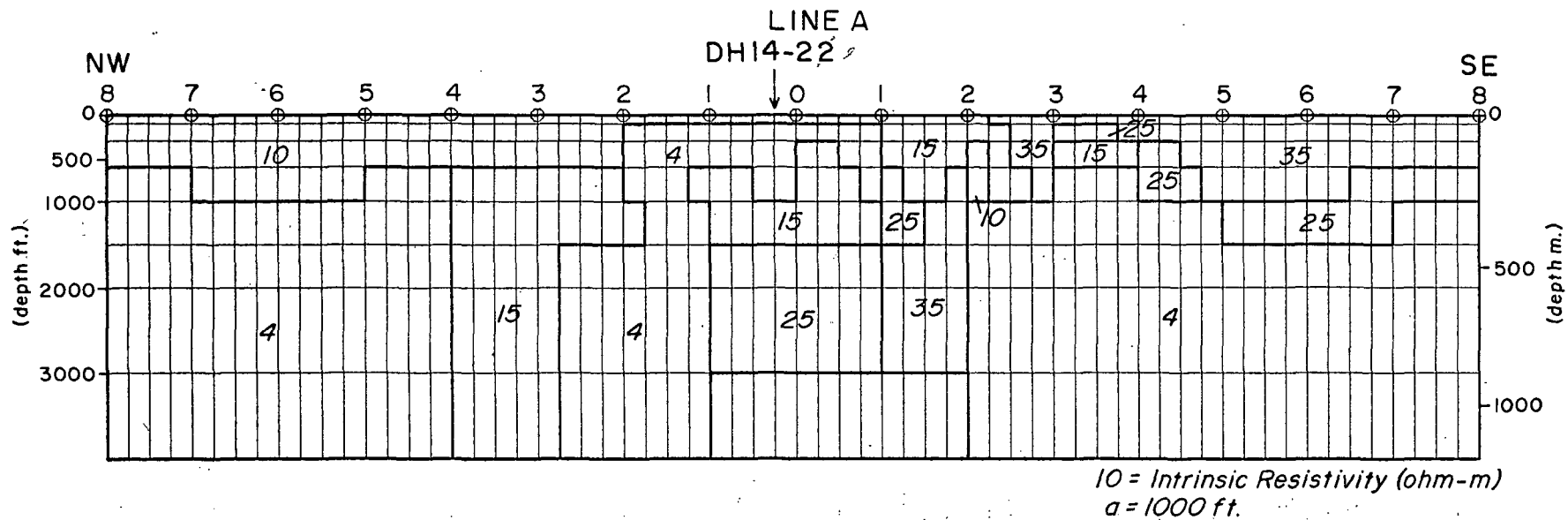


FIGURE A3 INTERPRETED RESISTIVITY SECTION AND COMPUTED APPARENT RESISTIVITY  
LINE A - COLADO GEOTHERMAL AREA  
PERSHING COUNTY, NEVADA  
Scale 1: 24,000

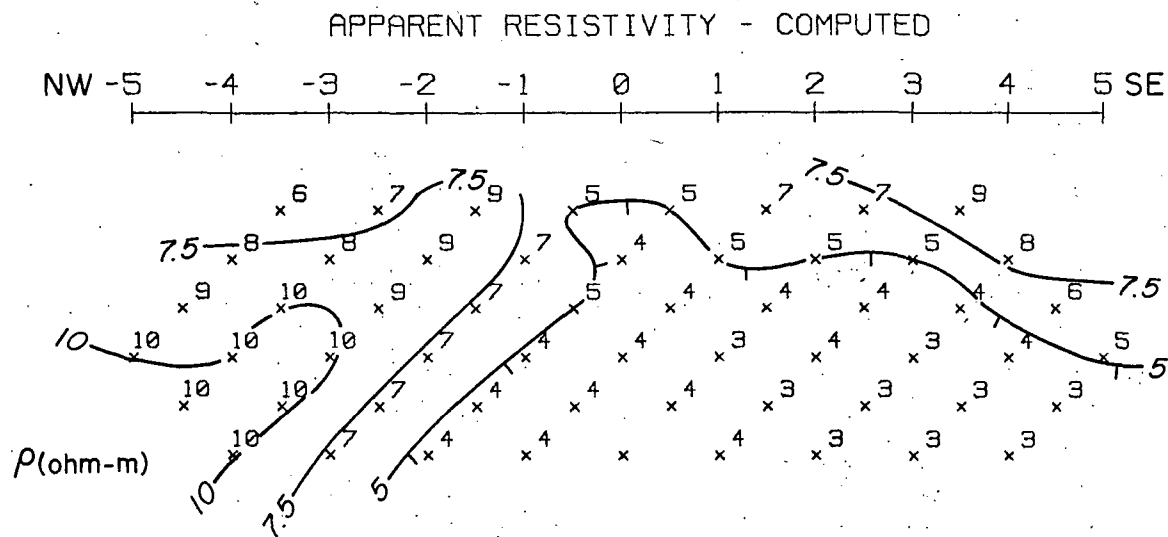
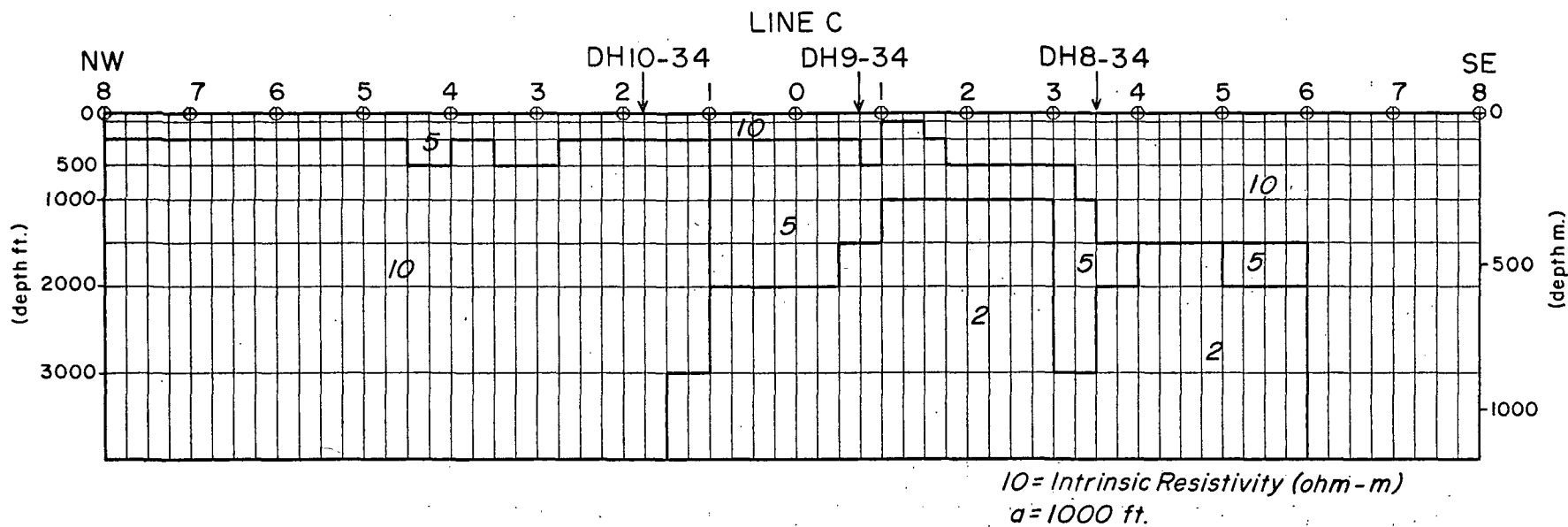


FIGURE A4/3 INTERPRETED RESISTIVITY SECTION AND COMPUTED APPARENT RESISTIVITY  
 LINE C - COLADO GEOTHERMAL AREA  
 PERSHING COUNTY, NEVADA  
 Scale 1:24,000

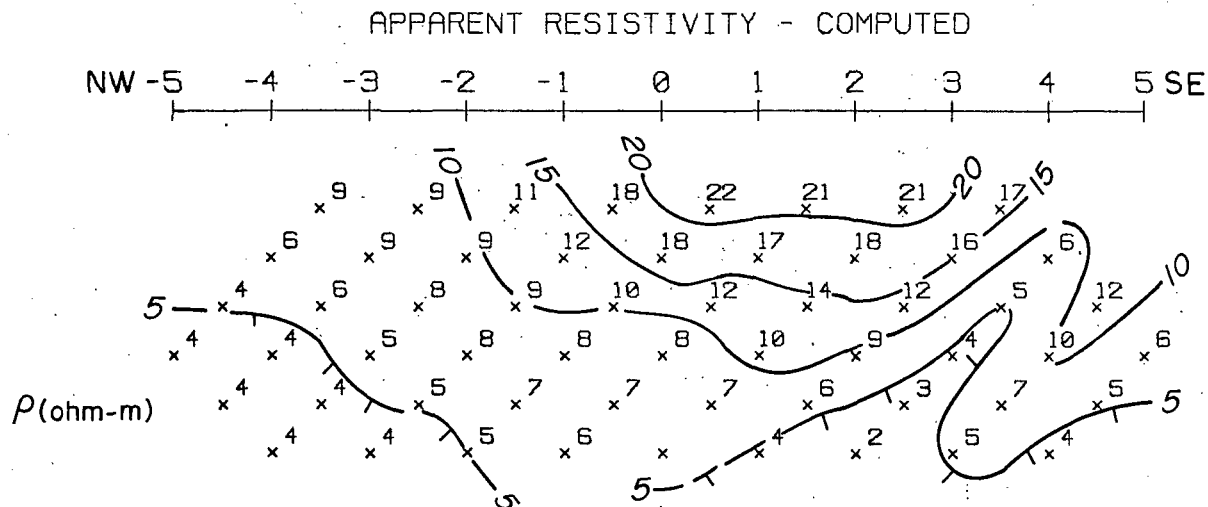
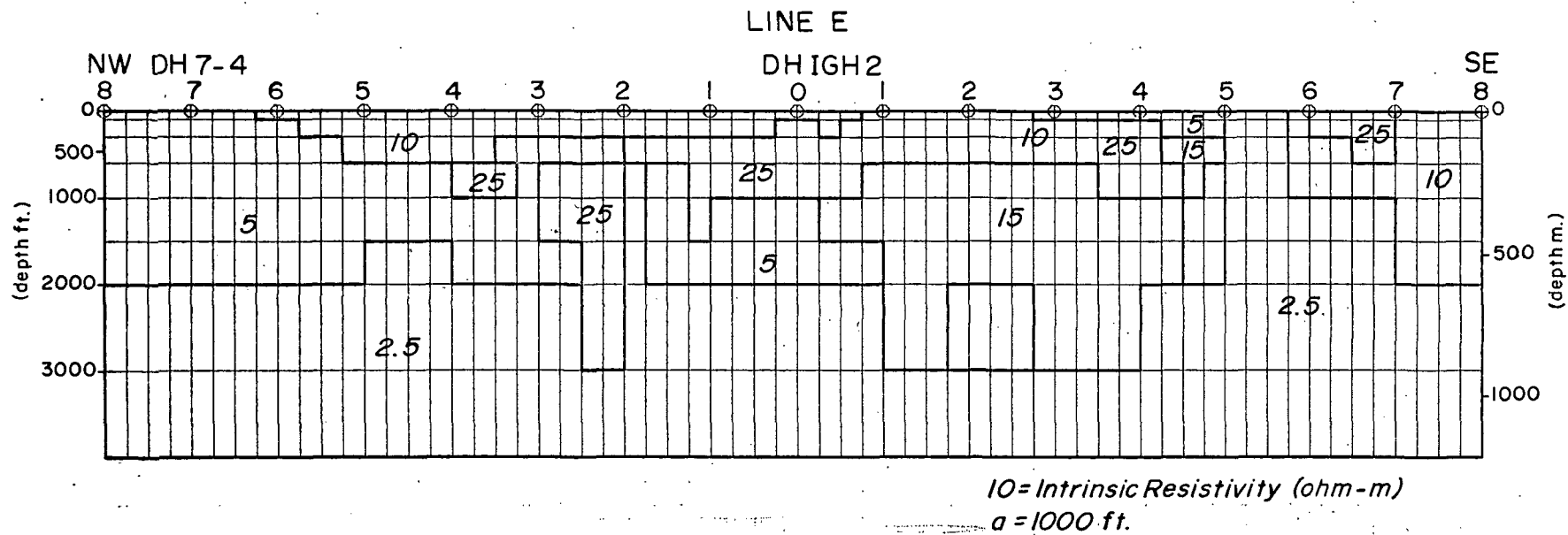


FIGURE A5 INTERPRETED RESISTIVITY SECTION AND COMPUTED APPARENT RESISTIVITY  
LINE E-COLADO GEOTHERMAL AREA  
PERSHING COUNTY, NEVADA

Scale 1:24,000

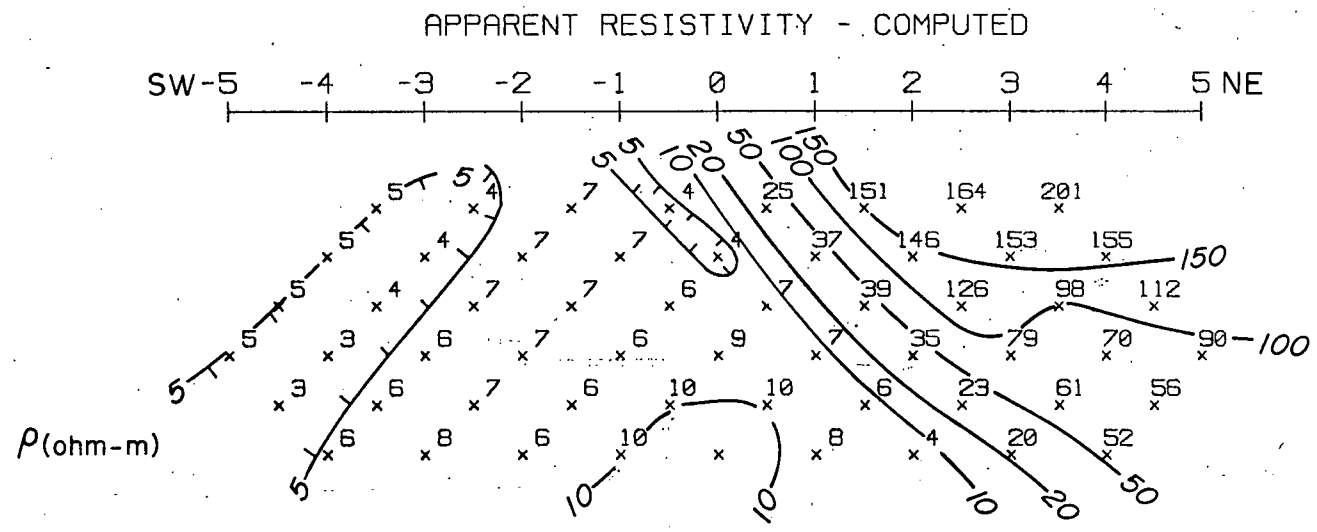
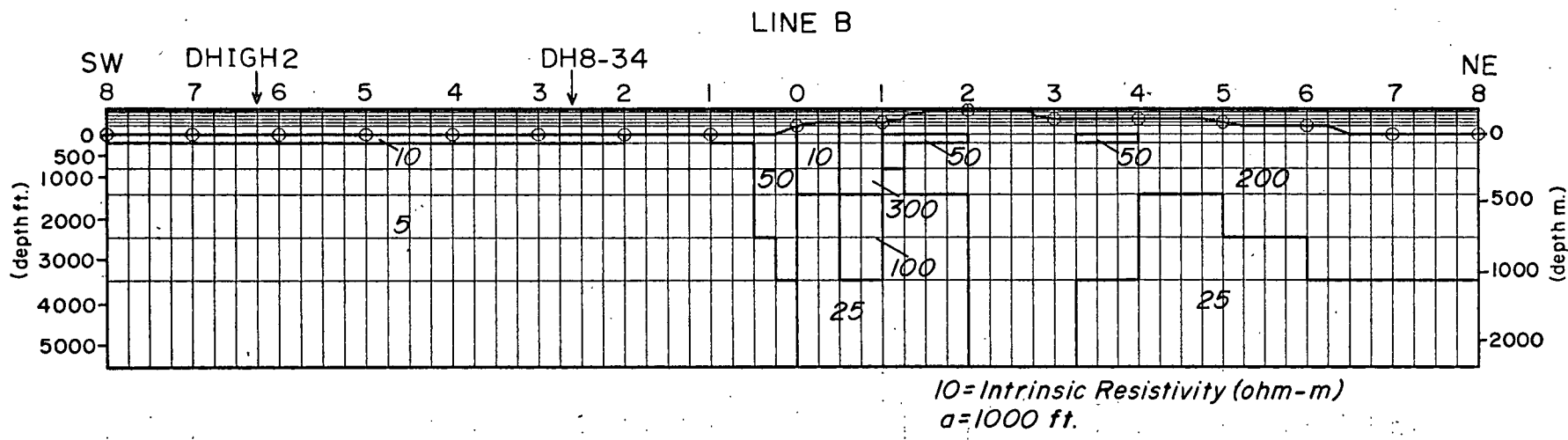
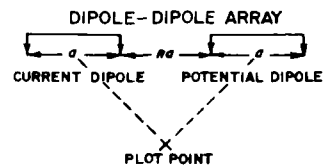


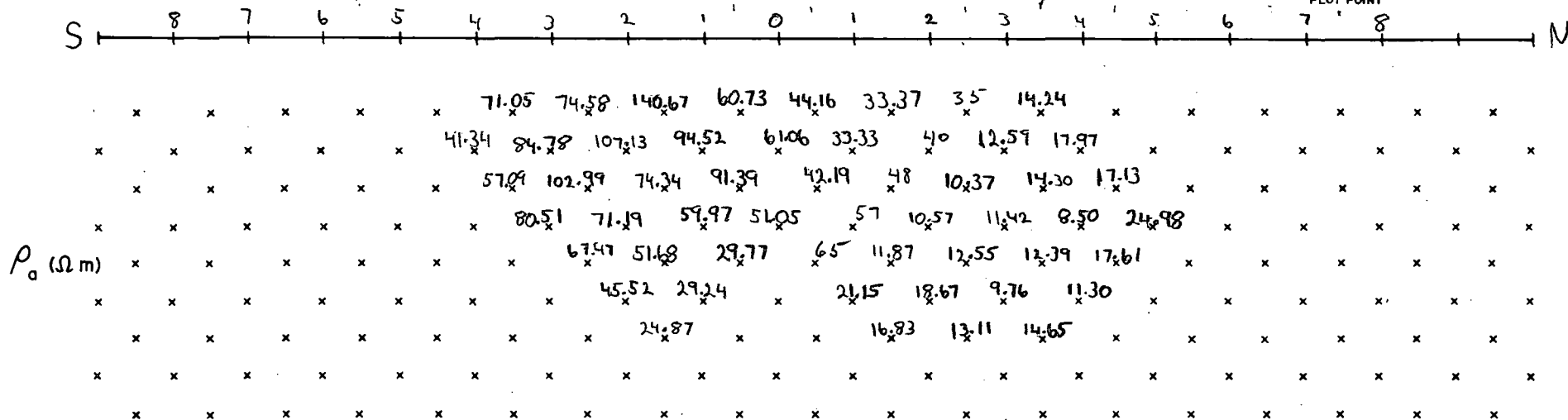
FIGURE A6 INTERPRETED RESISTIVITY SECTION AND COMPUTED APPARENT RESISTIVITY  
 LINE B - COLADO GEOTHERMAL AREA  
 PERSHING COUNTY, NEVADA  
 Scale 1:24,000

EARTH SCIENCE LABORATORY  
UNIVERSITY of UTAH RESEARCH INSTITUTE

DIPOLE - DIPOLE ARRAY  
APPARENT RESISTIVITY



$a =$  meters



Sciutrex Model IPC-7 15 kilowatt  
square wave transmitter

Sciutrex Model IPR-10 digital time  
domain IP recorder receiver  
&

Sciutrex Model IPR-8A receiver in  
conjunction with a Hewlett Packard  
7155B strip chart recorder



line D  
@ 1000'

Colado

Pa Survey

<u>Tx</u>	<u>Rc</u>	<u>n</u>	<u>V</u>	<u>I</u>	<u>Pa</u>
1-2N	0-1S	1	75.0	9.6	44.8
2-3N	"	2	14.3	9.7	33.9
0-1N	1-2S	1	100.67	9.4	61.5
1-2N	"	2	26.2	9.7	62.1
2-3N	"	3	7.24	9.7	42.9
0-1S	2-3S	1	223.67	9.0	142.7
0-1N	"	2	39.3	9.4	96.2
1-2N	"	3	15.17	9.4	92.7
2-3N	"	4	4.27	9.5	51.7
1-2S	3-4S	1	128.33	9.7	75.9
0-1S	"	2	41.6	8.8	108.7
0-1N	"	3	12.13	9.2	75.7
1-2N	"	4	5.05	9.5	61.1
2-3N	"	5	1.583	10.5	30.3
2-3S	4-5S	1	131.67	10.5	72.0
1-2S	"	2	37.4	10.0	86.0
0-1S	"	3	16.37	9.0	104.5
0-1N	"	4	5.92	9.4	72.4
1-2N	"	5	2.56	9.8	52.8
2-3N	"	6	0.969	10.5	31.2
2-3S	5-6S	2	19.17	10.5	42.0
1-2S	"	3	10.07	10.0	57.9
0-1S	"	4	6.41	9.0	81.9
0-1N	"	5	2.5	9.5	52.9

# Colorado

(2)

<u>TX</u>	<u>Rc</u>	<u>n</u>	<u>V</u>	<u>I</u>	<u>Pa</u>
1-2N	5-6S	6	1.153	9.9	37.6
2-3N	"	7	0.3672	10.5	16.9
2-3N	0-1N	1	49.6	8.4	33.9
1-2N	3-4N	1	19.13	10.0	11.0
0-1N	"	2	5.19	9.6	12.4
0-1S	"	3	2.346	9.2	14.6
1-2S	"	4	1.53	10.0	17.6
2-3S	"	5	1.103	11.0	20.2
2-3N	4-5N	1	25.17	10.0	14.4
1-2N	"	2	5.57	10.0	12.8
0-1N	"	3	1.78	9.7	10.5
0-1S	"	4	0.6975	9.2	8.7
1-2S	"	5	0.5124	10.0	10.3
2-3S	"	6	0.3831	11.0	11.2
2-3N	5-6N	2	7.95	10.0	18.3
1-2N	"	3	1.95	10.0	11.2
0-1N	"	4	0.7625	9.8	8.9
0-1S	"	5	0.47745	9.3	10.3
1-2S	"	6	0.4338	10.0	14.0
2-3S	"	7	0.3321	11.0	14.6
2-3N	6-7N	3	3.0225	10.0	17.4
1-2N	"	4	0.800	10.5	8.8
0-1N	"	5	0.345	9.9	7.0
0-1S	"	6	0.2337	9.4	8.0

## colado

3

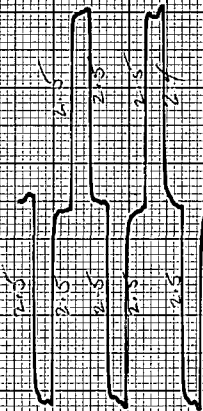
<u>Tx</u>	<u>Rc</u>	<u>n</u>	<u>V</u>	<u>I</u>	<u>Pa</u>
1-25	6-7N	7	0.24	10.5	11.1
2-3N	7-8N	4	2.23	10.0	25.6
1-2N	"	5	0.66	10.0	13.3
0-1N	"	6	0.2925	9.8	9.6
0-1.5	"	7	0.2144	9.4	11.1

R5-65  
T0-III

10.2

n=5

2.05



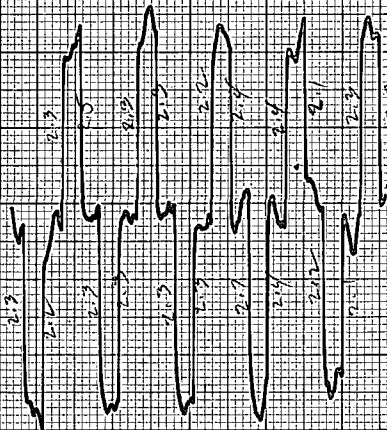
1300  
rate  $\frac{1}{200} \times \frac{1}{5} \frac{V}{CM}$

R-565  
T1-2N

10.1

n=6

2.03



1290  
 $\frac{1}{200} \times \frac{1}{10}$

R5-65  
T-2-3N

3.1

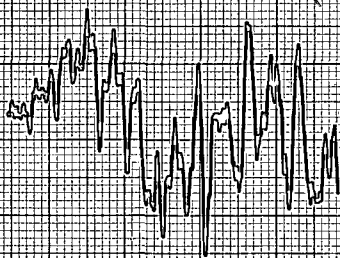
n=7

2.05



1280  
 $\frac{1.5}{103} \times \frac{1}{10}$

noise



1280

R4-5N  
T0-1S  
3, 2

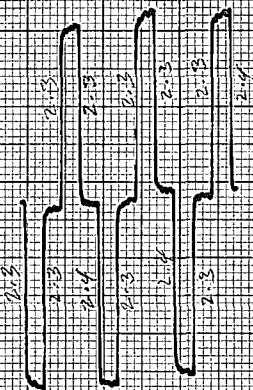
R-4-5N  
T1-2S

R-4-5N  
T2-3S

R5-6N  
T1-2N

R5-6N  
T0-1N

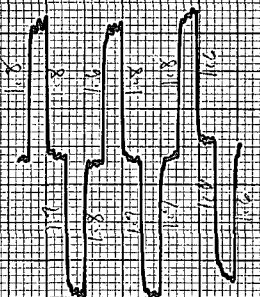
n=4



2.3  
2.4  
2.3  
2.3  
2.3  
2.3

3, 2

n=5



2.1  
2.1  
2.1  
2.1  
2.1

3, 1

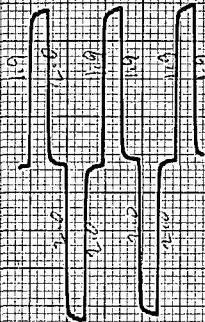
n=6



1.9  
2.1  
1.9  
1.9  
1.9  
1.9

10, 2

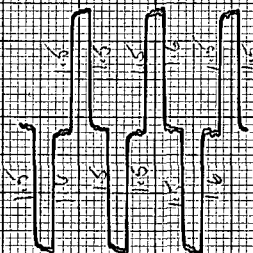
n=3



1.9  
2.1  
1.9  
1.9  
1.9

10, 1

n=4



1.9  
2.1  
1.9  
1.9  
1.9

Scale:  $\frac{1.5}{10^3} \times \frac{1}{5} \frac{V}{cm}$   
1260

$\frac{1.5}{10^3} \times \frac{1}{5}$

1250

$\frac{1.5}{10^3} \times \frac{1}{10}$

$\frac{1}{200} \times \frac{1}{5}$

$\frac{1}{200} \times \frac{1}{10}$   
1240



Line # ①

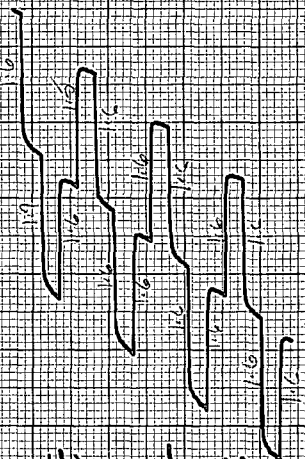
# ②

R6-7N  
T1-2N

10:1

n=4

1.6



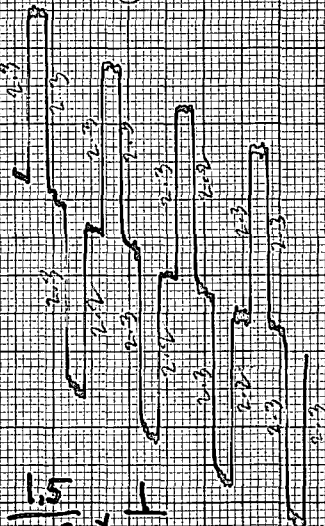
scale:  $\frac{1.5}{10^3} \times \frac{1}{10}$   
 $\frac{1}{10}$   
cm

R6-7N  
T0-1N

3:1

n=5

2.3



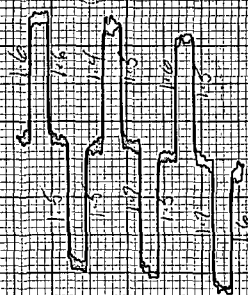
$\frac{1.5}{10^3} \times \frac{1}{10}$

R6-7N  
T0-1S

3:1

n=6

1.56



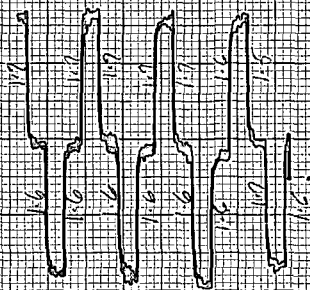
1.190  
 $\frac{1.5}{10^3} \times \frac{1}{10}$

R-6-7N  
T1-2S

5:1

n=7

1.6

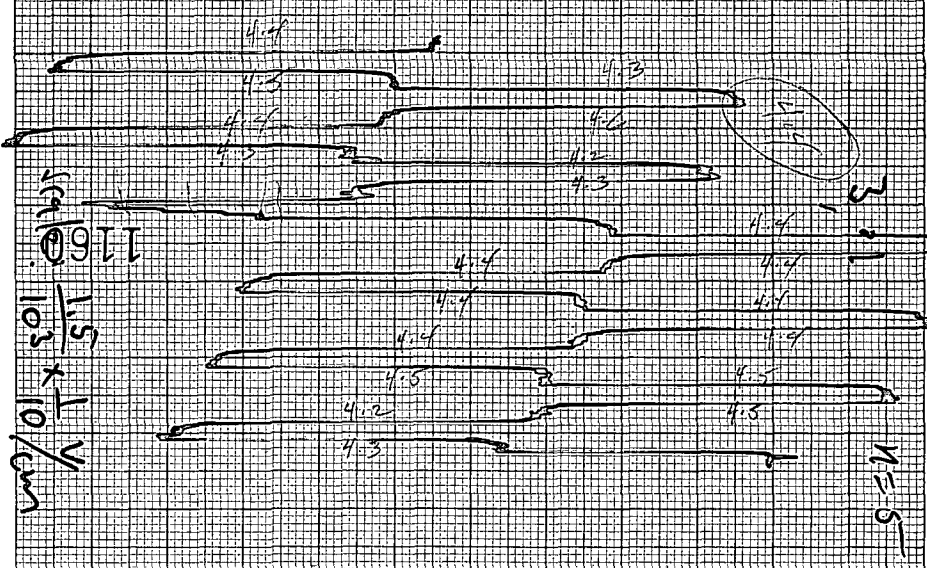


$\frac{1.5}{10^3} \times \frac{1}{10}$

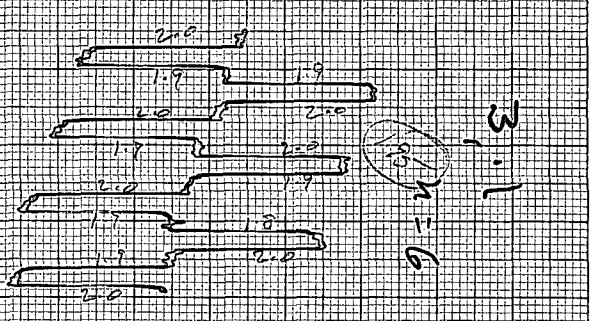
1180



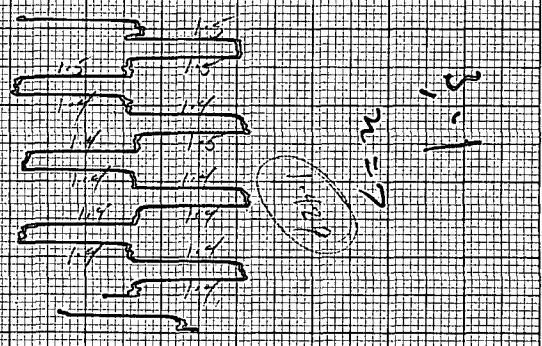
R-7-8N  
T-4-2N



R-7-8N  
T-0-1N



R-7-8N  
T-0-1S



Noisy

1140



Scintrex Mineral Surveys, Inc.

(2)

Twp. Colorado Prop. line 0 Date 4/17/80  
 Oper. T. White Asst. C. McQueen Method  $H = 1000$   
 diplo - diolo

TX Station	R <sub>0</sub>	temp		D =
1-2S	3-4S	9.7	1000X 1.00	1
0-1S		8.8	1000X 1.12	2
0-1N		9.2	1000X 1.	3
1-2N		9.5	1000X .87	4
2-3N	↓	10.5	1000X 1.00	5
2-3S	4-5S	10.5	1000X .87	1
1-2S		10	1000X 1.12	2
0-1S		9	1000X 1.12	3
0-1N		9.4	1000X 1.00	4
1-2N		9.8	1000X .87	5
2-3N	↓	10.5	1000X 1.00	6
2-3S	5-6S	10.5	1000X .87	2
1-2S		10	1000X 1.12	3
0-1S		9	1000X 1.12	4
0-1N		9.5	1000X 1.00	5
1-2N		9.9	1000X .87	6
2-3N	↓	10.5	1000X 1.00	7

Scintex Mineral Surveys, Inc.

③

Twp. Colorado Prop. line D Date 17/80  
 Oper. T. White Asst. C. M. Alpine Method double-double

Tx Station	Rv	G <sub>0-100</sub>		n
<del>2-3N</del> 1-2N	3-4N	10 10	1000x.87 1000x.87	1
0-1N		9.6	1000x1	2
0-15		9.2	1000x1.12	3
1-25		10	1000x1.00	4
2-35	↓	11	1000x.87	5
2-3N	4-5N	10	1000x.87	1
1-2N		10	1000x.87	2
0-1N		9.7	1000x1	3
0-15		9.2	1000x1.12	4
1-25		10	1000x1.00	5
2-35		11	1000x.87	6
2-3N	5-6N	10	1000x.87	2
1-2N		10	1000x.87	3
0-1N		9.8	1000x1	4
0-15		9.3(9.3)	1000x1.12	5
1-25		10 (10)	1000x1.00	6
2-35		11	1000x.87	7





Scintrex Mineral Surveys, Inc.

Twp.		Prop.			Date
Oper.	Liht #	Asst.		Method	
T Station	R				
<del>3-4 S</del>	3-4 S				
<del>1-2 S</del> 1	100 x 1.35	x 1.20	x 1.29	x 1.28	<del>128</del> 74.58
<del>2-1 S</del> 2	30 x 1.39	x 1.38	x 1.39		<del>41.70</del> 107.13
<del>1-0 N</del> 3	10 x 1.22	x 1.20	x 1.22		<del>12.1</del> 74.34
<del>2-1 N</del> 4	3 x 1.69	x 1.67	x 1.69		<del>5.04</del> 59.97
<del>3-2 N</del> 5	1 x 1.58	x 1.60	x 1.57		<del>1.58</del> 29.77
<del>10-2-3 S</del> 1	4-5 S	100 x 1.32	x 1.32	x 1.31	<del>132</del> 71.05
<del>10-1-2 S</del> 2		30 x 1.24	x 1.26	x 1.24	<del>37.50</del> 84.78
<del>9-0-1 S</del> 3		10 x 1.64	x 1.64	x 1.63	<del>16.4</del> 102.99
<del>14-1-0 N</del> 4		3 x 1.98	x 1.96	x 1.98	<del>5.94</del> 71.19
<del>13-2-1 N</del> 5		1 x 2.57	x 2.53	x 2.58	<del>2.56</del> 51.68
<del>10-3-2 N</del> 6		3 x 3.23	x 3.19	x 3.27	<del>9.7</del> 29.24
<del>10-3-3 S</del> 2	5-6 S	10 x 1.93	x 1.90	x 1.92	<del>19.3</del> 41.34
<del>10-1-2 S</del> 3		10 x 1.00	x 1.02	x 1.00	<del>10.1</del> 57.09
<del>9-0-1 S</del> 4		3 x 2.12	2.10	2.19	<del>6.41</del> 80.51
<del>15-1-0 N</del> 5		1 x 3.24			<del>3.24</del> 67.47
<del>19-2-1 N</del> 6	$\frac{4}{2} \times \frac{1}{2000} \times 1.33$		g 7.333 mV		<del>1.33</del> 45.52
<del>10-3-2 N</del> 7	$\frac{55}{2} \times \frac{1.5}{104}$	"	g .55		<del>55</del> 24.8

Scintrex Mineral Surveys, Inc.

Twp.		Prop.			Date		
Oper. Line #1		Asst.		Method			
Station	R						
#11	3-4 N	fence, grounded 10' from 3' N					
102-3K							
101-2	1	10 x 1.91	x 1.92	x 1.91	10	19.1 / 35	
100-1 N	2	3 x 1.74	x 1.72	x 1.73	9.6	5.16 / 40	
101-0 S	3	1 x 2.35	2.32	2.37	9.2	2.32 / 48	
102-1 S	4	1 x 1.52	1.50	1.57	10	1.53 / 57	
103-2 S	5	1 x 1.10	x 1.09	x 1.12	11	1.10 / 65	
102-3 N	1	4-5 N	10 x 2.52	x 2.50	x 2.53	25.2 / 14.24	
101-2 N	2		3 x 1.87	x 1.85	x 1.85	5.57 / 12.59	
100-1 N	3		1 x 1.78	1.76	1.79	1.78 / 10.57	
101-0 S	4		3 x 2.88			.88 / 10.57	
102-1 S	5	$\frac{3}{2} \times \frac{1.5}{103 \times 5}$	x 1.33		g .60 mv	.60 / 11.97	
103-2 S	6	$\frac{5}{2} \times \frac{1.5}{104}$	x 1.33		g .49	.49 / 21.15	
102-3 N	2	5-6 N	3 x 2.65			1.95 / 17.97	
101-2 N	3		1 x 2.53			2.53 / 14.30	
100-1 N	4	$\frac{3}{2} \times \frac{1}{2000}$	x 1.33		g .99 mv	.99 / 11.42	
101-0 S	5	$\frac{6}{2} \times \frac{1.5}{104}$	x 1.33		g .59 mv	.59 / 12.55	
102-1 S	6	$\frac{6}{2} \times \frac{1.5}{104}$	x 1.33		g .59	.59 / 18.67	
103-2 S	7	$\frac{7}{2} \times \frac{1.5}{104}$	x 1.33		g .39	.39 / 16.83	



Scintrex Mineral Surveys, Inc.

4

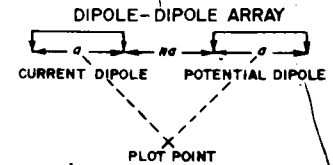
Twp. \_\_\_\_\_ Prop. \_\_\_\_\_ Date 17

Oper. Line 110 Asst. \_\_\_\_\_ Method \_\_\_\_\_

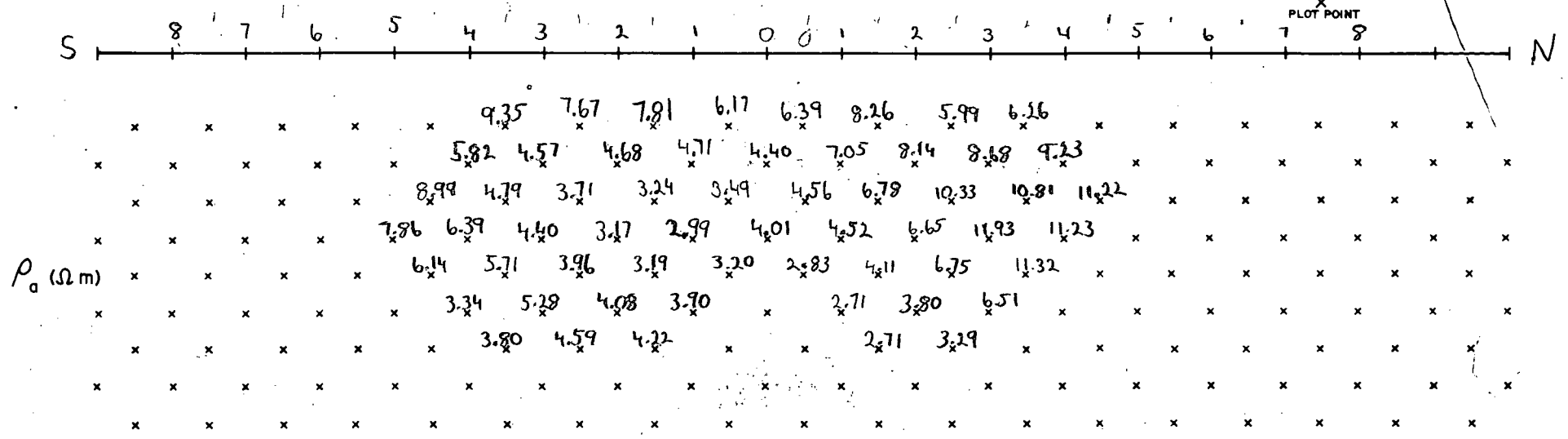
Station					
102-3 N <sup>43</sup>	6-7 N	3 x 1.00	x 1.00 x 1.01 x 1.02	3.03	17.13
105-2 N <sup>54</sup>	$\frac{2.4}{2} \times \frac{1}{2000}$	X	g	.79 mV	.79 / 8.51
190-1 N <sup>65</sup>	$\frac{4.2}{2} \times \frac{1.5}{104}$	x 1.33	g	.62	.62 / 12.39
141-0 S <sup>6</sup>	$\frac{3}{2} \times \frac{1.5}{104}$	"	g	.29	.29 / 9.76
052-1 07	$\frac{3}{2} \times \frac{1.5}{104}$	"	g	.29	.29 / 13.11
102-3 N <sup>4</sup>	7-8 N	1 x 2.23	x 2.25 x 2.21	2.21	24.98
101-2 N <sup>5</sup>	$\frac{9}{2} \times \frac{1.5}{104}$	x 1.33	g	.89 mV	.89 / 17.61
180-1 N <sup>6</sup>	$\frac{3.5}{2} \times \frac{1.5}{104}$	g	"	.35	.35 / 11.30
141-0 7	$\frac{3}{2} \times \frac{1.5}{104}$	g	"	.29 mV	.29 / 14.65

EARTH SCIENCE LABORATORY  
UNIVERSITY of UTAH RESEARCH INSTITUTE

DIPOLE - DIPOLE ARRAY  
APPARENT RESISTIVITY



a = |-----| meters



*John. ff.*

line c @ 1000'

Colado

Pa Survey

<u>Tx</u>	<u>Rc</u>	<u>n</u>	<u>V</u>	<u>I</u>	<u>Pa</u>
1-2 S	0-1 N	1	14.2	13.0	6.3
2-3 S	"	2	2.29	11.0	4.8
0-1 S	1-2 N	1	19.8	17.5	6.5
1-2 S	"	2	2.82	14.5	4.5
2-3 S	"	3	0.68	11.0	3.6
0-1 N	2-3 N	1	21.2	14.5	8.4
0-1 S	"	2	5.46	17.5	7.2
1-2 S	"	3	1.17	14.5	4.6
2-3 S	"	4	0.393	11.0	4.1
1-2 N	3-4 N	1	15.9	15.0	6.1
0-1 N	"	2	5.22	14.5	8.3
0-1 S	"	3	2.04 1.6	17.0	5.4
1-2 S	"	4	0.3717	12.0	3.6
2-3 S	"	5	0.1352	10.5	2.6
2-3 N	4-5 N	1	14.4	13.0	6.4
1-2 N	"	2	5.76	15.0	8.8
0-1 N	"	3	2.65 2.05	14.5	8.1
0-1 S	"	4	0.85	17.0	5.8
1-2 S	"	5	0.211	12.5	3.4
2-3 S	"	6	0.0825	10.5	2.5
2-3 N	5-6 N	2	5.31	13.0	9.4
1-2 N	"	3	2.87	15.0	11.0
0-1 N	"	4	1.1	14.5	8.7
0-1 S	"	5	0.775	17.0	5.6

<u>Tx</u>	<u>Rc</u>	<u>n</u>	<u>V</u>	<u>I</u>	<u>Pa</u>
1-2S	5-6N	6	0.1235	12.5	3.2
2-3S	"	7	0.05032	10.5	2.31
2-3N	6-7N	3	2.58	13.0	11.4
1-2N	"	4	1.2	15.0	9.2
0-1N	"	5	0.625	14.5	8.7
0-1S	"	6	0.28125	17.5	5.2
1-2S	"	7	0.0809	13.0	3.0
2-3S	0-1S	1	15.2	11.0	7.9
1-2S	3-4S	1	19.0	14.0	7.8
0-1S	"	2	3.72	17.5	4.9
0-1N	"	3	0.864	15.0	3.3
1-2N	"	4	0.405	15.5	3.0
2-3N	"	5	0.16125	13.0	2.5
2-3S	4-5S	1	18.2	11.0	9.5
1-2S	"	2	2.93	14.5	4.6
0-1S	"	3	1.18	18.0	3.8
0-1N	"	4	0.31785	15.0	2.4
1-2N	"	5	0.1795	15.5	2.3
2-3N	"	6	0.1111	13.0	2.8
2-3S	5-6S	2	2.83	11.0	5.9
1-2S	"	3	1.23 0.942	14.5	3.7
0-1S	"	4	0.5193	18.0	3.3
0-1N	"	5	0.22	15.0	2.9
1-2N	"	6	0.139	15.5	2.9
2-3N	"	7	0.0914	13.5	3.3

Live  
C

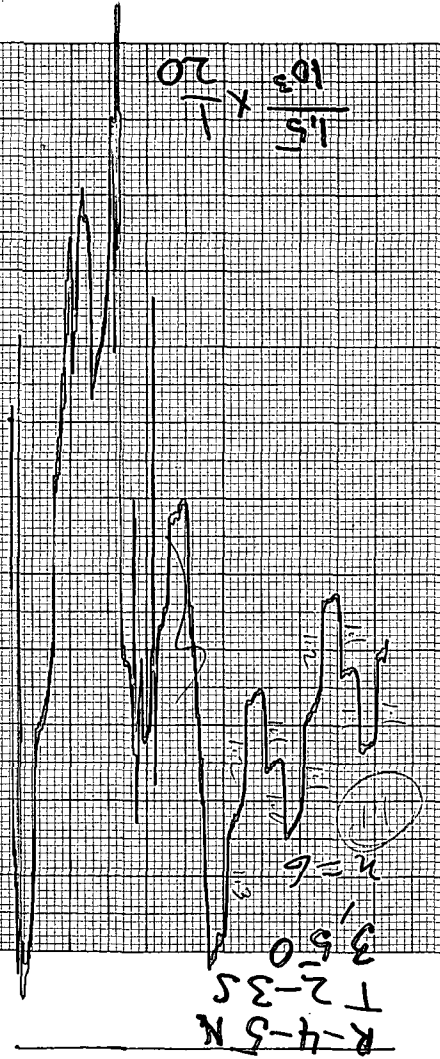
Colado

(3)

<u>Tx</u>	<u>Re</u>	<u>n</u>	<u>v</u>	<u>I</u>	<u>Pa</u>
2-35	6-75	3	1.83	11.5	9.1
1-25	"	4	0.66	14.5	5.2
0-15	"	5	0.391	18.0	4.4
0-10	"	6	0.191	15.0	4.1
1-20	"	7	0.12525	15.5	3.9
2-35	7-85	4	1.5818	11.5	5.8
1-25	"	5	0.3281	14.5	4.6
0-15	"	6	0.2157	18.0	3.9
0-10	"	7	0.1029	15.0	3.3

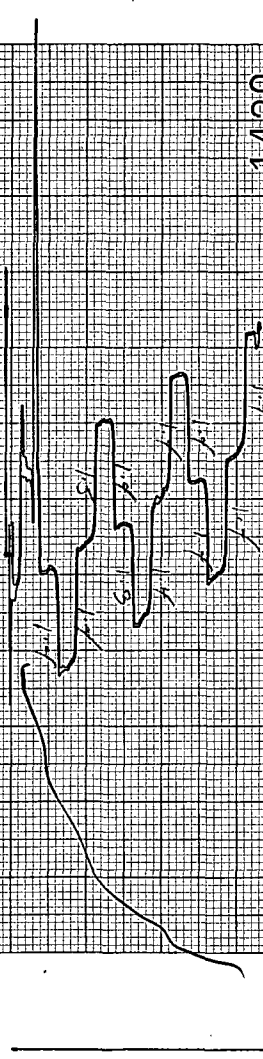


1410



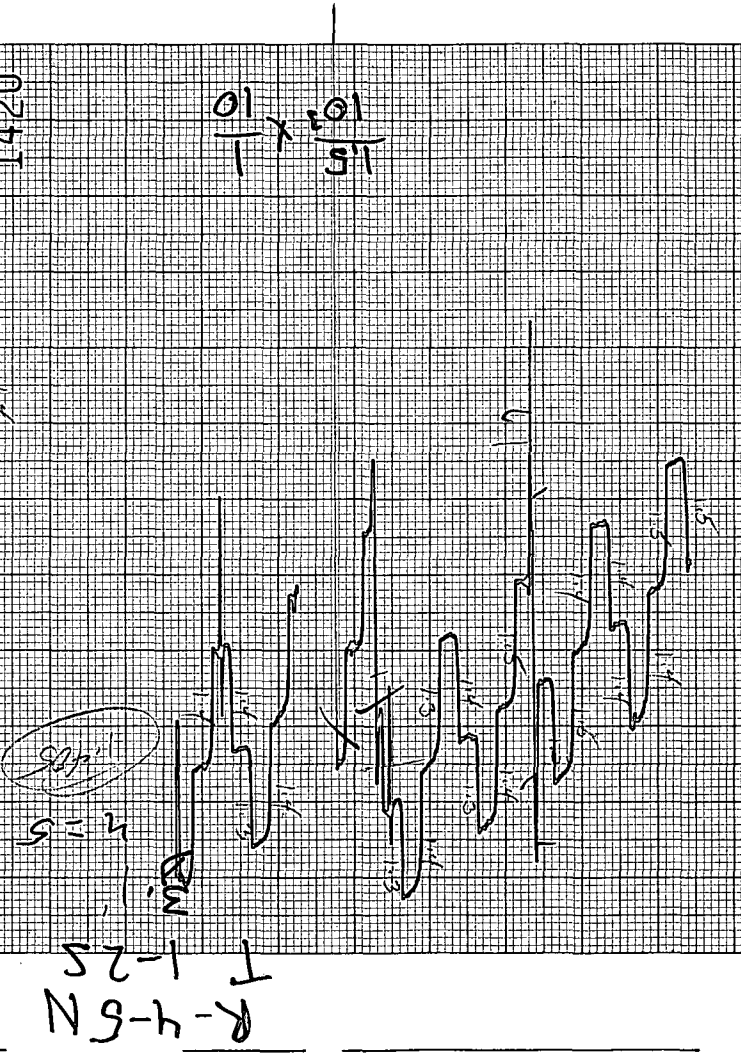
10.5  
10.5 X 1  
20

1420



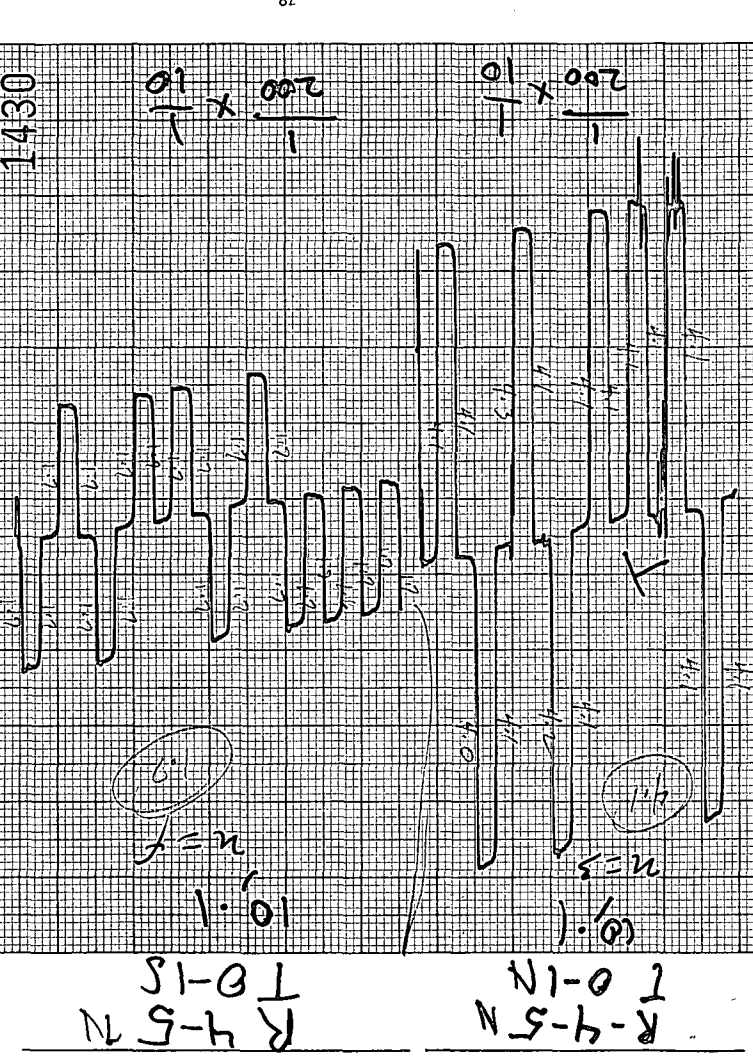
10.5  
10.5 X 1  
10

1430



10  
200 X 1  
10

1440

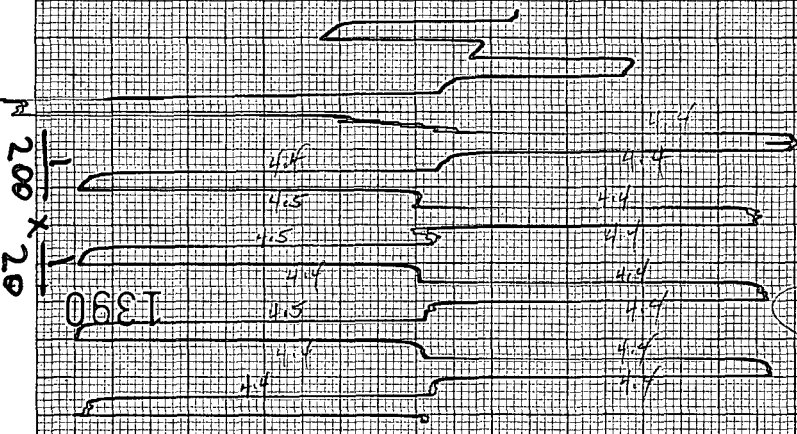


10  
200 X 1  
10

R-5-6N  
T-0-1N  
10.50mV

N=4

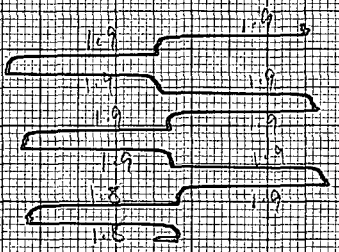
1390



R-5-6N  
T-0-1S  
10.50mV

N=5

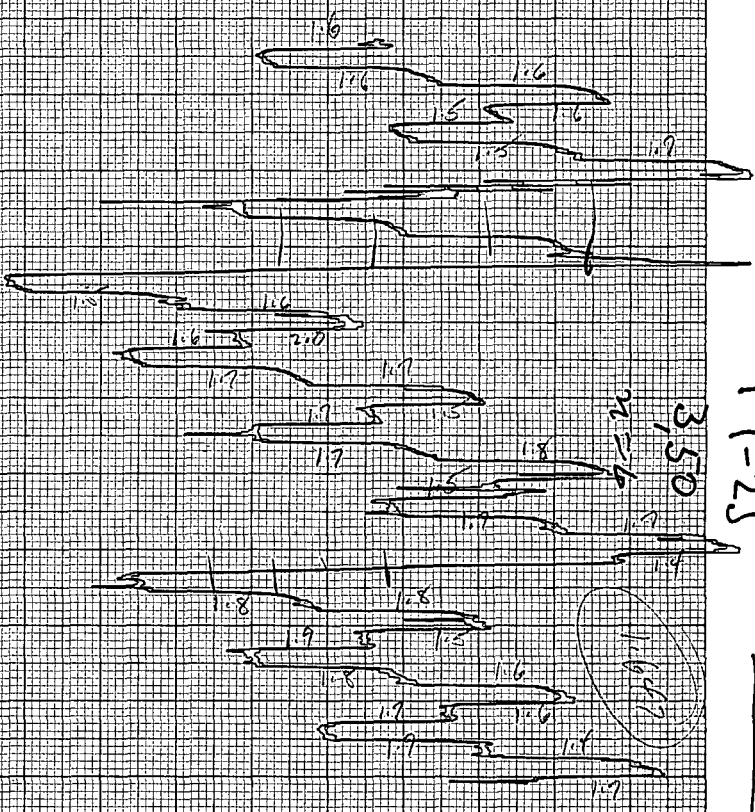
1380



R-5-6N  
T-1-2S

N=6

1370

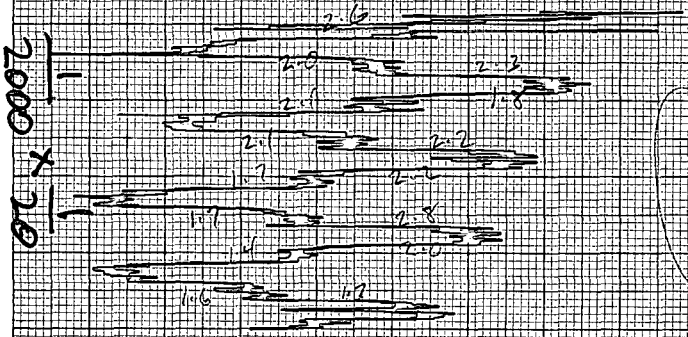


noise

R-5-6N  
T-2-3S

N=9

1360

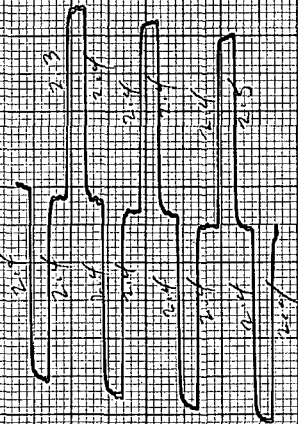




R 6-7N  
T 1-2N  
10.1

$n=7$

3.236



200 x 10

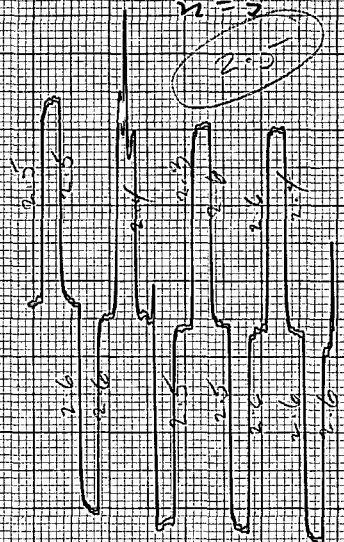
1340

R 6-7N  
T 0-1N

10,50mV

$n=5$

2.05



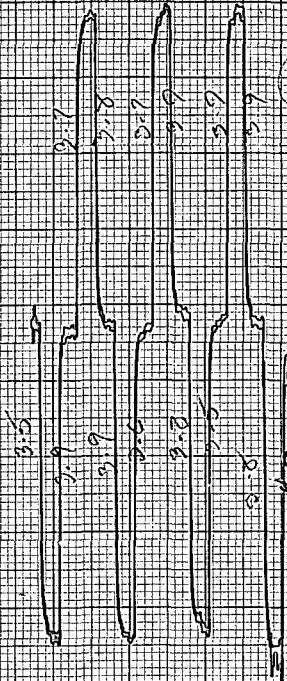
200 x 10

R 6-7N  
T 0-1S

3,50mV

$n=6$

3.95



1330  
10 x 20

R 6-7N  
T 1-2S

1,50

$n=7$

3.236



2000 x 20

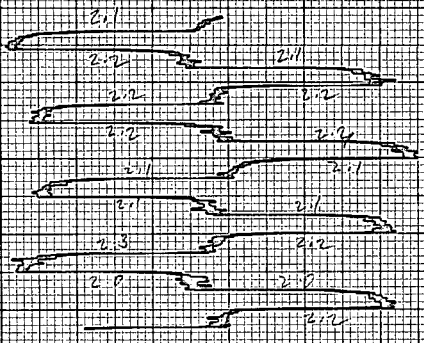
1320

R3-4J  
T2-3N

3,50mV

N=5

2.15



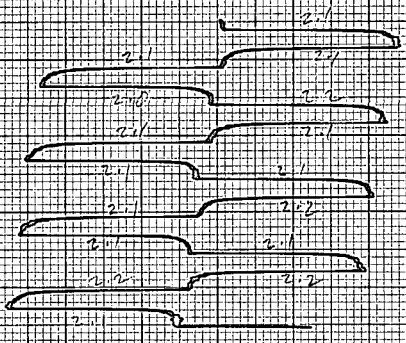
scale:  $\frac{1.5}{1}$   
 $\frac{100}{20}$

R4-5J  
T0 1N

3, .1

N=4

2.119



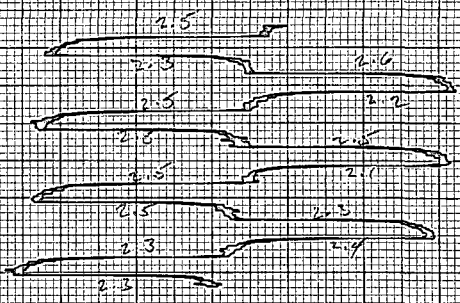
$\frac{1.5}{103} \times \frac{1}{10}$

R4-5J  
T1-2N

3,50mV

N=5

2.393



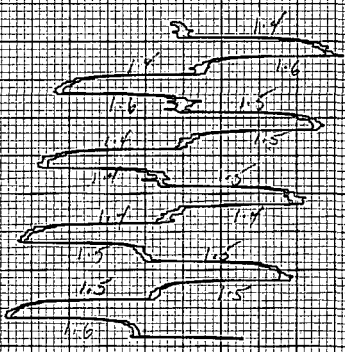
$\frac{1.5}{103} \times \frac{1}{20}$

R4-5J  
T2-3N

3,50mV

N=6

1.981



$\frac{1.5}{103} \times \frac{1}{20}$

Line # C

①

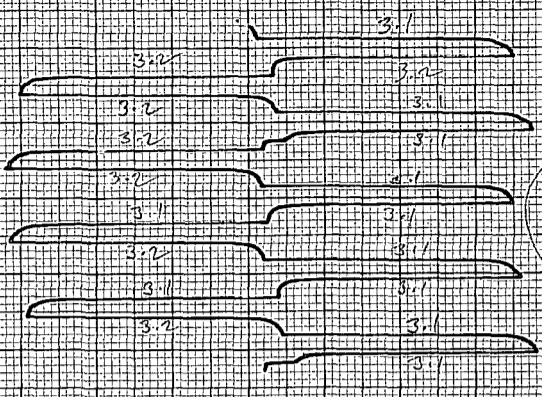
R-5-65  
T 0-15

R-5-65  
T 0-15

R-5-65  
T 0-1N

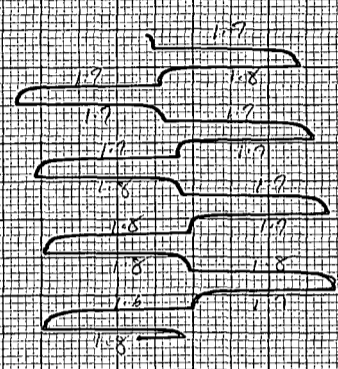
R-5-65  
T 1-2N

R-5-65  
T 2-3N



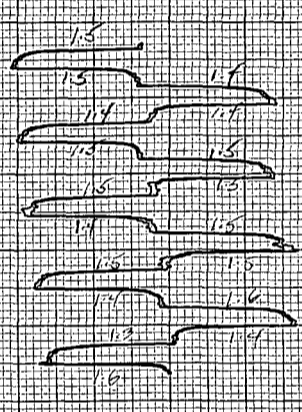
3.197

3.2  
n=3



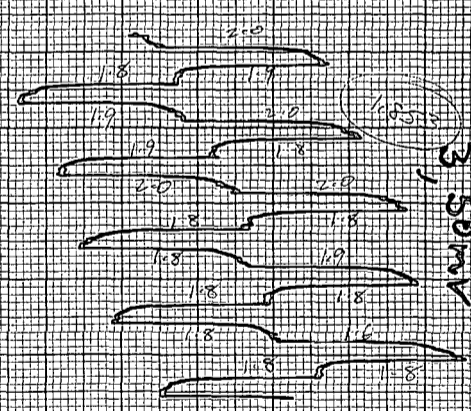
1.13

3.2  
n=4



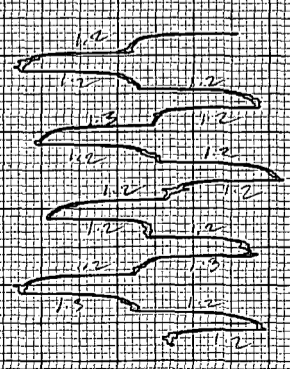
1.465

3.1  
n=5



1.855

3.50mV  
n=6



1.219

3.50mV  
n=7

$\frac{1.5}{10^3} \times \frac{1}{5}$   
1630

$\frac{1.5}{10^3} \times \frac{1}{5}$

$\frac{1.65}{10^3} \times \frac{1}{10}$

$\frac{1.6}{10^3} \times \frac{1}{20}$   
1610

$\frac{1.5}{10^3} \times \frac{1}{20}$

1600



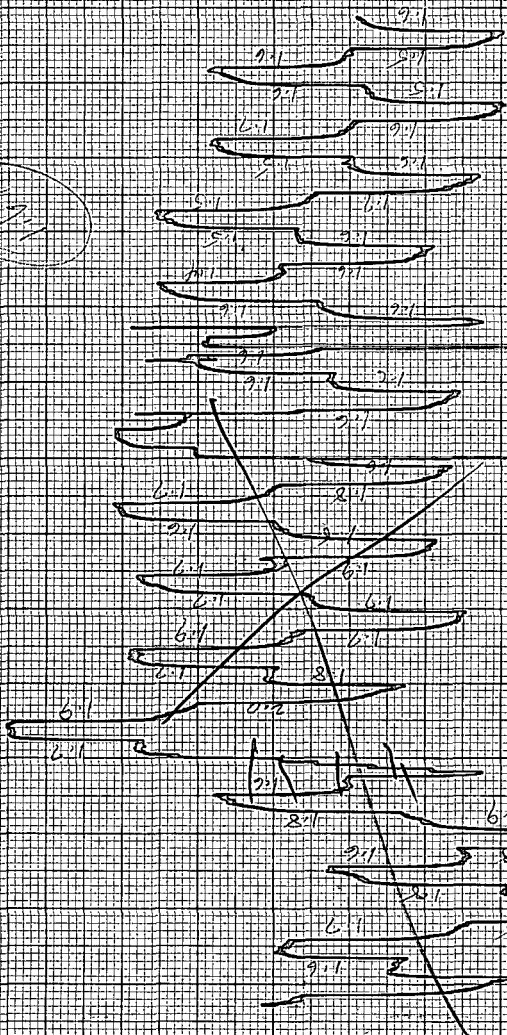
R 6-75  
T 1-2N

350 mV

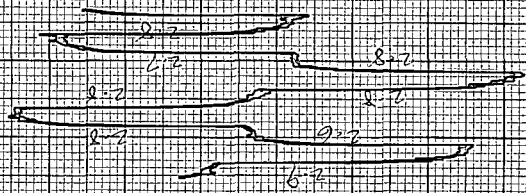
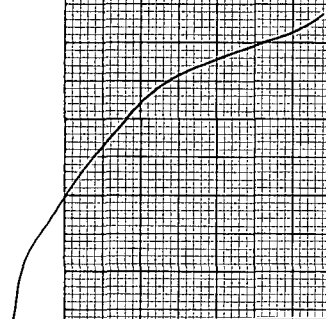
$\mu = 7$

$\frac{1}{10}$

$$\frac{1.5}{10^3} \times \frac{1}{20}$$



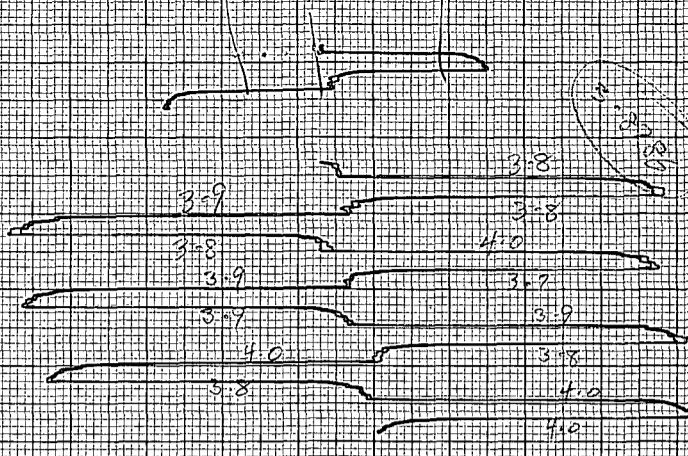
1550



1560

R7-85  
10-15

3.1  
N=4

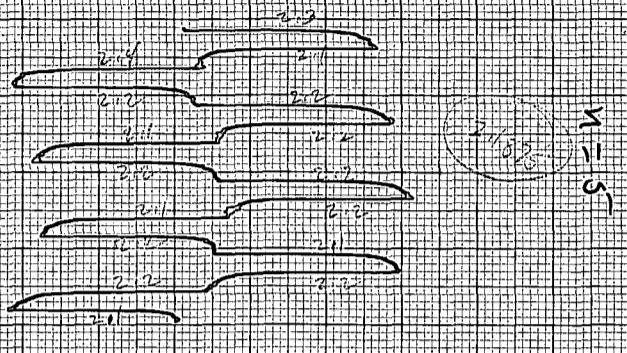


1540

$\frac{1.5}{10^3} \times \frac{1}{10}$

R7-85  
10-15

3.1  
N=5

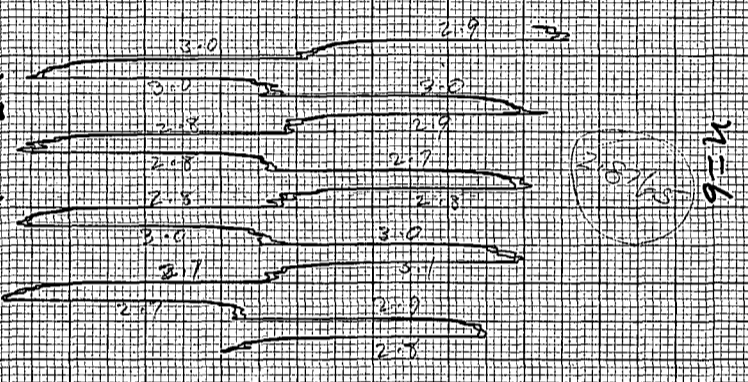


$\frac{1.5}{10^3} \times \frac{1}{10}$

1530

R7-85  
10-15

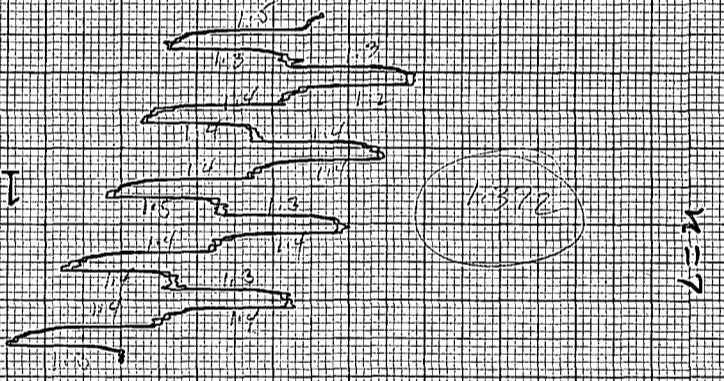
3.50m  
N=6



$\frac{1.5}{10^3} \times \frac{1}{10}$

R7-85  
10-15

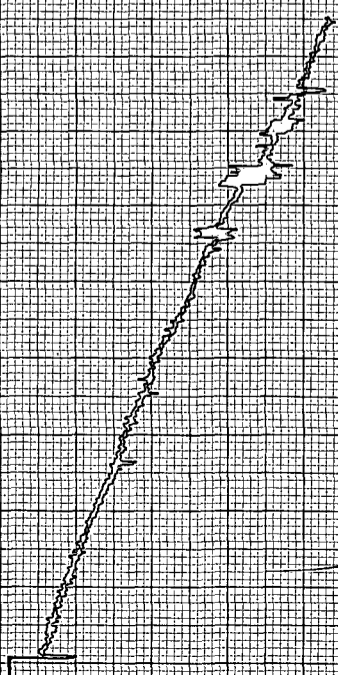
3.50m  
N=7



$\frac{1.5}{10^3} \times \frac{1}{10}$

1510

Noise







## Scintrex Mineral Surveys, Inc.

②

Twp.		Prop. <i>line C</i>		Date	
Oper.		Asst.		Method	
Tx Station	Rec.	amp			n =
1-2S	3-4S	14	650X.87		1
0-1S		17.5	400X1.20		2
0-1N		15	400X1.20		3
1-2N		15.5	650X.71		4
2-3N		13	650X.71		5
2-3S	4-5S	11	650X1.20		1
1-2S		14.5	650X.87		2
0-1S		18	400X1.20		3
0-1N		15	400X1.20		4
1-2N		15.5	650X.71		5
2-3N-		13	650X.71		6
2-3S	5-6S	11	650X1.20		2
1-2S		14.5	650X.87		3
0-1S		18	400X1.20		4
0-1N		15	400X1.20		5
1-2N		15.5	650X.71		6
2-3N		13.5	650X.71		7
1-2					1



Scintrex Mineral Surveys, Inc.

(4)

Twp. Colorado Prop. Line C Date 4/16/80  
 Oper. T. White Asst. E. MacRae Method A=1000  
 dino - Resob

TY Station	Rec	amp/2		n =
1-2N	3-4N	15	650x.71	1
0-1N		14.5	400x1.20	2
0-1S		17.	400x1.20	3
1-2S		12	650x.71	4
2-3S	∨	10.5	650x1.20	5
2-3N	4-5N	13	650x.71	1
1-2N		15	650x.71	2
0-1N		14.5	400x1.20	3
0-1S		17	400x1.20	4
1-2S		12.5	650x.71	5
2-3S	∨	10.5	650x1.20	6
2-3N	5-6N	13	650x.71	2
1-2N		15	650x.71	3
0-1N		14.5	400x1.20	4
0-1S		17	400x1.20	5
1-2S		12.5	650x.71	6
2-3S	∨	10.5	650x1.20	7





## Scintrex Mineral Surveys, Inc.

Twp.		Prop.		Date 15	
Oper. Line #C		Asst.		Method	
Station	R				
(14) 1-2S <sup>1</sup>	3-4S	10X1.90	±.01		<del>19</del> 7.67
(17.5) 0-1S <sup>2</sup>		3X1.24	±.02		<del>3.62</del> 4.68
(15) 1N-0 <sup>3</sup>		.3X2.88	±.03		<del>.86</del> 3.24
(5.5) 2-1N <sup>4</sup>		.3X1.35	±.05		<del>.41</del> 2.99
(3) 3-2N <sup>5</sup>	$\frac{4.2}{2} \times \frac{1.5}{10^3+20}$	g 1.33	.21mv		<del>.21</del> 3.20
(11) 2-3S <sup>1</sup>	4-5S	10X1.82	±.00		<del>18.2</del> 9.35
(14.5) 1-2S <sup>2</sup>		1X2.93	±.02		<del>2.93</del> 4.57
(18) 0-1S <sup>3</sup>		1X1.18	±.02		<del>1.18</del> 3.71
(17) 1N-0 <sup>4</sup>	$\frac{4.2}{2} \times \frac{1.5}{10^4}$	g 1.33	.42mv		3.17
(5.5) 2N-1N <sup>5</sup>	$\frac{5}{2} \times \frac{1.5}{10^3+20}$	g 1.23	.25		3.19
(3) 3-2N <sup>6</sup>	$\frac{3.2}{2} \times \frac{1.5}{10^3+20}$	g 1.22	.16		3.90
(11) 2-3S <sup>2</sup>	5-6S	1X2.83	±.00		<del>2.83</del> 5.82
(4.5) 1-2S <sup>3</sup>	$\frac{6}{2} \times \frac{1.5}{10^3+5}$	1X1.23	±.04 g		<del>1.23</del> 4.79
(18) 0-1N <sup>4</sup>	$\frac{3.5}{2} \times \frac{1.5}{10^3+5}$	1.33	g .70mv		4.40
(15) 1-0N <sup>5</sup>	$\frac{3}{2} \times \frac{1.5}{10^4}$	1.33	g .30		3.96
(5.5) 2-1N <sup>6</sup>	$\frac{4}{2} \times \frac{1.5}{10^3+20}$	1.22	g .20		4.08
(13.5) 3-2N <sup>7</sup>	$\frac{2.5}{2} \times \frac{1.5}{10^3+20}$	1.33	g .12		4.22



Scintrex Mineral Surveys, Inc.

4

Twp.		Prop.		Date	
Oper. Line # G		Asst.		Method	
Station	R				
<del>2-2 N<sup>1</sup></del>	3-4 N <sup>1</sup>				
(15) 1-2 N <sup>1</sup>		10 x 1.59	± .00		<u>15.9</u> 5.99
(14.5) 0-1 N <sup>2</sup>		3 x 1.74	± .02		<u>5.22</u> 8.54
(17) 15-0 (3)		1 x 2.04	± .04 g		<u>2.04</u> 6.78
(12) 25-15 (4)	$\frac{4.8}{2} \times \frac{1.57}{104}$	.48 mv	g		<u>4.8</u> 4.52
(10.5) 35-2 (5)	$\frac{3}{2} \times \frac{1.5}{10^3 \times 20}$	.15 mv	g		<u>15</u> 2.83
(13) 2-3 N <sup>1</sup>	4-5 N	10 x 1.44	± .00		<u>14.4</u> 6.26
(15) 1-2 N <sup>2</sup>		3 x 1.92	± .02		<u>5.76</u> 8.68
(14.5) 0-1 N <sup>3</sup>		1 x 2.65	± .05 g		<u>2.65</u> 10.33
(1) 15-0 (4)	$\frac{3}{2} \times \frac{1}{2000}$	1. mv	g		<u>1</u> 6.65
(12.5) 2-15 (5)	$\frac{2.6}{2} \times \frac{1.5}{104}$	.26	g		<u>2.6</u> 4.11
(10.5) 3-25 (6)	$\frac{3}{2} \times \frac{1.5}{10^3 \times 20}$	.09 mv	g		<u>0.9</u> 2.71
(13) 2-3 N <sup>2</sup>	5-6 N	3 x 1.77	± .03		<u>5.31</u> 9.23
(15) 1-2 N <sup>3</sup>		1 x 2.87	± .05		<u>2.87</u> 10.81
(14.5) 0-1 N <sup>4</sup>	$\frac{9}{2} \times \frac{1}{4000}$	g 1.53 mv			<u>1.53</u> 11.93
(17) 15-0 (5)	$\frac{3.5}{2} \times \frac{1}{4000}$	g .58			<u>0.58</u> 6.75
(25) 25-15 (6)	$\frac{3}{2} \times \frac{1.5}{10^3 \times 20}$	g .15			<u>0.15</u> 3.80
(10.5) 35-25 (7)	$\frac{3.5}{2} \times \frac{1}{40000}$	g .06			<u>0.06</u> 2.71





Colado

<u>TX</u>	<u>Re</u>	<u>n</u>	<u>v</u>	<u>I</u>	<u>Pa</u>
1-2W	3-4E	4	0.538	11.5	10.8
2-3W	"	5	0.3 ?	11.0	11.0 ?
2-3E	4-5E	1	121.0	7.6	182.8
1-2E	"	2	22.17	7.0	145.7
0-1E	"	3	10.24	10.0	117.7
2-3E	5-6E	2	32.5	8.1	184.6
1-2E	"	3	7.83	7.8	115.3
0-1E	"	4	4.09	11.5	81.8

## Colado

<u>TX</u>	<u>Rc</u>	<u>n</u>	<u>V</u>	<u>I</u>	<u>Pa</u>
0-1W	5-6E	5	1.148	16.0	28.9
2-3E	6-7E	3	9.729 ? 8.199	8.2 8.4	136.3 ? 112.2
1-2E	"	4	3.1845	7.5	97.7
0-1E	"	5	2.046	11.5	71.6
0-1W	"	6	0.579	16.0	23.3
2-3E	7-8E	4	4.0125	8.3	111.2
1-2E	"	5	1.2888	7.7	67.3
0-1E	"	6	0.9227	11.5	51.7
2-3W	0-1W	1	10.06	10.5	5.5
"	0-1E	2	11.0	10.5	24.1
1-2W	"	1	1.037	11.5	1.0
0-1W	1-2E	1	39.6	16.0	28.4
1-2W	"	2	1.41	11.5	5.6
2-3W	"	3	0.31	10.5	3.4
0-1E	2-3E	1	164.0	11.0	171.2
0-1W	"	2	15.5	16.0	44.6
1-2W	"	3	1.327	11.5	13.3
2-3W	"	4	0.63	10.5	13.8
1-2W	3-4W	1	4.48	11.5	4.5
0-1W	"	2	2.027	16.0	5.8
2-3W	4-5W	1	7.41	10.5	8.5
1-2E	3-4E	1	100.003	7.0	164.0
0-1E	"	2	30.5	9.9	141.7
0-1W	"	3	6.34	15.0	48.6

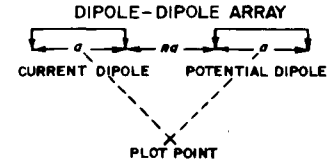
Line B  
2000' dipoles

Colorado AREA, NEVADA ... Pa Survey

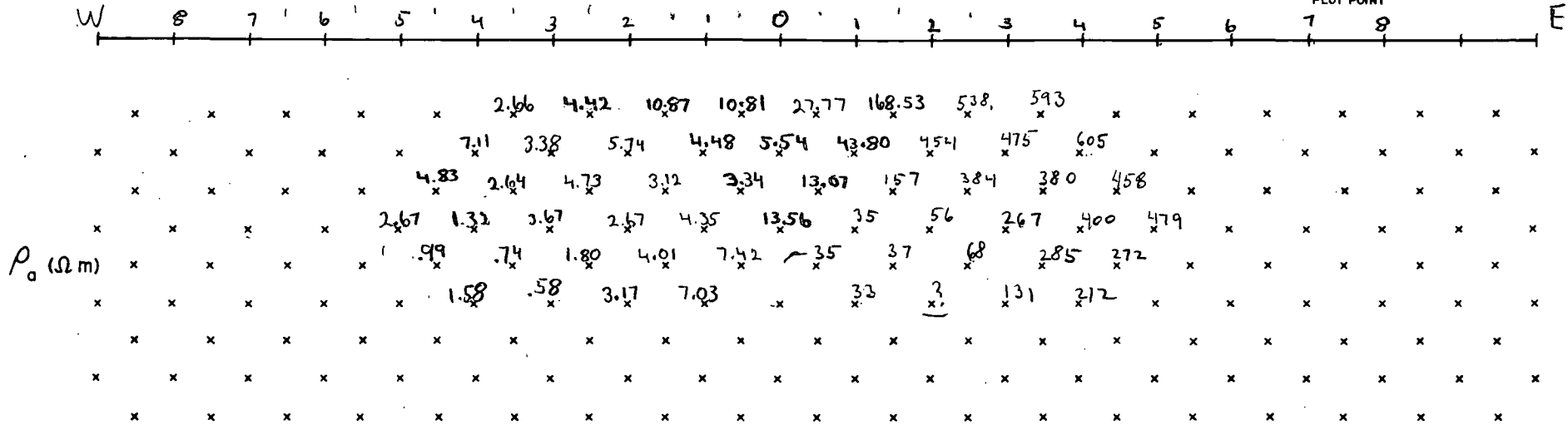
<u>Tx</u>	<u>Rc</u>	<u>n</u>	<u>V</u>	<u>I</u>	<u>Pa</u>
0-1E	3-4W	3	0.285	10.5	3.1
1-2E	"	4	0.152	7.8	4.5
2-3E	"	5	0.248	8.0	12.5
1-2W	4-5W	2	0.6575	11.5	2.6
0-1W	"	3	0.4895	16.0	3.5
0-1E	"	4	0.1569	11.0	3.3
1-2E	"	5	0.09624	7.9	4.9
2-3E	"	6	0.1612	8.1	12.8
2-3W	5-6W	2	1.191	10.5	5.2
1-2W	"	3	0.26	12.0	2.5
0-1W	"	4	0.2256	16.0	3.2
0-1E	"	5	0.0969	11.0	3.5
1-2E	"	6	0.0859	8.0	6.9
2-3W	6-7W	3	0.3281	11.0	3.4
1-2W	"	4	0.1512 ?	12.0	2.9 ?
0-1W	"	5	0.1345 ?	16.0	3.4 ?
0-1E	"	6	0.0826 ?	11.0	4.8 ?
2-3W	7-8W	4	0.1135	11.0	2.4
1-2W	"	5	0.0536 ?	12.0	1.8 ?
0-1W	"	6	0.0606 ?	16.0	2.4 ?
0-1W	4-5E	4	1.793	16.0	25.8
1-2W	"	5	0.25 ?	11.5	8.7 ?
2-3W	"	6	0.15 ?	10.0	9.7 ?

EARTH SCIENCE LABORATORY  
UNIVERSITY of UTAH RESEARCH INSTITUTE

DIPOLE - DIPOLE ARRAY  
APPARENT RESISTIVITY



$a = 2000'$  meters



4.5 / 2000

2.25

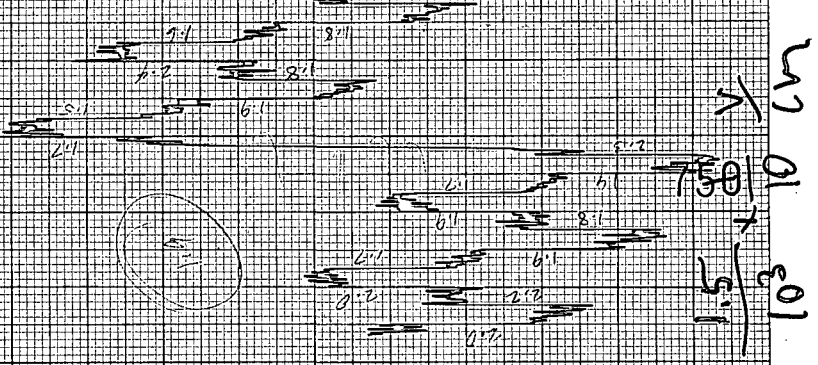
1.125

ohm-feet

R 4-5W  
T 0-1E

3.1

n=3

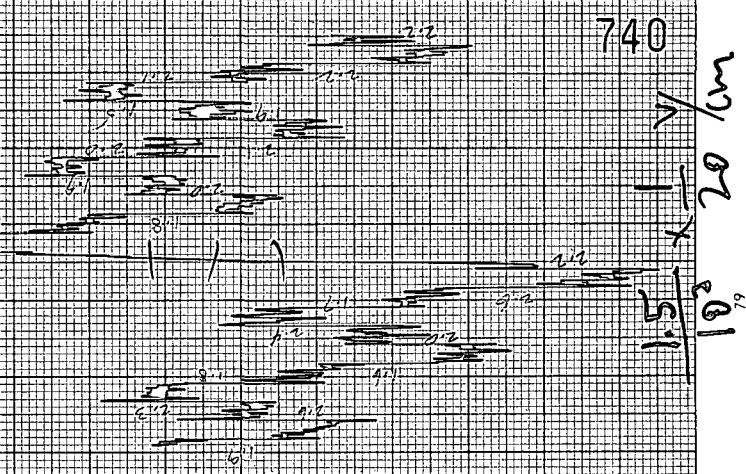


R 4-6W  
T 1-2E

3.50

n=4

2.02

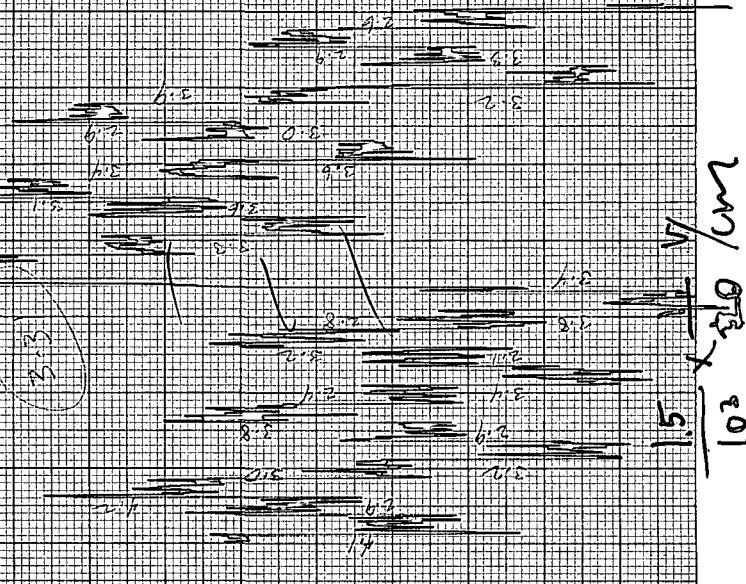


R 4-8W  
T 2-3E

3.50W

n=5

3.3



R-5-4W  
T 1-2W

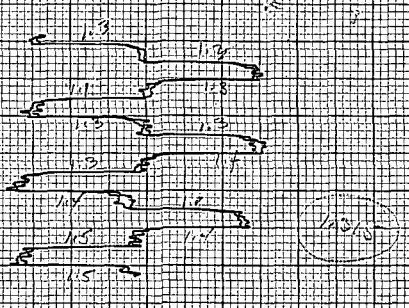
R-4-5W  
T 1-0W

R-4-5W  
T 0-1E

R-4-5W  
T 1-2E

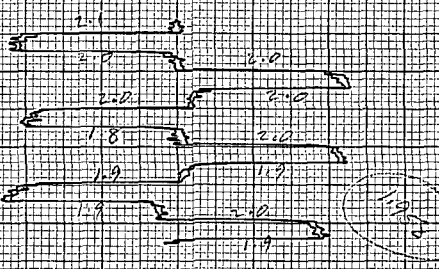
10.1

n=2



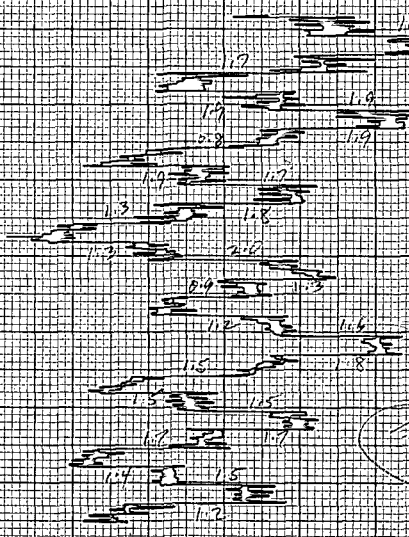
10.5

n=3



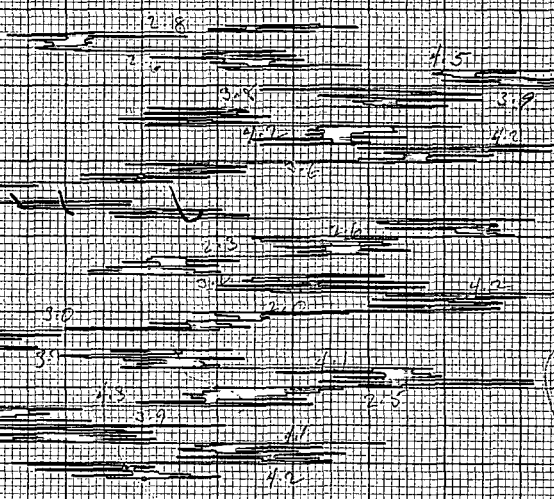
19.20

n=4



3.20

n=5



19.20

$\frac{1}{300} \times \frac{1}{10}$

$\frac{1}{200} \times \frac{1}{20}$  V/cm

$\frac{1}{200} \times \frac{1}{50}$  V/cm

$\frac{1.3}{10.5} \times \frac{1}{50}$  V/cm

51.160

79

R-5-6W  
T2-3W

R-5-6W  
T1-2W

R-5-6  
T0-1W

R-5-6W  
T0-1E

10.1

n=2

10.20W

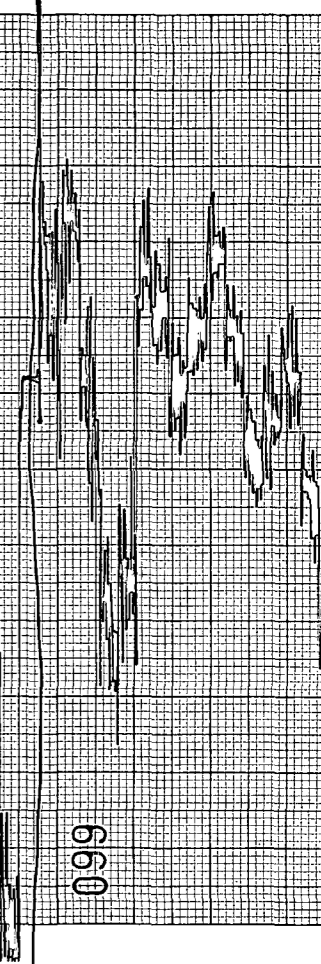
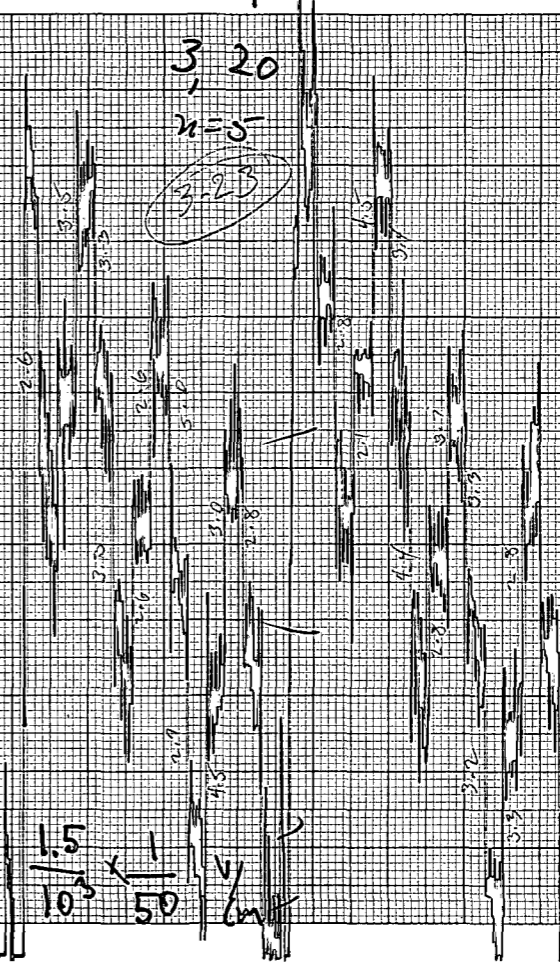
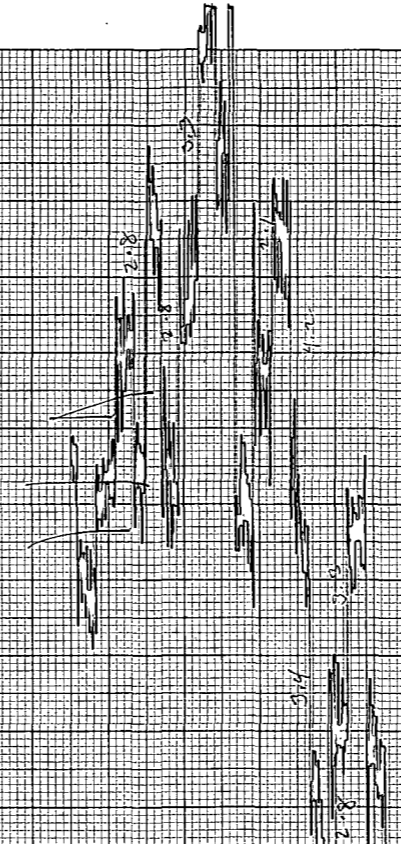
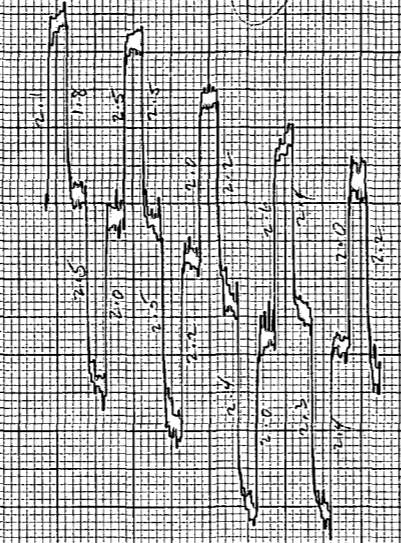
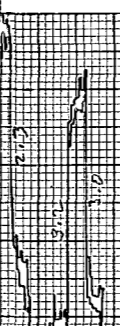
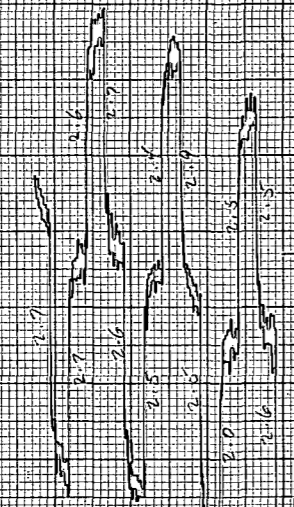
n=3

10.20W

n=4

3.20

n=5



1/200 x 1/10 V/cm

1/200 x 1/50 V/cm

Scale: 1/200 x 1/50 V/cm

1/10 x 1/50 V/cm

1/10 x 1/50 V/cm



R 5-64  
T 1-2E

3.20

$n=6$

0.863

h<sub>0</sub> = 1

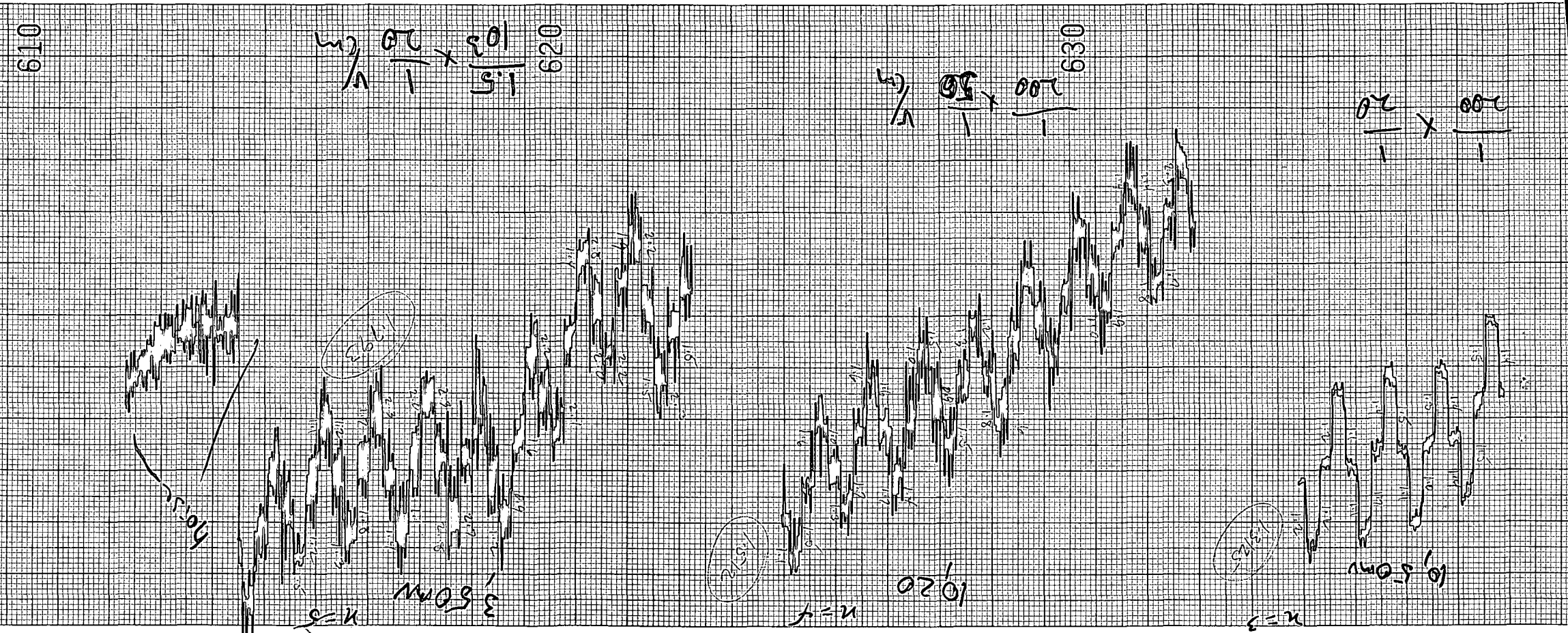
650

$$\frac{1.5}{103} \times \frac{1}{50} \sqrt{\text{cm}}$$

640

Line B

①



610

620

630

R 6-7W  
T 0-1W

R 6-7W  
T 1-2W

R 6-7W  
T 2-3W

n=3

n=4

n=3

3.50V

2.50V

1.50V

typical

R-7-8W  
T-2-3W

R-7-8W  
T-1-2W

R-7-8W  
T-0-1W

1920mV

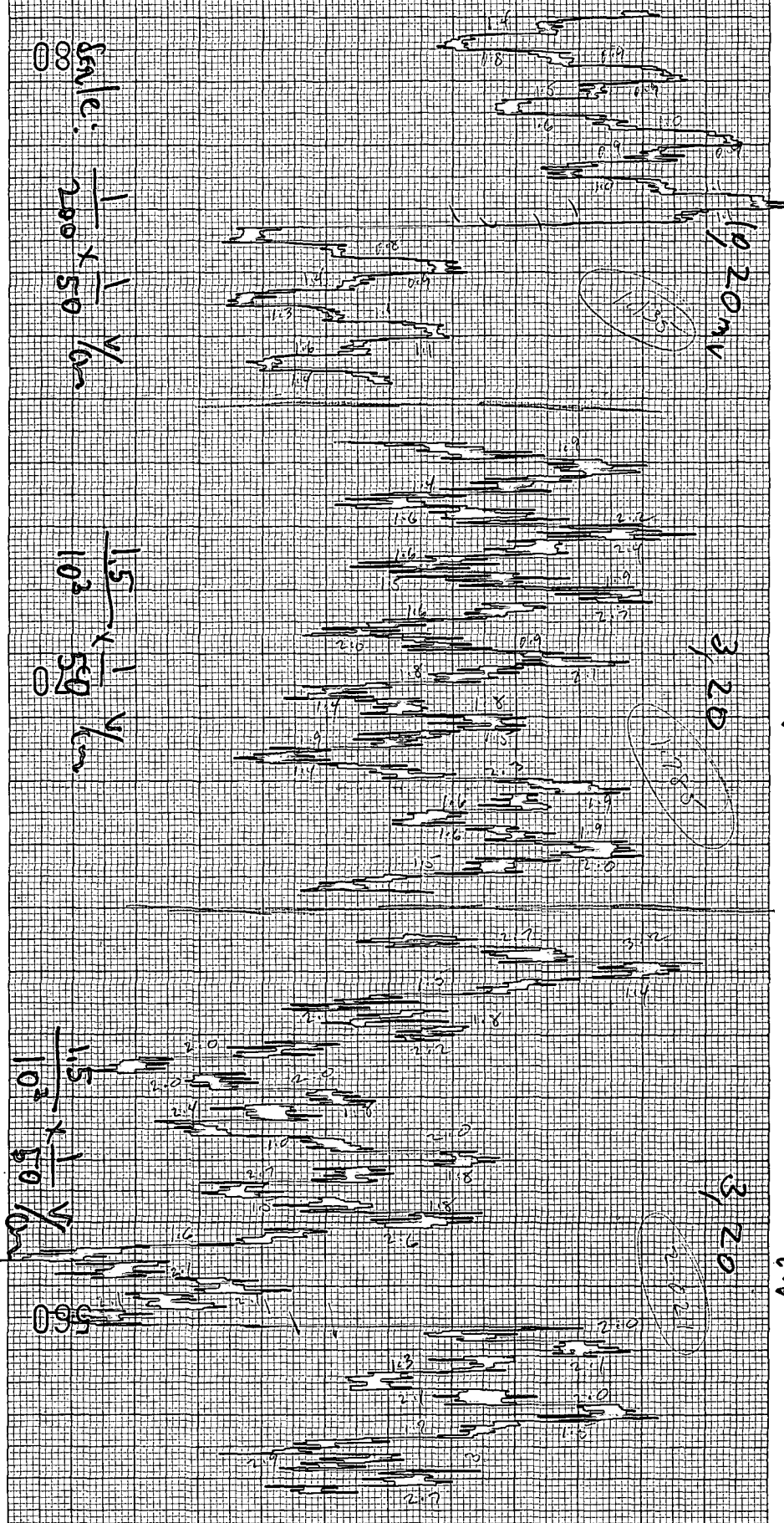
3,20

3,20

Scale:  $\frac{1}{200} \times \frac{1}{50} \text{ V}$   
00

$\frac{1.5}{10^3} \times \frac{1}{50} \text{ V}$   
00

$\frac{1.5}{10^3} \times \frac{1}{50} \text{ V}$   
00

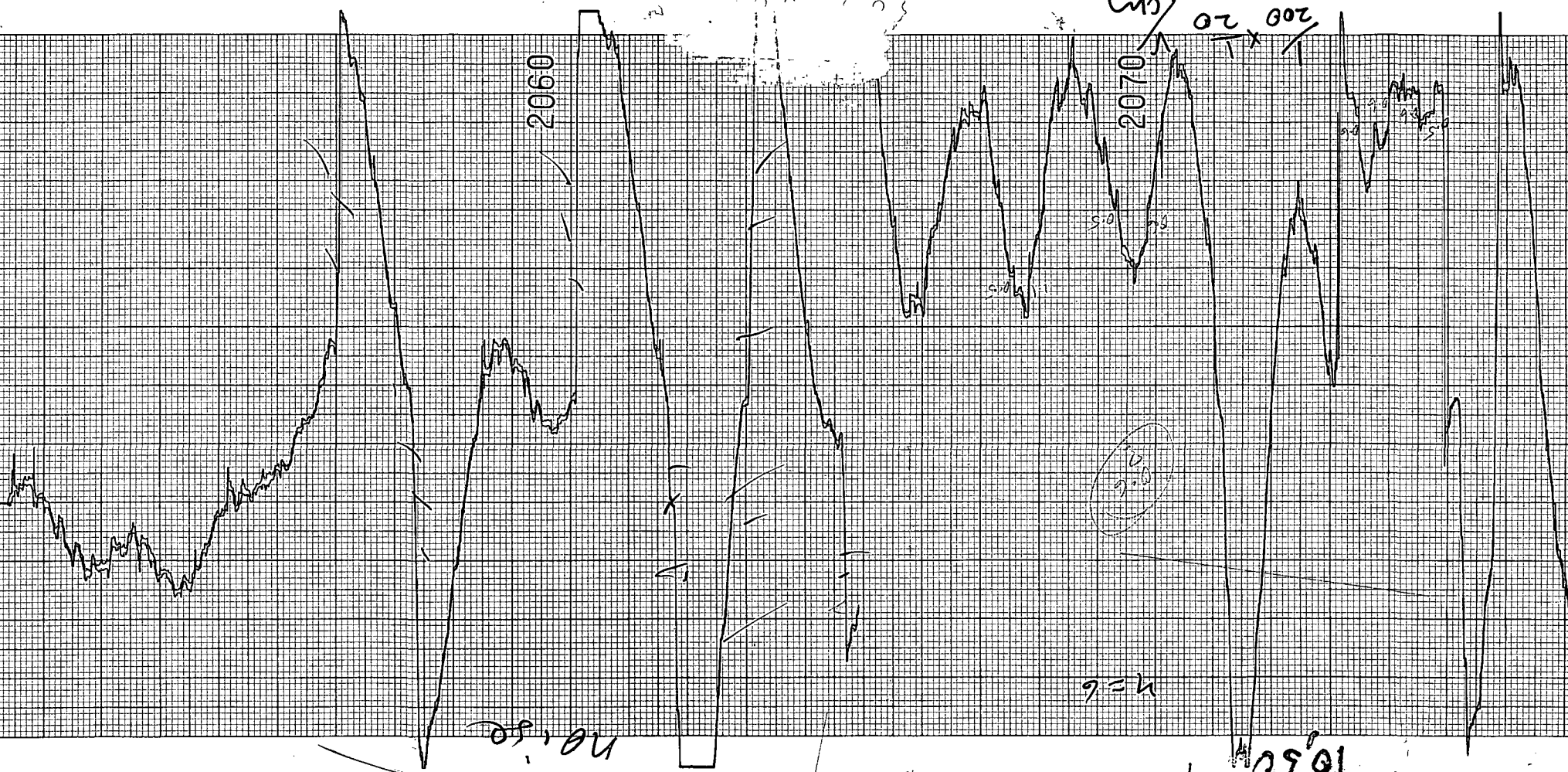


2050

2060

2070

200  $\times \frac{1}{20}$  cm



n=6

n=1.50

R-4-5 ET 2-3M  
10.50M

2080

R4-5E  
T1-2W

1050

n=5

0.1  
0.1  
0.1

2090

$\times \frac{1}{200} \frac{V}{cm}$

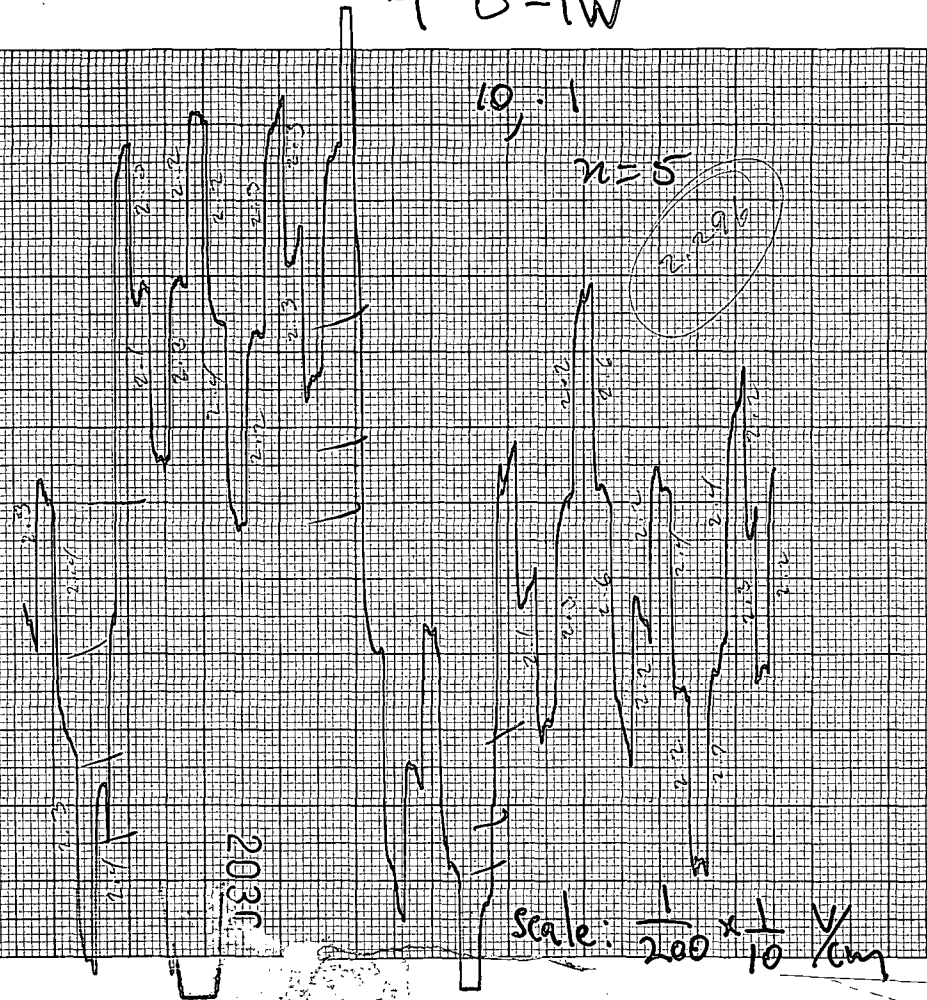
M1-01  
S4-5E

1001

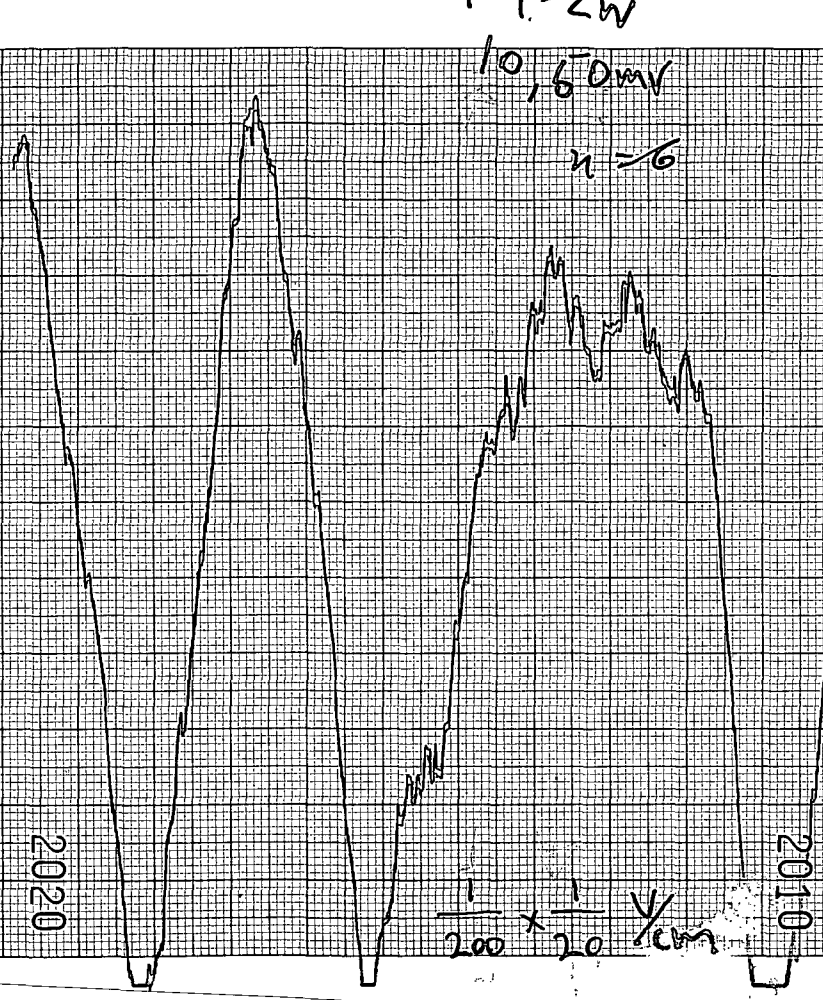
3.5  
3.5  
3.5

scale:  $\frac{1}{200} \times \frac{1}{100} \frac{V}{cm}$

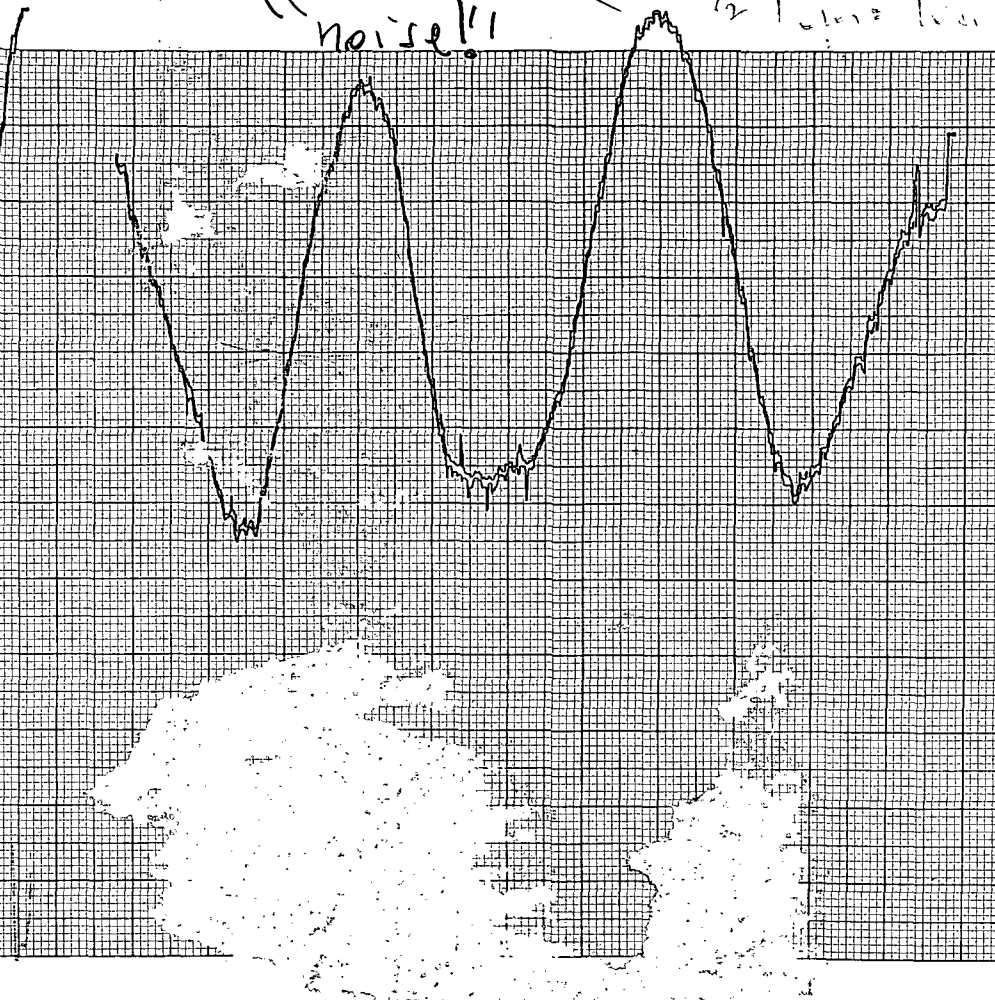
R56E  
T0-1W



R56E  
1-2W



"noise!!"



R-6-TE  
T2-3E

30.2  
n=3

5.235

R-6-TE  
T1-2E

~~30.1~~

30.1  
n=4

2.235

R-6-TE  
T0-1E

30.1  
n=5

1.335

R-6-TE  
0-1W

10.1  
n=6

1.565

R-6-TE  
T2-3E

30.2  
n=3

2.235

"Noise"  
R-6-TE  
10.1

1980

$\frac{1.5}{10^2} \times \frac{1}{5} \frac{V}{cm}$

1970

Scale:  $\frac{1.5}{10^2} \times \frac{1}{10} \frac{V}{cm}$

$\frac{1.5}{10^2} \times \frac{1}{10} \frac{V}{cm}$

$\frac{1}{200} \times \frac{1}{10} \frac{V}{cm}$

1950

$\frac{1.5}{10^2} \times \frac{1}{10} \frac{V}{cm}$

1940

1930

R-7-8E  
T 2-3E

R-7-8E  
T 1-2E

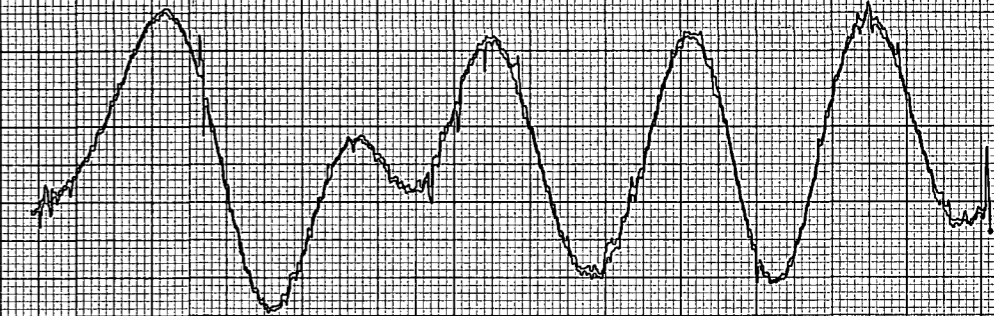
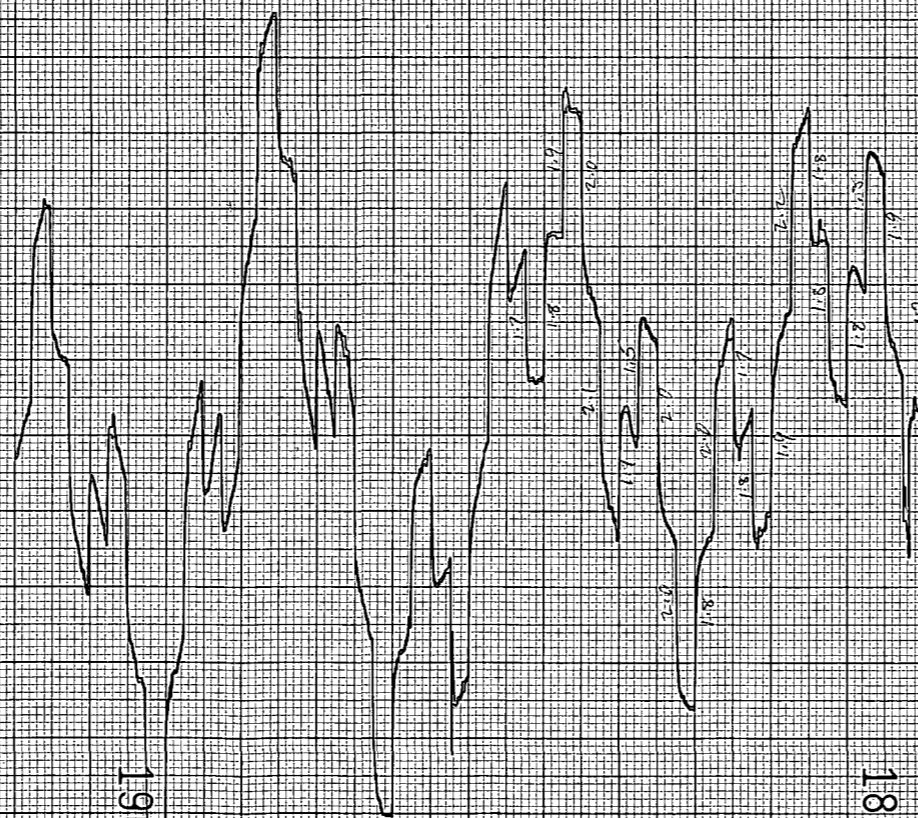
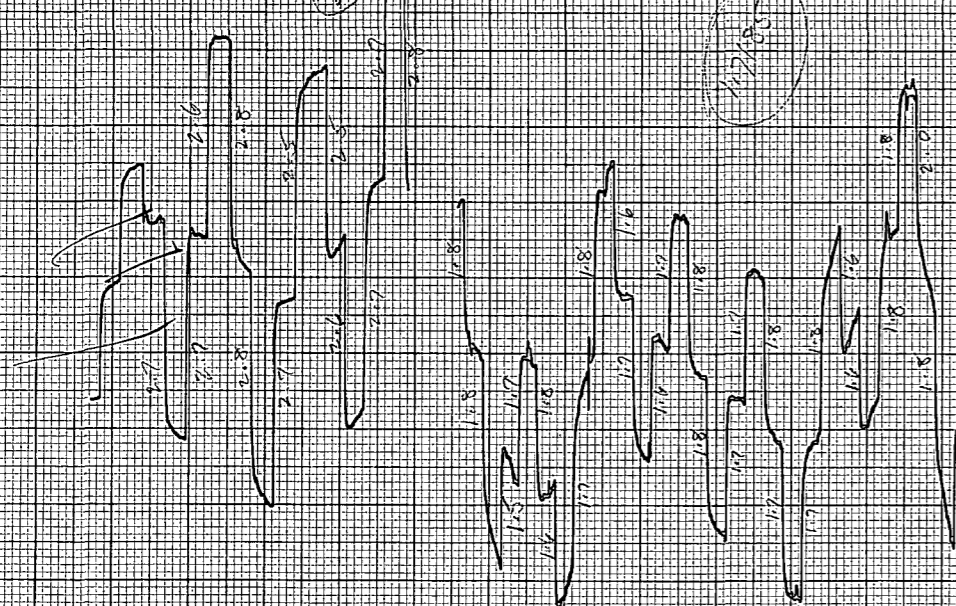
R-7-8E  
T 0-1E

R-7-8E  
"Noise"

30

30.50mv

10.1



Scale:  $\frac{1.5}{10^2} \times \frac{1}{10} \frac{V}{cm}$   
1910

$\frac{1.5}{10^2} \times \frac{1}{20} \frac{V}{cm}$   
1900

$\frac{1}{200} \times \frac{1}{10} \frac{V}{cm}$   
1890

1880

1870





Twp.		Prop.			Date 20
Oper. line B		Asst.		Method	
Station	R				
(115) - 2W <sup>1</sup>	3W <sup>4</sup> W	3x 1.50	x 1.48	x 1.50	<del>4.50</del> 4.42
(160) - 1W <sup>2</sup>		1x 2.03	x 2.02	x 2.03	<del>2.03</del> 5.74
(105) E - 0 <sup>3</sup>	$\frac{3}{2} \times \frac{1.5}{10^4}$	g x 1.33		.29 mv	<del>.29</del> 3.12
(78) E - 1E <sup>4</sup>	$\frac{3}{2} \times \frac{1.5}{10^3 \times 20}$	g "		.15	<del>.15</del> 4.35
(8) 3E - 2E <sup>5</sup>	$\frac{3}{2} \times \frac{1.5}{10^3 \times 20}$	g "		.15	<del>.15</del> 7.42
		✓			
(105) - 3W <sup>1</sup>	4-5W	3x 2.45	x 2.47	x 2.49	<del>2.47</del> 2.66
(131) - 2W <sup>2</sup>	$\frac{2.6}{2} \times \frac{1}{2000}$	1x 1.00	g	.86 mv	<del>.86</del> 3.38
(160) - 1W <sup>3</sup>	$\frac{4}{2} \times \frac{1}{4000}$	x 1.33	g	.67	<del>.67</del> 4.73
(11) E - 0 <sup>4</sup>	$\frac{2}{2} \times \frac{1}{10,000}$	"	g	.13	<del>.13</del> 2.67
(19) - 1E <sup>5</sup>	$\frac{4}{2} \times \frac{1.5}{10^3 \times 50}$	"	g	.08	<del>.08</del> 4.01
(8.13) - 2E <sup>6</sup>	$\frac{2}{2} \times \frac{1.5}{10^3 \times 20}$	"	g	.09	<del>.09</del> 7.03
(103) - 3W <sup>2</sup>	5-6W	1x 1.65g			<del>1.65</del> 7.11
(121) - 2W <sup>3</sup>	$\frac{4}{2} \times \frac{1}{10,000}$	x 1.33	g	.28	<del>.28</del> 2.64
(160) - 1W <sup>4</sup>	$\frac{4}{2} \times \frac{1}{10,000}$	"	g	.26	<del>.26</del> 3.67
(11) E - 0 <sup>5</sup>	$\frac{2.5}{2} \times \frac{1.5}{10^3 \times 50}$	"	g	.05	<del>.05</del> 1.80
(8) E - 1E <sup>6</sup>	$\frac{3}{2} \times \frac{1.5}{10^3 \times 50}$	"	g	.04	<del>.04</del> 3.17
3E - 2E <sup>7</sup>					

Twp.		Prop.		Date
Oper.	Line B	Asst.		Method
Station				
(11) 2-3 W <sup>3</sup>	6-7 W	$9\frac{3}{4} \times \frac{1}{4000} \times 1.03$		.47 mv <u>.47</u> 4.83
(12) 1-2 W <sup>4</sup>		$9\frac{1}{2} \times \frac{1.5}{10^4}$	"	.07 <u>.07</u> 1.22
(13) 0-1 W <sup>5</sup>		$9\frac{1}{2} \times \frac{1.5}{10^4 \times 20}$	"	.03 mv <u>.03</u> .74
(14) E-0		$9\frac{1}{2} \times \frac{1.5}{10^4 \times 50}$	"	.01 <u>.01</u> .58
-1				
(11) 2-3 W <sup>4</sup>	7-8 W	$9\frac{3}{4} \times \frac{1}{10^4} \times 1.03$		.13 mv <u>.13</u> 2.67
(12) 1-2 W <sup>5</sup>		$9\frac{1}{2} \times \frac{1.5}{10^4 \times 50}$	"	.03 <u>.03</u> .99
(13) 0-1 W <sup>6</sup>		$9\frac{3}{4} \times \frac{1.5}{10^4 \times 50}$	"	.04 <u>.04</u> 1.58

Scintrex Mineral Surveys, Inc.

Twp.		Prop.		Date 73	
Oper.	Line & B	Asst.		Method	
Station	R				
1-2E <sup>1</sup>	3-4E	100 x 1.00	x 1.00	1.01 <sup>7</sup>	538
0-1E <sup>2</sup>		30 x 1.02	x 1.00	1.03 <sup>7.9</sup>	454
1W-0 <sup>3</sup>		3 x 2.12	x 2.10	x 2.12 <sup>15</sup>	157
2-1W <sup>4</sup>		.3 x 1.85	x 1.80	x 1.73 <sup>11.3</sup>	35
3-2W <sup>5</sup>		.3 x 1.00	~	"	~35
2-3E <sup>7</sup>	4-5E	100 x 1.22	x 1.20	x 1.21 <sup>7.6</sup>	593
1-2E <sup>7</sup>		10 x 2.22	x 2.21	x 2.22 <sup>7</sup>	475
0-1E <sup>8</sup>		3 x 3.41	x 3.40	x 3.43 <sup>10</sup>	384
1W-0 <sup>9</sup>		1 x 7.17	9	" <sup>15</sup>	56
2-1W <sup>5</sup>		$9\frac{3}{2} \times \frac{1}{4000}$	x 1.33	.33mv <sup>11.5</sup>	37
3-2W		$9\frac{1}{2} \times \frac{1}{4000}$	x 1.33	.16 <sup>10</sup>	3.3
2-3E <sup>2</sup>	5-6E	30 x 1.09	x 1.07	x 1.09 <sup>8.1</sup>	605
1-2E <sup>3</sup>		3 x 2.63	x 2.61	x 2.60 <sup>7.8</sup>	380
0-1E <sup>4</sup>		3 x 1.39	1.36	x 1.34 <sup>11.5</sup>	267
1W-0W <sup>5</sup>		$9\frac{5}{2} \times \frac{1}{4000}$	x 1.33	.83mv <sup>16</sup>	68
2-1W <sup>6</sup>		$9\frac{3}{2} \times \frac{1}{4000}$		" <sup>11.5</sup>	





## Scintrex Mineral Surveys, Inc.

②

Twp. Colorado		Prop. line B		Date 4/20/80	
Oper. T. White		Asst. C. M. Quinn		Method $A=2000$ dipole-dipole	
$T_x$ Station	Rx	ampere			$n =$
1-2W	3-4W	11.5	650X1.20		1
0-1W		16	650X.87		2
0-1E		10.5	1000X-.71		3
1-2E		7.8	1000X1.12		4
2-3E		8	1000X1.20		5
2-3W	4-5W	10.5	1000X.87		1
1-2W		11.5	650X1.20		2
0-1W		16	650X.87		3
0-1E		11	1000X-.71		4
1-2E		7.9	1000X1.12		5
2-3E		8.1	1000X1.20		6
2-3W	5-6W	10.5	1000X.87		2
1-2W		12	650X1.20		3
0-1W		16	650X.87		4
0-1E		11	1000X-.71		5
1-2E		8	1000X1.12		6
2-3W	6-7W	11	1600X.87		3
1-2W		12	650X1.20		4
0-1W		16	650X.87		5
0-1E		11	1000X-.71		6





Scintrex Mineral Surveys, Inc.

(4)

Twp. Colado Prop. Line B Date 4/21/80  
 Oper. T. W. D. L. Asst. C. McLean Method A=2000 dipole-dipole

Station	R <sub>v</sub>	Amplitude	Dimensions	n =
1-2E	3-4E	7	1000x1.0	1
0-1E		9.9	1000x.71	2
0-1W		15	650x.87	3
1-2W		11.5	650x1.20	4
2-3W		11	1000x.87	5
4/22/80				
2-3F	4-5E	7.6	1000x1.20	1
1-2F		7	1000x1	2
0-1E		10	1000x.71	3
0-1W		15 (14.5)	650x.87	4
1-2W		11.5 (11.5)	650x1.20	5
2-3W		10	1000x.87	6
2-3E	5-6E	8.1	1000x1.20	2
1-2E		7.8	1000x1.12	3
0-1E		11.5	1000x.87	4
0-1W		16	650x.87	5
1-2W		11.5	650x1.20	6
2-3W			1000x.87	7



Line A

Colado AREA, NEVADA ... Pa Survey

<u>TX</u>	<u>Re</u>	<u>n</u>	<u>V</u>	<u>I</u>	<u>Pa</u>
1-2N	0-1S	1	14.5	16.5	5.0
2-3N	"	2	5.52	15.0	8.5
0-1N	1-2S	1	20.0	10.5	10.9
1-2N	"	2	6.66	16.5	9.3
2-3N	"	3	4.6	15.0	17.6
0-1S	2-3S	1	15.72	10.5	8.6
0-1N	"	2	5.56	11.0	11.6
1-2N	"	3	3.50	16.5	12.2
2-3N	"	4	1.94	14.5	15.4
2-3S	0-1S	1	10.78	6.5	9.5
2-3N	0-1N	1	17.4	16.0	6.4
1-2S	3-4S	1	15.05	7.4	11.7
0-1S	"	2	9.33	10.5	20.4
0-1N	"	3	1.49	11.0	7.8
1-2N	"	4	1.10	17.0	7.4
2-3N	"	5	0.66	14.5	9.2
2-3S	4-5S	1	18.3	6.5	16.2
1-2S	"	2	3.78	7.1	12.2
0-1S	"	3	1.225	11.0	5.4
0-1N	"	4	0.48	10.5	5.3
1-2N	"	5	0.40	16.5	4.9
2-3N	"	6	0.29	14.5	6.4
2-3S	5-6S	2	4.86	6.5	17.2
1-2S	"	3	1.58	7.2	12.6

Colado

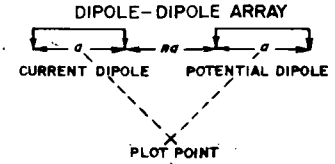
<u>Tx</u>	<u>Re</u>	<u>n</u>	<u>v</u>	<u>I</u>	<u>Pa</u>
0-1S	5-6S	4	0.525	11.5	5.2
0-1N	"	5	0.28	10.0	5.6
1-2N	"	6	0.21	17.0	4.0
2-3S	6-7S	3	1.59	6.5	14.1
1-2S	"	4	0.534	7.2	8.5
0-1S	"	5	0.285	11.0	5.2
0-1N	"	6	0.176	10.0	5.7
1-2N	"	7	0.159	16.5	4.7
2-3S	7-8S	4	0.329	6.3	6.0
1-2S	"	5	0.224	7.2	6.3
0-1S	"	6	0.33 ?	11.5	9.2 ?
1-2N	3-4N	1	20.5	17.0	6.9
0-1N	"	2	3.69	10.0	8.5
0-1S	"	3	1.90	11.5	9.5
1-2S	"	4	1.28	7.7	19.1
2-3S	"	5	0.516	6.8	33.4
2-3N	4-5N	1	26.4	16.0	9.5
1-2N	"	2	5.67	17.5	7.4
0-1N	"	3	1.62 ? 1.211 g	11.0	6.3
0-1S	"	4	0.963 ? 0.705 g	11.5	7.0
1-2S	"	5	0.491	7.5	13.2
2-3S	"	6	0.259	8.0	10.4
2-3N	5-6N	2	7.02	16.5	9.8
1-2N	"	3	2.06 ? 1.57 g	17.0	5.3

Colado

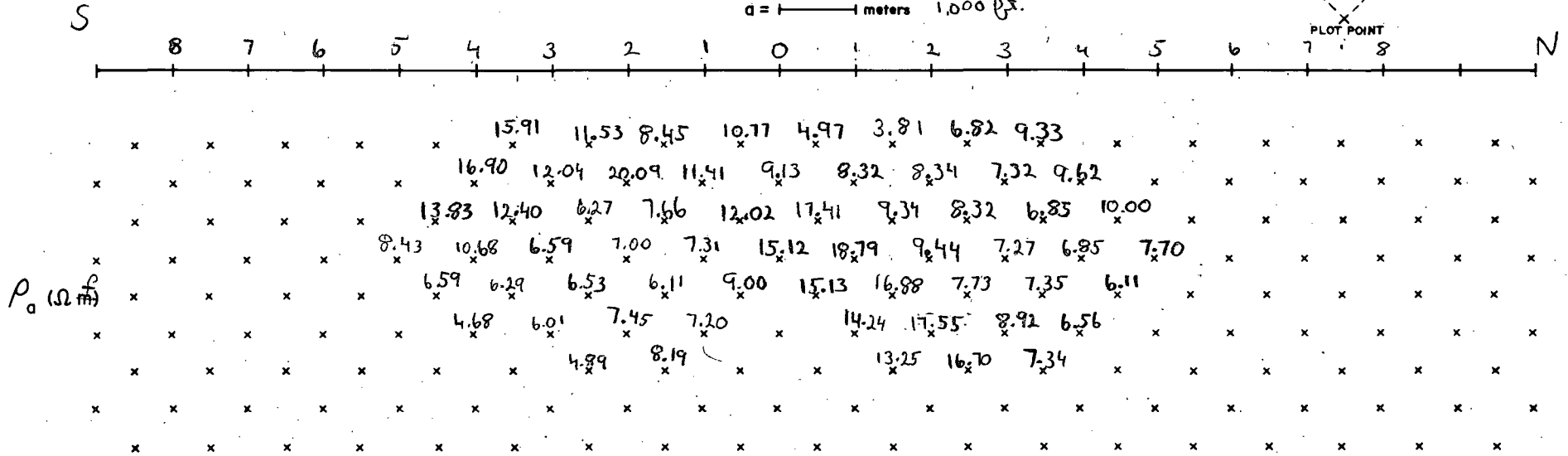
<u>Tx</u>	<u>Rc</u>	<u>n</u>	<u>V</u>	<u>I</u>	<u>Pa</u>
0-1N	5-6N	4	0.684	14.0	5.6
0-1S	"	5	0.348	11.0	6.4
1-2S	"	6	0.359	9.2	12.6
2-3S	"	7	0.159	8.6	8.9
2-3N	6-7N	3	2.83	16.0	10.2
1-2N	"	4	0.76	16.5	5.3
0-1N	"	5	0.40	14.0	5.7
0-1S	"	6	0.2197	11.0	6.4
1-2S	"	7	0.2446	9.1	13.0.
2-3N	7-8N	4	0.8535	16.0	6.1
1-2N	"	5	0.3554	16.5	4.3
0-1N	"	6	0.2166	14.0	5.0
0-1S	"	7	0.123	11.0	5.4

EARTH SCIENCE LABORATORY  
UNIVERSITY of UTAH RESEARCH INSTITUTE

DIPOLE - DIPOLE ARRAY  
APPARENT RESISTIVITY



$a =$  meters  $1,000 \rho_s$ .



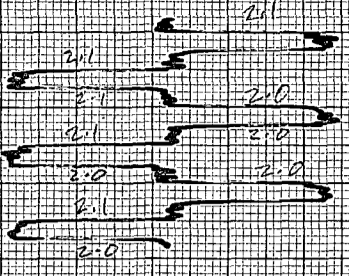
Field Results

S.A.K.

R-4-55  
T-0-15

10-1

n=3



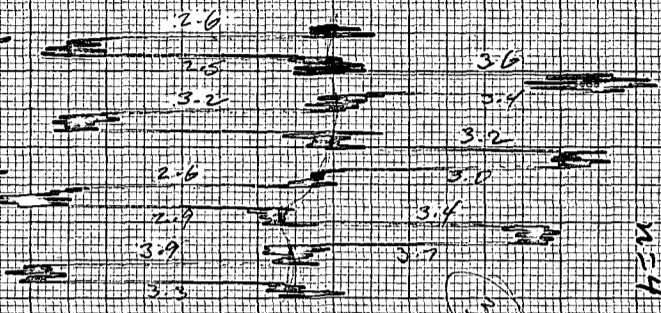
2.15

R-4-55  
~~T-0-15~~

0-11N

3-1

n=4

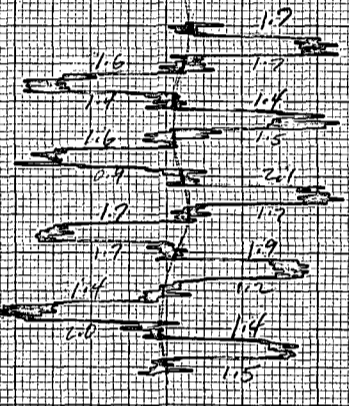


3.18

R-4-55  
T-1-2N

10-50mV

n=5



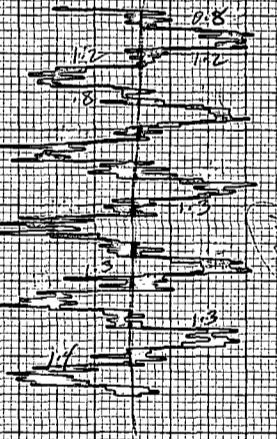
1.35

R-4-55

T-2-3N

10-50mV

n=6



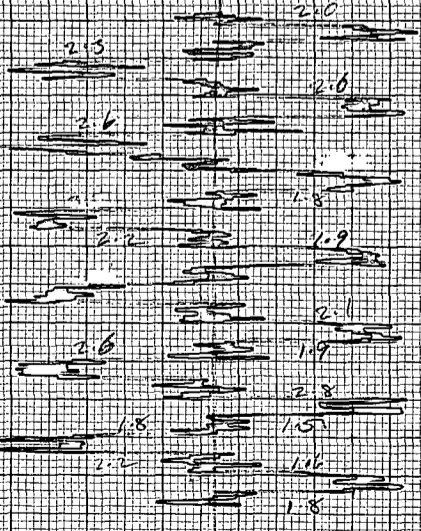
1.15

R-5-65

T-0-15

10-50mV

n=4



2.10

~~15 x 1~~  
~~10 x 10~~  
~~10 x 10~~  
Scale  $\frac{1}{200} \times \frac{1}{10} \text{ V/cm}$

Scale  $\frac{1}{66.66610} = \frac{1.5}{104} \text{ V/cm}$

Scale:  $\frac{1}{200} \times \frac{1}{20} \text{ V/cm}$

Scale  $\frac{1}{280} \times \frac{1}{20} \text{ V/cm}$

Scale  $\frac{1}{200} \times \frac{1}{2000} \text{ V/cm}$

Line # A  
①



2040

$$\text{Scale: } \frac{666.66}{1} \times \frac{10}{1} = \frac{1.5}{104} \text{ V/cm}$$

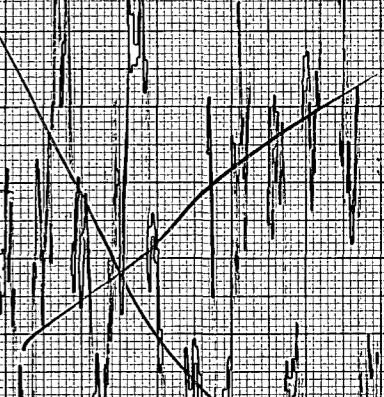
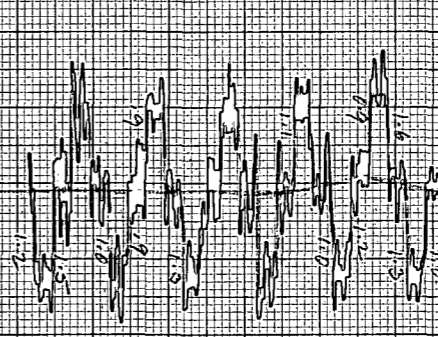
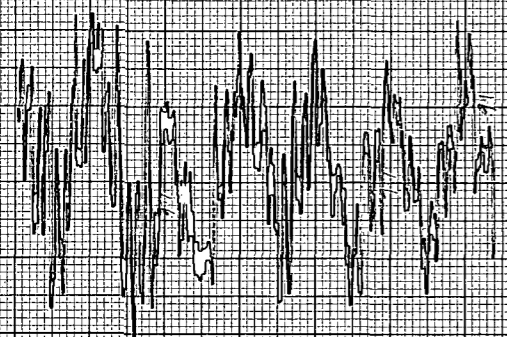
2050

$$\text{Scale: } \frac{666.66}{1} \times \frac{10}{1} = \frac{1.5}{104} \text{ V/cm}$$

2060

$$\text{Scale: } \frac{250}{1} \times \frac{20}{1} = \frac{1}{4} \text{ V/cm}$$

2070



R-5-6J  
T 2-3N  
31.5 V/cm  
n=7

R 5,6J  
T 1-2N  
3.1  
n=6

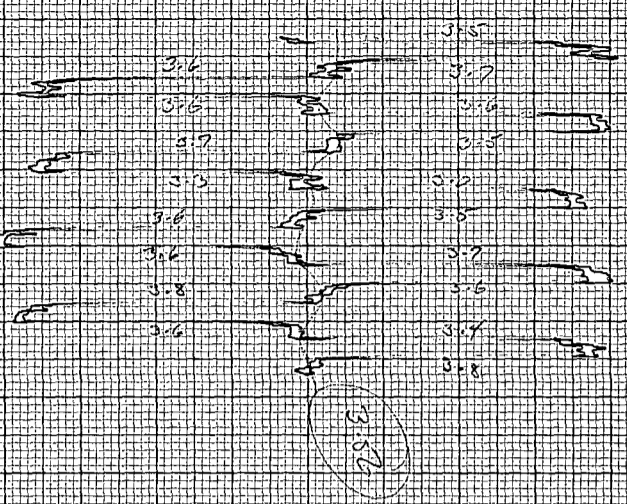
R-5-6J  
T 0-1N  
10.50mV  
n=5

1.21

1.12

R6-75  
T1-25

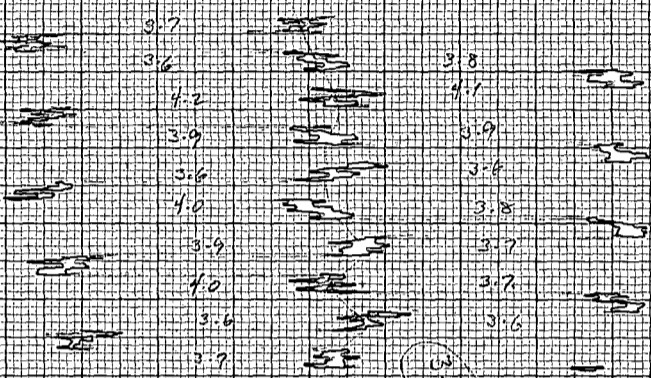
3.150 m  
n=4



$$\text{scale: } \frac{1}{666.66} \times \frac{1}{20} = \frac{1.5}{1000}$$

R6-75  
T0-15

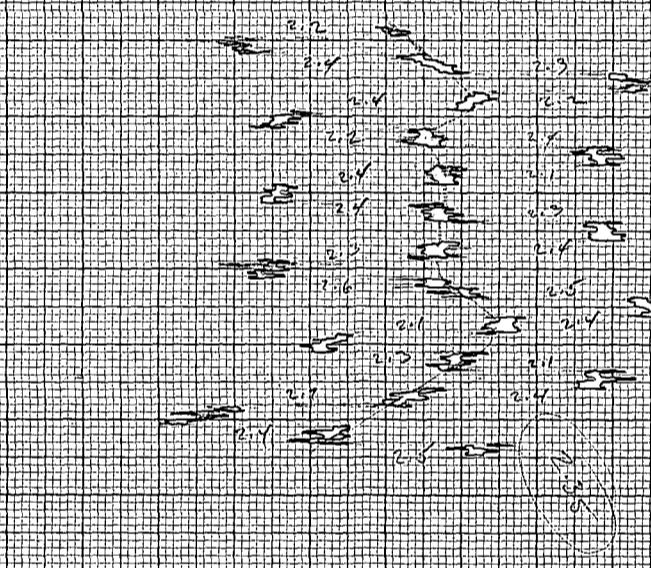
3.60 m  
n=5



$$\text{scale: } \frac{1}{666.66} \times \frac{1}{20} = \frac{1.5}{1000}$$

R6-75  
T0-1N

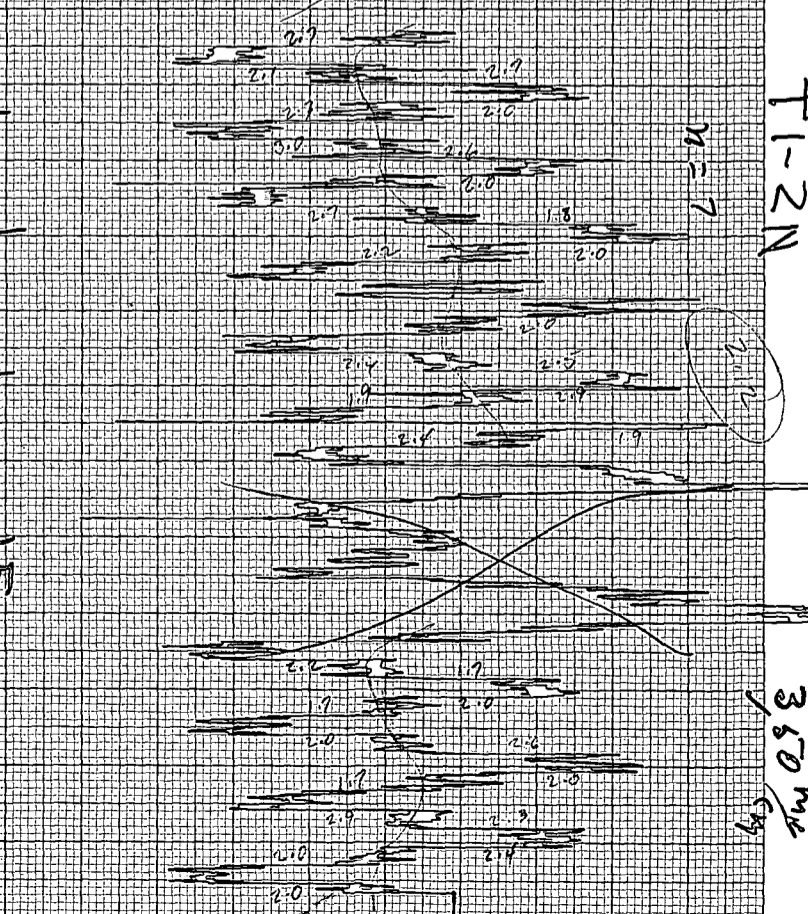
3.80 m  
n=1



$$\text{scale: } \frac{1}{666.66} \times \frac{1}{20} = \frac{1.5}{1000}$$

R6-75  
T1-2N

n=7



$$\text{scale: } \frac{1}{666.66} \times \frac{1}{20} = \frac{1.5}{1000}$$

3.80 m

Line # A (2)

R 7-8 J  
T 3-2 J  
3.50 mV  
n=4

R 7-8 J  
T 1-2 J  
3.50 mV/cm  
n=5

29385

2989

1961

Scale:  $\frac{1}{666.66 \times 20} = \frac{1}{10^3 \times 20}$

Scale:  $\frac{1}{666.66 \times 20} = \frac{1}{10^3 \times 20}$

1940

RT-8J  
10-15

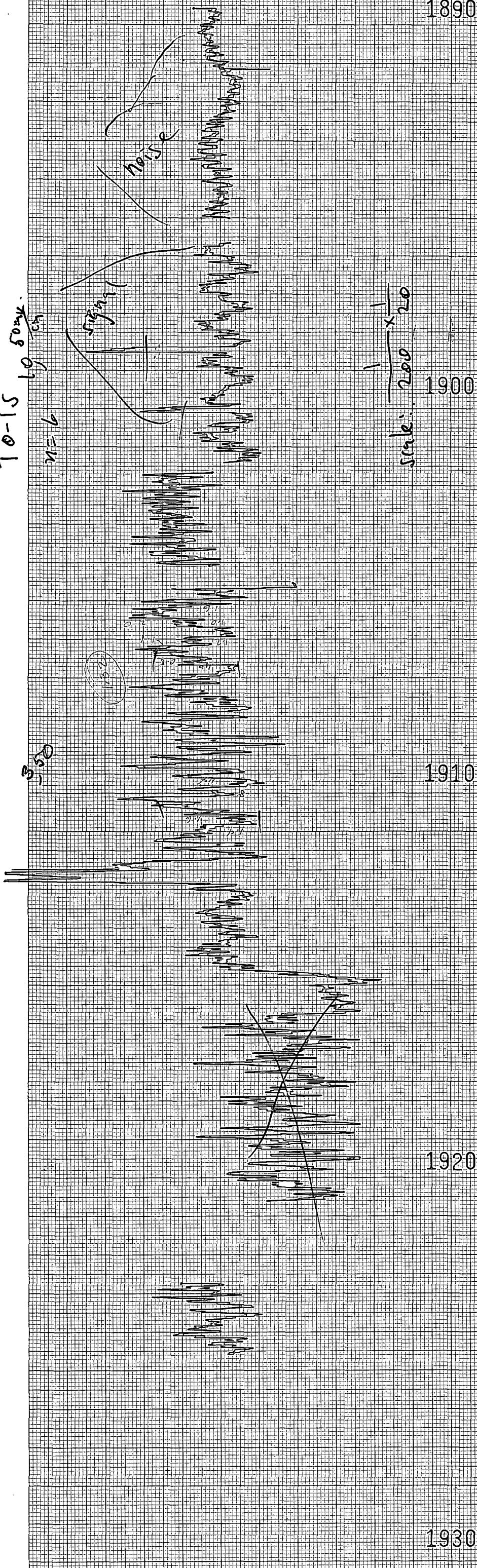
60 50mk  
cm

N=6

350

right

noise



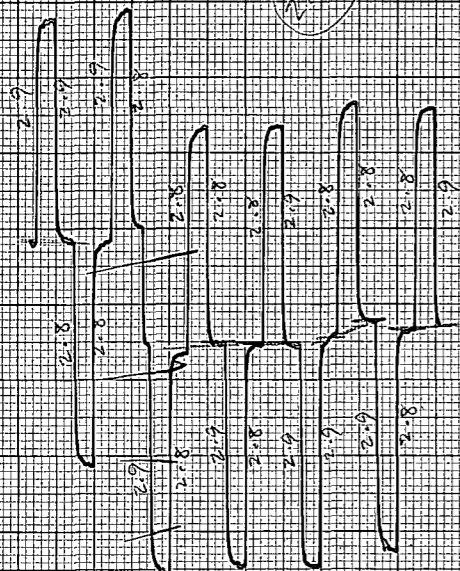




R 7-8 N  
T 2-3 N

3, 2  
n=4

$2.5 \times 10^5$



$\frac{1.5}{103} \times \frac{1}{5}$

R 7-8 N  
T 1-2 N

3, 1  
n=5

$2.5 \times 10^5$

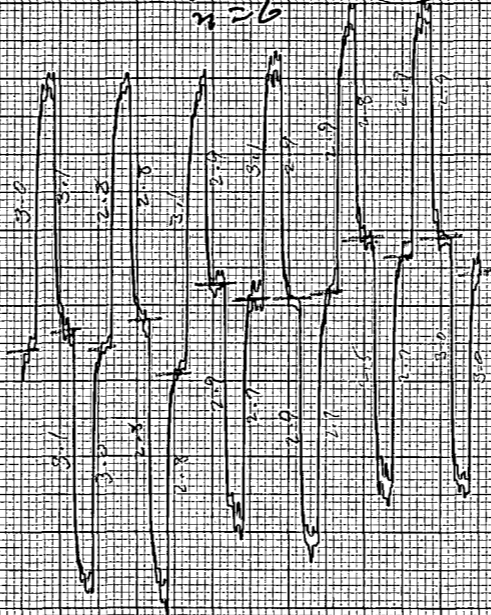


$\frac{1.5}{103} \times \frac{1}{10}$

R 7-8 N  
T 0-1 N

3, 50 W  
n=6

$2.5 \times 10^5$

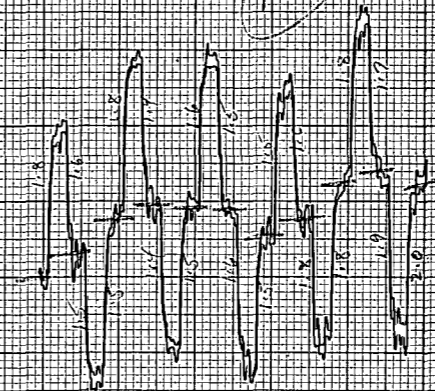


$\frac{1.5}{103} \times \frac{1}{20}$

R 7-8 N  
T 0-1 S

3, 60 W  
n=9

$2.5 \times 10^5$



$\frac{1.5}{103} \times \frac{1}{20}$

Noise

1700

1730



1000' Dipoles

Scintrex Mineral Surveys, Inc.

①

Twp.	Line A	Prop.	Colorado	Date	5/14/80
Oper.		Asst.	C.M. <sup>Asst.</sup>	Method	A=1900 dipole - dipole
T <sub>x</sub> Station	R	amp.			
2N - 1N <sup>1</sup>	0 - 1SE	16.5	400 x 1.00		
3N - 2N <sup>2</sup>		15.	400 x 1.00		
1N - 0 <sup>1</sup>	1 - 2 S	10.5	400 x 1.20		
2N - 1N <sup>2</sup>		16.5	400 x 1.00		
3N - 2N <sup>3</sup>		15	400 x 1.00		
0 - 1S <sup>1</sup>	25 - 3 S	10.5	650 x 1.00		
1N - 0 <sup>2</sup>		11	400 x 1.20		
2N - 1N <sup>3</sup>		16.5	400 x 1.00		
3N - 2N <sup>4</sup>		14.5	400 x 1.00		
3S - 2S <sup>1</sup>	15 - 10	6.5	650 x 1.20		
3IN - 2IN <sup>1</sup>	1N - 0	16	400 x 1.20		

T<sub>x</sub>, R<sub>cur</sub>  
notes

Scintrex Mineral Surveys, Inc.

12-69  
420  
17-00000

Twp.	Line #	A.	Prop.	Colorado	Date	April 14
Oper.			Asst.	Method		
Station	B					
(16.5) 2 - 1 N (1)	0-1 S	10x1.45	x1.46, 1.45	1.45	<del>14.5</del> 4.97	
(5) 3 - 2 N (1)		3x1.83	x1.83, 1.84	1.85	<del>5.52</del> 8.32	
(10.5) 1 N - 0 (0)	1-2 S	10x2.00	x2.01, 2.00	2.00	<del>20</del> 10.77	
(6.5) 2 N - 1 N (3)		3x2.22	3x2.23, 2.22	3x2.22	<del>6.66</del> 9.13	
(5) 3 N - 2 N (3)		3x1.53	x1.53, 1.54	3x1.54	<del>4.62</del> 17.41	
(10.5) 0 - 1 N (1)	2 S - 3 S	10x1.57	x1.57, 1.58	x1.57	<del>15.2</del> 8.45	
(11) 1 N - 0 (2)		2x1.85	x1.86, 1.85		<del>5.55</del> 11.41	
(16.5) 2 - 1 N (3)		3x1.16	x1.16, 1.17	x1.17	<del>3.51</del> 12.02	
(4.5) 3 N - 2 (4)		1x1.94	x1.94, 1.94	x1.95	<del>1.94</del> 15.12	
(10.5) 3 S - 2 S (1)	1 S - 0	10x1.08	x1.09, 1.06	1.08	<del>10.8</del> 9.39	
(10) 3 N - 2 N (1)	1 N - 0	10x1.79	10x1.79	x1.79	<del>10.73</del> 3.81	

Scintrex Mineral Surveys, Inc.

2

Twp. Colorado Prop. line A Date 4/14/80  
 Oper. T. White Asst. C. Morgan Method A = 1000  
depts - Colorado

Tk. Station	Rec.	ampm		D =
2-1 S	3-4 S	7.4	650 X 1.20	1
1-0 S		10.5	650 X 1.00	2
0-1 N		11	400 X 1.20	3
1-2 N		17	400 X 1.00	4
2-3 N	↓	14.5	400 X 1.00	5
2-3 S	4-5 S	6.5	650 X 1.20	1
2-1 S		7.1	650 X 1.12	2
1-0 S		11	650 X 1.20	3
0-1 N		10.5	400 X 1.00	4
1-2 N		16.5	400 X 1.00	5
2-3 N	↓	14.5	400 X 1.20	6
2-3 S	5-6 S	6.5	650 X 1.20	2
1-2 S		7.2	650 X 1.12	3
0-1 S		11.5	650 X 1.20	4
0-1 N		10	400 X 1.00	5
1-2 N	↓	17	400 X 1.00	6
2-3 N		14.5	400 X 1.00	7
2-3 S	6-7 S	6.5	650 X 1.20	3
1-2 S		7.2	650 X 1.12	4
0-1 S		11	650 X 1.20	5
0-1 N	↓	10	400 X 1.00	6
1-2 N		16.5	400 X 1.00	7

Scintrex Mineral Surveys, Inc.

2

Twp. Line # A		Prop.			Date 14		
Oper.		Asst.		Method			
Station	R						
7.4	2S <sup>1</sup>	3-4S	10x1.50	1.51	1.50	1.51	15.10 11.53
2.0	-1S <sup>2</sup>		3x1.00	?	3.12	3.10	9.31 20.09
9	N-03		1x1.47		1.49	1.50	1.49 7.66
17	N-1N <sup>4</sup>		1x1.10		±.02		1.10 7.31
4.5	3N-2N <sup>5</sup>		3x2.20		±.05		0.6 9.00
6.5	2 - 3S <sup>1</sup>	4-5S	10x1.83		±.00		18.20 15.91
2.1	-2S <sup>2</sup>		3x1.26		±.01		3.75 12.04
11	0 - 1S <sup>3</sup>		1x1.22		±.02	g	1.22 6.27
10.5	N-04	$\frac{6.5}{2} \times \frac{1.5}{104} = .49 \text{ mv}$				$\times 1.33$ Fudge factor	0.65 7.00
6.5	2N-1N <sup>5</sup>	$\frac{3}{2} \times \frac{1}{4000} = .38 \text{ mv}$				$\times 1.33$	0.51 6.11
4.5	3N-2N <sup>6</sup>	$\frac{3}{2} \times \frac{1}{4000} = .25 \text{ mv}$				$\times 1.33$	0.33 7.20
6.5	2 - 3S <sup>2</sup>	5-6S	3x1.62		±.02		4.86 10.90
7.3	-2S <sup>3</sup>		1x1.58		±.04		1.58 12.40
11.0	-1S <sup>4</sup>	$\frac{1}{2} \times \frac{1}{4000} = .50 \text{ mv}$				$\times 1.33$ Fudge factor	0.67 6.59
10	1 - 0N <sup>5</sup>	$\frac{3}{2} \times \frac{1}{4000} = .25 \text{ mv}$				$\times 1.33$	0.33 6.53
17	2 - 1N <sup>6</sup>	$\frac{1}{2} \times \frac{1.5}{104} = .30$				$\times 1.33$	0.40 7.45
4.5	3 - 2N <sup>7</sup>	$\frac{2.5}{2} \times \frac{1.5}{104} = .19 \text{ mv}$				$\times 1.33$	0.25 8.19
	-3						



Scintrex Mineral Surveys, Inc.

3

Twp. Line # A Prop. \_\_\_\_\_ Date 4/3  
 Oper. \_\_\_\_\_ Asst. \_\_\_\_\_ Method \_\_\_\_\_

Station	R				
63) 2-3 S <sup>3</sup>	6-7 S	$1 \times 1.59$	$\pm .03$		$\frac{1.59}{13.83}$
72) 1-2 S <sup>4</sup>	$\frac{1618}{2} \times \frac{1.5}{104}$	$= .51 \text{mv} \times 1.33$	9		$\frac{1.59}{10.68}$
11) 0-1 S <sup>5</sup>	$\frac{7}{2} \times \frac{1.5}{20 \times 103}$	$= .26 \text{mv} \times 1.33$	9		$\frac{.35}{6.29}$
10) 1-0 N <sup>6</sup>	$\frac{3.6}{2} \times \frac{1.5}{20 \times 103}$	$.14 \times 1.33$	9		$\frac{.14}{6.01}$
105) 2-1 N <sup>7</sup>	$\frac{3.5}{2} \times \frac{1.5}{20 \times 103}$	$.13 \times 1.33$	9		$\frac{.17}{4.89}$
63) 2-3 S <sup>4</sup>	7-8 S	$\frac{7.5}{2} \times \frac{1.5}{10 \times 20}$	$= .35 \text{mv} \times 1.33$		$\frac{.47}{8.43}$
73) 1-2 S <sup>5</sup>		$\frac{5}{2} \times \frac{1.5}{10 \times 20}$	$.18 \text{mv} \times 1.33$		$\frac{.24}{6.59}$
15) 0-1 S <sup>6</sup>		$\frac{1}{2} \times \frac{1}{4000}$	$.13 \text{mv} \times 1.33$		$\frac{.17}{4.68}$
1N-0 <sup>7</sup>			9		



Twp. Colorado		Prop. Line A		Date 4/14/80	
Oper. T. 122D.2E		Asst. C. McQueen		Method $H=1000$ diagonal - dipole	
TX Station	Rec.	Amp.			D =
2-1N	3-4N	17	400x1.20		1
1-0N	↓	10	400x1.00		2
0-1S	↓	11.5	650x1.20		3
1-2S	↓	7.7	650x1.20		4
2-3S	↓	6.8	650x1.20		5
4/15/80					
3-2N	4-5N	16	400x1.12		1
2-1N	↓	17.5	400x1.00		2
1-0N	↓	11	400x1.20		3
0-1S	↓	11.5	650x1.20		4
1-2S	↓	7.5	650x1.20		5
2-3S	↓	8	1000x.71		6
3-2N	5-6N	16.5	400x1.20		2
2-1N	↓	17	400x1.00		3
1-0N	↓	14	650x.71		4
0-1S	↓	11	650x1.12		5
1-2S	↓	9.2	1000x.71		6
2-3S	↓	8.6	1000x.87		7
3-2N	6-7N	16	400x1.20		3
2-1N	↓	16.5	400x1.00		4
1-0N	↓	14	650x.71		5
0-1S	↓	11	650x1.12		6
1-2S		9.1	1000x.71		7



Scintrex Mineral Surveys, Inc.

1

Twp.		Prop.		Date 15	
Oper. Line #1 A		Asst.		Method	
Station	R <sub>x</sub>				
⑩ 2-3 NW	4-5 NW	10x2.64	±.00		<del>26.7</del> 9.37
⑪ 1-2 N <sup>2</sup>		3x1.89	±.01		<del>5.67</del> 7.32
⑫ 1-2 N <sup>3</sup>		1x1.62	±.02	9	<del>1.62</del> 8.32
⑬ 2 <sup>15</sup> - 1 <sup>0.4</sup>		.3x3.21	±.05	3x3.19	<del>.96</del> 9.44
⑭ 3 <sup>25</sup> - 2 <sup>15.5</sup>	$\frac{32}{2} \times \frac{1.5}{103 \times 5}$	.48x1.33	9		<del>.64</del> 16.88
⑮ 3 <sup>5</sup> - 2 <sup>5.6</sup>	$\frac{3.6}{2} \times \frac{1.5}{104}$	.27x1.33	9		<del>.36</del> 14.24
⑯ 2 - 3 N <sup>2</sup>	5-6 NW	3x2.34	±.01		<del>7.02</del> 9.62
⑰ 1 - 2 N <sup>3</sup>		1x2.06	±.03	9	<del>2.06</del> 6.85
⑱ 0 - 1 N <sup>4</sup>	$\frac{7}{2} \times \frac{4.5}{104}$	.68x1.33	9		<del>.90</del> 7.27
⑲ 0 - 1 <sup>5</sup>	$\frac{4.2}{2} \times \frac{1.5}{104}$	.32x1.33	9		<del>.42</del> 7.73
⑳ 2 <sup>5</sup> - 1 <sup>5.6</sup>	$\frac{5}{2} \times \frac{1.5}{104}$	.38x1.33	9		<del>.57</del> 17.55
㉑ 3 <sup>5</sup> - 2 <sup>5.7</sup>	$\frac{5}{2} \times \frac{1.5}{104 \times 20}$	.18x1.33	9		<del>.24</del> 13.25
⑳ 2-3 N <sup>3</sup>	6-7 NW	1x2.83	±.02		<del>2.83</del> 10.00
㉒ 1 - 2 N <sup>4</sup>	$\frac{10}{2} \times \frac{1.5}{104}$	.75x1.33	9		<del>1</del> 6.85
㉓ 0 - 1 N <sup>5</sup>	$\frac{5.2}{2} \times \frac{1.5}{104}$	.39x1.33	9		<del>.52</del> 7.35
㉔ 1 SE - 0 <sup>.6</sup>	$\frac{6.2}{2} \times \frac{1.5}{104 \times 20}$	.23x1.33	9		<del>.31</del> 8.92
㉕ 12 - 1 S <sup>7</sup>	$\frac{6.4}{2} \times \frac{1.5}{103 \times 20}$	.24x1.33	9		<del>.32</del> 16.70
3 - 2 S			9		





LINE E  
@ 1000'

Colorado

Pa Survey

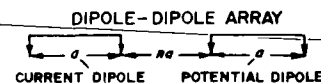
<u>Tx</u>	<u>Pc</u>	<u>n</u>	<u>V</u>	<u>I</u>	<u>Pa</u>
1-2N	0-1S	1	38.1	12.5	17.5
2-3N	"	2	6.71	14.0	11.0
0-1N	1-2S	1	52.9	13.0	23.4
1-2N	"	2	9.53	12.5	17.5
2-3N	"	3	3.25	14.0	13.3
0-1S	2-3S	1	45.5	12.5	20.9
0-1N	"	2	8.5	13.0	15.0
1-2N	"	3	2.79	12.5	12.8
2-3N	"	4	1.123	14.0	9.2
1-2S	3-4S	1	37.1	11.0	19.4
0-1S	"	2	10.07	12.5	18.5
0-1N	"	3	3.12	13.0	13.8
1-2N	"	4	1.233	12.5	11.3
2-3N	"	5	0.522	14.0	7.5
2-3S	4-5S	1	30.7	12.0	14.7
1-2S	"	2	8.14	11.0	17.0
0-1S	"	3	2.765 2.1	12.5	11.0
0-1N	"	4	0.77	13.0	6.8
1-2N	"	5	0.347	12.5	5.6
2-3N	"	6	0.1689	14.0	3.9
2-3S	5-6S	2	2.723	12.0	5.2
1-2S	"	3	0.5743	11.0	2.8
0-1S	"	4	0.2331	13.0	2.1
0-1N	"	5	0.1127	13.5	1.7

<u>Tx</u>	<u>Rc</u>	<u>n</u>	<u>V</u>	<u>I</u>	<u>Pa</u>
1-2N	5-6S	6	0.519	12.5	13.4
2-3S	6-7S	3	2.23	12.0	10.7
1-2S	"	4	1.13	11.5	11.3
0-1S	"	5	0.359	13.5	5.3
0-1N	"	6	0.1516	13.5	3.6
1-2N	"	7	0.0793	13.0	3.0
2-3S	7-8S	4	0.626	12.0	6.0
1-2S	"	5	0.359	11.5	6.3
0-1S	"	6	0.1725	13.5	4.1
0-1N	"	7	0.083	13.5	3.0
2-3N	0-1N	1	26.77	14.0	11.0
1-2N	3-4N	1	20.4	12.5	9.4
0-1N	"	2	4.81	14.0	7.9
0-1S	"	3	1.883	13.5	8.0
1-2S	"	4	1.017	11.5	10.2
2-3S	"	5	0.321	12.5	5.2
2-3N	4-5N	1	26.133	14.5	10.3
1-2N	"	2	4.52	12.5	8.3
0-1N	"	3	1.833	14.0	7.5
0-1S	"	4	0.702	13.0	6.2
1-2S	"	5	0.3588	12.0	6.0
2-3S	"	6	0.1494	12.5	3.8

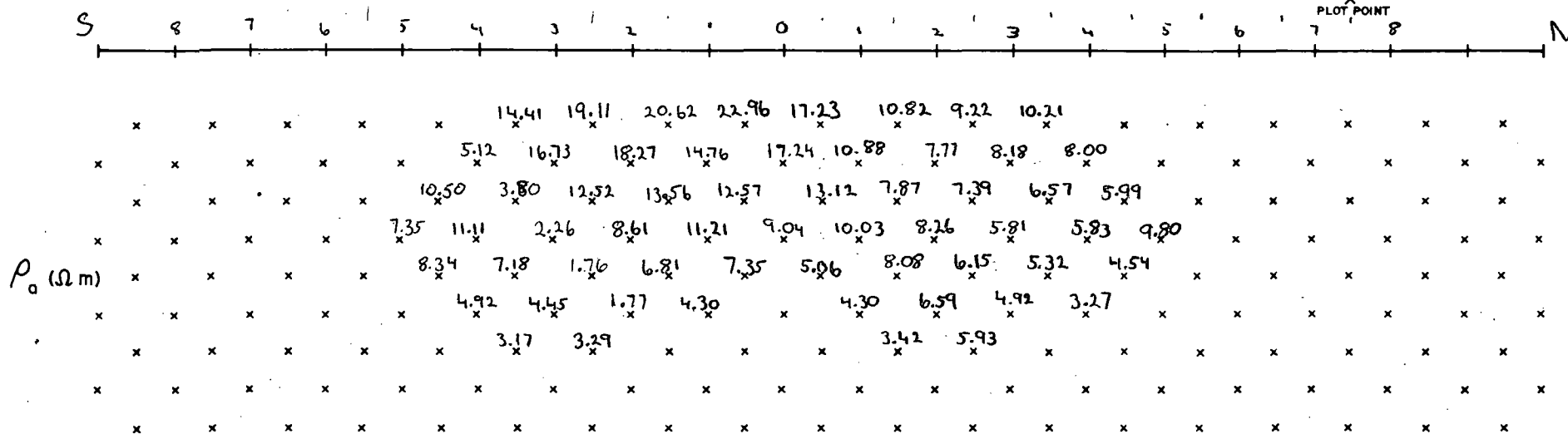
<u>TK</u>	<u>Rc</u>	<u>n</u>	<u>V</u>	<u>I</u>	<u>P<sub>a</sub></u>
2-3N	5-6N	2	5.13	14.5	8.1
1-2N	"	3	1.155	13.0	5.1
0-1N	"	4	0.5925	14.0	4.9
0-15	"	5	0.3335	13.5	5.0
1-25	"	6	0.1838	12.0	4.9
2-35	"	7	0.07734	12.5	3.0
2-3N	6-7N	3	1.3	15.0	5.0
1-2N	"	4	0.5125	13.0	4.5
0-1N	"	5	0.3025	14.5	4.2
0-15	"	6	0.184	13.5	4.4
1-25	"	7	0.1008	12.0	4.1
2-3N	7-8N	4	0.6832	15.0	5.2
1-2N	"	5	0.2619	13.5	3.9
0-1N	"	6	0.1419	14.5	3.2

EARTH SCIENCE LABORATORY  
UNIVERSITY of UTAH RESEARCH INSTITUTE

DIPOLE - DIPOLE ARRAY  
APPARENT RESISTIVITY



$a = 1$  meters  $a = 1000 \text{ ft}$



*Cham. f.f.*

$$4/6 \quad 9\frac{1}{2}$$

$$4/7 \quad 9$$

$$4/8 \quad 9$$

$$4/9 \quad 9$$

$$4/10 \quad 11\frac{1}{2}$$

$$4/11 \quad 9$$

$$4/12 \quad 6$$

$$\begin{array}{r} 170 \\ 114.89 \\ \hline 284.89 \end{array}$$

$$\begin{array}{r} 4.25 \\ 2.13 \\ \hline 6.38 \end{array}$$



JCW  
Formula

Ann. ft

Q Factors



n=1

$$3.14 n(n+1)(n+2)$$

$$3.14(2)(6)$$

A=1000

18.84

A=2000

37.68

n=2

$$3.14(2)(3)(4)$$

75.36

150.72

n=3

$$3.14(3)(3+1)(3+2)$$

188.40

376.80

$$3.14(4)(5)$$

n=4

$$3.14(4)(4+1)(4+2)$$

376.80

753.60

$$3.14(5)(6)$$

n=5

$$3.14(5)(5+1)(5+2)$$

659.40

1318.80

$$3.14(6)(7)$$

n=6

$$3.14(6)(6+1)(6+2)$$

1055.04

2110.08

$$3.14(7)(8)$$

n=7

$$3.14(7)(7+1)(7+2)$$

1582.56

3165.12

$$3.14(8)(9)$$

C 2001's

$$P_a = \frac{V \times Q \times A}{I}$$

$$Q = 2\pi \cdot c \cdot k$$

$$c = 0.3048 \text{ meters/ft.}$$

1 = 5.74

2 = 23.0

3 = 57.45

4 = 115.0

5 = 201.1

6 = 322.0

7 = 482.6

$$K = \frac{n(n+1)(n+2)}{2} \quad 345$$

A = dipole spacing in feet

V = Volt. in mv

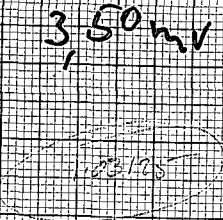
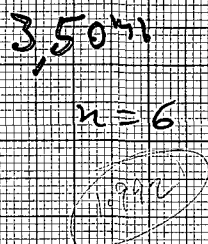
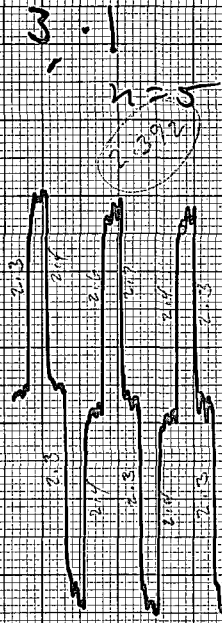
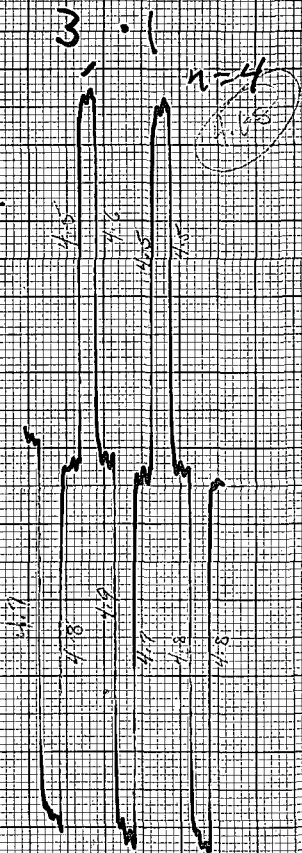
I = Current in amps

~~R 4-5N~~  
T 0-1S

R 4-5N  
T 1-2S

R-4-5N  
T 2-3S

R 5-6  
T 2-3S



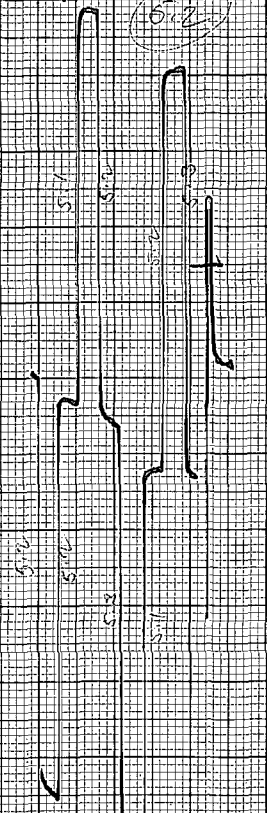
920  
scale:  $\frac{1.5}{10^3} \times \frac{1}{10} \frac{V}{cm}$

$\frac{1.5}{10^3} \times \frac{1}{10}$

910  
 $\frac{1.5}{10^3} \times \frac{1}{20} \frac{V}{cm}$

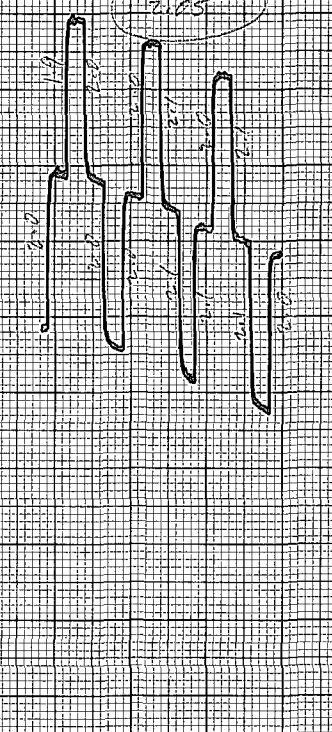
$\frac{1.5}{10^3} \times \frac{1}{20} \frac{V}{cm}$

R-6-7N  
T-2-3N  
10,50mv n=3



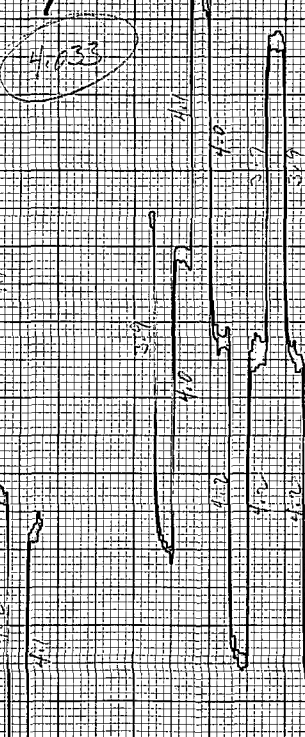
scale:  $\frac{1}{200} \times \frac{1}{20} \frac{V}{cm}$

R-6-7N  
T-1-2N  
10,50mv n=4



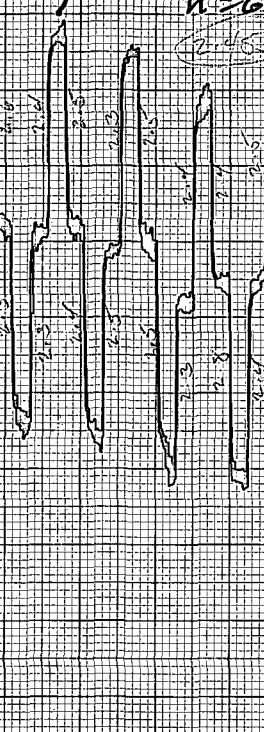
850  
 $\frac{1}{200} \times \frac{1}{20} \frac{V}{cm}$

R-6-7N  
T-0-1N  
3,50 n=5



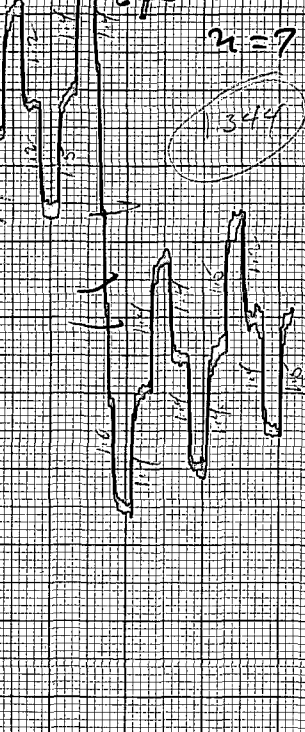
848  
 $\frac{1.5}{10^3} \times \frac{1}{20} \frac{V}{cm}$

R-6-7N  
T-1-0S  
3,50 n=6



830  
 $\frac{1.5}{10^3} \times \frac{1}{20} \frac{V}{cm}$

R-6-7N  
T-1-2S  
3,50mv n=7



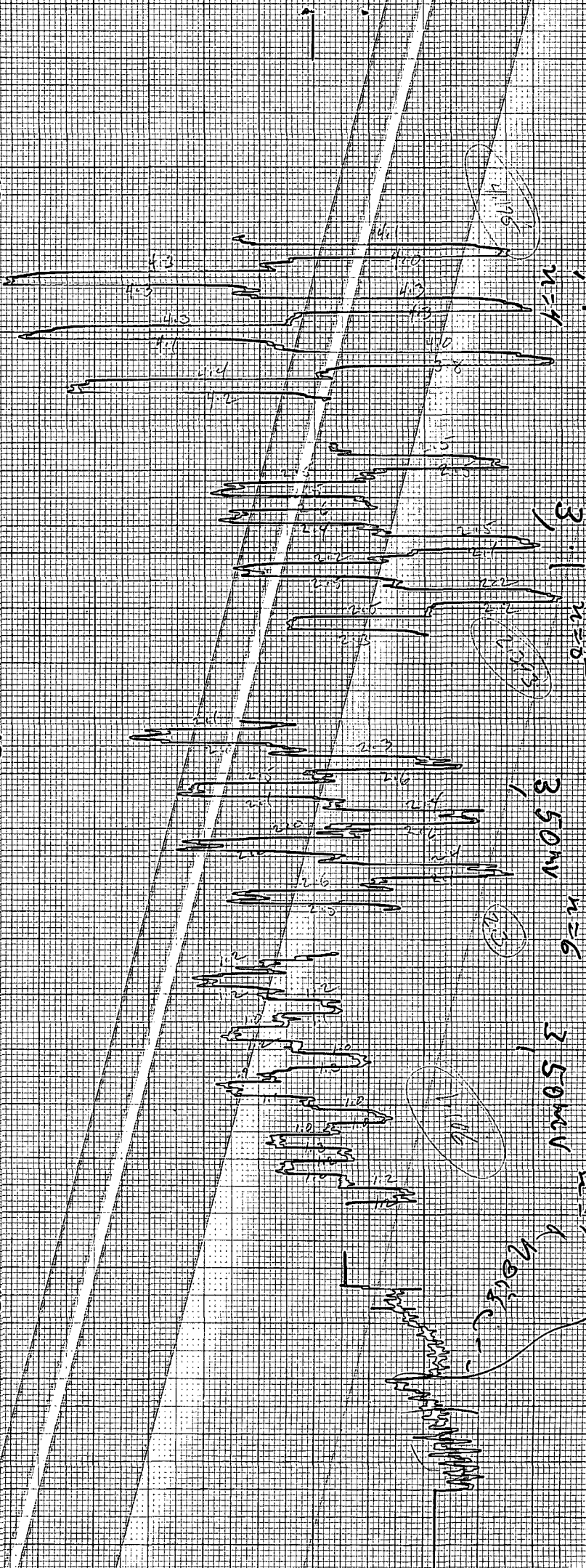
830  
 $\frac{1.5}{10^3} \times \frac{1}{20} \frac{V}{cm}$

R-7-85  
T-2-35  
3.1

R-7-85  
T-1-25

R-7-85  
T-0-15

R-7-85  
T-0-15



96  
 scale:  $\frac{1.5}{103} \times \frac{1}{10} \text{ km}$ ,  $\frac{1.5}{105} \times \frac{1}{10} \text{ km}$ ,  $\frac{1.5}{103} \times \frac{1}{20} \text{ km}$ ,  $\frac{1.5}{103} \times \frac{1}{20} \text{ km}$   
 940



Scintrex Mineral Surveys, Inc.

②

Twp. Colorado		Prop. line E		Date 4/19/80
Oper. T. White		Asst. C. McAlpin	Method $\alpha = 1000$ dipole-dipole	
T <sub>r</sub> Station	R <sub>r</sub>	Amps		n =
1-2S	3-4S	11	650x1.20	1
0-1S		12.5	650x1.12	2
0-1N		13	650x1.12	3
1-2N		13.5	650x1.12	4
2-3N		14	650x1.00	5
2-3S	4-5S	12	650x1.20	1
1-2S		11	650x1.20	2
0-1S		12.5	650x1.12	3
0-1N		13	650x1.12	4
1-2N		12.5	650x1.12	5
2-3N		14	650x1.00	6
2-3S	5-6S	12	650x1.20	2
1-2S		11	650x1.20	3
0-1S		12	650x1.20	4
0-1N		13.5	650x1.12	5
1-2N		13.5	650x1.12	6
2-3N			650x1.00	7

Station





Station

Scintrex Mineral Surveys, Inc.

(4)

Twp. Colorado Prop. line E Date 4/10/20  
 Oper. T. White Asst. C. McCrean Method A=1000 dipole-dipole

T <sub>v</sub>	Station	R <sub>v</sub>	Depth	Size	n =
	1-2 N	3-4 N	12.5	650x1.12	1
	0-1 N	↓	14	650x1.12	2
	0-1 S	↓	13.5	650x1.12	3
	1-2 S	↓	11.5	650x1.20	4
	2-3 S	↓	12.5	650x1.20	5
	2-3 N	4-5 N	14.5	650x1.12	1
	1-2 N	↓	12.5	650x1.12	2
	0-1 N	↓	14	650x1.12	3
	0-1 S	↓	13	650x1.12	4
	1-2 S	↓	12	650x1.20	5
	2-3 S	↓	12.5	650x1.20	6
	2-3 N	5-6 N	14.5	650x1.12	2
	1-2 N	↓	13	650x1.12	3
	0-1 N	↓	14	650x1.12	4
	0-1 S	↓	13.5	650x1.12	5
	1-2 S	↓	12	650x1.20	6
	2-3 S	↓	12.5	650x1.20	7

Station



Station



Station

Scintrex Mineral Surveys, Inc.

Twp.		Prop.			Date
Oper.	Line A E	Asst.		Method	
Station	R				
(11) 1-2 S <sup>1</sup>	3-4 S	30 x 1.24	x 1.23	x 1.24	37.20 / 19.11
(12.5) 0-1 S <sup>2</sup>		10 x 1.00	x 1.00	x 1.02	10.5 / 18.27
(13) 1N-0 <sup>3</sup>		3 x 1.02	x 1.04	x 1.06	3.12 / 13.56
(2.5) 2-1N <sup>4</sup>		1 x 1.24	x 1.22	x 1.24	1.24 / 11.21
(14) 3-2N <sup>5</sup>		3 x 1.78	x 1.74	x 1.70	.52 / 7.35
(12) 2-3 S <sup>2</sup>	4-5 S	30 x 1.02	x 1.02	1.03	30.6 / 14.41
(11) 1-2 S <sup>3</sup>		3 x 2.70	x 2.71	x 2.73	8.14 / 16.73
(12.5) 0-1 S <sup>4</sup>		1 x 2.73	x 2.80		2.77 / 12.51
(13) 1N-0 <sup>4</sup>		$\frac{10}{2} \times \frac{1.5}{104} \times 1.33$	g	.99 mv	.99 / 8.61
(12.5) 2-1 S <sup>5</sup>		$\frac{4.3}{2} \times \frac{1.5}{104} \times "$	g	.43 mv	.43 / 6.81
(14) 3-2N <sup>6</sup>		$\frac{4}{2} \times \frac{1.5}{10^2 \times 20} \times "$	g	.19	.19 / 4.30
	200' east of line				
(12) 2-3 S <sup>2</sup>	5-6 S	1 x 2.74	2.73	2.70	2.72 / 5.12
(11) 1-2 S <sup>3</sup>		$\frac{7.5}{2} \times \frac{1.5}{104} \times 1.33$	g	.74 mv	.74 / 3.80
(13) 0-1 S <sup>4</sup>		$\frac{8}{2} \times \frac{1}{20,000}$	"	.26	.26 / 2.26
(3.5) 1N-0 <sup>5</sup>		$\frac{3.5}{2} \times \frac{1}{20,000}$	"	.12	.12 / 1.76
(2.5) 2-1N <sup>6</sup>		$\frac{4}{2} \times \frac{1}{40,000}$	"	.07	.07 / 1.77
3-2N <sup>7</sup>					



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Twp.		Prop.			Date
Oper.	Line #	Asst.		Method	
Station					
2-3 HS <sup>3</sup>	6-7 S	1x2.26	x2.20	x2.23	$\frac{2.23}{10.50}$
1-2 S <sup>4</sup>		1x1.12	x1.09	1.18	$\frac{1.13}{11.11}$
3-5 0-1 S <sup>5</sup>	$\frac{5}{2} \times \frac{1.5}{104}$	x1.33	g	.49mV	$\frac{.49}{7.18}$
3-5 1N-0 6	$\frac{4}{2} \times \frac{1.5}{10^3 \times 20}$		g	.19	$\frac{.19}{4.45}$
3-5 2-1 N <sup>7</sup>	$\frac{1.8}{2} \times \frac{1.5}{10^3 \times 20}$		g	.09	$\frac{.09}{3.29}$
3-5 3-2 N			g		
12 2-3 S <sup>4</sup>	7-8 S	$\frac{8}{2} \times \frac{1.5}{104}$	g	x1.33	$\frac{.78}{7.35}$
15 1-2 S <sup>5</sup>	$\frac{5}{2} \times \frac{1.5}{104}$	x1.33	g	.49	$\frac{.49}{8.34}$
35 0-1 S <sup>6</sup>	$\frac{4.2}{2} \times \frac{1.5}{10^3 \times 20}$	11	g	.21	$\frac{.21}{4.92}$
35 1N-0 7	$\frac{3}{2} \times \frac{1.5}{10^3 \times 20}$	11	g	.09	$\frac{.09}{3.17}$

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Twp.		Prop.			Date 19
Oper. <u>Linear E</u>		Asst.		Method	
Station					
<u>2</u> 1 - 2 N <sup>1</sup>	3-4 N	10 x 2.04	x 2.05	x 2.03	$\frac{2.04}{9.22}$
<u>10</u> 0 - 1 N <sup>2</sup>		3 x 1.62	x 1.60	x 1.59	$\frac{4.81}{7.77}$
<u>3</u> 5 - 0 <sup>3</sup>		1 x 1.89	x 1.90	1.86	$\frac{1.88}{7.87}$
<u>15</u> 2 - 1 S <sup>4</sup>		1 x 1.00	x 1.02	1.03	$\frac{1.02}{10.03}$
<u>25</u> 3 - 2 S <sup>5</sup>		3 x 1.12	x 1.00	1.09	$\frac{.33}{5.06}$
<u>145</u> 2 - 3 N <sup>1</sup>	4-5 N	10 x 2.62	x 2.60	x 2.62	$\frac{26.2}{10.21}$
<u>125</u> 1 - 2 N		3 x 1.52	x 1.52	x 1.52	$\frac{4.52}{8.18}$
<u>19</u> 0 - 1 N <sup>3</sup>		1 x 1.85	x 1.82	x 1.83	$\frac{1.83}{7.39}$
<u>13</u> 1 - 0 <sup>4</sup>		3 x 3.16			$\frac{.95}{8.26}$
<u>12</u> 2 - 1 S <sup>5</sup>	$\frac{5}{2} \times \frac{1.5}{104}$	x 1.33	g	.49 mv	$\frac{.49}{8.08}$
<u>125</u> 3 - 2 S <sup>6</sup>	$\frac{3.5}{2} \times \frac{1.5}{103 \times 20}$		g	.17	$\frac{.17}{4.30}$
<u>145</u> 2 - 3 N <sup>2</sup>	5-6 N	3 x 1.72	x 1.70	x 1.71	$\frac{5.13}{8.00}$
<u>13</u> 1 - 2 N <sup>3</sup>		1 x 1.52	x 1.49	x 1.53	$\frac{1.51}{6.57}$
<u>14</u> 0 - 1 N <sup>4</sup>	$\frac{7.2}{2} \times \frac{1.5}{104}$	g		.72 mv	$\frac{.72}{5.81}$
<u>135</u> 5 - 0 <sup>5</sup>	$\frac{4.2}{2} \times \frac{1.5}{104}$	g		.42	$\frac{.42}{6.15}$
<u>12</u> 2 - 1 S <sup>6</sup>	$\frac{5}{2} \times \frac{1.5}{103 \times 20}$	g		.25	$\frac{.25}{6.59}$
<u>125</u> 3 - 2 S <sup>7</sup>	$\frac{1.8}{2} \times \frac{1.5}{103 \times 20}$	g		.09	$\frac{.09}{3.42}$

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Twp.		Prop.		Date		
Oper. <u>Line # E</u>		Asst.		Method		
Station	R					
⑬ 2-3N	6-7N	$\frac{9.6}{2} \times \frac{1}{4000}$	g	133	1.59mV	$\frac{1.59}{.133}$ 5.99
⑬ 1-2N		$\frac{1}{2} \times \frac{1}{4000} \times 1.33$	g		.67	$\frac{.67}{.133}$ 5.83
⑭ 0-1N		$\frac{1.5}{2} \times \frac{1}{10^3 \times 20}$	"	g	.39	$\frac{.39}{.133}$ 5.32
⑮ 15-0		$\frac{4.2}{2} \times \frac{1.5}{10^3 \times 20}$	"	g	.21	$\frac{.21}{.133}$ 4.92
⑫ 2-15		$\frac{3}{2} \times \frac{1.5}{10^3 \times 20}$	"	g	.15	$\frac{.15}{.133}$ 5.93
<del>3-25</del>						
⑮ 2-3N	7-8N	$\frac{1}{2} \times 1.00$	x	$\pm .10$	(1.3mV)	$\frac{1.3}{.133}$ 9.80
⑮ 1-2N		$\frac{6.2}{2} \times \frac{1.5}{10^3 \times 20}$	g	133	.31mV	$\frac{.31}{.133}$ 4.54
⑮ 0-1N		$\frac{3}{2} \times \frac{1.5}{10^3 \times 20}$	g	"	.15mV	$\frac{.15}{.133}$ 3.27
<del>15-07</del>						

# Scintrex Chart Recorder

Given Multiplier control @ 1, Gain factors acquired by Chart Recorder connected @ the Vp meter will be:

<u>Vp Range</u>	<u>IPR-B gain</u>
10 K	0.2
3 K	0.666
1 K	2
300	6.666
100	20
30	66.666
10	200
3	666.666
1	2000
0.3	6666.6

$$V_p = \frac{\# \text{ divisions} \times \text{Range volt/cm (in chart recorder)}}{\text{Gain (IPR-B)}}$$